Wednesday, December 09, 2009

REQUEST NUMBER: 10-852

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

These Samples are on:

LANL Request Number:10-852

Per Agreement Number:126310011

Project Cost Code: MR2A054196D0

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 12/9/2009

TURNAROUND/REPORT DUE: 1/8/2010

TURNAROUND REQ'D: 30 Days

RAD SCREENING: Not Required

LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:

Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8015M_EXTRACTABLE	1	RE03-09-14224	S	12/7/2009	
		1	RE03-09-14225	S	12/7/2009	
		1	RE03-09-14226	S	12/7/2009	
		1	RE03-09-14227	S	12/7/2009	

Wednesday, December 09, 2009

REQUEST NUMBER: 10-852

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8015M_EXTRACTABLE	1	RE03-09-14265	S	12/7/2009	
		1	RE03-09-14267	S	12/7/2009	
		1	RE03-09-14269	S	12/7/2009	
		1	RE03-09-14271	S	12/7/2009	
		1	RE03-09-14273	S	12/7/2009	
		1	RE03-09-14274	S	12/7/2009	
		1	RE03-09-14277	S	12/7/2009	
		1	RE03-09-14278	S	12/7/2009	
		1	RE03-09-14281	S	12/7/2009	
		1	RE03-09-14282	S	12/7/2009	
		1	RE03-09-14283	S	12/7/2009	
		1	RE03-09-14284	S	12/7/2009	
		1	RE03-09-14285	S	12/7/2009	
		1	RE03-09-14286	S	12/7/2009	

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PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8015M_EXTRACTABLE	1	RE03-09-14287	S	12/7/2009	
		1	RE03-09-14288	S	12/7/2009	
	SW-846:8082	1	RE03-09-14224	S	12/7/2009	
		1	RE03-09-14225	S	12/7/2009	
		1	RE03-09-14226	S	12/7/2009	
		1	RE03-09-14227	S	12/7/2009	
		1	RE03-09-14265	S	12/7/2009	
		1	RE03-09-14267	S	12/7/2009	
		1	RE03-09-14269	S	12/7/2009	
		1	RE03-09-14271	S	12/7/2009	
		1	RE03-09-14273	S	12/7/2009	
		1	RE03-09-14274	S	12/7/2009	
		1	RE03-09-14277	S	12/7/2009	
		1	RE03-09-14278	S	12/7/2009	
		1	RE03-09-14281	S	12/7/2009	
		1	RE03-09-14282	S	12/7/2009	
		1	RE03-09-14283	S	12/7/2009	
		1	RE03-09-14284	S	12/7/2009	
		1	RE03-09-14285	S	12/7/2009	
		1	RE03-09-14286	S	12/7/2009	
		1	RE03-09-14287	S	12/7/2009	
		1	RE03-09-14288	S	12/7/2009	
	SW-846:8260B	1	RE03-09-14224	S	12/7/2009	
		1	RE03-09-14225	S	12/7/2009	
		1	RE03-09-14226	S	12/7/2009	
		1	RE03-09-14227	S	12/7/2009	

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REQUEST NUMBER: 10-852

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8260B	1	RE03-09-14265	S	12/7/2009	
		1	RE03-09-14267	S	12/7/2009	
		1	RE03-09-14269	S	12/7/2009	
		1	RE03-09-14271	S	12/7/2009	
		1	RE03-09-14273	S	12/7/2009	
		1	RE03-09-14274	S	12/7/2009	
		1	RE03-09-14277	S	12/7/2009	
		1	RE03-09-14278	S	12/7/2009	
		1	RE03-09-14281	S	12/7/2009	
		1	RE03-09-14282	S	12/7/2009	
		1	RE03-09-14283	S	12/7/2009	
		1	RE03-09-14284	S	12/7/2009	
		1	RE03-09-14285	S	12/7/2009	
		1	RE03-09-14286	S	12/7/2009	
		1	RE03-09-14287	S	12/7/2009	
		1	RE03-09-14288	S	12/7/2009	
		1	RE03-09-14294	S	12/7/2009	
	SW-846:8270C	1	RE03-09-14224	S	12/7/2009	
		1	RE03-09-14225	S	12/7/2009	
		1	RE03-09-14226	S	12/7/2009	
		1	RE03-09-14227	S	12/7/2009	
		1	RE03-09-14265	S	12/7/2009	
		1	RE03-09-14267	S	12/7/2009	
		1	RE03-09-14269	S	12/7/2009	
		1	RE03-09-14271	S	12/7/2009	
		1	RE03-09-14273	S	12/7/2009	
		1	RE03-09-14274	S	12/7/2009	
		1	RE03-09-14277	S	12/7/2009	

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REQUEST NUMBER: 10-852

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8270C	1	RE03-09-14278	S	12/7/2009	
		1	RE03-09-14281	S	12/7/2009	
		1	RE03-09-14282	S	12/7/2009	
		1	RE03-09-14283	S	12/7/2009	
		1	RE03-09-14284	S	12/7/2009	
		1	RE03-09-14285	S	12/7/2009	
		1	RE03-09-14286	S	12/7/2009	
		1	RE03-09-14287	S	12/7/2009	
		1	RE03-09-14288	S	12/7/2009	

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LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-852

REQUEST NUMBER: 10-852

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 1/8/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS:

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE03-09-14224	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-09-14224	1	GLASS	8270C+8082+TPH-DRO	Ice	S
RE03-09-14227	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-09-14227	1	GLASS	8270C+8082+TPH-DRO	Ice	S
RE03-09-14225	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-09-14225	1	GLASS	8270C+8082+TPH-DRO	Ice	S
RE03-09-14226	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-09-14226	1	GLASS	8270C+8082+TPH-DRO	Ice	S
RE03-09-14288	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-09-14288	1	GLASS	8270C+8082+TPH-DRO	Ice	S
RE03-09-14287	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-09-14287	1	GLASS	8270C+8082+TPH-DRO	Ice	S
RE03-09-14267	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-09-14267	1	GLASS	8270C+8082+TPH-DRO	Ice	S
RE03-09-14265	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-09-14265	1	GLASS	8270C+8082+TPH-DRO	Ice	S
RE03-09-14281	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-09-14281	1	GLASS	8270C+8082+TPH-DRO	Ice	S
RE03-09-14284	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-09-14284	1	GLASS	8270C+8082+TPH-DRO	Ice	S
RE03-09-14274	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-09-14274	1	GLASS	8270C+8082+TPH-DRO	Ice	S
RE03-09-14277	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-09-14277	1	GLASS	8270C+8082+TPH-DRO	Ice	S
RE03-09-14282	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-09-14282	1	GLASS	8270C+8082+TPH-DRO	Ice	S
RE03-09-14269	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-09-14269	1	GLASS	8270C+8082+TPH-DRO	Ice	S
RE03-09-14273	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-09-14273	1	GLASS	8270C+8082+TPH-DRO	Ice	S
RE03-09-14271	1	SEPTUM AMBER GLASS	8260B	Ice	S

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LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-852

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE03-09-14278	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-09-14278	1	GLASS	8270C+8082+TPH-DRO	Ice	S
RE03-09-14285	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-09-14285	1	GLASS	8270C+8082+TPH-DRO	Ice	S
RE03-09-14286	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-09-14286	1	GLASS	8270C+8082+TPH-DRO	Ice	S
RE03-09-14283	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-09-14283	1	GLASS	8270C+8082+TPH-DRO	Ice	S
RE03-09-14294	1	SEPTUM AMBER GLASS	8260B Trip Blank	Ice	S

Relinquished By: **Date** **Time** **Received By:** **Date** **Time**

12-9-09 1400

Printed Name Signature Printed Name Signature

Printed Name Signature Printed Name Signature

Printed Name Signature Printed Name Signature

Received for DISPOSAL By: **Date** **Time** **Remarks:**

Printed Name Signature

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2276 **EVENT NAME:** Soil Sampling at TA-60

SAMPLE ID: RE03-09-14224 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12-7-09	MEDIA:	NA	all H
TIME COLLECTED (HH:MM)		1447	SUB-MEDIA:	OTHER	NA
PRS ID:	60-004(f)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	03-608408	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	BH	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	1'	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	2'	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	S		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B re 12/7/09	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+~~8082~~+TPH-DRO	500 ML GLASS	Ice	Y	
1		H3	500 ML POLY	Ice	Y	
1		Metals+CN - GEL	125 ML POLY	Ice	Y	

SAMPLE DESC: Clay. Reddish brown 5YR 5/3

SAMPLE COMMENTS: NA

LOCATION DESC: 4(f)-5

FIELD SCREENING/MEASUREMENT RESULTS: PID = 2.9 ppm BACKGROUND samples: < MDA
α: 74 dpm
β: 1494

COLLECTED BY (PRINT) L. Horne REVIEWED BY (PRINT) M. Ward

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) M. Ward (Signature)	12-7-09 1630	(Printed Name) (Signature)	12-7-09 1630
RELINQUISHED BY (Printed Name) (Signature)	Date/Time	RECEIVED BY (Printed Name) (Signature)	Date/Time

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2276 **EVENT NAME:** Soil Sampling at TA-60

SAMPLE ID: RE03-09-14225 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12-7-09	MEDIA:	NA	AIH
TIME COLLECTED (HH:MM)		1457	SUB-MEDIA:	OTHER	NA
PRS ID:	60-004(f)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	03-608408	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	BH	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	2'	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	3'	SCREEN/PORT DESC:		NA
FIELD MATRIX:	S		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B mc 12/7/09	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+~~8082~~+TPH-DRO	500 ML GLASS	Ice	Y	
1		H3	500 ML POLY	Ice	Y	
1		Metals+CN - GEL	125 ML POLY	Ice	Y	

SAMPLE DESC: Clay. Reddish brown 5YR5/4

SAMPLE COMMENTS: NA

LOCATION DESC: 4 (f) - 5

FIELD SCREENING/MEASUREMENT RESULTS: PID = 46.9 ppm samples: MDA
BACKGROUND
α: 74 dpm
β: 1494

COLLECTED BY (PRINT) L. Horne REVIEWED BY (PRINT) M. Nauck

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) M. Nauck (Signature)	12-7-09 1636	(Printed Name) (Signature)	12-7-09 1636
RELINQUISHED BY (Printed Name) (Signature)	Date/Time	RECEIVED BY (Printed Name) (Signature)	Date/Time

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2276 **EVENT NAME:** Soil Sampling at TA-60

SAMPLE ID: RE03-09-14226 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12-7-09	MEDIA:	NA	all H
TIME COLLECTED (HH:MM)		1507	SUB-MEDIA:	OTHER	NA
PRS ID:	60-004(f)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	03-608408	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	BH	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	4'	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	5'	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	S		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B me 12/7/09	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+~~8082~~+TPH-DRO	500 ML GLASS	Ice	Y	
1		H3	500 ML POLY	Ice	Y	
1		Metals+CN - GEL	125 ML POLY	Ice	Y	

SAMPLE DESC: clay. reddish brown (5 YR 5/4)

SAMPLE COMMENTS: NA

LOCATION DESC: 4 (f) -5

FIELD SCREENING/MEASUREMENT RESULTS: PID= NA
BACKGROUND
α: 74 dpm
β: 1494
samples: <MDA

COLLECTED BY (PRINT) L. Horne

REVIEWED BY (PRINT) M. Nauck

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) M. Nauck	12-7-09	(Printed Name)	12/7/09
(Signature)	1630	(Signature)	1630
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2276 **EVENT NAME:** Soil Sampling at TA-60

SAMPLE ID: RE03-09-14227 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12-7-09	MEDIA:	NA	all H
TIME COLLECTED (HH:MM)		1530	SUB-MEDIA:	OTHER	NA
PRS ID:	60-004(f)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	03-608408	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	BH		FIELD PREP:	NA	
TOP DEPTH:	0	9'	SAMPLE USAGE:	INV	
BOTTOM DEPTH:	0	10'	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	S		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B MR 12/7/09	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C~~+8082~~+TPH-DRO	500 ML GLASS	Ice	Y	
1		H3	500 ML POLY	Ice	Y	
1		Metals+CN - GEL	125 ML POLY	Ice	Y	

SAMPLE DESC: sandy clay. reddish brown (5 YR 5/4)

SAMPLE COMMENTS: NA

LOCATION DESC: 4(f)-5

FIELD SCREENING/MEASUREMENT RESULTS: PID = 76.1 ppm samples: <MDA
BACKGROUND
α: 74 dpM
β: 1494

COLLECTED BY (PRINT) D. Thomas **REVIEWED BY (PRINT)** M. Ward

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) M. Ward	12-7-09	(Printed Name) K. Greene	12-7-09
(Signature)	1630	(Signature)	1630
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2276 **EVENT NAME:** Soil Sampling at TA-60

SAMPLE ID: RE03-09-14265 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12-7-09	MEDIA:	NA	alluvium
TIME COLLECTED (HH:MM)		1420	SUB-MEDIA:	OTHER	NA
PRS ID:	60-007(b)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	03-608417	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	1'	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	S		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B MR 12/7/09	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C ~~+8082~~+TPH-DRO	500 ML GLASS	Ice	Y	
1		Metals+CN - GEL	125 ML POLY	Ice	Y	Plus, B, Li, Si, Ti, U

SAMPLE DESC: dk brown alluvium (7.5 YR 3/2)

SAMPLE COMMENTS: moved location 10' south

LOCATION DESC: 7(b)-1

FIELD SCREENING/MEASUREMENT RESULTS: PID = 1.7 ppm samples: <MDA
BACKGROUND
α: 74 dpm
β: 1494

COLLECTED BY (PRINT) D. Thomas **REVIEWED BY (PRINT)** M. Nauck

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) M. Nauck	12-7-09	(Printed Name)	12-7-09
(Signature)	1630	(Signature)	1630
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2276 **EVENT NAME:** Soil Sampling at TA-60

SAMPLE ID: RE03-09-14267 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12-7-09	MEDIA:	NA	alluvium
TIME COLLECTED (HH:MM)		1405	SUB-MEDIA:	OTHER	NA
PRS ID:	60-007(b)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	03-608418	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	mqA + 0.5'	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	S		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+8082+TPH-DRO	500 ML GLASS	Ice	Y	
1		Metals+CN - GEL	125 ML POLY	Ice	Y	Plus, B, Li, Si, Ti, U

SAMPLE DESC: dk brown alluvium (7.5 YR 3/2)

SAMPLE COMMENTS: moved location 10' west

LOCATION DESC: 7(b)-2

FIELD SCREENING/MEASUREMENT RESULTS: PID= 0.3 ppm samples: < mDA
BACKGROUND
α: 74 dpm
β: 1474

COLLECTED BY (PRINT) D. Thomas **REVIEWED BY (PRINT)** M Nauck

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) M. Nauck	12-7-09	(Printed Name)	12-7-09
(Signature)	1630	(Signature)	1630
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2276 **EVENT NAME:** Soil Sampling at TA-60

SAMPLE ID: RE03-09-14269 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12-7-09	MEDIA:	NA	alluvium
TIME COLLECTED (HH:MM)		1350	SUB-MEDIA:	OTHER	NA
PRS ID:	60-007(b)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	03-608419	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	+0.4'	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	S		EXCAVATED: YES / NO (NA)		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO (NA)

BOREHOLE: YES / NO (NA) BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B OK 12/7/09	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+~~8082~~+TPH-DRO	500 ML GLASS	Ice	Y	
1		Metals+CN - GEL	125 ML POLY	Ice	Y	Plus, B, Li, Si, Ti, U

SAMPLE DESC: DK. Brown alluvium (7.5 YR 3/2)

SAMPLE COMMENTS: moved location 15' to the east

LOCATION DESC: 7(b)-3

FIELD SCREENING/MEASUREMENT RESULTS: PID= 0.8 ppm
BACKGROUND samples: <MDA
α: 74
β: 1494 dpm

COLLECTED BY (PRINT) M. Shendo **REVIEWED BY (PRINT)** M. Nauck

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) M. Nauck (Signature)	12-7-09 1630	(Printed Name) (Signature)	12-7-09 1630
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name) (Signature)		(Printed Name) (Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2276 **EVENT NAME:** Soil Sampling at TA-60

SAMPLE ID: RE03-09-14271 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12-7-09	MEDIA:	NA	alluvium
TIME COLLECTED (HH:MM)		1345	SUB-MEDIA:	OTHER	NA
PRS ID:	60-007(b)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	03-608420	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC		FIELD PREP:	NA	
TOP DEPTH:	0	0	SAMPLE USAGE:	INV	
BOTTOM DEPTH:	0	mr 12/7/09 0.5'	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	S		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B mr 12/7/09	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+~~8082~~ TP H-DRO	500 ML GLASS	Ice	Y	
1		Metals+CN - GEL	125 ML POLY	Ice	Y	Plus, B, Li, Si, Ti, U

SAMPLE DESC: DK BROWN alluvium (7.5 YR 3/2)

SAMPLE COMMENTS: ~~0-.5'~~ mr 12/7/09 location moved 3' east; 0.5' of sediment before bedrock

LOCATION DESC: 7(b)-4

FIELD SCREENING/MEASUREMENT RESULTS: PID = 0.9 ppm BACKGROUND samples: <MDA
α: 74 dpm
β: 1494

COLLECTED BY (PRINT) D. Thomas REVIEWED BY (PRINT) M. Mack

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) M. Mack	12-7-09	(Printed Name) K. Greene	12-7-09
(Signature)	1630	(Signature)	1630
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2276 **EVENT NAME:** Soil Sampling at TA-60

SAMPLE ID: RE03-09-14273 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12-7-09	MEDIA:	NA	OK
TIME COLLECTED (HH:MM)		1013	SUB-MEDIA:	OTHER	
PRS ID:	60-007(b)	ok	SAMPLE TECH CODE:	HA	
LOCATION ID:	03-608421		FIELD QC TYPE:	NA	
LOCATION TYPE:	GENERIC		FIELD PREP:	NA	
TOP DEPTH:	0	0	SAMPLE USAGE:	INV	
BOTTOM DEPTH:	0	1'	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	S		EXCAVATED: YES / NO (NA)		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO (NA)

BOREHOLE: YES / NO (NA) BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B mr 12/7/09	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C~~+8082~~+TPH-DRO	500 ML GLASS	Ice	Y	
1		Metals+CN - GEL	125 ML POLY	Ice	Y	Plus, B, Li, Si, Ti, U

SAMPLE DESC: SILTY SAND w/ plant roots. Brown (7.5 YR 5/4)

SAMPLE COMMENTS: Hit tuff @ 10"

LOCATION DESC: T(b)-5

FIELD SCREENING/MEASUREMENT RESULTS: PID = 8.9 ppm
BACKGROUND
α: 74 dpm
β: 1494

samples: < MDA

COLLECTED BY (PRINT) M. Shendo **REVIEWED BY (PRINT)** M. Nauck

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) M. Nauck	12-7-09	(Printed Name)	12-7-09
(Signature)	1630	(Signature)	1630
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2276 **EVENT NAME:** Soil Sampling at TA-60

SAMPLE ID: RE03-09-14274 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12-7-09	MEDIA:	NA	me 12/7/09 ~~OK~~ all H
TIME COLLECTED (HH:MM)		1029	SUB-MEDIA:	OTHER	
PRS ID:	60-007(b)	OK	SAMPLE TECH CODE:	HA	
LOCATION ID:	03-608421		FIELD QC TYPE:	NA	
LOCATION TYPE:	GENERIC		FIELD PREP:	NA	
TOP DEPTH:	0	1'	SAMPLE USAGE:	INV	
BOTTOM DEPTH:	0	2'	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	S		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B me 12/7/09	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+~~8082~~+TP H-DRO	500 ML GLASS	Ice	Y	
1		Metals+CN - GEL	125 ML POLY	Ice	Y	Plus, B, Li, Si, Ti, U

SAMPLE DESC: Brown tuff (7.5 YR 5/4)

SAMPLE COMMENTS: NA

LOCATION DESC: 7(b)-5

FIELD SCREENING/MEASUREMENT RESULTS: PID = 9.8 ppm samples: < MDA
BACKGROUND
α: 74
β: 1494

COLLECTED BY (PRINT) D. Thomas **REVIEWED BY (PRINT)** Maurice Shenda

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) M Shenda	12/7/09	(Printed Name)	12/7/09
(Signature)	1630	(Signature)	1630
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2276 **EVENT NAME:** Soil Sampling at TA-60

SAMPLE ID: RE03-09-14277 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12-7-09	MEDIA:	NA	all H
TIME COLLECTED (HH:MM)		0900	SUB-MEDIA:	OTHER	NA
PRS ID:	60-007(b)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	03-608423	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	1'	SCREEN/PORT DESC:		
FIELD MATRIX:	S		EXCAVATED: YES / NO (NA)		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO (NA)

BOREHOLE: YES / NO (NA) BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+8082+TPH-DRO	500 ML GLASS	Ice	Y	
1		Metals+CN - GEL	125 ML POLY	Ice	Y	Plus, B, Li, Si, Ti, U

SAMPLE DESC: sand & gravel fill. dk yellowish brown (10 YR 4/4)

SAMPLE COMMENTS: plant roots

LOCATION DESC: 7(b)-7

FIELD SCREENING/MEASUREMENT RESULTS: PID = 930 ppm samples: LMDA
BACKGROUND
α: 74 dpm
β: 1494

COLLECTED BY (PRINT) M. Shendo **REVIEWED BY (PRINT)** M. Nauck

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) M. Nauck	12-7-09	(Printed Name)	12-7-09
(Signature)	1630	(Signature)	1630
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2276 **EVENT NAME:** Soil Sampling at TA-60

SAMPLE ID: RE03-09-14278 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12-7-09	MEDIA:	NA	all H
TIME COLLECTED (HH:MM)		0902	SUB-MEDIA:	OTHER	NA
PRS ID:	60-007(b)	OK	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	03-608423	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	1'	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	2'	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	S		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+8082+TPH-DRO	500 ML GLASS	Ice	Y	
1		Metals+CN - GEL	125 ML POLY	Ice	Y	Plus, B, Li, Si, Ti, U

SAMPLE DESC: SILTY SAND. DK YELLOWISH BROWN (10 YR 4/4)

SAMPLE COMMENTS: plant roots

LOCATION DESC: 7(b)-7

FIELD SCREENING/MEASUREMENT RESULTS: PID: ~~930~~ 107 ppm ne 12/7/09
BACKGROUND
α: 74
β: 1794
Samples: < MDA

COLLECTED BY (PRINT) L. Horne REVIEWED BY (PRINT) Maurice Shendo

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) M. Shendo	12/7/09	(Printed Name)	12/7/09
(Signature) [signature]	1630	(Signature) [signature]	1630
RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2276 **EVENT NAME:** Soil Sampling at TA-60

SAMPLE ID: RE03-09-14281 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12-7-09	MEDIA:	NA	ma 12/7/09 ~~AIR~~ QTB.3
TIME COLLECTED (HH:MM)		0937	SUB-MEDIA:	OTHER	NA
PRS ID:	60-007(b)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	03-608425		FIELD QC TYPE:	NA	
LOCATION TYPE:	GENERIC		FIELD PREP:	NA	
TOP DEPTH:	0	0	SAMPLE USAGE:	INV	
BOTTOM DEPTH:	0	1'	SCREEN/PORT DESC:		NA
FIELD MATRIX:	ma 12/7/09 ~~S~~ R		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B ma 12/7/09	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+~~8082~~+TP H-DRO	500 ML GLASS	Ice	Y	
1		Metals+CN - GEL	125 ML POLY	Ice	Y	Plus, B, Li, Si, Ti, U

SAMPLE DESC: Brown tuff (7.5YR 4/3)

SAMPLE COMMENTS: Hit tuff @ surface

LOCATION DESC: 7(b) - 9

FIELD SCREENING/MEASUREMENT RESULTS: PID: 1.0 ppm Background α 17 ~~74~~ β 14 ~~14~~ dpm Samples: <MDA

COLLECTED BY (PRINT) M. Sherdo **REVIEWED BY (PRINT)** M. Nauck

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) M. Nauck (Signature)	12-7-09 1630	(Printed Name) (Signature)	12-7-09 1630
RELINQUISHED BY (Printed Name) (Signature)	Date/Time	RECEIVED BY (Printed Name) (Signature)	Date/Time

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2276 **EVENT NAME:** Soil Sampling at TA-60

SAMPLE ID: RE03-09-14282 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12-7-09	MEDIA:	NA	QTB3
TIME COLLECTED (HH:MM)		1000	SUB-MEDIA:	OTHER	NA
PRS ID:	60-007(b)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	03-608425		FIELD QC TYPE:	NA	
LOCATION TYPE:	GENERIC		FIELD PREP:	NA	
TOP DEPTH:	0	1'	SAMPLE USAGE:	INV	
BOTTOM DEPTH:	0	2'	SCREEN/PORT DESC:		—
FIELD MATRIX:	~~S~~ R MR 12/7/09		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B MR 12/7/09	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+~~8082~~+TPH-DRO	500 ML GLASS	Ice	Y	
1		Metals+CN - GEL	125 ML POLY	Ice	Y	Plus, B, Li, Si, Ti, U

SAMPLE DESC: Tuff. Brown 2.5YR 4/3

SAMPLE COMMENTS: NA

LOCATION DESC: 7(b)-9

FIELD SCREENING/MEASUREMENT RESULTS: PID: 4.3ppm Background α 74 β 1494 dpm Samples: LMDA

COLLECTED BY (PRINT) M. Shendo **REVIEWED BY (PRINT)** M. Vauck

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) M. Vauck (Signature)	12-7-09 1630	(Printed Name) (Signature)	12-7-09 1630
RELINQUISHED BY (Printed Name) (Signature)	**Date/Time**	**RECEIVED BY** (Printed Name) (Signature)	**Date/Time**

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2276 **EVENT NAME:** Soil Sampling at TA-60

SAMPLE ID: RE03-09-14283 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12-7-09	MEDIA:	NA	QTB9
TIME COLLECTED (HH:MM)		1310	SUB-MEDIA:	OTHER	NA
PRS ID:	60-007(b)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	03-608426	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	1'	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	ma 12/7/09 S R		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B ma 12/7/09	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+~~8082+~~TP H-DRO	500 ML GLASS	Ice	Y	
1		Metals+CN - GEL	125 ML POLY	Ice	Y	Plus, B, Li, Si, Ti, U

SAMPLE DESC: Reddish brown tuff. (5YR 4/3)

SAMPLE COMMENTS: NA

LOCATION DESC: 7(b)-10

FIELD SCREENING/MEASUREMENT RESULTS: PID = 1.6ppm background α: 74 β: 1494 samples: LmOA

COLLECTED BY (PRINT) D. Thomas **REVIEWED BY (PRINT)** Maurice Shendo

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) M. Shendo	12/7/09	(Printed Name)	12/7/09
(Signature)	1630	(Signature)	1630
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2276 **EVENT NAME:** Soil Sampling at TA-60

SAMPLE ID: RE03-09-14284 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12-7-09	MEDIA:	NA	QTB3
TIME COLLECTED (HH:MM)		1320	SUB-MEDIA:	OTHER	NA
PRS ID:	60-007(b)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	03-608426	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	1'	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	2'	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	mr 12/7/09 ~~S~~ R		EXCAVATED: YES / NO / (NA)		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO (NA)

BOREHOLE: YES / NO / (NA) BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B mr 12/7/09	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+~~8082~~+TPH-DRO	500 ML GLASS	Ice	Y	
1		Metals+CN - GEL	125 ML POLY	Ice	Y	Plus, B, Li, Si, Ti, U

SAMPLE DESC: DARK REDDISH GRAY TUFF (5 YR 4/2)

SAMPLE COMMENTS: NA

LOCATION DESC: 7(b)-10

FIELD SCREENING/MEASUREMENT RESULTS: PID = 0.0ppm Samples: LMDA
Background
α: 74
β: 1494

COLLECTED BY (PRINT) L. Horne **REVIEWED BY (PRINT)** Maurice Shendo

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) M. Shendo (Signature)	12/7/09 1630	(Printed Name) (Signature)	12/7/09 1630
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name) (Signature)		(Printed Name) (Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2276 **EVENT NAME:** Soil Sampling at TA-60

SAMPLE ID: RE03-09-14285 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12-7-09	MEDIA:	NA	MR 12/7/09 ~~all H~~ @B3
TIME COLLECTED (HH:MM)		1134	SUB-MEDIA:	OTHER	NA
PRS ID:	60-007(b)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	03-608427	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	1'	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	MR 12/7/09 SR		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+8082+TPH-DRO	500 ML GLASS	Ice	Y	
1		Metals+CN - GEL	125 ML POLY	Ice	Y	Plus, B, Li, Si, Ti, U

SAMPLE DESC: reddish brown tuff (2.5 YR 4/4)

SAMPLE COMMENTS: Hit tuff @ surface

LOCATION DESC: 7(b)-11

FIELD SCREENING/MEASUREMENT RESULTS: PID = 2.6 ppm BACKGROUND α: 74 β: 1494 samples: LMOA

COLLECTED BY (PRINT) L. Horne **REVIEWED BY (PRINT)** Maurice Shende

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) M. Shende	12/7/07	(Printed Name)	12/7/07
(Signature)	1630	(Signature)	1630
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2276 **EVENT NAME:** Soil Sampling at TA-60

SAMPLE ID: RE03-09-14286 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12-7-09	MEDIA:	NA	mr 12/7/09 ~~alt H~~ QTB3
TIME COLLECTED (HH:MM)		1140	SUB-MEDIA:	OTHER	NA
PRS ID:	60-007(b)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	03-608427	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	1'	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	2'	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	mr 12/7/09 ~~S~~ R		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+8082+TPH-DRO	500 ML GLASS	Ice	Y	
1		Metals+CN - GEL	125 ML POLY	Ice	Y	Plus, B, Li, Si, Ti, U

SAMPLE DESC: reddish brown tuff (2.5 YR 4/4)

SAMPLE COMMENTS: NA

LOCATION DESC: 7(b) - 11

FIELD SCREENING/MEASUREMENT RESULTS: PID = 4.1 ppm BACKGROUND α: 74 β: 1494 dpm samples: < MDA

COLLECTED BY (PRINT) D. Thomas **REVIEWED BY (PRINT)** M. Vavek

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) M. Vavek (Signature)	12-7-09 1630	(Printed Name) (Signature)	12-7-09 1630
RELINQUISHED BY (Printed Name) (Signature)	Date/Time	RECEIVED BY (Printed Name) (Signature)	Date/Time

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2276 **EVENT NAME:** Soil Sampling at TA-60

SAMPLE ID: RE03-09-14287 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12-7-09	MEDIA:	NA	all H
TIME COLLECTED (HH:MM)		1100	SUB-MEDIA:	OTHER	NA
PRS ID:	60-007(b)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	03-608428	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	1'	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	S		EXCAVATED: YES / NO / NA (NA circled)		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO (NA circled)

BOREHOLE: YES / NO / NA (NA circled) BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B MR 12/7/09	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C~~+8082~~+TP H-DRO	500 ML GLASS	Ice	Y	
1		Metals+CN - GEL	125 ML POLY	Ice	Y	Plus, B, Li, Si, Ti, U

SAMPLE DESC: SILTY SAND (Brown 7.5 YR 4/2)

SAMPLE COMMENTS: plant roots

LOCATION DESC: 7(b)-12

FIELD SCREENING/MEASUREMENT RESULTS: PID = 6.9 ppm Background α: 74 dpm β: 1494 samples: LMDA

COLLECTED BY (PRINT) M. Shendo REVIEWED BY (PRINT) M. Vaick

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) M. Vaick (Signature)	12-7-09 1630	(Printed Name) (Signature)	12-7-09 1630
RELINQUISHED BY (Printed Name) (Signature)	Date/Time	RECEIVED BY (Printed Name) (Signature)	Date/Time

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2276 **EVENT NAME:** Soil Sampling at TA-60

SAMPLE ID: RE03-09-14288 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12-7-09	MEDIA:	NA	all H
TIME COLLECTED (HH:MM)		1105	SUB-MEDIA:	OTHER	NA
PRS ID:	60-007(b)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	03-608428	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	1'	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	2'	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	S		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B mr 12/7/09	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C~~+8082~~+TPH-DRO	500 ML GLASS	Ice	Y	
1		Metals+CN - GEL	125 ML POLY	Ice	Y	Plus, B, Li, Si, Ti, U

SAMPLE DESC: SILTY SAND. Brown (7.5 YR 4/2)

SAMPLE COMMENTS: plant roots

LOCATION DESC: 7(b)-12

FIELD SCREENING/MEASUREMENT RESULTS: PID= 26.6 ppm Background samples: LMDA
α: 74 dpm
β: 1494

COLLECTED BY (PRINT) D. Thomas **REVIEWED BY (PRINT)** M. Vaick

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) M. Vaick	12-7-09	(Printed Name)	12-7-09
(Signature)	1630	(Signature)	1630
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2276 **EVENT NAME:** Soil Sampling at TA-60

SAMPLE ID: RE03-09-14294 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12-7-09	MEDIA:	NA	ok
TIME COLLECTED (HH:MM)		0902	SUB-MEDIA:	OTHER	
PRS ID:	~~G-09-007~~ MN 12-7-09	60-007(b)	SAMPLE TECH CODE:	SS	
LOCATION ID:	~~UDK~~	03-608423	FIELD QC TYPE:	FTB	
LOCATION TYPE:	GENERIC	ok	FIELD PREP:	NA	
TOP DEPTH:	0		SAMPLE USAGE:	QC	
BOTTOM DEPTH:	0		SCREEN/PORT DESC:		NA
FIELD MATRIX:	S		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
12	MN 12-7-09	8260B Trip Blank	40 ML SEPTUM AMBER GLASS	Ice	Y	

SAMPLE DESC: QC Sample of RE03-09-14278

SAMPLE COMMENTS: NA

LOCATION DESC: 76-7

FIELD SCREENING/MEASUREMENT RESULTS: NA

COLLECTED BY (PRINT) M. Stack

REVIEWED BY (PRINT) Maurice Shendo

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) M. Shendo	12/7/09	(Printed Name) K. Greene	12/7/09
(Signature)	1630	(Signature)	1630
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

DATA VALIDATION COVER SHEET

5114-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-852 VALIDATION DATE: 1/29/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Eric T. Mink ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☒ OTHER (DESCRIBE): VOCs

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☒	☐	☐	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☒	☐	☐	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. In the FTB, samples RE03-09-14294, associated with samples -14277 and -14278, acetone was detected. The associated sample results were NDs and, thus, were not qualified.
2. In the ICV and/or CCV associated with sample -14294, the %Ds were >20% for dichlorodifluoromethane, trichlorofluoromethane, acetone, 2-butanone, tetrachloroethylene, carbon tetrachloride, 4-methyl-2-pentanone and 2-hexanone. In the ICV associated with all the other samples, the %Ds were >20% for acetone and chloroethane. In the CCV associated with samples -14274, -14277, -14282, -14269, -14273, -14271, -14278, -14285, -14286 and -14283, the %Ds were >20% for chloroethane, acetone, 2-butanone, carbon tetrachloride, 2-hexanone and 1,1,2,2-tetrachloroethane. In the CCV associated with all the other samples, the %Ds were >20% for chloromethane; chloroethane; acetone; 2-butanone; 2,2-dichloropropane; carbon tetrachloride; 4-methyl-2-pentanone; 2-hexanone and 1,1,2,2-tetrachloroethane. The acetone results for samples -14227, -14267, -14269 and -14294 were detects and, thus, were qualified J,V7c. All the other associated sample results were NDs and, thus, were qualified UJ,V7c.
3. In the LCSs associated with all the samples <u>except</u> -14294, the %Rs were > the laboratory's UAL for 1,1,1,2-tetrachloroethane. All the associated sample results were NDs and, thus, were not qualified.
4. It should be noted that in both MS/MSDs, multiple %RS and RPDs were outside the laboratory acceptance limits. It should also be noted that the MS/MSD analyses associated with sample -14294 were performed on a LANL sample from a different RN. Also, the raw data for the parent sample was not provided in the data package. However, MS/MSD analyses are not required for these analyses and, thus, no sample data were qualified.

Reviewed by: Mary Donivan Level: I Date: 01/29/10

DATA VALIDATION COVER SHEET

5114-1 **Data Validation Cover Sheet**	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943

VALIDATOR'S SIGNATURE: Eric T. Mik DATE: 1/29/10

Form 5114-1, Revision 0.0	LOS ALAMOS Environmental Restoration Project

VOLATILE ORGANIC COMPOUND (VOC) ANALYTICAL DATA VALIDATION CHECKLIST

5114-2

Volatile Organic Compound (VOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, V9	J-, V9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, V9a	J-, V9a
☐	☐	☒	3. The instrument performance sample did not pass method acceptance criteria.	R, V16	R, V16
☐	☐	☒	4. Samples were analyzed outside specific method tune time criteria.	N/A	J, V16b
☐	☐	☒	5. The required instrument performance sample information is missing. Contact the SMO or external laboratory for information.	R, V16c	R, V16c
☐	☒	☐	6. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ or R, V7	J, V7
☐	☒	☐	7. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, V7a	J, V7a
☐	☒	☐	8. The affected analytes were analyzed with an RRF of <0.05 in the initial calibration and/or CCV.	R, V7b	J, V7b
☒	☐	☐	9. The Initial Calibration Verification (ICV) and/or Continuing Calibration Verification (CCV) were recovered outside the method-specific limits.	UJ, V7c	J, V7c
☐	☒	☐	10. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, V7d	J, V7d
☐	☒	☐	11. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, V7f	R, V7f

VOLATILE ORGANIC COMPOUND (VOC) ANALYTICAL DATA VALIDATION CHECKLIST

5114-2

Volatile Organic Compound (VOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	12. The sample result is ≤5X (10X for common organic laboratory contaminants) the concentration of the related analyte in the method blank.	U, V4	N/A
☐	☒	☐	13. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X (10X for common laboratory contaminants).	N/A	J, V4a
☒	☐	☐	14. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, and/or equipment blank.	U, V4d	N/A
☐	☒	☐	15. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V4e	R, V4e
☐	☒	☐	16. The IS retention time has shifted by more than 30 seconds.	UJ, V0	J, V0
☐	☐	☒	17. Analyte is positively confirmed but outside the IS retention time window; however, spectral matches must be provided.	N/A	J, V0a
☐	☒	☐	18. Required IS retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V0b	R, V0b
☐	☐	☒	19. The quantitating IS are count is <10% of the expected value, which indicates increased potential for false negative results and other possible problems with sample quantitation. Follow method-specific windows.	R, V1a	J, V1a
☐	☐	☒	20. The IS area count for the quantitating IS is <50% but >10% for organics window relation to the previous continuing calibration. Follow the method-specific windows.	UJ, V1b	J, V1b

VOLATILE ORGANIC COMPOUND (VOC) ANALYTICAL DATA VALIDATION CHECKLIST

5114-2

Volatile Organic Compound (VOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	21. The IS area count for the quantitating IS is >200% of the area count for the previous organic continuing calibration. Follow the method-specific windows.	UJ, V1c	J, V1c
☐	☐	☒	22. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V1d	R, V1d
☐	☒	☐	23. The surrogate is <10%R. Follow the external laboratory limits located within the associated data package.	R, V3	J-, V3
☐	☒	☐	24. The surrogate is < the Lower Acceptance Limit (LAL) but ≥10%R. Follow the external laboratory limits located within the associated data package.	UJ, V3a	J-, V3a
☐	☒	☐	25. The surrogate %R is > the Upper Acceptance Limit (UAL) Follow the external laboratory limits located within the associated data package.	N/A	J+, V3b
☐	☒	☐	26. At least one surrogate is > the UAL and one surrogate is < the LAL. Follow the external laboratory limits located within the associated data package.	UJ, V3c	J, V3c
☐	☒	☐	27. Required surrogate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V3d	R, V3d
☐	☒	☐	28. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, V12	J-, V12
☐	☒	☐	29. The LCS percent recovery was < the LAL but > 10%. Follow the external laboratory limits located within the associated data package.	UV, V12a	J-, V12a
☒	☐	☐	30. The LCS percent recover was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, V12b

VOLATILE ORGANIC COMPOUND (VOC) ANALYTICAL DATA VALIDATION CHECKLIST

5114-2

Volatile Organic Compound (VOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	31. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V12c	R, V12c
☐	☒	☐	32. The affected analyte is considered not detected because mass spectrum did not meet specifications.	N/A	U, V8
☐	☒	☐	33. The mass spectrum column documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V8a	R, V8a
☐	☒	☐	34. Duplicate, dilution, or reanalysis.	UJ, V88	J, V88
☐	☐	☒	35. The affected analytes have elevated detection limits and may not meet project DQOs because the sample was diluted without any target analytees identified due to matrix interference. Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.	UJ, R, V15	R, V15
☒	☐	☐	36. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB, NQ, NQ
☐	☒	☐	37. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.	UJ, R, V19	J, R, V19

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242654001	**Date Received:**	12/10/2009 08:50	**%Moisture:**	14.6
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14224	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	934516	**Inst:**	VOAA.I	**Dilution:**	1
Run Date:	12/18/2009 00:17	**Analyst:**	JEB	**Purge Vol:**	5 mL
Prep Date:	12/17/2009 19:02	**Aliquot:**	5.3 g	**Final Volume:**	5 mL
Data File:	121709\AP418.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
75-71-8	Dichlorodifluoromethane	U	1.10	ug/kg	0.375	1.10	
74-87-3	Chloromethane	U	1.10	ug/kg	0.331	1.10	UJ,V7c
75-01-4	Vinyl chloride	U	1.10	ug/kg	0.331	1.10	
74-83-9	Bromomethane	U	1.10	ug/kg	0.331	1.10	
75-00-3	Chloroethane	U	1.10	ug/kg	0.331	1.10	UJ,V7c
75-69-4	Trichlorofluoromethane	U	1.10	ug/kg	0.331	1.10	
67-64-1	Acetone	U	5.52	ug/kg	1.83	5.52	UJ,V7c
75-35-4	1,1-Dichloroethylene	U	1.10	ug/kg	0.331	1.10	
74-88-4	Iodomethane	U	5.52	ug/kg	1.77	5.52	
75-09-2	Methylene chloride	U	5.52	ug/kg	2.21	5.52	
75-15-0	Carbon disulfide	U	5.52	ug/kg	1.38	5.52	
156-60-5	trans-1,2-Dichloroethylene	U	1.10	ug/kg	0.331	1.10	
75-34-3	1,1-Dichloroethane	U	1.10	ug/kg	0.331	1.10	
78-93-3	2-Butanone	U	5.52	ug/kg	1.66	5.52	UJ,V7c
156-59-2	cis-1,2-Dichloroethylene	U	1.10	ug/kg	0.331	1.10	
594-20-7	2,2-Dichloropropane	U	1.10	ug/kg	0.331	1.10	UJ,V7c
67-66-3	Chloroform	U	1.10	ug/kg	0.331	1.10	
74-97-5	Bromochloromethane	U	1.10	ug/kg	0.364	1.10	
71-55-6	1,1,1-Trichloroethane	U	1.10	ug/kg	0.331	1.10	
563-58-6	1,1-Dichloropropene	U	1.10	ug/kg	0.331	1.10	
56-23-5	Carbon tetrachloride	U	1.10	ug/kg	0.331	1.10	UJ,V7c
107-06-2	1,2-Dichloroethane	U	1.10	ug/kg	0.331	1.10	
71-43-2	Benzene	U	1.10	ug/kg	0.331	1.10	
79-01-6	Trichloroethylene	U	1.10	ug/kg	0.364	1.10	
78-87-5	1,2-Dichloropropane	U	1.10	ug/kg	0.331	1.10	
75-27-4	Bromodichloromethane	U	1.10	ug/kg	0.331	1.10	
74-95-3	Dibromomethane	U	1.10	ug/kg	0.331	1.10	
108-10-1	4-Methyl-2-pentanone	U	5.52	ug/kg	1.38	5.52	UJ,V7c
10061-01-5	cis-1,3-Dichloropropylene	U	1.10	ug/kg	0.331	1.10	
108-88-3	Toluene	U	1.10	ug/kg	0.331	1.10	
10061-02-6	trans-1,3-Dichloropropylene	U	1.10	ug/kg	0.331	1.10	
79-00-5	1,1,2-Trichloroethane	U	1.10	ug/kg	0.331	1.10	
591-78-6	2-Hexanone	U	5.52	ug/kg	1.66	5.52	UJ,V7c
142-28-9	1,3-Dichloropropane	U	1.10	ug/kg	0.331	1.10	
127-18-4	Tetrachloroethylene	U	1.10	ug/kg	0.331	1.10	
124-48-1	Dibromochloromethane	U	1.10	ug/kg	0.331	1.10	
106-93-4	1,2-Dibromoethane	U	1.10	ug/kg	0.331	1.10	
108-90-7	Chlorobenzene	U	1.10	ug/kg	0.331	1.10	

ETM
1/29/10

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242654001	**Date Received:**	12/10/2009 08:50	**%Moisture:**	14.6
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14224	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	934516	**Inst:**	VOAA.I	**Dilution:**	1
Run Date:	12/18/2009 00:17	**Analyst:**	JEB	**Purge Vol:**	5 mL
Prep Date:	12/17/2009 19:02	**Aliquot:**	5.3 g	**Final Volume:**	5 mL
Data File:	121709\AP418.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
100-41-4	Ethylbenzene	U	1.10	ug/kg	0.331	1.10	
179601-23-1	m,p-Xylenes	U	2.21	ug/kg	0.331	2.21	
95-47-6	o-Xylene	U	1.10	ug/kg	0.331	1.10	
100-42-5	Styrene	U	1.10	ug/kg	0.331	1.10	
75-25-2	Bromoform	U	1.10	ug/kg	0.331	1.10	
79-34-5	1,1,2,2-Tetrachloroethane	U	1.10	ug/kg	0.331	1.10	UJ,V7c
96-18-4	1,2,3-Trichloropropane	U	1.10	ug/kg	0.331	1.10	
108-86-1	Bromobenzene	U	1.10	ug/kg	0.331	1.10	
103-65-1	n-Propylbenzene	U	1.10	ug/kg	0.331	1.10	
95-49-8	2-Chlorotoluene	U	1.10	ug/kg	0.331	1.10	
98-82-8	Isopropylbenzene	U	1.10	ug/kg	0.331	1.10	
108-67-8	1,3,5-Trimethylbenzene	U	1.10	ug/kg	0.331	1.10	
106-43-4	4-Chlorotoluene	U	1.10	ug/kg	0.331	1.10	
98-06-6	tert-Butylbenzene	U	1.10	ug/kg	0.331	1.10	
95-63-6	1,2,4-Trimethylbenzene	U	1.10	ug/kg	0.331	1.10	
135-98-8	sec-Butylbenzene	U	1.10	ug/kg	0.331	1.10	
99-87-6	4-Isopropyltoluene	U	1.10	ug/kg	0.331	1.10	
541-73-1	1,3-Dichlorobenzene	U	1.10	ug/kg	0.331	1.10	
106-46-7	1,4-Dichlorobenzene	U	1.10	ug/kg	0.331	1.10	
104-51-8	n-Butylbenzene	U	1.10	ug/kg	0.331	1.10	
96-12-8	1,2-Dibromo-3-chloropropane	U	1.10	ug/kg	0.331	1.10	
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.52	ug/kg	1.77	5.52	
630-20-6	1,1,1,2-Tetrachloroethane	U	1.10	ug/kg	0.331	1.10	
95-50-1	1,2-Dichlorobenzene	U	1.10	ug/kg	0.331	1.10	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown	3.37	11.3	ug/kg	0	J

ETM
1/29/10

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-852**	**Date Collected:**	**12/07/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242654002**	**Date Received:**	**12/10/2009 08:50**	**%Moisture:**	**10.3**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14227**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**934516**	**Inst:**	**VOAA.I**	**Dilution:**	**1**
Run Date:	**12/18/2009 00:43**	**Analyst:**	**JEB**	**Purge Vol:**	**5 mL**
Prep Date:	**12/17/2009 19:04**	**Aliquot:**	**5.3 g**	**Final Volume:**	**5 mL**
Data File:	**121709\AP419.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
75-71-8	Dichlorodifluoromethane	U	1.05	ug/kg	0.358	1.05	
74-87-3	Chloromethane	U	1.05	ug/kg	0.315	1.05	UJ,V7c
75-01-4	Vinyl chloride	U	1.05	ug/kg	0.315	1.05	
74-83-9	Bromomethane	U	1.05	ug/kg	0.315	1.05	
75-00-3	Chloroethane	U	1.05	ug/kg	0.315	1.05	UJ,V7c
75-69-4	Trichlorofluoromethane	U	1.05	ug/kg	0.315	1.05	
67-64-1	Acetone	J	4.38	ug/kg	1.75	5.26	J,V7c
75-35-4	1,1-Dichloroethylene	U	1.05	ug/kg	0.315	1.05	
74-88-4	Iodomethane	U	5.26	ug/kg	1.68	5.26	
75-09-2	Methylene chloride	U	5.26	ug/kg	2.10	5.26	
75-15-0	Carbon disulfide	U	5.26	ug/kg	1.31	5.26	
156-60-5	trans-1,2-Dichloroethylene	U	1.05	ug/kg	0.315	1.05	
75-34-3	1,1-Dichloroethane	U	1.05	ug/kg	0.315	1.05	
78-93-3	2-Butanone	U	5.26	ug/kg	1.58	5.26	UJ,V7c
156-59-2	cis-1,2-Dichloroethylene	U	1.05	ug/kg	0.315	1.05	
594-20-7	2,2-Dichloropropane	U	1.05	ug/kg	0.315	1.05	UJ,V7c
67-66-3	Chloroform	U	1.05	ug/kg	0.315	1.05	
74-97-5	Bromochloromethane	U	1.05	ug/kg	0.347	1.05	
71-55-6	1,1,1-Trichloroethane	U	1.05	ug/kg	0.315	1.05	
563-58-6	1,1-Dichloropropene	U	1.05	ug/kg	0.315	1.05	
56-23-5	Carbon tetrachloride	U	1.05	ug/kg	0.315	1.05	UJ,V7c
107-06-2	1,2-Dichloroethane	U	1.05	ug/kg	0.315	1.05	
71-43-2	Benzene	U	1.05	ug/kg	0.315	1.05	
79-01-6	Trichloroethylene	U	1.05	ug/kg	0.347	1.05	
78-87-5	1,2-Dichloropropane	U	1.05	ug/kg	0.315	1.05	
75-27-4	Bromodichloromethane	U	1.05	ug/kg	0.315	1.05	
74-95-3	Dibromomethane	U	1.05	ug/kg	0.315	1.05	
108-10-1	4-Methyl-2-pentanone	U	5.26	ug/kg	1.31	5.26	UJ,V7c
10061-01-5	cis-1,3-Dichloropropylene	U	1.05	ug/kg	0.315	1.05	
108-88-3	Toluene	U	1.05	ug/kg	0.315	1.05	
10061-02-6	trans-1,3-Dichloropropylene	U	1.05	ug/kg	0.315	1.05	
79-00-5	1,1,2-Trichloroethane	U	1.05	ug/kg	0.315	1.05	
591-78-6	2-Hexanone	U	5.26	ug/kg	1.58	5.26	UJ,V7c
142-28-9	1,3-Dichloropropane	U	1.05	ug/kg	0.315	1.05	
127-18-4	Tetrachloroethylene	U	1.05	ug/kg	0.315	1.05	
124-48-1	Dibromochloromethane	U	1.05	ug/kg	0.315	1.05	
106-93-4	1,2-Dibromoethane	U	1.05	ug/kg	0.315	1.05	
108-90-7	Chlorobenzene	U	1.05	ug/kg	0.315	1.05	

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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-852**	**Date Collected:**	**12/07/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242654002**	**Date Received:**	**12/10/2009 08:50**	**%Moisture:**	**10.3**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14227**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**934516**	**Inst:**	**VOAA.I**	**Dilution:**	**1**
Run Date:	**12/18/2009 00:43**	**Analyst:**	**JEB**	**Purge Vol:**	**5 mL**
Prep Date:	**12/17/2009 19:04**	**Aliquot:**	**5.3 g**	**Final Volume:**	**5 mL**
Data File:	**121709\AP419.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
100-41-4	Ethylbenzene	U	1.05	ug/kg	0.315	1.05	
179601-23-1	m,p-Xylenes	U	2.10	ug/kg	0.315	2.10	
95-47-6	o-Xylene	U	1.05	ug/kg	0.315	1.05	
100-42-5	Styrene	U	1.05	ug/kg	0.315	1.05	
75-25-2	Bromoform	U	1.05	ug/kg	0.315	1.05	
79-34-5	1,1,2,2-Tetrachloroethane	U	1.05	ug/kg	0.315	1.05	UJ,V7c
96-18-4	1,2,3-Trichloropropane	U	1.05	ug/kg	0.315	1.05	
108-86-1	Bromobenzene	U	1.05	ug/kg	0.315	1.05	
103-65-1	n-Propylbenzene	U	1.05	ug/kg	0.315	1.05	
95-49-8	2-Chlorotoluene	U	1.05	ug/kg	0.315	1.05	
98-82-8	Isopropylbenzene	U	1.05	ug/kg	0.315	1.05	
108-67-8	1,3,5-Trimethylbenzene	U	1.05	ug/kg	0.315	1.05	
106-43-4	4-Chlorotoluene	U	1.05	ug/kg	0.315	1.05	
98-06-6	tert-Butylbenzene	U	1.05	ug/kg	0.315	1.05	
95-63-6	1,2,4-Trimethylbenzene	U	1.05	ug/kg	0.315	1.05	
135-98-8	sec-Butylbenzene	U	1.05	ug/kg	0.315	1.05	
99-87-6	4-Isopropyltoluene	U	1.05	ug/kg	0.315	1.05	
541-73-1	1,3-Dichlorobenzene	U	1.05	ug/kg	0.315	1.05	
106-46-7	1,4-Dichlorobenzene	U	1.05	ug/kg	0.315	1.05	
104-51-8	n-Butylbenzene	U	1.05	ug/kg	0.315	1.05	
96-12-8	1,2-Dibromo-3-chloropropane	U	1.05	ug/kg	0.315	1.05	
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.26	ug/kg	1.68	5.26	
630-20-6	1,1,1,2-Tetrachloroethane	U	1.05	ug/kg	0.315	1.05	
95-50-1	1,2-Dichlorobenzene	U	1.05	ug/kg	0.315	1.05	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown	3.34	6.96	ug/kg	0	J
	unknown	15.61	6.5	ug/kg	0	J

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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	Date Collected:	12/07/2009 12:00	Matrix:	S
Lab Sample ID:	242654003	Date Received:	12/10/2009 08:50	%Moisture:	11.9
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14225	Method:	SW846 8260B	SOP Ref:	GL-OA-E-038
Batch ID:	934516	Inst:	VOAA.I	Dilution:	1
Run Date:	12/18/2009 01:09	Analyst:	JEB	Purge Vol:	5 mL
Prep Date:	12/17/2009 19:05	Aliquot:	5.1 g	Final Volume:	5 mL
Data File:	121709\AP420.D	Column:	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
75-71-8	Dichlorodifluoromethane	U	1.11	ug/kg	0.379	1.11	
74-87-3	Chloromethane	U	1.11	ug/kg	0.334	1.11	UJ,V7c
75-01-4	Vinyl chloride	U	1.11	ug/kg	0.334	1.11	
74-83-9	Bromomethane	U	1.11	ug/kg	0.334	1.11	
75-00-3	Chloroethane	U	1.11	ug/kg	0.334	1.11	UJ,V7c
75-69-4	Trichlorofluoromethane	U	1.11	ug/kg	0.334	1.11	
67-64-1	Acetone	U	5.57	ug/kg	1.85	5.57	UJ,V7c
75-35-4	1,1-Dichloroethylene	U	1.11	ug/kg	0.334	1.11	
74-88-4	Iodomethane	U	5.57	ug/kg	1.78	5.57	
75-09-2	Methylene chloride	U	5.57	ug/kg	2.23	5.57	
75-15-0	Carbon disulfide	U	5.57	ug/kg	1.39	5.57	
156-60-5	trans-1,2-Dichloroethylene	U	1.11	ug/kg	0.334	1.11	
75-34-3	1,1-Dichloroethane	U	1.11	ug/kg	0.334	1.11	
78-93-3	2-Butanone	U	5.57	ug/kg	1.67	5.57	UJ,V7c
156-59-2	cis-1,2-Dichloroethylene	U	1.11	ug/kg	0.334	1.11	
594-20-7	2,2-Dichloropropane	U	1.11	ug/kg	0.334	1.11	UJ,V7c
67-66-3	Chloroform	U	1.11	ug/kg	0.334	1.11	
74-97-5	Bromochloromethane	U	1.11	ug/kg	0.367	1.11	
71-55-6	1,1,1-Trichloroethane	U	1.11	ug/kg	0.334	1.11	
563-58-6	1,1-Dichloropropene	U	1.11	ug/kg	0.334	1.11	
56-23-5	Carbon tetrachloride	U	1.11	ug/kg	0.334	1.11	UJ,V7c
107-06-2	1,2-Dichloroethane	U	1.11	ug/kg	0.334	1.11	
71-43-2	Benzene	U	1.11	ug/kg	0.334	1.11	
79-01-6	Trichloroethylene	U	1.11	ug/kg	0.367	1.11	
78-87-5	1,2-Dichloropropane	U	1.11	ug/kg	0.334	1.11	
75-27-4	Bromodichloromethane	U	1.11	ug/kg	0.334	1.11	
74-95-3	Dibromomethane	U	1.11	ug/kg	0.334	1.11	
108-10-1	4-Methyl-2-pentanone	U	5.57	ug/kg	1.39	5.57	UJ,V7c
10061-01-5	cis-1,3-Dichloropropylene	U	1.11	ug/kg	0.334	1.11	
108-88-3	Toluene	U	1.11	ug/kg	0.334	1.11	
10061-02-6	trans-1,3-Dichloropropylene	U	1.11	ug/kg	0.334	1.11	
79-00-5	1,1,2-Trichloroethane	U	1.11	ug/kg	0.334	1.11	
591-78-6	2-Hexanone	U	5.57	ug/kg	1.67	5.57	UJ,V7c
142-28-9	1,3-Dichloropropane	U	1.11	ug/kg	0.334	1.11	
127-18-4	Tetrachloroethylene	U	1.11	ug/kg	0.334	1.11	
124-48-1	Dibromochloromethane	U	1.11	ug/kg	0.334	1.11	
106-93-4	1,2-Dibromoethane	U	1.11	ug/kg	0.334	1.11	
108-90-7	Chlorobenzene	U	1.11	ug/kg	0.334	1.11	

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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-852**	**Date Collected:**	**12/07/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242654003**	**Date Received:**	**12/10/2009 08:50**	**%Moisture:**	**11.9**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14225**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**934516**	**Inst:**	**VOAA.I**	**Dilution:**	**1**
Run Date:	**12/18/2009 01:09**	**Analyst:**	**JEB**	**Purge Vol:**	**5 mL**
Prep Date:	**12/17/2009 19:05**	**Aliquot:**	**5.1 g**	**Final Volume:**	**5 mL**
Data File:	**121709\AP420.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
100-41-4	Ethylbenzene	U	1.11	ug/kg	0.334	1.11	
179601-23-1	m,p-Xylenes	U	2.23	ug/kg	0.334	2.23	
95-47-6	o-Xylene	U	1.11	ug/kg	0.334	1.11	
100-42-5	Styrene	U	1.11	ug/kg	0.334	1.11	
75-25-2	Bromoform	U	1.11	ug/kg	0.334	1.11	
79-34-5	1,1,2,2-Tetrachloroethane	U	1.11	ug/kg	0.334	1.11	UJ,V7c
96-18-4	1,2,3-Trichloropropane	U	1.11	ug/kg	0.334	1.11	
108-86-1	Bromobenzene	U	1.11	ug/kg	0.334	1.11	
103-65-1	n-Propylbenzene	U	1.11	ug/kg	0.334	1.11	
95-49-8	2-Chlorotoluene	U	1.11	ug/kg	0.334	1.11	
98-82-8	Isopropylbenzene	U	1.11	ug/kg	0.334	1.11	
108-67-8	1,3,5-Trimethylbenzene	U	1.11	ug/kg	0.334	1.11	
106-43-4	4-Chlorotoluene	U	1.11	ug/kg	0.334	1.11	
98-06-6	tert-Butylbenzene	U	1.11	ug/kg	0.334	1.11	
95-63-6	1,2,4-Trimethylbenzene	U	1.11	ug/kg	0.334	1.11	
135-98-8	sec-Butylbenzene	U	1.11	ug/kg	0.334	1.11	
99-87-6	4-Isopropyltoluene	U	1.11	ug/kg	0.334	1.11	
541-73-1	1,3-Dichlorobenzene	U	1.11	ug/kg	0.334	1.11	
106-46-7	1,4-Dichlorobenzene	U	1.11	ug/kg	0.334	1.11	
104-51-8	n-Butylbenzene	U	1.11	ug/kg	0.334	1.11	
96-12-8	1,2-Dibromo-3-chloropropane	U	1.11	ug/kg	0.334	1.11	
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.57	ug/kg	1.78	5.57	
630-20-6	1,1,1,2-Tetrachloroethane	U	1.11	ug/kg	0.334	1.11	
95-50-1	1,2-Dichlorobenzene	U	1.11	ug/kg	0.334	1.11	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown	3.33	10	ug/kg	0	J

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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	Date Collected:	12/07/2009 12:00	Matrix:	S
Lab Sample ID:	242654004	Date Received:	12/10/2009 08:50	%Moisture:	9.5
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14226	Method:	SW846 8260B	SOP Ref:	GL-OA-E-038
Batch ID:	934516	Inst:	VOAA.I	Dilution:	1
Run Date:	12/18/2009 01:35	Analyst:	JEB	Purge Vol:	5 mL
Prep Date:	12/17/2009 19:06	Aliquot:	5.1 g	Final Volume:	5 mL
Data File:	121709\AP421.D	Column:	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
75-71-8	Dichlorodifluoromethane	U	1.08	ug/kg	0.368	1.08	
74-87-3	Chloromethane	U	1.08	ug/kg	0.325	1.08	UJ,V7c
75-01-4	Vinyl chloride	U	1.08	ug/kg	0.325	1.08	
74-83-9	Bromomethane	U	1.08	ug/kg	0.325	1.08	
75-00-3	Chloroethane	U	1.08	ug/kg	0.325	1.08	UJ,V7c
75-69-4	Trichlorofluoromethane	U	1.08	ug/kg	0.325	1.08	
67-64-1	Acetone	U	5.42	ug/kg	1.80	5.42	UJ,V7c
75-35-4	1,1-Dichloroethylene	U	1.08	ug/kg	0.325	1.08	
74-88-4	Iodomethane	U	5.42	ug/kg	1.73	5.42	
75-09-2	Methylene chloride	U	5.42	ug/kg	2.17	5.42	
75-15-0	Carbon disulfide	U	5.42	ug/kg	1.35	5.42	
156-60-5	trans-1,2-Dichloroethylene	U	1.08	ug/kg	0.325	1.08	
75-34-3	1,1-Dichloroethane	U	1.08	ug/kg	0.325	1.08	
78-93-3	2-Butanone	U	5.42	ug/kg	1.63	5.42	UJ,V7c
156-59-2	cis-1,2-Dichloroethylene	U	1.08	ug/kg	0.325	1.08	
594-20-7	2,2-Dichloropropane	U	1.08	ug/kg	0.325	1.08	UJ,V7c
67-66-3	Chloroform	U	1.08	ug/kg	0.325	1.08	
74-97-5	Bromochloromethane	U	1.08	ug/kg	0.358	1.08	
71-55-6	1,1,1-Trichloroethane	U	1.08	ug/kg	0.325	1.08	
563-58-6	1,1-Dichloropropene	U	1.08	ug/kg	0.325	1.08	
56-23-5	Carbon tetrachloride	U	1.08	ug/kg	0.325	1.08	UJ,V7c
107-06-2	1,2-Dichloroethane	U	1.08	ug/kg	0.325	1.08	
71-43-2	Benzene	U	1.08	ug/kg	0.325	1.08	
79-01-6	Trichloroethylene	U	1.08	ug/kg	0.358	1.08	
78-87-5	1,2-Dichloropropane	U	1.08	ug/kg	0.325	1.08	
75-27-4	Bromodichloromethane	U	1.08	ug/kg	0.325	1.08	
74-95-3	Dibromomethane	U	1.08	ug/kg	0.325	1.08	
108-10-1	4-Methyl-2-pentanone	U	5.42	ug/kg	1.35	5.42	UJ,V7c
10061-01-5	cis-1,3-Dichloropropylene	U	1.08	ug/kg	0.325	1.08	
108-88-3	Toluene	U	1.08	ug/kg	0.325	1.08	
10061-02-6	trans-1,3-Dichloropropylene	U	1.08	ug/kg	0.325	1.08	
79-00-5	1,1,2-Trichloroethane	U	1.08	ug/kg	0.325	1.08	
591-78-6	2-Hexanone	U	5.42	ug/kg	1.63	5.42	UJ,V7c
142-28-9	1,3-Dichloropropane	U	1.08	ug/kg	0.325	1.08	
127-18-4	Tetrachloroethylene	U	1.08	ug/kg	0.325	1.08	
124-48-1	Dibromochloromethane	U	1.08	ug/kg	0.325	1.08	
106-93-4	1,2-Dibromoethane	U	1.08	ug/kg	0.325	1.08	
108-90-7	Chlorobenzene	U	1.08	ug/kg	0.325	1.08	

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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	Date Collected:	12/07/2009 12:00	Matrix:	S
Lab Sample ID:	242654004	Date Received:	12/10/2009 08:50	%Moisture:	9.5
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14226	Method:	SW846 8260B	SOP Ref:	GL-OA-E-038
Batch ID:	934516	Inst:	VOAA.I	Dilution:	1
Run Date:	12/18/2009 01:35	Analyst:	JEB	Purge Vol:	5 mL
Prep Date:	12/17/2009 19:06	Aliquot:	5.1 g	Final Volume:	5 mL
Data File:	121709\AP421.D	Column:	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
100-41-4	Ethylbenzene	U	1.08	ug/kg	0.325	1.08	
179601-23-1	m,p-Xylenes	U	2.17	ug/kg	0.325	2.17	
95-47-6	o-Xylene	U	1.08	ug/kg	0.325	1.08	
100-42-5	Styrene	U	1.08	ug/kg	0.325	1.08	
75-25-2	Bromoform	U	1.08	ug/kg	0.325	1.08	
79-34-5	1,1,2,2-Tetrachloroethane	U	1.08	ug/kg	0.325	1.08	UJ,V7c
96-18-4	1,2,3-Trichloropropane	U	1.08	ug/kg	0.325	1.08	
108-86-1	Bromobenzene	U	1.08	ug/kg	0.325	1.08	
103-65-1	n-Propylbenzene	U	1.08	ug/kg	0.325	1.08	
95-49-8	2-Chlorotoluene	U	1.08	ug/kg	0.325	1.08	
98-82-8	Isopropylbenzene	U	1.08	ug/kg	0.325	1.08	
108-67-8	1,3,5-Trimethylbenzene	U	1.08	ug/kg	0.325	1.08	
106-43-4	4-Chlorotoluene	U	1.08	ug/kg	0.325	1.08	
98-06-6	tert-Butylbenzene	U	1.08	ug/kg	0.325	1.08	
95-63-6	1,2,4-Trimethylbenzene	U	1.08	ug/kg	0.325	1.08	
135-98-8	sec-Butylbenzene	U	1.08	ug/kg	0.325	1.08	
99-87-6	4-Isopropyltoluene	U	1.08	ug/kg	0.325	1.08	
541-73-1	1,3-Dichlorobenzene	U	1.08	ug/kg	0.325	1.08	
106-46-7	1,4-Dichlorobenzene	U	1.08	ug/kg	0.325	1.08	
104-51-8	n-Butylbenzene	U	1.08	ug/kg	0.325	1.08	
96-12-8	1,2-Dibromo-3-chloropropane	U	1.08	ug/kg	0.325	1.08	
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.42	ug/kg	1.73	5.42	
630-20-6	1,1,1,2-Tetrachloroethane	U	1.08	ug/kg	0.325	1.08	
95-50-1	1,2-Dichlorobenzene	U	1.08	ug/kg	0.325	1.08	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown	3.32	7.23	ug/kg	0	J
	unknown siloxane	13.66	9.25	ug/kg	0	J
	unknown	15.61	11.2	ug/kg	0	J

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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-852**	**Date Collected:**	**12/07/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242654005**	**Date Received:**	**12/10/2009 08:50**	**%Moisture:**	**5.9**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14288**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**934516**	**Inst:**	**VOAA.I**	**Dilution:**	**1**
Run Date:	**12/18/2009 02:01**	**Analyst:**	**JEB**	**Purge Vol:**	**5 mL**
Prep Date:	**12/17/2009 19:07**	**Aliquot:**	**5.3 g**	**Final Volume:**	**5 mL**
Data File:	**121709\AP422.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
75-71-8	Dichlorodifluoromethane	U	1.00	ug/kg	0.341	1.00	
74-87-3	Chloromethane	U	1.00	ug/kg	0.301	1.00	UJ,V7c
75-01-4	Vinyl chloride	U	1.00	ug/kg	0.301	1.00	
74-83-9	Bromomethane	U	1.00	ug/kg	0.301	1.00	
75-00-3	Chloroethane	U	1.00	ug/kg	0.301	1.00	UJ,V7c
75-69-4	Trichlorofluoromethane	U	1.00	ug/kg	0.301	1.00	
67-64-1	Acetone	U	5.02	ug/kg	1.67	5.02	UJ,V7c
75-35-4	1,1-Dichloroethylene	U	1.00	ug/kg	0.301	1.00	
74-88-4	Iodomethane	U	5.02	ug/kg	1.60	5.02	
75-09-2	Methylene chloride	U	5.02	ug/kg	2.01	5.02	
75-15-0	Carbon disulfide	U	5.02	ug/kg	1.25	5.02	
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/kg	0.301	1.00	
75-34-3	1,1-Dichloroethane	U	1.00	ug/kg	0.301	1.00	
78-93-3	2-Butanone	U	5.02	ug/kg	1.50	5.02	UJ,V7c
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/kg	0.301	1.00	
594-20-7	2,2-Dichloropropane	U	1.00	ug/kg	0.301	1.00	UJ,V7c
67-66-3	Chloroform	U	1.00	ug/kg	0.301	1.00	
74-97-5	Bromochloromethane	U	1.00	ug/kg	0.331	1.00	
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/kg	0.301	1.00	
563-58-6	1,1-Dichloropropene	U	1.00	ug/kg	0.301	1.00	
56-23-5	Carbon tetrachloride	U	1.00	ug/kg	0.301	1.00	UJ,V7c
107-06-2	1,2-Dichloroethane	U	1.00	ug/kg	0.301	1.00	
71-43-2	Benzene	U	1.00	ug/kg	0.301	1.00	
79-01-6	Trichloroethylene	U	1.00	ug/kg	0.331	1.00	
78-87-5	1,2-Dichloropropane	U	1.00	ug/kg	0.301	1.00	
75-27-4	Bromodichloromethane	U	1.00	ug/kg	0.301	1.00	
74-95-3	Dibromomethane	U	1.00	ug/kg	0.301	1.00	
108-10-1	4-Methyl-2-pentanone	U	5.02	ug/kg	1.25	5.02	UJ,V7c
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/kg	0.301	1.00	
108-88-3	Toluene	U	1.00	ug/kg	0.301	1.00	
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/kg	0.301	1.00	
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/kg	0.301	1.00	
591-78-6	2-Hexanone	U	5.02	ug/kg	1.50	5.02	UJ,V7c
142-28-9	1,3-Dichloropropane	U	1.00	ug/kg	0.301	1.00	
127-18-4	Tetrachloroethylene	U	1.00	ug/kg	0.301	1.00	
124-48-1	Dibromochloromethane	U	1.00	ug/kg	0.301	1.00	
106-93-4	1,2-Dibromoethane	U	1.00	ug/kg	0.301	1.00	
108-90-7	Chlorobenzene	U	1.00	ug/kg	0.301	1.00	

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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	Date Collected:	12/07/2009 12:00	Matrix:	S
Lab Sample ID:	242654005	Date Received:	12/10/2009 08:50	%Moisture:	5.9
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14288	Method:	SW846 8260B	SOP Ref:	GL-OA-E-038
Batch ID:	934516	Inst:	VOAA.I	Dilution:	1
Run Date:	12/18/2009 02:01	Analyst:	JEB	Purge Vol:	5 mL
Prep Date:	12/17/2009 19:07	Aliquot:	5.3 g	Final Volume:	5 mL
Data File:	121709\AP422.D	Column:	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
100-41-4	Ethylbenzene	U	1.00	ug/kg	0.301	1.00	
179601-23-1	m,p-Xylenes	U	2.01	ug/kg	0.301	2.01	
95-47-6	o-Xylene	U	1.00	ug/kg	0.301	1.00	
100-42-5	Styrene	U	1.00	ug/kg	0.301	1.00	
75-25-2	Bromoform	U	1.00	ug/kg	0.301	1.00	
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/kg	0.301	1.00	UJ,V7c
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/kg	0.301	1.00	
108-86-1	Bromobenzene	U	1.00	ug/kg	0.301	1.00	
103-65-1	n-Propylbenzene	U	1.00	ug/kg	0.301	1.00	
95-49-8	2-Chlorotoluene	U	1.00	ug/kg	0.301	1.00	
98-82-8	Isopropylbenzene	U	1.00	ug/kg	0.301	1.00	
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/kg	0.301	1.00	
106-43-4	4-Chlorotoluene	U	1.00	ug/kg	0.301	1.00	
98-06-6	tert-Butylbenzene	U	1.00	ug/kg	0.301	1.00	
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/kg	0.301	1.00	
135-98-8	sec-Butylbenzene	U	1.00	ug/kg	0.301	1.00	
99-87-6	4-Isopropyltoluene	U	1.00	ug/kg	0.301	1.00	
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/kg	0.301	1.00	
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/kg	0.301	1.00	
104-51-8	n-Butylbenzene	U	1.00	ug/kg	0.301	1.00	
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/kg	0.301	1.00	
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.02	ug/kg	1.60	5.02	
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/kg	0.301	1.00	
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/kg	0.301	1.00	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown	3.35	9.5	ug/kg	0	J

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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-852**	**Date Collected:**	**12/07/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242654006**	**Date Received:**	**12/10/2009 08:50**	**%Moisture:**	**11.7**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14287**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**934516**	**Inst:**	**VOAA.I**	**Dilution:**	**1**
Run Date:	**12/18/2009 02:26**	**Analyst:**	**JEB**	**Purge Vol:**	**5 mL**
Prep Date:	**12/17/2009 19:10**	**Aliquot:**	**5.2 g**	**Final Volume:**	**5 mL**
Data File:	**121709\AP423.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
75-71-8	Dichlorodifluoromethane	U	1.09	ug/kg	0.370	1.09	
74-87-3	Chloromethane	U	1.09	ug/kg	0.327	1.09	UJ,V7c
75-01-4	Vinyl chloride	U	1.09	ug/kg	0.327	1.09	
74-83-9	Bromomethane	U	1.09	ug/kg	0.327	1.09	
75-00-3	Chloroethane	U	1.09	ug/kg	0.327	1.09	UJ,V7c
75-69-4	Trichlorofluoromethane	U	1.09	ug/kg	0.327	1.09	
67-64-1	Acetone	U	5.44	ug/kg	1.81	5.44	UJ,V7c
75-35-4	1,1-Dichloroethylene	U	1.09	ug/kg	0.327	1.09	
74-88-4	Iodomethane	U	5.44	ug/kg	1.74	5.44	
75-09-2	Methylene chloride	U	5.44	ug/kg	2.18	5.44	
75-15-0	Carbon disulfide	U	5.44	ug/kg	1.36	5.44	
156-60-5	trans-1,2-Dichloroethylene	U	1.09	ug/kg	0.327	1.09	
75-34-3	1,1-Dichloroethane	U	1.09	ug/kg	0.327	1.09	
78-93-3	2-Butanone	U	5.44	ug/kg	1.63	5.44	UJ,V7c
156-59-2	cis-1,2-Dichloroethylene	U	1.09	ug/kg	0.327	1.09	
594-20-7	2,2-Dichloropropane	U	1.09	ug/kg	0.327	1.09	UJ,V7c
67-66-3	Chloroform	U	1.09	ug/kg	0.327	1.09	
74-97-5	Bromochloromethane	U	1.09	ug/kg	0.359	1.09	
71-55-6	1,1,1-Trichloroethane	U	1.09	ug/kg	0.327	1.09	
563-58-6	1,1-Dichloropropene	U	1.09	ug/kg	0.327	1.09	
56-23-5	Carbon tetrachloride	U	1.09	ug/kg	0.327	1.09	UJ,V7c
107-06-2	1,2-Dichloroethane	U	1.09	ug/kg	0.327	1.09	
71-43-2	Benzene	U	1.09	ug/kg	0.327	1.09	
79-01-6	Trichloroethylene	U	1.09	ug/kg	0.359	1.09	
78-87-5	1,2-Dichloropropane	U	1.09	ug/kg	0.327	1.09	
75-27-4	Bromodichloromethane	U	1.09	ug/kg	0.327	1.09	
74-95-3	Dibromomethane	U	1.09	ug/kg	0.327	1.09	
108-10-1	4-Methyl-2-pentanone	U	5.44	ug/kg	1.36	5.44	UJ,V7c
10061-01-5	cis-1,3-Dichloropropylene	U	1.09	ug/kg	0.327	1.09	
108-88-3	Toluene	U	1.09	ug/kg	0.327	1.09	
10061-02-6	trans-1,3-Dichloropropylene	U	1.09	ug/kg	0.327	1.09	
79-00-5	1,1,2-Trichloroethane	U	1.09	ug/kg	0.327	1.09	
591-78-6	2-Hexanone	U	5.44	ug/kg	1.63	5.44	UJ,V7c
142-28-9	1,3-Dichloropropane	U	1.09	ug/kg	0.327	1.09	
127-18-4	Tetrachloroethylene	U	1.09	ug/kg	0.327	1.09	
124-48-1	Dibromochloromethane	U	1.09	ug/kg	0.327	1.09	
106-93-4	1,2-Dibromoethane	U	1.09	ug/kg	0.327	1.09	
108-90-7	Chlorobenzene	U	1.09	ug/kg	0.327	1.09	

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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-852**	**Date Collected:**	**12/07/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242654006**	**Date Received:**	**12/10/2009 08:50**	**%Moisture:**	**11.7**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14287**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**934516**	**Inst:**	**VOAA.I**	**Dilution:**	**1**
Run Date:	**12/18/2009 02:26**	**Analyst:**	**JEB**	**Purge Vol:**	**5 mL**
Prep Date:	**12/17/2009 19:10**	**Aliquot:**	**5.2 g**	**Final Volume:**	**5 mL**
Data File:	**121709\AP423.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
100-41-4	Ethylbenzene	U	1.09	ug/kg	0.327	1.09	
179601-23-1	m,p-Xylenes	U	2.18	ug/kg	0.327	2.18	
95-47-6	o-Xylene	U	1.09	ug/kg	0.327	1.09	
100-42-5	Styrene	U	1.09	ug/kg	0.327	1.09	
75-25-2	Bromoform	U	1.09	ug/kg	0.327	1.09	
79-34-5	1,1,2,2-Tetrachloroethane	U	1.09	ug/kg	0.327	1.09	UJ,V7c
96-18-4	1,2,3-Trichloropropane	U	1.09	ug/kg	0.327	1.09	
108-86-1	Bromobenzene	U	1.09	ug/kg	0.327	1.09	
103-65-1	n-Propylbenzene	U	1.09	ug/kg	0.327	1.09	
95-49-8	2-Chlorotoluene	U	1.09	ug/kg	0.327	1.09	
98-82-8	Isopropylbenzene	U	1.09	ug/kg	0.327	1.09	
108-67-8	1,3,5-Trimethylbenzene	U	1.09	ug/kg	0.327	1.09	
106-43-4	4-Chlorotoluene	U	1.09	ug/kg	0.327	1.09	
98-06-6	tert-Butylbenzene	U	1.09	ug/kg	0.327	1.09	
95-63-6	1,2,4-Trimethylbenzene	U	1.09	ug/kg	0.327	1.09	
135-98-8	sec-Butylbenzene	U	1.09	ug/kg	0.327	1.09	
99-87-6	4-Isopropyltoluene	U	1.09	ug/kg	0.327	1.09	
541-73-1	1,3-Dichlorobenzene	U	1.09	ug/kg	0.327	1.09	
106-46-7	1,4-Dichlorobenzene	U	1.09	ug/kg	0.327	1.09	
104-51-8	n-Butylbenzene	U	1.09	ug/kg	0.327	1.09	
96-12-8	1,2-Dibromo-3-chloropropane	U	1.09	ug/kg	0.327	1.09	
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.44	ug/kg	1.74	5.44	
630-20-6	1,1,1,2-Tetrachloroethane	U	1.09	ug/kg	0.327	1.09	
95-50-1	1,2-Dichlorobenzene	U	1.09	ug/kg	0.327	1.09	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown	3.34	17.5	ug/kg	0	J

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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-852**	**Date Collected:**	**12/07/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242654007**	**Date Received:**	**12/10/2009 08:50**	**%Moisture:**	**14.2**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14267**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**934516**	**Inst:**	**VOAA.I**	**Dilution:**	**1**
Run Date:	**12/18/2009 02:52**	**Analyst:**	**JEB**	**Purge Vol:**	**5 mL**
Prep Date:	**12/17/2009 19:11**	**Aliquot:**	**5.4 g**	**Final Volume:**	**5 mL**
Data File:	**121709\AP424.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
75-71-8	Dichlorodifluoromethane	U	1.08	ug/kg	0.367	1.08	
74-87-3	Chloromethane	U	1.08	ug/kg	0.324	1.08	UJ,V7c
75-01-4	Vinyl chloride	U	1.08	ug/kg	0.324	1.08	
74-83-9	Bromomethane	U	1.08	ug/kg	0.324	1.08	
75-00-3	Chloroethane	U	1.08	ug/kg	0.324	1.08	UJ,V7c
75-69-4	Trichlorofluoromethane	U	1.08	ug/kg	0.324	1.08	
67-64-1	Acetone	J	5.34	ug/kg	1.79	5.40	J,V7c
75-35-4	1,1-Dichloroethylene	U	1.08	ug/kg	0.324	1.08	
74-88-4	Iodomethane	U	5.40	ug/kg	1.73	5.40	
75-09-2	Methylene chloride	U	5.40	ug/kg	2.16	5.40	
75-15-0	Carbon disulfide	U	5.40	ug/kg	1.35	5.40	
156-60-5	trans-1,2-Dichloroethylene	U	1.08	ug/kg	0.324	1.08	
75-34-3	1,1-Dichloroethane	U	1.08	ug/kg	0.324	1.08	
78-93-3	2-Butanone	U	5.40	ug/kg	1.62	5.40	UJ,V7c
156-59-2	cis-1,2-Dichloroethylene	U	1.08	ug/kg	0.324	1.08	
594-20-7	2,2-Dichloropropane	U	1.08	ug/kg	0.324	1.08	UJ,V7c
67-66-3	Chloroform	U	1.08	ug/kg	0.324	1.08	
74-97-5	Bromochloromethane	U	1.08	ug/kg	0.356	1.08	
71-55-6	1,1,1-Trichloroethane	U	1.08	ug/kg	0.324	1.08	
563-58-6	1,1-Dichloropropene	U	1.08	ug/kg	0.324	1.08	
56-23-5	Carbon tetrachloride	U	1.08	ug/kg	0.324	1.08	UJ,V7c
107-06-2	1,2-Dichloroethane	U	1.08	ug/kg	0.324	1.08	
71-43-2	Benzene	U	1.08	ug/kg	0.324	1.08	
79-01-6	Trichloroethylene	U	1.08	ug/kg	0.356	1.08	
78-87-5	1,2-Dichloropropane	U	1.08	ug/kg	0.324	1.08	
75-27-4	Bromodichloromethane	U	1.08	ug/kg	0.324	1.08	
74-95-3	Dibromomethane	U	1.08	ug/kg	0.324	1.08	
108-10-1	4-Methyl-2-pentanone	U	5.40	ug/kg	1.35	5.40	UJ,V7c
10061-01-5	cis-1,3-Dichloropropylene	U	1.08	ug/kg	0.324	1.08	
108-88-3	Toluene	U	1.08	ug/kg	0.324	1.08	
10061-02-6	trans-1,3-Dichloropropylene	U	1.08	ug/kg	0.324	1.08	
79-00-5	1,1,2-Trichloroethane	U	1.08	ug/kg	0.324	1.08	
591-78-6	2-Hexanone	U	5.40	ug/kg	1.62	5.40	UJ,V7c
142-28-9	1,3-Dichloropropane	U	1.08	ug/kg	0.324	1.08	
127-18-4	Tetrachloroethylene	U	1.08	ug/kg	0.324	1.08	
124-48-1	Dibromochloromethane	U	1.08	ug/kg	0.324	1.08	
106-93-4	1,2-Dibromoethane	U	1.08	ug/kg	0.324	1.08	
108-90-7	Chlorobenzene	U	1.08	ug/kg	0.324	1.08	

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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-852**	**Date Collected:**	**12/07/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242654007**	**Date Received:**	**12/10/2009 08:50**	**%Moisture:**	**14.2**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14267**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**934516**	**Inst:**	**VOAA.I**	**Dilution:**	**1**
Run Date:	**12/18/2009 02:52**	**Analyst:**	**JEB**	**Purge Vol:**	**5 mL**
Prep Date:	**12/17/2009 19:11**	**Aliquot:**	**5.4 g**	**Final Volume:**	**5 mL**
Data File:	**121709\AP424.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
100-41-4	Ethylbenzene	U	1.08	ug/kg	0.324	1.08	
179601-23-1	m,p-Xylenes	U	2.16	ug/kg	0.324	2.16	
95-47-6	o-Xylene	U	1.08	ug/kg	0.324	1.08	
100-42-5	Styrene	U	1.08	ug/kg	0.324	1.08	
75-25-2	Bromoform	U	1.08	ug/kg	0.324	1.08	
79-34-5	1,1,2,2-Tetrachloroethane	U	1.08	ug/kg	0.324	1.08	UJ,V7c
96-18-4	1,2,3-Trichloropropane	U	1.08	ug/kg	0.324	1.08	
108-86-1	Bromobenzene	U	1.08	ug/kg	0.324	1.08	
103-65-1	n-Propylbenzene	U	1.08	ug/kg	0.324	1.08	
95-49-8	2-Chlorotoluene	U	1.08	ug/kg	0.324	1.08	
98-82-8	Isopropylbenzene	U	1.08	ug/kg	0.324	1.08	
108-67-8	1,3,5-Trimethylbenzene	U	1.08	ug/kg	0.324	1.08	
106-43-4	4-Chlorotoluene	U	1.08	ug/kg	0.324	1.08	
98-06-6	tert-Butylbenzene	U	1.08	ug/kg	0.324	1.08	
95-63-6	1,2,4-Trimethylbenzene	U	1.08	ug/kg	0.324	1.08	
135-98-8	sec-Butylbenzene	U	1.08	ug/kg	0.324	1.08	
99-87-6	4-Isopropyltoluene	U	1.08	ug/kg	0.324	1.08	
541-73-1	1,3-Dichlorobenzene	U	1.08	ug/kg	0.324	1.08	
106-46-7	1,4-Dichlorobenzene	U	1.08	ug/kg	0.324	1.08	
104-51-8	n-Butylbenzene	U	1.08	ug/kg	0.324	1.08	
96-12-8	1,2-Dibromo-3-chloropropane	U	1.08	ug/kg	0.324	1.08	
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.40	ug/kg	1.73	5.40	
630-20-6	1,1,1,2-Tetrachloroethane	U	1.08	ug/kg	0.324	1.08	
95-50-1	1,2-Dichlorobenzene	U	1.08	ug/kg	0.324	1.08	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	No Tentatively Identified Compounds Found			ug/kg		

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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-852**	**Date Collected:**	**12/07/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242654008**	**Date Received:**	**12/10/2009 08:50**	**%Moisture:**	**13**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14265**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**934516**	**Inst:**	**VOAA.I**	**Dilution:**	**1**
Run Date:	**12/18/2009 03:18**	**Analyst:**	**JEB**	**Purge Vol:**	**5 mL**
Prep Date:	**12/17/2009 19:12**	**Aliquot:**	**5.2 g**	**Final Volume:**	**5 mL**
Data File:	**121709\AP425.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
75-71-8	Dichlorodifluoromethane	U	1.11	ug/kg	0.376	1.11	
74-87-3	Chloromethane	U	1.11	ug/kg	0.332	1.11	UJ,V7c
75-01-4	Vinyl chloride	U	1.11	ug/kg	0.332	1.11	
74-83-9	Bromomethane	U	1.11	ug/kg	0.332	1.11	
75-00-3	Chloroethane	U	1.11	ug/kg	0.332	1.11	UJ,V7c
75-69-4	Trichlorofluoromethane	U	1.11	ug/kg	0.332	1.11	
67-64-1	Acetone	U	5.53	ug/kg	1.84	5.53	UJ,V7c
75-35-4	1,1-Dichloroethylene	U	1.11	ug/kg	0.332	1.11	
74-88-4	Iodomethane	U	5.53	ug/kg	1.77	5.53	
75-09-2	Methylene chloride	U	5.53	ug/kg	2.21	5.53	
75-15-0	Carbon disulfide	U	5.53	ug/kg	1.38	5.53	
156-60-5	trans-1,2-Dichloroethylene	U	1.11	ug/kg	0.332	1.11	
75-34-3	1,1-Dichloroethane	U	1.11	ug/kg	0.332	1.11	
78-93-3	2-Butanone	U	5.53	ug/kg	1.66	5.53	UJ,V7c
156-59-2	cis-1,2-Dichloroethylene	U	1.11	ug/kg	0.332	1.11	
594-20-7	2,2-Dichloropropane	U	1.11	ug/kg	0.332	1.11	UJ,V7c
67-66-3	Chloroform	U	1.11	ug/kg	0.332	1.11	
74-97-5	Bromochloromethane	U	1.11	ug/kg	0.365	1.11	
71-55-6	1,1,1-Trichloroethane	U	1.11	ug/kg	0.332	1.11	
563-58-6	1,1-Dichloropropene	U	1.11	ug/kg	0.332	1.11	
56-23-5	Carbon tetrachloride	U	1.11	ug/kg	0.332	1.11	UJ,V7c
107-06-2	1,2-Dichloroethane	U	1.11	ug/kg	0.332	1.11	
71-43-2	Benzene	U	1.11	ug/kg	0.332	1.11	
79-01-6	Trichloroethylene	U	1.11	ug/kg	0.365	1.11	
78-87-5	1,2-Dichloropropane	U	1.11	ug/kg	0.332	1.11	
75-27-4	Bromodichloromethane	U	1.11	ug/kg	0.332	1.11	
74-95-3	Dibromomethane	U	1.11	ug/kg	0.332	1.11	
108-10-1	4-Methyl-2-pentanone	U	5.53	ug/kg	1.38	5.53	UJ,V7c
10061-01-5	cis-1,3-Dichloropropylene	U	1.11	ug/kg	0.332	1.11	
108-88-3	Toluene	U	1.11	ug/kg	0.332	1.11	
10061-02-6	trans-1,3-Dichloropropylene	U	1.11	ug/kg	0.332	1.11	
79-00-5	1,1,2-Trichloroethane	U	1.11	ug/kg	0.332	1.11	
591-78-6	2-Hexanone	U	5.53	ug/kg	1.66	5.53	UJ,V7c
142-28-9	1,3-Dichloropropane	U	1.11	ug/kg	0.332	1.11	
127-18-4	Tetrachloroethylene	U	1.11	ug/kg	0.332	1.11	
124-48-1	Dibromochloromethane	U	1.11	ug/kg	0.332	1.11	
106-93-4	1,2-Dibromoethane	U	1.11	ug/kg	0.332	1.11	
108-90-7	Chlorobenzene	U	1.11	ug/kg	0.332	1.11	

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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	Date Collected:	12/07/2009 12:00	Matrix:	S
Lab Sample ID:	242654008	Date Received:	12/10/2009 08:50	%Moisture:	13
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14265	Method:	SW846 8260B	SOP Ref:	GL-OA-E-038
Batch ID:	934516	Inst:	VOAA.I	Dilution:	1
Run Date:	12/18/2009 03:18	Analyst:	JEB	Purge Vol:	5 mL
Prep Date:	12/17/2009 19:12	Aliquot:	5.2 g	Final Volume:	5 mL
Data File:	121709\AP425.D	Column:	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
100-41-4	Ethylbenzene	U	1.11	ug/kg	0.332	1.11	
179601-23-1	m,p-Xylenes	U	2.21	ug/kg	0.332	2.21	
95-47-6	o-Xylene	U	1.11	ug/kg	0.332	1.11	
100-42-5	Styrene	U	1.11	ug/kg	0.332	1.11	
75-25-2	Bromoform	U	1.11	ug/kg	0.332	1.11	
79-34-5	1,1,2,2-Tetrachloroethane	U	1.11	ug/kg	0.332	1.11	UJ,V7c
96-18-4	1,2,3-Trichloropropane	U	1.11	ug/kg	0.332	1.11	
108-86-1	Bromobenzene	U	1.11	ug/kg	0.332	1.11	
103-65-1	n-Propylbenzene	U	1.11	ug/kg	0.332	1.11	
95-49-8	2-Chlorotoluene	U	1.11	ug/kg	0.332	1.11	
98-82-8	Isopropylbenzene	U	1.11	ug/kg	0.332	1.11	
108-67-8	1,3,5-Trimethylbenzene	U	1.11	ug/kg	0.332	1.11	
106-43-4	4-Chlorotoluene	U	1.11	ug/kg	0.332	1.11	
98-06-6	tert-Butylbenzene	U	1.11	ug/kg	0.332	1.11	
95-63-6	1,2,4-Trimethylbenzene	U	1.11	ug/kg	0.332	1.11	
135-98-8	sec-Butylbenzene	U	1.11	ug/kg	0.332	1.11	
99-87-6	4-Isopropyltoluene	U	1.11	ug/kg	0.332	1.11	
541-73-1	1,3-Dichlorobenzene	U	1.11	ug/kg	0.332	1.11	
106-46-7	1,4-Dichlorobenzene	U	1.11	ug/kg	0.332	1.11	
104-51-8	n-Butylbenzene	U	1.11	ug/kg	0.332	1.11	
96-12-8	1,2-Dibromo-3-chloropropane	U	1.11	ug/kg	0.332	1.11	
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.53	ug/kg	1.77	5.53	
630-20-6	1,1,1,2-Tetrachloroethane	U	1.11	ug/kg	0.332	1.11	
95-50-1	1,2-Dichlorobenzene	U	1.11	ug/kg	0.332	1.11	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown	3.34	9.77	ug/kg	0	J

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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242654009	**Date Received:**	12/10/2009 08:50	**%Moisture:**	14.1
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14281	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	934516	**Inst:**	VOAA.I	**Dilution:**	1
Run Date:	12/18/2009 03:44	**Analyst:**	JEB	**Purge Vol:**	5 mL
Prep Date:	12/17/2009 19:13	**Aliquot:**	5.3 g	**Final Volume:**	5 mL
Data File:	121709\AP426.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
75-71-8	Dichlorodifluoromethane	U	1.10	ug/kg	0.374	1.10	
74-87-3	Chloromethane	U	1.10	ug/kg	0.330	1.10	UJ,V7c
75-01-4	Vinyl chloride	U	1.10	ug/kg	0.330	1.10	
74-83-9	Bromomethane	U	1.10	ug/kg	0.330	1.10	
75-00-3	Chloroethane	U	1.10	ug/kg	0.330	1.10	UJ,V7c
75-69-4	Trichlorofluoromethane	U	1.10	ug/kg	0.330	1.10	
67-64-1	Acetone	U	5.49	ug/kg	1.82	5.49	UJ,V7c
75-35-4	1,1-Dichloroethylene	U	1.10	ug/kg	0.330	1.10	
74-88-4	Iodomethane	U	5.49	ug/kg	1.76	5.49	
75-09-2	Methylene chloride	U	5.49	ug/kg	2.20	5.49	
75-15-0	Carbon disulfide	U	5.49	ug/kg	1.37	5.49	
156-60-5	trans-1,2-Dichloroethylene	U	1.10	ug/kg	0.330	1.10	
75-34-3	1,1-Dichloroethane	U	1.10	ug/kg	0.330	1.10	
78-93-3	2-Butanone	U	5.49	ug/kg	1.65	5.49	UJ,V7c
156-59-2	cis-1,2-Dichloroethylene	U	1.10	ug/kg	0.330	1.10	
594-20-7	2,2-Dichloropropane	U	1.10	ug/kg	0.330	1.10	UJ,V7c
67-66-3	Chloroform	U	1.10	ug/kg	0.330	1.10	
74-97-5	Bromochloromethane	U	1.10	ug/kg	0.363	1.10	
71-55-6	1,1,1-Trichloroethane	U	1.10	ug/kg	0.330	1.10	
563-58-6	1,1-Dichloropropene	U	1.10	ug/kg	0.330	1.10	
56-23-5	Carbon tetrachloride	U	1.10	ug/kg	0.330	1.10	UJ,V7c
107-06-2	1,2-Dichloroethane	U	1.10	ug/kg	0.330	1.10	
71-43-2	Benzene	U	1.10	ug/kg	0.330	1.10	
79-01-6	Trichloroethylene	U	1.10	ug/kg	0.363	1.10	
78-87-5	1,2-Dichloropropane	U	1.10	ug/kg	0.330	1.10	
75-27-4	Bromodichloromethane	U	1.10	ug/kg	0.330	1.10	
74-95-3	Dibromomethane	U	1.10	ug/kg	0.330	1.10	
108-10-1	4-Methyl-2-pentanone	U	5.49	ug/kg	1.37	5.49	UJ,V7c
10061-01-5	cis-1,3-Dichloropropylene	U	1.10	ug/kg	0.330	1.10	
108-88-3	Toluene	U	1.10	ug/kg	0.330	1.10	
10061-02-6	trans-1,3-Dichloropropylene	U	1.10	ug/kg	0.330	1.10	
79-00-5	1,1,2-Trichloroethane	U	1.10	ug/kg	0.330	1.10	
591-78-6	2-Hexanone	U	5.49	ug/kg	1.65	5.49	UJ,V7c
142-28-9	1,3-Dichloropropane	U	1.10	ug/kg	0.330	1.10	
127-18-4	Tetrachloroethylene	U	1.10	ug/kg	0.330	1.10	
124-48-1	Dibromochloromethane	U	1.10	ug/kg	0.330	1.10	
106-93-4	1,2-Dibromoethane	U	1.10	ug/kg	0.330	1.10	
108-90-7	Chlorobenzene	U	1.10	ug/kg	0.330	1.10	

ETM
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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	Date Collected:	12/07/2009 12:00	Matrix:	S
Lab Sample ID:	242654009	Date Received:	12/10/2009 08:50	%Moisture:	14.1
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14281	Method:	SW846 8260B	SOP Ref:	GL-OA-E-038
Batch ID:	934516	Inst:	VOAA.I	Dilution:	1
Run Date:	12/18/2009 03:44	Analyst:	JEB	Purge Vol:	5 mL
Prep Date:	12/17/2009 19:13	Aliquot:	5.3 g	Final Volume:	5 mL
Data File:	121709\AP426.D	Column:	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
100-41-4	Ethylbenzene	U	1.10	ug/kg	0.330	1.10	
179601-23-1	m,p-Xylenes	U	2.20	ug/kg	0.330	2.20	
95-47-6	o-Xylene	U	1.10	ug/kg	0.330	1.10	
100-42-5	Styrene	U	1.10	ug/kg	0.330	1.10	
75-25-2	Bromoform	U	1.10	ug/kg	0.330	1.10	
79-34-5	1,1,2,2-Tetrachloroethane	U	1.10	ug/kg	0.330	1.10	UJ,V7c
96-18-4	1,2,3-Trichloropropane	U	1.10	ug/kg	0.330	1.10	
108-86-1	Bromobenzene	U	1.10	ug/kg	0.330	1.10	
103-65-1	n-Propylbenzene	U	1.10	ug/kg	0.330	1.10	
95-49-8	2-Chlorotoluene	U	1.10	ug/kg	0.330	1.10	
98-82-8	Isopropylbenzene	U	1.10	ug/kg	0.330	1.10	
108-67-8	1,3,5-Trimethylbenzene	U	1.10	ug/kg	0.330	1.10	
106-43-4	4-Chlorotoluene	U	1.10	ug/kg	0.330	1.10	
98-06-6	tert-Butylbenzene	U	1.10	ug/kg	0.330	1.10	
95-63-6	1,2,4-Trimethylbenzene	U	1.10	ug/kg	0.330	1.10	
135-98-8	sec-Butylbenzene	U	1.10	ug/kg	0.330	1.10	
99-87-6	4-Isopropyltoluene	U	1.10	ug/kg	0.330	1.10	
541-73-1	1,3-Dichlorobenzene	U	1.10	ug/kg	0.330	1.10	
106-46-7	1,4-Dichlorobenzene	U	1.10	ug/kg	0.330	1.10	
104-51-8	n-Butylbenzene	U	1.10	ug/kg	0.330	1.10	
96-12-8	1,2-Dibromo-3-chloropropane	U	1.10	ug/kg	0.330	1.10	
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.49	ug/kg	1.76	5.49	
630-20-6	1,1,1,2-Tetrachloroethane	U	1.10	ug/kg	0.330	1.10	
95-50-1	1,2-Dichlorobenzene	U	1.10	ug/kg	0.330	1.10	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Flt	Qual
	unknown	3.34	7.44	ug/kg	0	J
	unknown siloxane	17.12	8.4	ug/kg	0	J

ETM
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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-852**	**Date Collected:**	**12/07/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242654010**	**Date Received:**	**12/10/2009 08:50**	**%Moisture:**	**13.2**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14284**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**934516**	**Inst:**	**VOAA.I**	**Dilution:**	**1**
Run Date:	**12/18/2009 04:11**	**Analyst:**	**JEB**	**Purge Vol:**	**5 mL**
Prep Date:	**12/17/2009 19:14**	**Aliquot:**	**5.2 g**	**Final Volume:**	**5 mL**
Data File:	**121709\AP427.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
75-71-8	Dichlorodifluoromethane	U	1.11	ug/kg	0.377	1.11	
74-87-3	Chloromethane	U	1.11	ug/kg	0.332	1.11	UJ,V7c
75-01-4	Vinyl chloride	U	1.11	ug/kg	0.332	1.11	
74-83-9	Bromomethane	U	1.11	ug/kg	0.332	1.11	
75-00-3	Chloroethane	U	1.11	ug/kg	0.332	1.11	UJ,V7c
75-69-4	Trichlorofluoromethane	U	1.11	ug/kg	0.332	1.11	
67-64-1	Acetone	U	5.54	ug/kg	1.84	5.54	UJ,V7c
75-35-4	1,1-Dichloroethylene	U	1.11	ug/kg	0.332	1.11	
74-88-4	Iodomethane	U	5.54	ug/kg	1.77	5.54	
75-09-2	Methylene chloride	U	5.54	ug/kg	2.22	5.54	
75-15-0	Carbon disulfide	U	5.54	ug/kg	1.38	5.54	
156-60-5	trans-1,2-Dichloroethylene	U	1.11	ug/kg	0.332	1.11	
75-34-3	1,1-Dichloroethane	U	1.11	ug/kg	0.332	1.11	
78-93-3	2-Butanone	U	5.54	ug/kg	1.66	5.54	UJ,V7c
156-59-2	cis-1,2-Dichloroethylene	U	1.11	ug/kg	0.332	1.11	
594-20-7	2,2-Dichloropropane	U	1.11	ug/kg	0.332	1.11	UJ,V7c
67-66-3	Chloroform	U	1.11	ug/kg	0.332	1.11	
74-97-5	Bromochloromethane	U	1.11	ug/kg	0.366	1.11	
71-55-6	1,1,1-Trichloroethane	U	1.11	ug/kg	0.332	1.11	
563-58-6	1,1-Dichloropropene	U	1.11	ug/kg	0.332	1.11	
56-23-5	Carbon tetrachloride	U	1.11	ug/kg	0.332	1.11	UJ,V7c
107-06-2	1,2-Dichloroethane	U	1.11	ug/kg	0.332	1.11	
71-43-2	Benzene	U	1.11	ug/kg	0.332	1.11	
79-01-6	Trichloroethylene	U	1.11	ug/kg	0.366	1.11	
78-87-5	1,2-Dichloropropane	U	1.11	ug/kg	0.332	1.11	
75-27-4	Bromodichloromethane	U	1.11	ug/kg	0.332	1.11	
74-95-3	Dibromomethane	U	1.11	ug/kg	0.332	1.11	
108-10-1	4-Methyl-2-pentanone	U	5.54	ug/kg	1.38	5.54	UJ,V7c
10061-01-5	cis-1,3-Dichloropropylene	U	1.11	ug/kg	0.332	1.11	
108-88-3	Toluene	U	1.11	ug/kg	0.332	1.11	
10061-02-6	trans-1,3-Dichloropropylene	U	1.11	ug/kg	0.332	1.11	
79-00-5	1,1,2-Trichloroethane	U	1.11	ug/kg	0.332	1.11	
591-78-6	2-Hexanone	U	5.54	ug/kg	1.66	5.54	UJ,V7c
142-28-9	1,3-Dichloropropane	U	1.11	ug/kg	0.332	1.11	
127-18-4	Tetrachloroethylene	U	1.11	ug/kg	0.332	1.11	
124-48-1	Dibromochloromethane	U	1.11	ug/kg	0.332	1.11	
106-93-4	1,2-Dibromoethane	U	1.11	ug/kg	0.332	1.11	
108-90-7	Chlorobenzene	U	1.11	ug/kg	0.332	1.11	

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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-852**	**Date Collected:**	**12/07/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242654010**	**Date Received:**	**12/10/2009 08:50**	**%Moisture:**	**13.2**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14284**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**934516**	**Inst:**	**VOAA.I**	**Dilution:**	**1**
Run Date:	**12/18/2009 04:11**	**Analyst:**	**JEB**	**Purge Vol:**	**5 mL**
Prep Date:	**12/17/2009 19:14**	**Aliquot:**	**5.2 g**	**Final Volume:**	**5 mL**
Data File:	**121709\AP427.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
100-41-4	Ethylbenzene	U	1.11	ug/kg	0.332	1.11	
179601-23-1	m,p-Xylenes	U	2.22	ug/kg	0.332	2.22	
95-47-6	o-Xylene	U	1.11	ug/kg	0.332	1.11	
100-42-5	Styrene	U	1.11	ug/kg	0.332	1.11	
75-25-2	Bromoform	U	1.11	ug/kg	0.332	1.11	
79-34-5	1,1,2,2-Tetrachloroethane	U	1.11	ug/kg	0.332	1.11	UJ,V7c
96-18-4	1,2,3-Trichloropropane	U	1.11	ug/kg	0.332	1.11	
108-86-1	Bromobenzene	U	1.11	ug/kg	0.332	1.11	
103-65-1	n-Propylbenzene	U	1.11	ug/kg	0.332	1.11	
95-49-8	2-Chlorotoluene	U	1.11	ug/kg	0.332	1.11	
98-82-8	Isopropylbenzene	U	1.11	ug/kg	0.332	1.11	
108-67-8	1,3,5-Trimethylbenzene	U	1.11	ug/kg	0.332	1.11	
106-43-4	4-Chlorotoluene	U	1.11	ug/kg	0.332	1.11	
98-06-6	tert-Butylbenzene	U	1.11	ug/kg	0.332	1.11	
95-63-6	1,2,4-Trimethylbenzene	U	1.11	ug/kg	0.332	1.11	
135-98-8	sec-Butylbenzene	U	1.11	ug/kg	0.332	1.11	
99-87-6	4-Isopropyltoluene	U	1.11	ug/kg	0.332	1.11	
541-73-1	1,3-Dichlorobenzene	U	1.11	ug/kg	0.332	1.11	
106-46-7	1,4-Dichlorobenzene	U	1.11	ug/kg	0.332	1.11	
104-51-8	n-Butylbenzene	U	1.11	ug/kg	0.332	1.11	
96-12-8	1,2-Dibromo-3-chloropropane	U	1.11	ug/kg	0.332	1.11	
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.54	ug/kg	1.77	5.54	
630-20-6	1,1,1,2-Tetrachloroethane	U	1.11	ug/kg	0.332	1.11	
95-50-1	1,2-Dichlorobenzene	U	1.11	ug/kg	0.332	1.11	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
000115-10-6	Dimethyl ether	3.33	6.87	ug/kg	5	NJ
	unknown	3.33	6.87	ug/kg	0	J

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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-852**	**Date Collected:**	**12/07/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242654011**	**Date Received:**	**12/10/2009 08:50**	**%Moisture:**	**4.1**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14274**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**934516**	**Inst:**	**VOAA.I**	**Dilution:**	**1**
Run Date:	**12/18/2009 06:21**	**Analyst:**	**JEB**	**Purge Vol:**	**5 mL**
Prep Date:	**12/17/2009 19:15**	**Aliquot:**	**5.2 g**	**Final Volume:**	**5 mL**
Data File:	**121709\AP432.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
75-71-8	Dichlorodifluoromethane	U	1.00	ug/kg	0.341	1.00	
74-87-3	Chloromethane	U	1.00	ug/kg	0.301	1.00	
75-01-4	Vinyl chloride	U	1.00	ug/kg	0.301	1.00	
74-83-9	Bromomethane	U	1.00	ug/kg	0.301	1.00	
75-00-3	Chloroethane	U	1.00	ug/kg	0.301	1.00	UJ,V7c
75-69-4	Trichlorofluoromethane	U	1.00	ug/kg	0.301	1.00	
67-64-1	Acetone	U	5.01	ug/kg	1.66	5.01	UJ,V7c
75-35-4	1,1-Dichloroethylene	U	1.00	ug/kg	0.301	1.00	
74-88-4	Iodomethane	U	5.01	ug/kg	1.60	5.01	
75-09-2	Methylene chloride	U	5.01	ug/kg	2.01	5.01	
75-15-0	Carbon disulfide	U	5.01	ug/kg	1.25	5.01	
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/kg	0.301	1.00	
75-34-3	1,1-Dichloroethane	U	1.00	ug/kg	0.301	1.00	
78-93-3	2-Butanone	U	5.01	ug/kg	1.50	5.01	UJ,V7c
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/kg	0.301	1.00	
594-20-7	2,2-Dichloropropane	U	1.00	ug/kg	0.301	1.00	
67-66-3	Chloroform	U	1.00	ug/kg	0.301	1.00	
74-97-5	Bromochloromethane	U	1.00	ug/kg	0.331	1.00	
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/kg	0.301	1.00	
563-58-6	1,1-Dichloropropene	U	1.00	ug/kg	0.301	1.00	
56-23-5	Carbon tetrachloride	U	1.00	ug/kg	0.301	1.00	UJ,V7c
107-06-2	1,2-Dichloroethane	U	1.00	ug/kg	0.301	1.00	
71-43-2	Benzene	U	1.00	ug/kg	0.301	1.00	
79-01-6	Trichloroethylene	U	1.00	ug/kg	0.331	1.00	
78-87-5	1,2-Dichloropropane	U	1.00	ug/kg	0.301	1.00	
75-27-4	Bromodichloromethane	U	1.00	ug/kg	0.301	1.00	
74-95-3	Dibromomethane	U	1.00	ug/kg	0.301	1.00	
108-10-1	4-Methyl-2-pentanone	U	5.01	ug/kg	1.25	5.01	
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/kg	0.301	1.00	
108-88-3	Toluene	U	1.00	ug/kg	0.301	1.00	
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/kg	0.301	1.00	
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/kg	0.301	1.00	
591-78-6	2-Hexanone	U	5.01	ug/kg	1.50	5.01	UJ,V7c
142-28-9	1,3-Dichloropropane	U	1.00	ug/kg	0.301	1.00	
127-18-4	Tetrachloroethylene	U	1.00	ug/kg	0.301	1.00	
124-48-1	Dibromochloromethane	U	1.00	ug/kg	0.301	1.00	
106-93-4	1,2-Dibromoethane	U	1.00	ug/kg	0.301	1.00	
108-90-7	Chlorobenzene	U	1.00	ug/kg	0.301	1.00	

ETM
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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	Date Collected:	12/07/2009 12:00	Matrix:	S
Lab Sample ID:	242654011	Date Received:	12/10/2009 08:50	%Moisture:	4.1
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14274	Method:	SW846 8260B	SOP Ref:	GL-OA-E-038
Batch ID:	934516	Inst:	VOAA.I	Dilution:	1
Run Date:	12/18/2009 06:21	Analyst:	JEB	Purge Vol:	5 mL
Prep Date:	12/17/2009 19:15	Aliquot:	5.2 g	Final Volume:	5 mL
Data File:	121709\AP432.D	Column:	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
100-41-4	Ethylbenzene	U	1.00	ug/kg	0.301	1.00	
179601-23-1	m,p-Xylenes	U	2.01	ug/kg	0.301	2.01	
95-47-6	o-Xylene	U	1.00	ug/kg	0.301	1.00	
100-42-5	Styrene	U	1.00	ug/kg	0.301	1.00	
75-25-2	Bromoform	U	1.00	ug/kg	0.301	1.00	
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/kg	0.301	1.00	UJ,V7c
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/kg	0.301	1.00	
108-86-1	Bromobenzene	U	1.00	ug/kg	0.301	1.00	
103-65-1	n-Propylbenzene	U	1.00	ug/kg	0.301	1.00	
95-49-8	2-Chlorotoluene	U	1.00	ug/kg	0.301	1.00	
98-82-8	Isopropylbenzene	U	1.00	ug/kg	0.301	1.00	
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/kg	0.301	1.00	
106-43-4	4-Chlorotoluene	U	1.00	ug/kg	0.301	1.00	
98-06-6	tert-Butylbenzene	U	1.00	ug/kg	0.301	1.00	
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/kg	0.301	1.00	
135-98-8	sec-Butylbenzene	U	1.00	ug/kg	0.301	1.00	
99-87-6	4-Isopropyltoluene	U	1.00	ug/kg	0.301	1.00	
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/kg	0.301	1.00	
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/kg	0.301	1.00	
104-51-8	n-Butylbenzene	U	1.00	ug/kg	0.301	1.00	
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/kg	0.301	1.00	
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.01	ug/kg	1.60	5.01	
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/kg	0.301	1.00	
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/kg	0.301	1.00	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Flt	Qual
	unknown	3.34	8.04	ug/kg	0	J

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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	Date Collected:	12/07/2009 12:00	Matrix:	S
Lab Sample ID:	242654012	Date Received:	12/10/2009 08:50	%Moisture:	12.2
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14277	Method:	SW846 8260B	SOP Ref:	GL-OA-E-038
Batch ID:	934516	Inst:	VOAA.I	Dilution:	1
Run Date:	12/18/2009 06:47	Analyst:	JEB	Purge Vol:	5 mL
Prep Date:	12/17/2009 19:16	Aliquot:	5 g	Final Volume:	5 mL
Data File:	121709\AP433.D	Column:	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
75-71-8	Dichlorodifluoromethane	U	1.14	ug/kg	0.387	1.14	
74-87-3	Chloromethane	U	1.14	ug/kg	0.342	1.14	
75-01-4	Vinyl chloride	U	1.14	ug/kg	0.342	1.14	
74-83-9	Bromomethane	U	1.14	ug/kg	0.342	1.14	
75-00-3	Chloroethane	U	1.14	ug/kg	0.342	1.14	UJ,V7c
75-69-4	Trichlorofluoromethane	U	1.14	ug/kg	0.342	1.14	
67-64-1	Acetone	U	5.69	ug/kg	1.89	5.69	UJ,V7c
75-35-4	1,1-Dichloroethylene	U	1.14	ug/kg	0.342	1.14	
74-88-4	Iodomethane	U	5.69	ug/kg	1.82	5.69	
75-09-2	Methylene chloride	U	5.69	ug/kg	2.28	5.69	
75-15-0	Carbon disulfide	U	5.69	ug/kg	1.42	5.69	
156-60-5	trans-1,2-Dichloroethylene	U	1.14	ug/kg	0.342	1.14	
75-34-3	1,1-Dichloroethane	U	1.14	ug/kg	0.342	1.14	
78-93-3	2-Butanone	U	5.69	ug/kg	1.71	5.69	UJ,V7c
156-59-2	cis-1,2-Dichloroethylene	U	1.14	ug/kg	0.342	1.14	
594-20-7	2,2-Dichloropropane	U	1.14	ug/kg	0.342	1.14	
67-66-3	Chloroform	U	1.14	ug/kg	0.342	1.14	
74-97-5	Bromochloromethane	U	1.14	ug/kg	0.376	1.14	
71-55-6	1,1,1-Trichloroethane	U	1.14	ug/kg	0.342	1.14	
563-58-6	1,1-Dichloropropene	U	1.14	ug/kg	0.342	1.14	
56-23-5	Carbon tetrachloride	U	1.14	ug/kg	0.342	1.14	UJ,V7c
107-06-2	1,2-Dichloroethane	U	1.14	ug/kg	0.342	1.14	
71-43-2	Benzene	U	1.14	ug/kg	0.342	1.14	
79-01-6	Trichloroethylene	U	1.14	ug/kg	0.376	1.14	
78-87-5	1,2-Dichloropropane	U	1.14	ug/kg	0.342	1.14	
75-27-4	Bromodichloromethane	U	1.14	ug/kg	0.342	1.14	
74-95-3	Dibromomethane	U	1.14	ug/kg	0.342	1.14	
108-10-1	4-Methyl-2-pentanone	U	5.69	ug/kg	1.42	5.69	
10061-01-5	cis-1,3-Dichloropropylene	U	1.14	ug/kg	0.342	1.14	
108-88-3	Toluene	U	1.14	ug/kg	0.342	1.14	
10061-02-6	trans-1,3-Dichloropropylene	U	1.14	ug/kg	0.342	1.14	
79-00-5	1,1,2-Trichloroethane	U	1.14	ug/kg	0.342	1.14	
591-78-6	2-Hexanone	U	5.69	ug/kg	1.71	5.69	UJ,V7c
142-28-9	1,3-Dichloropropane	U	1.14	ug/kg	0.342	1.14	
127-18-4	Tetrachloroethylene	U	1.14	ug/kg	0.342	1.14	
124-48-1	Dibromochloromethane	U	1.14	ug/kg	0.342	1.14	
106-93-4	1,2-Dibromoethane	U	1.14	ug/kg	0.342	1.14	
108-90-7	Chlorobenzene	U	1.14	ug/kg	0.342	1.14	

ETM
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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242654012	**Date Received:**	12/10/2009 08:50	**%Moisture:**	12.2
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14277	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	934516	**Inst:**	VOAA.I	**Dilution:**	1
Run Date:	12/18/2009 06:47	**Analyst:**	JEB	**Purge Vol:**	5 mL
Prep Date:	12/17/2009 19:16	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	121709\AP433.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
100-41-4	Ethylbenzene	U	1.14	ug/kg	0.342	1.14	
179601-23-1	m,p-Xylenes	U	2.28	ug/kg	0.342	2.28	
95-47-6	o-Xylene	U	1.14	ug/kg	0.342	1.14	
100-42-5	Styrene	U	1.14	ug/kg	0.342	1.14	
75-25-2	Bromoform	U	1.14	ug/kg	0.342	1.14	
79-34-5	1,1,2,2-Tetrachloroethane	U	1.14	ug/kg	0.342	1.14	UJ,V7c
96-18-4	1,2,3-Trichloropropane	U	1.14	ug/kg	0.342	1.14	
108-86-1	Bromobenzene	U	1.14	ug/kg	0.342	1.14	
103-65-1	n-Propylbenzene	U	1.14	ug/kg	0.342	1.14	
95-49-8	2-Chlorotoluene	U	1.14	ug/kg	0.342	1.14	
98-82-8	Isopropylbenzene	U	1.14	ug/kg	0.342	1.14	
108-67-8	1,3,5-Trimethylbenzene	U	1.14	ug/kg	0.342	1.14	
106-43-4	4-Chlorotoluene	U	1.14	ug/kg	0.342	1.14	
98-06-6	tert-Butylbenzene	U	1.14	ug/kg	0.342	1.14	
95-63-6	1,2,4-Trimethylbenzene	U	1.14	ug/kg	0.342	1.14	
135-98-8	sec-Butylbenzene	U	1.14	ug/kg	0.342	1.14	
99-87-6	4-Isopropyltoluene	U	1.14	ug/kg	0.342	1.14	
541-73-1	1,3-Dichlorobenzene	U	1.14	ug/kg	0.342	1.14	
106-46-7	1,4-Dichlorobenzene	U	1.14	ug/kg	0.342	1.14	
104-51-8	n-Butylbenzene	U	1.14	ug/kg	0.342	1.14	
96-12-8	1,2-Dibromo-3-chloropropane	U	1.14	ug/kg	0.342	1.14	
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.69	ug/kg	1.82	5.69	
630-20-6	1,1,1,2-Tetrachloroethane	U	1.14	ug/kg	0.342	1.14	
95-50-1	1,2-Dichlorobenzene	U	1.14	ug/kg	0.342	1.14	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown	3.34	7.29	ug/kg	0	J

ETM
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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242654013	**Date Received:**	12/10/2009 08:50	**%Moisture:**	14.2
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14282	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	934516	**Inst:**	VOAA.I	**Dilution:**	1
Run Date:	12/18/2009 07:13	**Analyst:**	JEB	**Purge Vol:**	5 mL
Prep Date:	12/17/2009 19:25	**Aliquot:**	5.3 g	**Final Volume:**	5 mL
Data File:	121709\AP434.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
75-71-8	Dichlorodifluoromethane	U	1.10	ug/kg	0.374	1.10	
74-87-3	Chloromethane	U	1.10	ug/kg	0.330	1.10	
75-01-4	Vinyl chloride	U	1.10	ug/kg	0.330	1.10	
74-83-9	Bromomethane	U	1.10	ug/kg	0.330	1.10	
75-00-3	Chloroethane	U	1.10	ug/kg	0.330	1.10	UJ,V7c
75-69-4	Trichlorofluoromethane	U	1.10	ug/kg	0.330	1.10	
67-64-1	Acetone	U	5.49	ug/kg	1.82	5.49	UJ,V7c
75-35-4	1,1-Dichloroethylene	U	1.10	ug/kg	0.330	1.10	
74-88-4	Iodomethane	U	5.49	ug/kg	1.76	5.49	
75-09-2	Methylene chloride	U	5.49	ug/kg	2.20	5.49	
75-15-0	Carbon disulfide	U	5.49	ug/kg	1.37	5.49	
156-60-5	trans-1,2-Dichloroethylene	U	1.10	ug/kg	0.330	1.10	
75-34-3	1,1-Dichloroethane	U	1.10	ug/kg	0.330	1.10	
78-93-3	2-Butanone	U	5.49	ug/kg	1.65	5.49	UJ,V7c
156-59-2	cis-1,2-Dichloroethylene	U	1.10	ug/kg	0.330	1.10	
594-20-7	2,2-Dichloropropane	U	1.10	ug/kg	0.330	1.10	
67-66-3	Chloroform	U	1.10	ug/kg	0.330	1.10	
74-97-5	Bromochloromethane	U	1.10	ug/kg	0.363	1.10	
71-55-6	1,1,1-Trichloroethane	U	1.10	ug/kg	0.330	1.10	
563-58-6	1,1-Dichloropropene	U	1.10	ug/kg	0.330	1.10	
56-23-5	Carbon tetrachloride	U	1.10	ug/kg	0.330	1.10	UJ,V7c
107-06-2	1,2-Dichloroethane	U	1.10	ug/kg	0.330	1.10	
71-43-2	Benzene	U	1.10	ug/kg	0.330	1.10	
79-01-6	Trichloroethylene	U	1.10	ug/kg	0.363	1.10	
78-87-5	1,2-Dichloropropane	U	1.10	ug/kg	0.330	1.10	
75-27-4	Bromodichloromethane	U	1.10	ug/kg	0.330	1.10	
74-95-3	Dibromomethane	U	1,10	ug/kg	0.330	1.10	
108-10-1	4-Methyl-2-pentanone	U	5.49	ug/kg	1.37	5.49	
10061-01-5	cis-1,3-Dichloropropylene	U	1.10	ug/kg	0.330	1.10	
108-88-3	Toluene	U	1.10	ug/kg	0.330	1.10	
10061-02-6	trans-1,3-Dichloropropylene	U	1.10	ug/kg	0.330	1.10	
79-00-5	1,1,2-Trichloroethane	U	1.10	ug/kg	0.330	1.10	
591-78-6	2-Hexanone	U	5.49	ug/kg	1.65	5.49	UJ,V7c
142-28-9	1,3-Dichloropropane	U	1.10	ug/kg	0.330	1.10	
127-18-4	Tetrachloroethylene	U	1.10	ug/kg	0.330	1.10	
124-48-1	Dibromochloromethane	U	1.10	ug/kg	0.330	1.10	
106-93-4	1,2-Dibromoethane	U	1.10	ug/kg	0.330	1.10	
108-90-7	Chlorobenzene	U	1.10	ug/kg	0.330	1.10	

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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242654013	**Date Received:**	12/10/2009 08:50	**%Moisture:**	14.2
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14282	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	934516	**Inst:**	VOAA.I	**Dilution:**	1
Run Date:	12/18/2009 07:13	**Analyst:**	JEB	**Purge Vol:**	5 mL
Prep Date:	12/17/2009 19:25	**Aliquot:**	5.3 g	**Final Volume:**	5 mL
Data File:	121709\AP434.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
100-41-4	Ethylbenzene	U	1.10	ug/kg	0.330	1.10	
179601-23-1	m,p-Xylenes	U	2.20	ug/kg	0.330	2.20	
95-47-6	o-Xylene	U	1.10	ug/kg	0.330	1.10	
100-42-5	Styrene	U	1.10	ug/kg	0.330	1.10	
75-25-2	Bromoform	U	1.10	ug/kg	0.330	1.10	
79-34-5	1,1,2,2-Tetrachloroethane	U	1.10	ug/kg	0.330	1.10	UJ,V7c
96-18-4	1,2,3-Trichloropropane	U	1.10	ug/kg	0.330	1.10	
108-86-1	Bromobenzene	U	1.10	ug/kg	0.330	1.10	
103-65-1	n-Propylbenzene	U	1.10	ug/kg	0.330	1.10	
95-49-8	2-Chlorotoluene	U	1.10	ug/kg	0.330	1.10	
98-82-8	Isopropylbenzene	U	1.10	ug/kg	0.330	1.10	
108-67-8	1,3,5-Trimethylbenzene	U	1.10	ug/kg	0.330	1.10	
106-43-4	4-Chlorotoluene	U	1.10	ug/kg	0.330	1.10	
98-06-6	tert-Butylbenzene	U	1.10	ug/kg	0.330	1.10	
95-63-6	1,2,4-Trimethylbenzene	U	1.10	ug/kg	0.330	1.10	
135-98-8	sec-Butylbenzene	U	1.10	ug/kg	0.330	1.10	
99-87-6	4-Isopropyltoluene	U	1.10	ug/kg	0.330	1.10	
541-73-1	1,3-Dichlorobenzene	U	1.10	ug/kg	0.330	1.10	
106-46-7	1,4-Dichlorobenzene	U	1.10	ug/kg	0.330	1.10	
104-51-8	n-Butylbenzene	U	1.10	ug/kg	0.330	1.10	
96-12-8	1,2-Dibromo-3-chloropropane	U	1.10	ug/kg	0.330	1.10	
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.49	ug/kg	1.76	5.49	
630-20-6	1,1,1,2-Tetrachloroethane	U	1.10	ug/kg	0.330	1.10	
95-50-1	1,2-Dichlorobenzene	U	1.10	ug/kg	0.330	1.10	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown	3.34	8.1	ug/kg	0	J
	unknown siloxane	15.61	7.2	ug/kg	0	J

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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	Date Collected:	12/07/2009 12:00	Matrix:	S
Lab Sample ID:	242654014	Date Received:	12/10/2009 08:50	%Moisture:	10.7
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14269	Method:	SW846 8260B	SOP Ref:	GL-OA-E-038
Batch ID:	934516	Inst:	VOAA.I	Dilution:	1
Run Date:	12/18/2009 07:39	Analyst:	JEB	Purge Vol:	5 mL
Prep Date:	12/17/2009 19:26	Aliquot:	5.4 g	Final Volume:	5 mL
Data File:	121709\AP435.D	Column:	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
75-71-8	Dichlorodifluoromethane	U	1.04	ug/kg	0.352	1.04	
74-87-3	Chloromethane	U	1.04	ug/kg	0.311	1.04	
75-01-4	Vinyl chloride	U	1.04	ug/kg	0.311	1.04	
74-83-9	Bromomethane	U	1.04	ug/kg	0.311	1.04	
75-00-3	Chloroethane	U	1.04	ug/kg	0.311	1.04	UJ,V7c
75-69-4	Trichlorofluoromethane	U	1.04	ug/kg	0.311	1.04	
67-64-1	Acetone		9.66	ug/kg	1.72	5.18	J,V7c
75-35-4	1,1-Dichloroethylene	U	1.04	ug/kg	0.311	1.04	
74-88-4	Iodomethane	U	5.18	ug/kg	1.66	5.18	
75-09-2	Methylene chloride	U	5.18	ug/kg	2.07	5.18	
75-15-0	Carbon disulfide	U	5.18	ug/kg	1.30	5.18	
156-60-5	trans-1,2-Dichloroethylene	U	1.04	ug/kg	0.311	1.04	
75-34-3	1,1-Dichloroethane	U	1.04	ug/kg	0.311	1.04	
78-93-3	2-Butanone	U	5.18	ug/kg	1.56	5.18	UJ,V7c
156-59-2	cis-1,2-Dichloroethylene	U	1.04	ug/kg	0.311	1.04	
594-20-7	2,2-Dichloropropane	U	1.04	ug/kg	0.311	1.04	
67-66-3	Chloroform	U	1.04	ug/kg	0.311	1.04	
74-97-5	Bromochloromethane	U	1.04	ug/kg	0.342	1.04	
71-55-6	1,1,1-Trichloroethane	U	1.04	ug/kg	0.311	1.04	
563-58-6	1,1-Dichloropropene	U	1.04	ug/kg	0.311	1.04	
56-23-5	Carbon tetrachloride	U	1.04	ug/kg	0.311	1.04	UJ,V7c
107-06-2	1,2-Dichloroethane	U	1.04	ug/kg	0.311	1.04	
71-43-2	Benzene	U	1.04	ug/kg	0.311	1.04	
79-01-6	Trichloroethylene	U	1.04	ug/kg	0.342	1.04	
78-87-5	1,2-Dichloropropane	U	1.04	ug/kg	0.311	1.04	
75-27-4	Bromodichloromethane	U	1.04	ug/kg	0.311	1.04	
74-95-3	Dibromomethane	U	1.04	ug/kg	0.311	1.04	
108-10-1	4-Methyl-2-pentanone	U	5.18	ug/kg	1.30	5.18	
10061-01-5	cis-1,3-Dichloropropylene	U	1.04	ug/kg	0.311	1.04	
108-88-3	Toluene	U	1.04	ug/kg	0.311	1.04	
10061-02-6	trans-1,3-Dichloropropylene	U	1.04	ug/kg	0.311	1.04	
79-00-5	1,1,2-Trichloroethane	U	1.04	ug/kg	0.311	1.04	
591-78-6	2-Hexanone	U	5.18	ug/kg	1.56	5.18	UJ,V7c
142-28-9	1,3-Dichloropropane	U	1.04	ug/kg	0.311	1.04	
127-18-4	Tetrachloroethylene	U	1.04	ug/kg	0.311	1.04	
124-48-1	Dibromochloromethane	U	1.04	ug/kg	0.311	1.04	
106-93-4	1,2-Dibromoethane	U	1.04	ug/kg	0.311	1.04	
108-90-7	Chlorobenzene	U	1.04	ug/kg	0.311	1.04	

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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-852**	**Date Collected:**	**12/07/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242654014**	**Date Received:**	**12/10/2009 08:50**	**%Moisture:**	**10.7**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14269**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**934516**	**Inst:**	**VOAA.I**	**Dilution:**	**1**
Run Date:	**12/18/2009 07:39**	**Analyst:**	**JEB**	**Purge Vol:**	**5 mL**
Prep Date:	**12/17/2009 19:26**	**Aliquot:**	**5.4 g**	**Final Volume:**	**5 mL**
Data File:	**121709\AP435.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
100-41-4	Ethylbenzene	U	1.04	ug/kg	0.311	1.04	
179601-23-1	m,p-Xylenes	U	2.07	ug/kg	0.311	2.07	
95-47-6	o-Xylene	U	1.04	ug/kg	0.311	1.04	
100-42-5	Styrene	U	1.04	ug/kg	0.311	1.04	
75-25-2	Bromoform	U	1.04	ug/kg	0.311	1.04	
79-34-5	1,1,2,2-Tetrachloroethane	U	1.04	ug/kg	0.311	1.04	UJ,V7c
96-18-4	1,2,3-Trichloropropane	U	1.04	ug/kg	0.311	1.04	
108-86-1	Bromobenzene	U	1.04	ug/kg	0.311	1.04	
103-65-1	n-Propylbenzene	U	1.04	ug/kg	0.311	1.04	
95-49-8	2-Chlorotoluene	U	1.04	ug/kg	0.311	1.04	
98-82-8	Isopropylbenzene	U	1.04	ug/kg	0.311	1.04	
108-67-8	1,3,5-Trimethylbenzene	U	1.04	ug/kg	0.311	1.04	
106-43-4	4-Chlorotoluene	U	1.04	ug/kg	0.311	1.04	
98-06-6	tert-Butylbenzene	U	1.04	ug/kg	0.311	1.04	
95-63-6	1,2,4-Trimethylbenzene	U	1.04	ug/kg	0.311	1.04	
135-98-8	sec-Butylbenzene	U	1.04	ug/kg	0.311	1.04	
99-87-6	4-Isopropyltoluene	U	1.04	ug/kg	0.311	1.04	
541-73-1	1,3-Dichlorobenzene	U	1.04	ug/kg	0.311	1.04	
106-46-7	1,4-Dichlorobenzene	U	1.04	ug/kg	0.311	1.04	
104-51-8	n-Butylbenzene	U	1.04	ug/kg	0.311	1.04	
96-12-8	1,2-Dibromo-3-chloropropane	U	1.04	ug/kg	0.311	1.04	
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.18	ug/kg	1.66	5.18	
630-20-6	1,1,1,2-Tetrachloroethane	U	1.04	ug/kg	0.311	1.04	
95-50-1	1,2-Dichlorobenzene	U	1.04	ug/kg	0.311	1.04	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown	3.33	6.22	ug/kg	0	J

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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	Date Collected:	12/07/2009 12:00	Matrix:	S
Lab Sample ID:	242654015	Date Received:	12/10/2009 08:50	%Moisture:	10.3
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14273	Method:	SW846 8260B	SOP Ref:	GL-OA-E-038
Batch ID:	934516	Inst:	VOAA.I	Dilution:	1
Run Date:	12/18/2009 08:05	Analyst:	JEB	Purge Vol:	5 mL
Prep Date:	12/17/2009 19:27	Aliquot:	5.2 g	Final Volume:	5 mL
Data File:	121709\AP436.D	Column:	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
75-71-8	Dichlorodifluoromethane	U	1.07	ug/kg	0.365	1.07	
74-87-3	Chloromethane		41.8	ug/kg	0.322	1.07	
75-01-4	Vinyl chloride	U	1.07	ug/kg	0.322	1.07	
74-83-9	Bromomethane	U	1.07	ug/kg	0.322	1.07	
75-00-3	Chloroethane	U	1.07	ug/kg	0.322	1.07	UJ,V7c
75-69-4	Trichlorofluoromethane	U	1.07	ug/kg	0.322	1.07	
67-64-1	Acetone	U	5.36	ug/kg	1.78	5.36	UJ,V7c
75-35-4	1,1-Dichloroethylene	U	1.07	ug/kg	0.322	1.07	
74-88-4	Iodomethane	U	5.36	ug/kg	1.72	5.36	
75-09-2	Methylene chloride	U	5.36	ug/kg	2.14	5.36	
75-15-0	Carbon disulfide	U	5.36	ug/kg	1.34	5.36	
156-60-5	trans-1,2-Dichloroethylene	U	1.07	ug/kg	0.322	1.07	
75-34-3	1,1-Dichloroethane	U	1.07	ug/kg	0.322	1.07	
78-93-3	2-Butanone	U	5.36	ug/kg	1.61	5.36	UJ,V7c
156-59-2	cis-1,2-Dichloroethylene	U	1.07	ug/kg	0.322	1.07	
594-20-7	2,2-Dichloropropane	U	1.07	ug/kg	0.322	1.07	
67-66-3	Chloroform	U	1.07	ug/kg	0.322	1.07	
74-97-5	Bromochloromethane	U	1.07	ug/kg	0.354	1.07	
71-55-6	1,1,1-Trichloroethane	U	1.07	ug/kg	0.322	1.07	
563-58-6	1,1-Dichloropropene	U	1.07	ug/kg	0.322	1.07	
56-23-5	Carbon tetrachloride	U	1.07	ug/kg	0.322	1.07	UJ,V7c
107-06-2	1,2-Dichloroethane	U	1.07	ug/kg	0.322	1.07	
71-43-2	Benzene	U	1.07	ug/kg	0.322	1.07	
79-01-6	Trichloroethylene	U	1.07	ug/kg	0.354	1.07	
78-87-5	1,2-Dichloropropane	U	1.07	ug/kg	0.322	1.07	
75-27-4	Bromodichloromethane	U	1.07	ug/kg	0.322	1.07	
74-95-3	Dibromomethane	U	1.07	ug/kg	0.322	1.07	
108-10-1	4-Methyl-2-pentanone	U	5.36	ug/kg	1.34	5.36	
10061-01-5	cis-1,3-Dichloropropylene	U	1.07	ug/kg	0.322	1.07	
108-88-3	Toluene	U	1.07	ug/kg	0.322	1.07	
10061-02-6	trans-1,3-Dichloropropylene	U	1.07	ug/kg	0.322	1.07	
79-00-5	1,1,2-Trichloroethane	U	1.07	ug/kg	0.322	1.07	
591-78-6	2-Hexanone	U	5.36	ug/kg	1.61	5.36	UJ,V7c
142-28-9	1,3-Dichloropropane	U	1.07	ug/kg	0.322	1.07	
127-18-4	Tetrachloroethylene	U	1.07	ug/kg	0.322	1.07	
124-48-1	Dibromochloromethane	U	1.07	ug/kg	0.322	1.07	
106-93-4	1,2-Dibromoethane	U	1.07	ug/kg	0.322	1.07	
108-90-7	Chlorobenzene	U	1.07	ug/kg	0.322	1.07	

ETM
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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	Date Collected:	12/07/2009 12:00	Matrix:	S
Lab Sample ID:	242654015	Date Received:	12/10/2009 08:50	%Moisture:	10.3
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14273	Method:	SW846 8260B	SOP Ref:	GL-OA-E-038
Batch ID:	934516	Inst:	VOAA.I	Dilution:	1
Run Date:	12/18/2009 08:05	Analyst:	JEB	Purge Vol:	5 mL
Prep Date:	12/17/2009 19:27	Aliquot:	5.2 g	Final Volume:	5 mL
Data File:	121709\AP436.D	Column:	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
100-41-4	Ethylbenzene	U	1.07	ug/kg	0.322	1.07	
179601-23-1	m,p-Xylenes	U	2.14	ug/kg	0.322	2.14	
95-47-6	o-Xylene	U	1.07	ug/kg	0.322	1.07	
100-42-5	Styrene	U	1.07	ug/kg	0.322	1.07	
75-25-2	Bromoform	U	1.07	ug/kg	0.322	1.07	
79-34-5	1,1,2,2-Tetrachloroethane	U	1.07	ug/kg	0.322	1.07	UJ,V7c
96-18-4	1,2,3-Trichloropropane	U	1.07	ug/kg	0.322	1.07	
108-86-1	Bromobenzene	U	1.07	ug/kg	0.322	1.07	
103-65-1	n-Propylbenzene	U	1.07	ug/kg	0.322	1.07	
95-49-8	2-Chlorotoluene	U	1.07	ug/kg	0.322	1.07	
98-82-8	Isopropylbenzene	U	1.07	ug/kg	0.322	1.07	
108-67-8	1,3,5-Trimethylbenzene	U	1.07	ug/kg	0.322	1.07	
106-43-4	4-Chlorotoluene	U	1.07	ug/kg	0.322	1.07	
98-06-6	tert-Butylbenzene	U	1.07	ug/kg	0.322	1.07	
95-63-6	1,2,4-Trimethylbenzene	U	1.07	ug/kg	0.322	1.07	
135-98-8	sec-Butylbenzene	U	1.07	ug/kg	0.322	1.07	
99-87-6	4-Isopropyltoluene	U	1.07	ug/kg	0.322	1.07	
541-73-1	1,3-Dichlorobenzene	U	1.07	ug/kg	0.322	1.07	
106-46-7	1,4-Dichlorobenzene	U	1.07	ug/kg	0.322	1.07	
104-51-8	n-Butylbenzene	U	1.07	ug/kg	0.322	1.07	
96-12-8	1,2-Dibromo-3-chloropropane	U	1.07	ug/kg	0.322	1.07	
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.36	ug/kg	1.72	5.36	
630-20-6	1,1,1,2-Tetrachloroethane	U	1.07	ug/kg	0.322	1.07	
95-50-1	1,2-Dichlorobenzene	U	1.07	ug/kg	0.322	1.07	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown	3.35	12.9	ug/kg	0	J

ETM
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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242654016	**Date Received:**	12/10/2009 08:50	**%Moisture:**	13.4
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14271	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	934516	**Inst:**	VOAA.I	**Dilution:**	1
Run Date:	12/18/2009 08:30	**Analyst:**	JEB	**Purge Vol:**	5 mL
Prep Date:	12/17/2009 19:28	**Aliquot:**	5.2 g	**Final Volume:**	5 mL
Data File:	121709\AP437.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
75-71-8	Dichlorodifluoromethane	U	1.11	ug/kg	0.378	1.11	
74-87-3	Chloromethane	U	1.11	ug/kg	0.333	1.11	
75-01-4	Vinyl chloride	U	1.11	ug/kg	0.333	1.11	
74-83-9	Bromomethane	U	1.11	ug/kg	0.333	1.11	
75-00-3	Chloroethane	U	1.11	ug/kg	0.333	1.11	UJ,V7c
75-69-4	Trichlorofluoromethane	U	1.11	ug/kg	0.333	1.11	
67-64-1	Acetone	U	5.55	ug/kg	1.84	5.55	UJ,V7c
75-35-4	1,1-Dichloroethylene	U	1.11	ug/kg	0.333	1.11	
74-88-4	Iodomethane	U	5.55	ug/kg	1.78	5.55	
75-09-2	Methylene chloride	U	5.55	ug/kg	2.22	5.55	
75-15-0	Carbon disulfide	U	5.55	ug/kg	1.39	5.55	
156-60-5	trans-1,2-Dichloroethylene	U	1.11	ug/kg	0.333	1.11	
75-34-3	1,1-Dichloroethane	U	1.11	ug/kg	0.333	1.11	
78-93-3	2-Butanone	U	5.55	ug/kg	1.67	5.55	UJ,V7c
156-59-2	cis-1,2-Dichloroethylene	U	1.11	ug/kg	0.333	1.11	
594-20-7	2,2-Dichloropropane	U	1.11	ug/kg	0.333	1.11	
67-66-3	Chloroform	U	1.11	ug/kg	0.333	1.11	
74-97-5	Bromochloromethane	U	1.11	ug/kg	0.367	1.11	
71-55-6	1,1,1-Trichloroethane	U	1.11	ug/kg	0.333	1.11	
563-58-6	1,1-Dichloropropene	U	1.11	ug/kg	0.333	1.11	
56-23-5	Carbon tetrachloride	U	1.11	ug/kg	0.333	1.11	UJ,V7c
107-06-2	1,2-Dichloroethane	U	1.11	ug/kg	0.333	1.11	
71-43-2	Benzene	U	1.11	ug/kg	0.333	1.11	
79-01-6	Trichloroethylene	U	1.11	ug/kg	0.367	1.11	
78-87-5	1,2-Dichloropropane	U	1.11	ug/kg	0.333	1.11	
75-27-4	Bromodichloromethane	U	1.11	ug/kg	0.333	1.11	
74-95-3	Dibromomethane	U	1.11	ug/kg	0.333	1.11	
108-10-1	4-Methyl-2-pentanone	U	5.55	ug/kg	1.39	5.55	
10061-01-5	cis-1,3-Dichloropropylene	U	1.11	ug/kg	0.333	1.11	
108-88-3	Toluene	U	1.11	ug/kg	0.333	1.11	
10061-02-6	trans-1,3-Dichloropropylene	U	1.11	ug/kg	0.333	1.11	
79-00-5	1,1,2-Trichloroethane	U	1.11	ug/kg	0.333	1.11	
591-78-6	2-Hexanone	U	5.55	ug/kg	1.67	5.55	UJ,V7c
142-28-9	1,3-Dichloropropane	U	1.11	ug/kg	0.333	1.11	
127-18-4	Tetrachloroethylene	U	1.11	ug/kg	0.333	1.11	
124-48-1	Dibromochloromethane	U	1.11	ug/kg	0.333	1.11	
106-93-4	1,2-Dibromoethane	U	1.11	ug/kg	0.333	1.11	
108-90-7	Chlorobenzene	U	1.11	ug/kg	0.333	1.11	

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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	Date Collected:	12/07/2009 12:00	Matrix:	S
Lab Sample ID:	242654016	Date Received:	12/10/2009 08:50	%Moisture:	13.4
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14271	Method:	SW846 8260B	SOP Ref:	GL-OA-E-038
Batch ID:	934516	Inst:	VOAA.I	Dilution:	1
Run Date:	12/18/2009 08:30	Analyst:	JEB	Purge Vol:	5 mL
Prep Date:	12/17/2009 19:28	Aliquot:	5.2 g	Final Volume:	5 mL
Data File:	121709\AP437.D	Column:	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
100-41-4	Ethylbenzene	U	1.11	ug/kg	0.333	1.11	
179601-23-1	m,p-Xylenes	U	2.22	ug/kg	0.333	2.22	
95-47-6	o-Xylene	U	1.11	ug/kg	0.333	1.11	
100-42-5	Styrene	U	1.11	ug/kg	0.333	1.11	
75-25-2	Bromoform	U	1.11	ug/kg	0.333	1.11	
79-34-5	1,1,2,2-Tetrachloroethane	U	1.11	ug/kg	0.333	1.11	UJ,V7c
96-18-4	1,2,3-Trichloropropane	U	1.11	ug/kg	0.333	1.11	
108-86-1	Bromobenzene	U	1.11	ug/kg	0.333	1.11	
103-65-1	n-Propylbenzene	U	1.11	ug/kg	0.333	1.11	
95-49-8	2-Chlorotoluene	U	1.11	ug/kg	0.333	1.11	
98-82-8	Isopropylbenzene	U	1.11	ug/kg	0.333	1.11	
108-67-8	1,3,5-Trimethylbenzene	U	1.11	ug/kg	0.333	1.11	
106-43-4	4-Chlorotoluene	U	1.11	ug/kg	0.333	1.11	
98-06-6	tert-Butylbenzene	U	1.11	ug/kg	0.333	1.11	
95-63-6	1,2,4-Trimethylbenzene	U	1.11	ug/kg	0.333	1.11	
135-98-8	sec-Butylbenzene	U	1.11	ug/kg	0.333	1.11	
99-87-6	4-Isopropyltoluene	U	1.11	ug/kg	0.333	1.11	
541-73-1	1,3-Dichlorobenzene	U	1.11	ug/kg	0.333	1.11	
106-46-7	1,4-Dichlorobenzene	U	1.11	ug/kg	0.333	1.11	
104-51-8	n-Butylbenzene	U	1.11	ug/kg	0.333	1.11	
96-12-8	1,2-Dibromo-3-chloropropane	U	1.11	ug/kg	0.333	1.11	
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.55	ug/kg	1.78	5.55	
630-20-6	1,1,1,2-Tetrachloroethane	U	1.11	ug/kg	0.333	1.11	
95-50-1	1,2-Dichlorobenzene	U	1.11	ug/kg	0.333	1.11	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown	3.32	9.6	ug/kg	0	J

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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	Date Collected:	12/07/2009 12:00	Matrix:	S
Lab Sample ID:	242654017	Date Received:	12/10/2009 08:50	%Moisture:	9.4
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14278	Method:	SW846 8260B	SOP Ref:	GL-OA-E-038
Batch ID:	934516	Inst:	VOAA.I	Dilution:	1
Run Date:	12/18/2009 08:56	Analyst:	JEB	Purge Vol:	5 mL
Prep Date:	12/17/2009 19:29	Aliquot:	5.2 g	Final Volume:	5 mL
Data File:	121709\AP438.D	Column:	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
75-71-8	Dichlorodifluoromethane	U	1.06	ug/kg	0.361	1.06	
74-87-3	Chloromethane	U	1.06	ug/kg	0.318	1.06	
75-01-4	Vinyl chloride	U	1.06	ug/kg	0.318	1.06	
74-83-9	Bromomethane	U	1.06	ug/kg	0.318	1.06	
75-00-3	Chloroethane	U	1.06	ug/kg	0.318	1.06	UJ,V7c
75-69-4	Trichlorofluoromethane	U	1.06	ug/kg	0.318	1.06	
67-64-1	Acetone	U	5.31	ug/kg	1.76	5.31	UJ,V7c
75-35-4	1,1-Dichloroethylene	U	1.06	ug/kg	0.318	1.06	
74-88-4	Iodomethane	U	5.31	ug/kg	1.70	5.31	
75-09-2	Methylene chloride	U	5.31	ug/kg	2.12	5.31	
75-15-0	Carbon disulfide	U	5.31	ug/kg	1.33	5.31	
156-60-5	trans-1,2-Dichloroethylene	U	1.06	ug/kg	0.318	1.06	
75-34-3	1,1-Dichloroethane	U	1.06	ug/kg	0.318	1.06	
78-93-3	2-Butanone	U	5.31	ug/kg	1.59	5.31	UJ,V7c
156-59-2	cis-1,2-Dichloroethylene	U	1.06	ug/kg	0.318	1.06	
594-20-7	2,2-Dichloropropane	U	1.06	ug/kg	0.318	1.06	
67-66-3	Chloroform	U	1.06	ug/kg	0.318	1.06	
74-97-5	Bromochloromethane	U	1.06	ug/kg	0.350	1.06	
71-55-6	1,1,1-Trichloroethane	U	1.06	ug/kg	0.318	1.06	
563-58-6	1,1-Dichloropropene	U	1.06	ug/kg	0.318	1.06	
56-23-5	Carbon tetrachloride	U	1.06	ug/kg	0.318	1.06	UJ,V7c
107-06-2	1,2-Dichloroethane	U	1.06	ug/kg	0.318	1.06	
71-43-2	Benzene	U	1.06	ug/kg	0.318	1.06	
79-01-6	Trichloroethylene	U	1.06	ug/kg	0.350	1.06	
78-87-5	1,2-Dichloropropane	U	1.06	ug/kg	0.318	1.06	
75-27-4	Bromodichloromethane	U	1.06	ug/kg	0.318	1.06	
74-95-3	Dibromomethane	U	1.06	ug/kg	0.318	1.06	
108-10-1	4-Methyl-2-pentanone	U	5.31	ug/kg	1.33	5.31	
10061-01-5	cis-1,3-Dichloropropylene	U	1.06	ug/kg	0.318	1.06	
108-88-3	Toluene	J	0.425	ug/kg	0.318	1.06	
10061-02-6	trans-1,3-Dichloropropylene	U	1.06	ug/kg	0.318	1.06	
79-00-5	1,1,2-Trichloroethane	U	1.06	ug/kg	0.318	1.06	
591-78-6	2-Hexanone	U	5.31	ug/kg	1.59	5.31	UJ,V7c
142-28-9	1,3-Dichloropropane	U	1.06	ug/kg	0.318	1.06	
127-18-4	Tetrachloroethylene	U	1.06	ug/kg	0.318	1.06	
124-48-1	Dibromochloromethane	U	1.06	ug/kg	0.318	1.06	
106-93-4	1,2-Dibromoethane	U	1.06	ug/kg	0.318	1.06	
108-90-7	Chlorobenzene	U	1.06	ug/kg	0.318	1.06	

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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242654017	**Date Received:**	12/10/2009 08:50	**%Moisture:**	9.4
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14278	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	934516	**Inst:**	VOAA.I	**Dilution:**	1
Run Date:	12/18/2009 08:56	**Analyst:**	JEB	**Purge Vol:**	5 mL
Prep Date:	12/17/2009 19:29	**Aliquot:**	5.2 g	**Final Volume:**	5 mL
Data File:	121709\AP438.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
100-41-4	Ethylbenzene	U	1.06	ug/kg	0.318	1.06	
179601-23-1	m,p-Xylenes	U	2.12	ug/kg	0.318	2.12	
95-47-6	o-Xylene	U	1.06	ug/kg	0.318	1.06	
100-42-5	Styrene	U	1.06	ug/kg	0.318	1.06	
75-25-2	Bromoform	U	1.06	ug/kg	0.318	1.06	
79-34-5	1,1,2,2-Tetrachloroethane	U	1.06	ug/kg	0.318	1.06	UJ,V7c
96-18-4	1,2,3-Trichloropropane	U	1.06	ug/kg	0.318	1.06	
108-86-1	Bromobenzene	U	1.06	ug/kg	0.318	1.06	
103-65-1	n-Propylbenzene	U	1.06	ug/kg	0.318	1.06	
95-49-8	2-Chlorotoluene	U	1.06	ug/kg	0.318	1.06	
98-82-8	Isopropylbenzene	U	1.06	ug/kg	0.318	1.06	
108-67-8	1,3,5-Trimethylbenzene	U	1.06	ug/kg	0.318	1.06	
106-43-4	4-Chlorotoluene	U	1.06	ug/kg	0.318	1.06	
98-06-6	tert-Butylbenzene	U	1.06	ug/kg	0.318	1.06	
95-63-6	1,2,4-Trimethylbenzene	U	1.06	ug/kg	0.318	1.06	
135-98-8	sec-Butylbenzene	U	1.06	ug/kg	0.318	1.06	
99-87-6	4-Isopropyltoluene	U	1.06	ug/kg	0.318	1.06	
541-73-1	1,3-Dichlorobenzene	U	1.06	ug/kg	0.318	1.06	
106-46-7	1,4-Dichlorobenzene	U	1.06	ug/kg	0.318	1.06	
104-51-8	n-Butylbenzene	U	1.06	ug/kg	0.318	1.06	
96-12-8	1,2-Dibromo-3-chloropropane	U	1.06	ug/kg	0.318	1.06	
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.31	ug/kg	1.70	5.31	
630-20-6	1,1,1,2-Tetrachloroethane	U	1.06	ug/kg	0.318	1.06	
95-50-1	1,2-Dichlorobenzene	U	1.06	ug/kg	0.318	1.06	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown	3.34	18.6	ug/kg	0	J

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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242654018	**Date Received:**	12/10/2009 08:50	**%Moisture:**	14.2
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14285	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	934516	**Inst:**	VOAA.I	**Dilution:**	1
Run Date:	12/18/2009 09:22	**Analyst:**	JEB	**Purge Vol:**	5 mL
Prep Date:	12/17/2009 19:30	**Aliquot:**	5.5 g	**Final Volume:**	5 mL
Data File:	121709\AP439.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
75-71-8	Dichlorodifluoromethane	U	1.06	ug/kg	0.360	1.06	
74-87-3	Chloromethane	U	1.06	ug/kg	0.318	1.06	
75-01-4	Vinyl chloride	U	1.06	ug/kg	0.318	1.06	
74-83-9	Bromomethane	U	1.06	ug/kg	0.318	1.06	
75-00-3	Chloroethane	U	1.06	ug/kg	0.318	1.06	UJ,V7c
75-69-4	Trichlorofluoromethane	U	1.06	ug/kg	0.318	1.06	
67-64-1	Acetone	U	5.30	ug/kg	1.76	5.30	UJ,V7c
75-35-4	1,1-Dichloroethylene	U	1.06	ug/kg	0.318	1.06	
74-88-4	Iodomethane	U	5.30	ug/kg	1.69	5.30	
75-09-2	Methylene chloride	U	5.30	ug/kg	2.12	5.30	
75-15-0	Carbon disulfide	U	5.30	ug/kg	1.32	5.30	
156-60-5	trans-1,2-Dichloroethylene	U	1.06	ug/kg	0.318	1.06	
75-34-3	1,1-Dichloroethane	U	1.06	ug/kg	0.318	1.06	
78-93-3	2-Butanone	U	5.30	ug/kg	1.59	5.30	UJ,V7c
156-59-2	cis-1,2-Dichloroethylene	U	1.06	ug/kg	0.318	1.06	
594-20-7	2,2-Dichloropropane	U	1.06	ug/kg	0.318	1.06	
67-66-3	Chloroform	U	1.06	ug/kg	0.318	1.06	
74-97-5	Bromochloromethane	U	1.06	ug/kg	0.350	1.06	
71-55-6	1,1,1-Trichloroethane	U	1.06	ug/kg	0.318	1.06	
563-58-6	1,1-Dichloropropene	U	1.06	ug/kg	0.318	1.06	
56-23-5	Carbon tetrachloride	U	1.06	ug/kg	0.318	1.06	UJ,V7c
107-06-2	1,2-Dichloroethane	U	1.06	ug/kg	0.318	1.06	
71-43-2	Benzene	U	1.06	ug/kg	0.318	1.06	
79-01-6	Trichloroethylene	U	1.06	ug/kg	0.350	1.06	
78-87-5	1,2-Dichloropropane	U	1.06	ug/kg	0.318	1.06	
75-27-4	Bromodichloromethane	U	1.06	ug/kg	0.318	1.06	
74-95-3	Dibromomethane	U	1.06	ug/kg	0.318	1.06	
108-10-1	4-Methyl-2-pentanone	U	5.30	ug/kg	1.32	5.30	
10061-01-5	cis-1,3-Dichloropropylene	U	1.06	ug/kg	0.318	1.06	
108-88-3	Toluene	U	1.06	ug/kg	0.318	1.06	
10061-02-6	trans-1,3-Dichloropropylene	U	1.06	ug/kg	0.318	1.06	
79-00-5	1,1,2-Trichloroethane	U	1.06	ug/kg	0.318	1.06	
591-78-6	2-Hexanone	U	5.30	ug/kg	1.59	5.30	UJ,V7c
142-28-9	1,3-Dichloropropane	U	1.06	ug/kg	0.318	1.06	
127-18-4	Tetrachloroethylene	U	1.06	ug/kg	0.318	1.06	
124-48-1	Dibromochloromethane	U	1.06	ug/kg	0.318	1.06	
106-93-4	1,2-Dibromoethane	U	1.06	ug/kg	0.318	1.06	
108-90-7	Chlorobenzene	U	1.06	ug/kg	0.318	1.06	

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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-852**	**Date Collected:**	**12/07/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242654018**	**Date Received:**	**12/10/2009 08:50**	**%Moisture:**	**14.2**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14285**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**934516**	**Inst:**	**VOAA.I**	**Dilution:**	**1**
Run Date:	**12/18/2009 09:22**	**Analyst:**	**JEB**	**Purge Vol:**	**5 mL**
Prep Date:	**12/17/2009 19:30**	**Aliquot:**	**5.5 g**	**Final Volume:**	**5 mL**
Data File:	**121709\AP439.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
100-41-4	Ethylbenzene	U	1.06	ug/kg	0.318	1.06	
179601-23-1	m,p-Xylenes	U	2.12	ug/kg	0.318	2.12	
95-47-6	o-Xylene	U	1.06	ug/kg	0.318	1.06	
100-42-5	Styrene	U	1.06	ug/kg	0.318	1.06	
75-25-2	Bromoform	U	1.06	ug/kg	0.318	1.06	
79-34-5	1,1,2,2-Tetrachloroethane	U	1.06	ug/kg	0.318	1.06	UJ,V7c
96-18-4	1,2,3-Trichloropropane	U	1.06	ug/kg	0.318	1.06	
108-86-1	Bromobenzene	U	1.06	ug/kg	0.318	1.06	
103-65-1	n-Propylbenzene	U	1.06	ug/kg	0.318	1.06	
95-49-8	2-Chlorotoluene	U	1.06	ug/kg	0.318	1.06	
98-82-8	Isopropylbenzene	U	1.06	ug/kg	0.318	1.06	
108-67-8	1,3,5-Trimethylbenzene	U	1.06	ug/kg	0.318	1.06	
106-43-4	4-Chlorotoluene	U	1.06	ug/kg	0.318	1.06	
98-06-6	tert-Butylbenzene	U	1.06	ug/kg	0.318	1.06	
95-63-6	1,2,4-Trimethylbenzene	J	0.413	ug/kg	0.318	1.06	
135-98-8	sec-Butylbenzene	U	1.06	ug/kg	0.318	1.06	
99-87-6	4-Isopropyltoluene	U	1.06	ug/kg	0.318	1.06	
541-73-1	1,3-Dichlorobenzene	U	1.06	ug/kg	0.318	1.06	
106-46-7	1,4-Dichlorobenzene	U	1.06	ug/kg	0.318	1.06	
104-51-8	n-Butylbenzene	U	1.06	ug/kg	0.318	1.06	
96-12-8	1,2-Dibromo-3-chloropropane	U	1.06	ug/kg	0.318	1.06	
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.30	ug/kg	1.69	5.30	
630-20-6	1,1,1,2-Tetrachloroethane	U	1.06	ug/kg	0.318	1.06	
95-50-1	1,2-Dichlorobenzene	U	1.06	ug/kg	0.318	1.06	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown	3.34	8.71	ug/kg	0	J

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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242654019	**Date Received:**	12/10/2009 08:50	**%Moisture:**	13.4
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14286	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	934516	**Inst:**	VOAA.I	**Dilution:**	1
Run Date:	12/18/2009 09:48	**Analyst:**	JEB	**Purge Vol:**	5 mL
Prep Date:	12/17/2009 19:32	**Aliquot:**	5.3 g	**Final Volume:**	5 mL
Data File:	121709\AP440.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
75-71-8	Dichlorodifluoromethane	U	1.09	ug/kg	0.370	1.09	
74-87-3	Chloromethane	U	1.09	ug/kg	0.327	1.09	
75-01-4	Vinyl chloride	U	1.09	ug/kg	0.327	1.09	
74-83-9	Bromomethane	U	1.09	ug/kg	0.327	1.09	
75-00-3	Chloroethane	U	1.09	ug/kg	0.327	1.09	UJ,V7c
75-69-4	Trichlorofluoromethane	U	1.09	ug/kg	0.327	1.09	
67-64-1	Acetone	U	5.45	ug/kg	1.81	5.45	UJ,V7c
75-35-4	1,1-Dichloroethylene	U	1.09	ug/kg	0.327	1.09	
74-88-4	Iodomethane	U	5.45	ug/kg	1.74	5.45	
75-09-2	Methylene chloride	U	5.45	ug/kg	2.18	5.45	
75-15-0	Carbon disulfide	U	5.45	ug/kg	1.36	5.45	
156-60-5	trans-1,2-Dichloroethylene	U	1.09	ug/kg	0.327	1.09	
75-34-3	1,1-Dichloroethane	U	1.09	ug/kg	0.327	1.09	
78-93-3	2-Butanone	U	5.45	ug/kg	1.63	5.45	UJ,V7c
156-59-2	cis-1,2-Dichloroethylene	U	1.09	ug/kg	0.327	1.09	
594-20-7	2,2-Dichloropropane	U	1.09	ug/kg	0.327	1.09	
67-66-3	Chloroform	U	1.09	ug/kg	0.327	1.09	
74-97-5	Bromochloromethane	U	1.09	ug/kg	0.359	1.09	
71-55-6	1,1,1-Trichloroethane	U	1.09	ug/kg	0.327	1.09	
563-58-6	1,1-Dichloropropene	U	1.09	ug/kg	0.327	1.09	
56-23-5	Carbon tetrachloride	U	1.09	ug/kg	0.327	1.09	UJ,V7c
107-06-2	1,2-Dichloroethane	U	1.09	ug/kg	0.327	1.09	
71-43-2	Benzene	U	1.09	ug/kg	0.327	1.09	
79-01-6	Trichloroethylene	U	1.09	ug/kg	0.359	1.09	
78-87-5	1,2-Dichloropropane	U	1.09	ug/kg	0.327	1.09	
75-27-4	Bromodichloromethane	U	1.09	ug/kg	0.327	1.09	
74-95-3	Dibromomethane	U	1.09	ug/kg	0.327	1.09	
108-10-1	4-Methyl-2-pentanone	U	5.45	ug/kg	1.36	5.45	
10061-01-5	cis-1,3-Dichloropropylene	U	1.09	ug/kg	0.327	1.09	
108-88-3	Toluene	U	1.09	ug/kg	0.327	1.09	
10061-02-6	trans-1,3-Dichloropropylene	U	1.09	ug/kg	0.327	1.09	
79-00-5	1,1,2-Trichloroethane	U	1.09	ug/kg	0.327	1.09	
591-78-6	2-Hexanone	U	5.45	ug/kg	1.63	5.45	UJ,V7c
142-28-9	1,3-Dichloropropane	U	1.09	ug/kg	0.327	1.09	
127-18-4	Tetrachloroethylene	U	1.09	ug/kg	0.327	1.09	
124-48-1	Dibromochloromethane	U	1.09	ug/kg	0.327	1.09	
106-93-4	1,2-Dibromoethane	U	1.09	ug/kg	0.327	1.09	
108-90-7	Chlorobenzene	U	1.09	ug/kg	0.327	1.09	

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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-852**	**Date Collected:**	**12/07/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242654019**	**Date Received:**	**12/10/2009 08:50**	**%Moisture:**	**13.4**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14286**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**934516**	**Inst:**	**VOAA.I**	**Dilution:**	**1**
Run Date:	**12/18/2009 09:48**	**Analyst:**	**JEB**	**Purge Vol:**	**5 mL**
Prep Date:	**12/17/2009 19:32**	**Aliquot:**	**5.3 g**	**Final Volume:**	**5 mL**
Data File:	**121709\AP440.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
100-41-4	Ethylbenzene	U	1.09	ug/kg	0.327	1.09	
179601-23-1	m,p-Xylenes	U	2.18	ug/kg	0.327	2.18	
95-47-6	o-Xylene	U	1.09	ug/kg	0.327	1.09	
100-42-5	Styrene	U	1.09	ug/kg	0.327	1.09	
75-25-2	Bromoform	U	1.09	ug/kg	0.327	1.09	
79-34-5	1,1,2,2-Tetrachloroethane	U	1.09	ug/kg	0.327	1.09	UJ,V7c
96-18-4	1,2,3-Trichloropropane	U	1.09	ug/kg	0.327	1.09	
108-86-1	Bromobenzene	U	1.09	ug/kg	0.327	1.09	
103-65-1	n-Propylbenzene	U	1.09	ug/kg	0.327	1.09	
95-49-8	2-Chlorotoluene	U	1.09	ug/kg	0.327	1.09	
98-82-8	Isopropylbenzene	U	1.09	ug/kg	0.327	1.09	
108-67-8	1,3,5-Trimethylbenzene	U	1.09	ug/kg	0.327	1.09	
106-43-4	4-Chlorotoluene	U	1.09	ug/kg	0.327	1.09	
98-06-6	tert-Butylbenzene	U	1.09	ug/kg	0.327	1.09	
95-63-6	1,2,4-Trimethylbenzene	U	1.09	ug/kg	0.327	1.09	
135-98-8	sec-Butylbenzene	U	1.09	ug/kg	0.327	1.09	
99-87-6	4-Isopropyltoluene	U	1.09	ug/kg	0.327	1.09	
541-73-1	1,3-Dichlorobenzene	U	1.09	ug/kg	0.327	1.09	
106-46-7	1,4-Dichlorobenzene	U	1.09	ug/kg	0.327	1.09	
104-51-8	n-Butylbenzene	U	1.09	ug/kg	0.327	1.09	
96-12-8	1,2-Dibromo-3-chloropropane	U	1.09	ug/kg	0.327	1.09	
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.45	ug/kg	1.74	5.45	
630-20-6	1,1,1,2-Tetrachloroethane	U	1.09	ug/kg	0.327	1.09	
95-50-1	1,2-Dichlorobenzene	U	1.09	ug/kg	0.327	1.09	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown	3.34	7.58	ug/kg	0	J
	unknown siloxane	15.61	9.61	ug/kg	0	J

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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242654020	**Date Received:**	12/10/2009 08:50	**%Moisture:**	15.8
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14283	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	934516	**Inst:**	VOAA.I	**Dilution:**	1
Run Date:	12/18/2009 10:14	**Analyst:**	JEB	**Purge Vol:**	5 mL
Prep Date:	12/17/2009 19:33	**Aliquot:**	5.1 g	**Final Volume:**	5 mL
Data File:	121709\AP441.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
75-71-8	Dichlorodifluoromethane	U	1.16	ug/kg	0.396	1.16	
74-87-3	Chloromethane	U	1.16	ug/kg	0.349	1.16	
75-01-4	Vinyl chloride	U	1.16	ug/kg	0.349	1.16	
74-83-9	Bromomethane	U	1.16	ug/kg	0.349	1.16	
75-00-3	Chloroethane	U	1.16	ug/kg	0.349	1.16	UJ,V7c
75-69-4	Trichlorofluoromethane	U	1.16	ug/kg	0.349	1.16	
67-64-1	Acetone	U	5.82	ug/kg	1.93	5.82	UJ,V7c
75-35-4	1,1-Dichloroethylene	U	1.16	ug/kg	0.349	1.16	
74-88-4	Iodomethane	U	5.82	ug/kg	1.86	5.82	
75-09-2	Methylene chloride	U	5.82	ug/kg	2.33	5.82	
75-15-0	Carbon disulfide	U	5.82	ug/kg	1.46	5.82	
156-60-5	trans-1,2-Dichloroethylene	U	1.16	ug/kg	0.349	1.16	
75-34-3	1,1-Dichloroethane	U	1.16	ug/kg	0.349	1.16	
78-93-3	2-Butanone	U	5.82	ug/kg	1.75	5.82	UJ,V7c
156-59-2	cis-1,2-Dichloroethylene	U	1.16	ug/kg	0.349	1.16	
594-20-7	2,2-Dichloropropane	U	1.16	ug/kg	0.349	1.16	
67-66-3	Chloroform	U	1.16	ug/kg	0.349	1.16	
74-97-5	Bromochloromethane	U	1.16	ug/kg	0.384	1.16	
71-55-6	1,1,1-Trichloroethane	U	1.16	ug/kg	0.349	1.16	
563-58-6	1,1-Dichloropropene	U	1.16	ug/kg	0.349	1.16	
56-23-5	Carbon tetrachloride	U	1.16	ug/kg	0.349	1.16	UJ,V7c
107-06-2	1,2-Dichloroethane	U	1.16	ug/kg	0.349	1.16	
71-43-2	Benzene	U	1.16	ug/kg	0.349	1.16	
79-01-6	Trichloroethylene	U	1.16	ug/kg	0.384	1.16	
78-87-5	1,2-Dichloropropane	U	1.16	ug/kg	0.349	1.16	
75-27-4	Bromodichloromethane	U	1.16	ug/kg	0.349	1.16	
74-95-3	Dibromomethane	U	1.16	ug/kg	0.349	1.16	
108-10-1	4-Methyl-2-pentanone	U	5.82	ug/kg	1.46	5.82	
10061-01-5	cis-1,3-Dichloropropylene	U	1.16	ug/kg	0.349	1.16	
108-88-3	Toluene	U	1.16	ug/kg	0.349	1.16	
10061-02-6	trans-1,3-Dichloropropylene	U	1.16	ug/kg	0.349	1.16	
79-00-5	1,1,2-Trichloroethane	U	1.16	ug/kg	0.349	1.16	
591-78-6	2-Hexanone	U	5.82	ug/kg	1.75	5.82	UJ,V7c
142-28-9	1,3-Dichloropropane	U	1.16	ug/kg	0.349	1.16	
127-18-4	Tetrachloroethylene	U	1.16	ug/kg	0.349	1.16	
124-48-1	Dibromochloromethane	U	1.16	ug/kg	0.349	1.16	
106-93-4	1,2-Dibromoethane	U	1.16	ug/kg	0.349	1.16	
108-90-7	Chlorobenzene	U	1.16	ug/kg	0.349	1.16	

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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-852**	**Date Collected:**	**12/07/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242654020**	**Date Received:**	**12/10/2009 08:50**	**%Moisture:**	**15.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14283**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**934516**	**Inst:**	**VOAA.I**	**Dilution:**	**1**
Run Date:	**12/18/2009 10:14**	**Analyst:**	**JEB**	**Purge Vol:**	**5 mL**
Prep Date:	**12/17/2009 19:33**	**Aliquot:**	**5.1 g**	**Final Volume:**	**5 mL**
Data File:	**121709\AP441.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
100-41-4	Ethylbenzene	U	1.16	ug/kg	0.349	1.16	
179601-23-1	m,p-Xylenes	U	2.33	ug/kg	0.349	2.33	
95-47-6	o-Xylene	U	1.16	ug/kg	0.349	1.16	
100-42-5	Styrene	U	1.16	ug/kg	0.349	1.16	
75-25-2	Bromoform	U	1.16	ug/kg	0.349	1.16	
79-34-5	1,1,2,2-Tetrachloroethane	U	1.16	ug/kg	0.349	1.16	UJ,V7c
96-18-4	1,2,3-Trichloropropane	U	1.16	ug/kg	0.349	1.16	
108-86-1	Bromobenzene	U	1.16	ug/kg	0.349	1.16	
103-65-1	n-Propylbenzene	U	1.16	ug/kg	0.349	1.16	
95-49-8	2-Chlorotoluene	U	1.16	ug/kg	0.349	1.16	
98-82-8	Isopropylbenzene	U	1.16	ug/kg	0.349	1.16	
108-67-8	1,3,5-Trimethylbenzene	U	1.16	ug/kg	0.349	1.16	
106-43-4	4-Chlorotoluene	U	1.16	ug/kg	0.349	1.16	
98-06-6	tert-Butylbenzene	U	1.16	ug/kg	0.349	1.16	
95-63-6	1,2,4-Trimethylbenzene	U	1.16	ug/kg	0.349	1.16	
135-98-8	sec-Butylbenzene	U	1.16	ug/kg	0.349	1.16	
99-87-6	4-Isopropyltoluene	U	1.16	ug/kg	0.349	1.16	
541-73-1	1,3-Dichlorobenzene	U	1.16	ug/kg	0.349	1.16	
106-46-7	1,4-Dichlorobenzene	U	1.16	ug/kg	0.349	1.16	
104-51-8	n-Butylbenzene	U	1.16	ug/kg	0.349	1.16	
96-12-8	1,2-Dibromo-3-chloropropane	U	1.16	ug/kg	0.349	1.16	
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.82	ug/kg	1.86	5.82	
630-20-6	1,1,1,2-Tetrachloroethane	U	1.16	ug/kg	0.349	1.16	
95-50-1	1,2-Dichlorobenzene	U	1.16	ug/kg	0.349	1.16	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown	3.34	9.31	ug/kg	0	J

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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852-1	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242659001	**Date Received:**	12/10/2009 08:50		
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14294	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	934305	**Inst:**	VOA7.I	**Dilution:**	1
Run Date:	12/18/2009 14:29	**Analyst:**	AXO1	**Purge Vol:**	5 mL
Prep Date:	12/18/2009 13:18	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	7q508.d	**Column:**	DB-624	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
75-71-8	Dichlorodifluoromethane	U	1.00	ug/kg	0.340	1.00	UJ,V7c
74-87-3	Chloromethane	U	1.00	ug/kg	0.300	1.00	
75-01-4	Vinyl chloride	U	1.00	ug/kg	0.300	1.00	
74-83-9	Bromomethane	U	1.00	ug/kg	0.300	1.00	
75-00-3	Chloroethane	U	1.00	ug/kg	0.300	1.00	
75-69-4	Trichlorofluoromethane	U	1.00	ug/kg	0.300	1.00	UJ,V7c
67-64-1	Acetone	J	1.96	ug/kg	1.66	5.00	J,V7c
75-35-4	1,1-Dichloroethylene	U	1.00	ug/kg	0.300	1.00	
74-88-4	Iodomethane	U	5.00	ug/kg	1.60	5.00	
75-09-2	Methylene chloride	U	5.00	ug/kg	2.00	5.00	
75-15-0	Carbon disulfide	U	5.00	ug/kg	1.25	5.00	
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00	
75-34-3	1,1-Dichloroethane	U	1.00	ug/kg	0.300	1.00	
78-93-3	2-Butanone	U	5.00	ug/kg	1.50	5.00	UJ,V7c
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00	
594-20-7	2,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00	
67-66-3	Chloroform	U	1.00	ug/kg	0.300	1.00	
74-97-5	Bromochloromethane	U	1.00	ug/kg	0.330	1.00	
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/kg	0.300	1.00	
563-58-6	1,1-Dichloropropene	U	1.00	ug/kg	0.300	1.00	
56-23-5	Carbon tetrachloride	U	1.00	ug/kg	0.300	1.00	UJ,V7c
107-06-2	1,2-Dichloroethane	U	1.00	ug/kg	0.300	1.00	
71-43-2	Benzene	U	1.00	ug/kg	0.300	1.00	
79-01-6	Trichloroethylene	U	1.00	ug/kg	0.330	1.00	
78-87-5	1,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00	
75-27-4	Bromodichloromethane	U	1.00	ug/kg	0.300	1.00	
74-95-3	Dibromomethane	U	1.00	ug/kg	0.300	1.00	
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/kg	1.25	5.00	UJ,V7c
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00	
108-88-3	Toluene	U	1.00	ug/kg	0.300	1.00	
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00	
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/kg	0.300	1.00	
591-78-6	2-Hexanone	U	5.00	ug/kg	1.50	5.00	UJ,V7c
142-28-9	1,3-Dichloropropane	U	1.00	ug/kg	0.300	1.00	
127-18-4	Tetrachloroethylene	U	1.00	ug/kg	0.300	1.00	UJ,V7c
124-48-1	Dibromochloromethane	U	1.00	ug/kg	0.300	1.00	
106-93-4	1,2-Dibromoethane	U	1.00	ug/kg	0.300	1.00	
108-90-7	Chlorobenzene	U	1.00	ug/kg	0.300	1.00	

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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852-1	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242659001	**Date Received:**	12/10/2009 08:50		
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14294	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	934305	**Inst:**	VOA7.I	**Dilution:**	1
Run Date:	12/18/2009 14:29	**Analyst:**	AXO1	**Purge Vol:**	5 mL
Prep Date:	12/18/2009 13:18	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	7q508.d	**Column:**	DB-624	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.00	ug/kg	0.300	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/kg	0.300	2.00
95-47-6	o-Xylene	U	1.00	ug/kg	0.300	1.00
100-42-5	Styrene	U	1.00	ug/kg	0.300	1.00
75-25-2	Bromoform	U	1.00	ug/kg	0.300	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/kg	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/kg	0.300	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/kg	0.300	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/kg	0.300	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/kg	0.300	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/kg	0.300	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/kg	0.300	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/kg	0.300	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/kg	0.300	1.00
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.00	ug/kg	1.60	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	No Tentatively Identified Compounds Found			ug/kg		

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DATA VALIDATION COVER SHEET

5115-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-852 VALIDATION DATE: 1/29/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Eric T. Mink ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☒ OTHER (DESCRIBE): SVOCs

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☒	☐	☐	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☒	☐	☐	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. The ICV %Ds were >20% for hexachlorocyclopentadiene; 4-bromophenylphenylether and indeno(1,2,3-cd)pyrene. In the CCV associated with samples RE03-09-14274, -14277, -14281, -14282 and -14284, the %D were >20% for bis(2-chloroisopropyl)ether, naphthalene, hexachlorocyclopentadiene, m-nitroaniline, p-nitroaniline, pyrene and bis(2-ethylhexyl)phthalate. In the CCV associated with samples -14269, -14273, -14278, -14283, -14285 and -14286, the %D were >20% for pyridine; benzoic acid; hexachlorocyclopentadiene; m-nitroaniline; 2-methyl-4,6-dinitrophenol; p-nitroaniline; bis(2-ethylhexyl)phthalate; indeno(1,2,3-cd)pyrene; dibenzo(a,h)anthracene and benzo(g,h,i)perylene. In the CCV associated with all the other samples, the %Ds were >20% for pyridine, bis(2-chloroisopropyl)ether, hexachlorocyclopentadiene and p-nitroaniline. The associated sample results that were detects were qualified J,SV7c and those that were NDs were qualified UJ,SV7c.
2. The p-terphenyl-d14 surrogate %R was > the laboratory's UAL for sample -14265. The associated sample was diluted before being analyzed and, thus, no sample data were qualified. The 2,4,6-tribromophenol and p-terphenyl-d14 surrogate %Rs were > the laboratory's UALs for sample -14285. Since there was only one surrogate outlier for each fraction, no sample data were qualified.
3. It should be noted that a few MS/MSD %Rs and RPDs were not within the laboratory's QC limits. However, MS/MSD analyses are not required for this analysis and, thus, no sample data were qualified.

Reviewed by: Mary Donivan Level: I Date: 01/29/10

DATA VALIDATION COVER SHEET

5115-1 **Data Validation Cover Sheet**	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943

VALIDATOR'S SIGNATURE: Eric T. Mik DATE: 1/29/10

Form 5115-1, Revision 0.0	LOS ALAMOS Environmental Restoration Project

SEMIVOLATILE ORGANIC COMPOUND (SVOC) ANALYTICAL DATA VALIDATION CHECKLIST

5115-2

Semivolatile Organic Compound (SVOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, SV9	J-, SV9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, SV9a	J-, SV9a
☐	☒	☐	3. The affected analytes are regarded as rejected because the analytical holding time was exceeded.	R, SV9b	R, SV9b
☐	☐	☒	4. The instrument performance sample did not pass method acceptance criteria.	R, SV16	R, SV16
☐	☐	☒	5. Samples were analyzed outside specific method tune time criteria.	N/A	J, SV16b
☐	☐	☒	6. The required instrument performance sample information is missing. Contact the SMO or external laboratory for information.	R, SV16c	R, SV16c
☐	☒	☐	7. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, SV7	J, SV7
☐	☒	☐	8. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, SV7a	J, SV7a
☐	☒	☐	9. The affected analytes were analyzed with an RRF of <0.05 in the initial calibration and/or Continuing Calibration Verification (CCV).	R, SV7b	J, SV7b
☒	☐	☐	10. The Initial Calibration Verification (ICV) and/or CCV were recovered outside the method-specific limits.	UJ, SV7c	J, SV7c
☐	☒	☐	11. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, SV7d	J, SV7d

SEMIVOLATILE ORGANIC COMPOUND (SVOC) ANALYTICAL DATA VALIDATION CHECKLIST

5115-2

Semivolatile Organic Compound (SVOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	12. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, SV7f	R, SV7f
☐	☒	☐	13. The sample result is ≤5X (10X for common organic laboratory contaminates) the concentration of the related analyte in the method blank.	U, SV4	J, V4a
☐	☒	☐	14. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was greater than 5X (10X for common laboratory contaminates).	N/A	J, SV4a
☐	☐	☒	15. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	UJ, SV4d	N/A
☐	☒	☐	16. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV4e	R, SV4e
☐	☒	☐	17. The IS retention time has shifted by more than 30 seconds.	UJ, SV0	J, SV0
☐	☐	☒	18. Analyte is positively confirmed but outside the IS retention time window; however, spectral matches must be provided.	N/A	J, SV0a
☐	☒	☐	19. Required IS retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV0b	R, SV0b
☐	☐	☒	20. The quantitating IS area count is <10% of the expected value, which indicates increased potential for false negative results and other possible problems with sample quantitation. Follow method-specific windows.	R, SV1a	J, SV1a

SEMIVOLATILE ORGANIC COMPOUND (SVOC) ANALYTICAL DATA VALIDATION CHECKLIST

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Semivolatile Organic Compound (SVOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	21. The IS area count for the quantitating IS is <50% but >10% for organics window relation to the previous continuing calibration. Follow method-specific windows.	UJ, SV1b	J, SV1b
☐	☐	☒	22. The IS area count for the quantitating IS is >200% of the area count for the previous continuing calibration. Follow method-specific windows.	UJ, SV1c	J, SV1c
☐	☐	☒	23. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV1d	R, SV1d
☐	☒	☐	24. The surrogate is <10%R. Follow the external laboratory limits located within the associated data package.	R, SV3	J-, SV3
☐	☒	☐	25. The surrogate is < the Lower Acceptance Level (LAL) but ≥10%R. Follow the external laboratory limits located within the associated data package.	UJ, SV3a	J-, SV3a
☒	☐	☐	26. The surrogate %R value is > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, SV3b
☐	☒	☐	27. At least one surrogate is > the Upper Acceptance Limit (UAL) and one surrogate is < the LAL. Follow the external laboratory limits located within the associated data package.	UJ, SV3c	J, SV3c
☐	☒	☐	28. Required surrogate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV3d	R, SV3d
☐	☒	☐	29. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, SV12	J-, SV12

SEMIVOLATILE ORGANIC COMPOUND (SVOC) ANALYTICAL DATA VALIDATION CHECKLIST

5115-2

Semivolatile Organic Compound (SVOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	30. The LCS percent recovery was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, SV12a	J-, SV12a
☐	☒	☐	31. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, SV12b
☐	☒	☐	32. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV12c	R, SV12c
☐	☒	☐	33. The affected analyte is considered not detected because mass spectrum did not meet specifications.	N/A	U, SV8
☐	☒	☐	34. The mass spectrum column documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV8a	R, SV8a
☐	☒	☐	35. Duplicate, dilution, or reanalysis.	UJ, SV88	J, SV88
☐	☐	☒	36. The affected analytes have elevated detection limits and may not meet project DQOs because the sample was diluted without any target analytees identified due to matrix interference. Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.	UJ, R, SV15	R, SV15
☒	☐	☐	37. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB, NQ, NQ
☐	☒	☐	38. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.	UJ, R, SV19	J, R, SV19

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-852**	**Date Collected:**	**12/07/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242654001**	**Date Received:**	**12/10/2009 08:50**	**%Moisture:**	**14.6**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14224**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**932077**	**Inst:**	**MSD3.I**	**Dilution:**	**1**
Run Date:	**12/13/2009 14:55**	**Analyst:**	**JLD1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/11/2009 21:55**	**Aliquot:**	**30.17 g**	**Final Volume:**	**1 mL**
Data File:	**s311315.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
62-75-9	N-Methyl-N-nitrosomethylamine	U	388	ug/kg	77.6	388	
108-95-2	Phenol	U	388	ug/kg	77.6	388	
95-57-8	2-Chlorophenol	U	388	ug/kg	77.6	388	
106-46-7	1,4-Dichlorobenzene	U	388	ug/kg	77.6	388	
621-64-7	N-Nitrosodipropylamine	U	388	ug/kg	77.6	388	
59-50-7	4-Chloro-3-methylphenol	U	388	ug/kg	77.6	388	
83-32-9	Acenaphthene	U	38.8	ug/kg	12.8	38.8	
121-14-2	2,4-Dinitrotoluene	U	388	ug/kg	38.8	388	
100-02-7	4-Nitrophenol	U	388	ug/kg	128	388	
87-86-5	Pentachlorophenol	U	388	ug/kg	97.0	388	
129-00-0	Pyrene	U	38.8	ug/kg	11.6	38.8	
110-86-1	Pyridine	U	388	ug/kg	77.6	388	UJ,SV7c
62-53-3	Aniline	U	388	ug/kg	116	388	
111-44-4	bis(2-Chloroethyl) ether	U	388	ug/kg	77.6	388	
541-73-1	1,3-Dichlorobenzene	U	388	ug/kg	77.6	388	
100-51-6	Benzyl alcohol	U	388	ug/kg	116	388	
95-50-1	1,2-Dichlorobenzene	U	388	ug/kg	77.6	388	
108-60-1	bis(2-Chloroisopropyl)ether	U	388	ug/kg	77.6	388	UJ,SV7c
95-48-7	o-Cresol	U	388	ug/kg	77.6	388	
65794-96-9	m,p-Cresols	U	388	ug/kg	116	388	
67-72-1	Hexachloroethane	U	388	ug/kg	77.6	388	
98-95-3	Nitrobenzene	U	388	ug/kg	77.6	388	
78-59-1	Isophorone	U	388	ug/kg	77.6	388	
88-75-5	2-Nitrophenol	U	388	ug/kg	77.6	388	
105-67-9	2,4-Dimethylphenol	U	388	ug/kg	136	388	
111-91-1	bis(2-Chloroethoxy)methane	U	388	ug/kg	77.6	388	
120-83-2	2,4-Dichlorophenol	U	388	ug/kg	77.6	388	
65-85-0	Benzoic acid	U	776	ug/kg	194	776	
91-20-3	Naphthalene	U	38.8	ug/kg	11.6	38.8	
106-47-8	4-Chloroaniline	U	388	ug/kg	77.6	388	
87-68-3	Hexachlorobutadiene	U	388	ug/kg	77.6	388	
91-57-6	2-Methylnaphthalene	U	38.8	ug/kg	7.76	38.8	
77-47-4	Hexachlorocyclopentadiene	U	388	ug/kg	77.6	388	UJ,SV7c
88-06-2	2,4,6-Trichlorophenol	U	388	ug/kg	77.6	388	
95-95-4	2,4,5-Trichlorophenol	U	388	ug/kg	77.6	388	
91-58-7	2-Chloronaphthalene	U	38.8	ug/kg	12.8	38.8	
88-74-4	2-Nitroaniline	U	388	ug/kg	77.6	388	
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	388	ug/kg	77.6	388	

ETM
1/29/10

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242654001	**Date Received:**	12/10/2009 08:50	**%Moisture:**	14.6
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14224	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	932077	**Inst:**	MSD3.I	**Dilution:**	1
Run Date:	12/13/2009 14:55	**Analyst:**	JLD1	**Inj. Vol:**	.5 uL
Prep Date:	12/11/2009 21:55	**Aliquot:**	30.17 g	**Final Volume:**	1 mL
Data File:	s311315.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
	m-Nitroaniline						
131-11-3	Dimethylphthalate	U	388	ug/kg	77.6	388	
606-20-2	2,6-Dinitrotoluene	U	388	ug/kg	38.8	388	
208-96-8	Acenaphthylene	U	38.8	ug/kg	11.6	38.8	
51-28-5	2,4-Dinitrophenol	U	776	ug/kg	147	776	
132-64-9	Dibenzofuran	U	388	ug/kg	77.6	388	
84-66-2	Diethylphthalate	U	388	ug/kg	77.6	388	
86-73-7	Fluorene	U	38.8	ug/kg	11.6	38.8	
7005-72-3	4-Chlorophenylphenylether	U	388	ug/kg	77.6	388	
534-52-1	2-Methyl-4,6-dinitrophenol	U	388	ug/kg	77.6	388	
100-01-6	4-Nitroaniline	U	388	ug/kg	116	388	UJ,SV7c
	p-Nitroaniline						
122-39-4	Diphenylamine	U	388	ug/kg	77.6	388	
122-66-7	Azobenzene	U	388	ug/kg	77.6	388	
	1,2-Diphenylhydrazine						
101-55-3	4-Bromophenylphenylether	U	388	ug/kg	77.6	388	UJ,SV7c
118-74-1	Hexachlorobenzene	U	388	ug/kg	77.6	388	
85-01-8	Phenanthrene	U	38.8	ug/kg	11.6	38.8	
120-12-7	Anthracene	U	38.8	ug/kg	7.76	38.8	
84-74-2	Di-n-butylphthalate	U	388	ug/kg	77.6	388	
206-44-0	Fluoranthene	U	38.8	ug/kg	11.6	38.8	
85-68-7	Butylbenzylphthalate	U	388	ug/kg	77.6	388	
56-55-3	Benzo(a)anthracene	U	38.8	ug/kg	11.6	38.8	
91-94-1	3,3'-Dichlorobenzidine	U	388	ug/kg	116	388	
218-01-9	Chrysene	U	38.8	ug/kg	11.6	38.8	
117-81-7	bis(2-Ethylhexyl)phthalate	U	388	ug/kg	77.6	388	
117-84-0	Di-n-octylphthalate	U	388	ug/kg	77.6	388	
205-99-2	Benzo(b)fluoranthene	U	38.8	ug/kg	11.6	38.8	
207-08-9	Benzo(k)fluoranthene	U	38.8	ug/kg	11.6	38.8	
50-32-8	Benzo(a)pyrene	U	38.8	ug/kg	11.6	38.8	
193-39-5	Indeno(1,2,3-cd)pyrene	U	38.8	ug/kg	11.6	38.8	UJ,SV7c
53-70-3	Dibenzo(a,h)anthracene	U	38.8	ug/kg	11.6	38.8	
191-24-2	Benzo(ghi)perylene	U	38.8	ug/kg	11.6	38.8	
120-82-1	1,2,4-Trichlorobenzene	U	388	ug/kg	77.6	388	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.95	8.01	ug/kg		JA
475-20-7	1,4-Methanoazulene, decahydro-4,8,8-trim	6.99	5.92	ug/kg	99	NJ

ETM
1/29/10

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242654001	**Date Received:**	12/10/2009 08:50	**%Moisture:**	14.6
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14224	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	932077	**Inst:**	MSD3.I	**Dilution:**	1
Run Date:	12/13/2009 14:55	**Analyst:**	JLD1	**Inj. Vol:**	.5 uL
Prep Date:	12/11/2009 21:55	**Aliquot:**	30.17 g	**Final Volume:**	1 mL
Data File:	s311315.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
1235-74-1	1-Phenanthrenecarboxylic acid, 1,2,3,4,4	11.22	8.08	ug/kg	99	NJ
	Unknown	11.29	9.93	ug/kg		J
	Unknown	19.56	5.07	ug/kg		J

ETM
1/29/10

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	Date Collected:	12/07/2009 12:00	Matrix:	S
Lab Sample ID:	242654003	Date Received:	12/10/2009 08:50	%Moisture:	11.9
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14225	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	932077	Inst:	MSD3.I	Dilution:	1
Run Date:	12/13/2009 16:45	Analyst:	JLD1	Inj. Vol:	.5 uL
Prep Date:	12/11/2009 21:55	Aliquot:	30.09 g	Final Volume:	1 mL
Data File:	s311319.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
62-75-9	N-Methyl-N-nitrosomethylamine	U	377	ug/kg	75.5	377	
108-95-2	Phenol	U	377	ug/kg	75.5	377	
95-57-8	2-Chlorophenol	U	377	ug/kg	75.5	377	
106-46-7	1,4-Dichlorobenzene	U	377	ug/kg	75.5	377	
621-64-7	N-Nitrosodipropylamine	U	377	ug/kg	75.5	377	
59-50-7	4-Chloro-3-methylphenol	U	377	ug/kg	75.5	377	
83-32-9	Acenaphthene	U	37.7	ug/kg	12.5	37.7	
121-14-2	2,4-Dinitrotoluene	U	377	ug/kg	37.7	377	
100-02-7	4-Nitrophenol	U	377	ug/kg	125	377	
87-86-5	Pentachlorophenol	U	377	ug/kg	94.3	377	
129-00-0	Pyrene	U	37.7	ug/kg	11.3	37.7	
110-86-1	Pyridine	U	377	ug/kg	75.5	377	UJ,SV7c
62-53-3	Aniline	U	377	ug/kg	113	377	
111-44-4	bis(2-Chloroethyl) ether	U	377	ug/kg	75.5	377	
541-73-1	1,3-Dichlorobenzene	U	377	ug/kg	75.5	377	
100-51-6	Benzyl alcohol	U	377	ug/kg	113	377	
95-50-1	1,2-Dichlorobenzene	U	377	ug/kg	75.5	377	
108-60-1	bis(2-Chloroisopropyl)ether	U	377	ug/kg	75.5	377	UJ,SV7c
95-48-7	o-Cresol	U	377	ug/kg	75.5	377	
65794-96-9	m,p-Cresols	U	377	ug/kg	113	377	
67-72-1	Hexachloroethane	U	377	ug/kg	75.5	377	
98-95-3	Nitrobenzene	U	377	ug/kg	75.5	377	
78-59-1	Isophorone	U	377	ug/kg	75.5	377	
88-75-5	2-Nitrophenol	U	377	ug/kg	75.5	377	
105-67-9	2,4-Dimethylphenol	U	377	ug/kg	132	377	
111-91-1	bis(2-Chloroethoxy)methane	U	377	ug/kg	75.5	377	
120-83-2	2,4-Dichlorophenol	U	377	ug/kg	75.5	377	
65-85-0	Benzoic acid	U	755	ug/kg	189	755	
91-20-3	Naphthalene	U	37.7	ug/kg	11.3	37.7	
106-47-8	4-Chloroaniline	U	377	ug/kg	75.5	377	
87-68-3	Hexachlorobutadiene	U	377	ug/kg	75.5	377	
91-57-6	2-Methylnaphthalene	U	37.7	ug/kg	7.55	37.7	
77-47-4	Hexachlorocyclopentadiene	U	377	ug/kg	75.5	377	UJ,SV7c
88-06-2	2,4,6-Trichlorophenol	U	377	ug/kg	75.5	377	
95-95-4	2,4,5-Trichlorophenol	U	377	ug/kg	75.5	377	
91-58-7	2-Chloronaphthalene	U	37.7	ug/kg	12.5	37.7	
88-74-4	2-Nitroaniline	U	377	ug/kg	75.5	377	
	o-Nitroaniline						
99-09-2	3-Nitroaniline	U	377	ug/kg	75.5	377	

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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	Date Collected:	12/07/2009 12:00	Matrix:	S
Lab Sample ID:	242654003	Date Received:	12/10/2009 08:50	%Moisture:	11.9
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14225	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	932077	Inst:	MSD3.I	Dilution:	1
Run Date:	12/13/2009 16:45	Analyst:	JLD1	Inj. Vol:	.5 uL
Prep Date:	12/11/2009 21:55	Aliquot:	30.09 g	Final Volume:	1 mL
Data File:	s311319.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
	m-Nitroaniline						
131-11-3	Dimethylphthalate	U	377	ug/kg	75.5	377	
606-20-2	2,6-Dinitrotoluene	U	377	ug/kg	37.7	377	
208-96-8	Acenaphthylene	U	37.7	ug/kg	11.3	37.7	
51-28-5	2,4-Dinitrophenol	U	755	ug/kg	143	755	
132-64-9	Dibenzofuran	U	377	ug/kg	75.5	377	
84-66-2	Diethylphthalate	U	377	ug/kg	75.5	377	
86-73-7	Fluorene	U	37.7	ug/kg	11.3	37.7	
7005-72-3	4-Chlorophenylphenylether	U	377	ug/kg	75.5	377	
534-52-1	2-Methyl-4,6-dinitrophenol	U	377	ug/kg	75.5	377	
100-01-6	4-Nitroaniline	U	377	ug/kg	113	377	UJ,SV7c
	p-Nitroaniline						
122-39-4	Diphenylamine	U	377	ug/kg	75.5	377	
122-66-7	Azobenzene	U	377	ug/kg	75.5	377	
	1,2-Diphenylhydrazine						
101-55-3	4-Bromophenylphenylether	U	377	ug/kg	75.5	377	UJ,SV7c
118-74-1	Hexachlorobenzene	U	377	ug/kg	75.5	377	
85-01-8	Phenanthrene	U	37.7	ug/kg	11.3	37.7	
120-12-7	Anthracene	U	37.7	ug/kg	7.55	37.7	
84-74-2	Di-n-butylphthalate	U	377	ug/kg	75.5	377	
206-44-0	Fluoranthene	U	37.7	ug/kg	11.3	37.7	
85-68-7	Butylbenzylphthalate	U	377	ug/kg	75.5	377	
56-55-3	Benzo(a)anthracene	U	37.7	ug/kg	11.3	37.7	
91-94-1	3,3'-Dichlorobenzidine	U	377	ug/kg	113	377	
218-01-9	Chrysene	U	37.7	ug/kg	11.3	37.7	
117-81-7	bis(2-Ethylhexyl)phthalate	U	377	ug/kg	75.5	377	
117-84-0	Di-n-octylphthalate	U	377	ug/kg	75.5	377	
205-99-2	Benzo(b)fluoranthene	U	37.7	ug/kg	11.3	37.7	
207-08-9	Benzo(k)fluoranthene	U	37.7	ug/kg	11.3	37.7	
50-32-8	Benzo(a)pyrene	U	37.7	ug/kg	11.3	37.7	
193-39-5	Indeno(1,2,3-cd)pyrene	U	37.7	ug/kg	11.3	37.7	UJ,SV7c
53-70-3	Dibenzo(a,h)anthracene	U	37.7	ug/kg	11.3	37.7	
191-24-2	Benzo(ghi)perylene	U	37.7	ug/kg	11.3	37.7	
120-82-1	1,2,4-Trichlorobenzene	U	377	ug/kg	75.5	377	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Flt	Qual
	Unknown Aldol Condensate	2.94	285	ug/kg		JA
	Unknown	15.75	216	ug/kg		J

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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	Date Collected:	12/07/2009 12:00	Matrix:	S
Lab Sample ID:	242654004	Date Received:	12/10/2009 08:50	%Moisture:	9.5
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14226	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	932077	Inst:	MSD3.I	Dilution:	1
Run Date:	12/13/2009 17:13	Analyst:	JLD1	Inj. Vol:	.5 uL
Prep Date:	12/11/2009 21:55	Aliquot:	30.03 g	Final Volume:	1 mL
Data File:	s311320.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
62-75-9	N-Methyl-N-nitrosomethylamine	U	368	ug/kg	73.6	368	
108-95-2	Phenol	U	368	ug/kg	73.6	368	
95-57-8	2-Chlorophenol	U	368	ug/kg	73.6	368	
106-46-7	1,4-Dichlorobenzene	U	368	ug/kg	73.6	368	
621-64-7	N-Nitrosodipropylamine	U	368	ug/kg	73.6	368	
59-50-7	4-Chloro-3-methylphenol	U	368	ug/kg	73.6	368	
83-32-9	Acenaphthene	U	36.8	ug/kg	12.1	36.8	
121-14-2	2,4-Dinitrotoluene	U	368	ug/kg	36.8	368	
100-02-7	4-Nitrophenol	U	368	ug/kg	121	368	
87-86-5	Pentachlorophenol	U	368	ug/kg	92.0	368	
129-00-0	Pyrene	U	36.8	ug/kg	11.0	36.8	
110-86-1	Pyridine	U	368	ug/kg	73.6	368	UJ,SV7c
62-53-3	Aniline	U	368	ug/kg	110	368	
111-44-4	bis(2-Chloroethyl) ether	U	368	ug/kg	73.6	368	
541-73-1	1,3-Dichlorobenzene	U	368	ug/kg	73.6	368	
100-51-6	Benzyl alcohol	U	368	ug/kg	110	368	
95-50-1	1,2-Dichlorobenzene	U	368	ug/kg	73.6	368	
108-60-1	bis(2-Chloroisopropyl)ether	U	368	ug/kg	73.6	368	UJ,SV7c
95-48-7	o-Cresol	U	368	ug/kg	73.6	368	
65794-96-9	m,p-Cresols	U	368	ug/kg	110	368	
67-72-1	Hexachloroethane	U	368	ug/kg	73.6	368	
98-95-3	Nitrobenzene	U	368	ug/kg	73.6	368	
78-59-1	Isophorone	U	368	ug/kg	73.6	368	
88-75-5	2-Nitrophenol	U	368	ug/kg	73.6	368	
105-67-9	2,4-Dimethylphenol	U	368	ug/kg	129	368	
111-91-1	bis(2-Chloroethoxy)methane	U	368	ug/kg	73.6	368	
120-83-2	2,4-Dichlorophenol	U	368	ug/kg	73.6	368	
65-85-0	Benzoic acid	U	736	ug/kg	184	736	
91-20-3	Naphthalene	U	36.8	ug/kg	11.0	36.8	
106-47-8	4-Chloroaniline	U	368	ug/kg	73.6	368	
87-68-3	Hexachlorobutadiene	U	368	ug/kg	73.6	368	
91-57-6	2-Methylnaphthalene	U	36.8	ug/kg	7.36	36.8	
77-47-4	Hexachlorocyclopentadiene	U	368	ug/kg	73.6	368	UJ,SV7c
88-06-2	2,4,6-Trichlorophenol	U	368	ug/kg	73.6	368	
95-95-4	2,4,5-Trichlorophenol	U	368	ug/kg	73.6	368	
91-58-7	2-Chloronaphthalene	U	36.8	ug/kg	12.1	36.8	
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	368	ug/kg	73.6	368	
99-09-2	3-Nitroaniline	U	368	ug/kg	73.6	368	

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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242654004	**Date Received:**	12/10/2009 08:50	**%Moisture:**	9.5
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14226	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	932077	**Inst:**	MSD3.I	**Dilution:**	1
Run Date:	12/13/2009 17:13	**Analyst:**	JLD1	**Inj. Vol:**	.5 uL
Prep Date:	12/11/2009 21:55	**Aliquot:**	30.03 g	**Final Volume:**	1 mL
Data File:	s311320.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
	m-Nitroaniline						
131-11-3	Dimethylphthalate	U	368	ug/kg	73.6	368	
606-20-2	2,6-Dinitrotoluene	U	368	ug/kg	36.8	368	
208-96-8	Acenaphthylene	U	36.8	ug/kg	11.0	36.8	
51-28-5	2,4-Dinitrophenol	U	736	ug/kg	140	736	
132-64-9	Dibenzofuran	U	368	ug/kg	73.6	368	
84-66-2	Diethylphthalate	U	368	ug/kg	73.6	368	
86-73-7	Fluorene	U	36.8	ug/kg	11.0	36.8	
7005-72-3	4-Chlorophenylphenylether	U	368	ug/kg	73.6	368	
534-52-1	2-Methyl-4,6-dinitrophenol	U	368	ug/kg	73.6	368	
100-01-6	4-Nitroaniline	U	368	ug/kg	110	368	UJ,SV7c
	p-Nitroaniline						
122-39-4	Diphenylamine	U	368	ug/kg	73.6	368	
122-66-7	Azobenzene	U	368	ug/kg	73.6	368	
	1,2-Diphenylhydrazine						
101-55-3	4-Bromophenylphenylether	U	368	ug/kg	73.6	368	UJ,SV7c
118-74-1	Hexachlorobenzene	U	368	ug/kg	73.6	368	
85-01-8	Phenanthrene	U	36.8	ug/kg	11.0	36.8	
120-12-7	Anthracene	U	36.8	ug/kg	7.36	36.8	
84-74-2	Di-n-butylphthalate	U	368	ug/kg	73.6	368	
206-44-0	Fluoranthene	U	36.8	ug/kg	11.0	36.8	
85-68-7	Butylbenzylphthalate	U	368	ug/kg	73.6	368	
56-55-3	Benzo(a)anthracene	U	36.8	ug/kg	11.0	36.8	
91-94-1	3,3'-Dichlorobenzidine	U	368	ug/kg	110	368	
218-01-9	Chrysene	U	36.8	ug/kg	11.0	36.8	
117-81-7	bis(2-Ethylhexyl)phthalate	U	368	ug/kg	73.6	368	
117-84-0	Di-n-octylphthalate	U	368	ug/kg	73.6	368	
205-99-2	Benzo(b)fluoranthene	U	36.8	ug/kg	11.0	36.8	
207-08-9	Benzo(k)fluoranthene	U	36.8	ug/kg	11.0	36.8	
50-32-8	Benzo(a)pyrene	U	36.8	ug/kg	11.0	36.8	
193-39-5	Indeno(1,2,3-cd)pyrene	U	36.8	ug/kg	11.0	36.8	UJ,SV7c
53-70-3	Dibenzo(a,h)anthracene	U	36.8	ug/kg	11.0	36.8	
191-24-2	Benzo(ghi)perylene	U	36.8	ug/kg	11.0	36.8	
120-82-1	1,2,4-Trichlorobenzene	U	368	ug/kg	73.6	368	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.95	255	ug/kg		JA
475-20-7	1,4-Methanoazulene, decahydro-4,8,8-trim	6.99	288	ug/kg	98	NJ

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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242654004	**Date Received:**	12/10/2009 08:50	**%Moisture:**	9.5
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14226	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	932077	**Inst:**	MSD3.I	**Dilution:**	1
Run Date:	12/13/2009 17:13	**Analyst:**	JLD1	**Inj. Vol:**	.5 uL
Prep Date:	12/11/2009 21:55	**Aliquot:**	30.03 g	**Final Volume:**	1 mL
Data File:	s311320.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	11.12	162	ug/kg		J
	Unknown	19.56	211	ug/kg		J

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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	Date Collected:	12/07/2009 12:00	Matrix:	S
Lab Sample ID:	242654002	Date Received:	12/10/2009 08:50	%Moisture:	10.3
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14227	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	932077	Inst:	MSD3.I	Dilution:	1
Run Date:	12/13/2009 16:18	Analyst:	JLD1	Inj. Vol:	.5 uL
Prep Date:	12/11/2009 21:55	Aliquot:	30.03 g	Final Volume:	1 mL
Data File:	s3l1318.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
62-75-9	N-Methyl-N-nitrosomethylamine	U	371	ug/kg	74.2	371	
108-95-2	Phenol	U	371	ug/kg	74.2	371	
95-57-8	2-Chlorophenol	U	371	ug/kg	74.2	371	
106-46-7	1,4-Dichlorobenzene	U	371	ug/kg	74.2	371	
621-64-7	N-Nitrosodipropylamine	U	371	ug/kg	74.2	371	
59-50-7	4-Chloro-3-methylphenol	U	371	ug/kg	74.2	371	
83-32-9	Acenaphthene	U	37.1	ug/kg	12.2	37.1	
121-14-2	2,4-Dinitrotoluene	U	371	ug/kg	37.1	371	
100-02-7	4-Nitrophenol	U	371	ug/kg	122	371	
87-86-5	Pentachlorophenol	U	371	ug/kg	92.8	371	
129-00-0	Pyrene	U	37.1	ug/kg	11.1	37.1	
110-86-1	Pyridine	U	371	ug/kg	74.2	371	UJ,SV7c
62-53-3	Aniline	U	371	ug/kg	111	371	
111-44-4	bis(2-Chloroethyl) ether	U	371	ug/kg	74.2	371	
541-73-1	1,3-Dichlorobenzene	U	371	ug/kg	74.2	371	
100-51-6	Benzyl alcohol	U	371	ug/kg	111	371	
95-50-1	1,2-Dichlorobenzene	U	371	ug/kg	74.2	371	
108-60-1	bis(2-Chloroisopropyl)ether	U	371	ug/kg	74.2	371	UJ,SV7c
95-48-7	o-Cresol	U	371	ug/kg	74.2	371	
65794-96-9	m,p-Cresols	U	371	ug/kg	111	371	
67-72-1	Hexachloroethane	U	371	ug/kg	74.2	371	
98-95-3	Nitrobenzene	U	371	ug/kg	74.2	371	
78-59-1	Isophorone	U	371	ug/kg	74.2	371	
88-75-5	2-Nitrophenol	U	371	ug/kg	74.2	371	
105-67-9	2,4-Dimethylphenol	U	371	ug/kg	130	371	
111-91-1	bis(2-Chloroethoxy)methane	U	371	ug/kg	74.2	371	
120-83-2	2,4-Dichlorophenol	U	371	ug/kg	74.2	371	
65-85-0	Benzoic acid	U	742	ug/kg	186	742	
91-20-3	Naphthalene	U	37.1	ug/kg	11.1	37.1	
106-47-8	4-Chloroaniline	U	371	ug/kg	74.2	371	
87-68-3	Hexachlorobutadiene	U	371	ug/kg	74.2	371	
91-57-6	2-Methylnaphthalene	U	37.1	ug/kg	7.42	37.1	
77-47-4	Hexachlorocyclopentadiene	U	371	ug/kg	74.2	371	UJ,SV7c
88-06-2	2,4,6-Trichlorophenol	U	371	ug/kg	74.2	371	
95-95-4	2,4,5-Trichlorophenol	U	371	ug/kg	74.2	371	
91-58-7	2-Chloronaphthalene	U	37.1	ug/kg	12.2	37.1	
88-74-4	2-Nitroaniline	U	371	ug/kg	74.2	371	
	o-Nitroaniline						
99-09-2	3-Nitroaniline	U	371	ug/kg	74.2	371	

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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	Date Collected:	12/07/2009 12:00	Matrix:	S
Lab Sample ID:	242654002	Date Received:	12/10/2009 08:50	%Moisture:	10.3
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14227	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	932077	Inst:	MSD3.I	Dilution:	1
Run Date:	12/13/2009 16:18	Analyst:	JLD1	Inj. Vol:	.5 uL
Prep Date:	12/11/2009 21:55	Aliquot:	30.03 g	Final Volume:	1 mL
Data File:	s311318.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
	m-Nitroaniline						
131-11-3	Dimethylphthalate	U	371	ug/kg	74.2	371	
606-20-2	2,6-Dinitrotoluene	U	371	ug/kg	37.1	371	
208-96-8	Acenaphthylene	U	37.1	ug/kg	11.1	37.1	
51-28-5	2,4-Dinitrophenol	U	742	ug/kg	141	742	
132-64-9	Dibenzofuran	U	371	ug/kg	74.2	371	
84-66-2	Diethylphthalate	U	371	ug/kg	74.2	371	
86-73-7	Fluorene	U	37.1	ug/kg	11.1	37.1	
7005-72-3	4-Chlorophenylphenylether	U	371	ug/kg	74.2	371	
534-52-1	2-Methyl-4,6-dinitrophenol	U	371	ug/kg	74.2	371	
100-01-6	4-Nitroaniline	U	371	ug/kg	111	371	UJ,SV7c
	p-Nitroaniline						
122-39-4	Diphenylamine	U	371	ug/kg	74.2	371	
122-66-7	Azobenzene	U	371	ug/kg	74.2	371	
	1,2-Diphenylhydrazine						
101-55-3	4-Bromophenylphenylether	U	371	ug/kg	74.2	371	UJ,SV7c
118-74-1	Hexachlorobenzene	U	371	ug/kg	74.2	371	
85-01-8	Phenanthrene	U	37.1	ug/kg	11.1	37.1	
120-12-7	Anthracene	U	37.1	ug/kg	7.42	37.1	
84-74-2	Di-n-butylphthalate	U	371	ug/kg	74.2	371	
206-44-0	Fluoranthene	U	37.1	ug/kg	11.1	37.1	
85-68-7	Butylbenzylphthalate	U	371	ug/kg	74.2	371	
56-55-3	Benzo(a)anthracene	U	37.1	ug/kg	11.1	37.1	
91-94-1	3,3'-Dichlorobenzidine	U	371	ug/kg	111	371	
218-01-9	Chrysene	U	37.1	ug/kg	11.1	37.1	
117-81-7	bis(2-Ethylhexyl)phthalate	U	371	ug/kg	74.2	371	
117-84-0	Di-n-octylphthalate	U	371	ug/kg	74.2	371	
205-99-2	Benzo(b)fluoranthene	U	37.1	ug/kg	11.1	37.1	
207-08-9	Benzo(k)fluoranthene	U	37.1	ug/kg	11.1	37.1	
50-32-8	Benzo(a)pyrene	U	37.1	ug/kg	11.1	37.1	
193-39-5	Indeno(1,2,3-cd)pyrene	U	37.1	ug/kg	11.1	37.1	UJ,SV7c
53-70-3	Dibenzo(a,h)anthracene	U	37.1	ug/kg	11.1	37.1	
191-24-2	Benzo(ghi)perylene	U	37.1	ug/kg	11.1	37.1	
120-82-1	1,2,4-Trichlorobenzene	U	371	ug/kg	74.2	371	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.95	299	ug/kg		JA

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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-852**	**Date Collected:**	**12/07/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242654008**	**Date Received:**	**12/10/2009 08:50**	**%Moisture:**	**13**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14265**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**932077**	**Inst:**	**MSD3.I**	**Dilution:**	**4**
Run Date:	**12/13/2009 19:02**	**Analyst:**	**JLD1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/11/2009 21:55**	**Aliquot:**	**30.08 g**	**Final Volume:**	**1 mL**
Data File:	**s311324.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
62-75-9	N-Methyl-N-nitrosomethylamine	U	1530	ug/kg	306	1530	
108-95-2	Phenol	U	1530	ug/kg	306	1530	
95-57-8	2-Chlorophenol	U	1530	ug/kg	306	1530	
106-46-7	1,4-Dichlorobenzene	U	1530	ug/kg	306	1530	
621-64-7	N-Nitrosodipropylamine	U	1530	ug/kg	306	1530	
59-50-7	4-Chloro-3-methylphenol	U	1530	ug/kg	306	1530	
83-32-9	Acenaphthene	U	153	ug/kg	50.5	153	
121-14-2	2,4-Dinitrotoluene	U	1530	ug/kg	153	1530	
100-02-7	4-Nitrophenol	U	1530	ug/kg	505	1530	
87-86-5	Pentachlorophenol	U	1530	ug/kg	382	1530	
129-00-0	Pyrene	U	153	ug/kg	45.9	153	
110-86-1	Pyridine	U	1530	ug/kg	306	1530	UJ,SV7c
62-53-3	Aniline	U	1530	ug/kg	459	1530	
111-44-4	bis(2-Chloroethyl) ether	U	1530	ug/kg	306	1530	
541-73-1	1,3-Dichlorobenzene	U	1530	ug/kg	306	1530	
100-51-6	Benzyl alcohol	U	1530	ug/kg	459	1530	
95-50-1	1,2-Dichlorobenzene	U	1530	ug/kg	306	1530	
108-60-1	bis(2-Chloroisopropyl)ether	U	1530	ug/kg	306	1530	UJ,SV7c
95-48-7	o-Cresol	U	1530	ug/kg	306	1530	
65794-96-9	m,p-Cresols	U	1530	ug/kg	459	1530	
67-72-1	Hexachloroethane	U	1530	ug/kg	306	1530	
98-95-3	Nitrobenzene	U	1530	ug/kg	306	1530	
78-59-1	Isophorone	U	1530	ug/kg	306	1530	
88-75-5	2-Nitrophenol	U	1530	ug/kg	306	1530	
105-67-9	2,4-Dimethylphenol	U	1530	ug/kg	535	1530	
111-91-1	bis(2-Chloroethoxy)methane	U	1530	ug/kg	306	1530	
120-83-2	2,4-Dichlorophenol	U	1530	ug/kg	306	1530	
65-85-0	Benzoic acid	U	3060	ug/kg	765	3060	
91-20-3	Naphthalene	U	153	ug/kg	45.9	153	
106-47-8	4-Chloroaniline	U	1530	ug/kg	306	1530	
87-68-3	Hexachlorobutadiene	U	1530	ug/kg	306	1530	
91-57-6	2-Methylnaphthalene	U	153	ug/kg	30.6	153	
77-47-4	Hexachlorocyclopentadiene	U	1530	ug/kg	306	1530	UJ,SV7c
88-06-2	2,4,6-Trichlorophenol	U	1530	ug/kg	306	1530	
95-95-4	2,4,5-Trichlorophenol	U	1530	ug/kg	306	1530	
91-58-7	2-Chloronaphthalene	U	153	ug/kg	50.5	153	
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	1530	ug/kg	306	1530	
99-09-2	3-Nitroaniline	U	1530	ug/kg	306	1530	

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Certificate of Analysis
Sample Summary

SDG Number:	10-852	Date Collected:	12/07/2009 12:00	Matrix:	S
Lab Sample ID:	242654008	Date Received:	12/10/2009 08:50	%Moisture:	13
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14265	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	932077	Inst:	MSD3.I	Dilution:	4
Run Date:	12/13/2009 19:02	Analyst:	JLD1	Inj. Vol:	.5 uL
Prep Date:	12/11/2009 21:55	Aliquot:	30.08 g	Final Volume:	1 mL
Data File:	s311324.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
	m-Nitroaniline						
131-11-3	Dimethylphthalate	U	1530	ug/kg	306	1530	
606-20-2	2,6-Dinitrotoluene	U	1530	ug/kg	153	1530	
208-96-8	Acenaphthylene	U	153	ug/kg	45.9	153	
51-28-5	2,4-Dinitrophenol	U	3060	ug/kg	581	3060	
132-64-9	Dibenzofuran	U	1530	ug/kg	306	1530	
84-66-2	Diethylphthalate	U	1530	ug/kg	306	1530	
86-73-7	Fluorene	U	153	ug/kg	45.9	153	
7005-72-3	4-Chlorophenylphenylether	U	1530	ug/kg	306	1530	
534-52-1	2-Methyl-4,6-dinitrophenol	U	1530	ug/kg	306	1530	
100-01-6	4-Nitroaniline	U	1530	ug/kg	459	1530	UJ,SV7c
	p-Nitroaniline						
122-39-4	Diphenylamine	U	1530	ug/kg	306	1530	
122-66-7	Azobenzene	U	1530	ug/kg	306	1530	
	1,2-Diphenylhydrazine						
101-55-3	4-Bromophenylphenylether	U	1530	ug/kg	306	1530	UJ,SV7c
118-74-1	Hexachlorobenzene	U	1530	ug/kg	306	1530	
85-01-8	Phenanthrene	U	153	ug/kg	45.9	153	
120-12-7	Anthracene	U	153	ug/kg	30.6	153	
84-74-2	Di-n-butylphthalate	U	1530	ug/kg	306	1530	
206-44-0	Fluoranthene	U	153	ug/kg	45.9	153	
85-68-7	Butylbenzylphthalate	U	1530	ug/kg	306	1530	
56-55-3	Benzo(a)anthracene	U	153	ug/kg	45.9	153	
91-94-1	3,3'-Dichlorobenzidine	U	1530	ug/kg	459	1530	
218-01-9	Chrysene	U	153	ug/kg	45.9	153	
117-81-7	bis(2-Ethylhexyl)phthalate	U	1530	ug/kg	306	1530	
117-84-0	Di-n-octylphthalate	U	1530	ug/kg	306	1530	
205-99-2	Benzo(b)fluoranthene	U	153	ug/kg	45.9	153	
207-08-9	Benzo(k)fluoranthene	U	153	ug/kg	45.9	153	
50-32-8	Benzo(a)pyrene	U	153	ug/kg	45.9	153	
193-39-5	Indeno(1,2,3-cd)pyrene	U	153	ug/kg	45.9	153	UJ,SV7c
53-70-3	Dibenzo(a,h)anthracene	U	153	ug/kg	45.9	153	
191-24-2	Benzo(ghi)perylene	U	153	ug/kg	45.9	153	
120-82-1	1,2,4-Trichlorobenzene	U	1530	ug/kg	306	1530	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Flt	Qual
	No Tentatively Identified Compounds Found			ug/kg		

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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	Date Collected:	12/07/2009 12:00	Matrix:	S
Lab Sample ID:	242654007	Date Received:	12/10/2009 08:50	%Moisture:	14.2
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14267	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	932077	Inst:	MSD3.I	Dilution:	1
Run Date:	12/13/2009 18:35	Analyst:	JLD1	Inj. Vol:	.5 uL
Prep Date:	12/11/2009 21:55	Aliquot:	30.19 g	Final Volume:	1 mL
Data File:	s311323.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
62-75-9	N-Methyl-N-nitrosomethylamine	U	386	ug/kg	77.2	386	
108-95-2	Phenol	U	386	ug/kg	77.2	386	
95-57-8	2-Chlorophenol	U	386	ug/kg	77.2	386	
106-46-7	1,4-Dichlorobenzene	U	386	ug/kg	77.2	386	
621-64-7	N-Nitrosodipropylamine	U	386	ug/kg	77.2	386	
59-50-7	4-Chloro-3-methylphenol	U	386	ug/kg	77.2	386	
83-32-9	Acenaphthene	U	38.6	ug/kg	12.7	38.6	
121-14-2	2,4-Dinitrotoluene	U	386	ug/kg	38.6	386	
100-02-7	4-Nitrophenol	U	386	ug/kg	127	386	
87-86-5	Pentachlorophenol	U	386	ug/kg	96.5	386	
129-00-0	Pyrene		57.6	ug/kg	11.6	38.6	
110-86-1	Pyridine	U	386	ug/kg	77.2	386	UJ,SV7c
62-53-3	Aniline	U	386	ug/kg	116	386	
111-44-4	bis(2-Chloroethyl) ether	U	386	ug/kg	77.2	386	
541-73-1	1,3-Dichlorobenzene	U	386	ug/kg	77.2	386	
100-51-6	Benzyl alcohol	U	386	ug/kg	116	386	
95-50-1	1,2-Dichlorobenzene	U	386	ug/kg	77.2	386	
108-60-1	bis(2-Chloroisopropyl)ether	U	386	ug/kg	77.2	386	UJ,SV7c
95-48-7	o-Cresol	U	386	ug/kg	77.2	386	
65794-96-9	m,p-Cresols	U	386	ug/kg	116	386	
67-72-1	Hexachloroethane	U	386	ug/kg	77.2	386	
98-95-3	Nitrobenzene	U	386	ug/kg	77.2	386	
78-59-1	Isophorone	U	386	ug/kg	77.2	386	
88-75-5	2-Nitrophenol	U	386	ug/kg	77.2	386	
105-67-9	2,4-Dimethylphenol	U	386	ug/kg	135	386	
111-91-1	bis(2-Chloroethoxy)methane	U	386	ug/kg	77.2	386	
120-83-2	2,4-Dichlorophenol	U	386	ug/kg	77.2	386	
65-85-0	Benzoic acid	U	772	ug/kg	193	772	
91-20-3	Naphthalene	U	38.6	ug/kg	11.6	38.6	
106-47-8	4-Chloroaniline	U	386	ug/kg	77.2	386	
87-68-3	Hexachlorobutadiene	U	386	ug/kg	77.2	386	
91-57-6	2-Methylnaphthalene	U	38.6	ug/kg	7.72	38.6	
77-47-4	Hexachlorocyclopentadiene	U	386	ug/kg	77.2	386	UJ,SV7c
88-06-2	2,4,6-Trichlorophenol	U	386	ug/kg	77.2	386	
95-95-4	2,4,5-Trichlorophenol	U	386	ug/kg	77.2	386	
91-58-7	2-Chloronaphthalene	U	38.6	ug/kg	12.7	38.6	
88-74-4	2-Nitroaniline	U	386	ug/kg	77.2	386	
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	386	ug/kg	77.2	386	

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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	Date Collected:	12/07/2009 12:00	Matrix:	S
Lab Sample ID:	242654007	Date Received:	12/10/2009 08:50	%Moisture:	14.2
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14267	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	932077	Inst:	MSD3.I	Dilution:	1
Run Date:	12/13/2009 18:35	Analyst:	JLD1	Inj. Vol:	.5 uL
Prep Date:	12/11/2009 21:55	Aliquot:	30.19 g	Final Volume:	1 mL
Data File:	s311323.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
	m-Nitroaniline						
131-11-3	Dimethylphthalate	U	386	ug/kg	77.2	386	
606-20-2	2,6-Dinitrotoluene	U	386	ug/kg	38.6	386	
208-96-8	Acenaphthylene	U	38.6	ug/kg	11.6	38.6	
51-28-5	2,4-Dinitrophenol	U	772	ug/kg	147	772	
132-64-9	Dibenzofuran	U	386	ug/kg	77.2	386	
84-66-2	Diethylphthalate	U	386	ug/kg	77.2	386	
86-73-7	Fluorene	U	38.6	ug/kg	11.6	38.6	
7005-72-3	4-Chlorophenylphenylether	U	386	ug/kg	77.2	386	
534-52-1	2-Methyl-4,6-dinitrophenol	U	386	ug/kg	77.2	386	
100-01-6	4-Nitroaniline	U	386	ug/kg	116	386	UJ,SV7c
	p-Nitroaniline						
122-39-4	Diphenylamine	U	386	ug/kg	77.2	386	
122-66-7	Azobenzene	U	386	ug/kg	77.2	386	
	1,2-Diphenylhydrazine						
101-55-3	4-Bromophenylphenylether	U	386	ug/kg	77.2	386	UJ,SV7c
118-74-1	Hexachlorobenzene	U	386	ug/kg	77.2	386	
85-01-8	Phenanthrene	U	38.6	ug/kg	11.6	38.6	
120-12-7	Anthracene	U	38.6	ug/kg	7.72	38.6	
84-74-2	Di-n-butylphthalate	U	386	ug/kg	77.2	386	
206-44-0	Fluoranthene		42.2	ug/kg	11.6	38.6	
85-68-7	Butylbenzylphthalate	U	386	ug/kg	77.2	386	
56-55-3	Benzo(a)anthracene	J	31.3	ug/kg	11.6	38.6	
91-94-1	3,3'-Dichlorobenzidine	U	386	ug/kg	116	386	
218-01-9	Chrysene		46.8	ug/kg	11.6	38.6	
117-81-7	bis(2-Ethylhexyl)phthalate	J	81.2	ug/kg	77.2	386	
117-84-0	Di-n-octylphthalate	U	386	ug/kg	77.2	386	
205-99-2	Benzo(b)fluoranthene		51.7	ug/kg	11.6	38.6	
207-08-9	Benzo(k)fluoranthene	U	38.6	ug/kg	11.6	38.6	
50-32-8	Benzo(a)pyrene	J	33.4	ug/kg	11.6	38.6	
193-39-5	Indeno(1,2,3-cd)pyrene	J	26.9	ug/kg	11.6	38.6	J,SV7c
53-70-3	Dibenzo(a,h)anthracene	U	38.6	ug/kg	11.6	38.6	
191-24-2	Benzo(ghi)perylene	J	34.1	ug/kg	11.6	38.6	
120-82-1	1,2,4-Trichlorobenzene	U	386	ug/kg	77.2	386	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Flt	Qual
	Unknown Aldol Condensate	2.95	337	ug/kg		JA
301-02-0	9-Octadecenamide, (Z)-	11.21	186	ug/kg	93	NJ

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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242654007	**Date Received:**	12/10/2009 08:50	**%Moisture:**	14.2
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14267	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	932077	**Inst:**	MSD3.I	**Dilution:**	1
Run Date:	12/13/2009 18:35	**Analyst:**	JLD1	**Inj. Vol:**	.5 uL
Prep Date:	12/11/2009 21:55	**Aliquot:**	30.19 g	**Final Volume:**	1 mL
Data File:	s311323.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	14.7	190	ug/kg		J
	Unknown	15.21	168	ug/kg		J

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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	Date Collected:	12/07/2009 12:00	Matrix:	S
Lab Sample ID:	242654014	Date Received:	12/10/2009 08:50	%Moisture:	10.7
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14269	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	932077	Inst:	MSD3.I	Dilution:	1
Run Date:	12/15/2009 10:34	Analyst:	JLD1	Inj. Vol:	.5 uL
Prep Date:	12/11/2009 21:55	Aliquot:	30.02 g	Final Volume:	1 mL
Data File:	s311507.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
62-75-9	N-Methyl-N-nitrosomethylamine	U	373	ug/kg	74.6	373	
108-95-2	Phenol	U	373	ug/kg	74.6	373	
95-57-8	2-Chlorophenol	U	373	ug/kg	74.6	373	
106-46-7	1,4-Dichlorobenzene	U	373	ug/kg	74.6	373	
621-64-7	N-Nitrosodipropylamine	U	373	ug/kg	74.6	373	
59-50-7	4-Chloro-3-methylphenol	U	373	ug/kg	74.6	373	
83-32-9	Acenaphthene	U	37.3	ug/kg	12.3	37.3	
121-14-2	2,4-Dinitrotoluene	U	373	ug/kg	37.3	373	
100-02-7	4-Nitrophenol	U	373	ug/kg	123	373	
87-86-5	Pentachlorophenol	U	373	ug/kg	93.2	373	
129-00-0	Pyrene	U	37.3	ug/kg	11.2	37.3	
110-86-1	Pyridine	U	373	ug/kg	74.6	373	UJ,SV7c
62-53-3	Aniline	U	373	ug/kg	112	373	
111-44-4	bis(2-Chloroethyl) ether	U	373	ug/kg	74.6	373	
541-73-1	1,3-Dichlorobenzene	U	373	ug/kg	74.6	373	
100-51-6	Benzyl alcohol	U	373	ug/kg	112	373	
95-50-1	1,2-Dichlorobenzene	U	373	ug/kg	74.6	373	
108-60-1	bis(2-Chloroisopropyl)ether	U	373	ug/kg	74.6	373	
95-48-7	o-Cresol	U	373	ug/kg	74.6	373	
65794-96-9	m,p-Cresols	U	373	ug/kg	112	373	
67-72-1	Hexachloroethane	U	373	ug/kg	74.6	373	
98-95-3	Nitrobenzene	U	373	ug/kg	74.6	373	
78-59-1	Isophorone	U	373	ug/kg	74.6	373	
88-75-5	2-Nitrophenol	U	373	ug/kg	74.6	373	
105-67-9	2,4-Dimethylphenol	U	373	ug/kg	131	373	
111-91-1	bis(2-Chloroethoxy)methane	U	373	ug/kg	74.6	373	
120-83-2	2,4-Dichlorophenol	U	373	ug/kg	74.6	373	
65-85-0	Benzoic acid	U	746	ug/kg	186	746	UJ,SV7c
91-20-3	Naphthalene	U	37.3	ug/kg	11.2	37.3	
106-47-8	4-Chloroaniline	U	373	ug/kg	74.6	373	
87-68-3	Hexachlorobutadiene	U	373	ug/kg	74.6	373	
91-57-6	2-Methylnaphthalene	U	37.3	ug/kg	7.46	37.3	
77-47-4	Hexachlorocyclopentadiene	U	373	ug/kg	74.6	373	UJ,SV7c
88-06-2	2,4,6-Trichlorophenol	U	373	ug/kg	74.6	373	
95-95-4	2,4,5-Trichlorophenol	U	373	ug/kg	74.6	373	
91-58-7	2-Chloronaphthalene	U	37.3	ug/kg	12.3	37.3	
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	373	ug/kg	74.6	373	
99-09-2	3-Nitroaniline	U	373	ug/kg	74.6	373	UJ,SV7c

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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	Date Collected:	12/07/2009 12:00	Matrix:	S
Lab Sample ID:	242654014	Date Received:	12/10/2009 08:50	%Moisture:	10.7
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14269	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	932077	Inst:	MSD3.I	Dilution:	1
Run Date:	12/15/2009 10:34	Analyst:	JLD1	Inj. Vol:	.5 uL
Prep Date:	12/11/2009 21:55	Aliquot:	30.02 g	Final Volume:	1 mL
Data File:	s311507.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
	m-Nitroaniline						
131-11-3	Dimethylphthalate	U	373	ug/kg	74.6	373	
606-20-2	2,6-Dinitrotoluene	U	373	ug/kg	37.3	373	
208-96-8	Acenaphthylene	U	37.3	ug/kg	11.2	37.3	
51-28-5	2,4-Dinitrophenol	U	746	ug/kg	142	746	
132-64-9	Dibenzofuran	U	373	ug/kg	74.6	373	
84-66-2	Diethylphthalate	U	373	ug/kg	74.6	373	
86-73-7	Fluorene	U	37.3	ug/kg	11.2	37.3	
7005-72-3	4-Chlorophenylphenylether	U	373	ug/kg	74.6	373	
534-52-1	2-Methyl-4,6-dinitrophenol	U	373	ug/kg	74.6	373	UJ,SV7c
100-01-6	4-Nitroaniline	U	373	ug/kg	112	373	UJ,SV7c
	p-Nitroaniline						
122-39-4	Diphenylamine	U	373	ug/kg	74.6	373	
122-66-7	Azobenzene	U	373	ug/kg	74.6	373	
	1,2-Diphenylhydrazine						
101-55-3	4-Bromophenylphenylether	U	373	ug/kg	74.6	373	UJ,SV7c
118-74-1	Hexachlorobenzene	U	373	ug/kg	74.6	373	
85-01-8	Phenanthrene	U	37.3	ug/kg	11.2	37.3	
120-12-7	Anthracene	U	37.3	ug/kg	7.46	37.3	
84-74-2	Di-n-butylphthalate	U	373	ug/kg	74.6	373	
206-44-0	Fluoranthene	U	37.3	ug/kg	11.2	37.3	
85-68-7	Butylbenzylphthalate	U	373	ug/kg	74.6	373	
56-55-3	Benzo(a)anthracene	U	37.3	ug/kg	11.2	37.3	
91-94-1	3,3'-Dichlorobenzidine	U	373	ug/kg	112	373	
218-01-9	Chrysene	U	37.3	ug/kg	11.2	37.3	
117-81-7	bis(2-Ethylhexyl)phthalate	U	373	ug/kg	74.6	373	UJ,SV7c
117-84-0	Di-n-octylphthalate	U	373	ug/kg	74.6	373	
205-99-2	Benzo(b)fluoranthene	U	37.3	ug/kg	11.2	37.3	
207-08-9	Benzo(k)fluoranthene	U	37.3	ug/kg	11.2	37.3	
50-32-8	Benzo(a)pyrene	U	37.3	ug/kg	11.2	37.3	
193-39-5	Indeno(1,2,3-cd)pyrene	U	37.3	ug/kg	11.2	37.3	UJ,SV7c
53-70-3	Dibenzo(a,h)anthracene	U	37.3	ug/kg	11.2	37.3	
191-24-2	Benzo(ghi)perylene	U	37.3	ug/kg	11.2	37.3	
120-82-1	1,2,4-Trichlorobenzene	U	373	ug/kg	74.6	373	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Flt	Qual
	Unknown	1.91	162	ug/kg		J
	Unknown Aldol Condensate	2.91	320	ug/kg		JA

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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242654014	**Date Received:**	12/10/2009 08:50	**%Moisture:**	10.7
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14269	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	932077	**Inst:**	MSD3.I	**Dilution:**	1
Run Date:	12/15/2009 10:34	**Analyst:**	JLD1	**Inj. Vol:**	.5 uL
Prep Date:	12/11/2009 21:55	**Aliquot:**	30.02 g	**Final Volume:**	1 mL
Data File:	s311507.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Flt	Qual
120-08-1	2H-1-Benzopyran-2-one, 6,7-dimethoxy-	9.69	359	ug/kg	98	NJ
	Unknown	14.63	164	ug/kg		J

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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	Date Collected:	12/07/2009 12:00	Matrix:	S
Lab Sample ID:	242654016	Date Received:	12/10/2009 08:50	%Moisture:	13.4
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14271	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	932077	Inst:	MSD3.I	Dilution:	1
Run Date:	12/13/2009 22:42	Analyst:	JLD1	Inj. Vol:	.5 uL
Prep Date:	12/11/2009 21:55	Aliquot:	30.12 g	Final Volume:	1 mL
Data File:	s311332.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
62-75-9	N-Methyl-N-nitrosomethylamine	U	384	ug/kg	76.7	384	
108-95-2	Phenol	U	384	ug/kg	76.7	384	
95-57-8	2-Chlorophenol	U	384	ug/kg	76.7	384	
106-46-7	1,4-Dichlorobenzene	U	384	ug/kg	76.7	384	
621-64-7	N-Nitrosodipropylamine	U	384	ug/kg	76.7	384	
59-50-7	4-Chloro-3-methylphenol	U	384	ug/kg	76.7	384	
83-32-9	Acenaphthene	U	38.4	ug/kg	12.7	38.4	
121-14-2	2,4-Dinitrotoluene	U	384	ug/kg	38.4	384	
100-02-7	4-Nitrophenol	U	384	ug/kg	127	384	
87-86-5	Pentachlorophenol	U	384	ug/kg	95.9	384	
129-00-0	Pyrene	U	38.4	ug/kg	11.5	38.4	
110-86-1	Pyridine	U	384	ug/kg	76.7	384	UJ,SV7c
62-53-3	Aniline	U	384	ug/kg	115	384	
111-44-4	bis(2-Chloroethyl) ether	U	384	ug/kg	76.7	384	
541-73-1	1,3-Dichlorobenzene	U	384	ug/kg	76.7	384	
100-51-6	Benzyl alcohol	U	384	ug/kg	115	384	
95-50-1	1,2-Dichlorobenzene	U	384	ug/kg	76.7	384	
108-60-1	bis(2-Chloroisopropyl)ether	U	384	ug/kg	76.7	384	UJ,SV7c
95-48-7	o-Cresol	U	384	ug/kg	76.7	384	
65794-96-9	m,p-Cresols	U	384	ug/kg	115	384	
67-72-1	Hexachloroethane	U	384	ug/kg	76.7	384	
98-95-3	Nitrobenzene	U	384	ug/kg	76.7	384	
78-59-1	Isophorone	U	384	ug/kg	76.7	384	
88-75-5	2-Nitrophenol	U	384	ug/kg	76.7	384	
105-67-9	2,4-Dimethylphenol	U	384	ug/kg	134	384	
111-91-1	bis(2-Chloroethoxy)methane	U	384	ug/kg	76.7	384	
120-83-2	2,4-Dichlorophenol	U	384	ug/kg	76.7	384	
65-85-0	Benzoic acid	U	767	ug/kg	192	767	
91-20-3	Naphthalene	U	38.4	ug/kg	11.5	38.4	
106-47-8	4-Chloroaniline	U	384	ug/kg	76.7	384	
87-68-3	Hexachlorobutadiene	U	384	ug/kg	76.7	384	
91-57-6	2-Methylnaphthalene	U	38.4	ug/kg	7.67	38.4	
77-47-4	Hexachlorocyclopentadiene	U	384	ug/kg	76.7	384	UJ,SV7c
88-06-2	2,4,6-Trichlorophenol	U	384	ug/kg	76.7	384	
95-95-4	2,4,5-Trichlorophenol	U	384	ug/kg	76.7	384	
91-58-7	2-Chloronaphthalene	U	38.4	ug/kg	12.7	38.4	
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	384	ug/kg	76.7	384	
99-09-2	3-Nitroaniline	U	384	ug/kg	76.7	384	

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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	Date Collected:	12/07/2009 12:00	Matrix:	S
Lab Sample ID:	242654016	Date Received:	12/10/2009 08:50	%Moisture:	13.4
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14271	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	932077	Inst:	MSD3.I	Dilution:	1
Run Date:	12/13/2009 22:42	Analyst:	JLD1	Inj. Vol:	.5 uL
Prep Date:	12/11/2009 21:55	Aliquot:	30.12 g	Final Volume:	1 mL
Data File:	s311332.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
	m-Nitroaniline						
131-11-3	Dimethylphthalate	U	384	ug/kg	76.7	384	
606-20-2	2,6-Dinitrotoluene	U	384	ug/kg	38.4	384	
208-96-8	Acenaphthylene	U	38.4	ug/kg	11.5	38.4	
51-28-5	2,4-Dinitrophenol	U	767	ug/kg	146	767	
132-64-9	Dibenzofuran	U	384	ug/kg	76.7	384	
84-66-2	Diethylphthalate	U	384	ug/kg	76.7	384	
86-73-7	Fluorene	U	38.4	ug/kg	11.5	38.4	
7005-72-3	4-Chlorophenylphenylether	U	384	ug/kg	76.7	384	
534-52-1	2-Methyl-4,6-dinitrophenol	U	384	ug/kg	76.7	384	
100-01-6	4-Nitroaniline	U	384	ug/kg	115	384	UJ,SV7c
	p-Nitroaniline						
122-39-4	Diphenylamine	U	384	ug/kg	76.7	384	
122-66-7	Azobenzene	U	384	ug/kg	76.7	384	
	1,2-Diphenylhydrazine						
101-55-3	4-Bromophenylphenylether	U	384	ug/kg	76.7	384	UJ,SV7c
118-74-1	Hexachlorobenzene	U	384	ug/kg	76.7	384	
85-01-8	Phenanthrene	U	38.4	ug/kg	11.5	38.4	
120-12-7	Anthracene	U	38.4	ug/kg	7.67	38.4	
84-74-2	Di-n-butylphthalate	U	384	ug/kg	76.7	384	
206-44-0	Fluoranthene	U	38.4	ug/kg	11.5	38.4	
85-68-7	Butylbenzylphthalate	U	384	ug/kg	76.7	384	
56-55-3	Benzo(a)anthracene	U	38.4	ug/kg	11.5	38.4	
91-94-1	3,3'-Dichlorobenzidine	U	384	ug/kg	115	384	
218-01-9	Chrysene	U	38.4	ug/kg	11.5	38.4	
117-81-7	bis(2-Ethylhexyl)phthalate	U	384	ug/kg	76.7	384	
117-84-0	Di-n-octylphthalate	U	384	ug/kg	76.7	384	
205-99-2	Benzo(b)fluoranthene	U	38.4	ug/kg	11.5	38.4	
207-08-9	Benzo(k)fluoranthene	U	38.4	ug/kg	11.5	38.4	
50-32-8	Benzo(a)pyrene	U	38.4	ug/kg	11.5	38.4	
193-39-5	Indeno(1,2,3-cd)pyrene	U	38.4	ug/kg	11.5	38.4	UJ,SV7c
53-70-3	Dibenzo(a,h)anthracene	U	38.4	ug/kg	11.5	38.4	
191-24-2	Benzo(ghi)perylene	U	38.4	ug/kg	11.5	38.4	
120-82-1	1,2,4-Trichlorobenzene	U	384	ug/kg	76.7	384	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.94	265	ug/kg		JA

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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-852**	**Date Collected:**	**12/07/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242654015**	**Date Received:**	**12/10/2009 08:50**	**%Moisture:**	**10.3**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14273**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**932077**	**Inst:**	**MSD3.I**	**Dilution:**	**1**
Run Date:	**12/15/2009 11:01**	**Analyst:**	**JLD1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/11/2009 21:55**	**Aliquot:**	**30.01 g**	**Final Volume:**	**1 mL**
Data File:	**s3l1508.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
62-75-9	N-Methyl-N-nitrosomethylamine	U	372	ug/kg	74.3	372	
108-95-2	Phenol	U	372	ug/kg	74.3	372	
95-57-8	2-Chlorophenol	U	372	ug/kg	74.3	372	
106-46-7	1,4-Dichlorobenzene	U	372	ug/kg	74.3	372	
621-64-7	N-Nitrosodipropylamine	U	372	ug/kg	74.3	372	
59-50-7	4-Chloro-3-methylphenol	U	372	ug/kg	74.3	372	
83-32-9	Acenaphthene	U	37.2	ug/kg	12.3	37.2	
121-14-2	2,4-Dinitrotoluene	U	372	ug/kg	37.2	372	
100-02-7	4-Nitrophenol	U	372	ug/kg	123	372	
87-86-5	Pentachlorophenol	U	372	ug/kg	92.9	372	
129-00-0	Pyrene	J	22.8	ug/kg	11.1	37.2	
110-86-1	Pyridine	U	372	ug/kg	74.3	372	UJ,SV7c
62-53-3	Aniline	U	372	ug/kg	111	372	
111-44-4	bis(2-Chloroethyl) ether	U	372	ug/kg	74.3	372	
541-73-1	1,3-Dichlorobenzene	U	372	ug/kg	74.3	372	
100-51-6	Benzyl alcohol	U	372	ug/kg	111	372	
95-50-1	1,2-Dichlorobenzene	U	372	ug/kg	74.3	372	
108-60-1	bis(2-Chloroisopropyl)ether	U	372	ug/kg	74.3	372	
95-48-7	o-Cresol	U	372	ug/kg	74.3	372	
65794-96-9	m,p-Cresols	U	372	ug/kg	111	372	
67-72-1	Hexachloroethane	U	372	ug/kg	74.3	372	
98-95-3	Nitrobenzene	U	372	ug/kg	74.3	372	
78-59-1	Isophorone	U	372	ug/kg	74.3	372	
88-75-5	2-Nitrophenol	U	372	ug/kg	74.3	372	
105-67-9	2,4-Dimethylphenol	U	372	ug/kg	130	372	
111-91-1	bis(2-Chloroethoxy)methane	U	372	ug/kg	74.3	372	
120-83-2	2,4-Dichlorophenol	U	372	ug/kg	74.3	372	
65-85-0	Benzoic acid	U	743	ug/kg	186	743	UJ,SV7c
91-20-3	Naphthalene	U	37.2	ug/kg	11.1	37.2	
106-47-8	4-Chloroaniline	U	372	ug/kg	74.3	372	
87-68-3	Hexachlorobutadiene	U	372	ug/kg	74.3	372	
91-57-6	2-Methylnaphthalene	U	37.2	ug/kg	7.43	37.2	
77-47-4	Hexachlorocyclopentadiene	U	372	ug/kg	74.3	372	UJ,SV7c
88-06-2	2,4,6-Trichlorophenol	U	372	ug/kg	74.3	372	
95-95-4	2,4,5-Trichlorophenol	U	372	ug/kg	74.3	372	
91-58-7	2-Chloronaphthalene	U	37.2	ug/kg	12.3	37.2	
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	372	ug/kg	74.3	372	
99-09-2	3-Nitroaniline	U	372	ug/kg	74.3	372	UJ,SV7c

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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	Date Collected:	12/07/2009 12:00	Matrix:	S
Lab Sample ID:	242654015	Date Received:	12/10/2009 08:50	%Moisture:	10.3
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14273	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	932077	Inst:	MSD3.I	Dilution:	1
Run Date:	12/15/2009 11:01	Analyst:	JLD1	Inj. Vol:	.5 uL
Prep Date:	12/11/2009 21:55	Aliquot:	30.01 g	Final Volume:	1 mL
Data File:	s311508.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
	m-Nitroaniline						
131-11-3	Dimethylphthalate	U	372	ug/kg	74.3	372	
606-20-2	2,6-Dinitrotoluene	U	372	ug/kg	37.2	372	
208-96-8	Acenaphthylene	U	37.2	ug/kg	11.1	37.2	
51-28-5	2,4-Dinitrophenol	U	743	ug/kg	141	743	
132-64-9	Dibenzofuran	U	372	ug/kg	74.3	372	
84-66-2	Diethylphthalate	U	372	ug/kg	74.3	372	
86-73-7	Fluorene	U	37.2	ug/kg	11.1	37.2	
7005-72-3	4-Chlorophenylphenylether	U	372	ug/kg	74.3	372	
534-52-1	2-Methyl-4,6-dinitrophenol	U	372	ug/kg	74.3	372	UJ,SV7c
100-01-6	4-Nitroaniline	U	372	ug/kg	111	372	UJ,SV7c
	p-Nitroaniline						
122-39-4	Diphenylamine	U	372	ug/kg	74.3	372	
122-66-7	Azobenzene	U	372	ug/kg	74.3	372	
	1,2-Diphenylhydrazine						
101-55-3	4-Bromophenylphenylether	U	372	ug/kg	74.3	372	UJ,SV7c
118-74-1	Hexachlorobenzene	U	372	ug/kg	74.3	372	
85-01-8	Phenanthrene	J	11.8	ug/kg	11.1	37.2	
120-12-7	Anthracene	U	37.2	ug/kg	7.43	37.2	
84-74-2	Di-n-butylphthalate	U	372	ug/kg	74.3	372	
206-44-0	Fluoranthene	J	18.8	ug/kg	11.1	37.2	
85-68-7	Butylbenzylphthalate	U	372	ug/kg	74.3	372	
56-55-3	Benzo(a)anthracene	U	37.2	ug/kg	11.1	37.2	
91-94-1	3,3'-Dichlorobenzidine	U	372	ug/kg	111	372	
218-01-9	Chrysene	U	37.2	ug/kg	11.1	37.2	
117-81-7	bis(2-Ethylhexyl)phthalate	U	372	ug/kg	74.3	372	UJ,SV7c
117-84-0	Di-n-octylphthalate	U	372	ug/kg	74.3	372	
205-99-2	Benzo(b)fluoranthene	J	21.4	ug/kg	11.1	37.2	
207-08-9	Benzo(k)fluoranthene	U	37.2	ug/kg	11.1	37.2	
50-32-8	Benzo(a)pyrene	U	37.2	ug/kg	11.1	37.2	
193-39-5	Indeno(1,2,3-cd)pyrene	U	37.2	ug/kg	11.1	37.2	UJ,SV7c
53-70-3	Dibenzo(a,h)anthracene	U	37.2	ug/kg	11.1	37.2	
191-24-2	Benzo(ghi)perylene	U	37.2	ug/kg	11.1	37.2	
120-82-1	1,2,4-Trichlorobenzene	U	372	ug/kg	74.3	372	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.91	272	ug/kg		JA
	Unknown	3.57	152	ug/kg		J

ETM
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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	Date Collected:	12/07/2009 12:00	Matrix:	S
Lab Sample ID:	242654015	Date Received:	12/10/2009 08:50	%Moisture:	10.3
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14273	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	932077	Inst:	MSD3.I	Dilution:	1
Run Date:	12/15/2009 11:01	Analyst:	JLD1	Inj. Vol:	.5 uL
Prep Date:	12/11/2009 21:55	Aliquot:	30.01 g	Final Volume:	1 mL
Data File:	s311508.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
80-56-8	.alpha.-Pinene	3.65	7180	ug/kg	96	NJ
18172-67-3	Bicyclo[3.1.1]heptane, 6,6-dimethyl-2-me	3.99	188	ug/kg	97	NJ
586-62-9	Cyclohexene, 1-methyl-4-(1-methylethylid	4.75	207	ug/kg	97	NJ
5655-61-8	Bicyclo[2.2.1]heptan-2-ol, 1,7,7-trimeth	6.09	177	ug/kg	99	NJ
	Unknown	10.62	1120	ug/kg		J
	Unknown	10.86	766	ug/kg		J
	Unknown	10.89	328	ug/kg		J
511-02-4	Naphthalene, decahydro-1,1,4a-trimethyl-	11.02	344	ug/kg	80	NJ
	Unknown	11.09	483	ug/kg		J
	Unknown	11.21	486	ug/kg		J
	Unknown	11.25	319	ug/kg		J
	Unknown	11.28	181	ug/kg		J
	Unknown	11.38	592	ug/kg		J
	Unknown	11.83	388	ug/kg		J
1000159-38-2	Bicyclo[5.2.0]nonane, 4-methylene-2,8,8-	11.96	334	ug/kg	89	NJ
	Unknown	12.47	172	ug/kg		J
	Unknown	12.55	265	ug/kg		J
	Unknown	12.58	206	ug/kg		J
137235-51-9	1,2,4,8-Tetramethylbicyclo[6.3.0]undeca-	15.68	928	ug/kg	86	NJ
	Unknown	15.83	232	ug/kg		J
	Unknown	16.25	380	ug/kg		J
	Unknown	16.56	281	ug/kg		J
1058-61-3	Stigmast-4-en-3-one	17.04	368	ug/kg	97	NJ
	Unknown	19	489	ug/kg		J
70038-20-9	7-Oxabicyclo[4.1.0]heptane, 2,2,6-trimet	19.45	811	ug/kg	90	NJ

ETM
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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-852**	**Date Collected:**	**12/07/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242654011**	**Date Received:**	**12/10/2009 08:50**	**%Moisture:**	**4.1**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14274**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**932077**	**Inst:**	**MSD3.I**	**Dilution:**	**1**
Run Date:	**12/14/2009 20:50**	**Analyst:**	**JLD1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/11/2009 21:55**	**Allquot:**	**30.19 g**	**Final Volume:**	**1 mL**
Data File:	**s3l1427.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
62-75-9	N-Methyl-N-nitrosomethylamine	U	345	ug/kg	69.1	345	
108-95-2	Phenol	U	345	ug/kg	69.1	345	
95-57-8	2-Chlorophenol	U	345	ug/kg	69.1	345	
106-46-7	1,4-Dichlorobenzene	U	345	ug/kg	69.1	345	
621-64-7	N-Nitrosodipropylamine	U	345	ug/kg	69.1	345	
59-50-7	4-Chloro-3-methylphenol	U	345	ug/kg	69.1	345	
83-32-9	Acenaphthene	U	34.5	ug/kg	11.4	34.5	
121-14-2	2,4-Dinitrotoluene	U	345	ug/kg	34.5	345	
100-02-7	4-Nitrophenol	U	345	ug/kg	114	345	
87-86-5	Pentachlorophenol	U	345	ug/kg	86.4	345	
129-00-0	Pyrene	U	34.5	ug/kg	10.4	34.5	UJ,SV7c
110-86-1	Pyridine	U	345	ug/kg	69.1	345	
62-53-3	Aniline	U	345	ug/kg	104	345	
111-44-4	bis(2-Chloroethyl) ether	U	345	ug/kg	69.1	345	
541-73-1	1,3-Dichlorobenzene	U	345	ug/kg	69.1	345	
100-51-6	Benzyl alcohol	U	345	ug/kg	104	345	
95-50-1	1,2-Dichlorobenzene	U	345	ug/kg	69.1	345	
108-60-1	bis(2-Chloroisopropyl)ether	U	345	ug/kg	69.1	345	UJ,SV7c
95-48-7	o-Cresol	U	345	ug/kg	69.1	345	
65794-96-9	m,p-Cresols	U	345	ug/kg	104	345	
67-72-1	Hexachloroethane	U	345	ug/kg	69.1	345	
98-95-3	Nitrobenzene	U	345	ug/kg	69.1	345	
78-59-1	Isophorone	U	345	ug/kg	69.1	345	
88-75-5	2-Nitrophenol	U	345	ug/kg	69.1	345	
105-67-9	2,4-Dimethylphenol	U	345	ug/kg	121	345	
111-91-1	bis(2-Chloroethoxy)methane	U	345	ug/kg	69.1	345	
120-83-2	2,4-Dichlorophenol	U	345	ug/kg	69.1	345	
65-85-0	Benzoic acid	U	691	ug/kg	173	691	
91-20-3	Naphthalene	U	34.5	ug/kg	10.4	34.5	UJ,SV7c
106-47-8	4-Chloroaniline	U	345	ug/kg	69.1	345	
87-68-3	Hexachlorobutadiene	U	345	ug/kg	69.1	345	
91-57-6	2-Methylnaphthalene	U	34.5	ug/kg	6.91	34.5	
77-47-4	Hexachlorocyclopentadiene	U	345	ug/kg	69.1	345	UJ,SV7c
88-06-2	2,4,6-Trichlorophenol	U	345	ug/kg	69.1	345	
95-95-4	2,4,5-Trichlorophenol	U	345	ug/kg	69.1	345	
91-58-7	2-Chloronaphthalene	U	34.5	ug/kg	11.4	34.5	
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	345	ug/kg	69.1	345	
99-09-2	3-Nitroaniline	U	345	ug/kg	69.1	345	UJ,SV7c

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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	Date Collected:	12/07/2009 12:00	Matrix:	S
Lab Sample ID:	242654011	Date Received:	12/10/2009 08:50	%Moisture:	4.1
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14274	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	932077	Inst:	MSD3.I	Dilution:	1
Run Date:	12/14/2009 20:50	Analyst:	JLD1	Inj. Vol:	.5 uL
Prep Date:	12/11/2009 21:55	Aliquot:	30.19 g	Final Volume:	1 mL
Data File:	s311427.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
	m-Nitroaniline						
131-11-3	Dimethylphthalate	U	345	ug/kg	69.1	345	
606-20-2	2,6-Dinitrotoluene	U	345	ug/kg	34.5	345	
208-96-8	Acenaphthylene	U	34.5	ug/kg	10.4	34.5	
51-28-5	2,4-Dinitrophenol	U	691	ug/kg	131	691	
132-64-9	Dibenzofuran	U	345	ug/kg	69.1	345	
84-66-2	Diethylphthalate	U	345	ug/kg	69.1	345	
86-73-7	Fluorene	U	34.5	ug/kg	10.4	34.5	
7005-72-3	4-Chlorophenylphenylether	U	345	ug/kg	69.1	345	
534-52-1	2-Methyl-4,6-dinitrophenol	U	345	ug/kg	69.1	345	
100-01-6	4-Nitroaniline	U	345	ug/kg	104	345	UJ,SV7c
	p-Nitroaniline						
122-39-4	Diphenylamine	U	345	ug/kg	69.1	345	
122-66-7	Azobenzene	U	345	ug/kg	69.1	345	
	1,2-Diphenylhydrazine						
101-55-3	4-Bromophenylphenylether	U	345	ug/kg	69.1	345	UJ,SV7c
118-74-1	Hexachlorobenzene	U	345	ug/kg	69.1	345	
85-01-8	Phenanthrene	U	34.5	ug/kg	10.4	34.5	
120-12-7	Anthracene	U	34.5	ug/kg	6.91	34.5	
84-74-2	Di-n-butylphthalate	U	345	ug/kg	69.1	345	
206-44-0	Fluoranthene	U	34.5	ug/kg	10.4	34.5	
85-68-7	Butylbenzylphthalate	U	345	ug/kg	69.1	345	
56-55-3	Benzo(a)anthracene	U	34.5	ug/kg	10.4	34.5	
91-94-1	3,3'-Dichlorobenzidine	U	345	ug/kg	104	345	
218-01-9	Chrysene	U	34.5	ug/kg	10.4	34.5	
117-81-7	bis(2-Ethylhexyl)phthalate	U	345	ug/kg	69.1	345	UJ,SV7c
117-84-0	Di-n-octylphthalate	U	345	ug/kg	69.1	345	
205-99-2	Benzo(b)fluoranthene	U	34.5	ug/kg	10.4	34.5	
207-08-9	Benzo(k)fluoranthene	U	34.5	ug/kg	10.4	34.5	
50-32-8	Benzo(a)pyrene	U	34.5	ug/kg	10.4	34.5	
193-39-5	Indeno(1,2,3-cd)pyrene	U	34.5	ug/kg	10.4	34.5	UJ,SV7c
53-70-3	Dibenzo(a,h)anthracene	U	34.5	ug/kg	10.4	34.5	
191-24-2	Benzo(ghi)perylene	U	34.5	ug/kg	10.4	34.5	
120-82-1	1,2,4-Trichlorobenzene	U	345	ug/kg	69.1	345	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.93	247	ug/kg		JA
	Unknown	15.7	386	ug/kg		J

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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-852**	**Date Collected:**	**12/07/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242654012**	**Date Received:**	**12/10/2009 08:50**	**%Moisture:**	**12.2**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14277**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**932077**	**Inst:**	**MSD3.I**	**Dilution:**	**1**
Run Date:	**12/14/2009 21:17**	**Analyst:**	**JLD1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/11/2009 21:55**	**Aliquot:**	**30.13 g**	**Final Volume:**	**1 mL**
Data File:	**s311428.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
62-75-9	N-Methyl-N-nitrosomethylamine	U	378	ug/kg	75.6	378	
108-95-2	Phenol	U	378	ug/kg	75.6	378	
95-57-8	2-Chlorophenol	U	378	ug/kg	75.6	378	
106-46-7	1,4-Dichlorobenzene	U	378	ug/kg	75.6	378	
621-64-7	N-Nitrosodipropylamine	U	378	ug/kg	75.6	378	
59-50-7	4-Chloro-3-methylphenol	U	378	ug/kg	75.6	378	
83-32-9	Acenaphthene	J	31.9	ug/kg	12.5	37.8	
121-14-2	2,4-Dinitrotoluene	U	378	ug/kg	37.8	378	
100-02-7	4-Nitrophenol	U	378	ug/kg	125	378	
87-86-5	Pentachlorophenol	U	378	ug/kg	94.5	378	
129-00-0	Pyrene		591	ug/kg	11.3	37.8	J,SV7c
110-86-1	Pyridine	U	378	ug/kg	75.6	378	
62-53-3	Aniline	U	378	ug/kg	113	378	
111-44-4	bis(2-Chloroethyl) ether	U	378	ug/kg	75.6	378	
541-73-1	1,3-Dichlorobenzene	U	378	ug/kg	75.6	378	
100-51-6	Benzyl alcohol	U	378	ug/kg	113	378	
95-50-1	1,2-Dichlorobenzene	U	378	ug/kg	75.6	378	
108-60-1	bis(2-Chloroisopropyl)ether	U	378	ug/kg	75.6	378	UJ,SV7c
95-48-7	o-Cresol	U	378	ug/kg	75.6	378	
65794-96-9	m,p-Cresols	U	378	ug/kg	113	378	
67-72-1	Hexachloroethane	U	378	ug/kg	75.6	378	
98-95-3	Nitrobenzene	U	378	ug/kg	75.6	378	
78-59-1	Isophorone	U	378	ug/kg	75.6	378	
88-75-5	2-Nitrophenol	U	378	ug/kg	75.6	378	
105-67-9	2,4-Dimethylphenol	U	378	ug/kg	132	378	
111-91-1	bis(2-Chloroethoxy)methane	U	378	ug/kg	75.6	378	
120-83-2	2,4-Dichlorophenol	U	378	ug/kg	75.6	378	
65-85-0	Benzoic acid	U	756	ug/kg	189	756	
91-20-3	Naphthalene	U	37.8	ug/kg	11.3	37.8	UJ,SV7c
106-47-8	4-Chloroaniline	U	378	ug/kg	75.6	378	
87-68-3	Hexachlorobutadiene	U	378	ug/kg	75.6	378	
91-57-6	2-Methylnaphthalene	U	37.8	ug/kg	7.56	37.8	
77-47-4	Hexachlorocyclopentadiene	U	378	ug/kg	75.6	378	UJ,SV7c
88-06-2	2,4,6-Trichlorophenol	U	378	ug/kg	75.6	378	
95-95-4	2,4,5-Trichlorophenol	U	378	ug/kg	75.6	378	
91-58-7	2-Chloronaphthalene	U	37.8	ug/kg	12.5	37.8	
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	378	ug/kg	75.6	378	
99-09-2	3-Nitroaniline	U	378	ug/kg	75.6	378	UJ,SV7c

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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	Date Collected:	12/07/2009 12:00	Matrix:	S
Lab Sample ID:	242654012	Date Received:	12/10/2009 08:50	%Moisture:	12.2
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14277	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	932077	Inst:	MSD3.I	Dilution:	1
Run Date:	12/14/2009 21:17	Analyst:	JLD1	Inj. Vol:	.5 uL
Prep Date:	12/11/2009 21:55	Aliquot:	30.13 g	Final Volume:	1 mL
Data File:	s311428.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
	m-Nitroaniline						
131-11-3	Dimethylphthalate	U	378	ug/kg	75.6	378	
606-20-2	2,6-Dinitrotoluene	U	378	ug/kg	37.8	378	
208-96-8	Acenaphthylene	U	37.8	ug/kg	11.3	37.8	
51-28-5	2,4-Dinitrophenol	U	756	ug/kg	144	756	
132-64-9	Dibenzofuran	U	378	ug/kg	75.6	378	
84-66-2	Diethylphthalate	U	378	ug/kg	75.6	378	
86-73-7	Fluorene	J	31.5	ug/kg	11.3	37.8	
7005-72-3	4-Chlorophenylphenylether	U	378	ug/kg	75.6	378	
534-52-1	2-Methyl-4,6-dinitrophenol	U	378	ug/kg	75.6	378	
100-01-6	4-Nitroaniline	U	378	ug/kg	113	378	UJ,SV7c
	p-Nitroaniline						
122-39-4	Diphenylamine	U	378	ug/kg	75.6	378	
122-66-7	Azobenzene	U	378	ug/kg	75.6	378	
	1,2-Diphenylhydrazine						
101-55-3	4-Bromophenylphenylether	U	378	ug/kg	75.6	378	UJ,SV7c
118-74-1	Hexachlorobenzene	U	378	ug/kg	75.6	378	
85-01-8	Phenanthrene		370	ug/kg	11.3	37.8	
120-12-7	Anthracene		57.7	ug/kg	7.56	37.8	
84-74-2	Di-n-butylphthalate	U	378	ug/kg	75.6	378	
206-44-0	Fluoranthene		533	ug/kg	11.3	37.8	
85-68-7	Butylbenzylphthalate	U	378	ug/kg	75.6	378	
56-55-3	Benzo(a)anthracene		218	ug/kg	11.3	37.8	
91-94-1	3,3'-Dichlorobenzidine	U	378	ug/kg	113	378	
218-01-9	Chrysene		258	ug/kg	11.3	37.8	
117-81-7	bis(2-Ethylhexyl)phthalate	J	100	ug/kg	75.6	378	J,SV7c
117-84-0	Di-n-octylphthalate	U	378	ug/kg	75.6	378	
205-99-2	Benzo(b)fluoranthene		352	ug/kg	11.3	37.8	
207-08-9	Benzo(k)fluoranthene		130	ug/kg	11.3	37.8	
50-32-8	Benzo(a)pyrene		216	ug/kg	11.3	37.8	
193-39-5	Indeno(1,2,3-cd)pyrene		103	ug/kg	11.3	37.8	J,SV7c
53-70-3	Dibenzo(a,h)anthracene	J	19.0	ug/kg	11.3	37.8	
191-24-2	Benzo(ghi)perylene		96.0	ug/kg	11.3	37.8	
120-82-1	1,2,4-Trichlorobenzene	U	378	ug/kg	75.6	378	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	1.91	165	ug/kg		J
	Unknown Aldol Condensate	2.92	282	ug/kg		JA

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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	Date Collected:	12/07/2009 12:00	Matrix:	S
Lab Sample ID:	242654012	Date Received:	12/10/2009 08:50	%Moisture:	12.2
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14277	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	932077	Inst:	MSD3.I	Dilution:	1
Run Date:	12/14/2009 21:17	Analyst:	JLD1	Inj. Vol:	.5 uL
Prep Date:	12/11/2009 21:55	Aliquot:	30.13 g	Final Volume:	1 mL
Data File:	s3l1428.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
7785-70-8	1R-.alpha.-Pinene	3.66	651	ug/kg	96	NJ
498-15-7	Bicyclo[4.1.0]hept-3-ene, 3,7,7-trimethy	4.22	682	ug/kg	97	NJ
	Unknown	10.64	273	ug/kg		J
	Unknown	10.87	335	ug/kg		J
	Unknown	11.11	340	ug/kg		J
1235-74-1	1-Phenanthrenecarboxylic acid, 1,2,3,4,4	11.2	192	ug/kg	97	NJ
	Unknown	11.39	177	ug/kg		J
	Unknown	11.41	168	ug/kg		J
	Unknown	12.87	221	ug/kg		J
112-95-8	Eicosane	13.38	290	ug/kg	95	NJ
	Unknown	15.86	374	ug/kg		J
	Unknown	17.07	202	ug/kg		J
	Unknown	17.89	288	ug/kg		J
	Unknown	19.04	375	ug/kg		J
	Unknown	19.49	391	ug/kg		J

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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242654017	**Date Received:**	12/10/2009 08:50	**%Moisture:**	9.4
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14278	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	932077	**Inst:**	MSD3.I	**Dilution:**	1
Run Date:	12/15/2009 11:56	**Analyst:**	JLD1	**Inj. Vol:**	.5 uL
Prep Date:	12/11/2009 21:55	**Aliquot:**	30.05 g	**Final Volume:**	1 mL
Data File:	s311510.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
62-75-9	N-Methyl-N-nitrosomethylamine	U	367	ug/kg	73.5	367	
108-95-2	Phenol	U	367	ug/kg	73.5	367	
95-57-8	2-Chlorophenol	U	367	ug/kg	73.5	367	
106-46-7	1,4-Dichlorobenzene	U	367	ug/kg	73.5	367	
621-64-7	N-Nitrosodipropylamine	U	367	ug/kg	73.5	367	
59-50-7	4-Chloro-3-methylphenol	U	367	ug/kg	73.5	367	
83-32-9	Acenaphthene		39.4	ug/kg	12.1	36.7	
121-14-2	2,4-Dinitrotoluene	U	367	ug/kg	36.7	367	
100-02-7	4-Nitrophenol	U	367	ug/kg	121	367	
87-86-5	Pentachlorophenol	U	367	ug/kg	91.8	367	
129-00-0	Pyrene		435	ug/kg	11.0	36.7	
110-86-1	Pyridine	U	367	ug/kg	73.5	367	UJ,SV7c
62-53-3	Aniline	U	367	ug/kg	110	367	
111-44-4	bis(2-Chloroethyl) ether	U	367	ug/kg	73.5	367	
541-73-1	1,3-Dichlorobenzene	U	367	ug/kg	73.5	367	
100-51-6	Benzyl alcohol	U	367	ug/kg	110	367	
95-50-1	1,2-Dichlorobenzene	U	367	ug/kg	73.5	367	
108-60-1	bis(2-Chloroisopropyl)ether	U	367	ug/kg	73.5	367	
95-48-7	o-Cresol	U	367	ug/kg	73.5	367	
65794-96-9	m,p-Cresols	U	367	ug/kg	110	367	
67-72-1	Hexachloroethane	U	367	ug/kg	73.5	367	
98-95-3	Nitrobenzene	U	367	ug/kg	73.5	367	
78-59-1	Isophorone	U	367	ug/kg	73.5	367	
88-75-5	2-Nitrophenol	U	367	ug/kg	73.5	367	
105-67-9	2,4-Dimethylphenol	U	367	ug/kg	129	367	
111-91-1	bis(2-Chloroethoxy)methane	U	367	ug/kg	73.5	367	
120-83-2	2,4-Dichlorophenol	U	367	ug/kg	73.5	367	
65-85-0	Benzoic acid	U	735	ug/kg	184	735	UJ,SV7c
91-20-3	Naphthalene	U	36.7	ug/kg	11.0	36.7	
106-47-8	4-Chloroaniline	U	367	ug/kg	73.5	367	
87-68-3	Hexachlorobutadiene	U	367	ug/kg	73.5	367	
91-57-6	2-Methylnaphthalene	U	36.7	ug/kg	7.35	36.7	
77-47-4	Hexachlorocyclopentadiene	U	367	ug/kg	73.5	367	UJ,SV7c
88-06-2	2,4,6-Trichlorophenol	U	367	ug/kg	73.5	367	
95-95-4	2,4,5-Trichlorophenol	U	367	ug/kg	73.5	367	
91-58-7	2-Chloronaphthalene	U	36.7	ug/kg	12.1	36.7	
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	367	ug/kg	73.5	367	
99-09-2	3-Nitroaniline	U	367	ug/kg	73.5	367	UJ,SV7c

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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	Date Collected:	12/07/2009 12:00	Matrix:	S
Lab Sample ID:	242654017	Date Received:	12/10/2009 08:50	%Moisture:	9.4
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14278	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	932077	Inst:	MSD3.I	Dilution:	1
Run Date:	12/15/2009 11:56	Analyst:	JLD1	Inj. Vol:	.5 uL
Prep Date:	12/11/2009 21:55	Aliquot:	30.05 g	Final Volume:	1 mL
Data File:	s311510.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
	m-Nitroaniline						
131-11-3	Dimethylphthalate	U	367	ug/kg	73.5	367	
606-20-2	2,6-Dinitrotoluene	U	367	ug/kg	36.7	367	
208-96-8	Acenaphthylene	U	36.7	ug/kg	11.0	36.7	
51-28-5	2,4-Dinitrophenol	U	735	ug/kg	140	735	
132-64-9	Dibenzofuran	U	367	ug/kg	73.5	367	
84-66-2	Diethylphthalate	U	367	ug/kg	73.5	367	
86-73-7	Fluorene		42.6	ug/kg	11.0	36.7	
7005-72-3	4-Chlorophenylphenylether	U	367	ug/kg	73.5	367	
534-52-1	2-Methyl-4,6-dinitrophenol	U	367	ug/kg	73.5	367	UJ,SV7c
100-01-6	4-Nitroaniline	U	367	ug/kg	110	367	UJ,SV7c
	p-Nitroaniline						
122-39-4	Diphenylamine	U	367	ug/kg	73.5	367	
122-66-7	Azobenzene	U	367	ug/kg	73.5	367	
	1,2-Diphenylhydrazine						
101-55-3	4-Bromophenylphenylether	U	367	ug/kg	73.5	367	UJ,SV7c
118-74-1	Hexachlorobenzene	U	367	ug/kg	73.5	367	
85-01-8	Phenanthrene		381	ug/kg	11.0	36.7	
120-12-7	Anthracene		74.8	ug/kg	7.35	36.7	
84-74-2	Di-n-butylphthalate	U	367	ug/kg	73.5	367	
206-44-0	Fluoranthene		402	ug/kg	11.0	36.7	
85-68-7	Butylbenzylphthalate	U	367	ug/kg	73.5	367	
56-55-3	Benzo(a)anthracene		162	ug/kg	11.0	36.7	
91-94-1	3,3'-Dichlorobenzidine	U	367	ug/kg	110	367	
218-01-9	Chrysene		176	ug/kg	11.0	36.7	
117-81-7	bis(2-Ethylhexyl)phthalate	U	367	ug/kg	73.5	367	UJ,SV7c
117-84-0	Di-n-octylphthalate	U	367	ug/kg	73.5	367	
205-99-2	Benzo(b)fluoranthene		218	ug/kg	11.0	36.7	
207-08-9	Benzo(k)fluoranthene		85.3	ug/kg	11.0	36.7	
50-32-8	Benzo(a)pyrene		156	ug/kg	11.0	36.7	
193-39-5	Indeno(1,2,3-cd)pyrene		72.9	ug/kg	11.0	36.7	J,SV7c
53-70-3	Dibenzo(a,h)anthracene	J	21.7	ug/kg	11.0	36.7	
191-24-2	Benzo(ghi)perylene		72.0	ug/kg	11.0	36.7	
120-82-1	1,2,4-Trichlorobenzene	U	367	ug/kg	73.5	367	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.91	211	ug/kg		JA
7785-70-8	1R-.alpha.-Pinene	3.64	266	ug/kg	96	NJ

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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	Date Collected:	12/07/2009 12:00	Matrix:	S
Lab Sample ID:	242654017	Date Received:	12/10/2009 08:50	%Moisture:	9.4
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14278	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	932077	Inst:	MSD3.I	Dilution:	1
Run Date:	12/15/2009 11:56	Analyst:	JLD1	Inj. Vol:	.5 uL
Prep Date:	12/11/2009 21:55	Aliquot:	30.05 g	Final Volume:	1 mL
Data File:	s311510.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
498-15-7	Bicyclo[4.1.0]hept-3-ene, 3,7,7-trimethy	4.2	379	ug/kg	97	NJ
	Unknown	10.86	277	ug/kg		J
	Unknown	10.9	160	ug/kg		J
	Unknown	11.08	167	ug/kg		J
1235-74-1	1-Phenanthrenecarboxylic acid, 1,2,3,4,4	11.19	275	ug/kg	96	NJ
	Unknown	11.34	807	ug/kg		J
	Unknown	11.39	246	ug/kg		J
	Unknown	16.25	231	ug/kg		J
	Unknown	17.04	187	ug/kg		J
74022-04-1	2,4a,8,8-Tetramethyldecahydrocyclopropa[	17.86	321	ug/kg	81	NJ
	Unknown	19.01	420	ug/kg		J
	Unknown	19.45	400	ug/kg		J

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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	Date Collected:	12/07/2009 12:00	Matrix:	S
Lab Sample ID:	242654009	Date Received:	12/10/2009 08:50	%Moisture:	14.1
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14281	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	932077	Inst:	MSD3.I	Dilution:	1
Run Date:	12/14/2009 19:55	Analyst:	JLD1	Inj. Vol:	.5 uL
Prep Date:	12/11/2009 21:55	Aliquot:	30.03 g	Final Volume:	1 mL
Data File:	s311425.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
62-75-9	N-Methyl-N-nitrosomethylamine	U	388	ug/kg	77.6	388	
108-95-2	Phenol	U	388	ug/kg	77.6	388	
95-57-8	2-Chlorophenol	U	388	ug/kg	77.6	388	
106-46-7	1,4-Dichlorobenzene	U	388	ug/kg	77.6	388	
621-64-7	N-Nitrosodipropylamine	U	388	ug/kg	77.6	388	
59-50-7	4-Chloro-3-methylphenol	U	388	ug/kg	77.6	388	
83-32-9	Acenaphthene	U	38.8	ug/kg	12.8	38.8	
121-14-2	2,4-Dinitrotoluene	U	388	ug/kg	38.8	388	
100-02-7	4-Nitrophenol	U	388	ug/kg	128	388	
87-86-5	Pentachlorophenol	U	388	ug/kg	97.0	388	
129-00-0	Pyrene	U	38.8	ug/kg	11.6	38.8	UJ,SV7c
110-86-1	Pyridine	U	388	ug/kg	77.6	388	
62-53-3	Aniline	U	388	ug/kg	116	388	
111-44-4	bis(2-Chloroethyl) ether	U	388	ug/kg	77.6	388	
541-73-1	1,3-Dichlorobenzene	U	388	ug/kg	77.6	388	
100-51-6	Benzyl alcohol	U	388	ug/kg	116	388	
95-50-1	1,2-Dichlorobenzene	U	388	ug/kg	77.6	388	
108-60-1	bis(2-Chloroisopropyl)ether	U	388	ug/kg	77.6	388	UJ,SV7c
95-48-7	o-Cresol	U	388	ug/kg	77.6	388	
65794-96-9	m,p-Cresols	U	388	ug/kg	116	388	
67-72-1	Hexachloroethane	U	388	ug/kg	77.6	388	
98-95-3	Nitrobenzene	U	388	ug/kg	77.6	388	
78-59-1	Isophorone	U	388	ug/kg	77.6	388	
88-75-5	2-Nitrophenol	U	388	ug/kg	77.6	388	
105-67-9	2,4-Dimethylphenol	U	388	ug/kg	136	388	
111-91-1	bis(2-Chloroethoxy)methane	U	388	ug/kg	77.6	388	
120-83-2	2,4-Dichlorophenol	U	388	ug/kg	77.6	388	
65-85-0	Benzoic acid	U	776	ug/kg	194	776	
91-20-3	Naphthalene	U	38.8	ug/kg	11.6	38.8	UJ,SV7c
106-47-8	4-Chloroaniline	U	388	ug/kg	77.6	388	
87-68-3	Hexachlorobutadiene	U	388	ug/kg	77.6	388	
91-57-6	2-Methylnaphthalene	U	38.8	ug/kg	7.76	38.8	
77-47-4	Hexachlorocyclopentadiene	U	388	ug/kg	77.6	388	UJ,SV7c
88-06-2	2,4,6-Trichlorophenol	U	388	ug/kg	77.6	388	
95-95-4	2,4,5-Trichlorophenol	U	388	ug/kg	77.6	388	
91-58-7	2-Chloronaphthalene	U	38.8	ug/kg	12.8	38.8	
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	388	ug/kg	77.6	388	
99-09-2	3-Nitroaniline	U	388	ug/kg	77.6	388	UJ,SV7c

ETM
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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	Date Collected:	12/07/2009 12:00	Matrix:	S
Lab Sample ID:	242654009	Date Received:	12/10/2009 08:50	%Moisture:	14.1
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14281	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	932077	Inst:	MSD3.I	Dilution:	1
Run Date:	12/14/2009 19:55	Analyst:	JLD1	Inj. Vol:	.5 uL
Prep Date:	12/11/2009 21:55	Aliquot:	30.03 g	Final Volume:	1 mL
Data File:	s311425.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
	m-Nitroaniline						
131-11-3	Dimethylphthalate	U	388	ug/kg	77.6	388	
606-20-2	2,6-Dinitrotoluene	U	388	ug/kg	38.8	388	
208-96-8	Acenaphthylene	U	38.8	ug/kg	11.6	38.8	
51-28-5	2,4-Dinitrophenol	U	776	ug/kg	147	776	
132-64-9	Dibenzofuran	U	388	ug/kg	77.6	388	
84-66-2	Diethylphthalate	U	388	ug/kg	77.6	388	
86-73-7	Fluorene	U	38.8	ug/kg	11.6	38.8	
7005-72-3	4-Chlorophenylphenylether	U	388	ug/kg	77.6	388	
534-52-1	2-Methyl-4,6-dinitrophenol	U	388	ug/kg	77.6	388	
100-01-6	4-Nitroaniline	U	388	ug/kg	116	388	UJ,SV7c
	p-Nitroaniline						
122-39-4	Diphenylamine	U	388	ug/kg	77.6	388	
122-66-7	Azobenzene	U	388	ug/kg	77.6	388	
	1,2-Diphenylhydrazine						
101-55-3	4-Bromophenylphenylether	U	388	ug/kg	77.6	388	UJ,SV7c
118-74-1	Hexachlorobenzene	U	388	ug/kg	77.6	388	
85-01-8	Phenanthrene	U	38.8	ug/kg	11.6	38.8	
120-12-7	Anthracene	U	38.8	ug/kg	7.76	38.8	
84-74-2	Di-n-butylphthalate	U	388	ug/kg	77.6	388	
206-44-0	Fluoranthene	U	38.8	ug/kg	11.6	38.8	
85-68-7	Butylbenzylphthalate	U	388	ug/kg	77.6	388	
56-55-3	Benzo(a)anthracene	U	38.8	ug/kg	11.6	38.8	
91-94-1	3,3'-Dichlorobenzidine	U	388	ug/kg	116	388	
218-01-9	Chrysene	U	38.8	ug/kg	11.6	38.8	
117-81-7	bis(2-Ethylhexyl)phthalate	U	388	ug/kg	77.6	388	UJ,SV7c
117-84-0	Di-n-octylphthalate	U	388	ug/kg	77.6	388	
205-99-2	Benzo(b)fluoranthene	U	38.8	ug/kg	11.6	38.8	
207-08-9	Benzo(k)fluoranthene	U	38.8	ug/kg	11.6	38.8	
50-32-8	Benzo(a)pyrene	U	38.8	ug/kg	11.6	38.8	
193-39-5	Indeno(1,2,3-cd)pyrene	U	38.8	ug/kg	11.6	38.8	UJ,SV7c
53-70-3	Dibenzo(a,h)anthracene	U	38.8	ug/kg	11.6	38.8	
191-24-2	Benzo(ghi)perylene	U	38.8	ug/kg	11.6	38.8	
120-82-1	1,2,4-Trichlorobenzene	U	388	ug/kg	77.6	388	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
78-95-5	2-Propanone, 1-chloro-	1.92	173	ug/kg	83	NJ
	Unknown Aldol Condensate	2.93	294	ug/kg		JA

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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-852**	**Date Collected:**	**12/07/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242654013**	**Date Received:**	**12/10/2009 08:50**	**%Moisture:**	**14.2**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14282**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**932077**	**Inst:**	**MSD3.I**	**Dilution:**	**1**
Run Date:	**12/14/2009 21:45**	**Analyst:**	**JLD1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/11/2009 21:55**	**Aliquot:**	**30.18 g**	**Final Volume:**	**1 mL**
Data File:	**s3l1429.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
62-75-9	N-Methyl-N-nitrosomethylamine	U	386	ug/kg	77.2	386	
108-95-2	Phenol	U	386	ug/kg	77.2	386	
95-57-8	2-Chlorophenol	U	386	ug/kg	77.2	386	
106-46-7	1,4-Dichlorobenzene	U	386	ug/kg	77.2	386	
621-64-7	N-Nitrosodipropylamine	U	386	ug/kg	77.2	386	
59-50-7	4-Chloro-3-methylphenol	U	386	ug/kg	77.2	386	
83-32-9	Acenaphthene	U	38.6	ug/kg	12.7	38.6	
121-14-2	2,4-Dinitrotoluene	U	386	ug/kg	38.6	386	
100-02-7	4-Nitrophenol	U	386	ug/kg	127	386	
87-86-5	Pentachlorophenol	U	386	ug/kg	96.5	386	
129-00-0	Pyrene	U	38.6	ug/kg	11.6	38.6	UJ,SV7c
110-86-1	Pyridine	U	386	ug/kg	77.2	386	
62-53-3	Aniline	U	386	ug/kg	116	386	
111-44-4	bis(2-Chloroethyl) ether	U	386	ug/kg	77.2	386	
541-73-1	1,3-Dichlorobenzene	U	386	ug/kg	77.2	386	
100-51-6	Benzyl alcohol	U	386	ug/kg	116	386	
95-50-1	1,2-Dichlorobenzene	U	386	ug/kg	77.2	386	
108-60-1	bis(2-Chloroisopropyl)ether	U	386	ug/kg	77.2	386	UJ,SV7c
95-48-7	o-Cresol	U	386	ug/kg	77.2	386	
65794-96-9	m,p-Cresols	U	386	ug/kg	116	386	
67-72-1	Hexachloroethane	U	386	ug/kg	77.2	386	
98-95-3	Nitrobenzene	U	386	ug/kg	77.2	386	
78-59-1	Isophorone	U	386	ug/kg	77.2	386	
88-75-5	2-Nitrophenol	U	386	ug/kg	77.2	386	
105-67-9	2,4-Dimethylphenol	U	386	ug/kg	135	386	
111-91-1	bis(2-Chloroethoxy)methane	U	386	ug/kg	77.2	386	
120-83-2	2,4-Dichlorophenol	U	386	ug/kg	77.2	386	
65-85-0	Benzoic acid	U	772	ug/kg	193	772	
91-20-3	Naphthalene	U	38.6	ug/kg	11.6	38.6	UJ,SV7c
106-47-8	4-Chloroaniline	U	386	ug/kg	77.2	386	
87-68-3	Hexachlorobutadiene	U	386	ug/kg	77.2	386	
91-57-6	2-Methylnaphthalene	U	38.6	ug/kg	7.72	38.6	
77-47-4	Hexachlorocyclopentadiene	U	386	ug/kg	77.2	386	UJ,SV7c
88-06-2	2,4,6-Trichlorophenol	U	386	ug/kg	77.2	386	
95-95-4	2,4,5-Trichlorophenol	U	386	ug/kg	77.2	386	
91-58-7	2-Chloronaphthalene	U	38.6	ug/kg	12.7	38.6	
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	386	ug/kg	77.2	386	
99-09-2	3-Nitroaniline	U	386	ug/kg	77.2	386	UJ,SV7c

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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-852**	**Date Collected:**	**12/07/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242654013**	**Date Received:**	**12/10/2009 08:50**	**%Moisture:**	**14.2**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14282**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**932077**	**Inst:**	**MSD3.I**	**Dilution:**	**1**
Run Date:	**12/14/2009 21:45**	**Analyst:**	**JLD1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/11/2009 21:55**	**Aliquot:**	**30.18 g**	**Final Volume:**	**1 mL**
Data File:	**s311429.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
	m-Nitroaniline						
131-11-3	Dimethylphthalate	U	386	ug/kg	77.2	386	
606-20-2	2,6-Dinitrotoluene	U	386	ug/kg	38.6	386	
208-96-8	Acenaphthylene	U	38.6	ug/kg	11.6	38.6	
51-28-5	2,4-Dinitrophenol	U	772	ug/kg	147	772	
132-64-9	Dibenzofuran	U	386	ug/kg	77.2	386	
84-66-2	Diethylphthalate	U	386	ug/kg	77.2	386	
86-73-7	Fluorene	U	38.6	ug/kg	11.6	38.6	
7005-72-3	4-Chlorophenylphenylether	U	386	ug/kg	77.2	386	
534-52-1	2-Methyl-4,6-dinitrophenol	U	386	ug/kg	77.2	386	
100-01-6	4-Nitroaniline	U	386	ug/kg	116	386	UJ,SV7c
	p-Nitroaniline						
122-39-4	Diphenylamine	U	386	ug/kg	77.2	386	
122-66-7	Azobenzene	U	386	ug/kg	77.2	386	
	1,2-Diphenylhydrazine						
101-55-3	4-Bromophenylphenylether	U	386	ug/kg	77.2	386	UJ,SV7c
118-74-1	Hexachlorobenzene	U	386	ug/kg	77.2	386	
85-01-8	Phenanthrene	U	38.6	ug/kg	11.6	38.6	
120-12-7	Anthracene	U	38.6	ug/kg	7.72	38.6	
84-74-2	Di-n-butylphthalate	U	386	ug/kg	77.2	386	
206-44-0	Fluoranthene	U	38.6	ug/kg	11.6	38.6	
85-68-7	Butylbenzylphthalate	U	386	ug/kg	77.2	386	
56-55-3	Benzo(a)anthracene	U	38.6	ug/kg	11.6	38.6	
91-94-1	3,3'-Dichlorobenzidine	U	386	ug/kg	116	386	
218-01-9	Chrysene	U	38.6	ug/kg	11.6	38.6	
117-81-7	bis(2-Ethylhexyl)phthalate	U	386	ug/kg	77.2	386	UJ,SV7c
117-84-0	Di-n-octylphthalate	U	386	ug/kg	77.2	386	
205-99-2	Benzo(b)fluoranthene	U	38.6	ug/kg	11.6	38.6	
207-08-9	Benzo(k)fluoranthene	U	38.6	ug/kg	11.6	38.6	
50-32-8	Benzo(a)pyrene	U	38.6	ug/kg	11.6	38.6	
193-39-5	Indeno(1,2,3-cd)pyrene	U	38.6	ug/kg	11.6	38.6	UJ,SV7c
53-70-3	Dibenzo(a,h)anthracene	U	38.6	ug/kg	11.6	38.6	
191-24-2	Benzo(ghi)perylene	U	38.6	ug/kg	11.6	38.6	
120-82-1	1,2,4-Trichlorobenzene	U	386	ug/kg	77.2	386	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Flt	Qual
	Unknown Aldol Condensate	2.93	304	ug/kg		JA

ETM
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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	Date Collected:	12/07/2009 12:00	Matrix:	S
Lab Sample ID:	242654020	Date Received:	12/10/2009 08:50	%Moisture:	15.8
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14283	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	932077	Inst:	MSD3.I	Dilution:	1
Run Date:	12/15/2009 13:18	Analyst:	JLD1	Inj. Vol:	.5 uL
Prep Date:	12/11/2009 21:55	Aliquot:	30.04 g	Final Volume:	1 mL
Data File:	s311513.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
62-75-9	N-Methyl-N-nitrosomethylamine	U	396	ug/kg	79.1	396	
108-95-2	Phenol	U	396	ug/kg	79.1	396	
95-57-8	2-Chlorophenol	U	396	ug/kg	79.1	396	
106-46-7	1,4-Dichlorobenzene	U	396	ug/kg	79.1	396	
621-64-7	N-Nitrosodipropylamine	U	396	ug/kg	79.1	396	
59-50-7	4-Chloro-3-methylphenol	U	396	ug/kg	79.1	396	
83-32-9	Acenaphthene	U	39.6	ug/kg	13.1	39.6	
121-14-2	2,4-Dinitrotoluene	U	396	ug/kg	39.6	396	
100-02-7	4-Nitrophenol	U	396	ug/kg	131	396	
87-86-5	Pentachlorophenol	U	396	ug/kg	98.9	396	
129-00-0	Pyrene	U	39.6	ug/kg	11.9	39.6	
110-86-1	Pyridine	U	396	ug/kg	79.1	396	UJ,SV7c
62-53-3	Aniline	U	396	ug/kg	119	396	
111-44-4	bis(2-Chloroethyl) ether	U	396	ug/kg	79.1	396	
541-73-1	1,3-Dichlorobenzene	U	396	ug/kg	79.1	396	
100-51-6	Benzyl alcohol	U	396	ug/kg	119	396	
95-50-1	1,2-Dichlorobenzene	U	396	ug/kg	79.1	396	
108-60-1	bis(2-Chloroisopropyl)ether	U	396	ug/kg	79.1	396	
95-48-7	o-Cresol	U	396	ug/kg	79.1	396	
65794-96-9	m,p-Cresols	U	396	ug/kg	119	396	
67-72-1	Hexachloroethane	U	396	ug/kg	79.1	396	
98-95-3	Nitrobenzene	U	396	ug/kg	79.1	396	
78-59-1	Isophorone	U	396	ug/kg	79.1	396	
88-75-5	2-Nitrophenol	U	396	ug/kg	79.1	396	
105-67-9	2,4-Dimethylphenol	U	396	ug/kg	138	396	
111-91-1	bis(2-Chloroethoxy)methane	U	396	ug/kg	79.1	396	
120-83-2	2,4-Dichlorophenol	U	396	ug/kg	79.1	396	
65-85-0	Benzoic acid	U	791	ug/kg	198	791	UJ,SV7c
91-20-3	Naphthalene	U	39.6	ug/kg	11.9	39.6	
106-47-8	4-Chloroaniline	U	396	ug/kg	79.1	396	
87-68-3	Hexachlorobutadiene	U	396	ug/kg	79.1	396	
91-57-6	2-Methylnaphthalene	U	39.6	ug/kg	7.91	39.6	
77-47-4	Hexachlorocyclopentadiene	U	396	ug/kg	79.1	396	UJ,SV7c
88-06-2	2,4,6-Trichlorophenol	U	396	ug/kg	79.1	396	
95-95-4	2,4,5-Trichlorophenol	U	396	ug/kg	79.1	396	
91-58-7	2-Chloronaphthalene	U	39.6	ug/kg	13.1	39.6	
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	396	ug/kg	79.1	396	
99-09-2	3-Nitroaniline	U	396	ug/kg	79.1	396	UJ,SV7c

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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	Date Collected:	12/07/2009 12:00	Matrix:	S
Lab Sample ID:	242654020	Date Received:	12/10/2009 08:50	%Moisture:	15.8
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14283	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	932077	Inst:	MSD3.I	Dilution:	1
Run Date:	12/15/2009 13:18	Analyst:	JLD1	Inj. Vol:	.5 uL
Prep Date:	12/11/2009 21:55	Aliquot:	30.04 g	Final Volume:	1 mL
Data File:	s311513.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
	m-Nitroaniline						
131-11-3	Dimethylphthalate	U	396	ug/kg	79.1	396	
606-20-2	2,6-Dinitrotoluene	U	396	ug/kg	39.6	396	
208-96-8	Acenaphthylene	U	39.6	ug/kg	11.9	39.6	
51-28-5	2,4-Dinitrophenol	U	791	ug/kg	150	791	
132-64-9	Dibenzofuran	U	396	ug/kg	79.1	396	
84-66-2	Diethylphthalate	U	396	ug/kg	79.1	396	
86-73-7	Fluorene	U	39.6	ug/kg	11.9	39.6	
7005-72-3	4-Chlorophenylphenylether	U	396	ug/kg	79.1	396	
534-52-1	2-Methyl-4,6-dinitrophenol	U	396	ug/kg	79.1	396	UJ,SV7c
100-01-6	4-Nitroaniline	U	396	ug/kg	119	396	UJ,SV7c
	p-Nitroaniline						
122-39-4	Diphenylamine	U	396	ug/kg	79.1	396	
122-66-7	Azobenzene	U	396	ug/kg	79.1	396	
	1,2-Diphenylhydrazine						
101-55-3	4-Bromophenylphenylether	U	396	ug/kg	79.1	396	UJ,SV7c
118-74-1	Hexachlorobenzene	U	396	ug/kg	79.1	396	
85-01-8	Phenanthrene	U	39.6	ug/kg	11.9	39.6	
120-12-7	Anthracene	U	39.6	ug/kg	7.91	39.6	
84-74-2	Di-n-butylphthalate	U	396	ug/kg	79.1	396	
206-44-0	Fluoranthene	U	39.6	ug/kg	11.9	39.6	
85-68-7	Butylbenzylphthalate	U	396	ug/kg	79.1	396	
56-55-3	Benzo(a)anthracene	U	39.6	ug/kg	11.9	39.6	
91-94-1	3,3'-Dichlorobenzidine	U	396	ug/kg	119	396	
218-01-9	Chrysene	U	39.6	ug/kg	11.9	39.6	
117-81-7	bis(2-Ethylhexyl)phthalate	U	396	ug/kg	79.1	396	UJ,SV7c
117-84-0	Di-n-octylphthalate	U	396	ug/kg	79.1	396	
205-99-2	Benzo(b)fluoranthene	U	39.6	ug/kg	11.9	39.6	
207-08-9	Benzo(k)fluoranthene	U	39.6	ug/kg	11.9	39.6	
50-32-8	Benzo(a)pyrene	U	39.6	ug/kg	11.9	39.6	
193-39-5	Indeno(1,2,3-cd)pyrene	U	39.6	ug/kg	11.9	39.6	UJ,SV7c
53-70-3	Dibenzo(a,h)anthracene	U	39.6	ug/kg	11.9	39.6	↓
191-24-2	Benzo(ghi)perylene	U	39.6	ug/kg	11.9	39.6	
120-82-1	1,2,4-Trichlorobenzene	U	396	ug/kg	79.1	396	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.92	373	ug/kg		JA

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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	Date Collected:	12/07/2009 12:00	Matrix:	S
Lab Sample ID:	242654010	Date Received:	12/10/2009 08:50	%Moisture:	13.2
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14284	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	932077	Inst:	MSD3.I	Dilution:	1
Run Date:	12/14/2009 20:22	Analyst:	JLD1	Inj. Vol:	.5 uL
Prep Date:	12/11/2009 21:55	Aliquot:	30.02 g	Final Volume:	1 mL
Data File:	s311426.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
62-75-9	N-Methyl-N-nitrosomethylamine	U	384	ug/kg	76.7	384	
108-95-2	Phenol	U	384	ug/kg	76.7	384	
95-57-8	2-Chlorophenol	U	384	ug/kg	76.7	384	
106-46-7	1,4-Dichlorobenzene	U	384	ug/kg	76.7	384	
621-64-7	N-Nitrosodipropylamine	U	384	ug/kg	76.7	384	
59-50-7	4-Chloro-3-methylphenol	U	384	ug/kg	76.7	384	
83-32-9	Acenaphthene	U	38.4	ug/kg	12.7	38.4	
121-14-2	2,4-Dinitrotoluene	U	384	ug/kg	38.4	384	
100-02-7	4-Nitrophenol	U	384	ug/kg	127	384	
87-86-5	Pentachlorophenol	U	384	ug/kg	95.9	384	
129-00-0	Pyrene	U	38.4	ug/kg	11.5	38.4	UJ,SV7c
110-86-1	Pyridine	U	384	ug/kg	76.7	384	
62-53-3	Aniline	U	384	ug/kg	115	384	
111-44-4	bis(2-Chloroethyl) ether	U	384	ug/kg	76.7	384	
541-73-1	1,3-Dichlorobenzene	U	384	ug/kg	76.7	384	
100-51-6	Benzyl alcohol	U	384	ug/kg	115	384	
95-50-1	1,2-Dichlorobenzene	U	384	ug/kg	76.7	384	
108-60-1	bis(2-Chloroisopropyl)ether	U	384	ug/kg	76.7	384	UJ,SV7c
95-48-7	o-Cresol	U	384	ug/kg	76.7	384	
65794-96-9	m,p-Cresols	U	384	ug/kg	115	384	
67-72-1	Hexachloroethane	U	384	ug/kg	76.7	384	
98-95-3	Nitrobenzene	U	384	ug/kg	76.7	384	
78-59-1	Isophorone	U	384	ug/kg	76.7	384	
88-75-5	2-Nitrophenol	U	384	ug/kg	76.7	384	
105-67-9	2,4-Dimethylphenol	U	384	ug/kg	134	384	
111-91-1	bis(2-Chloroethoxy)methane	U	384	ug/kg	76.7	384	
120-83-2	2,4-Dichlorophenol	U	384	ug/kg	76.7	384	
65-85-0	Benzoic acid	U	767	ug/kg	192	767	
91-20-3	Naphthalene	U	38.4	ug/kg	11.5	38.4	UJ,SV7c
106-47-8	4-Chloroaniline	U	384	ug/kg	76.7	384	
87-68-3	Hexachlorobutadiene	U	384	ug/kg	76.7	384	
91-57-6	2-Methylnaphthalene	U	38.4	ug/kg	7.67	38.4	
77-47-4	Hexachlorocyclopentadiene	U	384	ug/kg	76.7	384	UJ,SV7c
88-06-2	2,4,6-Trichlorophenol	U	384	ug/kg	76.7	384	
95-95-4	2,4,5-Trichlorophenol	U	384	ug/kg	76.7	384	
91-58-7	2-Chloronaphthalene	U	38.4	ug/kg	12.7	38.4	
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	384	ug/kg	76.7	384	
99-09-2	3-Nitroaniline	U	384	ug/kg	76.7	384	UJ,SV7c

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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	Date Collected:	12/07/2009 12:00	Matrix:	S
Lab Sample ID:	242654010	Date Received:	12/10/2009 08:50	%Moisture:	13.2
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14284	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	932077	Inst:	MSD3.I	Dilution:	1
Run Date:	12/14/2009 20:22	Analyst:	JLD1	Inj. Vol:	.5 uL
Prep Date:	12/11/2009 21:55	Aliquot:	30.02 g	Final Volume:	1 mL
Data File:	s311426.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
	m-Nitroaniline						
131-11-3	Dimethylphthalate	U	384	ug/kg	76.7	384	
606-20-2	2,6-Dinitrotoluene	U	384	ug/kg	38.4	384	
208-96-8	Acenaphthylene	U	38.4	ug/kg	11.5	38.4	
51-28-5	2,4-Dinitrophenol	U	767	ug/kg	146	767	
132-64-9	Dibenzofuran	U	384	ug/kg	76.7	384	
84-66-2	Diethylphthalate	U	384	ug/kg	76.7	384	
86-73-7	Fluorene	U	38.4	ug/kg	11.5	38.4	
7005-72-3	4-Chlorophenylphenylether	U	384	ug/kg	76.7	384	
534-52-1	2-Methyl-4,6-dinitrophenol	U	384	ug/kg	76.7	384	
100-01-6	4-Nitroaniline	U	384	ug/kg	115	384	UJ,SV7c
	p-Nitroaniline						
122-39-4	Diphenylamine	U	384	ug/kg	76.7	384	
122-66-7	Azobenzene	U	384	ug/kg	76.7	384	
	1,2-Diphenylhydrazine						
101-55-3	4-Bromophenylphenylether	U	384	ug/kg	76.7	384	UJ,SV7c
118-74-1	Hexachlorobenzene	U	384	ug/kg	76.7	384	
85-01-8	Phenanthrene	U	38.4	ug/kg	11.5	38.4	
120-12-7	Anthracene	U	38.4	ug/kg	7.67	38.4	
84-74-2	Di-n-butylphthalate	U	384	ug/kg	76.7	384	
206-44-0	Fluoranthene	U	38.4	ug/kg	11.5	38.4	
85-68-7	Butylbenzylphthalate	U	384	ug/kg	76.7	384	
56-55-3	Benzo(a)anthracene	U	38.4	ug/kg	11.5	38.4	
91-94-1	3,3'-Dichlorobenzidine	U	384	ug/kg	115	384	
218-01-9	Chrysene	U	38.4	ug/kg	11.5	38.4	
117-81-7	bis(2-Ethylhexyl)phthalate	U	384	ug/kg	76.7	384	UJ,SV7c
117-84-0	Di-n-octylphthalate	U	384	ug/kg	76.7	384	
205-99-2	Benzo(b)fluoranthene	U	38.4	ug/kg	11.5	38.4	
207-08-9	Benzo(k)fluoranthene	U	38.4	ug/kg	11.5	38.4	
50-32-8	Benzo(a)pyrene	U	38.4	ug/kg	11.5	38.4	
193-39-5	Indeno(1,2,3-cd)pyrene	U	38.4	ug/kg	11.5	38.4	UJ,SV7c
53-70-3	Dibenzo(a,h)anthracene	U	38.4	ug/kg	11.5	38.4	
191-24-2	Benzo(ghi)perylene	U	38.4	ug/kg	11.5	38.4	
120-82-1	1,2,4-Trichlorobenzene	U	384	ug/kg	76.7	384	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.93	305	ug/kg		JA

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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242654018	**Date Received:**	12/10/2009 08:50	**%Moisture:**	14.2
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14285	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	932077	**Inst:**	MSD3.I	**Dilution:**	1
Run Date:	12/15/2009 12:23	**Analyst:**	JLD1	**Inj. Vol:**	.5 uL
Prep Date:	12/11/2009 21:55	**Aliquot:**	30.02 g	**Final Volume:**	1 mL
Data File:	s311511.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
62-75-9	N-Methyl-N-nitrosomethylamine	U	388	ug/kg	77.6	388	
108-95-2	Phenol	U	388	ug/kg	77.6	388	
95-57-8	2-Chlorophenol	U	388	ug/kg	77.6	388	
106-46-7	1,4-Dichlorobenzene	U	388	ug/kg	77.6	388	
621-64-7	N-Nitrosodipropylamine	U	388	ug/kg	77.6	388	
59-50-7	4-Chloro-3-methylphenol	U	388	ug/kg	77.6	388	
83-32-9	Acenaphthene	U	38.8	ug/kg	12.8	38.8	
121-14-2	2,4-Dinitrotoluene	U	388	ug/kg	38.8	388	
100-02-7	4-Nitrophenol	U	388	ug/kg	128	388	
87-86-5	Pentachlorophenol	U	388	ug/kg	97.0	388	
129-00-0	Pyrene	U	38.8	ug/kg	11.6	38.8	
110-86-1	Pyridine	U	388	ug/kg	77.6	388	UJ,SV7c
62-53-3	Aniline	U	388	ug/kg	116	388	
111-44-4	bis(2-Chloroethyl) ether	U	388	ug/kg	77.6	388	
541-73-1	1,3-Dichlorobenzene	U	388	ug/kg	77.6	388	
100-51-6	Benzyl alcohol	U	388	ug/kg	116	388	
95-50-1	1,2-Dichlorobenzene	U	388	ug/kg	77.6	388	
108-60-1	bis(2-Chloroisopropyl)ether	U	388	ug/kg	77.6	388	
95-48-7	o-Cresol	U	388	ug/kg	77.6	388	
65794-96-9	m,p-Cresols	U	388	ug/kg	116	388	
67-72-1	Hexachloroethane	U	388	ug/kg	77.6	388	
98-95-3	Nitrobenzene	U	388	ug/kg	77.6	388	
78-59-1	Isophorone	U	388	ug/kg	77.6	388	
88-75-5	2-Nitrophenol	U	388	ug/kg	77.6	388	
105-67-9	2,4-Dimethylphenol	U	388	ug/kg	136	388	
111-91-1	bis(2-Chloroethoxy)methane	U	388	ug/kg	77.6	388	
120-83-2	2,4-Dichlorophenol	U	388	ug/kg	77.6	388	
65-85-0	Benzoic acid	U	776	ug/kg	194	776	UJ,SV7c
91-20-3	Naphthalene	U	38.8	ug/kg	11.6	38.8	
106-47-8	4-Chloroaniline	U	388	ug/kg	77.6	388	
87-68-3	Hexachlorobutadiene	U	388	ug/kg	77.6	388	
91-57-6	2-Methylnaphthalene	U	38.8	ug/kg	7.76	38.8	
77-47-4	Hexachlorocyclopentadiene	U	388	ug/kg	77.6	388	UJ,SV7c
88-06-2	2,4,6-Trichlorophenol	U	388	ug/kg	77.6	388	
95-95-4	2,4,5-Trichlorophenol	U	388	ug/kg	77.6	388	
91-58-7	2-Chloronaphthalene	U	38.8	ug/kg	12.8	38.8	
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	388	ug/kg	77.6	388	
99-09-2	3-Nitroaniline	U	388	ug/kg	77.6	388	UJ,SV7c

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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	Date Collected:	12/07/2009 12:00	Matrix:	S
Lab Sample ID:	242654018	Date Received:	12/10/2009 08:50	%Moisture:	14.2
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14285	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	932077	Inst:	MSD3.I	Dilution:	1
Run Date:	12/15/2009 12:23	Analyst:	JLD1	Inj. Vol:	.5 uL
Prep Date:	12/11/2009 21:55	Aliquot:	30.02 g	Final Volume:	1 mL
Data File:	s311511.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
	m-Nitroaniline						
131-11-3	Dimethylphthalate	U	388	ug/kg	77.6	388	
606-20-2	2,6-Dinitrotoluene	U	388	ug/kg	38.8	388	
208-96-8	Acenaphthylene	U	38.8	ug/kg	11.6	38.8	
51-28-5	2,4-Dinitrophenol	U	776	ug/kg	147	776	
132-64-9	Dibenzofuran	U	388	ug/kg	77.6	388	
84-66-2	Diethylphthalate	U	388	ug/kg	77.6	388	
86-73-7	Fluorene	U	38.8	ug/kg	11.6	38.8	
7005-72-3	4-Chlorophenylphenylether	U	388	ug/kg	77.6	388	
534-52-1	2-Methyl-4,6-dinitrophenol	U	388	ug/kg	77.6	388	UJ,SV7c
100-01-6	4-Nitroaniline	U	388	ug/kg	116	388	UJ,SV7c
	p-Nitroaniline						
122-39-4	Diphenylamine	U	388	ug/kg	77.6	388	
122-66-7	Azobenzene	U	388	ug/kg	77.6	388	
	1,2-Diphenylhydrazine						
101-55-3	4-Bromophenylphenylether	U	388	ug/kg	77.6	388	UJ,SV7c
118-74-1	Hexachlorobenzene	U	388	ug/kg	77.6	388	
85-01-8	Phenanthrene	U	38.8	ug/kg	11.6	38.8	
120-12-7	Anthracene	U	38.8	ug/kg	7.76	38.8	
84-74-2	Di-n-butylphthalate	U	388	ug/kg	77.6	388	
206-44-0	Fluoranthene	U	38.8	ug/kg	11.6	38.8	
85-68-7	Butylbenzylphthalate	U	388	ug/kg	77.6	388	
56-55-3	Benzo(a)anthracene	U	38.8	ug/kg	11.6	38.8	
91-94-1	3,3'-Dichlorobenzidine	U	388	ug/kg	116	388	
218-01-9	Chrysene	U	38.8	ug/kg	11.6	38.8	
117-81-7	bis(2-Ethylhexyl)phthalate	U	388	ug/kg	77.6	388	UJ,SV7c
117-84-0	Di-n-octylphthalate	U	388	ug/kg	77.6	388	
205-99-2	Benzo(b)fluoranthene	U	38.8	ug/kg	11.6	38.8	
207-08-9	Benzo(k)fluoranthene	U	38.8	ug/kg	11.6	38.8	
50-32-8	Benzo(a)pyrene	U	38.8	ug/kg	11.6	38.8	
193-39-5	Indeno(1,2,3-cd)pyrene	U	38.8	ug/kg	11.6	38.8	UJ,SV7c
53-70-3	Dibenzo(a,h)anthracene	U	38.8	ug/kg	11.6	38.8	
191-24-2	Benzo(ghi)perylene	U	38.8	ug/kg	11.6	38.8	
120-82-1	1,2,4-Trichlorobenzene	U	388	ug/kg	77.6	388	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.91	324	ug/kg		JA
	Unknown	15.68	634	ug/kg		J

ETM
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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	Date Collected:	12/07/2009 12:00	Matrix:	S
Lab Sample ID:	242654018	Date Received:	12/10/2009 08:50	%Moisture:	14.2
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14285	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	932077	Inst:	MSD3.I	Dilution:	1
Run Date:	12/15/2009 12:23	Analyst:	JLD1	Inj. Vol:	.5 uL
Prep Date:	12/11/2009 21:55	Aliquot:	30.02 g	Final Volume:	1 mL
Data File:	s311511.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Flt	Qual
	Unknown	16.02	175	ug/kg		J

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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-852**	**Date Collected:**	**12/07/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242654019**	**Date Received:**	**12/10/2009 08:50**	**%Moisture:**	**13.4**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14286**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**932077**	**Inst:**	**MSD3.I**	**Dilution:**	**1**
Run Date:	**12/15/2009 12:51**	**Analyst:**	**JLD1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/11/2009 21:55**	**Aliquot:**	**30.16 g**	**Final Volume:**	**1 mL**
Data File:	**s311512.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
62-75-9	N-Methyl-N-nitrosomethylamine	U	383	ug/kg	76.6	383	
108-95-2	Phenol	U	383	ug/kg	76.6	383	
95-57-8	2-Chlorophenol	U	383	ug/kg	76.6	383	
106-46-7	1,4-Dichlorobenzene	U	383	ug/kg	76.6	383	
621-64-7	N-Nitrosodipropylamine	U	383	ug/kg	76.6	383	
59-50-7	4-Chloro-3-methylphenol	U	383	ug/kg	76.6	383	
83-32-9	Acenaphthene	U	38.3	ug/kg	12.6	38.3	
121-14-2	2,4-Dinitrotoluene	U	383	ug/kg	38.3	383	
100-02-7	4-Nitrophenol	U	383	ug/kg	126	383	
87-86-5	Pentachlorophenol	U	383	ug/kg	95.7	383	
129-00-0	Pyrene	U	38.3	ug/kg	11.5	38.3	
110-86-1	Pyridine	U	383	ug/kg	76.6	383	UJ,SV7c
62-53-3	Aniline	U	383	ug/kg	115	383	
111-44-4	bis(2-Chloroethyl) ether	U	383	ug/kg	76.6	383	
541-73-1	1,3-Dichlorobenzene	U	383	ug/kg	76.6	383	
100-51-6	Benzyl alcohol	U	383	ug/kg	115	383	
95-50-1	1,2-Dichlorobenzene	U	383	ug/kg	76.6	383	
108-60-1	bis(2-Chloroisopropyl)ether	U	383	ug/kg	76.6	383	
95-48-7	o-Cresol	U	383	ug/kg	76.6	383	
65794-96-9	m,p-Cresols	U	383	ug/kg	115	383	
67-72-1	Hexachloroethane	U	383	ug/kg	76.6	383	
98-95-3	Nitrobenzene	U	383	ug/kg	76.6	383	
78-59-1	Isophorone	U	383	ug/kg	76.6	383	
88-75-5	2-Nitrophenol	U	383	ug/kg	76.6	383	
105-67-9	2,4-Dimethylphenol	U	383	ug/kg	134	383	
111-91-1	bis(2-Chloroethoxy)methane	U	383	ug/kg	76.6	383	
120-83-2	2,4-Dichlorophenol	U	383	ug/kg	76.6	383	
65-85-0	Benzoic acid	U	766	ug/kg	191	766	UJ,SV7c
91-20-3	Naphthalene	U	38.3	ug/kg	11.5	38.3	
106-47-8	4-Chloroaniline	U	383	ug/kg	76.6	383	
87-68-3	Hexachlorobutadiene	U	383	ug/kg	76.6	383	
91-57-6	2-Methylnaphthalene	U	38.3	ug/kg	7.66	38.3	
77-47-4	Hexachlorocyclopentadiene	U	383	ug/kg	76.6	383	UJ,SV7c
88-06-2	2,4,6-Trichlorophenol	U	383	ug/kg	76.6	383	
95-95-4	2,4,5-Trichlorophenol	U	383	ug/kg	76.6	383	
91-58-7	2-Chloronaphthalene	U	38.3	ug/kg	12.6	38.3	
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	383	ug/kg	76.6	383	
99-09-2	3-Nitroaniline	U	383	ug/kg	76.6	383	UJ,SV7c

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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	Date Collected:	12/07/2009 12:00	Matrix:	S
Lab Sample ID:	242654019	Date Received:	12/10/2009 08:50	%Moisture:	13.4
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14286	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	932077	Inst:	MSD3.I	Dilution:	1
Run Date:	12/15/2009 12:51	Analyst:	JLD1	Inj. Vol:	.5 uL
Prep Date:	12/11/2009 21:55	Aliquot:	30.16 g	Final Volume:	1 mL
Data File:	s311512.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
	m-Nitroaniline						
131-11-3	Dimethylphthalate	U	383	ug/kg	76.6	383	
606-20-2	2,6-Dinitrotoluene	U	383	ug/kg	38.3	383	
208-96-8	Acenaphthylene	U	38.3	ug/kg	11.5	38.3	
51-28-5	2,4-Dinitrophenol	U	766	ug/kg	145	766	
132-64-9	Dibenzofuran	U	383	ug/kg	76.6	383	
84-66-2	Diethylphthalate	U	383	ug/kg	76.6	383	
86-73-7	Fluorene	U	38.3	ug/kg	11.5	38.3	
7005-72-3	4-Chlorophenylphenylether	U	383	ug/kg	76.6	383	
534-52-1	2-Methyl-4,6-dinitrophenol	U	383	ug/kg	76.6	383	UJ,SV7c
100-01-6	4-Nitroaniline	U	383	ug/kg	115	383	UJ,SV7c
	p-Nitroaniline						
122-39-4	Diphenylamine	U	383	ug/kg	76.6	383	
122-66-7	Azobenzene	U	383	ug/kg	76.6	383	
	1,2-Diphenylhydrazine						
101-55-3	4-Bromophenylphenylether	U	383	ug/kg	76.6	383	UJ,SV7c
118-74-1	Hexachlorobenzene	U	383	ug/kg	76.6	383	
85-01-8	Phenanthrene	U	38.3	ug/kg	11.5	38.3	
120-12-7	Anthracene	U	38.3	ug/kg	7.66	38.3	
84-74-2	Di-n-butylphthalate	U	383	ug/kg	76.6	383	
206-44-0	Fluoranthene	U	38.3	ug/kg	11.5	38.3	
85-68-7	Butylbenzylphthalate	U	383	ug/kg	76.6	383	
56-55-3	Benzo(a)anthracene	U	38.3	ug/kg	11.5	38.3	
91-94-1	3,3'-Dichlorobenzidine	U	383	ug/kg	115	383	
218-01-9	Chrysene	U	38.3	ug/kg	11.5	38.3	
117-81-7	bis(2-Ethylhexyl)phthalate	U	383	ug/kg	76.6	383	UJ,SV7c
117-84-0	Di-n-octylphthalate	U	383	ug/kg	76.6	383	
205-99-2	Benzo(b)fluoranthene	U	38.3	ug/kg	11.5	38.3	
207-08-9	Benzo(k)fluoranthene	U	38.3	ug/kg	11.5	38.3	
50-32-8	Benzo(a)pyrene	U	38.3	ug/kg	11.5	38.3	
193-39-5	Indeno(1,2,3-cd)pyrene	U	38.3	ug/kg	11.5	38.3	UJ,SV7c
53-70-3	Dibenzo(a,h)anthracene	U	38.3	ug/kg	11.5	38.3	
191-24-2	Benzo(ghi)perylene	U	38.3	ug/kg	11.5	38.3	
120-82-1	1,2,4-Trichlorobenzene	U	383	ug/kg	76.6	383	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Flt	Qual
	Unknown Aldol Condensate	2.92	431	ug/kg		JA

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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	Date Collected:	12/07/2009 12:00	Matrix:	S
Lab Sample ID:	242654006	Date Received:	12/10/2009 08:50	%Moisture:	11.7
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14287	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	932077	Inst:	MSD3.I	Dilution:	1
Run Date:	12/13/2009 18:08	Analyst:	JLD1	Inj. Vol:	.5 uL
Prep Date:	12/11/2009 21:55	Aliquot:	30.06 g	Final Volume:	1 mL
Data File:	s311322.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
62-75-9	N-Methyl-N-nitrosomethylamine	U	377	ug/kg	75.3	377	
108-95-2	Phenol	U	377	ug/kg	75.3	377	
95-57-8	2-Chlorophenol	U	377	ug/kg	75.3	377	
106-46-7	1,4-Dichlorobenzene	U	377	ug/kg	75.3	377	
621-64-7	N-Nitrosodipropylamine	U	377	ug/kg	75.3	377	
59-50-7	4-Chloro-3-methylphenol	U	377	ug/kg	75.3	377	
83-32-9	Acenaphthene	U	37.7	ug/kg	12.4	37.7	
121-14-2	2,4-Dinitrotoluene	U	377	ug/kg	37.7	377	
100-02-7	4-Nitrophenol	U	377	ug/kg	124	377	
87-86-5	Pentachlorophenol	U	377	ug/kg	94.2	377	
129-00-0	Pyrene		50.5	ug/kg	11.3	37.7	
110-86-1	Pyridine	U	377	ug/kg	75.3	377	UJ,SV7c
62-53-3	Aniline	U	377	ug/kg	113	377	
111-44-4	bis(2-Chloroethyl) ether	U	377	ug/kg	75.3	377	
541-73-1	1,3-Dichlorobenzene	U	377	ug/kg	75.3	377	
100-51-6	Benzyl alcohol	U	377	ug/kg	113	377	
95-50-1	1,2-Dichlorobenzene	U	377	ug/kg	75.3	377	
108-60-1	bis(2-Chloroisopropyl)ether	U	377	ug/kg	75.3	377	UJ,SV7c
95-48-7	o-Cresol	U	377	ug/kg	75.3	377	
65794-96-9	m,p-Cresols	U	377	ug/kg	113	377	
67-72-1	Hexachloroethane	U	377	ug/kg	75.3	377	
98-95-3	Nitrobenzene	U	377	ug/kg	75.3	377	
78-59-1	Isophorone	U	377	ug/kg	75.3	377	
88-75-5	2-Nitrophenol	U	377	ug/kg	75.3	377	
105-67-9	2,4-Dimethylphenol	U	377	ug/kg	132	377	
111-91-1	bis(2-Chloroethoxy)methane	U	377	ug/kg	75.3	377	
120-83-2	2,4-Dichlorophenol	U	377	ug/kg	75.3	377	
65-85-0	Benzoic acid	U	753	ug/kg	188	753	
91-20-3	Naphthalene	U	37.7	ug/kg	11.3	37.7	
106-47-8	4-Chloroaniline	U	377	ug/kg	75.3	377	
87-68-3	Hexachlorobutadiene	U	377	ug/kg	75.3	377	
91-57-6	2-Methylnaphthalene	U	37.7	ug/kg	7.53	37.7	
77-47-4	Hexachlorocyclopentadiene	U	377	ug/kg	75.3	377	UJ,SV7c
88-06-2	2,4,6-Trichlorophenol	U	377	ug/kg	75.3	377	
95-95-4	2,4,5-Trichlorophenol	U	377	ug/kg	75.3	377	
91-58-7	2-Chloronaphthalene	U	37.7	ug/kg	12.4	37.7	
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	377	ug/kg	75.3	377	
99-09-2	3-Nitroaniline	U	377	ug/kg	75.3	377	

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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	Date Collected:	12/07/2009 12:00	Matrix:	S
Lab Sample ID:	242654006	Date Received:	12/10/2009 08:50	%Moisture:	11.7
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14287	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	932077	Inst:	MSD3.I	Dilution:	1
Run Date:	12/13/2009 18:08	Analyst:	JLD1	Inj. Vol:	.5 uL
Prep Date:	12/11/2009 21:55	Aliquot:	30.06 g	Final Volume:	1 mL
Data File:	s311322.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
	m-Nitroaniline						
131-11-3	Dimethylphthalate	U	377	ug/kg	75.3	377	
606-20-2	2,6-Dinitrotoluene	U	377	ug/kg	37.7	377	
208-96-8	Acenaphthylene	U	37.7	ug/kg	11.3	37.7	
51-28-5	2,4-Dinitrophenol	U	753	ug/kg	143	753	
132-64-9	Dibenzofuran	U	377	ug/kg	75.3	377	
84-66-2	Diethylphthalate	U	377	ug/kg	75.3	377	
86-73-7	Fluorene	U	37.7	ug/kg	11.3	37.7	
7005-72-3	4-Chlorophenylphenylether	U	377	ug/kg	75.3	377	
534-52-1	2-Methyl-4,6-dinitrophenol	U	377	ug/kg	75.3	377	
100-01-6	4-Nitroaniline	U	377	ug/kg	113	377	UJ,SV7c
	p-Nitroaniline						
122-39-4	Diphenylamine	U	377	ug/kg	75.3	377	
122-66-7	Azobenzene	U	377	ug/kg	75.3	377	
	1,2-Diphenylhydrazine						
101-55-3	4-Bromophenylphenylether	U	377	ug/kg	75.3	377	UJ,SV7c
118-74-1	Hexachlorobenzene	U	377	ug/kg	75.3	377	
85-01-8	Phenanthrene	J	28.4	ug/kg	11.3	37.7	
120-12-7	Anthracene	U	37.7	ug/kg	7.53	37.7	
84-74-2	Di-n-butylphthalate	U	377	ug/kg	75.3	377	
206-44-0	Fluoranthene		51.7	ug/kg	11.3	37.7	
85-68-7	Butylbenzylphthalate	U	377	ug/kg	75.3	377	
56-55-3	Benzo(a)anthracene	J	21.0	ug/kg	11.3	37.7	
91-94-1	3,3'-Dichlorobenzidine	U	377	ug/kg	113	377	
218-01-9	Chrysene	J	28.7	ug/kg	11.3	37.7	
117-81-7	bis(2-Ethylhexyl)phthalate	U	377	ug/kg	75.3	377	
117-84-0	Di-n-octylphthalate	U	377	ug/kg	75.3	377	
205-99-2	Benzo(b)fluoranthene	J	33.0	ug/kg	11.3	37.7	
207-08-9	Benzo(k)fluoranthene	J	11.6	ug/kg	11.3	37.7	
50-32-8	Benzo(a)pyrene	J	22.1	ug/kg	11.3	37.7	
193-39-5	Indeno(1,2,3-cd)pyrene	U	37.7	ug/kg	11.3	37.7	UJ,SV7c
53-70-3	Dibenzo(a,h)anthracene	U	37.7	ug/kg	11.3	37.7	
191-24-2	Benzo(ghi)perylene	U	37.7	ug/kg	11.3	37.7	
120-82-1	1,2,4-Trichlorobenzene	U	377	ug/kg	75.3	377	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.95	326	ug/kg		JA
7785-70-8	1R-.alpha.-Pinene	3.68	527	ug/kg	97	NJ

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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	Date Collected:	12/07/2009 12:00	Matrix:	S
Lab Sample ID:	242654006	Date Received:	12/10/2009 08:50	%Moisture:	11.7
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14287	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	932077	Inst:	MSD3.I	Dilution:	1
Run Date:	12/13/2009 18:08	Analyst:	JLD1	Inj. Vol:	.5 uL
Prep Date:	12/11/2009 21:55	Aliquot:	30.06 g	Final Volume:	1 mL
Data File:	s311322.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
18172-67-3	Bicyclo[3.1.1]heptane, 6,6-dimethyl-2-me	4.03	203	ug/kg	97	NJ
13466-78-9	3-Carene	4.24	470	ug/kg	96	NJ
	Unknown	11.13	291	ug/kg		J
1235-74-1	1-Phenanthrenecarboxylic acid, 1,2,3,4,4	11.23	237	ug/kg	99	NJ
	Unknown	15.75	203	ug/kg		J
1058-61-3	Stigmast-4-en-3-one	17.11	179	ug/kg	90	NJ
	Unknown	17.94	434	ug/kg		J
	Unknown	19.1	433	ug/kg		J
	Unknown	19.56	375	ug/kg		J

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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	Date Collected:	12/07/2009 12:00	Matrix:	S
Lab Sample ID:	242654005	Date Received:	12/10/2009 08:50	%Moisture:	5.9
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14288	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	932077	Inst:	MSD3.I	Dilution:	1
Run Date:	12/13/2009 17:40	Analyst:	JLD1	Inj. Vol:	.5 uL
Prep Date:	12/11/2009 21:55	Aliquot:	30.12 g	Final Volume:	1 mL
Data File:	s311321.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
62-75-9	N-Methyl-N-nitrosomethylamine	U	353	ug/kg	70.6	353	
108-95-2	Phenol	U	353	ug/kg	70.6	353	
95-57-8	2-Chlorophenol	U	353	ug/kg	70.6	353	
106-46-7	1,4-Dichlorobenzene	U	353	ug/kg	70.6	353	
621-64-7	N-Nitrosodipropylamine	U	353	ug/kg	70.6	353	
59-50-7	4-Chloro-3-methylphenol	U	353	ug/kg	70.6	353	
83-32-9	Acenaphthene	U	35.3	ug/kg	11.6	35.3	
121-14-2	2,4-Dinitrotoluene	U	353	ug/kg	35.3	353	
100-02-7	4-Nitrophenol	U	353	ug/kg	116	353	
87-86-5	Pentachlorophenol	U	353	ug/kg	88.2	353	
129-00-0	Pyrene	U	35.3	ug/kg	10.6	35.3	
110-86-1	Pyridine	U	353	ug/kg	70.6	353	UJ,SV7c
62-53-3	Aniline	U	353	ug/kg	106	353	
111-44-4	bis(2-Chloroethyl) ether	U	353	ug/kg	70.6	353	
541-73-1	1,3-Dichlorobenzene	U	353	ug/kg	70.6	353	
100-51-6	Benzyl alcohol	U	353	ug/kg	106	353	
95-50-1	1,2-Dichlorobenzene	U	353	ug/kg	70.6	353	
108-60-1	bis(2-Chloroisopropyl)ether	U	353	ug/kg	70.6	353	UJ,SV7c
95-48-7	o-Cresol	U	353	ug/kg	70.6	353	
65794-96-9	m,p-Cresols	U	353	ug/kg	106	353	
67-72-1	Hexachloroethane	U	353	ug/kg	70.6	353	
98-95-3	Nitrobenzene	U	353	ug/kg	70.6	353	
78-59-1	Isophorone	U	353	ug/kg	70.6	353	
88-75-5	2-Nitrophenol	U	353	ug/kg	70.6	353	
105-67-9	2,4-Dimethylphenol	U	353	ug/kg	124	353	
111-91-1	bis(2-Chloroethoxy)methane	U	353	ug/kg	70.6	353	
120-83-2	2,4-Dichlorophenol	U	353	ug/kg	70.6	353	
65-85-0	Benzoic acid	U	706	ug/kg	176	706	
91-20-3	Naphthalene	U	35.3	ug/kg	10.6	35.3	
106-47-8	4-Chloroaniline	U	353	ug/kg	70.6	353	
87-68-3	Hexachlorobutadiene	U	353	ug/kg	70.6	353	
91-57-6	2-Methylnaphthalene	U	35.3	ug/kg	7.06	35.3	
77-47-4	Hexachlorocyclopentadiene	U	353	ug/kg	70.6	353	UJ,SV7c
88-06-2	2,4,6-Trichlorophenol	U	353	ug/kg	70.6	353	
95-95-4	2,4,5-Trichlorophenol	U	353	ug/kg	70.6	353	
91-58-7	2-Chloronaphthalene	U	35.3	ug/kg	11.6	35.3	
88-74-4	2-Nitroaniline	U	353	ug/kg	70.6	353	
	o-Nitroaniline						
99-09-2	3-Nitroaniline	U	353	ug/kg	70.6	353	

ETM
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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242654005	**Date Received:**	12/10/2009 08:50	**%Moisture:**	5.9
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14288	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	932077	**Inst:**	MSD3.I	**Dilution:**	1
Run Date:	12/13/2009 17:40	**Analyst:**	JLD1	**Inj. Vol:**	.5 uL
Prep Date:	12/11/2009 21:55	**Aliquot:**	30.12 g	**Final Volume:**	1 mL
Data File:	s311321.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
	m-Nitroaniline						
131-11-3	Dimethylphthalate	U	353	ug/kg	70.6	353	
606-20-2	2,6-Dinitrotoluene	U	353	ug/kg	35.3	353	
208-96-8	Acenaphthylene	U	35.3	ug/kg	10.6	35.3	
51-28-5	2,4-Dinitrophenol	U	706	ug/kg	134	706	
132-64-9	Dibenzofuran	U	353	ug/kg	70.6	353	
84-66-2	Diethylphthalate	U	353	ug/kg	70.6	353	
86-73-7	Fluorene	U	35.3	ug/kg	10.6	35.3	
7005-72-3	4-Chlorophenylphenylether	U	353	ug/kg	70.6	353	
534-52-1	2-Methyl-4,6-dinitrophenol	U	353	ug/kg	70.6	353	
100-01-6	4-Nitroaniline	U	353	ug/kg	106	353	UJ,SV7c
	p-Nitroaniline						
122-39-4	Diphenylamine	U	353	ug/kg	70.6	353	
122-66-7	Azobenzene	U	353	ug/kg	70.6	353	
	1,2-Diphenylhydrazine						
101-55-3	4-Bromophenylphenylether	U	353	ug/kg	70.6	353	UJ,SV7c
118-74-1	Hexachlorobenzene	U	353	ug/kg	70.6	353	
85-01-8	Phenanthrene	U	35.3	ug/kg	10.6	35.3	
120-12-7	Anthracene	U	35.3	ug/kg	7.06	35.3	
84-74-2	Di-n-butylphthalate	U	353	ug/kg	70.6	353	
206-44-0	Fluoranthene	U	35.3	ug/kg	10.6	35.3	
85-68-7	Butylbenzylphthalate	U	353	ug/kg	70.6	353	
56-55-3	Benzo(a)anthracene	U	35.3	ug/kg	10.6	35.3	
91-94-1	3,3'-Dichlorobenzidine	U	353	ug/kg	106	353	
218-01-9	Chrysene	U	35.3	ug/kg	10.6	35.3	
117-81-7	bis(2-Ethylhexyl)phthalate	U	353	ug/kg	70.6	353	
117-84-0	Di-n-octylphthalate	U	353	ug/kg	70.6	353	
205-99-2	Benzo(b)fluoranthene	U	35.3	ug/kg	10.6	35.3	
207-08-9	Benzo(k)fluoranthene	U	35.3	ug/kg	10.6	35.3	
50-32-8	Benzo(a)pyrene	U	35.3	ug/kg	10.6	35.3	
193-39-5	Indeno(1,2,3-cd)pyrene	U	35.3	ug/kg	10.6	35.3	UJ,SV7c
53-70-3	Dibenzo(a,h)anthracene	U	35.3	ug/kg	10.6	35.3	
191-24-2	Benzo(ghi)perylene	U	35.3	ug/kg	10.6	35.3	
120-82-1	1,2,4-Trichlorobenzene	U	353	ug/kg	70.6	353	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.94	253	ug/kg		JA
7785-70-8	1R-.alpha.-Pinene	3.68	2960	ug/kg	96	NJ

ETM
1/29/10

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	Date Collected:	12/07/2009 12:00	Matrix:	S
Lab Sample ID:	242654005	Date Received:	12/10/2009 08:50	%Moisture:	5.9
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14288	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	932077	Inst:	MSD3.I	Dilution:	1
Run Date:	12/13/2009 17:40	Analyst:	JLD1	Inj. Vol:	.5 uL
Prep Date:	12/11/2009 21:55	Aliquot:	30.12 g	Final Volume:	1 mL
Data File:	s311321.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	11.1	241	ug/kg		J
	Unknown	11.13	270	ug/kg		J
1235-74-1	1-Phenanthrenecarboxylic acid, 1,2,3,4,4	11.23	738	ug/kg	97	NJ
	Unknown	11.29	171	ug/kg		J
127-25-3	Methyl abietate	11.43	227	ug/kg	98	NJ
	Unknown	11.87	365	ug/kg		J
62600-05-9	Cedran-diol, 8S,14-	11.99	287	ug/kg	81	NJ
	Unknown	12.63	204	ug/kg		J
	Unknown	19.1	222	ug/kg		J
	Unknown	19.56	196	ug/kg		J

ETM
1/29/10

DATA VALIDATION COVER SHEET

5130-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-852 VALIDATION DATE: 1/29/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Eric T. Mink ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☒ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE):

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

None.

Reviewed by: Mary Donivan Level: I Date: 01/29/10

VALIDATOR'S SIGNATURE: Eric T. Mink DATE: 1/29/10

TPH GRO AND DRO ANALYTICAL DATA VALIDATION CHECKLIST

5130-2

TPH GRO and DRO Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The retention time criteria were not met.	R, DR0 or GR0	R, DR0 or GR0
☐	☒	☐	2. Required retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, DR0b	R, GR0b
☐	☒	☐	3. The surrogate is less than 10%R. Follow external laboratory limits.	R, DR3 or GR3	J-, DR3 or GR3
☐	☒	☐	4. The surrogate is less than the Lower Acceptance Limit, but greater than or equal to 10%R. Follow external laboratory limits.	UJ, DR3a or GR3a	J-, DR3a or GR3a
☐	☒	☐	5. The surrogate %R value is greater than the Upper Acceptance Limit. Follow external laboratory limits.	N/A	J+, DR3b or GR3b
☐	☒	☐	6. Required surrogate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, DR3d or GR3d	R, DR3d or GR3d
☐	☒	☐	7. The sample result is less than or equal to 5 times the concentration of the related analyte in the method blank.	U, DR4 or GR4	N/A
☐	☒	☐	8. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank, but was greater than 5x.	N/A	J+, DR4a or GR4a
☐	☐	☒	9. The sample result is less than or equal to 5 times the concentration of the related analyte in the trip blank, rinsate blank or equipment blank.	U, DR4d or GR4d	N/A
☐	☒	☐	10. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, DR4e or GR4e	R, DR4e or GR4e
☐	☒	☐	11. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ or R, DR7 or GR7	J, DR7 or GR7

TPH GRO AND DRO ANALYTICAL DATA VALIDATION CHECKLIST	
5130-2 TPH GRO and DRO Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	12. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is less than 0.995.	UJ, DR7a or GR7a	J, DR7a or GR7a
☐	☒	☐	13. The ICV and/or CCV were recovered outside the method specific limits.	UJ, DR7c or GR7c	J, DR7c or GR7c
☐	☒	☐	14. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, DR7d or GR7d	J, DR7d or GR7d
☐	☒	☐	15. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, DR7f or GR7f	R, DR7f or GR7f
☐	☒	☐	16. The holding time was greater than 1 and less than or equal to 2 times the applicable holding time requirement.	UJ, DR9 or GR9	J-, DR9 or GR9
☐	☒	☐	17. The holding time was greater than 2 times the applicable holding time requirement.	R, DR9a or GR9a	J-, DR9a or GR9a
☐	☒	☐	18. The LCS percent recovery was less than 10%. Follow the external laboratory limits.	R, DR12 or GR12	J-, DR12 or GR12
☐	☒	☐	19. The LCS percent recovery was less than the Lower Acceptance Limit, but greater than 10%. Follow the external laboratory limits.	UJ, DR12a or GR12a	J-, DR12a or GR12a
☐	☒	☐	20. The LCS percent recovery was greater than the Upper Acceptance Limit. Follow the external laboratory limits.	N/A	J+, DR12b or GR12b
☐	☒	☐	21. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or the external laboratory for information.	R, DR12c or GR12c	R, DR12c or GR12c
☐	☒	☐	22. The MS/MSD percent recovery was less than 10%.	R, DR12d or GR12d	R, DR12d or Gr12d
☐	☒	☐	23. The MS/MSD percent recovery was greater than 10%, but less than 70%.	UJ, DR12e or GR12e	J, DR12e or GR12e

TPH GRO AND DRO ANALYTICAL DATA VALIDATION CHECKLIST	
5130-2 **TPH GRO and DRO Analytical Data Validation Checklist**	Records Use only Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	24. The MS/MSD percent recovery was greater than 70%.	N/A	J+, DR12f or GR12f
☐	☒	☐	25. The MS/MSD relative percent difference was greater than 30%.	UJ, DR12g or GR12g	J, DR12g or GR12g
☐	☐	☒	26. The affected analytes have elevated detection limits and may not meet project DQOs because the sample was diluted without any target analytes identified due to matrix interference. (Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.)	UJ, R, DR15 or GR15	R, DR15 or GR15
☐	☒	☐	27. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.	UJ, R, DR19 or GR19	J, R, DR19 or GR19
☐	☒	☐	28. Duplicate, dilution, or reanalysis.	UJ, DR88 or GR88	J, DR88 or GR88

Flame Ionization Detector
Certificate of Analysis
Sample Summary

SDG Number:	10–852	Date Collected:	12/07/2009 12:00	Matrix:	S
Lab Sample ID:	242654001	Date Received:	12/10/2009 08:50	%Moisture:	14.6
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03–09–14224	Method:	SW846 8015A/B SVOC	SOP Ref:	GL–OA–E–003
Batch ID:	934967	Inst:	FID7.I	Dilution:	1
Run Date:	12/28/2009 13:50	Analyst:	KXR2	Inj. Vol:	1 uL
Prep Date:	12/21/2009 10:03	Aliquot:	30 g	Final Volume:	1 mL
Data File:	007f0701.d	Column:	DB–5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics	J	5.25	mg/kg	2.54	7.80

ETM
1/29/10

Flame Ionization Detector
Certificate of Analysis
Sample Summary

SDG Number:	10-852	Date Collected:	12/07/2009 12:00	Matrix:	S
Lab Sample ID:	242654002	Date Received:	12/10/2009 08:50	%Moisture:	10.3
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14227	Method:	SW846 8015A/B SVOC	SOP Ref:	GL-OA-E-003
Batch ID:	934967	Inst:	FID7.I	Dilution:	1
Run Date:	12/28/2009 15:41	Analyst:	KXR2	Inj. Vol:	1 uL
Prep Date:	12/21/2009 10:03	Aliquot:	30 g	Final Volume:	1 mL
Data File:	010f1001.d	Column:	DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics	U	7.43	mg/kg	2.41	7.43

ETM
1/29/10

Flame Ionization Detector
Certificate of Analysis
Sample Summary

SDG Number:	10-852	Date Collected:	12/07/2009 12:00	Matrix:	S
Lab Sample ID:	242654003	Date Received:	12/10/2009 08:50	%Moisture:	11.9
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14225	Method:	SW846 8015A/B SVOC	SOP Ref:	GL-OA-E-003
Batch ID:	934967	Inst:	FID7.I	Dilution:	1
Run Date:	12/28/2009 16:18	Analyst:	KXR2	Inj. Vol:	1 uL
Prep Date:	12/21/2009 10:03	Aliquot:	30 g	Final Volume:	1 mL
Data File:	011f1101.d	Column:	DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics	U	7.57	mg/kg	2.46	7.57

ETM
1/29/10

Flame Ionization Detector
Certificate of Analysis
Sample Summary

SDG Number:	10–852	Date Collected:	12/07/2009 12:00	Matrix:	S
Lab Sample ID:	242654004	Date Received:	12/10/2009 08:50	%Moisture:	9.5
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03–09–14226	Method:	SW846 8015A/B SVOC	SOP Ref:	GL–OA–E–003
Batch ID:	934967	Inst:	FID7.I	Dilution:	1
Run Date:	12/28/2009 16:55	Analyst:	KXR2	Inj. Vol:	1 uL
Prep Date:	12/21/2009 10:03	Aliquot:	30 g	Final Volume:	1 mL
Data File:	012f1201.d	Column:	DB–5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics	U	7.37	mg/kg	2.39	7.37

ETM
1/29/10

Flame Ionization Detector
Certificate of Analysis
Sample Summary

SDG Number:	10-852	Date Collected:	12/07/2009 12:00	Matrix:	S
Lab Sample ID:	242654005	Date Received:	12/10/2009 08:50	%Moisture:	5.9
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14288	Method:	SW846 8015A/B SVOC	SOP Ref:	GL-OA-E-003
Batch ID:	934967	Inst:	FID7.I	Dilution:	1
Run Date:	12/28/2009 18:45	Analyst:	KXR2	Inj. Vol:	1 uL
Prep Date:	12/21/2009 10:03	Aliquot:	30.03 g	Final Volume:	1 mL
Data File:	015f1501.d	Column:	DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics	J	5.20	mg/kg	2.30	7.08

ETM
1/29/10

Flame Ionization Detector
Certificate of Analysis
Sample Summary

SDG Number:	10-852	Date Collected:	12/07/2009 12:00	Matrix:	S
Lab Sample ID:	242654006	Date Received:	12/10/2009 08:50	%Moisture:	11.7
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14287	Method:	SW846 8015A/B SVOC	SOP Ref:	GL-OA-E-003
Batch ID:	934967	Inst:	FID7.I	Dilution:	1
Run Date:	12/28/2009 19:21	Analyst:	KXR2	Inj. Vol:	1 uL
Prep Date:	12/21/2009 10:03	Aliquot:	30.01 g	Final Volume:	1 mL
Data File:	016f1601.d	Column:	DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics		19.4	mg/kg	2.45	7.55

ETM
1/29/10

Flame Ionization Detector
Certificate of Analysis
Sample Summary

SDG Number:	10-852	Date Collected:	12/07/2009 12:00	Matrix:	S
Lab Sample ID:	242654007	Date Received:	12/10/2009 08:50	%Moisture:	14.2
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14267	Method:	SW846 8015A/B SVOC	SOP Ref:	GL-OA-E-003
Batch ID:	934967	Inst:	FID7.I	Dilution:	20
Run Date:	12/28/2009 19:58	Analyst:	KXR2	Inj. Vol:	1 uL
Prep Date:	12/21/2009 10:03	Aliquot:	30.09 g	Final Volume:	1 mL
Data File:	017f1701.d	Column:	DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics	J	136	mg/kg	50.4	155

ETM
1/29/10

Flame Ionization Detector
Certificate of Analysis
Sample Summary

SDG Number:	10–852	Date Collected:	12/07/2009 12:00	Matrix:	S
Lab Sample ID:	242654008	Date Received:	12/10/2009 08:50	%Moisture:	13
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03–09–14265	Method:	SW846 8015A/B SVOC	SOP Ref:	GL–OA–E–003
Batch ID:	934967	Inst:	FID7.I	Dilution:	20
Run Date:	12/28/2009 20:35	Analyst:	KXR2	Inj. Vol:	1 uL
Prep Date:	12/21/2009 10:03	Aliquot:	30.09 g	Final Volume:	1 mL
Data File:	018f1801.d	Column:	DB–5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics	J	79.0	mg/kg	49.7	153

ETM
1/29/10

Flame Ionization Detector
Certificate of Analysis
Sample Summary

SDG Number:	10-852	Date Collected:	12/07/2009 12:00	Matrix:	S
Lab Sample ID:	242654009	Date Received:	12/10/2009 08:50	%Moisture:	14.1
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14281	Method:	SW846 8015A/B SVOC	SOP Ref:	GL-OA-E-003
Batch ID:	934967	Inst:	FID7.I	Dilution:	1
Run Date:	12/28/2009 21:12	Analyst:	KXR2	Inj. Vol:	1 uL
Prep Date:	12/21/2009 10:03	Aliquot:	30.09 g	Final Volume:	1 mL
Data File:	019f1901.d	Column:	DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics	J	5.82	mg/kg	2.52	7.74

ETM
1/29/10

Flame Ionization Detector
Certificate of Analysis
Sample Summary

SDG Number:	10-852	Date Collected:	12/07/2009 12:00	Matrix:	S
Lab Sample ID:	242654010	Date Received:	12/10/2009 08:50	%Moisture:	13.2
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14284	Method:	SW846 8015A/B SVOC	SOP Ref:	GL-OA-E-003
Batch ID:	934967	Inst:	FID7.I	Dilution:	1
Run Date:	12/28/2009 21:48	Analyst:	KXR2	Inj. Vol:	1 uL
Prep Date:	12/21/2009 10:03	Aliquot:	30.04 g	Final Volume:	1 mL
Data File:	020f2001.d	Column:	DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics	U	7.67	mg/kg	2.49	7.67

ETM
1/29/10

Flame Ionization Detector
Certificate of Analysis
Sample Summary

SDG Number:	10-852	Date Collected:	12/07/2009 12:00	Matrix:	S
Lab Sample ID:	242654011	Date Received:	12/10/2009 08:50	%Moisture:	4.1
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14274	Method:	SW846 8015A/B SVOC	SOP Ref:	GL-OA-E-003
Batch ID:	934967	Inst:	FID7.I	Dilution:	1
Run Date:	12/28/2009 22:25	Analyst:	KXR2	Inj. Vol:	1 uL
Prep Date:	12/21/2009 10:03	Aliquot:	30.01 g	Final Volume:	1 mL
Data File:	021f2101.d	Column:	DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics	J	3.19	mg/kg	2.26	6.95

ETM
1/29/10

Flame Ionization Detector
Certificate of Analysis
Sample Summary

SDG Number:	10–852	Date Collected:	12/07/2009 12:00	Matrix:	S
Lab Sample ID:	242654012	Date Received:	12/10/2009 08:50	%Moisture:	12.2
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03–09–14277	Method:	SW846 8015A/B SVOC	SOP Ref:	GL–OA–E–003
Batch ID:	934967	Inst:	FID7.I	Dilution:	1
Run Date:	12/28/2009 23:02	Analyst:	KXR2	Inj. Vol:	1 uL
Prep Date:	12/21/2009 10:03	Aliquot:	30.09 g	Final Volume:	1 mL
Data File:	022f2201.d	Column:	DB–5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics		78.8	mg/kg	2.46	7.57

ETM
1/29/10

Flame Ionization Detector
Certificate of Analysis
Sample Summary

SDG Number:	10–852	Date Collected:	12/07/2009 12:00	Matrix:	S
Lab Sample ID:	242654013	Date Received:	12/10/2009 08:50	%Moisture:	14.2
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03–09–14282	Method:	SW846 8015A/B SVOC	SOP Ref:	GL–OA–E–003
Batch ID:	934967	Inst:	FID7.I	Dilution:	1
Run Date:	12/29/2009 00:52	Analyst:	KXR2	Inj. Vol:	1 uL
Prep Date:	12/21/2009 10:03	Aliquot:	30.02 g	Final Volume:	1 mL
Data File:	02512501.d	Column:	DB–5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics	U	7.76	mg/kg	2.52	7.76

ETM
1/29/10

Flame Ionization Detector
Certificate of Analysis
Sample Summary

SDG Number:	10-852	Date Collected:	12/07/2009 12:00	Matrix:	S
Lab Sample ID:	242654014	Date Received:	12/10/2009 08:50	%Moisture:	10.7
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14269	Method:	SW846 8015A/B SVOC	SOP Ref:	GL-OA-E-003
Batch ID:	934967	Inst:	FID7.I	Dilution:	20
Run Date:	12/29/2009 01:28	Analyst:	KXR2	Inj. Vol:	1 uL
Prep Date:	12/21/2009 10:03	Aliquot:	30.09 g	Final Volume:	1 mL
Data File:	026f2601.d	Column:	DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics	J	57.2	mg/kg	48.4	149

ETM
1/29/10

Flame Ionization Detector
Certificate of Analysis
Sample Summary

SDG Number:	10-852	Date Collected:	12/07/2009 12:00	Matrix:	S
Lab Sample ID:	242654015	Date Received:	12/10/2009 08:50	%Moisture:	10.3
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14273	Method:	SW846 8015A/B SVOC	SOP Ref:	GL-OA-E-003
Batch ID:	934967	Inst:	FID7.I	Dilution:	1
Run Date:	12/29/2009 02:05	Analyst:	KXR2	Inj. Vol:	1 uL
Prep Date:	12/21/2009 10:03	Aliquot:	30.02 g	Final Volume:	1 mL
Data File:	027f2701.d	Column:	DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics		43.3	mg/kg	2.41	7.43

ETM
1/29/10

Flame Ionization Detector
Certificate of Analysis
Sample Summary

SDG Number:	10-852	Date Collected:	12/07/2009 12:00	Matrix:	S
Lab Sample ID:	242654016	Date Received:	12/10/2009 08:50	%Moisture:	13.4
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14271	Method:	SW846 8015A/B SVOC	SOP Ref:	GL-OA-E-003
Batch ID:	934967	Inst:	FID7.1	Dilution:	20
Run Date:	12/29/2009 02:42	Analyst:	KXR2	Inj. Vol:	1 uL
Prep Date:	12/21/2009 10:03	Aliquot:	30.02 g	Final Volume:	1 mL
Data File:	028f2801.d	Column:	DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics	J	71.5	mg/kg	50.0	154

ETM
1/29/10

Flame Ionization Detector
Certificate of Analysis
Sample Summary

SDG Number:	10–852	Date Collected:	12/07/2009 12:00	Matrix:	S
Lab Sample ID:	242654017	Date Received:	12/10/2009 08:50	%Moisture:	9.4
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03–09–14278	Method:	SW846 8015A/B SVOC	SOP Ref:	GL–OA–E–003
Batch ID:	934967	Inst:	FID7.I	Dilution:	1
Run Date:	12/29/2009 03:19	Analyst:	KXR2	Inj. Vol:	1 uL
Prep Date:	12/21/2009 10:03	Aliquot:	30.05 g	Final Volume:	1 mL
Data File:	029f2901.d	Column:	DB–5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics		31.4	mg/kg	2.39	7.35

ETM
1/29/10

Flame Ionization Detector
Certificate of Analysis
Sample Summary

SDG Number:	10-852	Date Collected:	12/07/2009 12:00	Matrix:	S
Lab Sample ID:	242654018	Date Received:	12/10/2009 08:50	%Moisture:	14.2
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14285	Method:	SW846 8015A/B SVOC	SOP Ref:	GL-OA-E-003
Batch ID:	934967	Inst:	FID7.I	Dilution:	1
Run Date:	12/29/2009 03:55	Analyst:	KXR2	Inj. Vol:	1 uL
Prep Date:	12/21/2009 10:03	Aliquot:	30.02 g	Final Volume:	1 mL
Data File:	030f3001.d	Column:	DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics	J	3.79	mg/kg	2.52	7.76

ETM
1/29/10

Flame Ionization Detector
Certificate of Analysis
Sample Summary

SDG Number:	10-852	Date Collected:	12/07/2009 12:00	Matrix:	S
Lab Sample ID:	242654019	Date Received:	12/10/2009 08:50	%Moisture:	13.4
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14286	Method:	SW846 8015A/B SVOC	SOP Ref:	GL-OA-E-003
Batch ID:	934967	Inst:	FID7.I	Dilution:	1
Run Date:	12/29/2009 04:32	Analyst:	KXR2	Inj. Vol:	1 uL
Prep Date:	12/21/2009 10:03	Aliquot:	30.04 g	Final Volume:	1 mL
Data File:	031f3101.d	Column:	DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics	U	7.69	mg/kg	2.50	7.69

ETM
1/29/10

Flame Ionization Detector
Certificate of Analysis
Sample Summary

SDG Number:	10-852	Date Collected:	12/07/2009 12:00	Matrix:	S
Lab Sample ID:	242654020	Date Received:	12/10/2009 08:50	%Moisture:	15.8
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14283	Method:	SW846 8015A/B SVOC	SOP Ref:	GL-OA-E-003
Batch ID:	934967	Inst:	FID7.I	Dilution:	1
Run Date:	12/29/2009 05:09	Analyst:	KXR2	Inj. Vol:	1 uL
Prep Date:	12/21/2009 10:03	Aliquot:	30.03 g	Final Volume:	1 mL
Data File:	032f3201.d	Column:	DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics	U	7.91	mg/kg	2.57	7.91

ETM
1/29/10

DATA VALIDATION COVER SHEET

5116-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-852 VALIDATION DATE: 1/29/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Eric T. Mink ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☒ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE): PCBs

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. The 4CMX surrogate %R on one column and DCB surrogate %Rs on both columns were < the laboratory's LALs but ≥10% for sample RE03-09-14265. The associated sample was diluted before being analyzed and, thus, no sample data were qualified.

Reviewed by: Mary Donivan Level: I Date: 01/29/10

VALIDATOR'S SIGNATURE: Eric T. Mink DATE: 1/29/10

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2

Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, P9	J-, P9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, P9	J-, P9a
☐	☒	☐	3. The affected analytes are regarded as rejected because the analytical holding time was exceeded.	R, P9b	R, P9b
☐	☒	☐	4. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, P7	J, P7
☐	☒	☐	5. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, P7a	J, P7a
☐	☒	☐	6. The Initial Calibration Verification (ICV) and/or Continuing Calibration Verification (CCV) were recovered outside the method-specific limits.	UJ, P7c	J, P7c
☐	☒	☐	7. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, P7d	J, P7d
☐	☒	☐	8. The multicomponent standard was not analyzed within 72 hours of the initial analysis.	R, P7e	J, P7e
☐	☒	☐	9. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, P7f	R, P7f
☐	☐	☒	10. The breakdown criteria have been exceeded. This can cause low bias in reported results. If compound is detected, qualify J-. If compound is not present, but breakdown products are present, qualify R. If no compounds or breakdown products are present, qualify UJ (4,4' DDT and Endrin).	UJ, R, P13	J-, P13

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2

Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	11. The breakdown criteria have been exceeded. This can cause high bias in the reported results and potential false positive results for the breakdown products Endrin ketone, Endrin aldehyde, DDD, and DDE.	UJ, P13a	J+, P13a
☐	☐	☒	12. The breakdown documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P13b	R, P13b
☐	☒	☐	13. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, P4	N/A
☐	☒	☐	14. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was greater than 5X.	N/A	J, P4a
☐	☐	☒	15. The sample result is ≤5X the concentration of the related analyte in the instrument blank and continuing calibration blank.	UJ, P4b	N/A
☐	☐	☒	16. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	UJ, P4d	N/A
☐	☒	☐	17. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P4e	R, P4e
☐	☒	☐	18. The analyte RT shifted by more than 0.05 minutes from the mid-level standard of the initial calibration.	R, P0	J, P0
☐	☒	☐	19. Required retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P0b	R, P0b
☐	☒	☐	20. The surrogate is <10%R. Follow the external laboratory limits located within the associated data package.	R, P3	J-, P3

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2

Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☒	☐	☐	21. The surrogate is < the Lower Acceptance Level (LAL) but ≥10%R. Follow the external laboratory limits located within the associated data package.	UJ, P3a	J-, P3a
☐	☒	☐	22. The surrogate %R value is > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, P3b
☐	☒	☐	23. At least one surrogate is > the Upper Acceptance Limit (UAL) and one surrogate is < the LAL. Follow the external laboratory limits located within the associated data package.	UJ, P3c	J, P3c
☐	☒	☐	24. Required surrogate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P3d	R, P3d
☐	☒	☐	25. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, P12	J-, P12
☐	☒	☐	26. The LCS percent recovery was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, P12a	J-, P12a
☐	☒	☐	27. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, P12b
☐	☒	☐	28. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P12c	R, P12c
☐	☒	☐	29. The analyte was not confirmed on a second dissimilar column.	N/A	R, P8
☐	☒	☐	30. The second dissimilar column documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P8a	R, P8a
☐	☒	☐	31. Duplicate, Dilution, or reanalysis.	UJ, P88	J, P88

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2

Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	32. The affected analytes have elevated detection limits and may not meet project DQOs because the sample was diluted without any target analytees identified due to matrix interference. Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.	UJ, R, P15	R, P15
☒	☐	☐	33. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB, NQ, NQ
☐	☒	☐	34. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.	UJ, R, P19	J, R, P19

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10-852	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242654001	**Date Received:**	12/10/2009 08:50	**%Moisture:**	14.6
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14224	**Method:**	SW846 8082	**SOP Ref:**	GL-OA-E-040
Batch ID:	932746	**Inst:**	ECD2A.I	**Dilution:**	1
Run Date:	12/15/2009 15:04	**Analyst:**	JAOC	**Inj. Vol:**	1 uL
Prep Date:	12/14/2009 22:59	**Aliquot:**	30.02 g	**Final Volume:**	1 mL
Data File:	037f3701.d	**Column:**	1 CLP1	**Level:**	LOW
	037b3701.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.90	ug/kg	1.30	3.90	1
11104-28-2	Aroclor-1221	U	3.90	ug/kg	1.30	3.90	1
11141-16-5	Aroclor-1232	U	3.90	ug/kg	1.30	3.90	1
53469-21-9	Aroclor-1242	U	3.90	ug/kg	1.30	3.90	1
12672-29-6	Aroclor-1248	U	3.90	ug/kg	1.30	3.90	1
11097-69-1	Aroclor-1254	U	3.90	ug/kg	1.30	3.90	1
11096-82-5	Aroclor-1260	J	3.30	ug/kg	1.30	3.90	1

ETM
1/29/10

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10-852	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242654003	**Date Received:**	12/10/2009 08:50	**%Moisture:**	11.9
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14225	**Method:**	SW846 8082	**SOP Ref:**	GL-OA-E-040
Batch ID:	932746	**Inst:**	ECD2A.I	**Dilution:**	1
Run Date:	12/15/2009 15:48	**Analyst:**	JAOC	**Inj. Vol:**	1 uL
Prep Date:	12/14/2009 22:59	**Aliquot:**	30.02 g	**Final Volume:**	1 mL
Data File:	041f4101.d	**Column:**	1 CLP1	**Level:**	LOW
	041b4101.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.78	ug/kg	1.26	3.78	1
11104-28-2	Aroclor-1221	U	3.78	ug/kg	1.26	3.78	1
11141-16-5	Aroclor-1232	U	3.78	ug/kg	1.26	3.78	1
53469-21-9	Aroclor-1242	U	3.78	ug/kg	1.26	3.78	1
12672-29-6	Aroclor-1248	U	3.78	ug/kg	1.26	3.78	1
11097-69-1	Aroclor-1254	U	3.78	ug/kg	1.26	3.78	1
11096-82-5	Aroclor-1260	U	3.78	ug/kg	1.26	3.78	1

ETM
1/29/10

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10-852	Date Collected:	12/07/2009 12:00	Matrix:	S
Lab Sample ID:	242654004	Date Received:	12/10/2009 08:50	%Moisture:	9.5
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14226	Method:	SW846 8082	SOP Ref:	GL-OA-E-040
Batch ID:	932746	Inst:	ECD2A.I	Dilution:	1
Run Date:	12/15/2009 15:59	Analyst:	JAOC	Inj. Vol:	1 uL
Prep Date:	12/14/2009 22:59	Aliquot:	30.02 g	Final Volume:	1 mL
Data File:	042f4201.d	Column:	1 CLP1	Level:	LOW
	042b4201.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.68	ug/kg	1.23	3.68	1
11104-28-2	Aroclor-1221	U	3.68	ug/kg	1.23	3.68	1
11141-16-5	Aroclor-1232	U	3.68	ug/kg	1.23	3.68	1
53469-21-9	Aroclor-1242	U	3.68	ug/kg	1.23	3.68	1
12672-29-6	Aroclor-1248	U	3.68	ug/kg	1.23	3.68	1
11097-69-1	Aroclor-1254	U	3.68	ug/kg	1.23	3.68	1
11096-82-5	Aroclor-1260	U	3.68	ug/kg	1.23	3.68	1

ETM
1/29/10

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10-852	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242654002	**Date Received:**	12/10/2009 08:50	**%Moisture:**	10.3
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14227	**Method:**	SW846 8082	**SOP Ref:**	GL-OA-E-040
Batch ID:	932746	**Inst:**	ECD2A.I	**Dilution:**	1
Run Date:	12/15/2009 15:37	**Analyst:**	JAOC	**Inj. Vol:**	1 uL
Prep Date:	12/14/2009 22:59	**Aliquot:**	30.05 g	**Final Volume:**	1 mL
Data File:	040f4001.d	**Column:**	1 CLP1	**Level:**	LOW
	040b4001.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.71	ug/kg	1.24	3.71	1
11104-28-2	Aroclor-1221	U	3.71	ug/kg	1.24	3.71	1
11141-16-5	Aroclor-1232	U	3.71	ug/kg	1.24	3.71	1
53469-21-9	Aroclor-1242	U	3.71	ug/kg	1.24	3.71	1
12672-29-6	Aroclor-1248	U	3.71	ug/kg	1.24	3.71	1
11097-69-1	Aroclor-1254	U	3.71	ug/kg	1.24	3.71	1
11096-82-5	Aroclor-1260	U	3.71	ug/kg	1.24	3.71	1

ETM
1/29/10

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10-852	Date Collected:	12/07/2009 12:00	Matrix:	S
Lab Sample ID:	242654008	Date Received:	12/10/2009 08:50	%Moisture:	13
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14265	Method:	SW846 8082	SOP Ref:	GL-OA-E-040
Batch ID:	932746	Inst:	ECD2A.I	Dilution:	5
Run Date:	12/15/2009 17:05	Analyst:	JAOC	Inj. Vol:	1 uL
Prep Date:	12/14/2009 22:59	Aliquot:	30.01 g	Final Volume:	1 mL
Data File:	048f4801.d	Column:	1 CLP1	Level:	LOW
	048b4801.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	19.2	ug/kg	6.38	19.2	1
11104-28-2	Aroclor-1221	U	19.2	ug/kg	6.38	19.2	1
11141-16-5	Aroclor-1232	U	19.2	ug/kg	6.38	19.2	1
53469-21-9	Aroclor-1242	U	19.2	ug/kg	6.38	19.2	1
12672-29-6	Aroclor-1248	U	19.2	ug/kg	6.38	19.2	1
11097-69-1	Aroclor-1254	U	19.2	ug/kg	6.38	19.2	1
11096-82-5	Aroclor-1260	U	19.2	ug/kg	6.38	19.2	1

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PCB
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Sample Summary

SDG Number:	10-852	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242654007	**Date Received:**	12/10/2009 08:50	**%Moisture:**	14.2
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14267	**Method:**	SW846 8082	**SOP Ref:**	GL-OA-E-040
Batch ID:	932746	**Inst:**	ECD2A.I	**Dilution:**	5
Run Date:	12/15/2009 16:54	**Analyst:**	JAOC	**Inj. Vol:**	1 uL
Prep Date:	12/14/2009 22:59	**Aliquot:**	30.07 g	**Final Volume:**	1 mL
Data File:	047f4701.d	**Column:**	1 CLP1	**Level:**	LOW
	047b4701.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	19.4	ug/kg	6.45	19.4	1
11104-28-2	Aroclor-1221	U	19.4	ug/kg	6.45	19.4	1
11141-16-5	Aroclor-1232	U	19.4	ug/kg	6.45	19.4	1
53469-21-9	Aroclor-1242	U	19.4	ug/kg	6.45	19.4	1
12672-29-6	Aroclor-1248	U	19.4	ug/kg	6.45	19.4	1
11097-69-1	Aroclor-1254	U	19.4	ug/kg	6.45	19.4	1
11096-82-5	Aroclor-1260	U	19.4	ug/kg	6.45	19.4	1

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PCB
Certificate of Analysis
Sample Summary

SDG Number:	10-852	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242654014	**Date Received:**	12/10/2009 08:50	**%Moisture:**	10.7
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14269	**Method:**	SW846 8082	**SOP Ref:**	GL-OA-E-040
Batch ID:	932746	**Inst:**	ECD2A.I	**Dilution:**	5
Run Date:	12/15/2009 18:12	**Analyst:**	JAOC	**Inj. Vol:**	1 uL
Prep Date:	12/14/2009 22:59	**Aliquot:**	30.15 g	**Final Volume:**	1 mL
Data File:	054f5401.d	**Column:**	1 CLP1	**Level:**	LOW
	054b5401.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	18.6	ug/kg	6.18	18.6	1
11104-28-2	Aroclor-1221	U	18.6	ug/kg	6.18	18.6	1
11141-16-5	Aroclor-1232	U	18.6	ug/kg	6.18	18.6	1
53469-21-9	Aroclor-1242	U	18.6	ug/kg	6.18	18.6	1
12672-29-6	Aroclor-1248	U	18.6	ug/kg	6.18	18.6	1
11097-69-1	Aroclor-1254	U	18.6	ug/kg	6.18	18.6	1
11096-82-5	Aroclor-1260	U	18.6	ug/kg	6.18	18.6	1

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PCB
Certificate of Analysis
Sample Summary

SDG Number:	10-852	Date Collected:	12/07/2009 12:00	Matrix:	S
Lab Sample ID:	242654016	Date Received:	12/10/2009 08:50	%Moisture:	13.4
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14271	Method:	SW846 8082	SOP Ref:	GL-OA-E-040
Batch ID:	932746	Inst:	ECD2A.I	Dilution:	5
Run Date:	12/15/2009 18:34	Analyst:	JAOC	Inj. Vol:	1 uL
Prep Date:	12/14/2009 22:59	Aliquot:	30.08 g	Final Volume:	1 mL
Data File:	056f5601.d	Column:	1 CLP1	Level:	LOW
	056b5601.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	19.2	ug/kg	6.39	19.2	1
11104-28-2	Aroclor-1221	U	19.2	ug/kg	6.39	19.2	1
11141-16-5	Aroclor-1232	U	19.2	ug/kg	6.39	19.2	1
53469-21-9	Aroclor-1242	U	19.2	ug/kg	6.39	19.2	1
12672-29-6	Aroclor-1248	U	19.2	ug/kg	6.39	19.2	1
11097-69-1	Aroclor-1254	U	19.2	ug/kg	6.39	19.2	1
11096-82-5	Aroclor-1260	U	19.2	ug/kg	6.39	19.2	1

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PCB
Certificate of Analysis
Sample Summary

SDG Number:	10-852	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242654015	**Date Received:**	12/10/2009 08:50	**%Moisture:**	10.3
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14273	**Method:**	SW846 8082	**SOP Ref:**	GL-OA-E-040
Batch ID:	932746	**Inst:**	ECD2A.I	**Dilution:**	1
Run Date:	12/15/2009 18:23	**Analyst:**	JAOC	**Inj. Vol:**	1 uL
Prep Date:	12/14/2009 22:59	**Aliquot:**	30.06 g	**Final Volume:**	1 mL
Data File:	055f5501.d	**Column:**	1 CLP1	**Level:**	LOW
	055b5501.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.71	ug/kg	1.24	3.71	1
11104-28-2	Aroclor-1221	U	3.71	ug/kg	1.24	3.71	1
11141-16-5	Aroclor-1232	U	3.71	ug/kg	1.24	3.71	1
53469-21-9	Aroclor-1242	U	3.71	ug/kg	1.24	3.71	1
12672-29-6	Aroclor-1248	U	3.71	ug/kg	1.24	3.71	1
11097-69-1	Aroclor-1254	U	3.71	ug/kg	1.24	3.71	1
11096-82-5	Aroclor-1260		3.80	ug/kg	1.24	3.71	1

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PCB
Certificate of Analysis
Sample Summary

SDG Number:	10-852	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242654011	**Date Received:**	12/10/2009 08:50	**%Moisture:**	4.1
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14274	**Method:**	SW846 8082	**SOP Ref:**	GL-OA-E-040
Batch ID:	932746	**Inst:**	ECD2A.I	**Dilution:**	1
Run Date:	12/15/2009 17:39	**Analyst:**	JAOC	**Inj. Vol:**	1 uL
Prep Date:	12/14/2009 22:59	**Aliquot:**	30.02 g	**Final Volume:**	1 mL
Data File:	051f5101.d	**Column:**	1 CLP1	**Level:**	LOW
	051b5101.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.47	ug/kg	1.16	3.47	1
11104-28-2	Aroclor-1221	U	3.47	ug/kg	1.16	3.47	1
11141-16-5	Aroclor-1232	U	3.47	ug/kg	1.16	3.47	1
53469-21-9	Aroclor-1242	U	3.47	ug/kg	1.16	3.47	1
12672-29-6	Aroclor-1248	U	3.47	ug/kg	1.16	3.47	1
11097-69-1	Aroclor-1254	U	3.47	ug/kg	1.16	3.47	1
11096-82-5	Aroclor-1260	U	3.47	ug/kg	1.16	3.47	1

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PCB
Certificate of Analysis
Sample Summary

SDG Number:	10-852	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242654012	**Date Received:**	12/10/2009 08:50	**%Moisture:**	12.2
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14277	**Method:**	SW846 8082	**SOP Ref:**	GL-OA-E-040
Batch ID:	932746	**Inst:**	ECD2A.I	**Dilution:**	5
Run Date:	12/15/2009 17:50	**Analyst:**	JAOC	**Inj. Vol:**	1 uL
Prep Date:	12/14/2009 22:59	**Aliquot:**	30.03 g	**Final Volume:**	1 mL
Data File:	052f5201.d	**Column:**	1 CLP1	**Level:**	LOW
	052b5201.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	19.0	ug/kg	6.31	19.0	1
11104-28-2	Aroclor-1221	U	19.0	ug/kg	6.31	19.0	1
11141-16-5	Aroclor-1232	U	19.0	ug/kg	6.31	19.0	1
53469-21-9	Aroclor-1242	U	19.0	ug/kg	6.31	19.0	1
12672-29-6	Aroclor-1248	U	19.0	ug/kg	6.31	19.0	1
11097-69-1	Aroclor-1254	U	19.0	ug/kg	6.31	19.0	1
11096-82-5	Aroclor-1260	U	19.0	ug/kg	6.31	19.0	1

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PCB
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Sample Summary

SDG Number:	10-852	Date Collected:	12/07/2009 12:00	Matrix:	S
Lab Sample ID:	242654017	Date Received:	12/10/2009 08:50	%Moisture:	9.4
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14278	Method:	SW846 8082	SOP Ref:	GL-OA-E-040
Batch ID:	932746	Inst:	ECD2A.I	Dilution:	5
Run Date:	12/15/2009 19:12	Analyst:	JAOC	Inj. Vol:	1 uL
Prep Date:	12/14/2009 22:59	Aliquot:	30.19 g	Final Volume:	1 mL
Data File:	059f5901.d	Column:	1 CLP1	Level:	LOW
	059b5901.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	18.3	ug/kg	6.09	18.3	1
11104-28-2	Aroclor-1221	U	18.3	ug/kg	6.09	18.3	1
11141-16-5	Aroclor-1232	U	18.3	ug/kg	6.09	18.3	1
53469-21-9	Aroclor-1242	U	18.3	ug/kg	6.09	18.3	1
12672-29-6	Aroclor-1248	U	18.3	ug/kg	6.09	18.3	1
11097-69-1	Aroclor-1254	U	18.3	ug/kg	6.09	18.3	1
11096-82-5	Aroclor-1260	U	18.3	ug/kg	6.09	18.3	1

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PCB
Certificate of Analysis
Sample Summary

SDG Number:	10-852	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242654009	**Date Received:**	12/10/2009 08:50	**%Moisture:**	14.1
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14281	**Method:**	SW846 8082	**SOP Ref:**	GL-OA-E-040
Batch ID:	932746	**Inst:**	ECD2A.I	**Dilution:**	1
Run Date:	12/15/2009 17:16	**Analyst:**	JAOC	**Inj. Vol:**	1 uL
Prep Date:	12/14/2009 22:59	**Aliquot:**	30.18 g	**Final Volume:**	1 mL
Data File:	049f4901.d	**Column:**	1 CLP1	**Level:**	LOW
	049b4901.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.86	ug/kg	1.29	3.86	1
11104-28-2	Aroclor-1221	U	3.86	ug/kg	1.29	3.86	1
11141-16-5	Aroclor-1232	U	3.86	ug/kg	1.29	3.86	1
53469-21-9	Aroclor-1242	U	3.86	ug/kg	1.29	3.86	1
12672-29-6	Aroclor-1248	U	3.86	ug/kg	1.29	3.86	1
11097-69-1	Aroclor-1254	U	3.86	ug/kg	1.29	3.86	1
11096-82-5	Aroclor-1260	U	3.86	ug/kg	1.29	3.86	1

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PCB
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Sample Summary

SDG Number:	10-852	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242654013	**Date Received:**	12/10/2009 08:50	**%Moisture:**	14.2
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14282	**Method:**	SW846 8082	**SOP Ref:**	GL-OA-E-040
Batch ID:	932746	**Inst:**	ECD2A.I	**Dilution:**	1
Run Date:	12/15/2009 18:01	**Analyst:**	JAOC	**Inj. Vol:**	1 uL
Prep Date:	12/14/2009 22:59	**Aliquot:**	30.06 g	**Final Volume:**	1 mL
Data File:	053f5301.d	**Column:**	1 CLP1	**Level:**	LOW
	053b5301.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.88	ug/kg	1.29	3.88	1
11104-28-2	Aroclor-1221	U	3.88	ug/kg	1.29	3.88	1
11141-16-5	Aroclor-1232	U	3.88	ug/kg	1.29	3.88	1
53469-21-9	Aroclor-1242	U	3.88	ug/kg	1.29	3.88	1
12672-29-6	Aroclor-1248	U	3.88	ug/kg	1.29	3.88	1
11097-69-1	Aroclor-1254	U	3.88	ug/kg	1.29	3.88	1
11096-82-5	Aroclor-1260	U	3.88	ug/kg	1.29	3.88	1

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PCB
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Sample Summary

SDG Number:	10–852	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242654020	**Date Received:**	12/10/2009 08:50	**%Moisture:**	15.8
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03–09–14283	**Method:**	SW846 8082	**SOP Ref:**	GL–OA–E–040
Batch ID:	932746	**Inst:**	ECD2AJ	**Dilution:**	1
Run Date:	12/15/2009 19:45	**Analyst:**	JAOC	**Inj. Vol:**	1 uL
Prep Date:	12/14/2009 22:59	**Aliquot:**	30.14 g	**Final Volume:**	1 mL
Data File:	062f6201.d	**Column:**	1 CLP1	**Level:**	LOW
	062b6201.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	3.94	ug/kg	1.31	3.94	1
11104–28–2	Aroclor–1221	U	3.94	ug/kg	1.31	3.94	1
11141–16–5	Aroclor–1232	U	3.94	ug/kg	1.31	3.94	1
53469–21–9	Aroclor–1242	U	3.94	ug/kg	1.31	3.94	1
12672–29–6	Aroclor–1248	U	3.94	ug/kg	1.31	3.94	1
11097–69–1	Aroclor–1254	U	3.94	ug/kg	1.31	3.94	1
11096–82–5	Aroclor–1260	U	3.94	ug/kg	1.31	3.94	1

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PCB
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Sample Summary

SDG Number:	10-852	Date Collected:	12/07/2009 12:00	Matrix:	S
Lab Sample ID:	242654010	Date Received:	12/10/2009 08:50	%Moisture:	13.2
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14284	Method:	SW846 8082	SOP Ref:	GL-OA-E-040
Batch ID:	932746	Inst:	ECD2A.I	Dilution:	1
Run Date:	12/15/2009 17:28	Analyst:	JAOC	Inj. Vol:	1 uL
Prep Date:	12/14/2009 22:59	Aliquot:	30.02 g	Final Volume:	1 mL
Data File:	050f5001.d	Column:	1 CLP1	Level:	LOW
	050b5001.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.84	ug/kg	1.28	3.84	1
11104-28-2	Aroclor-1221	U	3.84	ug/kg	1.28	3.84	1
11141-16-5	Aroclor-1232	U	3.84	ug/kg	1.28	3.84	1
53469-21-9	Aroclor-1242	U	3.84	ug/kg	1.28	3.84	1
12672-29-6	Aroclor-1248	U	3.84	ug/kg	1.28	3.84	1
11097-69-1	Aroclor-1254	U	3.84	ug/kg	1.28	3.84	1
11096-82-5	Aroclor-1260	U	3.84	ug/kg	1.28	3.84	1

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PCB
Certificate of Analysis
Sample Summary

SDG Number:	10–852	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242654018	**Date Received:**	12/10/2009 08:50	**%Moisture:**	14.2
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03–09–14285	**Method:**	SW846 8082	**SOP Ref:**	GL–OA–E–040
Batch ID:	932746	**Inst:**	ECD2A.I	**Dilution:**	1
Run Date:	12/15/2009 19:23	**Analyst:**	JAOC	**Inj. Vol:**	1 uL
Prep Date:	12/14/2009 22:59	**Aliquot:**	30.12 g	**Final Volume:**	1 mL
Data File:	060f6001.d	**Column:**	1 CLP1	**Level:**	LOW
	060b6001.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	3.87	ug/kg	1.29	3.87	1
11104–28–2	Aroclor–1221	U	3.87	ug/kg	1.29	3.87	1
11141–16–5	Aroclor–1232	U	3.87	ug/kg	1.29	3.87	1
53469–21–9	Aroclor–1242	U	3.87	ug/kg	1.29	3.87	1
12672–29–6	Aroclor–1248	U	3.87	ug/kg	1.29	3.87	1
11097–69–1	Aroclor–1254	U	3.87	ug/kg	1.29	3.87	1
11096–82–5	Aroclor–1260	U	3.87	ug/kg	1.29	3.87	1

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PCB
Certificate of Analysis
Sample Summary

SDG Number:	10-852	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242654019	**Date Received:**	12/10/2009 08:50	**%Moisture:**	13.4
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14286	**Method:**	SW846 8082	**SOP Ref:**	GL-OA-E-040
Batch ID:	932746	**Inst:**	ECD2A.I	**Dilution:**	1
Run Date:	12/15/2009 19:34	**Analyst:**	JAOC	**Inj. Vol:**	1 uL
Prep Date:	12/14/2009 22:59	**Aliquot:**	30.17 g	**Final Volume:**	1 mL
Data File:	061f6101.d	**Column:**	1 CLP1	**Level:**	LOW
	061b6101.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.83	ug/kg	1.27	3.83	1
11104-28-2	Aroclor-1221	U	3.83	ug/kg	1.27	3.83	1
11141-16-5	Aroclor-1232	U	3.83	ug/kg	1.27	3.83	1
53469-21-9	Aroclor-1242	U	3.83	ug/kg	1.27	3.83	1
12672-29-6	Aroclor-1248	U	3.83	ug/kg	1.27	3.83	1
11097-69-1	Aroclor-1254	U	3.83	ug/kg	1.27	3.83	1
11096-82-5	Aroclor-1260	U	3.83	ug/kg	1.27	3.83	1

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PCB
Certificate of Analysis
Sample Summary

SDG Number:	10-852	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242654006	**Date Received:**	12/10/2009 08:50	**%Moisture:**	11.7
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14287	**Method:**	SW846 8082	**SOP Ref:**	GL-OA-E-040
Batch ID:	932746	**Inst:**	ECD2A.I	**Dilution:**	1
Run Date:	12/15/2009 16:21	**Analyst:**	JAOC	**Inj. Vol:**	1 uL
Prep Date:	12/14/2009 22:59	**Aliquot:**	30.13 g	**Final Volume:**	1 mL
Data File:	044f4401.d	**Column:**	1 CLP1	**Level:**	LOW
	044b4401.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.76	ug/kg	1.25	3.76	1
11104-28-2	Aroclor-1221	U	3.76	ug/kg	1.25	3.76	1
11141-16-5	Aroclor-1232	U	3.76	ug/kg	1.25	3.76	1
53469-21-9	Aroclor-1242	U	3.76	ug/kg	1.25	3.76	1
12672-29-6	Aroclor-1248	U	3.76	ug/kg	1.25	3.76	1
11097-69-1	Aroclor-1254	JP	3.30	ug/kg	1.25	3.76	2
11096-82-5	Aroclor-1260	J	2.90	ug/kg	1.25	3.76	1

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PCB
Certificate of Analysis
Sample Summary

SDG Number:	10–852	Date Collected:	12/07/2009 12:00	Matrix:	S
Lab Sample ID:	242654005	Date Received:	12/10/2009 08:50	%Moisture:	5.9
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03–09–14288	Method:	SW846 8082	SOP Ref:	GL–OA–E–040
Batch ID:	932746	Inst:	ECD2A.I	Dilution:	1
Run Date:	12/15/2009 16:10	Analyst:	JAOC	Inj. Vol:	1 uL
Prep Date:	12/14/2009 22:59	Aliquot:	30.17 g	Final Volume:	1 mL
Data File:	043f4301.d	Column:	1 CLP1	Level:	LOW
	043b4301.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	3.52	ug/kg	1.17	3.52	1
11104–28–2	Aroclor–1221	U	3.52	ug/kg	1.17	3.52	1
11141–16–5	Aroclor–1232	U	3.52	ug/kg	1.17	3.52	1
53469–21–9	Aroclor–1242	U	3.52	ug/kg	1.17	3.52	1
12672–29–6	Aroclor–1248	U	3.52	ug/kg	1.17	3.52	1
11097–69–1	Aroclor–1254	U	3.52	ug/kg	1.17	3.52	1
11096–82–5	Aroclor–1260	U	3.52	ug/kg	1.17	3.52	1

ETM
1/29/10

Wednesday, December 09, 2009

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-852

REQUEST NUMBER: 10-852

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 1/8/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS: 242654 / 242659

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE03-09-14224	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-09-14224	1	GLASS	8270C+8082+TPH-DRO	Ice	S
RE03-09-14227	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-09-14227	1	GLASS	8270C+8082+TPH-DRO	Ice	S
RE03-09-14225	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-09-14225	1	GLASS	8270C+8082+TPH-DRO	Ice	S
RE03-09-14226	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-09-14226	1	GLASS	8270C+8082+TPH-DRO	Ice	S
RE03-09-14288	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-09-14288	1	GLASS	8270C+8082+TPH-DRO	Ice	S
RE03-09-14287	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-09-14287	1	GLASS	8270C+8082+TPH-DRO	Ice	S
RE03-09-14267	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-09-14267	1	GLASS	8270C+8082+TPH-DRO	Ice	S
RE03-09-14265	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-09-14265	1	GLASS	8270C+8082+TPH-DRO	Ice	S
RE03-09-14281	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-09-14281	1	GLASS	8270C+8082+TPH-DRO	Ice	S
RE03-09-14284	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-09-14284	1	GLASS	8270C+8082+TPH-DRO	Ice	S
RE03-09-14274	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-09-14274	1	GLASS	8270C+8082+TPH-DRO	Ice	S
RE03-09-14277	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-09-14277	1	GLASS	8270C+8082+TPH-DRO	Ice	S
RE03-09-14282	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-09-14282	1	GLASS	8270C+8082+TPH-DRO	Ice	S
RE03-09-14269	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-09-14269	1	GLASS	8270C+8082+TPH-DRO	Ice	S
RE03-09-14273	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-09-14273	1	GLASS	8270C+8082+TPH-DRO	Ice	S
RE03-09-14271	1	SEPTUM AMBER GLASS	8260B	Ice	S
[illegible]	1	[illegible]	[illegible]	[illegible]	[illegible]

Wednesday, December 09, 2009

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-852

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE03-09-14278	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-09-14278	1	GLASS	8270C+8082+TPH-DRO	Ice	S
RE03-09-14285	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-09-14285	1	GLASS	8270C+8082+TPH-DRO	Ice	S
RE03-09-14286	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-09-14286	1	GLASS	8270C+8082+TPH-DRO	Ice	S
RE03-09-14283	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-09-14283	1	GLASS	8270C+8082+TPH-DRO	Ice	S
RE03-09-14294	1	SEPTUM AMBER GLASS	8260B Trip Blank	Ice	S

Relinquished By:	Date	Time	Received By:	Date	Time
[illegible]	12-9-09	1400	Patricia Diaz P. Diaz	12-10-09	08:50
Printed Name / Signature			Printed Name / Signature		
Printed Name / Signature			Printed Name / Signature		
Printed Name / Signature			Printed Name / Signature		

Received for DISPOSAL By: **Date** **Time** **Remarks:**

Printed Name / Signature

Wednesday, December 09, 2009

REQUEST NUMBER: 10-852

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis
General Engineering Laboratories, Inc., Charleston, SC.
2040 Savage Rd
Charleston, SC 29407

These Samples are on:
LANL Request Number:10-852
Per Agreement Number:126310011
Project Cost Code: MR2A054196D0

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 12/9/2009
TURNAROUND/REPORT DUE: 1/8/2010
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Not Required
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8015M_EXTRACTABLE	1	RE03-09-14224	S	12/7/2009	
		1	RE03-09-14225	S	12/7/2009	
		1	RE03-09-14226	S	12/7/2009	
		1	RE03-09-14227	S	12/7/2009	

Wednesday, December 09, 2009

REQUEST NUMBER: 10-852

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8015M_EXTRACTABLE	1	RE03-09-14265	S	12/7/2009	
		1	RE03-09-14267	S	12/7/2009	
		1	RE03-09-14269	S	12/7/2009	
		1	RE03-09-14271	S	12/7/2009	
		1	RE03-09-14273	S	12/7/2009	
		1	RE03-09-14274	S	12/7/2009	
		1	RE03-09-14277	S	12/7/2009	
		1	RE03-09-14278	S	12/7/2009	
		1	RE03-09-14281	S	12/7/2009	
		1	RE03-09-14282	S	12/7/2009	
		1	RE03-09-14283	S	12/7/2009	
		1	RE03-09-14284	S	12/7/2009	
		1	RE03-09-14285	S	12/7/2009	
		1	RE03-09-14286	S	12/7/2009	

Wednesday, December 09, 2009

REQUEST NUMBER: 10-852

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8015M_EXTRACTABLE	1	RE03-09-14287	S	12/7/2009	
		1	RE03-09-14288	S	12/7/2009	
	SW-846:8082	1	RE03-09-14224	S	12/7/2009	
		1	RE03-09-14225	S	12/7/2009	
		1	RE03-09-14226	S	12/7/2009	
		1	RE03-09-14227	S	12/7/2009	
		1	RE03-09-14265	S	12/7/2009	
		1	RE03-09-14267	S	12/7/2009	
		1	RE03-09-14269	S	12/7/2009	
		1	RE03-09-14271	S	12/7/2009	
		1	RE03-09-14273	S	12/7/2009	
		1	RE03-09-14274	S	12/7/2009	
		1	RE03-09-14277	S	12/7/2009	
		1	RE03-09-14278	S	12/7/2009	
		1	RE03-09-14281	S	12/7/2009	
		1	RE03-09-14282	S	12/7/2009	
		1	RE03-09-14283	S	12/7/2009	
		1	RE03-09-14284	S	12/7/2009	
		1	RE03-09-14285	S	12/7/2009	
		1	RE03-09-14286	S	12/7/2009	
		1	RE03-09-14287	S	12/7/2009	
		1	RE03-09-14288	S	12/7/2009	
	SW-846:8260B	1	RE03-09-14224	S	12/7/2009	
		1	RE03-09-14225	S	12/7/2009	
		1	RE03-09-14226	S	12/7/2009	
		1	RE03-09-14227	S	12/7/2009	

Wednesday, December 09, 2009

REQUEST NUMBER: 10-852

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8260B	1	RE03-09-14265	S	12/7/2009	
		1	RE03-09-14267	S	12/7/2009	
		1	RE03-09-14269	S	12/7/2009	
		1	RE03-09-14271	S	12/7/2009	
		1	RE03-09-14273	S	12/7/2009	
		1	RE03-09-14274	S	12/7/2009	
		1	RE03-09-14277	S	12/7/2009	
		1	RE03-09-14278	S	12/7/2009	
		1	RE03-09-14281	S	12/7/2009	
		1	RE03-09-14282	S	12/7/2009	
		1	RE03-09-14283	S	12/7/2009	
		1	RE03-09-14284	S	12/7/2009	
		1	RE03-09-14285	S	12/7/2009	
		1	RE03-09-14286	S	12/7/2009	
		1	RE03-09-14287	S	12/7/2009	
		1	RE03-09-14288	S	12/7/2009	
		1	RE03-09-14294	S	12/7/2009	
	SW-846:8270C	1	RE03-09-14224	S	12/7/2009	
		1	RE03-09-14225	S	12/7/2009	
		1	RE03-09-14226	S	12/7/2009	
		1	RE03-09-14227	S	12/7/2009	
		1	RE03-09-14265	S	12/7/2009	
		1	RE03-09-14267	S	12/7/2009	
		1	RE03-09-14269	S	12/7/2009	
		1	RE03-09-14271	S	12/7/2009	
		1	RE03-09-14273	S	12/7/2009	
		1	RE03-09-14274	S	12/7/2009	
		1	RE03-09-14277	S	12/7/2009	

Wednesday, December 09, 2009

REQUEST NUMBER: 10-852

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8270C	1	RE03-09-14278	S	12/7/2009	
		1	RE03-09-14281	S	12/7/2009	
		1	RE03-09-14282	S	12/7/2009	
		1	RE03-09-14283	S	12/7/2009	
		1	RE03-09-14284	S	12/7/2009	
		1	RE03-09-14285	S	12/7/2009	
		1	RE03-09-14286	S	12/7/2009	
		1	RE03-09-14287	S	12/7/2009	
		1	RE03-09-14288	S	12/7/2009	

Final Page of REQUEST NUMBER 10-852

GEL Laboratories LLC

a member of The GEL Group INC

PO Box 30712 Charleston, SC 29417
2040 Savage Road Charleston, SC 29407

P 843.556.8171 F 843.766.1178

www.gel.com

December 15, 2009

Ms. Joylene Valdez
Los Alamos National Laboratory
PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545

Re: LANL ER Project
Work Orders: 242654 242659
SDG: 10-852

Dear Ms. Valdez:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the following analytical results for the sample(s) we received on December 10, 2009, and analyzed for FID Flame Ionization Detector, GC Semivolatile PCB, GC/MS Semivolatile and GC/MS Volatile. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 4485.

Sincerely,

for

Valerie Davis
Project Manager

Purchase Order: 72733-001-09
Chain of Custody: 10-852
Enclosures

Los Alamos National Laboratory (72733-001-09)
LANL ER Project
Work Order #: 242654 and 242659
SDG: 10-852

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Sample Data 90
Standards 295
Quality Control Data 345
Miscellaneous 403

GC/MS Volatile Analysis **410**
Sample Data Summary 416
QC Summary 419
Sample Data 436
Standard Data 444
QC Data 487
Miscellaneous Data 513

GC/MS Semivolatile Analysis **534**
Sample Data Summary 543
QC Summary 594
Sample Data 617
Standard Data 943
QC Data 1019
Miscellaneous Data 1066

GC Semivolatile DRO Analysis **1090**
Sample Data Summary 1099
Quality Control Summary 1120
Sample Data 1126
Standards Data 1214
Quality Control Data 1233
Miscellaneous Data 1250

GC Semivolatile PCB Analysis **1257**
Sample Data Summary 1266

Quality Control Summary 1287
Sample Data 1294
Standards Data 1411
Quality Control Data 1496
Miscellaneous Data 1531

Case Narrative

Case Narrative for
Los Alamos National Laboratory (72733-001-09)
LANL ER Project
Workorder #: 242654 and 242659
SDG # : 10-852

December 15, 2009

Laboratory Identification:

GEL Laboratories LLC
2040 Savage Road
Charleston, South Carolina 29407
(843) 556-8171

Summary

Sample receipt The samples arrived at GEL Laboratories LLC, Charleston, South Carolina on December 10, 2009 for analysis. The samples were prepared/analyzed within the required holding time. Shipping container temperatures were checked, documented, and within specifications. The samples were screened according to GEL Standard Operating Procedure. The samples were delivered with proper chain of custody documentation and signatures. All sample containers arrived without any visible signs of tampering or breakage. Containers were checked for pH, where appropriate, and matched the preservative as documented on the accompanying chain of custody. Shipping container temperature was within specification (0 - 6C).

Sample Identification The laboratory received the following samples:

Laboratory ID	Client ID
242654001	RE03-09-14224
242654002	RE03-09-14227
242654003	RE03-09-14225
242654004	RE03-09-14226
242654005	RE03-09-14288
242654006	RE03-09-14287
242654007	RE03-09-14267
242654008	RE03-09-14265
242654009	RE03-09-14281
242654010	RE03-09-14284
242654011	RE03-09-14274
242654012	RE03-09-14277
242654013	RE03-09-14282
242654014	RE03-09-14269
242654015	RE03-09-14273
242654016	RE03-09-14271
242654017	RE03-09-14278
242654018	RE03-09-14285
242654019	RE03-09-14286
242654020	RE03-09-14283
242659001	RE03-09-14294

Case Narrative

Sample analyses were conducted using methodology as outlined in GEL Laboratories, LLC (GEL) Standard Operating Procedures. Any technical or administrative problems during analysis, data review, and reduction are contained in the analytical case narratives in the enclosed data package.

Data Package The enclosed data package contains the following sections: Case Narrative, Chain of Custody, Cooler Receipt Checklist, Data Package Qualifier Definitions and data from the following fractions: FID Flame Ionization Detector, GC Semivolatile PCB, GC/MS Semivolatile and GC/MS Volatile.

I certify that this data report is in compliance with the terms and conditions of the subcontract and task order, both technically and for completeness, for other than the conditions detailed in the attached case narrative.

for

Valerie Davis

Project Manager

List of current GEL Certifications as of 15 December 2009

State	Certification
Arizona	AZ0668
Arkansas	88-0651
CLIA	42D0904046
California – NELAP	01151CA
Colorado	GEL
Connecticut	PH-0169
Dept. of Navy	NFESC 413
EPA Region 5	WG-15J
Florida – NELAP	E87156
Georgia	E87156 (FL/NELAP)
Georgia DW	967
Hawaii	N/A
ISO 17025	2567.01
Idaho	SC00012
Illinois – NELAP	200029
Indiana	C-SC-01
Kansas – NELAP	E-10332
Kentucky	90129
Louisiana – NELAP	03046
Maryland	270
Massachusetts	M-SC012
Nevada	SC00012
New Jersey – NELAP	SC002
New Mexico	FL NELAP E87156
New York – NELAP	11501
North Carolina	233
North Carolina DW	45709
Oklahoma	9904
Pennsylvania – NELAP	68-00485
South Carolina	10120001/10120002
Tennessee	TN 02934
Texas – NELAP	T104704235-07B-TX
U.S. Dept. of Agriculture	S-52597
Utah – NELAP	GEL
Vermont	VT87156
Virginia	00151
Washington	C1641

Chain of Custody and Supporting Documentation

Wednesday, December 09, 2009

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-852

REQUEST NUMBER: 10-852

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 1/8/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS: 242654 & 242659

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE03-09-14224	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-09-14224	1	GLASS	8270C+8082+TPH-DRO	Ice	S
RE03-09-14227	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-09-14227	1	GLASS	8270C+8082+TPH-DRO	Ice	S
RE03-09-14225	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-09-14225	1	GLASS	8270C+8082+TPH-DRO	Ice	S
RE03-09-14226	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-09-14226	1	GLASS	8270C+8082+TPH-DRO	Ice	S
RE03-09-14288	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-09-14288	1	GLASS	8270C+8082+TPH-DRO	Ice	S
RE03-09-14287	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-09-14287	1	GLASS	8270C+8082+TPH-DRO	Ice	S
RE03-09-14267	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-09-14267	1	GLASS	8270C+8082+TPH-DRO	Ice	S
RE03-09-14265	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-09-14265	1	GLASS	8270C+8082+TPH-DRO	Ice	S
RE03-09-14281	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-09-14281	1	GLASS	8270C+8082+TPH-DRO	Ice	S
RE03-09-14284	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-09-14284	1	GLASS	8270C+8082+TPH-DRO	Ice	S
RE03-09-14274	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-09-14274	1	GLASS	8270C+8082+TPH-DRO	Ice	S
RE03-09-14277	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-09-14277	1	GLASS	8270C+8082+TPH-DRO	Ice	S
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RE03-09-14282	1	GLASS	8270C+8082+TPH-DRO	Ice	S
RE03-09-14269	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-09-14269	1	GLASS	8270C+8082+TPH-DRO	Ice	S
RE03-09-14273	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-09-14273	1	GLASS	8270C+8082+TPH-DRO	Ice	S
RE03-09-14271	1	SEPTUM AMBER GLASS	8260B	Ice	S

Wednesday, December 09, 2009

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-852

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE03-09-14278	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-09-14278	1	GLASS	8270C+8082+TPH-DRO	Ice	S
RE03-09-14285	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-09-14285	1	GLASS	8270C+8082+TPH-DRO	Ice	S
RE03-09-14286	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-09-14286	1	GLASS	8270C+8082+TPH-DRO	Ice	S
RE03-09-14283	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-09-14283	1	GLASS	8270C+8082+TPH-DRO	Ice	S
RE03-09-14294	1	SEPTUM AMBER GLASS	8260B Trip Blank	Ice	S

Relinquished By:		Date	Time	Received By:		Date	Time
[illegible]	[illegible]	12-9-09	1700	Patricia Diaz	P. Diaz	12-10-09	08:50
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

Received for DISPOSAL By: **Date** **Time** **Remarks:**

Printed Name Signature

Wednesday, December 09, 2009

REQUEST NUMBER: 10-852

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

These Samples are on:

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Per Agreement Number:126310011

Project Cost Code: MR2A054196D0

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 12/9/2009

TURNAROUND/REPORT DUE: 1/8/2010

TURNAROUND REQ'D: 30 Days

RAD SCREENING: Not Required

LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:

Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8015M_EXTRACTABLE	1	RE03-09-14224	S	12/7/2009	
		1	RE03-09-14225	S	12/7/2009	
		1	RE03-09-14226	S	12/7/2009	
		1	RE03-09-14227	S	12/7/2009	

Wednesday, December 09, 2009

REQUEST NUMBER: 10-852

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8015M_EXTRACTABLE	1	RE03-09-14265	S	12/7/2009	
		1	RE03-09-14267	S	12/7/2009	
		1	RE03-09-14269	S	12/7/2009	
		1	RE03-09-14271	S	12/7/2009	
		1	RE03-09-14273	S	12/7/2009	
		1	RE03-09-14274	S	12/7/2009	
		1	RE03-09-14277	S	12/7/2009	
		1	RE03-09-14278	S	12/7/2009	
		1	RE03-09-14281	S	12/7/2009	
		1	RE03-09-14282	S	12/7/2009	
		1	RE03-09-14283	S	12/7/2009	
		1	RE03-09-14284	S	12/7/2009	
		1	RE03-09-14285	S	12/7/2009	
		1	RE03-09-14286	S	12/7/2009	

Wednesday, December 09, 2009

REQUEST NUMBER: 10-852

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8015M_EXTRACTABLE	1	RE03-09-14287	S	12/7/2009	
		1	RE03-09-14288	S	12/7/2009	
	SW-846:8082	1	RE03-09-14224	S	12/7/2009	
		1	RE03-09-14225	S	12/7/2009	
		1	RE03-09-14226	S	12/7/2009	
		1	RE03-09-14227	S	12/7/2009	
		1	RE03-09-14265	S	12/7/2009	
		1	RE03-09-14267	S	12/7/2009	
		1	RE03-09-14269	S	12/7/2009	
		1	RE03-09-14271	S	12/7/2009	
		1	RE03-09-14273	S	12/7/2009	
		1	RE03-09-14274	S	12/7/2009	
		1	RE03-09-14277	S	12/7/2009	
		1	RE03-09-14278	S	12/7/2009	
		1	RE03-09-14281	S	12/7/2009	
		1	RE03-09-14282	S	12/7/2009	
		1	RE03-09-14283	S	12/7/2009	
		1	RE03-09-14284	S	12/7/2009	
		1	RE03-09-14285	S	12/7/2009	
		1	RE03-09-14286	S	12/7/2009	
		1	RE03-09-14287	S	12/7/2009	
		1	RE03-09-14288	S	12/7/2009	
	SW-846:8260B	1	RE03-09-14224	S	12/7/2009	
		1	RE03-09-14225	S	12/7/2009	
		1	RE03-09-14226	S	12/7/2009	
		1	RE03-09-14227	S	12/7/2009	

Wednesday, December 09, 2009

REQUEST NUMBER: 10-852

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8260B	1	RE03-09-14265	S	12/7/2009	
		1	RE03-09-14267	S	12/7/2009	
		1	RE03-09-14269	S	12/7/2009	
		1	RE03-09-14271	S	12/7/2009	
		1	RE03-09-14273	S	12/7/2009	
		1	RE03-09-14274	S	12/7/2009	
		1	RE03-09-14277	S	12/7/2009	
		1	RE03-09-14278	S	12/7/2009	
		1	RE03-09-14281	S	12/7/2009	
		1	RE03-09-14282	S	12/7/2009	
		1	RE03-09-14283	S	12/7/2009	
		1	RE03-09-14284	S	12/7/2009	
		1	RE03-09-14285	S	12/7/2009	
		1	RE03-09-14286	S	12/7/2009	
		1	RE03-09-14287	S	12/7/2009	
		1	RE03-09-14288	S	12/7/2009	
		1	RE03-09-14294	S	12/7/2009	
	SW-846:8270C	1	RE03-09-14224	S	12/7/2009	
		1	RE03-09-14225	S	12/7/2009	
		1	RE03-09-14226	S	12/7/2009	
		1	RE03-09-14227	S	12/7/2009	
		1	RE03-09-14265	S	12/7/2009	
		1	RE03-09-14267	S	12/7/2009	
		1	RE03-09-14269	S	12/7/2009	
		1	RE03-09-14271	S	12/7/2009	
		1	RE03-09-14273	S	12/7/2009	
		1	RE03-09-14274	S	12/7/2009	
		1	RE03-09-14277	S	12/7/2009	

Wednesday, December 09, 2009

REQUEST NUMBER: 10-852

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8270C	1	RE03-09-14278	S	12/7/2009	
		1	RE03-09-14281	S	12/7/2009	
		1	RE03-09-14282	S	12/7/2009	
		1	RE03-09-14283	S	12/7/2009	
		1	RE03-09-14284	S	12/7/2009	
		1	RE03-09-14285	S	12/7/2009	
		1	RE03-09-14286	S	12/7/2009	
		1	RE03-09-14287	S	12/7/2009	
		1	RE03-09-14288	S	12/7/2009	

Final Page of REQUEST NUMBER 10-852

GEL Laboratories LLC

SAMPLE RECEIPT & REVIEW FORM

Client:LANL	**SDG/ARCOC/Work Order:10-852**
Received By:Patricia Dover-Dent	**Date Received:December 10, 2009**

Suspected Hazard Information	**Yes**	**No**	*If Counts > x2 area background on samples not marked "radioactive", contact the Radiation Safety Group of further
COC/Samples marked as radioactive?		X	Maximum Counts Observed*:40 CPM
Classified Radioactive II by RSO?		X	
COC/Samples marked containing PCBs?		X	
Shipped as a DOT Hazardous?		X	Hazard Class Shipped: UN#:
Samples identified as Foreign Soil?		X	

	Sample Receipt Criteria	**Yes**	**NA**	**No**	**Comments/Qualifiers (Required for Non-Conforming Items)**
1	Shipping containers received intact and sealed?	X			Circle Applicable: seals broken damaged container leaking container other (describe
2	Samples requiring cold preservation within (0 < 6 deg. C?	X			Preservation Method: ice bags **BLUE ICE** dry ice **NONE** other (describe) 2,3,5,13
3	Chain of custody documents included with shipment?	X			
4	Sample containers intact and sealed?	X			Circle Applicable: seals broken damaged container leaking container other (describe)
5	Samples requiring chemical preservation at proper pH?		X		Sample ID's, containers affected and observed pH. If Preservative added, Lot#:
6	VOA vials free of headspace (defined as < 6mm bubble)?		X		Sample ID's and containers affected:
7	Are Encore containers present?			X	(If yes, immediately deliver to Volatiles laboratory)
8	Samples received within holding time?	X			Id's and tests affected:
9	Sample ID's on COC match ID's on bottles?	X			Sample ID's and containers affected:
10	Date & time on COC match date & time on bottles?		X		Sample ID's affected: **No Time on Chain of Custody**
11	Number of containers received match number indicated on COC?	X			Sample ID's affected:
12	COC form is properly signed in relinquished/received sections?	X			

Comments:FED EX #'S
7209 7849 1730 2C
7209 7849 1741 3C
7209 7849 1785 3C
7209 7849 1796 5C
7209 7849 1800 5C
7209 7849 1811 5C
7209 7849 1720 13C

PM (or PMA) review: Initials RF Date 12/11/09

ORIGIN ID: SAFA (505)665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 09DEC09
ACTWGT: 43.0 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843)556-8171
REF: 6B010AMR1A015AGWM0

2°

FedEx Express

1 of 2
TRK# 0201 7209 7849 1730
MM MASTER MM

THU - 10DEC A1
PRIORITY OVERNIGHT

29407
SC-US
CHS

XX CHSA

ORIGIN ID: SAFA (505)665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 09DEC09
ACTWGT: 48.0 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843)556-8171
REF: 6B010AMR1A015AGWM0

3°

FedEx Express

2 of 2
MPS# 0263 7209 7849 1741
Mstr# 7209 7849 1730 0201

THU - 10DEC A1
PRIORITY OVERNIGHT

29407
SC-US
CHS

XX CHSA

Part # 156148-434 NRIT V3 09-09

ORIGIN ID: SAFA (505)665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 09DEC09
ACTWGT: 50.0 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843)556-8171
REF: 6B010AMR2A054196D0

3°

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1 of 2
TRK# 0201 7209 7849 1785
MM MASTER MM

THU - 10DEC A1
PRIORITY OVERNIGHT

29407
SC-US

XX CHSA

ORIGIN ID: SAFA (505)665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 09DEC09
ACTWGT: 50.0 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843)556-8171
REF: 6B010AMR2A054196D0

5°

FedEx Express

2 of 2
MPS# 0263 7209 7849 1796
Mstr# 7209 7849 1785 0201

THU - 10DEC A1
PRIORITY OVERNIGHT

29407
SC-US
CHS

XX CHSA

ORIGIN ID: SAFA (505)665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 09DEC09
ACTWGT: 32.0 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843)556-8171
REF: 6B010AMR3A022DXL00

5°

FedEx Express

THU - 10DEC A1
PRIORITY OVERNIGHT

TRK# 0201 7209 7849 1800

XX CHSA

29407
SC-US
CHS

Part # 156148-434 NRIT V3 09-09

ORIGIN ID: SAFA (505)665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 09DEC09
ACTWGT: 52.0 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843)556-8171
REF: 6B010AMEGL11570000

5°

FedEx Express

THU - 10DEC A1
PRIORITY OVERNIGHT

TRK# 0201 7209 7849 1811

XX CHSA

29407
SC-US
CHS

Part # 156148-434 NRIT V3 09-09

ORIGIN ID: SAFA (505)665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 09DEC09
ACTWGT: 35.0 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843)556-8171
REF: 6B010AMR1A015AGMM0

13°

FedEx Express

3 of 3

MPS# 0263 7209 7849 1720

MstrW 7209 7849 1708 0201

THU - 10DEC A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

Data Review Qualifier Flag Definition Sheet

Data Review Qualifier Definitions

Qualifier	Explanation
*	A quality control analyte recovery is outside of specified acceptance criteria
**	Analyte is a surrogate compound
<	Result is less than value reported
>	Result is greater than value reported
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL
A	The TIC is a suspected aldol-condensation product
B	Target analyte was detected in the associated blank
B	Metals-Either presence of analyte detected in the associated blank, or MDL/IDL < sample value < PQL
BD	Results are either below the MDC or tracer recovery is low
C	Analyte has been confirmed by GC/MS analysis
D	Results are reported from a diluted aliquot of the sample
d	5-day BOD-The 2:1 depletion requirement was not met for this sample
E	Organics-Concentration of the target analyte exceeds the instrument calibration range
E	Metals-%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
H	Analytical holding time was exceeded
h	Preparation or preservation holding time was exceeded
J	Value is estimated
N	Metals-The Matrix spike sample recovery is not within specified control limits
N	Organics-Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A	Spike recovery limits do not apply. Sample concentration exceeds spike concentration by 4X or more
ND	Analyte concentration is not detected above the reporting limit
UI	Gamma Spectroscopy-Uncertain identification
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
Z	Paint Filter Test-Particulates passed through the filter, however no free liquids were observed.

GC/MS Volatile Analysis

Case Narrative

ChemStation Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-852

Method/Analysis Information

Procedure: Volatile Organic Compounds (VOC) by Gas Chromatograph/Mass Spectrometer
Analytical Method: SW846 8260B
Prep Method: SW846 5030
Analytical Batch Number: 934516
Prep Batch Number: 934515

Sample Analysis

The following client and quality control samples were analyzed to complete this SDG using the methods referenced in the Analysis Information section:

Sample ID	Client ID
242654001	RE03-09-14224
242654002	RE03-09-14227
242654003	RE03-09-14225
242654004	RE03-09-14226
242654005	RE03-09-14288
242654006	RE03-09-14287
242654007	RE03-09-14267
242654008	RE03-09-14265
242654009	RE03-09-14281
242654010	RE03-09-14284
242654011	RE03-09-14274
242654012	RE03-09-14277
242654013	RE03-09-14282
242654014	RE03-09-14269
242654015	RE03-09-14273
242654016	RE03-09-14271
242654017	RE03-09-14278
242654018	RE03-09-14285
242654019	RE03-09-14286
242654020	RE03-09-14283
1201999396	Method Blank (MB)
1201999399	Laboratory Control Sample (LCS)
1201999400	Laboratory Control Sample (LCS)
1202000171	Method Blank (MB)
1202000172	Laboratory Control Sample (LCS)
1202000173	Laboratory Control Sample (LCS)
1201999397	242654001(RE03-09-14224) Post Spike (PS)
1201999398	242654001(RE03-09-14224) Post Spike Duplicate (PSD)

NOTE: For volatile organic analyses the matrix spike designations may be indicated as "PS" or "PSD". The "PS" designation (post spike) indicates that the matrix was fortified prior to analysis but after applying any prep factors, such as a dilution. The laboratory considers the MS/MSD and PS/PSD designations interchangeable.
The samples in this SDG were analyzed on a "dry weight" basis.

Preparation/Analytical Method Verification

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-038 REV# 13.

Raw data reports are processed and reviewed by the analyst using the Chemstation software package. False positives have been removed from the quantitation reports per standard operating procedures (SOP) section 19.1.2. False positive analytes are designated on the quantitation report with a 'd' qualifier.

Calibration Information

Please note that the 'Cal Date' indicated on each quantitation report reflects the date and time of the most recent calibrated analyte(s) in the processing method. Since the laboratory may calibrate with multiple solutions on different days using the same processing method, the software will update the 'Cal Date' to the last calibration file, date and time. The correct dates and times for all calibration files are located on the Calibration History report in the Standard Data section in the data package.

The surrogate compounds were calibrated using a minimum five-point calibration curve. The surrogates were added by the auto sampler at a concentration of 50 ug/L. GEL Laboratories LLC will not have surrogate recoveries reported for Dibromofluoromethane. This is due to increased regulations for this analyte and an industry shortage.

A complete list of the initial calibration data files are shown in the Calibration History report located in the Standard Data section of the data package.

Initial Calibration
All initial calibration requirements have been met for this sample delivery groups (SDG). A second source initial calibration verification (ICV) was included in the standard section directly behind the initial calibration.

Continuing Calibration Verification Requirements
All associated calibration verification standard(s) (ICV or CCV) met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MBs analyzed with this SDG met the acceptance criteria.

Surrogate Recoveries
Surrogate recoveries in all client and quality control samples were within the acceptance limits.

Laboratory Control Sample (LCS) Recovery
The LCS recoveries were not all within the acceptance limits. The unacceptable recoveries were less than 5% of the requested analyte list. This satisfies the client criteria. The results are reported. See NCR 773639.

QC Sample Designation
Sample 242654001 (RE03-09-14224) was designated for spike analysis in this SDG.

Matrix Spike (PS) Recovery Statement
The spike recoveries were not all within the acceptance limits. The spike duplicate recovered in a similar manner. The results are reported. See NCR 773639.

Matrix Spike Duplicate (PSD) Recovery Statement
The spike duplicate recoveries were not all within the acceptance limits. The spike recovered in a similar manner. The results are reported. See NCR 773639.

Relative Percent Difference (RPD) Statement
The RPD values were not all within the acceptance limits between the spike and spike duplicate. The results are reported. See NCR 773639.

Internal Standard (ISTD) Acceptance
The internal standard responses in all client and quality control samples met the required acceptance criteria.

Technical Information

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection or sample receipt. Those holding times expressed in hours are calculated in the ALPHALIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Sample Preservation and Integrity
All samples met the sample preservation and integrity requirements.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-extraction/Re-analysis
Re-analyses were not required for samples in this SDG.

Miscellaneous Information

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted: Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. An electronic signature page inserted after the case narrative will include the data validator's signature and title. The signature page also includes the data qualifiers used in the fractional package. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Nonconformance (NCR) Documentation
NCR # 773639 was generated for this SDG.

Manual Integrations
Data files associated with the initial calibration, continuing calibration check, and samples did not require manual integrations.

TIC Comment
Tentatively identified compounds (TIC) were required for this sample delivery group/work order. Please note that non-requested target analytes that are reported on the quantitation reports will not be present on the Form I. These detected analytes are included in the calibrated method and as a result cannot be reported on the TIC quantitation report.

Additional Comments
Additional comments were not required for this SDG.

Residual Chlorine
Residual Chlorine was not detected in any of the samples in this SDG.

System Configuration
The Volatile-GC/MS analysis was performed on the following instrument configuration:

Instrument ID	Instrument	System Configuration	Column ID	Column Description	P & T Trap
VOAA.I	Agilent 7890/5975C GC/MS system	HP7890A/HP5975C	DB-624	J&W, 60m x 0.25mm x 1.4um	Trap 10

Certification Statement
Where the analytical method has been performed under NELAP certification, the analysis has met all the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis Report
for

LANL010 Los Alamos National Laboratory (72733-001-09)

Client SDG: 10-852 GEL Work Order: 242654

The Qualifiers in this report are defined as follows:

* A quality control analyte recovery is outside of specified acceptance criteria

** Analyte is a surrogate compound

E Organics--Concentration of the target analyte exceeds the instrument calibration range

J Value is estimated

U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

Review/Validation

GEL requires all analytical data to be verified by a qualified data reviewer. In addition, all CLP-like deliverables receive a third level review of the fractional data package.

The following data validator verified the information presented in this case narrative:

Signature: Erin Haubert **Name: Erin Haubert**

Date: 05 JAN 2010 **Title: Data Validator**

Sample Data Summary

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-852**	**Date Collected:**	**12/07/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242654001**	**Date Received:**	**12/10/2009 08:50**	**%Moisture:**	**14.6**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14224**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**934516**	**Inst:**	**VOAA.I**	**Dilution:**	**1**
Run Date:	**12/18/2009 00:17**	**Analyst:**	**JEB**	**Purge Vol:**	**5 mL**
Prep Date:	**12/17/2009 19:02**	**Aliquot:**	**5.3 g**	**Final Volume:**	**5 mL**
Data File:	**121709\AP418.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.10	ug/kg	0.375	1.10
74-87-3	Chloromethane	U	1.10	ug/kg	0.331	1.10
75-01-4	Vinyl chloride	U	1.10	ug/kg	0.331	1.10
74-83-9	Bromomethane	U	1.10	ug/kg	0.331	1.10
75-00-3	Chloroethane	U	1.10	ug/kg	0.331	1.10
75-69-4	Trichlorofluoromethane	U	1.10	ug/kg	0.331	1.10
67-64-1	Acetone	U	5.52	ug/kg	1.83	5.52
75-35-4	1,1-Dichloroethylene	U	1.10	ug/kg	0.331	1.10
74-88-4	Iodomethane	U	5.52	ug/kg	1.77	5.52
75-09-2	Methylene chloride	U	5.52	ug/kg	2.21	5.52
75-15-0	Carbon disulfide	U	5.52	ug/kg	1.38	5.52
156-60-5	trans-1,2-Dichloroethylene	U	1.10	ug/kg	0.331	1.10
75-34-3	1,1-Dichloroethane	U	1.10	ug/kg	0.331	1.10
78-93-3	2-Butanone	U	5.52	ug/kg	1.66	5.52
156-59-2	cis-1,2-Dichloroethylene	U	1.10	ug/kg	0.331	1.10
594-20-7	2,2-Dichloropropane	U	1.10	ug/kg	0.331	1.10
67-66-3	Chloroform	U	1.10	ug/kg	0.331	1.10
74-97-5	Bromochloromethane	U	1.10	ug/kg	0.364	1.10
71-55-6	1,1,1-Trichloroethane	U	1.10	ug/kg	0.331	1.10
563-58-6	1,1-Dichloropropene	U	1.10	ug/kg	0.331	1.10
56-23-5	Carbon tetrachloride	U	1.10	ug/kg	0.331	1.10
107-06-2	1,2-Dichloroethane	U	1.10	ug/kg	0.331	1.10
71-43-2	Benzene	U	1.10	ug/kg	0.331	1.10
79-01-6	Trichloroethylene	U	1.10	ug/kg	0.364	1.10
78-87-5	1,2-Dichloropropane	U	1.10	ug/kg	0.331	1.10
75-27-4	Bromodichloromethane	U	1.10	ug/kg	0.331	1.10
74-95-3	Dibromomethane	U	1.10	ug/kg	0.331	1.10
108-10-1	4-Methyl-2-pentanone	U	5.52	ug/kg	1.38	5.52
10061-01-5	cis-1,3-Dichloropropylene	U	1.10	ug/kg	0.331	1.10
108-88-3	Toluene	U	1.10	ug/kg	0.331	1.10
10061-02-6	trans-1,3-Dichloropropylene	U	1.10	ug/kg	0.331	1.10
79-00-5	1,1,2-Trichloroethane	U	1.10	ug/kg	0.331	1.10
591-78-6	2-Hexanone	U	5.52	ug/kg	1.66	5.52
142-28-9	1,3-Dichloropropane	U	1.10	ug/kg	0.331	1.10
127-18-4	Tetrachloroethylene	U	1.10	ug/kg	0.331	1.10
124-48-1	Dibromochloromethane	U	1.10	ug/kg	0.331	1.10
106-93-4	1,2-Dibromoethane	U	1.10	ug/kg	0.331	1.10
108-90-7	Chlorobenzene	U	1.10	ug/kg	0.331	1.10

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242654001	**Date Received:**	12/10/2009 08:50	**%Moisture:**	14.6
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14224	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	934516	**Inst:**	VOAA.I	**Dilution:**	1
Run Date:	12/18/2009 00:17	**Analyst:**	JEB	**Purge Vol:**	5 mL
Prep Date:	12/17/2009 19:02	**Aliquot:**	5.3 g	**Final Volume:**	5 mL
Data File:	121709\AP418.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.10	ug/kg	0.331	1.10
179601-23-1	m,p-Xylenes	U	2.21	ug/kg	0.331	2.21
95-47-6	o-Xylene	U	1.10	ug/kg	0.331	1.10
100-42-5	Styrene	U	1.10	ug/kg	0.331	1.10
75-25-2	Bromoform	U	1.10	ug/kg	0.331	1.10
79-34-5	1,1,2,2-Tetrachloroethane	U	1.10	ug/kg	0.331	1.10
96-18-4	1,2,3-Trichloropropane	U	1.10	ug/kg	0.331	1.10
108-86-1	Bromobenzene	U	1.10	ug/kg	0.331	1.10
103-65-1	n-Propylbenzene	U	1.10	ug/kg	0.331	1.10
95-49-8	2-Chlorotoluene	U	1.10	ug/kg	0.331	1.10
98-82-8	Isopropylbenzene	U	1.10	ug/kg	0.331	1.10
108-67-8	1,3,5-Trimethylbenzene	U	1.10	ug/kg	0.331	1.10
106-43-4	4-Chlorotoluene	U	1.10	ug/kg	0.331	1.10
98-06-6	tert-Butylbenzene	U	1.10	ug/kg	0.331	1.10
95-63-6	1,2,4-Trimethylbenzene	U	1.10	ug/kg	0.331	1.10
135-98-8	sec-Butylbenzene	U	1.10	ug/kg	0.331	1.10
99-87-6	4-Isopropyltoluene	U	1.10	ug/kg	0.331	1.10
541-73-1	1,3-Dichlorobenzene	U	1.10	ug/kg	0.331	1.10
106-46-7	1,4-Dichlorobenzene	U	1.10	ug/kg	0.331	1.10
104-51-8	n-Butylbenzene	U	1.10	ug/kg	0.331	1.10
96-12-8	1,2-Dibromo-3-chloropropane	U	1.10	ug/kg	0.331	1.10
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.52	ug/kg	1.77	5.52
630-20-6	1,1,1,2-Tetrachloroethane	U	1.10	ug/kg	0.331	1.10
95-50-1	1,2-Dichlorobenzene	U	1.10	ug/kg	0.331	1.10

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown	3.37	11.3	ug/kg	0	J

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242654002	**Date Received:**	12/10/2009 08:50	**%Moisture:**	10.3
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14227	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	934516	**Inst:**	VOAA.I	**Dilution:**	1
Run Date:	12/18/2009 00:43	**Analyst:**	JEB	**Purge Vol:**	5 mL
Prep Date:	12/17/2009 19:04	**Aliquot:**	5.3 g	**Final Volume:**	5 mL
Data File:	121709\AP419.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.05	ug/kg	0.358	1.05
74-87-3	Chloromethane	U	1.05	ug/kg	0.315	1.05
75-01-4	Vinyl chloride	U	1.05	ug/kg	0.315	1.05
74-83-9	Bromomethane	U	1.05	ug/kg	0.315	1.05
75-00-3	Chloroethane	U	1.05	ug/kg	0.315	1.05
75-69-4	Trichlorofluoromethane	U	1.05	ug/kg	0.315	1.05
67-64-1	Acetone	J	4.38	ug/kg	1.75	5.26
75-35-4	1,1-Dichloroethylene	U	1.05	ug/kg	0.315	1.05
74-88-4	Iodomethane	U	5.26	ug/kg	1.68	5.26
75-09-2	Methylene chloride	U	5.26	ug/kg	2.10	5.26
75-15-0	Carbon disulfide	U	5.26	ug/kg	1.31	5.26
156-60-5	trans-1,2-Dichloroethylene	U	1.05	ug/kg	0.315	1.05
75-34-3	1,1-Dichloroethane	U	1.05	ug/kg	0.315	1.05
78-93-3	2-Butanone	U	5.26	ug/kg	1.58	5.26
156-59-2	cis-1,2-Dichloroethylene	U	1.05	ug/kg	0.315	1.05
594-20-7	2,2-Dichloropropane	U	1.05	ug/kg	0.315	1.05
67-66-3	Chloroform	U	1.05	ug/kg	0.315	1.05
74-97-5	Bromochloromethane	U	1.05	ug/kg	0.347	1.05
71-55-6	1,1,1-Trichloroethane	U	1.05	ug/kg	0.315	1.05
563-58-6	1,1-Dichloropropene	U	1.05	ug/kg	0.315	1.05
56-23-5	Carbon tetrachloride	U	1.05	ug/kg	0.315	1.05
107-06-2	1,2-Dichloroethane	U	1.05	ug/kg	0.315	1.05
71-43-2	Benzene	U	1.05	ug/kg	0.315	1.05
79-01-6	Trichloroethylene	U	1.05	ug/kg	0.347	1.05
78-87-5	1,2-Dichloropropane	U	1.05	ug/kg	0.315	1.05
75-27-4	Bromodichloromethane	U	1.05	ug/kg	0.315	1.05
74-95-3	Dibromomethane	U	1.05	ug/kg	0.315	1.05
108-10-1	4-Methyl-2-pentanone	U	5.26	ug/kg	1.31	5.26
10061-01-5	cis-1,3-Dichloropropylene	U	1.05	ug/kg	0.315	1.05
108-88-3	Toluene	U	1.05	ug/kg	0.315	1.05
10061-02-6	trans-1,3-Dichloropropylene	U	1.05	ug/kg	0.315	1.05
79-00-5	1,1,2-Trichloroethane	U	1.05	ug/kg	0.315	1.05
591-78-6	2-Hexanone	U	5.26	ug/kg	1.58	5.26
142-28-9	1,3-Dichloropropane	U	1.05	ug/kg	0.315	1.05
127-18-4	Tetrachloroethylene	U	1.05	ug/kg	0.315	1.05
124-48-1	Dibromochloromethane	U	1.05	ug/kg	0.315	1.05
106-93-4	1,2-Dibromoethane	U	1.05	ug/kg	0.315	1.05
108-90-7	Chlorobenzene	U	1.05	ug/kg	0.315	1.05

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242654002	**Date Received:**	12/10/2009 08:50	**%Moisture:**	10.3
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14227	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	934516	**Inst:**	VOAA.I	**Dilution:**	1
Run Date:	12/18/2009 00:43	**Analyst:**	JEB	**Purge Vol:**	5 mL
Prep Date:	12/17/2009 19:04	**Aliquot:**	5.3 g	**Final Volume:**	5 mL
Data File:	121709\AP419.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.05	ug/kg	0.315	1.05
179601-23-1	m,p-Xylenes	U	2.10	ug/kg	0.315	2.10
95-47-6	o-Xylene	U	1.05	ug/kg	0.315	1.05
100-42-5	Styrene	U	1.05	ug/kg	0.315	1.05
75-25-2	Bromoform	U	1.05	ug/kg	0.315	1.05
79-34-5	1,1,2,2-Tetrachloroethane	U	1.05	ug/kg	0.315	1.05
96-18-4	1,2,3-Trichloropropane	U	1.05	ug/kg	0.315	1.05
108-86-1	Bromobenzene	U	1.05	ug/kg	0.315	1.05
103-65-1	n-Propylbenzene	U	1.05	ug/kg	0.315	1.05
95-49-8	2-Chlorotoluene	U	1.05	ug/kg	0.315	1.05
98-82-8	Isopropylbenzene	U	1.05	ug/kg	0.315	1.05
108-67-8	1,3,5-Trimethylbenzene	U	1.05	ug/kg	0.315	1.05
106-43-4	4-Chlorotoluene	U	1.05	ug/kg	0.315	1.05
98-06-6	tert-Butylbenzene	U	1.05	ug/kg	0.315	1.05
95-63-6	1,2,4-Trimethylbenzene	U	1.05	ug/kg	0.315	1.05
135-98-8	sec-Butylbenzene	U	1.05	ug/kg	0.315	1.05
99-87-6	4-Isopropyltoluene	U	1.05	ug/kg	0.315	1.05
541-73-1	1,3-Dichlorobenzene	U	1.05	ug/kg	0.315	1.05
106-46-7	1,4-Dichlorobenzene	U	1.05	ug/kg	0.315	1.05
104-51-8	n-Butylbenzene	U	1.05	ug/kg	0.315	1.05
96-12-8	1,2-Dibromo-3-chloropropane	U	1.05	ug/kg	0.315	1.05
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.26	ug/kg	1.68	5.26
630-20-6	1,1,1,2-Tetrachloroethane	U	1.05	ug/kg	0.315	1.05
95-50-1	1,2-Dichlorobenzene	U	1.05	ug/kg	0.315	1.05

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown	3.34	6.96	ug/kg	0	J
	unknown	15.61	6.5	ug/kg	0	J

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242654003	**Date Received:**	12/10/2009 08:50	**%Moisture:**	11.9
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14225	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	934516	**Inst:**	VOAA.I	**Dilution:**	1
Run Date:	12/18/2009 01:09	**Analyst:**	JEB	**Purge Vol:**	5 mL
Prep Date:	12/17/2009 19:05	**Aliquot:**	5.1 g	**Final Volume:**	5 mL
Data File:	121709\AP420.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.11	ug/kg	0.379	1.11
74-87-3	Chloromethane	U	1.11	ug/kg	0.334	1.11
75-01-4	Vinyl chloride	U	1.11	ug/kg	0.334	1.11
74-83-9	Bromomethane	U	1.11	ug/kg	0.334	1.11
75-00-3	Chloroethane	U	1.11	ug/kg	0.334	1.11
75-69-4	Trichlorofluoromethane	U	1.11	ug/kg	0.334	1.11
67-64-1	Acetone	U	5.57	ug/kg	1.85	5.57
75-35-4	1,1-Dichloroethylene	U	1.11	ug/kg	0.334	1.11
74-88-4	Iodomethane	U	5.57	ug/kg	1.78	5.57
75-09-2	Methylene chloride	U	5.57	ug/kg	2.23	5.57
75-15-0	Carbon disulfide	U	5.57	ug/kg	1.39	5.57
156-60-5	trans-1,2-Dichloroethylene	U	1.11	ug/kg	0.334	1.11
75-34-3	1,1-Dichloroethane	U	1.11	ug/kg	0.334	1.11
78-93-3	2-Butanone	U	5.57	ug/kg	1.67	5.57
156-59-2	cis-1,2-Dichloroethylene	U	1.11	ug/kg	0.334	1.11
594-20-7	2,2-Dichloropropane	U	1.11	ug/kg	0.334	1.11
67-66-3	Chloroform	U	1.11	ug/kg	0.334	1.11
74-97-5	Bromochloromethane	U	1.11	ug/kg	0.367	1.11
71-55-6	1,1,1-Trichloroethane	U	1.11	ug/kg	0.334	1.11
563-58-6	1,1-Dichloropropene	U	1.11	ug/kg	0.334	1.11
56-23-5	Carbon tetrachloride	U	1.11	ug/kg	0.334	1.11
107-06-2	1,2-Dichloroethane	U	1.11	ug/kg	0.334	1.11
71-43-2	Benzene	U	1.11	ug/kg	0.334	1.11
79-01-6	Trichloroethylene	U	1.11	ug/kg	0.367	1.11
78-87-5	1,2-Dichloropropane	U	1.11	ug/kg	0.334	1.11
75-27-4	Bromodichloromethane	U	1.11	ug/kg	0.334	1.11
74-95-3	Dibromomethane	U	1.11	ug/kg	0.334	1.11
108-10-1	4-Methyl-2-pentanone	U	5.57	ug/kg	1.39	5.57
10061-01-5	cis-1,3-Dichloropropylene	U	1.11	ug/kg	0.334	1.11
108-88-3	Toluene	U	1.11	ug/kg	0.334	1.11
10061-02-6	trans-1,3-Dichloropropylene	U	1.11	ug/kg	0.334	1.11
79-00-5	1,1,2-Trichloroethane	U	1.11	ug/kg	0.334	1.11
591-78-6	2-Hexanone	U	5.57	ug/kg	1.67	5.57
142-28-9	1,3-Dichloropropane	U	1.11	ug/kg	0.334	1.11
127-18-4	Tetrachloroethylene	U	1.11	ug/kg	0.334	1.11
124-48-1	Dibromochloromethane	U	1.11	ug/kg	0.334	1.11
106-93-4	1,2-Dibromoethane	U	1.11	ug/kg	0.334	1.11
108-90-7	Chlorobenzene	U	1.11	ug/kg	0.334	1.11

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-852**	**Date Collected:**	**12/07/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242654003**	**Date Received:**	**12/10/2009 08:50**	**%Moisture:**	**11.9**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14225**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**934516**	**Inst:**	**VOAA.I**	**Dilution:**	**1**
Run Date:	**12/18/2009 01:09**	**Analyst:**	**JEB**	**Purge Vol:**	**5 mL**
Prep Date:	**12/17/2009 19:05**	**Aliquot:**	**5.1 g**	**Final Volume:**	**5 mL**
Data File:	**121709\AP420.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.11	ug/kg	0.334	1.11
179601-23-1	m,p-Xylenes	U	2.23	ug/kg	0.334	2.23
95-47-6	o-Xylene	U	1.11	ug/kg	0.334	1.11
100-42-5	Styrene	U	1.11	ug/kg	0.334	1.11
75-25-2	Bromoform	U	1.11	ug/kg	0.334	1.11
79-34-5	1,1,2,2-Tetrachloroethane	U	1.11	ug/kg	0.334	1.11
96-18-4	1,2,3-Trichloropropane	U	1.11	ug/kg	0.334	1.11
108-86-1	Bromobenzene	U	1.11	ug/kg	0.334	1.11
103-65-1	n-Propylbenzene	U	1.11	ug/kg	0.334	1.11
95-49-8	2-Chlorotoluene	U	1.11	ug/kg	0.334	1.11
98-82-8	Isopropylbenzene	U	1.11	ug/kg	0.334	1.11
108-67-8	1,3,5-Trimethylbenzene	U	1.11	ug/kg	0.334	1.11
106-43-4	4-Chlorotoluene	U	1.11	ug/kg	0.334	1.11
98-06-6	tert-Butylbenzene	U	1.11	ug/kg	0.334	1.11
95-63-6	1,2,4-Trimethylbenzene	U	1.11	ug/kg	0.334	1.11
135-98-8	sec-Butylbenzene	U	1.11	ug/kg	0.334	1.11
99-87-6	4-Isopropyltoluene	U	1.11	ug/kg	0.334	1.11
541-73-1	1,3-Dichlorobenzene	U	1.11	ug/kg	0.334	1.11
106-46-7	1,4-Dichlorobenzene	U	1.11	ug/kg	0.334	1.11
104-51-8	n-Butylbenzene	U	1.11	ug/kg	0.334	1.11
96-12-8	1,2-Dibromo-3-chloropropane	U	1.11	ug/kg	0.334	1.11
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.57	ug/kg	1.78	5.57
630-20-6	1,1,1,2-Tetrachloroethane	U	1.11	ug/kg	0.334	1.11
95-50-1	1,2-Dichlorobenzene	U	1.11	ug/kg	0.334	1.11

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown	3.33	10	ug/kg	0	J

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242654004	**Date Received:**	12/10/2009 08:50	**%Moisture:**	9.5
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14226	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	934516	**Inst:**	VOAA.I	**Dilution:**	1
Run Date:	12/18/2009 01:35	**Analyst:**	JEB	**Purge Vol:**	5 mL
Prep Date:	12/17/2009 19:06	**Aliquot:**	5.1 g	**Final Volume:**	5 mL
Data File:	121709\AP421.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.08	ug/kg	0.368	1.08
74-87-3	Chloromethane	U	1.08	ug/kg	0.325	1.08
75-01-4	Vinyl chloride	U	1.08	ug/kg	0.325	1.08
74-83-9	Bromomethane	U	1.08	ug/kg	0.325	1.08
75-00-3	Chloroethane	U	1.08	ug/kg	0.325	1.08
75-69-4	Trichlorofluoromethane	U	1.08	ug/kg	0.325	1.08
67-64-1	Acetone	U	5.42	ug/kg	1.80	5.42
75-35-4	1,1-Dichloroethylene	U	1.08	ug/kg	0.325	1.08
74-88-4	Iodomethane	U	5.42	ug/kg	1.73	5.42
75-09-2	Methylene chloride	U	5.42	ug/kg	2.17	5.42
75-15-0	Carbon disulfide	U	5.42	ug/kg	1.35	5.42
156-60-5	trans-1,2-Dichloroethylene	U	1.08	ug/kg	0.325	1.08
75-34-3	1,1-Dichloroethane	U	1.08	ug/kg	0.325	1.08
78-93-3	2-Butanone	U	5.42	ug/kg	1.63	5.42
156-59-2	cis-1,2-Dichloroethylene	U	1.08	ug/kg	0.325	1.08
594-20-7	2,2-Dichloropropane	U	1.08	ug/kg	0.325	1.08
67-66-3	Chloroform	U	1.08	ug/kg	0.325	1.08
74-97-5	Bromochloromethane	U	1.08	ug/kg	0.358	1.08
71-55-6	1,1,1-Trichloroethane	U	1.08	ug/kg	0.325	1.08
563-58-6	1,1-Dichloropropene	U	1.08	ug/kg	0.325	1.08
56-23-5	Carbon tetrachloride	U	1.08	ug/kg	0.325	1.08
107-06-2	1,2-Dichloroethane	U	1.08	ug/kg	0.325	1.08
71-43-2	Benzene	U	1.08	ug/kg	0.325	1.08
79-01-6	Trichloroethylene	U	1.08	ug/kg	0.358	1.08
78-87-5	1,2-Dichloropropane	U	1.08	ug/kg	0.325	1.08
75-27-4	Bromodichloromethane	U	1.08	ug/kg	0.325	1.08
74-95-3	Dibromomethane	U	1.08	ug/kg	0.325	1.08
108-10-1	4-Methyl-2-pentanone	U	5.42	ug/kg	1.35	5.42
10061-01-5	cis-1,3-Dichloropropylene	U	1.08	ug/kg	0.325	1.08
108-88-3	Toluene	U	1.08	ug/kg	0.325	1.08
10061-02-6	trans-1,3-Dichloropropylene	U	1.08	ug/kg	0.325	1.08
79-00-5	1,1,2-Trichloroethane	U	1.08	ug/kg	0.325	1.08
591-78-6	2-Hexanone	U	5.42	ug/kg	1.63	5.42
142-28-9	1,3-Dichloropropane	U	1.08	ug/kg	0.325	1.08
127-18-4	Tetrachloroethylene	U	1.08	ug/kg	0.325	1.08
124-48-1	Dibromochloromethane	U	1.08	ug/kg	0.325	1.08
106-93-4	1,2-Dibromoethane	U	1.08	ug/kg	0.325	1.08
108-90-7	Chlorobenzene	U	1.08	ug/kg	0.325	1.08

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242654004	**Date Received:**	12/10/2009 08:50	**%Moisture:**	9.5
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14226	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	934516	**Inst:**	VOAA.I	**Dilution:**	1
Run Date:	12/18/2009 01:35	**Analyst:**	JEB	**Purge Vol:**	5 mL
Prep Date:	12/17/2009 19:06	**Aliquot:**	5.1 g	**Final Volume:**	5 mL
Data File:	121709\AP421.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.08	ug/kg	0.325	1.08
179601-23-1	m,p-Xylenes	U	2.17	ug/kg	0.325	2.17
95-47-6	o-Xylene	U	1.08	ug/kg	0.325	1.08
100-42-5	Styrene	U	1.08	ug/kg	0.325	1.08
75-25-2	Bromoform	U	1.08	ug/kg	0.325	1.08
79-34-5	1,1,2,2-Tetrachloroethane	U	1.08	ug/kg	0.325	1.08
96-18-4	1,2,3-Trichloropropane	U	1.08	ug/kg	0.325	1.08
108-86-1	Bromobenzene	U	1.08	ug/kg	0.325	1.08
103-65-1	n-Propylbenzene	U	1.08	ug/kg	0.325	1.08
95-49-8	2-Chlorotoluene	U	1.08	ug/kg	0.325	1.08
98-82-8	Isopropylbenzene	U	1.08	ug/kg	0.325	1.08
108-67-8	1,3,5-Trimethylbenzene	U	1.08	ug/kg	0.325	1.08
106-43-4	4-Chlorotoluene	U	1.08	ug/kg	0.325	1.08
98-06-6	tert-Butylbenzene	U	1.08	ug/kg	0.325	1.08
95-63-6	1,2,4-Trimethylbenzene	U	1.08	ug/kg	0.325	1.08
135-98-8	sec-Butylbenzene	U	1.08	ug/kg	0.325	1.08
99-87-6	4-Isopropyltoluene	U	1.08	ug/kg	0.325	1.08
541-73-1	1,3-Dichlorobenzene	U	1.08	ug/kg	0.325	1.08
106-46-7	1,4-Dichlorobenzene	U	1.08	ug/kg	0.325	1.08
104-51-8	n-Butylbenzene	U	1.08	ug/kg	0.325	1.08
96-12-8	1,2-Dibromo-3-chloropropane	U	1.08	ug/kg	0.325	1.08
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.42	ug/kg	1.73	5.42
630-20-6	1,1,1,2-Tetrachloroethane	U	1.08	ug/kg	0.325	1.08
95-50-1	1,2-Dichlorobenzene	U	1.08	ug/kg	0.325	1.08

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown	3.32	7.23	ug/kg	0	J
	unknown siloxane	13.66	9.25	ug/kg	0	J
	unknown	15.61	11.2	ug/kg	0	J

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242654005	**Date Received:**	12/10/2009 08:50	**%Moisture:**	5.9
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14288	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	934516	**Inst:**	VOAA.I	**Dilution:**	1
Run Date:	12/18/2009 02:01	**Analyst:**	JEB	**Purge Vol:**	5 mL
Prep Date:	12/17/2009 19:07	**Aliquot:**	5.3 g	**Final Volume:**	5 mL
Data File:	121709\AP422.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/kg	0.341	1.00
74-87-3	Chloromethane	U	1.00	ug/kg	0.301	1.00
75-01-4	Vinyl chloride	U	1.00	ug/kg	0.301	1.00
74-83-9	Bromomethane	U	1.00	ug/kg	0.301	1.00
75-00-3	Chloroethane	U	1.00	ug/kg	0.301	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/kg	0.301	1.00
67-64-1	Acetone	U	5.02	ug/kg	1.67	5.02
75-35-4	1,1-Dichloroethylene	U	1.00	ug/kg	0.301	1.00
74-88-4	Iodomethane	U	5.02	ug/kg	1.60	5.02
75-09-2	Methylene chloride	U	5.02	ug/kg	2.01	5.02
75-15-0	Carbon disulfide	U	5.02	ug/kg	1.25	5.02
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/kg	0.301	1.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/kg	0.301	1.00
78-93-3	2-Butanone	U	5.02	ug/kg	1.50	5.02
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/kg	0.301	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/kg	0.301	1.00
67-66-3	Chloroform	U	1.00	ug/kg	0.301	1.00
74-97-5	Bromochloromethane	U	1.00	ug/kg	0.331	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/kg	0.301	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/kg	0.301	1.00
56-23-5	Carbon tetrachloride	U	1.00	ug/kg	0.301	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/kg	0.301	1.00
71-43-2	Benzene	U	1.00	ug/kg	0.301	1.00
79-01-6	Trichloroethylene	U	1.00	ug/kg	0.331	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/kg	0.301	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/kg	0.301	1.00
74-95-3	Dibromomethane	U	1.00	ug/kg	0.301	1.00
108-10-1	4-Methyl-2-pentanone	U	5.02	ug/kg	1.25	5.02
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/kg	0.301	1.00
108-88-3	Toluene	U	1.00	ug/kg	0.301	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/kg	0.301	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/kg	0.301	1.00
591-78-6	2-Hexanone	U	5.02	ug/kg	1.50	5.02
142-28-9	1,3-Dichloropropane	U	1.00	ug/kg	0.301	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/kg	0.301	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/kg	0.301	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/kg	0.301	1.00
108-90-7	Chlorobenzene	U	1.00	ug/kg	0.301	1.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242654005	**Date Received:**	12/10/2009 08:50	**%Moisture:**	5.9
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14288	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	934516	**Inst:**	VOAA.I	**Dilution:**	1
Run Date:	12/18/2009 02:01	**Analyst:**	JEB	**Purge Vol:**	5 mL
Prep Date:	12/17/2009 19:07	**Aliquot:**	5.3 g	**Final Volume:**	5 mL
Data File:	121709\AP422.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.00	ug/kg	0.301	1.00
179601-23-1	m,p-Xylenes	U	2.01	ug/kg	0.301	2.01
95-47-6	o-Xylene	U	1.00	ug/kg	0.301	1.00
100-42-5	Styrene	U	1.00	ug/kg	0.301	1.00
75-25-2	Bromoform	U	1.00	ug/kg	0.301	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/kg	0.301	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/kg	0.301	1.00
108-86-1	Bromobenzene	U	1.00	ug/kg	0.301	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/kg	0.301	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/kg	0.301	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/kg	0.301	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/kg	0.301	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/kg	0.301	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/kg	0.301	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/kg	0.301	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/kg	0.301	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/kg	0.301	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/kg	0.301	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/kg	0.301	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/kg	0.301	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/kg	0.301	1.00
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.02	ug/kg	1.60	5.02
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/kg	0.301	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/kg	0.301	1.00

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown	3.35	9.5	ug/kg	0	J

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242654006	**Date Received:**	12/10/2009 08:50	**%Moisture:**	11.7
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14287	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	934516	**Inst:**	VOAA.I	**Dilution:**	1
Run Date:	12/18/2009 02:26	**Analyst:**	JEB	**Purge Vol:**	5 mL
Prep Date:	12/17/2009 19:10	**Aliquot:**	5.2 g	**Final Volume:**	5 mL
Data File:	121709\AP423.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.09	ug/kg	0.370	1.09
74-87-3	Chloromethane	U	1.09	ug/kg	0.327	1.09
75-01-4	Vinyl chloride	U	1.09	ug/kg	0.327	1.09
74-83-9	Bromomethane	U	1.09	ug/kg	0.327	1.09
75-00-3	Chloroethane	U	1.09	ug/kg	0.327	1.09
75-69-4	Trichlorofluoromethane	U	1.09	ug/kg	0.327	1.09
67-64-1	Acetone	U	5.44	ug/kg	1.81	5.44
75-35-4	1,1-Dichloroethylene	U	1.09	ug/kg	0.327	1.09
74-88-4	Iodomethane	U	5.44	ug/kg	1.74	5.44
75-09-2	Methylene chloride	U	5.44	ug/kg	2.18	5.44
75-15-0	Carbon disulfide	U	5.44	ug/kg	1.36	5.44
156-60-5	trans-1,2-Dichloroethylene	U	1.09	ug/kg	0.327	1.09
75-34-3	1,1-Dichloroethane	U	1.09	ug/kg	0.327	1.09
78-93-3	2-Butanone	U	5.44	ug/kg	1.63	5.44
156-59-2	cis-1,2-Dichloroethylene	U	1.09	ug/kg	0.327	1.09
594-20-7	2,2-Dichloropropane	U	1.09	ug/kg	0.327	1.09
67-66-3	Chloroform	U	1.09	ug/kg	0.327	1.09
74-97-5	Bromochloromethane	U	1.09	ug/kg	0.359	1.09
71-55-6	1,1,1-Trichloroethane	U	1.09	ug/kg	0.327	1.09
563-58-6	1,1-Dichloropropene	U	1.09	ug/kg	0.327	1.09
56-23-5	Carbon tetrachloride	U	1.09	ug/kg	0.327	1.09
107-06-2	1,2-Dichloroethane	U	1.09	ug/kg	0.327	1.09
71-43-2	Benzene	U	1.09	ug/kg	0.327	1.09
79-01-6	Trichloroethylene	U	1.09	ug/kg	0.359	1.09
78-87-5	1,2-Dichloropropane	U	1.09	ug/kg	0.327	1.09
75-27-4	Bromodichloromethane	U	1.09	ug/kg	0.327	1.09
74-95-3	Dibromomethane	U	1.09	ug/kg	0.327	1.09
108-10-1	4-Methyl-2-pentanone	U	5.44	ug/kg	1.36	5.44
10061-01-5	cis-1,3-Dichloropropylene	U	1.09	ug/kg	0.327	1.09
108-88-3	Toluene	U	1.09	ug/kg	0.327	1.09
10061-02-6	trans-1,3-Dichloropropylene	U	1.09	ug/kg	0.327	1.09
79-00-5	1,1,2-Trichloroethane	U	1.09	ug/kg	0.327	1.09
591-78-6	2-Hexanone	U	5.44	ug/kg	1.63	5.44
142-28-9	1,3-Dichloropropane	U	1.09	ug/kg	0.327	1.09
127-18-4	Tetrachloroethylene	U	1.09	ug/kg	0.327	1.09
124-48-1	Dibromochloromethane	U	1.09	ug/kg	0.327	1.09
106-93-4	1,2-Dibromoethane	U	1.09	ug/kg	0.327	1.09
108-90-7	Chlorobenzene	U	1.09	ug/kg	0.327	1.09

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242654006	**Date Received:**	12/10/2009 08:50	**%Moisture:**	11.7
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14287	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	934516	**Inst:**	VOAA.I	**Dilution:**	1
Run Date:	12/18/2009 02:26	**Analyst:**	JEB	**Purge Vol:**	5 mL
Prep Date:	12/17/2009 19:10	**Aliquot:**	5.2 g	**Final Volume:**	5 mL
Data File:	121709\AP423.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.09	ug/kg	0.327	1.09
179601-23-1	m,p-Xylenes	U	2.18	ug/kg	0.327	2.18
95-47-6	o-Xylene	U	1.09	ug/kg	0.327	1.09
100-42-5	Styrene	U	1.09	ug/kg	0.327	1.09
75-25-2	Bromoform	U	1.09	ug/kg	0.327	1.09
79-34-5	1,1,2,2-Tetrachloroethane	U	1.09	ug/kg	0.327	1.09
96-18-4	1,2,3-Trichloropropane	U	1.09	ug/kg	0.327	1.09
108-86-1	Bromobenzene	U	1.09	ug/kg	0.327	1.09
103-65-1	n-Propylbenzene	U	1.09	ug/kg	0.327	1.09
95-49-8	2-Chlorotoluene	U	1.09	ug/kg	0.327	1.09
98-82-8	Isopropylbenzene	U	1.09	ug/kg	0.327	1.09
108-67-8	1,3,5-Trimethylbenzene	U	1.09	ug/kg	0.327	1.09
106-43-4	4-Chlorotoluene	U	1.09	ug/kg	0.327	1.09
98-06-6	tert-Butylbenzene	U	1.09	ug/kg	0.327	1.09
95-63-6	1,2,4-Trimethylbenzene	U	1.09	ug/kg	0.327	1.09
135-98-8	sec-Butylbenzene	U	1.09	ug/kg	0.327	1.09
99-87-6	4-Isopropyltoluene	U	1.09	ug/kg	0.327	1.09
541-73-1	1,3-Dichlorobenzene	U	1.09	ug/kg	0.327	1.09
106-46-7	1,4-Dichlorobenzene	U	1.09	ug/kg	0.327	1.09
104-51-8	n-Butylbenzene	U	1.09	ug/kg	0.327	1.09
96-12-8	1,2-Dibromo-3-chloropropane	U	1.09	ug/kg	0.327	1.09
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.44	ug/kg	1.74	5.44
630-20-6	1,1,1,2-Tetrachloroethane	U	1.09	ug/kg	0.327	1.09
95-50-1	1,2-Dichlorobenzene	U	1.09	ug/kg	0.327	1.09

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown	3.34	17.5	ug/kg	0	J

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242654007	**Date Received:**	12/10/2009 08:50	**%Moisture:**	14.2
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14267	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	934516	**Inst:**	VOAA.I	**Dilution:**	1
Run Date:	12/18/2009 02:52	**Analyst:**	JEB	**Purge Vol:**	5 mL
Prep Date:	12/17/2009 19:11	**Aliquot:**	5.4 g	**Final Volume:**	5 mL
Data File:	121709\AP424.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.08	ug/kg	0.367	1.08
74-87-3	Chloromethane	U	1.08	ug/kg	0.324	1.08
75-01-4	Vinyl chloride	U	1.08	ug/kg	0.324	1.08
74-83-9	Bromomethane	U	1.08	ug/kg	0.324	1.08
75-00-3	Chloroethane	U	1.08	ug/kg	0.324	1.08
75-69-4	Trichlorofluoromethane	U	1.08	ug/kg	0.324	1.08
67-64-1	Acetone	J	5.34	ug/kg	1.79	5.40
75-35-4	1,1-Dichloroethylene	U	1.08	ug/kg	0.324	1.08
74-88-4	Iodomethane	U	5.40	ug/kg	1.73	5.40
75-09-2	Methylene chloride	U	5.40	ug/kg	2.16	5.40
75-15-0	Carbon disulfide	U	5.40	ug/kg	1.35	5.40
156-60-5	trans-1,2-Dichloroethylene	U	1.08	ug/kg	0.324	1.08
75-34-3	1,1-Dichloroethane	U	1.08	ug/kg	0.324	1.08
78-93-3	2-Butanone	U	5.40	ug/kg	1.62	5.40
156-59-2	cis-1,2-Dichloroethylene	U	1.08	ug/kg	0.324	1.08
594-20-7	2,2-Dichloropropane	U	1.08	ug/kg	0.324	1.08
67-66-3	Chloroform	U	1.08	ug/kg	0.324	1.08
74-97-5	Bromochloromethane	U	1.08	ug/kg	0.356	1.08
71-55-6	1,1,1-Trichloroethane	U	1.08	ug/kg	0.324	1.08
563-58-6	1,1-Dichloropropene	U	1.08	ug/kg	0.324	1.08
56-23-5	Carbon tetrachloride	U	1.08	ug/kg	0.324	1.08
107-06-2	1,2-Dichloroethane	U	1.08	ug/kg	0.324	1.08
71-43-2	Benzene	U	1.08	ug/kg	0.324	1.08
79-01-6	Trichloroethylene	U	1.08	ug/kg	0.356	1.08
78-87-5	1,2-Dichloropropane	U	1.08	ug/kg	0.324	1.08
75-27-4	Bromodichloromethane	U	1.08	ug/kg	0.324	1.08
74-95-3	Dibromomethane	U	1.08	ug/kg	0.324	1.08
108-10-1	4-Methyl-2-pentanone	U	5.40	ug/kg	1.35	5.40
10061-01-5	cis-1,3-Dichloropropylene	U	1.08	ug/kg	0.324	1.08
108-88-3	Toluene	U	1.08	ug/kg	0.324	1.08
10061-02-6	trans-1,3-Dichloropropylene	U	1.08	ug/kg	0.324	1.08
79-00-5	1,1,2-Trichloroethane	U	1.08	ug/kg	0.324	1.08
591-78-6	2-Hexanone	U	5.40	ug/kg	1.62	5.40
142-28-9	1,3-Dichloropropane	U	1.08	ug/kg	0.324	1.08
127-18-4	Tetrachloroethylene	U	1.08	ug/kg	0.324	1.08
124-48-1	Dibromochloromethane	U	1.08	ug/kg	0.324	1.08
106-93-4	1,2-Dibromoethane	U	1.08	ug/kg	0.324	1.08
108-90-7	Chlorobenzene	U	1.08	ug/kg	0.324	1.08

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242654007	**Date Received:**	12/10/2009 08:50	**%Moisture:**	14.2
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14267	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	934516	**Inst:**	VOAA.I	**Dilution:**	1
Run Date:	12/18/2009 02:52	**Analyst:**	JEB	**Purge Vol:**	5 mL
Prep Date:	12/17/2009 19:11	**Aliquot:**	5.4 g	**Final Volume:**	5 mL
Data File:	121709\AP424.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.08	ug/kg	0.324	1.08
179601-23-1	m,p-Xylenes	U	2.16	ug/kg	0.324	2.16
95-47-6	o-Xylene	U	1.08	ug/kg	0.324	1.08
100-42-5	Styrene	U	1.08	ug/kg	0.324	1.08
75-25-2	Bromoform	U	1.08	ug/kg	0.324	1.08
79-34-5	1,1,2,2-Tetrachloroethane	U	1.08	ug/kg	0.324	1.08
96-18-4	1,2,3-Trichloropropane	U	1.08	ug/kg	0.324	1.08
108-86-1	Bromobenzene	U	1.08	ug/kg	0.324	1.08
103-65-1	n-Propylbenzene	U	1.08	ug/kg	0.324	1.08
95-49-8	2-Chlorotoluene	U	1.08	ug/kg	0.324	1.08
98-82-8	Isopropylbenzene	U	1.08	ug/kg	0.324	1.08
108-67-8	1,3,5-Trimethylbenzene	U	1.08	ug/kg	0.324	1.08
106-43-4	4-Chlorotoluene	U	1.08	ug/kg	0.324	1.08
98-06-6	tert-Butylbenzene	U	1.08	ug/kg	0.324	1.08
95-63-6	1,2,4-Trimethylbenzene	U	1.08	ug/kg	0.324	1.08
135-98-8	sec-Butylbenzene	U	1.08	ug/kg	0.324	1.08
99-87-6	4-Isopropyltoluene	U	1.08	ug/kg	0.324	1.08
541-73-1	1,3-Dichlorobenzene	U	1.08	ug/kg	0.324	1.08
106-46-7	1,4-Dichlorobenzene	U	1.08	ug/kg	0.324	1.08
104-51-8	n-Butylbenzene	U	1.08	ug/kg	0.324	1.08
96-12-8	1,2-Dibromo-3-chloropropane	U	1.08	ug/kg	0.324	1.08
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.40	ug/kg	1.73	5.40
630-20-6	1,1,1,2-Tetrachloroethane	U	1.08	ug/kg	0.324	1.08
95-50-1	1,2-Dichlorobenzene	U	1.08	ug/kg	0.324	1.08

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	No Tentatively Identified Compounds Found			ug/kg		

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242654008	**Date Received:**	12/10/2009 08:50	**%Moisture:**	13
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14265	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	934516	**Inst:**	VOAA.I	**Dilution:**	1
Run Date:	12/18/2009 03:18	**Analyst:**	JEB	**Purge Vol:**	5 mL
Prep Date:	12/17/2009 19:12	**Aliquot:**	5.2 g	**Final Volume:**	5 mL
Data File:	121709\AP425.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.11	ug/kg	0.376	1.11
74-87-3	Chloromethane	U	1.11	ug/kg	0.332	1.11
75-01-4	Vinyl chloride	U	1.11	ug/kg	0.332	1.11
74-83-9	Bromomethane	U	1.11	ug/kg	0.332	1.11
75-00-3	Chloroethane	U	1.11	ug/kg	0.332	1.11
75-69-4	Trichlorofluoromethane	U	1.11	ug/kg	0.332	1.11
67-64-1	Acetone	U	5.53	ug/kg	1.84	5.53
75-35-4	1,1-Dichloroethylene	U	1.11	ug/kg	0.332	1.11
74-88-4	Iodomethane	U	5.53	ug/kg	1.77	5.53
75-09-2	Methylene chloride	U	5.53	ug/kg	2.21	5.53
75-15-0	Carbon disulfide	U	5.53	ug/kg	1.38	5.53
156-60-5	trans-1,2-Dichloroethylene	U	1.11	ug/kg	0.332	1.11
75-34-3	1,1-Dichloroethane	U	1.11	ug/kg	0.332	1.11
78-93-3	2-Butanone	U	5.53	ug/kg	1.66	5.53
156-59-2	cis-1,2-Dichloroethylene	U	1.11	ug/kg	0.332	1.11
594-20-7	2,2-Dichloropropane	U	1.11	ug/kg	0.332	1.11
67-66-3	Chloroform	U	1.11	ug/kg	0.332	1.11
74-97-5	Bromochloromethane	U	1.11	ug/kg	0.365	1.11
71-55-6	1,1,1-Trichloroethane	U	1.11	ug/kg	0.332	1.11
563-58-6	1,1-Dichloropropene	U	1.11	ug/kg	0.332	1.11
56-23-5	Carbon tetrachloride	U	1.11	ug/kg	0.332	1.11
107-06-2	1,2-Dichloroethane	U	1.11	ug/kg	0.332	1.11
71-43-2	Benzene	U	1.11	ug/kg	0.332	1.11
79-01-6	Trichloroethylene	U	1.11	ug/kg	0.365	1.11
78-87-5	1,2-Dichloropropane	U	1.11	ug/kg	0.332	1.11
75-27-4	Bromodichloromethane	U	1.11	ug/kg	0.332	1.11
74-95-3	Dibromomethane	U	1.11	ug/kg	0.332	1.11
108-10-1	4-Methyl-2-pentanone	U	5.53	ug/kg	1.38	5.53
10061-01-5	cis-1,3-Dichloropropylene	U	1.11	ug/kg	0.332	1.11
108-88-3	Toluene	U	1.11	ug/kg	0.332	1.11
10061-02-6	trans-1,3-Dichloropropylene	U	1.11	ug/kg	0.332	1.11
79-00-5	1,1,2-Trichloroethane	U	1.11	ug/kg	0.332	1.11
591-78-6	2-Hexanone	U	5.53	ug/kg	1.66	5.53
142-28-9	1,3-Dichloropropane	U	1.11	ug/kg	0.332	1.11
127-18-4	Tetrachloroethylene	U	1.11	ug/kg	0.332	1.11
124-48-1	Dibromochloromethane	U	1.11	ug/kg	0.332	1.11
106-93-4	1,2-Dibromoethane	U	1.11	ug/kg	0.332	1.11
108-90-7	Chlorobenzene	U	1.11	ug/kg	0.332	1.11

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242654008	**Date Received:**	12/10/2009 08:50	**%Moisture:**	13
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14265	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	934516	**Inst:**	VOAA.I	**Dilution:**	1
Run Date:	12/18/2009 03:18	**Analyst:**	JEB	**Purge Vol:**	5 mL
Prep Date:	12/17/2009 19:12	**Aliquot:**	5.2 g	**Final Volume:**	5 mL
Data File:	121709\AP425.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.11	ug/kg	0.332	1.11
179601-23-1	m,p-Xylenes	U	2.21	ug/kg	0.332	2.21
95-47-6	o-Xylene	U	1.11	ug/kg	0.332	1.11
100-42-5	Styrene	U	1.11	ug/kg	0.332	1.11
75-25-2	Bromoform	U	1.11	ug/kg	0.332	1.11
79-34-5	1,1,2,2-Tetrachloroethane	U	1.11	ug/kg	0.332	1.11
96-18-4	1,2,3-Trichloropropane	U	1.11	ug/kg	0.332	1.11
108-86-1	Bromobenzene	U	1.11	ug/kg	0.332	1.11
103-65-1	n-Propylbenzene	U	1.11	ug/kg	0.332	1.11
95-49-8	2-Chlorotoluene	U	1.11	ug/kg	0.332	1.11
98-82-8	Isopropylbenzene	U	1.11	ug/kg	0.332	1.11
108-67-8	1,3,5-Trimethylbenzene	U	1.11	ug/kg	0.332	1.11
106-43-4	4-Chlorotoluene	U	1.11	ug/kg	0.332	1.11
98-06-6	tert-Butylbenzene	U	1.11	ug/kg	0.332	1.11
95-63-6	1,2,4-Trimethylbenzene	U	1.11	ug/kg	0.332	1.11
135-98-8	sec-Butylbenzene	U	1.11	ug/kg	0.332	1.11
99-87-6	4-Isopropyltoluene	U	1.11	ug/kg	0.332	1.11
541-73-1	1,3-Dichlorobenzene	U	1.11	ug/kg	0.332	1.11
106-46-7	1,4-Dichlorobenzene	U	1.11	ug/kg	0.332	1.11
104-51-8	n-Butylbenzene	U	1.11	ug/kg	0.332	1.11
96-12-8	1,2-Dibromo-3-chloropropane	U	1.11	ug/kg	0.332	1.11
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.53	ug/kg	1.77	5.53
630-20-6	1,1,1,2-Tetrachloroethane	U	1.11	ug/kg	0.332	1.11
95-50-1	1,2-Dichlorobenzene	U	1.11	ug/kg	0.332	1.11

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown	3.34	9.77	ug/kg	0	J

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242654009	**Date Received:**	12/10/2009 08:50	**%Moisture:**	14.1
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14281	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	934516	**Inst:**	VOAA.I	**Dilution:**	1
Run Date:	12/18/2009 03:44	**Analyst:**	JEB	**Purge Vol:**	5 mL
Prep Date:	12/17/2009 19:13	**Aliquot:**	5.3 g	**Final Volume:**	5 mL
Data File:	121709\AP426.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.10	ug/kg	0.374	1.10
74-87-3	Chloromethane	U	1.10	ug/kg	0.330	1.10
75-01-4	Vinyl chloride	U	1.10	ug/kg	0.330	1.10
74-83-9	Bromomethane	U	1.10	ug/kg	0.330	1.10
75-00-3	Chloroethane	U	1.10	ug/kg	0.330	1.10
75-69-4	Trichlorofluoromethane	U	1.10	ug/kg	0.330	1.10
67-64-1	Acetone	U	5.49	ug/kg	1.82	5.49
75-35-4	1,1-Dichloroethylene	U	1.10	ug/kg	0.330	1.10
74-88-4	Iodomethane	U	5.49	ug/kg	1.76	5.49
75-09-2	Methylene chloride	U	5.49	ug/kg	2.20	5.49
75-15-0	Carbon disulfide	U	5.49	ug/kg	1.37	5.49
156-60-5	trans-1,2-Dichloroethylene	U	1.10	ug/kg	0.330	1.10
75-34-3	1,1-Dichloroethane	U	1.10	ug/kg	0.330	1.10
78-93-3	2-Butanone	U	5.49	ug/kg	1.65	5.49
156-59-2	cis-1,2-Dichloroethylene	U	1.10	ug/kg	0.330	1.10
594-20-7	2,2-Dichloropropane	U	1.10	ug/kg	0.330	1.10
67-66-3	Chloroform	U	1.10	ug/kg	0.330	1.10
74-97-5	Bromochloromethane	U	1.10	ug/kg	0.363	1.10
71-55-6	1,1,1-Trichloroethane	U	1.10	ug/kg	0.330	1.10
563-58-6	1,1-Dichloropropene	U	1.10	ug/kg	0.330	1.10
56-23-5	Carbon tetrachloride	U	1.10	ug/kg	0.330	1.10
107-06-2	1,2-Dichloroethane	U	1.10	ug/kg	0.330	1.10
71-43-2	Benzene	U	1.10	ug/kg	0.330	1.10
79-01-6	Trichloroethylene	U	1.10	ug/kg	0.363	1.10
78-87-5	1,2-Dichloropropane	U	1.10	ug/kg	0.330	1.10
75-27-4	Bromodichloromethane	U	1.10	ug/kg	0.330	1.10
74-95-3	Dibromomethane	U	1.10	ug/kg	0.330	1.10
108-10-1	4-Methyl-2-pentanone	U	5.49	ug/kg	1.37	5.49
10061-01-5	cis-1,3-Dichloropropylene	U	1.10	ug/kg	0.330	1.10
108-88-3	Toluene	U	1.10	ug/kg	0.330	1.10
10061-02-6	trans-1,3-Dichloropropylene	U	1.10	ug/kg	0.330	1.10
79-00-5	1,1,2-Trichloroethane	U	1.10	ug/kg	0.330	1.10
591-78-6	2-Hexanone	U	5.49	ug/kg	1.65	5.49
142-28-9	1,3-Dichloropropane	U	1.10	ug/kg	0.330	1.10
127-18-4	Tetrachloroethylene	U	1.10	ug/kg	0.330	1.10
124-48-1	Dibromochloromethane	U	1.10	ug/kg	0.330	1.10
106-93-4	1,2-Dibromoethane	U	1.10	ug/kg	0.330	1.10
108-90-7	Chlorobenzene	U	1.10	ug/kg	0.330	1.10

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242654009	**Date Received:**	12/10/2009 08:50	**%Moisture:**	14.1
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14281	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	934516	**Inst:**	VOAA.I	**Dilution:**	1
Run Date:	12/18/2009 03:44	**Analyst:**	JEB	**Purge Vol:**	5 mL
Prep Date:	12/17/2009 19:13	**Aliquot:**	5.3 g	**Final Volume:**	5 mL
Data File:	121709\AP426.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.10	ug/kg	0.330	1.10
179601-23-1	m,p-Xylenes	U	2.20	ug/kg	0.330	2.20
95-47-6	o-Xylene	U	1.10	ug/kg	0.330	1.10
100-42-5	Styrene	U	1.10	ug/kg	0.330	1.10
75-25-2	Bromoform	U	1.10	ug/kg	0.330	1.10
79-34-5	1,1,2,2-Tetrachloroethane	U	1.10	ug/kg	0.330	1.10
96-18-4	1,2,3-Trichloropropane	U	1.10	ug/kg	0.330	1.10
108-86-1	Bromobenzene	U	1.10	ug/kg	0.330	1.10
103-65-1	n-Propylbenzene	U	1.10	ug/kg	0.330	1.10
95-49-8	2-Chlorotoluene	U	1.10	ug/kg	0.330	1.10
98-82-8	Isopropylbenzene	U	1.10	ug/kg	0.330	1.10
108-67-8	1,3,5-Trimethylbenzene	U	1.10	ug/kg	0.330	1.10
106-43-4	4-Chlorotoluene	U	1.10	ug/kg	0.330	1.10
98-06-6	tert-Butylbenzene	U	1.10	ug/kg	0.330	1.10
95-63-6	1,2,4-Trimethylbenzene	U	1.10	ug/kg	0.330	1.10
135-98-8	sec-Butylbenzene	U	1.10	ug/kg	0.330	1.10
99-87-6	4-Isopropyltoluene	U	1.10	ug/kg	0.330	1.10
541-73-1	1,3-Dichlorobenzene	U	1.10	ug/kg	0.330	1.10
106-46-7	1,4-Dichlorobenzene	U	1.10	ug/kg	0.330	1.10
104-51-8	n-Butylbenzene	U	1.10	ug/kg	0.330	1.10
96-12-8	1,2-Dibromo-3-chloropropane	U	1.10	ug/kg	0.330	1.10
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.49	ug/kg	1.76	5.49
630-20-6	1,1,1,2-Tetrachloroethane	U	1.10	ug/kg	0.330	1.10
95-50-1	1,2-Dichlorobenzene	U	1.10	ug/kg	0.330	1.10

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown	3.34	7.44	ug/kg	0	J
	unknown siloxane	17.12	8.4	ug/kg	0	J

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242654010	**Date Received:**	12/10/2009 08:50	**%Moisture:**	13.2
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14284	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	934516	**Inst:**	VOAA.I	**Dilution:**	1
Run Date:	12/18/2009 04:11	**Analyst:**	JEB	**Purge Vol:**	5 mL
Prep Date:	12/17/2009 19:14	**Aliquot:**	5.2 g	**Final Volume:**	5 mL
Data File:	121709\AP427.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.11	ug/kg	0.377	1.11
74-87-3	Chloromethane	U	1.11	ug/kg	0.332	1.11
75-01-4	Vinyl chloride	U	1.11	ug/kg	0.332	1.11
74-83-9	Bromomethane	U	1.11	ug/kg	0.332	1.11
75-00-3	Chloroethane	U	1.11	ug/kg	0.332	1.11
75-69-4	Trichlorofluoromethane	U	1.11	ug/kg	0.332	1.11
67-64-1	Acetone	U	5.54	ug/kg	1.84	5.54
75-35-4	1,1-Dichloroethylene	U	1.11	ug/kg	0.332	1.11
74-88-4	Iodomethane	U	5.54	ug/kg	1.77	5.54
75-09-2	Methylene chloride	U	5.54	ug/kg	2.22	5.54
75-15-0	Carbon disulfide	U	5.54	ug/kg	1.38	5.54
156-60-5	trans-1,2-Dichloroethylene	U	1.11	ug/kg	0.332	1.11
75-34-3	1,1-Dichloroethane	U	1.11	ug/kg	0.332	1.11
78-93-3	2-Butanone	U	5.54	ug/kg	1.66	5.54
156-59-2	cis-1,2-Dichloroethylene	U	1.11	ug/kg	0.332	1.11
594-20-7	2,2-Dichloropropane	U	1.11	ug/kg	0.332	1.11
67-66-3	Chloroform	U	1.11	ug/kg	0.332	1.11
74-97-5	Bromochloromethane	U	1.11	ug/kg	0.366	1.11
71-55-6	1,1,1-Trichloroethane	U	1.11	ug/kg	0.332	1.11
563-58-6	1,1-Dichloropropene	U	1.11	ug/kg	0.332	1.11
56-23-5	Carbon tetrachloride	U	1.11	ug/kg	0.332	1.11
107-06-2	1,2-Dichloroethane	U	1.11	ug/kg	0.332	1.11
71-43-2	Benzene	U	1.11	ug/kg	0.332	1.11
79-01-6	Trichloroethylene	U	1.11	ug/kg	0.366	1.11
78-87-5	1,2-Dichloropropane	U	1.11	ug/kg	0.332	1.11
75-27-4	Bromodichloromethane	U	1.11	ug/kg	0.332	1.11
74-95-3	Dibromomethane	U	1.11	ug/kg	0.332	1.11
108-10-1	4-Methyl-2-pentanone	U	5.54	ug/kg	1.38	5.54
10061-01-5	cis-1,3-Dichloropropylene	U	1.11	ug/kg	0.332	1.11
108-88-3	Toluene	U	1.11	ug/kg	0.332	1.11
10061-02-6	trans-1,3-Dichloropropylene	U	1.11	ug/kg	0.332	1.11
79-00-5	1,1,2-Trichloroethane	U	1.11	ug/kg	0.332	1.11
591-78-6	2-Hexanone	U	5.54	ug/kg	1.66	5.54
142-28-9	1,3-Dichloropropane	U	1.11	ug/kg	0.332	1.11
127-18-4	Tetrachloroethylene	U	1.11	ug/kg	0.332	1.11
124-48-1	Dibromochloromethane	U	1.11	ug/kg	0.332	1.11
106-93-4	1,2-Dibromoethane	U	1.11	ug/kg	0.332	1.11
108-90-7	Chlorobenzene	U	1.11	ug/kg	0.332	1.11

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242654010	**Date Received:**	12/10/2009 08:50	**%Moisture:**	13.2
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14284	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	934516	**Inst:**	VOAA.I	**Dilution:**	1
Run Date:	12/18/2009 04:11	**Analyst:**	JEB	**Purge Vol:**	5 mL
Prep Date:	12/17/2009 19:14	**Aliquot:**	5.2 g	**Final Volume:**	5 mL
Data File:	121709\AP427.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.11	ug/kg	0.332	1.11
179601-23-1	m,p-Xylenes	U	2.22	ug/kg	0.332	2.22
95-47-6	o-Xylene	U	1.11	ug/kg	0.332	1.11
100-42-5	Styrene	U	1.11	ug/kg	0.332	1.11
75-25-2	Bromoform	U	1.11	ug/kg	0.332	1.11
79-34-5	1,1,2,2-Tetrachloroethane	U	1.11	ug/kg	0.332	1.11
96-18-4	1,2,3-Trichloropropane	U	1.11	ug/kg	0.332	1.11
108-86-1	Bromobenzene	U	1.11	ug/kg	0.332	1.11
103-65-1	n-Propylbenzene	U	1.11	ug/kg	0.332	1.11
95-49-8	2-Chlorotoluene	U	1.11	ug/kg	0.332	1.11
98-82-8	Isopropylbenzene	U	1.11	ug/kg	0.332	1.11
108-67-8	1,3,5-Trimethylbenzene	U	1.11	ug/kg	0.332	1.11
106-43-4	4-Chlorotoluene	U	1.11	ug/kg	0.332	1.11
98-06-6	tert-Butylbenzene	U	1.11	ug/kg	0.332	1.11
95-63-6	1,2,4-Trimethylbenzene	U	1.11	ug/kg	0.332	1.11
135-98-8	sec-Butylbenzene	U	1.11	ug/kg	0.332	1.11
99-87-6	4-Isopropyltoluene	U	1.11	ug/kg	0.332	1.11
541-73-1	1,3-Dichlorobenzene	U	1.11	ug/kg	0.332	1.11
106-46-7	1,4-Dichlorobenzene	U	1.11	ug/kg	0.332	1.11
104-51-8	n-Butylbenzene	U	1.11	ug/kg	0.332	1.11
96-12-8	1,2-Dibromo-3-chloropropane	U	1.11	ug/kg	0.332	1.11
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.54	ug/kg	1.77	5.54
630-20-6	1,1,1,2-Tetrachloroethane	U	1.11	ug/kg	0.332	1.11
95-50-1	1,2-Dichlorobenzene	U	1.11	ug/kg	0.332	1.11

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
000115-10-6	Dimethyl ether	3.33	6.87	ug/kg	5	NJ
	unknown	3.33	6.87	ug/kg	0	J

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242654011	**Date Received:**	12/10/2009 08:50	**%Moisture:**	4.1
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14274	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	934516	**Inst:**	VOAA.I	**Dilution:**	1
Run Date:	12/18/2009 06:21	**Analyst:**	JEB	**Purge Vol:**	5 mL
Prep Date:	12/17/2009 19:15	**Aliquot:**	5.2 g	**Final Volume:**	5 mL
Data File:	121709\AP432.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/kg	0.341	1.00
74-87-3	Chloromethane	U	1.00	ug/kg	0.301	1.00
75-01-4	Vinyl chloride	U	1.00	ug/kg	0.301	1.00
74-83-9	Bromomethane	U	1.00	ug/kg	0.301	1.00
75-00-3	Chloroethane	U	1.00	ug/kg	0.301	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/kg	0.301	1.00
67-64-1	Acetone	U	5.01	ug/kg	1.66	5.01
75-35-4	1,1-Dichloroethylene	U	1.00	ug/kg	0.301	1.00
74-88-4	Iodomethane	U	5.01	ug/kg	1.60	5.01
75-09-2	Methylene chloride	U	5.01	ug/kg	2.01	5.01
75-15-0	Carbon disulfide	U	5.01	ug/kg	1.25	5.01
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/kg	0.301	1.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/kg	0.301	1.00
78-93-3	2-Butanone	U	5.01	ug/kg	1.50	5.01
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/kg	0.301	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/kg	0.301	1.00
67-66-3	Chloroform	U	1.00	ug/kg	0.301	1.00
74-97-5	Bromochloromethane	U	1.00	ug/kg	0.331	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/kg	0.301	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/kg	0.301	1.00
56-23-5	Carbon tetrachloride	U	1.00	ug/kg	0.301	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/kg	0.301	1.00
71-43-2	Benzene	U	1.00	ug/kg	0.301	1.00
79-01-6	Trichloroethylene	U	1.00	ug/kg	0.331	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/kg	0.301	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/kg	0.301	1.00
74-95-3	Dibromomethane	U	1.00	ug/kg	0.301	1.00
108-10-1	4-Methyl-2-pentanone	U	5.01	ug/kg	1.25	5.01
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/kg	0.301	1.00
108-88-3	Toluene	U	1.00	ug/kg	0.301	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/kg	0.301	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/kg	0.301	1.00
591-78-6	2-Hexanone	U	5.01	ug/kg	1.50	5.01
142-28-9	1,3-Dichloropropane	U	1.00	ug/kg	0.301	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/kg	0.301	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/kg	0.301	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/kg	0.301	1.00
108-90-7	Chlorobenzene	U	1.00	ug/kg	0.301	1.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242654011	**Date Received:**	12/10/2009 08:50	**%Moisture:**	4.1
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14274	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	934516	**Inst:**	VOAA.I	**Dilution:**	1
Run Date:	12/18/2009 06:21	**Analyst:**	JEB	**Purge Vol:**	5 mL
Prep Date:	12/17/2009 19:15	**Aliquot:**	5.2 g	**Final Volume:**	5 mL
Data File:	121709\AP432.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.00	ug/kg	0.301	1.00
179601-23-1	m,p-Xylenes	U	2.01	ug/kg	0.301	2.01
95-47-6	o-Xylene	U	1.00	ug/kg	0.301	1.00
100-42-5	Styrene	U	1.00	ug/kg	0.301	1.00
75-25-2	Bromoform	U	1.00	ug/kg	0.301	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/kg	0.301	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/kg	0.301	1.00
108-86-1	Bromobenzene	U	1.00	ug/kg	0.301	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/kg	0.301	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/kg	0.301	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/kg	0.301	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/kg	0.301	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/kg	0.301	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/kg	0.301	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/kg	0.301	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/kg	0.301	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/kg	0.301	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/kg	0.301	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/kg	0.301	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/kg	0.301	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/kg	0.301	1.00
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.01	ug/kg	1.60	5.01
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/kg	0.301	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/kg	0.301	1.00

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown	3.34	8.04	ug/kg	0	J

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242654012	**Date Received:**	12/10/2009 08:50	**%Moisture:**	12.2
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14277	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	934516	**Inst:**	VOAA.I	**Dilution:**	1
Run Date:	12/18/2009 06:47	**Analyst:**	JEB	**Purge Vol:**	5 mL
Prep Date:	12/17/2009 19:16	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	121709\AP433.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.14	ug/kg	0.387	1.14
74-87-3	Chloromethane	U	1.14	ug/kg	0.342	1.14
75-01-4	Vinyl chloride	U	1.14	ug/kg	0.342	1.14
74-83-9	Bromomethane	U	1.14	ug/kg	0.342	1.14
75-00-3	Chloroethane	U	1.14	ug/kg	0.342	1.14
75-69-4	Trichlorofluoromethane	U	1.14	ug/kg	0.342	1.14
67-64-1	Acetone	U	5.69	ug/kg	1.89	5.69
75-35-4	1,1-Dichloroethylene	U	1.14	ug/kg	0.342	1.14
74-88-4	Iodomethane	U	5.69	ug/kg	1.82	5.69
75-09-2	Methylene chloride	U	5.69	ug/kg	2.28	5.69
75-15-0	Carbon disulfide	U	5.69	ug/kg	1.42	5.69
156-60-5	trans-1,2-Dichloroethylene	U	1.14	ug/kg	0.342	1.14
75-34-3	1,1-Dichloroethane	U	1.14	ug/kg	0.342	1.14
78-93-3	2-Butanone	U	5.69	ug/kg	1.71	5.69
156-59-2	cis-1,2-Dichloroethylene	U	1.14	ug/kg	0.342	1.14
594-20-7	2,2-Dichloropropane	U	1.14	ug/kg	0.342	1.14
67-66-3	Chloroform	U	1.14	ug/kg	0.342	1.14
74-97-5	Bromochloromethane	U	1.14	ug/kg	0.376	1.14
71-55-6	1,1,1-Trichloroethane	U	1.14	ug/kg	0.342	1.14
563-58-6	1,1-Dichloropropene	U	1.14	ug/kg	0.342	1.14
56-23-5	Carbon tetrachloride	U	1.14	ug/kg	0.342	1.14
107-06-2	1,2-Dichloroethane	U	1.14	ug/kg	0.342	1.14
71-43-2	Benzene	U	1.14	ug/kg	0.342	1.14
79-01-6	Trichloroethylene	U	1.14	ug/kg	0.376	1.14
78-87-5	1,2-Dichloropropane	U	1.14	ug/kg	0.342	1.14
75-27-4	Bromodichloromethane	U	1.14	ug/kg	0.342	1.14
74-95-3	Dibromomethane	U	1.14	ug/kg	0.342	1.14
108-10-1	4-Methyl-2-pentanone	U	5.69	ug/kg	1.42	5.69
10061-01-5	cis-1,3-Dichloropropylene	U	1.14	ug/kg	0.342	1.14
108-88-3	Toluene	U	1.14	ug/kg	0.342	1.14
10061-02-6	trans-1,3-Dichloropropylene	U	1.14	ug/kg	0.342	1.14
79-00-5	1,1,2-Trichloroethane	U	1.14	ug/kg	0.342	1.14
591-78-6	2-Hexanone	U	5.69	ug/kg	1.71	5.69
142-28-9	1,3-Dichloropropane	U	1.14	ug/kg	0.342	1.14
127-18-4	Tetrachloroethylene	U	1.14	ug/kg	0.342	1.14
124-48-1	Dibromochloromethane	U	1.14	ug/kg	0.342	1.14
106-93-4	1,2-Dibromoethane	U	1.14	ug/kg	0.342	1.14
108-90-7	Chlorobenzene	U	1.14	ug/kg	0.342	1.14

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242654012	**Date Received:**	12/10/2009 08:50	**%Moisture:**	12.2
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14277	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	934516	**Inst:**	VOAA.I	**Dilution:**	1
Run Date:	12/18/2009 06:47	**Analyst:**	JEB	**Purge Vol:**	5 mL
Prep Date:	12/17/2009 19:16	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	121709\AP433.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.14	ug/kg	0.342	1.14
179601-23-1	m,p-Xylenes	U	2.28	ug/kg	0.342	2.28
95-47-6	o-Xylene	U	1.14	ug/kg	0.342	1.14
100-42-5	Styrene	U	1.14	ug/kg	0.342	1.14
75-25-2	Bromoform	U	1.14	ug/kg	0.342	1.14
79-34-5	1,1,2,2-Tetrachloroethane	U	1.14	ug/kg	0.342	1.14
96-18-4	1,2,3-Trichloropropane	U	1.14	ug/kg	0.342	1.14
108-86-1	Bromobenzene	U	1.14	ug/kg	0.342	1.14
103-65-1	n-Propylbenzene	U	1.14	ug/kg	0.342	1.14
95-49-8	2-Chlorotoluene	U	1.14	ug/kg	0.342	1.14
98-82-8	Isopropylbenzene	U	1.14	ug/kg	0.342	1.14
108-67-8	1,3,5-Trimethylbenzene	U	1.14	ug/kg	0.342	1.14
106-43-4	4-Chlorotoluene	U	1.14	ug/kg	0.342	1.14
98-06-6	tert-Butylbenzene	U	1.14	ug/kg	0.342	1.14
95-63-6	1,2,4-Trimethylbenzene	U	1.14	ug/kg	0.342	1.14
135-98-8	sec-Butylbenzene	U	1.14	ug/kg	0.342	1.14
99-87-6	4-Isopropyltoluene	U	1.14	ug/kg	0.342	1.14
541-73-1	1,3-Dichlorobenzene	U	1.14	ug/kg	0.342	1.14
106-46-7	1,4-Dichlorobenzene	U	1.14	ug/kg	0.342	1.14
104-51-8	n-Butylbenzene	U	1.14	ug/kg	0.342	1.14
96-12-8	1,2-Dibromo-3-chloropropane	U	1.14	ug/kg	0.342	1.14
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.69	ug/kg	1.82	5.69
630-20-6	1,1,1,2-Tetrachloroethane	U	1.14	ug/kg	0.342	1.14
95-50-1	1,2-Dichlorobenzene	U	1.14	ug/kg	0.342	1.14

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown	3.34	7.29	ug/kg	0	J

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242654013	**Date Received:**	12/10/2009 08:50	**%Moisture:**	14.2
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14282	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	934516	**Inst:**	VOAA.I	**Dilution:**	1
Run Date:	12/18/2009 07:13	**Analyst:**	JEB	**Purge Vol:**	5 mL
Prep Date:	12/17/2009 19:25	**Aliquot:**	5.3 g	**Final Volume:**	5 mL
Data File:	121709\AP434.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.10	ug/kg	0.374	1.10
74-87-3	Chloromethane	U	1.10	ug/kg	0.330	1.10
75-01-4	Vinyl chloride	U	1.10	ug/kg	0.330	1.10
74-83-9	Bromomethane	U	1.10	ug/kg	0.330	1.10
75-00-3	Chloroethane	U	1.10	ug/kg	0.330	1.10
75-69-4	Trichlorofluoromethane	U	1.10	ug/kg	0.330	1.10
67-64-1	Acetone	U	5.49	ug/kg	1.82	5.49
75-35-4	1,1-Dichloroethylene	U	1.10	ug/kg	0.330	1.10
74-88-4	Iodomethane	U	5.49	ug/kg	1.76	5.49
75-09-2	Methylene chloride	U	5.49	ug/kg	2.20	5.49
75-15-0	Carbon disulfide	U	5.49	ug/kg	1.37	5.49
156-60-5	trans-1,2-Dichloroethylene	U	1.10	ug/kg	0.330	1.10
75-34-3	1,1-Dichloroethane	U	1.10	ug/kg	0.330	1.10
78-93-3	2-Butanone	U	5.49	ug/kg	1.65	5.49
156-59-2	cis-1,2-Dichloroethylene	U	1.10	ug/kg	0.330	1.10
594-20-7	2,2-Dichloropropane	U	1.10	ug/kg	0.330	1.10
67-66-3	Chloroform	U	1.10	ug/kg	0.330	1.10
74-97-5	Bromochloromethane	U	1.10	ug/kg	0.363	1.10
71-55-6	1,1,1-Trichloroethane	U	1.10	ug/kg	0.330	1.10
563-58-6	1,1-Dichloropropene	U	1.10	ug/kg	0.330	1.10
56-23-5	Carbon tetrachloride	U	1.10	ug/kg	0.330	1.10
107-06-2	1,2-Dichloroethane	U	1.10	ug/kg	0.330	1.10
71-43-2	Benzene	U	1.10	ug/kg	0.330	1.10
79-01-6	Trichloroethylene	U	1.10	ug/kg	0.363	1.10
78-87-5	1,2-Dichloropropane	U	1.10	ug/kg	0.330	1.10
75-27-4	Bromodichloromethane	U	1.10	ug/kg	0.330	1.10
74-95-3	Dibromomethane	U	1.10	ug/kg	0.330	1.10
108-10-1	4-Methyl-2-pentanone	U	5.49	ug/kg	1.37	5.49
10061-01-5	cis-1,3-Dichloropropylene	U	1.10	ug/kg	0.330	1.10
108-88-3	Toluene	U	1.10	ug/kg	0.330	1.10
10061-02-6	trans-1,3-Dichloropropylene	U	1.10	ug/kg	0.330	1.10
79-00-5	1,1,2-Trichloroethane	U	1.10	ug/kg	0.330	1.10
591-78-6	2-Hexanone	U	5.49	ug/kg	1.65	5.49
142-28-9	1,3-Dichloropropane	U	1.10	ug/kg	0.330	1.10
127-18-4	Tetrachloroethylene	U	1.10	ug/kg	0.330	1.10
124-48-1	Dibromochloromethane	U	1.10	ug/kg	0.330	1.10
106-93-4	1,2-Dibromoethane	U	1.10	ug/kg	0.330	1.10
108-90-7	Chlorobenzene	U	1.10	ug/kg	0.330	1.10

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242654013	**Date Received:**	12/10/2009 08:50	**%Moisture:**	14.2
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14282	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	934516	**Inst:**	VOAA.I	**Dilution:**	1
Run Date:	12/18/2009 07:13	**Analyst:**	JEB	**Purge Vol:**	5 mL
Prep Date:	12/17/2009 19:25	**Aliquot:**	5.3 g	**Final Volume:**	5 mL
Data File:	121709\AP434.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.10	ug/kg	0.330	1.10
179601-23-1	m,p-Xylenes	U	2.20	ug/kg	0.330	2.20
95-47-6	o-Xylene	U	1.10	ug/kg	0.330	1.10
100-42-5	Styrene	U	1.10	ug/kg	0.330	1.10
75-25-2	Bromoform	U	1.10	ug/kg	0.330	1.10
79-34-5	1,1,2,2-Tetrachloroethane	U	1.10	ug/kg	0.330	1.10
96-18-4	1,2,3-Trichloropropane	U	1.10	ug/kg	0.330	1.10
108-86-1	Bromobenzene	U	1.10	ug/kg	0.330	1.10
103-65-1	n-Propylbenzene	U	1.10	ug/kg	0.330	1.10
95-49-8	2-Chlorotoluene	U	1.10	ug/kg	0.330	1.10
98-82-8	Isopropylbenzene	U	1.10	ug/kg	0.330	1.10
108-67-8	1,3,5-Trimethylbenzene	U	1.10	ug/kg	0.330	1.10
106-43-4	4-Chlorotoluene	U	1.10	ug/kg	0.330	1.10
98-06-6	tert-Butylbenzene	U	1.10	ug/kg	0.330	1.10
95-63-6	1,2,4-Trimethylbenzene	U	1.10	ug/kg	0.330	1.10
135-98-8	sec-Butylbenzene	U	1.10	ug/kg	0.330	1.10
99-87-6	4-Isopropyltoluene	U	1.10	ug/kg	0.330	1.10
541-73-1	1,3-Dichlorobenzene	U	1.10	ug/kg	0.330	1.10
106-46-7	1,4-Dichlorobenzene	U	1.10	ug/kg	0.330	1.10
104-51-8	n-Butylbenzene	U	1.10	ug/kg	0.330	1.10
96-12-8	1,2-Dibromo-3-chloropropane	U	1.10	ug/kg	0.330	1.10
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.49	ug/kg	1.76	5.49
630-20-6	1,1,1,2-Tetrachloroethane	U	1.10	ug/kg	0.330	1.10
95-50-1	1,2-Dichlorobenzene	U	1.10	ug/kg	0.330	1.10

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown	3.34	8.1	ug/kg	0	J
	unknown siloxane	15.61	7.2	ug/kg	0	J

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242654014	**Date Received:**	12/10/2009 08:50	**%Moisture:**	10.7
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14269	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	934516	**Inst:**	VOAA.I	**Dilution:**	1
Run Date:	12/18/2009 07:39	**Analyst:**	JEB	**Purge Vol:**	5 mL
Prep Date:	12/17/2009 19:26	**Aliquot:**	5.4 g	**Final Volume:**	5 mL
Data File:	121709\AP435.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.04	ug/kg	0.352	1.04
74-87-3	Chloromethane	U	1.04	ug/kg	0.311	1.04
75-01-4	Vinyl chloride	U	1.04	ug/kg	0.311	1.04
74-83-9	Bromomethane	U	1.04	ug/kg	0.311	1.04
75-00-3	Chloroethane	U	1.04	ug/kg	0.311	1.04
75-69-4	Trichlorofluoromethane	U	1.04	ug/kg	0.311	1.04
67-64-1	Acetone		9.66	ug/kg	1.72	5.18
75-35-4	1,1-Dichloroethylene	U	1.04	ug/kg	0.311	1.04
74-88-4	Iodomethane	U	5.18	ug/kg	1.66	5.18
75-09-2	Methylene chloride	U	5.18	ug/kg	2.07	5.18
75-15-0	Carbon disulfide	U	5.18	ug/kg	1.30	5.18
156-60-5	trans-1,2-Dichloroethylene	U	1.04	ug/kg	0.311	1.04
75-34-3	1,1-Dichloroethane	U	1.04	ug/kg	0.311	1.04
78-93-3	2-Butanone	U	5.18	ug/kg	1.56	5.18
156-59-2	cis-1,2-Dichloroethylene	U	1.04	ug/kg	0.311	1.04
594-20-7	2,2-Dichloropropane	U	1.04	ug/kg	0.311	1.04
67-66-3	Chloroform	U	1.04	ug/kg	0.311	1.04
74-97-5	Bromochloromethane	U	1.04	ug/kg	0.342	1.04
71-55-6	1,1,1-Trichloroethane	U	1.04	ug/kg	0.311	1.04
563-58-6	1,1-Dichloropropene	U	1.04	ug/kg	0.311	1.04
56-23-5	Carbon tetrachloride	U	1.04	ug/kg	0.311	1.04
107-06-2	1,2-Dichloroethane	U	1.04	ug/kg	0.311	1.04
71-43-2	Benzene	U	1.04	ug/kg	0.311	1.04
79-01-6	Trichloroethylene	U	1.04	ug/kg	0.342	1.04
78-87-5	1,2-Dichloropropane	U	1.04	ug/kg	0.311	1.04
75-27-4	Bromodichloromethane	U	1.04	ug/kg	0.311	1.04
74-95-3	Dibromomethane	U	1.04	ug/kg	0.311	1.04
108-10-1	4-Methyl-2-pentanone	U	5.18	ug/kg	1.30	5.18
10061-01-5	cis-1,3-Dichloropropylene	U	1.04	ug/kg	0.311	1.04
108-88-3	Toluene	U	1.04	ug/kg	0.311	1.04
10061-02-6	trans-1,3-Dichloropropylene	U	1.04	ug/kg	0.311	1.04
79-00-5	1,1,2-Trichloroethane	U	1.04	ug/kg	0.311	1.04
591-78-6	2-Hexanone	U	5.18	ug/kg	1.56	5.18
142-28-9	1,3-Dichloropropane	U	1.04	ug/kg	0.311	1.04
127-18-4	Tetrachloroethylene	U	1.04	ug/kg	0.311	1.04
124-48-1	Dibromochloromethane	U	1.04	ug/kg	0.311	1.04
106-93-4	1,2-Dibromoethane	U	1.04	ug/kg	0.311	1.04
108-90-7	Chlorobenzene	U	1.04	ug/kg	0.311	1.04

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-852**	**Date Collected:**	**12/07/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242654014**	**Date Received:**	**12/10/2009 08:50**	**%Moisture:**	**10.7**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14269**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**934516**	**Inst:**	**VOAA.I**	**Dilution:**	**1**
Run Date:	**12/18/2009 07:39**	**Analyst:**	**JEB**	**Purge Vol:**	**5 mL**
Prep Date:	**12/17/2009 19:26**	**Aliquot:**	**5.4 g**	**Final Volume:**	**5 mL**
Data File:	**121709\AP435.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.04	ug/kg	0.311	1.04
179601-23-1	m,p-Xylenes	U	2.07	ug/kg	0.311	2.07
95-47-6	o-Xylene	U	1.04	ug/kg	0.311	1.04
100-42-5	Styrene	U	1.04	ug/kg	0.311	1.04
75-25-2	Bromoform	U	1.04	ug/kg	0.311	1.04
79-34-5	1,1,2,2-Tetrachloroethane	U	1.04	ug/kg	0.311	1.04
96-18-4	1,2,3-Trichloropropane	U	1.04	ug/kg	0.311	1.04
108-86-1	Bromobenzene	U	1.04	ug/kg	0.311	1.04
103-65-1	n-Propylbenzene	U	1.04	ug/kg	0.311	1.04
95-49-8	2-Chlorotoluene	U	1.04	ug/kg	0.311	1.04
98-82-8	Isopropylbenzene	U	1.04	ug/kg	0.311	1.04
108-67-8	1,3,5-Trimethylbenzene	U	1.04	ug/kg	0.311	1.04
106-43-4	4-Chlorotoluene	U	1.04	ug/kg	0.311	1.04
98-06-6	tert-Butylbenzene	U	1.04	ug/kg	0.311	1.04
95-63-6	1,2,4-Trimethylbenzene	U	1.04	ug/kg	0.311	1.04
135-98-8	sec-Butylbenzene	U	1.04	ug/kg	0.311	1.04
99-87-6	4-Isopropyltoluene	U	1.04	ug/kg	0.311	1.04
541-73-1	1,3-Dichlorobenzene	U	1.04	ug/kg	0.311	1.04
106-46-7	1,4-Dichlorobenzene	U	1.04	ug/kg	0.311	1.04
104-51-8	n-Butylbenzene	U	1.04	ug/kg	0.311	1.04
96-12-8	1,2-Dibromo-3-chloropropane	U	1.04	ug/kg	0.311	1.04
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.18	ug/kg	1.66	5.18
630-20-6	1,1,1,2-Tetrachloroethane	U	1.04	ug/kg	0.311	1.04
95-50-1	1,2-Dichlorobenzene	U	1.04	ug/kg	0.311	1.04

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown	3.33	6.22	ug/kg	0	J

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242654015	**Date Received:**	12/10/2009 08:50	**%Moisture:**	10.3
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14273	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	934516	**Inst:**	VOAA.I	**Dilution:**	1
Run Date:	12/18/2009 08:05	**Analyst:**	JEB	**Purge Vol:**	5 mL
Prep Date:	12/17/2009 19:27	**Aliquot:**	5.2 g	**Final Volume:**	5 mL
Data File:	121709\AP436.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.07	ug/kg	0.365	1.07
74-87-3	Chloromethane		41.8	ug/kg	0.322	1.07
75-01-4	Vinyl chloride	U	1.07	ug/kg	0.322	1.07
74-83-9	Bromomethane	U	1.07	ug/kg	0.322	1.07
75-00-3	Chloroethane	U	1.07	ug/kg	0.322	1.07
75-69-4	Trichlorofluoromethane	U	1.07	ug/kg	0.322	1.07
67-64-1	Acetone	U	5.36	ug/kg	1.78	5.36
75-35-4	1,1-Dichloroethylene	U	1.07	ug/kg	0.322	1.07
74-88-4	Iodomethane	U	5.36	ug/kg	1.72	5.36
75-09-2	Methylene chloride	U	5.36	ug/kg	2.14	5.36
75-15-0	Carbon disulfide	U	5.36	ug/kg	1.34	5.36
156-60-5	trans-1,2-Dichloroethylene	U	1.07	ug/kg	0.322	1.07
75-34-3	1,1-Dichloroethane	U	1.07	ug/kg	0.322	1.07
78-93-3	2-Butanone	U	5.36	ug/kg	1.61	5.36
156-59-2	cis-1,2-Dichloroethylene	U	1.07	ug/kg	0.322	1.07
594-20-7	2,2-Dichloropropane	U	1.07	ug/kg	0.322	1.07
67-66-3	Chloroform	U	1.07	ug/kg	0.322	1.07
74-97-5	Bromochloromethane	U	1.07	ug/kg	0.354	1.07
71-55-6	1,1,1-Trichloroethane	U	1.07	ug/kg	0.322	1.07
563-58-6	1,1-Dichloropropene	U	1.07	ug/kg	0.322	1.07
56-23-5	Carbon tetrachloride	U	1.07	ug/kg	0.322	1.07
107-06-2	1,2-Dichloroethane	U	1.07	ug/kg	0.322	1.07
71-43-2	Benzene	U	1.07	ug/kg	0.322	1.07
79-01-6	Trichloroethylene	U	1.07	ug/kg	0.354	1.07
78-87-5	1,2-Dichloropropane	U	1.07	ug/kg	0.322	1.07
75-27-4	Bromodichloromethane	U	1.07	ug/kg	0.322	1.07
74-95-3	Dibromomethane	U	1.07	ug/kg	0.322	1.07
108-10-1	4-Methyl-2-pentanone	U	5.36	ug/kg	1.34	5.36
10061-01-5	cis-1,3-Dichloropropylene	U	1.07	ug/kg	0.322	1.07
108-88-3	Toluene	U	1.07	ug/kg	0.322	1.07
10061-02-6	trans-1,3-Dichloropropylene	U	1.07	ug/kg	0.322	1.07
79-00-5	1,1,2-Trichloroethane	U	1.07	ug/kg	0.322	1.07
591-78-6	2-Hexanone	U	5.36	ug/kg	1.61	5.36
142-28-9	1,3-Dichloropropane	U	1.07	ug/kg	0.322	1.07
127-18-4	Tetrachloroethylene	U	1.07	ug/kg	0.322	1.07
124-48-1	Dibromochloromethane	U	1.07	ug/kg	0.322	1.07
106-93-4	1,2-Dibromoethane	U	1.07	ug/kg	0.322	1.07
108-90-7	Chlorobenzene	U	1.07	ug/kg	0.322	1.07

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-852**	**Date Collected:**	**12/07/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242654015**	**Date Received:**	**12/10/2009 08:50**	**%Moisture:**	**10.3**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14273**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**934516**	**Inst:**	**VOAA.I**	**Dilution:**	**1**
Run Date:	**12/18/2009 08:05**	**Analyst:**	**JEB**	**Purge Vol:**	**5 mL**
Prep Date:	**12/17/2009 19:27**	**Aliquot:**	**5.2 g**	**Final Volume:**	**5 mL**
Data File:	**121709\AP436.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.07	ug/kg	0.322	1.07
179601-23-1	m,p-Xylenes	U	2.14	ug/kg	0.322	2.14
95-47-6	o-Xylene	U	1.07	ug/kg	0.322	1.07
100-42-5	Styrene	U	1.07	ug/kg	0.322	1.07
75-25-2	Bromoform	U	1.07	ug/kg	0.322	1.07
79-34-5	1,1,2,2-Tetrachloroethane	U	1.07	ug/kg	0.322	1.07
96-18-4	1,2,3-Trichloropropane	U	1.07	ug/kg	0.322	1.07
108-86-1	Bromobenzene	U	1.07	ug/kg	0.322	1.07
103-65-1	n-Propylbenzene	U	1.07	ug/kg	0.322	1.07
95-49-8	2-Chlorotoluene	U	1.07	ug/kg	0.322	1.07
98-82-8	Isopropylbenzene	U	1.07	ug/kg	0.322	1.07
108-67-8	1,3,5-Trimethylbenzene	U	1.07	ug/kg	0.322	1.07
106-43-4	4-Chlorotoluene	U	1.07	ug/kg	0.322	1.07
98-06-6	tert-Butylbenzene	U	1.07	ug/kg	0.322	1.07
95-63-6	1,2,4-Trimethylbenzene	U	1.07	ug/kg	0.322	1.07
135-98-8	sec-Butylbenzene	U	1.07	ug/kg	0.322	1.07
99-87-6	4-Isopropyltoluene	U	1.07	ug/kg	0.322	1.07
541-73-1	1,3-Dichlorobenzene	U	1.07	ug/kg	0.322	1.07
106-46-7	1,4-Dichlorobenzene	U	1.07	ug/kg	0.322	1.07
104-51-8	n-Butylbenzene	U	1.07	ug/kg	0.322	1.07
96-12-8	1,2-Dibromo-3-chloropropane	U	1.07	ug/kg	0.322	1.07
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.36	ug/kg	1.72	5.36
630-20-6	1,1,1,2-Tetrachloroethane	U	1.07	ug/kg	0.322	1.07
95-50-1	1,2-Dichlorobenzene	U	1.07	ug/kg	0.322	1.07

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown	3.35	12.9	ug/kg	0	J

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242654016	**Date Received:**	12/10/2009 08:50	**%Moisture:**	13.4
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14271	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	934516	**Inst:**	VOAA.I	**Dilution:**	1
Run Date:	12/18/2009 08:30	**Analyst:**	JEB	**Purge Vol:**	5 mL
Prep Date:	12/17/2009 19:28	**Aliquot:**	5.2 g	**Final Volume:**	5 mL
Data File:	121709\AP437.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.11	ug/kg	0.378	1.11
74-87-3	Chloromethane	U	1.11	ug/kg	0.333	1.11
75-01-4	Vinyl chloride	U	1.11	ug/kg	0.333	1.11
74-83-9	Bromomethane	U	1.11	ug/kg	0.333	1.11
75-00-3	Chloroethane	U	1.11	ug/kg	0.333	1.11
75-69-4	Trichlorofluoromethane	U	1.11	ug/kg	0.333	1.11
67-64-1	Acetone	U	5.55	ug/kg	1.84	5.55
75-35-4	1,1-Dichloroethylene	U	1.11	ug/kg	0.333	1.11
74-88-4	Iodomethane	U	5.55	ug/kg	1.78	5.55
75-09-2	Methylene chloride	U	5.55	ug/kg	2.22	5.55
75-15-0	Carbon disulfide	U	5.55	ug/kg	1.39	5.55
156-60-5	trans-1,2-Dichloroethylene	U	1.11	ug/kg	0.333	1.11
75-34-3	1,1-Dichloroethane	U	1.11	ug/kg	0.333	1.11
78-93-3	2-Butanone	U	5.55	ug/kg	1.67	5.55
156-59-2	cis-1,2-Dichloroethylene	U	1.11	ug/kg	0.333	1.11
594-20-7	2,2-Dichloropropane	U	1.11	ug/kg	0.333	1.11
67-66-3	Chloroform	U	1.11	ug/kg	0.333	1.11
74-97-5	Bromochloromethane	U	1.11	ug/kg	0.367	1.11
71-55-6	1,1,1-Trichloroethane	U	1.11	ug/kg	0.333	1.11
563-58-6	1,1-Dichloropropene	U	1.11	ug/kg	0.333	1.11
56-23-5	Carbon tetrachloride	U	1.11	ug/kg	0.333	1.11
107-06-2	1,2-Dichloroethane	U	1.11	ug/kg	0.333	1.11
71-43-2	Benzene	U	1.11	ug/kg	0.333	1.11
79-01-6	Trichloroethylene	U	1.11	ug/kg	0.367	1.11
78-87-5	1,2-Dichloropropane	U	1.11	ug/kg	0.333	1.11
75-27-4	Bromodichloromethane	U	1.11	ug/kg	0.333	1.11
74-95-3	Dibromomethane	U	1.11	ug/kg	0.333	1.11
108-10-1	4-Methyl-2-pentanone	U	5.55	ug/kg	1.39	5.55
10061-01-5	cis-1,3-Dichloropropylene	U	1.11	ug/kg	0.333	1.11
108-88-3	Toluene	U	1.11	ug/kg	0.333	1.11
10061-02-6	trans-1,3-Dichloropropylene	U	1.11	ug/kg	0.333	1.11
79-00-5	1,1,2-Trichloroethane	U	1.11	ug/kg	0.333	1.11
591-78-6	2-Hexanone	U	5.55	ug/kg	1.67	5.55
142-28-9	1,3-Dichloropropane	U	1.11	ug/kg	0.333	1.11
127-18-4	Tetrachloroethylene	U	1.11	ug/kg	0.333	1.11
124-48-1	Dibromochloromethane	U	1.11	ug/kg	0.333	1.11
106-93-4	1,2-Dibromoethane	U	1.11	ug/kg	0.333	1.11
108-90-7	Chlorobenzene	U	1.11	ug/kg	0.333	1.11

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-852**	**Date Collected:**	**12/07/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242654016**	**Date Received:**	**12/10/2009 08:50**	**%Moisture:**	**13.4**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14271**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**934516**	**Inst:**	**VOAA.I**	**Dilution:**	**1**
Run Date:	**12/18/2009 08:30**	**Analyst:**	**JEB**	**Purge Vol:**	**5 mL**
Prep Date:	**12/17/2009 19:28**	**Aliquot:**	**5.2 g**	**Final Volume:**	**5 mL**
Data File:	**121709\AP437.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.11	ug/kg	0.333	1.11
179601-23-1	m,p-Xylenes	U	2.22	ug/kg	0.333	2.22
95-47-6	o-Xylene	U	1.11	ug/kg	0.333	1.11
100-42-5	Styrene	U	1.11	ug/kg	0.333	1.11
75-25-2	Bromoform	U	1.11	ug/kg	0.333	1.11
79-34-5	1,1,2,2-Tetrachloroethane	U	1.11	ug/kg	0.333	1.11
96-18-4	1,2,3-Trichloropropane	U	1.11	ug/kg	0.333	1.11
108-86-1	Bromobenzene	U	1.11	ug/kg	0.333	1.11
103-65-1	n-Propylbenzene	U	1.11	ug/kg	0.333	1.11
95-49-8	2-Chlorotoluene	U	1.11	ug/kg	0.333	1.11
98-82-8	Isopropylbenzene	U	1.11	ug/kg	0.333	1.11
108-67-8	1,3,5-Trimethylbenzene	U	1.11	ug/kg	0.333	1.11
106-43-4	4-Chlorotoluene	U	1.11	ug/kg	0.333	1.11
98-06-6	tert-Butylbenzene	U	1.11	ug/kg	0.333	1.11
95-63-6	1,2,4-Trimethylbenzene	U	1.11	ug/kg	0.333	1.11
135-98-8	sec-Butylbenzene	U	1.11	ug/kg	0.333	1.11
99-87-6	4-Isopropyltoluene	U	1.11	ug/kg	0.333	1.11
541-73-1	1,3-Dichlorobenzene	U	1.11	ug/kg	0.333	1.11
106-46-7	1,4-Dichlorobenzene	U	1.11	ug/kg	0.333	1.11
104-51-8	n-Butylbenzene	U	1.11	ug/kg	0.333	1.11
96-12-8	1,2-Dibromo-3-chloropropane	U	1.11	ug/kg	0.333	1.11
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.55	ug/kg	1.78	5.55
630-20-6	1,1,1,2-Tetrachloroethane	U	1.11	ug/kg	0.333	1.11
95-50-1	1,2-Dichlorobenzene	U	1.11	ug/kg	0.333	1.11

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown	3.32	9.6	ug/kg	0	J

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242654017	**Date Received:**	12/10/2009 08:50	**%Moisture:**	9.4
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14278	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	934516	**Inst:**	VOAA.I	**Dilution:**	1
Run Date:	12/18/2009 08:56	**Analyst:**	JEB	**Purge Vol:**	5 mL
Prep Date:	12/17/2009 19:29	**Aliquot:**	5.2 g	**Final Volume:**	5 mL
Data File:	121709\AP438.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.06	ug/kg	0.361	1.06
74-87-3	Chloromethane	U	1.06	ug/kg	0.318	1.06
75-01-4	Vinyl chloride	U	1.06	ug/kg	0.318	1.06
74-83-9	Bromomethane	U	1.06	ug/kg	0.318	1.06
75-00-3	Chloroethane	U	1.06	ug/kg	0.318	1.06
75-69-4	Trichlorofluoromethane	U	1.06	ug/kg	0.318	1.06
67-64-1	Acetone	U	5.31	ug/kg	1.76	5.31
75-35-4	1,1-Dichloroethylene	U	1.06	ug/kg	0.318	1.06
74-88-4	Iodomethane	U	5.31	ug/kg	1.70	5.31
75-09-2	Methylene chloride	U	5.31	ug/kg	2.12	5.31
75-15-0	Carbon disulfide	U	5.31	ug/kg	1.33	5.31
156-60-5	trans-1,2-Dichloroethylene	U	1.06	ug/kg	0.318	1.06
75-34-3	1,1-Dichloroethane	U	1.06	ug/kg	0.318	1.06
78-93-3	2-Butanone	U	5.31	ug/kg	1.59	5.31
156-59-2	cis-1,2-Dichloroethylene	U	1.06	ug/kg	0.318	1.06
594-20-7	2,2-Dichloropropane	U	1.06	ug/kg	0.318	1.06
67-66-3	Chloroform	U	1.06	ug/kg	0.318	1.06
74-97-5	Bromochloromethane	U	1.06	ug/kg	0.350	1.06
71-55-6	1,1,1-Trichloroethane	U	1.06	ug/kg	0.318	1.06
563-58-6	1,1-Dichloropropene	U	1.06	ug/kg	0.318	1.06
56-23-5	Carbon tetrachloride	U	1.06	ug/kg	0.318	1.06
107-06-2	1,2-Dichloroethane	U	1.06	ug/kg	0.318	1.06
71-43-2	Benzene	U	1.06	ug/kg	0.318	1.06
79-01-6	Trichloroethylene	U	1.06	ug/kg	0.350	1.06
78-87-5	1,2-Dichloropropane	U	1.06	ug/kg	0.318	1.06
75-27-4	Bromodichloromethane	U	1.06	ug/kg	0.318	1.06
74-95-3	Dibromomethane	U	1.06	ug/kg	0.318	1.06
108-10-1	4-Methyl-2-pentanone	U	5.31	ug/kg	1.33	5.31
10061-01-5	cis-1,3-Dichloropropylene	U	1.06	ug/kg	0.318	1.06
108-88-3	Toluene	J	0.425	ug/kg	0.318	1.06
10061-02-6	trans-1,3-Dichloropropylene	U	1.06	ug/kg	0.318	1.06
79-00-5	1,1,2-Trichloroethane	U	1.06	ug/kg	0.318	1.06
591-78-6	2-Hexanone	U	5.31	ug/kg	1.59	5.31
142-28-9	1,3-Dichloropropane	U	1.06	ug/kg	0.318	1.06
127-18-4	Tetrachloroethylene	U	1.06	ug/kg	0.318	1.06
124-48-1	Dibromochloromethane	U	1.06	ug/kg	0.318	1.06
106-93-4	1,2-Dibromoethane	U	1.06	ug/kg	0.318	1.06
108-90-7	Chlorobenzene	U	1.06	ug/kg	0.318	1.06

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242654017	**Date Received:**	12/10/2009 08:50	**%Moisture:**	9.4
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14278	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	934516	**Inst:**	VOAA.I	**Dilution:**	1
Run Date:	12/18/2009 08:56	**Analyst:**	JEB	**Purge Vol:**	5 mL
Prep Date:	12/17/2009 19:29	**Aliquot:**	5.2 g	**Final Volume:**	5 mL
Data File:	121709\AP438.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.06	ug/kg	0.318	1.06
179601-23-1	m,p-Xylenes	U	2.12	ug/kg	0.318	2.12
95-47-6	o-Xylene	U	1.06	ug/kg	0.318	1.06
100-42-5	Styrene	U	1.06	ug/kg	0.318	1.06
75-25-2	Bromoform	U	1.06	ug/kg	0.318	1.06
79-34-5	1,1,2,2-Tetrachloroethane	U	1.06	ug/kg	0.318	1.06
96-18-4	1,2,3-Trichloropropane	U	1.06	ug/kg	0.318	1.06
108-86-1	Bromobenzene	U	1.06	ug/kg	0.318	1.06
103-65-1	n-Propylbenzene	U	1.06	ug/kg	0.318	1.06
95-49-8	2-Chlorotoluene	U	1.06	ug/kg	0.318	1.06
98-82-8	Isopropylbenzene	U	1.06	ug/kg	0.318	1.06
108-67-8	1,3,5-Trimethylbenzene	U	1.06	ug/kg	0.318	1.06
106-43-4	4-Chlorotoluene	U	1.06	ug/kg	0.318	1.06
98-06-6	tert-Butylbenzene	U	1.06	ug/kg	0.318	1.06
95-63-6	1,2,4-Trimethylbenzene	U	1.06	ug/kg	0.318	1.06
135-98-8	sec-Butylbenzene	U	1.06	ug/kg	0.318	1.06
99-87-6	4-Isopropyltoluene	U	1.06	ug/kg	0.318	1.06
541-73-1	1,3-Dichlorobenzene	U	1.06	ug/kg	0.318	1.06
106-46-7	1,4-Dichlorobenzene	U	1.06	ug/kg	0.318	1.06
104-51-8	n-Butylbenzene	U	1.06	ug/kg	0.318	1.06
96-12-8	1,2-Dibromo-3-chloropropane	U	1.06	ug/kg	0.318	1.06
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.31	ug/kg	1.70	5.31
630-20-6	1,1,1,2-Tetrachloroethane	U	1.06	ug/kg	0.318	1.06
95-50-1	1,2-Dichlorobenzene	U	1.06	ug/kg	0.318	1.06

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown	3.34	18.6	ug/kg	0	J

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242654018	**Date Received:**	12/10/2009 08:50	**%Moisture:**	14.2
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14285	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	934516	**Inst:**	VOAA.I	**Dilution:**	1
Run Date:	12/18/2009 09:22	**Analyst:**	JEB	**Purge Vol:**	5 mL
Prep Date:	12/17/2009 19:30	**Aliquot:**	5.5 g	**Final Volume:**	5 mL
Data File:	121709\AP439.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.06	ug/kg	0.360	1.06
74-87-3	Chloromethane	U	1.06	ug/kg	0.318	1.06
75-01-4	Vinyl chloride	U	1.06	ug/kg	0.318	1.06
74-83-9	Bromomethane	U	1.06	ug/kg	0.318	1.06
75-00-3	Chloroethane	U	1.06	ug/kg	0.318	1.06
75-69-4	Trichlorofluoromethane	U	1.06	ug/kg	0.318	1.06
67-64-1	Acetone	U	5.30	ug/kg	1.76	5.30
75-35-4	1,1-Dichloroethylene	U	1.06	ug/kg	0.318	1.06
74-88-4	Iodomethane	U	5.30	ug/kg	1.69	5.30
75-09-2	Methylene chloride	U	5.30	ug/kg	2.12	5.30
75-15-0	Carbon disulfide	U	5.30	ug/kg	1.32	5.30
156-60-5	trans-1,2-Dichloroethylene	U	1.06	ug/kg	0.318	1.06
75-34-3	1,1-Dichloroethane	U	1.06	ug/kg	0.318	1.06
78-93-3	2-Butanone	U	5.30	ug/kg	1.59	5.30
156-59-2	cis-1,2-Dichloroethylene	U	1.06	ug/kg	0.318	1.06
594-20-7	2,2-Dichloropropane	U	1.06	ug/kg	0.318	1.06
67-66-3	Chloroform	U	1.06	ug/kg	0.318	1.06
74-97-5	Bromochloromethane	U	1.06	ug/kg	0.350	1.06
71-55-6	1,1,1-Trichloroethane	U	1.06	ug/kg	0.318	1.06
563-58-6	1,1-Dichloropropene	U	1.06	ug/kg	0.318	1.06
56-23-5	Carbon tetrachloride	U	1.06	ug/kg	0.318	1.06
107-06-2	1,2-Dichloroethane	U	1.06	ug/kg	0.318	1.06
71-43-2	Benzene	U	1.06	ug/kg	0.318	1.06
79-01-6	Trichloroethylene	U	1.06	ug/kg	0.350	1.06
78-87-5	1,2-Dichloropropane	U	1.06	ug/kg	0.318	1.06
75-27-4	Bromodichloromethane	U	1.06	ug/kg	0.318	1.06
74-95-3	Dibromomethane	U	1.06	ug/kg	0.318	1.06
108-10-1	4-Methyl-2-pentanone	U	5.30	ug/kg	1.32	5.30
10061-01-5	cis-1,3-Dichloropropylene	U	1.06	ug/kg	0.318	1.06
108-88-3	Toluene	U	1.06	ug/kg	0.318	1.06
10061-02-6	trans-1,3-Dichloropropylene	U	1.06	ug/kg	0.318	1.06
79-00-5	1,1,2-Trichloroethane	U	1.06	ug/kg	0.318	1.06
591-78-6	2-Hexanone	U	5.30	ug/kg	1.59	5.30
142-28-9	1,3-Dichloropropane	U	1.06	ug/kg	0.318	1.06
127-18-4	Tetrachloroethylene	U	1.06	ug/kg	0.318	1.06
124-48-1	Dibromochloromethane	U	1.06	ug/kg	0.318	1.06
106-93-4	1,2-Dibromoethane	U	1.06	ug/kg	0.318	1.06
108-90-7	Chlorobenzene	U	1.06	ug/kg	0.318	1.06

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242654018	**Date Received:**	12/10/2009 08:50	**%Moisture:**	14.2
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14285	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	934516	**Inst:**	VOAA.I	**Dilution:**	1
Run Date:	12/18/2009 09:22	**Analyst:**	JEB	**Purge Vol:**	5 mL
Prep Date:	12/17/2009 19:30	**Aliquot:**	5.5 g	**Final Volume:**	5 mL
Data File:	121709\AP439.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.06	ug/kg	0.318	1.06
179601-23-1	m,p-Xylenes	U	2.12	ug/kg	0.318	2.12
95-47-6	o-Xylene	U	1.06	ug/kg	0.318	1.06
100-42-5	Styrene	U	1.06	ug/kg	0.318	1.06
75-25-2	Bromoform	U	1.06	ug/kg	0.318	1.06
79-34-5	1,1,2,2-Tetrachloroethane	U	1.06	ug/kg	0.318	1.06
96-18-4	1,2,3-Trichloropropane	U	1.06	ug/kg	0.318	1.06
108-86-1	Bromobenzene	U	1.06	ug/kg	0.318	1.06
103-65-1	n-Propylbenzene	U	1.06	ug/kg	0.318	1.06
95-49-8	2-Chlorotoluene	U	1.06	ug/kg	0.318	1.06
98-82-8	Isopropylbenzene	U	1.06	ug/kg	0.318	1.06
108-67-8	1,3,5-Trimethylbenzene	U	1.06	ug/kg	0.318	1.06
106-43-4	4-Chlorotoluene	U	1.06	ug/kg	0.318	1.06
98-06-6	tert-Butylbenzene	U	1.06	ug/kg	0.318	1.06
95-63-6	1,2,4-Trimethylbenzene	J	0.413	ug/kg	0.318	1.06
135-98-8	sec-Butylbenzene	U	1.06	ug/kg	0.318	1.06
99-87-6	4-Isopropyltoluene	U	1.06	ug/kg	0.318	1.06
541-73-1	1,3-Dichlorobenzene	U	1.06	ug/kg	0.318	1.06
106-46-7	1,4-Dichlorobenzene	U	1.06	ug/kg	0.318	1.06
104-51-8	n-Butylbenzene	U	1.06	ug/kg	0.318	1.06
96-12-8	1,2-Dibromo-3-chloropropane	U	1.06	ug/kg	0.318	1.06
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.30	ug/kg	1.69	5.30
630-20-6	1,1,1,2-Tetrachloroethane	U	1.06	ug/kg	0.318	1.06
95-50-1	1,2-Dichlorobenzene	U	1.06	ug/kg	0.318	1.06

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown	3.34	8.71	ug/kg	0	J

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-852**	**Date Collected:**	**12/07/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242654019**	**Date Received:**	**12/10/2009 08:50**	**%Moisture:**	**13.4**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14286**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**934516**	**Inst:**	**VOAA.I**	**Dilution:**	**1**
Run Date:	**12/18/2009 09:48**	**Analyst:**	**JEB**	**Purge Vol:**	**5 mL**
Prep Date:	**12/17/2009 19:32**	**Aliquot:**	**5.3 g**	**Final Volume:**	**5 mL**
Data File:	**121709\AP440.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.09	ug/kg	0.370	1.09
74-87-3	Chloromethane	U	1.09	ug/kg	0.327	1.09
75-01-4	Vinyl chloride	U	1.09	ug/kg	0.327	1.09
74-83-9	Bromomethane	U	1.09	ug/kg	0.327	1.09
75-00-3	Chloroethane	U	1.09	ug/kg	0.327	1.09
75-69-4	Trichlorofluoromethane	U	1.09	ug/kg	0.327	1.09
67-64-1	Acetone	U	5.45	ug/kg	1.81	5.45
75-35-4	1,1-Dichloroethylene	U	1.09	ug/kg	0.327	1.09
74-88-4	Iodomethane	U	5.45	ug/kg	1.74	5.45
75-09-2	Methylene chloride	U	5.45	ug/kg	2.18	5.45
75-15-0	Carbon disulfide	U	5.45	ug/kg	1.36	5.45
156-60-5	trans-1,2-Dichloroethylene	U	1.09	ug/kg	0.327	1.09
75-34-3	1,1-Dichloroethane	U	1.09	ug/kg	0.327	1.09
78-93-3	2-Butanone	U	5.45	ug/kg	1.63	5.45
156-59-2	cis-1,2-Dichloroethylene	U	1.09	ug/kg	0.327	1.09
594-20-7	2,2-Dichloropropane	U	1.09	ug/kg	0.327	1.09
67-66-3	Chloroform	U	1.09	ug/kg	0.327	1.09
74-97-5	Bromochloromethane	U	1.09	ug/kg	0.359	1.09
71-55-6	1,1,1-Trichloroethane	U	1.09	ug/kg	0.327	1.09
563-58-6	1,1-Dichloropropene	U	1.09	ug/kg	0.327	1.09
56-23-5	Carbon tetrachloride	U	1.09	ug/kg	0.327	1.09
107-06-2	1,2-Dichloroethane	U	1.09	ug/kg	0.327	1.09
71-43-2	Benzene	U	1.09	ug/kg	0.327	1.09
79-01-6	Trichloroethylene	U	1.09	ug/kg	0.359	1.09
78-87-5	1,2-Dichloropropane	U	1.09	ug/kg	0.327	1.09
75-27-4	Bromodichloromethane	U	1.09	ug/kg	0.327	1.09
74-95-3	Dibromomethane	U	1.09	ug/kg	0.327	1.09
108-10-1	4-Methyl-2-pentanone	U	5.45	ug/kg	1.36	5.45
10061-01-5	cis-1,3-Dichloropropylene	U	1.09	ug/kg	0.327	1.09
108-88-3	Toluene	U	1.09	ug/kg	0.327	1.09
10061-02-6	trans-1,3-Dichloropropylene	U	1.09	ug/kg	0.327	1.09
79-00-5	1,1,2-Trichloroethane	U	1.09	ug/kg	0.327	1.09
591-78-6	2-Hexanone	U	5.45	ug/kg	1.63	5.45
142-28-9	1,3-Dichloropropane	U	1.09	ug/kg	0.327	1.09
127-18-4	Tetrachloroethylene	U	1.09	ug/kg	0.327	1.09
124-48-1	Dibromochloromethane	U	1.09	ug/kg	0.327	1.09
106-93-4	1,2-Dibromoethane	U	1.09	ug/kg	0.327	1.09
108-90-7	Chlorobenzene	U	1.09	ug/kg	0.327	1.09

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-852**	**Date Collected:**	**12/07/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242654019**	**Date Received:**	**12/10/2009 08:50**	**%Moisture:**	**13.4**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14286**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**934516**	**Inst:**	**VOAA.I**	**Dilution:**	**1**
Run Date:	**12/18/2009 09:48**	**Analyst:**	**JEB**	**Purge Vol:**	**5 mL**
Prep Date:	**12/17/2009 19:32**	**Aliquot:**	**5.3 g**	**Final Volume:**	**5 mL**
Data File:	**121709\AP440.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.09	ug/kg	0.327	1.09
179601-23-1	m,p-Xylenes	U	2.18	ug/kg	0.327	2.18
95-47-6	o-Xylene	U	1.09	ug/kg	0.327	1.09
100-42-5	Styrene	U	1.09	ug/kg	0.327	1.09
75-25-2	Bromoform	U	1.09	ug/kg	0.327	1.09
79-34-5	1,1,2,2-Tetrachloroethane	U	1.09	ug/kg	0.327	1.09
96-18-4	1,2,3-Trichloropropane	U	1.09	ug/kg	0.327	1.09
108-86-1	Bromobenzene	U	1.09	ug/kg	0.327	1.09
103-65-1	n-Propylbenzene	U	1.09	ug/kg	0.327	1.09
95-49-8	2-Chlorotoluene	U	1.09	ug/kg	0.327	1.09
98-82-8	Isopropylbenzene	U	1.09	ug/kg	0.327	1.09
108-67-8	1,3,5-Trimethylbenzene	U	1.09	ug/kg	0.327	1.09
106-43-4	4-Chlorotoluene	U	1.09	ug/kg	0.327	1.09
98-06-6	tert-Butylbenzene	U	1.09	ug/kg	0.327	1.09
95-63-6	1,2,4-Trimethylbenzene	U	1.09	ug/kg	0.327	1.09
135-98-8	sec-Butylbenzene	U	1.09	ug/kg	0.327	1.09
99-87-6	4-Isopropyltoluene	U	1.09	ug/kg	0.327	1.09
541-73-1	1,3-Dichlorobenzene	U	1.09	ug/kg	0.327	1.09
106-46-7	1,4-Dichlorobenzene	U	1.09	ug/kg	0.327	1.09
104-51-8	n-Butylbenzene	U	1.09	ug/kg	0.327	1.09
96-12-8	1,2-Dibromo-3-chloropropane	U	1.09	ug/kg	0.327	1.09
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.45	ug/kg	1.74	5.45
630-20-6	1,1,1,2-Tetrachloroethane	U	1.09	ug/kg	0.327	1.09
95-50-1	1,2-Dichlorobenzene	U	1.09	ug/kg	0.327	1.09

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown	3.34	7.58	ug/kg	0	J
	unknown siloxane	15.61	9.61	ug/kg	0	J

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242654020	**Date Received:**	12/10/2009 08:50	**%Moisture:**	15.8
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14283	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	934516	**Inst:**	VOAA.I	**Dilution:**	1
Run Date:	12/18/2009 10:14	**Analyst:**	JEB	**Purge Vol:**	5 mL
Prep Date:	12/17/2009 19:33	**Aliquot:**	5.1 g	**Final Volume:**	5 mL
Data File:	121709\AP441.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.16	ug/kg	0.396	1.16
74-87-3	Chloromethane	U	1.16	ug/kg	0.349	1.16
75-01-4	Vinyl chloride	U	1.16	ug/kg	0.349	1.16
74-83-9	Bromomethane	U	1.16	ug/kg	0.349	1.16
75-00-3	Chloroethane	U	1.16	ug/kg	0.349	1.16
75-69-4	Trichlorofluoromethane	U	1.16	ug/kg	0.349	1.16
67-64-1	Acetone	U	5.82	ug/kg	1.93	5.82
75-35-4	1,1-Dichloroethylene	U	1.16	ug/kg	0.349	1.16
74-88-4	Iodomethane	U	5.82	ug/kg	1.86	5.82
75-09-2	Methylene chloride	U	5.82	ug/kg	2.33	5.82
75-15-0	Carbon disulfide	U	5.82	ug/kg	1.46	5.82
156-60-5	trans-1,2-Dichloroethylene	U	1.16	ug/kg	0.349	1.16
75-34-3	1,1-Dichloroethane	U	1.16	ug/kg	0.349	1.16
78-93-3	2-Butanone	U	5.82	ug/kg	1.75	5.82
156-59-2	cis-1,2-Dichloroethylene	U	1.16	ug/kg	0.349	1.16
594-20-7	2,2-Dichloropropane	U	1.16	ug/kg	0.349	1.16
67-66-3	Chloroform	U	1.16	ug/kg	0.349	1.16
74-97-5	Bromochloromethane	U	1.16	ug/kg	0.384	1.16
71-55-6	1,1,1-Trichloroethane	U	1.16	ug/kg	0.349	1.16
563-58-6	1,1-Dichloropropene	U	1.16	ug/kg	0.349	1.16
56-23-5	Carbon tetrachloride	U	1.16	ug/kg	0.349	1.16
107-06-2	1,2-Dichloroethane	U	1.16	ug/kg	0.349	1.16
71-43-2	Benzene	U	1.16	ug/kg	0.349	1.16
79-01-6	Trichloroethylene	U	1.16	ug/kg	0.384	1.16
78-87-5	1,2-Dichloropropane	U	1.16	ug/kg	0.349	1.16
75-27-4	Bromodichloromethane	U	1.16	ug/kg	0.349	1.16
74-95-3	Dibromomethane	U	1.16	ug/kg	0.349	1.16
108-10-1	4-Methyl-2-pentanone	U	5.82	ug/kg	1.46	5.82
10061-01-5	cis-1,3-Dichloropropylene	U	1.16	ug/kg	0.349	1.16
108-88-3	Toluene	U	1.16	ug/kg	0.349	1.16
10061-02-6	trans-1,3-Dichloropropylene	U	1.16	ug/kg	0.349	1.16
79-00-5	1,1,2-Trichloroethane	U	1.16	ug/kg	0.349	1.16
591-78-6	2-Hexanone	U	5.82	ug/kg	1.75	5.82
142-28-9	1,3-Dichloropropane	U	1.16	ug/kg	0.349	1.16
127-18-4	Tetrachloroethylene	U	1.16	ug/kg	0.349	1.16
124-48-1	Dibromochloromethane	U	1.16	ug/kg	0.349	1.16
106-93-4	1,2-Dibromoethane	U	1.16	ug/kg	0.349	1.16
108-90-7	Chlorobenzene	U	1.16	ug/kg	0.349	1.16

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-852**	**Date Collected:**	**12/07/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242654020**	**Date Received:**	**12/10/2009 08:50**	**%Moisture:**	**15.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14283**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**934516**	**Inst:**	**VOAA.I**	**Dilution:**	**1**
Run Date:	**12/18/2009 10:14**	**Analyst:**	**JEB**	**Purge Vol:**	**5 mL**
Prep Date:	**12/17/2009 19:33**	**Aliquot:**	**5.1 g**	**Final Volume:**	**5 mL**
Data File:	**121709\AP441.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.16	ug/kg	0.349	1.16
179601-23-1	m,p-Xylenes	U	2.33	ug/kg	0.349	2.33
95-47-6	o-Xylene	U	1.16	ug/kg	0.349	1.16
100-42-5	Styrene	U	1.16	ug/kg	0.349	1.16
75-25-2	Bromoform	U	1.16	ug/kg	0.349	1.16
79-34-5	1,1,2,2-Tetrachloroethane	U	1.16	ug/kg	0.349	1.16
96-18-4	1,2,3-Trichloropropane	U	1.16	ug/kg	0.349	1.16
108-86-1	Bromobenzene	U	1.16	ug/kg	0.349	1.16
103-65-1	n-Propylbenzene	U	1.16	ug/kg	0.349	1.16
95-49-8	2-Chlorotoluene	U	1.16	ug/kg	0.349	1.16
98-82-8	Isopropylbenzene	U	1.16	ug/kg	0.349	1.16
108-67-8	1,3,5-Trimethylbenzene	U	1.16	ug/kg	0.349	1.16
106-43-4	4-Chlorotoluene	U	1.16	ug/kg	0.349	1.16
98-06-6	tert-Butylbenzene	U	1.16	ug/kg	0.349	1.16
95-63-6	1,2,4-Trimethylbenzene	U	1.16	ug/kg	0.349	1.16
135-98-8	sec-Butylbenzene	U	1.16	ug/kg	0.349	1.16
99-87-6	4-Isopropyltoluene	U	1.16	ug/kg	0.349	1.16
541-73-1	1,3-Dichlorobenzene	U	1.16	ug/kg	0.349	1.16
106-46-7	1,4-Dichlorobenzene	U	1.16	ug/kg	0.349	1.16
104-51-8	n-Butylbenzene	U	1.16	ug/kg	0.349	1.16
96-12-8	1,2-Dibromo-3-chloropropane	U	1.16	ug/kg	0.349	1.16
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.82	ug/kg	1.86	5.82
630-20-6	1,1,1,2-Tetrachloroethane	U	1.16	ug/kg	0.349	1.16
95-50-1	1,2-Dichlorobenzene	U	1.16	ug/kg	0.349	1.16

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown	3.34	9.31	ug/kg	0	J

Quality Control Summary

Volatile

Surrogate Recovery Report

SDG Number: 10–852

Matrix Type: SOLID

Sample ID	Client ID	DCED4 %REC	TOL %REC	BFB %REC
1201999399	LCS for batch 934515	101	96	90
1201999400	LCS for batch 934515	102	96	91
1201999396	MB for batch 934515	100	96	89
242654001	RE03–09–14224	104	95	89
242654002	RE03–09–14227	107	95	91
242654003	RE03–09–14225	107	94	91
242654004	RE03–09–14226	109	94	91
242654005	RE03–09–14288	110	95	92
242654006	RE03–09–14287	110	94	93
242654007	RE03–09–14267	109	95	91
242654008	RE03–09–14265	110	95	91
242654009	RE03–09–14281	110	94	92
242654010	RE03–09–14284	109	94	91
1202000172	LCS for batch 934515	109	98	92
1202000173	LCS for batch 934515	107	97	92
1202000171	MB for batch 934515	106	97	91
242654011	RE03–09–14274	111	94	91
242654012	RE03–09–14277	111	94	93
242654013	RE03–09–14282	111	95	93
242654014	RE03–09–14269	112	94	90
242654015	RE03–09–14273	116	95	94
242654016	RE03–09–14271	114	94	91
242654017	RE03–09–14278	118	93	94
242654018	RE03–09–14285	115	93	92

DCED4 = 1,2–Dichloroethane–d4 (68%–131%)
TOL = Toluene–d8 (75%–129%)
BFB = Bromofluorobenzene (68%–133%)

* Recovery outside Acceptance Limits
\# Column to be used to flag recovery values
D Sample Diluted

Volatile

Surrogate Recovery Report

SDG Number: 10-852

Matrix Type: SOLID

Sample ID	Client ID	DCED4 %REC	TOL %REC	BFB %REC
242654019	RE03-09-14286	116	94	94
242654020	RE03-09-14283	114	95	94
1201999397	RE03-09-14224PS	116	95	93
1201999398	RE03-09-14224PSD	116	95	92

Surrogate		Acceptance Limits
DCED4	= 1,2-Dichloroethane-d4	(68%-131%)
TOL	= Toluene-d8	(75%-129%)
BFB	= Bromofluorobenzene	(68%-133%)

* Recovery outside Acceptance Limits

\# Column to be used to flag recovery values

D Sample Diluted

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-852
Client ID: LCS for batch 934515
Lab Sample ID: 1201999399
Instrument: VOAA.I
Analyst: JEB
Purge Vol: 5 mL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 12/17/2009 17:47
Dilution: 1
Prep Batch ID: 934515
Batch ID: 934516

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
75-71-8	LCS	Dichlorodifluoromethane	50.0	0.0	45.6	91	33-155
74-87-3	LCS	Chloromethane	50.0	0.0	40.3	81	53-132
75-01-4	LCS	Vinyl chloride	50.0	0.0	49.4	99	61-128
74-83-9	LCS	Bromomethane	50.0	0.0	45.1	90	63-126
75-00-3	LCS	Chloroethane	50.0	0.0	40.3	81	67-124
75-69-4	LCS	Trichlorofluoromethane	50.0	0.0	57.2	114	67-151
67-64-1	LCS	Acetone	250	0.0	191	76	29-160
75-35-4	LCS	1,1-Dichloroethylene	50.0	0.0	48.5	97	70-125
74-88-4	LCS	Iodomethane	250	0.0	275	110	74-131
75-09-2	LCS	Methylene chloride	50.0	0.0	48.1	96	72-127
75-15-0	LCS	Carbon disulfide	250	0.0	246	98	64-127
156-60-5	LCS	trans-1,2-Dichloroethylene	50.0	0.0	47.7	95	71-122
75-34-3	LCS	1,1-Dichloroethane	50.0	0.0	46.3	93	75-120
78-93-3	LCS	2-Butanone	250	0.0	192	77	35-162
156-59-2	LCS	cis-1,2-Dichloroethylene	50.0	0.0	48.9	98	76-122
594-20-7	LCS	2,2-Dichloropropane	50.0	0.0	63.2	126	74-135
67-66-3	LCS	Chloroform	50.0	0.0	53.9	108	77-120
74-97-5	LCS	Bromochloromethane	50.0	0.0	54.7	109	76-122
71-55-6	LCS	1,1,1-Trichloroethane	50.0	0.0	62.7	125	75-128
563-58-6	LCS	1,1-Dichloropropene	50.0	0.0	55.3	111	77-125
56-23-5	LCS	Carbon tetrachloride	50.0	0.0	65.3	131	77-134
107-06-2	LCS	1,2-Dichloroethane	50.0	0.0	51.1	102	72-120

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-852
Sample Type: Laboratory Control Sample
Client ID: LCS for batch 934515
Matrix: SOIL
Lab Sample ID: 1201999399
Instrument: VOAA.I
Analysis Date: 12/17/2009 17:47
Dilution: 1
Analyst: JEB
Prep Batch ID: 934515
Purge Vol: 5 mL
Batch ID: 934516

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
71-43-2	LCS	Benzene	50.0	0.0	47.8	96	72-120
79-01-6	LCS	Trichloroethylene	50.0	0.0	54.2	108	78-121
78-87-5	LCS	1,2-Dichloropropane	50.0	0.0	45.3	91	74-120
75-27-4	LCS	Bromodichloromethane	50.0	0.0	59.7	119	79-125
74-95-3	LCS	Dibromomethane	50.0	0.0	51.3	103	78-122
108-10-1	LCS	4-Methyl-2-pentanone	250	0.0	213	85	71-134
10061-01-5	LCS	cis-1,3-Dichloropropylene	50.0	0.0	56.9	114	80-125
108-88-3	LCS	Toluene	50.0	0.0	49.0	98	65-124
10061-02-6	LCS	trans-1,3-Dichloropropylene	50.0	0.0	58.6	117	71-134
79-00-5	LCS	1,1,2-Trichloroethane	50.0	0.0	47.1	94	76-120
591-78-6	LCS	2-Hexanone	250	0.0	166	67	42-159
142-28-9	LCS	1,3-Dichloropropane	50.0	0.0	46.1	92	72-120
127-18-4	LCS	Tetrachloroethylene	50.0	0.0	60.1	120	74-123
124-48-1	LCS	Dibromochloromethane	50.0	0.0	55.8	112	83-128
106-93-4	LCS	1,2-Dibromoethane	50.0	0.0	54.7	109	79-121
108-90-7	LCS	Chlorobenzene	50.0	0.0	51.8	104	75-120
100-41-4	LCS	Ethylbenzene	50.0	0.0	53.9	108	74-120
179601-23-1	LCS	m,p-Xylenes	100	0.0	109	109	74-120
95-47-6	LCS	o-Xylene	50.0	0.0	55.0	110	74-120
100-42-5	LCS	Styrene	50.0	0.0	51.4	103	76-125
75-25-2	LCS	Bromoform	50.0	0.0	51.7	103	77-138
79-34-5	LCS	1,1,2,2-Tetrachloroethane	50.0	0.0	43.3	87	72-122

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10–852 **Sample Type:** Laboratory Control Sample

Client ID: LCS for batch 934515 **Matrix:** SOIL

Lab Sample ID: 1201999399

Instrument: VOAA.I **Analysis Date:** 12/17/2009 17:47 **Dilution:** 1

Analyst: JEB **Prep Batch ID:** 934515

Purge Vol: 5 mL **Batch ID:** 934516

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
96–18–4	LCS	1,2,3–Trichloropropane	50.0	0.0	52.0	104	75–135
108–86–1	LCS	Bromobenzene	50.0	0.0	54.0	108	73–120
103–65–1	LCS	n–Propylbenzene	50.0	0.0	50.5	101	68–121
95–49–8	LCS	2–Chlorotoluene	50.0	0.0	51.7	103	69–120
98–82–8	LCS	Isopropylbenzene	50.0	0.0	55.6	111	66–127
108–67–8	LCS	1,3,5–Trimethylbenzene	50.0	0.0	55.5	111	67–126
106–43–4	LCS	4–Chlorotoluene	50.0	0.0	51.0	102	72–120
98–06–6	LCS	tert–Butylbenzene	50.0	0.0	59.1	118	72–124
95–63–6	LCS	1,2,4–Trimethylbenzene	50.0	0.0	55.3	111	72–122
135–98–8	LCS	sec–Butylbenzene	50.0	0.0	54.5	109	71–124
99–87–6	LCS	4–Isopropyltoluene	50.0	0.0	52.1	104	72–130
541–73–1	LCS	1,3–Dichlorobenzene	50.0	0.0	52.9	106	73–120
106–46–7	LCS	1,4–Dichlorobenzene	50.0	0.0	52.1	104	73–120
104–51–8	LCS	n–Butylbenzene	50.0	0.0	53.8	108	72–128
96–12–8	LCS	1,2–Dibromo–3–chloropropan	50.0	0.0	52.3	105	68–145
630–20–6	LCS	1,1,1,2–Tetrachloroethane	50.0	0.0	61.3	123 *	78–121
95–50–1	LCS	1,2–Dichlorobenzene	50.0	0.0	52.9	106	74–120

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-852
Client ID: LCS for batch 934515
Lab Sample ID: 1201999400
Instrument: VOAA.I
Analyst: JEB
Purge Vol: 5 mL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 12/17/2009 18:39
Dilution: 1
Prep Batch ID: 934515
Batch ID: 934516

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
76-13-1	LCS	1,1,2-Trichloro-1,2,2-Trifluor *Trichlorotrifluoroethane*	250	0.0	274	109	52-139

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-852
Client ID: LCS for batch 934515
Lab Sample ID: 1202000172
Instrument: VOAA.I
Analyst: JEB
Purge Vol: 5 mL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 12/18/2009 05:03
Dilution: 1
Prep Batch ID: 934515
Batch ID: 934516

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
75-71-8	LCS	Dichlorodifluoromethane	50.0	0.0	44.8	90	33-155
74-87-3	LCS	Chloromethane	50.0	0.0	40.1	80	53-132
75-01-4	LCS	Vinyl chloride	50.0	0.0	47.4	95	61-128
74-83-9	LCS	Bromomethane	50.0	0.0	44.1	88	63-126
75-00-3	LCS	Chloroethane	50.0	0.0	37.5	75	67-124
75-69-4	LCS	Trichlorofluoromethane	50.0	0.0	55.0	110	67-151
67-64-1	LCS	Acetone	250	0.0	185	74	29-160
75-35-4	LCS	1,1-Dichloroethylene	50.0	0.0	46.9	94	70-125
74-88-4	LCS	Iodomethane	250	0.0	264	106	74-131
75-09-2	LCS	Methylene chloride	50.0	0.0	47.5	95	72-127
75-15-0	LCS	Carbon disulfide	250	0.0	230	92	64-127
156-60-5	LCS	trans-1,2-Dichloroethylene	50.0	0.0	46.2	92	71-122
75-34-3	LCS	1,1-Dichloroethane	50.0	0.0	45.2	90	75-120
78-93-3	LCS	2-Butanone	250	0.0	187	75	35-162
156-59-2	LCS	cis-1,2-Dichloroethylene	50.0	0.0	48.2	96	76-122
594-20-7	LCS	2,2-Dichloropropane	50.0	0.0	58.6	117	74-135
67-66-3	LCS	Chloroform	50.0	0.0	53.0	106	77-120
74-97-5	LCS	Bromochloromethane	50.0	0.0	53.9	108	76-122
71-55-6	LCS	1,1,1-Trichloroethane	50.0	0.0	60.1	120	75-128
563-58-6	LCS	1,1-Dichloropropene	50.0	0.0	52.1	104	77-125
56-23-5	LCS	Carbon tetrachloride	50.0	0.0	62.1	124	77-134
107-06-2	LCS	1,2-Dichloroethane	50.0	0.0	52.5	105	72-120

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-852
Client ID: LCS for batch 934515
Lab Sample ID: 1202000172
Instrument: VOAA.I
Analyst: JEB
Purge Vol: 5 mL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 12/18/2009 05:03
Dilution: 1
Prep Batch ID: 934515
Batch ID: 934516

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
71-43-2	LCS	Benzene	50.0	0.0	45.7	91	72-120
79-01-6	LCS	Trichloroethylene	50.0	0.0	51.6	103	78-121
78-87-5	LCS	1,2-Dichloropropane	50.0	0.0	44.7	89	74-120
75-27-4	LCS	Bromodichloromethane	50.0	0.0	59.6	119	79-125
74-95-3	LCS	Dibromomethane	50.0	0.0	51.3	103	78-122
108-10-1	LCS	4-Methyl-2-pentanone	250	0.0	207	83	71-134
10061-01-5	LCS	cis-1,3-Dichloropropylene	50.0	0.0	55.9	112	80-125
108-88-3	LCS	Toluene	50.0	0.0	47.2	94	65-124
10061-02-6	LCS	trans-1,3-Dichloropropylene	50.0	0.0	58.6	117	71-134
79-00-5	LCS	1,1,2-Trichloroethane	50.0	0.0	47.4	95	76-120
591-78-6	LCS	2-Hexanone	250	0.0	162	65	42-159
142-28-9	LCS	1,3-Dichloropropane	50.0	0.0	46.8	94	72-120
127-18-4	LCS	Tetrachloroethylene	50.0	0.0	56.0	112	74-123
124-48-1	LCS	Dibromochloromethane	50.0	0.0	56.5	113	83-128
106-93-4	LCS	1,2-Dibromoethane	50.0	0.0	54.8	110	79-121
108-90-7	LCS	Chlorobenzene	50.0	0.0	50.7	101	75-120
100-41-4	LCS	Ethylbenzene	50.0	0.0	52.0	104	74-120
179601-23-1	LCS	m,p-Xylenes	100	0.0	104	104	74-120
95-47-6	LCS	o-Xylene	50.0	0.0	53.4	107	74-120
100-42-5	LCS	Styrene	50.0	0.0	50.3	101	76-125
75-25-2	LCS	Bromoform	50.0	0.0	51.5	103	77-138
79-34-5	LCS	1,1,2,2-Tetrachloroethane	50.0	0.0	42.8	86	72-122

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-852
Client ID: LCS for batch 934515
Lab Sample ID: 1202000172
Instrument: VOAA.I
Analyst: JEB
Purge Vol: 5 mL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 12/18/2009 05:03
Dilution: 1
Prep Batch ID: 934515
Batch ID: 934516

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
96-18-4	LCS	1,2,3-Trichloropropane	50.0	0.0	52.5	105	75-135
108-86-1	LCS	Bromobenzene	50.0	0.0	53.4	107	73-120
103-65-1	LCS	n-Propylbenzene	50.0	0.0	48.1	96	68-121
95-49-8	LCS	2-Chlorotoluene	50.0	0.0	50.5	101	69-120
98-82-8	LCS	Isopropylbenzene	50.0	0.0	52.9	106	66-127
108-67-8	LCS	1,3,5-Trimethylbenzene	50.0	0.0	53.3	107	67-126
106-43-4	LCS	4-Chlorotoluene	50.0	0.0	49.4	99	72-120
98-06-6	LCS	tert-Butylbenzene	50.0	0.0	56.0	112	72-124
95-63-6	LCS	1,2,4-Trimethylbenzene	50.0	0.0	53.5	107	72-122
135-98-8	LCS	sec-Butylbenzene	50.0	0.0	51.4	103	71-124
99-87-6	LCS	4-Isopropyltoluene	50.0	0.0	49.5	99	72-130
541-73-1	LCS	1,3-Dichlorobenzene	50.0	0.0	51.2	102	73-120
106-46-7	LCS	1,4-Dichlorobenzene	50.0	0.0	50.2	100	73-120
104-51-8	LCS	n-Butylbenzene	50.0	0.0	50.6	101	72-128
96-12-8	LCS	1,2-Dibromo-3-chloropropan	50.0	0.0	52.3	105	68-145
630-20-6	LCS	1,1,1,2-Tetrachloroethane	50.0	0.0	61.2	122 *	78-121
95-50-1	LCS	1,2-Dichlorobenzene	50.0	0.0	52.4	105	74-120

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10–852
Client ID: LCS for batch 934515
Lab Sample ID: 1202000173
Instrument: VOAA.I
Analyst: JEB
Purge Vol: 5 mL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 12/18/2009 05:29
Dilution: 1
Prep Batch ID: 934515
Batch ID: 934516

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
76–13–1	LCS	1,1,2–Trichloro–1,2,2–Trifluor *Trichlorotrifluoroethane*	250	0.0	276	110	52–139

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number:	**10–852**	**Sample Type:**	**Post Spike**
Client ID:	**RE03–09–14224PS**	**Matrix:**	**S**
Lab Sample ID:	**1201999397**	**%Moisture:**	**14.6**
Instrument:	**VOAA.I**	**Analysis Date:**	**12/18/2009 10:40**
Analyst:	**JEB**	**Prep Batch ID:**	**934515**
Purge Vol:	**5 mL**	**Batch ID:**	**934516**

Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
75–71–8	PS	Dichlorodifluoromethane	50.0	0.00	U	41.4	83	25–149
74–87–3	PS	Chloromethane	50.0	0.00	U	35.0	70	39–140
75–01–4	PS	Vinyl chloride	50.0	0.00	U	42.0	84	47–129
74–83–9	PS	Bromomethane	50.0	0.00	U	33.7	67	31–135
75–00–3	PS	Chloroethane	50.0	0.00	U	32.6	65	53–128
75–69–4	PS	Trichlorofluoromethane	50.0	0.00	U	48.7	97	51–151
67–64–1	PS	Acetone	250	0.00	U	81.2	32	21–153
75–35–4	PS	1,1–Dichloroethylene	50.0	0.00	U	40.1	80	61–125
74–88–4	PS	Iodomethane	250	0.00	U	173	69	53–142
75–09–2	PS	Methylene chloride	50.0	0.00	U	36.3	73	59–136
75–15–0	PS	Carbon disulfide	250	0.00	U	172	69	46–129
156–60–5	PS	trans–1,2–Dichloroethylene	50.0	0.00	U	36.5	73	56–126
75–34–3	PS	1,1–Dichloroethane	50.0	0.00	U	37.3	75	62–125
78–93–3	PS	2–Butanone	250	0.00	U	82.9	33	26–152
156–59–2	PS	cis–1,2–Dichloroethylene	50.0	0.00	U	37.3	75	60–130
594–20–7	PS	2,2–Dichloropropane	50.0	0.00	U	47.1	94	55–135
67–66–3	PS	Chloroform	50.0	0.00	U	41.4	83	60–127
74–97–5	PS	Bromochloromethane	50.0	0.00	U	39.8	80	61–131
71–55–6	PS	1,1,1–Trichloroethane	50.0	0.00	U	48.2	96	59–131
563–58–6	PS	1,1–Dichloropropene	50.0	0.00	U	38.5	77	57–128
56–23–5	PS	Carbon tetrachloride	50.0	0.00	U	49.4	99	58–136
107–06–2	PS	1,2–Dichloroethane	50.0	0.00	U	41.5	83	58–126

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-852
Client ID: RE03-09-14224PS
Lab Sample ID: 1201999397
Instrument: VOAA.I
Analyst: JEB
Purge Vol: 5 mL

Sample Type: Post Spike
Matrix: S
%Moisture: 14.6
Analysis Date: 12/18/2009 10:40
Prep Batch ID: 934515
Batch ID: 934516
Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
71-43-2	PS	Benzene	50.0	0.00	U	33.1	66	56-123
79-01-6	PS	Trichloroethylene	50.0	0.00	U	35.9	72	51-137
78-87-5	PS	1,2-Dichloropropane	50.0	0.00	U	33.0	66	60-126
75-27-4	PS	Bromodichloromethane	50.0	0.00	U	43.5	87	55-138
74-95-3	PS	Dibromomethane	50.0	0.00	U	38.5	77	60-132
108-10-1	PS	4-Methyl-2-pentanone	250	0.00	U	123	49 *	58-136
10061-01-5	PS	cis-1,3-Dichloropropylene	50.0	0.00	U	29.4	59	54-133
108-88-3	PS	Toluene	50.0	0.00	U	29.2	58	52-128
10061-02-6	PS	trans-1,3-Dichloropropylene	50.0	0.00	U	31.5	63	53-137
79-00-5	PS	1,1,2-Trichloroethane	50.0	0.00	U	33.3	67	59-130
591-78-6	PS	2-Hexanone	250	0.00	U	49.1	20 *	31-148
142-28-9	PS	1,3-Dichloropropane	50.0	0.00	U	33.2	66	57-127
127-18-4	PS	Tetrachloroethylene	50.0	0.00	U	31.1	62	51-128
124-48-1	PS	Dibromochloromethane	50.0	0.00	U	37.4	75	59-139
106-93-4	PS	1,2-Dibromoethane	50.0	0.00	U	35.1	70	57-133
108-90-7	PS	Chlorobenzene	50.0	0.00	U	26.4	53	53-122
100-41-4	PS	Ethylbenzene	50.0	0.00	U	25.7	51	51-125
179601-23-1	PS	m,p-Xylenes	100	0.00	U	44.4	44 *	50-126
95-47-6	PS	o-Xylene	50.0	0.00	U	26.6	53	52-127
100-42-5	PS	Styrene	50.0	0.00	U	20.4	41 *	49-135
75-25-2	PS	Bromoform	50.0	0.00	U	31.8	64	57-149
79-34-5	PS	1,1,2,2-Tetrachloroethane	50.0	0.00	U	28.9	58 *	63-127

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-852
Client ID: RE03-09-14224PS
Lab Sample ID: 1201999397
Instrument: VOAA.I
Analyst: JEB
Purge Vol: 5 mL

Sample Type: Post Spike
Matrix: S
%Moisture: 14.6
Analysis Date: 12/18/2009 10:40
Prep Batch ID: 934515
Batch ID: 934516
Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
96-18-4	PS	1,2,3-Trichloropropane	50.0	0.00	U	36.5	73	57-149
108-86-1	PS	Bromobenzene	50.0	0.00	U	23.6	47 *	49-131
103-65-1	PS	n-Propylbenzene	50.0	0.00	U	16.1	32 *	40-136
95-49-8	PS	2-Chlorotoluene	50.0	0.00	U	19.4	39 *	44-135
98-82-8	PS	Isopropylbenzene	50.0	0.00	U	22.2	44	44-140
108-67-8	PS	1,3,5-Trimethylbenzene	50.0	0.00	U	19.5	39 *	42-140
106-43-4	PS	4-Chlorotoluene	50.0	0.00	U	15.5	31 *	44-132
98-06-6	PS	tert-Butylbenzene	50.0	0.00	U	20.4	41 *	42-142
95-63-6	PS	1,2,4-Trimethylbenzene	50.0	0.00	U	15.5	31 *	43-137
135-98-8	PS	sec-Butylbenzene	50.0	0.00	U	15.3	31 *	39-139
99-87-6	PS	4-Isopropyltoluene	50.0	0.00	U	8.42	17 *	38-145
541-73-1	PS	1,3-Dichlorobenzene	50.0	0.00	U	17.2	34 *	43-129
106-46-7	PS	1,4-Dichlorobenzene	50.0	0.00	U	16.3	33 *	44-125
104-51-8	PS	n-Butylbenzene	50.0	0.00	U	10.1	20 *	36-141
96-12-8	PS	1,2-Dibromo-3-chloropropan	50.0	0.00	U	31.8	64	47-151
630-20-6	PS	1,1,1,2-Tetrachloroethane	50.0	0.00	U	38.7	77	59-131
95-50-1	PS	1,2-Dichlorobenzene	50.0	0.00	U	19.0	38 *	43-129

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-852
Client ID: RE03-09-14224PSD
Lab Sample ID: 1201999398
Instrument: VOAA.I
Analyst: JEB
Purge Vol: 5 mL

Sample Type: Post Spike Duplicate
Matrix: S
%Moisture: 14.6
Analysis Date: 12/18/2009 11:06
Dilution: 1
Prep Batch ID: 934515
Batch ID: 934516

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
75-71-8	PSD	Dichlorodifluoromethane	50.0	0.00	U	40.2	80	25-149	3	0-25
74-87-3	PSD	Chloromethane	50.0	0.00	U	35.2	70	39-140	0	0-25
75-01-4	PSD	Vinyl chloride	50.0	0.00	U	42.6	85	47-129	1	0-25
74-83-9	PSD	Bromomethane	50.0	0.00	U	33.9	68	31-135	1	0-25
75-00-3	PSD	Chloroethane	50.0	0.00	U	33.0	66	53-128	1	0-25
75-69-4	PSD	Trichlorofluoromethane	50.0	0.00	U	49.4	99	51-151	1	0-25
67-64-1	PSD	Acetone	250	0.00	U	73.3	29	21-153	10	0-25
75-35-4	PSD	1,1-Dichloroethylene	50.0	0.00	U	40.7	81	61-125	2	0-25
74-88-4	PSD	Iodomethane	250	0.00	U	182	73	53-142	5	0-25
75-09-2	PSD	Methylene chloride	50.0	0.00	U	36.9	74	59-136	2	0-25
75-15-0	PSD	Carbon disulfide	250	0.00	U	184	74	46-129	7	0-25
156-60-5	PSD	trans-1,2-Dichloroethylene	50.0	0.00	U	38.8	78	56-126	6	0-25
75-34-3	PSD	1,1-Dichloroethane	50.0	0.00	U	38.0	76	62-125	2	0-25
78-93-3	PSD	2-Butanone	250	0.00	U	73.9	30	26-152	11	0-25
156-59-2	PSD	cis-1,2-Dichloroethylene	50.0	0.00	U	38.8	78	60-130	4	0-25
594-20-7	PSD	2,2-Dichloropropane	50.0	0.00	U	49.2	98	55-135	4	0-25
67-66-3	PSD	Chloroform	50.0	0.00	U	42.9	86	60-127	3	0-25
74-97-5	PSD	Bromochloromethane	50.0	0.00	U	40.8	82	61-131	2	0-25
71-55-6	PSD	1,1,1-Trichloroethane	50.0	0.00	U	50.9	102	59-131	5	0-25
563-58-6	PSD	1,1-Dichloropropene	50.0	0.00	U	43.1	86	57-128	11	0-25
56-23-5	PSD	Carbon tetrachloride	50.0	0.00	U	53.5	107	58-136	8	0-25
107-06-2	PSD	1,2-Dichloroethane	50.0	0.00	U	42.1	84	58-126	1	0-25

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-852
Client ID: RE03-09-14224PSD
Lab Sample ID: 1201999398
Instrument: VOAA.I
Analyst: JEB
Purge Vol: 5 mL

Sample Type: Post Spike Duplicate
Matrix: S
%Moisture: 14.6
Analysis Date: 12/18/2009 11:06
Dilution: 1
Prep Batch ID: 934515
Batch ID: 934516

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
71-43-2	PSD	Benzene	50.0	0.00	U	36.0	72	56-123	8	0-25
79-01-6	PSD	Trichloroethylene	50.0	0.00	U	41.3	83	51-137	14	0-25
78-87-5	PSD	1,2-Dichloropropane	50.0	0.00	U	34.6	69	60-126	5	0-25
75-27-4	PSD	Bromodichloromethane	50.0	0.00	U	46.4	93	55-138	6	0-25
74-95-3	PSD	Dibromomethane	50.0	0.00	U	39.6	79	60-132	3	0-25
108-10-1	PSD	4-Methyl-2-pentanone	250	0.00	U	122	49 *	58-136	1	0-25
10061-01-5	PSD	cis-1,3-Dichloropropylene	50.0	0.00	U	33.3	67	54-133	12	0-25
108-88-3	PSD	Toluene	50.0	0.00	U	35.5	71	52-128	20	0-25
10061-02-6	PSD	trans-1,3-Dichloropropylene	50.0	0.00	U	35.4	71	53-137	12	0-25
79-00-5	PSD	1,1,2-Trichloroethane	50.0	0.00	U	35.0	70	59-130	5	0-25
591-78-6	PSD	2-Hexanone	250	0.00	U	43.0	17 *	31-148	13	0-25
142-28-9	PSD	1,3-Dichloropropane	50.0	0.00	U	35.2	70	57-127	6	0-25
127-18-4	PSD	Tetrachloroethylene	50.0	0.00	U	42.2	84	51-128	30 *	0-25
124-48-1	PSD	Dibromochloromethane	50.0	0.00	U	40.6	81	59-139	8	0-25
106-93-4	PSD	1,2-Dibromoethane	50.0	0.00	U	37.8	76	57-133	7	0-25
108-90-7	PSD	Chlorobenzene	50.0	0.00	U	35.6	71	53-122	29 *	0-25
100-41-4	PSD	Ethylbenzene	50.0	0.00	U	37.2	74	51-125	37 *	0-25
179601-23-1	PSD	m,p-Xylenes	100	0.00	U	67.8	68	50-126	42 *	0-25
95-47-6	PSD	o-Xylene	50.0	0.00	U	37.9	76	52-127	35 *	0-25
100-42-5	PSD	Styrene	50.0	0.00	U	29.8	60	49-135	37 *	0-25
75-25-2	PSD	Bromoform	50.0	0.00	U	35.1	70	57-149	10	0-25
79-34-5	PSD	1,1,2,2-Tetrachloroethane	50.0	0.00	U	31.1	62 *	63-127	7	0-25

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10–852
Client ID: RE03–09–14224PSD
Lab Sample ID: 1201999398
Instrument: VOAA.I
Analyst: JEB
Purge Vol: 5 mL

Sample Type: Post Spike Duplicate
Matrix: S
%Moisture: 14.6
Analysis Date: 12/18/2009 11:06
Dilution: 1
Prep Batch ID: 934515
Batch ID: 934516

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
96–18–4	PSD	1,2,3–Trichloropropane	50.0	0.00	U	38.1	76	57–149	4	0–25
108–86–1	PSD	Bromobenzene	50.0	0.00	U	33.9	68	49–131	36 *	0–25
103–65–1	PSD	n–Propylbenzene	50.0	0.00	U	30.5	61	40–136	62 *	0–25
95–49–8	PSD	2–Chlorotoluene	50.0	0.00	U	32.8	66	44–135	51 *	0–25
98–82–8	PSD	Isopropylbenzene	50.0	0.00	U	36.3	73	44–140	48 *	0–25
108–67–8	PSD	1,3,5–Trimethylbenzene	50.0	0.00	U	34.8	70	42–140	56 *	0–25
106–43–4	PSD	4–Chlorotoluene	50.0	0.00	U	28.4	57	44–132	59 *	0–25
98–06–6	PSD	tert–Butylbenzene	50.0	0.00	U	37.5	75	42–142	59 *	0–25
95–63–6	PSD	1,2,4–Trimethylbenzene	50.0	0.00	U	29.8	60	43–137	63 *	0–25
135–98–8	PSD	sec–Butylbenzene	50.0	0.00	U	31.6	63	39–139	69 *	0–25
99–87–6	PSD	4–Isopropyltoluene	50.0	0.00	U	21.2	42	38–145	86 *	0–25
541–73–1	PSD	1,3–Dichlorobenzene	50.0	0.00	U	29.4	59	43–129	53 *	0–25
106–46–7	PSD	1,4–Dichlorobenzene	50.0	0.00	U	28.5	57	44–125	55 *	0–25
104–51–8	PSD	n–Butylbenzene	50.0	0.00	U	25.8	52	36–141	87 *	0–25
96–12–8	PSD	1,2–Dibromo–3–chloropropan	50.0	0.00	U	34.5	69	47–151	8	0–25
630–20–6	PSD	1,1,1,2–Tetrachloroethane	50.0	0.00	U	44.8	90	59–131	15	0–25
95–50–1	PSD	1,2–Dichlorobenzene	50.0	0.00	U	29.8	60	43–129	45 *	0–25

Method Blank Summary

SDG Number:	10-852	Client:	LANL010	Matrix:	SOIL
Client ID:	MB for batch 934515	Instrument ID:	VOAA.I	Data File:	121709\AP407LA.D
Lab Sample ID:	1201999396	Prep Date:	12/17/2009 17:30	Analyzed:	12/17/09 19:31
Column:	DB-624				

This method blank applies to the following samples and quality control samples:

	Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01	LCS for batch 934515	1201999399	121709\AP403LA.D	12/17/09	1747
02	LCS for batch 934515	1201999400	121709\AP405LA.D	12/17/09	1839
03	RE03-09-14224	242654001	121709\AP418.D	12/18/09	0017
04	RE03-09-14227	242654002	121709\AP419.D	12/18/09	0043
05	RE03-09-14225	242654003	121709\AP420.D	12/18/09	0109
06	RE03-09-14226	242654004	121709\AP421.D	12/18/09	0135
07	RE03-09-14288	242654005	121709\AP422.D	12/18/09	0201
08	RE03-09-14287	242654006	121709\AP423.D	12/18/09	0226
09	RE03-09-14267	242654007	121709\AP424.D	12/18/09	0252
10	RE03-09-14265	242654008	121709\AP425.D	12/18/09	0318
11	RE03-09-14281	242654009	121709\AP426.D	12/18/09	0344
12	RE03-09-14284	242654010	121709\AP427.D	12/18/09	0411

Method Blank Summary

SDG Number:	10-852	Client:	LANL010	Matrix:	SOIL
Client ID:	MB for batch 934515	Instrument ID:	VOAA.l	Data File:	121709\AP431LA.D
Lab Sample ID:	1202000171	Prep Date:	12/17/2009 17:30	Analyzed:	12/18/09 05:55
Column:	DB-624				

This method blank applies to the following samples and quality control samples:

	Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01	LCS for batch 934515	1202000172	121709\AP429LA.D	12/18/09	0503
02	LCS for batch 934515	1202000173	121709\AP430LA.D	12/18/09	0529
03	RE03-09-14274	242654011	121709\AP432.D	12/18/09	0621
04	RE03-09-14277	242654012	121709\AP433.D	12/18/09	0647
05	RE03-09-14282	242654013	121709\AP434.D	12/18/09	0713
06	RE03-09-14269	242654014	121709\AP435.D	12/18/09	0739
07	RE03-09-14273	242654015	121709\AP436.D	12/18/09	0805
08	RE03-09-14271	242654016	121709\AP437.D	12/18/09	0830
09	RE03-09-14278	242654017	121709\AP438.D	12/18/09	0856
10	RE03-09-14285	242654018	121709\AP439.D	12/18/09	0922
11	RE03-09-14286	242654019	121709\AP440.D	12/18/09	0948
12	RE03-09-14283	242654020	121709\AP441.D	12/18/09	1014
13	RE03-09-14224PS	1201999397	121709\AP442.D	12/18/09	1040
14	RE03-09-14224PSD	1201999398	121709\AP443.D	12/18/09	1106

Instrument Performance Check

BFB

Lab Name GEL Laboratories LLC **Client SDG:** 10-852

Instrument ID: VOAA.I **Injection Date/Time:** 06-NOV-09 11:39

Column Description: DB-624 **Lab File ID** 110609\AJ501.D

m/e	Ion Abundance Criteria	% Relative Abundance
50	15.0 – 40.0% of mass 95	24.8
75	30.0 – 60.0% of mass 95	50.4
95	Base Peak, 100% Relative Abundance	100
96	5.0 – 9.0% of mass 95	7
173	Less than 2.0% of mass 174	1
174	50.0 – 100.0% of mass 95	78
175	5.0 –9.0% of mass 174	7.1
177	5.0 – 9.0% of mass 176	6.6
176	95.0 – 101.0% of mass 174	97.2

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
ICALMIX[A]	WAVM091106-01	110609\AJ503.D	06-NOV-09 12:30
ICALMIX[A]	WAVM091106-03	110609\AJ505.D	06-NOV-09 13:21
ICALMIX[A]	WAVM091106-04	110609\AJ506.D	06-NOV-09 13:47
ICALMIX[A]	WAVM091106-05	110609\AJ507.D	06-NOV-09 14:13
ICALMIX[A]	WAVM091106-06	110609\AJ508.D	06-NOV-09 14:39
ICALMIX[A]	WAVM091106-07	110609\AJ509.D	06-NOV-09 15:05
ICALMIX[A]	WAVM091106-08	110609\AJ510.D	06-NOV-09 15:31
ICALMIX[A]	WAVM091106-09	110609\AJ511.D	06-NOV-09 15:57
ICALMIX[B]	WAVM091106-10	110609\AJ513.D	06-NOV-09 16:49
ICALMIX[B]	WAVM091106-11	110609\AJ514.D	06-NOV-09 17:15
ICALMIX[B]	WAVM091106-12	110609\AJ515.D	06-NOV-09 17:41
ICALMIX[B]	WAVM091106-13	110609\AJ516.D	06-NOV-09 18:07
ICALMIX[B]	WAVM091106-14	110609\AJ517.D	06-NOV-09 18:34
ICALMIX[B]	WAVM091106-15	110609\AJ518.D	06-NOV-09 18:59
ICALMIX[B]	WAVM091106-16	110609\AJ519.D	06-NOV-09 19:25
ICVMIX[A]01	WAVM091106-17	110609\AJ521.D	06-NOV-09 20:17
ICVMIX[B]03	WAVM091106-19	110609\AJ523.D	06-NOV-09 21:08

Instrument Performance Check

BFB

Lab Name GEL Laboratories LLC **Client SDG:** 10-852

Instrument ID: VOAA.I **Injection Date/Time:** 17-DEC-09 16:46

Column Description: DB-624 **Lab File ID** 121709\AP401.D

m/e	Ion Abundance Criteria	% Relative Abundance
50	15.0 – 40.0% of mass 95	18.8
75	30.0 – 60.0% of mass 95	46.5
95	Base Peak, 100% Relative Abundance	100
96	5.0 – 9.0% of mass 95	6.5
173	Less than 2.0% of mass 174	0.6
174	50.0 – 100.0% of mass 95	83.2
175	5.0 –9.0% of mass 174	7.3
176	95.0 – 101.0% of mass 174	97.8
177	5.0 – 9.0% of mass 176	6.5

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
CCVMIX[A]01	WAVM091217-01	121709\AP402.D	17-DEC-09 17:11
BLK01LCS	1201999399	121709\AP403LA.D	17-DEC-09 17:47
CCVMIX[B]02	WAVM091217-03	121709\AP404.D	17-DEC-09 18:13
BLK01SLCS	1201999400	121709\AP405LA.D	17-DEC-09 18:39
BLK01	1201999396	121709\AP407LA.D	17-DEC-09 19:31
RE03-09-14224	242654001	121709\AP418.D	18-DEC-09 00:17
RE03-09-14227	242654002	121709\AP419.D	18-DEC-09 00:43
RE03-09-14225	242654003	121709\AP420.D	18-DEC-09 01:09
RE03-09-14226	242654004	121709\AP421.D	18-DEC-09 01:35
RE03-09-14288	242654005	121709\AP422.D	18-DEC-09 02:01
RE03-09-14287	242654006	121709\AP423.D	18-DEC-09 02:26
RE03-09-14267	242654007	121709\AP424.D	18-DEC-09 02:52
RE03-09-14265	242654008	121709\AP425.D	18-DEC-09 03:18
RE03-09-14281	242654009	121709\AP426.D	18-DEC-09 03:44
RE03-09-14284	242654010	121709\AP427.D	18-DEC-09 04:11

Instrument Performance Check

BFB

Lab Name GEL Laboratories LLC **Client SDG:** 10-852

Instrument ID: VOAA.I **Injection Date/Time:** 18-DEC-09 04:38

Column Description: DB-624 **Lab File ID** 121709\AP428.D

m/e	Ion Abundance Criteria	% Relative Abundance
50	15.0 – 40.0% of mass 95	19.5
75	30.0 – 60.0% of mass 95	47.4
95	Base Peak, 100% Relative Abundance	100
96	5.0 – 9.0% of mass 95	7.1
173	Less than 2.0% of mass 174	0.6
174	50.0 – 100.0% of mass 95	81.6
175	5.0 –9.0% of mass 174	7.3
176	95.0 – 101.0% of mass 174	99.4
177	5.0 – 9.0% of mass 176	6.4

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
CCVMIX[A]03	WAVM091217-05	121709\AP429.D	18-DEC-09 05:03
BLK02LCS	1202000172	121709\AP429LA.D	18-DEC-09 05:03
CCVMIX[B]04	WAVM091217-06	121709\AP430.D	18-DEC-09 05:29
BLK02SLCS	1202000173	121709\AP430LA.D	18-DEC-09 05:29
BLK02	1202000171	121709\AP431LA.D	18-DEC-09 05:55
RE03-09-14274	242654011	121709\AP432.D	18-DEC-09 06:21
RE03-09-14277	242654012	121709\AP433.D	18-DEC-09 06:47
RE03-09-14282	242654013	121709\AP434.D	18-DEC-09 07:13
RE03-09-14269	242654014	121709\AP435.D	18-DEC-09 07:39
RE03-09-14273	242654015	121709\AP436.D	18-DEC-09 08:05
RE03-09-14271	242654016	121709\AP437.D	18-DEC-09 08:30
RE03-09-14278	242654017	121709\AP438.D	18-DEC-09 08:56
RE03-09-14285	242654018	121709\AP439.D	18-DEC-09 09:22
RE03-09-14286	242654019	121709\AP440.D	18-DEC-09 09:48
RE03-09-14283	242654020	121709\AP441.D	18-DEC-09 10:14
RE03-09-14224MS	1201999397	121709\AP442.D	18-DEC-09 10:40
RE03-09-14224MSD	1201999398	121709\AP443.D	18-DEC-09 11:06

Internal Standard
Area and RT Summary

Lab Name : GEL Laboratories LLC

Instrument: VOAA.I

GC Column: DB-624

Client SDG: 10-852

STD Analysis Time: 17-DEC-09 17:11

Data File: C:\msdchem\1\DATA\121709\AP402.D

	Fluorobenzene			Chlorobenzene-d5			1,4-Dichlorobenzene-d4		
	Area	#	RT #	Area	#	RT #	Area	#	RT #
12 Hour STD	1322347		9.34	1097285		12.5	692000		14.9
Upper Limit	2644694		9.84	2194570		13.0	1384000		15.4
Lower Limit	661174		8.84	548643		12.0	346000		14.4
Sample ID									
BLK01LCS	1344565		9.34	1111231		12.5	695340		14.9
BLK01SLCS	1361103		9.34	1097401		12.5	698213		14.9
BLK01	1300655		9.34	1048028		12.5	659347		14.9
RE03-09-14224	1337634		9.34	1074216		12.5	673621		14.9
RE03-09-14227	1317935		9.34	1067451		12.5	682168		14.9
RE03-09-14225	1295614		9.34	1050975		12.5	658353		14.9
RE03-09-14226	1289642		9.34	1049449		12.5	669738		14.9
RE03-09-14288	1275705		9.34	1021557		12.5	650951		14.9
RE03-09-14287	1243190		9.34	1002640		12.5	619129		14.9
RE03-09-14267	1247523		9.34	999409		12.5	625142		14.9
RE03-09-14265	1204315		9.34	967698		12.5	596127		14.9
RE03-09-14281	1213162		9.34	987417		12.5	621162		14.9
RE03-09-14284	1219360		9.34	996677		12.5	637450		14.9

Area Upper Limit = +100% of internal standard area
Area Lower Limit = – 50% of internal standard area

RT Upper Limit = + 0.50 minutes of internal standard RT
RT Lower Limit = – 0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Value outside of QC Limits

Internal Standard
Area and RT Summary

Lab Name : GEL Laboratories LLC

Instrument: VOAA.I

GC Column: DB-624

Client SDG: 10-852

STD Analysis Time: 18-DEC-09 05:03

Data File: C:\msdchem\1\DATA\121709\AP429.D

	Fluorobenzene			Chlorobenzene-d5			1,4-Dichlorobenzene-d4		
	Area	#	RT #	Area	#	RT #	Area	#	RT #
12 Hour STD	1234682		9.34	1006447		12.5	630677		14.9
Upper Limit	2469364		9.84	2012894		13.0	1261354		15.4
Lower Limit	617341		8.84	503224		12.0	315339		14.4
Sample ID									
BLK02LCS	1234682		9.34	1006447		12.5	630677		14.9
BLK02SLCS	1233889		9.34	997912		12.5	633137		14.9
BLK02	1209073		9.34	965987		12.5	609266		14.9
RE03-09-14274	1227894		9.34	995232		12.5	624866		14.9
RE03-09-14277	1193644		9.34	955992		12.5	595371		14.9
RE03-09-14282	1189505		9.34	963703		12.5	609859		14.9
RE03-09-14269	1169431		9.34	946844		12.5	597326		14.9
RE03-09-14273	1148907		9.34	925566		12.5	572359		14.9
RE03-09-14271	1147603		9.34	930323		12.5	578256		14.9
RE03-09-14278	1129533		9.34	924705		12.5	579689		14.9
RE03-09-14285	1126563		9.34	918111		12.5	584660		14.9
RE03-09-14286	1112917		9.34	905548		12.5	571981		14.9
RE03-09-14283	1098244		9.34	889026		12.5	553698		14.9
RE03-09-14224MS	1129146		9.34	920021		12.5	579216		14.9
RE03-09-14224MSD	1148634		9.34	938763		12.5	588764		14.9

Area Upper Limit = +100% of internal standard area
Area Lower Limit = - 50% of internal standard area

RT Upper Limit = + 0.50 minutes of internal standard RT
RT Lower Limit = - 0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Value outside of QC Limits

Sample Data

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-852**	**Date Collected:**	**12/07/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242654001**	**Date Received:**	**12/10/2009 08:50**	**%Moisture:**	**14.6**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14224**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**934516**	**Inst:**	**VOAA.I**	**Dilution:**	**1**
Run Date:	**12/18/2009 00:17**	**Analyst:**	**JEB**	**Purge Vol:**	**5 mL**
Prep Date:	**12/17/2009 19:02**	**Aliquot:**	**5.3 g**	**Final Volume:**	**5 mL**
Data File:	**121709\AP418.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.10	ug/kg	0.375	1.10
74-87-3	Chloromethane	U	1.10	ug/kg	0.331	1.10
75-01-4	Vinyl chloride	U	1.10	ug/kg	0.331	1.10
74-83-9	Bromomethane	U	1.10	ug/kg	0.331	1.10
75-00-3	Chloroethane	U	1.10	ug/kg	0.331	1.10
75-69-4	Trichlorofluoromethane	U	1.10	ug/kg	0.331	1.10
67-64-1	Acetone	U	5.52	ug/kg	1.83	5.52
75-35-4	1,1-Dichloroethylene	U	1.10	ug/kg	0.331	1.10
74-88-4	Iodomethane	U	5.52	ug/kg	1.77	5.52
75-09-2	Methylene chloride	U	5.52	ug/kg	2.21	5.52
75-15-0	Carbon disulfide	U	5.52	ug/kg	1.38	5.52
156-60-5	trans-1,2-Dichloroethylene	U	1.10	ug/kg	0.331	1.10
75-34-3	1,1-Dichloroethane	U	1.10	ug/kg	0.331	1.10
78-93-3	2-Butanone	U	5.52	ug/kg	1.66	5.52
156-59-2	cis-1,2-Dichloroethylene	U	1.10	ug/kg	0.331	1.10
594-20-7	2,2-Dichloropropane	U	1.10	ug/kg	0.331	1.10
67-66-3	Chloroform	U	1.10	ug/kg	0.331	1.10
74-97-5	Bromochloromethane	U	1.10	ug/kg	0.364	1.10
71-55-6	1,1,1-Trichloroethane	U	1.10	ug/kg	0.331	1.10
563-58-6	1,1-Dichloropropene	U	1.10	ug/kg	0.331	1.10
56-23-5	Carbon tetrachloride	U	1.10	ug/kg	0.331	1.10
107-06-2	1,2-Dichloroethane	U	1.10	ug/kg	0.331	1.10
71-43-2	Benzene	U	1.10	ug/kg	0.331	1.10
79-01-6	Trichloroethylene	U	1.10	ug/kg	0.364	1.10
78-87-5	1,2-Dichloropropane	U	1.10	ug/kg	0.331	1.10
75-27-4	Bromodichloromethane	U	1.10	ug/kg	0.331	1.10
74-95-3	Dibromomethane	U	1.10	ug/kg	0.331	1.10
108-10-1	4-Methyl-2-pentanone	U	5.52	ug/kg	1.38	5.52
10061-01-5	cis-1,3-Dichloropropylene	U	1.10	ug/kg	0.331	1.10
108-88-3	Toluene	U	1.10	ug/kg	0.331	1.10
10061-02-6	trans-1,3-Dichloropropylene	U	1.10	ug/kg	0.331	1.10
79-00-5	1,1,2-Trichloroethane	U	1.10	ug/kg	0.331	1.10
591-78-6	2-Hexanone	U	5.52	ug/kg	1.66	5.52
142-28-9	1,3-Dichloropropane	U	1.10	ug/kg	0.331	1.10
127-18-4	Tetrachloroethylene	U	1.10	ug/kg	0.331	1.10
124-48-1	Dibromochloromethane	U	1.10	ug/kg	0.331	1.10
106-93-4	1,2-Dibromoethane	U	1.10	ug/kg	0.331	1.10
108-90-7	Chlorobenzene	U	1.10	ug/kg	0.331	1.10

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-852**	**Date Collected:**	**12/07/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242654001**	**Date Received:**	**12/10/2009 08:50**	**%Moisture:**	**14.6**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14224**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**934516**	**Inst:**	**VOAA.I**	**Dilution:**	**1**
Run Date:	**12/18/2009 00:17**	**Analyst:**	**JEB**	**Purge Vol:**	**5 mL**
Prep Date:	**12/17/2009 19:02**	**Aliquot:**	**5.3 g**	**Final Volume:**	**5 mL**
Data File:	**121709\AP418.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.10	ug/kg	0.331	1.10
179601-23-1	m,p-Xylenes	U	2.21	ug/kg	0.331	2.21
95-47-6	o-Xylene	U	1.10	ug/kg	0.331	1.10
100-42-5	Styrene	U	1.10	ug/kg	0.331	1.10
75-25-2	Bromoform	U	1.10	ug/kg	0.331	1.10
79-34-5	1,1,2,2-Tetrachloroethane	U	1.10	ug/kg	0.331	1.10
96-18-4	1,2,3-Trichloropropane	U	1.10	ug/kg	0.331	1.10
108-86-1	Bromobenzene	U	1.10	ug/kg	0.331	1.10
103-65-1	n-Propylbenzene	U	1.10	ug/kg	0.331	1.10
95-49-8	2-Chlorotoluene	U	1.10	ug/kg	0.331	1.10
98-82-8	Isopropylbenzene	U	1.10	ug/kg	0.331	1.10
108-67-8	1,3,5-Trimethylbenzene	U	1.10	ug/kg	0.331	1.10
106-43-4	4-Chlorotoluene	U	1.10	ug/kg	0.331	1.10
98-06-6	tert-Butylbenzene	U	1.10	ug/kg	0.331	1.10
95-63-6	1,2,4-Trimethylbenzene	U	1.10	ug/kg	0.331	1.10
135-98-8	sec-Butylbenzene	U	1.10	ug/kg	0.331	1.10
99-87-6	4-Isopropyltoluene	U	1.10	ug/kg	0.331	1.10
541-73-1	1,3-Dichlorobenzene	U	1.10	ug/kg	0.331	1.10
106-46-7	1,4-Dichlorobenzene	U	1.10	ug/kg	0.331	1.10
104-51-8	n-Butylbenzene	U	1.10	ug/kg	0.331	1.10
96-12-8	1,2-Dibromo-3-chloropropane	U	1.10	ug/kg	0.331	1.10
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.52	ug/kg	1.77	5.52
630-20-6	1,1,1,2-Tetrachloroethane	U	1.10	ug/kg	0.331	1.10
95-50-1	1,2-Dichlorobenzene	U	1.10	ug/kg	0.331	1.10

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown	3.37	11.3	ug/kg	0	J

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709\
Data File : AP418.D
Acq On : 18 Dec 2009 12:17 am
Operator : JEB
InstName : VOAA
Sample : |242654001|934516|1|VOA|1|VOA8260BS|
Misc : LANL 5.3G N/A SOIL
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Dec 18 12:57:33 2009
Quant Method : C:\msdchem\1\METHODS\VOAA-8260-110609.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Nov 09 16:21:09 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Fluorobenzene	9.339	96	1337634	50.00 ug/L	0.00
41) Chlorobenzene-d5	12.508	117	1074216	50.00 ug/L	0.00
58) 1,4-Dichlorobenzene-d4	14.941	152	673621	50.00 ug/L	0.00
82) B Fluorobenzene	9.339	96	1337634	50.00 ug/L	0.00
103) B Chlorobenzene-d5	12.508	117	1074216	50.00 ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	14.941	152	673621	50.00 ug/L	0.00
System Monitoring Compounds					
29) 1,2-Dichloroethane-d4	8.975	65	484684	52.16 ug/L	0.00
Spiked Amount 50.000	Range 68 - 131		Recovery = 104.32%		
43) Toluene-d8	10.983	98	1290170	47.31 ug/L	0.00
Spiked Amount 50.000	Range 75 - 129		Recovery = 94.62%		
61) Bromofluorobenzene	13.710	95	541738	44.64 ug/L	0.00
Spiked Amount 50.000	Range 68 - 133		Recovery = 89.28%		
Target Compounds					Qvalue
2) Dichlorodifluoromethane	0.000		0	N.D.	
3) Chloromethane	0.000		0	N.D.	
4) Vinyl chloride	0.000		0	N.D.	
5) Bromomethane	0.000		0	N.D.	
6) Chloroethane	0.000		0	N.D.	
7) Trichlorofluoromethane	0.000		0	N.D.	
8) Ethyl ether	0.000		0	N.D.	
9) Acetone	6.089	43	759	N.D.	
10) 1,1-Dichloroethylene	0.000		0	N.D.	
11) Iodomethane	0.000		0	N.D.	
12) Acetonitrile	6.429	41	107	N.D.	
13) Methyl acetate	6.485	43	107	N.D.	
14) Carbon disulfide	6.421	76	1573	N.D.	
15) Methylene chloride	6.644	84	6851	Below Cal	93
16) tert-Butyl methyl ether	0.000		0	N.D.	
17) trans-1,2-Dichloroethy...	0.000		0	N.D.	
18) Vinyl acetate	0.000		0	N.D.	
19) 1,1-Dichloroethane	0.000		0	N.D.	
20) 2-Butanone	0.000		0	N.D.	
21) cis-1,2-Dichloroethylene	0.000		0	N.D.	
22) 2,2-Dichloropropane	0.000		0	N.D.	
23) Bromochloromethane	0.000		0	N.D.	
24) Chloroform	0.000		0	N.D.	
25) 1,1,1-Trichloroethane	0.000		0	N.D.	
26) Cyclohexane	0.000		0	N.D.	
27) 1,1-Dichloropropene	0.000		0	N.D.	
28) Carbon tetrachloride	0.000		0	N.D.	
30) 1,2-Dichloroethane	0.000		0	N.D.	
31) Benzene	0.000		0	N.D.	
32) Cyclohexene	0.000		0	N.D.	
33) n-Butyl alcohol	0.000		0m	N.D. d	
34) Trichloroethylene	9.728	95	1360	N.D.	
35) 1,2-Dichloropropane	0.000		0	N.D.	
36) Methylcyclohexane	0.000		0	N.D.	
37) Dibromomethane	0.000		0	N.D.	
38) Bromodichloromethane	0.000		0	N.D.	
39) 2-Chloroethylvinyl ether	0.000		0	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709\
Data File : AP418.D
Acq On : 18 Dec 2009 12:17 am
Operator : JEB
InstName : VOAA
Sample : |242654001|934516|1|VOA|1|VOA8260BS|
Misc : LANL 5.3G N/A SOIL
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Dec 18 12:57:33 2009
Quant Method : C:\msdchem\1\METHODS\VOAA-8260-110609.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Nov 09 16:21:09 2009
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
40)	cis-1,3-Dichloropropylene	0.000		0	N.D.	
42)	4-Methyl-2-pentanone	0.000		0	N.D.	
44)	Toluene	11.047	91	110	N.D.	
45)	trans-1,3-Dichloroprop...	0.000		0	N.D.	
46)	1,1,2-Trichloroethane	0.000		0	N.D.	
47)	2-Hexanone	0.000		0	N.D.	
48)	1,3-Dichloropropane	0.000		0	N.D.	
49)	Tetrachloroethylene	0.000		0	N.D.	
50)	Dibromochloromethane	0.000		0	N.D.	
51)	1,2-Dibromoethane	0.000		0	N.D.	
52)	Chlorobenzene	12.539	112	495	N.D.	
53)	1,1,1,2-Tetrachloroethane	0.000		0	N.D.	
54)	Ethylbenzene	12.727	91	850	N.D.	
55)	m,p-Xylenes	0.000		0	N.D.	
56)	o-Xylene	0.000		0	N.D.	
57)	Styrene	0.000		0m	N.D.	d
59)	Bromoform	0.000		0	N.D.	
60)	Isopropylbenzene	13.717	105	225	N.D.	
62)	1,1,2,2-Tetrachloroethane	0.000		0	N.D.	
63)	1,2,3-Trichloropropane	0.000		0	N.D.	
64)	Bromobenzene	0.000		0	N.D.	
65)	n-Propylbenzene	14.194	91	589	N.D.	
66)	1,3,5-Trimethylbenzene	0.000		0	N.D.	
67)	2-Chlorotoluene	0.000		0	N.D.	
68)	4-Chlorotoluene	14.194	91	589	N.D.	
69)	tert-Butylbenzene	0.000		0	N.D.	
70)	1,2,4-Trimethylbenzene	0.000		0	N.D.	
71)	sec-Butylbenzene	0.000		0	N.D.	
72)	4-Isopropyltoluene	0.000		0	N.D.	
73)	1,3-Dichlorobenzene	14.877	146	506	N.D.	
74)	1,4-Dichlorobenzene	14.965	146	1394	N.D.	
75)	n-Butylbenzene	0.000		0	N.D.	
76)	1,2-Dichlorobenzene	15.379	146	238	N.D.	
77)	1,2-Dibromo-3-chloropr...	0.000		0	N.D.	
78)	1,2,4-Trichlorobenzene	17.183	180	1118	N.D.	
79)	Hexachlorobutadiene	0.000		0	N.D.	
80)	Naphthalene	17.530	128	3332	N.D.	
81)	1,2,3-Trichlorobenzene	17.840	180	807	N.D.	
83)	Chlorotrifluoroethylene	0.000		0	N.D.	
84)	2-Chloro-1,1,1-trifluo...	0.000		0	N.D.	
85)	Acrolein	0.000		0	N.D.	
86)	Trichlorotrifluoroethane	0.000		0	N.D.	
87)	Isopropyl Alcohol	0.000		0	N.D.	
88)	Allyl chloride	6.429	41	107	N.D.	
89)	tert-Butyl Alcohol	0.000		0	N.D.	
90)	Acrylonitrile	0.000		0	N.D.	
91)	Isopropyl ether	0.000		0	N.D.	
92)	2-Chloro-1,3-butadiene	0.000		0	N.D.	
93)	Ethyl tert-butyl ether	0.000		0	N.D.	
94)	Ethyl acetate	0.000		0	N.D.	
95)	Propionitrile	0.000		0	N.D.	
96)	Methacrylonitrile	0.000		0	N.D.	
97)	Tetrahydrofuran	0.000		0	N.D.	
98)	Isobutyl alcohol	0.000		0	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709\
Data File : AP418.D
Acq On : 18 Dec 2009 12:17 am
Operator : JEB
InstName : VOAA
Sample : |242654001|934516|1|VOA|1|VOA8260BS|
Misc : LANL 5.3G N/A SOIL
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Dec 18 12:57:33 2009
Quant Method : C:\msdchem\1\METHODS\VOAA-8260-110609.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Nov 09 16:21:09 2009
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
99)	Methyl tert-amyl ether	0.000		0	N.D.	
100)	Methyl methacrylate	0.000		0	N.D.	
101)	1,4-Dioxane	0.000		0	N.D.	
102)	2-Nitropropane	0.000		0	N.D.	
104)	Ethyl methacrylate	0.000		0	N.D.	
106)	1-Chlorohexane	0.000		0	N.D.	
107)	cis-1,4-Dichloro-2-butene	0.000		0	N.D.	
108)	Cyclohexanone	0.000		0	N.D.	
109)	trans-1,4-Dichloro-2-b...	0.000		0	N.D.	
110)	Pentachloroethane	0.000		0	N.D.	
111)	Benzyl chloride	0.000		0m	N.D. d	
112)	bis(2-Chloroisopropyl)...	0.000		0	N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709\
Data File : AP418.D
Acq On : 18 Dec 2009 12:17 am
Operator : JEB
InstName : VOAA
Sample : |242654001|934516|1|VOA|1|VOA8260BS|
Misc : LANL 5.3G N/A SOIL
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Dec 18 12:57:33 2009
Quant Method : C:\msdchem\1\METHODS\VOAA-8260-110609.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Nov 09 16:21:09 2009
Response via : Initial Calibration
Integrator: RTE

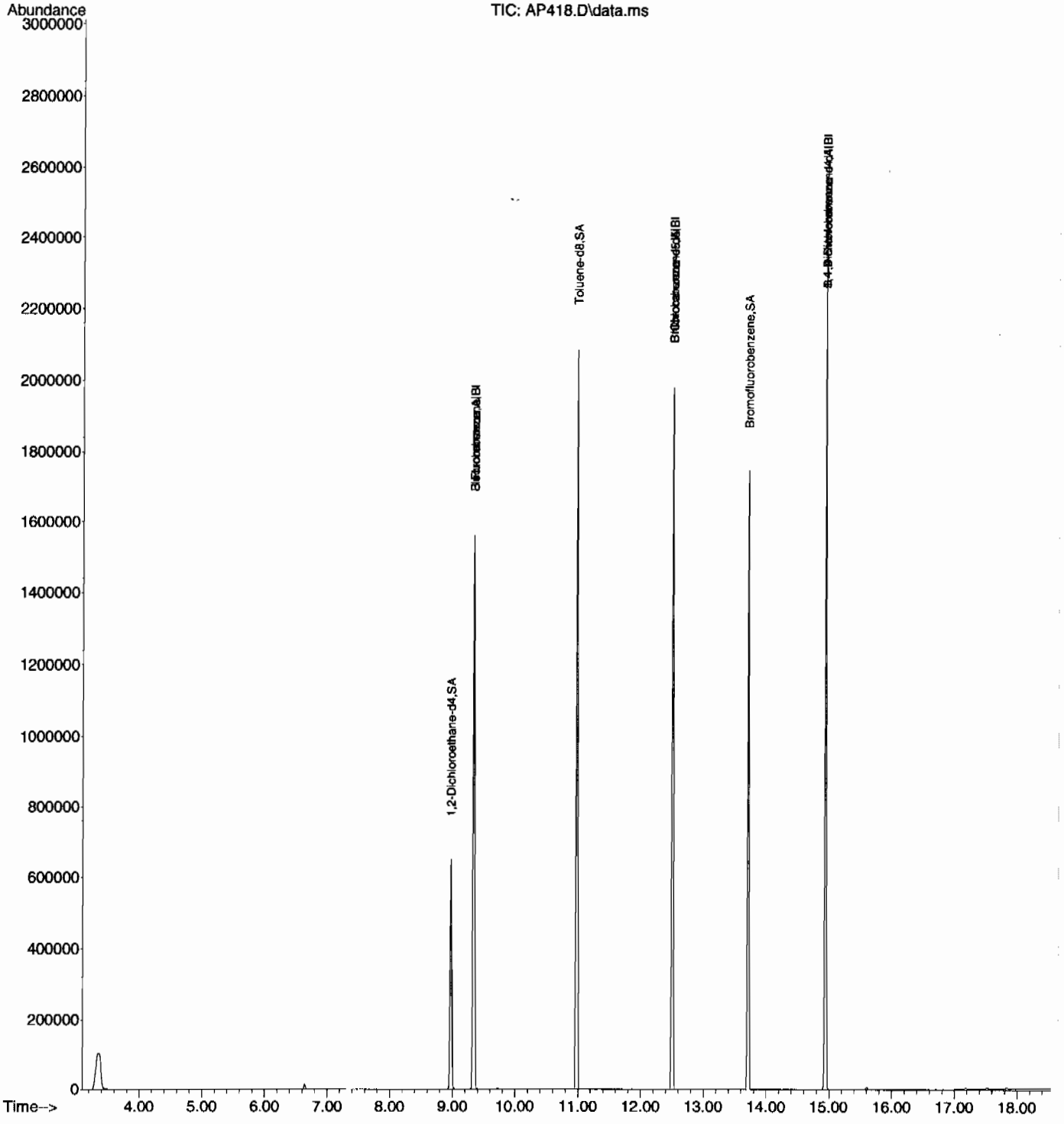

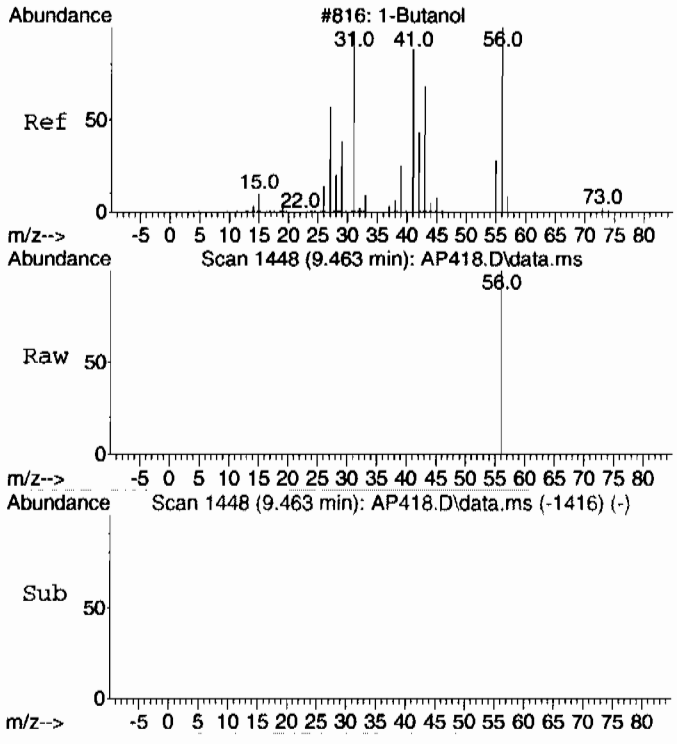

#33 BEFORE analyst DELETION
n-Butyl alcohol
Concen: 96.60 ug/L
RT: 9.463 min Scan# 1448
Delta R.T. 0.004 min
Lab File: AP418.D
Acq: 18 Dec 2009 12:17 am

Tgt Ion: 56 Resp: 115

Ion	Ratio	Lower	Upper
56	100		
41	0.0	27.8	87.8#
43	0.0	17.9	77.9#

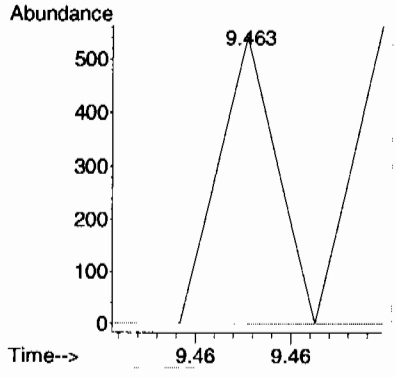

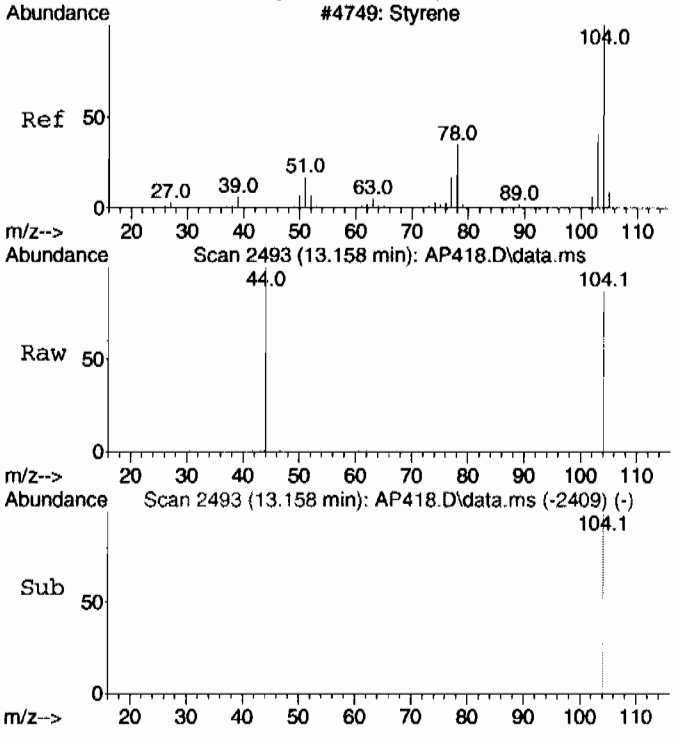

#57 BEFORE analyst DELETION
Styrene
Concen: 1.06 ug/L
RT: 13.158 min Scan# 2493
Delta R.T. -0.004 min
Lab File: AP418.D
Acq: 18 Dec 2009 12:17 am

Tgt Ion:104 Resp: 108

Ion	Ratio	Lower	Upper
104	100		
78	0.0	17.7	77.7#

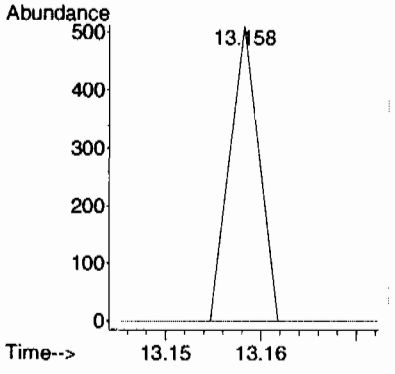

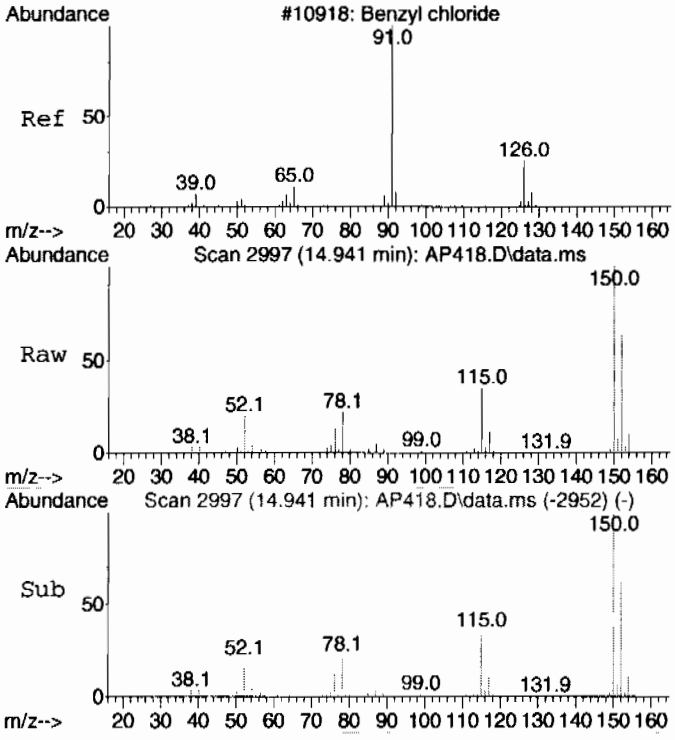

#111 BEFORE analyst DELETION
Benzyl chloride
Concen: 4.45 ug/L
RT: 14.941 min Scan# 2997
Delta R.T. -0.141 min
Lab File: AP418.D
Acq: 18 Dec 2009 12:17 am

Tgt Ion: 91 Resp: 1133

Ion	Ratio	Lower	Upper
91	100		
126	0.0	0.0	52.0
65	396.2	0.0	41.2#

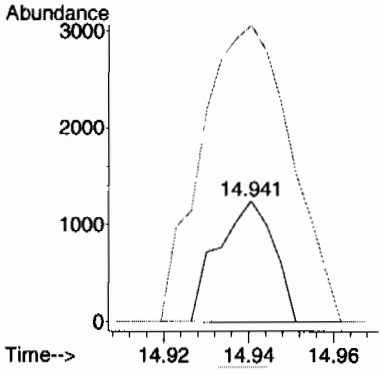

Library Search Compound Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709\
Data File : AP418.D
Acq On : 18 Dec 2009 12:17 am
Operator : JEB
Sample : |242654001|934516|1|VOA|1|VOA8260BS|
Misc : LANL 5.3G N/A SOIL
ALS Vial : 18 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\VOAA-8260-110609.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

****

Peak Number 1 unknown Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
3.369	10.26 ug/L	581460	Fluorobenzene	9.339

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Dimethyl ether	46	C2H6O	000115-10-6	5
2	Ethyl alcohol	46	C2H6O	000064-17-5	4
3	Ethyl alcohol	46	C2H6O	000064-17-5	4
4	Ethyl alcohol	46	C2H6O	000064-17-5	4
5	Dimethyl ether	46	C2H6O	000115-10-6	2

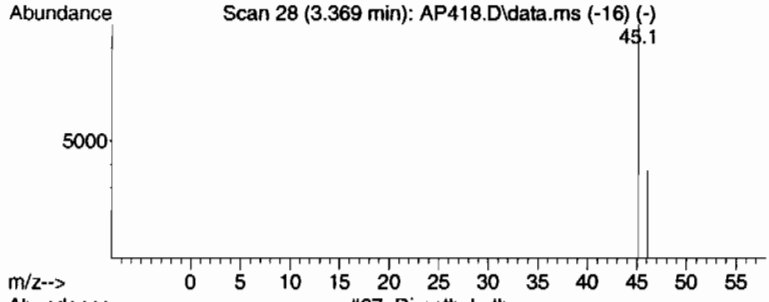

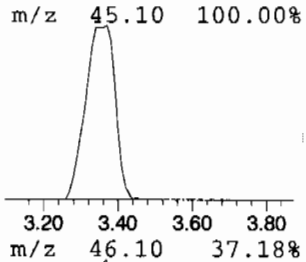

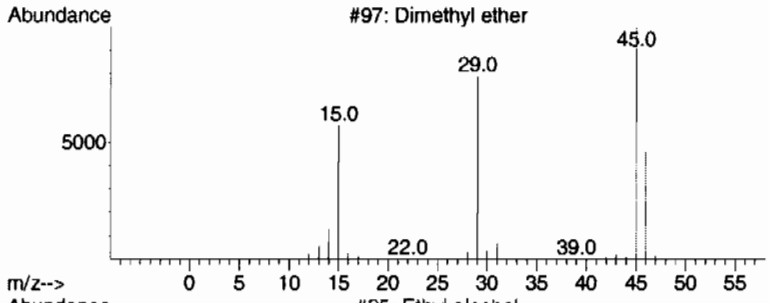

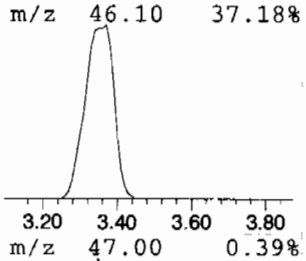

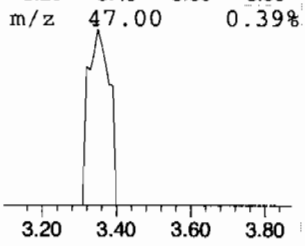

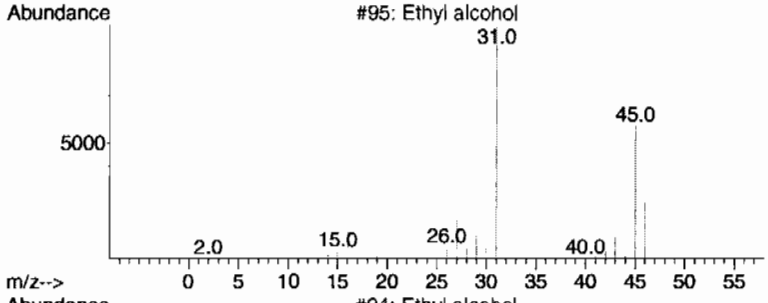

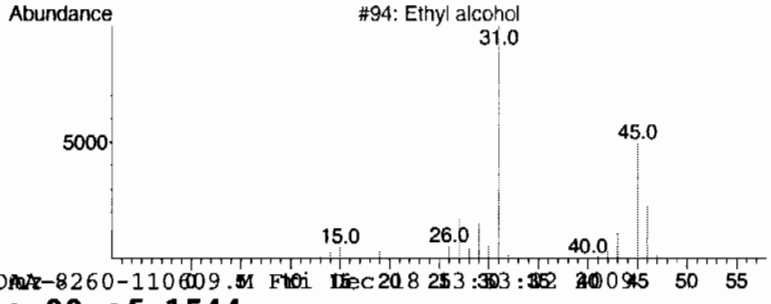

Tentatively Identified Compound (LSC) summary
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709\
Data File : AP418.D
Acq On : 18 Dec 2009 12:17 am
Operator : JEB
Sample : |242654001|934516|1|VOA|1|VOA8260BS|
Misc : LANL 5.3G N/A SOIL
ALS Vial : 18 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\VOAA-8260-110609.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

TIC Top Hit name	RT	EstConc	Units	Response	--Internal Standard--- #	RT	Resp	Conc
unknown	3.369	10.3	ug/L	581460	1	9.339	2833210	50.0

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-852**	**Date Collected:**	**12/07/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242654002**	**Date Received:**	**12/10/2009 08:50**	**%Moisture:**	**10.3**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14227**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**934516**	**Inst:**	**VOAA.I**	**Dilution:**	**1**
Run Date:	**12/18/2009 00:43**	**Analyst:**	**JEB**	**Purge Vol:**	**5 mL**
Prep Date:	**12/17/2009 19:04**	**Aliquot:**	**5.3 g**	**Final Volume:**	**5 mL**
Data File:	**121709\AP419.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.05	ug/kg	0.358	1.05
74-87-3	Chloromethane	U	1.05	ug/kg	0.315	1.05
75-01-4	Vinyl chloride	U	1.05	ug/kg	0.315	1.05
74-83-9	Bromomethane	U	1.05	ug/kg	0.315	1.05
75-00-3	Chloroethane	U	1.05	ug/kg	0.315	1.05
75-69-4	Trichlorofluoromethane	U	1.05	ug/kg	0.315	1.05
67-64-1	Acetone	J	4.38	ug/kg	1.75	5.26
75-35-4	1,1-Dichloroethylene	U	1.05	ug/kg	0.315	1.05
74-88-4	Iodomethane	U	5.26	ug/kg	1.68	5.26
75-09-2	Methylene chloride	U	5.26	ug/kg	2.10	5.26
75-15-0	Carbon disulfide	U	5.26	ug/kg	1.31	5.26
156-60-5	trans-1,2-Dichloroethylene	U	1.05	ug/kg	0.315	1.05
75-34-3	1,1-Dichloroethane	U	1.05	ug/kg	0.315	1.05
78-93-3	2-Butanone	U	5.26	ug/kg	1.58	5.26
156-59-2	cis-1,2-Dichloroethylene	U	1.05	ug/kg	0.315	1.05
594-20-7	2,2-Dichloropropane	U	1.05	ug/kg	0.315	1.05
67-66-3	Chloroform	U	1.05	ug/kg	0.315	1.05
74-97-5	Bromochloromethane	U	1.05	ug/kg	0.347	1.05
71-55-6	1,1,1-Trichloroethane	U	1.05	ug/kg	0.315	1.05
563-58-6	1,1-Dichloropropene	U	1.05	ug/kg	0.315	1.05
56-23-5	Carbon tetrachloride	U	1.05	ug/kg	0.315	1.05
107-06-2	1,2-Dichloroethane	U	1.05	ug/kg	0.315	1.05
71-43-2	Benzene	U	1.05	ug/kg	0.315	1.05
79-01-6	Trichloroethylene	U	1.05	ug/kg	0.347	1.05
78-87-5	1,2-Dichloropropane	U	1.05	ug/kg	0.315	1.05
75-27-4	Bromodichloromethane	U	1.05	ug/kg	0.315	1.05
74-95-3	Dibromomethane	U	1.05	ug/kg	0.315	1.05
108-10-1	4-Methyl-2-pentanone	U	5.26	ug/kg	1.31	5.26
10061-01-5	cis-1,3-Dichloropropylene	U	1.05	ug/kg	0.315	1.05
108-88-3	Toluene	U	1.05	ug/kg	0.315	1.05
10061-02-6	trans-1,3-Dichloropropylene	U	1.05	ug/kg	0.315	1.05
79-00-5	1,1,2-Trichloroethane	U	1.05	ug/kg	0.315	1.05
591-78-6	2-Hexanone	U	5.26	ug/kg	1.58	5.26
142-28-9	1,3-Dichloropropane	U	1.05	ug/kg	0.315	1.05
127-18-4	Tetrachloroethylene	U	1.05	ug/kg	0.315	1.05
124-48-1	Dibromochloromethane	U	1.05	ug/kg	0.315	1.05
106-93-4	1,2-Dibromoethane	U	1.05	ug/kg	0.315	1.05
108-90-7	Chlorobenzene	U	1.05	ug/kg	0.315	1.05

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242654002	**Date Received:**	12/10/2009 08:50	**%Moisture:**	10.3
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14227	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	934516	**Inst:**	VOAA.I	**Dilution:**	1
Run Date:	12/18/2009 00:43	**Analyst:**	JEB	**Purge Vol:**	5 mL
Prep Date:	12/17/2009 19:04	**Aliquot:**	5.3 g	**Final Volume:**	5 mL
Data File:	121709\AP419.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.05	ug/kg	0.315	1.05
179601-23-1	m,p-Xylenes	U	2.10	ug/kg	0.315	2.10
95-47-6	o-Xylene	U	1.05	ug/kg	0.315	1.05
100-42-5	Styrene	U	1.05	ug/kg	0.315	1.05
75-25-2	Bromoform	U	1.05	ug/kg	0.315	1.05
79-34-5	1,1,2,2-Tetrachloroethane	U	1.05	ug/kg	0.315	1.05
96-18-4	1,2,3-Trichloropropane	U	1.05	ug/kg	0.315	1.05
108-86-1	Bromobenzene	U	1.05	ug/kg	0.315	1.05
103-65-1	n-Propylbenzene	U	1.05	ug/kg	0.315	1.05
95-49-8	2-Chlorotoluene	U	1.05	ug/kg	0.315	1.05
98-82-8	Isopropylbenzene	U	1.05	ug/kg	0.315	1.05
108-67-8	1,3,5-Trimethylbenzene	U	1.05	ug/kg	0.315	1.05
106-43-4	4-Chlorotoluene	U	1.05	ug/kg	0.315	1.05
98-06-6	tert-Butylbenzene	U	1.05	ug/kg	0.315	1.05
95-63-6	1,2,4-Trimethylbenzene	U	1.05	ug/kg	0.315	1.05
135-98-8	sec-Butylbenzene	U	1.05	ug/kg	0.315	1.05
99-87-6	4-Isopropyltoluene	U	1.05	ug/kg	0.315	1.05
541-73-1	1,3-Dichlorobenzene	U	1.05	ug/kg	0.315	1.05
106-46-7	1,4-Dichlorobenzene	U	1.05	ug/kg	0.315	1.05
104-51-8	n-Butylbenzene	U	1.05	ug/kg	0.315	1.05
96-12-8	1,2-Dibromo-3-chloropropane	U	1.05	ug/kg	0.315	1.05
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.26	ug/kg	1.68	5.26
630-20-6	1,1,1,2-Tetrachloroethane	U	1.05	ug/kg	0.315	1.05
95-50-1	1,2-Dichlorobenzene	U	1.05	ug/kg	0.315	1.05

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown	3.34	6.96	ug/kg	0	J
	unknown	15.61	6.5	ug/kg	0	J

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709\
Data File : AP419.D
Acq On : 18 Dec 2009 12:43 am
Operator : JEB
InstName : VOAA
Sample : |242654002|934516|1|VOA|1|VOA8260BS|
Misc : LANL 5.3G N/A SOIL
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Dec 18 13:54:04 2009
Quant Method : C:\msdchem\1\METHODS\VOAA-8260-110609.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Nov 09 16:21:09 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Fluorobenzene	9.339	96	1317935	50.00 ug/L	0.00
41) Chlorobenzene-d5	12.507	117	1067451	50.00 ug/L	0.00
58) 1,4-Dichlorobenzene-d4	14.940	152	682168	50.00 ug/L	0.00
82) B Fluorobenzene	9.339	96	1317935	50.00 ug/L	0.00
103) B Chlorobenzene-d5	12.507	117	1067451	50.00 ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	14.940	152	682168	50.00 ug/L	0.00
System Monitoring Compounds					
29) 1,2-Dichloroethane-d4	8.978	65	489975	53.51 ug/L	0.00
Spiked Amount 50.000	Range 68 - 131		Recovery = 107.02%		
43) Toluene-d8	10.983	98	1284864	47.41 ug/L	0.00
Spiked Amount 50.000	Range 75 - 129		Recovery = 94.82%		
61) Bromofluorobenzene	13.713	95	562053	45.74 ug/L	0.00
Spiked Amount 50.000	Range 68 - 133		Recovery = 91.48%		
Target Compounds					Qvalue
2) Dichlorodifluoromethane	0.000		0	N.D.	
3) Chloromethane	0.000		0	N.D.	
4) Vinyl chloride	0.000		0	N.D.	
5) Bromomethane	0.000		0	N.D.	
6) Chloroethane	0.000		0	N.D.	
7) Trichlorofluoromethane	0.000		0	N.D.	
8) Ethyl ether	0.000		0	N.D.	
9) Acetone	6.089	43	22296	4.17 ug/L	84
10) 1,1-Dichloroethylene	0.000		0	N.D.	
11) Iodomethane	0.000		0	N.D.	
12) Acetonitrile	0.000		0	N.D.	
13) Methyl acetate	0.000		0	N.D.	
14) Carbon disulfide	6.428	76	996	N.D.	
15) Methylene chloride	6.644	84	7767	Below Cal	91
16) tert-Butyl methyl ether	0.000		0	N.D.	
17) trans-1,2-Dichloroethy...	0.000		0	N.D.	
18) Vinyl acetate	0.000		0	N.D.	
19) 1,1-Dichloroethane	0.000		0	N.D.	
20) 2-Butanone	0.000		0	N.D.	
21) cis-1,2-Dichloroethylene	0.000		0	N.D.	
22) 2,2-Dichloropropane	0.000		0	N.D.	
23) Bromochloromethane	0.000		0	N.D.	
24) Chloroform	0.000		0	N.D.	
25) 1,1,1-Trichloroethane	0.000		0	N.D.	
26) Cyclohexane	0.000		0	N.D.	
27) 1,1-Dichloropropene	0.000		0	N.D.	
28) Carbon tetrachloride	0.000		0	N.D.	
30) 1,2-Dichloroethane	0.000		0	N.D.	
31) Benzene	0.000		0	N.D.	
32) Cyclohexene	0.000		0	N.D.	
33) n-Butyl alcohol	9.463	56	1720	103.91 ug/L	76
34) Trichloroethylene	0.000		0	N.D.	
35) 1,2-Dichloropropane	0.000		0	N.D.	
36) Methylcyclohexane	0.000		0	N.D.	
37) Dibromomethane	0.000		0	N.D.	
38) Bromodichloromethane	0.000		0	N.D.	
39) 2-Chloroethylvinyl ether	0.000		0	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709\
Data File : AP419.D
Acq On : 18 Dec 2009 12:43 am
Operator : JEB
InstName : VOAA
Sample : |242654002|934516|1|VOA|1|VOA8260BS|
Misc : LANL 5.3G N/A SOIL
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Dec 18 13:54:04 2009
Quant Method : C:\msdchem\1\METHODS\VOAA-8260-110609.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Nov 09 16:21:09 2009
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
40)	cis-1,3-Dichloropropylene	0.000		0	N.D.	
42)	4-Methyl-2-pentanone	0.000		0	N.D.	
44)	Toluene	11.054	91	503	N.D.	
45)	trans-1,3-Dichloroprop...	0.000		0	N.D.	
46)	1,1,2-Trichloroethane	0.000		0	N.D.	
47)	2-Hexanone	0.000		0	N.D.	
48)	1,3-Dichloropropane	0.000		0	N.D.	
49)	Tetrachloroethylene	0.000		0	N.D.	
50)	Dibromochloromethane	0.000		0	N.D.	
51)	1,2-Dibromoethane	0.000		0	N.D.	
52)	Chlorobenzene	12.539	112	108	N.D.	
53)	1,1,1,2-Tetrachloroethane	0.000		0	N.D.	
54)	Ethylbenzene	12.511	91	2099	N.D.	
55)	m,p-Xylenes	0.000		0	N.D.	
56)	o-Xylene	0.000		0	N.D.	
57)	Styrene	0.000		0	N.D.	
59)	Bromoform	0.000		0	N.D.	
60)	Isopropylbenzene	13.667	105	3841	N.D.	
62)	1,1,2,2-Tetrachloroethane	0.000		0	N.D.	
63)	1,2,3-Trichloropropane	0.000		0m	N.D.	d
64)	Bromobenzene	0.000		0	N.D.	
65)	n-Propylbenzene	14.198	91	405	N.D.	
66)	1,3,5-Trimethylbenzene	0.000		0	N.D.	
67)	2-Chlorotoluene	0.000		0	N.D.	
68)	4-Chlorotoluene	14.198	91	405	N.D.	
69)	tert-Butylbenzene	0.000		0	N.D.	
70)	1,2,4-Trimethylbenzene	14.576	105	1875	N.D.	
71)	sec-Butylbenzene	14.576	105	1875	N.D.	
72)	4-Isopropyltoluene	0.000		0m	N.D.	d
73)	1,3-Dichlorobenzene	14.873	146	115	N.D.	
74)	1,4-Dichlorobenzene	14.965	146	1096	N.D.	
75)	n-Butylbenzene	0.000		0	N.D.	
76)	1,2-Dichlorobenzene	0.000		0	N.D.	
77)	1,2-Dibromo-3-chloropr...	0.000		0	N.D.	
78)	1,2,4-Trichlorobenzene	17.183	180	870	N.D.	
79)	Hexachlorobutadiene	0.000		0	N.D.	
80)	Naphthalene	17.522	128	2457	N.D.	
81)	1,2,3-Trichlorobenzene	17.847	180	618	N.D.	
83)	Chlorotrifluoroethylene	0.000		0	N.D.	
84)	2-Chloro-1,1,1-trifluo...	0.000		0	N.D.	
85)	Acrolein	0.000		0	N.D.	
86)	Trichlorotrifluoroethane	0.000		0	N.D.	
87)	Isopropyl Alcohol	0.000		0	N.D.	
88)	Allyl chloride	0.000		0	N.D.	
89)	tert-Butyl Alcohol	6.683	59	351	N.D.	
90)	Acrylonitrile	0.000		0	N.D.	
91)	Isopropyl ether	0.000		0	N.D.	
92)	2-Chloro-1,3-butadiene	0.000		0	N.D.	
93)	Ethyl tert-butyl ether	0.000		0	N.D.	
94)	Ethyl acetate	0.000		0	N.D.	
95)	Propionitrile	0.000		0	N.D.	
96)	Methacrylonitrile	0.000		0	N.D.	
97)	Tetrahydrofuran	0.000		0	N.D.	
98)	Isobutyl alcohol	0.000		0	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709\
Data File : AP419.D
Acq On : 18 Dec 2009 12:43 am
Operator : JEB
InstName : VOAA
Sample : |242654002|934516|1|VOA|1|VOA8260BS|
Misc : LANL 5.3G N/A SOIL
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Dec 18 13:54:04 2009
Quant Method : C:\msdchem\1\METHODS\VOAA-8260-110609.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Nov 09 16:21:09 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
99) Methyl tert-amyl ether	0.000		0	N.D.	
100) Methyl methacrylate	0.000		0	N.D.	
101) 1,4-Dioxane	0.000		0	N.D.	
102) 2-Nitropropane	0.000		0	N.D.	
104) Ethyl methacrylate	0.000		0	N.D.	
106) 1-Chlorohexane	0.000		0	N.D.	
107) cis-1,4-Dichloro-2-butene	0.000		0	N.D.	
108) Cyclohexanone	0.000		0	N.D.	
109) trans-1,4-Dichloro-2-b...	0.000		0	N.D.	
110) Pentachloroethane	0.000		0	N.D.	
111) Benzyl chloride	0.000		0m	N.D. d	
112) bis(2-Chloroisopropyl)...	0.000		0m	N.D. d	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709\
Data File : AP419.D
Acq On : 18 Dec 2009 12:43 am
Operator : JEB
InstName : VOAA
Sample : |242654002|934516|1|VOA|1|VOA8260BS|
Misc : LANL 5.3G N/A SOIL
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Dec 18 13:54:04 2009
Quant Method : C:\msdchem\1\METHODS\VOAA-8260-110609.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Nov 09 16:21:09 2009
Response via : Initial Calibration
Integrator: RTE

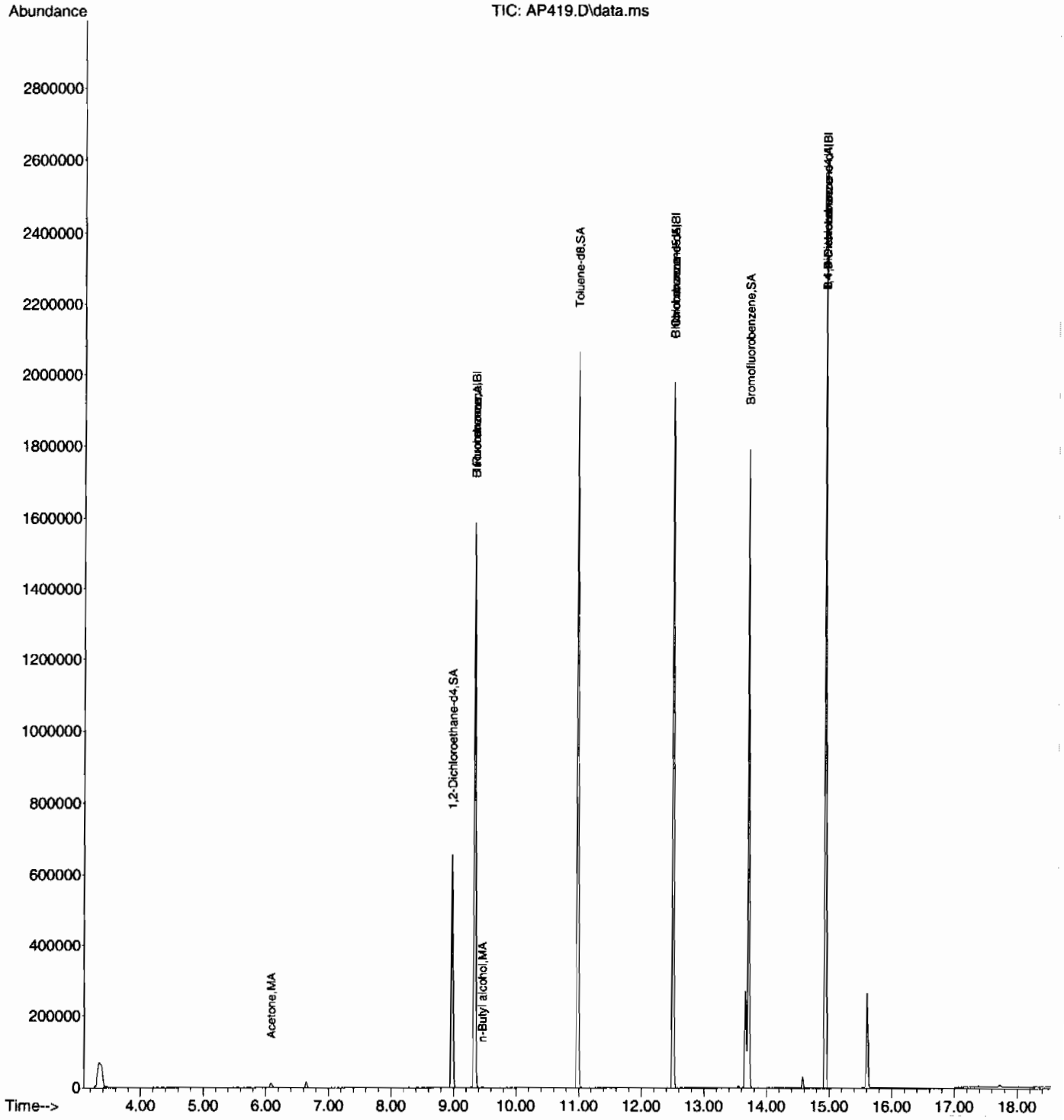

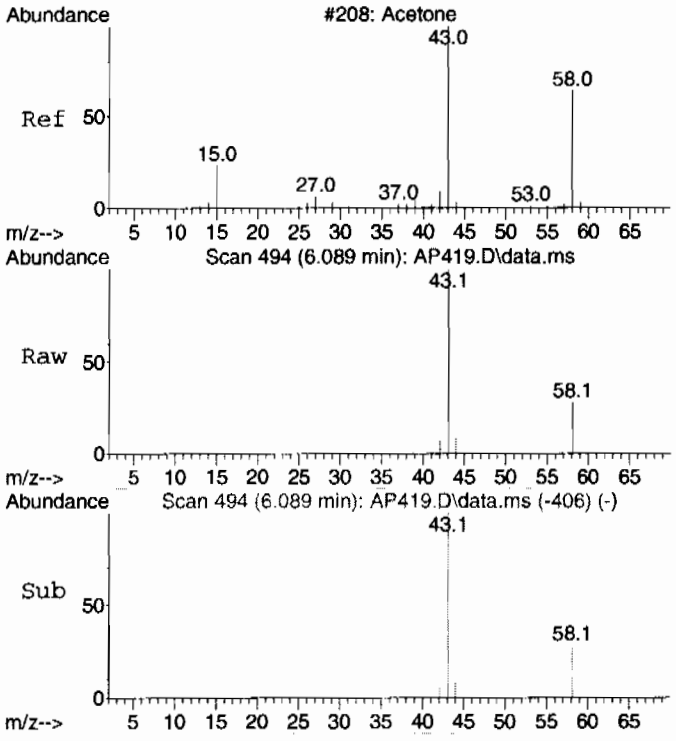

#9
Acetone
Concen: 4.17 ug/L
RT: 6.089 min Scan# 494
Delta R.T. 0.011 min
Lab File: AP419.D
Acq: 18 Dec 2009 12:43 am

Tgt Ion: 43 Resp: 22296

Ion	Ratio	Lower	Upper
43	100		
58	27.2	6.7	66.7

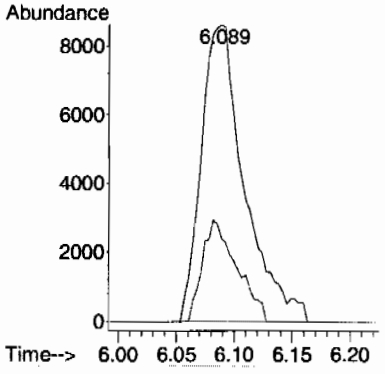

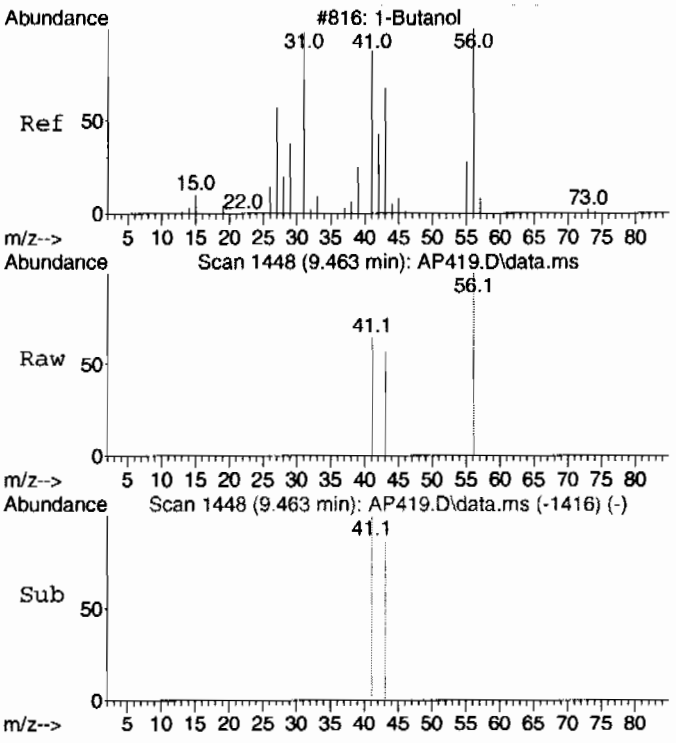

#33
n-Butyl alcohol
Concen: 103.91 ug/L
RT: 9.463 min Scan# 1448
Delta R.T. 0.004 min
Lab File: AP419.D
Acq: 18 Dec 2009 12:43 am

Tgt Ion: 56 Resp: 1720

Ion	Ratio	Lower	Upper
56	100		
41	42.2	27.8	87.8
43	29.1	17.9	77.9

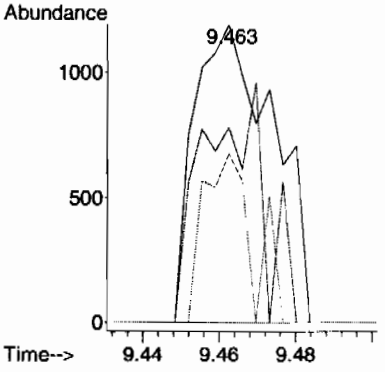

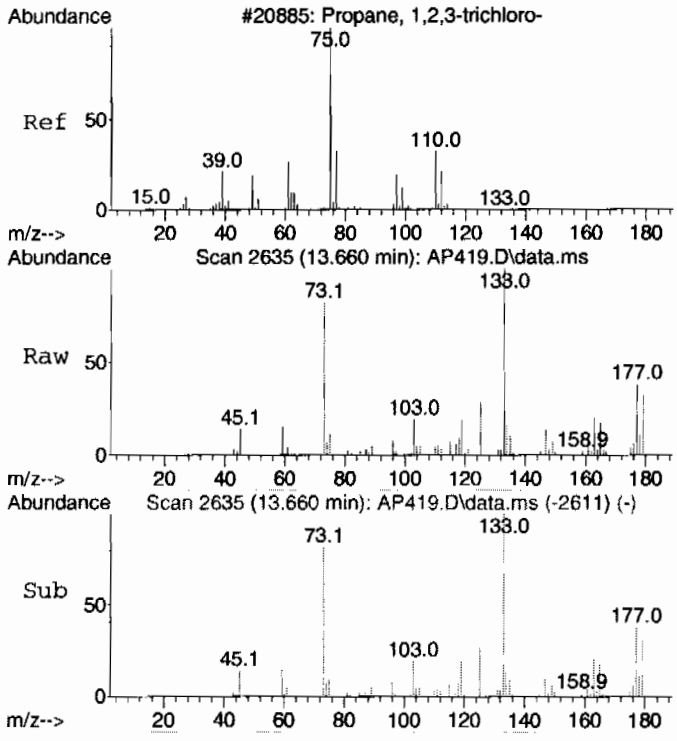

#63 BEFORE analyst DELETION
1,2,3-Trichloropropane
Concen: 1.41 ug/L
RT: 13.660 min Scan# 2635
Delta R.T. -0.216 min
Lab File: AP419.D
Acq: 18 Dec 2009 12:43 am

Tgt Ion:110 Resp: 3462

Ion	Ratio	Lower	Upper
110	100		
75	308.9	225.2	285.2#
77	0.0	48.9	108.9#

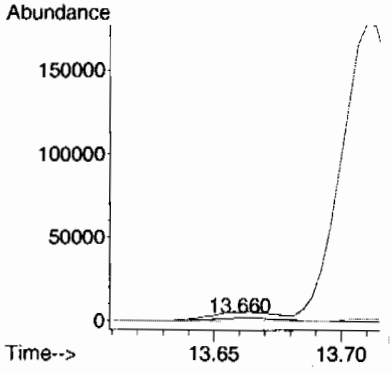

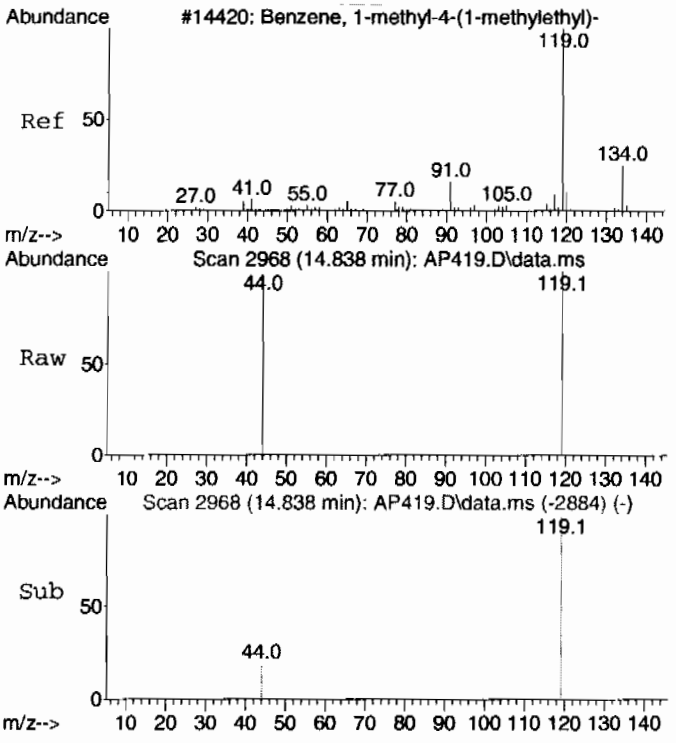

#72 BEFORE analyst DELETION
4-Isopropyltoluene
Concen: 0.83 ug/L
RT: 14.838 min Scan# 2968
Delta R.T. -0.003 min
Lab File: AP419.D
Acq: 18 Dec 2009 12:43 am

Tgt Ion:119 Resp: 593

Ion	Ratio	Lower	Upper
119	100		
134	0.0	0.0	58.1
91	0.0	0.0	52.4

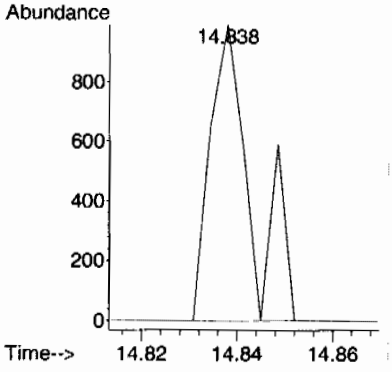

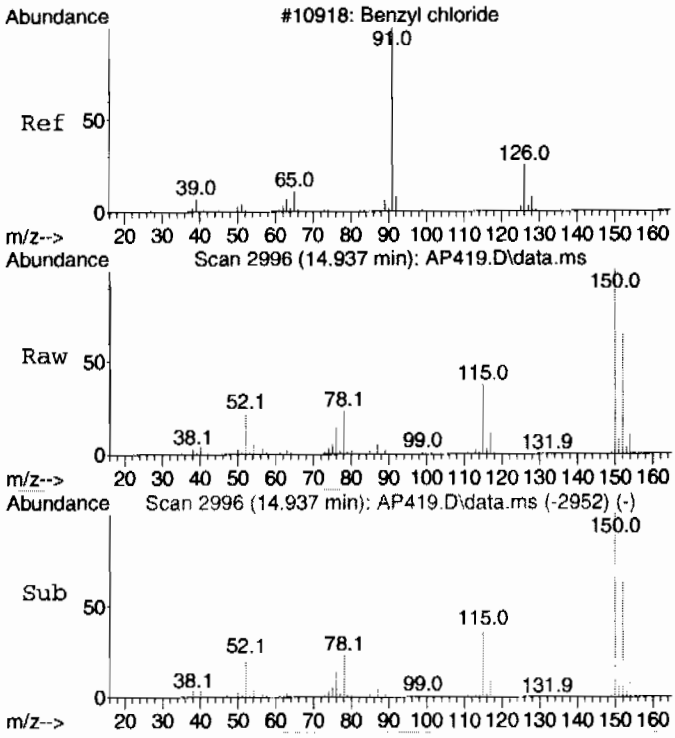

#111 BEFORE analyst DELETION
Benzyl chloride
Concen: 4.48 ug/L
RT: 14.937 min Scan# 2996
Delta R.T. -0.145 min
Lab File: AP419.D
Acq: 18 Dec 2009 12:43 am

Tgt Ion: 91 Resp: 1598

Ion	Ratio	Lower	Upper
91	100		
126	0.0	0.0	52.0
65	277.8	0.0	41.2#

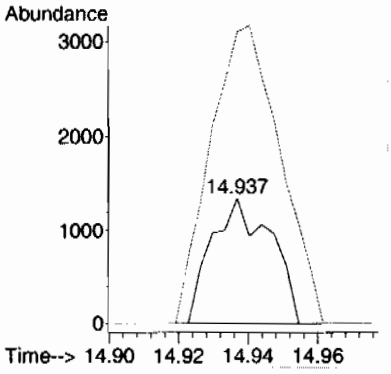

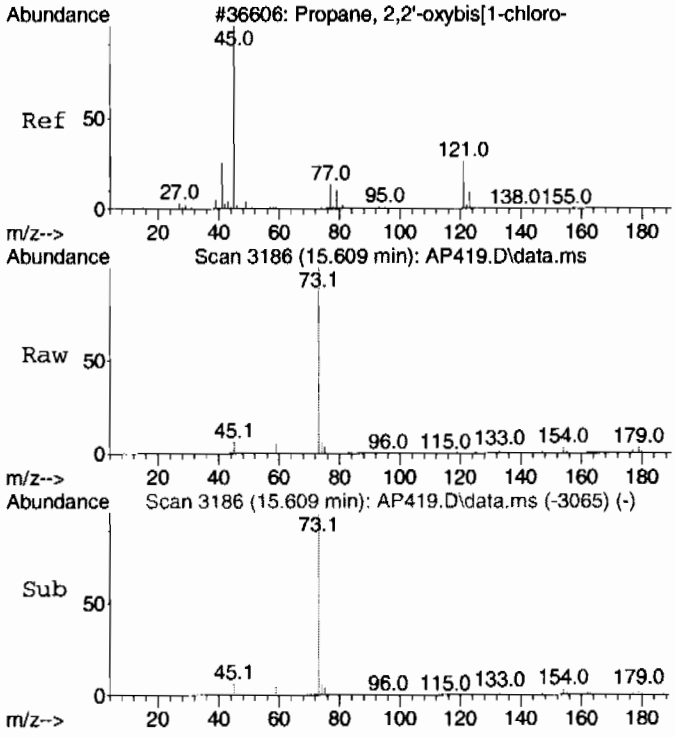

#112 BEFORE analyst DELETION
bis(2-Chloroisopropyl)ether
Concen: 4.09 ug/L
RT: 15.609 min Scan# 3186
Delta R.T. 0.127 min
Lab File: AP419.D
Acq: 18 Dec 2009 12:43 am

Tgt Ion: 45 Resp: 17395

Ion	Ratio	Lower	Upper
45	100		
121	0.0	0.0	56.8

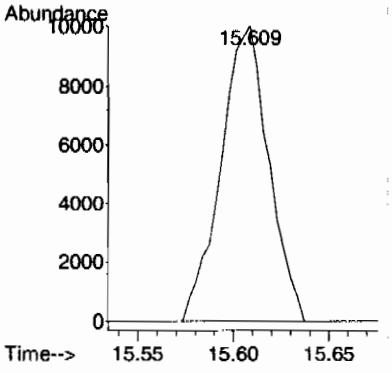

Library Search Compound Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709\
Data File : AP419.D
Acq On : 18 Dec 2009 12:43 am
Operator : JEB
Sample : |242654002|934516|1|VOA|1|VOA8260BS|
Misc : LANL 5.3G N/A SOIL
ALS Vial : 19 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\VOAA-8260-110609.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

****
Peak Number 1 unknown Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
3.339	6.62 ug/L	371925	Fluorobenzene	9.339

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Dimethyl ether	46	C2H6O	000115-10-6	5
2	Ethyl alcohol	46	C2H6O	000064-17-5	4
3	Ethyl alcohol	46	C2H6O	000064-17-5	4
4	Ethyl alcohol	46	C2H6O	000064-17-5	4
5	Dimethyl ether	46	C2H6O	000115-10-6	2

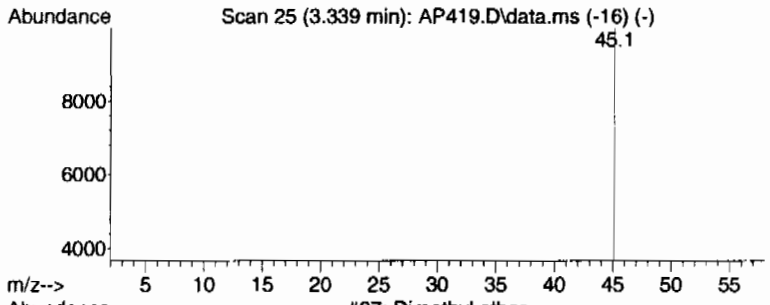

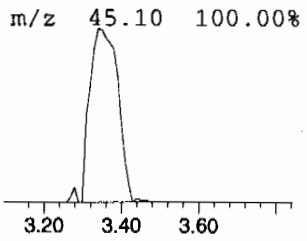

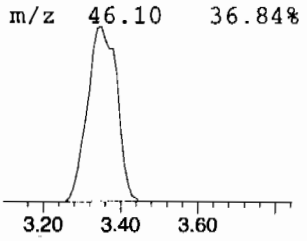

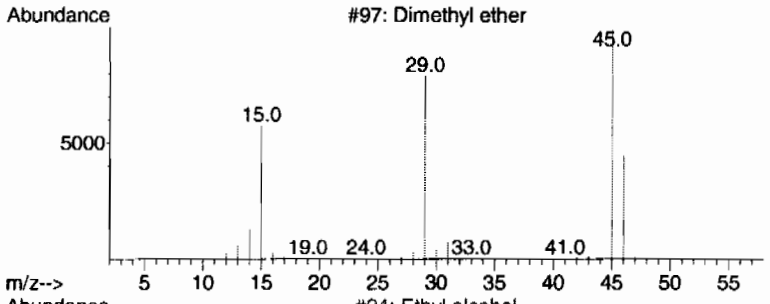

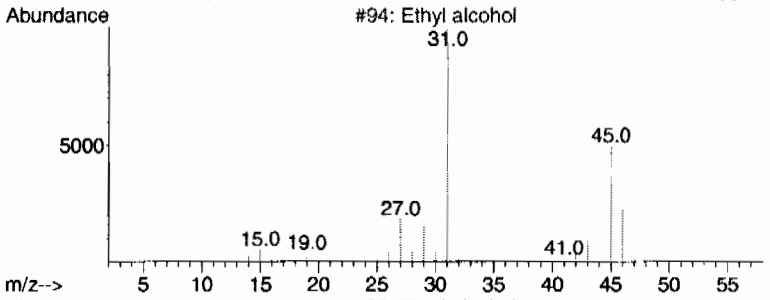

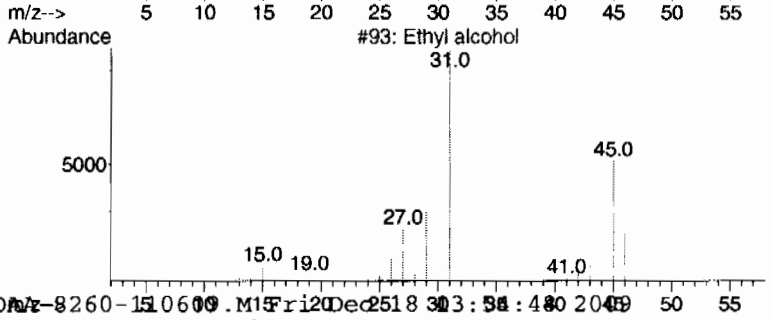

Library Search Compound Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709\
Data File : AP419.D
Acq On : 18 Dec 2009 12:43 am
Operator : JEB
Sample : |242654002|934516|1|VOA|1|VOA8260BS|
Misc : LANL 5.3G N/A SOIL
ALS Vial : 19 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\VOAA-8260-110609.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

****
Peak Number 2 unknown Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
15.605	6.18 ug/L	472542	B 1,4-Dichlorobenzene-d4	14.940

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1-Propene-1-thiol	74	C3H6S	000925-89-3	4
2	d-Talonic acid lactone	178	C6H10O6	1000127-87-3	4
3	Cyclopropane, 2-methylene-1-pent...	196	C12H24Si	167300-47-2	4
4	Borane, dimethyl[1-methyl-2-(tri...	168	C9H21BSi	062108-35-4	4
5	1,5-Heptadiene, 1,5-bis(trimethy...	252	C14H28Si2	1000153-97-1	4

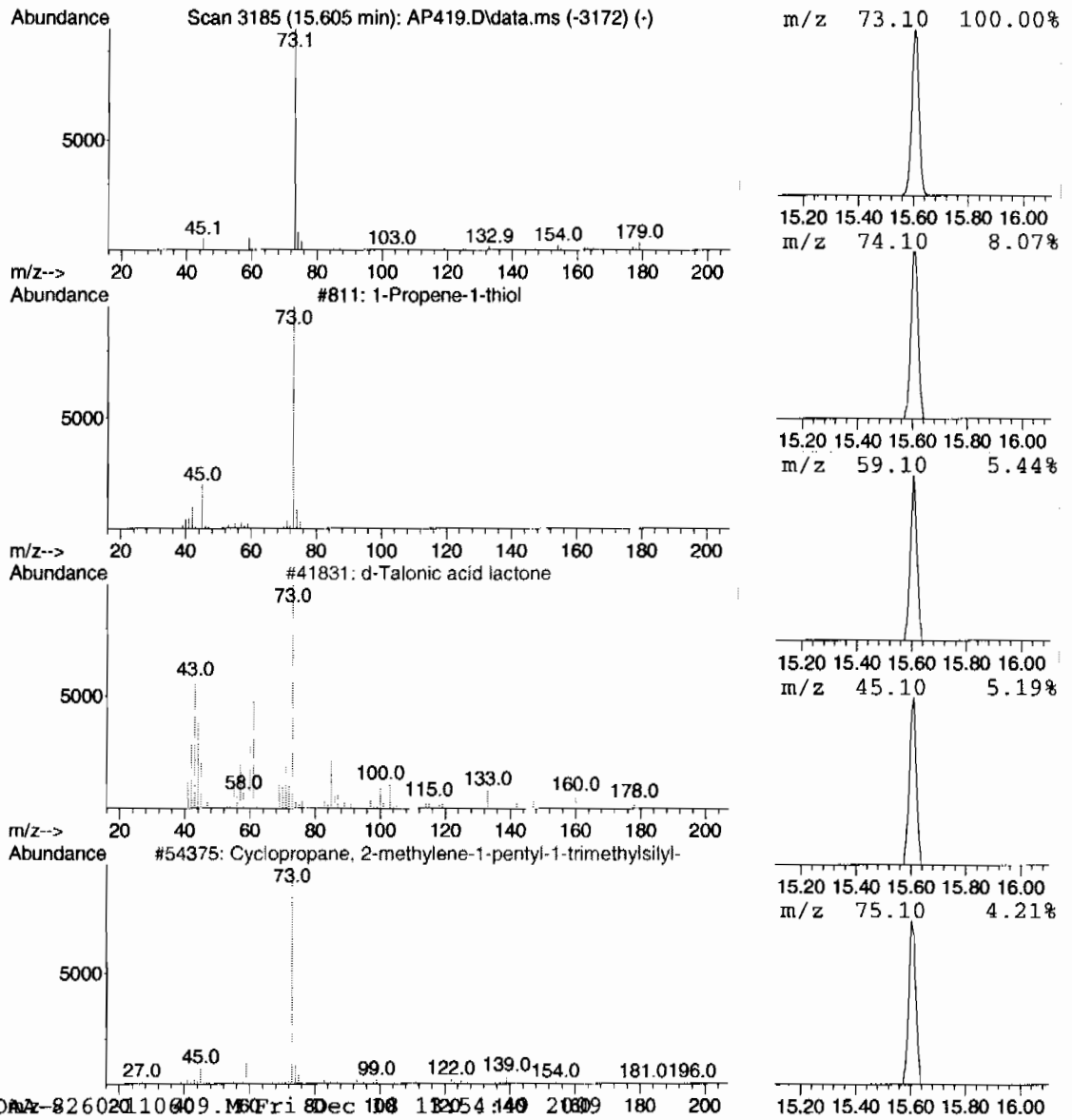

Tentatively Identified Compound (LSC) summary
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709\
Data File : AP419.D
Acq On : 18 Dec 2009 12:43 am
Operator : JEB
Sample : |242654002|934516|1|VOA|1|VOA8260BS|
Misc : LANL 5.3G N/A SOIL
ALS Vial : 19 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\VOAA-8260-110609.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

TIC Top Hit name	RT	EstConc	Units	Response	--Internal Standard--- #	RT	Resp	Conc
unknown	3.339	6.6	ug/L	371925	1	9.339	2810190	50.0
unknown	15.605	6.2	ug/L	472542	6	14.940	3820170	50.0

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242654003	**Date Received:**	12/10/2009 08:50	**%Moisture:**	11.9
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14225	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	934516	**Inst:**	VOAA.I	**Dilution:**	1
Run Date:	12/18/2009 01:09	**Analyst:**	JEB	**Purge Vol:**	5 mL
Prep Date:	12/17/2009 19:05	**Aliquot:**	5.1 g	**Final Volume:**	5 mL
Data File:	121709\AP420.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.11	ug/kg	0.379	1.11
74-87-3	Chloromethane	U	1.11	ug/kg	0.334	1.11
75-01-4	Vinyl chloride	U	1.11	ug/kg	0.334	1.11
74-83-9	Bromomethane	U	1.11	ug/kg	0.334	1.11
75-00-3	Chloroethane	U	1.11	ug/kg	0.334	1.11
75-69-4	Trichlorofluoromethane	U	1.11	ug/kg	0.334	1.11
67-64-1	Acetone	U	5.57	ug/kg	1.85	5.57
75-35-4	1,1-Dichloroethylene	U	1.11	ug/kg	0.334	1.11
74-88-4	Iodomethane	U	5.57	ug/kg	1.78	5.57
75-09-2	Methylene chloride	U	5.57	ug/kg	2.23	5.57
75-15-0	Carbon disulfide	U	5.57	ug/kg	1.39	5.57
156-60-5	trans-1,2-Dichloroethylene	U	1.11	ug/kg	0.334	1.11
75-34-3	1,1-Dichloroethane	U	1.11	ug/kg	0.334	1.11
78-93-3	2-Butanone	U	5.57	ug/kg	1.67	5.57
156-59-2	cis-1,2-Dichloroethylene	U	1.11	ug/kg	0.334	1.11
594-20-7	2,2-Dichloropropane	U	1.11	ug/kg	0.334	1.11
67-66-3	Chloroform	U	1.11	ug/kg	0.334	1.11
74-97-5	Bromochloromethane	U	1.11	ug/kg	0.367	1.11
71-55-6	1,1,1-Trichloroethane	U	1.11	ug/kg	0.334	1.11
563-58-6	1,1-Dichloropropene	U	1.11	ug/kg	0.334	1.11
56-23-5	Carbon tetrachloride	U	1.11	ug/kg	0.334	1.11
107-06-2	1,2-Dichloroethane	U	1.11	ug/kg	0.334	1.11
71-43-2	Benzene	U	1.11	ug/kg	0.334	1.11
79-01-6	Trichloroethylene	U	1.11	ug/kg	0.367	1.11
78-87-5	1,2-Dichloropropane	U	1.11	ug/kg	0.334	1.11
75-27-4	Bromodichloromethane	U	1.11	ug/kg	0.334	1.11
74-95-3	Dibromomethane	U	1.11	ug/kg	0.334	1.11
108-10-1	4-Methyl-2-pentanone	U	5.57	ug/kg	1.39	5.57
10061-01-5	cis-1,3-Dichloropropylene	U	1.11	ug/kg	0.334	1.11
108-88-3	Toluene	U	1.11	ug/kg	0.334	1.11
10061-02-6	trans-1,3-Dichloropropylene	U	1.11	ug/kg	0.334	1.11
79-00-5	1,1,2-Trichloroethane	U	1.11	ug/kg	0.334	1.11
591-78-6	2-Hexanone	U	5.57	ug/kg	1.67	5.57
142-28-9	1,3-Dichloropropane	U	1.11	ug/kg	0.334	1.11
127-18-4	Tetrachloroethylene	U	1.11	ug/kg	0.334	1.11
124-48-1	Dibromochloromethane	U	1.11	ug/kg	0.334	1.11
106-93-4	1,2-Dibromoethane	U	1.11	ug/kg	0.334	1.11
108-90-7	Chlorobenzene	U	1.11	ug/kg	0.334	1.11

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-852**	**Date Collected:**	**12/07/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242654003**	**Date Received:**	**12/10/2009 08:50**	**%Moisture:**	**11.9**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14225**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**934516**	**Inst:**	**VOAA.I**	**Dilution:**	**1**
Run Date:	**12/18/2009 01:09**	**Analyst:**	**JEB**	**Purge Vol:**	**5 mL**
Prep Date:	**12/17/2009 19:05**	**Aliquot:**	**5.1 g**	**Final Volume:**	**5 mL**
Data File:	**121709\AP420.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.11	ug/kg	0.334	1.11
179601-23-1	m,p-Xylenes	U	2.23	ug/kg	0.334	2.23
95-47-6	o-Xylene	U	1.11	ug/kg	0.334	1.11
100-42-5	Styrene	U	1.11	ug/kg	0.334	1.11
75-25-2	Bromoform	U	1.11	ug/kg	0.334	1.11
79-34-5	1,1,2,2-Tetrachloroethane	U	1.11	ug/kg	0.334	1.11
96-18-4	1,2,3-Trichloropropane	U	1.11	ug/kg	0.334	1.11
108-86-1	Bromobenzene	U	1.11	ug/kg	0.334	1.11
103-65-1	n-Propylbenzene	U	1.11	ug/kg	0.334	1.11
95-49-8	2-Chlorotoluene	U	1.11	ug/kg	0.334	1.11
98-82-8	Isopropylbenzene	U	1.11	ug/kg	0.334	1.11
108-67-8	1,3,5-Trimethylbenzene	U	1.11	ug/kg	0.334	1.11
106-43-4	4-Chlorotoluene	U	1.11	ug/kg	0.334	1.11
98-06-6	tert-Butylbenzene	U	1.11	ug/kg	0.334	1.11
95-63-6	1,2,4-Trimethylbenzene	U	1.11	ug/kg	0.334	1.11
135-98-8	sec-Butylbenzene	U	1.11	ug/kg	0.334	1.11
99-87-6	4-Isopropyltoluene	U	1.11	ug/kg	0.334	1.11
541-73-1	1,3-Dichlorobenzene	U	1.11	ug/kg	0.334	1.11
106-46-7	1,4-Dichlorobenzene	U	1.11	ug/kg	0.334	1.11
104-51-8	n-Butylbenzene	U	1.11	ug/kg	0.334	1.11
96-12-8	1,2-Dibromo-3-chloropropane	U	1.11	ug/kg	0.334	1.11
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.57	ug/kg	1.78	5.57
630-20-6	1,1,1,2-Tetrachloroethane	U	1.11	ug/kg	0.334	1.11
95-50-1	1,2-Dichlorobenzene	U	1.11	ug/kg	0.334	1.11

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown	3.33	10	ug/kg	0	J

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709\
Data File : AP420.D
Acq On : 18 Dec 2009 1:09 am
Operator : JEB
InstName : VOAA
Sample : |242654003|934516|1|VOA|1|VOA8260BS|
Misc : LANL 5.1G N/A SOIL
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Dec 18 13:55:41 2009
Quant Method : C:\msdchem\1\METHODS\VOAA-8260-110609.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Nov 09 16:21:09 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Fluorobenzene	9.335	96	1295614	50.00 ug/L	0.00
41) Chlorobenzene-d5	12.507	117	1050975	50.00 ug/L	0.00
58) 1,4-Dichlorobenzene-d4	14.940	152	658353	50.00 ug/L	0.00
82) B Fluorobenzene	9.335	96	1295614	50.00 ug/L	0.00
103) B Chlorobenzene-d5	12.507	117	1050975	50.00 ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	14.940	152	658353	50.00 ug/L	0.00
System Monitoring Compounds					
29) 1,2-Dichloroethane-d4	8.975	65	482671	53.62 ug/L	0.00
Spiked Amount 50.000	Range 68 - 131		Recovery = 107.24%		
43) Toluene-d8	10.983	98	1248630	46.80 ug/L	0.00
Spiked Amount 50.000	Range 75 - 129		Recovery = 93.60%		
61) Bromofluorobenzene	13.710	95	542205	45.72 ug/L	0.00
Spiked Amount 50.000	Range 68 - 133		Recovery = 91.44%		
Target Compounds					Qvalue
2) Dichlorodifluoromethane	0.000		0	N.D.	
3) Chloromethane	0.000		0	N.D.	
4) Vinyl chloride	0.000		0	N.D.	
5) Bromomethane	0.000		0	N.D.	
6) Chloroethane	0.000		0	N.D.	
7) Trichlorofluoromethane	0.000		0	N.D.	
8) Ethyl ether	0.000		0	N.D.	
9) Acetone	6.078	43	343	N.D.	
10) 1,1-Dichloroethylene	0.000		0	N.D.	
11) Iodomethane	0.000		0	N.D.	
12) Acetonitrile	0.000		0	N.D.	
13) Methyl acetate	0.000		0	N.D.	
14) Carbon disulfide	6.418	76	996	N.D.	
15) Methylene chloride	6.641	84	7015	Below Cal	92
16) tert-Butyl methyl ether	0.000		0	N.D.	
17) trans-1,2-Dichloroethy...	0.000		0	N.D.	
18) Vinyl acetate	0.000		0	N.D.	
19) 1,1-Dichloroethane	0.000		0	N.D.	
20) 2-Butanone	0.000		0	N.D.	
21) cis-1,2-Dichloroethylene	0.000		0	N.D.	
22) 2,2-Dichloropropane	0.000		0	N.D.	
23) Bromochloromethane	0.000		0	N.D.	
24) Chloroform	0.000		0	N.D.	
25) 1,1,1-Trichloroethane	0.000		0	N.D.	
26) Cyclohexane	0.000		0	N.D.	
27) 1,1-Dichloropropene	0.000		0	N.D.	
28) Carbon tetrachloride	0.000		0	N.D.	
30) 1,2-Dichloroethane	0.000		0	N.D.	
31) Benzene	0.000		0	N.D.	
32) Cyclohexene	0.000		0	N.D.	
33) n-Butyl alcohol	0.000		0m	N.D. d	
34) Trichloroethylene	0.000		0	N.D.	
35) 1,2-Dichloropropane	0.000		0	N.D.	
36) Methylcyclohexane	0.000		0	N.D.	
37) Dibromomethane	0.000		0	N.D.	
38) Bromodichloromethane	0.000		0	N.D.	
39) 2-Chloroethylvinyl ether	0.000		0	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709\
Data File : AP420.D
Acq On : 18 Dec 2009 1:09 am
Operator : JEB
InstName : VOAA
Sample : |242654003|934516|1|VOA|1|VOA8260BS|
Misc : LANL 5.1G N/A SOIL
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Dec 18 13:55:41 2009
Quant Method : C:\msdchem\1\METHODS\VOAA-8260-110609.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Nov 09 16:21:09 2009
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
40)	cis-1,3-Dichloropropylene	0.000		0	N.D.	
42)	4-Methyl-2-pentanone	0.000		0	N.D.	
44)	Toluene	11.054	91	518	N.D.	
45)	trans-1,3-Dichloroprop...	0.000		0	N.D.	
46)	1,1,2-Trichloroethane	0.000		0	N.D.	
47)	2-Hexanone	0.000		0	N.D.	
48)	1,3-Dichloropropane	0.000		0	N.D.	
49)	Tetrachloroethylene	0.000		0	N.D.	
50)	Dibromochloromethane	0.000		0	N.D.	
51)	1,2-Dibromoethane	0.000		0	N.D.	
52)	Chlorobenzene	0.000		0	N.D.	
53)	1,1,1,2-Tetrachloroethane	0.000		0	N.D.	
54)	Ethylbenzene	12.716	91	117	N.D.	
55)	m,p-Xylenes	0.000		0	N.D.	
56)	o-Xylene	0.000		0	N.D.	
57)	Styrene	0.000		0	N.D.	
59)	Bromoform	0.000		0	N.D.	
60)	Isopropylbenzene	13.664	105	1348	N.D.	
62)	1,1,2,2-Tetrachloroethane	0.000		0	N.D.	
63)	1,2,3-Trichloropropane	0.000		0m	N.D.	d
64)	Bromobenzene	0.000		0	N.D.	
65)	n-Propylbenzene	14.194	91	143	N.D.	
66)	1,3,5-Trimethylbenzene	0.000		0	N.D.	
67)	2-Chlorotoluene	0.000		0	N.D.	
68)	4-Chlorotoluene	14.194	91	143	N.D.	
69)	tert-Butylbenzene	0.000		0m	N.D.	d
70)	1,2,4-Trimethylbenzene	0.000		0m	N.D.	d
71)	sec-Butylbenzene	0.000		0m	N.D.	d
72)	4-Isopropyltoluene	0.000		0	N.D.	
73)	1,3-Dichlorobenzene	14.877	146	261	N.D.	
74)	1,4-Dichlorobenzene	14.969	146	1002	N.D.	
75)	n-Butylbenzene	0.000		0	N.D.	
76)	1,2-Dichlorobenzene	15.379	146	109	N.D.	
77)	1,2-Dibromo-3-chloropr...	0.000		0	N.D.	
78)	1,2,4-Trichlorobenzene	17.175	180	717	N.D.	
79)	Hexachlorobutadiene	0.000		0	N.D.	
80)	Naphthalene	17.522	128	2087	N.D.	
81)	1,2,3-Trichlorobenzene	17.839	180	241	N.D.	
83)	Chlorotrifluoroethylene	0.000		0	N.D.	
84)	2-Chloro-1,1,1-trifluo...	0.000		0	N.D.	
85)	Acrolein	0.000		0	N.D.	
86)	Trichlorotrifluoroethane	0.000		0	N.D.	
87)	Isopropyl Alcohol	0.000		0	N.D.	
88)	Allyl chloride	0.000		0	N.D.	
89)	tert-Butyl Alcohol	0.000		0	N.D.	
90)	Acrylonitrile	0.000		0	N.D.	
91)	Isopropyl ether	0.000		0	N.D.	
92)	2-Chloro-1,3-butadiene	0.000		0	N.D.	
93)	Ethyl tert-butyl ether	0.000		0	N.D.	
94)	Ethyl acetate	0.000		0	N.D.	
95)	Propionitrile	0.000		0	N.D.	
96)	Methacrylonitrile	0.000		0	N.D.	
97)	Tetrahydrofuran	0.000		0	N.D.	
98)	Isobutyl alcohol	0.000		0	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709\
Data File : AP420.D
Acq On : 18 Dec 2009 1:09 am
Operator : JEB
InstName : VOAA
Sample : |242654003|934516|1|VOA|1|VOA8260BS|
Misc : LANL 5.1G N/A SOIL
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Dec 18 13:55:41 2009
Quant Method : C:\msdchem\1\METHODS\VOAA-8260-110609.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Nov 09 16:21:09 2009
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
99)	Methyl tert-amyl ether	0.000		0	N.D.		
100)	Methyl methacrylate	0.000		0	N.D.		
101)	1,4-Dioxane	0.000		0	N.D.		
102)	2-Nitropropane	0.000		0	N.D.		
104)	Ethyl methacrylate	0.000		0	N.D.		
106)	1-Chlorohexane	0.000		0	N.D.		
107)	cis-1,4-Dichloro-2-butene	0.000		0	N.D.		
108)	Cyclohexanone	0.000		0	N.D.		
109)	trans-1,4-Dichloro-2-b...	0.000		0	N.D.		
110)	Pentachloroethane	0.000		0	N.D.		
111)	Benzyl chloride	0.000		0m	N.D.	d	
112)	bis(2-Chloroisopropyl)...	0.000		0m	N.D.	d	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709\
Data File : AP420.D
Acq On : 18 Dec 2009 1:09 am
Operator : JEB
InstName : VOAA
Sample : |242654003|934516|1|VOA|1|VOA8260BS|
Misc : LANL 5.1G N/A SOIL
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Dec 18 13:55:41 2009
Quant Method : C:\msdchem\1\METHODS\VOAA-8260-110609.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Nov 09 16:21:09 2009
Response via : Initial Calibration
Integrator: RTE

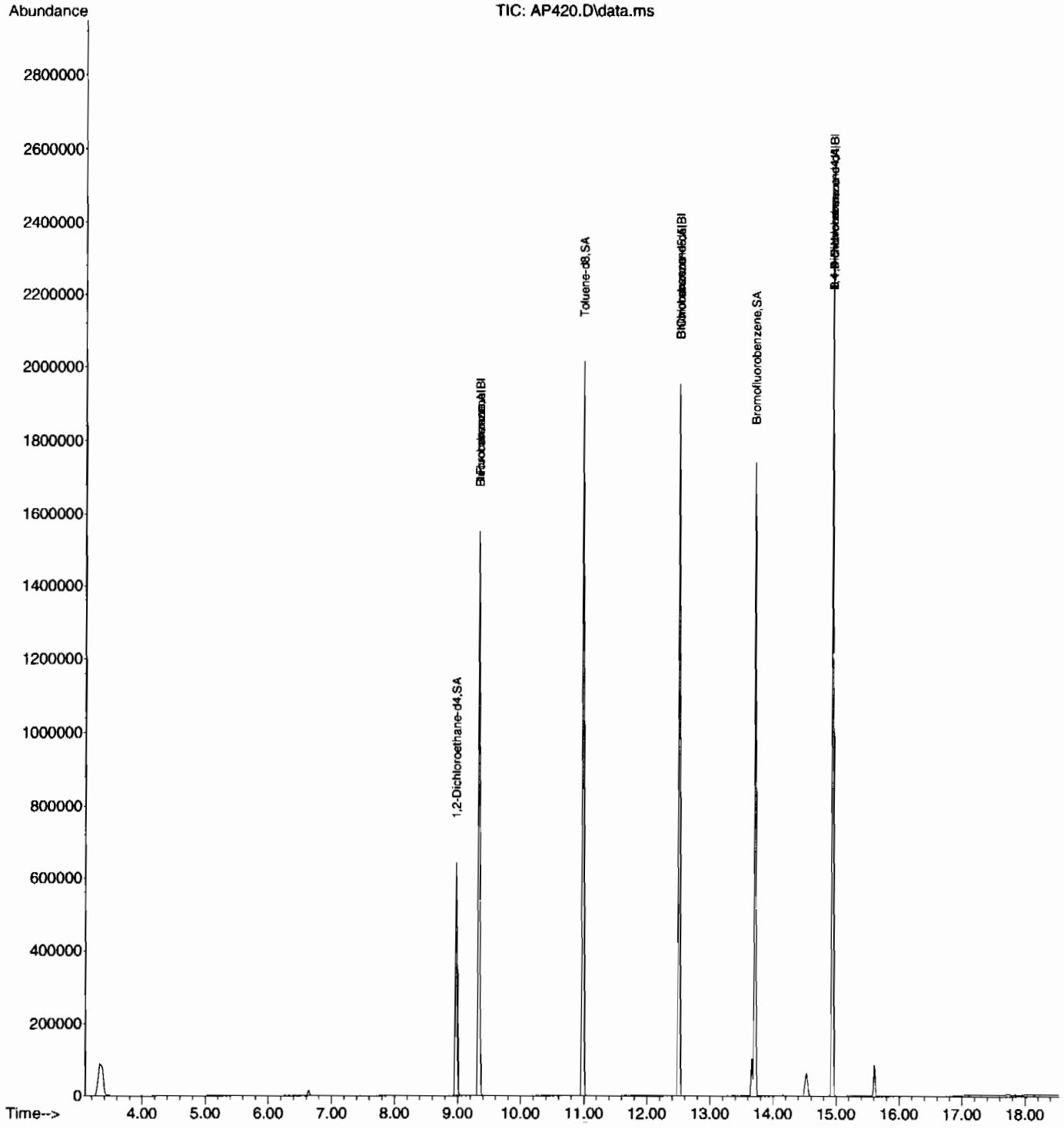

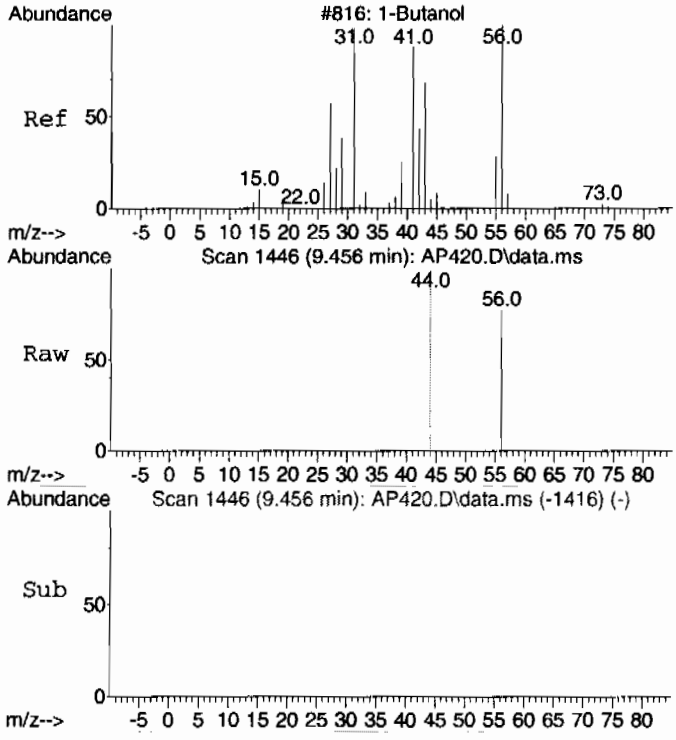

#33 BEFORE analyst DELETION
n-Butyl alcohol
Concen: 97.08 ug/L
RT: 9.456 min Scan# 1446
Delta R.T. -0.003 min
Lab File: AP420.D
Acq: 18 Dec 2009 1:09 am

Tgt Ion: 56 Resp: 214

Ion	Ratio	Lower	Upper
56	100		
41	0.0	27.8	87.8#
43	0.0	17.9	77.9#

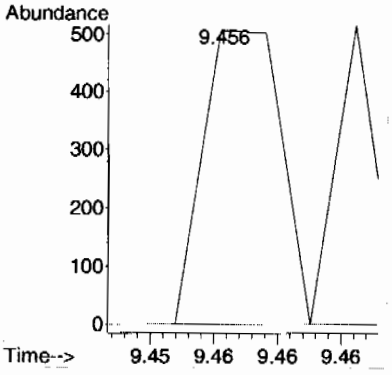

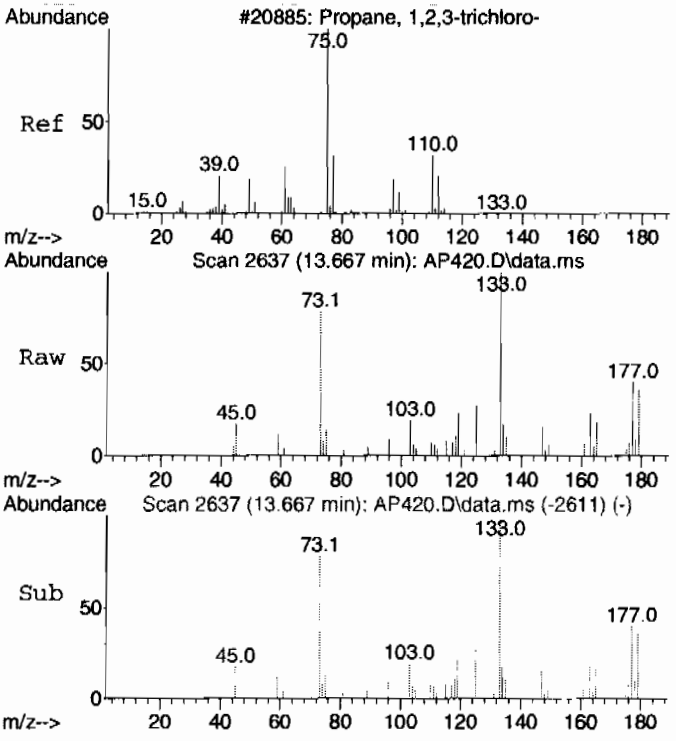

#63 BEFORE analyst DELETION
1,2,3-Trichloropropane
Concen: 0.49 ug/L
RT: 13.667 min Scan# 2637
Delta R.T. -0.209 min
Lab File: AP420.D
Acq: 18 Dec 2009 1:09 am

Tgt Ion:110 Resp: 1155

Ion	Ratio	Lower	Upper
110	100		
75	342.1	225.2	285.2#
77	0.0	48.9	108.9#

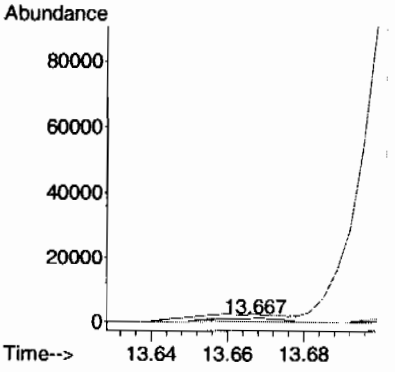

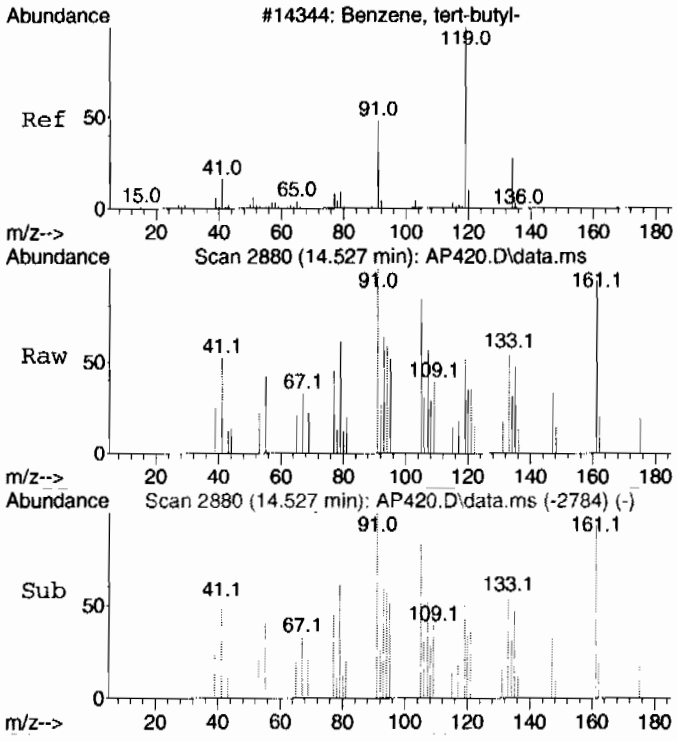

#69 BEFORE analyst DELETION
tert-Butylbenzene
Concen: 0.50 ug/L
RT: 14.527 min Scan# 2880
Delta R.T. 0.039 min
Lab File: AP420.D
Acq: 18 Dec 2009 1:09 am

Tgt Ion:134 Resp: 2941

Ion	Ratio	Lower	Upper
134	100		
119	274.5	354.2	414.2#
91	520.9	218.8	278.8#

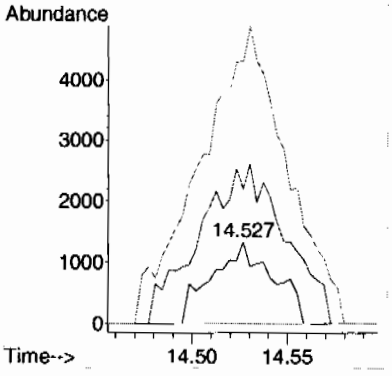

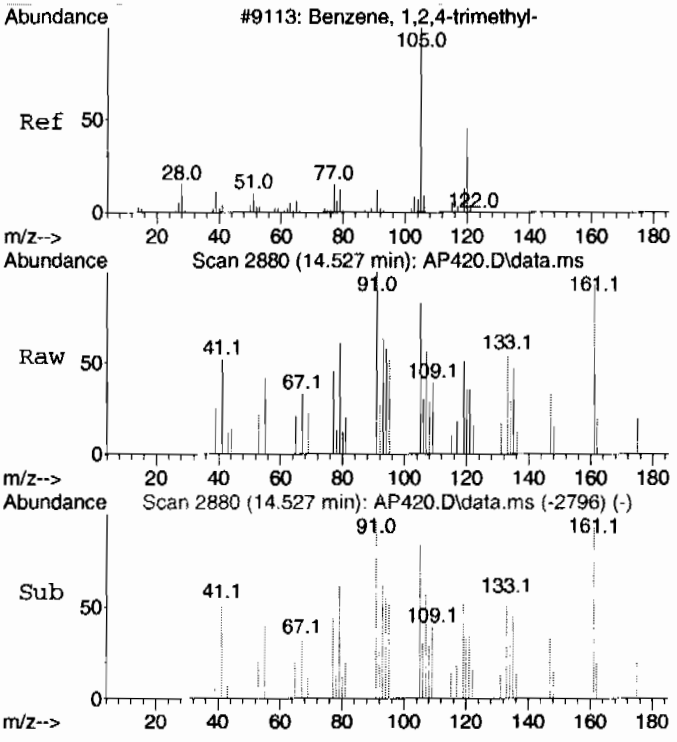

#70 BEFORE analyst DELETION
1,2,4-Trimethylbenzene
Concen: 0.43 ug/L
RT: 14.527 min Scan# 2880
Delta R.T. -0.003 min
Lab File: AP420.D
Acq: 18 Dec 2009 1:09 am

Tgt Ion:105 Resp: 11980

Ion	Ratio	Lower	Upper
105	100		
120	28.1	18.2	78.2

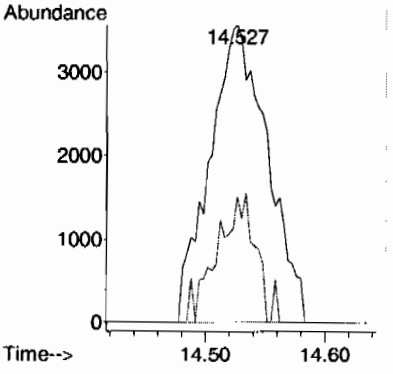

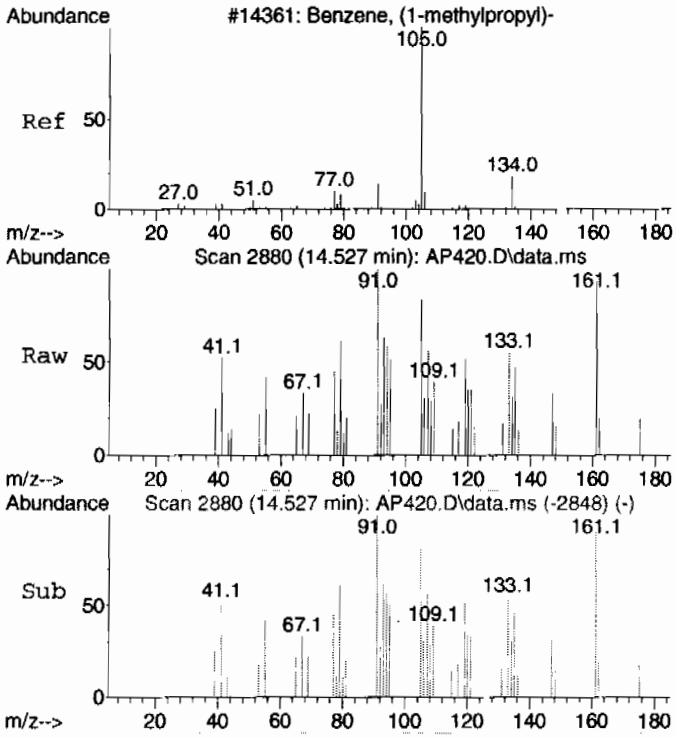

#71 BEFORE analyst DELETION
sec-Butylbenzene
Concen: 0.33 ug/L
RT: 14.527 min Scan# 2880
Delta R.T. -0.187 min
Lab File: AP420.D
Acq: 18 Dec 2009 1:09 am

Tgt Ion:105 Resp: 11980

Ion	Ratio	Lower	Upper
105	100		
134	24.5	0.0	52.3

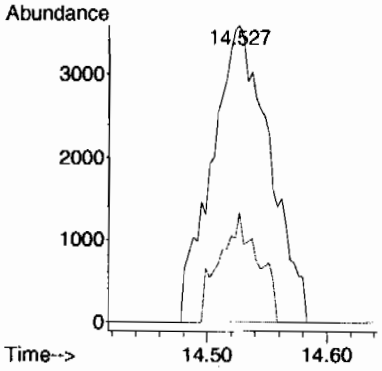

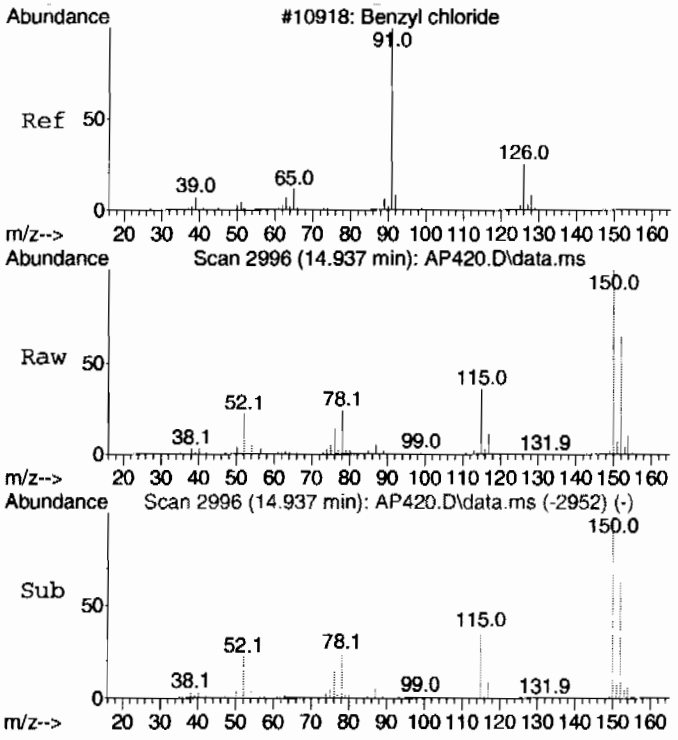

#111 BEFORE analyst DELETION
Benzyl chloride
Concen: 4.45 ug/L
RT: 14.937 min Scan# 2996
Delta R.T. -0.145 min
Lab File: AP420.D
Acq: 18 Dec 2009 1:09 am

Tgt Ion: 91 Resp: 1076

Ion	Ratio	Lower	Upper
91	100		
126	0.0	0.0	52.0
65	418.6	0.0	41.2#

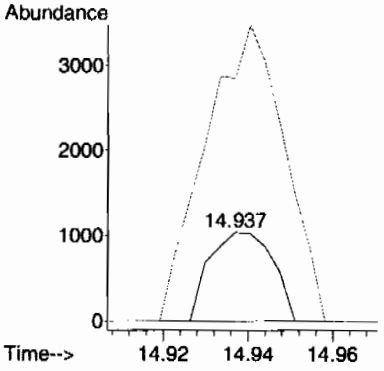

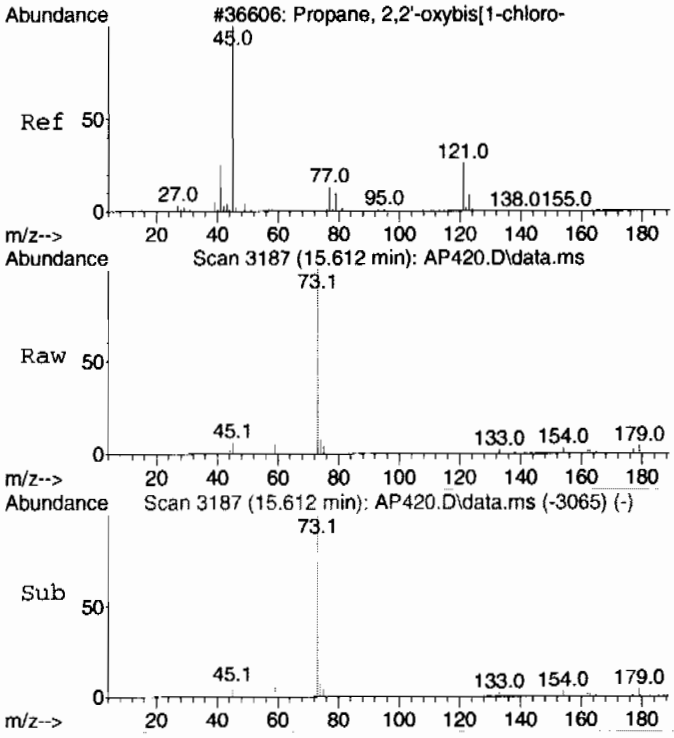

#112 BEFORE analyst DELETION
bis(2-Chloroisopropyl)ether
Concen: 1.53 ug/L
RT: 15.612 min Scan# 3187
Delta R.T. 0.131 min
Lab File: AP420.D
Acq: 18 Dec 2009 1:09 am

Tgt Ion: 45 Resp: 6271

Ion	Ratio	Lower	Upper
45	100		
121	0.0	0.0	56.8

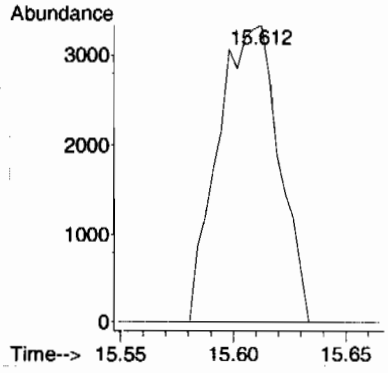

Library Search Compound Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709\
Data File : AP420.D
Acq On : 18 Dec 2009 1:09 am
Operator : JEB
Sample : |242654003|934516|1|VOA|1|VOA8260BS|
Misc : LANL 5.1G N/A SOIL
ALS Vial : 20 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\VOAA-8260-110609.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

****

Peak Number 1 unknown Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
3.328	9.00 ug/L	496352	Fluorobenzene	9.335

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Dimethyl ether	46	C2H6O	000115-10-6	5
2	Ethyl alcohol	46	C2H6O	000064-17-5	4
3	Ethyl alcohol	46	C2H6O	000064-17-5	4
4	Ethyl alcohol	46	C2H6O	000064-17-5	4
5	Formic acid	46	CH2O2	000064-18-6	3

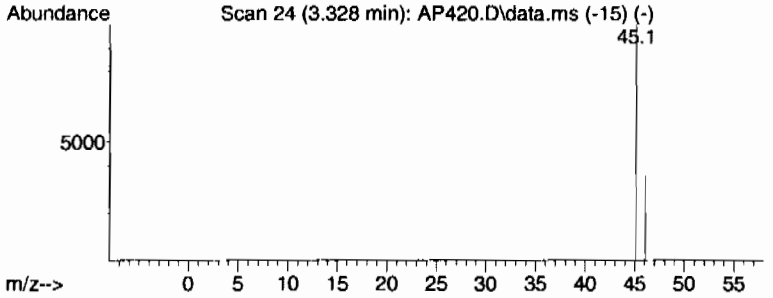

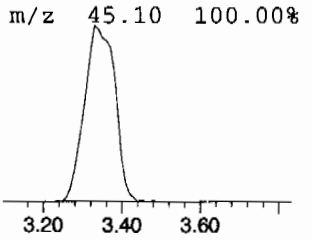

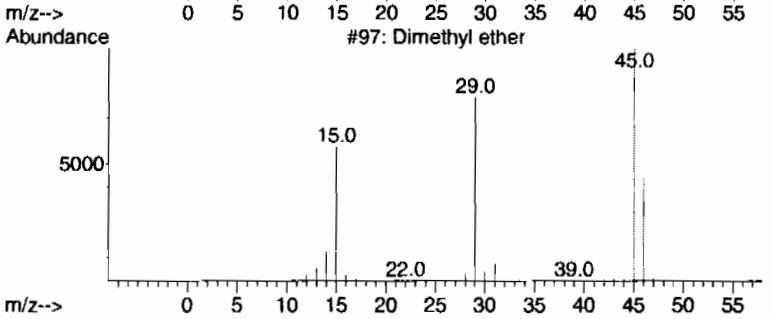

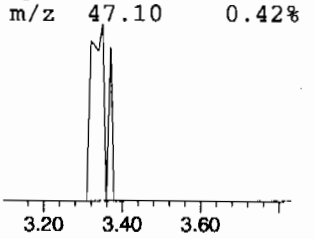

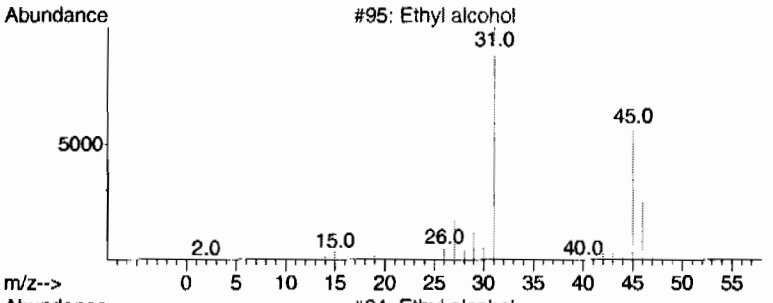

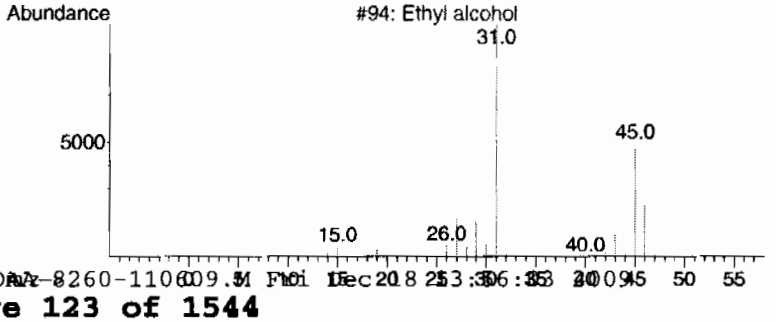

Tentatively Identified Compound (LSC) summary
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709\
Data File : AP420.D
Acq On : 18 Dec 2009 1:09 am
Operator : JEB
Sample : |242654003|934516|1|VOA|1|VOA8260BS|
Misc : LANL 5.1G N/A SOIL
ALS Vial : 20 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\VOAA-8260-110609.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

TIC Top Hit name	RT	EstConc	Units	Response	--Internal Standard--- #	RT	Resp	Conc
unknown	3.328	9.0	ug/L	496352	1	9.335	2758520	50.0

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242654004	**Date Received:**	12/10/2009 08:50	**%Moisture:**	9.5
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14226	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	934516	**Inst:**	VOAA.I	**Dilution:**	1
Run Date:	12/18/2009 01:35	**Analyst:**	JEB	**Purge Vol:**	5 mL
Prep Date:	12/17/2009 19:06	**Aliquot:**	5.1 g	**Final Volume:**	5 mL
Data File:	121709\AP421.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.08	ug/kg	0.368	1.08
74-87-3	Chloromethane	U	1.08	ug/kg	0.325	1.08
75-01-4	Vinyl chloride	U	1.08	ug/kg	0.325	1.08
74-83-9	Bromomethane	U	1.08	ug/kg	0.325	1.08
75-00-3	Chloroethane	U	1.08	ug/kg	0.325	1.08
75-69-4	Trichlorofluoromethane	U	1.08	ug/kg	0.325	1.08
67-64-1	Acetone	U	5.42	ug/kg	1.80	5.42
75-35-4	1,1-Dichloroethylene	U	1.08	ug/kg	0.325	1.08
74-88-4	Iodomethane	U	5.42	ug/kg	1.73	5.42
75-09-2	Methylene chloride	U	5.42	ug/kg	2.17	5.42
75-15-0	Carbon disulfide	U	5.42	ug/kg	1.35	5.42
156-60-5	trans-1,2-Dichloroethylene	U	1.08	ug/kg	0.325	1.08
75-34-3	1,1-Dichloroethane	U	1.08	ug/kg	0.325	1.08
78-93-3	2-Butanone	U	5.42	ug/kg	1.63	5.42
156-59-2	cis-1,2-Dichloroethylene	U	1.08	ug/kg	0.325	1.08
594-20-7	2,2-Dichloropropane	U	1.08	ug/kg	0.325	1.08
67-66-3	Chloroform	U	1.08	ug/kg	0.325	1.08
74-97-5	Bromochloromethane	U	1.08	ug/kg	0.358	1.08
71-55-6	1,1,1-Trichloroethane	U	1.08	ug/kg	0.325	1.08
563-58-6	1,1-Dichloropropene	U	1.08	ug/kg	0.325	1.08
56-23-5	Carbon tetrachloride	U	1.08	ug/kg	0.325	1.08
107-06-2	1,2-Dichloroethane	U	1.08	ug/kg	0.325	1.08
71-43-2	Benzene	U	1.08	ug/kg	0.325	1.08
79-01-6	Trichloroethylene	U	1.08	ug/kg	0.358	1.08
78-87-5	1,2-Dichloropropane	U	1.08	ug/kg	0.325	1.08
75-27-4	Bromodichloromethane	U	1.08	ug/kg	0.325	1.08
74-95-3	Dibromomethane	U	1.08	ug/kg	0.325	1.08
108-10-1	4-Methyl-2-pentanone	U	5.42	ug/kg	1.35	5.42
10061-01-5	cis-1,3-Dichloropropylene	U	1.08	ug/kg	0.325	1.08
108-88-3	Toluene	U	1.08	ug/kg	0.325	1.08
10061-02-6	trans-1,3-Dichloropropylene	U	1.08	ug/kg	0.325	1.08
79-00-5	1,1,2-Trichloroethane	U	1.08	ug/kg	0.325	1.08
591-78-6	2-Hexanone	U	5.42	ug/kg	1.63	5.42
142-28-9	1,3-Dichloropropane	U	1.08	ug/kg	0.325	1.08
127-18-4	Tetrachloroethylene	U	1.08	ug/kg	0.325	1.08
124-48-1	Dibromochloromethane	U	1.08	ug/kg	0.325	1.08
106-93-4	1,2-Dibromoethane	U	1.08	ug/kg	0.325	1.08
108-90-7	Chlorobenzene	U	1.08	ug/kg	0.325	1.08

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-852**	**Date Collected:**	**12/07/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242654004**	**Date Received:**	**12/10/2009 08:50**	**%Moisture:**	**9.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14226**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**934516**	**Inst:**	**VOAA.I**	**Dilution:**	**1**
Run Date:	**12/18/2009 01:35**	**Analyst:**	**JEB**	**Purge Vol:**	**5 mL**
Prep Date:	**12/17/2009 19:06**	**Aliquot:**	**5.1 g**	**Final Volume:**	**5 mL**
Data File:	**121709\AP421.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.08	ug/kg	0.325	1.08
179601-23-1	m,p-Xylenes	U	2.17	ug/kg	0.325	2.17
95-47-6	o-Xylene	U	1.08	ug/kg	0.325	1.08
100-42-5	Styrene	U	1.08	ug/kg	0.325	1.08
75-25-2	Bromoform	U	1.08	ug/kg	0.325	1.08
79-34-5	1,1,2,2-Tetrachloroethane	U	1.08	ug/kg	0.325	1.08
96-18-4	1,2,3-Trichloropropane	U	1.08	ug/kg	0.325	1.08
108-86-1	Bromobenzene	U	1.08	ug/kg	0.325	1.08
103-65-1	n-Propylbenzene	U	1.08	ug/kg	0.325	1.08
95-49-8	2-Chlorotoluene	U	1.08	ug/kg	0.325	1.08
98-82-8	Isopropylbenzene	U	1.08	ug/kg	0.325	1.08
108-67-8	1,3,5-Trimethylbenzene	U	1.08	ug/kg	0.325	1.08
106-43-4	4-Chlorotoluene	U	1.08	ug/kg	0.325	1.08
98-06-6	tert-Butylbenzene	U	1.08	ug/kg	0.325	1.08
95-63-6	1,2,4-Trimethylbenzene	U	1.08	ug/kg	0.325	1.08
135-98-8	sec-Butylbenzene	U	1.08	ug/kg	0.325	1.08
99-87-6	4-Isopropyltoluene	U	1.08	ug/kg	0.325	1.08
541-73-1	1,3-Dichlorobenzene	U	1.08	ug/kg	0.325	1.08
106-46-7	1,4-Dichlorobenzene	U	1.08	ug/kg	0.325	1.08
104-51-8	n-Butylbenzene	U	1.08	ug/kg	0.325	1.08
96-12-8	1,2-Dibromo-3-chloropropane	U	1.08	ug/kg	0.325	1.08
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.42	ug/kg	1.73	5.42
630-20-6	1,1,1,2-Tetrachloroethane	U	1.08	ug/kg	0.325	1.08
95-50-1	1,2-Dichlorobenzene	U	1.08	ug/kg	0.325	1.08

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown	3.32	7.23	ug/kg	0	J
	unknown siloxane	13.66	9.25	ug/kg	0	J
	unknown	15.61	11.2	ug/kg	0	J

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709\
Data File : AP421.D
Acq On : 18 Dec 2009 1:35 am
Operator : JEB
InstName : VOAA
Sample : |242654004|934516|1|VOA|1|VOA8260BS|
Misc : LANL 5.1G N/A SOIL
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Dec 18 13:56:32 2009
Quant Method : C:\msdchem\1\METHODS\VOAA-8260-110609.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Nov 09 16:21:09 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Fluorobenzene	9.339	96	1289642	50.00 ug/L	0.00
41) Chlorobenzene-d5	12.508	117	1049449	50.00 ug/L	0.00
58) 1,4-Dichlorobenzene-d4	14.941	152	669738	50.00 ug/L	0.00
82) B Fluorobenzene	9.339	96	1289642	50.00 ug/L	0.00
103) B Chlorobenzene-d5	12.508	117	1049449	50.00 ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	14.941	152	669738	50.00 ug/L	0.00
System Monitoring Compounds					
29) 1,2-Dichloroethane-d4	8.978	65	489975	54.69 ug/L	0.00
Spiked Amount 50.000	Range 68 - 131		Recovery = 109.38%		
43) Toluene-d8	10.983	98	1247945	46.84 ug/L	0.00
Spiked Amount 50.000	Range 75 - 129		Recovery = 93.68%		
61) Bromofluorobenzene	13.713	95	550119	45.60 ug/L	0.00
Spiked Amount 50.000	Range 68 - 133		Recovery = 91.20%		
Target Compounds					Qvalue
2) Dichlorodifluoromethane	0.000		0	N.D.	
3) Chloromethane	0.000		0	N.D.	
4) Vinyl chloride	0.000		0	N.D.	
5) Bromomethane	0.000		0	N.D.	
6) Chloroethane	0.000		0	N.D.	
7) Trichlorofluoromethane	0.000		0	N.D.	
8) Ethyl ether	0.000		0	N.D.	
9) Acetone	6.085	43	2912	N.D.	
10) 1,1-Dichloroethylene	0.000		0	N.D.	
11) Iodomethane	0.000		0	N.D.	
12) Acetonitrile	0.000		0	N.D.	
13) Methyl acetate	0.000		0	N.D.	
14) Carbon disulfide	6.425	76	709	N.D.	
15) Methylene chloride	6.644	84	6413	Below Cal	89
16) tert-Butyl methyl ether	0.000		0	N.D.	
17) trans-1,2-Dichloroethy...	0.000		0	N.D.	
18) Vinyl acetate	0.000		0	N.D.	
19) 1,1-Dichloroethane	0.000		0	N.D.	
20) 2-Butanone	0.000		0	N.D.	
21) cis-1,2-Dichloroethylene	0.000		0	N.D.	
22) 2,2-Dichloropropane	0.000		0	N.D.	
23) Bromochloromethane	0.000		0	N.D.	
24) Chloroform	0.000		0	N.D.	
25) 1,1,1-Trichloroethane	0.000		0	N.D.	
26) Cyclohexane	0.000		0	N.D.	
27) 1,1-Dichloropropene	0.000		0	N.D.	
28) Carbon tetrachloride	0.000		0	N.D.	
30) 1,2-Dichloroethane	0.000		0	N.D.	
31) Benzene	0.000		0	N.D.	
32) Cyclohexene	0.000		0	N.D.	
33) n-Butyl alcohol	0.000		0	N.D.	
34) Trichloroethylene	0.000		0	N.D.	
35) 1,2-Dichloropropane	0.000		0	N.D.	
36) Methylcyclohexane	0.000		0	N.D.	
37) Dibromomethane	0.000		0	N.D.	
38) Bromodichloromethane	0.000		0	N.D.	
39) 2-Chloroethylvinyl ether	0.000		0	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709\
Data File : AP421.D
Acq On : 18 Dec 2009 1:35 am
Operator : JEB
InstName : VOAA
Sample : |242654004|934516|1|VOA|1|VOA8260BS|
Misc : LANL 5.1G N/A SOIL
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Dec 18 13:56:32 2009
Quant Method : C:\msdchem\1\METHODS\VOAA-8260-110609.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Nov 09 16:21:09 2009
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
40)	cis-1,3-Dichloropropylene	0.000		0	N.D.	
42)	4-Methyl-2-pentanone	0.000		0	N.D.	
44)	Toluene	0.000		0	N.D.	
45)	trans-1,3-Dichloroprop...	0.000		0	N.D.	
46)	1,1,2-Trichloroethane	0.000		0	N.D.	
47)	2-Hexanone	0.000		0	N.D.	
48)	1,3-Dichloropropane	0.000		0	N.D.	
49)	Tetrachloroethylene	0.000		0	N.D.	
50)	Dibromochloromethane	0.000		0	N.D.	
51)	1,2-Dibromoethane	0.000		0	N.D.	
52)	Chlorobenzene	0.000		0	N.D.	
53)	1,1,1,2-Tetrachloroethane	0.000		0	N.D.	
54)	Ethylbenzene	12.508	91	2164	N.D.	
55)	m,p-Xylenes	0.000		0	N.D.	
56)	o-Xylene	0.000		0	N.D.	
57)	Styrene	0.000		0	N.D.	
59)	Bromoform	0.000		0	N.D.	
60)	Isopropylbenzene	13.664	105	5422	N.D.	
62)	1,1,2,2-Tetrachloroethane	13.664	83	113	N.D.	
63)	1,2,3-Trichloropropane	0.000		0m	N.D.	d
64)	Bromobenzene	0.000		0	N.D.	
65)	n-Propylbenzene	0.000		0	N.D.	
66)	1,3,5-Trimethylbenzene	0.000		0	N.D.	
67)	2-Chlorotoluene	0.000		0	N.D.	
68)	4-Chlorotoluene	0.000		0	N.D.	
69)	tert-Butylbenzene	0.000		0	N.D.	
70)	1,2,4-Trimethylbenzene	14.573	105	108	N.D.	
71)	sec-Butylbenzene	14.573	105	108	N.D.	
72)	4-Isopropyltoluene	0.000		0	N.D.	
73)	1,3-Dichlorobenzene	0.000		0	N.D.	
74)	1,4-Dichlorobenzene	14.965	146	724	N.D.	
75)	n-Butylbenzene	0.000		0	N.D.	
76)	1,2-Dichlorobenzene	0.000		0	N.D.	
77)	1,2-Dibromo-3-chloropr...	0.000		0	N.D.	
78)	1,2,4-Trichlorobenzene	17.183	180	615	N.D.	
79)	Hexachlorobutadiene	0.000		0	N.D.	
80)	Naphthalene	17.530	128	2047	N.D.	
81)	1,2,3-Trichlorobenzene	17.847	180	277	N.D.	
83)	Chlorotrifluoroethylene	0.000		0	N.D.	
84)	2-Chloro-1,1,1-trifluo...	0.000		0	N.D.	
85)	Acrolein	0.000		0	N.D.	
86)	Trichlorotrifluoroethane	0.000		0	N.D.	
87)	Isopropyl Alcohol	0.000		0	N.D.	
88)	Allyl chloride	0.000		0	N.D.	
89)	tert-Butyl Alcohol	0.000		0	N.D.	
90)	Acrylonitrile	0.000		0	N.D.	
91)	Isopropyl ether	0.000		0	N.D.	
92)	2-Chloro-1,3-butadiene	0.000		0	N.D.	
93)	Ethyl tert-butyl ether	0.000		0	N.D.	
94)	Ethyl acetate	0.000		0	N.D.	
95)	Propionitrile	0.000		0	N.D.	
96)	Methacrylonitrile	0.000		0	N.D.	
97)	Tetrahydrofuran	0.000		0	N.D.	
98)	Isobutyl alcohol	0.000		0	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709\
Data File : AP421.D
Acq On : 18 Dec 2009 1:35 am
Operator : JEB
InstName : VOAA
Sample : |242654004|934516|1|VOA|1|VOA8260BS|
Misc : LANL 5.1G N/A SOIL
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Dec 18 13:56:32 2009
Quant Method : C:\msdchem\1\METHODS\VOAA-8260-110609.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Nov 09 16:21:09 2009
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
99)	Methyl tert-amyl ether	0.000		0	N.D.	
100)	Methyl methacrylate	0.000		0	N.D.	
101)	1,4-Dioxane	0.000		0	N.D.	
102)	2-Nitropropane	0.000		0	N.D.	
104)	Ethyl methacrylate	0.000		0	N.D.	
106)	1-Chlorohexane	0.000		0	N.D.	
107)	cis-1,4-Dichloro-2-butene	0.000		0	N.D.	
108)	Cyclohexanone	0.000		0	N.D.	
109)	trans-1,4-Dichloro-2-b...	0.000		0	N.D.	
110)	Pentachloroethane	0.000		0	N.D.	
111)	Benzyl chloride	0.000		0m	N.D. d	
112)	bis(2-Chloroisopropyl)...	0.000		0m	N.D. d	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709\
Data File : AP421.D
Acq On : 18 Dec 2009 1:35 am
Operator : JEB
InstName : VOAA
Sample : |242654004|934516|1|VOA|1|VOA8260BS|
Misc : LANL 5.1G N/A SOIL
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Dec 18 13:56:32 2009
Quant Method : C:\msdchem\1\METHODS\VOAA-8260-110609.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Nov 09 16:21:09 2009
Response via : Initial Calibration
Integrator: RTE

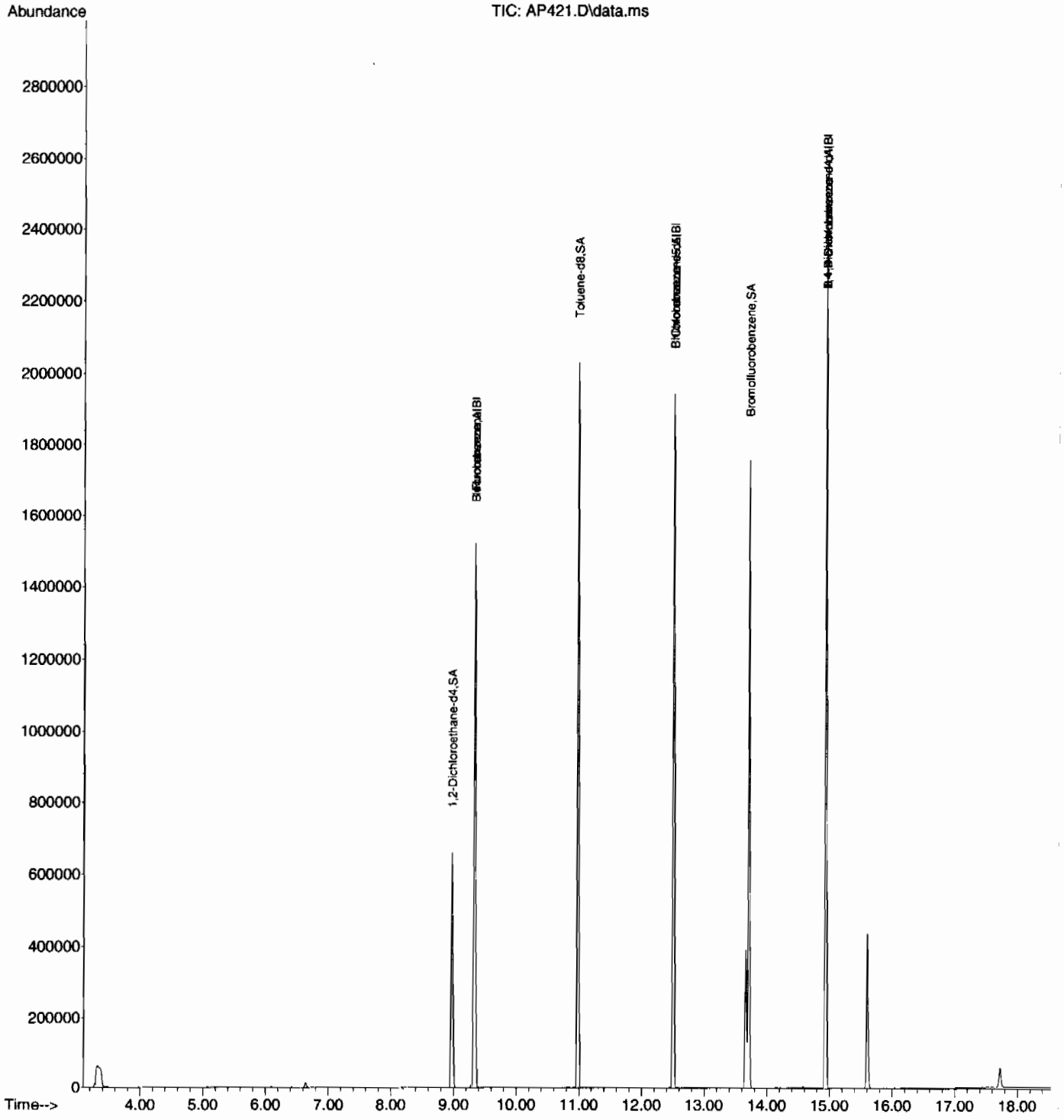

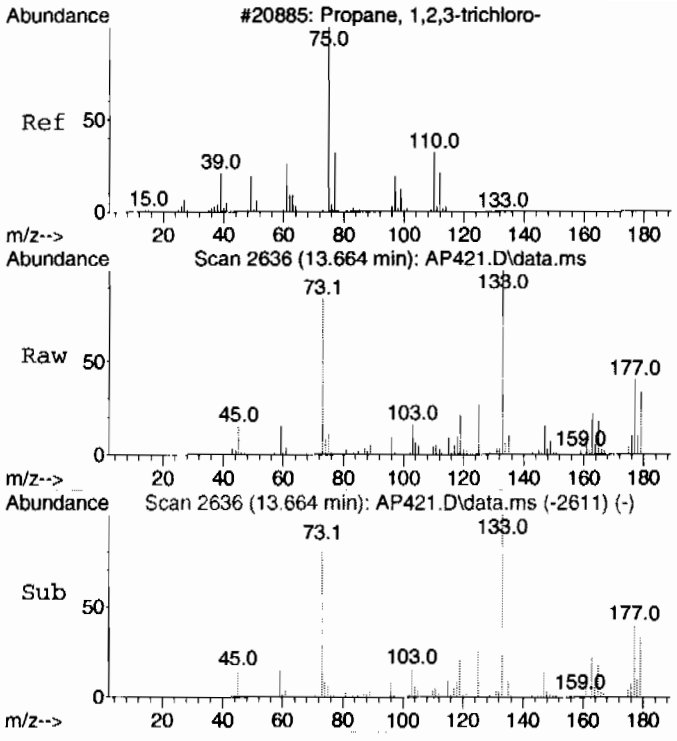

#63 BEFORE analyst DELETION
1,2,3-Trichloropropane
Concen: 2.04 ug/L
RT: 13.664 min Scan# 2636
Delta R.T. -0.212 min
Lab File: AP421.D
Acq: 18 Dec 2009 1:35 am

Tgt Ion:110 Resp: 4902

Ion	Ratio	Lower	Upper
110	100		
75	285.4	225.2	285.2#
77	10.5	48.9	108.9#

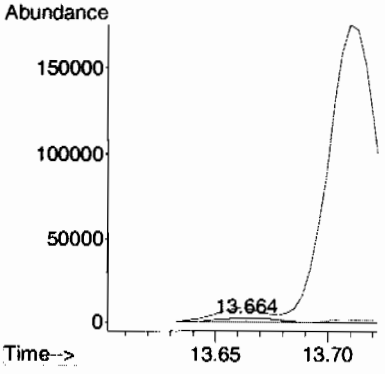

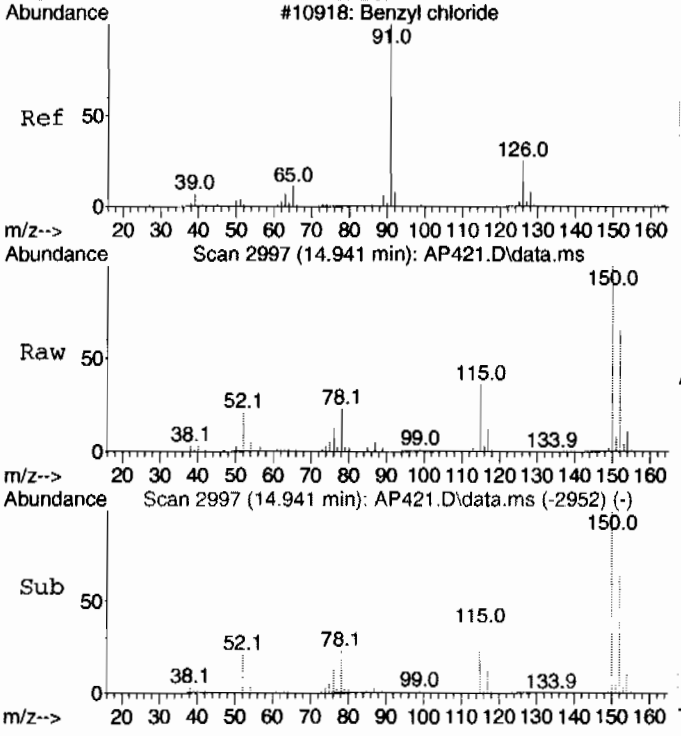

#111 BEFORE analyst DELETION
Benzyl chloride
Concen: 4.47 ug/L
RT: 14.941 min Scan# 2997
Delta R.T. -0.141 min
Lab File: AP421.D
Acq: 18 Dec 2009 1:35 am

Tgt Ion: 91 Resp: 1369

Ion	Ratio	Lower	Upper
91	100		
126	0.0	0.0	52.0
65	329.2	0.0	41.2#

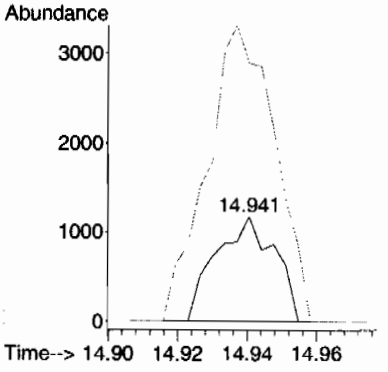

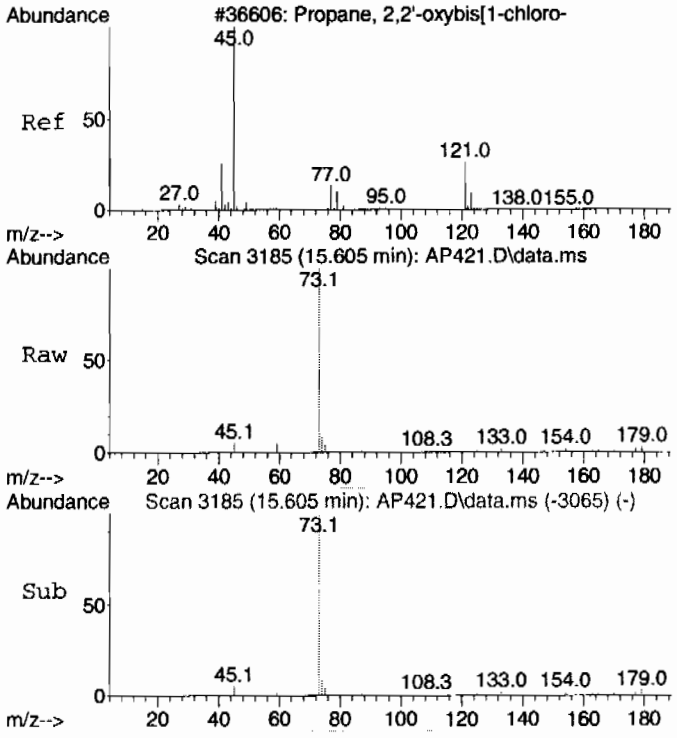

#112 BEFORE analyst DELETION
bis(2-Chloroisopropyl)ether
Concen: 6.57 ug/L
RT: 15.605 min Scan# 3185
Delta R.T. 0.124 min
Lab File: AP421.D
Acq: 18 Dec 2009 1:35 am

Tgt Ion: 45 Resp: 27462

Ion	Ratio	Lower	Upper
45	100		
121	0.8	0.0	56.8

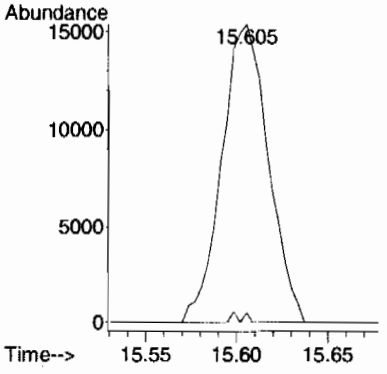

Library Search Compound Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709\
Data File : AP421.D
Acq On : 18 Dec 2009 1:35 am
Operator : JEB
Sample : |242654004|934516|1|VOA|1|VOA8260BS|
Misc : LANL 5.1G N/A SOIL
ALS Vial : 21 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\VOAA-8260-110609.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

****
Peak Number 1 unknown Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
3.319	6.67 ug/L	369364	Fluorobenzene	9.339

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Dimethyl ether	46	C2H6O	000115-10-6	5
2	Ethyl alcohol	46	C2H6O	000064-17-5	4
3	Ethyl alcohol	46	C2H6O	000064-17-5	4
4	Ethyl alcohol	46	C2H6O	000064-17-5	4
5	Dimethyl ether	46	C2H6O	000115-10-6	2

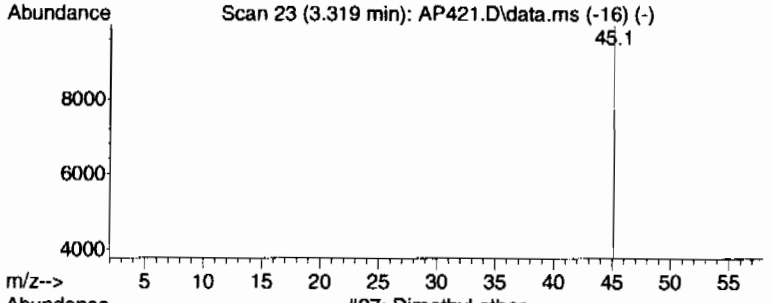

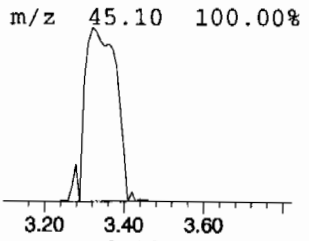

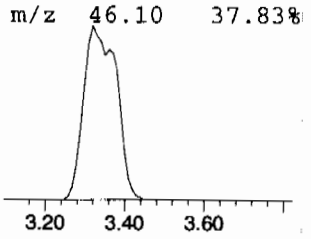

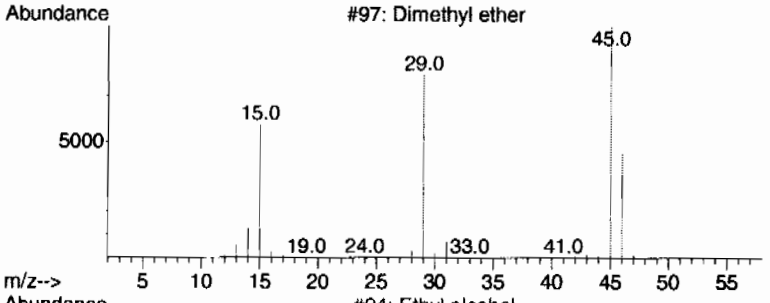

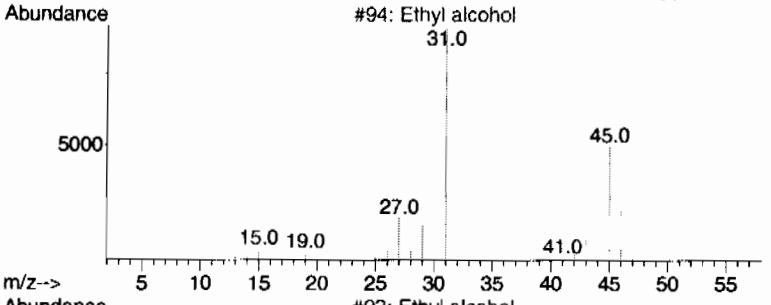

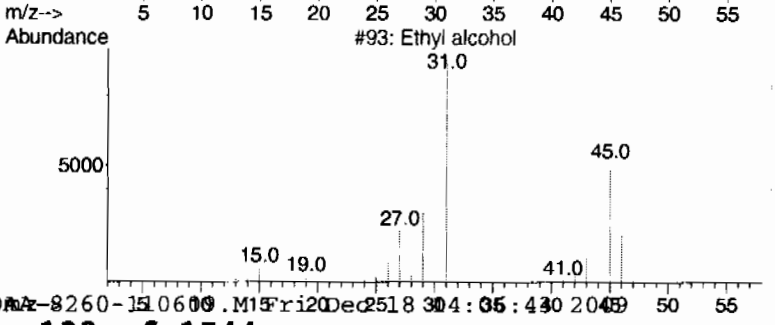

Library Search Compound Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709\
Data File : AP421.D
Acq On : 18 Dec 2009 1:35 am
Operator : JEB
Sample : |242654004|934516|1|VOA|1|VOA8260BS|
Misc : LANL 5.1G N/A SOIL
ALS Vial : 21 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\VOAA-8260-110609.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

****

Peak Number 2 unknown siloxane Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
13.660	8.54 ug/L	535544	B Chlorobenzene-d5	12.508

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Disiloxane, pentamethyl-	148	C5H16OSi2	001438-82-0	27
2	1,1,3,3-Tetramethyl-1,3-di-n-pro...	218	C10H26OSi2	018001-73-5	25
3	1-(2'-Hydroxy-5'-methylphenyl)-1...	179	C10H13NO2	1000146-14-7	25
4	m-Methoxybenzontrile	133	C8H7NO	001527-89-5	14
5	Benzene, 1-ethyl-4-(1-methylethyl)-	148	C11H16	004218-48-8	12

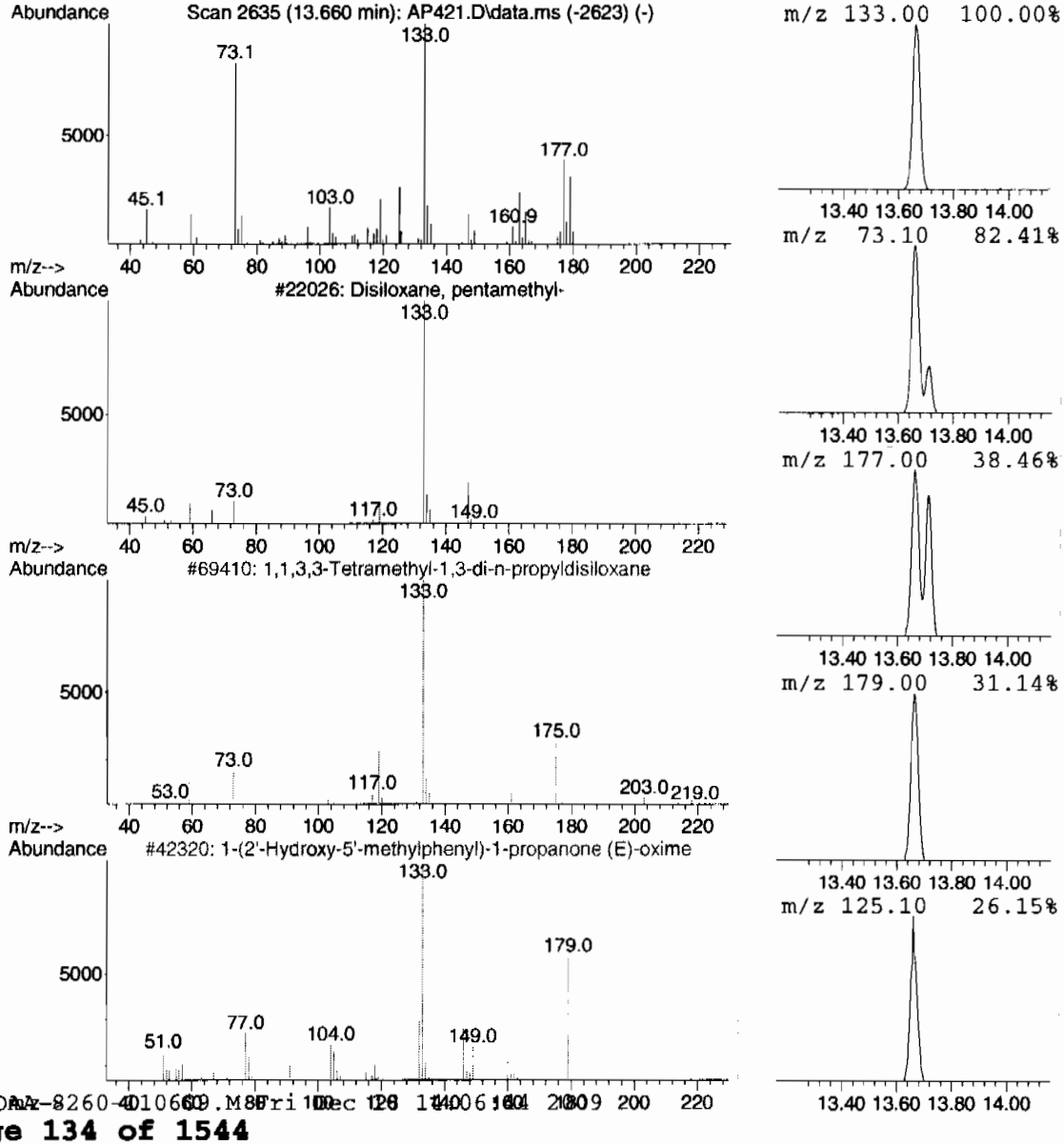

Library Search Compound Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709\
Data File : AP421.D
Acq On : 18 Dec 2009 1:35 am
Operator : JEB
Sample : |242654004|934516|1|VOA|1|VOA8260BS|
Misc : LANL 5.1G N/A SOIL
ALS Vial : 21 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\VOAA-8260-110609.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

****

Peak Number 3 unknown Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
15.605	10.30 ug/L	772699	B 1,4-Dichlorobenzene-d4	14.941

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclopropane, 2-methylene-1-pent...	196	C12H24Si	167300-47-2	9
2	Methyl-.alpha.-d-ribofuranoside	164	C6H12O5	1000129-83-1	7
3	Thiocyanic acid, methyl ester	73	C2H3NS	000556-64-9	4
4	1-Propene-1-thiol	74	C3H6S	000925-89-3	4
5	Thiocyanic acid, methyl ester	73	C2H3NS	000556-64-9	4

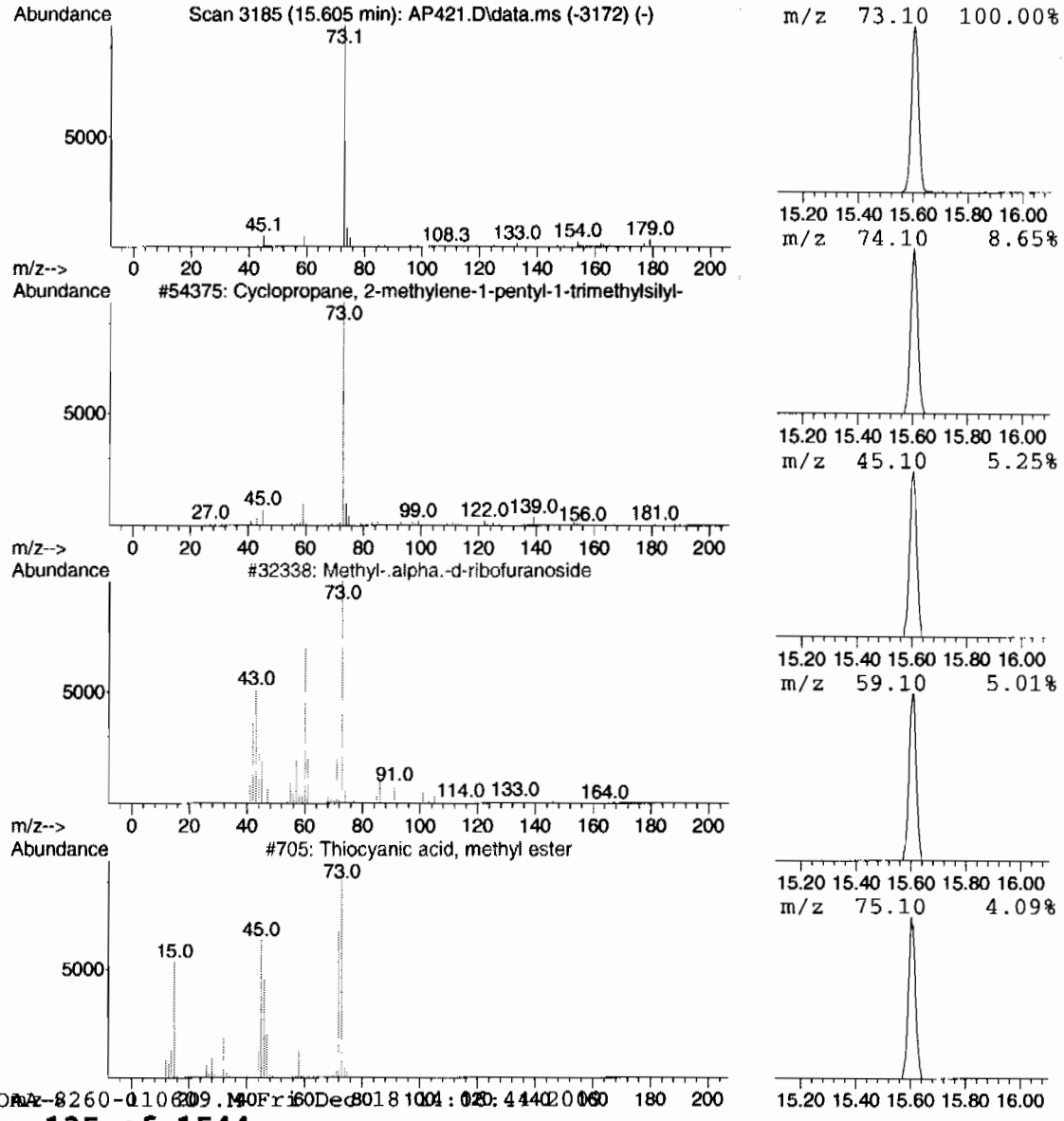

Tentatively Identified Compound (LSC) summary
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709\
Data File : AP421.D
Acq On : 18 Dec 2009 1:35 am
Operator : JEB
Sample : |242654004|934516|1|VOA|1|VOA8260BS|
Misc : LANL 5.1G N/A SOIL
ALS Vial : 21 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\VOAA-8260-110609.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

TIC Top Hit name	RT	EstConc	Units	Response	--Internal Standard--- #	RT	Resp	Conc
unknown	3.319	6.7	ug/L	369364	1	9.339	2769440	50.0
unknown siloxane	13.660	8.5	ug/L	535544	4	12.508	3136230	50.0
unknown	15.605	10.3	ug/L	772699	6	14.941	3749280	50.0

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242654005	**Date Received:**	12/10/2009 08:50	**%Moisture:**	5.9
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14288	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	934516	**Inst:**	VOAA.I	**Dilution:**	1
Run Date:	12/18/2009 02:01	**Analyst:**	JEB	**Purge Vol:**	5 mL
Prep Date:	12/17/2009 19:07	**Aliquot:**	5.3 g	**Final Volume:**	5 mL
Data File:	121709\AP422.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/kg	0.341	1.00
74-87-3	Chloromethane	U	1.00	ug/kg	0.301	1.00
75-01-4	Vinyl chloride	U	1.00	ug/kg	0.301	1.00
74-83-9	Bromomethane	U	1.00	ug/kg	0.301	1.00
75-00-3	Chloroethane	U	1.00	ug/kg	0.301	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/kg	0.301	1.00
67-64-1	Acetone	U	5.02	ug/kg	1.67	5.02
75-35-4	1,1-Dichloroethylene	U	1.00	ug/kg	0.301	1.00
74-88-4	Iodomethane	U	5.02	ug/kg	1.60	5.02
75-09-2	Methylene chloride	U	5.02	ug/kg	2.01	5.02
75-15-0	Carbon disulfide	U	5.02	ug/kg	1.25	5.02
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/kg	0.301	1.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/kg	0.301	1.00
78-93-3	2-Butanone	U	5.02	ug/kg	1.50	5.02
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/kg	0.301	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/kg	0.301	1.00
67-66-3	Chloroform	U	1.00	ug/kg	0.301	1.00
74-97-5	Bromochloromethane	U	1.00	ug/kg	0.331	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/kg	0.301	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/kg	0.301	1.00
56-23-5	Carbon tetrachloride	U	1.00	ug/kg	0.301	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/kg	0.301	1.00
71-43-2	Benzene	U	1.00	ug/kg	0.301	1.00
79-01-6	Trichloroethylene	U	1.00	ug/kg	0.331	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/kg	0.301	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/kg	0.301	1.00
74-95-3	Dibromomethane	U	1.00	ug/kg	0.301	1.00
108-10-1	4-Methyl-2-pentanone	U	5.02	ug/kg	1.25	5.02
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/kg	0.301	1.00
108-88-3	Toluene	U	1.00	ug/kg	0.301	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/kg	0.301	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/kg	0.301	1.00
591-78-6	2-Hexanone	U	5.02	ug/kg	1.50	5.02
142-28-9	1,3-Dichloropropane	U	1.00	ug/kg	0.301	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/kg	0.301	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/kg	0.301	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/kg	0.301	1.00
108-90-7	Chlorobenzene	U	1.00	ug/kg	0.301	1.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242654005	**Date Received:**	12/10/2009 08:50	**%Moisture:**	5.9
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14288	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	934516	**Inst:**	VOAA.I	**Dilution:**	1
Run Date:	12/18/2009 02:01	**Analyst:**	JEB	**Purge Vol:**	5 mL
Prep Date:	12/17/2009 19:07	**Aliquot:**	5.3 g	**Final Volume:**	5 mL
Data File:	121709\AP422.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.00	ug/kg	0.301	1.00
179601-23-1	m,p-Xylenes	U	2.01	ug/kg	0.301	2.01
95-47-6	o-Xylene	U	1.00	ug/kg	0.301	1.00
100-42-5	Styrene	U	1.00	ug/kg	0.301	1.00
75-25-2	Bromoform	U	1.00	ug/kg	0.301	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/kg	0.301	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/kg	0.301	1.00
108-86-1	Bromobenzene	U	1.00	ug/kg	0.301	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/kg	0.301	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/kg	0.301	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/kg	0.301	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/kg	0.301	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/kg	0.301	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/kg	0.301	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/kg	0.301	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/kg	0.301	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/kg	0.301	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/kg	0.301	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/kg	0.301	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/kg	0.301	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/kg	0.301	1.00
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.02	ug/kg	1.60	5.02
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/kg	0.301	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/kg	0.301	1.00

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown	3.35	9.5	ug/kg	0	J

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709\
Data File : AP422.D
Acq On : 18 Dec 2009 2:01 am
Operator : JEB
InstName : VOAA
Sample : |242654005|934516|1|VOA|1|VOA8260BS|
Misc : LANL 5.3G N/A SOIL
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Dec 18 13:57:22 2009
Quant Method : C:\msdchem\1\METHODS\VOAA-8260-110609.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Nov 09 16:21:09 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Fluorobenzene	9.339	96	1275705	50.00 ug/L	0.00
41) Chlorobenzene-d5	12.507	117	1021557	50.00 ug/L	0.00
58) 1,4-Dichlorobenzene-d4	14.940	152	650951	50.00 ug/L	0.00
82) B Fluorobenzene	9.339	96	1275705	50.00 ug/L	0.00
103) B Chlorobenzene-d5	12.507	117	1021557	50.00 ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	14.940	152	650951	50.00 ug/L	0.00
System Monitoring Compounds					
29) 1,2-Dichloroethane-d4	8.978	65	487455	55.00 ug/L	0.00
Spiked Amount 50.000	Range 68 - 131		Recovery = 110.00%		
43) Toluene-d8	10.983	98	1228179	47.35 ug/L	0.00
Spiked Amount 50.000	Range 75 - 129		Recovery = 94.70%		
61) Bromofluorobenzene	13.710	95	536521	45.75 ug/L	0.00
Spiked Amount 50.000	Range 68 - 133		Recovery = 91.50%		
Target Compounds					Qvalue
2) Dichlorodifluoromethane	0.000		0	N.D.	
3) Chloromethane	0.000		0	N.D.	
4) Vinyl chloride	0.000		0	N.D.	
5) Bromomethane	0.000		0	N.D.	
6) Chloroethane	0.000		0	N.D.	
7) Trichlorofluoromethane	0.000		0	N.D.	
8) Ethyl ether	0.000		0	N.D.	
9) Acetone	6.092	43	2165	N.D.	
10) 1,1-Dichloroethylene	0.000		0	N.D.	
11) Iodomethane	0.000		0	N.D.	
12) Acetonitrile	0.000		0	N.D.	
13) Methyl acetate	0.000		0	N.D.	
14) Carbon disulfide	6.418	76	222	N.D.	
15) Methylene chloride	6.648	84	5938	Below Cal	88
16) tert-Butyl methyl ether	0.000		0	N.D.	
17) trans-1,2-Dichloroethy...	0.000		0	N.D.	
18) Vinyl acetate	0.000		0	N.D.	
19) 1,1-Dichloroethane	0.000		0	N.D.	
20) 2-Butanone	0.000		0	N.D.	
21) cis-1,2-Dichloroethylene	0.000		0	N.D.	
22) 2,2-Dichloropropane	0.000		0	N.D.	
23) Bromochloromethane	0.000		0	N.D.	
24) Chloroform	0.000		0	N.D.	
25) 1,1,1-Trichloroethane	0.000		0	N.D.	
26) Cyclohexane	0.000		0	N.D.	
27) 1,1-Dichloropropene	0.000		0	N.D.	
28) Carbon tetrachloride	0.000		0	N.D.	
30) 1,2-Dichloroethane	0.000		0	N.D.	
31) Benzene	0.000		0	N.D.	
32) Cyclohexene	0.000		0	N.D.	
33) n-Butyl alcohol	0.000		0	N.D.	
34) Trichloroethylene	0.000		0	N.D.	
35) 1,2-Dichloropropane	0.000		0	N.D.	
36) Methylcyclohexane	0.000		0	N.D.	
37) Dibromomethane	0.000		0	N.D.	
38) Bromodichloromethane	0.000		0	N.D.	
39) 2-Chloroethylvinyl ether	0.000		0	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709\
Data File : AP422.D
Acq On : 18 Dec 2009 2:01 am
Operator : JEB
InstName : VOAA
Sample : |242654005|934516|1|VOA|1|VOA8260BS|
Misc : LANL 5.3G N/A SOIL
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Dec 18 13:57:22 2009
Quant Method : C:\msdchem\1\METHODS\VOAA-8260-110609.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Nov 09 16:21:09 2009
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
40)	cis-1,3-Dichloropropylene	0.000		0	N.D.	
42)	4-Methyl-2-pentanone	0.000		0	N.D.	
44)	Toluene	11.057	91	2462	N.D.	
45)	trans-1,3-Dichloroprop...	0.000		0	N.D.	
46)	1,1,2-Trichloroethane	0.000		0	N.D.	
47)	2-Hexanone	0.000		0	N.D.	
48)	1,3-Dichloropropane	0.000		0	N.D.	
49)	Tetrachloroethylene	0.000		0	N.D.	
50)	Dibromochloromethane	0.000		0	N.D.	
51)	1,2-Dibromoethane	0.000		0	N.D.	
52)	Chlorobenzene	0.000		0	N.D.	
53)	1,1,1,2-Tetrachloroethane	0.000		0	N.D.	
54)	Ethylbenzene	12.720	91	878	N.D.	
55)	m,p-Xylenes	0.000		0	N.D.	
56)	o-Xylene	0.000		0	N.D.	
57)	Styrene	0.000		0m	N.D.	d
59)	Bromoform	0.000		0	N.D.	
60)	Isopropylbenzene	13.657	105	2968	N.D.	
62)	1,1,2,2-Tetrachloroethane	13.660	83	127	N.D.	
63)	1,2,3-Trichloropropane	0.000		0m	N.D.	d
64)	Bromobenzene	0.000		0	N.D.	
65)	n-Propylbenzene	13.713	91	1292	N.D.	
66)	1,3,5-Trimethylbenzene	0.000		0	N.D.	
67)	2-Chlorotoluene	0.000		0	N.D.	
68)	4-Chlorotoluene	0.000		0	N.D.	
69)	tert-Butylbenzene	14.516	134	220	N.D.	
70)	1,2,4-Trimethylbenzene	14.530	105	7096	N.D.	
71)	sec-Butylbenzene	14.530	105	7096	N.D.	
72)	4-Isopropyltoluene	0.000		0	N.D.	
73)	1,3-Dichlorobenzene	0.000		0	N.D.	
74)	1,4-Dichlorobenzene	14.965	146	558	N.D.	
75)	n-Butylbenzene	0.000		0	N.D.	
76)	1,2-Dichlorobenzene	0.000		0	N.D.	
77)	1,2-Dibromo-3-chloropr...	0.000		0	N.D.	
78)	1,2,4-Trichlorobenzene	17.175	180	483	N.D.	
79)	Hexachlorobutadiene	0.000		0	N.D.	
80)	Naphthalene	17.530	128	1790	N.D.	
81)	1,2,3-Trichlorobenzene	17.839	180	248	N.D.	
83)	Chlorotrifluoroethylene	0.000		0	N.D.	
84)	2-Chloro-1,1,1-trifluo...	0.000		0	N.D.	
85)	Acrolein	0.000		0	N.D.	
86)	Trichlorotrifluoroethane	0.000		0	N.D.	
87)	Isopropyl Alcohol	0.000		0	N.D.	
88)	Allyl chloride	0.000		0	N.D.	
89)	tert-Butyl Alcohol	0.000		0	N.D.	
90)	Acrylonitrile	0.000		0	N.D.	
91)	Isopropyl ether	0.000		0	N.D.	
92)	2-Chloro-1,3-butadiene	0.000		0	N.D.	
93)	Ethyl tert-butyl ether	0.000		0	N.D.	
94)	Ethyl acetate	0.000		0	N.D.	
95)	Propionitrile	0.000		0	N.D.	
96)	Methacrylonitrile	0.000		0	N.D.	
97)	Tetrahydrofuran	0.000		0	N.D.	
98)	Isobutyl alcohol	0.000		0	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709\
Data File : AP422.D
Acq On : 18 Dec 2009 2:01 am
Operator : JEB
InstName : VOAA
Sample : |242654005|934516|1|VOA|1|VOA8260BS|
Misc : LANL 5.3G N/A SOIL
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Dec 18 13:57:22 2009
Quant Method : C:\msdchem\1\METHODS\VOAA-8260-110609.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Nov 09 16:21:09 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
99) Methyl tert-amyl ether	0.000		0	N.D.	
100) Methyl methacrylate	0.000		0	N.D.	
101) 1,4-Dioxane	0.000		0	N.D.	
102) 2-Nitropropane	0.000		0	N.D.	
104) Ethyl methacrylate	0.000		0	N.D.	
106) 1-Chlorohexane	0.000		0	N.D.	
107) cis-1,4-Dichloro-2-butene	0.000		0	N.D.	
108) Cyclohexanone	0.000		0	N.D.	
109) trans-1,4-Dichloro-2-b...	0.000		0	N.D.	
110) Pentachloroethane	0.000		0	N.D.	
111) Benzyl chloride	0.000		0m	N.D. d	
112) bis(2-Chloroisopropyl)...	0.000		0m	N.D. d	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709\
Data File : AP422.D
Acq On : 18 Dec 2009 2:01 am
Operator : JEB
InstName : VOAA
Sample : |242654005|934516|1|VOA|1|VOA8260BS|
Misc : LANL 5.3G N/A SOIL
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Dec 18 13:57:22 2009
Quant Method : C:\msdchem\1\METHODS\VOAA-8260-110609.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Nov 09 16:21:09 2009
Response via : Initial Calibration
Integrator: RTE

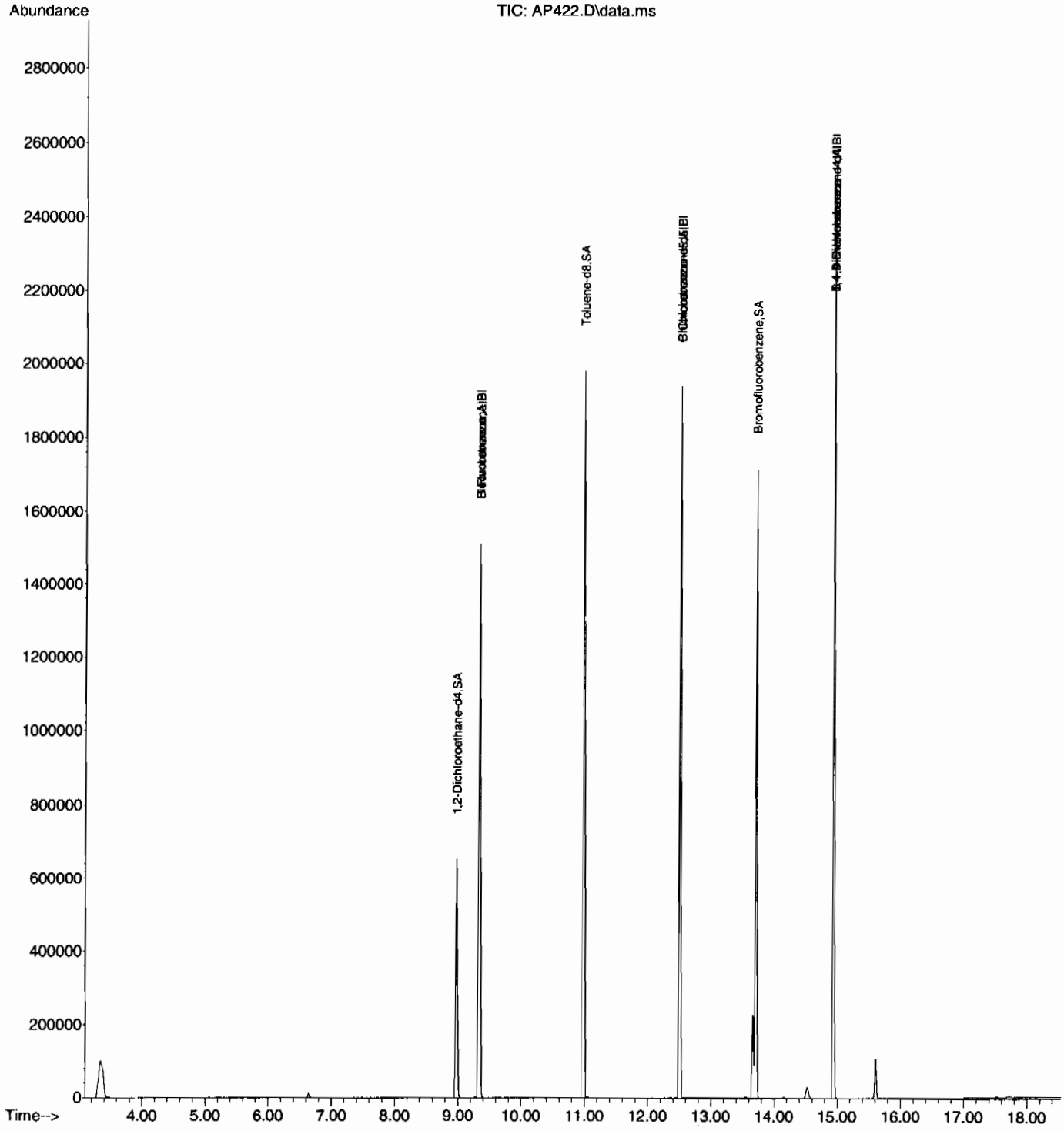

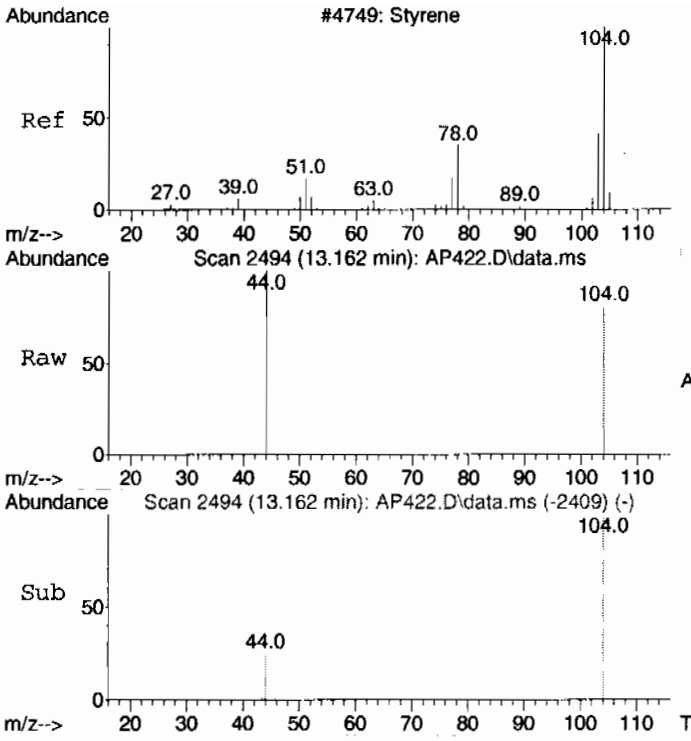

#57 BEFORE analyst DELETION
Styrene
Concen: 1.06 ug/L
RT: 13.162 min Scan# 2494
Delta R.T. -0.000 min
Lab File: AP422.D
Acq: 18 Dec 2009 2:01 am

Tgt Ion:104 Resp: 118

Ion	Ratio	Lower	Upper
104	100		
78	0.0	17.7	77.7#

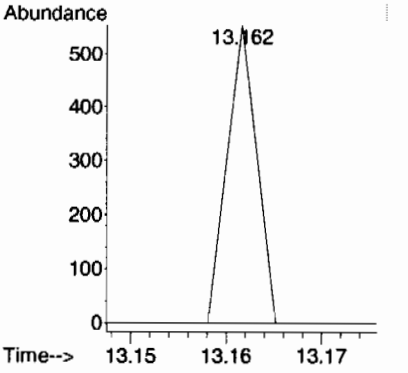

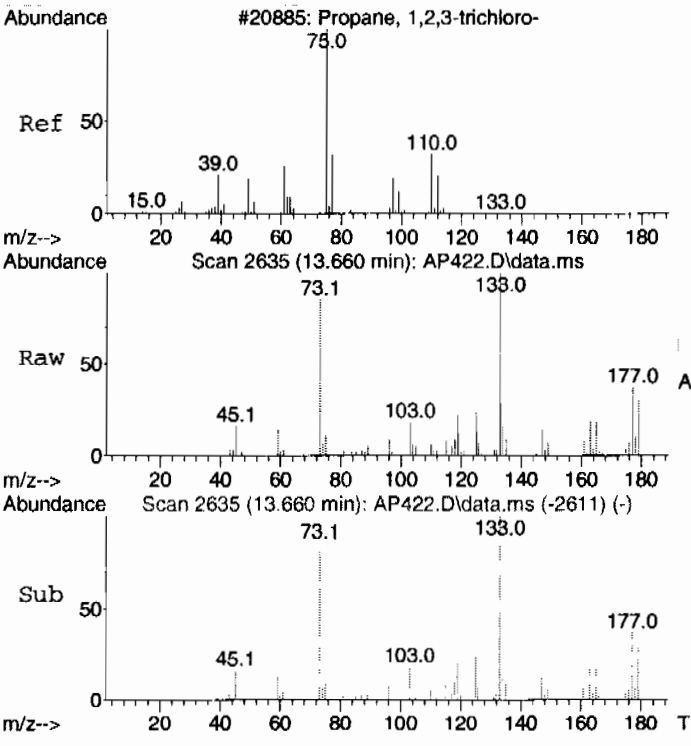

#63 BEFORE analyst DELETION
1,2,3-Trichloropropane
Concen: 1.37 ug/L
RT: 13.660 min Scan# 2635
Delta R.T. -0.216 min
Lab File: AP422.D
Acq: 18 Dec 2009 2:01 am

Tgt Ion:110 Resp: 3200

Ion	Ratio	Lower	Upper
110	100		
75	254.5	225.2	285.2
77	0.0	48.9	108.9#

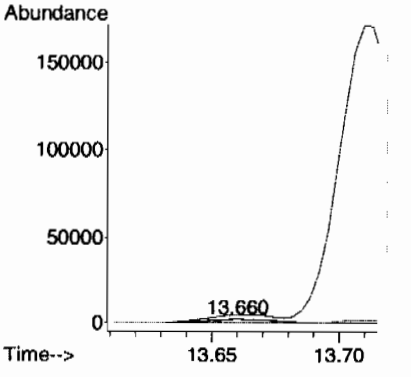

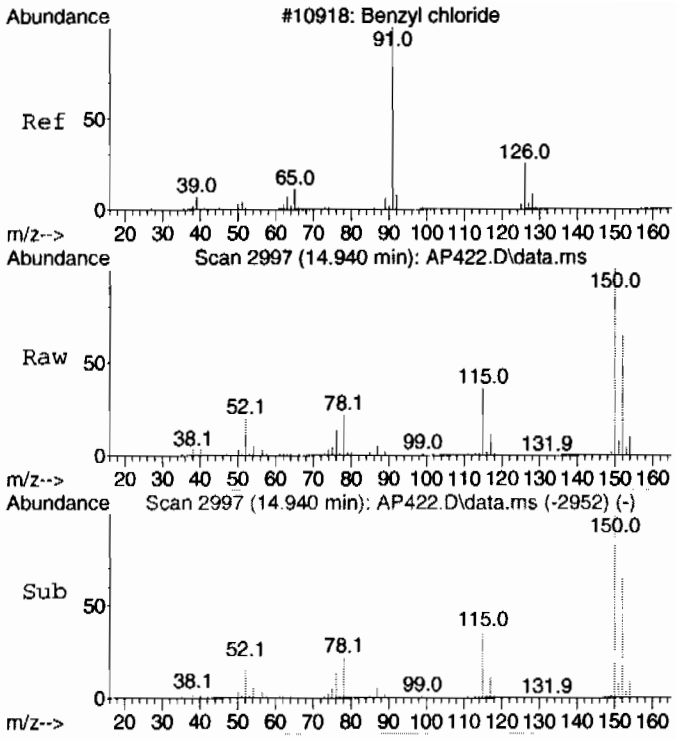

#111 BEFORE analyst DELETION
Benzyl chloride
Concen: 4.46 ug/L
RT: 14.940 min Scan# 2997
Delta R.T. -0.141 min
Lab File: AP422.D
Acq: 18 Dec 2009 2:01 am

Tgt Ion: 91 Resp: 1147

Ion	Ratio	Lower	Upper
91	100		
126	0.0	0.0	52.0
65	386.5	0.0	41.2#

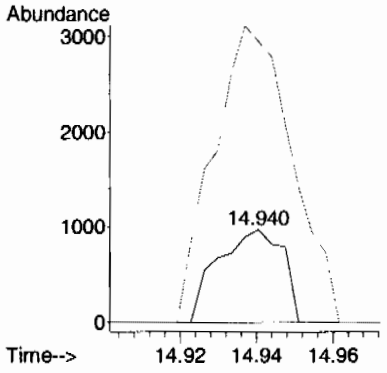

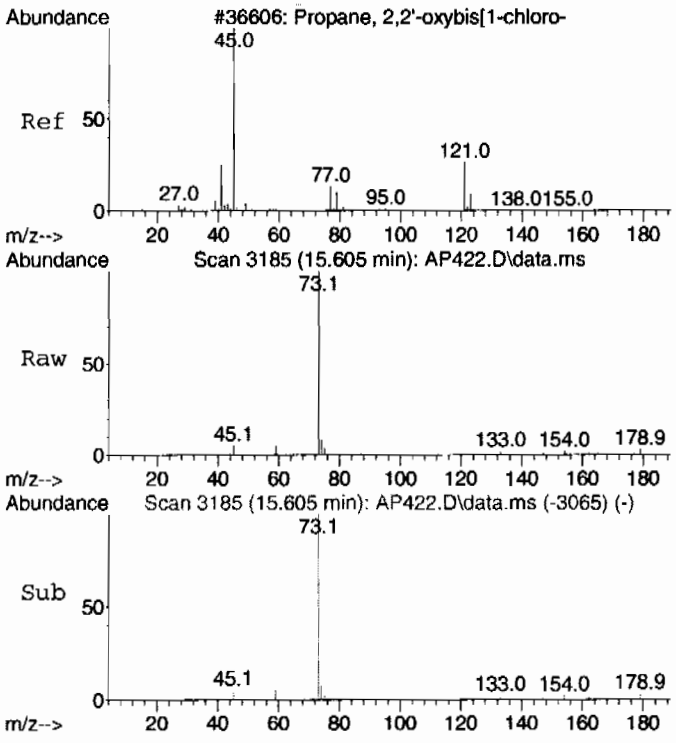

#112 BEFORE analyst DELETION
bis(2-Chloroisopropyl)ether
Concen: 1.82 ug/L
RT: 15.605 min Scan# 3185
Delta R.T. 0.124 min
Lab File: AP422.D
Acq: 18 Dec 2009 2:01 am

Tgt Ion: 45 Resp: 7407

Ion	Ratio	Lower	Upper
45	100		
121	0.0	0.0	56.8

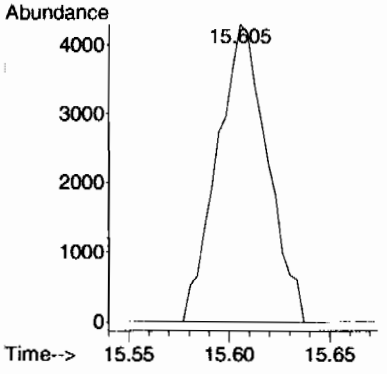

Library Search Compound Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709\
Data File : AP422.D
Acq On : 18 Dec 2009 2:01 am
Operator : JEB
Sample : |242654005|934516|1|VOA|1|VOA8260BS|
Misc : LANL 5.3G N/A SOIL
ALS Vial : 22 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\VOAA-8260-110609.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

****
Peak Number 1 unknown Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
3.349	9.47 ug/L	515277	Fluorobenzene	9.339

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Dimethyl ether	46	C2H6O	000115-10-6	5
2	Ethyl alcohol	46	C2H6O	000064-17-5	4
3	Ethyl alcohol	46	C2H6O	000064-17-5	4
4	Ethyl alcohol	46	C2H6O	000064-17-5	4
5	Formic acid	46	CH2O2	000064-18-6	3

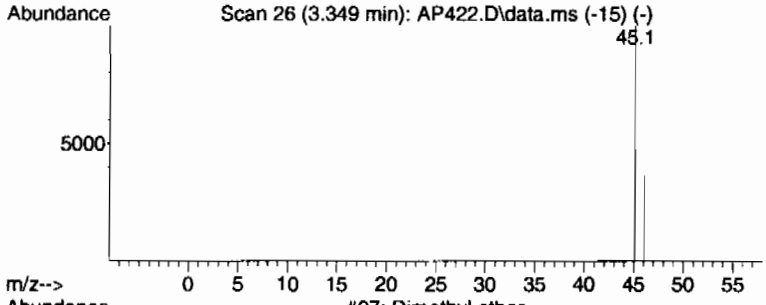

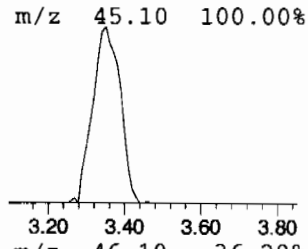

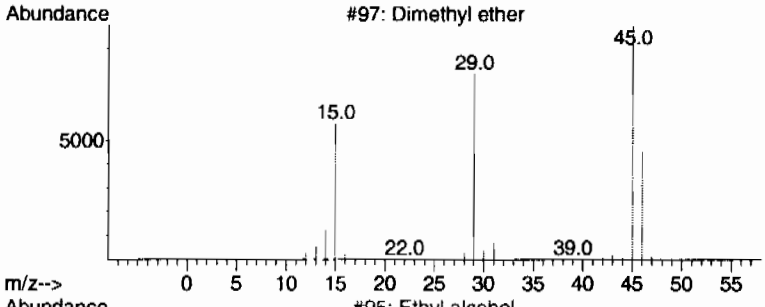

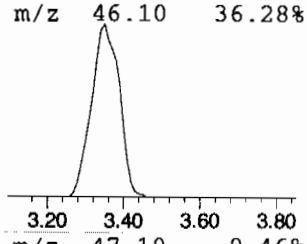

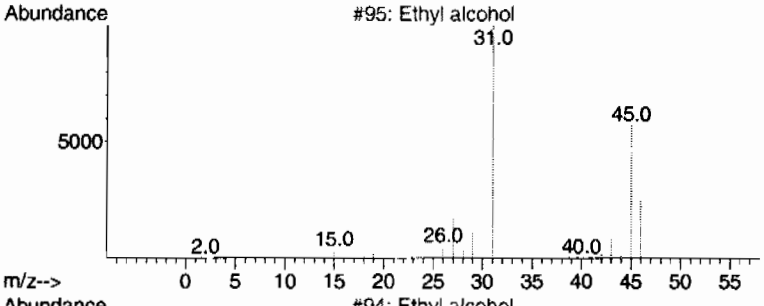

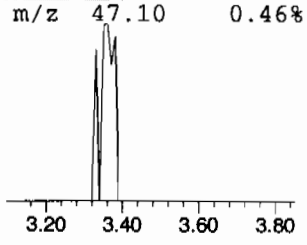

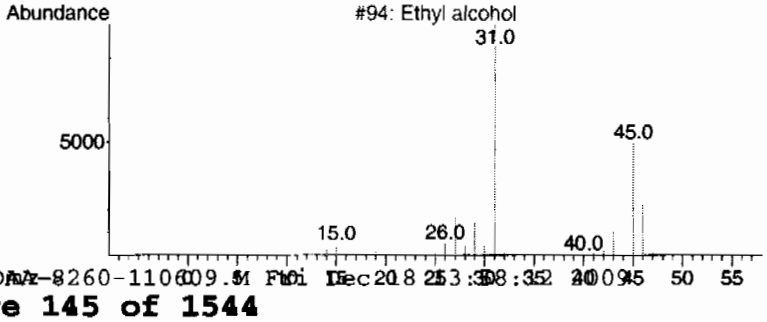

Tentatively Identified Compound (LSC) summary
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709\
Data File : AP422.D
Acq On : 18 Dec 2009 2:01 am
Operator : JEB
Sample : |242654005|934516|1|VOA|1|VOA8260BS|
Misc : LANL 5.3G N/A SOIL
ALS Vial : 22 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\VOAA-8260-110609.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

TIC Top Hit name	RT	EstConc	Units	Response	--Internal Standard--- #	RT	Resp	Conc
unknown	3.349	9.5	ug/L	515277	1	9.339	2719950	50.0

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-852**	**Date Collected:**	**12/07/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242654006**	**Date Received:**	**12/10/2009 08:50**	**%Moisture:**	**11.7**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14287**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**934516**	**Inst:**	**VOAA.I**	**Dilution:**	**1**
Run Date:	**12/18/2009 02:26**	**Analyst:**	**JEB**	**Purge Vol:**	**5 mL**
Prep Date:	**12/17/2009 19:10**	**Aliquot:**	**5.2 g**	**Final Volume:**	**5 mL**
Data File:	**121709\AP423.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.09	ug/kg	0.370	1.09
74-87-3	Chloromethane	U	1.09	ug/kg	0.327	1.09
75-01-4	Vinyl chloride	U	1.09	ug/kg	0.327	1.09
74-83-9	Bromomethane	U	1.09	ug/kg	0.327	1.09
75-00-3	Chloroethane	U	1.09	ug/kg	0.327	1.09
75-69-4	Trichlorofluoromethane	U	1.09	ug/kg	0.327	1.09
67-64-1	Acetone	U	5.44	ug/kg	1.81	5.44
75-35-4	1,1-Dichloroethylene	U	1.09	ug/kg	0.327	1.09
74-88-4	Iodomethane	U	5.44	ug/kg	1.74	5.44
75-09-2	Methylene chloride	U	5.44	ug/kg	2.18	5.44
75-15-0	Carbon disulfide	U	5.44	ug/kg	1.36	5.44
156-60-5	trans-1,2-Dichloroethylene	U	1.09	ug/kg	0.327	1.09
75-34-3	1,1-Dichloroethane	U	1.09	ug/kg	0.327	1.09
78-93-3	2-Butanone	U	5.44	ug/kg	1.63	5.44
156-59-2	cis-1,2-Dichloroethylene	U	1.09	ug/kg	0.327	1.09
594-20-7	2,2-Dichloropropane	U	1.09	ug/kg	0.327	1.09
67-66-3	Chloroform	U	1.09	ug/kg	0.327	1.09
74-97-5	Bromochloromethane	U	1.09	ug/kg	0.359	1.09
71-55-6	1,1,1-Trichloroethane	U	1.09	ug/kg	0.327	1.09
563-58-6	1,1-Dichloropropene	U	1.09	ug/kg	0.327	1.09
56-23-5	Carbon tetrachloride	U	1.09	ug/kg	0.327	1.09
107-06-2	1,2-Dichloroethane	U	1.09	ug/kg	0.327	1.09
71-43-2	Benzene	U	1.09	ug/kg	0.327	1.09
79-01-6	Trichloroethylene	U	1.09	ug/kg	0.359	1.09
78-87-5	1,2-Dichloropropane	U	1.09	ug/kg	0.327	1.09
75-27-4	Bromodichloromethane	U	1.09	ug/kg	0.327	1.09
74-95-3	Dibromomethane	U	1.09	ug/kg	0.327	1.09
108-10-1	4-Methyl-2-pentanone	U	5.44	ug/kg	1.36	5.44
10061-01-5	cis-1,3-Dichloropropylene	U	1.09	ug/kg	0.327	1.09
108-88-3	Toluene	U	1.09	ug/kg	0.327	1.09
10061-02-6	trans-1,3-Dichloropropylene	U	1.09	ug/kg	0.327	1.09
79-00-5	1,1,2-Trichloroethane	U	1.09	ug/kg	0.327	1.09
591-78-6	2-Hexanone	U	5.44	ug/kg	1.63	5.44
142-28-9	1,3-Dichloropropane	U	1.09	ug/kg	0.327	1.09
127-18-4	Tetrachloroethylene	U	1.09	ug/kg	0.327	1.09
124-48-1	Dibromochloromethane	U	1.09	ug/kg	0.327	1.09
106-93-4	1,2-Dibromoethane	U	1.09	ug/kg	0.327	1.09
108-90-7	Chlorobenzene	U	1.09	ug/kg	0.327	1.09

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-852**	**Date Collected:**	**12/07/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242654006**	**Date Received:**	**12/10/2009 08:50**	**%Moisture:**	**11.7**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14287**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**934516**	**Inst:**	**VOAA.I**	**Dilution:**	**1**
Run Date:	**12/18/2009 02:26**	**Analyst:**	**JEB**	**Purge Vol:**	**5 mL**
Prep Date:	**12/17/2009 19:10**	**Aliquot:**	**5.2 g**	**Final Volume:**	**5 mL**
Data File:	**121709\AP423.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.09	ug/kg	0.327	1.09
179601-23-1	m,p-Xylenes	U	2.18	ug/kg	0.327	2.18
95-47-6	o-Xylene	U	1.09	ug/kg	0.327	1.09
100-42-5	Styrene	U	1.09	ug/kg	0.327	1.09
75-25-2	Bromoform	U	1.09	ug/kg	0.327	1.09
79-34-5	1,1,2,2-Tetrachloroethane	U	1.09	ug/kg	0.327	1.09
96-18-4	1,2,3-Trichloropropane	U	1.09	ug/kg	0.327	1.09
108-86-1	Bromobenzene	U	1.09	ug/kg	0.327	1.09
103-65-1	n-Propylbenzene	U	1.09	ug/kg	0.327	1.09
95-49-8	2-Chlorotoluene	U	1.09	ug/kg	0.327	1.09
98-82-8	Isopropylbenzene	U	1.09	ug/kg	0.327	1.09
108-67-8	1,3,5-Trimethylbenzene	U	1.09	ug/kg	0.327	1.09
106-43-4	4-Chlorotoluene	U	1.09	ug/kg	0.327	1.09
98-06-6	tert-Butylbenzene	U	1.09	ug/kg	0.327	1.09
95-63-6	1,2,4-Trimethylbenzene	U	1.09	ug/kg	0.327	1.09
135-98-8	sec-Butylbenzene	U	1.09	ug/kg	0.327	1.09
99-87-6	4-Isopropyltoluene	U	1.09	ug/kg	0.327	1.09
541-73-1	1,3-Dichlorobenzene	U	1.09	ug/kg	0.327	1.09
106-46-7	1,4-Dichlorobenzene	U	1.09	ug/kg	0.327	1.09
104-51-8	n-Butylbenzene	U	1.09	ug/kg	0.327	1.09
96-12-8	1,2-Dibromo-3-chloropropane	U	1.09	ug/kg	0.327	1.09
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.44	ug/kg	1.74	5.44
630-20-6	1,1,1,2-Tetrachloroethane	U	1.09	ug/kg	0.327	1.09
95-50-1	1,2-Dichlorobenzene	U	1.09	ug/kg	0.327	1.09

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown	3.34	17.5	ug/kg	0	J

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709\
Data File : AP423.D
Acq On : 18 Dec 2009 2:26 am
Operator : JEB
InstName : VOAA
Sample : |242654006|934516|1|VOA|1|VOA8260BS|
Misc : LANL 5.2G N/A SOIL
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Dec 18 13:58:38 2009
Quant Method : C:\msdchem\1\METHODS\VOAA-8260-110609.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Nov 09 16:21:09 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Fluorobenzene	9.339	96	1243190	50.00 ug/L	0.00
41) Chlorobenzene-d5	12.507	117	1002640	50.00 ug/L	0.00
58) 1,4-Dichlorobenzene-d4	14.940	152	619129	50.00 ug/L	0.00
82) B Fluorobenzene	9.339	96	1243190	50.00 ug/L	0.00
103) B Chlorobenzene-d5	12.507	117	1002640	50.00 ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	14.940	152	619129	50.00 ug/L	0.00
System Monitoring Compounds					
29) 1,2-Dichloroethane-d4	8.978	65	476705	55.19 ug/L	0.00
Spiked Amount 50.000	Range 68 - 131		Recovery = 110.38%		
43) Toluene-d8	10.983	98	1201716	47.21 ug/L	0.00
Spiked Amount 50.000	Range 75 - 129		Recovery = 94.42%		
61) Bromofluorobenzene	13.713	95	517930	46.44 ug/L	0.00
Spiked Amount 50.000	Range 68 - 133		Recovery = 92.88%		
Target Compounds					Qvalue
2) Dichlorodifluoromethane	0.000		0	N.D.	
3) Chloromethane	0.000		0	N.D.	
4) Vinyl chloride	0.000		0	N.D.	
5) Bromomethane	0.000		0	N.D.	
6) Chloroethane	0.000		0	N.D.	
7) Trichlorofluoromethane	0.000		0	N.D.	
8) Ethyl ether	0.000		0	N.D.	
9) Acetone	6.092	43	3153	N.D.	
10) 1,1-Dichloroethylene	0.000		0	N.D.	
11) Iodomethane	0.000		0	N.D.	
12) Acetonitrile	0.000		0	N.D.	
13) Methyl acetate	0.000		0	N.D.	
14) Carbon disulfide	6.421	76	455	N.D.	
15) Methylene chloride	6.644	84	3965	Below Cal	86
16) tert-Butyl methyl ether	0.000		0	N.D.	
17) trans-1,2-Dichloroethy...	0.000		0	N.D.	
18) Vinyl acetate	0.000		0	N.D.	
19) 1,1-Dichloroethane	0.000		0	N.D.	
20) 2-Butanone	0.000		0	N.D.	
21) cis-1,2-Dichloroethylene	0.000		0	N.D.	
22) 2,2-Dichloropropane	0.000		0	N.D.	
23) Bromochloromethane	0.000		0	N.D.	
24) Chloroform	0.000		0	N.D.	
25) 1,1,1-Trichloroethane	0.000		0	N.D.	
26) Cyclohexane	0.000		0	N.D.	
27) 1,1-Dichloropropene	0.000		0	N.D.	
28) Carbon tetrachloride	0.000		0	N.D.	
30) 1,2-Dichloroethane	0.000		0	N.D.	
31) Benzene	0.000		0	N.D.	
32) Cyclohexene	0.000		0	N.D.	
33) n-Butyl alcohol	0.000		0	N.D.	
34) Trichloroethylene	0.000		0	N.D.	
35) 1,2-Dichloropropane	0.000		0	N.D.	
36) Methylcyclohexane	0.000		0	N.D.	
37) Dibromomethane	0.000		0	N.D.	
38) Bromodichloromethane	0.000		0	N.D.	
39) 2-Chloroethylvinyl ether	0.000		0	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709\
Data File : AP423.D
Acq On : 18 Dec 2009 2:26 am
Operator : JEB
InstName : VOAA
Sample : |242654006|934516|1|VOA|1|VOA8260BS|
Misc : LANL 5.2G N/A SOIL
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Dec 18 13:58:38 2009
Quant Method : C:\msdchem\1\METHODS\VOAA-8260-110609.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Nov 09 16:21:09 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc Units Dev(Min)
40) cis-1,3-Dichloropropylene	0.000		0	N.D.
42) 4-Methyl-2-pentanone	0.000		0	N.D.
44) Toluene	0.000		0	N.D.
45) trans-1,3-Dichloroprop...	0.000		0	N.D.
46) 1,1,2-Trichloroethane	0.000		0	N.D.
47) 2-Hexanone	0.000		0	N.D.
48) 1,3-Dichloropropane	0.000		0	N.D.
49) Tetrachloroethylene	0.000		0	N.D.
50) Dibromochloromethane	0.000		0	N.D.
51) 1,2-Dibromoethane	0.000		0	N.D.
52) Chlorobenzene	0.000		0	N.D.
53) 1,1,1,2-Tetrachloroethane	0.000		0	N.D.
54) Ethylbenzene	12.727	91	342	N.D.
55) m,p-Xylenes	0.000		0	N.D.
56) o-Xylene	0.000		0	N.D.
57) Styrene	0.000		0	N.D.
59) Bromoform	0.000		0	N.D.
60) Isopropylbenzene	13.664	105	1288	N.D.
62) 1,1,2,2-Tetrachloroethane	0.000		0	N.D.
63) 1,2,3-Trichloropropane	0.000		0m	N.D. d
64) Bromobenzene	0.000		0	N.D.
65) n-Propylbenzene	13.713	91	1421	N.D.
66) 1,3,5-Trimethylbenzene	0.000		0	N.D.
67) 2-Chlorotoluene	0.000		0	N.D.
68) 4-Chlorotoluene	14.201	91	111	N.D.
69) tert-Butylbenzene	0.000		0	N.D.
70) 1,2,4-Trimethylbenzene	14.527	105	1773	N.D.
71) sec-Butylbenzene	14.527	105	1773	N.D.
72) 4-Isopropyltoluene	0.000		0	N.D.
73) 1,3-Dichlorobenzene	0.000		0	N.D.
74) 1,4-Dichlorobenzene	14.969	146	469	N.D.
75) n-Butylbenzene	0.000		0	N.D.
76) 1,2-Dichlorobenzene	0.000		0	N.D.
77) 1,2-Dibromo-3-chloropr...	0.000		0	N.D.
78) 1,2,4-Trichlorobenzene	17.175	180	521	N.D.
79) Hexachlorobutadiene	0.000		0	N.D.
80) Naphthalene	17.529	128	1462	N.D.
81) 1,2,3-Trichlorobenzene	17.847	180	146	N.D.
83) Chlorotrifluoroethylene	0.000		0	N.D.
84) 2-Chloro-1,1,1-trifluo...	0.000		0	N.D.
85) Acrolein	0.000		0	N.D.
86) Trichlorotrifluoroethane	0.000		0	N.D.
87) Isopropyl Alcohol	0.000		0	N.D.
88) Allyl chloride	0.000		0	N.D.
89) tert-Butyl Alcohol	0.000		0	N.D.
90) Acrylonitrile	0.000		0	N.D.
91) Isopropyl ether	0.000		0	N.D.
92) 2-Chloro-1,3-butadiene	0.000		0	N.D.
93) Ethyl tert-butyl ether	0.000		0	N.D.
94) Ethyl acetate	0.000		0	N.D.
95) Propionitrile	0.000		0	N.D.
96) Methacrylonitrile	0.000		0	N.D.
97) Tetrahydrofuran	0.000		0	N.D.
98) Isobutyl alcohol	0.000		0	N.D.

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709\
Data File : AP423.D
Acq On : 18 Dec 2009 2:26 am
Operator : JEB
InstName : VOAA
Sample : |242654006|934516|1|VOA|1|VOA8260BS|
Misc : LANL 5.2G N/A SOIL
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Dec 18 13:58:38 2009
Quant Method : C:\msdchem\1\METHODS\VOAA-8260-110609.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Nov 09 16:21:09 2009
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
99)	Methyl tert-amyl ether	0.000		0	N.D.	
100)	Methyl methacrylate	0.000		0	N.D.	
101)	1,4-Dioxane	0.000		0	N.D.	
102)	2-Nitropropane	0.000		0	N.D.	
104)	Ethyl methacrylate	0.000		0	N.D.	
106)	1-Chlorohexane	0.000		0	N.D.	
107)	cis-1,4-Dichloro-2-butene	0.000		0	N.D.	
108)	Cyclohexanone	0.000		0	N.D.	
109)	trans-1,4-Dichloro-2-b...	0.000		0	N.D.	
110)	Pentachloroethane	0.000		0	N.D.	
111)	Benzyl chloride	0.000		0m	N.D. d	
112)	bis(2-Chloroisopropyl)...	15.598	45	3441	N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709\
Data File : AP423.D
Acq On : 18 Dec 2009 2:26 am
Operator : JEB
InstName : VOAA
Sample : |242654006|934516|1|VOA|1|VOA8260BS|
Misc : LANL 5.2G N/A SOIL
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Dec 18 13:58:38 2009
Quant Method : C:\msdchem\1\METHODS\VOAA-8260-110609.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Nov 09 16:21:09 2009
Response via : Initial Calibration
Integrator: RTE

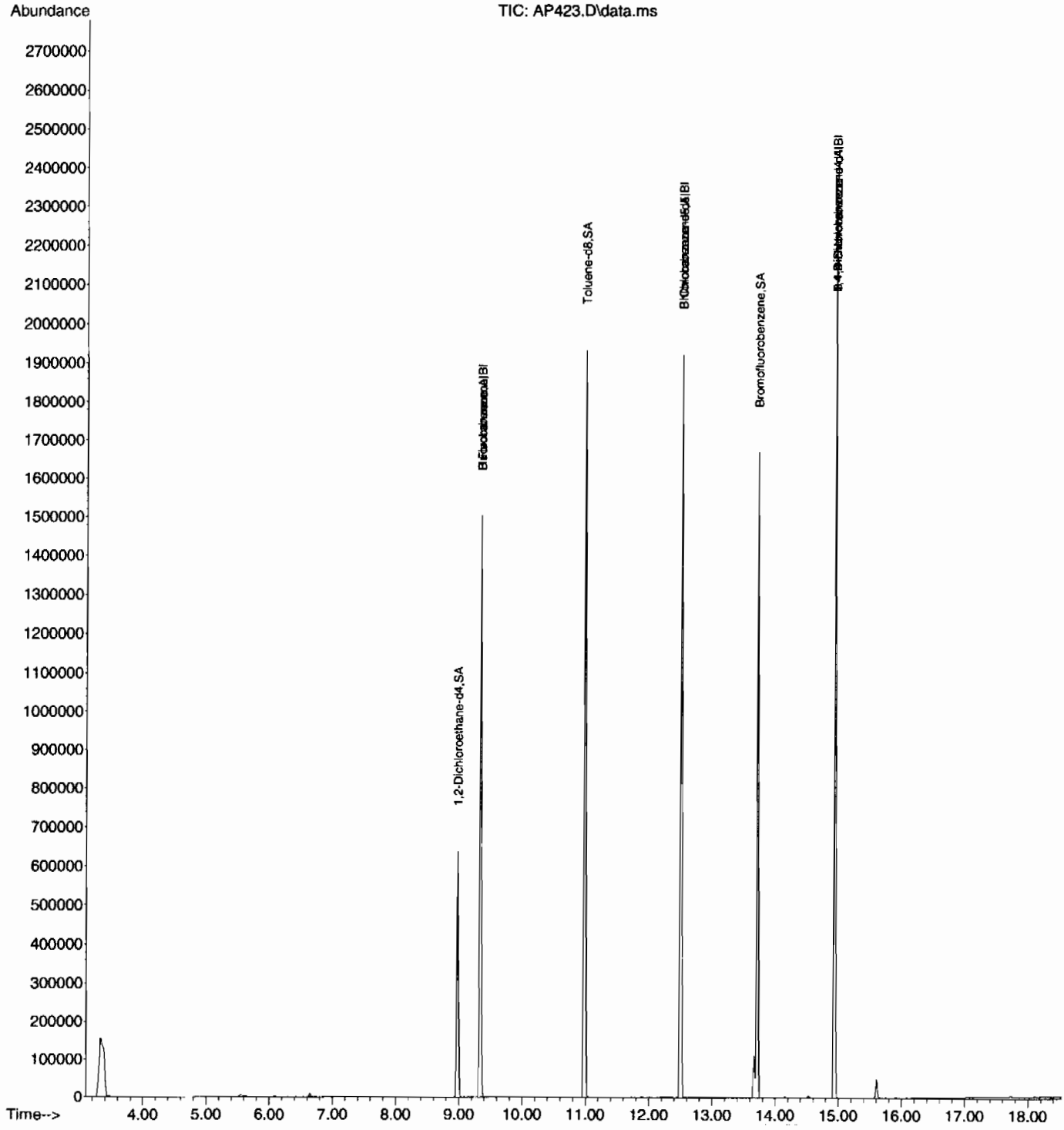

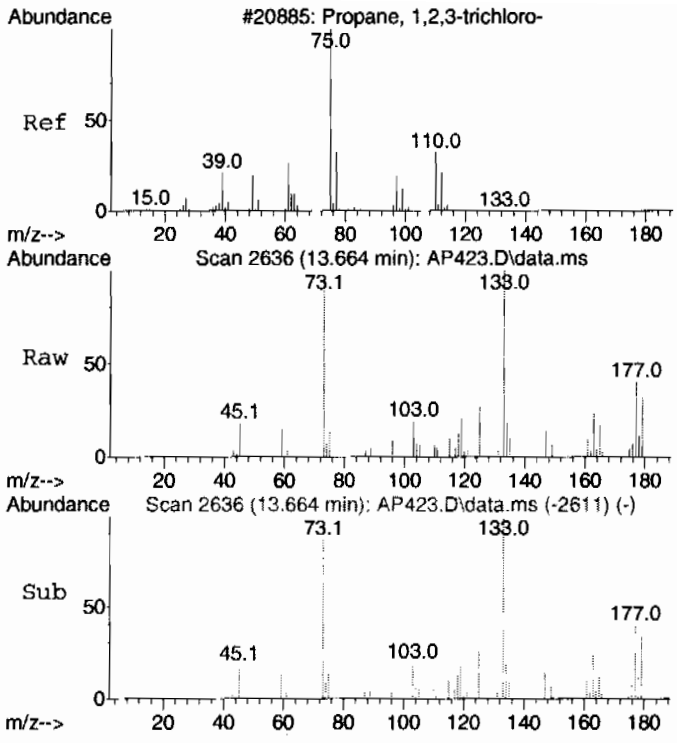

#63 BEFORE analyst DELETION
1,2,3-Trichloropropane
Concen: 0.60 ug/L
RT: 13.664 min Scan# 2636
Delta R.T. -0.212 min
Lab File: AP423.D
Acq: 18 Dec 2009 2:26 am

Tgt Ion:110 Resp: 1331

Ion	Ratio	Lower	Upper
110	100		
75	297.3	225.2	285.2#
77	0.0	48.9	108.9#

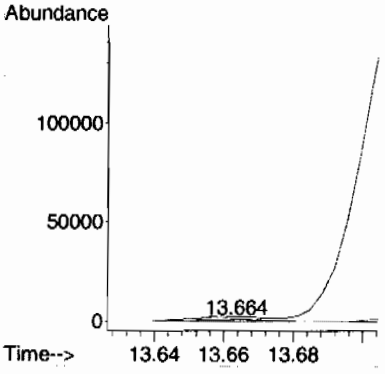

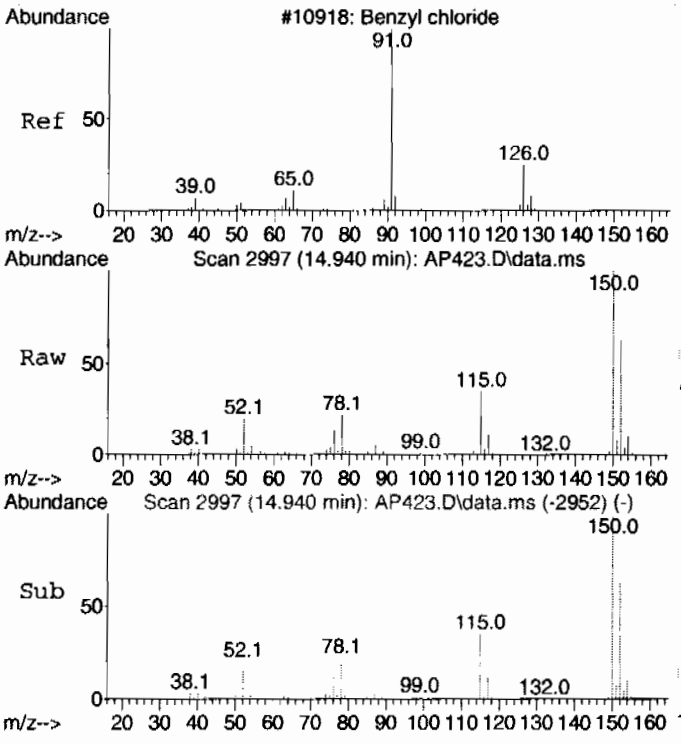

#111 BEFORE analyst DELETION
Benzyl chloride
Concen: 4.47 ug/L
RT: 14.940 min Scan# 2997
Delta R.T. -0.141 min
Lab File: AP423.D
Acq: 18 Dec 2009 2:26 am

Tgt Ion: 91 Resp: 1231

Ion	Ratio	Lower	Upper
91	100		
126	0.0	0.0	52.0
65	331.6	0.0	41.2#

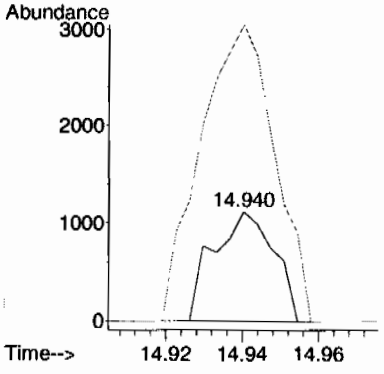

Library Search Compound Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709\
Data File : AP423.D
Acq On : 18 Dec 2009 2:26 am
Operator : JEB
Sample : |242654006|934516|1|VOA|1|VOA8260BS|
Misc : LANL 5.2G N/A SOIL
ALS Vial : 23 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\VOAA-8260-110609.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

****
Peak Number 1 unknown Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
3.338	16.04 ug/L	855756	Fluorobenzene	9.339

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Dimethyl ether	46	C2H6O	000115-10-6	5
2	Ethyl alcohol	46	C2H6O	000064-17-5	4
3	Ethyl alcohol	46	C2H6O	000064-17-5	4
4	Ethyl alcohol	46	C2H6O	000064-17-5	4
5	Formic acid	46	CH2O2	000064-18-6	3

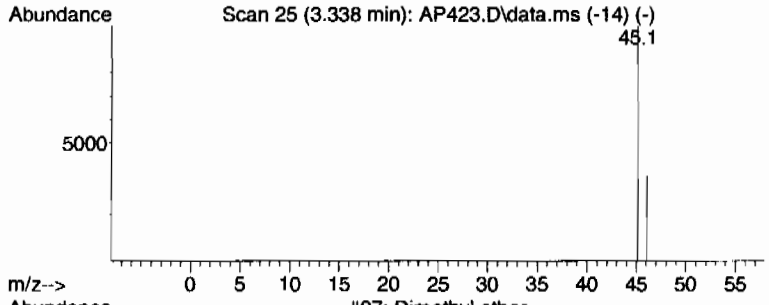

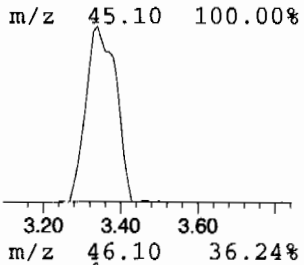

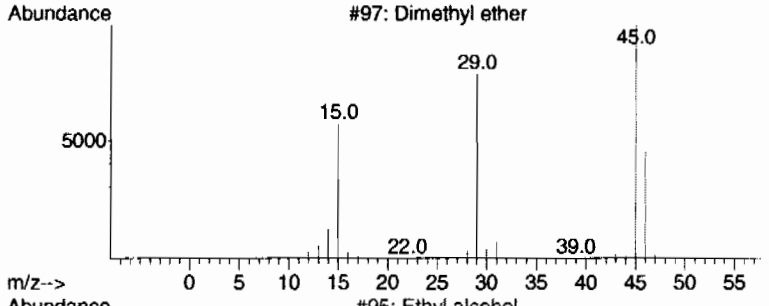

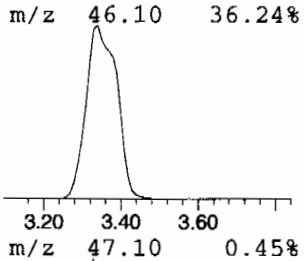

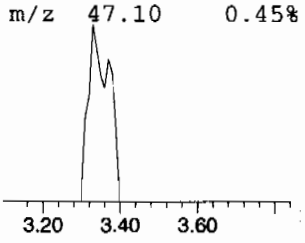

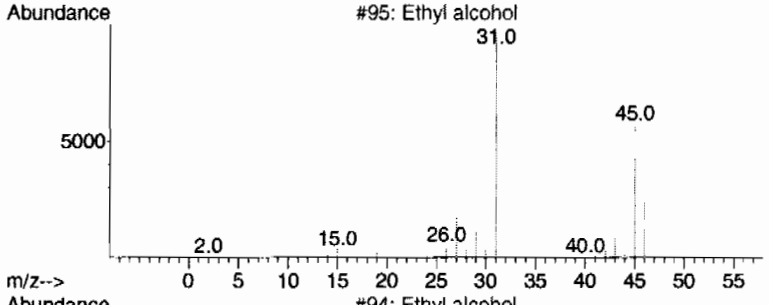

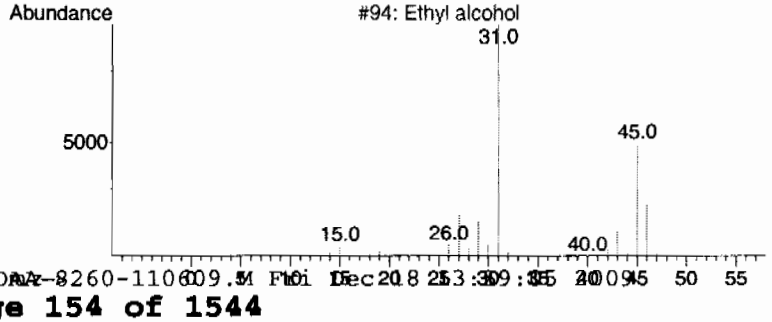

Tentatively Identified Compound (LSC) summary
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709\
Data File : AP423.D
Acq On : 18 Dec 2009 2:26 am
Operator : JEB
Sample : |242654006|934516|1|VOA|1|VOA8260BS|
Misc : LANL 5.2G N/A SOIL
ALS Vial : 23 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\VOAA-8260-110609.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

TIC Top Hit name	RT	EstConc	Units	Response	--Internal Standard--- #	RT	Resp	Conc
unknown	3.338	16.0	ug/L	855756	1	9.339	2667220	50.0

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242654007	**Date Received:**	12/10/2009 08:50	**%Moisture:**	14.2
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14267	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	934516	**Inst:**	VOAA.I	**Dilution:**	1
Run Date:	12/18/2009 02:52	**Analyst:**	JEB	**Purge Vol:**	5 mL
Prep Date:	12/17/2009 19:11	**Aliquot:**	5.4 g	**Final Volume:**	5 mL
Data File:	121709\AP424.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.08	ug/kg	0.367	1.08
74-87-3	Chloromethane	U	1.08	ug/kg	0.324	1.08
75-01-4	Vinyl chloride	U	1.08	ug/kg	0.324	1.08
74-83-9	Bromomethane	U	1.08	ug/kg	0.324	1.08
75-00-3	Chloroethane	U	1.08	ug/kg	0.324	1.08
75-69-4	Trichlorofluoromethane	U	1.08	ug/kg	0.324	1.08
67-64-1	Acetone	J	5.34	ug/kg	1.79	5.40
75-35-4	1,1-Dichloroethylene	U	1.08	ug/kg	0.324	1.08
74-88-4	Iodomethane	U	5.40	ug/kg	1.73	5.40
75-09-2	Methylene chloride	U	5.40	ug/kg	2.16	5.40
75-15-0	Carbon disulfide	U	5.40	ug/kg	1.35	5.40
156-60-5	trans-1,2-Dichloroethylene	U	1.08	ug/kg	0.324	1.08
75-34-3	1,1-Dichloroethane	U	1.08	ug/kg	0.324	1.08
78-93-3	2-Butanone	U	5.40	ug/kg	1.62	5.40
156-59-2	cis-1,2-Dichloroethylene	U	1.08	ug/kg	0.324	1.08
594-20-7	2,2-Dichloropropane	U	1.08	ug/kg	0.324	1.08
67-66-3	Chloroform	U	1.08	ug/kg	0.324	1.08
74-97-5	Bromochloromethane	U	1.08	ug/kg	0.356	1.08
71-55-6	1,1,1-Trichloroethane	U	1.08	ug/kg	0.324	1.08
563-58-6	1,1-Dichloropropene	U	1.08	ug/kg	0.324	1.08
56-23-5	Carbon tetrachloride	U	1.08	ug/kg	0.324	1.08
107-06-2	1,2-Dichloroethane	U	1.08	ug/kg	0.324	1.08
71-43-2	Benzene	U	1.08	ug/kg	0.324	1.08
79-01-6	Trichloroethylene	U	1.08	ug/kg	0.356	1.08
78-87-5	1,2-Dichloropropane	U	1.08	ug/kg	0.324	1.08
75-27-4	Bromodichloromethane	U	1.08	ug/kg	0.324	1.08
74-95-3	Dibromomethane	U	1.08	ug/kg	0.324	1.08
108-10-1	4-Methyl-2-pentanone	U	5.40	ug/kg	1.35	5.40
10061-01-5	cis-1,3-Dichloropropylene	U	1.08	ug/kg	0.324	1.08
108-88-3	Toluene	U	1.08	ug/kg	0.324	1.08
10061-02-6	trans-1,3-Dichloropropylene	U	1.08	ug/kg	0.324	1.08
79-00-5	1,1,2-Trichloroethane	U	1.08	ug/kg	0.324	1.08
591-78-6	2-Hexanone	U	5.40	ug/kg	1.62	5.40
142-28-9	1,3-Dichloropropane	U	1.08	ug/kg	0.324	1.08
127-18-4	Tetrachloroethylene	U	1.08	ug/kg	0.324	1.08
124-48-1	Dibromochloromethane	U	1.08	ug/kg	0.324	1.08
106-93-4	1,2-Dibromoethane	U	1.08	ug/kg	0.324	1.08
108-90-7	Chlorobenzene	U	1.08	ug/kg	0.324	1.08

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242654007	**Date Received:**	12/10/2009 08:50	**%Moisture:**	14.2
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14267	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	934516	**Inst:**	VOAA.I	**Dilution:**	1
Run Date:	12/18/2009 02:52	**Analyst:**	JEB	**Purge Vol:**	5 mL
Prep Date:	12/17/2009 19:11	**Aliquot:**	5.4 g	**Final Volume:**	5 mL
Data File:	121709\AP424.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.08	ug/kg	0.324	1.08
179601-23-1	m,p-Xylenes	U	2.16	ug/kg	0.324	2.16
95-47-6	o-Xylene	U	1.08	ug/kg	0.324	1.08
100-42-5	Styrene	U	1.08	ug/kg	0.324	1.08
75-25-2	Bromoform	U	1.08	ug/kg	0.324	1.08
79-34-5	1,1,2,2-Tetrachloroethane	U	1.08	ug/kg	0.324	1.08
96-18-4	1,2,3-Trichloropropane	U	1.08	ug/kg	0.324	1.08
108-86-1	Bromobenzene	U	1.08	ug/kg	0.324	1.08
103-65-1	n-Propylbenzene	U	1.08	ug/kg	0.324	1.08
95-49-8	2-Chlorotoluene	U	1.08	ug/kg	0.324	1.08
98-82-8	Isopropylbenzene	U	1.08	ug/kg	0.324	1.08
108-67-8	1,3,5-Trimethylbenzene	U	1.08	ug/kg	0.324	1.08
106-43-4	4-Chlorotoluene	U	1.08	ug/kg	0.324	1.08
98-06-6	tert-Butylbenzene	U	1.08	ug/kg	0.324	1.08
95-63-6	1,2,4-Trimethylbenzene	U	1.08	ug/kg	0.324	1.08
135-98-8	sec-Butylbenzene	U	1.08	ug/kg	0.324	1.08
99-87-6	4-Isopropyltoluene	U	1.08	ug/kg	0.324	1.08
541-73-1	1,3-Dichlorobenzene	U	1.08	ug/kg	0.324	1.08
106-46-7	1,4-Dichlorobenzene	U	1.08	ug/kg	0.324	1.08
104-51-8	n-Butylbenzene	U	1.08	ug/kg	0.324	1.08
96-12-8	1,2-Dibromo-3-chloropropane	U	1.08	ug/kg	0.324	1.08
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.40	ug/kg	1.73	5.40
630-20-6	1,1,1,2-Tetrachloroethane	U	1.08	ug/kg	0.324	1.08
95-50-1	1,2-Dichlorobenzene	U	1.08	ug/kg	0.324	1.08

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	Estimated RT	Units	Fit	Qual
	No Tentatively Identified Compounds Found		ug/kg		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709\
Data File : AP424.D
Acq On : 18 Dec 2009 2:52 am
Operator : JEB
InstName : VOAA
Sample : |242654007|934516|1|VOA|1|VOA8260BS|
Misc : LANL 5.4G N/A SOIL
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Dec 18 13:59:34 2009
Quant Method : C:\msdchem\1\METHODS\VOAA-8260-110609.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Nov 09 16:21:09 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Fluorobenzene	9.339	96	1247523	50.00 ug/L	0.00
41) Chlorobenzene-d5	12.508	117	999409	50.00 ug/L	0.00
58) 1,4-Dichlorobenzene-d4	14.941	152	625142	50.00 ug/L	0.00
82) B Fluorobenzene	9.339	96	1247523	50.00 ug/L	0.00
103) B Chlorobenzene-d5	12.508	117	999409	50.00 ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	14.941	152	625142	50.00 ug/L	0.00
System Monitoring Compounds					
29) 1,2-Dichloroethane-d4	8.978	65	471042	54.35 ug/L	0.00
Spiked Amount 50.000	Range 68 - 131		Recovery = 108.70%		
43) Toluene-d8	10.983	98	1210028	47.69 ug/L	0.00
Spiked Amount 50.000	Range 75 - 129		Recovery = 95.38%		
61) Bromofluorobenzene	13.710	95	514394	45.68 ug/L	0.00
Spiked Amount 50.000	Range 68 - 133		Recovery = 91.36%		
Target Compounds					Qvalue
2) Dichlorodifluoromethane	0.000		0	N.D.	
3) Chloromethane	0.000		0	N.D.	
4) Vinyl chloride	0.000		0	N.D.	
5) Bromomethane	0.000		0	N.D.	
6) Chloroethane	0.000		0	N.D.	
7) Trichlorofluoromethane	0.000		0	N.D.	
8) Ethyl ether	0.000		0	N.D.	
9) Acetone	6.085	43	25039	4.95 ug/L	85
10) 1,1-Dichloroethylene	0.000		0	N.D.	
11) Iodomethane	0.000		0	N.D.	
12) Acetonitrile	0.000		0	N.D.	
13) Methyl acetate	0.000		0	N.D.	
14) Carbon disulfide	6.414	76	138	N.D.	
15) Methylene chloride	6.648	84	8108	Below Cal	91
16) tert-Butyl methyl ether	0.000		0	N.D.	
17) trans-1,2-Dichloroethy...	0.000		0	N.D.	
18) Vinyl acetate	0.000		0	N.D.	
19) 1,1-Dichloroethane	0.000		0	N.D.	
20) 2-Butanone	8.062	43	580	N.D.	
21) cis-1,2-Dichloroethylene	0.000		0	N.D.	
22) 2,2-Dichloropropane	0.000		0	N.D.	
23) Bromochloromethane	0.000		0	N.D.	
24) Chloroform	0.000		0	N.D.	
25) 1,1,1-Trichloroethane	0.000		0	N.D.	
26) Cyclohexane	0.000		0	N.D.	
27) 1,1-Dichloropropene	0.000		0	N.D.	
28) Carbon tetrachloride	0.000		0	N.D.	
30) 1,2-Dichloroethane	0.000		0	N.D.	
31) Benzene	0.000		0	N.D.	
32) Cyclohexene	0.000		0	N.D.	
33) n-Butyl alcohol	0.000		0m	N.D. d	
34) Trichloroethylene	0.000		0	N.D.	
35) 1,2-Dichloropropane	0.000		0	N.D.	
36) Methylcyclohexane	0.000		0	N.D.	
37) Dibromomethane	0.000		0	N.D.	
38) Bromodichloromethane	0.000		0	N.D.	
39) 2-Chloroethylvinyl ether	0.000		0	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709\
Data File : AP424.D
Acq On : 18 Dec 2009 2:52 am
Operator : JEB
InstName : VOAA
Sample : |242654007|934516|1|VOA|1|VOA8260BS|
Misc : LANL 5.4G N/A SOIL
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Dec 18 13:59:34 2009
Quant Method : C:\msdchem\1\METHODS\VOAA-8260-110609.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Nov 09 16:21:09 2009
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
40)	cis-1,3-Dichloropropylene	0.000		0	N.D.	
42)	4-Methyl-2-pentanone	0.000		0	N.D.	
44)	Toluene	11.054	91	872	N.D.	
45)	trans-1,3-Dichloroprop...	0.000		0	N.D.	
46)	1,1,2-Trichloroethane	0.000		0	N.D.	
47)	2-Hexanone	0.000		0	N.D.	
48)	1,3-Dichloropropane	0.000		0	N.D.	
49)	Tetrachloroethylene	0.000		0	N.D.	
50)	Dibromochloromethane	0.000		0	N.D.	
51)	1,2-Dibromoethane	0.000		0	N.D.	
52)	Chlorobenzene	0.000		0	N.D.	
53)	1,1,1,2-Tetrachloroethane	0.000		0	N.D.	
54)	Ethylbenzene	12.511	91	1898	N.D.	
55)	m,p-Xylenes	0.000		0	N.D.	
56)	o-Xylene	0.000		0	N.D.	
57)	Styrene	0.000		0	N.D.	
59)	Bromoform	0.000		0	N.D.	
60)	Isopropylbenzene	13.713	105	108	N.D.	
62)	1,1,2,2-Tetrachloroethane	0.000		0	N.D.	
63)	1,2,3-Trichloropropane	0.000		0	N.D.	
64)	Bromobenzene	0.000		0	N.D.	
65)	n-Propylbenzene	13.710	91	1487	N.D.	
66)	1,3,5-Trimethylbenzene	0.000		0	N.D.	
67)	2-Chlorotoluene	0.000		0	N.D.	
68)	4-Chlorotoluene	0.000		0	N.D.	
69)	tert-Butylbenzene	0.000		0	N.D.	
70)	1,2,4-Trimethylbenzene	0.000		0	N.D.	
71)	sec-Butylbenzene	0.000		0	N.D.	
72)	4-Isopropyltoluene	0.000		0	N.D.	
73)	1,3-Dichlorobenzene	0.000		0	N.D.	
74)	1,4-Dichlorobenzene	14.972	146	400	N.D.	
75)	n-Butylbenzene	0.000		0	N.D.	
76)	1,2-Dichlorobenzene	0.000		0	N.D.	
77)	1,2-Dibromo-3-chloropr...	0.000		0	N.D.	
78)	1,2,4-Trichlorobenzene	17.175	180	261	N.D.	
79)	Hexachlorobutadiene	0.000		0	N.D.	
80)	Naphthalene	17.530	128	1573	N.D.	
81)	1,2,3-Trichlorobenzene	17.840	180	135	N.D.	
83)	Chlorotrifluoroethylene	0.000		0	N.D.	
84)	2-Chloro-1,1,1-trifluo...	0.000		0	N.D.	
85)	Acrolein	0.000		0	N.D.	
86)	Trichlorotrifluoroethane	0.000		0	N.D.	
87)	Isopropyl Alcohol	0.000		0	N.D.	
88)	Allyl chloride	0.000		0	N.D.	
89)	tert-Butyl Alcohol	6.687	59	112	N.D.	
90)	Acrylonitrile	0.000		0	N.D.	
91)	Isopropyl ether	0.000		0	N.D.	
92)	2-Chloro-1,3-butadiene	0.000		0	N.D.	
93)	Ethyl tert-butyl ether	0.000		0	N.D.	
94)	Ethyl acetate	8.062	43	580	N.D.	
95)	Propionitrile	0.000		0	N.D.	
96)	Methacrylonitrile	0.000		0	N.D.	
97)	Tetrahydrofuran	0.000		0	N.D.	
98)	Isobutyl alcohol	0.000		0	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709\
Data File : AP424.D
Acq On : 18 Dec 2009 2:52 am
Operator : JEB
InstName : VOAA
Sample : |242654007|934516|1|VOA|1|VOA8260BS|
Misc : LANL 5.4G N/A SOIL
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Dec 18 13:59:34 2009
Quant Method : C:\msdchem\1\METHODS\VOAA-8260-110609.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Nov 09 16:21:09 2009
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
99)	Methyl tert-amyl ether	0.000		0	N.D.	
100)	Methyl methacrylate	0.000		0	N.D.	
101)	1,4-Dioxane	0.000		0	N.D.	
102)	2-Nitropropane	0.000		0	N.D.	
104)	Ethyl methacrylate	0.000		0	N.D.	
106)	1-Chlorohexane	0.000		0	N.D.	
107)	cis-1,4-Dichloro-2-butene	0.000		0	N.D.	
108)	Cyclohexanone	0.000		0	N.D.	
109)	trans-1,4-Dichloro-2-b...	0.000		0	N.D.	
110)	Pentachloroethane	0.000		0	N.D.	
111)	Benzyl chloride	0.000		0m	N.D.	d
112)	bis(2-Chloroisopropyl)...	15.605	45	1053	N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709\
Data File : AP424.D
Acq On : 18 Dec 2009 2:52 am
Operator : JEB
InstName : VOAA
Sample : |242654007|934516|1|VOA|1|VOA8260BS|
Misc : LANL 5.4G N/A SOIL
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Dec 18 13:59:34 2009
Quant Method : C:\msdchem\1\METHODS\VOAA-8260-110609.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Nov 09 16:21:09 2009
Response via : Initial Calibration
Integrator: RTE

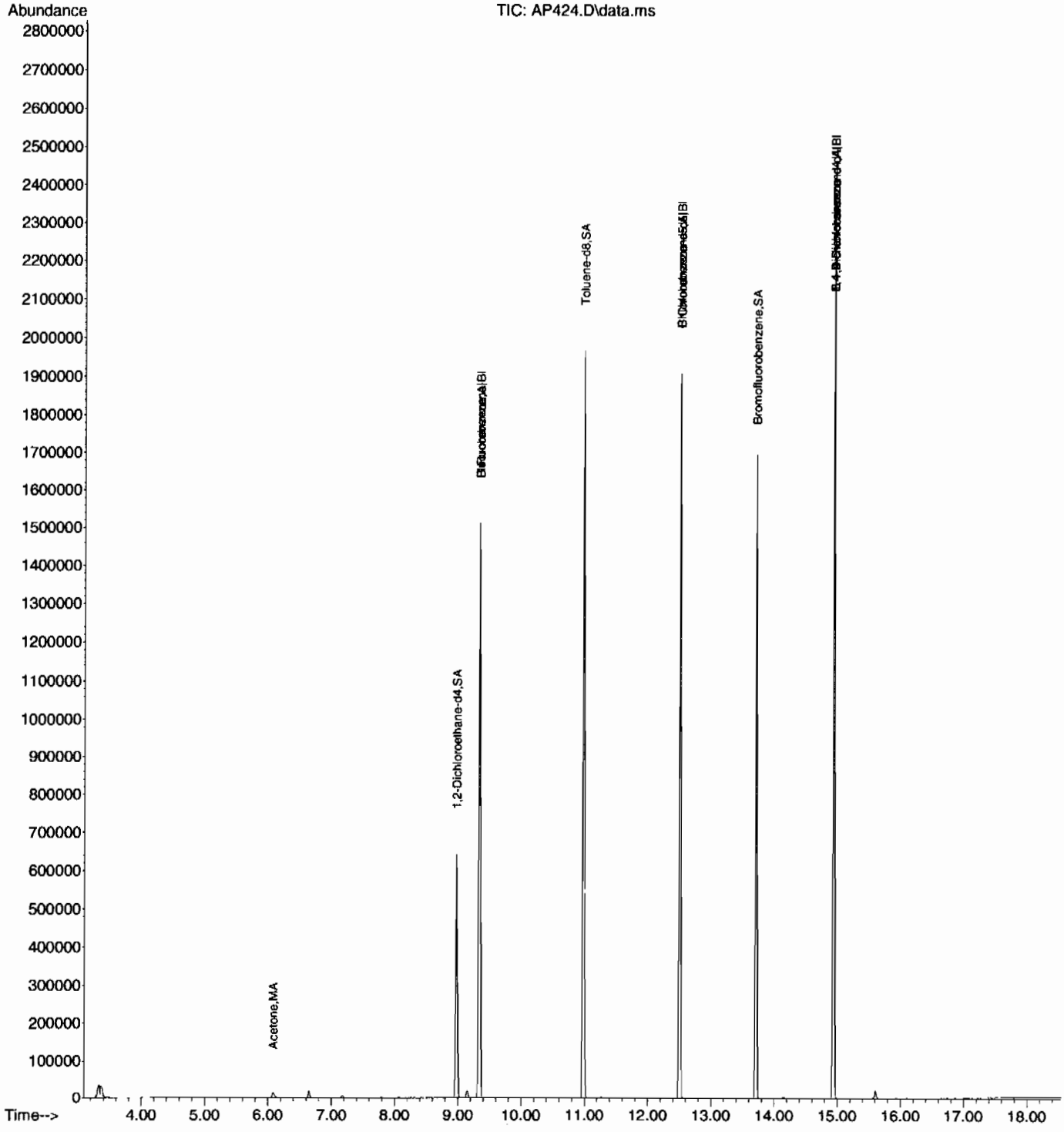

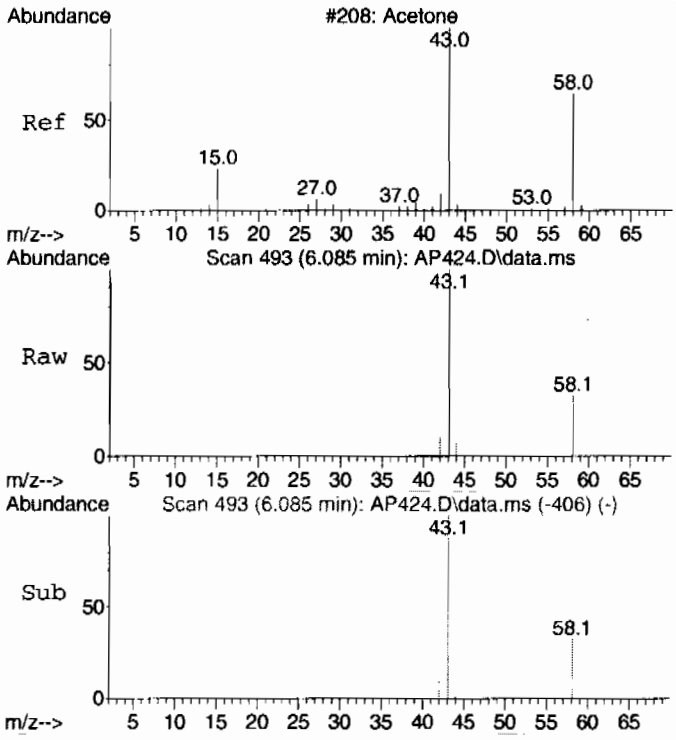

#9
Acetone
Concen: 4.95 ug/L
RT: 6.085 min Scan# 493
Delta R.T. 0.007 min
Lab File: AP424.D
Acq: 18 Dec 2009 2:52 am

Tgt Ion: 43 Resp: 25039

Ion	Ratio	Lower	Upper
43	100		
58	28.1	6.7	66.7

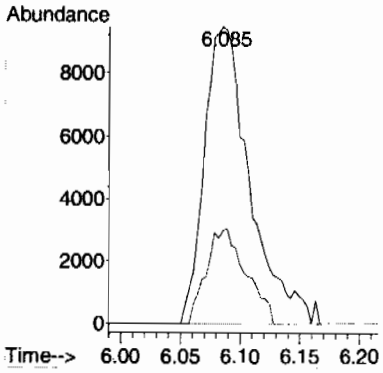

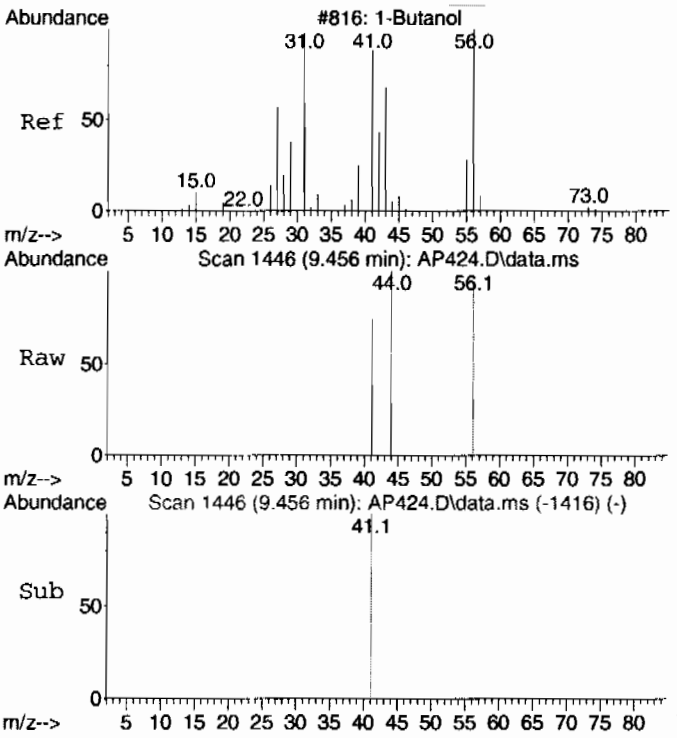

#33 BEFORE analyst DELETION
n-Butyl alcohol
Concen: 97.34 ug/L
RT: 9.456 min Scan# 1446
Delta R.T. -0.003 min
Lab File: AP424.D
Acq: 18 Dec 2009 2:52 am

Tgt Ion: 56 Resp: 260

Ion	Ratio	Lower	Upper
56	100		
41	40.8	27.8	87.8
43	0.0	17.9	77.9#

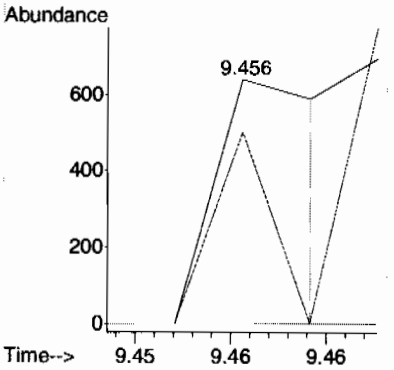

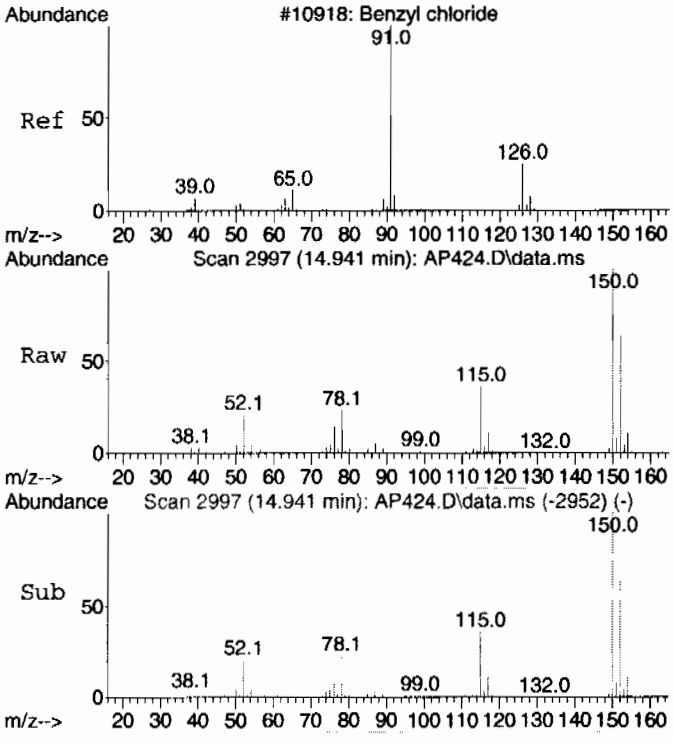

#111 BEFORE analyst DELETION
Benzyl chloride
Concen: 4.47 ug/L
RT: 14.941 min Scan# 2997
Delta R.T. -0.141 min
Lab File: AP424.D
Acq: 18 Dec 2009 2:52 am

Tgt Ion: 91 Resp: 1282

Ion	Ratio	Lower	Upper
91	100		
126	0.0	0.0	52.0
65	339.8	0.0	41.2#

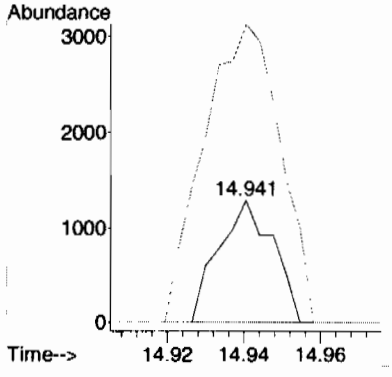

Library Search Compound Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709\
Data File : AP424.D
Acq On : 18 Dec 2009 2:52 am
Operator : JEB
Sample : |242654007|934516|1|VOA|1|VOA8260BS|
Misc : LANL 5.4G N/A SOIL
ALS Vial : 24 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\VOAA-8260-110609.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

No Library Search Compounds Detected
****

Tentatively Identified Compound (LSC) summary
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709\
Data File : AP424.D
Acq On : 18 Dec 2009 2:52 am
Operator : JEB
Sample : |242654007|934516|1|VOA|1|VOA8260BS|
Misc : LANL 5.4G N/A SOIL
ALS Vial : 24 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\VOAA-8260-110609.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

TIC Top Hit name	RT	EstConc	Units	Response	--Internal Standard--- #	RT	Resp	Conc

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	Date Collected:	12/07/2009 12:00	Matrix:	S
Lab Sample ID:	242654008	Date Received:	12/10/2009 08:50	%Moisture:	13
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14265	Method:	SW846 8260B	SOP Ref:	GL-OA-E-038
Batch ID:	934516	Inst:	VOAA.I	Dilution:	1
Run Date:	12/18/2009 03:18	Analyst:	JEB	Purge Vol:	5 mL
Prep Date:	12/17/2009 19:12	Aliquot:	5.2 g	Final Volume:	5 mL
Data File:	121709\AP425.D	Column:	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.11	ug/kg	0.376	1.11
74-87-3	Chloromethane	U	1.11	ug/kg	0.332	1.11
75-01-4	Vinyl chloride	U	1.11	ug/kg	0.332	1.11
74-83-9	Bromomethane	U	1.11	ug/kg	0.332	1.11
75-00-3	Chloroethane	U	1.11	ug/kg	0.332	1.11
75-69-4	Trichlorofluoromethane	U	1.11	ug/kg	0.332	1.11
67-64-1	Acetone	U	5.53	ug/kg	1.84	5.53
75-35-4	1,1-Dichloroethylene	U	1.11	ug/kg	0.332	1.11
74-88-4	Iodomethane	U	5.53	ug/kg	1.77	5.53
75-09-2	Methylene chloride	U	5.53	ug/kg	2.21	5.53
75-15-0	Carbon disulfide	U	5.53	ug/kg	1.38	5.53
156-60-5	trans-1,2-Dichloroethylene	U	1.11	ug/kg	0.332	1.11
75-34-3	1,1-Dichloroethane	U	1.11	ug/kg	0.332	1.11
78-93-3	2-Butanone	U	5.53	ug/kg	1.66	5.53
156-59-2	cis-1,2-Dichloroethylene	U	1.11	ug/kg	0.332	1.11
594-20-7	2,2-Dichloropropane	U	1.11	ug/kg	0.332	1.11
67-66-3	Chloroform	U	1.11	ug/kg	0.332	1.11
74-97-5	Bromochloromethane	U	1.11	ug/kg	0.365	1.11
71-55-6	1,1,1-Trichloroethane	U	1.11	ug/kg	0.332	1.11
563-58-6	1,1-Dichloropropene	U	1.11	ug/kg	0.332	1.11
56-23-5	Carbon tetrachloride	U	1.11	ug/kg	0.332	1.11
107-06-2	1,2-Dichloroethane	U	1.11	ug/kg	0.332	1.11
71-43-2	Benzene	U	1.11	ug/kg	0.332	1.11
79-01-6	Trichloroethylene	U	1.11	ug/kg	0.365	1.11
78-87-5	1,2-Dichloropropane	U	1.11	ug/kg	0.332	1.11
75-27-4	Bromodichloromethane	U	1.11	ug/kg	0.332	1.11
74-95-3	Dibromomethane	U	1.11	ug/kg	0.332	1.11
108-10-1	4-Methyl-2-pentanone	U	5.53	ug/kg	1.38	5.53
10061-01-5	cis-1,3-Dichloropropylene	U	1.11	ug/kg	0.332	1.11
108-88-3	Toluene	U	1.11	ug/kg	0.332	1.11
10061-02-6	trans-1,3-Dichloropropylene	U	1.11	ug/kg	0.332	1.11
79-00-5	1,1,2-Trichloroethane	U	1.11	ug/kg	0.332	1.11
591-78-6	2-Hexanone	U	5.53	ug/kg	1.66	5.53
142-28-9	1,3-Dichloropropane	U	1.11	ug/kg	0.332	1.11
127-18-4	Tetrachloroethylene	U	1.11	ug/kg	0.332	1.11
124-48-1	Dibromochloromethane	U	1.11	ug/kg	0.332	1.11
106-93-4	1,2-Dibromoethane	U	1.11	ug/kg	0.332	1.11
108-90-7	Chlorobenzene	U	1.11	ug/kg	0.332	1.11

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242654008	**Date Received:**	12/10/2009 08:50	**%Moisture:**	13
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14265	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	934516	**Inst:**	VOAA.I	**Dilution:**	1
Run Date:	12/18/2009 03:18	**Analyst:**	JEB	**Purge Vol:**	5 mL
Prep Date:	12/17/2009 19:12	**Aliquot:**	5.2 g	**Final Volume:**	5 mL
Data File:	121709\AP425.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.11	ug/kg	0.332	1.11
179601-23-1	m,p-Xylenes	U	2.21	ug/kg	0.332	2.21
95-47-6	o-Xylene	U	1.11	ug/kg	0.332	1.11
100-42-5	Styrene	U	1.11	ug/kg	0.332	1.11
75-25-2	Bromoform	U	1.11	ug/kg	0.332	1.11
79-34-5	1,1,2,2-Tetrachloroethane	U	1.11	ug/kg	0.332	1.11
96-18-4	1,2,3-Trichloropropane	U	1.11	ug/kg	0.332	1.11
108-86-1	Bromobenzene	U	1.11	ug/kg	0.332	1.11
103-65-1	n-Propylbenzene	U	1.11	ug/kg	0.332	1.11
95-49-8	2-Chlorotoluene	U	1.11	ug/kg	0.332	1.11
98-82-8	Isopropylbenzene	U	1.11	ug/kg	0.332	1.11
108-67-8	1,3,5-Trimethylbenzene	U	1.11	ug/kg	0.332	1.11
106-43-4	4-Chlorotoluene	U	1.11	ug/kg	0.332	1.11
98-06-6	tert-Butylbenzene	U	1.11	ug/kg	0.332	1.11
95-63-6	1,2,4-Trimethylbenzene	U	1.11	ug/kg	0.332	1.11
135-98-8	sec-Butylbenzene	U	1.11	ug/kg	0.332	1.11
99-87-6	4-Isopropyltoluene	U	1.11	ug/kg	0.332	1.11
541-73-1	1,3-Dichlorobenzene	U	1.11	ug/kg	0.332	1.11
106-46-7	1,4-Dichlorobenzene	U	1.11	ug/kg	0.332	1.11
104-51-8	n-Butylbenzene	U	1.11	ug/kg	0.332	1.11
96-12-8	1,2-Dibromo-3-chloropropane	U	1.11	ug/kg	0.332	1.11
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.53	ug/kg	1.77	5.53
630-20-6	1,1,1,2-Tetrachloroethane	U	1.11	ug/kg	0.332	1.11
95-50-1	1,2-Dichlorobenzene	U	1.11	ug/kg	0.332	1.11

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown	3.34	9.77	ug/kg	0	J

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709\
Data File : AP425.D
Acq On : 18 Dec 2009 3:18 am
Operator : JEB
InstName : VOAA
Sample : |242654008|934516|1|VOA|1|VOA8260BS|
Misc : LANL 5.2G N/A SOIL
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Dec 18 14:00:16 2009
Quant Method : C:\msdchem\1\METHODS\VOAA-8260-110609.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Nov 09 16:21:09 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Fluorobenzene	9.339	96	1204315	50.00 ug/L	0.00
41) Chlorobenzene-d5	12.507	117	967698	50.00 ug/L	0.00
58) 1,4-Dichlorobenzene-d4	14.940	152	596127	50.00 ug/L	0.00
82) B Fluorobenzene	9.339	96	1204315	50.00 ug/L	0.00
103) B Chlorobenzene-d5	12.507	117	967698	50.00 ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	14.940	152	596127	50.00 ug/L	0.00
System Monitoring Compounds					
29) 1,2-Dichloroethane-d4	8.978	65	459328	54.90 ug/L	0.00
Spiked Amount 50.000	Range 68 - 131		Recovery = 109.80%		
43) Toluene-d8	10.983	98	1161205	47.26 ug/L	0.00
Spiked Amount 50.000	Range 75 - 129		Recovery = 94.52%		
61) Bromofluorobenzene	13.713	95	488530	45.49 ug/L	0.00
Spiked Amount 50.000	Range 68 - 133		Recovery = 90.98%		
Target Compounds					Qvalue
2) Dichlorodifluoromethane	0.000		0	N.D.	
3) Chloromethane	0.000		0	N.D.	
4) Vinyl chloride	0.000		0	N.D.	
5) Bromomethane	0.000		0	N.D.	
6) Chloroethane	0.000		0	N.D.	
7) Trichlorofluoromethane	0.000		0	N.D.	
8) Ethyl ether	0.000		0	N.D.	
9) Acetone	6.096	43	1734	N.D.	
10) 1,1-Dichloroethylene	0.000		0	N.D.	
11) Iodomethane	0.000		0	N.D.	
12) Acetonitrile	0.000		0	N.D.	
13) Methyl acetate	0.000		0	N.D.	
14) Carbon disulfide	6.421	76	263	N.D.	
15) Methylene chloride	6.644	84	6722	Below Cal	95
16) tert-Butyl methyl ether	0.000		0	N.D.	
17) trans-1,2-Dichloroethy...	0.000		0	N.D.	
18) Vinyl acetate	0.000		0	N.D.	
19) 1,1-Dichloroethane	0.000		0	N.D.	
20) 2-Butanone	0.000		0	N.D.	
21) cis-1,2-Dichloroethylene	0.000		0	N.D.	
22) 2,2-Dichloropropane	0.000		0	N.D.	
23) Bromochloromethane	0.000		0	N.D.	
24) Chloroform	0.000		0	N.D.	
25) 1,1,1-Trichloroethane	0.000		0	N.D.	
26) Cyclohexane	0.000		0	N.D.	
27) 1,1-Dichloropropene	0.000		0	N.D.	
28) Carbon tetrachloride	0.000		0	N.D.	
30) 1,2-Dichloroethane	0.000		0	N.D.	
31) Benzene	0.000		0	N.D.	
32) Cyclohexene	0.000		0	N.D.	
33) n-Butyl alcohol	0.000		0	N.D.	
34) Trichloroethylene	0.000		0	N.D.	
35) 1,2-Dichloropropane	0.000		0	N.D.	
36) Methylcyclohexane	0.000		0	N.D.	
37) Dibromomethane	0.000		0	N.D.	
38) Bromodichloromethane	0.000		0	N.D.	
39) 2-Chloroethylvinyl ether	0.000		0	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709\
Data File : AP425.D
Acq On : 18 Dec 2009 3:18 am
Operator : JEB
InstName : VOAA
Sample : |242654008|934516|1|VOA|1|VOA8260BS|
Misc : LANL 5.2G N/A SOIL
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Dec 18 14:00:16 2009
Quant Method : C:\msdchem\1\METHODS\VOAA-8260-110609.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Nov 09 16:21:09 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc Units Dev(Min)
40) cis-1,3-Dichloropropylene	0.000		0	N.D.
42) 4-Methyl-2-pentanone	0.000		0	N.D.
44) Toluene	11.054	91	671	N.D.
45) trans-1,3-Dichloroprop...	0.000		0	N.D.
46) 1,1,2-Trichloroethane	0.000		0	N.D.
47) 2-Hexanone	0.000		0	N.D.
48) 1,3-Dichloropropane	0.000		0	N.D.
49) Tetrachloroethylene	0.000		0	N.D.
50) Dibromochloromethane	0.000		0	N.D.
51) 1,2-Dibromoethane	0.000		0	N.D.
52) Chlorobenzene	0.000		0	N.D.
53) 1,1,1,2-Tetrachloroethane	0.000		0	N.D.
54) Ethylbenzene	12.511	91	1711	N.D.
55) m,p-Xylenes	0.000		0	N.D.
56) o-Xylene	0.000		0	N.D.
57) Styrene	0.000		0	N.D.
59) Bromoform	0.000		0	N.D.
60) Isopropylbenzene	0.000		0	N.D.
62) 1,1,2,2-Tetrachloroethane	0.000		0	N.D.
63) 1,2,3-Trichloropropane	0.000		0	N.D.
64) Bromobenzene	0.000		0	N.D.
65) n-Propylbenzene	13.713	91	1319	N.D.
66) 1,3,5-Trimethylbenzene	0.000		0	N.D.
67) 2-Chlorotoluene	0.000		0	N.D.
68) 4-Chlorotoluene	0.000		0	N.D.
69) tert-Butylbenzene	0.000		0	N.D.
70) 1,2,4-Trimethylbenzene	0.000		0	N.D.
71) sec-Butylbenzene	0.000		0	N.D.
72) 4-Isopropyltoluene	0.000		0	N.D.
73) 1,3-Dichlorobenzene	0.000		0	N.D.
74) 1,4-Dichlorobenzene	14.969	146	250	N.D.
75) n-Butylbenzene	0.000		0	N.D.
76) 1,2-Dichlorobenzene	0.000		0	N.D.
77) 1,2-Dibromo-3-chloropr...	0.000		0	N.D.
78) 1,2,4-Trichlorobenzene	17.175	180	255	N.D.
79) Hexachlorobutadiene	0.000		0	N.D.
80) Naphthalene	17.529	128	1305	N.D.
81) 1,2,3-Trichlorobenzene	17.839	180	117	N.D.
83) Chlorotrifluoroethylene	0.000		0	N.D.
84) 2-Chloro-1,1,1-trifluo...	0.000		0	N.D.
85) Acrolein	0.000		0	N.D.
86) Trichlorotrifluoroethane	0.000		0	N.D.
87) Isopropyl Alcohol	0.000		0	N.D.
88) Allyl chloride	0.000		0	N.D.
89) tert-Butyl Alcohol	0.000		0	N.D.
90) Acrylonitrile	0.000		0	N.D.
91) Isopropyl ether	0.000		0	N.D.
92) 2-Chloro-1,3-butadiene	0.000		0	N.D.
93) Ethyl tert-butyl ether	0.000		0	N.D.
94) Ethyl acetate	0.000		0	N.D.
95) Propionitrile	0.000		0	N.D.
96) Methacrylonitrile	0.000		0	N.D.
97) Tetrahydrofuran	0.000		0	N.D.
98) Isobutyl alcohol	0.000		0	N.D.

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709\
Data File : AP425.D
Acq On : 18 Dec 2009 3:18 am
Operator : JEB
InstName : VOAA
Sample : |242654008|934516|1|VOA|1|VOA8260BS|
Misc : LANL 5.2G N/A SOIL
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Dec 18 14:00:16 2009
Quant Method : C:\msdchem\1\METHODS\VOAA-8260-110609.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Nov 09 16:21:09 2009
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
99)	Methyl tert-amyl ether	0.000		0	N.D.	
100)	Methyl methacrylate	0.000		0	N.D.	
101)	1,4-Dioxane	0.000		0	N.D.	
102)	2-Nitropropane	0.000		0	N.D.	
104)	Ethyl methacrylate	0.000		0	N.D.	
106)	1-Chlorohexane	0.000		0	N.D.	
107)	cis-1,4-Dichloro-2-butene	0.000		0	N.D.	
108)	Cyclohexanone	0.000		0	N.D.	
109)	trans-1,4-Dichloro-2-b...	0.000		0	N.D.	
110)	Pentachloroethane	0.000		0	N.D.	
111)	Benzyl chloride	0.000		0m	N.D.	d
112)	bis(2-Chloroisopropyl)...	15.605	45	220	N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709\
Data File : AP425.D
Acq On : 18 Dec 2009 3:18 am
Operator : JEB
InstName : VOAA
Sample : |242654008|934516|1|VOA|1|VOA8260BS|
Misc : LANL 5.2G N/A SOIL
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Dec 18 14:00:16 2009
Quant Method : C:\msdchem\1\METHODS\VOAA-8260-110609.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Nov 09 16:21:09 2009
Response via : Initial Calibration
Integrator: RTE

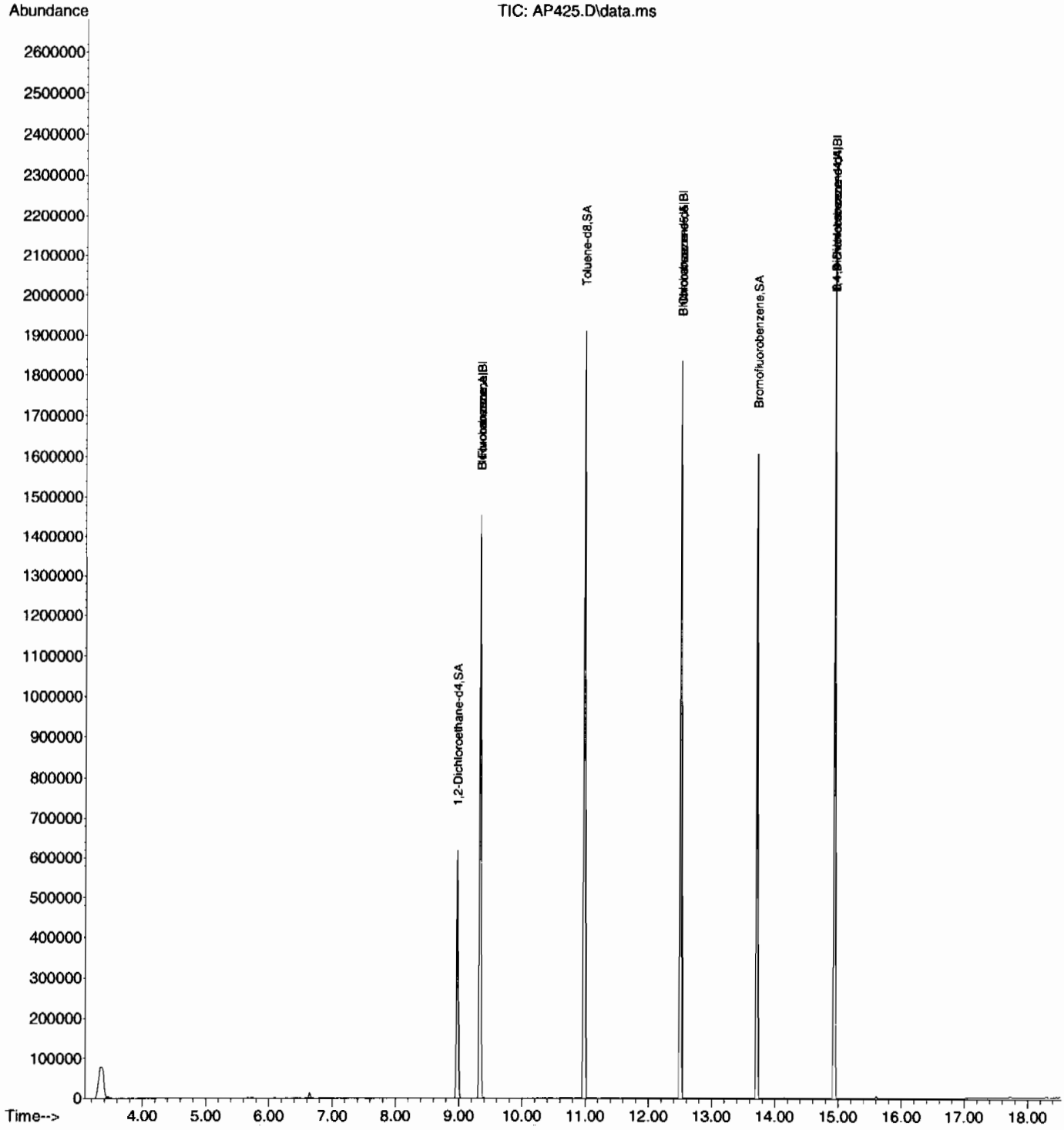

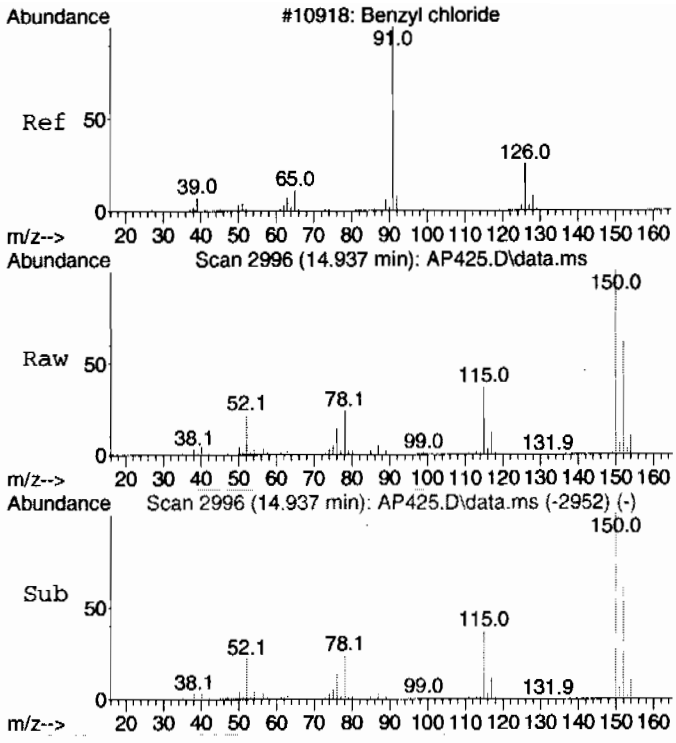

#111 BEFORE analyst DELETION
Benzyl chloride
Concen: 4.45 ug/L
RT: 14.937 min Scan# 2996
Delta R.T. -0.145 min
Lab File: AP425.D
Acq: 18 Dec 2009 3:18 am

Tgt Ion: 91 Resp: 991

Ion	Ratio	Lower	Upper
91	100		
126	0.0	0.0	52.0
65	409.3	0.0	41.2#

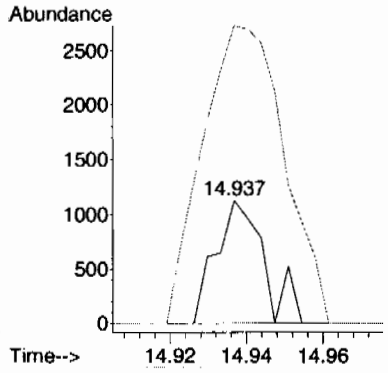

Library Search Compound Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709\
Data File : AP425.D
Acq On : 18 Dec 2009 3:18 am
Operator : JEB
Sample : |242654008|934516|1|VOA|1|VOA8260BS|
Misc : LANL 5.2G N/A SOIL
ALS Vial : 25 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\VOAA-8260-110609.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

****

Peak Number 1 unknown Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
3.338	8.84 ug/L	458035	Fluorobenzene	9.339

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Dimethyl ether	46	C2H6O	000115-10-6	5
2	Ethyl alcohol	46	C2H6O	000064-17-5	4
3	Ethyl alcohol	46	C2H6O	000064-17-5	4
4	Ethyl alcohol	46	C2H6O	000064-17-5	4
5	Formic acid	46	CH2O2	000064-18-6	3

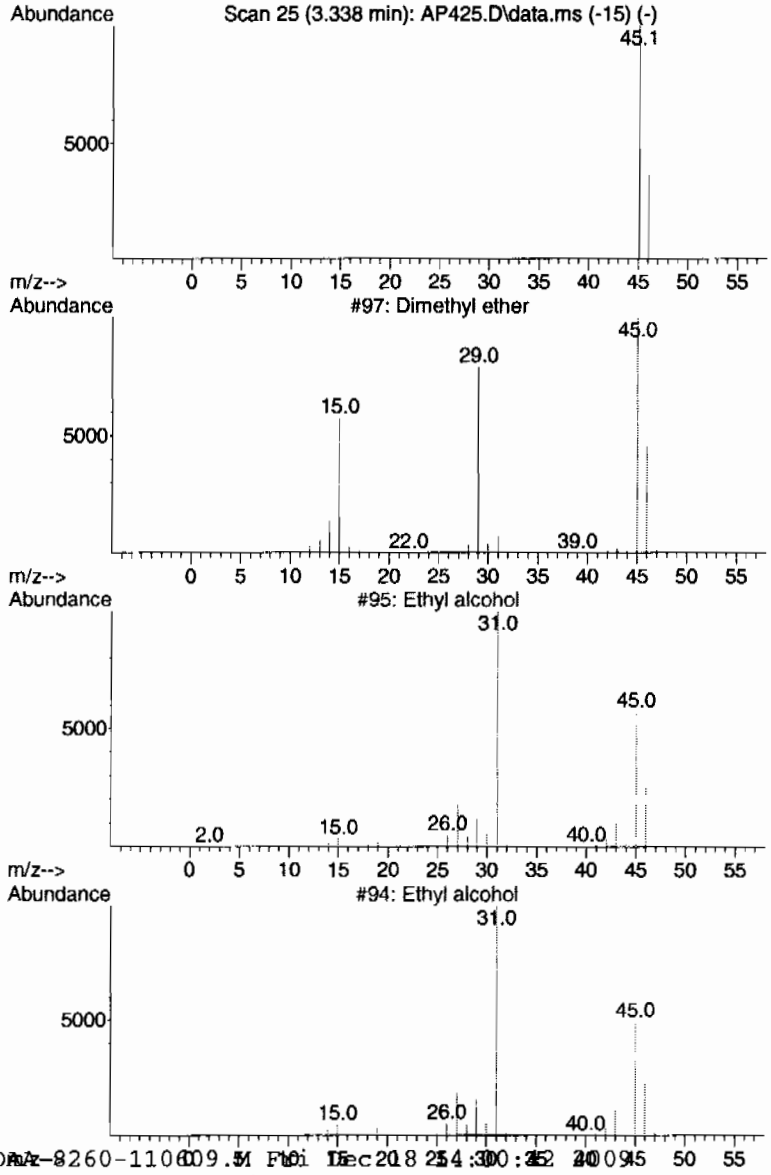

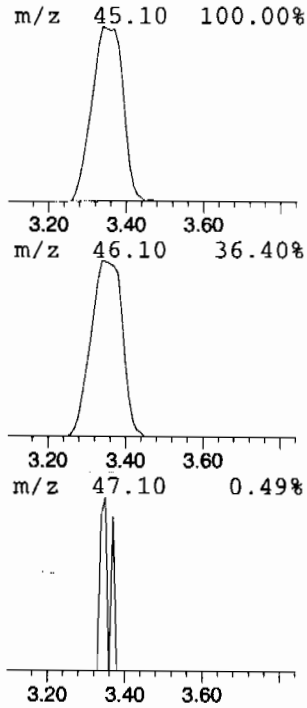

Tentatively Identified Compound (LSC) summary
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709\
Data File : AP425.D
Acq On : 18 Dec 2009 3:18 am
Operator : JEB
Sample : |242654008|934516|1|VOA|1|VOA8260BS|
Misc : LANL 5.2G N/A SOIL
ALS Vial : 25 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\VOAA-8260-110609.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

TIC Top Hit name	RT	EstConc	Units	Response	--Internal Standard--- #	RT	Resp	Conc
unknown	3.338	8.8	ug/L	458035	1	9.339	2590990	50.0

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242654009	**Date Received:**	12/10/2009 08:50	**%Moisture:**	14.1
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14281	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	934516	**Inst:**	VOAA.I	**Dilution:**	1
Run Date:	12/18/2009 03:44	**Analyst:**	JEB	**Purge Vol:**	5 mL
Prep Date:	12/17/2009 19:13	**Aliquot:**	5.3 g	**Final Volume:**	5 mL
Data File:	121709\AP426.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.10	ug/kg	0.374	1.10
74-87-3	Chloromethane	U	1.10	ug/kg	0.330	1.10
75-01-4	Vinyl chloride	U	1.10	ug/kg	0.330	1.10
74-83-9	Bromomethane	U	1.10	ug/kg	0.330	1.10
75-00-3	Chloroethane	U	1.10	ug/kg	0.330	1.10
75-69-4	Trichlorofluoromethane	U	1.10	ug/kg	0.330	1.10
67-64-1	Acetone	U	5.49	ug/kg	1.82	5.49
75-35-4	1,1-Dichloroethylene	U	1.10	ug/kg	0.330	1.10
74-88-4	Iodomethane	U	5.49	ug/kg	1.76	5.49
75-09-2	Methylene chloride	U	5.49	ug/kg	2.20	5.49
75-15-0	Carbon disulfide	U	5.49	ug/kg	1.37	5.49
156-60-5	trans-1,2-Dichloroethylene	U	1.10	ug/kg	0.330	1.10
75-34-3	1,1-Dichloroethane	U	1.10	ug/kg	0.330	1.10
78-93-3	2-Butanone	U	5.49	ug/kg	1.65	5.49
156-59-2	cis-1,2-Dichloroethylene	U	1.10	ug/kg	0.330	1.10
594-20-7	2,2-Dichloropropane	U	1.10	ug/kg	0.330	1.10
67-66-3	Chloroform	U	1.10	ug/kg	0.330	1.10
74-97-5	Bromochloromethane	U	1.10	ug/kg	0.363	1.10
71-55-6	1,1,1-Trichloroethane	U	1.10	ug/kg	0.330	1.10
563-58-6	1,1-Dichloropropene	U	1.10	ug/kg	0.330	1.10
56-23-5	Carbon tetrachloride	U	1.10	ug/kg	0.330	1.10
107-06-2	1,2-Dichloroethane	U	1.10	ug/kg	0.330	1.10
71-43-2	Benzene	U	1.10	ug/kg	0.330	1.10
79-01-6	Trichloroethylene	U	1.10	ug/kg	0.363	1.10
78-87-5	1,2-Dichloropropane	U	1.10	ug/kg	0.330	1.10
75-27-4	Bromodichloromethane	U	1.10	ug/kg	0.330	1.10
74-95-3	Dibromomethane	U	1.10	ug/kg	0.330	1.10
108-10-1	4-Methyl-2-pentanone	U	5.49	ug/kg	1.37	5.49
10061-01-5	cis-1,3-Dichloropropylene	U	1.10	ug/kg	0.330	1.10
108-88-3	Toluene	U	1.10	ug/kg	0.330	1.10
10061-02-6	trans-1,3-Dichloropropylene	U	1.10	ug/kg	0.330	1.10
79-00-5	1,1,2-Trichloroethane	U	1.10	ug/kg	0.330	1.10
591-78-6	2-Hexanone	U	5.49	ug/kg	1.65	5.49
142-28-9	1,3-Dichloropropane	U	1.10	ug/kg	0.330	1.10
127-18-4	Tetrachloroethylene	U	1.10	ug/kg	0.330	1.10
124-48-1	Dibromochloromethane	U	1.10	ug/kg	0.330	1.10
106-93-4	1,2-Dibromoethane	U	1.10	ug/kg	0.330	1.10
108-90-7	Chlorobenzene	U	1.10	ug/kg	0.330	1.10

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-852**	**Date Collected:**	**12/07/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242654009**	**Date Received:**	**12/10/2009 08:50**	**%Moisture:**	**14.1**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14281**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**934516**	**Inst:**	**VOAA.I**	**Dilution:**	**1**
Run Date:	**12/18/2009 03:44**	**Analyst:**	**JEB**	**Purge Vol:**	**5 mL**
Prep Date:	**12/17/2009 19:13**	**Aliquot:**	**5.3 g**	**Final Volume:**	**5 mL**
Data File:	**121709\AP426.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.10	ug/kg	0.330	1.10
179601-23-1	m,p-Xylenes	U	2.20	ug/kg	0.330	2.20
95-47-6	o-Xylene	U	1.10	ug/kg	0.330	1.10
100-42-5	Styrene	U	1.10	ug/kg	0.330	1.10
75-25-2	Bromoform	U	1.10	ug/kg	0.330	1.10
79-34-5	1,1,2,2-Tetrachloroethane	U	1.10	ug/kg	0.330	1.10
96-18-4	1,2,3-Trichloropropane	U	1.10	ug/kg	0.330	1.10
108-86-1	Bromobenzene	U	1.10	ug/kg	0.330	1.10
103-65-1	n-Propylbenzene	U	1.10	ug/kg	0.330	1.10
95-49-8	2-Chlorotoluene	U	1.10	ug/kg	0.330	1.10
98-82-8	Isopropylbenzene	U	1.10	ug/kg	0.330	1.10
108-67-8	1,3,5-Trimethylbenzene	U	1.10	ug/kg	0.330	1.10
106-43-4	4-Chlorotoluene	U	1.10	ug/kg	0.330	1.10
98-06-6	tert-Butylbenzene	U	1.10	ug/kg	0.330	1.10
95-63-6	1,2,4-Trimethylbenzene	U	1.10	ug/kg	0.330	1.10
135-98-8	sec-Butylbenzene	U	1.10	ug/kg	0.330	1.10
99-87-6	4-Isopropyltoluene	U	1.10	ug/kg	0.330	1.10
541-73-1	1,3-Dichlorobenzene	U	1.10	ug/kg	0.330	1.10
106-46-7	1,4-Dichlorobenzene	U	1.10	ug/kg	0.330	1.10
104-51-8	n-Butylbenzene	U	1.10	ug/kg	0.330	1.10
96-12-8	1,2-Dibromo-3-chloropropane	U	1.10	ug/kg	0.330	1.10
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.49	ug/kg	1.76	5.49
630-20-6	1,1,1,2-Tetrachloroethane	U	1.10	ug/kg	0.330	1.10
95-50-1	1,2-Dichlorobenzene	U	1.10	ug/kg	0.330	1.10

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown	3.34	7.44	ug/kg	0	J
	unknown siloxane	17.12	8.4	ug/kg	0	J

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709\
Data File : AP426.D
Acq On : 18 Dec 2009 3:44 am
Operator : JEB
InstName : VOAA
Sample : |242654009|934516|1|VOA|1|VOA8260BS|
Misc : LANL 5.3G N/A SOIL
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Dec 18 14:01:07 2009
Quant Method : C:\msdchem\1\METHODS\VOAA-8260-110609.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Nov 09 16:21:09 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Fluorobenzene	9.339	96	1213162	50.00 ug/L	0.00
41) Chlorobenzene-d5	12.507	117	987417	50.00 ug/L	0.00
58) 1,4-Dichlorobenzene-d4	14.941	152	621162	50.00 ug/L	0.00
82) B Fluorobenzene	9.339	96	1213162	50.00 ug/L	0.00
103) B Chlorobenzene-d5	12.507	117	987417	50.00 ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	14.941	152	621162	50.00 ug/L	0.00
System Monitoring Compounds					
29) 1,2-Dichloroethane-d4	8.978	65	463631	55.01 ug/L	0.00
Spiked Amount 50.000	Range 68 - 131		Recovery = 110.02%		
43) Toluene-d8	10.983	98	1177138	46.96 ug/L	0.00
Spiked Amount 50.000	Range 75 - 129		Recovery = 93.92%		
61) Bromofluorobenzene	13.710	95	514725	46.00 ug/L	0.00
Spiked Amount 50.000	Range 68 - 133		Recovery = 92.00%		
Target Compounds					Qvalue
2) Dichlorodifluoromethane	0.000		0	N.D.	
3) Chloromethane	0.000		0	N.D.	
4) Vinyl chloride	0.000		0	N.D.	
5) Bromomethane	0.000		0	N.D.	
6) Chloroethane	0.000		0	N.D.	
7) Trichlorofluoromethane	0.000		0	N.D.	
8) Ethyl ether	0.000		0	N.D.	
9) Acetone	6.089	43	350	N.D.	
10) 1,1-Dichloroethylene	0.000		0	N.D.	
11) Iodomethane	0.000		0	N.D.	
12) Acetonitrile	0.000		0	N.D.	
13) Methyl acetate	0.000		0	N.D.	
14) Carbon disulfide	6.418	76	491	N.D.	
15) Methylene chloride	6.644	84	7338	Below Cal	86
16) tert-Butyl methyl ether	0.000		0	N.D.	
17) trans-1,2-Dichloroethy...	0.000		0	N.D.	
18) Vinyl acetate	0.000		0	N.D.	
19) 1,1-Dichloroethane	0.000		0	N.D.	
20) 2-Butanone	0.000		0	N.D.	
21) cis-1,2-Dichloroethylene	0.000		0	N.D.	
22) 2,2-Dichloropropane	0.000		0	N.D.	
23) Bromochloromethane	0.000		0	N.D.	
24) Chloroform	0.000		0	N.D.	
25) 1,1,1-Trichloroethane	0.000		0	N.D.	
26) Cyclohexane	0.000		0	N.D.	
27) 1,1-Dichloropropene	0.000		0	N.D.	
28) Carbon tetrachloride	0.000		0	N.D.	
30) 1,2-Dichloroethane	0.000		0	N.D.	
31) Benzene	0.000		0	N.D.	
32) Cyclohexene	0.000		0	N.D.	
33) n-Butyl alcohol	0.000		0	N.D.	
34) Trichloroethylene	0.000		0	N.D.	
35) 1,2-Dichloropropane	0.000		0	N.D.	
36) Methylcyclohexane	0.000		0	N.D.	
37) Dibromomethane	0.000		0	N.D.	
38) Bromodichloromethane	0.000		0	N.D.	
39) 2-Chloroethylvinyl ether	0.000		0	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709\
Data File : AP426.D
Acq On : 18 Dec 2009 3:44 am
Operator : JEB
InstName : VOAA
Sample : |242654009|934516|1|VOA|1|VOA8260BS|
Misc : LANL 5.3G N/A SOIL
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Dec 18 14:01:07 2009
Quant Method : C:\msdchem\1\METHODS\VOAA-8260-110609.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Nov 09 16:21:09 2009
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
40)	cis-1,3-Dichloropropylene	0.000		0	N.D.	
42)	4-Methyl-2-pentanone	0.000		0	N.D.	
44)	Toluene	0.000		0	N.D.	
45)	trans-1,3-Dichloroprop...	0.000		0	N.D.	
46)	1,1,2-Trichloroethane	0.000		0	N.D.	
47)	2-Hexanone	0.000		0	N.D.	
48)	1,3-Dichloropropane	0.000		0	N.D.	
49)	Tetrachloroethylene	0.000		0	N.D.	
50)	Dibromochloromethane	0.000		0	N.D.	
51)	1,2-Dibromoethane	0.000		0	N.D.	
52)	Chlorobenzene	0.000		0	N.D.	
53)	1,1,1,2-Tetrachloroethane	0.000		0	N.D.	
54)	Ethylbenzene	12.720	91	144	N.D.	
55)	m,p-Xylenes	0.000		0	N.D.	
56)	o-Xylene	0.000		0	N.D.	
57)	Styrene	0.000		0	N.D.	
59)	Bromoform	0.000		0	N.D.	
60)	Isopropylbenzene	13.667	105	635	N.D.	
62)	1,1,2,2-Tetrachloroethane	13.713	83	240	N.D.	
63)	1,2,3-Trichloropropane	13.657	110	409	N.D.	
64)	Bromobenzene	0.000		0	N.D.	
65)	n-Propylbenzene	13.713	91	1646	N.D.	
66)	1,3,5-Trimethylbenzene	0.000		0	N.D.	
67)	2-Chlorotoluene	0.000		0	N.D.	
68)	4-Chlorotoluene	0.000		0	N.D.	
69)	tert-Butylbenzene	0.000		0	N.D.	
70)	1,2,4-Trimethylbenzene	14.555	105	131	N.D.	
71)	sec-Butylbenzene	14.555	105	131	N.D.	
72)	4-Isopropyltoluene	0.000		0m	N.D.	d
73)	1,3-Dichlorobenzene	0.000		0	N.D.	
74)	1,4-Dichlorobenzene	14.969	146	124	N.D.	
75)	n-Butylbenzene	0.000		0	N.D.	
76)	1,2-Dichlorobenzene	0.000		0	N.D.	
77)	1,2-Dibromo-3-chloropr...	0.000		0	N.D.	
78)	1,2,4-Trichlorobenzene	17.175	180	240	N.D.	
79)	Hexachlorobutadiene	0.000		0	N.D.	
80)	Naphthalene	17.522	128	1982	N.D.	
81)	1,2,3-Trichlorobenzene	0.000		0	N.D.	
83)	Chlorotrifluoroethylene	0.000		0	N.D.	
84)	2-Chloro-1,1,1-trifluo...	0.000		0	N.D.	
85)	Acrolein	0.000		0	N.D.	
86)	Trichlorotrifluoroethane	0.000		0	N.D.	
87)	Isopropyl Alcohol	0.000		0	N.D.	
88)	Allyl chloride	0.000		0	N.D.	
89)	tert-Butyl Alcohol	0.000		0	N.D.	
90)	Acrylonitrile	0.000		0	N.D.	
91)	Isopropyl ether	0.000		0	N.D.	
92)	2-Chloro-1,3-butadiene	0.000		0	N.D.	
93)	Ethyl tert-butyl ether	0.000		0	N.D.	
94)	Ethyl acetate	0.000		0	N.D.	
95)	Propionitrile	0.000		0	N.D.	
96)	Methacrylonitrile	0.000		0	N.D.	
97)	Tetrahydrofuran	0.000		0	N.D.	
98)	Isobutyl alcohol	0.000		0	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709\
Data File : AP426.D
Acq On : 18 Dec 2009 3:44 am
Operator : JEB
InstName : VOAA
Sample : |242654009|934516|1|VOA|1|VOA8260BS|
Misc : LANL 5.3G N/A SOIL
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Dec 18 14:01:07 2009
Quant Method : C:\msdchem\1\METHODS\VOAA-8260-110609.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Nov 09 16:21:09 2009
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
99)	Methyl tert-amyl ether	0.000		0	N.D.	
100)	Methyl methacrylate	0.000		0	N.D.	
101)	1,4-Dioxane	0.000		0	N.D.	
102)	2-Nitropropane	0.000		0	N.D.	
104)	Ethyl methacrylate	0.000		0	N.D.	
106)	1-Chlorohexane	0.000		0	N.D.	
107)	cis-1,4-Dichloro-2-butene	0.000		0	N.D.	
108)	Cyclohexanone	0.000		0	N.D.	
109)	trans-1,4-Dichloro-2-b...	0.000		0	N.D.	
110)	Pentachloroethane	0.000		0	N.D.	
111)	Benzyl chloride	0.000		0m	N.D.	d
112)	bis(2-Chloroisopropyl)...	15.609	45	3504	N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709\
Data File : AP426.D
Acq On : 18 Dec 2009 3:44 am
Operator : JEB
InstName : VOAA
Sample : |242654009|934516|1|VOA|1|VOA8260BS|
Misc : LANL 5.3G N/A SOIL
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Dec 18 14:01:07 2009
Quant Method : C:\msdchem\1\METHODS\VOAA-8260-110609.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Nov 09 16:21:09 2009
Response via : Initial Calibration
Integrator: RTE

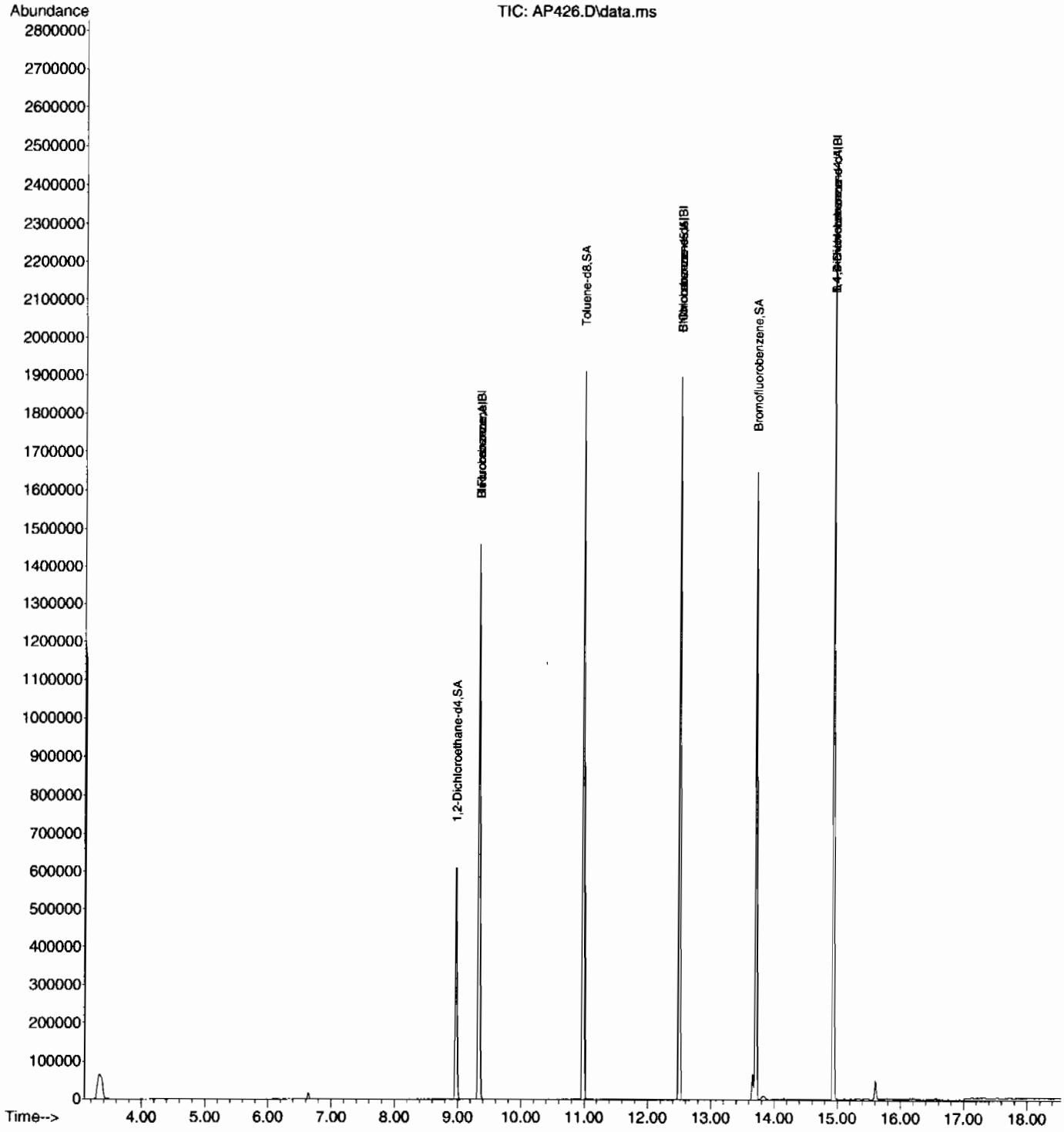

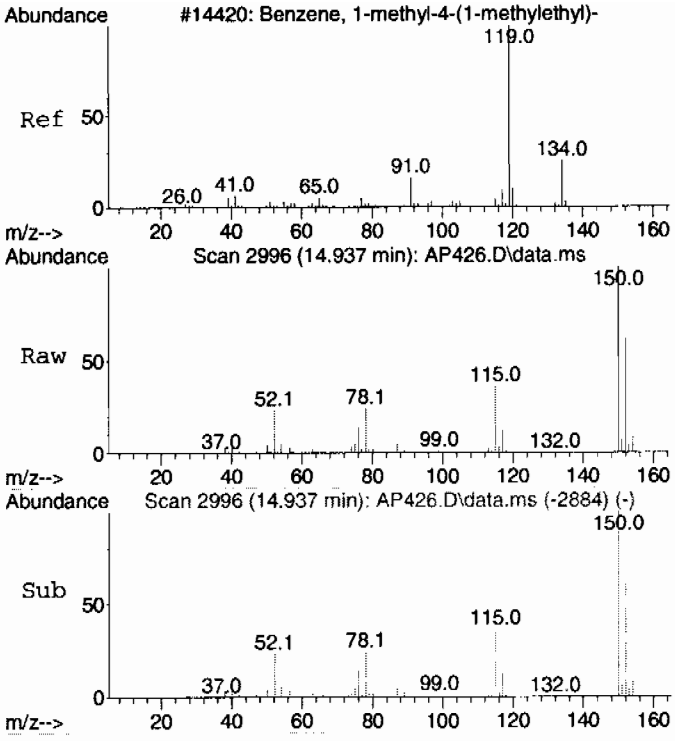

#72 BEFORE analyst DELETION
4-Isopropyltoluene
Concen: 0.82 ug/L
RT: 14.937 min Scan# 2996
Delta R.T. 0.096 min
Lab File: AP426.D
Acq: 18 Dec 2009 3:44 am

Tgt Ion:119 Resp: 239

Ion	Ratio	Lower	Upper
119	100		
134	0.0	0.0	58.1
91	919.2	0.0	52.4#

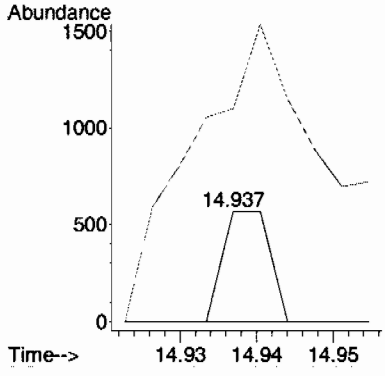

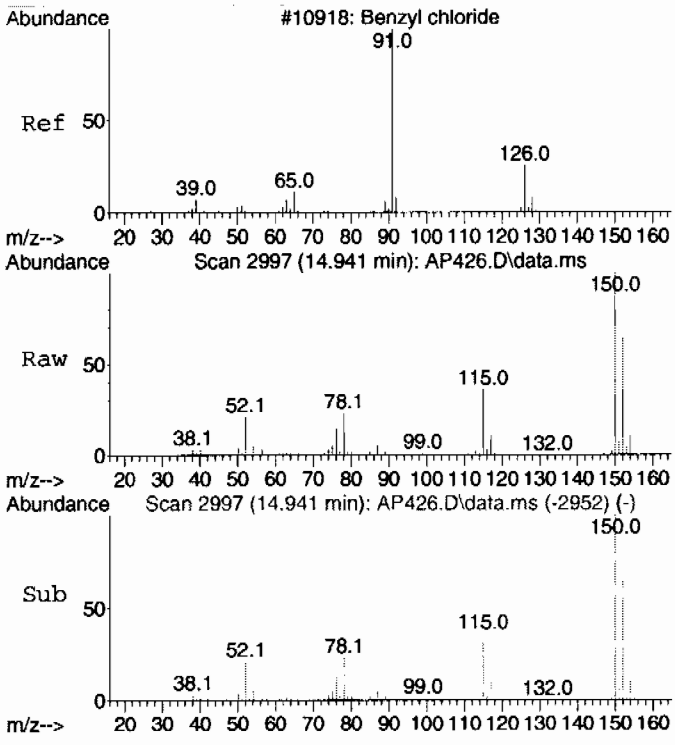

#111 BEFORE analyst DELETION
Benzyl chloride
Concen: 4.53 ug/L
RT: 14.941 min Scan# 2997
Delta R.T. -0.141 min
Lab File: AP426.D
Acq: 18 Dec 2009 3:44 am

Tgt Ion: 91 Resp: 2197

Ion	Ratio	Lower	Upper
91	100		
126	0.0	0.0	52.0
65	208.8	0.0	41.2#

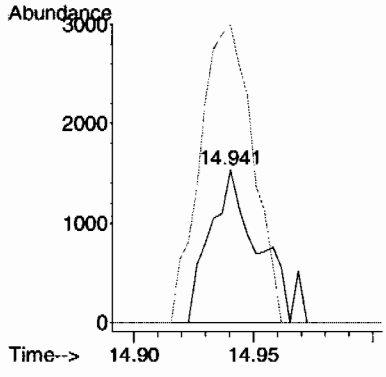

Library Search Compound Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709\
Data File : AP426.D
Acq On : 18 Dec 2009 3:44 am
Operator : JEB
Sample : |242654009|934516|1|VOA|1|VOA8260BS|
Misc : LANL 5.3G N/A SOIL
ALS Vial : 26 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\VOAA-8260-110609.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

****

Peak Number 1 unknown Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
3.339	6.77 ug/L	354552	Fluorobenzene	9.339

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Dimethyl ether	46	C2H6O	000115-10-6	5
2	Ethyl alcohol	46	C2H6O	000064-17-5	4
3	Ethyl alcohol	46	C2H6O	000064-17-5	4
4	Ethyl alcohol	46	C2H6O	000064-17-5	4
5	Dimethyl ether	46	C2H6O	000115-10-6	2

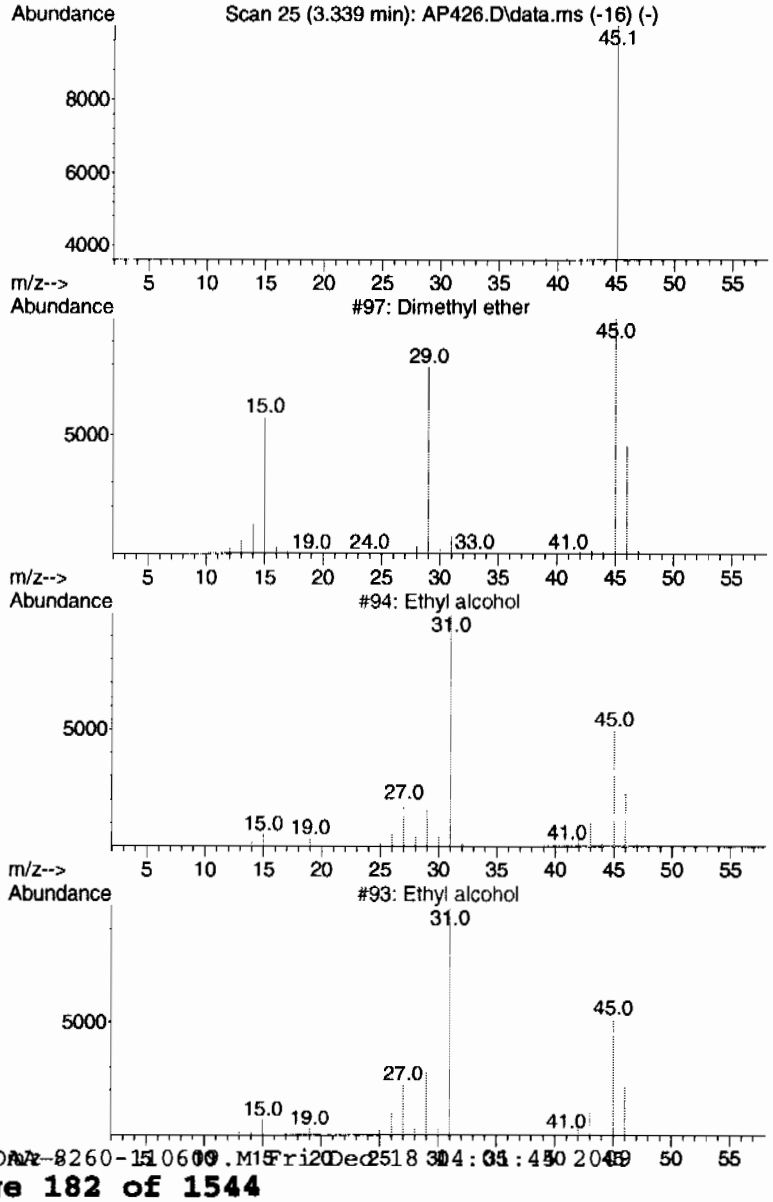

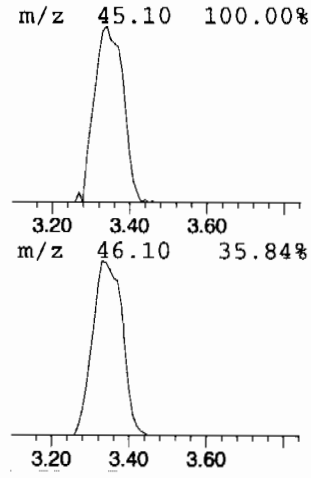

Library Search Compound Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709\
Data File : AP426.D
Acq On : 18 Dec 2009 3:44 am
Operator : JEB
Sample : |242654009|934516|1|VOA|1|VOA8260BS|
Misc : LANL 5.3G N/A SOIL
ALS Vial : 26 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\VOAA-8260-110609.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

****
Peak Number 2 unknown siloxane Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
17.124	7.64 ug/L	542360	B 1,4-Dichlorobenzene-d4	14.941

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclotrisiloxane, hexamethyl-	222	C6H18O3Si3	000541-05-9	50
2	Cyclotrisiloxane, hexamethyl-	222	C6H18O3Si3	000541-05-9	50
3	2-Ethylacridine	207	C15H13N	055751-83-2	40
4	4-Hydroxy-.beta.-ionone	208	C13H20O2	015401-34-0	10
5	trans-3-Ethoxy-b-methyl-b-nitros...	207	C11H13NO3	023037-46-9	9

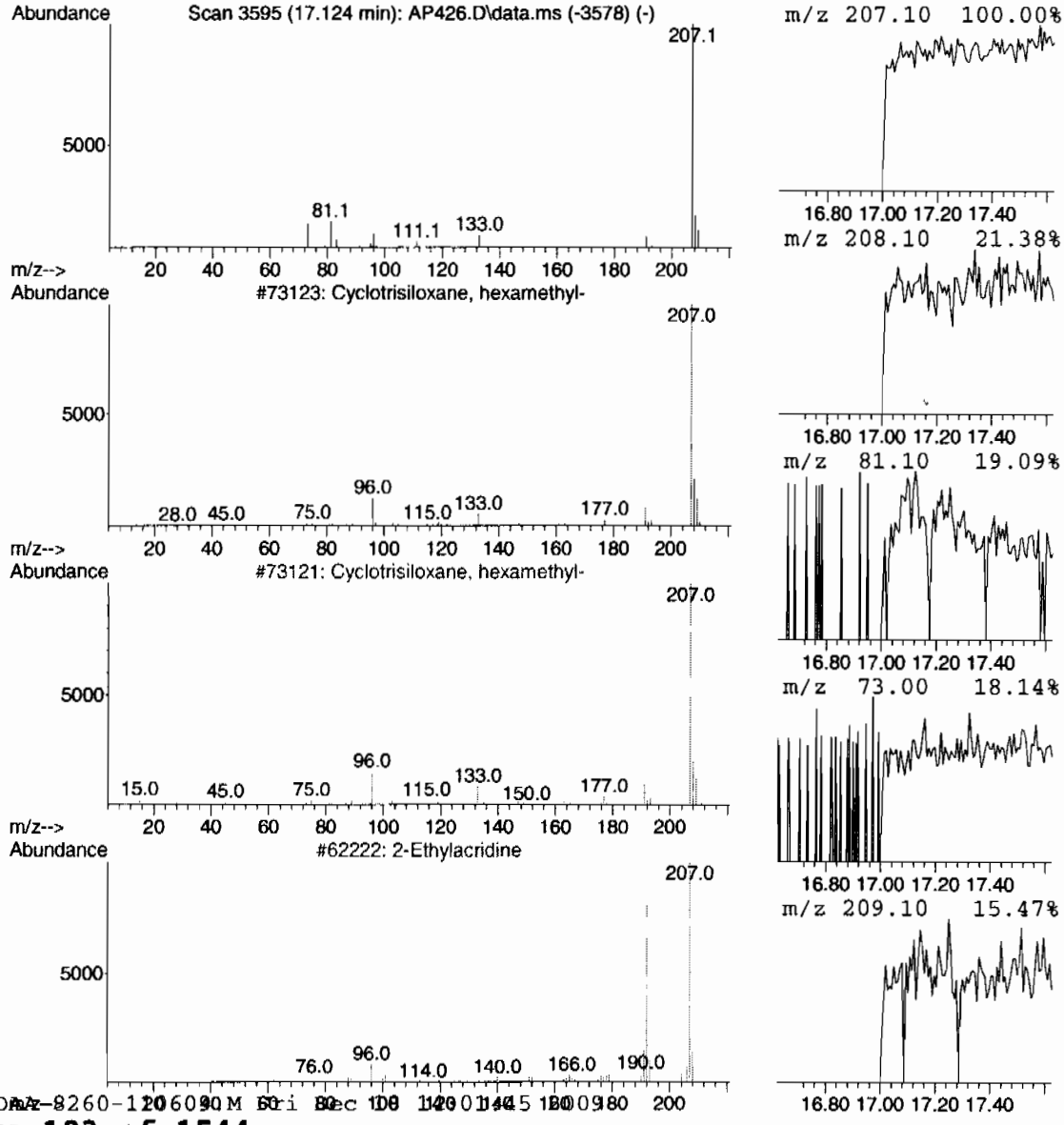

Tentatively Identified Compound (LSC) summary
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709\
Data File : AP426.D
Acq On : 18 Dec 2009 3:44 am
Operator : JEB
Sample : |242654009|934516|1|VOA|1|VOA8260BS|
Misc : LANL 5.3G N/A SOIL
ALS Vial : 26 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\VOAA-8260-110609.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

TIC Top Hit name	RT	EstConc	Units	Response	--Internal Standard--- #	RT	Resp	Conc
unknown	3.339	6.8	ug/L	354552	1	9.339	2617170	50.0
unknown siloxane	17.124	7.6	ug/L	542360	6	14.941	3550480	50.0

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242654010	**Date Received:**	12/10/2009 08:50	**%Moisture:**	13.2
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14284	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	934516	**Inst:**	VOAA.I	**Dilution:**	1
Run Date:	12/18/2009 04:11	**Analyst:**	JEB	**Purge Vol:**	5 mL
Prep Date:	12/17/2009 19:14	**Aliquot:**	5.2 g	**Final Volume:**	5 mL
Data File:	121709\AP427.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.11	ug/kg	0.377	1.11
74-87-3	Chloromethane	U	1.11	ug/kg	0.332	1.11
75-01-4	Vinyl chloride	U	1.11	ug/kg	0.332	1.11
74-83-9	Bromomethane	U	1.11	ug/kg	0.332	1.11
75-00-3	Chloroethane	U	1.11	ug/kg	0.332	1.11
75-69-4	Trichlorofluoromethane	U	1.11	ug/kg	0.332	1.11
67-64-1	Acetone	U	5.54	ug/kg	1.84	5.54
75-35-4	1,1-Dichloroethylene	U	1.11	ug/kg	0.332	1.11
74-88-4	Iodomethane	U	5.54	ug/kg	1.77	5.54
75-09-2	Methylene chloride	U	5.54	ug/kg	2.22	5.54
75-15-0	Carbon disulfide	U	5.54	ug/kg	1.38	5.54
156-60-5	trans-1,2-Dichloroethylene	U	1.11	ug/kg	0.332	1.11
75-34-3	1,1-Dichloroethane	U	1.11	ug/kg	0.332	1.11
78-93-3	2-Butanone	U	5.54	ug/kg	1.66	5.54
156-59-2	cis-1,2-Dichloroethylene	U	1.11	ug/kg	0.332	1.11
594-20-7	2,2-Dichloropropane	U	1.11	ug/kg	0.332	1.11
67-66-3	Chloroform	U	1.11	ug/kg	0.332	1.11
74-97-5	Bromochloromethane	U	1.11	ug/kg	0.366	1.11
71-55-6	1,1,1-Trichloroethane	U	1.11	ug/kg	0.332	1.11
563-58-6	1,1-Dichloropropene	U	1.11	ug/kg	0.332	1.11
56-23-5	Carbon tetrachloride	U	1.11	ug/kg	0.332	1.11
107-06-2	1,2-Dichloroethane	U	1.11	ug/kg	0.332	1.11
71-43-2	Benzene	U	1.11	ug/kg	0.332	1.11
79-01-6	Trichloroethylene	U	1.11	ug/kg	0.366	1.11
78-87-5	1,2-Dichloropropane	U	1.11	ug/kg	0.332	1.11
75-27-4	Bromodichloromethane	U	1.11	ug/kg	0.332	1.11
74-95-3	Dibromomethane	U	1.11	ug/kg	0.332	1.11
108-10-1	4-Methyl-2-pentanone	U	5.54	ug/kg	1.38	5.54
10061-01-5	cis-1,3-Dichloropropylene	U	1.11	ug/kg	0.332	1.11
108-88-3	Toluene	U	1.11	ug/kg	0.332	1.11
10061-02-6	trans-1,3-Dichloropropylene	U	1.11	ug/kg	0.332	1.11
79-00-5	1,1,2-Trichloroethane	U	1.11	ug/kg	0.332	1.11
591-78-6	2-Hexanone	U	5.54	ug/kg	1.66	5.54
142-28-9	1,3-Dichloropropane	U	1.11	ug/kg	0.332	1.11
127-18-4	Tetrachloroethylene	U	1.11	ug/kg	0.332	1.11
124-48-1	Dibromochloromethane	U	1.11	ug/kg	0.332	1.11
106-93-4	1,2-Dibromoethane	U	1.11	ug/kg	0.332	1.11
108-90-7	Chlorobenzene	U	1.11	ug/kg	0.332	1.11

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-852**	**Date Collected:**	**12/07/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242654010**	**Date Received:**	**12/10/2009 08:50**	**%Moisture:**	**13.2**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14284**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**934516**	**Inst:**	**VOAA.I**	**Dilution:**	**1**
Run Date:	**12/18/2009 04:11**	**Analyst:**	**JEB**	**Purge Vol:**	**5 mL**
Prep Date:	**12/17/2009 19:14**	**Aliquot:**	**5.2 g**	**Final Volume:**	**5 mL**
Data File:	**121709\AP427.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.11	ug/kg	0.332	1.11
179601-23-1	m,p-Xylenes	U	2.22	ug/kg	0.332	2.22
95-47-6	o-Xylene	U	1.11	ug/kg	0.332	1.11
100-42-5	Styrene	U	1.11	ug/kg	0.332	1.11
75-25-2	Bromoform	U	1.11	ug/kg	0.332	1.11
79-34-5	1,1,2,2-Tetrachloroethane	U	1.11	ug/kg	0.332	1.11
96-18-4	1,2,3-Trichloropropane	U	1.11	ug/kg	0.332	1.11
108-86-1	Bromobenzene	U	1.11	ug/kg	0.332	1.11
103-65-1	n-Propylbenzene	U	1.11	ug/kg	0.332	1.11
95-49-8	2-Chlorotoluene	U	1.11	ug/kg	0.332	1.11
98-82-8	Isopropylbenzene	U	1.11	ug/kg	0.332	1.11
108-67-8	1,3,5-Trimethylbenzene	U	1.11	ug/kg	0.332	1.11
106-43-4	4-Chlorotoluene	U	1.11	ug/kg	0.332	1.11
98-06-6	tert-Butylbenzene	U	1.11	ug/kg	0.332	1.11
95-63-6	1,2,4-Trimethylbenzene	U	1.11	ug/kg	0.332	1.11
135-98-8	sec-Butylbenzene	U	1.11	ug/kg	0.332	1.11
99-87-6	4-Isopropyltoluene	U	1.11	ug/kg	0.332	1.11
541-73-1	1,3-Dichlorobenzene	U	1.11	ug/kg	0.332	1.11
106-46-7	1,4-Dichlorobenzene	U	1.11	ug/kg	0.332	1.11
104-51-8	n-Butylbenzene	U	1.11	ug/kg	0.332	1.11
96-12-8	1,2-Dibromo-3-chloropropane	U	1.11	ug/kg	0.332	1.11
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.54	ug/kg	1.77	5.54
630-20-6	1,1,1,2-Tetrachloroethane	U	1.11	ug/kg	0.332	1.11
95-50-1	1,2-Dichlorobenzene	U	1.11	ug/kg	0.332	1.11

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
000115-10-6	Dimethyl ether	3.33	6.87	ug/kg	5	NJ
	unknown	3.33	6.87	ug/kg	0	J

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709\
Data File : AP427.D
Acq On : 18 Dec 2009 4:11 am
Operator : JEB
InstName : VOAA
Sample : |242654010|934516|1|VOA|1|VOA8260BS|
Misc : LANL 5.2G N/A SOIL
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Dec 18 14:02:07 2009
Quant Method : C:\msdchem\1\METHODS\VOAA-8260-110609.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Nov 09 16:21:09 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Fluorobenzene	9.339	96	1219360	50.00 ug/L	0.00
41) Chlorobenzene-d5	12.507	117	996677	50.00 ug/L	0.00
58) 1,4-Dichlorobenzene-d4	14.940	152	637450	50.00 ug/L	0.00
82) B Fluorobenzene	9.339	96	1219360	50.00 ug/L	0.00
103) B Chlorobenzene-d5	12.507	117	996677	50.00 ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	14.940	152	637450	50.00 ug/L	0.00
System Monitoring Compounds					
29) 1,2-Dichloroethane-d4	8.974	65	461147	54.44 ug/L	0.00
Spiked Amount 50.000	Range 68 - 131		Recovery = 108.88%		
43) Toluene-d8	10.983	98	1195110	47.23 ug/L	0.00
Spiked Amount 50.000	Range 75 - 129		Recovery = 94.46%		
61) Bromofluorobenzene	13.710	95	523441	45.58 ug/L	0.00
Spiked Amount 50.000	Range 68 - 133		Recovery = 91.16%		
Target Compounds					Qvalue
2) Dichlorodifluoromethane	0.000		0	N.D.	
3) Chloromethane	0.000		0	N.D.	
4) Vinyl chloride	0.000		0	N.D.	
5) Bromomethane	0.000		0	N.D.	
6) Chloroethane	0.000		0	N.D.	
7) Trichlorofluoromethane	0.000		0	N.D.	
8) Ethyl ether	0.000		0	N.D.	
9) Acetone	6.085	43	3047	N.D.	
10) 1,1-Dichloroethylene	0.000		0	N.D.	
11) Iodomethane	0.000		0	N.D.	
12) Acetonitrile	0.000		0	N.D.	
13) Methyl acetate	0.000		0	N.D.	
14) Carbon disulfide	6.425	76	471	N.D.	
15) Methylene chloride	6.644	84	7631	Below Cal	88
16) tert-Butyl methyl ether	0.000		0	N.D.	
17) trans-1,2-Dichloroethy...	0.000		0	N.D.	
18) Vinyl acetate	0.000		0	N.D.	
19) 1,1-Dichloroethane	0.000		0	N.D.	
20) 2-Butanone	0.000		0	N.D.	
21) cis-1,2-Dichloroethylene	0.000		0	N.D.	
22) 2,2-Dichloropropane	0.000		0	N.D.	
23) Bromochloromethane	0.000		0	N.D.	
24) Chloroform	0.000		0	N.D.	
25) 1,1,1-Trichloroethane	0.000		0	N.D.	
26) Cyclohexane	0.000		0	N.D.	
27) 1,1-Dichloropropene	0.000		0	N.D.	
28) Carbon tetrachloride	0.000		0	N.D.	
30) 1,2-Dichloroethane	0.000		0	N.D.	
31) Benzene	0.000		0	N.D.	
32) Cyclohexene	0.000		0	N.D.	
33) n-Butyl alcohol	0.000		0	N.D.	
34) Trichloroethylene	0.000		0	N.D.	
35) 1,2-Dichloropropane	0.000		0	N.D.	
36) Methylcyclohexane	0.000		0	N.D.	
37) Dibromomethane	0.000		0	N.D.	
38) Bromodichloromethane	0.000		0	N.D.	
39) 2-Chloroethylvinyl ether	0.000		0	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709\
Data File : AP427.D
Acq On : 18 Dec 2009 4:11 am
Operator : JEB
InstName : VOAA
Sample : |242654010|934516|1|VOA|1|VOA8260BS|
Misc : LANL 5.2G N/A SOIL
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Dec 18 14:02:07 2009
Quant Method : C:\msdchem\1\METHODS\VOAA-8260-110609.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Nov 09 16:21:09 2009
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
40)	cis-1,3-Dichloropropylene	0.000		0	N.D.	
42)	4-Methyl-2-pentanone	0.000		0	N.D.	
44)	Toluene	11.054	91	110	N.D.	
45)	trans-1,3-Dichloroprop...	0.000		0	N.D.	
46)	1,1,2-Trichloroethane	0.000		0	N.D.	
47)	2-Hexanone	0.000		0	N.D.	
48)	1,3-Dichloropropane	0.000		0	N.D.	
49)	Tetrachloroethylene	0.000		0	N.D.	
50)	Dibromochloromethane	0.000		0	N.D.	
51)	1,2-Dibromoethane	0.000		0	N.D.	
52)	Chlorobenzene	0.000		0	N.D.	
53)	1,1,1,2-Tetrachloroethane	0.000		0	N.D.	
54)	Ethylbenzene	12.507	91	1963	N.D.	
55)	m,p-Xylenes	0.000		0	N.D.	
56)	o-Xylene	0.000		0	N.D.	
57)	Styrene	0.000		0	N.D.	
59)	Bromoform	0.000		0	N.D.	
60)	Isopropylbenzene	13.667	105	680	N.D.	
62)	1,1,2,2-Tetrachloroethane	0.000		0	N.D.	
63)	1,2,3-Trichloropropane	13.664	110	433	N.D.	
64)	Bromobenzene	0.000		0	N.D.	
65)	n-Propylbenzene	13.713	91	1460	N.D.	
66)	1,3,5-Trimethylbenzene	0.000		0	N.D.	
67)	2-Chlorotoluene	0.000		0	N.D.	
68)	4-Chlorotoluene	0.000		0	N.D.	
69)	tert-Butylbenzene	0.000		0	N.D.	
70)	1,2,4-Trimethylbenzene	0.000		0	N.D.	
71)	sec-Butylbenzene	0.000		0	N.D.	
72)	4-Isopropyltoluene	0.000		0	N.D.	
73)	1,3-Dichlorobenzene	0.000		0	N.D.	
74)	1,4-Dichlorobenzene	14.969	146	109	N.D.	
75)	n-Butylbenzene	0.000		0	N.D.	
76)	1,2-Dichlorobenzene	0.000		0	N.D.	
77)	1,2-Dibromo-3-chloropr...	0.000		0	N.D.	
78)	1,2,4-Trichlorobenzene	17.190	180	261	N.D.	
79)	Hexachlorobutadiene	0.000		0	N.D.	
80)	Naphthalene	17.529	128	1365	N.D.	
81)	1,2,3-Trichlorobenzene	0.000		0	N.D.	
83)	Chlorotrifluoroethylene	0.000		0	N.D.	
84)	2-Chloro-1,1,1-trifluo...	0.000		0	N.D.	
85)	Acrolein	0.000		0	N.D.	
86)	Trichlorotrifluoroethane	0.000		0	N.D.	
87)	Isopropyl Alcohol	0.000		0	N.D.	
88)	Allyl chloride	0.000		0	N.D.	
89)	tert-Butyl Alcohol	0.000		0	N.D.	
90)	Acrylonitrile	0.000		0	N.D.	
91)	Isopropyl ether	0.000		0	N.D.	
92)	2-Chloro-1,3-butadiene	0.000		0	N.D.	
93)	Ethyl tert-butyl ether	0.000		0	N.D.	
94)	Ethyl acetate	0.000		0	N.D.	
95)	Propionitrile	0.000		0	N.D.	
96)	Methacrylonitrile	0.000		0	N.D.	
97)	Tetrahydrofuran	0.000		0	N.D.	
98)	Isobutyl alcohol	0.000		0	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709\
Data File : AP427.D
Acq On : 18 Dec 2009 4:11 am
Operator : JEB
InstName : VOAA
Sample : |242654010|934516|1|VOA|1|VOA8260BS|
Misc : LANL 5.2G N/A SOIL
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Dec 18 14:02:07 2009
Quant Method : C:\msdchem\1\METHODS\VOAA-8260-110609.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Nov 09 16:21:09 2009
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
99)	Methyl tert-amyl ether	0.000		0	N.D.	
100)	Methyl methacrylate	0.000		0	N.D.	
101)	1,4-Dioxane	0.000		0	N.D.	
102)	2-Nitropropane	0.000		0	N.D.	
104)	Ethyl methacrylate	0.000		0	N.D.	
106)	1-Chlorohexane	0.000		0	N.D.	
107)	cis-1,4-Dichloro-2-butene	0.000		0	N.D.	
108)	Cyclohexanone	0.000		0	N.D.	
109)	trans-1,4-Dichloro-2-b...	0.000		0	N.D.	
110)	Pentachloroethane	0.000		0	N.D.	
111)	Benzyl chloride	0.000		0m	N.D. d	
112)	bis(2-Chloroisopropyl)...	0.000		0m	N.D. d	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709\
Data File : AP427.D
Acq On : 18 Dec 2009 4:11 am
Operator : JEB
InstName : VOAA
Sample : |242654010|934516|1|VOA|1|VOA8260BS|
Misc : LANL 5.2G N/A SOIL
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Dec 18 14:02:07 2009
Quant Method : C:\msdchem\1\METHODS\VOAA-8260-110609.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Nov 09 16:21:09 2009
Response via : Initial Calibration
Integrator: RTE

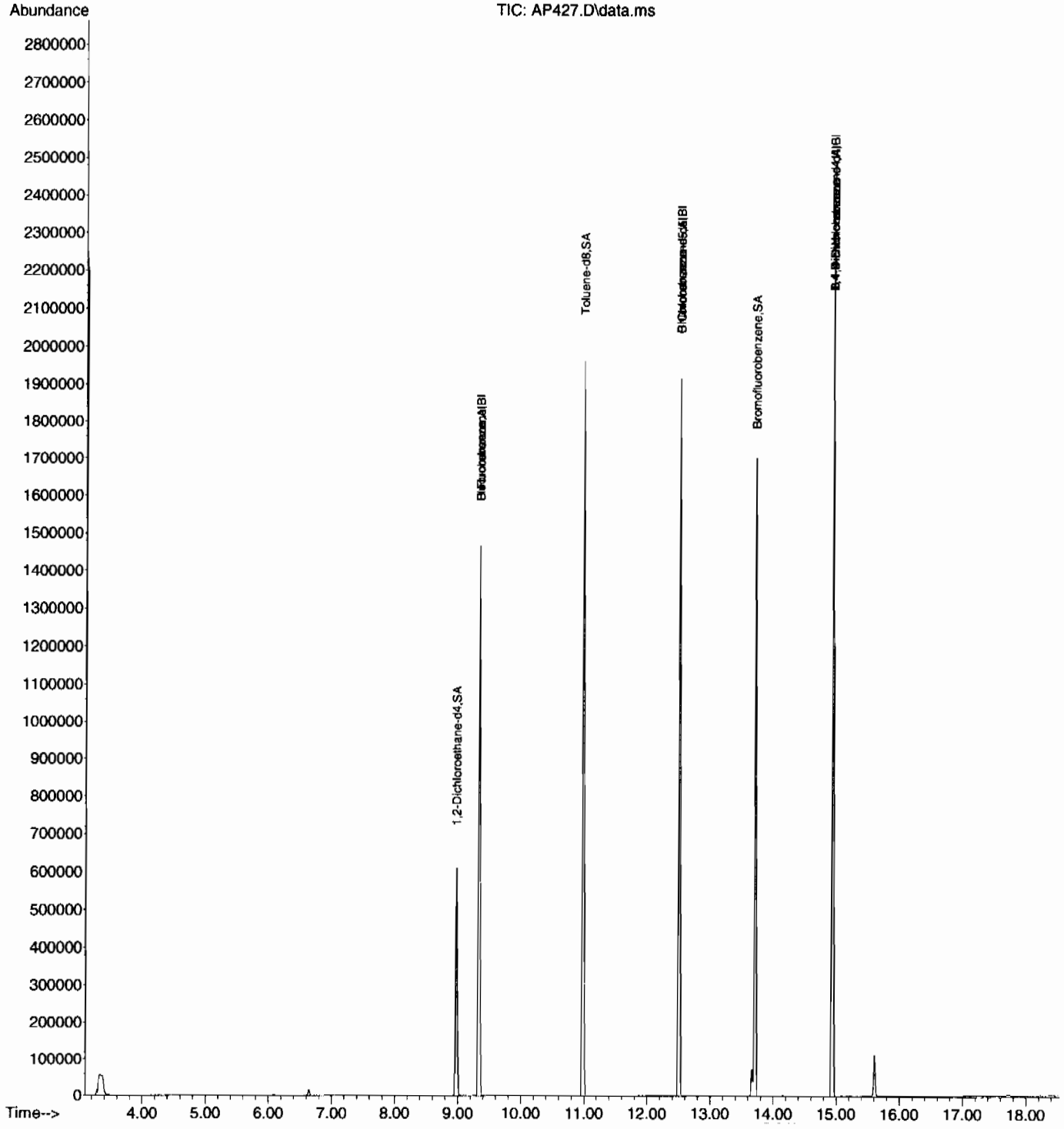

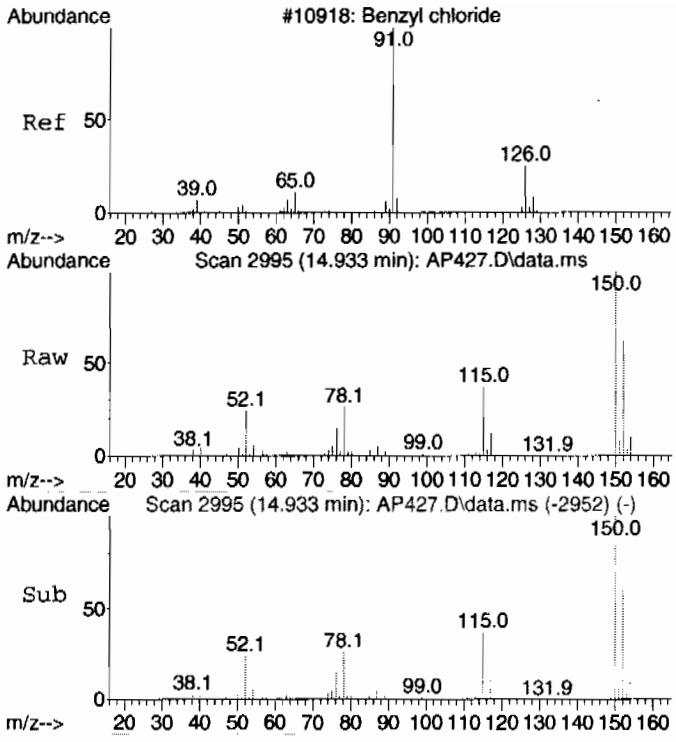

#111 BEFORE analyst DELETION
Benzyl chloride
Concen: 4.46 ug/L
RT: 14.933 min Scan# 2995
Delta R.T. -0.149 min
Lab File: AP427.D
Acq: 18 Dec 2009 4:11 am

Tgt Ion: 91 Resp: 1124

Ion	Ratio	Lower	Upper
91	100		
126	0.0	0.0	52.0
65	381.3	0.0	41.2#

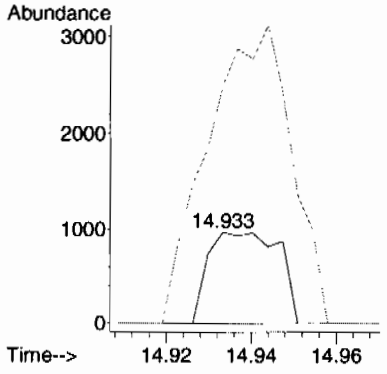

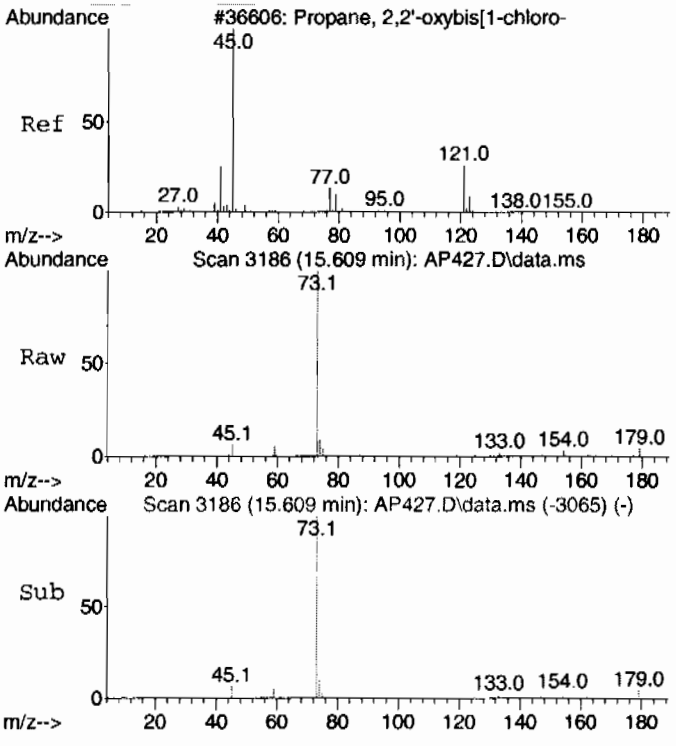

#112 BEFORE analyst DELETION
bis(2-Chloroisopropyl)ether
Concen: 1.98 ug/L
RT: 15.609 min Scan# 3186
Delta R.T. 0.127 min
Lab File: AP427.D
Acq: 18 Dec 2009 4:11 am

Tgt Ion: 45 Resp: 7867

Ion	Ratio	Lower	Upper
45	100		
121	0.0	0.0	56.8

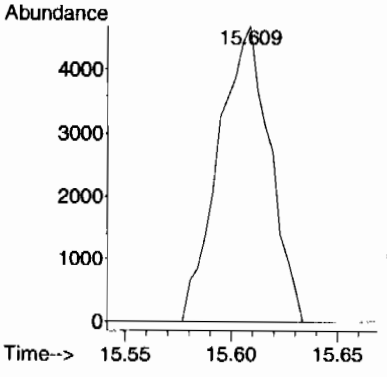

Library Search Compound Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709\
Data File : AP427.D
Acq On : 18 Dec 2009 4:11 am
Operator : JEB
Sample : |242654010|934516|1|VOA|1|VOA8260BS|
Misc : LANL 5.2G N/A SOIL
ALS Vial : 27 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\VOAA-8260-110609.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

****
Peak Number 1 unknown Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
3.328	6.20 ug/L	326038	Fluorobenzene	9.339

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Dimethyl ether	46	C2H6O	000115-10-6	5
2	Ethyl alcohol	46	C2H6O	000064-17-5	4
3	Ethyl alcohol	46	C2H6O	000064-17-5	4
4	Ethyl alcohol	46	C2H6O	000064-17-5	4
5	Dimethyl ether	46	C2H6O	000115-10-6	2

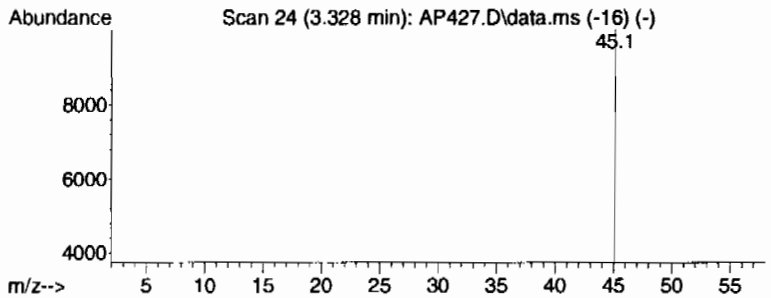

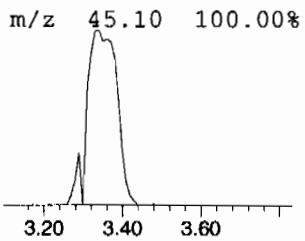

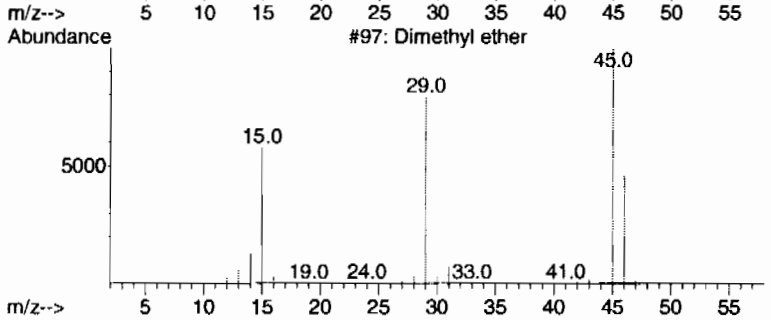

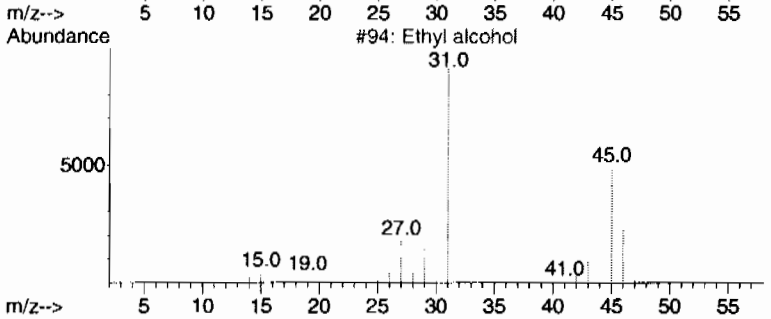

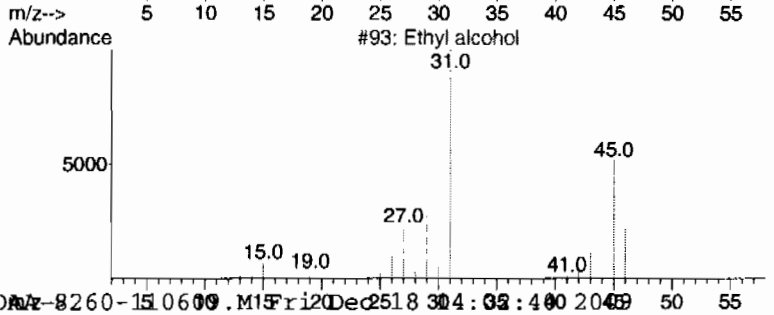

Tentatively Identified Compound (LSC) summary
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709\
Data File : AP427.D
Acq On : 18 Dec 2009 4:11 am
Operator : JEB
Sample : |242654010|934516|1|VOA|1|VOA8260BS|
Misc : LANL 5.2G N/A SOIL
ALS Vial : 27 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\VOAA-8260-110609.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

TIC Top Hit name	RT	EstConc	Units	Response	--Internal Standard--- #	RT	Resp	Conc
unknown	3.328	6.2	ug/L	326038	1	9.339	2629370	50.0

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242654011	**Date Received:**	12/10/2009 08:50	**%Moisture:**	4.1
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14274	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	934516	**Inst:**	VOAA.I	**Dilution:**	1
Run Date:	12/18/2009 06:21	**Analyst:**	JEB	**Purge Vol:**	5 mL
Prep Date:	12/17/2009 19:15	**Aliquot:**	5.2 g	**Final Volume:**	5 mL
Data File:	121709\AP432.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/kg	0.341	1.00
74-87-3	Chloromethane	U	1.00	ug/kg	0.301	1.00
75-01-4	Vinyl chloride	U	1.00	ug/kg	0.301	1.00
74-83-9	Bromomethane	U	1.00	ug/kg	0.301	1.00
75-00-3	Chloroethane	U	1.00	ug/kg	0.301	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/kg	0.301	1.00
67-64-1	Acetone	U	5.01	ug/kg	1.66	5.01
75-35-4	1,1-Dichloroethylene	U	1.00	ug/kg	0.301	1.00
74-88-4	Iodomethane	U	5.01	ug/kg	1.60	5.01
75-09-2	Methylene chloride	U	5.01	ug/kg	2.01	5.01
75-15-0	Carbon disulfide	U	5.01	ug/kg	1.25	5.01
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/kg	0.301	1.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/kg	0.301	1.00
78-93-3	2-Butanone	U	5.01	ug/kg	1.50	5.01
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/kg	0.301	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/kg	0.301	1.00
67-66-3	Chloroform	U	1.00	ug/kg	0.301	1.00
74-97-5	Bromochloromethane	U	1.00	ug/kg	0.331	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/kg	0.301	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/kg	0.301	1.00
56-23-5	Carbon tetrachloride	U	1.00	ug/kg	0.301	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/kg	0.301	1.00
71-43-2	Benzene	U	1.00	ug/kg	0.301	1.00
79-01-6	Trichloroethylene	U	1.00	ug/kg	0.331	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/kg	0.301	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/kg	0.301	1.00
74-95-3	Dibromomethane	U	1.00	ug/kg	0.301	1.00
108-10-1	4-Methyl-2-pentanone	U	5.01	ug/kg	1.25	5.01
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/kg	0.301	1.00
108-88-3	Toluene	U	1.00	ug/kg	0.301	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/kg	0.301	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/kg	0.301	1.00
591-78-6	2-Hexanone	U	5.01	ug/kg	1.50	5.01
142-28-9	1,3-Dichloropropane	U	1.00	ug/kg	0.301	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/kg	0.301	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/kg	0.301	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/kg	0.301	1.00
108-90-7	Chlorobenzene	U	1.00	ug/kg	0.301	1.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242654011	**Date Received:**	12/10/2009 08:50	**%Moisture:**	4.1
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14274	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	934516	**Inst:**	VOAA.I	**Dilution:**	1
Run Date:	12/18/2009 06:21	**Analyst:**	JEB	**Purge Vol:**	5 mL
Prep Date:	12/17/2009 19:15	**Aliquot:**	5.2 g	**Final Volume:**	5 mL
Data File:	121709\AP432.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.00	ug/kg	0.301	1.00
179601-23-1	m,p-Xylenes	U	2.01	ug/kg	0.301	2.01
95-47-6	o-Xylene	U	1.00	ug/kg	0.301	1.00
100-42-5	Styrene	U	1.00	ug/kg	0.301	1.00
75-25-2	Bromoform	U	1.00	ug/kg	0.301	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/kg	0.301	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/kg	0.301	1.00
108-86-1	Bromobenzene	U	1.00	ug/kg	0.301	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/kg	0.301	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/kg	0.301	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/kg	0.301	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/kg	0.301	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/kg	0.301	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/kg	0.301	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/kg	0.301	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/kg	0.301	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/kg	0.301	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/kg	0.301	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/kg	0.301	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/kg	0.301	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/kg	0.301	1.00
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.01	ug/kg	1.60	5.01
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/kg	0.301	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/kg	0.301	1.00

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown	3.34	8.04	ug/kg	0	J

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709\
Data File : AP432.D
Acq On : 18 Dec 2009 6:21 am
Operator : JEB
InstName : VOAA
Sample : |242654011|934516|1|VOA|1|VOA8260BS|
Misc : LANL 5.2G N/A SOIL
ALS Vial : 32 Sample Multiplier: 1

Quant Time: Dec 18 15:04:26 2009
Quant Method : C:\msdchem\1\METHODS\VOAA-8260-110609.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Nov 09 16:21:09 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Fluorobenzene	9.339	96	1227894	50.00 ug/L	0.00
41) Chlorobenzene-d5	12.507	117	995232	50.00 ug/L	0.00
58) 1,4-Dichlorobenzene-d4	14.940	152	624866	50.00 ug/L	0.00
82) B Fluorobenzene	9.339	96	1227894	50.00 ug/L	0.00
103) B Chlorobenzene-d5	12.507	117	995232	50.00 ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	14.940	152	624866	50.00 ug/L	0.00
System Monitoring Compounds					
29) 1,2-Dichloroethane-d4	8.978	65	474691	55.65 ug/L	0.00
Spiked Amount 50.000	Range 68 - 131		Recovery = 111.30%		
43) Toluene-d8	10.983	98	1184627	46.88 ug/L	0.00
Spiked Amount 50.000	Range 75 - 129		Recovery = 93.76%		
61) Bromofluorobenzene	13.713	95	514278	45.69 ug/L	0.00
Spiked Amount 50.000	Range 68 - 133		Recovery = 91.38%		
Target Compounds					Qvalue
2) Dichlorodifluoromethane	0.000		0	N.D.	
3) Chloromethane	0.000		0	N.D.	
4) Vinyl chloride	0.000		0	N.D.	
5) Bromomethane	0.000		0	N.D.	
6) Chloroethane	0.000		0	N.D.	
7) Trichlorofluoromethane	0.000		0	N.D.	
8) Ethyl ether	0.000		0	N.D.	
9) Acetone	6.100	43	351	N.D.	
10) 1,1-Dichloroethylene	0.000		0	N.D.	
11) Iodomethane	0.000		0	N.D.	
12) Acetonitrile	0.000		0	N.D.	
13) Methyl acetate	0.000		0	N.D.	
14) Carbon disulfide	6.428	76	238	N.D.	
15) Methylene chloride	6.648	84	5814	Below Cal	91
16) tert-Butyl methyl ether	0.000		0	N.D.	
17) trans-1,2-Dichloroethy...	0.000		0	N.D.	
18) Vinyl acetate	0.000		0	N.D.	
19) 1,1-Dichloroethane	0.000		0	N.D.	
20) 2-Butanone	0.000		0	N.D.	
21) cis-1,2-Dichloroethylene	0.000		0	N.D.	
22) 2,2-Dichloropropane	0.000		0	N.D.	
23) Bromochloromethane	0.000		0	N.D.	
24) Chloroform	0.000		0	N.D.	
25) 1,1,1-Trichloroethane	0.000		0	N.D.	
26) Cyclohexane	0.000		0	N.D.	
27) 1,1-Dichloropropene	0.000		0	N.D.	
28) Carbon tetrachloride	0.000		0	N.D.	
30) 1,2-Dichloroethane	0.000		0	N.D.	
31) Benzene	0.000		0	N.D.	
32) Cyclohexene	0.000		0	N.D.	
33) n-Butyl alcohol	0.000		0	N.D.	
34) Trichloroethylene	0.000		0	N.D.	
35) 1,2-Dichloropropane	0.000		0	N.D.	
36) Methylcyclohexane	0.000		0	N.D.	
37) Dibromomethane	0.000		0	N.D.	
38) Bromodichloromethane	0.000		0	N.D.	
39) 2-Chloroethylvinyl ether	0.000		0	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709\
Data File : AP432.D
Acq On : 18 Dec 2009 6:21 am
Operator : JEB
InstName : VOAA
Sample : |242654011|934516|1|VOA|1|VOA8260BS|
Misc : LANL 5.2G N/A SOIL
ALS Vial : 32 Sample Multiplier: 1

Quant Time: Dec 18 15:04:26 2009
Quant Method : C:\msdchem\1\METHODS\VOAA-8260-110609.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Nov 09 16:21:09 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
40) cis-1,3-Dichloropropylene	0.000		0	N.D.	
42) 4-Methyl-2-pentanone	0.000		0	N.D.	
44) Toluene	0.000		0	N.D.	
45) trans-1,3-Dichloroprop...	0.000		0	N.D.	
46) 1,1,2-Trichloroethane	0.000		0	N.D.	
47) 2-Hexanone	0.000		0	N.D.	
48) 1,3-Dichloropropane	0.000		0	N.D.	
49) Tetrachloroethylene	0.000		0	N.D.	
50) Dibromochloromethane	0.000		0	N.D.	
51) 1,2-Dibromoethane	0.000		0	N.D.	
52) Chlorobenzene	0.000		0	N.D.	
53) 1,1,1,2-Tetrachloroethane	0.000		0	N.D.	
54) Ethylbenzene	12.720	91	108	N.D.	
55) m,p-Xylenes	0.000		0	N.D.	
56) o-Xylene	0.000		0	N.D.	
57) Styrene	0.000		0	N.D.	
59) Bromoform	0.000		0	N.D.	
60) Isopropylbenzene	13.551	105	260	N.D.	
62) 1,1,2,2-Tetrachloroethane	0.000		0	N.D.	
63) 1,2,3-Trichloropropane	0.000		0	N.D.	
64) Bromobenzene	0.000		0	N.D.	
65) n-Propylbenzene	13.710	91	1420	N.D.	
66) 1,3,5-Trimethylbenzene	0.000		0	N.D.	
67) 2-Chlorotoluene	0.000		0	N.D.	
68) 4-Chlorotoluene	0.000		0	N.D.	
69) tert-Butylbenzene	0.000		0	N.D.	
70) 1,2,4-Trimethylbenzene	14.569	105	107	N.D.	
71) sec-Butylbenzene	14.569	105	107	N.D.	
72) 4-Isopropyltoluene	0.000		0	N.D.	
73) 1,3-Dichlorobenzene	0.000		0	N.D.	
74) 1,4-Dichlorobenzene	14.965	146	659	N.D.	
75) n-Butylbenzene	15.078	91	142	N.D.	
76) 1,2-Dichlorobenzene	0.000		0	N.D.	
77) 1,2-Dibromo-3-chloropr...	0.000		0	N.D.	
78) 1,2,4-Trichlorobenzene	17.175	180	436	N.D.	
79) Hexachlorobutadiene	0.000		0	N.D.	
80) Naphthalene	17.522	128	1815	N.D.	
81) 1,2,3-Trichlorobenzene	0.000		0	N.D.	
83) Chlorotrifluoroethylene	0.000		0	N.D.	
84) 2-Chloro-1,1,1-trifluo...	0.000		0	N.D.	
85) Acrolein	0.000		0	N.D.	
86) Trichlorotrifluoroethane	0.000		0	N.D.	
87) Isopropyl Alcohol	0.000		0	N.D.	
88) Allyl chloride	0.000		0	N.D.	
89) tert-Butyl Alcohol	0.000		0	N.D.	
90) Acrylonitrile	0.000		0	N.D.	
91) Isopropyl ether	0.000		0	N.D.	
92) 2-Chloro-1,3-butadiene	0.000		0	N.D.	
93) Ethyl tert-butyl ether	0.000		0	N.D.	
94) Ethyl acetate	0.000		0	N.D.	
95) Propionitrile	0.000		0	N.D.	
96) Methacrylonitrile	0.000		0	N.D.	
97) Tetrahydrofuran	0.000		0	N.D.	
98) Isobutyl alcohol	0.000		0	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709\
Data File : AP432.D
Acq On : 18 Dec 2009 6:21 am
Operator : JEB
InstName : VOAA
Sample : |242654011|934516|1|VOA|1|VOA8260BS|
Misc : LANL 5.2G N/A SOIL
ALS Vial : 32 Sample Multiplier: 1

Quant Time: Dec 18 15:04:26 2009
Quant Method : C:\msdchem\1\METHODS\VOAA-8260-110609.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Nov 09 16:21:09 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
99) Methyl tert-amyl ether	0.000		0	N.D.	
100) Methyl methacrylate	0.000		0	N.D.	
101) 1,4-Dioxane	0.000		0	N.D.	
102) 2-Nitropropane	0.000		0	N.D.	
104) Ethyl methacrylate	0.000		0m	N.D.	d
106) 1-Chlorohexane	0.000		0	N.D.	
107) cis-1,4-Dichloro-2-butene	13.551	53	627	N.D.	
108) Cyclohexanone	0.000		0	N.D.	
109) trans-1,4-Dichloro-2-b...	0.000		0	N.D.	
110) Pentachloroethane	0.000		0	N.D.	
111) Benzyl chloride	0.000		0m	N.D.	d
112) bis(2-Chloroisopropyl)...	15.602	45	821	N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709\
Data File : AP432.D
Acq On : 18 Dec 2009 6:21 am
Operator : JEB
InstName : VOAA
Sample : |242654011|934516|1|VOA|1|VOA8260BS|
Misc : LANL 5.2G N/A SOIL
ALS Vial : 32 Sample Multiplier: 1

Quant Time: Dec 18 15:04:26 2009
Quant Method : C:\msdchem\1\METHODS\VOAA-8260-110609.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Nov 09 16:21:09 2009
Response via : Initial Calibration
Integrator: RTE

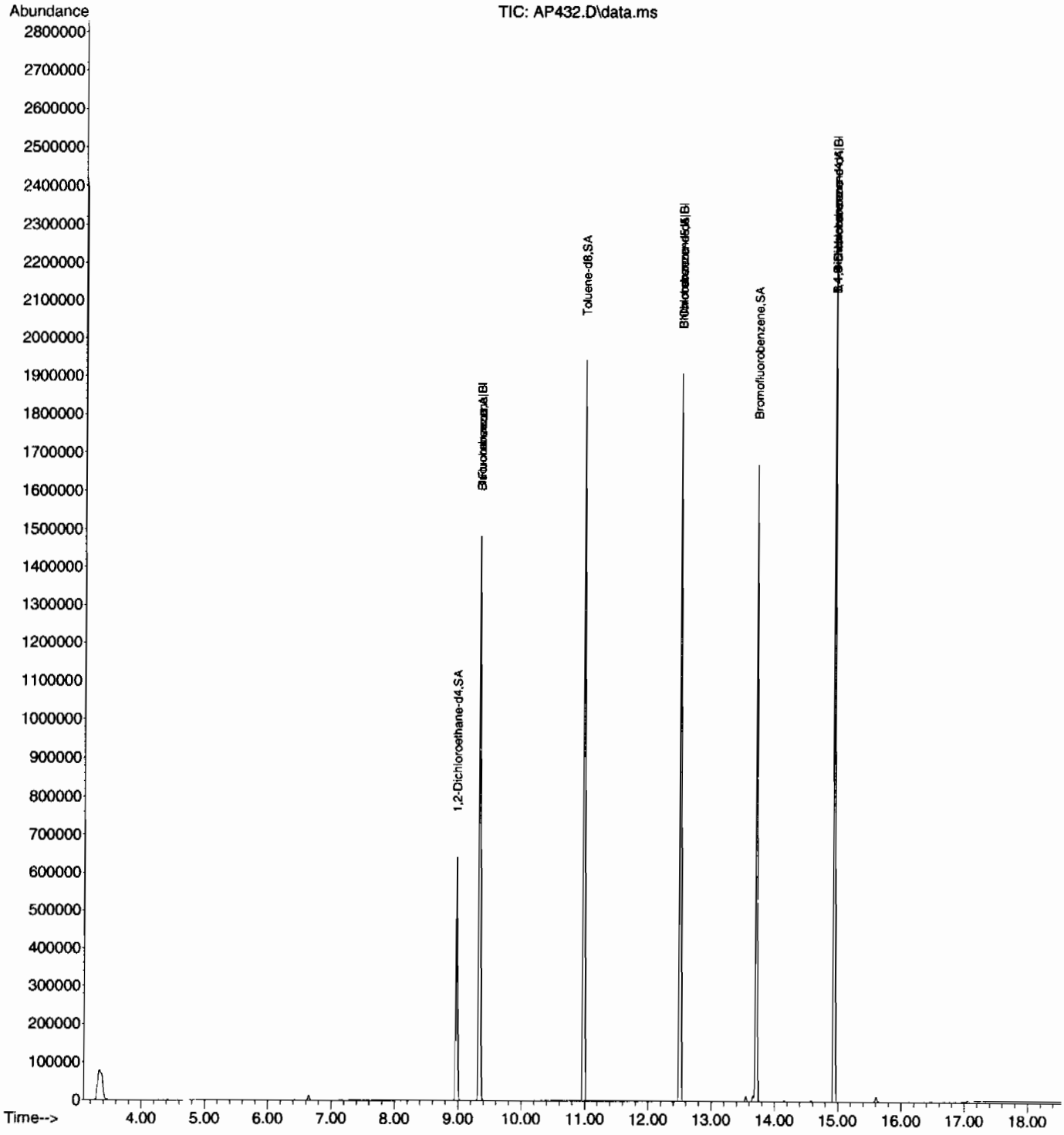

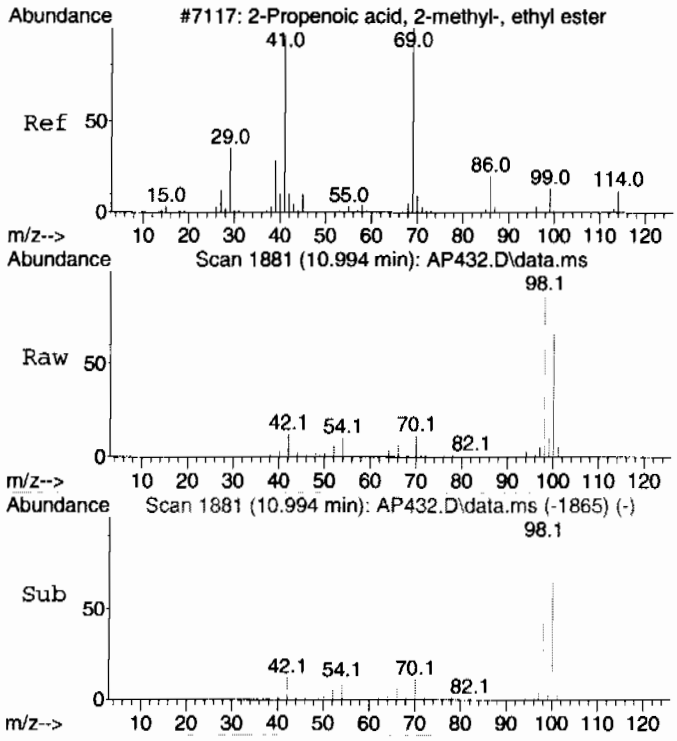

#104 BEFORE analyst DELETION
Ethyl methacrylate
Concen: 1.67 ug/L
RT: 10.994 min Scan# 1881
Delta R.T. -0.244 min
Lab File: AP432.D
Acq: 18 Dec 2009 6:21 am

Tgt Ion: 69 Resp: 3685

Ion	Ratio	Lower	Upper
69	100		
41	86.8	36.3	96.3
99	3275.8	0.0	50.5#

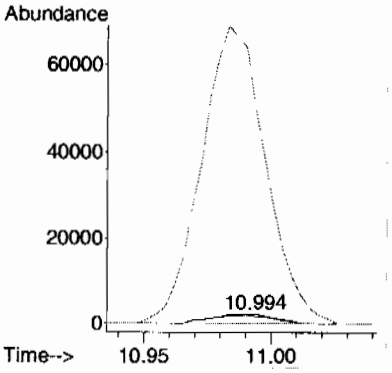

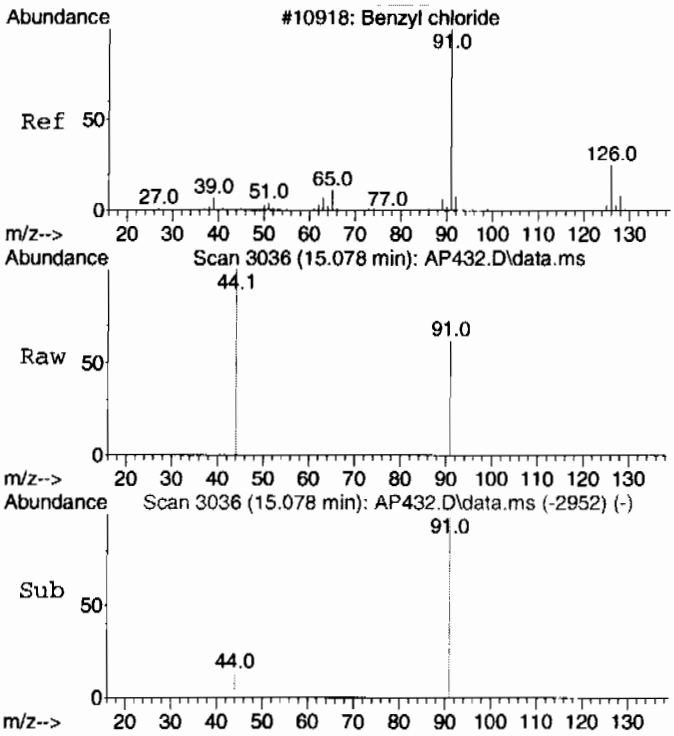

#111 BEFORE analyst DELETION
Benzyl chloride
Concen: 4.39 ug/L
RT: 15.078 min Scan# 3036
Delta R.T. -0.003 min
Lab File: AP432.D
Acq: 18 Dec 2009 6:21 am

Tgt Ion: 91 Resp: 142

Ion	Ratio	Lower	Upper
91	100		
126	0.0	0.0	52.0
65	0.0	0.0	41.2

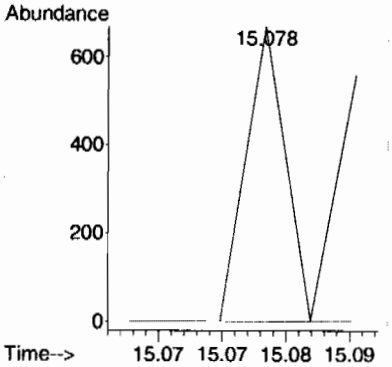

Library Search Compound Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709\
Data File : AP432.D
Acq On : 18 Dec 2009 6:21 am
Operator : JEB
Sample : |242654011|934516|1|VOA|1|VOA8260BS|
Misc : LANL 5.2G N/A SOIL
ALS Vial : 32 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\VOAA-8260-110609.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

****
Peak Number 1 unknown Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
3.339	8.02 ug/L	424722	Fluorobenzene	9.339

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Dimethyl ether	46	C2H6O	000115-10-6	5
2	Ethyl alcohol	46	C2H6O	000064-17-5	4
3	Ethyl alcohol	46	C2H6O	000064-17-5	4
4	Ethyl alcohol	46	C2H6O	000064-17-5	4
5	Formic acid	46	CH2O2	000064-18-6	3

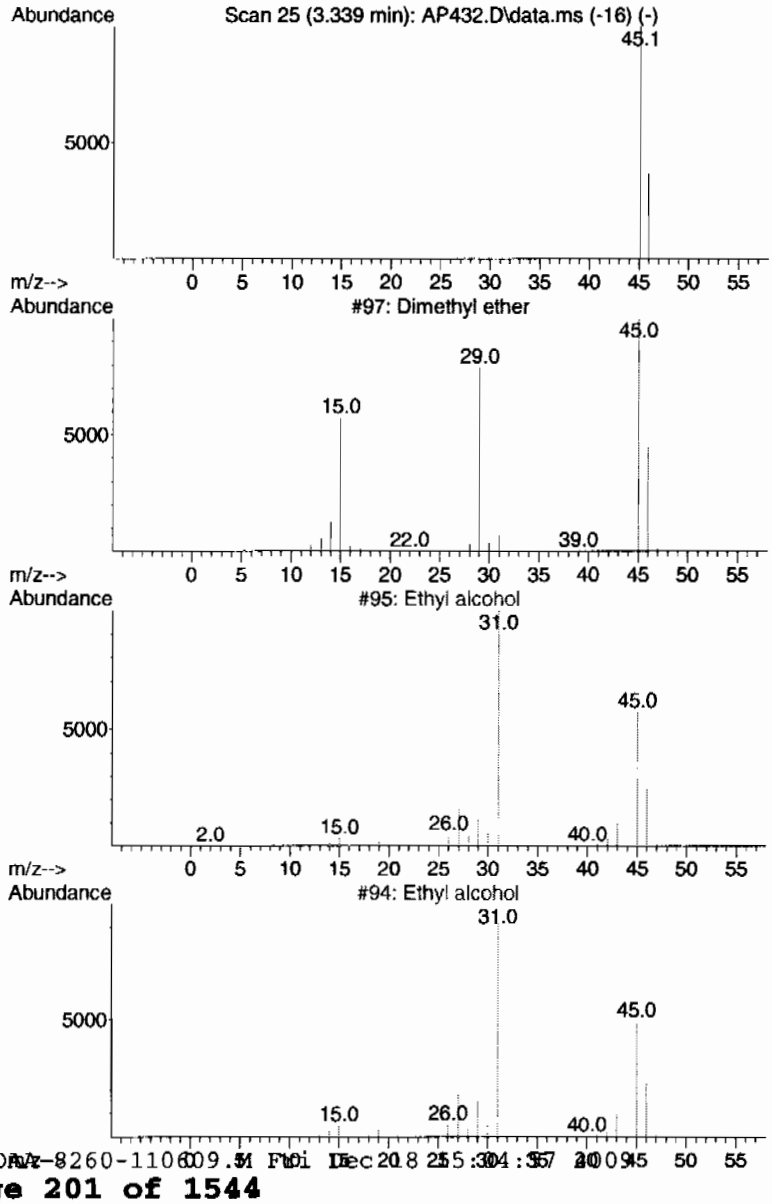

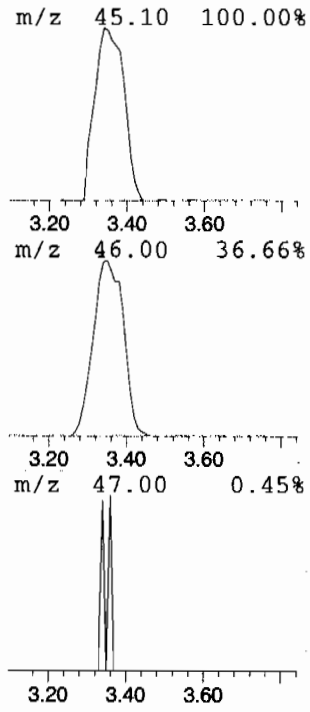

Tentatively Identified Compound (LSC) summary
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709\
Data File : AP432.D
Acq On : 18 Dec 2009 6:21 am
Operator : JEB
Sample : |242654011|934516|1|VOA|1|VOA8260BS|
Misc : LANL 5.2G N/A SOIL
ALS Vial : 32 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\VOAA-8260-110609.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

TIC Top Hit name	RT	EstConc	Units	Response	--Internal Standard--- #	RT	Resp	Conc
unknown	3.339	8.0	ug/L	424722	1	9.339	2647860	50.0

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242654012	**Date Received:**	12/10/2009 08:50	**%Moisture:**	12.2
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14277	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	934516	**Inst:**	VOAA.I	**Dilution:**	1
Run Date:	12/18/2009 06:47	**Analyst:**	JEB	**Purge Vol:**	5 mL
Prep Date:	12/17/2009 19:16	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	121709\AP433.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.14	ug/kg	0.387	1.14
74-87-3	Chloromethane	U	1.14	ug/kg	0.342	1.14
75-01-4	Vinyl chloride	U	1.14	ug/kg	0.342	1.14
74-83-9	Bromomethane	U	1.14	ug/kg	0.342	1.14
75-00-3	Chloroethane	U	1.14	ug/kg	0.342	1.14
75-69-4	Trichlorofluoromethane	U	1.14	ug/kg	0.342	1.14
67-64-1	Acetone	U	5.69	ug/kg	1.89	5.69
75-35-4	1,1-Dichloroethylene	U	1.14	ug/kg	0.342	1.14
74-88-4	Iodomethane	U	5.69	ug/kg	1.82	5.69
75-09-2	Methylene chloride	U	5.69	ug/kg	2.28	5.69
75-15-0	Carbon disulfide	U	5.69	ug/kg	1.42	5.69
156-60-5	trans-1,2-Dichloroethylene	U	1.14	ug/kg	0.342	1.14
75-34-3	1,1-Dichloroethane	U	1.14	ug/kg	0.342	1.14
78-93-3	2-Butanone	U	5.69	ug/kg	1.71	5.69
156-59-2	cis-1,2-Dichloroethylene	U	1.14	ug/kg	0.342	1.14
594-20-7	2,2-Dichloropropane	U	1.14	ug/kg	0.342	1.14
67-66-3	Chloroform	U	1.14	ug/kg	0.342	1.14
74-97-5	Bromochloromethane	U	1.14	ug/kg	0.376	1.14
71-55-6	1,1,1-Trichloroethane	U	1.14	ug/kg	0.342	1.14
563-58-6	1,1-Dichloropropene	U	1.14	ug/kg	0.342	1.14
56-23-5	Carbon tetrachloride	U	1.14	ug/kg	0.342	1.14
107-06-2	1,2-Dichloroethane	U	1.14	ug/kg	0.342	1.14
71-43-2	Benzene	U	1.14	ug/kg	0.342	1.14
79-01-6	Trichloroethylene	U	1.14	ug/kg	0.376	1.14
78-87-5	1,2-Dichloropropane	U	1.14	ug/kg	0.342	1.14
75-27-4	Bromodichloromethane	U	1.14	ug/kg	0.342	1.14
74-95-3	Dibromomethane	U	1.14	ug/kg	0.342	1.14
108-10-1	4-Methyl-2-pentanone	U	5.69	ug/kg	1.42	5.69
10061-01-5	cis-1,3-Dichloropropylene	U	1.14	ug/kg	0.342	1.14
108-88-3	Toluene	U	1.14	ug/kg	0.342	1.14
10061-02-6	trans-1,3-Dichloropropylene	U	1.14	ug/kg	0.342	1.14
79-00-5	1,1,2-Trichloroethane	U	1.14	ug/kg	0.342	1.14
591-78-6	2-Hexanone	U	5.69	ug/kg	1.71	5.69
142-28-9	1,3-Dichloropropane	U	1.14	ug/kg	0.342	1.14
127-18-4	Tetrachloroethylene	U	1.14	ug/kg	0.342	1.14
124-48-1	Dibromochloromethane	U	1.14	ug/kg	0.342	1.14
106-93-4	1,2-Dibromoethane	U	1.14	ug/kg	0.342	1.14
108-90-7	Chlorobenzene	U	1.14	ug/kg	0.342	1.14

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-852**	**Date Collected:**	**12/07/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242654012**	**Date Received:**	**12/10/2009 08:50**	**%Moisture:**	**12.2**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14277**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**934516**	**Inst:**	**VOAA.I**	**Dilution:**	**1**
Run Date:	**12/18/2009 06:47**	**Analyst:**	**JEB**	**Purge Vol:**	**5 mL**
Prep Date:	**12/17/2009 19:16**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**121709\AP433.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.14	ug/kg	0.342	1.14
179601-23-1	m,p-Xylenes	U	2.28	ug/kg	0.342	2.28
95-47-6	o-Xylene	U	1.14	ug/kg	0.342	1.14
100-42-5	Styrene	U	1.14	ug/kg	0.342	1.14
75-25-2	Bromoform	U	1.14	ug/kg	0.342	1.14
79-34-5	1,1,2,2-Tetrachloroethane	U	1.14	ug/kg	0.342	1.14
96-18-4	1,2,3-Trichloropropane	U	1.14	ug/kg	0.342	1.14
108-86-1	Bromobenzene	U	1.14	ug/kg	0.342	1.14
103-65-1	n-Propylbenzene	U	1.14	ug/kg	0.342	1.14
95-49-8	2-Chlorotoluene	U	1.14	ug/kg	0.342	1.14
98-82-8	Isopropylbenzene	U	1.14	ug/kg	0.342	1.14
108-67-8	1,3,5-Trimethylbenzene	U	1.14	ug/kg	0.342	1.14
106-43-4	4-Chlorotoluene	U	1.14	ug/kg	0.342	1.14
98-06-6	tert-Butylbenzene	U	1.14	ug/kg	0.342	1.14
95-63-6	1,2,4-Trimethylbenzene	U	1.14	ug/kg	0.342	1.14
135-98-8	sec-Butylbenzene	U	1.14	ug/kg	0.342	1.14
99-87-6	4-Isopropyltoluene	U	1.14	ug/kg	0.342	1.14
541-73-1	1,3-Dichlorobenzene	U	1.14	ug/kg	0.342	1.14
106-46-7	1,4-Dichlorobenzene	U	1.14	ug/kg	0.342	1.14
104-51-8	n-Butylbenzene	U	1.14	ug/kg	0.342	1.14
96-12-8	1,2-Dibromo-3-chloropropane	U	1.14	ug/kg	0.342	1.14
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.69	ug/kg	1.82	5.69
630-20-6	1,1,1,2-Tetrachloroethane	U	1.14	ug/kg	0.342	1.14
95-50-1	1,2-Dichlorobenzene	U	1.14	ug/kg	0.342	1.14

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown	3.34	7.29	ug/kg	0	J

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709\
Data File : AP433.D
Acq On : 18 Dec 2009 6:47 am
Operator : JEB
InstName : VOAA
Sample : |242654012|934516|1|VOA|1|VOA8260BS|
Misc : LANL 5.0G N/A SOIL
ALS Vial : 33 Sample Multiplier: 1

Quant Time: Dec 18 15:05:32 2009
Quant Method : C:\msdchem\1\METHODS\VOAA-8260-110609.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Nov 09 16:21:09 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Fluorobenzene	9.339	96	1193644	50.00 ug/L	0.00
41) Chlorobenzene-d5	12.507	117	955992	50.00 ug/L	0.00
58) 1,4-Dichlorobenzene-d4	14.940	152	595371	50.00 ug/L	0.00
82) B Fluorobenzene	9.339	96	1193644	50.00 ug/L	0.00
103) B Chlorobenzene-d5	12.507	117	955992	50.00 ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	14.940	152	595371	50.00 ug/L	0.00
System Monitoring Compounds					
29) 1,2-Dichloroethane-d4	8.978	65	461924	55.70 ug/L	0.00
Spiked Amount 50.000	Range 68 - 131		Recovery = 111.40%		
43) Toluene-d8	10.983	98	1145140	47.18 ug/L	0.00
Spiked Amount 50.000	Range 75 - 129		Recovery = 94.36%		
61) Bromofluorobenzene	13.713	95	498128	46.44 ug/L	0.00
Spiked Amount 50.000	Range 68 - 133		Recovery = 92.88%		
Target Compounds					Qvalue
2) Dichlorodifluoromethane	0.000		0	N.D.	
3) Chloromethane	0.000		0	N.D.	
4) Vinyl chloride	0.000		0	N.D.	
5) Bromomethane	0.000		0	N.D.	
6) Chloroethane	0.000		0	N.D.	
7) Trichlorofluoromethane	0.000		0	N.D.	
8) Ethyl ether	0.000		0	N.D.	
9) Acetone	6.100	43	407	N.D.	
10) 1,1-Dichloroethylene	0.000		0	N.D.	
11) Iodomethane	0.000		0	N.D.	
12) Acetonitrile	0.000		0	N.D.	
13) Methyl acetate	0.000		0	N.D.	
14) Carbon disulfide	6.425	76	117	N.D.	
15) Methylene chloride	6.641	84	4844	Below Cal	83
16) tert-Butyl methyl ether	0.000		0	N.D.	
17) trans-1,2-Dichloroethy...	0.000		0	N.D.	
18) Vinyl acetate	0.000		0	N.D.	
19) 1,1-Dichloroethane	0.000		0	N.D.	
20) 2-Butanone	0.000		0	N.D.	
21) cis-1,2-Dichloroethylene	0.000		0	N.D.	
22) 2,2-Dichloropropane	0.000		0	N.D.	
23) Bromochloromethane	0.000		0	N.D.	
24) Chloroform	0.000		0	N.D.	
25) 1,1,1-Trichloroethane	0.000		0	N.D.	
26) Cyclohexane	0.000		0	N.D.	
27) 1,1-Dichloropropene	0.000		0	N.D.	
28) Carbon tetrachloride	0.000		0	N.D.	
30) 1,2-Dichloroethane	0.000		0	N.D.	
31) Benzene	0.000		0	N.D.	
32) Cyclohexene	0.000		0	N.D.	
33) n-Butyl alcohol	0.000		0	N.D.	
34) Trichloroethylene	0.000		0	N.D.	
35) 1,2-Dichloropropane	0.000		0	N.D.	
36) Methylcyclohexane	0.000		0	N.D.	
37) Dibromomethane	0.000		0	N.D.	
38) Bromodichloromethane	0.000		0	N.D.	
39) 2-Chloroethylvinyl ether	0.000		0	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709\
Data File : AP433.D
Acq On : 18 Dec 2009 6:47 am
Operator : JEB
InstName : VOAA
Sample : |242654012|934516|1|VOA|1|VOA8260BS|
Misc : LANL 5.0G N/A SOIL
ALS Vial : 33 Sample Multiplier: 1

Quant Time: Dec 18 15:05:32 2009
Quant Method : C:\msdchem\1\METHODS\VOAA-8260-110609.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Nov 09 16:21:09 2009
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
40)	cis-1,3-Dichloropropylene	0.000		0	N.D.	
42)	4-Methyl-2-pentanone	0.000		0	N.D.	
44)	Toluene	11.061	91	111	N.D.	
45)	trans-1,3-Dichloroprop...	0.000		0	N.D.	
46)	1,1,2-Trichloroethane	0.000		0	N.D.	
47)	2-Hexanone	0.000		0	N.D.	
48)	1,3-Dichloropropane	0.000		0	N.D.	
49)	Tetrachloroethylene	0.000		0	N.D.	
50)	Dibromochloromethane	0.000		0	N.D.	
51)	1,2-Dibromoethane	0.000		0	N.D.	
52)	Chlorobenzene	0.000		0	N.D.	
53)	1,1,1,2-Tetrachloroethane	0.000		0	N.D.	
54)	Ethylbenzene	12.504	91	1828	N.D.	
55)	m,p-Xylenes	0.000		0	N.D.	
56)	o-Xylene	0.000		0	N.D.	
57)	Styrene	0.000		0	N.D.	
59)	Bromoform	0.000		0	N.D.	
60)	Isopropylbenzene	13.664	105	1249	N.D.	
62)	1,1,2,2-Tetrachloroethane	0.000		0	N.D.	
63)	1,2,3-Trichloropropane	0.000		0m	N.D.	d
64)	Bromobenzene	0.000		0	N.D.	
65)	n-Propylbenzene	13.710	91	1332	N.D.	
66)	1,3,5-Trimethylbenzene	0.000		0	N.D.	
67)	2-Chlorotoluene	0.000		0	N.D.	
68)	4-Chlorotoluene	0.000		0	N.D.	
69)	tert-Butylbenzene	0.000		0	N.D.	
70)	1,2,4-Trimethylbenzene	14.534	105	5649	N.D.	
71)	sec-Butylbenzene	14.534	105	5649	N.D.	
72)	4-Isopropyltoluene	0.000		0	N.D.	
73)	1,3-Dichlorobenzene	14.884	146	120	N.D.	
74)	1,4-Dichlorobenzene	14.969	146	357	N.D.	
75)	n-Butylbenzene	15.078	91	249	N.D.	
76)	1,2-Dichlorobenzene	0.000		0	N.D.	
77)	1,2-Dibromo-3-chloropr...	0.000		0	N.D.	
78)	1,2,4-Trichlorobenzene	17.190	180	300	N.D.	
79)	Hexachlorobutadiene	0.000		0	N.D.	
80)	Naphthalene	17.522	128	3066	N.D.	
81)	1,2,3-Trichlorobenzene	17.847	180	141	N.D.	
83)	Chlorotrifluoroethylene	0.000		0	N.D.	
84)	2-Chloro-1,1,1-trifluo...	0.000		0	N.D.	
85)	Acrolein	0.000		0	N.D.	
86)	Trichlorotrifluoroethane	0.000		0	N.D.	
87)	Isopropyl Alcohol	0.000		0	N.D.	
88)	Allyl chloride	0.000		0	N.D.	
89)	tert-Butyl Alcohol	0.000		0	N.D.	
90)	Acrylonitrile	0.000		0	N.D.	
91)	Isopropyl ether	0.000		0	N.D.	
92)	2-Chloro-1,3-butadiene	0.000		0	N.D.	
93)	Ethyl tert-butyl ether	0.000		0	N.D.	
94)	Ethyl acetate	0.000		0	N.D.	
95)	Propionitrile	0.000		0	N.D.	
96)	Methacrylonitrile	0.000		0	N.D.	
97)	Tetrahydrofuran	0.000		0	N.D.	
98)	Isobutyl alcohol	0.000		0	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709\
Data File : AP433.D
Acq On : 18 Dec 2009 6:47 am
Operator : JEB
InstName : VOAA
Sample : |242654012|934516|1|VOA|1|VOA8260BS|
Misc : LANL 5.0G N/A SOIL
ALS Vial : 33 Sample Multiplier: 1

Quant Time: Dec 18 15:05:32 2009
Quant Method : C:\msdchem\1\METHODS\VOAA-8260-110609.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Nov 09 16:21:09 2009
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
99)	Methyl tert-amyl ether	0.000		0	N.D.	
100)	Methyl methacrylate	0.000		0	N.D.	
101)	1,4-Dioxane	0.000		0	N.D.	
102)	2-Nitropropane	0.000		0	N.D.	
104)	Ethyl methacrylate	0.000		0	N.D.	
106)	1-Chlorohexane	0.000		0	N.D.	
107)	cis-1,4-Dichloro-2-butene	13.544	53	281	N.D.	
108)	Cyclohexanone	0.000		0	N.D.	
109)	trans-1,4-Dichloro-2-b...	0.000		0	N.D.	
110)	Pentachloroethane	0.000		0	N.D.	
111)	Benzyl chloride	0.000		0m	N.D.	d
112)	bis(2-Chloroisopropyl)...	0.000		0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709\
Data File : AP433.D
Acq On : 18 Dec 2009 6:47 am
Operator : JEB
InstName : VOAA
Sample : |242654012|934516|1|VOA|1|VOA8260BS|
Misc : LANL 5.0G N/A SOIL
ALS Vial : 33 Sample Multiplier: 1

Quant Time: Dec 18 15:05:32 2009
Quant Method : C:\msdchem\1\METHODS\VOAA-8260-110609.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Nov 09 16:21:09 2009
Response via : Initial Calibration
Integrator: RTE

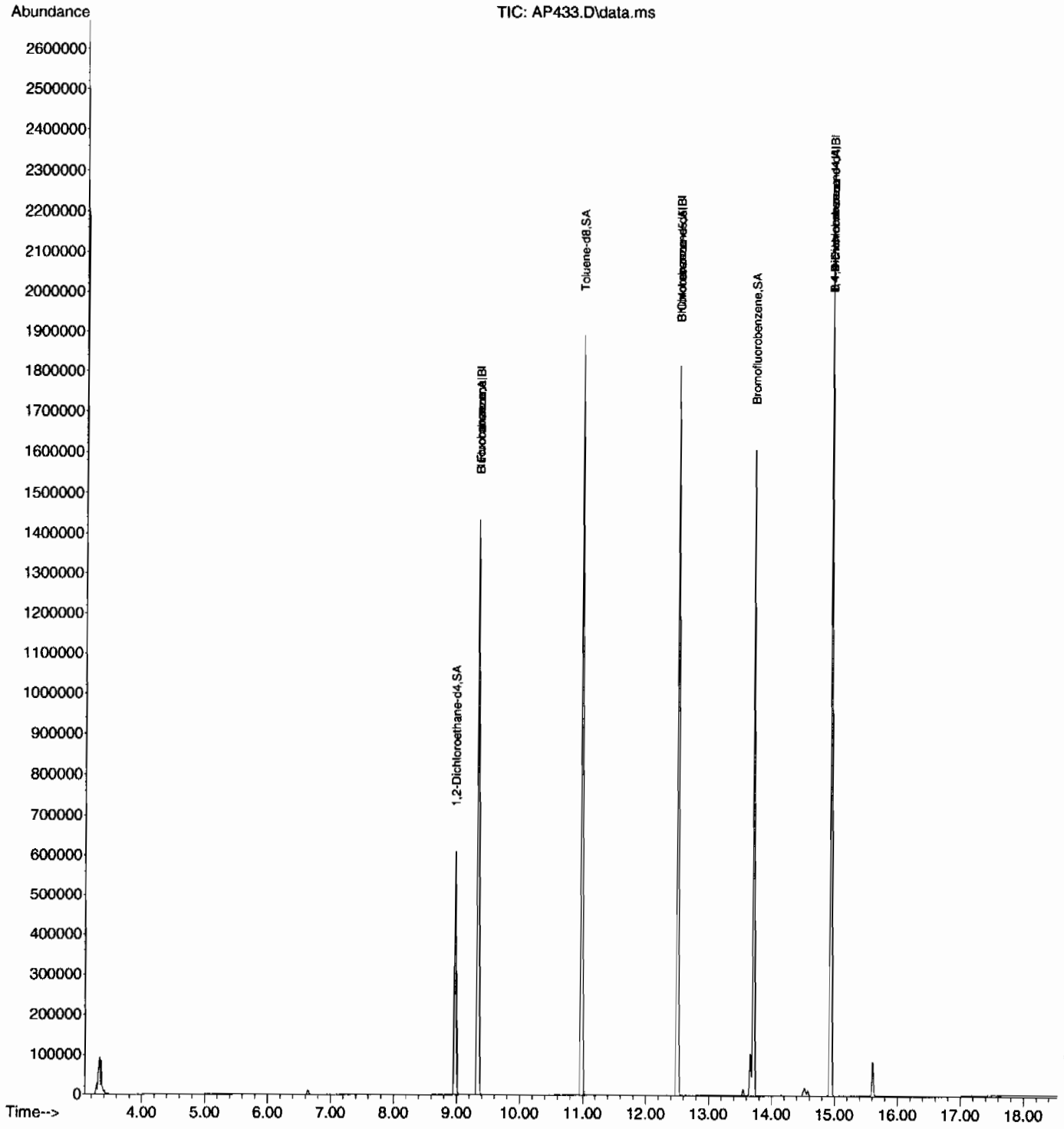

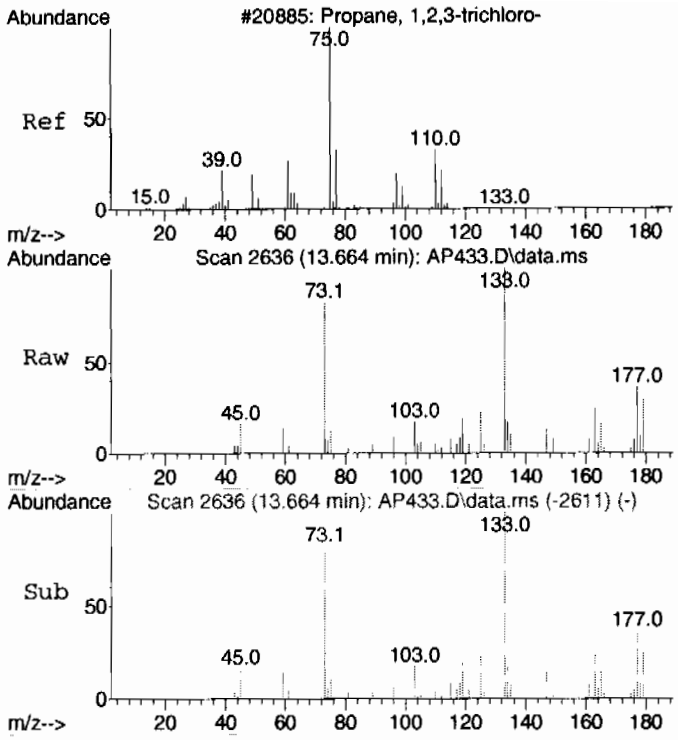

#63 BEFORE analyst DELETION
1,2,3-Trichloropropane
Concen: 0.48 ug/L
RT: 13.664 min Scan# 2636
Delta R.T. -0.212 min
Lab File: AP433.D
Acq: 18 Dec 2009 6:47 am

Tgt Ion:110 Resp: 1020

Ion	Ratio	Lower	Upper
110	100		
75	342.7	225.2	285.2#
77	0.0	48.9	108.9#

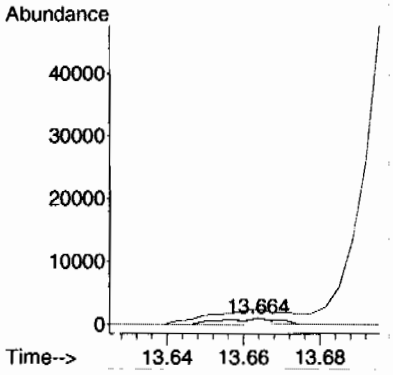

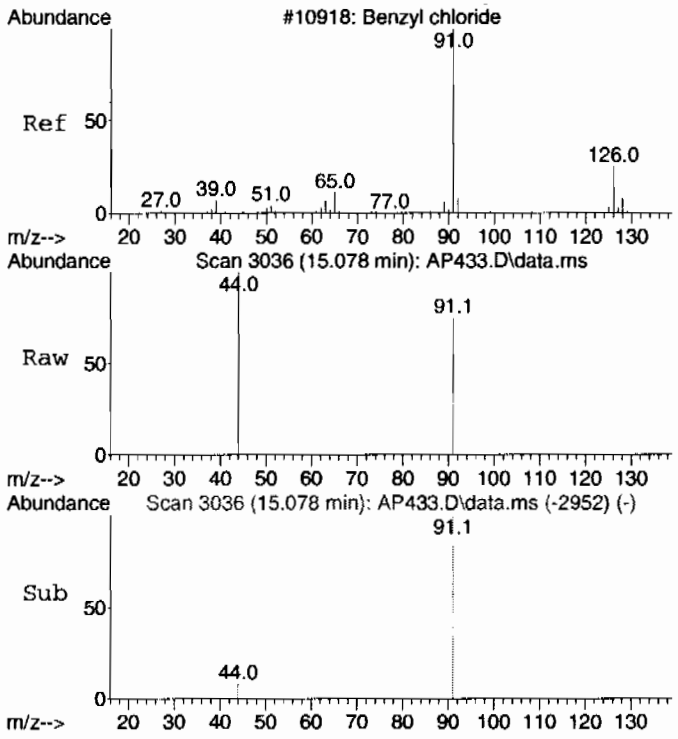

#111 BEFORE analyst DELETION
Benzyl chloride
Concen: 4.40 ug/L
RT: 15.078 min Scan# 3036
Delta R.T. -0.003 min
Lab File: AP433.D
Acq: 18 Dec 2009 6:47 am

Tgt Ion: 91 Resp: 249

Ion	Ratio	Lower	Upper
91	100		
126	0.0	0.0	52.0
65	0.0	0.0	41.2

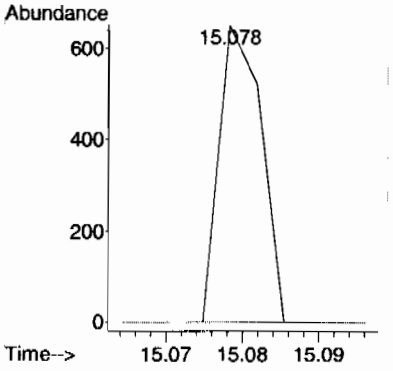

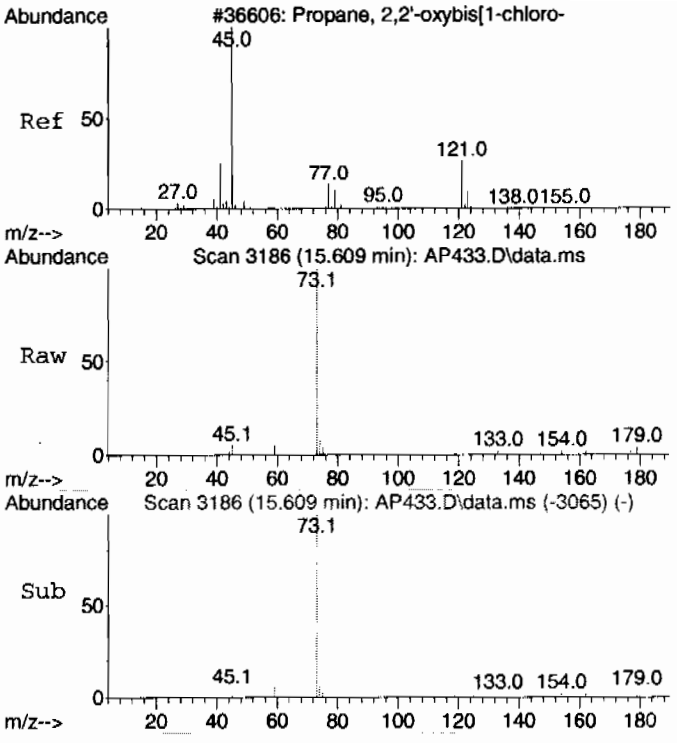

#112 BEFORE analyst DELETION
bis(2-Chloroisopropyl)ether
Concen: 1.51 ug/L
RT: 15.609 min Scan# 3186
Delta R.T. 0.127 min
Lab File: AP433.D
Acq: 18 Dec 2009 6:47 am

Tgt Ion: 45 Resp: 5609

Ion	Ratio	Lower	Upper
45	100		
121	0.0	0.0	56.8

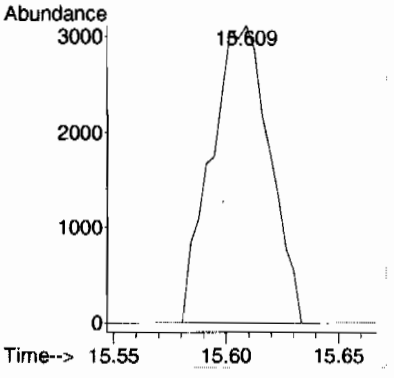

Library Search Compound Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709\
Data File : AP433.D
Acq On : 18 Dec 2009 6:47 am
Operator : JEB
Sample : |242654012|934516|1|VOA|1|VOA8260BS|
Misc : LANL 5.0G N/A SOIL
ALS Vial : 33 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\VOAA-8260-110609.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

****
Peak Number 1 unknown Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
3.339	6.40 ug/L	329366	Fluorobenzene	9.339

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Dimethyl ether	46	C2H6O	000115-10-6	5
2	Ethyl alcohol	46	C2H6O	000064-17-5	4
3	Ethyl alcohol	46	C2H6O	000064-17-5	4
4	Ethyl alcohol	46	C2H6O	000064-17-5	4
5	Formic acid	46	CH2O2	000064-18-6	4

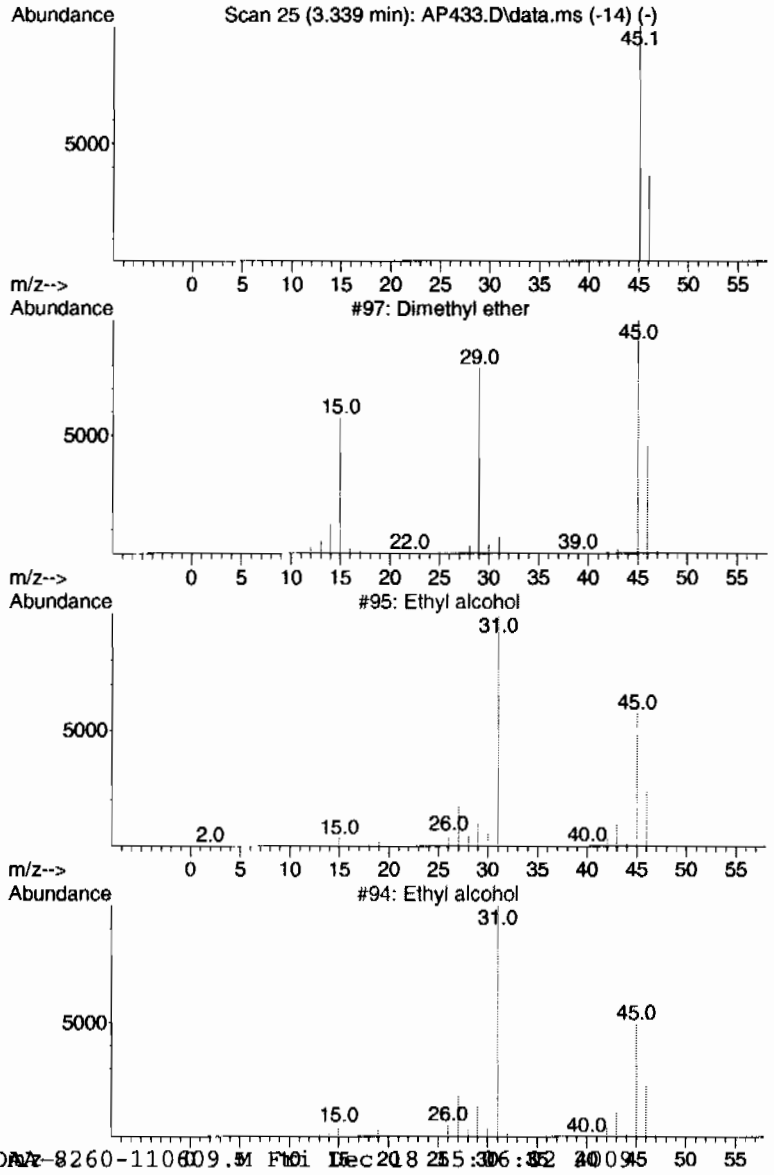

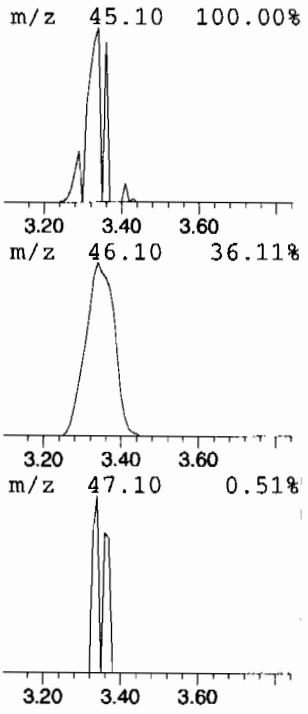

Tentatively Identified Compound (LSC) summary
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709\
Data File : AP433.D
Acq On : 18 Dec 2009 6:47 am
Operator : JEB
Sample : |242654012|934516|1|VOA|1|VOA8260BS|
Misc : LANL 5.0G N/A SOIL
ALS Vial : 33 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\VOAA-8260-110609.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

TIC Top Hit name	RT	EstConc	Units	Response	--Internal Standard--- #	RT	Resp	Conc
unknown	3.339	6.4	ug/L	329366	1	9.339	2572580	50.0

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242654013	**Date Received:**	12/10/2009 08:50	**%Moisture:**	14.2
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14282	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	934516	**Inst:**	VOAA.I	**Dilution:**	1
Run Date:	12/18/2009 07:13	**Analyst:**	JEB	**Purge Vol:**	5 mL
Prep Date:	12/17/2009 19:25	**Aliquot:**	5.3 g	**Final Volume:**	5 mL
Data File:	121709\AP434.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.10	ug/kg	0.374	1.10
74-87-3	Chloromethane	U	1.10	ug/kg	0.330	1.10
75-01-4	Vinyl chloride	U	1.10	ug/kg	0.330	1.10
74-83-9	Bromomethane	U	1.10	ug/kg	0.330	1.10
75-00-3	Chloroethane	U	1.10	ug/kg	0.330	1.10
75-69-4	Trichlorofluoromethane	U	1.10	ug/kg	0.330	1.10
67-64-1	Acetone	U	5.49	ug/kg	1.82	5.49
75-35-4	1,1-Dichloroethylene	U	1.10	ug/kg	0.330	1.10
74-88-4	Iodomethane	U	5.49	ug/kg	1.76	5.49
75-09-2	Methylene chloride	U	5.49	ug/kg	2.20	5.49
75-15-0	Carbon disulfide	U	5.49	ug/kg	1.37	5.49
156-60-5	trans-1,2-Dichloroethylene	U	1.10	ug/kg	0.330	1.10
75-34-3	1,1-Dichloroethane	U	1.10	ug/kg	0.330	1.10
78-93-3	2-Butanone	U	5.49	ug/kg	1.65	5.49
156-59-2	cis-1,2-Dichloroethylene	U	1.10	ug/kg	0.330	1.10
594-20-7	2,2-Dichloropropane	U	1.10	ug/kg	0.330	1.10
67-66-3	Chloroform	U	1.10	ug/kg	0.330	1.10
74-97-5	Bromochloromethane	U	1.10	ug/kg	0.363	1.10
71-55-6	1,1,1-Trichloroethane	U	1.10	ug/kg	0.330	1.10
563-58-6	1,1-Dichloropropene	U	1.10	ug/kg	0.330	1.10
56-23-5	Carbon tetrachloride	U	1.10	ug/kg	0.330	1.10
107-06-2	1,2-Dichloroethane	U	1.10	ug/kg	0.330	1.10
71-43-2	Benzene	U	1.10	ug/kg	0.330	1.10
79-01-6	Trichloroethylene	U	1.10	ug/kg	0.363	1.10
78-87-5	1,2-Dichloropropane	U	1.10	ug/kg	0.330	1.10
75-27-4	Bromodichloromethane	U	1.10	ug/kg	0.330	1.10
74-95-3	Dibromomethane	U	1.10	ug/kg	0.330	1.10
108-10-1	4-Methyl-2-pentanone	U	5.49	ug/kg	1.37	5.49
10061-01-5	cis-1,3-Dichloropropylene	U	1.10	ug/kg	0.330	1.10
108-88-3	Toluene	U	1.10	ug/kg	0.330	1.10
10061-02-6	trans-1,3-Dichloropropylene	U	1.10	ug/kg	0.330	1.10
79-00-5	1,1,2-Trichloroethane	U	1.10	ug/kg	0.330	1.10
591-78-6	2-Hexanone	U	5.49	ug/kg	1.65	5.49
142-28-9	1,3-Dichloropropane	U	1.10	ug/kg	0.330	1.10
127-18-4	Tetrachloroethylene	U	1.10	ug/kg	0.330	1.10
124-48-1	Dibromochloromethane	U	1.10	ug/kg	0.330	1.10
106-93-4	1,2-Dibromoethane	U	1.10	ug/kg	0.330	1.10
108-90-7	Chlorobenzene	U	1.10	ug/kg	0.330	1.10

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242654013	**Date Received:**	12/10/2009 08:50	**%Moisture:**	14.2
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14282	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	934516	**Inst:**	VOAA.I	**Dilution:**	1
Run Date:	12/18/2009 07:13	**Analyst:**	JEB	**Purge Vol:**	5 mL
Prep Date:	12/17/2009 19:25	**Aliquot:**	5.3 g	**Final Volume:**	5 mL
Data File:	121709\AP434.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.10	ug/kg	0.330	1.10
179601-23-1	m,p-Xylenes	U	2.20	ug/kg	0.330	2.20
95-47-6	o-Xylene	U	1.10	ug/kg	0.330	1.10
100-42-5	Styrene	U	1.10	ug/kg	0.330	1.10
75-25-2	Bromoform	U	1.10	ug/kg	0.330	1.10
79-34-5	1,1,2,2-Tetrachloroethane	U	1.10	ug/kg	0.330	1.10
96-18-4	1,2,3-Trichloropropane	U	1.10	ug/kg	0.330	1.10
108-86-1	Bromobenzene	U	1.10	ug/kg	0.330	1.10
103-65-1	n-Propylbenzene	U	1.10	ug/kg	0.330	1.10
95-49-8	2-Chlorotoluene	U	1.10	ug/kg	0.330	1.10
98-82-8	Isopropylbenzene	U	1.10	ug/kg	0.330	1.10
108-67-8	1,3,5-Trimethylbenzene	U	1.10	ug/kg	0.330	1.10
106-43-4	4-Chlorotoluene	U	1.10	ug/kg	0.330	1.10
98-06-6	tert-Butylbenzene	U	1.10	ug/kg	0.330	1.10
95-63-6	1,2,4-Trimethylbenzene	U	1.10	ug/kg	0.330	1.10
135-98-8	sec-Butylbenzene	U	1.10	ug/kg	0.330	1.10
99-87-6	4-Isopropyltoluene	U	1.10	ug/kg	0.330	1.10
541-73-1	1,3-Dichlorobenzene	U	1.10	ug/kg	0.330	1.10
106-46-7	1,4-Dichlorobenzene	U	1.10	ug/kg	0.330	1.10
104-51-8	n-Butylbenzene	U	1.10	ug/kg	0.330	1.10
96-12-8	1,2-Dibromo-3-chloropropane	U	1.10	ug/kg	0.330	1.10
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.49	ug/kg	1.76	5.49
630-20-6	1,1,1,2-Tetrachloroethane	U	1.10	ug/kg	0.330	1.10
95-50-1	1,2-Dichlorobenzene	U	1.10	ug/kg	0.330	1.10

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown	3.34	8.1	ug/kg	0	J
	unknown siloxane	15.61	7.2	ug/kg	0	J

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709\
Data File : AP434.D
Acq On : 18 Dec 2009 7:13 am
Operator : JEB
InstName : VOAA
Sample : |242654013|934516|1|VOA|1|VOA8260BS|
Misc : LANL 5.3G N/A SOIL
ALS Vial : 34 Sample Multiplier: 1

Quant Time: Dec 18 15:06:26 2009
Quant Method : C:\msdchem\1\METHODS\VOAA-8260-110609.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Nov 09 16:21:09 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Fluorobenzene	9.339	96	1189505	50.00 ug/L	0.00
41) Chlorobenzene-d5	12.508	117	963703	50.00 ug/L	0.00
58) 1,4-Dichlorobenzene-d4	14.941	152	609859	50.00 ug/L	0.00
82) B Fluorobenzene	9.339	96	1189505	50.00 ug/L	0.00
103) B Chlorobenzene-d5	12.508	117	963703	50.00 ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	14.941	152	609859	50.00 ug/L	0.00
System Monitoring Compounds					
29) 1,2-Dichloroethane-d4	8.978	65	459206	55.57 ug/L	0.00
Spiked Amount 50.000	Range 68 - 131		Recovery = 111.14%		
43) Toluene-d8	10.983	98	1157705	47.32 ug/L	0.00
Spiked Amount 50.000	Range 75 - 129		Recovery = 94.64%		
61) Bromofluorobenzene	13.713	95	509903	46.41 ug/L	0.00
Spiked Amount 50.000	Range 68 - 133		Recovery = 92.82%		
Target Compounds					Qvalue
2) Dichlorodifluoromethane	0.000		0	N.D.	
3) Chloromethane	0.000		0	N.D.	
4) Vinyl chloride	0.000		0	N.D.	
5) Bromomethane	0.000		0	N.D.	
6) Chloroethane	0.000		0	N.D.	
7) Trichlorofluoromethane	0.000		0	N.D.	
8) Ethyl ether	0.000		0	N.D.	
9) Acetone	6.093	43	968	N.D.	
10) 1,1-Dichloroethylene	0.000		0	N.D.	
11) Iodomethane	0.000		0	N.D.	
12) Acetonitrile	0.000		0	N.D.	
13) Methyl acetate	0.000		0	N.D.	
14) Carbon disulfide	6.429	76	347	N.D.	
15) Methylene chloride	6.648	84	7833	Below Cal	85
16) tert-Butyl methyl ether	0.000		0	N.D.	
17) trans-1,2-Dichloroethy...	0.000		0	N.D.	
18) Vinyl acetate	0.000		0	N.D.	
19) 1,1-Dichloroethane	0.000		0	N.D.	
20) 2-Butanone	0.000		0	N.D.	
21) cis-1,2-Dichloroethylene	0.000		0	N.D.	
22) 2,2-Dichloropropane	0.000		0	N.D.	
23) Bromochloromethane	0.000		0	N.D.	
24) Chloroform	0.000		0	N.D.	
25) 1,1,1-Trichloroethane	0.000		0	N.D.	
26) Cyclohexane	0.000		0	N.D.	
27) 1,1-Dichloropropene	0.000		0	N.D.	
28) Carbon tetrachloride	0.000		0	N.D.	
30) 1,2-Dichloroethane	0.000		0	N.D.	
31) Benzene	0.000		0	N.D.	
32) Cyclohexene	0.000		0	N.D.	
33) n-Butyl alcohol	0.000		0	N.D.	
34) Trichloroethylene	0.000		0	N.D.	
35) 1,2-Dichloropropane	0.000		0	N.D.	
36) Methylcyclohexane	0.000		0	N.D.	
37) Dibromomethane	0.000		0	N.D.	
38) Bromodichloromethane	0.000		0	N.D.	
39) 2-Chloroethylvinyl ether	0.000		0	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709\
Data File : AP434.D
Acq On : 18 Dec 2009 7:13 am
Operator : JEB
InstName : VOAA
Sample : |242654013|934516|1|VOA|1|VOA8260BS|
Misc : LANL 5.3G N/A SOIL
ALS Vial : 34 Sample Multiplier: 1

Quant Time: Dec 18 15:06:26 2009
Quant Method : C:\msdchem\1\METHODS\VOAA-8260-110609.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Nov 09 16:21:09 2009
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	QIon	Response	Conc Units Dev(Min)
40)	cis-1,3-Dichloropropylene	0.000		0	N.D.
42)	4-Methyl-2-pentanone	0.000		0	N.D.
44)	Toluene	0.000		0	N.D.
45)	trans-1,3-Dichloroprop...	0.000		0	N.D.
46)	1,1,2-Trichloroethane	0.000		0	N.D.
47)	2-Hexanone	0.000		0	N.D.
48)	1,3-Dichloropropane	0.000		0	N.D.
49)	Tetrachloroethylene	0.000		0	N.D.
50)	Dibromochloromethane	0.000		0	N.D.
51)	1,2-Dibromoethane	0.000		0	N.D.
52)	Chlorobenzene	0.000		0	N.D.
53)	1,1,1,2-Tetrachloroethane	0.000		0	N.D.
54)	Ethylbenzene	12.504	91	1746	N.D.
55)	m,p-Xylenes	0.000		0	N.D.
56)	o-Xylene	0.000		0	N.D.
57)	Styrene	0.000		0	N.D.
59)	Bromoform	0.000		0	N.D.
60)	Isopropylbenzene	13.667	105	874	N.D.
62)	1,1,2,2-Tetrachloroethane	0.000		0	N.D.
63)	1,2,3-Trichloropropane	13.660	110	545	N.D.
64)	Bromobenzene	0.000		0	N.D.
65)	n-Propylbenzene	13.713	91	1466	N.D.
66)	1,3,5-Trimethylbenzene	0.000		0	N.D.
67)	2-Chlorotoluene	0.000		0	N.D.
68)	4-Chlorotoluene	0.000		0	N.D.
69)	tert-Butylbenzene	0.000		0	N.D.
70)	1,2,4-Trimethylbenzene	0.000		0	N.D.
71)	sec-Butylbenzene	0.000		0	N.D.
72)	4-Isopropyltoluene	0.000		0	N.D.
73)	1,3-Dichlorobenzene	0.000		0	N.D.
74)	1,4-Dichlorobenzene	0.000		0	N.D.
75)	n-Butylbenzene	0.000		0	N.D.
76)	1,2-Dichlorobenzene	0.000		0	N.D.
77)	1,2-Dibromo-3-chloropr...	0.000		0	N.D.
78)	1,2,4-Trichlorobenzene	17.183	180	278	N.D.
79)	Hexachlorobutadiene	0.000		0	N.D.
80)	Naphthalene	17.530	128	1268	N.D.
81)	1,2,3-Trichlorobenzene	0.000		0	N.D.
83)	Chlorotrifluoroethylene	0.000		0	N.D.
84)	2-Chloro-1,1,1-trifluo...	0.000		0	N.D.
85)	Acrolein	0.000		0	N.D.
86)	Trichlorotrifluoroethane	0.000		0	N.D.
87)	Isopropyl Alcohol	0.000		0	N.D.
88)	Allyl chloride	0.000		0	N.D.
89)	tert-Butyl Alcohol	6.690	59	455	N.D.
90)	Acrylonitrile	0.000		0	N.D.
91)	Isopropyl ether	0.000		0	N.D.
92)	2-Chloro-1,3-butadiene	0.000		0	N.D.
93)	Ethyl tert-butyl ether	0.000		0	N.D.
94)	Ethyl acetate	0.000		0	N.D.
95)	Propionitrile	0.000		0	N.D.
96)	Methacrylonitrile	0.000		0	N.D.
97)	Tetrahydrofuran	0.000		0	N.D.
98)	Isobutyl alcohol	0.000		0	N.D.

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709\
Data File : AP434.D
Acq On : 18 Dec 2009 7:13 am
Operator : JEB
InstName : VOAA
Sample : |242654013|934516|1|VOA|1|VOA8260BS|
Misc : LANL 5.3G N/A SOIL
ALS Vial : 34 Sample Multiplier: 1

Quant Time: Dec 18 15:06:26 2009
Quant Method : C:\msdchem\1\METHODS\VOAA-8260-110609.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Nov 09 16:21:09 2009
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
99)	Methyl tert-amyl ether	0.000		0	N.D.	
100)	Methyl methacrylate	0.000		0	N.D.	
101)	1,4-Dioxane	0.000		0	N.D.	
102)	2-Nitropropane	0.000		0	N.D.	
104)	Ethyl methacrylate	0.000		0	N.D.	
106)	1-Chlorohexane	0.000		0	N.D.	
107)	cis-1,4-Dichloro-2-butene	0.000		0	N.D.	
108)	Cyclohexanone	0.000		0	N.D.	
109)	trans-1,4-Dichloro-2-b...	0.000		0	N.D.	
110)	Pentachloroethane	0.000		0	N.D.	
111)	Benzyl chloride	0.000		0m	N.D. d	
112)	bis(2-Chloroisopropyl)...	0.000		0m	N.D. d	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709\
Data File : AP434.D
Acq On : 18 Dec 2009 7:13 am
Operator : JEB
InstName : VOAA
Sample : |242654013|934516|1|VOA|1|VOA8260BS|
Misc : LANL 5.3G N/A SOIL
ALS Vial : 34 Sample Multiplier: 1

Quant Time: Dec 18 15:06:26 2009
Quant Method : C:\msdchem\1\METHODS\VOAA-8260-110609.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Nov 09 16:21:09 2009
Response via : Initial Calibration
Integrator: RTE

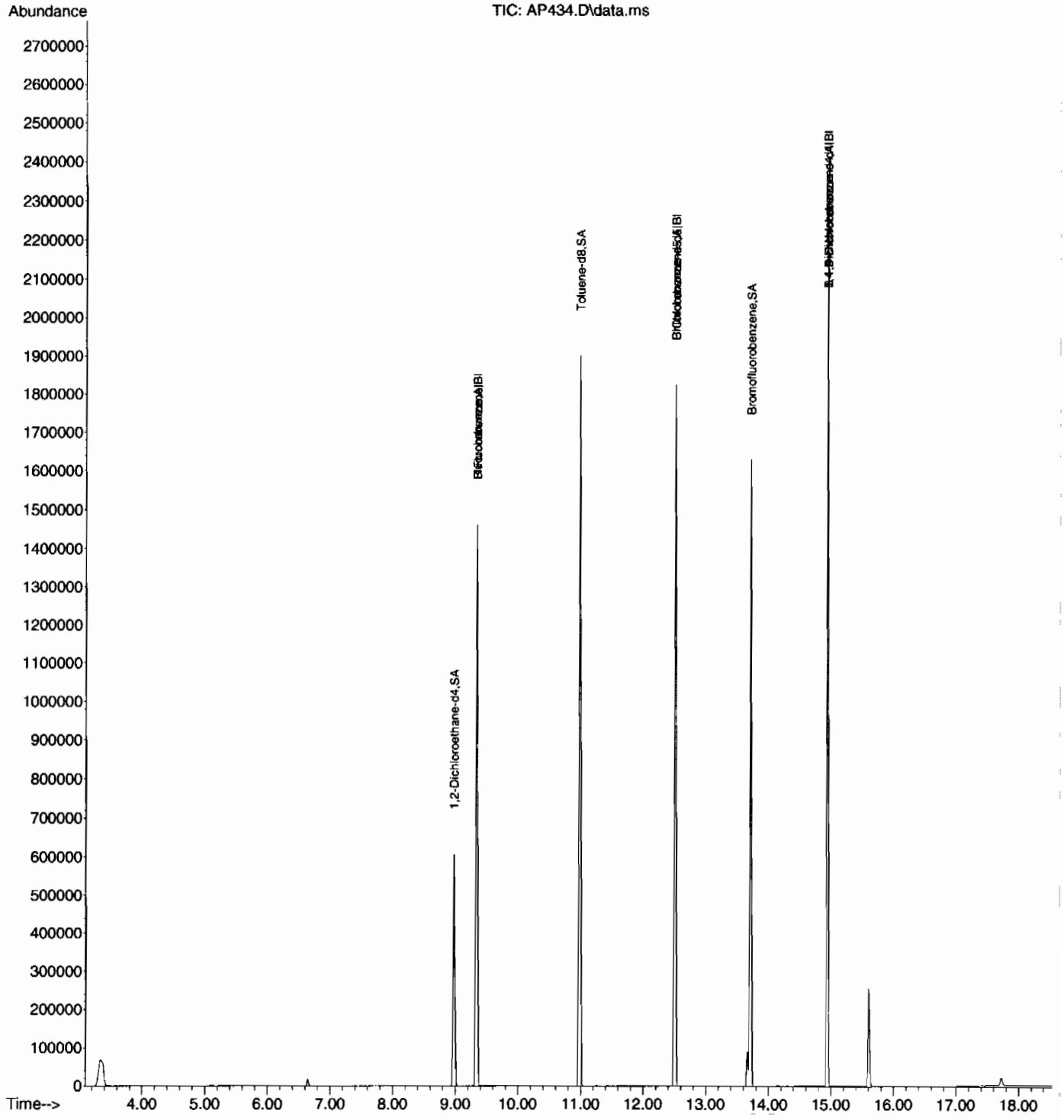

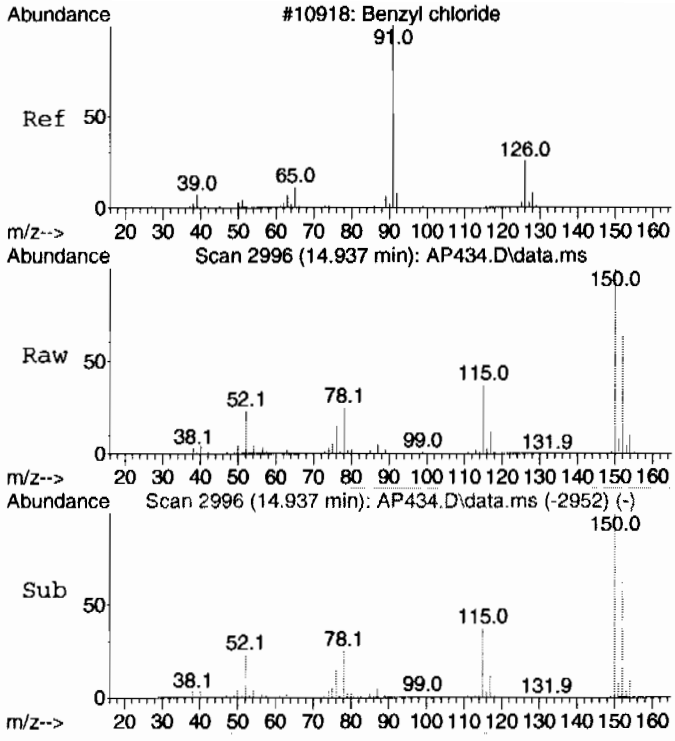

#111 BEFORE analyst DELETION
Benzyl chloride
Concen: 4.46 ug/L
RT: 14.937 min Scan# 2996
Delta R.T. -0.145 min
Lab File: AP434.D
Acq: 18 Dec 2009 7:13 am

Tgt Ion: 91 Resp: 1122

Ion	Ratio	Lower	Upper
91	100		
126	0.0	0.0	52.0
65	384.0	0.0	41.2#

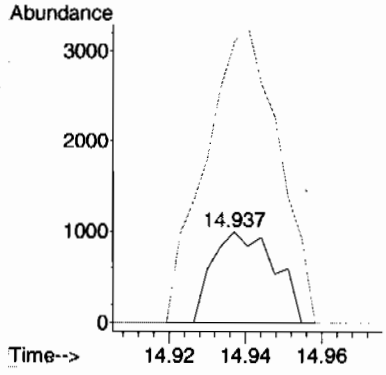

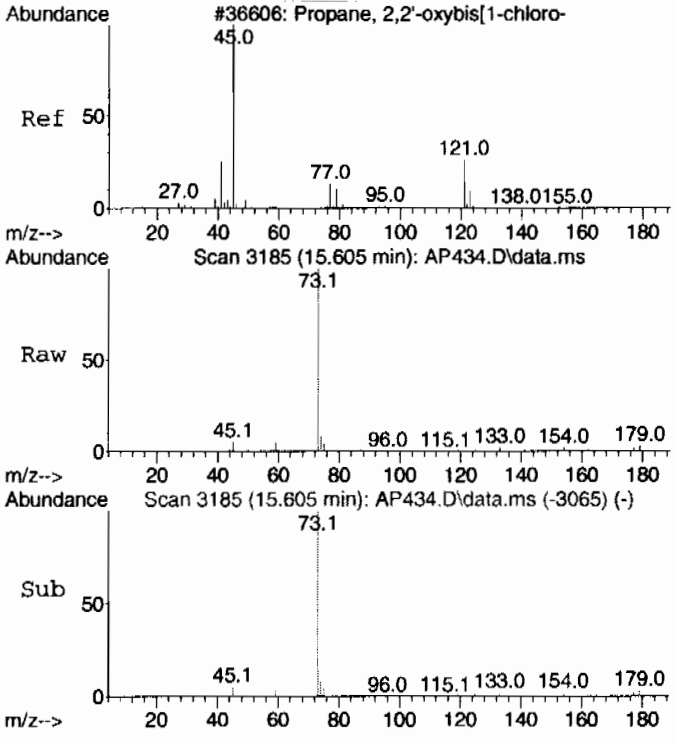

#112 BEFORE analyst DELETION
bis(2-Chloroisopropyl)ether
Concen: 4.29 ug/L
RT: 15.605 min Scan# 3185
Delta R.T. 0.124 min
Lab File: AP434.D
Acq: 18 Dec 2009 7:13 am

Tgt Ion: 45 Resp: 16316

Ion	Ratio	Lower	Upper
45	100		
121	0.0	0.0	56.8

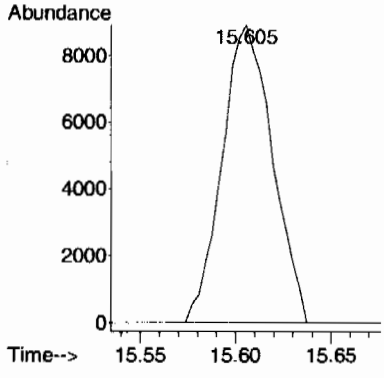

Library Search Compound Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709\
Data File : AP434.D
Acq On : 18 Dec 2009 7:13 am
Operator : JEB
Sample : |242654013|934516|1|VOA|1|VOA8260BS|
Misc : LANL 5.3G N/A SOIL
ALS Vial : 34 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\VOAA-8260-110609.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

****
Peak Number 1 unknown Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
3.339	7.37 ug/L	381033	Fluorobenzene	9.339

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Dimethyl ether	46	C2H6O	000115-10-6	5
2	Ethyl alcohol	46	C2H6O	000064-17-5	4
3	Ethyl alcohol	46	C2H6O	000064-17-5	4
4	Ethyl alcohol	46	C2H6O	000064-17-5	4
5	Dimethyl ether	46	C2H6O	000115-10-6	2

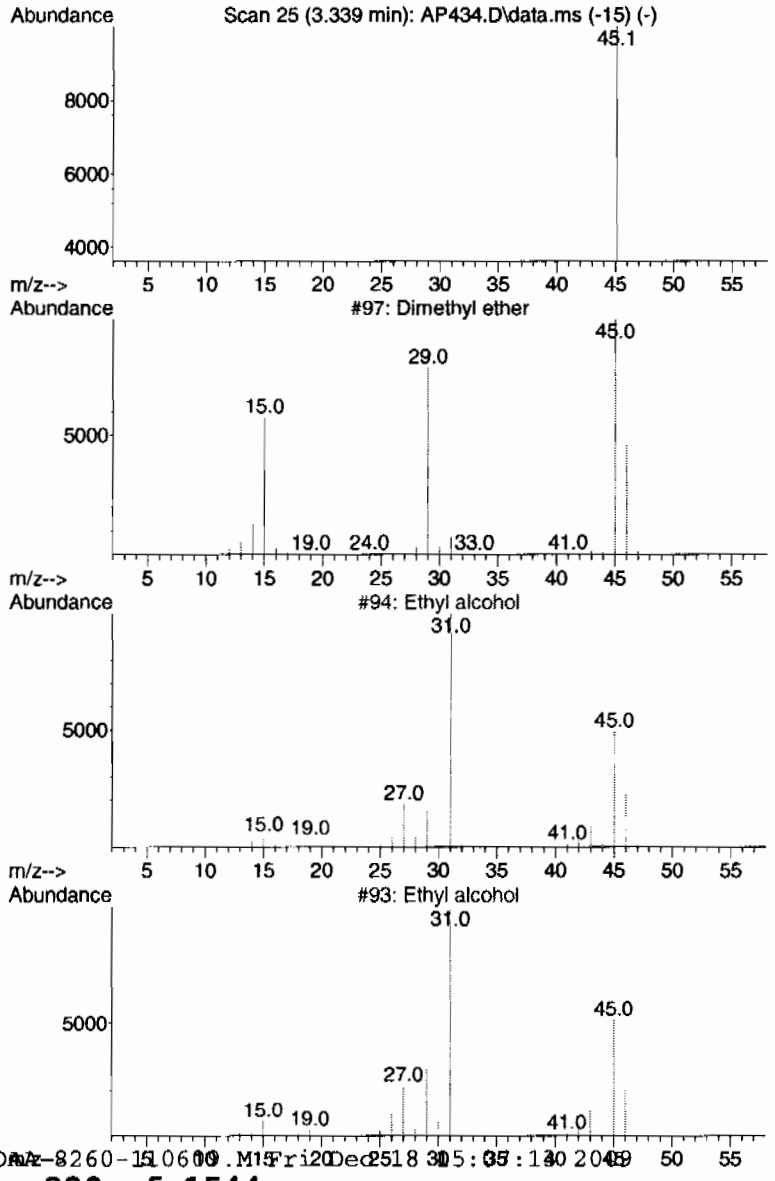

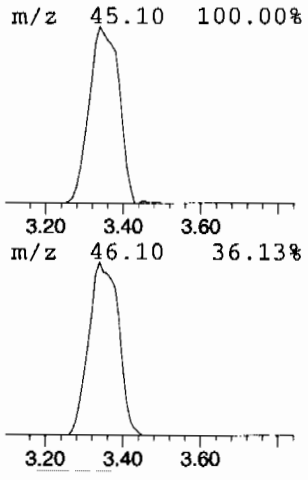

Library Search Compound Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709\
Data File : AP434.D
Acq On : 18 Dec 2009 7:13 am
Operator : JEB
Sample : |242654013|934516|1|VOA|1|VOA8260BS|
Misc : LANL 5.3G N/A SOIL
ALS Vial : 34 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\VOAA-8260-110609.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

****
Peak Number 2 unknown siloxane Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
15.605	6.55 ug/L	453106	B 1,4-Dichlorobenzene-d4	14.941

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclopropane, 2-methylene-1-pent...	196	C12H24Si	167300-47-2	9
2	1-Propene-1-thiol	74	C3H6S	000925-89-3	4
3	Thiocyanic acid, methyl ester	73	C2H3NS	000556-64-9	4
4	Thiocyanic acid, methyl ester	73	C2H3NS	000556-64-9	4
5	1,5-Heptadiene, 1,5-bis(trimethy...	252	C14H28Si2	1000153-97-1	4

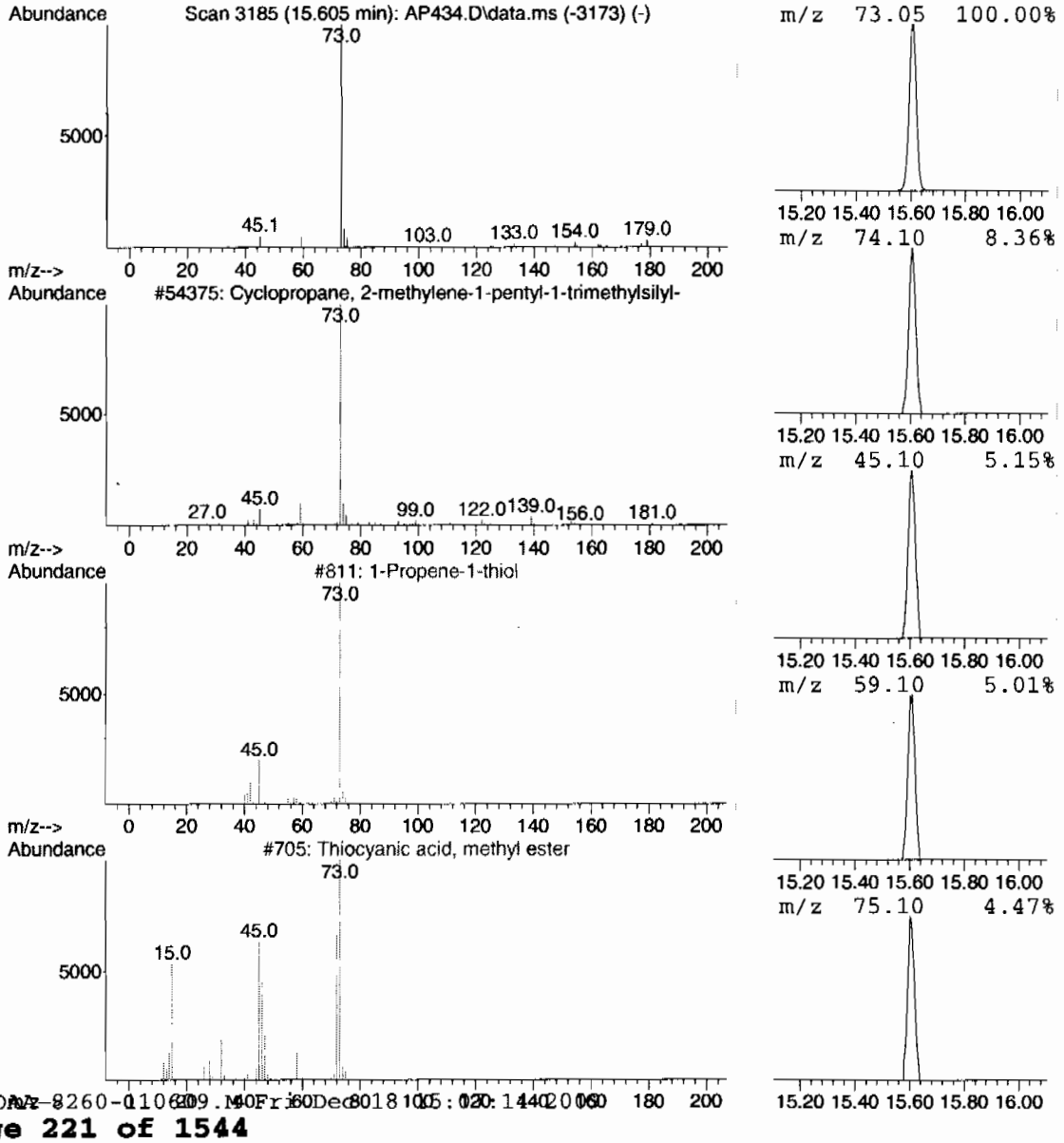

Tentatively Identified Compound (LSC) summary
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709\
Data File : AP434.D
Acq On : 18 Dec 2009 7:13 am
Operator : JEB
Sample : |242654013|934516|1|VOA|1|VOA8260BS|
Misc : LANL 5.3G N/A SOIL
ALS Vial : 34 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\VOAA-8260-110609.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

TIC Top Hit name	RT	EstConc	Units	Response	--Internal Standard--- #	RT	Resp	Conc
unknown	3.339	7.4	ug/L	381033	1	9.339	2584730	50.0
unknown siloxane	15.605	6.5	ug/L	453106	6	14.941	3459950	50.0

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242654014	**Date Received:**	12/10/2009 08:50	**%Moisture:**	10.7
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14269	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	934516	**Inst:**	VOAA.I	**Dilution:**	1
Run Date:	12/18/2009 07:39	**Analyst:**	JEB	**Purge Vol:**	5 mL
Prep Date:	12/17/2009 19:26	**Aliquot:**	5.4 g	**Final Volume:**	5 mL
Data File:	121709\AP435.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.04	ug/kg	0.352	1.04
74-87-3	Chloromethane	U	1.04	ug/kg	0.311	1.04
75-01-4	Vinyl chloride	U	1.04	ug/kg	0.311	1.04
74-83-9	Bromomethane	U	1.04	ug/kg	0.311	1.04
75-00-3	Chloroethane	U	1.04	ug/kg	0.311	1.04
75-69-4	Trichlorofluoromethane	U	1.04	ug/kg	0.311	1.04
67-64-1	Acetone		9.66	ug/kg	1.72	5.18
75-35-4	1,1-Dichloroethylene	U	1.04	ug/kg	0.311	1.04
74-88-4	Iodomethane	U	5.18	ug/kg	1.66	5.18
75-09-2	Methylene chloride	U	5.18	ug/kg	2.07	5.18
75-15-0	Carbon disulfide	U	5.18	ug/kg	1.30	5.18
156-60-5	trans-1,2-Dichloroethylene	U	1.04	ug/kg	0.311	1.04
75-34-3	1,1-Dichloroethane	U	1.04	ug/kg	0.311	1.04
78-93-3	2-Butanone	U	5.18	ug/kg	1.56	5.18
156-59-2	cis-1,2-Dichloroethylene	U	1.04	ug/kg	0.311	1.04
594-20-7	2,2-Dichloropropane	U	1.04	ug/kg	0.311	1.04
67-66-3	Chloroform	U	1.04	ug/kg	0.311	1.04
74-97-5	Bromochloromethane	U	1.04	ug/kg	0.342	1.04
71-55-6	1,1,1-Trichloroethane	U	1.04	ug/kg	0.311	1.04
563-58-6	1,1-Dichloropropene	U	1.04	ug/kg	0.311	1.04
56-23-5	Carbon tetrachloride	U	1.04	ug/kg	0.311	1.04
107-06-2	1,2-Dichloroethane	U	1.04	ug/kg	0.311	1.04
71-43-2	Benzene	U	1.04	ug/kg	0.311	1.04
79-01-6	Trichloroethylene	U	1.04	ug/kg	0.342	1.04
78-87-5	1,2-Dichloropropane	U	1.04	ug/kg	0.311	1.04
75-27-4	Bromodichloromethane	U	1.04	ug/kg	0.311	1.04
74-95-3	Dibromomethane	U	1.04	ug/kg	0.311	1.04
108-10-1	4-Methyl-2-pentanone	U	5.18	ug/kg	1.30	5.18
10061-01-5	cis-1,3-Dichloropropylene	U	1.04	ug/kg	0.311	1.04
108-88-3	Toluene	U	1.04	ug/kg	0.311	1.04
10061-02-6	trans-1,3-Dichloropropylene	U	1.04	ug/kg	0.311	1.04
79-00-5	1,1,2-Trichloroethane	U	1.04	ug/kg	0.311	1.04
591-78-6	2-Hexanone	U	5.18	ug/kg	1.56	5.18
142-28-9	1,3-Dichloropropane	U	1.04	ug/kg	0.311	1.04
127-18-4	Tetrachloroethylene	U	1.04	ug/kg	0.311	1.04
124-48-1	Dibromochloromethane	U	1.04	ug/kg	0.311	1.04
106-93-4	1,2-Dibromoethane	U	1.04	ug/kg	0.311	1.04
108-90-7	Chlorobenzene	U	1.04	ug/kg	0.311	1.04

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-852**	**Date Collected:**	**12/07/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242654014**	**Date Received:**	**12/10/2009 08:50**	**%Moisture:**	**10.7**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14269**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**934516**	**Inst:**	**VOAA.I**	**Dilution:**	**1**
Run Date:	**12/18/2009 07:39**	**Analyst:**	**JEB**	**Purge Vol:**	**5 mL**
Prep Date:	**12/17/2009 19:26**	**Aliquot:**	**5.4 g**	**Final Volume:**	**5 mL**
Data File:	**121709\AP435.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.04	ug/kg	0.311	1.04
179601-23-1	m,p-Xylenes	U	2.07	ug/kg	0.311	2.07
95-47-6	o-Xylene	U	1.04	ug/kg	0.311	1.04
100-42-5	Styrene	U	1.04	ug/kg	0.311	1.04
75-25-2	Bromoform	U	1.04	ug/kg	0.311	1.04
79-34-5	1,1,2,2-Tetrachloroethane	U	1.04	ug/kg	0.311	1.04
96-18-4	1,2,3-Trichloropropane	U	1.04	ug/kg	0.311	1.04
108-86-1	Bromobenzene	U	1.04	ug/kg	0.311	1.04
103-65-1	n-Propylbenzene	U	1.04	ug/kg	0.311	1.04
95-49-8	2-Chlorotoluene	U	1.04	ug/kg	0.311	1.04
98-82-8	Isopropylbenzene	U	1.04	ug/kg	0.311	1.04
108-67-8	1,3,5-Trimethylbenzene	U	1.04	ug/kg	0.311	1.04
106-43-4	4-Chlorotoluene	U	1.04	ug/kg	0.311	1.04
98-06-6	tert-Butylbenzene	U	1.04	ug/kg	0.311	1.04
95-63-6	1,2,4-Trimethylbenzene	U	1.04	ug/kg	0.311	1.04
135-98-8	sec-Butylbenzene	U	1.04	ug/kg	0.311	1.04
99-87-6	4-Isopropyltoluene	U	1.04	ug/kg	0.311	1.04
541-73-1	1,3-Dichlorobenzene	U	1.04	ug/kg	0.311	1.04
106-46-7	1,4-Dichlorobenzene	U	1.04	ug/kg	0.311	1.04
104-51-8	n-Butylbenzene	U	1.04	ug/kg	0.311	1.04
96-12-8	1,2-Dibromo-3-chloropropane	U	1.04	ug/kg	0.311	1.04
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.18	ug/kg	1.66	5.18
630-20-6	1,1,1,2-Tetrachloroethane	U	1.04	ug/kg	0.311	1.04
95-50-1	1,2-Dichlorobenzene	U	1.04	ug/kg	0.311	1.04

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown	3.33	6.22	ug/kg	0	J

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709\
Data File : AP435.D
Acq On : 18 Dec 2009 7:39 am
Operator : JEB
InstName : VOAA
Sample : |242654014|934516|1|VOA|1|VOA8260BS|
Misc : LANL 5.4G N/A SOIL
ALS Vial : 35 Sample Multiplier: 1

Quant Time: Dec 18 15:07:49 2009
Quant Method : C:\msdchem\1\METHODS\VOAA-8260-110609.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Nov 09 16:21:09 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Fluorobenzene	9.339	96	1169431	50.00 ug/L	0.00
41) Chlorobenzene-d5	12.508	117	946844	50.00 ug/L	0.00
58) 1,4-Dichlorobenzene-d4	14.941	152	597326	50.00 ug/L	0.00
82) B Fluorobenzene	9.339	96	1169431	50.00 ug/L	0.00
103) B Chlorobenzene-d5	12.508	117	946844	50.00 ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	14.941	152	597326	50.00 ug/L	0.00
System Monitoring Compounds					
29) 1,2-Dichloroethane-d4	8.978	65	456076	56.14 ug/L	0.00
Spiked Amount 50.000	Range 68 - 131		Recovery = 112.28%		
43) Toluene-d8	10.983	98	1132412	47.11 ug/L	0.00
Spiked Amount 50.000	Range 75 - 129		Recovery = 94.22%		
61) Bromofluorobenzene	13.710	95	484566	45.03 ug/L	0.00
Spiked Amount 50.000	Range 68 - 133		Recovery = 90.06%		
Target Compounds					Qvalue
2) Dichlorodifluoromethane	0.000		0	N.D.	
3) Chloromethane	0.000		0	N.D.	
4) Vinyl chloride	0.000		0	N.D.	
5) Bromomethane	0.000		0	N.D.	
6) Chloroethane	0.000		0	N.D.	
7) Trichlorofluoromethane	0.000		0	N.D.	
8) Ethyl ether	0.000		0	N.D.	
9) Acetone	6.085	43	44187	9.32 ug/L	84
10) 1,1-Dichloroethylene	0.000		0	N.D.	
11) Iodomethane	0.000		0	N.D.	
12) Acetonitrile	0.000		0	N.D.	
13) Methyl acetate	0.000		0	N.D.	
14) Carbon disulfide	6.428	76	229	N.D.	
15) Methylene chloride	6.651	84	7029	Below Cal	86
16) tert-Butyl methyl ether	0.000		0	N.D.	
17) trans-1,2-Dichloroethy...	0.000		0	N.D.	
18) Vinyl acetate	0.000		0	N.D.	
19) 1,1-Dichloroethane	0.000		0	N.D.	
20) 2-Butanone	8.073	43	1028	N.D.	
21) cis-1,2-Dichloroethylene	0.000		0	N.D.	
22) 2,2-Dichloropropane	0.000		0	N.D.	
23) Bromochloromethane	0.000		0	N.D.	
24) Chloroform	0.000		0	N.D.	
25) 1,1,1-Trichloroethane	0.000		0	N.D.	
26) Cyclohexane	0.000		0	N.D.	
27) 1,1-Dichloropropene	0.000		0	N.D.	
28) Carbon tetrachloride	0.000		0	N.D.	
30) 1,2-Dichloroethane	0.000		0	N.D.	
31) Benzene	0.000		0	N.D.	
32) Cyclohexene	0.000		0	N.D.	
33) n-Butyl alcohol	0.000		0m	N.D. d	
34) Trichloroethylene	0.000		0	N.D.	
35) 1,2-Dichloropropane	0.000		0	N.D.	
36) Methylcyclohexane	0.000		0	N.D.	
37) Dibromomethane	0.000		0	N.D.	
38) Bromodichloromethane	0.000		0	N.D.	
39) 2-Chloroethylvinyl ether	0.000		0	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709\
Data File : AP435.D
Acq On : 18 Dec 2009 7:39 am
Operator : JEB
InstName : VOAA
Sample : |242654014|934516|1|VOA|1|VOA8260BS|
Misc : LANL 5.4G N/A SOIL
ALS Vial : 35 Sample Multiplier: 1

Quant Time: Dec 18 15:07:49 2009
Quant Method : C:\msdchem\1\METHODS\VOAA-8260-110609.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Nov 09 16:21:09 2009
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	QIon	Response	Conc Units Dev(Min)
40)	cis-1,3-Dichloropropylene	0.000		0	N.D.
42)	4-Methyl-2-pentanone	0.000		0	N.D.
44)	Toluene	11.054	91	223	N.D.
45)	trans-1,3-Dichloroprop...	0.000		0	N.D.
46)	1,1,2-Trichloroethane	0.000		0	N.D.
47)	2-Hexanone	0.000		0	N.D.
48)	1,3-Dichloropropane	0.000		0	N.D.
49)	Tetrachloroethylene	0.000		0	N.D.
50)	Dibromochloromethane	0.000		0	N.D.
51)	1,2-Dibromoethane	0.000		0	N.D.
52)	Chlorobenzene	0.000		0	N.D.
53)	1,1,1,2-Tetrachloroethane	0.000		0	N.D.
54)	Ethylbenzene	12.720	91	119	N.D.
55)	m,p-Xylenes	0.000		0	N.D.
56)	o-Xylene	0.000		0	N.D.
57)	Styrene	0.000		0	N.D.
59)	Bromoform	0.000		0	N.D.
60)	Isopropylbenzene	0.000		0	N.D.
62)	1,1,2,2-Tetrachloroethane	0.000		0	N.D.
63)	1,2,3-Trichloropropane	0.000		0	N.D.
64)	Bromobenzene	0.000		0	N.D.
65)	n-Propylbenzene	13.713	91	1414	N.D.
66)	1,3,5-Trimethylbenzene	0.000		0	N.D.
67)	2-Chlorotoluene	0.000		0	N.D.
68)	4-Chlorotoluene	0.000		0	N.D.
69)	tert-Butylbenzene	0.000		0	N.D.
70)	1,2,4-Trimethylbenzene	0.000		0	N.D.
71)	sec-Butylbenzene	0.000		0	N.D.
72)	4-Isopropyltoluene	0.000		0	N.D.
73)	1,3-Dichlorobenzene	0.000		0	N.D.
74)	1,4-Dichlorobenzene	0.000		0	N.D.
75)	n-Butylbenzene	0.000		0	N.D.
76)	1,2-Dichlorobenzene	0.000		0	N.D.
77)	1,2-Dibromo-3-chloropr...	0.000		0	N.D.
78)	1,2,4-Trichlorobenzene	17.183	180	245	N.D.
79)	Hexachlorobutadiene	0.000		0	N.D.
80)	Naphthalene	17.530	128	1363	N.D.
81)	1,2,3-Trichlorobenzene	0.000		0	N.D.
83)	Chlorotrifluoroethylene	0.000		0	N.D.
84)	2-Chloro-1,1,1-trifluo...	0.000		0	N.D.
85)	Acrolein	0.000		0	N.D.
86)	Trichlorotrifluoroethane	0.000		0	N.D.
87)	Isopropyl Alcohol	0.000		0	N.D.
88)	Allyl chloride	0.000		0	N.D.
89)	tert-Butyl Alcohol	0.000		0	N.D.
90)	Acrylonitrile	0.000		0	N.D.
91)	Isopropyl ether	0.000		0	N.D.
92)	2-Chloro-1,3-butadiene	0.000		0	N.D.
93)	Ethyl tert-butyl ether	0.000		0	N.D.
94)	Ethyl acetate	8.073	43	1028	N.D.
95)	Propionitrile	0.000		0	N.D.
96)	Methacrylonitrile	0.000		0	N.D.
97)	Tetrahydrofuran	0.000		0	N.D.
98)	Isobutyl alcohol	0.000		0	N.D.

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709\
Data File : AP435.D
Acq On : 18 Dec 2009 7:39 am
Operator : JEB
InstName : VOAA
Sample : |242654014|934516|1|VOA|1|VOA8260BS|
Misc : LANL 5.4G N/A SOIL
ALS Vial : 35 Sample Multiplier: 1

Quant Time: Dec 18 15:07:49 2009
Quant Method : C:\msdchem\1\METHODS\VOAA-8260-110609.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Nov 09 16:21:09 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
99) Methyl tert-amyl ether	0.000		0	N.D.		
100) Methyl methacrylate	0.000		0	N.D.		
101) 1,4-Dioxane	0.000		0	N.D.		
102) 2-Nitropropane	0.000		0	N.D.		
104) Ethyl methacrylate	0.000		0	N.D.		
106) 1-Chlorohexane	0.000		0	N.D.		
107) cis-1,4-Dichloro-2-butene	0.000		0	N.D.		
108) Cyclohexanone	0.000		0	N.D.		
109) trans-1,4-Dichloro-2-b...	0.000		0	N.D.		
110) Pentachloroethane	0.000		0	N.D.		
111) Benzyl chloride	0.000		0m	N.D.	d	
112) bis(2-Chloroisopropyl)...	0.000		0	N.D.		

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709\
Data File : AP435.D
Acq On : 18 Dec 2009 7:39 am
Operator : JEB
InstName : VOAA
Sample : |242654014|934516|1|VOA|1|VOA8260BS|
Misc : LANL 5.4G N/A SOIL
ALS Vial : 35 Sample Multiplier: 1

Quant Time: Dec 18 15:07:49 2009
Quant Method : C:\msdchem\1\METHODS\VOAA-8260-110609.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Nov 09 16:21:09 2009
Response via : Initial Calibration
Integrator: RTE

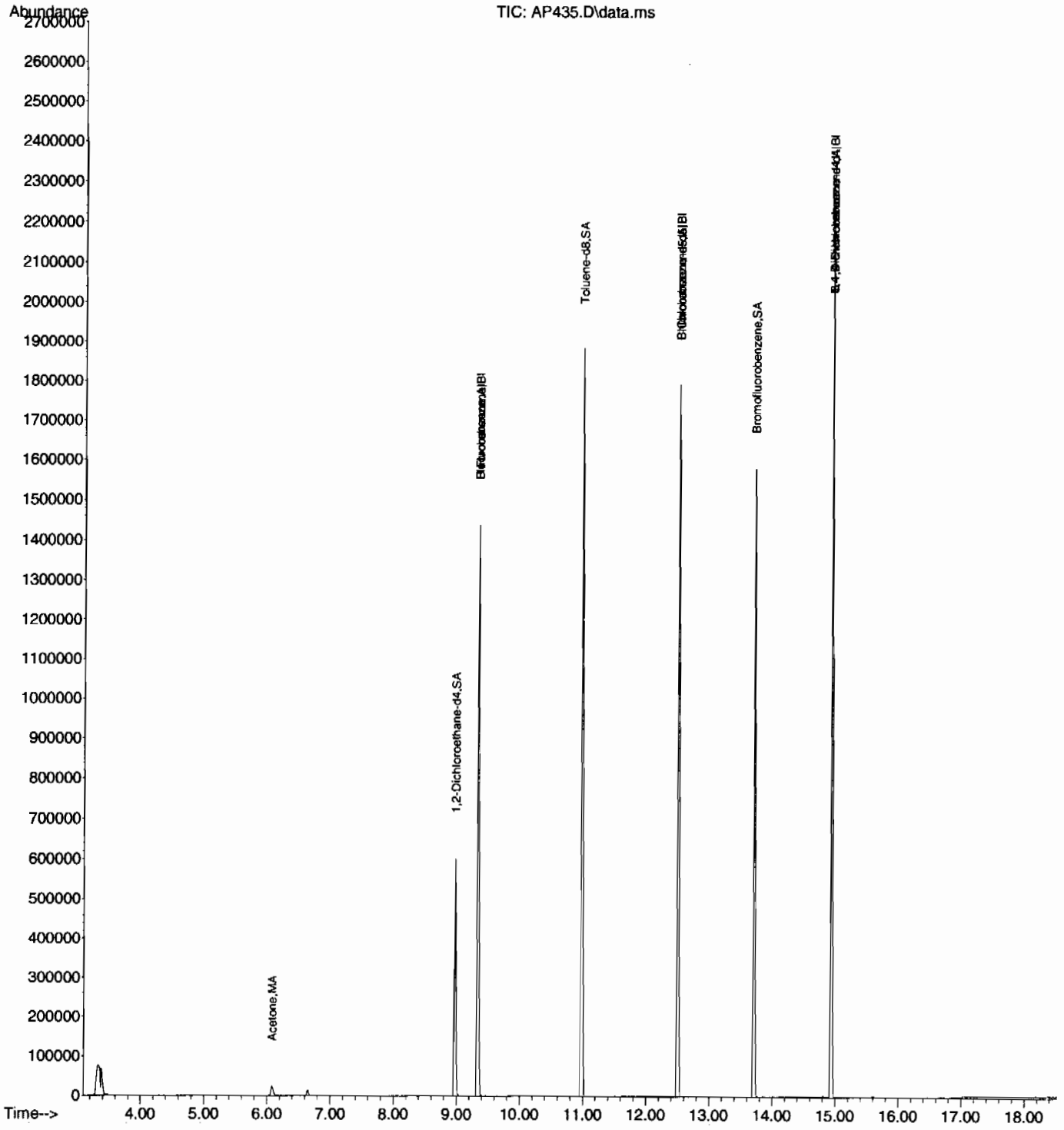

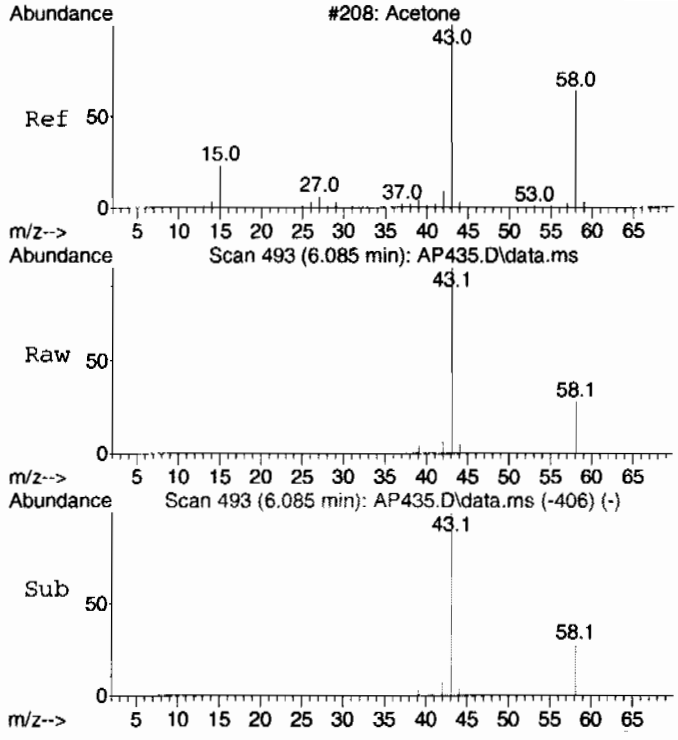

#9
Acetone
Concen: 9.32 ug/L
RT: 6.085 min Scan# 493
Delta R.T. 0.007 min
Lab File: AP435.D
Acq: 18 Dec 2009 7:39 am

Tgt Ion: 43 Resp: 44187

Ion	Ratio	Lower	Upper
43	100		
58	27.3	6.7	66.7

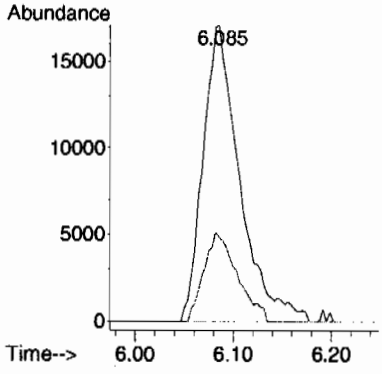

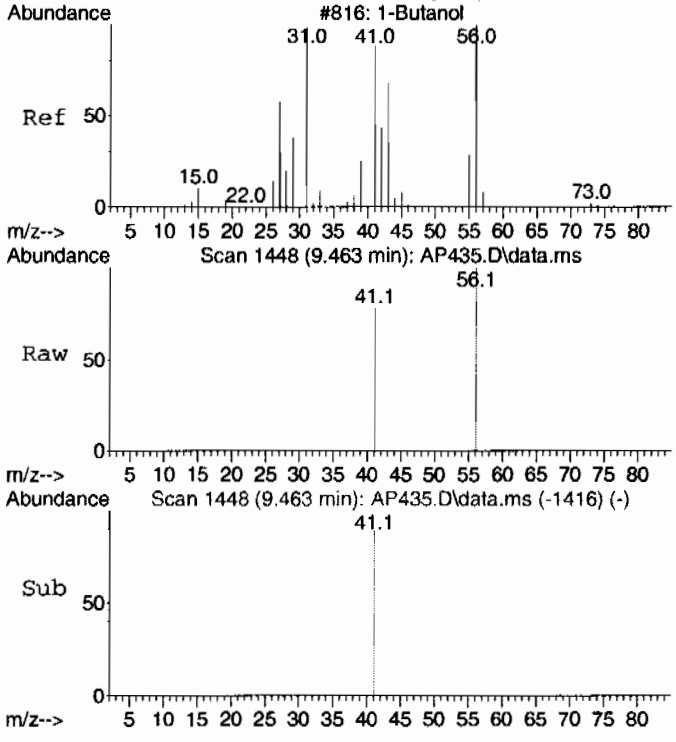

#33 BEFORE analyst DELETION
n-Butyl alcohol
Concen: 97.93 ug/L
RT: 9.463 min Scan# 1448
Delta R.T. 0.004 min
Lab File: AP435.D
Acq: 18 Dec 2009 7:39 am

Tgt Ion: 56 Resp: 359

Ion	Ratio	Lower	Upper
56	100		
41	0.0	27.8	87.8#
43	0.0	17.9	77.9#

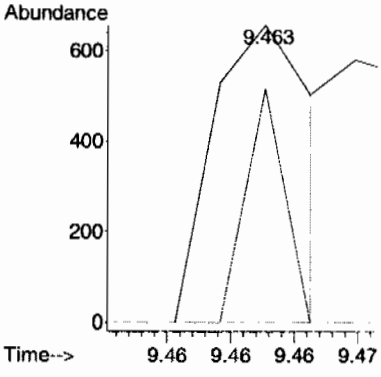

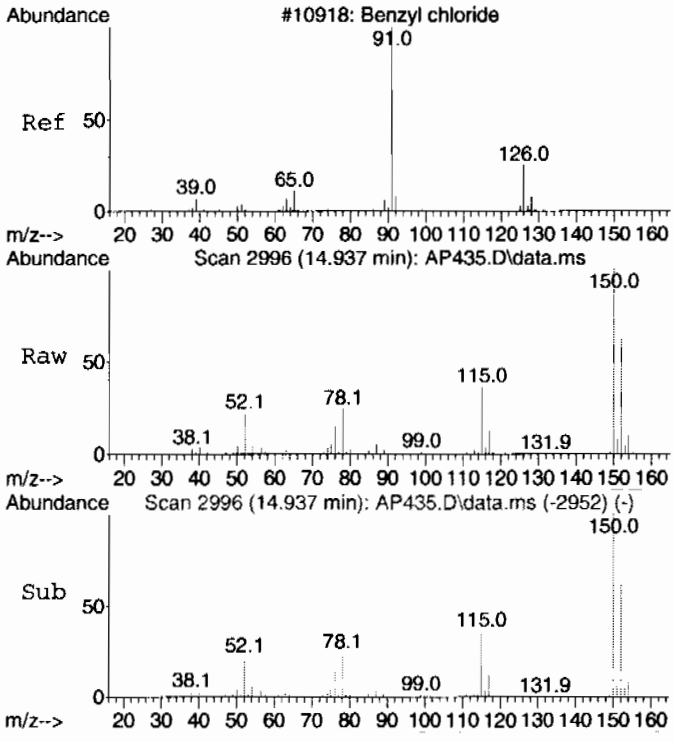

#111 BEFORE analyst DELETION
Benzyl chloride
Concen: 4.45 ug/L
RT: 14.937 min Scan# 2996
Delta R.T. -0.145 min
Lab File: AP435.D
Acq: 18 Dec 2009 7:39 am

Tgt Ion: 91 Resp: 1042

Ion	Ratio	Lower	Upper
91	100		
126	0.0	0.0	52.0
65	395.5	0.0	41.2#

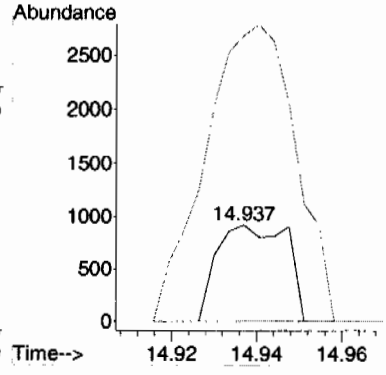

Library Search Compound Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709\
Data File : AP435.D
Acq On : 18 Dec 2009 7:39 am
Operator : JEB
Sample : |242654014|934516|1|VOA|1|VOA8260BS|
Misc : LANL 5.4G N/A SOIL
ALS Vial : 35 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\VOAA-8260-110609.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

****
Peak Number 1 unknown Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
3.329	6.00 ug/L	303238	Fluorobenzene	9.339

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Dimethyl ether	46	C2H6O	000115-10-6	5
2	Ethyl alcohol	46	C2H6O	000064-17-5	4
3	Ethyl alcohol	46	C2H6O	000064-17-5	4
4	Ethyl alcohol	46	C2H6O	000064-17-5	4
5	Formic acid	46	CH2O2	000064-18-6	3

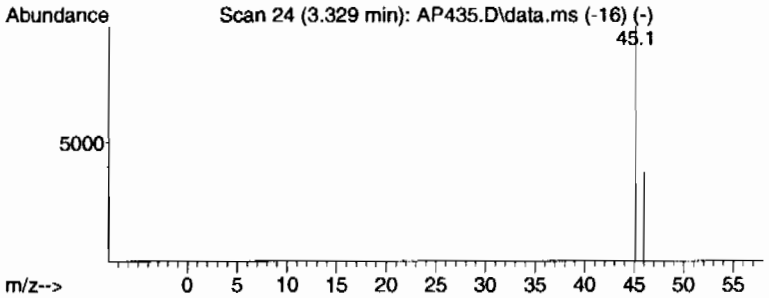

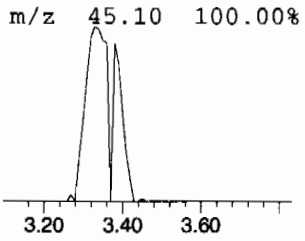

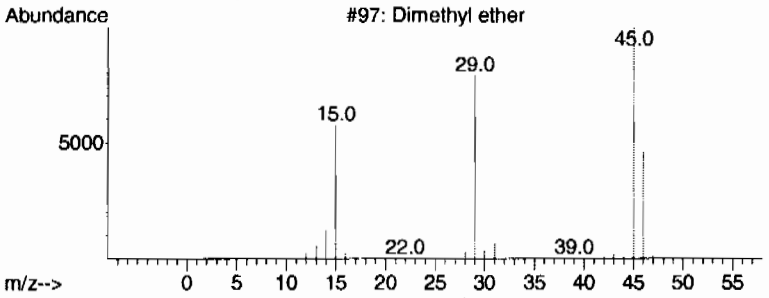

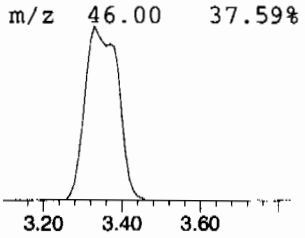

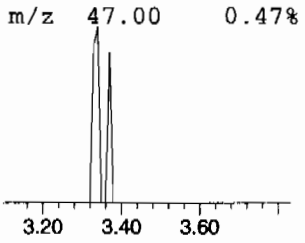

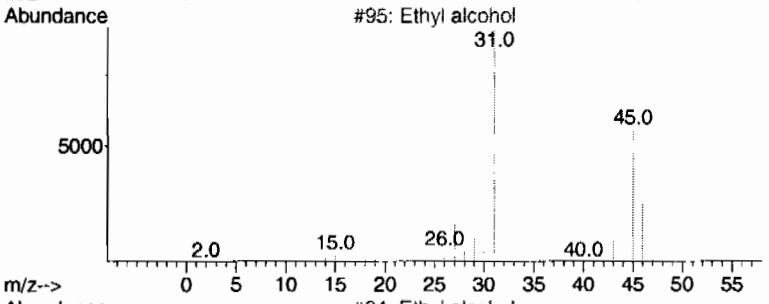

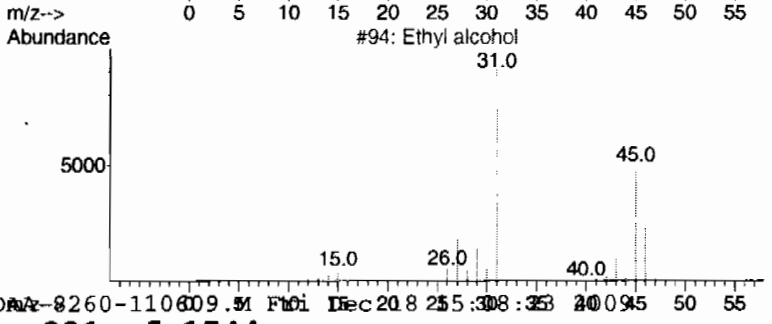

Tentatively Identified Compound (LSC) summary
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709\
Data File : AP435.D
Acq On : 18 Dec 2009 7:39 am
Operator : JEB
Sample : |242654014|934516|1|VOA|1|VOA8260BS|
Misc : LANL 5.4G N/A SOIL
ALS Vial : 35 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\VOAA-8260-110609.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

TIC Top Hit name	RT	EstConc	Units	Response	--Internal Standard--- #	RT	Resp	Conc
unknown	3.329	6.0	ug/L	303238	1	9.339	2528300	50.0

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242654015	**Date Received:**	12/10/2009 08:50	**%Moisture:**	10.3
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14273	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	934516	**Inst:**	VOAA.I	**Dilution:**	1
Run Date:	12/18/2009 08:05	**Analyst:**	JEB	**Purge Vol:**	5 mL
Prep Date:	12/17/2009 19:27	**Aliquot:**	5.2 g	**Final Volume:**	5 mL
Data File:	121709\AP436.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.07	ug/kg	0.365	1.07
74-87-3	Chloromethane		41.8	ug/kg	0.322	1.07
75-01-4	Vinyl chloride	U	1.07	ug/kg	0.322	1.07
74-83-9	Bromomethane	U	1.07	ug/kg	0.322	1.07
75-00-3	Chloroethane	U	1.07	ug/kg	0.322	1.07
75-69-4	Trichlorofluoromethane	U	1.07	ug/kg	0.322	1.07
67-64-1	Acetone	U	5.36	ug/kg	1.78	5.36
75-35-4	1,1-Dichloroethylene	U	1.07	ug/kg	0.322	1.07
74-88-4	Iodomethane	U	5.36	ug/kg	1.72	5.36
75-09-2	Methylene chloride	U	5.36	ug/kg	2.14	5.36
75-15-0	Carbon disulfide	U	5.36	ug/kg	1.34	5.36
156-60-5	trans-1,2-Dichloroethylene	U	1.07	ug/kg	0.322	1.07
75-34-3	1,1-Dichloroethane	U	1.07	ug/kg	0.322	1.07
78-93-3	2-Butanone	U	5.36	ug/kg	1.61	5.36
156-59-2	cis-1,2-Dichloroethylene	U	1.07	ug/kg	0.322	1.07
594-20-7	2,2-Dichloropropane	U	1.07	ug/kg	0.322	1.07
67-66-3	Chloroform	U	1.07	ug/kg	0.322	1.07
74-97-5	Bromochloromethane	U	1.07	ug/kg	0.354	1.07
71-55-6	1,1,1-Trichloroethane	U	1.07	ug/kg	0.322	1.07
563-58-6	1,1-Dichloropropene	U	1.07	ug/kg	0.322	1.07
56-23-5	Carbon tetrachloride	U	1.07	ug/kg	0.322	1.07
107-06-2	1,2-Dichloroethane	U	1.07	ug/kg	0.322	1.07
71-43-2	Benzene	U	1.07	ug/kg	0.322	1.07
79-01-6	Trichloroethylene	U	1.07	ug/kg	0.354	1.07
78-87-5	1,2-Dichloropropane	U	1.07	ug/kg	0.322	1.07
75-27-4	Bromodichloromethane	U	1.07	ug/kg	0.322	1.07
74-95-3	Dibromomethane	U	1.07	ug/kg	0.322	1.07
108-10-1	4-Methyl-2-pentanone	U	5.36	ug/kg	1.34	5.36
10061-01-5	cis-1,3-Dichloropropylene	U	1.07	ug/kg	0.322	1.07
108-88-3	Toluene	U	1.07	ug/kg	0.322	1.07
10061-02-6	trans-1,3-Dichloropropylene	U	1.07	ug/kg	0.322	1.07
79-00-5	1,1,2-Trichloroethane	U	1.07	ug/kg	0.322	1.07
591-78-6	2-Hexanone	U	5.36	ug/kg	1.61	5.36
142-28-9	1,3-Dichloropropane	U	1.07	ug/kg	0.322	1.07
127-18-4	Tetrachloroethylene	U	1.07	ug/kg	0.322	1.07
124-48-1	Dibromochloromethane	U	1.07	ug/kg	0.322	1.07
106-93-4	1,2-Dibromoethane	U	1.07	ug/kg	0.322	1.07
108-90-7	Chlorobenzene	U	1.07	ug/kg	0.322	1.07

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242654015	**Date Received:**	12/10/2009 08:50	**%Moisture:**	10.3
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14273	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	934516	**Inst:**	VOAA.I	**Dilution:**	1
Run Date:	12/18/2009 08:05	**Analyst:**	JEB	**Purge Vol:**	5 mL
Prep Date:	12/17/2009 19:27	**Aliquot:**	5.2 g	**Final Volume:**	5 mL
Data File:	121709\AP436.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.07	ug/kg	0.322	1.07
179601-23-1	m,p-Xylenes	U	2.14	ug/kg	0.322	2.14
95-47-6	o-Xylene	U	1.07	ug/kg	0.322	1.07
100-42-5	Styrene	U	1.07	ug/kg	0.322	1.07
75-25-2	Bromoform	U	1.07	ug/kg	0.322	1.07
79-34-5	1,1,2,2-Tetrachloroethane	U	1.07	ug/kg	0.322	1.07
96-18-4	1,2,3-Trichloropropane	U	1.07	ug/kg	0.322	1.07
108-86-1	Bromobenzene	U	1.07	ug/kg	0.322	1.07
103-65-1	n-Propylbenzene	U	1.07	ug/kg	0.322	1.07
95-49-8	2-Chlorotoluene	U	1.07	ug/kg	0.322	1.07
98-82-8	Isopropylbenzene	U	1.07	ug/kg	0.322	1.07
108-67-8	1,3,5-Trimethylbenzene	U	1.07	ug/kg	0.322	1.07
106-43-4	4-Chlorotoluene	U	1.07	ug/kg	0.322	1.07
98-06-6	tert-Butylbenzene	U	1.07	ug/kg	0.322	1.07
95-63-6	1,2,4-Trimethylbenzene	U	1.07	ug/kg	0.322	1.07
135-98-8	sec-Butylbenzene	U	1.07	ug/kg	0.322	1.07
99-87-6	4-Isopropyltoluene	U	1.07	ug/kg	0.322	1.07
541-73-1	1,3-Dichlorobenzene	U	1.07	ug/kg	0.322	1.07
106-46-7	1,4-Dichlorobenzene	U	1.07	ug/kg	0.322	1.07
104-51-8	n-Butylbenzene	U	1.07	ug/kg	0.322	1.07
96-12-8	1,2-Dibromo-3-chloropropane	U	1.07	ug/kg	0.322	1.07
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.36	ug/kg	1.72	5.36
630-20-6	1,1,1,2-Tetrachloroethane	U	1.07	ug/kg	0.322	1.07
95-50-1	1,2-Dichlorobenzene	U	1.07	ug/kg	0.322	1.07

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown	3.35	12.9	ug/kg	0	J

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709\
Data File : AP436.D
Acq On : 18 Dec 2009 8:05 am
Operator : JEB
InstName : VOAA
Sample : |242654015|934516|1|VOA|1|VOA8260BS|
Misc : LANL 5.2G N/A SOIL
ALS Vial : 36 Sample Multiplier: 1

Quant Time: Dec 18 15:09:15 2009
Quant Method : C:\msdchem\1\METHODS\VOAA-8260-110609.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Nov 09 16:21:09 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Fluorobenzene	9.339	96	1148907	50.00 ug/L	0.00
41) Chlorobenzene-d5	12.508	117	925566	50.00 ug/L	0.00
58) 1,4-Dichlorobenzene-d4	14.941	152	572359	50.00 ug/L	0.00
82) B Fluorobenzene	9.339	96	1148907	50.00 ug/L	0.00
103) B Chlorobenzene-d5	12.508	117	925566	50.00 ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	14.941	152	572359	50.00 ug/L	0.00
System Monitoring Compounds					
29) 1,2-Dichloroethane-d4	8.978	65	463909	58.12 ug/L	0.00
Spiked Amount 50.000	Range 68 - 131		Recovery = 116.24%		
43) Toluene-d8	10.983	98	1111619	47.31 ug/L	0.00
Spiked Amount 50.000	Range 75 - 129		Recovery = 94.62%		
61) Bromofluorobenzene	13.713	95	486847	47.22 ug/L	0.00
Spiked Amount 50.000	Range 68 - 133		Recovery = 94.44%		
Target Compounds					Qvalue
2) Dichlorodifluoromethane	0.000		0	N.D.	
3) Chloromethane	4.054	50	207207	38.94 ug/L	100
4) Vinyl chloride	0.000		0	N.D.	
5) Bromomethane	0.000		0	N.D.	
6) Chloroethane	0.000		0	N.D.	
7) Trichlorofluoromethane	0.000		0	N.D.	
8) Ethyl ether	0.000		0	N.D.	
9) Acetone	6.089	43	3143	N.D.	
10) 1,1-Dichloroethylene	0.000		0	N.D.	
11) Iodomethane	0.000		0	N.D.	
12) Acetonitrile	0.000		0	N.D.	
13) Methyl acetate	0.000		0	N.D.	
14) Carbon disulfide	0.000		0	N.D.	
15) Methylene chloride	6.651	84	3828	Below Cal	83
16) tert-Butyl methyl ether	0.000		0	N.D.	
17) trans-1,2-Dichloroethy...	0.000		0	N.D.	
18) Vinyl acetate	0.000		0	N.D.	
19) 1,1-Dichloroethane	0.000		0	N.D.	
20) 2-Butanone	0.000		0	N.D.	
21) cis-1,2-Dichloroethylene	0.000		0	N.D.	
22) 2,2-Dichloropropane	0.000		0	N.D.	
23) Bromochloromethane	0.000		0	N.D.	
24) Chloroform	0.000		0	N.D.	
25) 1,1,1-Trichloroethane	0.000		0	N.D.	
26) Cyclohexane	0.000		0	N.D.	
27) 1,1-Dichloropropene	0.000		0	N.D.	
28) Carbon tetrachloride	0.000		0	N.D.	
30) 1,2-Dichloroethane	0.000		0	N.D.	
31) Benzene	0.000		0	N.D.	
32) Cyclohexene	0.000		0	N.D.	
33) n-Butyl alcohol	0.000		0	N.D.	
34) Trichloroethylene	0.000		0	N.D.	
35) 1,2-Dichloropropane	0.000		0	N.D.	
36) Methylcyclohexane	0.000		0	N.D.	
37) Dibromomethane	0.000		0	N.D.	
38) Bromodichloromethane	0.000		0	N.D.	
39) 2-Chloroethylvinyl ether	0.000		0	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709\
Data File : AP436.D
Acq On : 18 Dec 2009 8:05 am
Operator : JEB
InstName : VOAA
Sample : |242654015|934516|1|VOA|1|VOA8260BS|
Misc : LANL 5.2G N/A SOIL
ALS Vial : 36 Sample Multiplier: 1

Quant Time: Dec 18 15:09:15 2009
Quant Method : C:\msdchem\1\METHODS\VOAA-8260-110609.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Nov 09 16:21:09 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
40) cis-1,3-Dichloropropylene	0.000		0	N.D.	
42) 4-Methyl-2-pentanone	0.000		0	N.D.	
44) Toluene	0.000		0	N.D.	
45) trans-1,3-Dichloroprop...	0.000		0	N.D.	
46) 1,1,2-Trichloroethane	0.000		0	N.D.	
47) 2-Hexanone	0.000		0	N.D.	
48) 1,3-Dichloropropane	0.000		0	N.D.	
49) Tetrachloroethylene	0.000		0	N.D.	
50) Dibromochloromethane	0.000		0	N.D.	
51) 1,2-Dibromoethane	0.000		0	N.D.	
52) Chlorobenzene	0.000		0	N.D.	
53) 1,1,1,2-Tetrachloroethane	0.000		0	N.D.	
54) Ethylbenzene	12.504	91	1534	N.D.	
55) m,p-Xylenes	0.000		0	N.D.	
56) o-Xylene	0.000		0	N.D.	
57) Styrene	0.000		0	N.D.	
59) Bromoform	0.000		0	N.D.	
60) Isopropylbenzene	13.657	105	2173	N.D.	
62) 1,1,2,2-Tetrachloroethane	0.000		0	N.D.	
63) 1,2,3-Trichloropropane	0.000		0m	N.D.	d
64) Bromobenzene	0.000		0	N.D.	
65) n-Propylbenzene	13.717	91	1340	N.D.	
66) 1,3,5-Trimethylbenzene	0.000		0	N.D.	
67) 2-Chlorotoluene	0.000		0	N.D.	
68) 4-Chlorotoluene	0.000		0	N.D.	
69) tert-Butylbenzene	0.000		0	N.D.	
70) 1,2,4-Trimethylbenzene	0.000		0	N.D.	
71) sec-Butylbenzene	0.000		0	N.D.	
72) 4-Isopropyltoluene	0.000		0	N.D.	
73) 1,3-Dichlorobenzene	0.000		0	N.D.	
74) 1,4-Dichlorobenzene	14.969	146	107	N.D.	
75) n-Butylbenzene	0.000		0	N.D.	
76) 1,2-Dichlorobenzene	0.000		0	N.D.	
77) 1,2-Dibromo-3-chloropr...	0.000		0	N.D.	
78) 1,2,4-Trichlorobenzene	17.176	180	227	N.D.	
79) Hexachlorobutadiene	0.000		0	N.D.	
80) Naphthalene	17.522	128	1243	N.D.	
81) 1,2,3-Trichlorobenzene	0.000		0	N.D.	
83) Chlorotrifluoroethylene	0.000		0	N.D.	
84) 2-Chloro-1,1,1-trifluo...	0.000		0	N.D.	
85) Acrolein	0.000		0	N.D.	
86) Trichlorotrifluoroethane	0.000		0	N.D.	
87) Isopropyl Alcohol	0.000		0	N.D.	
88) Allyl chloride	0.000		0	N.D.	
89) tert-Butyl Alcohol	0.000		0	N.D.	
90) Acrylonitrile	0.000		0	N.D.	
91) Isopropyl ether	0.000		0	N.D.	
92) 2-Chloro-1,3-butadiene	0.000		0	N.D.	
93) Ethyl tert-butyl ether	0.000		0	N.D.	
94) Ethyl acetate	0.000		0	N.D.	
95) Propionitrile	0.000		0	N.D.	
96) Methacrylonitrile	0.000		0	N.D.	
97) Tetrahydrofuran	0.000		0	N.D.	
98) Isobutyl alcohol	0.000		0	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709\
Data File : AP436.D
Acq On : 18 Dec 2009 8:05 am
Operator : JEB
InstName : VOAA
Sample : |242654015|934516|1|VOA|1|VOA8260BS|
Misc : LANL 5.2G N/A SOIL
ALS Vial : 36 Sample Multiplier: 1

Quant Time: Dec 18 15:09:15 2009
Quant Method : C:\msdchem\1\METHODS\VOAA-8260-110609.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Nov 09 16:21:09 2009
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
99)	Methyl tert-amyl ether	0.000		0	N.D.	
100)	Methyl methacrylate	0.000		0	N.D.	
101)	1,4-Dioxane	0.000		0	N.D.	
102)	2-Nitropropane	0.000		0	N.D.	
104)	Ethyl methacrylate	0.000		0m	N.D. d	
106)	1-Chlorohexane	0.000		0	N.D.	
107)	cis-1,4-Dichloro-2-butene	0.000		0	N.D.	
108)	Cyclohexanone	0.000		0	N.D.	
109)	trans-1,4-Dichloro-2-b...	0.000		0	N.D.	
110)	Pentachloroethane	0.000		0	N.D.	
111)	Benzyl chloride	0.000		0m	N.D. d	
112)	bis(2-Chloroisopropyl)...	0.000		0m	N.D. d	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709\
Data File : AP436.D
Acq On : 18 Dec 2009 8:05 am
Operator : JEB
InstName : VOAA
Sample : |242654015|934516|1|VOA|1|VOA8260BS|
Misc : LANL 5.2G N/A SOIL
ALS Vial : 36 Sample Multiplier: 1

Quant Time: Dec 18 15:09:15 2009
Quant Method : C:\msdchem\1\METHODS\VOAA-8260-110609.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Nov 09 16:21:09 2009
Response via : Initial Calibration
Integrator: RTE

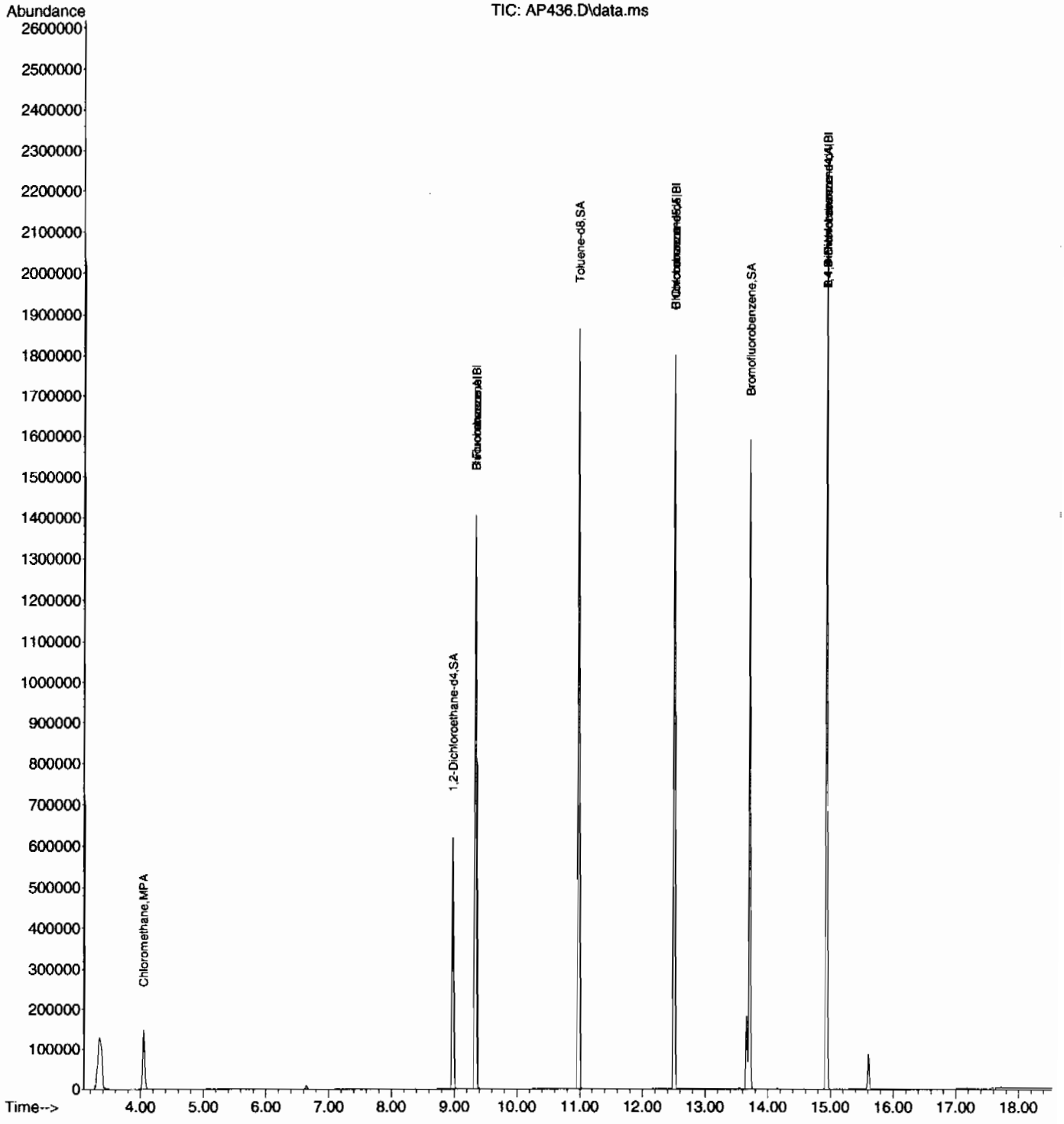

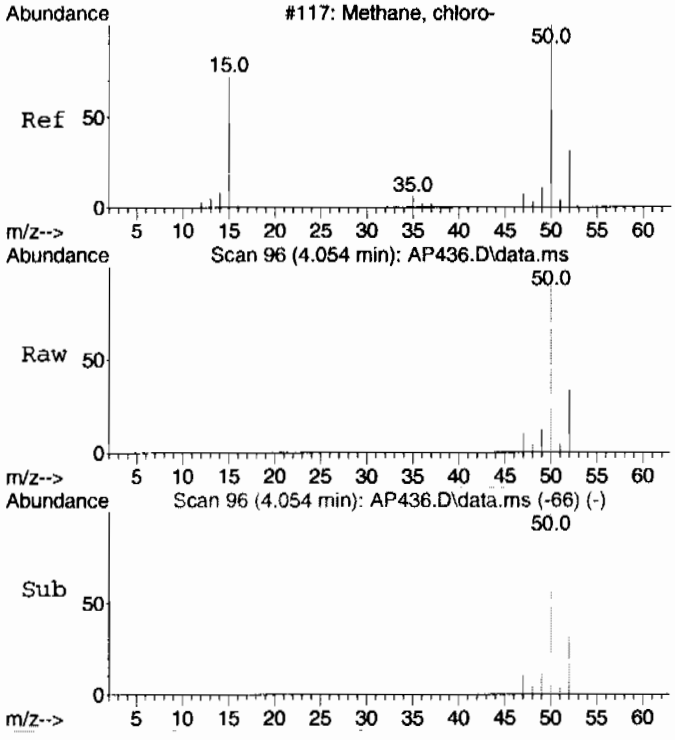

#3
Chloromethane
Concen: 38.94 ug/L
RT: 4.054 min Scan# 96
Delta R.T. -0.000 min
Lab File: AP436.D
Acq: 18 Dec 2009 8:05 am

Tgt Ion: 50 Resp: 207207

Ion	Ratio	Lower	Upper
50	100		
52	33.4	3.4	63.4

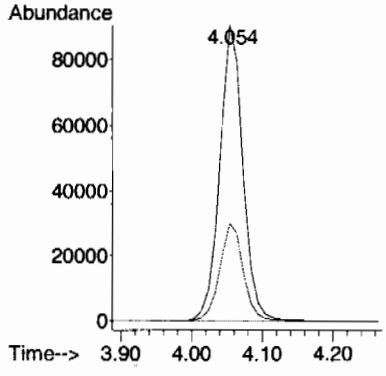

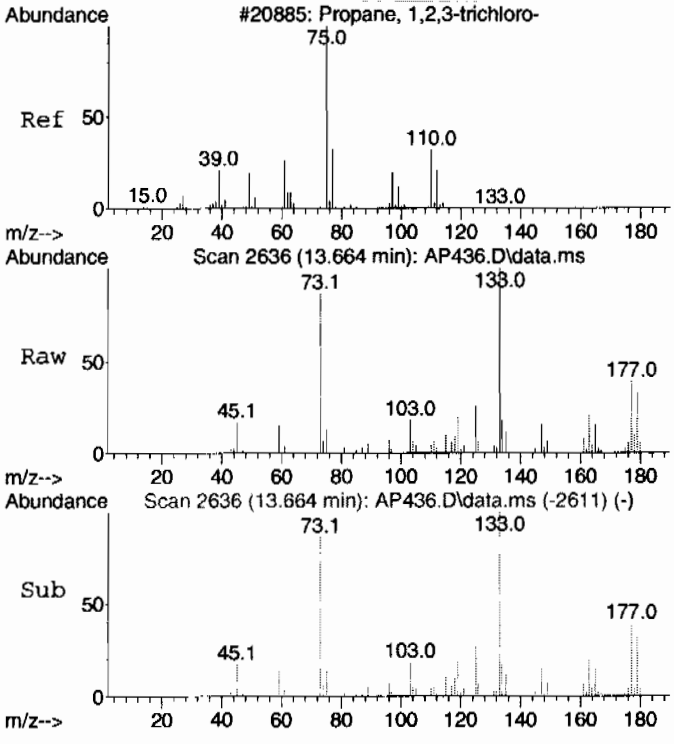

#63 BEFORE analyst DELETION
1,2,3-Trichloropropane
Concen: 0.98 ug/L
RT: 13.664 min Scan# 2636
Delta R.T. -0.212 min
Lab File: AP436.D
Acq: 18 Dec 2009 8:05 am

Tgt Ion:110 Resp: 2013

Ion	Ratio	Lower	Upper
110	100		
75	303.0	225.2	285.2#
77	0.0	48.9	108.9#

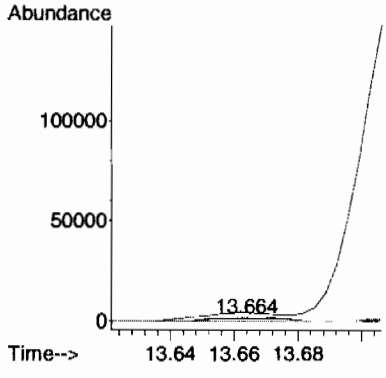

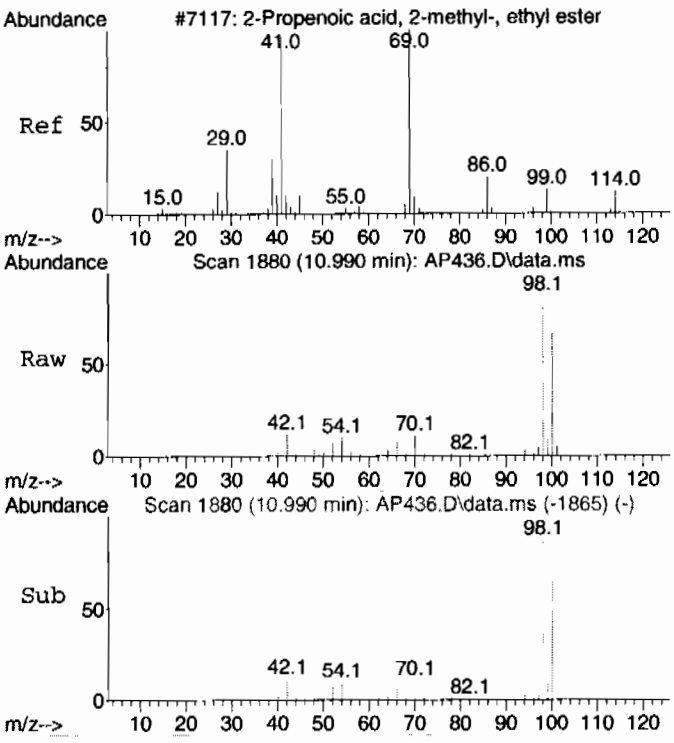

#104 BEFORE analyst DELETION
Ethyl methacrylate
Concen: 1.71 ug/L
RT: 10.990 min Scan# 1880
Delta R.T. -0.247 min
Lab File: AP436.D
Acq: 18 Dec 2009 8:05 am

Tgt Ion: 69 Resp: 3672

Ion	Ratio	Lower	Upper
69	100		
41	80.2	36.3	96.3
99	3079.4	0.0	50.5#

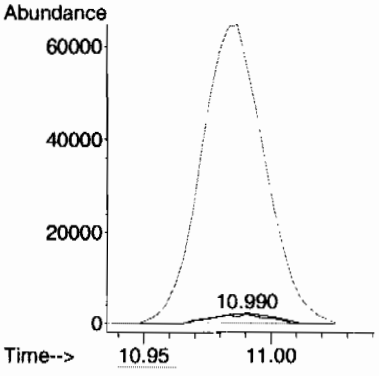

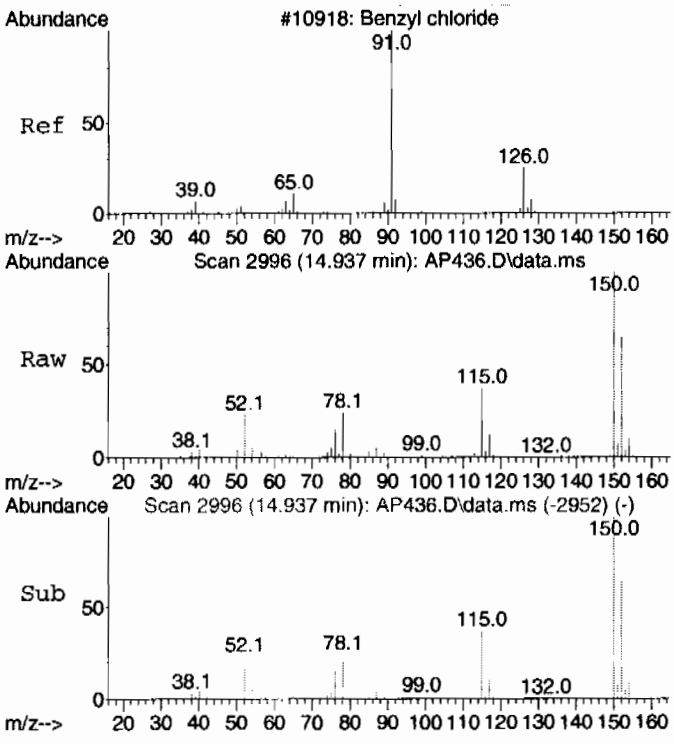

#111 BEFORE analyst DELETION
Benzyl chloride
Concen: 4.45 ug/L
RT: 14.937 min Scan# 2996
Delta R.T. -0.145 min
Lab File: AP436.D
Acq: 18 Dec 2009 8:05 am

Tgt Ion: 91 Resp: 886

Ion	Ratio	Lower	Upper
91	100		
126	0.0	0.0	52.0
65	494.6	0.0	41.2#

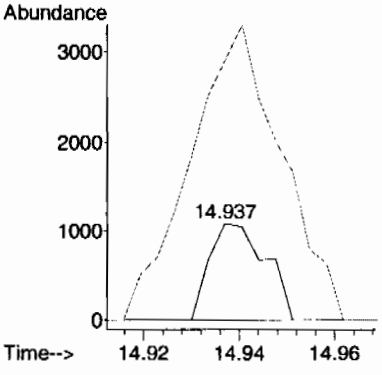

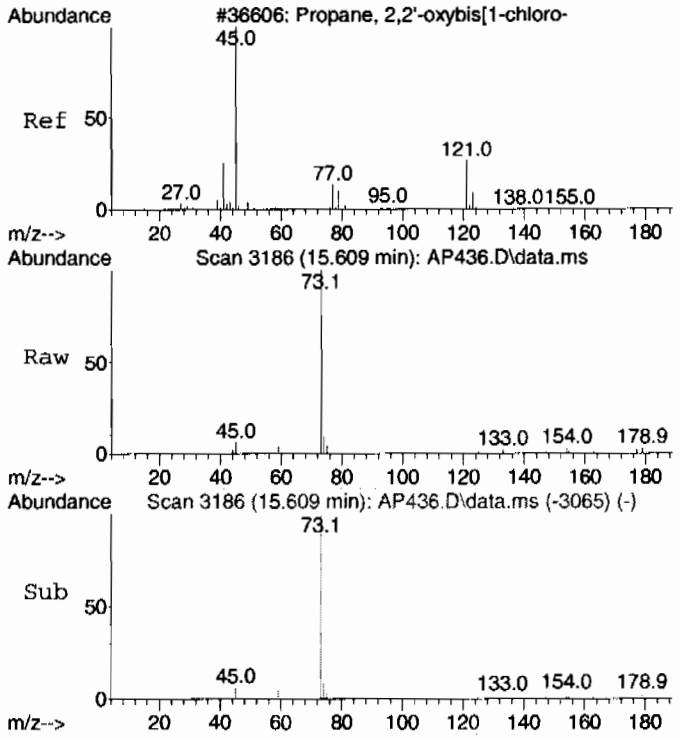

#112 BEFORE analyst DELETION
bis(2-Chloroisopropyl)ether
Concen: 1.79 ug/L
RT: 15.609 min Scan# 3186
Delta R.T. 0.128 min
Lab File: AP436.D
Acq: 18 Dec 2009 8:05 am

Tgt Ion: 45 Resp: 6376

Ion	Ratio	Lower	Upper
45	100		
121	0.0	0.0	56.8

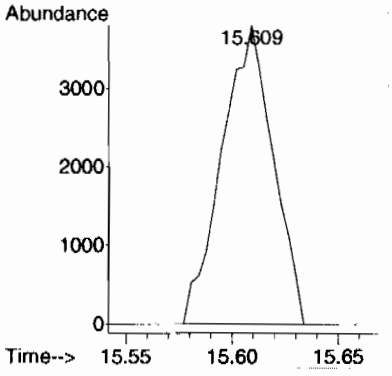

Library Search Compound Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709\
Data File : AP436.D
Acq On : 18 Dec 2009 8:05 am
Operator : JEB
Sample : |242654015|934516|1|VOA|1|VOA8260BS|
Misc : LANL 5.2G N/A SOIL
ALS Vial : 36 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\VOAA-8260-110609.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

****
Peak Number 1 unknown Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
3.349	12.06 ug/L	603115	Fluorobenzene	9.339

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Dimethyl ether	46	C2H6O	000115-10-6	5
2	Ethyl alcohol	46	C2H6O	000064-17-5	4
3	Ethyl alcohol	46	C2H6O	000064-17-5	4
4	Ethyl alcohol	46	C2H6O	000064-17-5	4
5	Dimethyl ether	46	C2H6O	000115-10-6	2

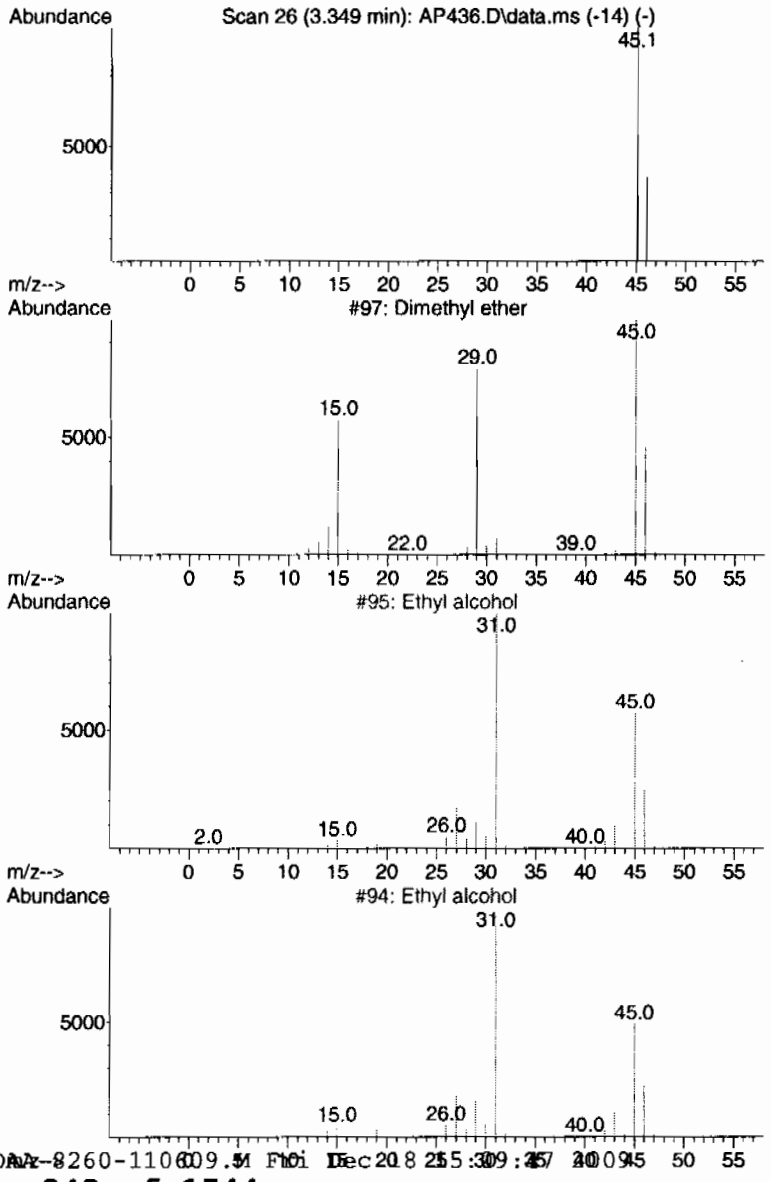

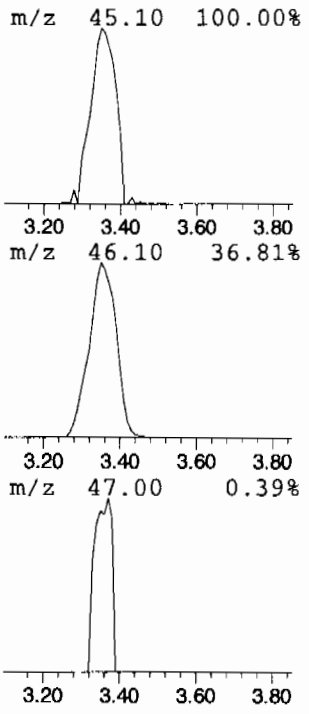

Tentatively Identified Compound (LSC) summary
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709\
Data File : AP436.D
Acq On : 18 Dec 2009 8:05 am
Operator : JEB
Sample : |242654015|934516|1|VOA|1|VOA8260BS|
Misc : LANL 5.2G N/A SOIL
ALS Vial : 36 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\VOAA-8260-110609.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

TIC Top Hit name	RT	EstConc	Units	Response	--Internal Standard--- #	RT	Resp	Conc
unknown	3.349	12.1	ug/L	603115	1	9.339	2500860	50.0

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242654016	**Date Received:**	12/10/2009 08:50	**%Moisture:**	13.4
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14271	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	934516	**Inst:**	VOAA.I	**Dilution:**	1
Run Date:	12/18/2009 08:30	**Analyst:**	JEB	**Purge Vol:**	5 mL
Prep Date:	12/17/2009 19:28	**Aliquot:**	5.2 g	**Final Volume:**	5 mL
Data File:	121709\AP437.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.11	ug/kg	0.378	1.11
74-87-3	Chloromethane	U	1.11	ug/kg	0.333	1.11
75-01-4	Vinyl chloride	U	1.11	ug/kg	0.333	1.11
74-83-9	Bromomethane	U	1.11	ug/kg	0.333	1.11
75-00-3	Chloroethane	U	1.11	ug/kg	0.333	1.11
75-69-4	Trichlorofluoromethane	U	1.11	ug/kg	0.333	1.11
67-64-1	Acetone	U	5.55	ug/kg	1.84	5.55
75-35-4	1,1-Dichloroethylene	U	1.11	ug/kg	0.333	1.11
74-88-4	Iodomethane	U	5.55	ug/kg	1.78	5.55
75-09-2	Methylene chloride	U	5.55	ug/kg	2.22	5.55
75-15-0	Carbon disulfide	U	5.55	ug/kg	1.39	5.55
156-60-5	trans-1,2-Dichloroethylene	U	1.11	ug/kg	0.333	1.11
75-34-3	1,1-Dichloroethane	U	1.11	ug/kg	0.333	1.11
78-93-3	2-Butanone	U	5.55	ug/kg	1.67	5.55
156-59-2	cis-1,2-Dichloroethylene	U	1.11	ug/kg	0.333	1.11
594-20-7	2,2-Dichloropropane	U	1.11	ug/kg	0.333	1.11
67-66-3	Chloroform	U	1.11	ug/kg	0.333	1.11
74-97-5	Bromochloromethane	U	1.11	ug/kg	0.367	1.11
71-55-6	1,1,1-Trichloroethane	U	1.11	ug/kg	0.333	1.11
563-58-6	1,1-Dichloropropene	U	1.11	ug/kg	0.333	1.11
56-23-5	Carbon tetrachloride	U	1.11	ug/kg	0.333	1.11
107-06-2	1,2-Dichloroethane	U	1.11	ug/kg	0.333	1.11
71-43-2	Benzene	U	1.11	ug/kg	0.333	1.11
79-01-6	Trichloroethylene	U	1.11	ug/kg	0.367	1.11
78-87-5	1,2-Dichloropropane	U	1.11	ug/kg	0.333	1.11
75-27-4	Bromodichloromethane	U	1.11	ug/kg	0.333	1.11
74-95-3	Dibromomethane	U	1.11	ug/kg	0.333	1.11
108-10-1	4-Methyl-2-pentanone	U	5.55	ug/kg	1.39	5.55
10061-01-5	cis-1,3-Dichloropropylene	U	1.11	ug/kg	0.333	1.11
108-88-3	Toluene	U	1.11	ug/kg	0.333	1.11
10061-02-6	trans-1,3-Dichloropropylene	U	1.11	ug/kg	0.333	1.11
79-00-5	1,1,2-Trichloroethane	U	1.11	ug/kg	0.333	1.11
591-78-6	2-Hexanone	U	5.55	ug/kg	1.67	5.55
142-28-9	1,3-Dichloropropane	U	1.11	ug/kg	0.333	1.11
127-18-4	Tetrachloroethylene	U	1.11	ug/kg	0.333	1.11
124-48-1	Dibromochloromethane	U	1.11	ug/kg	0.333	1.11
106-93-4	1,2-Dibromoethane	U	1.11	ug/kg	0.333	1.11
108-90-7	Chlorobenzene	U	1.11	ug/kg	0.333	1.11

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242654016	**Date Received:**	12/10/2009 08:50	**%Moisture:**	13.4
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14271	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	934516	**Inst:**	VOAA.I	**Dilution:**	1
Run Date:	12/18/2009 08:30	**Analyst:**	JEB	**Purge Vol:**	5 mL
Prep Date:	12/17/2009 19:28	**Aliquot:**	5.2 g	**Final Volume:**	5 mL
Data File:	121709\AP437.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.11	ug/kg	0.333	1.11
179601-23-1	m,p-Xylenes	U	2.22	ug/kg	0.333	2.22
95-47-6	o-Xylene	U	1.11	ug/kg	0.333	1.11
100-42-5	Styrene	U	1.11	ug/kg	0.333	1.11
75-25-2	Bromoform	U	1.11	ug/kg	0.333	1.11
79-34-5	1,1,2,2-Tetrachloroethane	U	1.11	ug/kg	0.333	1.11
96-18-4	1,2,3-Trichloropropane	U	1.11	ug/kg	0.333	1.11
108-86-1	Bromobenzene	U	1.11	ug/kg	0.333	1.11
103-65-1	n-Propylbenzene	U	1.11	ug/kg	0.333	1.11
95-49-8	2-Chlorotoluene	U	1.11	ug/kg	0.333	1.11
98-82-8	Isopropylbenzene	U	1.11	ug/kg	0.333	1.11
108-67-8	1,3,5-Trimethylbenzene	U	1.11	ug/kg	0.333	1.11
106-43-4	4-Chlorotoluene	U	1.11	ug/kg	0.333	1.11
98-06-6	tert-Butylbenzene	U	1.11	ug/kg	0.333	1.11
95-63-6	1,2,4-Trimethylbenzene	U	1.11	ug/kg	0.333	1.11
135-98-8	sec-Butylbenzene	U	1.11	ug/kg	0.333	1.11
99-87-6	4-Isopropyltoluene	U	1.11	ug/kg	0.333	1.11
541-73-1	1,3-Dichlorobenzene	U	1.11	ug/kg	0.333	1.11
106-46-7	1,4-Dichlorobenzene	U	1.11	ug/kg	0.333	1.11
104-51-8	n-Butylbenzene	U	1.11	ug/kg	0.333	1.11
96-12-8	1,2-Dibromo-3-chloropropane	U	1.11	ug/kg	0.333	1.11
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.55	ug/kg	1.78	5.55
630-20-6	1,1,1,2-Tetrachloroethane	U	1.11	ug/kg	0.333	1.11
95-50-1	1,2-Dichlorobenzene	U	1.11	ug/kg	0.333	1.11

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown	3.32	9.6	ug/kg	0	J

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709\
Data File : AP437.D
Acq On : 18 Dec 2009 8:30 am
Operator : JEB
InstName : VOAA
Sample : |242654016|934516|1|VOA|1|VOA8260BS|
Misc : LANL 5.2G N/A SOIL
ALS Vial : 37 Sample Multiplier: 1

Quant Time: Dec 18 15:10:37 2009
Quant Method : C:\msdchem\1\METHODS\VOAA-8260-110609.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Nov 09 16:21:09 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Fluorobenzene	9.339	96	1147603	50.00 ug/L	0.00
41) Chlorobenzene-d5	12.507	117	930323	50.00 ug/L	0.00
58) 1,4-Dichlorobenzene-d4	14.940	152	578256	50.00 ug/L	0.00
82) B Fluorobenzene	9.339	96	1147603	50.00 ug/L	0.00
103) B Chlorobenzene-d5	12.507	117	930323	50.00 ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	14.940	152	578256	50.00 ug/L	0.00
System Monitoring Compounds					
29) 1,2-Dichloroethane-d4	8.978	65	454974	57.07 ug/L	0.00
Spiked Amount 50.000	Range 68 - 131		Recovery = 114.14%		
43) Toluene-d8	10.983	98	1108596	46.94 ug/L	0.00
Spiked Amount 50.000	Range 75 - 129		Recovery = 93.88%		
61) Bromofluorobenzene	13.713	95	473869	45.49 ug/L	0.00
Spiked Amount 50.000	Range 68 - 133		Recovery = 90.98%		
Target Compounds					Qvalue
2) Dichlorodifluoromethane	0.000		0	N.D.	
3) Chloromethane	0.000		0	N.D.	
4) Vinyl chloride	0.000		0	N.D.	
5) Bromomethane	0.000		0	N.D.	
6) Chloroethane	0.000		0	N.D.	
7) Trichlorofluoromethane	0.000		0	N.D.	
8) Ethyl ether	0.000		0	N.D.	
9) Acetone	6.092	43	2434	N.D.	
10) 1,1-Dichloroethylene	0.000		0	N.D.	
11) Iodomethane	0.000		0	N.D.	
12) Acetonitrile	0.000		0	N.D.	
13) Methyl acetate	0.000		0	N.D.	
14) Carbon disulfide	6.421	76	107	N.D.	
15) Methylene chloride	6.644	84	6198	Below Cal #	81
16) tert-Butyl methyl ether	0.000		0	N.D.	
17) trans-1,2-Dichloroethy...	0.000		0	N.D.	
18) Vinyl acetate	0.000		0	N.D.	
19) 1,1-Dichloroethane	0.000		0	N.D.	
20) 2-Butanone	0.000		0	N.D.	
21) cis-1,2-Dichloroethylene	0.000		0	N.D.	
22) 2,2-Dichloropropane	0.000		0	N.D.	
23) Bromochloromethane	0.000		0	N.D.	
24) Chloroform	0.000		0	N.D.	
25) 1,1,1-Trichloroethane	0.000		0	N.D.	
26) Cyclohexane	0.000		0	N.D.	
27) 1,1-Dichloropropene	0.000		0	N.D.	
28) Carbon tetrachloride	0.000		0	N.D.	
30) 1,2-Dichloroethane	0.000		0	N.D.	
31) Benzene	0.000		0	N.D.	
32) Cyclohexene	0.000		0	N.D.	
33) n-Butyl alcohol	9.459	56	2452	108.89 ug/L	87
34) Trichloroethylene	0.000		0	N.D.	
35) 1,2-Dichloropropane	0.000		0	N.D.	
36) Methylcyclohexane	0.000		0	N.D.	
37) Dibromomethane	0.000		0	N.D.	
38) Bromodichloromethane	0.000		0	N.D.	
39) 2-Chloroethylvinyl ether	0.000		0	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709\
Data File : AP437.D
Acq On : 18 Dec 2009 8:30 am
Operator : JEB
InstName : VOAA
Sample : |242654016|934516|1|VOA|1|VOA8260BS|
Misc : LANL 5.2G N/A SOIL
ALS Vial : 37 Sample Multiplier: 1

Quant Time: Dec 18 15:10:37 2009
Quant Method : C:\msdchem\1\METHODS\VOAA-8260-110609.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Nov 09 16:21:09 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc Units Dev(Min)
40) cis-1,3-Dichloropropylene	0.000		0	N.D.
42) 4-Methyl-2-pentanone	0.000		0	N.D.
44) Toluene	11.058	91	237	N.D.
45) trans-1,3-Dichloroprop...	0.000		0	N.D.
46) 1,1,2-Trichloroethane	0.000		0	N.D.
47) 2-Hexanone	0.000		0	N.D.
48) 1,3-Dichloropropane	0.000		0	N.D.
49) Tetrachloroethylene	0.000		0	N.D.
50) Dibromochloromethane	0.000		0	N.D.
51) 1,2-Dibromoethane	0.000		0	N.D.
52) Chlorobenzene	0.000		0	N.D.
53) 1,1,1,2-Tetrachloroethane	0.000		0	N.D.
54) Ethylbenzene	12.511	91	1739	N.D.
55) m,p-Xylenes	0.000		0	N.D.
56) o-Xylene	0.000		0	N.D.
57) Styrene	0.000		0	N.D.
59) Bromoform	0.000		0	N.D.
60) Isopropylbenzene	13.713	105	222	N.D.
62) 1,1,2,2-Tetrachloroethane	0.000		0	N.D.
63) 1,2,3-Trichloropropane	0.000		0	N.D.
64) Bromobenzene	0.000		0	N.D.
65) n-Propylbenzene	13.713	91	1259	N.D.
66) 1,3,5-Trimethylbenzene	0.000		0	N.D.
67) 2-Chlorotoluene	0.000		0	N.D.
68) 4-Chlorotoluene	0.000		0	N.D.
69) tert-Butylbenzene	0.000		0	N.D.
70) 1,2,4-Trimethylbenzene	14.548	105	109	N.D.
71) sec-Butylbenzene	14.548	105	109	N.D.
72) 4-Isopropyltoluene	0.000		0	N.D.
73) 1,3-Dichlorobenzene	0.000		0	N.D.
74) 1,4-Dichlorobenzene	14.965	146	350	N.D.
75) n-Butylbenzene	0.000		0	N.D.
76) 1,2-Dichlorobenzene	0.000		0	N.D.
77) 1,2-Dibromo-3-chloropr...	0.000		0	N.D.
78) 1,2,4-Trichlorobenzene	17.183	180	154	N.D.
79) Hexachlorobutadiene	0.000		0	N.D.
80) Naphthalene	17.522	128	1053	N.D.
81) 1,2,3-Trichlorobenzene	0.000		0	N.D.
83) Chlorotrifluoroethylene	0.000		0	N.D.
84) 2-Chloro-1,1,1-trifluo...	0.000		0	N.D.
85) Acrolein	0.000		0	N.D.
86) Trichlorotrifluoroethane	0.000		0	N.D.
87) Isopropyl Alcohol	0.000		0	N.D.
88) Allyl chloride	0.000		0	N.D.
89) tert-Butyl Alcohol	0.000		0	N.D.
90) Acrylonitrile	0.000		0	N.D.
91) Isopropyl ether	0.000		0	N.D.
92) 2-Chloro-1,3-butadiene	0.000		0	N.D.
93) Ethyl tert-butyl ether	0.000		0	N.D.
94) Ethyl acetate	0.000		0	N.D.
95) Propionitrile	0.000		0	N.D.
96) Methacrylonitrile	0.000		0	N.D.
97) Tetrahydrofuran	0.000		0	N.D.
98) Isobutyl alcohol	0.000		0	N.D.

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709\
Data File : AP437.D
Acq On : 18 Dec 2009 8:30 am
Operator : JEB
InstName : VOAA
Sample : |242654016|934516|1|VOA|1|VOA8260BS|
Misc : LANL 5.2G N/A SOIL
ALS Vial : 37 Sample Multiplier: 1

Quant Time: Dec 18 15:10:37 2009
Quant Method : C:\msdchem\1\METHODS\VOAA-8260-110609.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Nov 09 16:21:09 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc Units Dev(Min)
99) Methyl tert-amyl ether	0.000		0	N.D.
100) Methyl methacrylate	0.000		0	N.D.
101) 1,4-Dioxane	0.000		0	N.D.
102) 2-Nitropropane	0.000		0	N.D.
104) Ethyl methacrylate	0.000		0	N.D.
106) 1-Chlorohexane	0.000		0	N.D.
107) cis-1,4-Dichloro-2-butene	0.000		0	N.D.
108) Cyclohexanone	0.000		0	N.D.
109) trans-1,4-Dichloro-2-b...	0.000		0	N.D.
110) Pentachloroethane	0.000		0	N.D.
111) Benzyl chloride	0.000		0m	N.D. d
112) bis(2-Chloroisopropyl)...	0.000		0	N.D.

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709\
Data File : AP437.D
Acq On : 18 Dec 2009 8:30 am
Operator : JEB
InstName : VOAA
Sample : |242654016|934516|1|VOA|1|VOA8260BS|
Misc : LANL 5.2G N/A SOIL
ALS Vial : 37 Sample Multiplier: 1

Quant Time: Dec 18 15:10:37 2009
Quant Method : C:\msdchem\1\METHODS\VOAA-8260-110609.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Nov 09 16:21:09 2009
Response via : Initial Calibration
Integrator: RTE

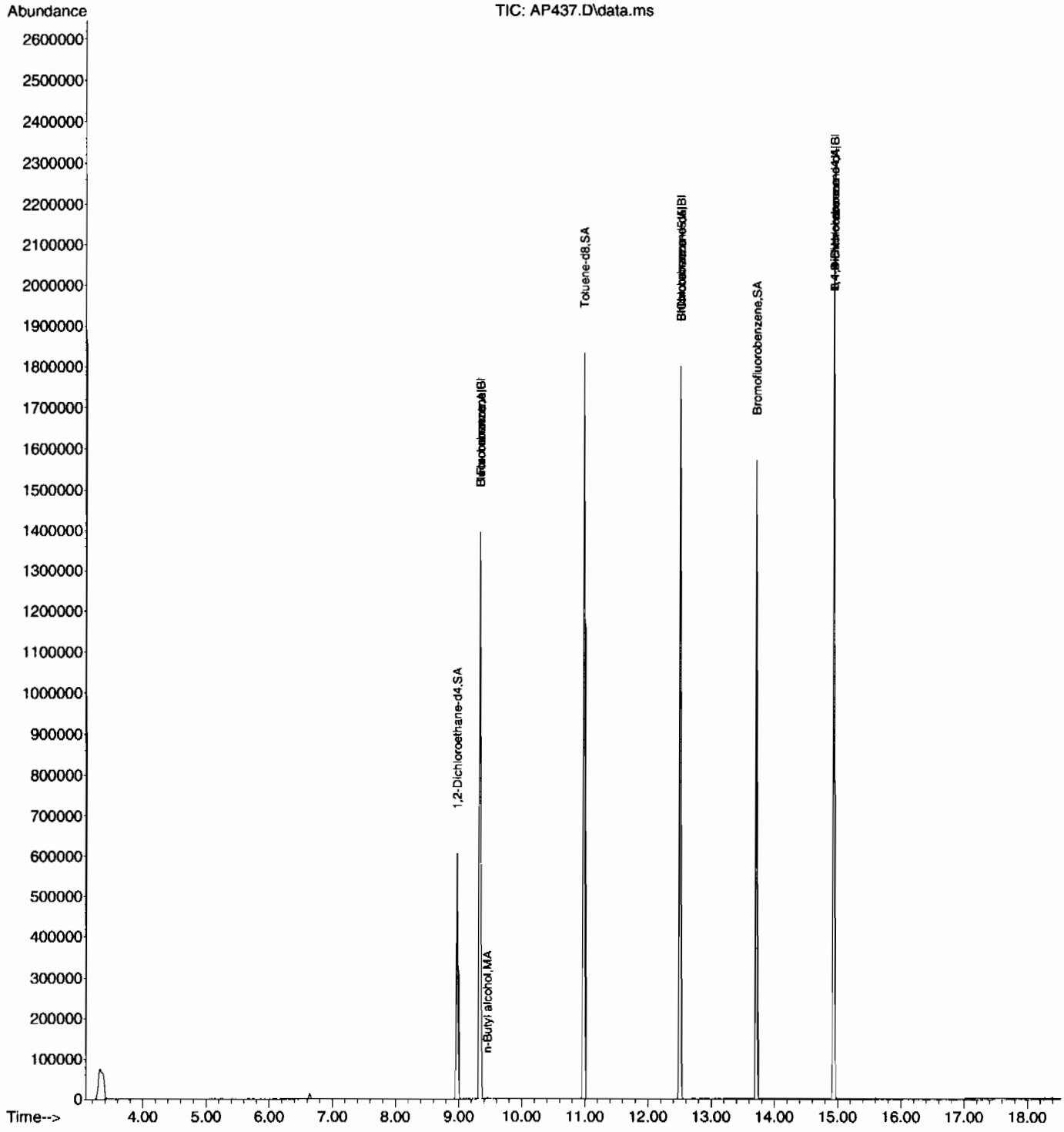

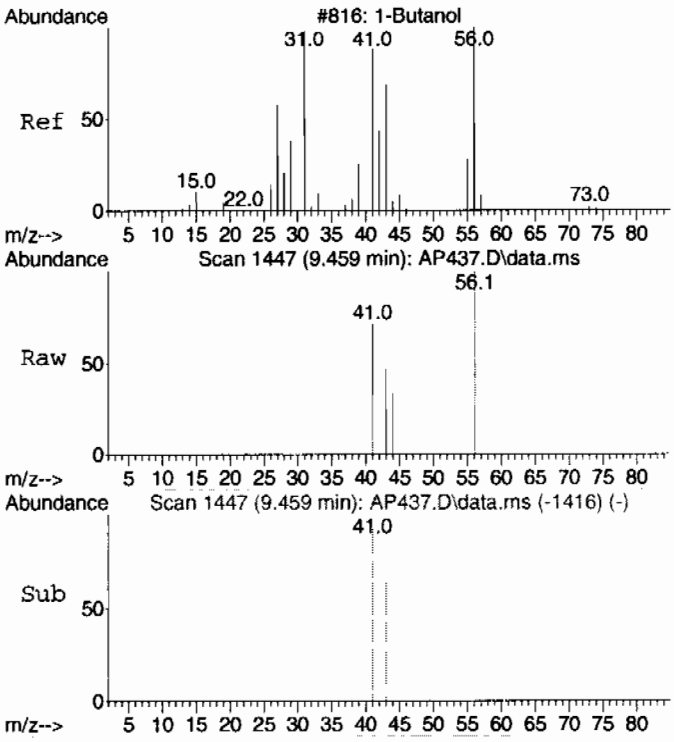

#33
n-Butyl alcohol
Concen: 108.89 ug/L
RT: 9.459 min Scan# 1447
Delta R.T. 0.000 min
Lab File: AP437.D
Acq: 18 Dec 2009 8:30 am

Tgt Ion: 56 Resp: 2452

Ion	Ratio	Lower	Upper
56	100		
41	67.2	27.8	87.8
43	39.2	17.9	77.9

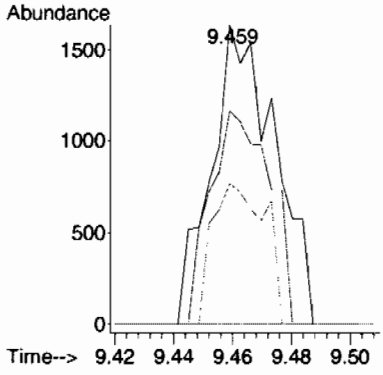

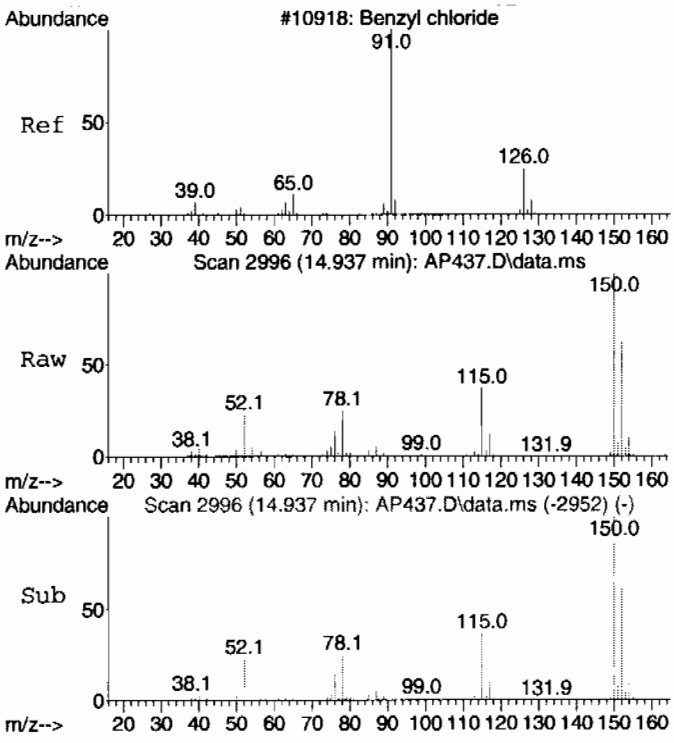

#111 BEFORE analyst DELETION
Benzyl chloride
Concen: 4.47 ug/L
RT: 14.937 min Scan# 2996
Delta R.T. -0.145 min
Lab File: AP437.D
Acq: 18 Dec 2009 8:30 am

Tgt Ion: 91 Resp: 1179

Ion	Ratio	Lower	Upper
91	100		
126	0.0	0.0	52.0
65	349.2	0.0	41.2#

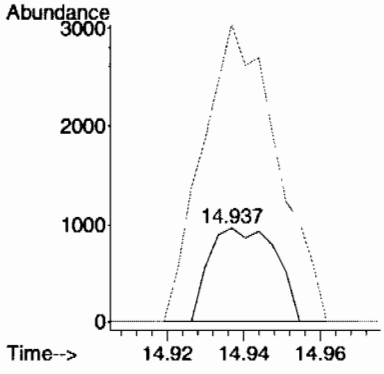

Library Search Compound Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709\
Data File : AP437.D
Acq On : 18 Dec 2009 8:30 am
Operator : JEB
Sample : |242654016|934516|1|VOA|1|VOA8260BS|
Misc : LANL 5.2G N/A SOIL
ALS Vial : 37 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\VOAA-8260-110609.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

****

Peak Number 1 unknown Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
3.318	8.64 ug/L	430740	Fluorobenzene	9.339

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Dimethyl ether	46	C2H6O	000115-10-6	5
2	Ethyl alcohol	46	C2H6O	000064-17-5	4
3	Ethyl alcohol	46	C2H6O	000064-17-5	4
4	Ethyl alcohol	46	C2H6O	000064-17-5	4
5	Dimethyl ether	46	C2H6O	000115-10-6	2

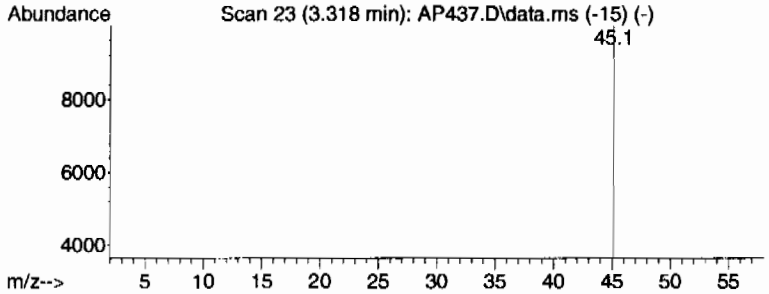

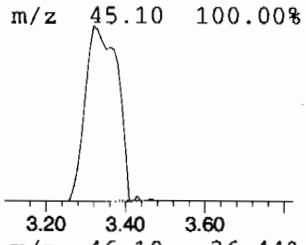

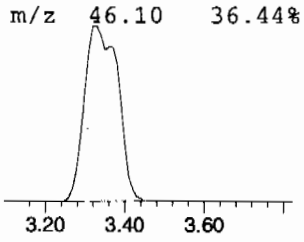

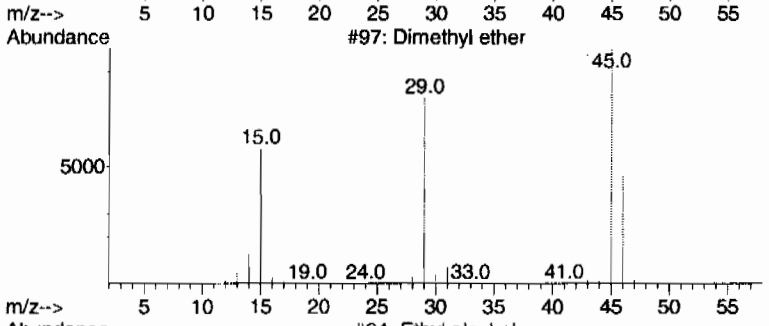

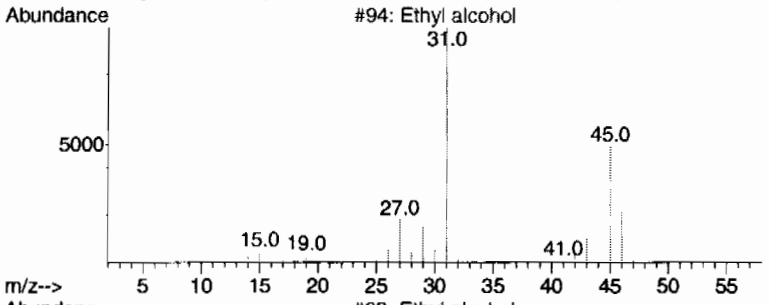

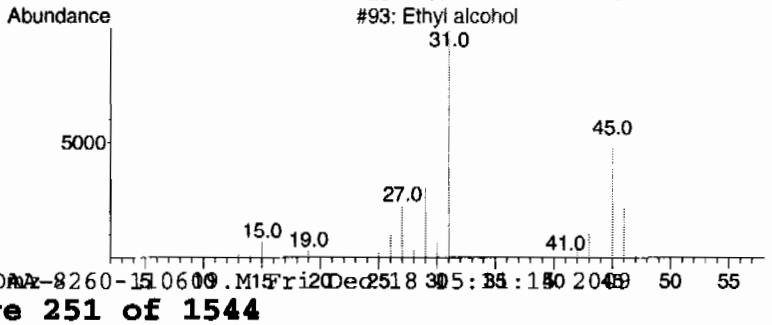

Tentatively Identified Compound (LSC) summary
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709\
Data File : AP437.D
Acq On : 18 Dec 2009 8:30 am
Operator : JEB
Sample : |242654016|934516|1|VOA|1|VOA8260BS|
Misc : LANL 5.2G N/A SOIL
ALS Vial : 37 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\VOAA-8260-110609.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

TIC Top Hit name	RT	EstConc	Units	Response	--Internal Standard--- #	RT	Resp	Conc
unknown	3.318	8.6	ug/L	430740	1	9.339	2493770	50.0

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-852**	**Date Collected:**	**12/07/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242654017**	**Date Received:**	**12/10/2009 08:50**	**%Moisture:**	**9.4**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14278**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**934516**	**Inst:**	**VOAA.I**	**Dilution:**	**1**
Run Date:	**12/18/2009 08:56**	**Analyst:**	**JEB**	**Purge Vol:**	**5 mL**
Prep Date:	**12/17/2009 19:29**	**Aliquot:**	**5.2 g**	**Final Volume:**	**5 mL**
Data File:	**121709\AP438.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.06	ug/kg	0.361	1.06
74-87-3	Chloromethane	U	1.06	ug/kg	0.318	1.06
75-01-4	Vinyl chloride	U	1.06	ug/kg	0.318	1.06
74-83-9	Bromomethane	U	1.06	ug/kg	0.318	1.06
75-00-3	Chloroethane	U	1.06	ug/kg	0.318	1.06
75-69-4	Trichlorofluoromethane	U	1.06	ug/kg	0.318	1.06
67-64-1	Acetone	U	5.31	ug/kg	1.76	5.31
75-35-4	1,1-Dichloroethylene	U	1.06	ug/kg	0.318	1.06
74-88-4	Iodomethane	U	5.31	ug/kg	1.70	5.31
75-09-2	Methylene chloride	U	5.31	ug/kg	2.12	5.31
75-15-0	Carbon disulfide	U	5.31	ug/kg	1.33	5.31
156-60-5	trans-1,2-Dichloroethylene	U	1.06	ug/kg	0.318	1.06
75-34-3	1,1-Dichloroethane	U	1.06	ug/kg	0.318	1.06
78-93-3	2-Butanone	U	5.31	ug/kg	1.59	5.31
156-59-2	cis-1,2-Dichloroethylene	U	1.06	ug/kg	0.318	1.06
594-20-7	2,2-Dichloropropane	U	1.06	ug/kg	0.318	1.06
67-66-3	Chloroform	U	1.06	ug/kg	0.318	1.06
74-97-5	Bromochloromethane	U	1.06	ug/kg	0.350	1.06
71-55-6	1,1,1-Trichloroethane	U	1.06	ug/kg	0.318	1.06
563-58-6	1,1-Dichloropropene	U	1.06	ug/kg	0.318	1.06
56-23-5	Carbon tetrachloride	U	1.06	ug/kg	0.318	1.06
107-06-2	1,2-Dichloroethane	U	1.06	ug/kg	0.318	1.06
71-43-2	Benzene	U	1.06	ug/kg	0.318	1.06
79-01-6	Trichloroethylene	U	1.06	ug/kg	0.350	1.06
78-87-5	1,2-Dichloropropane	U	1.06	ug/kg	0.318	1.06
75-27-4	Bromodichloromethane	U	1.06	ug/kg	0.318	1.06
74-95-3	Dibromomethane	U	1.06	ug/kg	0.318	1.06
108-10-1	4-Methyl-2-pentanone	U	5.31	ug/kg	1.33	5.31
10061-01-5	cis-1,3-Dichloropropylene	U	1.06	ug/kg	0.318	1.06
108-88-3	Toluene	J	0.425	ug/kg	0.318	1.06
10061-02-6	trans-1,3-Dichloropropylene	U	1.06	ug/kg	0.318	1.06
79-00-5	1,1,2-Trichloroethane	U	1.06	ug/kg	0.318	1.06
591-78-6	2-Hexanone	U	5.31	ug/kg	1.59	5.31
142-28-9	1,3-Dichloropropane	U	1.06	ug/kg	0.318	1.06
127-18-4	Tetrachloroethylene	U	1.06	ug/kg	0.318	1.06
124-48-1	Dibromochloromethane	U	1.06	ug/kg	0.318	1.06
106-93-4	1,2-Dibromoethane	U	1.06	ug/kg	0.318	1.06
108-90-7	Chlorobenzene	U	1.06	ug/kg	0.318	1.06

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-852**	**Date Collected:**	**12/07/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242654017**	**Date Received:**	**12/10/2009 08:50**	**%Moisture:**	**9.4**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14278**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**934516**	**Inst:**	**VOAA.I**	**Dilution:**	**1**
Run Date:	**12/18/2009 08:56**	**Analyst:**	**JEB**	**Purge Vol:**	**5 mL**
Prep Date:	**12/17/2009 19:29**	**Aliquot:**	**5.2 g**	**Final Volume:**	**5 mL**
Data File:	**121709\AP438.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.06	ug/kg	0.318	1.06
179601-23-1	m,p-Xylenes	U	2.12	ug/kg	0.318	2.12
95-47-6	o-Xylene	U	1.06	ug/kg	0.318	1.06
100-42-5	Styrene	U	1.06	ug/kg	0.318	1.06
75-25-2	Bromoform	U	1.06	ug/kg	0.318	1.06
79-34-5	1,1,2,2-Tetrachloroethane	U	1.06	ug/kg	0.318	1.06
96-18-4	1,2,3-Trichloropropane	U	1.06	ug/kg	0.318	1.06
108-86-1	Bromobenzene	U	1.06	ug/kg	0.318	1.06
103-65-1	n-Propylbenzene	U	1.06	ug/kg	0.318	1.06
95-49-8	2-Chlorotoluene	U	1.06	ug/kg	0.318	1.06
98-82-8	Isopropylbenzene	U	1.06	ug/kg	0.318	1.06
108-67-8	1,3,5-Trimethylbenzene	U	1.06	ug/kg	0.318	1.06
106-43-4	4-Chlorotoluene	U	1.06	ug/kg	0.318	1.06
98-06-6	tert-Butylbenzene	U	1.06	ug/kg	0.318	1.06
95-63-6	1,2,4-Trimethylbenzene	U	1.06	ug/kg	0.318	1.06
135-98-8	sec-Butylbenzene	U	1.06	ug/kg	0.318	1.06
99-87-6	4-Isopropyltoluene	U	1.06	ug/kg	0.318	1.06
541-73-1	1,3-Dichlorobenzene	U	1.06	ug/kg	0.318	1.06
106-46-7	1,4-Dichlorobenzene	U	1.06	ug/kg	0.318	1.06
104-51-8	n-Butylbenzene	U	1.06	ug/kg	0.318	1.06
96-12-8	1,2-Dibromo-3-chloropropane	U	1.06	ug/kg	0.318	1.06
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.31	ug/kg	1.70	5.31
630-20-6	1,1,1,2-Tetrachloroethane	U	1.06	ug/kg	0.318	1.06
95-50-1	1,2-Dichlorobenzene	U	1.06	ug/kg	0.318	1.06

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown	3.34	18.6	ug/kg	0	J

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709\
Data File : AP438.D
Acq On : 18 Dec 2009 8:56 am
Operator : JEB
InstName : VOAA
Sample : |242654017|934516|1|VOA|1|VOA8260BS|
Misc : LANL 5.2G N/A SOIL
ALS Vial : 38 Sample Multiplier: 1

Quant Time: Dec 18 15:12:10 2009
Quant Method : C:\msdchem\1\METHODS\VOAA-8260-110609.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Nov 09 16:21:09 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Fluorobenzene	9.339	96	1129533	50.00 ug/L	0.00
41) Chlorobenzene-d5	12.507	117	924705	50.00 ug/L	0.00
58) 1,4-Dichlorobenzene-d4	14.940	152	579689	50.00 ug/L	0.00
82) B Fluorobenzene	9.339	96	1129533	50.00 ug/L	0.00
103) B Chlorobenzene-d5	12.507	117	924705	50.00 ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	14.940	152	579689	50.00 ug/L	0.00
System Monitoring Compounds					
29) 1,2-Dichloroethane-d4	8.978	65	461553	58.82 ug/L	0.00
Spiked Amount 50.000	Range 68 - 131		Recovery = 117.64%		
43) Toluene-d8	10.983	98	1096753	46.72 ug/L	0.00
Spiked Amount 50.000	Range 75 - 129		Recovery = 93.44%		
61) Bromofluorobenzene	13.713	95	489030	46.83 ug/L	0.00
Spiked Amount 50.000	Range 68 - 133		Recovery = 93.66%		
Target Compounds					Qvalue
2) Dichlorodifluoromethane	0.000		0	N.D.	
3) Chloromethane	0.000		0	N.D.	
4) Vinyl chloride	0.000		0	N.D.	
5) Bromomethane	0.000		0	N.D.	
6) Chloroethane	0.000		0	N.D.	
7) Trichlorofluoromethane	0.000		0	N.D.	
8) Ethyl ether	0.000		0	N.D.	
9) Acetone	6.085	43	3938	N.D.	
10) 1,1-Dichloroethylene	0.000		0	N.D.	
11) Iodomethane	0.000		0	N.D.	
12) Acetonitrile	0.000		0	N.D.	
13) Methyl acetate	0.000		0	N.D.	
14) Carbon disulfide	0.000		0	N.D.	
15) Methylene chloride	6.648	84	5166	Below Cal #	80
16) tert-Butyl methyl ether	0.000		0	N.D.	
17) trans-1,2-Dichloroethy...	0.000		0	N.D.	
18) Vinyl acetate	0.000		0	N.D.	
19) 1,1-Dichloroethane	0.000		0	N.D.	
20) 2-Butanone	0.000		0	N.D.	
21) cis-1,2-Dichloroethylene	0.000		0	N.D.	
22) 2,2-Dichloropropane	0.000		0	N.D.	
23) Bromochloromethane	0.000		0	N.D.	
24) Chloroform	0.000		0	N.D.	
25) 1,1,1-Trichloroethane	0.000		0	N.D.	
26) Cyclohexane	0.000		0	N.D.	
27) 1,1-Dichloropropene	0.000		0	N.D.	
28) Carbon tetrachloride	0.000		0	N.D.	
30) 1,2-Dichloroethane	0.000		0	N.D.	
31) Benzene	0.000		0	N.D.	
32) Cyclohexene	0.000		0	N.D.	
33) n-Butyl alcohol	0.000		0	N.D.	
34) Trichloroethylene	0.000		0	N.D.	
35) 1,2-Dichloropropane	0.000		0	N.D.	
36) Methylcyclohexane	0.000		0	N.D.	
37) Dibromomethane	0.000		0	N.D.	
38) Bromodichloromethane	0.000		0	N.D.	
39) 2-Chloroethylvinyl ether	0.000		0	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709\
Data File : AP438.D
Acq On : 18 Dec 2009 8:56 am
Operator : JEB
InstName : VOAA
Sample : |242654017|934516|1|VOA|1|VOA8260BS|
Misc : LANL 5.2G N/A SOIL
ALS Vial : 38 Sample Multiplier: 1

Quant Time: Dec 18 15:12:10 2009
Quant Method : C:\msdchem\1\METHODS\VOAA-8260-110609.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Nov 09 16:21:09 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
40) cis-1,3-Dichloropropylene	0.000		0	N.D.	
42) 4-Methyl-2-pentanone	0.000		0	N.D.	
44) Toluene	11.057	91	9842	0.40 ug/L	93
45) trans-1,3-Dichloroprop...	0.000		0	N.D.	
46) 1,1,2-Trichloroethane	0.000		0	N.D.	
47) 2-Hexanone	0.000		0	N.D.	
48) 1,3-Dichloropropane	0.000		0	N.D.	
49) Tetrachloroethylene	0.000		0	N.D.	
50) Dibromochloromethane	0.000		0	N.D.	
51) 1,2-Dibromoethane	0.000		0	N.D.	
52) Chlorobenzene	0.000		0	N.D.	
53) 1,1,1,2-Tetrachloroethane	0.000		0	N.D.	
54) Ethylbenzene	12.720	91	240	N.D.	
55) m,p-Xylenes	0.000		0	N.D.	
56) o-Xylene	0.000		0	N.D.	
57) Styrene	0.000		0	N.D.	
59) Bromoform	0.000		0	N.D.	
60) Isopropylbenzene	13.660	105	513	N.D.	
62) 1,1,2,2-Tetrachloroethane	0.000		0	N.D.	
63) 1,2,3-Trichloropropane	0.000		0m	N.D. d	
64) Bromobenzene	0.000		0	N.D.	
65) n-Propylbenzene	13.717	91	1284	N.D.	
66) 1,3,5-Trimethylbenzene	0.000		0	N.D.	
67) 2-Chlorotoluene	0.000		0	N.D.	
68) 4-Chlorotoluene	0.000		0	N.D.	
69) tert-Butylbenzene	0.000		0	N.D.	
70) 1,2,4-Trimethylbenzene	0.000		0	N.D.	
71) sec-Butylbenzene	0.000		0	N.D.	
72) 4-Isopropyltoluene	0.000		0m	N.D. d	
73) 1,3-Dichlorobenzene	0.000		0	N.D.	
74) 1,4-Dichlorobenzene	0.000		0	N.D.	
75) n-Butylbenzene	0.000		0	N.D.	
76) 1,2-Dichlorobenzene	0.000		0	N.D.	
77) 1,2-Dibromo-3-chloropr...	0.000		0	N.D.	
78) 1,2,4-Trichlorobenzene	0.000		0	N.D.	
79) Hexachlorobutadiene	0.000		0	N.D.	
80) Naphthalene	17.530	128	1334	N.D.	
81) 1,2,3-Trichlorobenzene	0.000		0	N.D.	
83) Chlorotrifluoroethylene	0.000		0	N.D.	
84) 2-Chloro-1,1,1-trifluo...	0.000		0	N.D.	
85) Acrolein	0.000		0	N.D.	
86) Trichlorotrifluoroethane	0.000		0	N.D.	
87) Isopropyl Alcohol	0.000		0	N.D.	
88) Allyl chloride	0.000		0	N.D.	
89) tert-Butyl Alcohol	0.000		0	N.D.	
90) Acrylonitrile	0.000		0	N.D.	
91) Isopropyl ether	0.000		0	N.D.	
92) 2-Chloro-1,3-butadiene	0.000		0	N.D.	
93) Ethyl tert-butyl ether	0.000		0	N.D.	
94) Ethyl acetate	0.000		0	N.D.	
95) Propionitrile	0.000		0	N.D.	
96) Methacrylonitrile	0.000		0	N.D.	
97) Tetrahydrofuran	0.000		0	N.D.	
98) Isobutyl alcohol	0.000		0	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709\
Data File : AP438.D
Acq On : 18 Dec 2009 8:56 am
Operator : JEB
InstName : VOAA
Sample : |242654017|934516|1|VOA|1|VOA8260BS|
Misc : LANL 5.2G N/A SOIL
ALS Vial : 38 Sample Multiplier: 1

Quant Time: Dec 18 15:12:10 2009
Quant Method : C:\msdchem\1\METHODS\VOAA-8260-110609.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Nov 09 16:21:09 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
99) Methyl tert-amyl ether	0.000		0	N.D.	
100) Methyl methacrylate	0.000		0	N.D.	
101) 1,4-Dioxane	0.000		0	N.D.	
102) 2-Nitropropane	0.000		0	N.D.	
104) Ethyl methacrylate	0.000		0m	N.D.	d
106) 1-Chlorohexane	0.000		0	N.D.	
107) cis-1,4-Dichloro-2-butene	0.000		0	N.D.	
108) Cyclohexanone	0.000		0	N.D.	
109) trans-1,4-Dichloro-2-b...	0.000		0	N.D.	
110) Pentachloroethane	0.000		0	N.D.	
111) Benzyl chloride	0.000		0m	N.D.	d
112) bis(2-Chloroisopropyl)...	15.605	45	3656	N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709\
Data File : AP438.D
Acq On : 18 Dec 2009 8:56 am
Operator : JEB
InstName : VOAA
Sample : |242654017|934516|1|VOA|1|VOA8260BS|
Misc : LANL 5.2G N/A SOIL
ALS Vial : 38 Sample Multiplier: 1

Quant Time: Dec 18 15:12:10 2009
Quant Method : C:\msdchem\1\METHODS\VOAA-8260-110609.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Nov 09 16:21:09 2009
Response via : Initial Calibration
Integrator: RTE

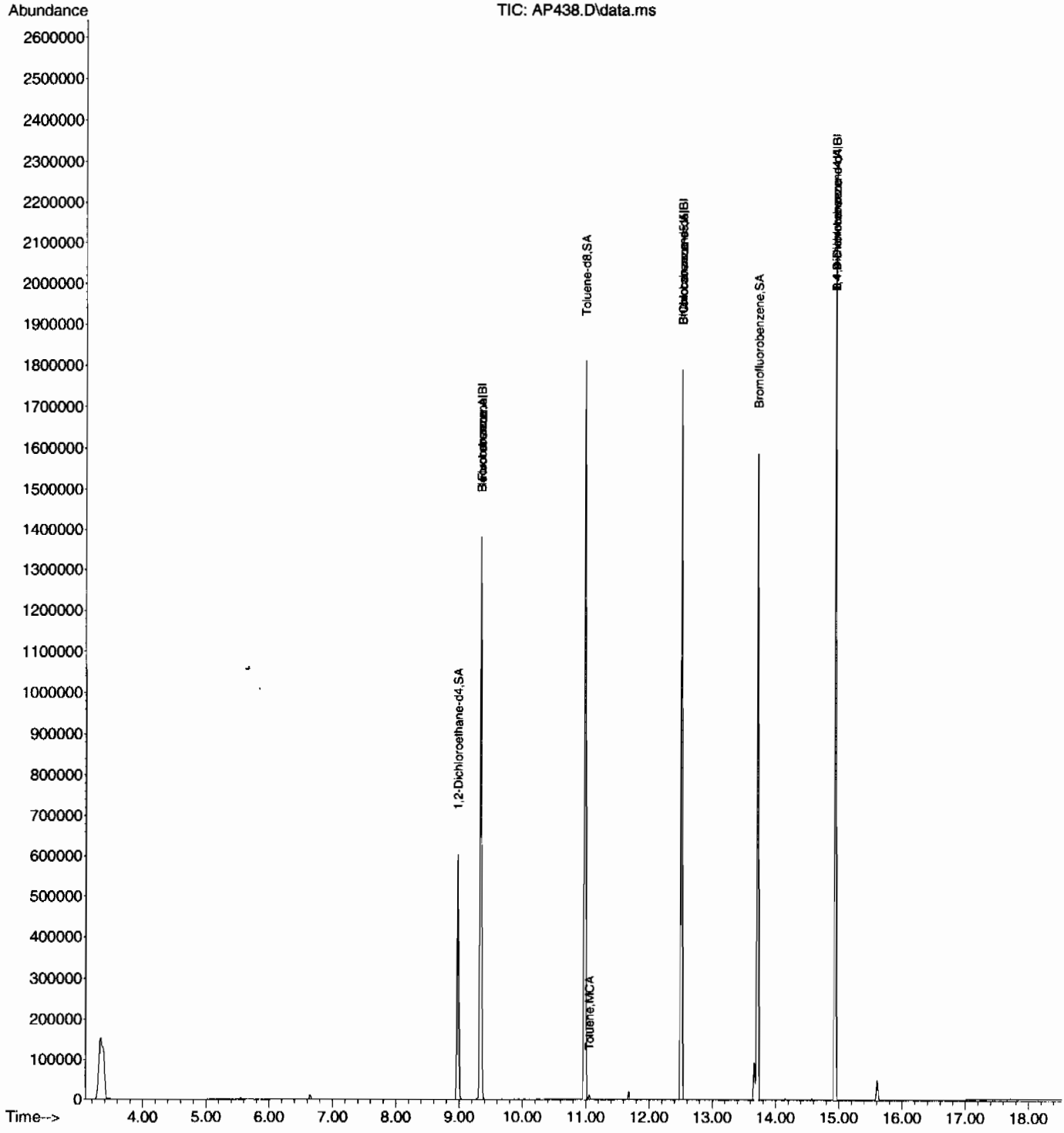

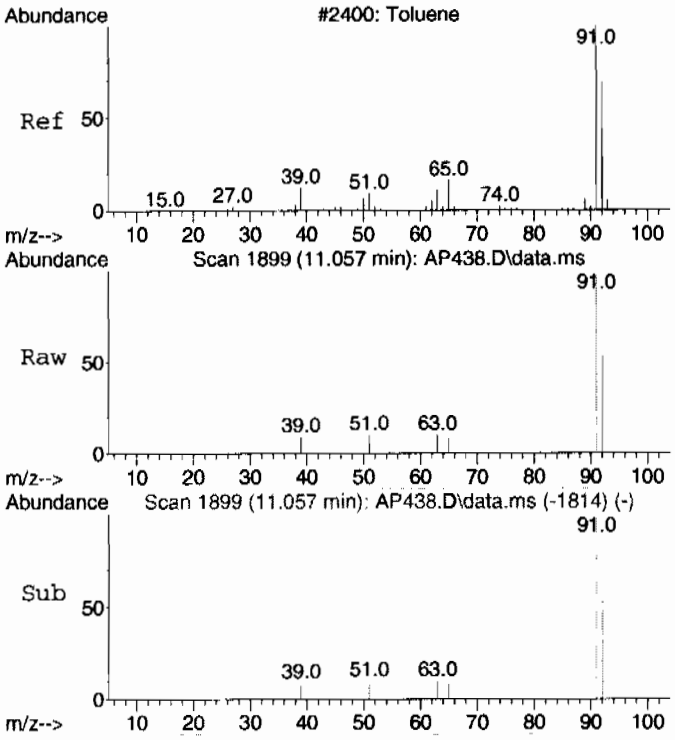

#44
Toluene
Concen: 0.40 ug/L
RT: 11.057 min Scan# 1899
Delta R.T. -0.001 min
Lab File: AP438.D
Acq: 18 Dec 2009 8:56 am

Tgt Ion: 91 Resp: 9842

Ion	Ratio	Lower	Upper
91	100		
92	55.1	30.0	90.0

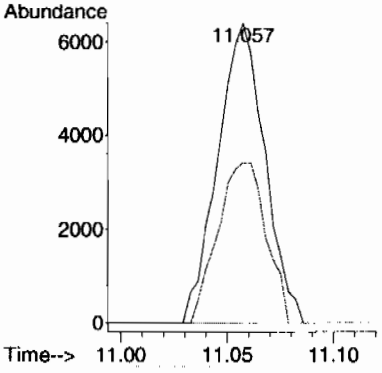

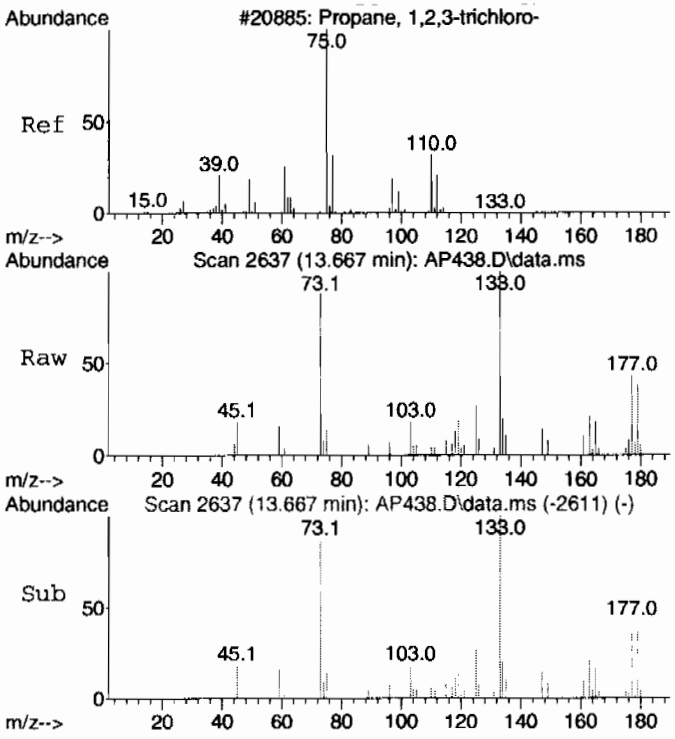

#63 BEFORE analyst DELETION
1,2,3-Trichloropropane
Concen: 0.43 ug/L
RT: 13.667 min Scan# 2637
Delta R.T. -0.209 min
Lab File: AP438.D
Acq: 18 Dec 2009 8:56 am

Tgt Ion:110 Resp: 898

Ion	Ratio	Lower	Upper
110	100		
75	416.8	225.2	285.2#
77	0.0	48.9	108.9#

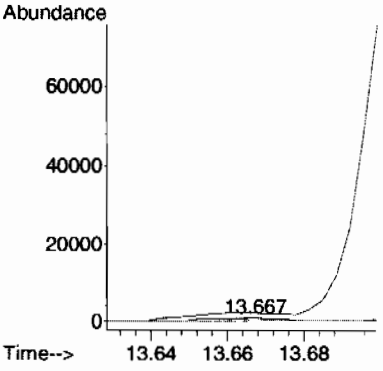

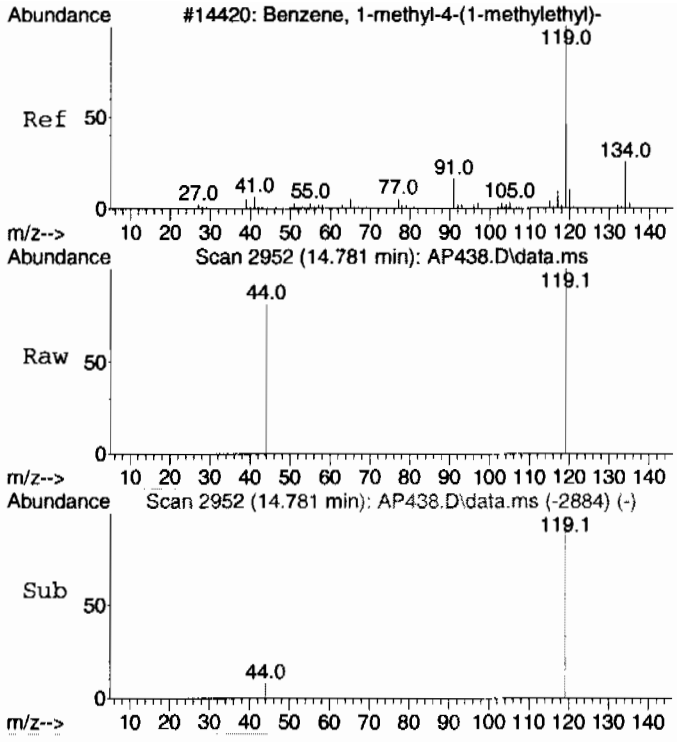

#72 BEFORE analyst DELETION
4-Isopropyltoluene
Concen: 0.85 ug/L
RT: 14.781 min Scan# 2952
Delta R.T. -0.060 min
Lab File: AP438.D
Acq: 18 Dec 2009 8:56 am

Tgt Ion:119 Resp: 1143

Ion	Ratio	Lower	Upper
119	100		
134	0.0	0.0	58.1
91	0.0	0.0	52.4

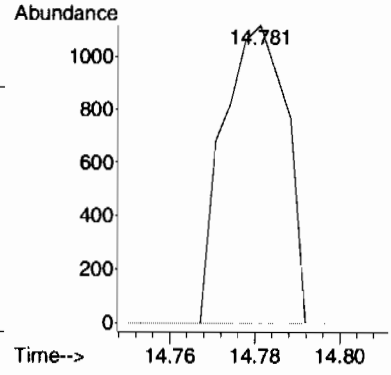

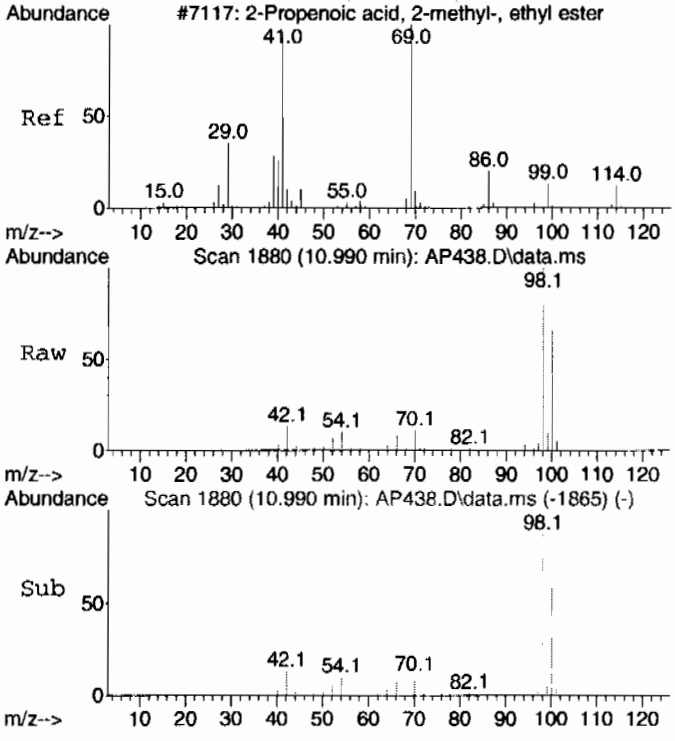

#104 BEFORE analyst DELETION
Ethyl methacrylate
Concen: 1.68 ug/L
RT: 10.990 min Scan# 1880
Delta R.T. -0.247 min
Lab File: AP438.D
Acq: 18 Dec 2009 8:56 am

Tgt Ion: 69 Resp: 3440

Ion	Ratio	Lower	Upper
69	100		
41	90.6	36.3	96.3
99	3268.4	0.0	50.5#

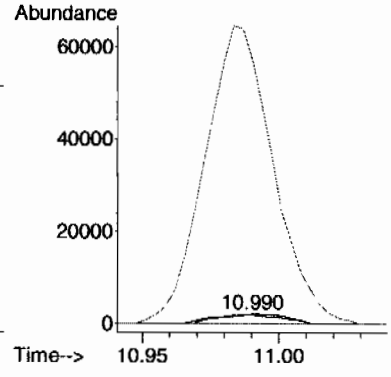

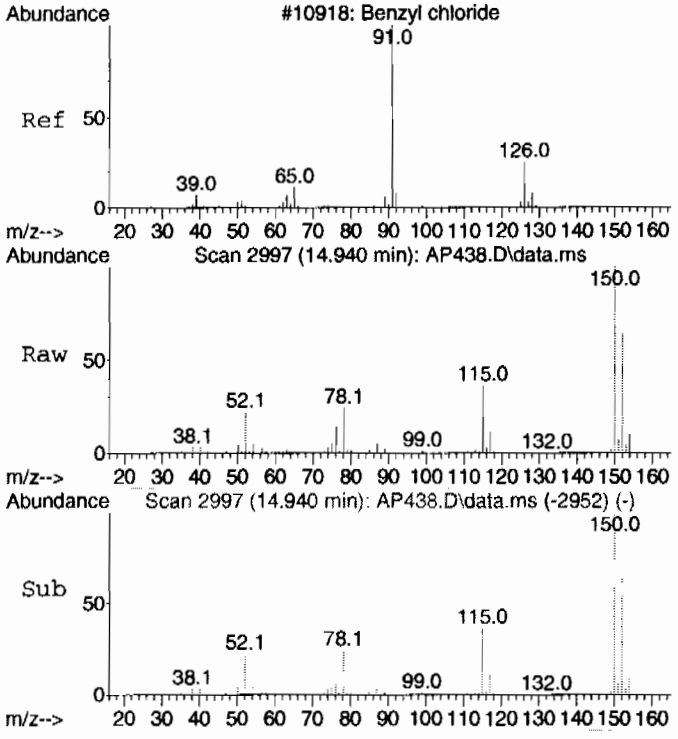

#111 BEFORE analyst DELETION
Benzyl chloride
Concen: 4.45 ug/L
RT: 14.940 min Scan# 2997
Delta R.T. -0.141 min
Lab File: AP438.D
Acq: 18 Dec 2009 8:56 am

Tgt Ion: 91 Resp: 1001

Ion	Ratio	Lower	Upper
91	100		
126	0.0	0.0	52.0
65	415.1	0.0	41.2#

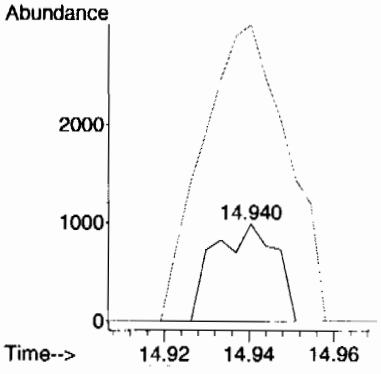

Library Search Compound Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709\
Data File : AP438.D
Acq On : 18 Dec 2009 8:56 am
Operator : JEB
Sample : |242654017|934516|1|VOA|1|VOA8260BS|
Misc : LANL 5.2G N/A SOIL
ALS Vial : 38 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\VOAA-8260-110609.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

****
Peak Number 1 unknown Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
3.339	17.50 ug/L	863239	Fluorobenzene	9.339

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Dimethyl ether	46	C2H6O	000115-10-6	5
2	Ethyl alcohol	46	C2H6O	000064-17-5	4
3	Ethyl alcohol	46	C2H6O	000064-17-5	4
4	Ethyl alcohol	46	C2H6O	000064-17-5	4
5	Formic acid	46	CH2O2	000064-18-6	3

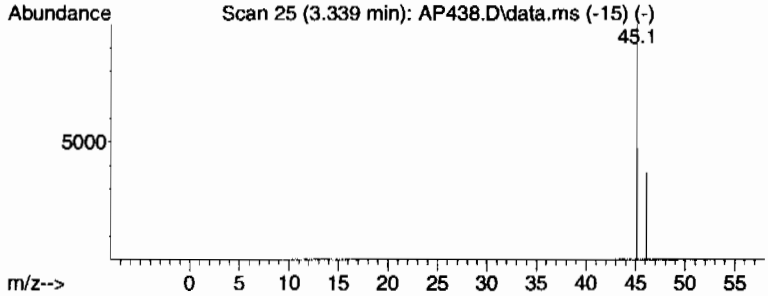

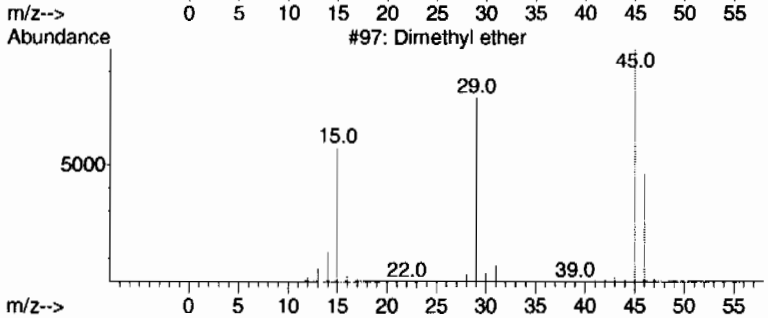

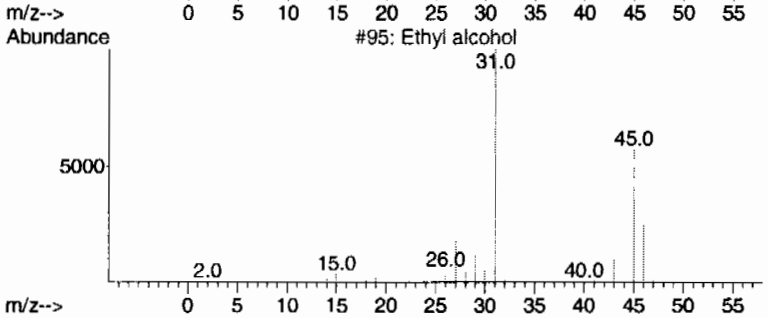

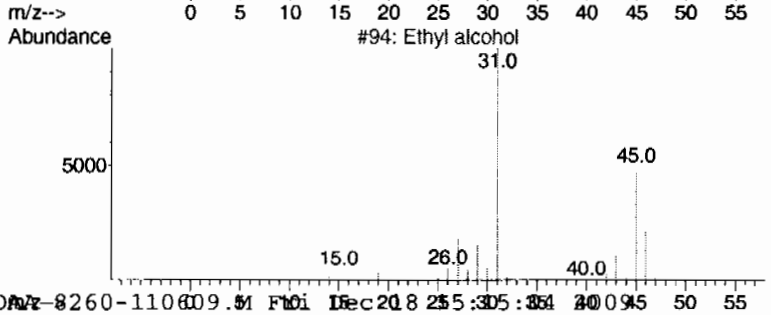

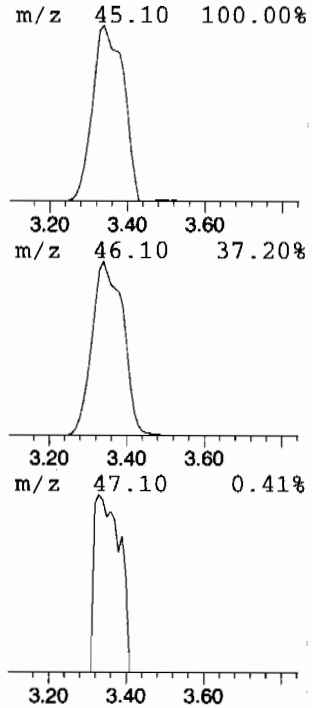

Tentatively Identified Compound (LSC) summary
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709\
Data File : AP438.D
Acq On : 18 Dec 2009 8:56 am
Operator : JEB
Sample : |242654017|934516|1|VOA|1|VOA8260BS|
Misc : LANL 5.2G N/A SOIL
ALS Vial : 38 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\VOAA-8260-110609.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

TIC Top Hit name	RT	EstConc	Units	Response	--Internal Standard--- #	RT	Resp	Conc
unknown	3.339	17.5	ug/L	863239	1	9.339	2467040	50.0

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242654018	**Date Received:**	12/10/2009 08:50	**%Moisture:**	14.2
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14285	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	934516	**Inst:**	VOAA.I	**Dilution:**	1
Run Date:	12/18/2009 09:22	**Analyst:**	JEB	**Purge Vol:**	5 mL
Prep Date:	12/17/2009 19:30	**Aliquot:**	5.5 g	**Final Volume:**	5 mL
Data File:	121709\AP439.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.06	ug/kg	0.360	1.06
74-87-3	Chloromethane	U	1.06	ug/kg	0.318	1.06
75-01-4	Vinyl chloride	U	1.06	ug/kg	0.318	1.06
74-83-9	Bromomethane	U	1.06	ug/kg	0.318	1.06
75-00-3	Chloroethane	U	1.06	ug/kg	0.318	1.06
75-69-4	Trichlorofluoromethane	U	1.06	ug/kg	0.318	1.06
67-64-1	Acetone	U	5.30	ug/kg	1.76	5.30
75-35-4	1,1-Dichloroethylene	U	1.06	ug/kg	0.318	1.06
74-88-4	Iodomethane	U	5.30	ug/kg	1.69	5.30
75-09-2	Methylene chloride	U	5.30	ug/kg	2.12	5.30
75-15-0	Carbon disulfide	U	5.30	ug/kg	1.32	5.30
156-60-5	trans-1,2-Dichloroethylene	U	1.06	ug/kg	0.318	1.06
75-34-3	1,1-Dichloroethane	U	1.06	ug/kg	0.318	1.06
78-93-3	2-Butanone	U	5.30	ug/kg	1.59	5.30
156-59-2	cis-1,2-Dichloroethylene	U	1.06	ug/kg	0.318	1.06
594-20-7	2,2-Dichloropropane	U	1.06	ug/kg	0.318	1.06
67-66-3	Chloroform	U	1.06	ug/kg	0.318	1.06
74-97-5	Bromochloromethane	U	1.06	ug/kg	0.350	1.06
71-55-6	1,1,1-Trichloroethane	U	1.06	ug/kg	0.318	1.06
563-58-6	1,1-Dichloropropene	U	1.06	ug/kg	0.318	1.06
56-23-5	Carbon tetrachloride	U	1.06	ug/kg	0.318	1.06
107-06-2	1,2-Dichloroethane	U	1.06	ug/kg	0.318	1.06
71-43-2	Benzene	U	1.06	ug/kg	0.318	1.06
79-01-6	Trichloroethylene	U	1.06	ug/kg	0.350	1.06
78-87-5	1,2-Dichloropropane	U	1.06	ug/kg	0.318	1.06
75-27-4	Bromodichloromethane	U	1.06	ug/kg	0.318	1.06
74-95-3	Dibromomethane	U	1.06	ug/kg	0.318	1.06
108-10-1	4-Methyl-2-pentanone	U	5.30	ug/kg	1.32	5.30
10061-01-5	cis-1,3-Dichloropropylene	U	1.06	ug/kg	0.318	1.06
108-88-3	Toluene	U	1.06	ug/kg	0.318	1.06
10061-02-6	trans-1,3-Dichloropropylene	U	1.06	ug/kg	0.318	1.06
79-00-5	1,1,2-Trichloroethane	U	1.06	ug/kg	0.318	1.06
591-78-6	2-Hexanone	U	5.30	ug/kg	1.59	5.30
142-28-9	1,3-Dichloropropane	U	1.06	ug/kg	0.318	1.06
127-18-4	Tetrachloroethylene	U	1.06	ug/kg	0.318	1.06
124-48-1	Dibromochloromethane	U	1.06	ug/kg	0.318	1.06
106-93-4	1,2-Dibromoethane	U	1.06	ug/kg	0.318	1.06
108-90-7	Chlorobenzene	U	1.06	ug/kg	0.318	1.06

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-852**	**Date Collected:**	**12/07/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242654018**	**Date Received:**	**12/10/2009 08:50**	**%Moisture:**	**14.2**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14285**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**934516**	**Inst:**	**VOAA.I**	**Dilution:**	**1**
Run Date:	**12/18/2009 09:22**	**Analyst:**	**JEB**	**Purge Vol:**	**5 mL**
Prep Date:	**12/17/2009 19:30**	**Aliquot:**	**5.5 g**	**Final Volume:**	**5 mL**
Data File:	**121709\AP439.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.06	ug/kg	0.318	1.06
179601-23-1	m,p-Xylenes	U	2.12	ug/kg	0.318	2.12
95-47-6	o-Xylene	U	1.06	ug/kg	0.318	1.06
100-42-5	Styrene	U	1.06	ug/kg	0.318	1.06
75-25-2	Bromoform	U	1.06	ug/kg	0.318	1.06
79-34-5	1,1,2,2-Tetrachloroethane	U	1.06	ug/kg	0.318	1.06
96-18-4	1,2,3-Trichloropropane	U	1.06	ug/kg	0.318	1.06
108-86-1	Bromobenzene	U	1.06	ug/kg	0.318	1.06
103-65-1	n-Propylbenzene	U	1.06	ug/kg	0.318	1.06
95-49-8	2-Chlorotoluene	U	1.06	ug/kg	0.318	1.06
98-82-8	Isopropylbenzene	U	1.06	ug/kg	0.318	1.06
108-67-8	1,3,5-Trimethylbenzene	U	1.06	ug/kg	0.318	1.06
106-43-4	4-Chlorotoluene	U	1.06	ug/kg	0.318	1.06
98-06-6	tert-Butylbenzene	U	1.06	ug/kg	0.318	1.06
95-63-6	1,2,4-Trimethylbenzene	J	0.413	ug/kg	0.318	1.06
135-98-8	sec-Butylbenzene	U	1.06	ug/kg	0.318	1.06
99-87-6	4-Isopropyltoluene	U	1.06	ug/kg	0.318	1.06
541-73-1	1,3-Dichlorobenzene	U	1.06	ug/kg	0.318	1.06
106-46-7	1,4-Dichlorobenzene	U	1.06	ug/kg	0.318	1.06
104-51-8	n-Butylbenzene	U	1.06	ug/kg	0.318	1.06
96-12-8	1,2-Dibromo-3-chloropropane	U	1.06	ug/kg	0.318	1.06
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.30	ug/kg	1.69	5.30
630-20-6	1,1,1,2-Tetrachloroethane	U	1.06	ug/kg	0.318	1.06
95-50-1	1,2-Dichlorobenzene	U	1.06	ug/kg	0.318	1.06

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown	3.34	8.71	ug/kg	0	J

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709\
Data File : AP439.D
Acq On : 18 Dec 2009 9:22 am
Operator : JEB
InstName : VOAA
Sample : |242654018|934516|1|VOA|1|VOA8260BS|
Misc : LANL 5.5G N/A SOIL
ALS Vial : 39 Sample Multiplier: 1

Quant Time: Dec 18 15:16:02 2009
Quant Method : C:\msdchem\1\METHODS\VOAA-8260-110609.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Nov 09 16:21:09 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Fluorobenzene	9.339	96	1126563	50.00 ug/L	0.00
41) Chlorobenzene-d5	12.507	117	918111	50.00 ug/L	0.00
58) 1,4-Dichlorobenzene-d4	14.941	152	584660	50.00 ug/L	0.00
82) B Fluorobenzene	9.339	96	1126563	50.00 ug/L	0.00
103) B Chlorobenzene-d5	12.507	117	918111	50.00 ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	14.941	152	584660	50.00 ug/L	0.00
System Monitoring Compounds					
29) 1,2-Dichloroethane-d4	8.978	65	451244	57.65 ug/L	0.00
Spiked Amount 50.000	Range 68 - 131		Recovery = 115.30%		
43) Toluene-d8	10.983	98	1087749	46.67 ug/L	0.00
Spiked Amount 50.000	Range 75 - 129		Recovery = 93.34%		
61) Bromofluorobenzene	13.710	95	482621	45.82 ug/L	0.00
Spiked Amount 50.000	Range 68 - 133		Recovery = 91.64%		
Target Compounds					Qvalue
2) Dichlorodifluoromethane	0.000		0	N.D.	
3) Chloromethane	0.000		0	N.D.	
4) Vinyl chloride	0.000		0	N.D.	
5) Bromomethane	0.000		0	N.D.	
6) Chloroethane	0.000		0	N.D.	
7) Trichlorofluoromethane	0.000		0	N.D.	
8) Ethyl ether	0.000		0	N.D.	
9) Acetone	6.096	43	115	N.D.	
10) 1,1-Dichloroethylene	0.000		0	N.D.	
11) Iodomethane	0.000		0	N.D.	
12) Acetonitrile	0.000		0	N.D.	
13) Methyl acetate	0.000		0	N.D.	
14) Carbon disulfide	6.425	76	137	N.D.	
15) Methylene chloride	6.648	84	6437	Below Cal	84
16) tert-Butyl methyl ether	0.000		0	N.D.	
17) trans-1,2-Dichloroethy...	0.000		0	N.D.	
18) Vinyl acetate	0.000		0	N.D.	
19) 1,1-Dichloroethane	0.000		0	N.D.	
20) 2-Butanone	0.000		0	N.D.	
21) cis-1,2-Dichloroethylene	0.000		0	N.D.	
22) 2,2-Dichloropropane	0.000		0	N.D.	
23) Bromochloromethane	0.000		0	N.D.	
24) Chloroform	0.000		0	N.D.	
25) 1,1,1-Trichloroethane	0.000		0	N.D.	
26) Cyclohexane	0.000		0	N.D.	
27) 1,1-Dichloropropene	0.000		0	N.D.	
28) Carbon tetrachloride	0.000		0	N.D.	
30) 1,2-Dichloroethane	0.000		0	N.D.	
31) Benzene	0.000		0	N.D.	
32) Cyclohexene	0.000		0	N.D.	
33) n-Butyl alcohol	0.000		0	N.D.	
34) Trichloroethylene	0.000		0	N.D.	
35) 1,2-Dichloropropane	0.000		0	N.D.	
36) Methylcyclohexane	0.000		0	N.D.	
37) Dibromomethane	0.000		0	N.D.	
38) Bromodichloromethane	0.000		0	N.D.	
39) 2-Chloroethylvinyl ether	0.000		0	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709\
Data File : AP439.D
Acq On : 18 Dec 2009 9:22 am
Operator : JEB
InstName : VOAA
Sample : |242654018|934516|1|VOA|1|VOA8260BS|
Misc : LANL 5.5G N/A SOIL
ALS Vial : 39 Sample Multiplier: 1

Quant Time: Dec 18 15:16:02 2009
Quant Method : C:\msdchem\1\METHODS\VOAA-8260-110609.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Nov 09 16:21:09 2009
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
40)	cis-1,3-Dichloropropylene	0.000		0	N.D.	
42)	4-Methyl-2-pentanone	0.000		0	N.D.	
44)	Toluene	11.054	91	113	N.D.	
45)	trans-1,3-Dichloroprop...	0.000		0	N.D.	
46)	1,1,2-Trichloroethane	0.000		0	N.D.	
47)	2-Hexanone	0.000		0	N.D.	
48)	1,3-Dichloropropane	0.000		0	N.D.	
49)	Tetrachloroethylene	0.000		0	N.D.	
50)	Dibromochloromethane	0.000		0	N.D.	
51)	1,2-Dibromoethane	0.000		0	N.D.	
52)	Chlorobenzene	0.000		0	N.D.	
53)	1,1,1,2-Tetrachloroethane	0.000		0	N.D.	
54)	Ethylbenzene	12.723	91	110	N.D.	
55)	m,p-Xylenes	0.000		0	N.D.	
56)	o-Xylene	0.000		0	N.D.	
57)	Styrene	0.000		0	N.D.	
59)	Bromoform	0.000		0	N.D.	
60)	Isopropylbenzene	13.664	105	245	N.D.	
62)	1,1,2,2-Tetrachloroethane	0.000		0	N.D.	
63)	1,2,3-Trichloropropane	13.660	110	252	N.D.	
64)	Bromobenzene	0.000		0	N.D.	
65)	n-Propylbenzene	13.717	91	1430	N.D.	
66)	1,3,5-Trimethylbenzene	0.000		0	N.D.	
67)	2-Chlorotoluene	0.000		0	N.D.	
68)	4-Chlorotoluene	0.000		0	N.D.	
69)	tert-Butylbenzene	0.000		0m	N.D. d	
70)	1,2,4-Trimethylbenzene	14.523	105	9626	0.39 ug/L	66
71)	sec-Butylbenzene	0.000		0m	N.D. d	
72)	4-Isopropyltoluene	0.000		0	N.D.	
73)	1,3-Dichlorobenzene	0.000		0	N.D.	
74)	1,4-Dichlorobenzene	14.969	146	109	N.D.	
75)	n-Butylbenzene	0.000		0	N.D.	
76)	1,2-Dichlorobenzene	0.000		0	N.D.	
77)	1,2-Dibromo-3-chloropr...	0.000		0	N.D.	
78)	1,2,4-Trichlorobenzene	17.183	180	159	N.D.	
79)	Hexachlorobutadiene	0.000		0	N.D.	
80)	Naphthalene	17.530	128	1669	N.D.	
81)	1,2,3-Trichlorobenzene	0.000		0	N.D.	
83)	Chlorotrifluoroethylene	0.000		0	N.D.	
84)	2-Chloro-1,1,1-trifluo...	0.000		0	N.D.	
85)	Acrolein	0.000		0	N.D.	
86)	Trichlorotrifluoroethane	0.000		0	N.D.	
87)	Isopropyl Alcohol	0.000		0	N.D.	
88)	Allyl chloride	0.000		0	N.D.	
89)	tert-Butyl Alcohol	0.000		0	N.D.	
90)	Acrylonitrile	0.000		0	N.D.	
91)	Isopropyl ether	0.000		0	N.D.	
92)	2-Chloro-1,3-butadiene	0.000		0	N.D.	
93)	Ethyl tert-butyl ether	0.000		0	N.D.	
94)	Ethyl acetate	0.000		0	N.D.	
95)	Propionitrile	0.000		0	N.D.	
96)	Methacrylonitrile	0.000		0	N.D.	
97)	Tetrahydrofuran	0.000		0	N.D.	
98)	Isobutyl alcohol	0.000		0	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709\
Data File : AP439.D
Acq On : 18 Dec 2009 9:22 am
Operator : JEB
InstName : VOAA
Sample : |242654018|934516|1|VOA|1|VOA8260BS|
Misc : LANL 5.5G N/A SOIL
ALS Vial : 39 Sample Multiplier: 1

Quant Time: Dec 18 15:16:02 2009
Quant Method : C:\msdchem\1\METHODS\VOAA-8260-110609.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Nov 09 16:21:09 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
99) Methyl tert-amyl ether	0.000		0	N.D.	
100) Methyl methacrylate	0.000		0	N.D.	
101) 1,4-Dioxane	0.000		0	N.D.	
102) 2-Nitropropane	0.000		0	N.D.	
104) Ethyl methacrylate	0.000		0	N.D.	
106) 1-Chlorohexane	0.000		0	N.D.	
107) cis-1,4-Dichloro-2-butene	0.000		0	N.D.	
108) Cyclohexanone	0.000		0	N.D.	
109) trans-1,4-Dichloro-2-b...	0.000		0	N.D.	
110) Pentachloroethane	0.000		0	N.D.	
111) Benzyl chloride	0.000		0m	N.D. d	
112) bis(2-Chloroisopropyl)...	0.000		0m	N.D. d	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709\
Data File : AP439.D
Acq On : 18 Dec 2009 9:22 am
Operator : JEB
InstName : VOAA
Sample : |242654018|934516|1|VOA|1|VOA8260BS|
Misc : LANL 5.5G N/A SOIL
ALS Vial : 39 Sample Multiplier: 1

Quant Time: Dec 18 15:16:02 2009
Quant Method : C:\msdchem\1\METHODS\VOAA-8260-110609.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Nov 09 16:21:09 2009
Response via : Initial Calibration
Integrator: RTE

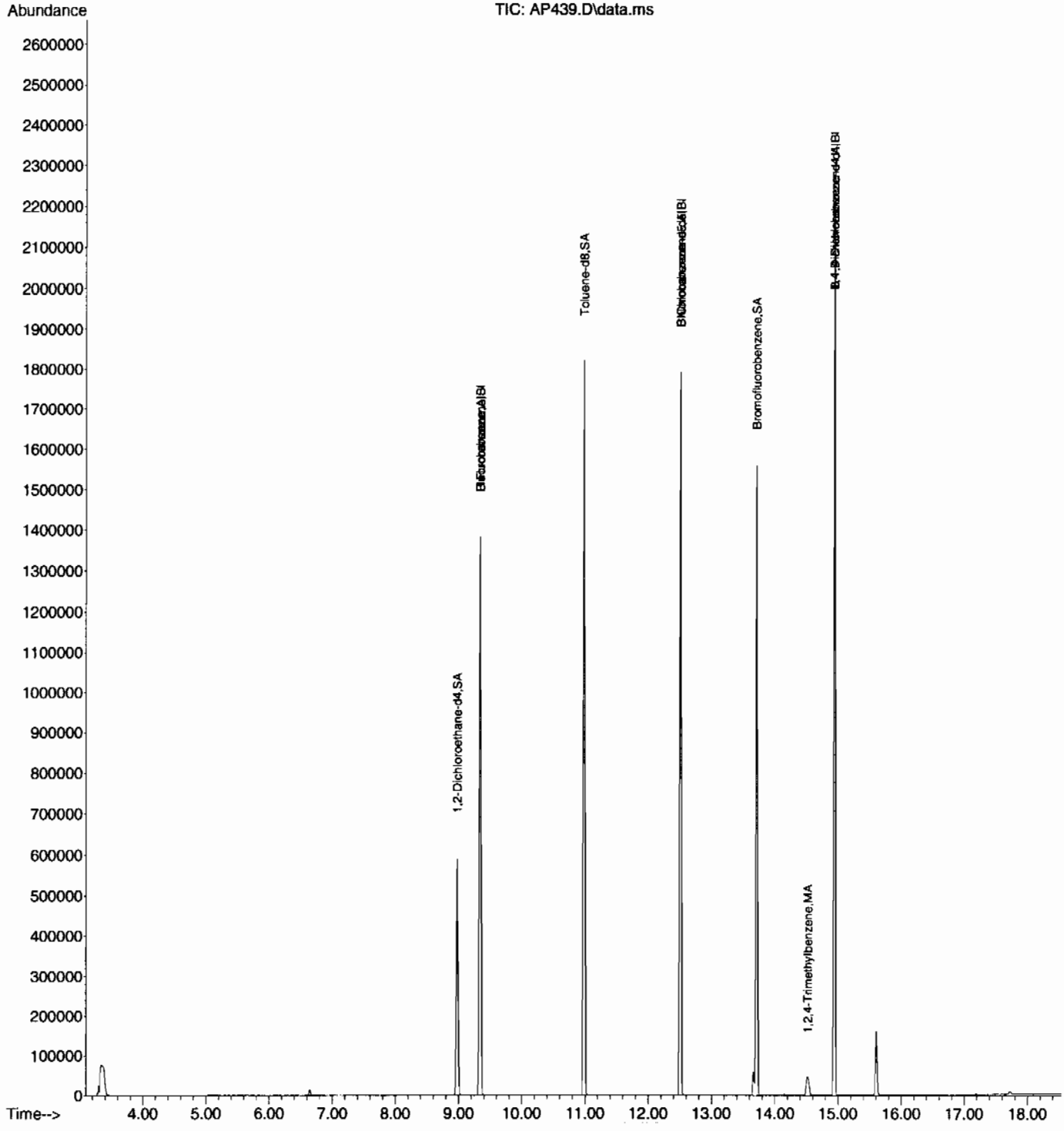

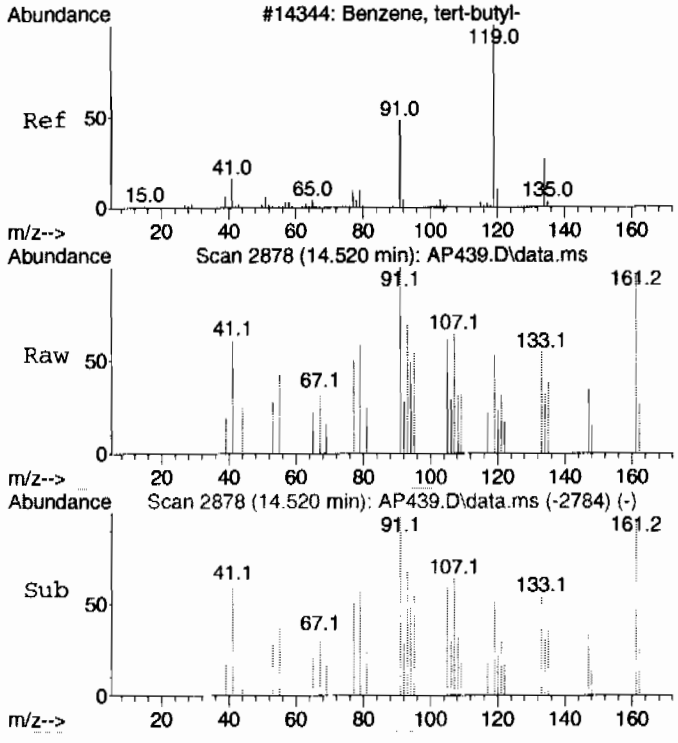

#69 BEFORE analyst DELETION
tert-Butylbenzene
Concen: 0.36 ug/L
RT: 14.520 min Scan# 2878
Delta R.T. 0.032 min
Lab File: AP439.D
Acq: 18 Dec 2009 9:22 am

Tgt Ion:134 Resp: 1910

Ion	Ratio	Lower	Upper
134	100		
119	347.4	354.2	414.2#
91	660.6	218.8	278.8#

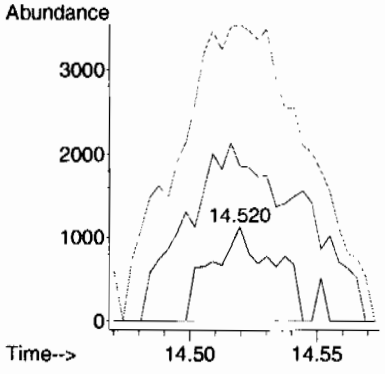

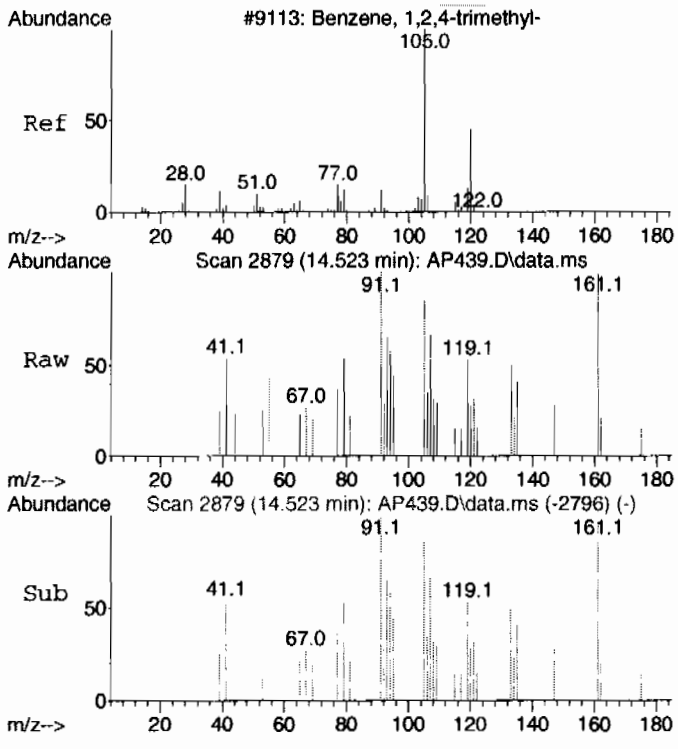

#70
1,2,4-Trimethylbenzene
Concen: 0.39 ug/L
RT: 14.523 min Scan# 2879
Delta R.T. -0.007 min
Lab File: AP439.D
Acq: 18 Dec 2009 9:22 am

Tgt Ion:105 Resp: 9626

Ion	Ratio	Lower	Upper
105	100		
120	25.4	18.2	78.2

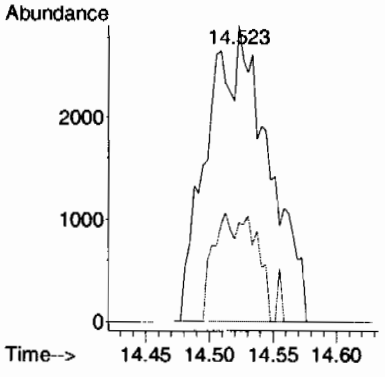

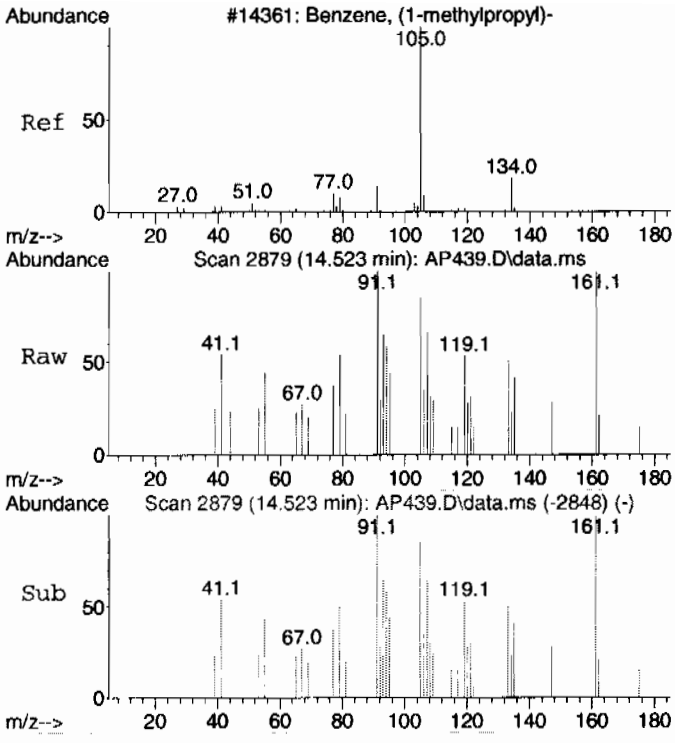

#71 BEFORE analyst DELETION
sec-Butylbenzene
Concen: 0.30 ug/L
RT: 14.523 min Scan# 2879
Delta R.T. -0.191 min
Lab File: AP439.D
Acq: 18 Dec 2009 9:22 am

Tgt Ion:105 Resp: 9626

Ion	Ratio	Lower	Upper
105	100		
134	19.8	0.0	52.3

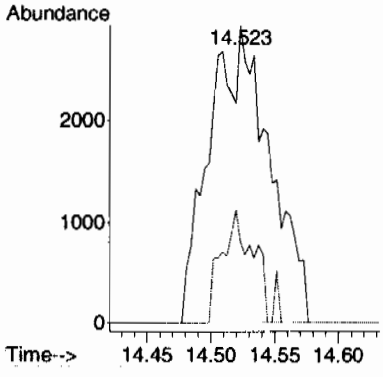

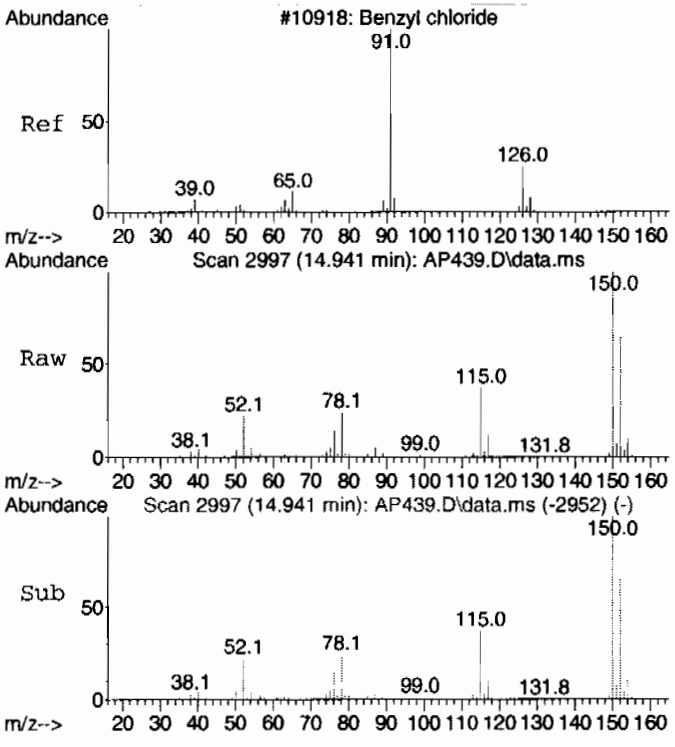

#111 BEFORE analyst DELETION
Benzyl chloride
Concen: 4.46 ug/L
RT: 14.941 min Scan# 2997
Delta R.T. -0.141 min
Lab File: AP439.D
Acq: 18 Dec 2009 9:22 am

Tgt Ion: 91 Resp: 1026

Ion	Ratio	Lower	Upper
91	100		
126	0.0	0.0	52.0
65	403.4	0.0	41.2#

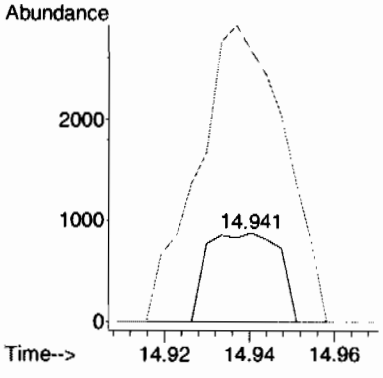

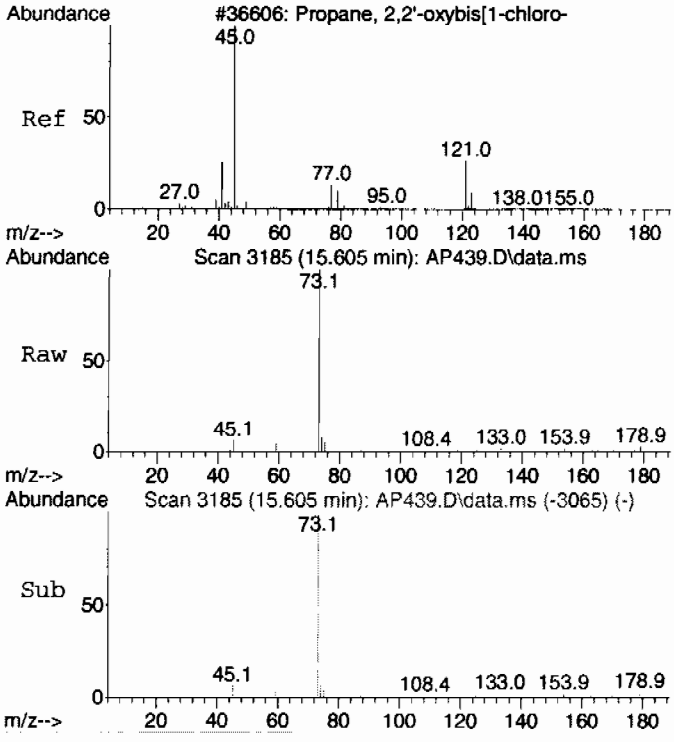

#112 BEFORE analyst DELETION
bis(2-Chloroisopropyl)ether
Concen: 3.04 ug/L
RT: 15.605 min Scan# 3185
Delta R.T. 0.124 min
Lab File: AP439.D
Acq: 18 Dec 2009 9:22 am

Tgt Ion: 45 Resp: 11082

Ion	Ratio	Lower	Upper
45	100		
121	0.0	0.0	56.8

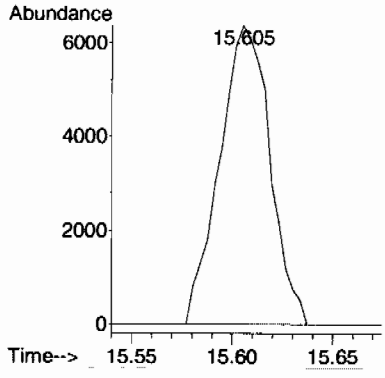

Library Search Compound Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709\
Data File : AP439.D
Acq On : 18 Dec 2009 9:22 am
Operator : JEB
Sample : |242654018|934516|1|VOA|1|VOA8260BS|
Misc : LANL 5.5G N/A SOIL
ALS Vial : 39 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\VOAA-8260-110609.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

****

Peak Number 1 unknown Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
3.339	8.22 ug/L	404770	Fluorobenzene	9.339

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Dimethyl ether	46	C2H6O	000115-10-6	5
2	Ethyl alcohol	46	C2H6O	000064-17-5	4
3	Ethyl alcohol	46	C2H6O	000064-17-5	4
4	Ethyl alcohol	46	C2H6O	000064-17-5	4
5	Dimethyl ether	46	C2H6O	000115-10-6	2

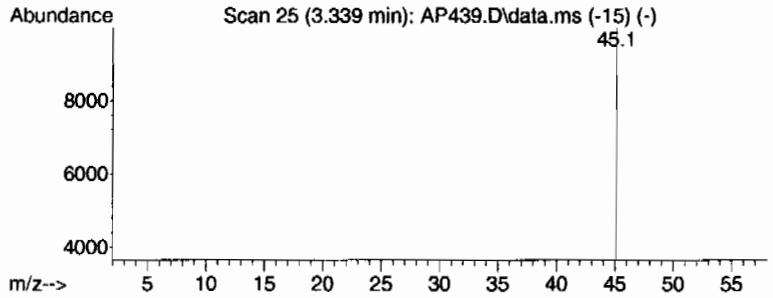

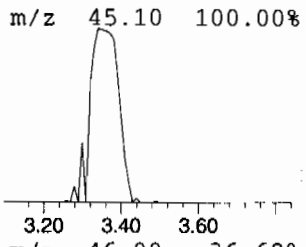

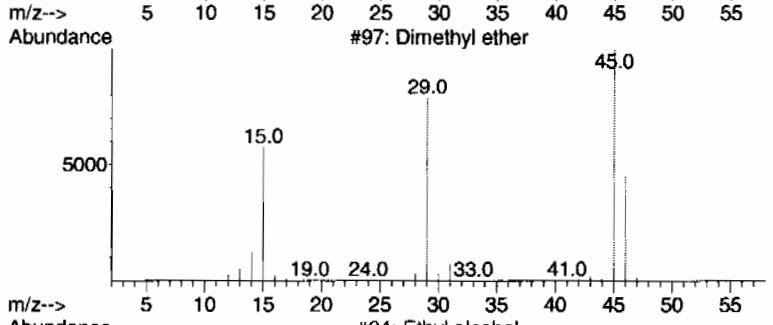

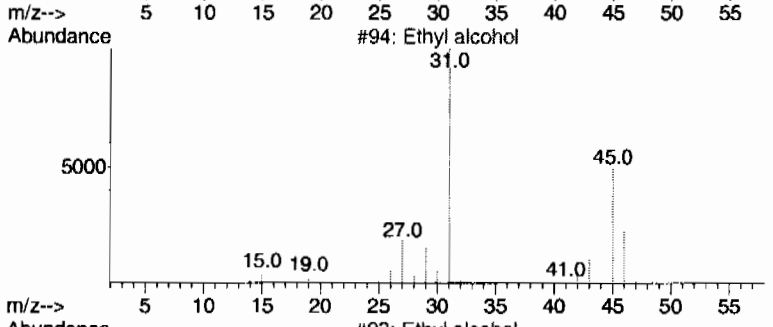

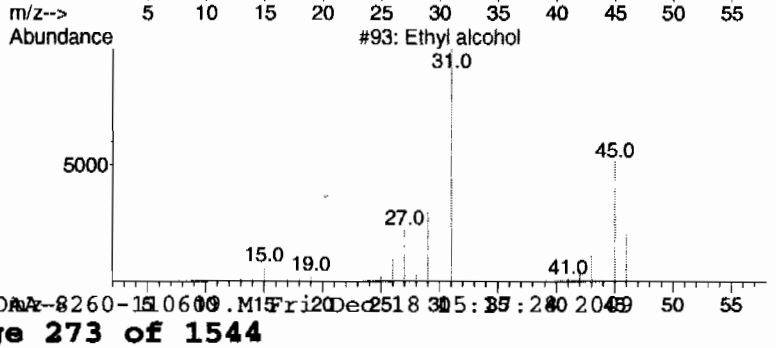

Tentatively Identified Compound (LSC) summary
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709\
Data File : AP439.D
Acq On : 18 Dec 2009 9:22 am
Operator : JEB
Sample : |242654018|934516|1|VOA|1|VOA8260BS|
Misc : LANL 5.5G N/A SOIL
ALS Vial : 39 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\VOAA-8260-110609.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

TIC Top Hit name	RT	EstConc	Units	Response	--Internal Standard--- #	RT	Resp	Conc
unknown	3.339	8.2	ug/L	404770	1	9.339	2462180	50.0

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242654019	**Date Received:**	12/10/2009 08:50	**%Moisture:**	13.4
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14286	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	934516	**Inst:**	VOAA.I	**Dilution:**	1
Run Date:	12/18/2009 09:48	**Analyst:**	JEB	**Purge Vol:**	5 mL
Prep Date:	12/17/2009 19:32	**Aliquot:**	5.3 g	**Final Volume:**	5 mL
Data File:	121709\AP440.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.09	ug/kg	0.370	1.09
74-87-3	Chloromethane	U	1.09	ug/kg	0.327	1.09
75-01-4	Vinyl chloride	U	1.09	ug/kg	0.327	1.09
74-83-9	Bromomethane	U	1.09	ug/kg	0.327	1.09
75-00-3	Chloroethane	U	1.09	ug/kg	0.327	1.09
75-69-4	Trichlorofluoromethane	U	1.09	ug/kg	0.327	1.09
67-64-1	Acetone	U	5.45	ug/kg	1.81	5.45
75-35-4	1,1-Dichloroethylene	U	1.09	ug/kg	0.327	1.09
74-88-4	Iodomethane	U	5.45	ug/kg	1.74	5.45
75-09-2	Methylene chloride	U	5.45	ug/kg	2.18	5.45
75-15-0	Carbon disulfide	U	5.45	ug/kg	1.36	5.45
156-60-5	trans-1,2-Dichloroethylene	U	1.09	ug/kg	0.327	1.09
75-34-3	1,1-Dichloroethane	U	1.09	ug/kg	0.327	1.09
78-93-3	2-Butanone	U	5.45	ug/kg	1.63	5.45
156-59-2	cis-1,2-Dichloroethylene	U	1.09	ug/kg	0.327	1.09
594-20-7	2,2-Dichloropropane	U	1.09	ug/kg	0.327	1.09
67-66-3	Chloroform	U	1.09	ug/kg	0.327	1.09
74-97-5	Bromochloromethane	U	1.09	ug/kg	0.359	1.09
71-55-6	1,1,1-Trichloroethane	U	1.09	ug/kg	0.327	1.09
563-58-6	1,1-Dichloropropene	U	1.09	ug/kg	0.327	1.09
56-23-5	Carbon tetrachloride	U	1.09	ug/kg	0.327	1.09
107-06-2	1,2-Dichloroethane	U	1.09	ug/kg	0.327	1.09
71-43-2	Benzene	U	1.09	ug/kg	0.327	1.09
79-01-6	Trichloroethylene	U	1.09	ug/kg	0.359	1.09
78-87-5	1,2-Dichloropropane	U	1.09	ug/kg	0.327	1.09
75-27-4	Bromodichloromethane	U	1.09	ug/kg	0.327	1.09
74-95-3	Dibromomethane	U	1.09	ug/kg	0.327	1.09
108-10-1	4-Methyl-2-pentanone	U	5.45	ug/kg	1.36	5.45
10061-01-5	cis-1,3-Dichloropropylene	U	1.09	ug/kg	0.327	1.09
108-88-3	Toluene	U	1.09	ug/kg	0.327	1.09
10061-02-6	trans-1,3-Dichloropropylene	U	1.09	ug/kg	0.327	1.09
79-00-5	1,1,2-Trichloroethane	U	1.09	ug/kg	0.327	1.09
591-78-6	2-Hexanone	U	5.45	ug/kg	1.63	5.45
142-28-9	1,3-Dichloropropane	U	1.09	ug/kg	0.327	1.09
127-18-4	Tetrachloroethylene	U	1.09	ug/kg	0.327	1.09
124-48-1	Dibromochloromethane	U	1.09	ug/kg	0.327	1.09
106-93-4	1,2-Dibromoethane	U	1.09	ug/kg	0.327	1.09
108-90-7	Chlorobenzene	U	1.09	ug/kg	0.327	1.09

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-852**	**Date Collected:**	**12/07/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242654019**	**Date Received:**	**12/10/2009 08:50**	**%Moisture:**	**13.4**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14286**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**934516**	**Inst:**	**VOAA.I**	**Dilution:**	**1**
Run Date:	**12/18/2009 09:48**	**Analyst:**	**JEB**	**Purge Vol:**	**5 mL**
Prep Date:	**12/17/2009 19:32**	**Aliquot:**	**5.3 g**	**Final Volume:**	**5 mL**
Data File:	**121709\AP440.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.09	ug/kg	0.327	1.09
179601-23-1	m,p-Xylenes	U	2.18	ug/kg	0.327	2.18
95-47-6	o-Xylene	U	1.09	ug/kg	0.327	1.09
100-42-5	Styrene	U	1.09	ug/kg	0.327	1.09
75-25-2	Bromoform	U	1.09	ug/kg	0.327	1.09
79-34-5	1,1,2,2-Tetrachloroethane	U	1.09	ug/kg	0.327	1.09
96-18-4	1,2,3-Trichloropropane	U	1.09	ug/kg	0.327	1.09
108-86-1	Bromobenzene	U	1.09	ug/kg	0.327	1.09
103-65-1	n-Propylbenzene	U	1.09	ug/kg	0.327	1.09
95-49-8	2-Chlorotoluene	U	1.09	ug/kg	0.327	1.09
98-82-8	Isopropylbenzene	U	1.09	ug/kg	0.327	1.09
108-67-8	1,3,5-Trimethylbenzene	U	1.09	ug/kg	0.327	1.09
106-43-4	4-Chlorotoluene	U	1.09	ug/kg	0.327	1.09
98-06-6	tert-Butylbenzene	U	1.09	ug/kg	0.327	1.09
95-63-6	1,2,4-Trimethylbenzene	U	1.09	ug/kg	0.327	1.09
135-98-8	sec-Butylbenzene	U	1.09	ug/kg	0.327	1.09
99-87-6	4-Isopropyltoluene	U	1.09	ug/kg	0.327	1.09
541-73-1	1,3-Dichlorobenzene	U	1.09	ug/kg	0.327	1.09
106-46-7	1,4-Dichlorobenzene	U	1.09	ug/kg	0.327	1.09
104-51-8	n-Butylbenzene	U	1.09	ug/kg	0.327	1.09
96-12-8	1,2-Dibromo-3-chloropropane	U	1.09	ug/kg	0.327	1.09
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.45	ug/kg	1.74	5.45
630-20-6	1,1,1,2-Tetrachloroethane	U	1.09	ug/kg	0.327	1.09
95-50-1	1,2-Dichlorobenzene	U	1.09	ug/kg	0.327	1.09

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown	3.34	7.58	ug/kg	0	J
	unknown siloxane	15.61	9.61	ug/kg	0	J

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709\
Data File : AP440.D
Acq On : 18 Dec 2009 9:48 am
Operator : JEB
InstName : VOAA
Sample : |242654019|934516|1|VOA|1|VOA8260BS|
Misc : LANL 5.3G N/A SOIL
ALS Vial : 40 Sample Multiplier: 1

Quant Time: Dec 18 15:17:54 2009
Quant Method : C:\msdchem\1\METHODS\VOAA-8260-110609.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Nov 09 16:21:09 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Fluorobenzene	9.339	96	1112917	50.00 ug/L	0.00
41) Chlorobenzene-d5	12.507	117	905548	50.00 ug/L	0.00
58) 1,4-Dichlorobenzene-d4	14.940	152	571981	50.00 ug/L	0.00
82) B Fluorobenzene	9.339	96	1112917	50.00 ug/L	0.00
103) B Chlorobenzene-d5	12.507	117	905548	50.00 ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	14.940	152	571981	50.00 ug/L	0.00
System Monitoring Compounds					
29) 1,2-Dichloroethane-d4	8.978	65	446952	57.81 ug/L	0.00
Spiked Amount 50.000	Range 68 - 131		Recovery = 115.62%		
43) Toluene-d8	10.983	98	1085929	47.23 ug/L	0.00
Spiked Amount 50.000	Range 75 - 129		Recovery = 94.46%		
61) Bromofluorobenzene	13.710	95	482143	46.79 ug/L	0.00
Spiked Amount 50.000	Range 68 - 133		Recovery = 93.58%		
Target Compounds					Qvalue
2) Dichlorodifluoromethane	0.000		0	N.D.	
3) Chloromethane	0.000		0	N.D.	
4) Vinyl chloride	0.000		0	N.D.	
5) Bromomethane	0.000		0	N.D.	
6) Chloroethane	0.000		0	N.D.	
7) Trichlorofluoromethane	0.000		0	N.D.	
8) Ethyl ether	0.000		0	N.D.	
9) Acetone	6.078	43	117	N.D.	
10) 1,1-Dichloroethylene	0.000		0	N.D.	
11) Iodomethane	0.000		0	N.D.	
12) Acetonitrile	0.000		0	N.D.	
13) Methyl acetate	0.000		0	N.D.	
14) Carbon disulfide	6.428	76	125	N.D.	
15) Methylene chloride	6.644	84	6863	Below Cal #	78
16) tert-Butyl methyl ether	0.000		0	N.D.	
17) trans-1,2-Dichloroethy...	0.000		0	N.D.	
18) Vinyl acetate	0.000		0	N.D.	
19) 1,1-Dichloroethane	0.000		0	N.D.	
20) 2-Butanone	0.000		0	N.D.	
21) cis-1,2-Dichloroethylene	0.000		0	N.D.	
22) 2,2-Dichloropropane	0.000		0	N.D.	
23) Bromochloromethane	0.000		0	N.D.	
24) Chloroform	0.000		0	N.D.	
25) 1,1,1-Trichloroethane	0.000		0	N.D.	
26) Cyclohexane	0.000		0	N.D.	
27) 1,1-Dichloropropene	0.000		0	N.D.	
28) Carbon tetrachloride	0.000		0	N.D.	
30) 1,2-Dichloroethane	0.000		0	N.D.	
31) Benzene	0.000		0	N.D.	
32) Cyclohexene	0.000		0	N.D.	
33) n-Butyl alcohol	0.000		0	N.D.	
34) Trichloroethylene	0.000		0	N.D.	
35) 1,2-Dichloropropane	0.000		0	N.D.	
36) Methylcyclohexane	0.000		0	N.D.	
37) Dibromomethane	0.000		0	N.D.	
38) Bromodichloromethane	0.000		0	N.D.	
39) 2-Chloroethylvinyl ether	0.000		0	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709\
Data File : AP440.D
Acq On : 18 Dec 2009 9:48 am
Operator : JEB
InstName : VOAA
Sample : |242654019|934516|1|VOA|1|VOA8260BS|
Misc : LANL 5.3G N/A SOIL
ALS Vial : 40 Sample Multiplier: 1

Quant Time: Dec 18 15:17:54 2009
Quant Method : C:\msdchem\1\METHODS\VOAA-8260-110609.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Nov 09 16:21:09 2009
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
40)	cis-1,3-Dichloropropylene	0.000		0	N.D.	
42)	4-Methyl-2-pentanone	0.000		0	N.D.	
44)	Toluene	11.054	91	107	N.D.	
45)	trans-1,3-Dichloroprop...	0.000		0	N.D.	
46)	1,1,2-Trichloroethane	0.000		0	N.D.	
47)	2-Hexanone	0.000		0	N.D.	
48)	1,3-Dichloropropane	0.000		0	N.D.	
49)	Tetrachloroethylene	0.000		0	N.D.	
50)	Dibromochloromethane	0.000		0	N.D.	
51)	1,2-Dibromoethane	0.000		0	N.D.	
52)	Chlorobenzene	0.000		0	N.D.	
53)	1,1,1,2-Tetrachloroethane	0.000		0	N.D.	
54)	Ethylbenzene	12.507	91	1614	N.D.	
55)	m,p-Xylenes	0.000		0	N.D.	
56)	o-Xylene	0.000		0	N.D.	
57)	Styrene	0.000		0	N.D.	
59)	Bromoform	0.000		0	N.D.	
60)	Isopropylbenzene	13.667	105	715	N.D.	
62)	1,1,2,2-Tetrachloroethane	0.000		0	N.D.	
63)	1,2,3-Trichloropropane	13.664	110	403	N.D.	
64)	Bromobenzene	0.000		0	N.D.	
65)	n-Propylbenzene	13.713	91	1334	N.D.	
66)	1,3,5-Trimethylbenzene	0.000		0	N.D.	
67)	2-Chlorotoluene	0.000		0	N.D.	
68)	4-Chlorotoluene	0.000		0	N.D.	
69)	tert-Butylbenzene	0.000		0	N.D.	
70)	1,2,4-Trimethylbenzene	0.000		0	N.D.	
71)	sec-Butylbenzene	0.000		0	N.D.	
72)	4-Isopropyltoluene	0.000		0	N.D.	
73)	1,3-Dichlorobenzene	0.000		0	N.D.	
74)	1,4-Dichlorobenzene	0.000		0	N.D.	
75)	n-Butylbenzene	0.000		0	N.D.	
76)	1,2-Dichlorobenzene	0.000		0	N.D.	
77)	1,2-Dibromo-3-chloropr...	0.000		0	N.D.	
78)	1,2,4-Trichlorobenzene	0.000		0	N.D.	
79)	Hexachlorobutadiene	0.000		0	N.D.	
80)	Naphthalene	17.522	128	906	N.D.	
81)	1,2,3-Trichlorobenzene	0.000		0	N.D.	
83)	Chlorotrifluoroethylene	0.000		0	N.D.	
84)	2-Chloro-1,1,1-trifluo...	0.000		0	N.D.	
85)	Acrolein	0.000		0	N.D.	
86)	Trichlorotrifluoroethane	0.000		0	N.D.	
87)	Isopropyl Alcohol	0.000		0	N.D.	
88)	Allyl chloride	0.000		0	N.D.	
89)	tert-Butyl Alcohol	6.680	59	112	N.D.	
90)	Acrylonitrile	0.000		0	N.D.	
91)	Isopropyl ether	0.000		0	N.D.	
92)	2-Chloro-1,3-butadiene	0.000		0	N.D.	
93)	Ethyl tert-butyl ether	0.000		0	N.D.	
94)	Ethyl acetate	0.000		0	N.D.	
95)	Propionitrile	0.000		0	N.D.	
96)	Methacrylonitrile	0.000		0	N.D.	
97)	Tetrahydrofuran	0.000		0	N.D.	
98)	Isobutyl alcohol	0.000		0	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709\
Data File : AP440.D
Acq On : 18 Dec 2009 9:48 am
Operator : JEB
InstName : VOAA
Sample : |242654019|934516|1|VOA|1|VOA8260BS|
Misc : LANL 5.3G N/A SOIL
ALS Vial : 40 Sample Multiplier: 1

Quant Time: Dec 18 15:17:54 2009
Quant Method : C:\msdchem\1\METHODS\VOAA-8260-110609.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Nov 09 16:21:09 2009
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
99)	Methyl tert-amyl ether	0.000		0	N.D.	
100)	Methyl methacrylate	0.000		0	N.D.	
101)	1,4-Dioxane	0.000		0	N.D.	
102)	2-Nitropropane	0.000		0	N.D.	
104)	Ethyl methacrylate	0.000		0m	N.D. d	
106)	1-Chlorohexane	0.000		0	N.D.	
107)	cis-1,4-Dichloro-2-butene	0.000		0	N.D.	
108)	Cyclohexanone	0.000		0	N.D.	
109)	trans-1,4-Dichloro-2-b...	0.000		0	N.D.	
110)	Pentachloroethane	0.000		0	N.D.	
111)	Benzyl chloride	0.000		0m	N.D. d	
112)	bis(2-Chloroisopropyl)...	0.000		0m	N.D. d	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709\
Data File : AP440.D
Acq On : 18 Dec 2009 9:48 am
Operator : JEB
InstName : VOAA
Sample : |242654019|934516|1|VOA|1|VOA8260BS|
Misc : LANL 5.3G N/A SOIL
ALS Vial : 40 Sample Multiplier: 1

Quant Time: Dec 18 15:17:54 2009
Quant Method : C:\msdchem\1\METHODS\VOAA-8260-110609.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Nov 09 16:21:09 2009
Response via : Initial Calibration
Integrator: RTE

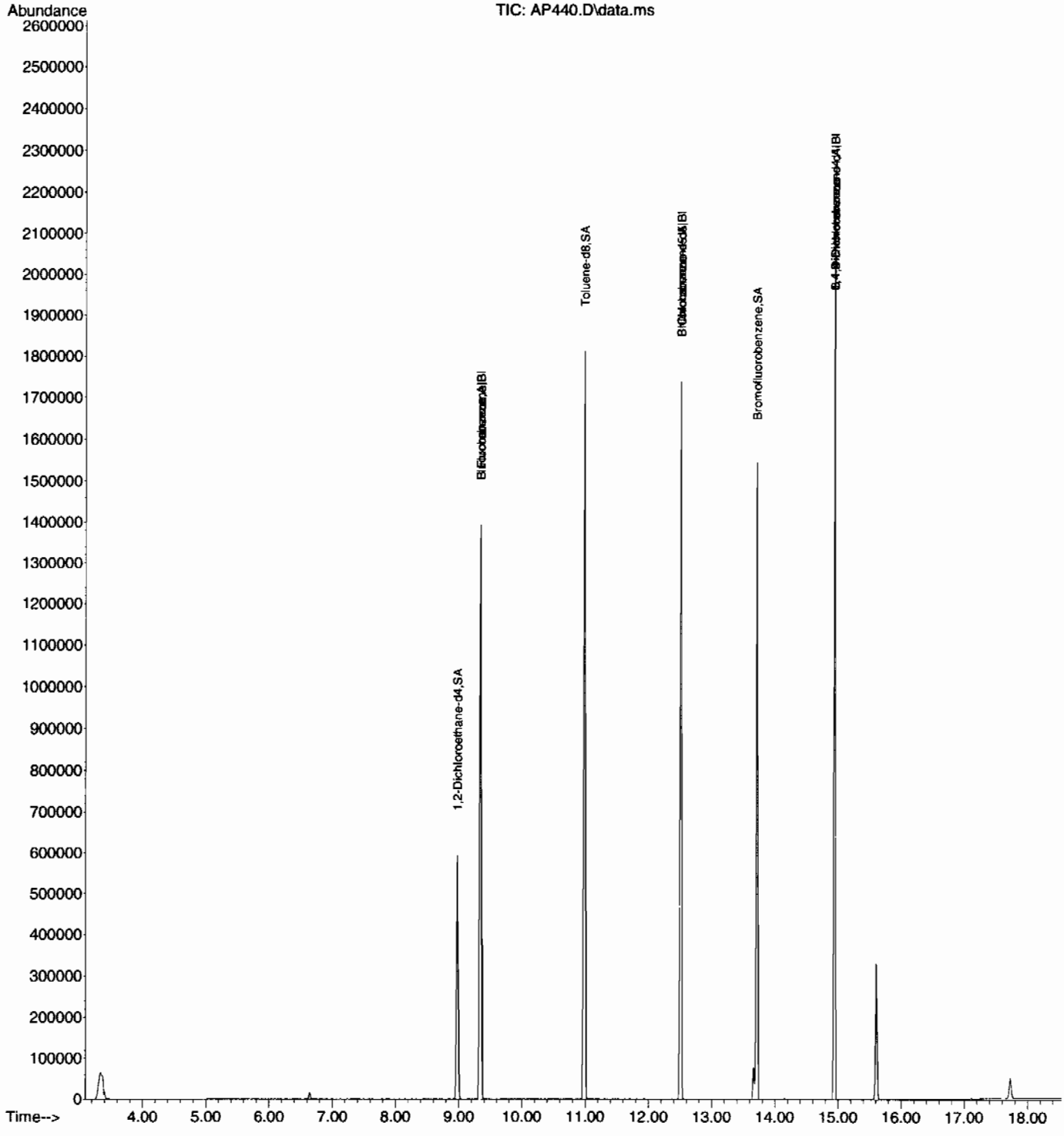

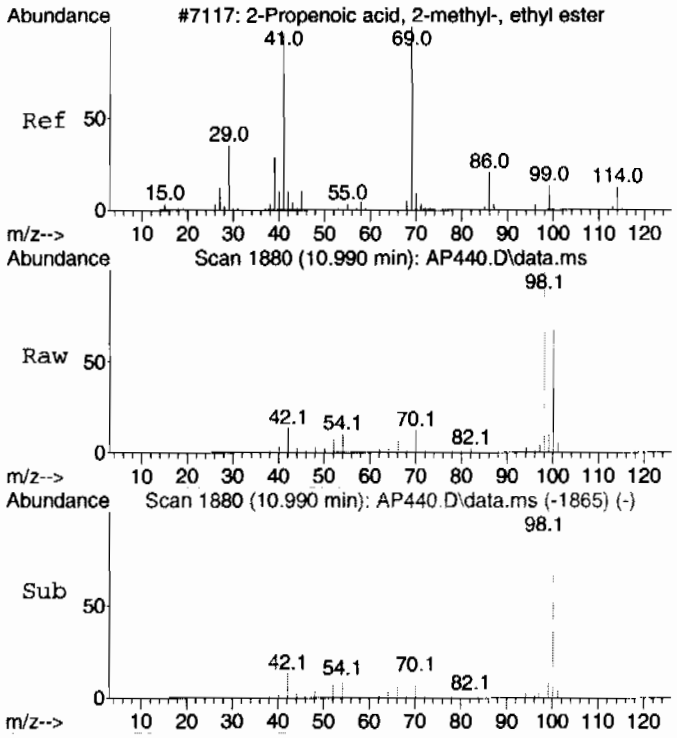

#104 BEFORE analyst DELETION
Ethyl methacrylate
Concen: 1.72 ug/L
RT: 10.990 min Scan# 1880
Delta R.T. -0.247 min
Lab File: AP440.D
Acq: 18 Dec 2009 9:48 am

Tgt Ion: 69 Resp: 3642

Ion	Ratio	Lower	Upper
69	100		
41	82.5	36.3	96.3
99	3050.0	0.0	50.5#

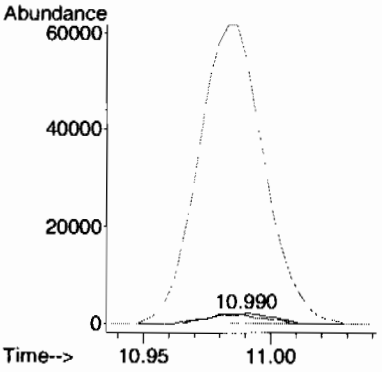

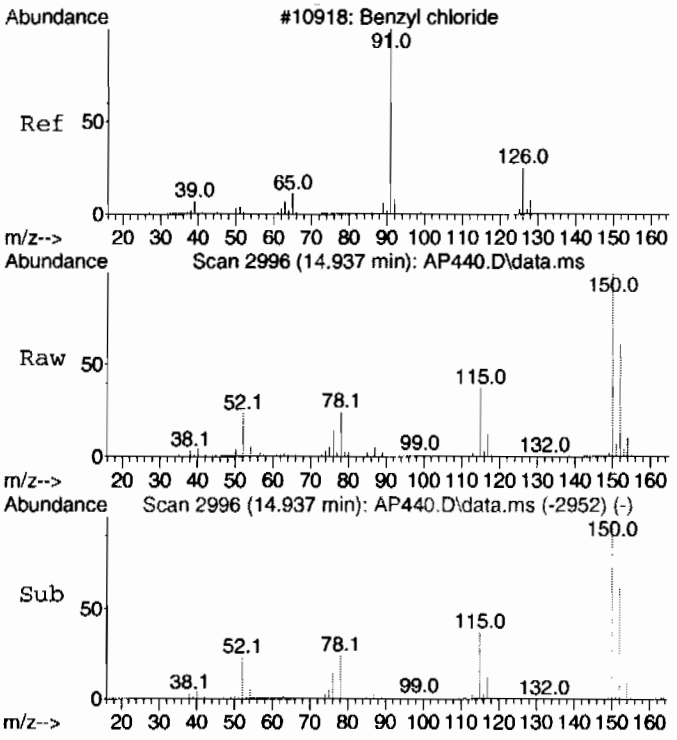

#111 BEFORE analyst DELETION
Benzyl chloride
Concen: 4.48 ug/L
RT: 14.937 min Scan# 2996
Delta R.T. -0.145 min
Lab File: AP440.D
Acq: 18 Dec 2009 9:48 am

Tgt Ion: 91 Resp: 1275

Ion	Ratio	Lower	Upper
91	100		
126	0.0	0.0	52.0
65	317.6	0.0	41.2#

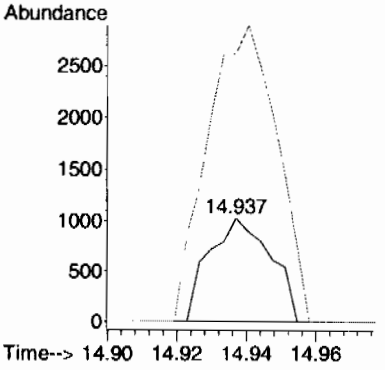

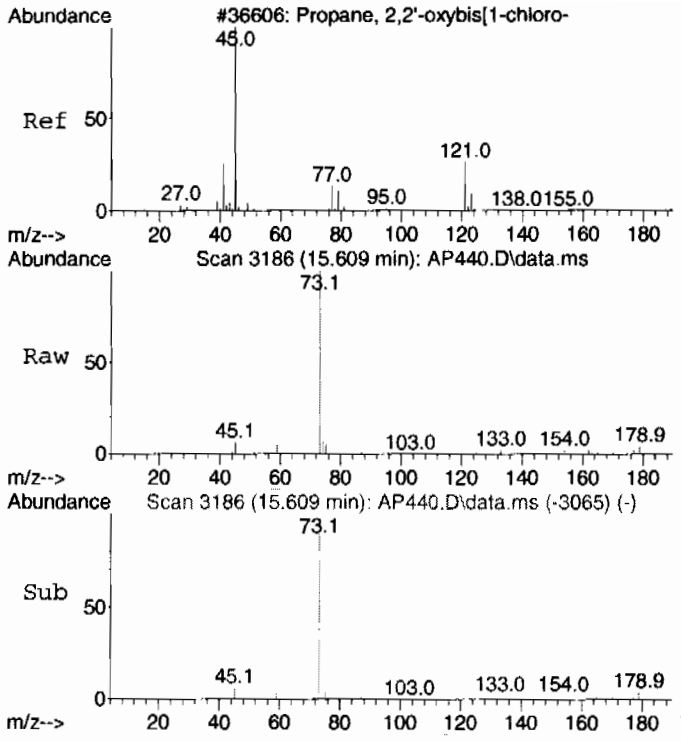

#112 BEFORE analyst DELETION
bis(2-Chloroisopropyl)ether
Concen: 5.98 ug/L
RT: 15.609 min Scan# 3186
Delta R.T. 0.127 min
Lab File: AP440.D
Acq: 18 Dec 2009 9:48 am

Tgt Ion: 45 Resp: 21329

Ion	Ratio	Lower	Upper
45	100		
121	0.0	0.0	56.8

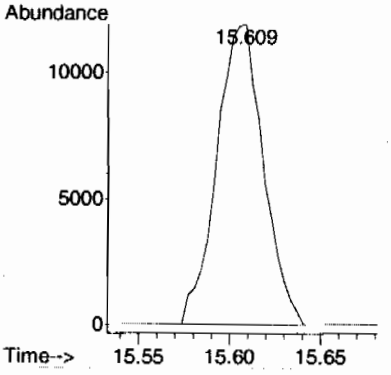

Library Search Compound Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709\
Data File : AP440.D
Acq On : 18 Dec 2009 9:48 am
Operator : JEB
Sample : |242654019|934516|1|VOA|1|VOA8260BS|
Misc : LANL 5.3G N/A SOIL
ALS Vial : 40 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\VOAA-8260-110609.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

****

Peak Number 1 unknown Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
3.339	6.96 ug/L	338879	Fluorobenzene	9.339

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Dimethyl ether	46	C2H6O	000115-10-6	5
2	Ethyl alcohol	46	C2H6O	000064-17-5	4
3	Ethyl alcohol	46	C2H6O	000064-17-5	4
4	Ethyl alcohol	46	C2H6O	000064-17-5	4
5	Dimethyl ether	46	C2H6O	000115-10-6	2

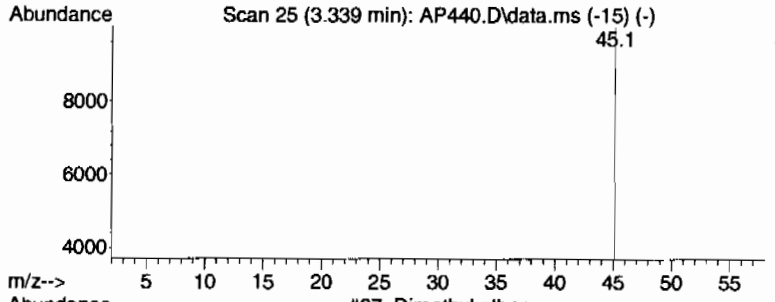

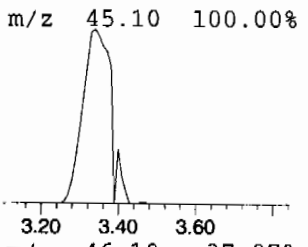

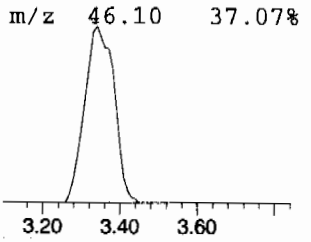

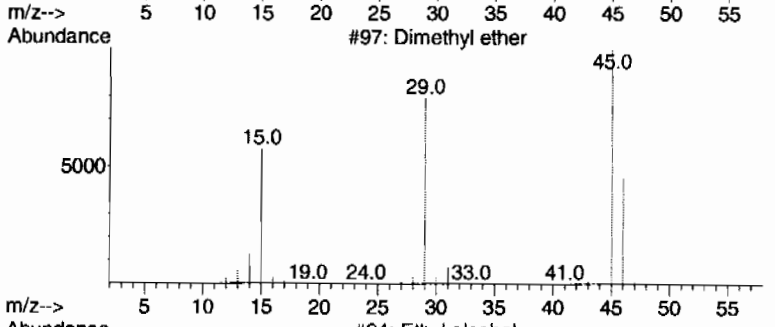

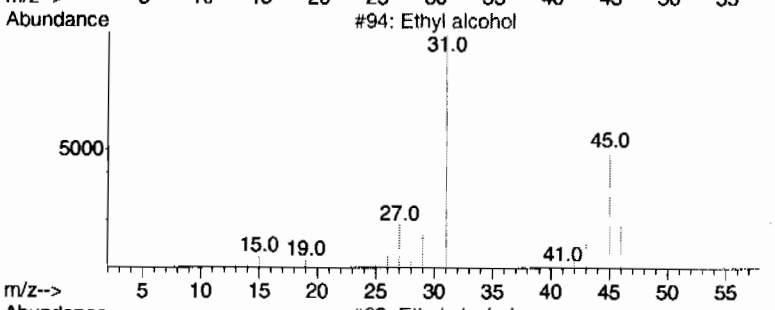

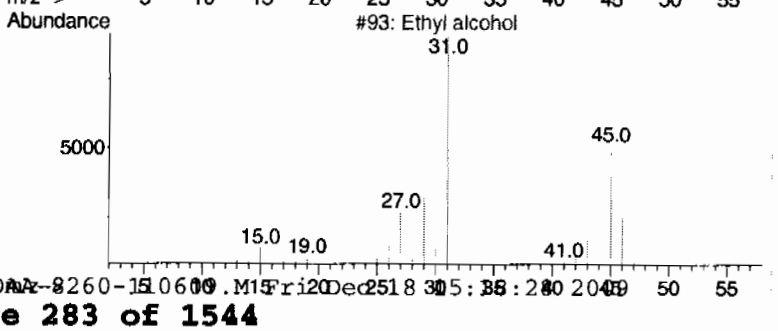

Library Search Compound Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709\
Data File : AP440.D
Acq On : 18 Dec 2009 9:48 am
Operator : JEB
Sample : |242654019|934516|1|VOA|1|VOA8260BS|
Misc : LANL 5.3G N/A SOIL
ALS Vial : 40 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\VOAA-8260-110609.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

****

Peak Number 2 unknown siloxane Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
15.605	8.82 ug/L	580550	B 1,4-Dichlorobenzene-d4	14.941

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclopropane, 2-methylene-1-pent...	196	C12H24Si	167300-47-2	9
2	Thiocyanic acid, methyl ester	73	C2H3NS	000556-64-9	4
3	Thiocyanic acid, methyl ester	73	C2H3NS	000556-64-9	4
4	1-Propene-1-thiol	74	C3H6S	000925-89-3	4
5	d-Talonic acid lactone	178	C6H10O6	1000127-87-3	4

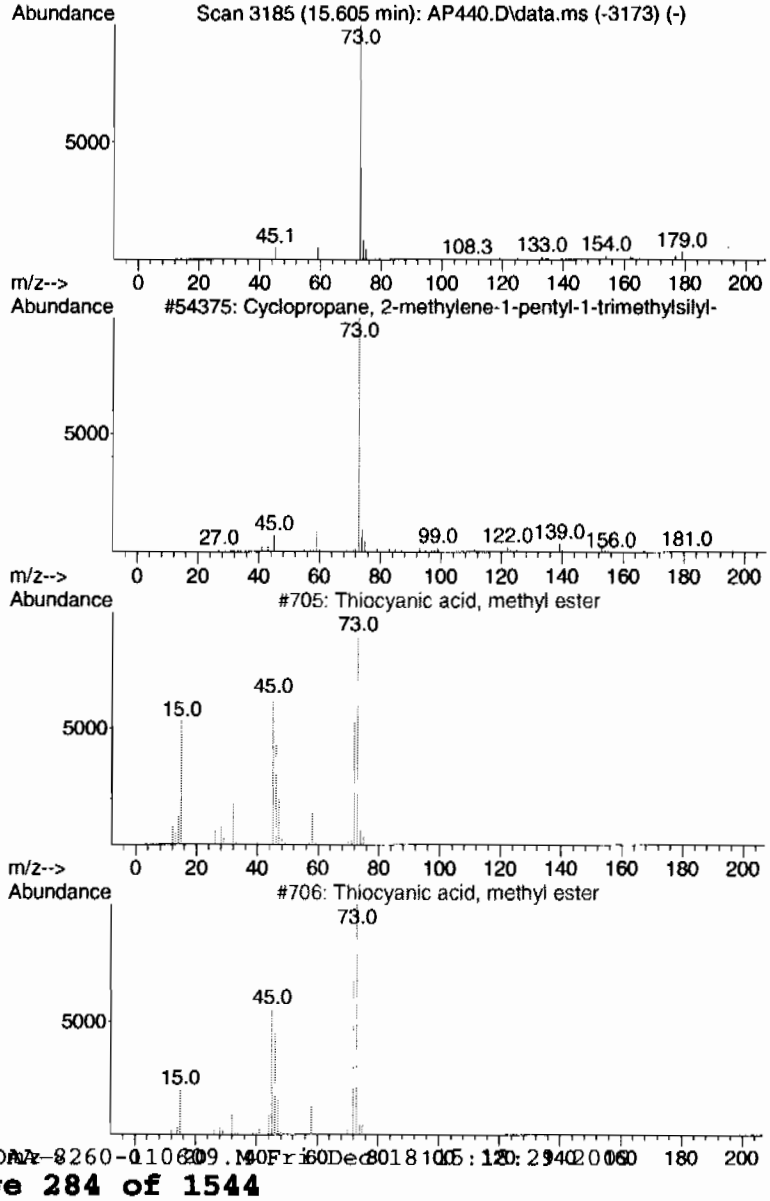

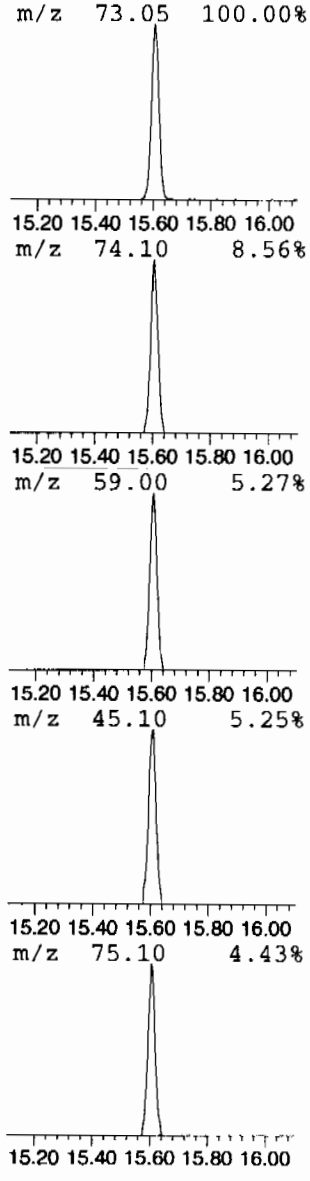

Tentatively Identified Compound (LSC) summary
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709\
Data File : AP440.D
Acq On : 18 Dec 2009 9:48 am
Operator : JEB
Sample : |242654019|934516|1|VOA|1|VOA8260BS|
Misc : LANL 5.3G N/A SOIL
ALS Vial : 40 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\VOAA-8260-110609.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

TIC Top Hit name	RT	EstConc	Units	Response	--Internal Standard--- #	RT	Resp	Conc
unknown	3.339	7.0	ug/L	338879	1	9.339	2436010	50.0
unknown siloxane	15.605	8.8	ug/L	580550	6	14.941	3290680	50.0

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-852**	**Date Collected:**	**12/07/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242654020**	**Date Received:**	**12/10/2009 08:50**	**%Moisture:**	**15.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14283**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**934516**	**Inst:**	**VOAA.I**	**Dilution:**	**1**
Run Date:	**12/18/2009 10:14**	**Analyst:**	**JEB**	**Purge Vol:**	**5 mL**
Prep Date:	**12/17/2009 19:33**	**Aliquot:**	**5.1 g**	**Final Volume:**	**5 mL**
Data File:	**121709\AP441.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.16	ug/kg	0.396	1.16
74-87-3	Chloromethane	U	1.16	ug/kg	0.349	1.16
75-01-4	Vinyl chloride	U	1.16	ug/kg	0.349	1.16
74-83-9	Bromomethane	U	1.16	ug/kg	0.349	1.16
75-00-3	Chloroethane	U	1.16	ug/kg	0.349	1.16
75-69-4	Trichlorofluoromethane	U	1.16	ug/kg	0.349	1.16
67-64-1	Acetone	U	5.82	ug/kg	1.93	5.82
75-35-4	1,1-Dichloroethylene	U	1.16	ug/kg	0.349	1.16
74-88-4	Iodomethane	U	5.82	ug/kg	1.86	5.82
75-09-2	Methylene chloride	U	5.82	ug/kg	2.33	5.82
75-15-0	Carbon disulfide	U	5.82	ug/kg	1.46	5.82
156-60-5	trans-1,2-Dichloroethylene	U	1.16	ug/kg	0.349	1.16
75-34-3	1,1-Dichloroethane	U	1.16	ug/kg	0.349	1.16
78-93-3	2-Butanone	U	5.82	ug/kg	1.75	5.82
156-59-2	cis-1,2-Dichloroethylene	U	1.16	ug/kg	0.349	1.16
594-20-7	2,2-Dichloropropane	U	1.16	ug/kg	0.349	1.16
67-66-3	Chloroform	U	1.16	ug/kg	0.349	1.16
74-97-5	Bromochloromethane	U	1.16	ug/kg	0.384	1.16
71-55-6	1,1,1-Trichloroethane	U	1.16	ug/kg	0.349	1.16
563-58-6	1,1-Dichloropropene	U	1.16	ug/kg	0.349	1.16
56-23-5	Carbon tetrachloride	U	1.16	ug/kg	0.349	1.16
107-06-2	1,2-Dichloroethane	U	1.16	ug/kg	0.349	1.16
71-43-2	Benzene	U	1.16	ug/kg	0.349	1.16
79-01-6	Trichloroethylene	U	1.16	ug/kg	0.384	1.16
78-87-5	1,2-Dichloropropane	U	1.16	ug/kg	0.349	1.16
75-27-4	Bromodichloromethane	U	1.16	ug/kg	0.349	1.16
74-95-3	Dibromomethane	U	1.16	ug/kg	0.349	1.16
108-10-1	4-Methyl-2-pentanone	U	5.82	ug/kg	1.46	5.82
10061-01-5	cis-1,3-Dichloropropylene	U	1.16	ug/kg	0.349	1.16
108-88-3	Toluene	U	1.16	ug/kg	0.349	1.16
10061-02-6	trans-1,3-Dichloropropylene	U	1.16	ug/kg	0.349	1.16
79-00-5	1,1,2-Trichloroethane	U	1.16	ug/kg	0.349	1.16
591-78-6	2-Hexanone	U	5.82	ug/kg	1.75	5.82
142-28-9	1,3-Dichloropropane	U	1.16	ug/kg	0.349	1.16
127-18-4	Tetrachloroethylene	U	1.16	ug/kg	0.349	1.16
124-48-1	Dibromochloromethane	U	1.16	ug/kg	0.349	1.16
106-93-4	1,2-Dibromoethane	U	1.16	ug/kg	0.349	1.16
108-90-7	Chlorobenzene	U	1.16	ug/kg	0.349	1.16

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-852**	**Date Collected:**	**12/07/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242654020**	**Date Received:**	**12/10/2009 08:50**	**%Moisture:**	**15.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14283**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**934516**	**Inst:**	**VOAA.I**	**Dilution:**	**1**
Run Date:	**12/18/2009 10:14**	**Analyst:**	**JEB**	**Purge Vol:**	**5 mL**
Prep Date:	**12/17/2009 19:33**	**Aliquot:**	**5.1 g**	**Final Volume:**	**5 mL**
Data File:	**121709\AP441.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.16	ug/kg	0.349	1.16
179601-23-1	m,p-Xylenes	U	2.33	ug/kg	0.349	2.33
95-47-6	o-Xylene	U	1.16	ug/kg	0.349	1.16
100-42-5	Styrene	U	1.16	ug/kg	0.349	1.16
75-25-2	Bromoform	U	1.16	ug/kg	0.349	1.16
79-34-5	1,1,2,2-Tetrachloroethane	U	1.16	ug/kg	0.349	1.16
96-18-4	1,2,3-Trichloropropane	U	1.16	ug/kg	0.349	1.16
108-86-1	Bromobenzene	U	1.16	ug/kg	0.349	1.16
103-65-1	n-Propylbenzene	U	1.16	ug/kg	0.349	1.16
95-49-8	2-Chlorotoluene	U	1.16	ug/kg	0.349	1.16
98-82-8	Isopropylbenzene	U	1.16	ug/kg	0.349	1.16
108-67-8	1,3,5-Trimethylbenzene	U	1.16	ug/kg	0.349	1.16
106-43-4	4-Chlorotoluene	U	1.16	ug/kg	0.349	1.16
98-06-6	tert-Butylbenzene	U	1.16	ug/kg	0.349	1.16
95-63-6	1,2,4-Trimethylbenzene	U	1.16	ug/kg	0.349	1.16
135-98-8	sec-Butylbenzene	U	1.16	ug/kg	0.349	1.16
99-87-6	4-Isopropyltoluene	U	1.16	ug/kg	0.349	1.16
541-73-1	1,3-Dichlorobenzene	U	1.16	ug/kg	0.349	1.16
106-46-7	1,4-Dichlorobenzene	U	1.16	ug/kg	0.349	1.16
104-51-8	n-Butylbenzene	U	1.16	ug/kg	0.349	1.16
96-12-8	1,2-Dibromo-3-chloropropane	U	1.16	ug/kg	0.349	1.16
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.82	ug/kg	1.86	5.82
630-20-6	1,1,1,2-Tetrachloroethane	U	1.16	ug/kg	0.349	1.16
95-50-1	1,2-Dichlorobenzene	U	1.16	ug/kg	0.349	1.16

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown	3.34	9.31	ug/kg	0	J

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709\
Data File : AP441.D
Acq On : 18 Dec 2009 10:14 am
Operator : JEB
InstName : VOAA
Sample : |242654020|934516|1|VOA|1|VOA8260BS|
Misc : LANL 5.1G N/A SOIL
ALS Vial : 41 Sample Multiplier: 1

Quant Time: Dec 18 15:18:53 2009
Quant Method : C:\msdchem\1\METHODS\VOAA-8260-110609.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Nov 09 16:21:09 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Fluorobenzene	9.339	96	1098244	50.00 ug/L	0.00
41) Chlorobenzene-d5	12.507	117	889026	50.00 ug/L	0.00
58) 1,4-Dichlorobenzene-d4	14.940	152	553698	50.00 ug/L	0.00
82) B Fluorobenzene	9.339	96	1098244	50.00 ug/L	0.00
103) B Chlorobenzene-d5	12.507	117	889026	50.00 ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	14.940	152	553698	50.00 ug/L	0.00
System Monitoring Compounds					
29) 1,2-Dichloroethane-d4	8.978	65	433850	56.86 ug/L	0.00
Spiked Amount 50.000	Range 68 - 131		Recovery = 113.72%		
43) Toluene-d8	10.983	98	1074976	47.63 ug/L	0.00
Spiked Amount 50.000	Range 75 - 129		Recovery = 95.26%		
61) Bromofluorobenzene	13.710	95	470862	47.21 ug/L	0.00
Spiked Amount 50.000	Range 68 - 133		Recovery = 94.42%		
Target Compounds					Qvalue
2) Dichlorodifluoromethane	0.000		0	N.D.	
3) Chloromethane	0.000		0	N.D.	
4) Vinyl chloride	0.000		0	N.D.	
5) Bromomethane	0.000		0	N.D.	
6) Chloroethane	0.000		0	N.D.	
7) Trichlorofluoromethane	0.000		0	N.D.	
8) Ethyl ether	0.000		0	N.D.	
9) Acetone	6.096	43	1083	N.D.	
10) 1,1-Dichloroethylene	0.000		0	N.D.	
11) Iodomethane	0.000		0	N.D.	
12) Acetonitrile	0.000		0	N.D.	
13) Methyl acetate	0.000		0	N.D.	
14) Carbon disulfide	6.425	76	594	N.D.	
15) Methylene chloride	6.641	84	7471	Below Cal	86
16) tert-Butyl methyl ether	0.000		0	N.D.	
17) trans-1,2-Dichloroethy...	0.000		0	N.D.	
18) Vinyl acetate	0.000		0	N.D.	
19) 1,1-Dichloroethane	0.000		0	N.D.	
20) 2-Butanone	0.000		0	N.D.	
21) cis-1,2-Dichloroethylene	0.000		0	N.D.	
22) 2,2-Dichloropropane	0.000		0	N.D.	
23) Bromochloromethane	0.000		0	N.D.	
24) Chloroform	0.000		0	N.D.	
25) 1,1,1-Trichloroethane	0.000		0	N.D.	
26) Cyclohexane	0.000		0	N.D.	
27) 1,1-Dichloropropene	0.000		0	N.D.	
28) Carbon tetrachloride	0.000		0	N.D.	
30) 1,2-Dichloroethane	0.000		0	N.D.	
31) Benzene	0.000		0	N.D.	
32) Cyclohexene	0.000		0	N.D.	
33) n-Butyl alcohol	0.000		0	N.D.	
34) Trichloroethylene	0.000		0	N.D.	
35) 1,2-Dichloropropane	0.000		0	N.D.	
36) Methylcyclohexane	0.000		0	N.D.	
37) Dibromomethane	0.000		0	N.D.	
38) Bromodichloromethane	0.000		0	N.D.	
39) 2-Chloroethylvinyl ether	0.000		0	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709\
Data File : AP441.D
Acq On : 18 Dec 2009 10:14 am
Operator : JEB
InstName : VOAA
Sample : |242654020|934516|1|VOA|1|VOA8260BS|
Misc : LANL 5.1G N/A SOIL
ALS Vial : 41 Sample Multiplier: 1

Quant Time: Dec 18 15:18:53 2009
Quant Method : C:\msdchem\1\METHODS\VOAA-8260-110609.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Nov 09 16:21:09 2009
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
40)	cis-1,3-Dichloropropylene	0.000		0	N.D.	
42)	4-Methyl-2-pentanone	0.000		0	N.D.	
44)	Toluene	11.054	91	236	N.D.	
45)	trans-1,3-Dichloroprop...	0.000		0	N.D.	
46)	1,1,2-Trichloroethane	0.000		0	N.D.	
47)	2-Hexanone	0.000		0	N.D.	
48)	1,3-Dichloropropane	0.000		0	N.D.	
49)	Tetrachloroethylene	0.000		0	N.D.	
50)	Dibromochloromethane	0.000		0	N.D.	
51)	1,2-Dibromoethane	0.000		0	N.D.	
52)	Chlorobenzene	0.000		0	N.D.	
53)	1,1,1,2-Tetrachloroethane	0.000		0	N.D.	
54)	Ethylbenzene	12.500	91	1664	N.D.	
55)	m,p-Xylenes	0.000		0	N.D.	
56)	o-Xylene	0.000		0	N.D.	
57)	Styrene	0.000		0	N.D.	
59)	Bromoform	0.000		0	N.D.	
60)	Isopropylbenzene	0.000		0	N.D.	
62)	1,1,2,2-Tetrachloroethane	0.000		0	N.D.	
63)	1,2,3-Trichloropropane	13.664	110	110	N.D.	
64)	Bromobenzene	0.000		0	N.D.	
65)	n-Propylbenzene	0.000		0	N.D.	
66)	1,3,5-Trimethylbenzene	0.000		0	N.D.	
67)	2-Chlorotoluene	0.000		0	N.D.	
68)	4-Chlorotoluene	0.000		0	N.D.	
69)	tert-Butylbenzene	0.000		0	N.D.	
70)	1,2,4-Trimethylbenzene	0.000		0	N.D.	
71)	sec-Butylbenzene	0.000		0	N.D.	
72)	4-Isopropyltoluene	0.000		0	N.D.	
73)	1,3-Dichlorobenzene	0.000		0	N.D.	
74)	1,4-Dichlorobenzene	14.969	146	113	N.D.	
75)	n-Butylbenzene	0.000		0	N.D.	
76)	1,2-Dichlorobenzene	0.000		0	N.D.	
77)	1,2-Dibromo-3-chloropr...	0.000		0	N.D.	
78)	1,2,4-Trichlorobenzene	0.000		0	N.D.	
79)	Hexachlorobutadiene	0.000		0	N.D.	
80)	Naphthalene	17.522	128	853	N.D.	
81)	1,2,3-Trichlorobenzene	0.000		0	N.D.	
83)	Chlorotrifluoroethylene	0.000		0	N.D.	
84)	2-Chloro-1,1,1-trifluo...	0.000		0	N.D.	
85)	Acrolein	0.000		0	N.D.	
86)	Trichlorotrifluoroethane	0.000		0	N.D.	
87)	Isopropyl Alcohol	0.000		0	N.D.	
88)	Allyl chloride	0.000		0	N.D.	
89)	tert-Butyl Alcohol	6.680	59	122	N.D.	
90)	Acrylonitrile	0.000		0	N.D.	
91)	Isopropyl ether	0.000		0	N.D.	
92)	2-Chloro-1,3-butadiene	0.000		0	N.D.	
93)	Ethyl tert-butyl ether	0.000		0	N.D.	
94)	Ethyl acetate	0.000		0	N.D.	
95)	Propionitrile	0.000		0	N.D.	
96)	Methacrylonitrile	0.000		0	N.D.	
97)	Tetrahydrofuran	0.000		0	N.D.	
98)	Isobutyl alcohol	0.000		0	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709\
Data File : AP441.D
Acq On : 18 Dec 2009 10:14 am
Operator : JEB
InstName : VOAA
Sample : |242654020|934516|1|VOA|1|VOA8260BS|
Misc : LANL 5.1G N/A SOIL
ALS Vial : 41 Sample Multiplier: 1

Quant Time: Dec 18 15:18:53 2009
Quant Method : C:\msdchem\1\METHODS\VOAA-8260-110609.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Nov 09 16:21:09 2009
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
99)	Methyl tert-amyl ether	0.000		0	N.D.	
100)	Methyl methacrylate	0.000		0	N.D.	
101)	1,4-Dioxane	0.000		0	N.D.	
102)	2-Nitropropane	0.000		0	N.D.	
104)	Ethyl methacrylate	0.000		0	N.D.	
106)	1-Chlorohexane	0.000		0	N.D.	
107)	cis-1,4-Dichloro-2-butene	0.000		0	N.D.	
108)	Cyclohexanone	0.000		0	N.D.	
109)	trans-1,4-Dichloro-2-b...	0.000		0	N.D.	
110)	Pentachloroethane	0.000		0	N.D.	
111)	Benzyl chloride	0.000		0m	N.D. d	
112)	bis(2-Chloroisopropyl)...	0.000		0m	N.D. d	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709\
Data File : AP441.D
Acq On : 18 Dec 2009 10:14 am
Operator : JEB
InstName : VOAA
Sample : |242654020|934516|1|VOA|1|VOA8260BS|
Misc : LANL 5.1G N/A SOIL
ALS Vial : 41 Sample Multiplier: 1

Quant Time: Dec 18 15:18:53 2009
Quant Method : C:\msdchem\1\METHODS\VOAA-8260-110609.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Nov 09 16:21:09 2009
Response via : Initial Calibration
Integrator: RTE

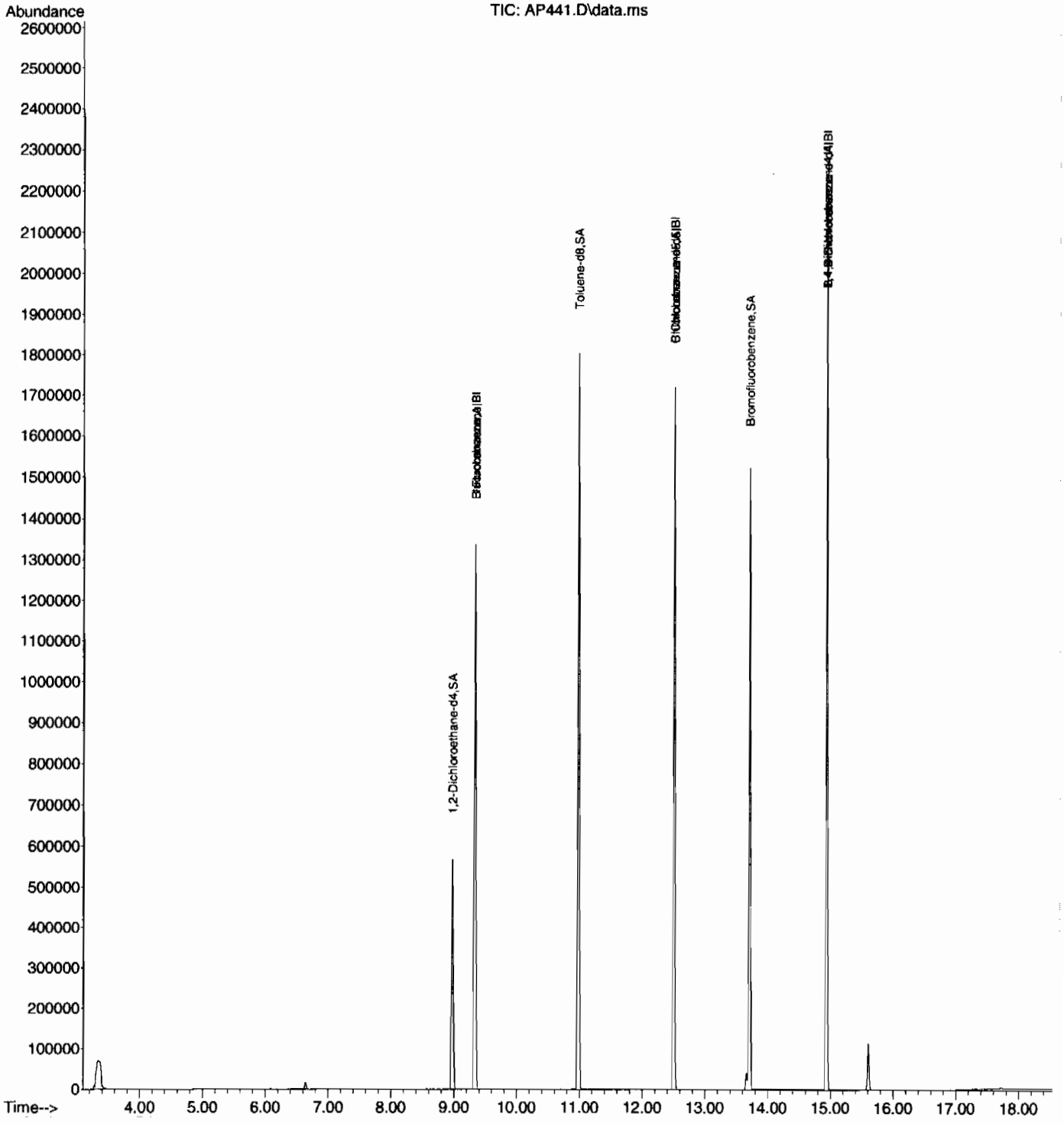

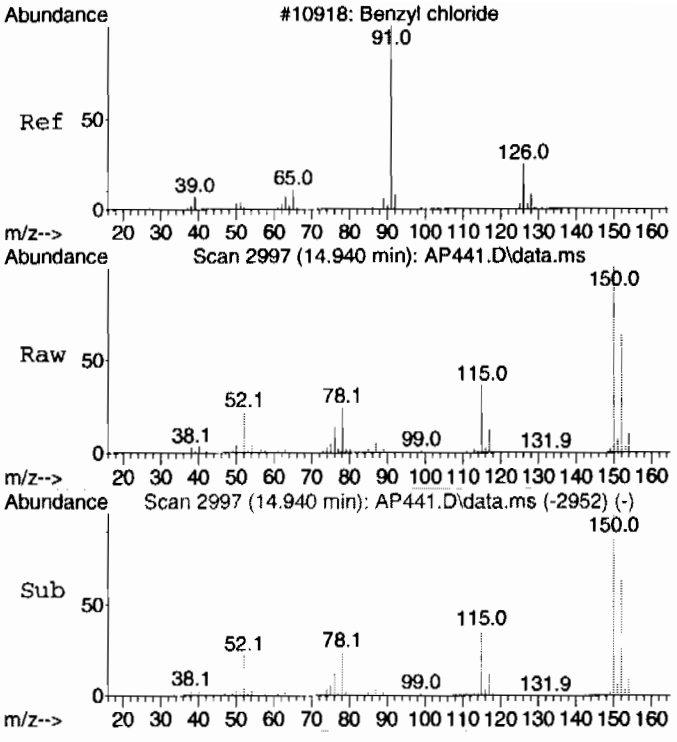

#111 BEFORE analyst DELETION
Benzyl chloride
Concen: 4.45 ug/L
RT: 14.940 min Scan# 2997
Delta R.T. -0.141 min
Lab File: AP441.D
Acq: 18 Dec 2009 10:14 am

Tgt Ion: 91 Resp: 931

Ion	Ratio	Lower	Upper
91	100		
126	0.0	0.0	52.0
65	417.5	0.0	41.2#

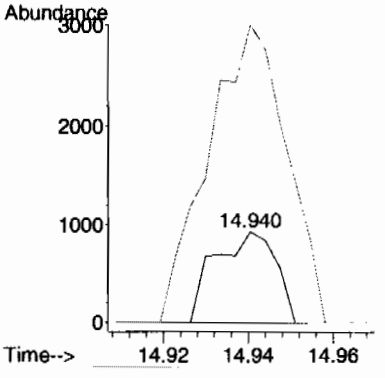

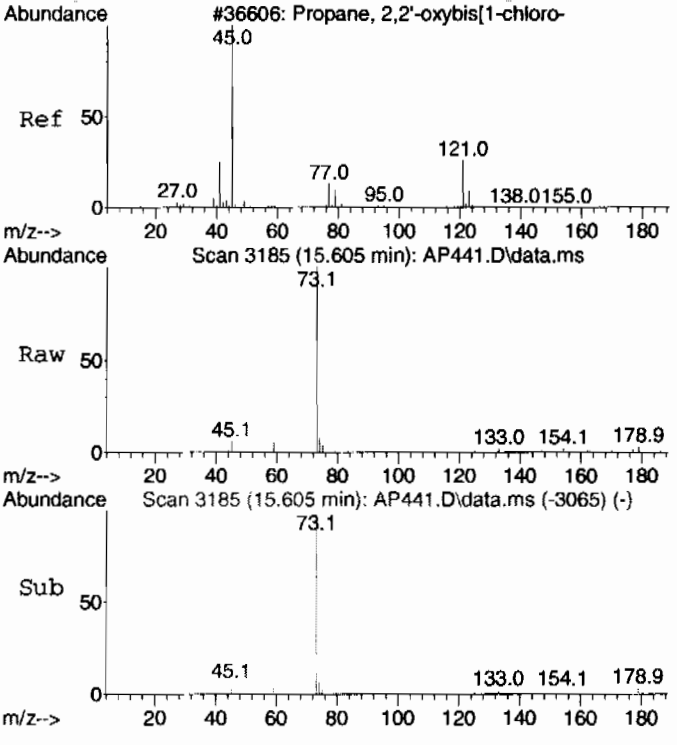

#112 BEFORE analyst DELETION
bis(2-Chloroisopropyl)ether
Concen: 2.30 ug/L
RT: 15.605 min Scan# 3185
Delta R.T. 0.124 min
Lab File: AP441.D
Acq: 18 Dec 2009 10:14 am

Tgt Ion: 45 Resp: 7939

Ion	Ratio	Lower	Upper
45	100		
121	0.0	0.0	56.8

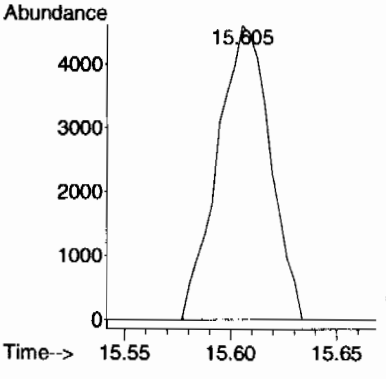

Library Search Compound Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709\
Data File : AP441.D
Acq On : 18 Dec 2009 10:14 am
Operator : JEB
Sample : |242654020|934516|1|VOA|1|VOA8260BS|
Misc : LANL 5.1G N/A SOIL
ALS Vial : 41 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\VOAA-8260-110609.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

****
Peak Number 1 unknown Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
3.339	7.99 ug/L	384234	Fluorobenzene	9.339

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Dimethyl ether	46	C2H6O	000115-10-6	5
2	Ethyl alcohol	46	C2H6O	000064-17-5	4
3	Ethyl alcohol	46	C2H6O	000064-17-5	4
4	Ethyl alcohol	46	C2H6O	000064-17-5	4
5	Dimethyl ether	46	C2H6O	000115-10-6	2

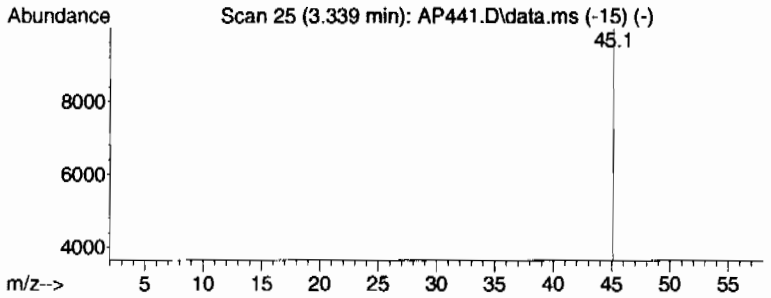

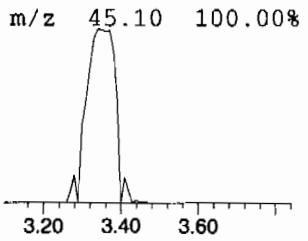

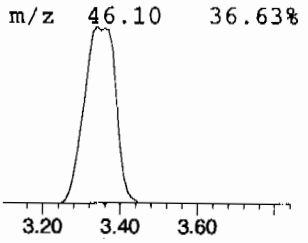

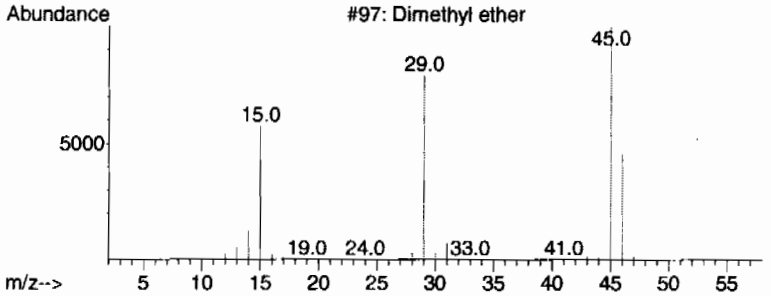

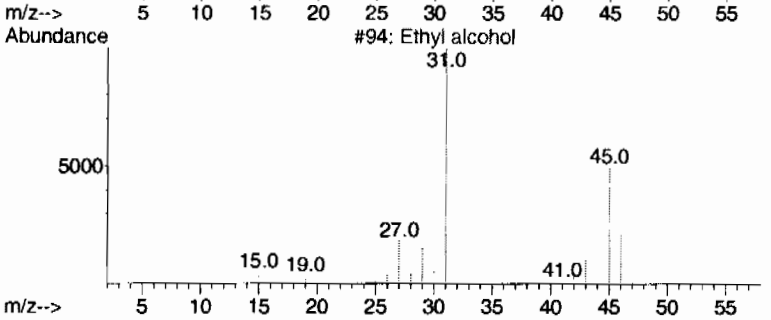

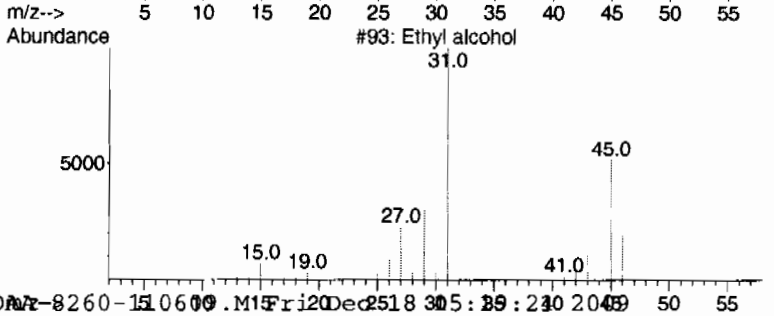

Tentatively Identified Compound (LSC) summary
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709\
Data File : AP441.D
Acq On : 18 Dec 2009 10:14 am
Operator : JEB
Sample : |242654020|934516|1|VOA|1|VOA8260BS|
Misc : LANL 5.1G N/A SOIL
ALS Vial : 41 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\VOAA-8260-110609.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

TIC Top Hit name	RT	EstConc	Units	Response	--Internal Standard--- #	RT	Resp	Conc
unknown	3.339	8.0	ug/L	384234	1	9.339	2404650	50.0

Standards

EPA 524.2/Low level SW846 8260B and Regular level 8260B and EPA 624
Calibration Standard Concentration Levels

	Level 1	Level 1a	Level 2	Level 3	Level 4 #	Level 5	Level 6	Level 7 !	Level 7a
Fluorobenzene (IS)									
1,2-Dichloroethane-d4(surr)		0.5	1	2	5	10	20	50	100
Dichlorodifluoromethane		0.5	1	2	5	10	20	50	100
Chloromethane		0.5	1	2	5	10	20	50	100
Vinyl chloride		0.5	1	2	5	10	20	50	100
Bromomethane		0.5	1	2	5	10	20	50	100
Chloroethane		0.5	1	2	5	10	20	50	100
Trichlorofluoromethane		0.5	1	2	5	10	20	50	100
1,1-Dichloroethene		0.5	1	2	5	10	20	50	100
Acetone	1	2.5	5	10	25	50	100	250	500
Iodomethane	1	2.5	5	10	25	50	100	250	500
Carbon disulfide	1	2.5	5	10	25	50	100	250	500
Methylene chloride		0.5	1	2	5	10	20	50	100
trans-1,2-Dichloroethene		0.5	1	2	5	10	20	50	100
1,1-Dichloroethane		0.5	1	2	5	10	20	50	100
Ethyl ether		0.5	1	2	5	10	20	50	100
Vinyl acetate	1	2.5	5	10	25	50	100	250	500
cis-1,2-Dichloroethene		0.5	1	2	5	10	20	50	100
1,2-Dichloroethene (total)		1	2	4	10	20	40	100	200
Cyclohexene		0.5	1	2	5	10	20	50	100
2-Chloroethylvinyl ether			5	10	25	50	100	250	500
2,2-Dichloropropane		0.5	1	2	5	10	20	50	100
2-Butanone	1	2.5	5	10	25	50	100	250	500
Bromochloromethane		0.5	1	2	5	10	20	50	100
Chloroform		0.5	1	2	5	10	20	50	100
1,1,1-Trichloroethane		0.5	1	2	5	10	20	50	100
1,1-Dichloropropene		0.5	1	2	5	10	20	50	100
Carbon tetrachloride		0.5	1	2	5	10	20	50	100
Benzene		0.5	1	2	5	10	20	50	100
1,2-Dichloroethane		0.5	1	2	5	10	20	50	100
Trichloroethene		0.5	1	2	5	10	20	50	100
1,2-Dichloropropane		0.5	1	2	5	10	20	50	100
Dibromomethane		0.5	1	2	5	10	20	50	100
Bromodichloromethane		0.5	1	2	5	10	20	50	100
cis-1,3-Dichloropropene		0.5	1	2	5	10	20	50	100
tert-Butylmethylether		0.5	1	2	5	10	20	50	100
Ethyl Ether			1	2	5	10	20	50	100
Acetonitrile			25	50	125	250	500	1250	2500
Methyl acetate			5	10	25	50	100	250	500
Cyclohexane			1	2	5	10	20	50	100
Methylcyclohexane			1	2	5	10	20	50	100
n-Butyl alcohol			50	100	250	500	1000	2500	5000
2-Nitropropane			5	10	25	50	100	250	500
Ethyl acetate			5	10	25	50	100	250	500
Acrolein			5	10	25	50	100	250	500
Trichlorotrifluoroethane			5	10	25	50	100	250	500
Allyl chloride			5	10	25	50	100	250	500
Acrylonitrile			5	10	25	50	100	250	500
1,4-Dioxane			50	100	250	500	1000	2500	5000
Isobutyl alcohol			50	100	250	500	1000	2500	5000
Methacrylonitrile			5	10	25	50	100	250	500
Propionitrile			5	10	25	50	100	250	500
Methyl methacrylate			5	10	25	50	100	250	500
Chlorotrifluoroethylene			5	10	25	50	100	250	500
2-Chloro-1,1,1-trifluoroethane			5	10	25	50	100	250	500

tert-Butyl alcohol			50	100	250	500	1000	2500	5000
Isopropyl ether			1	2	5	10	20	50	100
Ethyl tert-butyl ether			1	2	5	10	20	50	100
Isopropyl alcohol			50	100	250	500	1000	2500	5000
Methyl tert-amyl ether			1	2	5	10	20	50	100
1-Chlorohexane			1	2	5	10	20	50	100
2-Chloro-1,3-butadiene(chloroprene)			1	2	5	10	20	50	100
Chlorobenzene-d5 (IS)									
Toluene-d8 (surr)		0.5	1	2	5	10	20	50	100
4-Methyl-2-pentanone	1	2.5	5	10	25	50	100	250	500
Toluene		0.5	1	2	5	10	20	50	100
trans-1,3-Dichloropropene		0.5	1	2	5	10	20	50	100
1,1,2-Trichloroethane		0.5	1	2	5	10	20	50	100
Tetrachloroethene		0.5	1	2	5	10	20	50	100
1,3-Dichloropropane		0.5	1	2	5	10	20	50	100
2-Hexanone	1	2.5	5	10	25	50	20	250	500
Dibromochloromethane		0.5	1	2	5	10	20	50	100
1,2-Dibromoethane		0.5	1	2	5	10	20	50	100
Chlorobenzene		0.5	1	2	5	10	20	50	100
1,1,1,2-Tetrachloroethane		0.5	1	2	5	10	20	50	100
Ethylbenzene		0.5	1	2	5	10	20	50	100
m,p-Xylene		1	2	4	10	20	20	100	200
o-Xylene		0.5	1	2	5	10	20	50	100
Xylenes (total)		1.5	3	6	15	30	60	150	300
Stryene		0.5	1	2	5	10	20	50	100
Cyclohexanone			50	100	250	500	1000	2500	5000
Ethyl methacrylate			5	10	25	50	100	250	500
1,4-Dichlorobenzene-d4 (IS)									
Bromofluorobenzene (surr)		0.5	1	2	5	10	20	50	100
Bromoform		0.5	1	2	5	10	20	50	100
Isopropylbenzene		0.5	1	2	5	10	20	50	100
1,1,2,2-Tetrachloroethane		0.5	1	2	5	10	20	50	100
Bromobenzene		0.5	1	2	5	10	20	50	100
1,2,3-Trichloropropane		0.5	1	2	5	10	20	50	100
n-Propylbenzene		0.5	1	2	5	10	20	50	100
2-Chlorotoluene		0.5	1	2	5	10	20	50	100
1,3,5-Trimethylbenzene		0.5	1	2	5	10	20	50	100
4-Chlorotoluene		0.5	1	2	5	10	20	50	100
1,2,4-Trimethylbenzene		0.5	1	2	5	10	20	50	100
sec-Butylbenzene		0.5	1	2	5	10	20	50	100
1,3-Dichlorobenzene		0.5	1	2	5	10	20	50	100
tert-Butylbenzene		0.5	1	2	5	10	20	50	100
Isopropyltoluene		0.5	1	2	5	10	20	50	100
1,4-Dichlorobenzene		0.5	1	2	5	10	20	50	100
n-Butylbenzene		0.5	1	2	5	10	20	50	100
1,2-Dichlorobenzene		0.5	1	2	5	10	20	50	100
1,2-Dibromo-3-chloropropa		0.5	1	2	5	10	20	50	100
1,2,4-Trichlorobenzene		0.5	1	2	5	10	20	50	100
Hexachlorobutadiene		0.5	1	2	5	10	20	50	100
Naphthalene		0.5	1	2	5	10	20	50	100
1,2,3-Trichlorobenzene		0.5	1	2	5	10	20	50	100
cis-1,4-Dichloro-2-butene			5	10	25	50	100	250	500
trans-1,4-Dichloro-2-butene			5	10	25	50	100	250	500
Tetrahydrofuran			5	10	25	50	100	250	500
Pentachloroethane			5	10	25	50	100	250	500
Benzyl chloride			5	10	25	50	100	250	500
bis(2-Chloro-isopropyl)ether			5	10	25	50	100	250	500

Method	PQL	Concentration range
EPA 524.2	Level 1a	Levels 1a -> 7a
SW 846 8260B low level	Level 1a	Levels 1-> 7a
EPA 624	Level 2	Levels 2-> 7a
SW846 8260B	Level 2	Levels 2-> 7a

#: Indicates calibration verification concentration level used for low level analysis

!: Indicates calibration verification concentration level used for regular level analysis

Calibration History Report VOAA
GEL Laboratories, LLC

Method File : C:\msdchem\1\DATA\121809\Methods\VOAA-8260-110609.M
Last Update : Mon Nov 09 16:21:09 2009
Integrator : (RTE Integrator) Response via : Initial Calibration

Cal Lvl:8 Amt:-1 Last Updated with: C:\msdchem\1\DATA\110609\AJ503.D

Injection Date	Mix	Calibration File
6 Nov 2009 12:30 pm	A	C:\msdchem\1\DATA\110609\AJ503.D

Cal Lvl:1 Amt:1 Last Updated with: C:\msdchem\1\DATA\110609\AJ513.D

Injection Date	Mix	Calibration File
6 Nov 2009 1:21 pm	A	C:\msdchem\1\DATA\110609\AJ505.D
6 Nov 2009 4:49 pm	B	C:\msdchem\1\DATA\110609\AJ513.D

Cal Lvl:2 Amt:2 Last Updated with: C:\msdchem\1\DATA\110609\AJ514.D

Injection Date	Mix	Calibration File
6 Nov 2009 1:47 pm	A	C:\msdchem\1\DATA\110609\AJ506.D
6 Nov 2009 5:15 pm	B	C:\msdchem\1\DATA\110609\AJ514.D

Cal Lvl:3 Amt:5 Last Updated with: C:\msdchem\1\DATA\110609\AJ515.D

Injection Date	Mix	Calibration File
6 Nov 2009 2:13 pm	A	C:\msdchem\1\DATA\110609\AJ507.D
6 Nov 2009 5:41 pm	B	C:\msdchem\1\DATA\110609\AJ515.D

Cal Lvl:4 Amt:10 Last Updated with: C:\msdchem\1\DATA\110609\AJ516.D

Injection Date	Mix	Calibration File
6 Nov 2009 2:39 pm	A	C:\msdchem\1\DATA\110609\AJ508.D
6 Nov 2009 6:07 pm	B	C:\msdchem\1\DATA\110609\AJ516.D

Cal Lvl:5 Amt:20 Last Updated with: C:\msdchem\1\DATA\110609\AJ517.D

Injection Date	Mix	Calibration File
6 Nov 2009 3:05 pm	A	C:\msdchem\1\DATA\110609\AJ509.D
6 Nov 2009 6:34 pm	B	C:\msdchem\1\DATA\110609\AJ517.D

Cal Lvl:6 Amt:50 Last Updated with: C:\msdchem\1\DATA\110609\AJ518.D

Injection Date	Mix	Calibration File
6 Nov 2009 3:31 pm	A	C:\msdchem\1\DATA\110609\AJ510.D
6 Nov 2009 6:59 pm	B	C:\msdchem\1\DATA\110609\AJ518.D

Cal Lvl:7 Amt:100 Last Updated with: C:\msdchem\1\DATA\110609\AJ519.D

Injection Date	Mix	Calibration File
6 Nov 2009 3:57 pm	A	C:\msdchem\1\DATA\110609\AJ511.D
6 Nov 2009 7:25 pm	B	C:\msdchem\1\DATA\110609\AJ519.D

Response Factor Report VOAA
GEL Laboratories, LLC

Method File : C:\msdchem\1\DATA\121809\Methods\VOAA-8260-110609.M
Last Update : Mon Nov 09 16:21:09 2009
Integrator : (RTE Integrator) Response via : Initial Calibration

For Linear Calibration: y = concentration ratio, x = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
2)MA Dichlorodifluoromethane	0.1896028	0.2284171 0.2248416	0.2500854	0.2438131	0.2478375	0.2371723	0.2317	AVRG		8.9938
3)MPA Chloromethane	0.2008350	0.2472204 0.2138999	0.2481122	0.2444351	0.2335430	0.2329192	0.2316	AVRG		7.7785
4)MCA Vinyl chloride	0.2097691	0.2425630 0.2209500	0.2460064	0.2383315	0.2295359	0.2304360	0.2311	AVRG		5.4932
5)MA Bromomethane	0.2097707	0.2151680 0.2232352	0.2256556	0.2288854	0.2224480	0.2211131	0.2209	AVRG		2.9280
6)MA Chloroethane	0.1272143	0.1663661 0.1228851	0.1653688	0.1619724	0.1472962	0.1454664	0.1481	AVRG		12.0294
7)MA Trichlorofluoromethane	0.4306075	0.4454943 0.4474854	0.4539765	0.4627758	0.4431113	0.4490273	0.4475	AVRG		2.2089
8)MA Ethyl ether	0.2196477	0.2046092 0.2259525	0.2098697	0.2209100	0.2151878	0.2229120	0.2170	AVRG		3.4945
9)MA Acetone	0.2144869	0.2218273 0.1854993	0.1971350	0.1987115	0.2026961	0.1980181	0.2026	AVRG		5.9408
10)MCA 1,1-Dichloroethylene	0.4197439	0.4095655 0.3967345	0.4013913	0.3885094	0.4088718	0.4172649	0.4060	AVRG		2.7533
11)MA Iodomethane	0.4452170	0.4222708 0.4219107	0.4119908	0.4005178	0.4231290	0.4347497	0.4228	AVRG		3.4270
12)MA Acetonitrile	0.0345252	0.0376402 0.0311829	0.0368141	0.0360411	0.0365890	0.0362524	0.0356	AVRG		6.0607
13)MA Methyl acetate	0.2049924	0.2383395 0.1995419	0.2200333	0.2241490	0.2316781	0.2241947	0.2204	AVRG		6.2811
14)MA Carbon disulfide	0.7542450	0.7485289 0.6557753	0.7260767	0.6760011	0.7459274	0.7518621	0.7226	AVRG		5.5707
15)MA Methylene chloride 0.0082 | 0.2421 | 0.00	474170	941033	27019	52735	99166	194439		LINR		0.9998
16)MA tert-Butyl methyl ether	0.6746083	0.6311845 0.6752490	0.6600470	0.6204350	0.6886643	0.6639808	0.6592	AVRG		3.7542

Response Factor Report VOAA
GEL Laboratories, LLC

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Last Update : Mon Nov 09 16:21:09 2009
Integrator : (RTE Integrator) Response via : Initial Calibration

For Linear Calibration: y = concentration ratio, x = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
17)MA trans-1,2-Dichloroethyle	0.4079894	0.4119376 0.3926089	0.4068398	0.3994959	0.4110829	0.4124931	0.4061	AVRG		1.8250
18)MA Vinyl acetate	0.5056782	0.3279591 0.4847819	0.3727205	0.4192542	0.4271344	0.4755991	0.4304	AVRG		14.8825
19)MPA 1,1-Dichloroethane	0.4780993	0.4866881 0.4618329	0.4951641	0.4881494	0.4873671	0.4923985	0.4842	AVRG		2.3192
20)MA 2-Butanone	0.2604852	0.2112048 0.2357205	0.2062060	0.2191848	0.2246664	0.2324686	0.2271	AVRG		7.9888
21)MA cis-1,2-Dichloroethylene	0.4644228	0.4408369 0.4544201	0.4469377	0.4585091	0.4582812	0.4665088	0.4557	AVRG		2.0168
22)MA 2,2-Dichloropropane	0.3936300	0.3316040 0.3940719	0.3480698	0.3541490	0.3654943	0.3816343	0.3670	AVRG		6.5203
23)MA Bromochloromethane	0.1361408	0.1310448 0.1363109	0.1328988	0.1301290	0.1319682	0.1350743	0.1334	AVRG		1.8702
24)MCA Chloroform	0.4741747	0.4822621 0.4729119	0.4793193	0.4667112	0.4642791	0.4701783	0.4728	AVRG		1.3665
25)MA 1,1,1-Trichloroethane	0.4546446	0.4102598 0.4559180	0.4241424	0.4197076	0.4319514	0.4437147	0.4343	AVRG		4.0640
26)MA Cyclohexane	0.5260666	0.4456679 0.5048610	0.4621051	0.4620318	0.4969203	0.5130377	0.4872	AVRG		6.2548
27)MA 1,1-Dichloropropene	0.3499463	0.3103707 0.3480036	0.3217403	0.3258515	0.3383907	0.3485462	0.3347	AVRG		4.6494
28)MA Carbon tetrachloride	0.4309229	0.3677932 0.4360131	0.3806281	0.3909857	0.4019675	0.4184844	0.4038	AVRG		6.3858
29)SA 1,2-Dichloroethane-d4	0.3439127	0.3498739 0.3417155	0.3486105	0.3547216	0.3465466	0.3462002	0.3474	AVRG		1.2204
30)MA 1,2-Dichloroethane	0.4195080	0.4311460 0.4138022	0.4246431	0.4164698	0.4227540	0.4233321	0.4217	AVRG		1.3561
31)MA Benzene	0.9553418 0.9384836	0.9704545 0.9260161	0.9502450	0.9286267	0.9344827	0.9435503	0.9434	AVRG		1.5751

Response Factor Report VOAA
GEL Laboratories, LLC

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For Linear Calibration: y = concentration ratio, x = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
32)MA Cyclohexene	0.4925146	0.4065859 0.4787128	0.4127006	0.4352863	0.4653493	0.4804490	0.4531	AVRG		7.6565
33)MA n-Butyl alcohol -0.0160 | 0.0083 | 0.00	1527534	7258 3183067	17262	35681	105255	253911	546710	LINR	#	0.9997
34)MA Trichloroethylene	0.2720791	0.2674412 0.2723487	0.2657093	0.2580665	0.2674662	0.2711792	0.2678	AVRG		1.8659
35)MCA 1,2-Dichloropropane	0.2650654	0.2622342 0.2615015	0.2615567	0.2617170	0.2605845	0.2680255	0.2630	AVRG		1.0050
36)MA Methylcyclohexane	0.4362118	0.3478906 0.4244932	0.3779922	0.3927529	0.4143953	0.4319777	0.4037	AVRG		8.0264
37)MA Dibromomethane	0.1674119	0.1552866 0.1672440	0.1523367	0.1575894	0.1611304	0.1652006	0.1609	AVRG		3.7380
38)MA Bromodichloromethane	0.3503272	0.2696398 0.3608085	0.2818486	0.3051050	0.3110923	0.3347219	0.3162	AVRG		10.7974
39)MA 2-Chloroethylvinyl ether -0.0063 | 0.1541 | 0.00	1422336	17172 2951100	36279	113321	248728	544599		LINR		0.9999
40)MA cis-1,3-Dichloropropylen	0.3950088	0.2796200 0.4046251	0.3078246	0.3252934	0.3463089	0.3726977	0.3473	AVRG		13.3140
42)MA 4-Methyl-2-pentanone 0.0005 | 0.1556 | 0.00	1288641	14505 2354776	30014	90525	199868	431638		LINR		0.9949
43)SA Toluene-d8	1.2650373	1.2645282 1.2667337	1.2727406	1.2842134	1.2680488	1.2646157	1.2694	AVRG		0.5618
44)MCA Toluene	1.3110852	1.3821178 1.2975340	1.3402837	1.3073106	1.3036920	1.3156077	1.3225	AVRG		2.2380
45)MA trans-1,3-Dichloropropyl	0.4685587	0.3377297 0.4768357	0.3470094	0.3867934	0.4080679	0.4429610	0.4097	AVRG		13.6316
46)MA 1,1,2-Trichloroethane	0.2179541	0.2048898 0.2155925	0.2138892	0.2183557	0.2168638	0.2196460	0.2153	AVRG		2.3079
47)MA 2-Hexanone -0.0630 | 0.4787 | 0.00	3521381	39588	79795	244539	539862	1157124		LINR		0.9969

Response Factor Report VOAA
GEL Laboratories, LLC

Method File : C:\msdchem\1\DATA\121809\Methods\VOAA-8260-110609.M
Last Update : Mon Nov 09 16:21:09 2009
Integrator : (RTE Integrator) Response via : Initial Calibration

For Linear Calibration: y = concentration ratio, x = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
48)MA 1,3-Dichloropropane		0.4721781	0.4577663	0.4707684	0.4662965	0.4748414				
	0.4603949	0.4413362					0.4634	AVRG		2.4892
49)MA Tetrachloroethylene		0.2781369	0.2840440	0.2775343	0.2736438	0.2793627				
	0.2736894	0.2766317					0.2776	AVRG		1.2889
50)MA Dibromochloromethane		6281	13330	36721	81056	182234				
-0.0068 | 0.3473 | 0.00	510378							LINR		0.9990
51)MA 1,2-Dibromoethane		0.2397551	0.2445961	0.2569507	0.2665979	0.2773337				
	0.2831527	0.2848285					0.2647	AVRG		6.8882
52)MPA Chlorobenzene		0.9394930	0.9308388	0.8923358	0.8913391	0.9053332				
	0.8922478	0.8919372					0.9062	AVRG		2.2648
53)MA 1,1,1,2-Tetrachloroethan		0.2976645	0.2905336	0.3152351	0.3205883	0.3442106				
	0.3576431	0.3619233					0.3268	AVRG		8.6763
54)MCA Ethylbenzene		1.4288418	1.4420348	1.4766500	1.4942562	1.5578978				
	1.5605591	1.5541935					1.5021	AVRG		3.7393
55)MA m,p-Xylenes		0.5142634	0.5210533	0.5446216	0.5602396	0.5846932				
	0.5783126	0.5718555					0.5536	AVRG		5.0246
56)MA o-Xylene		0.4595338	0.5037038	0.5220979	0.5460473	0.5782606				
	0.5766754	0.5661791					0.5361	AVRG		8.1794
57)MA Styrene		15415	31773	94019	214941	493104				
-0.0195 | 0.9286 | 0.00	1357212	2855712						LINR		0.9998
59)MPA Bromoform		3666	7641	21822	48970	115524				
-0.0183 | 0.4369 | 0.00	340420	761102						LINR		0.9981
60)MA Isopropylbenzene		2.0149538	2.1338606	2.3129974	2.5067174	2.6562154				
	2.7082295	2.7596385					2.4418	AVRG		12.0077
61)SA Bromofluorobenzene		0.9040025	0.9023951	0.9078522	0.9019390	0.8953097				
	0.8954447	0.8980596					0.9007	AVRG		0.5170
62)MPA 1,1,2,2-Tetrachloroethan		0.5859281	0.5798015	0.6071476	0.6196160	0.6308766				
	0.6283386	0.6257384					0.6111	AVRG		3.4092
63)MA 1,2,3-Trichloropropane		0.1720950	0.1768623	0.1775474	0.1835288	0.1831219				
	0.1822774	0.1832208					0.1798	AVRG		2.4438

Response Factor Report VOAA
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Method File : C:\msdchem\1\DATA\121809\Methods\VOAA-8260-110609.M
Last Update : Mon Nov 09 16:21:09 2009
Integrator : (RTE Integrator) Response via : Initial Calibration

For Linear Calibration: y = concentration ratio, x = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
64)MA Bromobenzene	0.6770506	0.6853607 0.6932896	0.6562152	0.6544721	0.6619801	0.6777948	0.6723	AVRG		2.2286
65)MA n-Propylbenzene	3.2726149	2.8357764 3.3048477	2.8532601	3.0002544	3.1948658	3.2743373	3.1051	AVRG		6.5949
66)MA 1,3,5-Trimethylbenzene	2.2833846	1.7291352 2.3334520	1.8729769	2.0262873	2.1663128	2.2627090	2.0963	AVRG		10.9026
67)MA 2-Chlorotoluene	0.6454465	0.5861964 0.6554578	0.5967673	0.6113184	0.6328022	0.6518776	0.6257	AVRG		4.4328
68)MA 4-Chlorotoluene	1.9386503	1.8005899 1.9663031	1.8529478	1.8660815	1.9207618	1.9717906	1.9024	AVRG		3.3712
69)MA tert-Butylbenzene	0.5017388	0.3643180 0.5179058	0.3815972	0.4288125	0.4575243	0.4841678	0.4480	AVRG		13.1907
70)MA 1,2,4-Trimethylbenzene	2.3181385	1.6861283 2.3722848	1.8629455	2.0676849	2.2329897	2.3261717	2.1238	AVRG		12.3855
71)MA sec-Butylbenzene	2.9989239	2.2827242 3.0569588	2.4225495	2.6090044	2.8132576	2.9648258	2.7355	AVRG		11.0713
72)MA 4-Isopropyltoluene -0.0416 | 2.5666 | 0.00	2113937	25269 4482759	55393	161714	361109	808325		LINR		0.9999
73)MA 1,3-Dichlorobenzene	1.2314206	1.3271106 1.2669200	1.2577626	1.2182594	1.2461758	1.2652782	1.2590	AVRG		2.7758
74)MA 1,4-Dichlorobenzene	1.2579272	1.3915204 1.2943477	1.3710702	1.2756685	1.2920596	1.3063913	1.3127	AVRG		3.7826
75)MA n-Butylbenzene	2.4002051	1.8802970 2.4592012	1.9977298	2.0660838	2.2924486	2.4249912	2.2173	AVRG		10.5030
76)MA 1,2-Dichlorobenzene	1.2182085	1.2095627 1.2475199	1.2212052	1.1813037	1.2021922	1.2351176	1.2164	AVRG		1.7839
77)MA 1,2-Dibromo-3-chloroprop -0.0058 | 0.1432 | 0.00	113319	866 248815	2394	7309	16195	37969		LINR		0.9986
78)MA 1,2,4-Trichlorobenzene	0.9784360	0.9642016 1.0228148	0.9181761	0.8765290	0.9380416	1.0112874	0.9585	AVRG		5.4072

Response Factor Report VOAA
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Method File : C:\msdchem\1\DATA\121809\Methods\VOAA-8260-110609.M
Last Update : Mon Nov 09 16:21:09 2009
Integrator : (RTE Integrator) Response via : Initial Calibration

For Linear Calibration: y = concentration ratio, x = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
79)MA Hexachlorobutadiene	0.6053941	0.5552663 0.6258383	0.5644851	0.5386982	0.5681912	0.6001041	0.5797	AVRG		5.3851
80)MA Naphthalene	2.4363324	1.8339354 2.4572775	1.8140677	1.9362740	2.1274429	2.3597325	2.1379	AVRG		13.2067
81)MA 1,2,3-Trichlorobenzene	0.9384330	0.9177057 0.9592765	0.8858265	0.8506781	0.8942110	0.9640070	0.9157	AVRG		4.5323
83)B Chlorotrifluoroethylene 0.0000 | 0.0000 | 0.00								LINR	#	0.0000 #
84)B 2-Chloro-1,1,1-trifluoro	0.2457600	0.2450594 0.2479301	0.2452571	0.2520563	0.2501476	0.2556986	0.2488	AVRG		1.6119
85)B Acrolein	0.0506026	0.0374250 0.0487411	0.0387500	0.0408733	0.0426890	0.0431272	0.0432	AVRG		11.3604
86)B Trichlorotrifluoroethane	0.1072334	0.1247553 0.1037097	0.1046547	0.1058492	0.1065934	0.1047546	0.1082	AVRG		6.8291
87)B Isopropyl Alcohol	0.0171552	0.0136213 0.0191013	0.0150693	0.0162705	0.0170978	0.0176457	0.0166	AVRG		10.8046
88)B Allyl chloride	0.4136321	0.4030547 0.3857870	0.3727111	0.3952250	0.4068964	0.4083963	0.3980	AVRG		3.6321
89)B tert-Butyl Alcohol	0.0283665	0.0233175 0.0305640	0.0252535	0.0272118	0.0281217	0.0288034	0.0274	AVRG		8.7895
90)B Acrylonitrile	0.0971351	0.0903971 0.0929072	0.0871323	0.0931199	0.0943884	0.0931832	0.0926	AVRG		3.3923
91)B Isopropyl ether	0.9320427	0.8372836 0.9920189	0.8623064	0.8945706	0.9216733	0.9727444	0.9161	AVRG		6.1147
92)B 2-Chloro-1,3-butadiene	0.4210329	0.3354618 0.4244844	0.3152320	0.3459664	0.3712694	0.3907437	0.3720	AVRG		11.3756
93)B Ethyl tert-butyl ether	0.8205014	0.7345233 0.8861627	0.7258408	0.7798175	0.7995135	0.8453262	0.7988	AVRG		7.2426
94)B Ethyl acetate	0.2429476	0.2452883 0.2299409	0.2205612	0.2320390	0.2351269	0.2322970	0.2340	AVRG		3.5433

Response Factor Report VOAA
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Method File : C:\msdchem\1\DATA\121809\Methods\VOAA-8260-110609.M
Last Update : Mon Nov 09 16:21:09 2009
Integrator : (RTE Integrator) Response via : Initial Calibration

For Linear Calibration: y = concentration ratio, x = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
95)B Propionitrile	0.0380650	0.0341718 0.0362821	0.0341737	0.0364927	0.0369634	0.0370559	0.0362	AVRG		4.0850
96)B Methacrylonitrile	0.1517615	0.1304737 0.1431611	0.1250619	0.1412447	0.1468973	0.1468503	0.1408	AVRG		6.8258
97)B Tetrahydrofuran	0.0777719	0.0748340 0.0732409	0.0691332	0.0745251	0.0758922	0.0748246	0.0743	AVRG		3.6029
98)B Isobutyl alcohol	0.0094054	0.0082059 0.0090675	0.0079652	0.0083518	0.0088831	0.0090780	0.0087	AVRG	#	6.1373
99)B Methyl tert-amyl ether	0.6758874	0.5560770 0.7191817	0.5872043	0.6074785	0.6283349	0.6683778	0.6346	AVRG		8.9103
100)B Methyl methacrylate	0.1462439	0.1060454 0.1394387	0.1012264	0.1187256	0.1282183	0.1357225	0.1251	AVRG		13.6485
101)B 1,4-Dioxane	0.0019619	0.0013811 0.0020903	0.0017104	0.0018895	0.0019286	0.0019776	0.0018	AVRG	#	12.7565
102)B 2-Nitropropane -0.0130 | 0.0758 | 0.00	701023	9445 1432934	16139	44744	104962	231118		LINR		0.9990
104)B Ethyl methacrylate -0.0078 | 0.3446 | 0.00	2722498	34497 5210972	72032	214773	476144	1009154		LINR		0.9990
106)B 1-Chlorohexane	0.5998199	0.5183224 0.6740098	0.5329908	0.5922762	0.6130088	0.6499374	0.5972	AVRG		9.4986
107)B cis-1,4-Dichloro-2-buten	0.2419943	0.1664947 0.2354031	0.1746502	0.1989008	0.2156325	0.2259501	0.2084	AVRG		14.1287
108)B Cyclohexanone -0.0228 | 0.0388 | 0.00		6882	16895	52773	125006	306853		LINR		0.9932
109)B trans-1,4-Dichloro-2-but	0.2310784	0.1812712 0.2225558	0.1871125	0.2084657	0.2205129	0.2240504	0.2107	AVRG		9.2057
110)B Pentachloroethane	0.2868706	0.2013388 0.2479758	0.2027150	0.2117323	0.2052401	0.2441323	0.2286	AVRG		14.1265
111)B Benzyl chloride -0.1013 | 1.1564 | 0.00	4927427	60106 9801961	127618	364518	811083	1738766		LINR		0.9997

Response Factor Report VOAA
GEL Laboratories, LLC

Method File : C:\msdchem\1\DATA\121809\Methods\VOAA-8260-110609.M
Last Update : Mon Nov 09 16:21:09 2009
Integrator : (RTE Integrator) Response via : Initial Calibration

For Linear Calibration: y = concentration ratio, x = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
112)B bis(2-Chloroisopropyl)et		0.2689057	0.2722758	0.2942971	0.3251118	0.3280596				
	0.3546269	0.3396405					0.3118	AVRG		10.7630

(#) = Out of Range

Continuing Calibration Summary

Client SDG: 10-852

Instrument ID: VOAA.I **Injection Date** 06-NOV-09 20:17

Data File: 110609\AJ521.D **Init. Cal. Date(s)** 06-NOV-09 12:30 - 06-NOV-09 19:2

Lab Sample ID WAVM091106-17 **Quant Type** ISTD **Method:** VOAA-8260-110609.M

	Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type	
S	1,2-Dichloroethane-d4	0.3474	0.33		.01		-5.00864	30		Averaged	
S	Toluene-d8	1.2694	1.259		.01		-0.81928	30		Averaged	
S	Bromofluorobenzene	0.9007	0.884		.01		-1.85411	30		Averaged	
	Dichlorodifluoromethane	0.2317	0.193		.01		-16.70263	30		Averaged	
	Chloromethane	0.2316	0.188		.1		-18.82556	30		Averaged	spcc
	Vinyl chloride	0.2311	0.202		.01		-12.59195	20		Averaged	ccc
	Bromomethane	0.2209	0.193		.01		-12.63015	30		Averaged	
	Chloroethane	0.1481	0.116		.01		-21.67454	30		Averaged	
	Trichlorofluoromethane	0.4475	0.399		.01		-10.83799	30		Averaged	
	Ethyl ether	0.217	0.197		.01		-9.21659	30		Averaged	
	Acetone	0.2026	0.158		.01		-22.01382	40		Averaged	
	1,1-Dichloroethylene	0.406	0.357		.01		-12.06897	20		Averaged	ccc
	Iodomethane	0.4228	0.395		.01		-6.57521	30		Averaged	
	Acetonitrile	0.0356	0.03		.01		-15.73034	30		Averaged	
	Carbon disulfide	0.7226	0.692		.01		-4.23471	30		Averaged	
	Methyl acetate	0.2204	0.177		.01		-19.69147	40		Averaged	
	Methylene chloride	50	46.55	50			-6.9	30		Linear	
	tert-Butyl methyl ether	0.6592	0.62		.01		-5.9466	30		Averaged	
	trans-1,2-Dichloroethylene	0.4061	0.363		.01		-10.61315	30		Averaged	
	Vinyl acetate	0.4304	0.442		.01		2.69517	40		Averaged	
	1,1-Dichloroethane	0.4842	0.433		.1		-10.57414	30		Averaged	spcc
	2-Butanone	0.2271	0.194		.01		-14.57508	40		Averaged	
	cis-1,2-Dichloroethylene	0.4557	0.421		.01		-7.61466	30		Averaged	
	2,2-Dichloropropane	0.367	0.348		.01		-5.17711	30		Averaged	
	Bromochloromethane	0.1334	0.127		.01		-4.7976	30		Averaged	
	Chloroform	0.4728	0.436		.01		-7.78342	20		Averaged	ccc
	1,1,1-Trichloroethane	0.4343	0.408		.01		-6.05572	30		Averaged	
	Cyclohexane	0.4872	0.472		.01		-3.11987	30		Averaged	
	1,1-Dichloropropene	0.3347	0.319		.01		-4.69077	30		Averaged	
	Carbon tetrachloride	0.4038	0.388		.01		-3.91283	30		Averaged	
	1,2-Dichloroethane	0.4217	0.378		.01		-10.36282	30		Averaged	
	Benzene	0.9434	0.863		.01		-8.52237	30		Averaged	
	Cyclohexene	0.4531	0.43		.01		-5.09821	30		Averaged	
	n-Butyl alcohol	5000	4520.84	5000			-9.5832	40		Linear	
	Trichloroethylene	0.2678	0.25		.01		-6.64675	30		Averaged	
	1,2-Dichloropropane	0.263	0.244		.01		-7.22433	20		Averaged	ccc
	Methylcyclohexane	0.4037	0.393		.01		-2.65048	30		Averaged	

Continuing Calibration Summary

Instrument ID: VOAA.I **Injection Date** 06-NOV-09 20:17

Data File: 110609\AJ521.D **Init. Cal. Date(s)** 06-NOV-09 12:30 06-NOV-09 19:2

Lab Sample ID WAVM091106-17 **Quant Type** ISTD **Method:** VOAA-8260-110609.M

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type	
Dibromomethane	0.1609	0.151		.01		-6.15289	30		Averaged	
Bromodichloromethane	0.3162	0.323		.01		2.15054	30		Averaged	
2-Chloroethylvinyl ether	250	229.64	250			-8.144	30		Linear	
cis-1,3-Dichloropropylene	0.3473	0.356		.01		2.50504	30		Averaged	
4-Methyl-2-pentanone	250	212.72	250			-14.912	40		Linear	
Toluene	1.3225	1.208		.01		-8.65784	20		Averaged	ccc
trans-1,3-Dichloropropylene	0.4097	0.424		.01		3.49036	30		Averaged	
1,1,2-Trichloroethane	0.2153	0.202		.01		-6.17743	30		Averaged	
1,3-Dichloropropane	0.4634	0.423		.01		-8.71817	30		Averaged	
2-Hexanone	250	183.16	250			-26.736	40		Linear	
Tetrachloroethylene	0.2776	0.256		.01		-7.78098	30		Averaged	
Dibromochloromethane	50	46.06	50			-7.88	30		Linear	
1,2-Dibromoethane	0.2647	0.258		.01		-2.53117	30		Averaged	
Chlorobenzene	0.9062	0.843		.3		-6.97418	30		Averaged	spcc
1,1,1,2-Tetrachloroethane	0.3268	0.33		.01		0.97919	30		Averaged	
Ethylbenzene	1.5021	1.423		.01		-5.26596	20		Averaged	ccc
m,p-Xylenes	0.5536	0.532		.01		-3.90173	30		Averaged	
o-Xylene	0.5361	0.533		.01		-0.57825	30		Averaged	
Styrene	50	46.55	50			-6.9	30		Linear	
Bromoform	50	43.91	50			-12.18	30		Linear	spcc
Isopropylbenzene	2.4418	2.479		.01		1.52347	30		Averaged	
1,1,2,2-Tetrachloroethane	0.6111	0.566		.3		-7.38013	30		Averaged	spcc
1,2,3-Trichloropropane	0.1798	0.167		.01		-7.11902	30		Averaged	
Bromobenzene	0.6723	0.643		.01		-4.35817	30		Averaged	
n-Propylbenzene	3.1051	2.985		.01		-3.86783	30		Averaged	
2-Chlorotoluene	0.6257	0.611		.01		-2.34937	30		Averaged	
1,3,5-Trimethylbenzene	2.0963	2.091		.01		-0.25283	30		Averaged	
4-Chlorotoluene	1.9024	1.811		.01		-4.80446	30		Averaged	
tert-Butylbenzene	0.448	0.463		.01		3.34821	30		Averaged	
1,2,4-Trimethylbenzene	2.1238	2.142		.01		0.85695	30		Averaged	
sec-Butylbenzene	2.7355	2.735		.01		-0.01828	30		Averaged	
4-Isopropyltoluene	50	45.22	50			-9.56	30		Linear	
1,3-Dichlorobenzene	1.259	1.174		.01		-6.75139	30		Averaged	
1,4-Dichlorobenzene	1.3127	1.205		.01		-8.20446	30		Averaged	
n-Butylbenzene	2.2173	2.178		.01		-1.77243	30		Averaged	
1,2-Dichlorobenzene	1.2164	1.16		.01		-4.63663	30		Averaged	
1,2-Dibromo-3-chloropropane	50	43.51	50			-12.98	30		Linear	

Continuing Calibration Summary

Instrument ID: VOAA.I **Injection Date** 06-NOV-09 20:17

Data File: 110609\AJ521.D **Init. Cal. Date(s)** 06-NOV-09 12:30 06-NOV-09 19:2

Lab Sample ID WAVM091106-17 **Quant Type** ISTD **Method:** VOAA-8260-110609.M

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
1,2,4-Trichlorobenzene	0.9585	0.936		.01		-2.34742	30		Averaged
Hexachlorobutadiene	0.5797	0.562		.01		-3.0533	30		Averaged
Naphthalene	2.1379	2.226		.01		4.12087	30		Averaged
1,2,3-Trichlorobenzene	0.9157	0.917		.01		0.14197	30		Averaged

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\110609\
Data File : AJ521.D
Acq On : 6 Nov 2009 8:17 pm
Operator : JEB
InstName : VOAA
Sample : |WAVM091106-17|ICV|1|VOA|1|VOA8260BLF|
Misc : GEEL 5ML MIX[A]1011-01D/091106-01
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Nov 12 18:17:05 2009
Quant Method : C:\msdchem\1\METHODS\VOAA-8260-110609.M
Quant Title : Volatile Organics 8260B
QLast Update : Mon Nov 09 16:21:09 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Fluorobenzene	9.339	96	1940045	50.00 ug/L	0.00
41) Chlorobenzene-d5	12.508	117	1551877	50.00 ug/L	0.00
58) 1,4-Dichlorobenzene-d4	14.941	152	886379	50.00 ug/L	0.00
82) B Fluorobenzene	9.339	96	1940045	50.00 ug/L	0.00
103) B Chlorobenzene-d5	12.508	117	1551877	50.00 ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	14.941	152	886379	50.00 ug/L	0.00
System Monitoring Compounds					
29) 1,2-Dichloroethane-d4	8.978	65	641024	47.56 ug/L	0.00
43) Toluene-d8	10.983	98	1953793	49.59 ug/L	0.00
61) Bromofluorobenzene	13.713	95	783218	49.05 ug/L	0.00
Target Compounds					Qvalue
2) Dichlorodifluoromethane	3.731	85	374610	41.67 ug/L	100
3) Chloromethane	4.054	50	365245	40.65 ug/L	100
4) Vinyl chloride	4.275	62	391875	43.71 ug/L	100
5) Bromomethane	4.839	94	375121	43.77 ug/L	95
6) Chloroethane	4.990	64	224337	39.04 ug/L	100
7) Trichlorofluoromethane	5.396	101	774395	44.60 ug/L	99
8) Ethyl ether	5.728	59	382111	45.38 ug/L	90
9) Acetone	6.078	43	1532671	194.95 ug/L	91
10) 1,1-Dichloroethylene	6.078	61	691848	43.92 ug/L	93
11) Iodomethane	6.301	142	3831352	233.53 ug/L	93
12) Acetonitrile	6.414	41	1433908	1038.72 ug/L	97
13) Methyl acetate	6.478	43	1715723	200.61 ug/L	94
14) Carbon disulfide	6.428	76	6714095	239.46 ug/L	100
15) Methylene chloride	6.648	84	453049	46.55 ug/L	85
16) tert-Butyl methyl ether	6.970	73	1202604	47.02 ug/L	98
17) trans-1,2-Dichloroethy...	6.994	61	703767	44.67 ug/L	92
18) Vinyl acetate	7.450	43	4284161	256.51 ug/L	94
19) 1,1-Dichloroethane	7.472	63	839321	44.67 ug/L	100
20) 2-Butanone	8.059	43	1883893	213.76 ug/L	90
21) cis-1,2-Dichloroethylene	8.105	61	816501	46.18 ug/L	91
22) 2,2-Dichloropropane	8.137	77	675773	47.46 ug/L	87
23) Bromochloromethane	8.373	128	246294	47.60 ug/L	94
24) Chloroform	8.419	83	845771	46.10 ug/L	99
25) 1,1,1-Trichloroethane	8.692	97	791353	46.96 ug/L	98
26) Cyclohexane	8.787	56	915447	48.42 ug/L	94
27) 1,1-Dichloropropene	8.851	75	618358	47.62 ug/L	90
28) Carbon tetrachloride	8.886	117	752009	47.99 ug/L	100
30) 1,2-Dichloroethane	9.060	62	733639	44.84 ug/L	100
31) Benzene	9.084	78	1674194	45.74 ug/L	95
32) Cyclohexene	9.205	67	835010	47.50 ug/L	92
33) n-Butyl alcohol	9.459	56	1433220	4520.84 ug/L	89
34) Trichloroethylene	9.728	95	485826	46.76 ug/L	96
35) 1,2-Dichloropropane	9.965	63	473513	46.41 ug/L	99
36) Methylcyclohexane	9.979	83	763023	48.72 ug/L	92
37) Dibromomethane	10.092	93	292541	46.86 ug/L	92
38) Bromodichloromethane	10.212	83	626779	51.08 ug/L	99
39) 2-Chloroethylvinyl ether	10.453	63	1361260	229.64 ug/L	98
40) cis-1,3-Dichloropropylene	10.669	75	691374	51.30 ug/L	91
42) 4-Methyl-2-pentanone	10.775	58	1027875	212.72 ug/L #	83
44) Toluene	11.058	91	1874483	45.67 ug/L	99

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\110609\
Data File : AJ521.D
Acq On : 6 Nov 2009 8:17 pm
Operator : JEB
InstName : VOAA
Sample : |WAVM091106-17|ICV|1|VOA|1|VOA8260BLF|
Misc : GEEL 5ML MIX[A]1011-01D/091106-01
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Nov 12 18:17:05 2009
Quant Method : C:\msdchem\1\METHODS\VOAA-8260-110609.M
Quant Title : Volatile Organics 8260B
QLast Update : Mon Nov 09 16:21:09 2009
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
45)	trans-1,3-Dichloroprop...	11.210	75	658588	51.79	ug/L	93
46)	1,1,2-Trichloroethane	11.425	83	313531	46.92	ug/L	99
47)	2-Hexanone	11.623	43	2623808	183.16	ug/L	91
48)	1,3-Dichloropropane	11.616	76	656793	45.67	ug/L	92
49)	Tetrachloroethylene	11.652	164	396892	46.07	ug/L	93
50)	Dibromochloromethane	11.882	129	486003	46.06	ug/L	100
51)	1,2-Dibromoethane	12.044	107	401002	48.80	ug/L	100
52)	Chlorobenzene	12.539	112	1307722	46.49	ug/L	96
53)	1,1,1,2-Tetrachloroethane	12.596	131	512202	50.49	ug/L	98
54)	Ethylbenzene	12.614	91	2209095	47.38	ug/L	98
55)	m,p-Xylenes	12.727	106	1652628	96.19	ug/L	93
56)	o-Xylene	13.158	106	827855	49.76	ug/L	92
57)	Styrene	13.162	104	1311446	46.55	ug/L	92
59)	Bromoform	13.402	173	323876	43.91	ug/L	100
60)	Isopropylbenzene	13.526	105	2197694	50.77	ug/L	98
62)	1,1,2,2-Tetrachloroethane	13.791	83	501920	46.33	ug/L	99
63)	1,2,3-Trichloropropane	13.876	110	147927	46.41	ug/L	95
64)	Bromobenzene	13.919	156	569531	47.79	ug/L	93
65)	n-Propylbenzene	13.957	91	2645735	48.06	ug/L	97
66)	1,3,5-Trimethylbenzene	14.117	105	1853363	49.87	ug/L	96
67)	2-Chlorotoluene	14.095	126	541885	48.85	ug/L	89
68)	4-Chlorotoluene	14.198	91	1605030	47.59	ug/L	94
69)	tert-Butylbenzene	14.488	134	410592	51.70	ug/L	88
70)	1,2,4-Trimethylbenzene	14.527	105	1898690	50.43	ug/L	96
71)	sec-Butylbenzene	14.714	105	2423827	49.98	ug/L	98
72)	4-Isopropyltoluene	14.842	119	2020635	45.22	ug/L	97
73)	1,3-Dichlorobenzene	14.884	146	1040387	46.61	ug/L	98
74)	1,4-Dichlorobenzene	14.969	146	1068492	45.91	ug/L	98
75)	n-Butylbenzene	15.276	91	1930970	49.13	ug/L	98
76)	1,2-Dichlorobenzene	15.379	146	1028085	47.67	ug/L	98
77)	1,2-Dibromo-3-chloropr...	16.192	157	105306	43.51	ug/L	93
78)	1,2,4-Trichlorobenzene	17.183	180	829792	48.83	ug/L	100
79)	Hexachlorobutadiene	17.360	225	498325	48.49	ug/L	100
80)	Naphthalene	17.522	128	1972712	52.05	ug/L	100
81)	1,2,3-Trichlorobenzene	17.847	180	812577	50.05	ug/L	99
83)	Chlorotrifluoroethylene	3.651		0m	N.D.	d	
84)	2-Chloro-1,1,1-trifluo...	4.426		0m	N.D.	d	
85)	Acrolein	5.859		0m	N.D.	d	
86)	Trichlorotrifluoroethane	6.078		0m	N.D.	d	
87)	Isopropyl Alcohol	6.195		0m	N.D.	d	
88)	Allyl chloride	6.414		0m	N.D.	d	
89)	tert-Butyl Alcohol	6.683		0m	N.D.	d	
90)	Acrylonitrile	6.895		0m	N.D.	d	
91)	Isopropyl ether	7.450		0m	N.D.	d	
92)	2-Chloro-1,3-butadiene	7.606		0m	N.D.	d	
93)	Ethyl tert-butyl ether	7.889		0m	N.D.	d	
94)	Ethyl acetate	8.059		0m	N.D.	d	
95)	Propionitrile	8.059		0m	N.D.	d	
96)	Methacrylonitrile	8.303		0m	N.D.	d	
97)	Tetrahydrofuran	8.427		0m	N.D.	d	
98)	Isobutyl alcohol	8.787		0m	N.D.	d	
99)	Methyl tert-amyl ether	9.084		0m	N.D.	d	
100)	Methyl methacrylate	9.979		0m	N.D.	d	
101)	1,4-Dioxane	10.082		0m	N.D.	d	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\110609\
Data File : AJ521.D
Acq On : 6 Nov 2009 8:17 pm
Operator : JEB
InstName : VOAA
Sample : |WAVM091106-17|ICV|1|VOA|1|VOA8260BLF|
Misc : GEEL 5ML MIX[A]1011-01D/091106-01
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Nov 12 18:17:05 2009
Quant Method : C:\msdchem\1\METHODS\VOAA-8260-110609.M
Quant Title : Volatile Organics 8260B
QLast Update : Mon Nov 09 16:21:09 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
102) 2-Nitropropane	10.563		0m	N.D.		d
104) Ethyl methacrylate	11.241		0m	N.D.		d
106) 1-Chlorohexane	12.423		0m	N.D.		d
107) cis-1,4-Dichloro-2-butene	13.522		0m	N.D.		d
108) Cyclohexanone	13.657		0m	N.D.		d
109) trans-1,4-Dichloro-2-b...	13.848		0m	N.D.		d
110) Pentachloroethane	14.541		0m	N.D.		d
111) Benzyl chloride	15.082		0m	N.D.		d
112) bis(2-Chloroisopropyl)...	15.482		0m	N.D.		d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\110609\
Data File : AJ521.D
Acq On : 6 Nov 2009 8:17 pm
Operator : JEB
InstName : VOAA
Sample : |WAVM091106-17|ICV|1|VOA|1|VOA8260BLF|
Misc : GEEL 5ML MIX[A]1011-01D/091106-01
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Nov 12 18:17:05 2009
Quant Method : C:\msdchem\1\METHODS\VOAA-8260-110609.M
Quant Title : Volatile Organics 8260B
QLast Update : Mon Nov 09 16:21:09 2009
Response via : Initial Calibration
Integrator: RTE

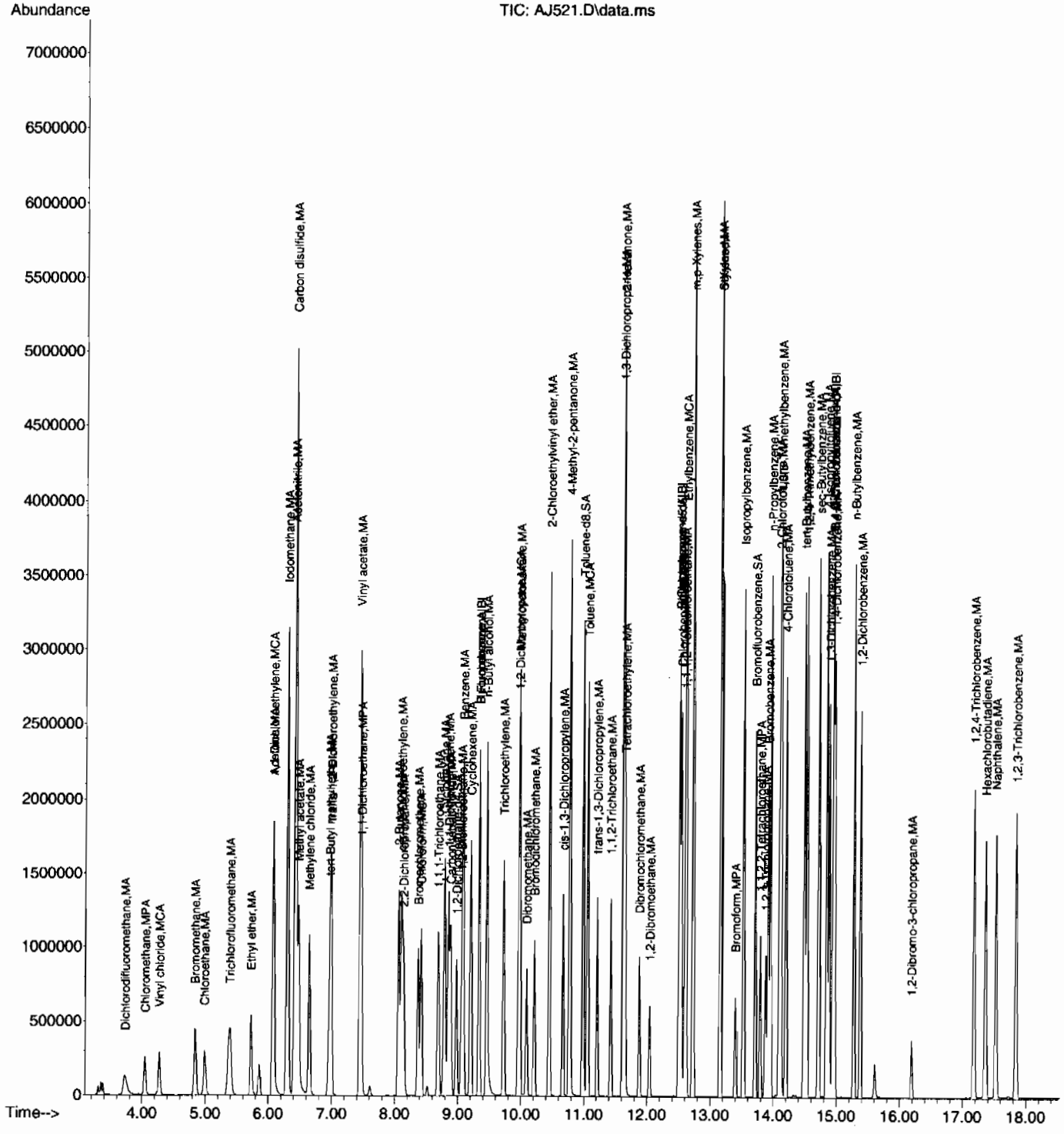

Continuing Calibration Summary

Client SDG: 10-852

Instrument ID: VOAA.I **Injection Date** 06-NOV-09 21:08

Data File: 110609\AJ523.D **Init. Cal. Date(s)** 06-NOV-09 12:30 - 06-NOV-09 19:2

Lab Sample ID WAVM091106-19 **Quant Type** ISTD **Method:** VOAA-8260-110609.M

	Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
S	1,2-Dichloroethane-d4	0.3474	0.325		.01		-6.4479	30		Averaged
S	Toluene-d8	1.2694	1.238		.01		-2.47361	30		Averaged
S	Bromofluorobenzene	0.9007	0.891		.01		-1.07694	30		Averaged
	2-Chloro-1,1,1-trifluoroethane	0.2488	0.255		.01		2.49196	30		Averaged
	Acrolein	0.0432	0.033		.01		-23.61111	30		Averaged
	Trichlorotrifluoroethane	0.1082	0.095		.01		-12.19963	30		Averaged
	Isopropyl Alcohol	0.0166	0.018		.01		8.43373	40		Averaged
	Allyl chloride	0.398	0.359		.01		-9.79899	30		Averaged
	tert-Butyl Alcohol	0.0274	0.029		.01		5.83942	40		Averaged
	Acrylonitrile	0.0926	0.081		.01		-12.527	30		Averaged
	Isopropyl ether	0.9161	0.957		.01		4.46458	30		Averaged
	2-Chloro-1,3-butadiene	0.372	0.358		.01		-3.76344	30		Averaged
	Ethyl tert-butyl ether	0.7988	0.861		.01		7.78668	30		Averaged
	Ethyl acetate	0.234	0.192		.01		-17.94872	40		Averaged
	Propionitrile	0.0362	0.031		.01		-14.36464	30		Averaged
	Methacrylonitrile	0.1408	0.124		.01		-11.93182	30		Averaged
	Tetrahydrofuran	0.0743	0.063		.01		-15.20861	30		Averaged
	Isobutyl alcohol	0.0087	0.007		.01		-19.54023	40		Averaged
	Methyl tert-amyl ether	0.6346	0.69		.01		8.72991	30		Averaged
	Methyl methacrylate	0.1251	0.123		.01		-1.67866	30		Averaged
	1,4-Dioxane	0.0018	0.002		.01		11.11111	40		Averaged
	2-Nitropropane	250	204.44	250			-18.224	30		Linear
	Ethyl methacrylate	250	222.68	250			-10.928	30		Linear
	1-Chlorohexane	0.5972	0.619		.01		3.65037	30		Averaged
	cis-1,4-Dichloro-2-butene	0.2084	0.206		.01		-1.15163	30		Averaged
	Cyclohexanone	1250	864.69	1250			-30.8248	40		Linear
	trans-1,4-Dichloro-2-butene	0.2107	0.197		.01		-6.50214	30		Averaged
	Pentachloroethane	0.2286	0.213		.01		-6.82415	30		Averaged
	Benzyl chloride	250	189.72	250			-24.112	30		Linear
	bis(2-Chloroisopropyl)ether	0.3118	0.273		.01		-12.44387	30		Averaged

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\110609\
Data File : AJ523.D
Acq On : 6 Nov 2009 9:08 pm
Operator : JEB
InstName : VOAA
Sample : |WAVM091106-19|ICV|1|VOA|1|VOA8260BLF|
Misc : GEEL 5ML MIX[B]0925-08B/090914-02E
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Nov 12 18:17:08 2009
Quant Method : C:\msdchem\1\METHODS\VOAA-8260-110609.M
Quant Title : Volatile Organics 8260B
QLast Update : Mon Nov 09 16:21:09 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Fluorobenzene	9.339	96	1984725	50.00 ug/L	0.00
41) Chlorobenzene-d5	12.508	117	1590474	50.00 ug/L	0.00
58) 1,4-Dichlorobenzene-d4	14.941	152	900293	50.00 ug/L	0.00
82) B Fluorobenzene	9.339	96	1984725	50.00 ug/L	0.00
103) B Chlorobenzene-d5	12.508	117	1590474	50.00 ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	14.941	152	900293	50.00 ug/L	0.00
System Monitoring Compounds					
29) 1,2-Dichloroethane-d4	8.978	65	645425	46.81 ug/L	0.00
43) Toluene-d8	10.983	98	1968651	48.75 ug/L	0.00
61) Bromofluorobenzene	13.713	95	802419	49.48 ug/L	0.00

Target Compounds				Qvalue
2) Dichlorodifluoromethane	3.641	0m	N.D. d	
3) Chloromethane	4.034	0m	N.D. d	
4) Vinyl chloride	4.255	0m	N.D. d	
5) Bromomethane	4.829	0m	N.D. d	
6) Chloroethane	4.980	0m	N.D. d	
7) Trichlorofluoromethane	5.385	0m	N.D. d	
8) Ethyl ether	5.725	0m	N.D. d	
9) Acetone	6.075	0m	N.D. d	
10) 1,1-Dichloroethylene	6.071	0m	N.D. d	
11) Iodomethane	6.301	0m	N.D. d	
12) Acetonitrile	6.503	0m	N.D. d	
13) Methyl acetate	6.680	0m	N.D. d	
14) Carbon disulfide	6.425	0m	N.D. d	
15) Methylene chloride	6.648	0m	N.D. d	
16) tert-Butyl methyl ether	6.966	0m	N.D. d	
17) trans-1,2-Dichloroethy...	6.991	0m	N.D. d	
18) Vinyl acetate	7.486	0m	N.D. d	
19) 1,1-Dichloroethane	7.472	0m	N.D. d	
20) 2-Butanone	8.091	0m	N.D. d	
21) cis-1,2-Dichloroethylene	8.091	0m	N.D. d	
22) 2,2-Dichloropropane	8.133	0m	N.D. d	
23) Bromochloromethane	8.370	0m	N.D. d	
24) Chloroform	8.416	0m	N.D. d	
25) 1,1,1-Trichloroethane	8.695	0m	N.D. d	
26) Cyclohexane	8.773	0m	N.D. d	
27) 1,1-Dichloropropene	8.851	0m	N.D. d	
28) Carbon tetrachloride	8.879	0m	N.D. d	
30) 1,2-Dichloroethane	9.056	0m	N.D. d	
31) Benzene	9.077	0m	N.D. d	
32) Cyclohexene	9.201	0m	N.D. d	
33) n-Butyl alcohol	9.463	0m	N.D. d	
34) Trichloroethylene	9.728	0m	N.D. d	
35) 1,2-Dichloropropane	9.961	0m	N.D. d	
36) Methylcyclohexane	9.972	0m	N.D. d	
37) Dibromomethane	10.092	0m	N.D. d	
38) Bromodichloromethane	10.212	0m	N.D. d	
39) 2-Chloroethylvinyl ether	10.453	0m	N.D. d	
40) cis-1,3-Dichloropropylene	10.665	0m	N.D. d	
42) 4-Methyl-2-pentanone	10.778	0m	N.D. d	
44) Toluene	11.061	0m	N.D. d	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\110609\
Data File : AJ523.D
Acq On : 6 Nov 2009 9:08 pm
Operator : JEB
InstName : VOAA
Sample : |WAVM091106-19|ICV|1|VOA|1|VOA8260BLF|
Misc : GEEL 5ML MIX[B]0925-08B/090914-02E
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Nov 12 18:17:08 2009
Quant Method : C:\msdchem\1\METHODS\VOAA-8260-110609.M
Quant Title : Volatile Organics 8260B
QLast Update : Mon Nov 09 16:21:09 2009
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
45)	trans-1,3-Dichloroprop...	11.210		0m	N.D. d	
46)	1,1,2-Trichloroethane	11.422		0m	N.D. d	
47)	2-Hexanone	11.623		0m	N.D. d	
48)	1,3-Dichloropropane	11.613		0m	N.D. d	
49)	Tetrachloroethylene	11.652		0m	N.D. d	
50)	Dibromochloromethane	11.882		0m	N.D. d	
51)	1,2-Dibromoethane	12.041		0m	N.D. d	
52)	Chlorobenzene	12.539		0m	N.D. d	
53)	1,1,1,2-Tetrachloroethane	12.600		0m	N.D. d	
54)	Ethylbenzene	12.614		0m	N.D. d	
55)	m,p-Xylenes	12.727		0m	N.D. d	
56)	o-Xylene	13.158		0m	N.D. d	
57)	Styrene	13.162		0m	N.D. d	
59)	Bromoform	13.399		0m	N.D. d	
60)	Isopropylbenzene	13.530		0m	N.D. d	
62)	1,1,2,2-Tetrachloroethane	13.791		0m	N.D. d	
63)	1,2,3-Trichloropropane	13.880		0m	N.D. d	
64)	Bromobenzene	13.919		0m	N.D. d	
65)	n-Propylbenzene	13.954		0m	N.D. d	
66)	1,3,5-Trimethylbenzene	14.113		0m	N.D. d	
67)	2-Chlorotoluene	14.092		0m	N.D. d	
68)	4-Chlorotoluene	14.194		0m	N.D. d	
69)	tert-Butylbenzene	14.488		0m	N.D. d	
70)	1,2,4-Trimethylbenzene	14.527		0m	N.D. d	
71)	sec-Butylbenzene	14.718		0m	N.D. d	
72)	4-Isopropyltoluene	14.842		0m	N.D. d	
73)	1,3-Dichlorobenzene	14.888		0m	N.D. d	
74)	1,4-Dichlorobenzene	14.965		0m	N.D. d	
75)	n-Butylbenzene	15.280		0m	N.D. d	
76)	1,2-Dichlorobenzene	15.376		0m	N.D. d	
77)	1,2-Dibromo-3-chloropr...	0.000		0	N.D.	
78)	1,2,4-Trichlorobenzene	17.183		0m	N.D. d	
79)	Hexachlorobutadiene	17.360		0m	N.D. d	
80)	Naphthalene	17.530		0m	N.D. d	
81)	1,2,3-Trichlorobenzene	17.847		0m	N.D. d	
83)	Chlorotrifluoroethylene	3.651	116	1033175	No Calib	
84)	2-Chloro-1,1,1-trifluo...	4.416	118	1518105	153.69 ug/L	96
85)	Acrolein	5.895	56	326110	190.29 ug/L	99
86)	Trichlorotrifluoroethane	6.068	85	947570	220.58 ug/L	90
87)	Isopropyl Alcohol	6.181	45	1773164	2696.52 ug/L	99
88)	Allyl chloride	6.503	41	3558570	225.27 ug/L	94
89)	tert-Butyl Alcohol	6.680	59	2870418	2641.38 ug/L	93
90)	Acrylonitrile	6.892	53	806182	219.31 ug/L	98
91)	Isopropyl ether	7.486	45	1899987	52.25 ug/L	96
92)	2-Chloro-1,3-butadiene	7.578	53	709609	48.05 ug/L	88
93)	Ethyl tert-butyl ether	7.889	59	1709784	53.92 ug/L	97
94)	Ethyl acetate	8.091	43	1908012	205.39 ug/L	95
95)	Propionitrile	8.119	54	302911	210.97 ug/L	100
96)	Methacrylonitrile	8.303	41	1233705	220.77 ug/L	99
97)	Tetrahydrofuran	8.427	42	621732	210.76 ug/L	91
98)	Isobutyl alcohol	8.773	41	734791	2125.73 ug/L	95
99)	Methyl tert-amyl ether	9.127	73	1369729	54.37 ug/L	99
100)	Methyl methacrylate	9.965	69	1216962	245.09 ug/L	85
101)	1,4-Dioxane	10.057	88	185763	2531.66 ug/L	92

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\110609\
Data File : AJ523.D
Acq On : 6 Nov 2009 9:08 pm
Operator : JEB
InstName : VOAA
Sample : |WAVM091106-19|ICV|1|VOA|1|VOA8260BLF|
Misc : GEEL 5ML MIX[B]0925-08B/090914-02E
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Nov 12 18:17:08 2009
Quant Method : C:\msdchem\1\METHODS\VOAA-8260-110609.M
Quant Title : Volatile Organics 8260B
QLast Update : Mon Nov 09 16:21:09 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)	
102) 2-Nitropropane	10.410	43	589571	204.44 ug/L	99	
104) Ethyl methacrylate	11.238	69	2428646	222.68 ug/L	89	
106) 1-Chlorohexane	12.426	55	557127	51.81 ug/L #	1	
107) cis-1,4-Dichloro-2-butene	13.554	53	925416	246.58 ug/L	93	
108) Cyclohexanone	13.657	42	583648	864.69 ug/L	80	E
109) trans-1,4-Dichloro-2-b...	13.844	53	884588	233.14 ug/L	89	
110) Pentachloroethane	14.541	167	960888	233.47 ug/L	94	
111) Benzyl chloride	15.082	91	3859136	189.72 ug/L	97	
112) bis(2-Chloroisopropyl)...	15.482	45	1230857	219.21 ug/L	92	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\110609\
Data File : AJ523.D
Acq On : 6 Nov 2009 9:08 pm
Operator : JEB
InstName : VOAA
Sample : |WAVM091106-19|ICV|1|VOA|1|VOA8260BLF|
Misc : GEEL 5ML MIX[B]0925-08B/090914-02E
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Nov 12 18:17:08 2009
Quant Method : C:\msdchem\1\METHODS\VOAA-8260-110609.M
Quant Title : Volatile Organics 8260B
QLast Update : Mon Nov 09 16:21:09 2009
Response via : Initial Calibration
Integrator: RTE

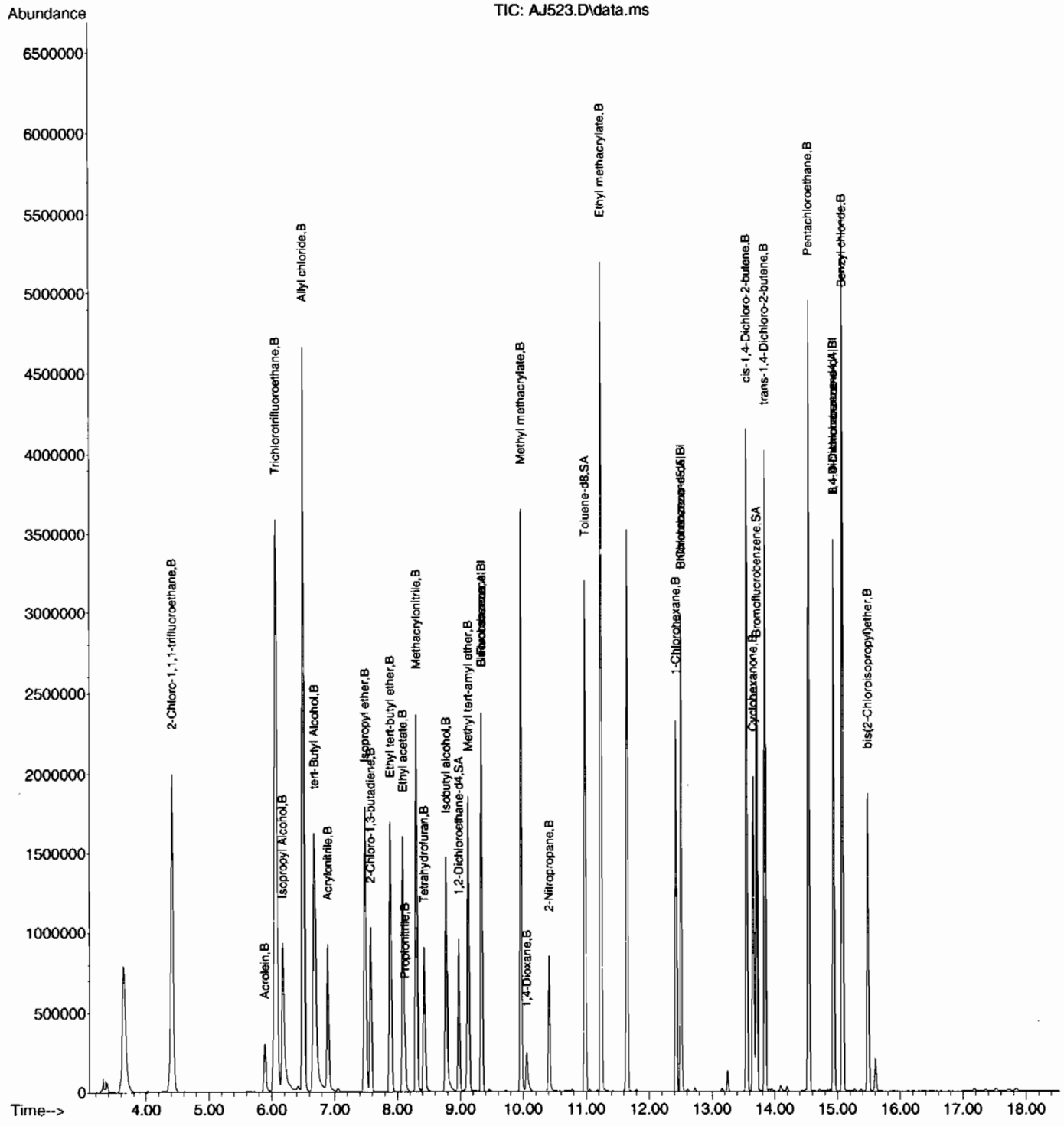

Continuing Calibration Summary

Client SDG: 10-852

Instrument ID: VOAA.I **Injection Date** 17-DEC-09 17:11

Data File: 121709\AP402.D **Init. Cal. Date(s)** 06-NOV-09 12:30 - 06-NOV-09 19:2

Lab Sample ID WAVM091217-01 **Quant Type** ISTD **Method:** VOAA-8260-110609.M

	Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type	
S	1,2-Dichloroethane-d4	0.3474	0.35605		.01		2.48993	30		Averaged	
S	Toluene-d8	1.2694	1.22792		.01		-3.26769	30		Averaged	
S	Bromofluorobenzene	0.9007	0.82046		.01		-8.90863	30		Averaged	
	Dichlorodifluoromethane	0.2317	0.20417		.01		-11.88174	30		Averaged	
	Chloromethane	0.2316	0.17326		.1		-25.18998	30		Averaged	spcc
	Vinyl chloride	0.2311	0.21418		.01		-7.32151	20		Averaged	ccc
	Bromomethane	0.2209	0.19086		.01		-13.59891	30		Averaged	
	Chloroethane	0.1481	0.11151		.01		-24.70628	30		Averaged	
	Trichlorofluoromethane	0.4475	0.48738		.01		8.91173	30		Averaged	
	Ethyl ether	0.217	0.18277		.01		-15.77419	30		Averaged	
	Acetone	0.2026	0.13734		.01		-32.21125	40		Averaged	
	1,1-Dichloroethylene	0.406	0.37153		.01		-8.49015	20		Averaged	ccc
	Iodomethane	0.4228	0.44281		.01		4.73273	30		Averaged	
	Acetonitrile	0.0356	0.02312		.01		-35.05618	30	*	Averaged	
	Carbon disulfide	0.7226	0.67167		.01		-7.04816	30		Averaged	
	Methyl acetate	0.2204	0.14639		.01		-33.57985	40		Averaged	
	Methylene chloride	50	45.19	50			-9.62	30		Linear	
	tert-Butyl methyl ether	0.6592	0.65188		.01		-1.11044	30		Averaged	
	trans-1,2-Dichloroethylene	0.4061	0.36627		.01		-9.80793	30		Averaged	
	Vinyl acetate	0.4304	0.418		.01		-2.88104	40		Averaged	
	1,1-Dichloroethane	0.4842	0.4227		.1		-12.70136	30		Averaged	spcc
	2-Butanone	0.2271	0.15443		.01		-31.99912	40		Averaged	
	cis-1,2-Dichloroethylene	0.4557	0.4232		.01		-7.13189	30		Averaged	
	2,2-Dichloropropane	0.367	0.44249		.01		20.56948	30		Averaged	
	Bromochloromethane	0.1334	0.13809		.01		3.51574	30		Averaged	
	Chloroform	0.4728	0.48266		.01		2.08545	20		Averaged	ccc
	1,1,1-Trichloroethane	0.4343	0.51453		.01		18.47341	30		Averaged	
	Cyclohexane	0.4872	0.45618		.01		-6.367	30		Averaged	
	1,1-Dichloropropene	0.3347	0.35026		.01		4.64894	30		Averaged	
	Carbon tetrachloride	0.4038	0.50162		.01		24.22486	30		Averaged	
	1,2-Dichloroethane	0.4217	0.40497		.01		-3.96728	30		Averaged	
	Benzene	0.9434	0.8501		.01		-9.88976	30		Averaged	
	Cyclohexene	0.4531	0.44292		.01		-2.24674	30		Averaged	
	n-Butyl alcohol	5000	4052.73	5000			-18.9454	40		Linear	
	Trichloroethylene	0.2678	0.27551		.01		2.87901	30		Averaged	
	1,2-Dichloropropane	0.263	0.2243		.01		-14.71483	20		Averaged	ccc
	Methylcyclohexane	0.4037	0.41306		.01		2.31855	30		Averaged	

Continuing Calibration Summary

Instrument ID: VOAA.I **Injection Date** 17-DEC-09 17:11

Data File: 121709\AP402.D **Init. Cal. Date(s)** 06-NOV-09 12:30 06-NOV-09 19:2

Lab Sample ID WAVM091217-01 **Quant Type** ISTD **Method:** VOAA-8260-110609.M

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type	
Dibromomethane	0.1609	0.15329		.01		-4.72965	30		Averaged	
Bromodichloromethane	0.3162	0.35858		.01		13.40291	30		Averaged	
2-Chloroethylvinyl ether	250	167.62	250			-32.952	30	*	Linear	
cis-1,3-Dichloropropylene	0.3473	0.37188		.01		7.07745	30		Averaged	
4-Methyl-2-pentanone	250	190.06	250			-23.976	40		Linear	
Toluene	1.3225	1.2214		.01		-7.64461	20		Averaged	ccc
trans-1,3-Dichloropropylene	0.4097	0.44664		.01		9.01635	30		Averaged	
1,1,2-Trichloroethane	0.2153	0.18808		.01		-12.64282	30		Averaged	
1,3-Dichloropropane	0.4634	0.39895		.01		-13.90807	30		Averaged	
2-Hexanone	250	150.02	250			-39.992	40		Linear	
Tetrachloroethylene	0.2776	0.31407		.01		13.13761	30		Averaged	
Dibromochloromethane	50	52.12	50			4.24	30		Linear	
1,2-Dibromoethane	0.2647	0.26607		.01		0.51757	30		Averaged	
Chlorobenzene	0.9062	0.88267		.3		-2.59656	30		Averaged	spcc
1,1,1,2-Tetrachloroethane	0.3268	0.3776		.01		15.54468	30		Averaged	
Ethylbenzene	1.5021	1.52855		.01		1.76087	20		Averaged	ccc
m,p-Xylenes	0.5536	0.56592		.01		2.22543	30		Averaged	
o-Xylene	0.5361	0.5566		.01		3.82391	30		Averaged	
Styrene	50	48.3	50			-3.4	30		Linear	
Bromoform	50	47.25	50			-5.5	30		Linear	spcc
Isopropylbenzene	2.4418	2.54094		.01		4.06012	30		Averaged	
1,1,2,2-Tetrachloroethane	0.6111	0.48064		.3		-21.34839	30		Averaged	spcc
1,2,3-Trichloropropane	0.1798	0.16829		.01		-6.40156	30		Averaged	
Bromobenzene	0.6723	0.68228		.01		1.48446	30		Averaged	
n-Propylbenzene	3.1051	2.92638		.01		-5.75569	30		Averaged	
2-Chlorotoluene	0.6257	0.61078		.01		-2.38453	30		Averaged	
1,3,5-Trimethylbenzene	2.0963	2.17803		.01		3.89877	30		Averaged	
4-Chlorotoluene	1.9024	1.81094		.01		-4.80761	30		Averaged	
tert-Butylbenzene	0.448	0.49818		.01		11.20089	30		Averaged	
1,2,4-Trimethylbenzene	2.1238	2.20327		.01		3.74188	30		Averaged	
sec-Butylbenzene	2.7355	2.78847		.01		1.93639	30		Averaged	
4-Isopropyltoluene	50	48.9	50			-2.2	30		Linear	
1,3-Dichlorobenzene	1.259	1.24902		.01		-0.79269	30		Averaged	
1,4-Dichlorobenzene	1.3127	1.27164		.01		-3.1279	30		Averaged	
n-Butylbenzene	2.2173	2.21586		.01		-0.06494	30		Averaged	
1,2-Dichlorobenzene	1.2164	1.2062		.01		-0.83854	30		Averaged	
1,2-Dibromo-3-chloropropane	50	46.21	50			-7.58	30		Linear	

Continuing Calibration Summary

Instrument ID: VOAA.I **Injection Dat** 17-DEC-09 17:11

Data File: 121709\AP402.D **Init. Cal. Date(s)** 06-NOV-09 12:30 06-NOV-09 19:2

Lab Sample ID WAVM091217-01 **Quant Type** ISTD **Method:** VOAA-8260-110609.M

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
1,2,4-Trichlorobenzene	0.9585	1.05684		.01		10.25978	30		Averaged
Hexachlorobutadiene	0.5797	0.71482		.01		23.30861	30		Averaged
Naphthalene	2.1379	2.14918		.01		0.52762	30		Averaged
1,2,3-Trichlorobenzene	0.9157	0.98604		.01		7.68156	30		Averaged

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709\
Data File : AP402.D
Acq On : 17 Dec 2009 5:11 pm
Operator : JEB
InstName : VOAA
Sample : |WAVM091217-01|CCV|1|VOA|1|VOA8260BLF|
Misc : GEEL 5ML MIX[A]1129-01E/091214-01
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 17 19:56:13 2009
Quant Method : C:\msdchem\1\METHODS\VOAA-8260-110609.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Nov 09 16:21:09 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	9.335	96	1322347	50.00	ug/L	0.00
41) Chlorobenzene-d5	12.508	117	1097285	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	14.941	152	692000	50.00	ug/L	0.00
82) B Fluorobenzene	9.335	96	1322347	50.00	ug/L	0.00
103) B Chlorobenzene-d5	12.508	117	1097285	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	14.941	152	692000	50.00	ug/L	0.00
System Monitoring Compounds						
29) 1,2-Dichloroethane-d4	8.978	65	470815	51.25	ug/L	0.00
43) Toluene-d8	10.983	98	1347379	48.37	ug/L	0.00
61) Bromofluorobenzene	13.710	95	567756	45.54	ug/L	0.00
Target Compounds						Qvalue
2) Dichlorodifluoromethane	3.721	85	269983	44.06	ug/L	99
3) Chloromethane	4.054	50	229115	37.41	ug/L	100
4) Vinyl chloride	4.275	62	283217	46.34	ug/L	100
5) Bromomethane	4.839	94	252380	43.20	ug/L	96
6) Chloroethane	4.990	64	147453	37.65	ug/L	99
7) Trichlorofluoromethane	5.385	101	644481	54.46	ug/L	100
8) Ethyl ether	5.725	59	241680	42.11	ug/L	99
9) Acetone	6.071	43	908045	169.45	ug/L	90
10) 1,1-Dichloroethylene	6.075	61	491289	45.75	ug/L	95
11) Iodomethane	6.298	142	2927709	261.81	ug/L	92
12) Acetonitrile	6.411	41	764300	812.29	ug/L	95
13) Methyl acetate	6.474	43	967856	166.03	ug/L	97
14) Carbon disulfide	6.421	76	4440906	232.37	ug/L	100
15) Methylene chloride	6.644	84	300089	45.19	ug/L	98
16) tert-Butyl methyl ether	6.966	73	862007	49.45	ug/L	96
17) trans-1,2-Dichloroethy...	6.987	61	484332	45.10	ug/L	95
18) Vinyl acetate	7.447	43	2763728	242.77	ug/L	98
19) 1,1-Dichloroethane	7.468	63	558950	43.64	ug/L	99
20) 2-Butanone	8.059	43	1021065	169.98	ug/L	95
21) cis-1,2-Dichloroethylene	8.101	61	559621	46.43	ug/L	93
22) 2,2-Dichloropropane	8.133	77	585123	60.29	ug/L	98
23) Bromochloromethane	8.370	128	182605	51.77	ug/L #	87
24) Chloroform	8.416	83	638242	51.04	ug/L	100
25) 1,1,1-Trichloroethane	8.688	97	680380	59.23	ug/L	98
26) Cyclohexane	8.787	56	603225	46.81	ug/L	99
27) 1,1-Dichloropropene	8.847	75	463167	52.33	ug/L	94
28) Carbon tetrachloride	8.883	117	663314	62.11	ug/L	99
30) 1,2-Dichloroethane	9.060	62	535512	48.02	ug/L	100
31) Benzene	9.081	78	1124132	45.06	ug/L	96
32) Cyclohexene	9.205	67	585696	48.88	ug/L	95
33) n-Butyl alcohol	9.459	56	873544	4052.73	ug/L	94
34) Trichloroethylene	9.728	95	364321	51.45	ug/L	98
35) 1,2-Dichloropropane	9.961	63	296603	42.65	ug/L	100
36) Methylcyclohexane	9.979	83	546204	51.16	ug/L	95
37) Dibromomethane	10.092	93	202697	47.64	ug/L	97
38) Bromodichloromethane	10.212	83	474161	56.70	ug/L	100
39) 2-Chloroethylvinyl ether	10.449	63	674991	167.62	ug/L	99
40) cis-1,3-Dichloropropylene	10.665	75	491748	53.53	ug/L	95
42) 4-Methyl-2-pentanone	10.771	58	649423	190.06	ug/L	93
44) Toluene	11.054	91	1340227	46.18	ug/L	99

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709\
Data File : AP402.D
Acq On : 17 Dec 2009 5:11 pm
Operator : JEB
InstName : VOAA
Sample : |WAVM091217-01|CCV|1|VOA|1|VOA8260BLF|
Misc : GEEL 5ML MIX[A]1129-01E/091214-01
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 17 19:56:13 2009
Quant Method : C:\msdchem\1\METHODS\VOAA-8260-110609.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Nov 09 16:21:09 2009
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)	
45)	trans-1,3-Dichloroprop...	11.210	75	490088	54.51 ug/L	98	
46)	1,1,2-Trichloroethane	11.425	83	206381	43.68 ug/L	96	
47)	2-Hexanone	11.623	43	1507099	150.02 ug/L	96	
48)	1,3-Dichloropropane	11.616	76	437757	43.05 ug/L	100	
49)	Tetrachloroethylene	11.652	164	344625	56.57 ug/L	98	
50)	Dibromochloromethane	11.878	129	389830	52.12 ug/L	99	E
51)	1,2-Dibromoethane	12.041	107	291950	50.25 ug/L	100	
52)	Chlorobenzene	12.539	112	968540	48.70 ug/L	98	
53)	1,1,1,2-Tetrachloroethane	12.596	131	414330	57.77 ug/L	97	
54)	Ethylbenzene	12.614	91	1677259	50.88 ug/L	97	
55)	m,p-Xylenes	12.727	106	1241951	102.23 ug/L	89	
56)	o-Xylene	13.158	106	610743	51.91 ug/L	89	
57)	Styrene	13.162	104	962885	48.30 ug/L	89	
59)	Bromoform	13.402	173	273039	47.25 ug/L	100	
60)	Isopropylbenzene	13.526	105	1758330	52.03 ug/L	97	
62)	1,1,2,2-Tetrachloroethane	13.791	83	332603	39.33 ug/L	99	
63)	1,2,3-Trichloropropane	13.876	110	116454	46.80 ug/L	86	
64)	Bromobenzene	13.919	156	472136	50.74 ug/L	98	
65)	n-Propylbenzene	13.957	91	2025058	47.12 ug/L	99	
66)	1,3,5-Trimethylbenzene	14.117	105	1507199	51.95 ug/L	95	
67)	2-Chlorotoluene	14.095	126	422657	48.81 ug/L	91	
68)	4-Chlorotoluene	14.198	91	1253173	47.60 ug/L	95	
69)	tert-Butylbenzene	14.488	134	344742	55.60 ug/L	89	
70)	1,2,4-Trimethylbenzene	14.527	105	1524661	51.87 ug/L	95	
71)	sec-Butylbenzene	14.714	105	1929622	50.97 ug/L	100	
72)	4-Isopropyltoluene	14.842	119	1708181	48.90 ug/L	97	
73)	1,3-Dichlorobenzene	14.884	146	864320	49.60 ug/L	99	
74)	1,4-Dichlorobenzene	14.969	146	879975	48.44 ug/L	99	
75)	n-Butylbenzene	15.273	91	1533378	49.97 ug/L	100	
76)	1,2-Dichlorobenzene	15.379	146	834692	49.58 ug/L	99	
77)	1,2-Dibromo-3-chloropr...	16.192	157	87559	46.21 ug/L	98	
78)	1,2,4-Trichlorobenzene	17.183	180	731332	55.13 ug/L	100	
79)	Hexachlorobutadiene	17.360	225	494654	61.65 ug/L	100	
80)	Naphthalene	17.522	128	1487232	50.26 ug/L	99	
81)	1,2,3-Trichlorobenzene	17.840	180	682340	53.84 ug/L	99	
83)	Chlorotrifluoroethylene	0.000		0	N.D.		
84)	2-Chloro-1,1,1-trifluo...	0.000		0	N.D.		
85)	Acrolein	5.852		0m	N.D. d		
86)	Trichlorotrifluoroethane	6.061		0m	N.D. d		
87)	Isopropyl Alcohol	6.078		0m	N.D. d		
88)	Allyl chloride	6.411		0m	N.D. d		
89)	tert-Butyl Alcohol	6.474		0m	N.D. d		
90)	Acrylonitrile	6.966		0m	N.D. d		
91)	Isopropyl ether	7.447		0m	N.D. d		
92)	2-Chloro-1,3-butadiene	7.606		0m	N.D. d		
93)	Ethyl tert-butyl ether	8.105		0m	N.D. d		
94)	Ethyl acetate	8.059		0m	N.D. d		
95)	Propionitrile	8.062		0m	N.D. d		
96)	Methacrylonitrile	8.434		0m	N.D. d		
97)	Tetrahydrofuran	8.409		0m	N.D. d		
98)	Isobutyl alcohol	8.787		0m	N.D. d		
99)	Methyl tert-amyl ether	9.081		0m	N.D. d		
100)	Methyl methacrylate	9.975		0m	N.D. d		
101)	1,4-Dioxane	0.000		0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709\
Data File : AP402.D
Acq On : 17 Dec 2009 5:11 pm
Operator : JEB
InstName : VOAA
Sample : |WAVM091217-01|CCV|1|VOA|1|VOA8260BLF|
Misc : GEEL 5ML MIX[A]1129-01E/091214-01
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 17 19:56:13 2009
Quant Method : C:\msdchem\1\METHODS\VOAA-8260-110609.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Nov 09 16:21:09 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
102) 2-Nitropropane	10.449		0m	N.D. d	
104) Ethyl methacrylate	11.238		0m	N.D. d	
106) 1-Chlorohexane	0.000		0	N.D.	
107) cis-1,4-Dichloro-2-butene	13.526		0m	N.D. d	
108) Cyclohexanone	13.660		0m	N.D. d	
109) trans-1,4-Dichloro-2-b...	13.848		0m	N.D. d	
110) Pentachloroethane	14.537		0m	N.D. d	
111) Benzyl chloride	15.086		0m	N.D. d	
112) bis(2-Chloroisopropyl)...	15.485		0m	N.D. d	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709\
Data File : AP402.D
Acq On : 17 Dec 2009 5:11 pm
Operator : JEB
InstName : VOAA
Sample : |WAVM091217-01|CCV|1|VOA|1|VOA8260BLF|
Misc : GEEL 5ML MIX[A]1129-01E/091214-01
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 17 19:56:13 2009
Quant Method : C:\msdchem\1\METHODS\VOAA-8260-110609.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Nov 09 16:21:09 2009
Response via : Initial Calibration
Integrator: RTE

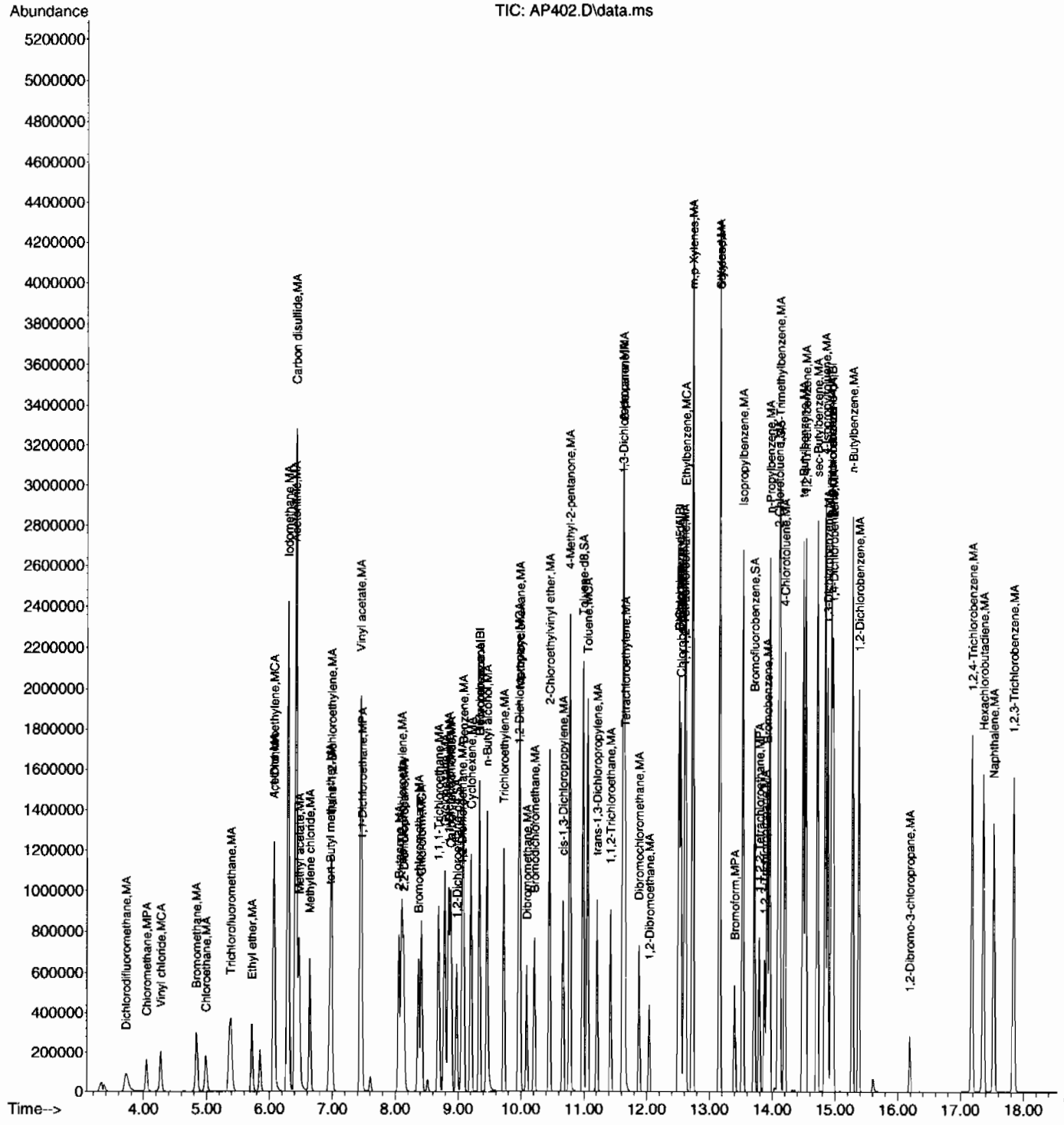

Continuing Calibration Summary

Client SDG: 10-852

Instrument ID: VOAA.I **Injection Date** 17-DEC-09 18:13

Data File: 121709\AP404.D **Init. Cal. Date(s)** 06-NOV-09 12:30 - 06-NOV-09 19:2

Lab Sample ID WAVM091217-03 **Quant Type** ISTD **Method:** VOAA-8260-110609.M

	Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
S	1,2-Dichloroethane-d4	0.3474	0.34894		.01		0.44329	30		Averaged
S	Toluene-d8	1.2694	1.22683		.01		-3.35355	30		Averaged
S	Bromofluorobenzene	0.9007	0.82478		.01		-8.429	30		Averaged
	Acrolein	0.0432	0.04293		.01		-0.625	30		Averaged
	Trichlorotrifluoroethane	0.1082	0.12767		.01		17.99445	30		Averaged
	Allyl chloride	0.398	0.3651		.01		-8.26633	30		Averaged
	Acrylonitrile	0.0926	0.08336		.01		-9.9784	30		Averaged
	2-Chloro-1,3-butadiene	0.372	0.48277		.01		29.77688	30		Averaged
	Ethyl acetate	0.234	0.1966		.01		-15.98291	40		Averaged
	Propionitrile	0.0362	0.03274		.01		-9.55801	30		Averaged
	Methacrylonitrile	0.1408	0.12781		.01		-9.22585	30		Averaged
	Tetrahydrofuran	0.0743	0.06198		.01		-16.58143	30		Averaged
	Isobutyl alcohol	0.0087	0.0076		.01		-12.64368	40		Averaged
	Methyl methacrylate	0.1251	0.13735		.01		9.79217	30		Averaged
	1,4-Dioxane	0.0018	0.00217		.01		20.55556	40		Averaged
	2-Nitropropane	250	249.67	250			-0.132	30		Linear
	Ethyl methacrylate	250	246.39	250			-1.444	30		Linear
	cis-1,4-Dichloro-2-butene	0.2084	0.22925		.01		10.0048	30		Averaged
	Cyclohexanone	1250	721.22	1250			-42.3024	40	*	Linear
	trans-1,4-Dichloro-2-butene	0.2107	0.21687		.01		2.92833	30		Averaged
	Pentachloroethane	0.2286	0.43693		.01		91.13298	30	*	Averaged
	Benzyl chloride	250	282.7	250			13.08	30		Linear
	bis(2-Chloroisopropyl)ether	0.3118	0.25248		.01		-19.02502	30		Averaged

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709\
Data File : AP404.D
Acq On : 17 Dec 2009 6:13 pm
Operator : JEB
InstName : VOAA
Sample : |WAVM091217-03|CCV|1|VOA|1|VOA8260BLF|
Misc : GEEL 5ML MIX[B]1118-08B
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Dec 17 19:57:29 2009
Quant Method : C:\msdchem\1\METHODS\VOAA-8260-110609.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Nov 09 16:21:09 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Fluorobenzene	9.339	96	1313388	50.00 ug/L	0.00
41) Chlorobenzene-d5	12.507	117	1071332	50.00 ug/L	0.00
58) 1,4-Dichlorobenzene-d4	14.940	152	676913	50.00 ug/L	0.00
82) B Fluorobenzene	9.339	96	1313388	50.00 ug/L	0.00
103) B Chlorobenzene-d5	12.507	117	1071332	50.00 ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	14.940	152	676913	50.00 ug/L	0.00
System Monitoring Compounds					
29) 1,2-Dichloroethane-d4	8.978	65	458290	50.23 ug/L	0.00
43) Toluene-d8	10.983	98	1314341	48.32 ug/L	0.00
61) Bromofluorobenzene	13.713	95	558307	45.78 ug/L	0.00

Target Compounds				Qvalue
2) Dichlorodifluoromethane	0.000	0	N.D.	
3) Chloromethane	4.043	0m	N.D. d	
4) Vinyl chloride	4.265	0m	N.D. d	
5) Bromomethane	0.000	0	N.D.	
6) Chloroethane	0.000	0	N.D.	
7) Trichlorofluoromethane	0.000	0	N.D.	
8) Ethyl ether	0.000	0	N.D.	
9) Acetone	6.078	0m	N.D. d	
10) 1,1-Dichloroethylene	6.064	0m	N.D. d	
11) Iodomethane	6.297	0m	N.D. d	
12) Acetonitrile	6.435	0m	N.D. d	
13) Methyl acetate	6.485	0m	N.D. d	
14) Carbon disulfide	6.506	0m	N.D. d	
15) Methylene chloride	6.648	0m	N.D. d	
16) tert-Butyl methyl ether	0.000	0	N.D.	
17) trans-1,2-Dichloroethy...	0.000	0	N.D.	
18) Vinyl acetate	7.447	0m	N.D. d	
19) 1,1-Dichloroethane	7.585	0m	N.D. d	
20) 2-Butanone	8.090	0m	N.D. d	
21) cis-1,2-Dichloroethylene	8.090	0m	N.D. d	
22) 2,2-Dichloropropane	0.000	0	N.D.	
23) Bromochloromethane	0.000	0	N.D.	
24) Chloroform	8.412	0m	N.D. d	
25) 1,1,1-Trichloroethane	0.000	0	N.D.	
26) Cyclohexane	8.776	0m	N.D. d	
27) 1,1-Dichloropropene	8.776	0m	N.D. d	
28) Carbon tetrachloride	0.000	0	N.D.	
30) 1,2-Dichloroethane	9.059	0m	N.D. d	
31) Benzene	9.084	0m	N.D. d	
32) Cyclohexene	0.000	0	N.D.	
33) n-Butyl alcohol	9.463	0m	N.D. d	
34) Trichloroethylene	0.000	0	N.D.	
35) 1,2-Dichloropropane	0.000	0	N.D.	
36) Methylcyclohexane	9.961	0m	N.D. d	
37) Dibromomethane	0.000	0	N.D.	
38) Bromodichloromethane	9.961	0m	N.D. d	
39) 2-Chloroethylvinyl ether	0.000	0	N.D.	
40) cis-1,3-Dichloropropylene	0.000	0	N.D.	
42) 4-Methyl-2-pentanone	0.000	0	N.D.	
44) Toluene	11.050	0m	N.D. d	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709\
Data File : AP404.D
Acq On : 17 Dec 2009 6:13 pm
Operator : JEB
InstName : VOAA
Sample : |WAVM091217-03|CCV|1|VOA|1|VOA8260BLF|
Misc : GEEL 5ML MIX[B]1118-08B
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Dec 17 19:57:29 2009
Quant Method : C:\msdchem\1\METHODS\VOAA-8260-110609.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Nov 09 16:21:09 2009
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
45)	trans-1,3-Dichloroprop...	11.206		0m	N.D. d	
46)	1,1,2-Trichloroethane	11.648		0m	N.D. d	
47)	2-Hexanone	11.630		0m	N.D. d	
48)	1,3-Dichloropropane	11.662		0m	N.D. d	
49)	Tetrachloroethylene	11.652		0m	N.D. d	
50)	Dibromochloromethane	11.652		0m	N.D. d	
51)	1,2-Dibromoethane	12.044		0m	N.D. d	
52)	Chlorobenzene	12.543		0m	N.D. d	
53)	1,1,1,2-Tetrachloroethane	12.596		0m	N.D. d	
54)	Ethylbenzene	12.734		0m	N.D. d	
55)	m,p-Xylenes	12.723		0m	N.D. d	
56)	o-Xylene	0.000		0	N.D.	
57)	Styrene	13.158		0m	N.D. d	
59)	Bromoform	0.000		0	N.D.	
60)	Isopropylbenzene	13.529		0m	N.D. d	
62)	1,1,2,2-Tetrachloroethane	13.848		0m	N.D. d	
63)	1,2,3-Trichloropropane	0.000		0	N.D.	
64)	Bromobenzene	13.911		0m	N.D. d	
65)	n-Propylbenzene	13.954		0m	N.D. d	
66)	1,3,5-Trimethylbenzene	14.120		0m	N.D. d	
67)	2-Chlorotoluene	14.092		0m	N.D. d	
68)	4-Chlorotoluene	14.194		0m	N.D. d	
69)	tert-Butylbenzene	14.541		0m	N.D. d	
70)	1,2,4-Trimethylbenzene	14.534		0m	N.D. d	
71)	sec-Butylbenzene	14.714		0m	N.D. d	
72)	4-Isopropyltoluene	14.838		0m	N.D. d	
73)	1,3-Dichlorobenzene	14.884		0m	N.D. d	
74)	1,4-Dichlorobenzene	14.969		0m	N.D. d	
75)	n-Butylbenzene	15.082		0m	N.D. d	
76)	1,2-Dichlorobenzene	15.375		0m	N.D. d	
77)	1,2-Dibromo-3-chloropr...	0.000		0	N.D.	
78)	1,2,4-Trichlorobenzene	17.183		0m	N.D. d	
79)	Hexachlorobutadiene	17.360		0m	N.D. d	
80)	Naphthalene	17.522		0m	N.D. d	
81)	1,2,3-Trichlorobenzene	17.839		0m	N.D. d	
83)	Chlorotrifluoroethylene	0.000		0	N.D.	
84)	2-Chloro-1,1,1-trifluo...	0.000		0	N.D.	
85)	Acrolein	5.894	56	281918	248.59 ug/L	99
86)	Trichlorotrifluoroethane	6.071	85	838395	294.93 ug/L	94
87)	Isopropyl Alcohol	0.000		0m	N.D. d	
88)	Allyl chloride	6.506	41	2397556	229.36 ug/L	90
89)	tert-Butyl Alcohol	0.000		0m	N.D. d	
90)	Acrylonitrile	6.895	53	547394	225.02 ug/L	96
91)	Isopropyl ether	0.000		0	N.D.	
92)	2-Chloro-1,3-butadiene	7.581	53	634058	64.88 ug/L	86
93)	Ethyl tert-butyl ether	0.000		0m	N.D. d	
94)	Ethyl acetate	8.090	43	1291078	210.02 ug/L	97
95)	Propionitrile	8.119	54	214979	226.26 ug/L	98
96)	Methacrylonitrile	8.303	41	839341	226.98 ug/L	97
97)	Tetrahydrofuran	8.426	42	407049	208.51 ug/L	98
98)	Isobutyl alcohol	8.776	41	499306	2182.82 ug/L	90
99)	Methyl tert-amyl ether	0.000		0	N.D.	
100)	Methyl methacrylate	9.965	69	901958	274.50 ug/L	91
101)	1,4-Dioxane	10.057	88	142636	2937.53 ug/L	95

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709\
Data File : AP404.D
Acq On : 17 Dec 2009 6:13 pm
Operator : JEB
InstName : VOAA
Sample : |WAVM091217-03|CCV|1|VOA|1|VOA8260BLF|
Misc : GEEL 5ML MIX[B]1118-08B
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Dec 17 19:57:29 2009
Quant Method : C:\msdchem\1\METHODS\VOAA-8260-110609.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Nov 09 16:21:09 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)	
102) 2-Nitropropane	10.414	43	480242	249.67 ug/L	98	
104) Ethyl methacrylate	11.238	69	1811002	246.39 ug/L	93	
106) 1-Chlorohexane	0.000		0	N.D.		
107) cis-1,4-Dichloro-2-butene	13.554	53	775907	274.97 ug/L	89	
108) Cyclohexanone	13.657	42	363466	721.22 ug/L #	77	E
109) trans-1,4-Dichloro-2-b...	13.844	53	733997	257.29 ug/L	84	
110) Pentachloroethane	14.541	167	1478801	477.89 ug/L	100	
111) Benzyl chloride	15.082	91	4357219	282.70 ug/L	97	
112) bis(2-Chloroisopropyl)...	15.481	45	854532	202.41 ug/L	95	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709\
Data File : AP404.D
Acq On : 17 Dec 2009 6:13 pm
Operator : JEB
InstName : VOAA
Sample : |WAVM091217-03|CCV|1|VOA|1|VOA8260BLF|
Misc : GEEL 5ML MIX[B]1118-08B
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Dec 17 19:57:29 2009
Quant Method : C:\msdchem\1\METHODS\VOAA-8260-110609.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Nov 09 16:21:09 2009
Response via : Initial Calibration
Integrator: RTE

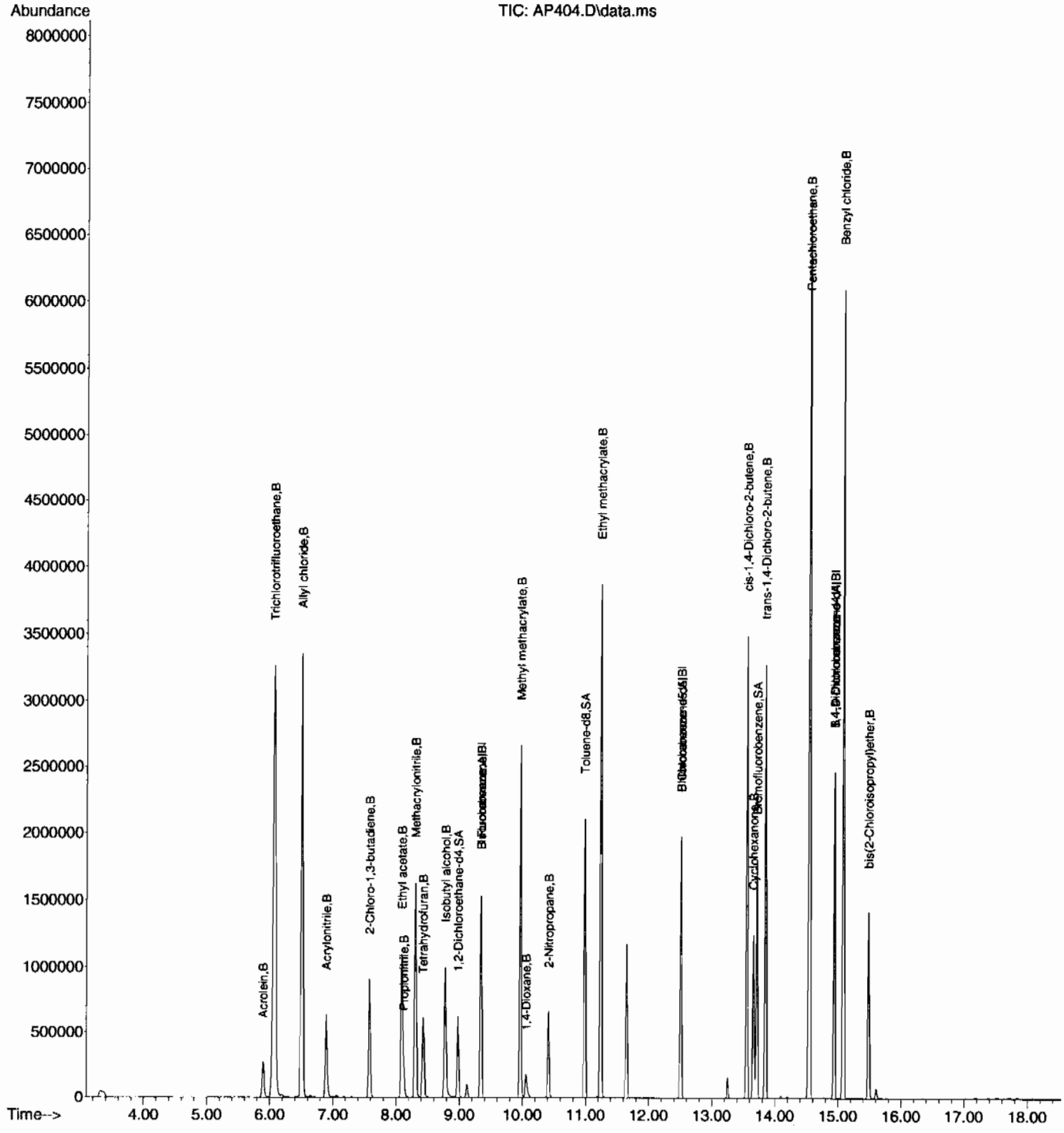

Continuing Calibration Summary

Client SDG: 10-852

Instrument ID: VOAA.I **Injection Date** 18-DEC-09 05:03

Data File: 121709\AP429.D **Init. Cal. Date(s)** 06-NOV-09 12:30 - 06-NOV-09 19:2

Lab Sample ID WAVM091217-05 **Quant Type** ISTD **Method:** VOAA-8260-110609.M

	Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type	
S	1,2-Dichloroethane-d4	0.3474	0.37724		.01		8.58952	30		Averaged	
S	Toluene-d8	1.2694	1.24115		.01		-2.22546	30		Averaged	
S	Bromofluorobenzene	0.9007	0.83255		.01		-7.56634	30		Averaged	
	Dichlorodifluoromethane	0.2317	0.20751		.01		-10.44022	30		Averaged	
	Chloromethane	0.2316	0.18567		.1		-19.83161	30		Averaged	spcc
	Vinyl chloride	0.2311	0.219		.01		-5.23583	20		Averaged	ccc
	Bromomethane	0.2209	0.19481		.01		-11.81077	30		Averaged	
	Chloroethane	0.1481	0.11093		.01		-25.09791	30		Averaged	
	Trichlorofluoromethane	0.4475	0.49227		.01		10.00447	30		Averaged	
	Ethyl ether	0.217	0.19754		.01		-8.96774	30		Averaged	
	Acetone	0.2026	0.15001		.01		-25.95755	40		Averaged	
	1,1-Dichloroethylene	0.406	0.38093		.01		-6.17488	20		Averaged	ccc
	Iodomethane	0.4228	0.44617		.01		5.52744	30		Averaged	
	Acetonitrile	0.0356	0.02655		.01		-25.42135	30		Averaged	
	Carbon disulfide	0.7226	0.66418		.01		-8.08469	30		Averaged	
	Methyl acetate	0.2204	0.1707		.01		-22.54991	40		Averaged	
	Methylene chloride	50	47.46	50			-5.08	30		Linear	
	tert-Butyl methyl ether	0.6592	0.70587		.01		7.07979	30		Averaged	
	trans-1,2-Dichloroethylene	0.4061	0.37477		.01		-7.71485	30		Averaged	
	Vinyl acetate	0.4304	0.43456		.01		0.96654	40		Averaged	
	1,1-Dichloroethane	0.4842	0.43741		.1		-9.66336	30		Averaged	spcc
	2-Butanone	0.2271	0.17033		.01		-24.9978	40		Averaged	
	cis-1,2-Dichloroethylene	0.4557	0.43891		.01		-3.68444	30		Averaged	
	2,2-Dichloropropane	0.367	0.42996		.01		17.15531	30		Averaged	
	Bromochloromethane	0.1334	0.14366		.01		7.69115	30		Averaged	
	Chloroform	0.4728	0.50163		.01		6.09772	20		Averaged	ccc
	1,1,1-Trichloroethane	0.4343	0.52177		.01		20.14046	30		Averaged	
	Cyclohexane	0.4872	0.45975		.01		-5.63424	30		Averaged	
	1,1-Dichloropropene	0.3347	0.34866		.01		4.1709	30		Averaged	
	Carbon tetrachloride	0.4038	0.50172		.01		24.24963	30		Averaged	
	1,2-Dichloroethane	0.4217	0.44309		.01		5.07233	30		Averaged	
	Benzene	0.9434	0.86181		.01		-8.64851	30		Averaged	
	Cyclohexene	0.4531	0.43345		.01		-4.33679	30		Averaged	
	n-Butyl alcohol	5000	4499.66	5000			-10.0068	40		Linear	
	Trichloroethylene	0.2678	0.27624		.01		3.15161	30		Averaged	
	1,2-Dichloropropane	. 0.263	0.23484		.01		-10.70722	20		Averaged	ccc
	Methylcyclohexane	0.4037	0.40301		.01		-0.17092	30		Averaged	

Continuing Calibration Summary

Instrument ID: VOAA.I **Injection Date** 18-DEC-09 05:03

Data File: 121709\AP429.D **Init. Cal. Date(s)** 06-NOV-09 12:30 06-NOV-09 19:2

Lab Sample ID WAVM091217-05 **Quant Type** ISTD **Method:** VOAA-8260-110609.M

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type	
Dibromomethane	0.1609	0.16512		.01		2.62275	30		Averaged	
Bromodichloromethane	0.3162	0.37676		.01		19.15244	30		Averaged	
2-Chloroethylvinyl ether	250	176.72	250			-29.312	30		Linear	
cis-1,3-Dichloropropylene	0.3473	0.38802		.01		11.72473	30		Averaged	
4-Methyl-2-pentanone	250	207.14	250			-17.144	40		Linear	
Toluene	1.3225	1.24888		.01		-5.56673	20		Averaged	ccc
trans-1,3-Dichloropropylene	0.4097	0.48054		.01		17.2907	30		Averaged	
1,1,2-Trichloroethane	0.2153	0.20401		.01		-5.24385	30		Averaged	
1,3-Dichloropropane	0.4634	0.43323		.01		-6.51057	30		Averaged	
2-Hexanone	250	162.41	250			-35.036	40		Linear	
Tetrachloroethylene	0.2776	0.3106		.01		11.88761	30		Averaged	
Dibromochloromethane	50	56.49	50			12.98	30		Linear	
1,2-Dibromoethane	0.2647	0.29019		.01		9.62977	30		Averaged	
Chlorobenzene	0.9062	0.91829		.3		1.33414	30		Averaged	spcc
1,1,1,2-Tetrachloroethane	0.3268	0.40009		.01		22.42656	30		Averaged	
Ethylbenzene	1.5021	1.56175		.01		3.97111	20		Averaged	ccc
m,p-Xylenes	0.5536	0.57587		.01		4.02276	30		Averaged	
o-Xylene	0.5361	0.57214		.01		6.72263	30		Averaged	
Styrene	50	50.26	50			0.52	30		Linear	
Bromoform	50	51.45	50			2.9	30		Linear	spcc
Isopropylbenzene	2.4418	2.58351		.01		5.80351	30		Averaged	
1,1,2,2-Tetrachloroethane	0.6111	0.52303		.3		-14.41172	30		Averaged	spcc
1,2,3-Trichloropropane	0.1798	0.18874		.01		4.97219	30		Averaged	
Bromobenzene	0.6723	0.71765		.01		6.7455	30		Averaged	
n-Propylbenzene	3.1051	2.98412		.01		-3.89617	30		Averaged	
2-Chlorotoluene	0.6257	0.63128		.01		0.8918	30		Averaged	
1,3,5-Trimethylbenzene	2.0963	2.23637		.01		6.68177	30		Averaged	
4-Chlorotoluene	1.9024	1.87964		.01		-1.19638	30		Averaged	
tert-Butylbenzene	0.448	0.50176		.01		12	30		Averaged	
1,2,4-Trimethylbenzene	2.1238	2.27336		.01		7.04209	30		Averaged	
sec-Butylbenzene	2.7355	2.80982		.01		2.71687	30		Averaged	
4-Isopropyltoluene	50	49.54	50			-0.92	30		Linear	
1,3-Dichlorobenzene	1.259	1.28918		.01		2.39714	30		Averaged	
1,4-Dichlorobenzene	1.3127	1.31763		.01		0.37556	30		Averaged	
n-Butylbenzene	2.2173	2.24313		.01		1.16493	30		Averaged	
1,2-Dichlorobenzene	1.2164	1.27353		.01		4.69665	30		Averaged	
1,2-Dibromo-3-chloropropane	50	52.31	50			4.62	30		Linear	

Continuing Calibration Summary

Instrument ID: VOAA.I **Injection Date** 18-DEC-09 05:03

Data File: 121709\AP429.D **Init. Cal. Date(s)** 06-NOV-09 12:30 06-NOV-09 19:2

Lab Sample ID WAVM091217-05 **Quant Type** ISTD **Method:** VOAA-8260-110609.M

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
1,2,4-Trichlorobenzene	0.9585	1.10095		.01		14.86176	30		Averaged
Hexachlorobutadiene	0.5797	0.73205		.01		26.28083	30		Averaged
Naphthalene	2.1379	2.40397		.01		12.44539	30		Averaged
1,2,3-Trichlorobenzene	0.9157	1.06501		.01		16.30556	30		Averaged

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709\
Data File : AP429.D
Acq On : 18 Dec 2009 5:03 am
Operator : JEB
InstName : VOAA
Sample : |WAVM091217-05|CCV|1|VOA|1|VOA8260BLF|
Misc : GEEL 5.0G MIX[A]1129-01E/091214-01 SOIL
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Dec 18 14:50:30 2009
Quant Method : C:\msdchem\1\METHODS\VOAA-8260-110609.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Nov 09 16:21:09 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Fluorobenzene	9.339	96	1234682	50.00 ug/L	0.00
41) Chlorobenzene-d5	12.507	117	1006447	50.00 ug/L	0.00
58) 1,4-Dichlorobenzene-d4	14.940	152	630677	50.00 ug/L	0.00
82) B Fluorobenzene	9.339	96	1234682	50.00 ug/L	0.00
103) B Chlorobenzene-d5	12.507	117	1006447	50.00 ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	14.940	152	630677	50.00 ug/L	0.00
System Monitoring Compounds					
29) 1,2-Dichloroethane-d4	8.978	65	465769	54.30 ug/L	0.00
43) Toluene-d8	10.983	98	1249154	48.89 ug/L	0.00
61) Bromofluorobenzene	13.710	95	525067	46.22 ug/L	0.00
Target Compounds					Qvalue
2) Dichlorodifluoromethane	3.721	85	256209	44.78 ug/L	100
3) Chloromethane	4.043	50	229247	40.09 ug/L	100
4) Vinyl chloride	4.275	62	270400	47.39 ug/L	100
5) Bromomethane	4.839	94	240529	44.10 ug/L	95
6) Chloroethane	4.990	64	136962	37.46 ug/L	98
7) Trichlorofluoromethane	5.385	101	607797	55.00 ug/L	99
8) Ethyl ether	5.725	59	243901	45.51 ug/L	98
9) Acetone	6.071	43	926073	185.08 ug/L	88
10) 1,1-Dichloroethylene	6.075	61	470323	46.91 ug/L	93
11) Iodomethane	6.297	142	2754365	263.80 ug/L	90
12) Acetonitrile	6.411	41	819528	932.82 ug/L	95
13) Methyl acetate	6.474	43	1053769	193.60 ug/L	96
14) Carbon disulfide	6.421	76	4100271	229.78 ug/L	100
15) Methylene chloride	6.644	84	293818	47.46 ug/L	93
16) tert-Butyl methyl ether	6.969	73	871525	53.54 ug/L	97
17) trans-1,2-Dichloroethy...	6.987	61	462718	46.15 ug/L	93
18) Vinyl acetate	7.447	43	2682697	252.39 ug/L	97
19) 1,1-Dichloroethane	7.468	63	540060	45.16 ug/L	99
20) 2-Butanone	8.059	43	1051534	187.48 ug/L	93
21) cis-1,2-Dichloroethylene	8.101	61	541917	48.16 ug/L	92
22) 2,2-Dichloropropane	8.133	77	530869	58.59 ug/L	98
23) Bromochloromethane	8.373	128	177371	53.86 ug/L	91
24) Chloroform	8.416	83	619348	53.04 ug/L	100
25) 1,1,1-Trichloroethane	8.692	97	644218	60.07 ug/L	98
26) Cyclohexane	8.787	56	567647	47.18 ug/L	97
27) 1,1-Dichloropropene	8.847	75	430478	52.09 ug/L	91
28) Carbon tetrachloride	8.883	117	619464	62.12 ug/L	98
30) 1,2-Dichloroethane	9.059	62	547069	52.54 ug/L	100
31) Benzene	9.081	78	1064057	45.68 ug/L	95
32) Cyclohexene	9.204	67	535170	47.83 ug/L	92
33) n-Butyl alcohol	9.459	56	907764	4499.66 ug/L	92
34) Trichloroethylene	9.728	95	341074	51.59 ug/L	98
35) 1,2-Dichloropropane	9.961	63	289947	44.65 ug/L	99
36) Methylcyclohexane	9.979	83	497583	49.92 ug/L	93
37) Dibromomethane	10.088	93	203871	51.32 ug/L	99
38) Bromodichloromethane	10.212	83	465173	59.57 ug/L	100
39) 2-Chloroethylvinyl ether	10.453	63	664889	176.72 ug/L	99
40) cis-1,3-Dichloropropylene	10.668	75	479083	55.86 ug/L	93
42) 4-Methyl-2-pentanone	10.775	58	649146	207.14 ug/L	89
44) Toluene	11.054	91	1256936	47.22 ug/L	99

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709\
Data File : AP429.D
Acq On : 18 Dec 2009 5:03 am
Operator : JEB
InstName : VOAA
Sample : |WAVM091217-05|CCV|1|VOA|1|VOA8260BLF|
Misc : GEEL 5.0G MIX[A]1129-01E/091214-01 SOIL
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Dec 18 14:50:30 2009
Quant Method : C:\msdchem\1\METHODS\VOAA-8260-110609.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Nov 09 16:21:09 2009
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)	
45)	trans-1,3-Dichloroprop...	11.210	75	483638	58.64 ug/L	96	
46)	1,1,2-Trichloroethane	11.425	83	205327	47.38 ug/L	97	
47)	2-Hexanone	11.623	43	1501687	162.41 ug/L	94	
48)	1,3-Dichloropropane	11.616	76	436019	46.75 ug/L	97	
49)	Tetrachloroethylene	11.652	164	312598	55.95 ug/L	97	
50)	Dibromochloromethane	11.878	129	388101	56.49 ug/L	100	E
51)	1,2-Dibromoethane	12.041	107	292062	54.81 ug/L	99	
52)	Chlorobenzene	12.539	112	924209	50.67 ug/L	97	
53)	1,1,1,2-Tetrachloroethane	12.596	131	402666	61.21 ug/L	96	
54)	Ethylbenzene	12.613	91	1571818	51.99 ug/L	97	
55)	m,p-Xylenes	12.727	106	1159161	104.03 ug/L	88	
56)	o-Xylene	13.158	106	575826	53.36 ug/L	88	
57)	Styrene	13.162	104	919874	50.26 ug/L	88	
59)	Bromoform	13.402	173	271986	51.45 ug/L	100	
60)	Isopropylbenzene	13.526	105	1629361	52.90 ug/L	97	
62)	1,1,2,2-Tetrachloroethane	13.791	83	329861	42.80 ug/L	100	
63)	1,2,3-Trichloropropane	13.876	110	119031	52.48 ug/L	88	
64)	Bromobenzene	13.915	156	452604	53.37 ug/L	99	
65)	n-Propylbenzene	13.957	91	1882016	48.05 ug/L	99	
66)	1,3,5-Trimethylbenzene	14.116	105	1410430	53.34 ug/L	95	
67)	2-Chlorotoluene	14.095	126	398136	50.45 ug/L	89	
68)	4-Chlorotoluene	14.198	91	1185447	49.40 ug/L	94	
69)	tert-Butylbenzene	14.488	134	316449	56.00 ug/L	87	
70)	1,2,4-Trimethylbenzene	14.527	105	1433756	53.52 ug/L	95	
71)	sec-Butylbenzene	14.714	105	1772090	51.36 ug/L	100	
72)	4-Isopropyltoluene	14.841	119	1577421	49.54 ug/L	97	
73)	1,3-Dichlorobenzene	14.884	146	813057	51.20 ug/L	99	
74)	1,4-Dichlorobenzene	14.969	146	830996	50.19 ug/L	99	
75)	n-Butylbenzene	15.273	91	1414691	50.58 ug/L	99	
76)	1,2-Dichlorobenzene	15.379	146	803189	52.35 ug/L	99	
77)	1,2-Dibromo-3-chloropr...	16.189	157	90809	52.31 ug/L	96	
78)	1,2,4-Trichlorobenzene	17.183	180	694346	57.43 ug/L	99	
79)	Hexachlorobutadiene	17.360	225	461688	63.14 ug/L	100	
80)	Naphthalene	17.522	128	1516130	56.22 ug/L	100	
81)	1,2,3-Trichlorobenzene	17.839	180	671675	58.15 ug/L	99	
83)	Chlorotrifluoroethylene	0.000		0	N.D.		
84)	2-Chloro-1,1,1-trifluo...	0.000		0	N.D.		
85)	Acrolein	5.855		0m	N.D. d		
86)	Trichlorotrifluoroethane	6.071		0m	N.D. d		
87)	Isopropyl Alcohol	6.068		0m	N.D. d		
88)	Allyl chloride	6.411		0m	N.D. d		
89)	tert-Butyl Alcohol	6.474		0m	N.D. d		
90)	Acrylonitrile	6.969		0m	N.D. d		
91)	Isopropyl ether	7.443		0m	N.D. d		
92)	2-Chloro-1,3-butadiene	7.609		0m	N.D. d		
93)	Ethyl tert-butyl ether	7.892		0m	N.D. d		
94)	Ethyl acetate	8.059		0m	N.D. d		
95)	Propionitrile	8.059		0m	N.D. d		
96)	Methacrylonitrile	8.430		0m	N.D. d		
97)	Tetrahydrofuran	8.433		0m	N.D. d		
98)	Isobutyl alcohol	8.787		0m	N.D. d		
99)	Methyl tert-amyl ether	9.081		0m	N.D. d		
100)	Methyl methacrylate	9.979		0m	N.D. d		
101)	1,4-Dioxane	0.000		0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709\
Data File : AP429.D
Acq On : 18 Dec 2009 5:03 am
Operator : JEB
InstName : VOAA
Sample : |WAVM091217-05|CCV|1|VOA|1|VOA8260BLF|
Misc : GEEL 5.0G MIX[A]1129-01E/091214-01 SOIL
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Dec 18 14:50:30 2009
Quant Method : C:\msdchem\1\METHODS\VOAA-8260-110609.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Nov 09 16:21:09 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
102) 2-Nitropropane	10.665		0m	N.D. d	
104) Ethyl methacrylate	11.238		0m	N.D. d	
106) 1-Chlorohexane	0.000		0	N.D.	
107) cis-1,4-Dichloro-2-butene	13.522		0m	N.D. d	
108) Cyclohexanone	13.522		0m	N.D. d	
109) trans-1,4-Dichloro-2-b...	13.848		0m	N.D. d	
110) Pentachloroethane	14.541		0m	N.D. d	
111) Benzyl chloride	15.082		0m	N.D. d	
112) bis(2-Chloroisopropyl)...	15.485		0m	N.D. d	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709\
Data File : AP429.D
Acq On : 18 Dec 2009 5:03 am
Operator : JEB
InstName : VOAA
Sample : |WAVM091217-05|CCV|1|VOA|1|VOA8260BLF|
Misc : GEEL 5.0G MIX[A]1129-01E/091214-01 SOIL
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Dec 18 14:50:30 2009
Quant Method : C:\msdchem\1\METHODS\VOAA-8260-110609.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Nov 09 16:21:09 2009
Response via : Initial Calibration
Integrator: RTE

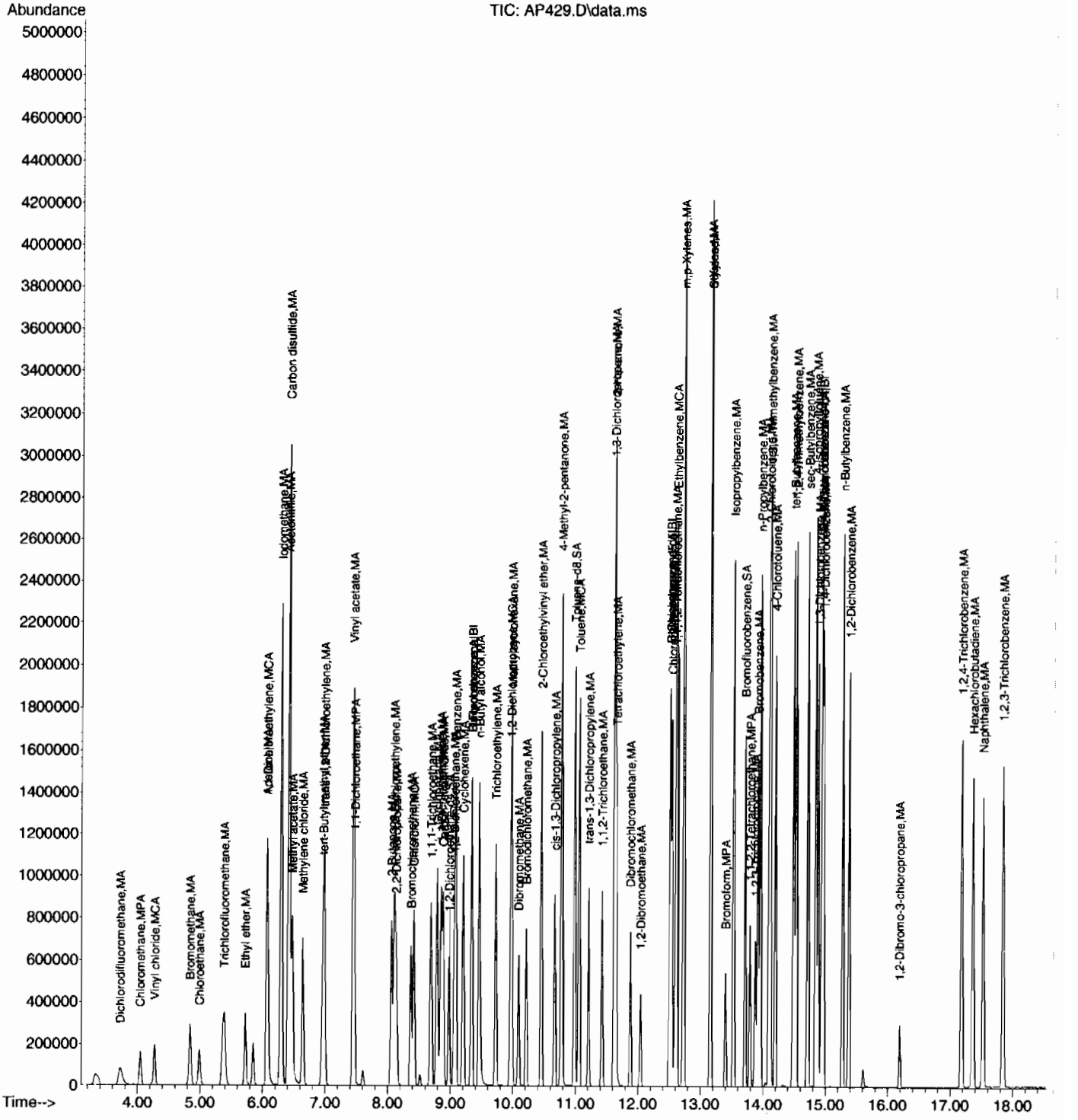

Continuing Calibration Summary

Client SDG: 10-852

Instrument ID: VOAA.I **Injection Date** 18-DEC-09 05:29

Data File: 121709\AP430.D **Init. Cal. Date(s)** 06-NOV-09 12:30 - 06-NOV-09 19:2

Lab Sample ID WAVM091217-06 **Quant Type** ISTD **Method:** VOAA-8260-110609.M

	Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
S	1,2-Dichloroethane-d4	0.3474	0.37146		.01		6.92573	30		Averaged
S	Toluene-d8	1.2694	1.22909		.01		-3.17552	30		Averaged
S	Bromofluorobenzene	0.9007	0.83223		.01		-7.60187	30		Averaged
	Acrolein	0.0432	0.04141		.01		-4.14352	30		Averaged
	Trichlorotrifluoroethane	0.1082	0.11939		.01		10.34196	30		Averaged
	Allyl chloride	0.398	0.3656		.01		-8.1407	30		Averaged
	Acrylonitrile	0.0926	0.08708		.01		-5.96112	30		Averaged
	2-Chloro-1,3-butadiene	0.372	0.46577		.01		25.20699	30		Averaged
	Ethyl acetate	0.234	0.21036		.01		-10.10256	40		Averaged
	Propionitrile	0.0362	0.03415		.01		-5.66298	30		Averaged
	Methacrylonitrile	0.1408	0.13512		.01		-4.03409	30		Averaged
	Tetrahydrofuran	0.0743	0.06708		.01		-9.71736	30		Averaged
	Isobutyl alcohol	0.0087	0.00813		.01		-6.55172	40		Averaged
	Methyl methacrylate	0.1251	0.1381		.01		10.39169	30		Averaged
	1,4-Dioxane	0.0018	0.00219		.01		21.66667	40		Averaged
	2-Nitropropane	250	260.35	250			4.14	30		Linear
	Ethyl methacrylate	250	245.27	250			-1.892	30		Linear
	cis-1,4-Dichloro-2-butene	0.2084	0.23475		.01		12.64395	30		Averaged
	Cyclohexanone	1250	789	1250			-36.88	40		Linear
	trans-1,4-Dichloro-2-butene	0.2107	0.22273		.01		5.70954	30		Averaged
	Pentachloroethane	0.2286	0.31415		.01		37.42345	30	*	Averaged
	Benzyl chloride	250	251.7	250			0.68	30		Linear
	bis(2-Chloroisopropyl)ether	0.3118	0.2844		.01		-8.78768	30		Averaged

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709\
Data File : AP430.D
Acq On : 18 Dec 2009 5:29 am
Operator : JEB
InstName : VOAA
Sample : |WAVM091217-06|CCV|1|VOA|1|VOA8260BLF|
Misc : GEEL 5.0G MIX[B]1118-08B SOIL
ALS Vial : 30 Sample Multiplier: 1

Quant Time: Dec 18 14:51:48 2009
Quant Method : C:\msdchem\1\METHODS\VOAA-8260-110609.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Nov 09 16:21:09 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Fluorobenzene	9.339	96	1233889	50.00 ug/L	0.00
41) Chlorobenzene-d5	12.507	117	997912	50.00 ug/L	0.00
58) 1,4-Dichlorobenzene-d4	14.940	152	633137	50.00 ug/L	0.00
82) B Fluorobenzene	9.339	96	1233889	50.00 ug/L	0.00
103) B Chlorobenzene-d5	12.507	117	997912	50.00 ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	14.940	152	633137	50.00 ug/L	0.00
System Monitoring Compounds					
29) 1,2-Dichloroethane-d4	8.978	65	458336	53.47 ug/L	0.00
43) Toluene-d8	10.983	98	1226525	48.41 ug/L	0.00
61) Bromofluorobenzene	13.713	95	526917	46.20 ug/L	0.00

Target Compounds				Qvalue
2) Dichlorodifluoromethane	0.000	0	N.D.	
3) Chloromethane	0.000	0	N.D.	
4) Vinyl chloride	4.275	0m	N.D. d	
5) Bromomethane	0.000	0	N.D.	
6) Chloroethane	0.000	0	N.D.	
7) Trichlorofluoromethane	0.000	0	N.D.	
8) Ethyl ether	0.000	0	N.D.	
9) Acetone	6.078	0m	N.D. d	
10) 1,1-Dichloroethylene	6.068	0m	N.D. d	
11) Iodomethane	0.000	0	N.D.	
12) Acetonitrile	6.432	0m	N.D. d	
13) Methyl acetate	6.485	0m	N.D. d	
14) Carbon disulfide	6.506	0m	N.D. d	
15) Methylene chloride	6.644	0m	N.D. d	
16) tert-Butyl methyl ether	0.000	0	N.D.	
17) trans-1,2-Dichloroethy...	0.000	0	N.D.	
18) Vinyl acetate	7.447	0m	N.D. d	
19) 1,1-Dichloroethane	7.581	0m	N.D. d	
20) 2-Butanone	8.090	0m	N.D. d	
21) cis-1,2-Dichloroethylene	8.094	0m	N.D. d	
22) 2,2-Dichloropropane	0.000	0	N.D.	
23) Bromochloromethane	0.000	0	N.D.	
24) Chloroform	8.419	0m	N.D. d	
25) 1,1,1-Trichloroethane	0.000	0	N.D.	
26) Cyclohexane	8.776	0m	N.D. d	
27) 1,1-Dichloropropene	8.780	0m	N.D. d	
28) Carbon tetrachloride	0.000	0	N.D.	
30) 1,2-Dichloroethane	0.000	0	N.D.	
31) Benzene	9.088	0m	N.D. d	
32) Cyclohexene	0.000	0	N.D.	
33) n-Butyl alcohol	9.466	0m	N.D. d	
34) Trichloroethylene	0.000	0	N.D.	
35) 1,2-Dichloropropane	0.000	0	N.D.	
36) Methylcyclohexane	9.968	0m	N.D. d	
37) Dibromomethane	0.000	0	N.D.	
38) Bromodichloromethane	9.968	0m	N.D. d	
39) 2-Chloroethylvinyl ether	0.000	0	N.D.	
40) cis-1,3-Dichloropropylene	0.000	0	N.D.	
42) 4-Methyl-2-pentanone	0.000	0	N.D.	
44) Toluene	11.057	0m	N.D. d	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709\
Data File : AP430.D
Acq On : 18 Dec 2009 5:29 am
Operator : JEB
InstName : VOAA
Sample : |WAVM091217-06|CCV|1|VOA|1|VOA8260BLF|
Misc : GEEL 5.0G MIX[B]1118-08B SOIL
ALS Vial : 30 Sample Multiplier: 1

Quant Time: Dec 18 14:51:48 2009
Quant Method : C:\msdchem\1\METHODS\VOAA-8260-110609.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Nov 09 16:21:09 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
45) trans-1,3-Dichloroprop...	11.209		0m	N.D. d	
46) 1,1,2-Trichloroethane	11.651		0m	N.D. d	
47) 2-Hexanone	11.627		0m	N.D. d	
48) 1,3-Dichloropropane	11.659		0m	N.D. d	
49) Tetrachloroethylene	11.651		0m	N.D. d	
50) Dibromochloromethane	11.651		0m	N.D. d	
51) 1,2-Dibromoethane	12.040		0m	N.D. d	
52) Chlorobenzene	12.536		0m	N.D. d	
53) 1,1,1,2-Tetrachloroethane	0.000		0	N.D.	
54) Ethylbenzene	12.734		0m	N.D. d	
55) m,p-Xylenes	12.727		0m	N.D. d	
56) o-Xylene	0.000		0	N.D.	
57) Styrene	13.162		0m	N.D. d	
59) Bromoform	0.000		0	N.D.	
60) Isopropylbenzene	13.529		0m	N.D. d	
62) 1,1,2,2-Tetrachloroethane	13.848		0m	N.D. d	
63) 1,2,3-Trichloropropane	0.000		0	N.D.	
64) Bromobenzene	13.922		0m	N.D. d	
65) n-Propylbenzene	13.957		0m	N.D. d	
66) 1,3,5-Trimethylbenzene	14.113		0m	N.D. d	
67) 2-Chlorotoluene	14.095		0m	N.D. d	
68) 4-Chlorotoluene	14.198		0m	N.D. d	
69) tert-Butylbenzene	14.537		0m	N.D. d	
70) 1,2,4-Trimethylbenzene	14.534		0m	N.D. d	
71) sec-Butylbenzene	14.718		0m	N.D. d	
72) 4-Isopropyltoluene	14.841		0m	N.D. d	
73) 1,3-Dichlorobenzene	14.884		0m	N.D. d	
74) 1,4-Dichlorobenzene	14.969		0m	N.D. d	
75) n-Butylbenzene	15.255		0m	N.D. d	
76) 1,2-Dichlorobenzene	15.375		0m	N.D. d	
77) 1,2-Dibromo-3-chloropr...	0.000		0	N.D.	
78) 1,2,4-Trichlorobenzene	17.175		0m	N.D. d	
79) Hexachlorobutadiene	17.367		0m	N.D. d	
80) Naphthalene	17.529		0m	N.D. d	
81) 1,2,3-Trichlorobenzene	17.839		0m	N.D. d	
83) Chlorotrifluoroethylene	0.000		0	N.D.	
84) 2-Chloro-1,1,1-trifluo...	0.000		0	N.D.	
85) Acrolein	5.898	56	255446	239.76 ug/L	98
86) Trichlorotrifluoroethane	6.075	85	736568	275.80 ug/L	92
87) Isopropyl Alcohol	0.000		0m	N.D. d	
88) Allyl chloride	6.510	41	2255567	229.67 ug/L	88
89) tert-Butyl Alcohol	0.000		0m	N.D. d	
90) Acrylonitrile	6.895	53	537265	235.09 ug/L	97
91) Isopropyl ether	0.000		0	N.D.	
92) 2-Chloro-1,3-butadiene	7.581	53	574703	62.60 ug/L	84
93) Ethyl tert-butyl ether	0.000		0m	N.D. d	
94) Ethyl acetate	8.090	43	1297822	224.72 ug/L	95
95) Propionitrile	8.122	54	210660	235.99 ug/L	99
96) Methacrylonitrile	8.303	41	833635	239.96 ug/L	96
97) Tetrahydrofuran	8.430	42	413857	225.66 ug/L	95
98) Isobutyl alcohol	8.776	41	501369	2333.06 ug/L	91
99) Methyl tert-amyl ether	0.000		0	N.D.	
100) Methyl methacrylate	9.965	69	851997	276.00 ug/L	87
101) 1,4-Dioxane	10.057	88	135230	2964.44 ug/L	95

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709\
Data File : AP430.D
Acq On : 18 Dec 2009 5:29 am
Operator : JEB
InstName : VOAA
Sample : |WAVM091217-06|CCV|1|VOA|1|VOA8260BLF|
Misc : GEEL 5.0G MIX[B]1118-08B SOIL
ALS Vial : 30 Sample Multiplier: 1

Quant Time: Dec 18 14:51:48 2009
Quant Method : C:\msdchem\1\METHODS\VOAA-8260-110609.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Nov 09 16:21:09 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)	
102) 2-Nitropropane	10.414	43	471166	260.35 ug/L	98	
104) Ethyl methacrylate	11.238	69	1679163	245.27 ug/L	91	
106) 1-Chlorohexane	0.000		0	N.D.		
107) cis-1,4-Dichloro-2-butene	13.554	53	743145	281.57 ug/L	90	
108) Cyclohexanone	13.657	42	373263	789.00 ug/L	80	E
109) trans-1,4-Dichloro-2-b...	13.844	53	705093	264.25 ug/L	82	
110) Pentachloroethane	14.541	167	994498	343.60 ug/L	98	
111) Benzyl chloride	15.082	91	3621598	251.70 ug/L	97	
112) bis(2-Chloroisopropyl)...	15.481	45	900330	228.00 ug/L	97	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709\
Data File : AP430.D
Acq On : 18 Dec 2009 5:29 am
Operator : JEB
InstName : VOAA
Sample : |WAVM091217-06|CCV|1|VOA|1|VOA8260BLF|
Misc : GEEL 5.0G MIX[B]1118-08B SOIL
ALS Vial : 30 Sample Multiplier: 1

Quant Time: Dec 18 14:51:48 2009
Quant Method : C:\msdchem\1\METHODS\VOAA-8260-110609.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Nov 09 16:21:09 2009
Response via : Initial Calibration
Integrator: RTE

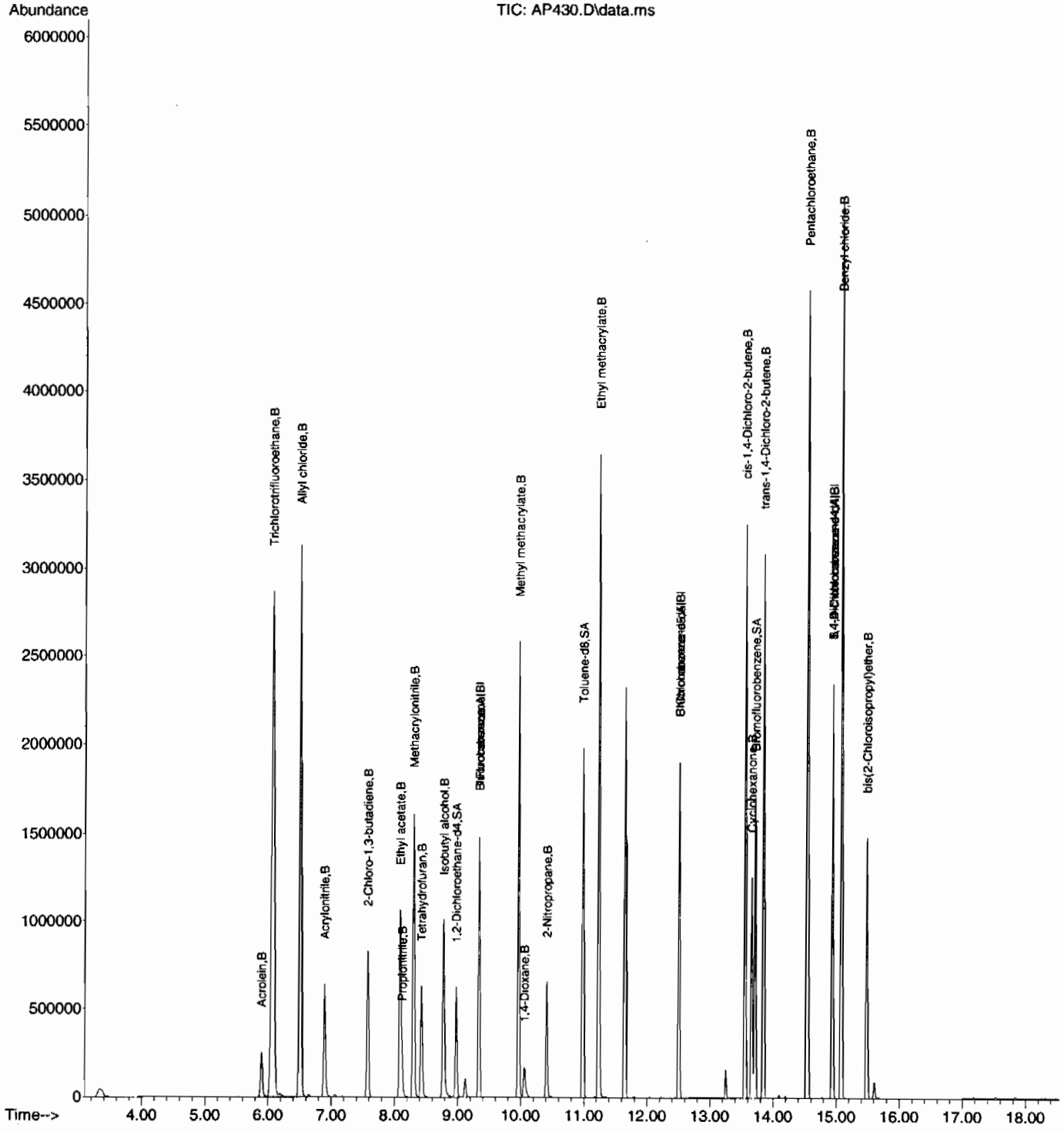

Quality Control Data

Tune Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\110609\
Data File : AJ501.D
Acq On : 6 Nov 2009 11:39 am
Operator : JEB
Sample : |UVM091020-02|BFB|1|VOA|1|
Misc : GEL 5ML N/A
ALS Vial : 1 Sample Multiplier: 1

Integration File: ron.P

Method : C:\msdchem\1\METHODS\VOAA-8260-110609.M
Title : Volatile Organics 8260B
Last Update : Fri Nov 06 14:48:01 2009

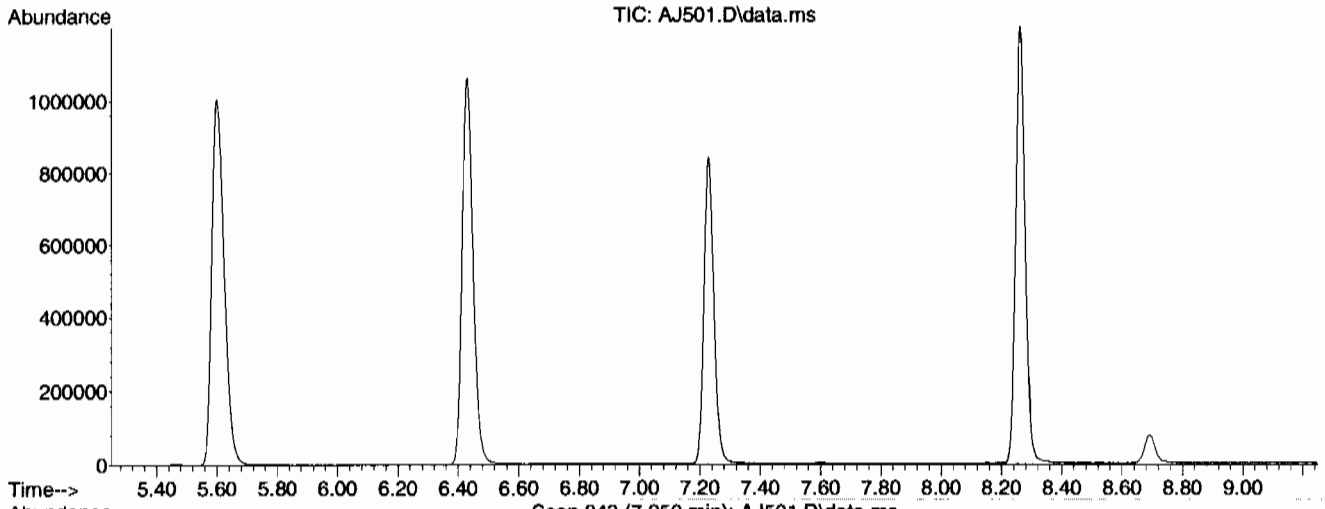

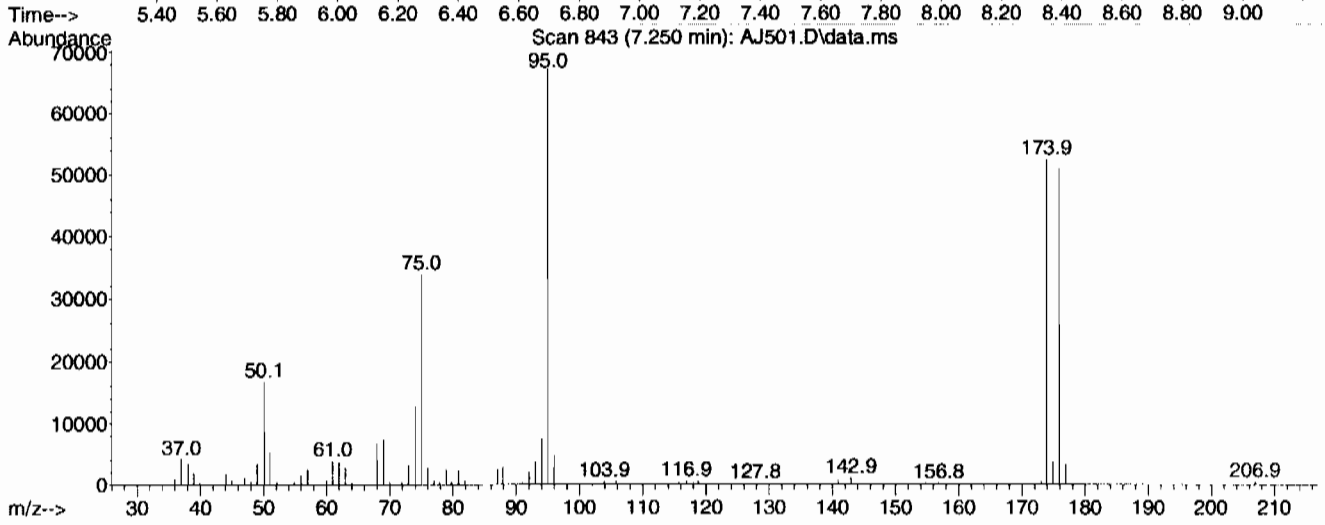

Spectrum Information: Scan 843

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	24.8	16624	PASS
75	95	30	60	50.4	33784	PASS
95	95	100	100	100.0	67080	PASS
96	95	5	9	7.0	4685	PASS
173	174	0.00	2	1.0	509	PASS
174	95	50	100	78.0	52304	PASS
175	174	5	9	7.1	3724	PASS
176	174	95	101	97.2	50832	PASS
177	176	5	9	6.6	3338	PASS

Tune Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709\
Data File : AP401.D
Acq On : 17 Dec 2009 4:46 pm
Operator : JEB
Sample : |UVM090910-02|BFB|1|VOA|1|
Misc : GEL 5ML N/A
ALS Vial : 1 Sample Multiplier: 1

Integration File: ron.P

Method : C:\msdchem\1\METHODS\VOAA-8260-110609.M
Title : Volatile Organics 8260B SubList :
Last Update : Mon Nov 09 16:21:09 2009

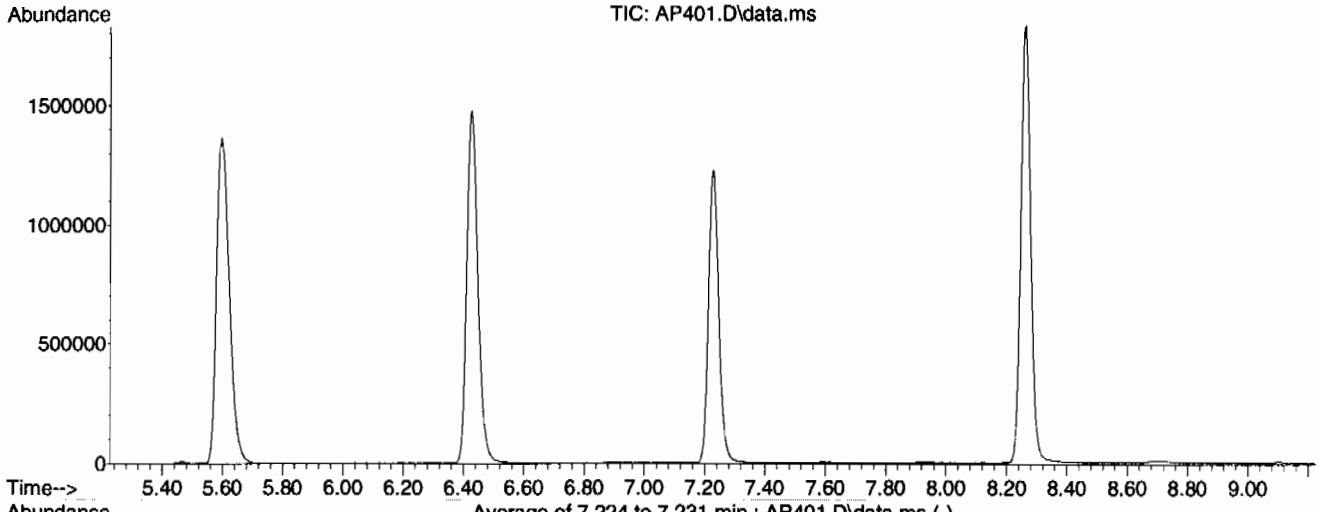

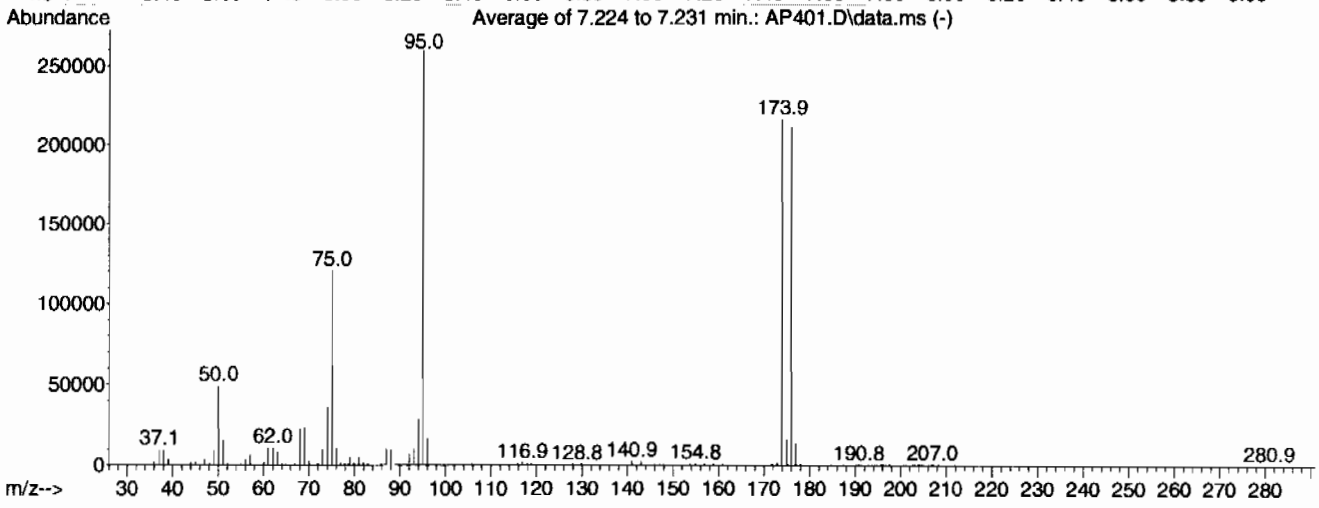

AutoFind: Scans 835, 836, 837; Background Corrected with Scan 816

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	18.8	48843	PASS
75	95	30	60	46.5	120840	PASS
95	95	100	100	100.0	259627	PASS
96	95	5	9	6.5	16771	PASS
173	174	0.00	2	0.6	1387	PASS
174	95	50	100	83.2	216085	PASS
175	174	5	9	7.3	15824	PASS
176	174	95	101	97.8	211371	PASS
177	176	5	9	6.5	13680	PASS

Tune Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709\
Data File : AP428.D
Acq On : 18 Dec 2009 4:38 am
Operator : JEB
Sample : |UVM090910-02|BFB|1|VOA|1|
Misc : GEL 5ML N/A
ALS Vial : 28 Sample Multiplier: 1

Integration File: ron.P

Method : C:\msdchem\1\METHODS\VOAA-8260-110609.M
Title : Volatile Organics 8260B SubList :
Last Update : Mon Nov 09 16:21:09 2009

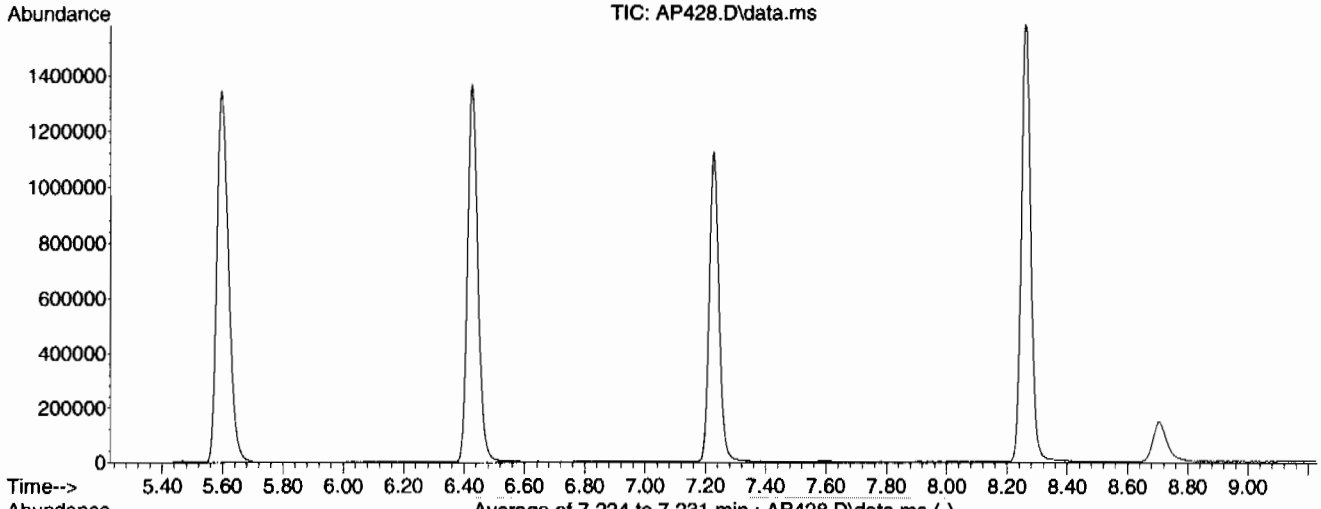

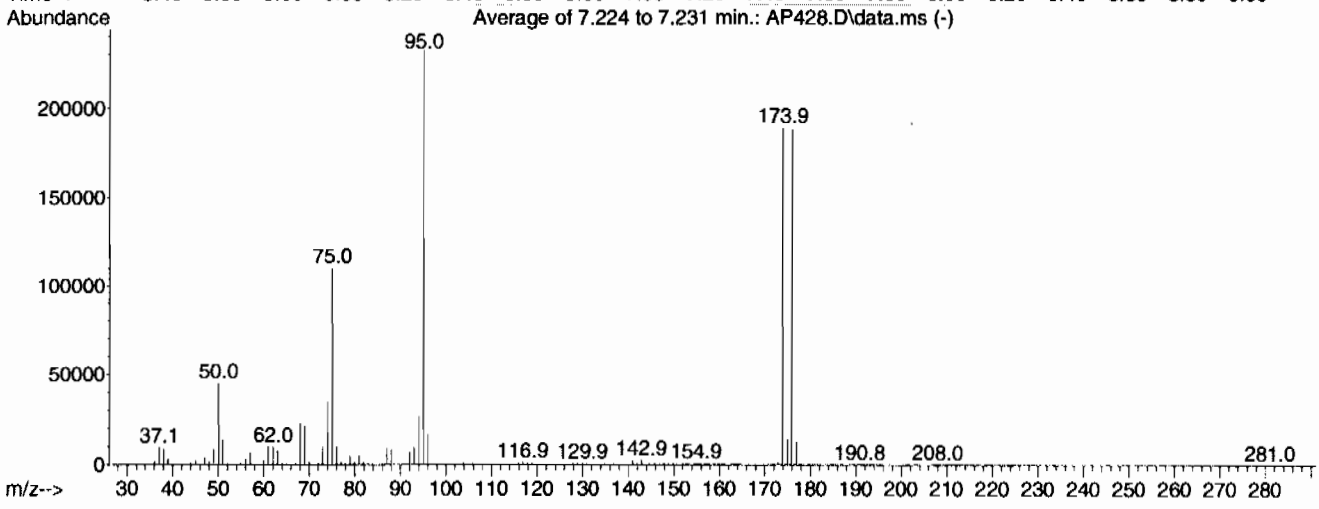

AutoFind: Scans 835, 836, 837; Background Corrected with Scan 817

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	19.5	45168	PASS
75	95	30	60	47.4	110056	PASS
95	95	100	100	100.0	232149	PASS
96	95	5	9	7.1	16408	PASS
173	174	0.00	2	0.6	1065	PASS
174	95	50	100	81.6	189397	PASS
175	174	5	9	7.3	13896	PASS
176	174	95	101	99.4	188352	PASS
177	176	5	9	6.4	12141	PASS

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852			**Matrix:**	SOIL
Lab Sample ID:	1201999396				
Client Sample:	QC for batch 934515	**Client:**	LANL010	**Project:**	QC
Client ID:	MB for batch 934515	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	934516	**Inst:**	VOAA.I	**Dilution:**	1
Run Date:	12/17/2009 19:31	**Analyst:**	JEB	**Purge Vol:**	5 mL
Prep Date:	12/17/2009 17:30	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	121709\AP407LA.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/kg	0.340	1.00
74-87-3	Chloromethane	U	1.00	ug/kg	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/kg	0.300	1.00
74-83-9	Bromomethane	U	1.00	ug/kg	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/kg	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/kg	0.300	1.00
67-64-1	Acetone	U	5.00	ug/kg	1.66	5.00
75-35-4	1,1-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/kg	1.60	5.00
75-09-2	Methylene chloride	U	5.00	ug/kg	2.00	5.00
75-15-0	Carbon disulfide	U	5.00	ug/kg	1.25	5.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/kg	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/kg	1.50	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/kg	0.300	1.00
74-97-5	Bromochloromethane	U	1.00	ug/kg	0.330	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/kg	0.300	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/kg	0.300	1.00
56-23-5	Carbon tetrachloride	U	1.00	ug/kg	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/kg	0.300	1.00
71-43-2	Benzene	U	1.00	ug/kg	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/kg	0.330	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/kg	0.300	1.00
74-95-3	Dibromomethane	U	1.00	ug/kg	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/kg	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
108-88-3	Toluene	U	1.00	ug/kg	0.300	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/kg	0.300	1.00
591-78-6	2-Hexanone	U	5.00	ug/kg	1.50	5.00
142-28-9	1,3-Dichloropropane	U	1.00	ug/kg	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/kg	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/kg	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/kg	0.300	1.00
108-90-7	Chlorobenzene	U	1.00	ug/kg	0.300	1.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-852**			**Matrix:**	**SOIL**
Lab Sample ID:	**1201999396**				
Client Sample:	**QC for batch 934515**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 934515**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**934516**	**Inst:**	**VOAA.I**	**Dilution:**	**1**
Run Date:	**12/17/2009 19:31**	**Analyst:**	**JEB**	**Purge Vol:**	**5 mL**
Prep Date:	**12/17/2009 17:30**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**121709\AP407LA.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.00	ug/kg	0.300	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/kg	0.300	2.00
95-47-6	o-Xylene	U	1.00	ug/kg	0.300	1.00
100-42-5	Styrene	U	1.00	ug/kg	0.300	1.00
75-25-2	Bromoform	U	1.00	ug/kg	0.300	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/kg	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/kg	0.300	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/kg	0.300	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/kg	0.300	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/kg	0.300	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/kg	0.300	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/kg	0.300	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/kg	0.300	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/kg	0.300	1.00
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.00	ug/kg	1.60	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown	3.32	6.31	ug/kg	0	J

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709\
Data File : AP407LA.D
Acq On : 17 Dec 2009 7:31 pm
Operator : JEB
InstName : VOAA
Sample : |1201999396|934516|1|VOA|1|VOA8260BS|
Misc : GEEL 5.0G N/A SOIL
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Dec 17 20:01:23 2009
Quant Method : C:\msdchem\1\METHODS\VOAA-8260-110609.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Nov 09 16:21:09 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Fluorobenzene	9.339	96	1300655	50.00 ug/L	0.00
41) Chlorobenzene-d5	12.507	117	1048028	50.00 ug/L	0.00
58) 1,4-Dichlorobenzene-d4	14.940	152	659347	50.00 ug/L	0.00
82) B Fluorobenzene	9.339	96	1300655	50.00 ug/L	0.00
103) B Chlorobenzene-d5	12.507	117	1048028	50.00 ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	14.940	152	659347	50.00 ug/L	0.00
System Monitoring Compounds					
29) 1,2-Dichloroethane-d4	8.978	65	452229	50.05 ug/L	0.00
Spiked Amount 50.000	Range 68 - 131		Recovery = 100.10%		
43) Toluene-d8	10.983	98	1271425	47.78 ug/L	0.00
Spiked Amount 50.000	Range 75 - 129		Recovery = 95.56%		
61) Bromofluorobenzene	13.710	95	526479	44.33 ug/L	0.00
Spiked Amount 50.000	Range 68 - 133		Recovery = 88.66%		
Target Compounds					Qvalue
2) Dichlorodifluoromethane	0.000		0	N.D.	
3) Chloromethane	0.000		0	N.D.	
4) Vinyl chloride	4.265	62	665	N.D.	
5) Bromomethane	0.000		0	N.D.	
6) Chloroethane	0.000		0	N.D.	
7) Trichlorofluoromethane	0.000		0	N.D.	
8) Ethyl ether	0.000		0	N.D.	
9) Acetone	0.000		0	N.D.	
10) 1,1-Dichloroethylene	0.000		0	N.D.	
11) Iodomethane	0.000		0	N.D.	
12) Acetonitrile	0.000		0	N.D.	
13) Methyl acetate	0.000		0	N.D.	
14) Carbon disulfide	6.425	76	847	N.D.	
15) Methylene chloride	6.644	84	4760	Below Cal	88
16) tert-Butyl methyl ether	0.000		0	N.D.	
17) trans-1,2-Dichloroethy...	0.000		0	N.D.	
18) Vinyl acetate	0.000		0	N.D.	
19) 1,1-Dichloroethane	0.000		0	N.D.	
20) 2-Butanone	0.000		0	N.D.	
21) cis-1,2-Dichloroethylene	0.000		0	N.D.	
22) 2,2-Dichloropropane	0.000		0	N.D.	
23) Bromochloromethane	0.000		0	N.D.	
24) Chloroform	0.000		0	N.D.	
25) 1,1,1-Trichloroethane	0.000		0	N.D.	
26) Cyclohexane	0.000		0	N.D.	
27) 1,1-Dichloropropene	0.000		0	N.D.	
28) Carbon tetrachloride	0.000		0	N.D.	
30) 1,2-Dichloroethane	0.000		0	N.D.	
31) Benzene	0.000		0	N.D.	
32) Cyclohexene	0.000		0	N.D.	
33) n-Butyl alcohol	0.000		0	N.D.	
34) Trichloroethylene	0.000		0	N.D.	
35) 1,2-Dichloropropane	0.000		0	N.D.	
36) Methylcyclohexane	0.000		0	N.D.	
37) Dibromomethane	0.000		0	N.D.	
38) Bromodichloromethane	0.000		0	N.D.	
39) 2-Chloroethylvinyl ether	0.000		0	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709\
Data File : AP407LA.D
Acq On : 17 Dec 2009 7:31 pm
Operator : JEB
InstName : VOAA
Sample : |1201999396|934516|1|VOA|1|VOA8260BS|
Misc : GEEL 5.0G N/A SOIL
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Dec 17 20:01:23 2009
Quant Method : C:\msdchem\1\METHODS\VOAA-8260-110609.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Nov 09 16:21:09 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
40) cis-1,3-Dichloropropylene	0.000		0	N.D.	
42) 4-Methyl-2-pentanone	0.000		0	N.D.	
44) Toluene	11.057	91	107	N.D.	
45) trans-1,3-Dichloroprop...	0.000		0	N.D.	
46) 1,1,2-Trichloroethane	0.000		0	N.D.	
47) 2-Hexanone	0.000		0	N.D.	
48) 1,3-Dichloropropane	0.000		0	N.D.	
49) Tetrachloroethylene	0.000		0	N.D.	
50) Dibromochloromethane	0.000		0	N.D.	
51) 1,2-Dibromoethane	0.000		0	N.D.	
52) Chlorobenzene	0.000		0	N.D.	
53) 1,1,1,2-Tetrachloroethane	0.000		0	N.D.	
54) Ethylbenzene	12.507	91	2027	N.D.	
55) m,p-Xylenes	0.000		0	N.D.	
56) o-Xylene	0.000		0	N.D.	
57) Styrene	0.000		0	N.D.	
59) Bromoform	0.000		0	N.D.	
60) Isopropylbenzene	13.713	105	121	N.D.	
62) 1,1,2,2-Tetrachloroethane	0.000		0	N.D.	
63) 1,2,3-Trichloropropane	0.000		0	N.D.	
64) Bromobenzene	0.000		0	N.D.	
65) n-Propylbenzene	13.713	91	1381	N.D.	
66) 1,3,5-Trimethylbenzene	0.000		0	N.D.	
67) 2-Chlorotoluene	0.000		0	N.D.	
68) 4-Chlorotoluene	0.000		0	N.D.	
69) tert-Butylbenzene	0.000		0	N.D.	
70) 1,2,4-Trimethylbenzene	0.000		0	N.D.	
71) sec-Butylbenzene	0.000		0	N.D.	
72) 4-Isopropyltoluene	0.000		0	N.D.	
73) 1,3-Dichlorobenzene	0.000		0	N.D.	
74) 1,4-Dichlorobenzene	14.969	146	702	N.D.	
75) n-Butylbenzene	15.085	91	1349	N.D.	
76) 1,2-Dichlorobenzene	0.000		0	N.D.	
77) 1,2-Dibromo-3-chloropr...	0.000		0	N.D.	
78) 1,2,4-Trichlorobenzene	17.175	180	594	N.D.	
79) Hexachlorobutadiene	0.000		0	N.D.	
80) Naphthalene	17.530	128	2000	N.D.	
81) 1,2,3-Trichlorobenzene	17.839	180	413	N.D.	
83) Chlorotrifluoroethylene	0.000		0	N.D.	
84) 2-Chloro-1,1,1-trifluo...	0.000		0	N.D.	
85) Acrolein	0.000		0	N.D.	
86) Trichlorotrifluoroethane	0.000		0	N.D.	
87) Isopropyl Alcohol	0.000		0	N.D.	
88) Allyl chloride	0.000		0	N.D.	
89) tert-Butyl Alcohol	0.000		0	N.D.	
90) Acrylonitrile	0.000		0	N.D.	
91) Isopropyl ether	0.000		0	N.D.	
92) 2-Chloro-1,3-butadiene	0.000		0	N.D.	
93) Ethyl tert-butyl ether	0.000		0	N.D.	
94) Ethyl acetate	0.000		0	N.D.	
95) Propionitrile	0.000		0	N.D.	
96) Methacrylonitrile	0.000		0	N.D.	
97) Tetrahydrofuran	0.000		0	N.D.	
98) Isobutyl alcohol	0.000		0	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709\
Data File : AP407LA.D
Acq On : 17 Dec 2009 7:31 pm
Operator : JEB
InstName : VOAA
Sample : |1201999396|934516|1|VOA|1|VOA8260BS|
Misc : GEEL 5.0G N/A SOIL
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Dec 17 20:01:23 2009
Quant Method : C:\msdchem\1\METHODS\VOAA-8260-110609.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Nov 09 16:21:09 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
99) Methyl tert-amyl ether	0.000		0	N.D.	
100) Methyl methacrylate	0.000		0	N.D.	
101) 1,4-Dioxane	0.000		0	N.D.	
102) 2-Nitropropane	0.000		0	N.D.	
104) Ethyl methacrylate	0.000		0	N.D.	
106) 1-Chlorohexane	0.000		0	N.D.	
107) cis-1,4-Dichloro-2-butene	0.000		0	N.D.	
108) Cyclohexanone	0.000		0	N.D.	
109) trans-1,4-Dichloro-2-b...	13.844	53	117	N.D.	
110) Pentachloroethane	0.000		0	N.D.	
111) Benzyl chloride	0.000		0m	N.D. d	
112) bis(2-Chloroisopropyl)...	0.000		0	N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709\
Data File : AP407LA.D
Acq On : 17 Dec 2009 7:31 pm
Operator : JEB
InstName : VOAA
Sample : |1201999396|934516|1|VOA|1|VOA8260BS|
Misc : GEEL 5.0G N/A SOIL
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Dec 17 20:01:23 2009
Quant Method : C:\msdchem\1\METHODS\VOAA-8260-110609.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Nov 09 16:21:09 2009
Response via : Initial Calibration
Integrator: RTE

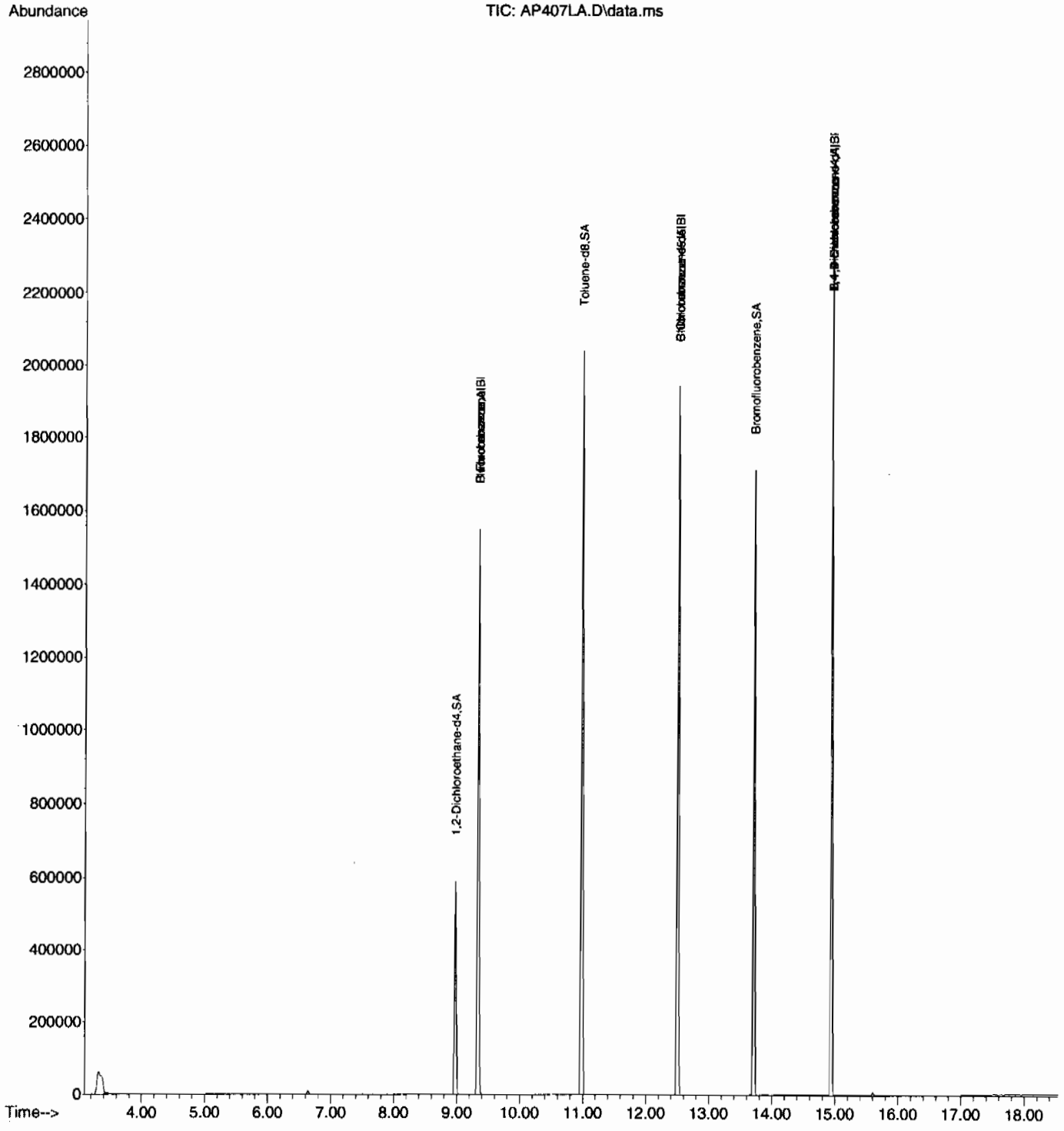

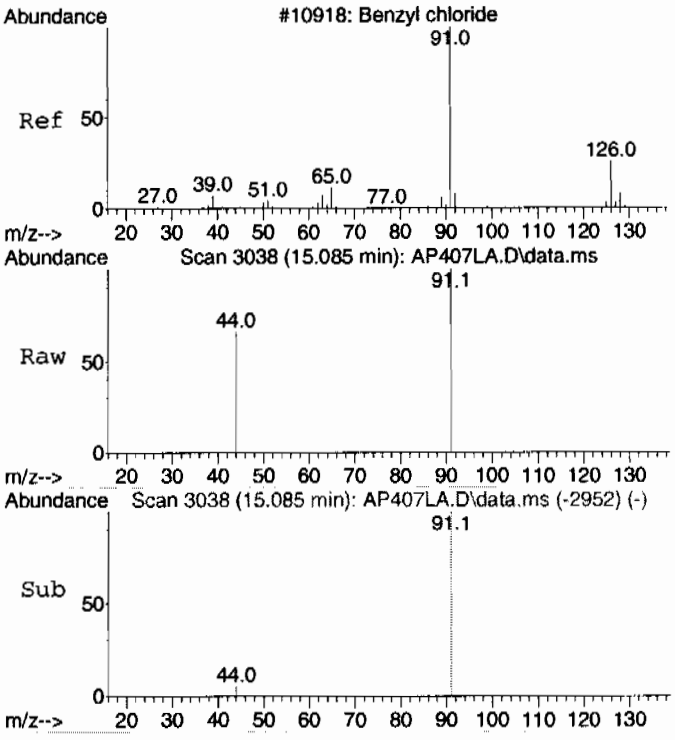

#111 BEFORE analyst DELETION
Benzyl chloride
Concen: 4.47 ug/L
RT: 15.085 min Scan# 3038
Delta R.T. 0.004 min
Lab File: AP407LA.D
Acq: 17 Dec 2009 7:31 pm

Tgt Ion: 91 Resp: 1349

Ion	Ratio	Lower	Upper
91	100		
126	0.0	0.0	52.0
65	0.0	0.0	41.2

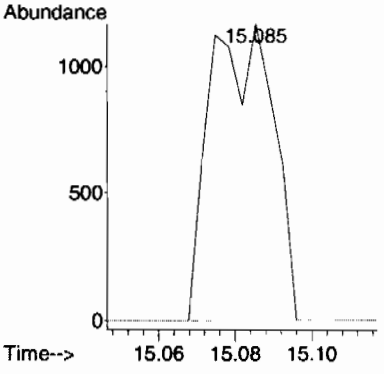

Library Search Compound Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709\
Data File : AP407LA.D
Acq On : 17 Dec 2009 7:31 pm
Operator : JEB
Sample : |1201999396|934516|1|VOA|1|VOA8260BS|
Misc : GEEL 5.0G N/A SOIL
ALS Vial : 7 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\VOAA-8260-110609.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

****
Peak Number 1 unknown Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
3.318	6.31 ug/L	349596	Fluorobenzene	9.339

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Dimethyl ether	46	C2H6O	000115-10-6	5
2	Ethyl alcohol	46	C2H6O	000064-17-5	4
3	Ethyl alcohol	46	C2H6O	000064-17-5	4
4	Ethyl alcohol	46	C2H6O	000064-17-5	4
5	Formic acid	46	CH2O2	000064-18-6	4

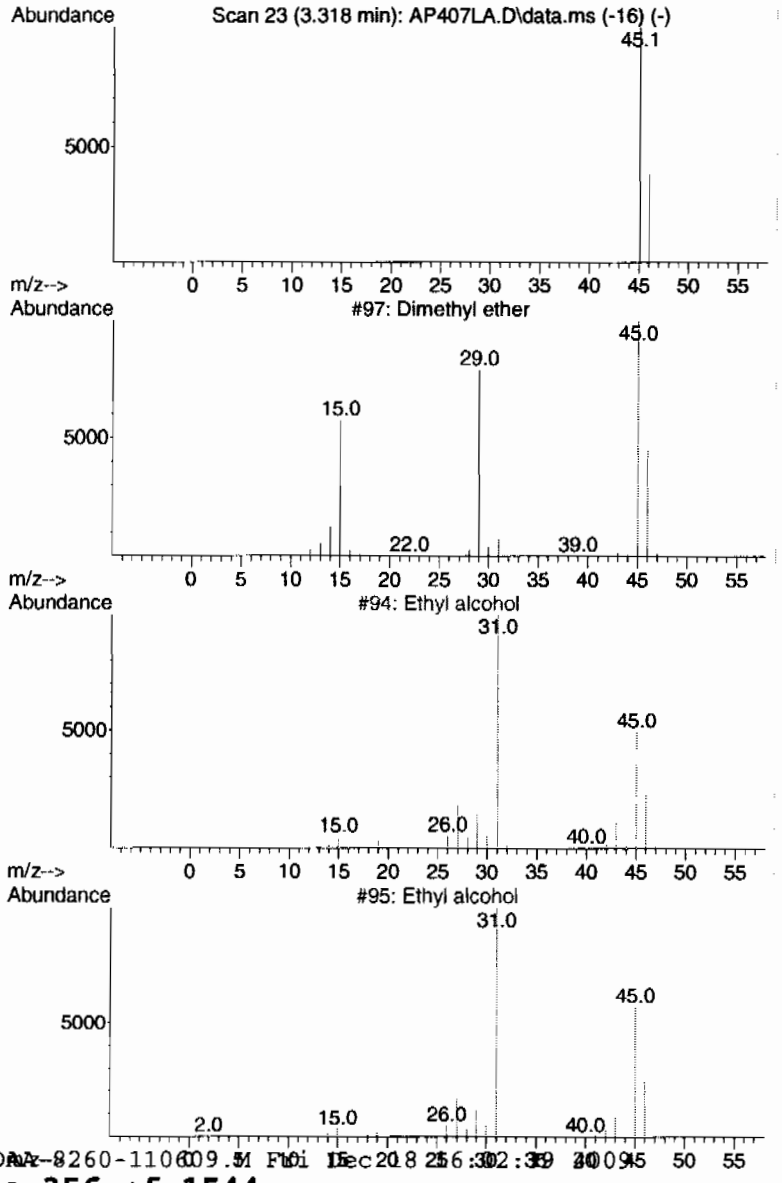

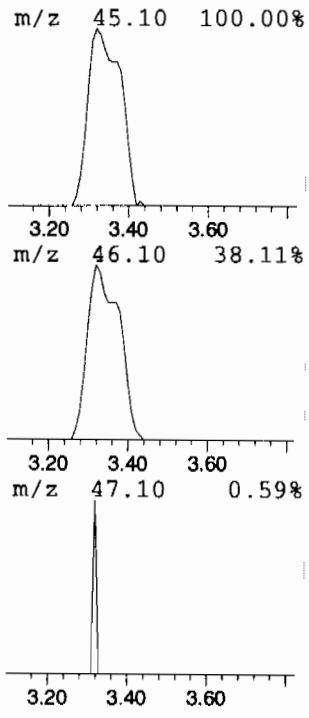

Tentatively Identified Compound (LSC) summary
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709\
Data File : AP407LA.D
Acq On : 17 Dec 2009 7:31 pm
Operator : JEB
Sample : |1201999396|934516|1|VOA|1|VOA8260BS|
Misc : GEEL 5.0G N/A SOIL
ALS Vial : 7 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\VOAA-8260-110609.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

TIC Top Hit name	RT	EstConc	Units	Response	--Internal Standard--- #	RT	Resp	Conc
unknown	3.318	6.3	ug/L	349596	1	9.339	2768080	50.0

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852			**Matrix:**	SOIL
Lab Sample ID:	1202000171				
Client Sample:	QC for batch 934515	**Client:**	LANL010	**Project:**	QC
Client ID:	MB for batch 934515	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	934516	**Inst:**	VOAA.I	**Dilution:**	1
Run Date:	12/18/2009 05:55	**Analyst:**	JEB	**Purge Vol:**	5 mL
Prep Date:	12/17/2009 17:30	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	121709\AP431LA.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/kg	0.340	1.00
74-87-3	Chloromethane	U	1.00	ug/kg	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/kg	0.300	1.00
74-83-9	Bromomethane	U	1.00	ug/kg	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/kg	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/kg	0.300	1.00
67-64-1	Acetone	U	5.00	ug/kg	1.66	5.00
75-35-4	1,1-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/kg	1.60	5.00
75-09-2	Methylene chloride	U	5.00	ug/kg	2.00	5.00
75-15-0	Carbon disulfide	U	5.00	ug/kg	1.25	5.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/kg	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/kg	1.50	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/kg	0.300	1.00
74-97-5	Bromochloromethane	U	1.00	ug/kg	0.330	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/kg	0.300	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/kg	0.300	1.00
56-23-5	Carbon tetrachloride	U	1.00	ug/kg	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/kg	0.300	1.00
71-43-2	Benzene	U	1.00	ug/kg	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/kg	0.330	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/kg	0.300	1.00
74-95-3	Dibromomethane	U	1.00	ug/kg	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/kg	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
108-88-3	Toluene	U	1.00	ug/kg	0.300	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/kg	0.300	1.00
591-78-6	2-Hexanone	U	5.00	ug/kg	1.50	5.00
142-28-9	1,3-Dichloropropane	U	1.00	ug/kg	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/kg	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/kg	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/kg	0.300	1.00
108-90-7	Chlorobenzene	U	1.00	ug/kg	0.300	1.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-852**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202000171**				
Client Sample:	**QC for batch 934515**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 934515**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**934516**	**Inst:**	**VOAA.I**	**Dilution:**	**1**
Run Date:	**12/18/2009 05:55**	**Analyst:**	**JEB**	**Purge Vol:**	**5 mL**
Prep Date:	**12/17/2009 17:30**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**121709\AP431LA.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.00	ug/kg	0.300	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/kg	0.300	2.00
95-47-6	o-Xylene	U	1.00	ug/kg	0.300	1.00
100-42-5	Styrene	U	1.00	ug/kg	0.300	1.00
75-25-2	Bromoform	U	1.00	ug/kg	0.300	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/kg	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/kg	0.300	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/kg	0.300	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/kg	0.300	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/kg	0.300	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/kg	0.300	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/kg	0.300	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/kg	0.300	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/kg	0.300	1.00
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.00	ug/kg	1.60	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	No Tentatively Identified Compounds Found			ug/kg		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709\
Data File : AP431LA.D
Acq On : 18 Dec 2009 5:55 am
Operator : JEB
InstName : VOAA
Sample : |1202000171|934516|1|VOA|1|VOA8260BS|
Misc : GEEL 5.0G N/A SOIL
ALS Vial : 31 Sample Multiplier: 1

Quant Time: Dec 18 14:52:43 2009
Quant Method : C:\msdchem\1\METHODS\VOAA-8260-110609.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Nov 09 16:21:09 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Fluorobenzene	9.339	96	1209073	50.00 ug/L	0.00
41) Chlorobenzene-d5	12.507	117	965987	50.00 ug/L	0.00
58) 1,4-Dichlorobenzene-d4	14.940	152	609266	50.00 ug/L	0.00
82) B Fluorobenzene	9.339	96	1209073	50.00 ug/L	0.00
103) B Chlorobenzene-d5	12.507	117	965987	50.00 ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	14.940	152	609266	50.00 ug/L	0.00
System Monitoring Compounds					
29) 1,2-Dichloroethane-d4	8.978	65	446028	53.10 ug/L	0.00
Spiked Amount 50.000	Range 68 - 131		Recovery = 106.20%		
43) Toluene-d8	10.983	98	1193541	48.67 ug/L	0.00
Spiked Amount 50.000	Range 75 - 129		Recovery = 97.34%		
61) Bromofluorobenzene	13.710	95	500360	45.59 ug/L	0.00
Spiked Amount 50.000	Range 68 - 133		Recovery = 91.18%		
Target Compounds					Qvalue
2) Dichlorodifluoromethane	0.000		0	N.D.	
3) Chloromethane	0.000		0	N.D.	
4) Vinyl chloride	4.265	62	398	N.D.	
5) Bromomethane	0.000		0	N.D.	
6) Chloroethane	0.000		0	N.D.	
7) Trichlorofluoromethane	0.000		0	N.D.	
8) Ethyl ether	0.000		0	N.D.	
9) Acetone	6.092	43	266	N.D.	
10) 1,1-Dichloroethylene	0.000		0	N.D.	
11) Iodomethane	0.000		0	N.D.	
12) Acetonitrile	0.000		0	N.D.	
13) Methyl acetate	0.000		0	N.D.	
14) Carbon disulfide	6.421	76	969	N.D.	
15) Methylene chloride	6.644	84	11147	N.D.	
16) tert-Butyl methyl ether	0.000		0	N.D.	
17) trans-1,2-Dichloroethy...	0.000		0	N.D.	
18) Vinyl acetate	0.000		0	N.D.	
19) 1,1-Dichloroethane	0.000		0	N.D.	
20) 2-Butanone	0.000		0	N.D.	
21) cis-1,2-Dichloroethylene	0.000		0	N.D.	
22) 2,2-Dichloropropane	0.000		0	N.D.	
23) Bromochloromethane	0.000		0	N.D.	
24) Chloroform	0.000		0	N.D.	
25) 1,1,1-Trichloroethane	0.000		0	N.D.	
26) Cyclohexane	0.000		0	N.D.	
27) 1,1-Dichloropropene	0.000		0	N.D.	
28) Carbon tetrachloride	0.000		0	N.D.	
30) 1,2-Dichloroethane	0.000		0	N.D.	
31) Benzene	0.000		0	N.D.	
32) Cyclohexene	0.000		0	N.D.	
33) n-Butyl alcohol	0.000		0	N.D.	
34) Trichloroethylene	0.000		0	N.D.	
35) 1,2-Dichloropropane	0.000		0	N.D.	
36) Methylcyclohexane	0.000		0	N.D.	
37) Dibromomethane	0.000		0	N.D.	
38) Bromodichloromethane	0.000		0	N.D.	
39) 2-Chloroethylvinyl ether	0.000		0	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709\
Data File : AP431LA.D
Acq On : 18 Dec 2009 5:55 am
Operator : JEB
InstName : VOAA
Sample : |1202000171|934516|1|VOA|1|VOA8260BS|
Misc : GEEL 5.0G N/A SOIL
ALS Vial : 31 Sample Multiplier: 1

Quant Time: Dec 18 14:52:43 2009
Quant Method : C:\msdchem\1\METHODS\VOAA-8260-110609.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Nov 09 16:21:09 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
40) cis-1,3-Dichloropropylene	0.000		0	N.D.	
42) 4-Methyl-2-pentanone	0.000		0	N.D.	
44) Toluene	0.000		0	N.D.	
45) trans-1,3-Dichloroprop...	0.000		0	N.D.	
46) 1,1,2-Trichloroethane	0.000		0	N.D.	
47) 2-Hexanone	0.000		0	N.D.	
48) 1,3-Dichloropropane	0.000		0	N.D.	
49) Tetrachloroethylene	0.000		0	N.D.	
50) Dibromochloromethane	0.000		0	N.D.	
51) 1,2-Dibromoethane	0.000		0	N.D.	
52) Chlorobenzene	0.000		0	N.D.	
53) 1,1,1,2-Tetrachloroethane	0.000		0	N.D.	
54) Ethylbenzene	12.504	91	1694	N.D.	
55) m,p-Xylenes	0.000		0	N.D.	
56) o-Xylene	0.000		0	N.D.	
57) Styrene	0.000		0	N.D.	
59) Bromoform	0.000		0	N.D.	
60) Isopropylbenzene	13.710	105	241	N.D.	
62) 1,1,2,2-Tetrachloroethane	0.000		0	N.D.	
63) 1,2,3-Trichloropropane	0.000		0	N.D.	
64) Bromobenzene	0.000		0	N.D.	
65) n-Propylbenzene	14.194	91	391	N.D.	
66) 1,3,5-Trimethylbenzene	0.000		0	N.D.	
67) 2-Chlorotoluene	0.000		0	N.D.	
68) 4-Chlorotoluene	14.194	91	391	N.D.	
69) tert-Butylbenzene	0.000		0	N.D.	
70) 1,2,4-Trimethylbenzene	0.000		0	N.D.	
71) sec-Butylbenzene	0.000		0	N.D.	
72) 4-Isopropyltoluene	0.000		0	N.D.	
73) 1,3-Dichlorobenzene	14.884	146	115	N.D.	
74) 1,4-Dichlorobenzene	14.969	146	666	N.D.	
75) n-Butylbenzene	15.082	91	2070	N.D.	
76) 1,2-Dichlorobenzene	0.000		0	N.D.	
77) 1,2-Dibromo-3-chloropr...	0.000		0	N.D.	
78) 1,2,4-Trichlorobenzene	17.183	180	778	N.D.	
79) Hexachlorobutadiene	0.000		0	N.D.	
80) Naphthalene	17.522	128	2449	N.D.	
81) 1,2,3-Trichlorobenzene	17.847	180	638	N.D.	
83) Chlorotrifluoroethylene	0.000		0	N.D.	
84) 2-Chloro-1,1,1-trifluo...	0.000		0	N.D.	
85) Acrolein	0.000		0	N.D.	
86) Trichlorotrifluoroethane	0.000		0	N.D.	
87) Isopropyl Alcohol	0.000		0	N.D.	
88) Allyl chloride	0.000		0	N.D.	
89) tert-Butyl Alcohol	0.000		0	N.D.	
90) Acrylonitrile	6.899	53	117	N.D.	
91) Isopropyl ether	0.000		0	N.D.	
92) 2-Chloro-1,3-butadiene	0.000		0	N.D.	
93) Ethyl tert-butyl ether	0.000		0	N.D.	
94) Ethyl acetate	0.000		0	N.D.	
95) Propionitrile	0.000		0	N.D.	
96) Methacrylonitrile	0.000		0	N.D.	
97) Tetrahydrofuran	0.000		0	N.D.	
98) Isobutyl alcohol	0.000		0	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709\
Data File : AP431LA.D
Acq On : 18 Dec 2009 5:55 am
Operator : JEB
InstName : VOAA
Sample : |1202000171|934516|1|VOA|1|VOA8260BS|
Misc : GEEL 5.0G N/A SOIL
ALS Vial : 31 Sample Multiplier: 1

Quant Time: Dec 18 14:52:43 2009
Quant Method : C:\msdchem\1\METHODS\VOAA-8260-110609.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Nov 09 16:21:09 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
99) Methyl tert-amyl ether	0.000		0	N.D.	
100) Methyl methacrylate	0.000		0	N.D.	
101) 1,4-Dioxane	0.000		0	N.D.	
102) 2-Nitropropane	0.000		0	N.D.	
104) Ethyl methacrylate	0.000		0	N.D.	
106) 1-Chlorohexane	0.000		0	N.D.	
107) cis-1,4-Dichloro-2-butene	0.000		0	N.D.	
108) Cyclohexanone	0.000		0	N.D.	
109) trans-1,4-Dichloro-2-b...	13.841	53	377	N.D.	
110) Pentachloroethane	0.000		0	N.D.	
111) Benzyl chloride	0.000		0m	N.D. d	
112) bis(2-Chloroisopropyl)...	15.489	45	125	N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709\
Data File : AP431LA.D
Acq On : 18 Dec 2009 5:55 am
Operator : JEB
InstName : VOAA
Sample : |1202000171|934516|1|VOA|1|VOA8260BS|
Misc : GEEL 5.0G N/A SOIL
ALS Vial : 31 Sample Multiplier: 1

Quant Time: Dec 18 14:52:43 2009
Quant Method : C:\msdchem\1\METHODS\VOAA-8260-110609.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Nov 09 16:21:09 2009
Response via : Initial Calibration
Integrator: RTE

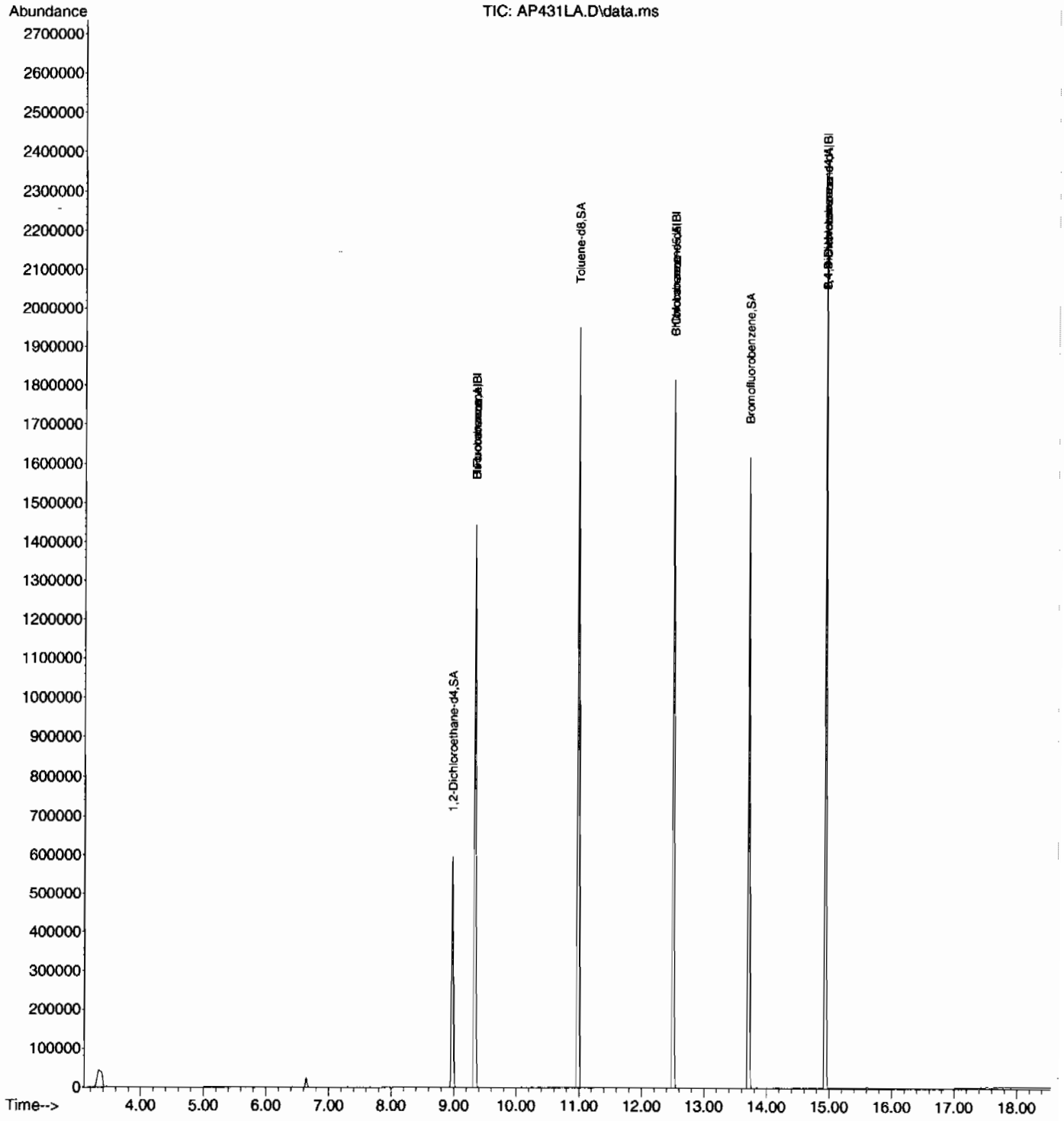

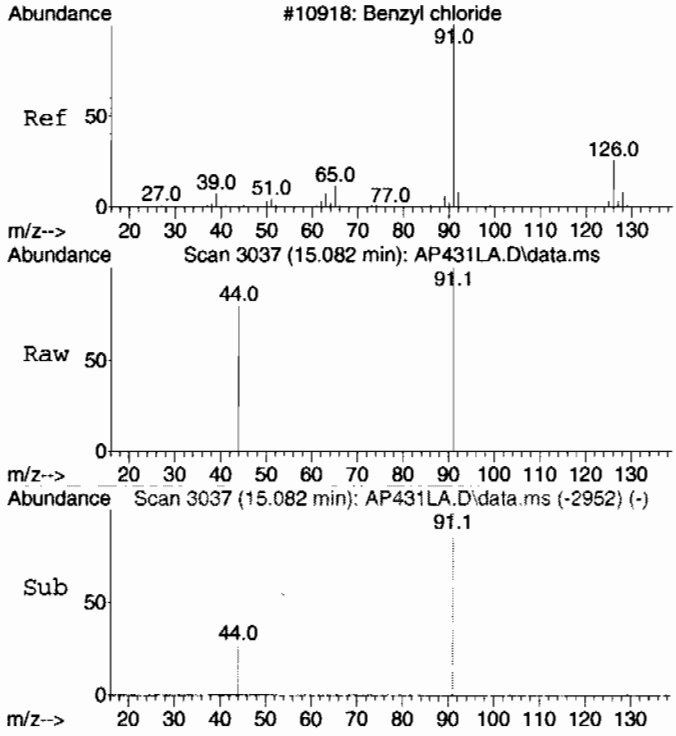

#111 BEFORE analyst DELETION
Benzyl chloride
Concen: 4.53 ug/L
RT: 15.082 min Scan# 3037
Delta R.T. 0.000 min
Lab File: AP431LA.D
Acq: 18 Dec 2009 5:55 am

Tgt Ion: 91 Resp: 2070

Ion	Ratio	Lower	Upper
91	100		
126	0.0	0.0	52.0
65	0.0	0.0	41.2

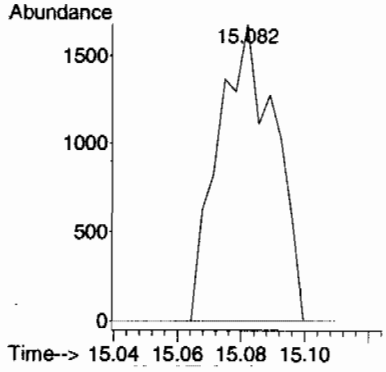

Library Search Compound Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709\
Data File : AP431LA.D
Acq On : 18 Dec 2009 5:55 am
Operator : JEB
Sample : |1202000171|934516|1|VOA|1|VOA8260BS|
Misc : GEEL 5.0G N/A SOIL
ALS Vial : 31 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\VOAA-8260-110609.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

No Library Search Compounds Detected
****

Tentatively Identified Compound (LSC) summary
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709\
Data File : AP431LA.D
Acq On : 18 Dec 2009 5:55 am
Operator : JEB
Sample : |1202000171|934516|1|VOA|1|VOA8260BS|
Misc : GEEL 5.0G N/A SOIL
ALS Vial : 31 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\VOAA-8260-110609.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

TIC Top Hit name	RT	EstConc	Units	Response	Internal Standard #	RT	Resp	Conc

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852			**Matrix:**	SOIL
Lab Sample ID:	1201999399				
Client Sample:	QC for batch 934515	**Client:**	LANL010	**Project:**	QC
Client ID:	LCS for batch 934515	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	934516	**Inst:**	VOAA.I	**Dilution:**	1
Run Date:	12/17/2009 17:47	**Analyst:**	JEB	**Purge Vol:**	5 mL
Prep Date:	12/17/2009 17:30	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	121709\AP403LA.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane		45.6	ug/kg	0.340	1.00
74-87-3	Chloromethane		40.3	ug/kg	0.300	1.00
75-01-4	Vinyl chloride		49.4	ug/kg	0.300	1.00
74-83-9	Bromomethane		45.1	ug/kg	0.300	1.00
75-00-3	Chloroethane		40.3	ug/kg	0.300	1.00
75-69-4	Trichlorofluoromethane		57.2	ug/kg	0.300	1.00
67-64-1	Acetone		191	ug/kg	1.66	5.00
75-35-4	1,1-Dichloroethylene		48.5	ug/kg	0.300	1.00
74-88-4	Iodomethane		275	ug/kg	1.60	5.00
75-09-2	Methylene chloride		48.1	ug/kg	2.00	5.00
75-15-0	Carbon disulfide		246	ug/kg	1.25	5.00
156-60-5	trans-1,2-Dichloroethylene		47.7	ug/kg	0.300	1.00
75-34-3	1,1-Dichloroethane		46.3	ug/kg	0.300	1.00
78-93-3	2-Butanone		192	ug/kg	1.50	5.00
156-59-2	cis-1,2-Dichloroethylene		48.9	ug/kg	0.300	1.00
594-20-7	2,2-Dichloropropane		63.2	ug/kg	0.300	1.00
67-66-3	Chloroform		53.9	ug/kg	0.300	1.00
74-97-5	Bromochloromethane		54.7	ug/kg	0.330	1.00
71-55-6	1,1,1-Trichloroethane		62.7	ug/kg	0.300	1.00
563-58-6	1,1-Dichloropropene		55.3	ug/kg	0.300	1.00
56-23-5	Carbon tetrachloride		65.3	ug/kg	0.300	1.00
107-06-2	1,2-Dichloroethane		51.1	ug/kg	0.300	1.00
71-43-2	Benzene		47.8	ug/kg	0.300	1.00
79-01-6	Trichloroethylene		54.2	ug/kg	0.330	1.00
78-87-5	1,2-Dichloropropane		45.3	ug/kg	0.300	1.00
75-27-4	Bromodichloromethane		59.7	ug/kg	0.300	1.00
74-95-3	Dibromomethane		51.3	ug/kg	0.300	1.00
108-10-1	4-Methyl-2-pentanone		213	ug/kg	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene		56.9	ug/kg	0.300	1.00
108-88-3	Toluene		49.0	ug/kg	0.300	1.00
10061-02-6	trans-1,3-Dichloropropylene		58.6	ug/kg	0.300	1.00
79-00-5	1,1,2-Trichloroethane		47.1	ug/kg	0.300	1.00
591-78-6	2-Hexanone		166	ug/kg	1.50	5.00
142-28-9	1,3-Dichloropropane		46.1	ug/kg	0.300	1.00
127-18-4	Tetrachloroethylene		60.1	ug/kg	0.300	1.00
124-48-1	Dibromochloromethane	E	55.8	ug/kg	0.300	1.00
106-93-4	1,2-Dibromoethane		54.7	ug/kg	0.300	1.00
108-90-7	Chlorobenzene		51.8	ug/kg	0.300	1.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-852**			**Matrix:**	**SOIL**
Lab Sample ID:	**1201999399**				
Client Sample:	**QC for batch 934515**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 934515**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**934516**	**Inst:**	**VOAA.I**	**Dilution:**	**1**
Run Date:	**12/17/2009 17:47**	**Analyst:**	**JEB**	**Purge Vol:**	**5 mL**
Prep Date:	**12/17/2009 17:30**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**121709\AP403LA.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene		53.9	ug/kg	0.300	1.00
179601-23-1	m,p-Xylenes		109	ug/kg	0.300	2.00
95-47-6	o-Xylene		55.0	ug/kg	0.300	1.00
100-42-5	Styrene		51.4	ug/kg	0.300	1.00
75-25-2	Bromoform		51.7	ug/kg	0.300	1.00
79-34-5	1,1,2,2-Tetrachloroethane		43.3	ug/kg	0.300	1.00
96-18-4	1,2,3-Trichloropropane		52.0	ug/kg	0.300	1.00
108-86-1	Bromobenzene		54.0	ug/kg	0.300	1.00
103-65-1	n-Propylbenzene		50.5	ug/kg	0.300	1.00
95-49-8	2-Chlorotoluene		51.7	ug/kg	0.300	1.00
98-82-8	Isopropylbenzene		55.6	ug/kg	0.300	1.00
108-67-8	1,3,5-Trimethylbenzene		55.5	ug/kg	0.300	1.00
106-43-4	4-Chlorotoluene		51.0	ug/kg	0.300	1.00
98-06-6	tert-Butylbenzene		59.1	ug/kg	0.300	1.00
95-63-6	1,2,4-Trimethylbenzene		55.3	ug/kg	0.300	1.00
135-98-8	sec-Butylbenzene		54.5	ug/kg	0.300	1.00
99-87-6	4-Isopropyltoluene		52.1	ug/kg	0.300	1.00
541-73-1	1,3-Dichlorobenzene		52.9	ug/kg	0.300	1.00
106-46-7	1,4-Dichlorobenzene		52.1	ug/kg	0.300	1.00
104-51-8	n-Butylbenzene		53.8	ug/kg	0.300	1.00
96-12-8	1,2-Dibromo-3-chloropropane		52.3	ug/kg	0.300	1.00
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.00	ug/kg	1.60	5.00
630-20-6	1,1,1,2-Tetrachloroethane		61.3	ug/kg	0.300	1.00
95-50-1	1,2-Dichlorobenzene		52.9	ug/kg	0.300	1.00

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709\
Data File : AP403LA.D
Acq On : 17 Dec 2009 5:47 pm
Operator : JEB
InstName : VOAA
Sample : |1201999399|934516|1|VOA|1|VOA8260BS|
Misc : LCS 5.0G MIX[A]1129-01E/091214-01 SOIL
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Dec 17 18:17:22 2009
Quant Method : C:\msdchem\1\METHODS\VOAA-8260-110609.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Nov 09 16:21:09 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	9.339	96	1344565	50.00	ug/L	0.00
41) Chlorobenzene-d5	12.507	117	1111231	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	14.940	152	695340	50.00	ug/L	0.00
82) B Fluorobenzene	9.339	96	1344565	50.00	ug/L	0.00
103) B Chlorobenzene-d5	12.507	117	1111231	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	14.940	152	695340	50.00	ug/L	0.00
System Monitoring Compounds						
29) 1,2-Dichloroethane-d4	8.978	65	473880	50.73	ug/L	0.00
Spiked Amount 50.000	Range 68 - 131		Recovery = 101.46%			
43) Toluene-d8	10.983	98	1351749	47.91	ug/L	0.00
Spiked Amount 50.000	Range 75 - 129		Recovery = 95.82%			
61) Bromofluorobenzene	13.710	95	566205	45.20	ug/L	0.00
Spiked Amount 50.000	Range 68 - 133		Recovery = 90.40%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	3.731	85	283843	45.56	ug/L	100
3) Chloromethane	4.054	50	251079	40.32	ug/L	100
4) Vinyl chloride	4.275	62	307192	49.43	ug/L	100
5) Bromomethane	4.849	94	267845	45.09	ug/L	95
6) Chloroethane	4.990	64	160496	40.30	ug/L	98
7) Trichlorofluoromethane	5.389	101	687796	57.16	ug/L	100
8) Ethyl ether	5.728	59	264053	45.25	ug/L	99
9) Acetone	6.075	43	1039423	190.76	ug/L	90
10) 1,1-Dichloroethylene	6.078	61	529200	48.47	ug/L	95
11) Iodomethane	6.297	142	3123170	274.68	ug/L	92
12) Acetonitrile	6.414	41	882840	922.76	ug/L	95
13) Methyl acetate	6.474	43	1116087	188.29	ug/L	97
14) Carbon disulfide	6.425	76	4780549	246.01	ug/L	100
15) Methylene chloride	6.644	84	324177	48.11	ug/L	98
16) tert-Butyl methyl ether	6.969	73	947208	53.44	ug/L	96
17) trans-1,2-Dichloroethy...	6.991	61	520741	47.69	ug/L	95
18) Vinyl acetate	7.447	43	2997387	258.95	ug/L	98
19) 1,1-Dichloroethane	7.468	63	603488	46.34	ug/L	99
20) 2-Butanone	8.059	43	1173402	192.11	ug/L	95
21) cis-1,2-Dichloroethylene	8.101	61	599107	48.89	ug/L	93
22) 2,2-Dichloropropane	8.133	77	623447	63.18	ug/L	98
23) Bromochloromethane	8.370	128	196249	54.72	ug/L	89
24) Chloroform	8.416	83	684850	53.86	ug/L	99
25) 1,1,1-Trichloroethane	8.692	97	732291	62.70	ug/L	97
26) Cyclohexane	8.787	56	652055	49.77	ug/L	99
27) 1,1-Dichloropropene	8.847	75	497547	55.28	ug/L	94
28) Carbon tetrachloride	8.883	117	708655	65.26	ug/L	99
30) 1,2-Dichloroethane	9.059	62	579796	51.13	ug/L	100
31) Benzene	9.081	78	1211325	47.75	ug/L	96
32) Cyclohexene	9.201	67	631599	51.84	ug/L	95
33) n-Butyl alcohol	9.459	56	1082413	4917.77	ug/L	94
34) Trichloroethylene	9.728	95	390162	54.19	ug/L	98
35) 1,2-Dichloropropane	9.961	63	320044	45.26	ug/L	100
36) Methylcyclohexane	9.979	83	592366	54.57	ug/L	95
37) Dibromomethane	10.088	93	222130	51.34	ug/L	97
38) Bromodichloromethane	10.212	83	507568	59.69	ug/L	100
39) 2-Chloroethylvinyl ether	10.449	63	697296	170.27	ug/L	99

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709\
Data File : AP403LA.D
Acq On : 17 Dec 2009 5:47 pm
Operator : JEB
InstName : VOAA
Sample : |1201999399|934516|1|VOA|1|VOA8260BS|
Misc : LCS 5.0G MIX[A]1129-01E/091214-01 SOIL
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Dec 17 18:17:22 2009
Quant Method : C:\msdchem\1\METHODS\VOAA-8260-110609.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Nov 09 16:21:09 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)	
40) cis-1,3-Dichloropropylene	10.665	75	531840	56.94 ug/L	95	
42) 4-Methyl-2-pentanone	10.771	58	736755	212.93 ug/L	94	
44) Toluene	11.054	91	1441098	49.03 ug/L	100	
45) trans-1,3-Dichloroprop...	11.210	75	533396	58.58 ug/L	98	
46) 1,1,2-Trichloroethane	11.425	83	225356	47.09 ug/L	97	
47) 2-Hexanone	11.623	43	1701302	166.48 ug/L	96	
48) 1,3-Dichloropropane	11.616	76	474812	46.11 ug/L	98	
49) Tetrachloroethylene	11.652	164	370854	60.12 ug/L	98	
50) Dibromochloromethane	11.878	129	423141	55.79 ug/L	99	E
51) 1,2-Dibromoethane	12.041	107	321831	54.70 ug/L	99	
52) Chlorobenzene	12.539	112	1044018	51.84 ug/L	98	
53) 1,1,1,2-Tetrachloroethane	12.596	131	445126	61.28 ug/L	97	
54) Ethylbenzene	12.613	91	1799754	53.91 ug/L	98	
55) m,p-Xylenes	12.727	106	1335844	108.58 ug/L	89	
56) o-Xylene	13.158	106	655544	55.02 ug/L	89	
57) Styrene	13.162	104	1039662	51.42 ug/L	90	
59) Bromoform	13.399	173	301610	51.73 ug/L	99	
60) Isopropylbenzene	13.526	105	1889570	55.64 ug/L	97	
62) 1,1,2,2-Tetrachloroethane	13.791	83	367842	43.29 ug/L	99	
63) 1,2,3-Trichloropropane	13.876	110	130071	52.02 ug/L	86	
64) Bromobenzene	13.915	156	504562	53.97 ug/L	98	
65) n-Propylbenzene	13.957	91	2180591	50.50 ug/L	99	
66) 1,3,5-Trimethylbenzene	14.116	105	1618299	55.51 ug/L	95	
67) 2-Chlorotoluene	14.092	126	450083	51.73 ug/L	89	
68) 4-Chlorotoluene	14.194	91	1349632	51.01 ug/L	94	
69) tert-Butylbenzene	14.488	134	368147	59.09 ug/L	89	
70) 1,2,4-Trimethylbenzene	14.527	105	1634019	55.33 ug/L	96	
71) sec-Butylbenzene	14.714	105	2072092	54.47 ug/L	100	
72) 4-Isopropyltoluene	14.841	119	1832122	52.14 ug/L	97	
73) 1,3-Dichlorobenzene	14.880	146	926381	52.91 ug/L	99	
74) 1,4-Dichlorobenzene	14.969	146	950512	52.07 ug/L	99	
75) n-Butylbenzene	15.273	91	1659147	53.81 ug/L	100	
76) 1,2-Dichlorobenzene	15.375	146	895323	52.92 ug/L	99	
77) 1,2-Dibromo-3-chloropr...	16.192	157	100103	52.30 ug/L	97	
78) 1,2,4-Trichlorobenzene	17.183	180	786551	59.01 ug/L	100	
79) Hexachlorobutadiene	17.360	225	537222	66.64 ug/L	100	
80) Naphthalene	17.522	128	1663960	55.97 ug/L	99	
81) 1,2,3-Trichlorobenzene	17.839	180	741850	58.25 ug/L	99	
83) Chlorotrifluoroethylene	0.000		0	N.D.		
84) 2-Chloro-1,1,1-trifluo...	0.000		0	N.D.		
85) Acrolein	5.866		0m	N.D. d		
86) Trichlorotrifluoroethane	6.071		0m	N.D. d		
87) Isopropyl Alcohol	6.071		0m	N.D. d		
88) Allyl chloride	6.414		0m	N.D. d		
89) tert-Butyl Alcohol	6.474		0m	N.D. d		
90) Acrylonitrile	6.969		0m	N.D. d		
91) Isopropyl ether	7.450		0m	N.D. d		
92) 2-Chloro-1,3-butadiene	7.606		0m	N.D. d		
93) Ethyl tert-butyl ether	7.889		0m	N.D. d		
94) Ethyl acetate	8.059		0m	N.D. d		
95) Propionitrile	8.055		0m	N.D. d		
96) Methacrylonitrile	8.430		0m	N.D. d		
97) Tetrahydrofuran	8.430		0m	N.D. d		
98) Isobutyl alcohol	8.787		0m	N.D. d		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709\
Data File : AP403LA.D
Acq On : 17 Dec 2009 5:47 pm
Operator : JEB
InstName : VOAA
Sample : |1201999399|934516|1|VOA|1|VOA8260BS|
Misc : LCS 5.0G MIX[A]1129-01E/091214-01 SOIL
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Dec 17 18:17:22 2009
Quant Method : C:\msdchem\1\METHODS\VOAA-8260-110609.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Nov 09 16:21:09 2009
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
99)	Methyl tert-amyl ether	9.084		0m	N.D.	d	
100)	Methyl methacrylate	9.979		0m	N.D.	d	
101)	1,4-Dioxane	10.088		0m	N.D.	d	
102)	2-Nitropropane	10.658		0m	N.D.	d	
104)	Ethyl methacrylate	11.234		0m	N.D.	d	
106)	1-Chlorohexane	0.000		0	N.D.		
107)	cis-1,4-Dichloro-2-butene	13.526		0m	N.D.	d	
108)	Cyclohexanone	13.660		0m	N.D.	d	
109)	trans-1,4-Dichloro-2-b...	13.837		0m	N.D.	d	
110)	Pentachloroethane	14.541		0m	N.D.	d	
111)	Benzyl chloride	14.841		0m	N.D.	d	
112)	bis(2-Chloroisopropyl)...	15.481		0m	N.D.	d	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709\
Data File : AP403LA.D
Acq On : 17 Dec 2009 5:47 pm
Operator : JEB
InstName : VOAA
Sample : |1201999399|934516|1|VOA|1|VOA8260BS|
Misc : LCS 5.0G MIX[A]1129-01E/091214-01 SOIL
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Dec 17 18:17:22 2009
Quant Method : C:\msdchem\1\METHODS\VOAA-8260-110609.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Nov 09 16:21:09 2009
Response via : Initial Calibration
Integrator: RTE

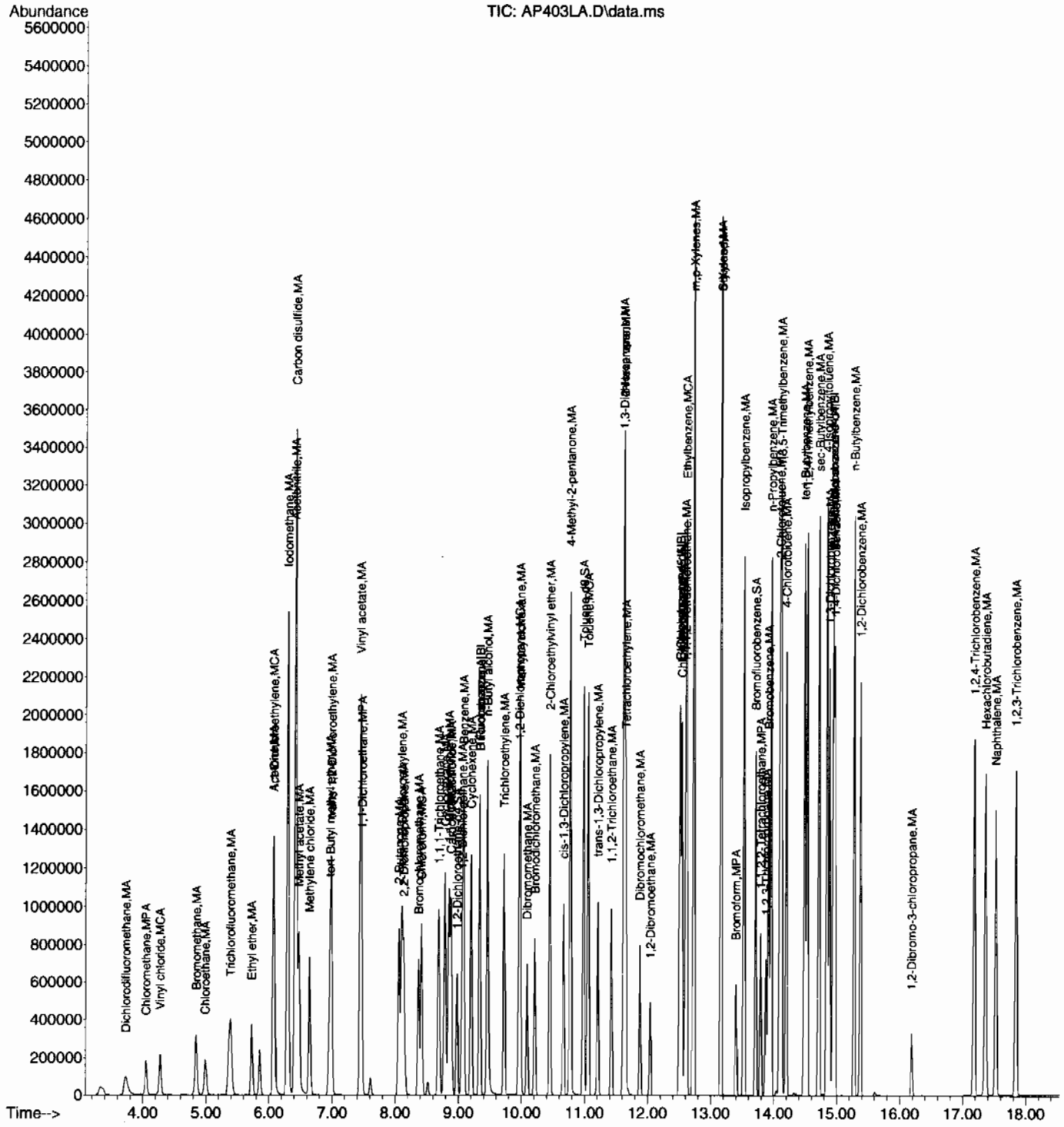

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-852**			**Matrix:**	**SOIL**
Lab Sample ID:	**1201999400**				
Client Sample:	**QC for batch 934515**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 934515**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**934516**	**Inst:**	**VOAA.I**	**Dilution:**	**1**
Run Date:	**12/17/2009 18:39**	**Analyst:**	**JEB**	**Purge Vol:**	**5 mL**
Prep Date:	**12/17/2009 17:30**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**121709\AP405LA.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/kg	0.340	1.00
74-87-3	Chloromethane	U	1.00	ug/kg	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/kg	0.300	1.00
74-83-9	Bromomethane	U	1.00	ug/kg	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/kg	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/kg	0.300	1.00
67-64-1	Acetone	U	5.00	ug/kg	1.66	5.00
75-35-4	1,1-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/kg	1.60	5.00
75-09-2	Methylene chloride	U	5.00	ug/kg	2.00	5.00
75-15-0	Carbon disulfide	U	5.00	ug/kg	1.25	5.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/kg	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/kg	1.50	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/kg	0.300	1.00
74-97-5	Bromochloromethane	U	1.00	ug/kg	0.330	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/kg	0.300	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/kg	0.300	1.00
56-23-5	Carbon tetrachloride	U	1.00	ug/kg	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/kg	0.300	1.00
71-43-2	Benzene	U	1.00	ug/kg	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/kg	0.330	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/kg	0.300	1.00
74-95-3	Dibromomethane	U	1.00	ug/kg	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/kg	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
108-88-3	Toluene	U	1.00	ug/kg	0.300	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/kg	0.300	1.00
591-78-6	2-Hexanone	U	5.00	ug/kg	1.50	5.00
142-28-9	1,3-Dichloropropane	U	1.00	ug/kg	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/kg	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/kg	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/kg	0.300	1.00
108-90-7	Chlorobenzene	U	1.00	ug/kg	0.300	1.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-852**			**Matrix:**	**SOIL**
Lab Sample ID:	**1201999400**				
Client Sample:	**QC for batch 934515**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 934515**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**934516**	**Inst:**	**VOAA.I**	**Dilution:**	**1**
Run Date:	**12/17/2009 18:39**	**Analyst:**	**JEB**	**Purge Vol:**	**5 mL**
Prep Date:	**12/17/2009 17:30**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**121709\AP405LA.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.00	ug/kg	0.300	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/kg	0.300	2.00
95-47-6	o-Xylene	U	1.00	ug/kg	0.300	1.00
100-42-5	Styrene	U	1.00	ug/kg	0.300	1.00
75-25-2	Bromoform	U	1.00	ug/kg	0.300	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/kg	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/kg	0.300	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/kg	0.300	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/kg	0.300	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/kg	0.300	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/kg	0.300	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/kg	0.300	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/kg	0.300	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/kg	0.300	1.00
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*		274	ug/kg	1.60	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709\
Data File : AP405LA.D
Acq On : 17 Dec 2009 6:39 pm
Operator : JEB
InstName : VOAA
Sample : |1201999400|934516|1|VOA|1|VOA8260BS|
Misc : LCS 5.0G MIX[B]1118-08B SOIL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Dec 17 19:59:04 2009
Quant Method : C:\msdchem\1\METHODS\VOAA-8260-110609.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Nov 09 16:21:09 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Fluorobenzene	9.339	96	1361103	50.00 ug/L	0.00
41) Chlorobenzene-d5	12.507	117	1097401	50.00 ug/L	0.00
58) 1,4-Dichlorobenzene-d4	14.940	152	698213	50.00 ug/L	0.00
82) B Fluorobenzene	9.339	96	1361103	50.00 ug/L	0.00
103) B Chlorobenzene-d5	12.507	117	1097401	50.00 ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	14.940	152	698213	50.00 ug/L	0.00
System Monitoring Compounds					
29) 1,2-Dichloroethane-d4	8.978	65	483824	51.17 ug/L	0.00
Spiked Amount 50.000	Range 68 - 131		Recovery = 102.34%		
43) Toluene-d8	10.983	98	1335567	47.94 ug/L	0.00
Spiked Amount 50.000	Range 75 - 129		Recovery = 95.88%		
61) Bromofluorobenzene	13.710	95	572092	45.48 ug/L	0.00
Spiked Amount 50.000	Range 68 - 133		Recovery = 90.96%		

Target Compounds				Qvalue
2) Dichlorodifluoromethane	0.000	0	N.D.	
3) Chloromethane	4.043	0m	N.D. d	
4) Vinyl chloride	4.265	0m	N.D. d	
5) Bromomethane	0.000	0	N.D.	
6) Chloroethane	0.000	0	N.D.	
7) Trichlorofluoromethane	0.000	0	N.D.	
8) Ethyl ether	0.000	0	N.D.	
9) Acetone	6.068	0m	N.D. d	
10) 1,1-Dichloroethylene	6.071	0m	N.D. d	
11) Iodomethane	0.000	0	N.D.	
12) Acetonitrile	6.425	0m	N.D. d	
13) Methyl acetate	6.474	0m	N.D. d	
14) Carbon disulfide	6.506	0m	N.D. d	
15) Methylene chloride	6.641	0m	N.D. d	
16) tert-Butyl methyl ether	0.000	0	N.D.	
17) trans-1,2-Dichloroethy...	0.000	0	N.D.	
18) Vinyl acetate	7.443	0m	N.D. d	
19) 1,1-Dichloroethane	7.578	0m	N.D. d	
20) 2-Butanone	8.090	0m	N.D. d	
21) cis-1,2-Dichloroethylene	8.090	0m	N.D. d	
22) 2,2-Dichloropropane	0.000	0	N.D.	
23) Bromochloromethane	0.000	0	N.D.	
24) Chloroform	0.000	0	N.D.	
25) 1,1,1-Trichloroethane	0.000	0	N.D.	
26) Cyclohexane	8.773	0m	N.D. d	
27) 1,1-Dichloropropene	8.777	0m	N.D. d	
28) Carbon tetrachloride	0.000	0	N.D.	
30) 1,2-Dichloroethane	0.000	0	N.D.	
31) Benzene	9.081	0m	N.D. d	
32) Cyclohexene	0.000	0	N.D.	
33) n-Butyl alcohol	9.456	0m	N.D. d	
34) Trichloroethylene	0.000	0	N.D.	
35) 1,2-Dichloropropane	0.000	0	N.D.	
36) Methylcyclohexane	9.961	0m	N.D. d	
37) Dibromomethane	0.000	0	N.D.	
38) Bromodichloromethane	0.000	0	N.D.	
39) 2-Chloroethylvinyl ether	0.000	0	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709\
Data File : AP405LA.D
Acq On : 17 Dec 2009 6:39 pm
Operator : JEB
InstName : VOAA
Sample : |1201999400|934516|1|VOA|1|VOA8260BS|
Misc : LCS 5.0G MIX[B]1118-08B SOIL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Dec 17 19:59:04 2009
Quant Method : C:\msdchem\1\METHODS\VOAA-8260-110609.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Nov 09 16:21:09 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
40) cis-1,3-Dichloropropylene	0.000		0	N.D.	
42) 4-Methyl-2-pentanone	0.000		0	N.D.	
44) Toluene	11.050		0m	N.D. d	
45) trans-1,3-Dichloroprop...	0.000		0	N.D.	
46) 1,1,2-Trichloroethane	11.238		0m	N.D. d	
47) 2-Hexanone	11.623		0m	N.D. d	
48) 1,3-Dichloropropane	11.662		0m	N.D. d	
49) Tetrachloroethylene	11.652		0m	N.D. d	
50) Dibromochloromethane	11.652		0m	N.D. d	
51) 1,2-Dibromoethane	12.044		0m	N.D. d	
52) Chlorobenzene	12.536		0m	N.D. d	
53) 1,1,1,2-Tetrachloroethane	0.000		0	N.D.	
54) Ethylbenzene	12.727		0m	N.D. d	
55) m,p-Xylenes	12.727		0m	N.D. d	
56) o-Xylene	0.000		0	N.D.	
57) Styrene	13.165		0m	N.D. d	
59) Bromoform	0.000		0	N.D.	
60) Isopropylbenzene	13.710		0m	N.D. d	
62) 1,1,2,2-Tetrachloroethane	13.844		0m	N.D. d	
63) 1,2,3-Trichloropropane	0.000		0	N.D.	
64) Bromobenzene	13.918		0m	N.D. d	
65) n-Propylbenzene	13.954		0m	N.D. d	
66) 1,3,5-Trimethylbenzene	14.113		0m	N.D. d	
67) 2-Chlorotoluene	14.095		0m	N.D. d	
68) 4-Chlorotoluene	14.198		0m	N.D. d	
69) tert-Butylbenzene	14.541		0m	N.D. d	
70) 1,2,4-Trimethylbenzene	14.530		0m	N.D. d	
71) sec-Butylbenzene	14.711		0m	N.D. d	
72) 4-Isopropyltoluene	14.838		0m	N.D. d	
73) 1,3-Dichlorobenzene	14.880		0m	N.D. d	
74) 1,4-Dichlorobenzene	14.962		0m	N.D. d	
75) n-Butylbenzene	15.082		0m	N.D. d	
76) 1,2-Dichlorobenzene	15.375		0m	N.D. d	
77) 1,2-Dibromo-3-chloropr...	0.000		0	N.D.	
78) 1,2,4-Trichlorobenzene	17.183		0m	N.D. d	
79) Hexachlorobutadiene	0.000		0	N.D.	
80) Naphthalene	17.522		0m	N.D. d	
81) 1,2,3-Trichlorobenzene	17.847		0m	N.D. d	
83) Chlorotrifluoroethylene	0.000		0	N.D.	
84) 2-Chloro-1,1,1-trifluo...	0.000		0	N.D.	
85) Acrolein	5.894	56	304731	259.29 ug/L	99
86) Trichlorotrifluoroethane	6.068	85	805785	273.52 ug/L	94
87) Isopropyl Alcohol	0.000		0m	N.D. d	
88) Allyl chloride	6.503	41	2352674	217.17 ug/L	90
89) tert-Butyl Alcohol	0.000		0m	N.D. d	
90) Acrylonitrile	6.892	53	605297	240.10 ug/L	97
91) Isopropyl ether	0.000		0	N.D.	
92) 2-Chloro-1,3-butadiene	7.578	53	618839	61.11 ug/L	85
93) Ethyl tert-butyl ether	0.000		0m	N.D. d	
94) Ethyl acetate	8.090	43	1433123	224.95 ug/L	96
95) Propionitrile	8.122	54	240349	244.09 ug/L	99
96) Methacrylonitrile	8.303	41	905513	236.29 ug/L	96
97) Tetrahydrofuran	8.426	42	461757	228.25 ug/L	98
98) Isobutyl alcohol	8.777	41	590219	2489.81 ug/L	90

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709\
Data File : AP405LA.D
Acq On : 17 Dec 2009 6:39 pm
Operator : JEB
InstName : VOAA
Sample : |1201999400|934516|1|VOA|1|VOA8260BS|
Misc : LCS 5.0G MIX[B]1118-08B SOIL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Dec 17 19:59:04 2009
Quant Method : C:\msdchem\1\METHODS\VOAA-8260-110609.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Nov 09 16:21:09 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)	
99) Methyl tert-amyl ether	0.000		0	N.D.		
100) Methyl methacrylate	9.965	69	966013	283.69 ug/L	91	
101) 1,4-Dioxane	10.060	88	154029	3060.96 ug/L	95	
102) 2-Nitropropane	10.410	43	531646	266.12 ug/L	98	
104) Ethyl methacrylate	11.238	69	1920198	255.00 ug/L	93	
106) 1-Chlorohexane	0.000		0	N.D.		
107) cis-1,4-Dichloro-2-butene	13.554	53	838996	288.26 ug/L	90	
108) Cyclohexanone	13.657	42	428900	820.88 ug/L #	77	E
109) trans-1,4-Dichloro-2-b...	13.844	53	802049	272.57 ug/L	84	
110) Pentachloroethane	14.541	167	1355298	424.61 ug/L	100	
111) Benzyl chloride	15.082	91	4631761	291.21 ug/L	97	
112) bis(2-Chloroisopropyl)...	15.481	45	1037923	238.35 ug/L	95	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709\
Data File : AP405LA.D
Acq On : 17 Dec 2009 6:39 pm
Operator : JEB
InstName : VOAA
Sample : |1201999400|934516|1|VOA|1|VOA8260BS|
Misc : LCS 5.0G MIX[B]1118-08B SOIL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Dec 17 19:59:04 2009
Quant Method : C:\msdchem\1\METHODS\VOAA-8260-110609.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Nov 09 16:21:09 2009
Response via : Initial Calibration
Integrator: RTE

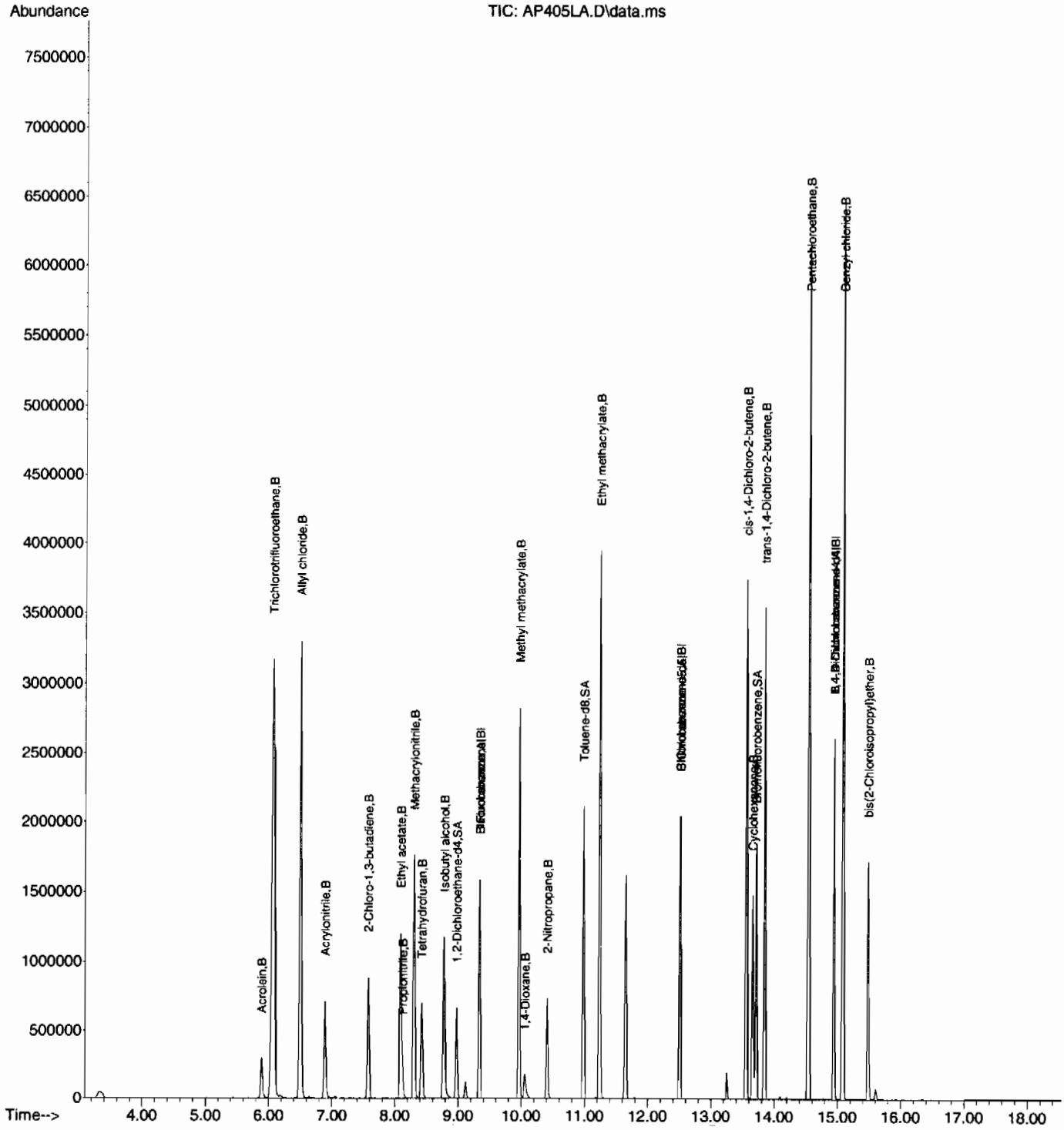

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852			**Matrix:**	SOIL
Lab Sample ID:	1202000172				
Client Sample:	QC for batch 934515	**Client:**	LANL010	**Project:**	QC
Client ID:	LCS for batch 934515	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	934516	**Inst:**	VOAA.I	**Dilution:**	1
Run Date:	12/18/2009 05:03	**Analyst:**	JEB	**Purge Vol:**	5 mL
Prep Date:	12/17/2009 17:30	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	121709\AP429LA.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane		44.8	ug/kg	0.340	1.00
74-87-3	Chloromethane		40.1	ug/kg	0.300	1.00
75-01-4	Vinyl chloride		47.4	ug/kg	0.300	1.00
74-83-9	Bromomethane		44.1	ug/kg	0.300	1.00
75-00-3	Chloroethane		37.5	ug/kg	0.300	1.00
75-69-4	Trichlorofluoromethane		55.0	ug/kg	0.300	1.00
67-64-1	Acetone		185	ug/kg	1.66	5.00
75-35-4	1,1-Dichloroethylene		46.9	ug/kg	0.300	1.00
74-88-4	Iodomethane		264	ug/kg	1.60	5.00
75-09-2	Methylene chloride		47.5	ug/kg	2.00	5.00
75-15-0	Carbon disulfide		230	ug/kg	1.25	5.00
156-60-5	trans-1,2-Dichloroethylene		46.2	ug/kg	0.300	1.00
75-34-3	1,1-Dichloroethane		45.2	ug/kg	0.300	1.00
78-93-3	2-Butanone		187	ug/kg	1.50	5.00
156-59-2	cis-1,2-Dichloroethylene		48.2	ug/kg	0.300	1.00
594-20-7	2,2-Dichloropropane		58.6	ug/kg	0.300	1.00
67-66-3	Chloroform		53.0	ug/kg	0.300	1.00
74-97-5	Bromochloromethane		53.9	ug/kg	0.330	1.00
71-55-6	1,1,1-Trichloroethane		60.1	ug/kg	0.300	1.00
563-58-6	1,1-Dichloropropene		52.1	ug/kg	0.300	1.00
56-23-5	Carbon tetrachloride		62.1	ug/kg	0.300	1.00
107-06-2	1,2-Dichloroethane		52.5	ug/kg	0.300	1.00
71-43-2	Benzene		45.7	ug/kg	0.300	1.00
79-01-6	Trichloroethylene		51.6	ug/kg	0.330	1.00
78-87-5	1,2-Dichloropropane		44.7	ug/kg	0.300	1.00
75-27-4	Bromodichloromethane		59.6	ug/kg	0.300	1.00
74-95-3	Dibromomethane		51.3	ug/kg	0.300	1.00
108-10-1	4-Methyl-2-pentanone		207	ug/kg	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene		55.9	ug/kg	0.300	1.00
108-88-3	Toluene		47.2	ug/kg	0.300	1.00
10061-02-6	trans-1,3-Dichloropropylene		58.6	ug/kg	0.300	1.00
79-00-5	1,1,2-Trichloroethane		47.4	ug/kg	0.300	1.00
591-78-6	2-Hexanone		162	ug/kg	1.50	5.00
142-28-9	1,3-Dichloropropane		46.8	ug/kg	0.300	1.00
127-18-4	Tetrachloroethylene		56.0	ug/kg	0.300	1.00
124-48-1	Dibromochloromethane	E	56.5	ug/kg	0.300	1.00
106-93-4	1,2-Dibromoethane		54.8	ug/kg	0.300	1.00
108-90-7	Chlorobenzene		50.7	ug/kg	0.300	1.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-852**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202000172**				
Client Sample:	**QC for batch 934515**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 934515**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**934516**	**Inst:**	**VOAA.I**	**Dilution:**	**1**
Run Date:	**12/18/2009 05:03**	**Analyst:**	**JEB**	**Purge Vol:**	**5 mL**
Prep Date:	**12/17/2009 17:30**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**121709\AP429LA.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene		52.0	ug/kg	0.300	1.00
179601-23-1	m,p-Xylenes		104	ug/kg	0.300	2.00
95-47-6	o-Xylene		53.4	ug/kg	0.300	1.00
100-42-5	Styrene		50.3	ug/kg	0.300	1.00
75-25-2	Bromoform		51.5	ug/kg	0.300	1.00
79-34-5	1,1,2,2-Tetrachloroethane		42.8	ug/kg	0.300	1.00
96-18-4	1,2,3-Trichloropropane		52.5	ug/kg	0.300	1.00
108-86-1	Bromobenzene		53.4	ug/kg	0.300	1.00
103-65-1	n-Propylbenzene		48.1	ug/kg	0.300	1.00
95-49-8	2-Chlorotoluene		50.5	ug/kg	0.300	1.00
98-82-8	Isopropylbenzene		52.9	ug/kg	0.300	1.00
108-67-8	1,3,5-Trimethylbenzene		53.3	ug/kg	0.300	1.00
106-43-4	4-Chlorotoluene		49.4	ug/kg	0.300	1.00
98-06-6	tert-Butylbenzene		56.0	ug/kg	0.300	1.00
95-63-6	1,2,4-Trimethylbenzene		53.5	ug/kg	0.300	1.00
135-98-8	sec-Butylbenzene		51.4	ug/kg	0.300	1.00
99-87-6	4-Isopropyltoluene		49.5	ug/kg	0.300	1.00
541-73-1	1,3-Dichlorobenzene		51.2	ug/kg	0.300	1.00
106-46-7	1,4-Dichlorobenzene		50.2	ug/kg	0.300	1.00
104-51-8	n-Butylbenzene		50.6	ug/kg	0.300	1.00
96-12-8	1,2-Dibromo-3-chloropropane		52.3	ug/kg	0.300	1.00
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.00	ug/kg	1.60	5.00
630-20-6	1,1,1,2-Tetrachloroethane		61.2	ug/kg	0.300	1.00
95-50-1	1,2-Dichlorobenzene		52.4	ug/kg	0.300	1.00

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709\
Data File : AP429LA.D
Acq On : 18 Dec 2009 5:03 am
Operator : JEB
InstName : VOAA
Sample : |1202000172|934516|1|VOA|1|VOA8260BS|
Misc : LCS 5.0G MIX[A]1129-01E/091214-01 SOIL
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Dec 18 14:50:30 2009
Quant Method : C:\msdchem\1\METHODS\VOAA-8260-110609.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Nov 09 16:21:09 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	9.339	96	1234682	50.00	ug/L	0.00
41) Chlorobenzene-d5	12.507	117	1006447	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	14.940	152	630677	50.00	ug/L	0.00
82) B Fluorobenzene	9.339	96	1234682	50.00	ug/L	0.00
103) B Chlorobenzene-d5	12.507	117	1006447	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	14.940	152	630677	50.00	ug/L	0.00
System Monitoring Compounds						
29) 1,2-Dichloroethane-d4	8.978	65	465769	54.30	ug/L	0.00
Spiked Amount 50.000	Range 68 - 131		Recovery = 108.60%			
43) Toluene-d8	10.983	98	1249154	48.89	ug/L	0.00
Spiked Amount 50.000	Range 75 - 129		Recovery = 97.78%			
61) Bromofluorobenzene	13.710	95	525067	46.22	ug/L	0.00
Spiked Amount 50.000	Range 68 - 133		Recovery = 92.44%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	3.721	85	256209	44.78	ug/L	100
3) Chloromethane	4.043	50	229247	40.09	ug/L	100
4) Vinyl chloride	4.275	62	270400	47.39	ug/L	100
5) Bromomethane	4.839	94	240529	44.10	ug/L	95
6) Chloroethane	4.990	64	136962	37.46	ug/L	98
7) Trichlorofluoromethane	5.385	101	607797	55.00	ug/L	99
8) Ethyl ether	5.725	59	243901	45.51	ug/L	98
9) Acetone	6.071	43	926073	185.08	ug/L	88
10) 1,1-Dichloroethylene	6.075	61	470323	46.91	ug/L	93
11) Iodomethane	6.297	142	2754365	263.80	ug/L	90
12) Acetonitrile	6.411	41	819528	932.82	ug/L	95
13) Methyl acetate	6.474	43	1053769	193.60	ug/L	96
14) Carbon disulfide	6.421	76	4100271	229.78	ug/L	100
15) Methylene chloride	6.644	84	293818	47.46	ug/L	93
16) tert-Butyl methyl ether	6.969	73	871525	53.54	ug/L	97
17) trans-1,2-Dichloroethy...	6.987	61	462718	46.15	ug/L	93
18) Vinyl acetate	7.447	43	2682697	252.39	ug/L	97
19) 1,1-Dichloroethane	7.468	63	540060	45.16	ug/L	99
20) 2-Butanone	8.059	43	1051534	187.48	ug/L	93
21) cis-1,2-Dichloroethylene	8.101	61	541917	48.16	ug/L	92
22) 2,2-Dichloropropane	8.133	77	530869	58.59	ug/L	98
23) Bromochloromethane	8.373	128	177371	53.86	ug/L	91
24) Chloroform	8.416	83	619348	53.04	ug/L	100
25) 1,1,1-Trichloroethane	8.692	97	644218	60.07	ug/L	98
26) Cyclohexane	8.787	56	567647	47.18	ug/L	97
27) 1,1-Dichloropropene	8.847	75	430478	52.09	ug/L	91
28) Carbon tetrachloride	8.883	117	619464	62.12	ug/L	98
30) 1,2-Dichloroethane	9.059	62	547069	52.54	ug/L	100
31) Benzene	9.081	78	1064057	45.68	ug/L	95
32) Cyclohexene	9.204	67	535170	47.83	ug/L	92
33) n-Butyl alcohol	9.459	56	907764	4499.66	ug/L	92
34) Trichloroethylene	9.728	95	341074	51.59	ug/L	98
35) 1,2-Dichloropropane	9.961	63	289947	44.65	ug/L	99
36) Methylcyclohexane	9.979	83	497583	49.92	ug/L	93
37) Dibromomethane	10.088	93	203871	51.32	ug/L	99
38) Bromodichloromethane	10.212	83	465173	59.57	ug/L	100
39) 2-Chloroethylvinyl ether	10.453	63	664889	176.72	ug/L	99

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709\
Data File : AP429LA.D
Acq On : 18 Dec 2009 5:03 am
Operator : JEB
InstName : VOAA
Sample : |1202000172|934516|1|VOA|1|VOA8260BS|
Misc : LCS 5.0G MIX[A]1129-01E/091214-01 SOIL
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Dec 18 14:50:30 2009
Quant Method : C:\msdchem\1\METHODS\VOAA-8260-110609.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Nov 09 16:21:09 2009
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)	
40)	cis-1,3-Dichloropropylene	10.668	75	479083	55.86 ug/L	93	
42)	4-Methyl-2-pentanone	10.775	58	649146	207.14 ug/L	89	
44)	Toluene	11.054	91	1256936	47.22 ug/L	99	
45)	trans-1,3-Dichloroprop...	11.210	75	483638	58.64 ug/L	96	
46)	1,1,2-Trichloroethane	11.425	83	205327	47.38 ug/L	97	
47)	2-Hexanone	11.623	43	1501687	162.41 ug/L	94	
48)	1,3-Dichloropropane	11.616	76	436019	46.75 ug/L	97	
49)	Tetrachloroethylene	11.652	164	312598	55.95 ug/L	97	
50)	Dibromochloromethane	11.878	129	388101	56.49 ug/L	100	E
51)	1,2-Dibromoethane	12.041	107	292062	54.81 ug/L	99	
52)	Chlorobenzene	12.539	112	924209	50.67 ug/L	97	
53)	1,1,1,2-Tetrachloroethane	12.596	131	402666	61.21 ug/L	96	
54)	Ethylbenzene	12.613	91	1571818	51.99 ug/L	97	
55)	m,p-Xylenes	12.727	106	1159161	104.03 ug/L	88	
56)	o-Xylene	13.158	106	575826	53.36 ug/L	88	
57)	Styrene	13.162	104	919874	50.26 ug/L	88	
59)	Bromoform	13.402	173	271986	51.45 ug/L	100	
60)	Isopropylbenzene	13.526	105	1629361	52.90 ug/L	97	
62)	1,1,2,2-Tetrachloroethane	13.791	83	329861	42.80 ug/L	100	
63)	1,2,3-Trichloropropane	13.876	110	119031	52.48 ug/L	88	
64)	Bromobenzene	13.915	156	452604	53.37 ug/L	99	
65)	n-Propylbenzene	13.957	91	1882016	48.05 ug/L	99	
66)	1,3,5-Trimethylbenzene	14.116	105	1410430	53.34 ug/L	95	
67)	2-Chlorotoluene	14.095	126	398136	50.45 ug/L	89	
68)	4-Chlorotoluene	14.198	91	1185447	49.40 ug/L	94	
69)	tert-Butylbenzene	14.488	134	316449	56.00 ug/L	87	
70)	1,2,4-Trimethylbenzene	14.527	105	1433756	53.52 ug/L	95	
71)	sec-Butylbenzene	14.714	105	1772090	51.36 ug/L	100	
72)	4-Isopropyltoluene	14.841	119	1577421	49.54 ug/L	97	
73)	1,3-Dichlorobenzene	14.884	146	813057	51.20 ug/L	99	
74)	1,4-Dichlorobenzene	14.969	146	830996	50.19 ug/L	99	
75)	n-Butylbenzene	15.273	91	1414691	50.58 ug/L	99	
76)	1,2-Dichlorobenzene	15.379	146	803189	52.35 ug/L	99	
77)	1,2-Dibromo-3-chloropr...	16.189	157	90809	52.31 ug/L	96	
78)	1,2,4-Trichlorobenzene	17.183	180	694346	57.43 ug/L	99	
79)	Hexachlorobutadiene	17.360	225	461688	63.14 ug/L	100	
80)	Naphthalene	17.522	128	1516130	56.22 ug/L	100	
81)	1,2,3-Trichlorobenzene	17.839	180	671675	58.15 ug/L	99	
83)	Chlorotrifluoroethylene	0.000		0	N.D.		
84)	2-Chloro-1,1,1-trifluo...	0.000		0	N.D.		
85)	Acrolein	5.855		0m	N.D. d		
86)	Trichlorotrifluoroethane	6.071		0m	N.D. d		
87)	Isopropyl Alcohol	6.068		0m	N.D. d		
88)	Allyl chloride	6.411		0m	N.D. d		
89)	tert-Butyl Alcohol	6.474		0m	N.D. d		
90)	Acrylonitrile	6.969		0m	N.D. d		
91)	Isopropyl ether	7.443		0m	N.D. d		
92)	2-Chloro-1,3-butadiene	7.609		0m	N.D. d		
93)	Ethyl tert-butyl ether	7.892		0m	N.D. d		
94)	Ethyl acetate	8.059		0m	N.D. d		
95)	Propionitrile	8.059		0m	N.D. d		
96)	Methacrylonitrile	8.430		0m	N.D. d		
97)	Tetrahydrofuran	8.433		0m	N.D. d		
98)	Isobutyl alcohol	8.787		0m	N.D. d		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709\
Data File : AP429LA.D
Acq On : 18 Dec 2009 5:03 am
Operator : JEB
InstName : VOAA
Sample : |1202000172|934516|1|VOA|1|VOA8260BS|
Misc : LCS 5.0G MIX[A]1129-01E/091214-01 SOIL
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Dec 18 14:50:30 2009
Quant Method : C:\msdchem\1\METHODS\VOAA-8260-110609.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Nov 09 16:21:09 2009
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
99)	Methyl tert-amyl ether	9.081		0m	N.D.	d	
100)	Methyl methacrylate	9.979		0m	N.D.	d	
101)	1,4-Dioxane	0.000		0	N.D.		
102)	2-Nitropropane	10.665		0m	N.D.	d	
104)	Ethyl methacrylate	11.238		0m	N.D.	d	
106)	1-Chlorohexane	0.000		0	N.D.		
107)	cis-1,4-Dichloro-2-butene	13.522		0m	N.D.	d	
108)	Cyclohexanone	13.522		0m	N.D.	d	
109)	trans-1,4-Dichloro-2-b...	13.848		0m	N.D.	d	
110)	Pentachloroethane	14.541		0m	N.D.	d	
111)	Benzyl chloride	15.082		0m	N.D.	d	
112)	bis(2-Chloroisopropyl)...	15.485		0m	N.D.	d	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709\
Data File : AP429LA.D
Acq On : 18 Dec 2009 5:03 am
Operator : JEB
InstName : VOAA
Sample : |1202000172|934516|1|VOA|1|VOA8260BS|
Misc : LCS 5.0G MIX[A]1129-01E/091214-01 SOIL
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Dec 18 14:50:30 2009
Quant Method : C:\msdchem\1\METHODS\VOAA-8260-110609.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Nov 09 16:21:09 2009
Response via : Initial Calibration
Integrator: RTE

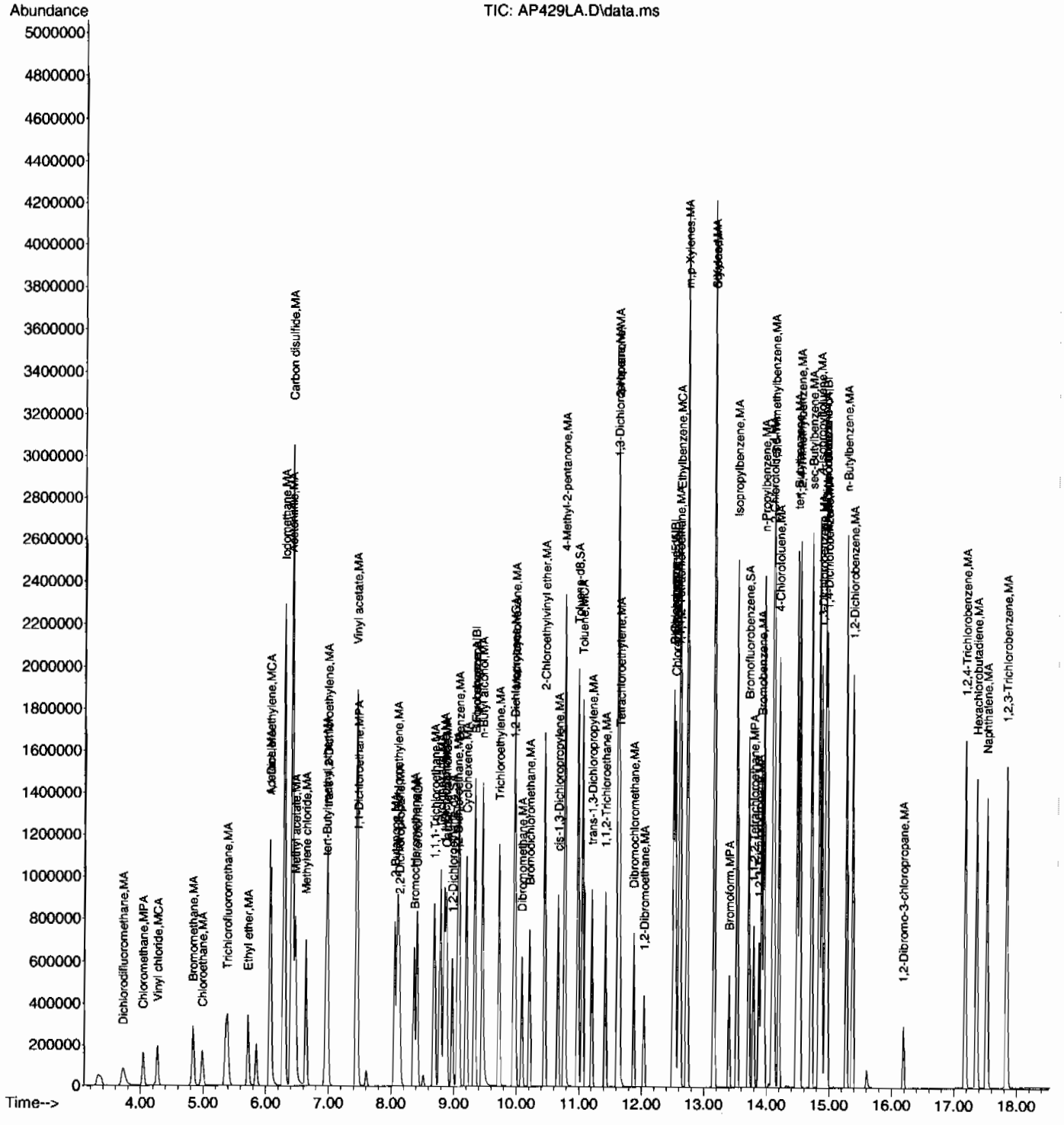

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-852**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202000173**				
Client Sample:	**QC for batch 934515**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 934515**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**934516**	**Inst:**	**VOAA.I**	**Dilution:**	**1**
Run Date:	**12/18/2009 05:29**	**Analyst:**	**JEB**	**Purge Vol:**	**5 mL**
Prep Date:	**12/17/2009 17:30**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**121709\AP430LA.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/kg	0.340	1.00
74-87-3	Chloromethane	U	1.00	ug/kg	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/kg	0.300	1.00
74-83-9	Bromomethane	U	1.00	ug/kg	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/kg	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/kg	0.300	1.00
67-64-1	Acetone	U	5.00	ug/kg	1.66	5.00
75-35-4	1,1-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/kg	1.60	5.00
75-09-2	Methylene chloride	U	5.00	ug/kg	2.00	5.00
75-15-0	Carbon disulfide	U	5.00	ug/kg	1.25	5.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/kg	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/kg	1.50	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/kg	0.300	1.00
74-97-5	Bromochloromethane	U	1.00	ug/kg	0.330	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/kg	0.300	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/kg	0.300	1.00
56-23-5	Carbon tetrachloride	U	1.00	ug/kg	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/kg	0.300	1.00
71-43-2	Benzene	U	1.00	ug/kg	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/kg	0.330	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/kg	0.300	1.00
74-95-3	Dibromomethane	U	1.00	ug/kg	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/kg	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
108-88-3	Toluene	U	1.00	ug/kg	0.300	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/kg	0.300	1.00
591-78-6	2-Hexanone	U	5.00	ug/kg	1.50	5.00
142-28-9	1,3-Dichloropropane	U	1.00	ug/kg	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/kg	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/kg	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/kg	0.300	1.00
108-90-7	Chlorobenzene	U	1.00	ug/kg	0.300	1.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-852**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202000173**				
Client Sample:	**QC for batch 934515**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 934515**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**934516**	**Inst:**	**VOAA.I**	**Dilution:**	**1**
Run Date:	**12/18/2009 05:29**	**Analyst:**	**JEB**	**Purge Vol:**	**5 mL**
Prep Date:	**12/17/2009 17:30**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**121709\AP430LA.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.00	ug/kg	0.300	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/kg	0.300	2.00
95-47-6	o-Xylene	U	1.00	ug/kg	0.300	1.00
100-42-5	Styrene	U	1.00	ug/kg	0.300	1.00
75-25-2	Bromoform	U	1.00	ug/kg	0.300	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/kg	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/kg	0.300	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/kg	0.300	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/kg	0.300	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/kg	0.300	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/kg	0.300	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/kg	0.300	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/kg	0.300	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/kg	0.300	1.00
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*		276	ug/kg	1.60	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709\
Data File : AP430LA.D
Acq On : 18 Dec 2009 5:29 am
Operator : JEB
InstName : VOAA
Sample : |1202000173|934516|1|VOA|1|VOA8260BS|
Misc : LCS 5.0G MIX[B]1118-08B SOIL
ALS Vial : 30 Sample Multiplier: 1

Quant Time: Dec 18 14:51:48 2009
Quant Method : C:\msdchem\1\METHODS\VOAA-8260-110609.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Nov 09 16:21:09 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Fluorobenzene	9.339	96	1233889	50.00 ug/L	0.00
41) Chlorobenzene-d5	12.507	117	997912	50.00 ug/L	0.00
58) 1,4-Dichlorobenzene-d4	14.940	152	633137	50.00 ug/L	0.00
82) B Fluorobenzene	9.339	96	1233889	50.00 ug/L	0.00
103) B Chlorobenzene-d5	12.507	117	997912	50.00 ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	14.940	152	633137	50.00 ug/L	0.00
System Monitoring Compounds					
29) 1,2-Dichloroethane-d4	8.978	65	458336	53.47 ug/L	0.00
Spiked Amount 50.000	Range 68 - 131		Recovery = 106.94%		
43) Toluene-d8	10.983	98	1226525	48.41 ug/L	0.00
Spiked Amount 50.000	Range 75 - 129		Recovery = 96.82%		
61) Bromofluorobenzene	13.713	95	526917	46.20 ug/L	0.00
Spiked Amount 50.000	Range 68 - 133		Recovery = 92.40%		

Target Compounds			Qvalue
2) Dichlorodifluoromethane	0.000	0	N.D.
3) Chloromethane	0.000	0	N.D.
4) Vinyl chloride	4.275	0m	N.D. d
5) Bromomethane	0.000	0	N.D.
6) Chloroethane	0.000	0	N.D.
7) Trichlorofluoromethane	0.000	0	N.D.
8) Ethyl ether	0.000	0	N.D.
9) Acetone	6.078	0m	N.D. d
10) 1,1-Dichloroethylene	6.068	0m	N.D. d
11) Iodomethane	0.000	0	N.D.
12) Acetonitrile	6.432	0m	N.D. d
13) Methyl acetate	6.485	0m	N.D. d
14) Carbon disulfide	6.506	0m	N.D. d
15) Methylene chloride	6.644	0m	N.D. d
16) tert-Butyl methyl ether	0.000	0	N.D.
17) trans-1,2-Dichloroethy...	0.000	0	N.D.
18) Vinyl acetate	7.447	0m	N.D. d
19) 1,1-Dichloroethane	7.581	0m	N.D. d
20) 2-Butanone	8.090	0m	N.D. d
21) cis-1,2-Dichloroethylene	8.094	0m	N.D. d
22) 2,2-Dichloropropane	0.000	0	N.D.
23) Bromochloromethane	0.000	0	N.D.
24) Chloroform	8.419	0m	N.D. d
25) 1,1,1-Trichloroethane	0.000	0	N.D.
26) Cyclohexane	8.776	0m	N.D. d
27) 1,1-Dichloropropene	8.780	0m	N.D. d
28) Carbon tetrachloride	0.000	0	N.D.
30) 1,2-Dichloroethane	0.000	0	N.D.
31) Benzene	9.088	0m	N.D. d
32) Cyclohexene	0.000	0	N.D.
33) n-Butyl alcohol	9.466	0m	N.D. d
34) Trichloroethylene	0.000	0	N.D.
35) 1,2-Dichloropropane	0.000	0	N.D.
36) Methylcyclohexane	9.968	0m	N.D. d
37) Dibromomethane	0.000	0	N.D.
38) Bromodichloromethane	9.968	0m	N.D. d
39) 2-Chloroethylvinyl ether	0.000	0	N.D.

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709\
Data File : AP430LA.D
Acq On : 18 Dec 2009 5:29 am
Operator : JEB
InstName : VOAA
Sample : |1202000173|934516|1|VOA|1|VOA8260BS|
Misc : LCS 5.0G MIX[B]1118-08B SOIL
ALS Vial : 30 Sample Multiplier: 1

Quant Time: Dec 18 14:51:48 2009
Quant Method : C:\msdchem\1\METHODS\VOAA-8260-110609.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Nov 09 16:21:09 2009
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
40)	cis-1,3-Dichloropropylene	0.000		0	N.D.	
42)	4-Methyl-2-pentanone	0.000		0	N.D.	
44)	Toluene	11.057		0m	N.D. d	
45)	trans-1,3-Dichloroprop...	11.209		0m	N.D. d	
46)	1,1,2-Trichloroethane	11.651		0m	N.D. d	
47)	2-Hexanone	11.627		0m	N.D. d	
48)	1,3-Dichloropropane	11.659		0m	N.D. d	
49)	Tetrachloroethylene	11.651		0m	N.D. d	
50)	Dibromochloromethane	11.651		0m	N.D. d	
51)	1,2-Dibromoethane	12.040		0m	N.D. d	
52)	Chlorobenzene	12.536		0m	N.D. d	
53)	1,1,1,2-Tetrachloroethane	0.000		0	N.D.	
54)	Ethylbenzene	12.734		0m	N.D. d	
55)	m,p-Xylenes	12.727		0m	N.D. d	
56)	o-Xylene	0.000		0	N.D.	
57)	Styrene	13.162		0m	N.D. d	
59)	Bromoform	0.000		0	N.D.	
60)	Isopropylbenzene	13.529		0m	N.D. d	
62)	1,1,2,2-Tetrachloroethane	13.848		0m	N.D. d	
63)	1,2,3-Trichloropropane	0.000		0	N.D.	
64)	Bromobenzene	13.922		0m	N.D. d	
65)	n-Propylbenzene	13.957		0m	N.D. d	
66)	1,3,5-Trimethylbenzene	14.113		0m	N.D. d	
67)	2-Chlorotoluene	14.095		0m	N.D. d	
68)	4-Chlorotoluene	14.198		0m	N.D. d	
69)	tert-Butylbenzene	14.537		0m	N.D. d	
70)	1,2,4-Trimethylbenzene	14.534		0m	N.D. d	
71)	sec-Butylbenzene	14.718		0m	N.D. d	
72)	4-Isopropyltoluene	14.841		0m	N.D. d	
73)	1,3-Dichlorobenzene	14.884		0m	N.D. d	
74)	1,4-Dichlorobenzene	14.969		0m	N.D. d	
75)	n-Butylbenzene	15.255		0m	N.D. d	
76)	1,2-Dichlorobenzene	15.375		0m	N.D. d	
77)	1,2-Dibromo-3-chloropr...	0.000		0	N.D.	
78)	1,2,4-Trichlorobenzene	17.175		0m	N.D. d	
79)	Hexachlorobutadiene	17.367		0m	N.D. d	
80)	Naphthalene	17.529		0m	N.D. d	
81)	1,2,3-Trichlorobenzene	17.839		0m	N.D. d	
83)	Chlorotrifluoroethylene	0.000		0	N.D.	
84)	2-Chloro-1,1,1-trifluo...	0.000		0	N.D.	
85)	Acrolein	5.898	56	255446	239.76 ug/L	98
86)	Trichlorotrifluoroethane	6.075	85	736568	275.80 ug/L	92
87)	Isopropyl Alcohol	0.000		0m	N.D. d	
88)	Allyl chloride	6.510	41	2255567	229.67 ug/L	88
89)	tert-Butyl Alcohol	0.000		0m	N.D. d	
90)	Acrylonitrile	6.895	53	537265	235.09 ug/L	97
91)	Isopropyl ether	0.000		0	N.D.	
92)	2-Chloro-1,3-butadiene	7.581	53	574703	62.60 ug/L	84
93)	Ethyl tert-butyl ether	0.000		0m	N.D. d	
94)	Ethyl acetate	8.090	43	1297822	224.72 ug/L	95
95)	Propionitrile	8.122	54	210660	235.99 ug/L	99
96)	Methacrylonitrile	8.303	41	833635	239.96 ug/L	96
97)	Tetrahydrofuran	8.430	42	413857	225.66 ug/L	95
98)	Isobutyl alcohol	8.776	41	501369	2333.06 ug/L	91

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709\
Data File : AP430LA.D
Acq On : 18 Dec 2009 5:29 am
Operator : JEB
InstName : VOAA
Sample : |1202000173|934516|1|VOA|1|VOA8260BS|
Misc : LCS 5.0G MIX[B]1118-08B SOIL
ALS Vial : 30 Sample Multiplier: 1

Quant Time: Dec 18 14:51:48 2009
Quant Method : C:\msdchem\1\METHODS\VOAA-8260-110609.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Nov 09 16:21:09 2009
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)	
99)	Methyl tert-amyl ether	0.000		0	N.D.		
100)	Methyl methacrylate	9.965	69	851997	276.00 ug/L	87	
101)	1,4-Dioxane	10.057	88	135230	2964.44 ug/L	95	
102)	2-Nitropropane	10.414	43	471166	260.35 ug/L	98	
104)	Ethyl methacrylate	11.238	69	1679163	245.27 ug/L	91	
106)	1-Chlorohexane	0.000		0	N.D.		
107)	cis-1,4-Dichloro-2-butene	13.554	53	743145	281.57 ug/L	90	
108)	Cyclohexanone	13.657	42	373263	789.00 ug/L	80	E
109)	trans-1,4-Dichloro-2-b...	13.844	53	705093	264.25 ug/L	82	
110)	Pentachloroethane	14.541	167	994498	343.60 ug/L	98	
111)	Benzyl chloride	15.082	91	3621598	251.70 ug/L	97	
112)	bis(2-Chloroisopropyl)...	15.481	45	900330	228.00 ug/L	97	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709\
Data File : AP430LA.D
Acq On : 18 Dec 2009 5:29 am
Operator : JEB
InstName : VOAA
Sample : |1202000173|934516|1|VOA|1|VOA8260BS|
Misc : LCS 5.0G MIX[B]1118-08B SOIL
ALS Vial : 30 Sample Multiplier: 1

Quant Time: Dec 18 14:51:48 2009
Quant Method : C:\msdchem\1\METHODS\VOAA-8260-110609.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Nov 09 16:21:09 2009
Response via : Initial Calibration
Integrator: RTE

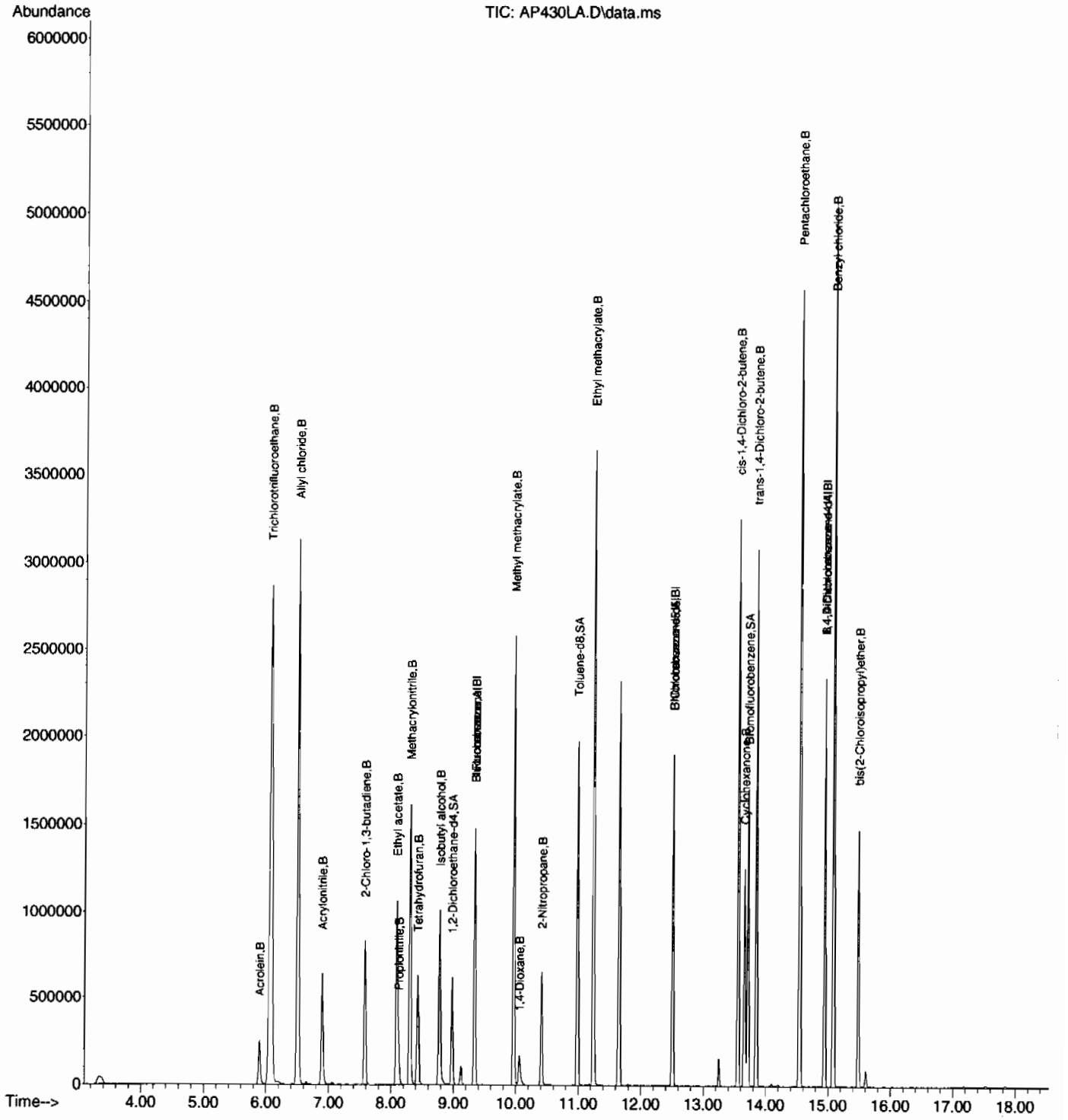

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	1201999397	**Date Received:**	12/10/2009 08:50	**%Moisture:**	14.6
Client Sample:	QC for batch 934515	**Client:**	LANL010	**Project:**	QC
Client ID:	RE03-09-14224PS	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	934516	**Inst:**	VOAA.I	**Dilution:**	1
Run Date:	12/18/2009 10:40	**Analyst:**	JEB	**Purge Vol:**	5 mL
Prep Date:	12/17/2009 19:03	**Aliquot:**	5.3 g	**Final Volume:**	5 mL
Data File:	121709\AP442.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane		45.7	ug/kg	0.375	1.10
74-87-3	Chloromethane		38.7	ug/kg	0.331	1.10
75-01-4	Vinyl chloride		46.4	ug/kg	0.331	1.10
74-83-9	Bromomethane		37.2	ug/kg	0.331	1.10
75-00-3	Chloroethane		36.0	ug/kg	0.331	1.10
75-69-4	Trichlorofluoromethane		53.8	ug/kg	0.331	1.10
67-64-1	Acetone		89.6	ug/kg	1.83	5.52
75-35-4	1,1-Dichloroethylene		44.2	ug/kg	0.331	1.10
74-88-4	Iodomethane		191	ug/kg	1.77	5.52
75-09-2	Methylene chloride		40.1	ug/kg	2.21	5.52
75-15-0	Carbon disulfide		190	ug/kg	1.38	5.52
156-60-5	trans-1,2-Dichloroethylene		40.3	ug/kg	0.331	1.10
75-34-3	1,1-Dichloroethane		41.1	ug/kg	0.331	1.10
78-93-3	2-Butanone		91.5	ug/kg	1.66	5.52
156-59-2	cis-1,2-Dichloroethylene		41.2	ug/kg	0.331	1.10
594-20-7	2,2-Dichloropropane		52.0	ug/kg	0.331	1.10
67-66-3	Chloroform		45.7	ug/kg	0.331	1.10
74-97-5	Bromochloromethane		43.9	ug/kg	0.364	1.10
71-55-6	1,1,1-Trichloroethane		53.2	ug/kg	0.331	1.10
563-58-6	1,1-Dichloropropene		42.5	ug/kg	0.331	1.10
56-23-5	Carbon tetrachloride		54.6	ug/kg	0.331	1.10
107-06-2	1,2-Dichloroethane		45.8	ug/kg	0.331	1.10
71-43-2	Benzene		36.5	ug/kg	0.331	1.10
79-01-6	Trichloroethylene		39.6	ug/kg	0.364	1.10
78-87-5	1,2-Dichloropropane		36.4	ug/kg	0.331	1.10
75-27-4	Bromodichloromethane		48.0	ug/kg	0.331	1.10
74-95-3	Dibromomethane		42.5	ug/kg	0.331	1.10
108-10-1	4-Methyl-2-pentanone		136	ug/kg	1.38	5.52
10061-01-5	cis-1,3-Dichloropropylene		32.5	ug/kg	0.331	1.10
108-88-3	Toluene		32.2	ug/kg	0.331	1.10
10061-02-6	trans-1,3-Dichloropropylene		34.8	ug/kg	0.331	1.10
79-00-5	1,1,2-Trichloroethane		36.8	ug/kg	0.331	1.10
591-78-6	2-Hexanone		54.2	ug/kg	1.66	5.52
142-28-9	1,3-Dichloropropane		36.7	ug/kg	0.331	1.10
127-18-4	Tetrachloroethylene		34.3	ug/kg	0.331	1.10
124-48-1	Dibromochloromethane		41.3	ug/kg	0.331	1.10
106-93-4	1,2-Dibromoethane		38.7	ug/kg	0.331	1.10
108-90-7	Chlorobenzene		29.2	ug/kg	0.331	1.10

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-852**	**Date Collected:**	**12/07/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**1201999397**	**Date Received:**	**12/10/2009 08:50**	**%Moisture:**	**14.6**
Client Sample:	**QC for batch 934515**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**RE03-09-14224PS**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**934516**	**Inst:**	**VOAA.I**	**Dilution:**	**1**
Run Date:	**12/18/2009 10:40**	**Analyst:**	**JEB**	**Purge Vol:**	**5 mL**
Prep Date:	**12/17/2009 19:03**	**Aliquot:**	**5.3 g**	**Final Volume:**	**5 mL**
Data File:	**121709\AP442.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene		28.3	ug/kg	0.331	1.10
179601-23-1	m,p-Xylenes		49.1	ug/kg	0.331	2.21
95-47-6	o-Xylene		29.4	ug/kg	0.331	1.10
100-42-5	Styrene		22.6	ug/kg	0.331	1.10
75-25-2	Bromoform		35.1	ug/kg	0.331	1.10
79-34-5	1,1,2,2-Tetrachloroethane		31.9	ug/kg	0.331	1.10
96-18-4	1,2,3-Trichloropropane		40.3	ug/kg	0.331	1.10
108-86-1	Bromobenzene		26.0	ug/kg	0.331	1.10
103-65-1	n-Propylbenzene		17.7	ug/kg	0.331	1.10
95-49-8	2-Chlorotoluene		21.4	ug/kg	0.331	1.10
98-82-8	Isopropylbenzene		24.5	ug/kg	0.331	1.10
108-67-8	1,3,5-Trimethylbenzene		21.6	ug/kg	0.331	1.10
106-43-4	4-Chlorotoluene		17.1	ug/kg	0.331	1.10
98-06-6	tert-Butylbenzene		22.5	ug/kg	0.331	1.10
95-63-6	1,2,4-Trimethylbenzene		17.1	ug/kg	0.331	1.10
135-98-8	sec-Butylbenzene		16.9	ug/kg	0.331	1.10
99-87-6	4-Isopropyltoluene		9.30	ug/kg	0.331	1.10
541-73-1	1,3-Dichlorobenzene		18.9	ug/kg	0.331	1.10
106-46-7	1,4-Dichlorobenzene		17.9	ug/kg	0.331	1.10
104-51-8	n-Butylbenzene		11.2	ug/kg	0.331	1.10
96-12-8	1,2-Dibromo-3-chloropropane		35.1	ug/kg	0.331	1.10
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.52	ug/kg	1.77	5.52
630-20-6	1,1,1,2-Tetrachloroethane		42.7	ug/kg	0.331	1.10
95-50-1	1,2-Dichlorobenzene		20.9	ug/kg	0.331	1.10

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709\
Data File : AP442.D
Acq On : 18 Dec 2009 10:40 am
Operator : JEB
InstName : VOAA
Sample : |1201999397|934516|1|VOA|1|VOA8260BS|
Misc : LANL 5.3G N/A SOIL MIX[A]
ALS Vial : 42 Sample Multiplier: 1

Quant Time: Dec 18 15:26:22 2009
Quant Method : C:\msdchem\1\METHODS\VOAA-8260-110609.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Nov 09 16:21:09 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Fluorobenzene	9.339	96	1129146	50.00 ug/L	0.00
41) Chlorobenzene-d5	12.507	117	920021	50.00 ug/L	0.00
58) 1,4-Dichlorobenzene-d4	14.941	152	579216	50.00 ug/L	0.00
82) B Fluorobenzene	9.339	96	1129146	50.00 ug/L	0.00
103) B Chlorobenzene-d5	12.507	117	920021	50.00 ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	14.941	152	579216	50.00 ug/L	0.00
System Monitoring Compounds					
29) 1,2-Dichloroethane-d4	8.978	65	455450	58.06 ug/L	0.00
Spiked Amount 50.000	Range 68 - 131		Recovery = 116.12%		
43) Toluene-d8	10.983	98	1113770	47.68 ug/L	0.00
Spiked Amount 50.000	Range 75 - 129		Recovery = 95.36%		
61) Bromofluorobenzene	13.713	95	484842	46.47 ug/L	0.00
Spiked Amount 50.000	Range 68 - 133		Recovery = 92.94%		
Target Compounds					Qvalue
2) Dichlorodifluoromethane	3.721	85	216752	41.43 ug/L	100
3) Chloromethane	4.044	50	183197	35.03 ug/L	100
4) Vinyl chloride	4.275	62	219255	42.01 ug/L	100
5) Bromomethane	4.839	94	167943	33.67 ug/L	94
6) Chloroethane	4.990	64	109118	32.63 ug/L	99
7) Trichlorofluoromethane	5.385	101	492570	48.74 ug/L	100
8) Ethyl ether	5.725	59	178653	36.45 ug/L	94
9) Acetone	6.075	43	371342	81.15 ug/L	85
10) 1,1-Dichloroethylene	6.071	61	367242	40.05 ug/L	91
11) Iodomethane	6.298	142	1651759	172.98 ug/L	87
12) Acetonitrile	6.407	41	518727	645.62 ug/L	95
13) Methyl acetate	6.474	43	439433	88.28 ug/L	94
14) Carbon disulfide	6.421	76	2811386	172.28 ug/L	100
15) Methylene chloride	6.644	84	207857	36.33 ug/L	87
16) tert-Butyl methyl ether	6.966	73	632670	42.50 ug/L	98
17) trans-1,2-Dichloroethy...	6.987	61	334885	36.52 ug/L	91
18) Vinyl acetate	7.585	43	107	N.D.	
19) 1,1-Dichloroethane	7.468	63	407470	37.26 ug/L	99
20) 2-Butanone	8.059	43	425173	82.89 ug/L	89
21) cis-1,2-Dichloroethylene	8.101	61	383714	37.29 ug/L	89
22) 2,2-Dichloropropane	8.133	77	389996	47.06 ug/L	94
23) Bromochloromethane	8.370	128	119880	39.80 ug/L	98
24) Chloroform	8.416	83	442218	41.41 ug/L	99
25) 1,1,1-Trichloroethane	8.692	97	472374	48.16 ug/L	99
26) Cyclohexane	8.787	56	399812	36.34 ug/L	94
27) 1,1-Dichloropropene	8.847	75	290792	38.47 ug/L	88
28) Carbon tetrachloride	8.883	117	450644	49.41 ug/L	99
30) 1,2-Dichloroethane	9.056	62	395194	41.50 ug/L	100
31) Benzene	9.081	78	705055	33.09 ug/L	92
32) Cyclohexene	9.205	67	361032	35.28 ug/L	89
33) n-Butyl alcohol	9.459	56	341856	1909.43 ug/L	87
34) Trichloroethylene	9.728	95	217022	35.89 ug/L	96
35) 1,2-Dichloropropane	9.961	63	195689	32.95 ug/L	98
36) Methylcyclohexane	9.979	83	311935	34.22 ug/L	90
37) Dibromomethane	10.089	93	139760	38.47 ug/L	97
38) Bromodichloromethane	10.212	83	310554	43.49 ug/L	99
39) 2-Chloroethylvinyl ether	10.665	63	860	2.30 ug/L #	45

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709\
Data File : AP442.D
Acq On : 18 Dec 2009 10:40 am
Operator : JEB
InstName : VOAA
Sample : |1201999397|934516|1|VOA|1|VOA8260BS|
Misc : LANL 5.3G N/A SOIL MIX[A]
ALS Vial : 42 Sample Multiplier: 1

Quant Time: Dec 18 15:26:22 2009
Quant Method : C:\msdchem\1\METHODS\VOAA-8260-110609.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Nov 09 16:21:09 2009
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
40)	cis-1,3-Dichloropropylene	10.665	75	230836	29.43 ug/L	89
42)	4-Methyl-2-pentanone	10.775	58	353552	123.35 ug/L #	83
44)	Toluene	11.054	91	709625	29.16 ug/L	99
45)	trans-1,3-Dichloroprop...	11.210	75	237703	31.53 ug/L	94
46)	1,1,2-Trichloroethane	11.425	83	132016	33.32 ug/L	96
47)	2-Hexanone	11.623	43	374389	49.08 ug/L	92
48)	1,3-Dichloropropane	11.616	76	283373	33.24 ug/L #	79
49)	Tetrachloroethylene	11.648	164	158770	31.09 ug/L	94
50)	Dibromochloromethane	11.878	129	232731	37.39 ug/L	99
51)	1,2-Dibromoethane	12.041	107	170960	35.09 ug/L	100
52)	Chlorobenzene	12.539	112	440961	26.44 ug/L	95
53)	1,1,1,2-Tetrachloroethane	12.596	131	232531	38.67 ug/L	96
54)	Ethylbenzene	12.614	91	709209	25.66 ug/L	97
55)	m,p-Xylenes	12.727	106	452673	44.44 ug/L	88
56)	o-Xylene	13.158	106	262611	26.62 ug/L	87
57)	Styrene	13.162	104	331122	20.43 ug/L	83
59)	Bromoform	13.402	173	150383	31.81 ug/L	100
60)	Isopropylbenzene	13.526	105	626574	22.15 ug/L	97
62)	1,1,2,2-Tetrachloroethane	13.791	83	204688	28.92 ug/L	99
63)	1,2,3-Trichloropropane	13.873	110	75976	36.48 ug/L	98
64)	Bromobenzene	13.915	156	183588	23.57 ug/L	99
65)	n-Propylbenzene	13.957	91	577195	16.05 ug/L	99
66)	1,3,5-Trimethylbenzene	14.117	105	473983	19.52 ug/L	94
67)	2-Chlorotoluene	14.092	126	140667	19.41 ug/L	87
68)	4-Chlorotoluene	14.198	91	340582	15.45 ug/L	94
69)	tert-Butylbenzene	14.488	134	105839	20.39 ug/L #	75
70)	1,2,4-Trimethylbenzene	14.527	105	381152	15.49 ug/L	96
71)	sec-Butylbenzene	14.714	105	484998	15.31 ug/L	100
72)	4-Isopropyltoluene	14.841	119	226098	8.42 ug/L	95
73)	1,3-Dichlorobenzene	14.880	146	250139	17.15 ug/L	98
74)	1,4-Dichlorobenzene	14.969	146	247155	16.25 ug/L	99
75)	n-Butylbenzene	15.273	91	260384	10.14 ug/L	98
76)	1,2-Dichlorobenzene	15.379	146	266983	18.95 ug/L	98
77)	1,2-Dibromo-3-chloropr...	16.192	157	49393	31.81 ug/L	92
78)	1,2,4-Trichlorobenzene	17.183	180	152423	13.73 ug/L	99
79)	Hexachlorobutadiene	17.360	225	70195	10.45 ug/L	99
80)	Naphthalene	17.522	128	462517	18.68 ug/L	100
81)	1,2,3-Trichlorobenzene	17.840	180	162039	15.27 ug/L	99
83)	Chlorotrifluoroethylene	0.000		0	N.D.	
84)	2-Chloro-1,1,1-trifluo...	0.000		0	N.D.	
85)	Acrolein	0.000		0	N.D.	
86)	Trichlorotrifluoroethane	0.000		0	N.D.	
87)	Isopropyl Alcohol	6.188		0m	N.D. d	
88)	Allyl chloride	6.407		0m	N.D. d	
89)	tert-Butyl Alcohol	6.474		0m	N.D. d	
90)	Acrylonitrile	6.966		0m	N.D. d	
91)	Isopropyl ether	0.000		0	N.D.	
92)	2-Chloro-1,3-butadiene	0.000		0	N.D.	
93)	Ethyl tert-butyl ether	8.101		0m	N.D. d	
94)	Ethyl acetate	8.059		0m	N.D. d	
95)	Propionitrile	8.059		0m	N.D. d	
96)	Methacrylonitrile	8.133		0m	N.D. d	
97)	Tetrahydrofuran	8.412		0m	N.D. d	
98)	Isobutyl alcohol	8.787		0m	N.D. d	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709\
Data File : AP442.D
Acq On : 18 Dec 2009 10:40 am
Operator : JEB
InstName : VOAA
Sample : |1201999397|934516|1|VOA|1|VOA8260BS|
Misc : LANL 5.3G N/A SOIL MIX[A]
ALS Vial : 42 Sample Multiplier: 1

Quant Time: Dec 18 15:26:22 2009
Quant Method : C:\msdchem\1\METHODS\VOAA-8260-110609.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Nov 09 16:21:09 2009
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
99)	Methyl tert-amyl ether	9.084		0m	N.D.	d	
100)	Methyl methacrylate	9.979		0m	N.D.	d	
101)	1,4-Dioxane	0.000		0	N.D.		
102)	2-Nitropropane	0.000		0	N.D.		
104)	Ethyl methacrylate	0.000		0	N.D.		
106)	1-Chlorohexane	0.000		0	N.D.		
107)	cis-1,4-Dichloro-2-butene	13.529		0m	N.D.	d	
108)	Cyclohexanone	13.529		0m	N.D.	d	
109)	trans-1,4-Dichloro-2-b...	13.957		0m	N.D.	d	
110)	Pentachloroethane	14.537		0m	N.D.	d	
111)	Benzyl chloride	15.163		0m	N.D.	d	
112)	bis(2-Chloroisopropyl)...	15.609		0m	N.D.	d	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709\
Data File : AP442.D
Acq On : 18 Dec 2009 10:40 am
Operator : JEB
InstName : VOAA
Sample : |1201999397|934516|1|VOA|1|VOA8260BS|
Misc : LANL 5.3G N/A SOIL MIX[A]
ALS Vial : 42 Sample Multiplier: 1

Quant Time: Dec 18 15:26:22 2009
Quant Method : C:\msdchem\1\METHODS\VOAA-8260-110609.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Nov 09 16:21:09 2009
Response via : Initial Calibration
Integrator: RTE

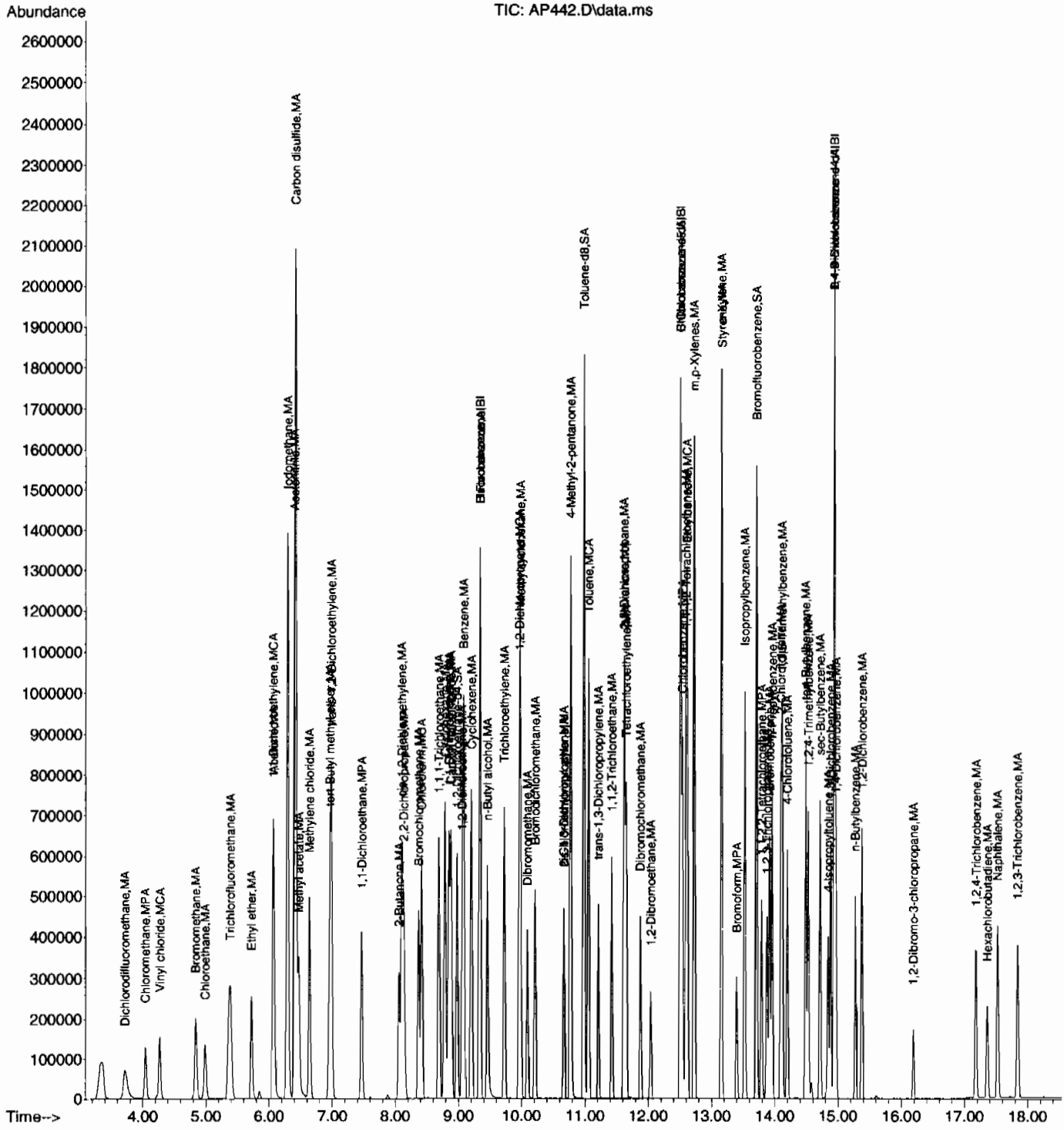

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-852**	**Date Collected:**	**12/07/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**1201999398**	**Date Received:**	**12/10/2009 08:50**	**%Moisture:**	**14.6**
Client Sample:	**QC for batch 934515**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**RE03-09-14224PSD**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**934516**	**Inst:**	**VOAA.I**	**Dilution:**	**1**
Run Date:	**12/18/2009 11:06**	**Analyst:**	**JEB**	**Purge Vol:**	**5 mL**
Prep Date:	**12/17/2009 19:03**	**Aliquot:**	**5.3 g**	**Final Volume:**	**5 mL**
Data File:	**121709\AP443.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane		44.4	ug/kg	0.375	1.10
74-87-3	Chloromethane		38.9	ug/kg	0.331	1.10
75-01-4	Vinyl chloride		47.1	ug/kg	0.331	1.10
74-83-9	Bromomethane		37.4	ug/kg	0.331	1.10
75-00-3	Chloroethane		36.4	ug/kg	0.331	1.10
75-69-4	Trichlorofluoromethane		54.6	ug/kg	0.331	1.10
67-64-1	Acetone		81.0	ug/kg	1.83	5.52
75-35-4	1,1-Dichloroethylene		45.0	ug/kg	0.331	1.10
74-88-4	Iodomethane		201	ug/kg	1.77	5.52
75-09-2	Methylene chloride		40.8	ug/kg	2.21	5.52
75-15-0	Carbon disulfide		203	ug/kg	1.38	5.52
156-60-5	trans-1,2-Dichloroethylene		42.9	ug/kg	0.331	1.10
75-34-3	1,1-Dichloroethane		41.9	ug/kg	0.331	1.10
78-93-3	2-Butanone		81.6	ug/kg	1.66	5.52
156-59-2	cis-1,2-Dichloroethylene		42.8	ug/kg	0.331	1.10
594-20-7	2,2-Dichloropropane		54.3	ug/kg	0.331	1.10
67-66-3	Chloroform		47.3	ug/kg	0.331	1.10
74-97-5	Bromochloromethane		45.0	ug/kg	0.364	1.10
71-55-6	1,1,1-Trichloroethane		56.2	ug/kg	0.331	1.10
563-58-6	1,1-Dichloropropene		47.6	ug/kg	0.331	1.10
56-23-5	Carbon tetrachloride		59.1	ug/kg	0.331	1.10
107-06-2	1,2-Dichloroethane		46.4	ug/kg	0.331	1.10
71-43-2	Benzene		39.7	ug/kg	0.331	1.10
79-01-6	Trichloroethylene		45.6	ug/kg	0.364	1.10
78-87-5	1,2-Dichloropropane		38.2	ug/kg	0.331	1.10
75-27-4	Bromodichloromethane		51.2	ug/kg	0.331	1.10
74-95-3	Dibromomethane		43.7	ug/kg	0.331	1.10
108-10-1	4-Methyl-2-pentanone		135	ug/kg	1.38	5.52
10061-01-5	cis-1,3-Dichloropropylene		36.8	ug/kg	0.331	1.10
108-88-3	Toluene		39.2	ug/kg	0.331	1.10
10061-02-6	trans-1,3-Dichloropropylene		39.1	ug/kg	0.331	1.10
79-00-5	1,1,2-Trichloroethane		38.7	ug/kg	0.331	1.10
591-78-6	2-Hexanone		47.5	ug/kg	1.66	5.52
142-28-9	1,3-Dichloropropane		38.8	ug/kg	0.331	1.10
127-18-4	Tetrachloroethylene		46.6	ug/kg	0.331	1.10
124-48-1	Dibromochloromethane		44.8	ug/kg	0.331	1.10
106-93-4	1,2-Dibromoethane		41.7	ug/kg	0.331	1.10
108-90-7	Chlorobenzene		39.3	ug/kg	0.331	1.10

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-852**	**Date Collected:**	**12/07/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**1201999398**	**Date Received:**	**12/10/2009 08:50**	**%Moisture:**	**14.6**
Client Sample:	**QC for batch 934515**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**RE03-09-14224PSD**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**934516**	**Inst:**	**VOAA.I**	**Dilution:**	**1**
Run Date:	**12/18/2009 11:06**	**Analyst:**	**JEB**	**Purge Vol:**	**5 mL**
Prep Date:	**12/17/2009 19:03**	**Aliquot:**	**5.3 g**	**Final Volume:**	**5 mL**
Data File:	**121709\AP443.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene		41.1	ug/kg	0.331	1.10
179601-23-1	m,p-Xylenes		74.9	ug/kg	0.331	2.21
95-47-6	o-Xylene		41.9	ug/kg	0.331	1.10
100-42-5	Styrene		32.9	ug/kg	0.331	1.10
75-25-2	Bromoform		38.7	ug/kg	0.331	1.10
79-34-5	1,1,2,2-Tetrachloroethane		34.3	ug/kg	0.331	1.10
96-18-4	1,2,3-Trichloropropane		42.0	ug/kg	0.331	1.10
108-86-1	Bromobenzene		37.4	ug/kg	0.331	1.10
103-65-1	n-Propylbenzene		33.6	ug/kg	0.331	1.10
95-49-8	2-Chlorotoluene		36.2	ug/kg	0.331	1.10
98-82-8	Isopropylbenzene		40.1	ug/kg	0.331	1.10
108-67-8	1,3,5-Trimethylbenzene		38.4	ug/kg	0.331	1.10
106-43-4	4-Chlorotoluene		31.3	ug/kg	0.331	1.10
98-06-6	tert-Butylbenzene		41.4	ug/kg	0.331	1.10
95-63-6	1,2,4-Trimethylbenzene		32.9	ug/kg	0.331	1.10
135-98-8	sec-Butylbenzene		34.9	ug/kg	0.331	1.10
99-87-6	4-Isopropyltoluene		23.4	ug/kg	0.331	1.10
541-73-1	1,3-Dichlorobenzene		32.5	ug/kg	0.331	1.10
106-46-7	1,4-Dichlorobenzene		31.4	ug/kg	0.331	1.10
104-51-8	n-Butylbenzene		28.5	ug/kg	0.331	1.10
96-12-8	1,2-Dibromo-3-chloropropane		38.1	ug/kg	0.331	1.10
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.52	ug/kg	1.77	5.52
630-20-6	1,1,1,2-Tetrachloroethane		49.5	ug/kg	0.331	1.10
95-50-1	1,2-Dichlorobenzene		32.9	ug/kg	0.331	1.10

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709\
Data File : AP443.D
Acq On : 18 Dec 2009 11:06 am
Operator : JEB
InstName : VOAA
Sample : |1201999398|934516|1|VOA|1|VOA8260BS|
Misc : LANL 5.3G N/A SOIL MIX[A]
ALS Vial : 43 Sample Multiplier: 1

Quant Time: Dec 18 15:25:59 2009
Quant Method : C:\msdchem\1\METHODS\VOAA-8260-110609.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Nov 09 16:21:09 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	9.339	96	1148634	50.00	ug/L	0.00
41) Chlorobenzene-d5	12.507	117	938763	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	14.940	152	588764	50.00	ug/L	0.00
82) B Fluorobenzene	9.339	96	1148634	50.00	ug/L	0.00
103) B Chlorobenzene-d5	12.507	117	938763	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	14.940	152	588764	50.00	ug/L	0.00
System Monitoring Compounds						
29) 1,2-Dichloroethane-d4	8.978	65	464250	58.18	ug/L	0.00
Spiked Amount 50.000	Range 68 - 131		Recovery = 116.36%			
43) Toluene-d8	10.983	98	1128779	47.36	ug/L	0.00
Spiked Amount 50.000	Range 75 - 129		Recovery = 94.72%			
61) Bromofluorobenzene	13.713	95	490402	46.24	ug/L	0.00
Spiked Amount 50.000	Range 68 - 133		Recovery = 92.48%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	3.731	85	214170	40.24	ug/L	100
3) Chloromethane	4.053	50	187247	35.20	ug/L	99
4) Vinyl chloride	4.275	62	226245	42.62	ug/L	100
5) Bromomethane	4.849	94	171945	33.88	ug/L	95
6) Chloroethane	4.990	64	112171	32.97	ug/L	98
7) Trichlorofluoromethane	5.392	101	508106	49.43	ug/L	99
8) Ethyl ether	5.728	59	180210	36.15	ug/L	94
9) Acetone	6.075	43	341329	73.33	ug/L	85
10) 1,1-Dichloroethylene	6.078	61	379843	40.72	ug/L	91
11) Iodomethane	6.297	142	1765549	181.76	ug/L	88
12) Acetonitrile	6.411	41	521311	637.83	ug/L	94
13) Methyl acetate	6.474	43	408479	80.67	ug/L	94
14) Carbon disulfide	6.425	76	3057034	184.15	ug/L	100
15) Methylene chloride	6.644	84	214706	36.92	ug/L	88
16) tert-Butyl methyl ether	6.969	73	639244	42.21	ug/L	98
17) trans-1,2-Dichloroethy...	6.991	61	362097	38.82	ug/L	91
18) Vinyl acetate	7.613	43	242	N.D.		
19) 1,1-Dichloroethane	7.468	63	422510	37.98	ug/L	99
20) 2-Butanone	8.059	43	385814	73.94	ug/L	91
21) cis-1,2-Dichloroethylene	8.105	61	405883	38.77	ug/L	90
22) 2,2-Dichloropropane	8.136	77	414644	49.19	ug/L	96
23) Bromochloromethane	8.370	128	124930	40.78	ug/L	96
24) Chloroform	8.419	83	465662	42.87	ug/L	100
25) 1,1,1-Trichloroethane	8.692	97	507685	50.88	ug/L	99
26) Cyclohexane	8.787	56	443618	39.63	ug/L	95
27) 1,1-Dichloropropene	8.847	75	331401	43.10	ug/L	89
28) Carbon tetrachloride	8.883	117	496624	53.53	ug/L	99
30) 1,2-Dichloroethane	9.059	62	407327	42.05	ug/L	100
31) Benzene	9.081	78	780064	35.99	ug/L	93
32) Cyclohexene	9.204	67	411421	39.53	ug/L	90
33) n-Butyl alcohol	9.459	56	343124	1885.28	ug/L	88
34) Trichloroethylene	9.728	95	253767	41.26	ug/L	97
35) 1,2-Dichloropropane	9.965	63	208829	34.57	ug/L	99
36) Methylcyclohexane	9.979	83	368735	39.76	ug/L	90
37) Dibromomethane	10.092	93	146372	39.60	ug/L	98
38) Bromodichloromethane	10.212	83	337027	46.39	ug/L	100
39) 2-Chloroethylvinyl ether	10.665	63	1246	2.40	ug/L #	45

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709\
Data File : AP443.D
Acq On : 18 Dec 2009 11:06 am
Operator : JEB
InstName : VOAA
Sample : |1201999398|934516|1|VOA|1|VOA8260BS|
Misc : LANL 5.3G N/A SOIL MIX[A]
ALS Vial : 43 Sample Multiplier: 1

Quant Time: Dec 18 15:25:59 2009
Quant Method : C:\msdchem\1\METHODS\VOAA-8260-110609.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Nov 09 16:21:09 2009
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	QIon	Response	Conc Units		Dev(Min)
40)	cis-1,3-Dichloropropylene	10.665	75	265702	33.30 ug/L		90
42)	4-Methyl-2-pentanone	10.774	58	357384	122.19 ug/L		84
44)	Toluene	11.054	91	881582	35.50 ug/L		100
45)	trans-1,3-Dichloroprop...	11.209	75	272447	35.42 ug/L		95
46)	1,1,2-Trichloroethane	11.425	83	141577	35.02 ug/L		96
47)	2-Hexanone	11.623	43	327363	43.00 ug/L		92
48)	1,3-Dichloropropane	11.616	76	305981	35.17 ug/L	#	75
49)	Tetrachloroethylene	11.652	164	220056	42.22 ug/L		95
50)	Dibromochloromethane	11.878	129	258476	40.61 ug/L		100
51)	1,2-Dibromoethane	12.041	107	187783	37.78 ug/L		100
52)	Chlorobenzene	12.539	112	605187	35.57 ug/L		97
53)	1,1,1,2-Tetrachloroethane	12.596	131	274950	44.81 ug/L		97
54)	Ethylbenzene	12.613	91	1049806	37.23 ug/L		97
55)	m,p-Xylenes	12.727	106	704761	67.81 ug/L		88
56)	o-Xylene	13.158	106	381481	37.90 ug/L		87
57)	Styrene	13.162	104	501228	29.80 ug/L		84
59)	Bromoform	13.398	173	169557	35.05 ug/L		100
60)	Isopropylbenzene	13.526	105	1043477	36.29 ug/L		97
62)	1,1,2,2-Tetrachloroethane	13.791	83	223569	31.07 ug/L		99
63)	1,2,3-Trichloropropane	13.876	110	80598	38.07 ug/L		88
64)	Bromobenzene	13.915	156	268024	33.86 ug/L		99
65)	n-Propylbenzene	13.957	91	1113453	30.45 ug/L		99
66)	1,3,5-Trimethylbenzene	14.116	105	858853	34.79 ug/L		95
67)	2-Chlorotoluene	14.092	126	241539	32.78 ug/L		87
68)	4-Chlorotoluene	14.198	91	635467	28.37 ug/L		94
69)	tert-Butylbenzene	14.488	134	197545	37.45 ug/L	#	74
70)	1,2,4-Trimethylbenzene	14.527	105	744429	29.77 ug/L		94
71)	sec-Butylbenzene	14.714	105	1016431	31.56 ug/L		100
72)	4-Isopropyltoluene	14.841	119	616971	21.23 ug/L		96
73)	1,3-Dichlorobenzene	14.880	146	435926	29.40 ug/L		98
74)	1,4-Dichlorobenzene	14.965	146	439816	28.45 ug/L		99
75)	n-Butylbenzene	15.273	91	674449	25.83 ug/L		99
76)	1,2-Dichlorobenzene	15.379	146	427311	29.83 ug/L		99
77)	1,2-Dibromo-3-chloropr...	16.192	157	54744	34.50 ug/L		93
78)	1,2,4-Trichlorobenzene	17.183	180	269214	23.85 ug/L		99
79)	Hexachlorobutadiene	17.360	225	183677	26.91 ug/L		100
80)	Naphthalene	17.522	128	644236	25.59 ug/L		100
81)	1,2,3-Trichlorobenzene	17.839	180	259279	24.05 ug/L		99
83)	Chlorotrifluoroethylene	0.000		0	N.D.		
84)	2-Chloro-1,1,1-trifluo...	0.000		0	N.D.		
85)	Acrolein	0.000		0	N.D.		
86)	Trichlorotrifluoroethane	0.000		0	N.D.		
87)	Isopropyl Alcohol	6.195		0m	N.D.	d	
88)	Allyl chloride	6.411		0m	N.D.	d	
89)	tert-Butyl Alcohol	6.676		0m	N.D.	d	
90)	Acrylonitrile	6.969		0m	N.D.	d	
91)	Isopropyl ether	7.489		0m	N.D.	d	
92)	2-Chloro-1,3-butadiene	0.000		0	N.D.		
93)	Ethyl tert-butyl ether	7.896		0m	N.D.	d	
94)	Ethyl acetate	8.059		0m	N.D.	d	
95)	Propionitrile	8.055		0m	N.D.	d	
96)	Methacrylonitrile	8.136		0m	N.D.	d	
97)	Tetrahydrofuran	8.419		0m	N.D.	d	
98)	Isobutyl alcohol	8.784		0m	N.D.	d	

Quantitation Report
GEL Laboratories, LLC

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Data File : AP443.D
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Misc : LANL 5.3G N/A SOIL MIX[A]
ALS Vial : 43 Sample Multiplier: 1

Quant Time: Dec 18 15:25:59 2009
Quant Method : C:\msdchem\1\METHODS\VOAA-8260-110609.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Nov 09 16:21:09 2009
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
99)	Methyl tert-amyl ether	9.081		0m	N.D.	d
100)	Methyl methacrylate	9.975		0m	N.D.	d
101)	1,4-Dioxane	0.000		0	N.D.	
102)	2-Nitropropane	10.651		0m	N.D.	d
104)	Ethyl methacrylate	10.994		0m	N.D.	d
106)	1-Chlorohexane	0.000		0	N.D.	
107)	cis-1,4-Dichloro-2-butene	13.526		0m	N.D.	d
108)	Cyclohexanone	13.526		0m	N.D.	d
109)	trans-1,4-Dichloro-2-b...	13.957		0m	N.D.	d
110)	Pentachloroethane	14.541		0m	N.D.	d
111)	Benzyl chloride	15.153		0m	N.D.	d
112)	bis(2-Chloroisopropyl)...	0.000		0	N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709\
Data File : AP443.D
Acq On : 18 Dec 2009 11:06 am
Operator : JEB
InstName : VOAA
Sample : |1201999398|934516|1|VOA|1|VOA8260BS|
Misc : LANL 5.3G N/A SOIL MIX[A]
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Quant Time: Dec 18 15:25:59 2009
Quant Method : C:\msdchem\1\METHODS\VOAA-8260-110609.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Nov 09 16:21:09 2009
Response via : Initial Calibration
Integrator: RTE

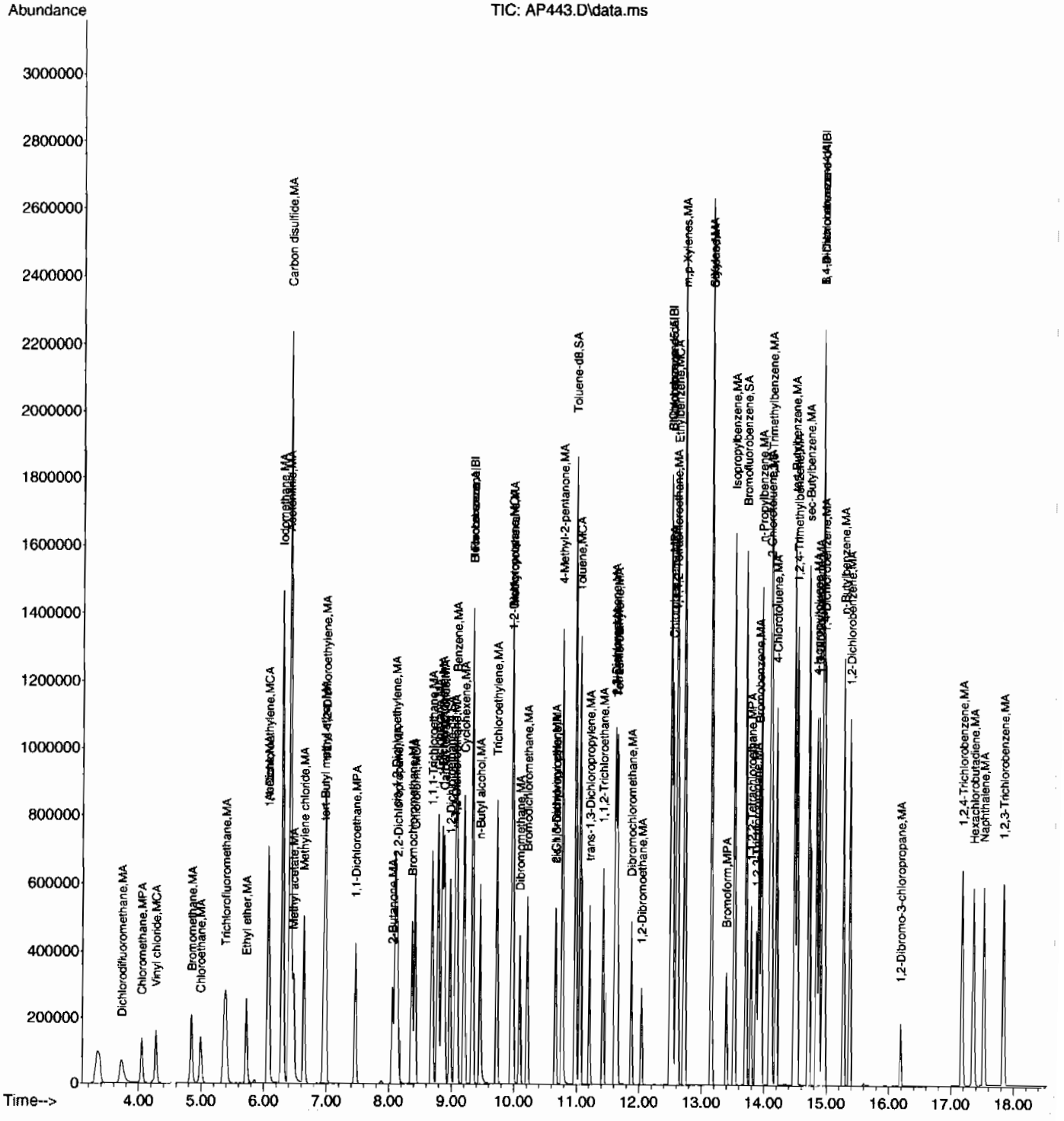

Miscellaneous

Prep Logbook

Volatile Organic Compounds (VOC) by Gas Chromatograph/Mass Spectrometer

Batch ID: **934515** Verified by: _____

Analyst: John Bell, Jr.
Method: SW846 5030
Lab SOP: GL-OA-E-038 REV# 13
Instrument: Sartorius Balance B-001

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units

Sample ID	Run Date	Matrix	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check 1
1201999396 MB	17-DEC-2009 17:30:00	Soil	5	5	1	
1202000171 MB	17-DEC-2009 17:30:00	Soil	5	5	1	
1201999399 LCS	17-DEC-2009 17:30:00	Soil	5	5	1	
1201999400 LCS	17-DEC-2009 17:30:00	Soil	5	5	1	
1202000172 LCS	17-DEC-2009 17:30:00	Soil	5	5	1	
1202000173 LCS	17-DEC-2009 17:30:00	Soil	5	5	1	
242654001	17-DEC-2009 19:02:00	Soil	5.3	5	0.9434	
1201999397 PS (242654001)	17-DEC-2009 19:03:00	Soil	5.3	5	0.9434	
1201999398 PSD (242654001)	17-DEC-2009 19:03:00	Soil	5.3	5	0.9434	
242654002	17-DEC-2009 19:04:00	Soil	5.3	5	0.9434	
242654003	17-DEC-2009 19:05:00	Soil	5.1	5	0.98039	
242654004	17-DEC-2009 19:06:00	Soil	5.1	5	0.98039	
242654005	17-DEC-2009 19:07:00	Soil	5.3	5	0.9434	
242654006	17-DEC-2009 19:10:00	Soil	5.2	5	0.96154	
242654007	17-DEC-2009 19:11:00	Soil	5.4	5	0.92593	
242654008	17-DEC-2009 19:12:00	Soil	5.2	5	0.96154	
242654009	17-DEC-2009 19:13:00	Soil	5.3	5	0.9434	
242654010	17-DEC-2009 19:14:00	Soil	5.2	5	0.96154	
242654011	17-DEC-2009 19:15:00	Soil	5.2	5	0.96154	
242654012	17-DEC-2009 19:16:00	Soil	5	5	1	
242654013	17-DEC-2009 19:25:00	Soil	5.3	5	0.9434	
242654014	17-DEC-2009 19:26:00	Soil	5.4	5	0.92593	
242654015	17-DEC-2009 19:27:00	Soil	5.2	5	0.96154	
242654016	17-DEC-2009 19:28:00	Soil	5.2	5	0.96154	
242654017	17-DEC-2009 19:29:00	Soil	5.2	5	0.96154	
242654018	17-DEC-2009 19:30:00	Soil	5.5	5	0.90909	

Prep Logbook

Batch ID: **934515** Verified by: _____

Analyst: John Bell, Jr.

Method: SW846 5030

Lab SOP: GL-OA-E-038 REV# 13

Instrument: Sartorius Balance B-001

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units

Sample ID	Run Date	Matrix	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check 1
242654019	17-DEC-2009 19:32:00	Soil	5.3	5	0.9434	
242654020	17-DEC-2009 19:33:00	Soil	5.1	5	0.98039	

Reagent/Solvent Lot ID	Description	Amount

Comments:

GEL Laboratories, LLC
Revision:11/22/04

ORGANIC RUN LOG - INSTRUMENT ID#VOAA

Date: 11/6/2009 Method 8260B/624 Operator: JEB

REVIEWED BY: _____
DATE: _____

HARDWARE CONFIGURATION & METHOD CONDITIONS SUMMARY No# 1

Daily Instrument Readings:
Multiplier Voltage: 1235

CALIBRATION & CC INFORMATION:

Initial Calibration Date: 11/6/2009

(See pg. 64 for ICAL Std. Sci. Ids)

NaHSO4 lot # N/A

Cl test lot # N/A

Sequence Number: 110609VA

Daily Standard Volume Added for Purge (ul)

Solution ID#		Blk/ Smpl	CCV	MS/ LCS	BFB
CCV	N/A		5+5		
IS	UVM091020-01	1	1	1	
SS	UVM091020-02	1	1	1	
LCS/MS	N/A			5+5	
BFB	UVM091020-02				1
SHORT	N/A		5+5	5+5	
DHEC	N/A			5	

Purge Amount

5	Water Purge Vol:
N/A	Soil Purge Wt.
N/A	Mid level ext. MeOH Vol:
N/A	ul
N/A	Methanol Lot #
x	Heated Purge

Analysis Date Time	Data File	Lab Sample ID	Client	Batch #	Wt.(g) or Vol(ml/ul)	Dil. Factor	pH	AS Slot #	Matrix w or s	Analyst	Cl test (Y/N)	Acceptable (O/X)	Comments
6 Nov 2009 11:39	AJ501.D	UVM091020-02	GEL	BFB	5ML	1	N/A	1	W	JEB	N/A	O	
6 Nov 2009 12:03	AJ502.D	BLANK	GEEL	BLK	5ML	1	N/A	2	w	JEB	N/A	O	
6 Nov 2009 12:30	AJ503.D	WAVM091106-01	GEEL	0.5 PPB	5ML	1	N/A	3	w	JEB	N/A	O	UVM090911-01B/UVM091012-01C
6 Nov 2009 12:55	AJ504.D	WAVM091106-02	GEEL	1.0 PPB	5ML	1	N/A	4	w	JEB	N/A	X	UVM090911-02B/UVM091012-02C
6 Nov 2009 13:21	AJ505.D	WAVM091106-03	GEEL	1.0 PPB	5ML	1	N/A	5	w	JEB	N/A	O	UVM090911-02B/UVM091012-02C
6 Nov 2009 13:47	AJ506.D	WAVM091106-04	GEEL	2.0 PPB	5ML	1	N/A	6	w	JEB	N/A	O	UVM090911-03B/UVM091012-03C
6 Nov 2009 14:13	AJ507.D	WAVM091106-05	GEEL	5.0 PPB	5ML	1	N/A	7	w	JEB	N/A	O	UVM090911-04B/UVM091012-04C
6 Nov 2009 14:39	AJ508.D	WAVM091106-06	GEEL	10.0 PPB	5ML	1	N/A	8	w	JEB	N/A	O	UVM090911-05B/UVM091012-05C
6 Nov 2009 15:05	AJ509.D	WAVM091106-07	GEEL	20.0 PPB	5ML	1	N/A	9	w	JEB	N/A	O	UVM090911-06B/UVM091012-06C
6 Nov 2009 15:31	AJ510.D	WAVM091106-08	GEEL	50.0 PPB	5ML	1	N/A	10	w	JEB	N/A	O	UVM090911-07B/UVM091012-07C
6 Nov 2009 15:57	AJ511.D	WAVM091106-09	GEEL	100.0 PPB	5ML	1	N/A	11	w	JEB	N/A	O	UVM090911-08B/UVM091012-08C
6 Nov 2009 16:23	AJ512.D	BLANK	GEEL	BLK	5ML	1	N/A	12	w	JEB	N/A	O	
6 Nov 2009 16:49	AJ513.D	WAVM091106-10	GEEL	5.0 PPB	5ML	1	N/A	13	w	JEB	N/A	O	UVM091023-01/UVM090921-01E
6 Nov 2009 17:15	AJ514.D	WAVM091106-11	GEEL	10.0 PPB	5ML	1	N/A	14	w	JEB	N/A	O	UVM091023-02/UVM090921-02E
6 Nov 2009 17:41	AJ515.D	WAVM091106-12	GEEL	25.0 PPB	5ML	1	N/A	15	w	JEB	N/A	O	UVM091023-03/UVM090921-03E
6 Nov 2009 18:07	AJ516.D	WAVM091106-13	GEEL	50.0 PPB	5ML	1	N/A	16	w	JEB	N/A	O	UVM091023-04/UVM090921-04E
6 Nov 2009 18:34	AJ517.D	WAVM091106-14	GEEL	100.0 PPB	5ML	1	N/A	17	w	JEB	N/A	O	UVM091023-05/UVM090921-05E
6 Nov 2009 18:59	AJ518.D	WAVM091106-15	GEEL	250.0 PPB	5ML	1	N/A	18	w	JEB	N/A	O	UVM091023-06/UVM090921-06E
6 Nov 2009 19:25	AJ519.D	WAVM091106-16	GEEL	500.0 PPB	5ML	1	N/A	19	w	JEB	N/A	O	UVM091023-07/UVM090921-07E
6 Nov 2009 19:51	AJ520.D	BLANK	GEEL	BLK	5ML	1	N/A	20	w	JEB	N/A	O	
6 Nov 2009 20:17	AJ521.D	WAVM091106-17	GEEL	50.0 PPB	5ML	1	N/A	21	w	JEB	N/A	O	UVM091011-01D/IVM091106-01
6 Nov 2009 20:42	AJ522.D	WAVM091106-18	GEEL	50.0 PPB	5ML	1	N/A	22	w	JEB	N/A	X	UVM090914-01E/IVM091106-01
6 Nov 2009 21:08	AJ523.D	WAVM091106-19	GEEL	250.0 PPB	5ML	1	N/A	23	w	JEB	N/A	O	UVM090925-08B/UVM090914-02E

GEL Laboratories, LLC
Revision:11/22/04

ORGANIC RUN LOG - INSTRUMENT ID#VOAA

Date: 12/17/2009 Method 8260B/624 Operator: JEB

REVIEWED BY: _____
DATE: _____

HARDWARE CONFIGURATION & METHOD CONDITIONS SUMMARY No# 1

Daily Instrument Readings:
Multiplier Voltage: 1235

CALIBRATION & CC INFORMATION:

Initial Calibration Date: 11/6/2009

(See pg. 64 for ICAL Std. Sci. Ids)

NaHSO4 lot # N/A

CI test lot # 84515

Sequence Number: 121709VA

Daily Standard Solution ID#		Volume Added for Purge (ul) Blk/ Smpl	CCV	MS/ LCS	BFB
CCV	WAVM091217-01		5+5		
IS	UVM091203-01	1	1	1	
SS	UVM090910-02	1	1	1	
LCS/MS	WAVM091217-01,02			5+5	
BFB	UVM090910-02				1
SHORT	WAVM091217-03,04		5	5	
DHEC	N/A			5	

Purge Amount	
5	Water Purge Vol:
VARIOUS	Soil Purge Wt.
VARIOUS	Mid level ext. MeOH Vol:
VARIOUS	ul
C7937	Methanol Lot #
x	Heated Purge

Analysis Date	Time	Data File	Lab Sample ID	Client	Batch #	Wt.(g) or Vol(ml/ul)	Dil. Factor	pH	AS Slot #	Matrix w or s	Analyst	CI test (Y/N)	Acceptable (O/X)	Comments
12/17/2009	16:46	AP401.D	UVM090910-02	GEL	BFB	5ML	1	N/A	1	W	JEB	N/A	O	
12/17/2009	17:11	AP402.D	WAVM091217-01	GEL	CCV/LCS	5ML	1	N/A	2	W	JEB	N/A	O	UVM091129-01E/IVM091214-01
12/17/2009	17:47	AP403.D	WAVM091217-02	GEL	LCS	5.0G	1	N/A	3	s	JEB	N/A	O	UVM091129-01E/IVM091214-01
12/17/2009	18:13	AP404.D	WAVM091217-03	GEL	CCVLCS	5ML	1	N/A	4	W	JEB	N/A	O	UVM091118-08B
12/17/2009	18:39	AP405.D	WAVM091217-04	GEL	LCS	5.0G	1	N/A	5	s	JEB	N/A	O	UVM091118-08B
12/17/2009	19:05	AP406.D	BLANK	GEL	BLANK	5ML	1	N/A	6	w	JEB	N/A	O	
12/17/2009	19:31	AP407.D	BLANK	GEL	BLANK	5.0G	1	N/A	7	s	JEB	N/A	O	
12/17/2009	19:57	AP408.D	1201999405	GEEL	934519	100UL	50	N/A	8	s	JEB	N/A	O	
12/17/2009	20:23	AP409.D	242968001	CARE	934519	100UL	50	N/A	9	s	JEB	N/A	O	5.1G/5ML SOIL
12/17/2009	20:49	AP410.D	1201999402	GEEL	934519	100UL	50	N/A	10	s	JEB	N/A	O	5.1G/5ML SOIL MIX[A]
12/17/2009	21:15	AP411.D	1201999403	GEEL	934519	100UL	50	N/A	11	s	JEB	N/A	O	5.1G/5ML SOIL MIX[A]
12/17/2009	21:41	AP412.D	BLANK	GEEL	BLANK	5.0G	1	N/A	12	s	JEB	N/A	O	
12/17/2009	22:08	AP413.D	242550003	WSRB	933877	1.0ML	5	PH2	13	w	JEB	N	O	
12/17/2009	22:33	AP414.D	242632001	WSRS	933925	5ML	1	PH7	14	w	JEB	N	O	
12/17/2009	22:59	AP415.D	1201998171	WSRS	933925	5ML	1	PH7	15	w	JEB	N	O	MIX[A] 242632001MS
12/17/2009	23:25	AP416.D	1201998172	WSRS	933925	5ML	1	PH7	16	w	JEB	N	O	MIX[A] 242632001MSD
12/17/2009	23:51	AP417.D	BLANK	GEEL	BLANK	5ML	1	N/A	17	w	JEB	N/A	O	
12/18/2009	0:17	AP418.D	242654001	LANL	934516	5.3G	1	N/A	18	s	JEB	N/A	O	
12/18/2009	0:43	AP419.D	242654002	LANL	934516	5.3G	1	N/A	19	s	JEB	N/A	O	
12/18/2009	1:09	AP420.D	242654003	LANL	934516	5.1G	1	N/A	20	s	JEB	N/A	O	
12/18/2009	1:35	AP421.D	242654004	LANL	934516	5.1G	1	N/A	21	s	JEB	N/A	O	
12/18/2009	2:01	AP422.D	242654005	LANL	934516	5.3G	1	N/A	22	s	JEB	N/A	O	
12/18/2009	2:26	AP423.D	242654006	LANL	934516	5.2G	1	N/A	23	s	JEB	N/A	O	
12/18/2009	2:52	AP424.D	242654007	LANL	934516	5.4G	1	N/A	24	s	JEB	N/A	O	
12/18/2009	3:18	AP425.D	242654008	LANL	934516	5.2G	1	N/A	25	s	JEB	N/A	O	
12/18/2009	3:44	AP426.D	242654009	LANL	934516	5.3G	1	N/A	26	s	JEB	N/A	O	
12/18/2009	4:11	AP427.D	242654010	LANL	934516	5.2G	1	N/A	27	s	JEB	N/A	O	

GEL Laboratories, LLC
Revision:11/22/04

ORGANIC RUN LOG - INSTRUMENT ID#VOAA

Date: 12/17/2009 Method 8260B/624 Operator: JEB

REVIEWED BY: _____
DATE: _____

HARDWARE CONFIGURATION & METHOD CONDITIONS SUMMARY No# 1

Daily Instrument Readings:
Multiplier Voltage: 1235

CALIBRATION & CC INFORMATION:

Initial Calibration Date: 11/6/2009

(See pg. 64 for ICAL Std. Sci. Ids)

NaHSO4 lot # N/A

Cl test lot # 84515

Sequence Number: 121709VA

Daily Standard Solution ID#		Volume Added for Purge (ul) Blk/ Smpl	CCV	MS/ LCS	BFB
CCV	WAVM091217-05		5+5		
IS	UVM091203-01	1	1	1	
SS	UVM090910-02	1	1	1	
LCS/MS	WAVM091217-05			5+5	
BFB	UVM090910-02				1
SHORT	WAVM091217-06		5	5	
DHEC	N/A			5	

Purge Amount	
5	Water Purge Vol:
VARIOUS	Soil Purge Wt.
VARIOUS	Mid level ext. MeOH Vol:
VARIOUS	ul
C7937	Methanol Lot #
x	Heated Purge

Analysis Date Time	Data File	Lab Sample ID	Client	Batch #	Wt.(g) or Vol(ml/ul)	Dil. Factor	pH	AS Slot #	Matrix w or s	Analyst	Cl test (Y/N)	Acceptable (O/X)	Comments
12/18/2009 4:38	AP428.D	UVM090910-02	GEL	BFB	5ML	1	N/A	28	w	JEB	N/A	O	
12/18/2009 5:03	AP429.D	WAVM091217-05	GEL	CCV/LCS	5.0G	1	N/A	29	s	JEB	N/A	O	UVM091129-01E/IVM091214-01
12/18/2009 5:29	AP430.D	WAVM091217-06	GEL	CCVLCS	5.0G	1	N/A	30	s	JEB	N/A	O	UVM091118-08B
12/18/2009 5:55	AP431.D	BLANK	GEEL	BLANK	5.0G	1	N/A	31	s	JEB	N/A	O	
12/18/2009 6:21	AP432.D	242654011	LANL	934516	5.2G	1	N/A	32	s	JEB	N/A	O	
12/18/2009 6:47	AP433.D	242654012	LANL	934516	5.0G	1	N/A	33	s	JEB	N/A	O	
12/18/2009 7:13	AP434.D	242654013	LANL	934516	5.3G	1	N/A	34	s	JEB	N/A	O	
12/18/2009 7:39	AP435.D	242654014	LANL	934516	5.4G	1	N/A	35	s	JEB	N/A	O	
12/18/2009 8:05	AP436.D	242654015	LANL	934516	5.2G	1	N/A	36	s	JEB	N/A	O	
12/18/2009 8:30	AP437.D	242654016	LANL	934516	5.2G	1	N/A	37	s	JEB	N/A	O	
12/18/2009 8:56	AP438.D	242654017	LANL	934516	5.2G	1	N/A	38	s	JEB	N/A	O	
12/18/2009 9:22	AP439.D	242654018	LANL	934516	5.5G	1	N/A	39	s	JEB	N/A	O	
12/18/2009 9:48	AP440.D	242654019	LANL	934516	5.3G	1	N/A	40	s	JEB	N/A	O	
12/18/2009 10:14	AP441.D	242654020	LANL	934516	5.1G	1	N/A	41	s	JEB	N/A	O	
12/18/2009 10:40	AP442.D	1201999397	LANL	934516	5.3G	1	N/A	42	s	JEB	N/A	O	
12/18/2009 11:06	AP443.D	1201999398	LANL	934516	5.3G	1	N/A	43	s	JEB	N/A	O	
12/18/2009 11:32	AP444.D	BLANK	GEEL	BLANK	5.0G	1	N/A	44	s	JEB	N/A	O	
12/18/2009 11:58	AP445.D	BLANK	GEEL	BLANK	5.0G	1	N/A	45	s	JEB	N/A	O	
12/18/2009 12:24	AP446.D	Bisulfate 154106A	GEEL	O2SI	5ML	1	N/A	46	w	JEB	N/A	O	
12/18/2009 12:50	AP447.D	Bisulfate 154106B	GEEL	O2SI	5ML	1	N/A	47	w	JEB	N/A	O	

NCR Report No.: 773639
Revision No.:

COMPANY - WIDE NONCONFORMANCE REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
22-DEC-09	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
VOA GC/MS	SW846 8260B	Solid	LANL
Batch ID:	**Sample Numbers:**		
934516	See Below		

Potentially affected work order(s)(SDG): 242654(10-852)

Application Issues:

Failed Recovery for MS/PS

Failed RPD for MS/MSD, or PS/PSD

Failed Recovery for LCS/LCSD

Failed Recovery for MSD/PSD

Specification and Requirements Nonconformance Description:	NRG Disposition:
1. The MS and MSD did not pass all spike recoveries. The RPD criteria were not all met.	1. It is believed matrix interference has been demonstrated. The results are reported.
2. The LCS (1201999399 and 1202000172)recovered above the acceptance limits for 1,1,1,2-Tetrachloroethane.	2. The unacceptable recoveries are less than 5% of the requested analyte list. This satisfies the client criteria. The results are reported.

Originator's Name:

John Bell, Jr. 22-DEC-09

Data Validator/Group Leader:

Erin Haubert 30-DEC-09

GC/MS Volatile Analysis

GC/MS Volatile Organics
Los Alamos National Laboratory (LANL)
SDG 10-852-1

Method/Analysis Information

Procedure:	Volatile Organic Compounds (VOC) by Gas Chromatograph/Mass Spectrometer
Analytical Method:	SW846 8260B
Prep Method:	SW846 5030
Analytical Batch Number:	934305
Prep Batch Number:	934300

Sample Analysis

The following client and quality control samples were analyzed to complete this SDG using the methods referenced in the Analysis Information section:

Sample ID	Client ID
242659001	RE03-09-14294
1201998949	Method Blank (MB)
1201998952	Laboratory Control Sample (LCS)
1201998953	Laboratory Control Sample (LCS)
1201998950	242668001(RE03-10-2741) Post Spike (PS)
1201998951	242668001(RE03-10-2741) Post Spike Duplicate (PSD)

NOTE: For volatile organic analyses the matrix spike designations may be indicated as "PS" or "PSD". The "PS" designation (post spike) indicates that the matrix was fortified prior to analysis but after applying any prep factors, such as a dilution. The laboratory considers the MS/MSD and PS/PSD designations interchangeable.
The samples in this SDG were analyzed on an "as received" basis.

Preparation/Analytical Method Verification

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-038 REV# 13.

Raw data reports are processed and reviewed by the analyst using the Target software package. False positives have been removed from the Target quantitation reports per standard operating procedures (SOP) section 19.1.2.

Calibration Information

Please note that the 'Cal Date' indicated on each quantitation report reflects the date and time of the most recent calibrated analyte(s) in the Target processing method. Since the laboratory may calibrate with multiple solutions on different days using the same processing method, the Target software will update the 'Cal Date' to the last calibration file, date and time. The correct dates and times for all calibration files are located on the Calibration History report in the Standard Data section in the data package.

The surrogate compounds were calibrated using a minimum five-point calibration curve. The surrogates were added by the auto sampler at a concentration of 50 ug/L. GEL Laboratories LLC will not have surrogate recoveries reported for Dibromofluoromethane. This is due to increased regulations for this analyte and an industry shortage.

Due to software limitations, the Calibration Summary Form 6 may not indicate all the calibration files comprising the initial calibration. A complete list of the initial calibration data files are shown in the Calibration History report located in the Standard Data section of the data package.

The linear equation used in Target and indicated on the initial calibration summary form is not a conventional linear equation (slope intercept formula) and does not match the equation found in SW-846 method 8000B. The x and y axes are inversed in Target, so that the instrument response is treated as the independent variable (x) and the concentration ratio is treated as the dependent variable (y). The equation used in Target to calculate sample results is adjusted to account for the linear equation inversion and reciprocal slope. The adjusted calculation has been independently verified to produce valid results.

Initial Calibration
All initial calibration requirements have been met for this sample delivery groups (SDG). A second source initial calibration verification (ICV) was included in the standard section directly behind the initial calibration.

Continuing Calibration Verification Requirements
All associated calibration verification standard(s) (ICV or CCV) met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Surrogate Recoveries
Surrogate recoveries in all client and quality control samples were within the acceptance limits.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

QC Sample Designation
Sample 242668001 (RE03-10-2741) was designated for spike analysis.

Matrix Spike (PS) Recovery Statement
The spike recoveries were not all within the acceptance limits. The spike duplicate recovered in a similar manner. The results are reported. See NCR 773328.

Matrix Spike Duplicate (PSD) Recovery Statement
The spike duplicate recoveries were not all within the acceptance limits. The spike recovered in a similar manner. The results are reported. See NCR 773328.

Relative Percent Difference (RPD) Statement
The RPD(s) between the matrix spike pair met the acceptance limits.

Internal Standard (ISTD) Acceptance
The internal standard responses in all client and quality control samples met the required acceptance criteria.

Technical Information

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection or sample receipt. Those holding times expressed in hours are calculated in the ALPHALIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Sample Preservation and Integrity
All samples met the sample preservation and integrity requirements.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-extraction/Re-analysis
Re-analyses were not required for samples in this SDG.

Miscellaneous Information

Electronic Package Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. An electronic signature page inserted after the case narrative of each electronic package will indicate the analyst, reviewer, and report specialist names associated with the generation of the data and package. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Nonconformance (NCR) Documentation
NCR # 773328 was generated for this SDG.

Manual Integrations
Data files associated with the initial calibration, continuing calibration check, and samples did not require manual integrations.

TIC Comment
Tentatively identified compounds (TIC) were required for this SDG.

Additional Comments
The samples in this SDG were not in the analyst's custody in LIMS. However, the analyst did maintain custody of the samples during analysis. See NCR 773328.

Residual Chlorine
Residual Chlorine was not detected in any of the samples in this SDG.

System Configuration
The Volatile-GC/MS analysis was performed on the following instrument configuration:

Instrument ID	Instrument	System Configuration	Column ID	Column Description	P & T Trap
VOA7.I	Gas Chromatograph/Mass Spectrometer	HP6890N/HP5973N	DB-624	J&W, 60m x 0.25mm x 1.4um	Trap 10

Certification Statement
Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis Report
for

LANL010 Los Alamos National Laboratory (72733-001-09)

Client SDG: 10-852-1 GEL Work Order: 242659

The Qualifiers in this report are defined as follows:

* A quality control analyte recovery is outside of specified acceptance criteria

** Analyte is a surrogate compound

J Value is estimated

U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

Review/Validation

GEL requires all analytical data to be verified by a qualified data reviewer. In addition, all CLP-like deliverables receive a third level review of the fractional data package.

The following data validator verified the information presented in this case narrative:

Signature: Erin Haubert **Name: Erin Haubert**

Date: 05 JAN 2010 **Title: Data Validator**

Roadmap for LANL 10-852-1 VOA

This roadmap was analyzed by ale01592 on 12-22-2009, 12:11.
This roadmap was reviewed by sar00518 on 12-22-2009, 13:26.

Sample

exclude	manual	datafile	smpid	clientid	injdate	injtime	sublist	dilution	batchid	comment
☐	N	/chem/VOA7.i/121809v7/7q508.d	242659001	RE03-09-14294	18-DEC-2009	14:29	10-852-1.sub	1	934305	

QC Sample

exclude	manual	datafile	smpid	clientid	sampletype	injdate	injtime	sublist	dilution	batchid	comment
☐	N	/chem/VOA7.i/121809v7/7q503LA.d	1201998952	LCS	lcs	18-DEC-2009	11:42	all.sub	1	934305	
☐	N	/chem/VOA7.i/121809v7/7q505LA.d	1201998953	SLCS	lcs	18-DEC-2009	12:47	all.sub	1	934305	
☐	N	/chem/VOA7.i/121809v7/7q507BA.d	1201998949	BLANK	mb	18-DEC-2009	13:55	all.sub	1	934305	
■	N	/chem/VOA7.i/121809v7/7q518.d	1201998950	RE03-10-2741MS	ms	18-DEC-2009	20:29	10-854.sub	1	934305	
■	N	/chem/VOA7.i/121809v7/7q519.d	1201998951	RE03-10-2741MSD	msd	18-DEC-2009	21:02	10-854.sub	1	934305	

Sample Data Summary

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-852-1**	**Date Collected:**	**12/07/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242659001**	**Date Received:**	**12/10/2009 08:50**		
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14294**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**934305**	**Inst:**	**VOA7.I**	**Dilution:**	**1**
Run Date:	**12/18/2009 14:29**	**Analyst:**	**AXO1**	**Purge Vol:**	**5 mL**
Prep Date:	**12/18/2009 13:18**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**7q508.d**	**Column:**	**DB-624**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/kg	0.340	1.00
74-87-3	Chloromethane	U	1.00	ug/kg	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/kg	0.300	1.00
74-83-9	Bromomethane	U	1.00	ug/kg	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/kg	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/kg	0.300	1.00
67-64-1	Acetone	J	1.96	ug/kg	1.66	5.00
75-35-4	1,1-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/kg	1.60	5.00
75-09-2	Methylene chloride	U	5.00	ug/kg	2.00	5.00
75-15-0	Carbon disulfide	U	5.00	ug/kg	1.25	5.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/kg	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/kg	1.50	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/kg	0.300	1.00
74-97-5	Bromochloromethane	U	1.00	ug/kg	0.330	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/kg	0.300	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/kg	0.300	1.00
56-23-5	Carbon tetrachloride	U	1.00	ug/kg	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/kg	0.300	1.00
71-43-2	Benzene	U	1.00	ug/kg	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/kg	0.330	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/kg	0.300	1.00
74-95-3	Dibromomethane	U	1.00	ug/kg	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/kg	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
108-88-3	Toluene	U	1.00	ug/kg	0.300	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/kg	0.300	1.00
591-78-6	2-Hexanone	U	5.00	ug/kg	1.50	5.00
142-28-9	1,3-Dichloropropane	U	1.00	ug/kg	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/kg	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/kg	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/kg	0.300	1.00
108-90-7	Chlorobenzene	U	1.00	ug/kg	0.300	1.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-852-1**	**Date Collected:**	**12/07/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242659001**	**Date Received:**	**12/10/2009 08:50**		
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14294**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**934305**	**Inst:**	**VOA7.I**	**Dilution:**	**1**
Run Date:	**12/18/2009 14:29**	**Analyst:**	**AXO1**	**Purge Vol:**	**5 mL**
Prep Date:	**12/18/2009 13:18**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**7q508.d**	**Column:**	**DB-624**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.00	ug/kg	0.300	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/kg	0.300	2.00
95-47-6	o-Xylene	U	1.00	ug/kg	0.300	1.00
100-42-5	Styrene	U	1.00	ug/kg	0.300	1.00
75-25-2	Bromoform	U	1.00	ug/kg	0.300	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/kg	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/kg	0.300	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/kg	0.300	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/kg	0.300	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/kg	0.300	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/kg	0.300	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/kg	0.300	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/kg	0.300	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/kg	0.300	1.00
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.00	ug/kg	1.60	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	No Tentatively Identified Compounds Found			ug/kg		

QC Summary

Volatile

Surrogate Recovery Report

SDG Number: 10-852-1

Matrix Type: SOLID

CAP Column (1) : DB-624

Sample ID	Client ID	DCED4 %REC	TOL %REC	BFB %REC
1201998952	LCS for batch 934300	110	93	94
1201998953	LCS for batch 934300	110	95	91
1201998949	MB for batch 934300	111	92	93
242659001	RE03-09-14294	115	95	96

Surrogate		Acceptance Limits
DCED4	= 1,2-Dichloroethane-d4	(68%-131%)
TOL	= Toluene-d8	(75%-129%)
BFB	= Bromofluorobenzene	(68%-133%)

* Recovery outside Acceptance Limits

\# Column to be used to flag recovery values

D Sample Diluted

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number:	**10-852-1**	**Sample Type:**	**Post Spike**
Client ID:	**RE03-10-2741PS**	**Matrix:**	**S**
Lab Sample ID:	**1201998950**	**%Moisture:**	**8.2**
Instrument:	**VOA7.I**	**Analysis Date:**	**12/18/2009 20:29**
Analyst:	**AXO1**	**Prep Batch ID**	**934300**
Purge Vol:	**5 mL**	**Batch ID:**	**934305**

Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
75-71-8	PS	Dichlorodifluoromethane	50.0	0.00	U	48.6	97	25-149
74-87-3	PS	Chloromethane	50.0	0.00	U	38.3	77	39-140
75-01-4	PS	Vinyl chloride	50.0	0.00	U	42.2	84	47-129
74-83-9	PS	Bromomethane	50.0	0.00	U	37.1	74	31-135
75-00-3	PS	Chloroethane	50.0	0.00	U	38.8	78	53-128
75-69-4	PS	Trichlorofluoromethane	50.0	0.00	U	53.8	108	51-151
67-64-1	PS	Acetone	250	0.00	U	92.1	37	21-153
75-35-4	PS	1,1-Dichloroethylene	50.0	0.00	U	41.2	82	61-125
74-88-4	PS	Iodomethane	250	0.00	U	174	70	53-142
75-09-2	PS	Methylene chloride	50.0	0.00	U	40.2	80	59-136
75-15-0	PS	Carbon disulfide	250	0.00	U	197	79	46-129
156-60-5	PS	trans-1,2-Dichloroethylene	50.0	0.00	U	39.3	79	56-126
75-34-3	PS	1,1-Dichloroethane	50.0	0.00	U	40.7	81	62-125
78-93-3	PS	2-Butanone	250	0.00	U	93.7	37	26-152
156-59-2	PS	cis-1,2-Dichloroethylene	50.0	0.00	U	40.2	80	60-130
594-20-7	PS	2,2-Dichloropropane	50.0	0.00	U	43.4	87	55-135
67-66-3	PS	Chloroform	50.0	0.00	U	43.8	88	60-127
74-97-5	PS	Bromochloromethane	50.0	0.00	U	39.6	79	61-131
71-55-6	PS	1,1,1-Trichloroethane	50.0	0.00	U	50.2	100	59-131
563-58-6	PS	1,1-Dichloropropene	50.0	0.00	U	40.1	80	57-128
56-23-5	PS	Carbon tetrachloride	50.0	0.00	U	50.7	101	58-136
107-06-2	PS	1,2-Dichloroethane	50.0	0.00	U	44.3	89	58-126

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-852-1
Client ID: RE03-10-2741PS
Lab Sample ID: 1201998950
Instrument: VOA7.I
Analyst: AXO1
Purge Vol: 5 mL

Sample Type: Post Spike
Matrix: S
%Moisture: 8.2
Analysis Date: 12/18/2009 20:29
Dilution: 1
Prep Batch ID: 934300
Batch ID: 934305

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
71-43-2	PS	Benzene	50.0	0.00	U	37.2	74	56-123
79-01-6	PS	Trichloroethylene	50.0	0.00	U	39.4	79	51-137
78-87-5	PS	1,2-Dichloropropane	50.0	0.00	U	35.2	70	60-126
75-27-4	PS	Bromodichloromethane	50.0	0.00	U	44.9	90	55-138
74-95-3	PS	Dibromomethane	50.0	0.00	U	40.9	82	60-132
108-10-1	PS	4-Methyl-2-pentanone	250	0.00	U	132	53 *	58-136
10061-01-5	PS	cis-1,3-Dichloropropylene	50.0	0.00	U	29.2	58	54-133
108-88-3	PS	Toluene	50.0	0.00	U	34.7	69	52-128
10061-02-6	PS	trans-1,3-Dichloropropylene	50.0	0.00	U	31.4	63	53-137
79-00-5	PS	1,1,2-Trichloroethane	50.0	0.00	U	37.2	74	59-130
591-78-6	PS	2-Hexanone	250	0.00	U	69.9	28 *	31-148
142-28-9	PS	1,3-Dichloropropane	50.0	0.00	U	36.4	73	57-127
127-18-4	PS	Tetrachloroethylene	50.0	0.00	U	45.6	91	51-128
124-48-1	PS	Dibromochloromethane	50.0	0.00	U	43.5	87	59-139
106-93-4	PS	1,2-Dibromoethane	50.0	0.00	U	37.2	74	57-133
108-90-7	PS	Chlorobenzene	50.0	0.00	U	34.3	69	53-122
100-41-4	PS	Ethylbenzene	50.0	0.00	U	34.7	69	51-125
179601-23-1	PS	m,p-Xylenes	100	0.00	U	61.0	61	50-126
95-47-6	PS	o-Xylene	50.0	0.00	U	34.2	68	52-127
100-42-5	PS	Styrene	50.0	0.00	U	29.6	59	49-135
75-25-2	PS	Bromoform	50.0	0.00	U	48.4	97	57-149
79-34-5	PS	1,1,2,2-Tetrachloroethane	50.0	0.00	U	36.8	74	63-127

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-852-1
Client ID: RE03-10-2741PS
Lab Sample ID: 1201998950
Instrument: VOA7.I
Analyst: AXO1
Purge Vol: 5 mL

Sample Type: Post Spike
Matrix: S
%Moisture: 8.2
Analysis Date: 12/18/2009 20:29
Prep Batch ID: 934300
Batch ID: 934305
Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
96-18-4	PS	1,2,3-Trichloropropane	50.0	0.00	U	41.2	82	57-149
108-86-1	PS	Bromobenzene	50.0	0.00	U	35.4	71	49-131
103-65-1	PS	n-Propylbenzene	50.0	0.00	U	33.1	66	40-136
95-49-8	PS	2-Chlorotoluene	50.0	0.00	U	34.7	69	44-135
98-82-8	PS	Isopropylbenzene	50.0	0.00	U	37.3	75	44-140
108-67-8	PS	1,3,5-Trimethylbenzene	50.0	0.00	U	34.2	68	42-140
106-43-4	PS	4-Chlorotoluene	50.0	0.00	U	29.2	58	44-132
98-06-6	PS	tert-Butylbenzene	50.0	0.00	U	34.2	68	42-142
95-63-6	PS	1,2,4-Trimethylbenzene	50.0	0.00	U	29.6	59	43-137
135-98-8	PS	sec-Butylbenzene	50.0	0.00	U	32.9	66	39-139
99-87-6	PS	4-Isopropyltoluene	50.0	0.00	U	13.8	28 *	38-145
541-73-1	PS	1,3-Dichlorobenzene	50.0	0.00	U	31.8	64	43-129
106-46-7	PS	1,4-Dichlorobenzene	50.0	0.00	U	31.2	62	44-125
104-51-8	PS	n-Butylbenzene	50.0	0.00	U	25.9	52	36-141
96-12-8	PS	1,2-Dibromo-3-chloropropane	50.0	0.00	U	38.8	78	47-151
630-20-6	PS	1,1,1,2-Tetrachloroethane	50.0	0.00	U	39.0	78	59-131
95-50-1	PS	1,2-Dichlorobenzene	50.0	0.00	U	31.2	62	43-129

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-852-1
Client ID: RE03-10-2741PSD
Lab Sample ID: 1201998951
Instrument: VOA7.I
Analyst: AXO1
Purge Vol: 5 mL

Sample Type: Post Spike Duplicate
Matrix: S
%Moisture: 8.2
Analysis Date: 12/18/2009 21:02
Dilution: 1
Prep Batch ID: 934300
Batch ID: 934305

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
75-71-8	PSD	Dichlorodifluoromethane	50.0	0.00	U	48.0	96	25-149	1	0-25
74-87-3	PSD	Chloromethane	50.0	0.00	U	37.3	75	39-140	3	0-25
75-01-4	PSD	Vinyl chloride	50.0	0.00	U	40.9	82	47-129	3	0-25
74-83-9	PSD	Bromomethane	50.0	0.00	U	35.7	71	31-135	4	0-25
75-00-3	PSD	Chloroethane	50.0	0.00	U	36.9	74	53-128	5	0-25
75-69-4	PSD	Trichlorofluoromethane	50.0	0.00	U	52.8	106	51-151	2	0-25
67-64-1	PSD	Acetone	250	0.00	U	91.3	37	21-153	1	0-25
75-35-4	PSD	1,1-Dichloroethylene	50.0	0.00	U	42.4	85	61-125	3	0-25
74-88-4	PSD	Iodomethane	250	0.00	U	170	68	53-142	3	0-25
75-09-2	PSD	Methylene chloride	50.0	0.00	U	39.5	79	59-136	2	0-25
75-15-0	PSD	Carbon disulfide	250	0.00	U	194	77	46-129	2	0-25
156-60-5	PSD	trans-1,2-Dichloroethylene	50.0	0.00	U	39.3	79	56-126	0	0-25
75-34-3	PSD	1,1-Dichloroethane	50.0	0.00	U	40.6	81	62-125	0	0-25
78-93-3	PSD	2-Butanone	250	0.00	U	98.3	39	26-152	5	0-25
156-59-2	PSD	cis-1,2-Dichloroethylene	50.0	0.00	U	39.0	78	60-130	3	0-25
594-20-7	PSD	2,2-Dichloropropane	50.0	0.00	U	41.0	82	55-135	6	0-25
67-66-3	PSD	Chloroform	50.0	0.00	U	44.3	89	60-127	1	0-25
74-97-5	PSD	Bromochloromethane	50.0	0.00	U	40.1	80	61-131	1	0-25
71-55-6	PSD	1,1,1-Trichloroethane	50.0	0.00	U	48.4	97	59-131	4	0-25
563-58-6	PSD	1,1-Dichloropropene	50.0	0.00	U	39.0	78	57-128	3	0-25
56-23-5	PSD	Carbon tetrachloride	50.0	0.00	U	48.8	98	58-136	4	0-25
107-06-2	PSD	1,2-Dichloroethane	50.0	0.00	U	45.1	90	58-126	2	0-25

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-852-1
Client ID: RE03-10-2741PSD
Lab Sample ID: 1201998951
Instrument: VOA7.I
Analyst: AXO1
Purge Vol: 5 mL

Sample Type: Post Spike Duplicate
Matrix: S
%Moisture: 8.2
Analysis Date: 12/18/2009 21:02
Prep Batch ID: 934300
Batch ID: 934305
Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
71-43-2	PSD	Benzene	50.0	0.00	U	36.8	74	56-123	1	0-25
79-01-6	PSD	Trichloroethylene	50.0	0.00	U	38.7	77	51-137	2	0-25
78-87-5	PSD	1,2-Dichloropropane	50.0	0.00	U	35.2	70	60-126	0	0-25
75-27-4	PSD	Bromodichloromethane	50.0	0.00	U	44.1	88	55-138	2	0-25
74-95-3	PSD	Dibromomethane	50.0	0.00	U	41.8	84	60-132	2	0-25
108-10-1	PSD	4-Methyl-2-pentanone	250	0.00	U	138	55 *	58-136	4	0-25
10061-01-5	PSD	cis-1,3-Dichloropropylene	50.0	0.00	U	28.8	58	54-133	1	0-25
108-88-3	PSD	Toluene	50.0	0.00	U	34.3	69	52-128	1	0-25
10061-02-6	PSD	trans-1,3-Dichloropropylene	50.0	0.00	U	32.3	65	53-137	3	0-25
79-00-5	PSD	1,1,2-Trichloroethane	50.0	0.00	U	37.4	75	59-130	0	0-25
591-78-6	PSD	2-Hexanone	250	0.00	U	70.9	28 *	31-148	2	0-25
142-28-9	PSD	1,3-Dichloropropane	50.0	0.00	U	36.7	73	57-127	1	0-25
127-18-4	PSD	Tetrachloroethylene	50.0	0.00	U	43.2	86	51-128	6	0-25
124-48-1	PSD	Dibromochloromethane	50.0	0.00	U	42.8	86	59-139	2	0-25
106-93-4	PSD	1,2-Dibromoethane	50.0	0.00	U	37.7	75	57-133	1	0-25
108-90-7	PSD	Chlorobenzene	50.0	0.00	U	34.0	68	53-122	1	0-25
100-41-4	PSD	Ethylbenzene	50.0	0.00	U	33.6	67	51-125	3	0-25
179601-23-1	PSD	m,p-Xylenes	100	0.00	U	58.5	58	50-126	4	0-25
95-47-6	PSD	o-Xylene	50.0	0.00	U	32.6	65	52-127	5	0-25
100-42-5	PSD	Styrene	50.0	0.00	U	29.1	58	49-135	2	0-25
75-25-2	PSD	Bromoform	50.0	0.00	U	47.8	96	57-149	1	0-25
79-34-5	PSD	1,1,2,2-Tetrachloroethane	50.0	0.00	U	36.6	73	63-127	1	0-25

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-852-1
Client ID: RE03-10-2741PSD
Lab Sample ID: 1201998951
Instrument: VOA7.I
Analyst: AXO1
Purge Vol: 5 mL

Sample Type: Post Spike Duplicate
Matrix: S
%Moisture: 8.2
Analysis Date: 12/18/2009 21:02
Dilution: 1
Prep Batch ID: 934300
Batch ID: 934305

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
96-18-4	PSD	1,2,3-Trichloropropane	50.0	0.00	U	40.3	81	57-149	2	0-25
108-86-1	PSD	Bromobenzene	50.0	0.00	U	34.9	70	49-131	1	0-25
103-65-1	PSD	n-Propylbenzene	50.0	0.00	U	31.6	63	40-136	5	0-25
95-49-8	PSD	2-Chlorotoluene	50.0	0.00	U	32.5	65	44-135	7	0-25
98-82-8	PSD	Isopropylbenzene	50.0	0.00	U	35.5	71	44-140	5	0-25
108-67-8	PSD	1,3,5-Trimethylbenzene	50.0	0.00	U	32.2	64	42-140	6	0-25
106-43-4	PSD	4-Chlorotoluene	50.0	0.00	U	27.8	56	44-132	5	0-25
98-06-6	PSD	tert-Butylbenzene	50.0	0.00	U	32.4	65	42-142	5	0-25
95-63-6	PSD	1,2,4-Trimethylbenzene	50.0	0.00	U	28.1	56	43-137	5	0-25
135-98-8	PSD	sec-Butylbenzene	50.0	0.00	U	30.8	62	39-139	6	0-25
99-87-6	PSD	4-Isopropyltoluene	50.0	0.00	U	13.8	28 *	38-145	0	0-25
541-73-1	PSD	1,3-Dichlorobenzene	50.0	0.00	U	30.3	61	43-129	5	0-25
106-46-7	PSD	1,4-Dichlorobenzene	50.0	0.00	U	29.7	59	44-125	5	0-25
104-51-8	PSD	n-Butylbenzene	50.0	0.00	U	24.1	48	36-141	7	0-25
96-12-8	PSD	1,2-Dibromo-3-chloropropane	50.0	0.00	U	39.6	79	47-151	2	0-25
630-20-6	PSD	1,1,1,2-Tetrachloroethane	50.0	0.00	U	38.9	78	59-131	0	0-25
95-50-1	PSD	1,2-Dichlorobenzene	50.0	0.00	U	29.5	59	43-129	6	0-25

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-852-1
Client ID: LCS for batch 934300
Lab Sample ID: 1201998952
Instrument: VOA7.I
Analyst: AXO1
Purge Vol: 5 mL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 12/18/2009 11:42
Dilution: 1
Prep Batch ID: 934300
Batch ID: 934305

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
75-71-8	LCS	Dichlorodifluoromethane	50.0	0.0	61.7	123	33-155
74-87-3	LCS	Chloromethane	50.0	0.0	46.8	94	53-132
75-01-4	LCS	Vinyl chloride	50.0	0.0	50.2	100	61-128
74-83-9	LCS	Bromomethane	50.0	0.0	51.6	103	63-126
75-00-3	LCS	Chloroethane	50.0	0.0	45.6	91	67-124
75-69-4	LCS	Trichlorofluoromethane	50.0	0.0	68.1	136	67-151
67-64-1	LCS	Acetone	250	0.0	205	82	29-160
75-35-4	LCS	1,1-Dichloroethylene	50.0	0.0	54.3	109	70-125
74-88-4	LCS	Iodomethane	250	0.0	256	102	74-131
75-09-2	LCS	Methylene chloride	50.0	0.0	47.6	95	72-127
75-15-0	LCS	Carbon disulfide	250	0.0	264	106	64-127
156-60-5	LCS	trans-1,2-Dichloroethylene	50.0	0.0	48.3	97	71-122
75-34-3	LCS	1,1-Dichloroethane	50.0	0.0	48.3	97	75-120
78-93-3	LCS	2-Butanone	250	0.0	178	71	35-162
156-59-2	LCS	cis-1,2-Dichloroethylene	50.0	0.0	46.2	92	76-122
594-20-7	LCS	2,2-Dichloropropane	50.0	0.0	52.2	104	74-135
67-66-3	LCS	Chloroform	50.0	0.0	51.7	103	77-120
74-97-5	LCS	Bromochloromethane	50.0	0.0	44.4	89	76-122
71-55-6	LCS	1,1,1-Trichloroethane	50.0	0.0	60.9	122	75-128
563-58-6	LCS	1,1-Dichloropropene	50.0	0.0	52.7	105	77-125
56-23-5	LCS	Carbon tetrachloride	50.0	0.0	62.3	125	77-134
107-06-2	LCS	1,2-Dichloroethane	50.0	0.0	51.6	103	72-120

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-852-1 **Sample Type:** Laboratory Control Sample

Client ID: LCS for batch 934300 **Matrix:** SOIL

Lab Sample ID: 1201998952

Instrument: VOA7.I **Analysis Date:** 12/18/2009 11:42 **Dilution:** 1

Analyst: AXO1 **Prep Batch ID** 934300

Purge Vol: 5 mL **Batch ID:** 934305

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
71-43-2	LCS	Benzene	50.0	0.0	45.5	91	72-120
79-01-6	LCS	Trichloroethylene	50.0	0.0	52.4	105	78-121
78-87-5	LCS	1,2-Dichloropropane	50.0	0.0	41.1	82	74-120
75-27-4	LCS	Bromodichloromethane	50.0	0.0	53.4	107	79-125
74-95-3	LCS	Dibromomethane	50.0	0.0	49.6	99	78-122
108-10-1	LCS	4-Methyl-2-pentanone	250	0.0	202	81	71-134
10061-01-5	LCS	cis-1,3-Dichloropropylene	50.0	0.0	45.2	90	80-125
108-88-3	LCS	Toluene	50.0	0.0	44.8	90	65-124
10061-02-6	LCS	trans-1,3-Dichloropropylene	50.0	0.0	47.0	94	71-134
79-00-5	LCS	1,1,2-Trichloroethane	50.0	0.0	45.2	90	76-120
591-78-6	LCS	2-Hexanone	250	0.0	161	64	42-159
142-28-9	LCS	1,3-Dichloropropane	50.0	0.0	43.0	86	72-120
127-18-4	LCS	Tetrachloroethylene	50.0	0.0	59.8	120	74-123
124-48-1	LCS	Dibromochloromethane	50.0	0.0	54.4	109	83-128
106-93-4	LCS	1,2-Dibromoethane	50.0	0.0	47.6	95	79-121
108-90-7	LCS	Chlorobenzene	50.0	0.0	46.1	92	75-120
100-41-4	LCS	Ethylbenzene	50.0	0.0	46.4	93	74-120
179601-23-1	LCS	m,p-Xylenes	100	0.0	90.6	91	74-120
95-47-6	LCS	o-Xylene	50.0	0.0	44.9	90	74-120
100-42-5	LCS	Styrene	50.0	0.0	41.8	84	76-125
75-25-2	LCS	Bromoform	50.0	0.0	58.4	117	77-138
79-34-5	LCS	1,1,2,2-Tetrachloroethane	50.0	0.0	45.0	90	72-122

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-852-1
Client ID: LCS for batch 934300
Lab Sample ID: 1201998952
Instrument: VOA7.I
Analyst: AXO1
Purge Vol: 5 mL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 12/18/2009 11:42
Dilution: 1
Prep Batch ID: 934300
Batch ID: 934305

CAS No	Parmname		Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
96-18-4	LCS	1,2,3-Trichloropropane	50.0	0.0	50.7	101	75-135
108-86-1	LCS	Bromobenzene	50.0	0.0	45.1	90	73-120
103-65-1	LCS	n-Propylbenzene	50.0	0.0	45.0	90	68-121
95-49-8	LCS	2-Chlorotoluene	50.0	0.0	43.6	87	69-120
98-82-8	LCS	Isopropylbenzene	50.0	0.0	46.6	93	66-127
108-67-8	LCS	1,3,5-Trimethylbenzene	50.0	0.0	44.8	90	67-126
106-43-4	LCS	4-Chlorotoluene	50.0	0.0	45.3	91	72-120
98-06-6	LCS	tert-Butylbenzene	50.0	0.0	45.8	92	72-124
95-63-6	LCS	1,2,4-Trimethylbenzene	50.0	0.0	44.3	89	72-122
135-98-8	LCS	sec-Butylbenzene	50.0	0.0	45.7	91	71-124
99-87-6	LCS	4-Isopropyltoluene	50.0	0.0	45.8	92	72-130
541-73-1	LCS	1,3-Dichlorobenzene	50.0	0.0	45.0	90	73-120
106-46-7	LCS	1,4-Dichlorobenzene	50.0	0.0	45.3	91	73-120
104-51-8	LCS	n-Butylbenzene	50.0	0.0	45.7	91	72-128
96-12-8	LCS	1,2-Dibromo-3-chloropropane	50.0	0.0	54.0	108	68-145
630-20-6	LCS	1,1,1,2-Tetrachloroethane	50.0	0.0	50.3	101	78-121
95-50-1	LCS	1,2-Dichlorobenzene	50.0	0.0	45.0	90	74-120

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-852-1
Sample Type: Laboratory Control Sample
Client ID: LCS for batch 934300
Matrix: SOIL
Lab Sample ID: 1201998953
Instrument: VOA7.I
Analysis Date: 12/18/2009 12:47
Dilution: 1
Analyst: AXO1
Prep Batch ID: 934300
Purge Vol: 5 mL
Batch ID: 934305

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
76-13-1	LCS	1,1,2-Trichloro-1,2,2-Trifluor *Trichlorotrifluoroethane*	250	0.0	316	126	52-139

Method Blank Summary

SDG Number:	10-852-1	Client:	LANL010	Matrix:	SOIL
Client ID:	MB for batch 934300	Instrument ID:	VOA7.1	Data File:	7q507BA.d
Lab Sample ID:	1201998949	Prep Date:	12/18/2009 08:00	Analyzed:	12/18/09 13:55
Column:	DB-624	Heated Purge:	Yes		

This method blank applies to the following samples and quality control samples:

Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01 LCS for batch 934300	1201998952	7q503LA.d	12/18/09	1142
02 LCS for batch 934300	1201998953	7q505LA.d	12/18/09	1247
03 RE03-09-14294	242659001	7q508.d	12/18/09	1429

Instrument Performance Check

BFB

Lab Name GEL Laboratories LLC **Client SDG:** 10-852-1

Instrument ID: VOA7.I **Injection Date/Time:** 15-NOV-09 23:14

Column Description: db624 **Lab File ID** /111509v7/71702.d

m/e	Ion Abundance Criteria	% Relative Abundance
95	Base Peak, 100% Relative Abundance	100
50	15.0 - 40.0% of mass 95	29.2
75	30.0 - 60.0% of mass 95	51.2
96	5.0 - 9.0% of mass 95	6.7
173	Less than 2.0% of mass 174	1
174	50.0 - 100.0% of mass 95	71
175	5.0 -9.0% of mass 174	7.7
176	95.0 - 101.0% of mass 174	97.8
177	5.0 - 9.0% of mass 176	6.9

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
VSTD002	W7VM0911115-02	/111509v7/71704.d	16-NOV-09 00:20
VSTD005	W7VM0911115-03	/111509v7/71705.d	16-NOV-09 00:55
VSTD010	W7VM0911115-04	/111509v7/71706.d	16-NOV-09 01:29
VSTD020	W7VM0911115-05	/111509v7/71707.d	16-NOV-09 02:03
VSTD050	W7VM0911115-06	/111509v7/71708.d	16-NOV-09 02:36
VSTD100	W7VM0911115-07	/111509v7/71709.d	16-NOV-09 03:10
VSTD0005	W7VM0911115-08	/111509v7/71711.d	16-NOV-09 04:18
VSTD005S	W7VM0911115-09	/111509v7/71712.d	16-NOV-09 04:51
VSTD010S	W7VM0911115-10	/111509v7/71713.d	16-NOV-09 05:25
VSTD025S	W7VM0911115-11	/111509v7/71714.d	16-NOV-09 05:58
VSTD050S	W7VM0911115-12	/111509v7/71715.d	16-NOV-09 06:32
VSTD100S	W7VM0911115-13	/111509v7/71716.d	16-NOV-09 07:05
VSTD500S	W7VM0911115-15	/111509v7/71718.d	16-NOV-09 08:11
VSTD001	W7VM0911115-18	/111509v7/71723.d	16-NOV-09 10:57

Instrument Performance Check

BFB

Lab Name GEL Laboratories LLC **Client SDG:** 10-852-1

Instrument ID: VOA7.I **Injection Date/Time:** 16-NOV-09 13:54

Column Description: db624 **Lab File ID** /111509v7/7m102BFB.d

m/e	Ion Abundance Criteria	% Relative Abundance
95	Base Peak, 100% Relative Abundance	100
50	15.0 - 40.0% of mass 95	31.4
75	30.0 - 60.0% of mass 95	53.7
96	5.0 - 9.0% of mass 95	6.9
173	Less than 2.0% of mass 174	1.1
174	50.0 - 100.0% of mass 95	72.9
175	5.0 -9.0% of mass 174	7.6
176	95.0 - 101.0% of mass 174	97.7
177	5.0 - 9.0% of mass 176	6.7

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
VSTD050 / LICV	W7VM0911116-01	/111509v7/7m102.d	16-NOV-09 13:54
VSTD250S / SICV	W7VM0911116-03	/111509v7/7m104.d	16-NOV-09 15:02

Instrument Performance Check

BFB

Lab Name GEL Laboratories LLC **Client SDG:** 10-852-1

Instrument ID: VOA7.I **Injection Date/Time:** 18-DEC-09 11:09

Column Description: db624 **Lab File ID** /121809v7/7q502BFB.d

m/e	Ion Abundance Criteria	% Relative Abundance
95	Base Peak, 100% Relative Abundance	100
50	15.0 - 40.0% of mass 95	32.8
75	30.0 - 60.0% of mass 95	55.2
96	5.0 - 9.0% of mass 95	6.5
173	Less than 2.0% of mass 174	0.8
174	50.0 - 100.0% of mass 95	74.2
175	5.0 -9.0% of mass 174	7.7
176	95.0 - 101.0% of mass 174	98.1
177	5.0 - 9.0% of mass 176	6.8

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
VSTD050	W7VM091218-01	/121809v7/7q502.d	18-DEC-09 11:09
LCS	1201998952	/121809v7/7q503LA.d	18-DEC-09 11:42
VSTD250S	W7VM091218-03	/121809v7/7q504.d	18-DEC-09 12:14
SLCS	1201998953	/121809v7/7q505LA.d	18-DEC-09 12:47
BLANK	1201998949	/121809v7/7q507BA.d	18-DEC-09 13:55
RE03-09-14294	242659001	/121809v7/7q508.d	18-DEC-09 14:29

Internal Standard
Area and RT Summary

Lab Name : GEL Laboratories LLC

Instrument: VOA7.I

GC Column: DB-624

Client SDG: 10-852-1

STD Analysis Time: 18-DEC-09 11:09

Data File: 7q502.d

	Fluorobenzene			Chlorobenzene-d5			1,4-Dichlorobenzene-d4		
	Area	#	RT #	Area	#	RT #	Area	#	RT #
12 Hour STD	806161		15.3	626967		18.7	371824		21.0
Upper Limit	1612322		15.8	1253934		19.2	743648		21.5
Lower Limit	403081		14.8	313484		18.2	185912		20.5
Sample ID									
BLK01LCS	843103		15.3	649765		18.7	393003		21.0
BLK01SLCS	835705		15.3	651635		18.7	402850		21.0
BLK01	840199		15.3	649011		18.7	376517		21.0
RE03-09-14294	763192		15.3	605503		18.7	356211		21.0

Area Upper Limit = +100% of internal standard area
Area Lower Limit = - 50% of internal standard area
RT Upper Limit = + 0.50 minutes of internal standard RT
RT Lower Limit = - 0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Value outside of QC Limits

Sample Data

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852-1	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242659001	**Date Received:**	12/10/2009 08:50		
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14294	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	934305	**Inst:**	VOA7.I	**Dilution:**	1
Run Date:	12/18/2009 14:29	**Analyst:**	AXO1	**Purge Vol:**	5 mL
Prep Date:	12/18/2009 13:18	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	7q508.d	**Column:**	DB-624	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/kg	0.340	1.00
74-87-3	Chloromethane	U	1.00	ug/kg	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/kg	0.300	1.00
74-83-9	Bromomethane	U	1.00	ug/kg	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/kg	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/kg	0.300	1.00
67-64-1	Acetone	J	1.96	ug/kg	1.66	5.00
75-35-4	1,1-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/kg	1.60	5.00
75-09-2	Methylene chloride	U	5.00	ug/kg	2.00	5.00
75-15-0	Carbon disulfide	U	5.00	ug/kg	1.25	5.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/kg	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/kg	1.50	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/kg	0.300	1.00
74-97-5	Bromochloromethane	U	1.00	ug/kg	0.330	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/kg	0.300	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/kg	0.300	1.00
56-23-5	Carbon tetrachloride	U	1.00	ug/kg	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/kg	0.300	1.00
71-43-2	Benzene	U	1.00	ug/kg	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/kg	0.330	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/kg	0.300	1.00
74-95-3	Dibromomethane	U	1.00	ug/kg	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/kg	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
108-88-3	Toluene	U	1.00	ug/kg	0.300	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/kg	0.300	1.00
591-78-6	2-Hexanone	U	5.00	ug/kg	1.50	5.00
142-28-9	1,3-Dichloropropane	U	1.00	ug/kg	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/kg	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/kg	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/kg	0.300	1.00
108-90-7	Chlorobenzene	U	1.00	ug/kg	0.300	1.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-852-1**	**Date Collected:**	**12/07/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242659001**	**Date Received:**	**12/10/2009 08:50**		
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14294**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**934305**	**Inst:**	**VOA7.I**	**Dilution:**	**1**
Run Date:	**12/18/2009 14:29**	**Analyst:**	**AXO1**	**Purge Vol:**	**5 mL**
Prep Date:	**12/18/2009 13:18**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**7q508.d**	**Column:**	**DB-624**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.00	ug/kg	0.300	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/kg	0.300	2.00
95-47-6	o-Xylene	U	1.00	ug/kg	0.300	1.00
100-42-5	Styrene	U	1.00	ug/kg	0.300	1.00
75-25-2	Bromoform	U	1.00	ug/kg	0.300	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/kg	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/kg	0.300	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/kg	0.300	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/kg	0.300	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/kg	0.300	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/kg	0.300	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/kg	0.300	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/kg	0.300	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/kg	0.300	1.00
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.00	ug/kg	1.60	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated Units	Fit	Qual
	No Tentatively Identified Compounds Found		ug/kg		

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA7.i/121809v7/7q508.d
Lab Smp Id: 242659001 Client Smp ID: RE03-09-14294
Inj Date : 18-DEC-2009 14:29
Operator : AXO1 Inst ID: VOA7.i
Smp Info : |242659001|934305|1|VOAF|1|
Misc Info : LANL 5g N/A
Comment :
Method : /chem/VOA7.i/121809v7/VOA7-8260B-111509.m
Meth Date : 19-Dec-2009 13:12 ale01592 Quant Type: ISTD
Cal Date : 16-NOV-2009 02:36 Cal File: 71708.d
Als bottle: 8
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-852-1.sub
Target Version: 3.50

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	0.00000	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
* 51 Fluorobenzene	96	15.317	15.317	(1.000)	763192	50.0000	
* 75 Chlorobenzene-d5	117	18.667	18.667	(1.000)	605503	50.0000	
* 101 1,4-Dichlorobenzene-d4	152	20.991	20.991	(1.000)	356211	50.0000	
$ 46 1,2-Dichloroethane-d4	65	14.880	14.880	(0.971)	383551	57.6385	57.6
$ 64 Toluene-d8	98	17.144	17.144	(0.918)	856643	47.3920	47.4
$ 86 Bromofluorobenzene	95	19.814	19.814	(0.944)	401036	47.8355	47.8
13 Acetone	43	10.505	10.413	(0.686)	12248	1.96452	2.0(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

ION RATIO REPORT

VOA REPORT

Data file: 7q508.d
Report Date: 12/19/2009 13:45
Lab. ID: 242659001 SampleType: SAMPLE
Injection Date: 18-DEC-2009 14:29
Operator: AXO1 Instrument: VOA7.i
Sample Info: |242659001|934305|1|VOAF|1|
Miscellaneous Info: LANL 5g N/A
Comment:
Method used: /chem/VOA7.i/121809v7/VOA7-8260B-111509.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-852-1
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
13 Acetone		CAS#: 67-64-1				
43	12248	10.50	10.41	80-120	100	(T)
58	2624	10.48	10.42	0- 55	21	(T)
63 4-Methyl-2-pentanone			CAS#: 108-10-1			
58	10534	17.13	16.94	80-120	100	(T)
43	7219	17.13	16.94	264-324	69	(QT)
100	583733	17.14	16.94	0- 56	5541	(QT)
82 Bromoform			CAS#: 75-25-2			
173	2214	19.82	19.54	80-120	100	(T)
175	22135	19.82	19.54	19- 79	1000	(QT)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA7.i/121809v7/7q508.d
Lab Smp Id: 242659001 Client Smp ID: RE03-09-14294
Inj Date : 18-DEC-2009 14:29
Operator : AXO1 Inst ID: VOA7.i
Smp Info : |242659001|934305|1|VOAF|1|
Misc Info : LANL 5g N/A
Comment :
Method : /chem/VOA7.i/121809v7/VOA7-8260B-111509.m
Meth Date : 19-Dec-2009 13:12 ale01592 Quant Type: ISTD
Cal Date : 16-NOV-2009 02:36 Cal File: 71708.d
Als bottle: 8
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-852-1.sub
Target Version: 3.50

- NO TENTATIVELY IDENTIFIED COMPOUNDS -

Data File: /chem/VOA7.i/121809v7/7q508.d
Date : 18-DEC-2009 14:29
Client ID: RE03-09-14294
Sample Info: |2426590011934305|1|VOAF|1|

Column phase: DB-624

Instrument: VOA7.i

Operator: AX01
Column diameter: 0.25

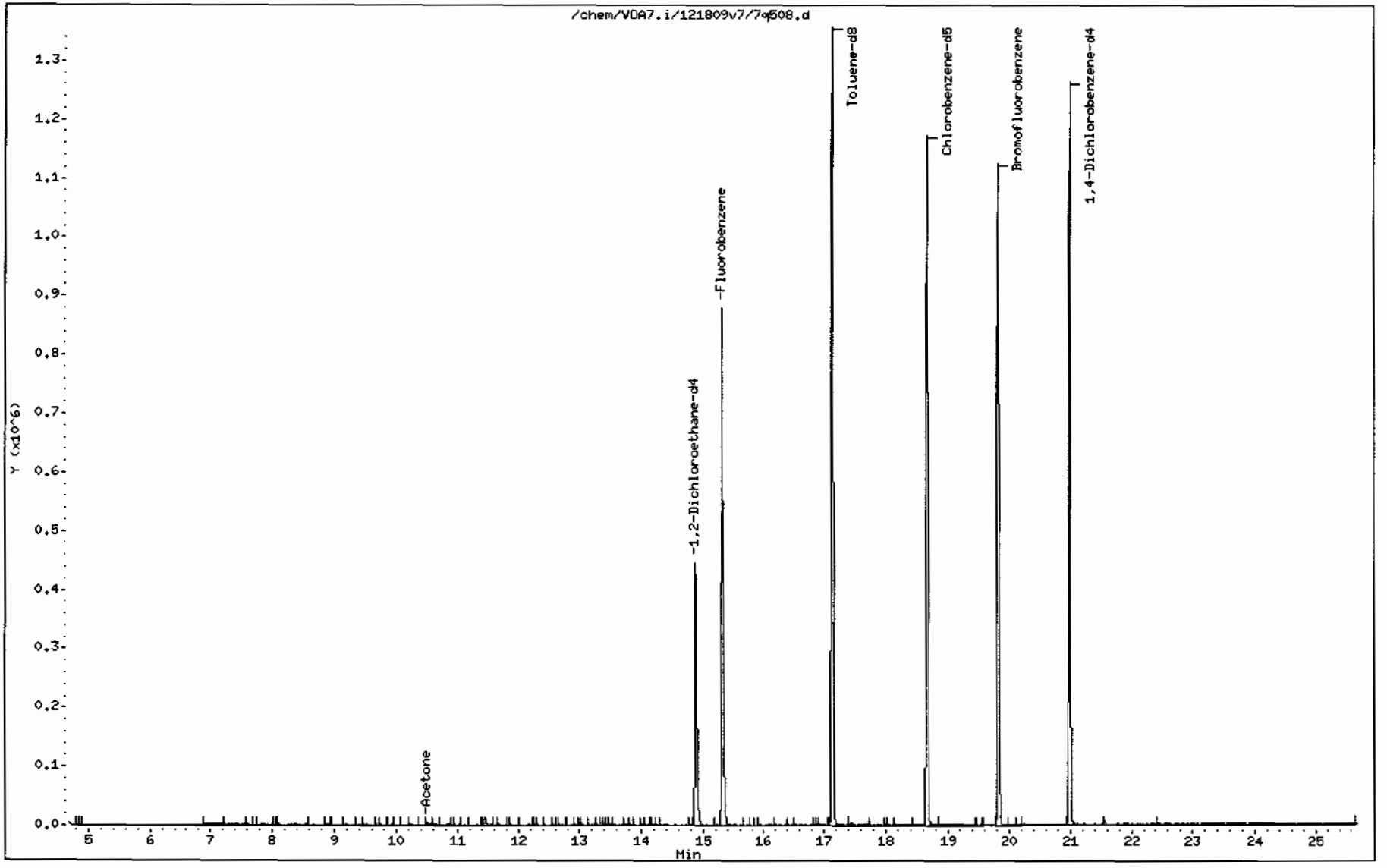

Data File: /chem/VOA7.i/121809v7/7q508.d

Date : 18-DEC-2009 14:29

Client ID: RE03-09-14294

Instrument: VOA7.i

Sample Info: |2426590001|934305|1|VOAF|1|

Operator: AX01

Column phase: DB-624

Column diameter: 0.25

13 Acetone

Concentration: 2.0 ug/Kg

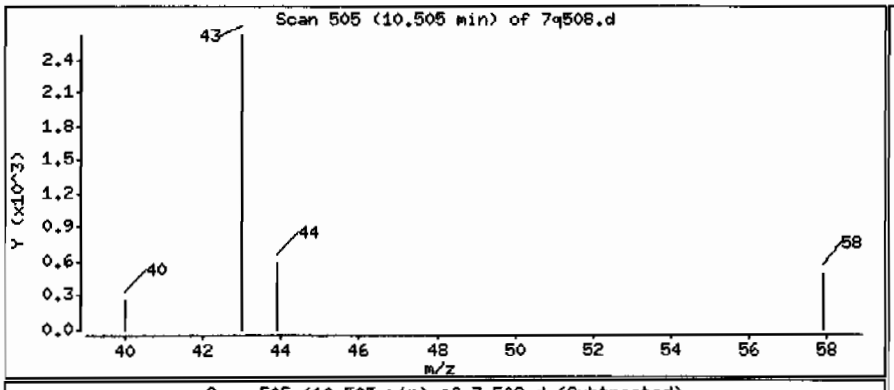

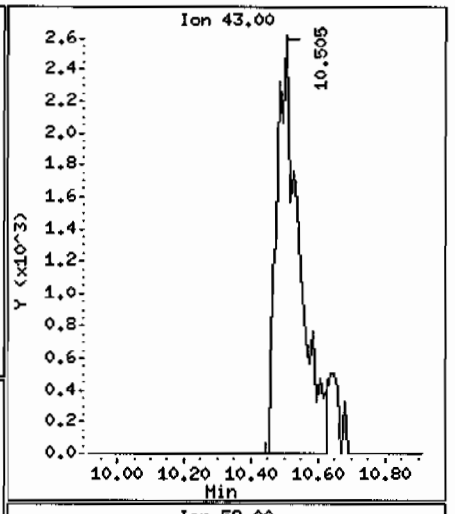

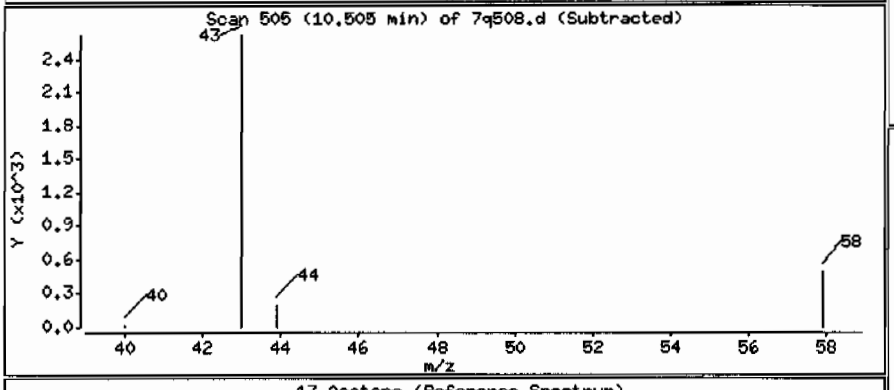

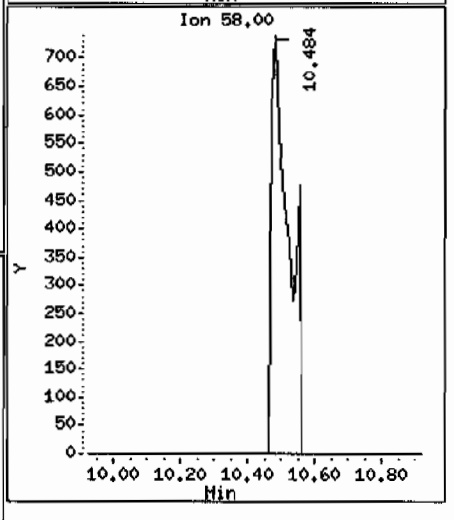

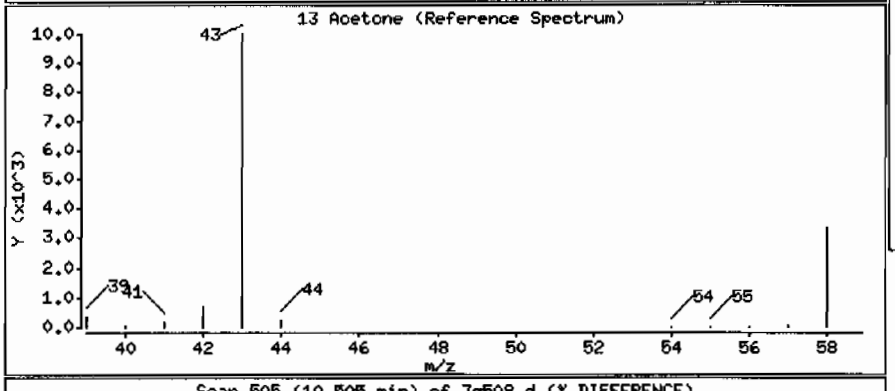

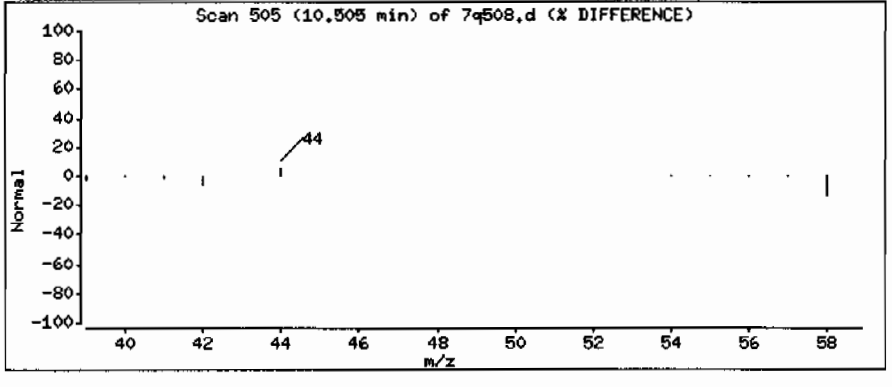

Standard Data

EPA 524.2/Low level SW846 8260B and Regular level 8260B and EPA 624
Calibration Standard Concentration Levels

	Level 1	Level 1a	Level 2	Level 3	Level 4 #	Level 5	Level 6	Level 7 !	Level 7a
Fluorobenzene (IS)									
1,2-Dichloroethane-d4(surr)		0.5	1	2	5	10	20	50	100
Dichlorodifluoromethane		0.5	1	2	5	10	20	50	100
Chloromethane		0.5	1	2	5	10	20	50	100
Vinyl chloride		0.5	1	2	5	10	20	50	100
Bromomethane		0.5	1	2	5	10	20	50	100
Chloroethane		0.5	1	2	5	10	20	50	100
Trichlorofluoromethane		0.5	1	2	5	10	20	50	100
1,1-Dichloroethene		0.5	1	2	5	10	20	50	100
Acetone	1	2.5	5	10	25	50	100	250	500
Iodomethane	1	2.5	5	10	25	50	100	250	500
Carbon disulfide	1	2.5	5	10	25	50	100	250	500
Methylene chloride		0.5	1	2	5	10	20	50	100
trans-1,2-Dichloroethene		0.5	1	2	5	10	20	50	100
1,1-Dichloroethane		0.5	1	2	5	10	20	50	100
Ethyl ether		0.5	1	2	5	10	20	50	100
Vinyl acetate	1	2.5	5	10	25	50	100	250	500
cis-1,2-Dichloroethene		0.5	1	2	5	10	20	50	100
1,2-Dichloroethene (total)		1	2	4	10	20	40	100	200
Cyclohexene		0.5	1	2	5	10	20	50	100
2-Chloroethylvinyl ether			5	10	25	50	100	250	500
2,2-Dichloropropane		0.5	1	2	5	10	20	50	100
2-Butanone	1	2.5	5	10	25	50	100	250	500
Bromochloromethane		0.5	1	2	5	10	20	50	100
Chloroform		0.5	1	2	5	10	20	50	100
1,1,1-Trichloroethane		0.5	1	2	5	10	20	50	100
1,1-Dichloropropene		0.5	1	2	5	10	20	50	100
Carbon tetrachloride		0.5	1	2	5	10	20	50	100
Benzene		0.5	1	2	5	10	20	50	100
1,2-Dichloroethane		0.5	1	2	5	10	20	50	100
Trichloroethene		0.5	1	2	5	10	20	50	100
1,2-Dichloropropane		0.5	1	2	5	10	20	50	100
Dibromomethane		0.5	1	2	5	10	20	50	100
Bromodichloromethane		0.5	1	2	5	10	20	50	100
cis-1,3-Dichloropropene		0.5	1	2	5	10	20	50	100
tert-Butylmethylether		0.5	1	2	5	10	20	50	100
Ethyl Ether			1	2	5	10	20	50	100
Acetonitrile			25	50	125	250	500	1250	2500
Methyl acetate			5	10	25	50	100	250	500
Cyclohexane			1	2	5	10	20	50	100
Methylcyclohexane			1	2	5	10	20	50	100
n-Butyl alcohol			50	100	250	500	1000	2500	5000
2-Nitropropane			5	10	25	50	100	250	500
Ethyl acetate			5	10	25	50	100	250	500
Acrolein			5	10	25	50	100	250	500
Trichlorotrifluoroethane			5	10	25	50	100	250	500
Allyl chloride			5	10	25	50	100	250	500
Acrylonitrile			5	10	25	50	100	250	500
1,4-Dioxane			50	100	250	500	1000	2500	5000
Isobutyl alcohol			50	100	250	500	1000	2500	5000
Methacrylonitrile			5	10	25	50	100	250	500
Propionitrile			5	10	25	50	100	250	500
Methyl methacrylate			5	10	25	50	100	250	500
Chlorotrifluoroethylene			5	10	25	50	100	250	500
2-Chloro-1,1,1-trifluoroethane			5	10	25	50	100	250	500

tert-Butyl alcohol			50	100	250	500	1000	2500	5000
Isopropyl ether			1	2	5	10	20	50	100
Ethyl tert-butyl ether			1	2	5	10	20	50	100
Isopropyl alcohol			50	100	250	500	1000	2500	5000
Methyl tert-amyl ether			1	2	5	10	20	50	100
1-Chlorohexane			1	2	5	10	20	50	100
2-Chloro-1,3-butadiene(chloroprene)			1	2	5	10	20	50	100
Chlorobenzene-d5 (IS)									
Toluene-d8 (surr)		0.5	1	2	5	10	20	50	100
4-Methyl-2-pentanone	1	2.5	5	10	25	50	100	250	500
Toluene		0.5	1	2	5	10	20	50	100
trans-1,3-Dichloropropene		0.5	1	2	5	10	20	50	100
1,1,2-Trichloroethane		0.5	1	2	5	10	20	50	100
Tetrachloroethene		0.5	1	2	5	10	20	50	100
1,3-Dichloropropane		0.5	1	2	5	10	20	50	100
2-Hexanone	1	2.5	5	10	25	50	20	250	500
Dibromochloromethane		0.5	1	2	5	10	20	50	100
1,2-Dibromoethane		0.5	1	2	5	10	20	50	100
Chlorobenzene		0.5	1	2	5	10	20	50	100
1,1,1,2-Tetrachloroethane		0.5	1	2	5	10	20	50	100
Ethylbenzene		0.5	1	2	5	10	20	50	100
m,p-Xylene		1	2	4	10	20	20	100	200
o-Xylene		0.5	1	2	5	10	20	50	100
Xylenes (total)		1.5	3	6	15	30	60	150	300
Stryene		0.5	1	2	5	10	20	50	100
Cyclohexanone			50	100	250	500	1000	2500	5000
Ethyl methacrylate			5	10	25	50	100	250	500
1,4-Dichlorobenzene-d4 (IS)									
Bromofluorobenzene (surr)		0.5	1	2	5	10	20	50	100
Bromoform		0.5	1	2	5	10	20	50	100
Isopropylbenzene		0.5	1	2	5	10	20	50	100
1,1,2,2-Tetrachloroethane		0.5	1	2	5	10	20	50	100
Bromobenzene		0.5	1	2	5	10	20	50	100
1,2,3-Trichloropropane		0.5	1	2	5	10	20	50	100
n-Propylbenzene		0.5	1	2	5	10	20	50	100
2-Chlorotoluene		0.5	1	2	5	10	20	50	100
1,3,5-Trimethylbenzene		0.5	1	2	5	10	20	50	100
4-Chlorotoluene		0.5	1	2	5	10	20	50	100
1,2,4-Trimethylbenzene		0.5	1	2	5	10	20	50	100
sec-Butylbenzene		0.5	1	2	5	10	20	50	100
1,3-Dichlorobenzene		0.5	1	2	5	10	20	50	100
tert-Butylbenzene		0.5	1	2	5	10	20	50	100
Isopropyltoluene		0.5	1	2	5	10	20	50	100
1,4-Dichlorobenzene		0.5	1	2	5	10	20	50	100
n-Butylbenzene		0.5	1	2	5	10	20	50	100
1,2-Dichlorobenzene		0.5	1	2	5	10	20	50	100
1,2-Dibromo-3-chloropropa		0.5	1	2	5	10	20	50	100
1,2,4-Trichlorobenzene		0.5	1	2	5	10	20	50	100
Hexachlorobutadiene		0.5	1	2	5	10	20	50	100
Naphthalene		0.5	1	2	5	10	20	50	100
1,2,3-Trichlorobenzene		0.5	1	2	5	10	20	50	100
cis-1,4-Dichloro-2-butene			5	10	25	50	100	250	500
trans-1,4-Dichloro-2-butene			5	10	25	50	100	250	500
Tetrahydrofuran			5	10	25	50	100	250	500
Pentachloroethane			5	10	25	50	100	250	500
Benzyl chloride			5	10	25	50	100	250	500
bis(2-Chloro-isopropyl)ether			5	10	25	50	100	250	500

Report Date: 19-Dec-2009 13:16

Calibration History

Method : /chem/VOA7.i/121809v7/VOA7-8260B-111509.m
Start Cal Date: 16-NOV-2009 00:20
End Cal Date : 16-NOV-2009 10:57

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 1.00000		
16-NOV-2009 10:57	ICALsubL+	/chem/VOA7.i/111509v7/71723.d
16-NOV-2009 04:51	ICALsubS	/chem/VOA7.i/111509v7/71712.d
Cal Level: 2 , Cal Amount: 2.00000		
16-NOV-2009 05:25	ICALsubS	/chem/VOA7.i/111509v7/71713.d
16-NOV-2009 00:20	ICALsubL+	/chem/VOA7.i/111509v7/71704.d
Cal Level: 3 , Cal Amount: 5.00000		
16-NOV-2009 05:58	ICALsubS	/chem/VOA7.i/111509v7/71714.d
16-NOV-2009 00:55	ICALsubL+	/chem/VOA7.i/111509v7/71705.d
Cal Level: 4 , Cal Amount: 10.00000		
16-NOV-2009 06:32	ICALsubS	/chem/VOA7.i/111509v7/71715.d
16-NOV-2009 01:29	ICALsubL+	/chem/VOA7.i/111509v7/71706.d
Cal Level: 5 , Cal Amount: 20.00000		
16-NOV-2009 07:05	ICALsubS	/chem/VOA7.i/111509v7/71716.d
16-NOV-2009 02:03	ICALsubL+	/chem/VOA7.i/111509v7/71707.d
Cal Level: 6 , Cal Amount: 50.00000		
16-NOV-2009 02:36	ICALsubL+	/chem/VOA7.i/111509v7/71708.d
Cal Level: 7 , Cal Amount: 100.00000		
16-NOV-2009 08:11	ICALsubS	/chem/VOA7.i/111509v7/71718.d
16-NOV-2009 03:10	ICALsubL+	/chem/VOA7.i/111509v7/71709.d
Cal Level: 8 , Cal Amount: 200.00000		
16-NOV-2009 04:18	BENZENE+	/chem/VOA7.i/111509v7/71711.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 6

Ccal Level: 6 , Ccal Amount: 50.0

18-DEC-2009 11:09	CALsubL+	/chem/VOA7.i/121809v7/7q502.d
Ccal Level: 6 , Ccal Amount: 50.0		
17-DEC-2009 09:05	CALsubL+	/chem/VOA7.i/121709v7/7q402.d
Ccal Level: 6 , Ccal Amount: 50.0		
17-DEC-2009 09:38	CALsubS+SS	/chem/VOA7.i/121709v7/7q403.d
Ccal Level: 6 , Ccal Amount: 50.0		
18-DEC-2009 12:14	CALsubS+SS	/chem/VOA7.i/121809v7/7q504.d

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 16-NOV-2009 00:20
End Cal Date : 16-NOV-2009 10:57
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/VOA7.i/121809v7/VOA7-8260B-111509.m
Cal Date : 19-Dec-2009 13:12 ale01592

Calibration File Names:
Level 1: /chem/VOA7.i/111509v7/71723.d
Level 2: /chem/VOA7.i/111509v7/71713.d
Level 3: /chem/VOA7.i/111509v7/71714.d
Level 4: /chem/VOA7.i/111509v7/71715.d
Level 5: /chem/VOA7.i/111509v7/71716.d
Level 6: /chem/VOA7.i/111509v7/71708.d
Level 7: /chem/VOA7.i/111509v7/71718.d
Level 8: /chem/VOA7.i/111509v7/71711.d

Compound	1 Level 1	2 Level 2	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	200 Level 8									
M 1 1,3-Dichloropropylene	0.48162	0.51141	0.48991	0.49506	0.47915	0.45634					
	0.45814	+++++					AVRG		0.48166		4.09435
M 2 Xylenes (total)	0.70187	0.71107	0.68541	0.65468	0.62432	0.58624					
	0.54217	+++++					AVRG		0.64368		9.77778
M 3 1,2-Dichloroethylene (total)	0.50335	0.51390	0.49246	0.48613	0.47127	0.44528					
	0.43027	+++++					AVRG		0.47752		6.39683
147 Chlorotrifluoroethylene	+++++	0.11567	0.12629	0.13006	0.15103	+++++					
	0.12864	+++++					AVRG		0.13034		9.87423 <-
148 2-Chloro-1,1,1-trifluoroethan	+++++	0.29483	0.28977	0.28633	0.28136	+++++					
	0.26145	+++++					AVRG		0.28275		4.55528 <-

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 16-NOV-2009 00:20
End Cal Date : 16-NOV-2009 10:57
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/VOA7.i/121809v7/VOA7-8260B-111509.m
Cal Date : 19-Dec-2009 13:12 ale01592

Compound	1 Level 1 100 Level 7	2 Level 2 200 Level 8	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
4 Dichlorodifluoromethane	9878	9249	23150	48278	92822	212089						
	442243	+++++					LINR	-0.00674	0.19647		0.99903	
5 Chloromethane	17787	25991	62744	120715	235311	545414						
	+++++	+++++					LINR	-0.01618	0.48059		0.99934	
6 Vinyl chloride	0.45101	0.32267	0.32843	0.32002	0.31485	0.31553						
	0.32064	+++++					AVRG		0.33902		14.62820	
7 Bromomethane	0.27284	0.23477	0.21739	0.23189	0.22221	0.22062						
	0.22663	+++++					AVRG		0.23234		8.13362	
8 Chloroethane	0.26449	0.29143	0.26656	0.24776	0.24161	0.22593						
	0.23650	+++++					AVRG		0.25347		8.75362	
9 Trichlorofluoromethane	0.36936	0.32081	0.34380	0.33088	0.34454	0.33922						
	0.34228	+++++					AVRG		0.34155		4.37091	
10 Ethyl Ether	0.32395	0.40505	0.37935	0.37257	0.35783	0.33864						
	0.33947	+++++					AVRG		0.35955		7.81915	
11 Acrolein	0.10338	0.08120	0.07335	0.07632	0.07973	+++++						
	0.08321	+++++					AVRG		0.08287		12.84791	<-
12 Trichlorotrifluoroethane	0.10801	0.09022	0.09121	0.09389	0.09152	+++++						
	0.08403	+++++					AVRG		0.09315		8.58517	<-

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 16-NOV-2009 00:20
End Cal Date : 16-NOV-2009 10:57
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/VOA7.i/121809v7/VOA7-8260B-111509.m
Cal Date : 19-Dec-2009 13:12 ale01592

Compound	1 Level 1	2 Level 2	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	100 Level 7	200 Level 8										
13 Acetone	0.41356	0.45387	0.41433	0.43007	0.40244	0.39042						
	0.35449	+++++					AVRG		0.40846		7.65356	
14 1,1-Dichloroethylene	0.22088	0.21532	0.20364	0.20899	0.20024	0.20565						
	0.19213	+++++					AVRG		0.20669		4.61138	
15 Isopropyl Alcohol	0.03168	0.03567	0.03718	0.03843	0.04149	+++++						
	0.03561	+++++					AVRG		0.03668		8.93039	<-
16 Iodomethane	0.40955	0.39246	0.38281	0.39460	0.37262	0.36662						
	0.32402	+++++					AVRG		0.37752		7.31342	
17 Acetonitrile	0.06684	0.07498	0.06894	0.07076	0.06571	0.07505						
	0.05949	+++++					AVRG		0.06882		7.98603	
18 Methyl acetate	0.46706	0.48972	0.42740	0.44391	0.40101	0.34961						
	0.32566	+++++					AVRG		0.41491		14.50657	
19 Carbon disulfide	0.81399	0.71905	0.65613	0.72387	0.66367	0.64827						
	0.51116	+++++					AVRG		0.67659		13.71592	
20 Allyl chloride	0.73189	0.65846	0.65047	0.64089	0.62129	+++++						
	0.50912	+++++					AVRG		0.63535		11.40310	<-
21 tert-Butyl Alcohol	0.05404	0.05110	0.05011	0.05014	0.05625	+++++						
	0.04447	+++++					AVRG		0.05102		7.88694	<-

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 16-NOV-2009 00:20
End Cal Date : 16-NOV-2009 10:57
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/VOA7.i/121809v7/VOA7-8260B-111509.m
Cal Date : 19-Dec-2009 13:12 ale01592

Compound	1 Level 1	2 Level 2	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	100 Level 7	200 Level 8										
22 Methylene chloride	+++++	18349	33412	50196	94022	216889						
	400402	+++++					LINR	-0.06474	0.17592		0.99946	
23 Acrylonitrile	0.17475	0.15791	0.16794	0.16478	0.17200	+++++						
	0.15900	+++++					AVRG		0.16606		4.10463	<-
24 tert-Butyl methyl ether	0.83012	0.96761	0.88767	0.95137	0.84252	0.79052						
	0.79091	+++++					AVRG		0.86582		8.33600	
25 trans-1,2-Dichloroethylene	0.46674	0.47157	0.45561	0.44548	0.43475	0.41412						
	0.39387	+++++					AVRG		0.44031		6.43042	
26 Vinyl acetate	0.93699	1.00832	0.91797	0.90197	0.90475	0.80868						
	0.69472	+++++					AVRG		0.88192		11.49269	
27 Isopropyl ether	+++++	1.67983	1.73405	1.73947	1.73231	+++++						
	1.56232	+++++					AVRG		1.68959		4.44716	<-
28 1,1-Dichloroethane	0.55908	0.56733	0.55912	0.55824	0.54325	0.53477						
	0.52674	+++++					AVRG		0.54979		2.73004	
29 2-Chloro-1,3-butadiene	0.60061	0.54347	0.55048	0.54911	0.52692	+++++						
	0.50165	+++++					AVRG		0.54538		5.99603	<-
30 Ethyl tert-butyl ether	+++++	1.15038	1.14159	1.15815	1.16883	+++++						
	1.11754	+++++					AVRG		1.14730		1.69286	<-

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Cal Date : 19-Dec-2009 13:12 ale01592

Compound	1 Level 1 100 Level 7	2 Level 2 200 Level 8	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
31 2-Butanone	0.50656	0.55953	0.46507	0.47110	0.45593	0.42908						
	0.37852	+++++					AVRG		0.46654		12.23007	
32 Ethyl acetate	0.61522	0.48944	0.49792	0.47694	0.49442	+++++						
	0.38738	+++++					AVRG		0.49355		14.71943	<-
33 cis-1,2-Dichloroethylene	0.53996	0.55622	0.52930	0.52679	0.50779	0.47645						
	0.46666	+++++					AVRG		0.51474		6.41363	
34 2,2-Dichloropropane	0.30573	0.33532	0.29995	0.28909	0.27942	0.25411						
	0.26495	+++++					AVRG		0.28980		9.37472	
35 Propionitrile	0.07599	0.06418	0.06422	0.06603	0.07037	+++++						
	0.06037	+++++					AVRG		0.06686		8.26398	<-
36 Methacrylonitrile	0.34622	0.29982	0.30977	0.29213	0.30586	+++++						
	0.25040	+++++					AVRG		0.30070		10.28807	<-
37 Bromochloromethane	0.44336	0.47430	0.45054	0.46944	0.44692	0.42910						
	0.41925	+++++					AVRG		0.44756		4.43402	
38 Chloroform	0.50752	0.53598	0.51019	0.49879	0.48385	0.47123						
	0.46937	+++++					AVRG		0.49671		4.79790	
39 Tetrahydrofuran	0.46962	0.36550	0.36733	0.34702	0.36837	+++++						
	0.30065	+++++					AVRG		0.36975		14.95593	<-

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Cal Date : 19-Dec-2009 13:12 ale01592

Compound	1 Level 1	2 Level 2	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	100 Level 7	200 Level 8										
41 1,1,1-Trichloroethane	0.39389	0.39912	0.37452	0.36015	0.36051	0.35090						
	0.35034	+++++					AVRG		0.36992		5.38140	
42 Isobutyl alcohol	0.01894	0.01539	0.01791	0.01817	0.02004	+++++						
	0.01579	+++++					AVRG		0.01771		10.19142	<-
43 Cyclohexane	0.73385	0.76995	0.62800	0.60896	0.58507	0.55714						
	0.51772	+++++					AVRG		0.62867		14.62772	
44 1,1-Dichloropropene	0.36948	0.35436	0.34505	0.33268	0.32380	0.31448						
	0.30567	+++++					AVRG		0.33508		6.75846	
45 Carbon tetrachloride	0.30515	0.31489	0.29276	0.29301	0.28324	0.27677						
	0.28441	+++++					AVRG		0.29289		4.53638	
47 1,2-Dichloroethane	0.50646	0.55371	0.53797	0.54777	0.52405	0.49015						
	0.47757	+++++					AVRG		0.51967		5.62217	
48 Benzene	1.08245	1.13296	1.06418	1.03887	0.99466	0.94896						
	0.90668	+++++					AVRG		1.02411		7.70711	
49 Methyl tert-amyl ether	+++++	0.79368	0.79088	0.81205	0.81522	+++++						
	0.76488	+++++					AVRG		0.79534		2.53396	<-
50 Cyclohexene	0.53525	0.54627	0.49088	0.47223	0.46857	0.44496						
	0.42837	+++++					AVRG		0.48379		9.06743	

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Method file : /chem/VOA7.i/121809v7/VOA7-8260B-111509.m
Cal Date : 19-Dec-2009 13:12 ale01592

Compound	1 Level 1 100 Level 7	2 Level 2 200 Level 8	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
52 n-Butyl alcohol	0.01414	0.01540	0.01465	0.01549	0.01195	0.01360						
	0.01298	0.01589					AVRG		0.01426		9.55415	
53 Trichloroethylene	0.29668	0.27864	0.26410	0.26925	0.25379	0.24558						
	0.24343	+++++					AVRG		0.26450		7.19813	
54 Methyl methacrylate	0.23403	0.21190	0.21903	0.20630	0.21130	+++++						
	0.17483	+++++					AVRG		0.20956		9.33602	<-
55 Methylcyclohexane	0.48623	0.45049	0.41633	0.40547	0.39190	0.36154						
	0.34719	+++++					AVRG		0.40845		11.87464	
56 1,2-Dichloropropane	0.34729	0.36852	0.34844	0.34238	0.32116	0.30810						
	0.29588	+++++					AVRG		0.33311		7.68307	
57 1,4-Dioxane	0.00311	0.00342	0.00301	0.00321	0.00334	+++++						
	0.00291	+++++					AVRG		0.00316		6.09053	<-
58 Dibromomethane	0.17530	0.21136	0.18851	0.19605	0.18940	0.17505						
	0.17768	+++++					AVRG		0.18762		7.04018	
59 Bromodichloromethane	0.40306	0.39688	0.39882	0.39409	0.39111	0.38250						
	0.38772	+++++					AVRG		0.39346		1.77175	
60 2-Nitropropane	0.14779	0.11222	0.12974	0.11925	0.13313	+++++						
	0.13745	+++++					AVRG		0.12993		9.81668	<-

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Target Version : 3.50
Integrator : HP RTE
Method file : /chem/VOA7.i/121809v7/VOA7-8260B-111509.m
Cal Date : 19-Dec-2009 13:12 a1e01592

Compound	1 Level 1	2 Level 2	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	100 Level 7	200 Level 8										
61 2-Chloroethylvinyl ether	0.13440	0.14994	0.14076	0.14163	0.13735	0.12335						
	0.12792	+++++					AVRG		0.13648		6.53115	
62 cis-1,3-Dichloropropylene	0.51907	0.52113	0.50923	0.50627	0.49050	0.46742						
	0.46560	+++++					AVRG		0.49703		4.65191	
63 4-Methyl-2-pentanone	0.26289	0.29681	0.26991	0.26674	0.25619	0.24532						
	0.21162	+++++					AVRG		0.25850		10.06509	
65 Toluene	1.06152	0.94181	0.92209	0.85591	0.83869	0.81855						
	0.77591	+++++					AVRG		0.88778		10.78602	
66 Ethyl methacrylate	0.60106	0.55204	0.56173	0.54685	0.53056	+++++						
	0.39826	+++++					AVRG		0.53175		13.07283	<-
67 trans-1,3-Dichloropropylene	0.59340	0.66097	0.62140	0.63870	0.61596	0.60172						
	0.59157	+++++					AVRG		0.61767		4.10553	
68 1,1,2-Trichloroethane	0.28152	0.34176	0.31919	0.31408	0.30560	0.28919						
	0.27725	+++++					AVRG		0.30409		7.59572	
69 2-Hexanone	0.87481	0.97568	0.87145	0.82622	0.78128	0.70076						
	+++++	+++++					AVRG		0.83837		11.14091	
70 1,3-Dichloropropane	0.62125	0.70580	0.63473	0.62515	0.59521	0.54769						
	0.50020	+++++					AVRG		0.60429		10.90903	

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Method file : /chem/VOA7.i/121809v7/VOA7-8260B-111509.m
Cal Date : 19-Dec-2009 13:12 ale01592

Compound	1 Level 1 100 Level 7	2 Level 2 200 Level 8	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
71 Tetrachloroethylene	5992	9474	21832	39767	78891	181061						
	337900	+++++					LINR	-0.03372	0.19968		0.99822	
72 Dibromochloromethane	0.36374	0.35126	0.34534	0.35045	0.34793	0.36389						
	0.36418	+++++					AVRG		0.35526		2.34746	
73 1,2-Dibromoethane	0.36352	0.39368	0.36505	0.37797	0.37853	0.35728						
	0.34784	+++++					AVRG		0.36913		4.15400	
74 1-Chlorohexane	0.43766	0.42600	0.40282	0.39261	0.39261	+++++						
	0.36131	+++++					AVRG		0.40217		6.74585	<-
76 Chlorobenzene	1.07372	1.00204	1.00902	0.96396	0.93337	0.90160						
	0.86204	+++++					AVRG		0.96368		7.42752	
77 1,1,1,2-Tetrachloroethane	0.36216	0.35620	0.34804	0.35642	0.33854	0.33649						
	0.32622	+++++					AVRG		0.34629		3.75530	
78 Ethylbenzene	1.95324	1.84797	1.75084	1.66559	1.62080	1.50242						
	1.36911	+++++					AVRG		1.67285		11.94152	
79 m,p-Xylenes	0.69767	0.70455	0.67501	0.64826	0.61794	0.58065						
	0.53207	+++++					AVRG		0.63659		10.00955	
80 o-Xylene	0.71025	0.72410	0.70621	0.66754	0.63709	0.59741						
	0.56236	+++++					AVRG		0.65785		9.36415	

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Cal Date : 19-Dec-2009 13:12 ale01592

Compound	1 Level 1 100 Level 7	2 Level 2 200 Level 8	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
81 Styrene	1.33560	1.30153	1.23519	1.21219	1.13822	1.07539						
	0.97845	+++++					AVRG		1.18237		10.71682	
82 Bromoform	0.44442	0.39902	0.41763	0.44297	0.44404	0.44186						
	0.46661	+++++					AVRG		0.43665		4.99810	
83 Isopropylbenzene	3.19302	3.18561	3.07411	2.86686	2.75667	2.54796						
	2.34976	+++++					AVRG		2.85343		11.36410	
84 cis-1,4-Dichloro-2-butene	0.40887	0.38461	0.41067	0.39342	0.41002	+++++						
	0.34203	+++++					AVRG		0.39160		6.76684	<-
85 Cyclohexanone	27609	47983	120128	244566	605155	+++++						
	4411964	+++++					LINR	1.47957	0.10625		0.99599	
87 1,1,2,2-Tetrachloroethane	0.96106	0.97912	0.93144	0.92496	0.89645	0.82377						
	0.80765	+++++					AVRG		0.90349		7.26714	
88 trans-1,4-Dichloro-2-butene	0.37041	0.36328	0.36660	0.35482	0.37473	+++++						
	0.31675	+++++					AVRG		0.35776		5.92605	<-
89 1,2,3-Trichloropropane	0.23019	0.25194	0.24061	0.23026	0.22741	0.20232						
	0.21092	+++++					AVRG		0.22766		7.37759	
90 Bromobenzene	0.92906	0.82900	0.85652	0.80922	0.76616	0.73191						
	0.69906	+++++					AVRG		0.80299		9.73768	

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Compound	1 Level 1	2 Level 2	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	200 Level 8									
91 n-Propylbenzene	4.25249	3.88792	3.79288	3.45018	3.34064	3.08225					
	2.76462	+++++					AVRG		3.51014		14.45630
92 1,3,5-Trimethylbenzene	3.01475	2.80798	2.70222	2.54197	2.39987	2.22252					
	2.01642	+++++					AVRG		2.52939		13.66966
93 2-Chlorotoluene	3.08010	2.87993	2.74165	2.51611	2.36428	2.20489					
	2.03238	+++++					AVRG		2.54562		14.77810
94 4-Chlorotoluene	2.91904	2.51920	2.55214	2.40451	2.27488	2.19788					
	2.06680	+++++					AVRG		2.41921		11.59035
95 tert-Butylbenzene	2.67976	2.70138	2.45161	2.29001	2.24015	2.11655					
	2.00828	+++++					AVRG		2.35539		11.35607
96 1,2,4-Trimethylbenzene	3.16701	2.84657	2.89890	2.74678	2.59171	2.41019					
	2.24517	+++++					AVRG		2.70091		11.55019
97 Pentachloroethane	0.25571	0.26641	0.25616	0.27985	0.26289	+++++					
	0.23937	+++++					AVRG		0.26007		5.16533 <-
98 sec-Butylbenzene	3.82934	3.45485	3.46206	3.15695	3.07500	2.85836					
	2.63727	+++++					AVRG		3.21055		12.58655
99 4-Isopropyltoluene	2.98217	2.73304	2.65706	2.51190	2.48606	2.31346					
	2.17912	+++++					AVRG		2.55183		10.50000

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Compound	1 Level 1	2 Level 2	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	100 Level 7	200 Level 8										
100 1,3-Dichlorobenzene	1.62812	1.57179	1.47014	1.45207	1.39072	1.30402						
	1.25519	+++++					AVRG		1.43886		9.36211	
102 1,4-Dichlorobenzene	1.63344	1.50373	1.46244	1.41694	1.36741	1.28628						
	1.25795	+++++					AVRG		1.41831		9.15964	
103 Benzyl chloride	1.52159	1.39923	1.36711	1.35007	1.35827	+++++						
	1.00071	+++++					AVRG		1.33283		13.10142	<-
104 n-Butylbenzene	3.30748	3.01305	2.86173	2.59921	2.52845	2.34730						
	2.22372	+++++					AVRG		2.69728		14.23037	
105 1,2-Dichlorobenzene	1.58423	1.53813	1.49742	1.43620	1.40103	1.30168						
	1.26719	+++++					AVRG		1.43227		8.25322	
106 bis(2-Chloroisopropyl)ether	0.83054	0.76699	0.77671	0.70559	0.76759	+++++						
	0.58050	+++++					AVRG		0.73799		11.75584	<-
107 1,2-Dibromo-3-chloropropane	0.12210	0.19215	0.18173	0.19639	0.18470	0.16898						
	0.18479	+++++					AVRG		0.17584		14.34396	
108 1,2,4-Trichlorobenzene	1.10365	1.08552	1.04867	1.04578	1.02857	0.91854						
	0.95721	+++++					AVRG		1.02685		6.50341	
109 Hexachlorobutadiene	0.63352	0.54241	0.57883	0.54434	0.54151	0.49744						
	0.50824	+++++					AVRG		0.54947		8.29752	

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Compound	1 Level 1	2 Level 2	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	200 Level 8									
110 Naphthalene	2.54277	2.49253	2.33228	2.33148	2.24296	1.96980					
	2.06384	++++					AVRG		2.28224		9.18916
111 1,2,3-Trichlorobenzene	0.97923	0.94023	0.91669	0.92850	0.93014	0.82251					
	0.86694	+++++					AVRG		0.91204		5.65838
$ 46 1,2-Dichloroethane-d4	0.42117	0.44272	0.43099	0.44388	0.44038	0.43427					
	0.43830	+++++					AVRG		0.43596		1.82484
$ 64 Toluene-d8	1.44558	1.50527	1.50116	1.49559	1.48833	1.50905					
	1.50335	+++++					AVRG		1.49262		1.46212
$ 86 Bromofluorobenzene	1.15699	1.19361	1.18690	1.18005	1.16824	1.17494					
	1.17673	+++++					AVRG		1.17678		1.01982

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Cal Date : 19-Dec-2009 13:12 ale01592

Curve	Formula	Units
Averaged	Amt = Rsp/ml	Response
Linear	Amt = b + Rsp/ml	Response

Data File: /chem/VOA7.i/111509v7/7m102.d
Report Date: 19-Nov-2009 09:38

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA7.i
Lab File ID: 7m102.d
Analysis Type: WATER
Lab Sample ID: W7VM0911116-01 Quant Type: ISTD
Method: /chem/VOA7.i/111509v7/VOA7-8260B-111509.m

Injection Date: 16-NOV-2009 13:54
Init. Cal. Date(s): 16-NOV-2009 16-NOV-2009
Init. Cal. Times: 00:20 10:57

	COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
M	2 Xylenes (total)	0.64368	0.61838	0.61838	0.050	-3.93101	30.00000	Averaged	
M	3 1,2-Dichloroethylene (total	0.47752	0.48210	0.48210	0.050	0.95860	30.00000	Averaged	
M	1 1,3-Dichloropropylene	0.48166	0.47100	0.47100	0.050	-2.21429	30.00000	Averaged	
	4 Dichlorodifluoromethane	65.27028	50.00000	0.25780	0.050	30.54056	30.00000	Linear	<-
	5 Chloromethane	52.40285	50.00000	0.51146	0.100	4.80570	30.00000	Linear	spcc
	6 Vinyl chloride	0.33902	0.36244	0.36244	0.050	6.90732	20.00000	Averaged	ccc
	7 Bromomethane	0.23234	0.22930	0.22930	0.050	-1.30821	30.00000	Averaged	
	8 Chloroethane	0.25347	0.24541	0.24541	0.010	-3.17791	30.00000	Averaged	
	9 Trichlorofluoromethane	0.34155	0.41490	0.41490	0.050	21.47309	30.00000	Averaged	
	10 Ethyl Ether	0.35955	0.32619	0.32619	0.001	-9.27739	30.00000	Averaged	
	13 Acetone	0.40846	0.34477	0.34477	0.050	-15.59171	40.00000	Averaged	
	17 Acetonitrile	0.06882	0.08302	0.08302	0.010	20.62908	30.00000	Averaged	
	14 1,1-Dichloroethylene	0.20669	0.22529	0.22529	0.050	8.99624	20.00000	Averaged	ccc
	18 Methyl acetate	0.41491	0.36212	0.36212	0.010	-12.72228	40.00000	Averaged	
	16 Iodomethane	0.37752	0.36997	0.36997	0.050	-2.00102	30.00000	Averaged	
	22 Methylene chloride	50.50060	50.00000	0.18907	0.050	1.00119	30.00000	Linear	
	19 Carbon disulfide	0.67659	0.74146	0.74146	0.050	9.58807	30.00000	Averaged	
	24 tert-Butyl methyl ether	0.86582	0.81699	0.81699	0.050	-5.63917	30.00000	Averaged	
	25 trans-1,2-Dichloroethylene	0.44031	0.45584	0.45584	0.050	3.52742	30.00000	Averaged	
	26 Vinyl acetate	0.88192	0.90935	0.90935	0.010	3.11086	40.00000	Averaged	
	28 1,1-Dichloroethane	0.54979	0.56486	0.56486	0.100	2.74140	30.00000	Averaged	spcc
	31 2-Butanone	0.46654	0.36247	0.36247	0.030	-22.30657	40.00000	Averaged	
	33 cis-1,2-Dichloroethylene	0.51474	0.50836	0.50836	0.050	-1.23876	30.00000	Averaged	
	34 2,2-Dichloropropane	0.28980	0.33154	0.33154	0.050	14.40365	30.00000	Averaged	
	38 Chloroform	0.49671	0.49767	0.49767	0.010	0.19521	20.00000	Averaged	ccc
	37 Bromochloromethane	0.44756	0.43371	0.43371	0.010	-3.09319	30.00000	Averaged	
	41 1,1,1-Trichloroethane	0.36992	0.42264	0.42264	0.010	14.25119	30.00000	Averaged	
	43 Cyclohexane	0.62867	0.68433	0.68433	0.010	8.85406	30.00000	Averaged	
	44 1,1-Dichloropropene	0.33508	0.36362	0.36362	0.010	8.51916	30.00000	Averaged	
	52 n-Butyl alcohol	0.01426	0.01523	0.01523	0.001	6.79075	40.00000	Averaged	
	45 Carbon tetrachloride	0.29289	0.33705	0.33705	0.010	15.07531	30.00000	Averaged	
$	46 1,2-Dichloroethane-d4	0.43596	0.42203	0.42203	0.010	-3.19455	30.00000	Averaged	
	47 1,2-Dichloroethane	0.51967	0.49347	0.49347	0.010	-5.04145	30.00000	Averaged	
	48 Benzene	1.02411	0.99220	0.99220	0.010	-3.11562	30.00000	Averaged	
	50 Cyclohexene	0.48379	0.51528	0.51528	0.010	6.50957	30.00000	Averaged	

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA7.i
Lab File ID: 7m102.d
Analysis Type: WATER
Lab Sample ID: W7VM0911116-01 Quant Type: ISTD
Method: /chem/VOA7.i/111509v7/VOA7-8260B-111509.m

Injection Date: 16-NOV-2009 13:54
Init. Cal. Date(s): 16-NOV-2009 16-NOV-2009
Init. Cal. Times: 00:20 10:57

	COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
	53 Trichloroethylene	0.26450	0.26775	0.26775	0.010	1.23195	30.00000	Averaged	
	56 1,2-Dichloropropane	0.33311	0.30902	0.30902	0.010	-7.23364	20.00000	Averaged	ccc
	55 Methylcyclohexane	0.40845	0.44750	0.44750	0.010	9.55994	30.00000	Averaged	
	59 Bromodichloromethane	0.39346	0.39039	0.39039	0.010	-0.77802	30.00000	Averaged	
	58 Dibromomethane	0.18762	0.18134	0.18134	0.010	-3.34917	30.00000	Averaged	
	61 2-Chloroethylvinyl ether	0.13648	0.10225	0.10225	0.010	-25.07832	30.00000	Averaged	
	63 4-Methyl-2-pentanone	0.25850	0.23312	0.23312	0.010	-9.81605	40.00000	Averaged	
	62 cis-1,3-Dichloropropylene	0.49703	0.47715	0.47715	0.010	-4.00062	30.00000	Averaged	
$	64 Toluene-d8	1.49262	1.42409	1.42409	0.010	-4.59148	30.00000	Averaged	
	65 Toluene	0.88778	0.86384	0.86384	0.010	-2.69700	20.00000	Averaged	ccc
	67 trans-1,3-Dichloropropylene	0.61767	0.61917	0.61917	0.010	0.24200	30.00000	Averaged	
	68 1,1,2-Trichloroethane	0.30409	0.28713	0.28713	0.010	-5.57532	30.00000	Averaged	
	69 2-Hexanone	0.83837	0.58839	0.58839	0.010	-29.81693	40.00000	Averaged	
	70 1,3-Dichloropropane	0.60429	0.55350	0.55350	0.010	-8.40404	30.00000	Averaged	
	71 Tetrachloroethylene	61.33392	50.00000	0.25168	0.010	22.66783	30.00000	Linear	
	72 Dibromochloromethane	0.35526	0.36420	0.36420	0.010	2.51615	30.00000	Averaged	
	73 1,2-Dibromoethane	0.36913	0.36068	0.36068	0.010	-2.28673	30.00000	Averaged	
	76 Chlorobenzene	0.96368	0.93968	0.93968	0.300	-2.49061	30.00000	Averaged	spcc
	77 1,1,1,2-Tetrachloroethane	0.34629	0.33927	0.33927	0.010	-2.02963	30.00000	Averaged	
	78 Ethylbenzene	1.67285	1.61310	1.61310	0.010	-3.57170	20.00000	Averaged	ccc
	79 m,p-Xylenes	0.63659	0.61295	0.61295	0.010	-3.71431	30.00000	Averaged	
	80 o-Xylene	0.65785	0.62923	0.62923	0.010	-4.35042	30.00000	Averaged	
	81 Styrene	1.18237	1.06949	1.06949	0.010	-9.54661	30.00000	Averaged	
	82 Bromoform	0.43665	0.48550	0.48550	0.100	11.18812	30.00000	Averaged	spcc
	83 Isopropylbenzene	2.85343	2.85798	2.85798	0.010	0.15935	30.00000	Averaged	
	87 1,1,2,2-Tetrachloroethane	0.90349	0.88621	0.88621	0.300	-1.91337	30.00000	Averaged	spcc
$	86 Bromofluorobenzene	1.17678	1.15082	1.15082	0.010	-2.20576	30.00000	Averaged	
	89 1,2,3-Trichloropropane	0.22766	0.22998	0.22998	0.010	1.01599	30.00000	Averaged	
	90 Bromobenzene	0.80299	0.77041	0.77041	0.010	-4.05731	30.00000	Averaged	
	91 n-Propylbenzene	3.51014	3.45563	3.45563	0.010	-1.55306	30.00000	Averaged	
	93 2-Chlorotoluene	2.54562	2.39286	2.39286	0.010	-6.00103	30.00000	Averaged	
	92 1,3,5-Trimethylbenzene	2.52939	2.42878	2.42878	0.010	-3.97768	30.00000	Averaged	
	94 4-Chlorotoluene	2.41921	2.36505	2.36505	0.010	-2.23841	30.00000	Averaged	
	95 tert-Butylbenzene	2.35539	2.37838	2.37838	0.010	0.97575	30.00000	Averaged	
	96 1,2,4-Trimethylbenzene	2.70091	2.61045	2.61045	0.010	-3.34902	30.00000	Averaged	
	98 sec-Butylbenzene	3.21055	3.25000	3.25000	0.010	1.22884	30.00000	Averaged	

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA7.i
Lab File ID: 7m102.d
Analysis Type: WATER
Lab Sample ID: W7VM0911116-01 Quant Type: ISTD
Method: /chem/VOA7.i/111509v7/VOA7-8260B-111509.m

Injection Date: 16-NOV-2009 13:54
Init. Cal. Date(s): 16-NOV-2009 16-NOV-2009
Init. Cal. Times: 00:20 10:57

COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
99 4-Isopropyltoluene	2.55183	2.60229	2.60229	0.010	1.97753	30.00000	Averaged
100 1,3-Dichlorobenzene	1.43886	1.40699	1.40699	0.010	-2.21503	30.00000	Averaged
102 1,4-Dichlorobenzene	1.41831	1.37830	1.37830	0.010	-2.82098	30.00000	Averaged
104 n-Butylbenzene	2.69728	2.72809	2.72809	0.010	1.14238	30.00000	Averaged
105 1,2-Dichlorobenzene	1.43227	1.37461	1.37461	0.010	-4.02547	30.00000	Averaged
107 1,2-Dibromo-3-chloropropane	0.17584	0.19973	0.19973	0.010	13.58816	30.00000	Averaged
108 1,2,4-Trichlorobenzene	1.02685	1.05297	1.05297	0.010	2.54314	30.00000	Averaged
109 Hexachlorobutadiene	0.54947	0.60933	0.60933	0.010	10.89290	30.00000	Averaged
110 Naphthalene	2.28224	2.22128	2.22128	0.010	-2.67074	30.00000	Averaged
111 1,2,3-Trichlorobenzene	0.91204	0.95052	0.95052	0.010	4.21953	30.00000	Averaged

Average %D / Drift Results.

Calculated Average %D/Drift = 6.59555
Maximum Average %D/Drift = 20.00000
* Passed Average %D/Drift Test.

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA7.i/111509v7/7m102.d
Lab Smp Id: W7VM0911116-01 Client Smp ID: VSTD050
Inj Date : 16-NOV-2009 13:54
Operator : AXO1 Inst ID: VOA7.i
Smp Info : |W7VM0911116-01|BFB/CCV/ICV/LCS|1|VOAF|1|
Misc Info : GEL 5mL N/A UVM091111-01B/IVM091111-01
Comment :
Method : /chem/VOA7.i/111509v7/VOA7-8260B-111509.m
Meth Date : 19-Nov-2009 09:38 a1e01592 Quant Type: ISTD
Cal Date : 16-NOV-2009 08:11 Cal File: 71718.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: CALsubL+.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (Uf/Vo) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	sample purged

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
M 2 Xylenes (total)	106				1674996	150.000	144
M 3 1,2-Dichloroethylene (total)	96				1159591	100.000	101
M 1 1,3-Dichloropropylene	75				1132889	100.000	97.8
4 Dichlorodifluoromethane	85	5.147	5.147	(0.336)	310040	50.0000	65.3
5 Chloromethane	50	5.757	5.757	(0.376)	615104	50.0000	52.4
6 Vinyl chloride	62	6.188	6.188	(0.404)	435887	50.0000	53.4
7 Bromomethane	94	7.429	7.429	(0.485)	275765	50.0000	49.3
8 Chloroethane	64	7.835	7.835	(0.512)	295146	50.0000	48.4
9 Trichlorofluoromethane	101	8.789	8.789	(0.574)	498975	50.0000	60.7
10 Ethyl Ether	59	9.703	9.703	(0.633)	392296	50.0000	45.4
13 Acetone	43	10.423	10.423	(0.681)	2073184	250.000	211
17 Acetonitrile	41	11.073	11.073	(0.723)	1996927	1000.00	1210
14 1,1-Dichloroethylene	96	10.312	10.312	(0.673)	270942	50.0000	54.5
18 Methyl acetate	43	11.225	11.225	(0.733)	2177529	250.000	218
16 Iodomethane	142	10.667	10.667	(0.696)	2224717	250.000	245

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
22 Methylene chloride	86	11.449	11.449	(0.747)	227387	50.0000	50.5
19 Carbon disulfide	76	10.840	10.840	(0.708)	4458593	250.000	274
24 tert-Butyl methyl ether	73	12.017	12.017	(0.785)	982555	50.0000	47.2
25 trans-1,2-Dichloroethylene	61	12.027	12.027	(0.785)	548211	50.0000	51.8
26 Vinyl acetate	43	12.860	12.860	(0.840)	5468142	250.000	258
28 1,1-Dichloroethane	63	12.799	12.799	(0.836)	679329	50.0000	51.4
31 2-Butanone	43	13.723	13.723	(0.896)	2179625	250.000	194
33 cis-1,2-Dichloroethylene	61	13.733	13.733	(0.897)	611380	50.0000	49.4
34 2,2-Dichloropropane	77	13.753	13.753	(0.898)	398722	50.0000	57.2
38 Chloroform	83	14.190	14.190	(0.926)	598527	50.0000	50.1
37 Bromochloromethane	49	14.088	14.088	(0.920)	521603	50.0000	48.4
41 1,1,1-Trichloroethane	97	14.484	14.484	(0.946)	508283	50.0000	57.1
43 Cyclohexane	56	14.586	14.586	(0.952)	823011	50.0000	54.4
44 1,1-Dichloropropene	75	14.697	14.697	(0.960)	437308	50.0000	54.2
52 n-Butyl alcohol	56	15.560	15.560	(1.016)	1831848	5000.00	5340
45 Carbon tetrachloride	117	14.728	14.728	(0.962)	405347	50.0000	57.5
$ 46 1,2-Dichloroethane-d4	65	14.880	14.880	(0.971)	507557	50.0000	48.4
47 1,2-Dichloroethane	62	14.982	14.982	(0.978)	593470	50.0000	47.5
48 Benzene	78	14.992	14.992	(0.979)	1193269	50.0000	48.4
50 Cyclohexene	67	15.124	15.124	(0.987)	619701	50.0000	53.2
* 51 Fluorobenzene	96	15.317	15.317	(1.000)	1202647	50.0000	
53 Trichloroethylene	95	15.773	15.773	(1.030)	322013	50.0000	50.6
56 1,2-Dichloropropane	63	16.037	16.037	(1.047)	371636	50.0000	46.4
55 Methylcyclohexane	83	16.037	16.037	(1.047)	538183	50.0000	54.8
59 Bromodichloromethane	83	16.332	16.332	(1.066)	469506	50.0000	49.6
58 Dibromomethane	93	16.190	16.190	(1.057)	218086	50.0000	48.3
61 2-Chloroethylvinyl ether	63	16.606	16.606	(1.084)	614859	250.000	187
63 4-Methyl-2-pentanone	58	16.941	16.941	(0.908)	1052433	250.000	225
62 cis-1,3-Dichloropropylene	75	16.819	16.819	(1.098)	573841	50.0000	48.0
$ 64 Toluene-d8	98	17.144	17.144	(0.918)	1285807	50.0000	47.7
65 Toluene	92	17.215	17.215	(0.922)	779961	50.0000	48.6
67 trans-1,3-Dichloropropylene	75	17.388	17.388	(0.931)	559048	50.0000	50.1
68 1,1,2-Trichloroethane	83	17.611	17.611	(0.943)	259252	50.0000	47.2
69 2-Hexanone	43	17.804	17.804	(0.954)	2656294	250.000	175
70 1,3-Dichloropropane	76	17.794	17.794	(0.953)	499758	50.0000	45.8
71 Tetrachloroethylene	164	17.824	17.824	(0.955)	227238	50.0000	61.3
72 Dibromochloromethane	129	18.068	18.068	(0.968)	328832	50.0000	51.2
73 1,2-Dibromoethane	107	18.220	18.220	(0.976)	325662	50.0000	48.8
* 75 Chlorobenzene-d5	117	18.667	18.667	(1.000)	902900	50.0000	
76 Chlorobenzene	112	18.697	18.697	(1.002)	848435	50.0000	48.8
77 1,1,1,2-Tetrachloroethane	131	18.758	18.758	(1.005)	306323	50.0000	49.0
78 Ethylbenzene	91	18.768	18.768	(1.005)	1456471	50.0000	48.2
79 m,p-Xylenes	106	18.870	18.870	(1.011)	1106860	100.000	96.3
80 o-Xylene	106	19.286	19.286	(1.033)	568136	50.0000	47.8
81 Styrene	104	19.286	19.286	(1.033)	965645	50.0000	45.2
82 Bromoform	173	19.540	19.540	(0.931)	252479	50.0000	55.6
83 Isopropylbenzene	105	19.631	19.631	(0.935)	1486250	50.0000	50.1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
87 1,1,2,2-Tetrachloroethane	83	19.885	19.885	(0.947)	460859	50.0000	49.0
$ 86 Bromofluorobenzene	95	19.814	19.814	(0.944)	598470	50.0000	48.9
89 1,2,3-Trichloropropane	110	19.976	19.976	(0.952)	119596	50.0000	50.5
90 Bromobenzene	156	20.017	20.017	(0.954)	400641	50.0000	48.0
91 n-Propylbenzene	91	20.037	20.037	(0.955)	1797050	50.0000	49.2
93 2-Chlorotoluene	91	20.169	20.169	(0.961)	1244371	50.0000	47.0
92 1,3,5-Trimethylbenzene	105	20.169	20.169	(0.961)	1263052	50.0000	48.0
94 4-Chlorotoluene	91	20.271	20.271	(0.966)	1229913	50.0000	48.9
95 tert-Butylbenzene	119	20.535	20.535	(0.978)	1236841	50.0000	50.5
96 1,2,4-Trimethylbenzene	105	20.565	20.565	(0.980)	1357529	50.0000	48.3
98 sec-Butylbenzene	105	20.748	20.748	(0.988)	1690117	50.0000	50.6
99 4-Isopropyltoluene	119	20.870	20.870	(0.994)	1353286	50.0000	51.0
100 1,3-Dichlorobenzene	146	20.931	20.931	(0.997)	731687	50.0000	48.9
* 101 1,4-Dichlorobenzene-d4	152	20.991	20.991	(1.000)	520036	50.0000	
102 1,4-Dichlorobenzene	146	21.022	21.022	(1.001)	716767	50.0000	48.6
104 n-Butylbenzene	91	21.296	21.296	(1.014)	1418705	50.0000	50.6
105 1,2-Dichlorobenzene	146	21.438	21.438	(1.021)	714849	50.0000	48.0
107 1,2-Dibromo-3-chloropropane	157	22.301	22.301	(1.062)	103866	50.0000	56.8
108 1,2,4-Trichlorobenzene	180	23.357	23.357	(1.113)	547580	50.0000	51.3
109 Hexachlorobutadiene	225	23.540	23.540	(1.121)	316871	50.0000	55.4
110 Naphthalene	128	23.753	23.753	(1.132)	1155148	50.0000	48.7
111 1,2,3-Trichlorobenzene	180	24.098	24.098	(1.148)	494304	50.0000	52.1

Data File: /chem/VOA7.i/111509v7/7m102.d
Date : 16-NOV-2009 13:54
Client ID: VSTD050
Sample Info: IW7VH0911116-01|BFB/CCV/ICV/LCS|1|VOAF|1|
Purge Volume: 5.0
Column phase: DB-624

Instrument: VOA7.i
Operator: AX01
Column diameter: 0.25

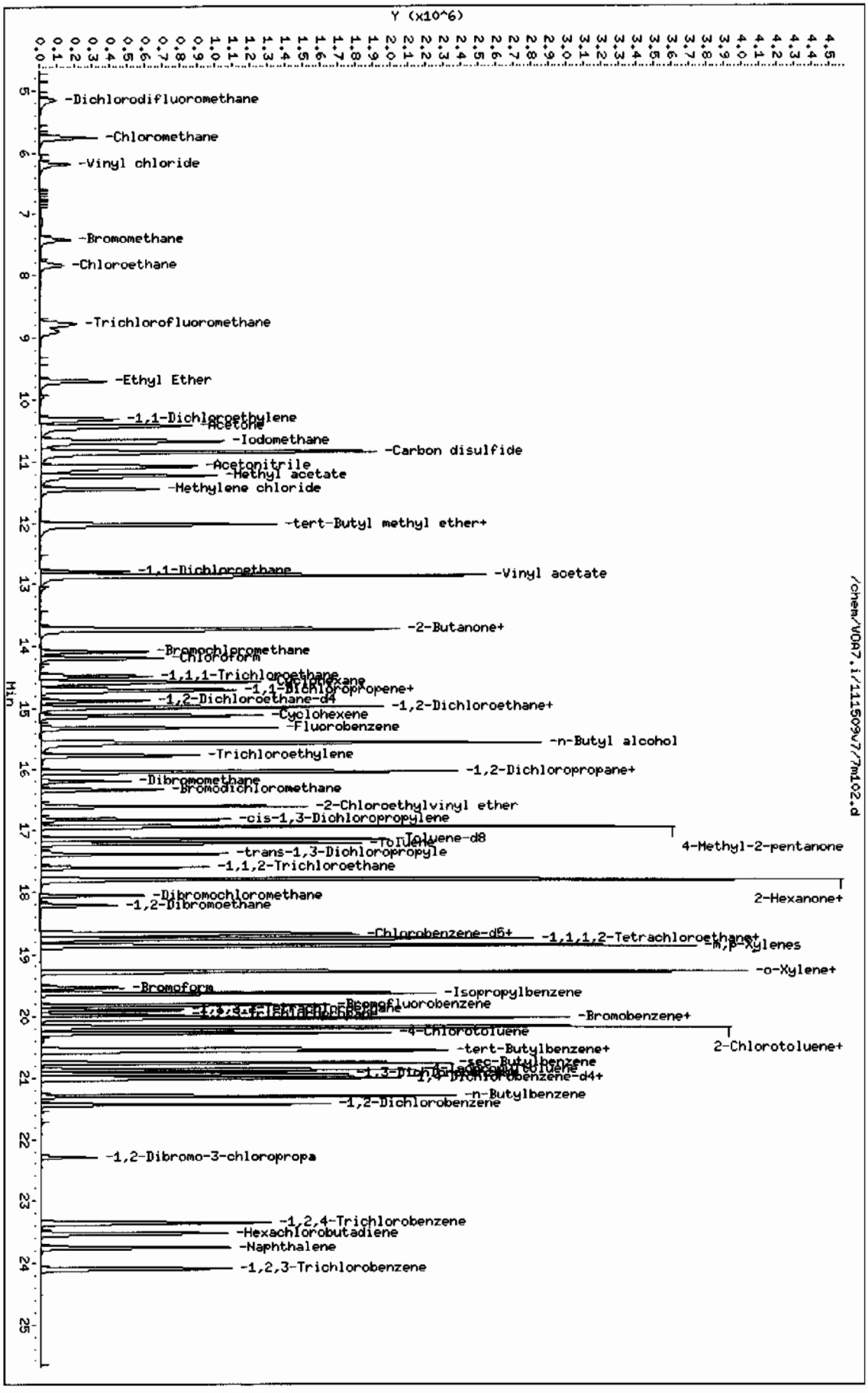

Page 1

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA7.i
Lab File ID: 7m104.d
Analysis Type: WATER
Lab Sample ID: W7VM0911116-03
Method: /chem/VOA7.i/111509v7/VOA7-8260B-111509.m

Injection Date: 16-NOV-2009 15:02
Init. Cal. Date(s): 16-NOV-2009 16-NOV-2009
Init. Cal. Times: 00:20 10:57
Quant Type: ISTD

	COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
	147 Chlorotrifluoroethylene	0.13034	0.11386	0.11386	0.010	-12.64237	30.00000	Averaged
	148 2-Chloro-1,1,1-trifluoroeth	0.28275	0.28071	0.28071	0.010	-0.72093	30.00000	Averaged
	11 Acrolein	0.08287	0.06941	0.06941	0.001	-16.23448	30.00000	Averaged
	12 Trichlorotrifluoroethane	0.09315	0.10191	0.10191	0.010	9.40527	30.00000	Averaged
	15 Isopropyl Alcohol	0.03668	0.03613	0.03613	0.010	-1.49040	40.00000	Averaged
	20 Allyl chloride	0.63535	0.56685	0.56685	0.010	-10.78282	30.00000	Averaged
	21 tert-Butyl Alcohol	0.05102	0.04422	0.04422	0.001	-13.33240	40.00000	Averaged
	23 Acrylonitrile	0.16606	0.14706	0.14706	0.010	-11.44411	30.00000	Averaged
	27 Isopropyl ether	1.68959	1.55881	1.55881	0.010	-7.74051	30.00000	Averaged
	29 2-Chloro-1,3-butadiene	0.54538	0.56770	0.56770	0.010	4.09436	30.00000	Averaged
	30 Ethyl tert-butyl ether	1.14730	1.05285	1.05285	0.010	-8.23203	30.00000	Averaged
	35 Propionitrile	0.06686	0.05447	0.05447	0.010	-18.53670	30.00000	Averaged
	32 Ethyl acetate	0.49355	0.37954	0.37954	0.010	-23.10090	40.00000	Averaged
	36 Methacrylonitrile	0.30070	0.24588	0.24588	0.010	-18.22985	30.00000	Averaged
	39 Tetrahydrofuran	0.36975	0.29563	0.29563	0.010	-20.04589	30.00000	Averaged
	42 Isobutyl alcohol	0.01771	0.01567	0.01567	0.005	-11.47778	40.00000	Averaged
	49 Methyl tert-amyl ether	0.79534	0.71876	0.71876	0.010	-9.62869	30.00000	Averaged
	54 Methyl methacrylate	0.20956	0.17138	0.17138	0.010	-18.22289	30.00000	Averaged
	66 Ethyl methacrylate	0.53175	0.42289	0.42289	0.010	-20.47197	30.00000	Averaged
	74 1-Chlorohexane	0.40217	0.39655	0.39655	0.010	-1.39670	30.00000	Averaged
	57 1,4-Dioxane	0.00316	0.00300	0.00300	0.001	-5.35019	40.00000	Averaged
	60 2-Nitropropane	0.12993	0.12531	0.12531	0.010	-3.55739	30.00000	Averaged
	84 cis-1,4-Dichloro-2-butene	0.39160	0.38169	0.38169	0.010	-2.53006	30.00000	Averaged
	85 Cyclohexanone	447	1250	0.03173	0.010	-64.21353	40.00000	Linear <-
	88 trans-1,4-Dichloro-2-butene	0.35776	0.35074	0.35074	0.010	-1.96337	30.00000	Averaged
	97 Pentachloroethane	0.26007	0.33861	0.33861	0.010	30.20065	30.00000	Averaged <-
	103 Benzyl chloride	1.33283	1.27530	1.27530	0.010	-4.31636	30.00000	Averaged
	106 bis(2-Chloroisopropyl)ether	0.73799	0.58864	0.58864	0.010	-20.23679	30.00000	Averaged
$	46 1,2-Dichloroethane-d4	0.43596	0.41806	0.41806	0.010	-4.10492	30.00000	Averaged
$	64 Toluene-d8	1.49262	1.44877	1.44877	0.010	-2.93779	30.00000	Averaged
$	86 Bromofluorobenzene	1.17678	1.13072	1.13072	0.010	-3.91437	30.00000	Averaged

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA7.i Injection Date: 16-NOV-2009 15:02
Lab File ID: 7m104.d Init. Cal. Date(s): 16-NOV-2009 16-NOV-2009
Analysis Type: WATER Init. Cal. Times: 00:20 10:57
Lab Sample ID: W7VM0911116-03 Quant Type: ISTD
Method: /chem/VOA7.i/111509v7/VOA7-8260B-111509.m

Average %D / Drift Results.	
Calculated Average %D/Drift =	12.27602
Maximun Average %D/Drift =	20.00000
* Passed Average %D/Drift Test.	

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA7.i/111509v7/7m104.d
Lab Smp Id: W7VM0911116-03 Client Smp ID: VSTD250S
Inj Date : 16-NOV-2009 15:02
Operator : AXO1 Inst ID: VOA7.i
Smp Info : |W7VM0911116-03|SHORT/ICV/LCS|1|VOAF|1|
Misc Info : GEL 5mL N/A UVM091023-08A/UVM091105-02A
Comment :
Method : /chem/VOA7.i/111509v7/VOA7-8260B-111509.m
Meth Date : 19-Nov-2009 09:39 ale01592 Quant Type: ISTD
Cal Date : 16-NOV-2009 08:11 Cal File: 71718.d
Als bottle: 4 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: CALsubS+SS.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (Uf/Vo) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	sample purged

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
147 Chlorotrifluoroethylene	116	5.043	5.043	(0.329)	406483	150.000	131
148 2-Chloro-1,1,1-trifluoroethane	118	6.604	6.604	(0.431)	1002157	150.000	149
11 Acrolein	56	10.027	10.027	(0.655)	413012	250.000	209
12 Trichlorotrifluoroethane	85	10.373	10.373	(0.677)	606354	250.000	274
15 Isopropyl Alcohol	45	10.789	10.789	(0.704)	2149853	2500.00	2460
20 Allyl chloride	41	11.185	11.185	(0.730)	3372788	250.000	223
21 tert-Butyl Alcohol	59	11.672	11.672	(0.762)	2630900	2500.00	2170
23 Acrylonitrile	53	11.926	11.926	(0.779)	875009	250.000	221
27 Isopropyl ether	45	12.911	12.911	(0.843)	1855017	50.0000	46.1
29 2-Chloro-1,3-butadiene	53	12.961	12.961	(0.846)	675580	50.0000	52.0
30 Ethyl tert-butyl ether	59	13.489	13.489	(0.881)	1252915	50.0000	45.9
35 Propionitrile	54	13.804	13.804	(0.901)	324075	250.000	204
32 Ethyl acetate	43	13.804	13.804	(0.901)	2258287	250.000	192
36 Methacrylonitrile	41	14.048	14.048	(0.917)	1463037	250.000	204
39 Tetrahydrofuran	42	14.159	14.159	(0.675)	787178	250.000	200

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
42 Isobutyl alcohol	41	14.748	14.748	(0.963)	932613	2500.00	2210
49 Methyl tert-amyl ether	73	15.083	15.083	(0.985)	855341	50.0000	45.2
54 Methyl methacrylate	69	16.078	16.078	(1.050)	1019700	250.000	204
66 Ethyl methacrylate	69	17.418	17.418	(0.933)	1906825	250.000	199
74 1-Chlorohexane	55	18.575	18.575	(1.213)	471906	50.0000	49.3
57 1,4-Dioxane	88	16.159	16.159	(1.055)	178240	2500.00	2370
60 2-Nitropropane	43	16.555	16.555	(1.081)	745593	250.000	241
84 cis-1,4-Dichloro-2-butene	53	19.662	19.662	(0.937)	1016347	250.000	244
85 Cyclohexanone	55	19.773	19.773	(1.059)	715444	1250.00	447
88 trans-1,4-Dichloro-2-butene	53	19.936	19.936	(0.950)	933923	250.000	245
97 Pentachloroethane	167	20.606	20.606	(0.982)	901619	250.000	326(A)
103 Benzyl chloride	91	21.123	21.123	(1.006)	3395776	250.000	239
106 bis(2-Chloroisopropyl)ether	45	21.509	21.509	(1.025)	1567396	250.000	199
* 51 Fluorobenzene	96	15.317	15.317	(1.000)	1190020	50.0000	
* 75 Chlorobenzene-d5	117	18.667	18.667	(1.000)	901807	50.0000	
* 101 1,4-Dichlorobenzene-d4	152	20.991	20.991	(1.000)	532545	50.0000	
$ 46 1,2-Dichloroethane-d4	65	14.880	14.880	(0.971)	497505	50.0000	47.9
$ 64 Toluene-d8	98	17.144	17.144	(0.918)	1306510	50.0000	48.5
$ 86 Bromofluorobenzene	95	19.814	19.814	(0.944)	602158	50.0000	48.0

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.

Data File: /chem/VOA7.i/111509v7/7m104.d

Date : 16-NOV-2009 15:02

Client ID: VSTD250S

Sample Info: IW7VH0911116-03|SHORT/ICV/LCS|1|VOAF|1|

Purge Volume: 5.0

Column phase: DB-624

Instrument: VOA7.i

Operator: AXO1

Column diameter: 0.25

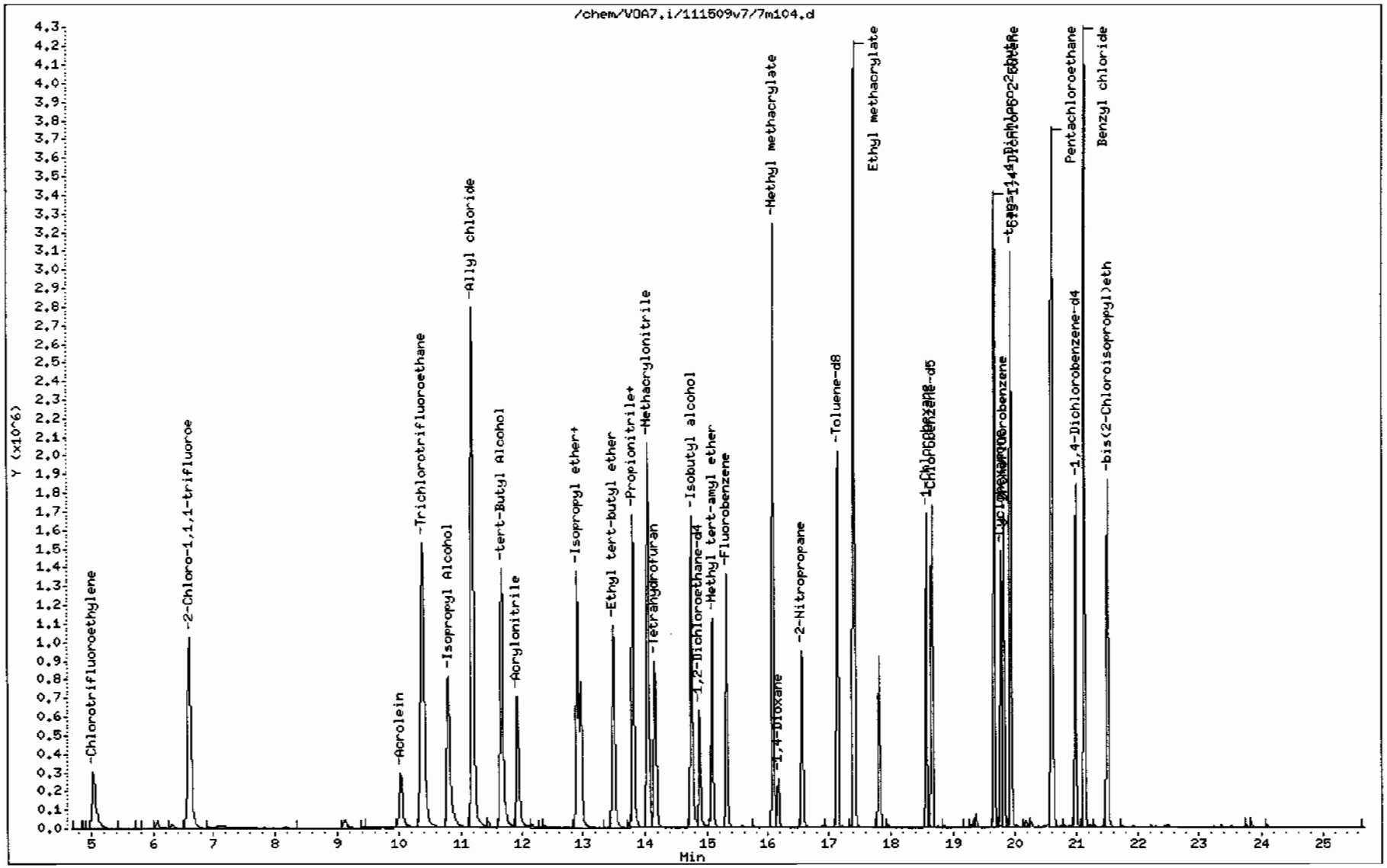

Data File: /chem/VOA7.i/121809v7/7q502.d
Report Date: 19-Dec-2009 13:12

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA7.i
Lab File ID: 7q502.d
Analysis Type: WATER
Lab Sample ID: W7VM091218-01
Method: /chem/VOA7.i/121809v7/VOA7-8260B-111509.m

Injection Date: 18-DEC-2009 11:09
Init. Cal. Date(s): 16-NOV-2009 16-NOV-2009
Init. Cal. Times: 00:20 10:57
Quant Type: ISTD

	COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
M	2 Xylenes (total)	0.64368	0.57797	0.57797	0.050	-10.20886	30.00000	Averaged	
M	3 1,2-Dichloroethylene (total	0.47752	0.45333	0.45333	0.050	-5.06666	30.00000	Averaged	
M	1 1,3-Dichloropropylene	0.48166	0.45800	0.45800	0.050	-4.91372	30.00000	Averaged	
	4 Dichlorodifluoromethane	60.45244	50.00000	0.23887	0.050	20.90489	30.00000	Linear	
	5 Chloromethane	45.36873	50.00000	0.44385	0.100	-9.26254	30.00000	Linear	spcc
	6 Vinyl chloride	0.33902	0.32188	0.32188	0.050	-5.05754	20.00000	Averaged	ccc
	7 Bromomethane	0.23234	0.23946	0.23946	0.050	3.06366	30.00000	Averaged	
	8 Chloroethane	0.25347	0.22653	0.22653	0.010	-10.62637	30.00000	Averaged	
	9 Trichlorofluoromethane	0.34155	0.44603	0.44603	0.050	30.58845	30.00000	Averaged	<-
	10 Ethyl Ether	0.35955	0.30157	0.30157	0.001	-16.12725	30.00000	Averaged	
	13 Acetone	0.40846	0.29968	0.29968	0.050	-26.63070	40.00000	Averaged	
	17 Acetonitrile	0.06882	0.06820	0.06820	0.010	-0.91224	30.00000	Averaged	
	14 1,1-Dichloroethylene	0.20669	0.22196	0.22196	0.050	7.38520	20.00000	Averaged	ccc
	18 Methyl acetate	0.41491	0.31389	0.31389	0.010	-24.34709	40.00000	Averaged	
	16 Iodomethane	0.37752	0.39420	0.39420	0.050	4.41707	30.00000	Averaged	
	22 Methylene chloride	49.18678	50.00000	0.18445	0.050	-1.62645	30.00000	Linear	
	19 Carbon disulfide	0.67659	0.71393	0.71393	0.050	5.51912	30.00000	Averaged	
	24 tert-Butyl methyl ether	0.86582	0.78169	0.78169	0.050	-9.71666	30.00000	Averaged	
	25 trans-1,2-Dichloroethylene	0.44031	0.42503	0.42503	0.050	-3.46977	30.00000	Averaged	
	26 Vinyl acetate	0.88192	0.85218	0.85218	0.010	-3.37186	40.00000	Averaged	
	28 1,1-Dichloroethane	0.54979	0.53088	0.53088	0.100	-3.43869	30.00000	Averaged	spcc
	31 2-Butanone	0.46654	0.29993	0.29993	0.030	-35.71256	40.00000	Averaged	
	33 cis-1,2-Dichloroethylene	0.51474	0.48163	0.48163	0.050	-6.43263	30.00000	Averaged	
	34 2,2-Dichloropropane	0.28980	0.30033	0.30033	0.050	3.63574	30.00000	Averaged	
	38 Chloroform	0.49671	0.52526	0.52526	0.010	5.74958	20.00000	Averaged	ccc
	37 Bromochloromethane	0.44756	0.41415	0.41415	0.010	-7.46320	30.00000	Averaged	
	41 1,1,1-Trichloroethane	0.36992	0.43806	0.43806	0.010	18.42089	30.00000	Averaged	
	43 Cyclohexane	0.62867	0.58387	0.58387	0.010	-7.12642	30.00000	Averaged	
	44 1,1-Dichloropropene	0.33508	0.34446	0.34446	0.010	2.79985	30.00000	Averaged	
	52 n-Butyl alcohol	0.01426	0.01207	0.01207	0.001	-15.36896	40.00000	Averaged	
	45 Carbon tetrachloride	0.29289	0.35700	0.35700	0.010	21.88755	30.00000	Averaged	
$	46 1,2-Dichloroethane-d4	0.43596	0.46804	0.46804	0.010	7.35939	30.00000	Averaged	
	47 1,2-Dichloroethane	0.51967	0.53624	0.53624	0.010	3.18864	30.00000	Averaged	
	48 Benzene	1.02411	0.93978	0.93978	0.010	-8.23431	30.00000	Averaged	
	50 Cyclohexene	0.48379	0.45328	0.45328	0.010	-6.30605	30.00000	Averaged	

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA7.i Injection Date: 18-DEC-2009 11:09
Lab File ID: 7q502.d Init. Cal. Date(s): 16-NOV-2009 16-NOV-2009
Analysis Type: WATER Init. Cal. Times: 00:20 10:57
Lab Sample ID: W7VM091218-01 Quant Type: ISTD
Method: /chem/VOA7.i/121809v7/VOA7-8260B-111509.m

COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
53 Trichloroethylene	0.26450	0.27109	0.27109	0.010	2.49331	30.00000	Averaged	
56 1,2-Dichloropropane	0.33311	0.28270	0.28270	0.010	-15.13405	20.00000	Averaged	ccc
55 Methylcyclohexane	0.40845	0.40082	0.40082	0.010	-1.86812	30.00000	Averaged	
59 Bromodichloromethane	0.39346	0.42462	0.42462	0.010	7.91988	30.00000	Averaged	
58 Dibromomethane	0.18762	0.19163	0.19163	0.010	2.13573	30.00000	Averaged	
61 2-Chloroethylvinyl ether	0.13648	0.10758	0.10758	0.010	-21.17106	30.00000	Averaged	
63 4-Methyl-2-pentanone	0.25850	0.19166	0.19166	0.010	-25.85582	40.00000	Averaged	
62 cis-1,3-Dichloropropylene	0.49703	0.46599	0.46599	0.010	-6.24560	30.00000	Averaged	
$ 64 Toluene-d8	1.49262	1.40096	1.40096	0.010	-6.14089	30.00000	Averaged	
65 Toluene	0.88778	0.78736	0.78736	0.010	-11.31147	20.00000	Averaged	ccc
67 trans-1,3-Dichloropropylene	0.61767	0.57862	0.57862	0.010	-6.32326	30.00000	Averaged	
68 1,1,2-Trichloroethane	0.30409	0.27144	0.27144	0.010	-10.73480	30.00000	Averaged	
69 2-Hexanone	0.83837	0.50025	0.50025	0.010	-40.33100	40.00000	Averaged	<-
70 1,3-Dichloropropane	0.60429	0.51802	0.51802	0.010	-14.27632	30.00000	Averaged	
71 Tetrachloroethylene	58.97260	50.00000	0.24225	0.010	17.94520	30.00000	Linear	
72 Dibromochloromethane	0.35526	0.38977	0.38977	0.010	9.71465	30.00000	Averaged	
73 1,2-Dibromoethane	0.36913	0.35708	0.35708	0.010	-3.26295	30.00000	Averaged	
76 Chlorobenzene	0.96368	0.90036	0.90036	0.300	-6.57007	30.00000	Averaged	spcc
77 1,1,1,2-Tetrachloroethane	0.34629	0.35261	0.35261	0.010	1.82483	30.00000	Averaged	
78 Ethylbenzene	1.67285	1.53845	1.53845	0.010	-8.03447	20.00000	Averaged	ccc
79 m,p-Xylenes	0.63659	0.56928	0.56928	0.010	-10.57440	30.00000	Averaged	
80 o-Xylene	0.65785	0.59535	0.59535	0.010	-9.50140	30.00000	Averaged	
81 Styrene	1.18237	1.02157	1.02157	0.010	-13.59995	30.00000	Averaged	
82 Bromoform	0.43665	0.50920	0.50920	0.100	16.61527	30.00000	Averaged	spcc
83 Isopropylbenzene	2.85343	2.63293	2.63293	0.010	-7.72754	30.00000	Averaged	
87 1,1,2,2-Tetrachloroethane	0.90349	0.79953	0.79953	0.300	-11.50663	30.00000	Averaged	spcc
$ 86 Bromofluorobenzene	1.17678	1.12030	1.12030	0.010	-4.79927	30.00000	Averaged	
89 1,2,3-Trichloropropane	0.22766	0.21949	0.21949	0.010	-3.59087	30.00000	Averaged	
90 Bromobenzene	0.80299	0.74861	0.74861	0.010	-6.77224	30.00000	Averaged	
91 n-Propylbenzene	3.51014	3.19335	3.19335	0.010	-9.02503	30.00000	Averaged	
93 2-Chlorotoluene	2.54562	2.27750	2.27750	0.010	-10.53247	30.00000	Averaged	
92 1,3,5-Trimethylbenzene	2.52939	2.27688	2.27688	0.010	-9.98297	30.00000	Averaged	
94 4-Chlorotoluene	2.41921	2.22614	2.22614	0.010	-7.98056	30.00000	Averaged	
95 tert-Butylbenzene	2.35539	2.17836	2.17836	0.010	-7.51590	30.00000	Averaged	
96 1,2,4-Trimethylbenzene	2.70091	2.45770	2.45770	0.010	-9.00449	30.00000	Averaged	
98 sec-Butylbenzene	3.21055	3.03878	3.03878	0.010	-5.34996	30.00000	Averaged	

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA7.i
Lab File ID: 7q502.d
Analysis Type: WATER
Lab Sample ID: W7VM091218-01
Method: /chem/VOA7.i/121809v7/VOA7-8260B-111509.m

Injection Date: 18-DEC-2009 11:09
Init. Cal. Date(s): 16-NOV-2009 16-NOV-2009
Init. Cal. Times: 00:20 10:57
Quant Type: ISTD

COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
99 4-Isopropyltoluene	2.55183	2.40342	2.40342	0.010	-5.81584	30.00000	Averaged
100 1,3-Dichlorobenzene	1.43886	1.32993	1.32993	0.010	-7.57065	30.00000	Averaged
102 1,4-Dichlorobenzene	1.41831	1.33498	1.33498	0.010	-5.87523	30.00000	Averaged
104 n-Butylbenzene	2.69728	2.53399	2.53399	0.010	-6.05360	30.00000	Averaged
105 1,2-Dichlorobenzene	1.43227	1.34172	1.34172	0.010	-6.32208	30.00000	Averaged
107 1,2-Dibromo-3-chloropropane	0.17584	0.17386	0.17386	0.010	-1.12407	30.00000	Averaged
108 1,2,4-Trichlorobenzene	1.02685	1.01628	1.01628	0.010	-1.02931	30.00000	Averaged
109 Hexachlorobutadiene	0.54947	0.59915	0.59915	0.010	9.04093	30.00000	Averaged
110 Naphthalene	2.28224	1.99590	1.99590	0.010	-12.54617	30.00000	Averaged
111 1,2,3-Trichlorobenzene	0.91204	0.92580	0.92580	0.010	1.50905	30.00000	Averaged

Average %D / Drift Results.

Calculated Average %D/Drift = 9.58765
Maximun Average %D/Drift = 20.00000
* Passed Average %D/Drift Test.

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA7.i/121809v7/7q502.d
Lab Smp Id: W7VM091218-01 Client Smp ID: VSTD050
Inj Date : 18-DEC-2009 11:09
Operator : AXO1 Inst ID: VOA7.i
Smp Info : |W7VM091218-01|BFB/CCV/LCS|1|VOAF|1|
Misc Info : GEL 5g N/A UVM091219-01A/IVM091217-01
Comment :
Method : /chem/VOA7.i/121809v7/VOA7-8260B-111509.m
Meth Date : 19-Dec-2009 13:12 ale01592 Quant Type: ISTD
Cal Date : 16-NOV-2009 02:36 Cal File: 71708.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: CALsubL+.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (Uf/Vo) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	sample purged

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
M 2 Xylenes (total)	106				1087099	150.000	135
M 3 1,2-Dichloroethylene (total)	96				730910	100.000	95.0
M 1 1,3-Dichloropropylene	75				738437	100.000	95.1
4 Dichlorodifluoromethane	85	5.147	5.147	(0.336)	192565	50.0000	60.4
5 Chloromethane	50	5.757	5.757	(0.376)	357813	50.0000	45.4
6 Vinyl chloride	62	6.187	6.187	(0.404)	259484	50.0000	47.5
7 Bromomethane	94	7.429	7.429	(0.485)	193040	50.0000	51.5
8 Chloroethane	64	7.855	7.855	(0.513)	182623	50.0000	44.7
9 Trichlorofluoromethane	101	8.789	8.789	(0.574)	359573	50.0000	65.3
10 Ethyl Ether	59	9.703	9.703	(0.633)	243110	50.0000	41.9
13 Acetone	43	10.413	10.413	(0.680)	1207955	250.000	183
17 Acetonitrile	41	11.073	11.073	(0.723)	1099547	1000.00	991
14 1,1-Dichloroethylene	96	10.312	10.312	(0.673)	178934	50.0000	53.7
18 Methyl acetate	43	11.225	11.225	(0.733)	1265231	250.000	189
16 Iodomethane	142	10.667	10.667	(0.696)	1588943	250.000	261

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
	22 Methylene chloride	86	11.449	11.449	(0.747)	148696	50.0000	49.2
	19 Carbon disulfide	76	10.840	10.840	(0.708)	2877725	250.000	264
	24 tert-Butyl methyl ether	73	12.017	12.017	(0.785)	630168	50.0000	45.1
	25 trans-1,2-Dichloroethylene	61	12.027	12.027	(0.785)	342641	50.0000	48.3
	26 Vinyl acetate	43	12.860	12.860	(0.840)	3434967	250.000	242
	28 1,1-Dichloroethane	63	12.799	12.799	(0.836)	427978	50.0000	48.3
	31 2-Butanone	43	13.723	13.723	(0.896)	1208947	250.000	161
	33 cis-1,2-Dichloroethylene	61	13.733	13.733	(0.897)	388269	50.0000	46.8
	34 2,2-Dichloropropane	77	13.753	13.753	(0.898)	242116	50.0000	51.8
	38 Chloroform	83	14.190	14.190	(0.926)	423447	50.0000	52.9
	37 Bromochloromethane	49	14.088	14.088	(0.920)	333875	50.0000	46.3
	41 1,1,1-Trichloroethane	97	14.484	14.484	(0.946)	353148	50.0000	59.2
	43 Cyclohexane	56	14.586	14.586	(0.952)	470692	50.0000	46.4
	44 1,1-Dichloropropene	75	14.697	14.697	(0.960)	277688	50.0000	51.4
	52 n-Butyl alcohol	56	15.560	15.560	(1.016)	973126	5000.00	4230
	45 Carbon tetrachloride	117	14.728	14.728	(0.962)	287798	50.0000	60.9
$	46 1,2-Dichloroethane-d4	65	14.880	14.880	(0.972)	377319	50.0000	53.7
	47 1,2-Dichloroethane	62	14.982	14.982	(0.978)	432295	50.0000	51.6
	48 Benzene	78	14.992	14.992	(0.979)	757615	50.0000	45.9
	50 Cyclohexene	67	15.124	15.124	(0.987)	365417	50.0000	46.8
*	51 Fluorobenzene	96	15.317	15.317	(1.000)	806161	50.0000	
	53 Trichloroethylene	95	15.773	15.773	(1.030)	218542	50.0000	51.2
	56 1,2-Dichloropropane	63	16.037	16.037	(1.047)	227900	50.0000	42.4
	55 Methylcyclohexane	83	16.027	16.027	(1.046)	323126	50.0000	49.1
	59 Bromodichloromethane	83	16.332	16.332	(1.066)	342309	50.0000	54.0
	58 Dibromomethane	93	16.179	16.179	(1.056)	154484	50.0000	51.1
	61 2-Chloroethylvinyl ether	63	16.606	16.606	(1.084)	433648	250.000	197
	63 4-Methyl-2-pentanone	58	16.941	16.941	(0.908)	600824	250.000	185
	62 cis-1,3-Dichloropropylene	75	16.819	16.819	(1.098)	375663	50.0000	46.9
$	64 Toluene-d8	98	17.144	17.144	(0.918)	878355	50.0000	46.9
	65 Toluene	92	17.215	17.215	(0.922)	493650	50.0000	44.3
	67 trans-1,3-Dichloropropylene	75	17.388	17.388	(0.931)	362774	50.0000	46.8
	68 1,1,2-Trichloroethane	83	17.611	17.611	(0.943)	170186	50.0000	44.6
	69 2-Hexanone	43	17.804	17.804	(0.954)	1568186	250.000	149
	70 1,3-Dichloropropane	76	17.794	17.794	(0.953)	324780	50.0000	42.9
	71 Tetrachloroethylene	164	17.824	17.824	(0.955)	151880	50.0000	59.0
	72 Dibromochloromethane	129	18.068	18.068	(0.968)	244372	50.0000	54.8
	73 1,2-Dibromoethane	107	18.220	18.220	(0.976)	223878	50.0000	48.4
*	75 Chlorobenzene-d5	117	18.667	18.667	(1.000)	626967	50.0000	
	76 Chlorobenzene	112	18.697	18.697	(1.002)	564499	50.0000	46.7
	77 1,1,1,2-Tetrachloroethane	131	18.758	18.758	(1.005)	221077	50.0000	50.9
	78 Ethylbenzene	91	18.768	18.768	(1.005)	964556	50.0000	46.0
	79 m,p-Xylenes	106	18.870	18.870	(1.011)	713835	100.000	89.4
	80 o-Xylene	106	19.286	19.286	(1.033)	373264	50.0000	45.2
	81 Styrene	104	19.286	19.286	(1.033)	640489	50.0000	43.2
	82 Bromoform	173	19.540	19.540	(0.931)	189333	50.0000	58.3
	83 Isopropylbenzene	105	19.631	19.631	(0.935)	978986	50.0000	46.1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
87 1,1,2,2-Tetrachloroethane	83	19.885	19.885	(0.947)	297285	50.0000	44.2
$ 86 Bromofluorobenzene	95	19.814	19.814	(0.944)	416556	50.0000	47.6
89 1,2,3-Trichloropropane	110	19.976	19.976	(0.952)	81611	50.0000	48.2
90 Bromobenzene	156	20.017	20.017	(0.954)	278351	50.0000	46.6
91 n-Propylbenzene	91	20.037	20.037	(0.955)	1187364	50.0000	45.5
93 2-Chlorotoluene	91	20.179	20.179	(0.961)	846830	50.0000	44.7
92 1,3,5-Trimethylbenzene	105	20.169	20.169	(0.961)	846599	50.0000	45.0
94 4-Chlorotoluene	91	20.271	20.271	(0.966)	827732	50.0000	46.0
95 tert-Butylbenzene	119	20.535	20.535	(0.978)	809968	50.0000	46.2
96 1,2,4-Trimethylbenzene	105	20.565	20.565	(0.980)	913833	50.0000	45.5
98 sec-Butylbenzene	105	20.748	20.748	(0.988)	1129893	50.0000	47.3
99 4-Isopropyltoluene	119	20.870	20.870	(0.994)	893649	50.0000	47.1
100 1,3-Dichlorobenzene	146	20.931	20.931	(0.997)	494501	50.0000	46.2
* 101 1,4-Dichlorobenzene-d4	152	20.991	20.991	(1.000)	371824	50.0000	
102 1,4-Dichlorobenzene	146	21.022	21.022	(1.001)	496379	50.0000	47.1
104 n-Butylbenzene	91	21.296	21.296	(1.014)	942200	50.0000	47.0
105 1,2-Dichlorobenzene	146	21.438	21.438	(1.021)	498884	50.0000	46.8
107 1,2-Dibromo-3-chloropropane	157	22.301	22.301	(1.062)	64645	50.0000	49.4
108 1,2,4-Trichlorobenzene	180	23.357	23.357	(1.113)	377878	50.0000	49.5
109 Hexachlorobutadiene	225	23.540	23.540	(1.121)	222778	50.0000	54.5
110 Naphthalene	128	23.753	23.753	(1.132)	742125	50.0000	43.7
111 1,2,3-Trichlorobenzene	180	24.098	24.098	(1.148)	344234	50.0000	50.8

Data File: /chem/VOA7.i/121809v7/7q502.d
Date : 18-DEC-2009 11:09
Client ID: VSTD050
Sample Info: IW7VM091218-011BFB/CCV/LCS11|VOAF11|
Purge Volume: 5.0
Column phase: DB-624

Instrument: VOA7.i
Operator: AXO1
Column diameter: 0.25

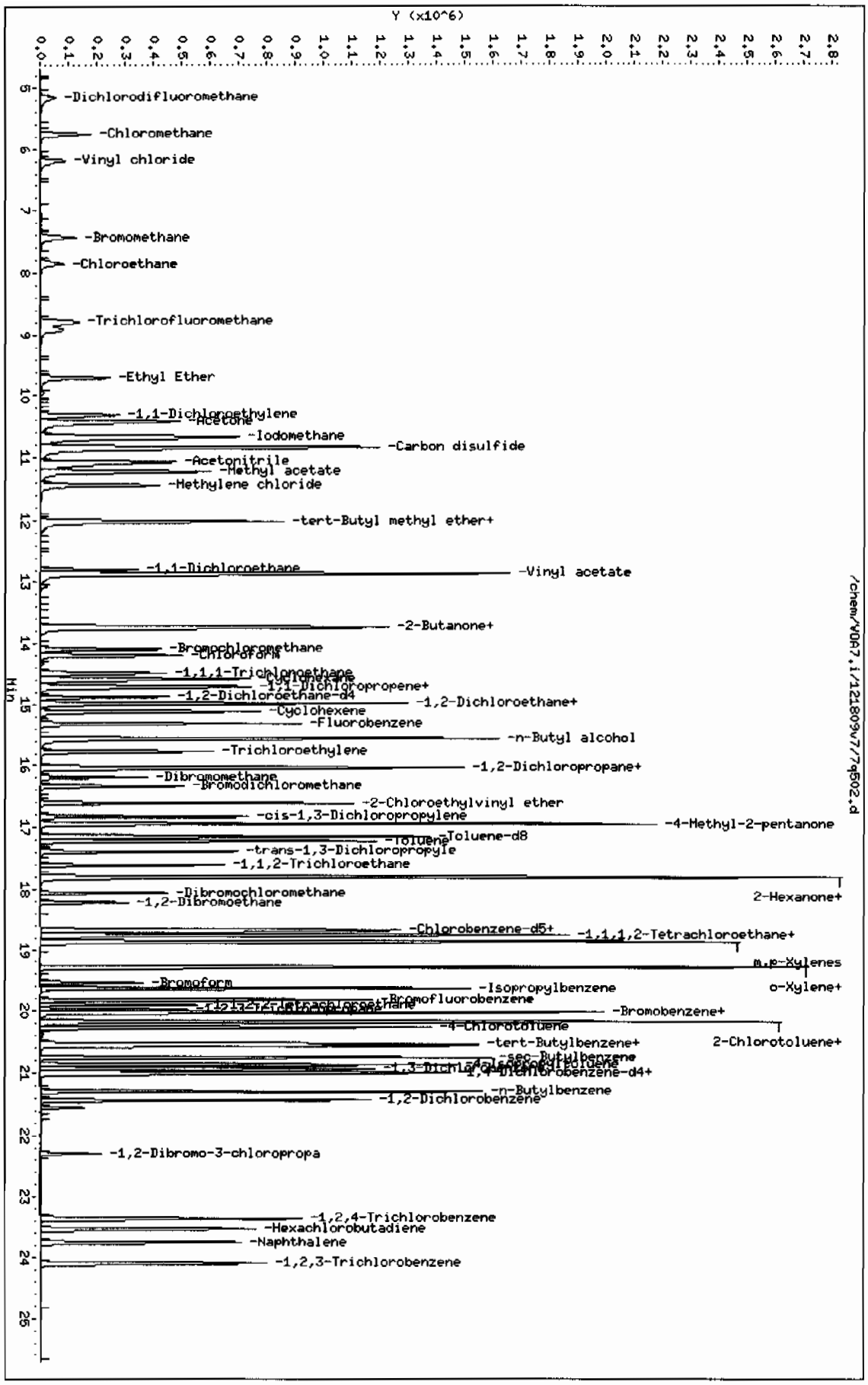

Page 1

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA7.i Injection Date: 18-DEC-2009 12:14
Lab File ID: 7q504.d Init. Cal. Date(s): 16-NOV-2009 16-NOV-2009
Analysis Type: WATER Init. Cal. Times: 00:20 10:57
Lab Sample ID: W7VM091218-03 Quant Type: ISTD
Method: /chem/VOA7.i/121809v7/VOA7-8260B-111509.m

COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
147 Chlorotrifluoroethylene	0.13034	0.14354	0.14354	0.010	10.13048	30.00000	Averaged
148 2-Chloro-1,1,1-trifluoroeth	0.28275	0.30682	0.30682	0.010	8.51113	30.00000	Averaged
11 Acrolein	0.08287	0.08086	0.08086	0.001	-2.41757	30.00000	Averaged
12 Trichlorotrifluoroethane	0.09315	0.11124	0.11124	0.010	19.42787	30.00000	Averaged
15 Isopropyl Alcohol	0.03668	0.03741	0.03741	0.010	1.99022	40.00000	Averaged
20 Allyl chloride	0.63535	0.54972	0.54972	0.010	-13.47875	30.00000	Averaged
21 tert-Butyl Alcohol	0.05102	0.04941	0.04941	0.001	-3.14776	40.00000	Averaged
23 Acrylonitrile	0.16606	0.15392	0.15392	0.010	-7.30974	30.00000	Averaged
27 Isopropyl ether	1.68959	1.47590	1.47590	0.010	-12.64748	30.00000	Averaged
29 2-Chloro-1,3-butadiene	0.54538	0.59408	0.59408	0.010	8.93126	30.00000	Averaged
30 Ethyl tert-butyl ether	1.14730	1.04430	1.04430	0.010	-8.97746	30.00000	Averaged
35 Propionitrile	0.06686	0.05913	0.05913	0.010	-11.55854	30.00000	Averaged
32 Ethyl acetate	0.49355	0.40805	0.40805	0.010	-17.32361	40.00000	Averaged
36 Methacrylonitrile	0.30070	0.25736	0.25736	0.010	-14.41345	30.00000	Averaged
39 Tetrahydrofuran	0.36975	0.28956	0.28956	0.010	-21.68693	30.00000	Averaged
42 Isobutyl alcohol	0.01771	0.01731	0.01731	0.005	-2.21358	40.00000	Averaged
49 Methyl tert-amyl ether	0.79534	0.72505	0.72505	0.010	-8.83856	30.00000	Averaged
54 Methyl methacrylate	0.20956	0.17808	0.17808	0.010	-15.02468	30.00000	Averaged
66 Ethyl methacrylate	0.53175	0.42595	0.42595	0.010	-19.89624	30.00000	Averaged
74 1-Chlorohexane	0.40217	0.39647	0.39647	0.010	-1.41845	30.00000	Averaged
57 1,4-Dioxane	0.00316	0.00314	0.00314	0.001	-0.65907	40.00000	Averaged
60 2-Nitropropane	0.12993	0.16811	0.16811	0.010	29.38313	30.00000	Averaged
84 cis-1,4-Dichloro-2-butene	0.39160	0.41051	0.41051	0.010	4.82835	30.00000	Averaged
85 Cyclohexanone	579	1250	0.04295	0.010	-53.66123	40.00000	Linear <-
88 trans-1,4-Dichloro-2-butene	0.35776	0.38104	0.38104	0.010	6.50478	30.00000	Averaged
97 Pentachloroethane	0.26007	0.38151	0.38151	0.010	46.69911	30.00000	Averaged <-
103 Benzyl chloride	1.33283	1.34425	1.34425	0.010	0.85692	30.00000	Averaged
106 bis(2-Chloroisopropyl)ether	0.73799	0.58026	0.58026	0.010	-21.37277	30.00000	Averaged
$ 46 1,2-Dichloroethane-d4	0.43596	0.47729	0.47729	0.010	9.47983	30.00000	Averaged
$ 64 Toluene-d8	1.49262	1.42883	1.42883	0.010	-4.27389	30.00000	Averaged
$ 86 Bromofluorobenzene	1.17678	1.08905	1.08905	0.010	-7.45478	30.00000	Averaged

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA7.i Injection Date: 18-DEC-2009 12:14
Lab File ID: 7q504.d Init. Cal. Date(s): 16-NOV-2009 16-NOV-2009
Analysis Type: WATER Init. Cal. Times: 00:20 10:57
Lab Sample ID: W7VM091218-03 Quant Type: ISTD
Method: /chem/VOA7.i/121809v7/VOA7-8260B-111509.m

Average %D / Drift Results.
Calculated Average %D/Drift = 9.58765
Maximun Average %D/Drift = 20.00000
* Passed Average %D/Drift Test.

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA7.i/121809v7/7q504.d
Lab Smp Id: W7VM091218-03 Client Smp ID: VSTD250S
Inj Date : 18-DEC-2009 12:14
Operator : AXO1 Inst ID: VOA7.i
Smp Info : |W7VM091218-03|SHORT/SLCS|1|VOAF|1|
Misc Info : GEL 5g N/A UVM091118-08C/UVM091105-02E
Comment :
Method : /chem/VOA7.i/121809v7/VOA7-8260B-111509.m
Meth Date : 19-Dec-2009 13:12 ale01592 Quant Type: ISTD
Cal Date : 16-NOV-2009 02:36 Cal File: 71708.d
Als bottle: 4 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: CALsubS+SS.sub
Target Version: 3.50

Concentration Formula: Amt * DF * (Uf/Vo) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	sample purged

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
147 Chlorotrifluoroethylene	116	5.044	5.029	(0.329)	353880	150.000	165
148 2-Chloro-1,1,1-trifluoroethane	118	6.619	6.604	(0.432)	756415	150.000	163
11 Acrolein	56	10.028	10.017	(0.655)	332259	250.000	244
12 Trichlorotrifluoroethane	85	10.373	10.373	(0.677)	457089	250.000	298
15 Isopropyl Alcohol	45	10.779	10.779	(0.704)	1537080	2500.00	2550
20 Allyl chloride	41	11.185	11.185	(0.730)	2258765	250.000	216
21 tert-Butyl Alcohol	59	11.662	11.672	(0.761)	2030322	2500.00	2420
23 Acrylonitrile	53	11.936	11.926	(0.779)	632465	250.000	232
27 Isopropyl ether	45	12.911	12.901	(0.843)	1212886	50.0000	43.7
29 2-Chloro-1,3-butadiene	53	12.961	12.961	(0.846)	488213	50.0000	54.5
30 Ethyl tert-butyl ether	59	13.489	13.489	(0.881)	858197	50.0000	45.5
35 Propionitrile	54	13.804	13.804	(0.901)	242966	250.000	221
32 Ethyl acetate	43	13.804	13.804	(0.901)	1676668	250.000	207
36 Methacrylonitrile	41	14.048	14.048	(0.917)	1057484	250.000	214
39 Tetrahydrofuran	42	14.159	14.159	(0.675)	569733	250.000	196
42 Isobutyl alcohol	41	14.748	14.748	(0.963)	711435	2500.00	2440

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
49 Methyl tert-amyl ether	73	15.073	15.083	(0.984)	595837	50.0000	45.6
54 Methyl methacrylate	69	16.078	16.078	(1.050)	731713	250.000	212
66 Ethyl methacrylate	69	17.418	17.418	(0.933)	1363023	250.000	200
74 1-Chlorohexane	55	18.575	18.575	(1.213)	325812	50.0000	49.3
57 1,4-Dioxane	88	16.159	16.159	(1.055)	129187	2500.00	2480
60 2-Nitropropane	43	16.555	16.555	(1.081)	690745	250.000	323
84 cis-1,4-Dichloro-2-butene	53	19.662	19.662	(0.937)	807709	250.000	262
85 Cyclohexanone	55	19.773	19.773	(1.059)	687113	1250.00	579
88 trans-1,4-Dichloro-2-butene	53	19.936	19.936	(0.950)	749716	250.000	266
97 Pentachloroethane	167	20.606	20.606	(0.982)	750659	250.000	367(A)
103 Benzyl chloride	91	21.124	21.124	(1.006)	2644919	250.000	252
106 bis(2-Chloroisopropyl)ether	45	21.509	21.509	(1.025)	1141706	250.000	196
* 51 Fluorobenzene	96	15.317	15.317	(1.000)	821792	50.0000	
* 75 Chlorobenzene-d5	117	18.667	18.667	(1.000)	639990	50.0000	
* 101 1,4-Dichlorobenzene-d4	152	20.992	20.991	(1.000)	393515	50.0000	
$ 46 1,2-Dichloroethane-d4	65	14.880	14.880	(0.972)	392232	50.0000	54.7
$ 64 Toluene-d8	98	17.144	17.144	(0.918)	914435	50.0000	47.9
$ 86 Bromofluorobenzene	95	19.814	19.814	(0.944)	428559	50.0000	46.3

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.

Data File: /chem/VOA7.i/121809v7/7q504.d

Date : 18-DEC-2009 12:14

Client ID: VSTD250S

Sample Info: IW7VM091218-03|SHORT/SLCS|1|VOAF|1|

Purge Volume: 5.0

Column phase: DB-624

Instrument: VOA7.i

Operator: AX01

Column diameter: 0.25

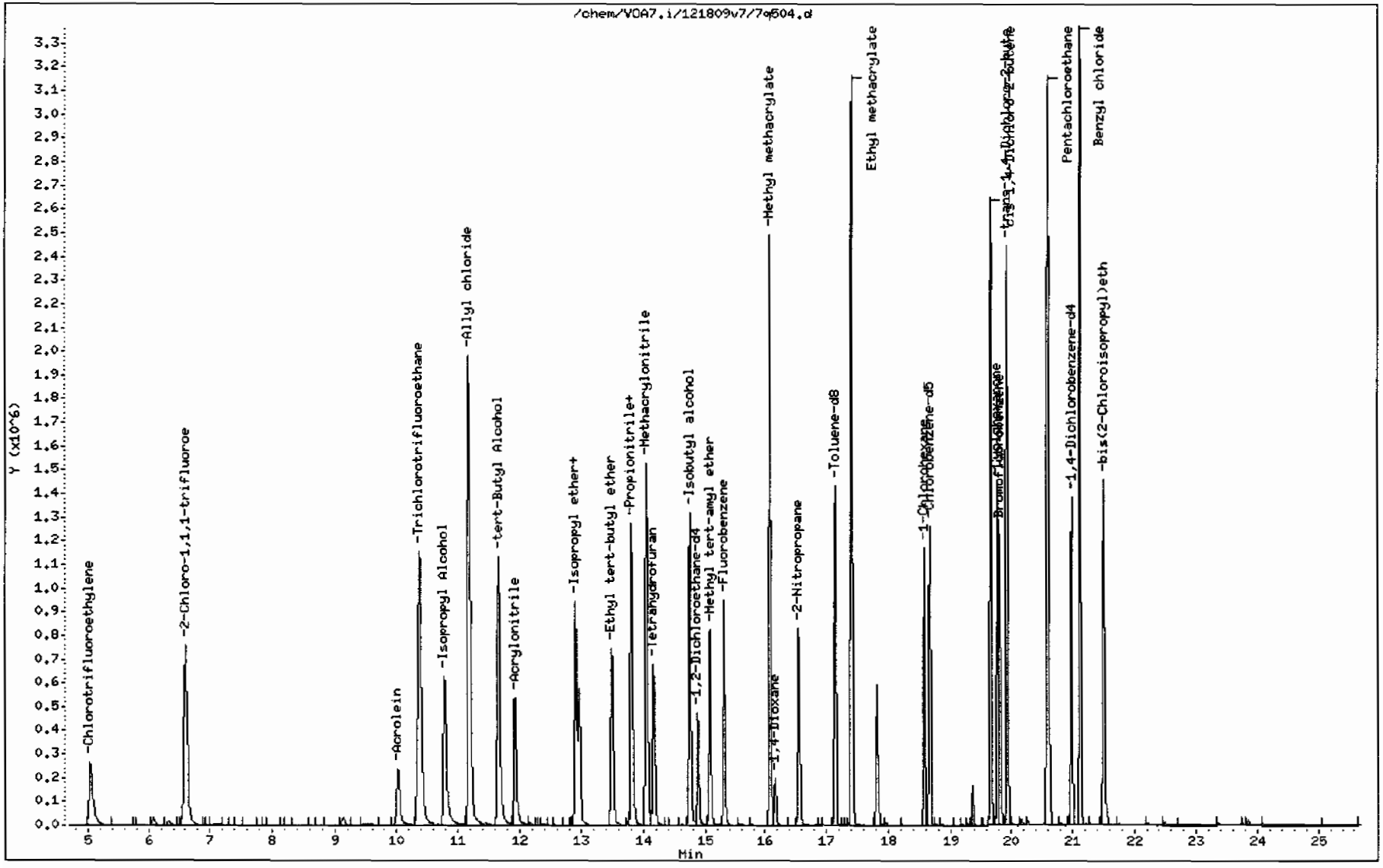

QC Data

Data File: /chem/VOA7.i/111509v7/71702.d

Date : 15-NOV-2009 23:14

Client ID: BFB01

Instrument: VOA7.i

Sample Info: |12019-----|BFB01|1|VOAF|1|

Operator: AX01

Column phase: db624

Column diameter: 0.25

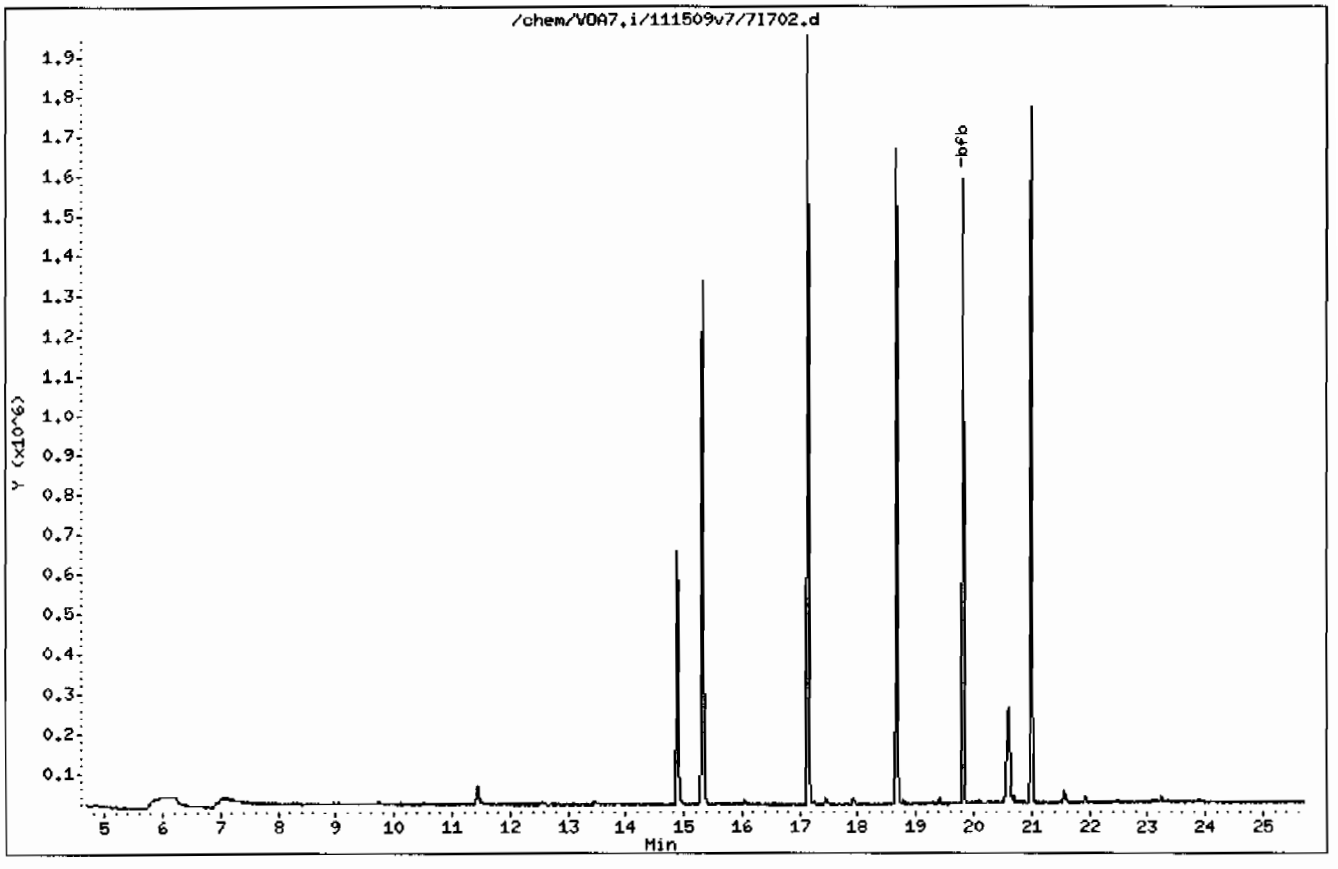

Data File: /chem/VOA7.i/111509v7/71702.d

Date : 15-NOV-2009 23:14

Client ID: BFB01

Instrument: VOA7.i

Sample Info: |12019-----|BFB01|1|VOAF|1|

Operator: AX01

Column phase: db624

Column diameter: 0.25

1 bfb

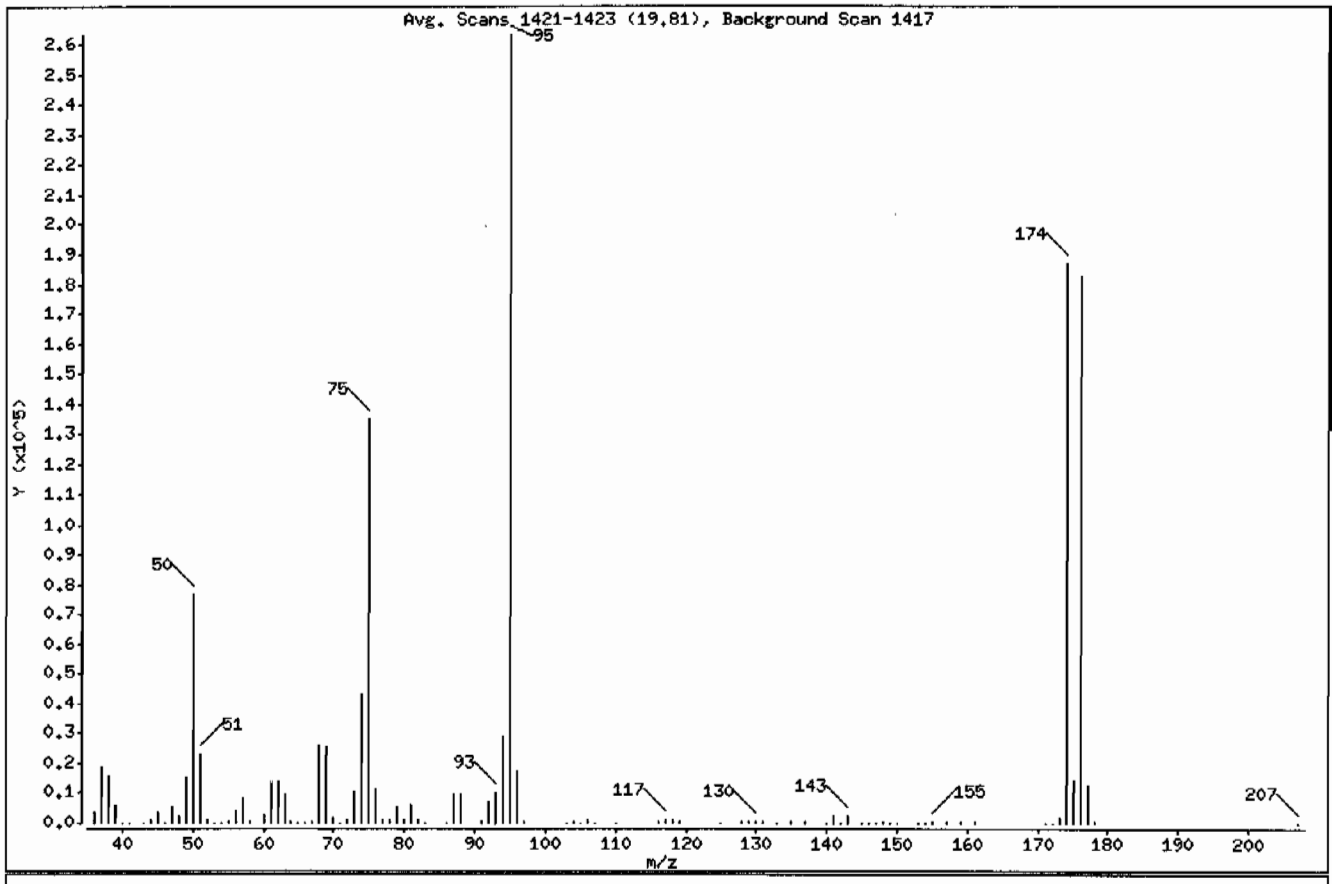

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	29.18
75	30.00 - 60.00% of mass 95	51.18
96	5.00 - 9.00% of mass 95	6.73
173	Less than 2.00% of mass 174	0.67 (0.95)
174	50.00 - 100.00% of mass 95	70.97
175	5.00 - 9.00% of mass 174	5.45 (7.68)
176	95.00 - 101.00% of mass 174	69.44 (97.84)
177	5.00 - 9.00% of mass 176	4.78 (6.88)

Data File: /chem/VOA7.i/111509v7/71702.d

Date : 15-NOV-2009 23:14

Client ID: BFB01 Instrument: VOA7.i

Sample Info: |12019------|BFB01|1|VOAF|1|

Operator: AX01

Column phase: db624 Column diameter: 0.25

Data File: 71702.d
Spectrum: Avg. Scans 1421-1423 (19.81), Background Scan 1417
Location of Maximum: 95.00
Number of points: 99

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	3333	63.00	9564	92.00	7156	141.00	2201
37.00	18888	64.00	721	93.00	10047	142.00	209
38.00	15641	65.00	130	94.00	28776	143.00	2553
39.00	5866	66.00	83	95.00	263232	145.00	241
40.00	248	67.00	433	96.00	17712	146.00	257
41.00	54	68.00	26144	97.00	558	147.00	85
43.00	67	69.00	25688	103.00	86	148.00	460
44.00	1305	70.00	1759	104.00	779	149.00	205
45.00	3541	71.00	254	105.00	214	150.00	236
46.00	266	72.00	1385	106.00	1126	153.00	182
47.00	5342	73.00	10068	107.00	293	154.00	90
48.00	2413	74.00	42920	110.00	85	155.00	665
49.00	14979	75.00	134720	116.00	817	157.00	311
50.00	76824	76.00	11733	117.00	1329	159.00	346
51.00	22800	77.00	1457	118.00	973	161.00	315
52.00	1184	78.00	980	119.00	879	171.00	166
53.00	233	79.00	5165	125.00	91	172.00	281
54.00	87	80.00	1473	128.00	746	173.00	1775
55.00	866	81.00	6044	129.00	436	174.00	186816
56.00	4408	82.00	1176	130.00	778	175.00	14343
57.00	8581	83.00	113	131.00	464	176.00	182784
58.00	419	86.00	95	133.00	110	177.00	12570
60.00	3198	87.00	9814	135.00	565	178.00	360
61.00	13497	88.00	9439	137.00	434	207.00	200
62.00	13813	91.00	612	140.00	192		

Data File: /chem/VOA7.i/111509v7/7m102BFB.d

Date : 16-NOV-2009 13:54

Client ID: BFB01

Instrument: VOA7.i

Sample Info: |W7VM0911116-01|BFB/CCV/ICV/LCS|1|VOAF|1|

Operator: AX01

Column phase: db624

Column diameter: 0.25

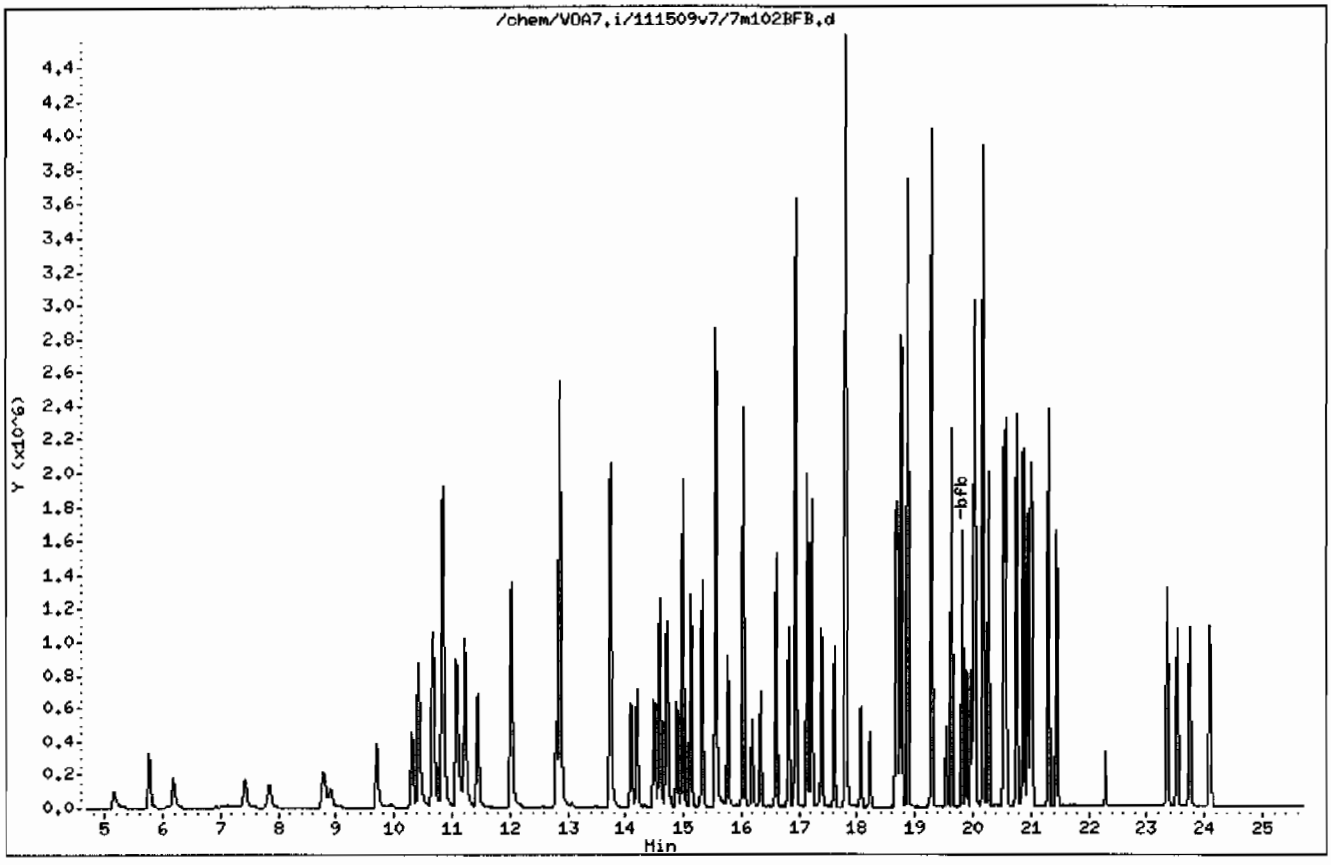

Data File: /chem/VOA7.i/111509v7/7m102BFB.d

Date : 16-NOV-2009 13:54

Client ID: BFB01

Instrument: VOA7.i

Sample Info: |W7VH0911116-01|BFB/CCV/ICV/LCS|1|VOAF|1|

Operator: AX01

Column phase: db624

Column diameter: 0.25

1 bfb

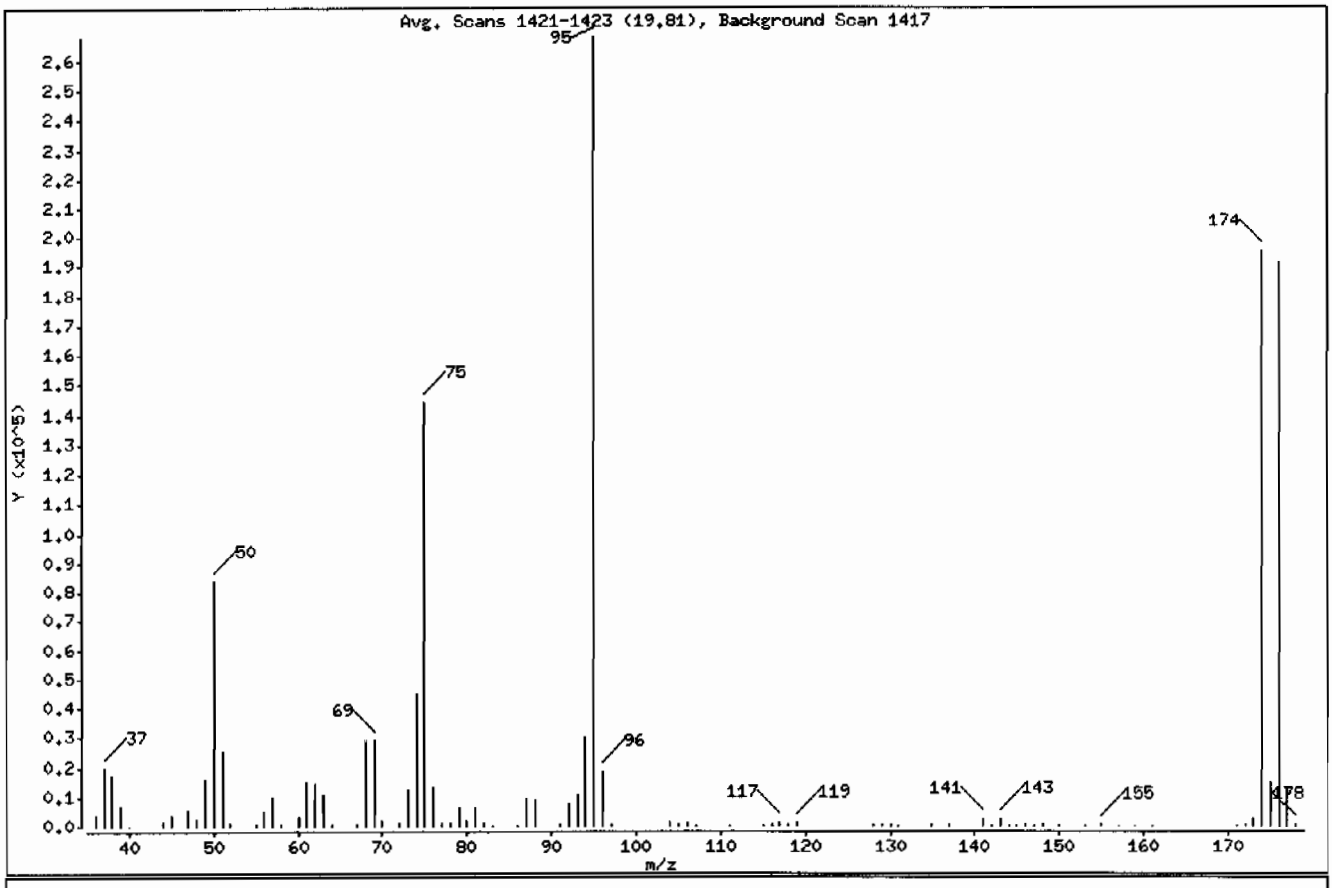

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	31.35
75	30.00 - 60.00% of mass 95	53.68
96	5.00 - 9.00% of mass 95	6.95
173	Less than 2.00% of mass 174	0.83 (1.14)
174	50.00 - 100.00% of mass 95	72.93
175	5.00 - 9.00% of mass 174	5.57 (7.63)
176	95.00 - 101.00% of mass 174	71.26 (97.71)
177	5.00 - 9.00% of mass 176	4.79 (6.72)

Data File: /chem/VOA7.i/111509v7/7m102BFB.d

Date : 16-NOV-2009 13:54

Client ID: BFB01 Instrument: VOA7.i

Sample Info: |W7VM0911116-01|BFB/CCV/ICV/LCS|1|VOAF|1|

Operator: AXO1

Column phase: db624 Column diameter: 0.25

Data File: 7m102BFB.d
Spectrum: Avg. Scans 1421-1423 (19.81), Background Scan 1417
Location of Maximum: 95.00
Number of points: 86

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	3492	67.00	802	94.00	30088	143.00	2290
37.00	19896	68.00	28072	95.00	267904	144.00	182
38.00	17176	69.00	28720	96.00	18608	145.00	246
39.00	6767	70.00	2115	97.00	689	146.00	368
40.00	56	72.00	1438	104.00	940	147.00	197
44.00	1726	73.00	12133	105.00	456	148.00	524
45.00	3498	74.00	45264	106.00	1256	150.00	86
47.00	5334	75.00	143808	107.00	86	153.00	91
48.00	2508	76.00	12687	111.00	230	155.00	646
49.00	16192	77.00	1415	115.00	163	157.00	282
50.00	84000	78.00	1061	116.00	809	159.00	241
51.00	25096	79.00	6247	117.00	1378	161.00	85
52.00	1004	80.00	1703	118.00	830	171.00	107
55.00	720	81.00	6177	119.00	1140	172.00	463
56.00	5221	82.00	1168	128.00	870	173.00	2233
57.00	9634	83.00	94	129.00	344	174.00	195392
58.00	407	86.00	268	130.00	747	175.00	14910
60.00	2957	87.00	9327	131.00	236	176.00	190912
61.00	14580	88.00	8928	135.00	321	177.00	12835
62.00	14245	91.00	654	137.00	514	178.00	367
63.00	10431	92.00	7178	141.00	2289		
64.00	865	93.00	10518	142.00	239		

Data File: /chem/VOA7.i/121809v7/7q502BFB.d

Date : 18-DEC-2009 11:09

Client ID: BFB

Instrument: VOA7.i

Sample Info: IW7VM091218-01|BFB/CCV/LCS|1|VOAF|1|

Operator: AX01

Column phase: db624

Column diameter: 0.25

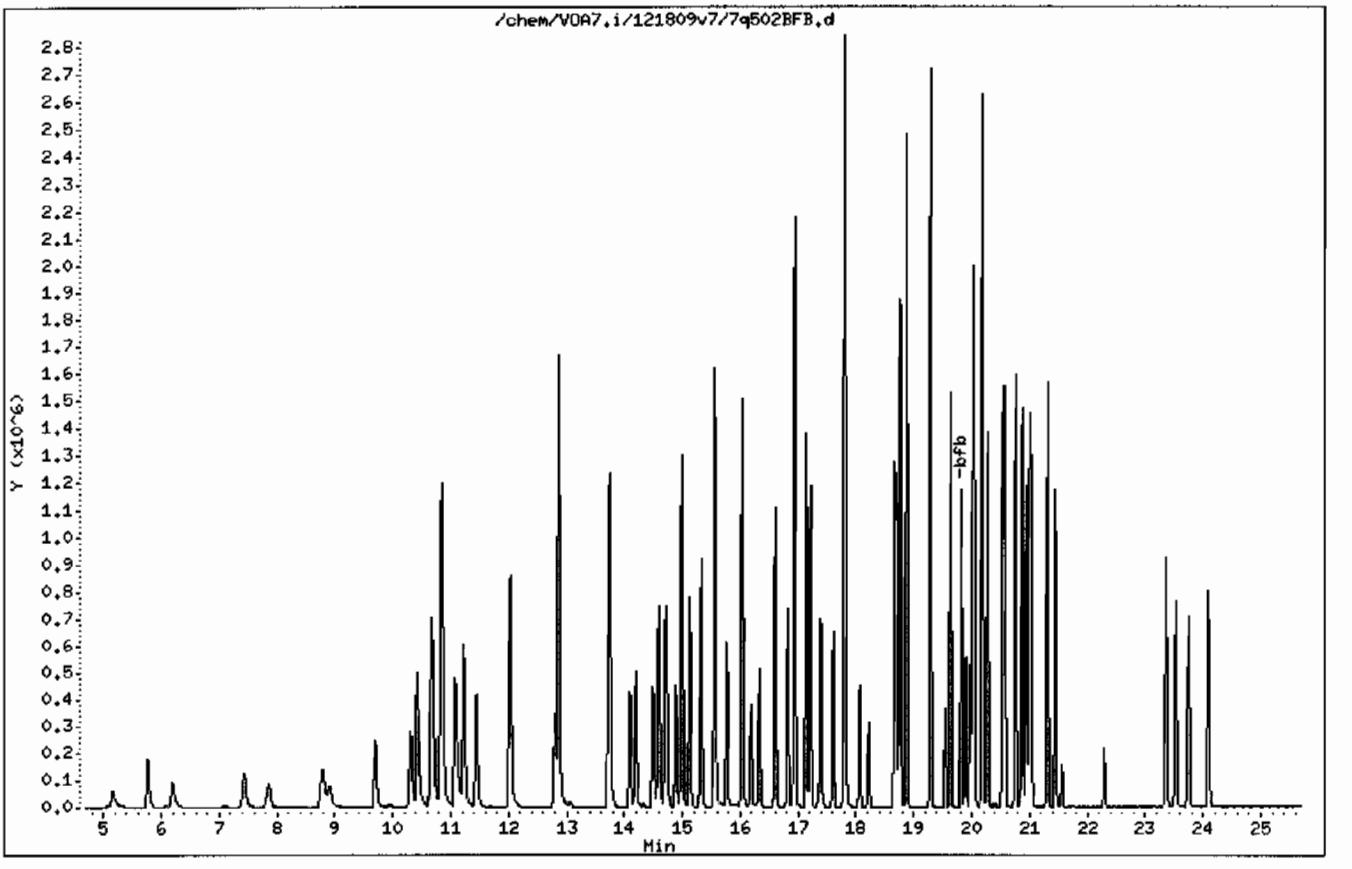

Data File: /chem/VOA7.i/121809v7/7q502BFB.d

Date : 18-DEC-2009 11:09

Client ID: BFB

Instrument: VOA7.i

Sample Info: |W7VM091218-01|BFB/CCV/LCS|1|VOAF|1|

Operator: AX01

Column phase: db624

Column diameter: 0.25

1 bfb

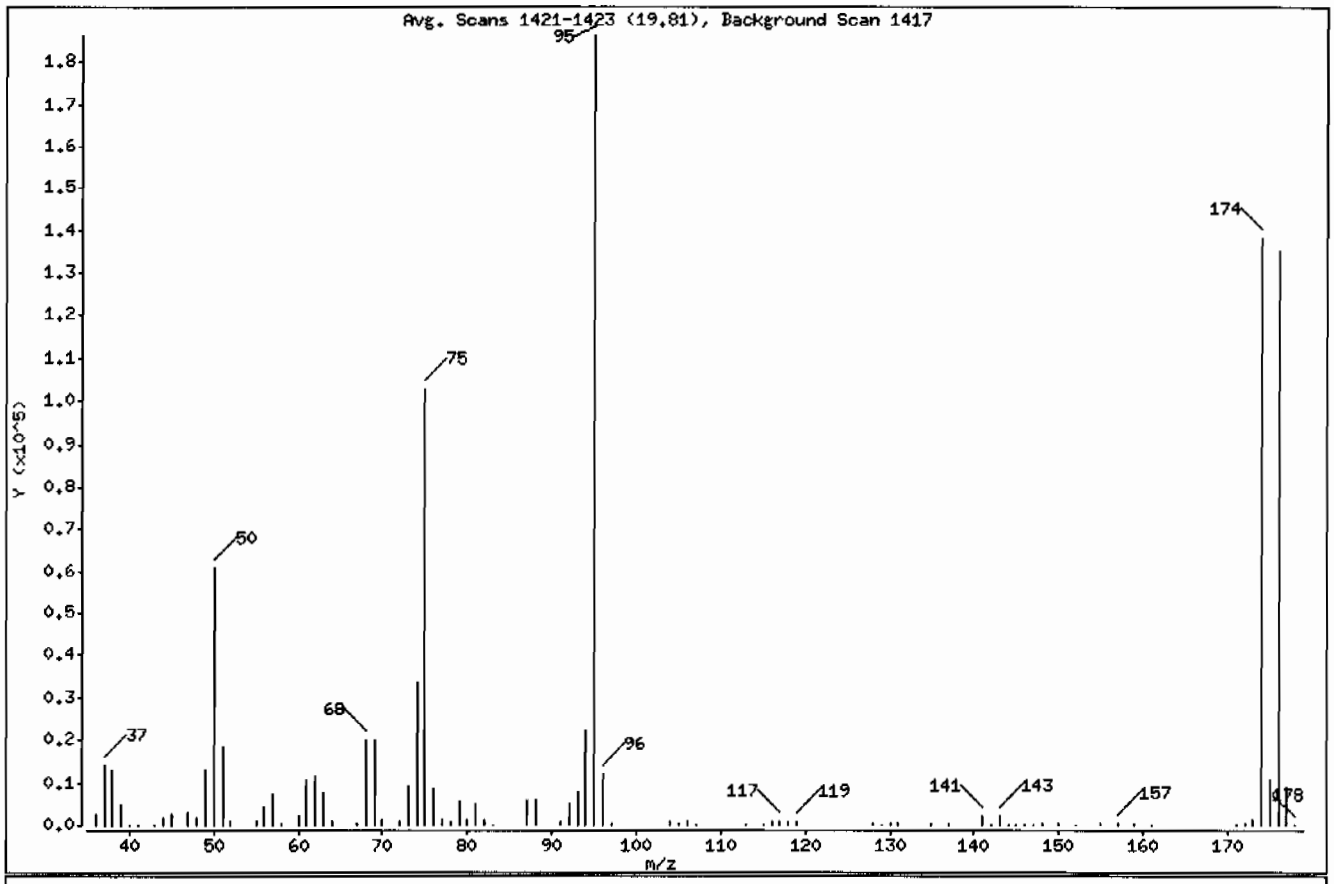

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	32.75
75	30.00 - 60.00% of mass 95	55.24
96	5.00 - 9.00% of mass 95	6.48
173	Less than 2.00% of mass 174	0.62 (0.83)
174	50.00 - 100.00% of mass 95	74.17
175	5.00 - 9.00% of mass 174	5.68 (7.66)
176	95.00 - 101.00% of mass 174	72.76 (98.10)
177	5.00 - 9.00% of mass 176	4.93 (6.78)

Date : 18-DEC-2009 11:09

Client ID: BFB Instrument: VOA7.i

Sample Info: IW7VM091218-01|BFB/CCV/LCS|1|VOAF|1|

Operator: AX01

Column phase: db624 Column diameter: 0.25

Data File: 7q502BFB.d
Spectrum: Avg. Scans 1421-1423 (19.81), Background Scan 1417
Location of Maximum: 95.00
Number of points: 87

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	2777	63.00	7695	93.00	7863	142.00	118
37.00	14228	64.00	733	94.00	22120	143.00	2272
38.00	12775	67.00	479	95.00	186048	144.00	109
39.00	4665	68.00	20120	96.00	12056	145.00	100
40.00	137	69.00	20056	97.00	405	146.00	110
41.00	85	70.00	1417	104.00	821	147.00	184
43.00	86	72.00	975	105.00	351	148.00	405
44.00	1508	73.00	8795	106.00	824	150.00	236
45.00	2609	74.00	33480	107.00	113	152.00	84
47.00	2986	75.00	102776	113.00	86	155.00	246
48.00	1715	76.00	8763	115.00	108	157.00	285
49.00	12643	77.00	1114	116.00	723	159.00	271
50.00	60936	78.00	782	117.00	1066	161.00	109
51.00	18424	79.00	5599	118.00	763	171.00	95
52.00	732	80.00	1376	119.00	945	172.00	226
55.00	678	81.00	4964	128.00	612	173.00	1151
56.00	4176	82.00	1276	129.00	98	174.00	137984
57.00	7240	83.00	93	130.00	600	175.00	10571
58.00	267	87.00	5702	131.00	218	176.00	135360
60.00	2222	88.00	5806	135.00	325	177.00	9172
61.00	10807	91.00	875	137.00	329	178.00	116
62.00	11667	92.00	5331	141.00	2034		

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-852-1**			**Matrix:**	**SOIL**
Lab Sample ID:	**1201998949**				
Client Sample:	**QC for batch 934300**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 934300**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**934305**	**Inst:**	**VOA7.I**	**Dilution:**	**1**
Run Date:	**12/18/2009 13:55**	**Analyst:**	**AXO1**	**Purge Vol:**	**5 mL**
Prep Date:	**12/18/2009 08:00**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**7q507BA.d**	**Column:**	**DB-624**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/kg	0.340	1.00
74-87-3	Chloromethane	U	1.00	ug/kg	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/kg	0.300	1.00
74-83-9	Bromomethane	U	1.00	ug/kg	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/kg	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/kg	0.300	1.00
67-64-1	Acetone	U	5.00	ug/kg	1.66	5.00
75-35-4	1,1-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/kg	1.60	5.00
75-09-2	Methylene chloride	U	5.00	ug/kg	2.00	5.00
75-15-0	Carbon disulfide	U	5.00	ug/kg	1.25	5.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/kg	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/kg	1.50	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/kg	0.300	1.00
74-97-5	Bromochloromethane	U	1.00	ug/kg	0.330	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/kg	0.300	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/kg	0.300	1.00
56-23-5	Carbon tetrachloride	U	1.00	ug/kg	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/kg	0.300	1.00
71-43-2	Benzene	U	1.00	ug/kg	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/kg	0.330	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/kg	0.300	1.00
74-95-3	Dibromomethane	U	1.00	ug/kg	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/kg	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
108-88-3	Toluene	U	1.00	ug/kg	0.300	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/kg	0.300	1.00
591-78-6	2-Hexanone	U	5.00	ug/kg	1.50	5.00
142-28-9	1,3-Dichloropropane	U	1.00	ug/kg	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/kg	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/kg	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/kg	0.300	1.00
108-90-7	Chlorobenzene	U	1.00	ug/kg	0.300	1.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-852-1**			**Matrix:**	**SOIL**
Lab Sample ID:	**1201998949**				
Client Sample:	**QC for batch 934300**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 934300**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**934305**	**Inst:**	**VOA7.1**	**Dilution:**	**1**
Run Date:	**12/18/2009 13:55**	**Analyst:**	**AXO1**	**Purge Vol:**	**5 mL**
Prep Date:	**12/18/2009 08:00**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**7q507BA.d**	**Column:**	**DB-624**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.00	ug/kg	0.300	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/kg	0.300	2.00
95-47-6	o-Xylene	U	1.00	ug/kg	0.300	1.00
100-42-5	Styrene	U	1.00	ug/kg	0.300	1.00
75-25-2	Bromoform	U	1.00	ug/kg	0.300	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/kg	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/kg	0.300	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/kg	0.300	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/kg	0.300	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/kg	0.300	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/kg	0.300	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/kg	0.300	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/kg	0.300	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/kg	0.300	1.00
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.00	ug/kg	1.60	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	No Tentatively Identified Compounds Found			ug/kg		

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA7.i/121809v7/7q507BA.d
Lab Smp Id: 1201998949 Client Smp ID: BLANK
Inj Date : 18-DEC-2009 13:55
Operator : AXO1 Inst ID: VOA7.i
Smp Info : |1201998949|934305|1|VOAF|1|
Misc Info : GEL 5g N/A
Comment :
Method : /chem/VOA7.i/121809v7/VOA7-8260B-111509.m
Meth Date : 19-Dec-2009 13:12 ale01592 Quant Type: ISTD
Cal Date : 16-NOV-2009 02:36 Cal File: 71708.d
Als bottle: 7 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	0.00000	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
$ 46 1,2-Dichloroethane-d4	65	14.880	14.880	(0.972)	405722	55.3821	55.4
* 51 Fluorobenzene	96	15.317	15.317	(1.000)	840199	50.0000	
$ 64 Toluene-d8	98	17.144	17.144	(0.918)	894466	46.1671	46.2
* 75 Chlorobenzene-d5	117	18.667	18.667	(1.000)	649011	50.0000	
$ 86 Bromofluorobenzene	95	19.814	19.814	(0.944)	413867	46.7036	46.7
* 101 1,4-Dichlorobenzene-d4	152	20.992	20.991	(1.000)	376517	50.0000	

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA7.i/121809v7/7q507BA.d
Lab Smp Id: 1201998949 Client Smp ID: BLANK
Inj Date : 18-DEC-2009 13:55
Operator : AXO1 Inst ID: VOA7.i
Smp Info : |1201998949|934305|1|VOAF|1|
Misc Info : GEL 5g N/A
Comment :
Method : /chem/VOA7.i/121809v7/VOA7-8260B-111509.m
Meth Date : 19-Dec-2009 13:12 ale01592 Quant Type: ISTD
Cal Date : 16-NOV-2009 02:36 Cal File: 71708.d
Als bottle: 7 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50
Processing Host: prdsvr07

- NO TENTATIVELY IDENTIFIED COMPOUNDS -

Data File: /chem/VOA7.i/121809v7/7q507BA.d
Date : 18-DEC-2009 13:55
Client ID: BLANK
Sample Info: |1201998949|934305|1|VOAF|1|

Column phase: DB-624

Instrument: VOA7.i

Operator: AXO1
Column diameter: 0.25

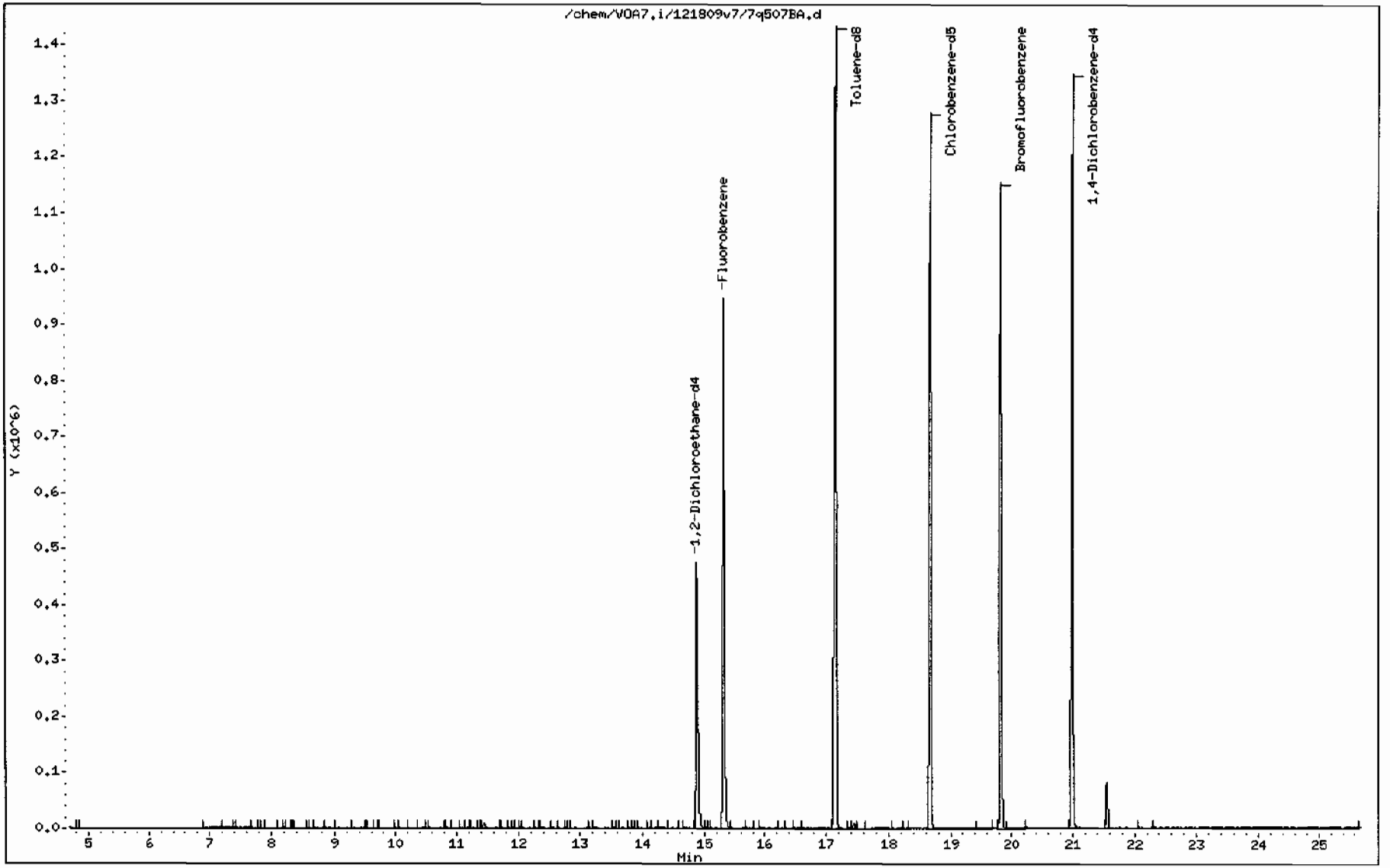

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-852-1**			**Matrix:**	**SOIL**
Lab Sample ID:	**1201998952**				
Client Sample:	**QC for batch 934300**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 934300**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**934305**	**Inst:**	**VOA7.I**	**Dilution:**	**1**
Run Date:	**12/18/2009 11:42**	**Analyst:**	**AXO1**	**Purge Vol:**	**5 mL**
Prep Date:	**12/18/2009 08:00**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**7q503LA.d**	**Column:**	**DB-624**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane		61.7	ug/kg	0.340	1.00
74-87-3	Chloromethane		46.8	ug/kg	0.300	1.00
75-01-4	Vinyl chloride		50.2	ug/kg	0.300	1.00
74-83-9	Bromomethane		51.6	ug/kg	0.300	1.00
75-00-3	Chloroethane		45.6	ug/kg	0.300	1.00
75-69-4	Trichlorofluoromethane		68.1	ug/kg	0.300	1.00
67-64-1	Acetone		205	ug/kg	1.66	5.00
75-35-4	1,1-Dichloroethylene		54.3	ug/kg	0.300	1.00
74-88-4	Iodomethane		256	ug/kg	1.60	5.00
75-09-2	Methylene chloride		47.6	ug/kg	2.00	5.00
75-15-0	Carbon disulfide		264	ug/kg	1.25	5.00
156-60-5	trans-1,2-Dichloroethylene		48.3	ug/kg	0.300	1.00
75-34-3	1,1-Dichloroethane		48.3	ug/kg	0.300	1.00
78-93-3	2-Butanone		178	ug/kg	1.50	5.00
156-59-2	cis-1,2-Dichloroethylene		46.2	ug/kg	0.300	1.00
594-20-7	2,2-Dichloropropane		52.2	ug/kg	0.300	1.00
67-66-3	Chloroform		51.7	ug/kg	0.300	1.00
74-97-5	Bromochloromethane		44.4	ug/kg	0.330	1.00
71-55-6	1,1,1-Trichloroethane		60.9	ug/kg	0.300	1.00
563-58-6	1,1-Dichloropropene		52.7	ug/kg	0.300	1.00
56-23-5	Carbon tetrachloride		62.3	ug/kg	0.300	1.00
107-06-2	1,2-Dichloroethane		51.6	ug/kg	0.300	1.00
71-43-2	Benzene		45.5	ug/kg	0.300	1.00
79-01-6	Trichloroethylene		52.4	ug/kg	0.330	1.00
78-87-5	1,2-Dichloropropane		41.1	ug/kg	0.300	1.00
75-27-4	Bromodichloromethane		53.4	ug/kg	0.300	1.00
74-95-3	Dibromomethane		49.6	ug/kg	0.300	1.00
108-10-1	4-Methyl-2-pentanone		202	ug/kg	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene		45.2	ug/kg	0.300	1.00
108-88-3	Toluene		44.8	ug/kg	0.300	1.00
10061-02-6	trans-1,3-Dichloropropylene		47.0	ug/kg	0.300	1.00
79-00-5	1,1,2-Trichloroethane		45.2	ug/kg	0.300	1.00
591-78-6	2-Hexanone		161	ug/kg	1.50	5.00
142-28-9	1,3-Dichloropropane		43.0	ug/kg	0.300	1.00
127-18-4	Tetrachloroethylene		59.8	ug/kg	0.300	1.00
124-48-1	Dibromochloromethane		54.4	ug/kg	0.300	1.00
106-93-4	1,2-Dibromoethane		47.6	ug/kg	0.300	1.00
108-90-7	Chlorobenzene		46.1	ug/kg	0.300	1.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-852-1**			**Matrix:**	**SOIL**
Lab Sample ID:	**1201998952**				
Client Sample:	**QC for batch 934300**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 934300**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**934305**	**Inst:**	**VOA7.I**	**Dilution:**	**1**
Run Date:	**12/18/2009 11:42**	**Analyst:**	**AXO1**	**Purge Vol:**	**5 mL**
Prep Date:	**12/18/2009 08:00**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**7q503LA.d**	**Column:**	**DB-624**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene		46.4	ug/kg	0.300	1.00
179601-23-1	m,p-Xylenes		90.6	ug/kg	0.300	2.00
95-47-6	o-Xylene		44.9	ug/kg	0.300	1.00
100-42-5	Styrene		41.8	ug/kg	0.300	1.00
75-25-2	Bromoform		58.4	ug/kg	0.300	1.00
79-34-5	1,1,2,2-Tetrachloroethane		45.0	ug/kg	0.300	1.00
96-18-4	1,2,3-Trichloropropane		50.7	ug/kg	0.300	1.00
108-86-1	Bromobenzene		45.1	ug/kg	0.300	1.00
103-65-1	n-Propylbenzene		45.0	ug/kg	0.300	1.00
95-49-8	2-Chlorotoluene		43.6	ug/kg	0.300	1.00
98-82-8	Isopropylbenzene		46.6	ug/kg	0.300	1.00
108-67-8	1,3,5-Trimethylbenzene		44.8	ug/kg	0.300	1.00
106-43-4	4-Chlorotoluene		45.3	ug/kg	0.300	1.00
98-06-6	tert-Butylbenzene		45.8	ug/kg	0.300	1.00
95-63-6	1,2,4-Trimethylbenzene		44.3	ug/kg	0.300	1.00
135-98-8	sec-Butylbenzene		45.7	ug/kg	0.300	1.00
99-87-6	4-Isopropyltoluene		45.8	ug/kg	0.300	1.00
541-73-1	1,3-Dichlorobenzene		45.0	ug/kg	0.300	1.00
106-46-7	1,4-Dichlorobenzene		45.3	ug/kg	0.300	1.00
104-51-8	n-Butylbenzene		45.7	ug/kg	0.300	1.00
96-12-8	1,2-Dibromo-3-chloropropane		54.0	ug/kg	0.300	1.00
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.00	ug/kg	1.60	5.00
630-20-6	1,1,1,2-Tetrachloroethane		50.3	ug/kg	0.300	1.00
95-50-1	1,2-Dichlorobenzene		45.0	ug/kg	0.300	1.00

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA7.i/121809v7/7q503LA.d
Lab Smp Id: 1201998952 Client Smp ID: LCS
Inj Date : 18-DEC-2009 11:42
Operator : AXO1 Inst ID: VOA7.i
Smp Info : |1201998952|934305|1|VOAF|1|
Misc Info : GEL 5mL N/A UVM091219-01A/IVM091217-01
Comment :
Method : /chem/VOA7.i/121809v7/VOA7-8260B-111509.m
Meth Date : 19-Dec-2009 13:12 ale01592 Quant Type: ISTD
Cal Date : 16-NOV-2009 02:36 Cal File: 71708.d
Als bottle: 3 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	0.00000	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
M 1 1,3-Dichloropropylene	75				756199	93.1069	93.1
M 2 Xylenes (total)	106				1132938	135.450	135
M 3 1,2-Dichloroethylene (total)	96				759581	94.4973	94.5
4 Dichlorodifluoromethane	85	5.147	5.147	(0.336)	205436	61.6740	61.7
5 Chloromethane	50	5.771	5.757	(0.377)	385768	46.7950	46.8
6 Vinyl chloride	62	6.187	6.187	(0.404)	287122	50.2259	50.2
7 Bromomethane	94	7.428	7.429	(0.485)	202011	51.5637	51.6
8 Chloroethane	64	7.855	7.855	(0.513)	194854	45.5905	45.6
9 Trichlorofluoromethane	101	8.799	8.789	(0.574)	392323	68.1197	68.1
10 Ethyl Ether	59	9.702	9.703	(0.633)	257696	42.5047	42.5
13 Acetone	43	10.423	10.413	(0.681)	1414375	205.357	205
14 1,1-Dichloroethylene	96	10.312	10.312	(0.673)	189233	54.2950	54.3

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
	16 Iodomethane	142	10.677	10.667	(0.697)	1627281	255.627	256
	17 Acetonitrile	41	11.073	11.073	(0.723)	1269979	1094.32	1090
	18 Methyl acetate	43	11.225	11.225	(0.733)	1425582	203.765	204
	19 Carbon disulfide	76	10.839	10.840	(0.708)	3014177	264.199	264
	22 Methylene chloride	86	11.449	11.449	(0.747)	150691	47.5623	47.6
	24 tert-Butyl methyl ether	73	12.017	12.017	(0.785)	662862	45.4031	45.4
	25 trans-1,2-Dichloroethylene	61	12.027	12.027	(0.785)	358552	48.2933	48.3
	26 Vinyl acetate	43	12.860	12.860	(0.840)	3568213	239.946	240
	28 1,1-Dichloroethane	63	12.799	12.799	(0.836)	447876	48.3115	48.3
	31 2-Butanone	43	13.723	13.723	(0.896)	1396697	177.542	178
	33 cis-1,2-Dichloroethylene	61	13.733	13.733	(0.897)	401029	46.2039	46.2
	34 2,2-Dichloropropane	77	13.753	13.753	(0.898)	255122	52.2090	52.2
	37 Bromochloromethane	49	14.088	14.088	(0.920)	335244	44.4225	44.4
	38 Chloroform	83	14.190	14.190	(0.926)	433075	51.7075	51.7
	41 1,1,1-Trichloroethane	97	14.484	14.484	(0.946)	380143	60.9438	60.9
	43 Cyclohexane	56	14.586	14.586	(0.952)	501033	47.2643	47.3
	44 1,1-Dichloropropene	75	14.697	14.697	(0.960)	297554	52.6638	52.7
	45 Carbon tetrachloride	117	14.728	14.728	(0.962)	307765	62.3163	62.3
$	46 1,2-Dichloroethane-d4	65	14.880	14.880	(0.971)	405772	55.1982	55.2
	47 1,2-Dichloroethane	62	14.981	14.982	(0.978)	452372	51.6248	51.6
	48 Benzene	78	14.992	14.992	(0.979)	784992	45.4578	45.4
	50 Cyclohexene	67	15.124	15.124	(0.987)	388673	47.6451	47.6
*	51 Fluorobenzene	96	15.316	15.317	(1.000)	843103	50.0000	
	52 n-Butyl alcohol	56	15.560	15.560	(1.016)	1218684	5067.14	5070
	53 Trichloroethylene	95	15.773	15.773	(1.030)	233736	52.4080	52.4
	55 Methylcyclohexane	83	16.037	16.027	(1.047)	330181	47.9404	47.9
	56 1,2-Dichloropropane	63	16.037	16.037	(1.047)	231056	41.1356	41.1
	58 Dibromomethane	93	16.190	16.179	(1.057)	157057	49.6435	49.6
	59 Bromodichloromethane	83	16.332	16.332	(1.066)	353984	53.3553	53.4
	61 2-Chloroethylvinyl ether	63	16.606	16.606	(1.084)	480508	208.800	209
	62 cis-1,3-Dichloropropylene	75	16.819	16.819	(1.098)	378657	45.1804	45.2
	63 4-Methyl-2-pentanone	58	16.941	16.941	(0.908)	678600	202.010	202
$	64 Toluene-d8	98	17.144	17.144	(0.918)	897924	46.2918	46.3
	65 Toluene	92	17.215	17.215	(0.922)	516629	44.7801	44.8
	67 trans-1,3-Dichloropropylene	75	17.387	17.388	(0.931)	377542	47.0348	47.0
	68 1,1,2-Trichloroethane	83	17.611	17.611	(0.943)	178805	45.2477	45.2
	69 2-Hexanone	43	17.804	17.804	(0.954)	1753950	160.989	161
	70 1,3-Dichloropropane	76	17.794	17.794	(0.953)	337314	42.9541	43.0
	71 Tetrachloroethylene	164	17.824	17.824	(0.955)	159656	59.8410	59.8
	72 Dibromochloromethane	129	18.068	18.068	(0.968)	251376	54.4497	54.4
	73 1,2-Dibromoethane	107	18.220	18.220	(0.976)	228264	47.5858	47.6
*	75 Chlorobenzene-d5	117	18.667	18.667	(1.000)	649765	50.0000	
	76 Chlorobenzene	112	18.697	18.697	(1.002)	577803	46.1382	46.1
	77 1,1,1,2-Tetrachloroethane	131	18.758	18.758	(1.005)	226181	50.2602	50.3
	78 Ethylbenzene	91	18.768	18.768	(1.005)	1009178	46.4220	46.4
	79 m,p-Xylenes	106	18.870	18.870	(1.011)	749306	90.5757	90.6
	80 o-Xylene	106	19.286	19.286	(1.033)	383632	44.8744	44.9

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
81 Styrene	104	19.286	19.286	(1.033)	642618	41.8228	41.8
82 Bromoform	173	19.540	19.540	(0.931)	200274	58.3533	58.4
83 Isopropylbenzene	105	19.631	19.631	(0.935)	1044490	46.5706	46.6
$ 86 Bromofluorobenzene	95	19.814	19.814	(0.944)	434485	46.9735	47.0
87 1,1,2,2-Tetrachloroethane	83	19.895	19.885	(0.948)	319498	44.9901	45.0
89 1,2,3-Trichloropropane	110	19.976	19.976	(0.952)	90789	50.7358	50.7
90 Bromobenzene	156	20.017	20.017	(0.954)	284539	45.0823	45.1
91 n-Propylbenzene	91	20.037	20.037	(0.955)	1242193	45.0234	45.0
92 1,3,5-Trimethylbenzene	105	20.169	20.169	(0.961)	889684	44.7501	44.8
93 2-Chlorotoluene	91	20.169	20.179	(0.961)	872674	43.6147	43.6
94 4-Chlorotoluene	91	20.271	20.271	(0.966)	860775	45.2680	45.3
95 tert-Butylbenzene	119	20.535	20.535	(0.978)	847883	45.7980	45.8
96 1,2,4-Trimethylbenzene	105	20.565	20.565	(0.980)	939783	44.2682	44.3
98 sec-Butylbenzene	105	20.748	20.748	(0.988)	1154079	45.7331	45.7
99 4-Isopropyltoluene	119	20.870	20.870	(0.994)	919315	45.8339	45.8
100 1,3-Dichlorobenzene	146	20.930	20.931	(0.997)	509372	45.0391	45.0
* 101 1,4-Dichlorobenzene-d4	152	20.991	20.991	(1.000)	393003	50.0000	
102 1,4-Dichlorobenzene	146	21.022	21.022	(1.001)	504627	45.2660	45.3
104 n-Butylbenzene	91	21.296	21.296	(1.014)	969901	45.7484	45.7
105 1,2-Dichlorobenzene	146	21.438	21.438	(1.021)	506766	45.0149	45.0
107 1,2-Dibromo-3-chloropropane	157	22.301	22.301	(1.062)	74640	54.0056	54.0
108 1,2,4-Trichlorobenzene	180	23.357	23.357	(1.113)	375641	46.5414	46.5
109 Hexachlorobutadiene	225	23.539	23.540	(1.121)	196977	45.6083	45.6
110 Naphthalene	128	23.753	23.753	(1.132)	787913	43.9230	43.9
111 1,2,3-Trichlorobenzene	180	24.098	24.098	(1.148)	341133	47.5868	47.6

Data File: /chem/VOA7.i/121809v7/7q503LA.d
Date : 18-DEC-2009 11:42
Client ID: LCS
Sample Info: |120199895219343051|VOAF|1|
Column phase: DB-624

Instrument: VOA7.i
Operator: AX01
Column diameter: 0.25

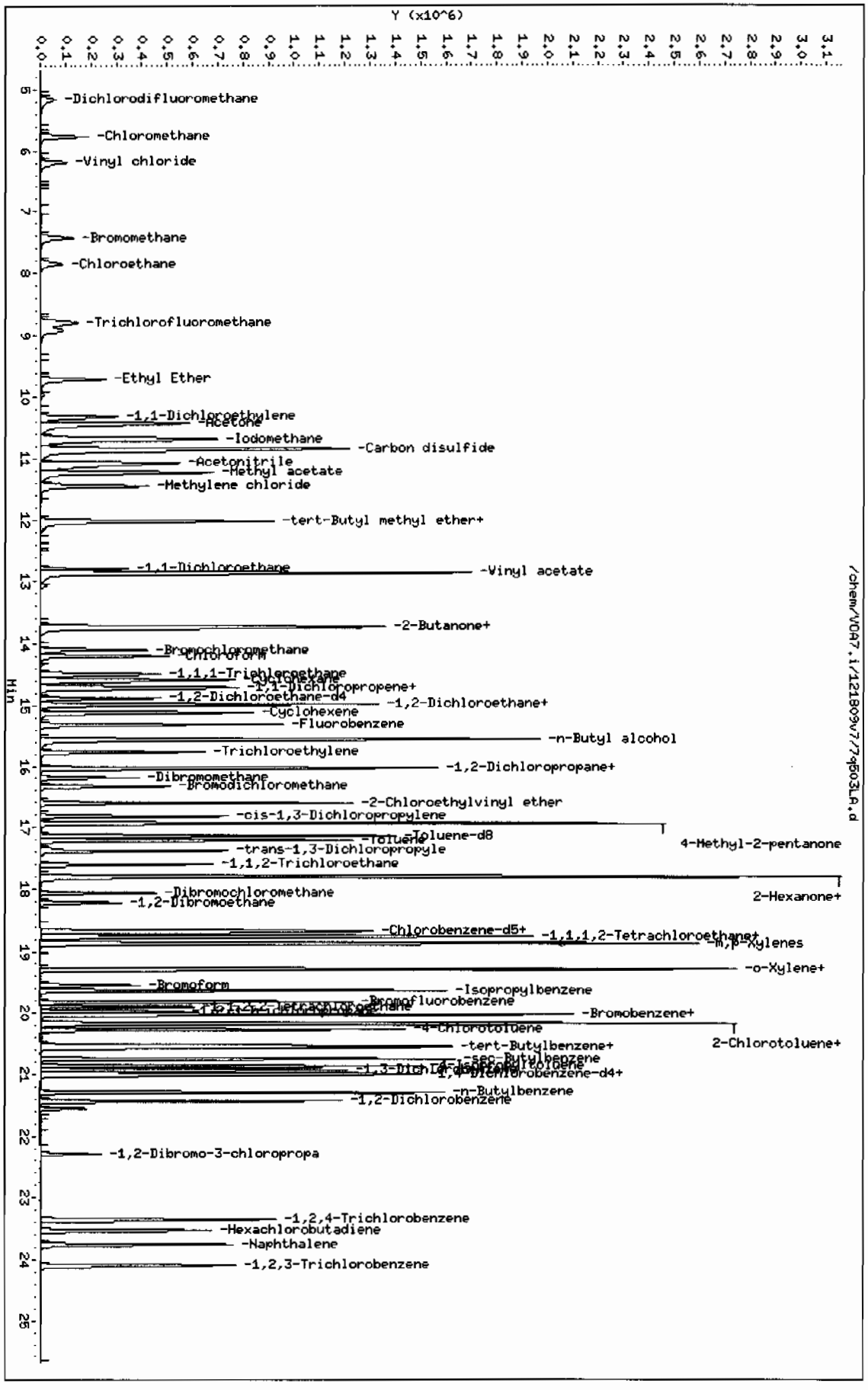

Page 1

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-852-1**			**Matrix:**	**SOIL**
Lab Sample ID:	**1201998953**				
Client Sample:	**QC for batch 934300**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 934300**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**934305**	**Inst:**	**VOA7.I**	**Dilution:**	**1**
Run Date:	**12/18/2009 12:47**	**Analyst:**	**AXO1**	**Purge Vol:**	**5 mL**
Prep Date:	**12/18/2009 08:00**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**7q505LA.d**	**Column:**	**DB-624**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/kg	0.340	1.00
74-87-3	Chloromethane	U	1.00	ug/kg	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/kg	0.300	1.00
74-83-9	Bromomethane	U	1.00	ug/kg	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/kg	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/kg	0.300	1.00
67-64-1	Acetone	U	5.00	ug/kg	1.66	5.00
75-35-4	1,1-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/kg	1.60	5.00
75-09-2	Methylene chloride	U	5.00	ug/kg	2.00	5.00
75-15-0	Carbon disulfide	U	5.00	ug/kg	1.25	5.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/kg	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/kg	1.50	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/kg	0.300	1.00
74-97-5	Bromochloromethane	U	1.00	ug/kg	0.330	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/kg	0.300	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/kg	0.300	1.00
56-23-5	Carbon tetrachloride	U	1.00	ug/kg	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/kg	0.300	1.00
71-43-2	Benzene	U	1.00	ug/kg	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/kg	0.330	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/kg	0.300	1.00
74-95-3	Dibromomethane	U	1.00	ug/kg	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/kg	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
108-88-3	Toluene	U	1.00	ug/kg	0.300	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/kg	0.300	1.00
591-78-6	2-Hexanone	U	5.00	ug/kg	1.50	5.00
142-28-9	1,3-Dichloropropane	U	1.00	ug/kg	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/kg	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/kg	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/kg	0.300	1.00
108-90-7	Chlorobenzene	U	1.00	ug/kg	0.300	1.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-852-1**			**Matrix:**	**SOIL**
Lab Sample ID:	**1201998953**				
Client Sample:	**QC for batch 934300**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 934300**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**934305**	**Inst:**	**VOA7.I**	**Dilution:**	**1**
Run Date:	**12/18/2009 12:47**	**Analyst:**	**AXO1**	**Purge Vol:**	**5 mL**
Prep Date:	**12/18/2009 08:00**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**7q505LA.d**	**Column:**	**DB-624**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.00	ug/kg	0.300	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/kg	0.300	2.00
95-47-6	o-Xylene	U	1.00	ug/kg	0.300	1.00
100-42-5	Styrene	U	1.00	ug/kg	0.300	1.00
75-25-2	Bromoform	U	1.00	ug/kg	0.300	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/kg	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/kg	0.300	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/kg	0.300	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/kg	0.300	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/kg	0.300	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/kg	0.300	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/kg	0.300	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/kg	0.300	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/kg	0.300	1.00
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*		316	ug/kg	1.60	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA7.i/121809v7/7q505LA.d
Lab Smp Id: 1201998953 Client Smp ID: SLCS
Inj Date : 18-DEC-2009 12:47
Operator : AXO1 Inst ID: VOA7.i
Smp Info : |1201998953|934305|1|VOAF|1|
Misc Info : GEL 5mL N/A UVM091129-01E/IVM091214-01
Comment :
Method : /chem/VOA7.i/121809v7/VOA7-8260B-111509.m
Meth Date : 19-Dec-2009 13:12 ale01592 Quant Type: ISTD
Cal Date : 16-NOV-2009 02:36 Cal File: 71708.d
Als bottle: 5 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	0.00000	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
147 Chlorotrifluoroethylene	116	5.044	5.029	(0.329)	356480	163.639	164
148 2-Chloro-1,1,1-trifluoroethane	118	6.619	6.604	(0.432)	741037	156.803	157
11 Acrolein	56	10.028	10.017	(0.655)	330404	238.555	238
12 Trichlorotrifluoroethane	85	10.373	10.373	(0.677)	491615	315.775	316
15 Isopropyl Alcohol	45	10.789	10.779	(0.704)	1665448	2716.70	2720
20 Allyl chloride	41	11.185	11.185	(0.730)	2294500	216.067	216
21 tert-Butyl Alcohol	59	11.672	11.672	(0.762)	2182412	2559.35	2560
23 Acrylonitrile	53	11.936	11.926	(0.779)	646083	232.774	233
27 Isopropyl ether	45	12.911	12.901	(0.843)	1163889	41.2141	41.2
29 2-Chloro-1,3-butadiene	53	12.961	12.961	(0.846)	518434	56.8742	56.9
30 Ethyl tert-butyl ether	59	13.489	13.489	(0.881)	829586	43.2616	43.3
32 Ethyl acetate	43	13.804	13.804	(0.901)	1722575	208.815	209

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
35 Propionitrile	54	13.814	13.804	(0.902)	252554	226.002	226
36 Methacrylonitrile	41	14.048	14.048	(0.917)	1069508	212.797	213
39 Tetrahydrofuran	42	14.159	14.159	(0.675)	588191	197.442	197
42 Isobutyl alcohol	41	14.748	14.748	(0.963)	764688	2583.90	2580
$ 46 1,2-Dichloroethane-d4	65	14.880	14.880	(0.971)	399126	54.7747	54.8
49 Methyl tert-amyl ether	73	15.083	15.083	(0.985)	578167	43.4926	43.5
* 51 Fluorobenzene	96	15.317	15.317	(1.000)	835705	50.0000	
54 Methyl methacrylate	69	16.078	16.078	(1.050)	745900	212.952	213
57 1,4-Dioxane	88	16.159	16.159	(1.055)	140477	2655.59	2660
60 2-Nitropropane	43	16.555	16.555	(1.081)	704285	324.307	324
$ 64 Toluene-d8	98	17.144	17.144	(0.918)	921650	47.3786	47.4
66 Ethyl methacrylate	69	17.418	17.418	(0.933)	1383074	199.574	200
74 1-Chlorohexane	55	18.575	18.575	(1.213)	314762	46.8263	46.8
* 75 Chlorobenzene-d5	117	18.667	18.667	(1.000)	651635	50.0000	
84 cis-1,4-Dichloro-2-butene	53	19.662	19.662	(0.937)	806960	255.761	256
85 Cyclohexanone	55	19.773	19.773	(1.059)	729251	600.637	601
$ 86 Bromofluorobenzene	95	19.814	19.814	(0.944)	433138	45.6833	45.7
88 trans-1,4-Dichloro-2-butene	53	19.936	19.936	(0.950)	752964	261.219	261
97 Pentachloroethane	167	20.606	20.606	(0.982)	569198	271.648	272
* 101 1,4-Dichlorobenzene-d4	152	20.992	20.991	(1.000)	402850	50.0000	
103 Benzyl chloride	91	21.124	21.124	(1.006)	2616986	243.699	244
106 bis(2-Chloroisopropyl)ether	45	21.509	21.509	(1.025)	1213940	204.162	204

Data File: /chem/VOA7.i/121809v7/7q505LA.d
Date : 18-DEC-2009 12:47
Client ID: SLCS
Sample Info: !120199895319343051!!VOAF!!!
Column phase: DB-624

Instrument: VOA7.i
Operator: AXO1
Column diameter: 0.25

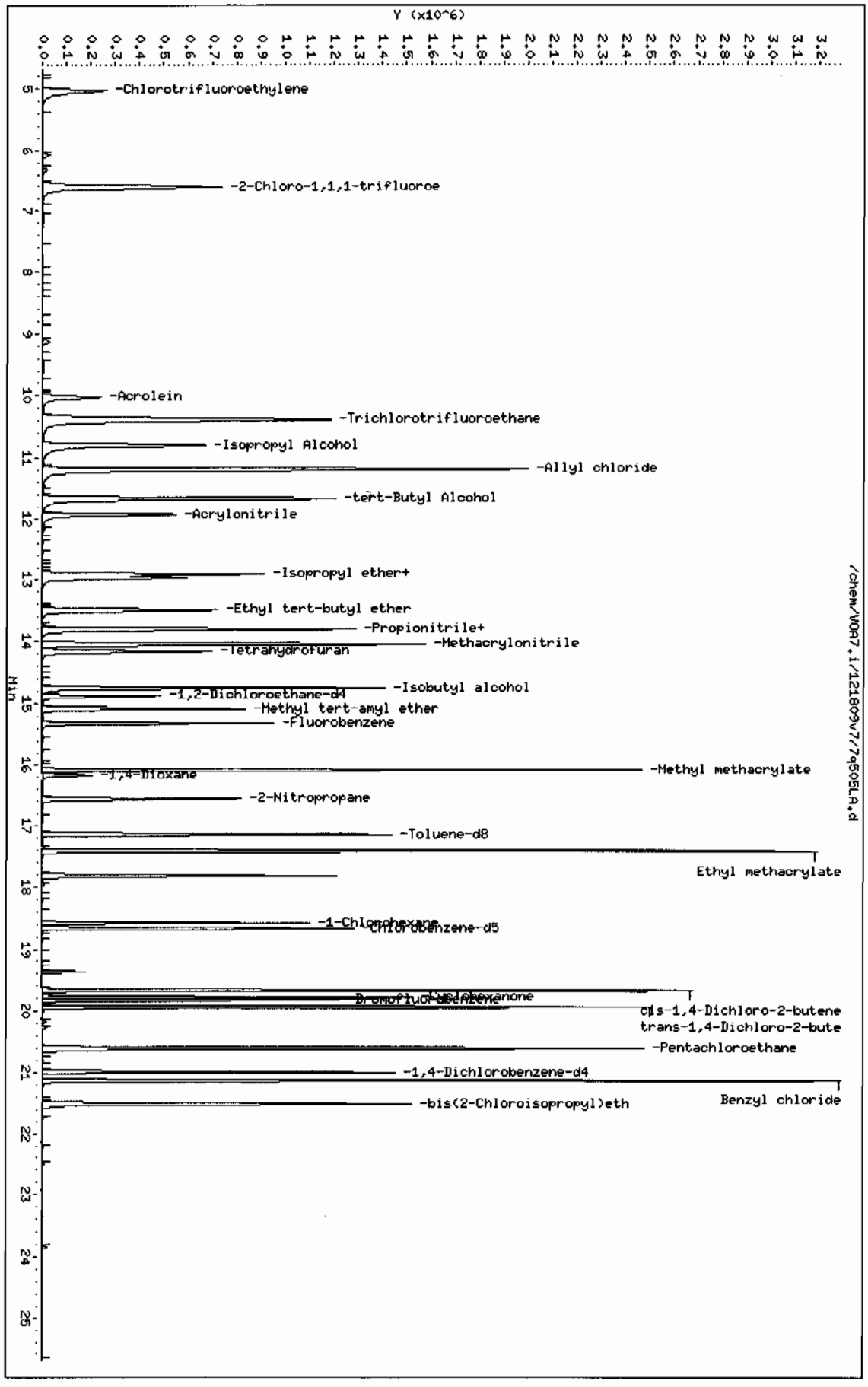

Page 1

Miscellaneous Data

Prep Logbook

Volatile Organic Compounds (VOC) by Gas Chromatograph/Mass Spectrometer

Batch ID: **934300** Verified by: _____

Analyst: Alex Olson
Method: SW846 5030
Lab SOP: GL-OA-E-038 REV# 13
Instrument: Sartorius Balance B-001

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units

Sample ID	Run Date	Matrix	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check 1
1201998949 MB	18-DEC-2009 08:00:00	Soil	5	5	1	N/A
1201998952 LCS	18-DEC-2009 08:00:00	Soil	5	5	1	N/A
1201998953 LCS	18-DEC-2009 08:00:00	Soil	5	5	1	N/A
242659001	18-DEC-2009 13:18:00	Soil	5	5	1	N/A
242668001	18-DEC-2009 13:20:00	Soil	5	5	1	N/A
1201998950 PS (242668001)	18-DEC-2009 13:22:00	Soil	5	5	1	N/A
1201998951 PSD (242668001)	18-DEC-2009 13:24:00	Soil	5	5	1	N/A
242743001	18-DEC-2009 13:26:00	Soil	5	5	1	N/A
242743002	18-DEC-2009 13:28:00	Soil	5	5	1	N/A
242668002	18-DEC-2009 13:30:00	Soil	5	5	1	N/A

Reagent/Solvent Lot ID	Description	Amount

Comments:

GEL Laboratories, LLC
Revision:11/22/04

ORGANIC RUN LOG - INSTRUMENT ID#VOA7

Date: 11/15/2009 Method 8260B/624 Operator: AXO1

REVIEWED BY: [illegible]
DATE: 11/17/09

HARDWARE CONFIGURATION & METHOD CONDITIONS SUMMARY No# 1

Daily Instrument Readings:
Multiplier Voltage: 1918

CALIBRATION & CC INFORMATION:

Initial Calibration Date: 9/14/2009

(See pg. 217 for ICAL Std. Sci. Ids)

NaHSO4 lot # N/A

Cl test lot # N/A

Sequence Number: 111509V7

Daily Standard Solution ID#		Volume Added for Purge (ul) Blk/ Smpl	CCV	MS/ LCS	BFB
LONG ICV	W7VM091115-16/17		5+5		
IS	UVM090910-01	1	1	1	
SS	UVM090921-02	1	1	1	
BFB	UVM090921-02				1
SHORT ICV	See 111609v7 Seq		5+5	5+5	

Purge Amount	
5	Water Purge Vol:
N/A	Soil Purge Wt.
N/A	Mid level ext. MeOH Vol:
N/A	ul
N/A	Methanol Lot #
x	Heated Purge

AD. 11/17/09

Analysis Date Time	Data File	Lab Sample ID	Client	Batch #	Wt.(g) or Vol(ml/ul)	Dil. Factor	pH	AS Slot #	Matrix w or s	Analyst	Cl test (Y/N)	Acceptable (O/X)	Comments
11/15/2009 22:41	7L701.D	12019----	GEL	BLANK	1uL	1	N/A	1	w	AXO1	N/A	X	BFB TEST
11/15/2009 23:14	7L702.D	UVM090921-02	GEL	BFB01	5mL	1	N/A	28	w	AXO1	N/A	O	
11/15/2009 23:47	7L703.D	W7VM0911115-01	GEL	VSTD001	5mL	1	N/A	29	w	AXO1	N/A	X	UVM090911-02B/UVM091012-02D Chloromethane variance see 7L723
11/16/2009 0:20	7L704.D	W7VM0911115-02	GEL	VSTD002	5mL	1	N/A	30	w	AXO1	N/A	O	UVM090911-03B/UVM091012-03D
11/16/2009 0:55	7L705.D	W7VM0911115-03	GEL	VSTD005	5mL	1	N/A	31	w	AXO1	N/A	O	UVM090911-04B/UVM091012-04D
11/16/2009 1:29	7L706.D	W7VM0911115-04	GEL	VSTD010	5mL	1	N/A	32	w	AXO1	N/A	O	UVM090911-05B/UVM091012-05D
11/16/2009 2:03	7L707.D	W7VM0911115-05	GEL	VSTD020	5mL	1	N/A	33	w	AXO1	N/A	O	UVM090911-06B/UVM091012-06D
11/16/2009 2:36	7L708.D	W7VM0911115-06	GEL	VSTD050	5mL	1	N/A	34	w	AXO1	N/A	O	UVM090911-07B/UVM091012-07D
11/16/2009 3:10	7L709.D	W7VM0911115-07	GEL	VSTD100	5mL	1	N/A	35	w	AXO1	N/A	O	UVM090911-08B/UVM091012-08D
11/16/2009 3:43	7L710.D	12019----	GEL	RINSE	5mL	1	N/A	36	w	AXO1	N/A	X	
11/16/2009 4:18	7L711.D	W7VM0911115-08	GEL	VSTD0005	5mL	1	N/A	37	w	AXO1	N/A	O	UVM090911-01B/UVM091012-01D
11/16/2009 4:51	7L712.D	W7VM0911115-09	GEL	VSTD005S	5mL	1	N/A	38	w	AXO1	N/A	O	UVM091023-01/UVM091110-01E
11/16/2009 5:25	7L713.D	W7VM0911115-10	GEL	VSTD010S	5mL	1	N/A	39	w	AXO1	N/A	O	UVM091023-02/UVM091110-02E
11/16/2009 5:58	7L714.D	W7VM0911115-11	GEL	VSTD025S	5mL	1	N/A	40	w	AXO1	N/A	O	UVM091023-03/UVM091110-03E
11/16/2009 6:32	7L715.D	W7VM0911115-12	GEL	VSTD050S	5mL	1	N/A	41	w	AXO1	N/A	O	UVM091023-04/UVM091110-04E
11/16/2009 7:05	7L716.D	W7VM0911115-13	GEL	VSTD100S	5mL	1	N/A	42	w	AXO1	N/A	O	UVM091023-05/UVM091110-05E
11/16/2009 7:38	7L717.D	W7VM0911115-14	GEL	VSTD250S	5mL	1	N/A	43	w	AXO1	N/A	O	UVM091023-06/UVM091110-06E
11/16/2009 8:11	7L718.D	W7VM0911115-15	GEL	VSTD500S	5mL	1	N/A	44	w	AXO1	N/A	O	UVM091023-07/UVM091110-07E
11/16/2009 8:45	7L719.D	12019----	GEL	RINSE	5mL	1	N/A	45	w	AXO1	N/A	X	
11/16/2009 9:18	7L720.D	W7VM091115-16	GEL	ICV	5mL	1	N/A	46	w	AXO1	N/A	X	UVM091105-01A/IVM091111-01 See 111609v7 seq
11/16/2009 9:51	7L721.D	W7VM091115-17	GEL	ICV	5mL	1	N/A	47	w	AXO1	N/A	X	UVM091111-01A/IVM091111-01 See 111609v7 seq
11/16/2009 10:24	7L722.D	12019----	GEL	RINSE	5mL	1	N/A	48	w	AXO1	N/A	X	
11/16/2009 10:57	7L723.D	W7VM0911115-18	GEL	VSTD001	5mL	1	N/A	49	w	AXO1	N/A	O	UVM090911-02B/UVM091012-02D

GEL Laboratories, LLC
Revision:11/22/04

ORGANIC RUN LOG - INSTRUMENT ID#VOA7

Date: 11/16/2009 Method 8260B/624 Operator: AXO1

REVIEWED BY: [illegible]
DATE: 11/17/09

HARDWARE CONFIGURATION & METHOD CONDITIONS SUMMARY No# 1

Daily Instrument Readings:
Multiplier Voltage: 1918

CALIBRATION & CC INFORMATION:

Initial Calibration Date: 9/14/2009

(See pg. 217 for ICAL Std. Sci. Ids)

NaHSO4 lot # N/A

Cl test lot # 81710

Sequence Number: 111609V7

Daily Standard Volume Added for Purge (ul)

	Solution ID#	Blk/ Smpl	CCV	MS/ LCS	BFB
CCV	W7VM091116-01		5+5		
IS	UVM090910-01	1	1	1	
SS	UVM090921-02	1	1	1	
LCS/MS	W7VM091116-01/02			5+5	
BFB	UVM090921-02				1
SHORT	W7VM091116-03/04		5+5	5+5	
DHEC	N/A				

Purge Amount

5	Water Purge Vol:
5g	Soil Purge Wt.
N/A	Mid level ext. MeOH Vol:
N/A	ul
N/A	Methanol Lot #
x	Heated Purge

A.D. 11/17/09

Analysis Date	Time	Data File	Lab Sample ID	Client	Batch #	Wt.(g) or Vol(ml/ul)	Dil. Factor	pH	AS Slot #	Matrix w or s	Analyst	Cl test (Y/N)	Acceptable (O/X)	Comments
11/16/2009	13:20	7M101.D	12019----	GEL	BLANK	5mL	1	N/A	1	w	AXO1	N/A	X	
11/16/2009	13:54	7M102.D	W7VM091116-01	GEL	BFB/CCV/ICV/LCS	5mL	1	N/A	2	w	AXO1	N/A	O	UVM091111-01B/IVM091111-01 Dichlorodiflourmethane high
11/16/2009	14:28	7M103.D	W7VM091116-02	GEL	LCS	5g	1	N/A	3	s	AXO1	N/A	O	UVM091111-01B/IVM091111-01
11/16/2009	15:02	7M104.D	W7VM091116-03	GEL	SHORT/ICV/LCS	5mL	1	N/A	4	w	AXO1	N/A	O	UVM091023-08A/UVM091105-02A Cyclohexanone, Pentachloroethane low
11/16/2009	15:35	7M105.D	W7VM091116-04	GEL	SLCS	5g	1	N/A	5	s	AXO1	N/A	O	UVM091023-08A/UVM091105-02A
11/16/2009	16:08	7M106.D	12019----	GEL	BLANK	5mL	1	N/A	6	w	AXO1	N/A	O	
11/16/2009	16:41	7M107.D	12019----	GEL	BLANK	5g	1	N/A	7	s	AXO1	N/A	O	
11/16/2009	17:13	7M108.D	240587001	LANL	923260	5g	1	N/A	8	s	AXO1	N/A	O	
11/16/2009	17:46	7M109.D	240587002	LANL	923260	5g	1	N/A	9	s	AXO1	N/A	O	
11/16/2009	18:19	7M110.D	240589001	LANL	923260	5g	1	N/A	10	s	AXO1	N/A	O	
11/16/2009	18:52	7M111.D	240592001	LANL	923260	5g	1	N/A	11	s	AXO1	N/A	O	
11/16/2009	19:25	7M112.D	240579001	LANL	923260	5g	1	N/A	12	s	AXO1	N/A	O	
11/16/2009	19:59	7M113.D	240579002	LANL	923260	5g	1	N/A	13	s	AXO1	N/A	O	
11/16/2009	20:33	7M114.D	240579003	LANL	923260	5g	1	N/A	14	s	AXO1	N/A	O	
11/16/2009	21:07	7M115.D	240587003	LANL	923260	5g	1	N/A	15	s	AXO1	N/A	O	
11/16/2009	21:40	7M116.D	240587004	LANL	923260	5g	1	N/A	16	s	AXO1	N/A	O	
11/16/2009	22:13	7M117.D	240636005	LANL	923260	5g	1	N/A	17	s	AXO1	N/A	O	
11/16/2009	22:46	7M118.D	240504002	KAPL	922073	1mL	5	pH2	18	w	AXO1	N	X	Not Required
11/16/2009	23:18	7M119.D	240504002	KAPL	922073	2.5mL	2	pH2	19	w	AXO1	N	X	Not Required
11/16/2009	23:51	7M120.D	240504002	KAPL	922073	5mL	1	pH2	20	w	AXO1	N	X	Not Required
11/17/2009	0:24	7M121.D	12019----	GEL	BLANK	5mL	1	N/A	21	w	AXO1	N	X	
11/17/2009	0:57	7M122.D	1201973553	LANL	923260	5g	1	N/A	22	s	AXO1	N/A	O	MS 240579001
11/17/2009	1:31	7M123.D	1201973554	LANL	923260	5g	1	N/A	23	s	AXO1	N/A	O	MSD 240579001

GEL Laboratories, LLC
Revisi 1/22/04

ORGANIC RUN LOG - INSTRUMENT ID#VOA7

Date: 12/18/2009 Method 8260B/624 Operator: AXO1

REVIEWED BY: [illegible]
DATE: 12/21/09

HARDWARE CONFIGURATION & METHOD CONDITIONS SUMMARY No# 1

Daily Instrument Readings:
Multiplier Voltage: 1918

CALIBRATION & CC INFORMATION:

Initial Calibration Date: 11/15/2009

(See pg. 217 for ICAL Std. Scl. Ids)

NaHSO4 lot # N/A

Cl test lot # 81710

Sequence Number: 121809V7

Daily Standard Solution ID#		Volume Added for Purge (ul) Blk/ Smpl	CCV	MS/ LCS	BFB
CCV	W7VM091218-01		5+5		
IS	UVM091203-01	1	1	1	
SS	UVM091020-02	1	1	1	
LCS/MS	W7VM091218-01/02			5+5	
BFB	UVM091020-02				1
SHORT	W7VM091218-03/04		5+5	5+5	
DHEC	N/A				

Purge Amount	
5	Water Purge Vol:
5g	Soil Purge Wt.
N/A	Mid level ext. MeOH Vol:
N/A	ul
N/A	Methanol Lot #
x	Heated Purge

AO. 12/19/09

Analysis Date	Time	Data File	Lab Sample ID	Client	Batch #	Wt.(g) or Vol(ml/ul)	Dil. Factor	pH	AS Slot #	Matrix w or s	Analyst	Cl test (Y/N)	Acceptable (O/X)	Comments
12/18/2009	10:36	7Q501.D	12019—	GEL	BLANK	5mL	1	N/A	1	w	AXO1	N/A	X	
12/18/2009	11:09	7Q502.D	W7VM091218-01	GEL	BFB/CCV/LCS	5mL	1	N/A	2	w	AXO1	N/A	O	UVM091219-01A/IVM091217-01
12/18/2009	11:42	7Q503.D	W7VM091218-02	GEL	LCS	5g	1	N/A	3	s	AXO1	N/A	O	UVM091219-01A/IVM091217-01
12/18/2009	12:14	7Q504.D	W7VM091218-03	GEL	SHORT/SLCS	5mL	1	N/A	4	w	AXO1	N/A	O	UVM091118-08C/UVM091105-02E
12/18/2009	12:47	7Q505.D	W7VM091218-04	GEL	SLCS	5g	1	N/A	5	s	AXO1	N/A	O	UVM091129-01E/IVM091214-01
12/18/2009	13:20	7Q506.D	12019—	GEL	BLANK	5mL	1	N/A	6	w	AXO1	N/A	O	
12/18/2009	13:55	7Q507.D	12019—	GEL	BLANK	5g	1	N/A	7	s	AXO1	N/A	O	
12/18/2009	14:29	7Q508.D	242659001	LANL	934305	5g	1	N/A	8	s	AXO1	N/A	O	
12/18/2009	15:02	7Q509.D	242743001	LANL	934305	5g	1	N/A	9	s	AXO1	N/A	O	
12/18/2009	16:02	7Q510.D	242688001	LANL	934305	5g	1	N/A	10	s	AXO1	N/A	O	
12/18/2009	16:34	7Q511.D	242688002	LANL	934305	5g	1	N/A	11	s	AXO1	N/A	O	
12/18/2009	17:08	7Q512.D	242743002	LANL	934305	5g	1	N/A	12	s	AXO1	N/A	O	
12/18/2009	17:41	7Q513.D	242602003	LBNL	934788	5mL	1	pH2	13	w	AXO1	N	O	
12/18/2009	18:15	7Q514.D	242801001	BRKL	934790	5g	1	N/A	14	s	AXO1	N/A	O	
12/18/2009	18:49	7Q515.D	242602002	LBNL	934790	5uL	1E+06	pH6	15	w	AXO1	N	X	FROM 1000X RR 250,000X
12/18/2009	19:22	7Q516.D	1201998997	WASP	934296	5mL	1	pH2	16	w	AXO1	N	O	MS 242978011
12/18/2009	19:56	7Q517.D	1201998998	WASP	934296	5mL	1	pH2	17	w	AXO1	N	O	MSD 242978011
12/18/2009	20:29	7Q518.D	1201998950	LANL	934305	5g	1	N/A	18	s	AXO1	N/A	O	MS 242668001
12/18/2009	21:02	7Q519.D	1201998951	LANL	934305	5g	1	N/A	19	s	AXO1	N/A	O	MSD 242668001
12/18/2009	21:35	7Q520.D	1201999995	BRKL	934790	5g	1	N/A	20	s	AXO1	N/A	X	MS 242801001 MSD BAD PURGE
12/18/2009	22:08	7Q521.D	1201999996	BRKL	934790	5g	1	N/A	21	s	AXO1	N/A	X	MSD 242801001 BAD PURGE
12/18/2009	22:41	7Q522.D	1201999991	LBNL	934788	5mL	1E+06	pH6	22	w	AXO1	N	X	MS 242602002 FROM 1000X MSD Out of Tune, RR 250,000x
12/18/2009	23:14	7Q523.D	1201999992	LBNL	934788	5mL	1E+06	pH6	23	w	AXO1	N	X	MSD 242602002 FROM Out of Tune, RR 250,000x

COMPANY - WIDE NONCONFORMANCE REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
22-DEC-09	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
VOA GC/MS	SW846 8260B	Solid	LANL
Batch ID:	**Sample Numbers:**		
934305	See Below		

Potentially affected work order(s)(SDG): 242659(10-852-1),242668(10-854),242743(10-883)

Application Issues:

Failed Recovery for MS/PS

Container scanning event for custody missed

Failed Recovery for MSD/PSD

Specification and Requirements Nonconformance Description:	NRG Disposition:
1. Matrix Spike sample 1201998950 was outside of the spike recovery acceptance limits for the following compounds: 4-Methyl-2-pentanone 52.89% (57.70%-135.80%) 2-Hexanone 27.95% (31.40%-148.20%) 4-Isopropyltoluene 27.65% (37.90%-145.10%	1./3. Narrate and report data. The MS/MSD recovered in a similar manner. It is believed that matrix interference has been demonstrated.
2. The container scanning event for custody was missed for the following samples: 242659001 242668001,002 242743001,002 3. Matrix Spike Duplicate sample 1201998951 was outside of the spike recovery acceptance limits for the following compounds: 4-Methyl-2-pentanone 55.19% (57.70%-135.80%) 2-Hexanone 28.38% (31.40%-148.20%) 4-Isopropyltoluene 27.64% (37.90%-145.10%)	2. The analyst did not scan samples into his/her custody. The analyst had physical custody of the sample during the analysis.

Originator's Name:
Alex Olson 22-DEC-09

Data Validator/Group Leader:
Sarah Kozlik 22-DEC-09

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA7.i/121809v7/7q510.d
Lab Smp Id: 242668001 Client Smp ID: RE03-10-2741
Inj Date : 18-DEC-2009 16:02
Operator : AXO1 Inst ID: VOA7.i
Smp Info : |242668001|934305|1|VOAF|1|
Misc Info : LANL 5g N/A
Comment :
Method : /chem/VOA7.i/121809v7/VOA7-8260B-111509.m
Meth Date : 19-Dec-2009 13:12 ale01592 Quant Type: ISTD
Cal Date : 16-NOV-2009 02:36 Cal File: 71708.d
Als bottle: 10
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-854.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	8.16760	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
* 51 Fluorobenzene	96	15.316	15.317	(1.000)	558639	50.0000	
* 75 Chlorobenzene-d5	117	18.667	18.667	(1.000)	419696	50.0000	
* 101 1,4-Dichlorobenzene-d4	152	20.991	20.991	(1.000)	212290	50.0000	
$ 46 1,2-Dichloroethane-d4	65	14.880	14.880	(0.972)	269995	55.4303	60.4
$ 64 Toluene-d8	98	17.144	17.144	(0.918)	599777	47.8714	52.1
$ 86 Bromofluorobenzene	95	19.814	19.814	(0.944)	246243	49.2843	53.7

ION RATIO REPORT

VOA REPORT

Data file: 7q510.d
Report Date: 12/19/2009 13:45
Lab. ID: 242668001 SampleType: SAMPLE
Injection Date: 18-DEC-2009 16:02
Operator: AXO1 Instrument: VOA7.i
Sample Info: |242668001|934305|1|VOAF|1|
Miscellaneous Info: LANL 5g N/A
Comment:
Method used: /chem/VOA7.i/121809v7/VOA7-8260B-111509.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: CALsubL+
Sample Matrix: WATER

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
63 4-Methyl-2-pentanone			CAS#: 108-10-1			
58	7198	17.14	16.94	80-120	100	(T)
43	4097	17.13	16.94	264-324	57	(QT)
100	415522	17.14	16.94	0- 56	5772	(QT)
82 Bromoform			CAS#: 75-25-2			
173	1421	19.81	19.54	80-120	100	(T)
175	14385	19.81	19.54	19- 79	1012	(QT)
89 1,2,3-Trichloropropane			CAS#: 96-18-4			
110	1218	19.70	19.98	80-120	100	(T)
75	3477	19.69	19.98	297-357	286	(QT)
77	152	19.70	19.97	61-121	13	(QT)
91 n-Propylbenzene			CAS#: 103-65-1			
91	10737	19.65	20.04	80-120	100	(T)
120	465	19.69	20.04	0- 52	4	(T)

Q qualifier indicates ion failed ratio requirement
T qualifier indicates RT outside 0.06 minute window of expected RT

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA7.i/121809v7/7q510.d
Lab Smp Id: 242668001 Client Smp ID: RE03-10-2741
Inj Date : 18-DEC-2009 16:02
Operator : AXO1 Inst ID: VOA7.i
Smp Info : |242668001|934305|1|VOAF|1|
Misc Info : LANL 5g N/A
Comment :
Method : /chem/VOA7.i/121809v7/VOA7-8260B-111509.m
Meth Date : 19-Dec-2009 13:12 ale01592 Quant Type: ISTD
Cal Date : 16-NOV-2009 02:36 Cal File: 71708.d
Als bottle: 10
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-854.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	8.16760	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 75 Chlorobenzene-d5	18.667	1535090	50.000
* 101 1,4-Dichlorobenzene-d4	20.991	1396384	50.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ug/l)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown Siloxane					CAS #:		
19.692	347545	11.3199981	12.3	0		0	75

RT	AREA	CONCENTRATIONS ON-COL(ug/l)	FINAL(ug/Kg)	QUAL	QUANT LIBRARY	LIB ENTRY	CPND #
Unknown Siloxane					CAS #:		
21.560	196318	7.02951002	7.6	0		0	101

Data File: /chem/VOA7.i/121809v7/7q510.d

Date : 18-DEC-2009 16:02

Client ID: RE03-10-2741

Sample Info: |2426680011934305|1|VOAF|1|

Column phase: DB-624

Instrument: VOA7.i

Operator: AX01

Column diameter: 0.25

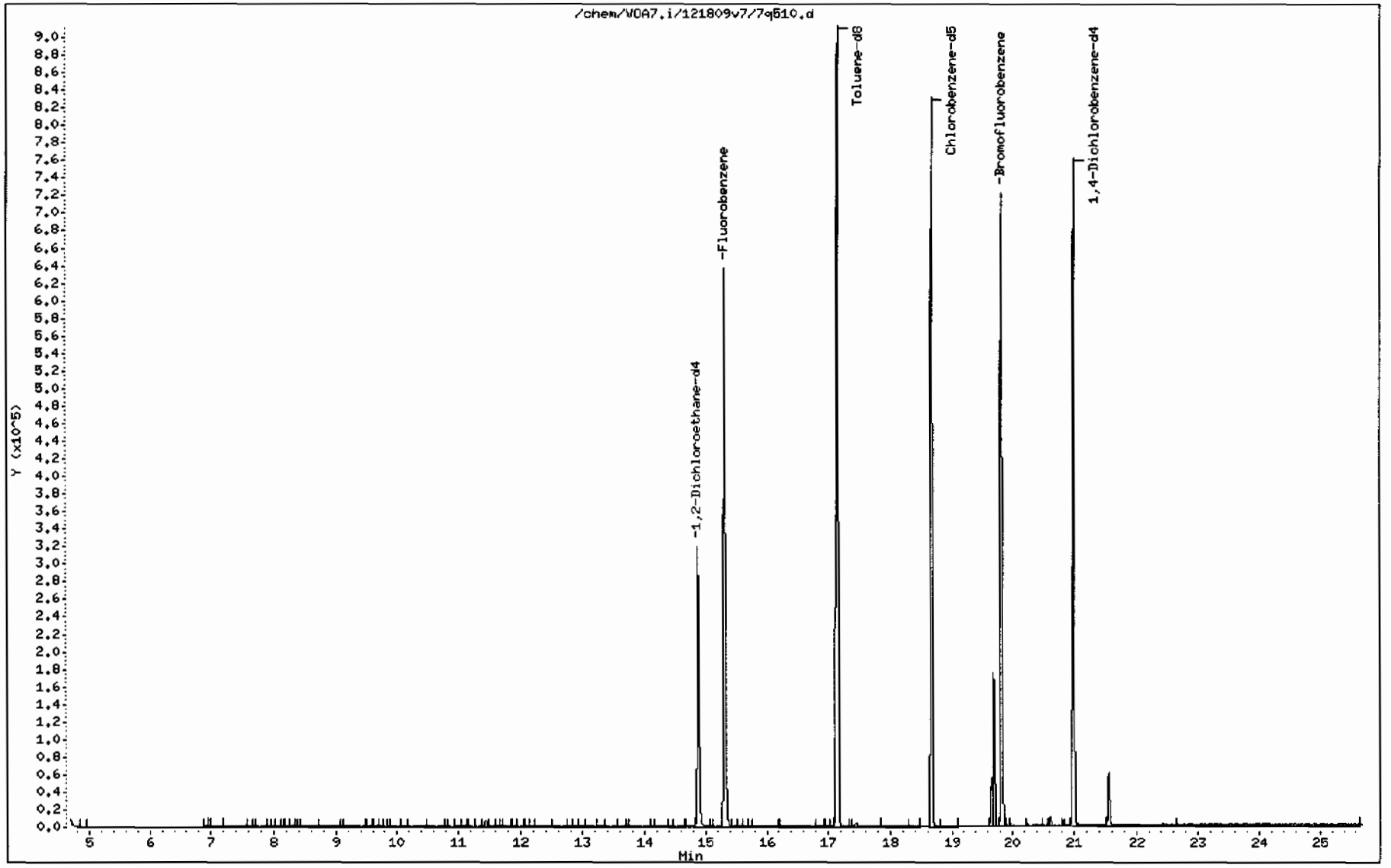

Data File: /chem/VOA7.i/121809v7/7q510.d

Date : 18-DEC-2009 16:02

Client ID: RE03-10-2741

Instrument: VOA7.i

Sample Info: |2426680011934305|1|VOAF|1|

Operator: AX01

Column phase: DB-624

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Siloxane						
Cobalt, (2-methyl-,eta,-3-propenyl)-(pen	1000157-04-3	NIST05.L	91248	41	C14H22Co	249
Trisiloxane, 1,1,3,3,5,5-hexamethyl-	1189-93-1	NIST05.L	63148	35	C6H20O2Si3	208
Anthracene, 9,10-dihydro-9,10-dimethyl-	22566-43-4	NIST05.L	63100	30	C16H16	208

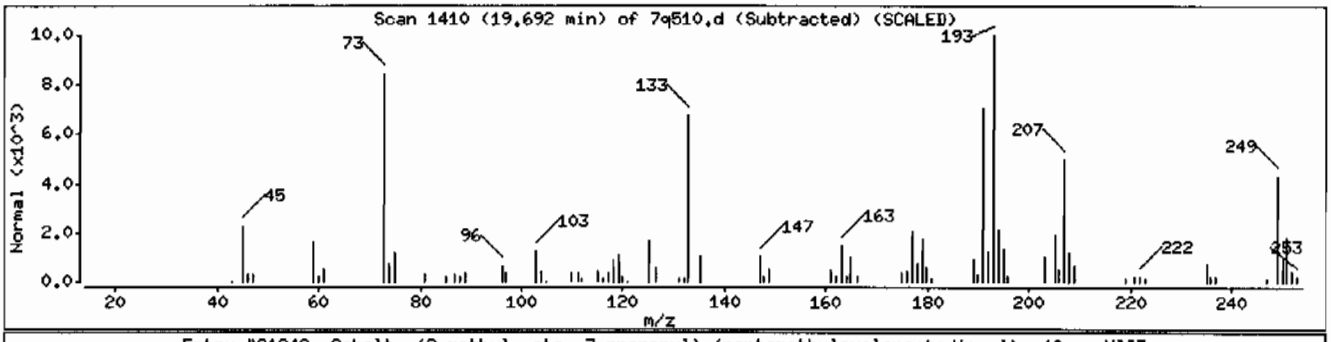

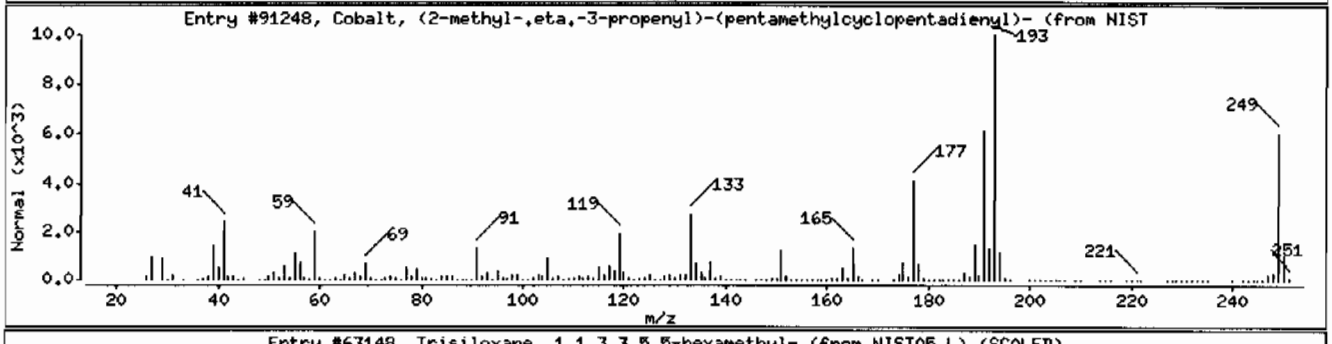

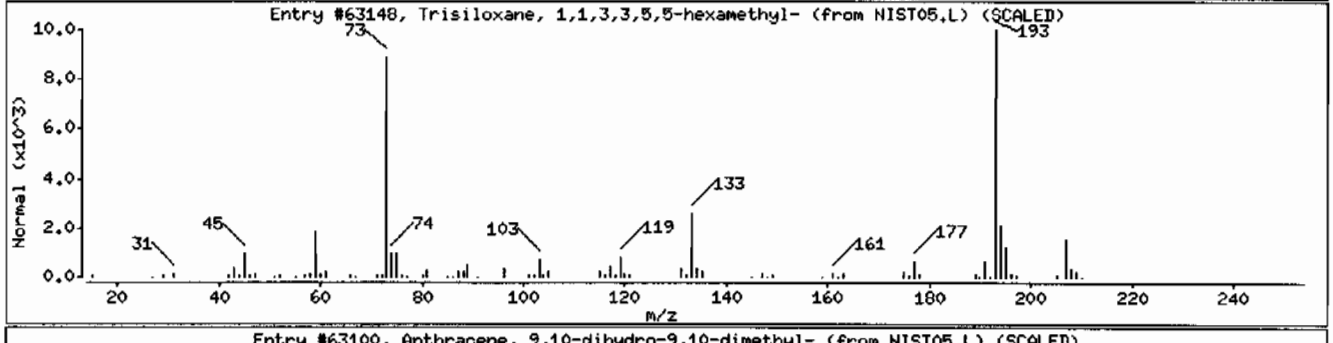

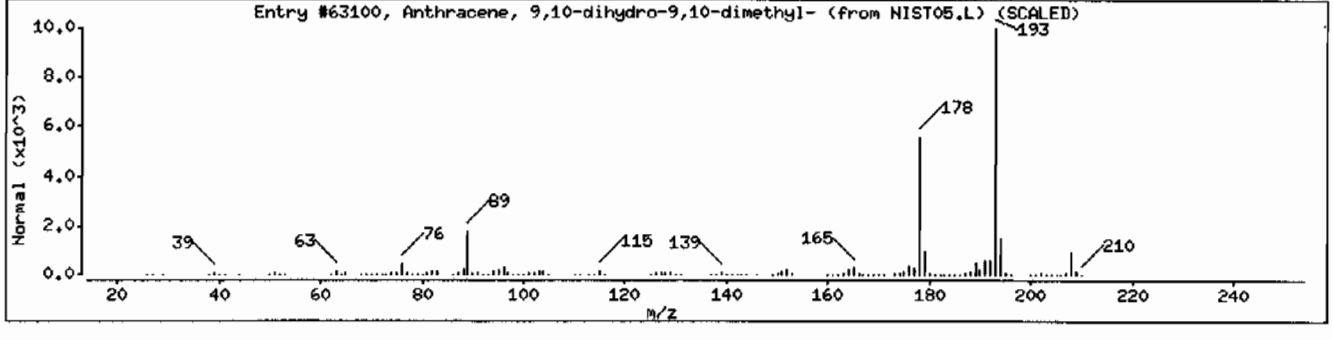

Data File: /chem/VOA7.i/121809v7/7q510.d

Date : 18-DEC-2009 16:02

Client ID: RE03-10-2741

Instrument: VOA7.i

Sample Info: |2426680011934305|1|VOAF|1|

Operator: AX01

Column phase: DB-624

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Siloxane						
Bicyclo[5.3.0]decan-2-one, 9-methylene-1	1000153-97-3	NIST05.L	82418	28	C14H24OSi	236
1-Propene-1-thiol	925-89-3	NIST05.L	811	12	C3H6S	74

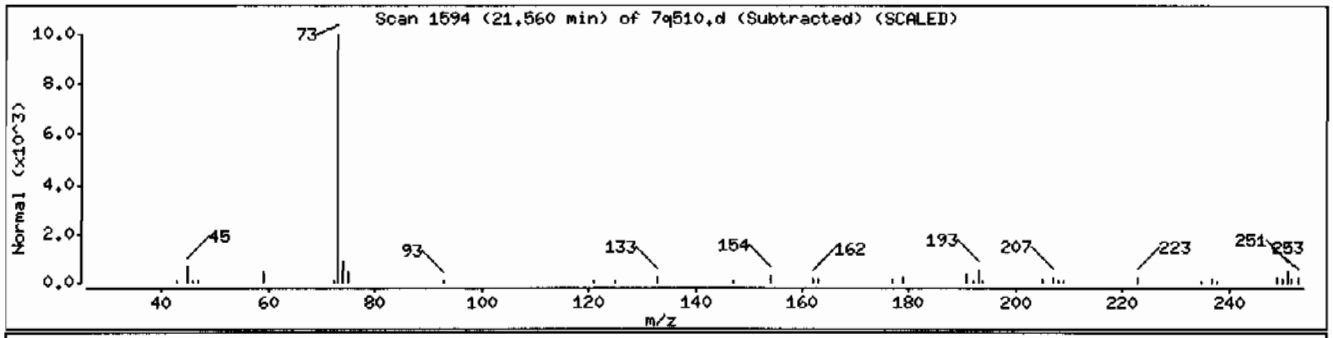

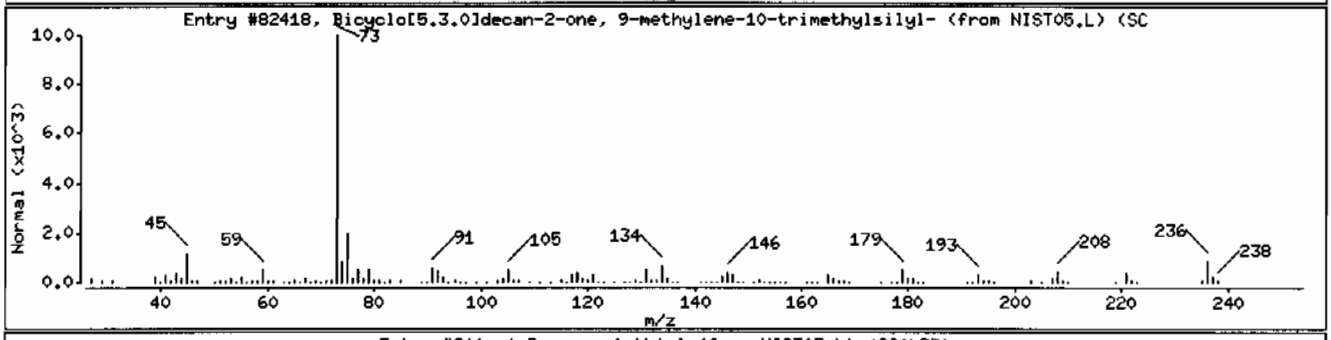

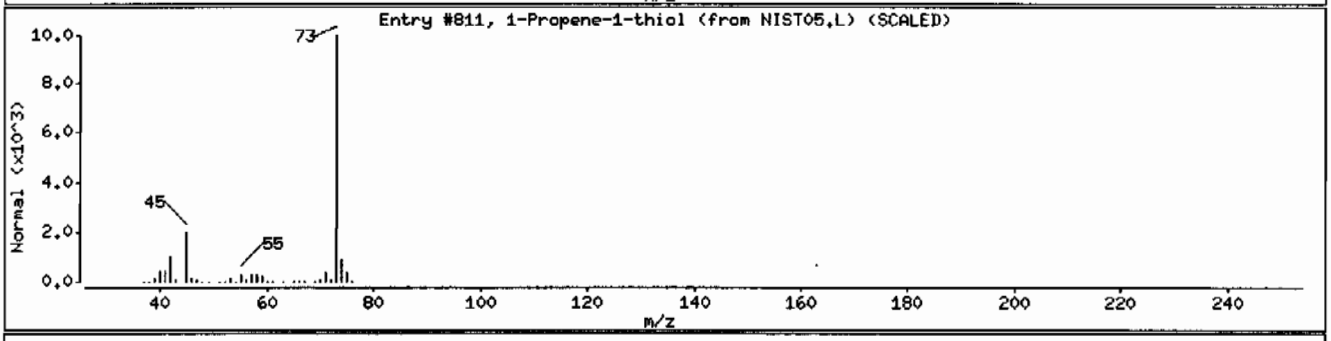

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA7.i/121809v7/7q518.d
Lab Smp Id: 1201998950 Client Smp ID: RE03-10-2741MS
Inj Date : 18-DEC-2009 20:29
Operator : AXO1 Inst ID: VOA7.i
Smp Info : |1201998950|934305|1|VOAF|1|
Misc Info : LANL 5g N/A MS 242668001
Comment :
Method : /chem/VOA7.i/121809v7/VOA7-8260B-111509.m
Meth Date : 19-Dec-2009 13:12 ale01592 Quant Type: ISTD
Cal Date : 16-NOV-2009 02:36 Cal File: 71708.d
Als bottle: 18 QC Sample: MS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-854.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	8.16760	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
* 51 Fluorobenzene	96	15.317	15.317	(1.000)	738454	50.0000	
* 75 Chlorobenzene-d5	117	18.667	18.667	(1.000)	569475	50.0000	
* 101 1,4-Dichlorobenzene-d4	152	20.991	20.991	(1.000)	311195	50.0000	
$ 46 1,2-Dichloroethane-d4	65	14.880	14.880	(0.971)	355918	55.2777	60.2
$ 64 Toluene-d8	98	17.144	17.144	(0.918)	788035	46.3545	50.5
$ 86 Bromofluorobenzene	95	19.814	19.814	(0.944)	358964	49.0109	53.4
4 Dichlorodifluoromethane	85	5.162	5.147	(0.337)	142099	48.6342	53.0
5 Chloromethane	50	5.772	5.757	(0.377)	277879	38.3409	41.8
6 Vinyl chloride	62	6.202	6.187	(0.405)	211208	42.1821	45.9
7 Bromomethane	94	7.429	7.429	(0.485)	127465	37.1465	40.4
8 Chloroethane	64	7.855	7.855	(0.513)	145311	38.8169	42.3
9 Trichlorofluoromethane	101	8.789	8.789	(0.574)	271488	53.8191	58.6

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
13 Acetone	43	10.434	10.413	(0.681)	555807	92.1353	100
14 1,1-Dichloroethylene	96	10.312	10.312	(0.673)	125801	41.2101	44.9
102 1,4-Dichlorobenzene	146	21.022	21.022	(1.001)	275422	31.2007	34.0
16 Iodomethane	142	10.677	10.667	(0.697)	972914	174.492	190
22 Methylene chloride	86	11.449	11.449	(0.747)	112810	40.1815	43.8
19 Carbon disulfide	76	10.840	10.840	(0.708)	1969910	197.136	215
25 trans-1,2-Dichloroethylene	61	12.027	12.027	(0.785)	255747	39.3281	42.8
28 1,1-Dichloroethane	63	12.799	12.799	(0.836)	330443	40.6955	44.3
31 2-Butanone	43	13.723	13.723	(0.896)	645814	93.7270	102
33 cis-1,2-Dichloroethylene	61	13.743	13.733	(0.897)	305377	40.1695	43.7
100 1,3-Dichlorobenzene	146	20.941	20.931	(0.998)	284598	31.7797	34.6
34 2,2-Dichloropropane	77	13.753	13.753	(0.898)	185799	43.4108	47.3
38 Chloroform	83	14.190	14.190	(0.926)	321000	43.7575	47.6
105 1,2-Dichlorobenzene	146	21.438	21.438	(1.021)	278189	31.2070	34.0
37 Bromochloromethane	49	14.088	14.088	(0.920)	261471	39.5569	43.1
41 1,1,1-Trichloroethane	97	14.494	14.484	(0.946)	274302	50.2075	54.7
44 1,1-Dichloropropene	75	14.707	14.697	(0.960)	198517	40.1145	43.7
45 Carbon tetrachloride	117	14.728	14.728	(0.962)	219100	50.6503	55.2
47 1,2-Dichloroethane	62	14.982	14.982	(0.978)	340322	44.3415	48.3
48 Benzene	78	14.992	14.992	(0.979)	563012	37.2235	40.5
53 Trichloroethylene	95	15.773	15.773	(1.030)	153774	39.3651	42.9
56 1,2-Dichloropropane	63	16.037	16.037	(1.047)	173401	35.2459	38.4
59 Bromodichloromethane	83	16.332	16.332	(1.066)	260764	44.8744	48.9
58 Dibromomethane	93	16.190	16.179	(1.057)	113348	40.9050	44.5
63 4-Methyl-2-pentanone	58	16.941	16.941	(0.908)	389289	132.225	144(R)
62 cis-1,3-Dichloropropylene	75	16.819	16.819	(1.098)	214232	29.1841	31.8
65 Toluene	92	17.215	17.215	(0.922)	350922	34.7055	37.8
67 trans-1,3-Dichloropropylene	75	17.398	17.388	(0.932)	221234	31.4476	34.2
68 1,1,2-Trichloroethane	83	17.611	17.611	(0.943)	128812	37.1924	40.5
69 2-Hexanone	43	17.804	17.804	(0.954)	667202	69.8745	76.1(R)
70 1,3-Dichloropropane	76	17.794	17.794	(0.953)	250405	36.3827	39.6
71 Tetrachloroethylene	164	17.824	17.824	(0.955)	107550	45.6043	49.7
72 Dibromochloromethane	129	18.068	18.068	(0.968)	176127	43.5290	47.4
73 1,2-Dibromoethane	107	18.220	18.220	(0.976)	156569	37.2415	40.6
76 Chlorobenzene	112	18.707	18.697	(1.002)	376033	34.2601	37.3
77 1,1,1,2-Tetrachloroethane	131	18.758	18.758	(1.005)	153961	39.0356	42.5
78 Ethylbenzene	91	18.768	18.768	(1.005)	661898	34.7399	37.8
79 m,p-Xylenes	106	18.870	18.870	(1.011)	442606	61.0452	66.5
80 o-Xylene	106	19.286	19.286	(1.033)	256211	34.1951	37.2
81 Styrene	104	19.286	19.286	(1.033)	398765	29.6114	32.2
82 Bromoform	173	19.540	19.540	(0.931)	131508	48.3901	52.7
87 1,1,2,2-Tetrachloroethane	83	19.885	19.885	(0.947)	206997	36.8109	40.1
89 1,2,3-Trichloropropane	110	19.976	19.976	(0.952)	58388	41.2067	44.9
90 Bromobenzene	156	20.017	20.017	(0.954)	176736	35.3633	38.5
91 n-Propylbenzene	91	20.037	20.037	(0.955)	722543	33.0732	36.0
93 2-Chlorotoluene	91	20.169	20.179	(0.961)	549562	34.6865	37.8
83 Isopropylbenzene	105	19.631	19.631	(0.935)	661765	37.2627	40.6

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
92 1,3,5-Trimethylbenzene	105	20.179	20.169	(0.961)	538719	34.2203	37.3
94 4-Chlorotoluene	91	20.271	20.271	(0.966)	440341	29.2451	31.8
95 tert-Butylbenzene	119	20.535	20.535	(0.978)	500945	34.1715	37.2
96 1,2,4-Trimethylbenzene	105	20.565	20.565	(0.980)	497710	29.6077	32.2
98 sec-Butylbenzene	105	20.748	20.748	(0.988)	656704	32.8646	35.8
99 4-Isopropyltoluene	119	20.870	20.870	(0.994)	219561	13.8242	15.0(R)
104 n-Butylbenzene	91	21.296	21.296	(1.014)	434002	25.8526	28.2
107 1,2-Dibromo-3-chloropropane	157	22.301	22.301	(1.062)	42509	38.8429	42.3

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: /chem/VOA7.i/121809v7/7q518.d
Date : 18-DEC-2009 20:29
Client ID: RE03-10-2741MS
Sample Info: 1120199895019343051|VOAF11|
Column phase: DB-624

Instrument: VOA7.i
Operator: AXO1
Column diameter: 0.25

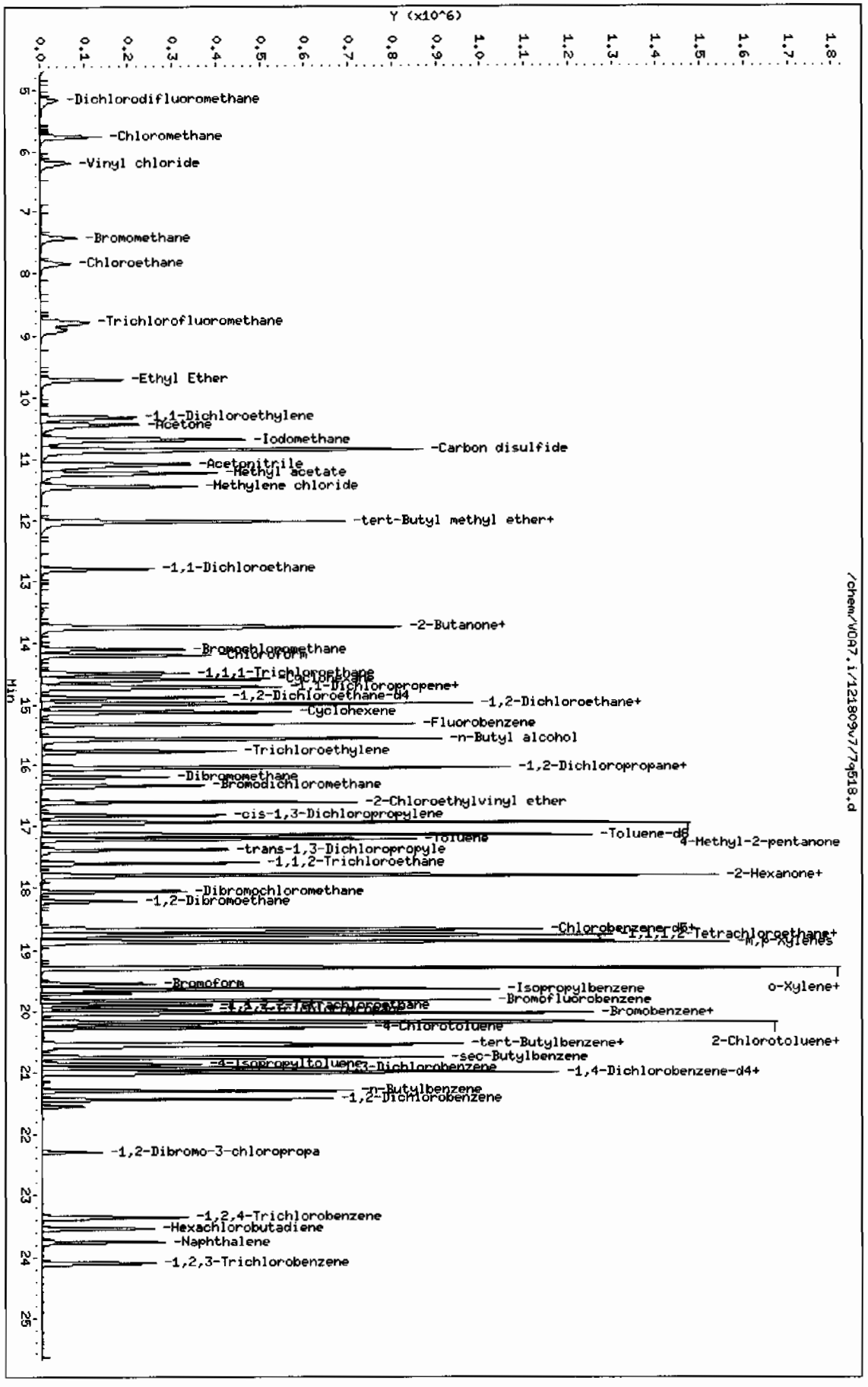

Page 1

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA7.i/121809v7/7q519.d
Lab Smp Id: 1201998951 Client Smp ID: RE03-10-2741MSD
Inj Date : 18-DEC-2009 21:02
Operator : AXO1 Inst ID: VOA7.i
Smp Info : |1201998951|934305|1|VOAF|1|
Misc Info : LANL 5g N/A MSD 242668001
Comment :
Method : /chem/VOA7.i/121809v7/VOA7-8260B-111509.m
Meth Date : 19-Dec-2009 13:12 ale01592 Quant Type: ISTD
Cal Date : 16-NOV-2009 02:36 Cal File: 71708.d
Als bottle: 19 QC Sample: MSD
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-854.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	8.16760	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
* 51 Fluorobenzene	96	15.317	15.317	(1.000)	776480	50.0000	
* 75 Chlorobenzene-d5	117	18.667	18.667	(1.000)	595370	50.0000	
* 101 1,4-Dichlorobenzene-d4	152	20.992	20.991	(1.000)	332491	50.0000	
$ 46 1,2-Dichloroethane-d4	65	14.880	14.880	(0.971)	386105	57.0293	62.1
$ 64 Toluene-d8	98	17.144	17.144	(0.918)	821076	46.1974	50.3
$ 86 Bromofluorobenzene	95	19.814	19.814	(0.944)	374753	47.8894	52.1
4 Dichlorodifluoromethane	85	5.148	5.147	(0.336)	147405	47.9750	52.2
5 Chloromethane	50	5.772	5.757	(0.377)	284385	37.2954	40.6
6 Vinyl chloride	62	6.202	6.187	(0.405)	215344	40.9020	44.5
7 Bromomethane	94	7.429	7.429	(0.485)	128752	35.6840	38.8
8 Chloroethane	64	7.855	7.855	(0.513)	145421	36.9439	40.2
9 Trichlorofluoromethane	101	8.799	8.789	(0.574)	280119	52.8107	57.5

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
13 Acetone	43	10.423	10.413	(0.681)	579113	91.2974	99.4
14 1,1-Dichloroethylene	96	10.312	10.312	(0.673)	136076	42.3930	46.2
102 1,4-Dichlorobenzene	146	21.022	21.022	(1.001)	279991	29.6867	32.3
16 Iodomethane	142	10.677	10.667	(0.697)	994396	169.611	185
22 Methylene chloride	86	11.449	11.449	(0.747)	116866	39.5399	43.0
19 Carbon disulfide	76	10.840	10.840	(0.708)	2033220	193.507	211
25 trans-1,2-Dichloroethylene	61	12.027	12.027	(0.785)	268559	39.2758	42.8
28 1,1-Dichloroethane	63	12.799	12.799	(0.836)	347027	40.6449	44.2
31 2-Butanone	43	13.723	13.723	(0.896)	712373	98.3236	107
33 cis-1,2-Dichloroethylene	61	13.733	13.733	(0.897)	311863	39.0137	42.5
100 1,3-Dichlorobenzene	146	20.941	20.931	(0.998)	289522	30.2588	33.0
34 2,2-Dichloropropane	77	13.753	13.753	(0.898)	184524	41.0016	44.6
38 Chloroform	83	14.190	14.190	(0.926)	341869	44.3201	48.3
105 1,2-Dichlorobenzene	146	21.438	21.438	(1.021)	281300	29.5349	32.2
37 Bromochloromethane	49	14.088	14.088	(0.920)	278608	40.0854	43.6
41 1,1,1-Trichloroethane	97	14.494	14.484	(0.946)	278102	48.4102	52.7
44 1,1-Dichloropropene	75	14.708	14.697	(0.960)	203074	39.0257	42.5
45 Carbon tetrachloride	117	14.728	14.728	(0.962)	222061	48.8209	53.2
47 1,2-Dichloroethane	62	14.982	14.982	(0.978)	363781	45.0768	49.1
48 Benzene	78	14.992	14.992	(0.979)	585128	36.7912	40.1
53 Trichloroethylene	95	15.773	15.773	(1.030)	158992	38.7077	42.2
56 1,2-Dichloropropane	63	16.037	16.037	(1.047)	181873	35.1576	38.3
59 Bromodichloromethane	83	16.332	16.332	(1.066)	269180	44.0542	48.0
58 Dibromomethane	93	16.190	16.179	(1.057)	121900	41.8369	45.6
63 4-Methyl-2-pentanone	58	16.941	16.941	(0.908)	424693	137.976	150(R)
62 cis-1,3-Dichloropropylene	75	16.819	16.819	(1.098)	222041	28.7666	31.3
65 Toluene	92	17.215	17.215	(0.922)	363052	34.3435	37.4
67 trans-1,3-Dichloropropylene	75	17.398	17.388	(0.932)	237273	32.2605	35.1
68 1,1,2-Trichloroethane	83	17.611	17.611	(0.943)	135296	37.3655	40.7
69 2-Hexanone	43	17.804	17.804	(0.954)	708214	70.9436	77.2(R)
70 1,3-Dichloropropane	76	17.794	17.794	(0.953)	263719	36.6506	39.9
71 Tetrachloroethylene	164	17.824	17.824	(0.955)	106610	43.1521	47.0
72 Dibromochloromethane	129	18.068	18.068	(0.968)	181061	42.8022	46.6
73 1,2-Dibromoethane	107	18.220	18.220	(0.976)	165899	37.7444	41.1
76 Chlorobenzene	112	18.707	18.697	(1.002)	390662	34.0449	37.1
77 1,1,1,2-Tetrachloroethane	131	18.758	18.758	(1.005)	160252	38.8634	42.3
78 Ethylbenzene	91	18.768	18.768	(1.005)	669283	33.5997	36.6
79 m,p-Xylenes	106	18.870	18.870	(1.011)	443301	58.4818	63.7
80 o-Xylene	106	19.286	19.286	(1.033)	255456	32.6114	35.5
81 Styrene	104	19.286	19.286	(1.033)	409172	29.0627	31.6
82 Bromoform	173	19.540	19.540	(0.931)	138664	47.7552	52.0
87 1,1,2,2-Tetrachloroethane	83	19.895	19.885	(0.948)	219727	36.5720	39.8
89 1,2,3-Trichloropropane	110	19.976	19.976	(0.952)	61080	40.3456	43.9
90 Bromobenzene	156	20.017	20.017	(0.954)	186206	34.8717	38.0
91 n-Propylbenzene	91	20.037	20.037	(0.955)	737320	31.5880	34.4
93 2-Chlorotoluene	91	20.179	20.179	(0.961)	549476	32.4598	35.3
83 Isopropylbenzene	105	19.631	19.631	(0.935)	672751	35.4550	38.6

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
92 1,3,5-Trimethylbenzene	105	20.179	20.169	(0.961)	540984	32.1632	35.0
94 4-Chlorotoluene	91	20.271	20.271	(0.966)	448011	27.8488	30.3
95 tert-Butylbenzene	119	20.535	20.535	(0.978)	507295	32.3882	35.3
96 1,2,4-Trimethylbenzene	105	20.565	20.565	(0.980)	504203	28.0728	30.6
98 sec-Butylbenzene	105	20.748	20.748	(0.988)	657747	30.8085	33.5
99 4-Isopropyltoluene	119	20.870	20.870	(0.994)	234499	13.8191	15.0(R)
104 n-Butylbenzene	91	21.296	21.296	(1.014)	431651	24.0656	26.2
107 1,2-Dibromo-3-chloropropane	157	22.301	22.301	(1.062)	46271	39.5724	43.1

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: /chem/VOA7.i/121809v7/7q519.d

Date : 18-DEC-2009 21:02

Client ID: RE03-10-2741MSD

Sample Info: |1201998951|934305|1|VOAF|1|

Column phase: DB-624

Instrument: VOA7.i

Operator: AX01

Column diameter: 0.25

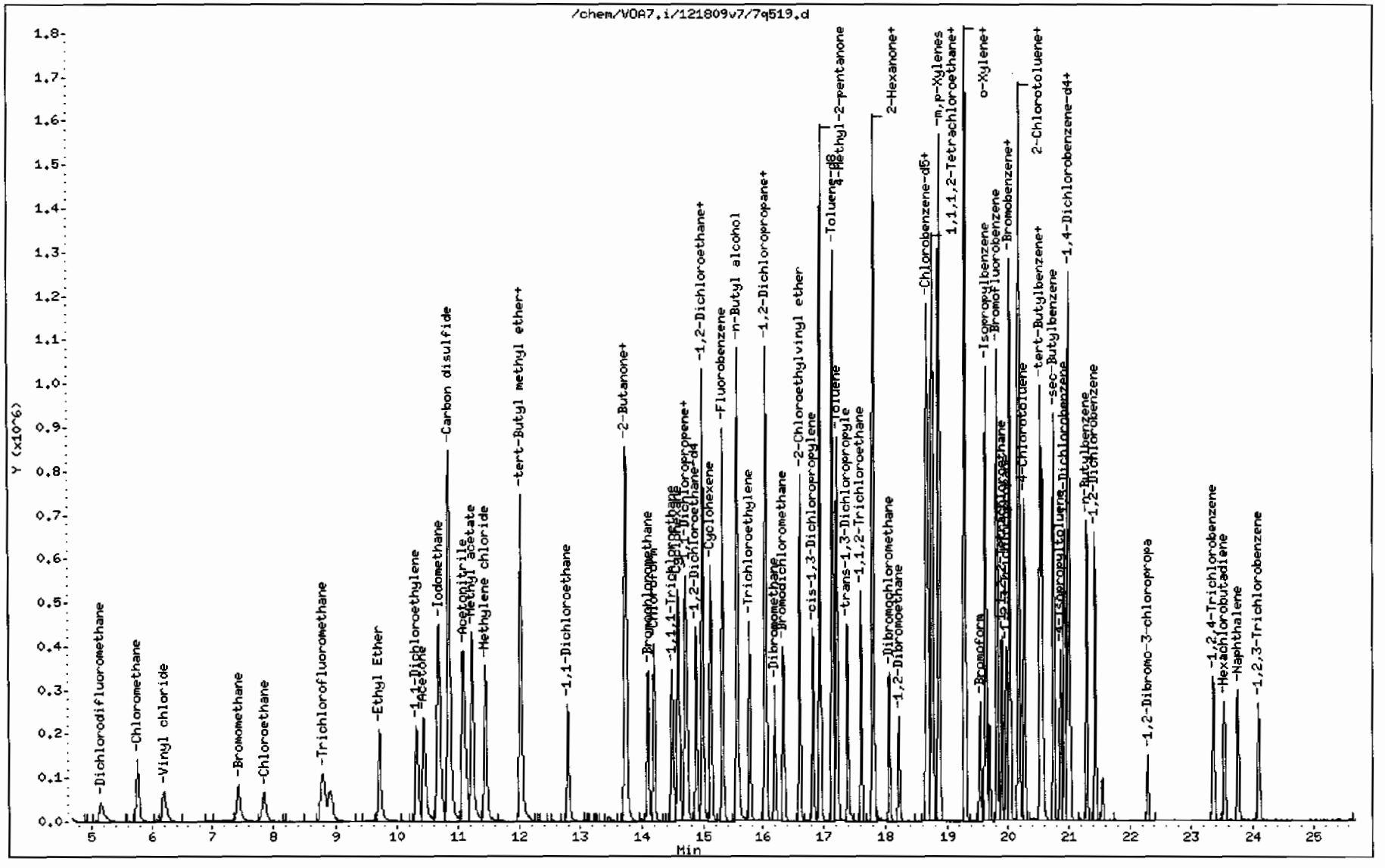

GC/MS Semivolatile Analysis

Semi-Volatile Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-852

Method/Analysis Information

Procedure:	**Analysis of Semivolatile Organic Compounds by Gas Chromatography/Mass Spectrometry**
Analytical Method:	SW846 8270C
Prep Method:	SW846 3550B
Analytical Batch Number:	932077
Prep Batch Number:	932076

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 8270C:

Sample ID	Client ID
242654001	RE03-09-14224
242654002	RE03-09-14227
242654003	RE03-09-14225
242654004	RE03-09-14226
242654005	RE03-09-14288
242654006	RE03-09-14287
242654007	RE03-09-14267
242654008	RE03-09-14265
242654009	RE03-09-14281
242654010	RE03-09-14284
242654011	RE03-09-14274
242654012	RE03-09-14277
242654013	RE03-09-14282
242654014	RE03-09-14269
242654015	RE03-09-14273
242654016	RE03-09-14271
242654017	RE03-09-14278
242654018	RE03-09-14285
242654019	RE03-09-14286
242654020	RE03-09-14283
1201993834	Method Blank (MB)
1201993835	Laboratory Control Sample (LCS)
1201993836	242654001(RE03-09-14224) Matrix Spike (MS)
1201993837	242654001(RE03-09-14224) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on a "dry weight" basis.

Preparation/Analytical Method Verification

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories

LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-009 REV# 22.

Raw data reports are processed and reviewed by the analyst using the Target software package. False positives have been removed from the Target quantitation reports per standard operating procedures (SOP) section 18.2.

Calibration Information

Please note that the 'Cal Date' indicated on each quantitation report reflects the date and time of the most recent calibrated analyte(s) in the Target processing method. Since the laboratory may calibrate with multiple solutions on different days using the same processing method, the Target software will update the 'Cal Date' to the last calibration file, date and time. The correct dates and times for all calibration files are located on the Calibration History report in the Standard Data section in the data package.

Due to software limitations, the Calibration Summary Form 6 may not indicate all the calibration files comprising the initial calibration. A complete list of the initial calibration data files are shown in the Calibration History report located in the Standard Data section of the data package. Please note that the second level of the initial calibration (5 mg/L) is only used for n-Nitrosodipropylamine. The various calibration mixes may not be calibrated using all of the calibration levels. In addition, not all of the mixes are calibrated using the same levels.

Diphenylamine has now superseded N-Nitroso-diphenylamine as a CCC on Quantitation Reports, Initial Calibration Reports, Calibration Check Standard Reports, etc. Previous versions of EPA Method 8270 (prior to 8270C) listed N-Nitroso-diphenylamine as a CCC. However, as stated in EPA Method 8270C, Revision 3, December, 1996, Section 1.4.5, "N-Nitroso-diphenylamine decomposes in the gas chromatographic inlet and cannot be separated from Diphenylamine." Studies of these two compounds at GEL, both independent of each other and together, show that they not only co-elute, but also have similar mass spectra. N-Nitroso-diphenylamine and Diphenylamine will be reported as Diphenylamine on all reports and forms.

The linear equation used in Target and indicated on the initial calibration summary form is not a conventional linear equation (slope intercept formula) and does not match the equation found in SW-846 method 8000B. The x and y axes are inversed in Target, so that the instrument response is treated as the independent variable (x) and the concentration ratio is treated as the dependent variable (y). The equation used in Target to calculate sample results is adjusted to account for the linear equation inversion and reciprocal slope. The adjusted calculation has been independently verified to produce valid results.

Initial Calibration

All initial calibration requirements have been met for this sample delivery group (SDG). A second source initial calibration verification (ICV) was included in the standard section directly behind the initial calibration.

CCV Requirements

All associated calibration verification standard(s) (ICV or CCV) met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement

The MB analyzed with this SDG met the acceptance criteria.

Surrogate Recoveries

Sample 242654008 recovered p-Terphenyl-d14 at 131%. The limits are 40%-124%. Sample 242654008 was analyzed at a dilution due to the sample extract being very dark and viscous. As a result, p-Terphenyl-d14 was diluted out of the acceptance limits and the data results have been reported.

Sample 242654018 recovered 2,4,6-Tribromophenol at 108% (limits are 37%-106%) and p-Terphenyl-d14 at 131% (limits are 40%-124%).Since sample 242654018 was biased high for 2,4,6-Tribromophenol and p-Terphenyl-d14 and there were no target analytes detected in the sample, the data results have been reported.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

QC Sample Designation
Sample 242654001 (RE03-09-14224) was selected for analysis as the matrix spike and matrix spike duplicate.

Matrix Spike (MS) Recovery Statement
One MS(1201993836) spike recovery were not within the acceptance limits. Please see the QC Summary for specific value. The MSD(1201993837) displayed a similar recovery. Therefore, the failure was attributed to matrix interference and the data were reported.

Matrix Spike Duplicate (MSD) Recovery Statement
Two MSD(1201993837) spike recoveries were not within the acceptance limits. Please see the QC Summary for specific values. The MS(1201993836) displayed similar recoveries. Therefore, the failures were attributed to matrix interference and the data were reported.

MS/MSD Relative Percent Difference (RPD) Statement
The MS(1201993836)/MSD(1201993837) RPD value for 3,3'Dicholorobenzidine was 35%. The limit is 30%. The RPD failure was attributed to matrix interference and the data results have been reported.

Internal Standard (ISTD) Acceptance
The internal standard responses were outside of the acceptance criteria for the following samples: 242654007 (RE03-09-14267), 242654008 (RE03-09-14265) and 242654016 (RE03-09-14271). The samples were re-analyzed and the failures were confirmed. The first analysis data were reported. The re-analysis raw data have been placed in the Miscellaneous Section.

The internal standard responses were outside of the acceptance criteria for the following sample: 242654018 (RE03-09-14285). The sample was re-analyzed and the failures were confirmed. The second analysis data were reported because the first analysis fell outside the tune window.

The internal standard responses were outside of the acceptance criteria for the following samples: 242654009 (RE03-09-14281), 242654010 (RE03-09-14284), 242654011 (RE03-09-14274), 242654012 (RE03-09-14277), 242654013 (RE03-09-14282), 242654014 (RE03-09-14269), 242654015 (RE03-09-14273), 242654017 (RE03-09-14278), 242654019 (RE03-09-14286) and 242654020 (RE03-09-14283). The samples were re-analyzed and the failures did not confirm. The re-analysis data have been reported.

Technical Information

Holding Time Specifications
All samples in this SDG met the specified holding time. GEL assigns holding times based on the associated methodology that assigns the date and time from sample collection or sample receipt. Those holding times expressed in hours are calculated in the ALPHALIMS system. Those holding times expressed as days expire at midnight on the day of expiration.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

Sample Dilutions
Sample 242654008 (RE03-09-14265) was diluted because the extract was very dark and viscous.

Sample Re-extraction/Re-analysis
Re-extractions or re-analyses were not required in this SDG except for confirmations and/or dilutions.

Miscellaneous Information

Nonconformance (NCR) Documentation
The following NCR was generated for this SDG: 770889. It is located in the Miscellaneous Section of the data report.

Manual Integrations
Some initial calibration standards, continuing calibration standards, and/or samples may require manual integrations due to software limitations. Please see the raw data in the Miscellaneous Section.

Additional Comments
Additional comments were not required for this SDG.

Electronic Package Comment
The following package was generated using an electronic data processing program referred to as "virtual packaging". In an effort to increase quality and efficiency, the laboratory is developing systems to eventually generate all data packages electronically. The following change from "traditional" packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. An electronic signature page inserted after the case narrative of each electronic package will indicate the analyst, reviewer, and report specialist names associated with the generation of the data and package. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

System Configuration
The samples reported in this SDG were analyzed on one or more of the following instrument systems. Instrument systems are referenced in the raw data and individual form headers by the Instrument ID designations listed below:

Instrument ID	Instrument	System Configuration	Column ID	Column Description
MSD3.I	HP Mass Spectrometer	HP7890A/HP5975C	DB-5MS	25m x 0.2mm, 0.33um (5% Phenylmethylpolysiloxane)

Certification Statement
Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

Reviewer: Dan Beckham **Date:** 1-5-10

Roadmap for LANL 10-852 SVOA

This roadmap was analyzed by jen00986 on 12-16-2009, 15:14.
This roadmap was reviewed by bar00895 on 12-21-2009, 07:43.

Sample

exclude	manual	datafile	smpid	injdate	injtime	sublist	clientid	dilution	batchid	comment
☐	N	/chem/MSD3.i/s121309.b/s311315.d	242654001	13-DEC-2009	14:55	10-852.sub	RE03-09-14224	1	932077	USE
☐	N	/chem/MSD3.i/s121309.b/s311318.d	242654002	13-DEC-2009	16:18	10-852.sub	RE03-09-14227	1	932077	USE
☐	N	/chem/MSD3.i/s121309.b/s311319.d	242654003	13-DEC-2009	16:45	10-852.sub	RE03-09-14225	1	932077	USE
☐	N	/chem/MSD3.i/s121309.b/s311320.d	242654004	13-DEC-2009	17:13	10-852.sub	RE03-09-14226	1	932077	USE
☐	N	/chem/MSD3.i/s121309.b/s311321.d	242654005	13-DEC-2009	17:40	10-852.sub	RE03-09-14288	1	932077	USE
☐	N	/chem/MSD3.i/s121309.b/s311322.d	242654006	13-DEC-2009	18:08	10-852.sub	RE03-09-14287	1	932077	USE
☐	N	/chem/MSD3.i/s121309.b/s311323.d	242654007	13-DEC-2009	18:35	10-852.sub	RE03-09-14267	1	932077	USE; ISTD LOW; SEE RR S3L1423
☐	N	/chem/MSD3.i/s121309.b/s311324.d	242654008	13-DEC-2009	19:02	10-852.sub	RE03-09-14265	4	932077	USE; ISTD LOW/SURR HIGH; SEE RR S3L1424
■	N	/chem/MSD3.i/s121309.b/s311325.d	242654009	13-DEC-2009	19:30	10-852.sub	RE03-09-14281	1	932077	DUSE; ISTD LOW; SEE RR S3L1425
■	N	/chem/MSD3.i/s121309.b/s311326.d	242654010	13-DEC-2009	19:57	10-852.sub	RE03-09-14284	1	932077	DUSE; ISTD LOW; SEE RR S3L1426
■	N	/chem/MSD3.i/s121309.b/s311327.d	242654011	13-DEC-2009	20:25	10-852.sub	RE03-09-14274	1	932077	DUSE; ISTD LOW; SEE RR S3L1427
■	N	/chem/MSD3.i/s121309.b/s311328.d	242654012	13-DEC-2009	20:52	10-852.sub	RE03-09-14277	1	932077	DUSE; ISTD LOW/SURR HIGH; SEE RR S3L1428
■	N	/chem/MSD3.i/s121309.b/s311329.d	242654013	13-DEC-2009	21:20	10-852.sub	RE03-09-14282	1	932077	DUSE; ISTD LOW/SURR HIGH; SEE RR S3L1429
■	N	/chem/MSD3.i/s121309.b/s311330.d	242654014	13-DEC-2009	21:47	10-852.sub	RE03-09-14269	1	932077	DUSE; ISTD LOW; SEE RR S3L1507
■	N	/chem/MSD3.i/s121309.b/s311331.d	242654015	13-DEC-2009	22:15	10-852.sub	RE03-09-14273	1	932077	DUSE; ISTD LOW/SURR HIGH; SEE RR S3L1508
☐	N	/chem/MSD3.i/s121309.b/s311332.d	242654016	13-DEC-2009	22:42	10-852.sub	RE03-09-14271	1	932077	USE; ISTD LOW; SEE RR S3L1509
■	N	/chem/MSD3.i/s121309.b/s311333.d	242654017	13-DEC-2009	23:10	10-852.sub	RE03-09-14278	1	932077	DUSE; ISTD LOW; SEE RR S3L1510
■	N	/chem/MSD3.i/s121309.b/s311334.d	242654018	13-DEC-2009	23:37	10-852.sub	RE03-09-14285	1	932077	DUSE; OUT OF TUNE; SEE RR S3L1511
■	N	/chem/MSD3.i/s121309.b/s311335.d	242654019	14-DEC-2009	00:05	10-852.sub	RE03-09-14286	1	932077	DUSE; OUT OF TUNE; SEE RR S3L1512
■	N	/chem/MSD3.i/s121309.b/s311336.d	242654020	14-DEC-2009	00:32	10-852.sub	RE03-09-14283	1	932077	DUSE; OUT OF TUNE; SEE RR S3L1513
■	N	/chem/MSD3.i/s121409.b/s311423.d	242654007	14-DEC-2009	19:00	10-852.sub	RE03-09-14267	1	932077	DUSE; RR OF S3L1323; LOW ISTD CONFIRMED
■	N	/chem/MSD3.i/s121409.b/s311424.d	242654008	14-DEC-2009	19:27	10-852.sub	RE03-09-14265	4	932077	DUSE; RR OF S3L1324; LOW ISTD CONFIRMED
☐	N	/chem/MSD3.i/s121409.b/s311425.d	242654009	14-DEC-2009	19:55	10-852.sub	RE03-09-14281	1	932077	USE; RR OF S3L1325; ISTD PASS

☐	N	/chem/MSD3.i/s121409.b/s311426.d	242654010	14-DEC-2009	20:22	10-852.sub	RE03-09-14284	1	932077	USE; RR OF S3L1326; ISTD PASS
☐	N	/chem/MSD3.i/s121409.b/s311427.d	242654011	14-DEC-2009	20:50	10-852.sub	RE03-09-14274	1	932077	USE; RR OF S3L1327; ISTD PASS
☐	N	/chem/MSD3.i/s121409.b/s311428.d	242654012	14-DEC-2009	21:17	10-852.sub	RE03-09-14277	1	932077	USE; RR OF S3L1328; ISTD PASS
☐	N	/chem/MSD3.i/s121409.b/s311429.d	242654013	14-DEC-2009	21:45	10-852.sub	RE03-09-14282	1	932077	USE; RR OF S3L1329; ISTD PASS
■	N	/chem/MSD3.i/s121409.b/s311430.d	242654014	14-DEC-2009	22:12	10-852.sub	RE03-09-14269	1	932077	DUSE; OUT OF TUNE; SEE S3L1507
☐	N	/chem/MSD3.i/s121509.b/s311507.d	242654014	15-DEC-2009	10:34	10-852.sub	RE03-09-14269	1	932077	USE; RR OF S3L1430; ISTD PASS
☐	N	/chem/MSD3.i/s121509.b/s311508.d	242654015	15-DEC-2009	11:01	10-852.sub	RE03-09-14273	1	932077	USE; RR OF S3L1331; ISTD PASS
■	N	/chem/MSD3.i/s121509.b/s311509.d	242654016	15-DEC-2009	11:28	10-852.sub	RE03-09-14271	1	932077	DUSE; RR OF S3L1332; ISTD LOW
☐	N	/chem/MSD3.i/s121509.b/s311510.d	242654017	15-DEC-2009	11:56	10-852.sub	RE03-09-14278	1	932077	USE; RR OF S3L1333; ISTD PASS
☐	N	/chem/MSD3.i/s121509.b/s311511.d	242654018	15-DEC-2009	12:23	10-852.sub	RE03-09-14285	1	932077	USE; RR OF S3L1334; ISTD LOW/SURR HIGH
☐	N	/chem/MSD3.i/s121509.b/s311512.d	242654019	15-DEC-2009	12:51	10-852.sub	RE03-09-14286	1	932077	USE; RR OF S3L1335; ISTD PASS
☐	N	/chem/MSD3.i/s121509.b/s311513.d	242654020	15-DEC-2009	13:18	10-852.sub	RE03-09-14283	1	932077	USE; RR OF S3L1336; ISTD PASS

QC Sample

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	batchid	comment
☐	N	/chem/MSD3.i/s121309.b/s311312.d	1201993834	mb	13-DEC-2009	13:33	10-852.sub	SBLK01	1	932077	USE
☐	N	/chem/MSD3.i/s121309.b/s311313.d	1201993835	lcs	13-DEC-2009	14:00	10-852.sub	SBLK01LCS	1	932077	USE
☐	N	/chem/MSD3.i/s121309.b/s311316.d	1201993836	ms	13-DEC-2009	15:23	10-852.sub	RE03-09-14224MS	1	932077	USE

☐	N	/chem/MSD3.i/s121309.b/s311317.d	1201993837	msd	13-DEC-2009	15:50	10-852.sub	RE03-09-14224MSD	1	932077	USE

Sample Data Summary

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-852**	**Date Collected:**	**12/07/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242654001**	**Date Received:**	**12/10/2009 08:50**	**%Moisture:**	**14.6**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14224**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**932077**	**Inst:**	**MSD3.I**	**Dilution:**	**1**
Run Date:	**12/13/2009 14:55**	**Analyst:**	**JLD1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/11/2009 21:55**	**Aliquot:**	**30.17 g**	**Final Volume:**	**1 mL**
Data File:	**s311315.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	388	ug/kg	77.6	388
108-95-2	Phenol	U	388	ug/kg	77.6	388
95-57-8	2-Chlorophenol	U	388	ug/kg	77.6	388
106-46-7	1,4-Dichlorobenzene	U	388	ug/kg	77.6	388
621-64-7	N-Nitrosodipropylamine	U	388	ug/kg	77.6	388
59-50-7	4-Chloro-3-methylphenol	U	388	ug/kg	77.6	388
83-32-9	Acenaphthene	U	38.8	ug/kg	12.8	38.8
121-14-2	2,4-Dinitrotoluene	U	388	ug/kg	38.8	388
100-02-7	4-Nitrophenol	U	388	ug/kg	128	388
87-86-5	Pentachlorophenol	U	388	ug/kg	97.0	388
129-00-0	Pyrene	U	38.8	ug/kg	11.6	38.8
110-86-1	Pyridine	U	388	ug/kg	77.6	388
62-53-3	Aniline	U	388	ug/kg	116	388
111-44-4	bis(2-Chloroethyl) ether	U	388	ug/kg	77.6	388
541-73-1	1,3-Dichlorobenzene	U	388	ug/kg	77.6	388
100-51-6	Benzyl alcohol	U	388	ug/kg	116	388
95-50-1	1,2-Dichlorobenzene	U	388	ug/kg	77.6	388
108-60-1	bis(2-Chloroisopropyl)ether	U	388	ug/kg	77.6	388
95-48-7	o-Cresol	U	388	ug/kg	77.6	388
65794-96-9	m,p-Cresols	U	388	ug/kg	116	388
67-72-1	Hexachloroethane	U	388	ug/kg	77.6	388
98-95-3	Nitrobenzene	U	388	ug/kg	77.6	388
78-59-1	Isophorone	U	388	ug/kg	77.6	388
88-75-5	2-Nitrophenol	U	388	ug/kg	77.6	388
105-67-9	2,4-Dimethylphenol	U	388	ug/kg	136	388
111-91-1	bis(2-Chloroethoxy)methane	U	388	ug/kg	77.6	388
120-83-2	2,4-Dichlorophenol	U	388	ug/kg	77.6	388
65-85-0	Benzoic acid	U	776	ug/kg	194	776
91-20-3	Naphthalene	U	38.8	ug/kg	11.6	38.8
106-47-8	4-Chloroaniline	U	388	ug/kg	77.6	388
87-68-3	Hexachlorobutadiene	U	388	ug/kg	77.6	388
91-57-6	2-Methylnaphthalene	U	38.8	ug/kg	7.76	38.8
77-47-4	Hexachlorocyclopentadiene	U	388	ug/kg	77.6	388
88-06-2	2,4,6-Trichlorophenol	U	388	ug/kg	77.6	388
95-95-4	2,4,5-Trichlorophenol	U	388	ug/kg	77.6	388
91-58-7	2-Chloronaphthalene	U	38.8	ug/kg	12.8	38.8
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	388	ug/kg	77.6	388
99-09-2	3-Nitroaniline	U	388	ug/kg	77.6	388

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-852**	**Date Collected:**	**12/07/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242654001**	**Date Received:**	**12/10/2009 08:50**	**%Moisture:**	**14.6**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14224**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**932077**	**Inst:**	**MSD3.I**	**Dilution:**	**1**
Run Date:	**12/13/2009 14:55**	**Analyst:**	**JLD1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/11/2009 21:55**	**Aliquot:**	**30.17 g**	**Final Volume:**	**1 mL**
Data File:	**s311315.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	388	ug/kg	77.6	388
606-20-2	2,6-Dinitrotoluene	U	388	ug/kg	38.8	388
208-96-8	Acenaphthylene	U	38.8	ug/kg	11.6	38.8
51-28-5	2,4-Dinitrophenol	U	776	ug/kg	147	776
132-64-9	Dibenzofuran	U	388	ug/kg	77.6	388
84-66-2	Diethylphthalate	U	388	ug/kg	77.6	388
86-73-7	Fluorene	U	38.8	ug/kg	11.6	38.8
7005-72-3	4-Chlorophenylphenylether	U	388	ug/kg	77.6	388
534-52-1	2-Methyl-4,6-dinitrophenol	U	388	ug/kg	77.6	388
100-01-6	4-Nitroaniline	U	388	ug/kg	116	388
	p-Nitroaniline					
122-39-4	Diphenylamine	U	388	ug/kg	77.6	388
122-66-7	Azobenzene	U	388	ug/kg	77.6	388
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	388	ug/kg	77.6	388
118-74-1	Hexachlorobenzene	U	388	ug/kg	77.6	388
85-01-8	Phenanthrene	U	38.8	ug/kg	11.6	38.8
120-12-7	Anthracene	U	38.8	ug/kg	7.76	38.8
84-74-2	Di-n-butylphthalate	U	388	ug/kg	77.6	388
206-44-0	Fluoranthene	U	38.8	ug/kg	11.6	38.8
85-68-7	Butylbenzylphthalate	U	388	ug/kg	77.6	388
56-55-3	Benzo(a)anthracene	U	38.8	ug/kg	11.6	38.8
91-94-1	3,3'-Dichlorobenzidine	U	388	ug/kg	116	388
218-01-9	Chrysene	U	38.8	ug/kg	11.6	38.8
117-81-7	bis(2-Ethylhexyl)phthalate	U	388	ug/kg	77.6	388
117-84-0	Di-n-octylphthalate	U	388	ug/kg	77.6	388
205-99-2	Benzo(b)fluoranthene	U	38.8	ug/kg	11.6	38.8
207-08-9	Benzo(k)fluoranthene	U	38.8	ug/kg	11.6	38.8
50-32-8	Benzo(a)pyrene	U	38.8	ug/kg	11.6	38.8
193-39-5	Indeno(1,2,3-cd)pyrene	U	38.8	ug/kg	11.6	38.8
53-70-3	Dibenzo(a,h)anthracene	U	38.8	ug/kg	11.6	38.8
191-24-2	Benzo(ghi)perylene	U	38.8	ug/kg	11.6	38.8
120-82-1	1,2,4-Trichlorobenzene	U	388	ug/kg	77.6	388

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.95	8.01	ug/kg		JA
475-20-7	1,4-Methanoazulene, decahydro-4,8,8-trim	6.99	5.92	ug/kg	99	NJ

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242654001	**Date Received:**	12/10/2009 08:50	**%Moisture:**	14.6
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14224	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	932077	**Inst:**	MSD3.I	**Dilution:**	1
Run Date:	12/13/2009 14:55	**Analyst:**	JLD1	**Inj. Vol:**	.5 uL
Prep Date:	12/11/2009 21:55	**Aliquot:**	30.17 g	**Final Volume:**	1 mL
Data File:	s311315.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
1235-74-1	1-Phenanthrenecarboxylic acid, 1,2,3,4,4	11.22	8.08	ug/kg	99	NJ
	Unknown	11.29	9.93	ug/kg		J
	Unknown	19.56	5.07	ug/kg		J

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242654003	**Date Received:**	12/10/2009 08:50	**%Moisture:**	11.9
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14225	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	932077	**Inst:**	MSD3.I	**Dilution:**	1
Run Date:	12/13/2009 16:45	**Analyst:**	JLD1	**Inj. Vol:**	.5 uL
Prep Date:	12/11/2009 21:55	**Aliquot:**	30.09 g	**Final Volume:**	1 mL
Data File:	s3l1319.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	377	ug/kg	75.5	377
108-95-2	Phenol	U	377	ug/kg	75.5	377
95-57-8	2-Chlorophenol	U	377	ug/kg	75.5	377
106-46-7	1,4-Dichlorobenzene	U	377	ug/kg	75.5	377
621-64-7	N-Nitrosodipropylamine	U	377	ug/kg	75.5	377
59-50-7	4-Chloro-3-methylphenol	U	377	ug/kg	75.5	377
83-32-9	Acenaphthene	U	37.7	ug/kg	12.5	37.7
121-14-2	2,4-Dinitrotoluene	U	377	ug/kg	37.7	377
100-02-7	4-Nitrophenol	U	377	ug/kg	125	377
87-86-5	Pentachlorophenol	U	377	ug/kg	94.3	377
129-00-0	Pyrene	U	37.7	ug/kg	11.3	37.7
110-86-1	Pyridine	U	377	ug/kg	75.5	377
62-53-3	Aniline	U	377	ug/kg	113	377
111-44-4	bis(2-Chloroethyl) ether	U	377	ug/kg	75.5	377
541-73-1	1,3-Dichlorobenzene	U	377	ug/kg	75.5	377
100-51-6	Benzyl alcohol	U	377	ug/kg	113	377
95-50-1	1,2-Dichlorobenzene	U	377	ug/kg	75.5	377
108-60-1	bis(2-Chloroisopropyl)ether	U	377	ug/kg	75.5	377
95-48-7	o-Cresol	U	377	ug/kg	75.5	377
65794-96-9	m,p-Cresols	U	377	ug/kg	113	377
67-72-1	Hexachloroethane	U	377	ug/kg	75.5	377
98-95-3	Nitrobenzene	U	377	ug/kg	75.5	377
78-59-1	Isophorone	U	377	ug/kg	75.5	377
88-75-5	2-Nitrophenol	U	377	ug/kg	75.5	377
105-67-9	2,4-Dimethylphenol	U	377	ug/kg	132	377
111-91-1	bis(2-Chloroethoxy)methane	U	377	ug/kg	75.5	377
120-83-2	2,4-Dichlorophenol	U	377	ug/kg	75.5	377
65-85-0	Benzoic acid	U	755	ug/kg	189	755
91-20-3	Naphthalene	U	37.7	ug/kg	11.3	37.7
106-47-8	4-Chloroaniline	U	377	ug/kg	75.5	377
87-68-3	Hexachlorobutadiene	U	377	ug/kg	75.5	377
91-57-6	2-Methylnaphthalene	U	37.7	ug/kg	7.55	37.7
77-47-4	Hexachlorocyclopentadiene	U	377	ug/kg	75.5	377
88-06-2	2,4,6-Trichlorophenol	U	377	ug/kg	75.5	377
95-95-4	2,4,5-Trichlorophenol	U	377	ug/kg	75.5	377
91-58-7	2-Chloronaphthalene	U	37.7	ug/kg	12.5	37.7
88-74-4	2-Nitroaniline	U	377	ug/kg	75.5	377
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	377	ug/kg	75.5	377

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	Date Collected:	12/07/2009 12:00	Matrix:	S
Lab Sample ID:	242654003	Date Received:	12/10/2009 08:50	%Moisture:	11.9
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14225	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	932077	Inst:	MSD3.I	Dilution:	1
Run Date:	12/13/2009 16:45	Analyst:	JLD1	Inj. Vol:	.5 uL
Prep Date:	12/11/2009 21:55	Aliquot:	30.09 g	Final Volume:	1 mL
Data File:	s311319.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	377	ug/kg	75.5	377
606-20-2	2,6-Dinitrotoluene	U	377	ug/kg	37.7	377
208-96-8	Acenaphthylene	U	37.7	ug/kg	11.3	37.7
51-28-5	2,4-Dinitrophenol	U	755	ug/kg	143	755
132-64-9	Dibenzofuran	U	377	ug/kg	75.5	377
84-66-2	Diethylphthalate	U	377	ug/kg	75.5	377
86-73-7	Fluorene	U	37.7	ug/kg	11.3	37.7
7005-72-3	4-Chlorophenylphenylether	U	377	ug/kg	75.5	377
534-52-1	2-Methyl-4,6-dinitrophenol	U	377	ug/kg	75.5	377
100-01-6	4-Nitroaniline	U	377	ug/kg	113	377
	p-Nitroaniline					
122-39-4	Diphenylamine	U	377	ug/kg	75.5	377
122-66-7	Azobenzene	U	377	ug/kg	75.5	377
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	377	ug/kg	75.5	377
118-74-1	Hexachlorobenzene	U	377	ug/kg	75.5	377
85-01-8	Phenanthrene	U	37.7	ug/kg	11.3	37.7
120-12-7	Anthracene	U	37.7	ug/kg	7.55	37.7
84-74-2	Di-n-butylphthalate	U	377	ug/kg	75.5	377
206-44-0	Fluoranthene	U	37.7	ug/kg	11.3	37.7
85-68-7	Butylbenzylphthalate	U	377	ug/kg	75.5	377
56-55-3	Benzo(a)anthracene	U	37.7	ug/kg	11.3	37.7
91-94-1	3,3'-Dichlorobenzidine	U	377	ug/kg	113	377
218-01-9	Chrysene	U	37.7	ug/kg	11.3	37.7
117-81-7	bis(2-Ethylhexyl)phthalate	U	377	ug/kg	75.5	377
117-84-0	Di-n-octylphthalate	U	377	ug/kg	75.5	377
205-99-2	Benzo(b)fluoranthene	U	37.7	ug/kg	11.3	37.7
207-08-9	Benzo(k)fluoranthene	U	37.7	ug/kg	11.3	37.7
50-32-8	Benzo(a)pyrene	U	37.7	ug/kg	11.3	37.7
193-39-5	Indeno(1,2,3-cd)pyrene	U	37.7	ug/kg	11.3	37.7
53-70-3	Dibenzo(a,h)anthracene	U	37.7	ug/kg	11.3	37.7
191-24-2	Benzo(ghi)perylene	U	37.7	ug/kg	11.3	37.7
120-82-1	1,2,4-Trichlorobenzene	U	377	ug/kg	75.5	377

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.94	285	ug/kg		JA
	Unknown	15.75	216	ug/kg		J

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	Date Collected:	12/07/2009 12:00	Matrix:	S
Lab Sample ID:	242654004	Date Received:	12/10/2009 08:50	%Moisture:	9.5
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14226	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	932077	Inst:	MSD3.I	Dilution:	1
Run Date:	12/13/2009 17:13	Analyst:	JLD1	Inj. Vol:	.5 uL
Prep Date:	12/11/2009 21:55	Aliquot:	30.03 g	Final Volume:	1 mL
Data File:	s3I1320.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	368	ug/kg	73.6	368
108-95-2	Phenol	U	368	ug/kg	73.6	368
95-57-8	2-Chlorophenol	U	368	ug/kg	73.6	368
106-46-7	1,4-Dichlorobenzene	U	368	ug/kg	73.6	368
621-64-7	N-Nitrosodipropylamine	U	368	ug/kg	73.6	368
59-50-7	4-Chloro-3-methylphenol	U	368	ug/kg	73.6	368
83-32-9	Acenaphthene	U	36.8	ug/kg	12.1	36.8
121-14-2	2,4-Dinitrotoluene	U	368	ug/kg	36.8	368
100-02-7	4-Nitrophenol	U	368	ug/kg	121	368
87-86-5	Pentachlorophenol	U	368	ug/kg	92.0	368
129-00-0	Pyrene	U	36.8	ug/kg	11.0	36.8
110-86-1	Pyridine	U	368	ug/kg	73.6	368
62-53-3	Aniline	U	368	ug/kg	110	368
111-44-4	bis(2-Chloroethyl) ether	U	368	ug/kg	73.6	368
541-73-1	1,3-Dichlorobenzene	U	368	ug/kg	73.6	368
100-51-6	Benzyl alcohol	U	368	ug/kg	110	368
95-50-1	1,2-Dichlorobenzene	U	368	ug/kg	73.6	368
108-60-1	bis(2-Chloroisopropyl)ether	U	368	ug/kg	73.6	368
95-48-7	o-Cresol	U	368	ug/kg	73.6	368
65794-96-9	m,p-Cresols	U	368	ug/kg	110	368
67-72-1	Hexachloroethane	U	368	ug/kg	73.6	368
98-95-3	Nitrobenzene	U	368	ug/kg	73.6	368
78-59-1	Isophorone	U	368	ug/kg	73.6	368
88-75-5	2-Nitrophenol	U	368	ug/kg	73.6	368
105-67-9	2,4-Dimethylphenol	U	368	ug/kg	129	368
111-91-1	bis(2-Chloroethoxy)methane	U	368	ug/kg	73.6	368
120-83-2	2,4-Dichlorophenol	U	368	ug/kg	73.6	368
65-85-0	Benzoic acid	U	736	ug/kg	184	736
91-20-3	Naphthalene	U	36.8	ug/kg	11.0	36.8
106-47-8	4-Chloroaniline	U	368	ug/kg	73.6	368
87-68-3	Hexachlorobutadiene	U	368	ug/kg	73.6	368
91-57-6	2-Methylnaphthalene	U	36.8	ug/kg	7.36	36.8
77-47-4	Hexachlorocyclopentadiene	U	368	ug/kg	73.6	368
88-06-2	2,4,6-Trichlorophenol	U	368	ug/kg	73.6	368
95-95-4	2,4,5-Trichlorophenol	U	368	ug/kg	73.6	368
91-58-7	2-Chloronaphthalene	U	36.8	ug/kg	12.1	36.8
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	368	ug/kg	73.6	368
99-09-2	3-Nitroaniline	U	368	ug/kg	73.6	368

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242654004	**Date Received:**	12/10/2009 08:50	**%Moisture:**	9.5
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14226	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	932077	**Inst:**	MSD3.I	**Dilution:**	1
Run Date:	12/13/2009 17:13	**Analyst:**	JLD1	**Inj. Vol:**	.5 uL
Prep Date:	12/11/2009 21:55	**Aliquot:**	30.03 g	**Final Volume:**	1 mL
Data File:	s3l1320.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	368	ug/kg	73.6	368
606-20-2	2,6-Dinitrotoluene	U	368	ug/kg	36.8	368
208-96-8	Acenaphthylene	U	36.8	ug/kg	11.0	36.8
51-28-5	2,4-Dinitrophenol	U	736	ug/kg	140	736
132-64-9	Dibenzofuran	U	368	ug/kg	73.6	368
84-66-2	Diethylphthalate	U	368	ug/kg	73.6	368
86-73-7	Fluorene	U	36.8	ug/kg	11.0	36.8
7005-72-3	4-Chlorophenylphenylether	U	368	ug/kg	73.6	368
534-52-1	2-Methyl-4,6-dinitrophenol	U	368	ug/kg	73.6	368
100-01-6	4-Nitroaniline	U	368	ug/kg	110	368
	p-Nitroaniline					
122-39-4	Diphenylamine	U	368	ug/kg	73.6	368
122-66-7	Azobenzene	U	368	ug/kg	73.6	368
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	368	ug/kg	73.6	368
118-74-1	Hexachlorobenzene	U	368	ug/kg	73.6	368
85-01-8	Phenanthrene	U	36.8	ug/kg	11.0	36.8
120-12-7	Anthracene	U	36.8	ug/kg	7.36	36.8
84-74-2	Di-n-butylphthalate	U	368	ug/kg	73.6	368
206-44-0	Fluoranthene	U	36.8	ug/kg	11.0	36.8
85-68-7	Butylbenzylphthalate	U	368	ug/kg	73.6	368
56-55-3	Benzo(a)anthracene	U	36.8	ug/kg	11.0	36.8
91-94-1	3,3'-Dichlorobenzidine	U	368	ug/kg	110	368
218-01-9	Chrysene	U	36.8	ug/kg	11.0	36.8
117-81-7	bis(2-Ethylhexyl)phthalate	U	368	ug/kg	73.6	368
117-84-0	Di-n-octylphthalate	U	368	ug/kg	73.6	368
205-99-2	Benzo(b)fluoranthene	U	36.8	ug/kg	11.0	36.8
207-08-9	Benzo(k)fluoranthene	U	36.8	ug/kg	11.0	36.8
50-32-8	Benzo(a)pyrene	U	36.8	ug/kg	11.0	36.8
193-39-5	Indeno(1,2,3-cd)pyrene	U	36.8	ug/kg	11.0	36.8
53-70-3	Dibenzo(a,h)anthracene	U	36.8	ug/kg	11.0	36.8
191-24-2	Benzo(ghi)perylene	U	36.8	ug/kg	11.0	36.8
120-82-1	1,2,4-Trichlorobenzene	U	368	ug/kg	73.6	368

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.95	255	ug/kg		JA
475-20-7	1,4-Methanoazulene, decahydro-4,8,8-trim	6.99	288	ug/kg	98	NJ

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-852**	**Date Collected:**	**12/07/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242654004**	**Date Received:**	**12/10/2009 08:50**	**%Moisture:**	**9.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14226**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**932077**	**Inst:**	**MSD3.1**	**Dilution:**	**1**
Run Date:	**12/13/2009 17:13**	**Analyst:**	**JLD1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/11/2009 21:55**	**Aliquot:**	**30.03 g**	**Final Volume:**	**1 mL**
Data File:	**s311320.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	11.12	162	ug/kg		J
	Unknown	19.56	211	ug/kg		J

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	Date Collected:	12/07/2009 12:00	Matrix:	S
Lab Sample ID:	242654002	Date Received:	12/10/2009 08:50	%Moisture:	10.3
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14227	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	932077	Inst:	MSD3.I	Dilution:	1
Run Date:	12/13/2009 16:18	Analyst:	JLD1	Inj. Vol:	.5 uL
Prep Date:	12/11/2009 21:55	Aliquot:	30.03 g	Final Volume:	1 mL
Data File:	s3l1318.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	371	ug/kg	74.2	371
108-95-2	Phenol	U	371	ug/kg	74.2	371
95-57-8	2-Chlorophenol	U	371	ug/kg	74.2	371
106-46-7	1,4-Dichlorobenzene	U	371	ug/kg	74.2	371
621-64-7	N-Nitrosodipropylamine	U	371	ug/kg	74.2	371
59-50-7	4-Chloro-3-methylphenol	U	371	ug/kg	74.2	371
83-32-9	Acenaphthene	U	37.1	ug/kg	12.2	37.1
121-14-2	2,4-Dinitrotoluene	U	371	ug/kg	37.1	371
100-02-7	4-Nitrophenol	U	371	ug/kg	122	371
87-86-5	Pentachlorophenol	U	371	ug/kg	92.8	371
129-00-0	Pyrene	U	37.1	ug/kg	11.1	37.1
110-86-1	Pyridine	U	371	ug/kg	74.2	371
62-53-3	Aniline	U	371	ug/kg	111	371
111-44-4	bis(2-Chloroethyl) ether	U	371	ug/kg	74.2	371
541-73-1	1,3-Dichlorobenzene	U	371	ug/kg	74.2	371
100-51-6	Benzyl alcohol	U	371	ug/kg	111	371
95-50-1	1,2-Dichlorobenzene	U	371	ug/kg	74.2	371
108-60-1	bis(2-Chloroisopropyl)ether	U	371	ug/kg	74.2	371
95-48-7	o-Cresol	U	371	ug/kg	74.2	371
65794-96-9	m,p-Cresols	U	371	ug/kg	111	371
67-72-1	Hexachloroethane	U	371	ug/kg	74.2	371
98-95-3	Nitrobenzene	U	371	ug/kg	74.2	371
78-59-1	Isophorone	U	371	ug/kg	74.2	371
88-75-5	2-Nitrophenol	U	371	ug/kg	74.2	371
105-67-9	2,4-Dimethylphenol	U	371	ug/kg	130	371
111-91-1	bis(2-Chloroethoxy)methane	U	371	ug/kg	74.2	371
120-83-2	2,4-Dichlorophenol	U	371	ug/kg	74.2	371
65-85-0	Benzoic acid	U	742	ug/kg	186	742
91-20-3	Naphthalene	U	37.1	ug/kg	11.1	37.1
106-47-8	4-Chloroaniline	U	371	ug/kg	74.2	371
87-68-3	Hexachlorobutadiene	U	371	ug/kg	74.2	371
91-57-6	2-Methylnaphthalene	U	37.1	ug/kg	7.42	37.1
77-47-4	Hexachlorocyclopentadiene	U	371	ug/kg	74.2	371
88-06-2	2,4,6-Trichlorophenol	U	371	ug/kg	74.2	371
95-95-4	2,4,5-Trichlorophenol	U	371	ug/kg	74.2	371
91-58-7	2-Chloronaphthalene	U	37.1	ug/kg	12.2	37.1
88-74-4	2-Nitroaniline	U	371	ug/kg	74.2	371
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	371	ug/kg	74.2	371

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242654002	**Date Received:**	12/10/2009 08:50	**%Moisture:**	10.3
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14227	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	932077	**Inst:**	MSD3.I	**Dilution:**	1
Run Date:	12/13/2009 16:18	**Analyst:**	JLD1	**Inj. Vol:**	.5 uL
Prep Date:	12/11/2009 21:55	**Aliquot:**	30.03 g	**Final Volume:**	1 mL
Data File:	s3l1318.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	371	ug/kg	74.2	371
606-20-2	2,6-Dinitrotoluene	U	371	ug/kg	37.1	371
208-96-8	Acenaphthylene	U	37.1	ug/kg	11.1	37.1
51-28-5	2,4-Dinitrophenol	U	742	ug/kg	141	742
132-64-9	Dibenzofuran	U	371	ug/kg	74.2	371
84-66-2	Diethylphthalate	U	371	ug/kg	74.2	371
86-73-7	Fluorene	U	37.1	ug/kg	11.1	37.1
7005-72-3	4-Chlorophenylphenylether	U	371	ug/kg	74.2	371
534-52-1	2-Methyl-4,6-dinitrophenol	U	371	ug/kg	74.2	371
100-01-6	4-Nitroaniline	U	371	ug/kg	111	371
	p-Nitroaniline					
122-39-4	Diphenylamine	U	371	ug/kg	74.2	371
122-66-7	Azobenzene	U	371	ug/kg	74.2	371
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	371	ug/kg	74.2	371
118-74-1	Hexachlorobenzene	U	371	ug/kg	74.2	371
85-01-8	Phenanthrene	U	37.1	ug/kg	11.1	37.1
120-12-7	Anthracene	U	37.1	ug/kg	7.42	37.1
84-74-2	Di-n-butylphthalate	U	371	ug/kg	74.2	371
206-44-0	Fluoranthene	U	37.1	ug/kg	11.1	37.1
85-68-7	Butylbenzylphthalate	U	371	ug/kg	74.2	371
56-55-3	Benzo(a)anthracene	U	37.1	ug/kg	11.1	37.1
91-94-1	3,3'-Dichlorobenzidine	U	371	ug/kg	111	371
218-01-9	Chrysene	U	37.1	ug/kg	11.1	37.1
117-81-7	bis(2-Ethylhexyl)phthalate	U	371	ug/kg	74.2	371
117-84-0	Di-n-octylphthalate	U	371	ug/kg	74.2	371
205-99-2	Benzo(b)fluoranthene	U	37.1	ug/kg	11.1	37.1
207-08-9	Benzo(k)fluoranthene	U	37.1	ug/kg	11.1	37.1
50-32-8	Benzo(a)pyrene	U	37.1	ug/kg	11.1	37.1
193-39-5	Indeno(1,2,3-cd)pyrene	U	37.1	ug/kg	11.1	37.1
53-70-3	Dibenzo(a,h)anthracene	U	37.1	ug/kg	11.1	37.1
191-24-2	Benzo(ghi)perylene	U	37.1	ug/kg	11.1	37.1
120-82-1	1,2,4-Trichlorobenzene	U	371	ug/kg	74.2	371

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.95	299	ug/kg		JA

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-852**	**Date Collected:**	**12/07/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242654008**	**Date Received:**	**12/10/2009 08:50**	**%Moisture:**	**13**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14265**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**932077**	**Inst:**	**MSD3.I**	**Dilution:**	**4**
Run Date:	**12/13/2009 19:02**	**Analyst:**	**JLD1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/11/2009 21:55**	**Aliquot:**	**30.08 g**	**Final Volume:**	**1 mL**
Data File:	**s3l1324.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	1530	ug/kg	306	1530
108-95-2	Phenol	U	1530	ug/kg	306	1530
95-57-8	2-Chlorophenol	U	1530	ug/kg	306	1530
106-46-7	1,4-Dichlorobenzene	U	1530	ug/kg	306	1530
621-64-7	N-Nitrosodipropylamine	U	1530	ug/kg	306	1530
59-50-7	4-Chloro-3-methylphenol	U	1530	ug/kg	306	1530
83-32-9	Acenaphthene	U	153	ug/kg	50.5	153
121-14-2	2,4-Dinitrotoluene	U	1530	ug/kg	153	1530
100-02-7	4-Nitrophenol	U	1530	ug/kg	505	1530
87-86-5	Pentachlorophenol	U	1530	ug/kg	382	1530
129-00-0	Pyrene	U	153	ug/kg	45.9	153
110-86-1	Pyridine	U	1530	ug/kg	306	1530
62-53-3	Aniline	U	1530	ug/kg	459	1530
111-44-4	bis(2-Chloroethyl) ether	U	1530	ug/kg	306	1530
541-73-1	1,3-Dichlorobenzene	U	1530	ug/kg	306	1530
100-51-6	Benzyl alcohol	U	1530	ug/kg	459	1530
95-50-1	1,2-Dichlorobenzene	U	1530	ug/kg	306	1530
108-60-1	bis(2-Chloroisopropyl)ether	U	1530	ug/kg	306	1530
95-48-7	o-Cresol	U	1530	ug/kg	306	1530
65794-96-9	m,p-Cresols	U	1530	ug/kg	459	1530
67-72-1	Hexachloroethane	U	1530	ug/kg	306	1530
98-95-3	Nitrobenzene	U	1530	ug/kg	306	1530
78-59-1	Isophorone	U	1530	ug/kg	306	1530
88-75-5	2-Nitrophenol	U	1530	ug/kg	306	1530
105-67-9	2,4-Dimethylphenol	U	1530	ug/kg	535	1530
111-91-1	bis(2-Chloroethoxy)methane	U	1530	ug/kg	306	1530
120-83-2	2,4-Dichlorophenol	U	1530	ug/kg	306	1530
65-85-0	Benzoic acid	U	3060	ug/kg	765	3060
91-20-3	Naphthalene	U	153	ug/kg	45.9	153
106-47-8	4-Chloroaniline	U	1530	ug/kg	306	1530
87-68-3	Hexachlorobutadiene	U	1530	ug/kg	306	1530
91-57-6	2-Methylnaphthalene	U	153	ug/kg	30.6	153
77-47-4	Hexachlorocyclopentadiene	U	1530	ug/kg	306	1530
88-06-2	2,4,6-Trichlorophenol	U	1530	ug/kg	306	1530
95-95-4	2,4,5-Trichlorophenol	U	1530	ug/kg	306	1530
91-58-7	2-Chloronaphthalene	U	153	ug/kg	50.5	153
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	1530	ug/kg	306	1530
99-09-2	3-Nitroaniline	U	1530	ug/kg	306	1530

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-852**	**Date Collected:**	**12/07/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242654008**	**Date Received:**	**12/10/2009 08:50**	**%Moisture:**	**13**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14265**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**932077**	**Inst:**	**MSD3.I**	**Dilution:**	**4**
Run Date:	**12/13/2009 19:02**	**Analyst:**	**JLD1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/11/2009 21:55**	**Aliquot:**	**30.08 g**	**Final Volume:**	**1 mL**
Data File:	**s311324.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	1530	ug/kg	306	1530
606-20-2	2,6-Dinitrotoluene	U	1530	ug/kg	153	1530
208-96-8	Acenaphthylene	U	153	ug/kg	45.9	153
51-28-5	2,4-Dinitrophenol	U	3060	ug/kg	581	3060
132-64-9	Dibenzofuran	U	1530	ug/kg	306	1530
84-66-2	Diethylphthalate	U	1530	ug/kg	306	1530
86-73-7	Fluorene	U	153	ug/kg	45.9	153
7005-72-3	4-Chlorophenylphenylether	U	1530	ug/kg	306	1530
534-52-1	2-Methyl-4,6-dinitrophenol	U	1530	ug/kg	306	1530
100-01-6	4-Nitroaniline	U	1530	ug/kg	459	1530
	p-Nitroaniline					
122-39-4	Diphenylamine	U	1530	ug/kg	306	1530
122-66-7	Azobenzene	U	1530	ug/kg	306	1530
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	1530	ug/kg	306	1530
118-74-1	Hexachlorobenzene	U	1530	ug/kg	306	1530
85-01-8	Phenanthrene	U	153	ug/kg	45.9	153
120-12-7	Anthracene	U	153	ug/kg	30.6	153
84-74-2	Di-n-butylphthalate	U	1530	ug/kg	306	1530
206-44-0	Fluoranthene	U	153	ug/kg	45.9	153
85-68-7	Butylbenzylphthalate	U	1530	ug/kg	306	1530
56-55-3	Benzo(a)anthracene	U	153	ug/kg	45.9	153
91-94-1	3,3'-Dichlorobenzidine	U	1530	ug/kg	459	1530
218-01-9	Chrysene	U	153	ug/kg	45.9	153
117-81-7	bis(2-Ethylhexyl)phthalate	U	1530	ug/kg	306	1530
117-84-0	Di-n-octylphthalate	U	1530	ug/kg	306	1530
205-99-2	Benzo(b)fluoranthene	U	153	ug/kg	45.9	153
207-08-9	Benzo(k)fluoranthene	U	153	ug/kg	45.9	153
50-32-8	Benzo(a)pyrene	U	153	ug/kg	45.9	153
193-39-5	Indeno(1,2,3-cd)pyrene	U	153	ug/kg	45.9	153
53-70-3	Dibenzo(a,h)anthracene	U	153	ug/kg	45.9	153
191-24-2	Benzo(ghi)perylene	U	153	ug/kg	45.9	153
120-82-1	1,2,4-Trichlorobenzene	U	1530	ug/kg	306	1530

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	No Tentatively Identified Compounds Found			ug/kg		

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	Date Collected:	12/07/2009 12:00	Matrix:	S
Lab Sample ID:	242654007	Date Received:	12/10/2009 08:50	%Moisture:	14.2
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14267	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	932077	Inst:	MSD3.I	Dilution:	1
Run Date:	12/13/2009 18:35	Analyst:	JLD1	Inj. Vol:	.5 uL
Prep Date:	12/11/2009 21:55	Aliquot:	30.19 g	Final Volume:	1 mL
Data File:	s3l1323.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	386	ug/kg	77.2	386
108-95-2	Phenol	U	386	ug/kg	77.2	386
95-57-8	2-Chlorophenol	U	386	ug/kg	77.2	386
106-46-7	1,4-Dichlorobenzene	U	386	ug/kg	77.2	386
621-64-7	N-Nitrosodipropylamine	U	386	ug/kg	77.2	386
59-50-7	4-Chloro-3-methylphenol	U	386	ug/kg	77.2	386
83-32-9	Acenaphthene	U	38.6	ug/kg	12.7	38.6
121-14-2	2,4-Dinitrotoluene	U	386	ug/kg	38.6	386
100-02-7	4-Nitrophenol	U	386	ug/kg	127	386
87-86-5	Pentachlorophenol	U	386	ug/kg	96.5	386
129-00-0	Pyrene		57.6	ug/kg	11.6	38.6
110-86-1	Pyridine	U	386	ug/kg	77.2	386
62-53-3	Aniline	U	386	ug/kg	116	386
111-44-4	bis(2-Chloroethyl) ether	U	386	ug/kg	77.2	386
541-73-1	1,3-Dichlorobenzene	U	386	ug/kg	77.2	386
100-51-6	Benzyl alcohol	U	386	ug/kg	116	386
95-50-1	1,2-Dichlorobenzene	U	386	ug/kg	77.2	386
108-60-1	bis(2-Chloroisopropyl)ether	U	386	ug/kg	77.2	386
95-48-7	o-Cresol	U	386	ug/kg	77.2	386
65794-96-9	m,p-Cresols	U	386	ug/kg	116	386
67-72-1	Hexachloroethane	U	386	ug/kg	77.2	386
98-95-3	Nitrobenzene	U	386	ug/kg	77.2	386
78-59-1	Isophorone	U	386	ug/kg	77.2	386
88-75-5	2-Nitrophenol	U	386	ug/kg	77.2	386
105-67-9	2,4-Dimethylphenol	U	386	ug/kg	135	386
111-91-1	bis(2-Chloroethoxy)methane	U	386	ug/kg	77.2	386
120-83-2	2,4-Dichlorophenol	U	386	ug/kg	77.2	386
65-85-0	Benzoic acid	U	772	ug/kg	193	772
91-20-3	Naphthalene	U	38.6	ug/kg	11.6	38.6
106-47-8	4-Chloroaniline	U	386	ug/kg	77.2	386
87-68-3	Hexachlorobutadiene	U	386	ug/kg	77.2	386
91-57-6	2-Methylnaphthalene	U	38.6	ug/kg	7.72	38.6
77-47-4	Hexachlorocyclopentadiene	U	386	ug/kg	77.2	386
88-06-2	2,4,6-Trichlorophenol	U	386	ug/kg	77.2	386
95-95-4	2,4,5-Trichlorophenol	U	386	ug/kg	77.2	386
91-58-7	2-Chloronaphthalene	U	38.6	ug/kg	12.7	38.6
88-74-4	2-Nitroaniline	U	386	ug/kg	77.2	386
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	386	ug/kg	77.2	386

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242654007	**Date Received:**	12/10/2009 08:50	**%Moisture:**	14.2
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14267	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	932077	**Inst:**	MSD3.I	**Dilution:**	1
Run Date:	12/13/2009 18:35	**Analyst:**	JLD1	**Inj. Vol:**	5 uL
Prep Date:	12/11/2009 21:55	**Aliquot:**	30.19 g	**Final Volume:**	1 mL
Data File:	s311323.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	386	ug/kg	77.2	386
606-20-2	2,6-Dinitrotoluene	U	386	ug/kg	38.6	386
208-96-8	Acenaphthylene	U	38.6	ug/kg	11.6	38.6
51-28-5	2,4-Dinitrophenol	U	772	ug/kg	147	772
132-64-9	Dibenzofuran	U	386	ug/kg	77.2	386
84-66-2	Diethylphthalate	U	386	ug/kg	77.2	386
86-73-7	Fluorene	U	38.6	ug/kg	11.6	38.6
7005-72-3	4-Chlorophenylphenylether	U	386	ug/kg	77.2	386
534-52-1	2-Methyl-4,6-dinitrophenol	U	386	ug/kg	77.2	386
100-01-6	4-Nitroaniline	U	386	ug/kg	116	386
	p-Nitroaniline					
122-39-4	Diphenylamine	U	386	ug/kg	77.2	386
122-66-7	Azobenzene	U	386	ug/kg	77.2	386
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	386	ug/kg	77.2	386
118-74-1	Hexachlorobenzene	U	386	ug/kg	77.2	386
85-01-8	Phenanthrene	U	38.6	ug/kg	11.6	38.6
120-12-7	Anthracene	U	38.6	ug/kg	7.72	38.6
84-74-2	Di-n-butylphthalate	U	386	ug/kg	77.2	386
206-44-0	Fluoranthene		42.2	ug/kg	11.6	38.6
85-68-7	Butylbenzylphthalate	U	386	ug/kg	77.2	386
56-55-3	Benzo(a)anthracene	J	31.3	ug/kg	11.6	38.6
91-94-1	3,3'-Dichlorobenzidine	U	386	ug/kg	116	386
218-01-9	Chrysene		46.8	ug/kg	11.6	38.6
117-81-7	bis(2-Ethylhexyl)phthalate	J	81.2	ug/kg	77.2	386
117-84-0	Di-n-octylphthalate	U	386	ug/kg	77.2	386
205-99-2	Benzo(b)fluoranthene		51.7	ug/kg	11.6	38.6
207-08-9	Benzo(k)fluoranthene	U	38.6	ug/kg	11.6	38.6
50-32-8	Benzo(a)pyrene	J	33.4	ug/kg	11.6	38.6
193-39-5	Indeno(1,2,3-cd)pyrene	J	26.9	ug/kg	11.6	38.6
53-70-3	Dibenzo(a,h)anthracene	U	38.6	ug/kg	11.6	38.6
191-24-2	Benzo(ghi)perylene	J	34.1	ug/kg	11.6	38.6
120-82-1	1,2,4-Trichlorobenzene	U	386	ug/kg	77.2	386

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.95	337	ug/kg		JA
301-02-0	9-Octadecenamide, (Z)-	11.21	186	ug/kg	93	NJ

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	Date Collected:	12/07/2009 12:00	Matrix:	S
Lab Sample ID:	242654007	Date Received:	12/10/2009 08:50	%Moisture:	14.2
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14267	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	932077	Inst:	MSD3.1	Dilution:	1
Run Date:	12/13/2009 18:35	Analyst:	JLD1	Inj. Vol:	.5 uL
Prep Date:	12/11/2009 21:55	Aliquot:	30.19 g	Final Volume:	1 mL
Data File:	s311323.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	14.7	190	ug/kg		J
	Unknown	15.21	168	ug/kg		J

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242654014	**Date Received:**	12/10/2009 08:50	**%Moisture:**	10.7
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14269	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	932077	**Inst:**	MSD3.I	**Dilution:**	1
Run Date:	12/15/2009 10:34	**Analyst:**	JLD1	**Inj. Vol:**	.5 uL
Prep Date:	12/11/2009 21:55	**Aliquot:**	30.02 g	**Final Volume:**	1 mL
Data File:	s3l1507.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	373	ug/kg	74.6	373
108-95-2	Phenol	U	373	ug/kg	74.6	373
95-57-8	2-Chlorophenol	U	373	ug/kg	74.6	373
106-46-7	1,4-Dichlorobenzene	U	373	ug/kg	74.6	373
621-64-7	N-Nitrosodipropylamine	U	373	ug/kg	74.6	373
59-50-7	4-Chloro-3-methylphenol	U	373	ug/kg	74.6	373
83-32-9	Acenaphthene	U	37.3	ug/kg	12.3	37.3
121-14-2	2,4-Dinitrotoluene	U	373	ug/kg	37.3	373
100-02-7	4-Nitrophenol	U	373	ug/kg	123	373
87-86-5	Pentachlorophenol	U	373	ug/kg	93.2	373
129-00-0	Pyrene	U	37.3	ug/kg	11.2	37.3
110-86-1	Pyridine	U	373	ug/kg	74.6	373
62-53-3	Aniline	U	373	ug/kg	112	373
111-44-4	bis(2-Chloroethyl) ether	U	373	ug/kg	74.6	373
541-73-1	1,3-Dichlorobenzene	U	373	ug/kg	74.6	373
100-51-6	Benzyl alcohol	U	373	ug/kg	112	373
95-50-1	1,2-Dichlorobenzene	U	373	ug/kg	74.6	373
108-60-1	bis(2-Chloroisopropyl)ether	U	373	ug/kg	74.6	373
95-48-7	o-Cresol	U	373	ug/kg	74.6	373
65794-96-9	m,p-Cresols	U	373	ug/kg	112	373
67-72-1	Hexachloroethane	U	373	ug/kg	74.6	373
98-95-3	Nitrobenzene	U	373	ug/kg	74.6	373
78-59-1	Isophorone	U	373	ug/kg	74.6	373
88-75-5	2-Nitrophenol	U	373	ug/kg	74.6	373
105-67-9	2,4-Dimethylphenol	U	373	ug/kg	131	373
111-91-1	bis(2-Chloroethoxy)methane	U	373	ug/kg	74.6	373
120-83-2	2,4-Dichlorophenol	U	373	ug/kg	74.6	373
65-85-0	Benzoic acid	U	746	ug/kg	186	746
91-20-3	Naphthalene	U	37.3	ug/kg	11.2	37.3
106-47-8	4-Chloroaniline	U	373	ug/kg	74.6	373
87-68-3	Hexachlorobutadiene	U	373	ug/kg	74.6	373
91-57-6	2-Methylnaphthalene	U	37.3	ug/kg	7.46	37.3
77-47-4	Hexachlorocyclopentadiene	U	373	ug/kg	74.6	373
88-06-2	2,4,6-Trichlorophenol	U	373	ug/kg	74.6	373
95-95-4	2,4,5-Trichlorophenol	U	373	ug/kg	74.6	373
91-58-7	2-Chloronaphthalene	U	37.3	ug/kg	12.3	37.3
88-74-4	2-Nitroaniline	U	373	ug/kg	74.6	373
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	373	ug/kg	74.6	373

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242654014	**Date Received:**	12/10/2009 08:50	**%Moisture:**	10.7
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14269	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	932077	**Inst:**	MSD3.I	**Dilution:**	1
Run Date:	12/15/2009 10:34	**Analyst:**	JLD1	**Inj. Vol:**	.5 uL
Prep Date:	12/11/2009 21:55	**Aliquot:**	30.02 g	**Final Volume:**	1 mL
Data File:	s311507.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	373	ug/kg	74.6	373
606-20-2	2,6-Dinitrotoluene	U	373	ug/kg	37.3	373
208-96-8	Acenaphthylene	U	37.3	ug/kg	11.2	37.3
51-28-5	2,4-Dinitrophenol	U	746	ug/kg	142	746
132-64-9	Dibenzofuran	U	373	ug/kg	74.6	373
84-66-2	Diethylphthalate	U	373	ug/kg	74.6	373
86-73-7	Fluorene	U	37.3	ug/kg	11.2	37.3
7005-72-3	4-Chlorophenylphenylether	U	373	ug/kg	74.6	373
534-52-1	2-Methyl-4,6-dinitrophenol	U	373	ug/kg	74.6	373
100-01-6	4-Nitroaniline	U	373	ug/kg	112	373
	p-Nitroaniline					
122-39-4	Diphenylamine	U	373	ug/kg	74.6	373
122-66-7	Azobenzene	U	373	ug/kg	74.6	373
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	373	ug/kg	74.6	373
118-74-1	Hexachlorobenzene	U	373	ug/kg	74.6	373
85-01-8	Phenanthrene	U	37.3	ug/kg	11.2	37.3
120-12-7	Anthracene	U	37.3	ug/kg	7.46	37.3
84-74-2	Di-n-butylphthalate	U	373	ug/kg	74.6	373
206-44-0	Fluoranthene	U	37.3	ug/kg	11.2	37.3
85-68-7	Butylbenzylphthalate	U	373	ug/kg	74.6	373
56-55-3	Benzo(a)anthracene	U	37.3	ug/kg	11.2	37.3
91-94-1	3,3'-Dichlorobenzidine	U	373	ug/kg	112	373
218-01-9	Chrysene	U	37.3	ug/kg	11.2	37.3
117-81-7	bis(2-Ethylhexyl)phthalate	U	373	ug/kg	74.6	373
117-84-0	Di-n-octylphthalate	U	373	ug/kg	74.6	373
205-99-2	Benzo(b)fluoranthene	U	37.3	ug/kg	11.2	37.3
207-08-9	Benzo(k)fluoranthene	U	37.3	ug/kg	11.2	37.3
50-32-8	Benzo(a)pyrene	U	37.3	ug/kg	11.2	37.3
193-39-5	Indeno(1,2,3-cd)pyrene	U	37.3	ug/kg	11.2	37.3
53-70-3	Dibenzo(a,h)anthracene	U	37.3	ug/kg	11.2	37.3
191-24-2	Benzo(ghi)perylene	U	37.3	ug/kg	11.2	37.3
120-82-1	1,2,4-Trichlorobenzene	U	373	ug/kg	74.6	373

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	1.91	162	ug/kg		J
	Unknown Aldol Condensate	2.91	320	ug/kg		JA

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242654014	**Date Received:**	12/10/2009 08:50	**%Moisture:**	10.7
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14269	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	932077	**Inst:**	MSD3.1	**Dilution:**	1
Run Date:	12/15/2009 10:34	**Analyst:**	JLD1	**Inj. Vol:**	.5 uL
Prep Date:	12/11/2009 21:55	**Aliquot:**	30.02 g	**Final Volume:**	1 mL
Data File:	s311507.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
120-08-1	2H-1-Benzopyran-2-one, 6,7-dimethoxy-	9.69	359	ug/kg	98	NJ
	Unknown	14.63	164	ug/kg		J

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	Date Collected:	12/07/2009 12:00	Matrix:	S
Lab Sample ID:	242654016	Date Received:	12/10/2009 08:50	%Moisture:	13.4
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14271	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	932077	Inst:	MSD3.I	Dilution:	1
Run Date:	12/13/2009 22:42	Analyst:	JLD1	Inj. Vol:	.5 uL
Prep Date:	12/11/2009 21:55	Aliquot:	30.12 g	Final Volume:	1 mL
Data File:	s3l1332.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	384	ug/kg	76.7	384
108-95-2	Phenol	U	384	ug/kg	76.7	384
95-57-8	2-Chlorophenol	U	384	ug/kg	76.7	384
106-46-7	1,4-Dichlorobenzene	U	384	ug/kg	76.7	384
621-64-7	N-Nitrosodipropylamine	U	384	ug/kg	76.7	384
59-50-7	4-Chloro-3-methylphenol	U	384	ug/kg	76.7	384
83-32-9	Acenaphthene	U	38.4	ug/kg	12.7	38.4
121-14-2	2,4-Dinitrotoluene	U	384	ug/kg	38.4	384
100-02-7	4-Nitrophenol	U	384	ug/kg	127	384
87-86-5	Pentachlorophenol	U	384	ug/kg	95.9	384
129-00-0	Pyrene	U	38.4	ug/kg	11.5	38.4
110-86-1	Pyridine	U	384	ug/kg	76.7	384
62-53-3	Aniline	U	384	ug/kg	115	384
111-44-4	bis(2-Chloroethyl) ether	U	384	ug/kg	76.7	384
541-73-1	1,3-Dichlorobenzene	U	384	ug/kg	76.7	384
100-51-6	Benzyl alcohol	U	384	ug/kg	115	384
95-50-1	1,2-Dichlorobenzene	U	384	ug/kg	76.7	384
108-60-1	bis(2-Chloroisopropyl)ether	U	384	ug/kg	76.7	384
95-48-7	o-Cresol	U	384	ug/kg	76.7	384
65794-96-9	m,p-Cresols	U	384	ug/kg	115	384
67-72-1	Hexachloroethane	U	384	ug/kg	76.7	384
98-95-3	Nitrobenzene	U	384	ug/kg	76.7	384
78-59-1	Isophorone	U	384	ug/kg	76.7	384
88-75-5	2-Nitrophenol	U	384	ug/kg	76.7	384
105-67-9	2,4-Dimethylphenol	U	384	ug/kg	134	384
111-91-1	bis(2-Chloroethoxy)methane	U	384	ug/kg	76.7	384
120-83-2	2,4-Dichlorophenol	U	384	ug/kg	76.7	384
65-85-0	Benzoic acid	U	767	ug/kg	192	767
91-20-3	Naphthalene	U	38.4	ug/kg	11.5	38.4
106-47-8	4-Chloroaniline	U	384	ug/kg	76.7	384
87-68-3	Hexachlorobutadiene	U	384	ug/kg	76.7	384
91-57-6	2-Methylnaphthalene	U	38.4	ug/kg	7.67	38.4
77-47-4	Hexachlorocyclopentadiene	U	384	ug/kg	76.7	384
88-06-2	2,4,6-Trichlorophenol	U	384	ug/kg	76.7	384
95-95-4	2,4,5-Trichlorophenol	U	384	ug/kg	76.7	384
91-58-7	2-Chloronaphthalene	U	38.4	ug/kg	12.7	38.4
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	384	ug/kg	76.7	384
99-09-2	3-Nitroaniline	U	384	ug/kg	76.7	384

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242654016	**Date Received:**	12/10/2009 08:50	**%Moisture:**	13.4
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14271	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	932077	**Inst:**	MSD3.I	**Dilution:**	1
Run Date:	12/13/2009 22:42	**Analyst:**	JLD1	**Inj. Vol:**	.5 uL
Prep Date:	12/11/2009 21:55	**Aliquot:**	30.12 g	**Final Volume:**	1 mL
Data File:	s3I1332.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	384	ug/kg	76.7	384
606-20-2	2,6-Dinitrotoluene	U	384	ug/kg	38.4	384
208-96-8	Acenaphthylene	U	38.4	ug/kg	11.5	38.4
51-28-5	2,4-Dinitrophenol	U	767	ug/kg	146	767
132-64-9	Dibenzofuran	U	384	ug/kg	76.7	384
84-66-2	Diethylphthalate	U	384	ug/kg	76.7	384
86-73-7	Fluorene	U	38.4	ug/kg	11.5	38.4
7005-72-3	4-Chlorophenylphenylether	U	384	ug/kg	76.7	384
534-52-1	2-Methyl-4,6-dinitrophenol	U	384	ug/kg	76.7	384
100-01-6	4-Nitroaniline	U	384	ug/kg	115	384
	p-Nitroaniline					
122-39-4	Diphenylamine	U	384	ug/kg	76.7	384
122-66-7	Azobenzene	U	384	ug/kg	76.7	384
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	384	ug/kg	76.7	384
118-74-1	Hexachlorobenzene	U	384	ug/kg	76.7	384
85-01-8	Phenanthrene	U	38.4	ug/kg	11.5	38.4
120-12-7	Anthracene	U	38.4	ug/kg	7.67	38.4
84-74-2	Di-n-butylphthalate	U	384	ug/kg	76.7	384
206-44-0	Fluoranthene	U	38.4	ug/kg	11.5	38.4
85-68-7	Butylbenzylphthalate	U	384	ug/kg	76.7	384
56-55-3	Benzo(a)anthracene	U	38.4	ug/kg	11.5	38.4
91-94-1	3,3'-Dichlorobenzidine	U	384	ug/kg	115	384
218-01-9	Chrysene	U	38.4	ug/kg	11.5	38.4
117-81-7	bis(2-Ethylhexyl)phthalate	U	384	ug/kg	76.7	384
117-84-0	Di-n-octylphthalate	U	384	ug/kg	76.7	384
205-99-2	Benzo(b)fluoranthene	U	38.4	ug/kg	11.5	38.4
207-08-9	Benzo(k)fluoranthene	U	38.4	ug/kg	11.5	38.4
50-32-8	Benzo(a)pyrene	U	38.4	ug/kg	11.5	38.4
193-39-5	Indeno(1,2,3-cd)pyrene	U	38.4	ug/kg	11.5	38.4
53-70-3	Dibenzo(a,h)anthracene	U	38.4	ug/kg	11.5	38.4
191-24-2	Benzo(ghi)perylene	U	38.4	ug/kg	11.5	38.4
120-82-1	1,2,4-Trichlorobenzene	U	384	ug/kg	76.7	384

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.94	265	ug/kg		JA

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242654015	**Date Received:**	12/10/2009 08:50	**%Moisture:**	10.3
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14273	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	932077	**Inst:**	MSD3.I	**Dilution:**	1
Run Date:	12/15/2009 11:01	**Analyst:**	JLD1	**Inj. Vol:**	.5 uL
Prep Date:	12/11/2009 21:55	**Aliquot:**	30.01 g	**Final Volume:**	1 mL
Data File:	s311508.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	372	ug/kg	74.3	372
108-95-2	Phenol	U	372	ug/kg	74.3	372
95-57-8	2-Chlorophenol	U	372	ug/kg	74.3	372
106-46-7	1,4-Dichlorobenzene	U	372	ug/kg	74.3	372
621-64-7	N-Nitrosodipropylamine	U	372	ug/kg	74.3	372
59-50-7	4-Chloro-3-methylphenol	U	372	ug/kg	74.3	372
83-32-9	Acenaphthene	U	37.2	ug/kg	12.3	37.2
121-14-2	2,4-Dinitrotoluene	U	372	ug/kg	37.2	372
100-02-7	4-Nitrophenol	U	372	ug/kg	123	372
87-86-5	Pentachlorophenol	U	372	ug/kg	92.9	372
129-00-0	Pyrene	J	22.8	ug/kg	11.1	37.2
110-86-1	Pyridine	U	372	ug/kg	74.3	372
62-53-3	Aniline	U	372	ug/kg	111	372
111-44-4	bis(2-Chloroethyl) ether	U	372	ug/kg	74.3	372
541-73-1	1,3-Dichlorobenzene	U	372	ug/kg	74.3	372
100-51-6	Benzyl alcohol	U	372	ug/kg	111	372
95-50-1	1,2-Dichlorobenzene	U	372	ug/kg	74.3	372
108-60-1	bis(2-Chloroisopropyl)ether	U	372	ug/kg	74.3	372
95-48-7	o-Cresol	U	372	ug/kg	74.3	372
65794-96-9	m,p-Cresols	U	372	ug/kg	111	372
67-72-1	Hexachloroethane	U	372	ug/kg	74.3	372
98-95-3	Nitrobenzene	U	372	ug/kg	74.3	372
78-59-1	Isophorone	U	372	ug/kg	74.3	372
88-75-5	2-Nitrophenol	U	372	ug/kg	74.3	372
105-67-9	2,4-Dimethylphenol	U	372	ug/kg	130	372
111-91-1	bis(2-Chloroethoxy)methane	U	372	ug/kg	74.3	372
120-83-2	2,4-Dichlorophenol	U	372	ug/kg	74.3	372
65-85-0	Benzoic acid	U	743	ug/kg	186	743
91-20-3	Naphthalene	U	37.2	ug/kg	11.1	37.2
106-47-8	4-Chloroaniline	U	372	ug/kg	74.3	372
87-68-3	Hexachlorobutadiene	U	372	ug/kg	74.3	372
91-57-6	2-Methylnaphthalene	U	37.2	ug/kg	7.43	37.2
77-47-4	Hexachlorocyclopentadiene	U	372	ug/kg	74.3	372
88-06-2	2,4,6-Trichlorophenol	U	372	ug/kg	74.3	372
95-95-4	2,4,5-Trichlorophenol	U	372	ug/kg	74.3	372
91-58-7	2-Chloronaphthalene	U	37.2	ug/kg	12.3	37.2
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	372	ug/kg	74.3	372
99-09-2	3-Nitroaniline	U	372	ug/kg	74.3	372

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242654015	**Date Received:**	12/10/2009 08:50	**%Moisture:**	10.3
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14273	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	932077	**Inst:**	MSD3.I	**Dilution:**	1
Run Date:	12/15/2009 11:01	**Analyst:**	JLD1	**Inj. Vol:**	.5 uL
Prep Date:	12/11/2009 21:55	**Aliquot:**	30.01 g	**Final Volume:**	1 mL
Data File:	s311508.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	372	ug/kg	74.3	372
606-20-2	2,6-Dinitrotoluene	U	372	ug/kg	37.2	372
208-96-8	Acenaphthylene	U	37.2	ug/kg	11.1	37.2
51-28-5	2,4-Dinitrophenol	U	743	ug/kg	141	743
132-64-9	Dibenzofuran	U	372	ug/kg	74.3	372
84-66-2	Diethylphthalate	U	372	ug/kg	74.3	372
86-73-7	Fluorene	U	37.2	ug/kg	11.1	37.2
7005-72-3	4-Chlorophenylphenylether	U	372	ug/kg	74.3	372
534-52-1	2-Methyl-4,6-dinitrophenol	U	372	ug/kg	74.3	372
100-01-6	4-Nitroaniline	U	372	ug/kg	111	372
	p-Nitroaniline					
122-39-4	Diphenylamine	U	372	ug/kg	74.3	372
122-66-7	Azobenzene	U	372	ug/kg	74.3	372
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	372	ug/kg	74.3	372
118-74-1	Hexachlorobenzene	U	372	ug/kg	74.3	372
85-01-8	Phenanthrene	J	11.8	ug/kg	11.1	37.2
120-12-7	Anthracene	U	37.2	ug/kg	7.43	37.2
84-74-2	Di-n-butylphthalate	U	372	ug/kg	74.3	372
206-44-0	Fluoranthene	J	18.8	ug/kg	11.1	37.2
85-68-7	Butylbenzylphthalate	U	372	ug/kg	74.3	372
56-55-3	Benzo(a)anthracene	U	37.2	ug/kg	11.1	37.2
91-94-1	3,3'-Dichlorobenzidine	U	372	ug/kg	111	372
218-01-9	Chrysene	U	37.2	ug/kg	11.1	37.2
117-81-7	bis(2-Ethylhexyl)phthalate	U	372	ug/kg	74.3	372
117-84-0	Di-n-octylphthalate	U	372	ug/kg	74.3	372
205-99-2	Benzo(b)fluoranthene	J	21.4	ug/kg	11.1	37.2
207-08-9	Benzo(k)fluoranthene	U	37.2	ug/kg	11.1	37.2
50-32-8	Benzo(a)pyrene	U	37.2	ug/kg	11.1	37.2
193-39-5	Indeno(1,2,3-cd)pyrene	U	37.2	ug/kg	11.1	37.2
53-70-3	Dibenzo(a,h)anthracene	U	37.2	ug/kg	11.1	37.2
191-24-2	Benzo(ghi)perylene	U	37.2	ug/kg	11.1	37.2
120-82-1	1,2,4-Trichlorobenzene	U	372	ug/kg	74.3	372

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.91	272	ug/kg		JA
	Unknown	3.57	152	ug/kg		J

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242654015	**Date Received:**	12/10/2009 08:50	**%Moisture:**	10.3
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14273	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	932077	**Inst:**	MSD3.I	**Dilution:**	1
Run Date:	12/15/2009 11:01	**Analyst:**	JLD1	**Inj. Vol:**	.5 uL
Prep Date:	12/11/2009 21:55	**Aliquot:**	30.01 g	**Final Volume:**	1 mL
Data File:	s3I1508.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
80-56-8	.alpha.-Pinene	3.65	7180	ug/kg	96	NJ
18172-67-3	Bicyclo[3.1.1]heptane, 6,6-dimethyl-2-me	3.99	188	ug/kg	97	NJ
586-62-9	Cyclohexene, 1-methyl-4-(1-methylethylid	4.75	207	ug/kg	97	NJ
5655-61-8	Bicyclo[2.2.1]heptan-2-ol, 1,7,7-trimeth	6.09	177	ug/kg	99	NJ
	Unknown	10.62	1120	ug/kg		J
	Unknown	10.86	766	ug/kg		J
	Unknown	10.89	328	ug/kg		J
511-02-4	Naphthalene, decahydro-1,1,4a-trimethyl-	11.02	344	ug/kg	80	NJ
	Unknown	11.09	483	ug/kg		J
	Unknown	11.21	486	ug/kg		J
	Unknown	11.25	319	ug/kg		J
	Unknown	11.28	181	ug/kg		J
	Unknown	11.38	592	ug/kg		J
	Unknown	11.83	388	ug/kg		J
1000159-38-2	Bicyclo[5.2.0]nonane, 4-methylene-2,8,8-	11.96	334	ug/kg	89	NJ
	Unknown	12.47	172	ug/kg		J
	Unknown	12.55	265	ug/kg		J
	Unknown	12.58	206	ug/kg		J
137235-51-9	1,2,4,8-Tetramethylbicyclo[6.3.0]undeca-	15.68	928	ug/kg	86	NJ
	Unknown	15.83	232	ug/kg		J
	Unknown	16.25	380	ug/kg		J
	Unknown	16.56	281	ug/kg		J
1058-61-3	Stigmast-4-en-3-one	17.04	368	ug/kg	97	NJ
	Unknown	19	489	ug/kg		J
70038-20-9	7-Oxabicyclo[4.1.0]heptane, 2,2,6-trimet	19.45	811	ug/kg	90	NJ

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242654011	**Date Received:**	12/10/2009 08:50	**%Moisture:**	4.1
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14274	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	932077	**Inst:**	MSD3.I	**Dilution:**	1
Run Date:	12/14/2009 20:50	**Analyst:**	JLD1	**Inj. Vol:**	.5 uL
Prep Date:	12/11/2009 21:55	**Aliquot:**	30.19 g	**Final Volume:**	1 mL
Data File:	s3l1427.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	345	ug/kg	69.1	345
108-95-2	Phenol	U	345	ug/kg	69.1	345
95-57-8	2-Chlorophenol	U	345	ug/kg	69.1	345
106-46-7	1,4-Dichlorobenzene	U	345	ug/kg	69.1	345
621-64-7	N-Nitrosodipropylamine	U	345	ug/kg	69.1	345
59-50-7	4-Chloro-3-methylphenol	U	345	ug/kg	69.1	345
83-32-9	Acenaphthene	U	34.5	ug/kg	11.4	34.5
121-14-2	2,4-Dinitrotoluene	U	345	ug/kg	34.5	345
100-02-7	4-Nitrophenol	U	345	ug/kg	114	345
87-86-5	Pentachlorophenol	U	345	ug/kg	86.4	345
129-00-0	Pyrene	U	34.5	ug/kg	10.4	34.5
110-86-1	Pyridine	U	345	ug/kg	69.1	345
62-53-3	Aniline	U	345	ug/kg	104	345
111-44-4	bis(2-Chloroethyl) ether	U	345	ug/kg	69.1	345
541-73-1	1,3-Dichlorobenzene	U	345	ug/kg	69.1	345
100-51-6	Benzyl alcohol	U	345	ug/kg	104	345
95-50-1	1,2-Dichlorobenzene	U	345	ug/kg	69.1	345
108-60-1	bis(2-Chloroisopropyl)ether	U	345	ug/kg	69.1	345
95-48-7	o-Cresol	U	345	ug/kg	69.1	345
65794-96-9	m,p-Cresols	U	345	ug/kg	104	345
67-72-1	Hexachloroethane	U	345	ug/kg	69.1	345
98-95-3	Nitrobenzene	U	345	ug/kg	69.1	345
78-59-1	Isophorone	U	345	ug/kg	69.1	345
88-75-5	2-Nitrophenol	U	345	ug/kg	69.1	345
105-67-9	2,4-Dimethylphenol	U	345	ug/kg	121	345
111-91-1	bis(2-Chloroethoxy)methane	U	345	ug/kg	69.1	345
120-83-2	2,4-Dichlorophenol	U	345	ug/kg	69.1	345
65-85-0	Benzoic acid	U	691	ug/kg	173	691
91-20-3	Naphthalene	U	34.5	ug/kg	10.4	34.5
106-47-8	4-Chloroaniline	U	345	ug/kg	69.1	345
87-68-3	Hexachlorobutadiene	U	345	ug/kg	69.1	345
91-57-6	2-Methylnaphthalene	U	34.5	ug/kg	6.91	34.5
77-47-4	Hexachlorocyclopentadiene	U	345	ug/kg	69.1	345
88-06-2	2,4,6-Trichlorophenol	U	345	ug/kg	69.1	345
95-95-4	2,4,5-Trichlorophenol	U	345	ug/kg	69.1	345
91-58-7	2-Chloronaphthalene	U	34.5	ug/kg	11.4	34.5
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	345	ug/kg	69.1	345
99-09-2	3-Nitroaniline	U	345	ug/kg	69.1	345

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242654011	**Date Received:**	12/10/2009 08:50	**%Moisture:**	4.1
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14274	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	932077	**Inst:**	MSD3.I	**Dilution:**	1
Run Date:	12/14/2009 20:50	**Analyst:**	JLD1	**Inj. Vol:**	.5 uL
Prep Date:	12/11/2009 21:55	**Aliquot:**	30.19 g	**Final Volume:**	1 mL
Data File:	s311427.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	345	ug/kg	69.1	345
606-20-2	2,6-Dinitrotoluene	U	345	ug/kg	34.5	345
208-96-8	Acenaphthylene	U	34.5	ug/kg	10.4	34.5
51-28-5	2,4-Dinitrophenol	U	691	ug/kg	131	691
132-64-9	Dibenzofuran	U	345	ug/kg	69.1	345
84-66-2	Diethylphthalate	U	345	ug/kg	69.1	345
86-73-7	Fluorene	U	34.5	ug/kg	10.4	34.5
7005-72-3	4-Chlorophenylphenylether	U	345	ug/kg	69.1	345
534-52-1	2-Methyl-4,6-dinitrophenol	U	345	ug/kg	69.1	345
100-01-6	4-Nitroaniline	U	345	ug/kg	104	345
	p-Nitroaniline					
122-39-4	Diphenylamine	U	345	ug/kg	69.1	345
122-66-7	Azobenzene	U	345	ug/kg	69.1	345
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	345	ug/kg	69.1	345
118-74-1	Hexachlorobenzene	U	345	ug/kg	69.1	345
85-01-8	Phenanthrene	U	34.5	ug/kg	10.4	34.5
120-12-7	Anthracene	U	34.5	ug/kg	6.91	34.5
84-74-2	Di-n-butylphthalate	U	345	ug/kg	69.1	345
206-44-0	Fluoranthene	U	34.5	ug/kg	10.4	34.5
85-68-7	Butylbenzylphthalate	U	345	ug/kg	69.1	345
56-55-3	Benzo(a)anthracene	U	34.5	ug/kg	10.4	34.5
91-94-1	3,3'-Dichlorobenzidine	U	345	ug/kg	104	345
218-01-9	Chrysene	U	34.5	ug/kg	10.4	34.5
117-81-7	bis(2-Ethylhexyl)phthalate	U	345	ug/kg	69.1	345
117-84-0	Di-n-octylphthalate	U	345	ug/kg	69.1	345
205-99-2	Benzo(b)fluoranthene	U	34.5	ug/kg	10.4	34.5
207-08-9	Benzo(k)fluoranthene	U	34.5	ug/kg	10.4	34.5
50-32-8	Benzo(a)pyrene	U	34.5	ug/kg	10.4	34.5
193-39-5	Indeno(1,2,3-cd)pyrene	U	34.5	ug/kg	10.4	34.5
53-70-3	Dibenzo(a,h)anthracene	U	34.5	ug/kg	10.4	34.5
191-24-2	Benzo(ghi)perylene	U	34.5	ug/kg	10.4	34.5
120-82-1	1,2,4-Trichlorobenzene	U	345	ug/kg	69.1	345

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.93	247	ug/kg		JA
	Unknown	15.7	386	ug/kg		J

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242654012	**Date Received:**	12/10/2009 08:50	**%Moisture:**	12.2
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14277	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	932077	**Inst:**	MSD3.I	**Dilution:**	1
Run Date:	12/14/2009 21:17	**Analyst:**	JLD1	**Inj. Vol:**	.5 uL
Prep Date:	12/11/2009 21:55	**Aliquot:**	30.13 g	**Final Volume:**	1 mL
Data File:	s311428.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	378	ug/kg	75.6	378
108-95-2	Phenol	U	378	ug/kg	75.6	378
95-57-8	2-Chlorophenol	U	378	ug/kg	75.6	378
106-46-7	1,4-Dichlorobenzene	U	378	ug/kg	75.6	378
621-64-7	N-Nitrosodipropylamine	U	378	ug/kg	75.6	378
59-50-7	4-Chloro-3-methylphenol	U	378	ug/kg	75.6	378
83-32-9	Acenaphthene	J	31.9	ug/kg	12.5	37.8
121-14-2	2,4-Dinitrotoluene	U	378	ug/kg	37.8	378
100-02-7	4-Nitrophenol	U	378	ug/kg	125	378
87-86-5	Pentachlorophenol	U	378	ug/kg	94.5	378
129-00-0	Pyrene		591	ug/kg	11.3	37.8
110-86-1	Pyridine	U	378	ug/kg	75.6	378
62-53-3	Aniline	U	378	ug/kg	113	378
111-44-4	bis(2-Chloroethyl) ether	U	378	ug/kg	75.6	378
541-73-1	1,3-Dichlorobenzene	U	378	ug/kg	75.6	378
100-51-6	Benzyl alcohol	U	378	ug/kg	113	378
95-50-1	1,2-Dichlorobenzene	U	378	ug/kg	75.6	378
108-60-1	bis(2-Chloroisopropyl)ether	U	378	ug/kg	75.6	378
95-48-7	o-Cresol	U	378	ug/kg	75.6	378
65794-96-9	m,p-Cresols	U	378	ug/kg	113	378
67-72-1	Hexachloroethane	U	378	ug/kg	75.6	378
98-95-3	Nitrobenzene	U	378	ug/kg	75.6	378
78-59-1	Isophorone	U	378	ug/kg	75.6	378
88-75-5	2-Nitrophenol	U	378	ug/kg	75.6	378
105-67-9	2,4-Dimethylphenol	U	378	ug/kg	132	378
111-91-1	bis(2-Chloroethoxy)methane	U	378	ug/kg	75.6	378
120-83-2	2,4-Dichlorophenol	U	378	ug/kg	75.6	378
65-85-0	Benzoic acid	U	756	ug/kg	189	756
91-20-3	Naphthalene	U	37.8	ug/kg	11.3	37.8
106-47-8	4-Chloroaniline	U	378	ug/kg	75.6	378
87-68-3	Hexachlorobutadiene	U	378	ug/kg	75.6	378
91-57-6	2-Methylnaphthalene	U	37.8	ug/kg	7.56	37.8
77-47-4	Hexachlorocyclopentadiene	U	378	ug/kg	75.6	378
88-06-2	2,4,6-Trichlorophenol	U	378	ug/kg	75.6	378
95-95-4	2,4,5-Trichlorophenol	U	378	ug/kg	75.6	378
91-58-7	2-Chloronaphthalene	U	37.8	ug/kg	12.5	37.8
88-74-4	2-Nitroaniline	U	378	ug/kg	75.6	378
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	378	ug/kg	75.6	378

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242654012	**Date Received:**	12/10/2009 08:50	**%Moisture:**	12.2
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14277	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	932077	**Inst:**	MSD3.I	**Dilution:**	1
Run Date:	12/14/2009 21:17	**Analyst:**	JLD1	**Inj. Vol:**	.5 uL
Prep Date:	12/11/2009 21:55	**Aliquot:**	30.13 g	**Final Volume:**	1 mL
Data File:	s311428.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	378	ug/kg	75.6	378
606-20-2	2,6-Dinitrotoluene	U	378	ug/kg	37.8	378
208-96-8	Acenaphthylene	U	37.8	ug/kg	11.3	37.8
51-28-5	2,4-Dinitrophenol	U	756	ug/kg	144	756
132-64-9	Dibenzofuran	U	378	ug/kg	75.6	378
84-66-2	Diethylphthalate	U	378	ug/kg	75.6	378
86-73-7	Fluorene	J	31.5	ug/kg	11.3	37.8
7005-72-3	4-Chlorophenylphenylether	U	378	ug/kg	75.6	378
534-52-1	2-Methyl-4,6-dinitrophenol	U	378	ug/kg	75.6	378
100-01-6	4-Nitroaniline	U	378	ug/kg	113	378
	p-Nitroaniline					
122-39-4	Diphenylamine	U	378	ug/kg	75.6	378
122-66-7	Azobenzene	U	378	ug/kg	75.6	378
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	378	ug/kg	75.6	378
118-74-1	Hexachlorobenzene	U	378	ug/kg	75.6	378
85-01-8	Phenanthrene		370	ug/kg	11.3	37.8
120-12-7	Anthracene		57.7	ug/kg	7.56	37.8
84-74-2	Di-n-butylphthalate	U	378	ug/kg	75.6	378
206-44-0	Fluoranthene		533	ug/kg	11.3	37.8
85-68-7	Butylbenzylphthalate	U	378	ug/kg	75.6	378
56-55-3	Benzo(a)anthracene		218	ug/kg	11.3	37.8
91-94-1	3,3'-Dichlorobenzidine	U	378	ug/kg	113	378
218-01-9	Chrysene		258	ug/kg	11.3	37.8
117-81-7	bis(2-Ethylhexyl)phthalate	J	100	ug/kg	75.6	378
117-84-0	Di-n-octylphthalate	U	378	ug/kg	75.6	378
205-99-2	Benzo(b)fluoranthene		352	ug/kg	11.3	37.8
207-08-9	Benzo(k)fluoranthene		130	ug/kg	11.3	37.8
50-32-8	Benzo(a)pyrene		216	ug/kg	11.3	37.8
193-39-5	Indeno(1,2,3-cd)pyrene		103	ug/kg	11.3	37.8
53-70-3	Dibenzo(a,h)anthracene	J	19.0	ug/kg	11.3	37.8
191-24-2	Benzo(ghi)perylene		96.0	ug/kg	11.3	37.8
120-82-1	1,2,4-Trichlorobenzene	U	378	ug/kg	75.6	378

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	1.91	165	ug/kg		J
	Unknown Aldol Condensate	2.92	282	ug/kg		JA

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242654012	**Date Received:**	12/10/2009 08:50	**%Moisture:**	12.2
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14277	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	932077	**Inst:**	MSD3.I	**Dilution:**	1
Run Date:	12/14/2009 21:17	**Analyst:**	JLD1	**Inj. Vol:**	.5 uL
Prep Date:	12/11/2009 21:55	**Aliquot:**	30.13 g	**Final Volume:**	1 mL
Data File:	s311428.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
7785-70-8	1R-.alpha.-Pinene	3.66	651	ug/kg	96	NJ
498-15-7	Bicyclo[4.1.0]hept-3-ene, 3,7,7-trimethy	4.22	682	ug/kg	97	NJ
	Unknown	10.64	273	ug/kg		J
	Unknown	10.87	335	ug/kg		J
	Unknown	11.11	340	ug/kg		J
1235-74-1	1-Phenanthrenecarboxylic acid, 1,2,3,4,4	11.2	192	ug/kg	97	NJ
	Unknown	11.39	177	ug/kg		J
	Unknown	11.41	168	ug/kg		J
	Unknown	12.87	221	ug/kg		J
112-95-8	Eicosane	13.38	290	ug/kg	95	NJ
	Unknown	15.86	374	ug/kg		J
	Unknown	17.07	202	ug/kg		J
	Unknown	17.89	288	ug/kg		J
	Unknown	19.04	375	ug/kg		J
	Unknown	19.49	391	ug/kg		J

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242654017	**Date Received:**	12/10/2009 08:50	**%Moisture:**	9.4
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14278	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	932077	**Inst:**	MSD3.I	**Dilution:**	1
Run Date:	12/15/2009 11:56	**Analyst:**	JLD1	**Inj. Vol:**	.5 uL
Prep Date:	12/11/2009 21:55	**Aliquot:**	30.05 g	**Final Volume:**	1 mL
Data File:	s3l1510.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	367	ug/kg	73.5	367
108-95-2	Phenol	U	367	ug/kg	73.5	367
95-57-8	2-Chlorophenol	U	367	ug/kg	73.5	367
106-46-7	1,4-Dichlorobenzene	U	367	ug/kg	73.5	367
621-64-7	N-Nitrosodipropylamine	U	367	ug/kg	73.5	367
59-50-7	4-Chloro-3-methylphenol	U	367	ug/kg	73.5	367
83-32-9	Acenaphthene		39.4	ug/kg	12.1	36.7
121-14-2	2,4-Dinitrotoluene	U	367	ug/kg	36.7	367
100-02-7	4-Nitrophenol	U	367	ug/kg	121	367
87-86-5	Pentachlorophenol	U	367	ug/kg	91.8	367
129-00-0	Pyrene		435	ug/kg	11.0	36.7
110-86-1	Pyridine	U	367	ug/kg	73.5	367
62-53-3	Aniline	U	367	ug/kg	110	367
111-44-4	bis(2-Chloroethyl) ether	U	367	ug/kg	73.5	367
541-73-1	1,3-Dichlorobenzene	U	367	ug/kg	73.5	367
100-51-6	Benzyl alcohol	U	367	ug/kg	110	367
95-50-1	1,2-Dichlorobenzene	U	367	ug/kg	73.5	367
108-60-1	bis(2-Chloroisopropyl)ether	U	367	ug/kg	73.5	367
95-48-7	o-Cresol	U	367	ug/kg	73.5	367
65794-96-9	m,p-Cresols	U	367	ug/kg	110	367
67-72-1	Hexachloroethane	U	367	ug/kg	73.5	367
98-95-3	Nitrobenzene	U	367	ug/kg	73.5	367
78-59-1	Isophorone	U	367	ug/kg	73.5	367
88-75-5	2-Nitrophenol	U	367	ug/kg	73.5	367
105-67-9	2,4-Dimethylphenol	U	367	ug/kg	129	367
111-91-1	bis(2-Chloroethoxy)methane	U	367	ug/kg	73.5	367
120-83-2	2,4-Dichlorophenol	U	367	ug/kg	73.5	367
65-85-0	Benzoic acid	U	735	ug/kg	184	735
91-20-3	Naphthalene	U	36.7	ug/kg	11.0	36.7
106-47-8	4-Chloroaniline	U	367	ug/kg	73.5	367
87-68-3	Hexachlorobutadiene	U	367	ug/kg	73.5	367
91-57-6	2-Methylnaphthalene	U	36.7	ug/kg	7.35	36.7
77-47-4	Hexachlorocyclopentadiene	U	367	ug/kg	73.5	367
88-06-2	2,4,6-Trichlorophenol	U	367	ug/kg	73.5	367
95-95-4	2,4,5-Trichlorophenol	U	367	ug/kg	73.5	367
91-58-7	2-Chloronaphthalene	U	36.7	ug/kg	12.1	36.7
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	367	ug/kg	73.5	367
99-09-2	3-Nitroaniline	U	367	ug/kg	73.5	367

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242654017	**Date Received:**	12/10/2009 08:50	**%Moisture:**	9.4
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14278	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	932077	**Inst:**	MSD3.I	**Dilution:**	1
Run Date:	12/15/2009 11:56	**Analyst:**	JLD1	**Inj. Vol:**	.5 uL
Prep Date:	12/11/2009 21:55	**Aliquot:**	30.05 g	**Final Volume:**	1 mL
Data File:	s311510.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	367	ug/kg	73.5	367
606-20-2	2,6-Dinitrotoluene	U	367	ug/kg	36.7	367
208-96-8	Acenaphthylene	U	36.7	ug/kg	11.0	36.7
51-28-5	2,4-Dinitrophenol	U	735	ug/kg	140	735
132-64-9	Dibenzofuran	U	367	ug/kg	73.5	367
84-66-2	Diethylphthalate	U	367	ug/kg	73.5	367
86-73-7	Fluorene		42.6	ug/kg	11.0	36.7
7005-72-3	4-Chlorophenylphenylether	U	367	ug/kg	73.5	367
534-52-1	2-Methyl-4,6-dinitrophenol	U	367	ug/kg	73.5	367
100-01-6	4-Nitroaniline	U	367	ug/kg	110	367
	p-Nitroaniline					
122-39-4	Diphenylamine	U	367	ug/kg	73.5	367
122-66-7	Azobenzene	U	367	ug/kg	73.5	367
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	367	ug/kg	73.5	367
118-74-1	Hexachlorobenzene	U	367	ug/kg	73.5	367
85-01-8	Phenanthrene		381	ug/kg	11.0	36.7
120-12-7	Anthracene		74.8	ug/kg	7.35	36.7
84-74-2	Di-n-butylphthalate	U	367	ug/kg	73.5	367
206-44-0	Fluoranthene		402	ug/kg	11.0	36.7
85-68-7	Butylbenzylphthalate	U	367	ug/kg	73.5	367
56-55-3	Benzo(a)anthracene		162	ug/kg	11.0	36.7
91-94-1	3,3'-Dichlorobenzidine	U	367	ug/kg	110	367
218-01-9	Chrysene		176	ug/kg	11.0	36.7
117-81-7	bis(2-Ethylhexyl)phthalate	U	367	ug/kg	73.5	367
117-84-0	Di-n-octylphthalate	U	367	ug/kg	73.5	367
205-99-2	Benzo(b)fluoranthene		218	ug/kg	11.0	36.7
207-08-9	Benzo(k)fluoranthene		85.3	ug/kg	11.0	36.7
50-32-8	Benzo(a)pyrene		156	ug/kg	11.0	36.7
193-39-5	Indeno(1,2,3-cd)pyrene		72.9	ug/kg	11.0	36.7
53-70-3	Dibenzo(a,h)anthracene	J	21.7	ug/kg	11.0	36.7
191-24-2	Benzo(ghi)perylene		72.0	ug/kg	11.0	36.7
120-82-1	1,2,4-Trichlorobenzene	U	367	ug/kg	73.5	367

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.91	211	ug/kg		JA
7785-70-8	1R-.alpha.-Pinene	3.64	266	ug/kg	96	NJ

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242654017	**Date Received:**	12/10/2009 08:50	**%Moisture:**	9.4
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14278	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	932077	**Inst:**	MSD3.I	**Dilution:**	1
Run Date:	12/15/2009 11:56	**Analyst:**	JLD1	**Inj. Vol:**	.5 uL
Prep Date:	12/11/2009 21:55	**Aliquot:**	30.05 g	**Final Volume:**	1 mL
Data File:	s3l1510.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
498-15-7	Bicyclo[4.1.0]hept-3-ene, 3,7,7-trimethy	4.2	379	ug/kg	97	NJ
	Unknown	10.86	277	ug/kg		J
	Unknown	10.9	160	ug/kg		J
	Unknown	11.08	167	ug/kg		J
1235-74-1	1-Phenanthrenecarboxylic acid, 1,2,3,4,4	11.19	275	ug/kg	96	NJ
	Unknown	11.34	807	ug/kg		J
	Unknown	11.39	246	ug/kg		J
	Unknown	16.25	231	ug/kg		J
	Unknown	17.04	187	ug/kg		J
74022-04-1	2,4a,8,8-Tetramethyldecahydrocyclopropa[	17.86	321	ug/kg	81	NJ
	Unknown	19.01	420	ug/kg		J
	Unknown	19.45	400	ug/kg		J

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242654009	**Date Received:**	12/10/2009 08:50	**%Moisture:**	14.1
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14281	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	932077	**Inst:**	MSD3.I	**Dilution:**	1
Run Date:	12/14/2009 19:55	**Analyst:**	JLD1	**Inj. Vol:**	.5 uL
Prep Date:	12/11/2009 21:55	**Aliquot:**	30.03 g	**Final Volume:**	1 mL
Data File:	s311425.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	388	ug/kg	77.6	388
108-95-2	Phenol	U	388	ug/kg	77.6	388
95-57-8	2-Chlorophenol	U	388	ug/kg	77.6	388
106-46-7	1,4-Dichlorobenzene	U	388	ug/kg	77.6	388
621-64-7	N-Nitrosodipropylamine	U	388	ug/kg	77.6	388
59-50-7	4-Chloro-3-methylphenol	U	388	ug/kg	77.6	388
83-32-9	Acenaphthene	U	38.8	ug/kg	12.8	38.8
121-14-2	2,4-Dinitrotoluene	U	388	ug/kg	38.8	388
100-02-7	4-Nitrophenol	U	388	ug/kg	128	388
87-86-5	Pentachlorophenol	U	388	ug/kg	97.0	388
129-00-0	Pyrene	U	38.8	ug/kg	11.6	38.8
110-86-1	Pyridine	U	388	ug/kg	77.6	388
62-53-3	Aniline	U	388	ug/kg	116	388
111-44-4	bis(2-Chloroethyl) ether	U	388	ug/kg	77.6	388
541-73-1	1,3-Dichlorobenzene	U	388	ug/kg	77.6	388
100-51-6	Benzyl alcohol	U	388	ug/kg	116	388
95-50-1	1,2-Dichlorobenzene	U	388	ug/kg	77.6	388
108-60-1	bis(2-Chloroisopropyl)ether	U	388	ug/kg	77.6	388
95-48-7	o-Cresol	U	388	ug/kg	77.6	388
65794-96-9	m,p-Cresols	U	388	ug/kg	116	388
67-72-1	Hexachloroethane	U	388	ug/kg	77.6	388
98-95-3	Nitrobenzene	U	388	ug/kg	77.6	388
78-59-1	Isophorone	U	388	ug/kg	77.6	388
88-75-5	2-Nitrophenol	U	388	ug/kg	77.6	388
105-67-9	2,4-Dimethylphenol	U	388	ug/kg	136	388
111-91-1	bis(2-Chloroethoxy)methane	U	388	ug/kg	77.6	388
120-83-2	2,4-Dichlorophenol	U	388	ug/kg	77.6	388
65-85-0	Benzoic acid	U	776	ug/kg	194	776
91-20-3	Naphthalene	U	38.8	ug/kg	11.6	38.8
106-47-8	4-Chloroaniline	U	388	ug/kg	77.6	388
87-68-3	Hexachlorobutadiene	U	388	ug/kg	77.6	388
91-57-6	2-Methylnaphthalene	U	38.8	ug/kg	7.76	38.8
77-47-4	Hexachlorocyclopentadiene	U	388	ug/kg	77.6	388
88-06-2	2,4,6-Trichlorophenol	U	388	ug/kg	77.6	388
95-95-4	2,4,5-Trichlorophenol	U	388	ug/kg	77.6	388
91-58-7	2-Chloronaphthalene	U	38.8	ug/kg	12.8	38.8
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	388	ug/kg	77.6	388
99-09-2	3-Nitroaniline	U	388	ug/kg	77.6	388

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242654009	**Date Received:**	12/10/2009 08:50	**%Moisture:**	14.1
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14281	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	932077	**Inst:**	MSD3.I	**Dilution:**	1
Run Date:	12/14/2009 19:55	**Analyst:**	JLD1	**Inj. Vol:**	.5 uL
Prep Date:	12/11/2009 21:55	**Aliquot:**	30.03 g	**Final Volume:**	1 mL
Data File:	s3I1425.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	388	ug/kg	77.6	388
606-20-2	2,6-Dinitrotoluene	U	388	ug/kg	38.8	388
208-96-8	Acenaphthylene	U	38.8	ug/kg	11.6	38.8
51-28-5	2,4-Dinitrophenol	U	776	ug/kg	147	776
132-64-9	Dibenzofuran	U	388	ug/kg	77.6	388
84-66-2	Diethylphthalate	U	388	ug/kg	77.6	388
86-73-7	Fluorene	U	38.8	ug/kg	11.6	38.8
7005-72-3	4-Chlorophenylphenylether	U	388	ug/kg	77.6	388
534-52-1	2-Methyl-4,6-dinitrophenol	U	388	ug/kg	77.6	388
100-01-6	4-Nitroaniline	U	388	ug/kg	116	388
	p-Nitroaniline					
122-39-4	Diphenylamine	U	388	ug/kg	77.6	388
122-66-7	Azobenzene	U	388	ug/kg	77.6	388
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	388	ug/kg	77.6	388
118-74-1	Hexachlorobenzene	U	388	ug/kg	77.6	388
85-01-8	Phenanthrene	U	38.8	ug/kg	11.6	38.8
120-12-7	Anthracene	U	38.8	ug/kg	7.76	38.8
84-74-2	Di-n-butylphthalate	U	388	ug/kg	77.6	388
206-44-0	Fluoranthene	U	38.8	ug/kg	11.6	38.8
85-68-7	Butylbenzylphthalate	U	388	ug/kg	77.6	388
56-55-3	Benzo(a)anthracene	U	38.8	ug/kg	11.6	38.8
91-94-1	3,3'-Dichlorobenzidine	U	388	ug/kg	116	388
218-01-9	Chrysene	U	38.8	ug/kg	11.6	38.8
117-81-7	bis(2-Ethylhexyl)phthalate	U	388	ug/kg	77.6	388
117-84-0	Di-n-octylphthalate	U	388	ug/kg	77.6	388
205-99-2	Benzo(b)fluoranthene	U	38.8	ug/kg	11.6	38.8
207-08-9	Benzo(k)fluoranthene	U	38.8	ug/kg	11.6	38.8
50-32-8	Benzo(a)pyrene	U	38.8	ug/kg	11.6	38.8
193-39-5	Indeno(1,2,3-cd)pyrene	U	38.8	ug/kg	11.6	38.8
53-70-3	Dibenzo(a,h)anthracene	U	38.8	ug/kg	11.6	38.8
191-24-2	Benzo(ghi)perylene	U	38.8	ug/kg	11.6	38.8
120-82-1	1,2,4-Trichlorobenzene	U	388	ug/kg	77.6	388

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
78-95-5	2-Propanone, 1-chloro-	1.92	173	ug/kg	83	NJ
	Unknown Aldol Condensate	2.93	294	ug/kg		JA

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-852**	**Date Collected:**	**12/07/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242654013**	**Date Received:**	**12/10/2009 08:50**	**%Moisture:**	**14.2**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14282**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**932077**	**Inst:**	**MSD3.I**	**Dilution:**	**1**
Run Date:	**12/14/2009 21:45**	**Analyst:**	**JLD1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/11/2009 21:55**	**Aliquot:**	**30.18 g**	**Final Volume:**	**1 mL**
Data File:	**s3l1429.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	386	ug/kg	77.2	386
108-95-2	Phenol	U	386	ug/kg	77.2	386
95-57-8	2-Chlorophenol	U	386	ug/kg	77.2	386
106-46-7	1,4-Dichlorobenzene	U	386	ug/kg	77.2	386
621-64-7	N-Nitrosodipropylamine	U	386	ug/kg	77.2	386
59-50-7	4-Chloro-3-methylphenol	U	386	ug/kg	77.2	386
83-32-9	Acenaphthene	U	38.6	ug/kg	12.7	38.6
121-14-2	2,4-Dinitrotoluene	U	386	ug/kg	38.6	386
100-02-7	4-Nitrophenol	U	386	ug/kg	127	386
87-86-5	Pentachlorophenol	U	386	ug/kg	96.5	386
129-00-0	Pyrene	U	38.6	ug/kg	11.6	38.6
110-86-1	Pyridine	U	386	ug/kg	77.2	386
62-53-3	Aniline	U	386	ug/kg	116	386
111-44-4	bis(2-Chloroethyl) ether	U	386	ug/kg	77.2	386
541-73-1	1,3-Dichlorobenzene	U	386	ug/kg	77.2	386
100-51-6	Benzyl alcohol	U	386	ug/kg	116	386
95-50-1	1,2-Dichlorobenzene	U	386	ug/kg	77.2	386
108-60-1	bis(2-Chloroisopropyl)ether	U	386	ug/kg	77.2	386
95-48-7	o-Cresol	U	386	ug/kg	77.2	386
65794-96-9	m,p-Cresols	U	386	ug/kg	116	386
67-72-1	Hexachloroethane	U	386	ug/kg	77.2	386
98-95-3	Nitrobenzene	U	386	ug/kg	77.2	386
78-59-1	Isophorone	U	386	ug/kg	77.2	386
88-75-5	2-Nitrophenol	U	386	ug/kg	77.2	386
105-67-9	2,4-Dimethylphenol	U	386	ug/kg	135	386
111-91-1	bis(2-Chloroethoxy)methane	U	386	ug/kg	77.2	386
120-83-2	2,4-Dichlorophenol	U	386	ug/kg	77.2	386
65-85-0	Benzoic acid	U	772	ug/kg	193	772
91-20-3	Naphthalene	U	38.6	ug/kg	11.6	38.6
106-47-8	4-Chloroaniline	U	386	ug/kg	77.2	386
87-68-3	Hexachlorobutadiene	U	386	ug/kg	77.2	386
91-57-6	2-Methylnaphthalene	U	38.6	ug/kg	7.72	38.6
77-47-4	Hexachlorocyclopentadiene	U	386	ug/kg	77.2	386
88-06-2	2,4,6-Trichlorophenol	U	386	ug/kg	77.2	386
95-95-4	2,4,5-Trichlorophenol	U	386	ug/kg	77.2	386
91-58-7	2-Chloronaphthalene	U	38.6	ug/kg	12.7	38.6
88-74-4	2-Nitroaniline	U	386	ug/kg	77.2	386
	o-Nitroaniline					
99-09-2	3-Nitroaniline	U	386	ug/kg	77.2	386

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242654013	**Date Received:**	12/10/2009 08:50	**%Moisture:**	14.2
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14282	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	932077	**Inst:**	MSD3.I	**Dilution:**	1
Run Date:	12/14/2009 21:45	**Analyst:**	JLD1	**Inj. Vol:**	.5 uL
Prep Date:	12/11/2009 21:55	**Aliquot:**	30.18 g	**Final Volume:**	1 mL
Data File:	s3l1429.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	386	ug/kg	77.2	386
606-20-2	2,6-Dinitrotoluene	U	386	ug/kg	38.6	386
208-96-8	Acenaphthylene	U	38.6	ug/kg	11.6	38.6
51-28-5	2,4-Dinitrophenol	U	772	ug/kg	147	772
132-64-9	Dibenzofuran	U	386	ug/kg	77.2	386
84-66-2	Diethylphthalate	U	386	ug/kg	77.2	386
86-73-7	Fluorene	U	38.6	ug/kg	11.6	38.6
7005-72-3	4-Chlorophenylphenylether	U	386	ug/kg	77.2	386
534-52-1	2-Methyl-4,6-dinitrophenol	U	386	ug/kg	77.2	386
100-01-6	4-Nitroaniline	U	386	ug/kg	116	386
	p-Nitroaniline					
122-39-4	Diphenylamine	U	386	ug/kg	77.2	386
122-66-7	Azobenzene	U	386	ug/kg	77.2	386
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	386	ug/kg	77.2	386
118-74-1	Hexachlorobenzene	U	386	ug/kg	77.2	386
85-01-8	Phenanthrene	U	38.6	ug/kg	11.6	38.6
120-12-7	Anthracene	U	38.6	ug/kg	7.72	38.6
84-74-2	Di-n-butylphthalate	U	386	ug/kg	77.2	386
206-44-0	Fluoranthene	U	38.6	ug/kg	11.6	38.6
85-68-7	Butylbenzylphthalate	U	386	ug/kg	77.2	386
56-55-3	Benzo(a)anthracene	U	38.6	ug/kg	11.6	38.6
91-94-1	3,3'-Dichlorobenzidine	U	386	ug/kg	116	386
218-01-9	Chrysene	U	38.6	ug/kg	11.6	38.6
117-81-7	bis(2-Ethylhexyl)phthalate	U	386	ug/kg	77.2	386
117-84-0	Di-n-octylphthalate	U	386	ug/kg	77.2	386
205-99-2	Benzo(b)fluoranthene	U	38.6	ug/kg	11.6	38.6
207-08-9	Benzo(k)fluoranthene	U	38.6	ug/kg	11.6	38.6
50-32-8	Benzo(a)pyrene	U	38.6	ug/kg	11.6	38.6
193-39-5	Indeno(1,2,3-cd)pyrene	U	38.6	ug/kg	11.6	38.6
53-70-3	Dibenzo(a,h)anthracene	U	38.6	ug/kg	11.6	38.6
191-24-2	Benzo(ghi)perylene	U	38.6	ug/kg	11.6	38.6
120-82-1	1,2,4-Trichlorobenzene	U	386	ug/kg	77.2	386

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.93	304	ug/kg		JA

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242654020	**Date Received:**	12/10/2009 08:50	**%Moisture:**	15.8
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14283	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	932077	**Inst:**	MSD3.I	**Dilution:**	1
Run Date:	12/15/2009 13:18	**Analyst:**	JLD1	**Inj. Vol:**	.5 uL
Prep Date:	12/11/2009 21:55	**Aliquot:**	30.04 g	**Final Volume:**	1 mL
Data File:	s311513.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	396	ug/kg	79.1	396
108-95-2	Phenol	U	396	ug/kg	79.1	396
95-57-8	2-Chlorophenol	U	396	ug/kg	79.1	396
106-46-7	1,4-Dichlorobenzene	U	396	ug/kg	79.1	396
621-64-7	N-Nitrosodipropylamine	U	396	ug/kg	79.1	396
59-50-7	4-Chloro-3-methylphenol	U	396	ug/kg	79.1	396
83-32-9	Acenaphthene	U	39.6	ug/kg	13.1	39.6
121-14-2	2,4-Dinitrotoluene	U	396	ug/kg	39.6	396
100-02-7	4-Nitrophenol	U	396	ug/kg	131	396
87-86-5	Pentachlorophenol	U	396	ug/kg	98.9	396
129-00-0	Pyrene	U	39.6	ug/kg	11.9	39.6
110-86-1	Pyridine	U	396	ug/kg	79.1	396
62-53-3	Aniline	U	396	ug/kg	119	396
111-44-4	bis(2-Chloroethyl) ether	U	396	ug/kg	79.1	396
541-73-1	1,3-Dichlorobenzene	U	396	ug/kg	79.1	396
100-51-6	Benzyl alcohol	U	396	ug/kg	119	396
95-50-1	1,2-Dichlorobenzene	U	396	ug/kg	79.1	396
108-60-1	bis(2-Chloroisopropyl)ether	U	396	ug/kg	79.1	396
95-48-7	o-Cresol	U	396	ug/kg	79.1	396
65794-96-9	m,p-Cresols	U	396	ug/kg	119	396
67-72-1	Hexachloroethane	U	396	ug/kg	79.1	396
98-95-3	Nitrobenzene	U	396	ug/kg	79.1	396
78-59-1	Isophorone	U	396	ug/kg	79.1	396
88-75-5	2-Nitrophenol	U	396	ug/kg	79.1	396
105-67-9	2,4-Dimethylphenol	U	396	ug/kg	138	396
111-91-1	bis(2-Chloroethoxy)methane	U	396	ug/kg	79.1	396
120-83-2	2,4-Dichlorophenol	U	396	ug/kg	79.1	396
65-85-0	Benzoic acid	U	791	ug/kg	198	791
91-20-3	Naphthalene	U	39.6	ug/kg	11.9	39.6
106-47-8	4-Chloroaniline	U	396	ug/kg	79.1	396
87-68-3	Hexachlorobutadiene	U	396	ug/kg	79.1	396
91-57-6	2-Methylnaphthalene	U	39.6	ug/kg	7.91	39.6
77-47-4	Hexachlorocyclopentadiene	U	396	ug/kg	79.1	396
88-06-2	2,4,6-Trichlorophenol	U	396	ug/kg	79.1	396
95-95-4	2,4,5-Trichlorophenol	U	396	ug/kg	79.1	396
91-58-7	2-Chloronaphthalene	U	39.6	ug/kg	13.1	39.6
88-74-4	2-Nitroaniline	U	396	ug/kg	79.1	396
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	396	ug/kg	79.1	396

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242654020	**Date Received:**	12/10/2009 08:50	**%Moisture:**	15.8
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14283	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	932077	**Inst:**	MSD3.I	**Dilution:**	1
Run Date:	12/15/2009 13:18	**Analyst:**	JLD1	**Inj. Vol:**	.5 uL
Prep Date:	12/11/2009 21:55	**Aliquot:**	30.04 g	**Final Volume:**	1 mL
Data File:	s3l1513.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	396	ug/kg	79.1	396
606-20-2	2,6-Dinitrotoluene	U	396	ug/kg	39.6	396
208-96-8	Acenaphthylene	U	39.6	ug/kg	11.9	39.6
51-28-5	2,4-Dinitrophenol	U	791	ug/kg	150	791
132-64-9	Dibenzofuran	U	396	ug/kg	79.1	396
84-66-2	Diethylphthalate	U	396	ug/kg	79.1	396
86-73-7	Fluorene	U	39.6	ug/kg	11.9	39.6
7005-72-3	4-Chlorophenylphenylether	U	396	ug/kg	79.1	396
534-52-1	2-Methyl-4,6-dinitrophenol	U	396	ug/kg	79.1	396
100-01-6	4-Nitroaniline	U	396	ug/kg	119	396
	p-Nitroaniline					
122-39-4	Diphenylamine	U	396	ug/kg	79.1	396
122-66-7	Azobenzene	U	396	ug/kg	79.1	396
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	396	ug/kg	79.1	396
118-74-1	Hexachlorobenzene	U	396	ug/kg	79.1	396
85-01-8	Phenanthrene	U	39.6	ug/kg	11.9	39.6
120-12-7	Anthracene	U	39.6	ug/kg	7.91	39.6
84-74-2	Di-n-butylphthalate	U	396	ug/kg	79.1	396
206-44-0	Fluoranthene	U	39.6	ug/kg	11.9	39.6
85-68-7	Butylbenzylphthalate	U	396	ug/kg	79.1	396
56-55-3	Benzo(a)anthracene	U	39.6	ug/kg	11.9	39.6
91-94-1	3,3'-Dichlorobenzidine	U	396	ug/kg	119	396
218-01-9	Chrysene	U	39.6	ug/kg	11.9	39.6
117-81-7	bis(2-Ethylhexyl)phthalate	U	396	ug/kg	79.1	396
117-84-0	Di-n-octylphthalate	U	396	ug/kg	79.1	396
205-99-2	Benzo(b)fluoranthene	U	39.6	ug/kg	11.9	39.6
207-08-9	Benzo(k)fluoranthene	U	39.6	ug/kg	11.9	39.6
50-32-8	Benzo(a)pyrene	U	39.6	ug/kg	11.9	39.6
193-39-5	Indeno(1,2,3-cd)pyrene	U	39.6	ug/kg	11.9	39.6
53-70-3	Dibenzo(a,h)anthracene	U	39.6	ug/kg	11.9	39.6
191-24-2	Benzo(ghi)perylene	U	39.6	ug/kg	11.9	39.6
120-82-1	1,2,4-Trichlorobenzene	U	396	ug/kg	79.1	396

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.92	373	ug/kg		JA

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242654010	**Date Received:**	12/10/2009 08:50	**%Moisture:**	13.2
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14284	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	932077	**Inst:**	MSD3.I	**Dilution:**	1
Run Date:	12/14/2009 20:22	**Analyst:**	JLD1	**Inj. Vol:**	.5 uL
Prep Date:	12/11/2009 21:55	**Aliquot:**	30.02 g	**Final Volume:**	1 mL
Data File:	s3l1426.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	384	ug/kg	76.7	384
108-95-2	Phenol	U	384	ug/kg	76.7	384
95-57-8	2-Chlorophenol	U	384	ug/kg	76.7	384
106-46-7	1,4-Dichlorobenzene	U	384	ug/kg	76.7	384
621-64-7	N-Nitrosodipropylamine	U	384	ug/kg	76.7	384
59-50-7	4-Chloro-3-methylphenol	U	384	ug/kg	76.7	384
83-32-9	Acenaphthene	U	38.4	ug/kg	12.7	38.4
121-14-2	2,4-Dinitrotoluene	U	384	ug/kg	38.4	384
100-02-7	4-Nitrophenol	U	384	ug/kg	127	384
87-86-5	Pentachlorophenol	U	384	ug/kg	95.9	384
129-00-0	Pyrene	U	38.4	ug/kg	11.5	38.4
110-86-1	Pyridine	U	384	ug/kg	76.7	384
62-53-3	Aniline	U	384	ug/kg	115	384
111-44-4	bis(2-Chloroethyl) ether	U	384	ug/kg	76.7	384
541-73-1	1,3-Dichlorobenzene	U	384	ug/kg	76.7	384
100-51-6	Benzyl alcohol	U	384	ug/kg	115	384
95-50-1	1,2-Dichlorobenzene	U	384	ug/kg	76.7	384
108-60-1	bis(2-Chloroisopropyl)ether	U	384	ug/kg	76.7	384
95-48-7	o-Cresol	U	384	ug/kg	76.7	384
65794-96-9	m,p-Cresols	U	384	ug/kg	115	384
67-72-1	Hexachloroethane	U	384	ug/kg	76.7	384
98-95-3	Nitrobenzene	U	384	ug/kg	76.7	384
78-59-1	Isophorone	U	384	ug/kg	76.7	384
88-75-5	2-Nitrophenol	U	384	ug/kg	76.7	384
105-67-9	2,4-Dimethylphenol	U	384	ug/kg	134	384
111-91-1	bis(2-Chloroethoxy)methane	U	384	ug/kg	76.7	384
120-83-2	2,4-Dichlorophenol	U	384	ug/kg	76.7	384
65-85-0	Benzoic acid	U	767	ug/kg	192	767
91-20-3	Naphthalene	U	38.4	ug/kg	11.5	38.4
106-47-8	4-Chloroaniline	U	384	ug/kg	76.7	384
87-68-3	Hexachlorobutadiene	U	384	ug/kg	76.7	384
91-57-6	2-Methylnaphthalene	U	38.4	ug/kg	7.67	38.4
77-47-4	Hexachlorocyclopentadiene	U	384	ug/kg	76.7	384
88-06-2	2,4,6-Trichlorophenol	U	384	ug/kg	76.7	384
95-95-4	2,4,5-Trichlorophenol	U	384	ug/kg	76.7	384
91-58-7	2-Chloronaphthalene	U	38.4	ug/kg	12.7	38.4
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	384	ug/kg	76.7	384
99-09-2	3-Nitroaniline	U	384	ug/kg	76.7	384

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242654010	**Date Received:**	12/10/2009 08:50	**%Moisture:**	13.2
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14284	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	932077	**Inst:**	MSD3.1	**Dilution:**	1
Run Date:	12/14/2009 20:22	**Analyst:**	JLD1	**Inj. Vol:**	.5 uL
Prep Date:	12/11/2009 21:55	**Aliquot:**	30.02 g	**Final Volume:**	1 mL
Data File:	s3l1426.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	384	ug/kg	76.7	384
606-20-2	2,6-Dinitrotoluene	U	384	ug/kg	38.4	384
208-96-8	Acenaphthylene	U	38.4	ug/kg	11.5	38.4
51-28-5	2,4-Dinitrophenol	U	767	ug/kg	146	767
132-64-9	Dibenzofuran	U	384	ug/kg	76.7	384
84-66-2	Diethylphthalate	U	384	ug/kg	76.7	384
86-73-7	Fluorene	U	38.4	ug/kg	11.5	38.4
7005-72-3	4-Chlorophenylphenylether	U	384	ug/kg	76.7	384
534-52-1	2-Methyl-4,6-dinitrophenol	U	384	ug/kg	76.7	384
100-01-6	4-Nitroaniline	U	384	ug/kg	115	384
	p-Nitroaniline					
122-39-4	Diphenylamine	U	384	ug/kg	76.7	384
122-66-7	Azobenzene	U	384	ug/kg	76.7	384
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	384	ug/kg	76.7	384
118-74-1	Hexachlorobenzene	U	384	ug/kg	76.7	384
85-01-8	Phenanthrene	U	38.4	ug/kg	11.5	38.4
120-12-7	Anthracene	U	38.4	ug/kg	7.67	38.4
84-74-2	Di-n-butylphthalate	U	384	ug/kg	76.7	384
206-44-0	Fluoranthene	U	38.4	ug/kg	11.5	38.4
85-68-7	Butylbenzylphthalate	U	384	ug/kg	76.7	384
56-55-3	Benzo(a)anthracene	U	38.4	ug/kg	11.5	38.4
91-94-1	3,3'-Dichlorobenzidine	U	384	ug/kg	115	384
218-01-9	Chrysene	U	38.4	ug/kg	11.5	38.4
117-81-7	bis(2-Ethylhexyl)phthalate	U	384	ug/kg	76.7	384
117-84-0	Di-n-octylphthalate	U	384	ug/kg	76.7	384
205-99-2	Benzo(b)fluoranthene	U	38.4	ug/kg	11.5	38.4
207-08-9	Benzo(k)fluoranthene	U	38.4	ug/kg	11.5	38.4
50-32-8	Benzo(a)pyrene	U	38.4	ug/kg	11.5	38.4
193-39-5	Indeno(1,2,3-cd)pyrene	U	38.4	ug/kg	11.5	38.4
53-70-3	Dibenzo(a,h)anthracene	U	38.4	ug/kg	11.5	38.4
191-24-2	Benzo(ghi)perylene	U	38.4	ug/kg	11.5	38.4
120-82-1	1,2,4-Trichlorobenzene	U	384	ug/kg	76.7	384

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.93	305	ug/kg		JA

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	Date Collected:	12/07/2009 12:00	Matrix:	S
Lab Sample ID:	242654018	Date Received:	12/10/2009 08:50	%Moisture:	14.2
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14285	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	932077	Inst:	MSD3.I	Dilution:	1
Run Date:	12/15/2009 12:23	Analyst:	JLD1	Inj. Vol:	.5 uL
Prep Date:	12/11/2009 21:55	Aliquot:	30.02 g	Final Volume:	1 mL
Data File:	s3l1511.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	388	ug/kg	77.6	388
108-95-2	Phenol	U	388	ug/kg	77.6	388
95-57-8	2-Chlorophenol	U	388	ug/kg	77.6	388
106-46-7	1,4-Dichlorobenzene	U	388	ug/kg	77.6	388
621-64-7	N-Nitrosodipropylamine	U	388	ug/kg	77.6	388
59-50-7	4-Chloro-3-methylphenol	U	388	ug/kg	77.6	388
83-32-9	Acenaphthene	U	38.8	ug/kg	12.8	38.8
121-14-2	2,4-Dinitrotoluene	U	388	ug/kg	38.8	388
100-02-7	4-Nitrophenol	U	388	ug/kg	128	388
87-86-5	Pentachlorophenol	U	388	ug/kg	97.0	388
129-00-0	Pyrene	U	38.8	ug/kg	11.6	38.8
110-86-1	Pyridine	U	388	ug/kg	77.6	388
62-53-3	Aniline	U	388	ug/kg	116	388
111-44-4	bis(2-Chloroethyl) ether	U	388	ug/kg	77.6	388
541-73-1	1,3-Dichlorobenzene	U	388	ug/kg	77.6	388
100-51-6	Benzyl alcohol	U	388	ug/kg	116	388
95-50-1	1,2-Dichlorobenzene	U	388	ug/kg	77.6	388
108-60-1	bis(2-Chloroisopropyl)ether	U	388	ug/kg	77.6	388
95-48-7	o-Cresol	U	388	ug/kg	77.6	388
65794-96-9	m,p-Cresols	U	388	ug/kg	116	388
67-72-1	Hexachloroethane	U	388	ug/kg	77.6	388
98-95-3	Nitrobenzene	U	388	ug/kg	77.6	388
78-59-1	Isophorone	U	388	ug/kg	77.6	388
88-75-5	2-Nitrophenol	U	388	ug/kg	77.6	388
105-67-9	2,4-Dimethylphenol	U	388	ug/kg	136	388
111-91-1	bis(2-Chloroethoxy)methane	U	388	ug/kg	77.6	388
120-83-2	2,4-Dichlorophenol	U	388	ug/kg	77.6	388
65-85-0	Benzoic acid	U	776	ug/kg	194	776
91-20-3	Naphthalene	U	38.8	ug/kg	11.6	38.8
106-47-8	4-Chloroaniline	U	388	ug/kg	77.6	388
87-68-3	Hexachlorobutadiene	U	388	ug/kg	77.6	388
91-57-6	2-Methylnaphthalene	U	38.8	ug/kg	7.76	38.8
77-47-4	Hexachlorocyclopentadiene	U	388	ug/kg	77.6	388
88-06-2	2,4,6-Trichlorophenol	U	388	ug/kg	77.6	388
95-95-4	2,4,5-Trichlorophenol	U	388	ug/kg	77.6	388
91-58-7	2-Chloronaphthalene	U	38.8	ug/kg	12.8	38.8
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	388	ug/kg	77.6	388
99-09-2	3-Nitroaniline	U	388	ug/kg	77.6	388

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242654018	**Date Received:**	12/10/2009 08:50	**%Moisture:**	14.2
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14285	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	932077	**Inst:**	MSD3.I	**Dilution:**	1
Run Date:	12/15/2009 12:23	**Analyst:**	JLD1	**Inj. Vol:**	.5 uL
Prep Date:	12/11/2009 21:55	**Aliquot:**	30.02 g	**Final Volume:**	1 mL
Data File:	s3l1511.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	388	ug/kg	77.6	388
606-20-2	2,6-Dinitrotoluene	U	388	ug/kg	38.8	388
208-96-8	Acenaphthylene	U	38.8	ug/kg	11.6	38.8
51-28-5	2,4-Dinitrophenol	U	776	ug/kg	147	776
132-64-9	Dibenzofuran	U	388	ug/kg	77.6	388
84-66-2	Diethylphthalate	U	388	ug/kg	77.6	388
86-73-7	Fluorene	U	38.8	ug/kg	11.6	38.8
7005-72-3	4-Chlorophenylphenylether	U	388	ug/kg	77.6	388
534-52-1	2-Methyl-4,6-dinitrophenol	U	388	ug/kg	77.6	388
100-01-6	4-Nitroaniline	U	388	ug/kg	116	388
	p-Nitroaniline					
122-39-4	Diphenylamine	U	388	ug/kg	77.6	388
122-66-7	Azobenzene	U	388	ug/kg	77.6	388
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	388	ug/kg	77.6	388
118-74-1	Hexachlorobenzene	U	388	ug/kg	77.6	388
85-01-8	Phenanthrene	U	38.8	ug/kg	11.6	38.8
120-12-7	Anthracene	U	38.8	ug/kg	7.76	38.8
84-74-2	Di-n-butylphthalate	U	388	ug/kg	77.6	388
206-44-0	Fluoranthene	U	38.8	ug/kg	11.6	38.8
85-68-7	Butylbenzylphthalate	U	388	ug/kg	77.6	388
56-55-3	Benzo(a)anthracene	U	38.8	ug/kg	11.6	38.8
91-94-1	3,3'-Dichlorobenzidine	U	388	ug/kg	116	388
218-01-9	Chrysene	U	38.8	ug/kg	11.6	38.8
117-81-7	bis(2-Ethylhexyl)phthalate	U	388	ug/kg	77.6	388
117-84-0	Di-n-octylphthalate	U	388	ug/kg	77.6	388
205-99-2	Benzo(b)fluoranthene	U	38.8	ug/kg	11.6	38.8
207-08-9	Benzo(k)fluoranthene	U	38.8	ug/kg	11.6	38.8
50-32-8	Benzo(a)pyrene	U	38.8	ug/kg	11.6	38.8
193-39-5	Indeno(1,2,3-cd)pyrene	U	38.8	ug/kg	11.6	38.8
53-70-3	Dibenzo(a,h)anthracene	U	38.8	ug/kg	11.6	38.8
191-24-2	Benzo(ghi)perylene	U	38.8	ug/kg	11.6	38.8
120-82-1	1,2,4-Trichlorobenzene	U	388	ug/kg	77.6	388

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.91	324	ug/kg		JA
	Unknown	15.68	634	ug/kg		J

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242654018	**Date Received:**	12/10/2009 08:50	**%Moisture:**	14.2
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14285	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	932077	**Inst:**	MSD3.1	**Dilution:**	1
Run Date:	12/15/2009 12:23	**Analyst:**	JLD1	**Inj. Vol:**	.5 uL
Prep Date:	12/11/2009 21:55	**Aliquot:**	30.02 g	**Final Volume:**	1 mL
Data File:	s3l1511.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	16.02	175	ug/kg		J

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242654019	**Date Received:**	12/10/2009 08:50	**%Moisture:**	13.4
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14286	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	932077	**Inst:**	MSD3.I	**Dilution:**	1
Run Date:	12/15/2009 12:51	**Analyst:**	JLD1	**Inj. Vol:**	.5 uL
Prep Date:	12/11/2009 21:55	**Aliquot:**	30.16 g	**Final Volume:**	1 mL
Data File:	s311512.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	383	ug/kg	76.6	383
108-95-2	Phenol	U	383	ug/kg	76.6	383
95-57-8	2-Chlorophenol	U	383	ug/kg	76.6	383
106-46-7	1,4-Dichlorobenzene	U	383	ug/kg	76.6	383
621-64-7	N-Nitrosodipropylamine	U	383	ug/kg	76.6	383
59-50-7	4-Chloro-3-methylphenol	U	383	ug/kg	76.6	383
83-32-9	Acenaphthene	U	38.3	ug/kg	12.6	38.3
121-14-2	2,4-Dinitrotoluene	U	383	ug/kg	38.3	383
100-02-7	4-Nitrophenol	U	383	ug/kg	126	383
87-86-5	Pentachlorophenol	U	383	ug/kg	95.7	383
129-00-0	Pyrene	U	38.3	ug/kg	11.5	38.3
110-86-1	Pyridine	U	383	ug/kg	76.6	383
62-53-3	Aniline	U	383	ug/kg	115	383
111-44-4	bis(2-Chloroethyl) ether	U	383	ug/kg	76.6	383
541-73-1	1,3-Dichlorobenzene	U	383	ug/kg	76.6	383
100-51-6	Benzyl alcohol	U	383	ug/kg	115	383
95-50-1	1,2-Dichlorobenzene	U	383	ug/kg	76.6	383
108-60-1	bis(2-Chloroisopropyl)ether	U	383	ug/kg	76.6	383
95-48-7	o-Cresol	U	383	ug/kg	76.6	383
65794-96-9	m,p-Cresols	U	383	ug/kg	115	383
67-72-1	Hexachloroethane	U	383	ug/kg	76.6	383
98-95-3	Nitrobenzene	U	383	ug/kg	76.6	383
78-59-1	Isophorone	U	383	ug/kg	76.6	383
88-75-5	2-Nitrophenol	U	383	ug/kg	76.6	383
105-67-9	2,4-Dimethylphenol	U	383	ug/kg	134	383
111-91-1	bis(2-Chloroethoxy)methane	U	383	ug/kg	76.6	383
120-83-2	2,4-Dichlorophenol	U	383	ug/kg	76.6	383
65-85-0	Benzoic acid	U	766	ug/kg	191	766
91-20-3	Naphthalene	U	38.3	ug/kg	11.5	38.3
106-47-8	4-Chloroaniline	U	383	ug/kg	76.6	383
87-68-3	Hexachlorobutadiene	U	383	ug/kg	76.6	383
91-57-6	2-Methylnaphthalene	U	38.3	ug/kg	7.66	38.3
77-47-4	Hexachlorocyclopentadiene	U	383	ug/kg	76.6	383
88-06-2	2,4,6-Trichlorophenol	U	383	ug/kg	76.6	383
95-95-4	2,4,5-Trichlorophenol	U	383	ug/kg	76.6	383
91-58-7	2-Chloronaphthalene	U	38.3	ug/kg	12.6	38.3
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	383	ug/kg	76.6	383
99-09-2	3-Nitroaniline	U	383	ug/kg	76.6	383

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242654019	**Date Received:**	12/10/2009 08:50	**%Moisture:**	13.4
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14286	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	932077	**Inst:**	MSD3.1	**Dilution:**	1
Run Date:	12/15/2009 12:51	**Analyst:**	JLD1	**Inj. Vol:**	.5 uL
Prep Date:	12/11/2009 21:55	**Aliquot:**	30.16 g	**Final Volume:**	1 mL
Data File:	s3l1512.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	383	ug/kg	76.6	383
606-20-2	2,6-Dinitrotoluene	U	383	ug/kg	38.3	383
208-96-8	Acenaphthylene	U	38.3	ug/kg	11.5	38.3
51-28-5	2,4-Dinitrophenol	U	766	ug/kg	145	766
132-64-9	Dibenzofuran	U	383	ug/kg	76.6	383
84-66-2	Diethylphthalate	U	383	ug/kg	76.6	383
86-73-7	Fluorene	U	38.3	ug/kg	11.5	38.3
7005-72-3	4-Chlorophenylphenylether	U	383	ug/kg	76.6	383
534-52-1	2-Methyl-4,6-dinitrophenol	U	383	ug/kg	76.6	383
100-01-6	4-Nitroaniline	U	383	ug/kg	115	383
	p-Nitroaniline					
122-39-4	Diphenylamine	U	383	ug/kg	76.6	383
122-66-7	Azobenzene	U	383	ug/kg	76.6	383
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	383	ug/kg	76.6	383
118-74-1	Hexachlorobenzene	U	383	ug/kg	76.6	383
85-01-8	Phenanthrene	U	38.3	ug/kg	11.5	38.3
120-12-7	Anthracene	U	38.3	ug/kg	7.66	38.3
84-74-2	Di-n-butylphthalate	U	383	ug/kg	76.6	383
206-44-0	Fluoranthene	U	38.3	ug/kg	11.5	38.3
85-68-7	Butylbenzylphthalate	U	383	ug/kg	76.6	383
56-55-3	Benzo(a)anthracene	U	38.3	ug/kg	11.5	38.3
91-94-1	3,3'-Dichlorobenzidine	U	383	ug/kg	115	383
218-01-9	Chrysene	U	38.3	ug/kg	11.5	38.3
117-81-7	bis(2-Ethylhexyl)phthalate	U	383	ug/kg	76.6	383
117-84-0	Di-n-octylphthalate	U	383	ug/kg	76.6	383
205-99-2	Benzo(b)fluoranthene	U	38.3	ug/kg	11.5	38.3
207-08-9	Benzo(k)fluoranthene	U	38.3	ug/kg	11.5	38.3
50-32-8	Benzo(a)pyrene	U	38.3	ug/kg	11.5	38.3
193-39-5	Indeno(1,2,3-cd)pyrene	U	38.3	ug/kg	11.5	38.3
53-70-3	Dibenzo(a,h)anthracene	U	38.3	ug/kg	11.5	38.3
191-24-2	Benzo(ghi)perylene	U	38.3	ug/kg	11.5	38.3
120-82-1	1,2,4-Trichlorobenzene	U	383	ug/kg	76.6	383

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.92	431	ug/kg		JA

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242654006	**Date Received:**	12/10/2009 08:50	**%Moisture:**	11.7
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14287	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	932077	**Inst:**	MSD3.I	**Dilution:**	1
Run Date:	12/13/2009 18:08	**Analyst:**	JLD1	**Inj. Vol:**	.5 uL
Prep Date:	12/11/2009 21:55	**Aliquot:**	30.06 g	**Final Volume:**	1 mL
Data File:	s3l1322.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	377	ug/kg	75.3	377
108-95-2	Phenol	U	377	ug/kg	75.3	377
95-57-8	2-Chlorophenol	U	377	ug/kg	75.3	377
106-46-7	1,4-Dichlorobenzene	U	377	ug/kg	75.3	377
621-64-7	N-Nitrosodipropylamine	U	377	ug/kg	75.3	377
59-50-7	4-Chloro-3-methylphenol	U	377	ug/kg	75.3	377
83-32-9	Acenaphthene	U	37.7	ug/kg	12.4	37.7
121-14-2	2,4-Dinitrotoluene	U	377	ug/kg	37.7	377
100-02-7	4-Nitrophenol	U	377	ug/kg	124	377
87-86-5	Pentachlorophenol	U	377	ug/kg	94.2	377
129-00-0	Pyrene		50.5	ug/kg	11.3	37.7
110-86-1	Pyridine	U	377	ug/kg	75.3	377
62-53-3	Aniline	U	377	ug/kg	113	377
111-44-4	bis(2-Chloroethyl) ether	U	377	ug/kg	75.3	377
541-73-1	1,3-Dichlorobenzene	U	377	ug/kg	75.3	377
100-51-6	Benzyl alcohol	U	377	ug/kg	113	377
95-50-1	1,2-Dichlorobenzene	U	377	ug/kg	75.3	377
108-60-1	bis(2-Chloroisopropyl)ether	U	377	ug/kg	75.3	377
95-48-7	o-Cresol	U	377	ug/kg	75.3	377
65794-96-9	m,p-Cresols	U	377	ug/kg	113	377
67-72-1	Hexachloroethane	U	377	ug/kg	75.3	377
98-95-3	Nitrobenzene	U	377	ug/kg	75.3	377
78-59-1	Isophorone	U	377	ug/kg	75.3	377
88-75-5	2-Nitrophenol	U	377	ug/kg	75.3	377
105-67-9	2,4-Dimethylphenol	U	377	ug/kg	132	377
111-91-1	bis(2-Chloroethoxy)methane	U	377	ug/kg	75.3	377
120-83-2	2,4-Dichlorophenol	U	377	ug/kg	75.3	377
65-85-0	Benzoic acid	U	753	ug/kg	188	753
91-20-3	Naphthalene	U	37.7	ug/kg	11.3	37.7
106-47-8	4-Chloroaniline	U	377	ug/kg	75.3	377
87-68-3	Hexachlorobutadiene	U	377	ug/kg	75.3	377
91-57-6	2-Methylnaphthalene	U	37.7	ug/kg	7.53	37.7
77-47-4	Hexachlorocyclopentadiene	U	377	ug/kg	75.3	377
88-06-2	2,4,6-Trichlorophenol	U	377	ug/kg	75.3	377
95-95-4	2,4,5-Trichlorophenol	U	377	ug/kg	75.3	377
91-58-7	2-Chloronaphthalene	U	37.7	ug/kg	12.4	37.7
88-74-4	2-Nitroaniline	U	377	ug/kg	75.3	377
	o-Nitroaniline					
99-09-2	3-Nitroaniline	U	377	ug/kg	75.3	377

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242654006	**Date Received:**	12/10/2009 08:50	**%Moisture:**	11.7
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14287	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	932077	**Inst:**	MSD3.I	**Dilution:**	1
Run Date:	12/13/2009 18:08	**Analyst:**	JLD1	**Inj. Vol:**	.5 uL
Prep Date:	12/11/2009 21:55	**Aliquot:**	30.06 g	**Final Volume:**	1 mL
Data File:	s311322.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	377	ug/kg	75.3	377
606-20-2	2,6-Dinitrotoluene	U	377	ug/kg	37.7	377
208-96-8	Acenaphthylene	U	37.7	ug/kg	11.3	37.7
51-28-5	2,4-Dinitrophenol	U	753	ug/kg	143	753
132-64-9	Dibenzofuran	U	377	ug/kg	75.3	377
84-66-2	Diethylphthalate	U	377	ug/kg	75.3	377
86-73-7	Fluorene	U	37.7	ug/kg	11.3	37.7
7005-72-3	4-Chlorophenylphenylether	U	377	ug/kg	75.3	377
534-52-1	2-Methyl-4,6-dinitrophenol	U	377	ug/kg	75.3	377
100-01-6	4-Nitroaniline	U	377	ug/kg	113	377
	p-Nitroaniline					
122-39-4	Diphenylamine	U	377	ug/kg	75.3	377
122-66-7	Azobenzene	U	377	ug/kg	75.3	377
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	377	ug/kg	75.3	377
118-74-1	Hexachlorobenzene	U	377	ug/kg	75.3	377
85-01-8	Phenanthrene	J	28.4	ug/kg	11.3	37.7
120-12-7	Anthracene	U	37.7	ug/kg	7.53	37.7
84-74-2	Di-n-butylphthalate	U	377	ug/kg	75.3	377
206-44-0	Fluoranthene		51.7	ug/kg	11.3	37.7
85-68-7	Butylbenzylphthalate	U	377	ug/kg	75.3	377
56-55-3	Benzo(a)anthracene	J	21.0	ug/kg	11.3	37.7
91-94-1	3,3'-Dichlorobenzidine	U	377	ug/kg	113	377
218-01-9	Chrysene	J	28.7	ug/kg	11.3	37.7
117-81-7	bis(2-Ethylhexyl)phthalate	U	377	ug/kg	75.3	377
117-84-0	Di-n-octylphthalate	U	377	ug/kg	75.3	377
205-99-2	Benzo(b)fluoranthene	J	33.0	ug/kg	11.3	37.7
207-08-9	Benzo(k)fluoranthene	J	11.6	ug/kg	11.3	37.7
50-32-8	Benzo(a)pyrene	J	22.1	ug/kg	11.3	37.7
193-39-5	Indeno(1,2,3-cd)pyrene	U	37.7	ug/kg	11.3	37.7
53-70-3	Dibenzo(a,h)anthracene	U	37.7	ug/kg	11.3	37.7
191-24-2	Benzo(ghi)perylene	U	37.7	ug/kg	11.3	37.7
120-82-1	1,2,4-Trichlorobenzene	U	377	ug/kg	75.3	377

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.95	326	ug/kg		JA
7785-70-8	1R-.alpha.-Pinene	3.68	527	ug/kg	97	NJ

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-852**	**Date Collected:**	**12/07/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242654006**	**Date Received:**	**12/10/2009 08:50**	**%Moisture:**	**11.7**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14287**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**932077**	**Inst:**	**MSD3.I**	**Dilution:**	**1**
Run Date:	**12/13/2009 18:08**	**Analyst:**	**JLD1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/11/2009 21:55**	**Aliquot:**	**30.06 g**	**Final Volume:**	**1 mL**
Data File:	**s3I1322.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
18172-67-3	Bicyclo[3.1.1]heptane, 6,6-dimethyl-2-me	4.03	203	ug/kg	97	NJ
13466-78-9	3-Carene	4.24	470	ug/kg	96	NJ
	Unknown	11.13	291	ug/kg		J
1235-74-1	1-Phenanthrenecarboxylic acid, 1,2,3,4,4	11.23	237	ug/kg	99	NJ
	Unknown	15.75	203	ug/kg		J
1058-61-3	Stigmast-4-en-3-one	17.11	179	ug/kg	90	NJ
	Unknown	17.94	434	ug/kg		J
	Unknown	19.1	433	ug/kg		J
	Unknown	19.56	375	ug/kg		J

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242654005	**Date Received:**	12/10/2009 08:50	**%Moisture:**	5.9
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14288	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	932077	**Inst:**	MSD3.I	**Dilution:**	1
Run Date:	12/13/2009 17:40	**Analyst:**	JLD1	**Inj. Vol:**	.5 uL
Prep Date:	12/11/2009 21:55	**Aliquot:**	30.12 g	**Final Volume:**	1 mL
Data File:	s3l1321.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	353	ug/kg	70.6	353
108-95-2	Phenol	U	353	ug/kg	70.6	353
95-57-8	2-Chlorophenol	U	353	ug/kg	70.6	353
106-46-7	1,4-Dichlorobenzene	U	353	ug/kg	70.6	353
621-64-7	N-Nitrosodipropylamine	U	353	ug/kg	70.6	353
59-50-7	4-Chloro-3-methylphenol	U	353	ug/kg	70.6	353
83-32-9	Acenaphthene	U	35.3	ug/kg	11.6	35.3
121-14-2	2,4-Dinitrotoluene	U	353	ug/kg	35.3	353
100-02-7	4-Nitrophenol	U	353	ug/kg	116	353
87-86-5	Pentachlorophenol	U	353	ug/kg	88.2	353
129-00-0	Pyrene	U	35.3	ug/kg	10.6	35.3
110-86-1	Pyridine	U	353	ug/kg	70.6	353
62-53-3	Aniline	U	353	ug/kg	106	353
111-44-4	bis(2-Chloroethyl) ether	U	353	ug/kg	70.6	353
541-73-1	1,3-Dichlorobenzene	U	353	ug/kg	70.6	353
100-51-6	Benzyl alcohol	U	353	ug/kg	106	353
95-50-1	1,2-Dichlorobenzene	U	353	ug/kg	70.6	353
108-60-1	bis(2-Chloroisopropyl)ether	U	353	ug/kg	70.6	353
95-48-7	o-Cresol	U	353	ug/kg	70.6	353
65794-96-9	m,p-Cresols	U	353	ug/kg	106	353
67-72-1	Hexachloroethane	U	353	ug/kg	70.6	353
98-95-3	Nitrobenzene	U	353	ug/kg	70.6	353
78-59-1	Isophorone	U	353	ug/kg	70.6	353
88-75-5	2-Nitrophenol	U	353	ug/kg	70.6	353
105-67-9	2,4-Dimethylphenol	U	353	ug/kg	124	353
111-91-1	bis(2-Chloroethoxy)methane	U	353	ug/kg	70.6	353
120-83-2	2,4-Dichlorophenol	U	353	ug/kg	70.6	353
65-85-0	Benzoic acid	U	706	ug/kg	176	706
91-20-3	Naphthalene	U	35.3	ug/kg	10.6	35.3
106-47-8	4-Chloroaniline	U	353	ug/kg	70.6	353
87-68-3	Hexachlorobutadiene	U	353	ug/kg	70.6	353
91-57-6	2-Methylnaphthalene	U	35.3	ug/kg	7.06	35.3
77-47-4	Hexachlorocyclopentadiene	U	353	ug/kg	70.6	353
88-06-2	2,4,6-Trichlorophenol	U	353	ug/kg	70.6	353
95-95-4	2,4,5-Trichlorophenol	U	353	ug/kg	70.6	353
91-58-7	2-Chloronaphthalene	U	35.3	ug/kg	11.6	35.3
88-74-4	2-Nitroaniline	U	353	ug/kg	70.6	353
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	353	ug/kg	70.6	353

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242654005	**Date Received:**	12/10/2009 08:50	**%Moisture:**	5.9
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14288	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	932077	**Inst:**	MSD3.1	**Dilution:**	1
Run Date:	12/13/2009 17:40	**Analyst:**	JLD1	**Inj. Vol:**	.5 uL
Prep Date:	12/11/2009 21:55	**Aliquot:**	30.12 g	**Final Volume:**	1 mL
Data File:	s3l1321.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	353	ug/kg	70.6	353
606-20-2	2,6-Dinitrotoluene	U	353	ug/kg	35.3	353
208-96-8	Acenaphthylene	U	35.3	ug/kg	10.6	35.3
51-28-5	2,4-Dinitrophenol	U	706	ug/kg	134	706
132-64-9	Dibenzofuran	U	353	ug/kg	70.6	353
84-66-2	Diethylphthalate	U	353	ug/kg	70.6	353
86-73-7	Fluorene	U	35.3	ug/kg	10.6	35.3
7005-72-3	4-Chlorophenylphenylether	U	353	ug/kg	70.6	353
534-52-1	2-Methyl-4,6-dinitrophenol	U	353	ug/kg	70.6	353
100-01-6	4-Nitroaniline	U	353	ug/kg	106	353
	p-Nitroaniline					
122-39-4	Diphenylamine	U	353	ug/kg	70.6	353
122-66-7	Azobenzene	U	353	ug/kg	70.6	353
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	353	ug/kg	70.6	353
118-74-1	Hexachlorobenzene	U	353	ug/kg	70.6	353
85-01-8	Phenanthrene	U	35.3	ug/kg	10.6	35.3
120-12-7	Anthracene	U	35.3	ug/kg	7.06	35.3
84-74-2	Di-n-butylphthalate	U	353	ug/kg	70.6	353
206-44-0	Fluoranthene	U	35.3	ug/kg	10.6	35.3
85-68-7	Butylbenzylphthalate	U	353	ug/kg	70.6	353
56-55-3	Benzo(a)anthracene	U	35.3	ug/kg	10.6	35.3
91-94-1	3,3'-Dichlorobenzidine	U	353	ug/kg	106	353
218-01-9	Chrysene	U	35.3	ug/kg	10.6	35.3
117-81-7	bis(2-Ethylhexyl)phthalate	U	353	ug/kg	70.6	353
117-84-0	Di-n-octylphthalate	U	353	ug/kg	70.6	353
205-99-2	Benzo(b)fluoranthene	U	35.3	ug/kg	10.6	35.3
207-08-9	Benzo(k)fluoranthene	U	35.3	ug/kg	10.6	35.3
50-32-8	Benzo(a)pyrene	U	35.3	ug/kg	10.6	35.3
193-39-5	Indeno(1,2,3-cd)pyrene	U	35.3	ug/kg	10.6	35.3
53-70-3	Dibenzo(a,h)anthracene	U	35.3	ug/kg	10.6	35.3
191-24-2	Benzo(ghi)perylene	U	35.3	ug/kg	10.6	35.3
120-82-1	1,2,4-Trichlorobenzene	U	353	ug/kg	70.6	353

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.94	253	ug/kg		JA
7785-70-8	1R-.alpha.-Pinene	3.68	2960	ug/kg	96	NJ

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242654005	**Date Received:**	12/10/2009 08:50	**%Moisture:**	5.9
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14288	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	932077	**Inst:**	MSD3.I	**Dilution:**	1
Run Date:	12/13/2009 17:40	**Analyst:**	JLD1	**Inj. Vol:**	.5 uL
Prep Date:	12/11/2009 21:55	**Aliquot:**	30.12 g	**Final Volume:**	1 mL
Data File:	s311321.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	11.1	241	ug/kg		J
	Unknown	11.13	270	ug/kg		J
1235-74-1	1-Phenanthrenecarboxylic acid, 1,2,3,4,4	11.23	738	ug/kg	97	NJ
	Unknown	11.29	171	ug/kg		J
127-25-3	Methyl abietate	11.43	227	ug/kg	98	NJ
	Unknown	11.87	365	ug/kg		J
62600-05-9	Cedran-diol, 8S,14-	11.99	287	ug/kg	81	NJ
	Unknown	12.63	204	ug/kg		J
	Unknown	19.1	222	ug/kg		J
	Unknown	19.56	196	ug/kg		J

QC Summary

Semi-Volatile

Surrogate Recovery Report

SDG Number: 10-852

Matrix Type: SOLID

CAP Column (1) : J&W DB-5MS

Sample ID	Client ID	2FP %REC	PHL %REC	NBZ %REC	FBP %REC	TBP %REC	TPH %REC
1201993834	MB for batch 932076	89	85	89	99	105	107
1201993835	LCS for batch 932076	81	78	79	87	104	90
242654001	RE03-09-14224	80	76	80	88	96	88
1201993836	RE03-09-14224MS	80	77	79	88	105	90
1201993837	RE03-09-14224MSD	78	76	78	86	99	87
242654002	RE03-09-14227	79	75	79	89	94	95
242654003	RE03-09-14225	82	77	82	92	93	99
242654004	RE03-09-14226	72	69	71	81	84	85
242654005	RE03-09-14288	79	75	79	89	103	97
242654006	RE03-09-14287	71	70	72	86	102	100
242654007	RE03-09-14267	80	77	80	92	96	124
242654008	RE03-09-14265	88 D	81 D	86 D	99 D	96 D	131 * D
242654016	RE03-09-14271	63	61	63	75	81	103
242654009	RE03-09-14281	64	63	64	80	92	109
242654010	RE03-09-14284	75	72	76	85	97	107
242654011	RE03-09-14274	75	72	75	85	98	107
242654012	RE03-09-14277	77	76	77	91	99	113
242654013	RE03-09-14282	73	71	75	85	96	120
242654014	RE03-09-14269	82	79	81	92	97	112
242654015	RE03-09-14273	76	74	76	87	104	108
242654017	RE03-09-14278	62	60	62	71	80	89
242654018	RE03-09-14285	87	82	89	99	108 *	136 *
242654019	RE03-09-14286	78	74	79	89	100	116
242654020	RE03-09-14283	74	70	76	84	93	114

Surrogate			Acceptance Limits
2FP	=	2-Fluorophenol	(35%-96%)
PHL	=	Phenol-d5	(36%-96%)
NBZ	=	Nitrobenzene-d5	(34%-104%)
FBP	=	2-Fluorobiphenyl	(36%-100%)
TBP	=	2,4,6-Tribromophenol	(37%-106%)
TPH	=	p-Terphenyl-d14	(40%-124%)

* Recovery outside Acceptance Limits

\# Column to be used to flag recovery values

D Sample Diluted

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-852
Client ID: LCS for batch 932076
Lab Sample ID: 1201993835
Instrument: MSD3.I
Analyst: JLD1
Inj. Vol: .5 uL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 12/13/2009 14:00
Dilution: 1
Prep Batch ID: 932076
Batch ID: 932077

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
62-75-9	LCS	N-Methyl-N-nitrosomethylam	1670	0.0	1120	67	31-95
108-95-2	LCS	Phenol	1670	0.0	1270	76	37-104
95-57-8	LCS	2-Chlorophenol	1670	0.0	1320	79	40-105
106-46-7	LCS	1,4-Dichlorobenzene	1670	0.0	1150	69	34-103
621-64-7	LCS	N-Nitrosodipropylamine	1670	0.0	1160	70	36-110
59-50-7	LCS	4-Chloro-3-methylphenol	1670	0.0	1340	81	46-114
83-32-9	LCS	Acenaphthene	1670	0.0	1220	73	40-105
121-14-2	LCS	2,4-Dinitrotoluene	1670	0.0	1300	78	49-107
100-02-7	LCS	4-Nitrophenol	1670	0.0	1330	80	33-110
87-86-5	LCS	Pentachlorophenol	1670	0.0	1370	82	38-116
129-00-0	LCS	Pyrene	1670	0.0	1280	77	43-108
110-86-1	LCS	Pyridine	1670	0.0	991	59	13-129
62-53-3	LCS	Aniline	1670	0.0	701	42	30-121
111-44-4	LCS	bis(2-Chloroethyl) ether	1670	0.0	1010	61	37-106
541-73-1	LCS	1,3-Dichlorobenzene	1670	0.0	1150	69	33-103
100-51-6	LCS	Benzyl alcohol	1670	0.0	1600	96	31-100
95-50-1	LCS	1,2-Dichlorobenzene	1670	0.0	1140	69	34-108
108-60-1	LCS	bis(2-Chloroisopropyl)ether	1670	0.0	967	58	34-120
95-48-7	LCS	o-Cresol	1670	0.0	1250	75	39-111
65794-96-9	LCS	m,p-Cresols	1670	0.0	1500	90	43-118
67-72-1	LCS	Hexachloroethane	1670	0.0	1130	68	34-105
98-95-3	LCS	Nitrobenzene	1670	0.0	1140	69	37-110

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-852
Sample Type: Laboratory Control Sample
Client ID: LCS for batch 932076
Matrix: SOIL
Lab Sample ID: 1201993835
Instrument: MSD3.I
Analysis Date: 12/13/2009 14:00
Dilution: 1
Analyst: JLD1
Prep Batch ID: 932076
Inj. Vol: .5 uL
Batch ID: 932077

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
78-59-1	LCS	Isophorone	1670	0.0	1330	80	41-108
88-75-5	LCS	2-Nitrophenol	1670	0.0	1330	80	35-112
105-67-9	LCS	2,4-Dimethylphenol	1670	0.0	1270	76	35-114
111-91-1	LCS	bis(2-Chloroethoxy)methane	1670	0.0	1080	65	40-109
120-83-2	LCS	2,4-Dichlorophenol	1670	0.0	1260	75	45-109
65-85-0	LCS	Benzoic acid	3330	0.0	3060	92	27-137
91-20-3	LCS	Naphthalene	1670	0.0	1300	78	35-105
106-47-8	LCS	4-Chloroaniline	1670	0.0	658	39	30-122
87-68-3	LCS	Hexachlorobutadiene	1670	0.0	1040	62	37-111
91-57-6	LCS	2-Methylnaphthalene	1670	0.0	1270	76	40-106
77-47-4	LCS	Hexachlorocyclopentadiene	1670	0.0	2210	133	24-135
88-06-2	LCS	2,4,6-Trichlorophenol	1670	0.0	1410	84	46-107
95-95-4	LCS	2,4,5-Trichlorophenol	1670	0.0	1350	81	44-110
91-58-7	LCS	2-Chloronaphthalene	1670	0.0	1120	67	44-104
88-74-4	LCS	2-Nitroaniline *o-Nitroaniline*	1670	0.0	1070	64	44-113
99-09-2	LCS	3-Nitroaniline *m-Nitroaniline*	1670	0.0	1210	73	48-113
131-11-3	LCS	Dimethylphthalate	1670	0.0	1350	81	47-104
606-20-2	LCS	2,6-Dinitrotoluene	1670	0.0	1280	77	47-103
208-96-8	LCS	Acenaphthylene	1670	0.0	1270	76	43-104
51-28-5	LCS	2,4-Dinitrophenol	1670	0.0	1600	96	32-114
132-64-9	LCS	Dibenzofuran	1670	0.0	1540	93	47-112
84-66-2	LCS	Diethylphthalate	1670	0.0	1380	83	50-108

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-852 **Sample Type:** Laboratory Control Sample

Client ID: LCS for batch 932076 **Matrix:** SOIL

Lab Sample ID: 1201993835

Instrument: MSD3.1 **Analysis Date:** 12/13/2009 14:00 **Dilution:** 1

Analyst: JLD1 **Prep Batch ID** 932076

Inj. Vol: .5 uL **Batch ID:** 932077

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
86-73-7	LCS	Fluorene	1670	0.0	1250	75	49-102
7005-72-3	LCS	4-Chlorophenylphenylether	1670	0.0	1390	83	50-109
534-52-1	LCS	2-Methyl-4,6-dinitrophenol	1670	0.0	1350	81	35-114
100-01-6	LCS	4-Nitroaniline *p-Nitroaniline*	1670	0.0	1410	84	44-139
122-39-4	LCS	Diphenylamine	1670	0.0	1320	79	46-111
122-66-7	LCS	Azobenzene *1,2-Diphenylhydrazine*	1670	0.0	1130	68	40-119
101-55-3	LCS	4-Bromophenylphenylether	1670	0.0	1450	87	45-112
118-74-1	LCS	Hexachlorobenzene	1670	0.0	1250	75	44-115
85-01-8	LCS	Phenanthrene	1670	0.0	1210	73	45-107
120-12-7	LCS	Anthracene	1670	0.0	1200	72	46-106
84-74-2	LCS	Di-n-butylphthalate	1670	0.0	1430	86	52-115
206-44-0	LCS	Fluoranthene	1670	0.0	1260	76	50-115
85-68-7	LCS	Butylbenzylphthalate	1670	0.0	1390	83	49-115
56-55-3	LCS	Benzo(a)anthracene	1670	0.0	1240	74	48-105
91-94-1	LCS	3,3'-Dichlorobenzidine	1670	0.0	915	55	45-98
218-01-9	LCS	Chrysene	1670	0.0	1240	74	48-105
117-81-7	LCS	bis(2-Ethylhexyl)phthalate	1670	0.0	1490	89	50-117
117-84-0	LCS	Di-n-octylphthalate	1670	0.0	1390	83	39-123
205-99-2	LCS	Benzo(b)fluoranthene	1670	0.0	1250	75	46-111
207-08-9	LCS	Benzo(k)fluoranthene	1670	0.0	1310	79	46-114
50-32-8	LCS	Benzo(a)pyrene	1670	0.0	1360	81	49-112
193-39-5	LCS	Indeno(1,2,3-cd)pyrene	1670	0.0	1370	82	45-128

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-852
Client ID: LCS for batch 932076
Lab Sample ID: 1201993835
Instrument: MSD3.I
Analyst: JLD1
Inj. Vol: .5 uL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 12/13/2009 14:00
Dilution: 1
Prep Batch ID: 932076
Batch ID: 932077

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
53-70-3	LCS	Dibenzo(a,h)anthracene	1670	0.0	1360	81	44-131
191-24-2	LCS	Benzo(ghi)perylene	1670	0.0	1330	80	42-128
120-82-1	LCS	1,2,4-Trichlorobenzene	1670	0.0	1210	73	36-109

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number:	10-852	**Sample Type:**	Matrix Spike
Client ID:	RE03-09-14224MS	**Matrix:**	S
Lab Sample ID:	1201993836	**%Moisture:**	14.6
Instrument:	MSD3.I	**Analysis Date:**	12/13/2009 15:23
Analyst:	JLD1	**Prep Batch ID:**	932076
Inj. Vol:	.5 uL	**Batch ID:**	932077

Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
62-75-9	MS	N-Methyl-N-nitrosomethylam	1950	0.00	U	1320	68	32-90
108-95-2	MS	Phenol	1950	0.00	U	1510	78	32-105
95-57-8	MS	2-Chlorophenol	1950	0.00	U	1590	81	33-106
106-46-7	MS	1,4-Dichlorobenzene	1950	0.00	U	1380	71	33-95
621-64-7	MS	N-Nitrosodipropylamine	1950	0.00	U	1410	72	31-109
59-50-7	MS	4-Chloro-3-methylphenol	1950	0.00	U	1650	85	38-119
83-32-9	MS	Acenaphthene	1950	0.00	U	1500	77	39-100
121-14-2	MS	2,4-Dinitrotoluene	1950	0.00	U	1570	80	42-107
100-02-7	MS	4-Nitrophenol	1950	0.00	U	1620	83	24-120
87-86-5	MS	Pentachlorophenol	1950	0.00	U	1750	89	26-121
129-00-0	MS	Pyrene	1950	0.00	U	1530	78	34-120
110-86-1	MS	Pyridine	1950	0.00	U	990	51	30-95
62-53-3	MS	Aniline	1950	0.00	U	1210	62	34-111
111-44-4	MS	bis(2-Chloroethyl) ether	1950	0.00	U	1210	62	34-101
541-73-1	MS	1,3-Dichlorobenzene	1950	0.00	U	1370	70	31-97
100-51-6	MS	Benzyl alcohol	1950	0.00	U	1890	97	17-120
95-50-1	MS	1,2-Dichlorobenzene	1950	0.00	U	1350	69	32-102
108-60-1	MS	bis(2-Chloroisopropyl)ether	1950	0.00	U	1160	59	32-113
95-48-7	MS	o-Cresol	1950	0.00	U	1490	76	31-119
65794-96-9	MS	m,p-Cresols	1950	0.00	U	1830	94	35-125
67-72-1	MS	Hexachloroethane	1950	0.00	U	1350	69	30-100
98-95-3	MS	Nitrobenzene	1950	0.00	U	1370	70	33-108

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number:	10-852	Sample Type:	Matrix Spike
Client ID:	RE03-09-14224MS	Matrix:	S
Lab Sample ID:	1201993836	%Moisture:	14.6
Instrument:	MSD3.I	Analysis Date:	12/13/2009 15:23
Analyst:	JLD1	Prep Batch ID:	932076
Inj. Vol:	.5 uL	Batch ID:	932077

Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
78-59-1	MS	Isophorone	1950	0.00	U	1600	82	34-110
88-75-5	MS	2-Nitrophenol	1950	0.00	U	1600	82	32-108
105-67-9	MS	2,4-Dimethylphenol	1950	0.00	U	1500	77	32-115
111-91-1	MS	bis(2-Chloroethoxy)methane	1950	0.00	U	1310	67	35-108
120-83-2	MS	2,4-Dichlorophenol	1950	0.00	U	1520	78	38-110
65-85-0	MS	Benzoic acid	3900	0.00	U	3560	91	18-134
91-20-3	MS	Naphthalene	1950	0.00	U	1560	80	31-105
106-47-8	MS	4-Chloroaniline	1950	0.00	U	1170	60	29-123
87-68-3	MS	Hexachlorobutadiene	1950	0.00	U	1260	65	31-109
91-57-6	MS	2-Methylnaphthalene	1950	0.00	U	1530	79	32-110
77-47-4	MS	Hexachlorocyclopentadiene	1950	0.00	U	2620	135 *	21-122
88-06-2	MS	2,4,6-Trichlorophenol	1950	0.00	U	1720	88	37-108
95-95-4	MS	2,4,5-Trichlorophenol	1950	0.00	U	1680	86	37-116
91-58-7	MS	2-Chloronaphthalene	1950	0.00	U	1370	70	37-103
88-74-4	MS	2-Nitroaniline *o-Nitroaniline*	1950	0.00	U	1300	67	36-115
99-09-2	MS	3-Nitroaniline *m-Nitroaniline*	1950	0.00	U	1590	81	39-117
131-11-3	MS	Dimethylphthalate	1950	0.00	U	1640	84	41-105
606-20-2	MS	2,6-Dinitrotoluene	1950	0.00	U	1540	79	41-103
208-96-8	MS	Acenaphthylene	1950	0.00	U	1570	81	41-103
51-28-5	MS	2,4-Dinitrophenol	1950	0.00	U	1880	97	25-104
132-64-9	MS	Dibenzofuran	1950	0.00	U	1900	98	40-114
84-66-2	MS	Diethylphthalate	1950	0.00	U	1680	86	43-110

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number:	10-852	Sample Type:	Matrix Spike
Client ID:	RE03-09-14224MS	Matrix:	S
Lab Sample ID:	1201993836	%Moisture:	14.6
Instrument:	MSD3.I	Analysis Date:	12/13/2009 15:23
Analyst:	JLD1	Prep Batch ID:	932076
Inj. Vol:	.5 uL	Batch ID:	932077

Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
86-73-7	MS	Fluorene	1950	0.00	U	1530	79	48-99
7005-72-3	MS	4-Chlorophenylphenylether	1950	0.00	U	1710	88	42-111
534-52-1	MS	2-Methyl-4,6-dinitrophenol	1950	0.00	U	1610	83	19-118
100-01-6	MS	4-Nitroaniline *p-Nitroaniline*	1950	0.00	U	1540	79	35-139
122-39-4	MS	Diphenylamine	1950	0.00	U	1640	84	41-112
122-66-7	MS	Azobenzene *1,2-Diphenylhydrazine*	1950	0.00	U	1380	71	37-118
101-55-3	MS	4-Bromophenylphenylether	1950	0.00	U	1780	91	39-112
118-74-1	MS	Hexachlorobenzene	1950	0.00	U	1520	78	38-113
85-01-8	MS	Phenanthrene	1950	0.00	U	1470	75	38-110
120-12-7	MS	Anthracene	1950	0.00	U	1460	75	38-112
84-74-2	MS	Di-n-butylphthalate	1950	0.00	U	1720	88	42-119
206-44-0	MS	Fluoranthene	1950	0.00	U	1520	78	38-119
85-68-7	MS	Butylbenzylphthalate	1950	0.00	U	1670	86	39-126
56-55-3	MS	Benzo(a)anthracene	1950	0.00	U	1470	76	39-110
91-94-1	MS	3,3'-Dichlorobenzidine	1950	0.00	U	766	39	35-106
218-01-9	MS	Chrysene	1950	0.00	U	1480	76	39-109
117-81-7	MS	bis(2-Ethylhexyl)phthalate	1950	0.00	U	1780	92	40-125
117-84-0	MS	Di-n-octylphthalate	1950	0.00	U	1700	87	30-147
205-99-2	MS	Benzo(b)fluoranthene	1950	0.00	U	1520	78	38-117
207-08-9	MS	Benzo(k)fluoranthene	1950	0.00	U	1560	80	39-120
50-32-8	MS	Benzo(a)pyrene	1950	0.00	U	1620	83	40-115
193-39-5	MS	Indeno(1,2,3-cd)pyrene	1950	0.00	U	1620	83	32-120

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number:	10-852	**Sample Type:**	Matrix Spike
Client ID:	RE03-09-14224MS	**Matrix:**	S
Lab Sample ID:	1201993836	**%Moisture:**	14.6
Instrument:	MSD3.I	**Analysis Date:**	12/13/2009 15:23
Analyst:	JLD1	**Prep Batch ID**	932076
Inj. Vol:	.5 uL	**Batch ID:**	932077

Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
53-70-3	MS	Dibenzo(a,h)anthracene	1950	0.00	U	1600	82	32-124
191-24-2	MS	Benzo(ghi)perylene	1950	0.00	U	1560	80	28-119
120-82-1	MS	1,2,4-Trichlorobenzene	1950	0.00	U	1430	74	31-105

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-852
Client ID: RE03-09-14224MSD
Lab Sample ID: 1201993837
Instrument: MSD3.I
Analyst: JLD1
Inj. Vol: .5 uL

Sample Type: Matrix Spike Duplicate
Matrix: S
%Moisture: 14.6
Analysis Date: 12/13/2009 15:50
Dilution: 1
Prep Batch ID: 932076
Batch ID: 932077

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
62-75-9	MSD	N-Methyl-N-nitrosomethylam	1940	0.00	U	1310	68	32-90	1	0-30
108-95-2	MSD	Phenol	1940	0.00	U	1460	75	32-105	4	0-30
95-57-8	MSD	2-Chlorophenol	1940	0.00	U	1530	79	33-106	4	0-30
106-46-7	MSD	1,4-Dichlorobenzene	1940	0.00	U	1350	69	33-95	2	0-30
621-64-7	MSD	N-Nitrosodipropylamine	1940	0.00	U	1360	70	31-109	3	0-30
59-50-7	MSD	4-Chloro-3-methylphenol	1940	0.00	U	1560	80	38-119	6	0-30
83-32-9	MSD	Acenaphthene	1940	0.00	U	1430	74	39-100	5	0-30
121-14-2	MSD	2,4-Dinitrotoluene	1940	0.00	U	1490	77	42-107	5	0-30
100-02-7	MSD	4-Nitrophenol	1940	0.00	U	1530	79	24-120	6	0-30
87-86-5	MSD	Pentachlorophenol	1940	0.00	U	1630	84	26-121	7	0-30
129-00-0	MSD	Pyrene	1940	0.00	U	1490	77	34-120	3	0-30
110-86-1	MSD	Pyridine	1940	0.00	U	975	50	30-95	2	0-30
62-53-3	MSD	Aniline	1940	0.00	U	1170	60	34-111	4	0-30
111-44-4	MSD	bis(2-Chloroethyl) ether	1940	0.00	U	1180	61	34-101	3	0-30
541-73-1	MSD	1,3-Dichlorobenzene	1940	0.00	U	1350	70	31-97	1	0-30
100-51-6	MSD	Benzyl alcohol	1940	0.00	U	1820	94	17-120	4	0-30
95-50-1	MSD	1,2-Dichlorobenzene	1940	0.00	U	1330	69	32-102	2	0-30
108-60-1	MSD	bis(2-Chloroisopropyl)ether	1940	0.00	U	1130	58	32-113	3	0-30
95-48-7	MSD	o-Cresol	1940	0.00	U	1460	75	31-119	2	0-30
65794-96-9	MSD	m,p-Cresols	1940	0.00	U	1750	90	35-125	4	0-30
67-72-1	MSD	Hexachloroethane	1940	0.00	U	1330	69	30-100	2	0-30
98-95-3	MSD	Nitrobenzene	1940	0.00	U	1330	69	33-108	3	0-30

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-852
Client ID: RE03-09-14224MSD
Lab Sample ID: 1201993837
Instrument: MSD3.I
Analyst: JLD1
Inj. Vol: .5 uL

Sample Type: Matrix Spike Duplicate
Matrix: S
%Moisture: 14.6
Analysis Date: 12/13/2009 15:50
Dilution: 1
Prep Batch ID 932076
Batch ID: 932077

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
78-59-1	MSD	Isophorone	1940	0.00	U	1550	80	34-110	3	0-30
88-75-5	MSD	2-Nitrophenol	1940	0.00	U	1550	80	32-108	3	0-30
105-67-9	MSD	2,4-Dimethylphenol	1940	0.00	U	1470	76	32-115	2	0-30
111-91-1	MSD	bis(2-Chloroethoxy)methane	1940	0.00	U	1270	66	35-108	3	0-30
120-83-2	MSD	2,4-Dichlorophenol	1940	0.00	U	1460	75	38-110	4	0-30
65-85-0	MSD	Benzoic acid	3880	0.00	U	3030	78	18-134	16	0-30
91-20-3	MSD	Naphthalene	1940	0.00	U	1510	78	31-105	3	0-30
106-47-8	MSD	4-Chloroaniline	1940	0.00	U	1100	57	29-123	6	0-30
87-68-3	MSD	Hexachlorobutadiene	1940	0.00	U	1220	63	31-109	4	0-30
91-57-6	MSD	2-Methylnaphthalene	1940	0.00	U	1480	76	32-110	4	0-30
77-47-4	MSD	Hexachlorocyclopentadiene	1940	0.00	U	2580	133 *	21-122	2	0-30
88-06-2	MSD	2,4,6-Trichlorophenol	1940	0.00	U	1660	85	37-108	4	0-30
95-95-4	MSD	2,4,5-Trichlorophenol	1940	0.00	U	1580	82	37-116	6	0-30
91-58-7	MSD	2-Chloronaphthalene	1940	0.00	U	1330	69	37-103	3	0-30
88-74-4	MSD	2-Nitroaniline *o-Nitroaniline*	1940	0.00	U	1240	64	36-115	5	0-30
99-09-2	MSD	3-Nitroaniline *m-Nitroaniline*	1940	0.00	U	1450	75	39-117	9	0-30
131-11-3	MSD	Dimethylphthalate	1940	0.00	U	1550	80	41-105	5	0-30
606-20-2	MSD	2,6-Dinitrotoluene	1940	0.00	U	1470	76	41-103	5	0-30
208-96-8	MSD	Acenaphthylene	1940	0.00	U	1510	78	41-103	4	0-30
51-28-5	MSD	2,4-Dinitrophenol	1940	0.00	U	1720	89	25-104	9	0-30
132-64-9	MSD	Dibenzofuran	1940	0.00	U	1830	94	40-114	4	0-30
84-66-2	MSD	Diethylphthalate	1940	0.00	U	1630	84	43-110	3	0-30

Quality Control Summary
Spike Recovery Report

SDG Number:	**10-852**	**Sample Type:**	**Matrix Spike Duplicate**
Client ID:	**RE03-09-14224MSD**	**Matrix:**	**S**
Lab Sample ID:	**1201993837**	**%Moisture:**	**14.6**
Instrument:	**MSD3.I**	**Analysis Date:**	**12/13/2009 15:50** **Dilution: 1**
Analyst:	**JLD1**	**Prep Batch ID:**	**932076**
Inj. Vol:	**.5 uL**	**Batch ID:**	**932077**

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
86-73-7	MSD	Fluorene	1940	0.00	U	1470	76	48-99	4	0-30
7005-72-3	MSD	4-Chlorophenylphenylether	1940	0.00	U	1630	84	42-111	5	0-30
534-52-1	MSD	2-Methyl-4,6-dinitrophenol	1940	0.00	U	1510	78	19-118	7	0-30
100-01-6	MSD	4-Nitroaniline *p-Nitroaniline*	1940	0.00	U	1290	67	35-139	18	0-30
122-39-4	MSD	Diphenylamine	1940	0.00	U	1570	81	41-112	4	0-30
122-66-7	MSD	Azobenzene *1,2-Diphenylhydrazine*	1940	0.00	U	1300	67	37-118	5	0-30
101-55-3	MSD	4-Bromophenylphenylether	1940	0.00	U	1680	87	39-112	6	0-30
118-74-1	MSD	Hexachlorobenzene	1940	0.00	U	1450	75	38-113	5	0-30
85-01-8	MSD	Phenanthrene	1940	0.00	U	1390	72	38-110	5	0-30
120-12-7	MSD	Anthracene	1940	0.00	U	1380	71	38-112	5	0-30
84-74-2	MSD	Di-n-butylphthalate	1940	0.00	U	1600	82	42-119	7	0-30
206-44-0	MSD	Fluoranthene	1940	0.00	U	1410	73	38-119	8	0-30
85-68-7	MSD	Butylbenzylphthalate	1940	0.00	U	1620	84	39-126	3	0-30
56-55-3	MSD	Benzo(a)anthracene	1940	0.00	U	1400	72	39-110	5	0-30
91-94-1	MSD	3,3'-Dichlorobenzidine	1940	0.00	U	536	28 *	35-106	35 *	0-30
218-01-9	MSD	Chrysene	1940	0.00	U	1390	72	39-109	6	0-30
117-81-7	MSD	bis(2-Ethylhexyl)phthalate	1940	0.00	U	1720	89	40-125	4	0-30
117-84-0	MSD	Di-n-octylphthalate	1940	0.00	U	1640	85	30-147	4	0-30
205-99-2	MSD	Benzo(b)fluoranthene	1940	0.00	U	1420	73	38-117	6	0-30
207-08-9	MSD	Benzo(k)fluoranthene	1940	0.00	U	1480	76	39-120	5	0-30
50-32-8	MSD	Benzo(a)pyrene	1940	0.00	U	1520	78	40-115	6	0-30
193-39-5	MSD	Indeno(1,2,3-cd)pyrene	1940	0.00	U	1480	76	32-120	9	0-30

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number:	**10-852**	**Sample Type:**	**Matrix Spike Duplicate**
Client ID:	**RE03-09-14224MSD**	**Matrix:**	**S**
Lab Sample ID:	**1201993837**	**%Moisture:**	**14.6**
Instrument:	**MSD3.I**	**Analysis Date:**	**12/13/2009 15:50**
Analyst:	**JLD1**	**Prep Batch ID**	**932076**
Inj. Vol:	**.5 uL**	**Batch ID:**	**932077**

Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
53-70-3	MSD	Dibenzo(a,h)anthracene	1940	0.00	U	1460	75	32-124	9	0-30
191-24-2	MSD	Benzo(ghi)perylene	1940	0.00	U	1400	72	28-119	11	0-30
120-82-1	MSD	1,2,4-Trichlorobenzene	1940	0.00	U	1410	73	31-105	2	0-30

Method Blank Summary

SDG Number:	10-852	Client:	LANL010	Matrix:	SOIL
Client ID:	MB for batch 932076	Instrument ID:	MSD3.I	Data File:	s3l1312.d
Lab Sample ID:	1201993834	Prep Date:	12/11/2009 21:55	Analyzed:	12/13/09 13:33
Column:	J&W DB-5MS	Level:	LOW		

This method blank applies to the following samples and quality control samples:

	Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01	LCS for batch 932076	1201993835	s3l1313.d	12/13/09	1400
02	RE03-09-14224	242654001	s3l1315.d	12/13/09	1455
03	RE03-09-14224MS	1201993836	s3l1316.d	12/13/09	1523
04	RE03-09-14224MSD	1201993837	s3l1317.d	12/13/09	1550
05	RE03-09-14227	242654002	s3l1318.d	12/13/09	1618
06	RE03-09-14225	242654003	s3l1319.d	12/13/09	1645
07	RE03-09-14226	242654004	s3l1320.d	12/13/09	1713
08	RE03-09-14288	242654005	s3l1321.d	12/13/09	1740
09	RE03-09-14287	242654006	s3l1322.d	12/13/09	1808
10	RE03-09-14267	242654007	s3l1323.d	12/13/09	1835
11	RE03-09-14265	242654008	s3l1324.d	12/13/09	1902
12	RE03-09-14271	242654016	s3l1332.d	12/13/09	2242
13	RE03-09-14281	242654009	s3l1425.d	12/14/09	1955
14	RE03-09-14284	242654010	s3l1426.d	12/14/09	2022
15	RE03-09-14274	242654011	s3l1427.d	12/14/09	2050
16	RE03-09-14277	242654012	s3l1428.d	12/14/09	2117
17	RE03-09-14282	242654013	s3l1429.d	12/14/09	2145
18	RE03-09-14269	242654014	s3l1507.d	12/15/09	1034
19	RE03-09-14273	242654015	s3l1508.d	12/15/09	1101
20	RE03-09-14278	242654017	s3l1510.d	12/15/09	1156
21	RE03-09-14285	242654018	s3l1511.d	12/15/09	1223
22	RE03-09-14286	242654019	s3l1512.d	12/15/09	1251
23	RE03-09-14283	242654020	s3l1513.d	12/15/09	1318

Instrument Performance Check

DFTPP

Lab Name GEL Laboratories LLC **Client SDG:** 10-852

Instrument ID: MSD3.I **Injection Date/Time:** 06-DEC-09 09:33

Column Description: J&W DB-5MS **Lab File ID** /chem/MSD3.i/s120609.b/s3l0601.d

m/e	Ion Abundance Criteria	% Relative Abundance
198	Base Peak, 100% Relative Abundance	100
51	30 - 60% of mass 198	39.6
68	Less than 2% of mass 69	1.6
69	Mass 69 Relative Abundance	46.8
70	Less than 2% of mass 69	0.5
127	40 - 60% of mass 198	51.7
197	0 - 1% of mass 198	0
199	5 - 9% of mass 198	6.9
275	10 - 30% of mass 198	23.2
365	Greater than 1% of mass 198	2.6
441	Present, but less than mass 443	71.8
442	Greater than 40% of mass 198	72.1
443	17 - 23% of mass 442	20.6

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
MEGAICAL001	WBN091201-16	/chem/MSD3.i/s120609.b/s3l0603	06-DEC-09 10:12
MEGAICAL010	WBN091201-15	/chem/MSD3.i/s120609.b/s3l0604	06-DEC-09 10:41
MEGAICAL020	WBN091201-14	/chem/MSD3.i/s120609.b/s3l0605	06-DEC-09 11:10
MEGAICAL040	WBN091201-13.1	/chem/MSD3.i/s120609.b/s3l0606	06-DEC-09 11:39
MEGAICAL050	WBN091201-12	/chem/MSD3.i/s120609.b/s3l0607	06-DEC-09 12:08
MEGAICAL080	WBN091201-11	/chem/MSD3.i/s120609.b/s3l0608	06-DEC-09 12:37
MEGAICAL100	WBN091201-10	/chem/MSD3.i/s120609.b/s3l0609	06-DEC-09 13:06
MEGAICAL120	WBN091201-09	/chem/MSD3.i/s120609.b/s3l0610	06-DEC-09 13:35
MEGAICV	WBN091106-05.2	/chem/MSD3.i/s120609.b/s3l0612	06-DEC-09 14:32

Instrument Performance Check

DFTPP

Lab Name GEL Laboratories LLC **Client SDG:** 10-852

Instrument ID: MSD3.I **Injection Date/Time:** 08-DEC-09 09:03

Column Description: J&W DB-5MS **Lab File ID** /chem/MSD3.i/s120809.b/s310801.d

m/e	Ion Abundance Criteria	% Relative Abundance
198	Base Peak, 100% Relative Abundance	100
51	30 - 60% of mass 198	37.9
68	Less than 2% of mass 69	1.6
69	Mass 69 Relative Abundance	44.6
70	Less than 2% of mass 69	0.5
127	40 - 60% of mass 198	49.7
197	0 - 1% of mass 198	0
199	5 - 9% of mass 198	6.7
275	10 - 30% of mass 198	23.7
365	Greater than 1% of mass 198	2.8
441	Present, but less than mass 443	72.7
442	Greater than 40% of mass 198	78
443	17 - 23% of mass 442	20.8

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
AP010	WBN091201-01	/chem/MSD3.i/s120809.b/s310803	08-DEC-09 09:42
AP020	WBN091201-02	/chem/MSD3.i/s120809.b/s310804	08-DEC-09 10:09
AP040	WBN091201-03.1	/chem/MSD3.i/s120809.b/s310805	08-DEC-09 10:37
AP050	WBN091201-04	/chem/MSD3.i/s120809.b/s310806	08-DEC-09 11:04
AP080	WBN091201-05	/chem/MSD3.i/s120809.b/s310807	08-DEC-09 11:31
AP100	WBN091201-06	/chem/MSD3.i/s120809.b/s310808	08-DEC-09 11:58
AP120	WBN091201-07	/chem/MSD3.i/s120809.b/s310809	08-DEC-09 12:26
APICV	WBN091201-08.1	/chem/MSD3.i/s120809.b/s310810	08-DEC-09 12:53

Instrument Performance Check

DFTPP

Lab Name GEL Laboratories LLC **Client SDG:** 10-852

Instrument ID: MSD3.I **Injection Date/Time:** 13-DEC-09 11:30

Column Description: J&W DB-5MS **Lab File ID** /chem/MSD3.i/s121309.b/s3l1307.d

m/e	Ion Abundance Criteria	% Relative Abundance
198	Base Peak, 100% Relative Abundance	100
51	30 - 60% of mass 198	39.3
68	Less than 2% of mass 69	0
69	Mass 69 Relative Abundance	45.3
70	Less than 2% of mass 69	0.5
127	40 - 60% of mass 198	50.1
197	0 - 1% of mass 198	0
199	5 - 9% of mass 198	6.9
275	10 - 30% of mass 198	25.3
365	Greater than 1% of mass 198	2.7
441	Present, but less than mass 443	80.9
442	Greater than 40% of mass 198	89.3
443	17 - 23% of mass 442	19.3

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
MEGACVS	WBN091201-17.2	/chem/MSD3.i/s121309.b/s3l1309	13-DEC-09 12:11
APCVS	WBN091201-08.3	/chem/MSD3.i/s121309.b/s3l1310	13-DEC-09 12:38
SBLK01	1201993834	/chem/MSD3.i/s121309.b/s3l1312	13-DEC-09 13:33
SBLK01LCS	1201993835	/chem/MSD3.i/s121309.b/s3l1313	13-DEC-09 14:00
RE03-09-14224	242654001	/chem/MSD3.i/s121309.b/s3l1315	13-DEC-09 14:55
RE03-09-14224MS	1201993836	/chem/MSD3.i/s121309.b/s3l1316	13-DEC-09 15:23
RE03-09-14224MSD	1201993837	/chem/MSD3.i/s121309.b/s3l1317	13-DEC-09 15:50
RE03-09-14227	242654002	/chem/MSD3.i/s121309.b/s3l1318	13-DEC-09 16:18
RE03-09-14225	242654003	/chem/MSD3.i/s121309.b/s3l1319	13-DEC-09 16:45
RE03-09-14226	242654004	/chem/MSD3.i/s121309.b/s3l1320	13-DEC-09 17:13
RE03-09-14288	242654005	/chem/MSD3.i/s121309.b/s3l1321	13-DEC-09 17:40
RE03-09-14287	242654006	/chem/MSD3.i/s121309.b/s3l1322	13-DEC-09 18:08
RE03-09-14267	242654007	/chem/MSD3.i/s121309.b/s3l1323	13-DEC-09 18:35
RE03-09-14265	242654008	/chem/MSD3.i/s121309.b/s3l1324	13-DEC-09 19:02
RE03-09-14271	242654016	/chem/MSD3.i/s121309.b/s3l1332	13-DEC-09 22:42

Instrument Performance Check

DFTPP

Lab Name GEL Laboratories LLC **Client SDG:** 10-852

Instrument ID: MSD3.I **Injection Date/Time:** 14-DEC-09 09:52

Column Description: J&W DB-5MS **Lab File ID** /chem/MSD3.i/s121409.b/s311403.d

m/e	Ion Abundance Criteria	% Relative Abundance
198	Base Peak, 100% Relative Abundance	100
51	30 - 60% of mass 198	38.7
68	Less than 2% of mass 69	0
69	Mass 69 Relative Abundance	45.3
70	Less than 2% of mass 69	0.5
127	40 - 60% of mass 198	50.7
197	0 - 1% of mass 198	0
199	5 - 9% of mass 198	6.9
275	10 - 30% of mass 198	25.5
365	Greater than 1% of mass 198	2.8
441	Present, but less than mass 443	78.3
442	Greater than 40% of mass 198	87.1
443	17 - 23% of mass 442	19.7

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
MEGACVS	WBN091201-17.2	/chem/MSD3.i/s121409.b/s311404	14-DEC-09 10:04
APCVS	WBN091201-08.3	/chem/MSD3.i/s121409.b/s311405	14-DEC-09 10:46
RE03-09-14281	242654009	/chem/MSD3.i/s121409.b/s311425	14-DEC-09 19:55
RE03-09-14284	242654010	/chem/MSD3.i/s121409.b/s311426	14-DEC-09 20:22
RE03-09-14274	242654011	/chem/MSD3.i/s121409.b/s311427	14-DEC-09 20:50
RE03-09-14277	242654012	/chem/MSD3.i/s121409.b/s311428	14-DEC-09 21:17
RE03-09-14282	242654013	/chem/MSD3.i/s121409.b/s311429	14-DEC-09 21:45

Instrument Performance Check

DFTPP

Lab Name GEL Laboratories LLC **Client SDG:** 10-852

Instrument ID: MSD3.I **Injection Date/Time:** 15-DEC-09 08:04

Column Description: J&W DB-5MS **Lab File ID** /chem/MSD3.i/s121509.b/s3l1501.d

m/e	Ion Abundance Criteria	% Relative Abundance
198	Base Peak, 100% Relative Abundance	100
51	30 - 60% of mass 198	40.6
68	Less than 2% of mass 69	0
69	Mass 69 Relative Abundance	47
70	Less than 2% of mass 69	0.5
127	40 - 60% of mass 198	51.5
197	0 - 1% of mass 198	0
199	5 - 9% of mass 198	7
275	10 - 30% of mass 198	25.7
365	Greater than 1% of mass 198	2.8
441	Present, but less than mass 443	82.6
442	Greater than 40% of mass 198	82.7
443	17 - 23% of mass 442	19.3

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
MEGACVS	WBN091201-17.2	/chem/MSD3.i/s121509.b/s3l1502	15-DEC-09 08:16
APCVS	WBN091201-08.4	/chem/MSD3.i/s121509.b/s3l1503	15-DEC-09 08:44
RE03-09-14269	242654014	/chem/MSD3.i/s121509.b/s3l1507	15-DEC-09 10:34
RE03-09-14273	242654015	/chem/MSD3.i/s121509.b/s3l1508	15-DEC-09 11:01
RE03-09-14278	242654017	/chem/MSD3.i/s121509.b/s3l1510	15-DEC-09 11:56
RE03-09-14285	242654018	/chem/MSD3.i/s121509.b/s3l1511	15-DEC-09 12:23
RE03-09-14286	242654019	/chem/MSD3.i/s121509.b/s3l1512	15-DEC-09 12:51
RE03-09-14283	242654020	/chem/MSD3.i/s121509.b/s3l1513	15-DEC-09 13:18

Internal Standard
Area and RT Summary

Lab Name : GEL Laboratories LLC

Instrument: MSD3.I

GC Column: J&W DB-5MS

Client SDG: 10-852

STD Analysis Time: 13-DEC-09 12:11

Data File: s311309.d

	1,4-Dichlorobenzene-d4			Naphthalene-d8			Acenaphthene-d10			Phenanthrene-d10			Chrysene-d12			Perylene-d12		
	Area	#	RT	#	Area	#	RT	#	Area	#	RT	#	Area	#	RT	#	Area	#	RT	#
12 Hour STD	138329		4.29		530737		5.55		285323		7.39		487976		8.98		412486		11.8		335701		13.8	
Upper Limit	276658		4.79		1061474		6.05		570646		7.89		975952		9.48		824972		12.3		671402		14.3	
Lower Limit	69165		3.79		265369		5.05		142662		6.89		243988		8.48		206243		11.3		167851		13.3	
Sample ID																								
BLK01	129528		4.29		486220		5.54		263698		7.39		442995		8.98		343305		11.8		254013		13.8	
BLK01LCS	131927		4.29		504122		5.54		277122		7.39		474719		8.98		409290		11.9		315041		13.8	
RE03-09-14224	132484		4.29		497060		5.54		273572		7.39		463501		8.98		378182		11.8		303580		13.8	
RE03-09-14224MS	132514		4.29		507330		5.54		278221		7.39		481875		8.98		414387		11.9		313914		13.8	
RE03-09-14224MSD	138383		4.29		527857		5.54		287058		7.39		496053		8.98		409710		11.9		305935		13.8	
RE03-09-14227	145168		4.29		544281		5.54		294741		7.39		498936		8.98		385413		11.8		289966		13.8	
RE03-09-14225	110793		4.29		417902		5.54		224686		7.39		389183		8.98		298026		11.8		225802		13.8	
RE03-09-14226	139424		4.29		525049		5.54		286016		7.39		480384		8.98		371987		11.8		290306		13.8	
RE03-09-14288	135869		4.29		514994		5.54		280550		7.39		476512		8.98		374656		11.8		282572		13.8	
RE03-09-14287	140618		4.29		525866		5.54		288965		7.39		491328		8.98		354283		11.8		213367		13.8	
RE03-09-14267	141531		4.29		526282		5.54		287890		7.39		469466		8.98		251553		11.8		124690	*	13.8	
RE03-09-14265	148139		4.29		553819		5.54		305955		7.39		504420		8.98		271728		11.8		131442	*	13.8	
RE03-09-14271	124657		4.29		473022		5.55		260454		7.39		424843		8.98		216416		11.8		123061	*	13.8	

Area Upper Limit = +100% of internal standard area
Area Lower Limit = - 50% of internal standard area

RT Upper Limit = + 0.50 minutes of internal standard RT
RT Lower Limit = - 0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Value outside of QC Limits

Internal Standard
Area and RT Summary

Lab Name : GEL Laboratories LLC

Client SDG: 10-852

Instrument: MSD3.I

STD Analysis Time: 14-DEC-09 10:04

GC Column: J&W DB-5MS

Data File: s311404.d

	1,4-Dichlorobenzene-d4				Naphthalene-d8				Acenaphthene-d10				Phenanthrene-d10				Chrysene-d12				Perylene-d12			
	Area	#	RT	#	Area	#	RT	#	Area	#	RT	#	Area	#	RT	#	Area	#	RT	#	Area	#	RT	#
12 Hour STD	137758		4.27		518959		5.52		277384		7.37		466504		8.96		342352		11.8		245637		13.8	
Upper Limit	275516		4.77		1037918		6.02		554768		7.87		933008		9.46		684704		12.3		491274		14.3	
Lower Limit	68879		3.77		259480		5.02		138692		6.87		233252		8.46		171176		11.3		122819		13.3	
Sample ID																								
RE03-09-14281	129893		4.27		487031		5.52		265914		7.36		423830		8.96		243271		11.8		140236		13.8	
RE03-09-14284	139647		4.27		521569		5.52		290306		7.36		484312		8.96		343153		11.8		218456		13.8	
RE03-09-14274	134599		4.27		506364		5.52		278880		7.36		475870		8.96		323218		11.8		175289		13.8	
RE03-09-14277	131123		4.27		496209		5.52		273204		7.36		442081		8.96		260446		11.8		128732		13.8	
RE03-09-14282	134653		4.27		503776		5.52		276349		7.37		452427		8.96		251454		11.8		126217		13.8	

Area Upper Limit = +100% of internal standard area
Area Lower Limit = - 50% of internal standard area

RT Upper Limit = + 0.50 minutes of internal standard RT
RT Lower Limit = - 0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Value outside of QC Limits

Internal Standard
Area and RT Summary

Lab Name : GEL Laboratories LLC

Client SDG: 10-852

Instrument: MSD3.I

STD Analysis Time: 15-DEC-09 08:16

GC Column: J&W DB-5MS

Data File: s311502.d

	1,4-Dichlorobenzene-d4			Naphthalene-d8			Acenaphthene-d10			Phenanthrene-d10			Chrysene-d12			Perylene-d12		
	Area	#	RT	#	Area	#	RT	#	Area	#	RT	#	Area	#	RT	#	Area	#	RT	#
12 Hour STD	126155		4.26		475346		5.51		253476		7.36		425192		8.95		335852		11.8		268702		13.8	
Upper Limit	252310		4.76		950692		6.01		506952		7.86		850384		9.45		671704		12.3		537404		14.3	
Lower Limit	63078		3.76		237673		5.01		126738		6.86		212596		8.45		167926		11.3		134351		13.3	
Sample ID																								
RE03-09-14269	118826		4.25		450114		5.5		250050		7.35		410780		8.94		244057		11.8		137607		13.8	
RE03-09-14273	122556		4.26		468875		5.51		263791		7.35		451544		8.94		298108		11.8		176987		13.8	
RE03-09-14278	141660		4.26		533546		5.51		304694		7.35		507775		8.95		305259		11.8		159323		13.8	
RE03-09-14285	112516		4.26		418948		5.51		230123		7.35		366088		8.95		193237		11.8		109733	*	13.8	
RE03-09-14286	128834		4.26		480735		5.51		268309		7.35		452891		8.95		281130		11.8		159058		13.8	
RE03-09-14283	134165		4.26		497804		5.51		278299		7.35		461589		8.95		272907		11.8		155552		13.8	

Area Upper Limit = +100% of internal standard area
Area Lower Limit = - 50% of internal standard area

RT Upper Limit = + 0.50 minutes of internal standard RT
RT Lower Limit = - 0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Value outside of QC Limits

Sample Data

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242654001	**Date Received:**	12/10/2009 08:50	**%Moisture:**	14.6
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14224	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	932077	**Inst:**	MSD3.I	**Dilution:**	1
Run Date:	12/13/2009 14:55	**Analyst:**	JLD1	**Inj. Vol:**	.5 uL
Prep Date:	12/11/2009 21:55	**Aliquot:**	30.17 g	**Final Volume:**	1 mL
Data File:	s3l1315.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	388	ug/kg	77.6	388
108-95-2	Phenol	U	388	ug/kg	77.6	388
95-57-8	2-Chlorophenol	U	388	ug/kg	77.6	388
106-46-7	1,4-Dichlorobenzene	U	388	ug/kg	77.6	388
621-64-7	N-Nitrosodipropylamine	U	388	ug/kg	77.6	388
59-50-7	4-Chloro-3-methylphenol	U	388	ug/kg	77.6	388
83-32-9	Acenaphthene	U	38.8	ug/kg	12.8	38.8
121-14-2	2,4-Dinitrotoluene	U	388	ug/kg	38.8	388
100-02-7	4-Nitrophenol	U	388	ug/kg	128	388
87-86-5	Pentachlorophenol	U	388	ug/kg	97.0	388
129-00-0	Pyrene	U	38.8	ug/kg	11.6	38.8
110-86-1	Pyridine	U	388	ug/kg	77.6	388
62-53-3	Aniline	U	388	ug/kg	116	388
111-44-4	bis(2-Chloroethyl) ether	U	388	ug/kg	77.6	388
541-73-1	1,3-Dichlorobenzene	U	388	ug/kg	77.6	388
100-51-6	Benzyl alcohol	U	388	ug/kg	116	388
95-50-1	1,2-Dichlorobenzene	U	388	ug/kg	77.6	388
108-60-1	bis(2-Chloroisopropyl)ether	U	388	ug/kg	77.6	388
95-48-7	o-Cresol	U	388	ug/kg	77.6	388
65794-96-9	m,p-Cresols	U	388	ug/kg	116	388
67-72-1	Hexachloroethane	U	388	ug/kg	77.6	388
98-95-3	Nitrobenzene	U	388	ug/kg	77.6	388
78-59-1	Isophorone	U	388	ug/kg	77.6	388
88-75-5	2-Nitrophenol	U	388	ug/kg	77.6	388
105-67-9	2,4-Dimethylphenol	U	388	ug/kg	136	388
111-91-1	bis(2-Chloroethoxy)methane	U	388	ug/kg	77.6	388
120-83-2	2,4-Dichlorophenol	U	388	ug/kg	77.6	388
65-85-0	Benzoic acid	U	776	ug/kg	194	776
91-20-3	Naphthalene	U	38.8	ug/kg	11.6	38.8
106-47-8	4-Chloroaniline	U	388	ug/kg	77.6	388
87-68-3	Hexachlorobutadiene	U	388	ug/kg	77.6	388
91-57-6	2-Methylnaphthalene	U	38.8	ug/kg	7.76	38.8
77-47-4	Hexachlorocyclopentadiene	U	388	ug/kg	77.6	388
88-06-2	2,4,6-Trichlorophenol	U	388	ug/kg	77.6	388
95-95-4	2,4,5-Trichlorophenol	U	388	ug/kg	77.6	388
91-58-7	2-Chloronaphthalene	U	38.8	ug/kg	12.8	38.8
88-74-4	2-Nitroaniline	U	388	ug/kg	77.6	388
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	388	ug/kg	77.6	388

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-852**	**Date Collected:**	**12/07/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242654001**	**Date Received:**	**12/10/2009 08:50**	**%Moisture:**	**14.6**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14224**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**932077**	**Inst:**	**MSD3.I**	**Dilution:**	**1**
Run Date:	**12/13/2009 14:55**	**Analyst:**	**JLD1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/11/2009 21:55**	**Aliquot:**	**30.17 g**	**Final Volume:**	**1 mL**
Data File:	**s3l1315.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	388	ug/kg	77.6	388
606-20-2	2,6-Dinitrotoluene	U	388	ug/kg	38.8	388
208-96-8	Acenaphthylene	U	38.8	ug/kg	11.6	38.8
51-28-5	2,4-Dinitrophenol	U	776	ug/kg	147	776
132-64-9	Dibenzofuran	U	388	ug/kg	77.6	388
84-66-2	Diethylphthalate	U	388	ug/kg	77.6	388
86-73-7	Fluorene	U	38.8	ug/kg	11.6	38.8
7005-72-3	4-Chlorophenylphenylether	U	388	ug/kg	77.6	388
534-52-1	2-Methyl-4,6-dinitrophenol	U	388	ug/kg	77.6	388
100-01-6	4-Nitroaniline	U	388	ug/kg	116	388
	p-Nitroaniline					
122-39-4	Diphenylamine	U	388	ug/kg	77.6	388
122-66-7	Azobenzene	U	388	ug/kg	77.6	388
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	388	ug/kg	77.6	388
118-74-1	Hexachlorobenzene	U	388	ug/kg	77.6	388
85-01-8	Phenanthrene	U	38.8	ug/kg	11.6	38.8
120-12-7	Anthracene	U	38.8	ug/kg	7.76	38.8
84-74-2	Di-n-butylphthalate	U	388	ug/kg	77.6	388
206-44-0	Fluoranthene	U	38.8	ug/kg	11.6	38.8
85-68-7	Butylbenzylphthalate	U	388	ug/kg	77.6	388
56-55-3	Benzo(a)anthracene	U	38.8	ug/kg	11.6	38.8
91-94-1	3,3'-Dichlorobenzidine	U	388	ug/kg	116	388
218-01-9	Chrysene	U	38.8	ug/kg	11.6	38.8
117-81-7	bis(2-Ethylhexyl)phthalate	U	388	ug/kg	77.6	388
117-84-0	Di-n-octylphthalate	U	388	ug/kg	77.6	388
205-99-2	Benzo(b)fluoranthene	U	38.8	ug/kg	11.6	38.8
207-08-9	Benzo(k)fluoranthene	U	38.8	ug/kg	11.6	38.8
50-32-8	Benzo(a)pyrene	U	38.8	ug/kg	11.6	38.8
193-39-5	Indeno(1,2,3-cd)pyrene	U	38.8	ug/kg	11.6	38.8
53-70-3	Dibenzo(a,h)anthracene	U	38.8	ug/kg	11.6	38.8
191-24-2	Benzo(ghi)perylene	U	38.8	ug/kg	11.6	38.8
120-82-1	1,2,4-Trichlorobenzene	U	388	ug/kg	77.6	388

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.95	8.01	ug/kg		JA
475-20-7	1,4-Methanoazulene, decahydro-4,8,8-trim	6.99	5.92	ug/kg	99	NJ

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-852**	**Date Collected:**	**12/07/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242654001**	**Date Received:**	**12/10/2009 08:50**	**%Moisture:**	**14.6**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14224**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**932077**	**Inst:**	**MSD3.I**	**Dilution:**	**1**
Run Date:	**12/13/2009 14:55**	**Analyst:**	**JLD1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/11/2009 21:55**	**Aliquot:**	**30.17 g**	**Final Volume:**	**1 mL**
Data File:	**s3l1315.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
1235-74-1	1-Phenanthrenecarboxylic acid, 1,2,3,4,4	11.22	8.08	ug/kg	99	NJ
	Unknown	11.29	9.93	ug/kg		J
	Unknown	19.56	5.07	ug/kg		J

GEL Laboratories LLC

Data file : /chem/MSD3.i/s121309.b/s311315.d
Lab Smp Id: 242654001 Client Smp ID: RE03-09-14224
Inj Date : 13-DEC-2009 14:55
Operator : JLD1 Inst ID: MSD3.i
Smp Info : |242654001|932077|1|SVMF|1|LANL
Misc Info : |MSD8270_S|WBN091208-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD3.i/s121309.b/MSD3-8270R-AQA-120809.m
Meth Date : 14-Dec-2009 17:00 jen00986 Quant Type: ISTD
Cal Date : 07-DEC-2009 19:48 Cal File: s310717.d
Als bottle: 8
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-852.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.17000	weight of sample
M	14.57000	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	4.291	4.294	(1.000)	132484	40.0000	
* 29 Naphthalene-d8	136	5.539	5.546	(1.000)	497060	40.0000	
* 46 Acenaphthene-d10	164	7.388	7.394	(1.000)	273572	40.0000	
* 67 Phenanthrene-d10	188	8.978	8.983	(1.000)	463501	40.0000	
* 91 Chrysene-d12	240	11.837	11.844	(1.000)	378182	40.0000	
* 98 Perylene-d12	264	13.823	13.827	(1.000)	303580	40.0000	
$ 3 2-Fluorophenol	112	3.190	3.175	(0.743)	278089	80.2491	3110
$ 5 Phenol-d5	99	3.948	3.948	(0.920)	336247	76.1621	2950
$ 20 Nitrobenzene-d5	82	4.821	4.828	(0.870)	145776	40.1274	1560
$ 39 2-Fluorobiphenyl	172	6.664	6.669	(0.902)	281038	43.8270	1700
$ 60 2,4,6-Tribromophenol	329	8.231	8.236	(1.114)	71924	95.7390	3710
$ 81 p-Terphenyl-d14	244	10.686	10.686	(0.903)	268672	44.2334	1720

ION RATIO REPORT

SV REPORT

Data file: s311315.d
Report Date: 12/14/2009 11:43
Lab. ID: 242654001 SampleType: SAMPLE
Injection Date: 13-DEC-2009 14:55
Operator: JLD1 Instrument: MSD3.i
Sample Info: |242654001|932077|1|SVMF|1|LANL
Miscellaneous Info: |MSD8270_S|WBN091208-01|
Comment:
Method used: /chem/MSD3.i/s121309.b/MSD3-8270R-AQA-120809.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-852
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
4 Aniline		CAS#: 62-53-3				
66	14525	3.95	4.00	80-120	100	( )
93	475	3.97	4.00	231-291	3	(Q)
17 N-Nitrosodipropylamine				CAS#: 621-64-7		
70	20077	4.82	4.67	80-120	100	(T)
42	9787	4.82	4.67	22- 82	49	(T)
27 Benzoic acid		CAS#: 65-85-0				
105	1226	5.23	5.33	80-120	100	(T)
122	893	5.23	5.33	46-106	73	(T)
77	863	5.23	5.33	46-106	70	(T)
44 2,6-Dinitrotoluene				CAS#: 606-20-2		
165	35886	7.39	7.18	80-120	100	(T)
63	518	7.39	7.18	28- 88	1	(QT)
50 2,4-Dinitrotoluene				CAS#: 121-14-2		
165	35886	7.39	7.60	80-120	100	(T)
89	463	7.39	7.60	52-112	1	(QT)
63	518	7.39	7.61	35- 95	1	(QT)
55 2-Methyl-4,6-dinitrophenol				CAS#: 534-52-1		
198	134	8.23	8.04	80-120	100	(T)
105	460	8.23	8.04	15- 75	343	(QT)
51	353	8.23	8.04	21- 81	263	(QT)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

Data file : /chem/MSD3.i/s121309.b/s311315.d
Lab Smp Id: 242654001 Client Smp ID: RE03-09-14224
Inj Date : 13-DEC-2009 14:55
Operator : JLD1 Inst ID: MSD3.i
Smp Info : |242654001|932077|1|SVMF|1|LANL
Misc Info : |MSD8270_S|WBN091208-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD3.i/s121309.b/MSD3-8270R-AQA-120809.m
Meth Date : 14-Dec-2009 17:00 jen00986 Quant Type: ISTD
Cal Date : 07-DEC-2009 19:48 Cal File: s310717.d
Als bottle: 8
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-852.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.17000	weight of sample
M	14.57000	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	4.291	782983	40.000
* 46 Acenaphthene-d10	7.388	1145082	40.000
* 91 Chrysene-d12	11.837	1060173	40.000
* 98 Perylene-d12	13.823	856218	40.000

CONCENTRATIONS					QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #

RT	AREA	CONCENTRATIONS ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	QUANT LIBRARY	LIB ENTRY	CPND #
Unknown Aldol Condensate				CAS #:			
2.946	156834	8.01212487	311	0		0	10
1,4-Methanoazulene, decahydro-4,8,8-trim				CAS #: 475-20-7			
6.986	169469	5.91989231	230	99	NIST05.L	60018	46
1-Phenanthrenecarboxylic acid, 1,2,3,4,4				CAS #: 1235-74-1			
11.224	214272	8.08441449	314	99	NIST05.L	133618	91
Unknown				CAS #:			
11.288	263144	9.92833276	385	0		0	91
Unknown				CAS #:			
19.556	108548	5.07105408	197	0		0	98

Data File: /chem/MSD3.i/s121309.b/s311315.d

Date : 13-DEC-2009 14:55

Client ID: RE03-09-14224

Sample Info: 1242654001|93207711|SVMF11|LANL

Volume Injected (uL): 0.5

Column phase: J&W DB-5MS

Page 1

Instrument: MSD3.i

Operator: JLD1

Column diameter: 0.20

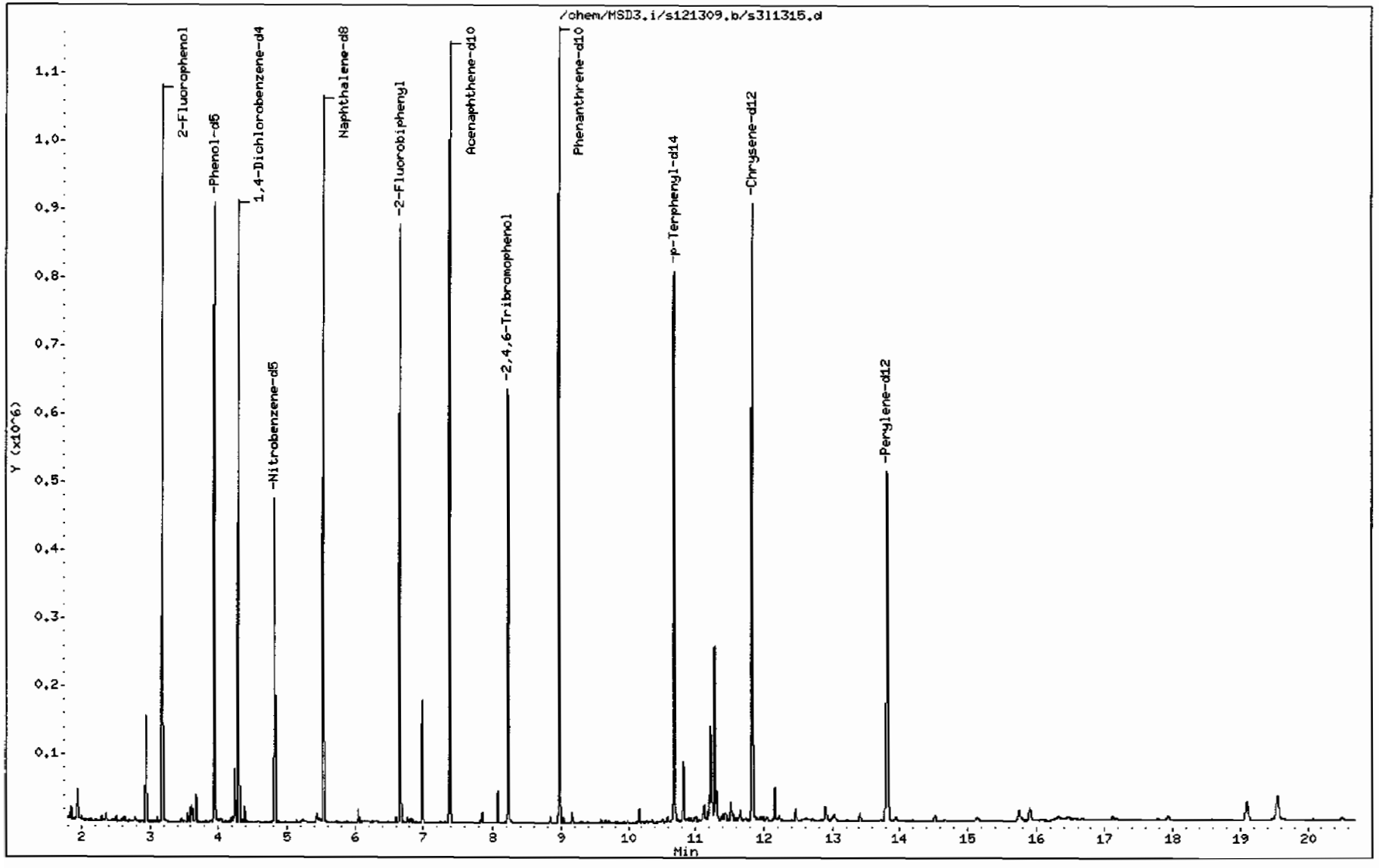

Data File: /chem/MSD3.i/s121309.b/s311315.d

Date : 13-DEC-2009 14:55

Client ID: RE03-09-14224

Instrument: MSD3.i

Sample Info: 1242654001|932077|1|SVMF|1|LANL

Volume Injected (uL): 0.5

Operator: JLD1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	56	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	50	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7945	38	C6H12O2	116

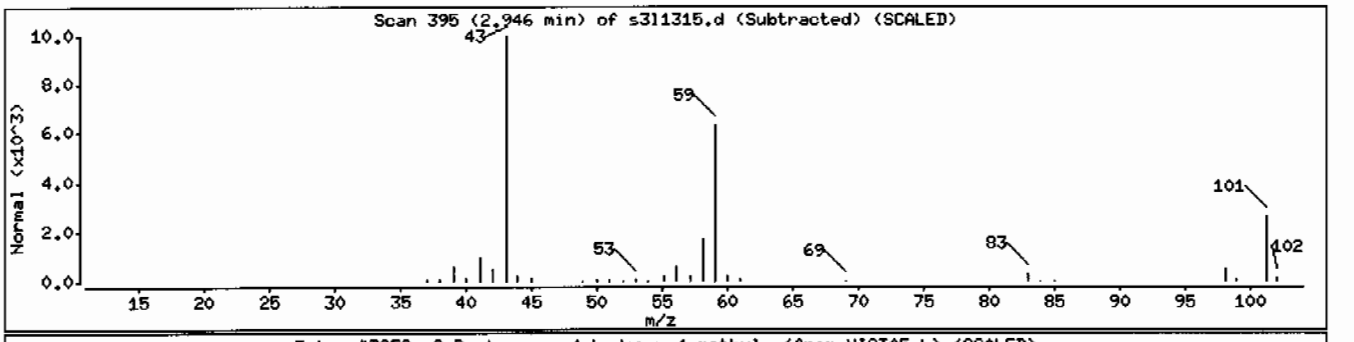

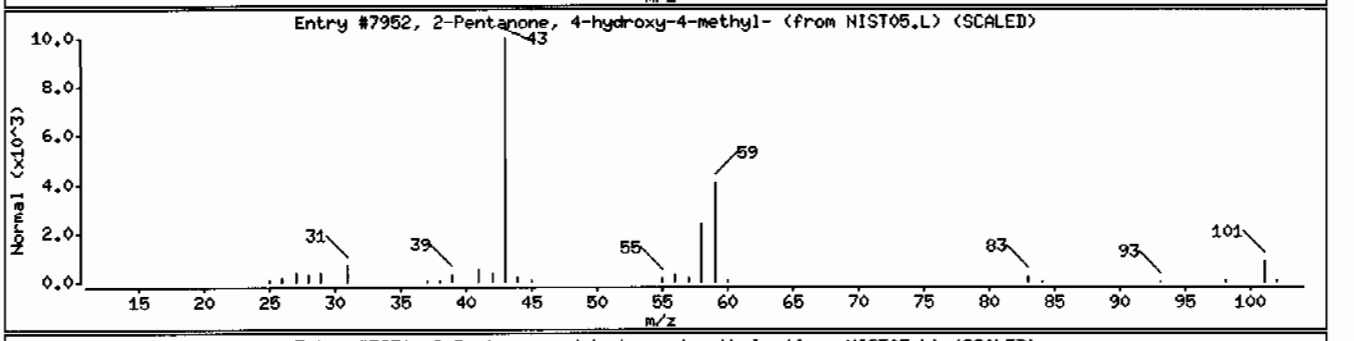

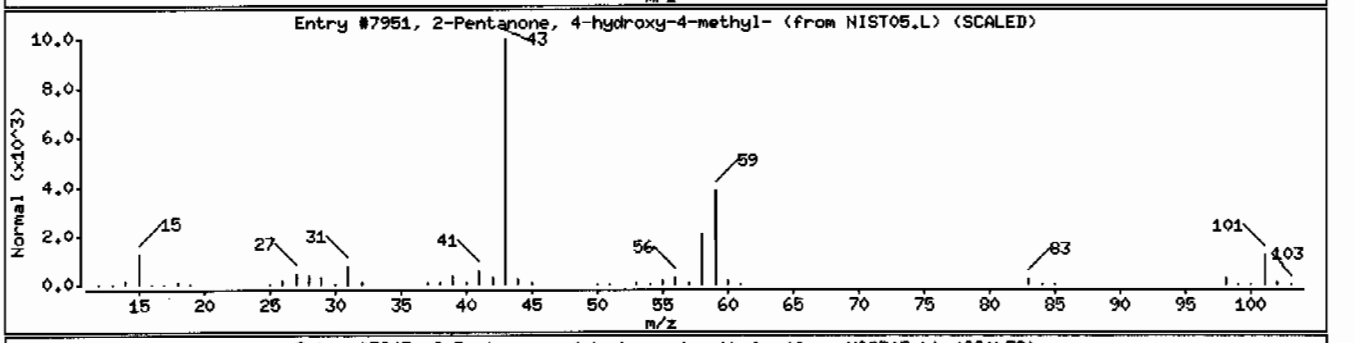

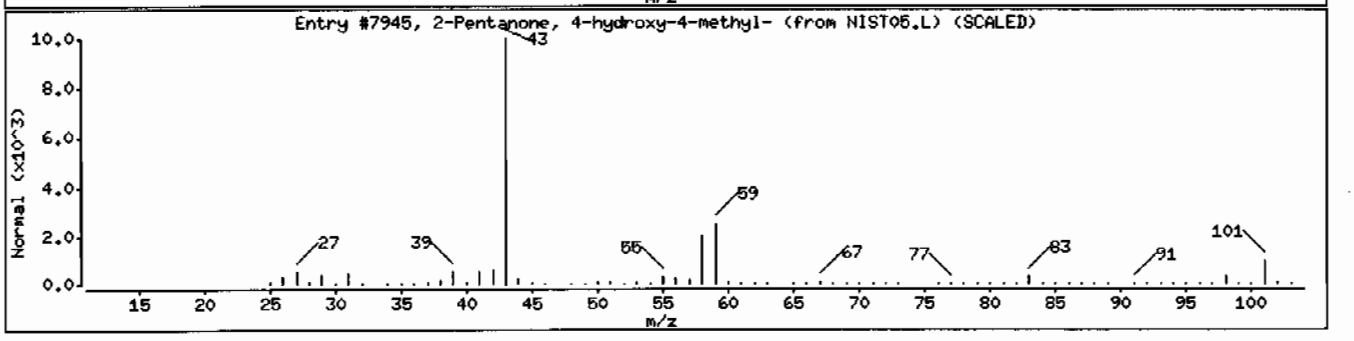

Data File: /chem/MSD3.i/s121309.b/s311315.d

Date : 13-DEC-2009 14:55

Client ID: RE03-09-14224 Instrument: MSD3.i

Sample Info: |2426540001|932077|1|SVHF|1|LANL

Volume Injected (uL): 0.5 Operator: JLD1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
1,4-Methanoazulene, decahydro-4,8,8-trim	475-20-7	NIST05.L	60018	99	C15H24	204
Naphthalene, 1,2,3,5,6,7,8,8a-octahydro-	4630-07-3	NIST05.L	60046	97	C15H24	204
1,4-Methanoazulene, decahydro-4,8,8-trim	475-20-7	NIST05.L	60020	96	C15H24	204

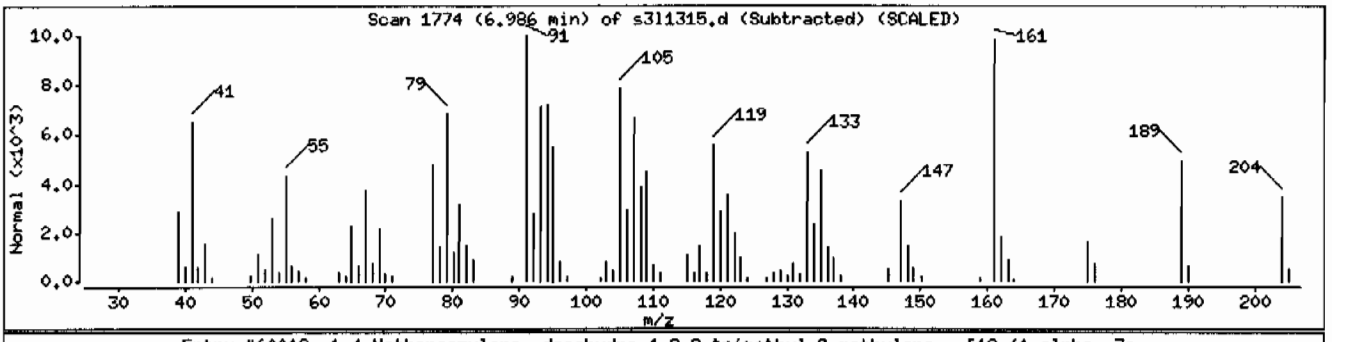

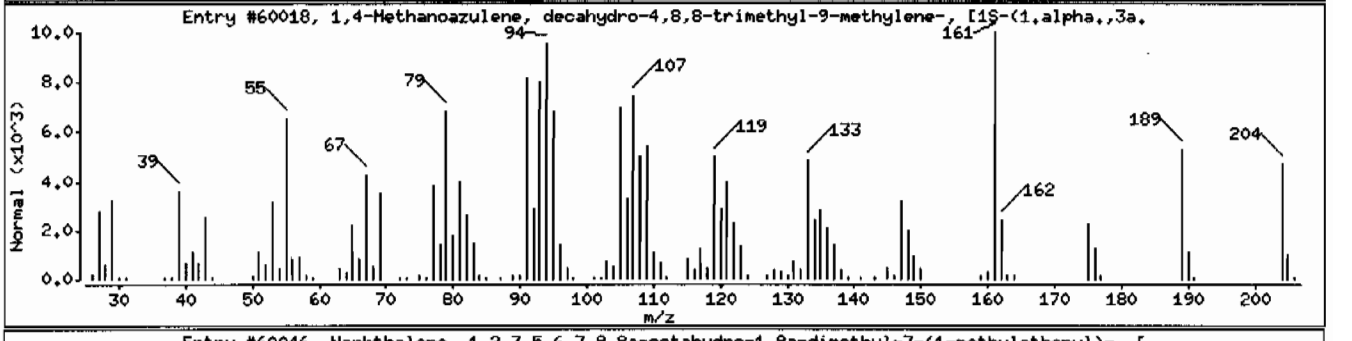

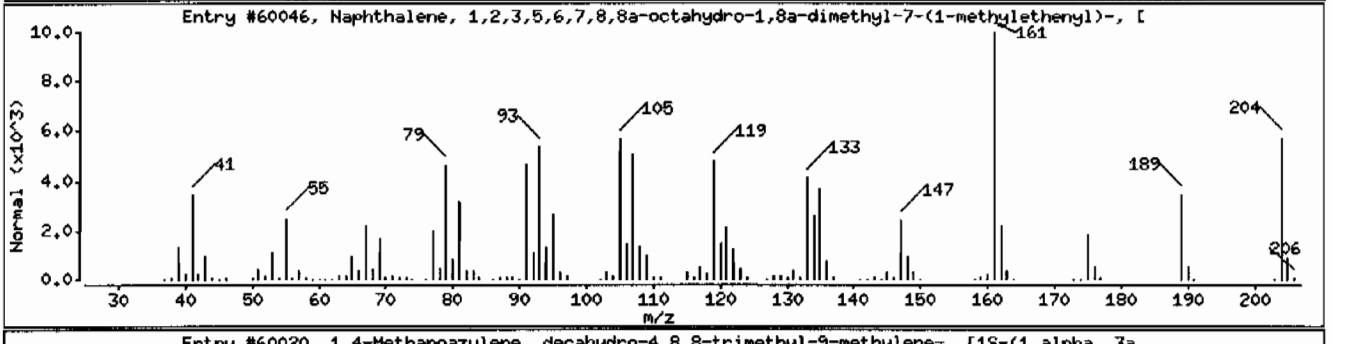

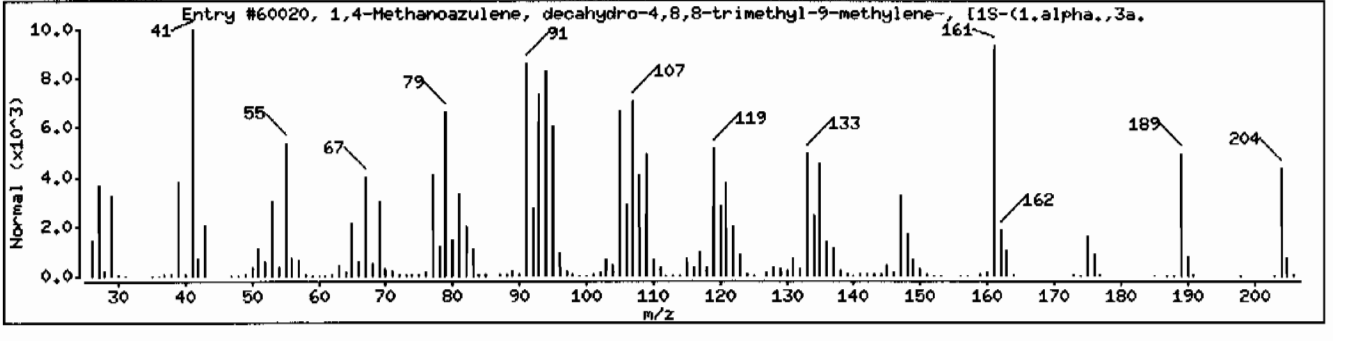

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Date : 13-DEC-2009 14:55

Client ID: RE03-09-14224

Instrument: MSD3.i

Sample Info: |2426540011932077|1|SVMF|1|LANL

Volume Injected (uL): 0.5

Operator: JLD1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
1-Phenanthrenecarboxylic acid, 1,2,3,4,4	1235-74-1	NIST05.L	133618	99	C21H30O2	314
1-Phenanthrenecarboxylic acid, 1,2,3,4,4	1235-74-1	NIST05.L	133621	93	C21H30O2	314
1-Phenanthrenecarboxylic acid, 1,2,3,4,4	1235-74-1	NIST05.L	133620	93	C21H30O2	314

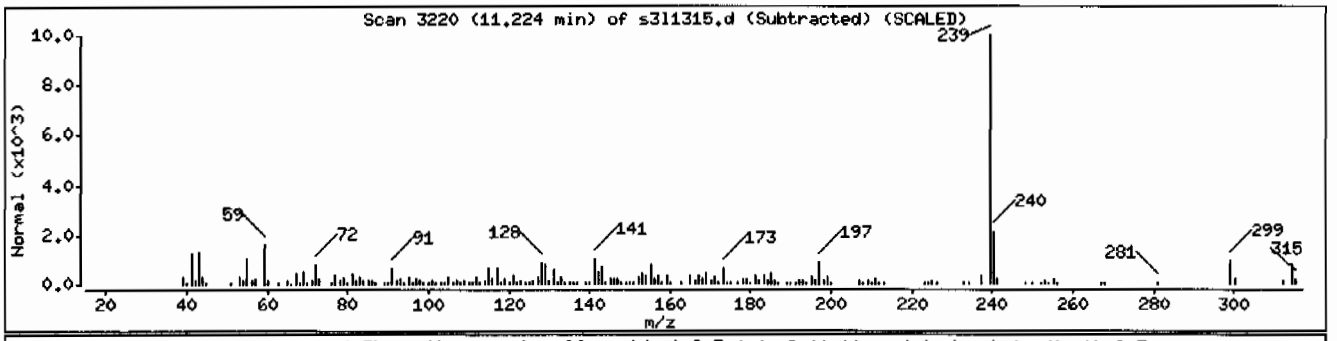

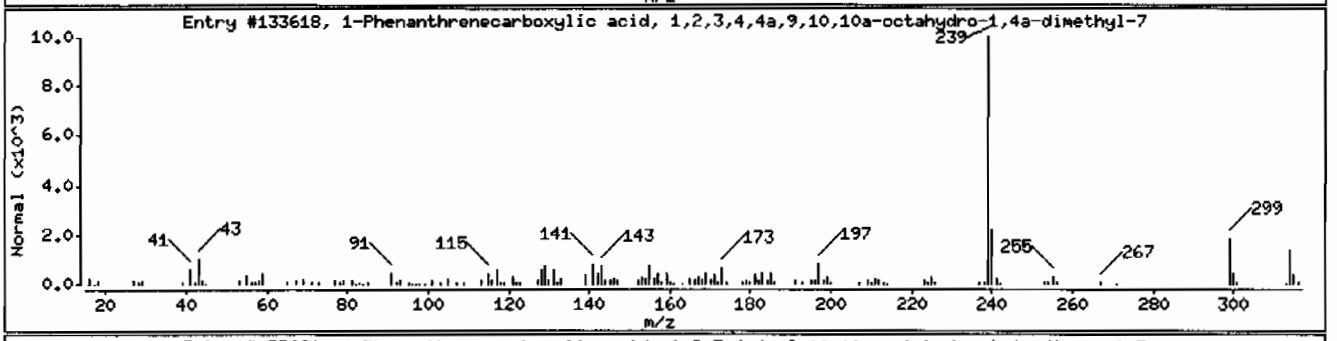

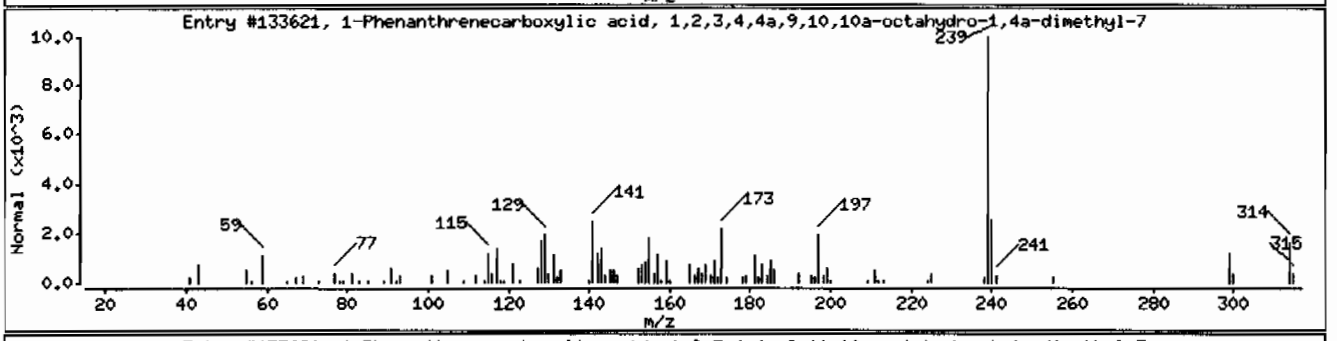

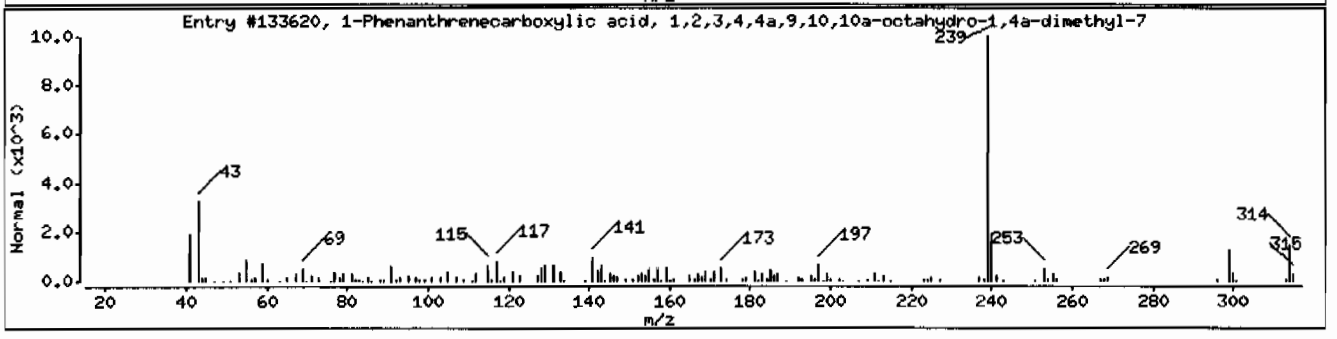

Data File: /chem/MSD3.i/s121309.b/s311315.d

Date : 13-DEC-2009 14:55

Client ID: RE03-09-14224 Instrument: MSD3.i

Sample Info: |2426540011932077|1|SVMF|1|LANL

Volume Injected (uL): 0.5 Operator: JLD1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Bicyclo[3.1.1]heptane, 6-methyl-2-methyl	55123-21-2	NIST05.L	60017	43	C15H24	204
3a,6-Methano-3aH-indene, 2,3,4,5,6,7-hex	98640-10-9	NIST05.L	14456	41	C10H14	134
Naphthalene, 1,2,3,5,8,8a-hexahydro-	62690-65-7	NIST05.L	14417	38	C10H14	134

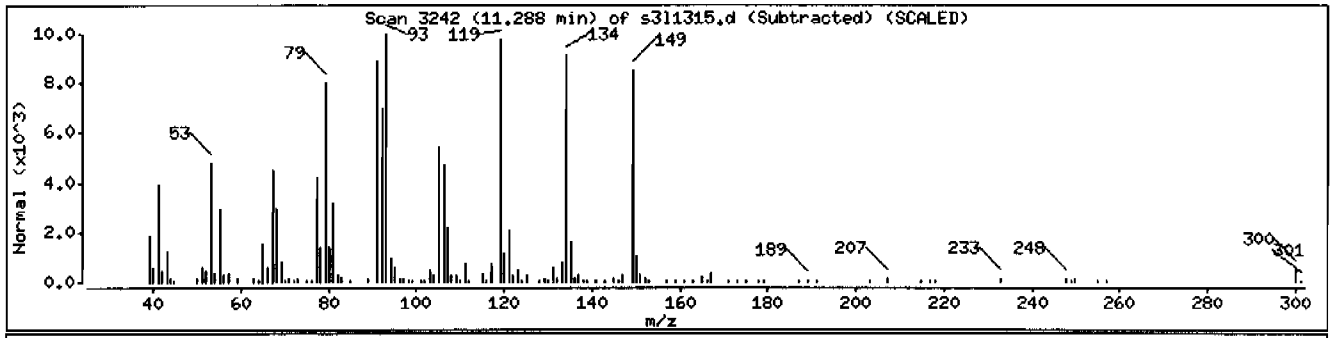

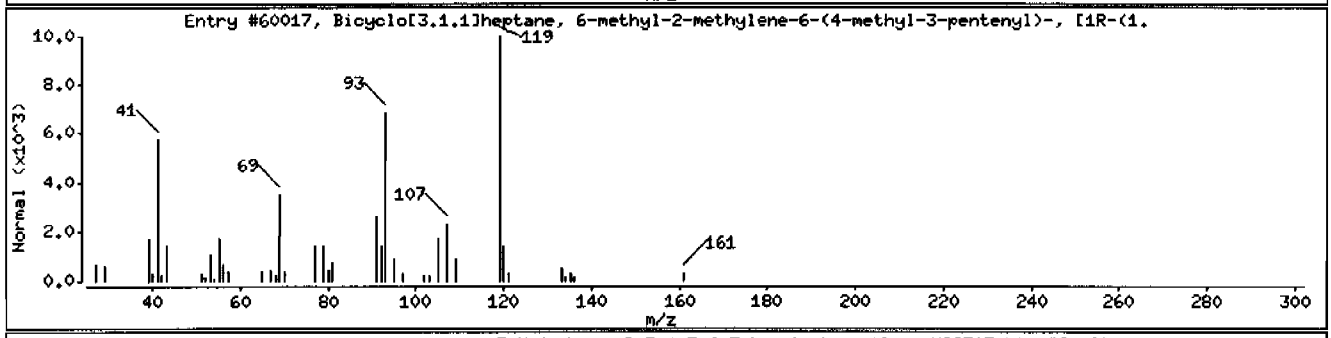

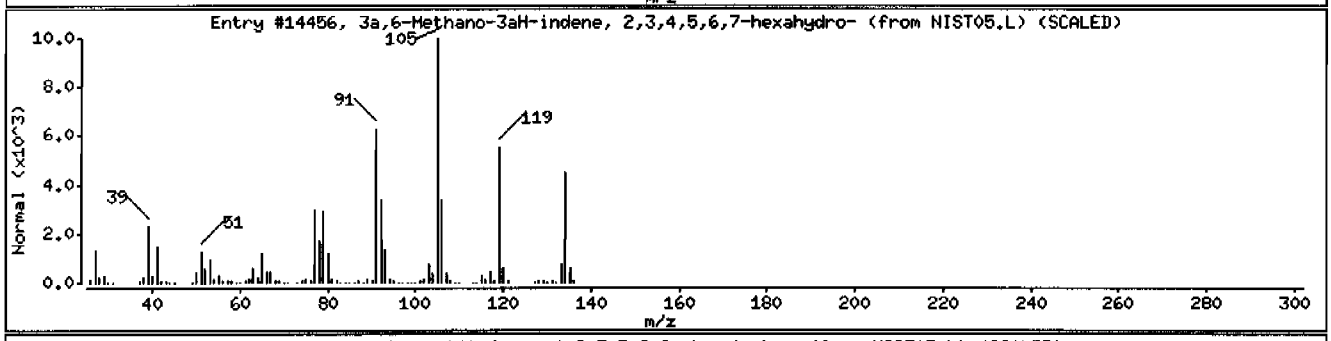

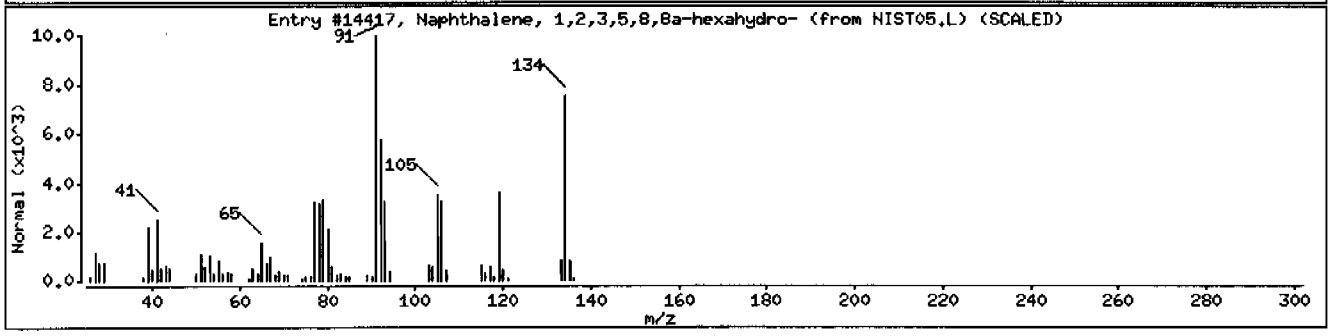

Data File: /chem/MSD3.i/s121309.b/s311315.d

Date : 13-DEC-2009 14:55

Client ID: RE03-09-14224 Instrument: MSD3.i

Sample Info: |2426540011932077|1|SVMF|1|LANL

Volume Injected (uL): 0.5 Operator: JLD1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
2(1H)Naphthalenone, 3,5,6,7,8,8a-hexahyd	1000188-66-5	NIST05.L	69976	47	C15H220	218
2,4-Diethoxyquinazoline	611-65-4	NIST05.L	69646	25	C12H14N2O2	218
1-Adamantanecarboxamide, N,N-dimethyl-,	1502-00-7	NIST05.L	62177	25	C13H21NO	207

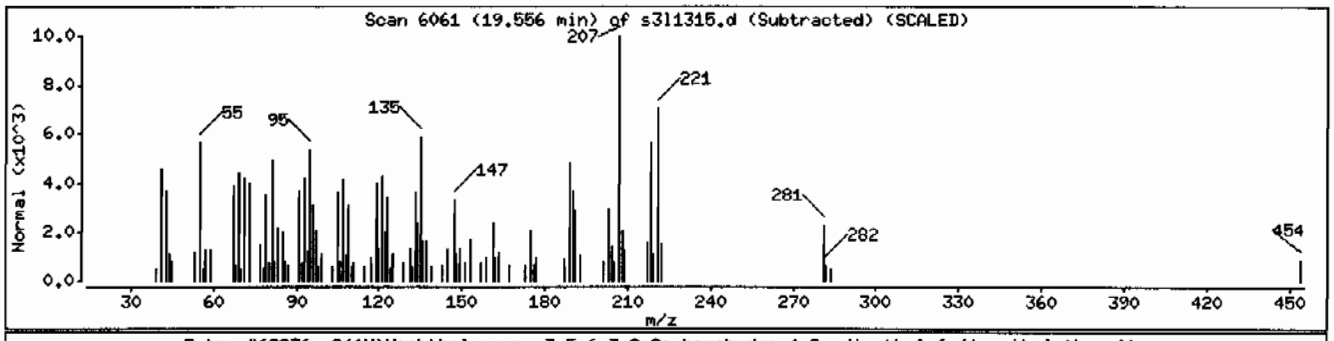

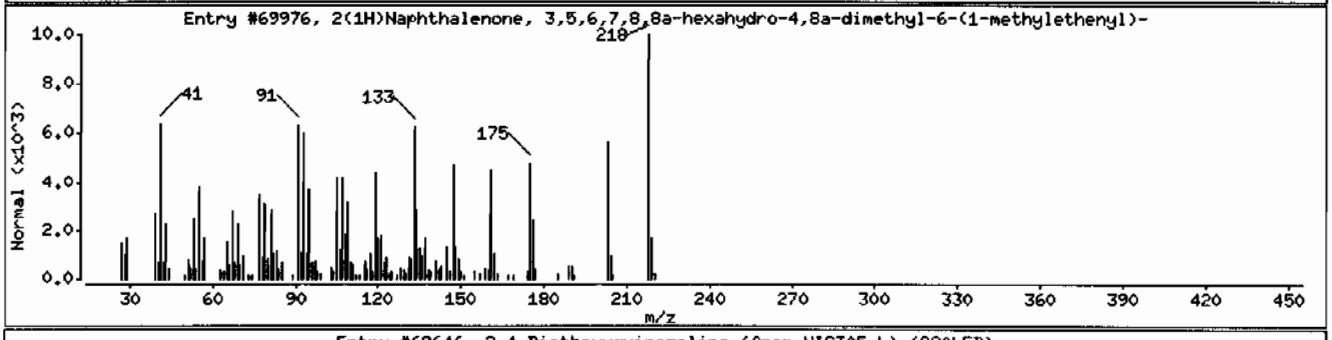

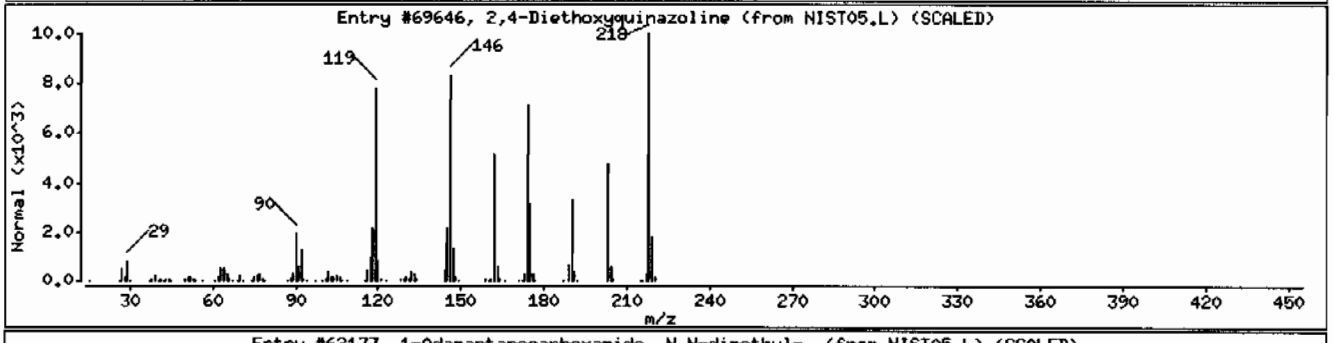

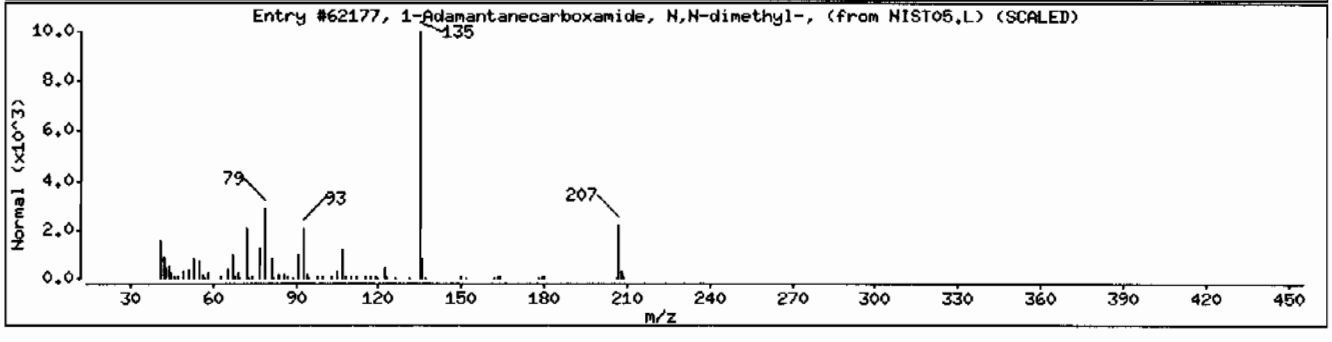

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	Date Collected:	12/07/2009 12:00	Matrix:	S
Lab Sample ID:	242654003	Date Received:	12/10/2009 08:50	%Moisture:	11.9
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14225	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	932077	Inst:	MSD3.I	Dilution:	1
Run Date:	12/13/2009 16:45	Analyst:	JLD1	Inj. Vol:	.5 uL
Prep Date:	12/11/2009 21:55	Aliquot:	30.09 g	Final Volume:	1 mL
Data File:	s3l1319.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	377	ug/kg	75.5	377
108-95-2	Phenol	U	377	ug/kg	75.5	377
95-57-8	2-Chlorophenol	U	377	ug/kg	75.5	377
106-46-7	1,4-Dichlorobenzene	U	377	ug/kg	75.5	377
621-64-7	N-Nitrosodipropylamine	U	377	ug/kg	75.5	377
59-50-7	4-Chloro-3-methylphenol	U	377	ug/kg	75.5	377
83-32-9	Acenaphthene	U	37.7	ug/kg	12.5	37.7
121-14-2	2,4-Dinitrotoluene	U	377	ug/kg	37.7	377
100-02-7	4-Nitrophenol	U	377	ug/kg	125	377
87-86-5	Pentachlorophenol	U	377	ug/kg	94.3	377
129-00-0	Pyrene	U	37.7	ug/kg	11.3	37.7
110-86-1	Pyridine	U	377	ug/kg	75.5	377
62-53-3	Aniline	U	377	ug/kg	113	377
111-44-4	bis(2-Chloroethyl) ether	U	377	ug/kg	75.5	377
541-73-1	1,3-Dichlorobenzene	U	377	ug/kg	75.5	377
100-51-6	Benzyl alcohol	U	377	ug/kg	113	377
95-50-1	1,2-Dichlorobenzene	U	377	ug/kg	75.5	377
108-60-1	bis(2-Chloroisopropyl)ether	U	377	ug/kg	75.5	377
95-48-7	o-Cresol	U	377	ug/kg	75.5	377
65794-96-9	m,p-Cresols	U	377	ug/kg	113	377
67-72-1	Hexachloroethane	U	377	ug/kg	75.5	377
98-95-3	Nitrobenzene	U	377	ug/kg	75.5	377
78-59-1	Isophorone	U	377	ug/kg	75.5	377
88-75-5	2-Nitrophenol	U	377	ug/kg	75.5	377
105-67-9	2,4-Dimethylphenol	U	377	ug/kg	132	377
111-91-1	bis(2-Chloroethoxy)methane	U	377	ug/kg	75.5	377
120-83-2	2,4-Dichlorophenol	U	377	ug/kg	75.5	377
65-85-0	Benzoic acid	U	755	ug/kg	189	755
91-20-3	Naphthalene	U	37.7	ug/kg	11.3	37.7
106-47-8	4-Chloroaniline	U	377	ug/kg	75.5	377
87-68-3	Hexachlorobutadiene	U	377	ug/kg	75.5	377
91-57-6	2-Methylnaphthalene	U	37.7	ug/kg	7.55	37.7
77-47-4	Hexachlorocyclopentadiene	U	377	ug/kg	75.5	377
88-06-2	2,4,6-Trichlorophenol	U	377	ug/kg	75.5	377
95-95-4	2,4,5-Trichlorophenol	U	377	ug/kg	75.5	377
91-58-7	2-Chloronaphthalene	U	37.7	ug/kg	12.5	37.7
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	377	ug/kg	75.5	377
99-09-2	3-Nitroaniline	U	377	ug/kg	75.5	377

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242654003	**Date Received:**	12/10/2009 08:50	**%Moisture:**	11.9
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14225	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	932077	**Inst:**	MSD3.I	**Dilution:**	1
Run Date:	12/13/2009 16:45	**Analyst:**	JLD1	**Inj. Vol:**	.5 uL
Prep Date:	12/11/2009 21:55	**Aliquot:**	30.09 g	**Final Volume:**	1 mL
Data File:	s3l1319.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	377	ug/kg	75.5	377
606-20-2	2,6-Dinitrotoluene	U	377	ug/kg	37.7	377
208-96-8	Acenaphthylene	U	37.7	ug/kg	11.3	37.7
51-28-5	2,4-Dinitrophenol	U	755	ug/kg	143	755
132-64-9	Dibenzofuran	U	377	ug/kg	75.5	377
84-66-2	Diethylphthalate	U	377	ug/kg	75.5	377
86-73-7	Fluorene	U	37.7	ug/kg	11.3	37.7
7005-72-3	4-Chlorophenylphenylether	U	377	ug/kg	75.5	377
534-52-1	2-Methyl-4,6-dinitrophenol	U	377	ug/kg	75.5	377
100-01-6	4-Nitroaniline	U	377	ug/kg	113	377
	p-Nitroaniline					
122-39-4	Diphenylamine	U	377	ug/kg	75.5	377
122-66-7	Azobenzene	U	377	ug/kg	75.5	377
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	377	ug/kg	75.5	377
118-74-1	Hexachlorobenzene	U	377	ug/kg	75.5	377
85-01-8	Phenanthrene	U	37.7	ug/kg	11.3	37.7
120-12-7	Anthracene	U	37.7	ug/kg	7.55	37.7
84-74-2	Di-n-butylphthalate	U	377	ug/kg	75.5	377
206-44-0	Fluoranthene	U	37.7	ug/kg	11.3	37.7
85-68-7	Butylbenzylphthalate	U	377	ug/kg	75.5	377
56-55-3	Benzo(a)anthracene	U	37.7	ug/kg	11.3	37.7
91-94-1	3,3'-Dichlorobenzidine	U	377	ug/kg	113	377
218-01-9	Chrysene	U	37.7	ug/kg	11.3	37.7
117-81-7	bis(2-Ethylhexyl)phthalate	U	377	ug/kg	75.5	377
117-84-0	Di-n-octylphthalate	U	377	ug/kg	75.5	377
205-99-2	Benzo(b)fluoranthene	U	37.7	ug/kg	11.3	37.7
207-08-9	Benzo(k)fluoranthene	U	37.7	ug/kg	11.3	37.7
50-32-8	Benzo(a)pyrene	U	37.7	ug/kg	11.3	37.7
193-39-5	Indeno(1,2,3-cd)pyrene	U	37.7	ug/kg	11.3	37.7
53-70-3	Dibenzo(a,h)anthracene	U	37.7	ug/kg	11.3	37.7
191-24-2	Benzo(ghi)perylene	U	37.7	ug/kg	11.3	37.7
120-82-1	1,2,4-Trichlorobenzene	U	377	ug/kg	75.5	377

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.94	285	ug/kg		JA
	Unknown	15.75	216	ug/kg		J

GEL Laboratories LLC

Data file : /chem/MSD3.i/s121309.b/s311319.d
Lab Smp Id: 242654003 Client Smp ID: RE03-09-14225
Inj Date : 13-DEC-2009 16:45
Operator : JLD1 Inst ID: MSD3.i
Smp Info : |242654003|932077|1|SVMF|1|LANL
Misc Info : |MSD8270_S|WBN091208-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD3.i/s121309.b/MSD3-8270R-AQA-120809.m
Meth Date : 14-Dec-2009 17:00 jen00986 Quant Type: ISTD
Cal Date : 07-DEC-2009 19:48 Cal File: s310717.d
Als bottle: 12
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-852.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.09000	weight of sample
M	11.94000	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	4.288	4.294	(1.000)	110793	40.0000	
* 29 Naphthalene-d8	136	5.539	5.546	(1.000)	417902	40.0000	
* 46 Acenaphthene-d10	164	7.387	7.394	(1.000)	224686	40.0000	
* 67 Phenanthrene-d10	188	8.977	8.983	(1.000)	389183	40.0000	
* 91 Chrysene-d12	240	11.833	11.844	(1.000)	298026	40.0000	
* 98 Perylene-d12	264	13.817	13.827	(1.000)	225802	40.0000	
$ 3 2-Fluorophenol	112	3.187	3.175	(0.743)	236910	81.7506	3080
$ 5 Phenol-d5	99	3.945	3.948	(0.920)	283412	76.7626	2900
$ 20 Nitrobenzene-d5	82	4.818	4.828	(0.870)	125955	41.2387	1560
$ 39 2-Fluorobiphenyl	172	6.666	6.669	(0.902)	243263	46.1901	1740
$ 60 2,4,6-Tribromophenol	329	8.230	8.236	(1.114)	57542	93.2600	3520
$ 81 p-Terphenyl-d14	244	10.685	10.686	(0.903)	237479	49.6135	1870

ION RATIO REPORT

SV REPORT

Data file: s311319.d
Report Date: 12/14/2009 11:44
Lab. ID: 242654003 SampleType: SAMPLE
Injection Date: 13-DEC-2009 16:45
Operator: JLD1 Instrument: MSD3.i
Sample Info: |242654003|932077|1|SVMF|1|LANL
Miscellaneous Info: |MSD8270_S|WBN091208-01|
Comment:
Method used: /chem/MSD3.i/s121309.b/MSD3-8270R-AQA-120809.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-852
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
4 Aniline		CAS#: 62-53-3				
66	12060	3.95	4.00	80-120	100	( )
93	261	4.02	4.00	231-291	2	(Q)
17 N-Nitrosodipropylamine				CAS#: 621-64-7		
70	17480	4.82	4.67	80-120	100	(T)
42	8335	4.82	4.67	22- 82	48	(T)
44 2,6-Dinitrotoluene				CAS#: 606-20-2		
165	28969	7.39	7.18	80-120	100	(T)
63	175	7.39	7.18	28- 88	1	(QT)
50 2,4-Dinitrotoluene				CAS#: 121-14-2		
165	28969	7.39	7.60	80-120	100	(T)
89	354	7.39	7.60	52-112	1	(QT)
63	175	7.39	7.61	35- 95	1	(QT)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

Data file : /chem/MSD3.i/s121309.b/s311319.d
Lab Smp Id: 242654003 Client Smp ID: RE03-09-14225
Inj Date : 13-DEC-2009 16:45
Operator : JLD1 Inst ID: MSD3.i
Smp Info : |242654003|932077|1|SVMF|1|LANL
Misc Info : |MSD8270_S|WBN091208-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD3.i/s121309.b/MSD3-8270R-AQA-120809.m
Meth Date : 14-Dec-2009 17:00 jen00986 Quant Type: ISTD
Cal Date : 07-DEC-2009 19:48 Cal File: s310717.d
Als bottle: 12
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-852.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariabl

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.09000	weight of sample
M	11.94000	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	4.288	655473	40.000
* 98 Perylene-d12	13.817	626006	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown Aldol Condensate					CAS #:		
2.944	123594	7.54226870	285	0		0	10

RT	AREA	CONCENTRATIONS ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	QUANT LIBRARY	LIB ENTRY	CPND #
Unknown				CAS #:			
15.751	89647	5.72816586	216	0		0	98

Data File: /chem/MSD3.i/s121309.b/s311319.d
Date : 13-DEC-2009 16:45
Client ID: RE03-09-14225
Sample Info: 1242654003193207711|SVMF11|LANL
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD3.i
Operator: JLD1
Column diameter: 0.20

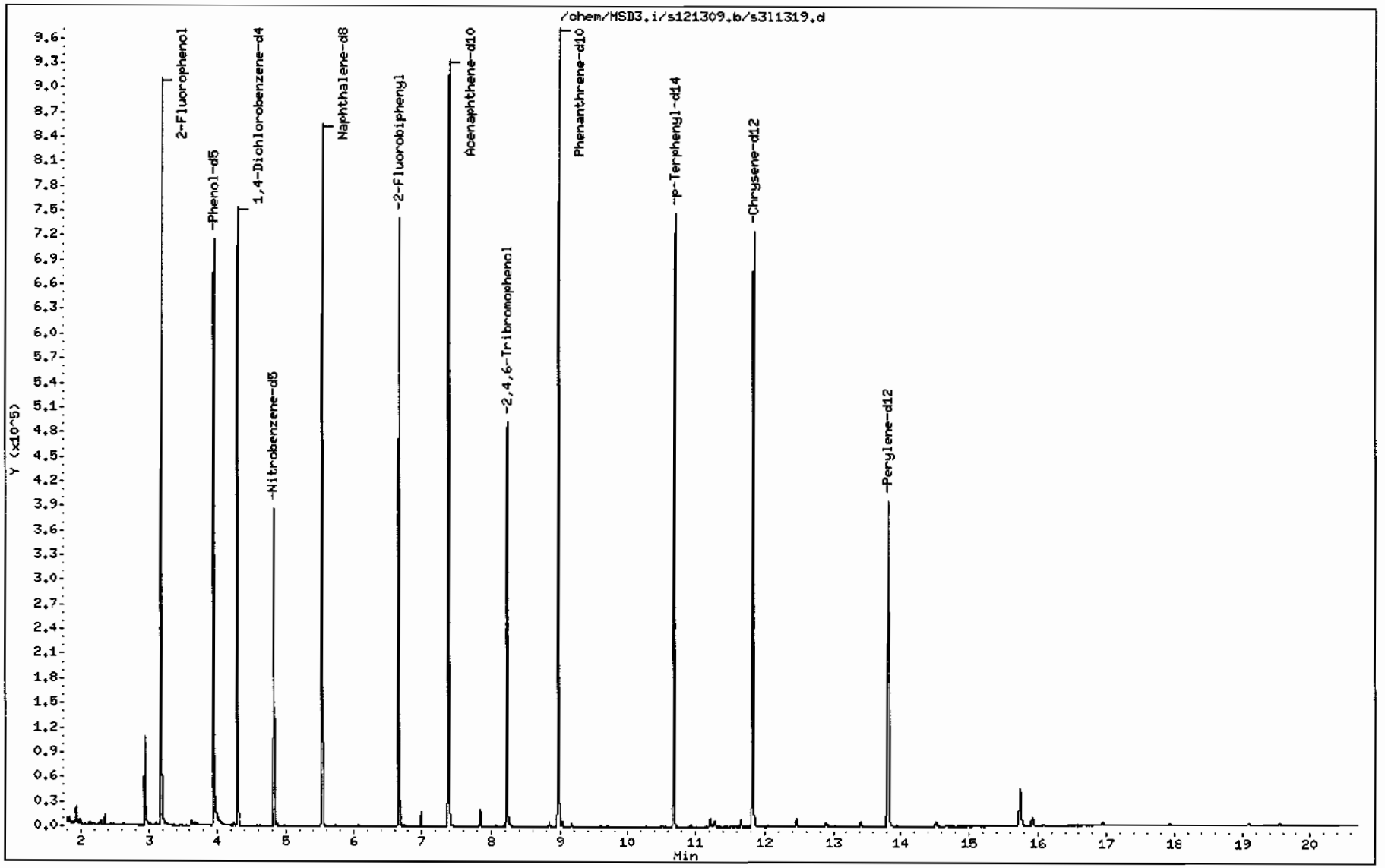

Data File: /chem/MSD3.i/s121309.b/s311319.d

Date : 13-DEC-2009 16:45

Client ID: RE03-09-14225

Instrument: MSD3.i

Sample Info: |2426540031932077|1|SVHF|1|LANL

Volume Injected (uL): 0.6

Operator: JLD1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	56	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	40	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7945	38	C6H12O2	116

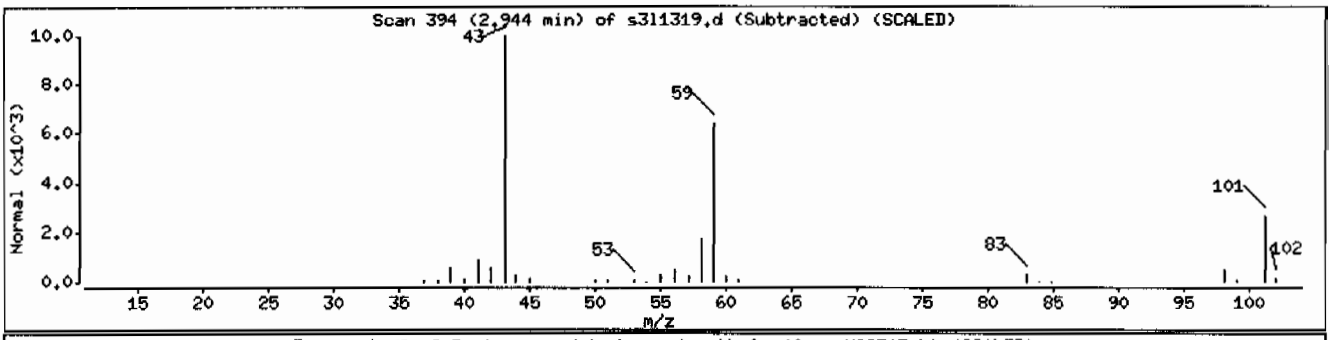

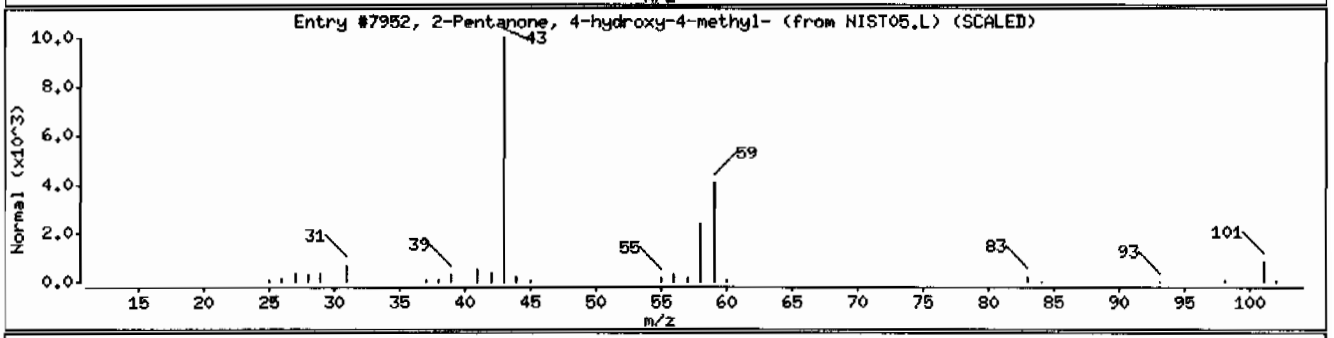

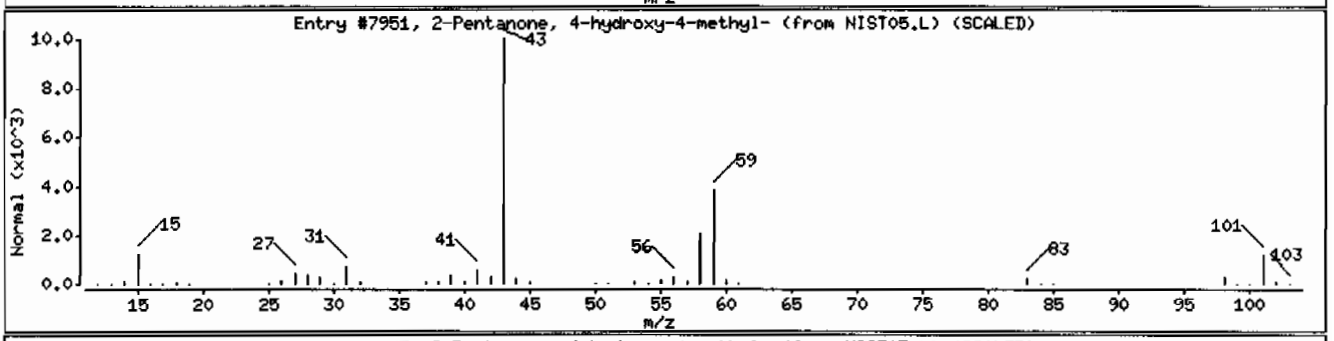

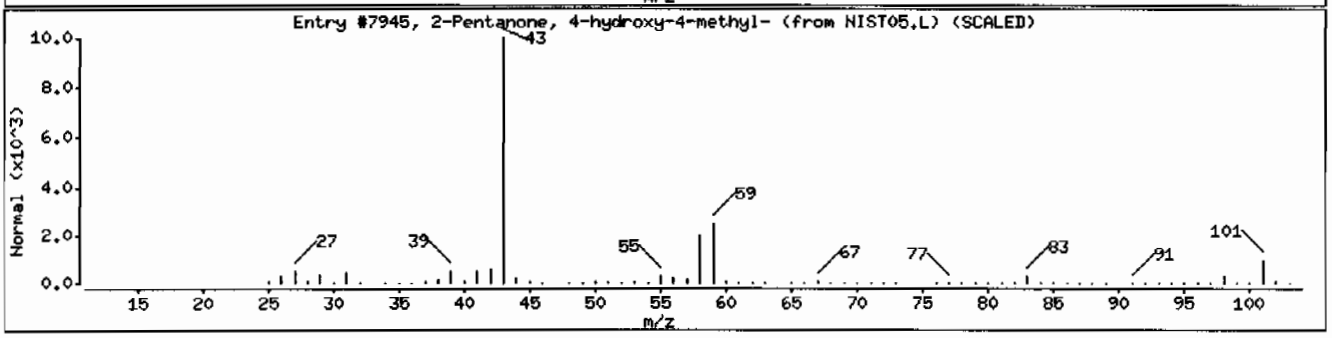

Data File: /chem/MSD3.i/s121309.b/s311319.d

Date : 13-DEC-2009 16:45

Client ID: RE03-09-14225

Instrument: MSD3.i

Sample Info: 1242654003|932077|1|SVMF|1|LANL

Volume Injected (uL): 0.5

Operator: JLD1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
1,2,4,8-Tetramethylbicyclo[6.3.0]undeca-	137235-51-9	NIST05.L	59888	55	C15H24	204
1H-Cyclopropl[e]azulene, 1a,2,3,4,4a,5,6,	489-40-7	NIST05.L	60083	50	C15H24	204
Naphthalene, 1,2,3,5,6,7,8,8a-octahydro-	4630-07-3	NIST05.L	60049	49	C15H24	204

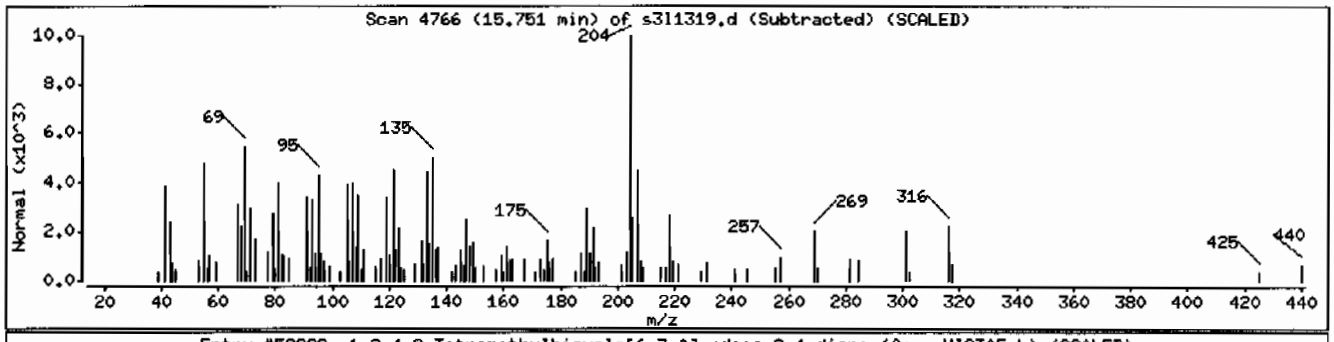

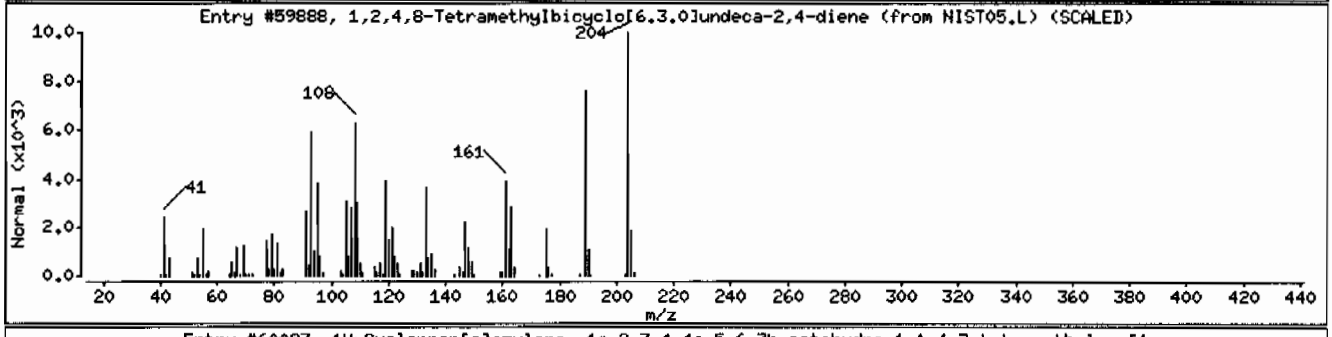

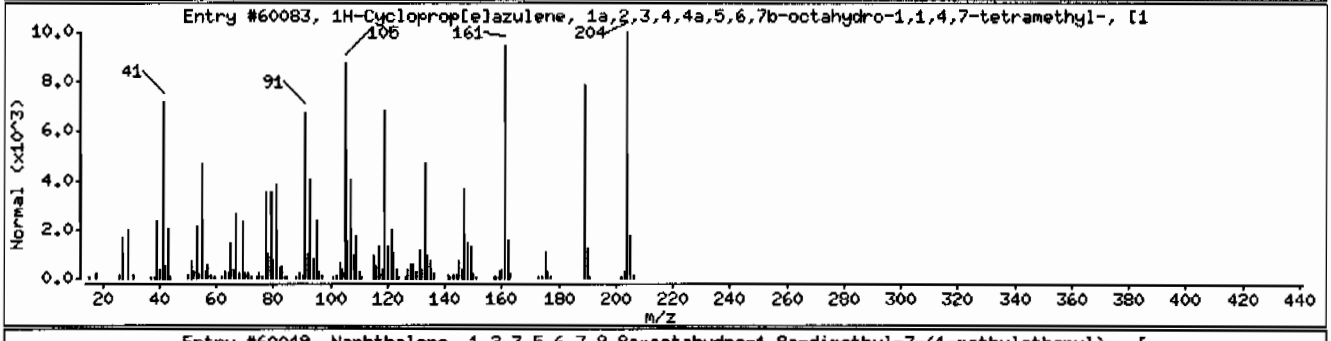

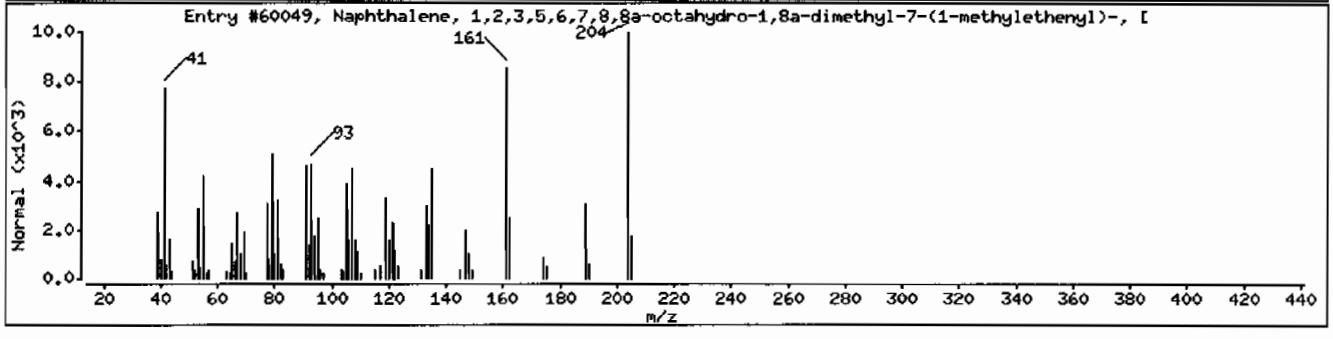

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242654004	**Date Received:**	12/10/2009 08:50	**%Moisture:**	9.5
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14226	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	932077	**Inst:**	MSD3.1	**Dilution:**	1
Run Date:	12/13/2009 17:13	**Analyst:**	JLD1	**Inj. Vol:**	.5 uL
Prep Date:	12/11/2009 21:55	**Aliquot:**	30.03 g	**Final Volume:**	1 mL
Data File:	s311320.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	368	ug/kg	73.6	368
108-95-2	Phenol	U	368	ug/kg	73.6	368
95-57-8	2-Chlorophenol	U	368	ug/kg	73.6	368
106-46-7	1,4-Dichlorobenzene	U	368	ug/kg	73.6	368
621-64-7	N-Nitrosodipropylamine	U	368	ug/kg	73.6	368
59-50-7	4-Chloro-3-methylphenol	U	368	ug/kg	73.6	368
83-32-9	Acenaphthene	U	36.8	ug/kg	12.1	36.8
121-14-2	2,4-Dinitrotoluene	U	368	ug/kg	36.8	368
100-02-7	4-Nitrophenol	U	368	ug/kg	121	368
87-86-5	Pentachlorophenol	U	368	ug/kg	92.0	368
129-00-0	Pyrene	U	36.8	ug/kg	11.0	36.8
110-86-1	Pyridine	U	368	ug/kg	73.6	368
62-53-3	Aniline	U	368	ug/kg	110	368
111-44-4	bis(2-Chloroethyl) ether	U	368	ug/kg	73.6	368
541-73-1	1,3-Dichlorobenzene	U	368	ug/kg	73.6	368
100-51-6	Benzyl alcohol	U	368	ug/kg	110	368
95-50-1	1,2-Dichlorobenzene	U	368	ug/kg	73.6	368
108-60-1	bis(2-Chloroisopropyl)ether	U	368	ug/kg	73.6	368
95-48-7	o-Cresol	U	368	ug/kg	73.6	368
65794-96-9	m,p-Cresols	U	368	ug/kg	110	368
67-72-1	Hexachloroethane	U	368	ug/kg	73.6	368
98-95-3	Nitrobenzene	U	368	ug/kg	73.6	368
78-59-1	Isophorone	U	368	ug/kg	73.6	368
88-75-5	2-Nitrophenol	U	368	ug/kg	73.6	368
105-67-9	2,4-Dimethylphenol	U	368	ug/kg	129	368
111-91-1	bis(2-Chloroethoxy)methane	U	368	ug/kg	73.6	368
120-83-2	2,4-Dichlorophenol	U	368	ug/kg	73.6	368
65-85-0	Benzoic acid	U	736	ug/kg	184	736
91-20-3	Naphthalene	U	36.8	ug/kg	11.0	36.8
106-47-8	4-Chloroaniline	U	368	ug/kg	73.6	368
87-68-3	Hexachlorobutadiene	U	368	ug/kg	73.6	368
91-57-6	2-Methylnaphthalene	U	36.8	ug/kg	7.36	36.8
77-47-4	Hexachlorocyclopentadiene	U	368	ug/kg	73.6	368
88-06-2	2,4,6-Trichlorophenol	U	368	ug/kg	73.6	368
95-95-4	2,4,5-Trichlorophenol	U	368	ug/kg	73.6	368
91-58-7	2-Chloronaphthalene	U	36.8	ug/kg	12.1	36.8
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	368	ug/kg	73.6	368
99-09-2	3-Nitroaniline	U	368	ug/kg	73.6	368

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242654004	**Date Received:**	12/10/2009 08:50	**%Moisture:**	9.5
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14226	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	932077	**Inst:**	MSD3.I	**Dilution:**	1
Run Date:	12/13/2009 17:13	**Analyst:**	JLD1	**Inj. Vol:**	.5 uL
Prep Date:	12/11/2009 21:55	**Aliquot:**	30.03 g	**Final Volume:**	1 mL
Data File:	s3l1320.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	368	ug/kg	73.6	368
606-20-2	2,6-Dinitrotoluene	U	368	ug/kg	36.8	368
208-96-8	Acenaphthylene	U	36.8	ug/kg	11.0	36.8
51-28-5	2,4-Dinitrophenol	U	736	ug/kg	140	736
132-64-9	Dibenzofuran	U	368	ug/kg	73.6	368
84-66-2	Diethylphthalate	U	368	ug/kg	73.6	368
86-73-7	Fluorene	U	36.8	ug/kg	11.0	36.8
7005-72-3	4-Chlorophenylphenylether	U	368	ug/kg	73.6	368
534-52-1	2-Methyl-4,6-dinitrophenol	U	368	ug/kg	73.6	368
100-01-6	4-Nitroaniline	U	368	ug/kg	110	368
	p-Nitroaniline					
122-39-4	Diphenylamine	U	368	ug/kg	73.6	368
122-66-7	Azobenzene	U	368	ug/kg	73.6	368
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	368	ug/kg	73.6	368
118-74-1	Hexachlorobenzene	U	368	ug/kg	73.6	368
85-01-8	Phenanthrene	U	36.8	ug/kg	11.0	36.8
120-12-7	Anthracene	U	36.8	ug/kg	7.36	36.8
84-74-2	Di-n-butylphthalate	U	368	ug/kg	73.6	368
206-44-0	Fluoranthene	U	36.8	ug/kg	11.0	36.8
85-68-7	Butylbenzylphthalate	U	368	ug/kg	73.6	368
56-55-3	Benzo(a)anthracene	U	36.8	ug/kg	11.0	36.8
91-94-1	3,3'-Dichlorobenzidine	U	368	ug/kg	110	368
218-01-9	Chrysene	U	36.8	ug/kg	11.0	36.8
117-81-7	bis(2-Ethylhexyl)phthalate	U	368	ug/kg	73.6	368
117-84-0	Di-n-octylphthalate	U	368	ug/kg	73.6	368
205-99-2	Benzo(b)fluoranthene	U	36.8	ug/kg	11.0	36.8
207-08-9	Benzo(k)fluoranthene	U	36.8	ug/kg	11.0	36.8
50-32-8	Benzo(a)pyrene	U	36.8	ug/kg	11.0	36.8
193-39-5	Indeno(1,2,3-cd)pyrene	U	36.8	ug/kg	11.0	36.8
53-70-3	Dibenzo(a,h)anthracene	U	36.8	ug/kg	11.0	36.8
191-24-2	Benzo(ghi)perylene	U	36.8	ug/kg	11.0	36.8
120-82-1	1,2,4-Trichlorobenzene	U	368	ug/kg	73.6	368

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.95	255	ug/kg		JA
475-20-7	1,4-Methanoazulene, decahydro-4,8,8-trim	6.99	288	ug/kg	98	NJ

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	Date Collected:	12/07/2009 12:00	Matrix:	S
Lab Sample ID:	242654004	Date Received:	12/10/2009 08:50	%Moisture:	9.5
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14226	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	932077	Inst:	MSD3.I	Dilution:	1
Run Date:	12/13/2009 17:13	Analyst:	JLD1	Inj. Vol:	.5 uL
Prep Date:	12/11/2009 21:55	Aliquot:	30.03 g	Final Volume:	1 mL
Data File:	s311320.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	11.12	162	ug/kg		J
	Unknown	19.56	211	ug/kg		J

GEL Laboratories LLC

Data file : /chem/MSD3.i/s121309.b/s311320.d
Lab Smp Id: 242654004 Client Smp ID: RE03-09-14226
Inj Date : 13-DEC-2009 17:13
Operator : JLD1 Inst ID: MSD3.i
Smp Info : |242654004|932077|1|SVMF|1|LANL
Misc Info : |MSD8270_S|WBN091208-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD3.i/s121309.b/MSD3-8270R-AQA-120809.m
Meth Date : 14-Dec-2009 17:00 jen00986 Quant Type: ISTD
Cal Date : 07-DEC-2009 19:48 Cal File: s310717.d
Als bottle: 13
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-852.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.03000	weight of sample
M	9.52000	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	4.291	4.294	(1.000)	139424	40.0000	
* 29 Naphthalene-d8	136	5.542	5.546	(1.000)	525049	40.0000	
* 46 Acenaphthene-d10	164	7.387	7.394	(1.000)	286016	40.0000	
* 67 Phenanthrene-d10	188	8.978	8.983	(1.000)	480384	40.0000	
* 91 Chrysene-d12	240	11.838	11.844	(1.000)	371987	40.0000	
* 98 Perylene-d12	264	13.822	13.827	(1.000)	290306	40.0000	
$ 3 2-Fluorophenol	112	3.190	3.175	(0.743)	262662	72.0244	2650
$ 5 Phenol-d5	99	3.948	3.948	(0.920)	319764	68.8234	2530
$ 20 Nitrobenzene-d5	82	4.821	4.828	(0.870)	136819	35.6542	1310
$ 39 2-Fluorobiphenyl	172	6.666	6.669	(0.902)	270240	40.3096	1480
$ 60 2,4,6-Tribromophenol	329	8.231	8.236	(1.114)	65845	83.8338	3080
$ 81 p-Terphenyl-d14	244	10.685	10.686	(0.903)	253329	42.4019	1560

ION RATIO REPORT

SV REPORT

Data file: s311320.d
Report Date: 12/14/2009 11:45
Lab. ID: 242654004 SampleType: SAMPLE
Injection Date: 13-DEC-2009 17:13
Operator: JLD1 Instrument: MSD3.i
Sample Info: |242654004|932077|1|SVMF|1|LANL
Miscellaneous Info: |MSD8270_S|WBN091208-01|
Comment:
Method used: /chem/MSD3.i/s121309.b/MSD3-8270R-AQA-120809.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-852
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
4 Aniline		CAS#: 62-53-3				
66	13803	3.95	4.00	80-120	100	( )
93	389	3.97	4.00	231-291	3	(Q)
17 N-Nitrosodipropylamine				CAS#: 621-64-7		
70	19362	4.82	4.67	80-120	100	(T)
42	9473	4.82	4.67	22- 82	49	(T)
44 2,6-Dinitrotoluene			CAS#: 606-20-2			
165	37158	7.39	7.18	80-120	100	(T)
63	498	7.39	7.18	28- 88	1	(QT)
50 2,4-Dinitrotoluene			CAS#: 121-14-2			
165	37158	7.39	7.60	80-120	100	(T)
89	462	7.39	7.60	52-112	1	(QT)
63	498	7.39	7.61	35- 95	1	(QT)
55 2-Methyl-4,6-dinitrophenol				CAS#: 534-52-1		
198	125	8.23	8.04	80-120	100	(T)
105	382	8.23	8.04	15- 75	305	(QT)
51	317	8.23	8.04	21- 81	253	(QT)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

Data file : /chem/MSD3.i/s121309.b/s311320.d
Lab Smp Id: 242654004 Client Smp ID: RE03-09-14226
Inj Date : 13-DEC-2009 17:13
Operator : JLD1 Inst ID: MSD3.i
Smp Info : |242654004|932077|1|SVMF|1|LANL
Misc Info : |MSD8270_S|WBN091208-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD3.i/s121309.b/MSD3-8270R-AQA-120809.m
Meth Date : 14-Dec-2009 17:00 jen00986 Quant Type: ISTD
Cal Date : 07-DEC-2009 19:48 Cal File: s310717.d
Als bottle: 13
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-852.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.03000	weight of sample
M	9.52000	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	4.291	821031	40.000
* 46 Acenaphthene-d10	7.387	1191692	40.000
* 91 Chrysene-d12	11.838	1022067	40.000
* 98 Perylene-d12	13.822	810468	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #

RT	AREA	CONCENTRATIONS ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	QUANT LIBRARY	LIB ENTRY	CPND #
Unknown Aldol Condensate				CAS #:			
2.946	141997	6.91798495	255	0		0	10
1,4-Methanoazulene, decahydro-4,8,8-trim				CAS #: 475-20-7			
6.986	232898	7.81739356	288	98	NIST05.L	60018	46
Unknown				CAS #:			
11.122	112717	4.41134369	162	0		0	91
Unknown				CAS #:			
19.556	115997	5.72495056	211	0		0	98

Data File: /chem/MSD3.i/s121309.b/s311320.d
Date : 13-DEC-2009 17:13
Client ID: RE03-09-14226
Sample Info: 1242654004|932077|1|SVMF|1|LANL
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD3.i

Operator: JLD1
Column diameter: 0.20

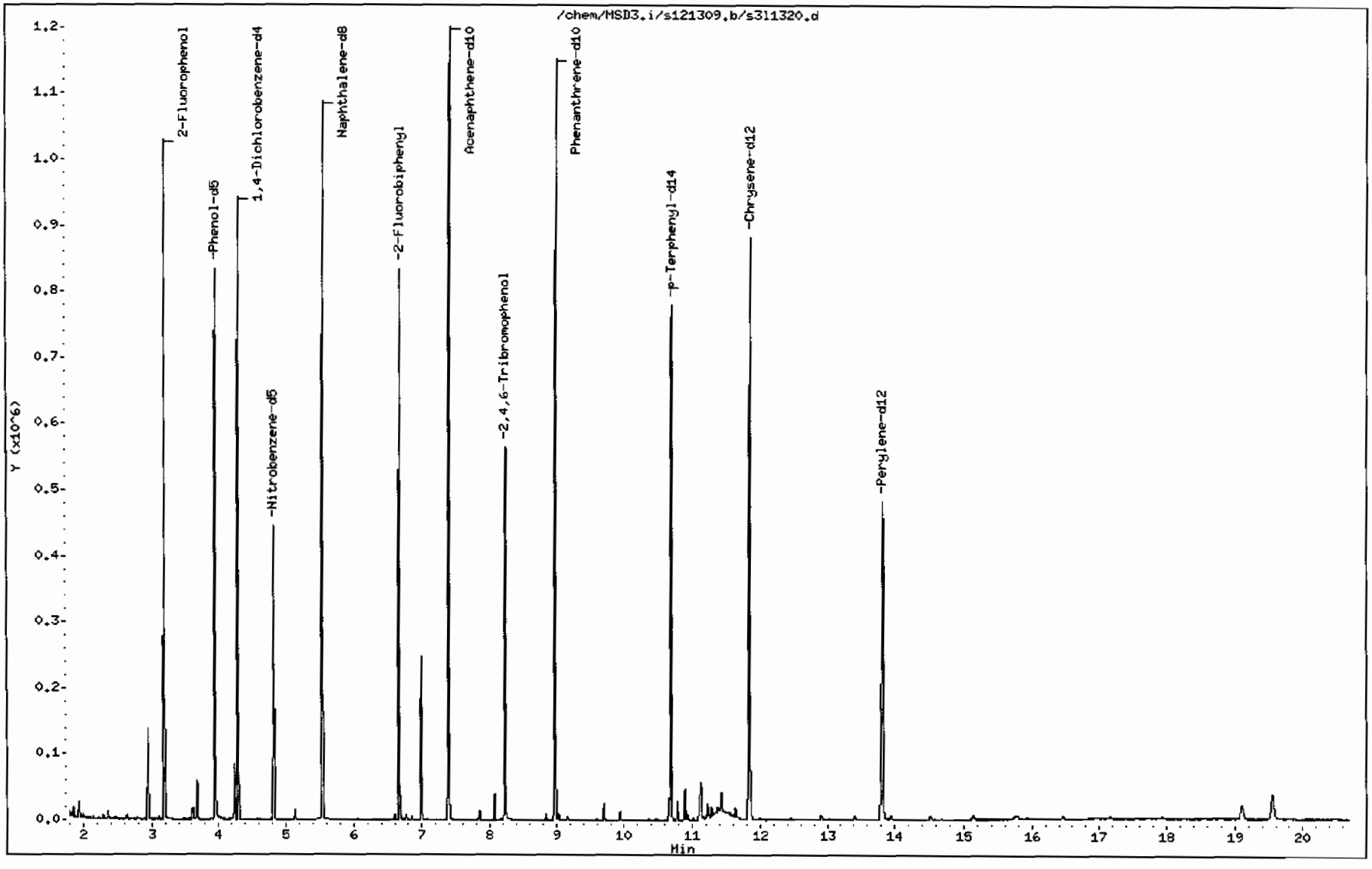

Data File: /chem/MSD3.i/s121309.b/s311320.d

Date : 13-DEC-2009 17:13

Client ID: RE03-09-14226

Instrument: MSD3.i

Sample Info: |2426540041932077|1|SVMF|1|LANL

Volume Injected (uL): 0.5

Operator: JLD1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	56	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	50	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7945	38	C6H12O2	116

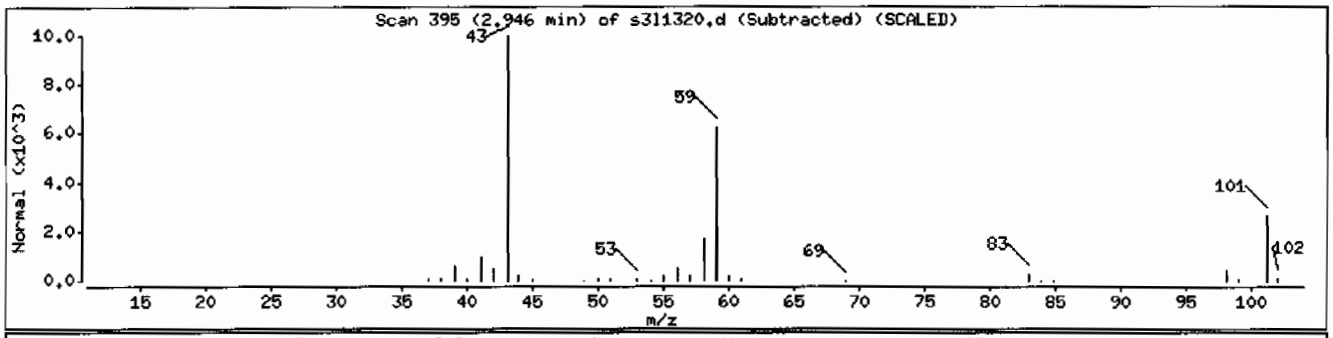

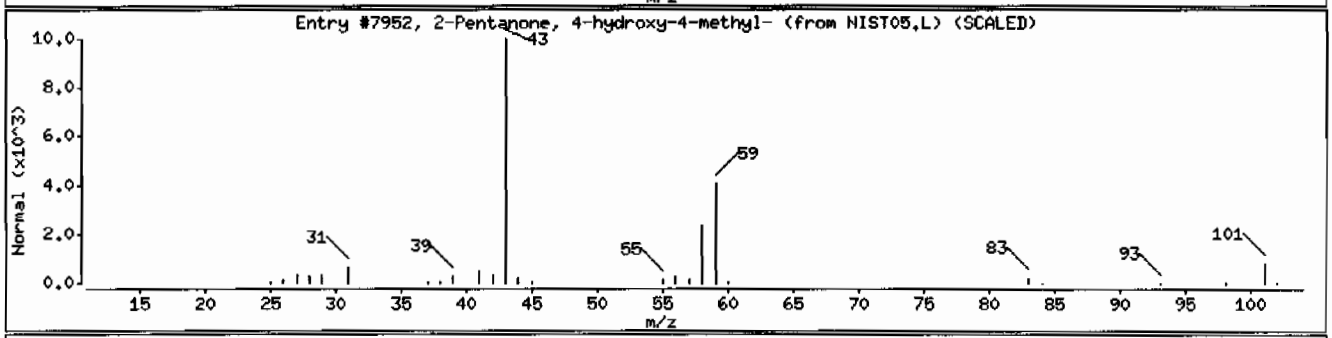

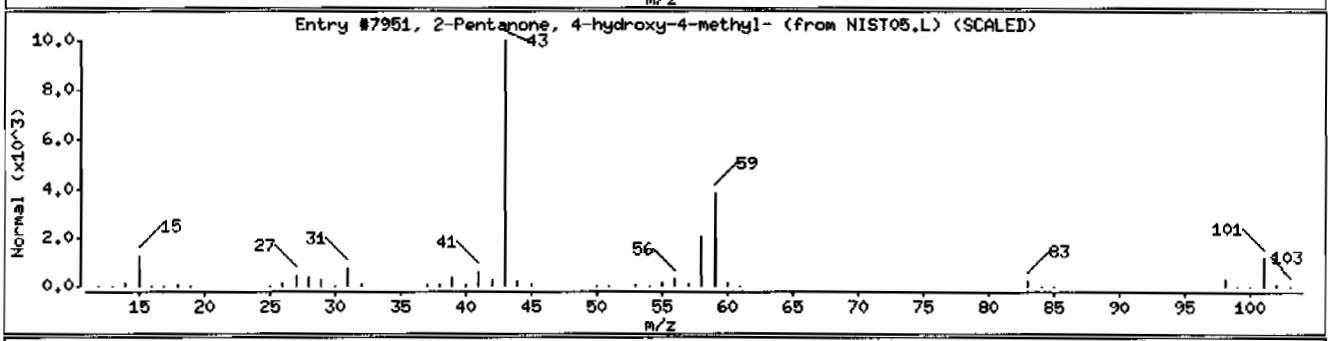

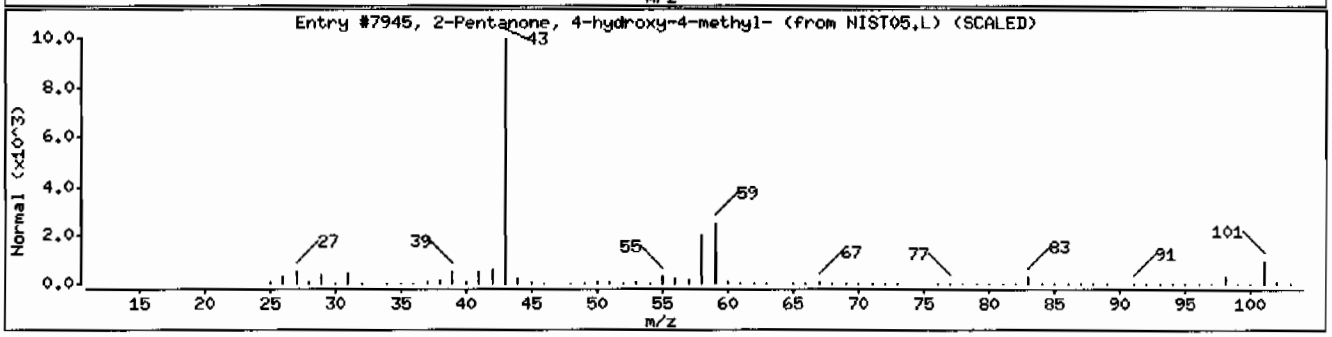

Data File: /chem/MSD3.i/s121309.b/s311320.d

Date : 13-DEC-2009 17:13

Client ID: RE03-09-14226 Instrument: MSD3.i

Sample Info: 1242654004|932077|1|SVMF|1|LANL

Volume Injected (uL): 0.5 Operator: JLD1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
1,4-Methanoazulene, decahydro-4,8,8-trim	475-20-7	NIST05.L	60018	98	C15H24	204
Naphthalene, 1,2,3,5,6,7,8,8a-octahydro-	4630-07-3	NIST05.L	60046	97	C15H24	204
Naphthalene, 1,2,3,5,6,7,8,8a-octahydro-	10219-75-7	NIST05.L	60051	95	C15H24	204

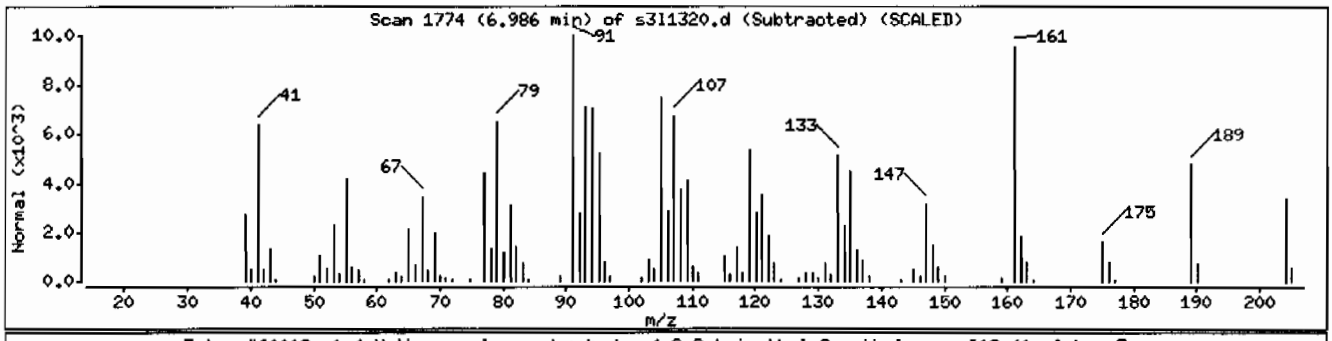

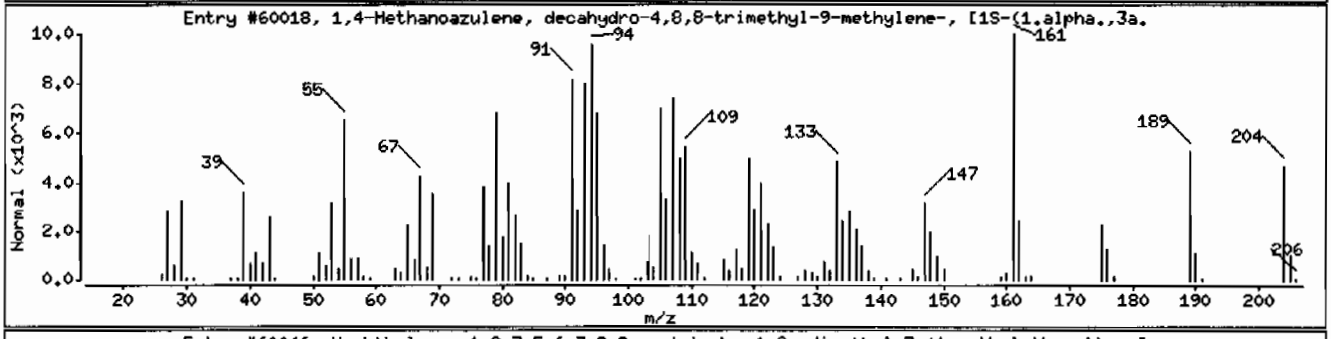

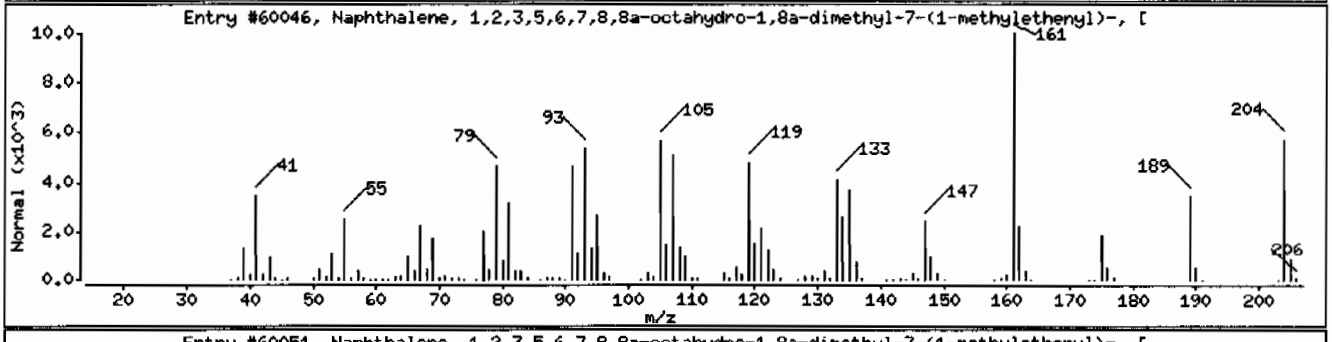

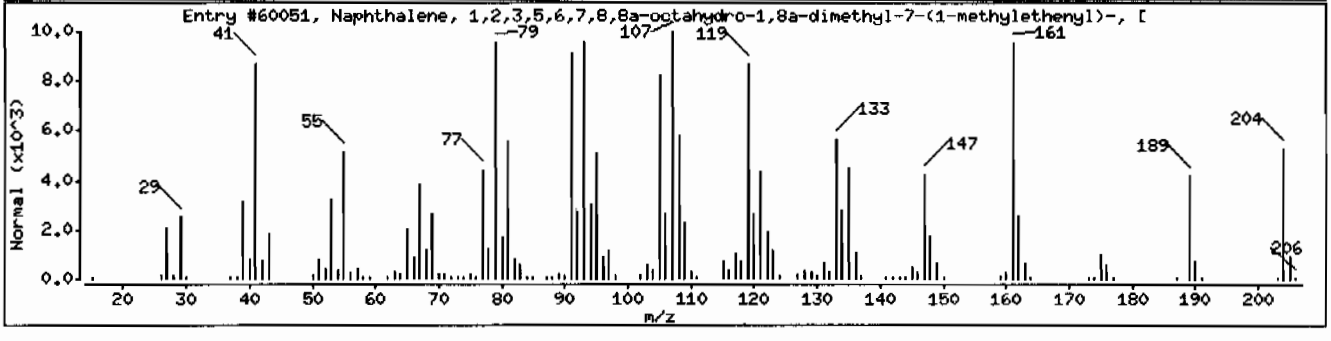

Data File: /chem/MSD3.i/s121309.b/s311320.d

Date : 13-DEC-2009 17:13

Client ID: RE03-09-14226 Instrument: MSD3.i

Sample Info: 1242654004193207711SVMF11LANL

Volume Injected (uL): 0.5 Operator: JLD1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
1-Phenanthrenecarboxylic acid, 1,2,3,4,4	3513-69-7	NIST05.L	134778	60	C21H3202	316
Methyl abietate	127-25-3	NIST05.L	134711	44	C21H3202	316
1-Phenanthrenecarboxylic acid, 1,2,3,4,4	33892-22-7	NIST05.L	134770	43	C21H3202	316

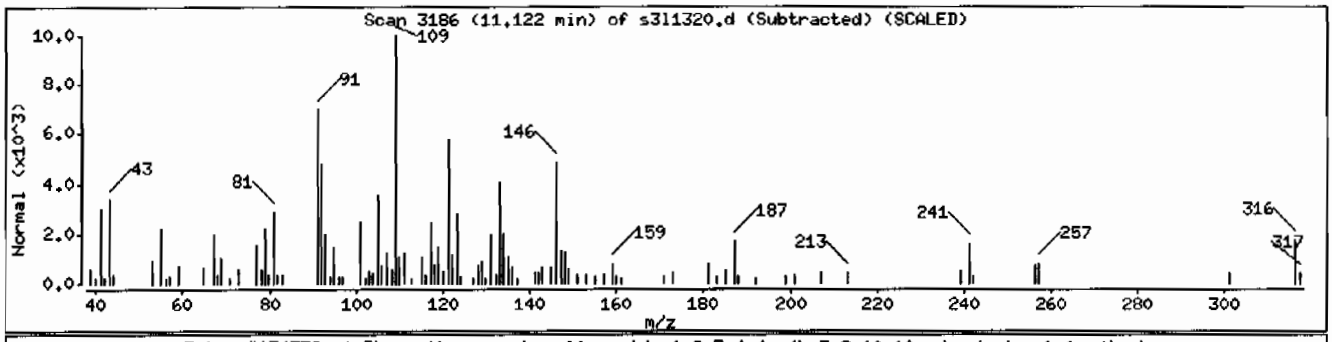

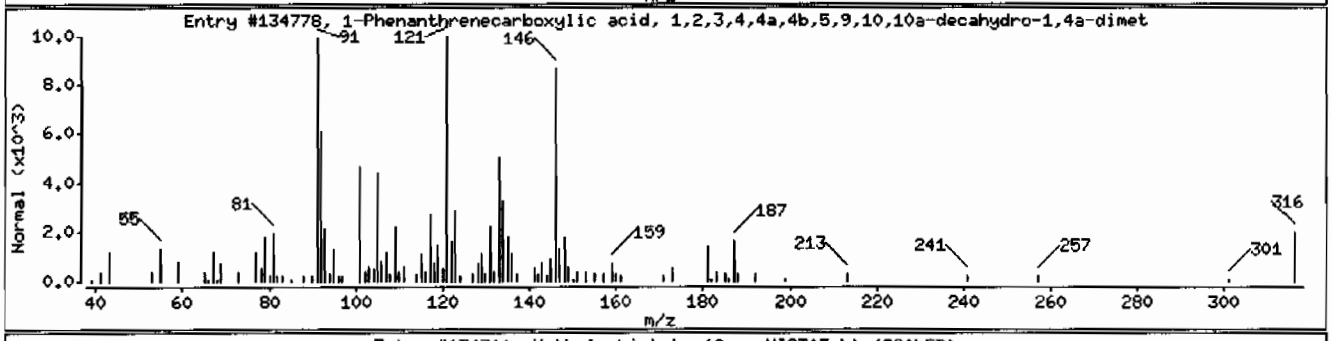

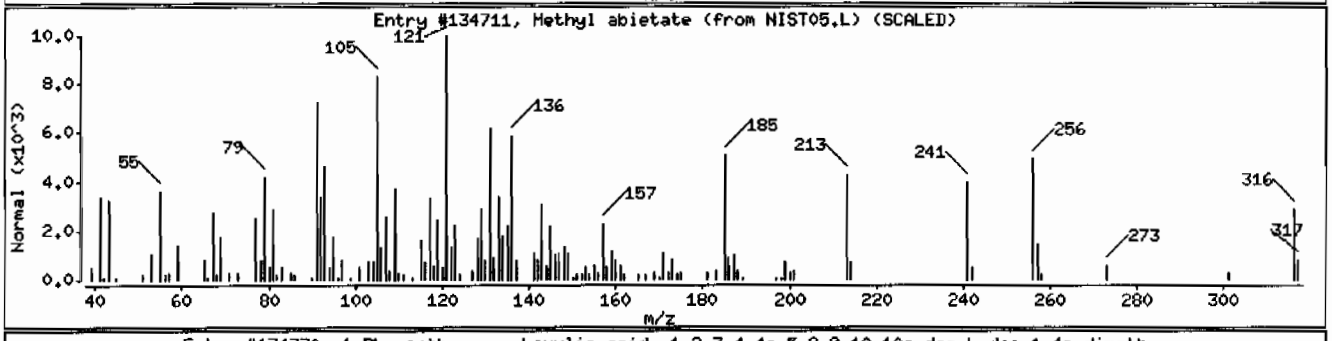

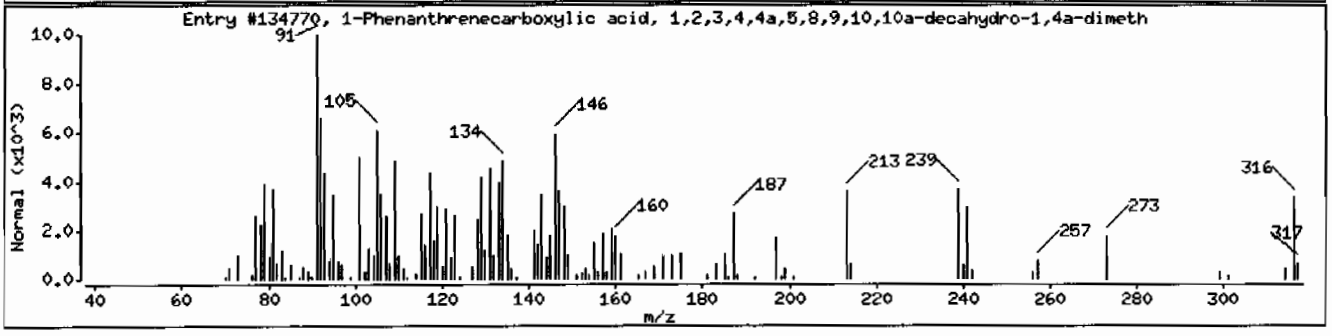

Data File: /chem/MSD3.i/s121309.b/s311320.d

Date : 13-DEC-2009 17:13

Client ID: RE03-09-14226 Instrument: MSD3.i

Sample Info: |2426540041932077|1|SVMF|1|LANL

Volume Injected (uL): 0.5 Operator: JLD1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
2(1H)Naphthalenone, 3,5,6,7,8,8a-hexahyd	1000188-66-5	NIST05.L	69976	42	C15H22O	218
N-Methyl-1-adamantaneacetamide	31897-93-5	NIST05.L	62175	25	C13H21NO	207
2-Amino-4-cyanomethyl-6-piperidino-1,3,5	1000241-05-9	NIST05.L	69370	25	C10H14N6	218

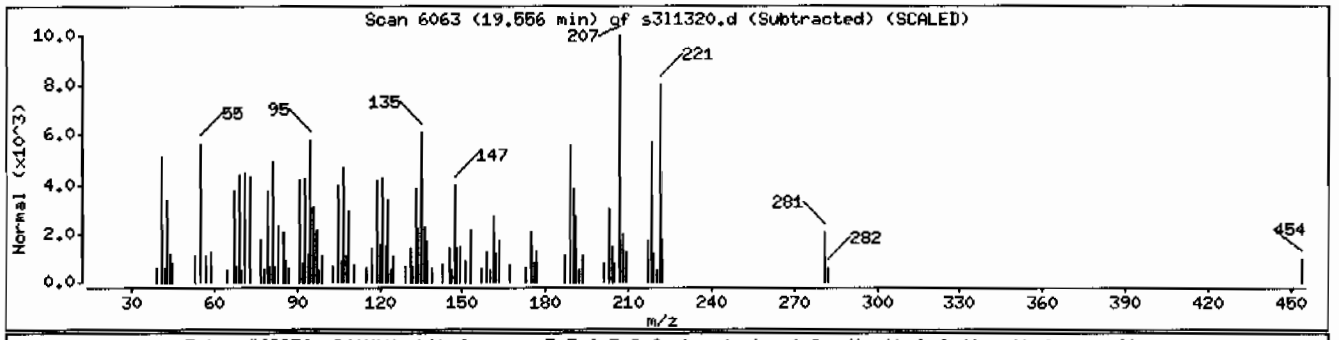

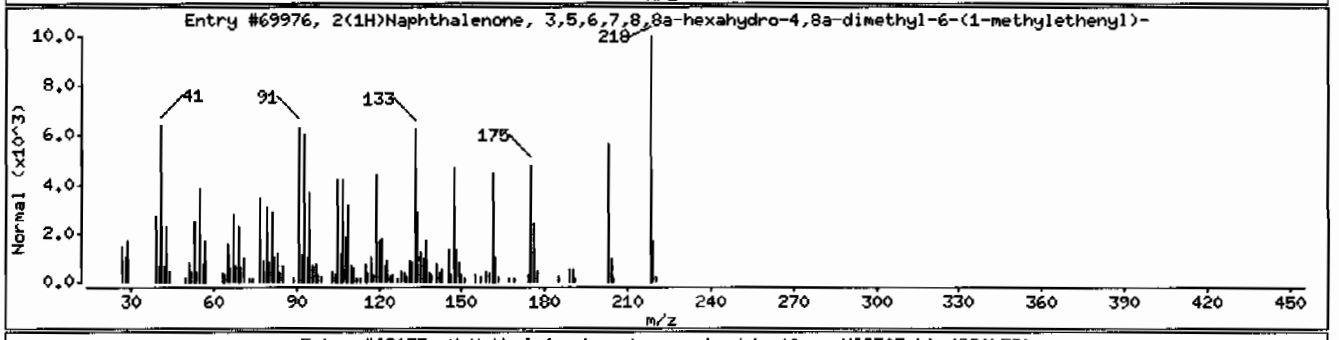

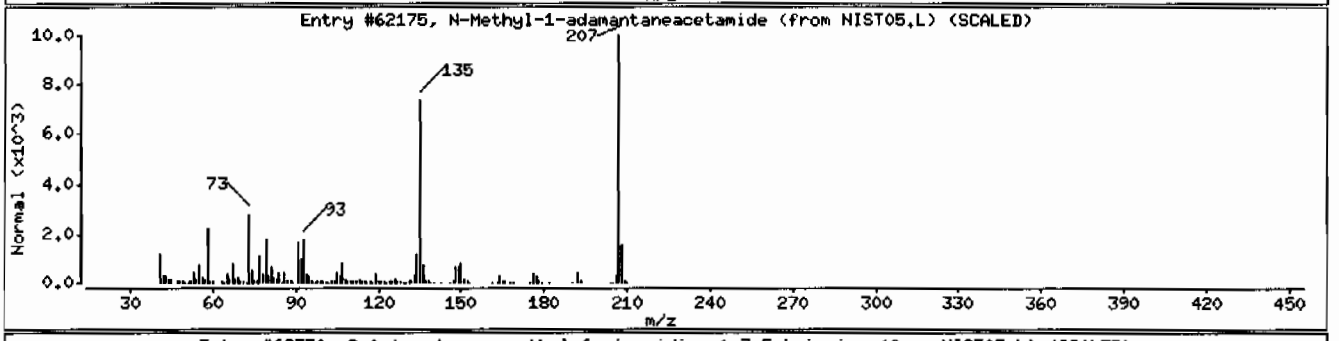

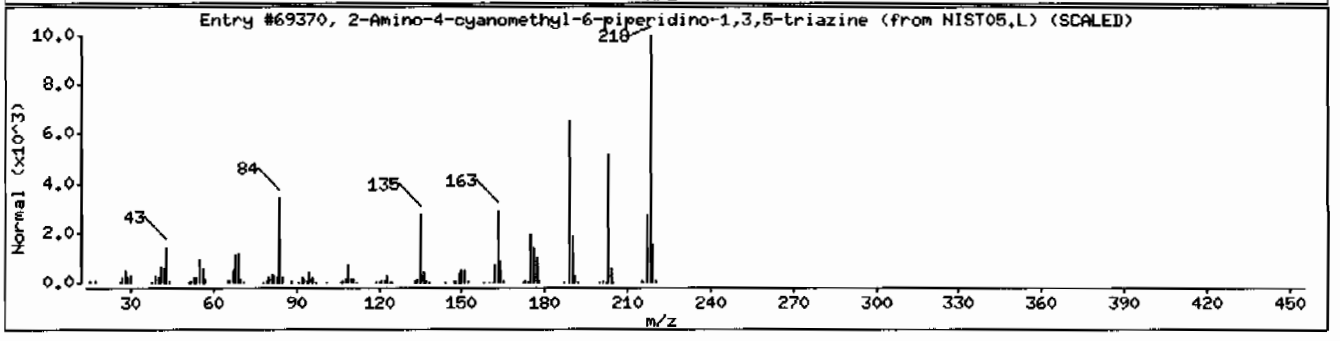

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	Date Collected:	12/07/2009 12:00	Matrix:	S
Lab Sample ID:	242654002	Date Received:	12/10/2009 08:50	%Moisture:	10.3
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14227	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	932077	Inst:	MSD3.I	Dilution:	1
Run Date:	12/13/2009 16:18	Analyst:	JLD1	Inj. Vol:	.5 uL
Prep Date:	12/11/2009 21:55	Aliquot:	30.03 g	Final Volume:	1 mL
Data File:	s3I1318.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	371	ug/kg	74.2	371
108-95-2	Phenol	U	371	ug/kg	74.2	371
95-57-8	2-Chlorophenol	U	371	ug/kg	74.2	371
106-46-7	1,4-Dichlorobenzene	U	371	ug/kg	74.2	371
621-64-7	N-Nitrosodipropylamine	U	371	ug/kg	74.2	371
59-50-7	4-Chloro-3-methylphenol	U	371	ug/kg	74.2	371
83-32-9	Acenaphthene	U	37.1	ug/kg	12.2	37.1
121-14-2	2,4-Dinitrotoluene	U	371	ug/kg	37.1	371
100-02-7	4-Nitrophenol	U	371	ug/kg	122	371
87-86-5	Pentachlorophenol	U	371	ug/kg	92.8	371
129-00-0	Pyrene	U	37.1	ug/kg	11.1	37.1
110-86-1	Pyridine	U	371	ug/kg	74.2	371
62-53-3	Aniline	U	371	ug/kg	111	371
111-44-4	bis(2-Chloroethyl) ether	U	371	ug/kg	74.2	371
541-73-1	1,3-Dichlorobenzene	U	371	ug/kg	74.2	371
100-51-6	Benzyl alcohol	U	371	ug/kg	111	371
95-50-1	1,2-Dichlorobenzene	U	371	ug/kg	74.2	371
108-60-1	bis(2-Chloroisopropyl)ether	U	371	ug/kg	74.2	371
95-48-7	o-Cresol	U	371	ug/kg	74.2	371
65794-96-9	m,p-Cresols	U	371	ug/kg	111	371
67-72-1	Hexachloroethane	U	371	ug/kg	74.2	371
98-95-3	Nitrobenzene	U	371	ug/kg	74.2	371
78-59-1	Isophorone	U	371	ug/kg	74.2	371
88-75-5	2-Nitrophenol	U	371	ug/kg	74.2	371
105-67-9	2,4-Dimethylphenol	U	371	ug/kg	130	371
111-91-1	bis(2-Chloroethoxy)methane	U	371	ug/kg	74.2	371
120-83-2	2,4-Dichlorophenol	U	371	ug/kg	74.2	371
65-85-0	Benzoic acid	U	742	ug/kg	186	742
91-20-3	Naphthalene	U	37.1	ug/kg	11.1	37.1
106-47-8	4-Chloroaniline	U	371	ug/kg	74.2	371
87-68-3	Hexachlorobutadiene	U	371	ug/kg	74.2	371
91-57-6	2-Methylnaphthalene	U	37.1	ug/kg	7.42	37.1
77-47-4	Hexachlorocyclopentadiene	U	371	ug/kg	74.2	371
88-06-2	2,4,6-Trichlorophenol	U	371	ug/kg	74.2	371
95-95-4	2,4,5-Trichlorophenol	U	371	ug/kg	74.2	371
91-58-7	2-Chloronaphthalene	U	37.1	ug/kg	12.2	37.1
88-74-4	2-Nitroaniline	U	371	ug/kg	74.2	371
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	371	ug/kg	74.2	371

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242654002	**Date Received:**	12/10/2009 08:50	**%Moisture:**	10.3
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14227	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	932077	**Inst:**	MSD3.I	**Dilution:**	1
Run Date:	12/13/2009 16:18	**Analyst:**	JLD1	**Inj. Vol:**	.5 uL
Prep Date:	12/11/2009 21:55	**Aliquot:**	30.03 g	**Final Volume:**	1 mL
Data File:	s3l1318.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	371	ug/kg	74.2	371
606-20-2	2,6-Dinitrotoluene	U	371	ug/kg	37.1	371
208-96-8	Acenaphthylene	U	37.1	ug/kg	11.1	37.1
51-28-5	2,4-Dinitrophenol	U	742	ug/kg	141	742
132-64-9	Dibenzofuran	U	371	ug/kg	74.2	371
84-66-2	Diethylphthalate	U	371	ug/kg	74.2	371
86-73-7	Fluorene	U	37.1	ug/kg	11.1	37.1
7005-72-3	4-Chlorophenylphenylether	U	371	ug/kg	74.2	371
534-52-1	2-Methyl-4,6-dinitrophenol	U	371	ug/kg	74.2	371
100-01-6	4-Nitroaniline	U	371	ug/kg	111	371
	p-Nitroaniline					
122-39-4	Diphenylamine	U	371	ug/kg	74.2	371
122-66-7	Azobenzene	U	371	ug/kg	74.2	371
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	371	ug/kg	74.2	371
118-74-1	Hexachlorobenzene	U	371	ug/kg	74.2	371
85-01-8	Phenanthrene	U	37.1	ug/kg	11.1	37.1
120-12-7	Anthracene	U	37.1	ug/kg	7.42	37.1
84-74-2	Di-n-butylphthalate	U	371	ug/kg	74.2	371
206-44-0	Fluoranthene	U	37.1	ug/kg	11.1	37.1
85-68-7	Butylbenzylphthalate	U	371	ug/kg	74.2	371
56-55-3	Benzo(a)anthracene	U	37.1	ug/kg	11.1	37.1
91-94-1	3,3'-Dichlorobenzidine	U	371	ug/kg	111	371
218-01-9	Chrysene	U	37.1	ug/kg	11.1	37.1
117-81-7	bis(2-Ethylhexyl)phthalate	U	371	ug/kg	74.2	371
117-84-0	Di-n-octylphthalate	U	371	ug/kg	74.2	371
205-99-2	Benzo(b)fluoranthene	U	37.1	ug/kg	11.1	37.1
207-08-9	Benzo(k)fluoranthene	U	37.1	ug/kg	11.1	37.1
50-32-8	Benzo(a)pyrene	U	37.1	ug/kg	11.1	37.1
193-39-5	Indeno(1,2,3-cd)pyrene	U	37.1	ug/kg	11.1	37.1
53-70-3	Dibenzo(a,h)anthracene	U	37.1	ug/kg	11.1	37.1
191-24-2	Benzo(ghi)perylene	U	37.1	ug/kg	11.1	37.1
120-82-1	1,2,4-Trichlorobenzene	U	371	ug/kg	74.2	371

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.95	299	ug/kg		JA

GEL Laboratories LLC

Data file : /chem/MSD3.i/s121309.b/s311318.d
Lab Smp Id: 242654002 Client Smp ID: RE03-09-14227
Inj Date : 13-DEC-2009 16:18
Operator : JLD1 Inst ID: MSD3.i
Smp Info : |242654002|932077|1|SVMF|1|LANL
Misc Info : |MSD8270_S|WBN091208-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD3.i/s121309.b/MSD3-8270R-AQA-120809.m
Meth Date : 14-Dec-2009 17:00 jen00986 Quant Type: ISTD
Cal Date : 07-DEC-2009 19:48 Cal File: s310717.d
Als bottle: 11
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-852.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.03000	weight of sample
M	10.28000	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	4.291	4.294	(1.000)	145168	40.0000	
* 29 Naphthalene-d8	136	5.542	5.546	(1.000)	544281	40.0000	
* 46 Acenaphthene-d10	164	7.387	7.394	(1.000)	294741	40.0000	
* 67 Phenanthrene-d10	188	8.980	8.983	(1.000)	498936	40.0000	
* 91 Chrysene-d12	240	11.837	11.844	(1.000)	385413	40.0000	
* 98 Perylene-d12	264	13.820	13.827	(1.000)	289966	40.0000	
$ 3 2-Fluorophenol	112	3.192	3.175	(0.744)	299715	78.9328	2930
$ 5 Phenol-d5	99	3.948	3.948	(0.920)	364997	75.4505	2800
$ 20 Nitrobenzene-d5	82	4.821	4.828	(0.870)	157146	39.5043	1470
$ 39 2-Fluorobiphenyl	172	6.666	6.669	(0.902)	305886	44.2759	1640
$ 60 2,4,6-Tribromophenol	329	8.231	8.236	(1.114)	76452	94.4572	3500
$ 81 p-Terphenyl-d14	244	10.685	10.686	(0.903)	292606	47.2700	1750

ION RATIO REPORT

SV REPORT

Data file: s311318.d
Report Date: 12/14/2009 11:44
Lab. ID: 242654002 SampleType: SAMPLE
Injection Date: 13-DEC-2009 16:18
Operator: JLD1 Instrument: MSD3.i
Sample Info: |242654002|932077|1|SVMF|1|LANL
Miscellaneous Info: |MSD8270_S|WBN091208-01|
Comment:
Method used: /chem/MSD3.i/s121309.b/MSD3-8270R-AQA-120809.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-852
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
17 N-Nitrosodipropylamine				CAS#: 621-64-7		
70	22077	4.82	4.67	80-120	100	(T)
42	10498	4.82	4.67	22- 82	48	(T)
44 2,6-Dinitrotoluene				CAS#: 606-20-2		
165	37640	7.39	7.18	80-120	100	(T)
63	455	7.39	7.18	28- 88	1	(QT)
50 2,4-Dinitrotoluene				CAS#: 121-14-2		
165	37640	7.39	7.60	80-120	100	(T)
89	488	7.39	7.60	52-112	1	(QT)
63	455	7.39	7.61	35- 95	1	(QT)
55 2-Methyl-4,6-dinitrophenol				CAS#: 534-52-1		
198	184	8.23	8.04	80-120	100	(T)
105	419	8.23	8.04	15- 75	227	(QT)
51	336	8.23	8.04	21- 81	182	(QT)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

Data file : /chem/MSD3.i/s121309.b/s311318.d
Lab Smp Id: 242654002 Client Smp ID: RE03-09-14227
Inj Date : 13-DEC-2009 16:18
Operator : JLD1 Inst ID: MSD3.i
Smp Info : |242654002|932077|1|SVMF|1|LANL
Misc Info : |MSD8270_S|WBN091208-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD3.i/s121309.b/MSD3-8270R-AQA-120809.m
Meth Date : 14-Dec-2009 17:00 jen00986 Quant Type: ISTD
Cal Date : 07-DEC-2009 19:48 Cal File: s310717.d
Als bottle: 11
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-852.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariabl

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.03000	weight of sample
M	10.28000	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	4.291	852390	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown Aldol Condensate				CAS #:			
2.949	171947	8.06893039	299	0		0	10

Data File: /chem/MSD3.i/s121309.b/s311318.d

Date : 13-DEC-2009 16:18

Client ID: RE03-09-14227

Sample Info: 1242654002193207711|SVMF11|LANL

Volume Injected (uL): 0.5

Column phase: J&W DB-5MS

Instrument: MSD3.i

Operator: JLD1

Column diameter: 0.20

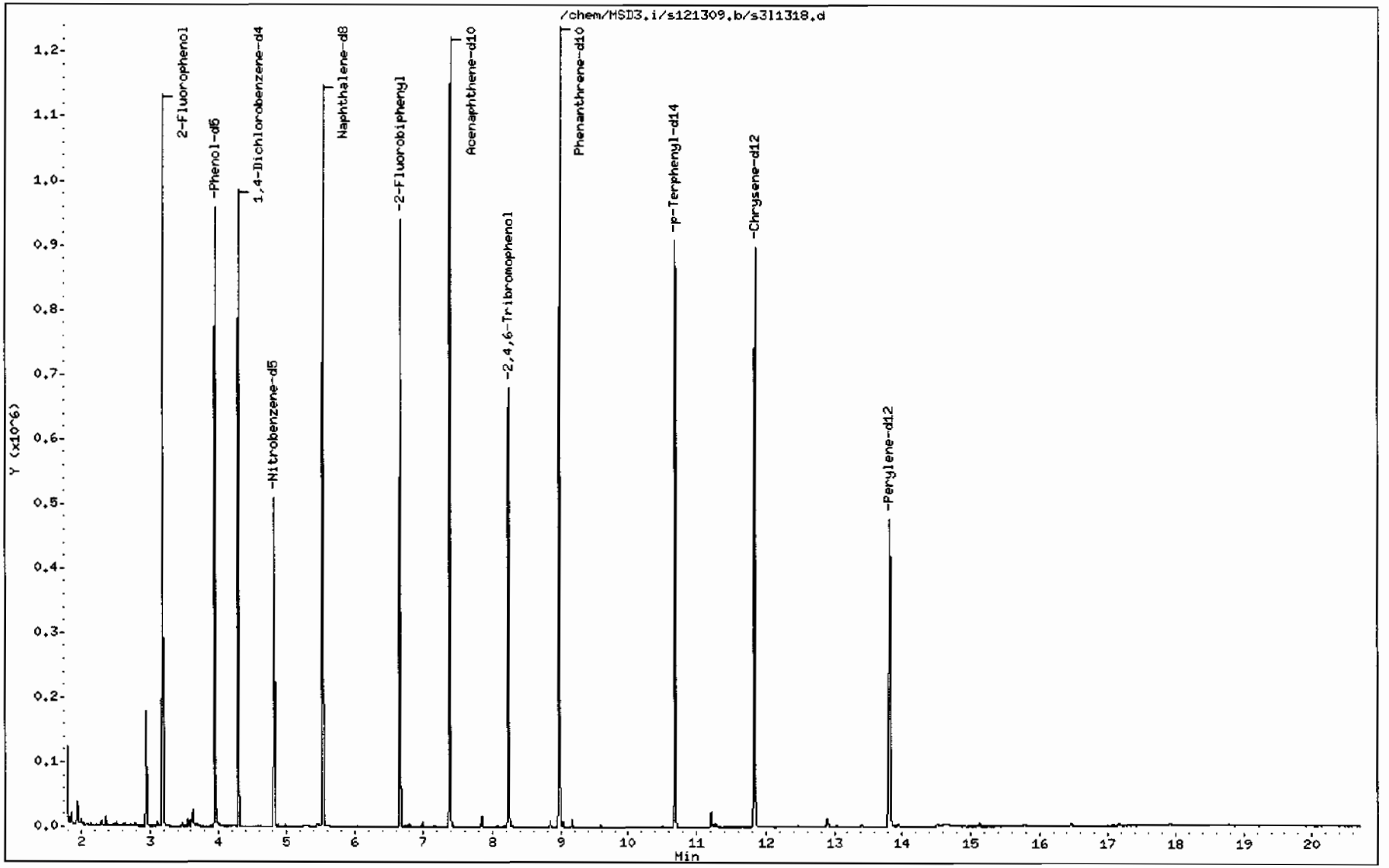

Data File: /chem/MSD3.i/s121309.b/s311318.d

Date : 13-DEC-2009 16:18

Client ID: RE03-09-14227

Instrument: MSD3.i

Sample Info: 1242654002|932077|1|SVMF|1|LANL

Volume Injected (uL): 0.5

Operator: JLD1

Column phase: J&W DB-5HS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7945	64	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	56	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	50	C6H12O2	116

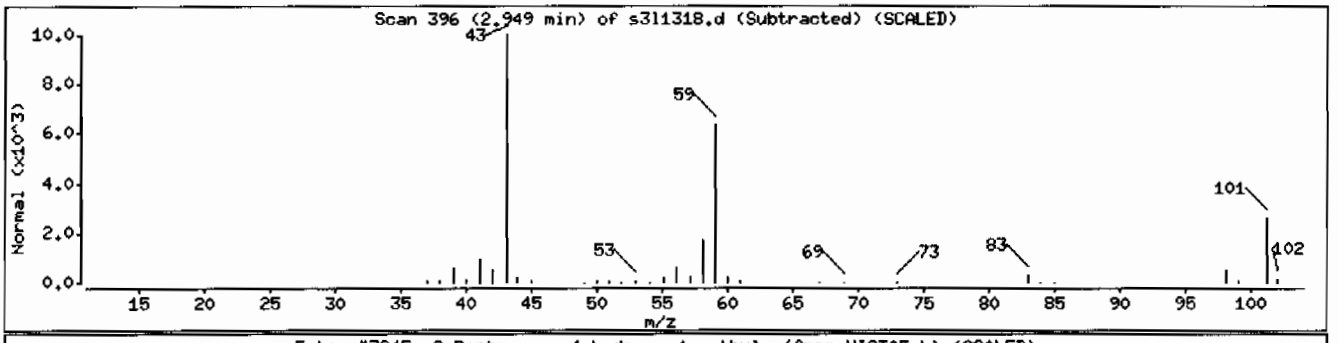

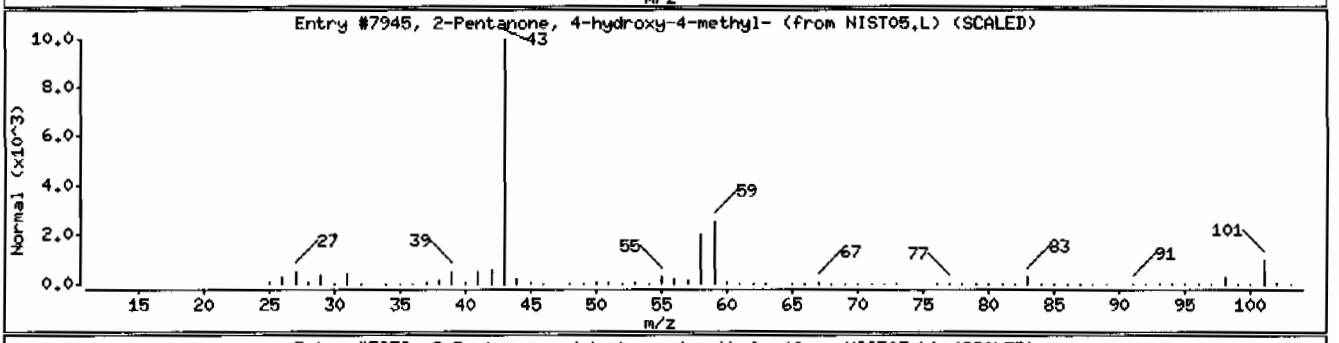

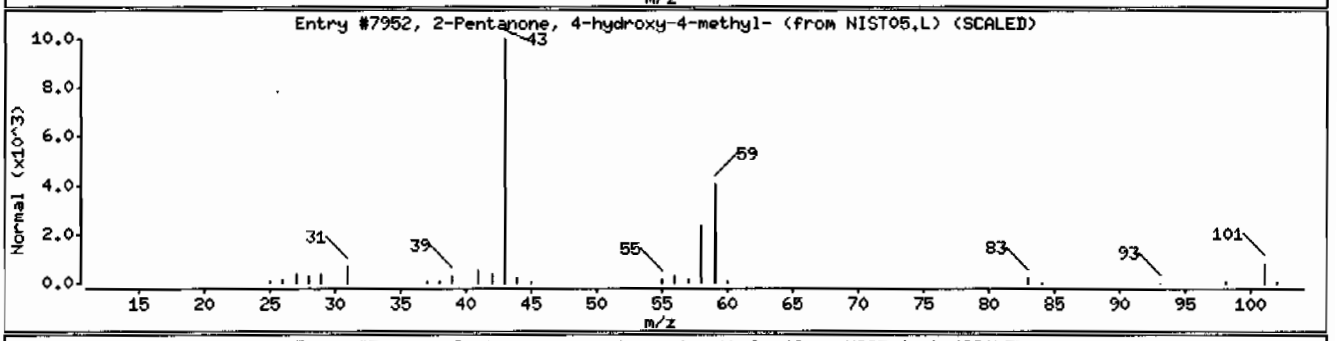

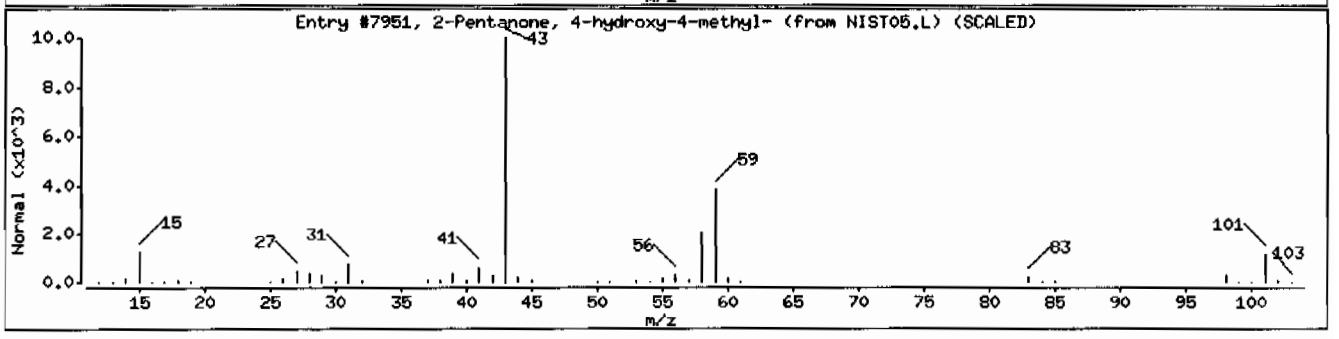

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-852**	**Date Collected:**	**12/07/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242654008**	**Date Received:**	**12/10/2009 08:50**	**%Moisture:**	**13**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14265**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**932077**	**Inst:**	**MSD3.I**	**Dilution:**	**4**
Run Date:	**12/13/2009 19:02**	**Analyst:**	**JLD1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/11/2009 21:55**	**Aliquot:**	**30.08 g**	**Final Volume:**	**1 mL**
Data File:	**s3l1324.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	1530	ug/kg	306	1530
108-95-2	Phenol	U	1530	ug/kg	306	1530
95-57-8	2-Chlorophenol	U	1530	ug/kg	306	1530
106-46-7	1,4-Dichlorobenzene	U	1530	ug/kg	306	1530
621-64-7	N-Nitrosodipropylamine	U	1530	ug/kg	306	1530
59-50-7	4-Chloro-3-methylphenol	U	1530	ug/kg	306	1530
83-32-9	Acenaphthene	U	153	ug/kg	50.5	153
121-14-2	2,4-Dinitrotoluene	U	1530	ug/kg	153	1530
100-02-7	4-Nitrophenol	U	1530	ug/kg	505	1530
87-86-5	Pentachlorophenol	U	1530	ug/kg	382	1530
129-00-0	Pyrene	U	153	ug/kg	45.9	153
110-86-1	Pyridine	U	1530	ug/kg	306	1530
62-53-3	Aniline	U	1530	ug/kg	459	1530
111-44-4	bis(2-Chloroethyl) ether	U	1530	ug/kg	306	1530
541-73-1	1,3-Dichlorobenzene	U	1530	ug/kg	306	1530
100-51-6	Benzyl alcohol	U	1530	ug/kg	459	1530
95-50-1	1,2-Dichlorobenzene	U	1530	ug/kg	306	1530
108-60-1	bis(2-Chloroisopropyl)ether	U	1530	ug/kg	306	1530
95-48-7	o-Cresol	U	1530	ug/kg	306	1530
65794-96-9	m,p-Cresols	U	1530	ug/kg	459	1530
67-72-1	Hexachloroethane	U	1530	ug/kg	306	1530
98-95-3	Nitrobenzene	U	1530	ug/kg	306	1530
78-59-1	Isophorone	U	1530	ug/kg	306	1530
88-75-5	2-Nitrophenol	U	1530	ug/kg	306	1530
105-67-9	2,4-Dimethylphenol	U	1530	ug/kg	535	1530
111-91-1	bis(2-Chloroethoxy)methane	U	1530	ug/kg	306	1530
120-83-2	2,4-Dichlorophenol	U	1530	ug/kg	306	1530
65-85-0	Benzoic acid	U	3060	ug/kg	765	3060
91-20-3	Naphthalene	U	153	ug/kg	45.9	153
106-47-8	4-Chloroaniline	U	1530	ug/kg	306	1530
87-68-3	Hexachlorobutadiene	U	1530	ug/kg	306	1530
91-57-6	2-Methylnaphthalene	U	153	ug/kg	30.6	153
77-47-4	Hexachlorocyclopentadiene	U	1530	ug/kg	306	1530
88-06-2	2,4,6-Trichlorophenol	U	1530	ug/kg	306	1530
95-95-4	2,4,5-Trichlorophenol	U	1530	ug/kg	306	1530
91-58-7	2-Chloronaphthalene	U	153	ug/kg	50.5	153
88-74-4	2-Nitroaniline	U	1530	ug/kg	306	1530
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	1530	ug/kg	306	1530

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242654008	**Date Received:**	12/10/2009 08:50	**%Moisture:**	13
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14265	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	932077	**Inst:**	MSD3.I	**Dilution:**	4
Run Date:	12/13/2009 19:02	**Analyst:**	JLD1	**Inj. Vol:**	.5 uL
Prep Date:	12/11/2009 21:55	**Aliquot:**	30.08 g	**Final Volume:**	1 mL
Data File:	s311324.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	1530	ug/kg	306	1530
606-20-2	2,6-Dinitrotoluene	U	1530	ug/kg	153	1530
208-96-8	Acenaphthylene	U	153	ug/kg	45.9	153
51-28-5	2,4-Dinitrophenol	U	3060	ug/kg	581	3060
132-64-9	Dibenzofuran	U	1530	ug/kg	306	1530
84-66-2	Diethylphthalate	U	1530	ug/kg	306	1530
86-73-7	Fluorene	U	153	ug/kg	45.9	153
7005-72-3	4-Chlorophenylphenylether	U	1530	ug/kg	306	1530
534-52-1	2-Methyl-4,6-dinitrophenol	U	1530	ug/kg	306	1530
100-01-6	4-Nitroaniline	U	1530	ug/kg	459	1530
	p-Nitroaniline					
122-39-4	Diphenylamine	U	1530	ug/kg	306	1530
122-66-7	Azobenzene	U	1530	ug/kg	306	1530
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	1530	ug/kg	306	1530
118-74-1	Hexachlorobenzene	U	1530	ug/kg	306	1530
85-01-8	Phenanthrene	U	153	ug/kg	45.9	153
120-12-7	Anthracene	U	153	ug/kg	30.6	153
84-74-2	Di-n-butylphthalate	U	1530	ug/kg	306	1530
206-44-0	Fluoranthene	U	153	ug/kg	45.9	153
85-68-7	Butylbenzylphthalate	U	1530	ug/kg	306	1530
56-55-3	Benzo(a)anthracene	U	153	ug/kg	45.9	153
91-94-1	3,3'-Dichlorobenzidine	U	1530	ug/kg	459	1530
218-01-9	Chrysene	U	153	ug/kg	45.9	153
117-81-7	bis(2-Ethylhexyl)phthalate	U	1530	ug/kg	306	1530
117-84-0	Di-n-octylphthalate	U	1530	ug/kg	306	1530
205-99-2	Benzo(b)fluoranthene	U	153	ug/kg	45.9	153
207-08-9	Benzo(k)fluoranthene	U	153	ug/kg	45.9	153
50-32-8	Benzo(a)pyrene	U	153	ug/kg	45.9	153
193-39-5	Indeno(1,2,3-cd)pyrene	U	153	ug/kg	45.9	153
53-70-3	Dibenzo(a,h)anthracene	U	153	ug/kg	45.9	153
191-24-2	Benzo(ghi)perylene	U	153	ug/kg	45.9	153
120-82-1	1,2,4-Trichlorobenzene	U	1530	ug/kg	306	1530

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	No Tentatively Identified Compounds Found			ug/kg		

GEL Laboratories LLC

Data file : /chem/MSD3.i/s121309.b/s311324.d
Lab Smp Id: 242654008 Client Smp ID: RE03-09-14265
Inj Date : 13-DEC-2009 19:02
Operator : JLD1 Inst ID: MSD3.i
Smp Info : |242654008|932077|4|SVMF|1|LANL
Misc Info : |MSD8270_S|WBN091208-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD3.i/s121309.b/MSD3-8270R-AQA-120809.m
Meth Date : 14-Dec-2009 17:00 jen00986 Quant Type: ISTD
Cal Date : 07-DEC-2009 19:48 Cal File: s310717.d
Als bottle: 17
Dil Factor: 4.00000
Integrator: HP RTE Compound Sublist: 10-852.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	4.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.08000	weight of sample
M	13.03000	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	4.291	4.294	(1.000)	148139	40.0000	
* 29 Naphthalene-d8	136	5.545	5.546	(1.000)	553819	40.0000	
* 46 Acenaphthene-d10	164	7.390	7.394	(1.000)	305955	40.0000	
* 67 Phenanthrene-d10	188	8.983	8.983	(1.000)	504420	40.0000	
* 91 Chrysene-d12	240	11.839	11.844	(1.000)	271728	40.0000	
* 98 Perylene-d12	264	13.822	13.827	(1.000)	131442	40.0000	
$ 3 2-Fluorophenol	112	3.181	3.175	(0.741)	84806	21.8865	3350
$ 5 Phenol-d5	99	3.945	3.948	(0.919)	99716	20.1994	3090
$ 20 Nitrobenzene-d5	82	4.821	4.828	(0.870)	43631	10.7793	1650
$ 39 2-Fluorobiphenyl	172	6.666	6.669	(0.902)	89100	12.4242	1900
$ 60 2,4,6-Tribromophenol	329	8.232	8.236	(1.114)	20145	23.9771	3670
$ 81 p-Terphenyl-d14	244	10.685	10.686	(0.903)	71673	16.4229	2510(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

ION RATIO REPORT

SV REPORT

Data file: s311324.d
Report Date: 12/14/2009 12:05
Lab. ID: 242654008 SampleType: SAMPLE
Injection Date: 13-DEC-2009 19:02
Operator: JLD1 Instrument: MSD3.i
Sample Info: |242654008|932077|4|SVMF|1|LANL
Miscellaneous Info: |MSD8270_S|WBN091208-01|
Comment:
Method used: /chem/MSD3.i/s121309.b/MSD3-8270R-AQA-120809.m
Dilution Factor= 4.0
Integrator: HP RTE Compound Sublist: 10-852
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
44 2,6-Dinitrotoluene				CAS#: 606-20-2		
165	39770	7.39	7.18	80-120	100	(T)
63	541	7.39	7.18	28- 88	1	(QT)
50 2,4-Dinitrotoluene				CAS#: 121-14-2		
165	39770	7.39	7.60	80-120	100	(T)
89	530	7.39	7.60	52-112	1	(QT)
63	541	7.39	7.61	35- 95	1	(QT)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

Data file : /chem/MSD3.i/s121309.b/s311324.d
Lab Smp Id: 242654008 Client Smp ID: RE03-09-14265
Inj Date : 13-DEC-2009 19:02
Operator : JLD1 Inst ID: MSD3.i
Smp Info : |242654008|932077|4|SVMF|1|LANL
Misc Info : |MSD8270_S|WBN091208-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD3.i/s121309.b/MSD3-8270R-AQA-120809.m
Meth Date : 14-Dec-2009 17:00 jen00986 Quant Type: ISTD
Cal Date : 07-DEC-2009 19:48 Cal File: s310717.d
Als bottle: 17
Dil Factor: 4.00000
Integrator: HP RTE Compound Sublist: 10-852.sub
Target Version: 3.50
Processing Host: hpclp1

- NO TENTATIVELY IDENTIFIED COMPOUNDS -

Data File: /chem/MSD3.i/s121309.b/s311324.d
Date : 13-DEC-2009 19:02
Client ID: RE03-09-14265
Sample Info: 1242654008|93207714|SVMF11|LANL
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD3.i
Operator: JLD1
Column diameter: 0.20

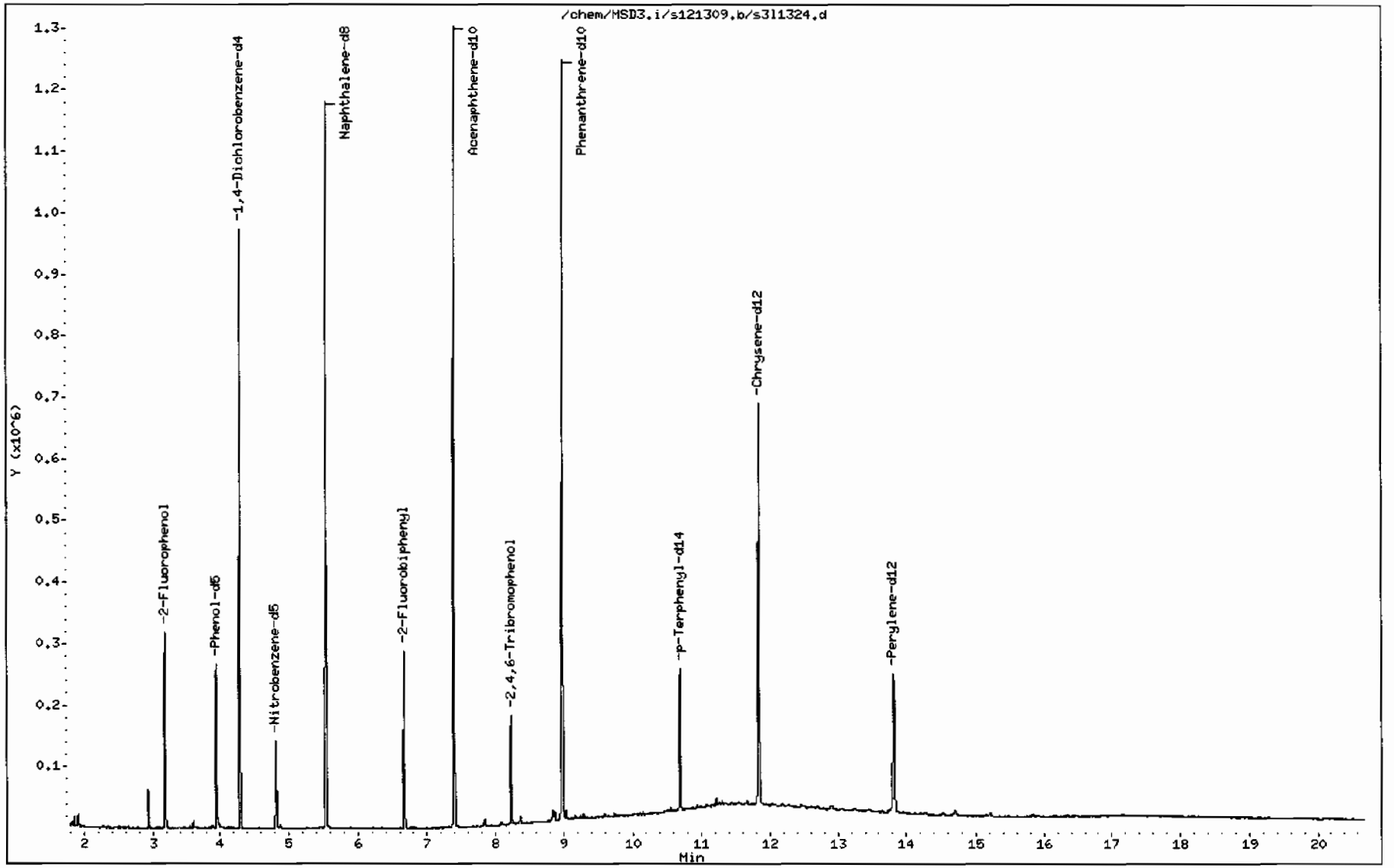

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	Date Collected:	12/07/2009 12:00	Matrix:	S
Lab Sample ID:	242654007	Date Received:	12/10/2009 08:50	%Moisture:	14.2
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14267	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	932077	Inst:	MSD3.1	Dilution:	1
Run Date:	12/13/2009 18:35	Analyst:	JLD1	Inj. Vol:	.5 uL
Prep Date:	12/11/2009 21:55	Aliquot:	30.19 g	Final Volume:	1 mL
Data File:	s311323.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	386	ug/kg	77.2	386
108-95-2	Phenol	U	386	ug/kg	77.2	386
95-57-8	2-Chlorophenol	U	386	ug/kg	77.2	386
106-46-7	1,4-Dichlorobenzene	U	386	ug/kg	77.2	386
621-64-7	N-Nitrosodipropylamine	U	386	ug/kg	77.2	386
59-50-7	4-Chloro-3-methylphenol	U	386	ug/kg	77.2	386
83-32-9	Acenaphthene	U	38.6	ug/kg	12.7	38.6
121-14-2	2,4-Dinitrotoluene	U	386	ug/kg	38.6	386
100-02-7	4-Nitrophenol	U	386	ug/kg	127	386
87-86-5	Pentachlorophenol	U	386	ug/kg	96.5	386
129-00-0	Pyrene		57.6	ug/kg	11.6	38.6
110-86-1	Pyridine	U	386	ug/kg	77.2	386
62-53-3	Aniline	U	386	ug/kg	116	386
111-44-4	bis(2-Chloroethyl) ether	U	386	ug/kg	77.2	386
541-73-1	1,3-Dichlorobenzene	U	386	ug/kg	77.2	386
100-51-6	Benzyl alcohol	U	386	ug/kg	116	386
95-50-1	1,2-Dichlorobenzene	U	386	ug/kg	77.2	386
108-60-1	bis(2-Chloroisopropyl)ether	U	386	ug/kg	77.2	386
95-48-7	o-Cresol	U	386	ug/kg	77.2	386
65794-96-9	m,p-Cresols	U	386	ug/kg	116	386
67-72-1	Hexachloroethane	U	386	ug/kg	77.2	386
98-95-3	Nitrobenzene	U	386	ug/kg	77.2	386
78-59-1	Isophorone	U	386	ug/kg	77.2	386
88-75-5	2-Nitrophenol	U	386	ug/kg	77.2	386
105-67-9	2,4-Dimethylphenol	U	386	ug/kg	135	386
111-91-1	bis(2-Chloroethoxy)methane	U	386	ug/kg	77.2	386
120-83-2	2,4-Dichlorophenol	U	386	ug/kg	77.2	386
65-85-0	Benzoic acid	U	772	ug/kg	193	772
91-20-3	Naphthalene	U	38.6	ug/kg	11.6	38.6
106-47-8	4-Chloroaniline	U	386	ug/kg	77.2	386
87-68-3	Hexachlorobutadiene	U	386	ug/kg	77.2	386
91-57-6	2-Methylnaphthalene	U	38.6	ug/kg	7.72	38.6
77-47-4	Hexachlorocyclopentadiene	U	386	ug/kg	77.2	386
88-06-2	2,4,6-Trichlorophenol	U	386	ug/kg	77.2	386
95-95-4	2,4,5-Trichlorophenol	U	386	ug/kg	77.2	386
91-58-7	2-Chloronaphthalene	U	38.6	ug/kg	12.7	38.6
88-74-4	2-Nitroaniline	U	386	ug/kg	77.2	386
	o-Nitroaniline					
99-09-2	3-Nitroaniline	U	386	ug/kg	77.2	386

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242654007	**Date Received:**	12/10/2009 08:50	**%Moisture:**	14.2
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14267	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	932077	**Inst:**	MSD3.I	**Dilution:**	1
Run Date:	12/13/2009 18:35	**Analyst:**	JLD1	**Inj. Vol:**	.5 uL
Prep Date:	12/11/2009 21:55	**Aliquot:**	30.19 g	**Final Volume:**	1 mL
Data File:	s3l1323.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	386	ug/kg	77.2	386
606-20-2	2,6-Dinitrotoluene	U	386	ug/kg	38.6	386
208-96-8	Acenaphthylene	U	38.6	ug/kg	11.6	38.6
51-28-5	2,4-Dinitrophenol	U	772	ug/kg	147	772
132-64-9	Dibenzofuran	U	386	ug/kg	77.2	386
84-66-2	Diethylphthalate	U	386	ug/kg	77.2	386
86-73-7	Fluorene	U	38.6	ug/kg	11.6	38.6
7005-72-3	4-Chlorophenylphenylether	U	386	ug/kg	77.2	386
534-52-1	2-Methyl-4,6-dinitrophenol	U	386	ug/kg	77.2	386
100-01-6	4-Nitroaniline	U	386	ug/kg	116	386
	p-Nitroaniline					
122-39-4	Diphenylamine	U	386	ug/kg	77.2	386
122-66-7	Azobenzene	U	386	ug/kg	77.2	386
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	386	ug/kg	77.2	386
118-74-1	Hexachlorobenzene	U	386	ug/kg	77.2	386
85-01-8	Phenanthrene	U	38.6	ug/kg	11.6	38.6
120-12-7	Anthracene	U	38.6	ug/kg	7.72	38.6
84-74-2	Di-n-butylphthalate	U	386	ug/kg	77.2	386
206-44-0	Fluoranthene		42.2	ug/kg	11.6	38.6
85-68-7	Butylbenzylphthalate	U	386	ug/kg	77.2	386
56-55-3	Benzo(a)anthracene	J	31.3	ug/kg	11.6	38.6
91-94-1	3,3'-Dichlorobenzidine	U	386	ug/kg	116	386
218-01-9	Chrysene		46.8	ug/kg	11.6	38.6
117-81-7	bis(2-Ethylhexyl)phthalate	J	81.2	ug/kg	77.2	386
117-84-0	Di-n-octylphthalate	U	386	ug/kg	77.2	386
205-99-2	Benzo(b)fluoranthene		51.7	ug/kg	11.6	38.6
207-08-9	Benzo(k)fluoranthene	U	38.6	ug/kg	11.6	38.6
50-32-8	Benzo(a)pyrene	J	33.4	ug/kg	11.6	38.6
193-39-5	Indeno(1,2,3-cd)pyrene	J	26.9	ug/kg	11.6	38.6
53-70-3	Dibenzo(a,h)anthracene	U	38.6	ug/kg	11.6	38.6
191-24-2	Benzo(ghi)perylene	J	34.1	ug/kg	11.6	38.6
120-82-1	1,2,4-Trichlorobenzene	U	386	ug/kg	77.2	386

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.95	337	ug/kg		JA
301-02-0	9-Octadecenamide, (Z)-	11.21	186	ug/kg	93	NJ

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242654007	**Date Received:**	12/10/2009 08:50	**%Moisture:**	14.2
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14267	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	932077	**Inst:**	MSD3.I	**Dilution:**	1
Run Date:	12/13/2009 18:35	**Analyst:**	JLD1	**Inj. Vol:**	.5 uL
Prep Date:	12/11/2009 21:55	**Aliquot:**	30.19 g	**Final Volume:**	1 mL
Data File:	s311323.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	14.7	190	ug/kg		J
	Unknown	15.21	168	ug/kg		J

GEL Laboratories LLC

Data file : /chem/MSD3.i/s121309.b/s311323.d
Lab Smp Id: 242654007 Client Smp ID: RE03-09-14267
Inj Date : 13-DEC-2009 18:35
Operator : JLD1 Inst ID: MSD3.i
Smp Info : |242654007|932077|1|SVMF|1|LANL
Misc Info : |MSD8270_S|WBN091208-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD3.i/s121309.b/MSD3-8270R-AQA-120809.m
Meth Date : 14-Dec-2009 17:00 jen00986 Quant Type: ISTD
Cal Date : 07-DEC-2009 19:48 Cal File: s310717.d
Als bottle: 16
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-852.sub
Target Version: 3.50
Processing Host: hpclpl

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.19000	weight of sample
M	14.20000	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	4.291	4.294	(1.000)	141531	40.0000	
* 29 Naphthalene-d8	136	5.543	5.546	(1.000)	526282	40.0000	
* 46 Acenaphthene-d10	164	7.390	7.394	(1.000)	287890	40.0000	
* 67 Phenanthrene-d10	188	8.980	8.983	(1.000)	469466	40.0000	
* 91 Chrysene-d12	240	11.838	11.844	(1.000)	251553	40.0000	
* 98 Perylene-d12	264	13.820	13.827	(1.000)	124690	40.0000	
$ 3 2-Fluorophenol	112	3.190	3.175	(0.743)	296955	80.2156	3100
$ 5 Phenol-d5	99	3.952	3.948	(0.921)	364883	77.3653	2990
$ 20 Nitrobenzene-d5	82	4.822	4.828	(0.870)	153289	39.8526	1540
$ 39 2-Fluorobiphenyl	172	6.665	6.669	(0.902)	311175	46.1134	1780
$ 60 2,4,6-Tribromophenol	329	8.232	8.236	(1.114)	76220	96.4115	3720
$ 81 p-Terphenyl-d14	244	10.686	10.686	(0.903)	250576	62.0210	2390

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
79 Pyrene	202	10.521	10.528	(0.889)	10489	1.49115	57.6
76 Fluoranthene	202	10.276	10.282	(1.144)	12122	1.09294	42.2
89 Benzo(a)anthracene	228	11.823	11.827	(0.999)	4911	0.81086	31.3(a)
92 Chrysene	228	11.865	11.877	(1.002)	6815	1.21172	46.8
93 bis(2-Ethylhexyl)phthalate	149	11.829	11.830	(0.999)	9256	2.10409	81.2(a)
95 Benzo(b)fluoranthene	252	13.236	13.243	(0.958)	4412	1.33953	51.7
97 Benzo(a)pyrene	252	13.726	13.739	(0.993)	2344	0.86511	33.4(a)
99 Indeno(1,2,3-cd)pyrene	276	15.558	15.573	(1.126)	1661	0.69678	26.9(a)
101 Benzo(ghi)perylene	276	16.015	16.034	(1.159)	1774	0.88439	34.1(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

ION RATIO REPORT

SV REPORT

Data file: s311323.d
Report Date: 12/14/2009 12:05
Lab. ID: 242654007 SampleType: SAMPLE
Injection Date: 13-DEC-2009 18:35
Operator: JLD1 Instrument: MSD3.i
Sample Info: |242654007|932077|1|SVMF|1|LANL
Miscellaneous Info: |MSD8270_S|WBN091208-01|
Comment:
Method used: /chem/MSD3.i/s121309.b/MSD3-8270R-AQA-120809.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-852
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
4 Aniline		CAS#: 62-53-3				
66	16246	3.95	4.00	80-120	100	( )
93	301	3.97	4.00	231-291	2	(Q)
17 N-Nitrosodipropylamine				CAS#: 621-64-7		
70	21847	4.82	4.67	80-120	100	(T)
42	10429	4.82	4.67	22- 82	48	(T)
27 Benzoic acid			CAS#: 65-85-0			
105	622	5.24	5.33	80-120	100	(T)
122	349	5.24	5.33	46-106	56	(T)
77	474	5.24	5.33	46-106	76	(T)
44 2,6-Dinitrotoluene				CAS#: 606-20-2		
165	38083	7.39	7.18	80-120	100	(T)
63	577	7.39	7.18	28- 88	2	(QT)
50 2,4-Dinitrotoluene				CAS#: 121-14-2		
165	38083	7.39	7.60	80-120	100	(T)
89	539	7.39	7.60	52-112	1	(QT)
63	577	7.39	7.61	35- 95	2	(QT)
55 2-Methyl-4,6-dinitrophenol				CAS#: 534-52-1		
198	182	8.23	8.04	80-120	100	(T)
105	525	8.23	8.04	15- 75	287	(QT)
51	527	8.23	8.04	21- 81	288	(QT)

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
56 p-Nitroaniline			CAS#: 100-01-6			
138	102	8.21	8.02	80-120	100	(T)
108	180	8.15	8.02	39- 99	176	(QT)
92	1221	8.23	8.02	21- 81	1194	(QT)
69 Anthracene			CAS#: 120-12-7			
178	2847	9.00	9.06	80-120	100	( )
179	382	9.00	9.06	0- 45	13	( )
176	677	9.00	9.06	0- 47	24	( )
76 Fluoranthene			CAS#: 206-44-0			
202	12122	10.28	10.28	80-120	100	( )
203	2077	10.28	10.28	0- 47	17	( )
101	1977	10.27	10.28	0- 46	16	( )
79 Pyrene			CAS#: 129-00-0			
202	10489	10.52	10.53	80-120	100	( )
200	2237	10.52	10.53	0- 50	21	( )
101	1911	10.52	10.53	0- 48	18	( )
89 Benzo(a)anthracene			CAS#: 56-55-3			
228	4911	11.82	11.83	80-120	100	( )
226	1091	11.82	11.83	0- 55	22	( )
229	1623	11.83	11.83	0- 52	33	( )
92 Chrysene			CAS#: 218-01-9			
228	6815	11.86	11.88	80-120	100	( )
229	1465	11.86	11.88	0- 50	21	( )
226	1875	11.86	11.88	0- 58	28	( )
93 bis(2-Ethylhexyl)phthalate			CAS#: 117-81-7			
149	9256	11.83	11.83	80-120	100	( )
167	2777	11.83	11.83	3- 63	30	( )
95 Benzo(b)fluoranthene			CAS#: 205-99-2			
252	4412	13.24	13.24	80-120	100	( )
253	1172	13.23	13.24	0- 52	27	( )
125	549	13.23	13.24	0- 45	12	( )
96 Benzo(k)fluoranthene			CAS#: 207-08-9			
252	1664	13.27	13.29	80-120	100	( )
253	398	13.28	13.29	0- 52	24	( )
125	549	13.23	13.29	0- 45	33	( )
97 Benzo(a)pyrene			CAS#: 50-32-8			
252	2344	13.73	13.74	80-120	100	( )
253	598	13.72	13.74	0- 52	26	( )
125	170	13.73	13.74	0- 45	7	( )

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
99 Indeno(1,2,3-cd)pyrene				CAS#: 193-39-5		
276	1661	15.56	15.57	80-120	100	( )
138	352	15.55	15.57	0- 57	21	( )
101 Benzo(ghi)perylene				CAS#: 191-24-2		
276	1774	16.02	16.03	80-120	100	( )
138	268	16.02	16.03	1- 61	15	( )

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

Data file : /chem/MSD3.i/s121309.b/s311323.d
Lab Smp Id: 242654007 Client Smp ID: RE03-09-14267
Inj Date : 13-DEC-2009 18:35
Operator : JLD1 Inst ID: MSD3.i
Smp Info : |242654007|932077|1|SVMF|1|LANL
Misc Info : |MSD8270_S|WBN091208-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD3.i/s121309.b/MSD3-8270R-AQA-120809.m
Meth Date : 14-Dec-2009 17:00 jen00986 Quant Type: ISTD
Cal Date : 07-DEC-2009 19:48 Cal File: s310717.d
Als bottle: 16
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-852.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.19000	weight of sample
M	14.20000	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	4.291	834708	40.000
* 91 Chrysene-d12	11.838	745187	40.000
* 98 Perylene-d12	13.820	356915	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #

RT	AREA	CONCENTRATIONS ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	QUANT LIBRARY	LIB ENTRY	CPND #
Unknown Aldol Condensate				CAS #:			
2.946	182129	8.72778751	337	0		0	10
9-Octadecenamide, (Z)-				CAS #: 301-02-0			
11.212	89933	4.82742531	186	93	NIST05.L	112657	91
Unknown				CAS #:			
14.703	43945	4.92499320	190	0		0	98
Unknown				CAS #:			
15.207	38866	4.35572753	168	0		0	98

Data File: /chem/MSD3.i/s121309.b/s311323.d

Date : 13-DEC-2009 18:35

Client ID: RE03-09-14267

Sample Info: (2426540071932077111SVMF111LANL

Volume Injected (uL): 0.5

Column phase: J&W DB-5MS

Instrument: MSD3.i

Operator: JLD1

Column diameter: 0.20

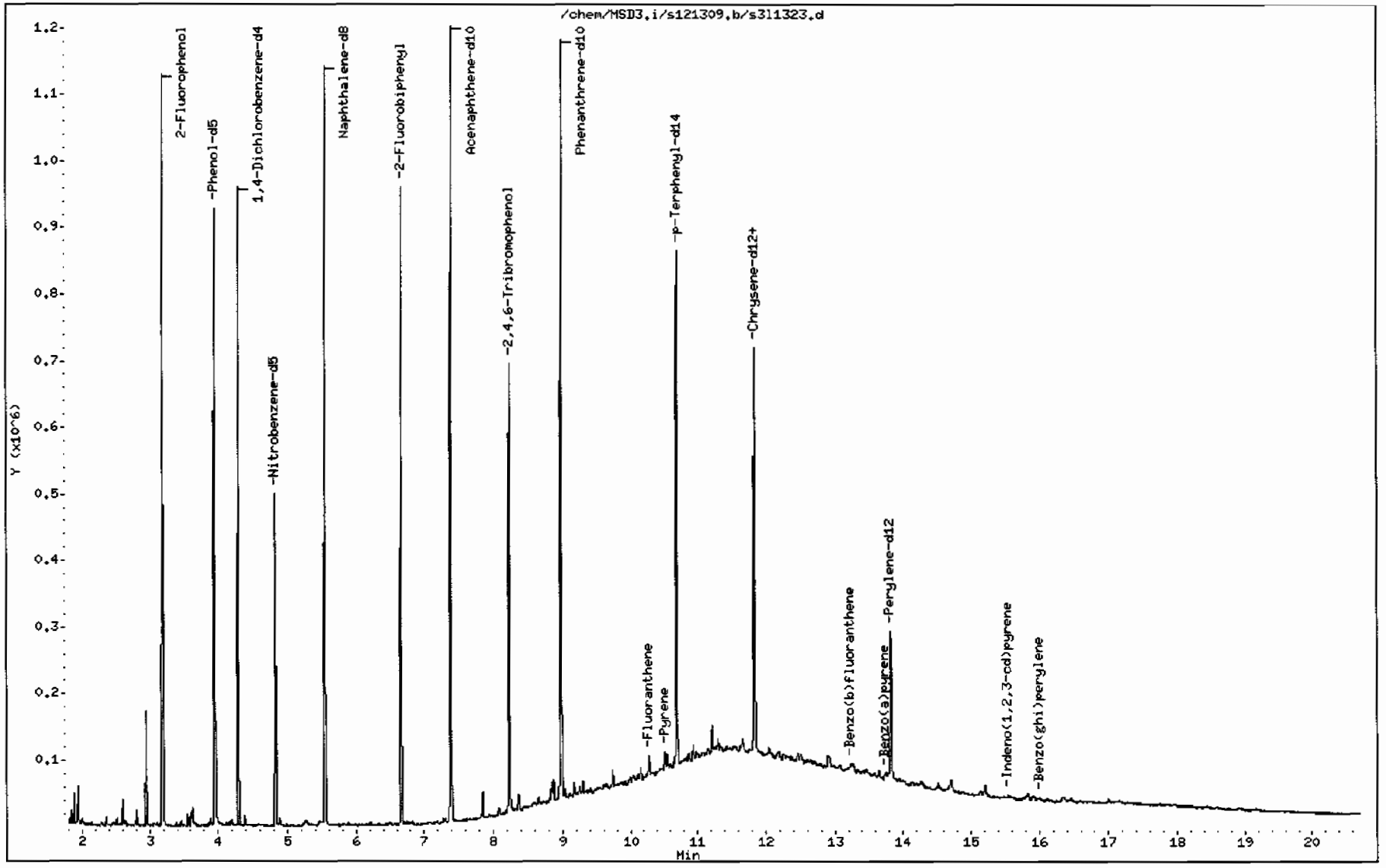

Data File: /chem/MSD3.i/s121309.b/s311323.d

Date : 13-DEC-2009 18:35

Client ID: RE03-09-14267

Instrument: MSD3.i

Sample Info: 1242654007193207711ISVMF11LANL

Volume Injected (uL): 0.5

Operator: JLD1

Column phase: J&W DB-5MS

Column diameter: 0.20

79 Pyrene

Concentration: 57.6 ug/Kg

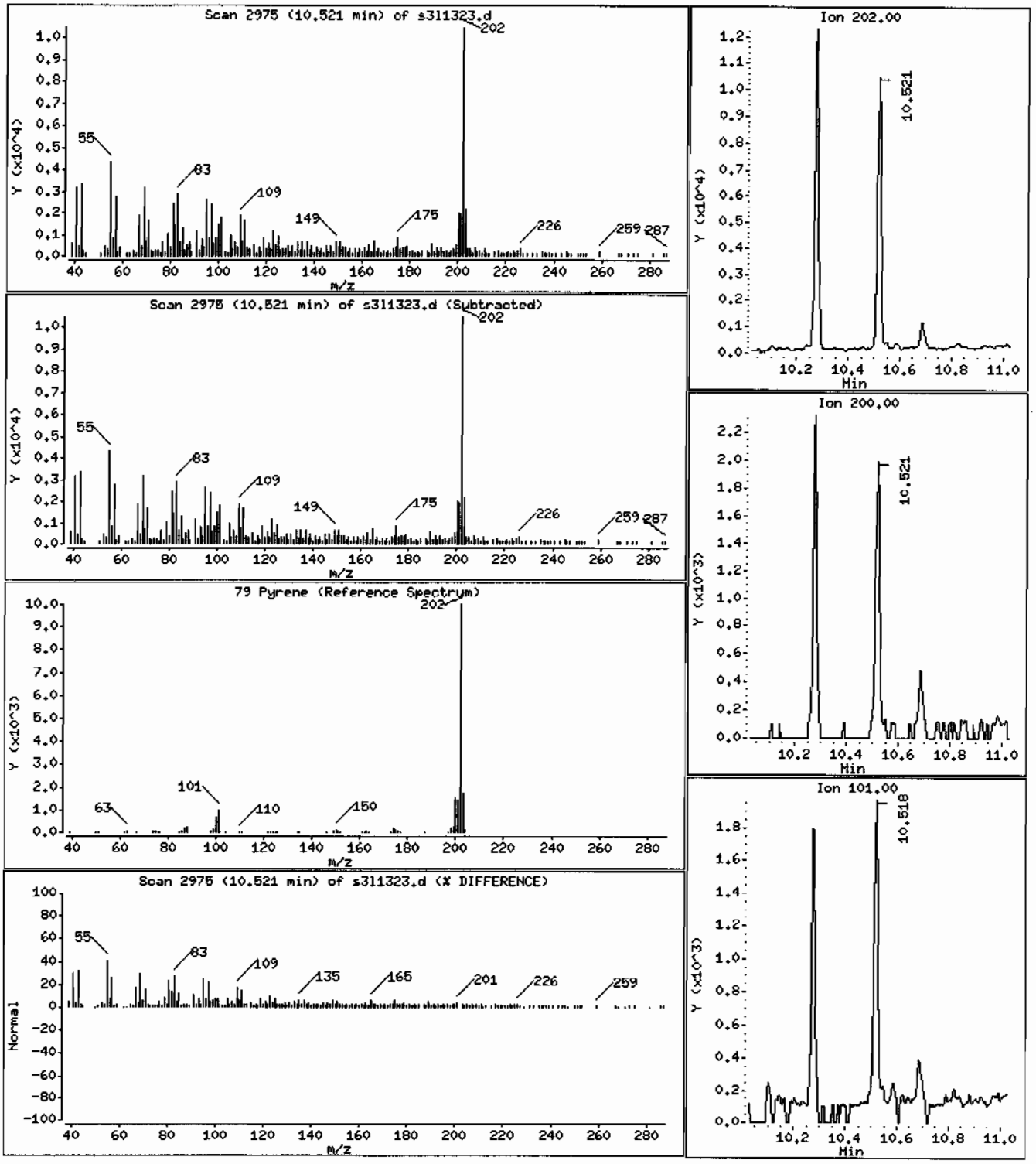

Data File: /chem/MSD3.i/s121309.b/s311323.d

Date : 13-DEC-2009 18:35

Client ID: RE03-09-14267

Instrument: MSD3.i

Sample Info: 1242654007193207711ISVMF11LANL

Volume Injected (uL): 0.5

Operator: JLD1

Column phase: J&W DB-5MS

Column diameter: 0.20

76 Fluoranthene

Concentration: 42.2 ug/Kg

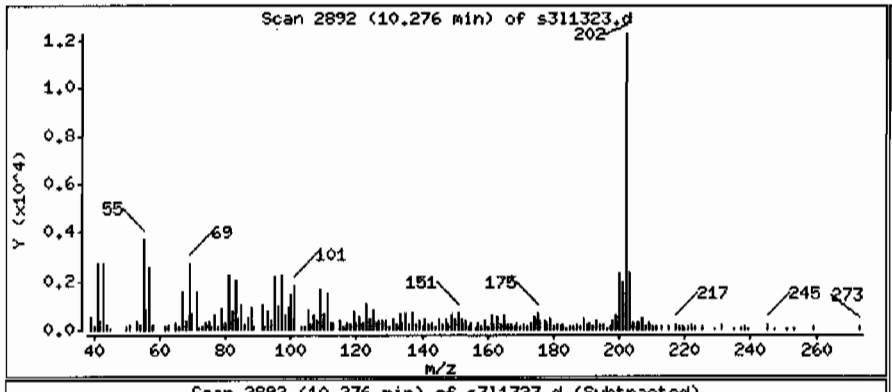

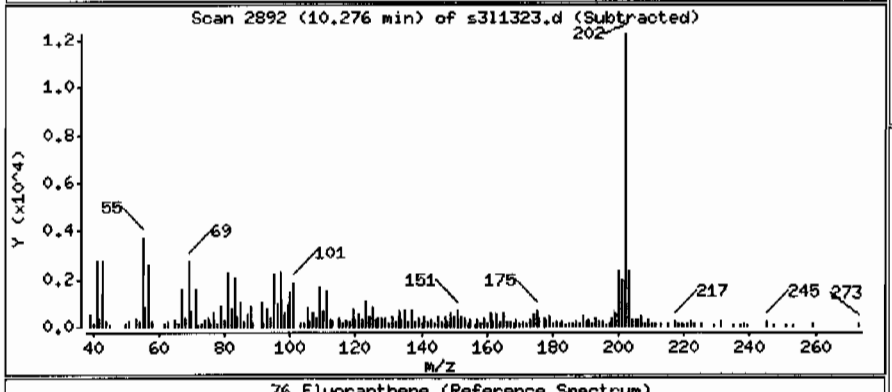

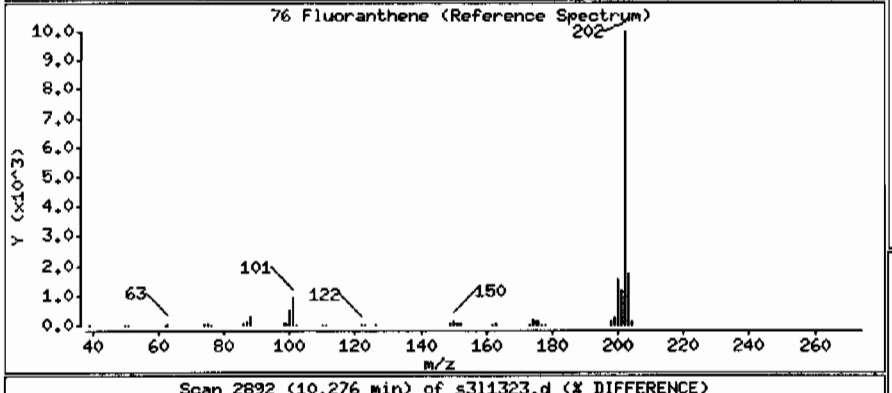

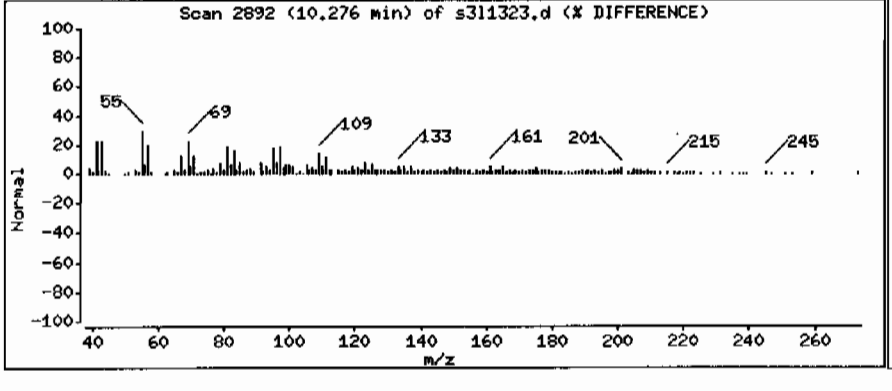

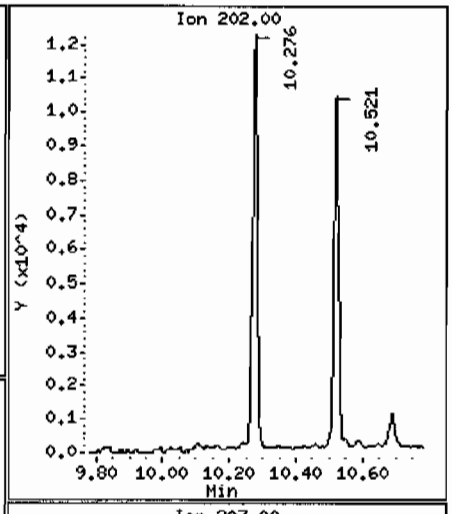

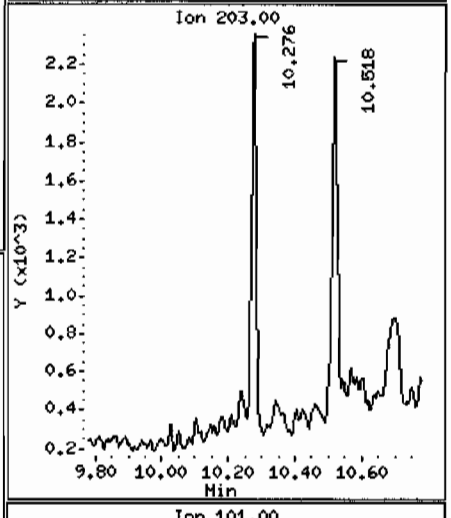

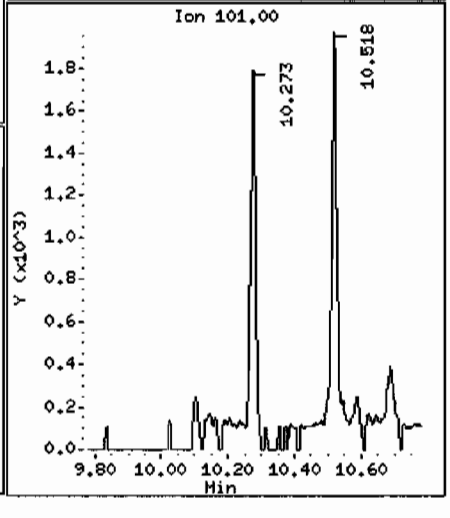

Data File: /chem/MSD3.i/s121309.b/s311323.d

Date : 13-DEC-2009 18:35

Client ID: RE03-09-14267

Instrument: MSD3.i

Sample Info: |2426540071932077|1|SVMF|1|LANL

Volume Injected (uL): 0.5

Operator: JLD1

Column phase: J&W DB-5MS

Column diameter: 0.20

89 Benzo(a)anthracene

Concentration: 31.3 ug/Kg

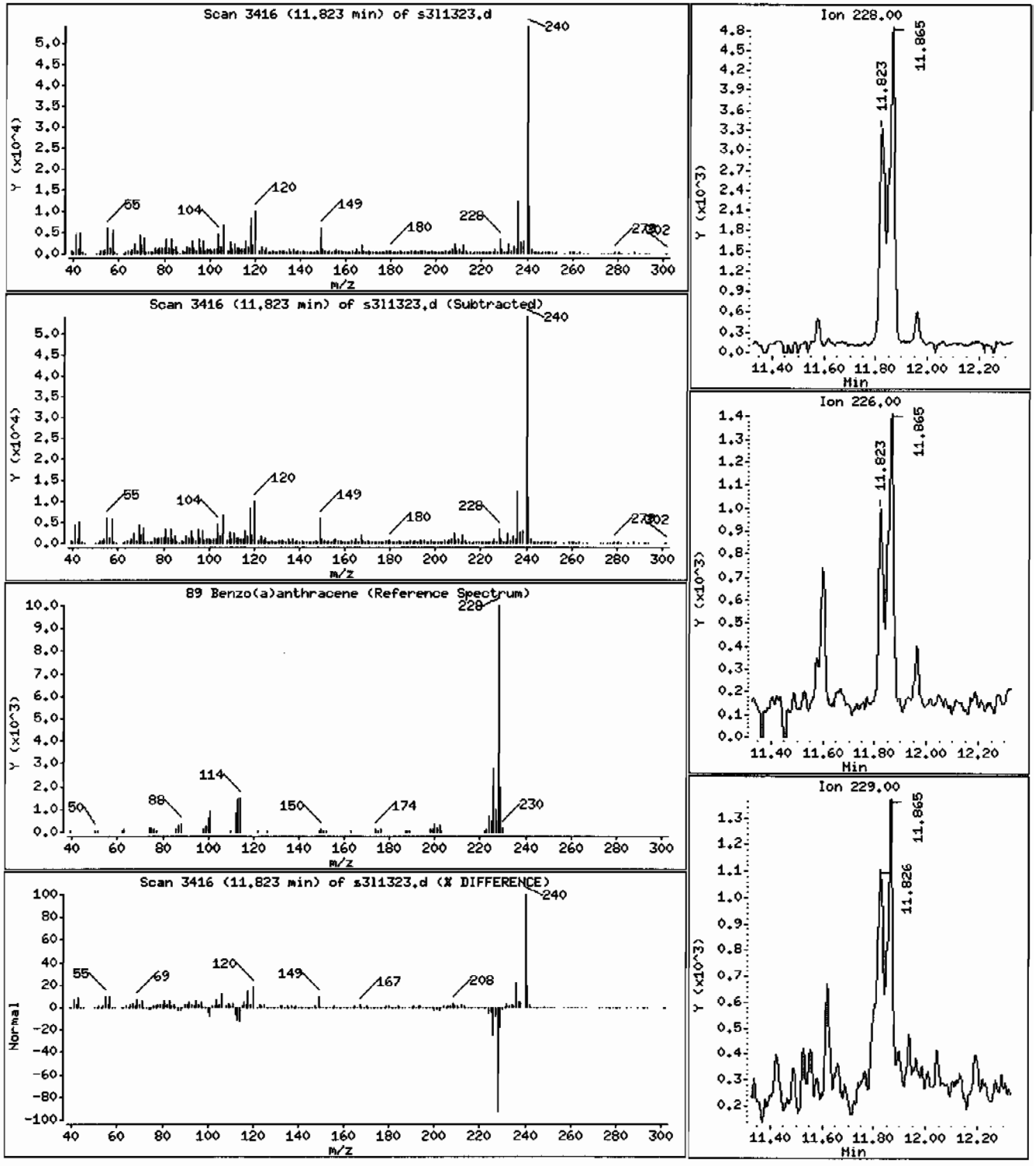

Data File: /chem/MSD3.i/s121309.b/s311323.d

Date : 13-DEC-2009 18:35

Client ID: RE03-09-14267

Instrument: MSD3.i

Sample Info: |2426540071932077|1|SVMF|1|LANL

Volume Injected (uL): 0.5

Operator: JLD1

Column phase: J&W DB-5MS

Column diameter: 0.20

92 Chrysene

Concentration: 46.8 ug/Kg

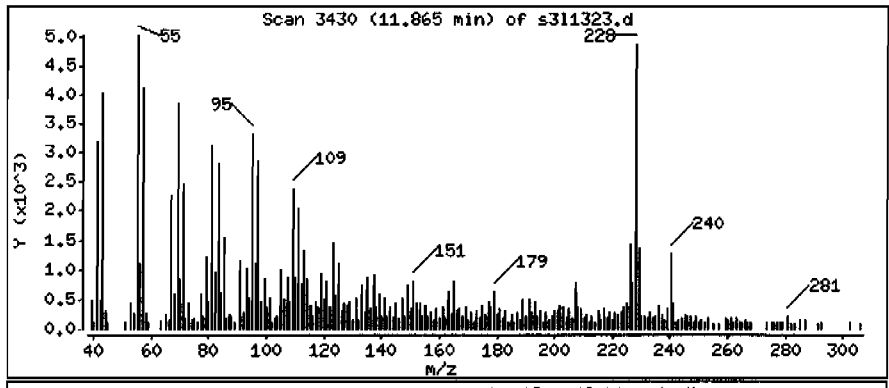

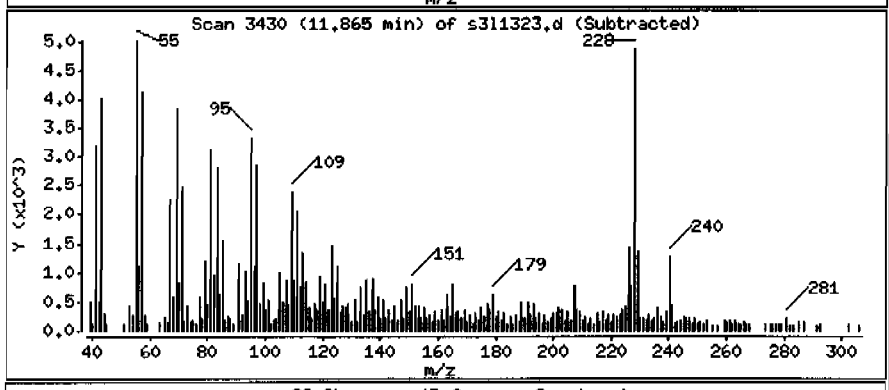

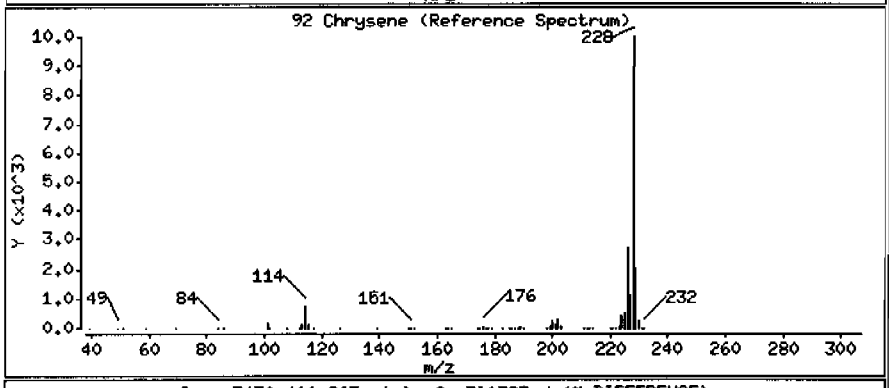

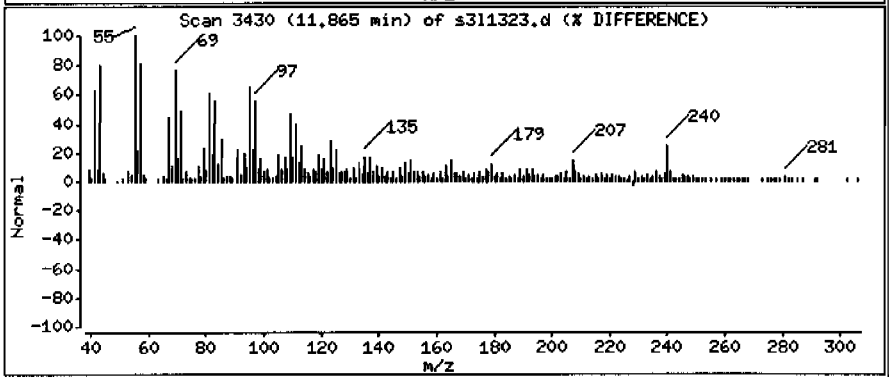

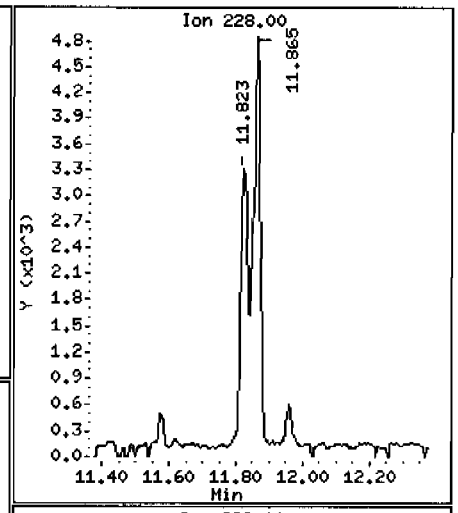

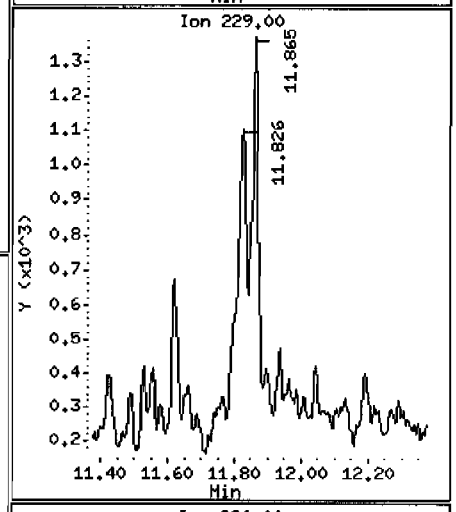

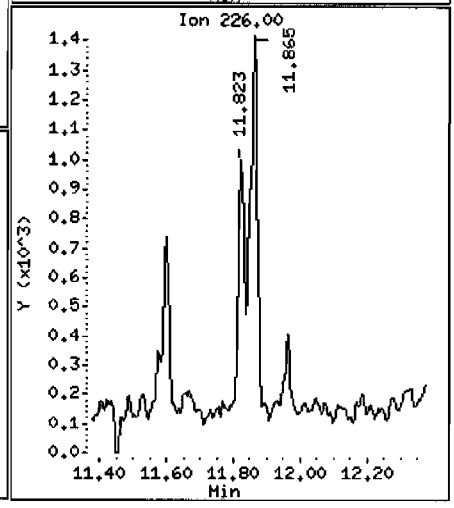

Data File: /chem/MSD3.i/s121309.b/s311323.d

Date : 13-DEC-2009 18:35

Client ID: RE03-09-14267

Instrument: MSD3.i

Sample Info: |2426540071932077|1|SVMF|1|LANL

Volume Injected (uL): 0.5

Operator: JLD1

Column phase: J&W DB-5MS

Column diameter: 0.20

93 bis(2-Ethylhexyl)phthalate

Concentration: 81.2 ug/Kg

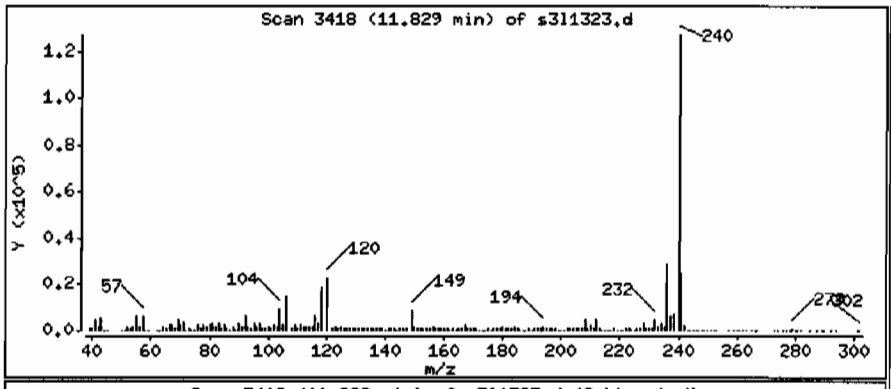

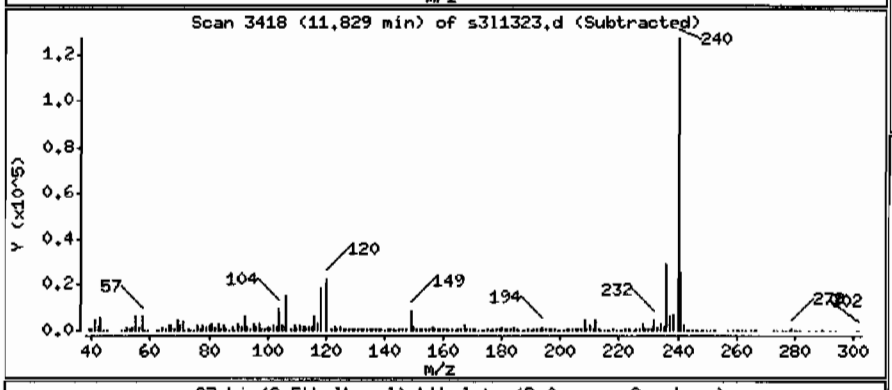

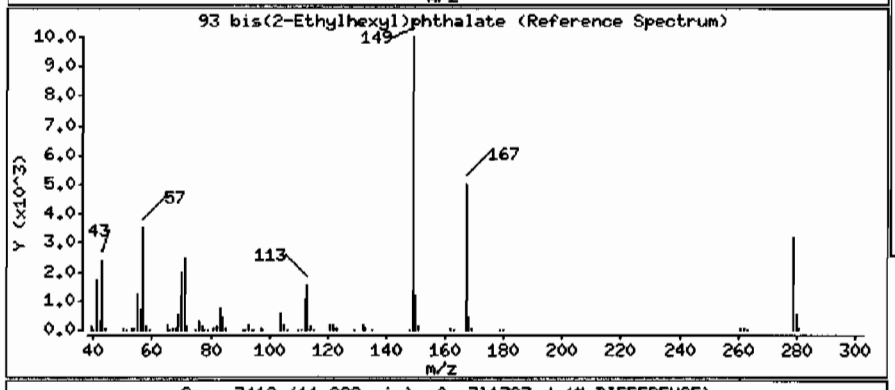

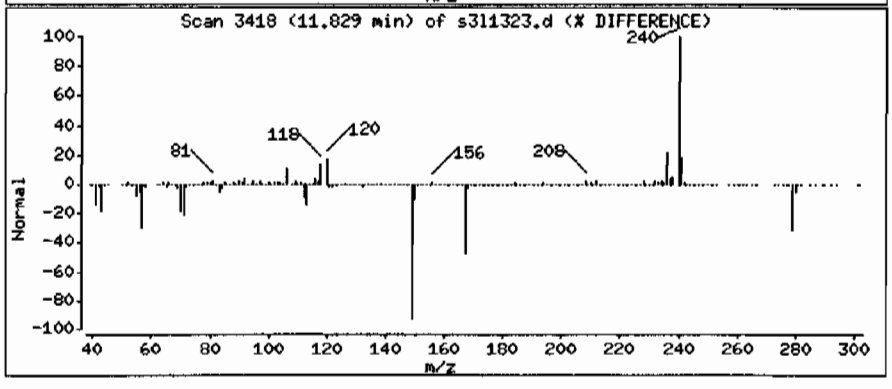

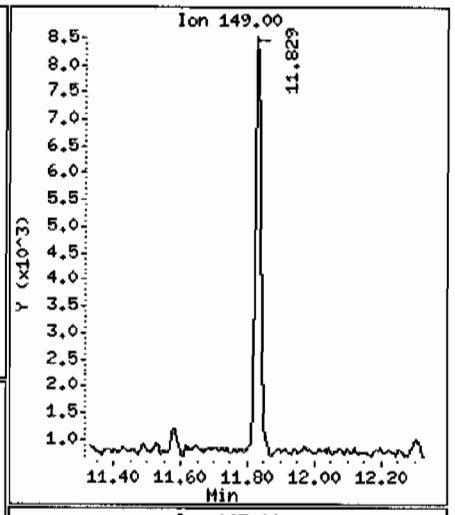

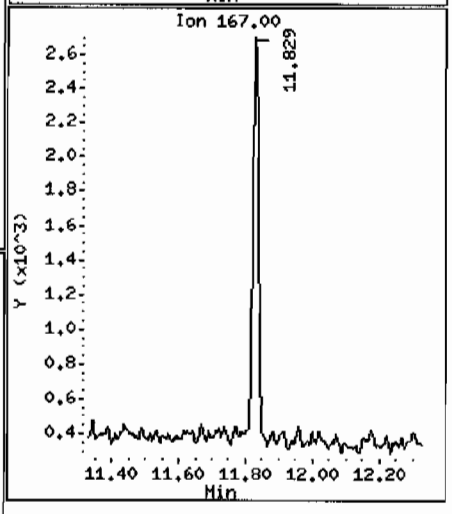

Data File: /chem/MSD3.i/s121309.b/s311323.d

Date : 13-DEC-2009 18:35

Client ID: RE03-09-14267 Instrument: MSD3.i

Sample Info: 1242654007193207711ISVMF111LANL

Volume Injected (uL): 0.5 Operator: JLD1

Column phase: J&W DB-5MS Column diameter: 0.20

95 Benzo(b)fluoranthene Concentration: 51.7 ug/Kg

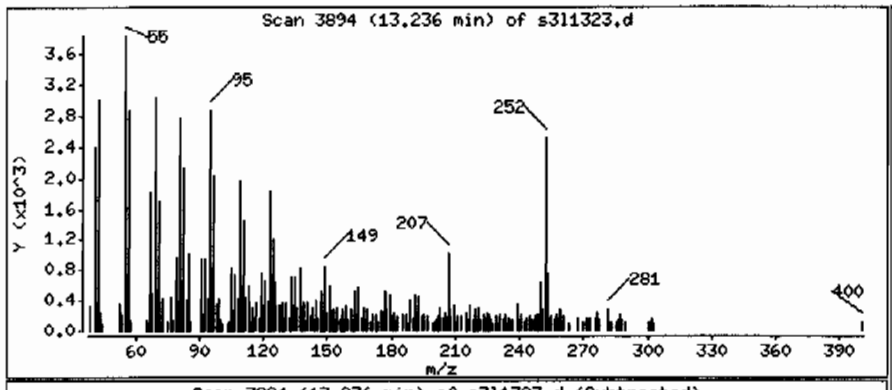

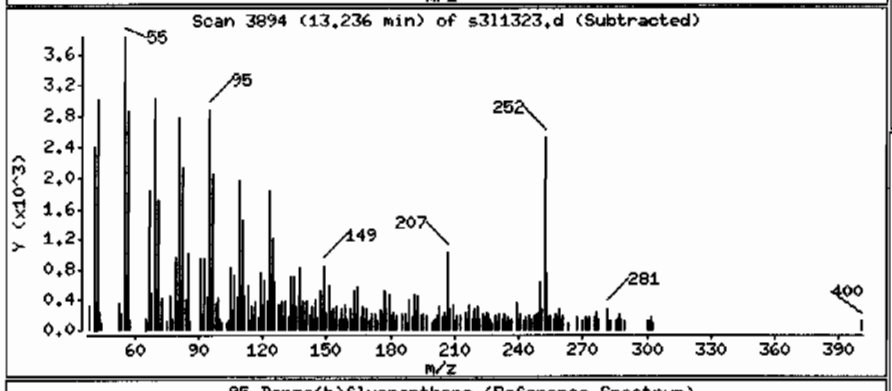

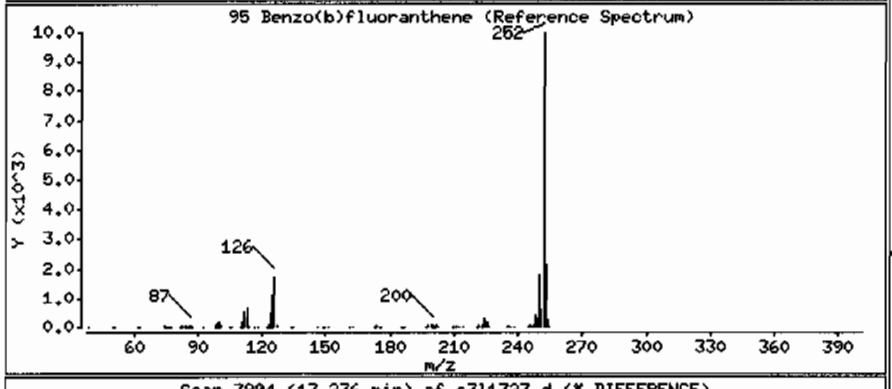

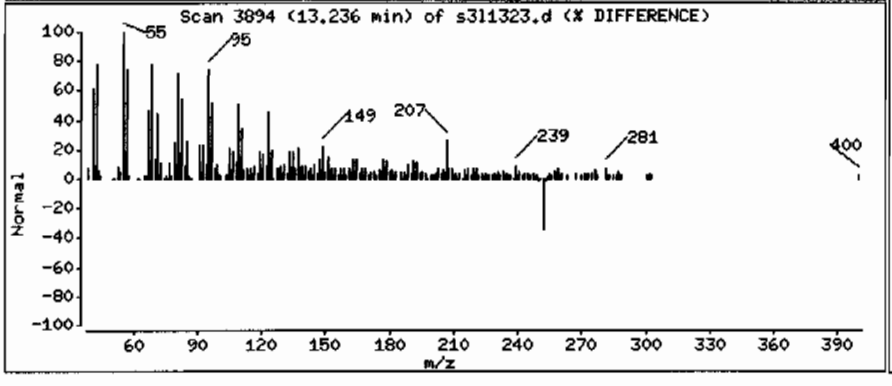

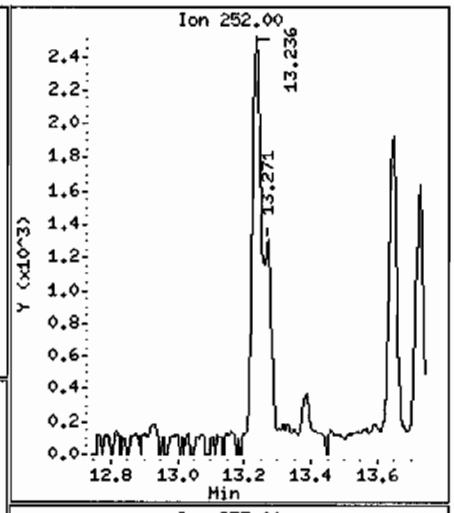

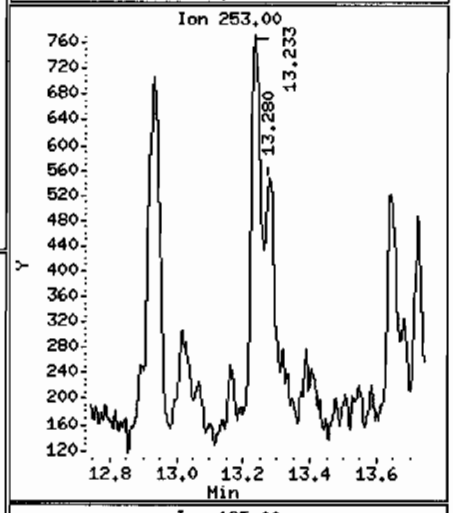

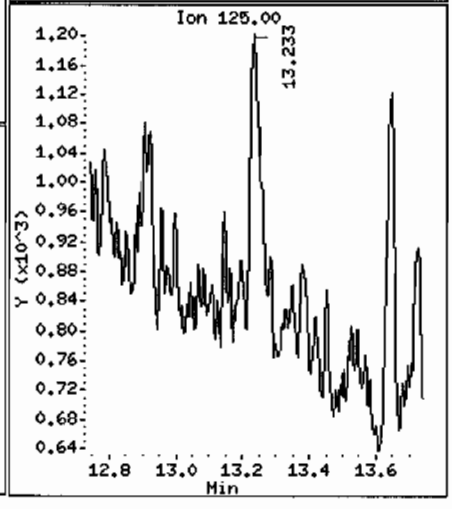

Data File: /chem/MSD3.i/s121309.b/s311323.d

Date : 13-DEC-2009 18:35

Client ID: RE03-09-14267 Instrument: MSD3.i

Sample Info: |2426540071932077|1|SVMF|1|LANL

Volume Injected (uL): 0.5 Operator: JLD1

Column phase: J&W DB-5MS Column diameter: 0.20

97 Benzo(a)pyrene Concentration: 33.4 ug/Kg

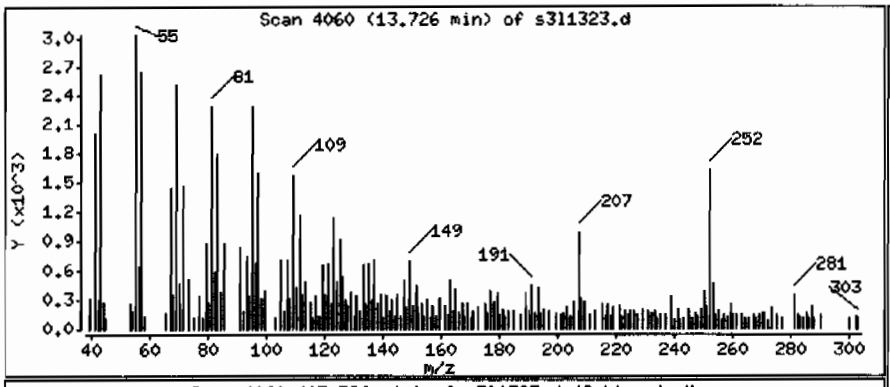

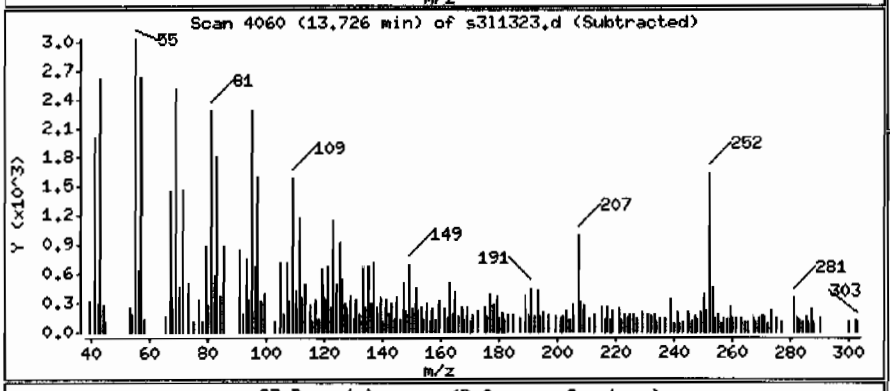

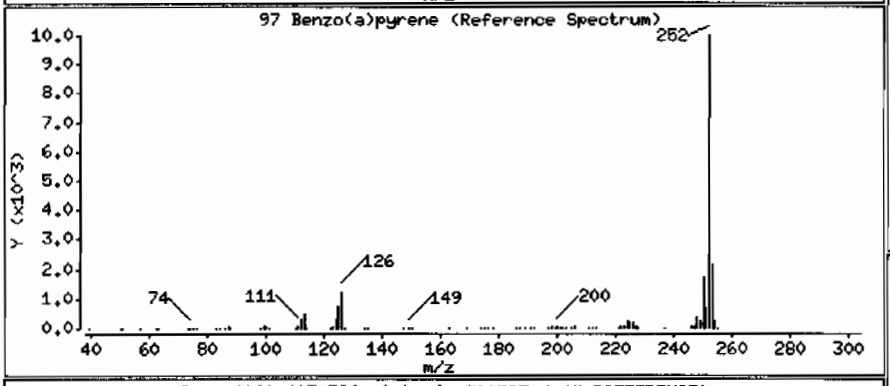

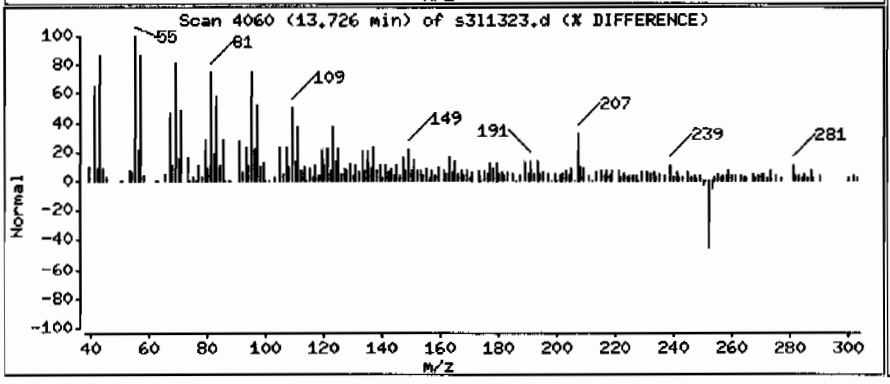

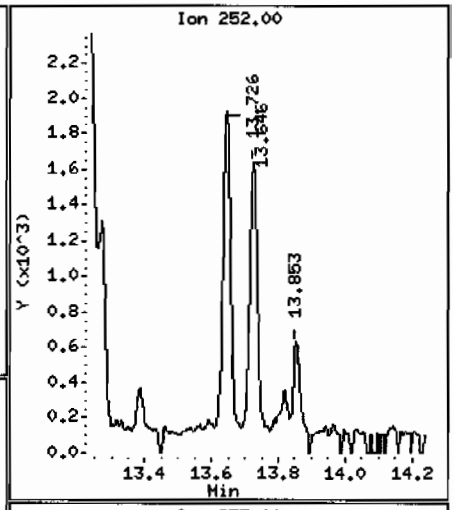

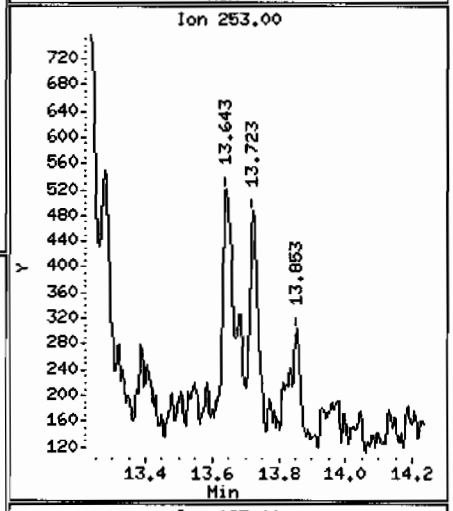

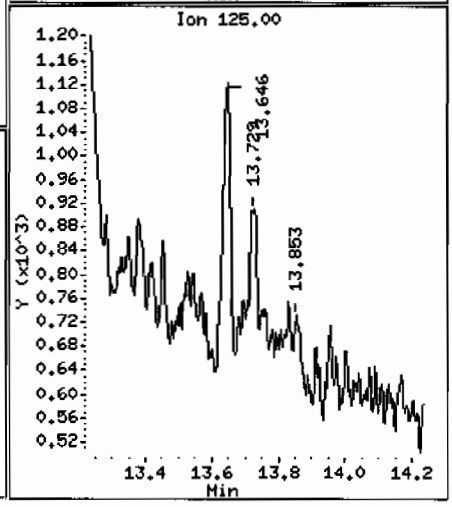

Data File: /chem/MSD3.i/s121309.b/s311323.d

Date : 13-DEC-2009 18:35

Client ID: RE03-09-14267 | Instrument: MSD3.i

Sample Info: 1242654007193207711ISVMF11LANL

Volume Injected (uL): 0.5 | Operator: JLD1

Column phase: J&W DB-5MS | Column diameter: 0.20

99 Indeno(1,2,3-cd)pyrene | Concentration: 26.9 ug/Kg

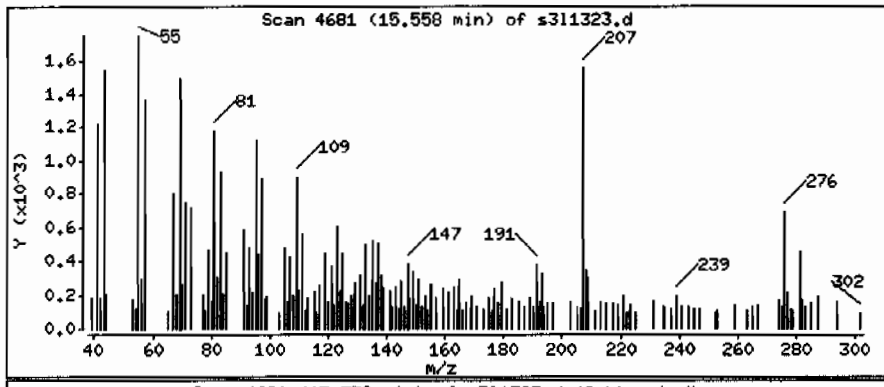

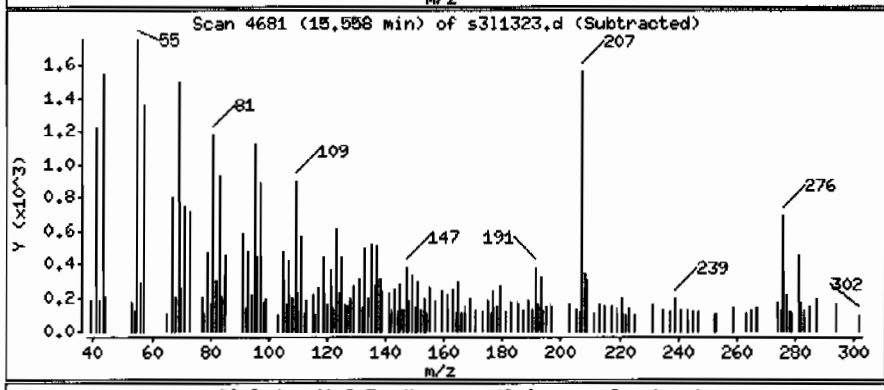

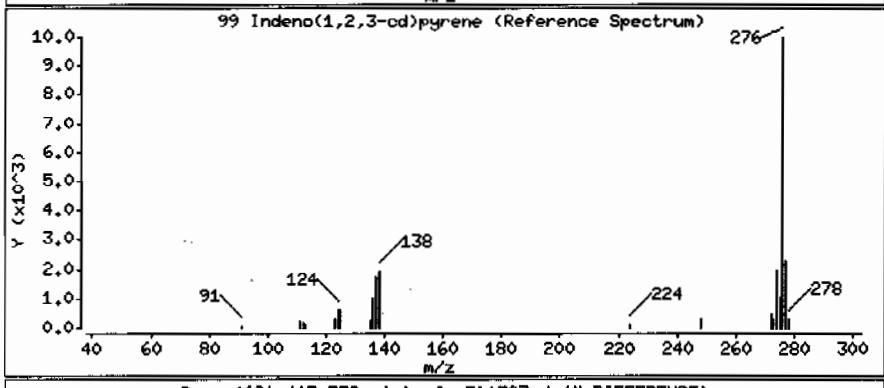

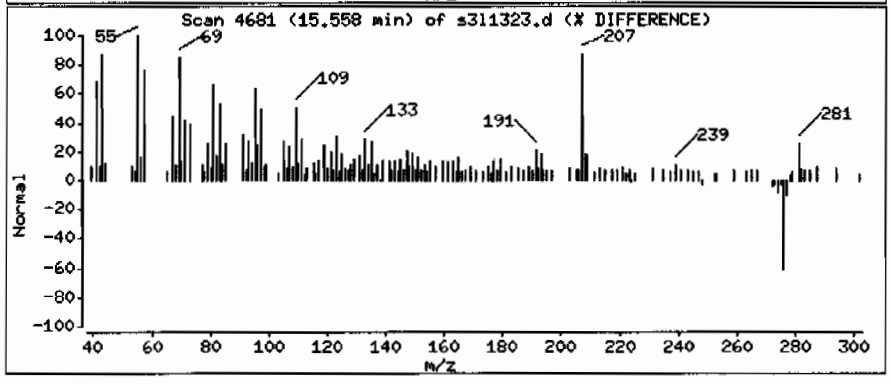

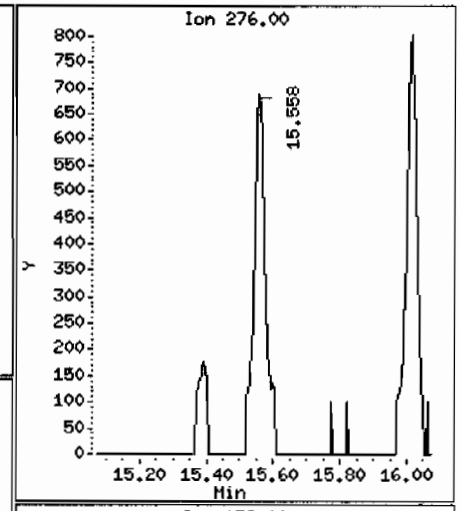

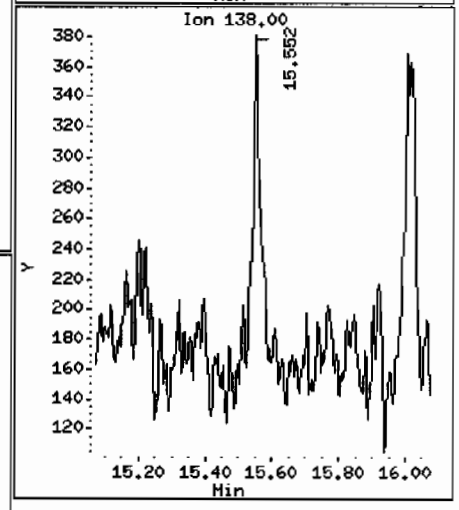

Data File: /chem/MSD3.i/s121309.b/s311323.d

Date : 13-DEC-2009 18:35

Client ID: RE03-09-14267 Instrument: MSD3.i

Sample Info: |2426540071932077|1|SVMF|1|LANL

Volume Injected (uL): 0.5 Operator: JLD1

Column phase: J&W DB-5MS Column diameter: 0.20

101 Benzo(ghi)perylene Concentration: 34.1 ug/Kg

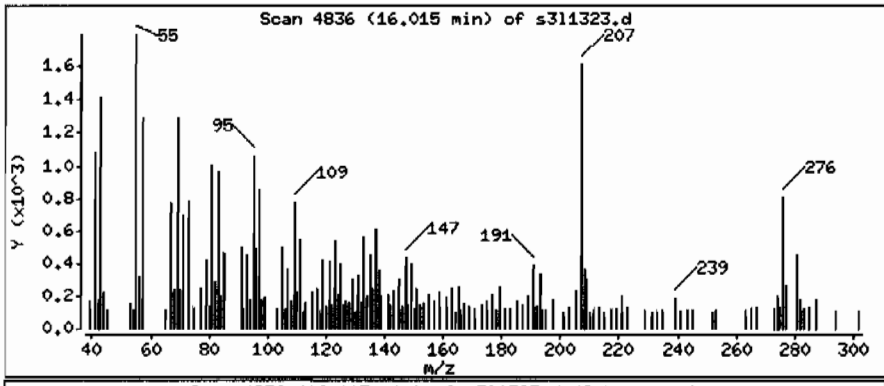

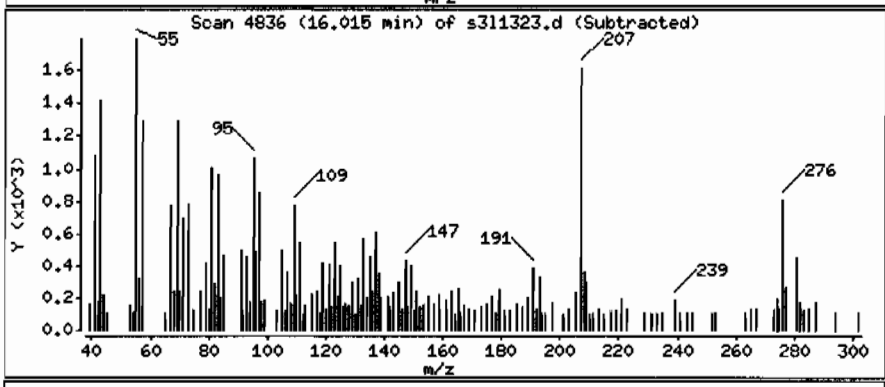

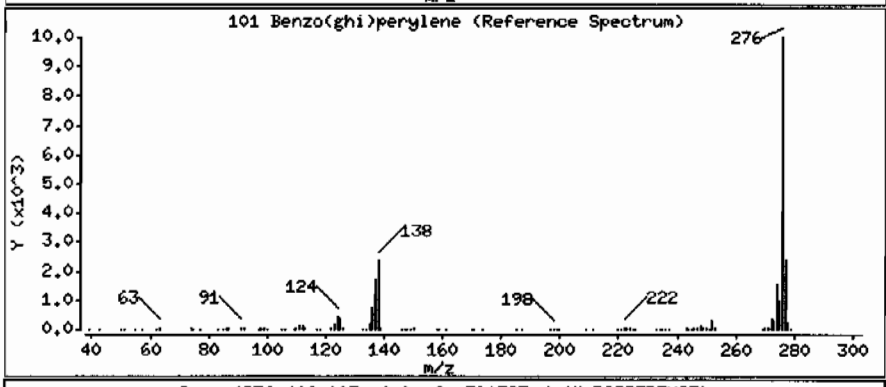

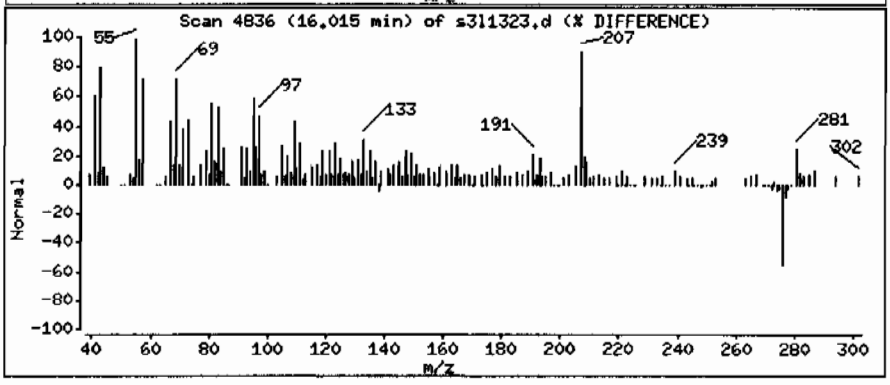

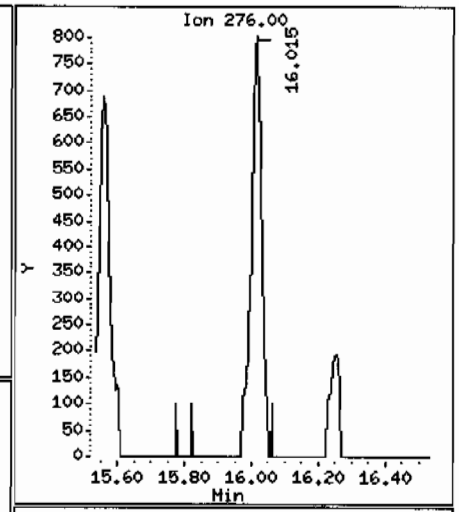

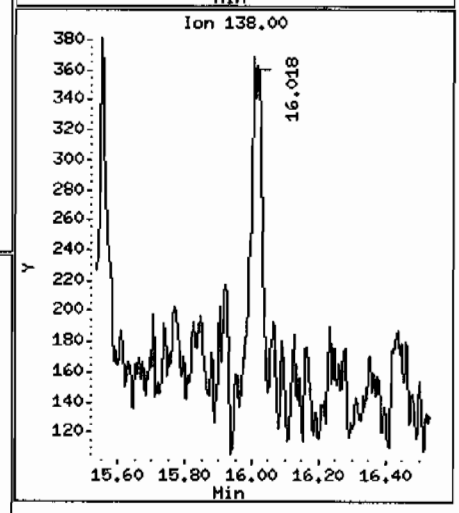

Data File: /chem/MSD3.i/s121309.b/s311323.d

Page 1

Date : 13-DEC-2009 18:38

Client ID: RE03-09-14267

Instrument: MSD3.i

Sample Info: 1242654007193207711SVMF11LANL

Volume Injected (uL): 0.5

Operator: JLD1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	56	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	50	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7945	38	C6H12O2	116

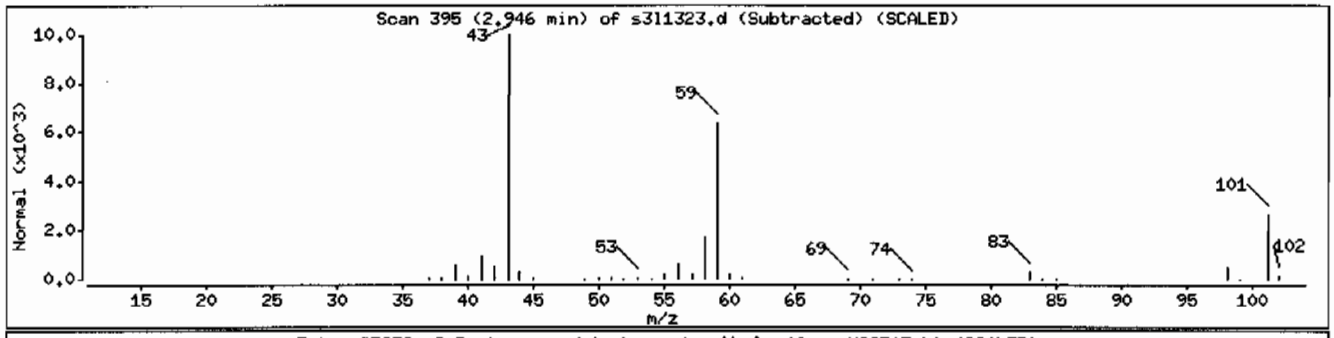

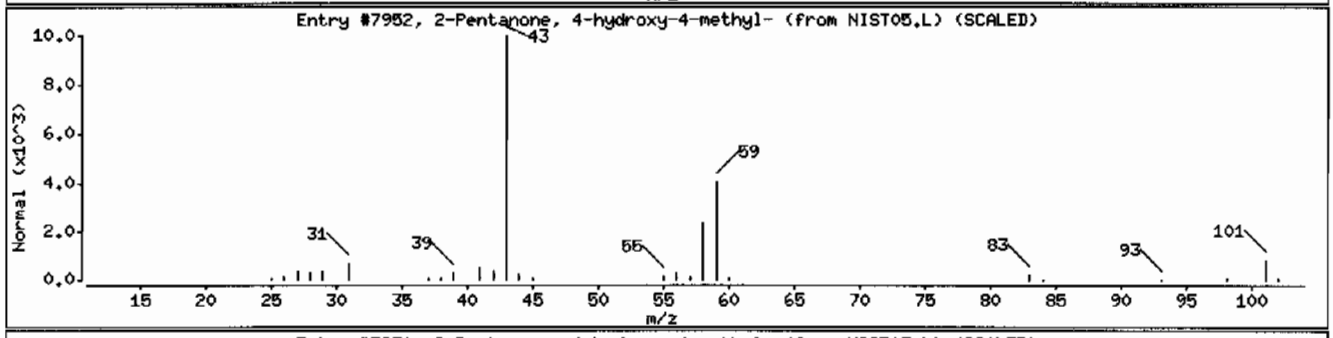

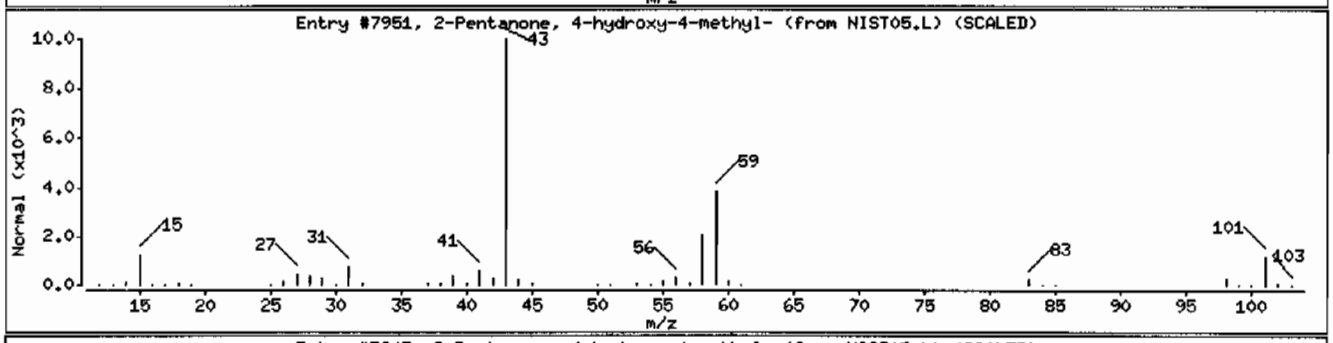

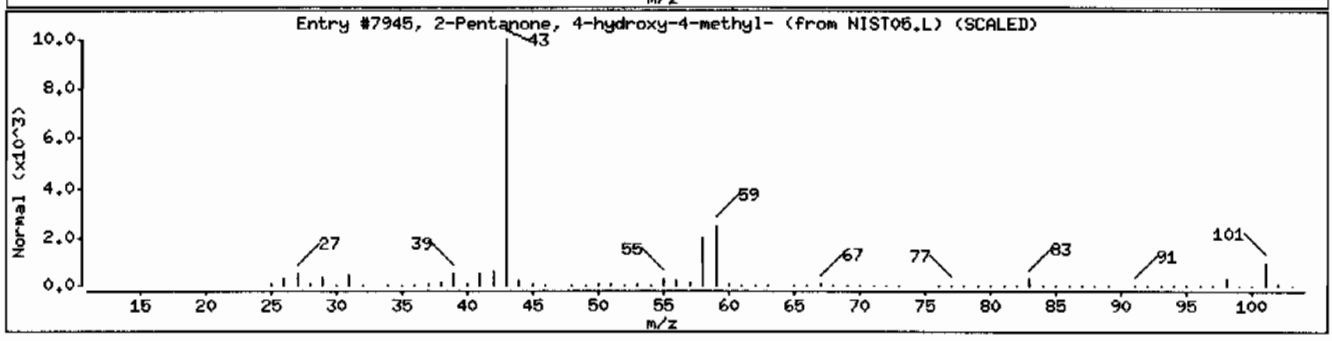

Data File: /chem/MSD3.i/s121309.b/s311323.d

Date : 13-DEC-2009 18:35

Client ID: RE03-09-14267 Instrument: MSD3.i

Sample Info: |2426540071932077|1|SVMF|1|LANL

Volume Injected (uL): 0.5 Operator: JLD1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
9-Octadecenamide, (Z)-	301-02-0	NIST05.L	112657	93	C18H35NO	281
9-Octadecenamide, (Z)-	301-02-0	NIST05.L	112656	92	C18H35NO	281
9-Octadecenamide, (Z)-	301-02-0	NIST05.L	112655	72	C18H35NO	281

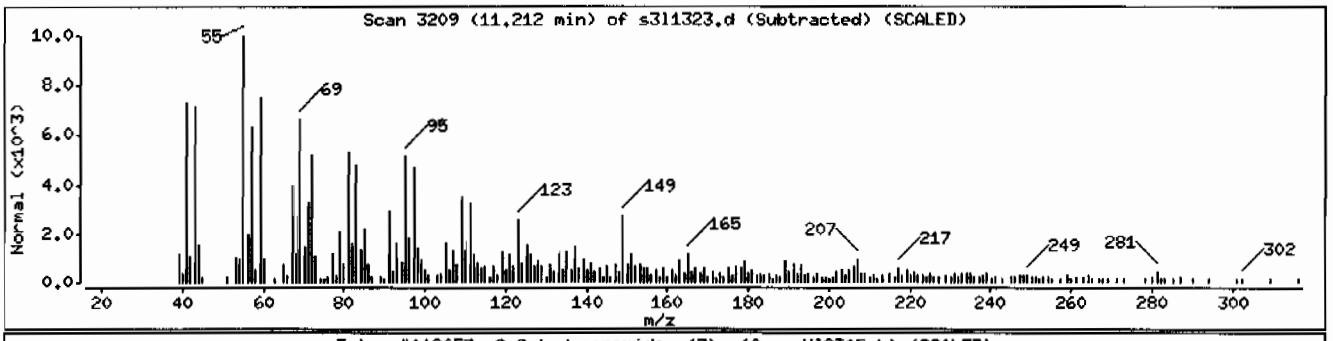

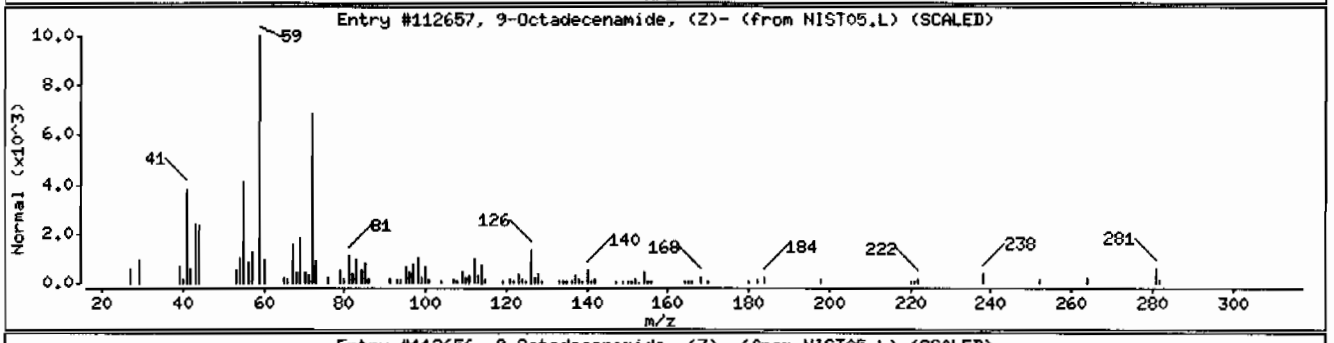

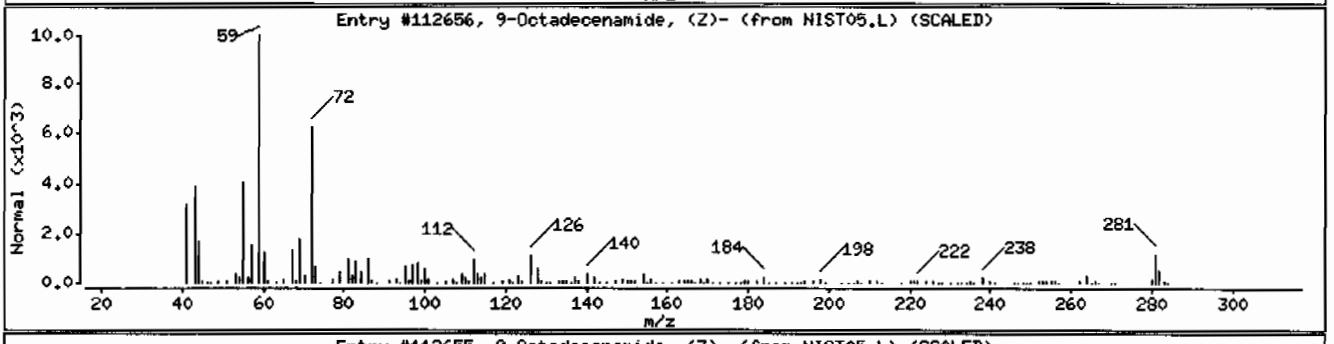

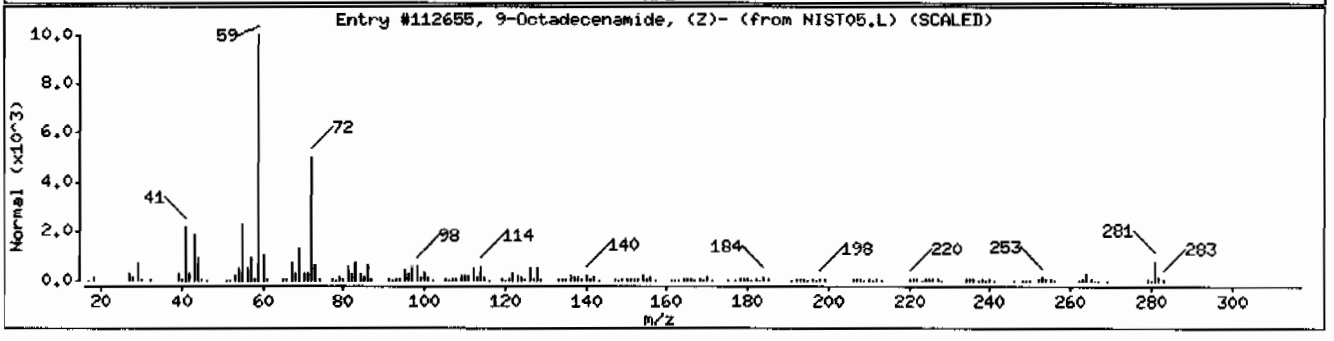

Data File: /chem/MSD3.i/s121309.b/s311323.d

Date : 13-DEC-2009 18:35

Client ID: RE03-09-14267 Instrument: MSD3.i

Sample Info: 1242654007193207711SVMF11LANL

Volume Injected (uL): 0.5 Operator: JLD1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
(1R,2S,8R,8Ar)-8-acetoxy-1-(2-hydroxyeth	1000298-98-4	NIST05.L	122239	58	C18H32O3	296
Naphthalene, decahydro-1,6-dimethyl-4-(1	34315-85-0	NIST05.L	63064	55	C15H28	208
D-Homoandrostane, (5.alpha.,13.alpha.)-	54482-31-4	NIST05.L	108369	50	C20H34	274

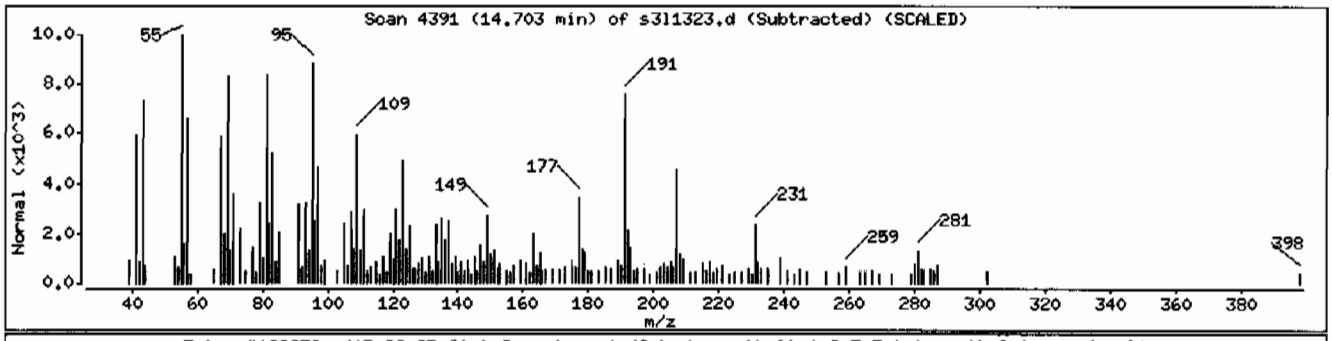

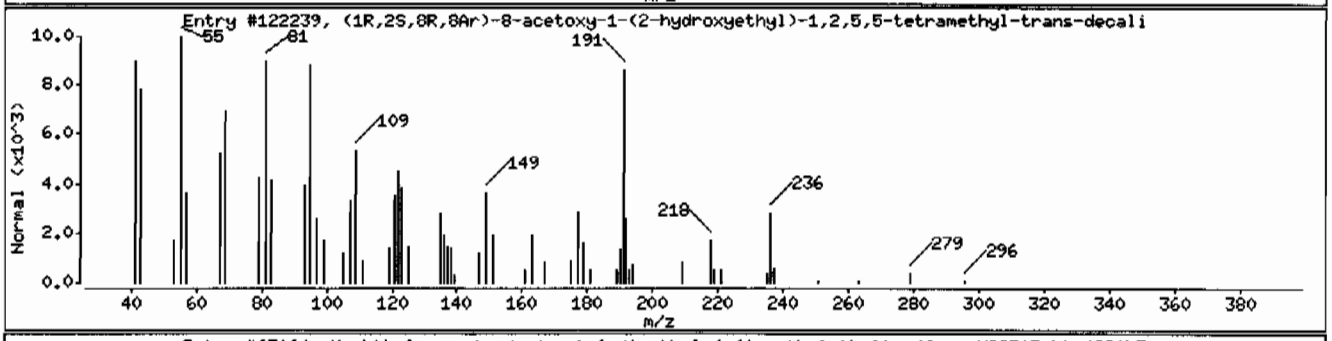

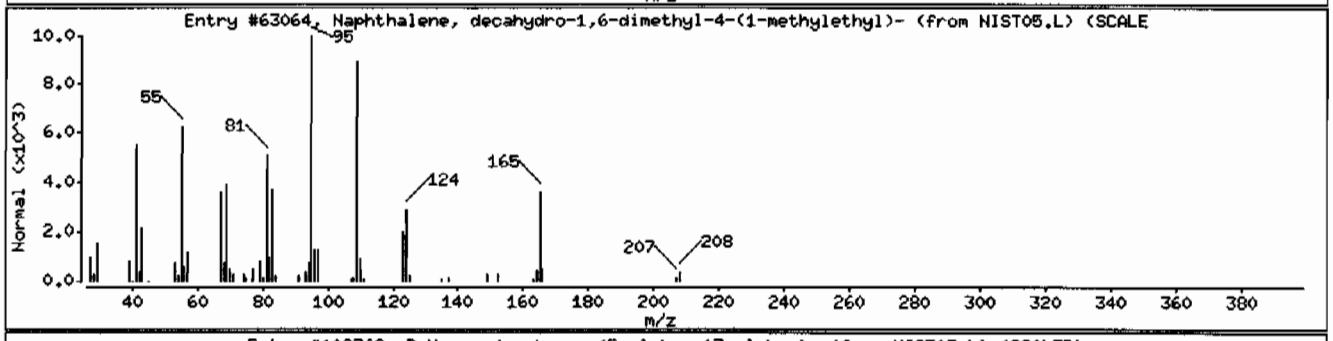

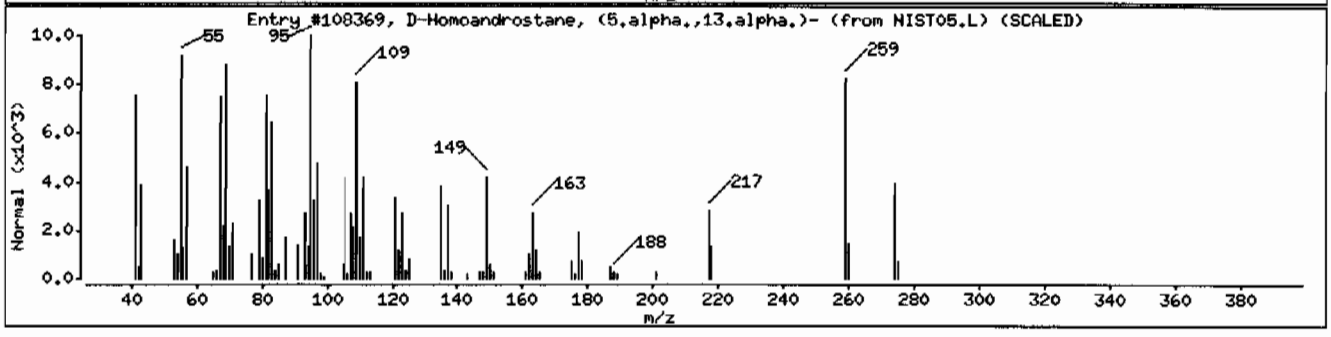

Data File: /chem/MSD3.i/s121309.b/s311323.d

Date : 13-DEC-2009 18:35

Client ID: RE03-09-14267 Instrument: MSD3.i

Sample Info: 1242654007193207711SVMF11LANL

Volume Injected (uL): 0.5 Operator: JLD1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
2,4,5,5,8a-Pentamethyl-4a,5,6,7,8,8a-hex	1000195-30-1	NIST05.L	62970	53	C14H240	208
.beta.-iso-Methyl ionone	1000285-40-2	NIST05.L	61430	49	C14H220	206
Naphthalene, decahydro-1,6-dimethyl-4-(1	34315-85-0	NIST05.L	63064	46	C15H28	208

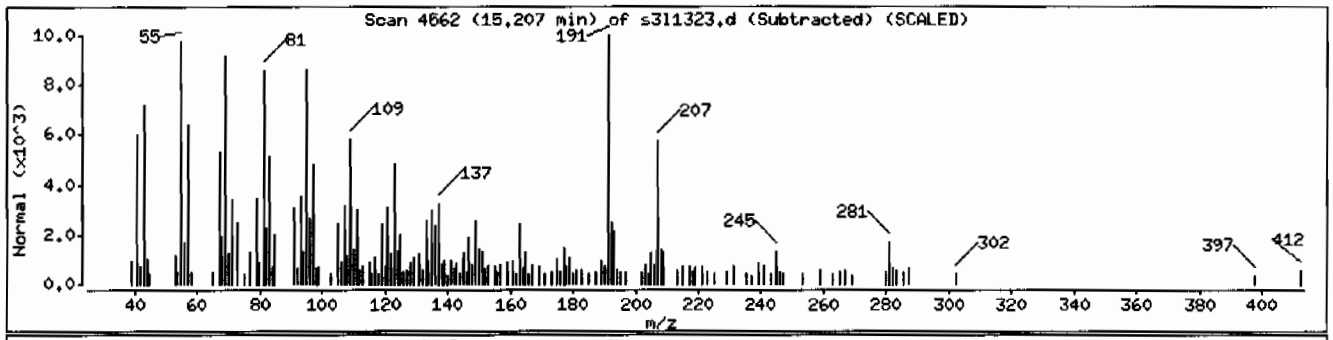

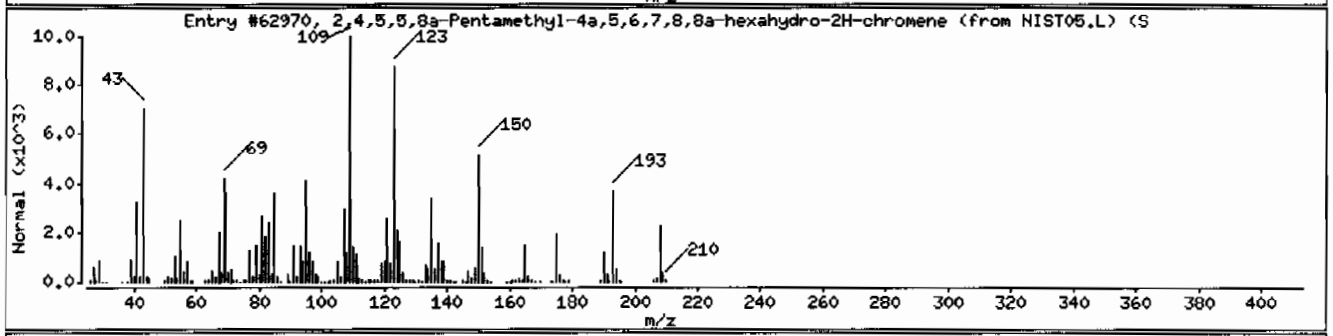

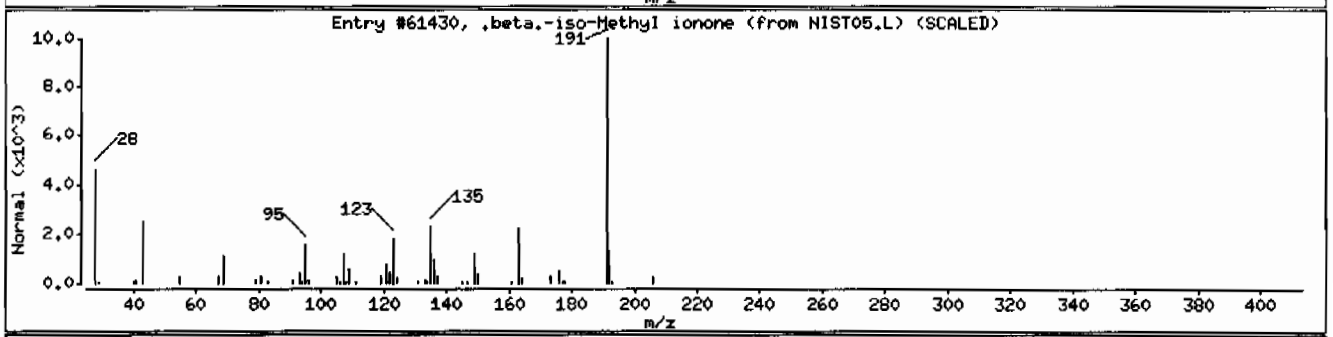

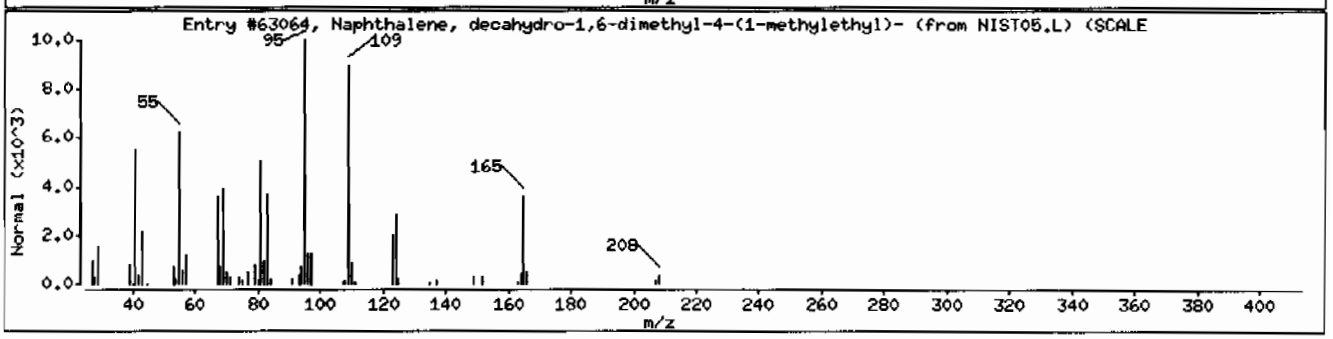

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242654014	**Date Received:**	12/10/2009 08:50	**%Moisture:**	10.7
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14269	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	932077	**Inst:**	MSD3.I	**Dilution:**	1
Run Date:	12/15/2009 10:34	**Analyst:**	JLD1	**Inj. Vol:**	.5 uL
Prep Date:	12/11/2009 21:55	**Aliquot:**	30.02 g	**Final Volume:**	1 mL
Data File:	s3l1507.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	373	ug/kg	74.6	373
108-95-2	Phenol	U	373	ug/kg	74.6	373
95-57-8	2-Chlorophenol	U	373	ug/kg	74.6	373
106-46-7	1,4-Dichlorobenzene	U	373	ug/kg	74.6	373
621-64-7	N-Nitrosodipropylamine	U	373	ug/kg	74.6	373
59-50-7	4-Chloro-3-methylphenol	U	373	ug/kg	74.6	373
83-32-9	Acenaphthene	U	37.3	ug/kg	12.3	37.3
121-14-2	2,4-Dinitrotoluene	U	373	ug/kg	37.3	373
100-02-7	4-Nitrophenol	U	373	ug/kg	123	373
87-86-5	Pentachlorophenol	U	373	ug/kg	93.2	373
129-00-0	Pyrene	U	37.3	ug/kg	11.2	37.3
110-86-1	Pyridine	U	373	ug/kg	74.6	373
62-53-3	Aniline	U	373	ug/kg	112	373
111-44-4	bis(2-Chloroethyl) ether	U	373	ug/kg	74.6	373
541-73-1	1,3-Dichlorobenzene	U	373	ug/kg	74.6	373
100-51-6	Benzyl alcohol	U	373	ug/kg	112	373
95-50-1	1,2-Dichlorobenzene	U	373	ug/kg	74.6	373
108-60-1	bis(2-Chloroisopropyl)ether	U	373	ug/kg	74.6	373
95-48-7	o-Cresol	U	373	ug/kg	74.6	373
65794-96-9	m,p-Cresols	U	373	ug/kg	112	373
67-72-1	Hexachloroethane	U	373	ug/kg	74.6	373
98-95-3	Nitrobenzene	U	373	ug/kg	74.6	373
78-59-1	Isophorone	U	373	ug/kg	74.6	373
88-75-5	2-Nitrophenol	U	373	ug/kg	74.6	373
105-67-9	2,4-Dimethylphenol	U	373	ug/kg	131	373
111-91-1	bis(2-Chloroethoxy)methane	U	373	ug/kg	74.6	373
120-83-2	2,4-Dichlorophenol	U	373	ug/kg	74.6	373
65-85-0	Benzoic acid	U	746	ug/kg	186	746
91-20-3	Naphthalene	U	37.3	ug/kg	11.2	37.3
106-47-8	4-Chloroaniline	U	373	ug/kg	74.6	373
87-68-3	Hexachlorobutadiene	U	373	ug/kg	74.6	373
91-57-6	2-Methylnaphthalene	U	37.3	ug/kg	7.46	37.3
77-47-4	Hexachlorocyclopentadiene	U	373	ug/kg	74.6	373
88-06-2	2,4,6-Trichlorophenol	U	373	ug/kg	74.6	373
95-95-4	2,4,5-Trichlorophenol	U	373	ug/kg	74.6	373
91-58-7	2-Chloronaphthalene	U	37.3	ug/kg	12.3	37.3
88-74-4	2-Nitroaniline	U	373	ug/kg	74.6	373
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	373	ug/kg	74.6	373

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-852**	**Date Collected:**	**12/07/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242654014**	**Date Received:**	**12/10/2009 08:50**	**%Moisture:**	**10.7**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14269**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**932077**	**Inst:**	**MSD3.I**	**Dilution:**	**1**
Run Date:	**12/15/2009 10:34**	**Analyst:**	**JLD1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/11/2009 21:55**	**Aliquot:**	**30.02 g**	**Final Volume:**	**1 mL**
Data File:	**s311507.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	373	ug/kg	74.6	373
606-20-2	2,6-Dinitrotoluene	U	373	ug/kg	37.3	373
208-96-8	Acenaphthylene	U	37.3	ug/kg	11.2	37.3
51-28-5	2,4-Dinitrophenol	U	746	ug/kg	142	746
132-64-9	Dibenzofuran	U	373	ug/kg	74.6	373
84-66-2	Diethylphthalate	U	373	ug/kg	74.6	373
86-73-7	Fluorene	U	37.3	ug/kg	11.2	37.3
7005-72-3	4-Chlorophenylphenylether	U	373	ug/kg	74.6	373
534-52-1	2-Methyl-4,6-dinitrophenol	U	373	ug/kg	74.6	373
100-01-6	4-Nitroaniline	U	373	ug/kg	112	373
	p-Nitroaniline					
122-39-4	Diphenylamine	U	373	ug/kg	74.6	373
122-66-7	Azobenzene	U	373	ug/kg	74.6	373
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	373	ug/kg	74.6	373
118-74-1	Hexachlorobenzene	U	373	ug/kg	74.6	373
85-01-8	Phenanthrene	U	37.3	ug/kg	11.2	37.3
120-12-7	Anthracene	U	37.3	ug/kg	7.46	37.3
84-74-2	Di-n-butylphthalate	U	373	ug/kg	74.6	373
206-44-0	Fluoranthene	U	37.3	ug/kg	11.2	37.3
85-68-7	Butylbenzylphthalate	U	373	ug/kg	74.6	373
56-55-3	Benzo(a)anthracene	U	37.3	ug/kg	11.2	37.3
91-94-1	3,3'-Dichlorobenzidine	U	373	ug/kg	112	373
218-01-9	Chrysene	U	37.3	ug/kg	11.2	37.3
117-81-7	bis(2-Ethylhexyl)phthalate	U	373	ug/kg	74.6	373
117-84-0	Di-n-octylphthalate	U	373	ug/kg	74.6	373
205-99-2	Benzo(b)fluoranthene	U	37.3	ug/kg	11.2	37.3
207-08-9	Benzo(k)fluoranthene	U	37.3	ug/kg	11.2	37.3
50-32-8	Benzo(a)pyrene	U	37.3	ug/kg	11.2	37.3
193-39-5	Indeno(1,2,3-cd)pyrene	U	37.3	ug/kg	11.2	37.3
53-70-3	Dibenzo(a,h)anthracene	U	37.3	ug/kg	11.2	37.3
191-24-2	Benzo(ghi)perylene	U	37.3	ug/kg	11.2	37.3
120-82-1	1,2,4-Trichlorobenzene	U	373	ug/kg	74.6	373

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	1.91	162	ug/kg		J
	Unknown Aldol Condensate	2.91	320	ug/kg		JA

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-852**	**Date Collected:**	**12/07/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242654014**	**Date Received:**	**12/10/2009 08:50**	**%Moisture:**	**10.7**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14269**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**932077**	**Inst:**	**MSD3.I**	**Dilution:**	**1**
Run Date:	**12/15/2009 10:34**	**Analyst:**	**JLD1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/11/2009 21:55**	**Aliquot:**	**30.02 g**	**Final Volume:**	**1 mL**
Data File:	**s3l1507.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
120-08-1	2H-1-Benzopyran-2-one, 6,7-dimethoxy-	9.69	359	ug/kg	98	NJ
	Unknown	14.63	164	ug/kg		J

GEL Laboratories LLC

Data file : /chem/MSD3.i/s121509.b/s311507.d
Lab Smp Id: 242654014 Client Smp ID: RE03-09-14269
Inj Date : 15-DEC-2009 10:34
Operator : JLD1 Inst ID: MSD3.i
Smp Info : |242654014|932077|1|SVMF|1|LANL
Misc Info : |MSD8270_S|WBN091208-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD3.i/s121509.b/MSD3-8270R-AQA-120809.m
Meth Date : 15-Dec-2009 10:20 jen00986 Quant Type: ISTD
Cal Date : 07-DEC-2009 19:48 Cal File: s310717.d
Als bottle: 7
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-852.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.02000	weight of sample
M	10.68240	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	4.253	4.256	(1.000)	118826	40.0000	
* 29 Naphthalene-d8	136	5.504	5.508	(1.000)	450114	40.0000	
* 46 Acenaphthene-d10	164	7.351	7.356	(1.000)	250050	40.0000	
* 67 Phenanthrene-d10	188	8.941	8.946	(1.000)	410780	40.0000	
* 91 Chrysene-d12	240	11.794	11.804	(1.000)	244057	40.0000	
* 98 Perylene-d12	264	13.760	13.769	(1.000)	137607	40.0000	
$ 3 2-Fluorophenol	112	3.158	3.143	(0.742)	255190	82.1055	3060
$ 5 Phenol-d5	99	3.916	3.916	(0.921)	313758	79.2369	2960
$ 20 Nitrobenzene-d5	82	4.784	4.793	(0.869)	133888	40.6989	1520
$ 39 2-Fluorobiphenyl	172	6.630	6.632	(0.902)	271056	46.2467	1720
$ 60 2,4,6-Tribromophenol	329	8.195	8.198	(1.115)	66730	97.1809	3620
$ 81 p-Terphenyl-d14	244	10.648	10.649	(0.903)	220210	56.1791	2100

ION RATIO REPORT

SV REPORT

Data file: s311507.d
Report Date: 12/15/2009 11:44
Lab. ID: 242654014 SampleType: SAMPLE
Injection Date: 15-DEC-2009 10:34
Operator: JLD1 Instrument: MSD3.i
Sample Info: |242654014|932077|1|SVMF|1|LANL
Miscellaneous Info: |MSD8270_S|WBN091208-01|
Comment:
Method used: /chem/MSD3.i/s121509.b/MSD3-8270R-AQA-120809.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-852
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
4 Aniline		CAS#: 62-53-3				
66	14143	3.92	3.97	80-120	100	( )
93	610	4.01	3.97	220-280	4	(Q)
17 N-Nitrosodipropylamine				CAS#: 621-64-7		
70	19432	4.78	4.63	80-120	100	(T)
42	9195	4.78	4.63	23- 83	47	(T)
27 Benzoic acid			CAS#: 65-85-0			
105	167	5.25	5.29	80-120	100	( )
122	1160	5.21	5.29	44-104	693	(QT)
77	1310	5.21	5.29	44-104	783	(QT)
44 2,6-Dinitrotoluene				CAS#: 606-20-2		
165	32758	7.35	7.14	80-120	100	(T)
63	463	7.35	7.14	29- 89	1	(QT)
50 2,4-Dinitrotoluene				CAS#: 121-14-2		
165	32758	7.35	7.57	80-120	100	(T)
89	426	7.35	7.57	53-113	1	(QT)
63	463	7.35	7.57	36- 96	1	(QT)
55 2-Methyl-4,6-dinitrophenol				CAS#: 534-52-1		
198	139	8.19	8.00	80-120	100	(T)
105	467	8.19	8.00	14- 74	334	(QT)
51	415	8.19	8.00	20- 80	297	(QT)

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
89 Benzo(a)anthracene			CAS#: 56-55-3			
228	2143	11.80	11.79	80-120	100	( )
226	354	11.80	11.79	0- 55	17	( )
229	583	11.80	11.79	0- 52	27	( )
92 Chrysene			CAS#: 218-01-9			
228	2143	11.80	11.83	80-120	100	( )
229	583	11.80	11.83	0- 50	27	( )
226	354	11.80	11.83	0- 58	17	( )
97 Benzo(a)pyrene			CAS#: 50-32-8			
252	1044	13.58	13.68	80-120	100	(T)
253	101	13.46	13.68	0- 52	10	(T)
125	193	13.58	13.68	0- 45	19	(T)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

Data file : /chem/MSD3.i/s121509.b/s311507.d
Lab Smp Id: 242654014 Client Smp ID: RE03-09-14269
Inj Date : 15-DEC-2009 10:34
Operator : JLD1 Inst ID: MSD3.i
Smp Info : |242654014|932077|1|SVMF|1|LANL
Misc Info : |MSD8270_S|WBN091208-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD3.i/s121509.b/MSD3-8270R-AQA-120809.m
Meth Date : 15-Dec-2009 10:20 jen00986 Quant Type: ISTD
Cal Date : 07-DEC-2009 19:48 Cal File: s310717.d
Als bottle: 7
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-852.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.02000	weight of sample
M	10.68240	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	4.253	705836	40.000
* 67 Phenanthrene-d10	8.941	1047493	40.000
* 98 Perylene-d12	13.760	395209	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #

RT	AREA	CONCENTRATIONS ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	QUANT LIBRARY	LIB ENTRY	CPND #
Unknown				CAS #:			
1.907	76744	4.34911461	162	0		0	10
Unknown Aldol Condensate				CAS #:			
2.911	151490	8.58496706	320	0		0	10
2H-1-Benzopyran-2-one, 6,7-dimethoxy-				CAS #: 120-08-1			
9.694	252123	9.62766885	359	98	NIST05.L	61031	67
Unknown				CAS #:			
14.629	43413	4.39394070	164	0		0	98

Data File: /chem/MSD3.i/s121509.b/s311507.d
Date : 15-DEC-2009 10:34
Client ID: RE03-09-14269
Sample Info: |2426540141932077|1|SVMF|1|LANL
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD3.i

Operator: JLD1
Column diameter: 0.20

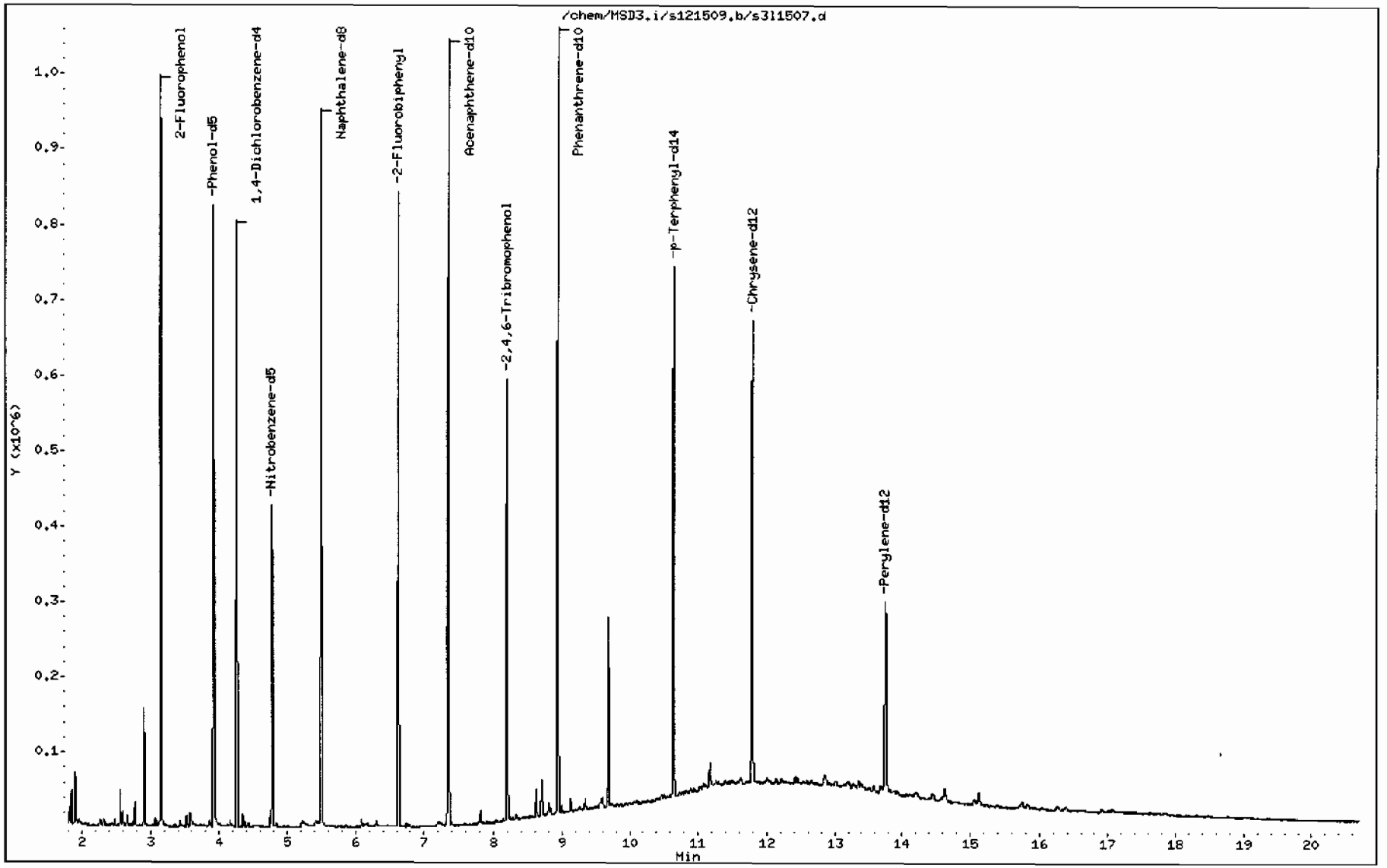

Data File: /chem/MSD3.i/s121509.b/s311507.d

Date : 15-DEC-2009 10:34

Client ID: RE03-09-14269

Instrument: MSD3.i

Sample Info: 1242654014|932077|1|SVHF|1|LANL

Volume Injected (uL): 0.5

Operator: JLD1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
2-Propanone, 1-chloro-	78-95-5	NIST05.L	2355	68	C3H5ClO	92
2-Propanone, 1-chloro-	78-95-5	NIST05.L	2356	58	C3H5ClO	92
Chloroacetamidine	20846-52-0	NIST05.L	2347	52	C2H5ClN2	92

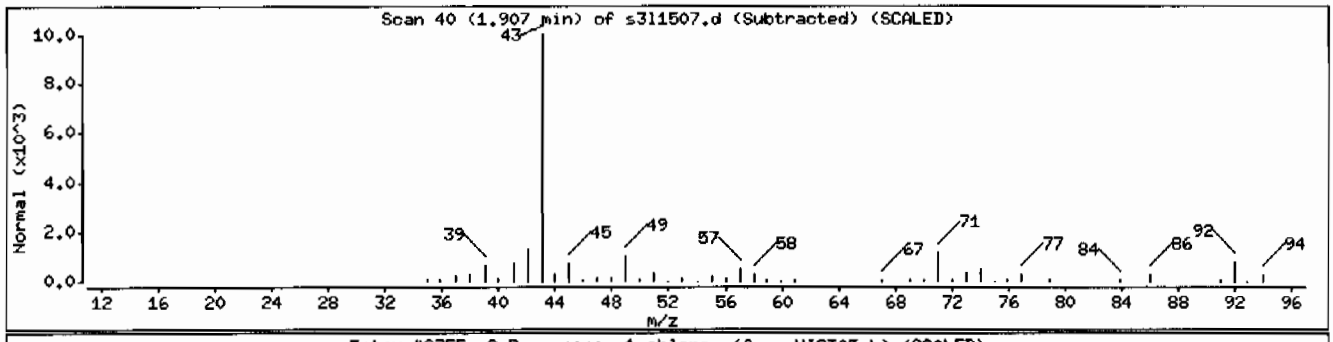

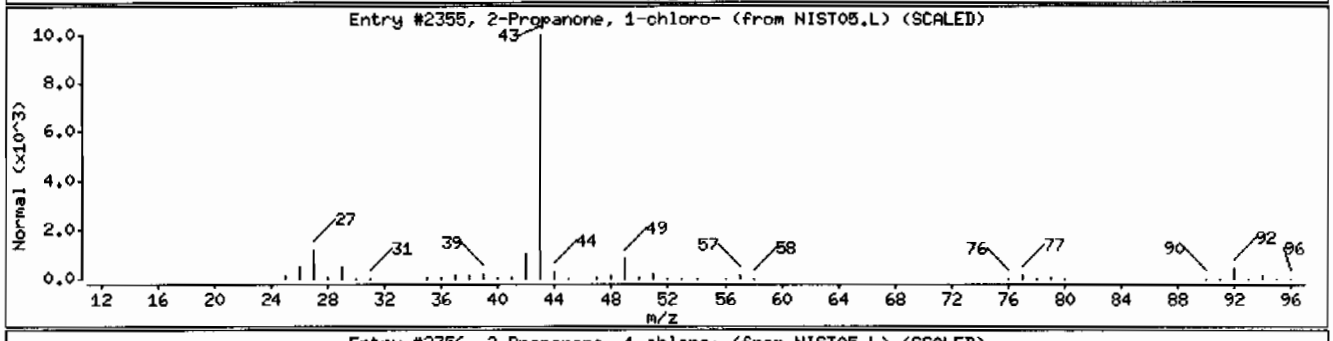

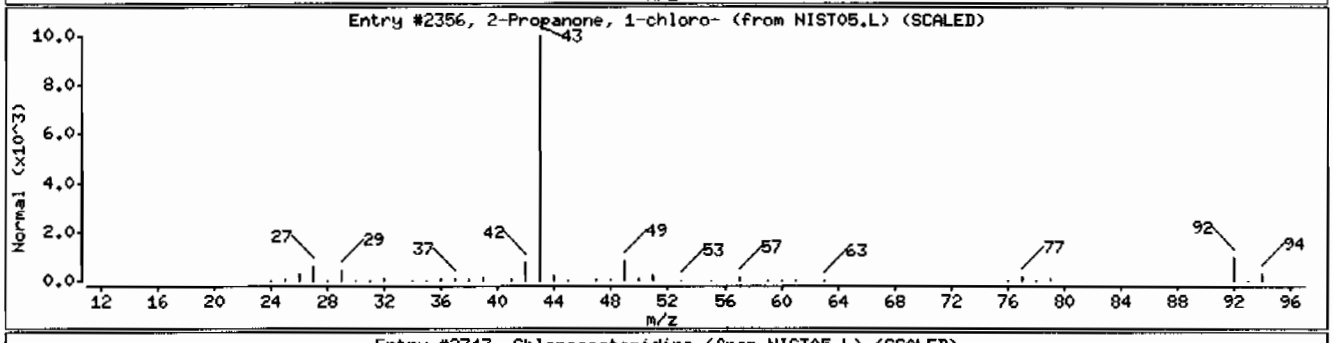

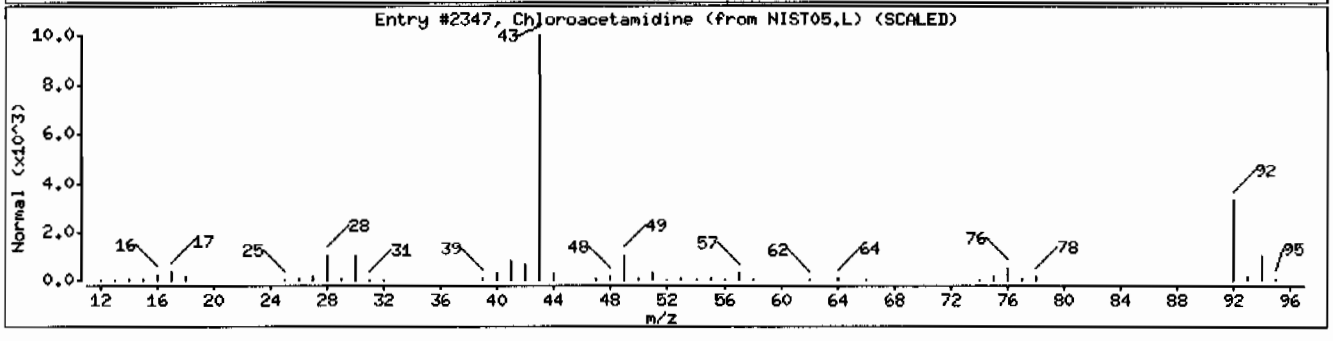

Data File: /chem/MSD3.i/s121509.b/s311507.d

Date : 15-DEC-2009 10:34

Client ID: RE03-09-14269

Instrument: MSD3.i

Sample Info: 1242654014193207711ISVHF11LANL

Volume Injected (uL): 0.5

Operator: JLD1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7945	64	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	56	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	50	C6H12O2	116

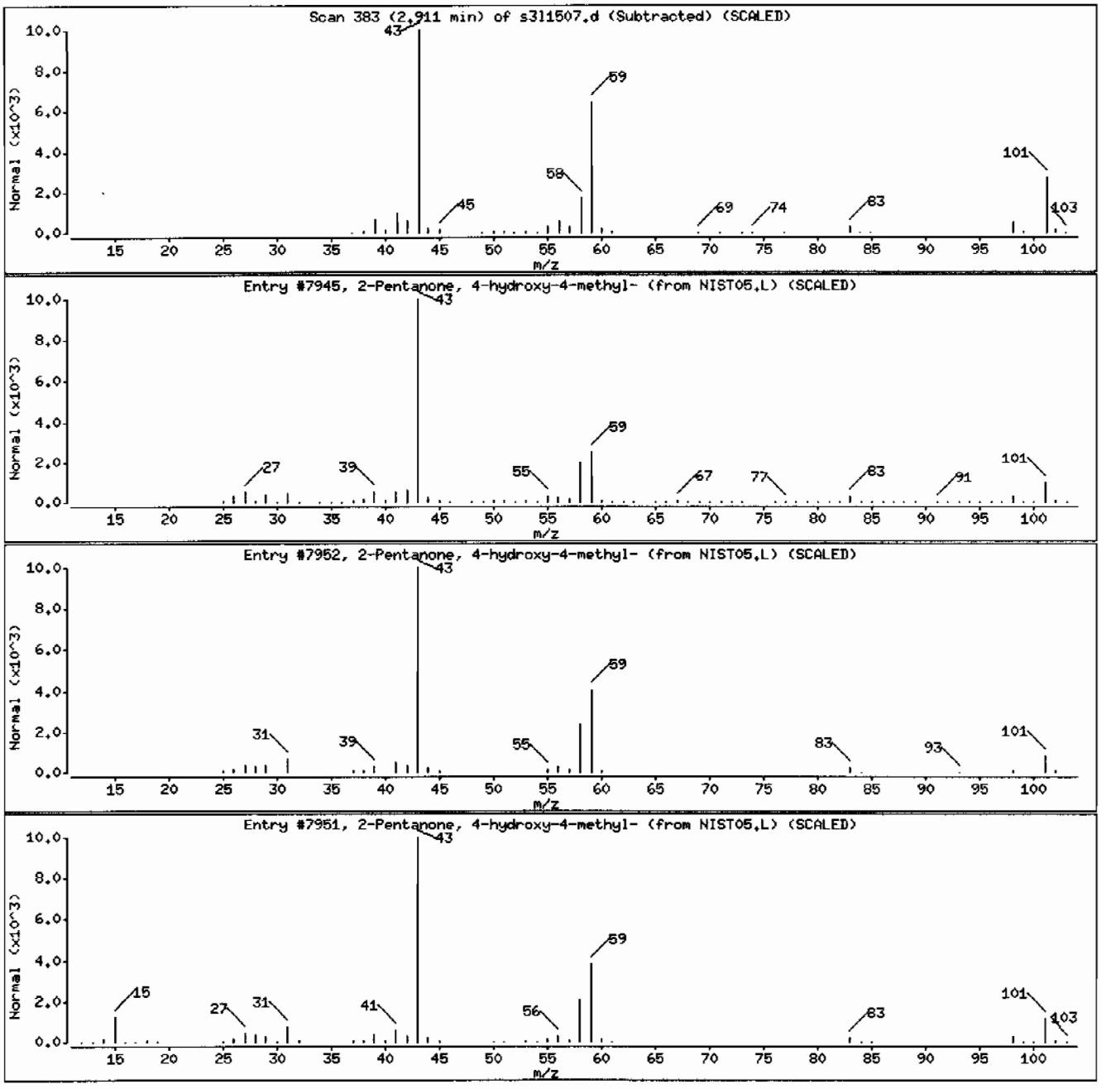

Data File: /chem/MSD3.i/s121509.b/s311507.d

Date : 15-DEC-2009 10:34

Client ID: RE03-09-14269 Instrument: MSD3.i

Sample Info: |2426540141932077|1|SVMF|1|LANL

Volume Injected (uL): 0.5 Operator: JLD1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
2H-1-Benzopyran-2-one, 6,7-dimethoxy-	120-08-1	NIST05.L	61031	98	C11H10O4	206
2H-1-Benzopyran-2-one, 6,7-dimethoxy-	120-08-1	NIST05.L	61028	96	C11H10O4	206
2H-1-Benzopyran-2-one, 6,7-dimethoxy-	120-08-1	NIST05.L	61030	94	C11H10O4	206

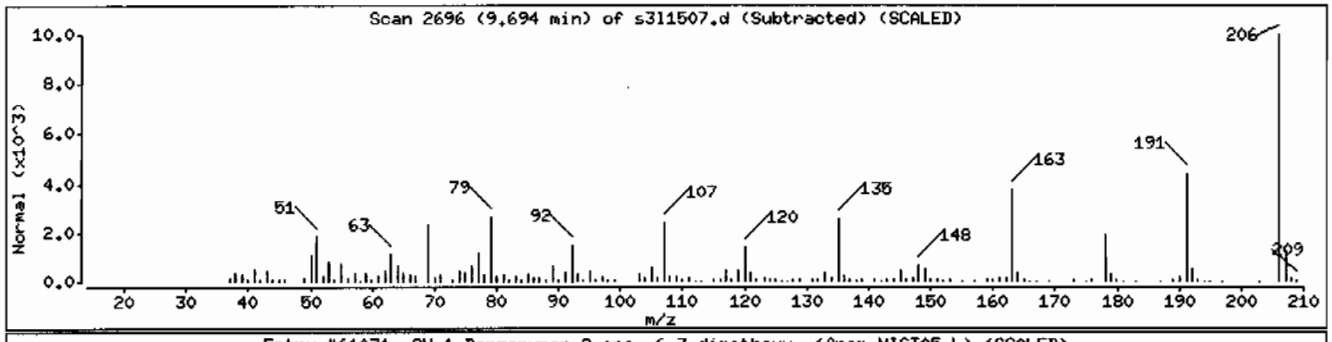

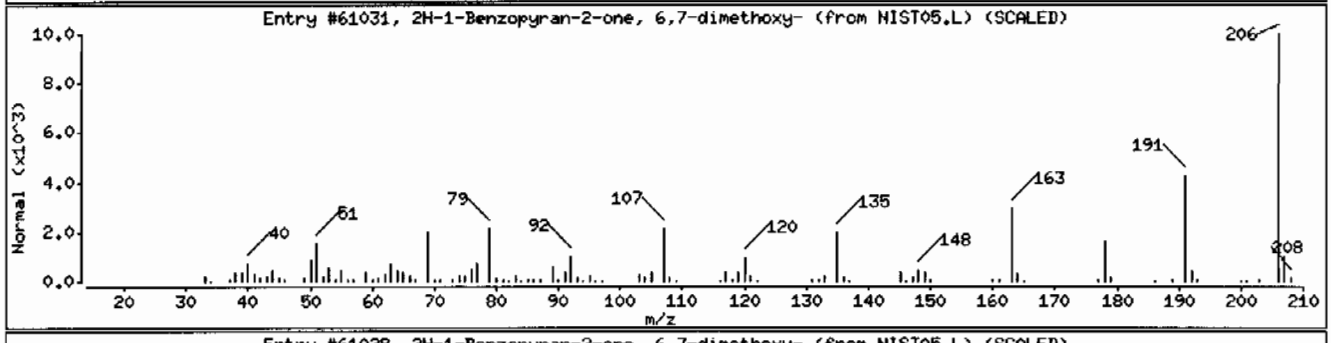

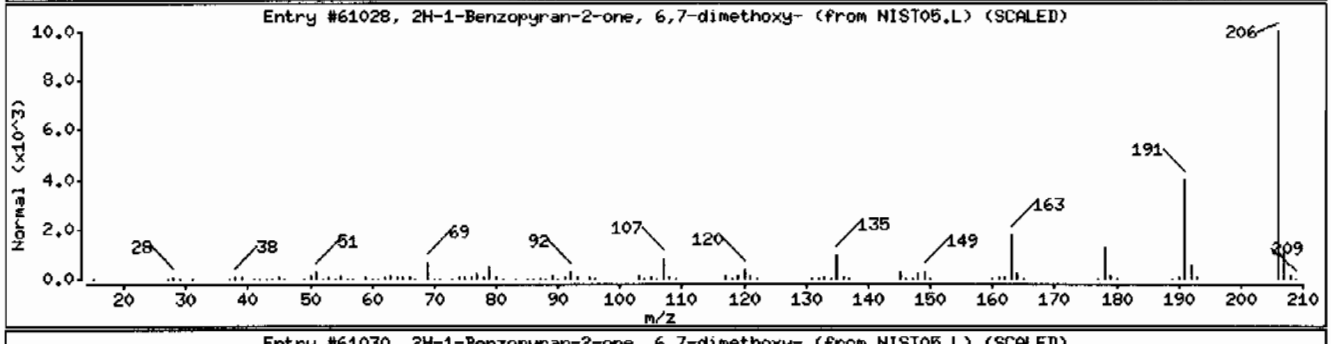

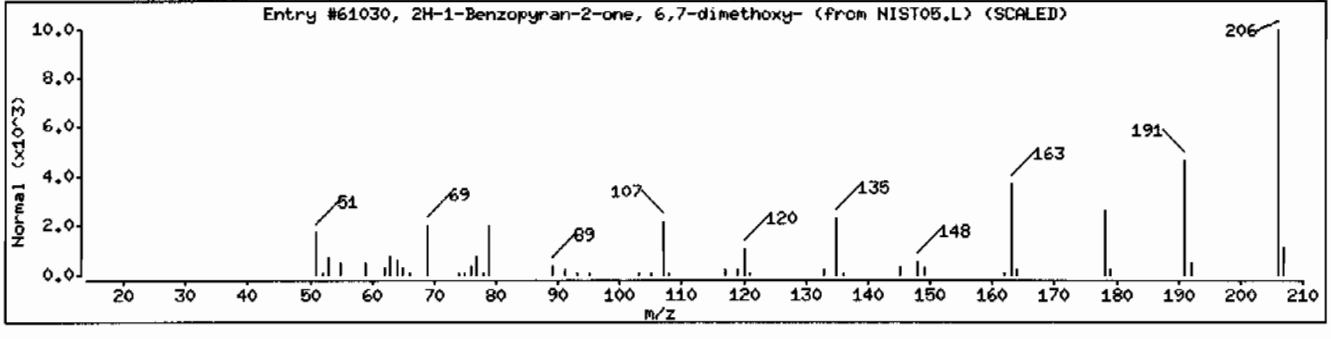

Data File: /chem/MSD3.i/s121509.b/s311507.d

Date : 15-DEC-2009 10:34

Client ID: RE03-09-14269 Instrument: MSD3.i

Sample Info: |2426540141932077|1|SVMF|1|LANL

Volume Injected (uL): 0.5 Operator: JLD1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
2(1H)-Naphthalenone, octahydro-4a-methyl	54594-42-2	NIST05.L	62989	46	C14H24O	208
4,8,12,16-Octadecatetraen-1-ol, 4,9,13,1	1000142-00-0	NIST05.L	136020	43	C22H38O	318
Tricyclo[4.3.0.0(7,9)]nonane, 2,2,5,5,8,	54832-82-5	NIST05.L	61566	38	C15H26	206

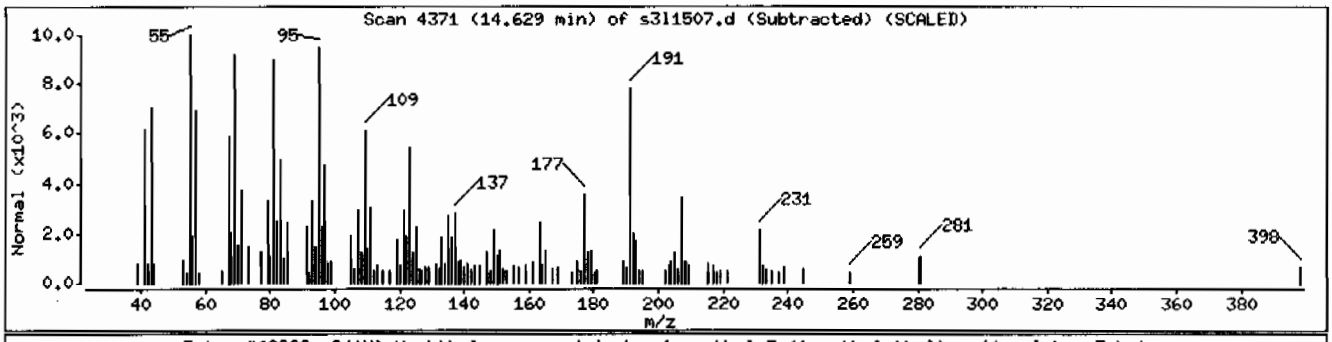

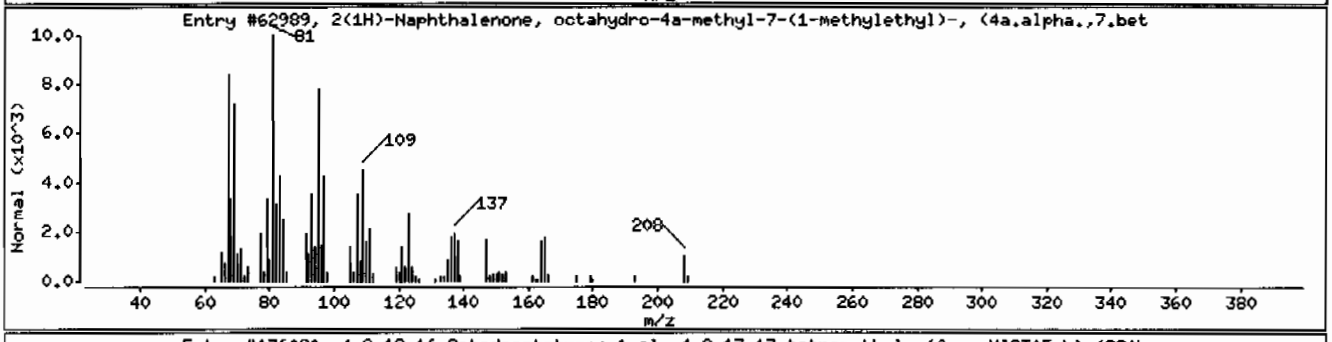

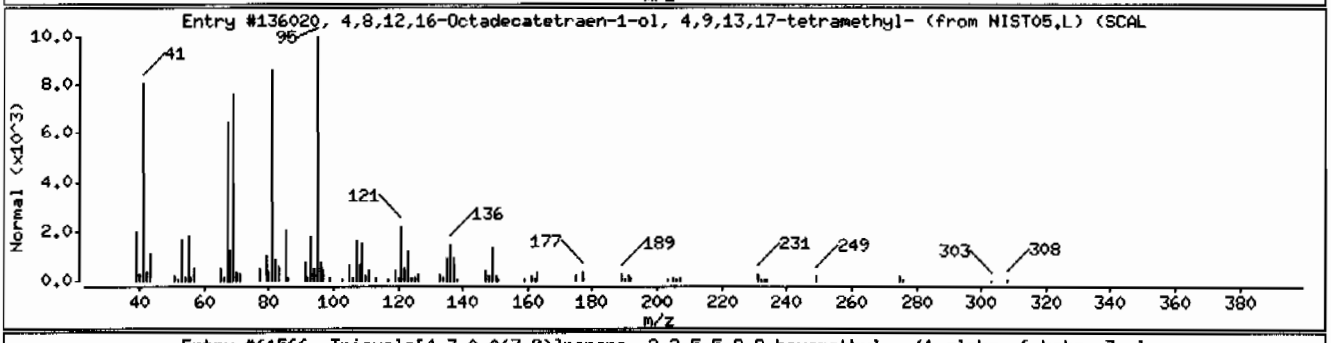

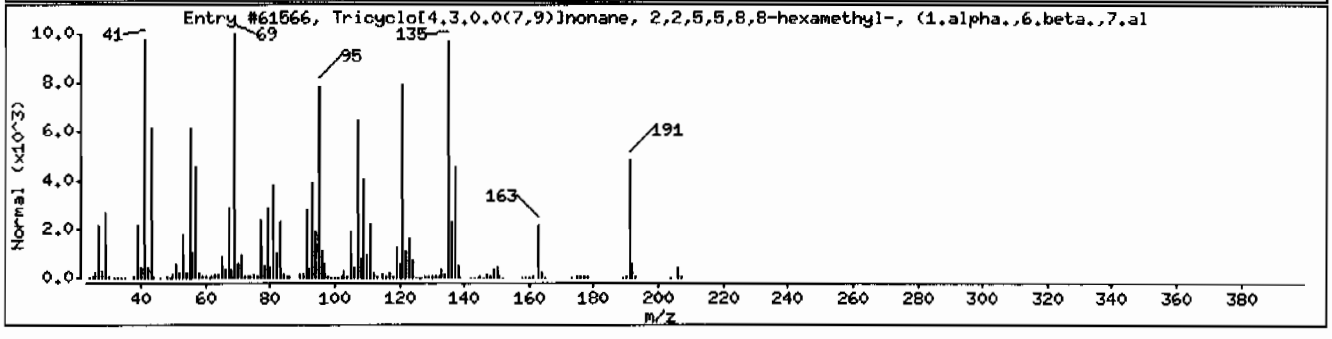

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	Date Collected:	12/07/2009 12:00	Matrix:	S
Lab Sample ID:	242654016	Date Received:	12/10/2009 08:50	%Moisture:	13.4
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14271	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	932077	Inst:	MSD3.I	Dilution:	1
Run Date:	12/13/2009 22:42	Analyst:	JLD1	Inj. Vol:	.5 uL
Prep Date:	12/11/2009 21:55	Aliquot:	30.12 g	Final Volume:	1 mL
Data File:	s3l1332.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	384	ug/kg	76.7	384
108-95-2	Phenol	U	384	ug/kg	76.7	384
95-57-8	2-Chlorophenol	U	384	ug/kg	76.7	384
106-46-7	1,4-Dichlorobenzene	U	384	ug/kg	76.7	384
621-64-7	N-Nitrosodipropylamine	U	384	ug/kg	76.7	384
59-50-7	4-Chloro-3-methylphenol	U	384	ug/kg	76.7	384
83-32-9	Acenaphthene	U	38.4	ug/kg	12.7	38.4
121-14-2	2,4-Dinitrotoluene	U	384	ug/kg	38.4	384
100-02-7	4-Nitrophenol	U	384	ug/kg	127	384
87-86-5	Pentachlorophenol	U	384	ug/kg	95.9	384
129-00-0	Pyrene	U	38.4	ug/kg	11.5	38.4
110-86-1	Pyridine	U	384	ug/kg	76.7	384
62-53-3	Aniline	U	384	ug/kg	115	384
111-44-4	bis(2-Chloroethyl) ether	U	384	ug/kg	76.7	384
541-73-1	1,3-Dichlorobenzene	U	384	ug/kg	76.7	384
100-51-6	Benzyl alcohol	U	384	ug/kg	115	384
95-50-1	1,2-Dichlorobenzene	U	384	ug/kg	76.7	384
108-60-1	bis(2-Chloroisopropyl)ether	U	384	ug/kg	76.7	384
95-48-7	o-Cresol	U	384	ug/kg	76.7	384
65794-96-9	m,p-Cresols	U	384	ug/kg	115	384
67-72-1	Hexachloroethane	U	384	ug/kg	76.7	384
98-95-3	Nitrobenzene	U	384	ug/kg	76.7	384
78-59-1	Isophorone	U	384	ug/kg	76.7	384
88-75-5	2-Nitrophenol	U	384	ug/kg	76.7	384
105-67-9	2,4-Dimethylphenol	U	384	ug/kg	134	384
111-91-1	bis(2-Chloroethoxy)methane	U	384	ug/kg	76.7	384
120-83-2	2,4-Dichlorophenol	U	384	ug/kg	76.7	384
65-85-0	Benzoic acid	U	767	ug/kg	192	767
91-20-3	Naphthalene	U	38.4	ug/kg	11.5	38.4
106-47-8	4-Chloroaniline	U	384	ug/kg	76.7	384
87-68-3	Hexachlorobutadiene	U	384	ug/kg	76.7	384
91-57-6	2-Methylnaphthalene	U	38.4	ug/kg	7.67	38.4
77-47-4	Hexachlorocyclopentadiene	U	384	ug/kg	76.7	384
88-06-2	2,4,6-Trichlorophenol	U	384	ug/kg	76.7	384
95-95-4	2,4,5-Trichlorophenol	U	384	ug/kg	76.7	384
91-58-7	2-Chloronaphthalene	U	38.4	ug/kg	12.7	38.4
88-74-4	2-Nitroaniline	U	384	ug/kg	76.7	384
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	384	ug/kg	76.7	384

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-852**	**Date Collected:**	**12/07/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242654016**	**Date Received:**	**12/10/2009 08:50**	**%Moisture:**	**13.4**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14271**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**932077**	**Inst:**	**MSD3.I**	**Dilution:**	**1**
Run Date:	**12/13/2009 22:42**	**Analyst:**	**JLD1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/11/2009 21:55**	**Aliquot:**	**30.12 g**	**Final Volume:**	**1 mL**
Data File:	**s311332.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	384	ug/kg	76.7	384
606-20-2	2,6-Dinitrotoluene	U	384	ug/kg	38.4	384
208-96-8	Acenaphthylene	U	38.4	ug/kg	11.5	38.4
51-28-5	2,4-Dinitrophenol	U	767	ug/kg	146	767
132-64-9	Dibenzofuran	U	384	ug/kg	76.7	384
84-66-2	Diethylphthalate	U	384	ug/kg	76.7	384
86-73-7	Fluorene	U	38.4	ug/kg	11.5	38.4
7005-72-3	4-Chlorophenylphenylether	U	384	ug/kg	76.7	384
534-52-1	2-Methyl-4,6-dinitrophenol	U	384	ug/kg	76.7	384
100-01-6	4-Nitroaniline	U	384	ug/kg	115	384
	p-Nitroaniline					
122-39-4	Diphenylamine	U	384	ug/kg	76.7	384
122-66-7	Azobenzene	U	384	ug/kg	76.7	384
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	384	ug/kg	76.7	384
118-74-1	Hexachlorobenzene	U	384	ug/kg	76.7	384
85-01-8	Phenanthrene	U	38.4	ug/kg	11.5	38.4
120-12-7	Anthracene	U	38.4	ug/kg	7.67	38.4
84-74-2	Di-n-butylphthalate	U	384	ug/kg	76.7	384
206-44-0	Fluoranthene	U	38.4	ug/kg	11.5	38.4
85-68-7	Butylbenzylphthalate	U	384	ug/kg	76.7	384
56-55-3	Benzo(a)anthracene	U	38.4	ug/kg	11.5	38.4
91-94-1	3,3'-Dichlorobenzidine	U	384	ug/kg	115	384
218-01-9	Chrysene	U	38.4	ug/kg	11.5	38.4
117-81-7	bis(2-Ethylhexyl)phthalate	U	384	ug/kg	76.7	384
117-84-0	Di-n-octylphthalate	U	384	ug/kg	76.7	384
205-99-2	Benzo(b)fluoranthene	U	38.4	ug/kg	11.5	38.4
207-08-9	Benzo(k)fluoranthene	U	38.4	ug/kg	11.5	38.4
50-32-8	Benzo(a)pyrene	U	38.4	ug/kg	11.5	38.4
193-39-5	Indeno(1,2,3-cd)pyrene	U	38.4	ug/kg	11.5	38.4
53-70-3	Dibenzo(a,h)anthracene	U	38.4	ug/kg	11.5	38.4
191-24-2	Benzo(ghi)perylene	U	38.4	ug/kg	11.5	38.4
120-82-1	1,2,4-Trichlorobenzene	U	384	ug/kg	76.7	384

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.94	265	ug/kg		JA

GEL Laboratories LLC

Data file : /chem/MSD3.i/s121309.b/s311332.d
Lab Smp Id: 242654016 Client Smp ID: RE03-09-14271
Inj Date : 13-DEC-2009 22:42
Operator : JLD1 Inst ID: MSD3.i
Smp Info : |242654016|932077|1|SVMF|1|LANL
Misc Info : |MSD8270_S|WBN091208-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD3.i/s121309.b/MSD3-8270R-AQA-120809.m
Meth Date : 14-Dec-2009 17:00 jen00986 Quant Type: ISTD
Cal Date : 07-DEC-2009 19:48 Cal File: s310717.d
Als bottle: 25
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-852.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.12000	weight of sample
M	13.44000	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	4.294	4.294	(1.000)	124657	40.0000	
* 29 Naphthalene-d8	136	5.545	5.546	(1.000)	473022	40.0000	
* 46 Acenaphthene-d10	164	7.391	7.394	(1.000)	260454	40.0000	
* 67 Phenanthrene-d10	188	8.984	8.983	(1.000)	424843	40.0000	
* 91 Chrysene-d12	240	11.844	11.844	(1.000)	216416	40.0000	
* 98 Perylene-d12	264	13.832	13.827	(1.000)	123061	40.0000	
$ 3 2-Fluorophenol	112	3.193	3.175	(0.743)	204530	62.7278	2400
$ 5 Phenol-d5	99	3.954	3.948	(0.921)	254645	61.3003	2350
$ 20 Nitrobenzene-d5	82	4.825	4.828	(0.870)	108780	31.4653	1210
$ 39 2-Fluorobiphenyl	172	6.670	6.669	(0.902)	229303	37.5602	1440
$ 60 2,4,6-Tribromophenol	329	8.239	8.236	(1.115)	57935	81.0022	3110
$ 81 p-Terphenyl-d14	244	10.692	10.686	(0.903)	179185	51.5515	1980

ION RATIO REPORT

SV REPORT

Data file: s311332.d
Report Date: 12/14/2009 12:36
Lab. ID: 242654016 SampleType: SAMPLE
Injection Date: 13-DEC-2009 22:42
Operator: JLD1 Instrument: MSD3.i
Sample Info: |242654016|932077|1|SVMF|1|LANL
Miscellaneous Info: |MSD8270_S|WBN091208-01|
Comment:
Method used: /chem/MSD3.i/s121309.b/MSD3-8270R-AQA-120809.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-852
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
17 N-Nitrosodipropylamine				CAS#: 621-64-7		
70	15307	4.82	4.67	80-120	100	(T)
42	7675	4.82	4.67	22- 82	50	(T)
44 2,6-Dinitrotoluene				CAS#: 606-20-2		
165	34183	7.39	7.18	80-120	100	(T)
63	419	7.39	7.18	28- 88	1	(QT)
50 2,4-Dinitrotoluene				CAS#: 121-14-2		
165	34183	7.39	7.60	80-120	100	(T)
89	426	7.39	7.60	52-112	1	(QT)
63	419	7.39	7.61	35- 95	1	(QT)
89 Benzo(a)anthracene				CAS#: 56-55-3		
228	1873	11.85	11.83	80-120	100	( )
226	305	11.85	11.83	0- 55	16	( )
229	442	11.85	11.83	0- 52	24	( )
92 Chrysene				CAS#: 218-01-9		
228	1873	11.85	11.88	80-120	100	( )
229	442	11.85	11.88	0- 50	24	( )
226	305	11.85	11.88	0- 58	16	( )

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

Data file : /chem/MSD3.i/s121309.b/s311332.d
Lab Smp Id: 242654016 Client Smp ID: RE03-09-14271
Inj Date : 13-DEC-2009 22:42
Operator : JLD1 Inst ID: MSD3.i
Smp Info : |242654016|932077|1|SVMF|1|LANL
Misc Info : |MSD8270_S|WBN091208-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD3.i/s121309.b/MSD3-8270R-AQA-120809.m
Meth Date : 14-Dec-2009 17:00 jen00986 Quant Type: ISTD
Cal Date : 07-DEC-2009 19:48 Cal File: s310717.d
Als bottle: 25
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-852.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariabl

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.12000	weight of sample
M	13.44000	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	4.294	732949	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown Aldol Condensate					CAS #:		
2.944	126595	6.90881311	265	0		0	10

Data File: /chem/MSD3.i/s121309.b/s311332.d

Date : 13-DEC-2009 22:42

Client ID: RE03-09-14271

Sample Info: |242654016|932077|1|SVMF|1|LANL

Volume Injected (uL): 0.5

Column phase: J&W DB-5MS

Instrument: MSD3.i

Operator: JLD1

Column diameter: 0.20

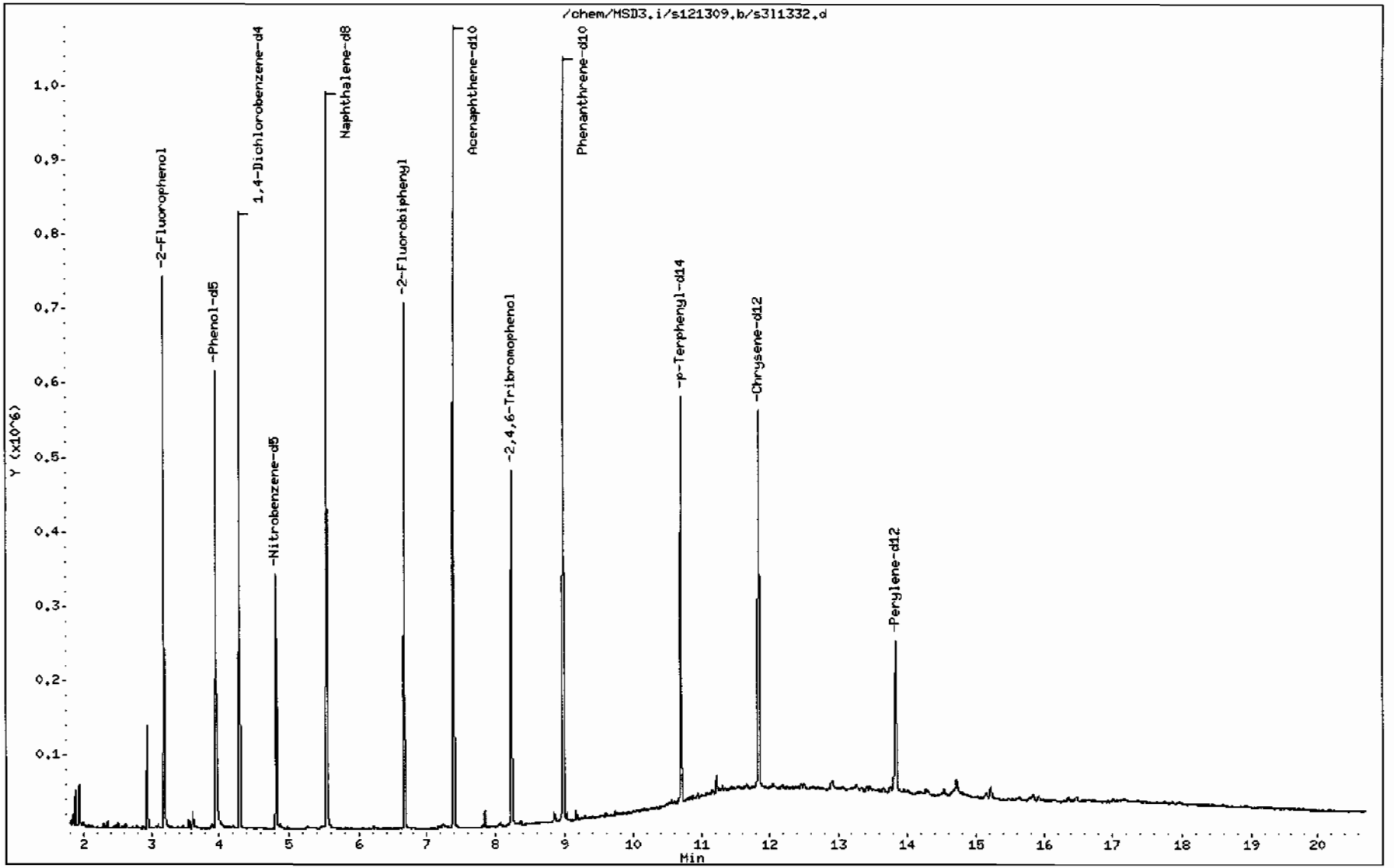

Data File: /chem/MSD3.i/s121309.b/s311332.d

Date : 13-DEC-2009 22:42

Client ID: RE03-09-14271

Instrument: MSD3.i

Sample Info: 1242654016193207711SVHF11LANL

Volume Injected (uL): 0.5

Operator: JLD1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	56	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	40	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7945	38	C6H12O2	116

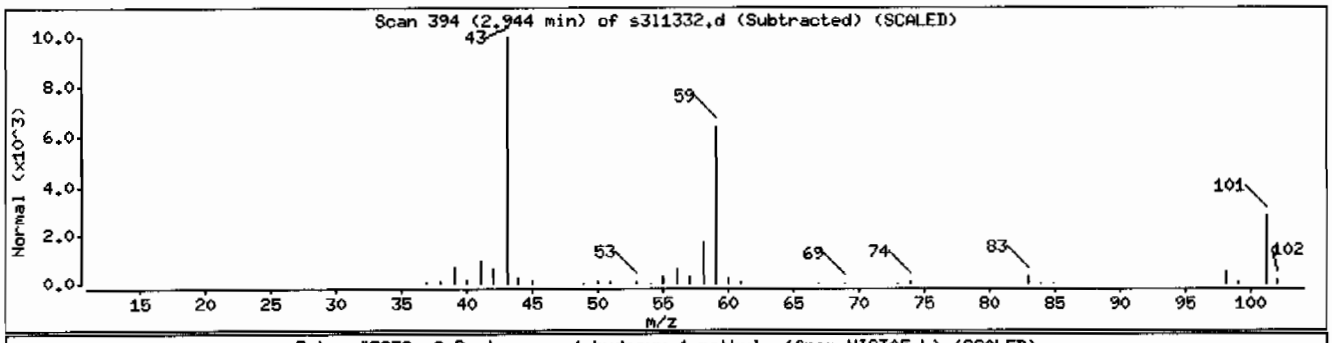

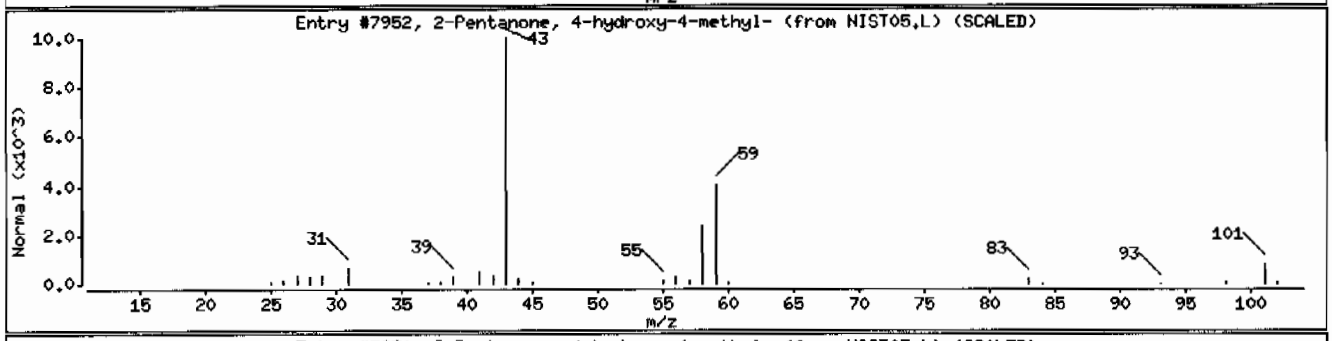

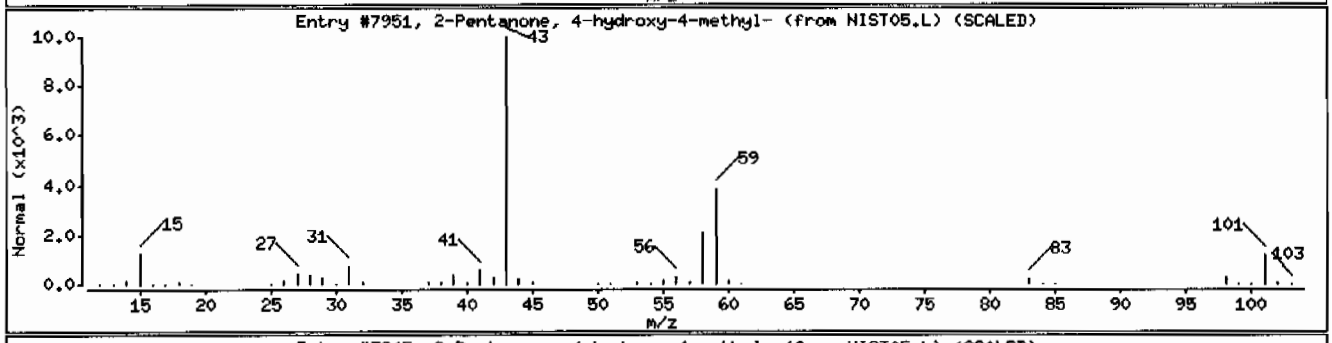

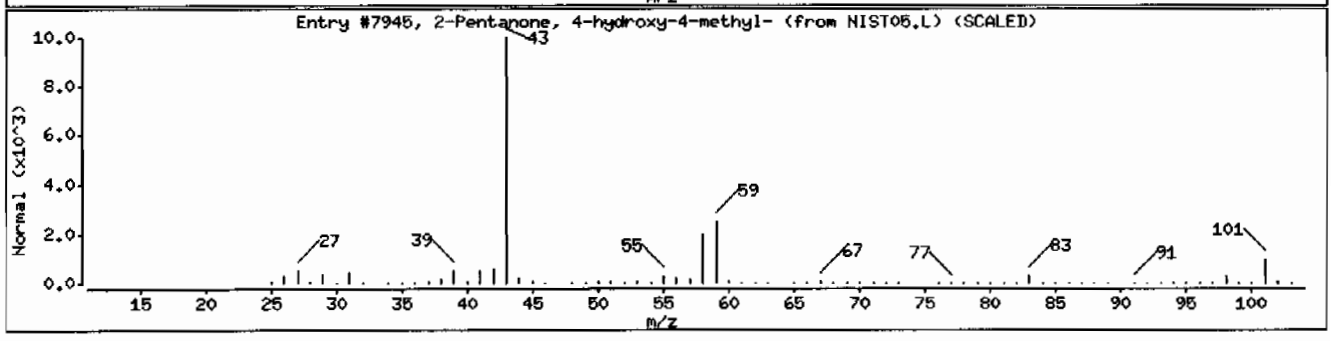

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242654015	**Date Received:**	12/10/2009 08:50	**%Moisture:**	10.3
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14273	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	932077	**Inst:**	MSD3.I	**Dilution:**	1
Run Date:	12/15/2009 11:01	**Analyst:**	JLD1	**Inj. Vol:**	.5 uL
Prep Date:	12/11/2009 21:55	**Aliquot:**	30.01 g	**Final Volume:**	1 mL
Data File:	s311508.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	372	ug/kg	74.3	372
108-95-2	Phenol	U	372	ug/kg	74.3	372
95-57-8	2-Chlorophenol	U	372	ug/kg	74.3	372
106-46-7	1,4-Dichlorobenzene	U	372	ug/kg	74.3	372
621-64-7	N-Nitrosodipropylamine	U	372	ug/kg	74.3	372
59-50-7	4-Chloro-3-methylphenol	U	372	ug/kg	74.3	372
83-32-9	Acenaphthene	U	37.2	ug/kg	12.3	37.2
121-14-2	2,4-Dinitrotoluene	U	372	ug/kg	37.2	372
100-02-7	4-Nitrophenol	U	372	ug/kg	123	372
87-86-5	Pentachlorophenol	U	372	ug/kg	92.9	372
129-00-0	Pyrene	J	22.8	ug/kg	11.1	37.2
110-86-1	Pyridine	U	372	ug/kg	74.3	372
62-53-3	Aniline	U	372	ug/kg	111	372
111-44-4	bis(2-Chloroethyl) ether	U	372	ug/kg	74.3	372
541-73-1	1,3-Dichlorobenzene	U	372	ug/kg	74.3	372
100-51-6	Benzyl alcohol	U	372	ug/kg	111	372
95-50-1	1,2-Dichlorobenzene	U	372	ug/kg	74.3	372
108-60-1	bis(2-Chloroisopropyl)ether	U	372	ug/kg	74.3	372
95-48-7	o-Cresol	U	372	ug/kg	74.3	372
65794-96-9	m,p-Cresols	U	372	ug/kg	111	372
67-72-1	Hexachloroethane	U	372	ug/kg	74.3	372
98-95-3	Nitrobenzene	U	372	ug/kg	74.3	372
78-59-1	Isophorone	U	372	ug/kg	74.3	372
88-75-5	2-Nitrophenol	U	372	ug/kg	74.3	372
105-67-9	2,4-Dimethylphenol	U	372	ug/kg	130	372
111-91-1	bis(2-Chloroethoxy)methane	U	372	ug/kg	74.3	372
120-83-2	2,4-Dichlorophenol	U	372	ug/kg	74.3	372
65-85-0	Benzoic acid	U	743	ug/kg	186	743
91-20-3	Naphthalene	U	37.2	ug/kg	11.1	37.2
106-47-8	4-Chloroaniline	U	372	ug/kg	74.3	372
87-68-3	Hexachlorobutadiene	U	372	ug/kg	74.3	372
91-57-6	2-Methylnaphthalene	U	37.2	ug/kg	7.43	37.2
77-47-4	Hexachlorocyclopentadiene	U	372	ug/kg	74.3	372
88-06-2	2,4,6-Trichlorophenol	U	372	ug/kg	74.3	372
95-95-4	2,4,5-Trichlorophenol	U	372	ug/kg	74.3	372
91-58-7	2-Chloronaphthalene	U	37.2	ug/kg	12.3	37.2
88-74-4	2-Nitroaniline	U	372	ug/kg	74.3	372
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	372	ug/kg	74.3	372

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242654015	**Date Received:**	12/10/2009 08:50	**%Moisture:**	10.3
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14273	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	932077	**Inst:**	MSD3.I	**Dilution:**	1
Run Date:	12/15/2009 11:01	**Analyst:**	JLD1	**Inj. Vol:**	.5 uL
Prep Date:	12/11/2009 21:55	**Aliquot:**	30.01 g	**Final Volume:**	1 mL
Data File:	s3l1508.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	372	ug/kg	74.3	372
606-20-2	2,6-Dinitrotoluene	U	372	ug/kg	37.2	372
208-96-8	Acenaphthylene	U	37.2	ug/kg	11.1	37.2
51-28-5	2,4-Dinitrophenol	U	743	ug/kg	141	743
132-64-9	Dibenzofuran	U	372	ug/kg	74.3	372
84-66-2	Diethylphthalate	U	372	ug/kg	74.3	372
86-73-7	Fluorene	U	37.2	ug/kg	11.1	37.2
7005-72-3	4-Chlorophenylphenylether	U	372	ug/kg	74.3	372
534-52-1	2-Methyl-4,6-dinitrophenol	U	372	ug/kg	74.3	372
100-01-6	4-Nitroaniline	U	372	ug/kg	111	372
	p-Nitroaniline					
122-39-4	Diphenylamine	U	372	ug/kg	74.3	372
122-66-7	Azobenzene	U	372	ug/kg	74.3	372
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	372	ug/kg	74.3	372
118-74-1	Hexachlorobenzene	U	372	ug/kg	74.3	372
85-01-8	Phenanthrene	J	11.8	ug/kg	11.1	37.2
120-12-7	Anthracene	U	37.2	ug/kg	7.43	37.2
84-74-2	Di-n-butylphthalate	U	372	ug/kg	74.3	372
206-44-0	Fluoranthene	J	18.8	ug/kg	11.1	37.2
85-68-7	Butylbenzylphthalate	U	372	ug/kg	74.3	372
56-55-3	Benzo(a)anthracene	U	37.2	ug/kg	11.1	37.2
91-94-1	3,3'-Dichlorobenzidine	U	372	ug/kg	111	372
218-01-9	Chrysene	U	37.2	ug/kg	11.1	37.2
117-81-7	bis(2-Ethylhexyl)phthalate	U	372	ug/kg	74.3	372
117-84-0	Di-n-octylphthalate	U	372	ug/kg	74.3	372
205-99-2	Benzo(b)fluoranthene	J	21.4	ug/kg	11.1	37.2
207-08-9	Benzo(k)fluoranthene	U	37.2	ug/kg	11.1	37.2
50-32-8	Benzo(a)pyrene	U	37.2	ug/kg	11.1	37.2
193-39-5	Indeno(1,2,3-cd)pyrene	U	37.2	ug/kg	11.1	37.2
53-70-3	Dibenzo(a,h)anthracene	U	37.2	ug/kg	11.1	37.2
191-24-2	Benzo(ghi)perylene	U	37.2	ug/kg	11.1	37.2
120-82-1	1,2,4-Trichlorobenzene	U	372	ug/kg	74.3	372

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.91	272	ug/kg		JA
	Unknown	3.57	152	ug/kg		J

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-852**	**Date Collected:**	**12/07/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242654015**	**Date Received:**	**12/10/2009 08:50**	**%Moisture:**	**10.3**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14273**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**932077**	**Inst:**	**MSD3.I**	**Dilution:**	**1**
Run Date:	**12/15/2009 11:01**	**Analyst:**	**JLD1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/11/2009 21:55**	**Aliquot:**	**30.01 g**	**Final Volume:**	**1 mL**
Data File:	**s311508.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
80-56-8	.alpha.-Pinene	3.65	7180	ug/kg	96	NJ
18172-67-3	Bicyclo[3.1.1]heptane, 6,6-dimethyl-2-me	3.99	188	ug/kg	97	NJ
586-62-9	Cyclohexene, 1-methyl-4-(1-methylethylid	4.75	207	ug/kg	97	NJ
5655-61-8	Bicyclo[2.2.1]heptan-2-ol, 1,7,7-trimeth	6.09	177	ug/kg	99	NJ
	Unknown	10.62	1120	ug/kg		J
	Unknown	10.86	766	ug/kg		J
	Unknown	10.89	328	ug/kg		J
511-02-4	Naphthalene, decahydro-1,1,4a-trimethyl-	11.02	344	ug/kg	80	NJ
	Unknown	11.09	483	ug/kg		J
	Unknown	11.21	486	ug/kg		J
	Unknown	11.25	319	ug/kg		J
	Unknown	11.28	181	ug/kg		J
	Unknown	11.38	592	ug/kg		J
	Unknown	11.83	388	ug/kg		J
1000159-38-2	Bicyclo[5.2.0]nonane, 4-methylene-2,8,8-	11.96	334	ug/kg	89	NJ
	Unknown	12.47	172	ug/kg		J
	Unknown	12.55	265	ug/kg		J
	Unknown	12.58	206	ug/kg		J
137235-51-9	1,2,4,8-Tetramethylbicyclo[6.3.0]undeca-	15.68	928	ug/kg	86	NJ
	Unknown	15.83	232	ug/kg		J
	Unknown	16.25	380	ug/kg		J
	Unknown	16.56	281	ug/kg		J
1058-61-3	Stigmast-4-en-3-one	17.04	368	ug/kg	97	NJ
	Unknown	19	489	ug/kg		J
70038-20-9	7-Oxabicyclo[4.1.0]heptane, 2,2,6-trimet	19.45	811	ug/kg	90	NJ

GEL Laboratories LLC

Data file : /chem/MSD3.i/s121509.b/s311508.d
Lab Smp Id: 242654015 Client Smp ID: RE03-09-14273
Inj Date : 15-DEC-2009 11:01
Operator : JLD1 Inst ID: MSD3.i
Smp Info : |242654015|932077|1|SVMF|1|LANL
Misc Info : |MSD8270_S|WBN091208-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD3.i/s121509.b/MSD3-8270R-AQA-120809.m
Meth Date : 15-Dec-2009 10:20 jen00986 Quant Type: ISTD
Cal Date : 07-DEC-2009 19:48 Cal File: s310717.d
Als bottle: 8
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-852.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.01000	weight of sample
M	10.33890	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	4.257	4.256	(1.000)	122556	40.0000	
* 29 Naphthalene-d8	136	5.505	5.508	(1.000)	468875	40.0000	
* 46 Acenaphthene-d10	164	7.349	7.356	(1.000)	263791	40.0000	
* 67 Phenanthrene-d10	188	8.941	8.946	(1.000)	451544	40.0000	
* 91 Chrysene-d12	240	11.805	11.804	(1.000)	298108	40.0000	
* 98 Perylene-d12	264	13.773	13.769	(1.000)	176987	40.0000	
$ 3 2-Fluorophenol	112	3.158	3.143	(0.742)	243117	75.8404	2820
$ 5 Phenol-d5	99	3.920	3.916	(0.921)	302037	73.9553	2750
$ 20 Nitrobenzene-d5	82	4.784	4.793	(0.869)	129944	37.9195	1410
$ 39 2-Fluorobiphenyl	172	6.631	6.632	(0.902)	268139	43.3659	1610
$ 60 2,4,6-Tribromophenol	329	8.197	8.198	(1.115)	75676	104.468	3880
$ 81 p-Terphenyl-d14	244	10.650	10.649	(0.902)	258467	53.9834	2010

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
79 Pyrene	202	10.482	10.491	(0.888)	5123	0.61456	22.8(a)
68 Phenanthrene	178	8.965	8.972	(1.003)	3430	0.31828	11.8(a)
76 Fluoranthene	202	10.239	10.244	(1.145)	5403	0.50648	18.8(a)
95 Benzo(b)fluoranthene	252	13.192	13.191	(0.958)	2696	0.57667	21.4(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

ION RATIO REPORT

SV REPORT

Data file: s311508.d
Report Date: 12/15/2009 11:45
Lab. ID: 242654015 SampleType: SAMPLE
Injection Date: 15-DEC-2009 11:01
Operator: JLD1 Instrument: MSD3.i
Sample Info: |242654015|932077|1|SVMF|1|LANL
Miscellaneous Info: |MSD8270_S|WBN091208-01|
Comment:
Method used: /chem/MSD3.i/s121509.b/MSD3-8270R-AQA-120809.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-852
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
4 Aniline		CAS#: 62-53-3				
66	14018	3.92	3.97	80-120	100	( )
93	15235	3.93	3.97	220-280	109	(Q)
7 bis(2-Chloroethyl) ether				CAS#: 111-44-4		
63	12030	4.21	4.01	80-120	100	(T)
93	478697	4.21	4.01	125-185	3979	(QT)
95	7603	4.21	4.01	18- 78	63	(T)
12 Benzyl alcohol			CAS#: 100-51-6			
108	7935	4.21	4.39	80-120	100	(T)
79	156022	4.21	4.39	104-164	1966	(QT)
77	159337	4.21	4.39	52-112	2008	(QT)
15 o-Cresol			CAS#: 95-48-7			
107	6106	4.35	4.48	80-120	100	(T)
108	1814	4.35	4.48	90-150	30	(QT)
77	6368	4.35	4.48	41-101	104	(QT)
17 N-Nitrosodipropylamine				CAS#: 621-64-7		
70	19455	4.78	4.63	80-120	100	(T)
42	9644	4.78	4.63	23- 83	50	(T)
27 Benzoic acid			CAS#: 65-85-0			
105	1415	5.22	5.29	80-120	100	(T)
122	797	5.22	5.29	44-104	56	(T)
77	1341	5.22	5.29	44-104	95	(T)

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
40 2-Chloronaphthalene				CAS#: 91-58-7		
162	15692	6.95	6.76	80-120	100	(T)
164	816	6.95	6.76	2- 62	5	(T)
127	1045	6.95	6.76	10- 70	7	(QT)
42 o-Nitroaniline				CAS#: 88-74-4		
65	19025	6.95	6.88	80-120	100	(T)
92	23276	6.95	6.88	40-100	122	(QT)
138	1742	6.95	6.88	83-143	9	(QT)
44 2,6-Dinitrotoluene				CAS#: 606-20-2		
165	34249	7.35	7.14	80-120	100	(T)
63	255	7.35	7.14	29- 89	1	(QT)
50 2,4-Dinitrotoluene				CAS#: 121-14-2		
165	34249	7.35	7.57	80-120	100	(T)
89	401	7.35	7.57	53-113	1	(QT)
63	255	7.35	7.57	36- 96	1	(QT)
55 2-Methyl-4,6-dinitrophenol				CAS#: 534-52-1		
198	168	8.19	8.00	80-120	100	(T)
105	518	8.19	8.00	14- 74	308	(QT)
51	380	8.19	8.00	20- 80	226	(QT)
68 Phenanthrene				CAS#: 85-01-8		
178	3430	8.96	8.97	80-120	100	( )
179	492	8.96	8.97	0- 45	14	( )
176	563	8.96	8.97	0- 48	16	( )
69 Anthracene				CAS#: 120-12-7		
178	3430	8.96	9.03	80-120	100	(T)
179	492	8.96	9.03	0- 45	14	(T)
176	563	8.96	9.03	0- 47	16	(T)
76 Fluoranthene				CAS#: 206-44-0		
202	5403	10.24	10.24	80-120	100	( )
203	942	10.24	10.24	0- 47	17	( )
101	833	10.24	10.24	0- 45	15	( )
79 Pyrene				CAS#: 129-00-0		
202	5123	10.48	10.49	80-120	100	( )
200	1062	10.48	10.49	0- 50	21	( )
101	1003	10.48	10.49	0- 48	20	( )
89 Benzo(a)anthracene				CAS#: 56-55-3		
228	2593	11.79	11.79	80-120	100	( )
226	468	11.79	11.79	0- 55	18	( )
229	1162	11.81	11.79	0- 52	45	( )

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
92 Chrysene			CAS#: 218-01-9			
228	2593	11.79	11.83	80-120	100	( )
229	1162	11.81	11.83	0- 50	45	( )
226	468	11.79	11.83	0- 58	18	( )
95 Benzo(b)fluoranthene				CAS#: 205-99-2		
252	2696	13.19	13.19	80-120	100	( )
253	362	13.19	13.19	0- 51	13	( )
125	149	13.19	13.19	0- 44	6	( )
96 Benzo(k)fluoranthene				CAS#: 207-08-9		
252	2696	13.19	13.23	80-120	100	( )
253	362	13.19	13.23	0- 53	13	( )
125	149	13.19	13.23	0- 45	6	( )
97 Benzo(a)pyrene			CAS#: 50-32-8			
252	1236	13.68	13.68	80-120	100	( )
253	177	13.68	13.68	0- 52	14	( )
125	305	13.60	13.68	0- 45	25	(T)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

Data file : /chem/MSD3.i/s121509.b/s311508.d
Lab Smp Id: 242654015 Client Smp ID: RE03-09-14273
Inj Date : 15-DEC-2009 11:01
Operator : JLD1 Inst ID: MSD3.i
Smp Info : |242654015|932077|1|SVMF|1|LANL
Misc Info : |MSD8270_S|WBN091208-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD3.i/s121509.b/MSD3-8270R-AQA-120809.m
Meth Date : 15-Dec-2009 10:20 jen00986 Quant Type: ISTD
Cal Date : 07-DEC-2009 19:48 Cal File: s310717.d
Als bottle: 8
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-852.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariabl

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.01000	weight of sample
M	10.33890	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	4.257	734445	40.000
* 29 Naphthalene-d8	5.505	981749	40.000
* 91 Chrysene-d12	11.805	890824	40.000
* 98 Perylene-d12	13.773	508987	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #

RT	AREA	CONCENTRATIONS ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	QUANT LIBRARY	LIB ENTRY	CPND #
Unknown Aldol Condensate					CAS #:		
2.912	134551	7.32803753	272	0		0	10
Unknown					CAS #:		
3.571	75122	4.09135528	152	0		0	10
.alpha.-Pinene					CAS #: 80-56-8		
3.650	3546095	193.130533	7180	96	NIST05.L	15178	10
Bicyclo[3.1.1]heptane, 6,6-dimethyl-2-me					CAS #: 18172-67-3		
3.990	92704	5.04891924	188	97	NIST05.L	15390	10
Cyclohexene, 1-methyl-4-(1-methylethylid					CAS #: 586-62-9		
4.752	102041	5.55745194	206	97	NIST05.L	15338	10
Bicyclo[2.2.1]heptan-2-ol, 1,7,7-trimeth					CAS #: 5655-61-8		
6.094	116916	4.76357039	177	99	NIST05.L	54340	29
Unknown					CAS #:		
10.623	672599	30.2012062	1120	0		0	91
Unknown					CAS #:		
10.856	458930	20.6069581	766	0		0	91
Unknown					CAS #:		
10.886	196834	8.83826512	328	0		0	91
Naphthalene, decahydro-1,1,4a-trimethyl-					CAS #: 511-02-4		
11.018	206055	9.25231170	344	80	NIST05.L	107101	91
Unknown					CAS #:		
11.095	289347	12.9923326	483	0		0	91
Unknown					CAS #:		
11.210	291485	13.0883176	486	0		0	91
Unknown					CAS #:		
11.254	191196	8.58513791	319	0		0	91
Unknown					CAS #:		
11.280	108606	4.87666149	181	0		0	91
Unknown					CAS #:		
11.381	354874	15.9346292	592	0		0	91

RT	AREA	CONCENTRATIONS ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	QUANT LIBRARY	LIB ENTRY	CPND #
Unknown				CAS #:			
11.829	232325	10.4319049	388	0		0	91
Bicyclo[5.2.0]nonane, 4-methylene-2,8,8-				CAS #: 1000159-38-2			
11.959	200109	8.98532933	334	89	NIST05.L	59916	91
Unknown				CAS #:			
12.472	103283	4.63764618	172	0		0	91
Unknown				CAS #:			
12.549	158749	7.12818672	265	0		0	91
Unknown				CAS #:			
12.584	123483	5.54467018	206	0		0	91
1,2,4,8-Tetramethylbicyclo[6.3.0]undeca-				CAS #: 137235-51-9			
15.684	317788	24.9741135	928	86	NIST05.L	59888	98
Unknown				CAS #:			
15.834	79557	6.25219988	232	0		0	98
Unknown				CAS #:			
16.249	129973	10.2142408	380	0		0	98
Unknown				CAS #:			
16.561	96090	7.55142554	281	0		0	98
Stigmast-4-en-3-one				CAS #: 1058-61-3			
17.041	126006	9.90249787	368	97	NIST05.L	173936	98
Unknown				CAS #:			
19.000	167414	13.1566246	489	0		0	98
7-Oxabicyclo[4.1.0]heptane, 2,2,6-trimet				CAS #: 70038-20-9			
19.451	277643	21.8192604	811	90	NIST05.L	69982	98

Data File: /chem/MSD3.i/s121509.b/s311508.d

Date : 15-DEC-2009 11:01

Client ID: RE03-09-14273

Sample Info: 1242654015193207711SVMF11LANL

Volume Injected (uL): 0.5

Column phase: J&W DB-5MS

Instrument: MSD3.i

Operator: JLD1

Column diameter: 0.20

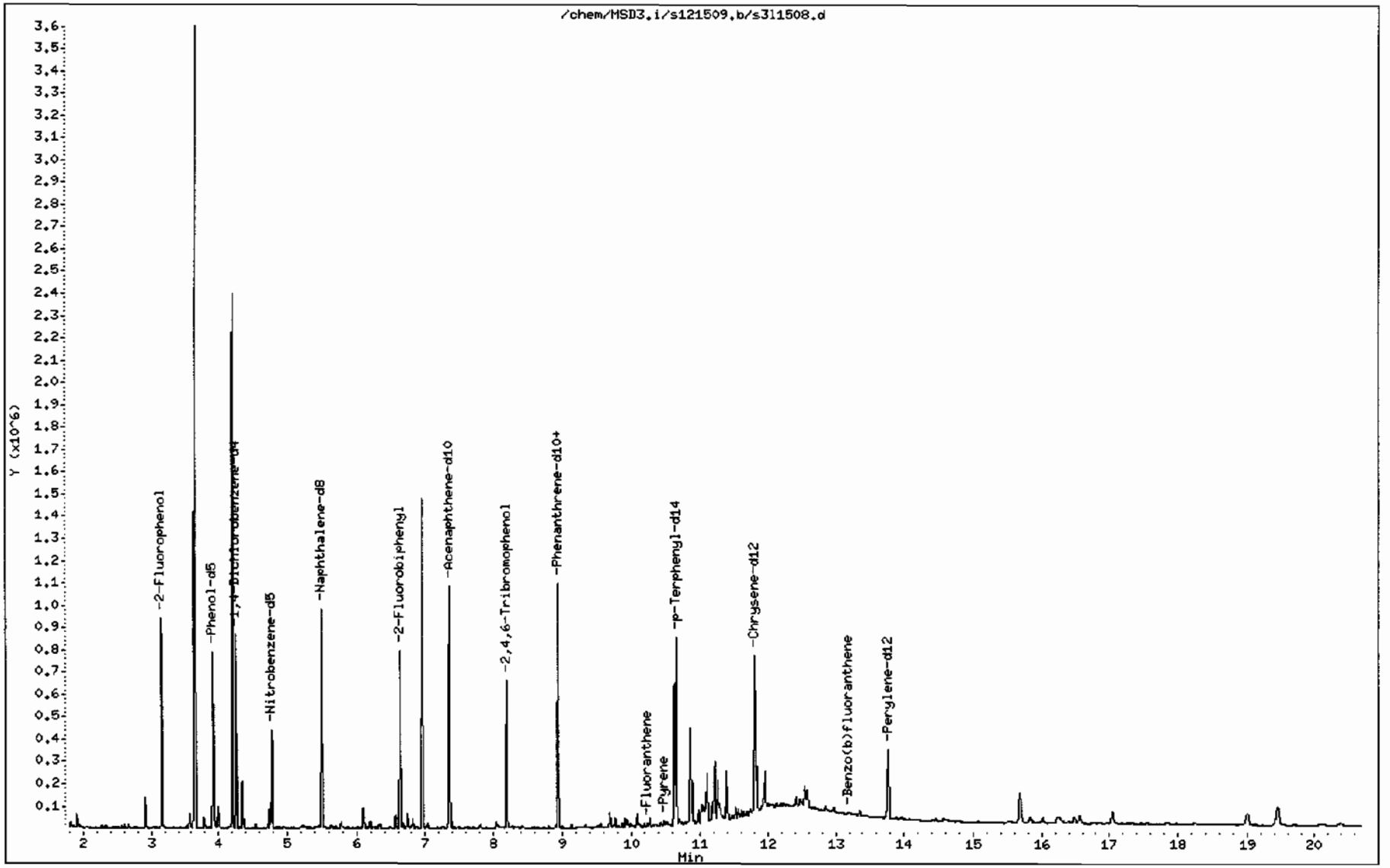

Data File: /chem/MSD3.i/s121509.b/s311508.d

Page 2

Date : 15-DEC-2009 11:01

Client ID: RE03-09-14273

Instrument: MSD3.i

Sample Info: 1242654015|932077|1|SVMF|1|LANL

Volume Injected (uL): 0.5

Operator: JLD1

Column phase: J&W DB-5MS

Column diameter: 0.20

79 Pyrene

Concentration: 22.8 ug/Kg

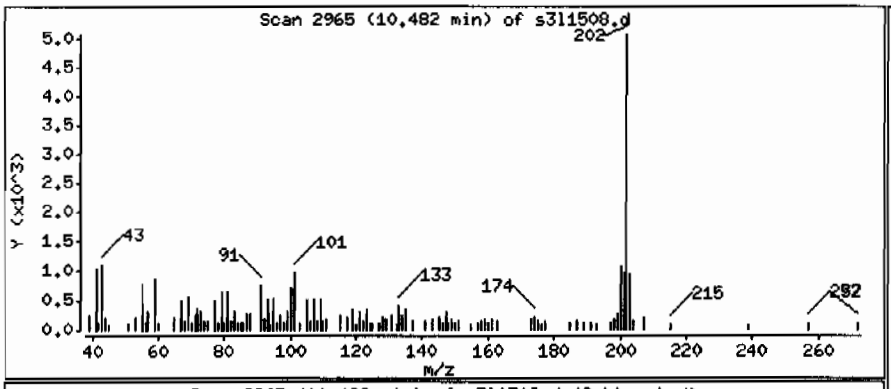

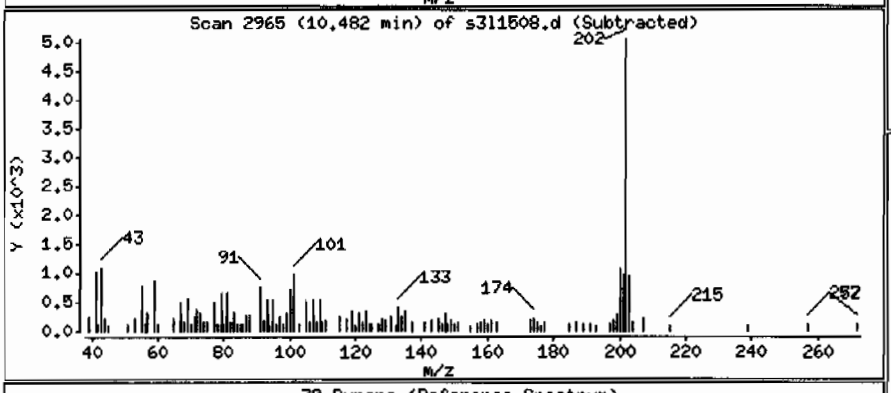

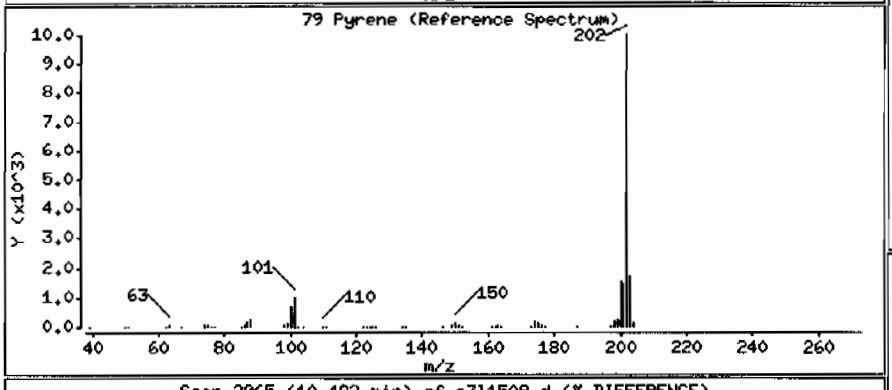

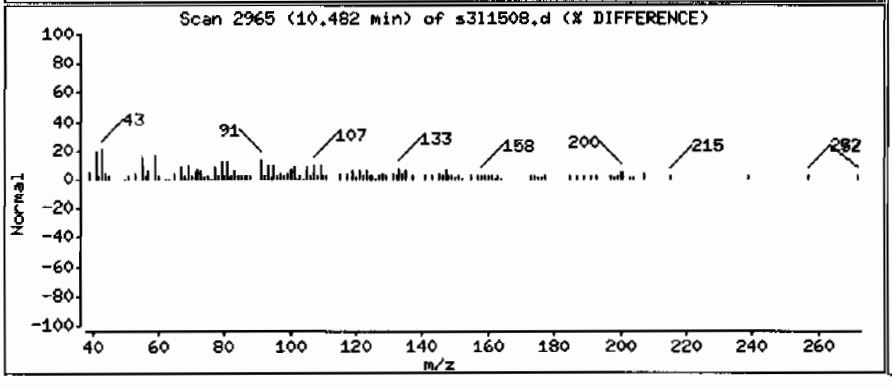

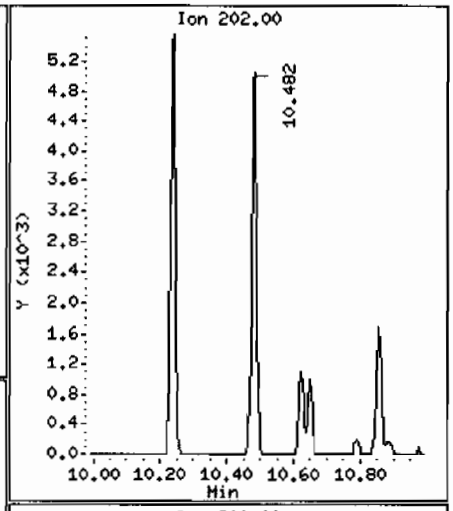

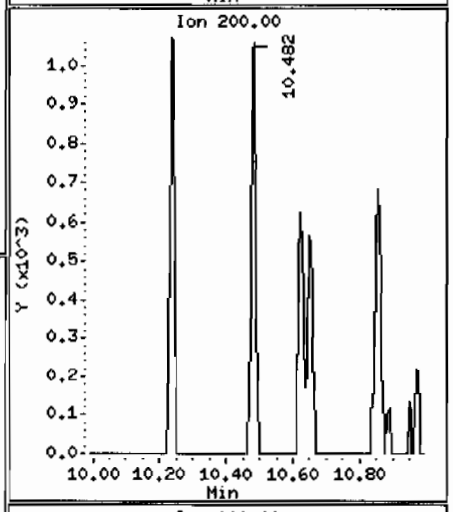

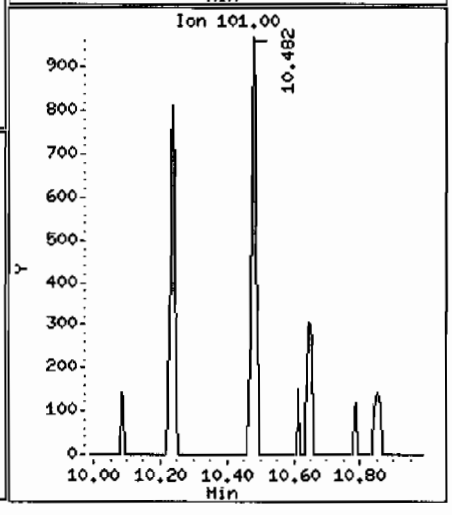

Data File: /chem/MSD3.i/s121509.b/s311508.d

Date : 15-DEC-2009 11:01

Client ID: RE03-09-14273 Instrument: MSD3.i

Sample Info: |2426540151932077|1|SVMF|1|LANL

Volume Injected (uL): 0.5 Operator: JLD1

Column phase: J&W DB-5MS Column diameter: 0.20

68 Phenanthrene Concentration: 11.8 ug/Kg

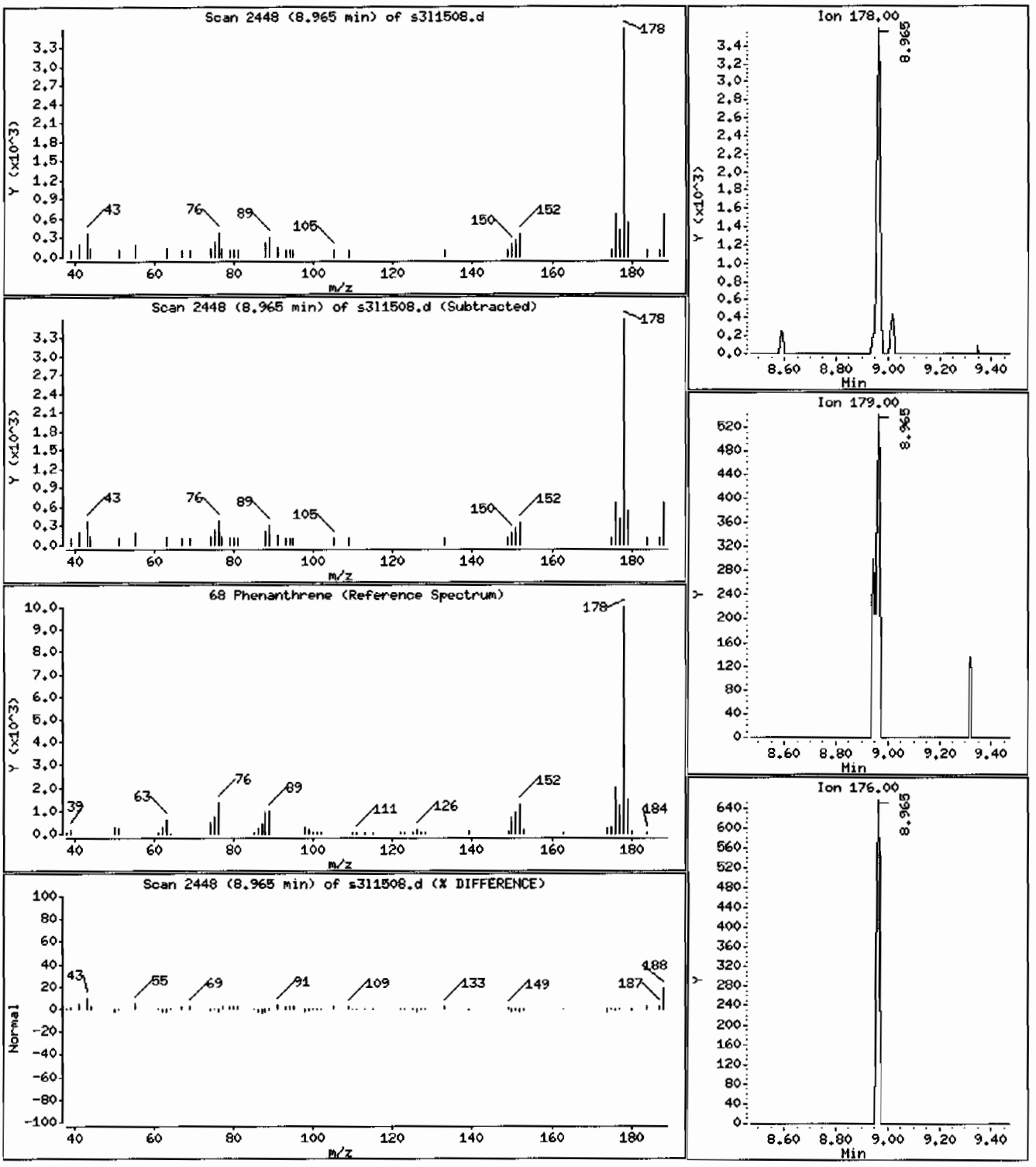

Data File: /chem/MSD3.i/s121509.b/s311508.d

Date : 15-DEC-2009 11:01

Client ID: RE03-09-14273

Instrument: MSD3.i

Sample Info: 1242654015193207711SVMF11LANL

Volume Injected (uL): 0.5

Operator: JLD1

Column phase: J&W DB-5MS

Column diameter: 0.20

76 Fluoranthene

Concentration: 18.8 ug/Kg

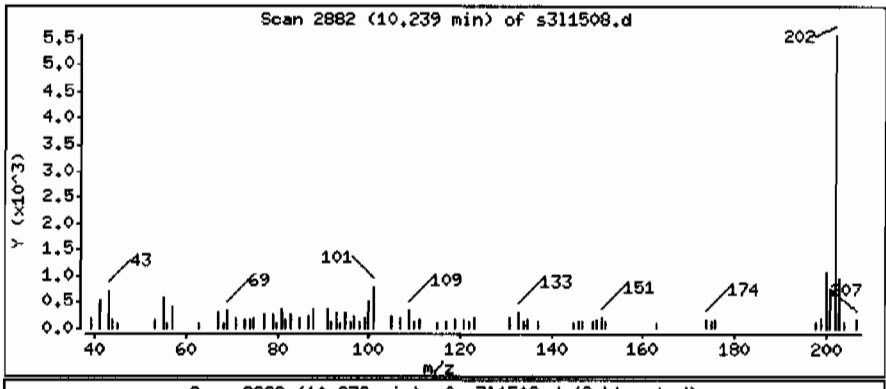

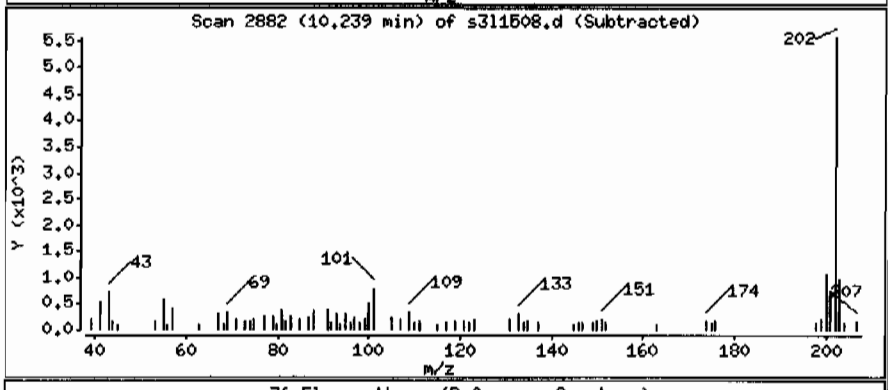

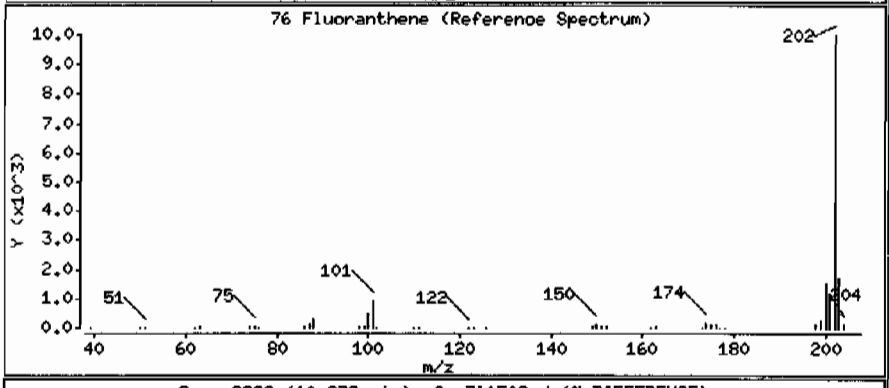

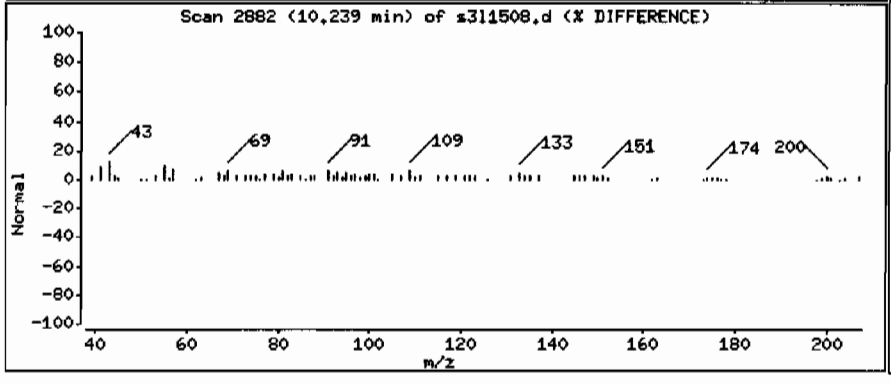

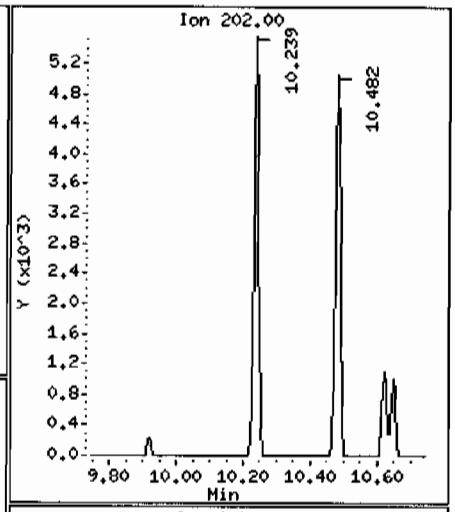

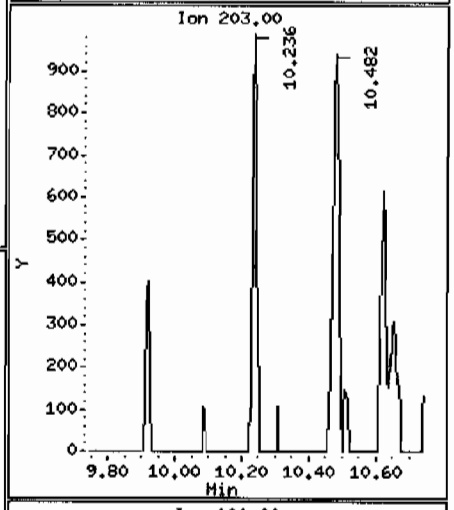

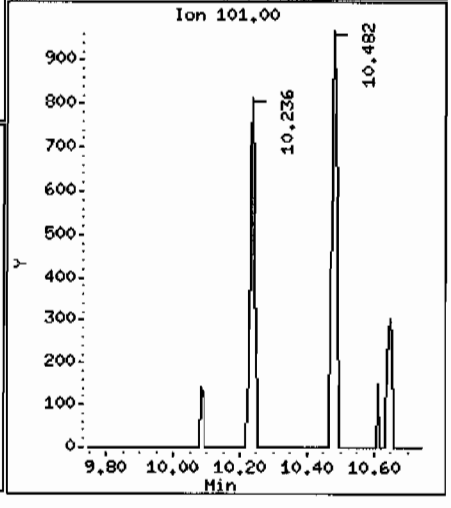

Data File: /chem/MSD3.i/s121509.b/s311508.d

Date : 15-DEC-2009 11:01

Client ID: RE03-09-14273

Instrument: MSD3.i

Sample Info: |242654015|932077|1|SVHF|1|LANL

Volume Injected (uL): 0.5

Operator: JLD1

Column phase: J&W DB-5MS

Column diameter: 0.20

95 Benzo(b)fluoranthene

Concentration: 21.4 ug/Kg

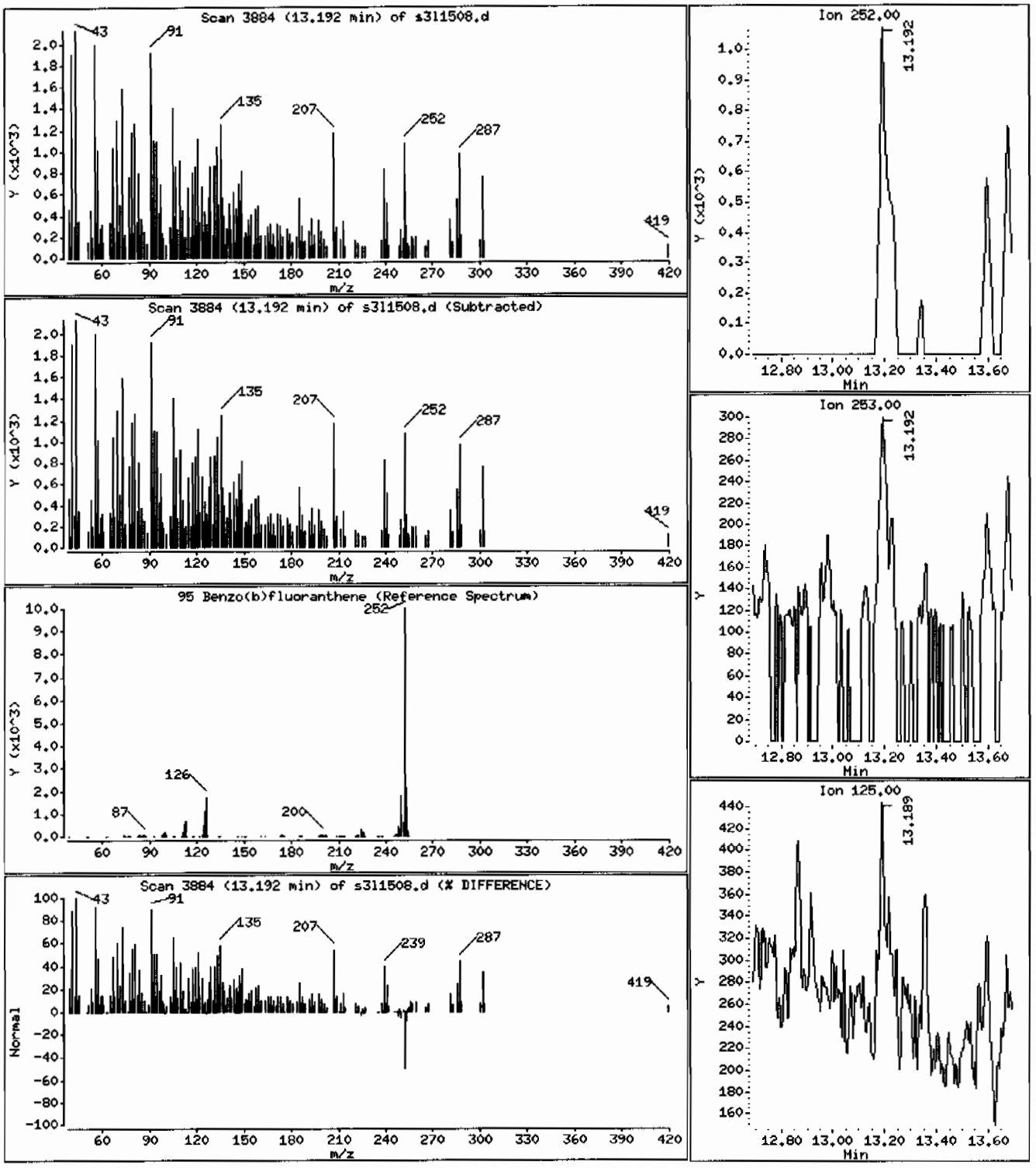

Data File: /chem/MSD3.i/s121509.b/s311508.d

Date : 15-DEC-2009 11:01

Client ID: RE03-09-14273

Instrument: MSD3.i

Sample Info: 1242654015|932077|1|SVMF|1|LANL

Volume Injected (uL): 0.5

Operator: JLD1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7945	64	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	47	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	40	C6H12O2	116

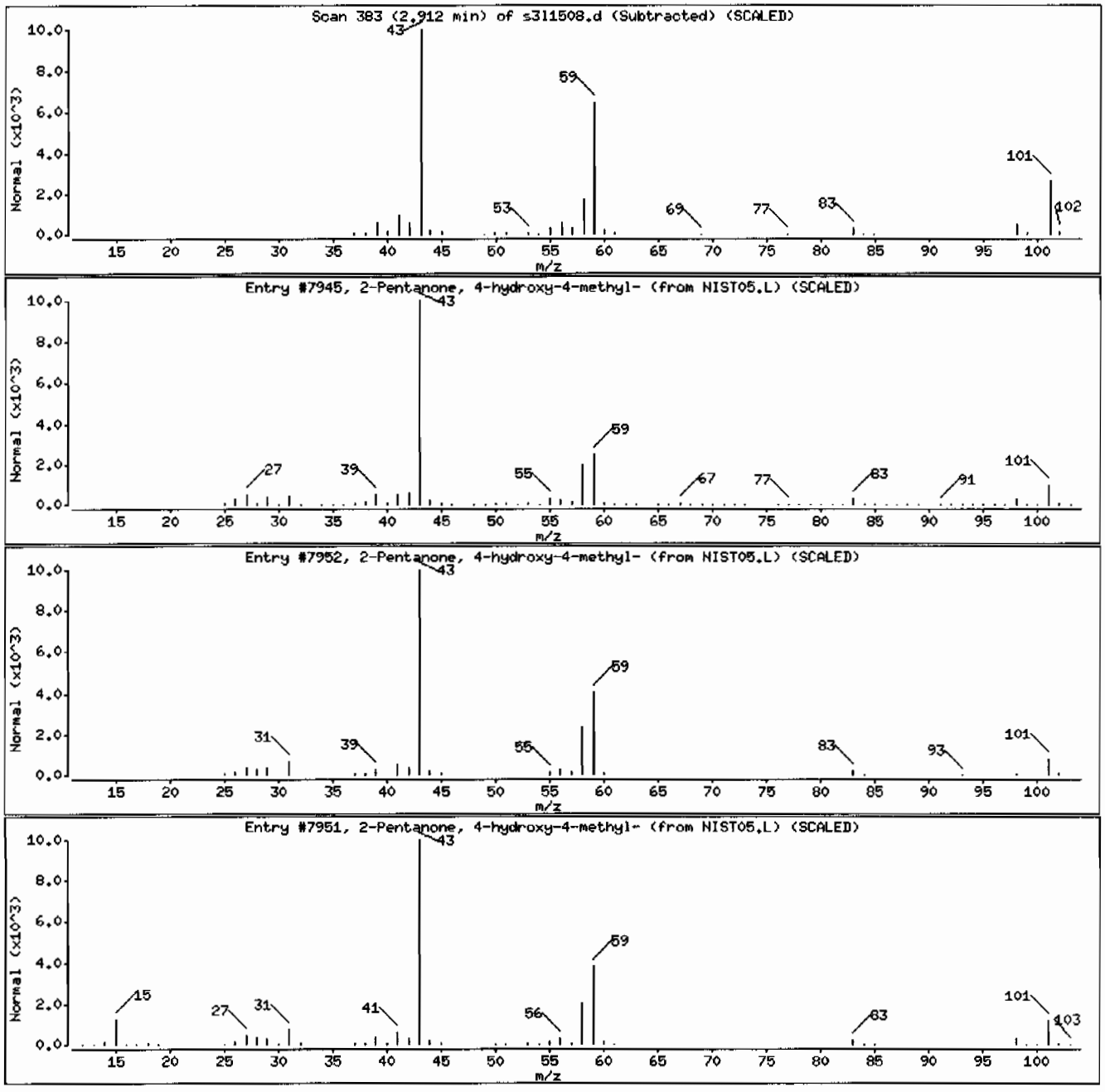

Data File: /chem/MSD3.i/s121509.b/s311508.d

Date : 15-DEC-2009 11:01

Client ID: RE03-09-14273 Instrument: MSD3.i

Sample Info: |2426540151932077|1|SVMF|1|LANL

Volume Injected (uL): 0.5 Operator: JLD1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Bicyclo[3.1.0]hex-2-ene, 2-methyl-5-(1-m	2867-05-2	NIST05.L	15380	64	C10H16	136
.alpha.-Phellandrene	99-83-2	NIST05.L	15203	58	C10H16	136
.alpha.-Phellandrene	99-83-2	NIST05.L	15202	52	C10H16	136

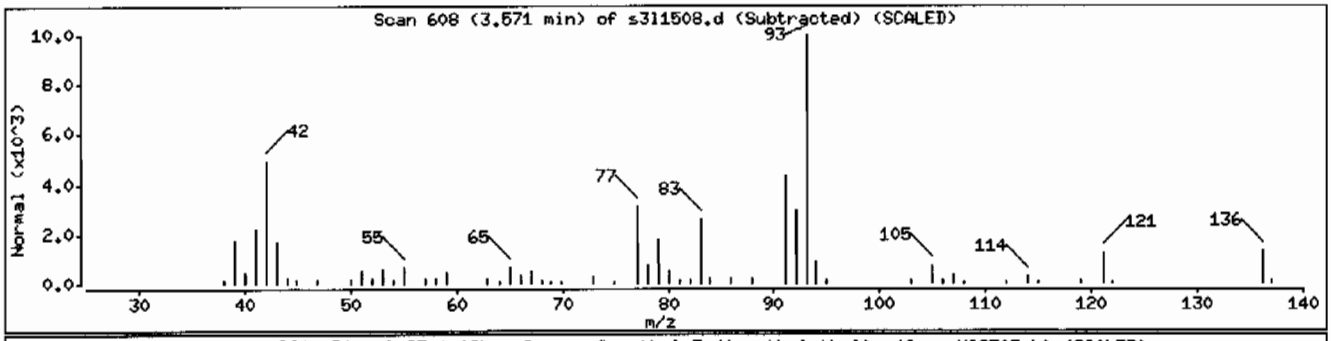

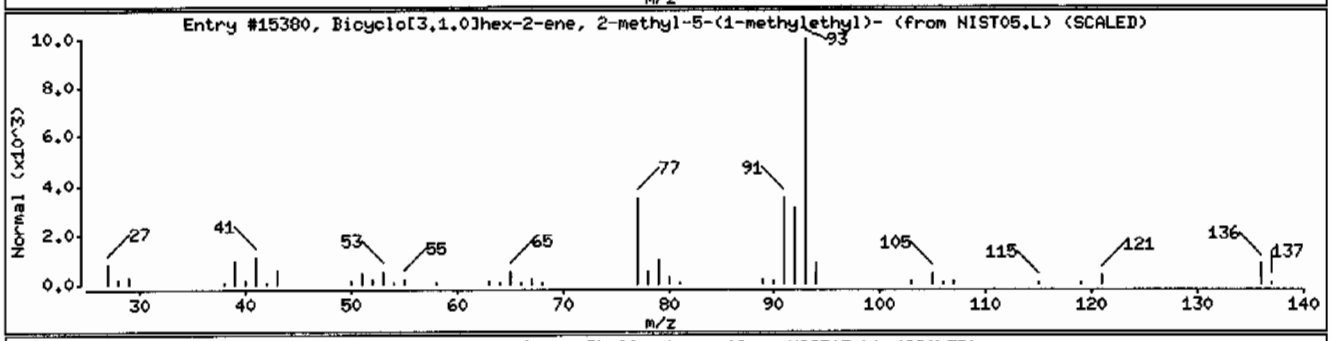

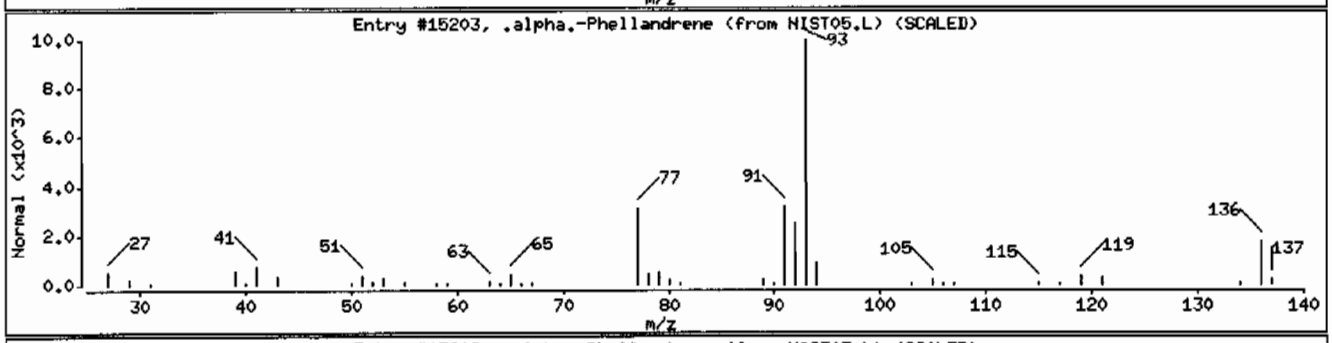

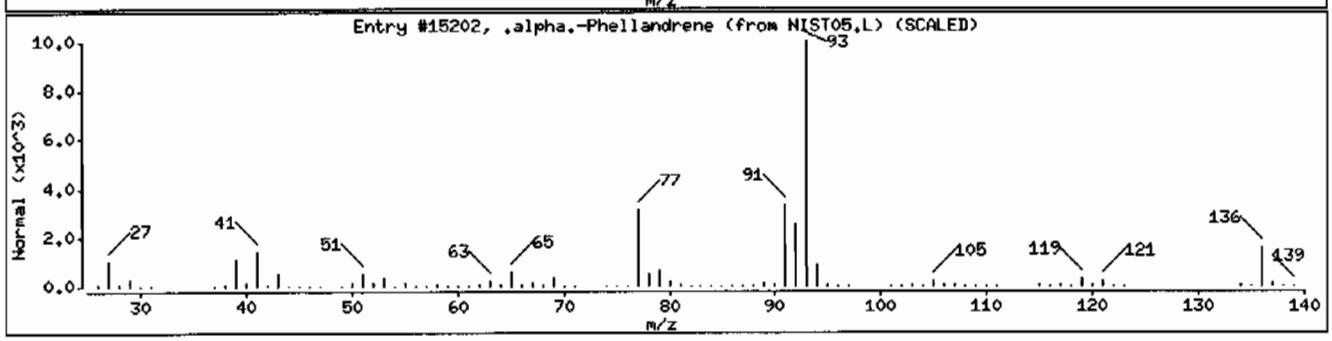

Data File: /chem/MSD3.i/s121509.b/s311508.d

Date : 15-DEC-2009 11:01

Client ID: RE03-09-14273 Instrument: MSD3.i

Sample Info: |2426540151932077|1|SVMF|1|LANL

Volume Injected (uL): 0.5 Operator: JLD1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
.alpha.-Pinene	80-56-8	NIST05.L	15178	96	C10H16	136
1S-.alpha.-Pinene	7785-26-4	NIST05.L	15185	96	C10H16	136
1R-.alpha.-Pinene	7785-70-8	NIST05.L	15186	96	C10H16	136

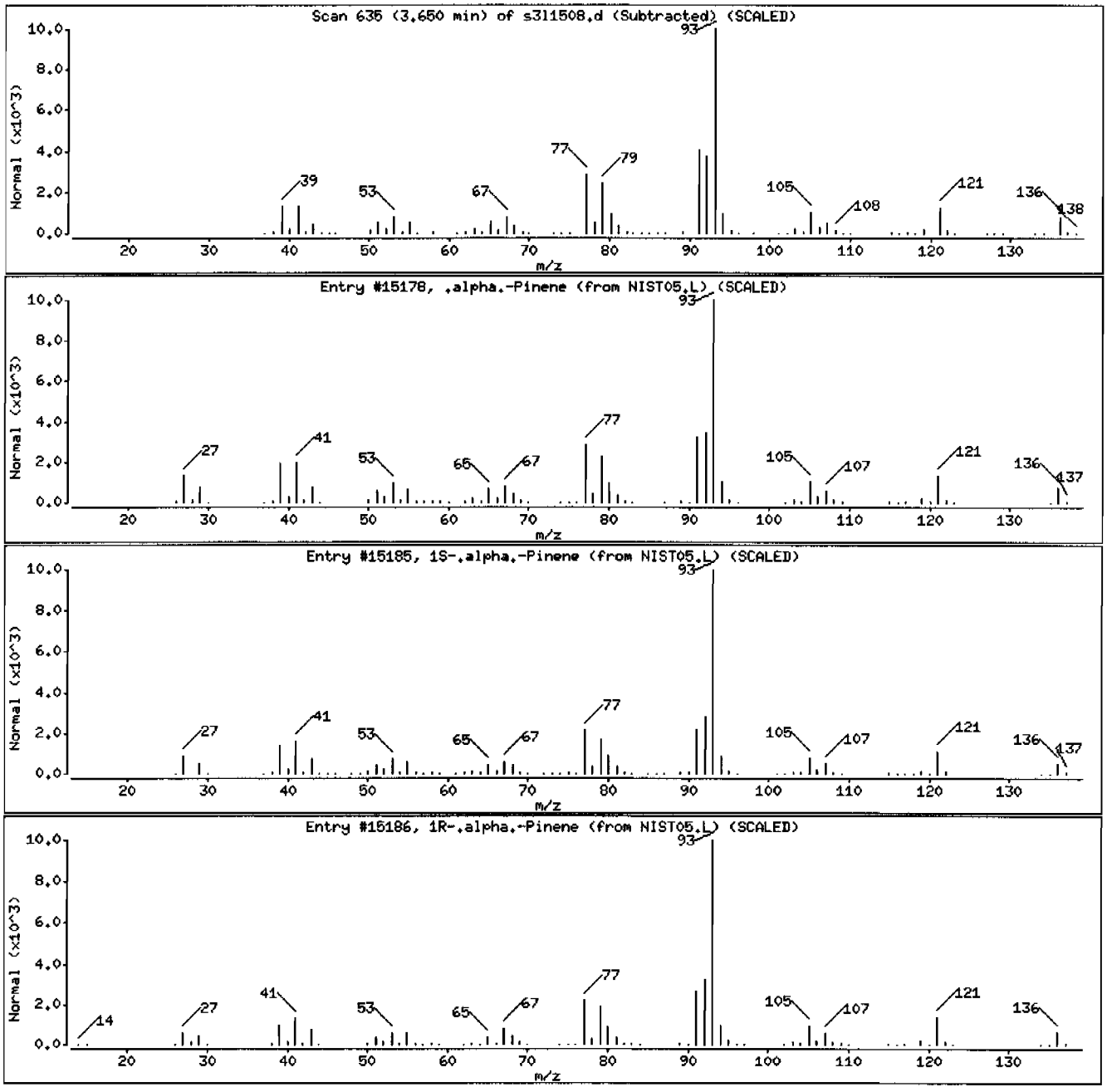

Data File: /chem/MSD3.i/s121509.b/s311508.d

Date : 15-DEC-2009 11:01

Client ID: RE03-09-14273 Instrument: MSD3.i

Sample Info: |242654015|932077|1|SVMF|1|LANL

Volume Injected (uL): 0.5 Operator: JLD1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Bicyclo[3.1.1]heptane, 6,6-dimethyl-2-me	18172-67-3	NIST05.L	15390	97	C10H16	136
.beta.-Pinene	127-91-3	NIST05.L	15171	97	C10H16	136
.beta.-Pinene	127-91-3	NIST05.L	15175	93	C10H16	136

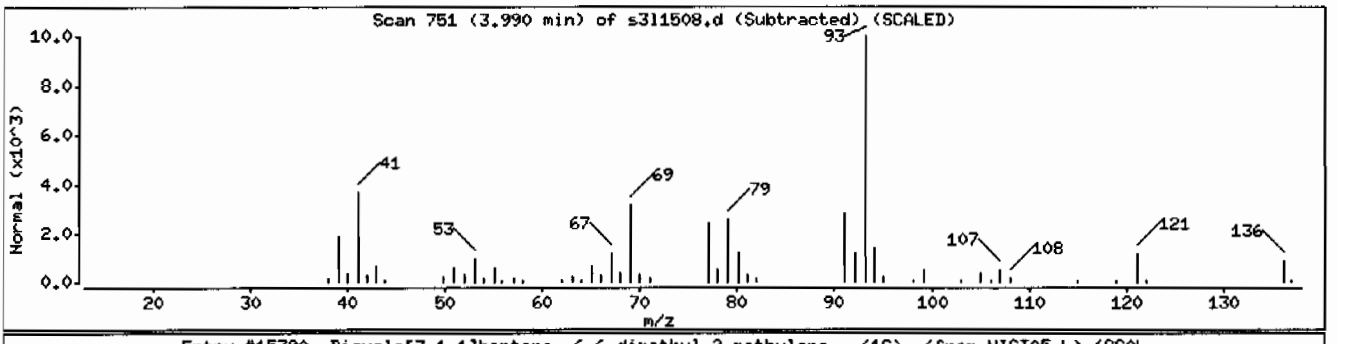

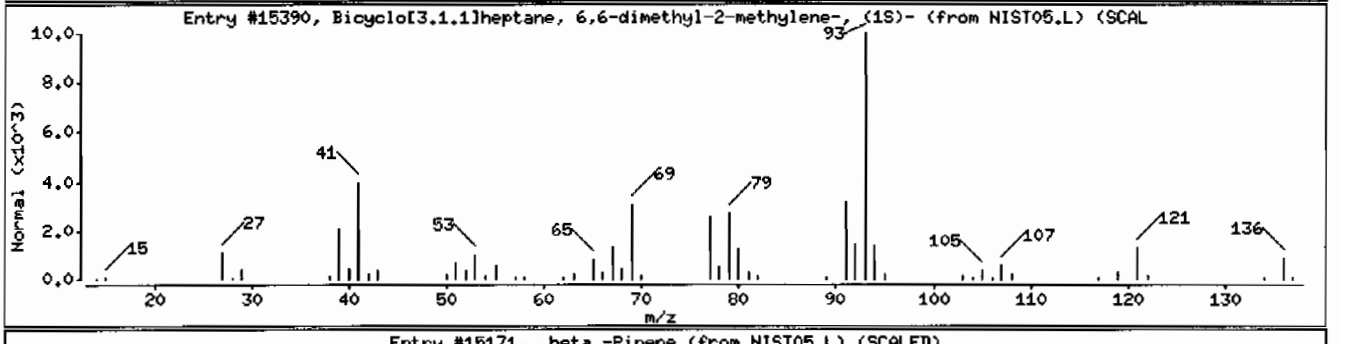

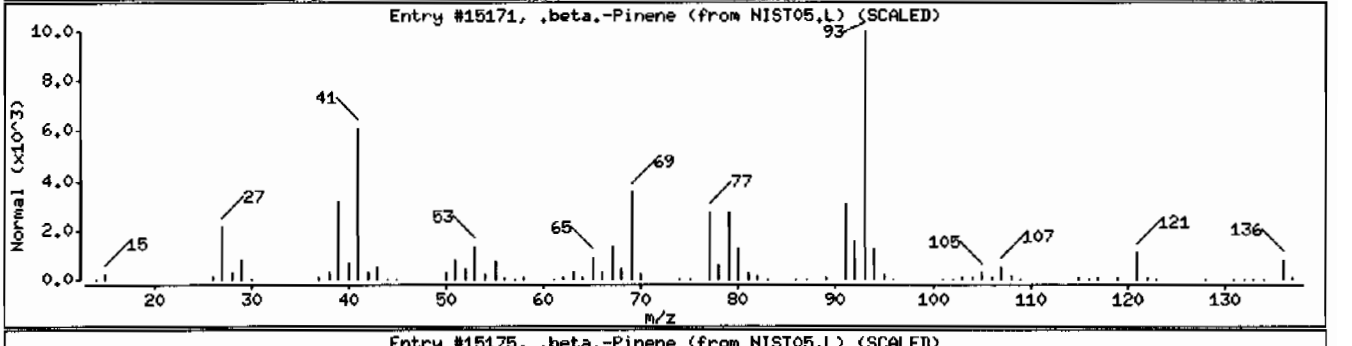

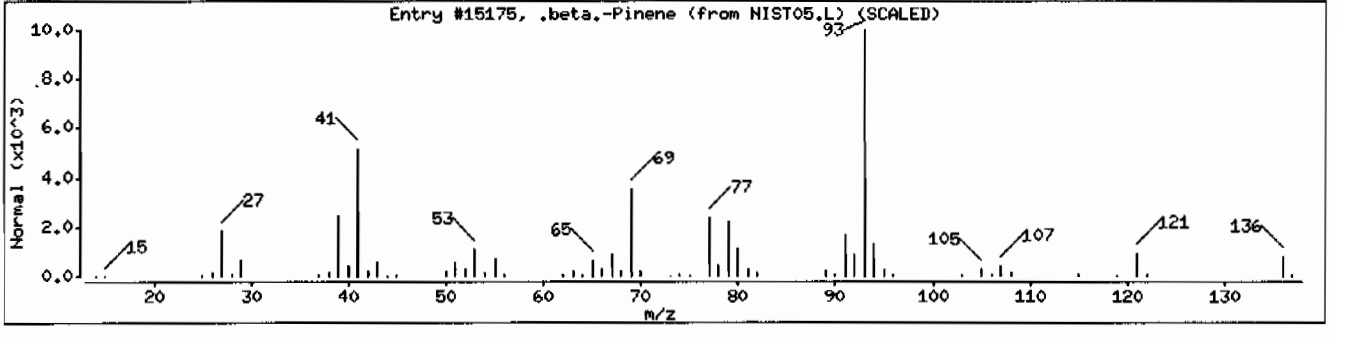

Data File: /chem/MSD3.i/s121509.b/s311508.d

Date : 15-DEC-2009 11:01

Client ID: RE03-09-14273

Instrument: MSD3.i

Sample Info: 1242654015193207711SVMF11LANL

Volume Injected (uL): 0.5

Operator: JLD1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Cyclohexene, 1-methyl-4-(1-methylethylid	586-62-9	NIST05.L	15338	97	C10H16	136
(+)-4-Carene	29050-33-7	NIST05.L	15169	97	C10H16	136
Cyclohexene, 1-methyl-4-(1-methylethylid	586-62-9	NIST05.L	15340	96	C10H16	136

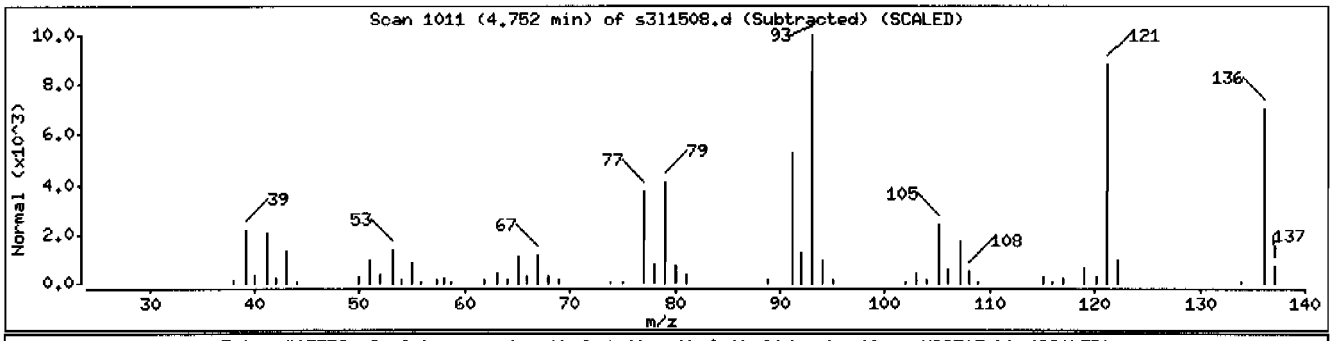

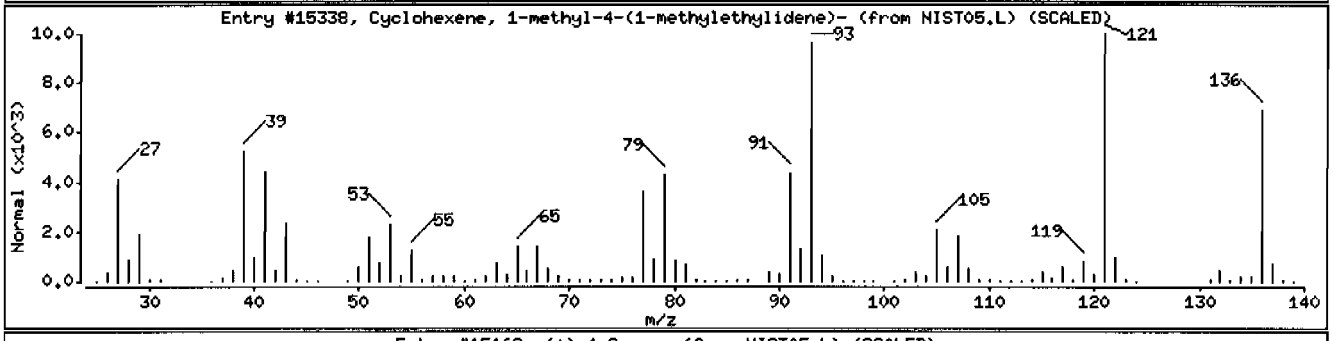

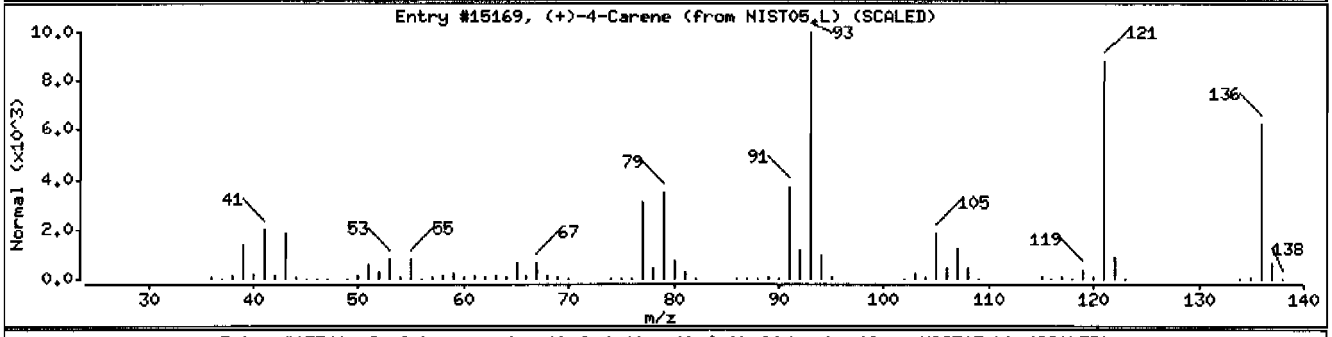

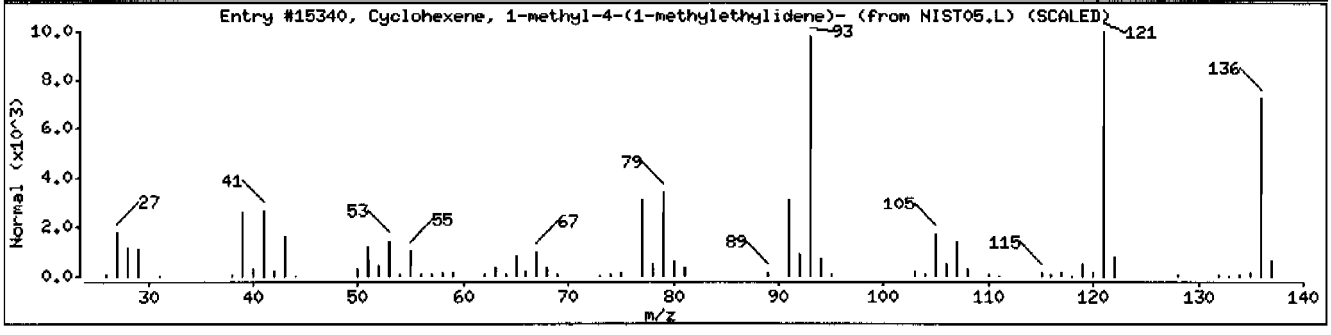

Data File: /chem/MSD3.i/s121509.b/s311508.d

Date : 15-DEC-2009 11:01

Client ID: RE03-09-14273

Instrument: MSD3.i

Sample Info: 1242654015|932077|1|SVHF|1|LANL

Volume Injected (uL): 0.5

Operator: JLD1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Bicyclo[2.2.1]heptan-2-ol, 1,7,7-trimeth	5655-61-8	NIST05.L	54340	99	C12H2002	196
Bornyl acetate	76-49-3	NIST05.L	54229	95	C12H2002	196
Acetic acid, 1,7,7-trimethyl-bicyclo[2.2	92618-89-8	NIST05.L	54323	94	C12H2002	196

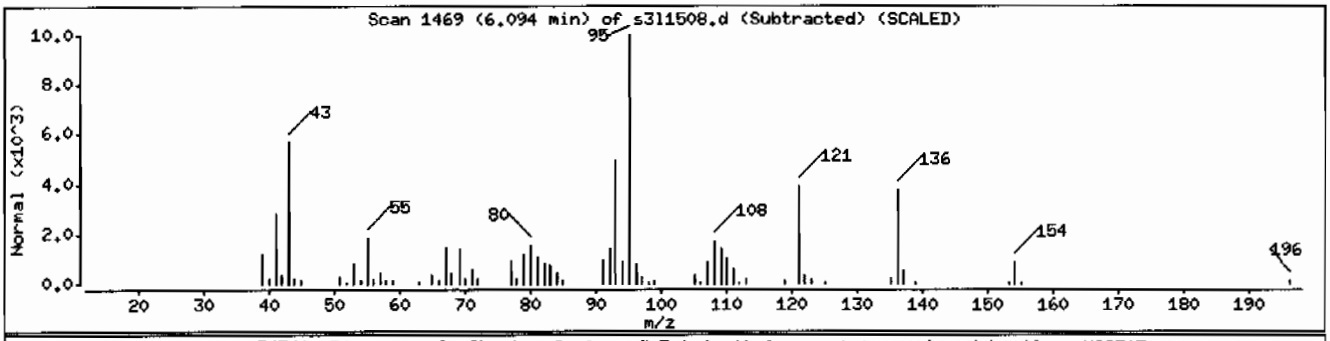

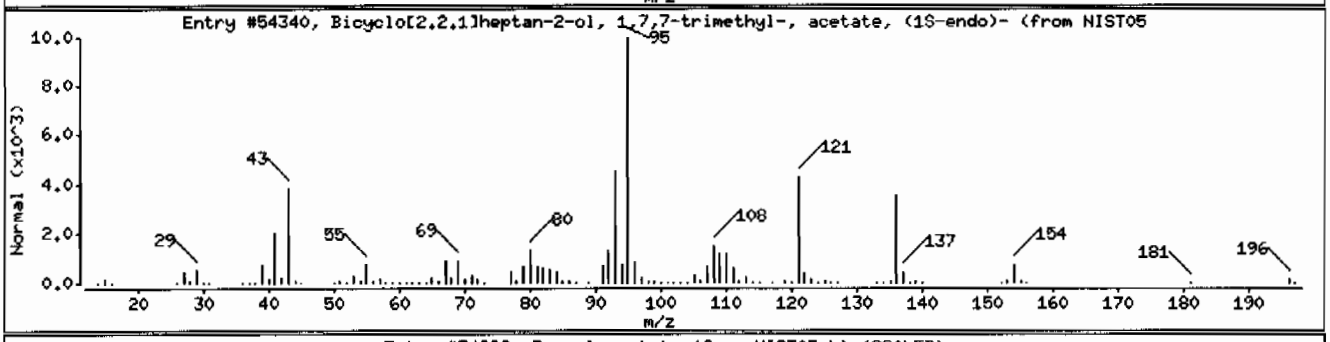

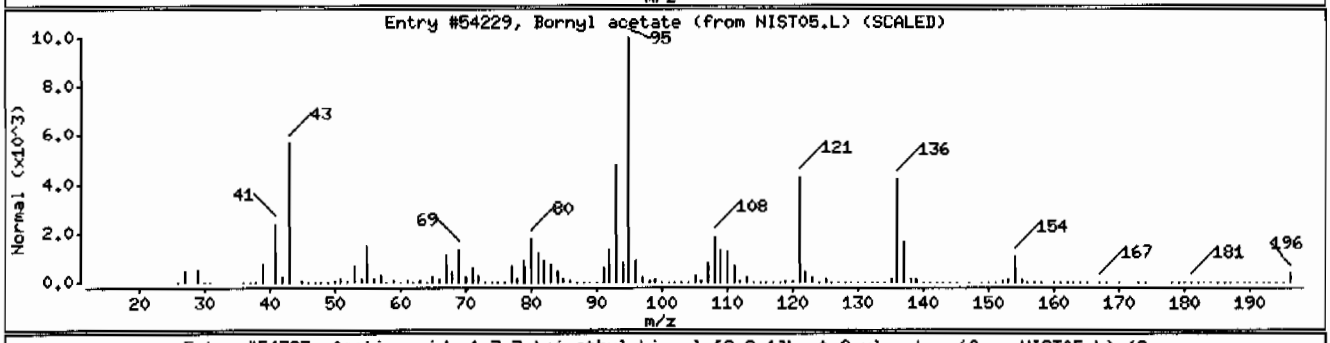

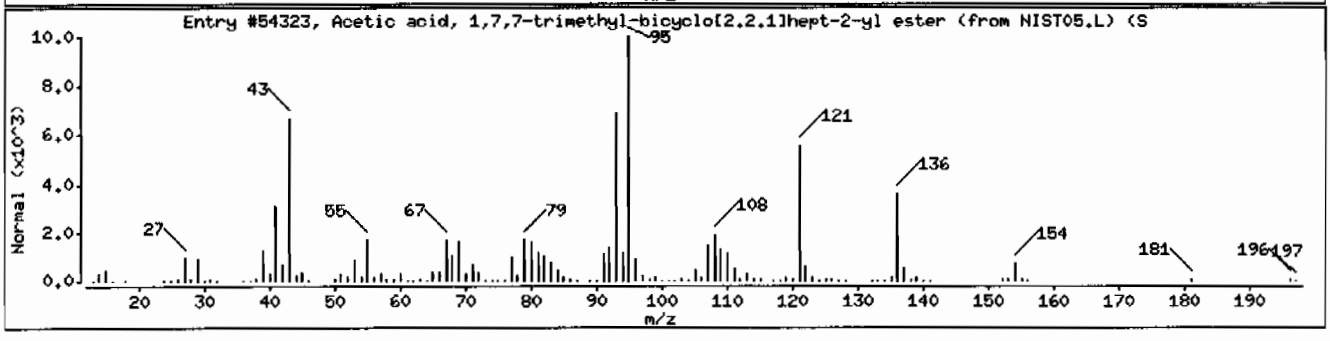

Data File: /chem/MSD3.i/s121509.b/s311508.d

Date : 15-DEC-2009 11:01

Client ID: RE03-09-14273 Instrument: MSD3.i

Sample Info: |2426540151932077111SVMF111LANL

Volume Injected (uL): 0.5 Operator: JLD1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Bicyclo[5.2.0]nonane, 4-methylene-2,8,8-	1000159-38-2	NIST05.L	59916	42	C15H24	204
Bicyclo[4.1.0]heptane-7-carboxamide, N-(	1000278-06-2	NIST05.L	96848	38	C16H19NO2	257
Bicyclo[4.3.0]nonane, 7-methylene-2,4,4-	1000156-11-9	NIST05.L	59915	30	C15H24	204

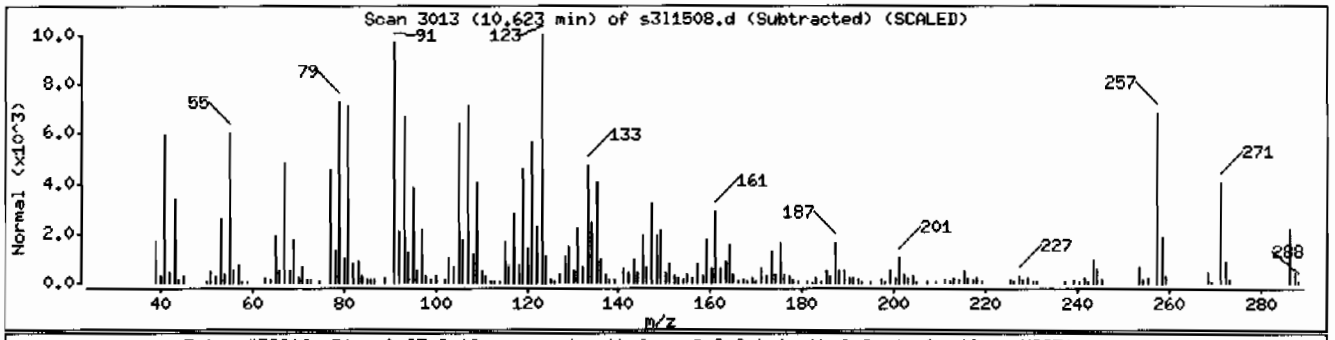

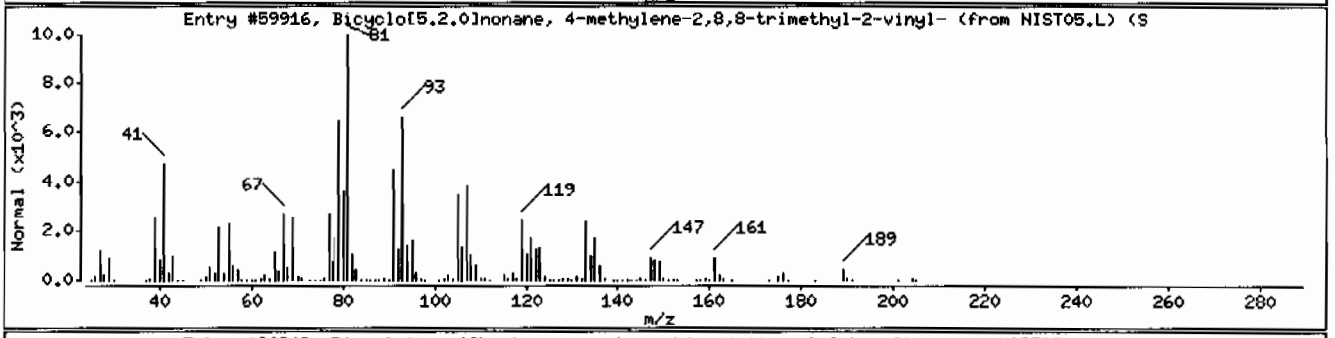

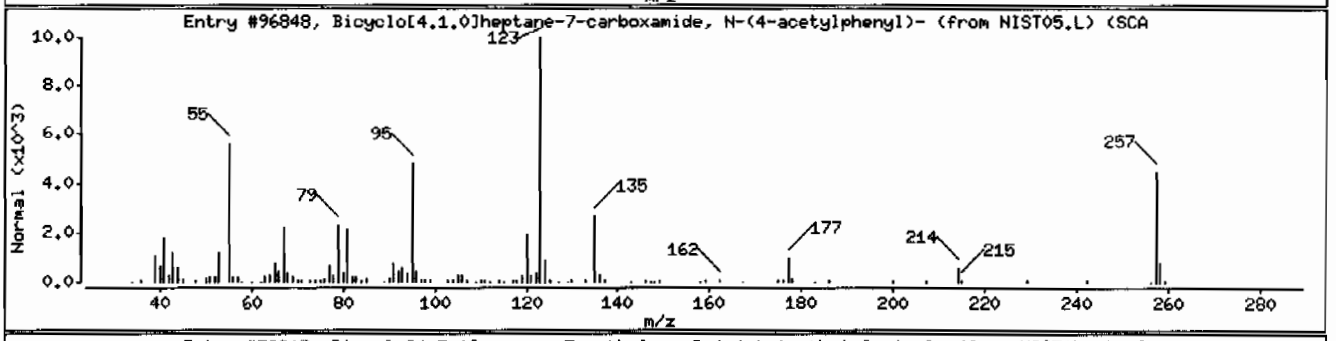

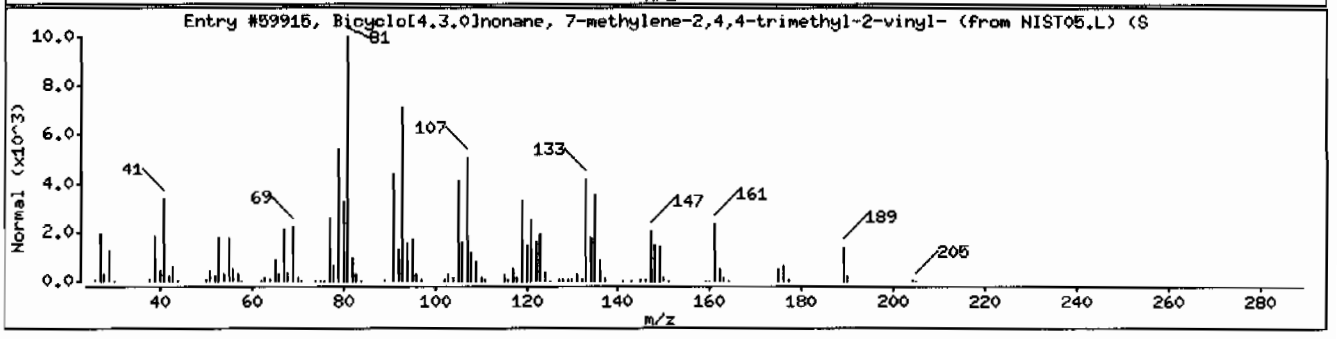

Data File: /chem/MSD3.i/s121509.b/s311508.d

Date : 15-DEC-2009 11:01

Client ID: RE03-09-14273 Instrument: MSD3.i

Sample Info: |2426540151932077|1|SVMF|1|LANL

Volume Injected (uL): 0.5 Operator: JLD1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Retinol	68-26-8	NIST05.L	116231	35	C20H30O	286
2-Propenamide, 3-phenyl-N-2-propenyl-	41041-34-3	NIST05.L	48095	27	C12H13NO	187
Benzene, 1-(5,5-dimethyl-1-cyclopenten-1	39877-93-5	NIST05.L	58502	22	C14H18O	202

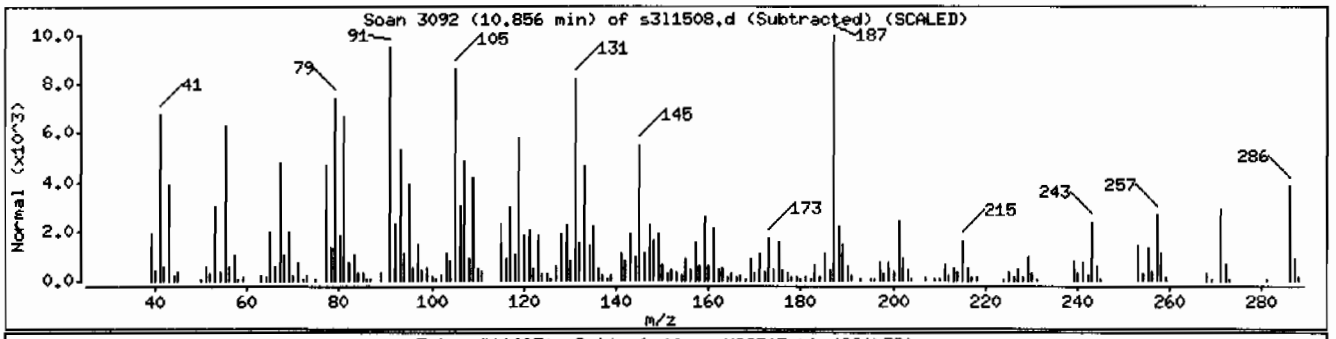

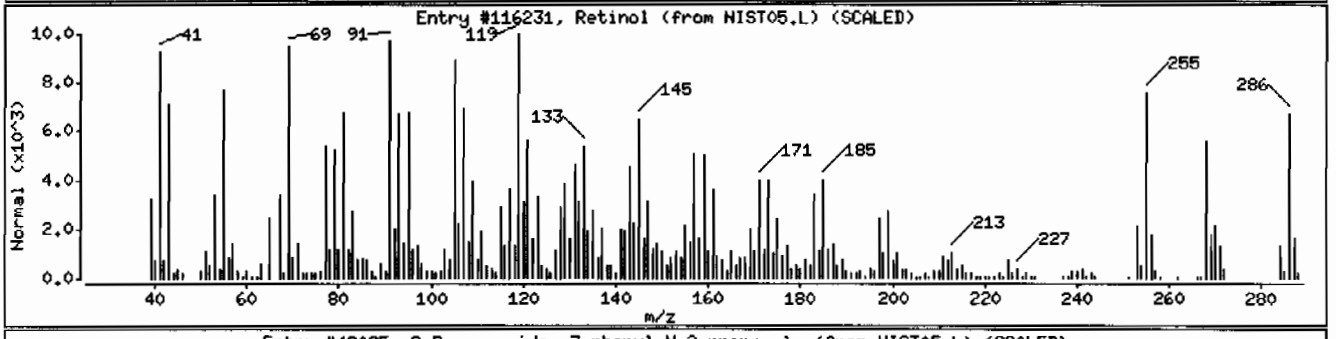

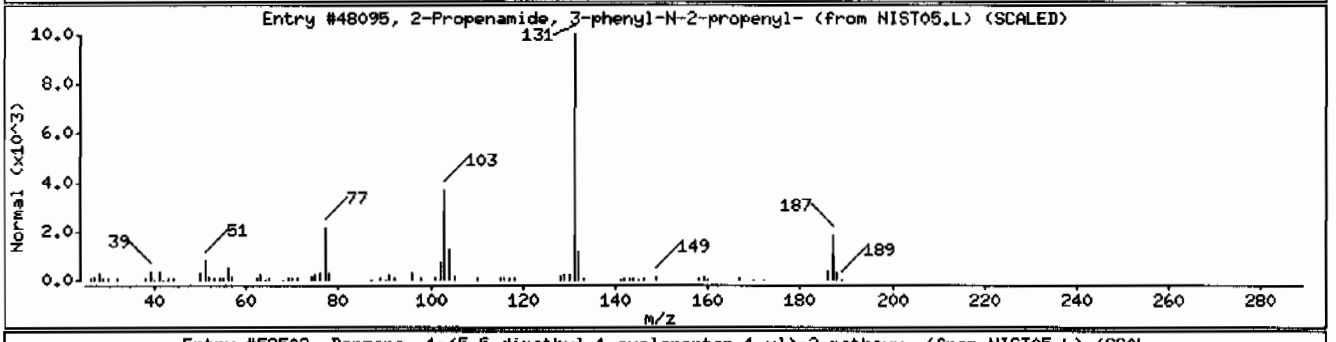

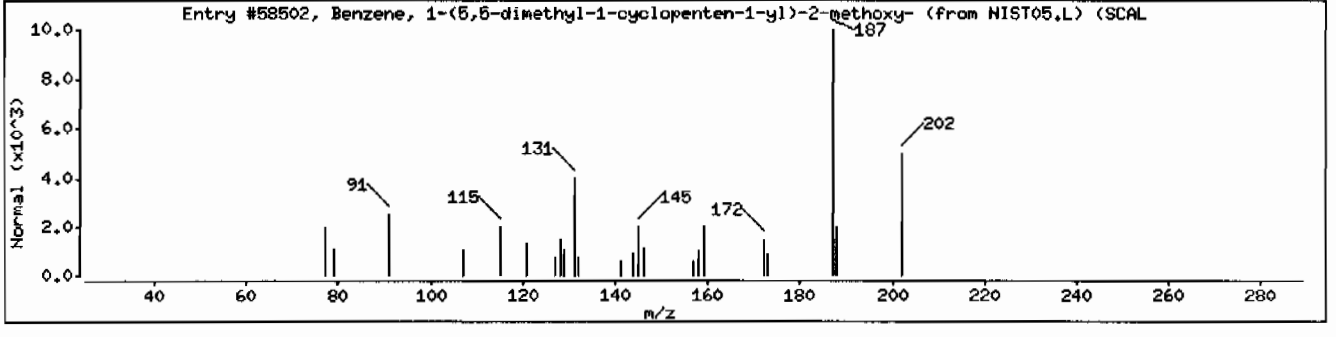

Data File: /chem/MSD3.i/s121509.b/s311508.d

Date : 15-DEC-2009 11:01

Client ID: RE03-09-14273 Instrument: MSD3.i

Sample Info: |2426540151932077|1|SVMF|1|LANL

Volume Injected (uL): 0.5 Operator: JLD1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
1-Benzylcyclobutanol-1	73013-83-9	NIST05.L	30688	35	C11H14O	162
Bicyclo[3.2.2]nona-6,8-dien-3-one	26788-91-0	NIST05.L	14854	27	C9H10O	134
4,4-Dimethyl-1,1a,3a,4,5,6-hexahydrocycl	264628-27-5	NIST05.L	21964	27	C11H16	148

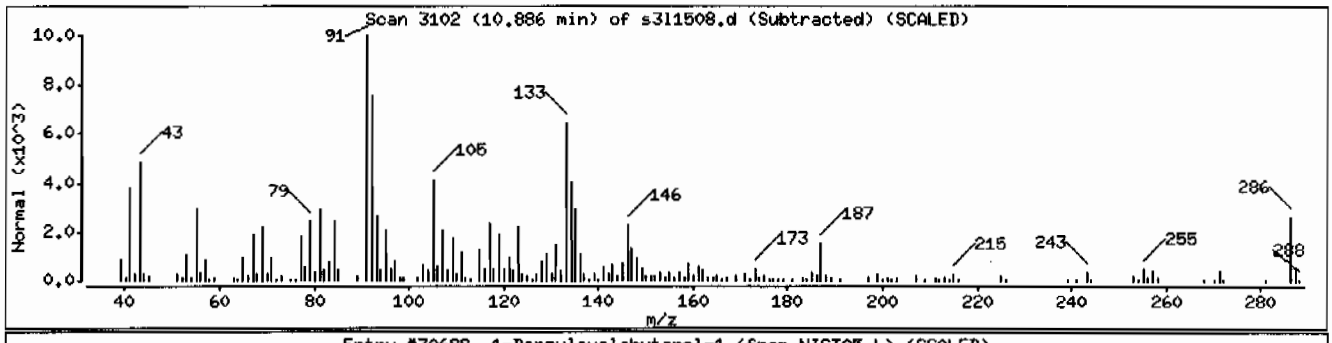

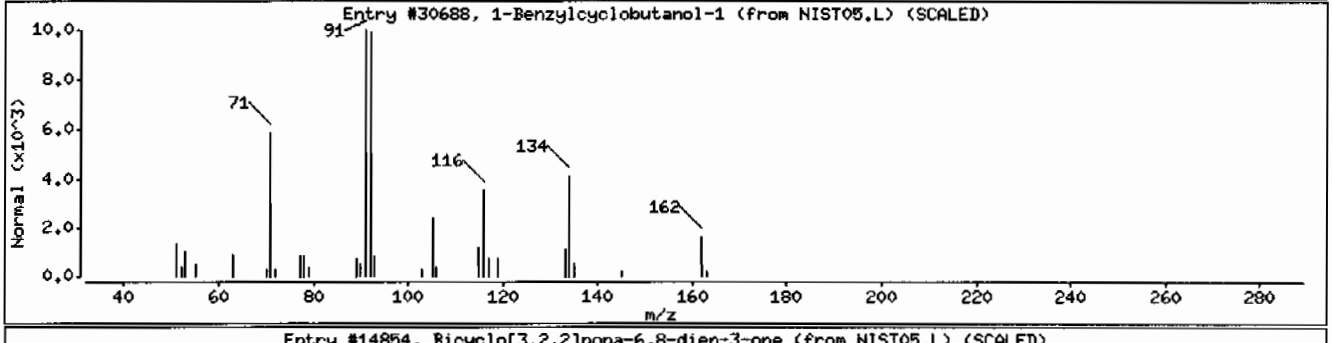

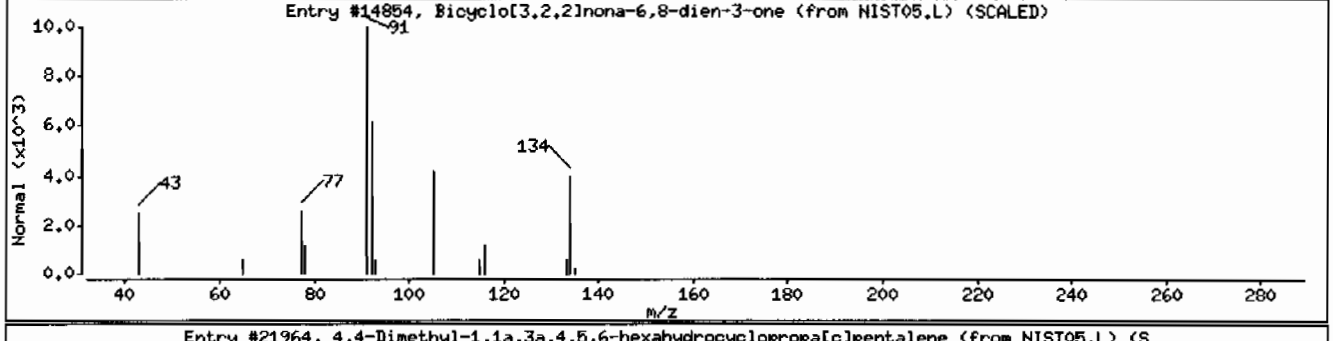

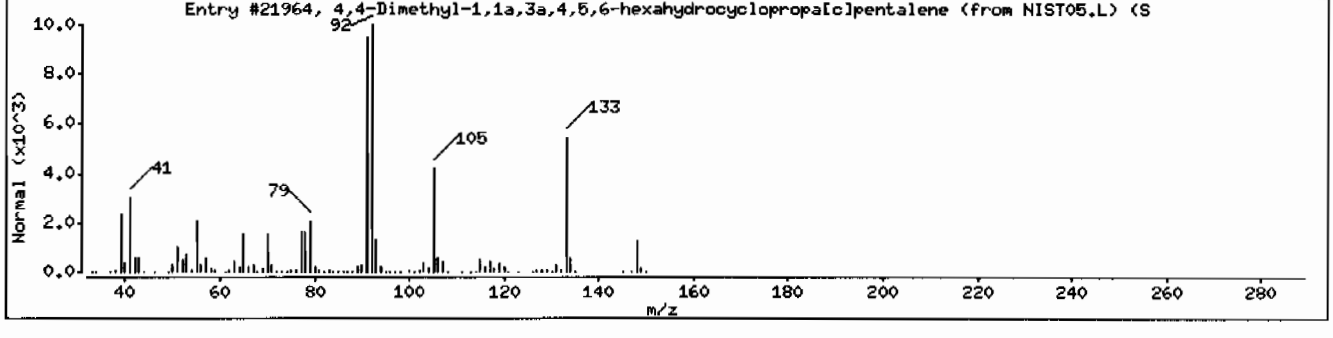

Data File: /chem/MSD3.i/s121509.b/s311508.d

Date : 15-DEC-2009 11:01

Client ID: RE03-09-14273 Instrument: MSD3.i

Sample Info: |2426540151932077|1|SVMF|1|LANL

Volume Injected (uL): 0.5 Operator: JLD1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Naphthalene, decahydro-1,1,4a-trimethyl-	511-02-4	NIST05.L	107101	80	C20H32	272
Naphthalene, decahydro-1,1,4a-trimethyl-	5957-33-5	NIST05.L	107102	72	C20H32	272
Nordextromethorphan	51195-74-5	NIST05.L	96865	52	C17H23NO	257

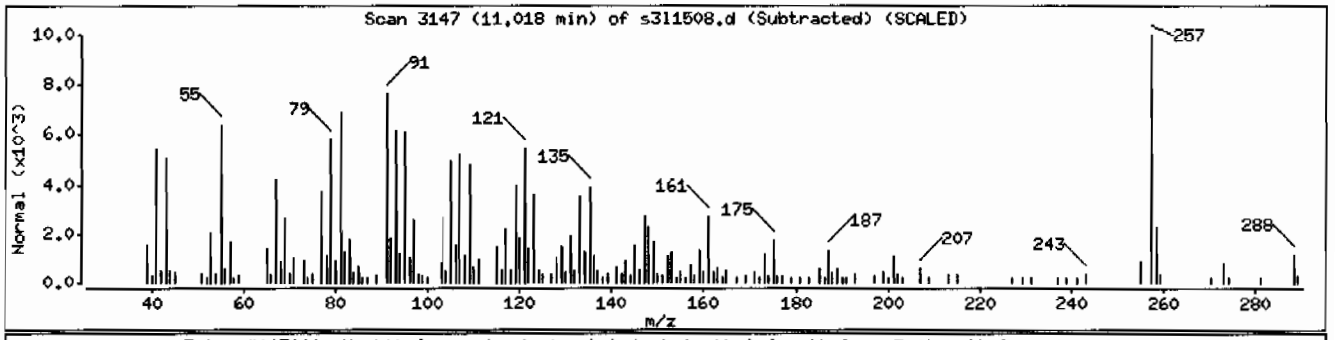

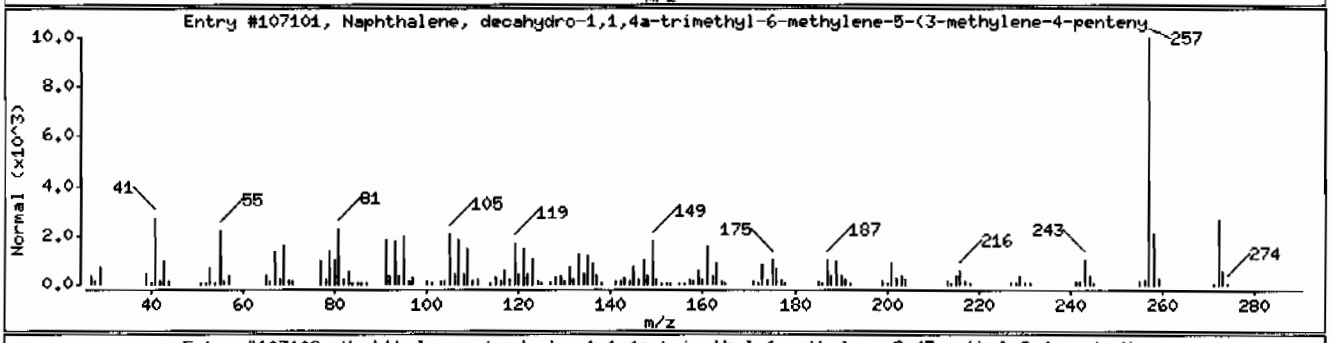

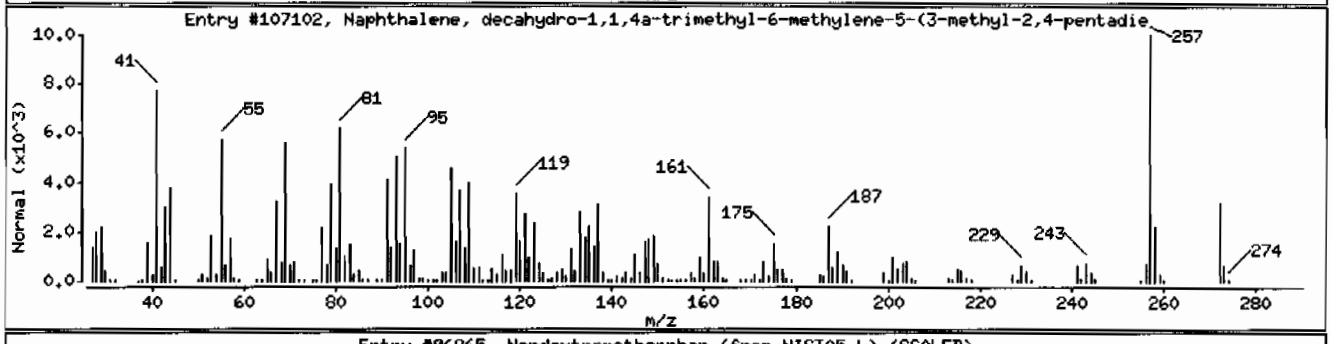

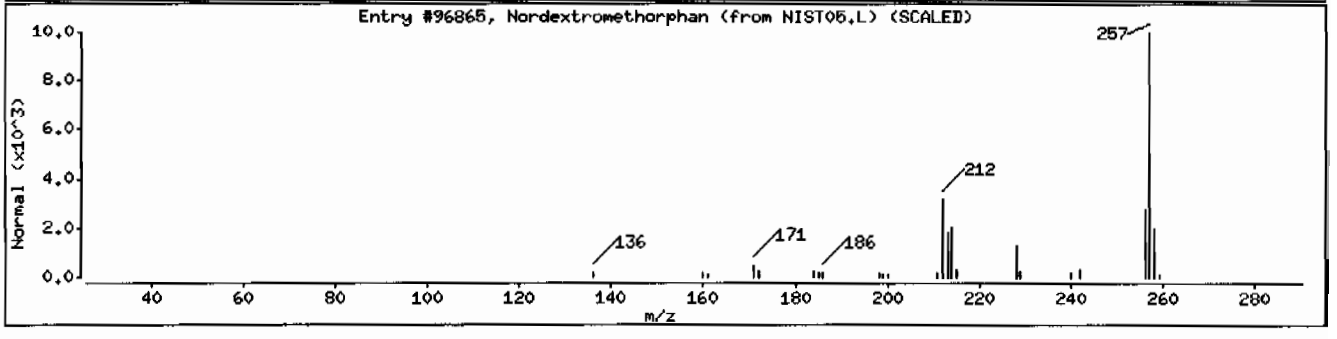

Data File: /chem/MSD3.i/s121509.b/s311508.d

Date : 15-DEC-2009 11:01

Client ID: RE03-09-14273 Instrument: MSD3.i

Sample Info: |2426540151932077|1|SVHF|1|LANL

Volume Injected (uL): 0.5 Operator: JLD1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
2,5-Dimethylhex-5-en-3-yn-2-ol	1000302-74-9	NIST05.L	10204	50	C8H12O	124
3,4-Pyridinediamine	54-96-6	NIST05.L	5385	49	C5H7N3	109
6,6-Dimethylhepta-2,4-diene	1000195-03-3	NIST05.L	10339	49	C9H16	124

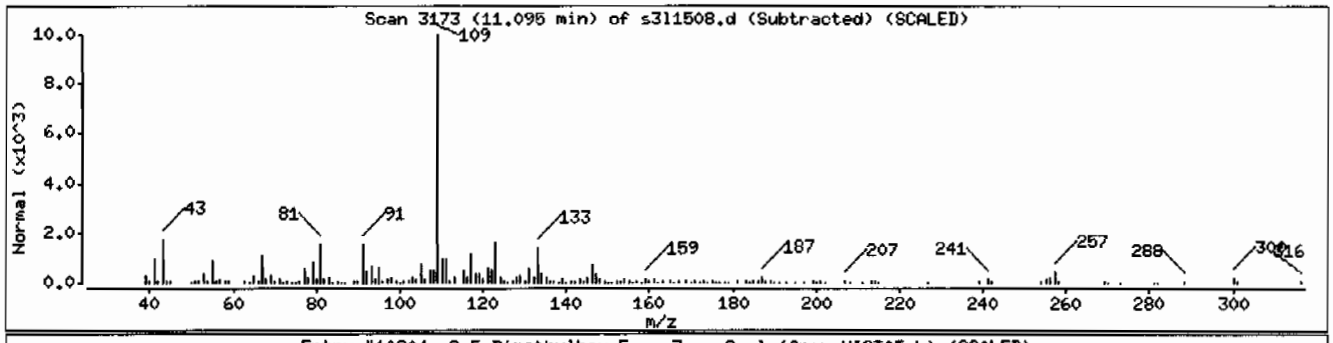

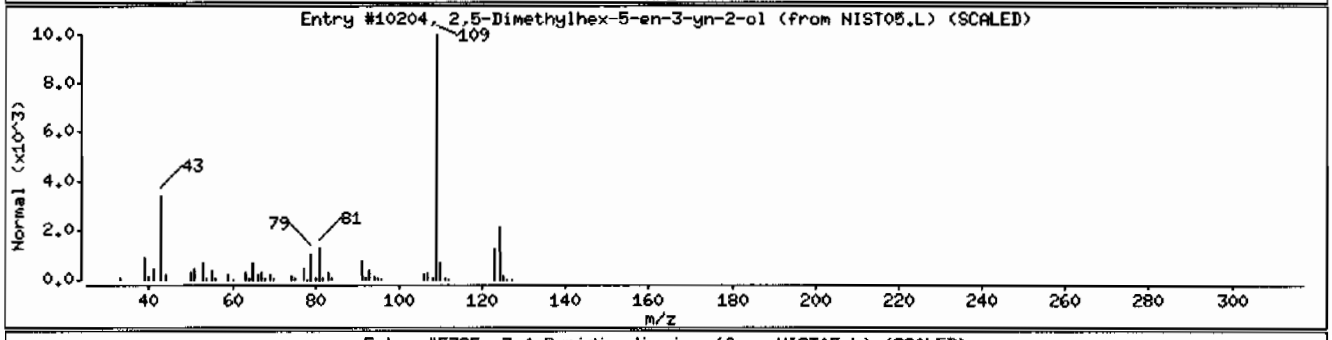

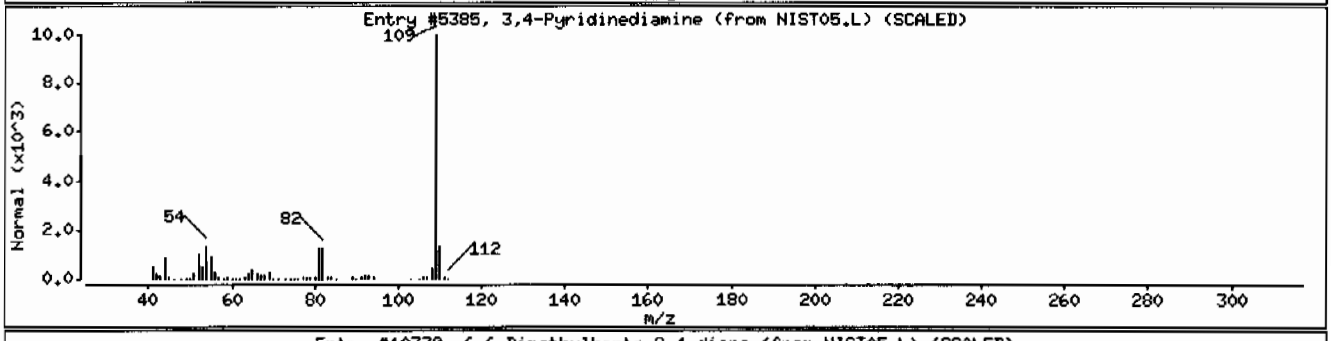

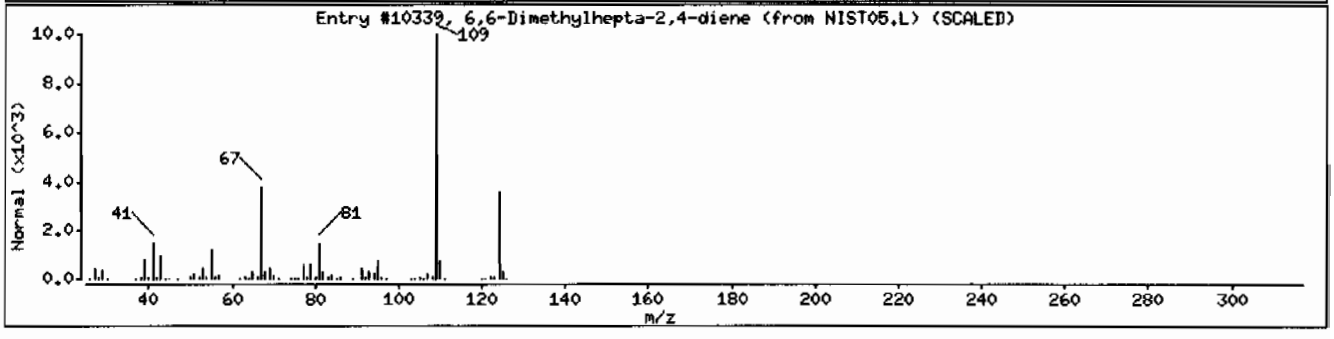

Data File: /chem/MSD3.i/s121509.b/s311508.d

Date : 15-DEC-2009 11:01

Client ID: RE03-09-14273 Instrument: MSD3.i

Sample Info: 1242654015|932077|1|SVHF|1|LANL

Volume Injected (uL): 0.5 Operator: JLD1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Benzoic acid, 4-(3-methoxyphenoxymethyl)	149288-69-7	NIST05.L	97358	43	C15H14O4	258
Octanoic acid, 1-adamantylmethyl acid	1000282-86-8	NIST05.L	119855	43	C19H32O2	292
Benzamide, N-(4-methoxyphenyl)-3-methoxy	1000306-97-0	NIST05.L	96782	38	C15H15NO3	257

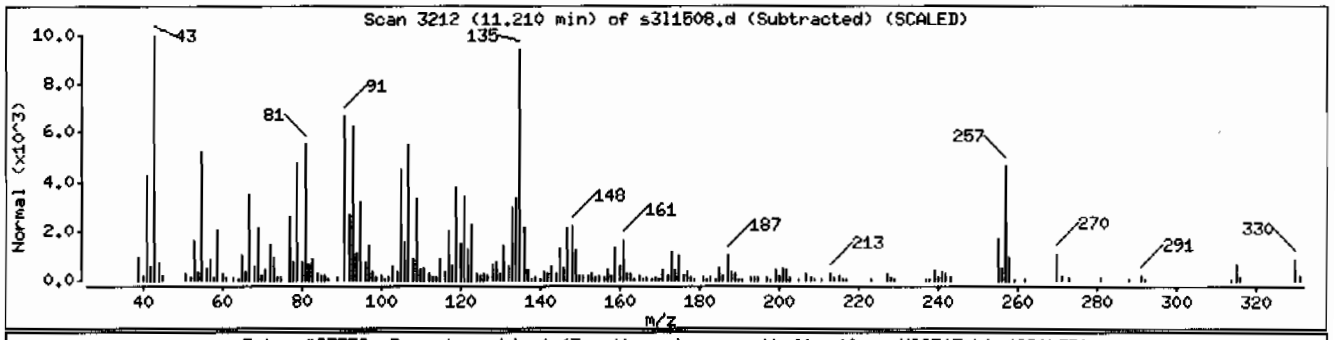

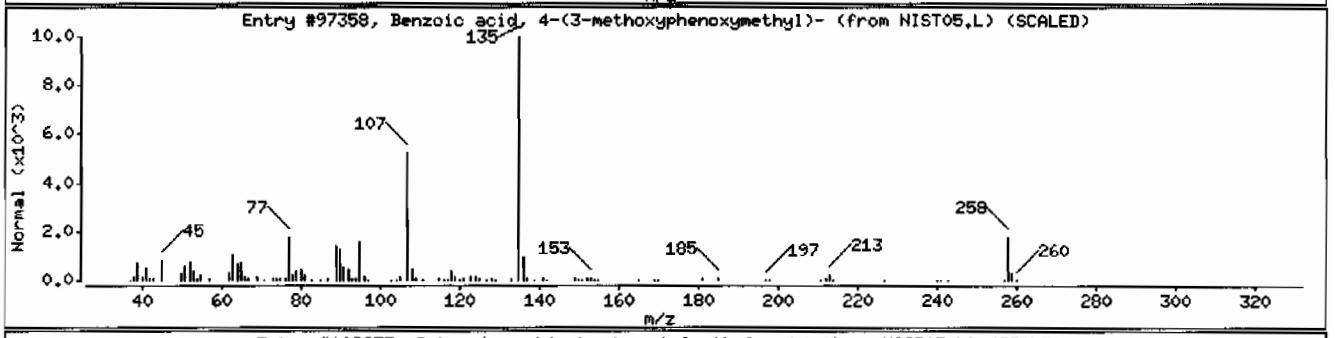

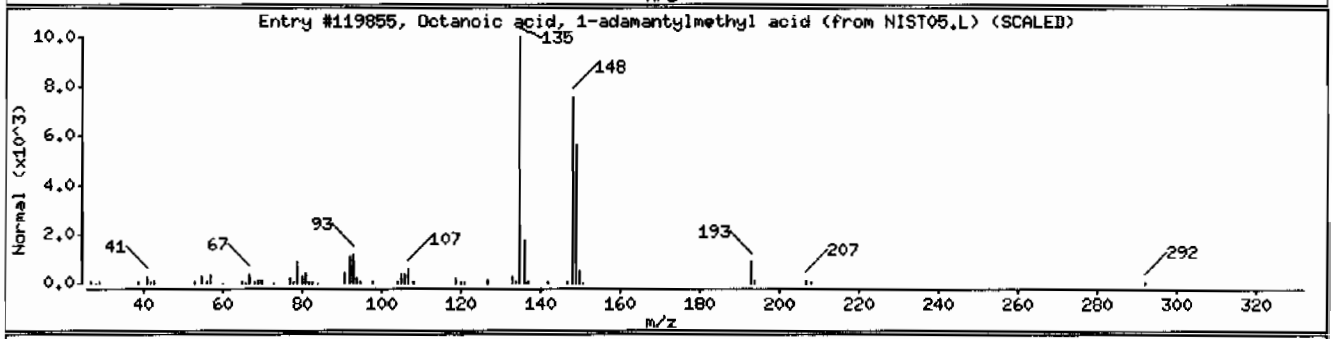

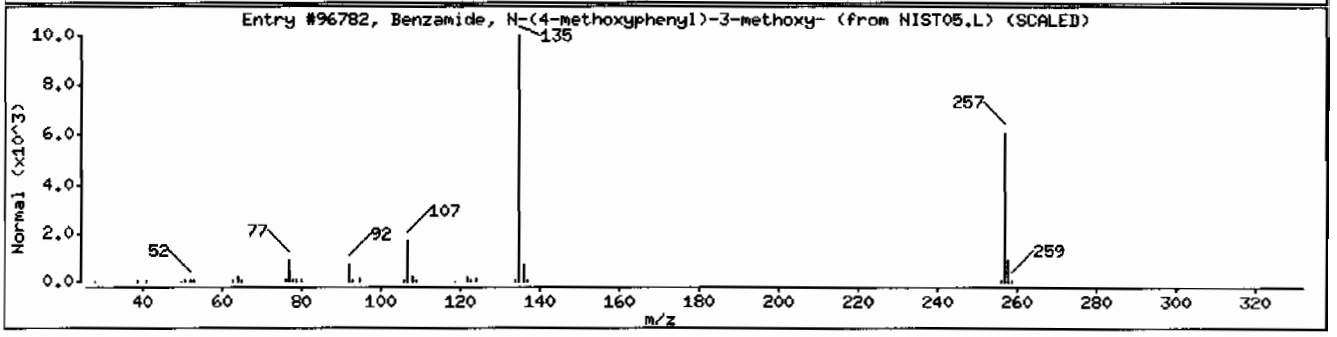

Data File: /chem/HSD3.i/s121509.b/s311508.d

Date : 15-DEC-2009 11:01

Client ID: RE03-09-14273 Instrument: HSD3.i

Sample Info: |2426540151932077|1|SVMF|1|LANL

Volume Injected (uL): 0.5 Operator: JLD1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
3a,6-Methano-3aH-indene, 2,3,4,5,6,7-hex	98640-10-9	NIST05.L	14456	30	C10H14	134
Tetracyclo[3.3.1.1(1,8).0(2,4)]decane	1000185-58-7	NIST05.L	14433	27	C10H14	134
Cycloheptane, 1,3,5-tris(methylene)-	68284-24-2	NIST05.L	14418	25	C10H14	134

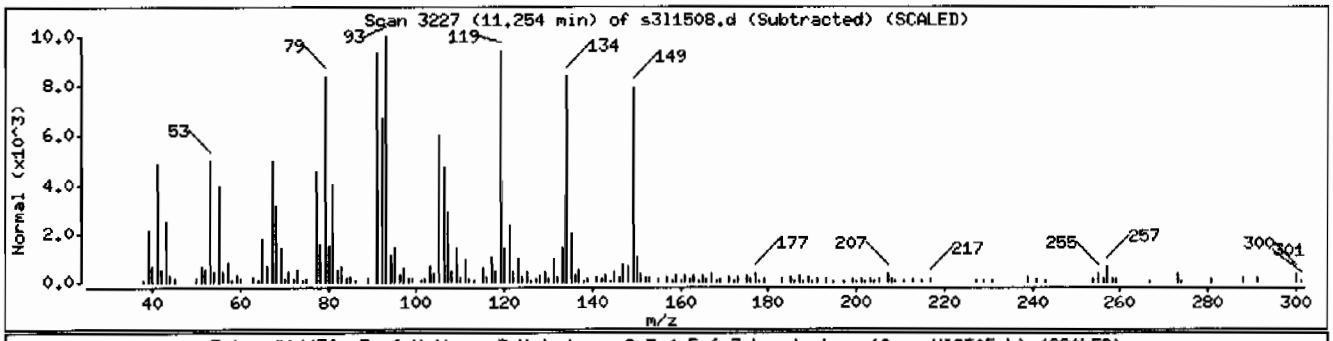

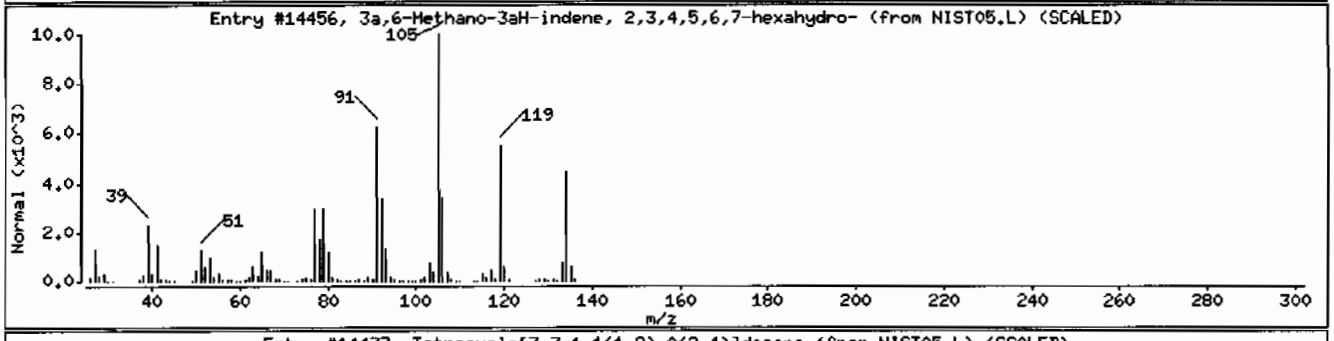

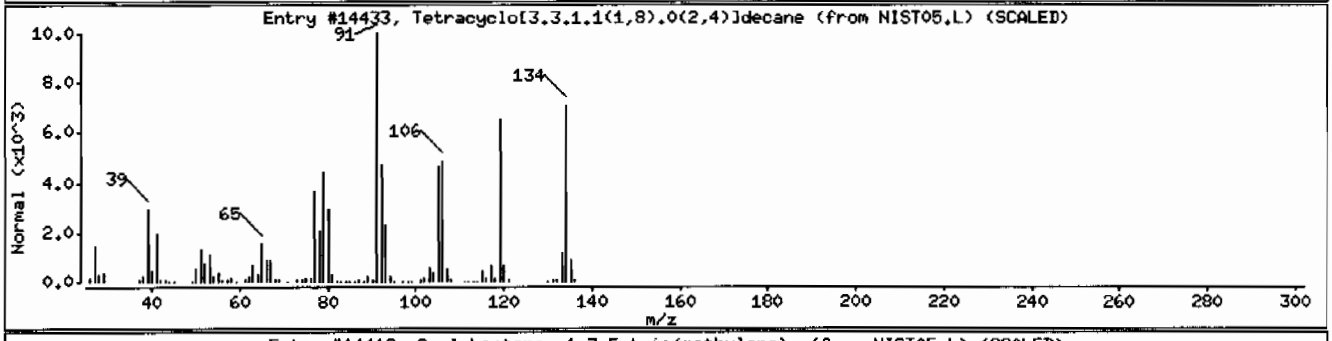

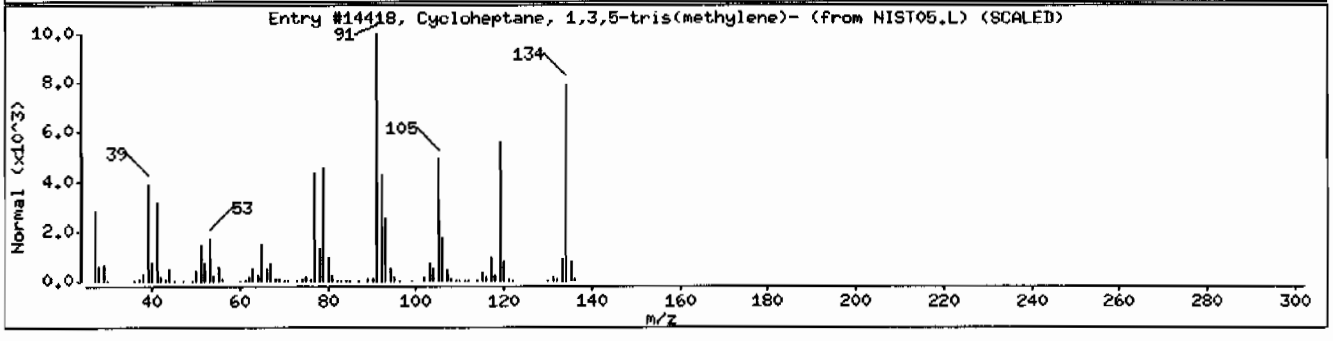

Data File: /chem/MSD3.i/s121509.b/s311508.d

Date : 15-DEC-2009 11:01

Client ID: RE03-09-14273 Instrument: MSD3.i

Sample Info: |2426540151932077|1|SVMF|1|LANL

Volume Injected (uL): 0.5 Operator: JLD1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
2-Adamantanol, 2-(bromomethyl)-	1000142-34-3	NIST05.L	87572	43	C11H17BrO	244
3a,6-Methano-3aH-indene, 2,3,4,5,6,7-hex	98640-10-9	NIST05.L	14456	30	C10H14	134
2-Cyclohexen-1-one, 4-(2-oxopropyl)-	56051-94-6	NIST05.L	24958	25	C9H12O2	152

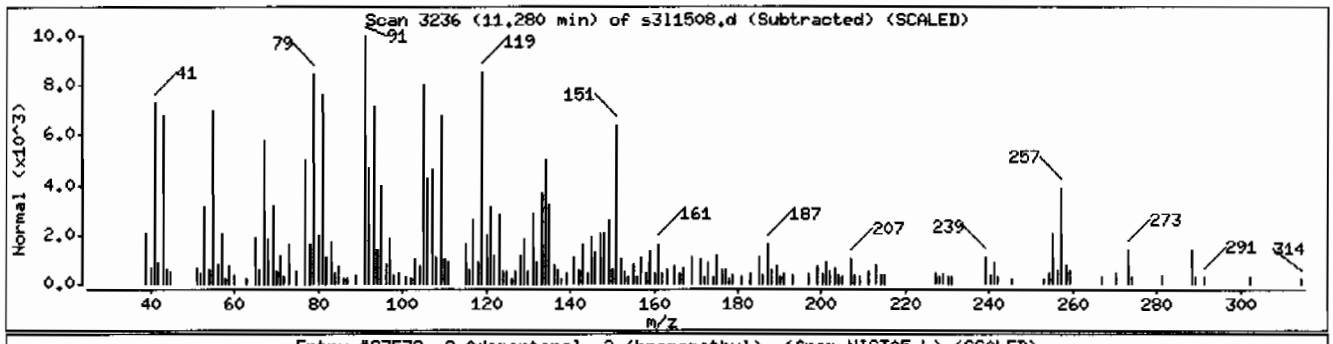

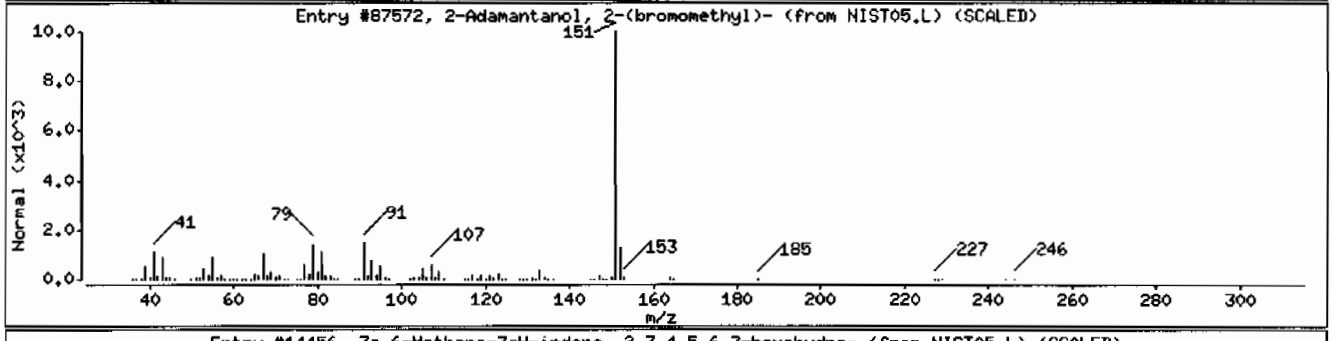

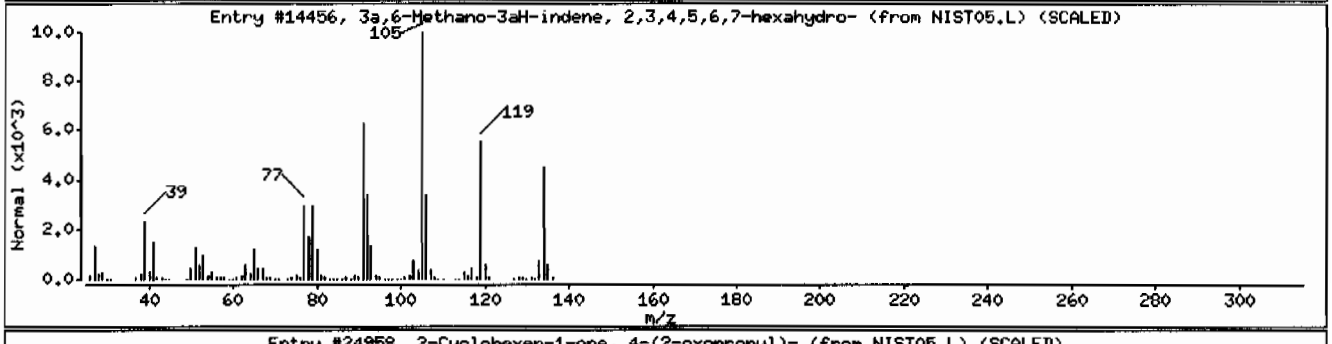

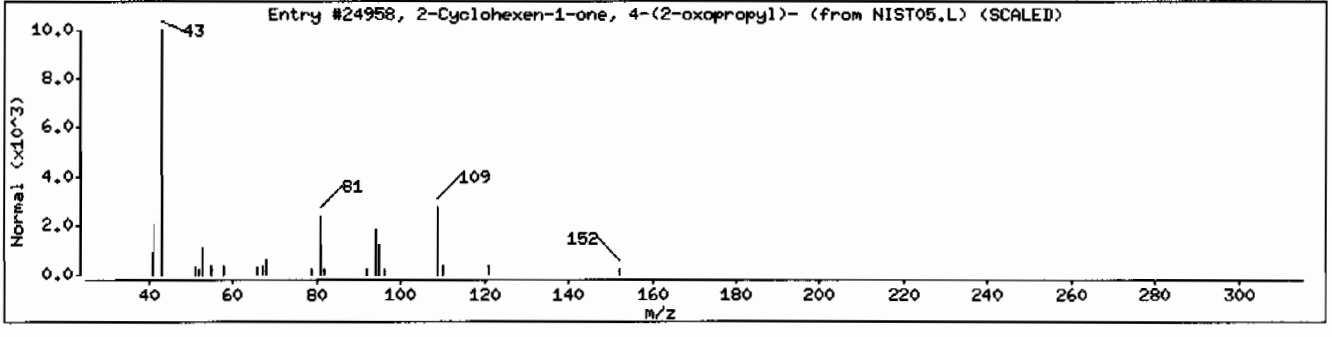

Data File: /chem/MSD3.i/s121509.b/s311508.d

Date : 15-DEC-2009 11:01

Client ID: RE03-09-14273

Instrument: MSD3.i

Sample Info: 1242654015|932077|1|SVMF|1|LANL

Volume Injected (uL): 0.5

Operator: JLD1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Isoxazole, 4-chloro-3,5-diphenyl-	10557-79-6	NIST05.L	95340	15	C15H10ClNO	255
3-(2,6-Dichlorophenyl)-1-(4-methylphenyl	146497-07-6	NIST05.L	118380	12	C16H12Cl2O	290
Ethyl 5,8,11,14,17-icosapentaenoate	84494-70-2	NIST05.L	142611	11	C22H34O2	330

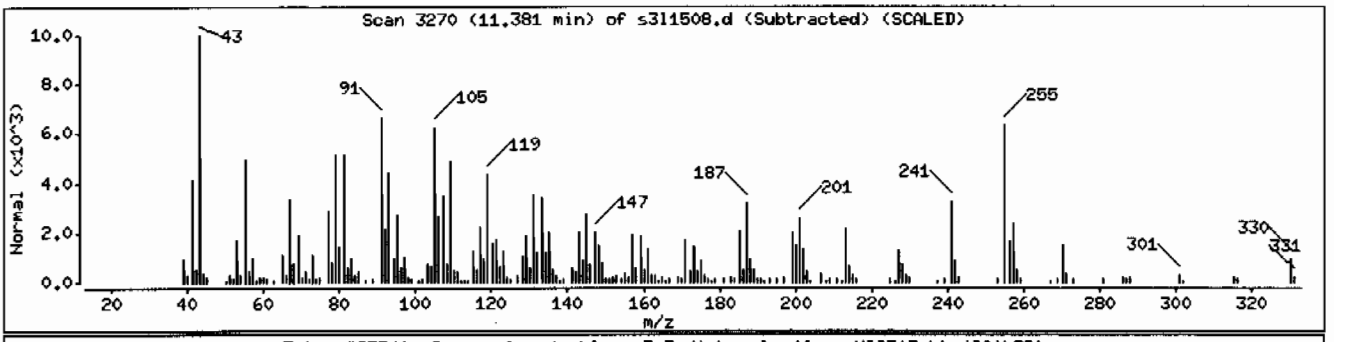

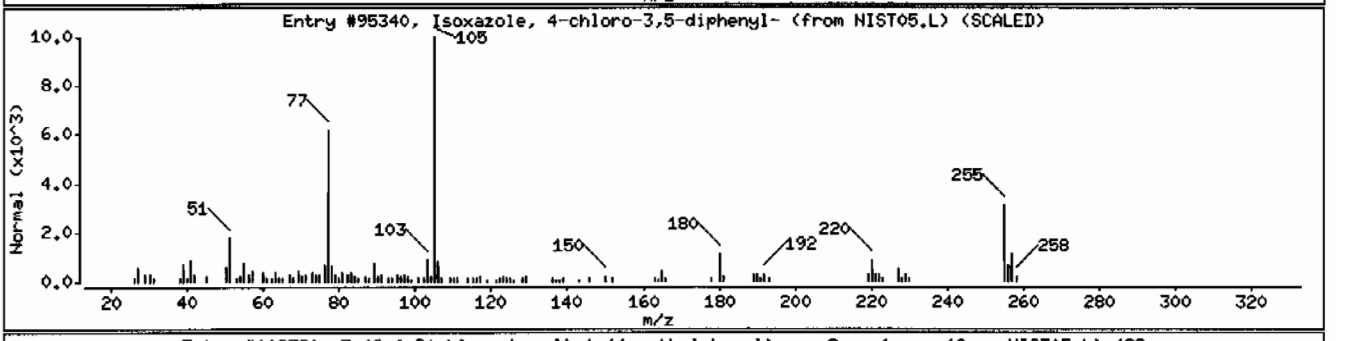

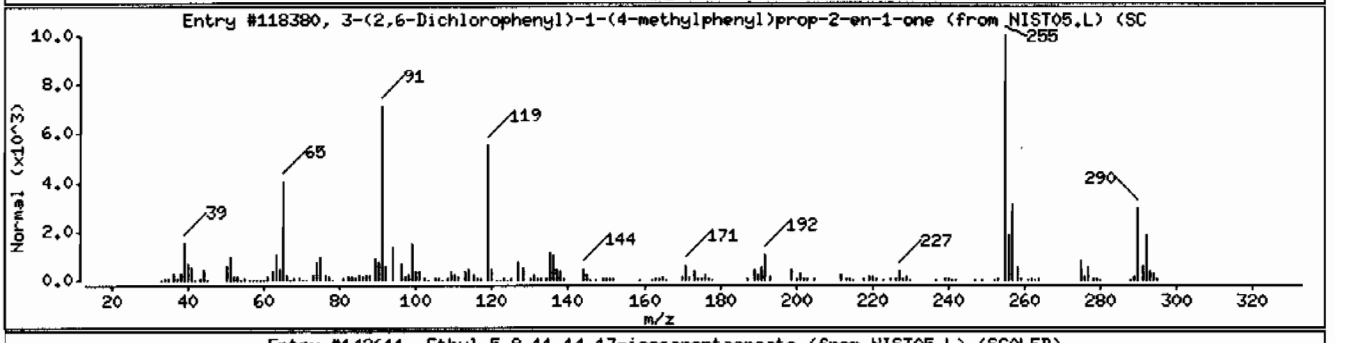

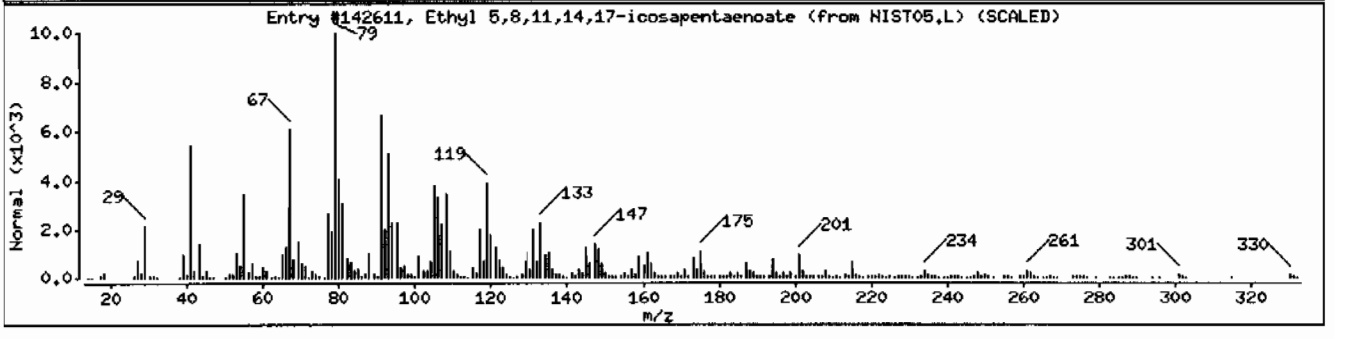

Data File: /chem/MSD3.i/s121509.b/s311508.d

Date : 15-DEC-2009 11:01

Client ID: RE03-09-14273 Instrument: MSD3.i

Sample Info: 1242654015193207711SVMF11LANL

Volume Injected (uL): 0.5 Operator: JLD1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Phenol, 2-[[3-(4-methylphenyl)oxiranyl]c	130248-89-4	NIST05.L	94692	30	C16H14O3	254
Ethanone, 1-(4-pyridinyl)-, (2-hydroxybe	109760-73-8	NIST05.L	95293	25	C14H13N3O2	255
4,6-Diamino-1-methyl-3-[p-tolyl]pyrazolo	58791-69-8	NIST05.L	94375	25	C13H14N6	254

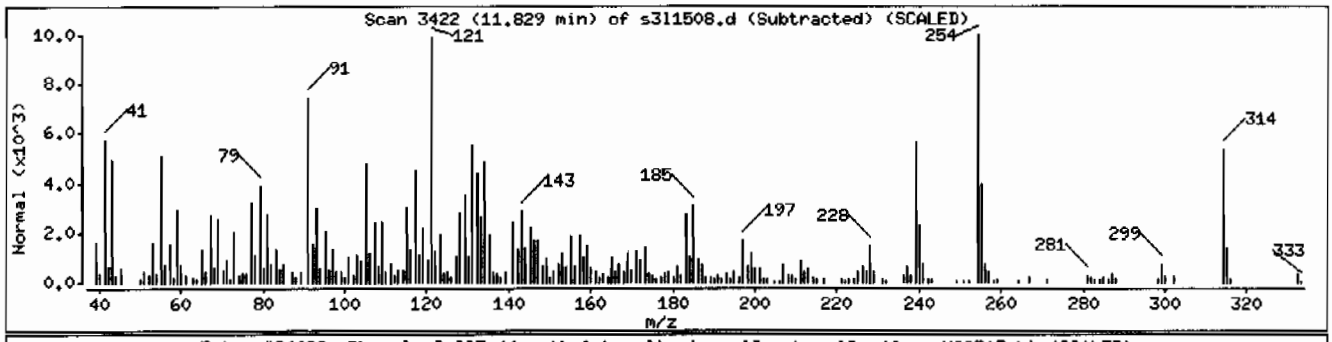

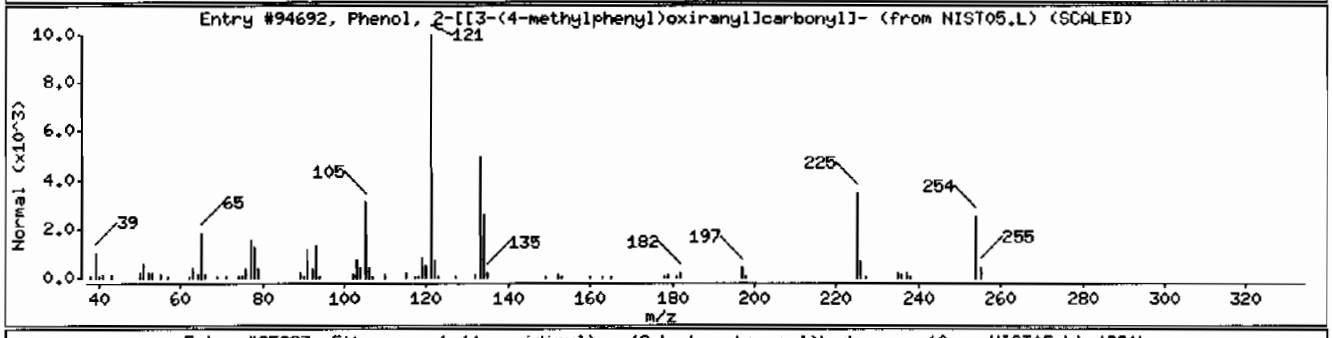

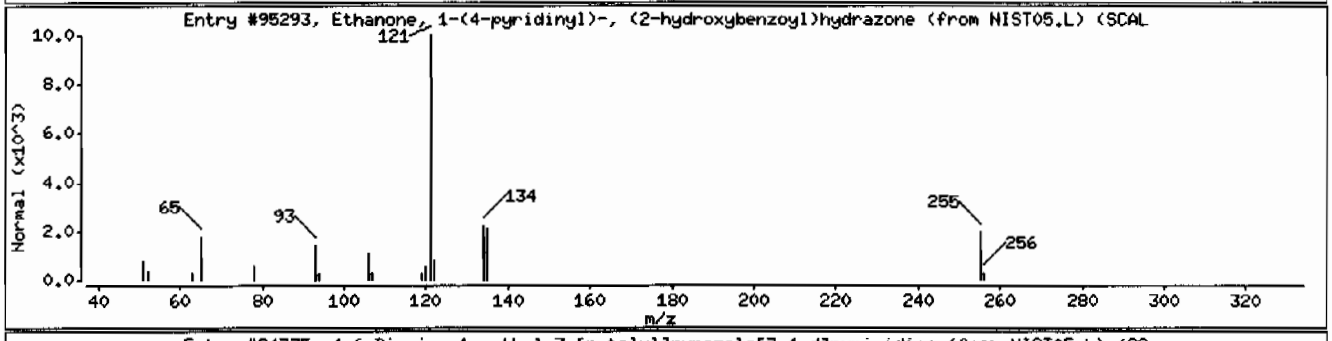

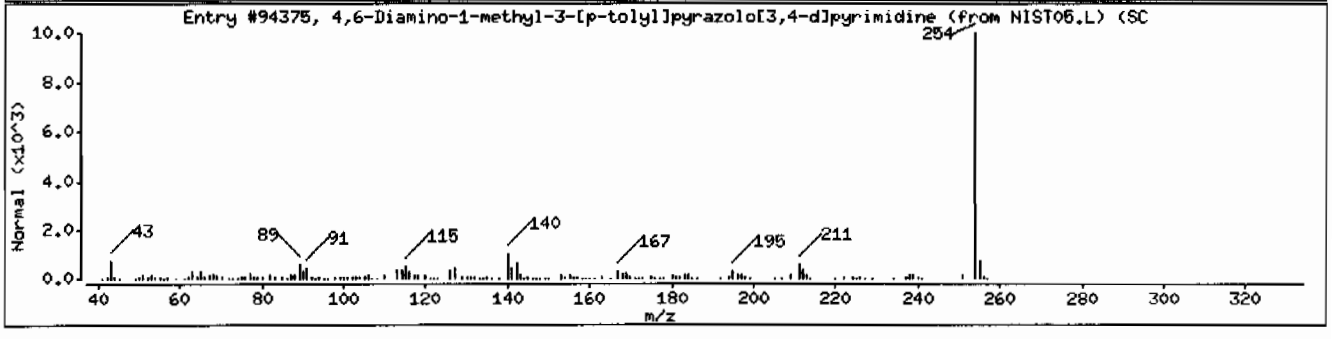

Data File: /chem/MSD3.i/s121509.b/s311508.d

Date : 15-DEC-2009 11:01

Client ID: RE03-09-14273 Instrument: MSD3.i

Sample Info: 1242654015193207711SVHF11LANL

Volume Injected (uL): 0.5 Operator: JLD1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Bicyclo[5.2.0]nonane, 4-methylene-2,8,8-	1000159-38-2	NIST05.L	59916	89	C15H24	204
Bicyclo[4.3.0]nonane, 7-methylene-2,4,4-	1000156-11-9	NIST05.L	59915	55	C15H24	204
Cedran-diol, 8S,14-	62600-05-9	NIST05.L	83830	53	C15H2602	238

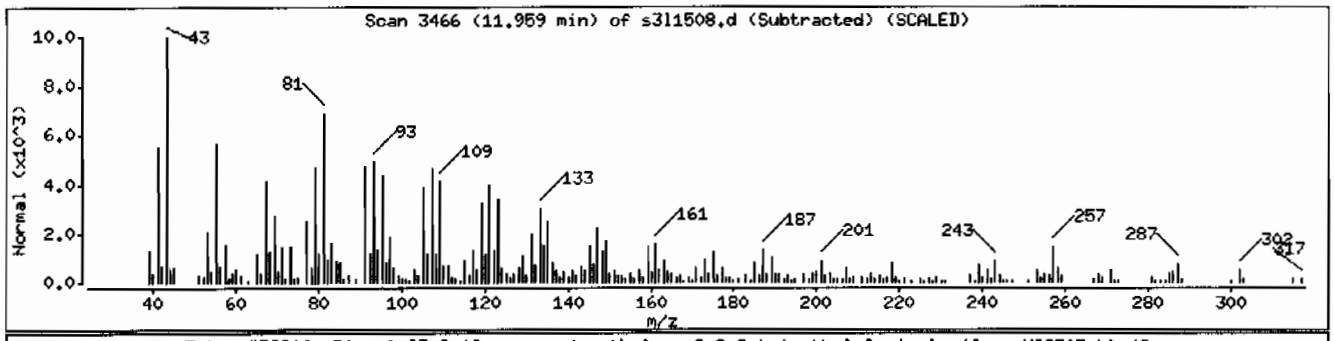

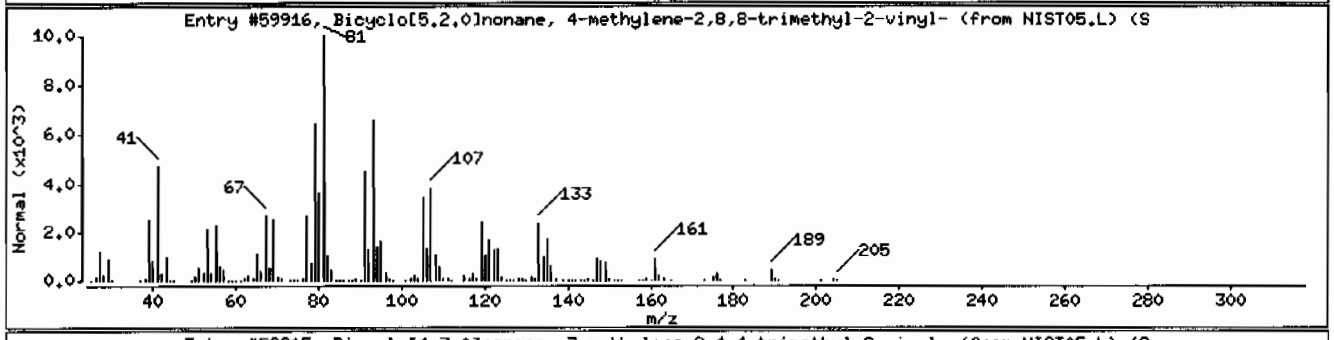

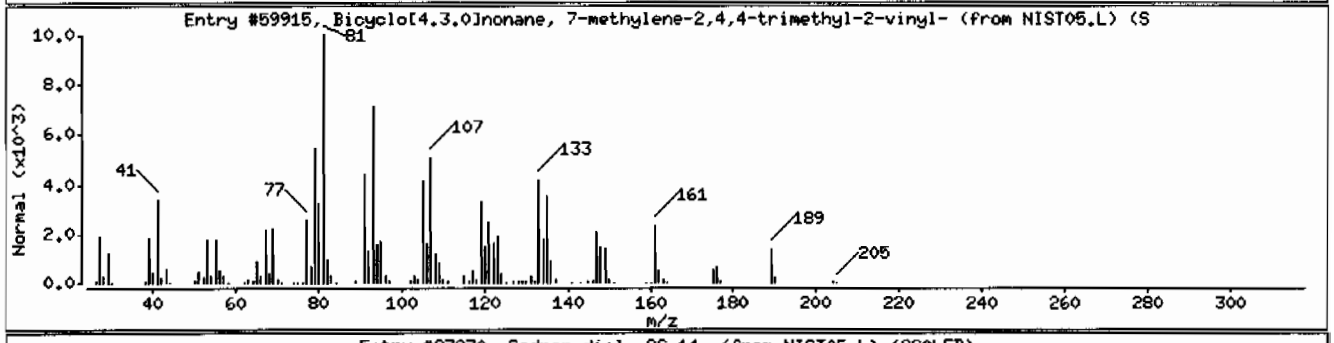

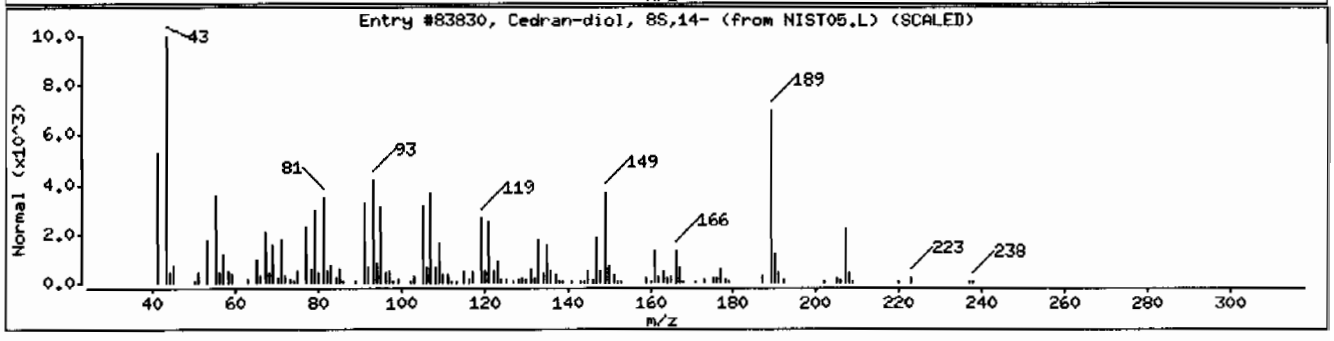

Data File: /chem/MSD3.i/s121509.b/s311508.d

Date : 15-DEC-2009 11:01

Client ID: RE03-09-14273 Instrument: MSD3.i

Sample Info: 1242654015|932077|1|SVHF|1|LANL

Volume Injected (uL): 0.5 Operator: JLD1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Spiro[2,4,5,6,7,7a-hexahydro-2-oxo-4,4,7	1000197-10-9	NIST05.L	62719	45	C12H1603	208
Isoaromadendrene epoxide	1000159-36-6	NIST05.L	71364	43	C15H240	220
7-Oxabicyclo[4.1.0]heptane, 1-methyl-4-(	96-08-2	NIST05.L	34750	35	C10H1602	168

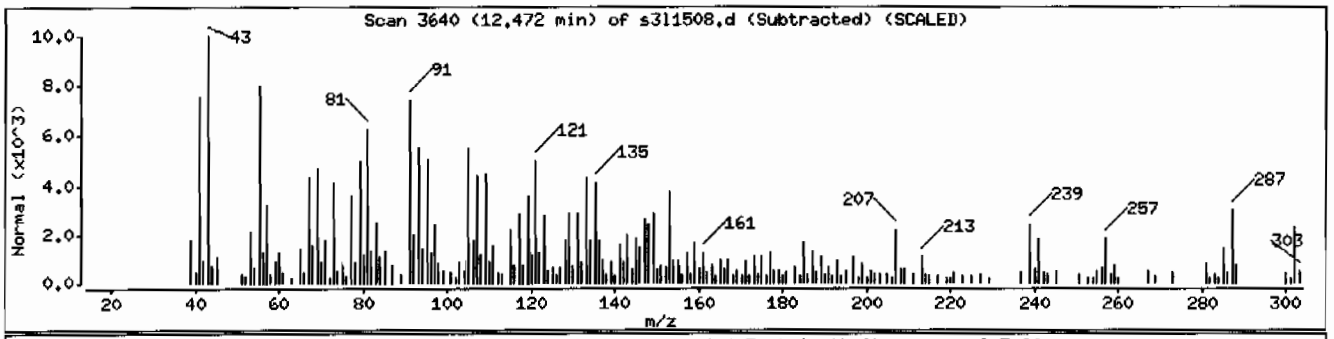

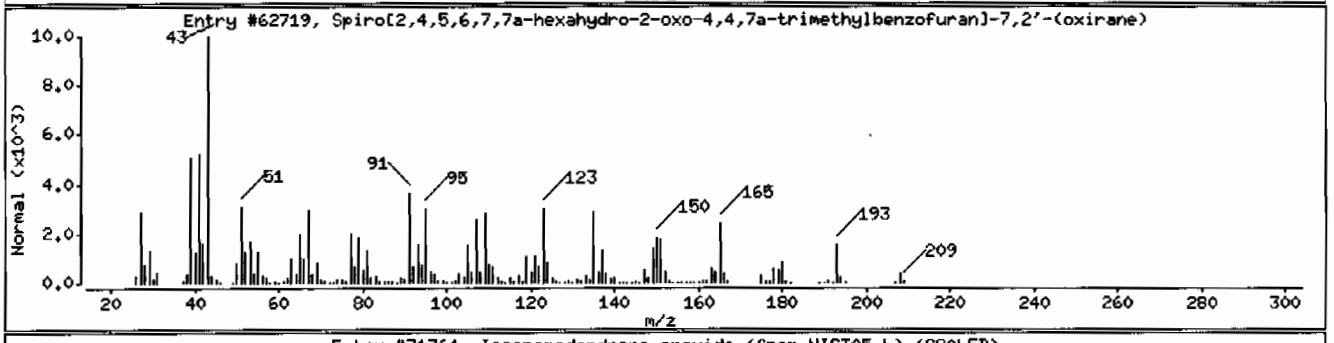

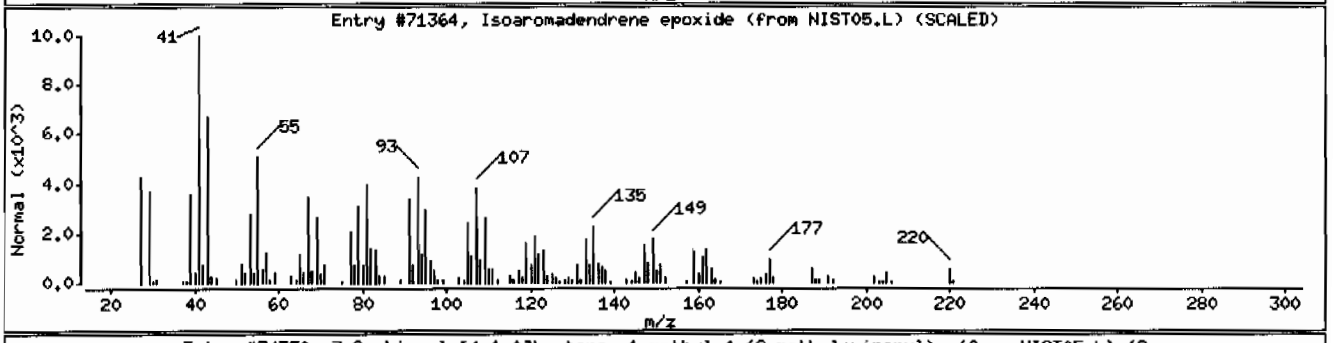

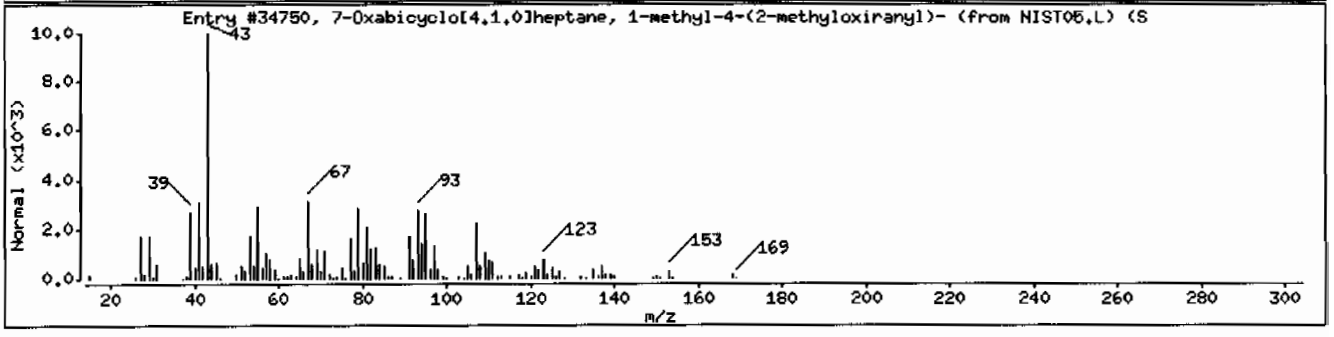

Data File: /chem/MSD3.i/s121509.b/s311508.d

Date : 15-DEC-2009 11:01

Client ID: RE03-09-14273 Instrument: MSD3.i

Sample Info: |2426540151932077|1|SVMF|1|LANL

Volume Injected (uL): 0.5 Operator: JLD1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
2,6-Heptadienal, 2,4-dimethyl-	85136-08-9	NIST05.L	16955	49	C9H140	138
1,2-Ethanediol, 1,2-di-4-pyridinyl-	6950-04-5	NIST05.L	68307	38	C12H12N202	216
Tricyclo[4.3.1.1(3,8)]undecane, 1-methox	21898-95-3	NIST05.L	43088	38	C12H200	180

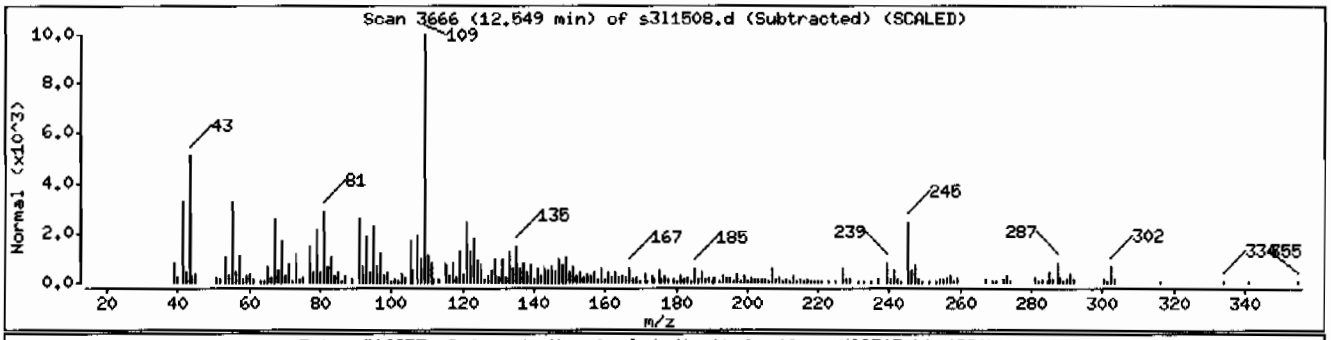

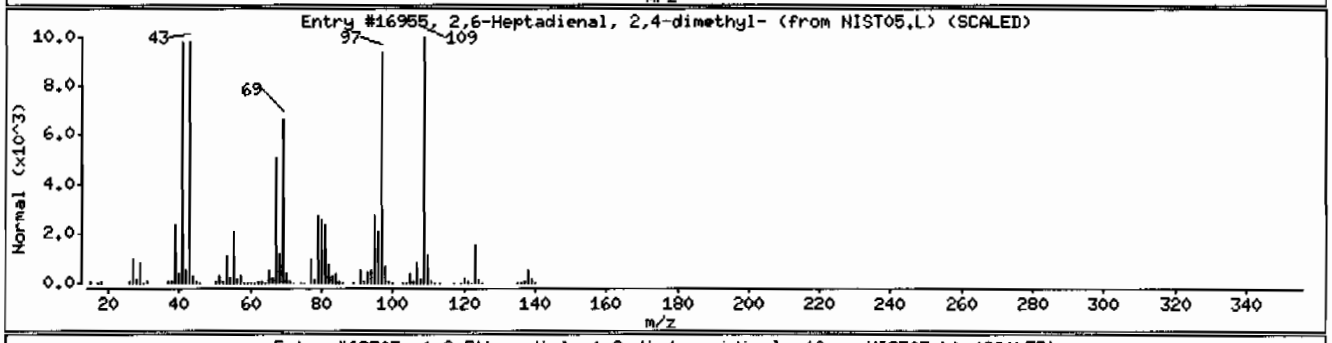

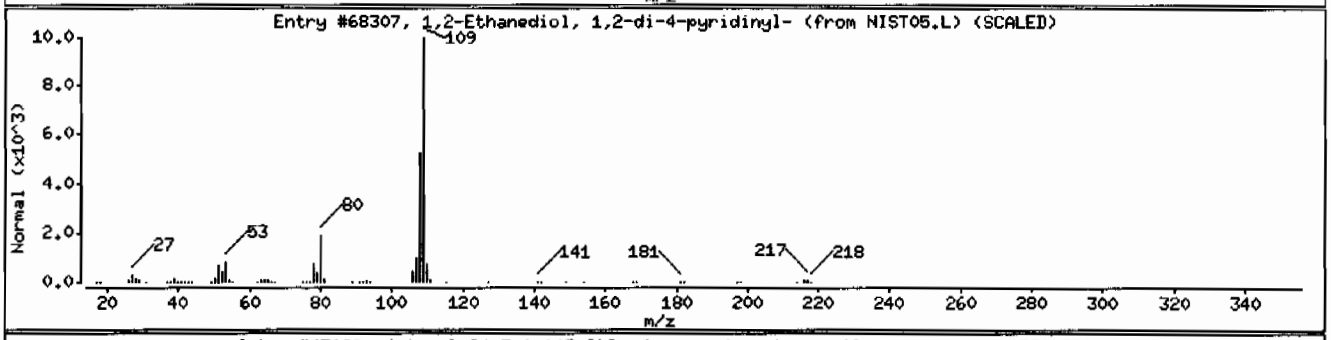

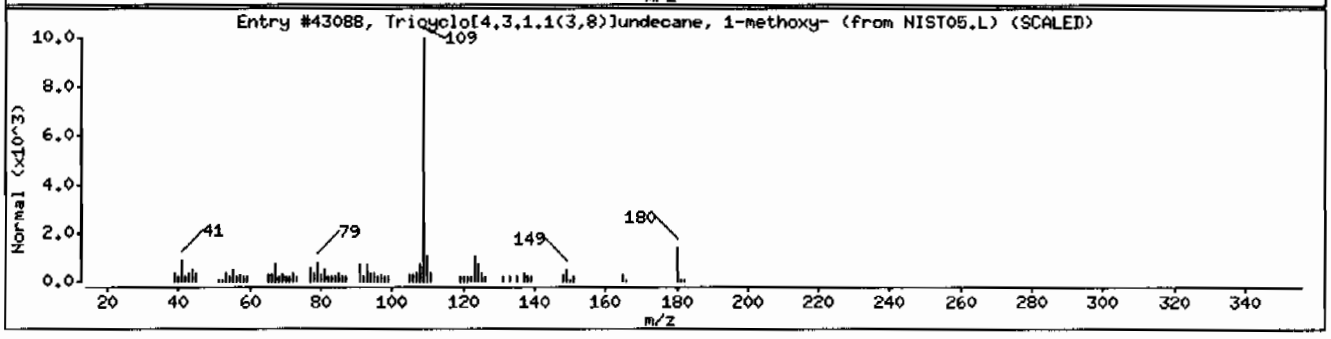

Data File: /chem/MSD3.i/s121509.b/s311508.d

Date : 15-DEC-2009 11:01

Client ID: RE03-09-14273 Instrument: MSD3.i

Sample Info: 1242654015193207711ISVMF11LANL

Volume Injected (uL): 0.5 Operator: JLD1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Kauren-18-ol, acetate, (4.beta.)-	72150-74-4	NIST05.L	142610	45	C22H3402	330
(1R,4R)-p-Mentha-2,8-diene, 1-hydroperox	1000292-74-0	NIST05.L	34661	43	C10H1602	168
5.alpha.-Pregnane-3.beta.,20.beta.-diol,	17182-23-9	NIST05.L	158174	40	C23H3803	362

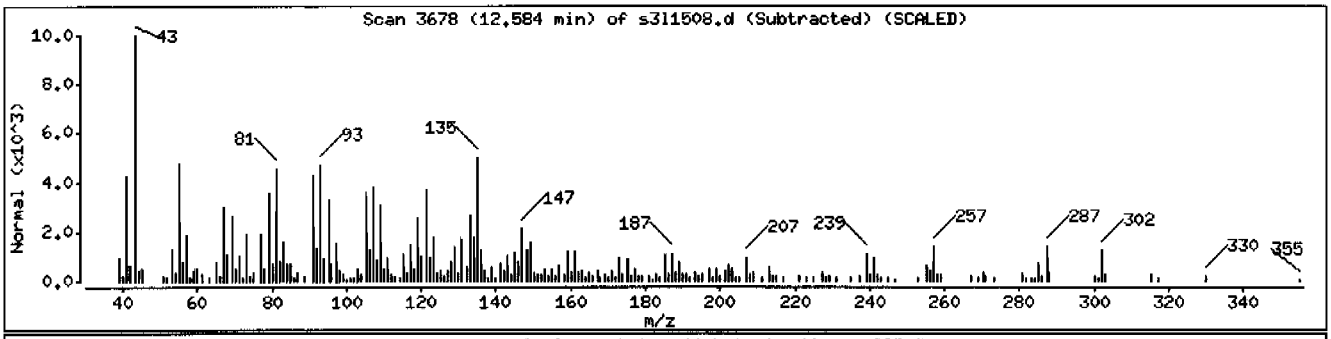

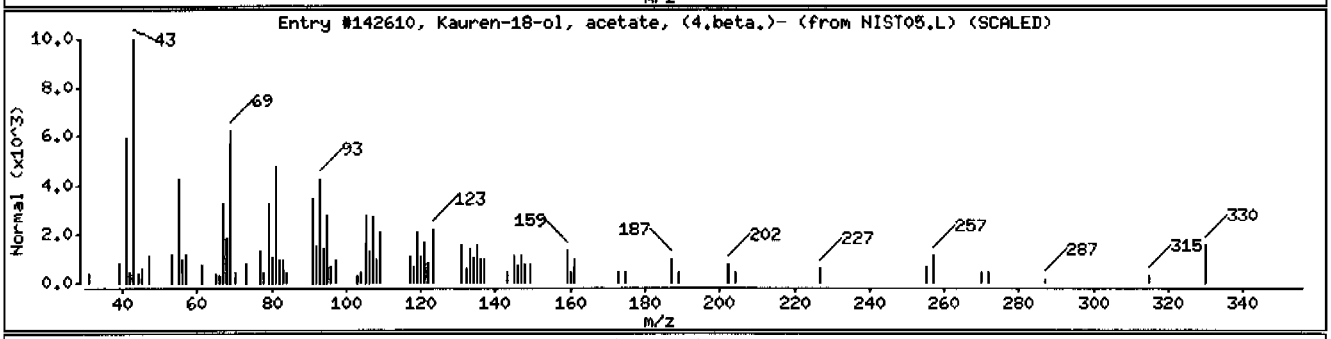

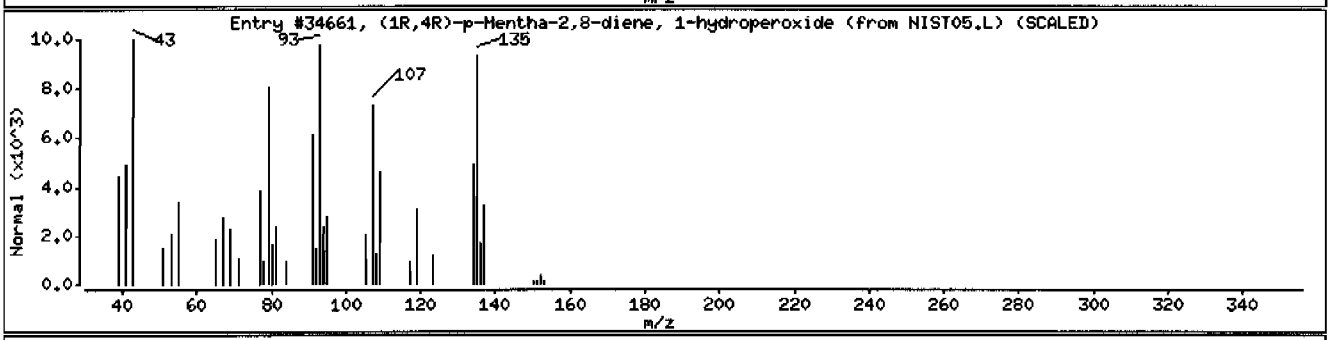

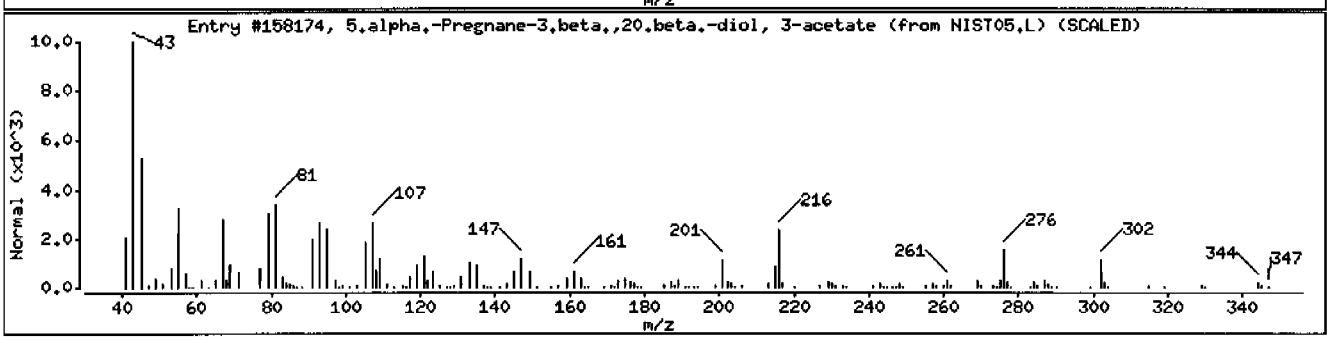

Data File: /chem/MSD3.i/s121509.b/s311508.d

Date : 15-DEC-2009 11:01

Client ID: RE03-09-14273 Instrument: MSD3.i

Sample Info: |2426540151932077|1|SVHF|1|LANL

Volume Injected (uL): 0.5 Operator: JLD1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
1,2,4,8-Tetramethylbicyclo[6.3.0]undeca-	137235-51-9	NIST05.L	59888	86	C15H24	204
1,4-Dimethyl-8-isopropylidenetricyclo[5.	1000140-07-7	NIST05.L	59920	86	C15H24	204
Naphthalene, 1,2,3,5,6,7,8,8a-octahydro-	4630-07-3	NIST05.L	60049	50	C15H24	204

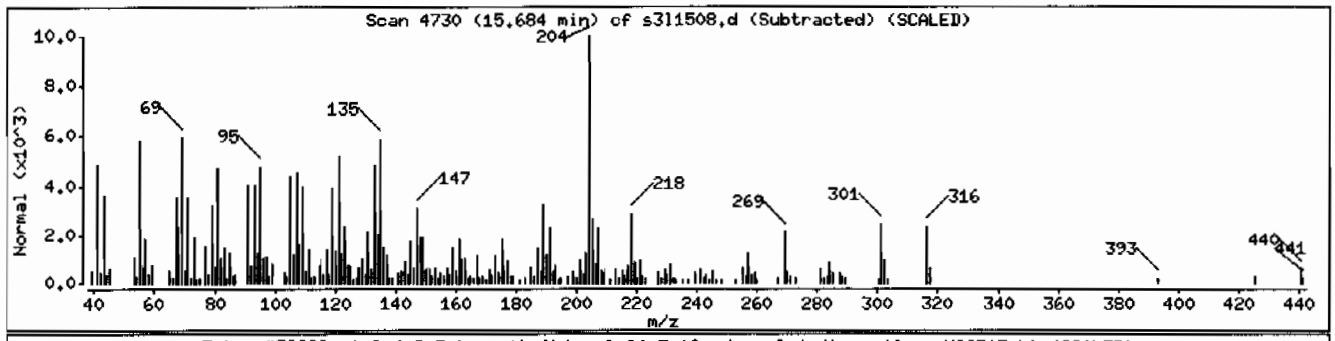

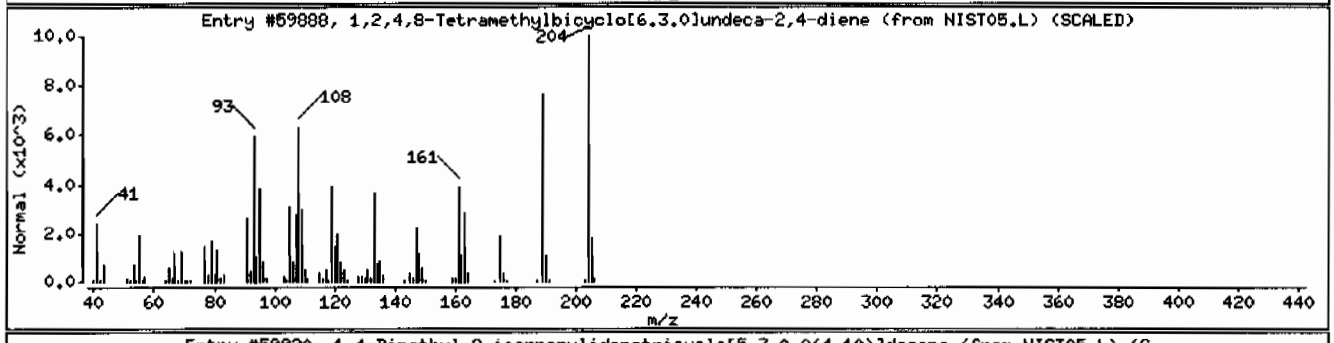

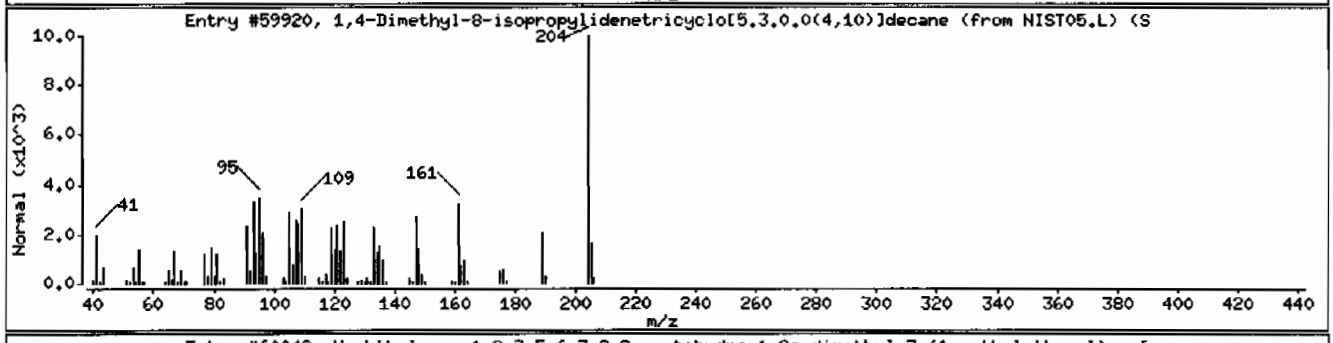

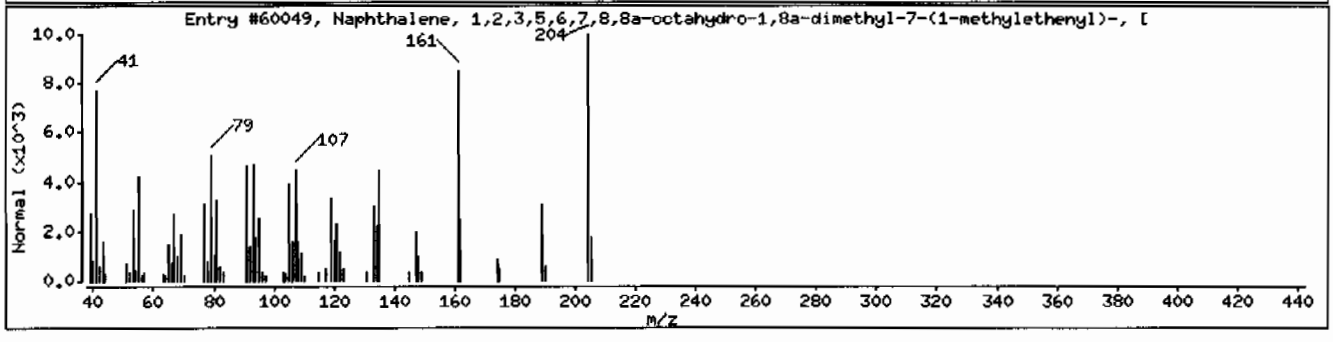

Data File: /chem/MSD3.i/s121509.b/s311508.d

Date : 15-DEC-2009 11:01

Client ID: RE03-09-14273 Instrument: MSD3.i

Sample Info: |2426540151932077|1|SVMF|1|LANL

Volume Injected (uL): 0.5 Operator: JLD1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
1,2-Di-but-2-enyl-cyclohexane	1000188-05-3	NIST05.L	51357	35	C14H24	192
3-Dimethylaminoanisole	15799-79-8	NIST05.L	23928	25	C9H13NO	151
Benzenaminium, 3-hydroxy-N,N,N-trimethyl	31061-59-3	NIST05.L	24010	25	C9H13NO	151

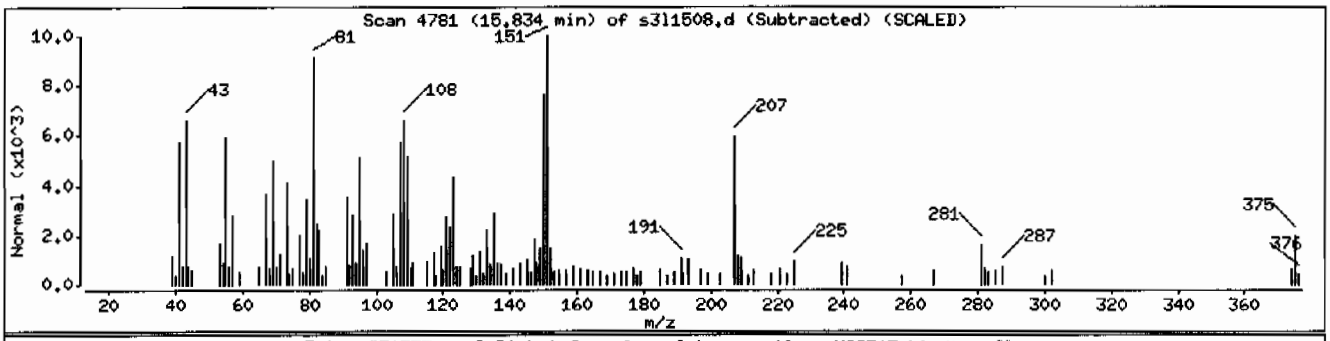

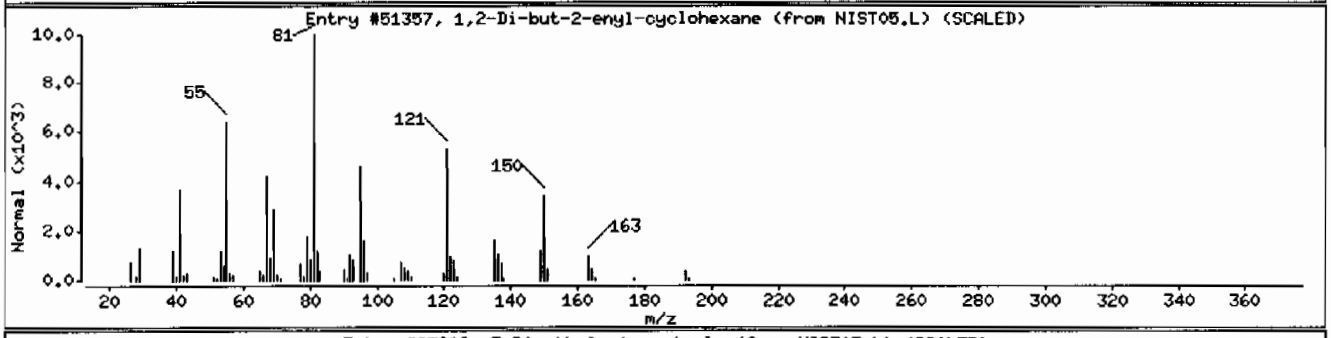

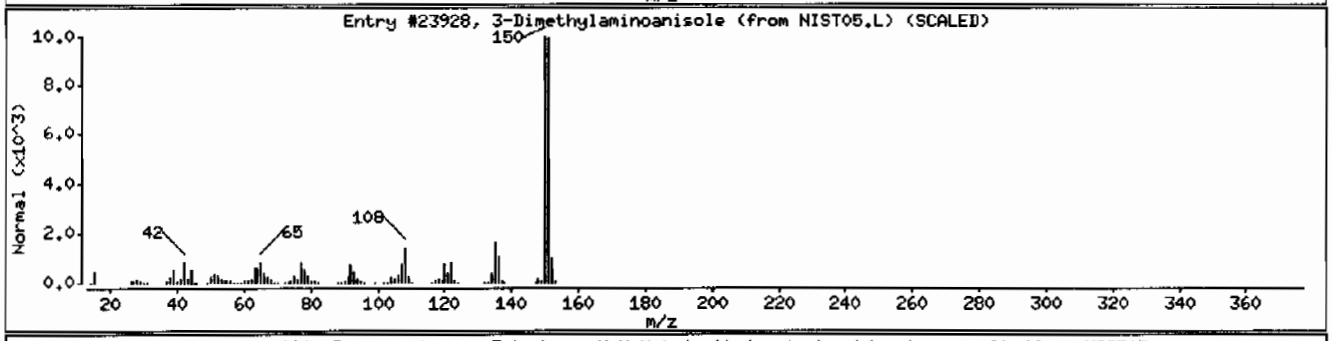

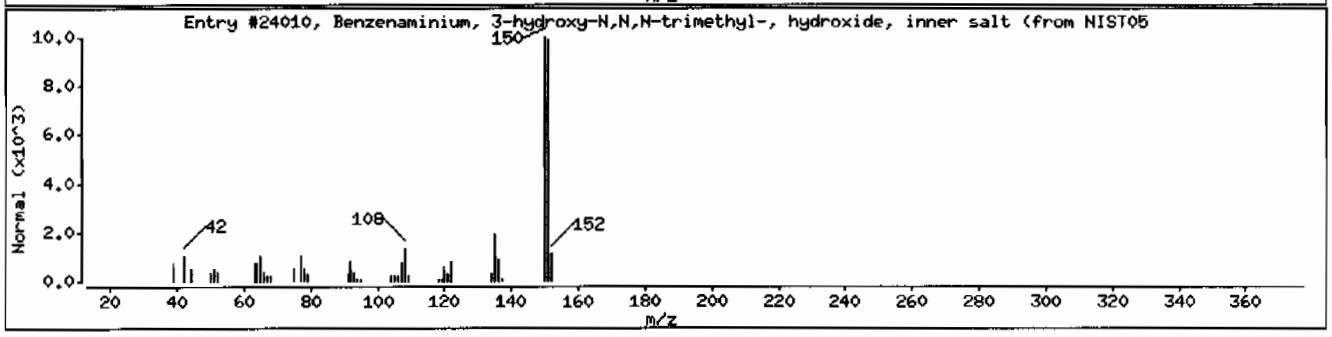

Data File: /chem/MSD3.i/s121509.b/s311508.d

Date : 15-DEC-2009 11:01

Client ID: RE03-09-14273 Instrument: MSD3.i

Sample Info: |2426540151932077|1|SVHF|1|LANL

Volume Injected (uL): 0.5 Operator: JLD1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
.beta.-Sitosterol	83-46-5	NIST05.L	174400	56	C29H500	414
17-(1,5-Dimethylhexyl)-10,13-dimethyl-4-	1000210-86-9	NIST05.L	174427	52	C29H500	414
2-Methyl-6-(5-methyl-2-thiazolin-2-ylami	339352-50-0	NIST05.L	61889	46	C10H13N3S	207

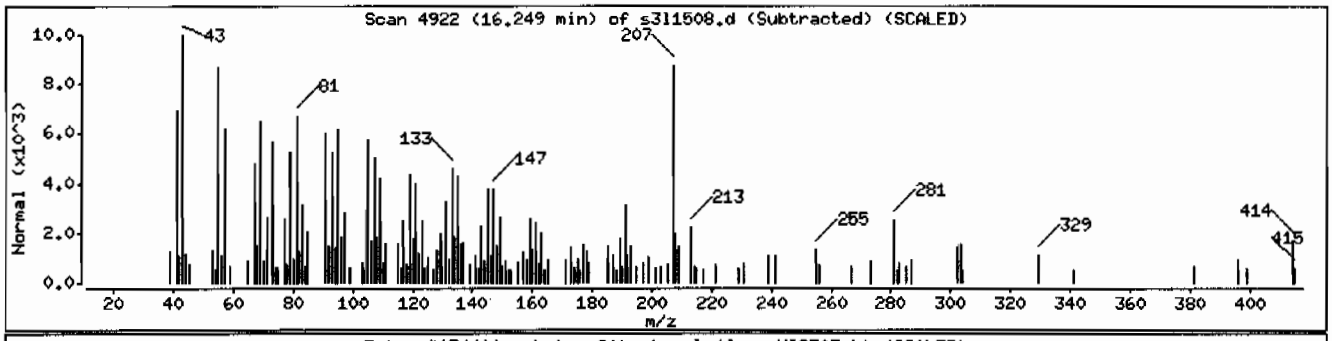

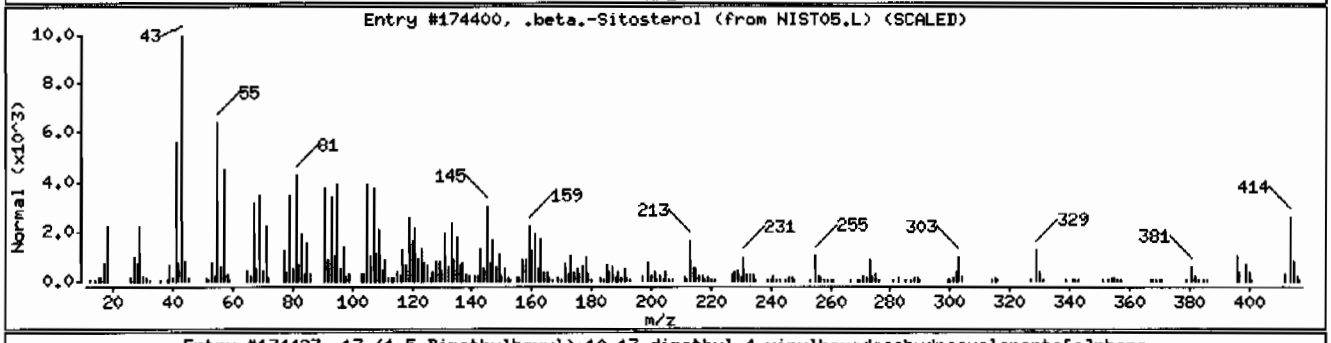

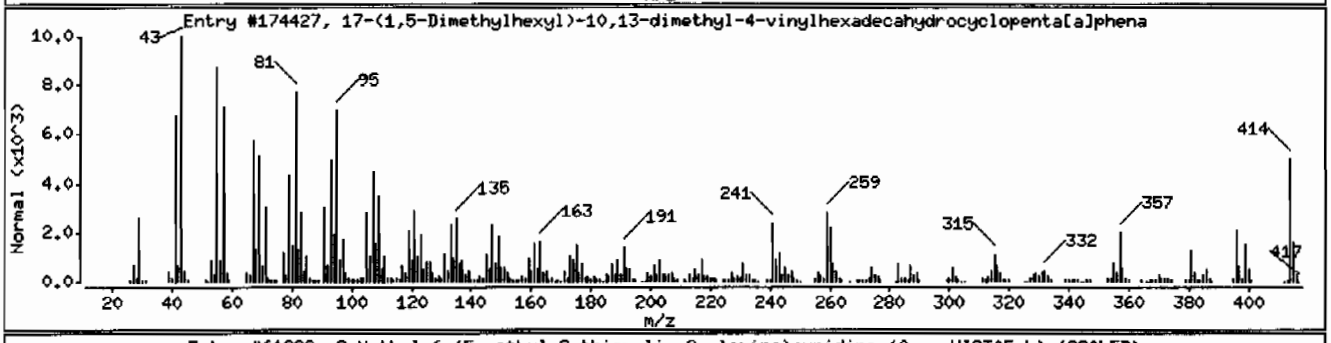

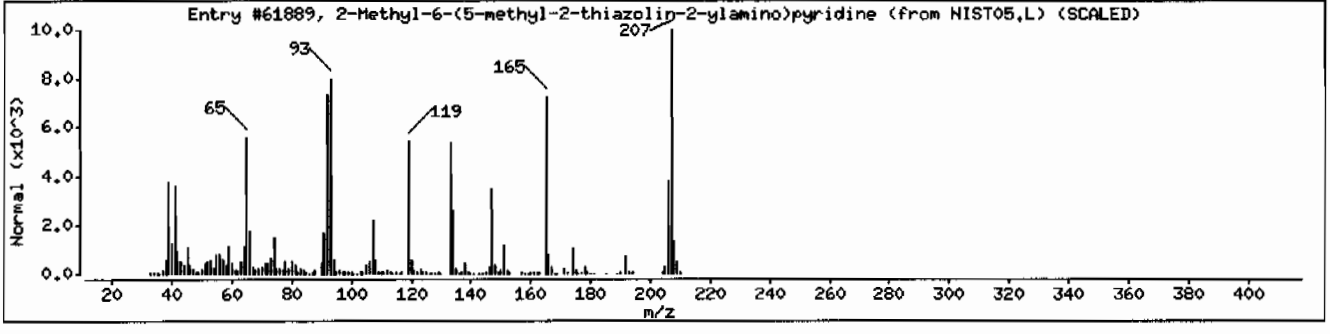

Data File: /chem/MSD3.i/s121509.b/s311508.d

Date : 15-DEC-2009 11:01

Client ID: RE03-09-14273 Instrument: MSD3.i

Sample Info: |2426540151932077111SVMF111LANL

Volume Injected (uL): 0.5 Operator: JLD1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
2,4,4-Trimethyl-3-hydroxymethyl-5a-(3-me	1000144-10-5	NIST05.L	72978	38	C15H260	222
9,19-Cyclolanostan-3-ol, acetate, (3.bet	4575-74-0	NIST05.L	182141	35	C32H5402	470
1,3,3-Trimethyl-2-hydroxymethyl-3,3-dime	1000144-10-7	NIST05.L	72990	35	C15H260	222

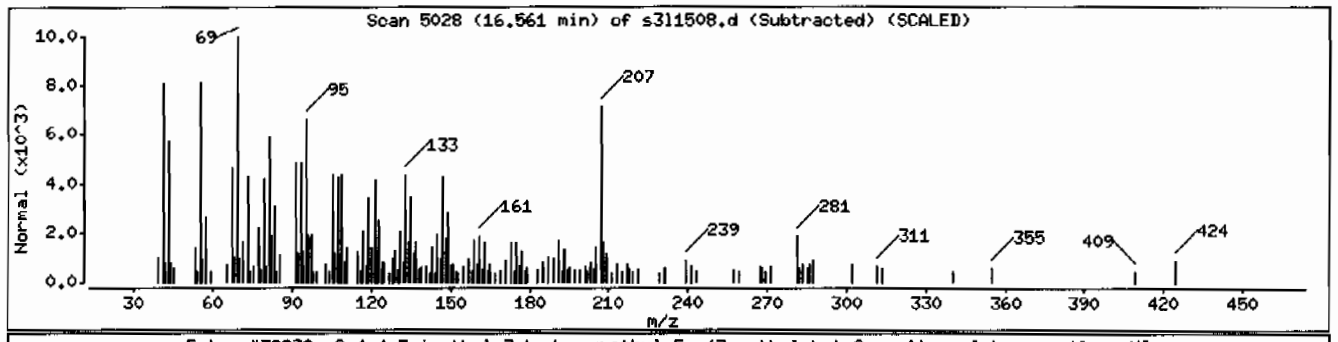

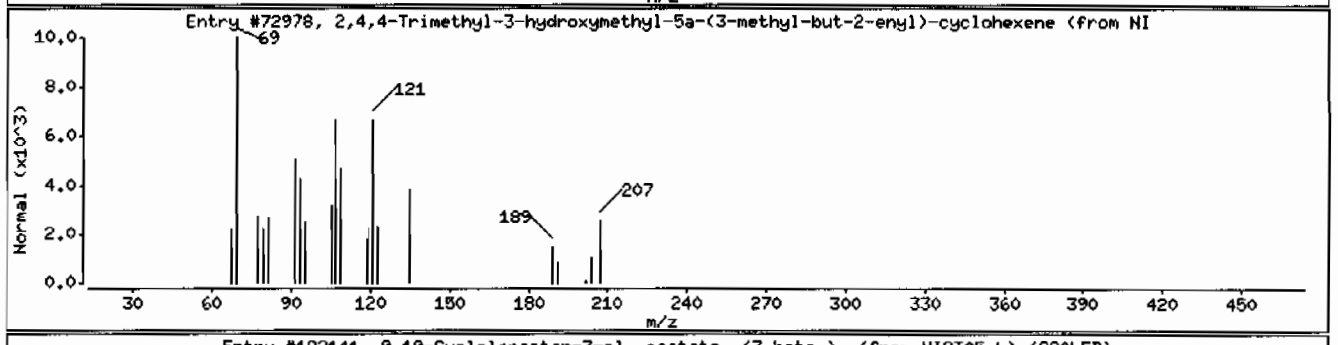

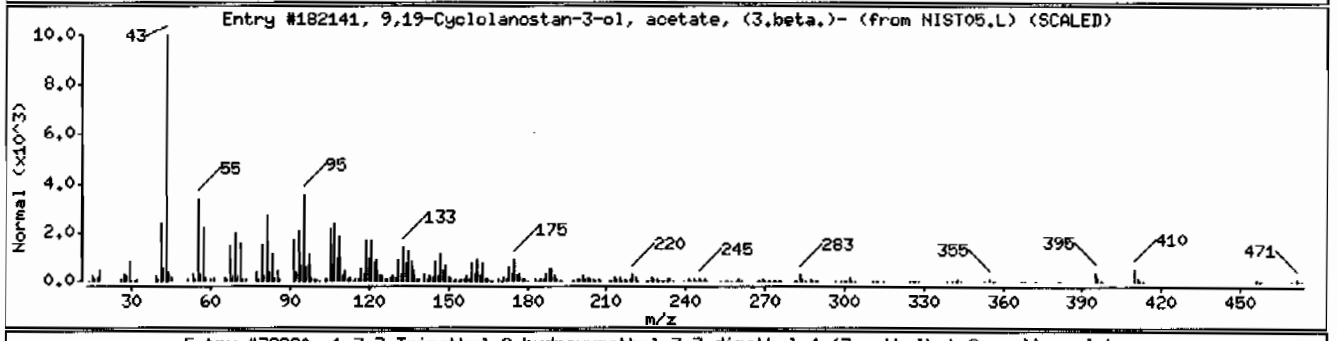

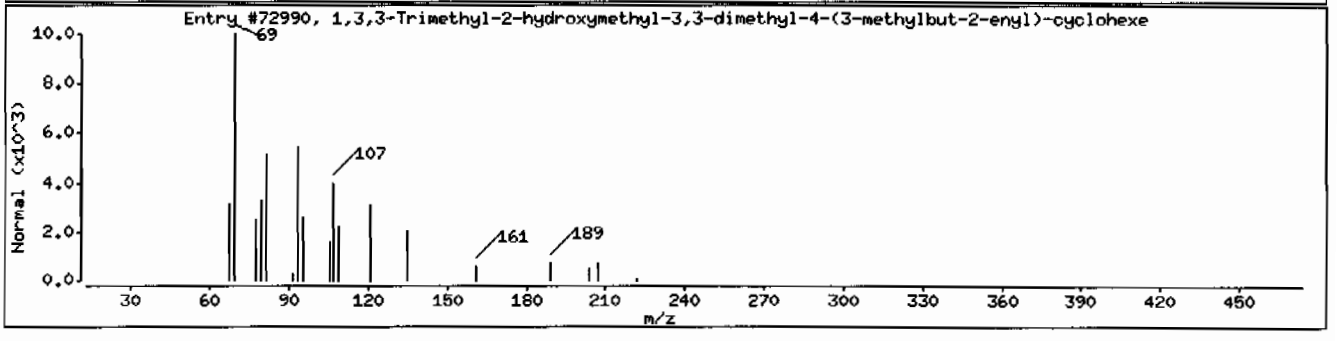

Data File: /chem/MSD3.i/s121509.b/s311508.d

Date : 15-DEC-2009 11:01

Client ID: RE03-09-14273 Instrument: MSD3.i

Sample Info: |2426540151932077|1|SVMF|1|LANL

Volume Injected (uL): 0.5 Operator: JLD1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Stigmast-4-en-3-one	1058-61-3	NIST05.L	173936	97	C29H480	412
Androst-4-en-3-one, 17-hydroxy-, (17.bet	58-22-0	NIST05.L	117328	42	C19H2802	288
Androst-4-en-3-one, 17-hydroxy-, (10.alp	604-39-7	NIST05.L	117339	42	C19H2802	288

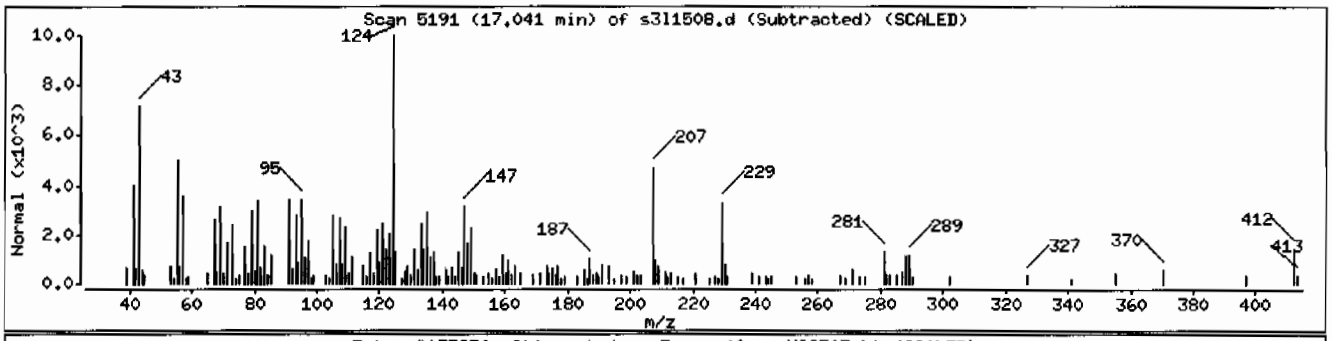

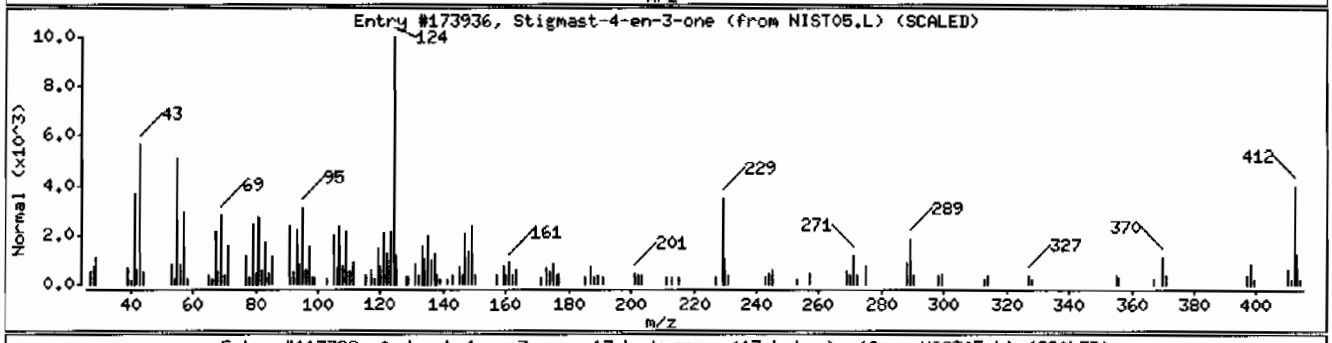

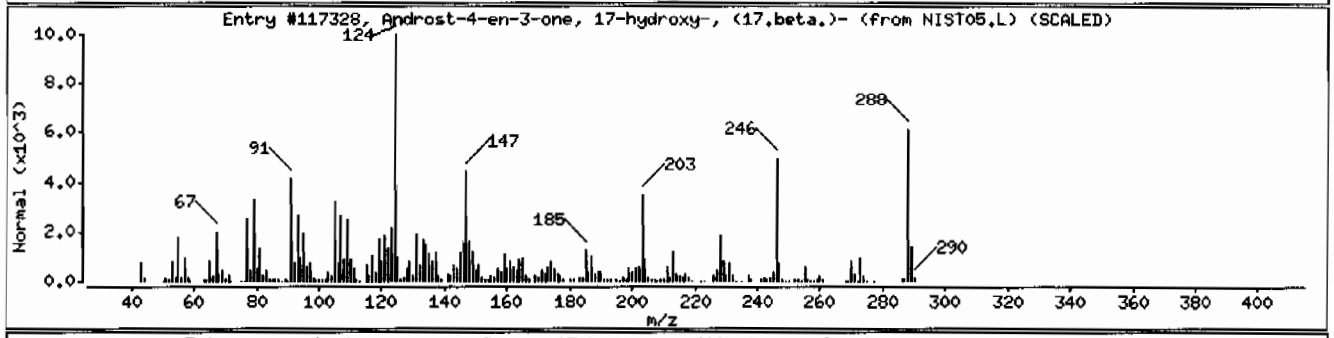

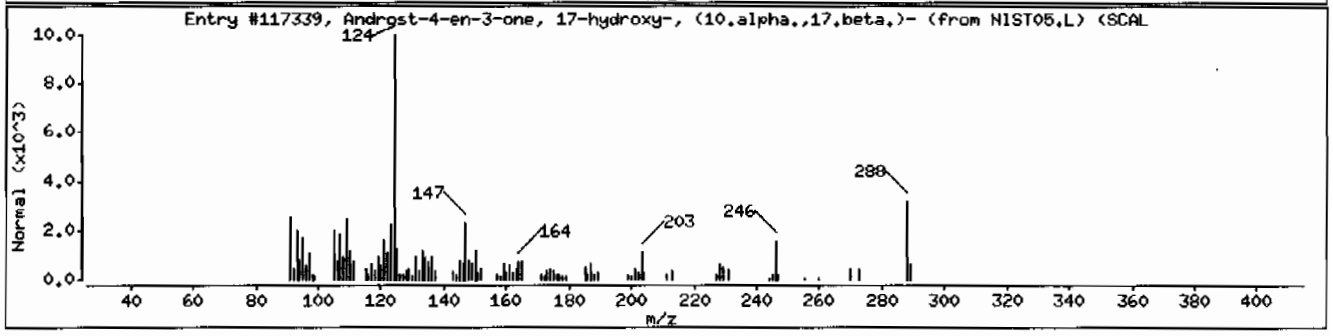

Data File: /chem/MSD3.i/s121509.b/s311508.d

Date : 15-DEC-2009 11:01

Client ID: RE03-09-14273 Instrument: MSD3.i

Sample Info: 1242654015|932077|1|SVMF|1|LANL

Volume Injected (uL): 0.5 Operator: JLD1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Acetic acid, 2-(2-propyl-1-benzimidazoly	331736-92-6	NIST05.L	69668	55	C12H14N2O2	218
Phenol, 4-(2-thienylmethyl)-	91680-55-6	NIST05.L	49741	25	C11H10OS	190
Cyclohepta[cd][2]benzothiophene, 2,6,7,8	199807-57-3	NIST05.L	49890	18	C12H14S	190

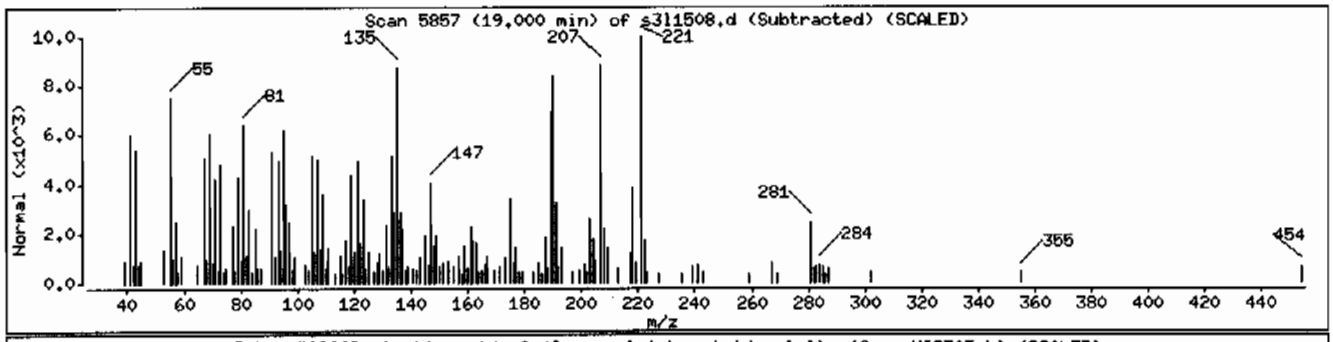

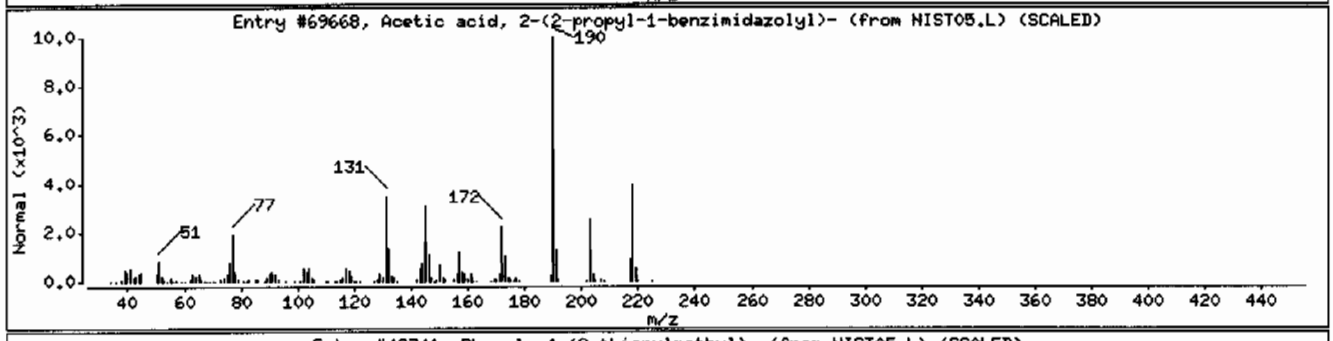

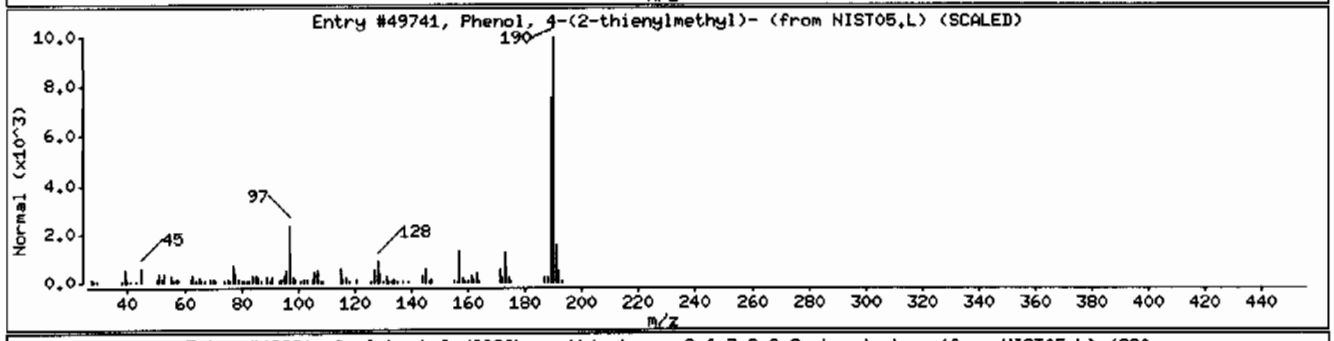

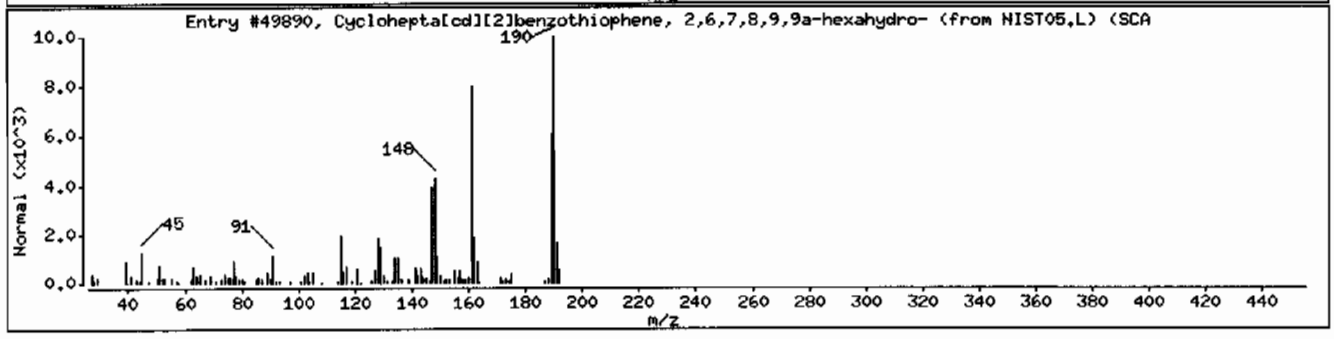

Data File: /chem/MSD3.i/s121509.b/s311508.d

Date : 15-DEC-2009 11:01

Client ID: RE03-09-14273 Instrument: MSD3.i

Sample Info: |2426540151932077|1|SVMF|1|LANL

Volume Injected (uL): 0.5 Operator: JLD1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
7-Oxabicyclo[4.1.0]heptane, 2,2,6-trimet	70038-20-9	NIST05.L	69982	90	C15H220	218
2,2,6-Trimethyl-1-(2-methyl-cyclobut-2-e	1000188-72-8	NIST05.L	69963	47	C15H220	218
Acetic acid, 3-hydroxy-7-isopropenyl-1,4	1000187-37-6	NIST05.L	110713	25	C17H2603	278

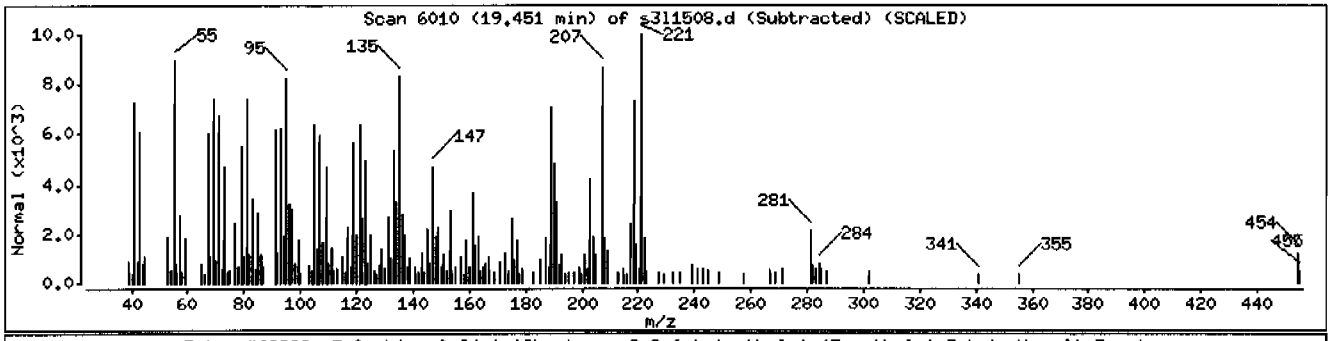

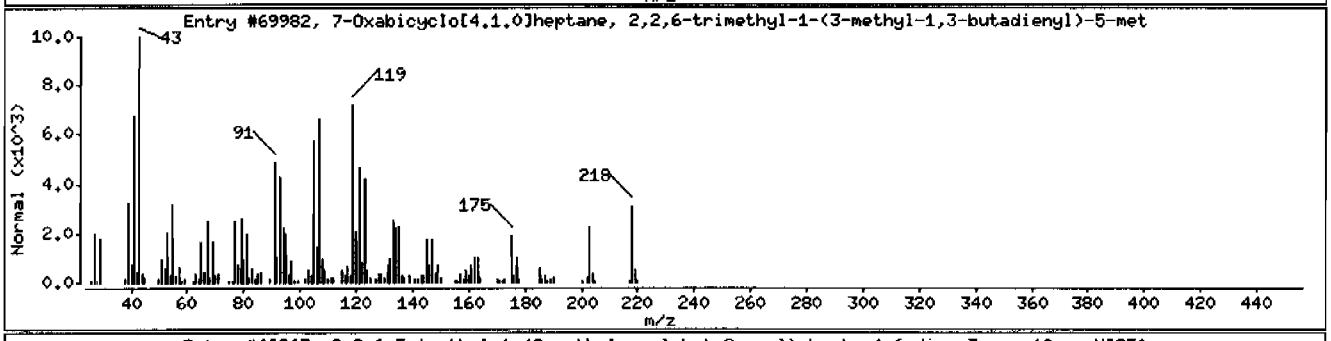

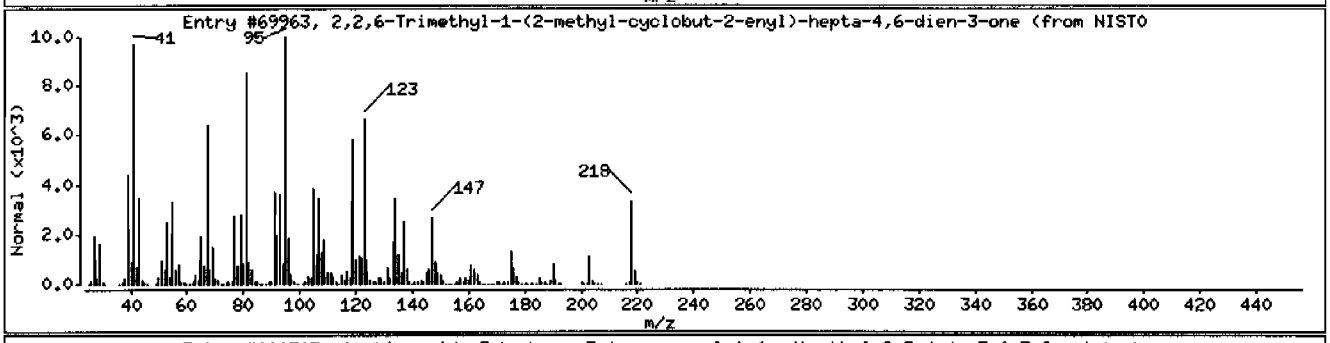

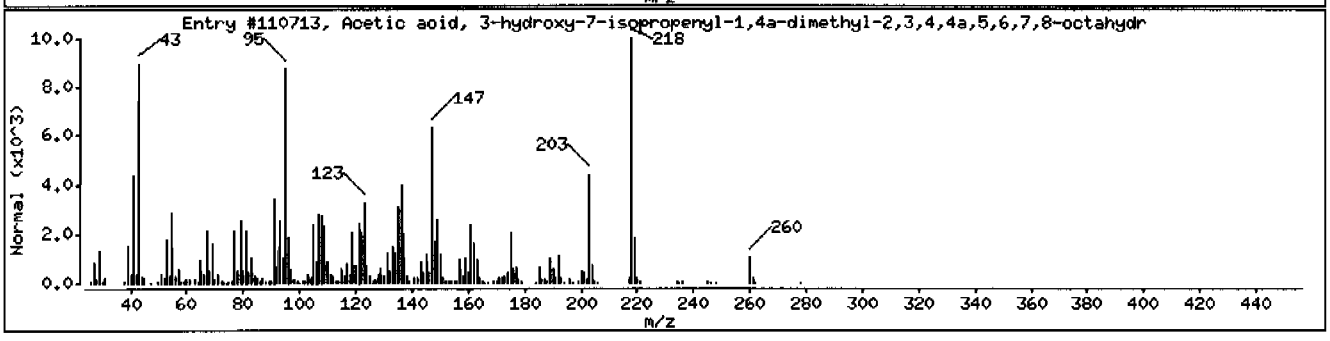

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242654011	**Date Received:**	12/10/2009 08:50	**%Moisture:**	4.1
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14274	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	932077	**Inst:**	MSD3.I	**Dilution:**	1
Run Date:	12/14/2009 20:50	**Analyst:**	JLD1	**Inj. Vol:**	.5 uL
Prep Date:	12/11/2009 21:55	**Aliquot:**	30.19 g	**Final Volume:**	1 mL
Data File:	s3l1427.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	345	ug/kg	69.1	345
108-95-2	Phenol	U	345	ug/kg	69.1	345
95-57-8	2-Chlorophenol	U	345	ug/kg	69.1	345
106-46-7	1,4-Dichlorobenzene	U	345	ug/kg	69.1	345
621-64-7	N-Nitrosodipropylamine	U	345	ug/kg	69.1	345
59-50-7	4-Chloro-3-methylphenol	U	345	ug/kg	69.1	345
83-32-9	Acenaphthene	U	34.5	ug/kg	11.4	34.5
121-14-2	2,4-Dinitrotoluene	U	345	ug/kg	34.5	345
100-02-7	4-Nitrophenol	U	345	ug/kg	114	345
87-86-5	Pentachlorophenol	U	345	ug/kg	86.4	345
129-00-0	Pyrene	U	34.5	ug/kg	10.4	34.5
110-86-1	Pyridine	U	345	ug/kg	69.1	345
62-53-3	Aniline	U	345	ug/kg	104	345
111-44-4	bis(2-Chloroethyl) ether	U	345	ug/kg	69.1	345
541-73-1	1,3-Dichlorobenzene	U	345	ug/kg	69.1	345
100-51-6	Benzyl alcohol	U	345	ug/kg	104	345
95-50-1	1,2-Dichlorobenzene	U	345	ug/kg	69.1	345
108-60-1	bis(2-Chloroisopropyl)ether	U	345	ug/kg	69.1	345
95-48-7	o-Cresol	U	345	ug/kg	69.1	345
65794-96-9	m,p-Cresols	U	345	ug/kg	104	345
67-72-1	Hexachloroethane	U	345	ug/kg	69.1	345
98-95-3	Nitrobenzene	U	345	ug/kg	69.1	345
78-59-1	Isophorone	U	345	ug/kg	69.1	345
88-75-5	2-Nitrophenol	U	345	ug/kg	69.1	345
105-67-9	2,4-Dimethylphenol	U	345	ug/kg	121	345
111-91-1	bis(2-Chloroethoxy)methane	U	345	ug/kg	69.1	345
120-83-2	2,4-Dichlorophenol	U	345	ug/kg	69.1	345
65-85-0	Benzoic acid	U	691	ug/kg	173	691
91-20-3	Naphthalene	U	34.5	ug/kg	10.4	34.5
106-47-8	4-Chloroaniline	U	345	ug/kg	69.1	345
87-68-3	Hexachlorobutadiene	U	345	ug/kg	69.1	345
91-57-6	2-Methylnaphthalene	U	34.5	ug/kg	6.91	34.5
77-47-4	Hexachlorocyclopentadiene	U	345	ug/kg	69.1	345
88-06-2	2,4,6-Trichlorophenol	U	345	ug/kg	69.1	345
95-95-4	2,4,5-Trichlorophenol	U	345	ug/kg	69.1	345
91-58-7	2-Chloronaphthalene	U	34.5	ug/kg	11.4	34.5
88-74-4	2-Nitroaniline	U	345	ug/kg	69.1	345
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	345	ug/kg	69.1	345

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-852**	**Date Collected:**	**12/07/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242654011**	**Date Received:**	**12/10/2009 08:50**	**%Moisture:**	**4.1**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14274**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**932077**	**Inst:**	**MSD3.I**	**Dilution:**	**1**
Run Date:	**12/14/2009 20:50**	**Analyst:**	**JLD1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/11/2009 21:55**	**Aliquot:**	**30.19 g**	**Final Volume:**	**1 mL**
Data File:	**s3l1427.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	345	ug/kg	69.1	345
606-20-2	2,6-Dinitrotoluene	U	345	ug/kg	34.5	345
208-96-8	Acenaphthylene	U	34.5	ug/kg	10.4	34.5
51-28-5	2,4-Dinitrophenol	U	691	ug/kg	131	691
132-64-9	Dibenzofuran	U	345	ug/kg	69.1	345
84-66-2	Diethylphthalate	U	345	ug/kg	69.1	345
86-73-7	Fluorene	U	34.5	ug/kg	10.4	34.5
7005-72-3	4-Chlorophenylphenylether	U	345	ug/kg	69.1	345
534-52-1	2-Methyl-4,6-dinitrophenol	U	345	ug/kg	69.1	345
100-01-6	4-Nitroaniline	U	345	ug/kg	104	345
	p-Nitroaniline					
122-39-4	Diphenylamine	U	345	ug/kg	69.1	345
122-66-7	Azobenzene	U	345	ug/kg	69.1	345
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	345	ug/kg	69.1	345
118-74-1	Hexachlorobenzene	U	345	ug/kg	69.1	345
85-01-8	Phenanthrene	U	34.5	ug/kg	10.4	34.5
120-12-7	Anthracene	U	34.5	ug/kg	6.91	34.5
84-74-2	Di-n-butylphthalate	U	345	ug/kg	69.1	345
206-44-0	Fluoranthene	U	34.5	ug/kg	10.4	34.5
85-68-7	Butylbenzylphthalate	U	345	ug/kg	69.1	345
56-55-3	Benzo(a)anthracene	U	34.5	ug/kg	10.4	34.5
91-94-1	3,3'-Dichlorobenzidine	U	345	ug/kg	104	345
218-01-9	Chrysene	U	34.5	ug/kg	10.4	34.5
117-81-7	bis(2-Ethylhexyl)phthalate	U	345	ug/kg	69.1	345
117-84-0	Di-n-octylphthalate	U	345	ug/kg	69.1	345
205-99-2	Benzo(b)fluoranthene	U	34.5	ug/kg	10.4	34.5
207-08-9	Benzo(k)fluoranthene	U	34.5	ug/kg	10.4	34.5
50-32-8	Benzo(a)pyrene	U	34.5	ug/kg	10.4	34.5
193-39-5	Indeno(1,2,3-cd)pyrene	U	34.5	ug/kg	10.4	34.5
53-70-3	Dibenzo(a,h)anthracene	U	34.5	ug/kg	10.4	34.5
191-24-2	Benzo(ghi)perylene	U	34.5	ug/kg	10.4	34.5
120-82-1	1,2,4-Trichlorobenzene	U	345	ug/kg	69.1	345

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.93	247	ug/kg		JA
	Unknown	15.7	386	ug/kg		J

GEL Laboratories LLC

Data file : /chem/MSD3.i/s121409.b/s311427.d
Lab Smp Id: 242654011 Client Smp ID: RE03-09-14274
Inj Date : 14-DEC-2009 20:50
Operator : JLD1 Inst ID: MSD3.i
Smp Info : |242654011|932077|1|SVMF|1|LANL
Misc Info : |MSD8270_S|WBN091208-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD3.i/s121409.b/MSD3-8270R-AQA-120809.m
Meth Date : 14-Dec-2009 17:00 jen00986 Quant Type: ISTD
Cal Date : 07-DEC-2009 19:48 Cal File: s310717.d
Als bottle: 25
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-852.sub
Target Version: 3.50
Processing Host: hpclpl

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.19000	weight of sample
M	4.12440	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	4.271	4.271	(1.000)	134599	40.0000	
* 29 Naphthalene-d8	136	5.519	5.523	(1.000)	506364	40.0000	
* 46 Acenaphthene-d10	164	7.364	7.371	(1.000)	278880	40.0000	
* 67 Phenanthrene-d10	188	8.958	8.958	(1.000)	475870	40.0000	
* 91 Chrysene-d12	240	11.811	11.817	(1.000)	323218	40.0000	
* 98 Perylene-d12	264	13.783	13.787	(1.000)	175289	40.0000	
$ 3 2-Fluorophenol	112	3.172	3.157	(0.743)	265005	75.2718	2600
$ 5 Phenol-d5	99	3.931	3.931	(0.920)	320958	71.5567	2470
$ 20 Nitrobenzene-d5	82	4.801	4.808	(0.870)	139387	37.6637	1300
$ 39 2-Fluorobiphenyl	172	6.643	6.647	(0.902)	278207	42.5598	1470
$ 60 2,4,6-Tribromophenol	329	8.211	8.213	(1.115)	75023	97.9634	3380
$ 81 p-Terphenyl-d14	244	10.662	10.662	(0.903)	278919	53.7293	1860

ION RATIO REPORT

SV REPORT

Data file: s311427.d
Report Date: 12/15/2009 07:13
Lab. ID: 242654011 SampleType: SAMPLE
Injection Date: 14-DEC-2009 20:50
Operator: JLD1 Instrument: MSD3.i
Sample Info: |242654011|932077|1|SVMF|1|LANL
Miscellaneous Info: |MSD8270_S|WBN091208-01|
Comment:
Method used: /chem/MSD3.i/s121409.b/MSD3-8270R-AQA-120809.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-852
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
4 Aniline		CAS#: 62-53-3				
66	14328	3.93	3.98	80-120	100	( )
93	253	3.95	3.98	223-283	2	(Q)
17 N-Nitrosodipropylamine				CAS#: 621-64-7		
70	19629	4.80	4.65	80-120	100	(T)
42	9536	4.80	4.65	22- 82	49	(T)
44 2,6-Dinitrotoluene				CAS#: 606-20-2		
165	36095	7.36	7.16	80-120	100	(T)
63	447	7.36	7.16	28- 88	1	(QT)
50 2,4-Dinitrotoluene				CAS#: 121-14-2		
165	36095	7.36	7.58	80-120	100	(T)
89	449	7.36	7.58	52-112	1	(QT)
63	447	7.36	7.58	36- 96	1	(QT)
55 2-Methyl-4,6-dinitrophenol				CAS#: 534-52-1		
198	147	8.21	8.02	80-120	100	(T)
105	446	8.21	8.02	14- 74	304	(QT)
51	326	8.21	8.02	18- 78	222	(QT)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

Data file : /chem/MSD3.i/s121409.b/s311427.d
Lab Smp Id: 242654011 Client Smp ID: RE03-09-14274
Inj Date : 14-DEC-2009 20:50
Operator : JLD1 Inst ID: MSD3.i
Smp Info : |242654011|932077|1|SVMF|1|LANL
Misc Info : |MSD8270_S|WBN091208-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD3.i/s121409.b/MSD3-8270R-AQA-120809.m
Meth Date : 14-Dec-2009 17:00 jen00986 Quant Type: ISTD
Cal Date : 07-DEC-2009 19:48 Cal File: s310717.d
Als bottle: 25
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-852.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariabl

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.19000	weight of sample
M	4.12440	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	4.271	794908	40.000
* 98 Perylene-d12	13.783	480548	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown Aldol Condensate				CAS #:			
2.926	141846	7.13773405	246	0		0	10

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
====	====	==========	==========	====	=======	========	======
Unknown				CAS #:			
15.703	134138	11.1654192	386	0		0	98

Data File: /chem/MSD3.i/s121409.b/s311427.d
Date : 14-DEC-2009 20:50
Client ID: RE03-09-14274
Sample Info: 1242654011193207711|SVMF11|LANL
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD3.i

Operator: JLD1
Column diameter: 0.20

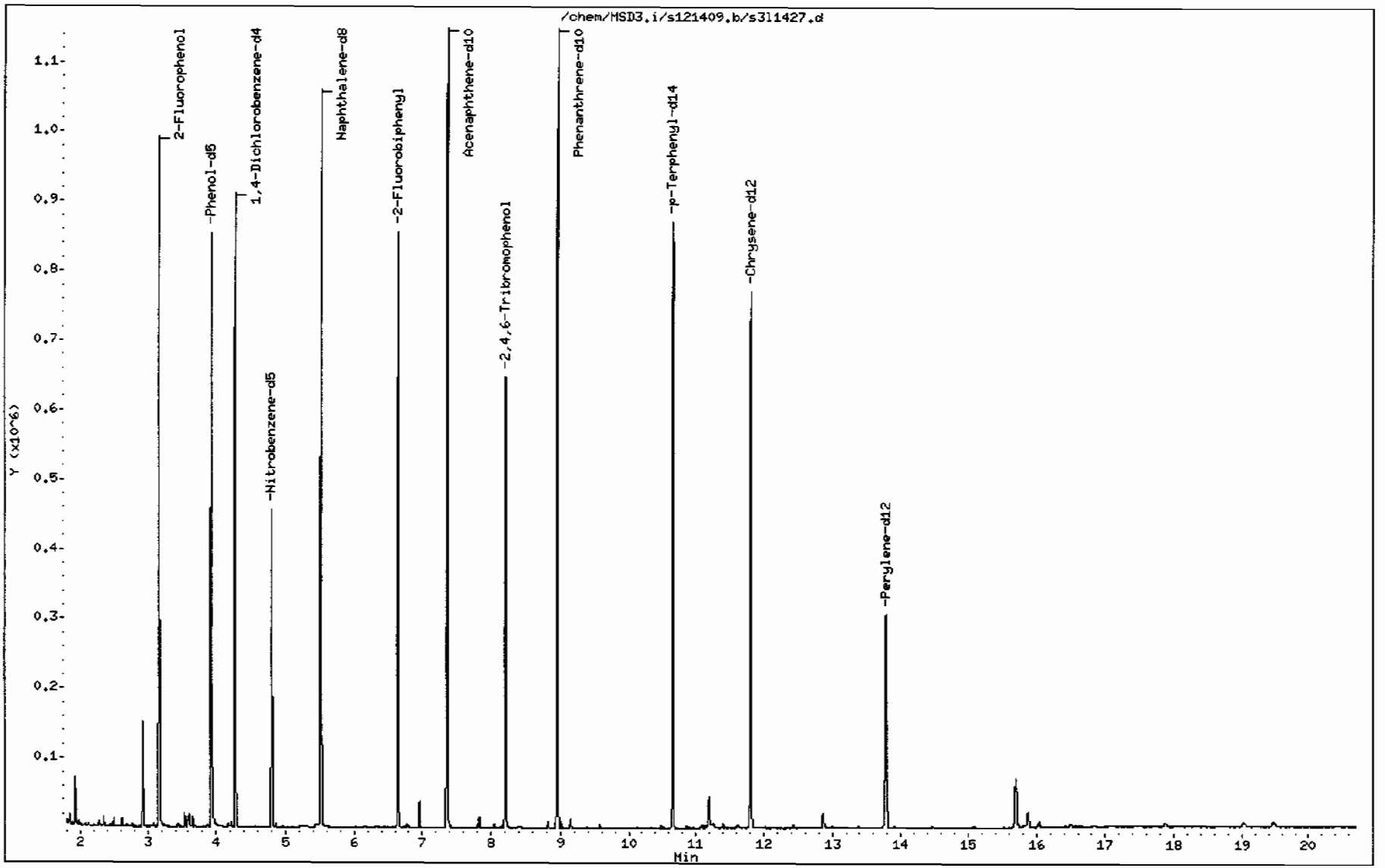

Data File: /chem/MSD3.i/s121409.b/s311427.d

Date : 14-DEC-2009 20:50

Client ID: RE03-09-14274

Instrument: MSD3.i

Sample Info: |2426540111932077111SVMF111LANL

Volume Injected (uL): 0.5

Operator: JLD1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	56	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	50	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7945	38	C6H12O2	116

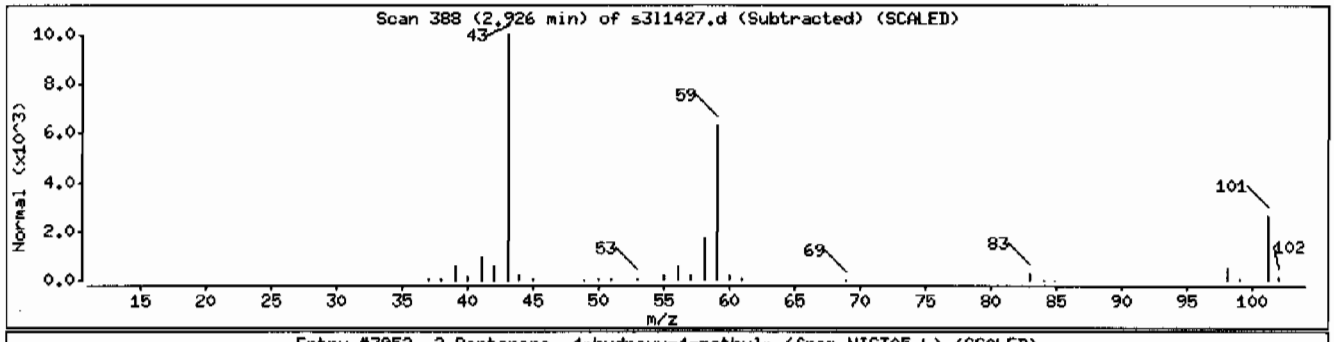

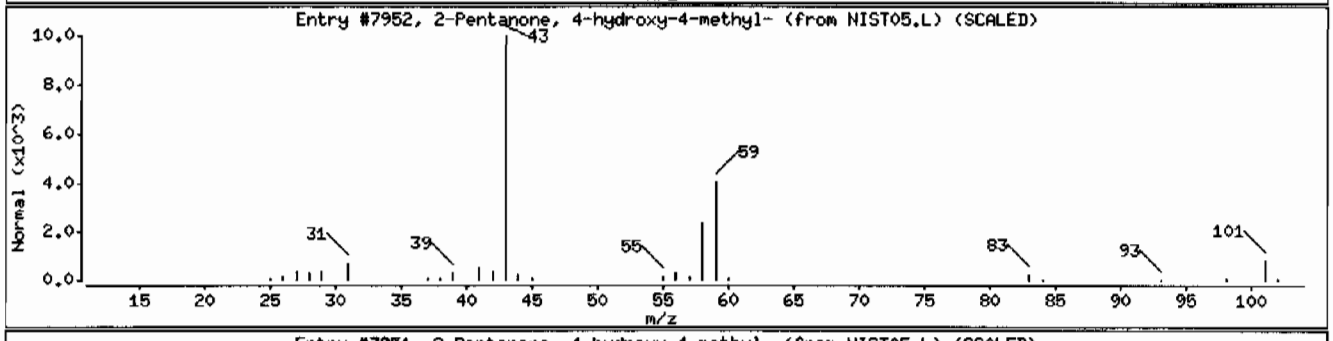

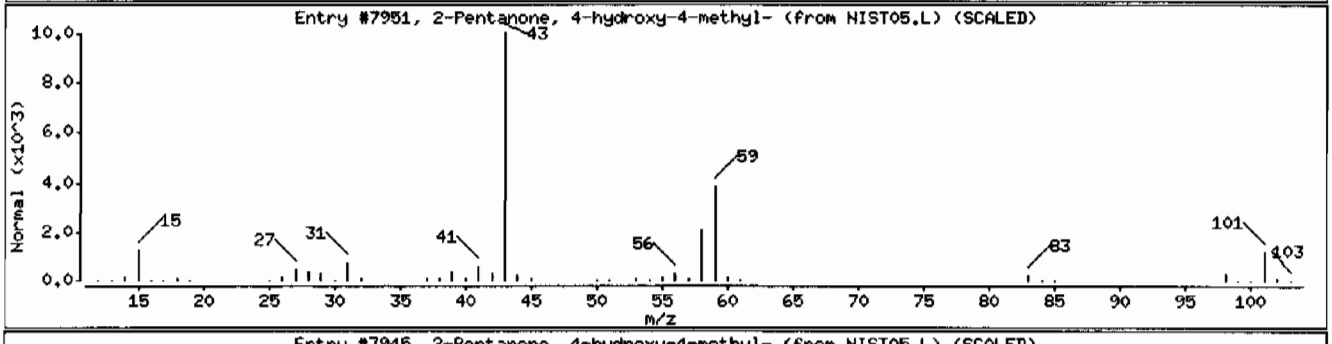

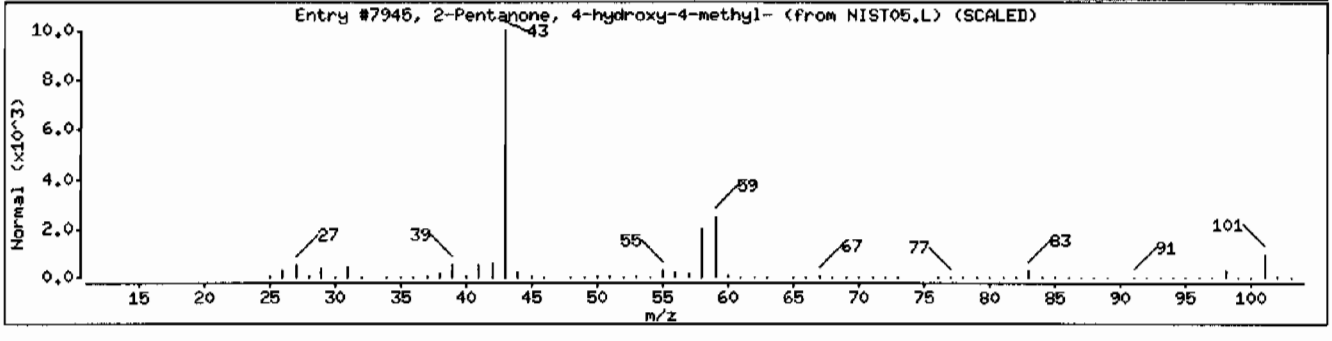

Data File: /chem/MSD3.i/s121409.b/s311427.d

Date : 14-DEC-2009 20:50

Client ID: RE03-09-14274

Instrument: MSD3.i

Sample Info: |2426540111932077111SVMF111LANL

Volume Injected (uL): 0.5

Operator: JLD1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Naphthalene, 1,2,3,5,6,7,8,8a-octahydro-	4630-07-3	NIST05.L	60049	47	C15H24	204
2,5,5,8a-Tetramethyl-6,7,8,8a-tetrahydro	124957-09-1	NIST05.L	59756	46	C14H20O	204
1,1,4a-Trimethyl-5,6-dimethylenedecahydr	1000193-60-8	NIST05.L	59893	45	C15H24	204

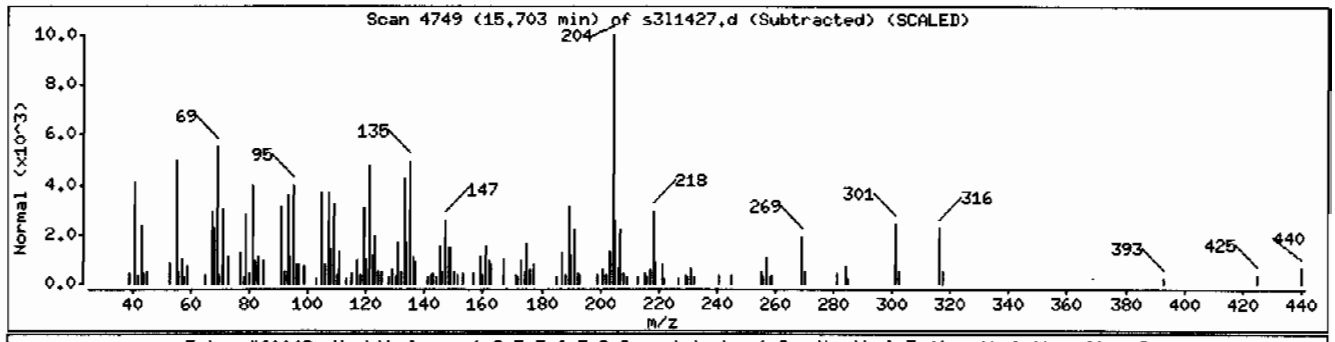

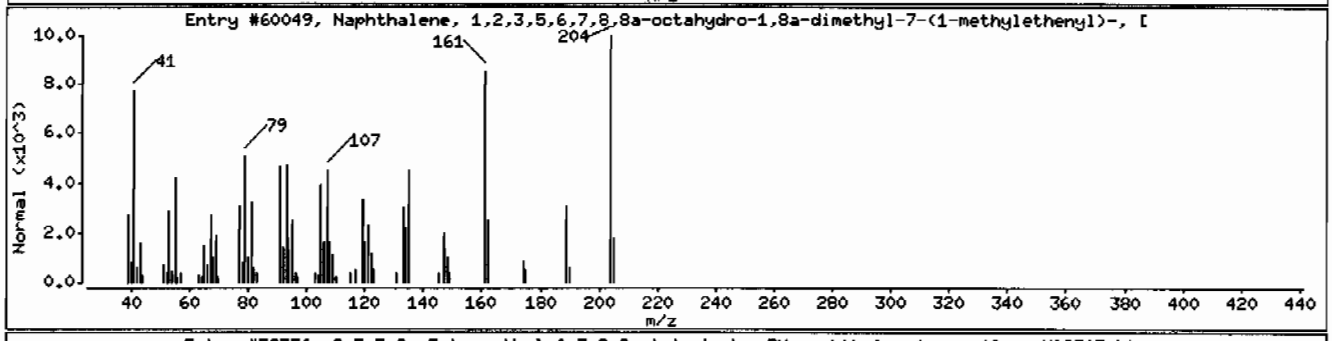

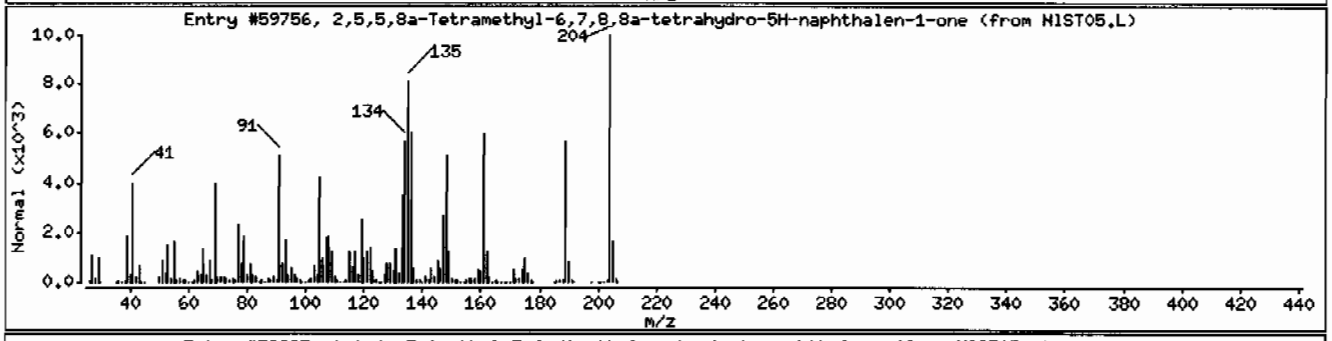

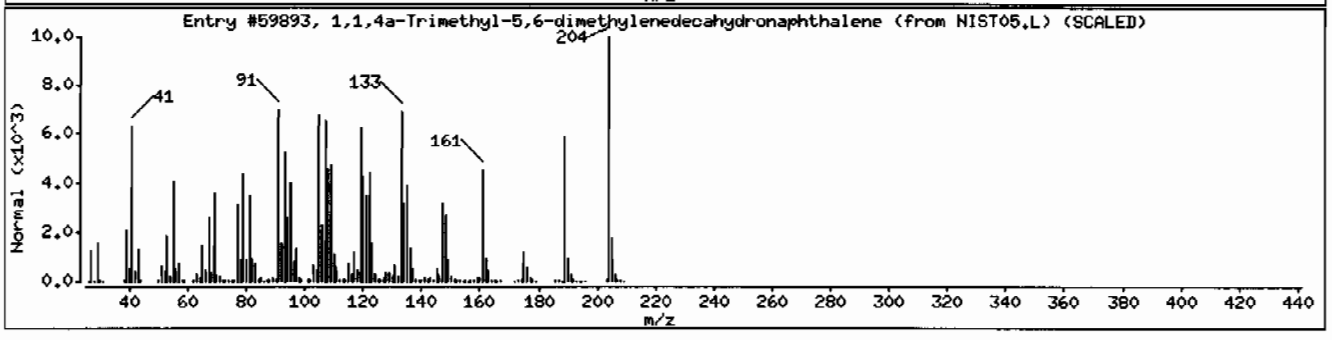

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-852**	**Date Collected:**	**12/07/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242654012**	**Date Received:**	**12/10/2009 08:50**	**%Moisture:**	**12.2**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14277**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**932077**	**Inst:**	**MSD3.I**	**Dilution:**	**1**
Run Date:	**12/14/2009 21:17**	**Analyst:**	**JLD1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/11/2009 21:55**	**Aliquot:**	**30.13 g**	**Final Volume:**	**1 mL**
Data File:	**s3l1428.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	378	ug/kg	75.6	378
108-95-2	Phenol	U	378	ug/kg	75.6	378
95-57-8	2-Chlorophenol	U	378	ug/kg	75.6	378
106-46-7	1,4-Dichlorobenzene	U	378	ug/kg	75.6	378
621-64-7	N-Nitrosodipropylamine	U	378	ug/kg	75.6	378
59-50-7	4-Chloro-3-methylphenol	U	378	ug/kg	75.6	378
83-32-9	Acenaphthene	J	31.9	ug/kg	12.5	37.8
121-14-2	2,4-Dinitrotoluene	U	378	ug/kg	37.8	378
100-02-7	4-Nitrophenol	U	378	ug/kg	125	378
87-86-5	Pentachlorophenol	U	378	ug/kg	94.5	378
129-00-0	Pyrene		591	ug/kg	11.3	37.8
110-86-1	Pyridine	U	378	ug/kg	75.6	378
62-53-3	Aniline	U	378	ug/kg	113	378
111-44-4	bis(2-Chloroethyl) ether	U	378	ug/kg	75.6	378
541-73-1	1,3-Dichlorobenzene	U	378	ug/kg	75.6	378
100-51-6	Benzyl alcohol	U	378	ug/kg	113	378
95-50-1	1,2-Dichlorobenzene	U	378	ug/kg	75.6	378
108-60-1	bis(2-Chloroisopropyl)ether	U	378	ug/kg	75.6	378
95-48-7	o-Cresol	U	378	ug/kg	75.6	378
65794-96-9	m,p-Cresols	U	378	ug/kg	113	378
67-72-1	Hexachloroethane	U	378	ug/kg	75.6	378
98-95-3	Nitrobenzene	U	378	ug/kg	75.6	378
78-59-1	Isophorone	U	378	ug/kg	75.6	378
88-75-5	2-Nitrophenol	U	378	ug/kg	75.6	378
105-67-9	2,4-Dimethylphenol	U	378	ug/kg	132	378
111-91-1	bis(2-Chloroethoxy)methane	U	378	ug/kg	75.6	378
120-83-2	2,4-Dichlorophenol	U	378	ug/kg	75.6	378
65-85-0	Benzoic acid	U	756	ug/kg	189	756
91-20-3	Naphthalene	U	37.8	ug/kg	11.3	37.8
106-47-8	4-Chloroaniline	U	378	ug/kg	75.6	378
87-68-3	Hexachlorobutadiene	U	378	ug/kg	75.6	378
91-57-6	2-Methylnaphthalene	U	37.8	ug/kg	7.56	37.8
77-47-4	Hexachlorocyclopentadiene	U	378	ug/kg	75.6	378
88-06-2	2,4,6-Trichlorophenol	U	378	ug/kg	75.6	378
95-95-4	2,4,5-Trichlorophenol	U	378	ug/kg	75.6	378
91-58-7	2-Chloronaphthalene	U	37.8	ug/kg	12.5	37.8
88-74-4	2-Nitroaniline	U	378	ug/kg	75.6	378
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	378	ug/kg	75.6	378

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-852**	**Date Collected:**	**12/07/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242654012**	**Date Received:**	**12/10/2009 08:50**	**%Moisture:**	**12.2**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14277**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**932077**	**Inst:**	**MSD3.I**	**Dilution:**	**1**
Run Date:	**12/14/2009 21:17**	**Analyst:**	**JLD1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/11/2009 21:55**	**Aliquot:**	**30.13 g**	**Final Volume:**	**1 mL**
Data File:	**s311428.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	378	ug/kg	75.6	378
606-20-2	2,6-Dinitrotoluene	U	378	ug/kg	37.8	378
208-96-8	Acenaphthylene	U	37.8	ug/kg	11.3	37.8
51-28-5	2,4-Dinitrophenol	U	756	ug/kg	144	756
132-64-9	Dibenzofuran	U	378	ug/kg	75.6	378
84-66-2	Diethylphthalate	U	378	ug/kg	75.6	378
86-73-7	Fluorene	J	31.5	ug/kg	11.3	37.8
7005-72-3	4-Chlorophenylphenylether	U	378	ug/kg	75.6	378
534-52-1	2-Methyl-4,6-dinitrophenol	U	378	ug/kg	75.6	378
100-01-6	4-Nitroaniline	U	378	ug/kg	113	378
	p-Nitroaniline					
122-39-4	Diphenylamine	U	378	ug/kg	75.6	378
122-66-7	Azobenzene	U	378	ug/kg	75.6	378
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	378	ug/kg	75.6	378
118-74-1	Hexachlorobenzene	U	378	ug/kg	75.6	378
85-01-8	Phenanthrene		370	ug/kg	11.3	37.8
120-12-7	Anthracene		57.7	ug/kg	7.56	37.8
84-74-2	Di-n-butylphthalate	U	378	ug/kg	75.6	378
206-44-0	Fluoranthene		533	ug/kg	11.3	37.8
85-68-7	Butylbenzylphthalate	U	378	ug/kg	75.6	378
56-55-3	Benzo(a)anthracene		218	ug/kg	11.3	37.8
91-94-1	3,3'-Dichlorobenzidine	U	378	ug/kg	113	378
218-01-9	Chrysene		258	ug/kg	11.3	37.8
117-81-7	bis(2-Ethylhexyl)phthalate	J	100	ug/kg	75.6	378
117-84-0	Di-n-octylphthalate	U	378	ug/kg	75.6	378
205-99-2	Benzo(b)fluoranthene		352	ug/kg	11.3	37.8
207-08-9	Benzo(k)fluoranthene		130	ug/kg	11.3	37.8
50-32-8	Benzo(a)pyrene		216	ug/kg	11.3	37.8
193-39-5	Indeno(1,2,3-cd)pyrene		103	ug/kg	11.3	37.8
53-70-3	Dibenzo(a,h)anthracene	J	19.0	ug/kg	11.3	37.8
191-24-2	Benzo(ghi)perylene		96.0	ug/kg	11.3	37.8
120-82-1	1,2,4-Trichlorobenzene	U	378	ug/kg	75.6	378

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	1.91	165	ug/kg		J
	Unknown Aldol Condensate	2.92	282	ug/kg		JA

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-852**	**Date Collected:**	**12/07/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242654012**	**Date Received:**	**12/10/2009 08:50**	**%Moisture:**	**12.2**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14277**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**932077**	**Inst:**	**MSD3.I**	**Dilution:**	**1**
Run Date:	**12/14/2009 21:17**	**Analyst:**	**JLD1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/11/2009 21:55**	**Aliquot:**	**30.13 g**	**Final Volume:**	**1 mL**
Data File:	**s3l1428.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
7785-70-8	1R-.alpha.-Pinene	3.66	651	ug/kg	96	NJ
498-15-7	Bicyclo[4.1.0]hept-3-ene, 3,7,7-trimethy	4.22	682	ug/kg	97	NJ
	Unknown	10.64	273	ug/kg		J
	Unknown	10.87	335	ug/kg		J
	Unknown	11.11	340	ug/kg		J
1235-74-1	1-Phenanthrenecarboxylic acid, 1,2,3,4,4	11.2	192	ug/kg	97	NJ
	Unknown	11.39	177	ug/kg		J
	Unknown	11.41	168	ug/kg		J
	Unknown	12.87	221	ug/kg		J
112-95-8	Eicosane	13.38	290	ug/kg	95	NJ
	Unknown	15.86	374	ug/kg		J
	Unknown	17.07	202	ug/kg		J
	Unknown	17.89	288	ug/kg		J
	Unknown	19.04	375	ug/kg		J
	Unknown	19.49	391	ug/kg		J

GEL Laboratories LLC

Data file : /chem/MSD3.i/s121409.b/s311428.d
Lab Smp Id: 242654012 Client Smp ID: RE03-09-14277
Inj Date : 14-DEC-2009 21:17
Operator : JLD1 Inst ID: MSD3.i
Smp Info : |242654012|932077|1|SVMF|1|LANL
Misc Info : |MSD8270_S|WBN091208-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD3.i/s121409.b/MSD3-8270R-AQA-120809.m
Meth Date : 14-Dec-2009 17:00 jen00986 Quant Type: ISTD
Cal Date : 07-DEC-2009 19:48 Cal File: s310717.d
Als bottle: 26
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-852.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.13000	weight of sample
M	12.17400	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	4.271	4.271	(1.000)	131123	40.0000	
* 29 Naphthalene-d8	136	5.520	5.523	(1.000)	496209	40.0000	
* 46 Acenaphthene-d10	164	7.364	7.371	(1.000)	273204	40.0000	
* 67 Phenanthrene-d10	188	8.957	8.958	(1.000)	442081	40.0000	
* 91 Chrysene-d12	240	11.818	11.817	(1.000)	260446	40.0000	
* 98 Perylene-d12	264	13.791	13.787	(1.000)	128732	40.0000	
$ 3 2-Fluorophenol	112	3.172	3.157	(0.743)	265610	77.4436	2930
$ 5 Phenol-d5	99	3.934	3.931	(0.921)	331711	75.9145	2870
$ 20 Nitrobenzene-d5	82	4.802	4.808	(0.870)	140407	38.7158	1460
$ 39 2-Fluorobiphenyl	172	6.645	6.647	(0.902)	292771	45.7183	1730
$ 60 2,4,6-Tribromophenol	329	8.212	8.213	(1.115)	74340	99.0882	3740
$ 81 p-Terphenyl-d14	244	10.665	10.662	(0.902)	235413	56.2784	2130

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
47 Acenaphthene	154	7.396	7.407	(1.004)	5488	0.84518	31.9(a)
79 Pyrene	202	10.500	10.503	(0.888)	113866	15.6348	591
53 Fluorene	166	7.945	7.955	(1.079)	6468	0.83345	31.5(a)
68 Phenanthrene	178	8.981	8.985	(1.003)	103174	9.77873	370
69 Anthracene	178	9.031	9.041	(1.008)	16386	1.52655	57.7
76 Fluoranthene	202	10.255	10.257	(1.145)	147205	14.0944	533
89 Benzo(a)anthracene	228	11.803	11.802	(0.999)	36112	5.75892	218
92 Chrysene	228	11.845	11.847	(1.002)	39755	6.82715	258
93 bis(2-Ethylhexyl)phthalate	149	11.806	11.802	(0.999)	12065	2.64899	100(a)
95 Benzo(b)fluoranthene	252	13.207	13.206	(0.958)	31655	9.30901	352
96 Benzo(k)fluoranthene	252	13.243	13.247	(0.960)	11032	3.43117	130
97 Benzo(a)pyrene	252	13.696	13.696	(0.993)	15955	5.70370	216
99 Indeno(1,2,3-cd)pyrene	276	15.518	15.522	(1.125)	6723	2.73171	103
100 Dibenzo(a,h)anthracene	278	15.548	15.554	(1.127)	1047	0.50329	19.0(a)
101 Benzo(ghi)perylene	276	15.974	15.976	(1.158)	5262	2.54091	96.0

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

ION RATIO REPORT

SV REPORT

Data file: s311428.d
Report Date: 12/15/2009 07:13
Lab. ID: 242654012 SampleType: SAMPLE
Injection Date: 14-DEC-2009 21:17
Operator: JLD1 Instrument: MSD3.i
Sample Info: |242654012|932077|1|SVMF|1|LANL
Miscellaneous Info: |MSD8270_S|WBN091208-01|
Comment:
Method used: /chem/MSD3.i/s121409.b/MSD3-8270R-AQA-120809.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-852
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
4 Aniline		CAS#: 62-53-3				
66	14889	3.93	3.98	80-120	100	( )
93	5321	3.95	3.98	223-283	36	(Q)
17 N-Nitrosodipropylamine				CAS#: 621-64-7		
70	20074	4.80	4.65	80-120	100	(T)
42	9858	4.80	4.65	22- 82	49	(T)
27 Benzoic acid			CAS#: 65-85-0			
105	339	5.34	5.31	80-120	100	( )
122	536	5.23	5.31	42-102	158	(QT)
77	262	5.35	5.31	42-102	77	( )
40 2-Chloronaphthalene				CAS#: 91-58-7		
162	8062	6.97	6.78	80-120	100	(T)
164	448	6.97	6.78	3- 63	6	(T)
127	572	6.97	6.78	10- 70	7	(QT)
42 o-Nitroaniline				CAS#: 88-74-4		
65	9966	6.97	6.90	80-120	100	(T)
92	12209	6.97	6.90	41-101	122	(QT)
138	940	6.97	6.90	86-146	9	(QT)
44 2,6-Dinitrotoluene				CAS#: 606-20-2		
165	35365	7.36	7.16	80-120	100	(T)
63	599	7.36	7.16	28- 88	2	(QT)

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
47 Acenaphthene			CAS#: 83-32-9			
154	5488	7.40	7.41	80-120	100	( )
153	5779	7.40	7.41	74-134	105	( )
152	2774	7.40	7.41	17- 77	51	( )
50 2,4-Dinitrotoluene			CAS#: 121-14-2			
165	35365	7.36	7.58	80-120	100	(T)
89	434	7.36	7.58	52-112	1	(QT)
63	599	7.36	7.58	36- 96	2	(QT)
52 4-Nitrophenol			CAS#: 100-02-7			
139	1056	7.58	7.53	80-120	100	( )
109	247	7.61	7.53	36- 96	23	(QT)
65	109	7.40	7.53	64-124	10	(QT)
53 Fluorene			CAS#: 86-73-7			
166	6468	7.94	7.96	80-120	100	( )
165	5843	7.95	7.96	60-120	90	( )
167	913	7.94	7.95	0- 44	14	( )
55 2-Methyl-4,6-dinitrophenol			CAS#: 534-52-1			
198	169	8.21	8.02	80-120	100	(T)
105	397	8.21	8.02	14- 74	235	(QT)
51	526	8.21	8.02	18- 78	310	(QT)
68 Phenanthrene			CAS#: 85-01-8			
178	103174	8.98	8.98	80-120	100	( )
179	16230	8.98	8.98	0- 45	16	( )
176	18489	8.98	8.98	0- 48	18	( )
69 Anthracene			CAS#: 120-12-7			
178	16386	9.03	9.04	80-120	100	( )
179	3529	9.03	9.04	0- 45	22	( )
176	2761	9.03	9.04	0- 47	17	( )
76 Fluoranthene			CAS#: 206-44-0			
202	147205	10.25	10.26	80-120	100	( )
203	25461	10.25	10.26	0- 47	17	( )
101	22023	10.25	10.26	0- 45	15	( )
79 Pyrene			CAS#: 129-00-0			
202	113866	10.50	10.50	80-120	100	( )
200	22968	10.50	10.50	0- 49	20	( )
101	21708	10.50	10.50	0- 48	19	( )
89 Benzo(a)anthracene			CAS#: 56-55-3			
228	36112	11.80	11.80	80-120	100	( )
226	9475	11.80	11.80	0- 55	26	( )
229	9625	11.80	11.80	0- 51	27	( )

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
92 Chrysene		CAS#: 218-01-9				
228	39755	11.84	11.85	80-120	100	( )
229	8836	11.84	11.85	0- 50	22	( )
226	11170	11.84	11.85	0- 57	28	( )
93 bis(2-Ethylhexyl)phthalate			CAS#: 117-81-7			
149	12065	11.81	11.80	80-120	100	( )
167	3838	11.81	11.80	3- 63	32	( )
95 Benzo(b)fluoranthene			CAS#: 205-99-2			
252	31655	13.21	13.21	80-120	100	( )
253	7296	13.21	13.21	0- 51	23	( )
125	5090	13.21	13.21	0- 44	16	( )
96 Benzo(k)fluoranthene			CAS#: 207-08-9			
252	11032	13.24	13.25	80-120	100	( )
253	2649	13.24	13.25	0- 53	24	( )
125	1603	13.24	13.25	0- 45	15	( )
97 Benzo(a)pyrene			CAS#: 50-32-8			
252	15955	13.70	13.70	80-120	100	( )
253	3534	13.70	13.70	0- 52	22	( )
125	2718	13.69	13.70	0- 45	17	( )
99 Indeno(1,2,3-cd)pyrene			CAS#: 193-39-5			
276	6723	15.52	15.52	80-120	100	( )
138	1922	15.52	15.52	0- 57	29	( )
100 Dibenzo(a,h)anthracene			CAS#: 53-70-3			
278	1047	15.55	15.55	80-120	100	( )
139	206	15.55	15.55	0- 52	20	( )
101 Benzo(ghi)perylene			CAS#: 191-24-2			
276	5262	15.97	15.98	80-120	100	( )
138	2138	15.97	15.98	1- 61	41	( )

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

Data file : /chem/MSD3.i/s121409.b/s311428.d
Lab Smp Id: 242654012 Client Smp ID: RE03-09-14277
Inj Date : 14-DEC-2009 21:17
Operator : JLD1 Inst ID: MSD3.i
Smp Info : |242654012|932077|1|SVMF|1|LANL
Misc Info : |MSD8270_S|WBN091208-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD3.i/s121409.b/MSD3-8270R-AQA-120809.m
Meth Date : 14-Dec-2009 17:00 jen00986 Quant Type: ISTD
Cal Date : 07-DEC-2009 19:48 Cal File: s310717.d
Als bottle: 26
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-852.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariabl

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.13000	weight of sample
M	12.17400	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	4.271	780479	40.000
* 91 Chrysene-d12	11.818	961177	40.000
* 98 Perylene-d12	13.791	365978	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #

RT	AREA	CONCENTRATIONS ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	QUANT LIBRARY	LIB ENTRY	CPND #
Unknown				CAS #:			
1.912	85300	4.37165474	165	0		0	10
Unknown Aldol Condensate				CAS #:			
2.923	145758	7.47018465	282	0		0	10
1R-.alpha.-Pinene				CAS #: 7785-70-8			
3.656	336353	17.2383012	651	96	NIST05.L	15188	10
Bicyclo[4.1.0]hept-3-ene, 3,7,7-trimethy				CAS #: 498-15-7			
4.218	351889	18.0345077	682	97	NIST05.L	15369	10
Unknown				CAS #:			
10.635	173738	7.23022808	273	0		0	91
Unknown				CAS #:			
10.868	212862	8.85839647	335	0		0	91
Unknown				CAS #:			
11.107	216476	9.00877384	340	0		0	91
1-Phenanthrenecarboxylic acid, 1,2,3,4,4				CAS #: 1235-74-1			
11.204	121982	5.07634534	192	97	NIST05.L	133618	91
Unknown				CAS #:			
11.393	112443	4.67940068	177	0		0	91
Unknown				CAS #:			
11.405	106542	4.43383353	168	0		0	91
Unknown				CAS #:			
12.874	53599	5.85815291	221	0		0	98
Eicosane				CAS #: 112-95-8			
13.375	70263	7.67947740	290	95	NIST05.L	113489	98
Unknown				CAS #:			
15.862	90581	9.90021067	374	0		0	98
Unknown				CAS #:			
17.068	48980	5.35336153	202	0		0	98
Unknown				CAS #:			
17.885	69772	7.62576411	288	0		0	98

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
====	====	==========	==========	====	=======	==========	======
Unknown				CAS #:			
19.040	90809	9.92511379	375	0		0	98
Unknown				CAS #:			
19.487	94661	10.3461105	391	0		0	98

Data File: /chem/MSD3.i/s121409.b/s311428.d

Date : 14-DEC-2009 21:17

Client ID: RE03-09-14277

Sample Info: 1242654012193207711ISVMF11!LANL

Volume Injected (uL): 0.5

Column phase: J&W DB-5MS

Page 1

Instrument: MSD3.i

Operator: JLD1

Column diameter: 0.20

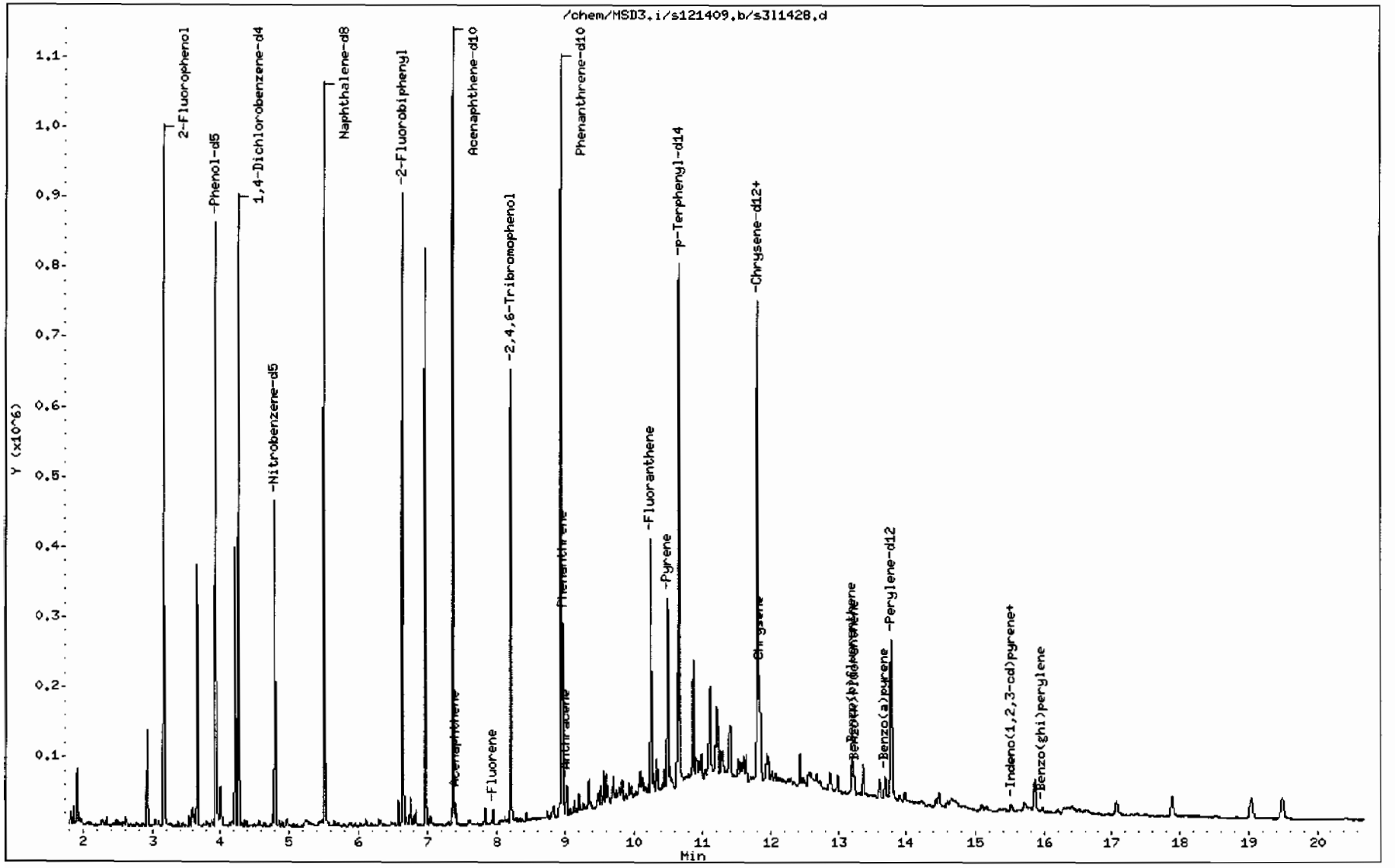

Data File: /chem/MSD3.i/s121409.b/s311428.d

Date : 14-DEC-2009 21:17

Client ID: RE03-09-14277

Instrument: MSD3.i

Sample Info: |2426540121932077|1|SVMF|1|LANL

Volume Injected (uL): 0.5

Operator: JLD1

Column phase: J&W DB-5MS

Column diameter: 0.20

47 Acenaphthene

Concentration: 31.9 ug/Kg

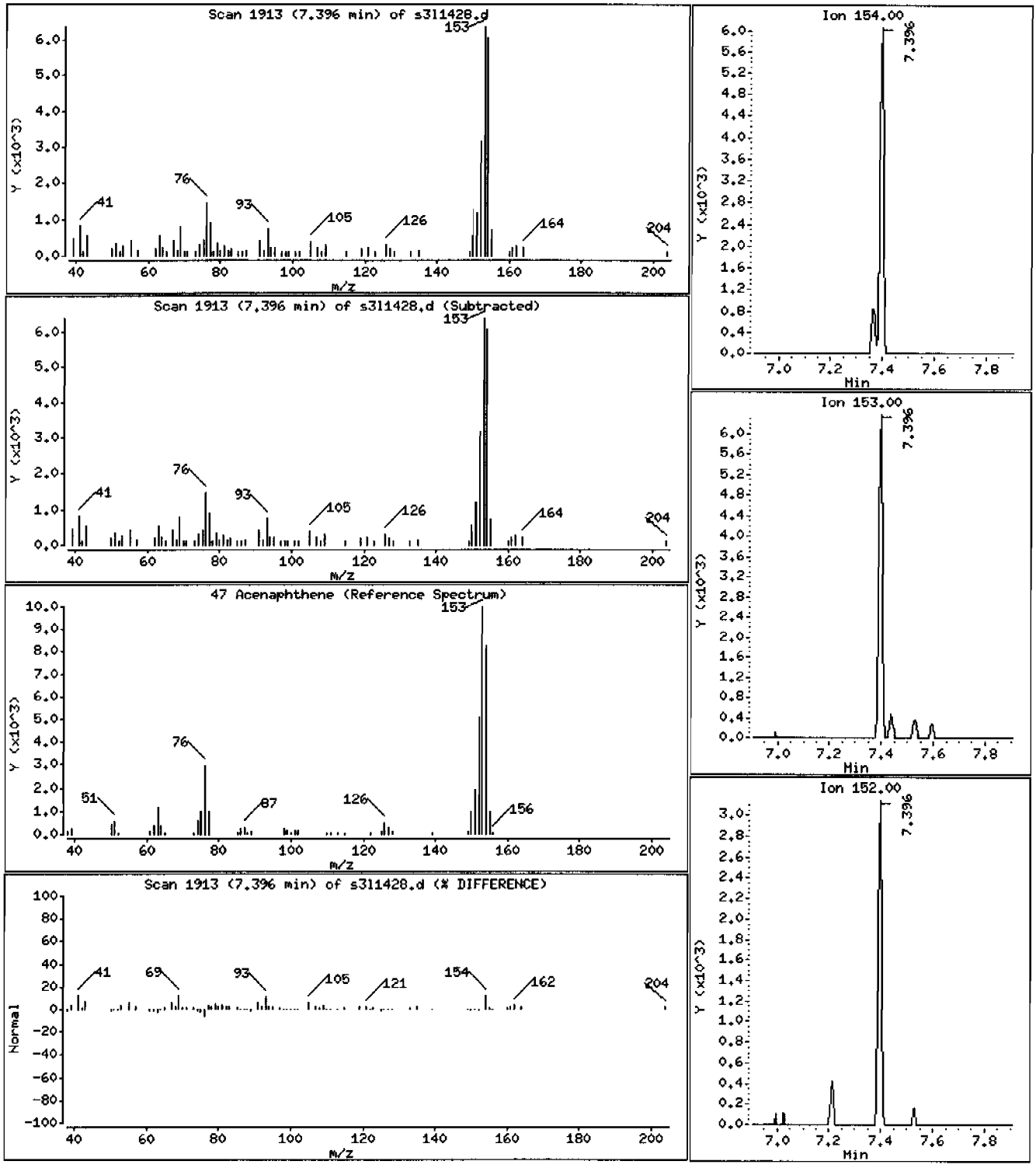

Data File: /chem/MSD3.i/s121409.b/s311428.d

Date : 14-DEC-2009 21:17

Client ID: RE03-09-14277

Instrument: MSD3.i

Sample Info: |2426540121932077|1|SVMF|1|LANL

Volume Injected (uL): 0.5

Operator: JLD1

Column phase: J&W DB-5MS

Column diameter: 0.20

79 Pyrene

Concentration: 591 ug/Kg

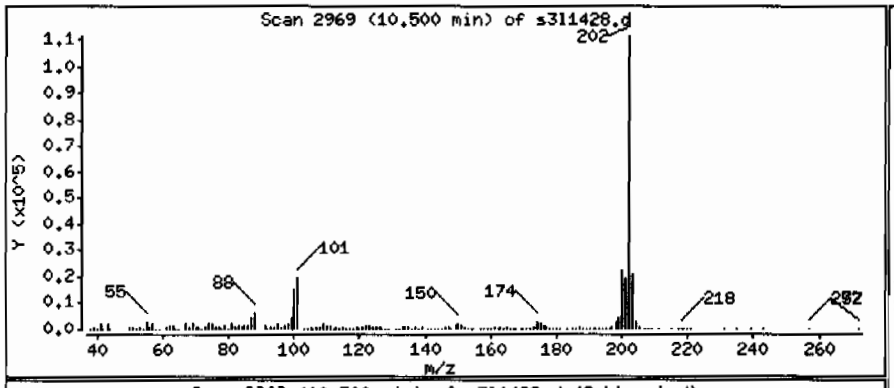

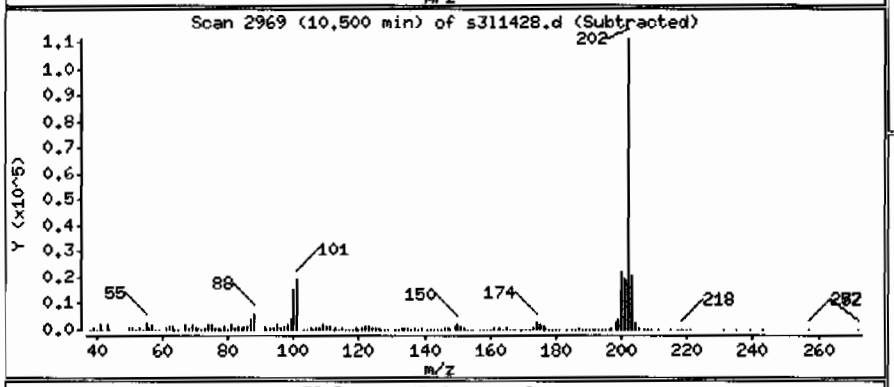

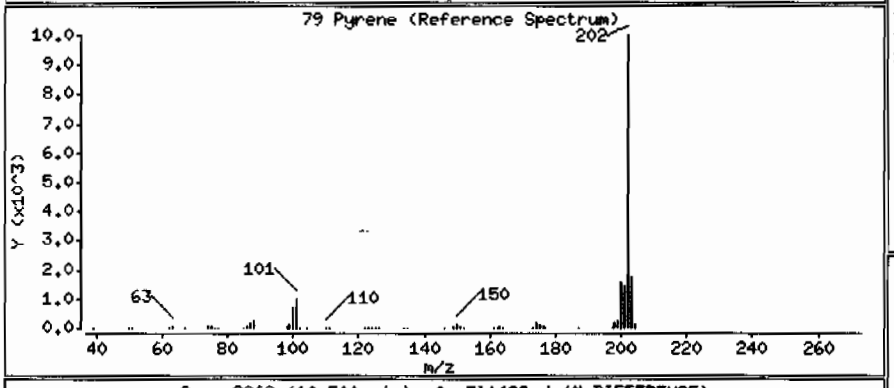

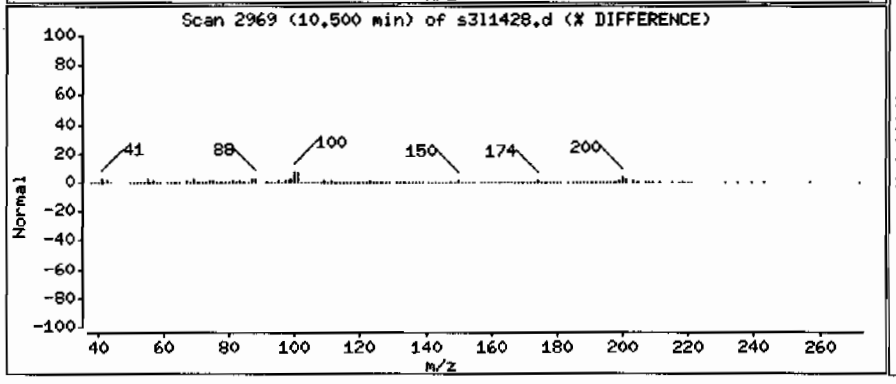

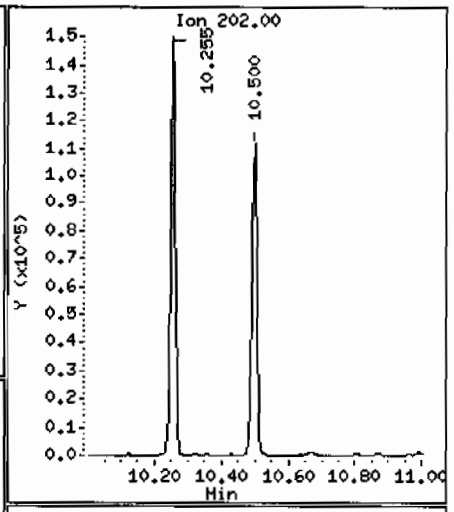

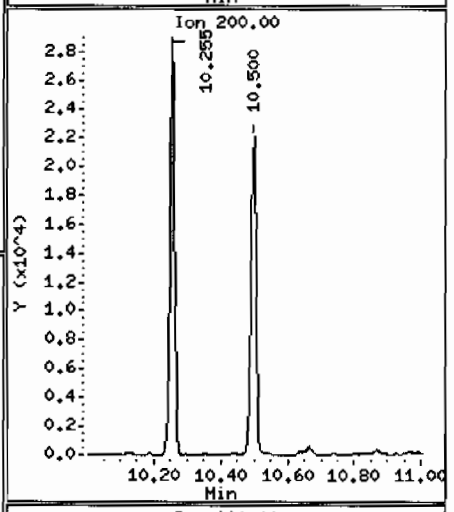

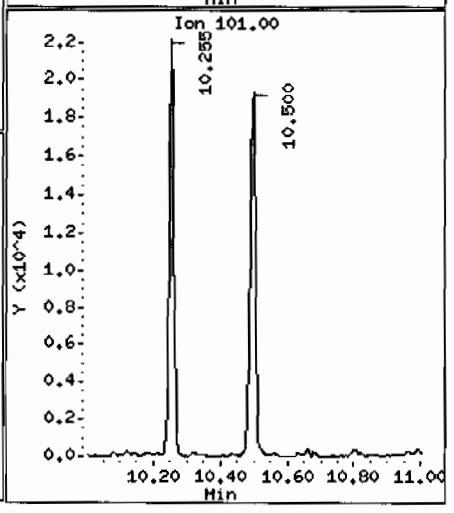

Data File: /chem/MSD3.i/s121409.b/s311428.d

Date : 14-DEC-2009 21:17

Client ID: RE03-09-14277

Instrument: MSD3.i

Sample Info: |2426540121932077|1|SVMF|1|LANL

Volume Injected (uL): 0.5

Operator: JLD1

Column phase: J&W DB-5MS

Column diameter: 0.20

53 Fluorene

Concentration: 31.5 ug/Kg

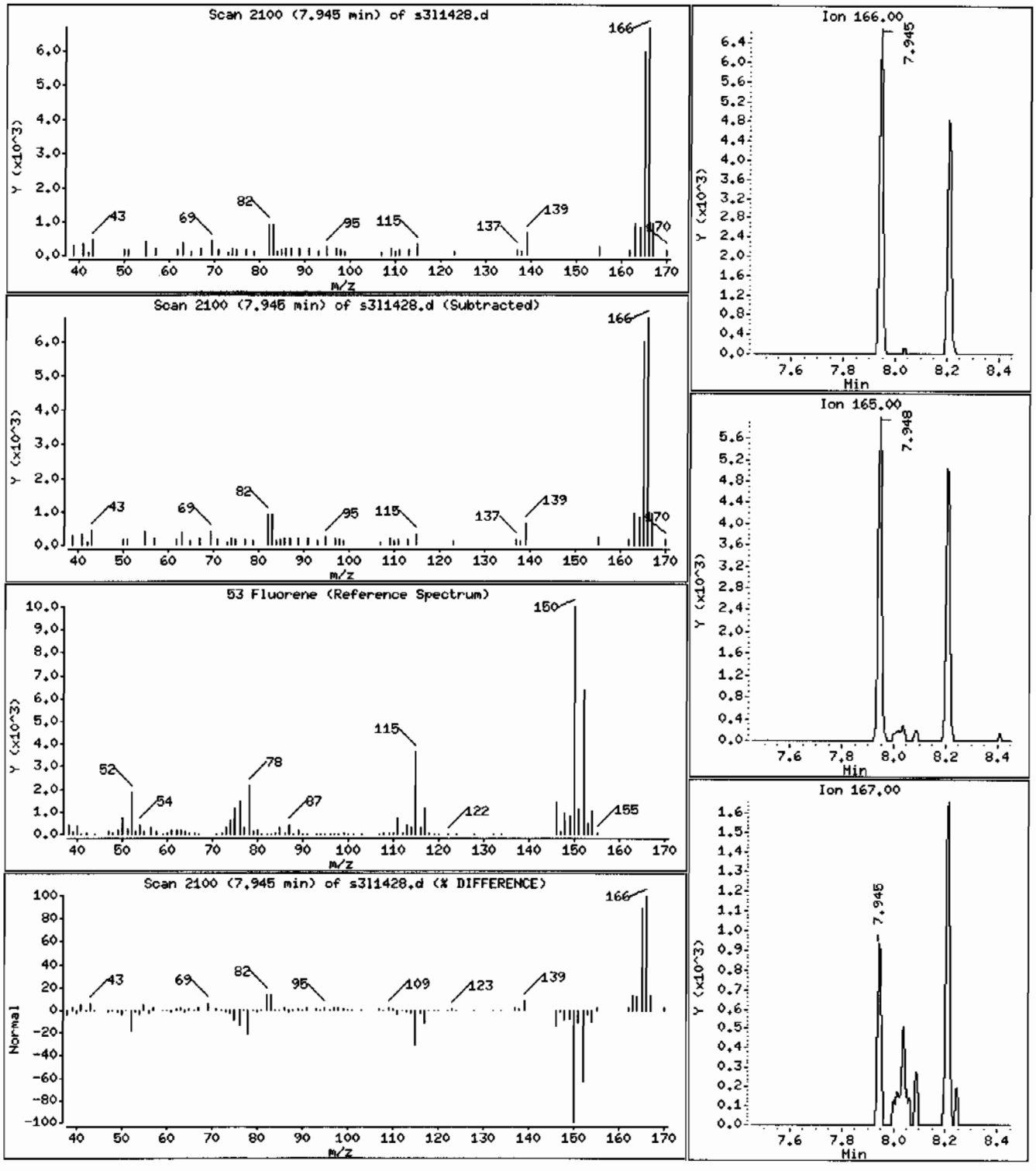

Data File: /chem/MSD3.i/s121409.b/s311428.d

Date : 14-DEC-2009 21:17

Client ID: RE03-09-14277

Instrument: MSD3.i

Sample Info: |2426540121932077|1|SVMF|1|LANL

Volume Injected (uL): 0.5

Operator: JLD1

Column phase: J&W DB-5MS

Column diameter: 0.20

68 Phenanthrene

Concentration: 370 ug/Kg

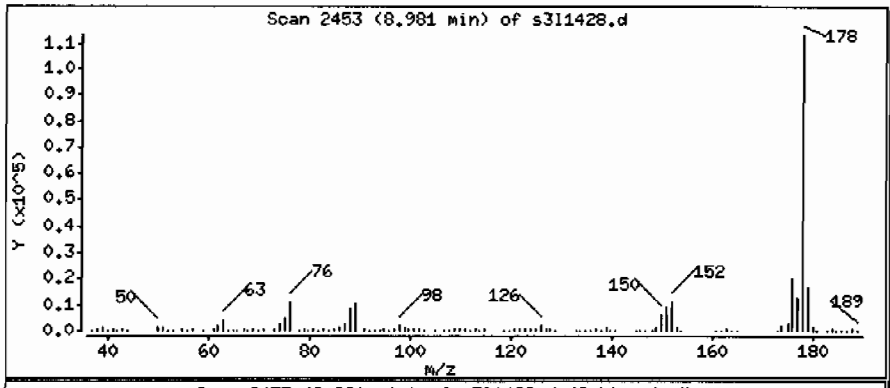

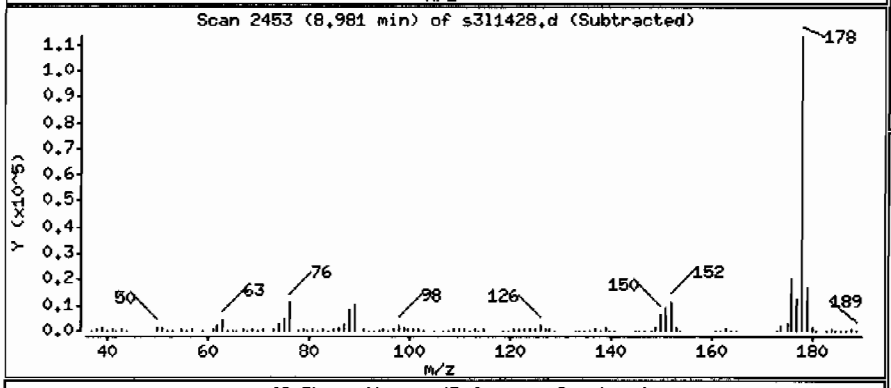

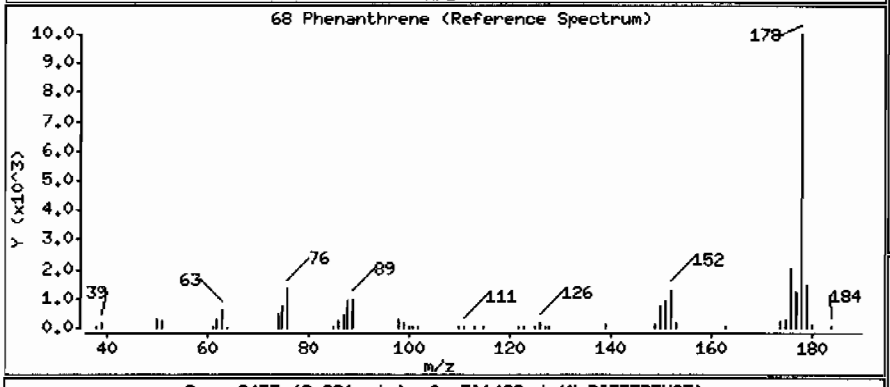

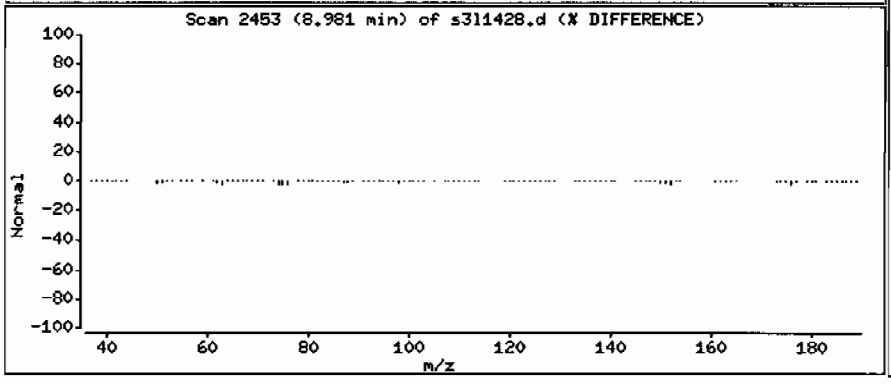

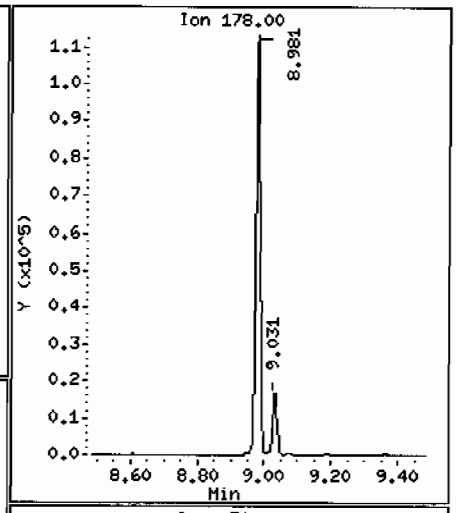

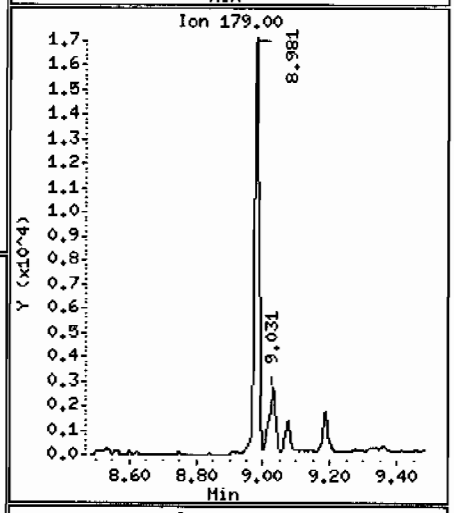

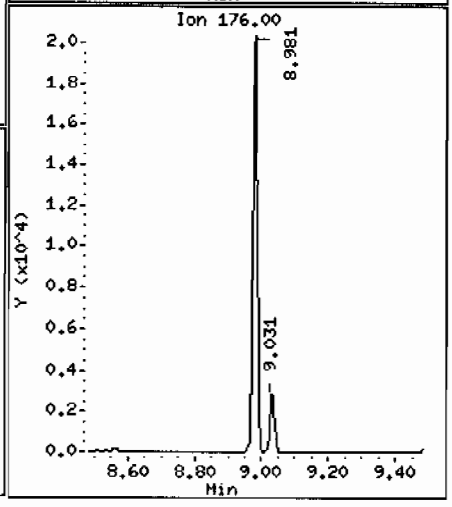

Data File: /chem/MSD3.i/s121409.b/s311428.d

Date : 14-DEC-2009 21:17

Client ID: RE03-09-14277

Instrument: MSD3.i

Sample Info: |2426540121932077|1|SVMF|1|LANL

Volume Injected (uL): 0.5

Operator: JLD1

Column phase: J&W DB-5MS

Column diameter: 0.20

69 Anthracene

Concentration: 57.7 ug/Kg

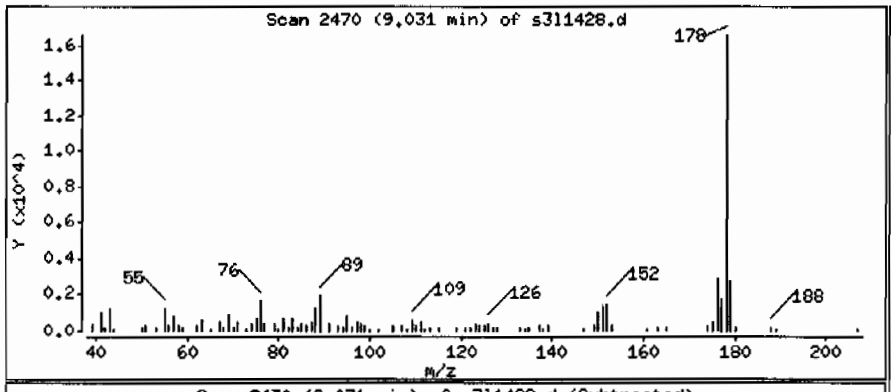

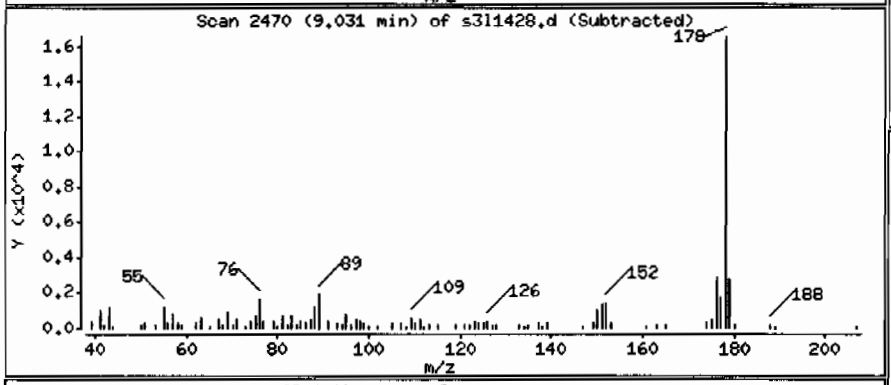

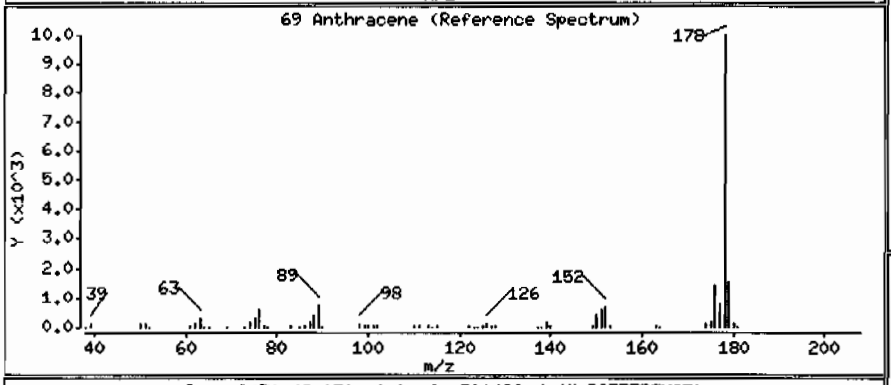

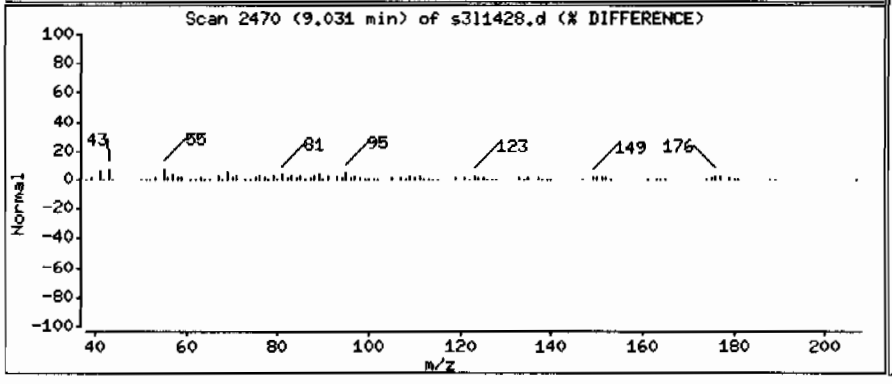

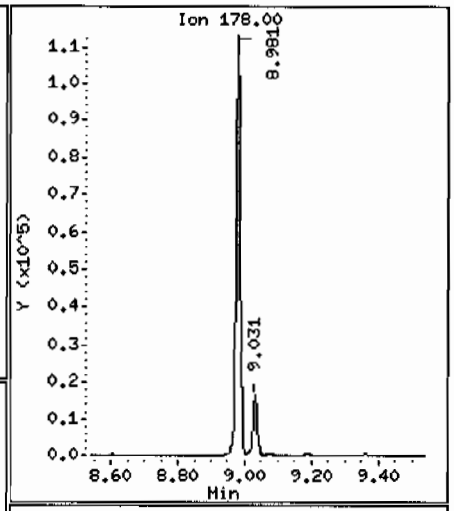

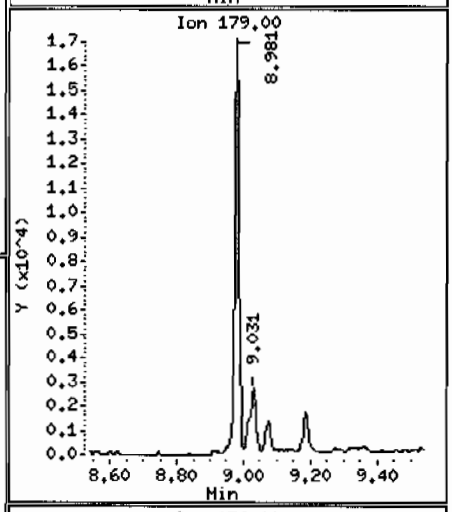

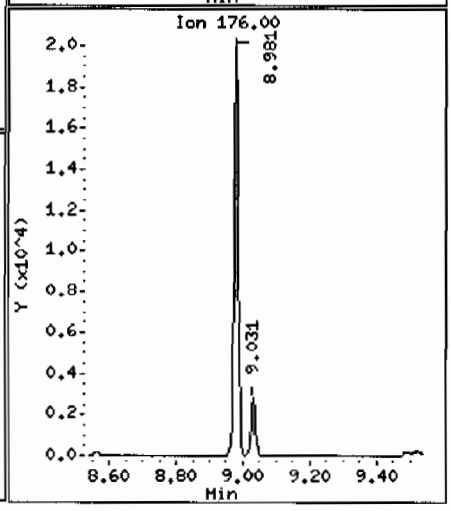

Data File: /chem/MSD3.i/s121409.b/s311428.d

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Date : 14-DEC-2009 21:17

Client ID: RE03-09-14277

Instrument: MSD3.i

Sample Info: |2426540121932077|1|SVMF|1|LANL

Volume Injected (uL): 0.5

Operator: JLD1

Column phase: J&W DB-5MS

Column diameter: 0.20

76 Fluoranthene

Concentration: 533 ug/Kg

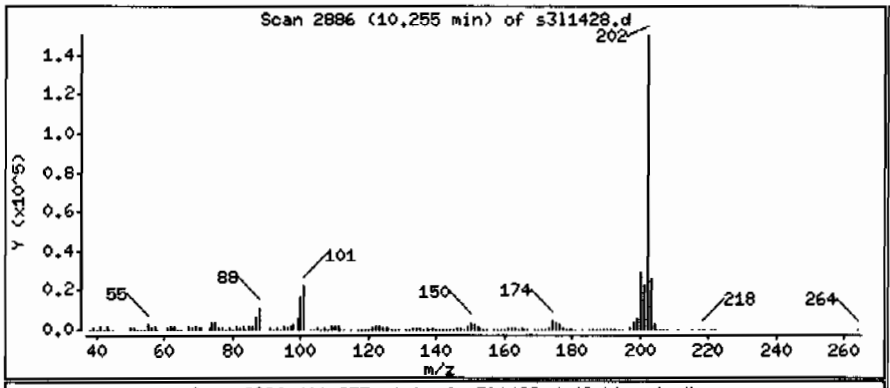

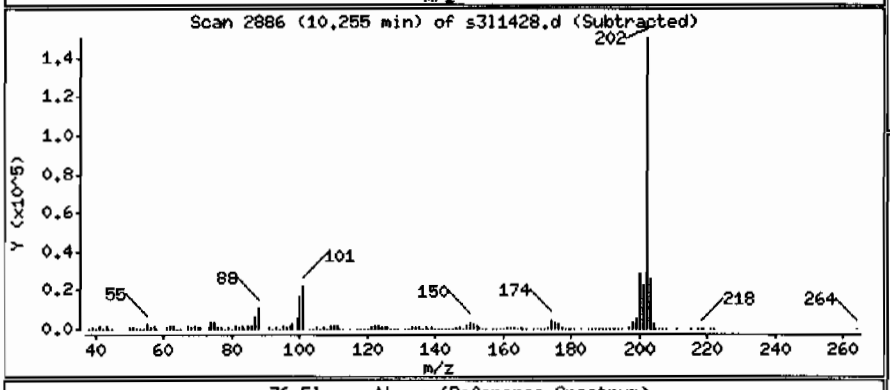

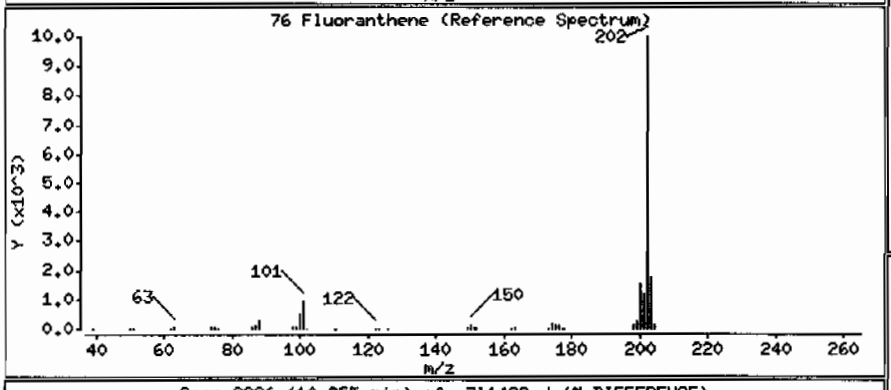

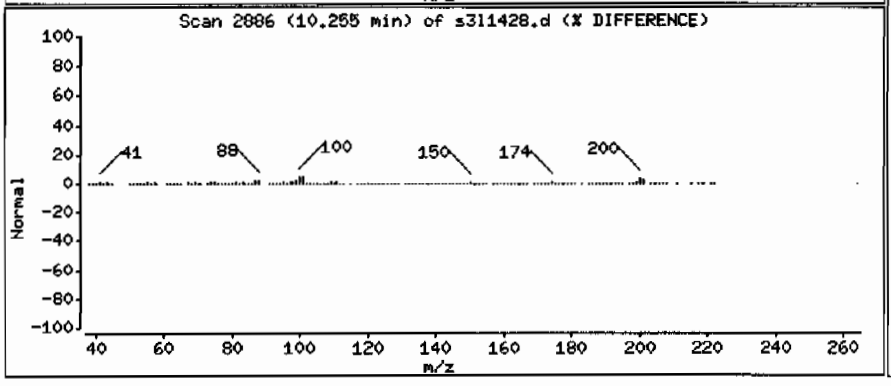

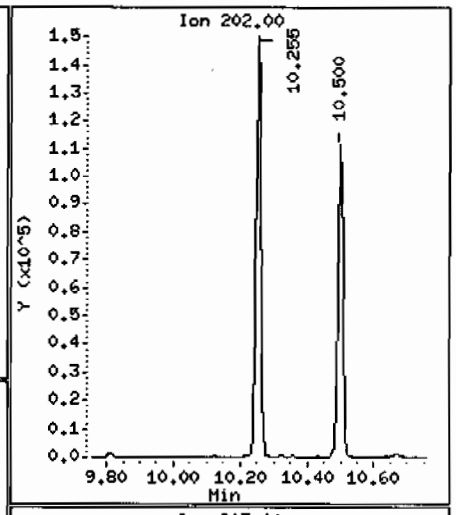

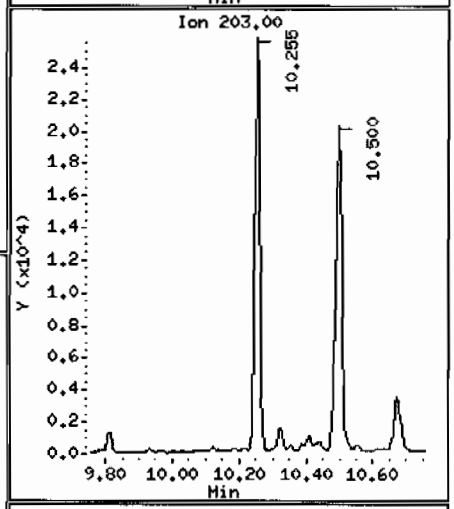

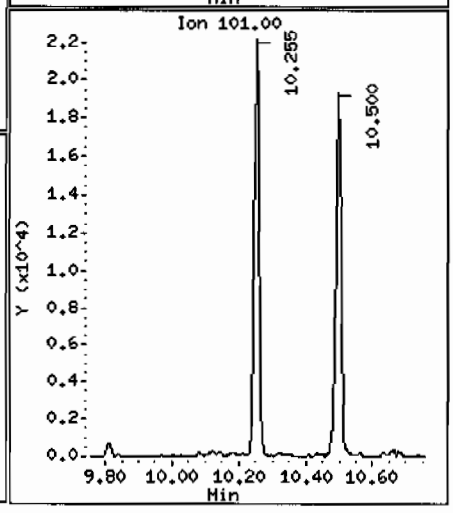

Data File: /chem/MSD3.i/s121409.b/s311428.d

Date : 14-DEC-2009 21:17

Client ID: RE03-09-14277

Instrument: MSD3.i

Sample Info: |2426540121932077|1|SVMF|1|LANL

Volume Injected (uL): 0.5

Operator: JLD1

Column phase: J&W DB-5MS

Column diameter: 0.20

89 Benzo(a)anthracene

Concentration: 218 ug/Kg

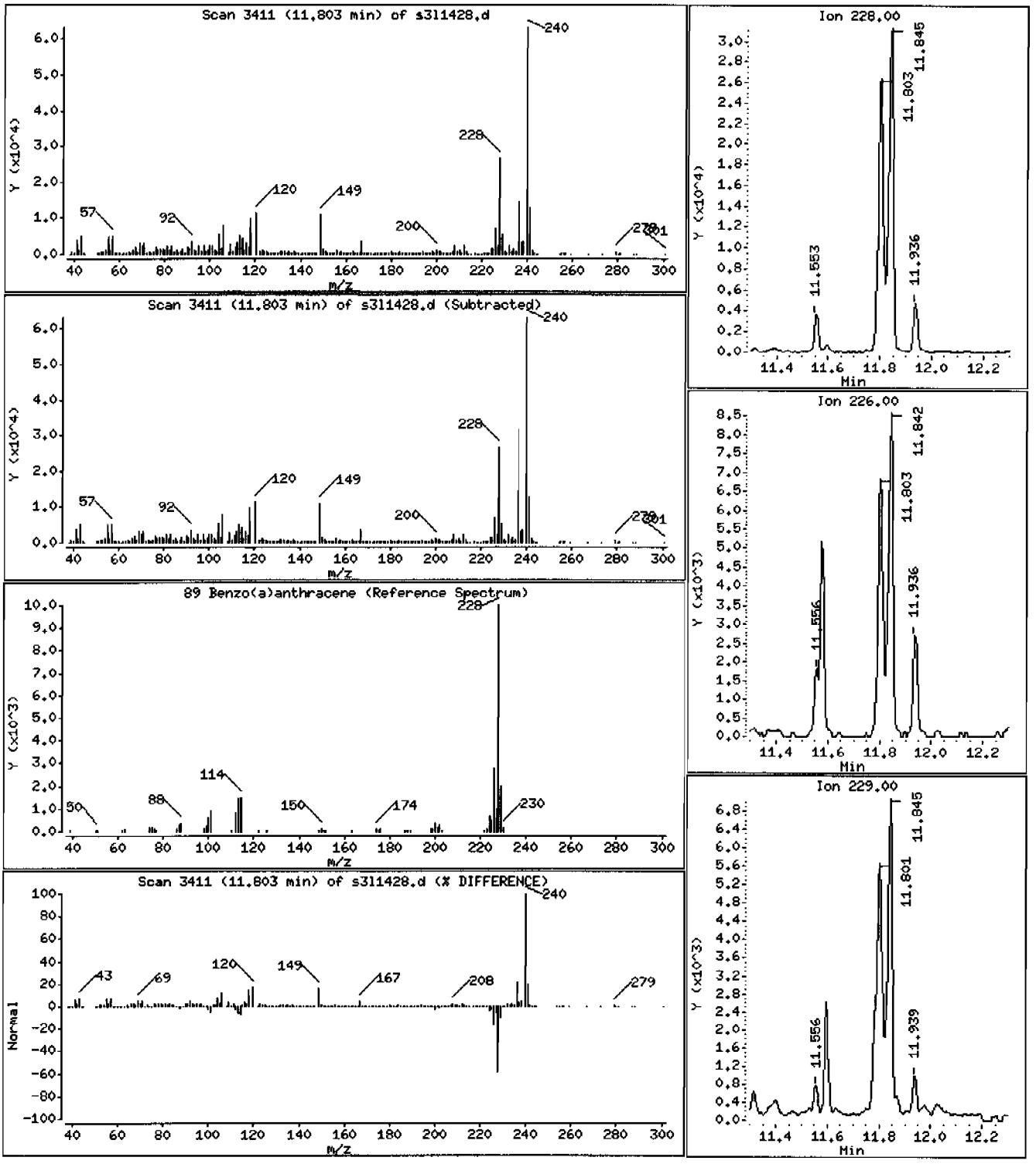

Data File: /chem/MSD3.i/s121409.b/s311428.d

Date : 14-DEC-2009 21:17

Client ID: RE03-09-14277

Instrument: MSD3.i

Sample Info: |2426540121932077|1|SVMF|1|LANL

Volume Injected (uL): 0.5

Operator: JLD1

Column phase: J&W DB-5MS

Column diameter: 0.20

92 Chrysene

Concentration: 258 ug/Kg

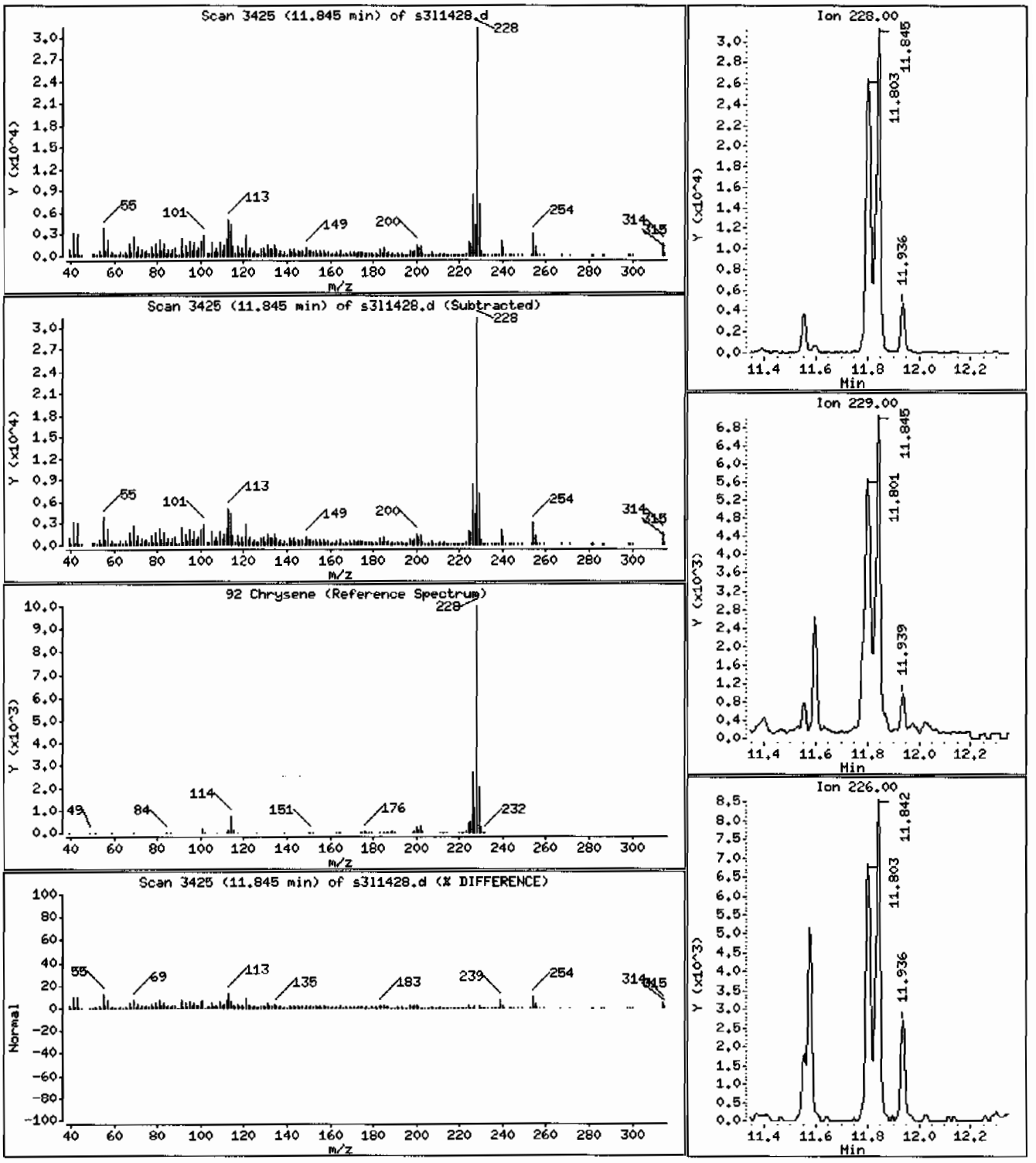

Data File: /chem/MSD3.i/s121409.b/s311428.d

Date : 14-DEC-2009 21:17

Client ID: RE03-09-14277

Instrument: MSD3.i

Sample Info: 1242654012193207711SVMF11LANL

Volume Injected (uL): 0.5

Operator: JLD1

Column phase: J&W DB-5MS

Column diameter: 0.20

93 bis(2-Ethylhexyl)phthalate

Concentration: 100 ug/Kg

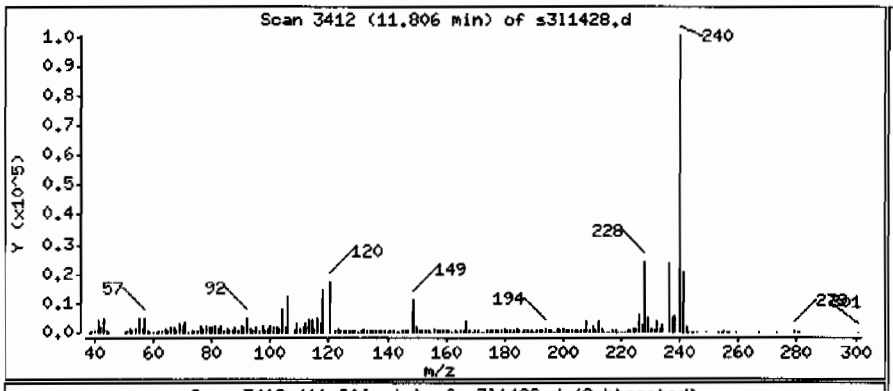

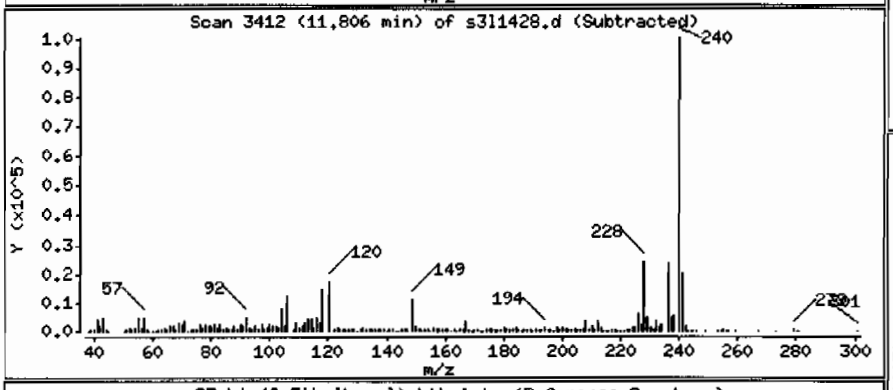

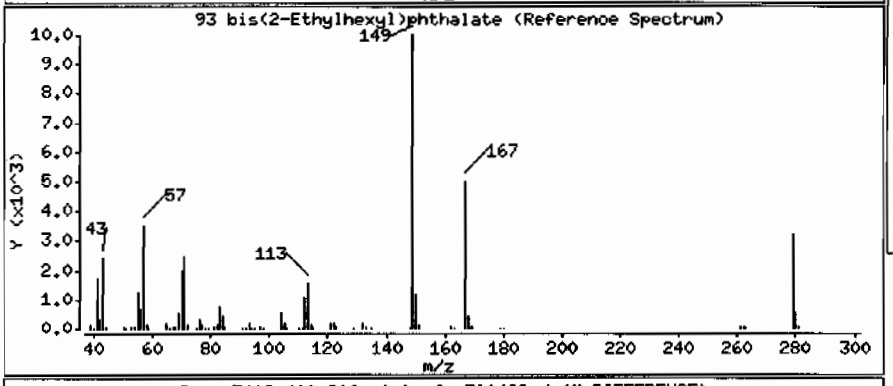

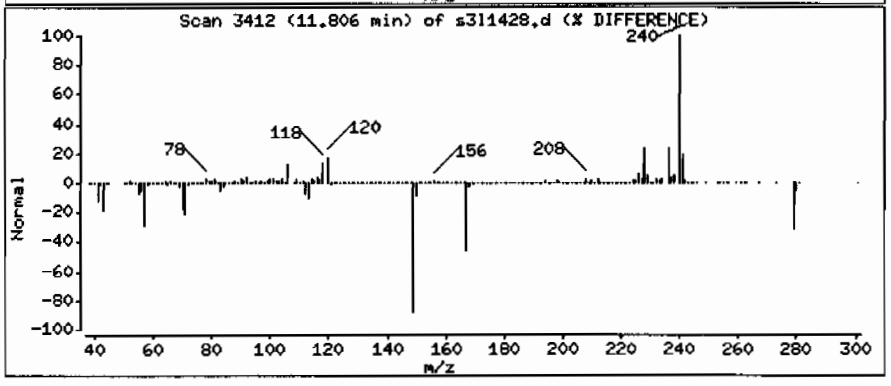

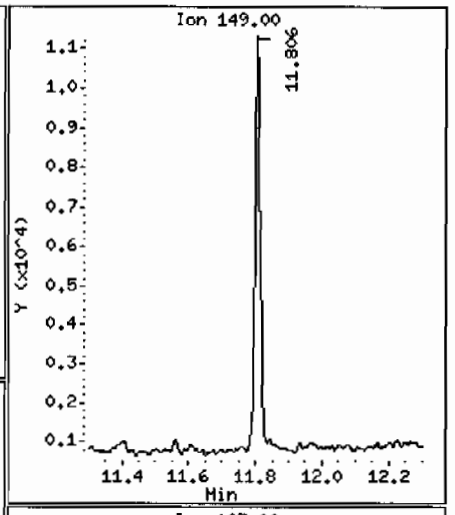

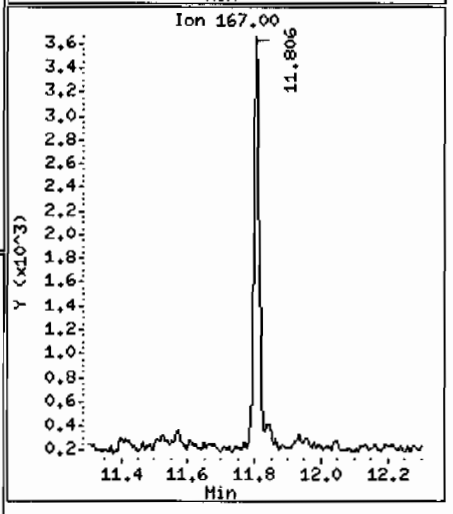

Data File: /chem/MSD3.i/s121409.b/s311428.d

Date : 14-DEC-2009 21:17

Client ID: RE03-09-14277 Instrument: MSD3.i

Sample Info: 1242654012193207711SVMF11LANL

Volume Injected (uL): 0.5 Operator: JLD1

Column phase: J&W DB-5MS Column diameter: 0.20

95 Benzo(b)fluoranthene Concentration: 352 ug/Kg

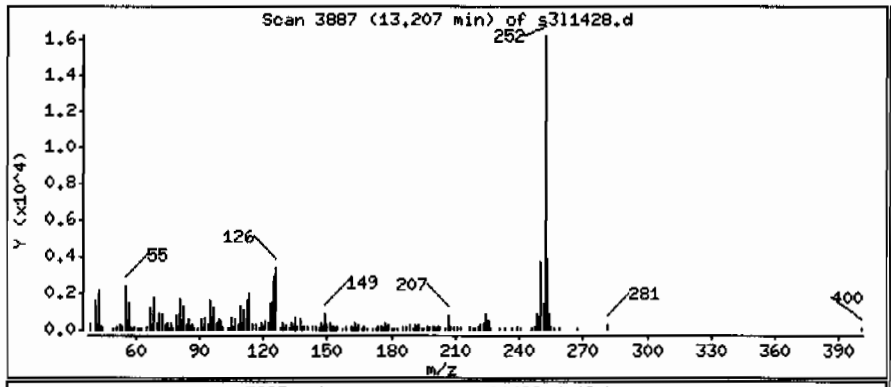

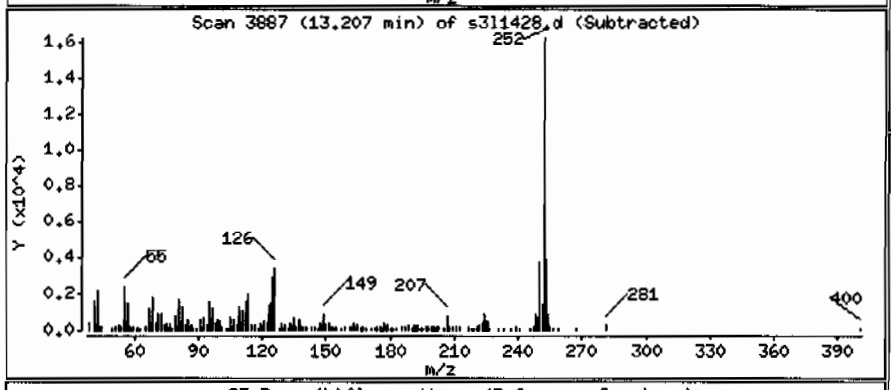

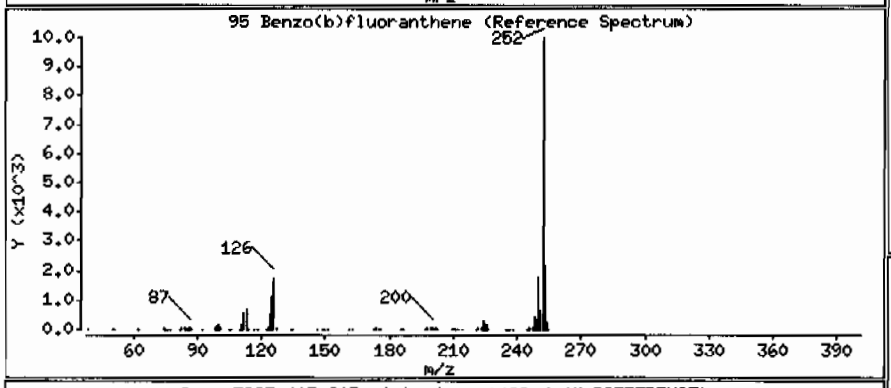

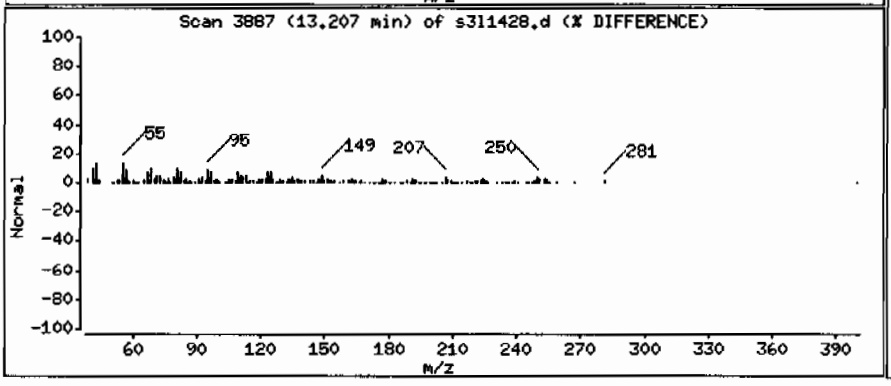

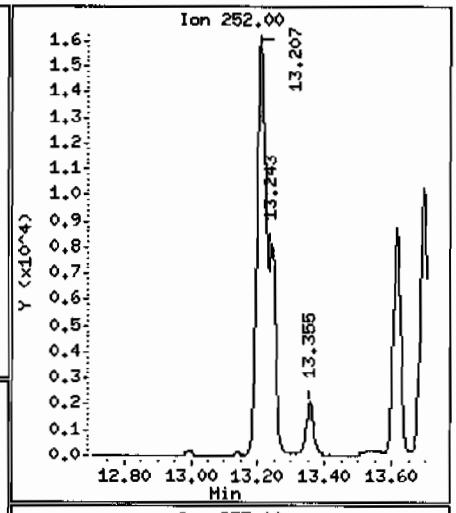

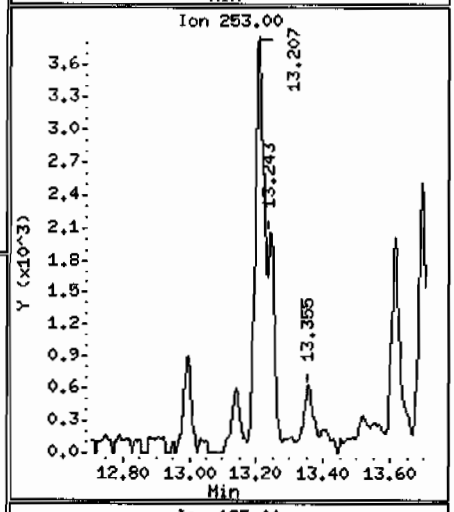

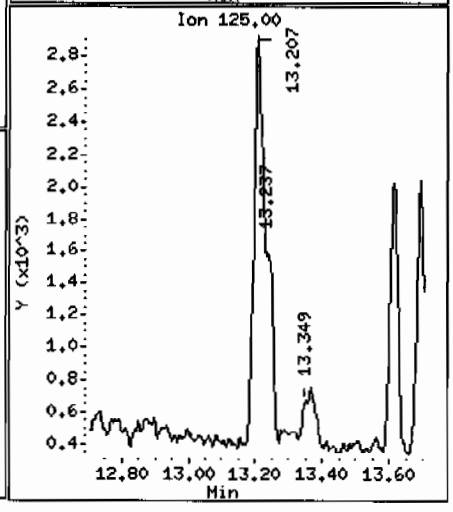

Data File: /chem/MSD3.i/s121409.b/s311428.d

Date : 14-DEC-2009 21:17

Client ID: RE03-09-14277

Instrument: MSD3.i

Sample Info: |2426540121932077|1|SVHF|1|LANL

Volume Injected (uL): 0.5

Operator: JLD1

Column phase: J&W DB-5MS

Column diameter: 0.20

96 Benzo(k)fluoranthene

Concentration: 130 ug/Kg

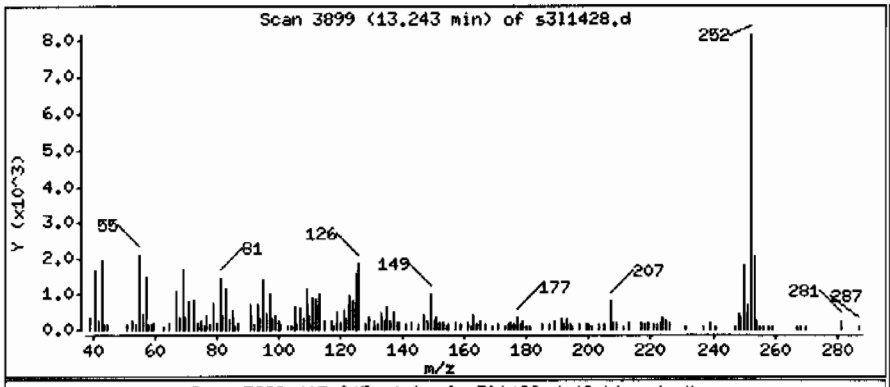

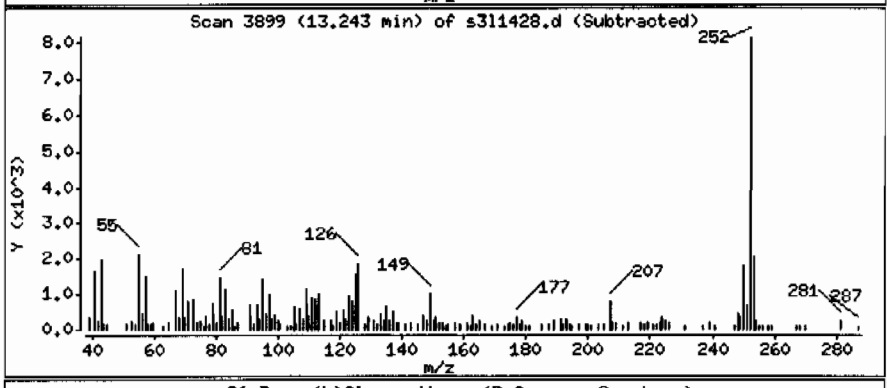

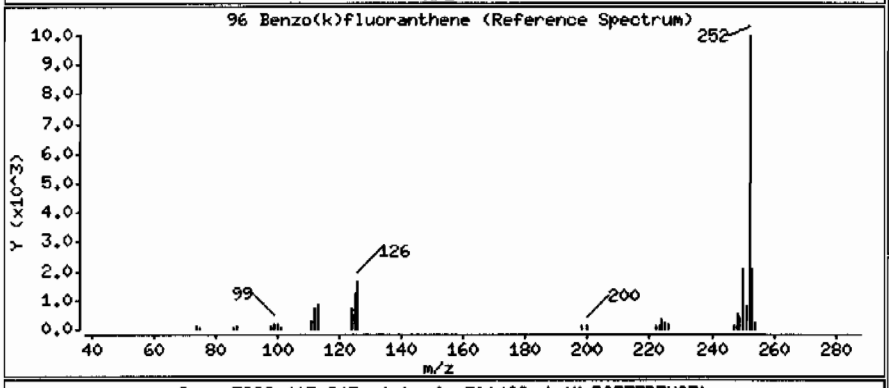

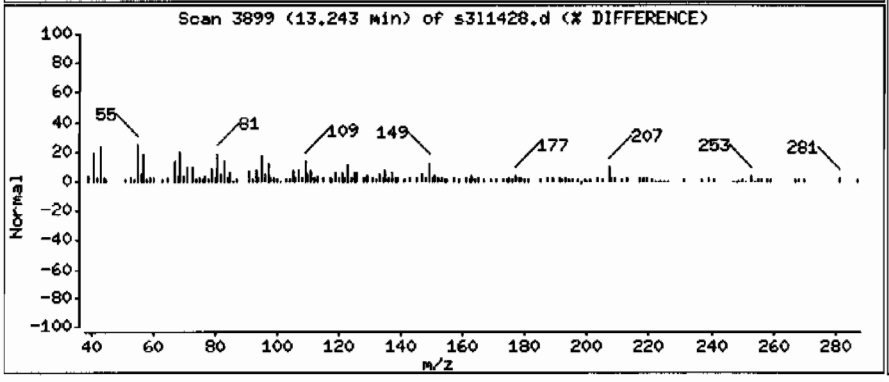

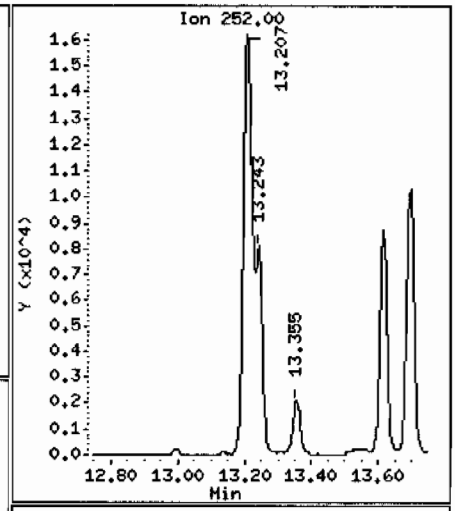

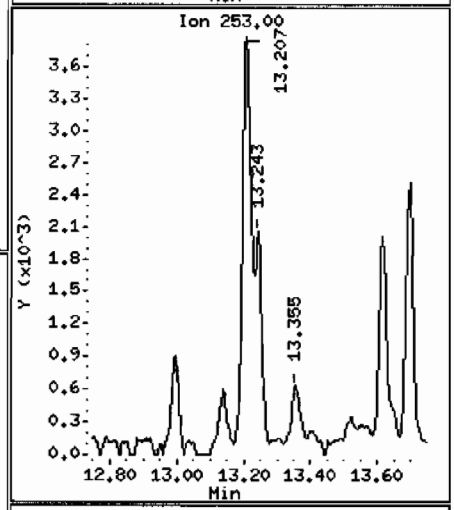

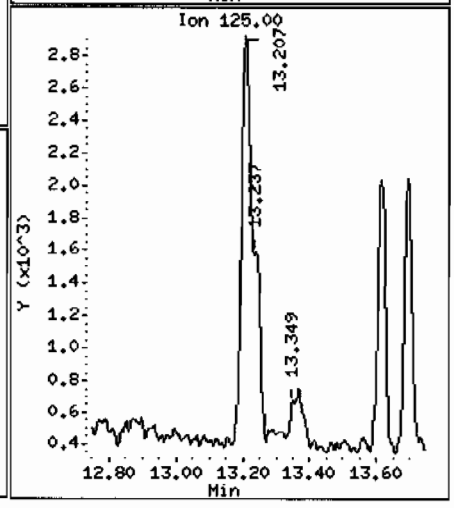

Data File: /chem/MSD3.i/s121409.b/s311428.d

Date : 14-DEC-2009 21:17

Client ID: RE03-09-14277

Instrument: MSD3.i

Sample Info: |2426540121932077|1|SVMF|1|LANL

Volume Injected (uL): 0.5

Operator: JLD1

Column phase: J&W DB-5MS

Column diameter: 0.20

97 Benzo(a)pyrene

Concentration: 216 ug/Kg

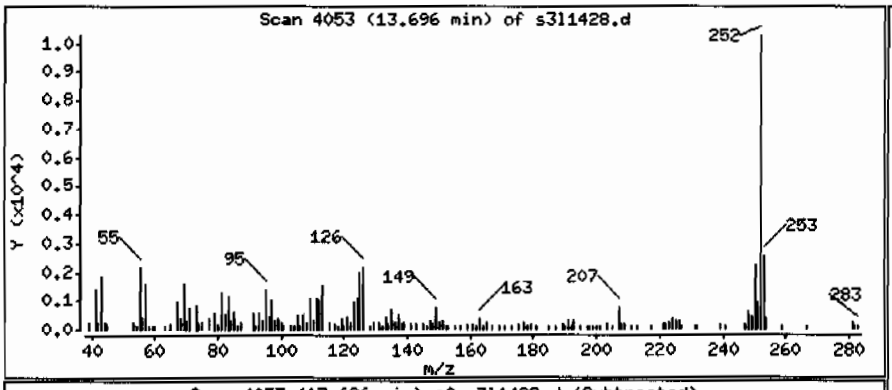

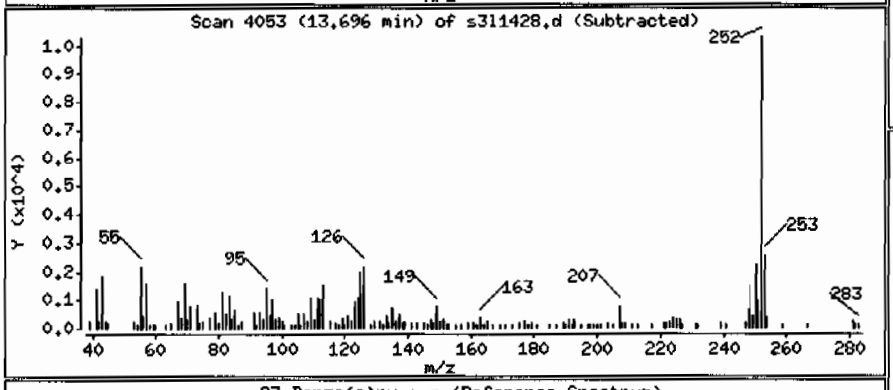

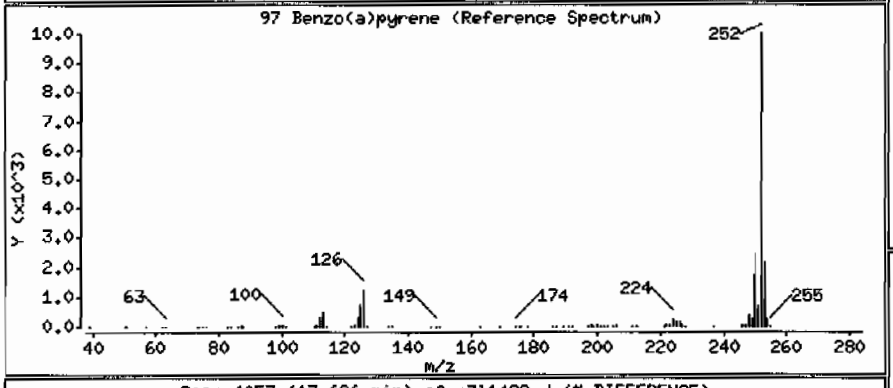

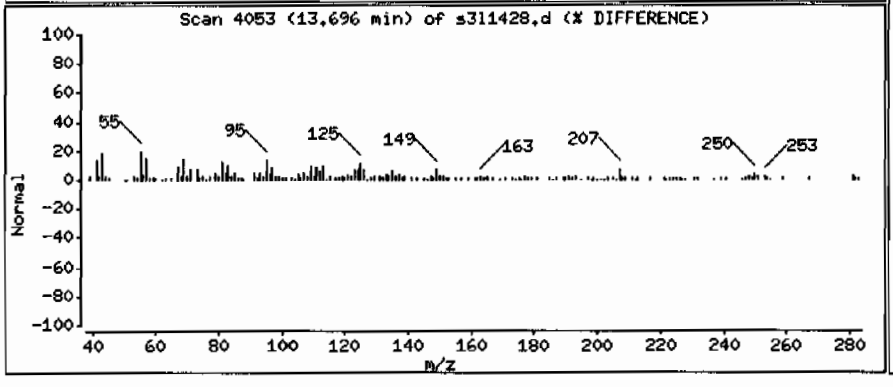

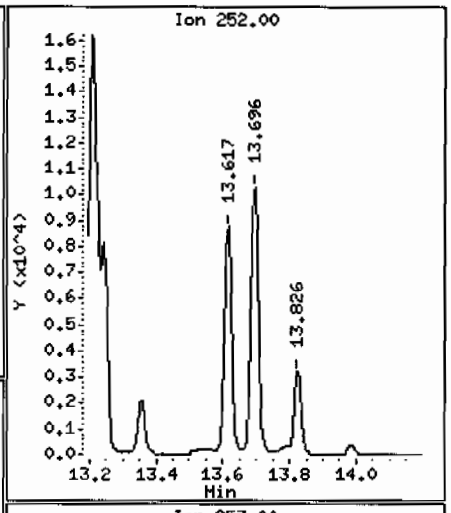

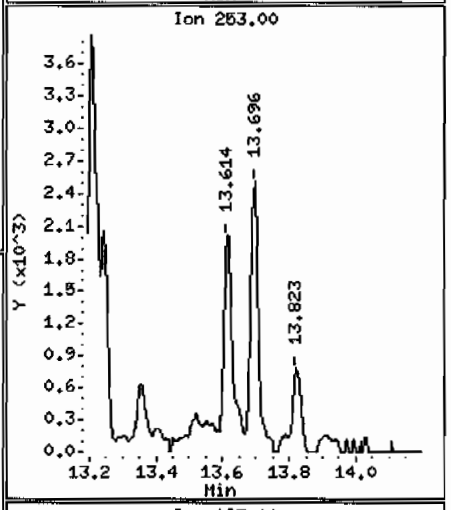

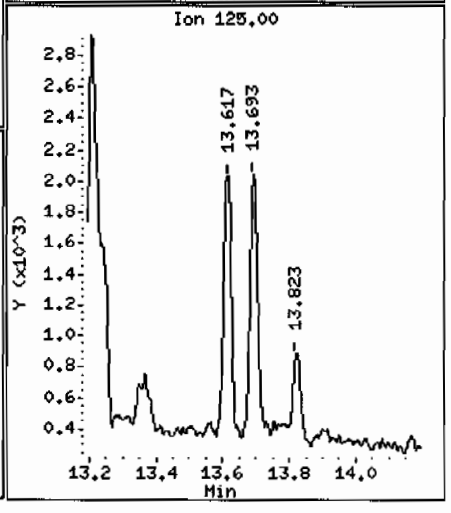

Data File: /chem/MSD3.i/s121409.b/s311428.d

Date : 14-DEC-2009 21:17

Client ID: RE03-09-14277

Instrument: MSD3.i

Sample Info: 1242654012193207711SVMF11LANL

Volume Injected (uL): 0.5

Operator: JLD1

Column phase: J&W DB-5MS

Column diameter: 0.20

99 Indeno(1,2,3-cd)pyrene

Concentration: 103 ug/Kg

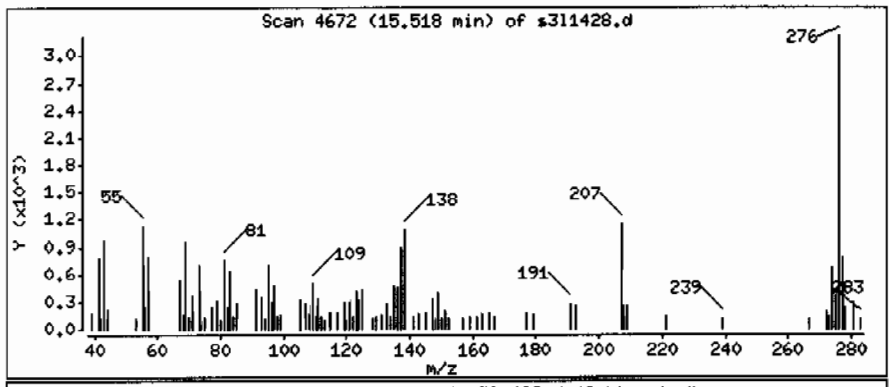

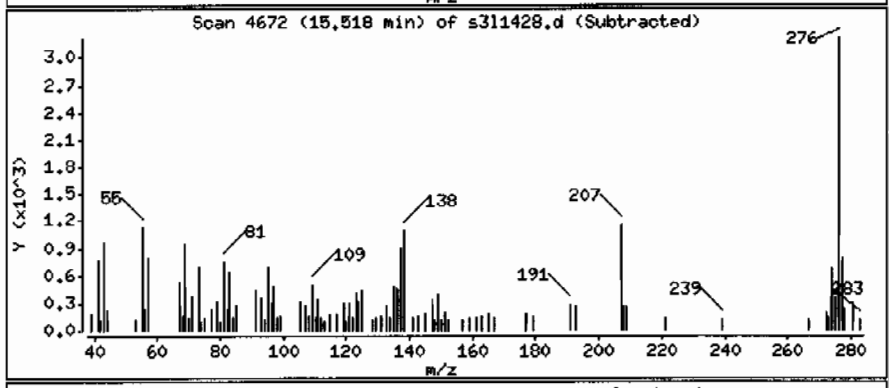

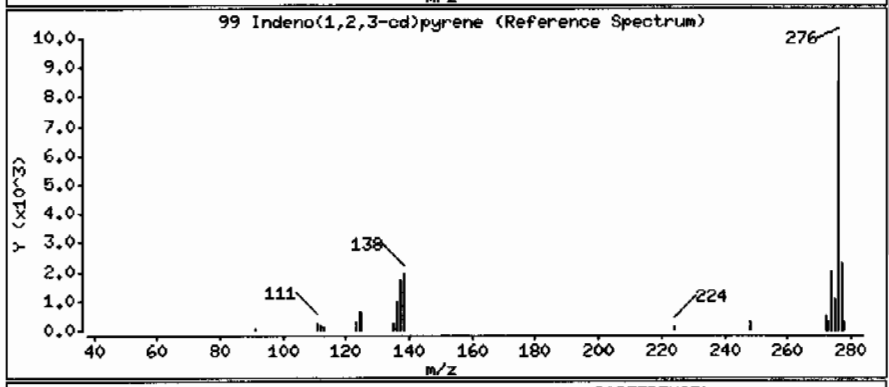

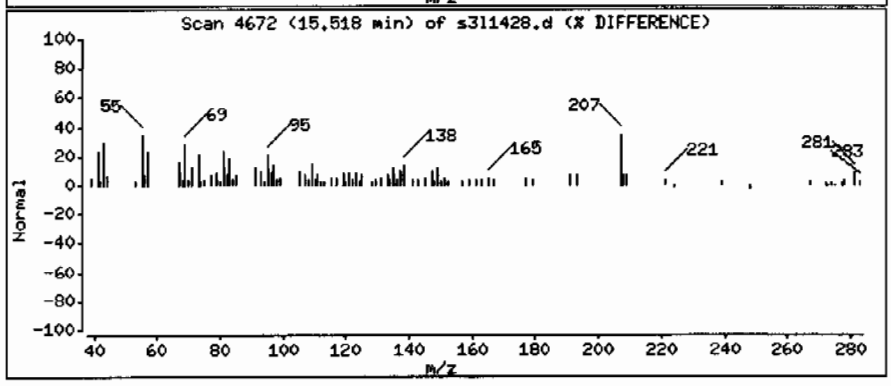

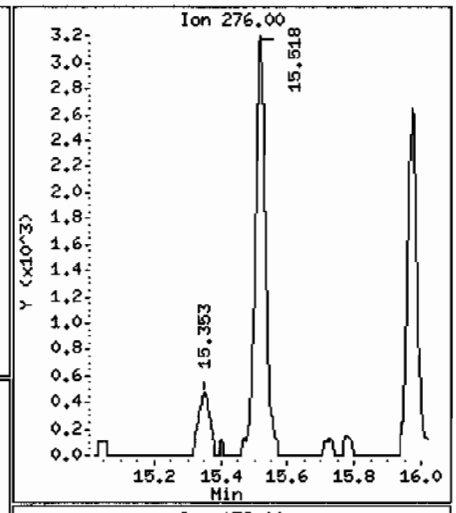

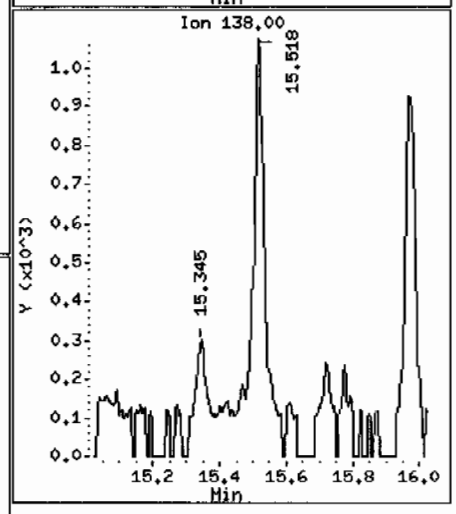

Data File: /chem/MSD3.i/s121409.b/s311428.d

Date : 14-DEC-2009 21:17

Client ID: RE03-09-14277

Instrument: MSD3.i

Sample Info: |2426540121932077|1|SVMF|1|LANL

Volume Injected (uL): 0.5

Operator: JLD1

Column phase: J&W DB-5MS

Column diameter: 0.20

100 Dibenzo(a,h)anthracene

Concentration: 19.0 ug/Kg

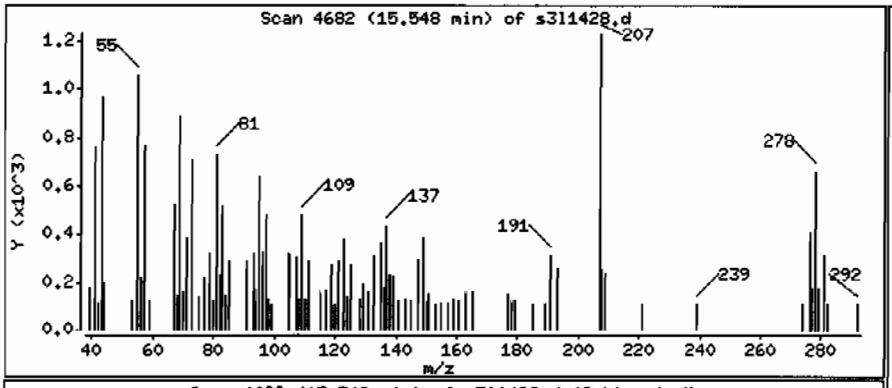

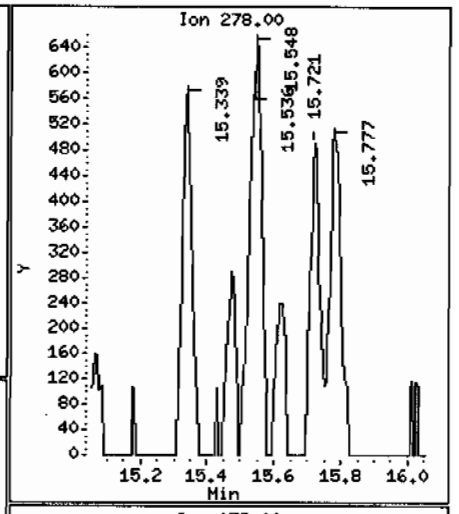

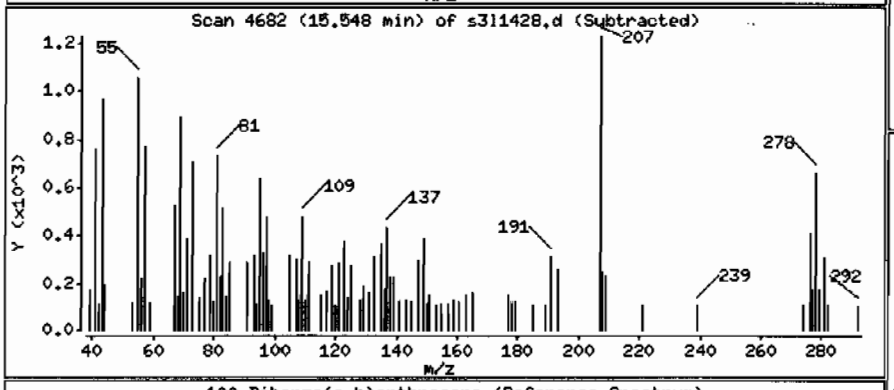

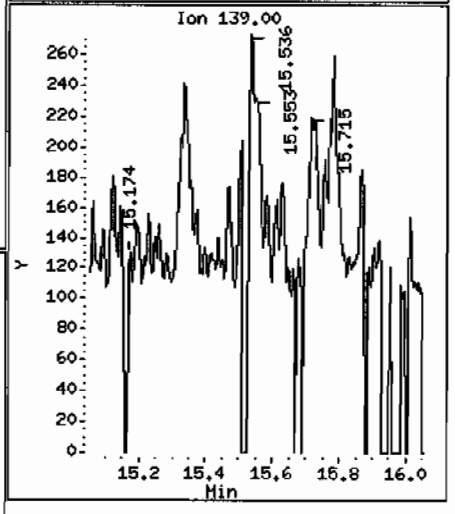

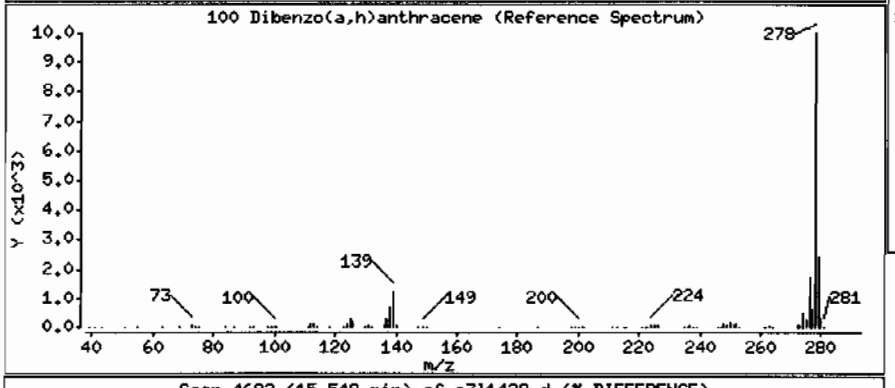

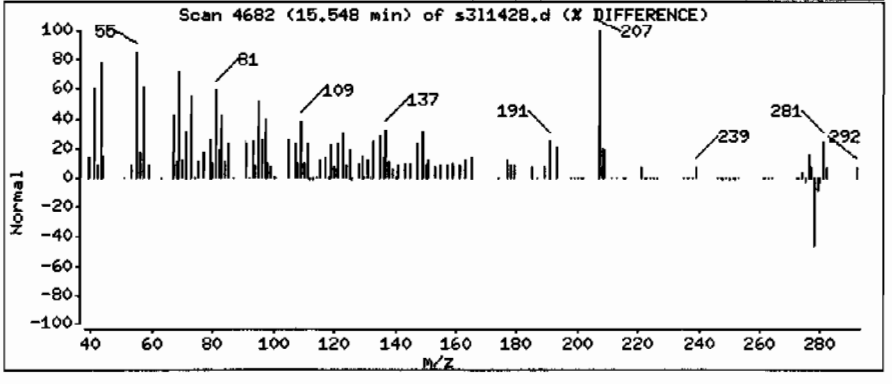

Data File: /chem/MSD3.i/s121409.b/s311428.d

Page 16

Date : 14-DEC-2009 21:17

Client ID: RE03-09-14277

Instrument: MSD3.i

Sample Info: |2426540121932077|1|SVMF|1|LANL

Volume Injected (uL): 0.5

Operator: JLD1

Column phase: J&W DB-5MS

Column diameter: 0.20

101 Benzo(ghi)perylene

Concentration: 96.0 ug/Kg

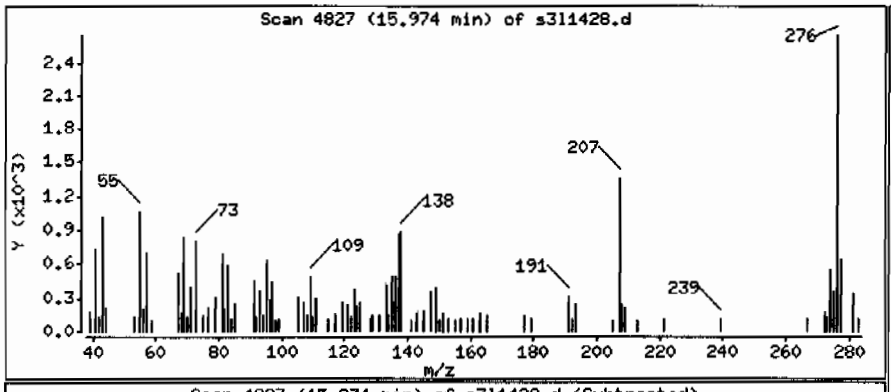

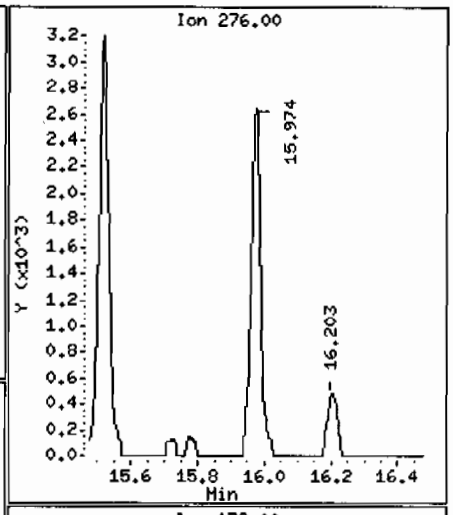

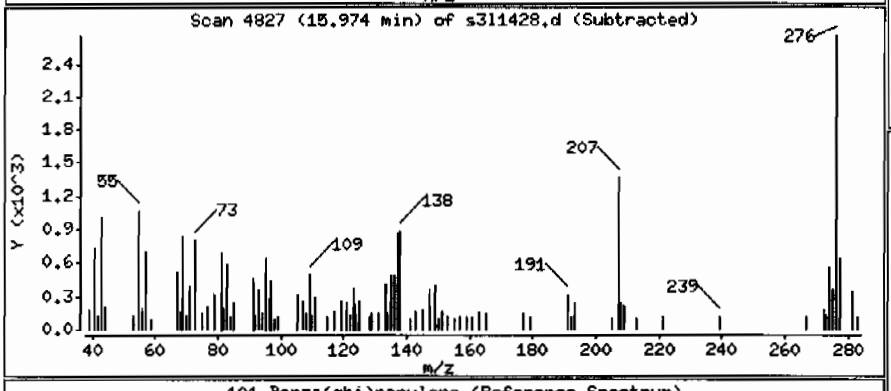

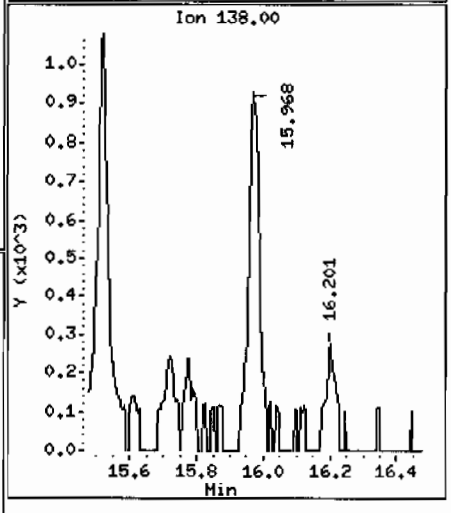

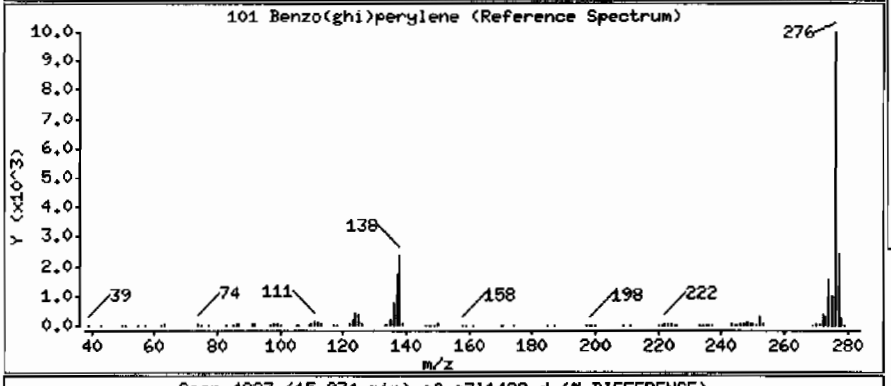

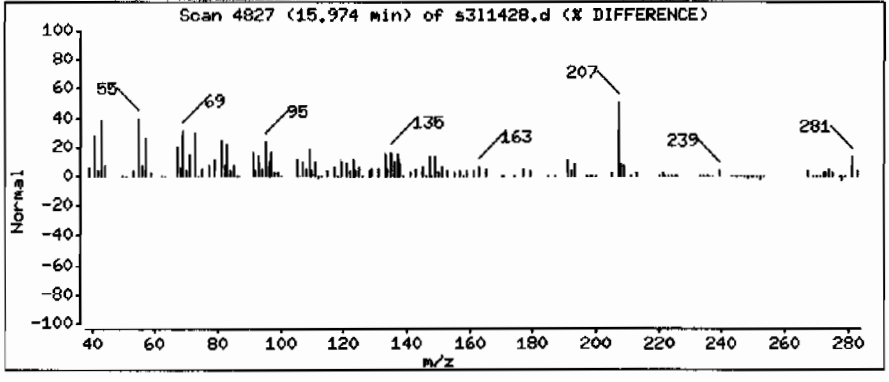

Data File: /chem/MSD3.i/s121409.b/s311428.d

Date : 14-DEC-2009 21:17

Client ID: RE03-09-14277

Instrument: MSD3.i

Sample Info: |2426540121932077|1|SVMF|1|LANL

Volume Injected (uL): 0.5

Operator: JLD1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
2-Propanone, 1-chloro-	78-95-5	NIST05.L	2356	58	C3H5ClO	92
2-Propanone, 1-chloro-	78-95-5	NIST05.L	2354	58	C3H5ClO	92
2-Propanone, 1-chloro-	78-95-5	NIST05.L	2352	52	C3H5ClO	92

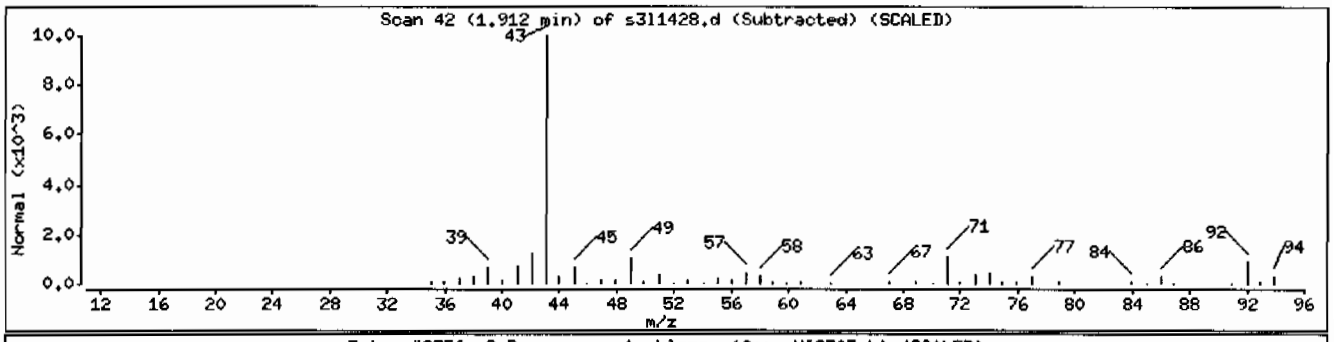

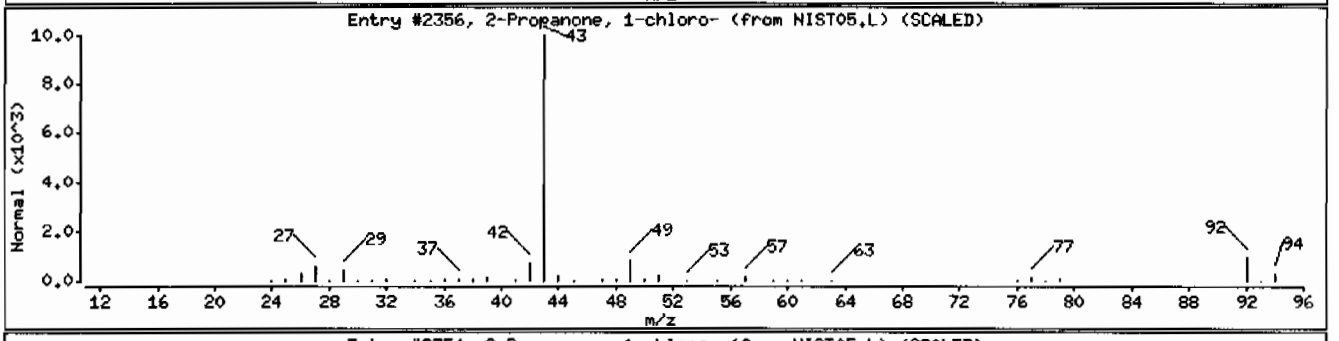

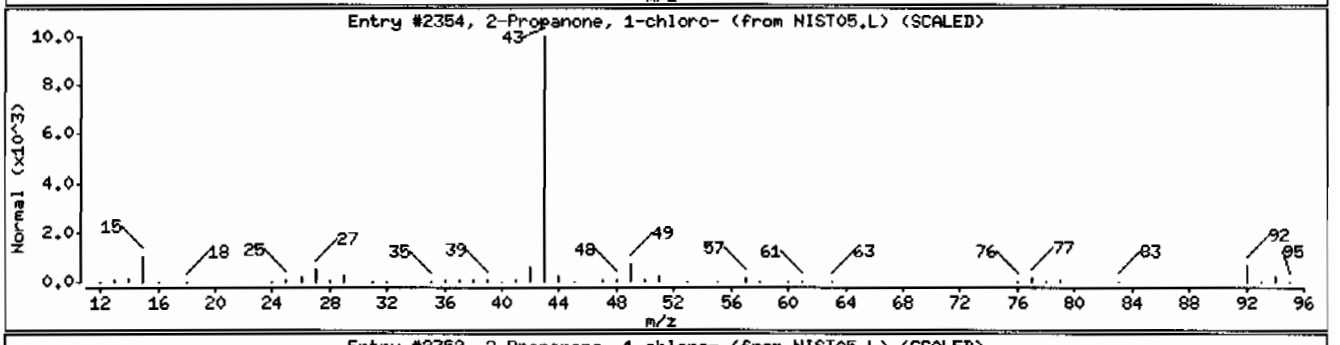

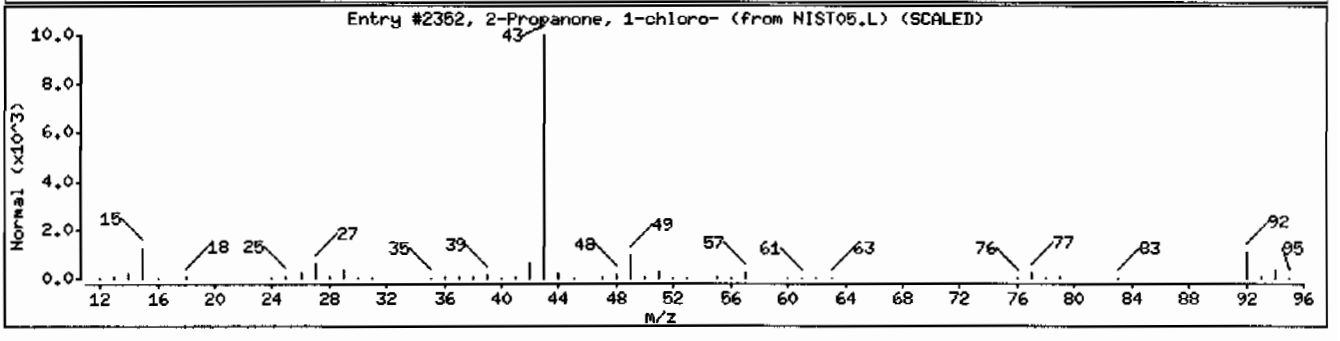

Data File: /chem/MSD3.i/s121409.b/s311428.d

Date : 14-DEC-2009 21:17

Client ID: RE03-09-14277 Instrument: MSD3.i

Sample Info: |2426540121932077111SVHF111LANL

Volume Injected (uL): 0.5 Operator: JLD1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	56	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	50	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7945	38	C6H12O2	116

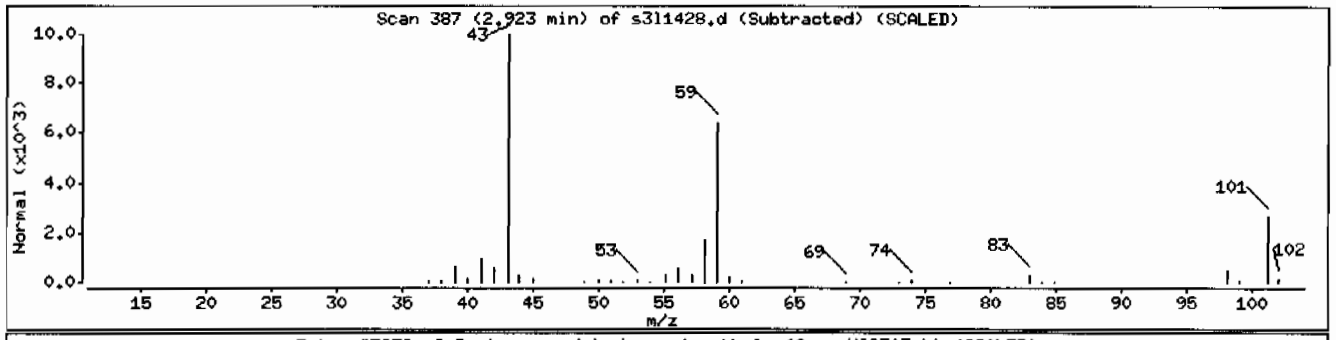

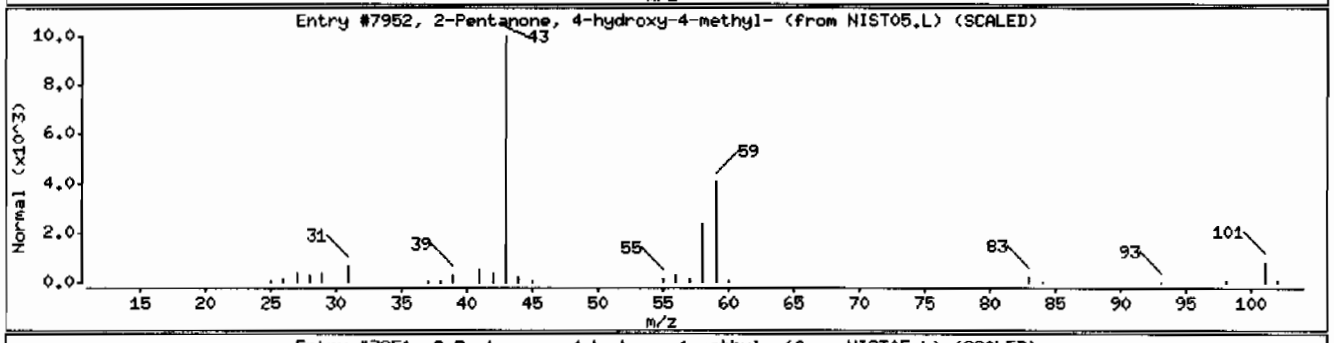

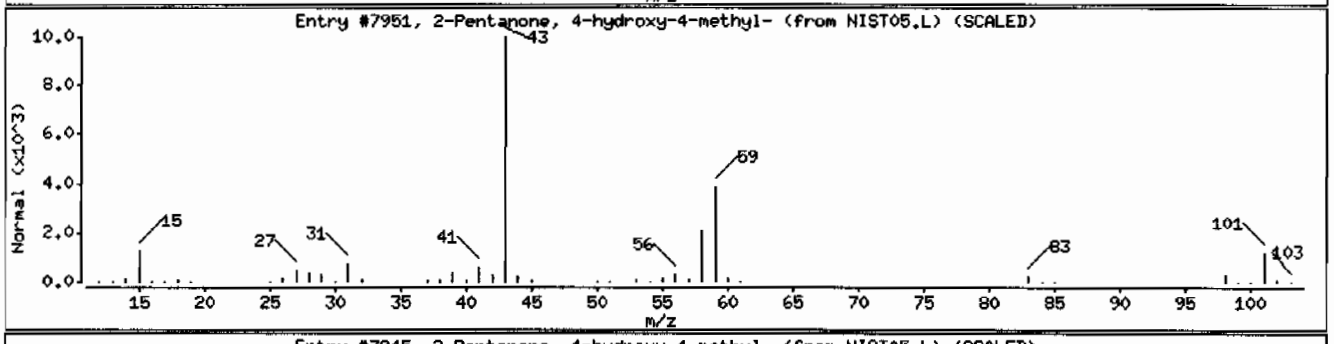

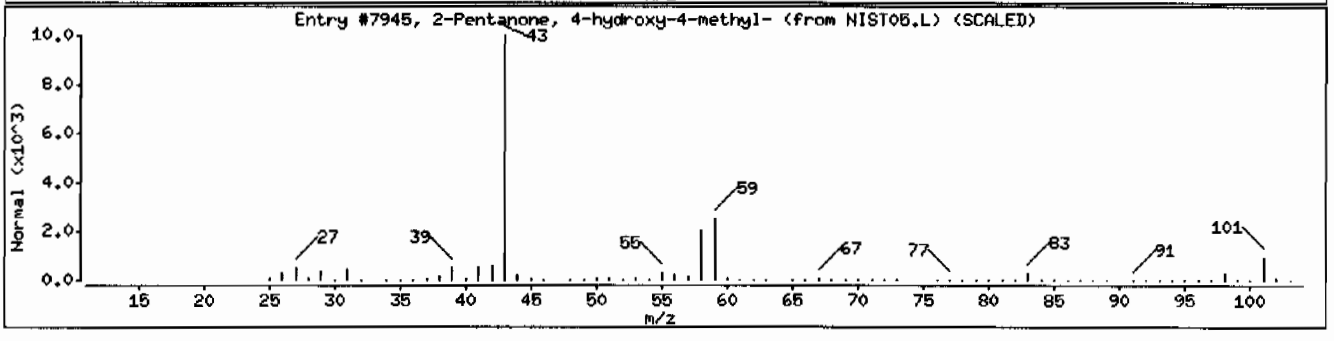

Data File: /chem/MSD3.i/s121409.b/s311428.d

Date : 14-DEC-2009 21:17

Client ID: RE03-09-14277 Instrument: MSD3.i

Sample Info: |2426540121932077|1|SVHF|1|LANL

Volume Injected (uL): 0.5 Operator: JLD1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
1R-.alpha.-Pinene	7785-70-8	NIST05.L	15188	96	C10H16	136
1R-.alpha.-Pinene	7785-70-8	NIST05.L	15186	96	C10H16	136
1S-.alpha.-Pinene	7785-26-4	NIST05.L	15185	96	C10H16	136

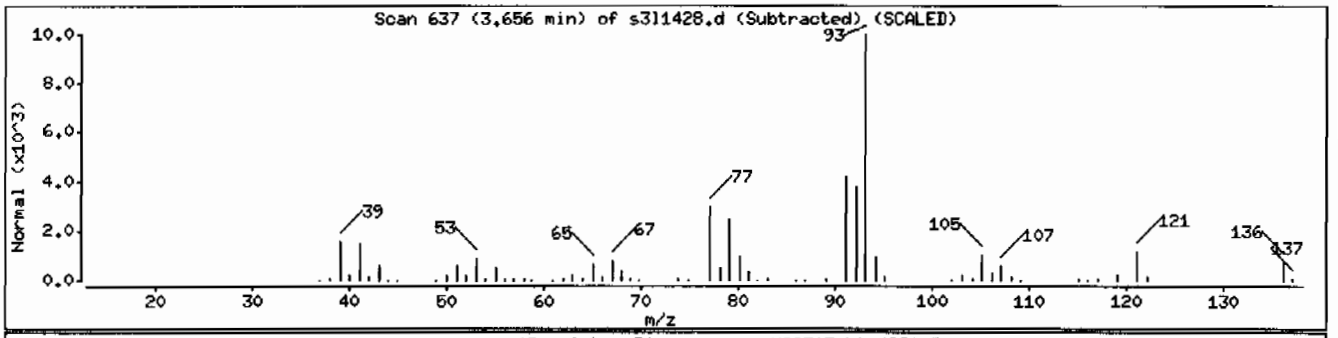

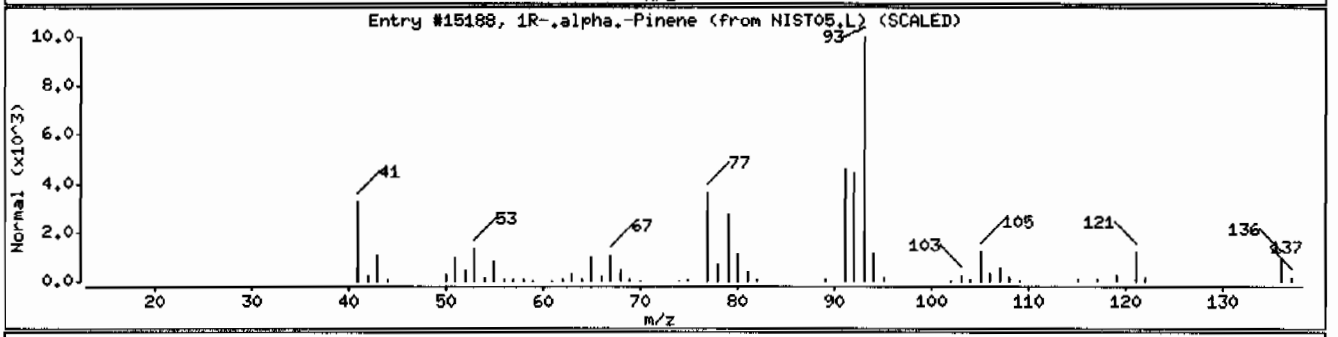

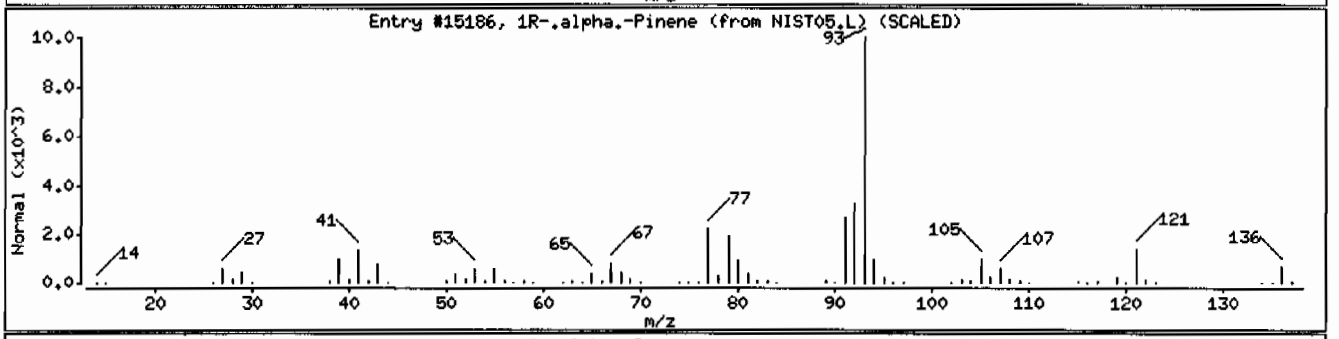

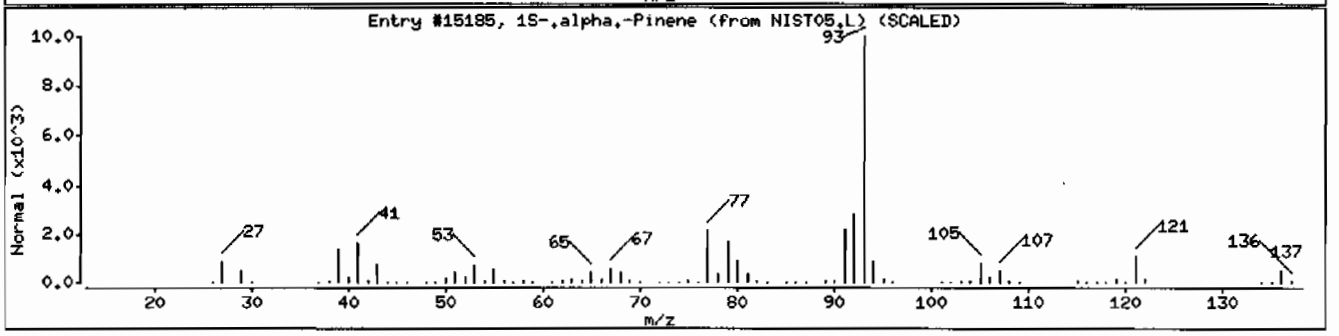

Data File: /chem/MSD3.i/s121409.b/s311428.d

Date : 14-DEC-2009 21:17

Client ID: RE03-09-14277 Instrument: MSD3.i

Sample Info: |2426540121932077|1|SVHF|1|LANL

Volume Injected (uL): 0.5 Operator: JLD1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Bicyclo[4.1.0]hept-3-ene, 3,7,7-trimethy	498-15-7	NIST05.L	15369	97	C10H16	136
3-Carene	13466-78-9	NIST05.L	15157	96	C10H16	136
3-Carene	13466-78-9	NIST05.L	15156	95	C10H16	136

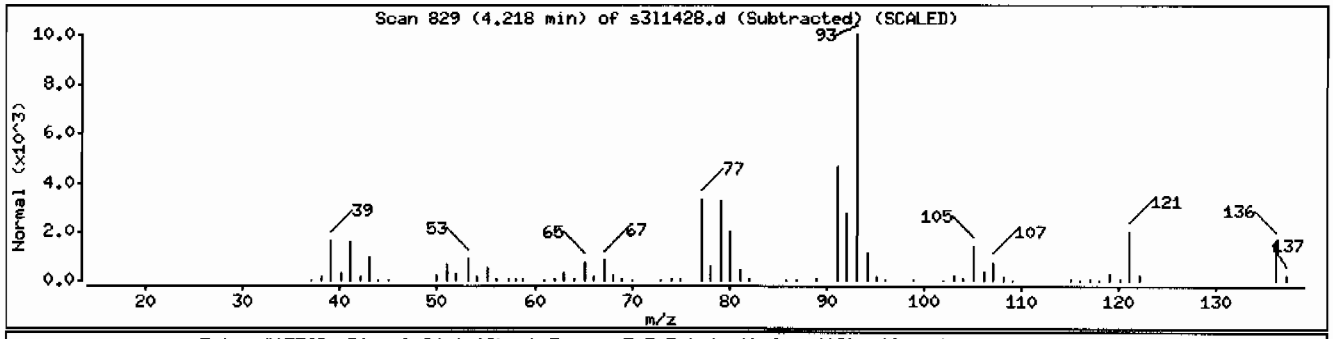

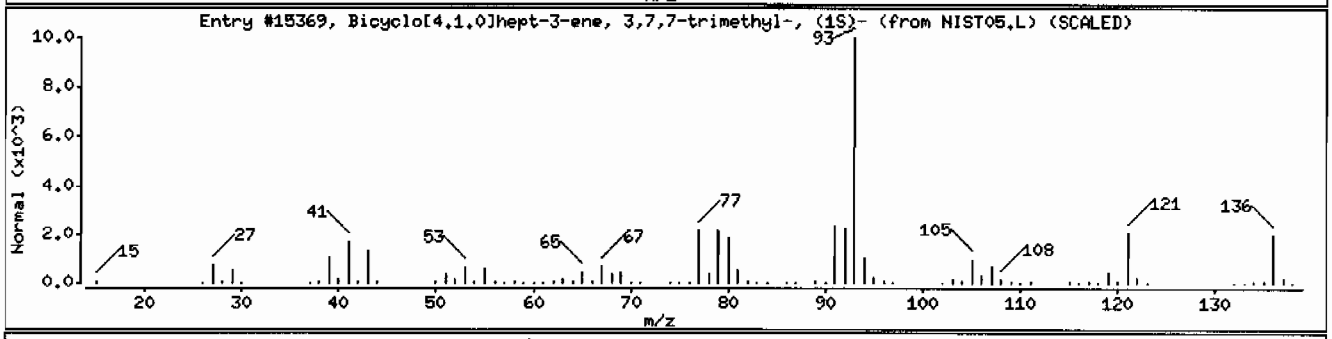

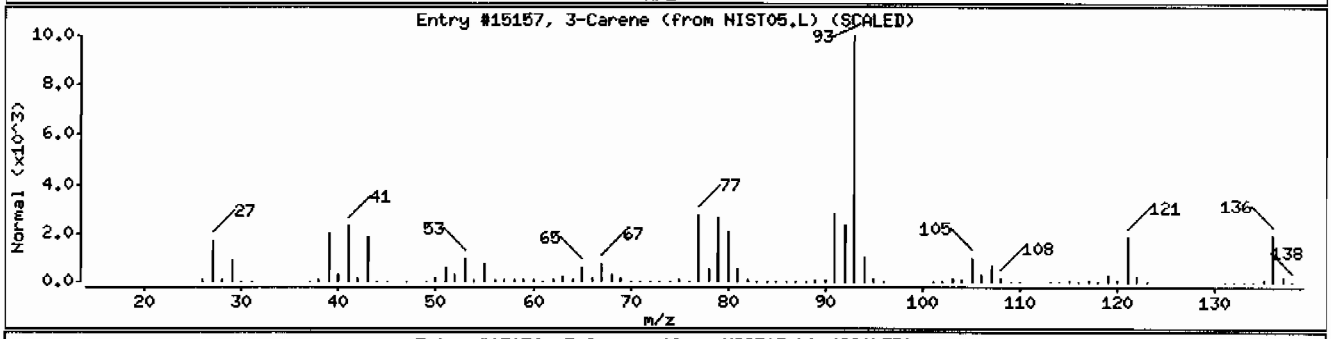

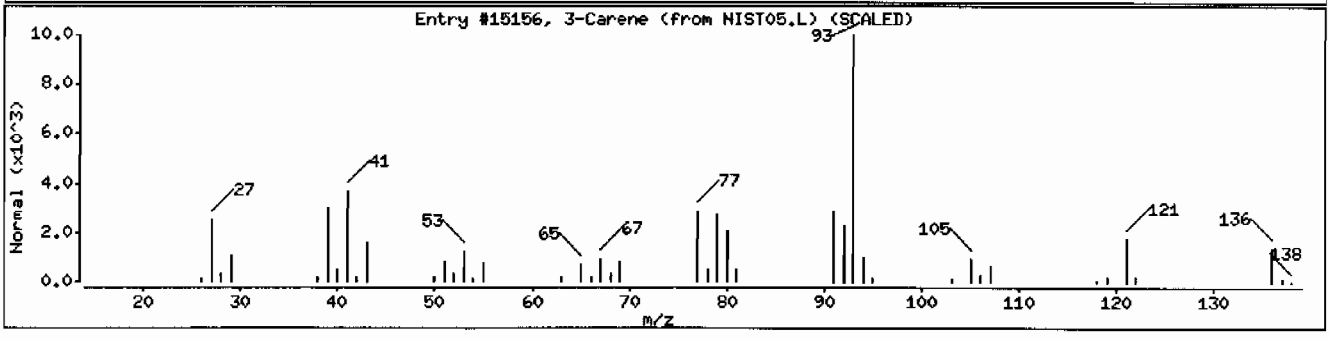

Data File: /chem/MSD3.i/s121409.b/s311428.d

Date : 14-DEC-2009 21:17

Client ID: RE03-09-14277 Instrument: MSD3.i

Sample Info: |2426540121932077|1|SVMF|1|LANL

Volume Injected (uL): 0.5 Operator: JLD1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
(3E,5E,7E)-6-Methyl-8-(2,6,6-trimethyl-1	17974-57-1	NIST05.L	97615	53	C18H260	258
Bicyclo[5.2.0]nonane, 4-methylene-2,8,8-	1000159-38-2	NIST05.L	59916	49	C15H24	204
Naphthalene, decahydro-1,1,4a-trimethyl-	511-02-4	NIST05.L	107101	45	C20H32	272

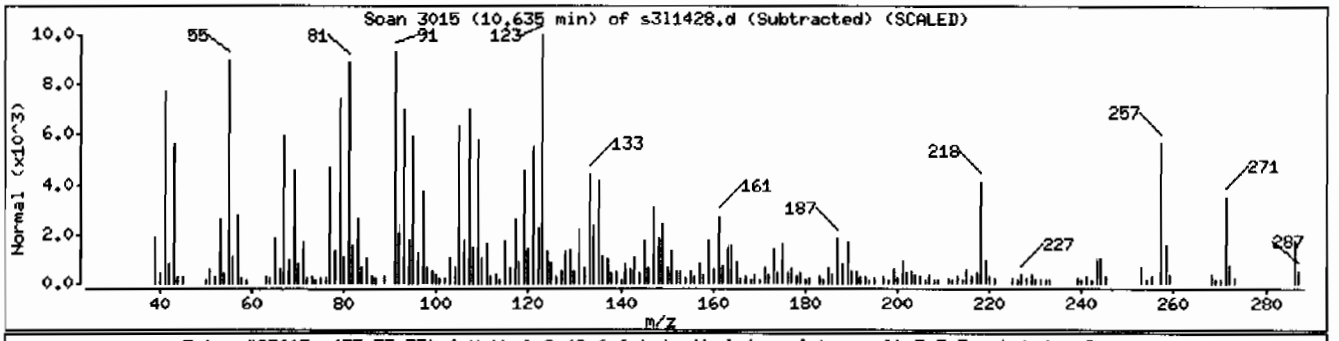

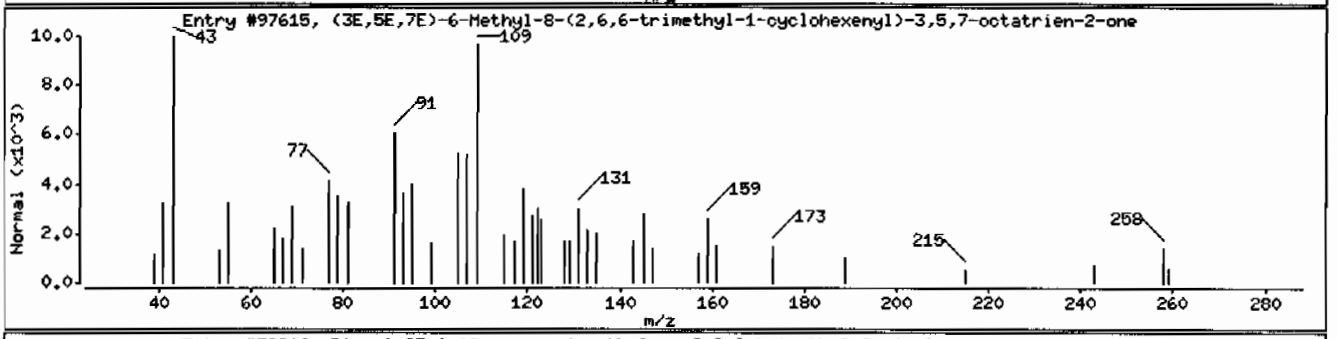

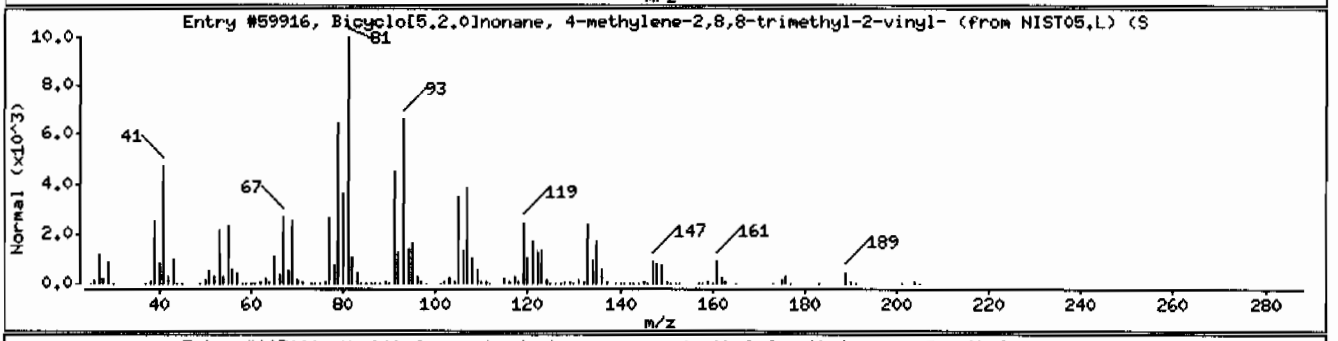

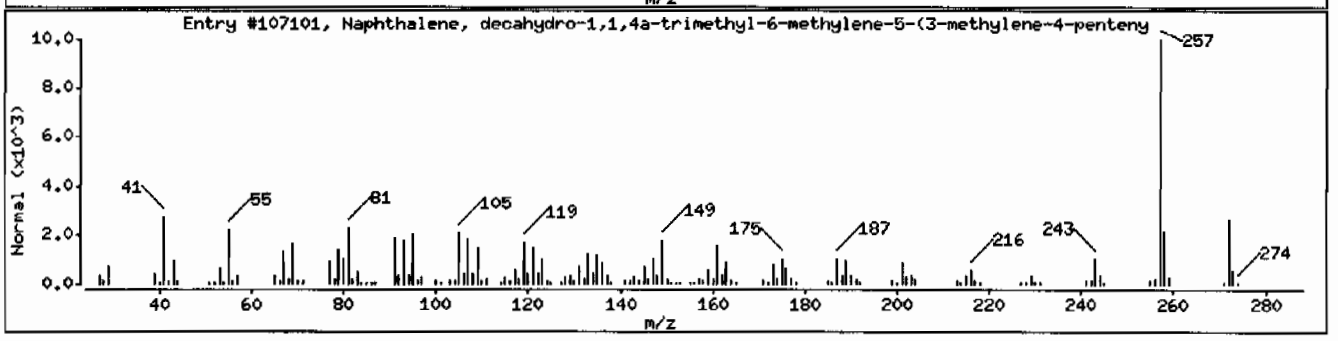

Data File: /chem/MSD3.i/s121409.b/s311428.d

Date : 14-DEC-2009 21:17

Client ID: RE03-09-14277 Instrument: MSD3.i

Sample Info: |2426540121932077|1|SVMF|1|LANL

Volume Injected (uL): 0.5 Operator: JLD1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Cycloisolongifolene, 9,10-dehydro-	1000156-81-6	NIST05.L	58529	35	C15H22	202
3-Methyldiadamantane	28375-86-2	NIST05.L	58515	22	C15H22	202
Benzene, 1-(5,5-dimethyl-1-cyclopenten-1	39877-93-5	NIST05.L	58502	22	C14H180	202

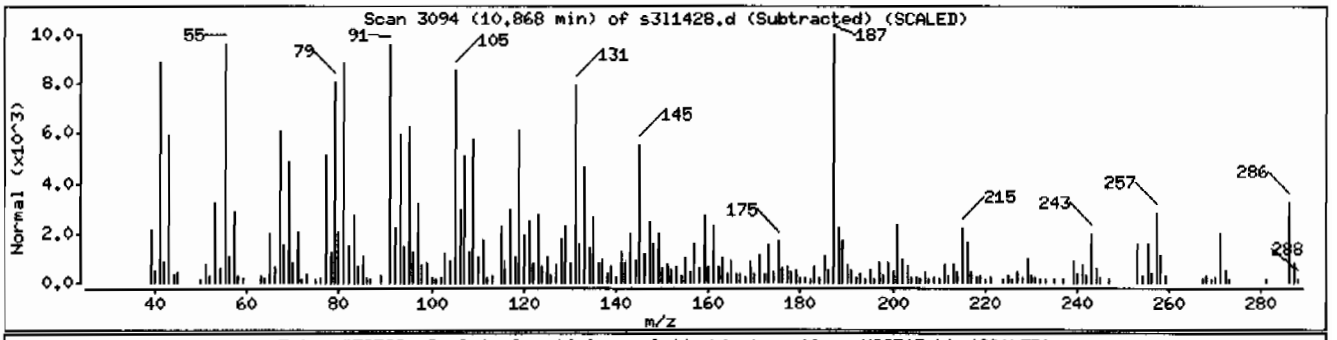

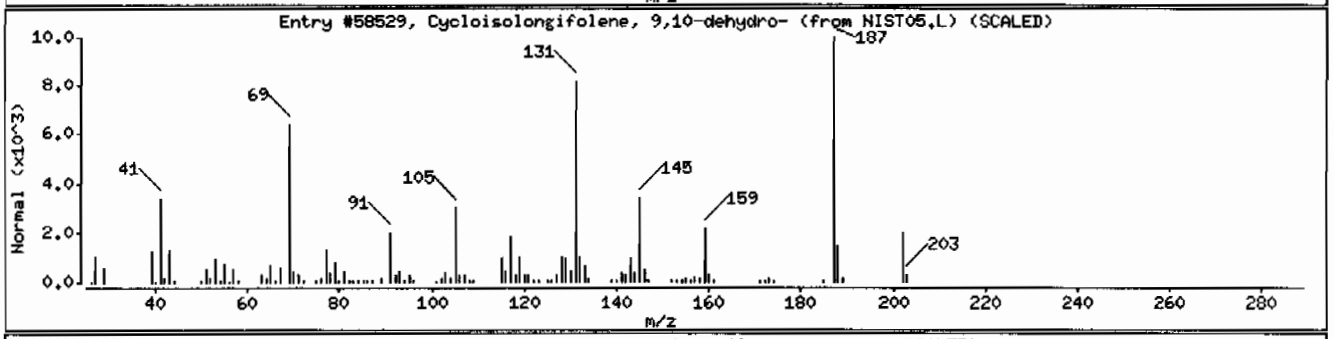

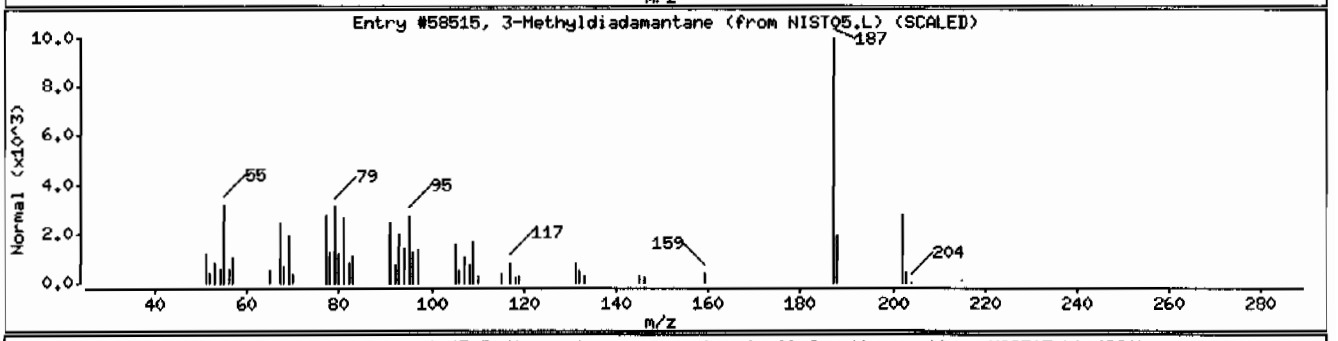

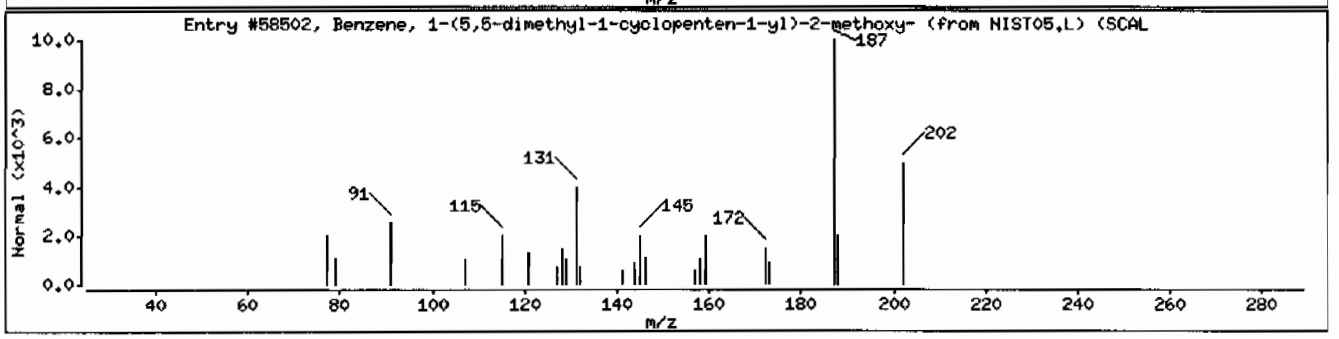

Data File: /chem/MSD3.i/s121409.b/s311428.d

Date : 14-DEC-2009 21:17

Client ID: RE03-09-14277 Instrument: MSD3.i

Sample Info: |2426540121932077|1|SVHF|1|LANL

Volume Injected (uL): 0.5 Operator: JLD1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Ketone, isopropylidenecyclopropyl methyl	29765-67-1	NIST05.L	10247	53	C8H12O	124
Ethanone, 1-(1,4-dimethyl-3-cyclohexen-1	43219-68-7	NIST05.L	24221	50	C10H16O	152
Cyclopentane, 2-ethylidene-1,1-dimethyl-	56324-66-4	NIST05.L	10390	47	C9H16	124

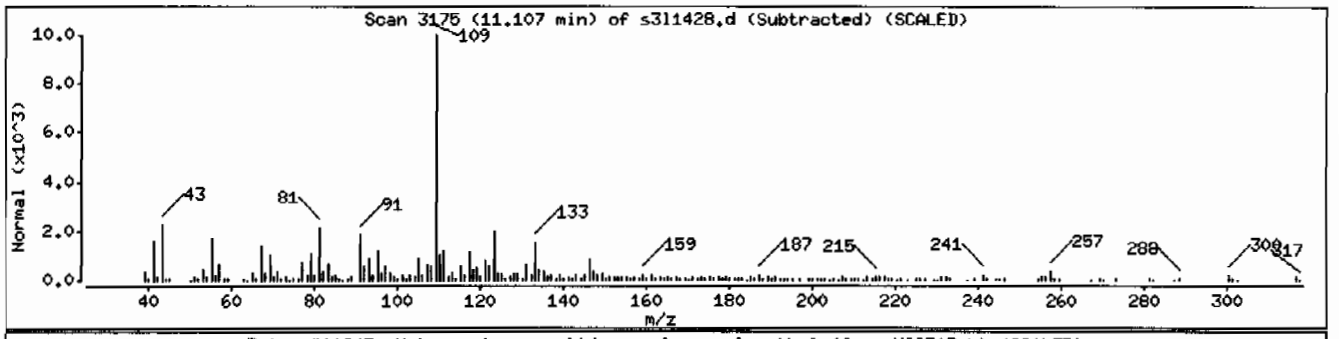

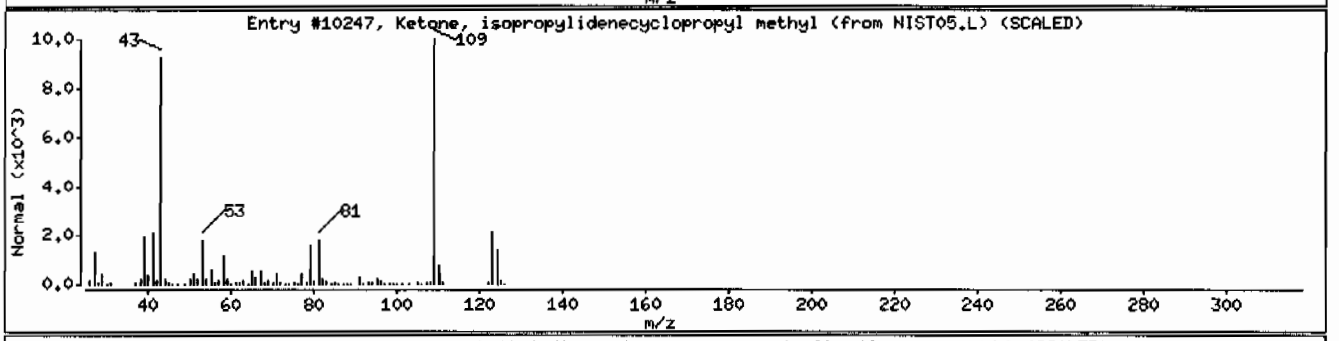

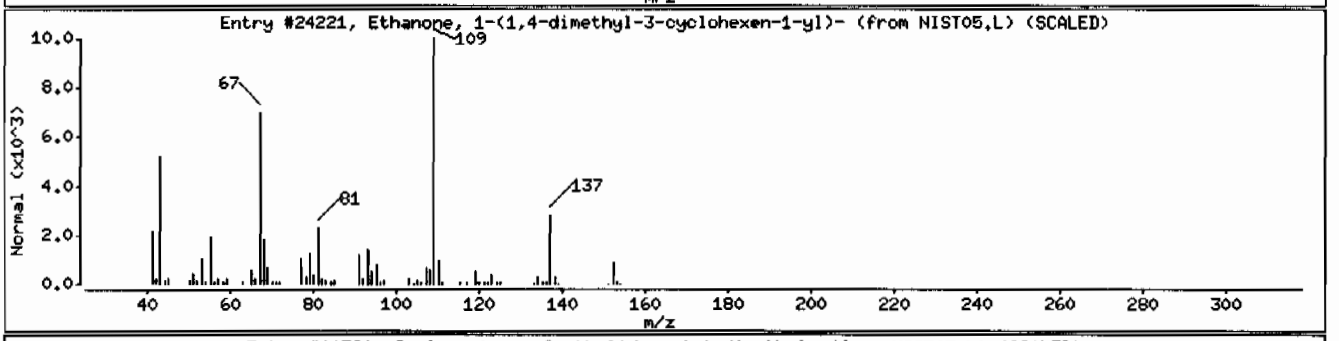

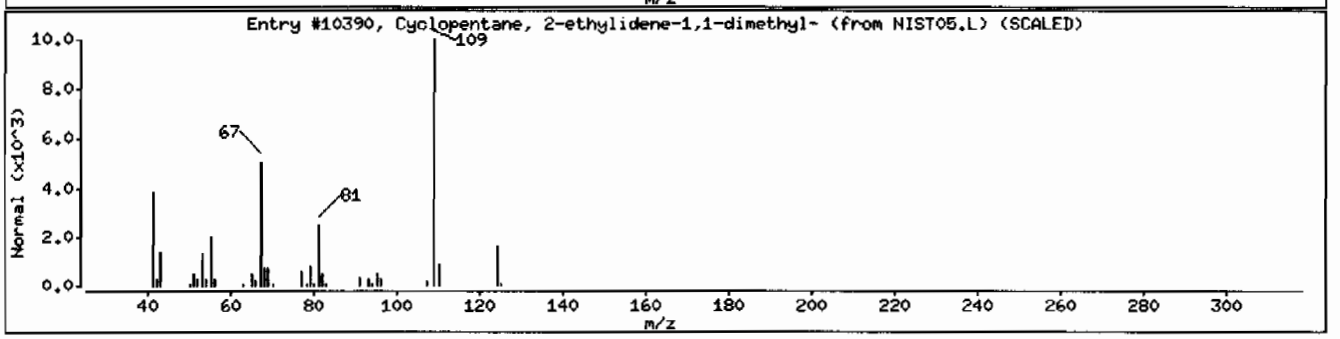

Data File: /chem/MSD3.i/s121409.b/s311428.d

Date : 14-DEC-2009 21:17

Client ID: RE03-09-14277 Instrument: MSD3.i

Sample Info: |2426540121932077|1|SVMF|1|LANL

Volume Injected (uL): 0.5 Operator: JLD1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
1-Phenanthrenecarboxylic acid, 1,2,3,4,4	1235-74-1	NIST05.L	133618	97	C21H3002	314
1-Phenanthrenecarboxylic acid, 1,2,3,4,4	1235-74-1	NIST05.L	133621	93	C21H3002	314
1-Phenanthrenecarboxylic acid, 1,2,3,4,4	1235-74-1	NIST05.L	133620	92	C21H3002	314

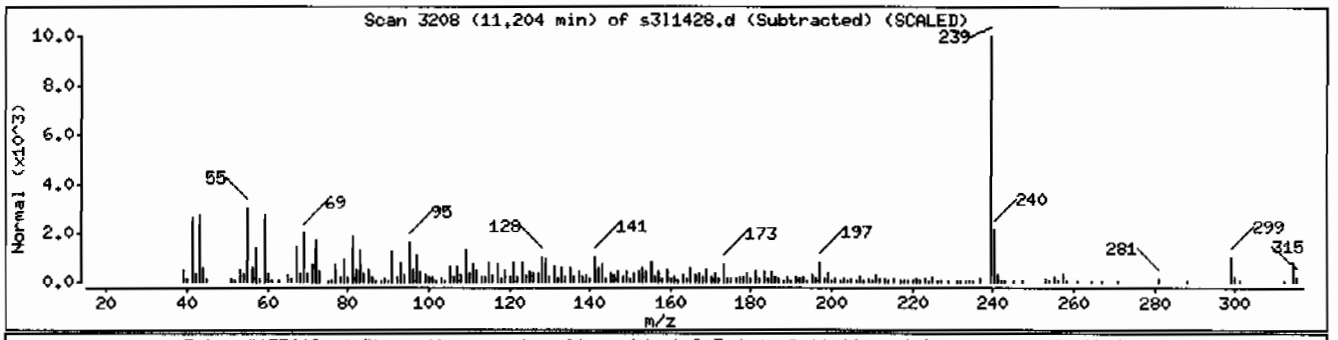

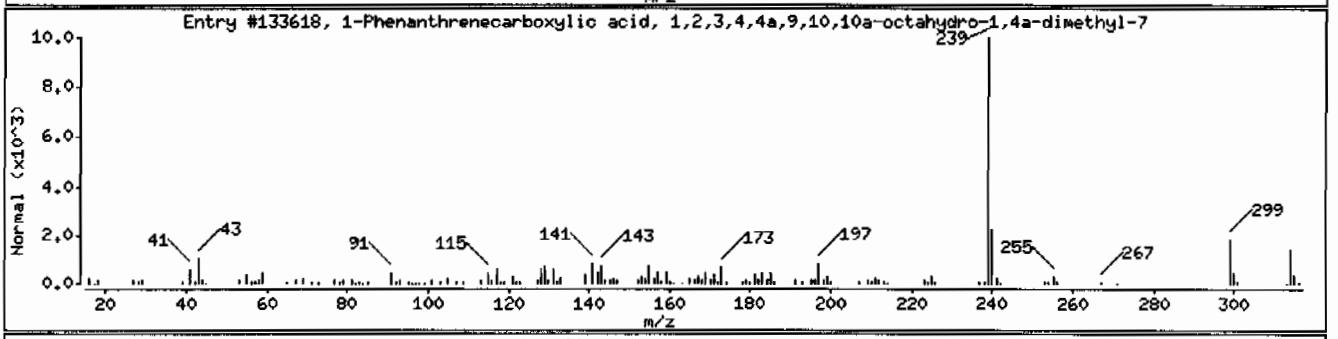

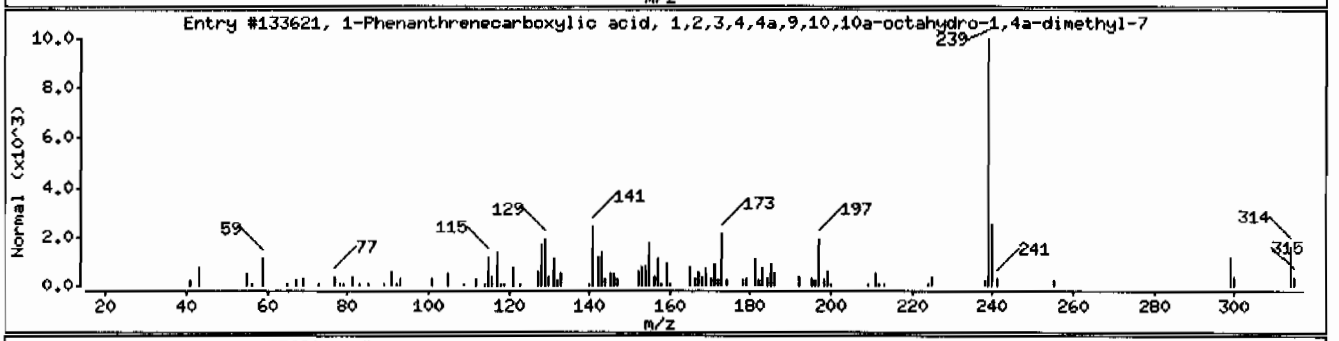

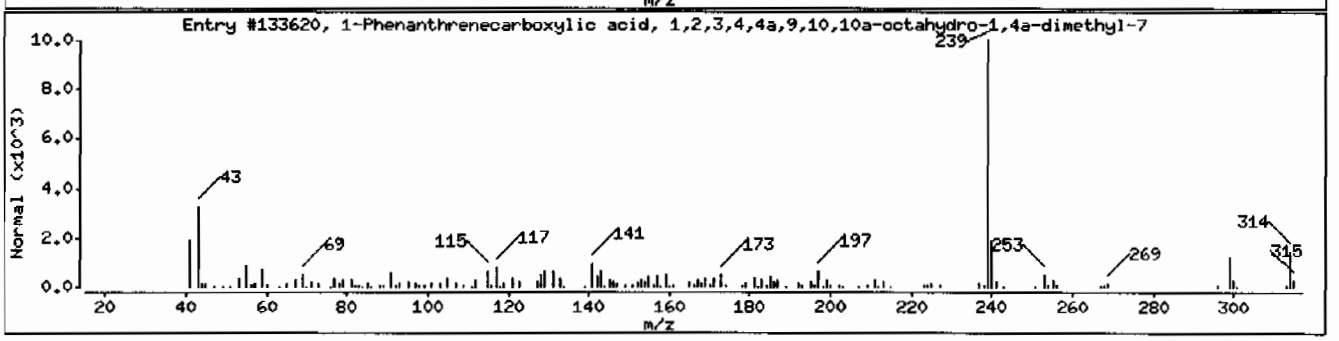

Data File: /chem/MSD3.i/s121409.b/s311428.d

Date : 14-DEC-2009 21:17

Client ID: RE03-09-14277 Instrument: MSD3.i

Sample Info: |2426540121932077|1|SVHF|1|LANL

Volume Injected (uL): 0.5 Operator: JLD1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Kauren-18-ol, acetate, (4.beta.)-	72150-74-4	NIST05.L	142610	25	C22H3402	330
3H-Naphtho[2,3-b]furan-2-one, 4-hydroxy-	1000310-15-7	NIST05.L	90632	12	C15H2003	248
Phenol, 4-(4-nitrophenyl)amino-	16078-86-7	NIST05.L	78298	11	C12H10N2O3	230

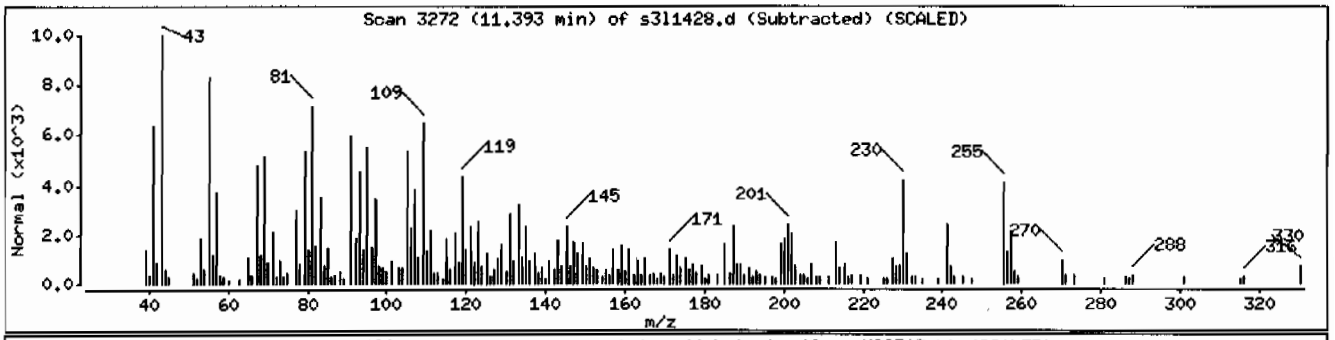

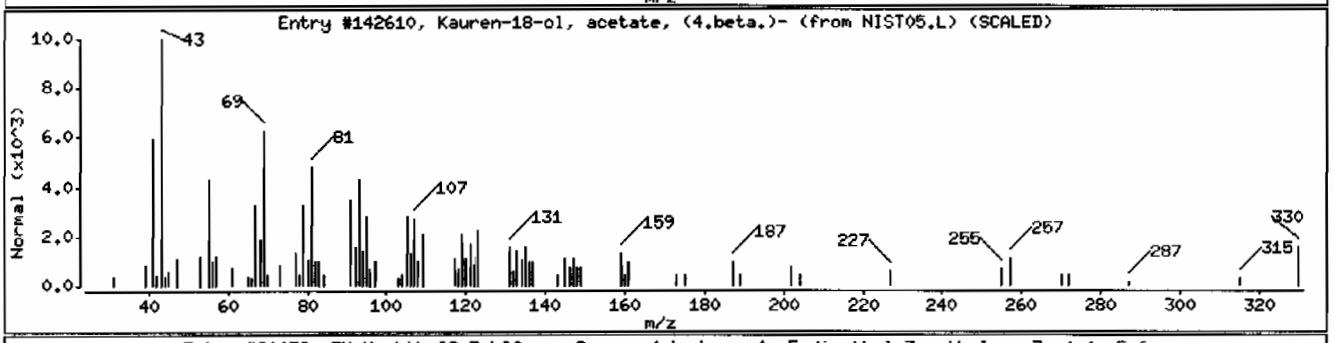

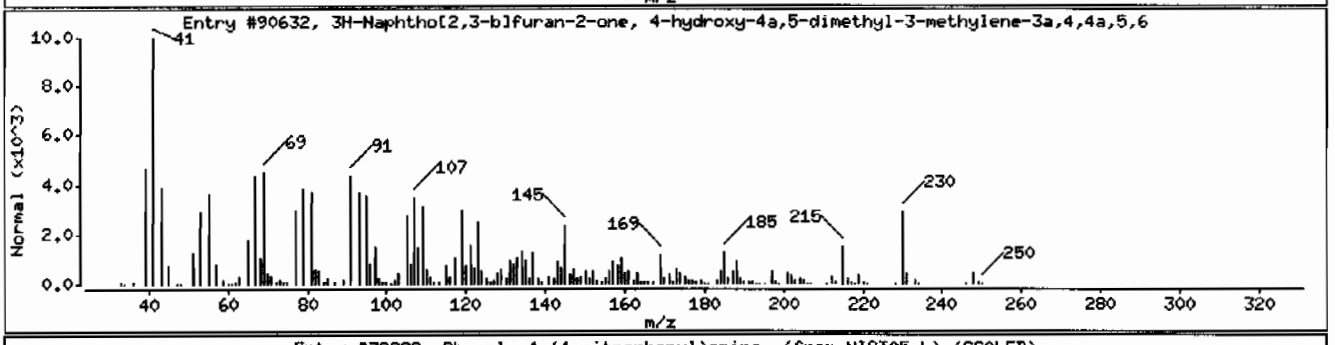

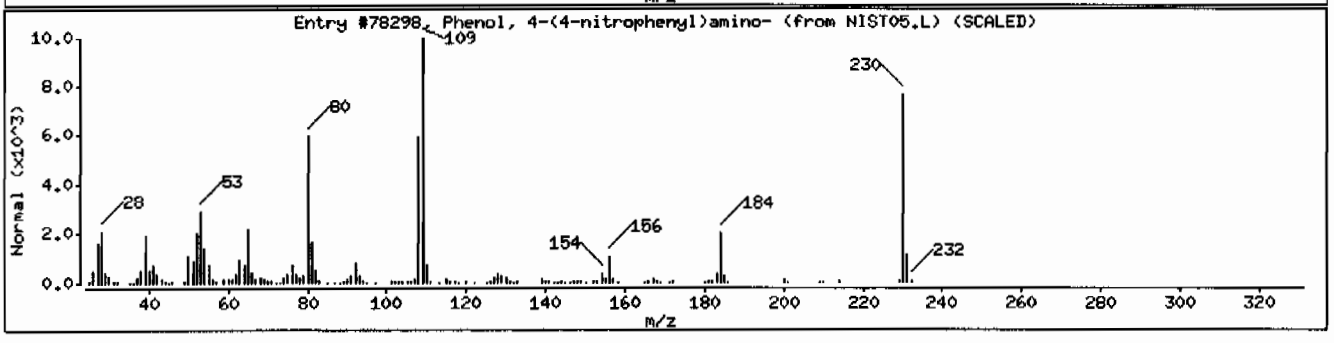

Data File: /chem/MSD3.i/s121409.b/s311428.d

Date : 14-DEC-2009 21:17

Client ID: RE03-09-14277 Instrument: MSD3.i

Sample Info: 1242654012193207711SVMF11LANL

Volume Injected (uL): 0.5 Operator: JLD1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
2-Norbornene, 7-methoxy-7-(p-methoxyphen	27999-77-5	NIST05.L	78709	44	C15H18O2	230
1H-Dibenzo[a,i]fluorene, eicosahydro-	55256-24-1	NIST05.L	116264	30	C21H34	286
3,5-Dimethyl-1-hexylpyrazole	24475-41-0	NIST05.L	43027	25	C11H20N2	180

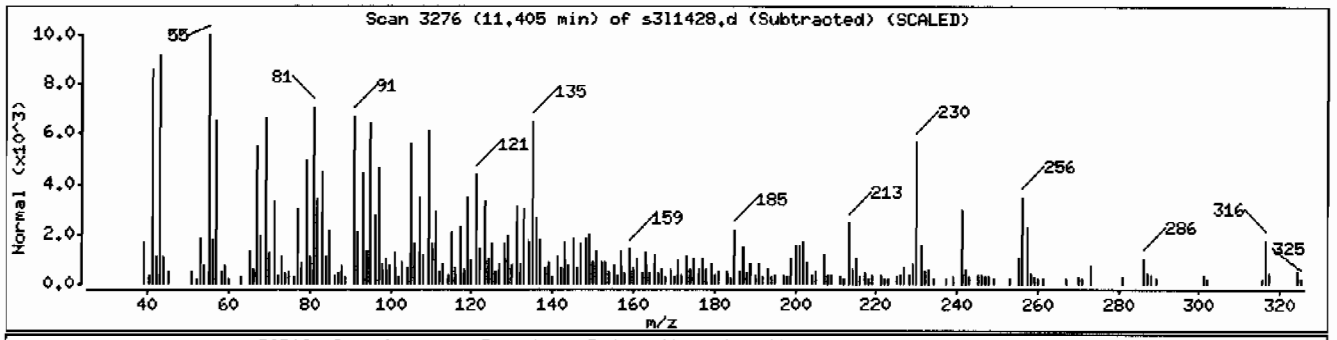

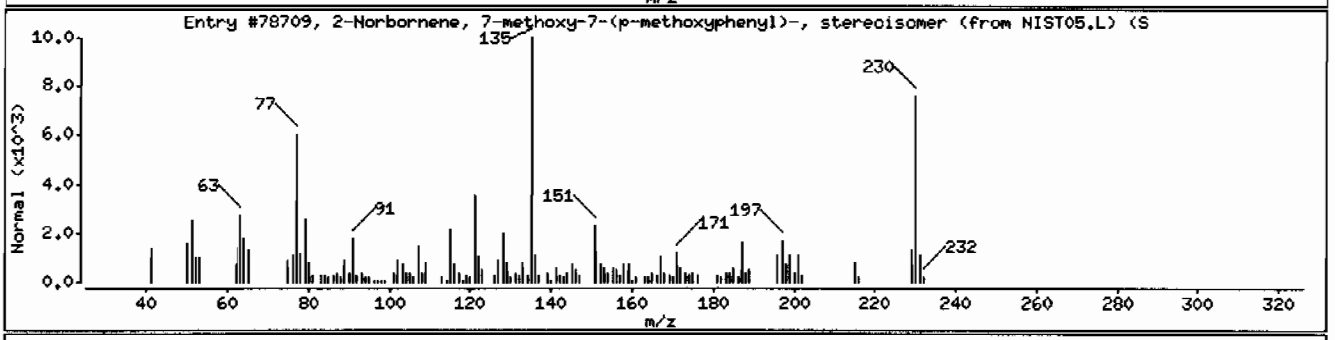

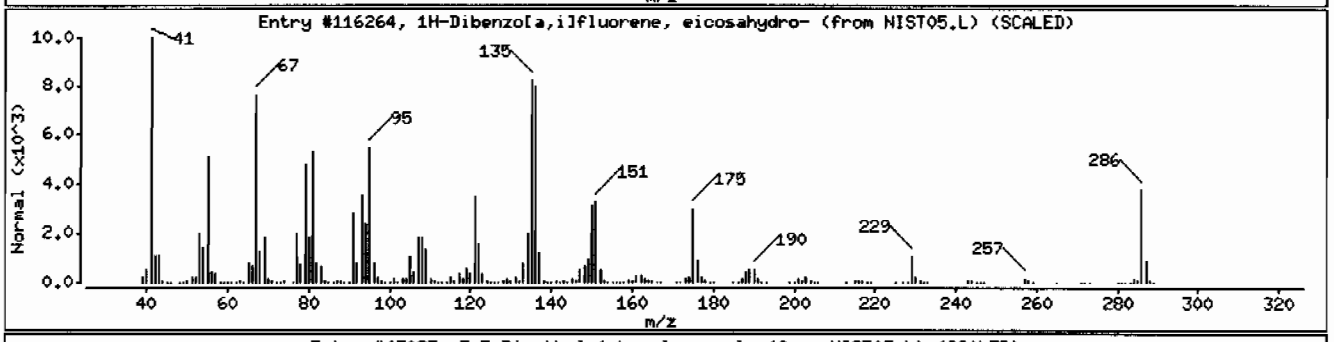

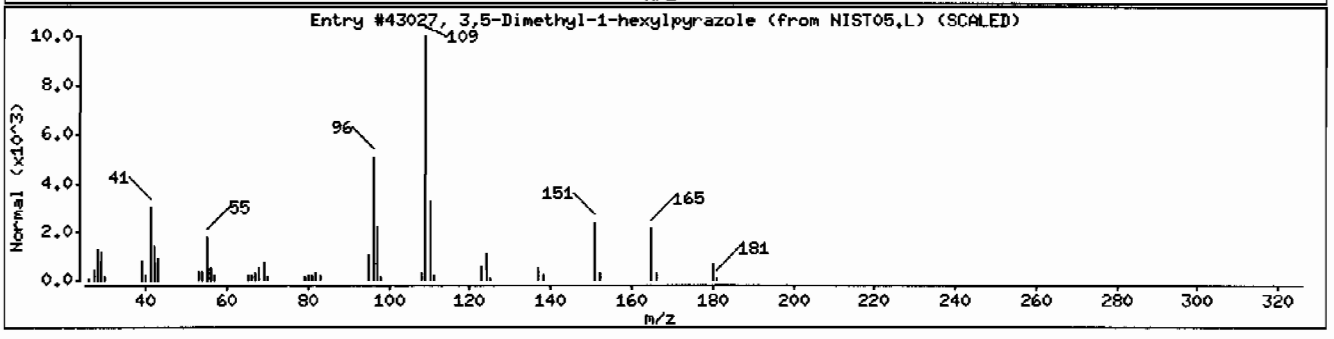

Data File: /chem/MSD3.i/s121409.b/s311428.d

Date : 14-DEC-2009 21:17

Client ID: RE03-09-14277 Instrument: MSD3.i

Sample Info: |2426540121932077|1|SVHF|1|LANL

Volume Injected (uL): 0.5 Operator: JLD1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
11,13-Dimethyl-12-tetradecen-1-ol acetat	1000130-81-0	NIST05.L	113394	70	C18H3402	282
Cyclopropane carboxamide, 2-cyclopropyl-	331416-19-4	NIST05.L	62199	42	C13H21NO	207
6-Octenal, 3,7-dimethyl-, (R)-	2385-77-5	NIST05.L	25617	35	C10H180	154

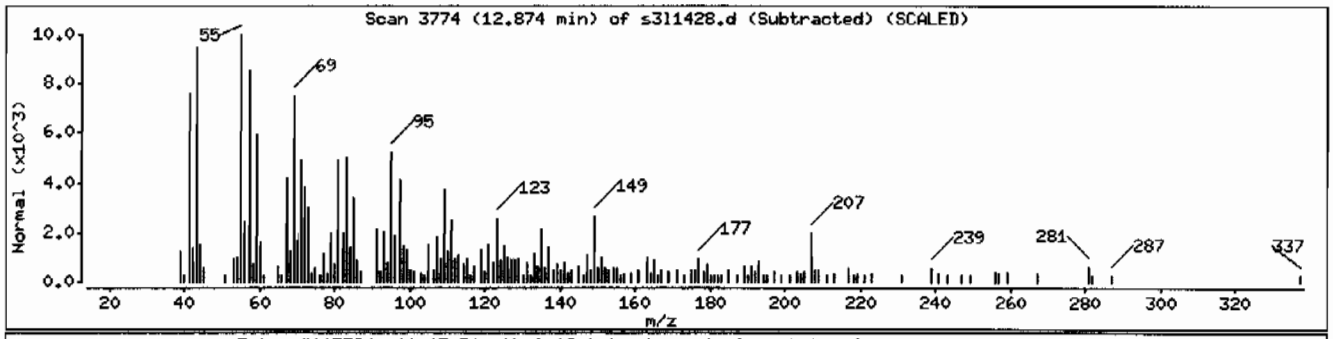

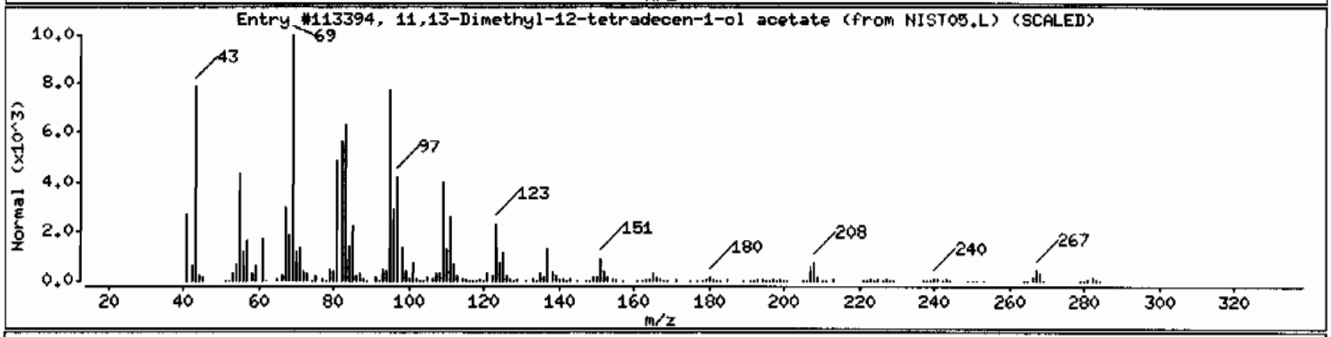

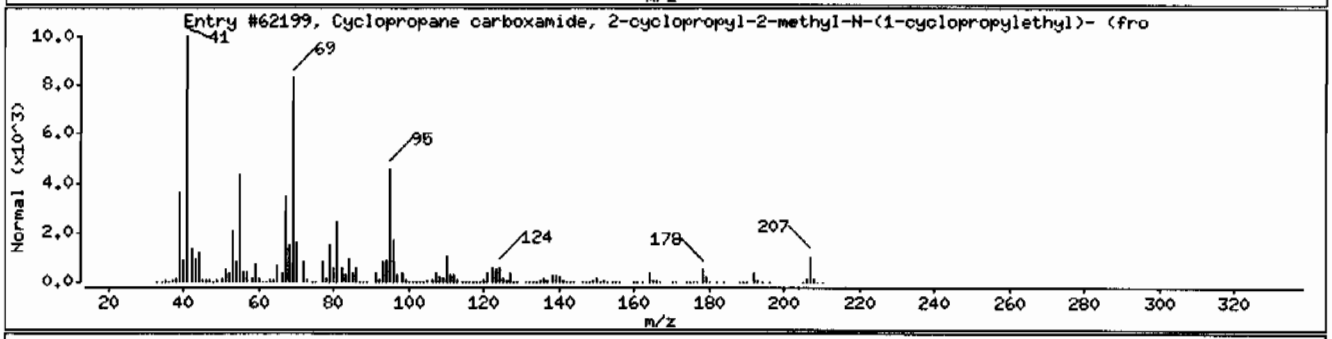

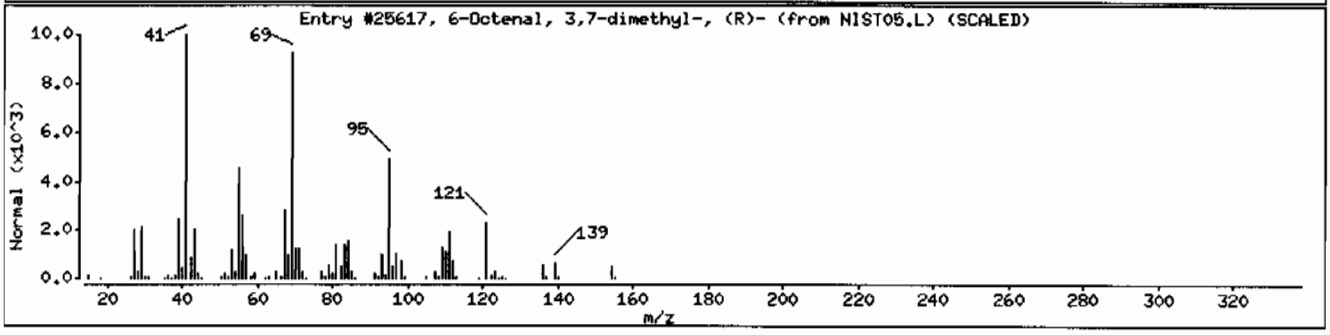

Data File: /chem/MSD3.i/s121409.b/s311428.d

Date : 14-DEC-2009 21:17

Client ID: RE03-09-14277 Instrument: MSD3.i

Sample Info: |2426540121932077|1|SVMF|1|LANL

Volume Injected (uL): 0.5 Operator: JLD1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Eicosane	112-95-8	NIST05.L	113489	95	C20H42	282
Heptacosane, 1-chloro-	62016-79-9	NIST05.L	174384	87	C27H55Cl	414
Tetratetracontane	7098-22-8	NIST05.L	188838	83	C44H90	619

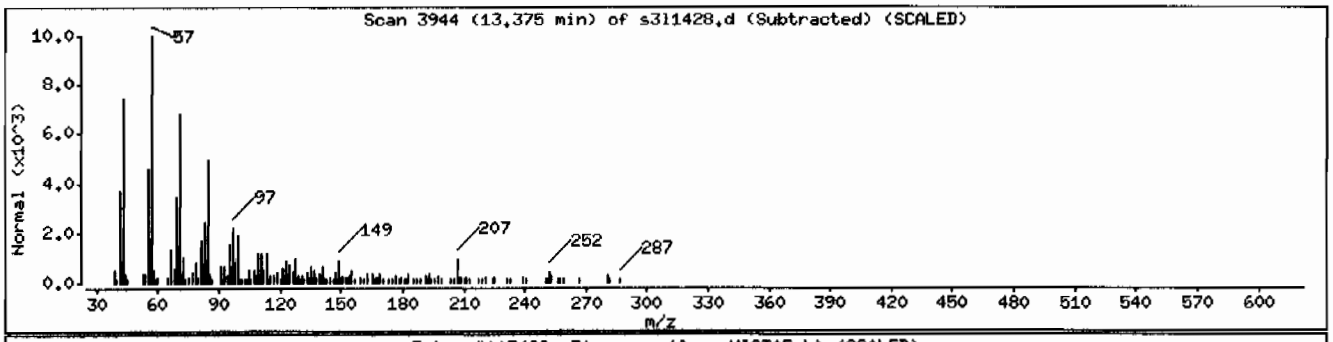

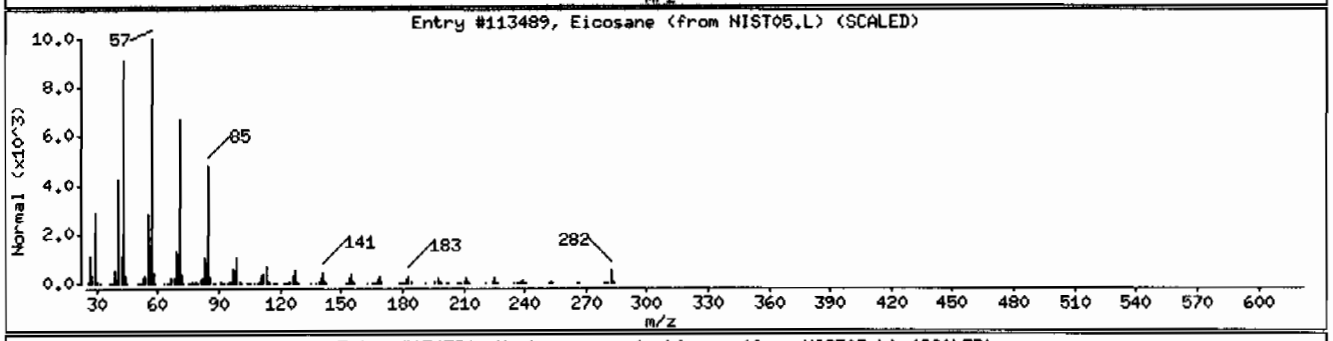

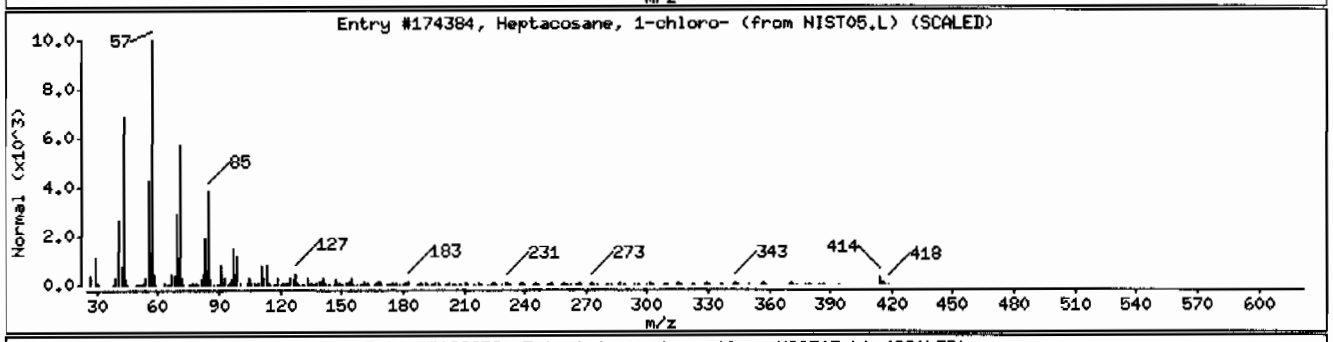

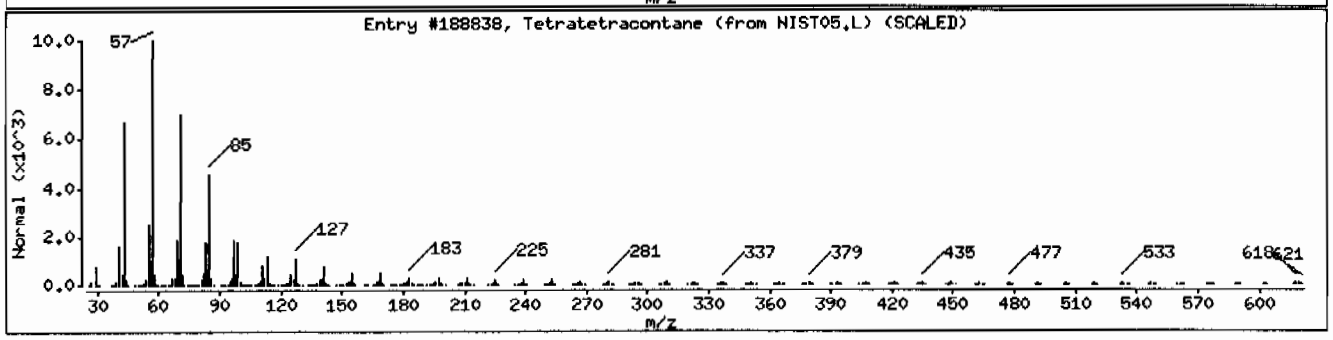

Data File: /chem/MSD3.i/s121409.b/s311428.d

Date : 14-DEC-2009 21:17

Client ID: RE03-09-14277 Instrument: MSD3.i

Sample Info: 1242654012193207711SVMF11LANL

Volume Injected (uL): 0.5 Operator: JLD1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Bicyclo[3.1.0]hex-3-en-2-one, 4-methyl-1	24545-81-1	NIST05.L	22939	30	C10H140	150
4-(2,2,6-Trimethyl-bicyclo[4.1.0]hept-1-	77143-20-5	NIST05.L	62966	25	C14H240	208
Benzaldehyde, 3-nitro-	99-61-6	NIST05.L	23708	22	C7H5NO3	151

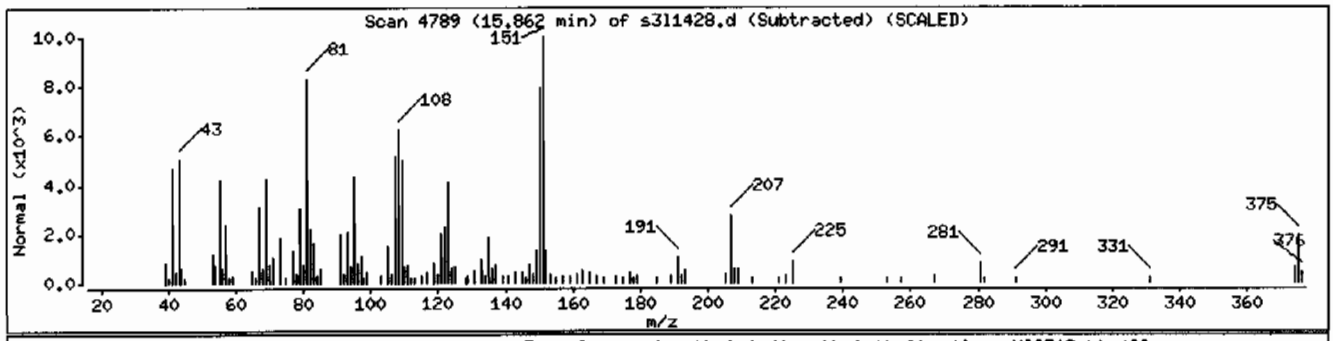

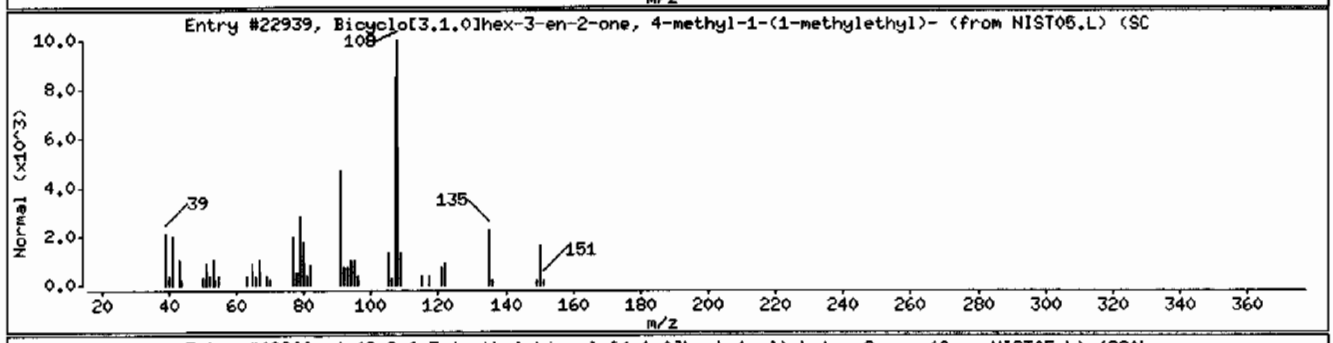

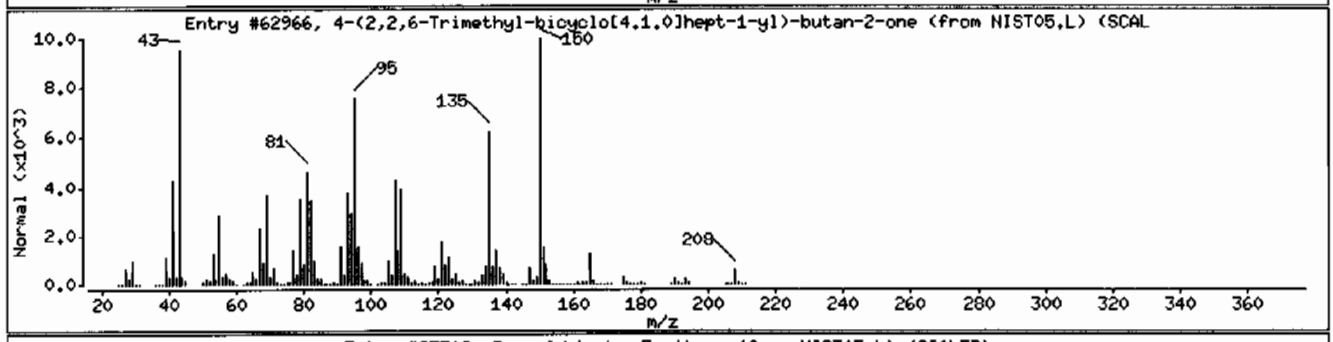

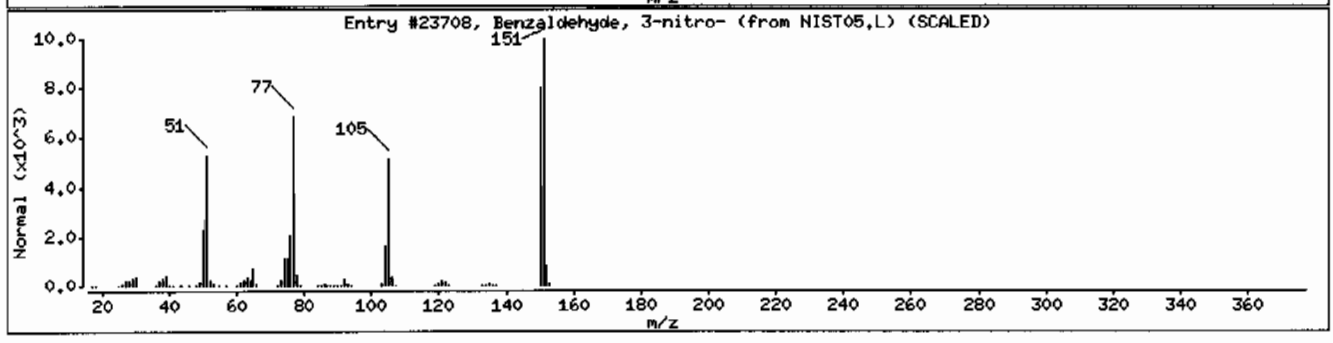

Data File: /chem/MSD3.i/s121409.b/s311428.d

Date : 14-DEC-2009 21:17

Client ID: RE03-09-14277 Instrument: MSD3.i

Sample Info: 1242654012193207711ISVHF11LANL

Volume Injected (uL): 0.5 Operator: JLD1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Androst-4-en-3-one, 17-hydroxy-, (17.bet	58-22-0	NIST05.L	117328	46	C19H28O2	288
Androst-4-en-3-one, 17-hydroxy-, (17.bet	58-22-0	NIST05.L	117326	42	C19H28O2	288
Androst-4-en-3-one, 17-hydroxy-, (17.bet	58-22-0	NIST05.L	117325	38	C19H28O2	288

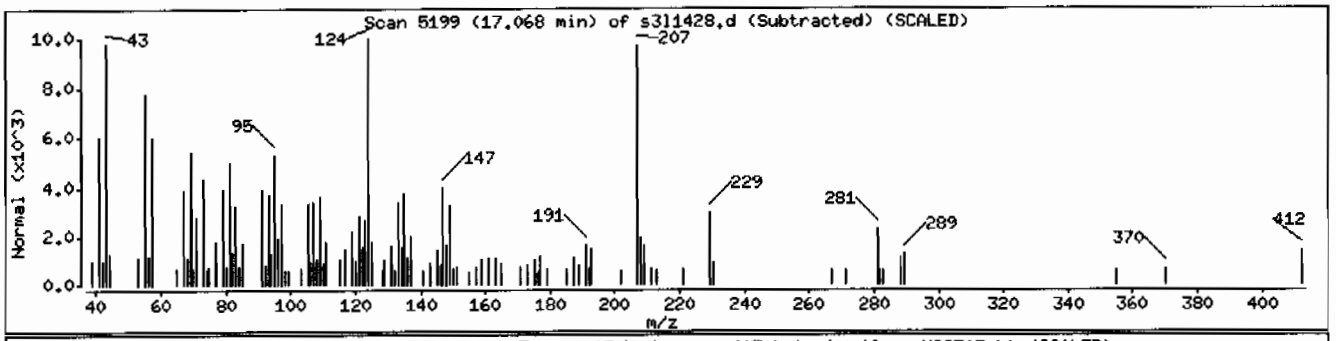

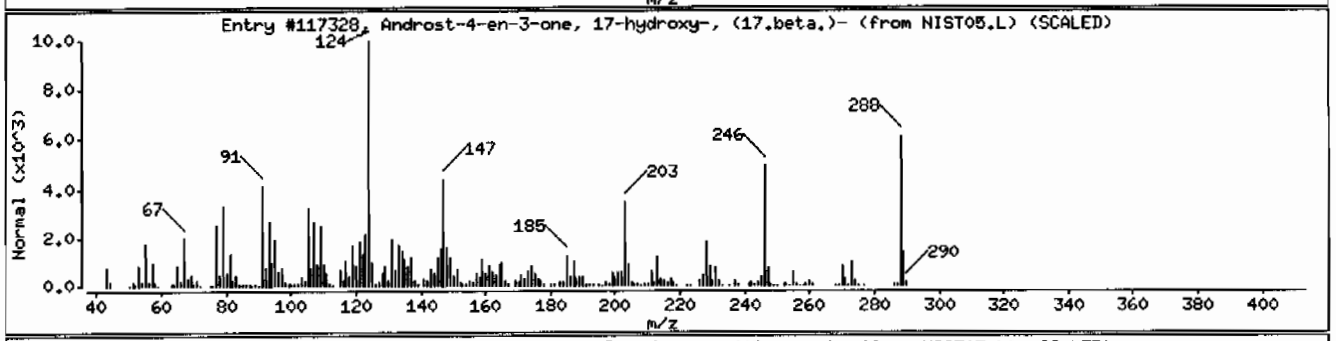

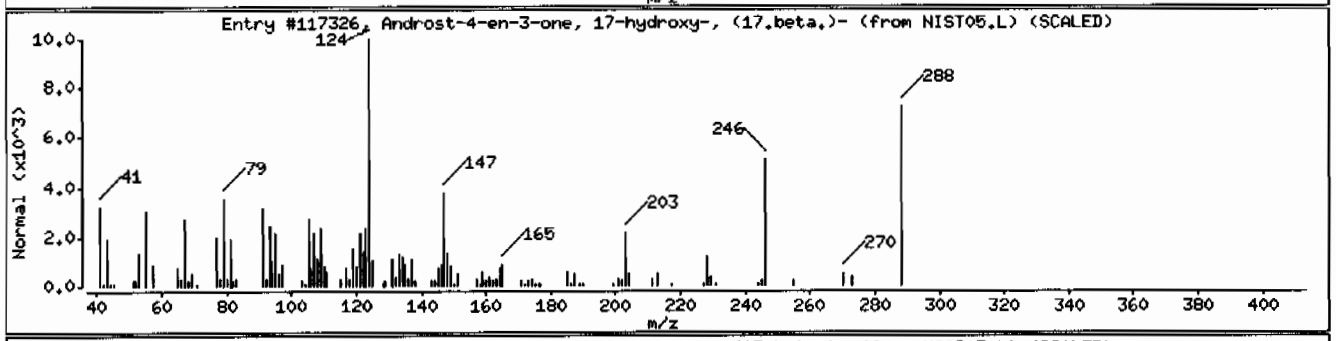

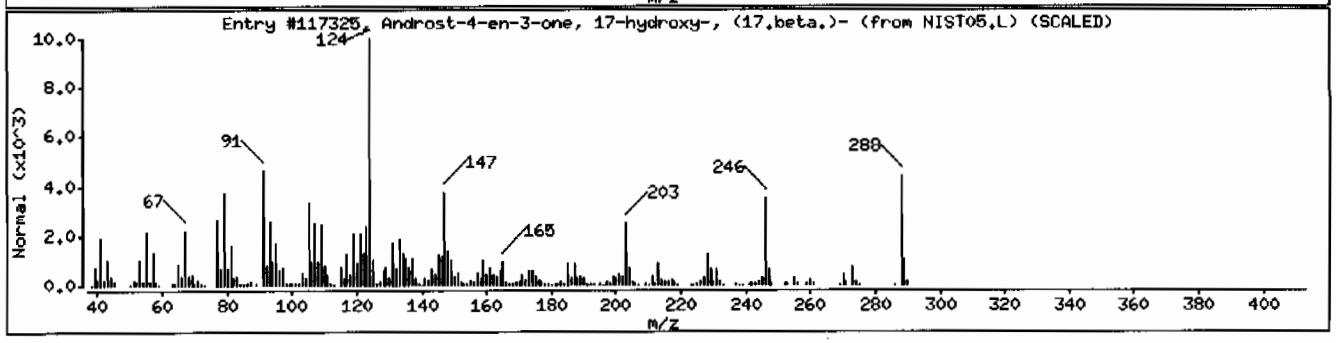

Data File: /chem/MSD3.i/s121409.b/s311428.d

Date : 14-DEC-2009 21:17

Client ID: RE03-09-14277 Instrument: MSD3.i

Sample Info: |2426540121932077|1|SVMF|1|LANL

Volume Injected (uL): 0.5 Operator: JLD1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
1-Cyclohexene-1-butanal, .alpha.,2,6,6-t	21632-06-4	NIST05.L	62963	46	C14H24O	208
(-)-Neoclovene-(II), dihydro-	1000152-83-6	NIST05.L	61550	42	C15H26	206
2,2,6-Trimethyl-1-(2-methyl-cyclobut-2-e	1000188-72-8	NIST05.L	69963	38	C15H22O	218

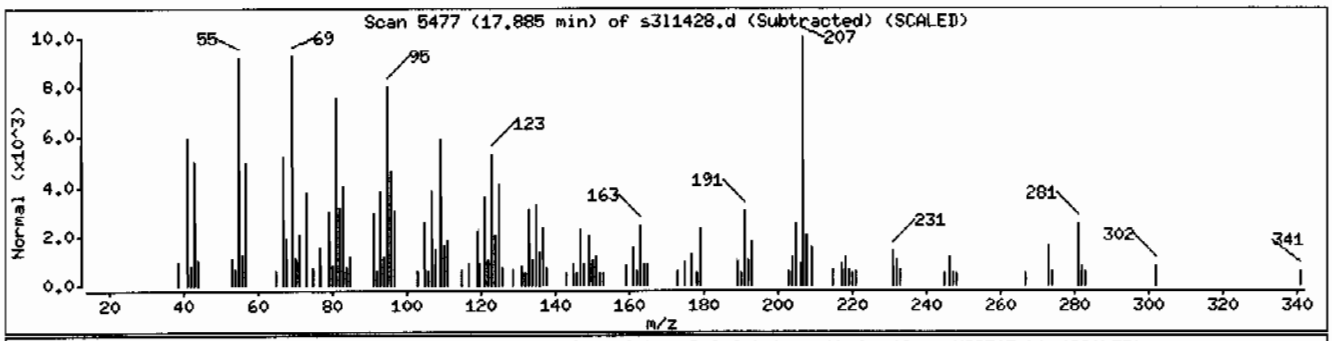

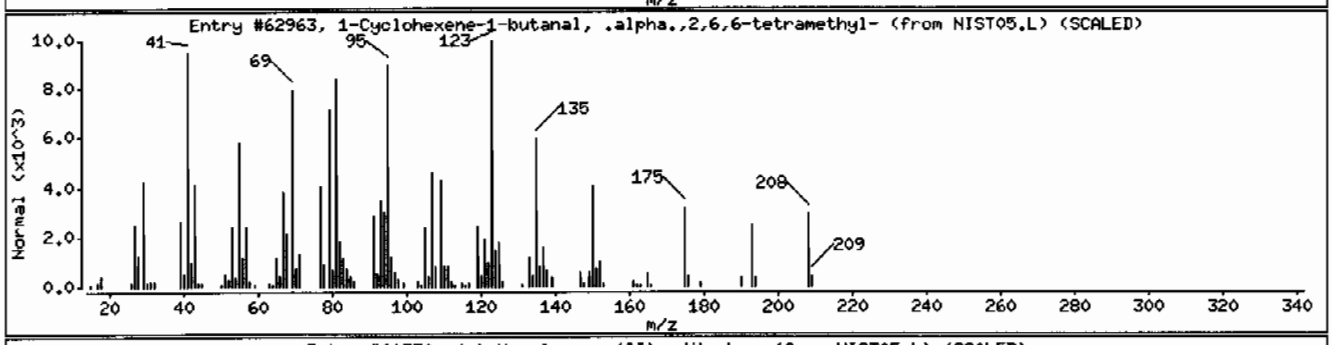

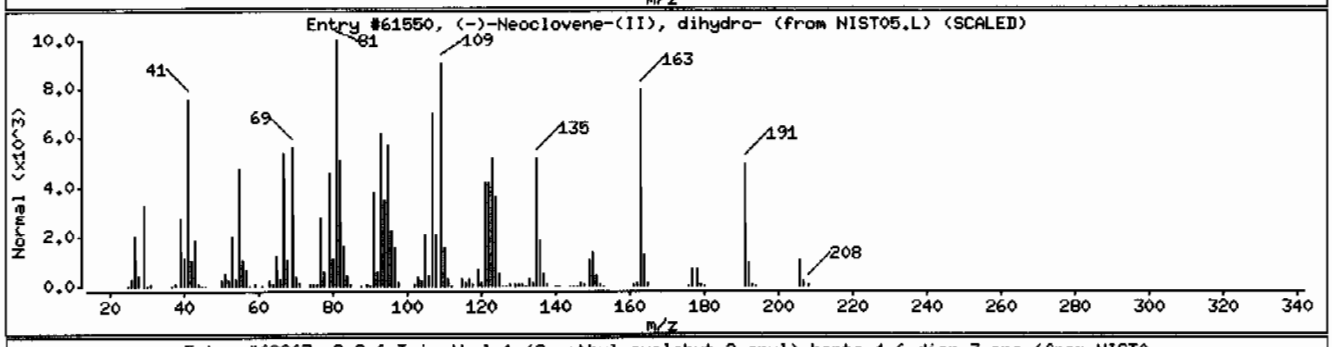

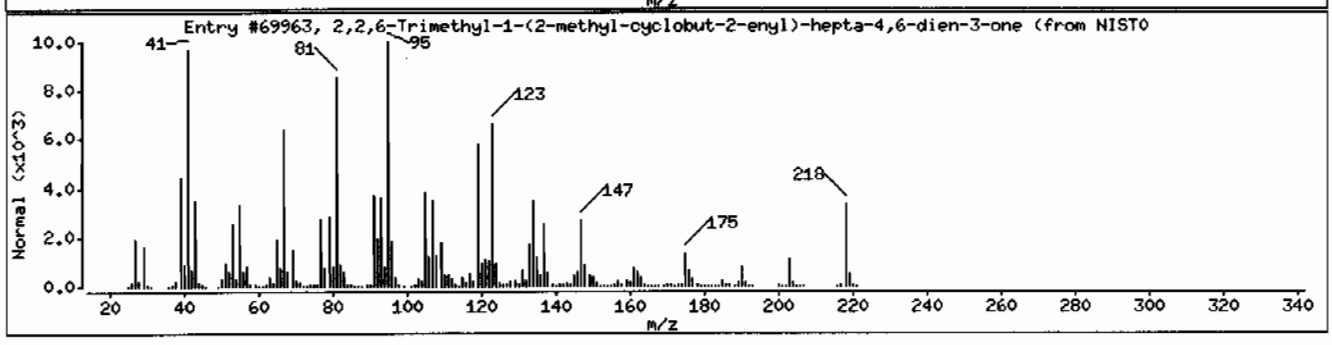

Data File: /chem/MSD3.i/s121409.b/s311428.d

Date : 14-DEC-2009 21:17

Client ID: RE03-09-14277 Instrument: MSD3.i

Sample Info: 1242654012193207711SVMF11LANL

Volume Injected (uL): 0.5 Operator: JLD1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Pyrazole-4-carboxaldehyde, 3-(4-fluoroph	306936-57-2	NIST05.L	49700	30	C10H7FN2O	190
1,1,1,3,5,5,5-Heptamethyltrisiloxane	1873-88-7	NIST05.L	73166	27	C7H22O2Si3	222
1,3-Benzodioxole, 5-[3-acetaminopropyl]-	1000124-33-0	NIST05.L	71846	25	C12H15NO3	221

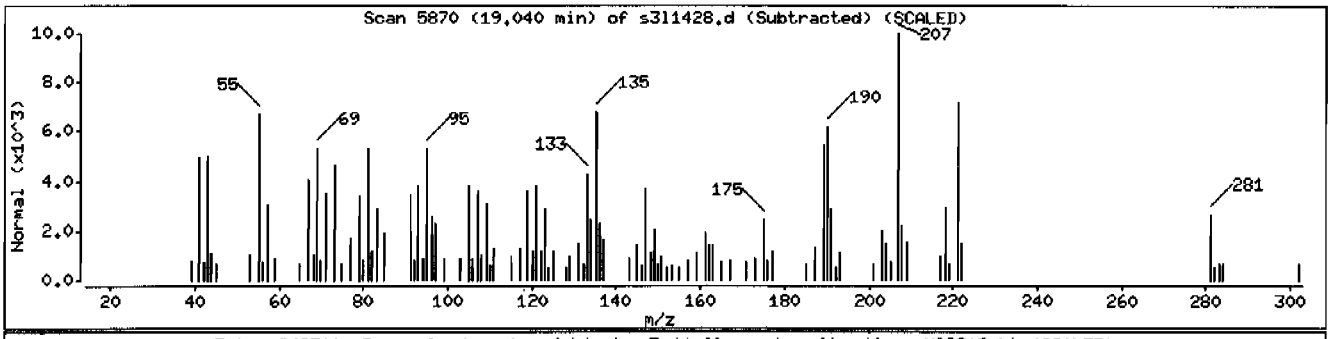

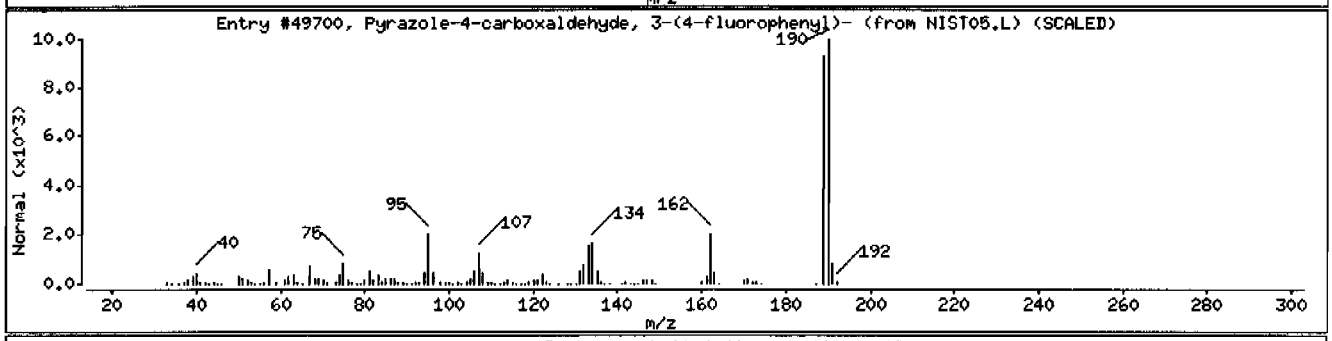

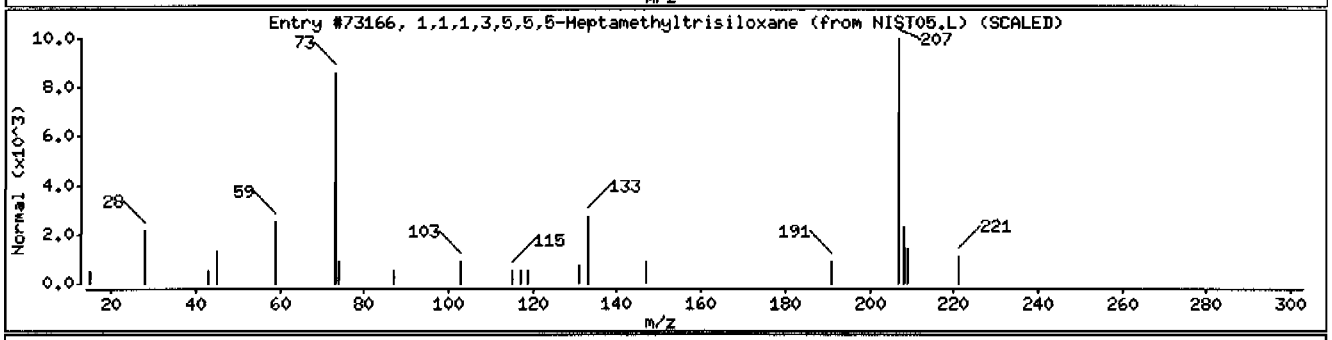

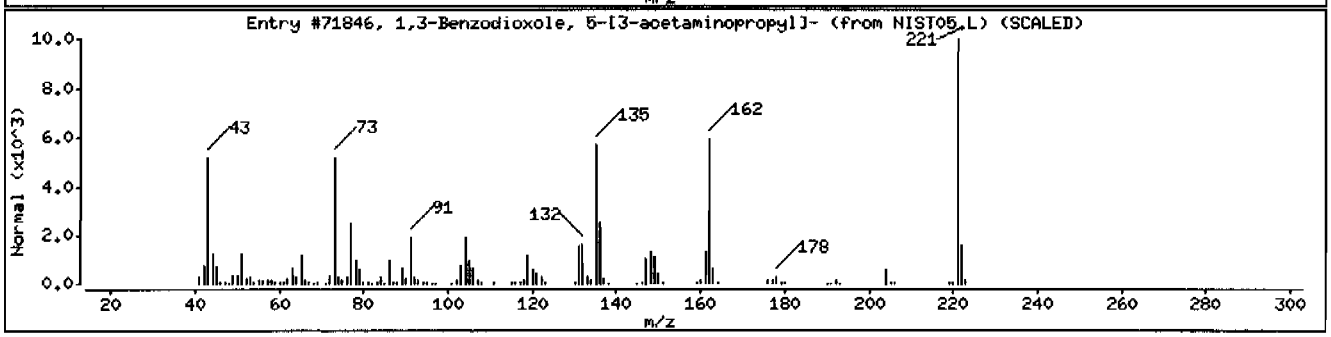

Data File: /chem/HSD3.i/s121409.b/s311428.d

Date : 14-DEC-2009 21:17

Client ID: RE03-09-14277 Instrument: HSD3.i

Sample Info: |2426540121932077|1|SVMF|1|LANL

Volume Injected (uL): 0.5 Operator: JLD1

Column phase: J&W DB-5HS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
7-Oxabicyclo[4.1.0]heptane, 2,2,6-trimet	70038-20-9	NIST05.L	69982	74	C15H22O	218
2(1H)Naphthalenone, 3,5,6,7,8,8a-hexahyd	1000188-66-5	NIST05.L	69976	52	C15H22O	218
2-Methyl-6-(5-methyl-2-thiazolin-2-ylami	339352-50-0	NIST05.L	61889	41	C10H13N3S	207

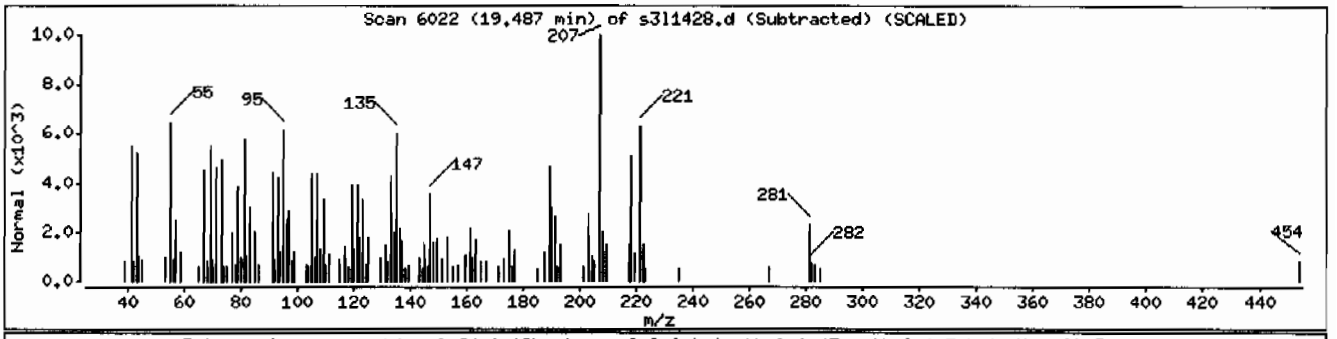

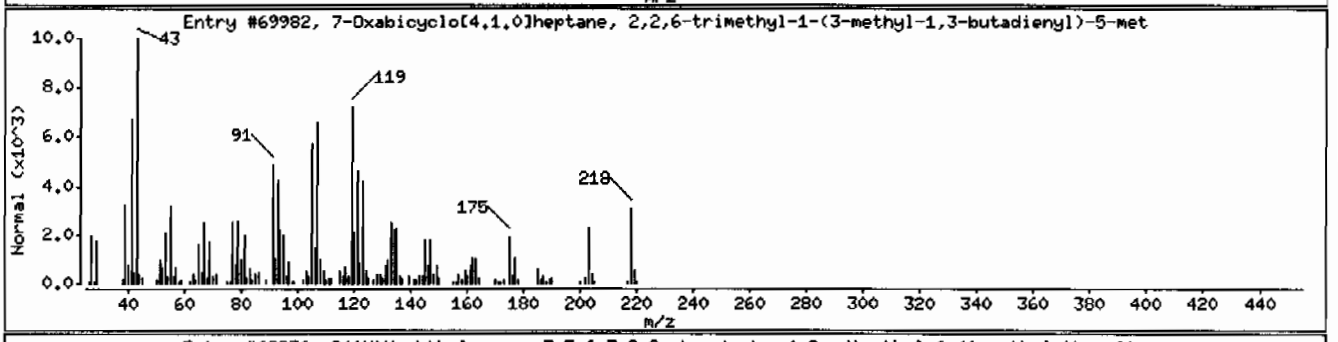

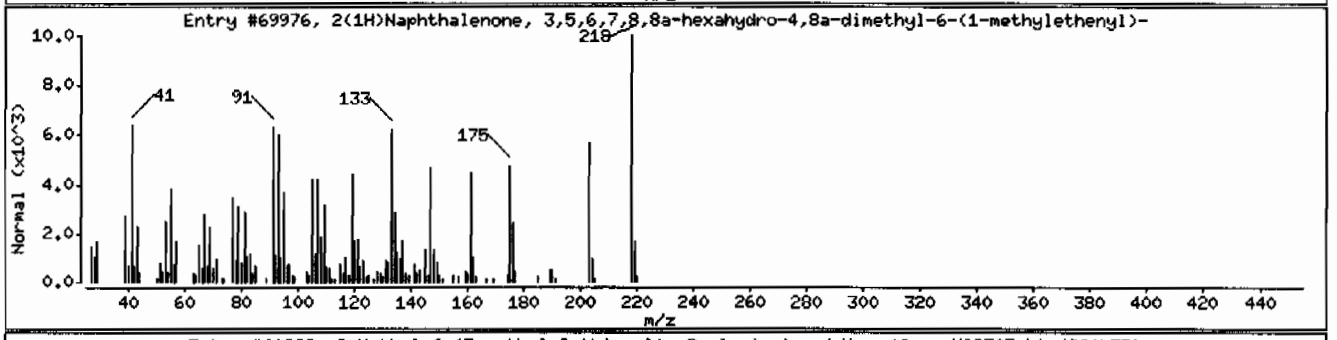

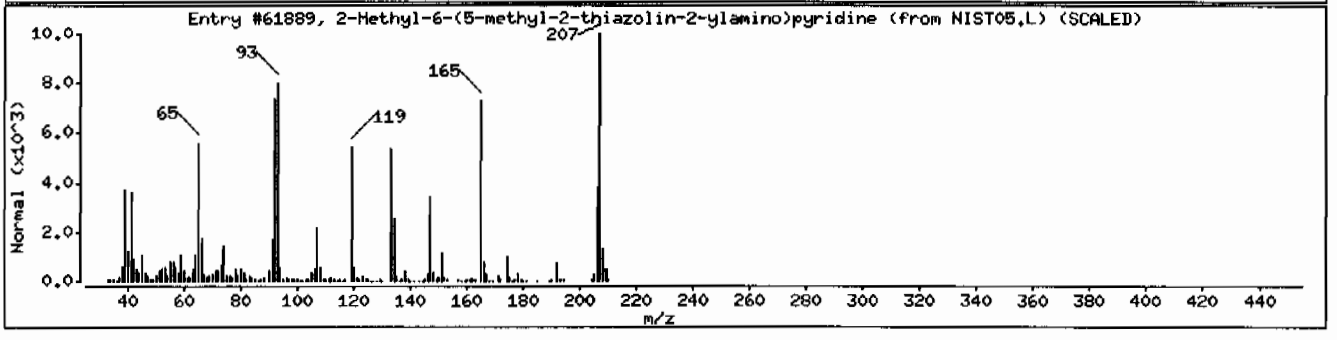

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-852**	**Date Collected:**	**12/07/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242654017**	**Date Received:**	**12/10/2009 08:50**	**%Moisture:**	**9.4**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14278**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**932077**	**Inst:**	**MSD3.I**	**Dilution:**	**1**
Run Date:	**12/15/2009 11:56**	**Analyst:**	**JLD1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/11/2009 21:55**	**Aliquot:**	**30.05 g**	**Final Volume:**	**1 mL**
Data File:	**s3l1510.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	367	ug/kg	73.5	367
108-95-2	Phenol	U	367	ug/kg	73.5	367
95-57-8	2-Chlorophenol	U	367	ug/kg	73.5	367
106-46-7	1,4-Dichlorobenzene	U	367	ug/kg	73.5	367
621-64-7	N-Nitrosodipropylamine	U	367	ug/kg	73.5	367
59-50-7	4-Chloro-3-methylphenol	U	367	ug/kg	73.5	367
83-32-9	Acenaphthene		39.4	ug/kg	12.1	36.7
121-14-2	2,4-Dinitrotoluene	U	367	ug/kg	36.7	367
100-02-7	4-Nitrophenol	U	367	ug/kg	121	367
87-86-5	Pentachlorophenol	U	367	ug/kg	91.8	367
129-00-0	Pyrene		435	ug/kg	11.0	36.7
110-86-1	Pyridine	U	367	ug/kg	73.5	367
62-53-3	Aniline	U	367	ug/kg	110	367
111-44-4	bis(2-Chloroethyl) ether	U	367	ug/kg	73.5	367
541-73-1	1,3-Dichlorobenzene	U	367	ug/kg	73.5	367
100-51-6	Benzyl alcohol	U	367	ug/kg	110	367
95-50-1	1,2-Dichlorobenzene	U	367	ug/kg	73.5	367
108-60-1	bis(2-Chloroisopropyl)ether	U	367	ug/kg	73.5	367
95-48-7	o-Cresol	U	367	ug/kg	73.5	367
65794-96-9	m,p-Cresols	U	367	ug/kg	110	367
67-72-1	Hexachloroethane	U	367	ug/kg	73.5	367
98-95-3	Nitrobenzene	U	367	ug/kg	73.5	367
78-59-1	Isophorone	U	367	ug/kg	73.5	367
88-75-5	2-Nitrophenol	U	367	ug/kg	73.5	367
105-67-9	2,4-Dimethylphenol	U	367	ug/kg	129	367
111-91-1	bis(2-Chloroethoxy)methane	U	367	ug/kg	73.5	367
120-83-2	2,4-Dichlorophenol	U	367	ug/kg	73.5	367
65-85-0	Benzoic acid	U	735	ug/kg	184	735
91-20-3	Naphthalene	U	36.7	ug/kg	11.0	36.7
106-47-8	4-Chloroaniline	U	367	ug/kg	73.5	367
87-68-3	Hexachlorobutadiene	U	367	ug/kg	73.5	367
91-57-6	2-Methylnaphthalene	U	36.7	ug/kg	7.35	36.7
77-47-4	Hexachlorocyclopentadiene	U	367	ug/kg	73.5	367
88-06-2	2,4,6-Trichlorophenol	U	367	ug/kg	73.5	367
95-95-4	2,4,5-Trichlorophenol	U	367	ug/kg	73.5	367
91-58-7	2-Chloronaphthalene	U	36.7	ug/kg	12.1	36.7
88-74-4	2-Nitroaniline	U	367	ug/kg	73.5	367
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	367	ug/kg	73.5	367

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	Date Collected:	12/07/2009 12:00	Matrix:	S
Lab Sample ID:	242654017	Date Received:	12/10/2009 08:50	%Moisture:	9.4
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14278	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	932077	Inst:	MSD3.I	Dilution:	1
Run Date:	12/15/2009 11:56	Analyst:	JLD1	Inj. Vol:	.5 uL
Prep Date:	12/11/2009 21:55	Aliquot:	30.05 g	Final Volume:	1 mL
Data File:	s3l1510.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	367	ug/kg	73.5	367
606-20-2	2,6-Dinitrotoluene	U	367	ug/kg	36.7	367
208-96-8	Acenaphthylene	U	36.7	ug/kg	11.0	36.7
51-28-5	2,4-Dinitrophenol	U	735	ug/kg	140	735
132-64-9	Dibenzofuran	U	367	ug/kg	73.5	367
84-66-2	Diethylphthalate	U	367	ug/kg	73.5	367
86-73-7	Fluorene		42.6	ug/kg	11.0	36.7
7005-72-3	4-Chlorophenylphenylether	U	367	ug/kg	73.5	367
534-52-1	2-Methyl-4,6-dinitrophenol	U	367	ug/kg	73.5	367
100-01-6	4-Nitroaniline	U	367	ug/kg	110	367
	p-Nitroaniline					
122-39-4	Diphenylamine	U	367	ug/kg	73.5	367
122-66-7	Azobenzene	U	367	ug/kg	73.5	367
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	367	ug/kg	73.5	367
118-74-1	Hexachlorobenzene	U	367	ug/kg	73.5	367
85-01-8	Phenanthrene		381	ug/kg	11.0	36.7
120-12-7	Anthracene		74.8	ug/kg	7.35	36.7
84-74-2	Di-n-butylphthalate	U	367	ug/kg	73.5	367
206-44-0	Fluoranthene		402	ug/kg	11.0	36.7
85-68-7	Butylbenzylphthalate	U	367	ug/kg	73.5	367
56-55-3	Benzo(a)anthracene		162	ug/kg	11.0	36.7
91-94-1	3,3'-Dichlorobenzidine	U	367	ug/kg	110	367
218-01-9	Chrysene		176	ug/kg	11.0	36.7
117-81-7	bis(2-Ethylhexyl)phthalate	U	367	ug/kg	73.5	367
117-84-0	Di-n-octylphthalate	U	367	ug/kg	73.5	367
205-99-2	Benzo(b)fluoranthene		218	ug/kg	11.0	36.7
207-08-9	Benzo(k)fluoranthene		85.3	ug/kg	11.0	36.7
50-32-8	Benzo(a)pyrene		156	ug/kg	11.0	36.7
193-39-5	Indeno(1,2,3-cd)pyrene		72.9	ug/kg	11.0	36.7
53-70-3	Dibenzo(a,h)anthracene	J	21.7	ug/kg	11.0	36.7
191-24-2	Benzo(ghi)perylene		72.0	ug/kg	11.0	36.7
120-82-1	1,2,4-Trichlorobenzene	U	367	ug/kg	73.5	367

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.91	211	ug/kg		JA
7785-70-8	1R-.alpha.-Pinene	3.64	266	ug/kg	96	NJ

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242654017	**Date Received:**	12/10/2009 08:50	**%Moisture:**	9.4
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14278	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	932077	**Inst:**	MSD3.I	**Dilution:**	1
Run Date:	12/15/2009 11:56	**Analyst:**	JLD1	**Inj. Vol:**	.5 uL
Prep Date:	12/11/2009 21:55	**Aliquot:**	30.05 g	**Final Volume:**	1 mL
Data File:	s3l1510.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
498-15-7	Bicyclo[4.1.0]hept-3-ene, 3,7,7-trimethy	4.2	379	ug/kg	97	NJ
	Unknown	10.86	277	ug/kg		J
	Unknown	10.9	160	ug/kg		J
	Unknown	11.08	167	ug/kg		J
1235-74-1	1-Phenanthrenecarboxylic acid, 1,2,3,4,4	11.19	275	ug/kg	96	NJ
	Unknown	11.34	807	ug/kg		J
	Unknown	11.39	246	ug/kg		J
	Unknown	16.25	231	ug/kg		J
	Unknown	17.04	187	ug/kg		J
74022-04-1	2,4a,8,8-Tetramethyldecahydrocyclopropa[	17.86	321	ug/kg	81	NJ
	Unknown	19.01	420	ug/kg		J
	Unknown	19.45	400	ug/kg		J

GEL Laboratories LLC

Data file : /chem/MSD3.i/s121509.b/s311510.d
Lab Smp Id: 242654017 Client Smp ID: RE03-09-14278
Inj Date : 15-DEC-2009 11:56
Operator : JLD1 Inst ID: MSD3.i
Smp Info : |242654017|932077|1|SVMF|1|LANL
Misc Info : |MSD8270_S|WBN091208-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD3.i/s121509.b/MSD3-8270R-AQA-120809.m
Meth Date : 15-Dec-2009 16:25 jen00986 Quant Type: ISTD
Cal Date : 07-DEC-2009 19:48 Cal File: s310717.d
Als bottle: 10
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-852.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.05000	weight of sample
M	9.40310	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	4.256	4.256	(1.000)	141660	40.0000	
* 29 Naphthalene-d8	136	5.508	5.508	(1.000)	533546	40.0000	
* 46 Acenaphthene-d10	164	7.354	7.356	(1.000)	304694	40.0000	
* 67 Phenanthrene-d10	188	8.946	8.946	(1.000)	507775	40.0000	
* 91 Chrysene-d12	240	11.804	11.804	(1.000)	305259	40.0000	
* 98 Perylene-d12	264	13.768	13.769	(1.000)	159323	40.0000	
$ 3 2-Fluorophenol	112	3.160	3.143	(0.742)	228613	61.6984	2270
$ 5 Phenol-d5	99	3.919	3.916	(0.921)	283752	60.1085	2210
$ 20 Nitrobenzene-d5	82	4.787	4.793	(0.869)	121285	31.1028	1140
$ 39 2-Fluorobiphenyl	172	6.630	6.632	(0.902)	253474	35.4910	1300
$ 60 2,4,6-Tribromophenol	329	8.199	8.198	(1.115)	67087	80.1791	2940
$ 81 p-Terphenyl-d14	244	10.653	10.649	(0.902)	217353	44.3329	1630

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
47 Acenaphthene	154	7.384	7.391	(1.004)	7777	1.07391	39.4
79 Pyrene	202	10.488	10.491	(0.888)	101078	11.8414	435
53 Fluorene	166	7.932	7.940	(1.079)	10041	1.16014	42.6
68 Phenanthrene	178	8.970	8.972	(1.003)	125865	10.3860	381
69 Anthracene	178	9.020	9.025	(1.008)	25093	2.03526	74.8
76 Fluoranthene	202	10.244	10.244	(1.145)	131268	10.9424	402
89 Benzo(a)anthracene	228	11.786	11.787	(0.998)	32455	4.41591	162
92 Chrysene	228	11.827	11.834	(1.002)	32742	4.79736	176
95 Benzo(b)fluoranthene	252	13.185	13.191	(0.958)	24943	5.92677	218
96 Benzo(k)fluoranthene	252	13.220	13.232	(0.960)	9237	2.32127	85.3
97 Benzo(a)pyrene	252	13.673	13.681	(0.993)	14749	4.26020	156
99 Indeno(1,2,3-cd)pyrene	276	15.491	15.504	(1.125)	6046	1.98494	72.9
100 Dibenzo(a,h)anthracene	278	15.520	15.536	(1.127)	1520	0.59037	21.7(a)
101 Benzo(ghi)perylene	276	15.944	15.964	(1.158)	5021	1.95901	72.0

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

ION RATIO REPORT

SV REPORT

Data file: s311510.d
Report Date: 12/15/2009 12:16
Lab. ID: 242654017 SampleType: SAMPLE
Injection Date: 15-DEC-2009 11:56
Operator: JLD1 Instrument: MSD3.i
Sample Info: |242654017|932077|1|SVMF|1|LANL
Miscellaneous Info: |MSD8270_S|WBN091208-01|
Comment:
Method used: /chem/MSD3.i/s121509.b/MSD3-8270R-AQA-120809.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-852
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
4 Aniline		CAS#: 62-53-3				
66	12702	3.92	3.97	80-120	100	( )
93	1551	3.93	3.97	220-280	12	(Q)
17 N-Nitrosodipropylamine				CAS#: 621-64-7		
70	17824	4.79	4.63	80-120	100	(T)
42	8637	4.79	4.63	23- 83	48	(T)
27 Benzoic acid			CAS#: 65-85-0			
105	789	5.22	5.29	80-120	100	(T)
122	450	5.22	5.29	44-104	57	(T)
77	732	5.22	5.29	44-104	93	(T)
40 2-Chloronaphthalene				CAS#: 91-58-7		
162	3796	6.95	6.76	80-120	100	(T)
164	161	6.95	6.76	2- 62	4	(T)
127	226	6.95	6.76	10- 70	6	(QT)
44 2,6-Dinitrotoluene				CAS#: 606-20-2		
165	39861	7.35	7.14	80-120	100	(T)
63	848	7.35	7.14	29- 89	2	(QT)
45 Acenaphthylene			CAS#: 208-96-8			
152	3744	7.38	7.21	80-120	100	(T)
151	1440	7.38	7.21	0- 50	38	(T)
153	8199	7.38	7.21	0- 43	219	(QT)

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
47 Acenaphthene			CAS#: 83-32-9			
154	7777	7.38	7.39	80-120	100	( )
153	8199	7.38	7.39	74-134	105	( )
152	3744	7.38	7.39	18- 78	48	( )
50 2,4-Dinitrotoluene			CAS#: 121-14-2			
165	39861	7.35	7.57	80-120	100	(T)
89	536	7.35	7.57	53-113	1	(QT)
63	848	7.35	7.57	36- 96	2	(QT)
52 4-Nitrophenol			CAS#: 100-02-7			
139	2174	7.57	7.52	80-120	100	( )
109	223	7.39	7.52	34- 94	10	(QT)
65	597	7.64	7.52	63-123	27	(QT)
53 Fluorene			CAS#: 86-73-7			
166	10041	7.93	7.94	80-120	100	( )
165	9231	7.93	7.94	60-120	92	( )
167	1378	7.93	7.94	0- 44	14	( )
55 2-Methyl-4,6-dinitrophenol			CAS#: 534-52-1			
198	175	8.20	8.00	80-120	100	(T)
105	654	8.20	8.00	14- 74	372	(QT)
51	462	8.20	8.00	20- 80	264	(QT)
68 Phenanthrene			CAS#: 85-01-8			
178	125865	8.97	8.97	80-120	100	( )
179	19793	8.97	8.97	0- 45	16	( )
176	22383	8.97	8.97	0- 48	18	( )
69 Anthracene			CAS#: 120-12-7			
178	25093	9.02	9.03	80-120	100	( )
179	5560	9.02	9.03	0- 45	22	( )
176	4309	9.02	9.03	0- 47	17	( )
76 Fluoranthene			CAS#: 206-44-0			
202	131268	10.24	10.24	80-120	100	( )
203	23309	10.24	10.24	0- 47	18	( )
101	19326	10.24	10.24	0- 45	15	( )
79 Pyrene			CAS#: 129-00-0			
202	101078	10.49	10.49	80-120	100	( )
200	20052	10.49	10.49	0- 50	20	( )
101	18656	10.48	10.49	0- 48	18	( )
89 Benzo(a)anthracene			CAS#: 56-55-3			
228	32455	11.79	11.79	80-120	100	( )
226	7816	11.79	11.79	0- 55	24	( )
229	8245	11.79	11.79	0- 52	25	( )

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
92 Chrysene			CAS#: 218-01-9			
228	32742	11.83	11.83	80-120	100	( )
229	7251	11.83	11.83	0- 50	22	( )
226	9405	11.83	11.83	0- 58	29	( )
95 Benzo(b)fluoranthene			CAS#: 205-99-2			
252	24943	13.18	13.19	80-120	100	( )
253	5871	13.18	13.19	0- 51	24	( )
125	3731	13.18	13.19	0- 44	15	( )
96 Benzo(k)fluoranthene			CAS#: 207-08-9			
252	9237	13.22	13.23	80-120	100	( )
253	2314	13.22	13.23	0- 53	25	( )
125	1290	13.22	13.23	0- 45	14	( )
97 Benzo(a)pyrene			CAS#: 50-32-8			
252	14749	13.67	13.68	80-120	100	( )
253	3495	13.67	13.68	0- 52	24	( )
125	2379	13.67	13.68	0- 45	16	( )
99 Indeno(1,2,3-cd)pyrene			CAS#: 193-39-5			
276	6046	15.49	15.50	80-120	100	( )
138	2128	15.49	15.51	0- 58	35	( )
100 Dibenzo(a,h)anthracene			CAS#: 53-70-3			
278	1520	15.52	15.54	80-120	100	( )
139	207	15.52	15.54	0- 52	14	( )
101 Benzo(ghi)perylene			CAS#: 191-24-2			
276	5021	15.94	15.96	80-120	100	( )
138	1727	15.94	15.96	1- 61	34	( )

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

Data file : /chem/MSD3.i/s121509.b/s311510.d
Lab Smp Id: 242654017 Client Smp ID: RE03-09-14278
Inj Date : 15-DEC-2009 11:56
Operator : JLD1 Inst ID: MSD3.i
Smp Info : |242654017|932077|1|SVMF|1|LANL
Misc Info : |MSD8270_S|WBN091208-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD3.i/s121509.b/MSD3-8270R-AQA-120809.m
Meth Date : 15-Dec-2009 16:25 jen00986 Quant Type: ISTD
Cal Date : 07-DEC-2009 19:48 Cal File: s310717.d
Als bottle: 10
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-852.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.05000	weight of sample
M	9.40310	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	4.256	831509	40.000
* 91 Chrysene-d12	11.804	999280	40.000
* 98 Perylene-d12	13.768	462444	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #

RT	AREA	CONCENTRATIONS ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	QUANT LIBRARY	LIB ENTRY	CPND #
Unknown Aldol Condensate				CAS #:			
2.914	119598	5.75329750	211	0		0	10
1R-.alpha.-Pinene				CAS #: 7785-70-8			
3.644	150755	7.25209402	266	96	NIST05.L	15188	10
Bicyclo[4.1.0]hept-3-ene, 3,7,7-trimethy				CAS #: 498-15-7			
4.204	214239	10.3060427	378	97	NIST05.L	15369	10
Unknown				CAS #:			
10.856	188224	7.53437848	277	0		0	91
Unknown				CAS #:			
10.897	109002	4.36321556	160	0		0	91
Unknown				CAS #:			
11.079	113703	4.55138916	167	0		0	91
1-Phenanthrenecarboxylic acid, 1,2,3,4,4				CAS #: 1235-74-1			
11.188	187236	7.49482296	275	96	NIST05.L	133620	91
Unknown				CAS #:			
11.335	548642	21.9614636	807	0		0	91
Unknown				CAS #:			
11.392	167118	6.68953354	246	0		0	91
Unknown				CAS #:			
16.250	72762	6.29364716	231	0		0	98
Unknown				CAS #:			
17.044	58793	5.08541162	187	0		0	98
2,4a,8,8-Tetramethyldecahydrocyclopropa[				CAS #: 74022-04-1			
17.856	101087	8.74368886	321	81	NIST05.L	61558	98
Unknown				CAS #:			
19.006	132215	11.4361860	420	0		0	98
Unknown				CAS #:			
19.450	125864	10.8868330	400	0		0	98

Data File: /chem/MSD3.i/s121509.b/s311510.d
Date : 15-DEC-2009 11:56
Client ID: RE03-09-14278
Sample Info: |242654017|932077|1|SVMF|1|LANL
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD3.i

Operator: JLD1
Column diameter: 0.20

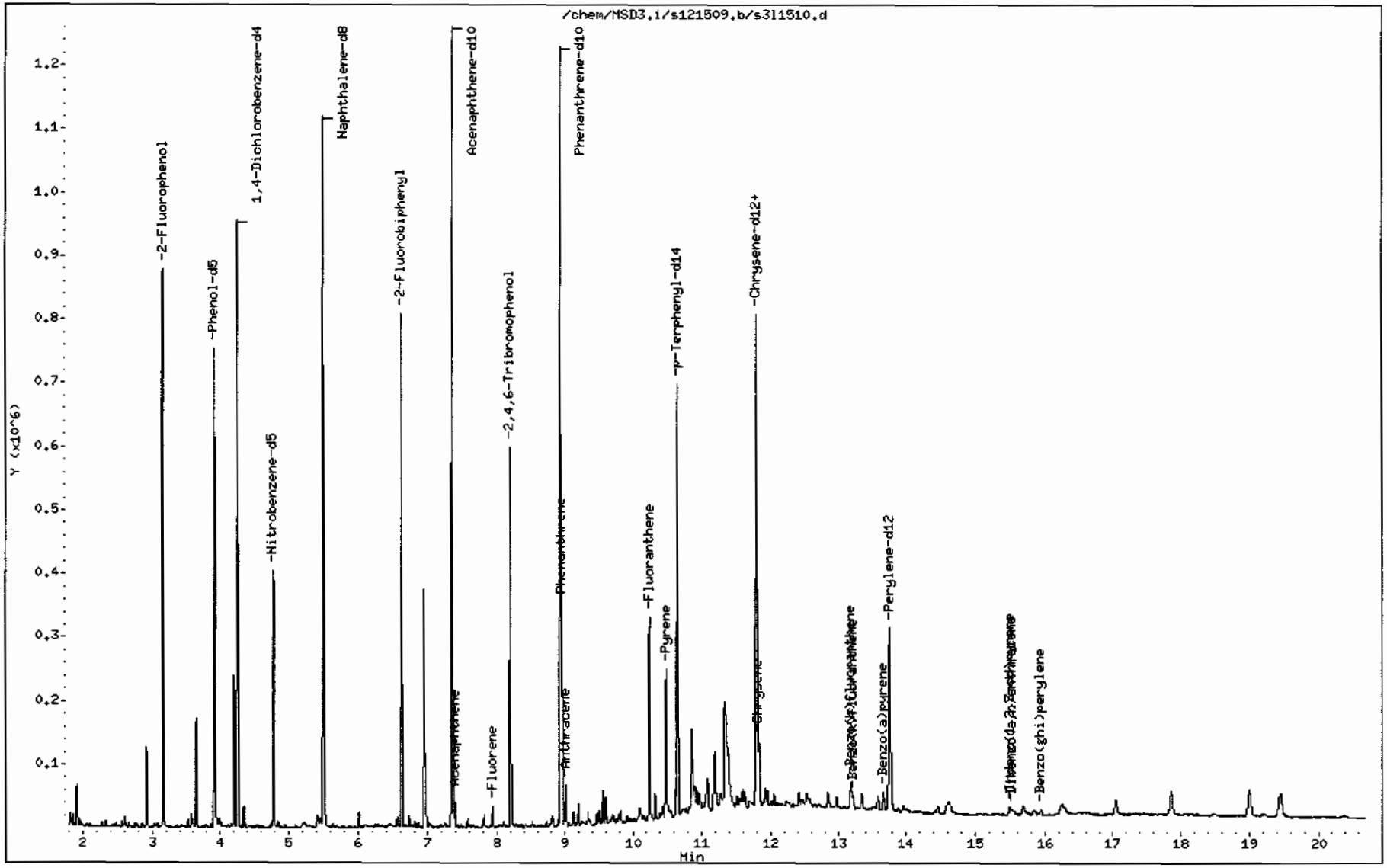

Data File: /chem/MSD3.i/s121509.b/s311510.d

Date : 15-DEC-2009 11:56

Client ID: RE03-09-14278

Instrument: MSD3.i

Sample Info: |2426540171932077|1|SVMF|1|LANL

Volume Injected (uL): 0.5

Operator: JLD1

Column phase: J&W DB-5MS

Column diameter: 0.20

47 Acenaphthene

Concentration: 39.4 ug/Kg

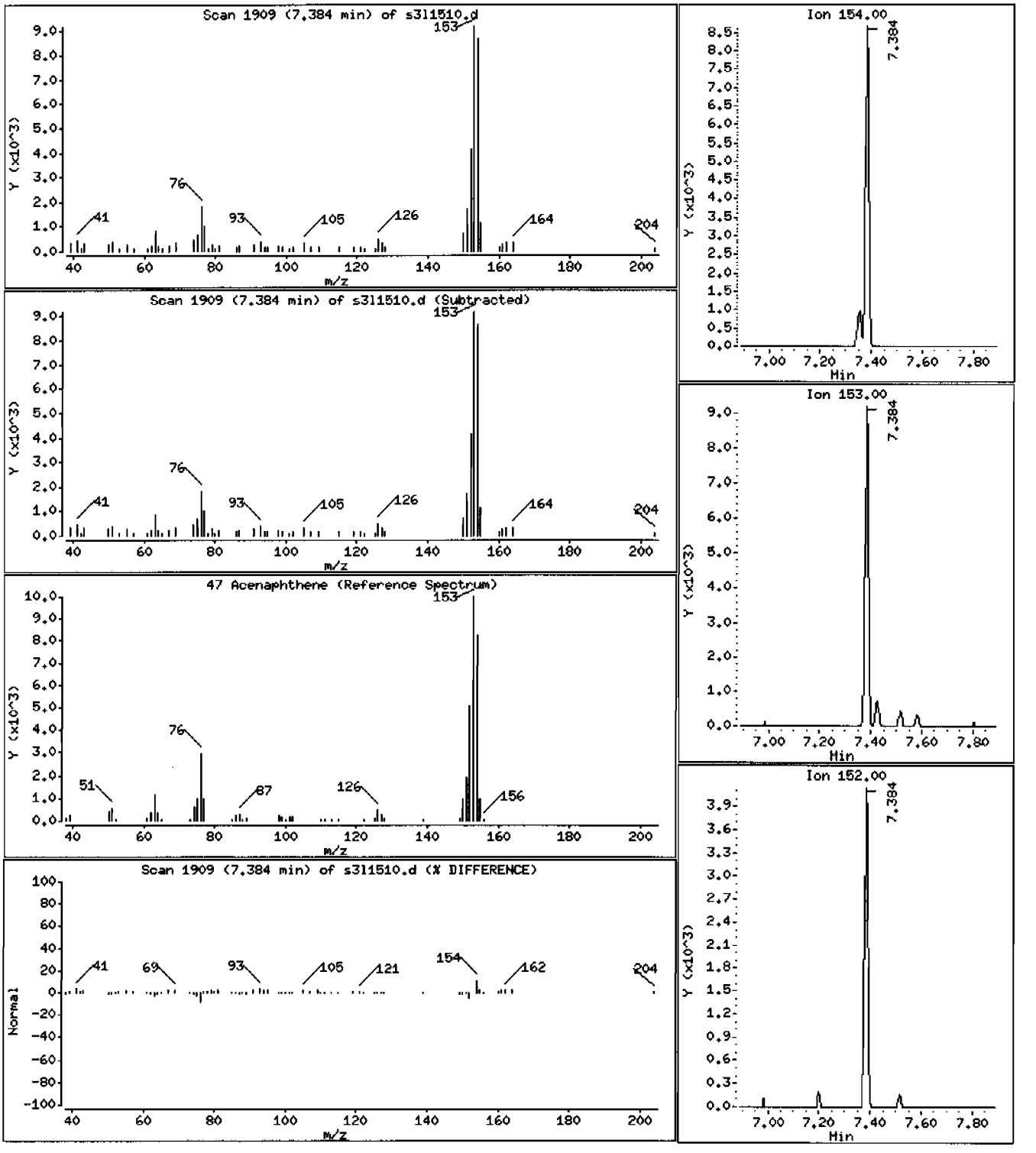

Data File: /chem/MSD3.i/s121509.b/s311510.d

Date : 15-DEC-2009 11:56

Client ID: RE03-09-14278

Instrument: MSD3.i

Sample Info: |2426540171932077|1|SVMF|1|LANL

Volume Injected (uL): 0.5

Operator: JLD1

Column phase: J&W DB-5MS

Column diameter: 0.20

79 Pyrene

Concentration: 435 ug/Kg

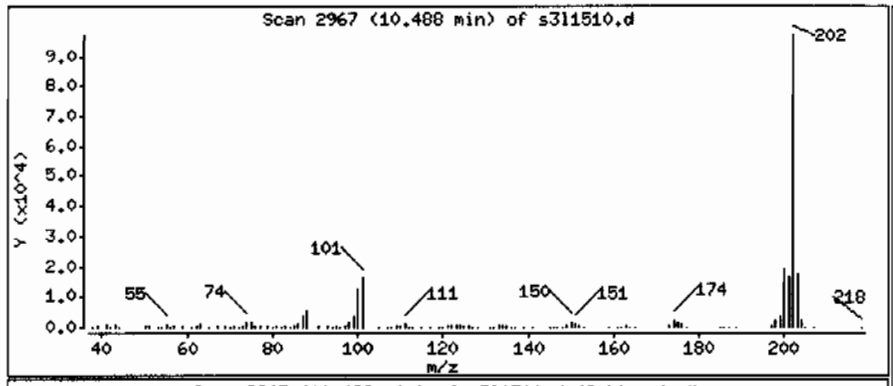

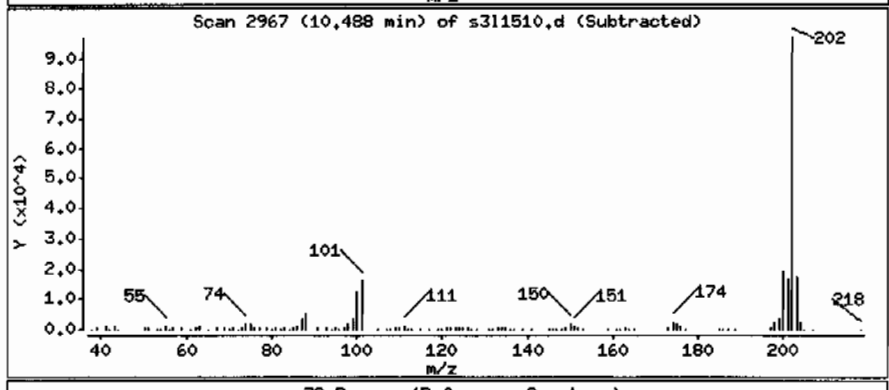

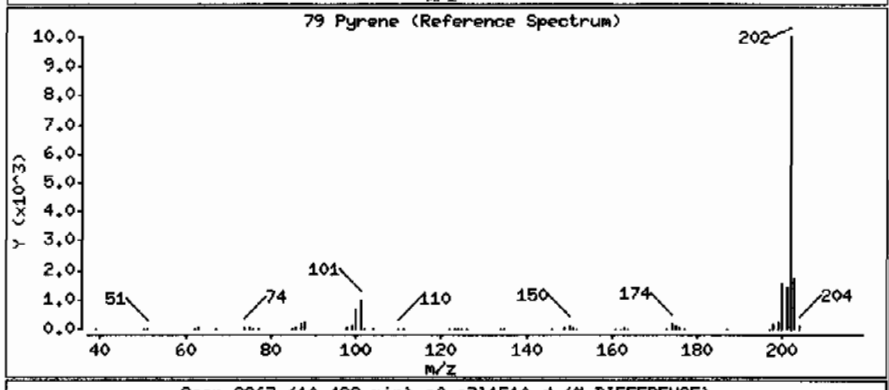

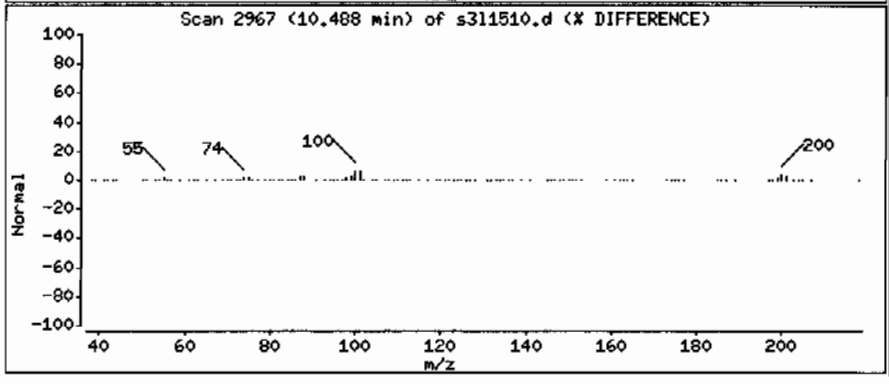

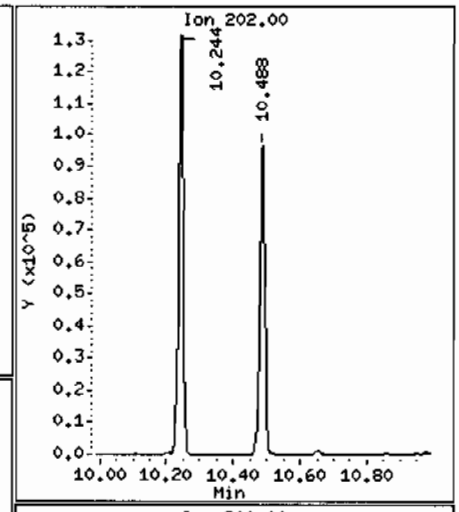

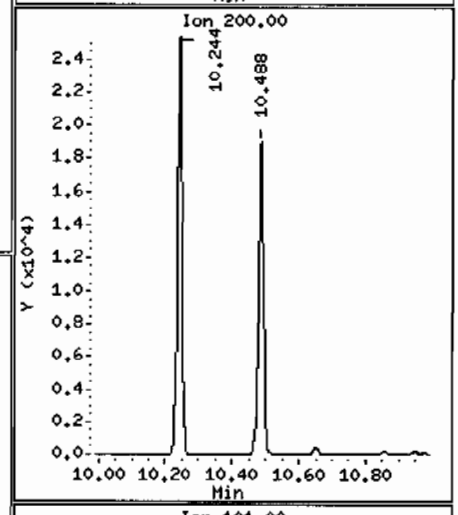

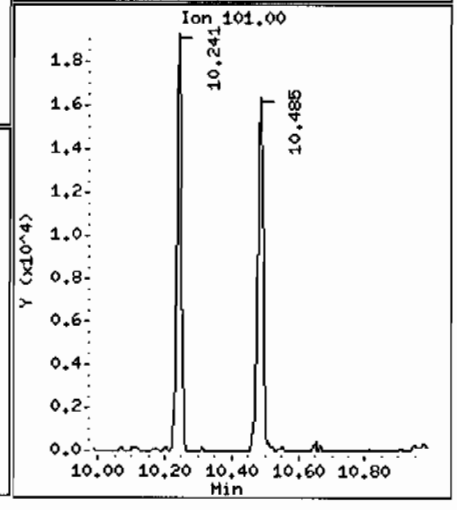

Data File: /chem/MSD3.i/s121509.b/s311510.d

Date : 15-DEC-2009 11:56

Client ID: RE03-09-14278

Instrument: MSD3.i

Sample Info: |2426540171932077|1|SVHF|1|LANL

Volume Injected (uL): 0.5

Operator: JLD1

Column phase: J&W DB-5MS

Column diameter: 0.20

53 Fluorene

Concentration: 42.6 ug/Kg

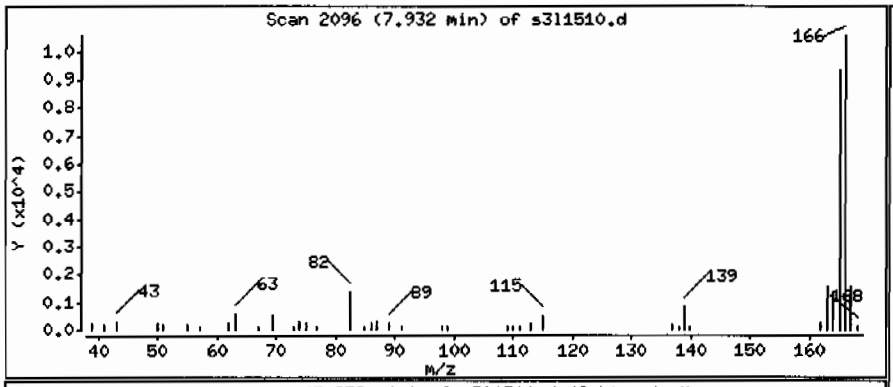

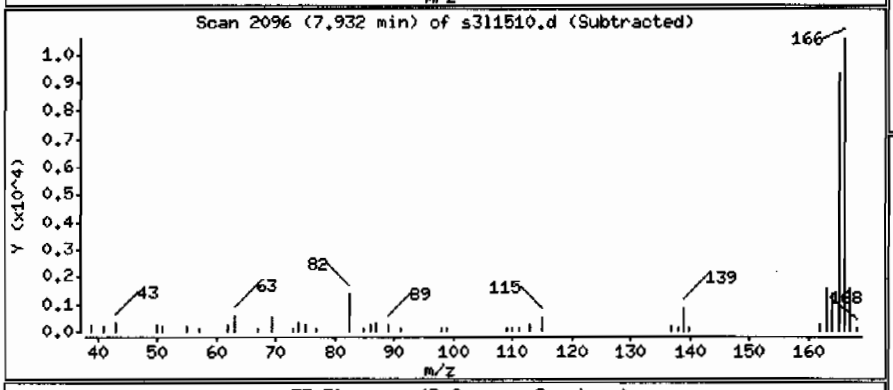

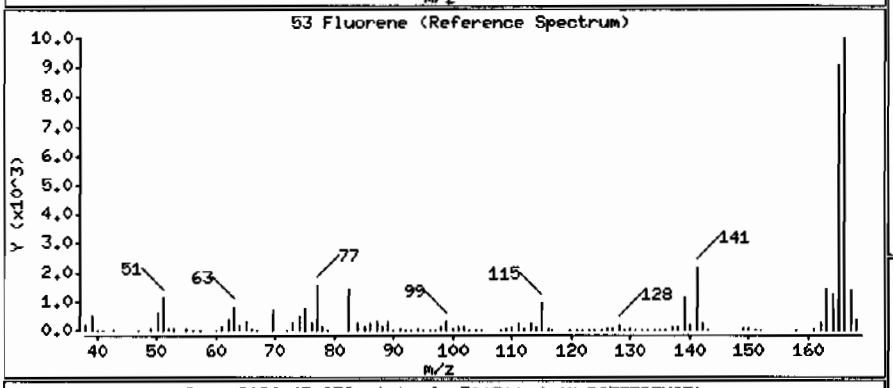

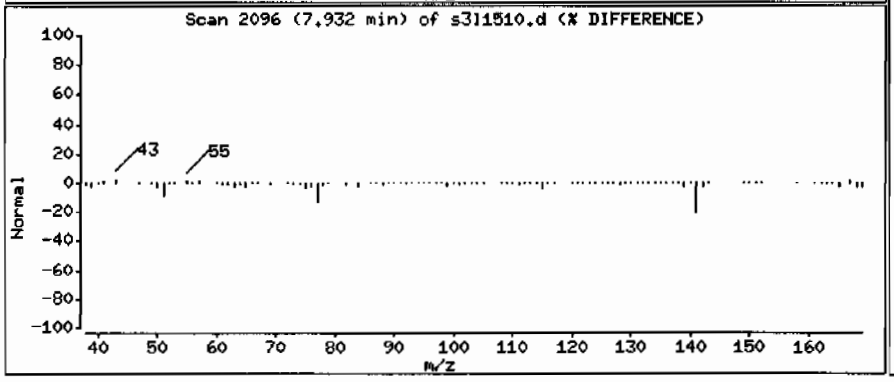

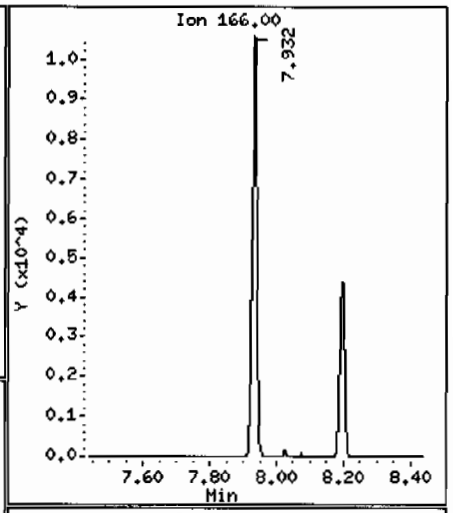

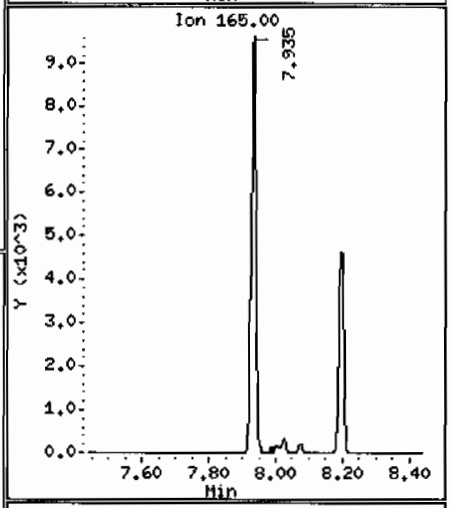

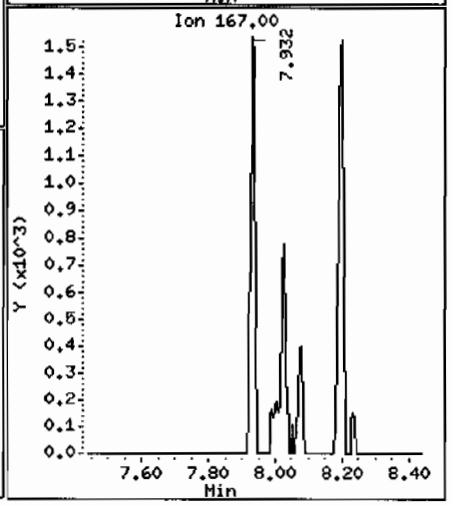

Data File: /chem/MSD3.i/s121509.b/s311510.d

Date : 15-DEC-2009 11:56

Client ID: RE03-09-14278

Instrument: MSD3.i

Sample Info: 1242654017193207711ISVMF11LANL

Volume Injected (uL): 0.5

Operator: JLD1

Column phase: J&W DB-5MS

Column diameter: 0.20

68 Phenanthrene

Concentration: 381 ug/Kg

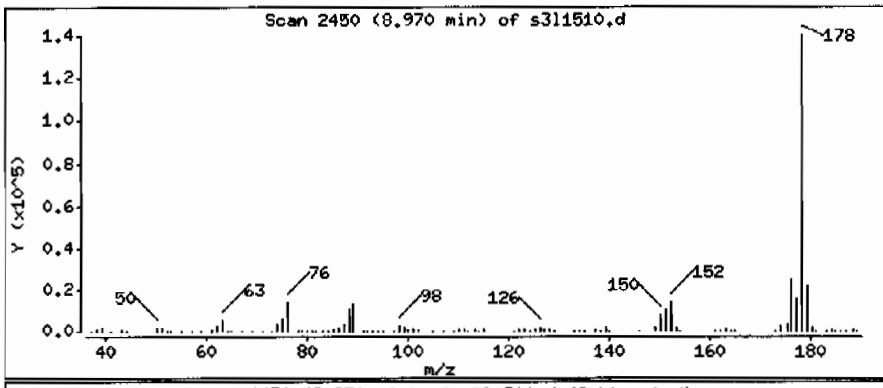

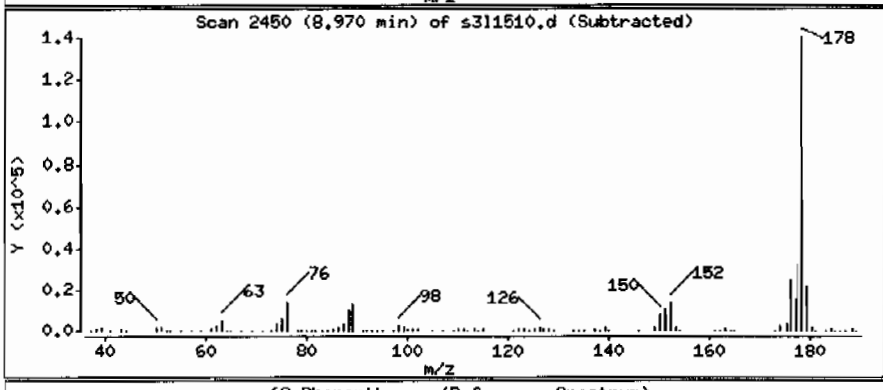

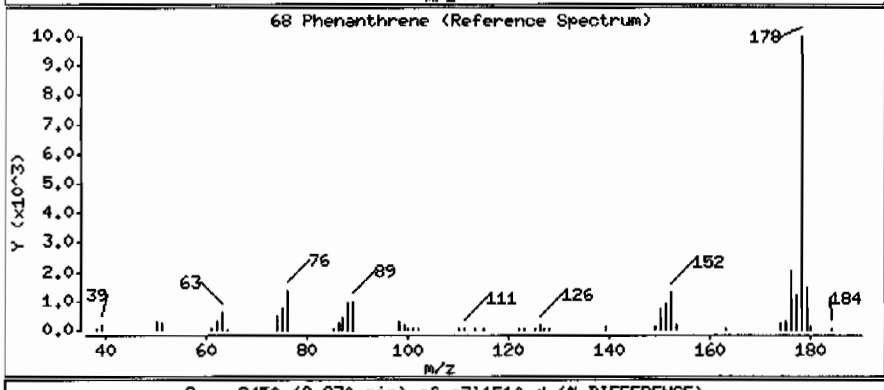

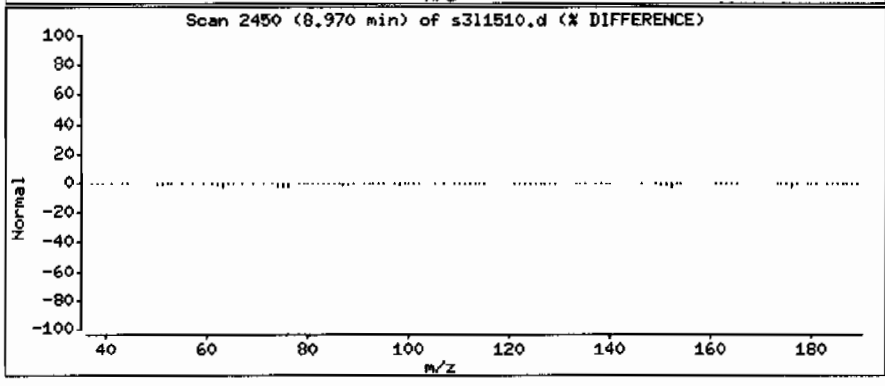

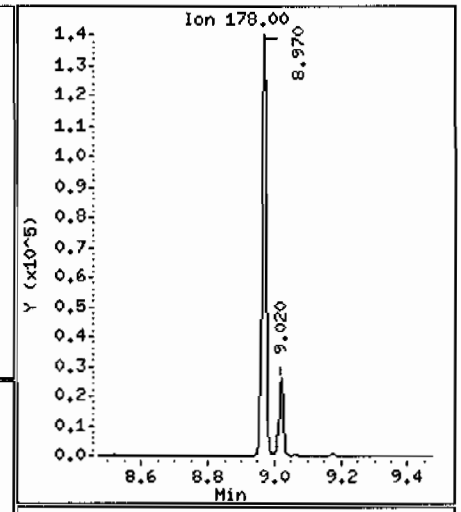

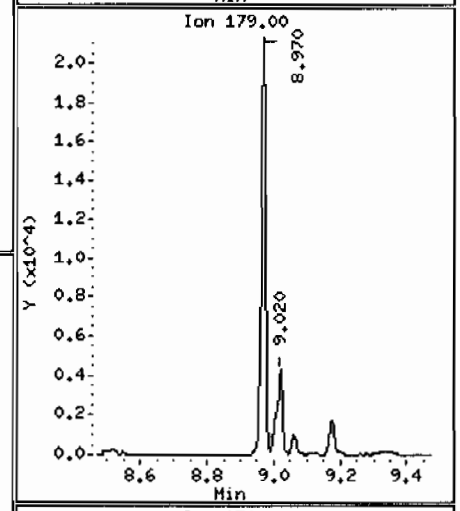

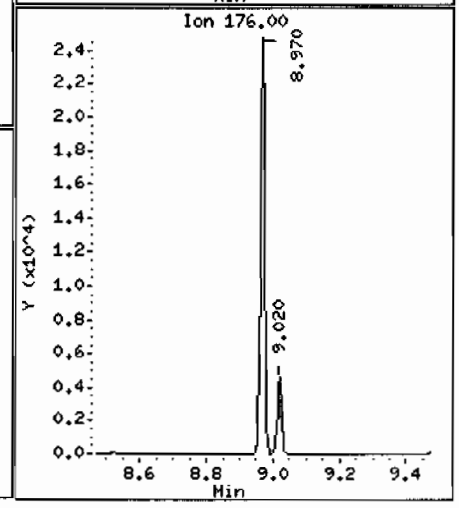

Data File: /chem/MSD3.i/s121509.b/s311510.d

Date : 15-DEC-2009 11:56

Client ID: RE03-09-14278

Instrument: MSD3.i

Sample Info: |2426540171932077|1|SVMF|1|LANL

Volume Injected (uL): 0.5

Operator: JLD1

Column phase: J&W DB-5MS

Column diameter: 0.20

69 Anthracene

Concentration: 74.8 ug/Kg

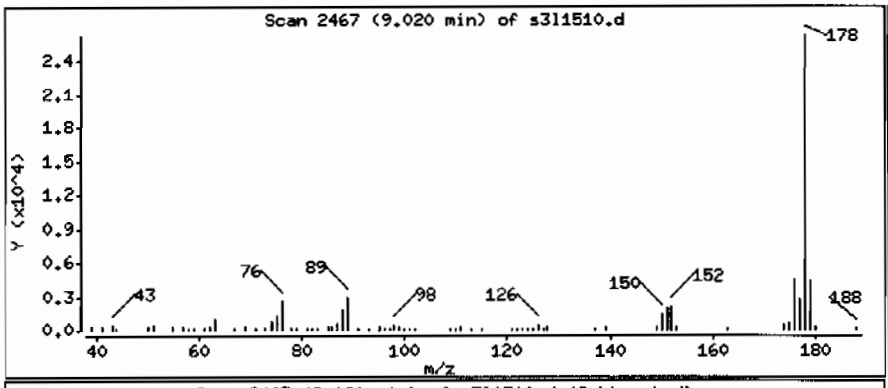

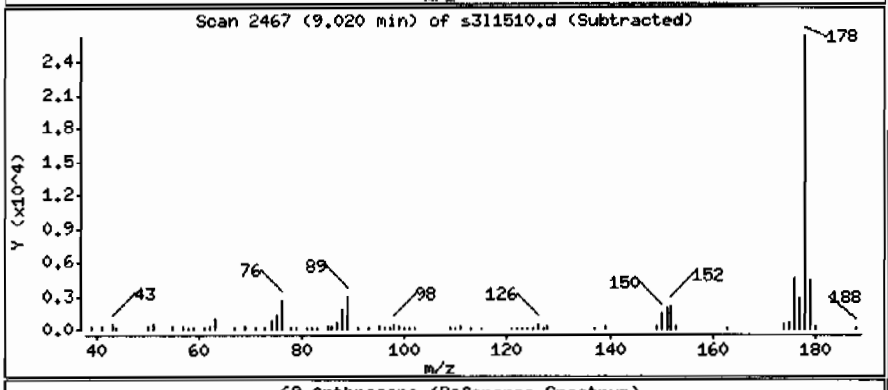

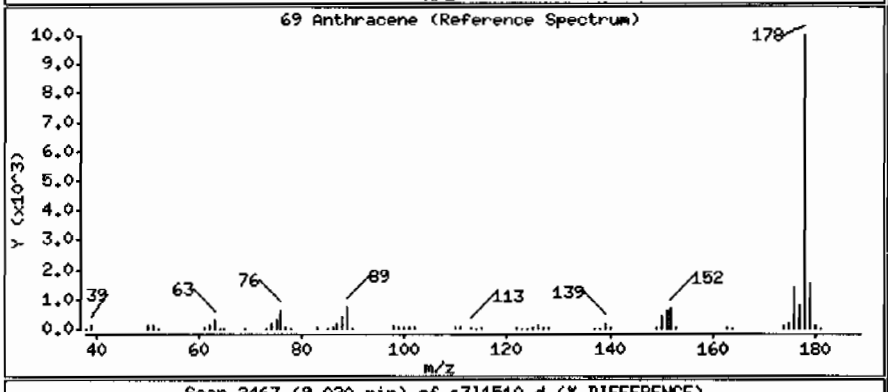

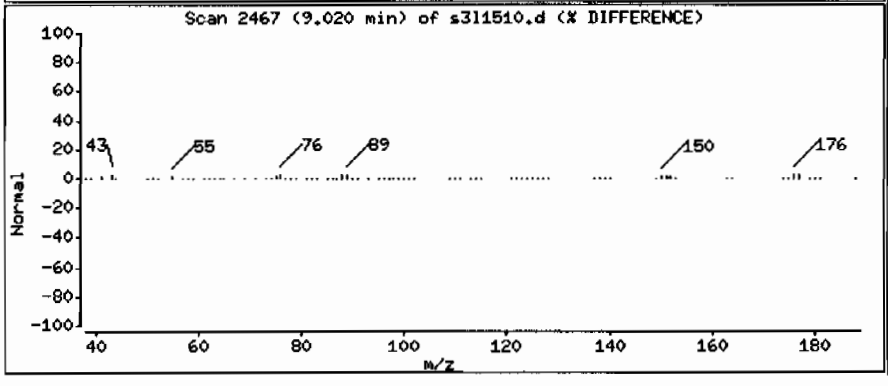

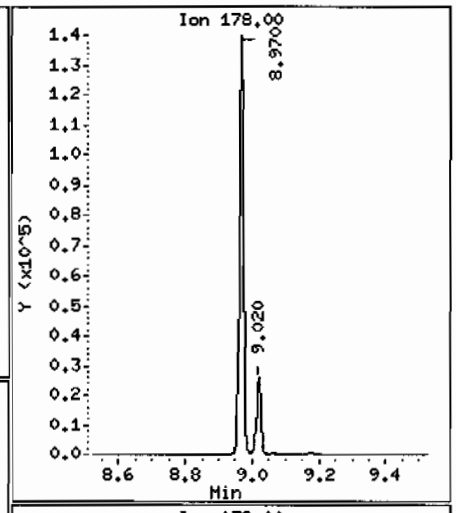

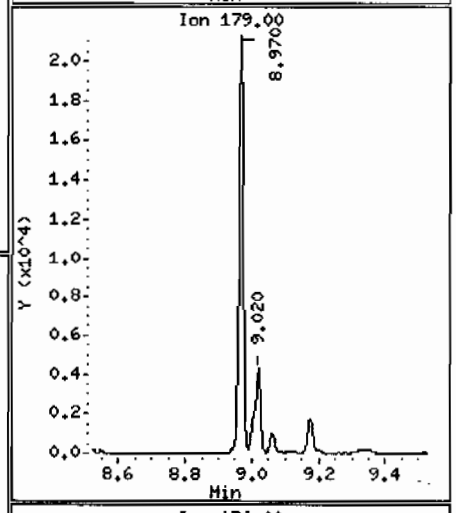

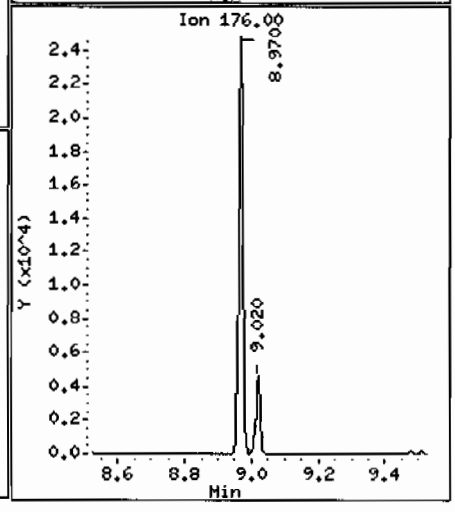

Data File: /chem/MSD3.i/s121509.b/s311510.d

Date : 15-DEC-2009 11:56

Client ID: RE03-09-14278

Instrument: MSD3.i

Sample Info: |2426540171932077|1|SVMF|1|LANL

Volume Injected (uL): 0.5

Operator: JLD1

Column phase: J&W DB-5MS

Column diameter: 0.20

76 Fluoranthene

Concentration: 402 ug/Kg

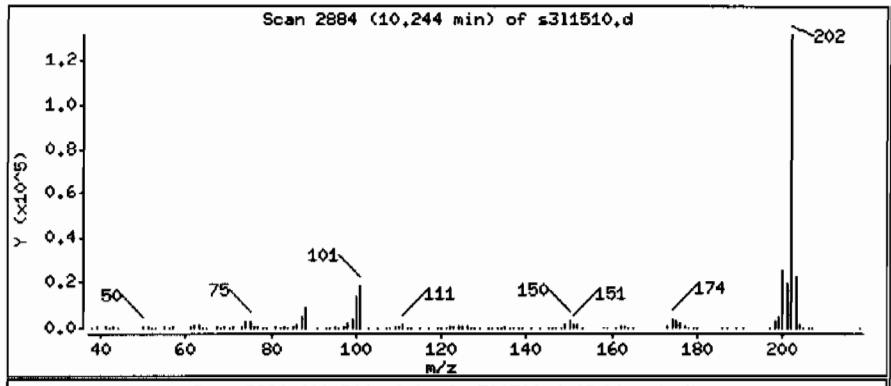

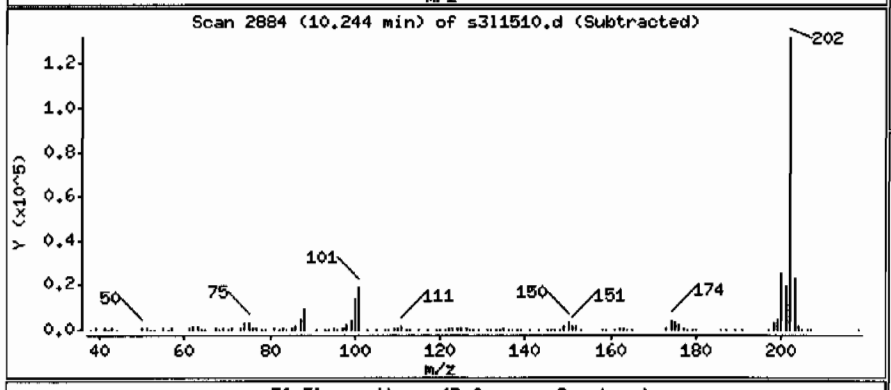

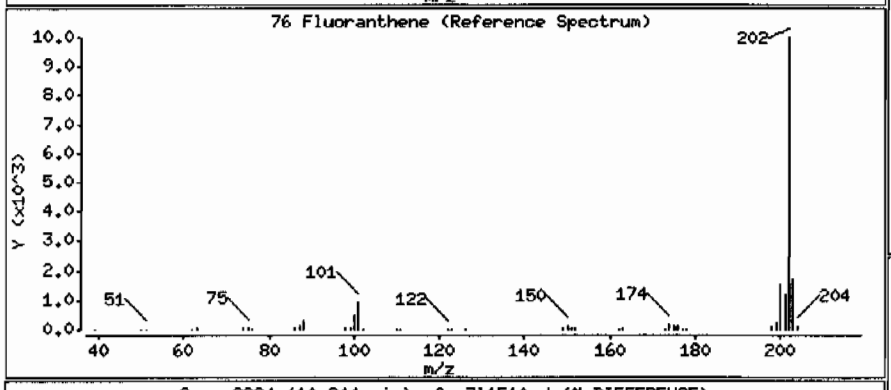

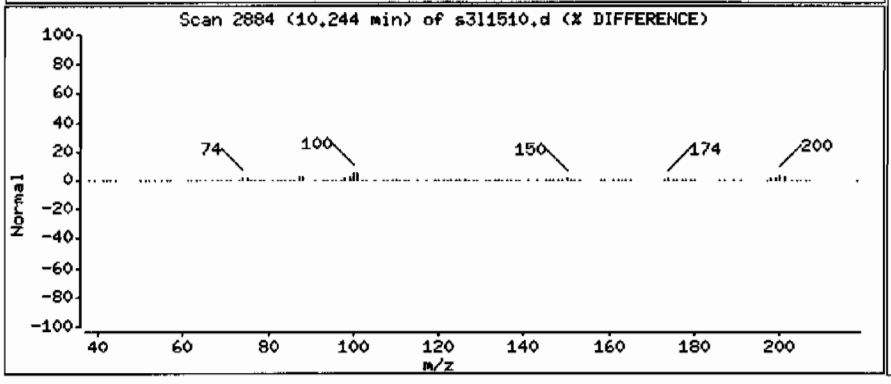

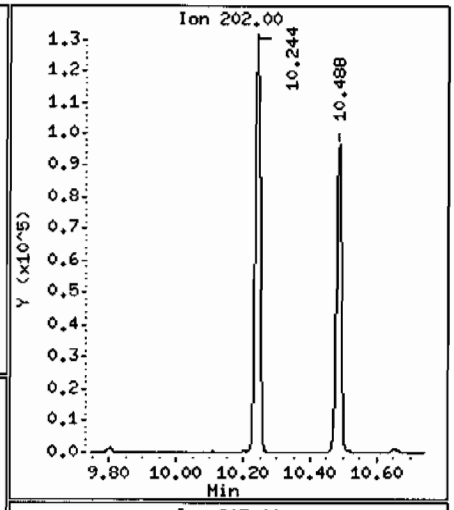

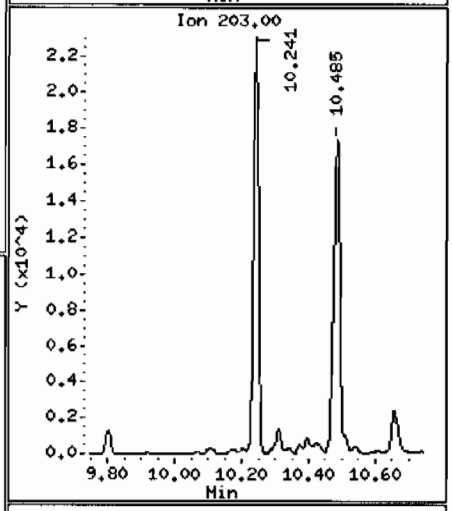

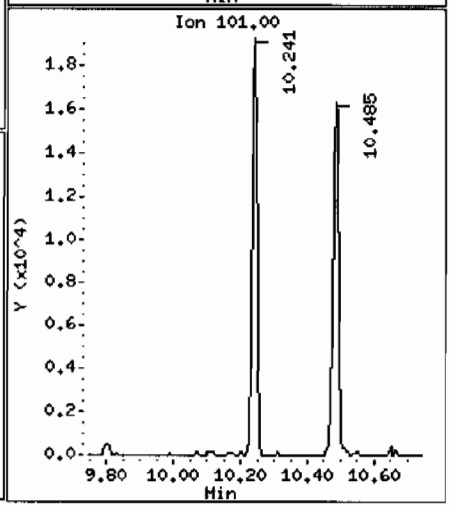

Data File: /chem/MSD3.i/s121509.b/s311510.d

Date : 15-DEC-2009 11:56

Client ID: RE03-09-14278

Instrument: MSD3.i

Sample Info: |2426540171932077|1|SVMF|1|LANL

Volume Injected (uL): 0.5

Operator: JLD1

Column phase: J&W DB-5MS

Column diameter: 0.20

89 Benzo(a)anthracene

Concentration: 162 ug/Kg

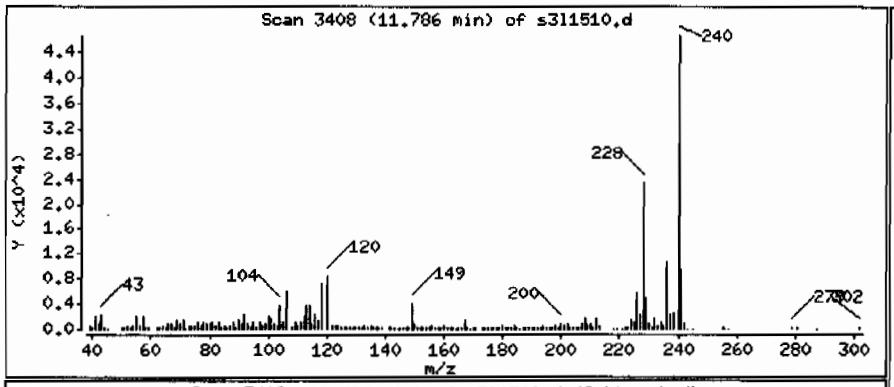

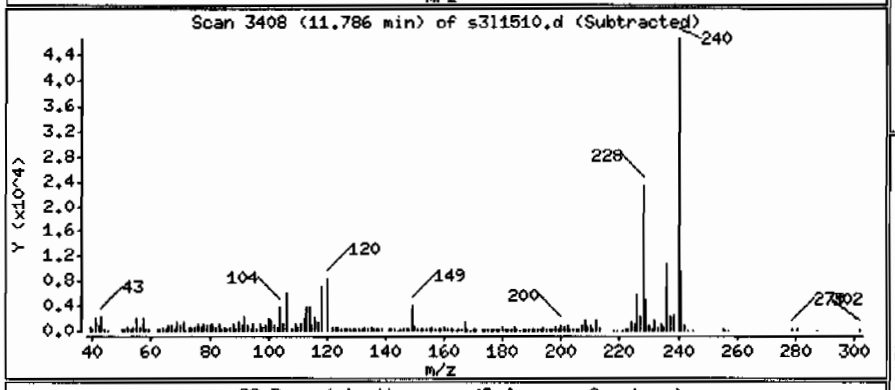

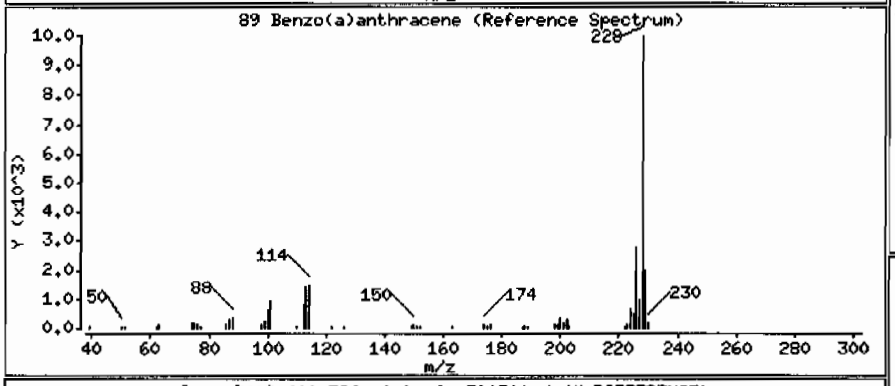

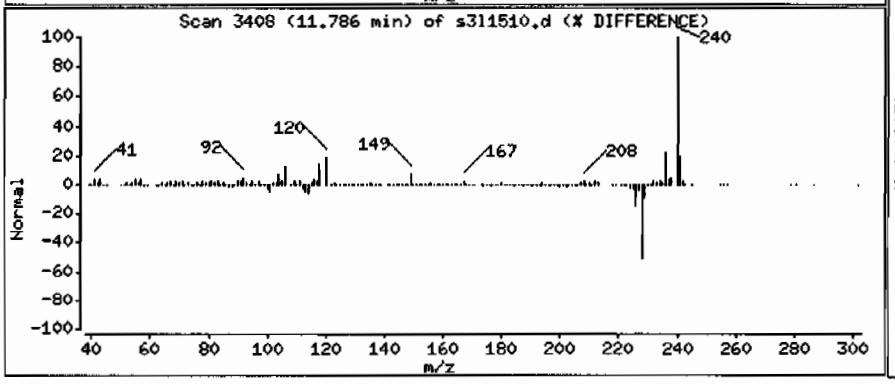

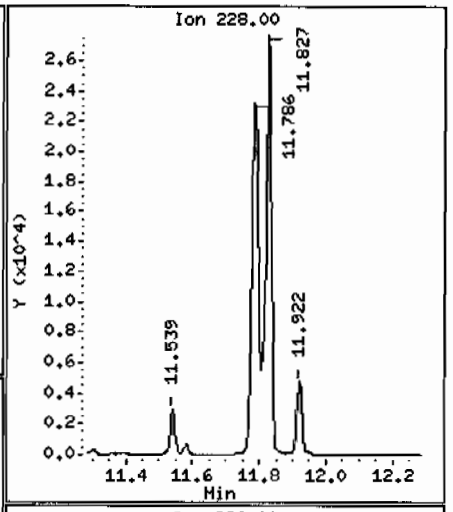

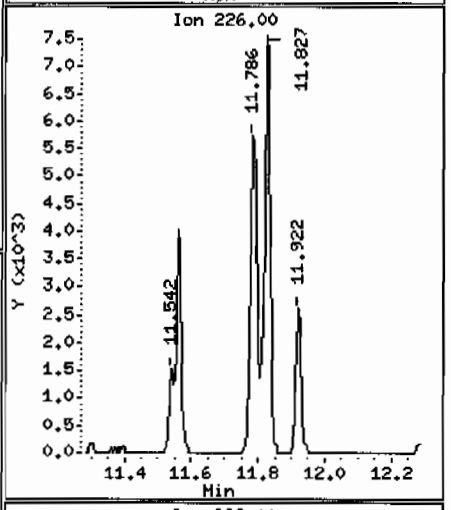

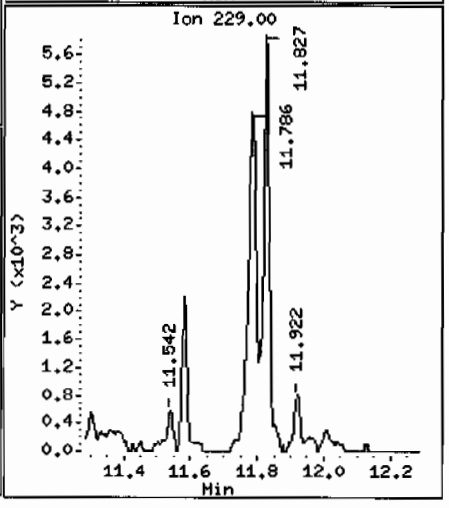

Data File: /chem/MSD3.i/s121509.b/s311510.d

Date : 15-DEC-2009 11:56

Client ID: RE03-09-14278 Instrument: MSD3.i

Sample Info: 1242654017193207711ISVMF11ILANL

Volume Injected (uL): 0.5 Operator: JLD1

Column phase: J&W DB-5MS Column diameter: 0.20

92 Chrysene Concentration: 176 ug/Kg

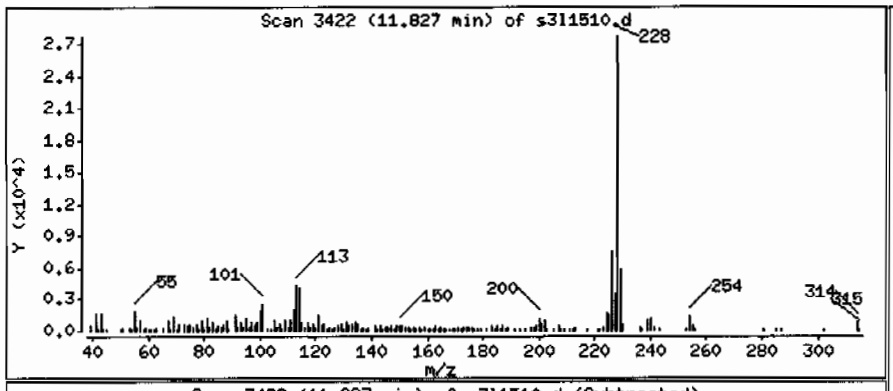

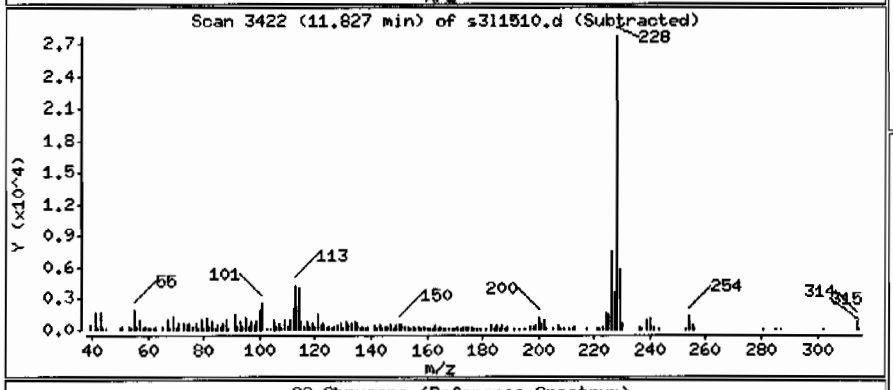

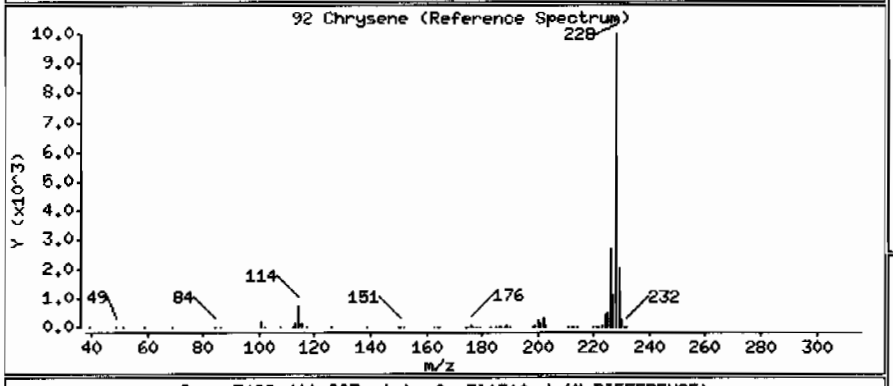

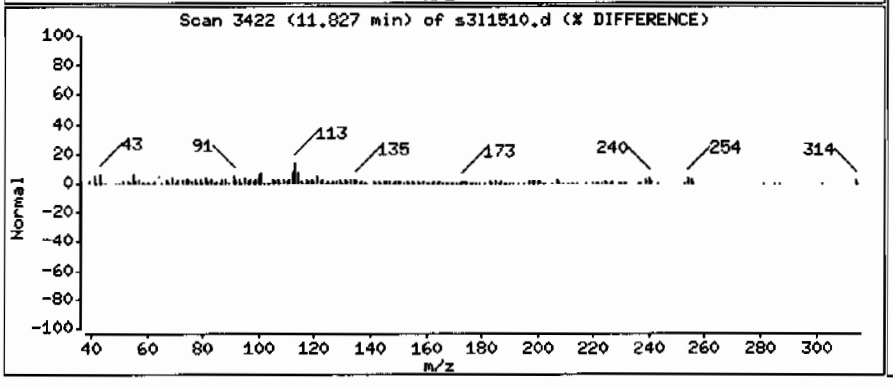

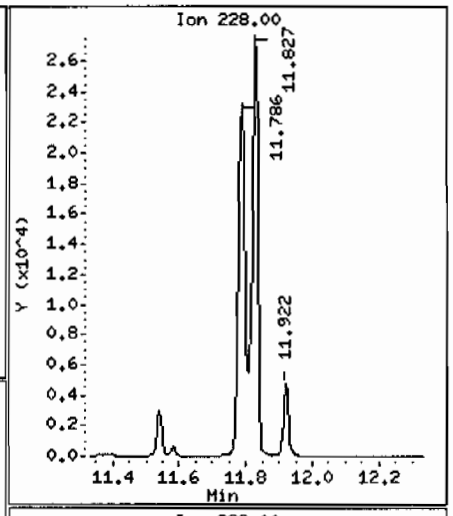

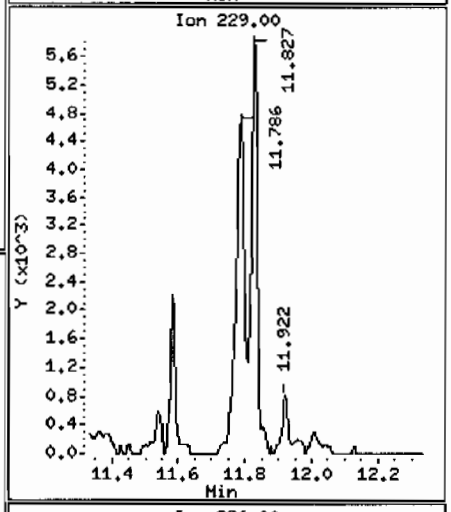

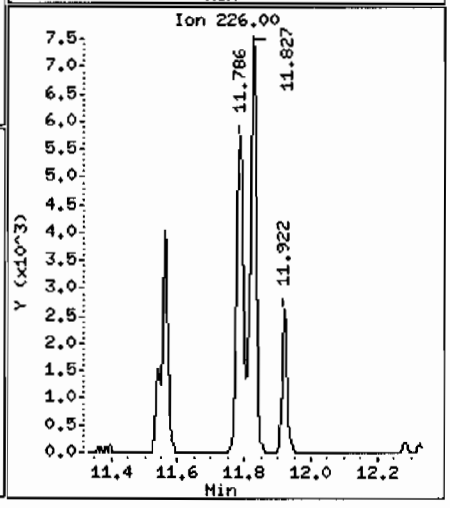

Data File: /chem/MSD3.i/s121509.b/s311510.d

Date : 15-DEC-2009 11:56

Client ID: RE03-09-14278

Instrument: MSD3.i

Sample Info: |2426540171932077|1|SVMF|1|LANL

Volume Injected (uL): 0.5

Operator: JLD1

Column phase: J&W DB-5MS

Column diameter: 0.20

95 Benzo(b)fluoranthene

Concentration: 218 ug/Kg

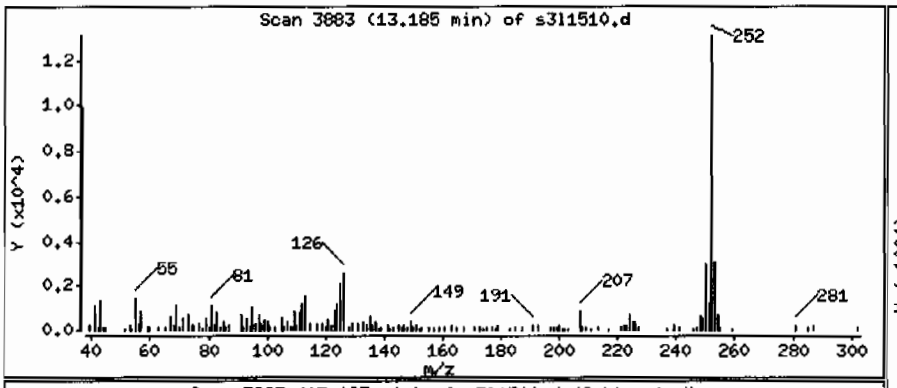

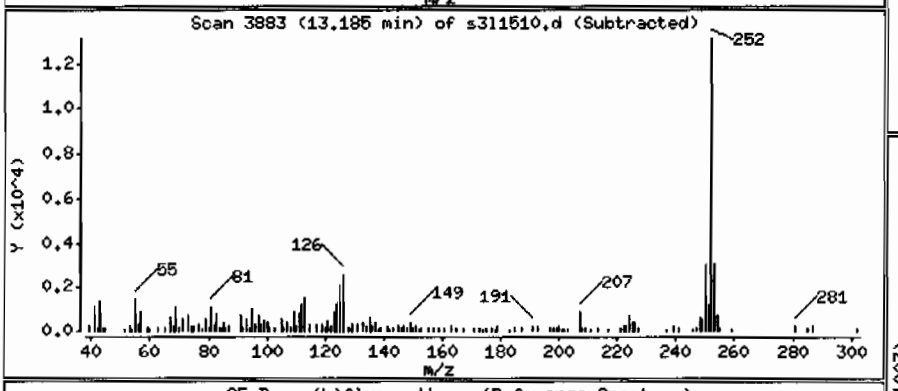

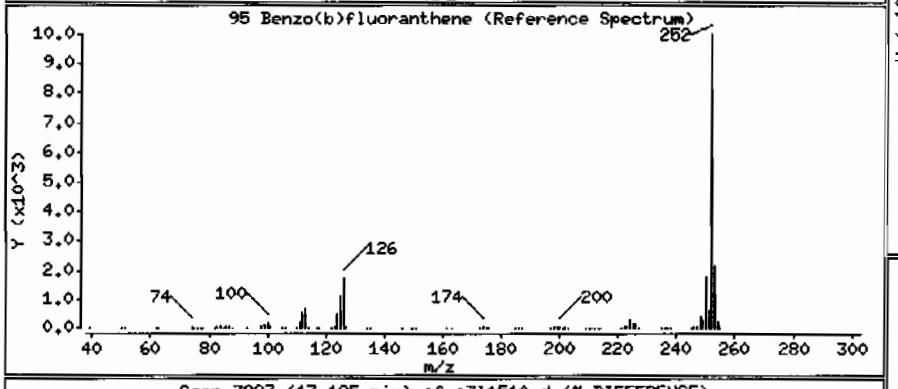

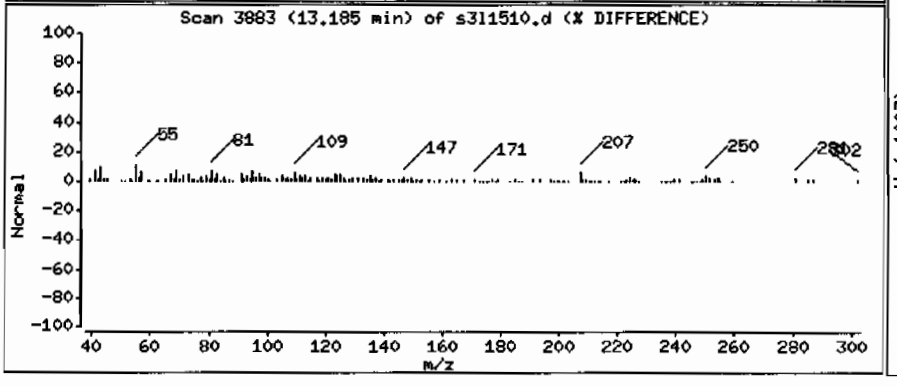

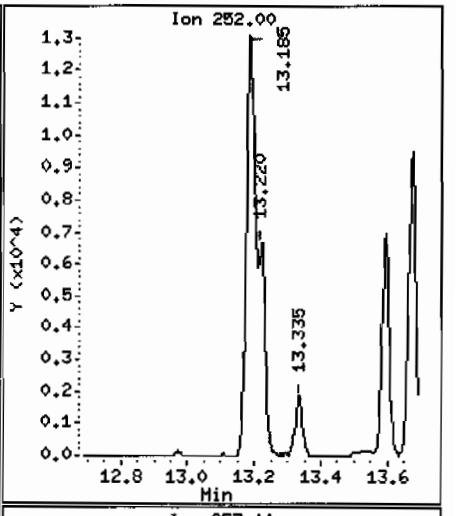

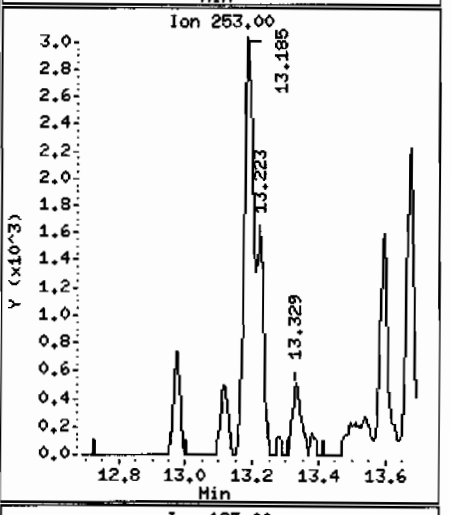

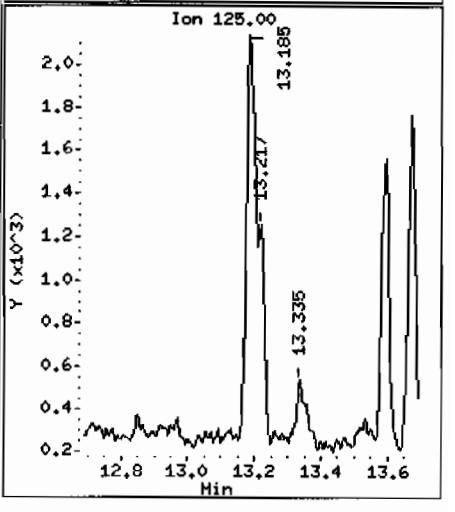

Data File: /chem/MSD3.i/s121509.b/s311510.d

Date : 15-DEC-2009 11:56

Client ID: RE03-09-14278 Instrument: MSD3.i

Sample Info: |2426540171932077|1|SVHF|1|LANL

Volume Injected (uL): 0.5 Operator: JLD1

Column phase: J&W DB-5MS Column diameter: 0.20

96 Benzo(k)fluoranthene Concentration: 85.3 ug/Kg

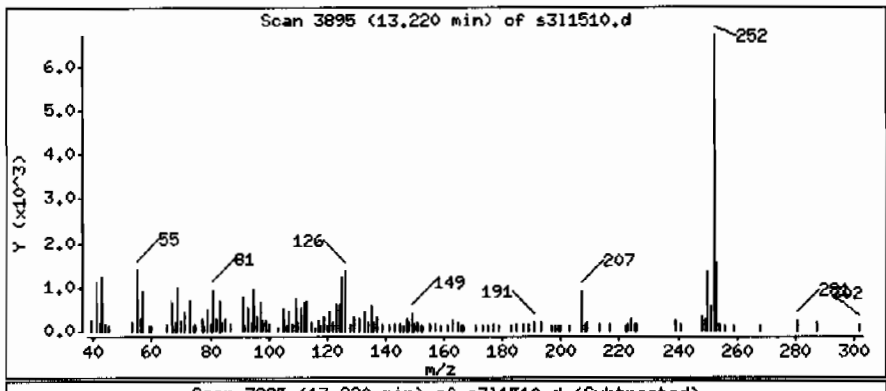

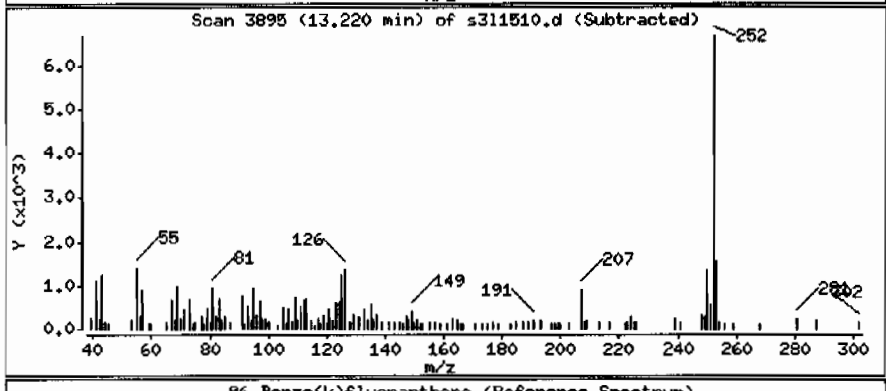

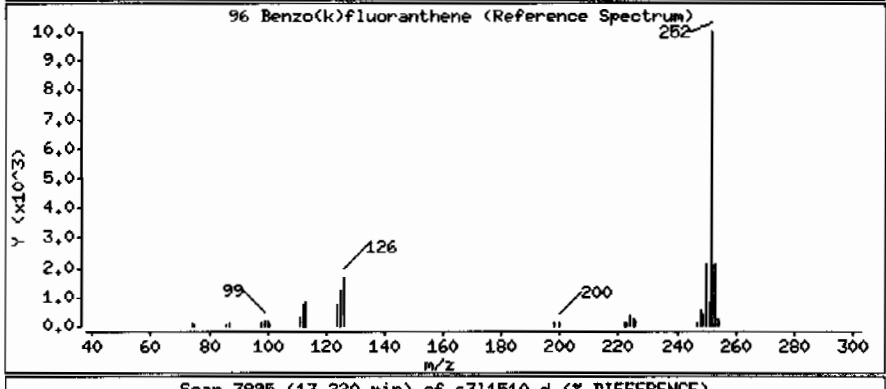

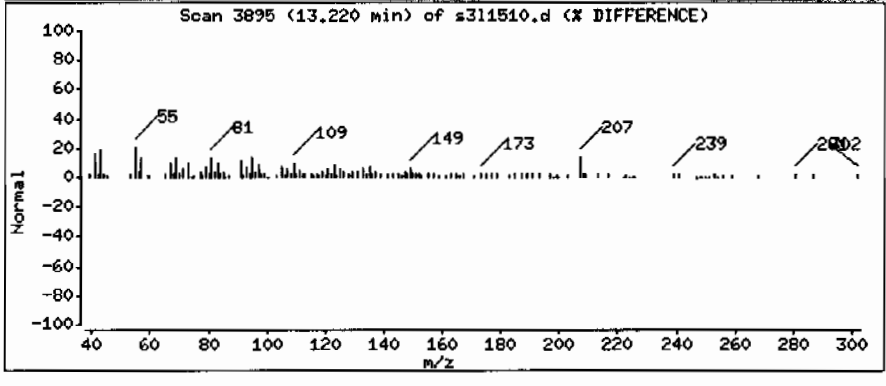

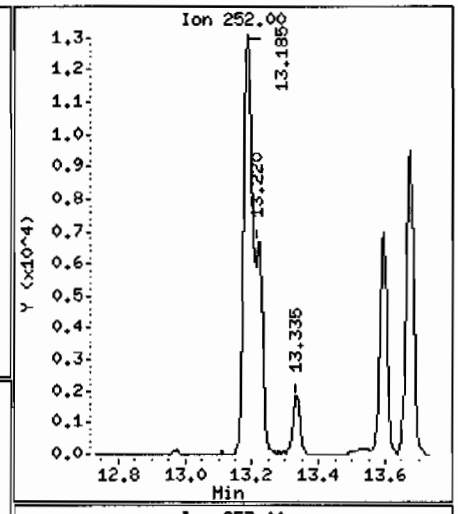

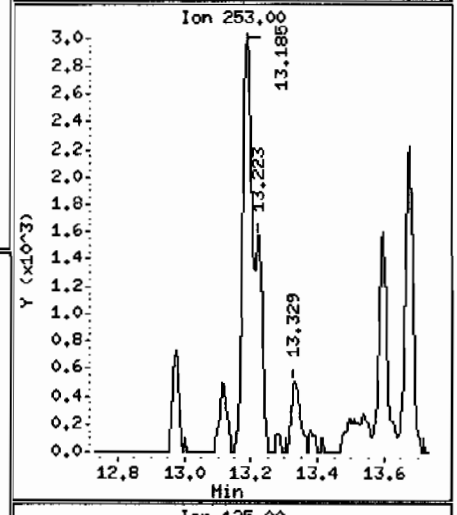

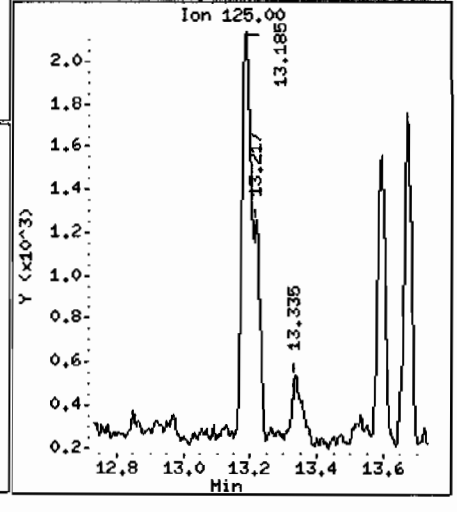

Data File: /chem/MSD3.i/s121509.b/s311510.d

Date : 15-DEC-2009 11:56

Client ID: RE03-09-14278

Instrument: MSD3.i

Sample Info: |2426540171932077|1|SVMF|1|LANL

Volume Injected (uL): 0.5

Operator: JLD1

Column phase: J&W DB-5MS

Column diameter: 0.20

97 Benzo(a)pyrene

Concentration: 156 ug/Kg

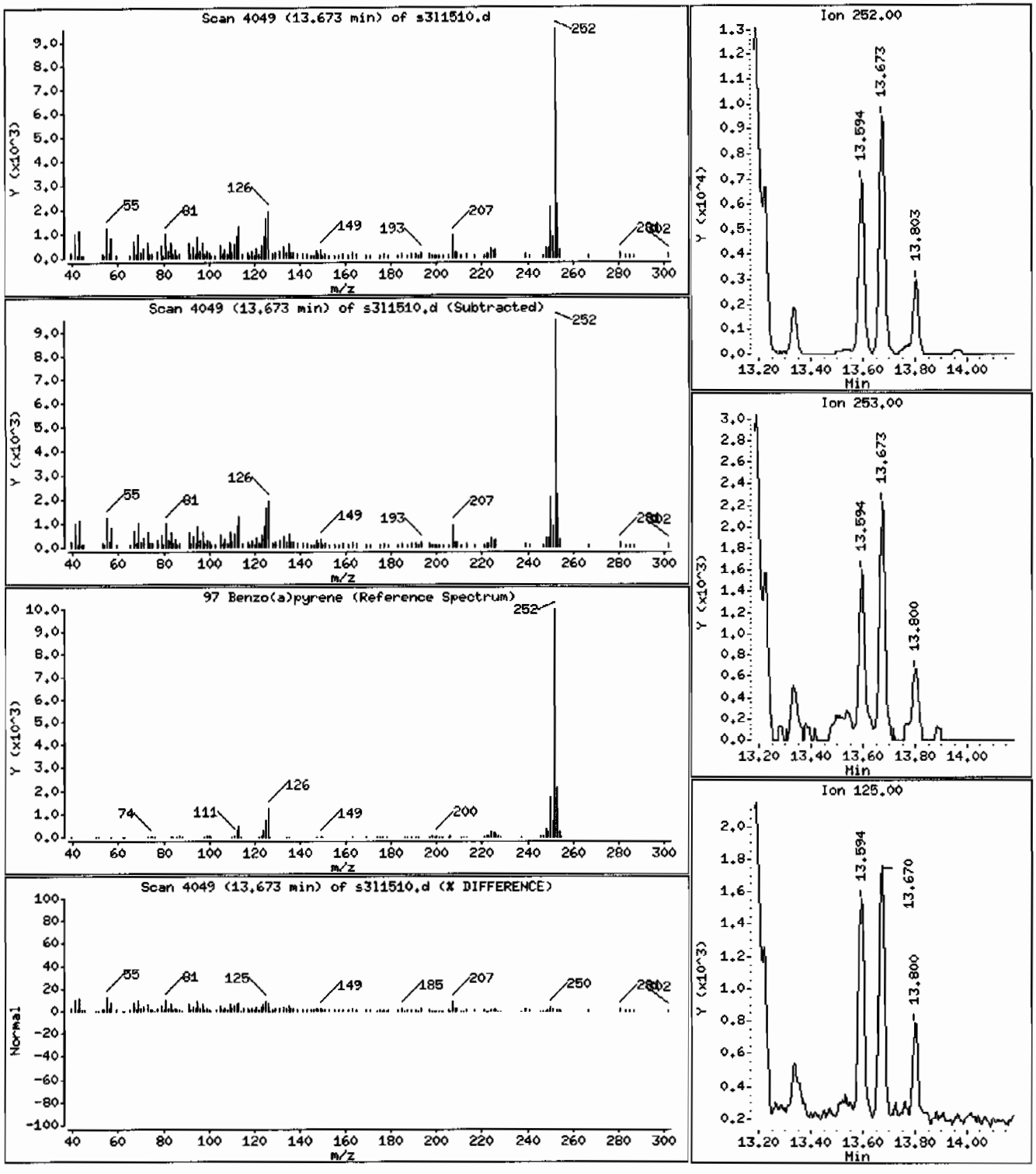

Data File: /chem/HSD3.i/s121509.b/s311510.d

Date : 15-DEC-2009 11:56

Client ID: RE03-09-14278 Instrument: HSD3.i

Sample Info: |2426540171932077|1|SVMF|1|LANL

Volume Injected (uL): 0.5 Operator: JLD1

Column phase: J&W DB-5MS Column diameter: 0.20

99 Indeno(1,2,3-cd)pyrene Concentration: 72.9 ug/Kg

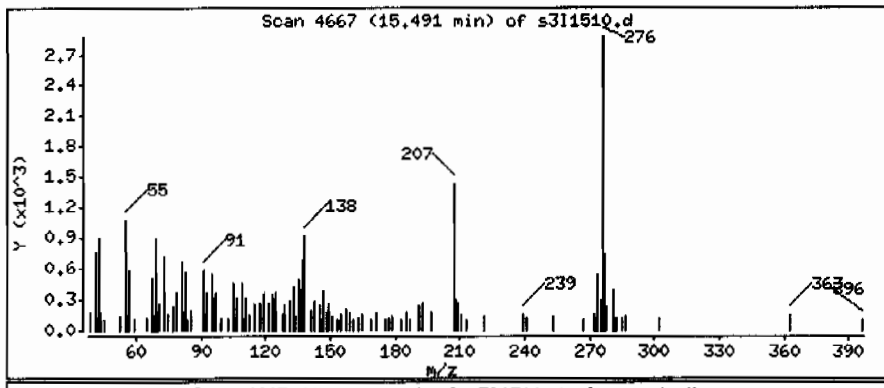

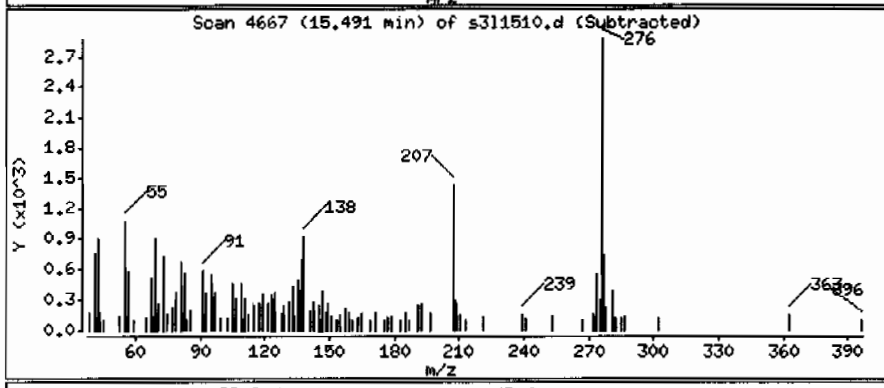

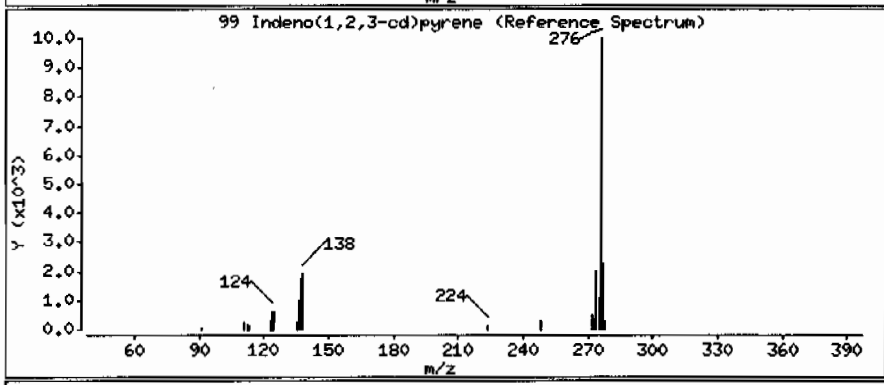

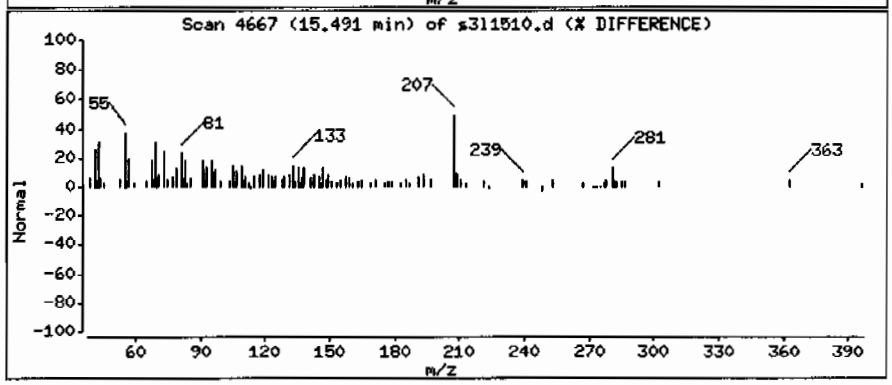

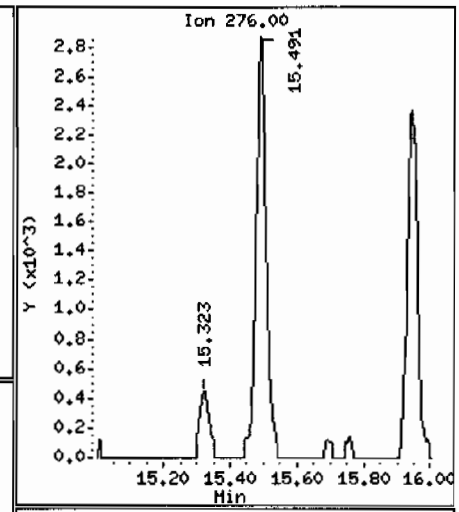

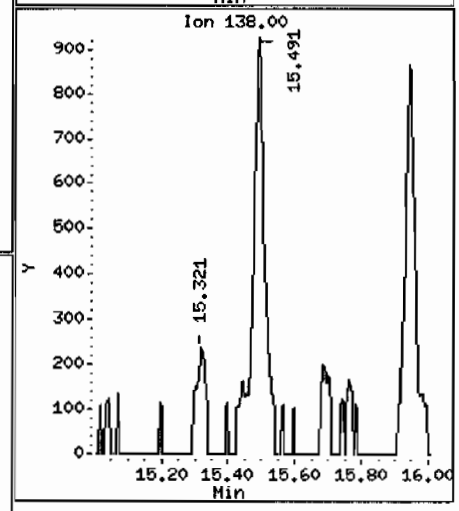

Data File: /chem/MSD3.i/s121509.b/s311510.d

Date : 15-DEC-2009 11:56

Client ID: RE03-09-14278 Instrument: MSD3.i

Sample Info: |2426540171932077|1|SVMF|1|LANL

Volume Injected (uL): 0.5 Operator: JLD1

Column phase: J&W DB-5MS Column diameter: 0.20

100 Dibenzo(a,h)anthracene Concentration: 21.7 ug/Kg

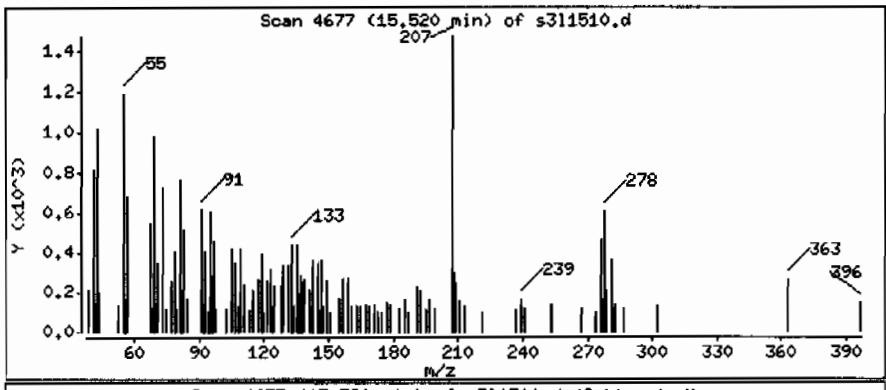

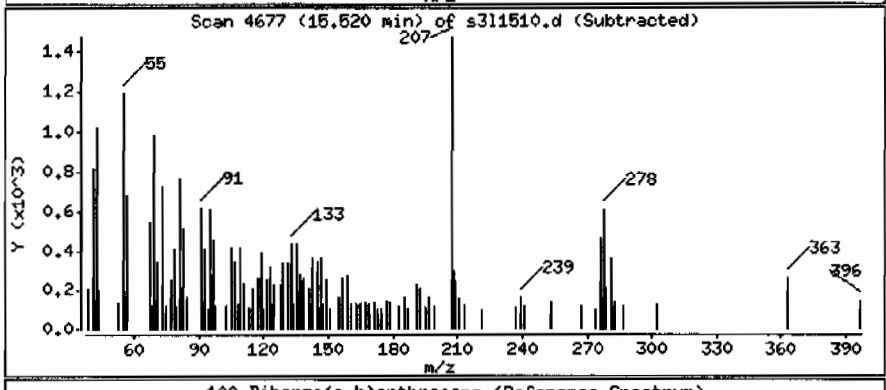

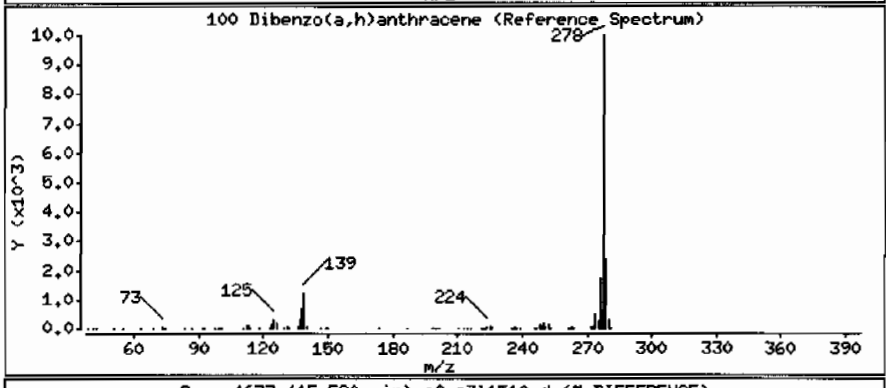

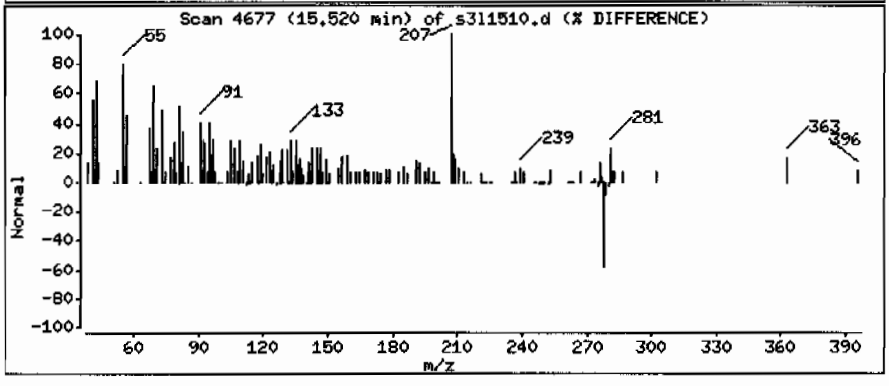

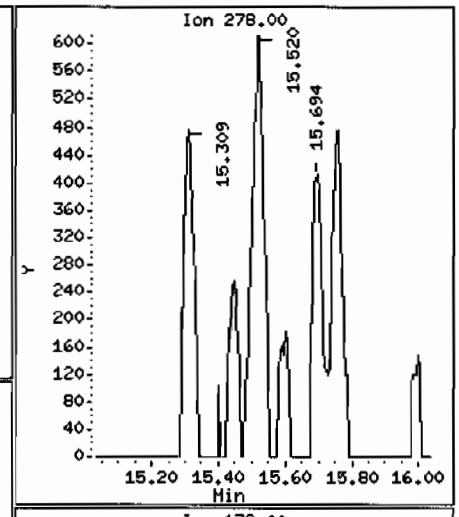

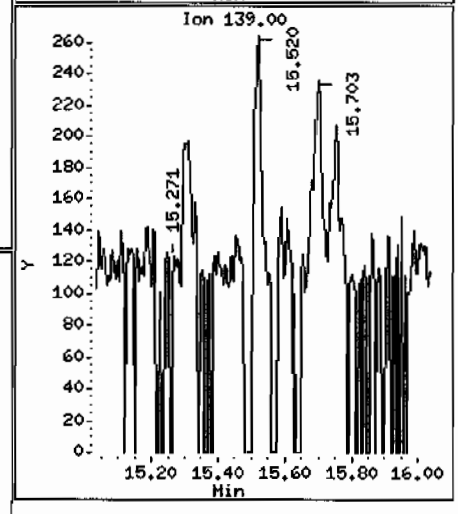

Data File: /chem/MSD3.i/s121509.b/s311510.d

Date : 15-DEC-2009 11:56

Client ID: RE03-09-14278 Instrument: MSD3.i

Sample Info: |2426540171932077|1|SVMF|1|LANL

Volume Injected (uL): 0.5 Operator: JLD1

Column phase: J&W DB-5MS Column diameter: 0.20

101 Benzo(ghi)perylene Concentration: 72.0 ug/Kg

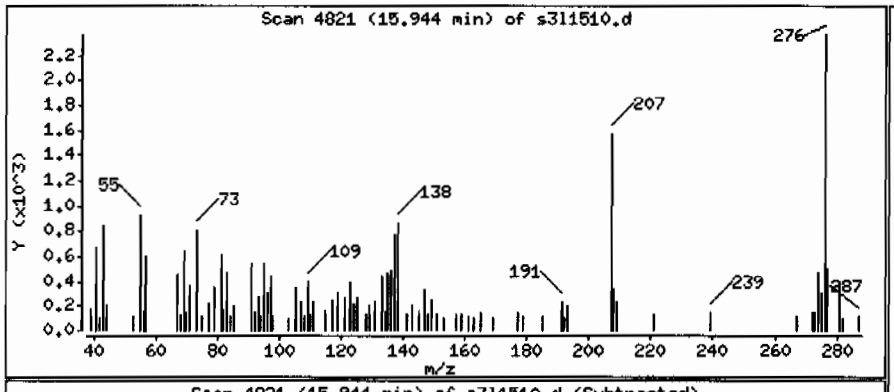

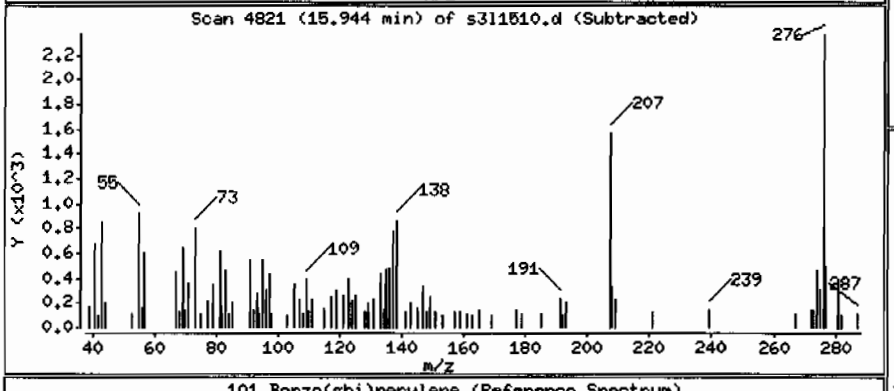

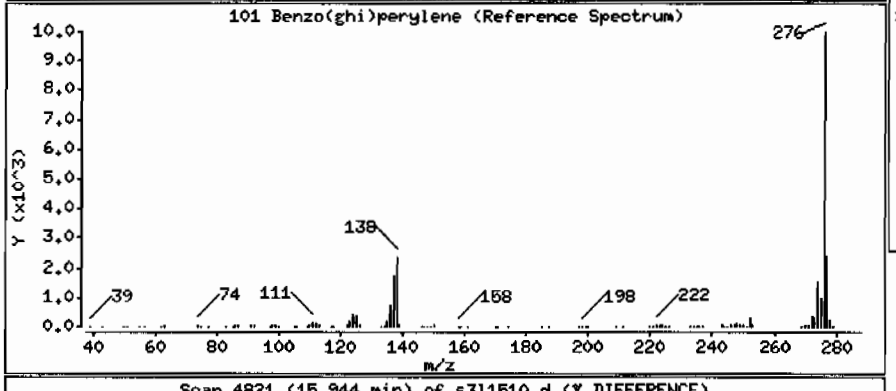

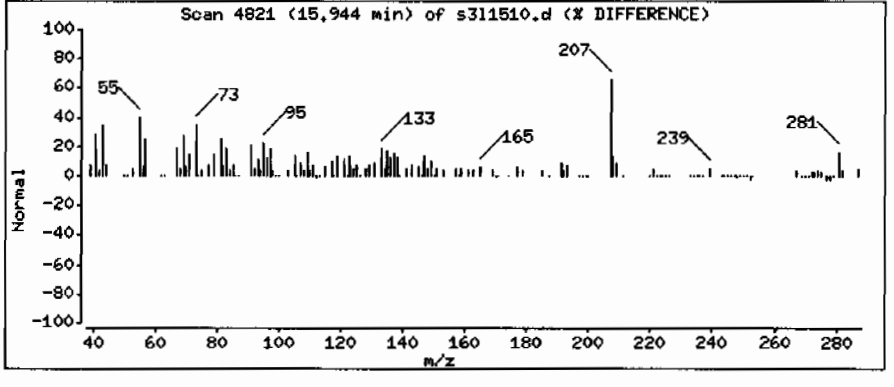

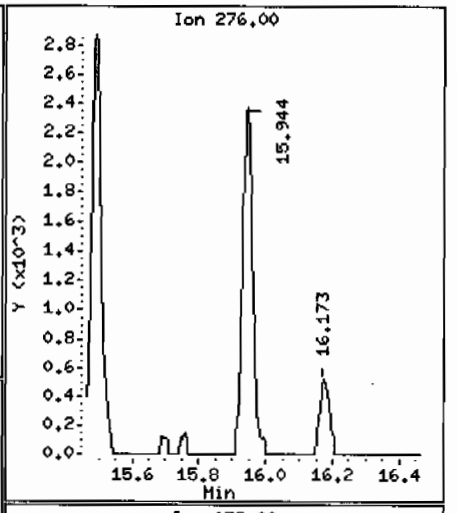

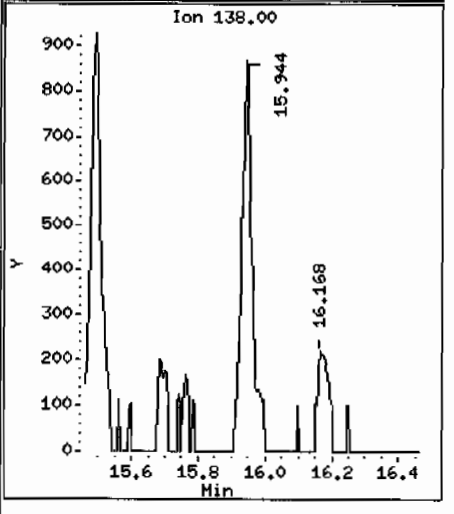

Data File: /chem/MSD3.i/s121509.b/s311510.d

Date : 15-DEC-2009 11:56

Client ID: RE03-09-14278

Instrument: MSD3.i

Sample Info: |2426540171932077|1|SVMF|1|LANL

Volume Injected (uL): 0.5

Operator: JLD1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7945	64	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	56	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	40	C6H12O2	116

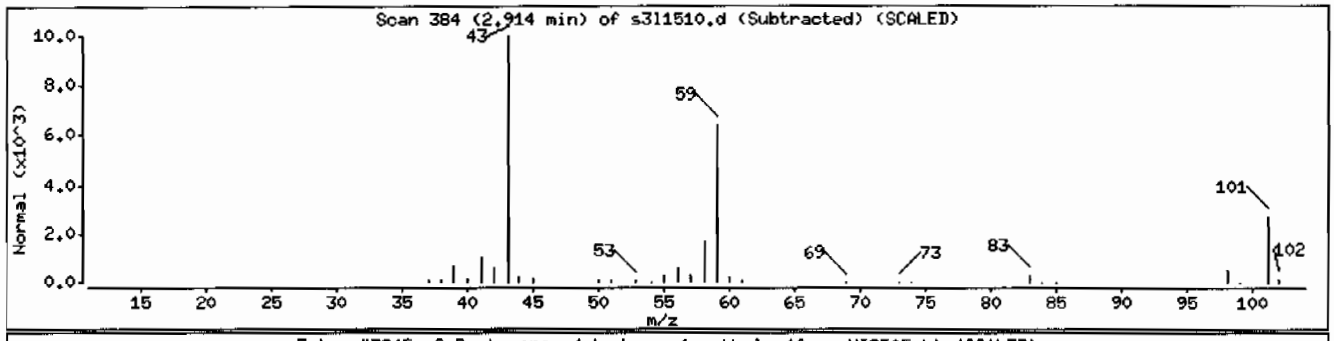

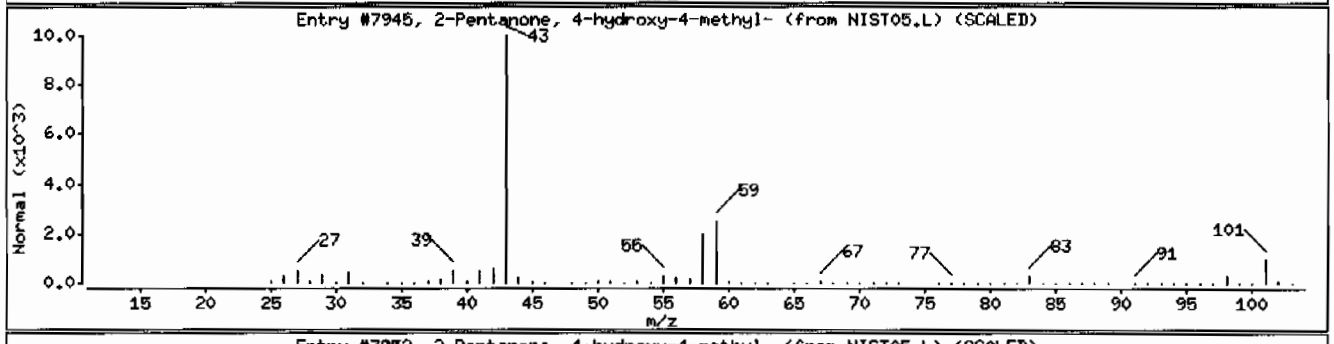

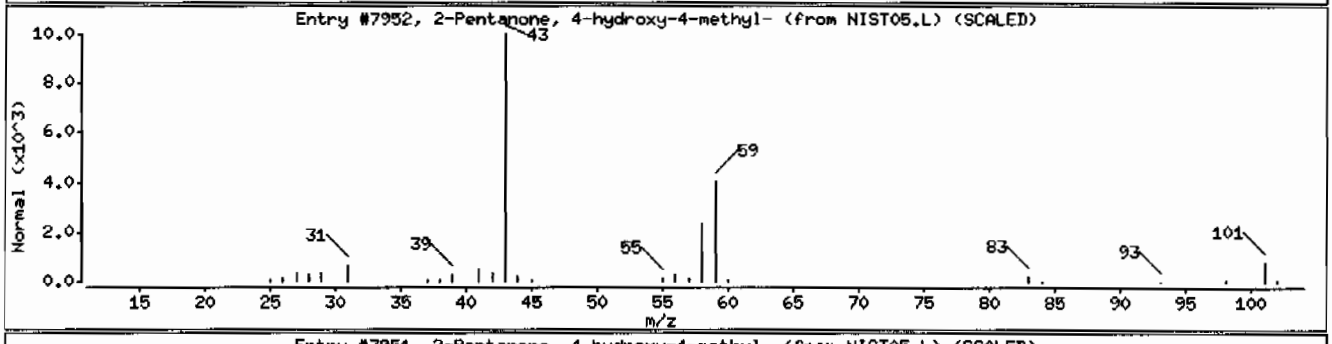

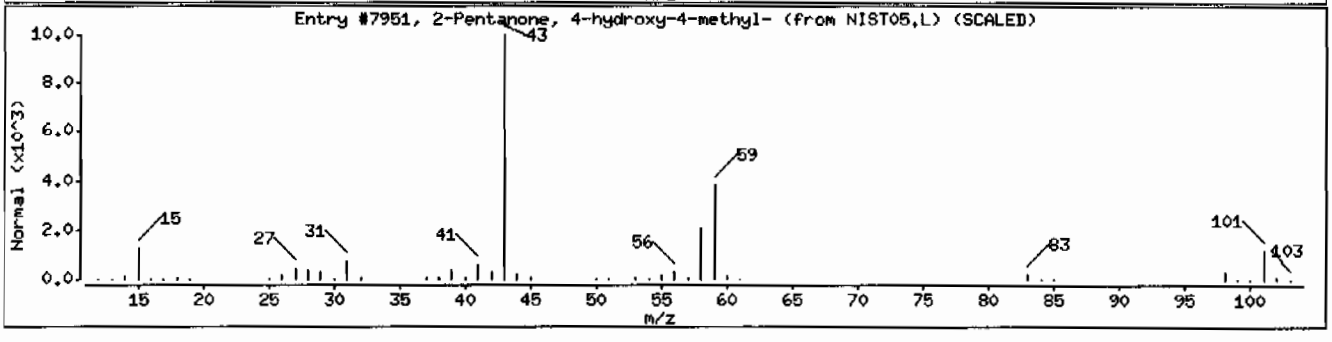

Data File: /chem/MSD3.i/s121509.b/s311510.d

Date : 15-DEC-2009 11:56

Client ID: RE03-09-14278 Instrument: MSD3.i

Sample Info: 1242654017|932077|1|SVMF|1|LANL

Volume Injected (uL): 0.5 Operator: JLD1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
1R-.alpha.-Pinene	7785-70-8	NIST05.L	15188	96	C10H16	136
1S-.alpha.-Pinene	7785-26-4	NIST05.L	15185	96	C10H16	136
.alpha.-Pinene	80-56-8	NIST05.L	15178	96	C10H16	136

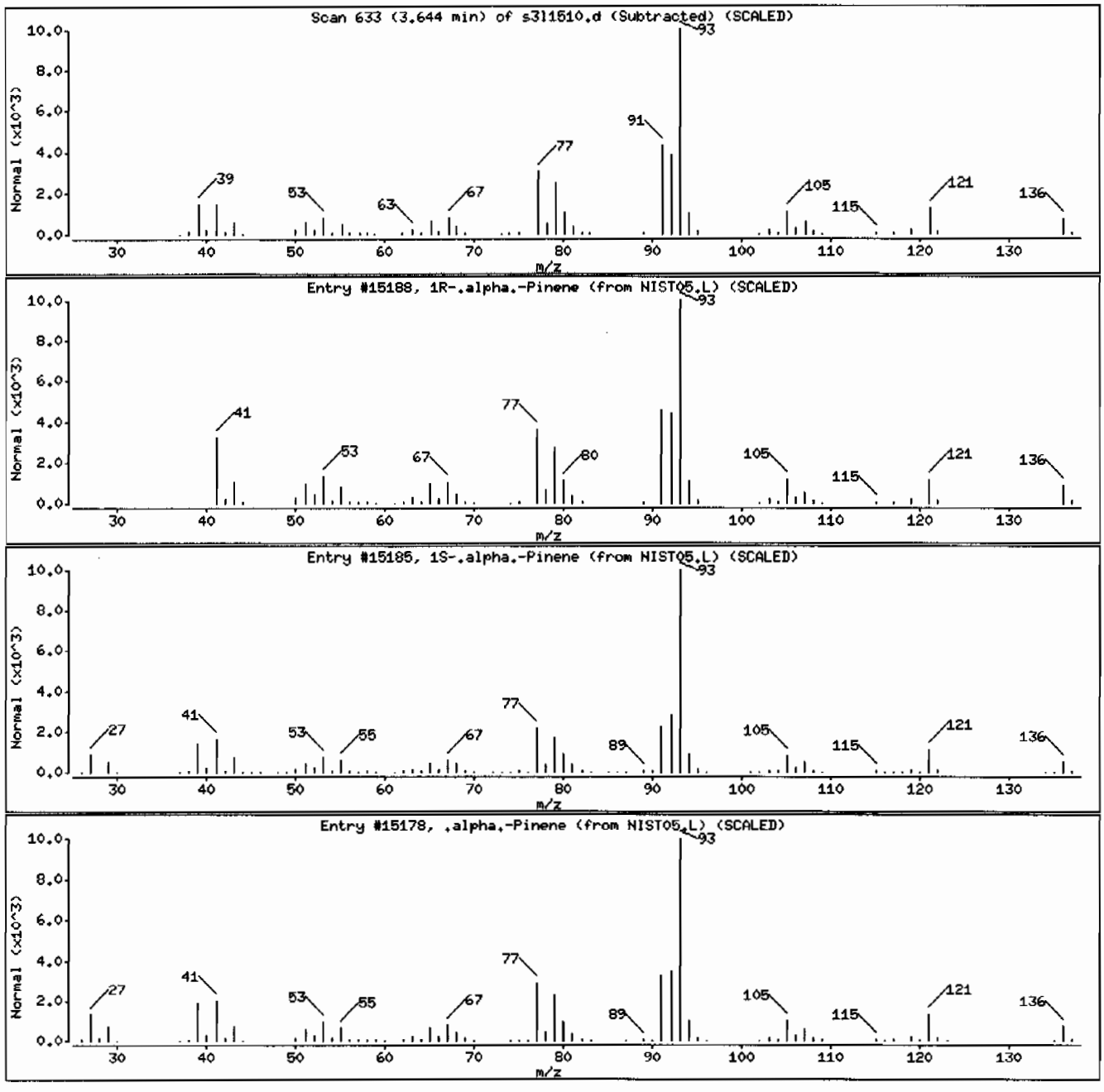

Data File: /chem/MSD3.i/s121509.b/s311510.d

Date : 15-DEC-2009 11:56

Client ID: RE03-09-14278

Instrument: MSD3.i

Sample Info: 1242654017193207711SVMF11LANL

Volume Injected (uL): 0.5

Operator: JLD1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Bicyclo[4.1.0]hept-3-ene, 3,7,7-trimethy	498-15-7	NIST05.L	15369	97	C10H16	136
3-Carene	13466-78-9	NIST05.L	15157	97	C10H16	136
3-Carene	13466-78-9	NIST05.L	15156	95	C10H16	136

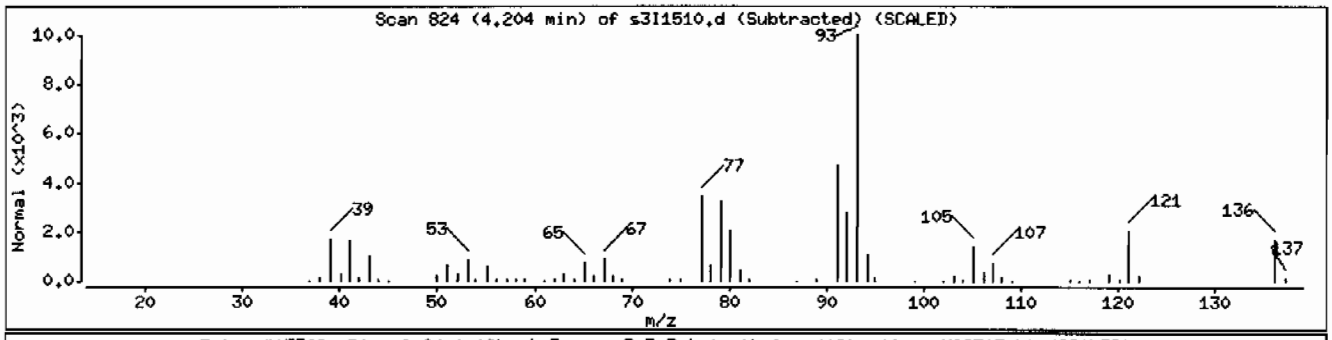

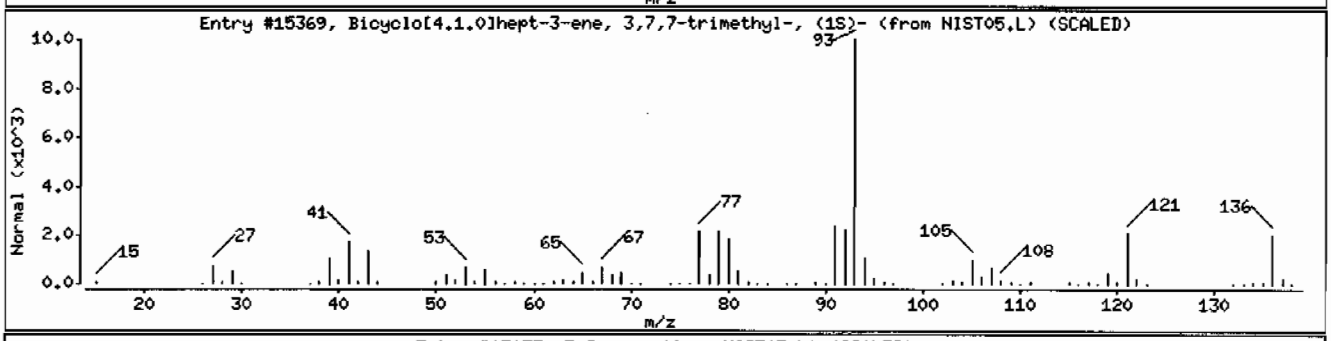

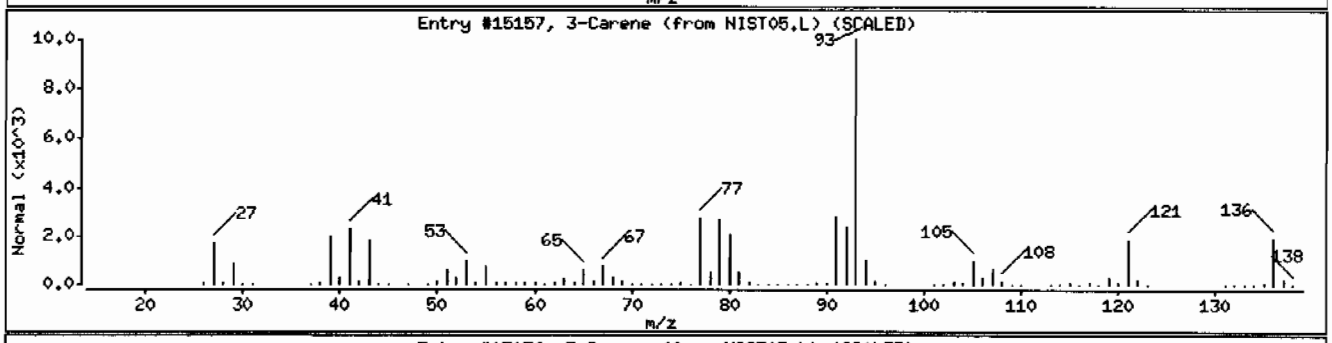

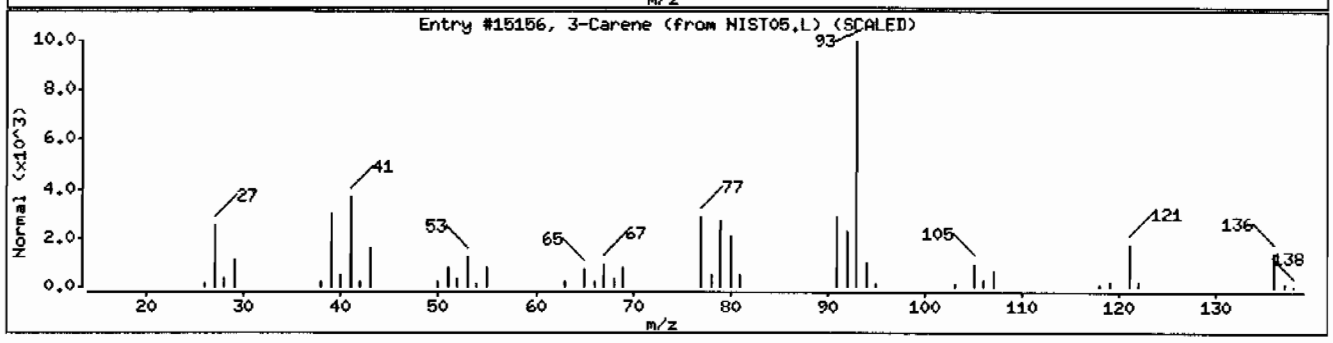

Data File: /chem/MSD3.i/s121509.b/s311510.d

Date : 15-DEC-2009 11:56

Client ID: RE03-09-14278

Instrument: MSD3.i

Sample Info: |242654017|932077|1|SVMF|1|LANL

Volume Injected (uL): 0.5

Operator: JLD1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
t-Butyl-dimethylsilyloxybenzene, 1,6-dif	155766-05-5	NIST05.L	87633	25	C12H18F2OSi	244
2-Furanmethanamine, N-(2-furanylmethyl)-	18240-50-1	NIST05.L	40873	25	C10H11NO2	177
Epianastrephin, (-)	77670-93-0	NIST05.L	52601	22	C12H18O2	194

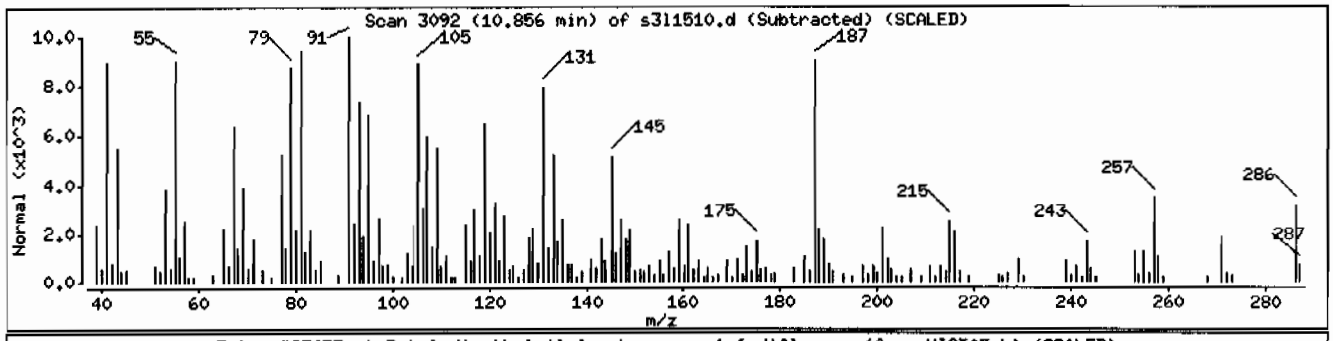

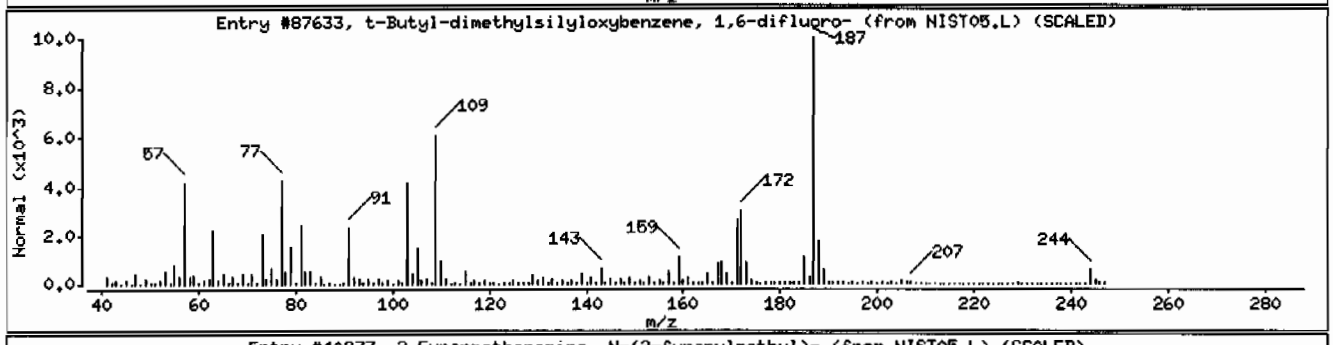

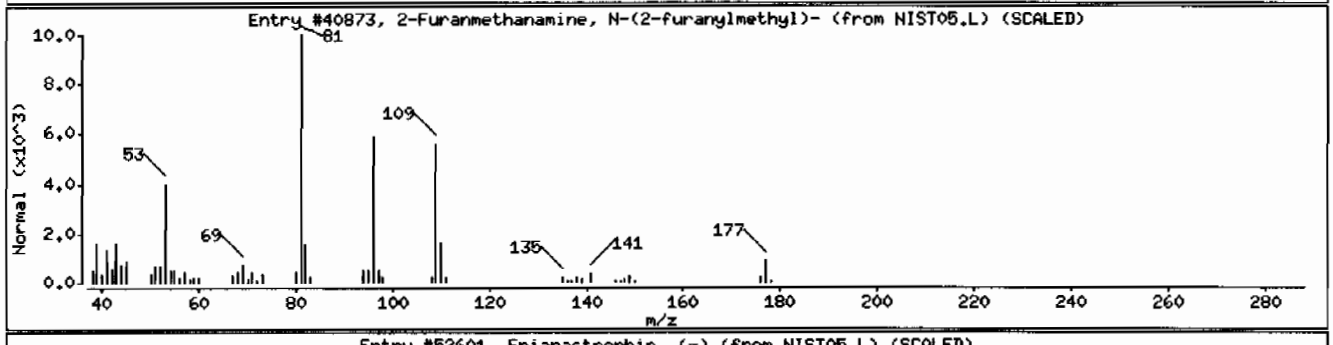

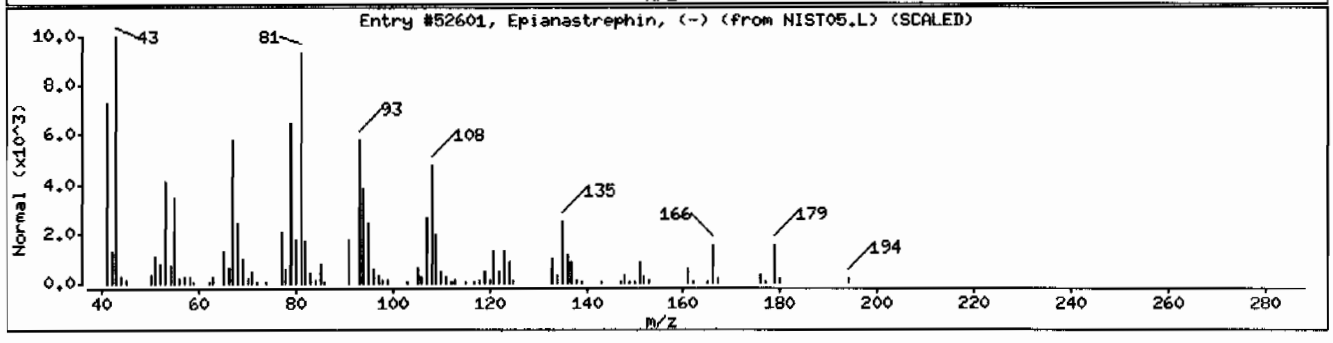

Data File: /chem/MSD3.i/s121509.b/s311510.d

Date : 15-DEC-2009 11:56

Client ID: RE03-09-14278 Instrument: MSD3.i

Sample Info: |2426540171932077|1|SVHF|1|LANL

Volume Injected (uL): 0.5 Operator: JLD1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Tritetracontane	7098-21-7	NIST05.L	188549	43	C43H88	605
Hexadecane	544-76-3	NIST05.L	76093	42	C16H34	226
Heptacosane, 1-chloro-	62016-79-9	NIST05.L	174384	41	C27H55Cl	414

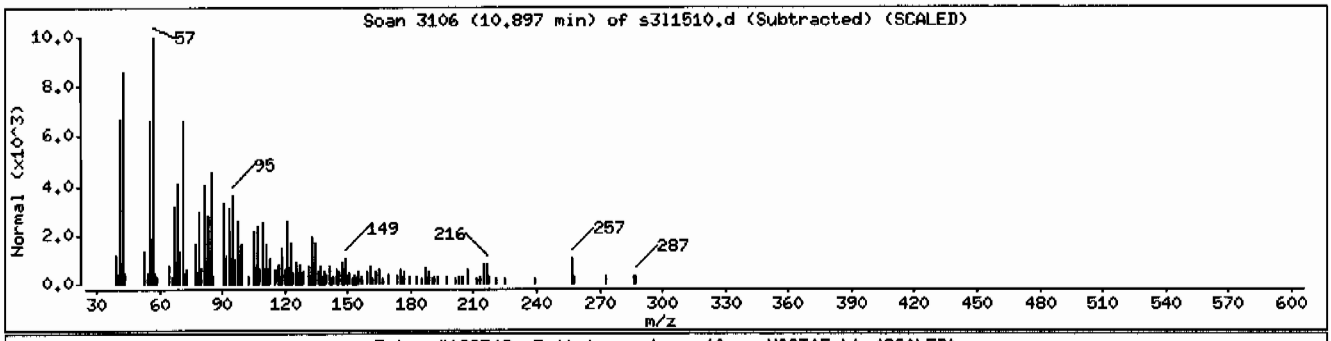

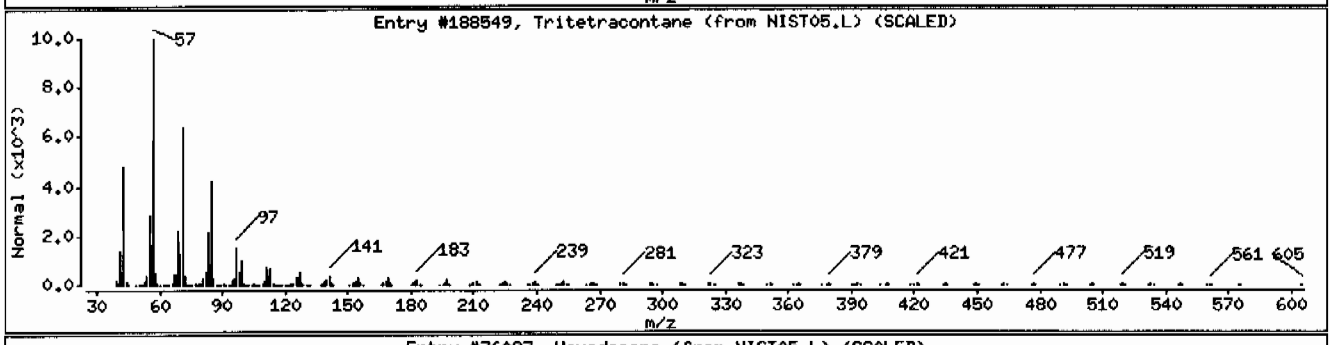

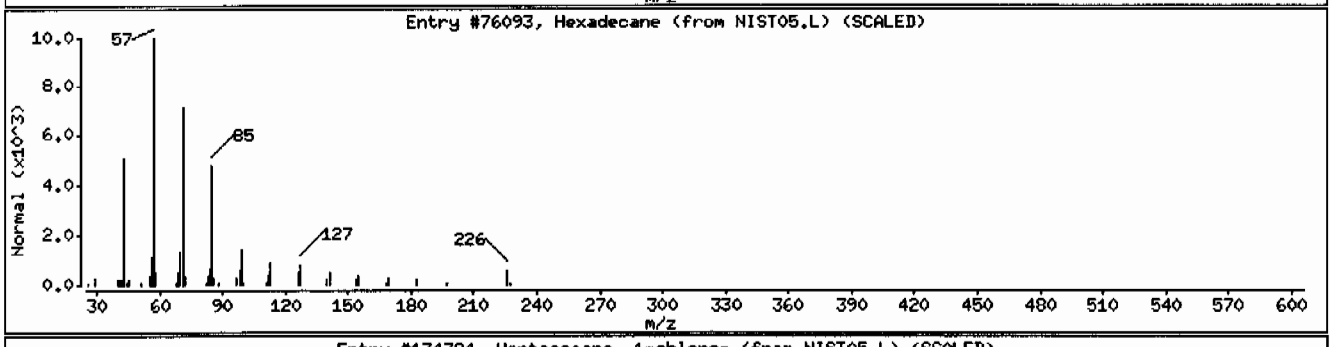

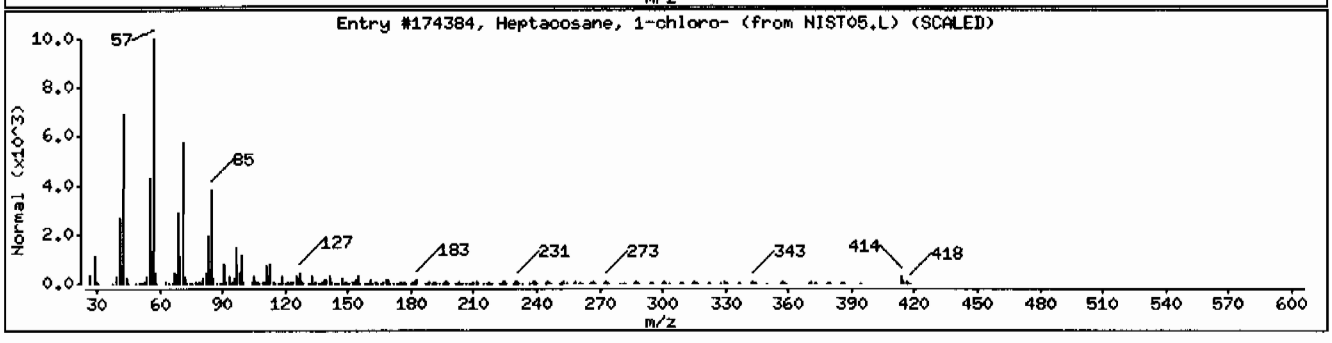

Data File: /chem/MSD3.i/s121509.b/s311510.d

Date : 15-DEC-2009 11:56

Client ID: RE03-09-14278 Instrument: MSD3.i

Sample Info: |242654017|932077|1|SVMF|1|LANL

Volume Injected (uL): 0.5 Operator: JLD1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Naphthalene, decahydro-1,1,4a-trimethyl-	5957-33-5	NIST05.L	107102	35	C20H32	272
(3E,5E,7E)-6-Methyl-8-(2,6,6-trimethyl-1	17974-57-1	NIST05.L	97615	25	C18H26O	258
1,2-Dihydro-4H-2-(o-anisyl)-3,1-benzoxaz	90284-41-6	NIST05.L	86009	25	C15H15NO2	241

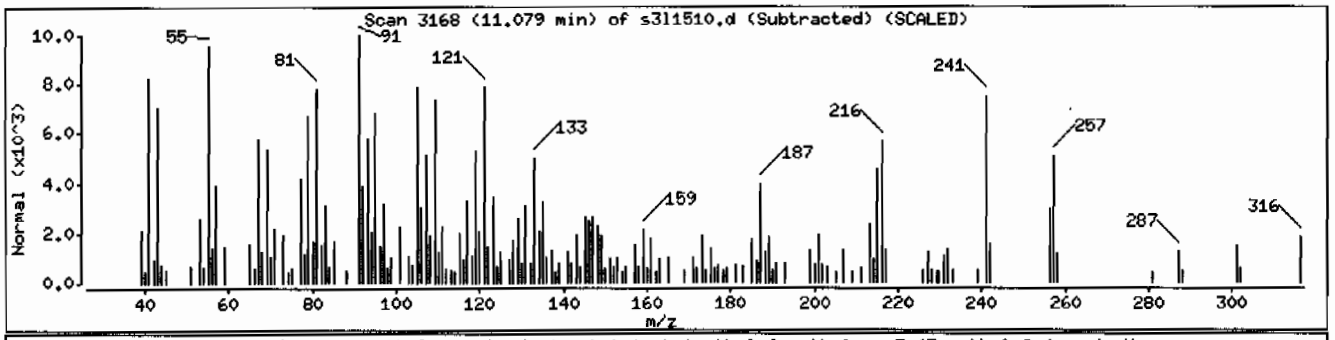

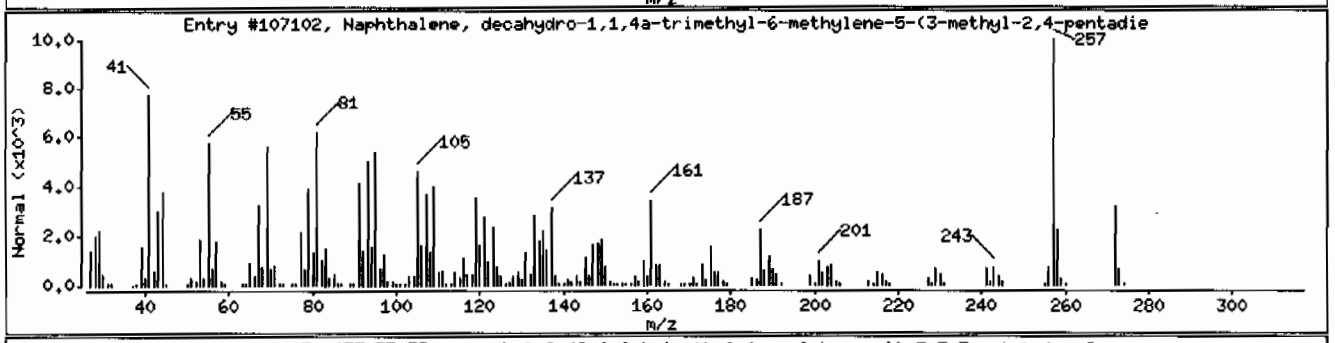

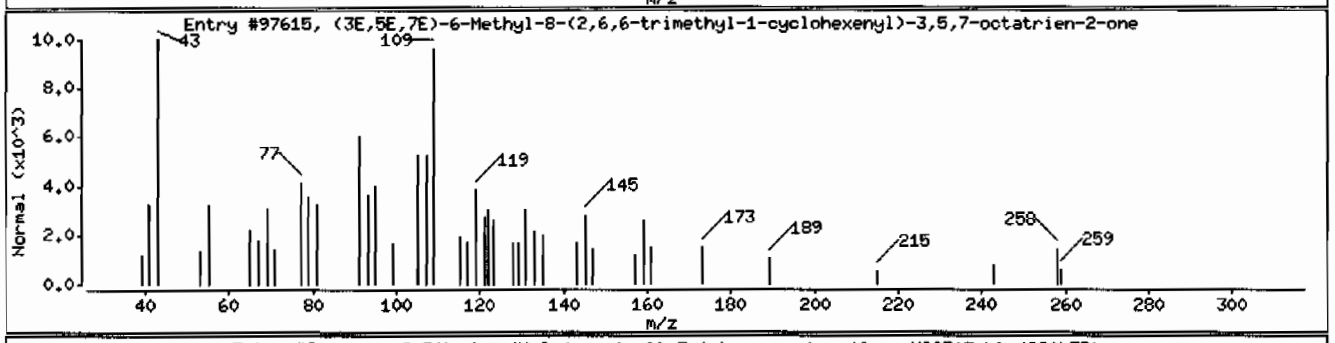

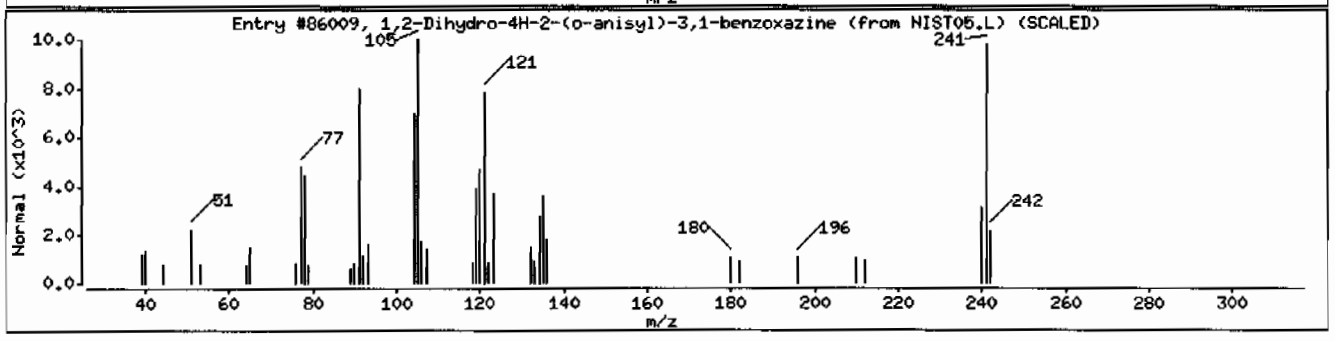

Data File: /chem/MSD3.i/s121509.b/s311510.d

Date : 15-DEC-2009 11:56

Client ID: RE03-09-14278

Instrument: MSD3.i

Sample Info: |2426540171932077|1|SVHF|1|LANL

Volume Injected (uL): 0.5

Operator: JLD1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
1-Phenanthrenecarboxylic acid, 1,2,3,4,4	1235-74-1	NIST05.L	133620	96	C21H30O2	314
1-Phenanthrenecarboxylic acid, 1,2,3,4,4	1235-74-1	NIST05.L	133618	95	C21H30O2	314
1-Phenanthrenecarboxylic acid, 1,2,3,4,4	1235-74-1	NIST05.L	133621	90	C21H30O2	314

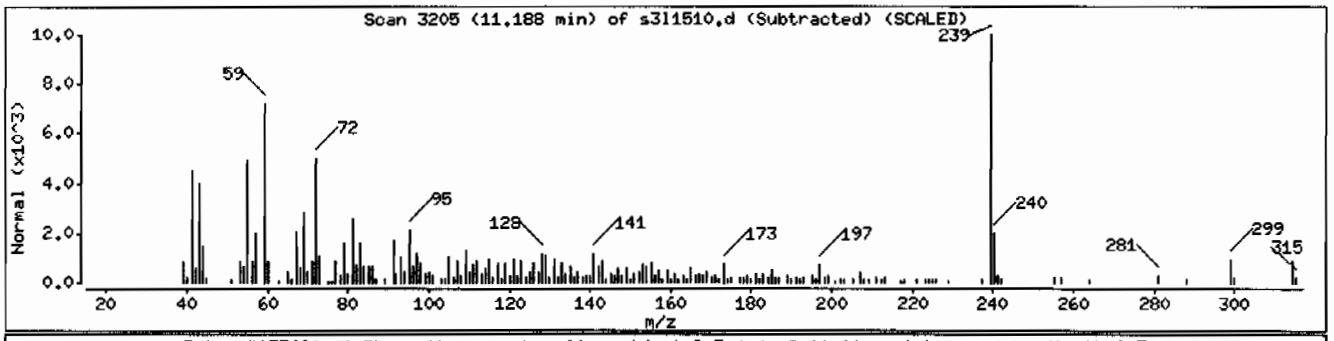

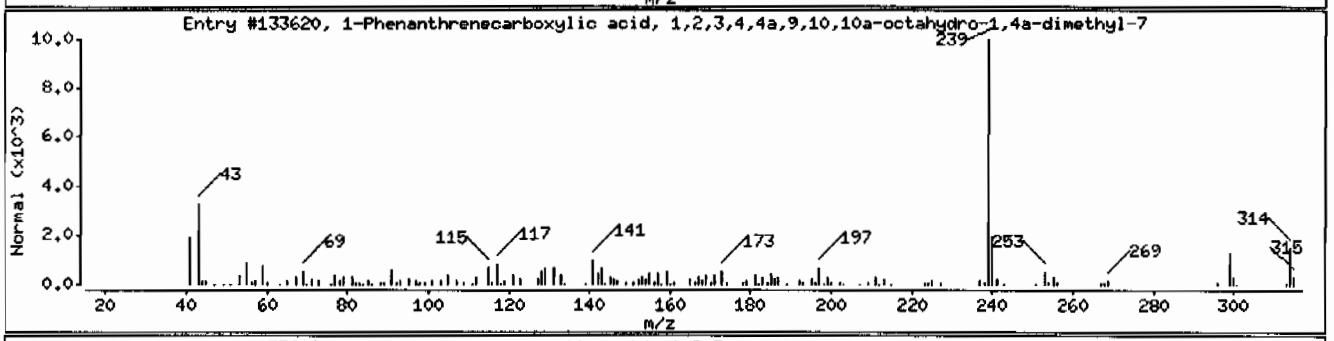

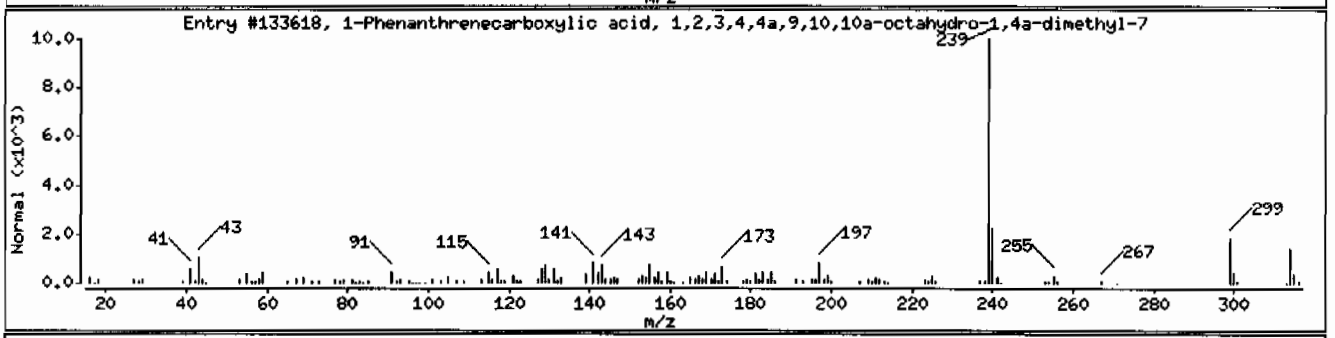

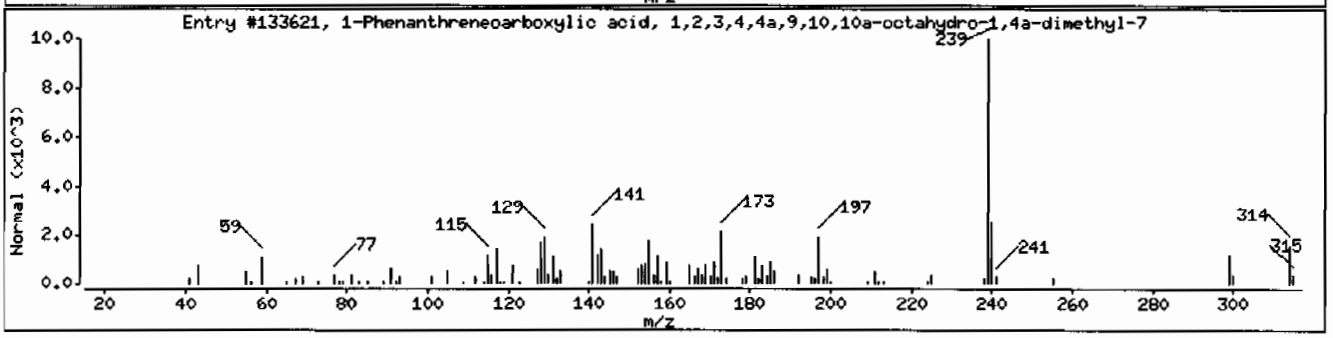

Data File: /chem/MSD3.i/s121509.b/s311510.d

Date : 15-DEC-2009 11:56

Client ID: RE03-09-14278 Instrument: MSD3.i

Sample Info: |2426540171932077|1|SVMF|1|LANL

Volume Injected (uL): 0.5 Operator: JLD1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Bicyclo[4.3.0]nonane, 7-methylene-2,4,4-	1000156-11-9	NIST05.L	59915	70	C15H24	204
3,7-Nonadienamide, 4,8-dimethyl-N-phenyl	104476-99-5	NIST05.L	96883	45	C17H23NO	257
Cyclohexane, 1-ethenyl-1-methyl-2,4-bis(	515-13-9	NIST05.L	60003	38	C15H24	204

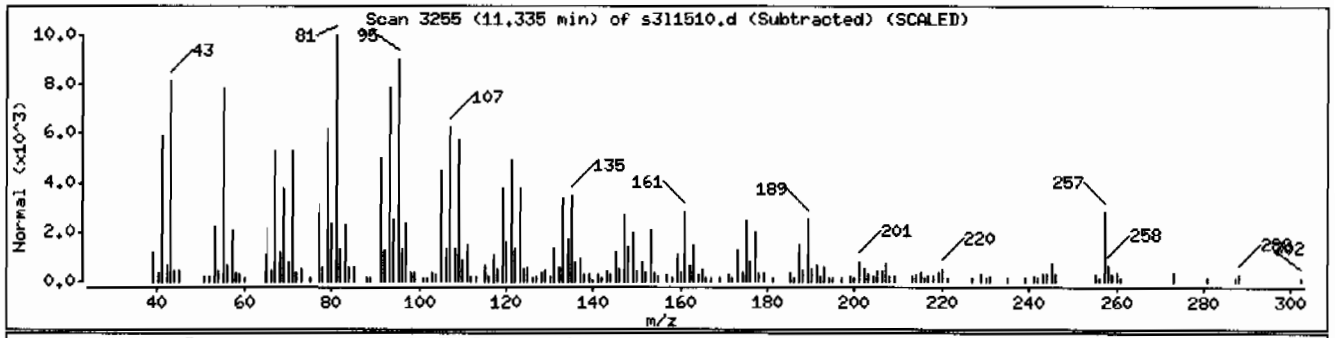

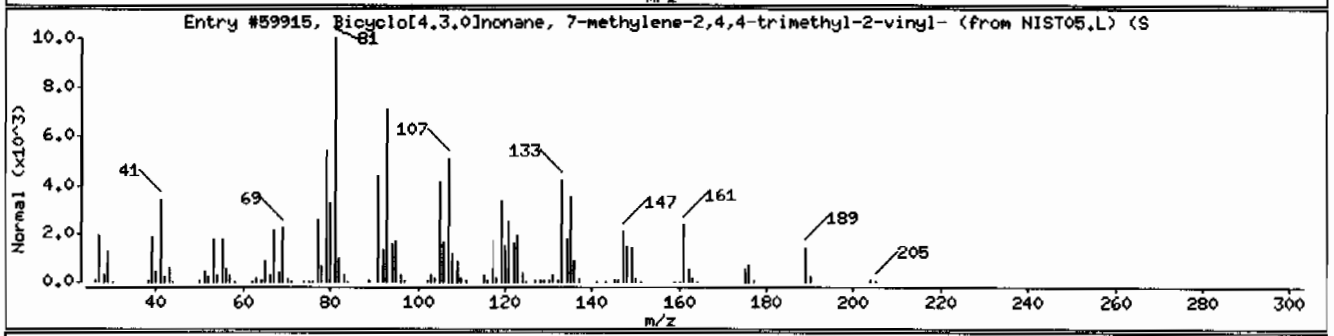

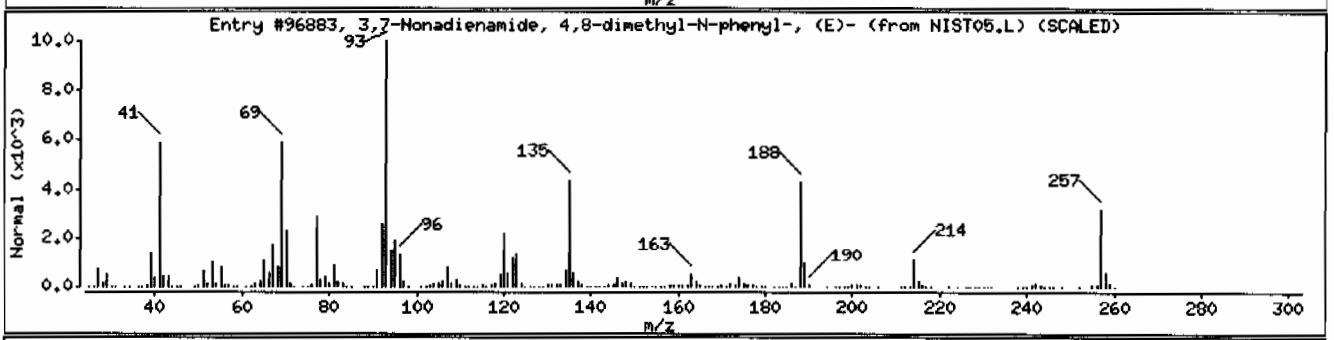

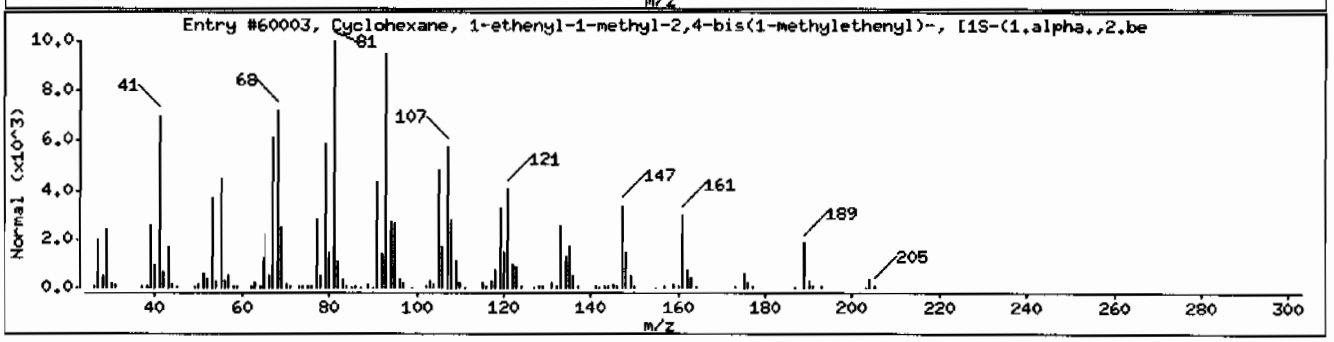

Data File: /chem/MSD3.i/s121509.b/s311510.d

Date : 15-DEC-2009 11:56

Client ID: RE03-09-14278 Instrument: MSD3.i

Sample Info: 1242654017193207711ISVHF11ILANL

Volume Injected (uL): 0.5 Operator: JLD1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
1-Naphthalenecarboxylic acid, decahydro-	1235-39-8	NIST05.L	134771	55	C21H32O2	316
2-Methyl-3-(3-methyl-but-2-enyl)-2-(4-me	1000144-10-2	NIST05.L	72975	43	C15H26O	222
Cyclohexane, 1-ethenyl-1-methyl-2,4-bis(	515-13-9	NIST05.L	60003	41	C15H24	204

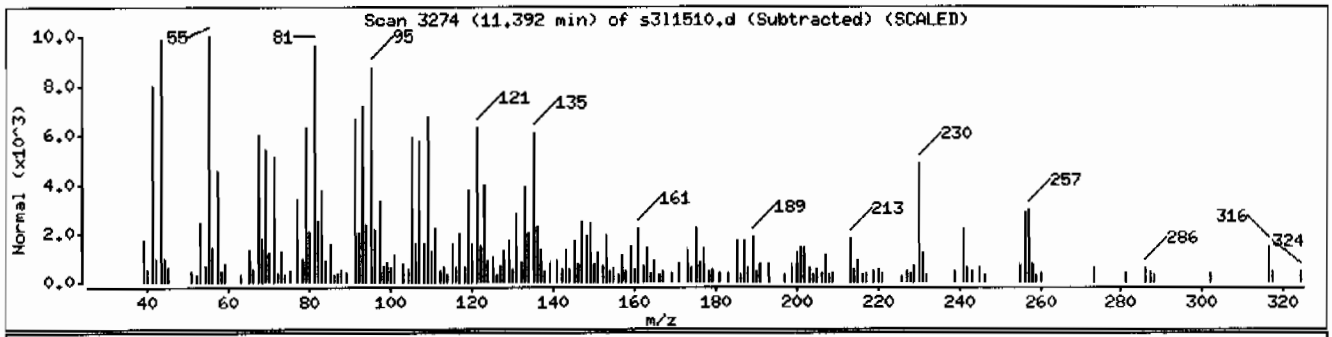

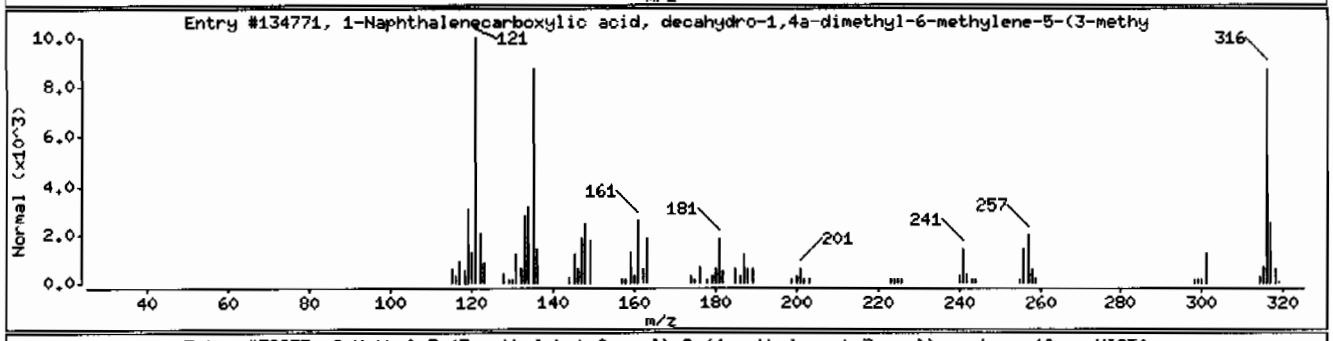

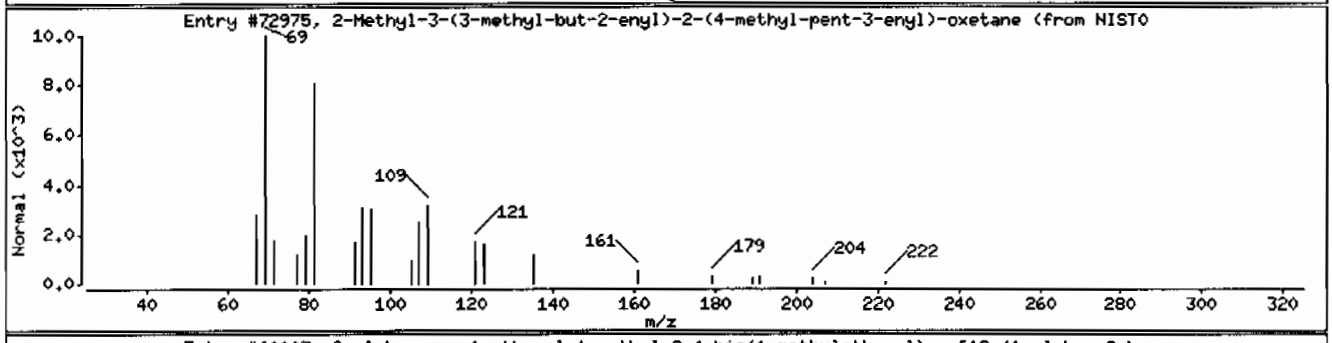

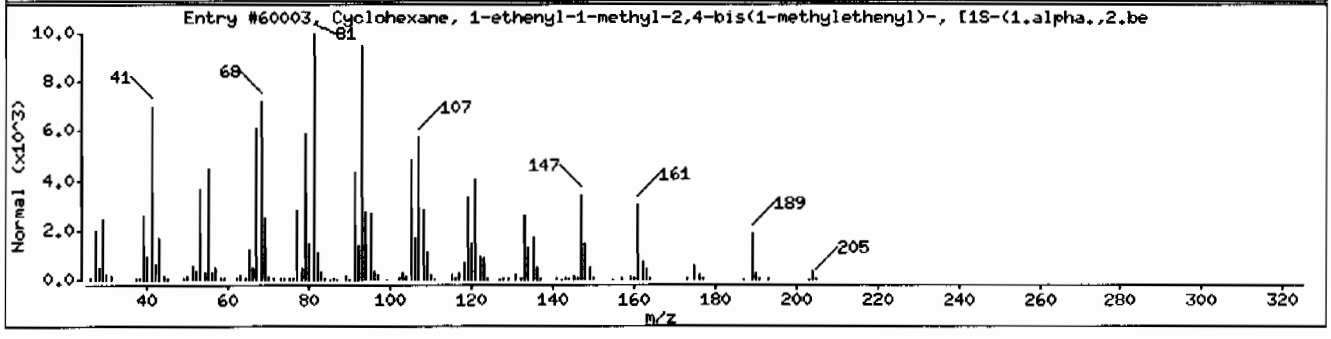

Data File: /chem/MSD3.i/s121509.b/s311510.d

Date : 15-DEC-2009 11:56

Client ID: RE03-09-14278

Instrument: MSD3.i

Sample Info: |2426540171932077|1|SVMF|1|LANL

Volume Injected (uL): 0.5

Operator: JLD1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
1-Propanone, 3-(2-hydroxyphenyl)-1,3-dip	4376-83-4	NIST05.L	126192	45	C21H18O2	302
4-Dehydroxy-N-(4,5-methylenedioxy-2-nitr	1000111-66-9	NIST05.L	123317	38	C16H14N2O4	298
1H-Indole, 5-methyl-2-phenyl-	13228-36-9	NIST05.L	62237	38	C15H13N	207

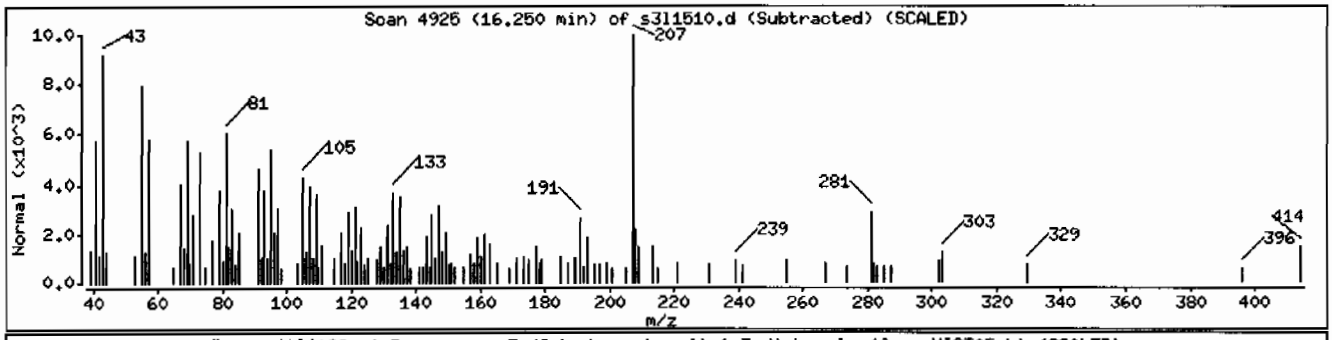

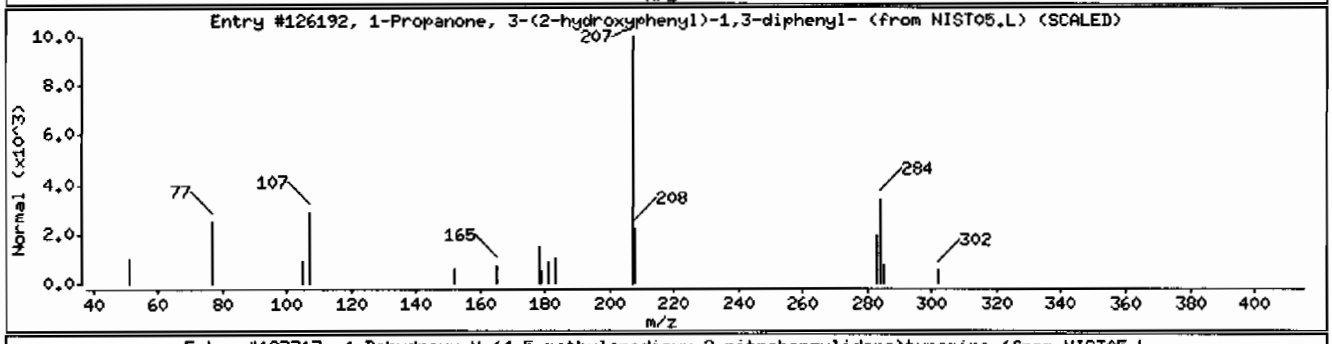

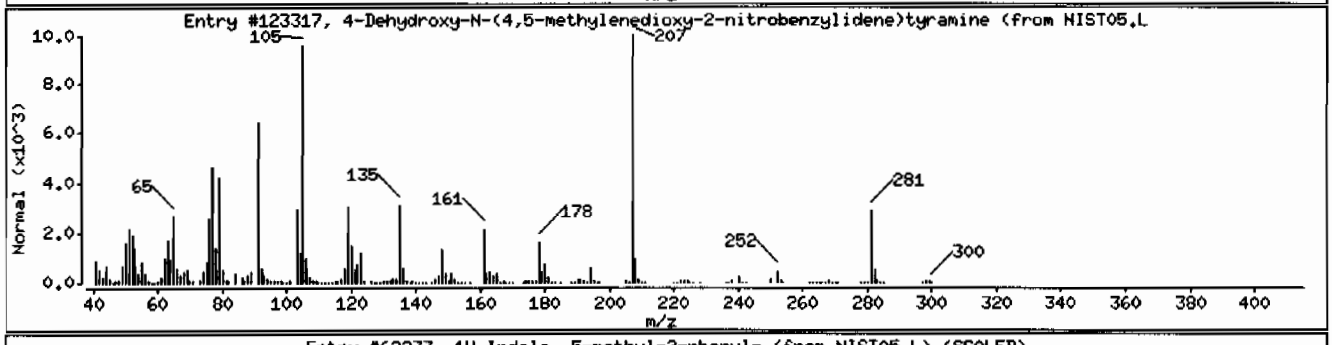

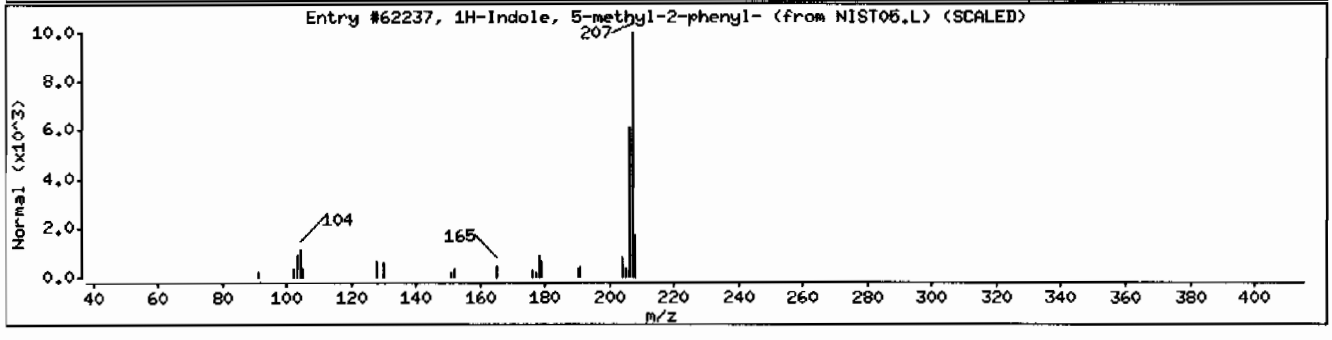

Data File: /chem/MSD3.i/s121509.b/s311510.d

Date : 15-DEC-2009 11:56

Client ID: RE03-09-14278

Instrument: MSD3.i

Sample Info: 1242654017|932077|1|SVMF|1|LANL

Volume Injected (uL): 0.5

Operator: JLD1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Androst-4-en-3-one, 17-hydroxy-, (17.alp	481-30-1	NIST05.L	117331	72	C19H28O2	288
Androst-4-en-3-one, 17-hydroxy-, (17.bet	58-22-0	NIST05.L	117326	72	C19H28O2	288
Androst-4-en-3-one, 17-hydroxy-, (17.bet	58-22-0	NIST05.L	117325	64	C19H28O2	288

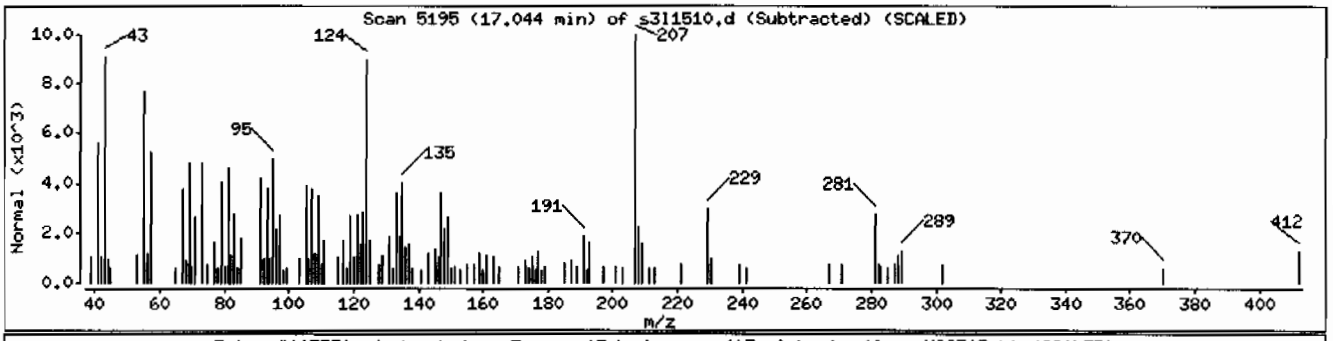

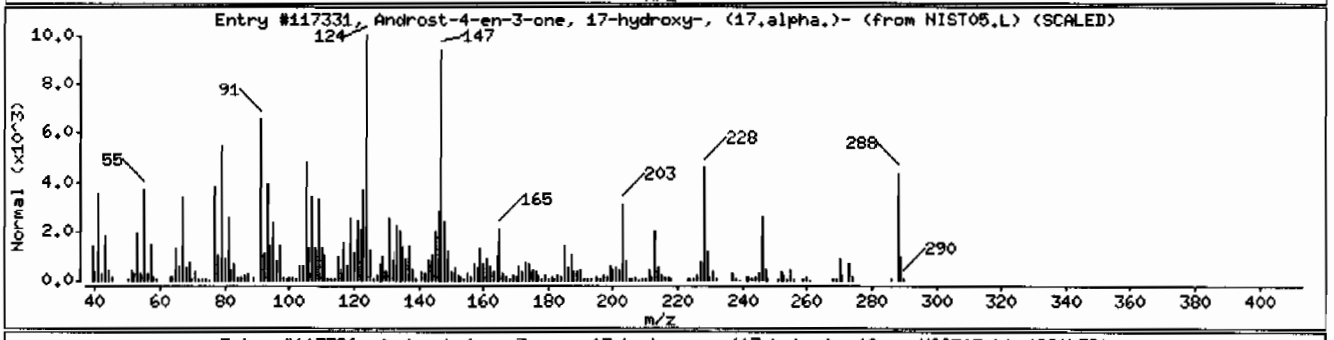

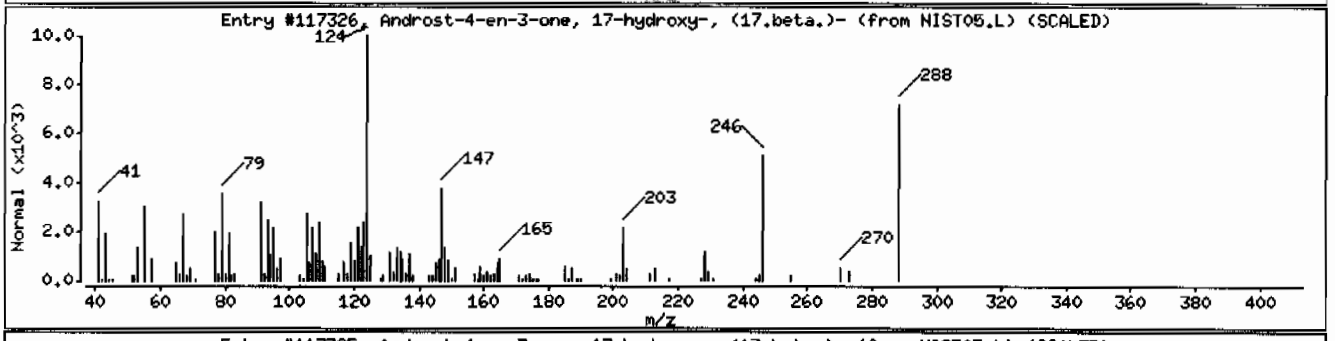

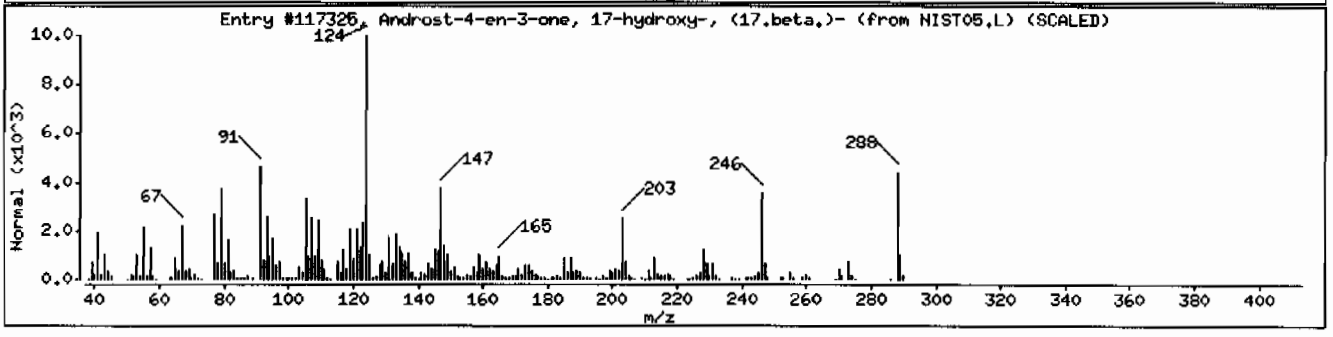

Data File: /chem/MSD3.i/s121509.b/s311510.d

Date : 15-DEC-2009 11:56

Client ID: RE03-09-14278 Instrument: MSD3.i

Sample Info: |2426540171932077111SVMF11LANL

Volume Injected (uL): 0.5 Operator: JLD1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
2,4a,8,8-Tetramethyldecahydrocyclopropa[	74022-04-1	NIST05.L	61558	81	C15H26	206
d-Norandrostane (5.alpha.,14.alpha.)	1000281-13-8	NIST05.L	89459	49	C18H30	246
(-)-Neoclovene-(I), dihydro-	1000152-82-1	NIST05.L	61549	47	C15H26	206

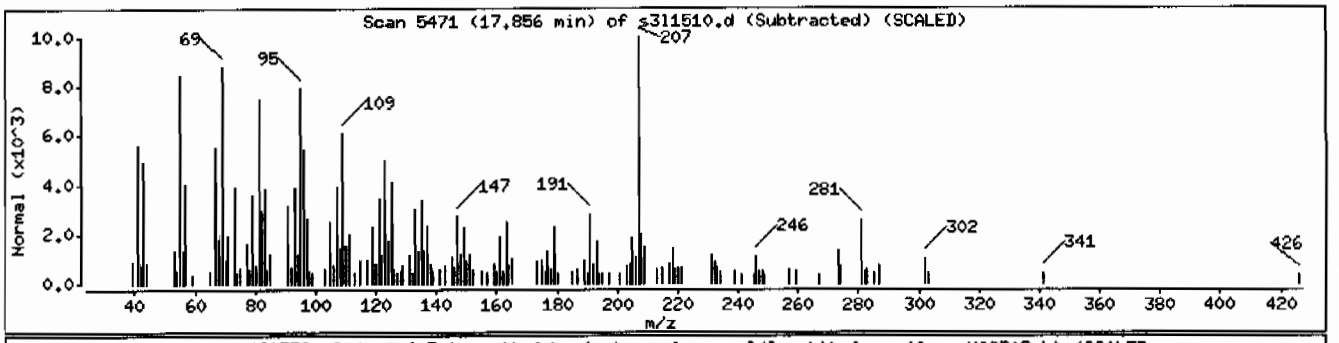

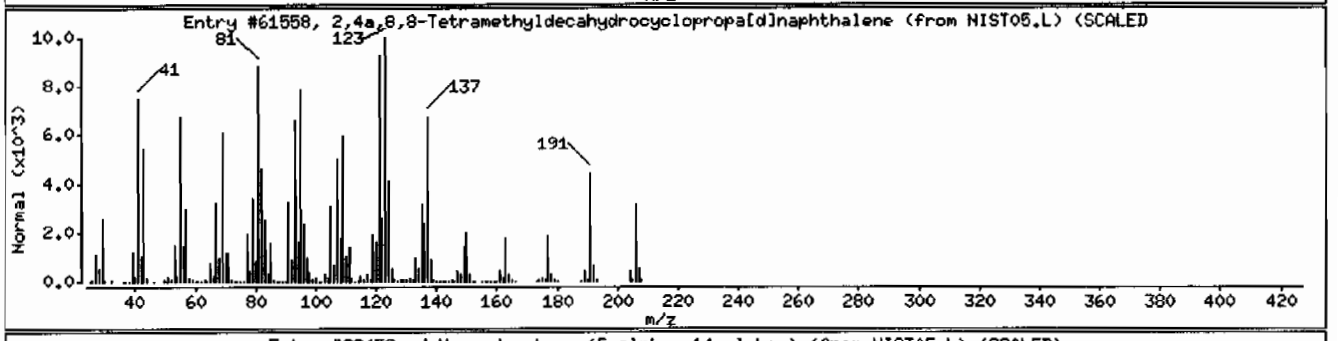

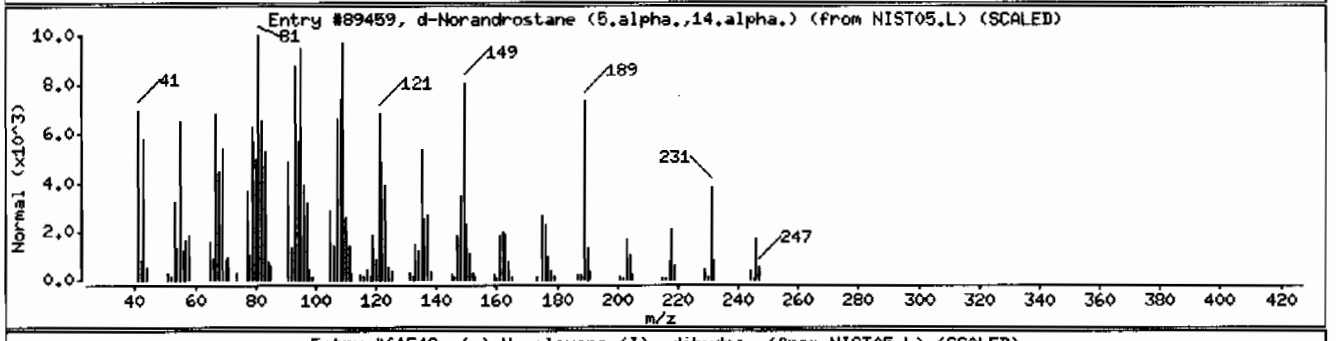

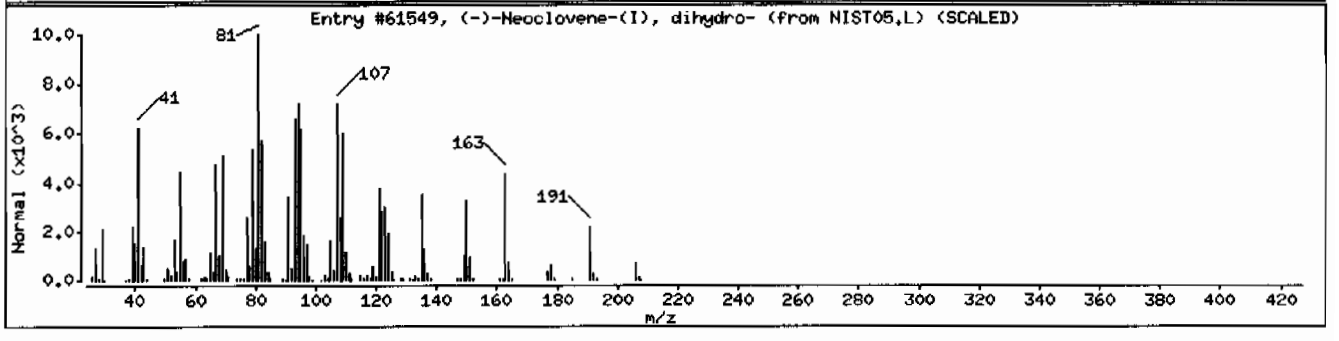

Data File: /chem/MSD3.i/s121509.b/s311510.d

Date : 15-DEC-2009 11:56

Client ID: RE03-09-14278 Instrument: MSD3.i

Sample Info: |2426540171932077|1|SVMF|1|LANL

Volume Injected (uL): 0.5 Operator: JLD1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Bicyclo[6,3,0]undec-1(8)-en-3-ol, 2,2,5,	1000164-02-6	NIST05.L	72958	25	C15H260	222
4-Dehydroxy-N-(4,5-methylenedioxy-2-nitr	1000111-66-9	NIST05.L	123317	22	C16H14N2O4	298
1-Octanone, 1-phenyl-, oxime	77611-70-2	NIST05.L	70529	15	C14H21NO	219

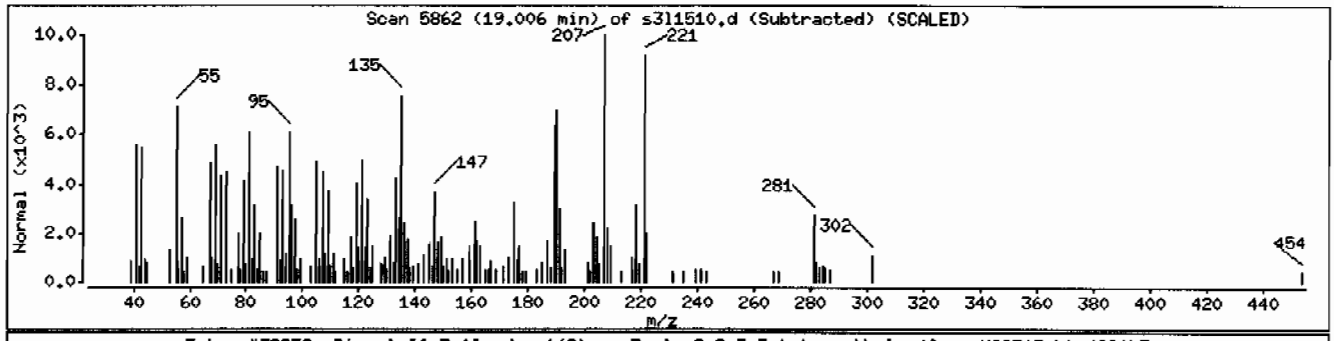

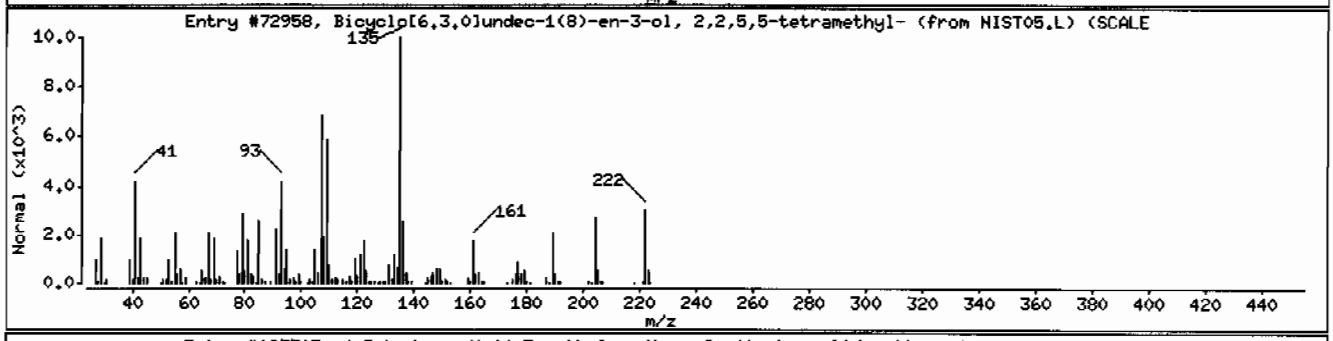

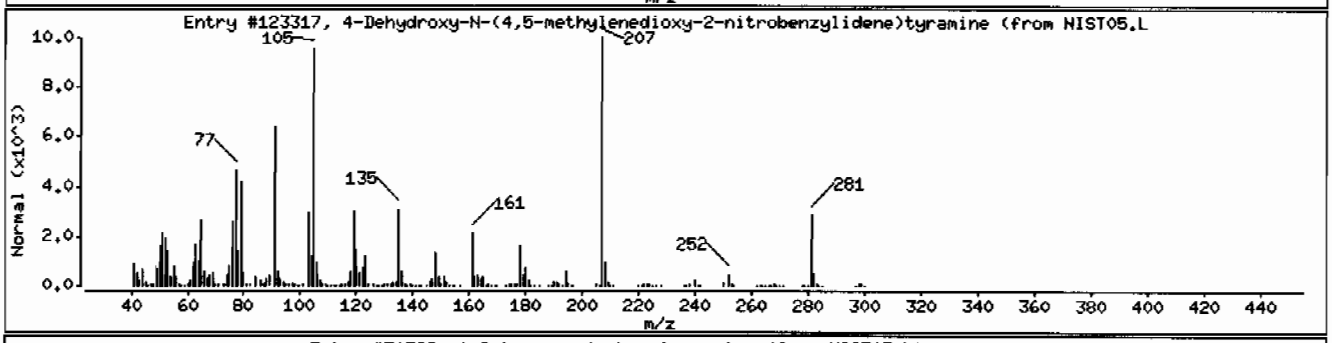

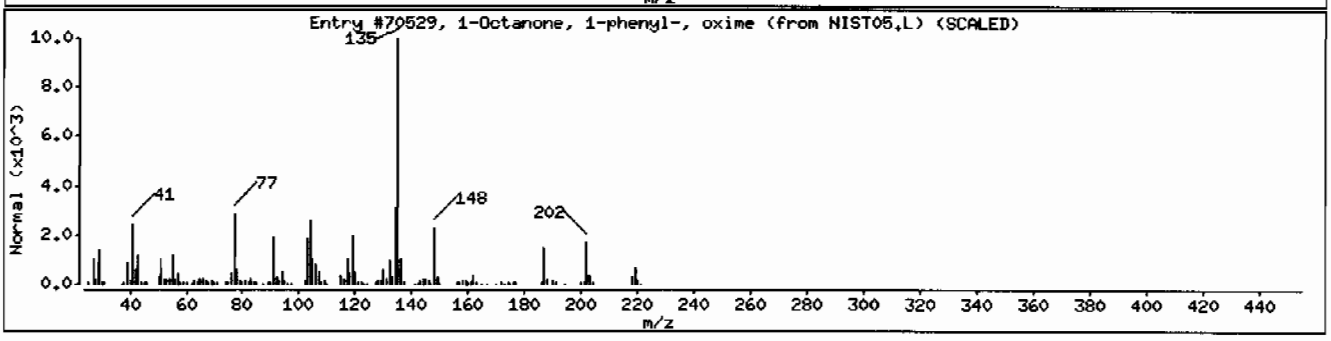

Data File: /chem/MSD3.i/s121509.b/s311510.d

Date : 15-DEC-2009 11:56

Client ID: RE03-09-14278 Instrument: MSD3.i

Sample Info: |2426540171932077|1|SVHF|1|LANL

Volume Injected (uL): 0.5 Operator: JLD1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
2-Ethylacridine	55751-83-2	NIST05.L	62222	15	C15H13N	207
Formic acid, 1-(4,7-dihydro-2-methyl-7-o	1000267-28-6	NIST05.L	62365	14	C9H9N3O3	207
Benzo[h]quinoline, 2,4-dimethyl-	605-67-4	NIST05.L	62242	11	C15H13N	207

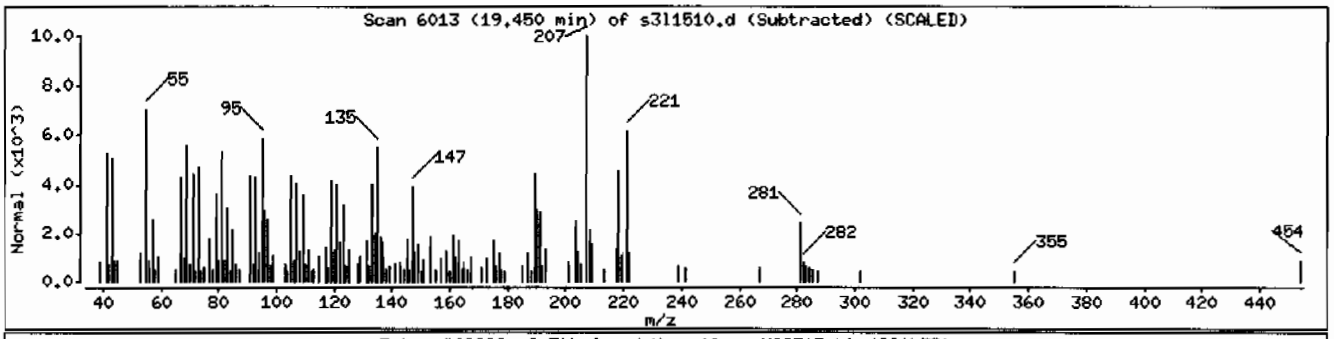

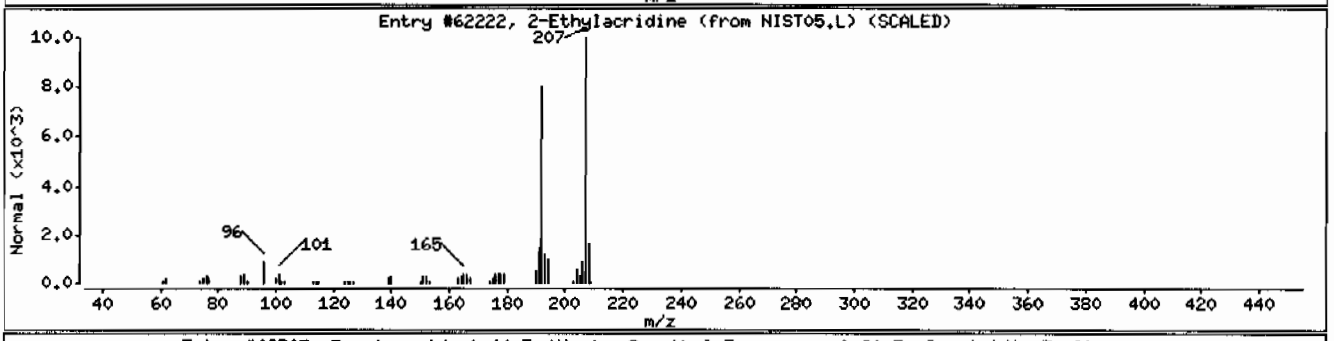

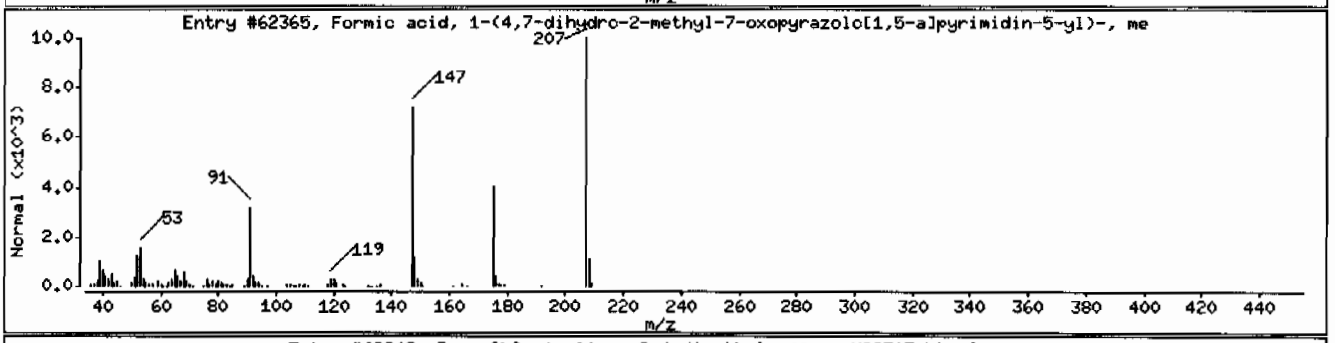

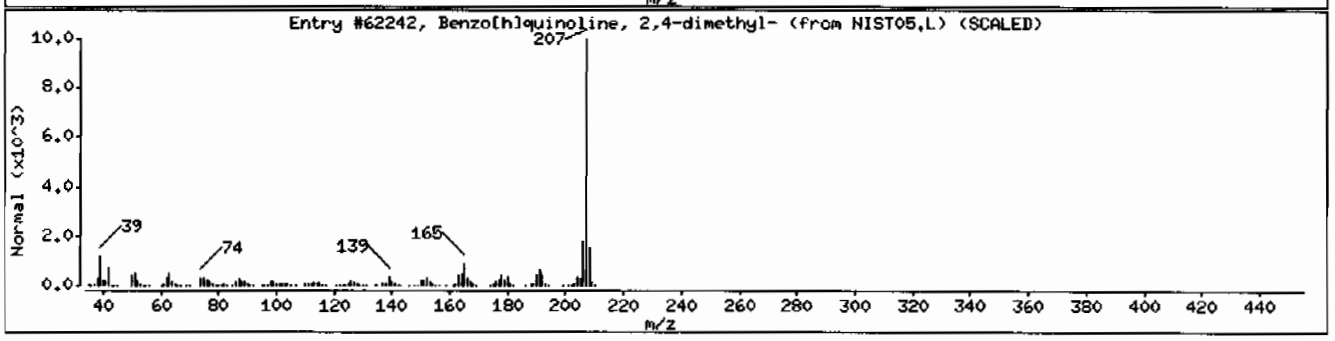

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242654009	**Date Received:**	12/10/2009 08:50	**%Moisture:**	14.1
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14281	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	932077	**Inst:**	MSD3.I	**Dilution:**	1
Run Date:	12/14/2009 19:55	**Analyst:**	JLD1	**Inj. Vol:**	.5 uL
Prep Date:	12/11/2009 21:55	**Aliquot:**	30.03 g	**Final Volume:**	1 mL
Data File:	s3l1425.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	388	ug/kg	77.6	388
108-95-2	Phenol	U	388	ug/kg	77.6	388
95-57-8	2-Chlorophenol	U	388	ug/kg	77.6	388
106-46-7	1,4-Dichlorobenzene	U	388	ug/kg	77.6	388
621-64-7	N-Nitrosodipropylamine	U	388	ug/kg	77.6	388
59-50-7	4-Chloro-3-methylphenol	U	388	ug/kg	77.6	388
83-32-9	Acenaphthene	U	38.8	ug/kg	12.8	38.8
121-14-2	2,4-Dinitrotoluene	U	388	ug/kg	38.8	388
100-02-7	4-Nitrophenol	U	388	ug/kg	128	388
87-86-5	Pentachlorophenol	U	388	ug/kg	97.0	388
129-00-0	Pyrene	U	38.8	ug/kg	11.6	38.8
110-86-1	Pyridine	U	388	ug/kg	77.6	388
62-53-3	Aniline	U	388	ug/kg	116	388
111-44-4	bis(2-Chloroethyl) ether	U	388	ug/kg	77.6	388
541-73-1	1,3-Dichlorobenzene	U	388	ug/kg	77.6	388
100-51-6	Benzyl alcohol	U	388	ug/kg	116	388
95-50-1	1,2-Dichlorobenzene	U	388	ug/kg	77.6	388
108-60-1	bis(2-Chloroisopropyl)ether	U	388	ug/kg	77.6	388
95-48-7	o-Cresol	U	388	ug/kg	77.6	388
65794-96-9	m,p-Cresols	U	388	ug/kg	116	388
67-72-1	Hexachloroethane	U	388	ug/kg	77.6	388
98-95-3	Nitrobenzene	U	388	ug/kg	77.6	388
78-59-1	Isophorone	U	388	ug/kg	77.6	388
88-75-5	2-Nitrophenol	U	388	ug/kg	77.6	388
105-67-9	2,4-Dimethylphenol	U	388	ug/kg	136	388
111-91-1	bis(2-Chloroethoxy)methane	U	388	ug/kg	77.6	388
120-83-2	2,4-Dichlorophenol	U	388	ug/kg	77.6	388
65-85-0	Benzoic acid	U	776	ug/kg	194	776
91-20-3	Naphthalene	U	38.8	ug/kg	11.6	38.8
106-47-8	4-Chloroaniline	U	388	ug/kg	77.6	388
87-68-3	Hexachlorobutadiene	U	388	ug/kg	77.6	388
91-57-6	2-Methylnaphthalene	U	38.8	ug/kg	7.76	38.8
77-47-4	Hexachlorocyclopentadiene	U	388	ug/kg	77.6	388
88-06-2	2,4,6-Trichlorophenol	U	388	ug/kg	77.6	388
95-95-4	2,4,5-Trichlorophenol	U	388	ug/kg	77.6	388
91-58-7	2-Chloronaphthalene	U	38.8	ug/kg	12.8	38.8
88-74-4	2-Nitroaniline	U	388	ug/kg	77.6	388
	o-Nitroaniline					
99-09-2	3-Nitroaniline	U	388	ug/kg	77.6	388

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	Date Collected:	12/07/2009 12:00	Matrix:	S
Lab Sample ID:	242654009	Date Received:	12/10/2009 08:50	%Moisture:	14.1
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14281	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	932077	Inst:	MSD3.I	Dilution:	1
Run Date:	12/14/2009 19:55	Analyst:	JLD1	Inj. Vol:	.5 uL
Prep Date:	12/11/2009 21:55	Aliquot:	30.03 g	Final Volume:	1 mL
Data File:	s3l1425.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	388	ug/kg	77.6	388
606-20-2	2,6-Dinitrotoluene	U	388	ug/kg	38.8	388
208-96-8	Acenaphthylene	U	38.8	ug/kg	11.6	38.8
51-28-5	2,4-Dinitrophenol	U	776	ug/kg	147	776
132-64-9	Dibenzofuran	U	388	ug/kg	77.6	388
84-66-2	Diethylphthalate	U	388	ug/kg	77.6	388
86-73-7	Fluorene	U	38.8	ug/kg	11.6	38.8
7005-72-3	4-Chlorophenylphenylether	U	388	ug/kg	77.6	388
534-52-1	2-Methyl-4,6-dinitrophenol	U	388	ug/kg	77.6	388
100-01-6	4-Nitroaniline	U	388	ug/kg	116	388
	p-Nitroaniline					
122-39-4	Diphenylamine	U	388	ug/kg	77.6	388
122-66-7	Azobenzene	U	388	ug/kg	77.6	388
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	388	ug/kg	77.6	388
118-74-1	Hexachlorobenzene	U	388	ug/kg	77.6	388
85-01-8	Phenanthrene	U	38.8	ug/kg	11.6	38.8
120-12-7	Anthracene	U	38.8	ug/kg	7.76	38.8
84-74-2	Di-n-butylphthalate	U	388	ug/kg	77.6	388
206-44-0	Fluoranthene	U	38.8	ug/kg	11.6	38.8
85-68-7	Butylbenzylphthalate	U	388	ug/kg	77.6	388
56-55-3	Benzo(a)anthracene	U	38.8	ug/kg	11.6	38.8
91-94-1	3,3'-Dichlorobenzidine	U	388	ug/kg	116	388
218-01-9	Chrysene	U	38.8	ug/kg	11.6	38.8
117-81-7	bis(2-Ethylhexyl)phthalate	U	388	ug/kg	77.6	388
117-84-0	Di-n-octylphthalate	U	388	ug/kg	77.6	388
205-99-2	Benzo(b)fluoranthene	U	38.8	ug/kg	11.6	38.8
207-08-9	Benzo(k)fluoranthene	U	38.8	ug/kg	11.6	38.8
50-32-8	Benzo(a)pyrene	U	38.8	ug/kg	11.6	38.8
193-39-5	Indeno(1,2,3-cd)pyrene	U	38.8	ug/kg	11.6	38.8
53-70-3	Dibenzo(a,h)anthracene	U	38.8	ug/kg	11.6	38.8
191-24-2	Benzo(ghi)perylene	U	38.8	ug/kg	11.6	38.8
120-82-1	1,2,4-Trichlorobenzene	U	388	ug/kg	77.6	388

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
78-95-5	2-Propanone, 1-chloro-	1.92	173	ug/kg	83	NJ
	Unknown Aldol Condensate	2.93	294	ug/kg		JA

GEL Laboratories LLC

Data file : /chem/MSD3.i/s121409.b/s311425.d
Lab Smp Id: 242654009 Client Smp ID: RE03-09-14281
Inj Date : 14-DEC-2009 19:55
Operator : JLD1 Inst ID: MSD3.i
Smp Info : |242654009|932077|1|SVMF|1|LANL
Misc Info : |MSD8270_S|WBN091208-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD3.i/s121409.b/MSD3-8270R-AQA-120809.m
Meth Date : 14-Dec-2009 17:00 jen00986 Quant Type: ISTD
Cal Date : 07-DEC-2009 19:48 Cal File: s310717.d
Als bottle: 23
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-852.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.03000	weight of sample
M	14.14730	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	4.271	4.271	(1.000)	129893	40.0000	
* 29 Naphthalene-d8	136	5.519	5.523	(1.000)	487031	40.0000	
* 46 Acenaphthene-d10	164	7.364	7.371	(1.000)	265914	40.0000	
* 67 Phenanthrene-d10	188	8.958	8.958	(1.000)	423830	40.0000	
* 91 Chrysene-d12	240	11.810	11.817	(1.000)	243271	40.0000	
* 98 Perylene-d12	264	13.782	13.787	(1.000)	140236	40.0000	
$ 3 2-Fluorophenol	112	3.169	3.157	(0.742)	215803	63.5173	2460
$ 5 Phenol-d5	99	3.931	3.931	(0.920)	274167	63.3393	2460
$ 20 Nitrobenzene-d5	82	4.801	4.808	(0.870)	114336	32.1211	1240
$ 39 2-Fluorobiphenyl	172	6.643	6.647	(0.902)	248246	39.8281	1540
$ 60 2,4,6-Tribromophenol	329	8.211	8.213	(1.115)	67322	92.1940	3580
$ 81 p-Terphenyl-d14	244	10.663	10.662	(0.903)	212859	54.4791	2110

ION RATIO REPORT

SV REPORT

Data file: s311425.d
Report Date: 12/14/2009 21:15
Lab. ID: 242654009 SampleType: SAMPLE
Injection Date: 14-DEC-2009 19:55
Operator: JLD1 Instrument: MSD3.i
Sample Info: |242654009|932077|1|SVMF|1|LANL
Miscellaneous Info: |MSD8270_S|WBN091208-01|
Comment:
Method used: /chem/MSD3.i/s121409.b/MSD3-8270R-AQA-120809.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-852
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
4 Aniline		CAS#: 62-53-3				
66	12056	3.93	3.98	80-120	100	( )
93	106	3.80	3.98	223-283	1	(QT)
17 N-Nitrosodipropylamine				CAS#: 621-64-7		
70	16143	4.80	4.65	80-120	100	(T)
42	7820	4.80	4.65	22- 82	48	(T)
44 2,6-Dinitrotoluene				CAS#: 606-20-2		
165	34565	7.36	7.16	80-120	100	(T)
63	300	7.36	7.16	28- 88	1	(QT)
50 2,4-Dinitrotoluene				CAS#: 121-14-2		
165	34565	7.36	7.58	80-120	100	(T)
89	443	7.37	7.58	52-112	1	(QT)
63	300	7.36	7.58	36- 96	1	(QT)
55 2-Methyl-4,6-dinitrophenol				CAS#: 534-52-1		
198	144	8.21	8.02	80-120	100	(T)
105	380	8.21	8.02	14- 74	264	(QT)
51	273	8.21	8.02	18- 78	189	(QT)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

Data file : /chem/MSD3.i/s121409.b/s311425.d
Lab Smp Id: 242654009 Client Smp ID: RE03-09-14281
Inj Date : 14-DEC-2009 19:55
Operator : JLD1 Inst ID: MSD3.i
Smp Info : |242654009|932077|1|SVMF|1|LANL
Misc Info : |MSD8270_S|WBN091208-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD3.i/s121409.b/MSD3-8270R-AQA-120809.m
Meth Date : 14-Dec-2009 17:00 jen00986 Quant Type: ISTD
Cal Date : 07-DEC-2009 19:48 Cal File: s310717.d
Als bottle: 23
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-852.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariabl

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.03000	weight of sample
M	14.14730	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	4.271	767149	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
2-Propanone, 1-chloro-				CAS #: 78-95-5			
1.921	85607	4.46363728	173	83	NIST05.L	2355	10
Unknown Aldol Condensate				CAS #:			
2.926	145558	7.58956222	294	0		0	10

Data File: /chem/MSD3.i/s121409.b/s311425.d

Date : 14-DEC-2009 19:55

Client ID: RE03-09-14281

Sample Info: |2426540091932077|1|SVMF|1|LANL

Volume Injected (uL): 0.5

Column phase: J&W DB-5MS

Instrument: MSD3.i

Operator: JLD1

Column diameter: 0.20

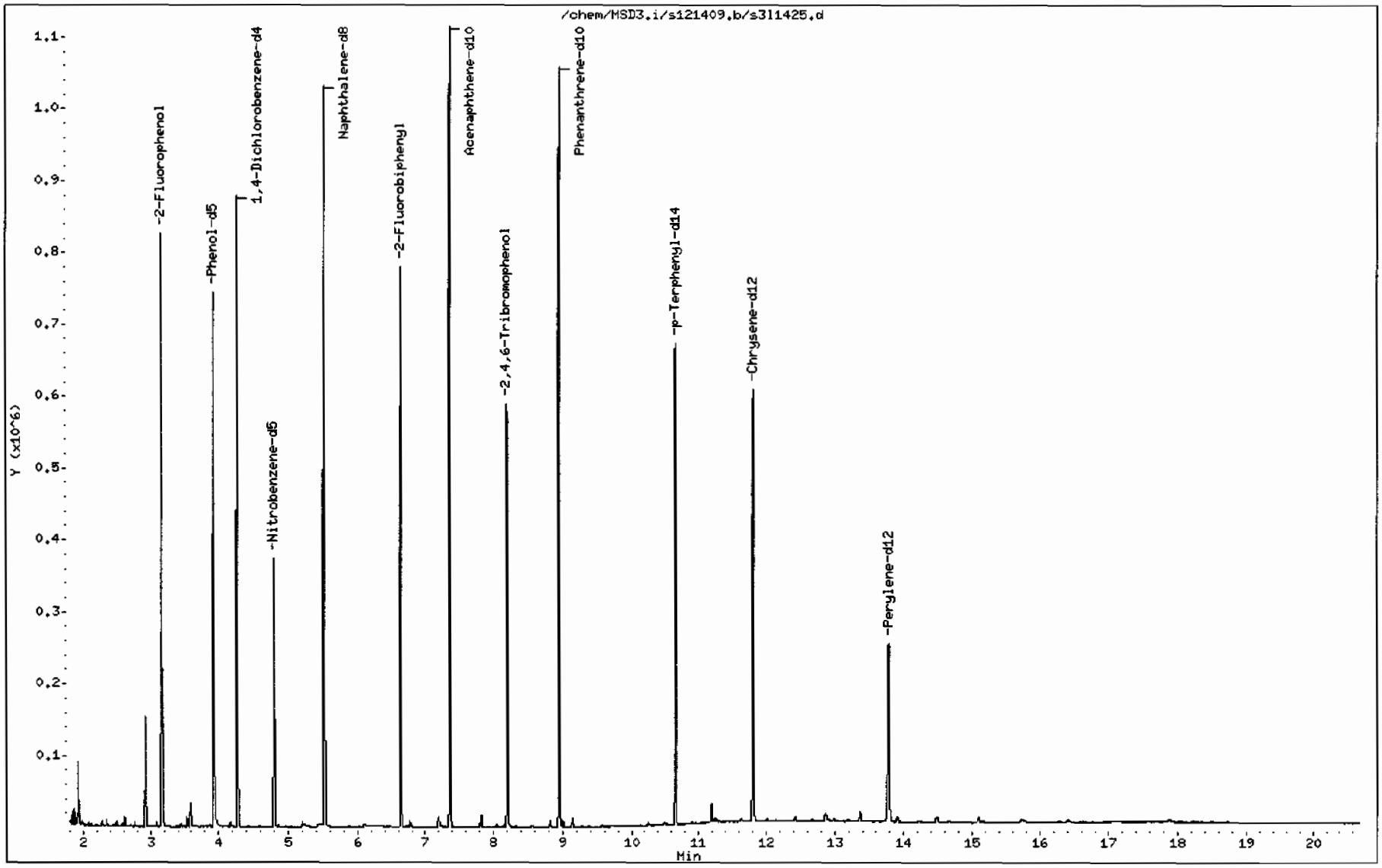

Data File: /chem/MSD3.i/s121409.b/s311425.d

Date : 14-DEC-2009 19:55

Client ID: RE03-09-14281

Instrument: MSD3.i

Sample Info: 1242654009|932077|1|SVMF|1|LANL

Volume Injected (uL): 0.5

Operator: JLD1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
2-Propanone, 1-chloro-	78-95-5	NIST05.L	2355	83	C3H5ClO	92
2-Propanone, 1-chloro-	78-95-5	NIST05.L	2356	72	C3H5ClO	92
2-Propanone, 1-chloro-	78-95-5	NIST05.L	2352	64	C3H5ClO	92

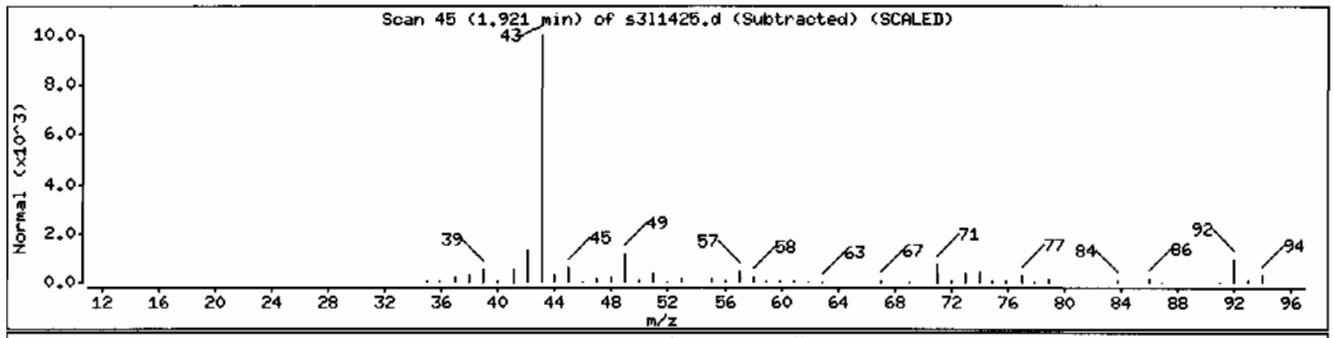

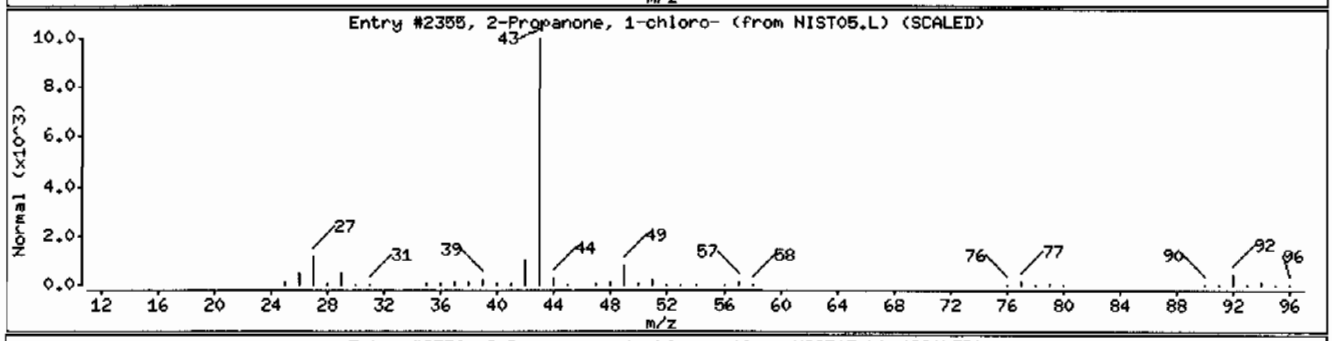

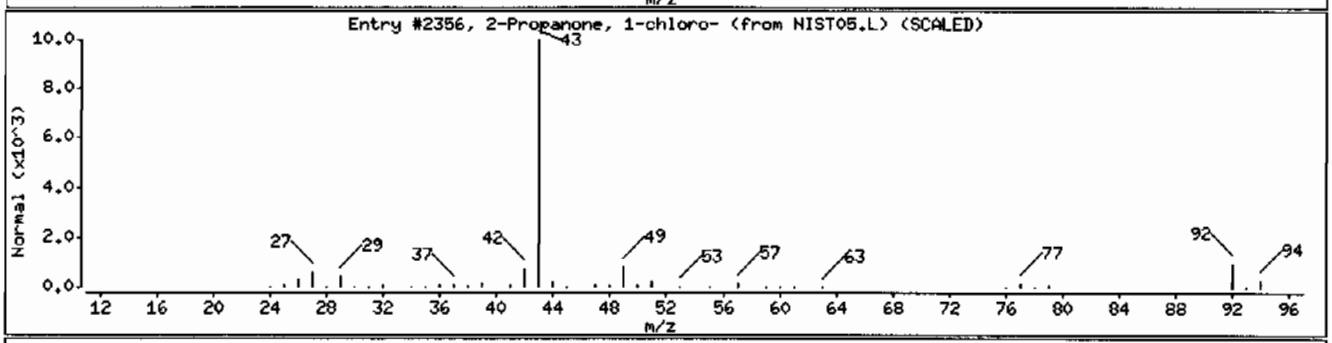

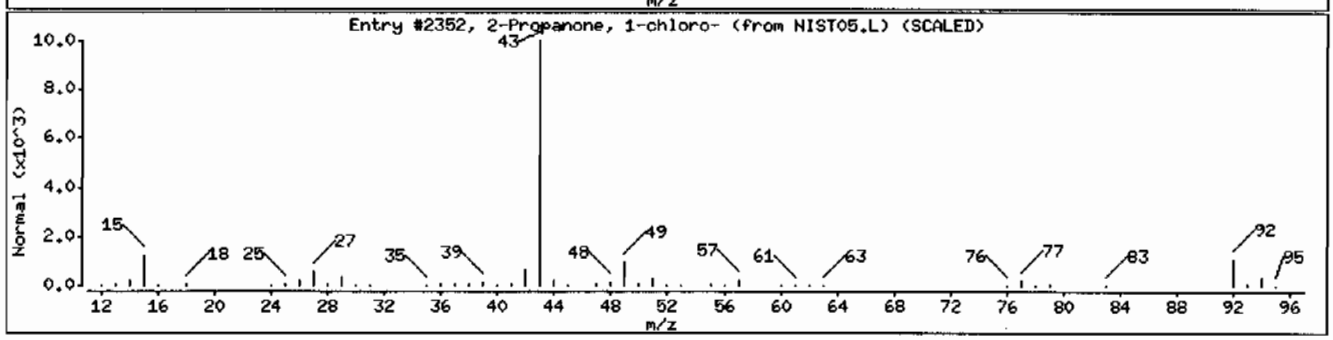

Data File: /chem/MSD3.i/s121409.b/s311425.d

Date : 14-DEC-2009 19:55

Client ID: RE03-09-14281

Instrument: MSD3.i

Sample Info: 1242654009193207711ISVHF11ILANL

Volume Injected (uL): 0.5

Operator: JLD1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	56	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	50	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7945	38	C6H12O2	116

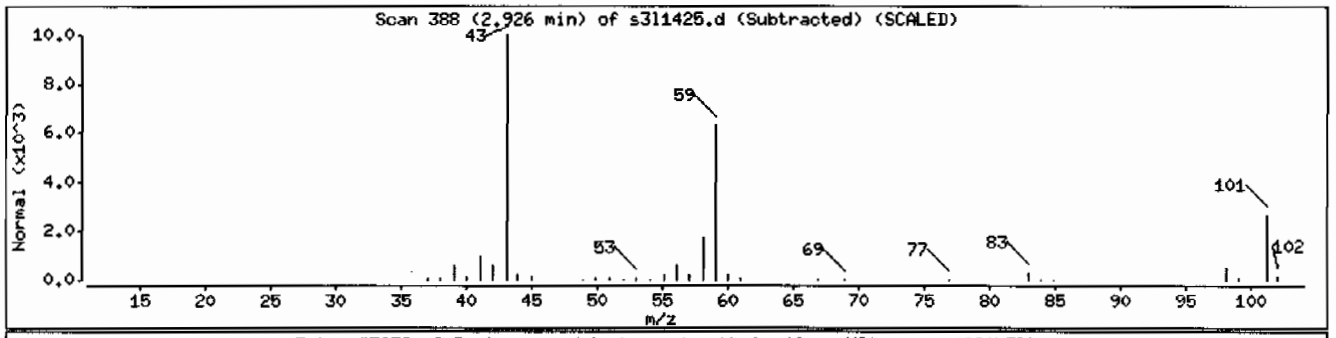

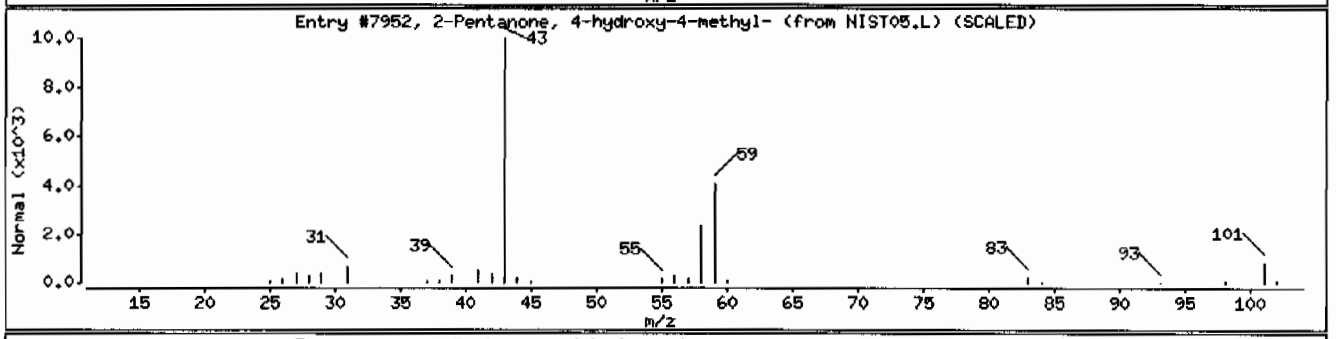

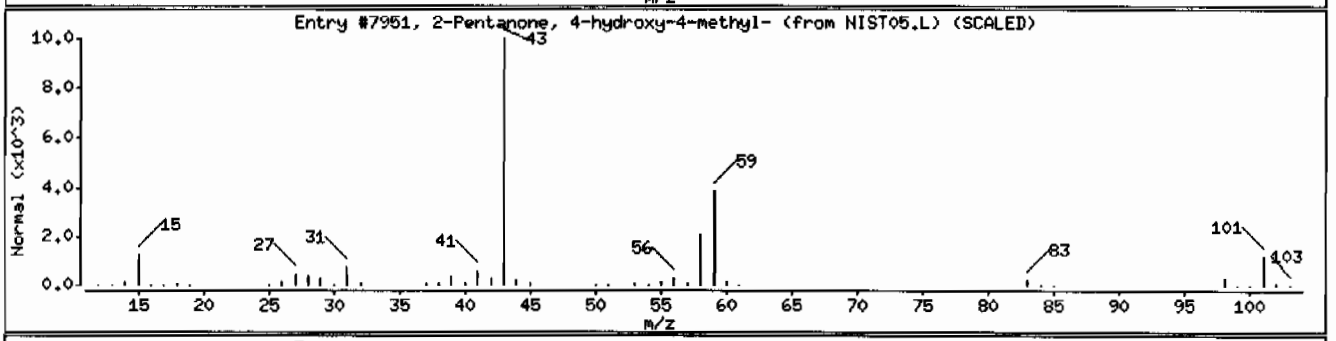

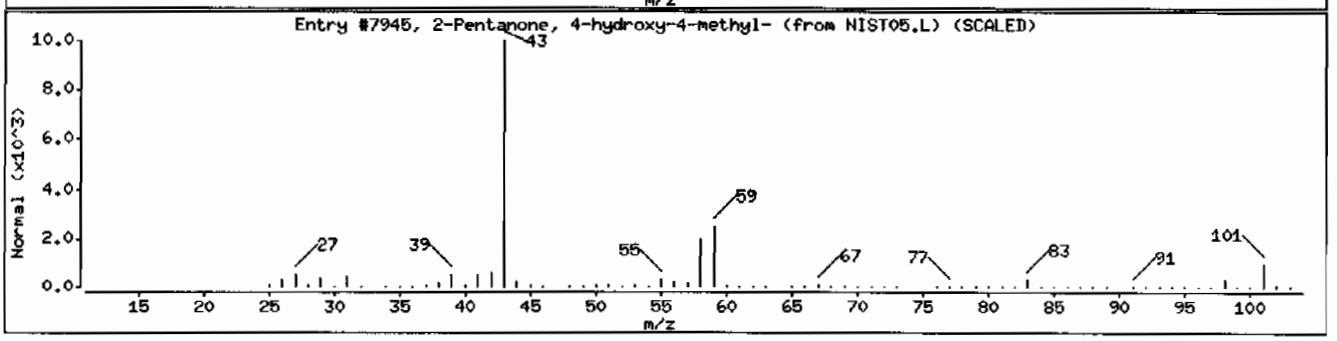

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-852**	**Date Collected:**	**12/07/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242654013**	**Date Received:**	**12/10/2009 08:50**	**%Moisture:**	**14.2**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14282**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**932077**	**Inst:**	**MSD3.I**	**Dilution:**	**1**
Run Date:	**12/14/2009 21:45**	**Analyst:**	**JLD1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/11/2009 21:55**	**Aliquot:**	**30.18 g**	**Final Volume:**	**1 mL**
Data File:	**s311429.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	386	ug/kg	77.2	386
108-95-2	Phenol	U	386	ug/kg	77.2	386
95-57-8	2-Chlorophenol	U	386	ug/kg	77.2	386
106-46-7	1,4-Dichlorobenzene	U	386	ug/kg	77.2	386
621-64-7	N-Nitrosodipropylamine	U	386	ug/kg	77.2	386
59-50-7	4-Chloro-3-methylphenol	U	386	ug/kg	77.2	386
83-32-9	Acenaphthene	U	38.6	ug/kg	12.7	38.6
121-14-2	2,4-Dinitrotoluene	U	386	ug/kg	38.6	386
100-02-7	4-Nitrophenol	U	386	ug/kg	127	386
87-86-5	Pentachlorophenol	U	386	ug/kg	96.5	386
129-00-0	Pyrene	U	38.6	ug/kg	11.6	38.6
110-86-1	Pyridine	U	386	ug/kg	77.2	386
62-53-3	Aniline	U	386	ug/kg	116	386
111-44-4	bis(2-Chloroethyl) ether	U	386	ug/kg	77.2	386
541-73-1	1,3-Dichlorobenzene	U	386	ug/kg	77.2	386
100-51-6	Benzyl alcohol	U	386	ug/kg	116	386
95-50-1	1,2-Dichlorobenzene	U	386	ug/kg	77.2	386
108-60-1	bis(2-Chloroisopropyl)ether	U	386	ug/kg	77.2	386
95-48-7	o-Cresol	U	386	ug/kg	77.2	386
65794-96-9	m,p-Cresols	U	386	ug/kg	116	386
67-72-1	Hexachloroethane	U	386	ug/kg	77.2	386
98-95-3	Nitrobenzene	U	386	ug/kg	77.2	386
78-59-1	Isophorone	U	386	ug/kg	77.2	386
88-75-5	2-Nitrophenol	U	386	ug/kg	77.2	386
105-67-9	2,4-Dimethylphenol	U	386	ug/kg	135	386
111-91-1	bis(2-Chloroethoxy)methane	U	386	ug/kg	77.2	386
120-83-2	2,4-Dichlorophenol	U	386	ug/kg	77.2	386
65-85-0	Benzoic acid	U	772	ug/kg	193	772
91-20-3	Naphthalene	U	38.6	ug/kg	11.6	38.6
106-47-8	4-Chloroaniline	U	386	ug/kg	77.2	386
87-68-3	Hexachlorobutadiene	U	386	ug/kg	77.2	386
91-57-6	2-Methylnaphthalene	U	38.6	ug/kg	7.72	38.6
77-47-4	Hexachlorocyclopentadiene	U	386	ug/kg	77.2	386
88-06-2	2,4,6-Trichlorophenol	U	386	ug/kg	77.2	386
95-95-4	2,4,5-Trichlorophenol	U	386	ug/kg	77.2	386
91-58-7	2-Chloronaphthalene	U	38.6	ug/kg	12.7	38.6
88-74-4	2-Nitroaniline	U	386	ug/kg	77.2	386
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	386	ug/kg	77.2	386

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242654013	**Date Received:**	12/10/2009 08:50	**%Moisture:**	14.2
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14282	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	932077	**Inst:**	MSD3.I	**Dilution:**	1
Run Date:	12/14/2009 21:45	**Analyst:**	JLD1	**Inj. Vol:**	.5 uL
Prep Date:	12/11/2009 21:55	**Aliquot:**	30.18 g	**Final Volume:**	1 mL
Data File:	s3l1429.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	386	ug/kg	77.2	386
606-20-2	2,6-Dinitrotoluene	U	386	ug/kg	38.6	386
208-96-8	Acenaphthylene	U	38.6	ug/kg	11.6	38.6
51-28-5	2,4-Dinitrophenol	U	772	ug/kg	147	772
132-64-9	Dibenzofuran	U	386	ug/kg	77.2	386
84-66-2	Diethylphthalate	U	386	ug/kg	77.2	386
86-73-7	Fluorene	U	38.6	ug/kg	11.6	38.6
7005-72-3	4-Chlorophenylphenylether	U	386	ug/kg	77.2	386
534-52-1	2-Methyl-4,6-dinitrophenol	U	386	ug/kg	77.2	386
100-01-6	4-Nitroaniline	U	386	ug/kg	116	386
	p-Nitroaniline					
122-39-4	Diphenylamine	U	386	ug/kg	77.2	386
122-66-7	Azobenzene	U	386	ug/kg	77.2	386
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	386	ug/kg	77.2	386
118-74-1	Hexachlorobenzene	U	386	ug/kg	77.2	386
85-01-8	Phenanthrene	U	38.6	ug/kg	11.6	38.6
120-12-7	Anthracene	U	38.6	ug/kg	7.72	38.6
84-74-2	Di-n-butylphthalate	U	386	ug/kg	77.2	386
206-44-0	Fluoranthene	U	38.6	ug/kg	11.6	38.6
85-68-7	Butylbenzylphthalate	U	386	ug/kg	77.2	386
56-55-3	Benzo(a)anthracene	U	38.6	ug/kg	11.6	38.6
91-94-1	3,3'-Dichlorobenzidine	U	386	ug/kg	116	386
218-01-9	Chrysene	U	38.6	ug/kg	11.6	38.6
117-81-7	bis(2-Ethylhexyl)phthalate	U	386	ug/kg	77.2	386
117-84-0	Di-n-octylphthalate	U	386	ug/kg	77.2	386
205-99-2	Benzo(b)fluoranthene	U	38.6	ug/kg	11.6	38.6
207-08-9	Benzo(k)fluoranthene	U	38.6	ug/kg	11.6	38.6
50-32-8	Benzo(a)pyrene	U	38.6	ug/kg	11.6	38.6
193-39-5	Indeno(1,2,3-cd)pyrene	U	38.6	ug/kg	11.6	38.6
53-70-3	Dibenzo(a,h)anthracene	U	38.6	ug/kg	11.6	38.6
191-24-2	Benzo(ghi)perylene	U	38.6	ug/kg	11.6	38.6
120-82-1	1,2,4-Trichlorobenzene	U	386	ug/kg	77.2	386

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.93	304	ug/kg		JA

GEL Laboratories LLC

Data file : /chem/MSD3.i/s121409.b/s311429.d
Lab Smp Id: 242654013 Client Smp ID: RE03-09-14282
Inj Date : 14-DEC-2009 21:45
Operator : JLD1 Inst ID: MSD3.i
Smp Info : |242654013|932077|1|SVMF|1|LANL
Misc Info : |MSD8270_S|WBN091208-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD3.i/s121409.b/MSD3-8270R-AQA-120809.m
Meth Date : 14-Dec-2009 17:00 jen00986 Quant Type: ISTD
Cal Date : 07-DEC-2009 19:48 Cal File: s310717.d
Als bottle: 27
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-852.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.18000	weight of sample
M	14.15270	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	4.271	4.271	(1.000)	134653	40.0000	
* 29 Naphthalene-d8	136	5.522	5.523	(1.000)	503776	40.0000	
* 46 Acenaphthene-d10	164	7.367	7.371	(1.000)	276349	40.0000	
* 67 Phenanthrene-d10	188	8.957	8.958	(1.000)	452427	40.0000	
* 91 Chrysene-d12	240	11.811	11.817	(1.000)	251454	40.0000	
* 98 Perylene-d12	264	13.781	13.787	(1.000)	126217	40.0000	
$ 3 2-Fluorophenol	112	3.172	3.157	(0.743)	258395	73.3649	2830
$ 5 Phenol-d5	99	3.934	3.931	(0.921)	317900	70.8465	2730
$ 20 Nitrobenzene-d5	82	4.801	4.808	(0.869)	137439	37.3281	1440
$ 39 2-Fluorobiphenyl	172	6.643	6.647	(0.902)	276465	42.6807	1650
$ 60 2,4,6-Tribromophenol	329	8.211	8.213	(1.115)	72823	95.9616	3700
$ 81 p-Terphenyl-d14	244	10.662	10.662	(0.903)	242535	60.0544	2320

ION RATIO REPORT

SV REPORT

Data file: s311429.d
Report Date: 12/15/2009 07:14
Lab. ID: 242654013 SampleType: SAMPLE
Injection Date: 14-DEC-2009 21:45
Operator: JLD1 Instrument: MSD3.i
Sample Info: |242654013|932077|1|SVMF|1|LANL
Miscellaneous Info: |MSD8270_S|WBN091208-01|
Comment:
Method used: /chem/MSD3.i/s121409.b/MSD3-8270R-AQA-120809.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-852
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
17 N-Nitrosodipropylamine				CAS#: 621-64-7		
70	19435	4.80	4.65	80-120	100	(T)
42	9324	4.80	4.65	22- 82	48	(T)
44 2,6-Dinitrotoluene				CAS#: 606-20-2		
165	35849	7.37	7.16	80-120	100	(T)
63	494	7.37	7.16	28- 88	1	(QT)
50 2,4-Dinitrotoluene				CAS#: 121-14-2		
165	35849	7.37	7.58	80-120	100	(T)
89	501	7.37	7.58	52-112	1	(QT)
63	494	7.37	7.58	36- 96	1	(QT)
55 2-Methyl-4,6-dinitrophenol				CAS#: 534-52-1		
198	151	8.21	8.02	80-120	100	(T)
105	394	8.21	8.02	14- 74	261	(QT)
51	361	8.21	8.02	18- 78	239	(QT)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

Data file : /chem/MSD3.i/s121409.b/s311429.d
Lab Smp Id: 242654013 Client Smp ID: RE03-09-14282
Inj Date : 14-DEC-2009 21:45
Operator : JLD1 Inst ID: MSD3.i
Smp Info : |242654013|932077|1|SVMF|1|LANL
Misc Info : |MSD8270_S|WBN091208-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD3.i/s121409.b/MSD3-8270R-AQA-120809.m
Meth Date : 14-Dec-2009 17:00 jen00986 Quant Type: ISTD
Cal Date : 07-DEC-2009 19:48 Cal File: s310717.d
Als bottle: 27
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-852.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.18000	weight of sample
M	14.15270	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	4.271	791252	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown Aldol Condensate					CAS #:		
2.926	155595	7.86574436	304	0		0	10

Data File: /chem/MSD3.i/s121409.b/s311429.d

Date : 14-DEC-2009 21:45

Client ID: RE03-09-14282

Sample Info: 1242654013193207711ISVMFI1ILANL

Volume Injected (uL): 0.5

Column phase: J&W DB-5MS

Instrument: MSD3.i

Operator: JLD1

Column diameter: 0.20

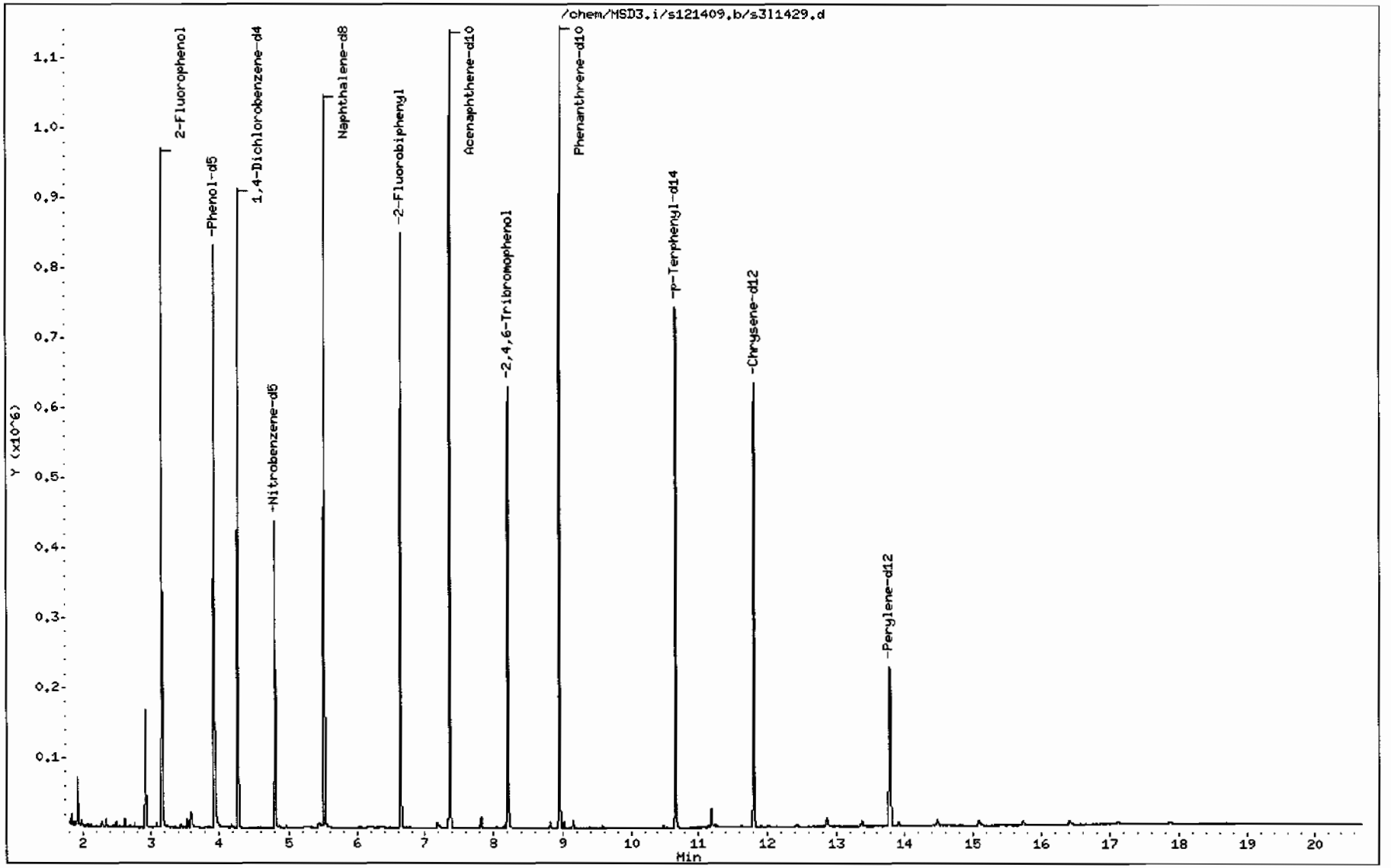

Data File: /chem/MSD3.i/s121409.b/s311429.d

Date : 14-DEC-2009 21:45

Client ID: RE03-09-14282 Instrument: MSD3.i

Sample Info: |2426540131932077|1|SVMF|1|LANL

Volume Injected (uL): 0.5 Operator: JLD1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	56	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	50	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7945	38	C6H12O2	116

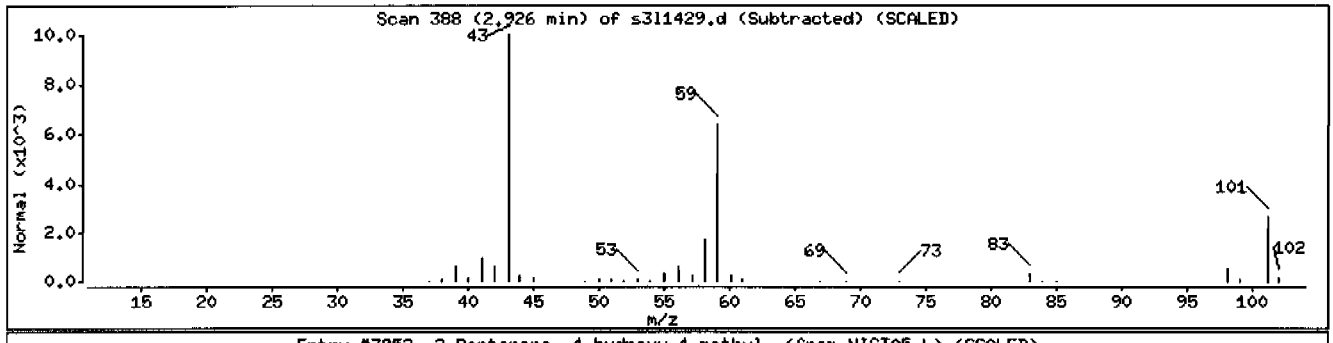

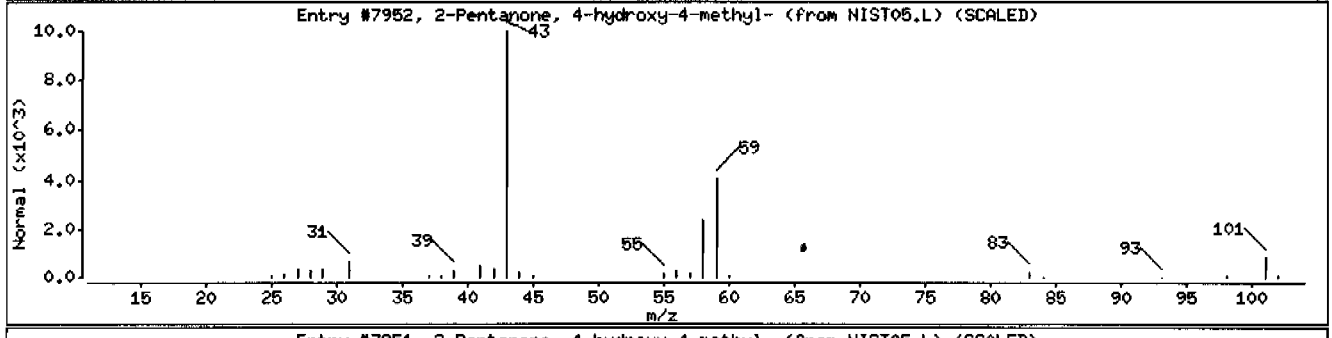

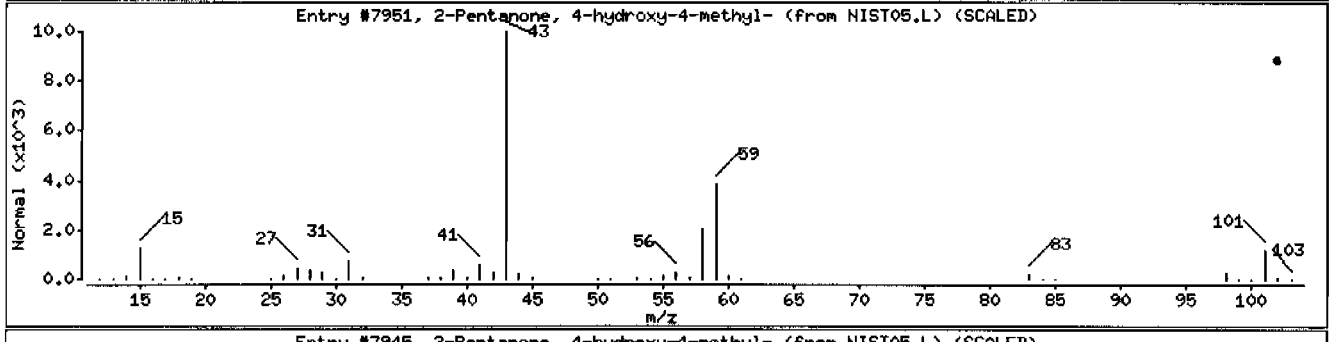

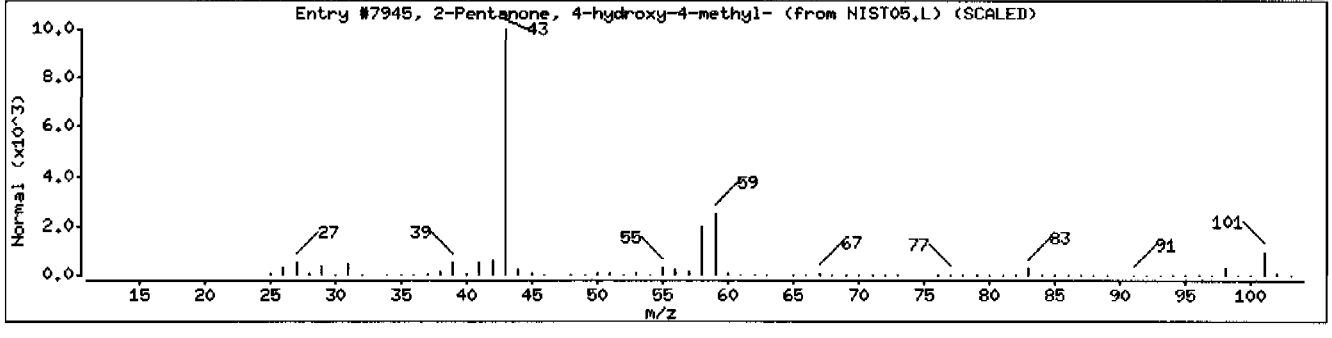

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-852**	**Date Collected:**	**12/07/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242654020**	**Date Received:**	**12/10/2009 08:50**	**%Moisture:**	**15.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14283**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**932077**	**Inst:**	**MSD3.I**	**Dilution:**	**1**
Run Date:	**12/15/2009 13:18**	**Analyst:**	**JLD1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/11/2009 21:55**	**Aliquot:**	**30.04 g**	**Final Volume:**	**1 mL**
Data File:	**s3l1513.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	396	ug/kg	79.1	396
108-95-2	Phenol	U	396	ug/kg	79.1	396
95-57-8	2-Chlorophenol	U	396	ug/kg	79.1	396
106-46-7	1,4-Dichlorobenzene	U	396	ug/kg	79.1	396
621-64-7	N-Nitrosodipropylamine	U	396	ug/kg	79.1	396
59-50-7	4-Chloro-3-methylphenol	U	396	ug/kg	79.1	396
83-32-9	Acenaphthene	U	39.6	ug/kg	13.1	39.6
121-14-2	2,4-Dinitrotoluene	U	396	ug/kg	39.6	396
100-02-7	4-Nitrophenol	U	396	ug/kg	131	396
87-86-5	Pentachlorophenol	U	396	ug/kg	98.9	396
129-00-0	Pyrene	U	39.6	ug/kg	11.9	39.6
110-86-1	Pyridine	U	396	ug/kg	79.1	396
62-53-3	Aniline	U	396	ug/kg	119	396
111-44-4	bis(2-Chloroethyl) ether	U	396	ug/kg	79.1	396
541-73-1	1,3-Dichlorobenzene	U	396	ug/kg	79.1	396
100-51-6	Benzyl alcohol	U	396	ug/kg	119	396
95-50-1	1,2-Dichlorobenzene	U	396	ug/kg	79.1	396
108-60-1	bis(2-Chloroisopropyl)ether	U	396	ug/kg	79.1	396
95-48-7	o-Cresol	U	396	ug/kg	79.1	396
65794-96-9	m,p-Cresols	U	396	ug/kg	119	396
67-72-1	Hexachloroethane	U	396	ug/kg	79.1	396
98-95-3	Nitrobenzene	U	396	ug/kg	79.1	396
78-59-1	Isophorone	U	396	ug/kg	79.1	396
88-75-5	2-Nitrophenol	U	396	ug/kg	79.1	396
105-67-9	2,4-Dimethylphenol	U	396	ug/kg	138	396
111-91-1	bis(2-Chloroethoxy)methane	U	396	ug/kg	79.1	396
120-83-2	2,4-Dichlorophenol	U	396	ug/kg	79.1	396
65-85-0	Benzoic acid	U	791	ug/kg	198	791
91-20-3	Naphthalene	U	39.6	ug/kg	11.9	39.6
106-47-8	4-Chloroaniline	U	396	ug/kg	79.1	396
87-68-3	Hexachlorobutadiene	U	396	ug/kg	79.1	396
91-57-6	2-Methylnaphthalene	U	39.6	ug/kg	7.91	39.6
77-47-4	Hexachlorocyclopentadiene	U	396	ug/kg	79.1	396
88-06-2	2,4,6-Trichlorophenol	U	396	ug/kg	79.1	396
95-95-4	2,4,5-Trichlorophenol	U	396	ug/kg	79.1	396
91-58-7	2-Chloronaphthalene	U	39.6	ug/kg	13.1	39.6
88-74-4	2-Nitroaniline	U	396	ug/kg	79.1	396
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	396	ug/kg	79.1	396

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242654020	**Date Received:**	12/10/2009 08:50	**%Moisture:**	15.8
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14283	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	932077	**Inst:**	MSD3.I	**Dilution:**	1
Run Date:	12/15/2009 13:18	**Analyst:**	JLD1	**Inj. Vol:**	.5 uL
Prep Date:	12/11/2009 21:55	**Aliquot:**	30.04 g	**Final Volume:**	1 mL
Data File:	s3l1513.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	396	ug/kg	79.1	396
606-20-2	2,6-Dinitrotoluene	U	396	ug/kg	39.6	396
208-96-8	Acenaphthylene	U	39.6	ug/kg	11.9	39.6
51-28-5	2,4-Dinitrophenol	U	791	ug/kg	150	791
132-64-9	Dibenzofuran	U	396	ug/kg	79.1	396
84-66-2	Diethylphthalate	U	396	ug/kg	79.1	396
86-73-7	Fluorene	U	39.6	ug/kg	11.9	39.6
7005-72-3	4-Chlorophenylphenylether	U	396	ug/kg	79.1	396
534-52-1	2-Methyl-4,6-dinitrophenol	U	396	ug/kg	79.1	396
100-01-6	4-Nitroaniline	U	396	ug/kg	119	396
	p-Nitroaniline					
122-39-4	Diphenylamine	U	396	ug/kg	79.1	396
122-66-7	Azobenzene	U	396	ug/kg	79.1	396
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	396	ug/kg	79.1	396
118-74-1	Hexachlorobenzene	U	396	ug/kg	79.1	396
85-01-8	Phenanthrene	U	39.6	ug/kg	11.9	39.6
120-12-7	Anthracene	U	39.6	ug/kg	7.91	39.6
84-74-2	Di-n-butylphthalate	U	396	ug/kg	79.1	396
206-44-0	Fluoranthene	U	39.6	ug/kg	11.9	39.6
85-68-7	Butylbenzylphthalate	U	396	ug/kg	79.1	396
56-55-3	Benzo(a)anthracene	U	39.6	ug/kg	11.9	39.6
91-94-1	3,3'-Dichlorobenzidine	U	396	ug/kg	119	396
218-01-9	Chrysene	U	39.6	ug/kg	11.9	39.6
117-81-7	bis(2-Ethylhexyl)phthalate	U	396	ug/kg	79.1	396
117-84-0	Di-n-octylphthalate	U	396	ug/kg	79.1	396
205-99-2	Benzo(b)fluoranthene	U	39.6	ug/kg	11.9	39.6
207-08-9	Benzo(k)fluoranthene	U	39.6	ug/kg	11.9	39.6
50-32-8	Benzo(a)pyrene	U	39.6	ug/kg	11.9	39.6
193-39-5	Indeno(1,2,3-cd)pyrene	U	39.6	ug/kg	11.9	39.6
53-70-3	Dibenzo(a,h)anthracene	U	39.6	ug/kg	11.9	39.6
191-24-2	Benzo(ghi)perylene	U	39.6	ug/kg	11.9	39.6
120-82-1	1,2,4-Trichlorobenzene	U	396	ug/kg	79.1	396

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.92	373	ug/kg		JA

GEL Laboratories LLC

Data file : /chem/MSD3.i/s121509.b/s311513.d
Lab Smp Id: 242654020 Client Smp ID: RE03-09-14283
Inj Date : 15-DEC-2009 13:18
Operator : JLD1 Inst ID: MSD3.i
Smp Info : |242654020|932077|1|SVMF|1|LANL
Misc Info : |MSD8270_S|WBN091208-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD3.i/s121509.b/MSD3-8270R-AQA-120809.m
Meth Date : 15-Dec-2009 10:20 jen00986 Quant Type: ISTD
Cal Date : 07-DEC-2009 19:48 Cal File: s310717.d
Als bottle: 13
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-852.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.04000	weight of sample
M	15.84580	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	4.256	4.256	(1.000)	134165	40.0000	
* 29 Naphthalene-d8	136	5.507	5.508	(1.000)	497804	40.0000	
* 46 Acenaphthene-d10	164	7.352	7.356	(1.000)	278299	40.0000	
* 67 Phenanthrene-d10	188	8.946	8.946	(1.000)	461589	40.0000	
* 91 Chrysene-d12	240	11.799	11.804	(1.000)	272907	40.0000	
* 98 Perylene-d12	264	13.763	13.769	(1.000)	155552	40.0000	
$ 3 2-Fluorophenol	112	3.160	3.143	(0.743)	260581	74.2546	2940
$ 5 Phenol-d5	99	3.919	3.916	(0.921)	314362	70.3129	2780
$ 20 Nitrobenzene-d5	82	4.786	4.793	(0.869)	138950	38.1913	1510
$ 39 2-Fluorobiphenyl	172	6.632	6.632	(0.902)	274040	42.0098	1660
$ 60 2,4,6-Tribromophenol	329	8.199	8.198	(1.115)	71370	93.3879	3690
$ 81 p-Terphenyl-d14	244	10.651	10.649	(0.903)	250505	57.1519	2260

ION RATIO REPORT

SV REPORT

Data file: s311513.d
Report Date: 12/15/2009 14:02
Lab. ID: 242654020 SampleType: SAMPLE
Injection Date: 15-DEC-2009 13:18
Operator: JLD1 Instrument: MSD3.i
Sample Info: |242654020|932077|1|SVMF|1|LANL
Miscellaneous Info: |MSD8270_S|WBN091208-01|
Comment:
Method used: /chem/MSD3.i/s121509.b/MSD3-8270R-AQA-120809.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-852
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
17 N-Nitrosodipropylamine				CAS#: 621-64-7		
70	19539	4.79	4.63	80-120	100	(T)
42	9424	4.79	4.63	23- 83	48	(T)
44 2,6-Dinitrotoluene				CAS#: 606-20-2		
165	36301	7.35	7.14	80-120	100	(T)
63	402	7.35	7.14	29- 89	1	(QT)
50 2,4-Dinitrotoluene				CAS#: 121-14-2		
165	36301	7.35	7.57	80-120	100	(T)
89	436	7.35	7.57	53-113	1	(QT)
63	402	7.35	7.57	36- 96	1	(QT)
55 2-Methyl-4,6-dinitrophenol				CAS#: 534-52-1		
198	147	8.20	8.00	80-120	100	(T)
105	367	8.20	8.00	14- 74	250	(QT)
51	301	8.20	8.00	20- 80	205	(QT)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

Data file : /chem/MSD3.i/s121509.b/s311513.d
Lab Smp Id: 242654020 Client Smp ID: RE03-09-14283
Inj Date : 15-DEC-2009 13:18
Operator : JLD1 Inst ID: MSD3.i
Smp Info : |242654020|932077|1|SVMF|1|LANL
Misc Info : |MSD8270_S|WBN091208-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD3.i/s121509.b/MSD3-8270R-AQA-120809.m
Meth Date : 15-Dec-2009 10:20 jen00986 Quant Type: ISTD
Cal Date : 07-DEC-2009 19:48 Cal File: s310717.d
Als bottle: 13
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-852.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.04000	weight of sample
M	15.84580	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	4.256	790103	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown Aldol Condensate					CAS #:		
2.917	186404	9.43691701	373	0		0	10

Data File: /chem/MSD3.i/s121509.b/s311513.d

Date : 15-DEC-2009 13:18

Client ID: RE03-09-14283

Sample Info: 1242654020193207711SVMF11LANL

Volume Injected (uL): 0.5

Column phase: J&W DB-5MS

Instrument: MSD3.i

Operator: JLD1

Column diameter: 0.20

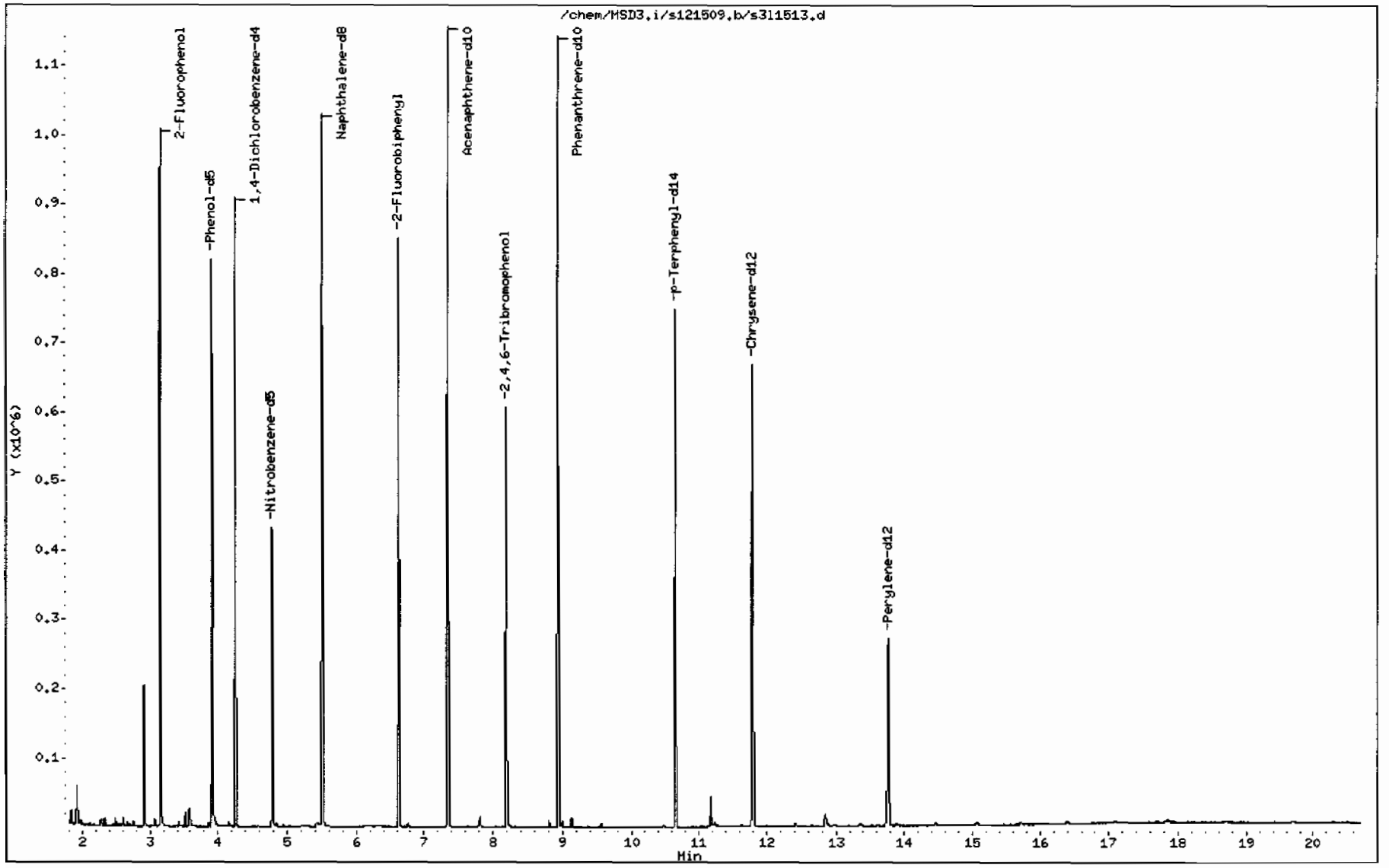

Data File: /chem/MSD3.i/s121509.b/s311513.d

Date : 15-DEC-2009 13:18

Client ID: RE03-09-14283

Instrument: MSD3.i

Sample Info: |2426540201932077|1|SVMF|1|LANL

Volume Injected (uL): 0.5

Operator: JLD1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7945	64	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	56	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	50	C6H12O2	116

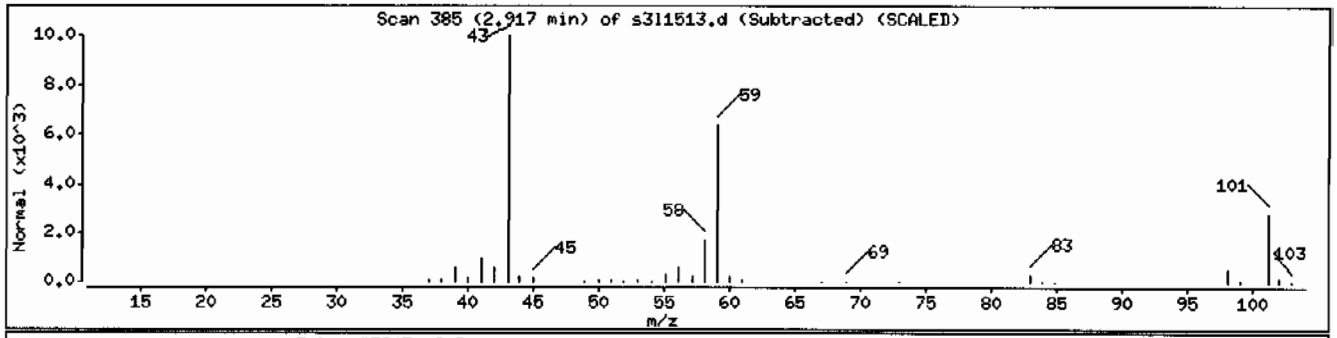

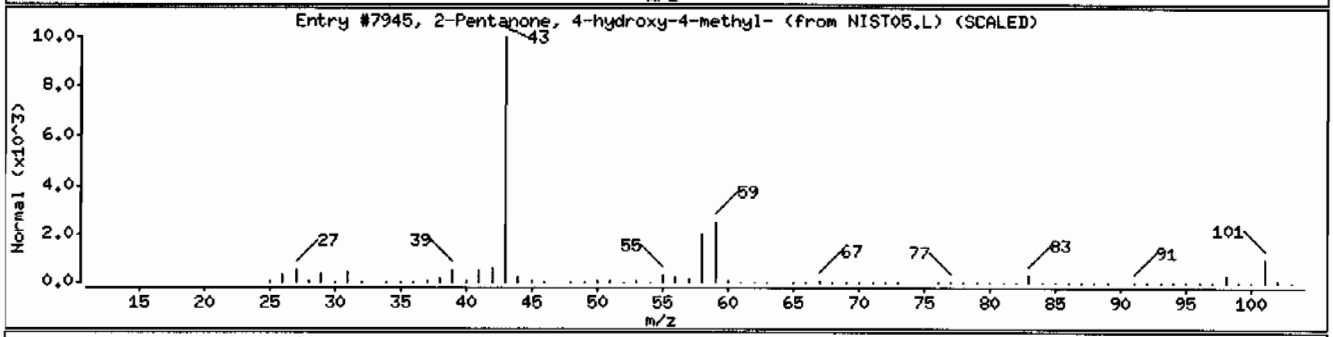

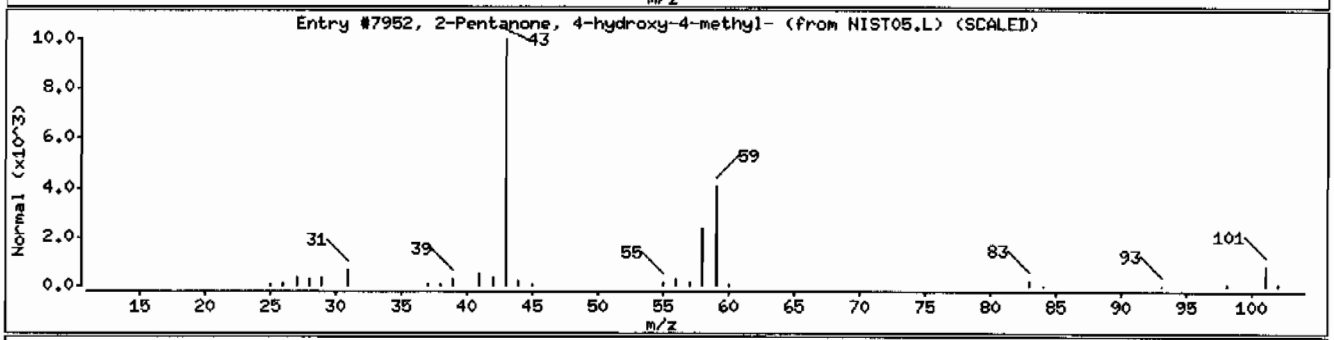

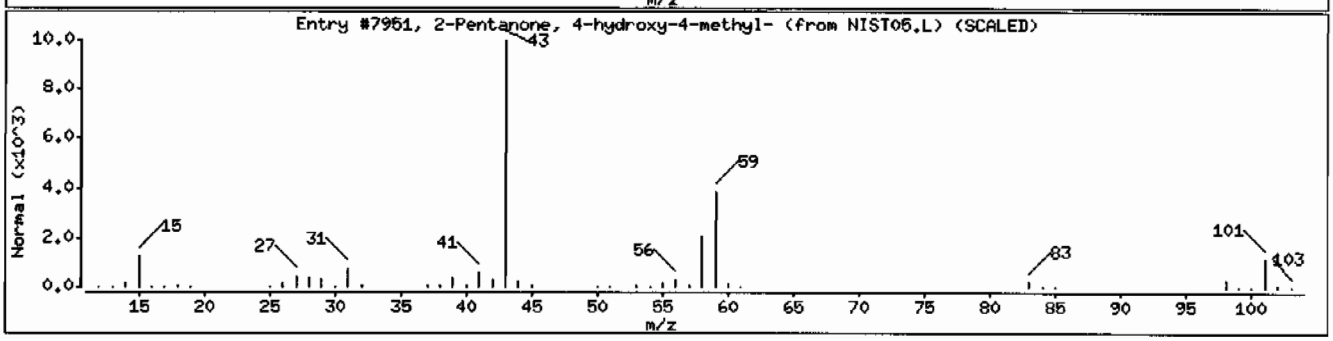

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-852**	**Date Collected:**	**12/07/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242654010**	**Date Received:**	**12/10/2009 08:50**	**%Moisture:**	**13.2**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14284**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**932077**	**Inst:**	**MSD3.I**	**Dilution:**	**1**
Run Date:	**12/14/2009 20:22**	**Analyst:**	**JLD1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/11/2009 21:55**	**Aliquot:**	**30.02 g**	**Final Volume:**	**1 mL**
Data File:	**s3l1426.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	384	ug/kg	76.7	384
108-95-2	Phenol	U	384	ug/kg	76.7	384
95-57-8	2-Chlorophenol	U	384	ug/kg	76.7	384
106-46-7	1,4-Dichlorobenzene	U	384	ug/kg	76.7	384
621-64-7	N-Nitrosodipropylamine	U	384	ug/kg	76.7	384
59-50-7	4-Chloro-3-methylphenol	U	384	ug/kg	76.7	384
83-32-9	Acenaphthene	U	38.4	ug/kg	12.7	38.4
121-14-2	2,4-Dinitrotoluene	U	384	ug/kg	38.4	384
100-02-7	4-Nitrophenol	U	384	ug/kg	127	384
87-86-5	Pentachlorophenol	U	384	ug/kg	95.9	384
129-00-0	Pyrene	U	38.4	ug/kg	11.5	38.4
110-86-1	Pyridine	U	384	ug/kg	76.7	384
62-53-3	Aniline	U	384	ug/kg	115	384
111-44-4	bis(2-Chloroethyl) ether	U	384	ug/kg	76.7	384
541-73-1	1,3-Dichlorobenzene	U	384	ug/kg	76.7	384
100-51-6	Benzyl alcohol	U	384	ug/kg	115	384
95-50-1	1,2-Dichlorobenzene	U	384	ug/kg	76.7	384
108-60-1	bis(2-Chloroisopropyl)ether	U	384	ug/kg	76.7	384
95-48-7	o-Cresol	U	384	ug/kg	76.7	384
65794-96-9	m,p-Cresols	U	384	ug/kg	115	384
67-72-1	Hexachloroethane	U	384	ug/kg	76.7	384
98-95-3	Nitrobenzene	U	384	ug/kg	76.7	384
78-59-1	Isophorone	U	384	ug/kg	76.7	384
88-75-5	2-Nitrophenol	U	384	ug/kg	76.7	384
105-67-9	2,4-Dimethylphenol	U	384	ug/kg	134	384
111-91-1	bis(2-Chloroethoxy)methane	U	384	ug/kg	76.7	384
120-83-2	2,4-Dichlorophenol	U	384	ug/kg	76.7	384
65-85-0	Benzoic acid	U	767	ug/kg	192	767
91-20-3	Naphthalene	U	38.4	ug/kg	11.5	38.4
106-47-8	4-Chloroaniline	U	384	ug/kg	76.7	384
87-68-3	Hexachlorobutadiene	U	384	ug/kg	76.7	384
91-57-6	2-Methylnaphthalene	U	38.4	ug/kg	7.67	38.4
77-47-4	Hexachlorocyclopentadiene	U	384	ug/kg	76.7	384
88-06-2	2,4,6-Trichlorophenol	U	384	ug/kg	76.7	384
95-95-4	2,4,5-Trichlorophenol	U	384	ug/kg	76.7	384
91-58-7	2-Chloronaphthalene	U	38.4	ug/kg	12.7	38.4
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	384	ug/kg	76.7	384
99-09-2	3-Nitroaniline	U	384	ug/kg	76.7	384

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242654010	**Date Received:**	12/10/2009 08:50	**%Moisture:**	13.2
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14284	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	932077	**Inst:**	MSD3.I	**Dilution:**	1
Run Date:	12/14/2009 20:22	**Analyst:**	JLD1	**Inj. Vol:**	.5 uL
Prep Date:	12/11/2009 21:55	**Aliquot:**	30.02 g	**Final Volume:**	1 mL
Data File:	s311426.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	384	ug/kg	76.7	384
606-20-2	2,6-Dinitrotoluene	U	384	ug/kg	38.4	384
208-96-8	Acenaphthylene	U	38.4	ug/kg	11.5	38.4
51-28-5	2,4-Dinitrophenol	U	767	ug/kg	146	767
132-64-9	Dibenzofuran	U	384	ug/kg	76.7	384
84-66-2	Diethylphthalate	U	384	ug/kg	76.7	384
86-73-7	Fluorene	U	38.4	ug/kg	11.5	38.4
7005-72-3	4-Chlorophenylphenylether	U	384	ug/kg	76.7	384
534-52-1	2-Methyl-4,6-dinitrophenol	U	384	ug/kg	76.7	384
100-01-6	4-Nitroaniline	U	384	ug/kg	115	384
	p-Nitroaniline					
122-39-4	Diphenylamine	U	384	ug/kg	76.7	384
122-66-7	Azobenzene	U	384	ug/kg	76.7	384
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	384	ug/kg	76.7	384
118-74-1	Hexachlorobenzene	U	384	ug/kg	76.7	384
85-01-8	Phenanthrene	U	38.4	ug/kg	11.5	38.4
120-12-7	Anthracene	U	38.4	ug/kg	7.67	38.4
84-74-2	Di-n-butylphthalate	U	384	ug/kg	76.7	384
206-44-0	Fluoranthene	U	38.4	ug/kg	11.5	38.4
85-68-7	Butylbenzylphthalate	U	384	ug/kg	76.7	384
56-55-3	Benzo(a)anthracene	U	38.4	ug/kg	11.5	38.4
91-94-1	3,3'-Dichlorobenzidine	U	384	ug/kg	115	384
218-01-9	Chrysene	U	38.4	ug/kg	11.5	38.4
117-81-7	bis(2-Ethylhexyl)phthalate	U	384	ug/kg	76.7	384
117-84-0	Di-n-octylphthalate	U	384	ug/kg	76.7	384
205-99-2	Benzo(b)fluoranthene	U	38.4	ug/kg	11.5	38.4
207-08-9	Benzo(k)fluoranthene	U	38.4	ug/kg	11.5	38.4
50-32-8	Benzo(a)pyrene	U	38.4	ug/kg	11.5	38.4
193-39-5	Indeno(1,2,3-cd)pyrene	U	38.4	ug/kg	11.5	38.4
53-70-3	Dibenzo(a,h)anthracene	U	38.4	ug/kg	11.5	38.4
191-24-2	Benzo(ghi)perylene	U	38.4	ug/kg	11.5	38.4
120-82-1	1,2,4-Trichlorobenzene	U	384	ug/kg	76.7	384

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.93	305	ug/kg		JA

GEL Laboratories LLC

Data file : /chem/MSD3.i/s121409.b/s311426.d
Lab Smp Id: 242654010 Client Smp ID: RE03-09-14284
Inj Date : 14-DEC-2009 20:22
Operator : JLD1 Inst ID: MSD3.i
Smp Info : |242654010|932077|1|SVMF|1|LANL
Misc Info : |MSD8270_S|WBN091208-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD3.i/s121409.b/MSD3-8270R-AQA-120809.m
Meth Date : 14-Dec-2009 17:00 jen00986 Quant Type: ISTD
Cal Date : 07-DEC-2009 19:48 Cal File: s310717.d
Als bottle: 24
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-852.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.02000	weight of sample
M	13.18970	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	4.271	4.271	(1.000)	139647	40.0000	
* 29 Naphthalene-d8	136	5.519	5.523	(1.000)	521569	40.0000	
* 46 Acenaphthene-d10	164	7.364	7.371	(1.000)	290306	40.0000	
* 67 Phenanthrene-d10	188	8.957	8.958	(1.000)	484312	40.0000	
* 91 Chrysene-d12	240	11.814	11.817	(1.000)	343153	40.0000	
* 98 Perylene-d12	264	13.786	13.787	(1.000)	218456	40.0000	
$ 3 2-Fluorophenol	112	3.172	3.157	(0.743)	273016	74.7440	2870
$ 5 Phenol-d5	99	3.931	3.931	(0.920)	335474	72.0894	2770
$ 20 Nitrobenzene-d5	82	4.801	4.808	(0.870)	145326	38.1237	1460
$ 39 2-Fluorobiphenyl	172	6.643	6.647	(0.902)	290816	42.7377	1640
$ 60 2,4,6-Tribromophenol	329	8.210	8.213	(1.115)	77702	97.4682	3740
$ 81 p-Terphenyl-d14	244	10.665	10.662	(0.903)	295873	53.6842	2060

ION RATIO REPORT

SV REPORT

Data file: s311426.d
Report Date: 12/14/2009 21:15
Lab. ID: 242654010 SampleType: SAMPLE
Injection Date: 14-DEC-2009 20:22
Operator: JLD1 Instrument: MSD3.i
Sample Info: |242654010|932077|1|SVMF|1|LANL
Miscellaneous Info: |MSD8270_S|WBN091208-01|
Comment:
Method used: /chem/MSD3.i/s121409.b/MSD3-8270R-AQA-120809.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-852
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
17 N-Nitrosodipropylamine				CAS#: 621-64-7		
70	20666	4.80	4.65	80-120	100	(T)
42	9797	4.80	4.65	22- 82	47	(T)
27 Benzoic acid				CAS#: 65-85-0		
105	548	5.52	5.31	80-120	100	(T)
122	102	5.52	5.31	42-102	19	(QT)
77	1740	5.52	5.31	42-102	317	(QT)
44 2,6-Dinitrotoluene				CAS#: 606-20-2		
165	37401	7.36	7.16	80-120	100	(T)
63	499	7.36	7.16	28- 88	1	(QT)
50 2,4-Dinitrotoluene				CAS#: 121-14-2		
165	37401	7.36	7.58	80-120	100	(T)
89	460	7.36	7.58	52-112	1	(QT)
63	499	7.36	7.58	36- 96	1	(QT)
55 2-Methyl-4,6-dinitrophenol				CAS#: 534-52-1		
198	144	8.21	8.02	80-120	100	(T)
105	450	8.21	8.02	14- 74	311	(QT)
51	398	8.21	8.02	18- 78	276	(QT)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

Data file : /chem/MSD3.i/s121409.b/s311426.d
Lab Smp Id: 242654010 Client Smp ID: RE03-09-14284
Inj Date : 14-DEC-2009 20:22
Operator : JLD1 Inst ID: MSD3.i
Smp Info : |242654010|932077|1|SVMF|1|LANL
Misc Info : |MSD8270_S|WBN091208-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD3.i/s121409.b/MSD3-8270R-AQA-120809.m
Meth Date : 14-Dec-2009 17:00 jen00986 Quant Type: ISTD
Cal Date : 07-DEC-2009 19:48 Cal File: s310717.d
Als bottle: 24
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-852.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.02000	weight of sample
M	13.18970	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	4.271	824791	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown Aldol Condensate					CAS #:		
2.926	164069	7.95686658	305	0		0	10

Data File: /chem/MSD3.i/s121409.b/s311426.d

Date : 14-DEC-2009 20:22

Client ID: RE03-09-14284

Sample Info: |2426540101932077|1|SVMF|1|LANL

Volume Injected (uL): 0.5

Column phase: J&W DB-5MS

Instrument: MSD3.i

Operator: JLD1

Column diameter: 0.20

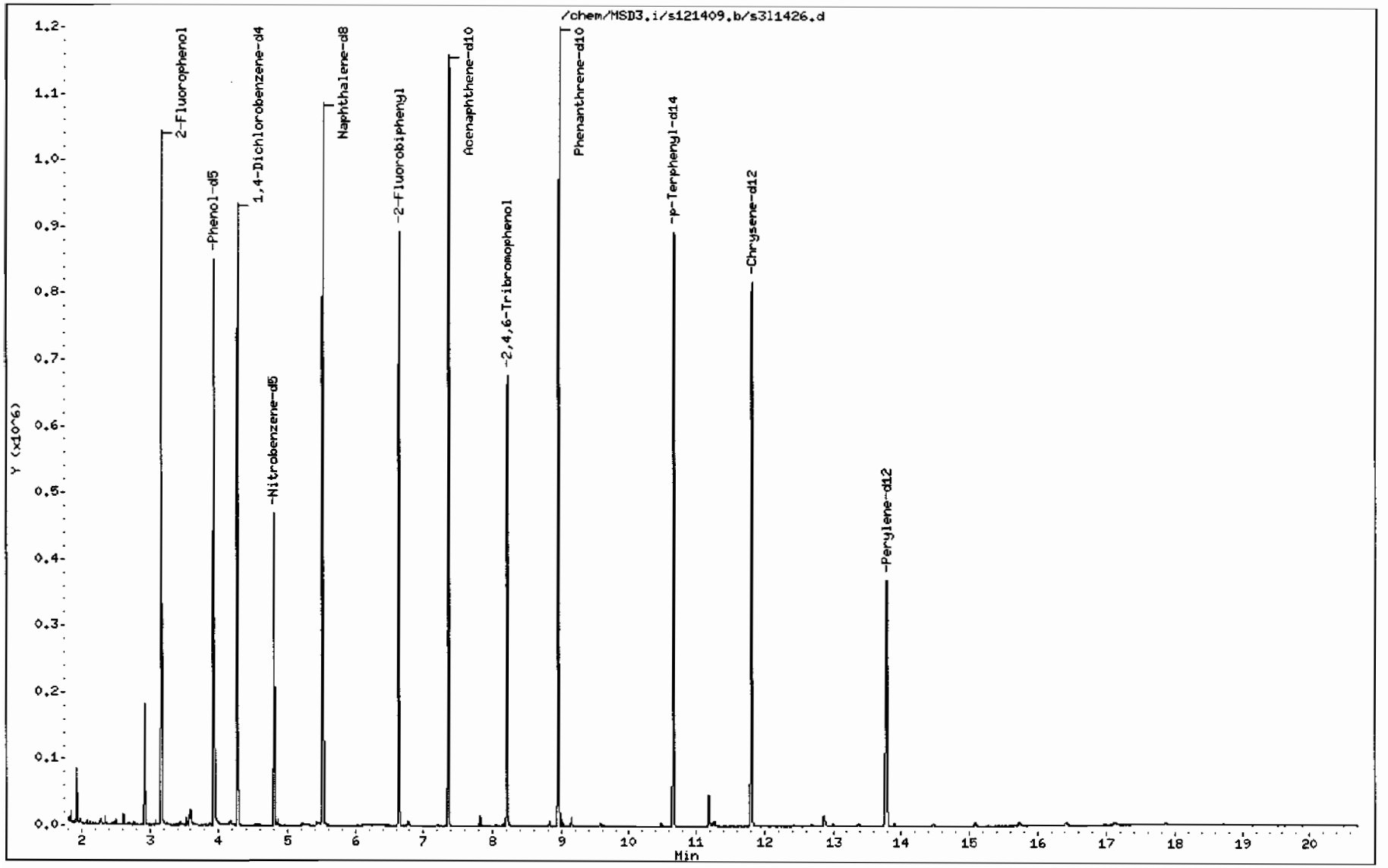

Data File: /chem/MSD3.i/s121409.b/s311426.d

Date : 14-DEC-2009 20:22

Client ID: RE03-09-14284

Instrument: MSD3.i

Sample Info: 1242654010193207711ISVMF11LANL

Volume Injected (uL): 0.5

Operator: JLD1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7945	64	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	56	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	50	C6H12O2	116

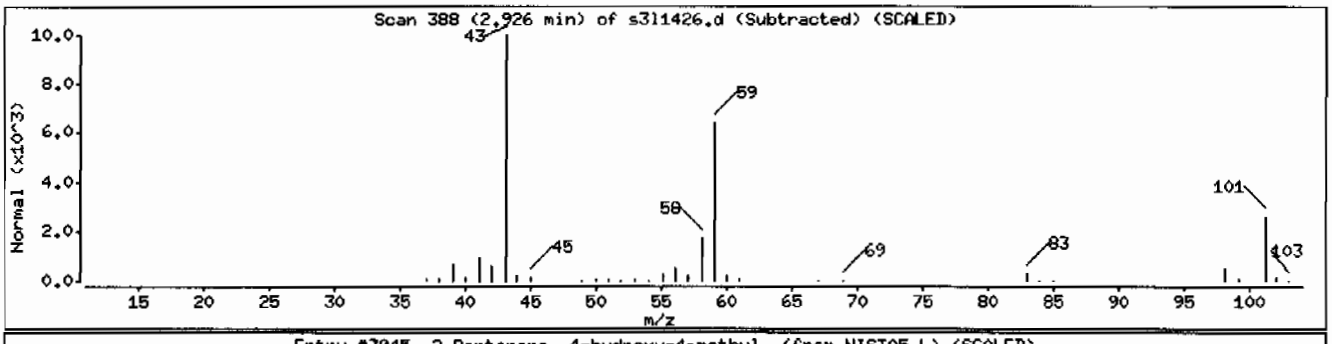

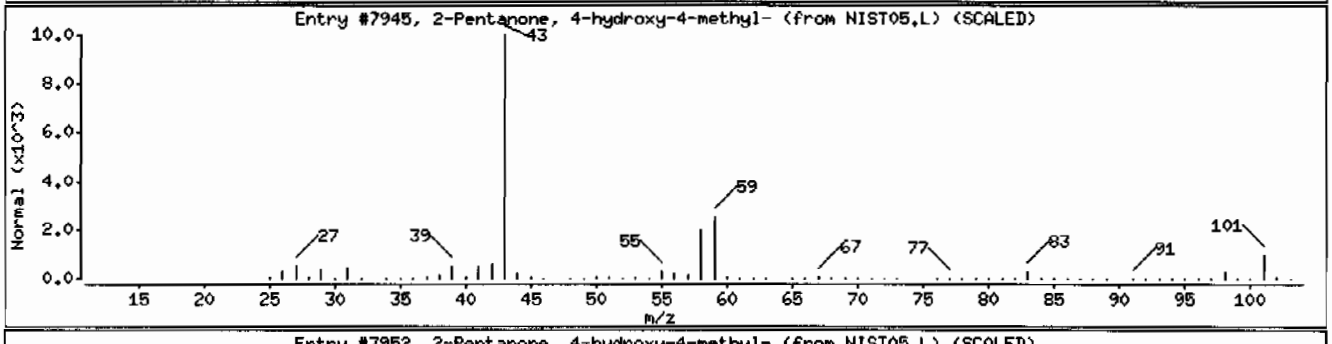

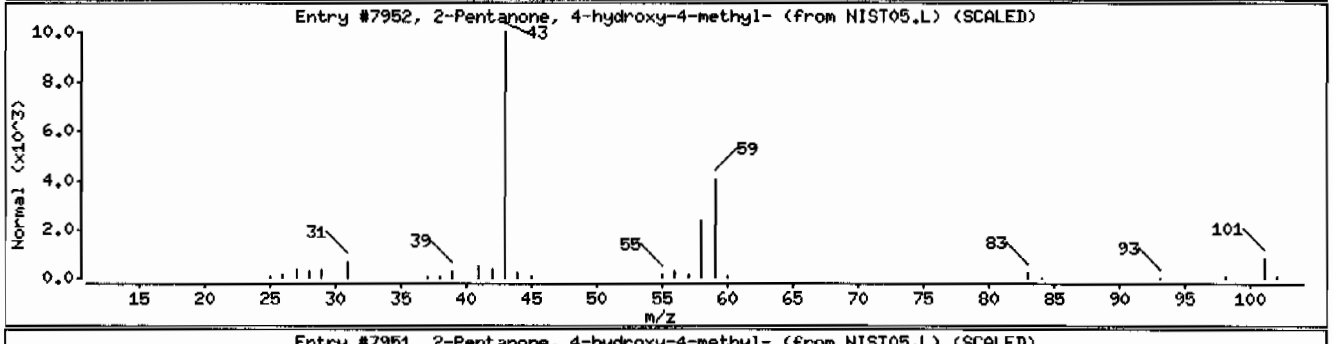

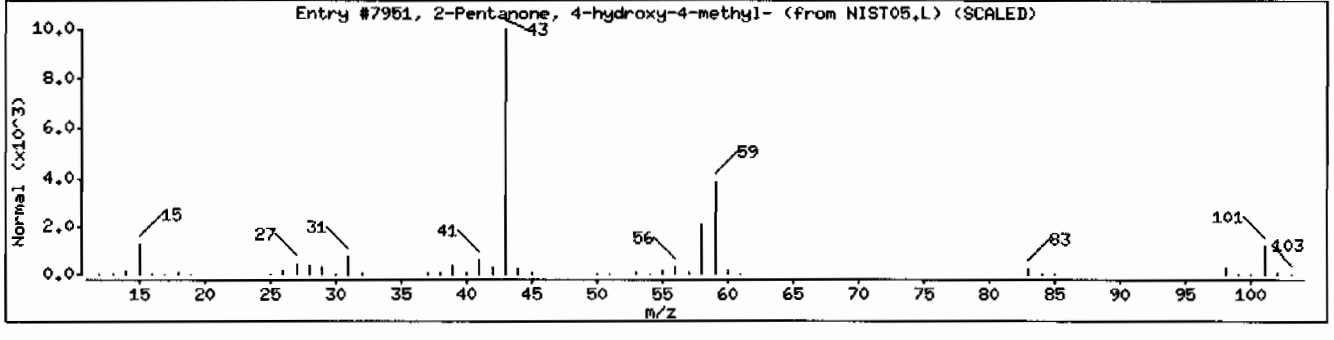

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-852**	**Date Collected:**	**12/07/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242654018**	**Date Received:**	**12/10/2009 08:50**	**%Moisture:**	**14.2**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14285**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**932077**	**Inst:**	**MSD3.I**	**Dilution:**	**1**
Run Date:	**12/15/2009 12:23**	**Analyst:**	**JLD1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/11/2009 21:55**	**Aliquot:**	**30.02 g**	**Final Volume:**	**1 mL**
Data File:	**s3l1511.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	388	ug/kg	77.6	388
108-95-2	Phenol	U	388	ug/kg	77.6	388
95-57-8	2-Chlorophenol	U	388	ug/kg	77.6	388
106-46-7	1,4-Dichlorobenzene	U	388	ug/kg	77.6	388
621-64-7	N-Nitrosodipropylamine	U	388	ug/kg	77.6	388
59-50-7	4-Chloro-3-methylphenol	U	388	ug/kg	77.6	388
83-32-9	Acenaphthene	U	38.8	ug/kg	12.8	38.8
121-14-2	2,4-Dinitrotoluene	U	388	ug/kg	38.8	388
100-02-7	4-Nitrophenol	U	388	ug/kg	128	388
87-86-5	Pentachlorophenol	U	388	ug/kg	97.0	388
129-00-0	Pyrene	U	38.8	ug/kg	11.6	38.8
110-86-1	Pyridine	U	388	ug/kg	77.6	388
62-53-3	Aniline	U	388	ug/kg	116	388
111-44-4	bis(2-Chloroethyl) ether	U	388	ug/kg	77.6	388
541-73-1	1,3-Dichlorobenzene	U	388	ug/kg	77.6	388
100-51-6	Benzyl alcohol	U	388	ug/kg	116	388
95-50-1	1,2-Dichlorobenzene	U	388	ug/kg	77.6	388
108-60-1	bis(2-Chloroisopropyl)ether	U	388	ug/kg	77.6	388
95-48-7	o-Cresol	U	388	ug/kg	77.6	388
65794-96-9	m,p-Cresols	U	388	ug/kg	116	388
67-72-1	Hexachloroethane	U	388	ug/kg	77.6	388
98-95-3	Nitrobenzene	U	388	ug/kg	77.6	388
78-59-1	Isophorone	U	388	ug/kg	77.6	388
88-75-5	2-Nitrophenol	U	388	ug/kg	77.6	388
105-67-9	2,4-Dimethylphenol	U	388	ug/kg	136	388
111-91-1	bis(2-Chloroethoxy)methane	U	388	ug/kg	77.6	388
120-83-2	2,4-Dichlorophenol	U	388	ug/kg	77.6	388
65-85-0	Benzoic acid	U	776	ug/kg	194	776
91-20-3	Naphthalene	U	38.8	ug/kg	11.6	38.8
106-47-8	4-Chloroaniline	U	388	ug/kg	77.6	388
87-68-3	Hexachlorobutadiene	U	388	ug/kg	77.6	388
91-57-6	2-Methylnaphthalene	U	38.8	ug/kg	7.76	38.8
77-47-4	Hexachlorocyclopentadiene	U	388	ug/kg	77.6	388
88-06-2	2,4,6-Trichlorophenol	U	388	ug/kg	77.6	388
95-95-4	2,4,5-Trichlorophenol	U	388	ug/kg	77.6	388
91-58-7	2-Chloronaphthalene	U	38.8	ug/kg	12.8	38.8
88-74-4	2-Nitroaniline	U	388	ug/kg	77.6	388
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	388	ug/kg	77.6	388

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242654018	**Date Received:**	12/10/2009 08:50	**%Moisture:**	14.2
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14285	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	932077	**Inst:**	MSD3.I	**Dilution:**	1
Run Date:	12/15/2009 12:23	**Analyst:**	JLD1	**Inj. Vol:**	.5 uL
Prep Date:	12/11/2009 21:55	**Aliquot:**	30.02 g	**Final Volume:**	1 mL
Data File:	s3l1511.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	388	ug/kg	77.6	388
606-20-2	2,6-Dinitrotoluene	U	388	ug/kg	38.8	388
208-96-8	Acenaphthylene	U	38.8	ug/kg	11.6	38.8
51-28-5	2,4-Dinitrophenol	U	776	ug/kg	147	776
132-64-9	Dibenzofuran	U	388	ug/kg	77.6	388
84-66-2	Diethylphthalate	U	388	ug/kg	77.6	388
86-73-7	Fluorene	U	38.8	ug/kg	11.6	38.8
7005-72-3	4-Chlorophenylphenylether	U	388	ug/kg	77.6	388
534-52-1	2-Methyl-4,6-dinitrophenol	U	388	ug/kg	77.6	388
100-01-6	4-Nitroaniline	U	388	ug/kg	116	388
	p-Nitroaniline					
122-39-4	Diphenylamine	U	388	ug/kg	77.6	388
122-66-7	Azobenzene	U	388	ug/kg	77.6	388
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	388	ug/kg	77.6	388
118-74-1	Hexachlorobenzene	U	388	ug/kg	77.6	388
85-01-8	Phenanthrene	U	38.8	ug/kg	11.6	38.8
120-12-7	Anthracene	U	38.8	ug/kg	7.76	38.8
84-74-2	Di-n-butylphthalate	U	388	ug/kg	77.6	388
206-44-0	Fluoranthene	U	38.8	ug/kg	11.6	38.8
85-68-7	Butylbenzylphthalate	U	388	ug/kg	77.6	388
56-55-3	Benzo(a)anthracene	U	38.8	ug/kg	11.6	38.8
91-94-1	3,3'-Dichlorobenzidine	U	388	ug/kg	116	388
218-01-9	Chrysene	U	38.8	ug/kg	11.6	38.8
117-81-7	bis(2-Ethylhexyl)phthalate	U	388	ug/kg	77.6	388
117-84-0	Di-n-octylphthalate	U	388	ug/kg	77.6	388
205-99-2	Benzo(b)fluoranthene	U	38.8	ug/kg	11.6	38.8
207-08-9	Benzo(k)fluoranthene	U	38.8	ug/kg	11.6	38.8
50-32-8	Benzo(a)pyrene	U	38.8	ug/kg	11.6	38.8
193-39-5	Indeno(1,2,3-cd)pyrene	U	38.8	ug/kg	11.6	38.8
53-70-3	Dibenzo(a,h)anthracene	U	38.8	ug/kg	11.6	38.8
191-24-2	Benzo(ghi)perylene	U	38.8	ug/kg	11.6	38.8
120-82-1	1,2,4-Trichlorobenzene	U	388	ug/kg	77.6	388

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.91	324	ug/kg		JA
	Unknown	15.68	634	ug/kg		J

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	Date Collected:	12/07/2009 12:00	Matrix:	S
Lab Sample ID:	242654018	Date Received:	12/10/2009 08:50	%Moisture:	14.2
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14285	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	932077	Inst:	MSD3.I	Dilution:	1
Run Date:	12/15/2009 12:23	Analyst:	JLD1	Inj. Vol:	.5 uL
Prep Date:	12/11/2009 21:55	Aliquot:	30.02 g	Final Volume:	1 mL
Data File:	s3l1511.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	16.02	175	ug/kg		J

GEL Laboratories LLC

Data file : /chem/MSD3.i/s121509.b/s311511.d
Lab Smp Id: 242654018 Client Smp ID: RE03-09-14285
Inj Date : 15-DEC-2009 12:23
Operator : JLD1 Inst ID: MSD3.i
Smp Info : |242654018|932077|1|SVMF|1|LANL
Misc Info : |MSD8270_S|WBN091208-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD3.i/s121509.b/MSD3-8270R-AQA-120809.m
Meth Date : 15-Dec-2009 10:20 jen00986 Quant Type: ISTD
Cal Date : 07-DEC-2009 19:48 Cal File: s310717.d
Als bottle: 11
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-852.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.02000	weight of sample
M	14.17370	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	4.256	4.256	(1.000)	112516	40.0000	
* 29 Naphthalene-d8	136	5.507	5.508	(1.000)	418948	40.0000	
* 46 Acenaphthene-d10	164	7.352	7.356	(1.000)	230123	40.0000	
* 67 Phenanthrene-d10	188	8.946	8.946	(1.000)	366088	40.0000	
* 91 Chrysene-d12	240	11.797	11.804	(1.000)	193237	40.0000	
* 98 Perylene-d12	264	13.760	13.769	(1.000)	109733	40.0000	
$ 3 2-Fluorophenol	112	3.160	3.143	(0.743)	255214	86.7182	3360
$ 5 Phenol-d5	99	3.919	3.916	(0.921)	308497	82.2774	3190
$ 20 Nitrobenzene-d5	82	4.786	4.793	(0.869)	135926	44.3922	1720
$ 39 2-Fluorobiphenyl	172	6.632	6.632	(0.902)	268175	49.7172	1930
$ 60 2,4,6-Tribromophenol	329	8.199	8.198	(1.115)	68497	108.392	4210(R)
$ 81 p-Terphenyl-d14	244	10.651	10.649	(0.903)	211151	68.0349	2640(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

ION RATIO REPORT

SV REPORT

Data file: s311511.d
Report Date: 12/15/2009 14:02
Lab. ID: 242654018 SampleType: SAMPLE
Injection Date: 15-DEC-2009 12:23
Operator: JLD1 Instrument: MSD3.i
Sample Info: |242654018|932077|1|SVMF|1|LANL
Miscellaneous Info: |MSD8270_S|WBN091208-01|
Comment:
Method used: /chem/MSD3.i/s121509.b/MSD3-8270R-AQA-120809.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-852
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
4 Aniline			CAS#: 62-53-3			
66	13953	3.92	3.97	80-120	100	( )
93	374	3.93	3.97	220-280	3	(Q)
17 N-Nitrosodipropylamine				CAS#: 621-64-7		
70	19295	4.79	4.63	80-120	100	(T)
42	9324	4.79	4.63	23- 83	48	(T)
44 2,6-Dinitrotoluene				CAS#: 606-20-2		
165	29872	7.35	7.14	80-120	100	(T)
63	325	7.35	7.14	29- 89	1	(QT)
50 2,4-Dinitrotoluene				CAS#: 121-14-2		
165	29872	7.35	7.57	80-120	100	(T)
89	387	7.35	7.57	53-113	1	(QT)
63	325	7.35	7.57	36- 96	1	(QT)
55 2-Methyl-4,6-dinitrophenol				CAS#: 534-52-1		
198	142	8.20	8.00	80-120	100	(T)
105	410	8.20	8.00	14- 74	288	(QT)
51	287	8.20	8.00	20- 80	202	(QT)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

Data file : /chem/MSD3.i/s121509.b/s311511.d
Lab Smp Id: 242654018 Client Smp ID: RE03-09-14285
Inj Date : 15-DEC-2009 12:23
Operator : JLD1 Inst ID: MSD3.i
Smp Info : |242654018|932077|1|SVMF|1|LANL
Misc Info : |MSD8270_S|WBN091208-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD3.i/s121509.b/MSD3-8270R-AQA-120809.m
Meth Date : 15-Dec-2009 10:20 jen00986 Quant Type: ISTD
Cal Date : 07-DEC-2009 19:48 Cal File: s310717.d
Als bottle: 11
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-852.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.02000	weight of sample
M	14.17370	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	4.256	665626	40.000
* 98 Perylene-d12	13.760	306197	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown Aldol Condensate					CAS #:		
2.914	139122	8.36034936	324	0		0	10

RT	AREA	CONCENTRATIONS ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	QUANT LIBRARY	LIB ENTRY	CPND #
Unknown				CAS #:			
15.679	125033	16.3336351	634	0		0	98
Unknown				CAS #:			
16.017	34601	4.52004490	175	0		0	98

Data File: /chem/MSD3.i/s121509.b/s311511.d
Date : 15-DEC-2009 12:23
Client ID: RE03-09-14285
Sample Info: 1242654018|932077|1|SVMF|1|LANL
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD3.i

Operator: JLD1
Column diameter: 0.20

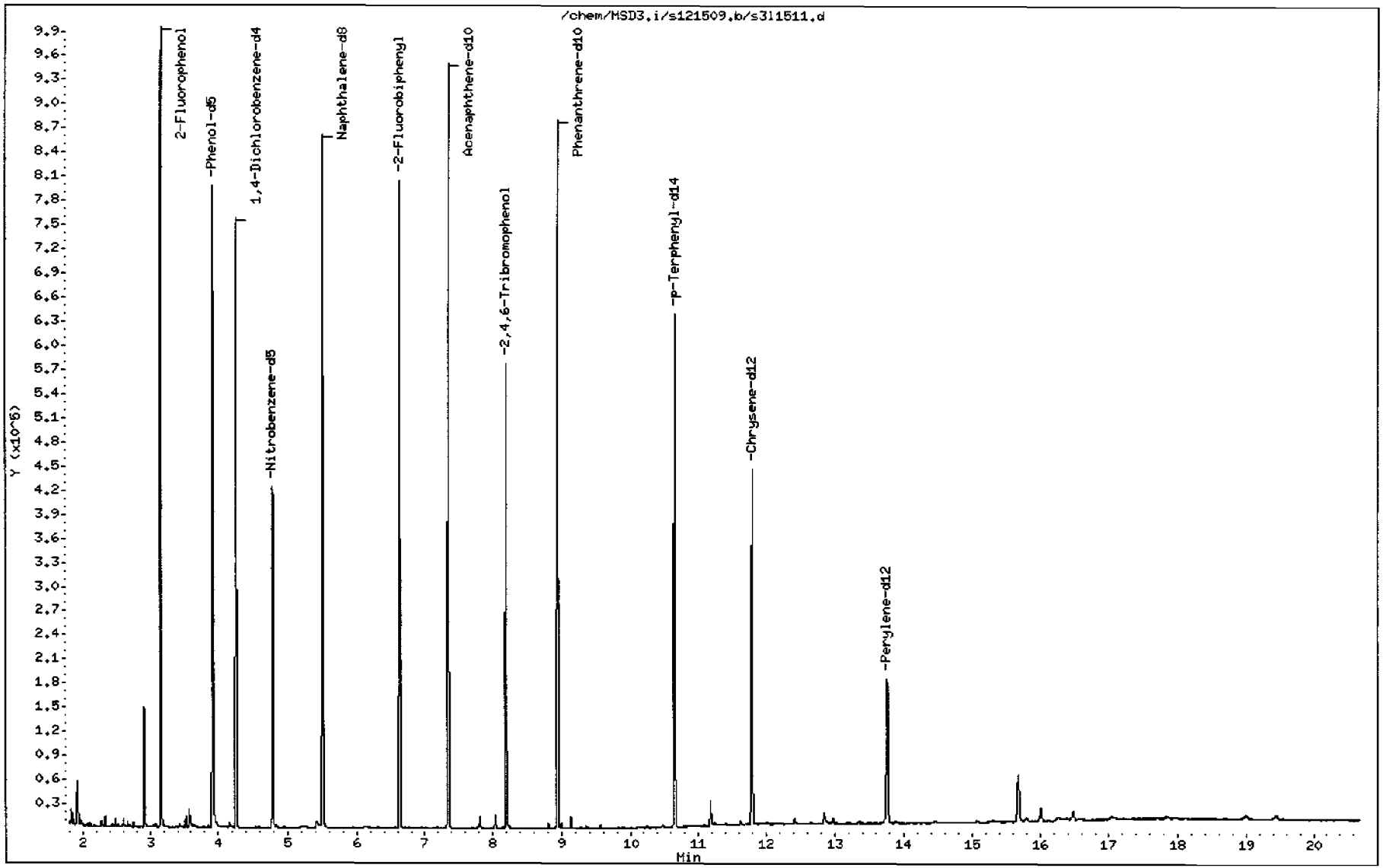

Data File: /chem/MSD3.i/s121509.b/s311511.d

Page 1

Date : 15-DEC-2009 12:23

Client ID: RE03-09-14285

Instrument: MSD3.i

Sample Info: 1242654018193207711ISVMF11LANL

Volume Injected (uL): 0.5

Operator: JLD1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7945	64	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	56	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	40	C6H12O2	116

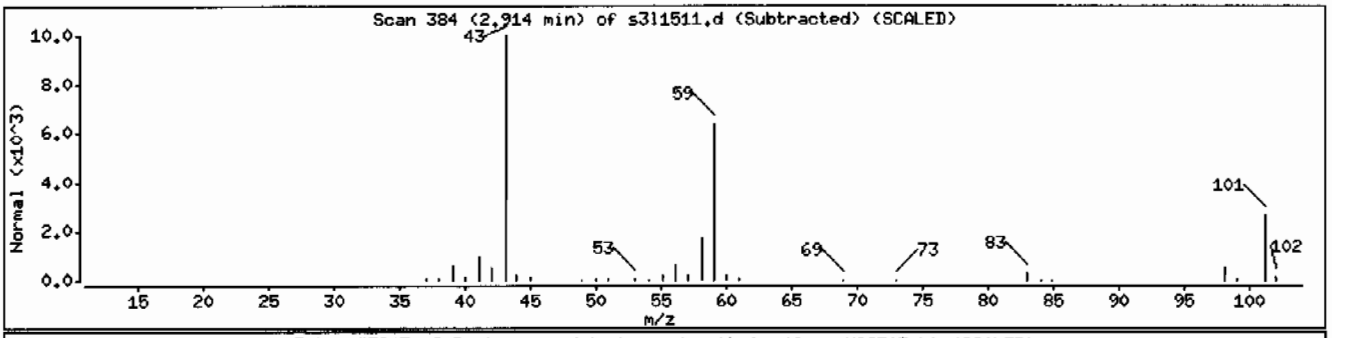

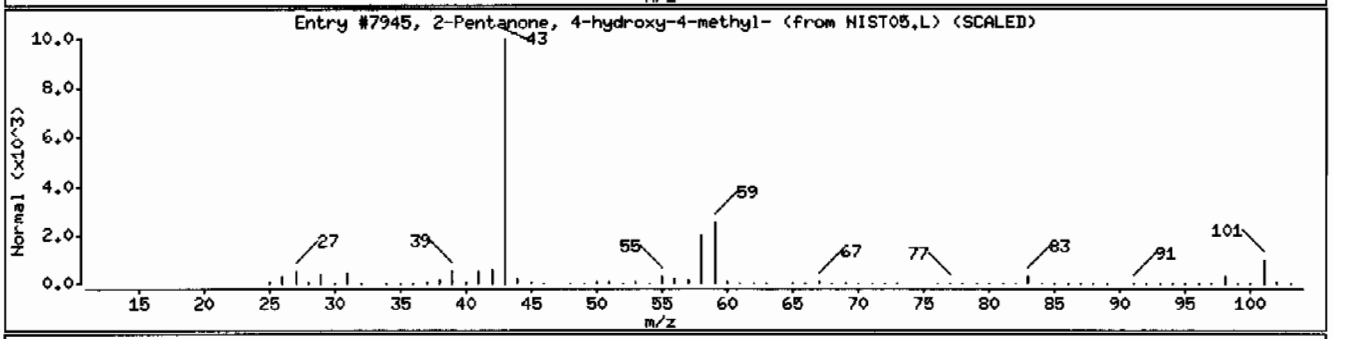

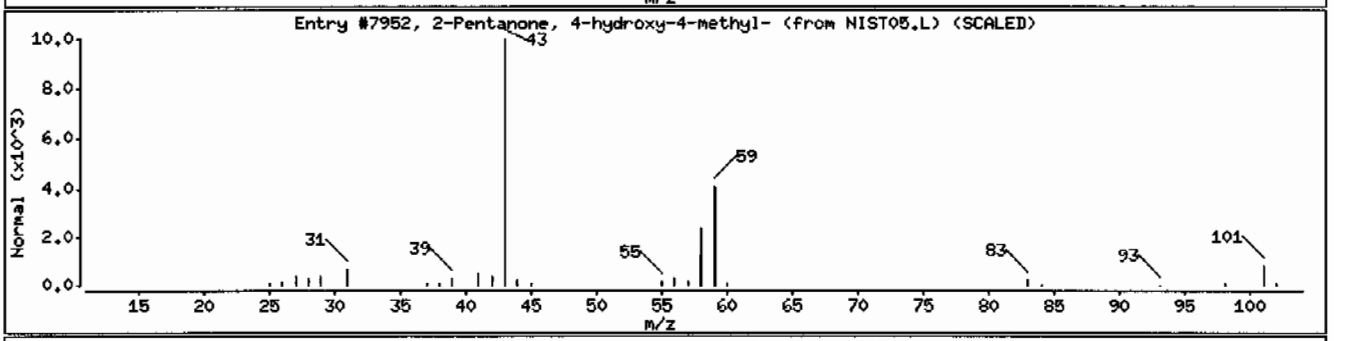

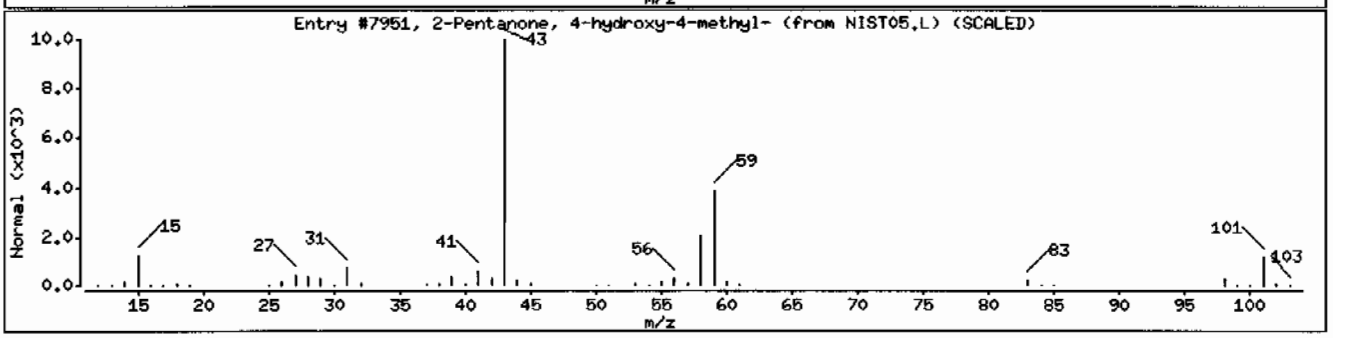

Data File: /chem/MSD3.i/s121509.b/s311511.d

Date : 15-DEC-2009 12:23

Client ID: RE03-09-14285 Instrument: MSD3.i

Sample Info: |2426540181932077|1|SVMF|1|LANL

Volume Injected (uL): 0.5 Operator: JLD1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Farnesyl bromide	6874-67-5	NIST05.L	114486	49	C15H25Br	284
1H-Cycloprop[e]azulene, 1a,2,3,4,4a,5,6,	489-40-7	NIST05.L	60083	46	C15H24	204
1,4-Dimethyl-8-isopropylidenetricyclo[5.	1000140-07-7	NIST05.L	59920	46	C15H24	204

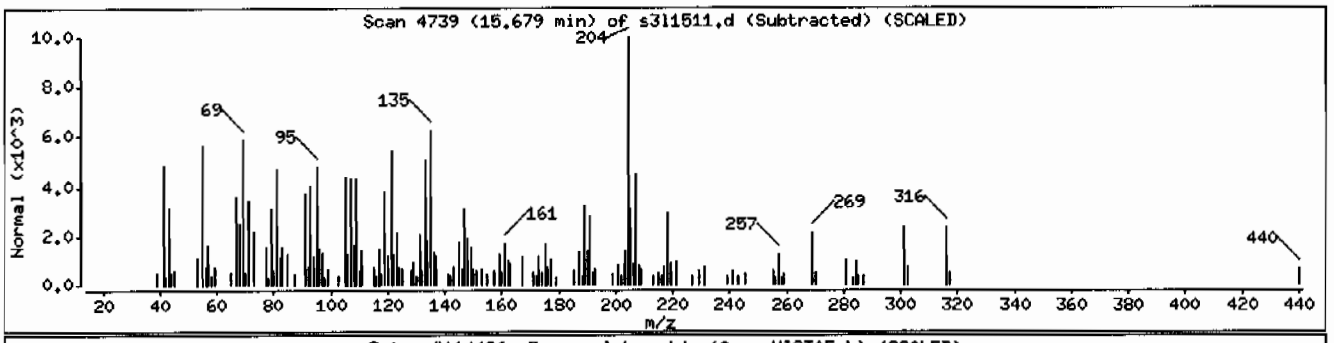

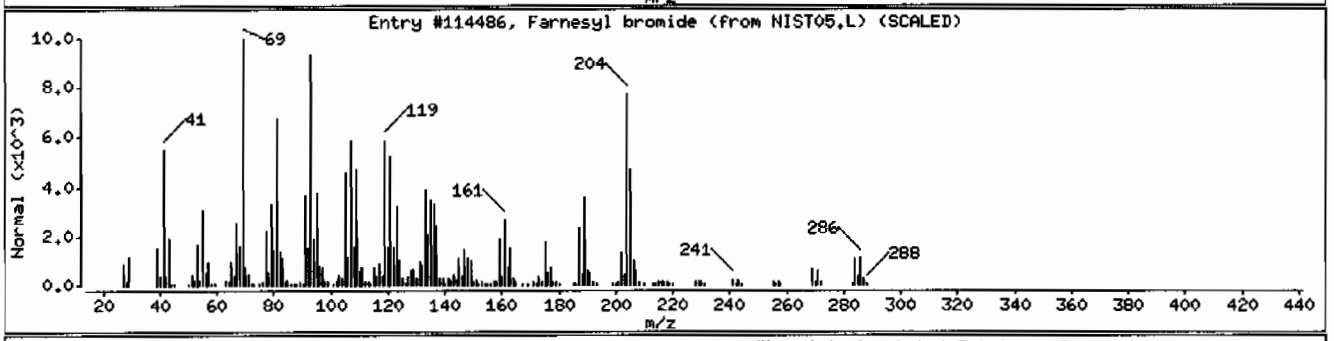

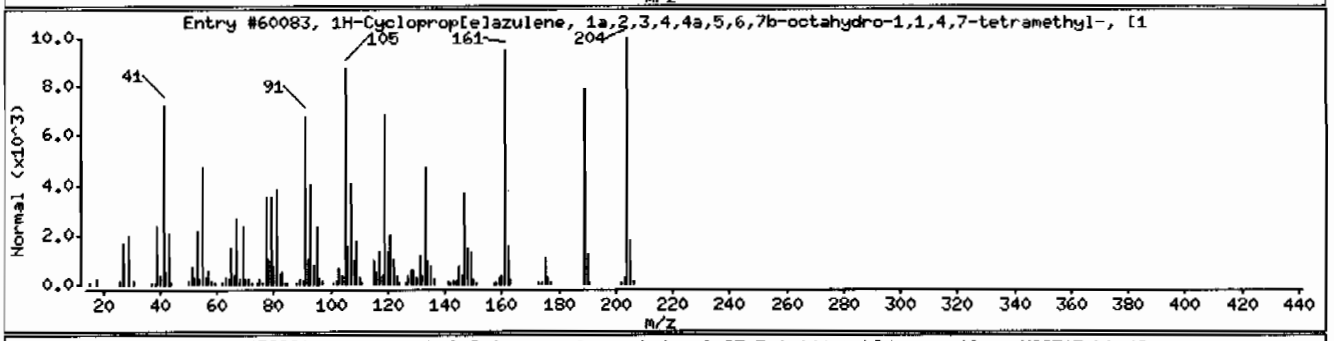

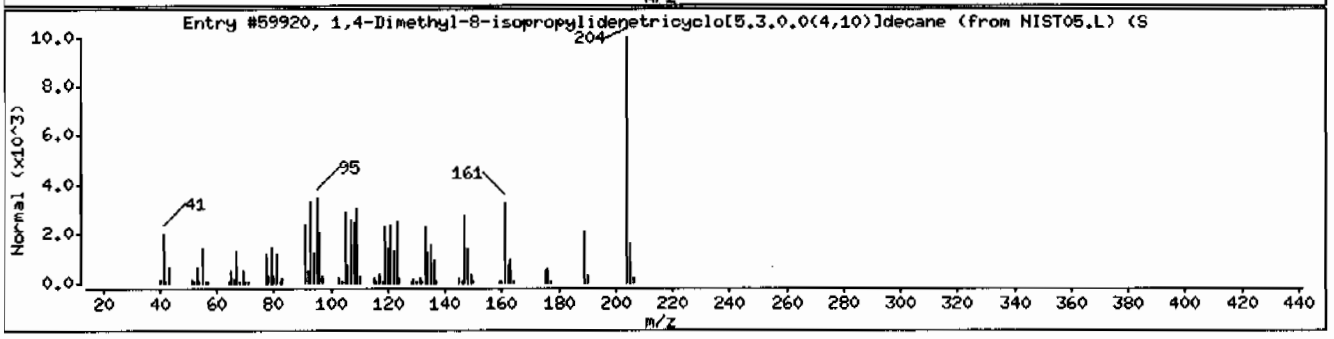

Data File: /chem/MSD3.i/s121509.b/s311511.d

Date : 15-DEC-2009 12:23

Client ID: RE03-09-14285 Instrument: MSD3.i

Sample Info: |2426540181932077|1|SVMF|1|LANL

Volume Injected (uL): 0.5 Operator: JLD1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Benzo[h]quinoline, 2,4-dimethyl-	605-67-4	NIST05.L	62242	30	C15H13N	207
4-Allyl-5-furan-2-yl-2,4-dihydro-[1,2,4]	1000300-01-3	NIST05.L	62368	27	C9H9N3OS	207
Cyclohexane-1,3-dione, 2-allylaminomethy	104926-37-6	NIST05.L	62152	27	C12H17NO2	207

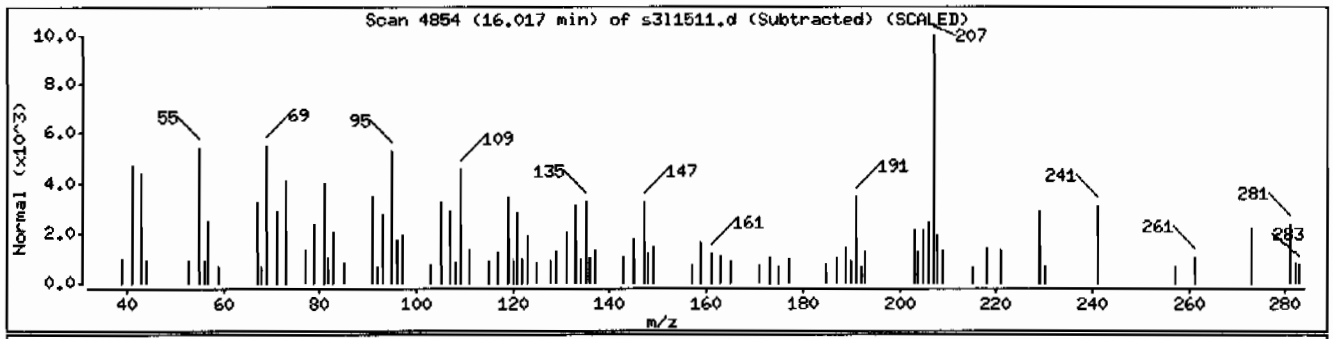

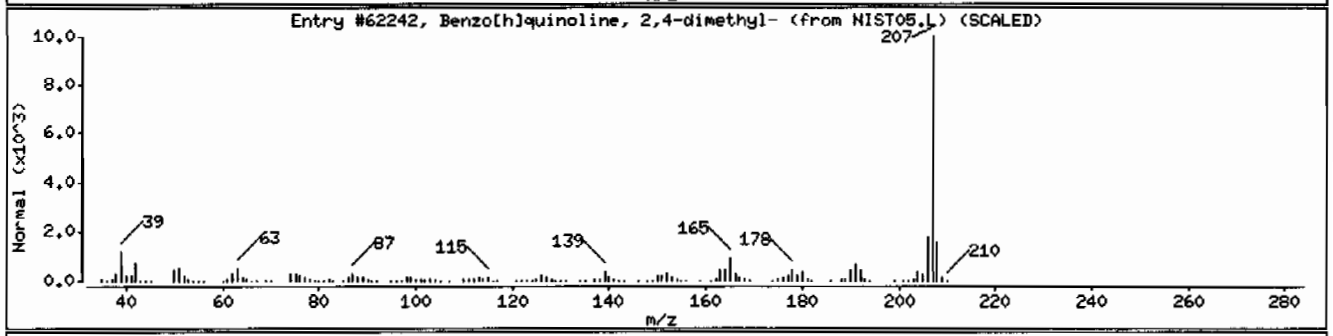

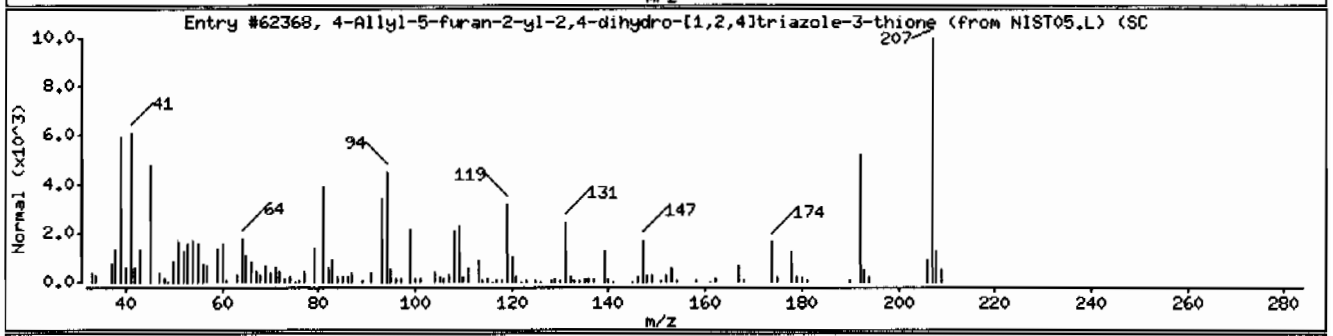

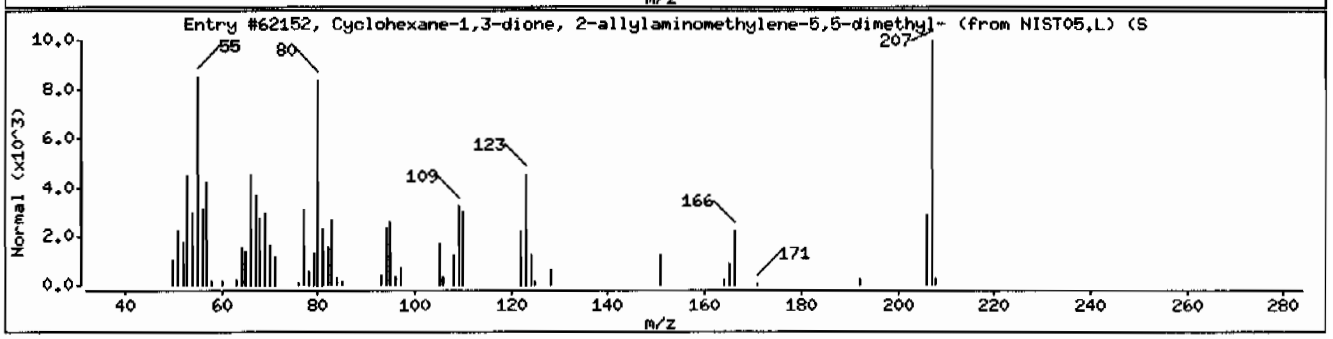

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242654019	**Date Received:**	12/10/2009 08:50	**%Moisture:**	13.4
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14286	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	932077	**Inst:**	MSD3.I	**Dilution:**	1
Run Date:	12/15/2009 12:51	**Analyst:**	JLD1	**Inj. Vol:**	.5 uL
Prep Date:	12/11/2009 21:55	**Aliquot:**	30.16 g	**Final Volume:**	1 mL
Data File:	s31512.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	383	ug/kg	76.6	383
108-95-2	Phenol	U	383	ug/kg	76.6	383
95-57-8	2-Chlorophenol	U	383	ug/kg	76.6	383
106-46-7	1,4-Dichlorobenzene	U	383	ug/kg	76.6	383
621-64-7	N-Nitrosodipropylamine	U	383	ug/kg	76.6	383
59-50-7	4-Chloro-3-methylphenol	U	383	ug/kg	76.6	383
83-32-9	Acenaphthene	U	38.3	ug/kg	12.6	38.3
121-14-2	2,4-Dinitrotoluene	U	383	ug/kg	38.3	383
100-02-7	4-Nitrophenol	U	383	ug/kg	126	383
87-86-5	Pentachlorophenol	U	383	ug/kg	95.7	383
129-00-0	Pyrene	U	38.3	ug/kg	11.5	38.3
110-86-1	Pyridine	U	383	ug/kg	76.6	383
62-53-3	Aniline	U	383	ug/kg	115	383
111-44-4	bis(2-Chloroethyl) ether	U	383	ug/kg	76.6	383
541-73-1	1,3-Dichlorobenzene	U	383	ug/kg	76.6	383
100-51-6	Benzyl alcohol	U	383	ug/kg	115	383
95-50-1	1,2-Dichlorobenzene	U	383	ug/kg	76.6	383
108-60-1	bis(2-Chloroisopropyl)ether	U	383	ug/kg	76.6	383
95-48-7	o-Cresol	U	383	ug/kg	76.6	383
65794-96-9	m,p-Cresols	U	383	ug/kg	115	383
67-72-1	Hexachloroethane	U	383	ug/kg	76.6	383
98-95-3	Nitrobenzene	U	383	ug/kg	76.6	383
78-59-1	Isophorone	U	383	ug/kg	76.6	383
88-75-5	2-Nitrophenol	U	383	ug/kg	76.6	383
105-67-9	2,4-Dimethylphenol	U	383	ug/kg	134	383
111-91-1	bis(2-Chloroethoxy)methane	U	383	ug/kg	76.6	383
120-83-2	2,4-Dichlorophenol	U	383	ug/kg	76.6	383
65-85-0	Benzoic acid	U	766	ug/kg	191	766
91-20-3	Naphthalene	U	38.3	ug/kg	11.5	38.3
106-47-8	4-Chloroaniline	U	383	ug/kg	76.6	383
87-68-3	Hexachlorobutadiene	U	383	ug/kg	76.6	383
91-57-6	2-Methylnaphthalene	U	38.3	ug/kg	7.66	38.3
77-47-4	Hexachlorocyclopentadiene	U	383	ug/kg	76.6	383
88-06-2	2,4,6-Trichlorophenol	U	383	ug/kg	76.6	383
95-95-4	2,4,5-Trichlorophenol	U	383	ug/kg	76.6	383
91-58-7	2-Chloronaphthalene	U	38.3	ug/kg	12.6	38.3
88-74-4	2-Nitroaniline	U	383	ug/kg	76.6	383
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	383	ug/kg	76.6	383

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242654019	**Date Received:**	12/10/2009 08:50	**%Moisture:**	13.4
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14286	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	932077	**Inst:**	MSD3.I	**Dilution:**	1
Run Date:	12/15/2009 12:51	**Analyst:**	JLD1	**Inj. Vol:**	.5 uL
Prep Date:	12/11/2009 21:55	**Aliquot:**	30.16 g	**Final Volume:**	1 mL
Data File:	s3l1512.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	383	ug/kg	76.6	383
606-20-2	2,6-Dinitrotoluene	U	383	ug/kg	38.3	383
208-96-8	Acenaphthylene	U	38.3	ug/kg	11.5	38.3
51-28-5	2,4-Dinitrophenol	U	766	ug/kg	145	766
132-64-9	Dibenzofuran	U	383	ug/kg	76.6	383
84-66-2	Diethylphthalate	U	383	ug/kg	76.6	383
86-73-7	Fluorene	U	38.3	ug/kg	11.5	38.3
7005-72-3	4-Chlorophenylphenylether	U	383	ug/kg	76.6	383
534-52-1	2-Methyl-4,6-dinitrophenol	U	383	ug/kg	76.6	383
100-01-6	4-Nitroaniline	U	383	ug/kg	115	383
	p-Nitroaniline					
122-39-4	Diphenylamine	U	383	ug/kg	76.6	383
122-66-7	Azobenzene	U	383	ug/kg	76.6	383
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	383	ug/kg	76.6	383
118-74-1	Hexachlorobenzene	U	383	ug/kg	76.6	383
85-01-8	Phenanthrene	U	38.3	ug/kg	11.5	38.3
120-12-7	Anthracene	U	38.3	ug/kg	7.66	38.3
84-74-2	Di-n-butylphthalate	U	383	ug/kg	76.6	383
206-44-0	Fluoranthene	U	38.3	ug/kg	11.5	38.3
85-68-7	Butylbenzylphthalate	U	383	ug/kg	76.6	383
56-55-3	Benzo(a)anthracene	U	38.3	ug/kg	11.5	38.3
91-94-1	3,3'-Dichlorobenzidine	U	383	ug/kg	115	383
218-01-9	Chrysene	U	38.3	ug/kg	11.5	38.3
117-81-7	bis(2-Ethylhexyl)phthalate	U	383	ug/kg	76.6	383
117-84-0	Di-n-octylphthalate	U	383	ug/kg	76.6	383
205-99-2	Benzo(b)fluoranthene	U	38.3	ug/kg	11.5	38.3
207-08-9	Benzo(k)fluoranthene	U	38.3	ug/kg	11.5	38.3
50-32-8	Benzo(a)pyrene	U	38.3	ug/kg	11.5	38.3
193-39-5	Indeno(1,2,3-cd)pyrene	U	38.3	ug/kg	11.5	38.3
53-70-3	Dibenzo(a,h)anthracene	U	38.3	ug/kg	11.5	38.3
191-24-2	Benzo(ghi)perylene	U	38.3	ug/kg	11.5	38.3
120-82-1	1,2,4-Trichlorobenzene	U	383	ug/kg	76.6	383

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.92	431	ug/kg		JA

GEL Laboratories LLC

Data file : /chem/MSD3.i/s121509.b/s311512.d
Lab Smp Id: 242654019 Client Smp ID: RE03-09-14286
Inj Date : 15-DEC-2009 12:51
Operator : JLD1 Inst ID: MSD3.i
Smp Info : |242654019|932077|1|SVMF|1|LANL
Misc Info : |MSD8270_S|WBN091208-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD3.i/s121509.b/MSD3-8270R-AQA-120809.m
Meth Date : 15-Dec-2009 10:20 jen00986 Quant Type: ISTD
Cal Date : 07-DEC-2009 19:48 Cal File: s310717.d
Als bottle: 12
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-852.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.16000	weight of sample
M	13.39690	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	4.256	4.256	(1.000)	128834	40.0000	
* 29 Naphthalene-d8	136	5.507	5.508	(1.000)	480735	40.0000	
* 46 Acenaphthene-d10	164	7.353	7.356	(1.000)	268309	40.0000	
* 67 Phenanthrene-d10	188	8.946	8.946	(1.000)	452891	40.0000	
* 91 Chrysene-d12	240	11.800	11.804	(1.000)	281130	40.0000	
* 98 Perylene-d12	264	13.764	13.769	(1.000)	159058	40.0000	
$ 3 2-Fluorophenol	112	3.161	3.143	(0.743)	261568	77.6201	2970
$ 5 Phenol-d5	99	3.919	3.916	(0.921)	315769	73.5501	2820
$ 20 Nitrobenzene-d5	82	4.787	4.793	(0.869)	139589	39.7291	1520
$ 39 2-Fluorobiphenyl	172	6.632	6.632	(0.902)	278995	44.3619	1700
$ 60 2,4,6-Tribromophenol	329	8.199	8.198	(1.115)	73820	100.190	3840
$ 81 p-Terphenyl-d14	244	10.651	10.649	(0.903)	261404	57.8940	2220

ION RATIO REPORT

SV REPORT

Data file: s311512.d
Report Date: 12/15/2009 14:02
Lab. ID: 242654019 SampleType: SAMPLE
Injection Date: 15-DEC-2009 12:51
Operator: JLD1 Instrument: MSD3.i
Sample Info: |242654019|932077|1|SVMF|1|LANL
Miscellaneous Info: |MSD8270_S|WBN091208-01|
Comment:
Method used: /chem/MSD3.i/s121509.b/MSD3-8270R-AQA-120809.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-852
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
17 N-Nitrosodipropylamine				CAS#: 621-64-7		
70	20149	4.79	4.63	80-120	100	(T)
42	9570	4.79	4.63	23- 83	47	(T)
44 2,6-Dinitrotoluene				CAS#: 606-20-2		
165	35067	7.35	7.14	80-120	100	(T)
63	435	7.35	7.14	29- 89	1	(QT)
50 2,4-Dinitrotoluene				CAS#: 121-14-2		
165	35067	7.35	7.57	80-120	100	(T)
89	431	7.35	7.57	53-113	1	(QT)
63	435	7.35	7.57	36- 96	1	(QT)
55 2-Methyl-4,6-dinitrophenol				CAS#: 534-52-1		
198	127	8.20	8.00	80-120	100	(T)
105	463	8.20	8.00	14- 74	365	(QT)
51	315	8.20	8.00	20- 80	249	(QT)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

Data file : /chem/MSD3.i/s121509.b/s311512.d
Lab Smp Id: 242654019 Client Smp ID: RE03-09-14286
Inj Date : 15-DEC-2009 12:51
Operator : JLD1 Inst ID: MSD3.i
Smp Info : |242654019|932077|1|SVMF|1|LANL
Misc Info : |MSD8270_S|WBN091208-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD3.i/s121509.b/MSD3-8270R-AQA-120809.m
Meth Date : 15-Dec-2009 10:20 jen00986 Quant Type: ISTD
Cal Date : 07-DEC-2009 19:48 Cal File: s310717.d
Als bottle: 12
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-852.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.16000	weight of sample
M	13.39690	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	4.256	761134	40.000

	CONCENTRATIONS				QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown Aldol Condensate				CAS #:			
2.917	214039	11.2484117	431	0		0	10

Data File: /chem/MSD3.i/s121509.b/s311512.d
Date : 15-DEC-2009 12:51
Client ID: RE03-09-14286
Sample Info: 1242654019193207711SVMF11LANL
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD3.i
Operator: JLD1
Column diameter: 0.20

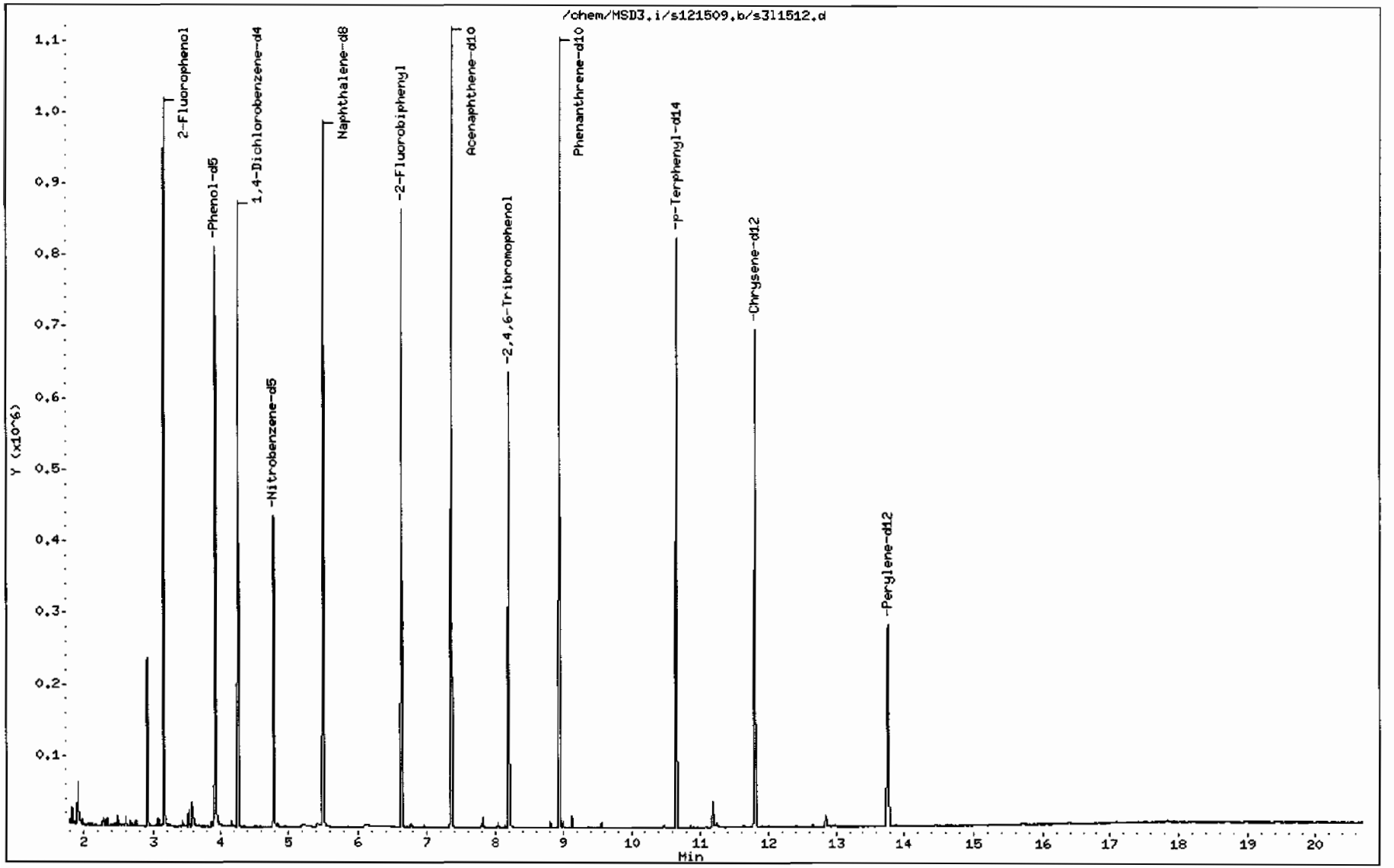

Data File: /chem/MSD3.i/s121509.b/s311512.d

Date : 15-DEC-2009 12:51

Client ID: RE03-09-14286

Instrument: MSD3.i

Sample Info: |2426540191932077|1|SVMF|1|LANL

Volume Injected (uL): 0.5

Operator: JLD1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7945	64	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	56	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	50	C6H12O2	116

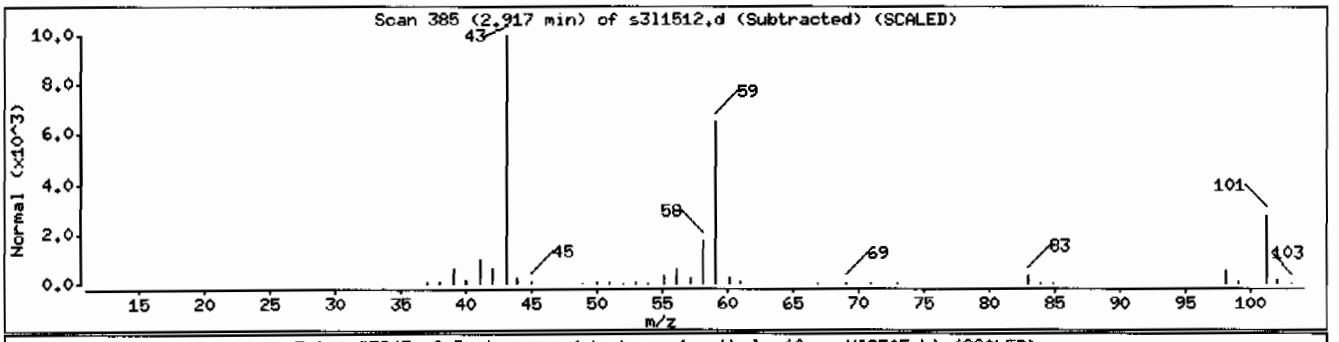

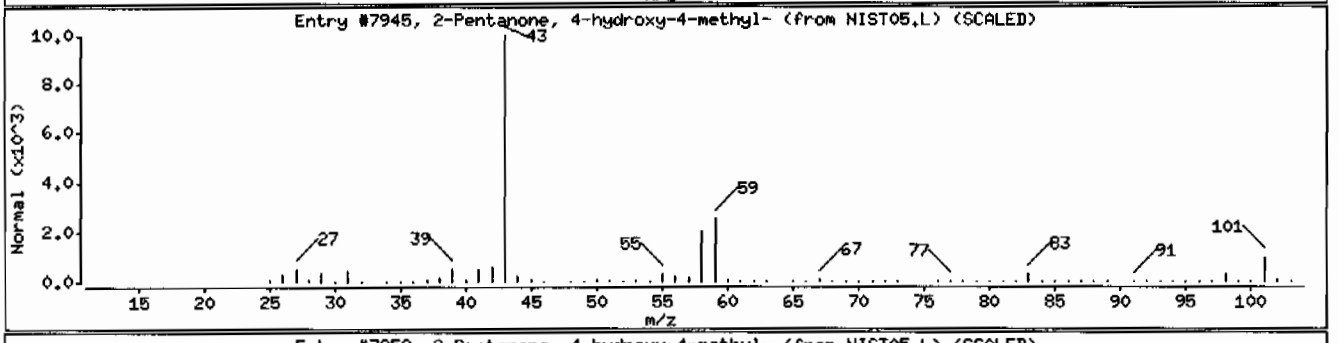

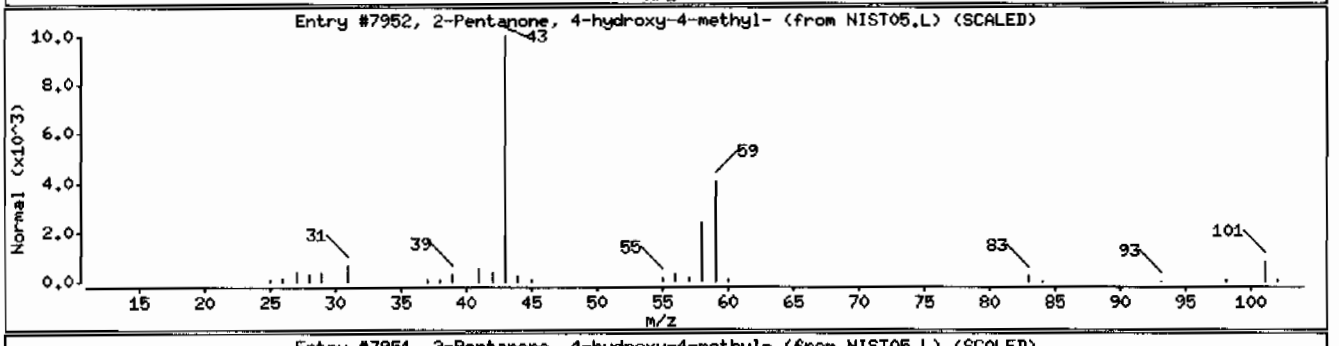

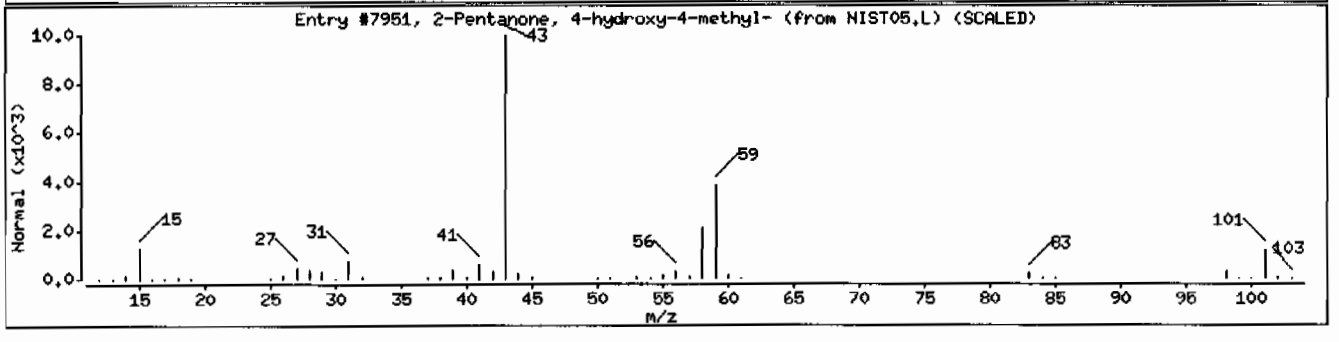

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242654006	**Date Received:**	12/10/2009 08:50	**%Moisture:**	11.7
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14287	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	932077	**Inst:**	MSD3.I	**Dilution:**	1
Run Date:	12/13/2009 18:08	**Analyst:**	JLD1	**Inj. Vol:**	.5 uL
Prep Date:	12/11/2009 21:55	**Aliquot:**	30.06 g	**Final Volume:**	1 mL
Data File:	s311322.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	377	ug/kg	75.3	377
108-95-2	Phenol	U	377	ug/kg	75.3	377
95-57-8	2-Chlorophenol	U	377	ug/kg	75.3	377
106-46-7	1,4-Dichlorobenzene	U	377	ug/kg	75.3	377
621-64-7	N-Nitrosodipropylamine	U	377	ug/kg	75.3	377
59-50-7	4-Chloro-3-methylphenol	U	377	ug/kg	75.3	377
83-32-9	Acenaphthene	U	37.7	ug/kg	12.4	37.7
121-14-2	2,4-Dinitrotoluene	U	377	ug/kg	37.7	377
100-02-7	4-Nitrophenol	U	377	ug/kg	124	377
87-86-5	Pentachlorophenol	U	377	ug/kg	94.2	377
129-00-0	Pyrene		50.5	ug/kg	11.3	37.7
110-86-1	Pyridine	U	377	ug/kg	75.3	377
62-53-3	Aniline	U	377	ug/kg	113	377
111-44-4	bis(2-Chloroethyl) ether	U	377	ug/kg	75.3	377
541-73-1	1,3-Dichlorobenzene	U	377	ug/kg	75.3	377
100-51-6	Benzyl alcohol	U	377	ug/kg	113	377
95-50-1	1,2-Dichlorobenzene	U	377	ug/kg	75.3	377
108-60-1	bis(2-Chloroisopropyl)ether	U	377	ug/kg	75.3	377
95-48-7	o-Cresol	U	377	ug/kg	75.3	377
65794-96-9	m,p-Cresols	U	377	ug/kg	113	377
67-72-1	Hexachloroethane	U	377	ug/kg	75.3	377
98-95-3	Nitrobenzene	U	377	ug/kg	75.3	377
78-59-1	Isophorone	U	377	ug/kg	75.3	377
88-75-5	2-Nitrophenol	U	377	ug/kg	75.3	377
105-67-9	2,4-Dimethylphenol	U	377	ug/kg	132	377
111-91-1	bis(2-Chloroethoxy)methane	U	377	ug/kg	75.3	377
120-83-2	2,4-Dichlorophenol	U	377	ug/kg	75.3	377
65-85-0	Benzoic acid	U	753	ug/kg	188	753
91-20-3	Naphthalene	U	37.7	ug/kg	11.3	37.7
106-47-8	4-Chloroaniline	U	377	ug/kg	75.3	377
87-68-3	Hexachlorobutadiene	U	377	ug/kg	75.3	377
91-57-6	2-Methylnaphthalene	U	37.7	ug/kg	7.53	37.7
77-47-4	Hexachlorocyclopentadiene	U	377	ug/kg	75.3	377
88-06-2	2,4,6-Trichlorophenol	U	377	ug/kg	75.3	377
95-95-4	2,4,5-Trichlorophenol	U	377	ug/kg	75.3	377
91-58-7	2-Chloronaphthalene	U	37.7	ug/kg	12.4	37.7
88-74-4	2-Nitroaniline	U	377	ug/kg	75.3	377
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	377	ug/kg	75.3	377

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-852**	**Date Collected:**	**12/07/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242654006**	**Date Received:**	**12/10/2009 08:50**	**%Moisture:**	**11.7**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14287**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**932077**	**Inst:**	**MSD3.I**	**Dilution:**	**1**
Run Date:	**12/13/2009 18:08**	**Analyst:**	**JLD1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/11/2009 21:55**	**Aliquot:**	**30.06 g**	**Final Volume:**	**1 mL**
Data File:	**s311322.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	377	ug/kg	75.3	377
606-20-2	2,6-Dinitrotoluene	U	377	ug/kg	37.7	377
208-96-8	Acenaphthylene	U	37.7	ug/kg	11.3	37.7
51-28-5	2,4-Dinitrophenol	U	753	ug/kg	143	753
132-64-9	Dibenzofuran	U	377	ug/kg	75.3	377
84-66-2	Diethylphthalate	U	377	ug/kg	75.3	377
86-73-7	Fluorene	U	37.7	ug/kg	11.3	37.7
7005-72-3	4-Chlorophenylphenylether	U	377	ug/kg	75.3	377
534-52-1	2-Methyl-4,6-dinitrophenol	U	377	ug/kg	75.3	377
100-01-6	4-Nitroaniline	U	377	ug/kg	113	377
	p-Nitroaniline					
122-39-4	Diphenylamine	U	377	ug/kg	75.3	377
122-66-7	Azobenzene	U	377	ug/kg	75.3	377
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	377	ug/kg	75.3	377
118-74-1	Hexachlorobenzene	U	377	ug/kg	75.3	377
85-01-8	Phenanthrene	J	28.4	ug/kg	11.3	37.7
120-12-7	Anthracene	U	37.7	ug/kg	7.53	37.7
84-74-2	Di-n-butylphthalate	U	377	ug/kg	75.3	377
206-44-0	Fluoranthene		51.7	ug/kg	11.3	37.7
85-68-7	Butylbenzylphthalate	U	377	ug/kg	75.3	377
56-55-3	Benzo(a)anthracene	J	21.0	ug/kg	11.3	37.7
91-94-1	3,3'-Dichlorobenzidine	U	377	ug/kg	113	377
218-01-9	Chrysene	J	28.7	ug/kg	11.3	37.7
117-81-7	bis(2-Ethylhexyl)phthalate	U	377	ug/kg	75.3	377
117-84-0	Di-n-octylphthalate	U	377	ug/kg	75.3	377
205-99-2	Benzo(b)fluoranthene	J	33.0	ug/kg	11.3	37.7
207-08-9	Benzo(k)fluoranthene	J	11.6	ug/kg	11.3	37.7
50-32-8	Benzo(a)pyrene	J	22.1	ug/kg	11.3	37.7
193-39-5	Indeno(1,2,3-cd)pyrene	U	37.7	ug/kg	11.3	37.7
53-70-3	Dibenzo(a,h)anthracene	U	37.7	ug/kg	11.3	37.7
191-24-2	Benzo(ghi)perylene	U	37.7	ug/kg	11.3	37.7
120-82-1	1,2,4-Trichlorobenzene	U	377	ug/kg	75.3	377

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.95	326	ug/kg		JA
7785-70-8	1R-.alpha.-Pinene	3.68	527	ug/kg	97	NJ

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242654006	**Date Received:**	12/10/2009 08:50	**%Moisture:**	11.7
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14287	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	932077	**Inst:**	MSD3.I	**Dilution:**	1
Run Date:	12/13/2009 18:08	**Analyst:**	JLD1	**Inj. Vol:**	.5 uL
Prep Date:	12/11/2009 21:55	**Aliquot:**	30.06 g	**Final Volume:**	1 mL
Data File:	s3l1322.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
18172-67-3	Bicyclo[3.1.1]heptane, 6,6-dimethyl-2-me	4.03	203	ug/kg	97	NJ
13466-78-9	3-Carene	4.24	470	ug/kg	96	NJ
	Unknown	11.13	291	ug/kg		J
1235-74-1	1-Phenanthrenecarboxylic acid, 1,2,3,4,4	11.23	237	ug/kg	99	NJ
	Unknown	15.75	203	ug/kg		J
1058-61-3	Stigmast-4-en-3-one	17.11	179	ug/kg	90	NJ
	Unknown	17.94	434	ug/kg		J
	Unknown	19.1	433	ug/kg		J
	Unknown	19.56	375	ug/kg		J

GEL Laboratories LLC

Data file : /chem/MSD3.i/s121309.b/s311322.d
Lab Smp Id: 242654006 Client Smp ID: RE03-09-14287
Inj Date : 13-DEC-2009 18:08
Operator : JLD1 Inst ID: MSD3.i
Smp Info : |242654006|932077|1|SVMF|1|LANL
Misc Info : |MSD8270_S|WBN091208-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD3.i/s121309.b/MSD3-8270R-AQA-120809.m
Meth Date : 14-Dec-2009 17:00 jen00986 Quant Type: ISTD
Cal Date : 07-DEC-2009 19:48 Cal File: s310717.d
Als bottle: 15
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-852.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.06000	weight of sample
M	11.69000	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	4.292	4.294	(1.000)	140618	40.0000	
* 29 Naphthalene-d8	136	5.543	5.546	(1.000)	525866	40.0000	
* 46 Acenaphthene-d10	164	7.389	7.394	(1.000)	288965	40.0000	
* 67 Phenanthrene-d10	188	8.980	8.983	(1.000)	491328	40.0000	
* 91 Chrysene-d12	240	11.841	11.844	(1.000)	354283	40.0000	
* 98 Perylene-d12	264	13.820	13.827	(1.000)	213367	40.0000	
$ 3 2-Fluorophenol	112	3.190	3.175	(0.743)	262180	71.2818	2680
$ 5 Phenol-d5	99	3.949	3.948	(0.920)	328633	70.1317	2640
$ 20 Nitrobenzene-d5	82	4.822	4.828	(0.870)	137989	35.9032	1350
$ 39 2-Fluorobiphenyl	172	6.665	6.669	(0.902)	289569	42.7519	1610
$ 60 2,4,6-Tribromophenol	329	8.233	8.236	(1.114)	80920	101.976	3840
$ 81 p-Terphenyl-d14	244	10.688	10.686	(0.903)	284837	50.0581	1880

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
79 Pyrene	202	10.518	10.528	(0.888)	13274	1.33988	50.5
68 Phenanthrene	178	9.001	9.010	(1.002)	8853	0.75498	28.4(a)
76 Fluoranthene	202	10.274	10.282	(1.144)	15934	1.37271	51.7
89 Benzo(a)anthracene	228	11.823	11.827	(0.998)	4759	0.55792	21.0(a)
92 Chrysene	228	11.864	11.877	(1.002)	6031	0.76138	28.7(a)
95 Benzo(b)fluoranthene	252	13.232	13.243	(0.957)	4938	0.87614	33.0(a)
96 Benzo(k)fluoranthene	252	13.267	13.287	(0.960)	1647	0.30906	11.6(a)
97 Benzo(a)pyrene	252	13.723	13.739	(0.993)	2723	0.58731	22.1(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

ION RATIO REPORT

SV REPORT

Data file: s311322.d
Report Date: 12/14/2009 12:04
Lab. ID: 242654006 SampleType: SAMPLE
Injection Date: 13-DEC-2009 18:08
Operator: JLD1 Instrument: MSD3.i
Sample Info: |242654006|932077|1|SVMF|1|LANL
Miscellaneous Info: |MSD8270_S|WBN091208-01|
Comment:
Method used: /chem/MSD3.i/s121309.b/MSD3-8270R-AQA-120809.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-852
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
4 Aniline		CAS#: 62-53-3				
66	14510	3.95	4.00	80-120	100	( )
93	6641	3.97	4.00	231-291	46	(Q)
17 N-Nitrosodipropylamine				CAS#: 621-64-7		
70	19851	4.82	4.67	80-120	100	(T)
42	9507	4.82	4.67	22- 82	48	(T)
27 Benzoic acid			CAS#: 65-85-0			
105	994	5.24	5.33	80-120	100	(T)
122	611	5.24	5.33	46-106	61	(T)
77	634	5.24	5.33	46-106	64	(T)
40 2-Chloronaphthalene				CAS#: 91-58-7		
162	2728	6.99	6.80	80-120	100	(T)
164	125	6.99	6.80	2- 62	5	(T)
127	167	6.99	6.80	10- 70	6	(QT)
44 2,6-Dinitrotoluene				CAS#: 606-20-2		
165	37780	7.39	7.18	80-120	100	(T)
63	507	7.39	7.18	28- 88	1	(QT)
50 2,4-Dinitrotoluene				CAS#: 121-14-2		
165	37780	7.39	7.60	80-120	100	(T)
89	470	7.39	7.60	52-112	1	(QT)
63	507	7.39	7.61	35- 95	1	(QT)

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
55 2-Methyl-4,6-dinitrophenol				CAS#: 534-52-1		
198	148	8.23	8.04	80-120	100	(T)
105	547	8.23	8.04	15- 75	368	(QT)
51	405	8.23	8.04	21- 81	273	(QT)
68 Phenanthrene				CAS#: 85-01-8		
178	8853	9.00	9.01	80-120	100	( )
179	1448	9.00	9.01	0- 45	16	( )
176	1532	9.00	9.01	0- 48	17	( )
69 Anthracene				CAS#: 120-12-7		
178	8853	9.00	9.06	80-120	100	(T)
179	1448	9.00	9.06	0- 45	16	(T)
176	1532	9.00	9.06	0- 47	17	(T)
76 Fluoranthene				CAS#: 206-44-0		
202	15934	10.27	10.28	80-120	100	( )
203	2859	10.27	10.28	0- 47	18	( )
101	2406	10.27	10.28	0- 46	15	( )
79 Pyrene				CAS#: 129-00-0		
202	13274	10.52	10.53	80-120	100	( )
200	2463	10.52	10.53	0- 50	19	( )
101	2687	10.52	10.53	0- 48	20	( )
89 Benzo(a)anthracene				CAS#: 56-55-3		
228	4759	11.82	11.83	80-120	100	( )
226	1218	11.82	11.83	0- 55	26	( )
229	1434	11.82	11.83	0- 52	30	( )
92 Chrysene				CAS#: 218-01-9		
228	6031	11.86	11.88	80-120	100	( )
229	1257	11.86	11.88	0- 50	21	( )
226	1596	11.86	11.88	0- 58	26	( )
95 Benzo(b)fluoranthene				CAS#: 205-99-2		
252	4938	13.23	13.24	80-120	100	( )
253	1117	13.23	13.24	0- 52	23	( )
125	1192	13.23	13.24	0- 45	24	( )
96 Benzo(k)fluoranthene				CAS#: 207-08-9		
252	1647	13.27	13.29	80-120	100	( )
253	356	13.27	13.29	0- 52	22	( )
125	307	13.26	13.29	0- 45	19	( )
97 Benzo(a)pyrene				CAS#: 50-32-8		
252	2723	13.72	13.74	80-120	100	( )
253	675	13.72	13.74	0- 52	25	( )
125	446	13.72	13.74	0- 45	16	( )

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

Data file : /chem/MSD3.i/s121309.b/s311322.d
Lab Smp Id: 242654006 Client Smp ID: RE03-09-14287
Inj Date : 13-DEC-2009 18:08
Operator : JLD1 Inst ID: MSD3.i
Smp Info : |242654006|932077|1|SVMF|1|LANL
Misc Info : |MSD8270_S|WBN091208-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD3.i/s121309.b/MSD3-8270R-AQA-120809.m
Meth Date : 14-Dec-2009 17:00 jen00986 Quant Type: ISTD
Cal Date : 07-DEC-2009 19:48 Cal File: s310717.d
Als bottle: 15
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-852.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.06000	weight of sample
M	11.69000	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	4.292	831089	40.000
* 91 Chrysene-d12	11.841	1027060	40.000
* 98 Perylene-d12	13.820	612449	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #

RT	AREA	CONCENTRATIONS ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	QUANT LIBRARY	LIB ENTRY	CPND #
Unknown Aldol Condensate				CAS #:			
2.946	179983	8.66250346	326	0		0	10
1R-.alpha.-Pinene				CAS #: 7785-70-8			
3.679	290775	13.9948803	527	97	NIST05.L	15186	10
Bicyclo[3.1.1]heptane, 6,6-dimethyl-2-me				CAS #: 18172-67-3			
4.028	112013	5.39115943	203	97	NIST05.L	15390	10
3-Carene				CAS #: 13466-78-9			
4.239	259097	12.4702479	470	96	NIST05.L	15157	10
Unknown				CAS #:			
11.126	198085	7.71462046	291	0		0	91
1-Phenanthrenecarboxylic acid, 1,2,3,4,4				CAS #: 1235-74-1			
11.226	161701	6.29763852	237	99	NIST05.L	133618	91
Unknown				CAS #:			
15.754	82702	5.40140783	203	0		0	98
Stigmast-4-en-3-one				CAS #: 1058-61-3			
17.115	72885	4.76024950	179	90	NIST05.L	173936	98
Unknown				CAS #:			
17.938	176468	11.5253651	434	0		0	98
Unknown				CAS #:			
19.104	175991	11.4942340	433	0		0	98
Unknown				CAS #:			
19.557	152546	9.96298714	375	0		0	98

Data File: /chem/MSD3.i/s121309.b/s311322.d
Date : 13-DEC-2009 18:08
Client ID: RE03-09-14287
Sample Info: 1242654006|9320771|1|SVMF|1|LANL
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD3.i
Operator: JLD1
Column diameter: 0.20

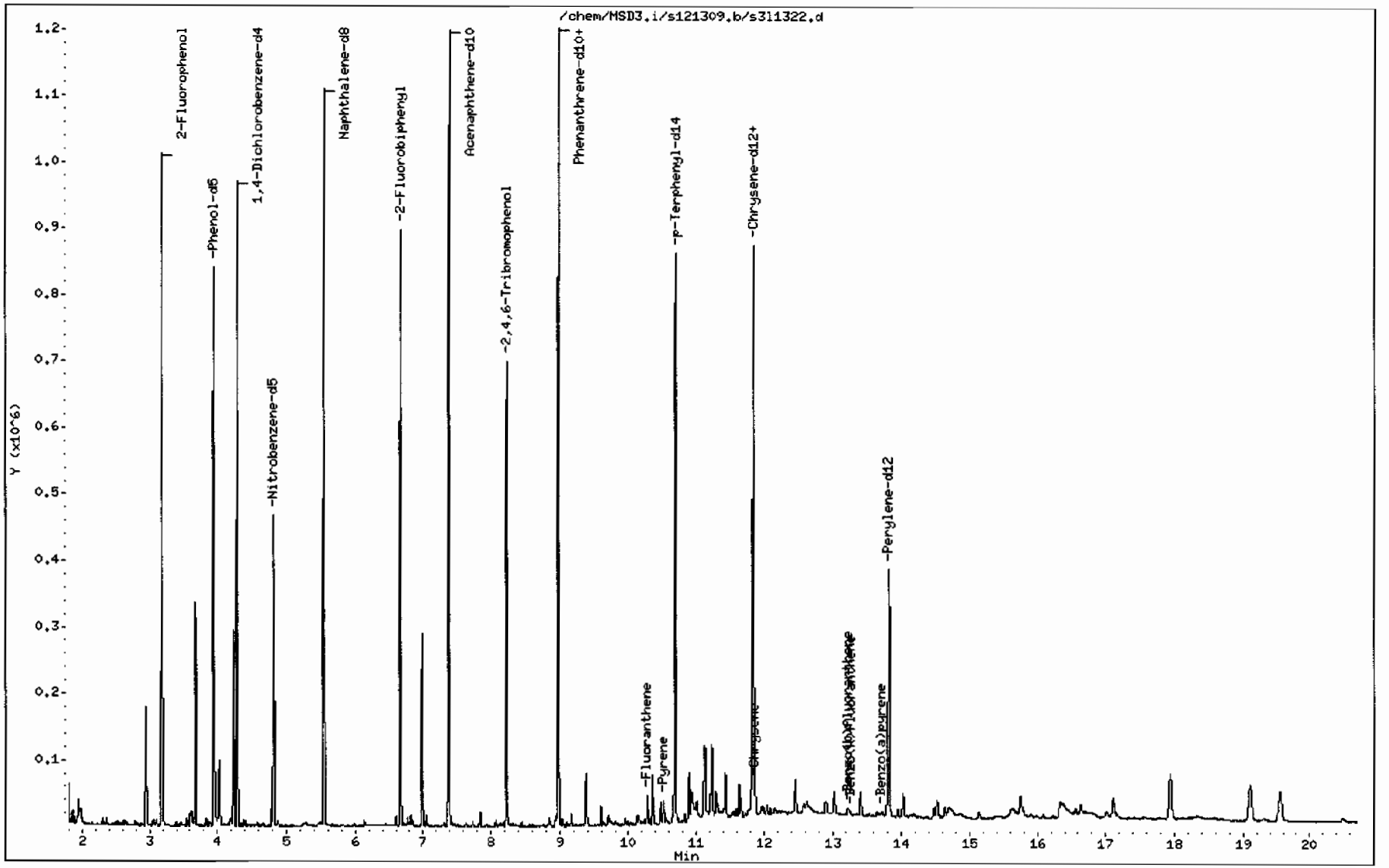

Data File: /chem/MSD3.i/s121309.b/s311322.d

Date : 13-DEC-2009 18:08

Client ID: RE03-09-14287

Instrument: MSD3.i

Sample Info: |242654006|932077|1|SVHF|1|LANL

Volume Injected (uL): 0.5

Operator: JLD1

Column phase: J&W DB-5MS

Column diameter: 0.20

79 Pyrene

Concentration: 50.5 ug/Kg

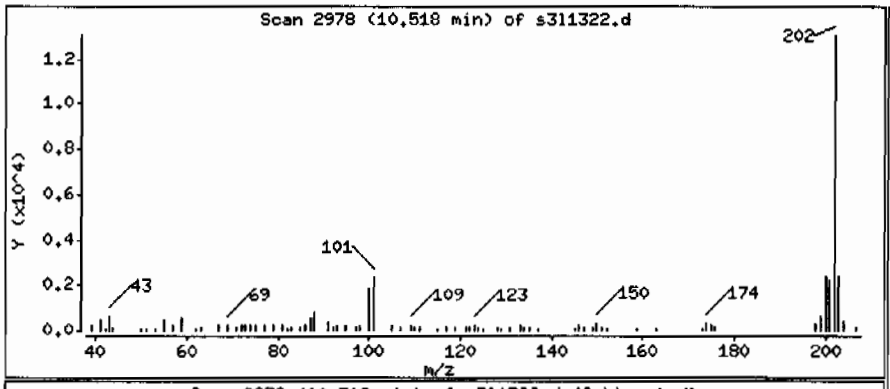

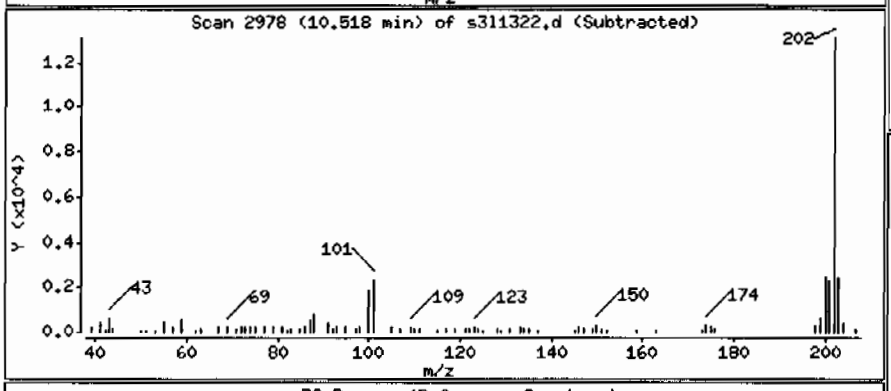

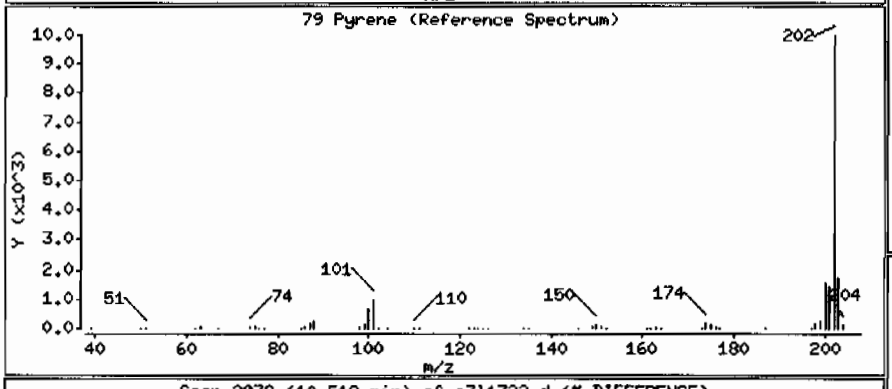

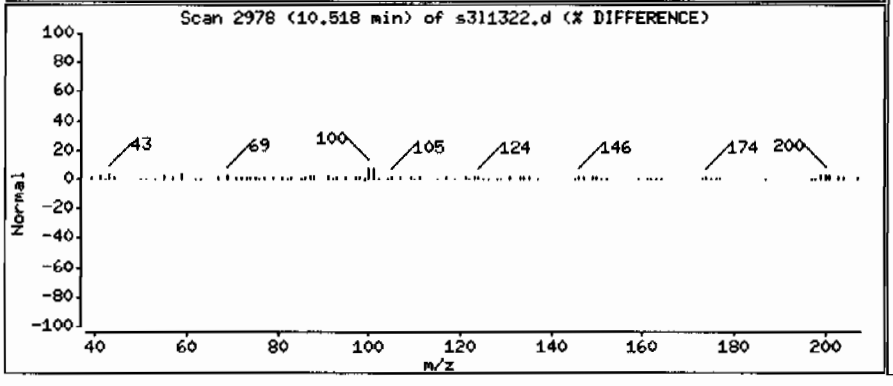

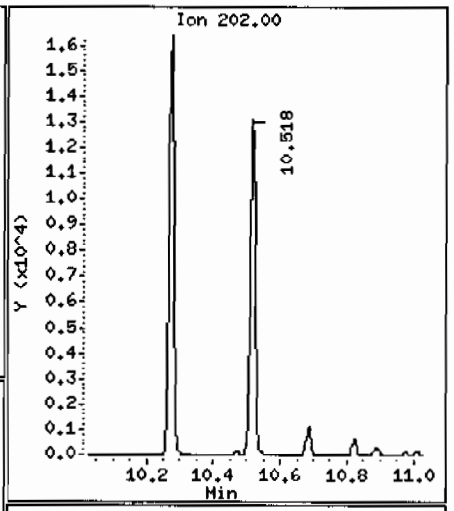

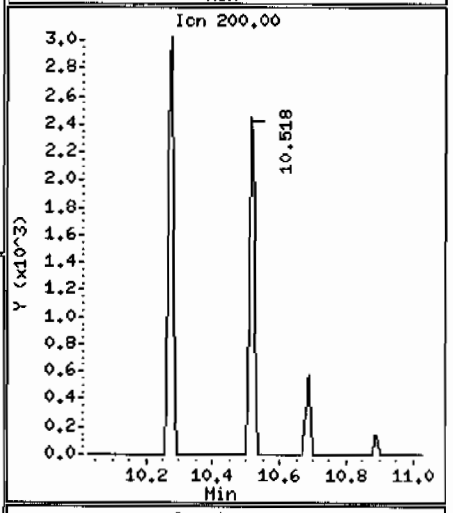

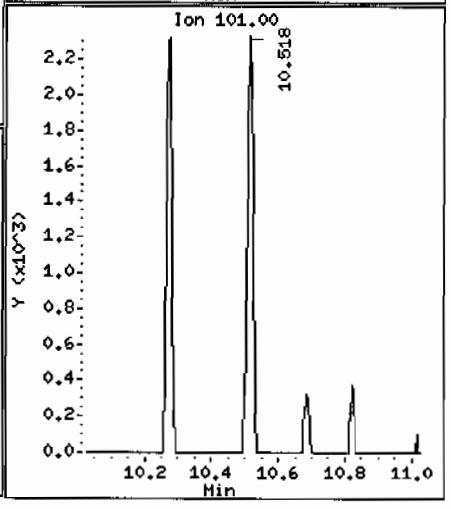

Data File: /chem/MSD3.i/s121309.b/s311322.d

Date : 13-DEC-2009 18:08

Client ID: RE03-09-14287

Instrument: MSD3.i

Sample Info: 1242654006193207711SVMF11LANL

Volume Injected (uL): 0.5

Operator: JLD1

Column phase: J&W DB-5MS

Column diameter: 0.20

68 Phenanthrene

Concentration: 28.4 ug/Kg

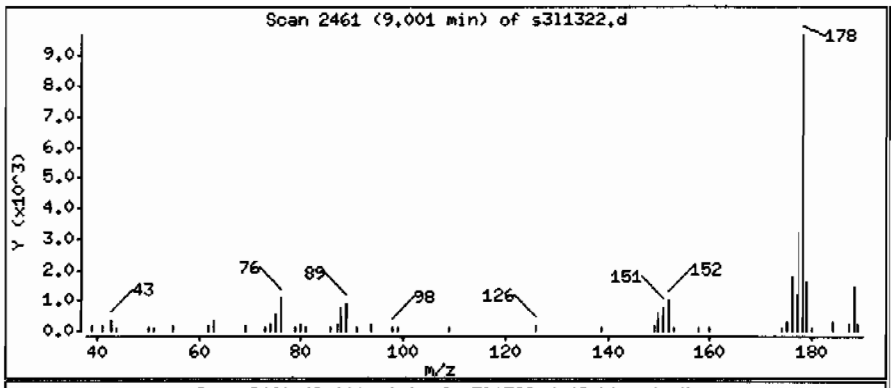

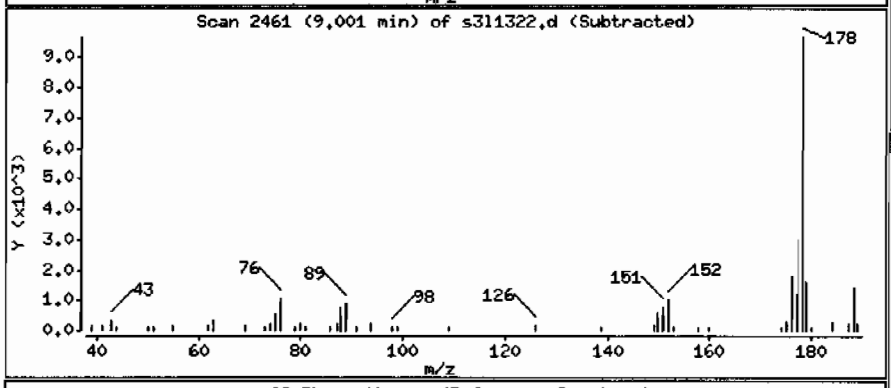

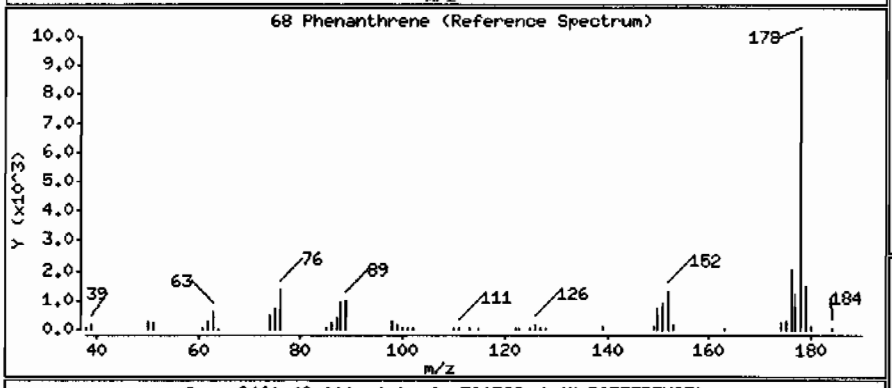

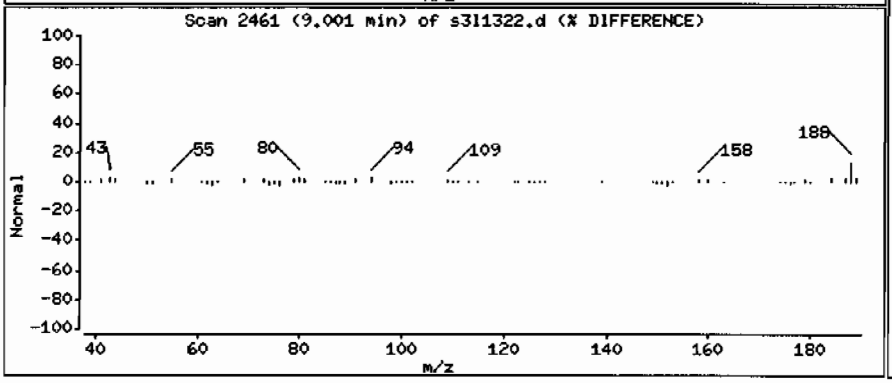

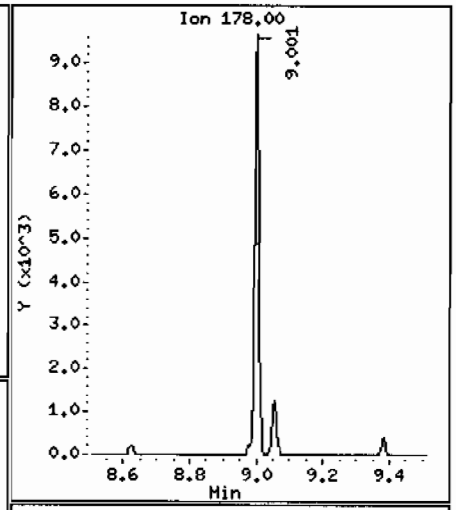

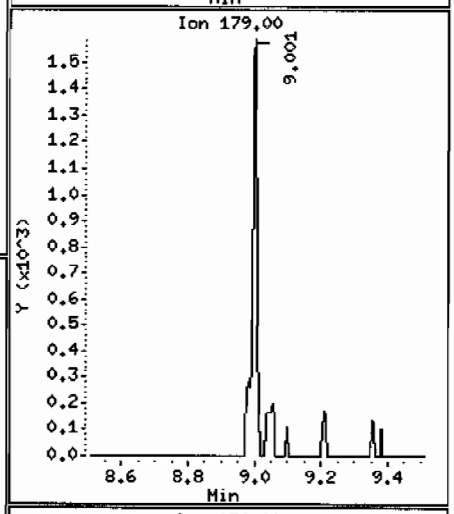

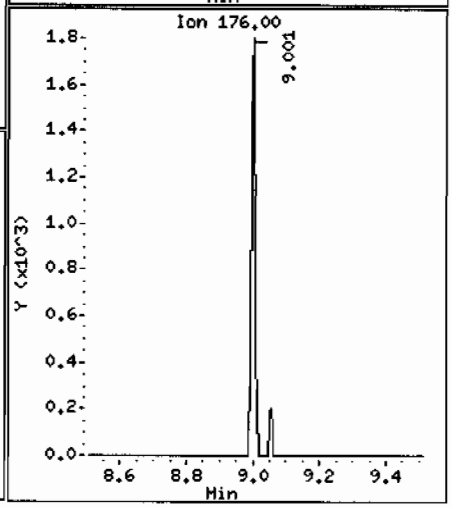

Data File: /chem/MSD3.i/s121309.b/s311322.d

Date : 13-DEC-2009 18:08

Client ID: RE03-09-14287

Instrument: MSD3.i

Sample Info: |2426540061932077|1|SVMF|1|LANL

Volume Injected (uL): 0.5

Operator: JLD1

Column phase: J&W DB-5MS

Column diameter: 0.20

76 Fluoranthene

Concentration: 51.7 ug/Kg

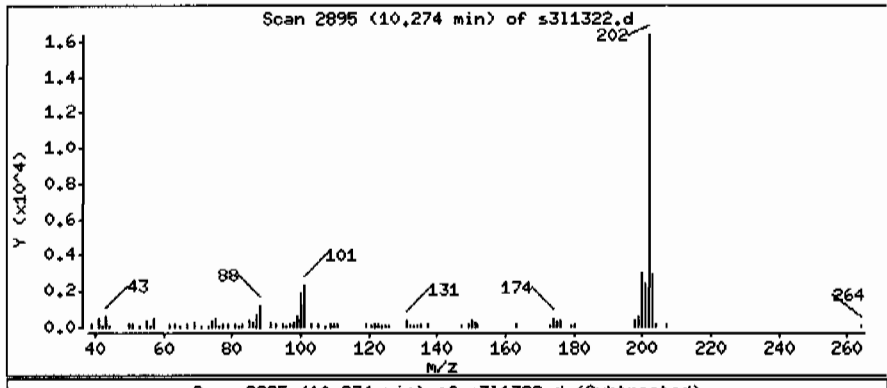

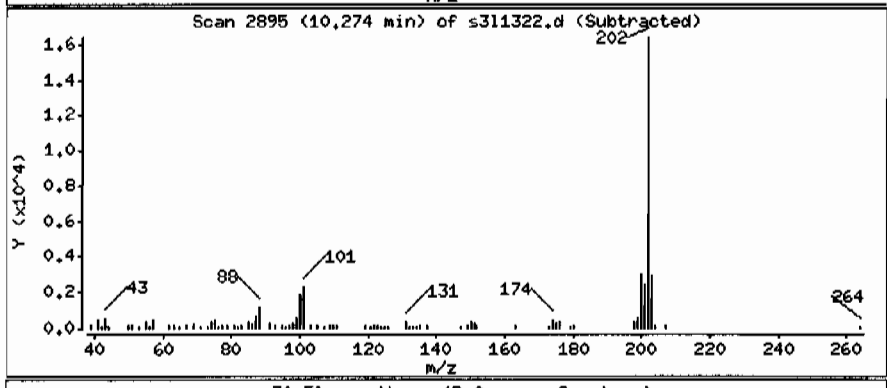

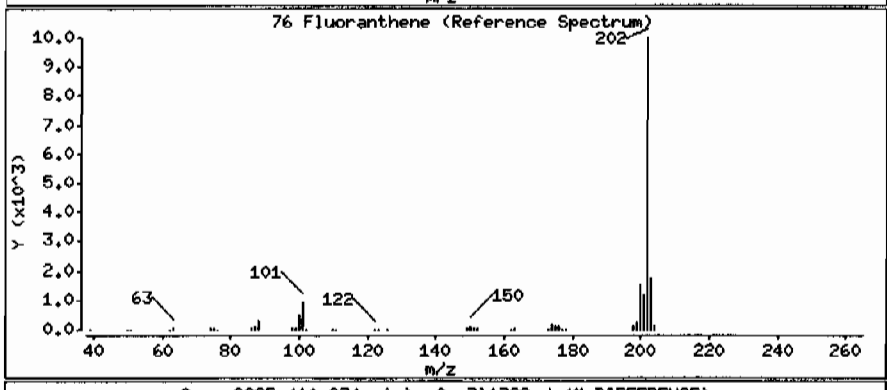

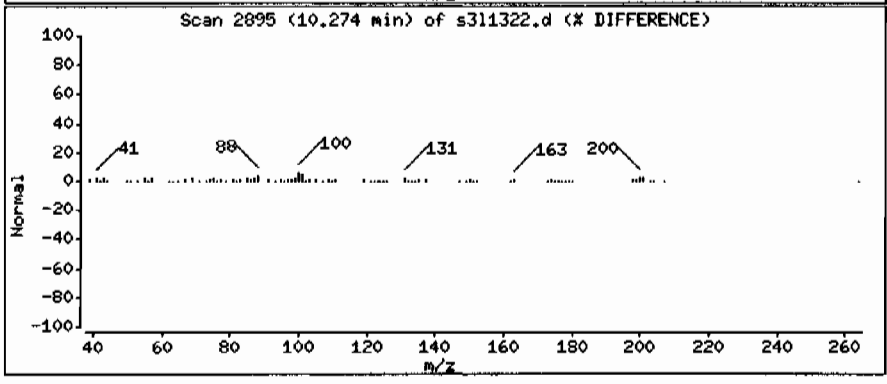

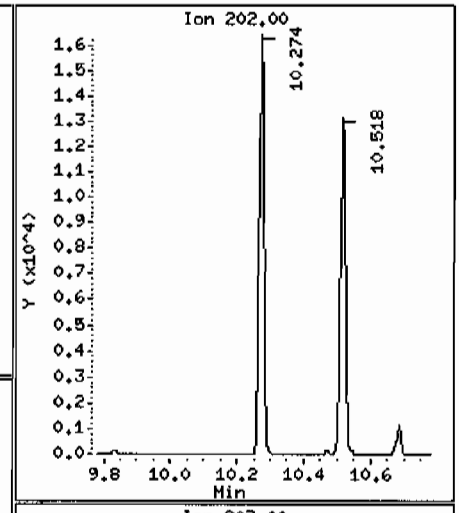

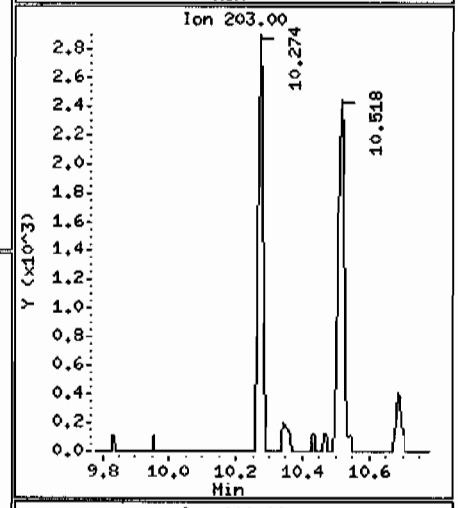

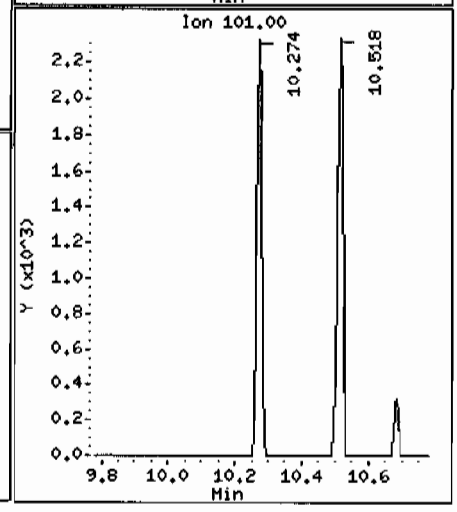

Data File: /chem/MSD3.i/s121309.b/s311322.d

Date : 13-DEC-2009 18:08

Client ID: RE03-09-14287

Instrument: MSD3.i

Sample Info: |2426540061932077|1|SVMF|1|LANL

Volume Injected (uL): 0.5

Operator: JLD1

Column phase: J&W DB-5MS

Column diameter: 0.20

89 Benzo(a)anthracene

Concentration: 21.0 ug/Kg

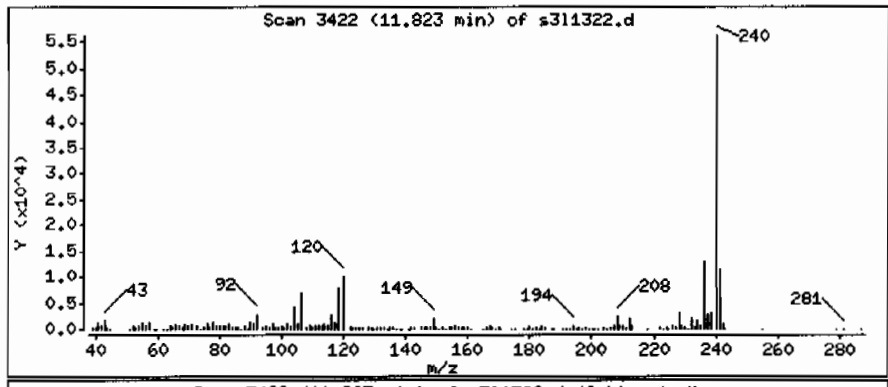

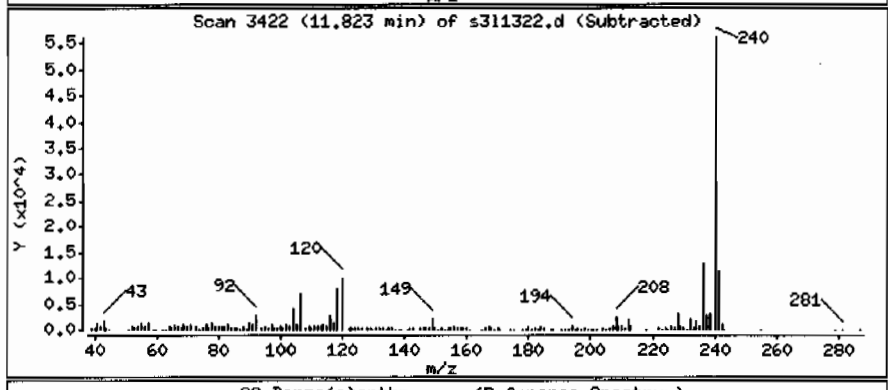

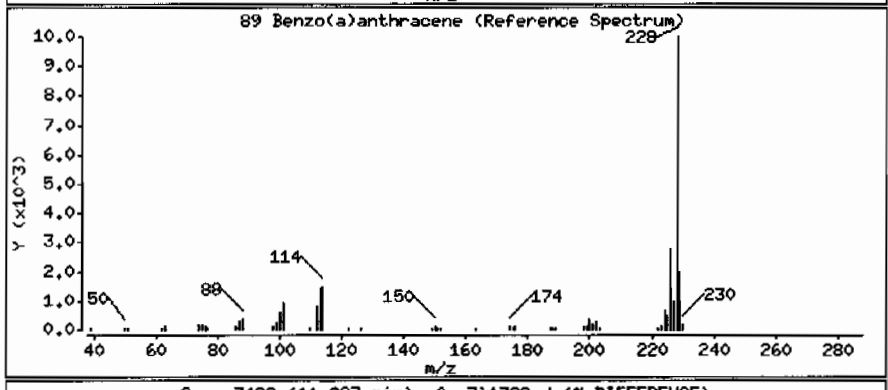

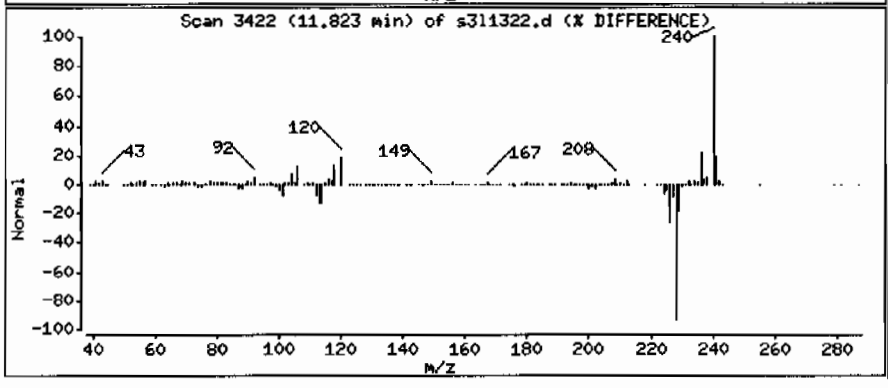

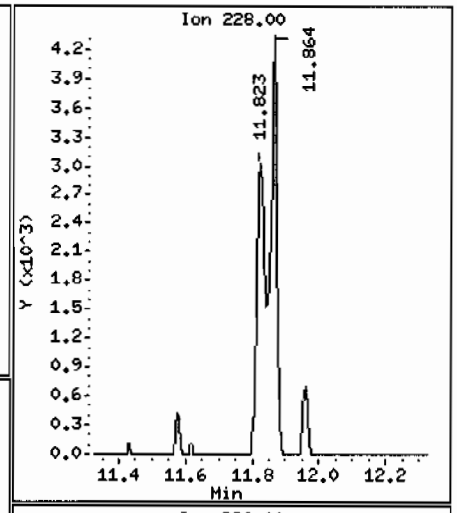

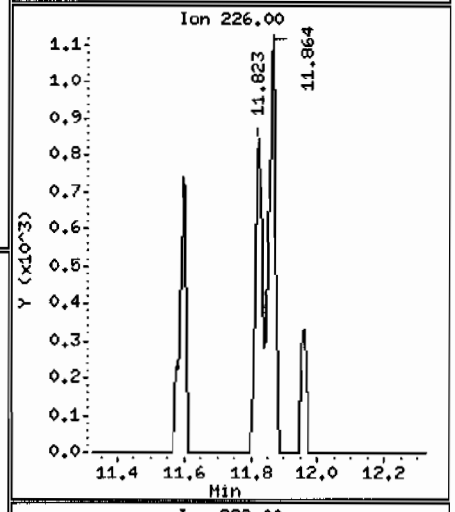

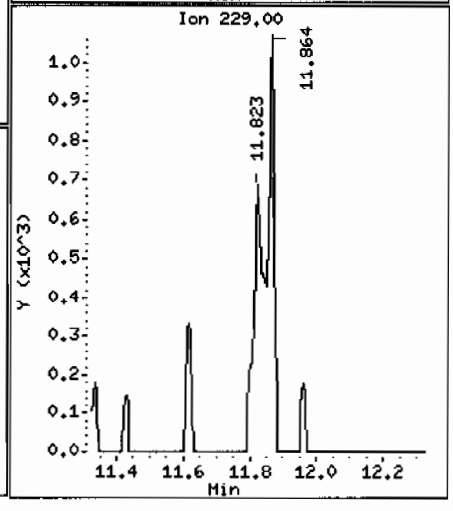

Data File: /chem/MSD3.i/s121309.b/s311322.d

Date : 13-DEC-2009 18:08

Client ID: RE03-09-14287 Instrument: MSD3.i

Sample Info: 1242654006|93207711|SVMF11|LANL

Volume Injected (uL): 0.5 Operator: JLD1

Column phase: J&W DB-5MS Column diameter: 0.20

92 Chrysene Concentration: 28.7 ug/Kg

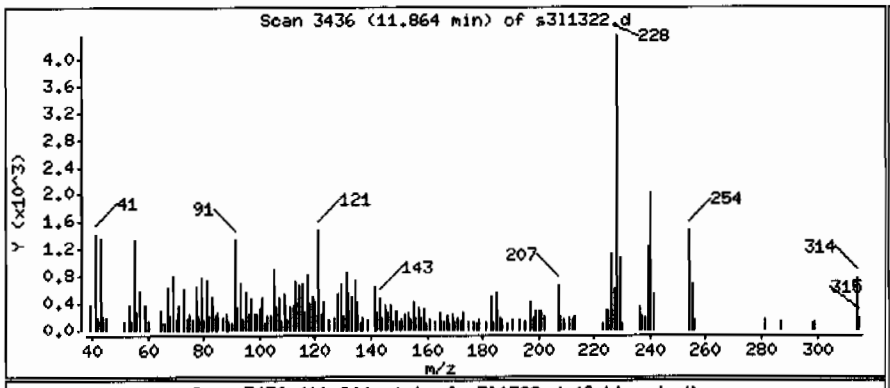

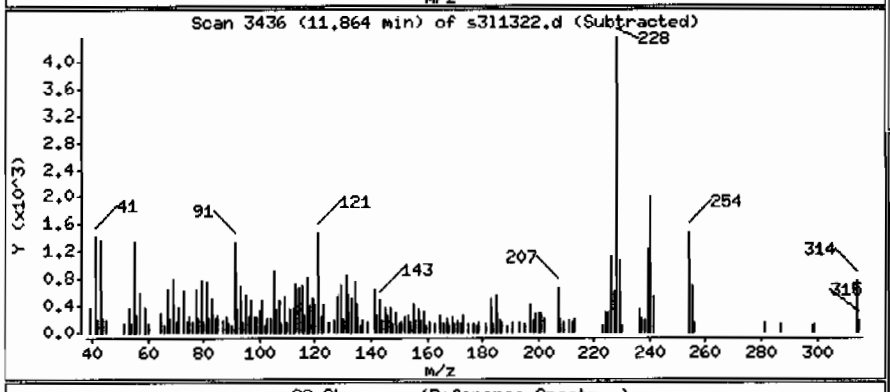

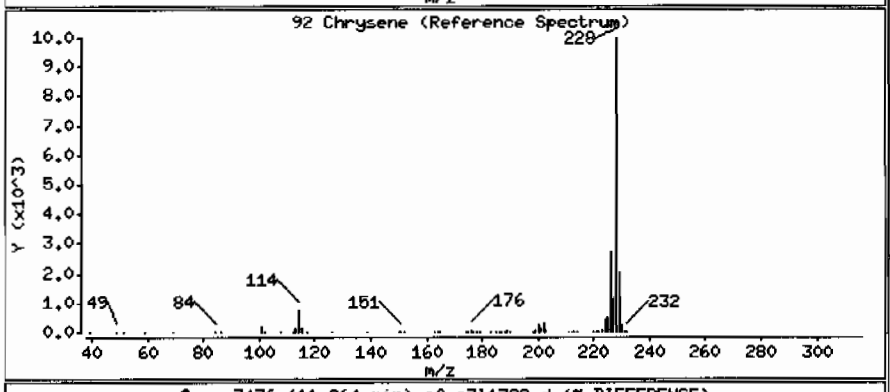

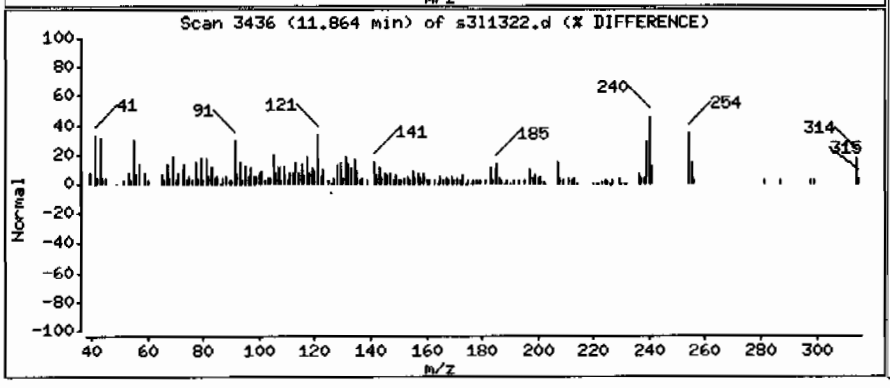

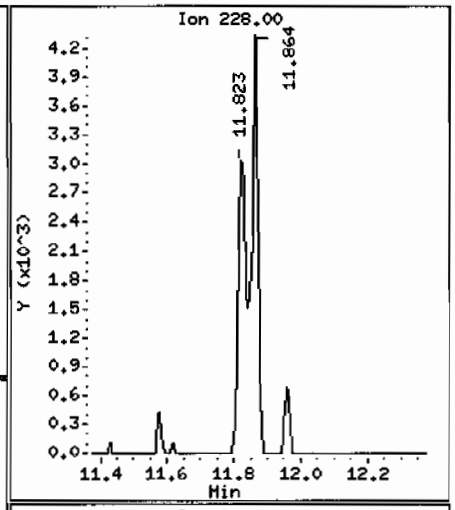

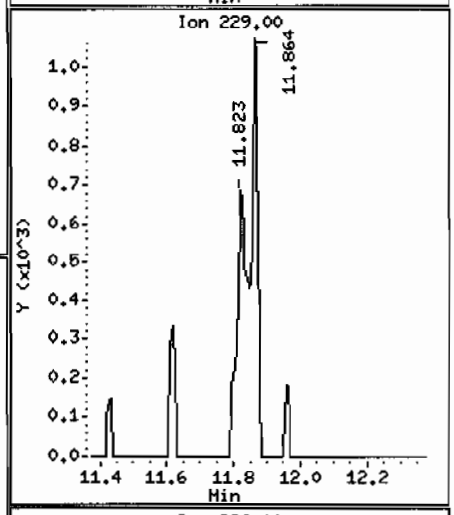

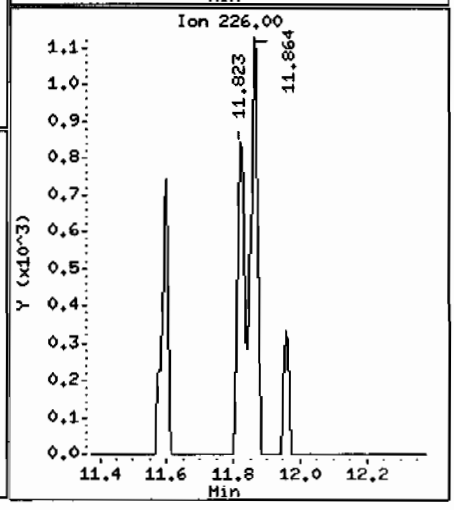

Data File: /chem/MSD3.i/s121309.b/s311322.d

Date : 13-DEC-2009 18:08

Client ID: RE03-09-14287

Instrument: MSD3.i

Sample Info: |2426540061932077|1|SVHF|1|LANL

Volume Injected (uL): 0.5

Operator: JLD1

Column phase: J&W DB-5MS

Column diameter: 0.20

95 Benzo(b)fluoranthene

Concentration: 33.0 ug/Kg

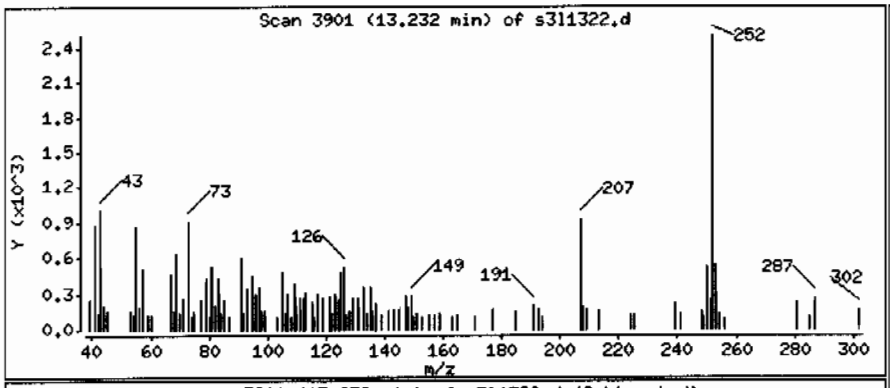

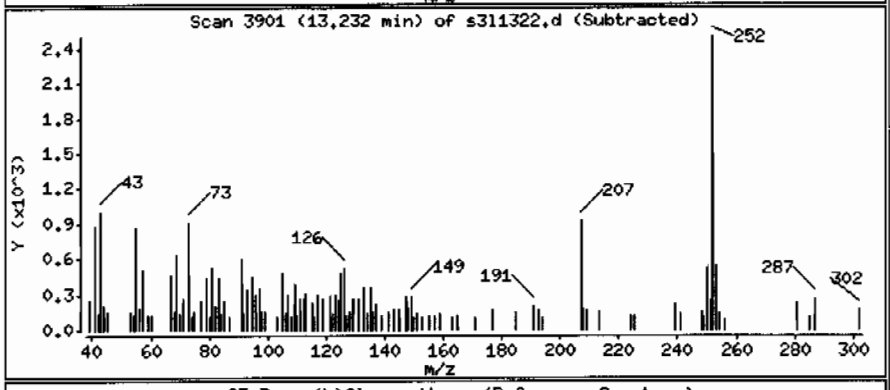

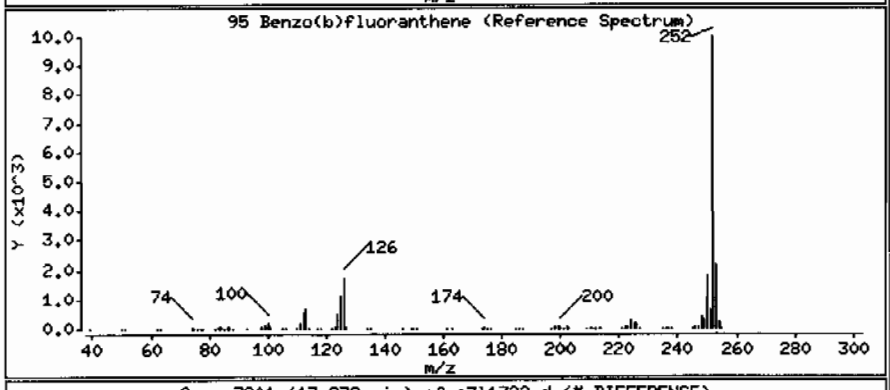

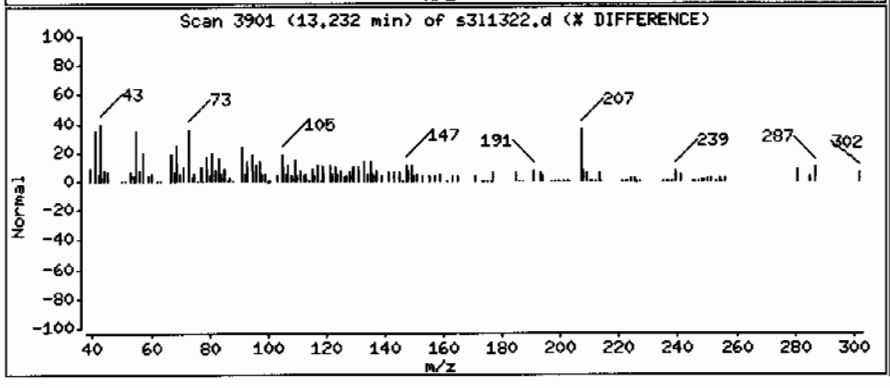

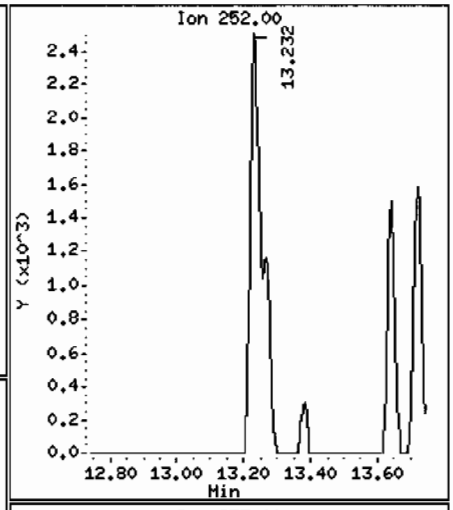

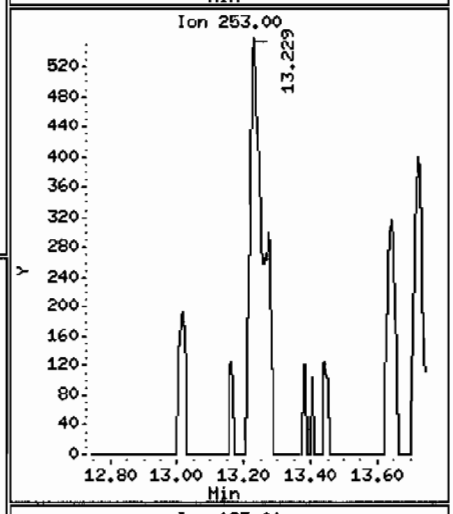

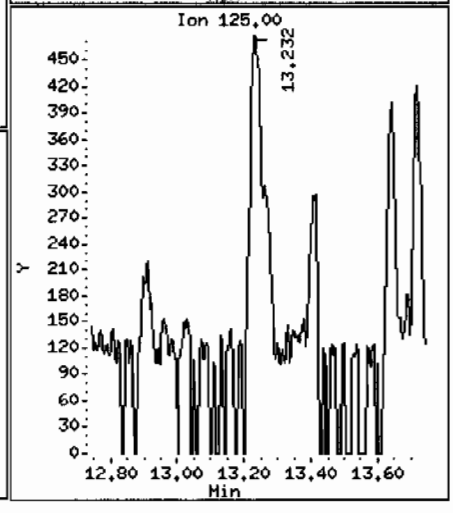

Data File: /chem/MSD3.i/s121309.b/s311322.d

Date : 13-DEC-2009 18:08

Client ID: RE03-09-14287

Instrument: MSD3.i

Sample Info: |2426540061932077|1|SVMF|1|LANL

Volume Injected (uL): 0.5

Operator: JLD1

Column phase: J&W DB-5MS

Column diameter: 0.20

96 Benzo(k)fluoranthene

Concentration: 11.6 ug/Kg

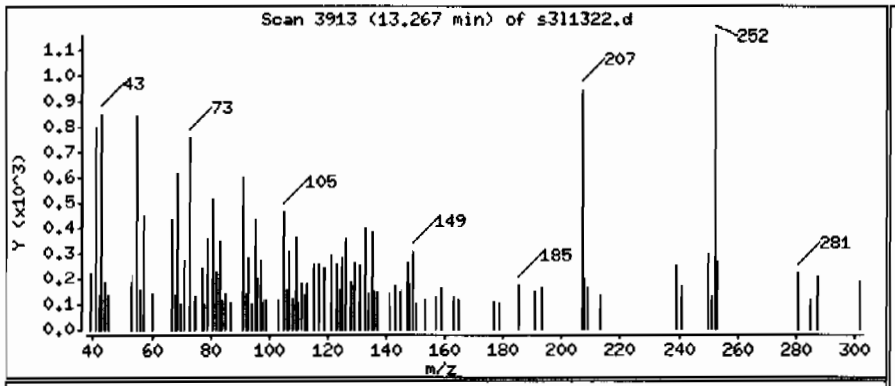

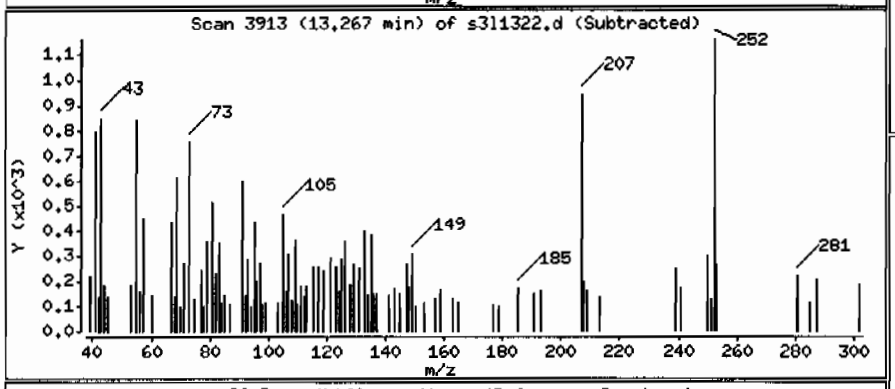

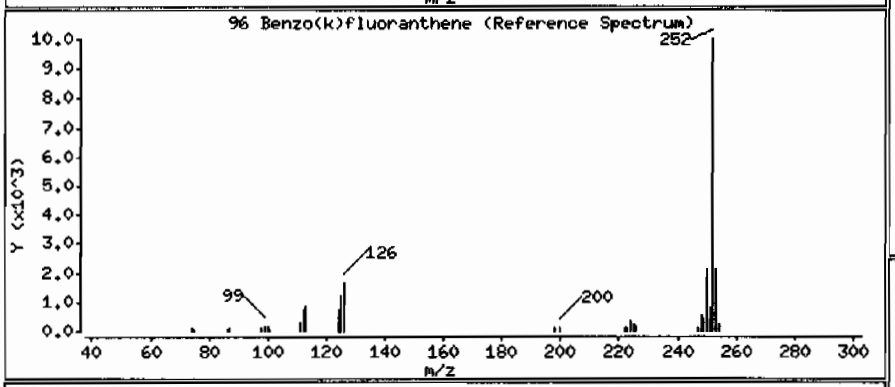

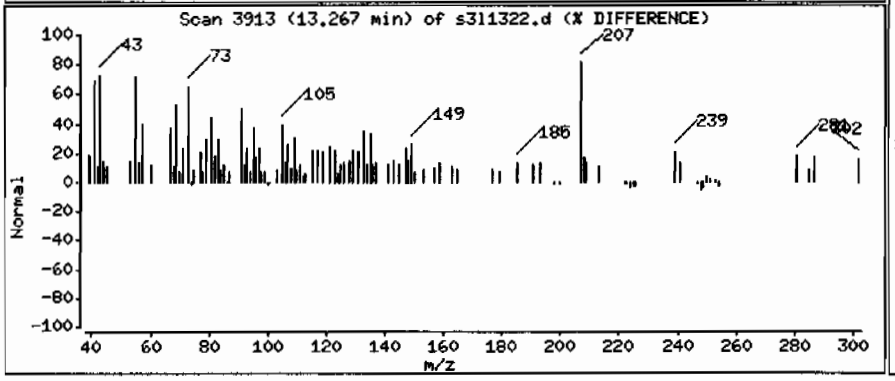

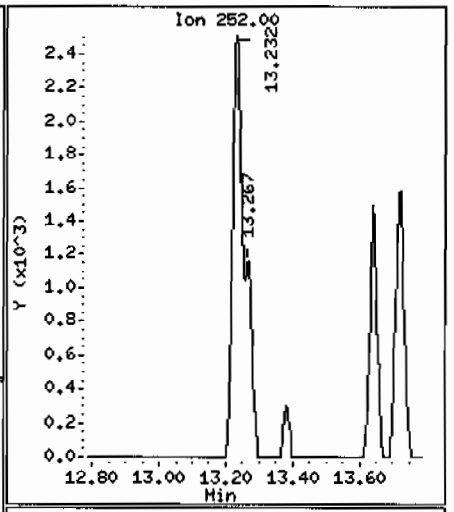

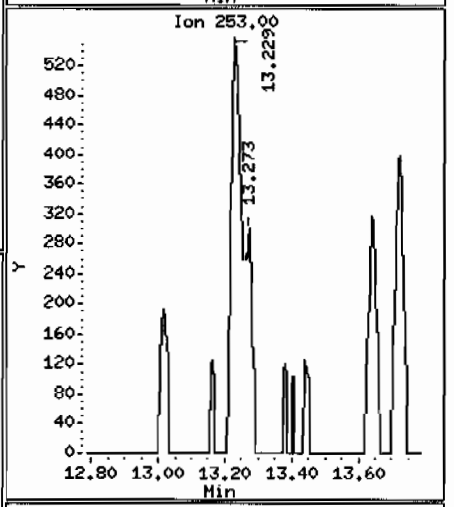

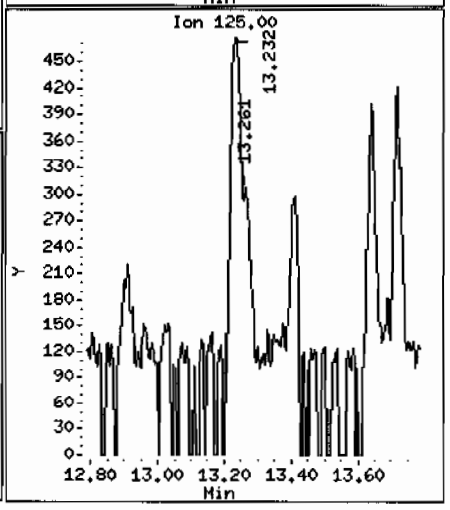

Data File: /chem/MSD3.i/s121309.b/s311322.d

Date : 13-DEC-2009 18:08

Client ID: RE03-09-14287

Instrument: MSD3.i

Sample Info: |2426540061932077|1|SVMF|1|LANL

Volume Injected (uL): 0.5

Operator: JLD1

Column phase: J&W DB-5MS

Column diameter: 0.20

97 Benzo(a)pyrene

Concentration: 22.1 ug/Kg

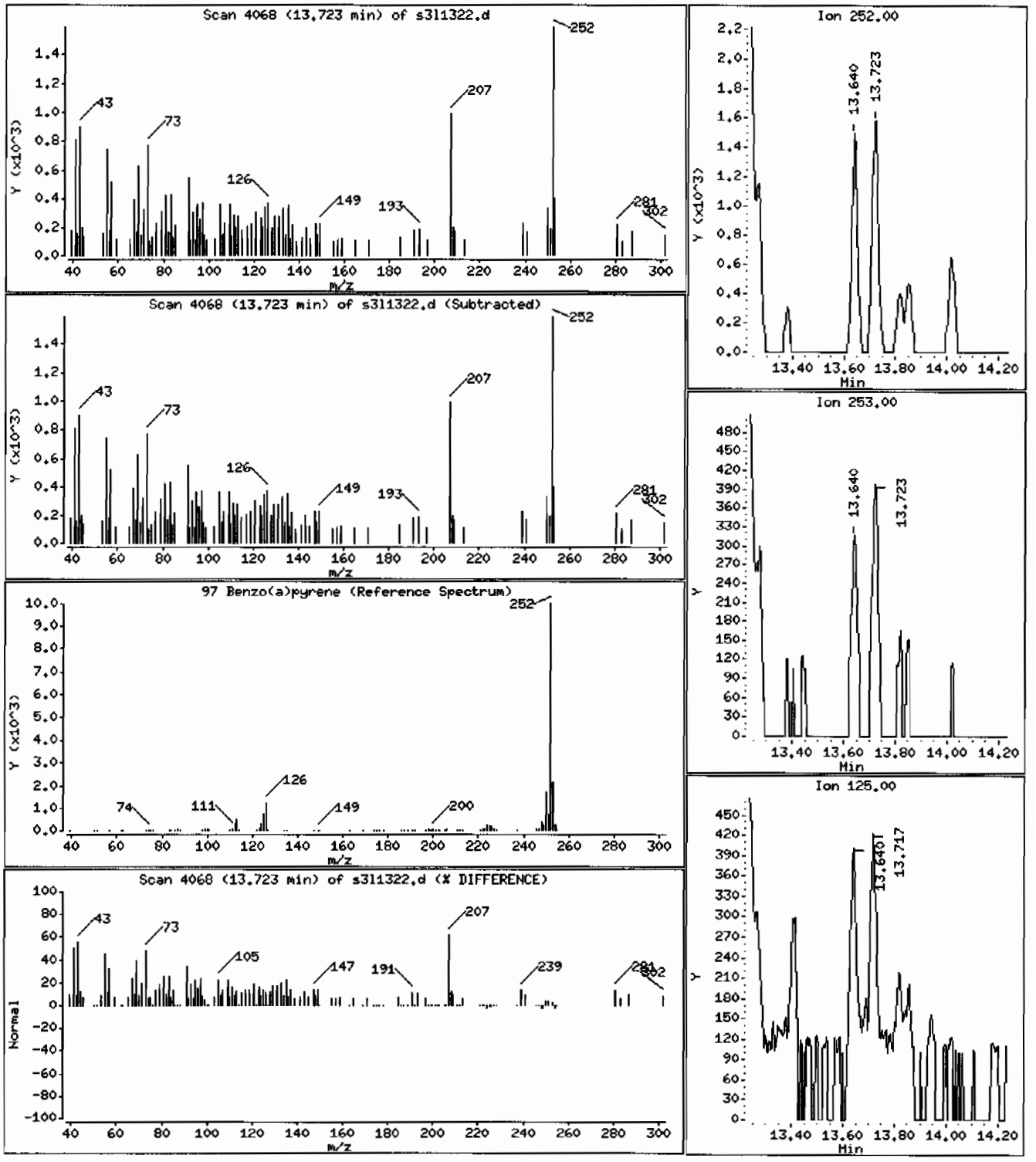

Data File: /chem/MSD3.i/s121309.b/s311322.d

Date : 13-DEC-2009 18:08

Client ID: RE03-09-14287

Instrument: MSD3.i

Sample Info: 1242654006193207711ISVMF11LANL

Volume Injected (uL): 0.5

Operator: JLD1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	56	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	40	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7945	38	C6H12O2	116

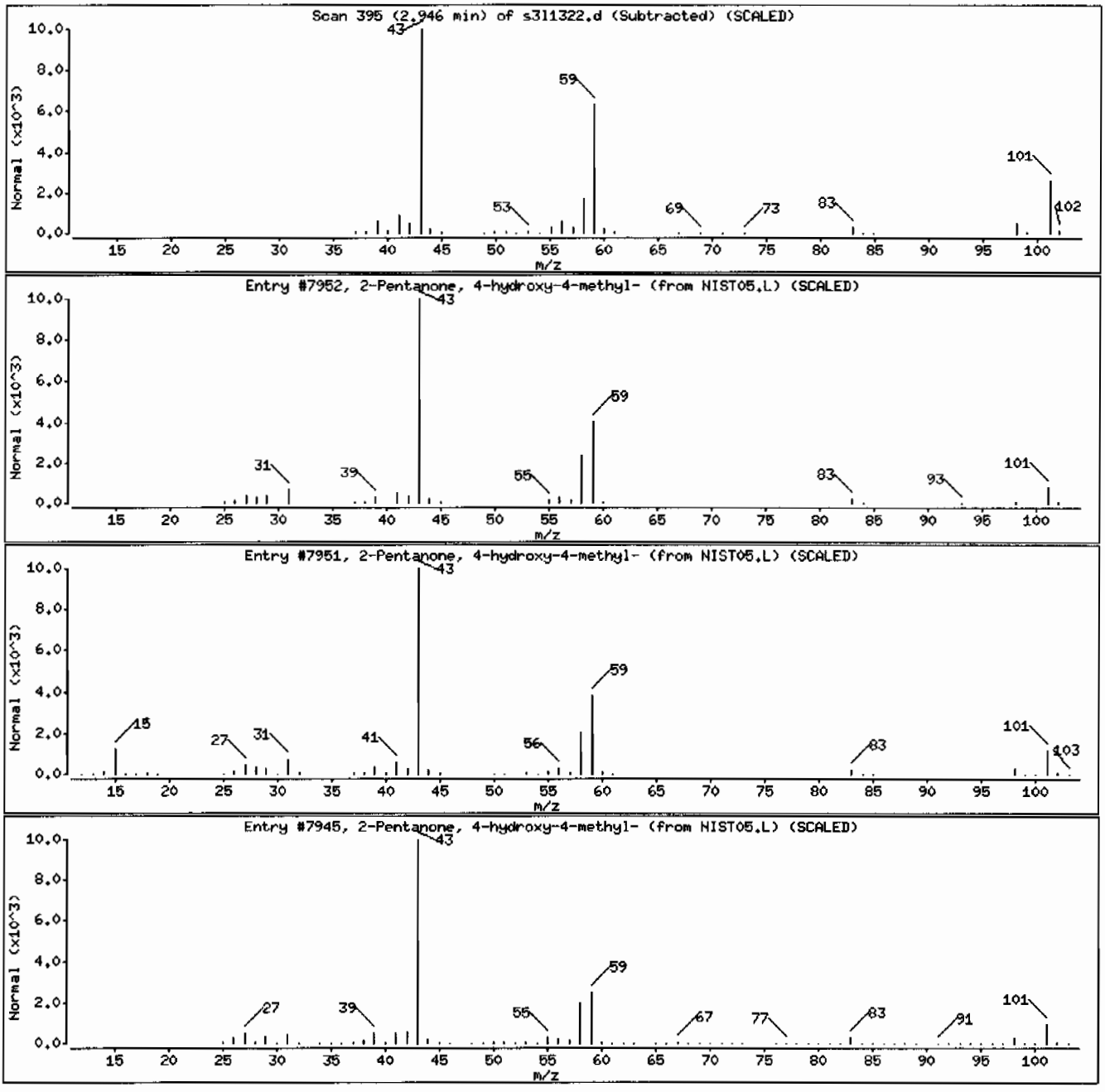

Data File: /chem/MSD3.i/s121309.b/s311322.d

Date : 13-DEC-2009 18:08

Client ID: RE03-09-14287

Instrument: MSD3.i

Sample Info: |2426540061932077|1|SVMF|1|LANL

Volume Injected (uL): 0.5

Operator: JLD1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
1R-.alpha.-Pinene	7785-70-8	NIST05.L	15186	97	C10H16	136
1R-.alpha.-Pinene	7785-70-8	NIST05.L	15188	96	C10H16	136
.alpha.-Pinene	80-56-8	NIST05.L	15178	96	C10H16	136

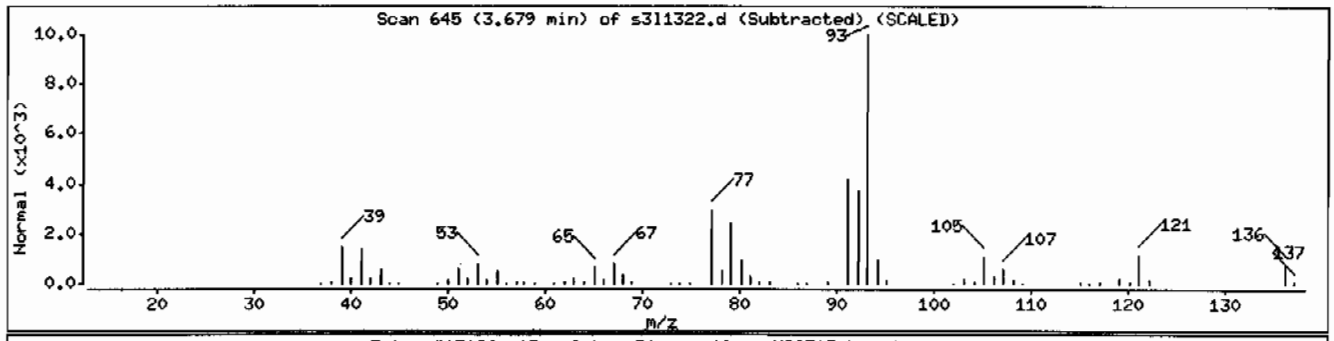

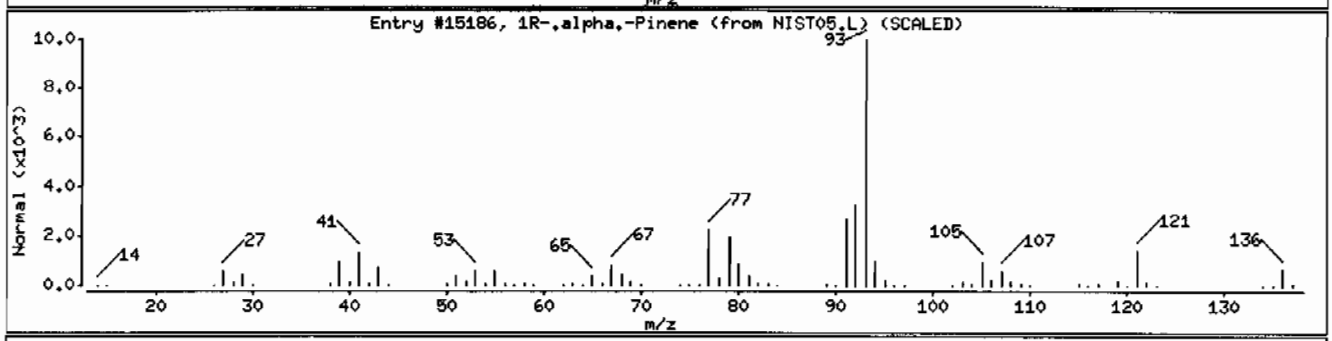

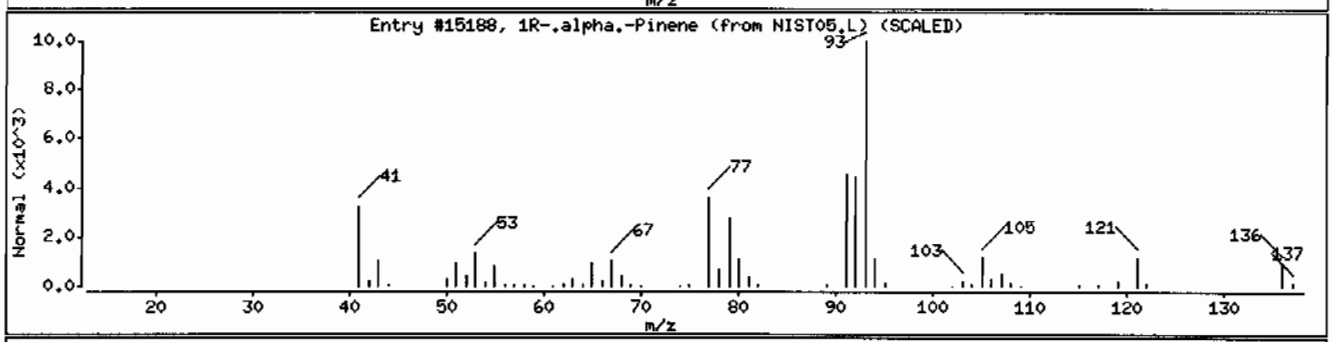

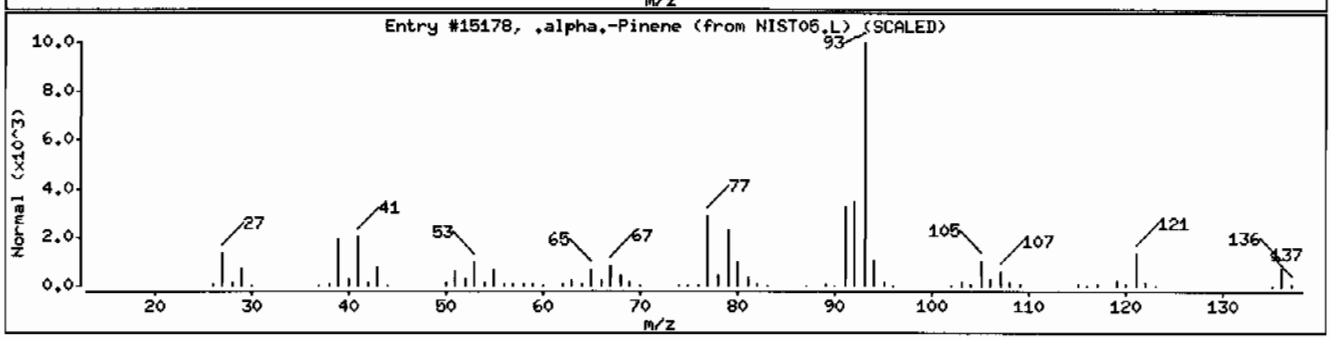

Data File: /chem/MSD3.i/s121309.b/s311322.d

Date : 13-DEC-2009 18:08

Client ID: RE03-09-14287

Instrument: MSD3.i

Sample Info: |2426540061932077|1|SVMF|1|LANL

Volume Injected (uL): 0.5

Operator: JLD1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Bicyclo[3.1.1]heptane, 6,6-dimethyl-2-me	18172-67-3	NIST05.L	15390	97	C10H16	136
.beta.-Pinene	127-91-3	NIST05.L	15171	96	C10H16	136
.beta.-Pinene	127-91-3	NIST05.L	15175	93	C10H16	136

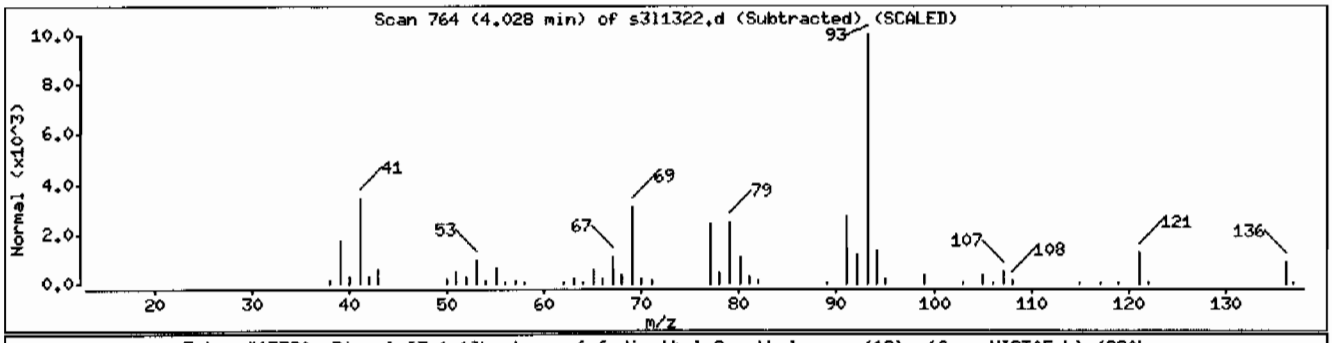

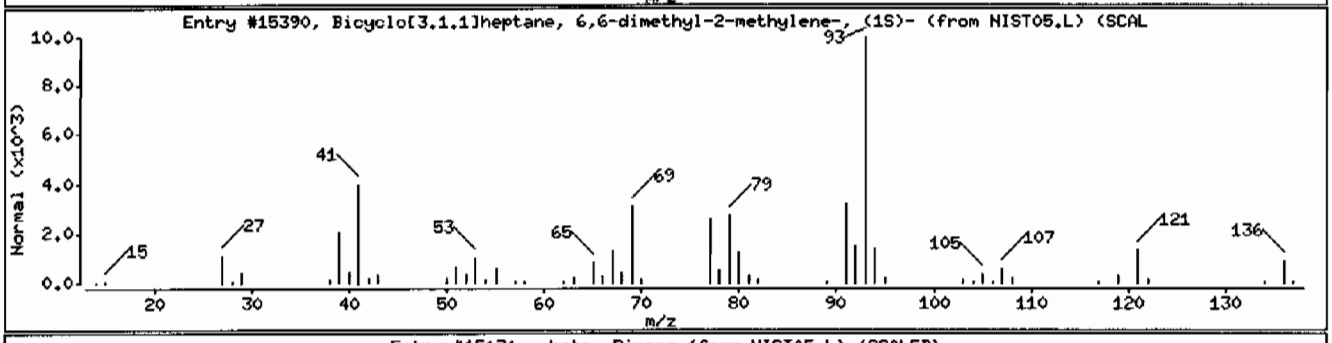

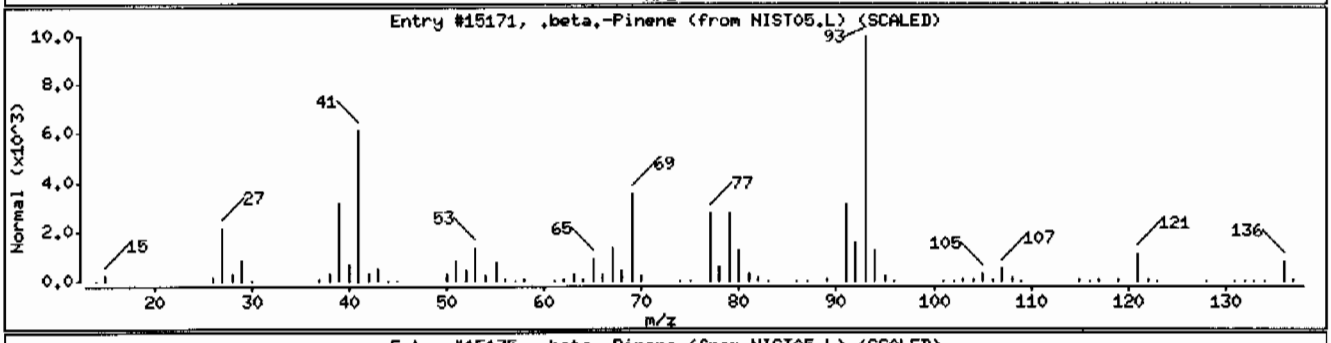

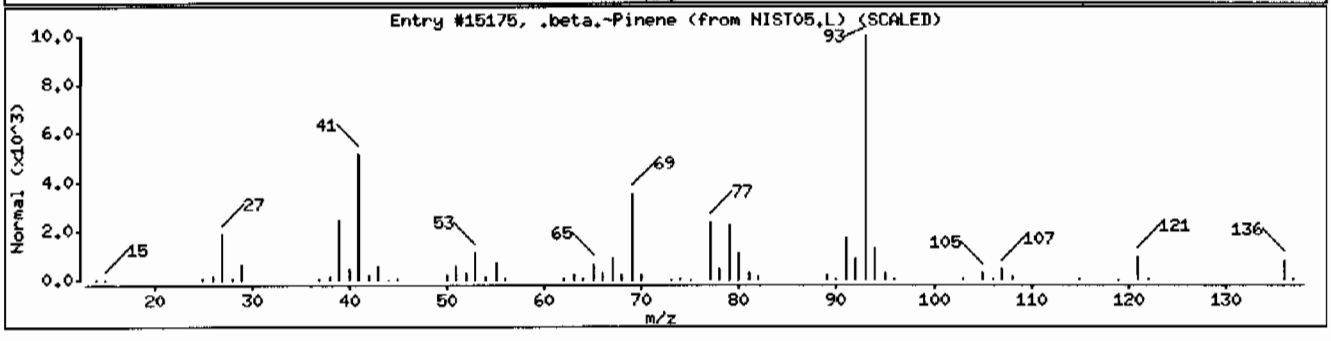

Data File: /chem/MSD3.i/s121309.b/s311322.d

Date : 13-DEC-2009 18:08

Client ID: RE03-09-14287 Instrument: MSD3.i

Sample Info: |2426540061932077|1|SVMF|1|LANL

Volume Injected (uL): 0.5 Operator: JLD1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
3-Carene	13466-78-9	NIST05.L	15157	96	C10H16	136
Bicyclo[4.1.0]hept-3-ene, 3,7,7-trimethy	498-15-7	NIST05.L	15369	96	C10H16	136
3-Carene	13466-78-9	NIST05.L	15156	95	C10H16	136

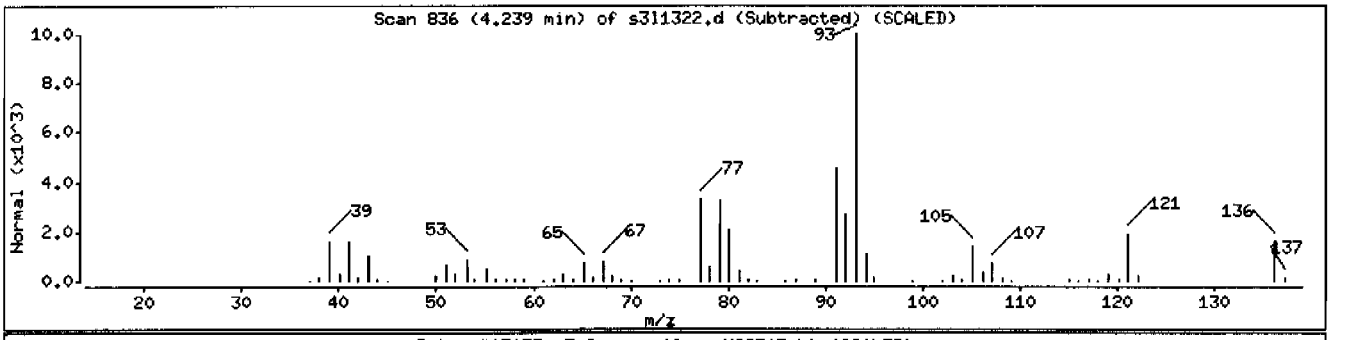

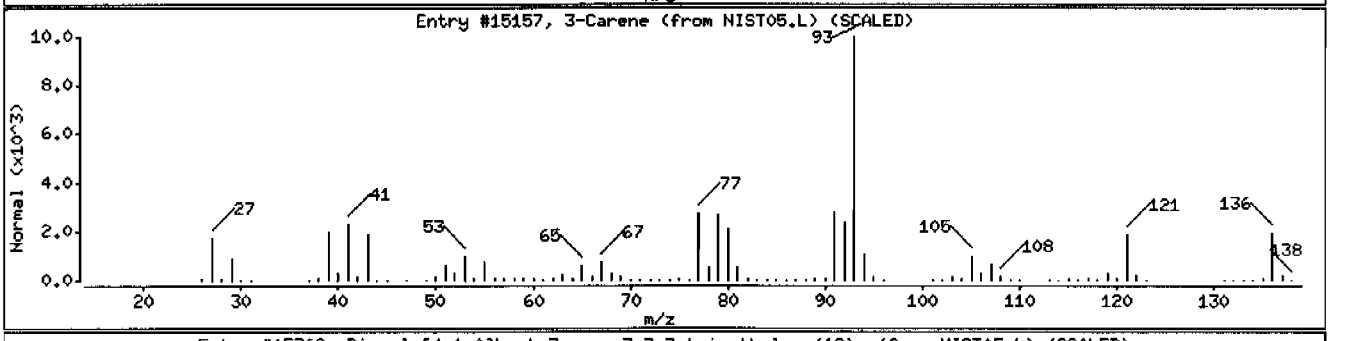

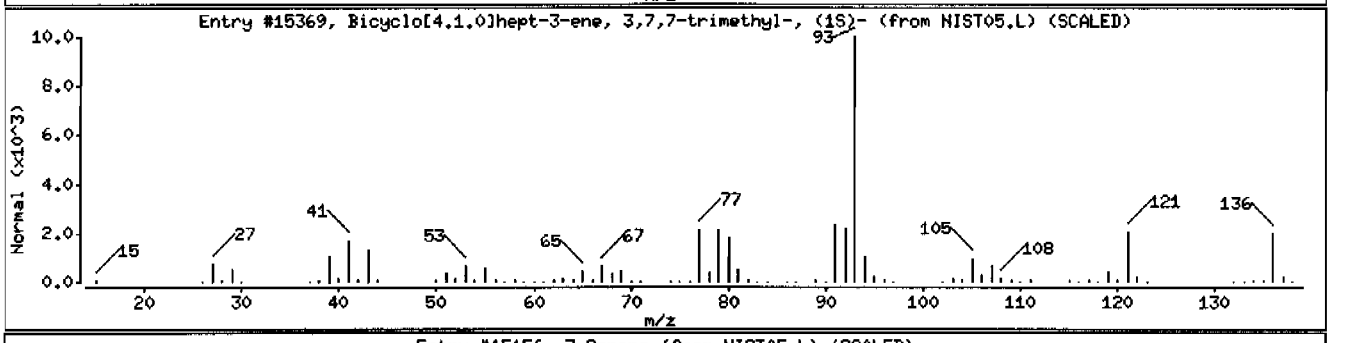

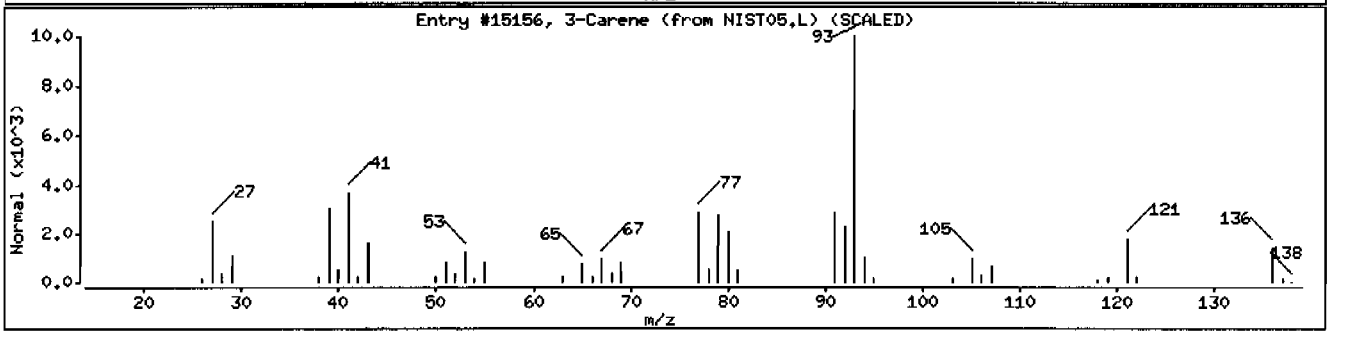

Data File: /chem/MSD3.i/s121309.b/s311322.d

Date : 13-DEC-2009 18:08

Client ID: RE03-09-14287 Instrument: MSD3.i

Sample Info: |2426540061932077|1|SVMF|1|LANL

Volume Injected (uL): 0.5 Operator: JLD1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
2,6-Pyridinediamine	141-86-6	NIST05.L	5393	35	C5H7N3	109
2,3-Dehydro-1,8-cineole	92760-25-3	NIST05.L	24073	27	C10H16O	152
p-Decyloxyaniline	39905-47-0	NIST05.L	91357	27	C16H27NO	249

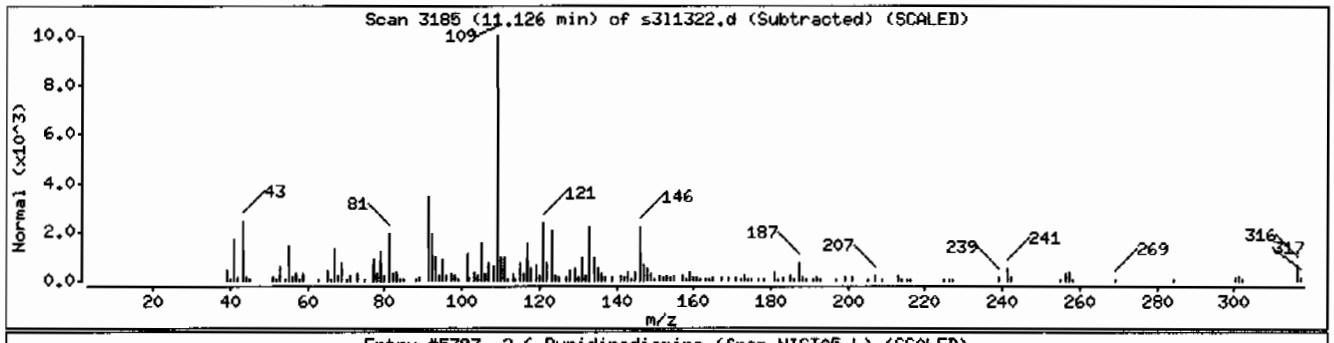

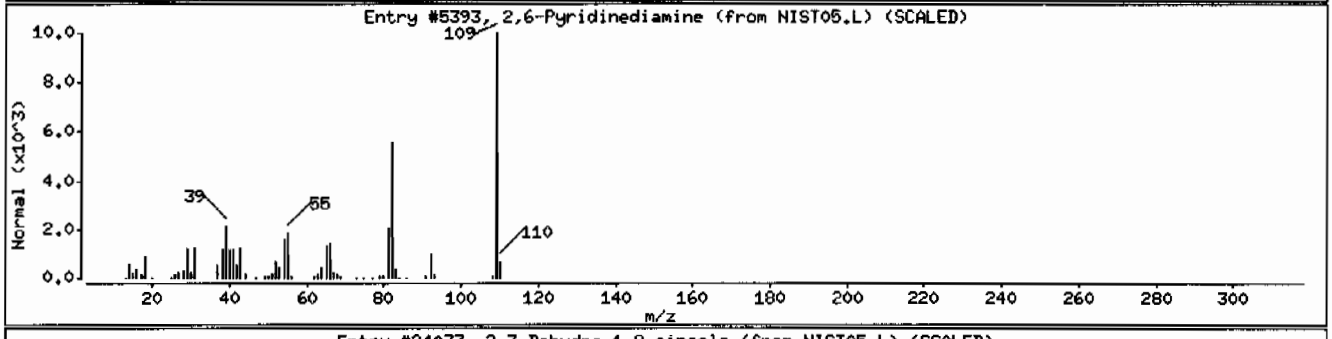

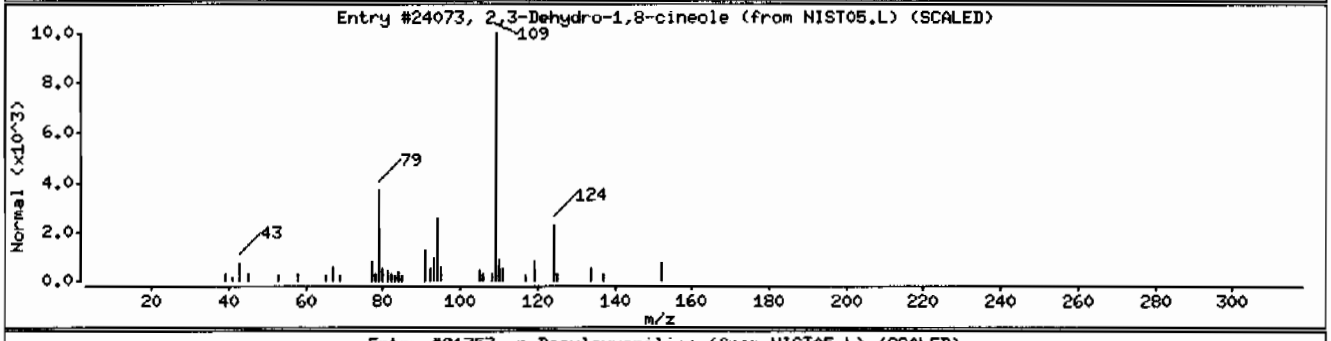

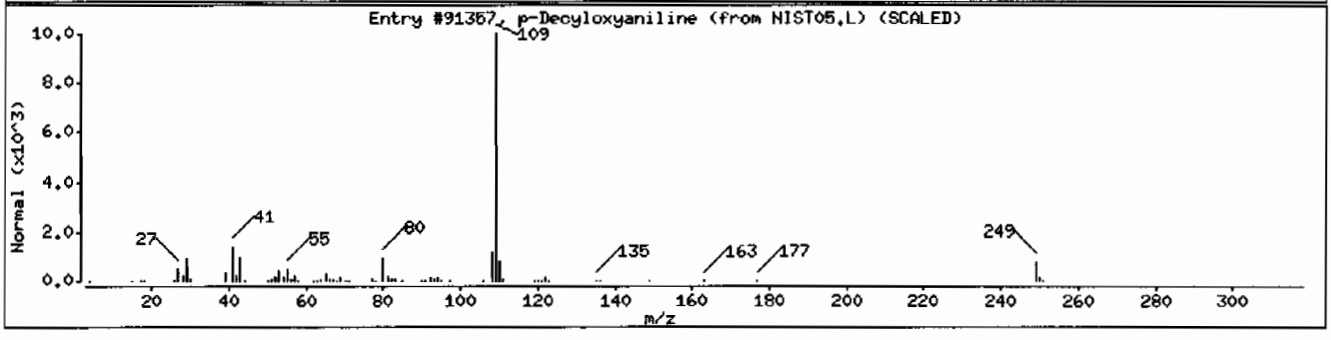

Data File: /chem/MSD3.i/s121309.b/s311322.d

Date : 13-DEC-2009 18:08

Client ID: RE03-09-14287 Instrument: MSD3.i

Sample Info: |2426540061932077|1|SVMF|1|LANL

Volume Injected (uL): 0.5 Operator: JLD1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
1-Phenanthrenecarboxylic acid, 1,2,3,4,4	1235-74-1	NIST05.L	133618	99	C21H3002	314
1-Phenanthrenecarboxylic acid, 1,2,3,4,4	1235-74-1	NIST05.L	133621	93	C21H3002	314
1-Phenanthrenecarboxylic acid, 1,2,3,4,4	1235-74-1	NIST05.L	133620	84	C21H3002	314

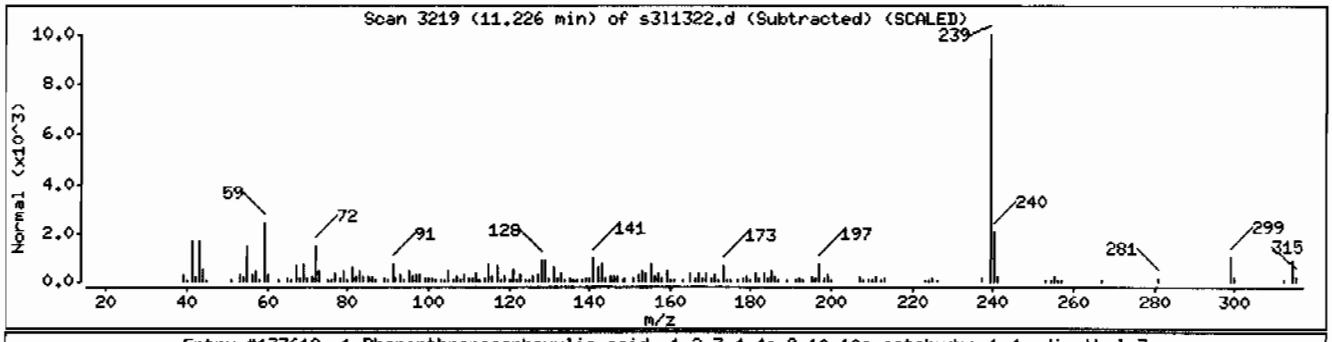

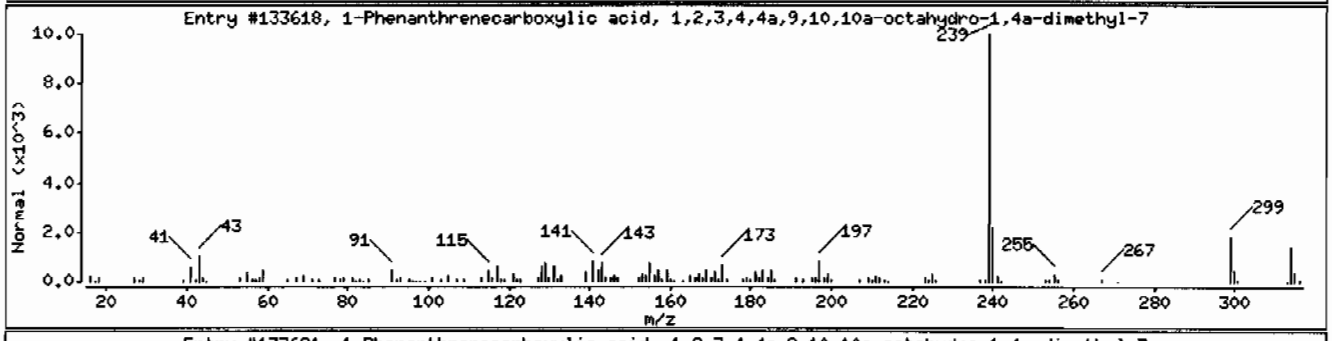

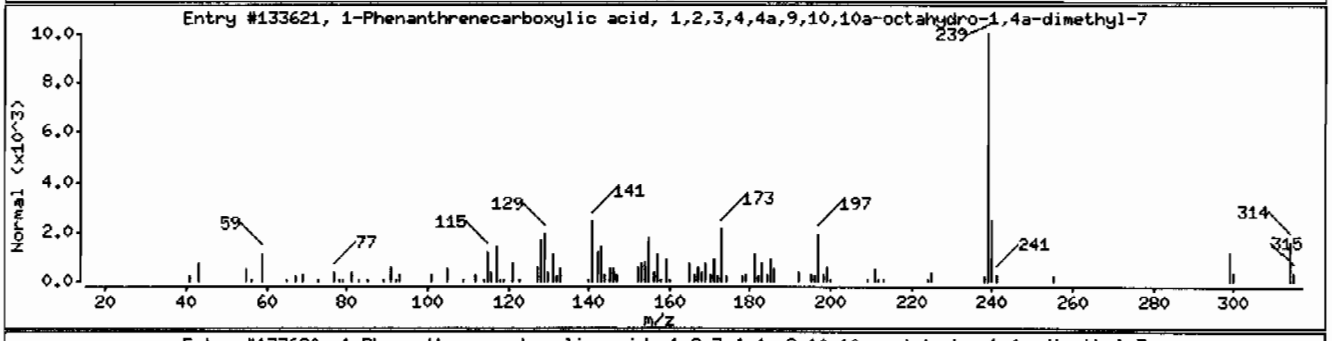

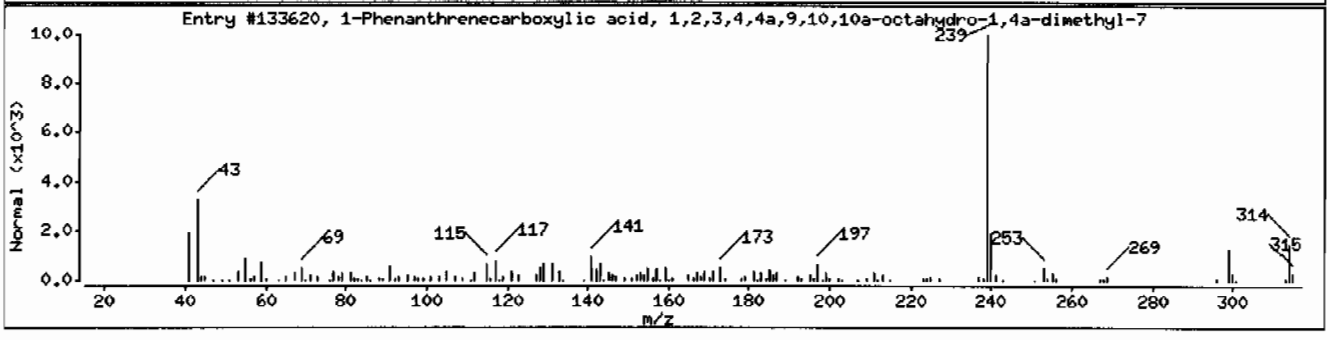

Data File: /chem/MSD3.i/s121309.b/s311322.d

Date : 13-DEC-2009 18:08

Client ID: RE03-09-14287

Instrument: MSD3.i

Sample Info: |2426540061932077|1|SVMF|1|LANL

Volume Injected (uL): 0.5

Operator: JLD1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
1,4-Dimethyl-8-isopropylidenetricyclo[5,	1000140-07-7	NIST05.L	59920	78	C15H24	204
7-Oxabicyclo[4.1.0]heptane, 2,2,6-trimet	70038-20-9	NIST05.L	69982	56	C15H220	218
Naphthalene, 1,2,3,5,6,7,8,8a-octahydro-	4630-07-3	NIST05.L	60049	46	C15H24	204

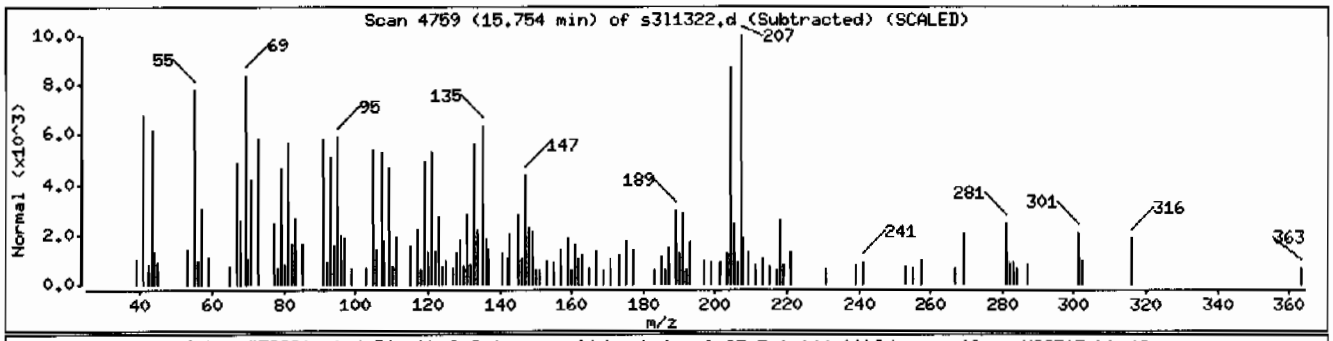

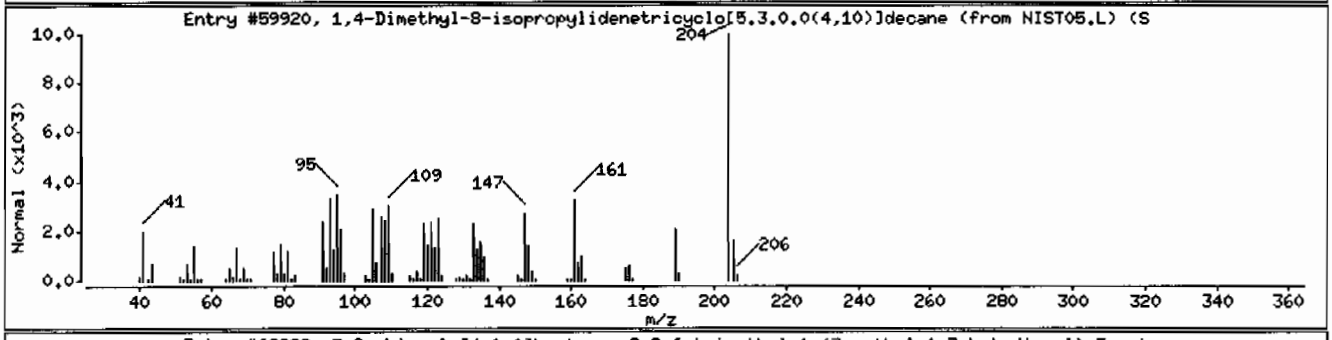

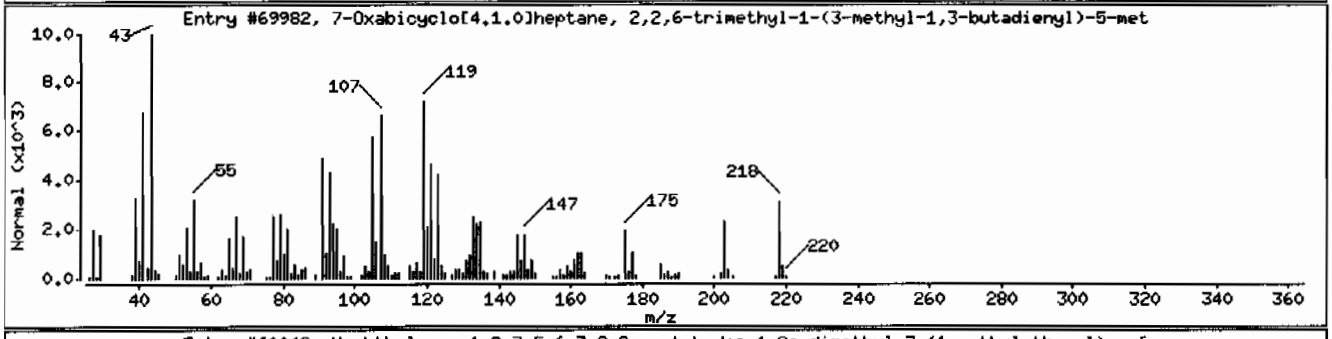

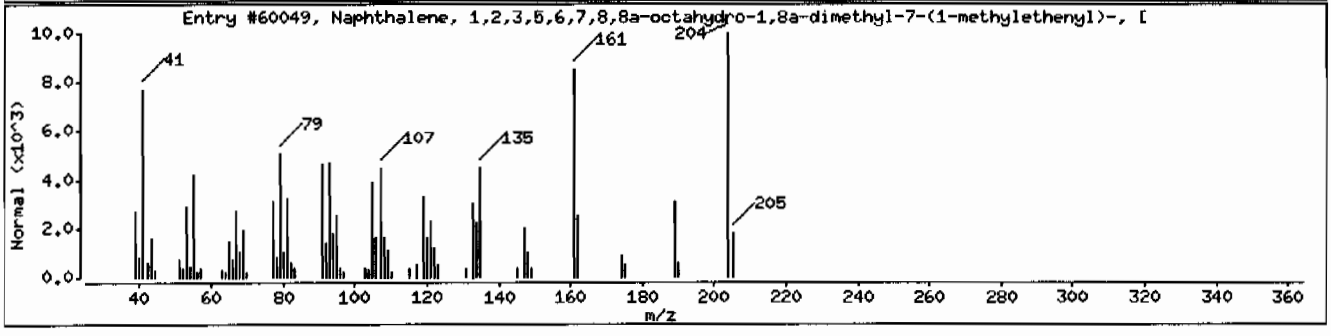

Data File: /chem/MSD3.i/s121309.b/s311322.d

Date : 13-DEC-2009 18:08

Client ID: RE03-09-14287

Instrument: MSD3.i

Sample Info: |2426540061932077|1|SVMF|1|LANL

Volume Injected (uL): 0.5

Operator: JLD1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Stigmast-4-en-3-one	1058-61-3	NIST05.L	173936	90	C29H480	412
Androst-4-en-3-one, 17-hydroxy-, (17.bet	58-22-0	NIST05.L	117326	81	C19H2802	288
Androst-4-en-3-one, 17-hydroxy-, (17.bet	58-22-0	NIST05.L	117328	41	C19H2802	288

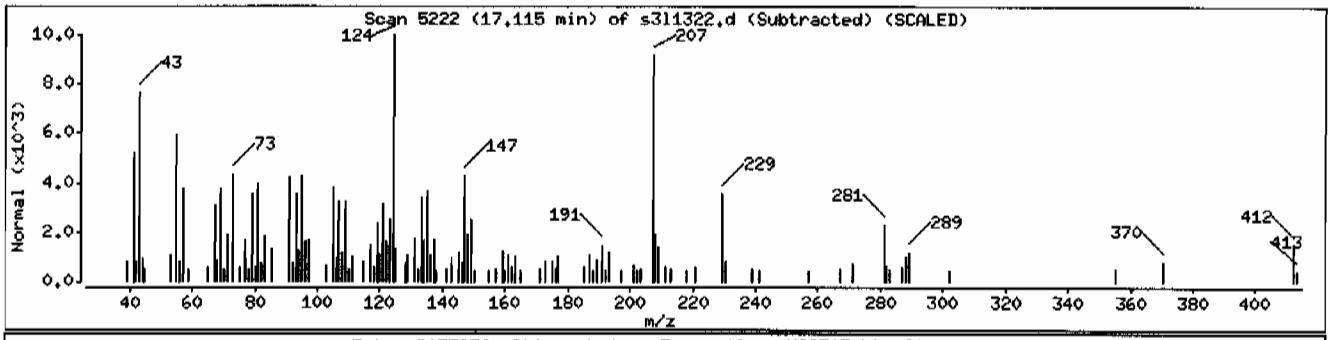

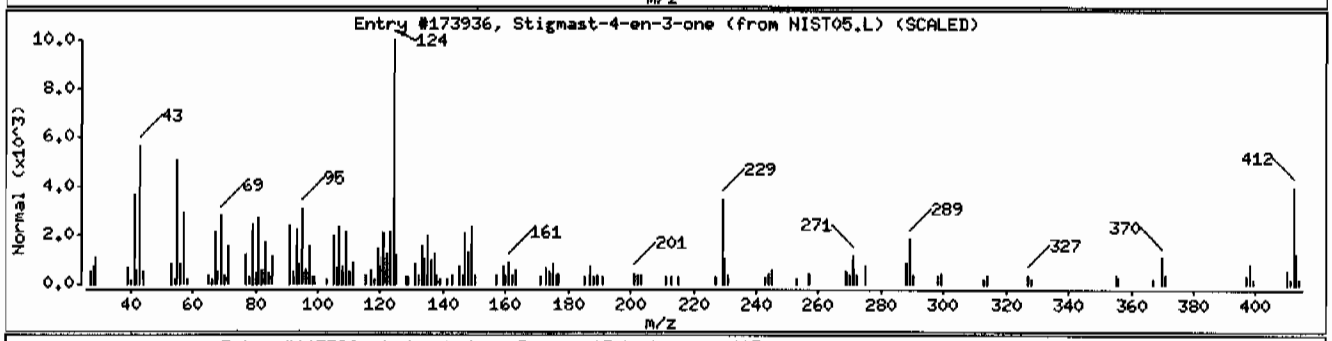

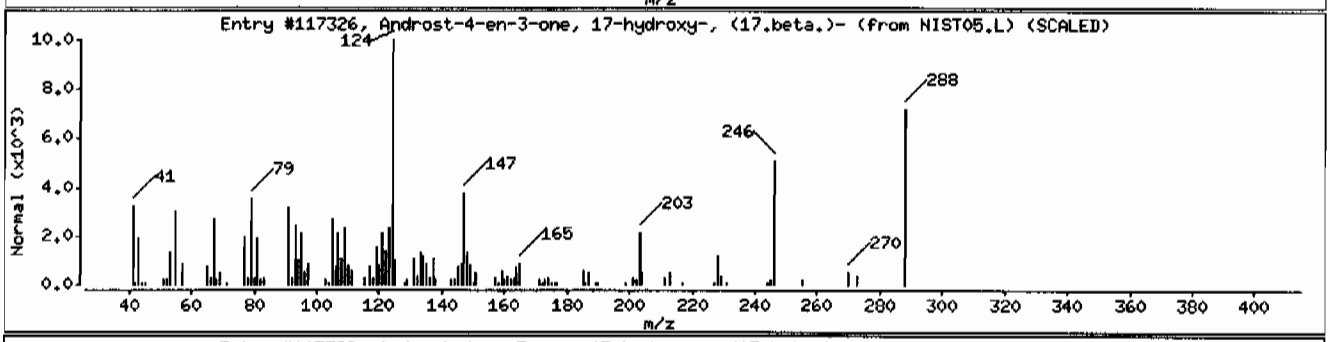

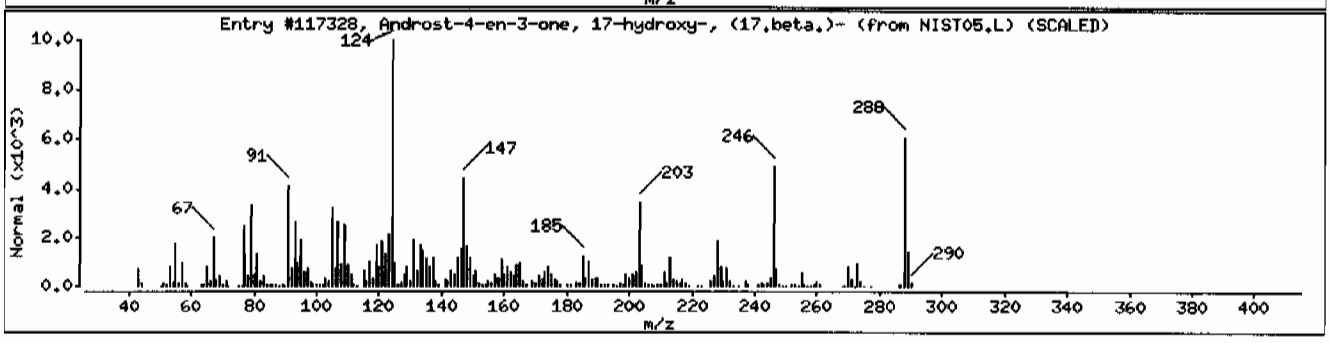

Data File: /chem/MSD3.i/s121309.b/s311322.d

Date : 13-DEC-2009 18:08

Client ID: RE03-09-14287 Instrument: MSD3.i

Sample Info: |2426540061932077|1|SVHF|1|LANL

Volume Injected (uL): 0.5 Operator: JLD1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
7-Tetradecyne	35216-11-6	NIST05.L	52908	55	C14H26	194
Bicyclo[2.2.1]heptane, 2,2,3-trimethyl-	473-19-8	NIST05.L	16403	25	C10H18	138
2-Naphthalenamine, 1,2,4a,5,6,7,8,8a-oct	56053-03-3	NIST05.L	32795	25	C11H19N	165

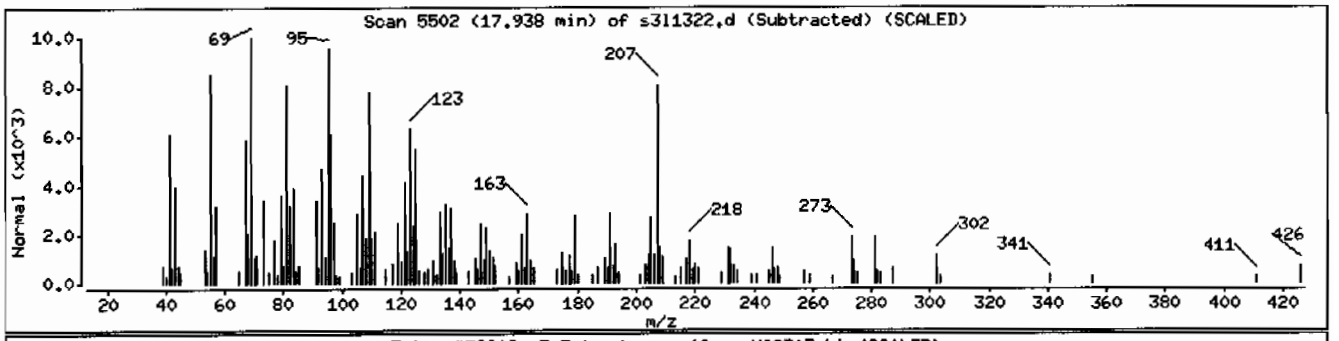

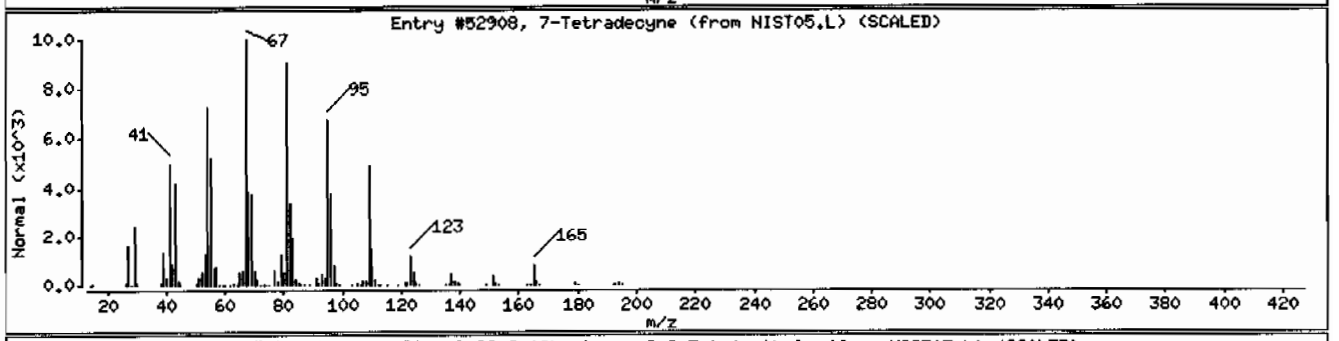

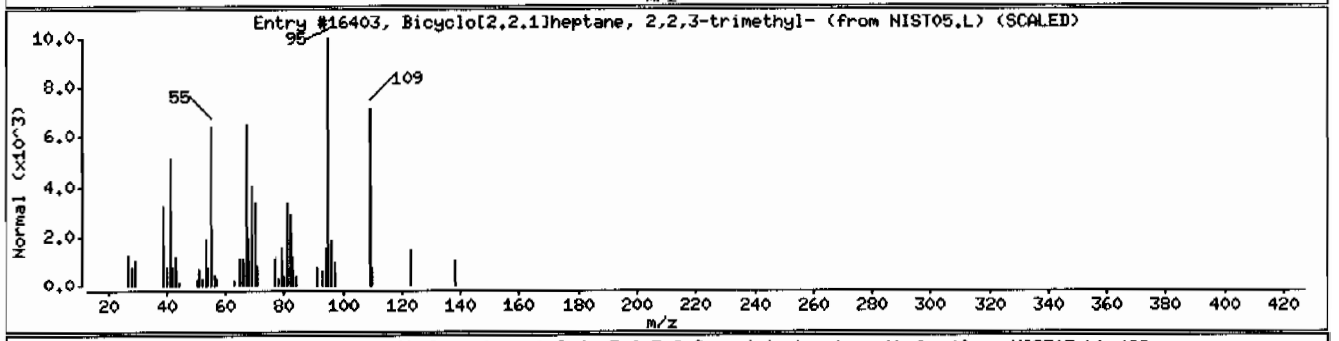

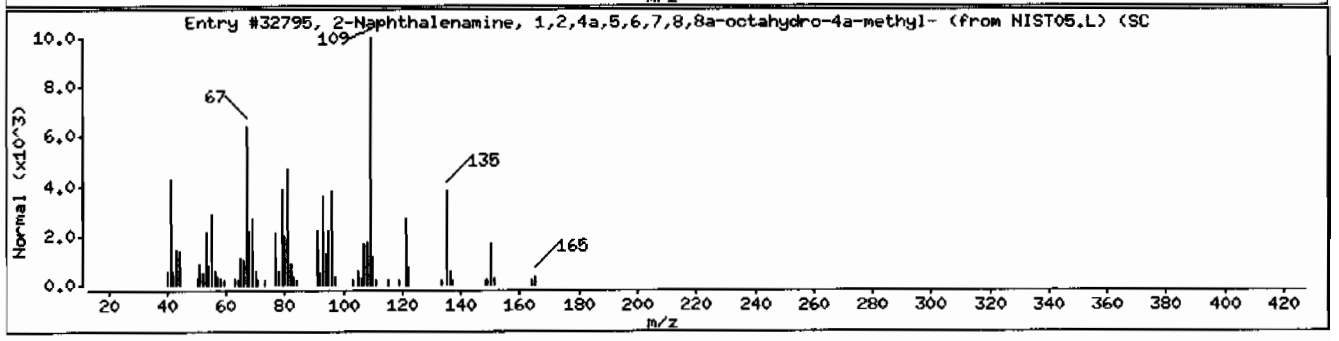

Data File: /chem/MSD3.i/s121309.b/s311322.d

Date : 13-DEC-2009 18:08

Client ID: RE03-09-14287

Instrument: MSD3.i

Sample Info: 1242654006|932077|1|SVMF|1|LANL

Volume Injected (uL): 0.5

Operator: JLD1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Cycloheptа[cd][2]benzothiophene, 2,6,7,8	199807-57-3	NIST05.L	49890	18	C12H14S	190
Spiro[5.5]undec-2-ene, 3,7,7-trimethyl-1	18431-82-8	NIST05.L	59919	18	C15H24	204
Pyrazole-4-carboxaldehyde, 3-(4-fluoroph	306936-57-2	NIST05.L	49700	14	C10H7FN2O	190

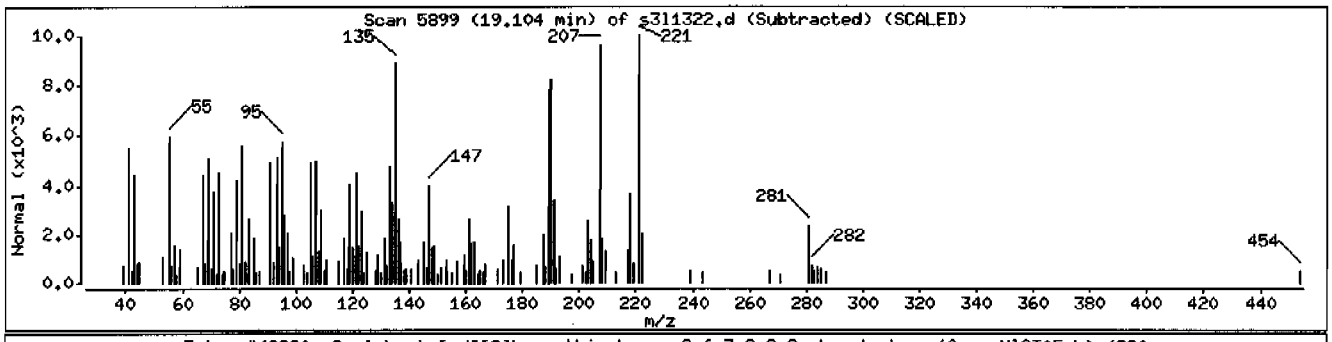

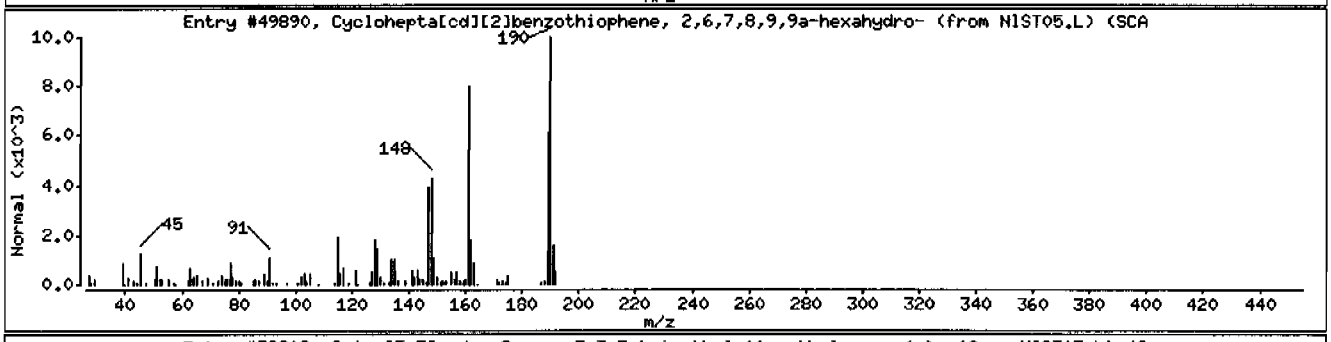

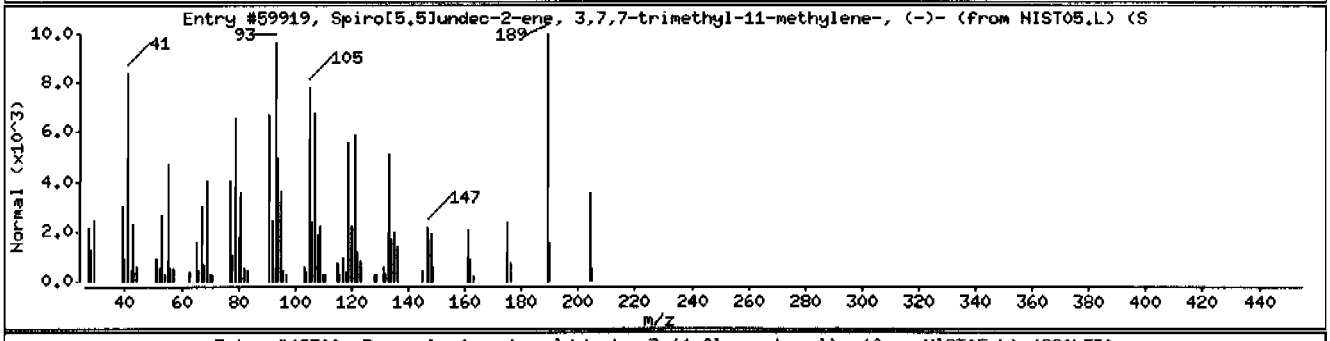

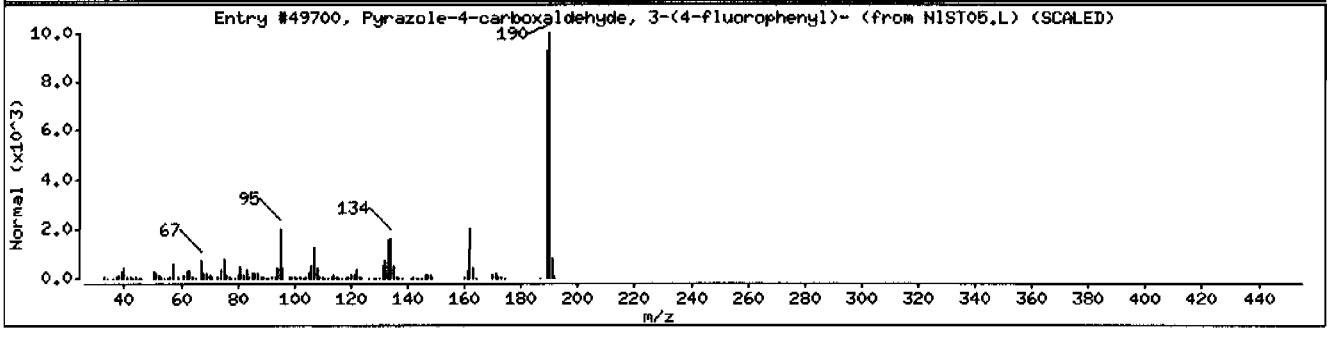

Data File: /chem/MSD3.i/s121309.b/s311322.d

Date : 13-DEC-2009 18:08

Client ID: RE03-09-14287 Instrument: MSD3.i

Sample Info: |2426540061932077|1|SVMF|1|LANL

Volume Injected (uL): 0.5 Operator: JLD1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
1H-Cyclopropl[e]azulene, decahydro-1,1,7-	489-39-4	NIST05.L	60078	25	C15H24	204
Naphthalene, decahydro-4a-methyl-1-methy	17066-67-0	NIST05.L	60021	25	C15H24	204
5(1H)-Azulenone, 2,4,6,7,8,8a-hexahydro-	6754-66-1	NIST05.L	69984	25	C15H220	218

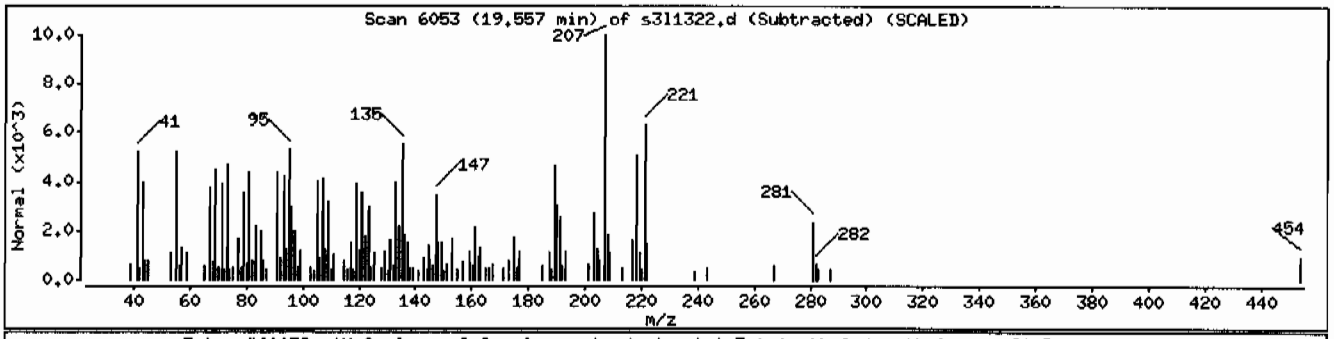

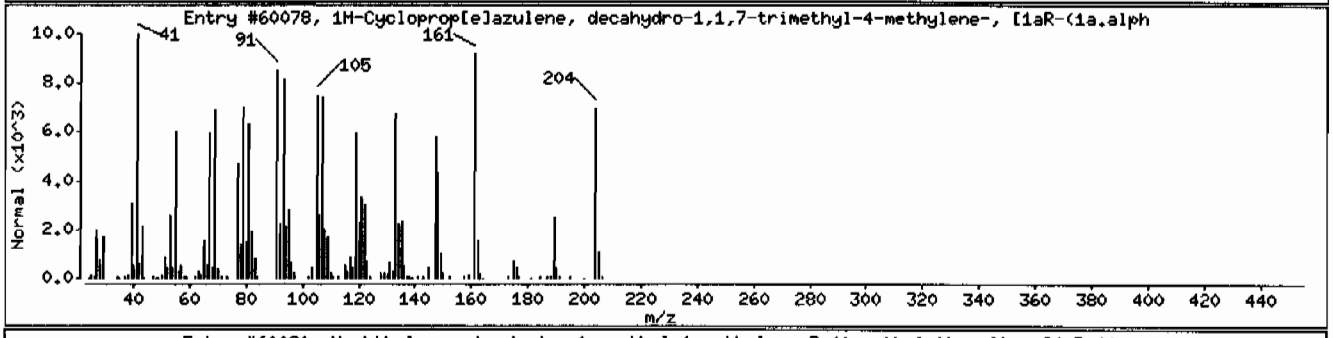

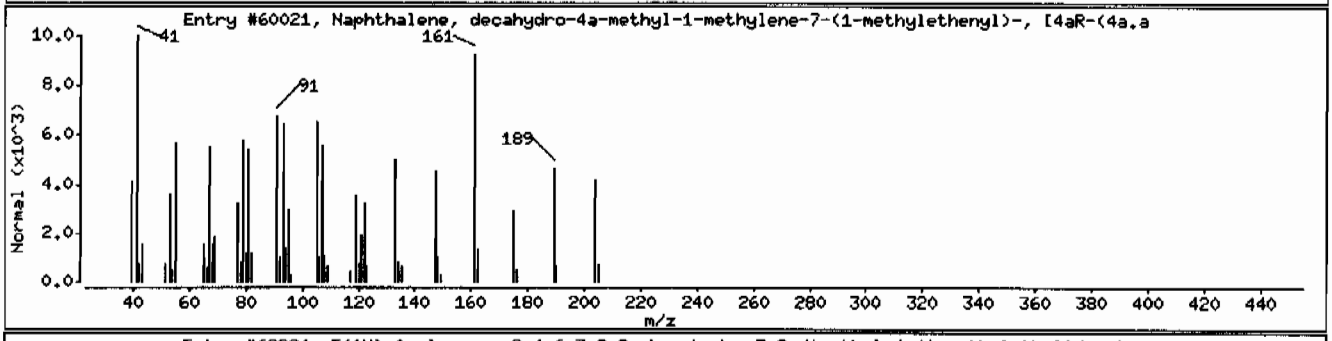

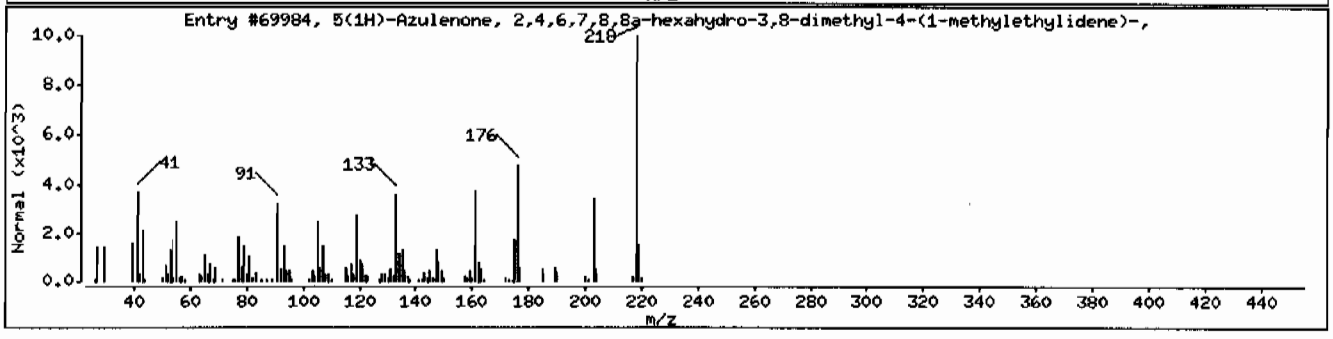

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-852**	**Date Collected:**	**12/07/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242654005**	**Date Received:**	**12/10/2009 08:50**	**%Moisture:**	**5.9**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14288**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**932077**	**Inst:**	**MSD3.I**	**Dilution:**	**1**
Run Date:	**12/13/2009 17:40**	**Analyst:**	**JLD1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/11/2009 21:55**	**Aliquot:**	**30.12 g**	**Final Volume:**	**1 mL**
Data File:	**s3l1321.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	353	ug/kg	70.6	353
108-95-2	Phenol	U	353	ug/kg	70.6	353
95-57-8	2-Chlorophenol	U	353	ug/kg	70.6	353
106-46-7	1,4-Dichlorobenzene	U	353	ug/kg	70.6	353
621-64-7	N-Nitrosodipropylamine	U	353	ug/kg	70.6	353
59-50-7	4-Chloro-3-methylphenol	U	353	ug/kg	70.6	353
83-32-9	Acenaphthene	U	35.3	ug/kg	11.6	35.3
121-14-2	2,4-Dinitrotoluene	U	353	ug/kg	35.3	353
100-02-7	4-Nitrophenol	U	353	ug/kg	116	353
87-86-5	Pentachlorophenol	U	353	ug/kg	88.2	353
129-00-0	Pyrene	U	35.3	ug/kg	10.6	35.3
110-86-1	Pyridine	U	353	ug/kg	70.6	353
62-53-3	Aniline	U	353	ug/kg	106	353
111-44-4	bis(2-Chloroethyl) ether	U	353	ug/kg	70.6	353
541-73-1	1,3-Dichlorobenzene	U	353	ug/kg	70.6	353
100-51-6	Benzyl alcohol	U	353	ug/kg	106	353
95-50-1	1,2-Dichlorobenzene	U	353	ug/kg	70.6	353
108-60-1	bis(2-Chloroisopropyl)ether	U	353	ug/kg	70.6	353
95-48-7	o-Cresol	U	353	ug/kg	70.6	353
65794-96-9	m,p-Cresols	U	353	ug/kg	106	353
67-72-1	Hexachloroethane	U	353	ug/kg	70.6	353
98-95-3	Nitrobenzene	U	353	ug/kg	70.6	353
78-59-1	Isophorone	U	353	ug/kg	70.6	353
88-75-5	2-Nitrophenol	U	353	ug/kg	70.6	353
105-67-9	2,4-Dimethylphenol	U	353	ug/kg	124	353
111-91-1	bis(2-Chloroethoxy)methane	U	353	ug/kg	70.6	353
120-83-2	2,4-Dichlorophenol	U	353	ug/kg	70.6	353
65-85-0	Benzoic acid	U	706	ug/kg	176	706
91-20-3	Naphthalene	U	35.3	ug/kg	10.6	35.3
106-47-8	4-Chloroaniline	U	353	ug/kg	70.6	353
87-68-3	Hexachlorobutadiene	U	353	ug/kg	70.6	353
91-57-6	2-Methylnaphthalene	U	35.3	ug/kg	7.06	35.3
77-47-4	Hexachlorocyclopentadiene	U	353	ug/kg	70.6	353
88-06-2	2,4,6-Trichlorophenol	U	353	ug/kg	70.6	353
95-95-4	2,4,5-Trichlorophenol	U	353	ug/kg	70.6	353
91-58-7	2-Chloronaphthalene	U	35.3	ug/kg	11.6	35.3
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	353	ug/kg	70.6	353
99-09-2	3-Nitroaniline	U	353	ug/kg	70.6	353

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-852**	**Date Collected:**	**12/07/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242654005**	**Date Received:**	**12/10/2009 08:50**	**%Moisture:**	**5.9**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14288**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**932077**	**Inst:**	**MSD3.1**	**Dilution:**	**1**
Run Date:	**12/13/2009 17:40**	**Analyst:**	**JLD1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/11/2009 21:55**	**Aliquot:**	**30.12 g**	**Final Volume:**	**1 mL**
Data File:	**s3l1321.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	353	ug/kg	70.6	353
606-20-2	2,6-Dinitrotoluene	U	353	ug/kg	35.3	353
208-96-8	Acenaphthylene	U	35.3	ug/kg	10.6	35.3
51-28-5	2,4-Dinitrophenol	U	706	ug/kg	134	706
132-64-9	Dibenzofuran	U	353	ug/kg	70.6	353
84-66-2	Diethylphthalate	U	353	ug/kg	70.6	353
86-73-7	Fluorene	U	35.3	ug/kg	10.6	35.3
7005-72-3	4-Chlorophenylphenylether	U	353	ug/kg	70.6	353
534-52-1	2-Methyl-4,6-dinitrophenol	U	353	ug/kg	70.6	353
100-01-6	4-Nitroaniline	U	353	ug/kg	106	353
	p-Nitroaniline					
122-39-4	Diphenylamine	U	353	ug/kg	70.6	353
122-66-7	Azobenzene	U	353	ug/kg	70.6	353
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	353	ug/kg	70.6	353
118-74-1	Hexachlorobenzene	U	353	ug/kg	70.6	353
85-01-8	Phenanthrene	U	35.3	ug/kg	10.6	35.3
120-12-7	Anthracene	U	35.3	ug/kg	7.06	35.3
84-74-2	Di-n-butylphthalate	U	353	ug/kg	70.6	353
206-44-0	Fluoranthene	U	35.3	ug/kg	10.6	35.3
85-68-7	Butylbenzylphthalate	U	353	ug/kg	70.6	353
56-55-3	Benzo(a)anthracene	U	35.3	ug/kg	10.6	35.3
91-94-1	3,3'-Dichlorobenzidine	U	353	ug/kg	106	353
218-01-9	Chrysene	U	35.3	ug/kg	10.6	35.3
117-81-7	bis(2-Ethylhexyl)phthalate	U	353	ug/kg	70.6	353
117-84-0	Di-n-octylphthalate	U	353	ug/kg	70.6	353
205-99-2	Benzo(b)fluoranthene	U	35.3	ug/kg	10.6	35.3
207-08-9	Benzo(k)fluoranthene	U	35.3	ug/kg	10.6	35.3
50-32-8	Benzo(a)pyrene	U	35.3	ug/kg	10.6	35.3
193-39-5	Indeno(1,2,3-cd)pyrene	U	35.3	ug/kg	10.6	35.3
53-70-3	Dibenzo(a,h)anthracene	U	35.3	ug/kg	10.6	35.3
191-24-2	Benzo(ghi)perylene	U	35.3	ug/kg	10.6	35.3
120-82-1	1,2,4-Trichlorobenzene	U	353	ug/kg	70.6	353

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.94	253	ug/kg		JA
7785-70-8	1R-.alpha.-Pinene	3.68	2960	ug/kg	96	NJ

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242654005	**Date Received:**	12/10/2009 08:50	**%Moisture:**	5.9
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14288	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	932077	**Inst:**	MSD3.I	**Dilution:**	1
Run Date:	12/13/2009 17:40	**Analyst:**	JLD1	**Inj. Vol:**	.5 uL
Prep Date:	12/11/2009 21:55	**Aliquot:**	30.12 g	**Final Volume:**	1 mL
Data File:	s311321.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	11.1	241	ug/kg		J
	Unknown	11.13	270	ug/kg		J
1235-74-1	1-Phenanthrenecarboxylic acid, 1,2,3,4,4	11.23	738	ug/kg	97	NJ
	Unknown	11.29	171	ug/kg		J
127-25-3	Methyl abietate	11.43	227	ug/kg	98	NJ
	Unknown	11.87	365	ug/kg		J
62600-05-9	Cedran-diol, 8S,14-	11.99	287	ug/kg	81	NJ
	Unknown	12.63	204	ug/kg		J
	Unknown	19.1	222	ug/kg		J
	Unknown	19.56	196	ug/kg		J

GEL Laboratories LLC

Data file : /chem/MSD3.i/s121309.b/s311321.d
Lab Smp Id: 242654005 Client Smp ID: RE03-09-14288
Inj Date : 13-DEC-2009 17:40
Operator : JLD1 Inst ID: MSD3.i
Smp Info : |242654005|932077|1|SVMF|1|LANL
Misc Info : |MSD8270_S|WBN091208-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD3.i/s121309.b/MSD3-8270R-AQA-120809.m
Meth Date : 14-Dec-2009 17:00 jen00986 Quant Type: ISTD
Cal Date : 07-DEC-2009 19:48 Cal File: s310717.d
Als bottle: 14
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-852.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.12000	weight of sample
M	5.94000	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	4.292	4.294	(1.000)	135869	40.0000	
* 29 Naphthalene-d8	136	5.540	5.546	(1.000)	514994	40.0000	
* 46 Acenaphthene-d10	164	7.386	7.394	(1.000)	280550	40.0000	
* 67 Phenanthrene-d10	188	8.980	8.983	(1.000)	476512	40.0000	
* 91 Chrysene-d12	240	11.844	11.844	(1.000)	374656	40.0000	
* 98 Perylene-d12	264	13.826	13.827	(1.000)	282572	40.0000	
$ 3 2-Fluorophenol	112	3.190	3.175	(0.743)	279881	78.7541	2780
$ 5 Phenol-d5	99	3.949	3.948	(0.920)	340424	75.1872	2650
$ 20 Nitrobenzene-d5	82	4.819	4.828	(0.870)	147745	39.2531	1380
$ 39 2-Fluorobiphenyl	172	6.665	6.669	(0.902)	292879	44.5376	1570
$ 60 2,4,6-Tribromophenol	329	8.233	8.236	(1.115)	78993	102.533	3620
$ 81 p-Terphenyl-d14	244	10.686	10.686	(0.902)	292458	48.6026	1720

ION RATIO REPORT

SV REPORT

Data file: s311321.d
Report Date: 12/14/2009 12:03
Lab. ID: 242654005 SampleType: SAMPLE
Injection Date: 13-DEC-2009 17:40
Operator: JLD1 Instrument: MSD3.i
Sample Info: |242654005|932077|1|SVMF|1|LANL
Miscellaneous Info: |MSD8270_S|WBN091208-01|
Comment:
Method used: /chem/MSD3.i/s121309.b/MSD3-8270R-AQA-120809.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-852
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
4 Aniline		CAS#: 62-53-3				
66	15199	3.95	4.00	80-120	100	( )
93	19816	3.97	4.00	231-291	130	(Q)
17 N-Nitrosodipropylamine				CAS#: 621-64-7		
70	21238	4.82	4.67	80-120	100	(T)
42	10607	4.82	4.67	22- 82	50	(T)
40 2-Chloronaphthalene				CAS#: 91-58-7		
162	8453	6.99	6.80	80-120	100	(T)
164	471	6.99	6.80	2- 62	6	(T)
127	554	6.99	6.80	10- 70	7	(QT)
42 o-Nitroaniline				CAS#: 88-74-4		
65	10211	6.99	6.92	80-120	100	(T)
92	12422	6.99	6.92	41-101	122	(QT)
138	931	6.99	6.92	85-145	9	(QT)
44 2,6-Dinitrotoluene				CAS#: 606-20-2		
165	36233	7.39	7.18	80-120	100	(T)
63	489	7.39	7.18	28- 88	1	(QT)
50 2,4-Dinitrotoluene				CAS#: 121-14-2		
165	36233	7.39	7.60	80-120	100	(T)
89	482	7.39	7.60	52-112	1	(QT)
63	489	7.39	7.61	35- 95	1	(QT)

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
55 2-Methyl-4,6-dinitrophenol				CAS#: 534-52-1		
198	156	8.23	8.04	80-120	100	(T)
105	511	8.23	8.04	15- 75	326	(QT)
51	387	8.23	8.04	21- 81	247	(QT)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

Data file : /chem/MSD3.i/s121309.b/s311321.d
Lab Smp Id: 242654005 Client Smp ID: RE03-09-14288
Inj Date : 13-DEC-2009 17:40
Operator : JLD1 Inst ID: MSD3.i
Smp Info : |242654005|932077|1|SVMF|1|LANL
Misc Info : |MSD8270_S|WBN091208-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD3.i/s121309.b/MSD3-8270R-AQA-120809.m
Meth Date : 14-Dec-2009 17:00 jen00986 Quant Type: ISTD
Cal Date : 07-DEC-2009 19:48 Cal File: s310717.d
Als bottle: 14
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-852.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.12000	weight of sample
M	5.94000	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	4.292	814872	40.000
* 91 Chrysene-d12	11.844	1060778	40.000
* 98 Perylene-d12	13.826	797154	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #

RT	AREA	CONCENTRATIONS ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	QUANT LIBRARY	LIB ENTRY	CPND #
Unknown Aldol Condensate					CAS #:		
2.944	145843	7.15906804	253	0		0	10
1R-.alpha.-Pinene					CAS #: 7785-70-8		
3.682	1709181	83.8993129	2960	96	NIST05.L	15188	10
Unknown					CAS #:		
11.100	181274	6.83549987	241	0		0	91
Unknown					CAS #:		
11.126	202765	7.64589805	270	0		0	91
1-Phenanthrenecarboxylic acid, 1,2,3,4,4					CAS #: 1235-74-1		
11.229	554316	20.9022174	738	97	NIST05.L	133618	91
Unknown					CAS #:		
11.288	128644	4.85093441	171	0		0	91
Methyl abietate					CAS #: 127-25-3		
11.429	170848	6.44237188	227	98	NIST05.L	134711	91
Unknown					CAS #:		
11.870	274046	10.3337596	365	0		0	91
Cedran-diol, 8S,14-					CAS #: 62600-05-9		
11.994	215282	8.11787823	286	81	NIST05.L	83830	91
Unknown					CAS #:		
12.629	153327	5.78169683	204	0		0	91
Unknown					CAS #:		
19.104	125537	6.29924822	222	0		0	98
Unknown					CAS #:		
19.556	110664	5.55294143	196	0		0	98

Data File: /chem/MSD3.i/s121309.b/s311321.d
Date : 13-DEC-2009 17:40
Client ID: RE03-09-14288
Sample Info: |2426540051932077|1|SVMF|1|LANL
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD3.i
Operator: JLD1
Column diameter: 0.20

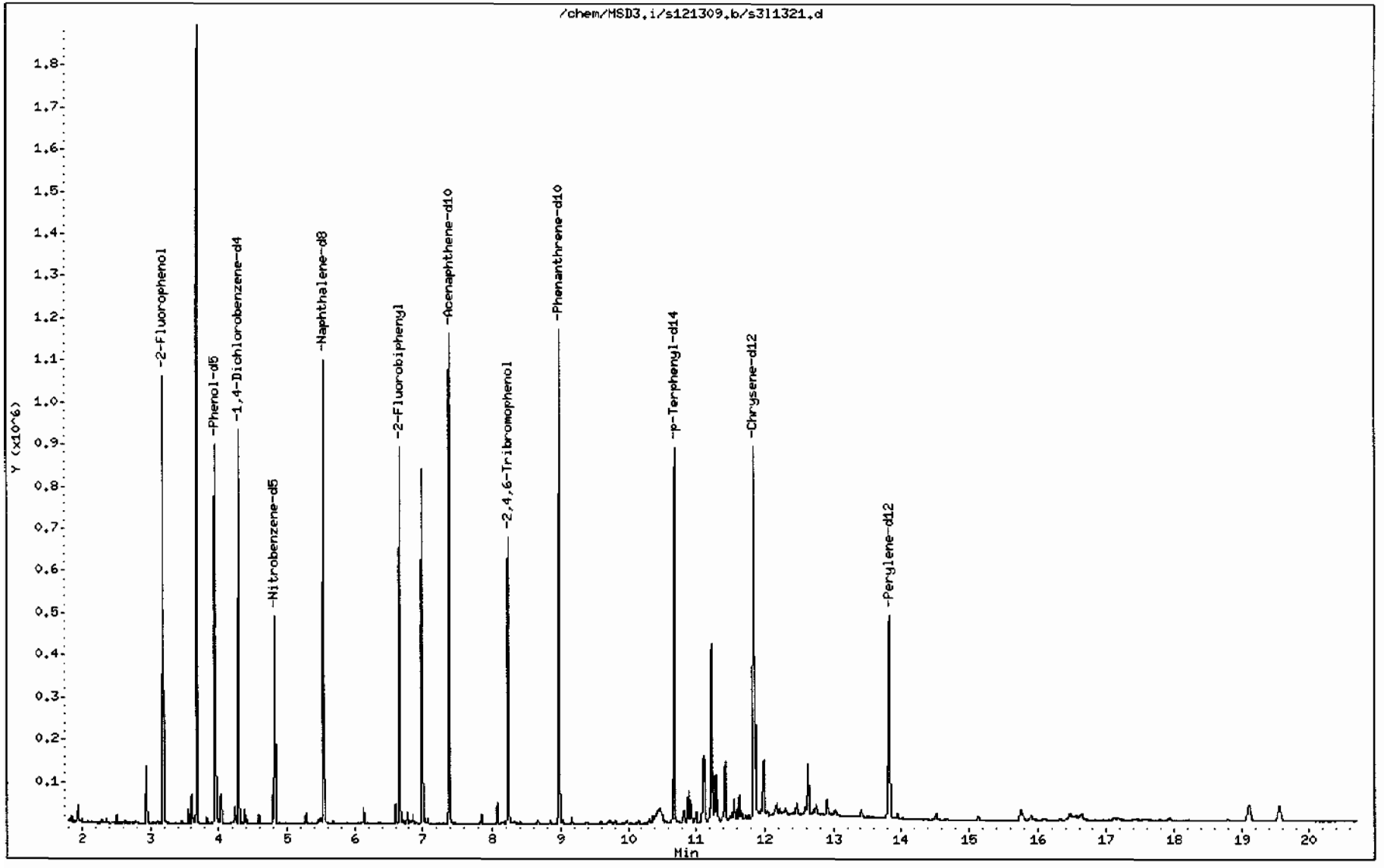

Data File: /chem/MSD3.i/s121309.b/s311321.d

Date : 13-DEC-2009 17:40

Client ID: RE03-09-14288

Instrument: MSD3.i

Sample Info: |2426540051932077|1|SVMF|1|LANL

Volume Injected (uL): 0.5

Operator: JLD1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	56	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	50	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7945	38	C6H12O2	116

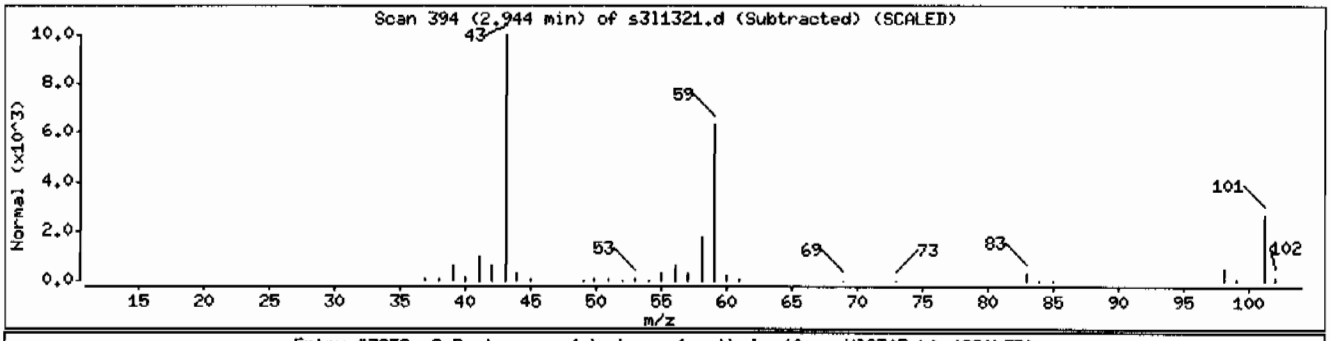

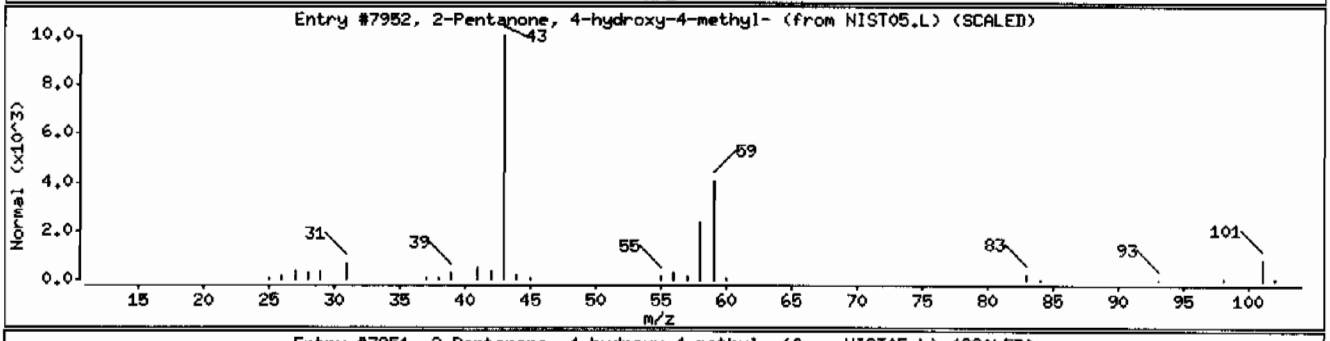

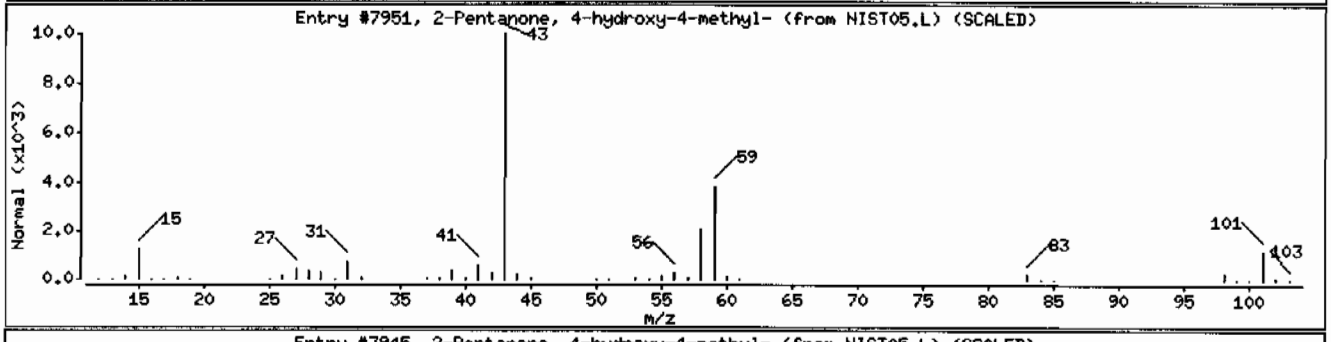

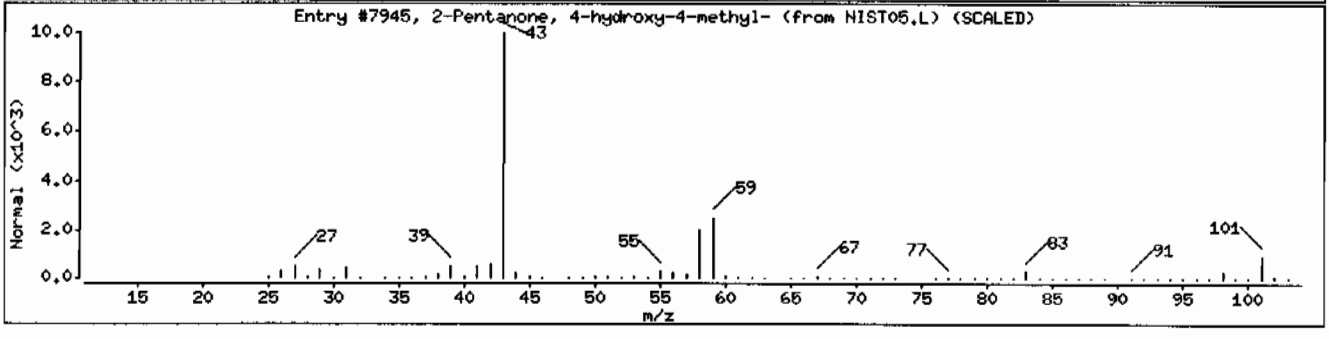

Data File: /chem/MSD3.i/s121309.b/s311321.d

Date : 13-DEC-2009 17:40

Client ID: RE03-09-14288

Instrument: MSD3.i

Sample Info: 1242654005|932077|1|SVMF|1|LANL

Volume Injected (uL): 0.5

Operator: JLD1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
1R-.alpha.-Pinene	7785-70-8	NIST05.L	15188	96	C10H16	136
1R-.alpha.-Pinene	7785-70-8	NIST05.L	15186	96	C10H16	136
.alpha.-Pinene	80-56-8	NIST05.L	15178	96	C10H16	136

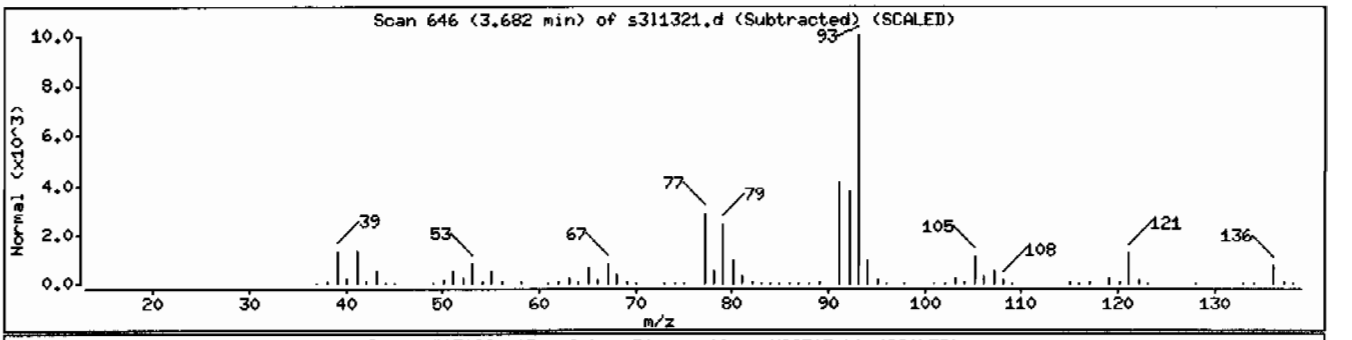

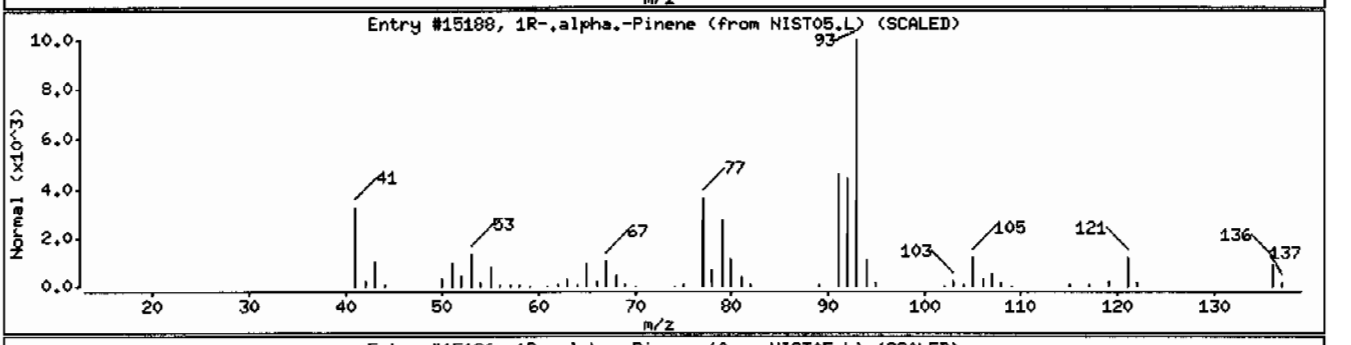

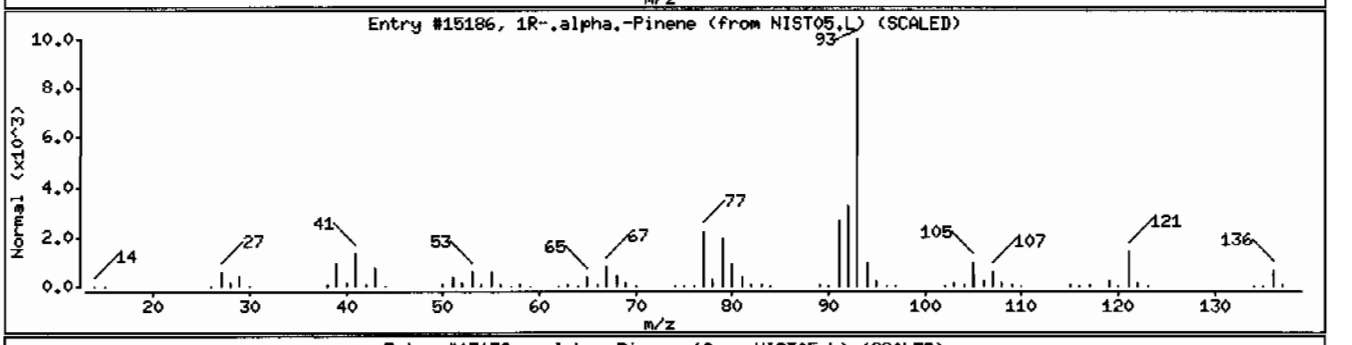

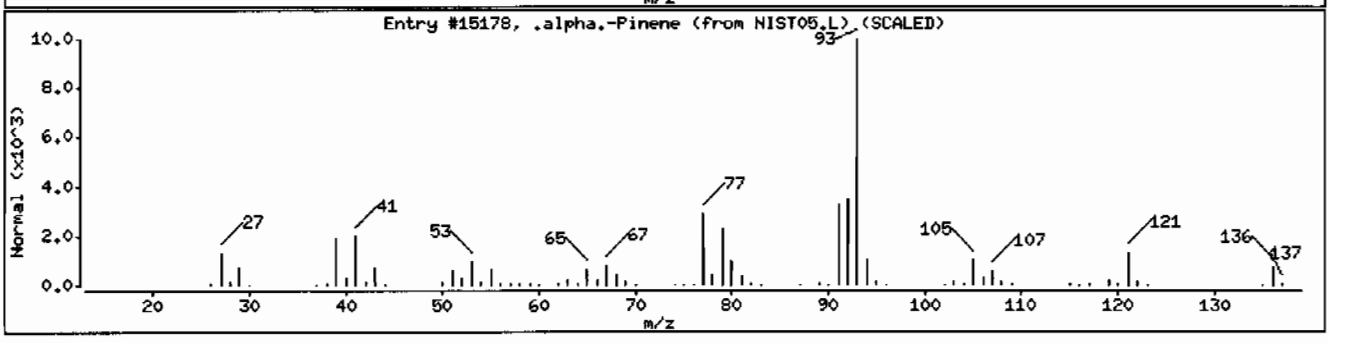

Data File: /chem/MSD3.i/s121309.b/s311321.d

Date : 13-DEC-2009 17:40

Client ID: RE03-09-14288

Instrument: MSD3.i

Sample Info: 1242654005193207711ISVMF11LANL

Volume Injected (uL): 0.5

Operator: JLD1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
1-Phenanthrenecarboxylic acid, 7-ethenyl	3582-26-1	NIST05.L	134775	59	C21H3202	316
1-Methyl-1-n-decyloxy-1-silacyclopentane	1000216-91-2	NIST05.L	96111	56	C15H320Si	256
7,8-Dihydro-14-hydroxymorphinone	76-41-5	NIST05.L	125413	45	C17H19N04	301

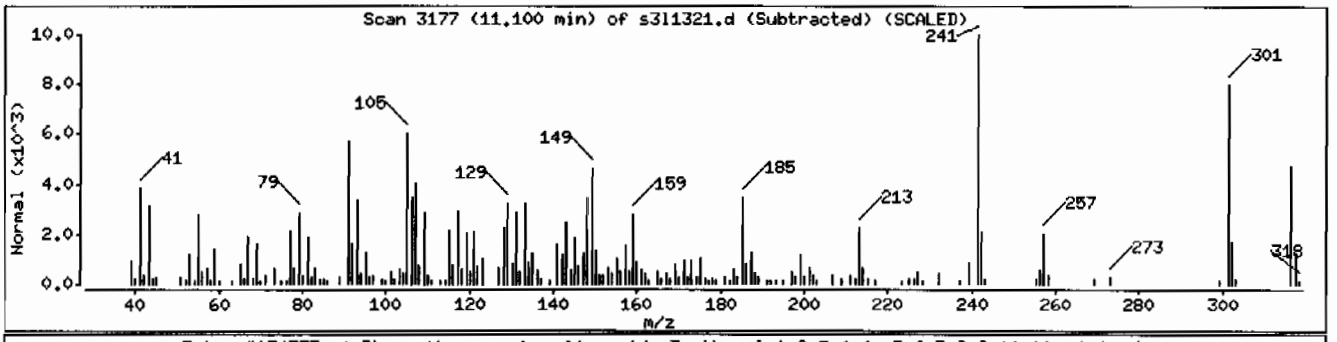

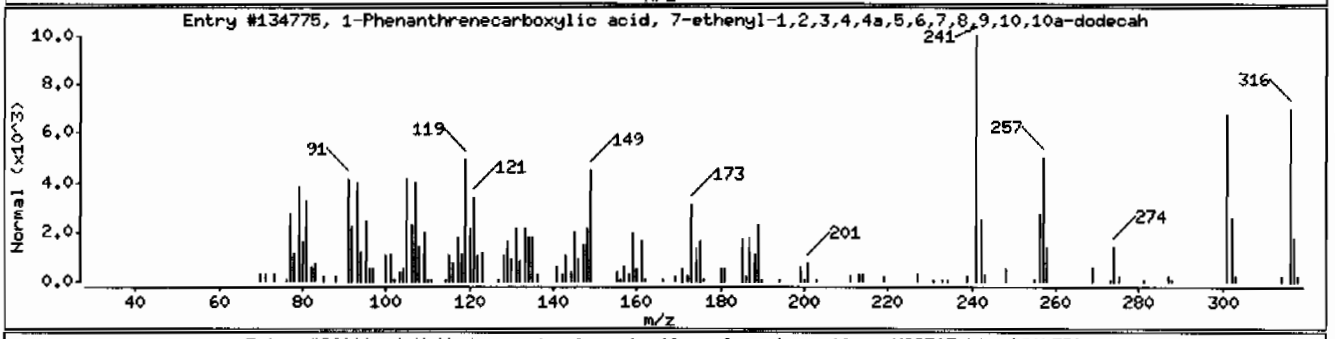

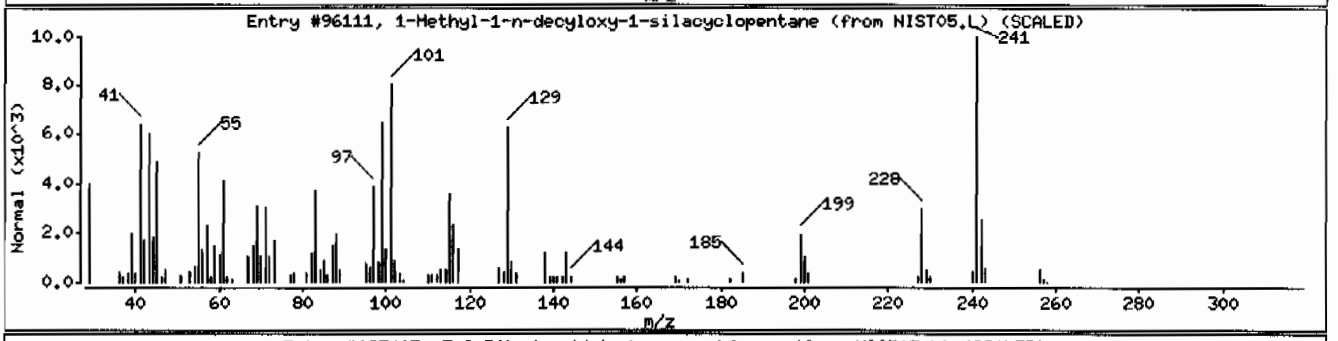

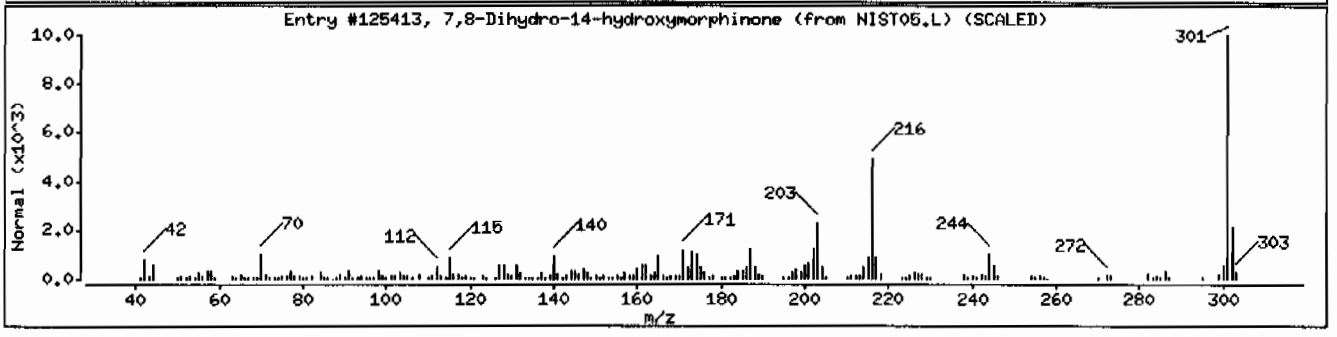

Data File: /chem/MSD3.i/s121309.b/s311321.d

Date : 13-DEC-2009 17:40

Client ID: RE03-09-14288

Instrument: MSD3.i

Sample Info: |2426540051932077111SVMF|1|LANL

Volume Injected (uL): 0.5

Operator: JLD1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Ketone, isopropylidenecyclopropyl methyl	29765-67-1	NIST05.L	10247	35	C8H12O	124
3-Aminophenyl-.beta.-phenylpropionate	1000129-40-1	NIST05.L	85993	27	C15H15NO2	241
3,5-Dimethyl-1-adamantanol	707-37-9	NIST05.L	43068	25	C12H20O	180

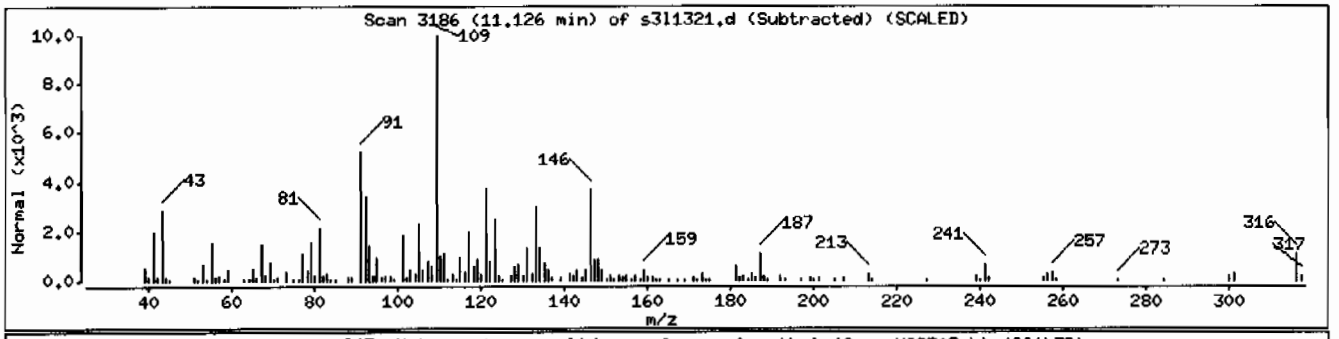

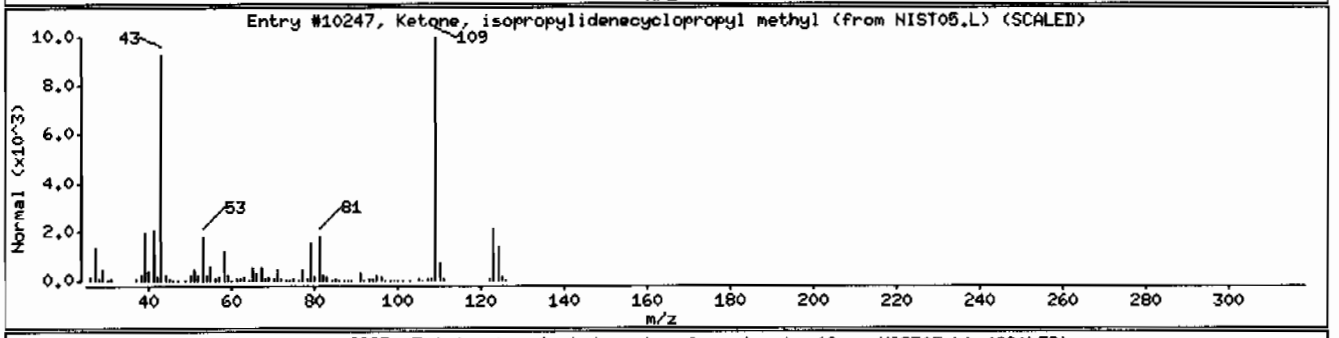

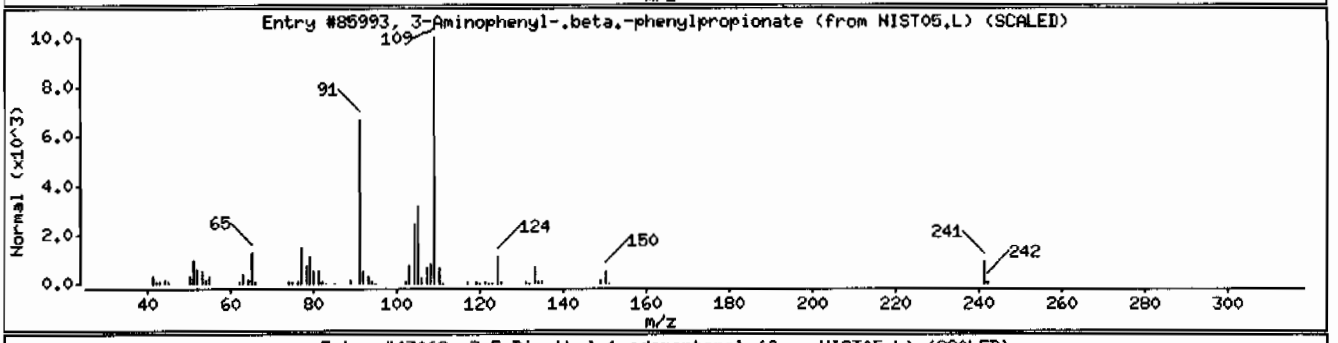

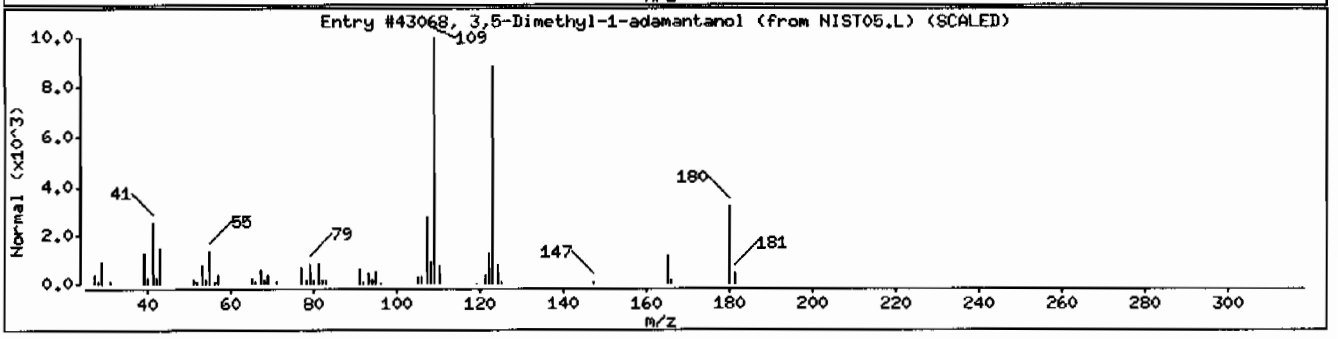

Data File: /chem/MSD3.i/s121309.b/s311321.d

Date : 13-DEC-2009 17:40

Client ID: RE03-09-14288

Instrument: MSD3.i

Sample Info: |2426540051932077|1|SVMF|1|LANL

Volume Injected (uL): 0.5

Operator: JLD1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
1-Phenanthrenecarboxylic acid, 1,2,3,4,4	1235-74-1	NIST05.L	133618	97	C21H3002	314
1-Phenanthrenecarboxylic acid, 1,2,3,4,4	1235-74-1	NIST05.L	133621	92	C21H3002	314
1-Phenanthrenecarboxylic acid, 1,2,3,4,4	1235-74-1	NIST05.L	133620	89	C21H3002	314

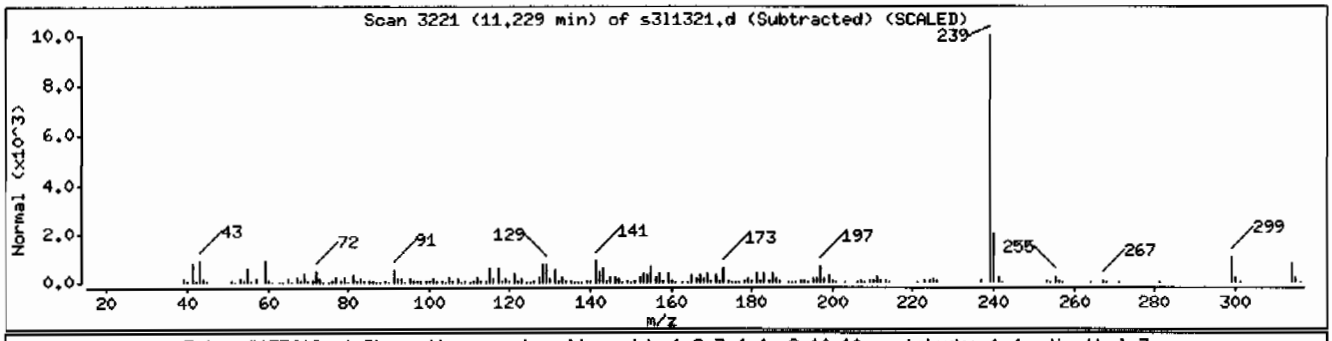

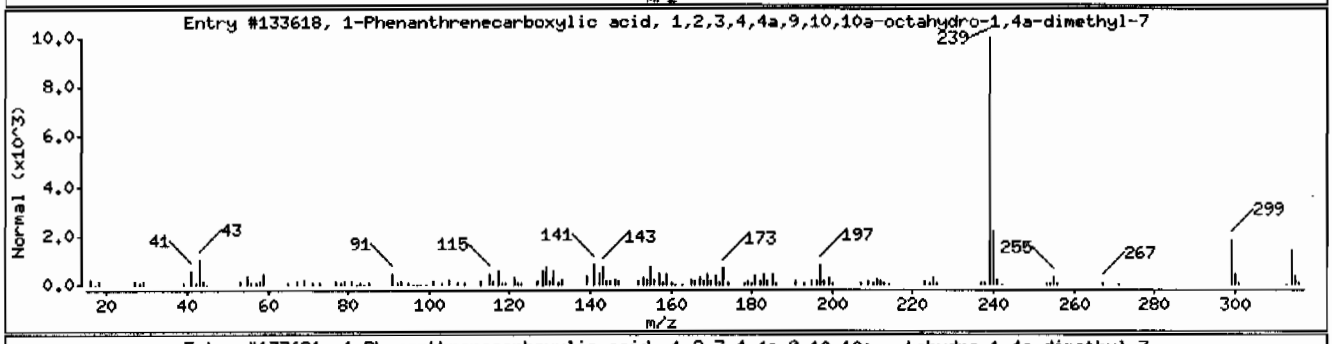

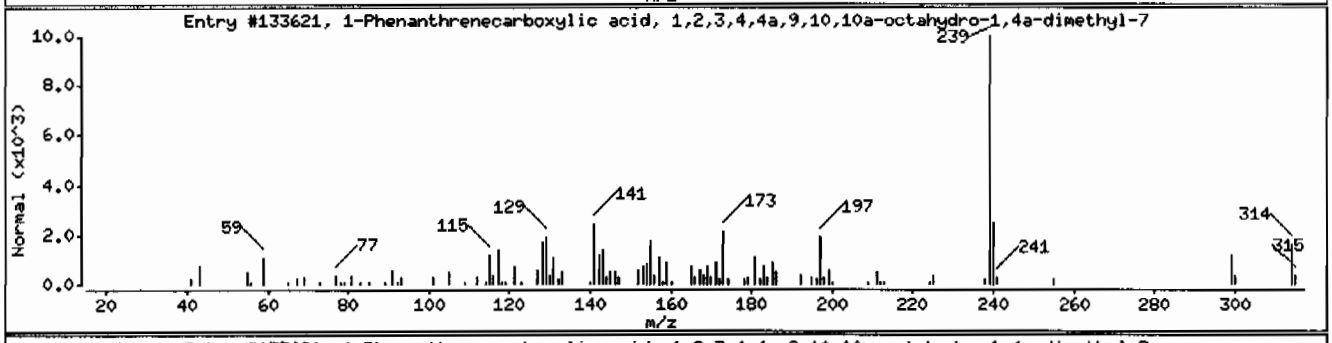

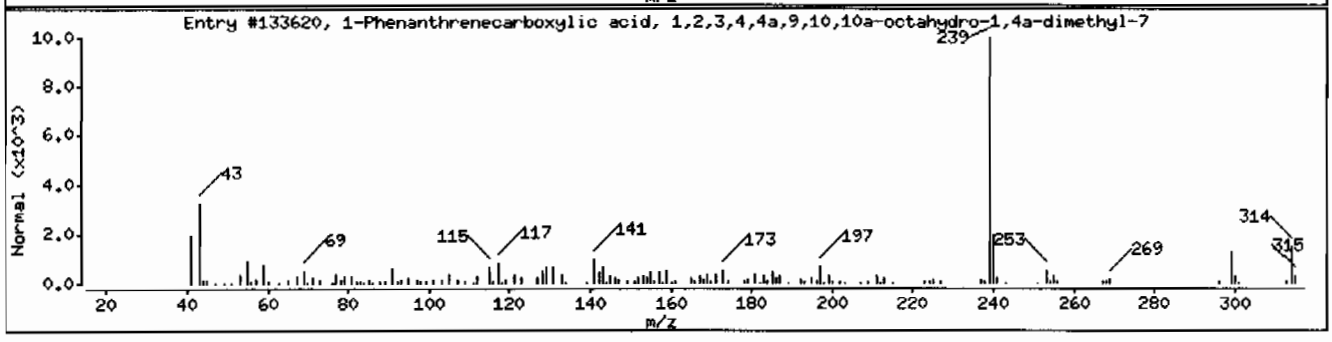

Data File: /chem/MSD3.i/s121309.b/s311321.d

Date : 13-DEC-2009 17:40

Client ID: RE03-09-14288

Instrument: MSD3.i

Sample Info: |2426840051932077|1|SVMF|1|LANL

Volume Injected (uL): 0.5

Operator: JLD1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
3a,6-Methano-3aH-indene, 2,3,4,5,6,7-hex	98640-10-9	NIST05.L	14456	46	C10H14	134
Bicyclo[3.2.1]oct-2-ene, 3-methyl-4-meth	49826-53-1	NIST05.L	14453	38	C10H14	134
Naphthalene, 1,2,3,5,8,8a-hexahydro-	62690-65-7	NIST05.L	14417	30	C10H14	134

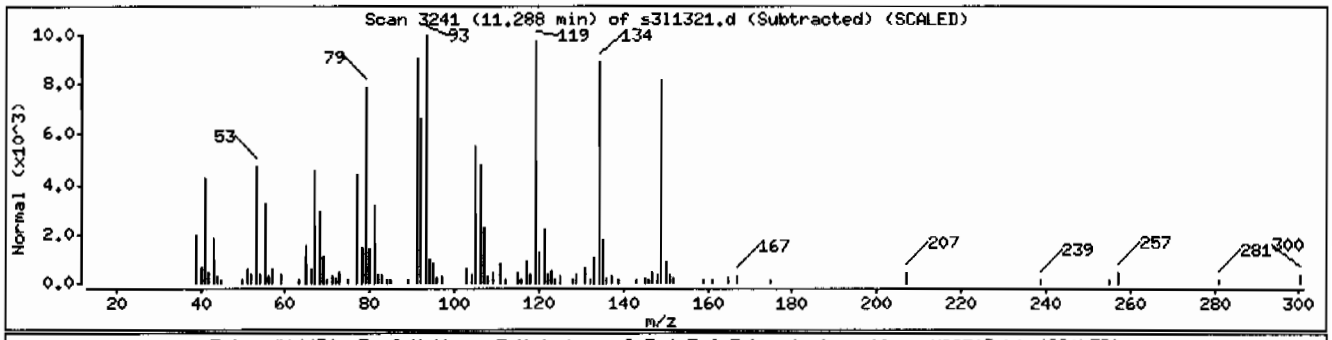

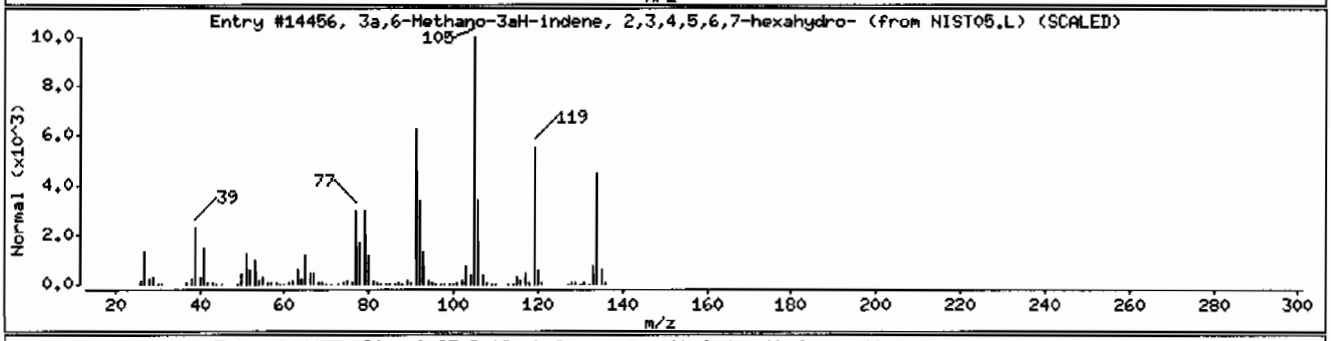

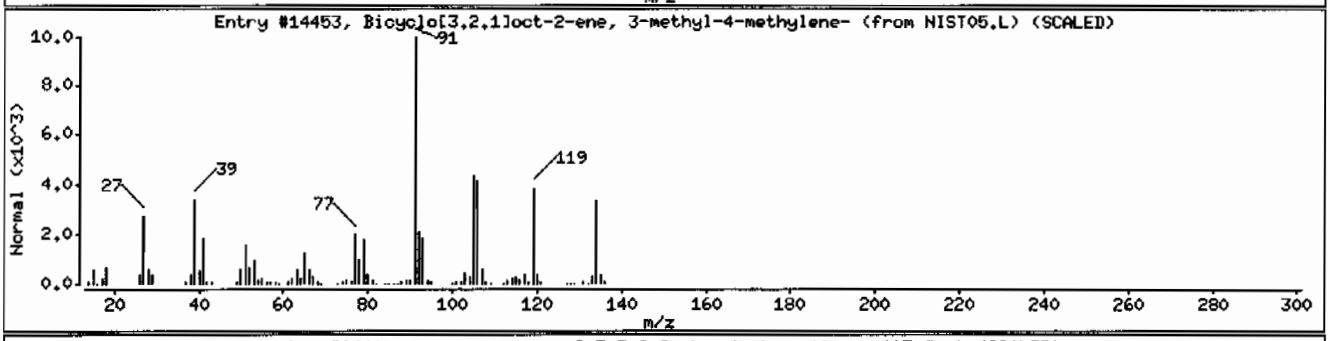

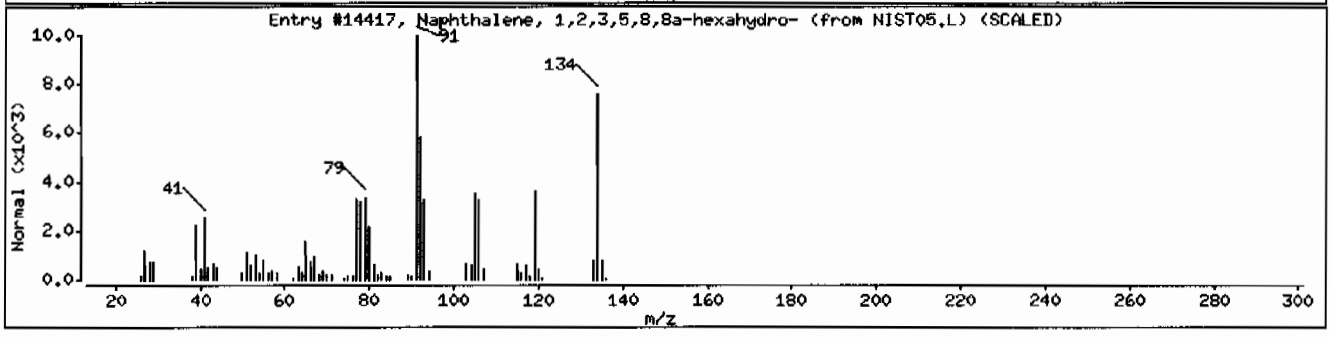

Data File: /chem/MSD3.i/s121309.b/s311321.d

Date : 13-DEC-2009 17:40

Client ID: RE03-09-14288

Instrument: MSD3.i

Sample Info: 1242654005|932077|1|SVMF|1|LANL

Volume Injected (uL): 0.5

Operator: JLD1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Methyl abietate	127-25-3	NIST05.L	134711	98	C21H3202	316
Methyl abietate	127-25-3	NIST05.L	134712	68	C21H3202	316
1,2-Dihydro-4H-2-(p-anisyl)-3,1-benzoxaz	82085-87-8	NIST05.L	86013	56	C15H15NO2	241

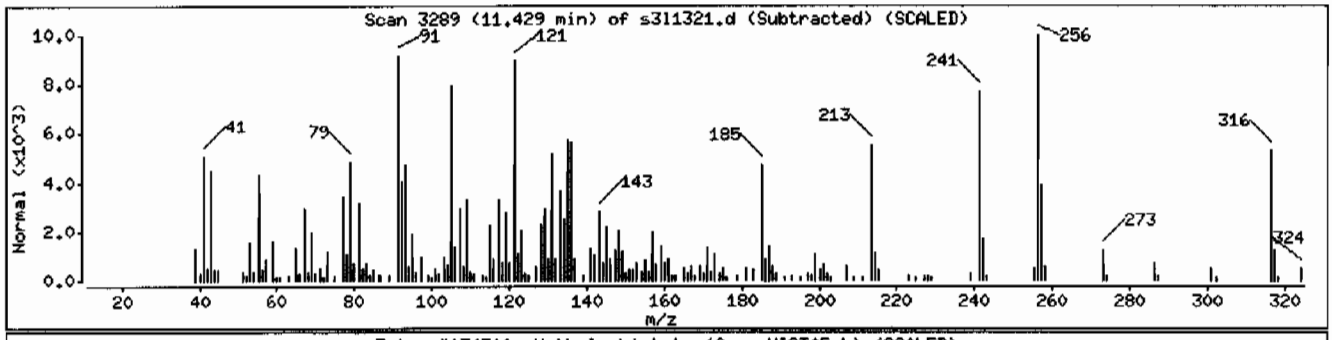

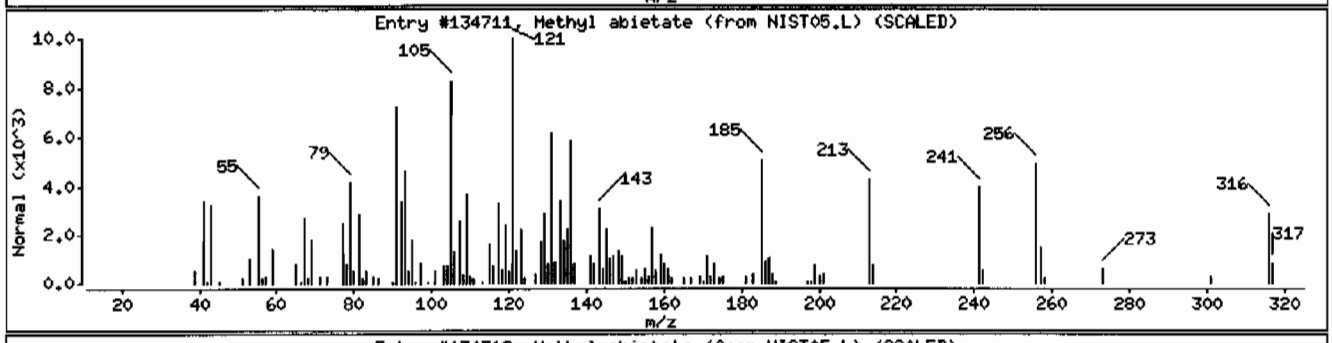

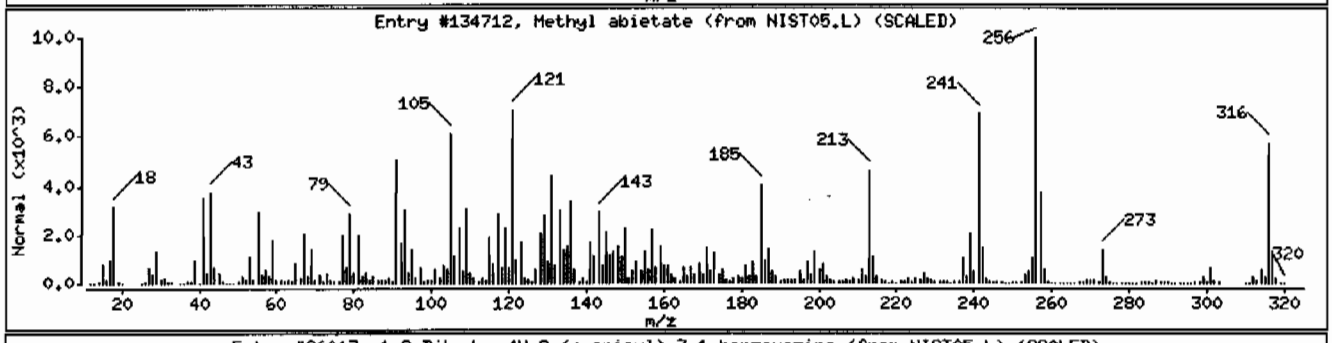

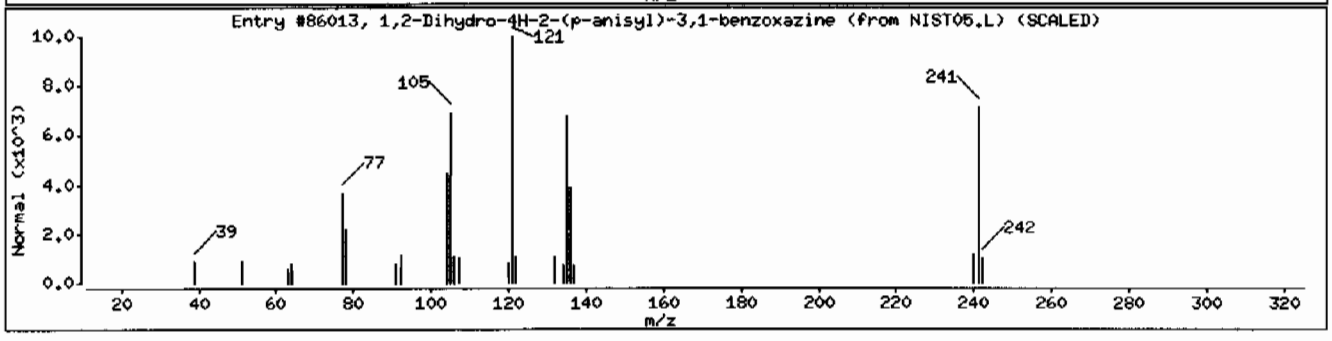

Data File: /chem/MSD3.i/s121309.b/s311321.d

Date : 13-DEC-2009 17:40

Client ID: RE03-09-14288

Instrument: MSD3.i

Sample Info: |2426540051932077|1|SVMF|1|LANL

Volume Injected (uL): 0.5

Operator: JLD1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
1-Phenanthrenecarboxylic acid, 1,2,3,4,4	54850-32-7	NIST05.L	133622	53	C21H3002	314
Bis(2-troponylamino)methane	1000243-10-2	NIST05.L	94581	22	C15H14N202	254
Phenol, 2-[[3-(4-methylphenyl)oxiranyl]c	130248-89-4	NIST05.L	94692	22	C16H1403	254

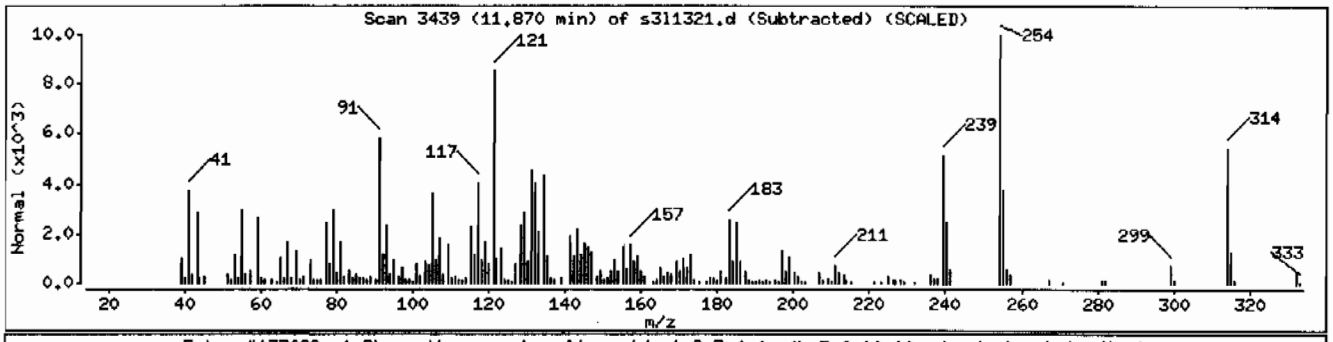

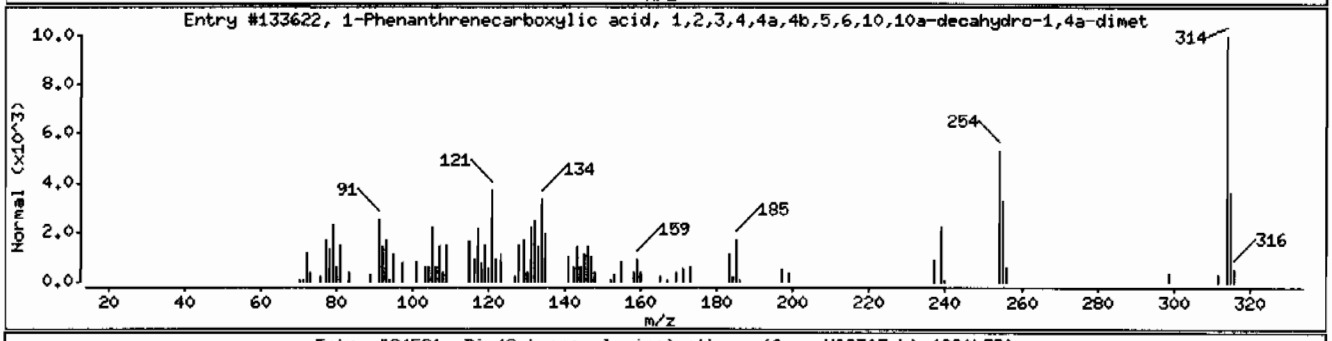

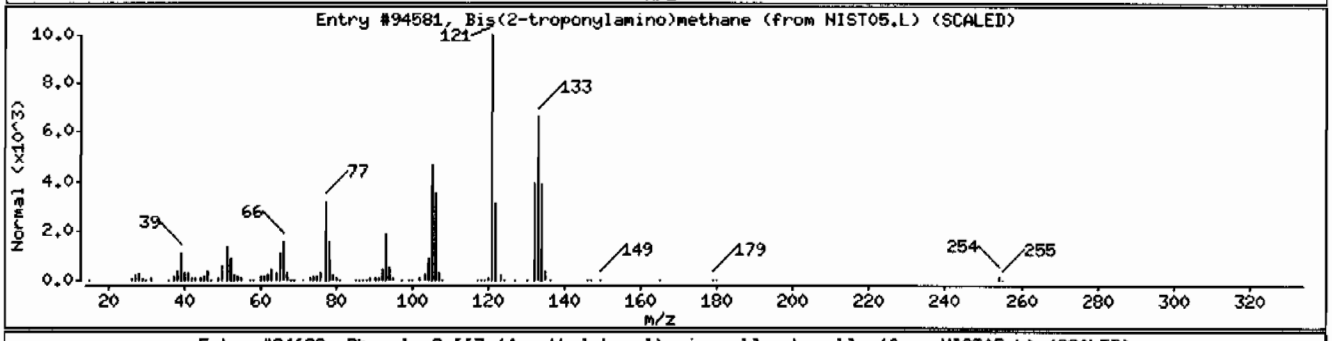

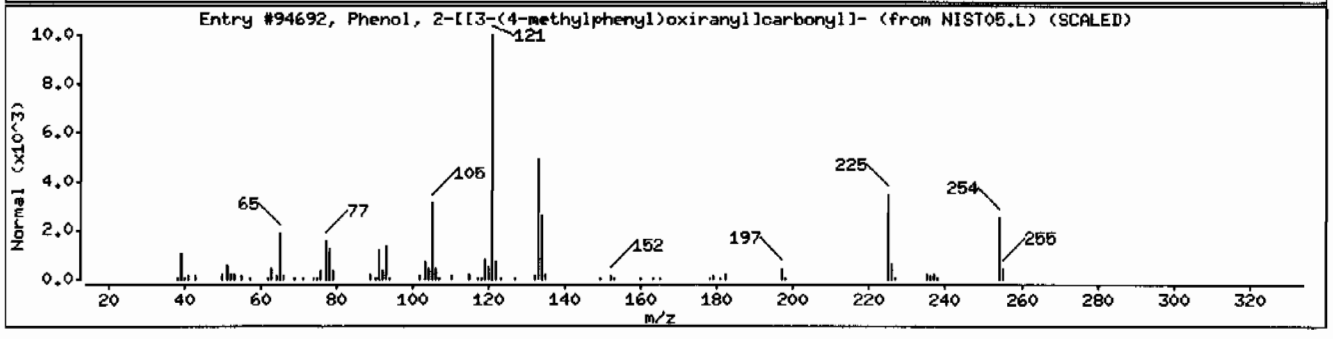

Data File: /chem/MSD3.i/s121309.b/s311321.d

Date : 13-DEC-2009 17:40

Client ID: RE03-09-14288 Instrument: MSD3.i

Sample Info: 1242654005193207711SVMF11LANL

Volume Injected (uL): 0.5 Operator: JLD1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Cedran-diol, 8S,14-	62600-05-9	NIST05.L	83830	81	C15H2602	238
Bicyclo[5.2.0]nonane, 4-methylene-2,8,8-	1000159-38-2	NIST05.L	59916	78	C15H24	204
Perhydrocyclopropa[e]azulene-4,5,6-triol	1000197-87-8	NIST05.L	94633	64	C15H2603	254

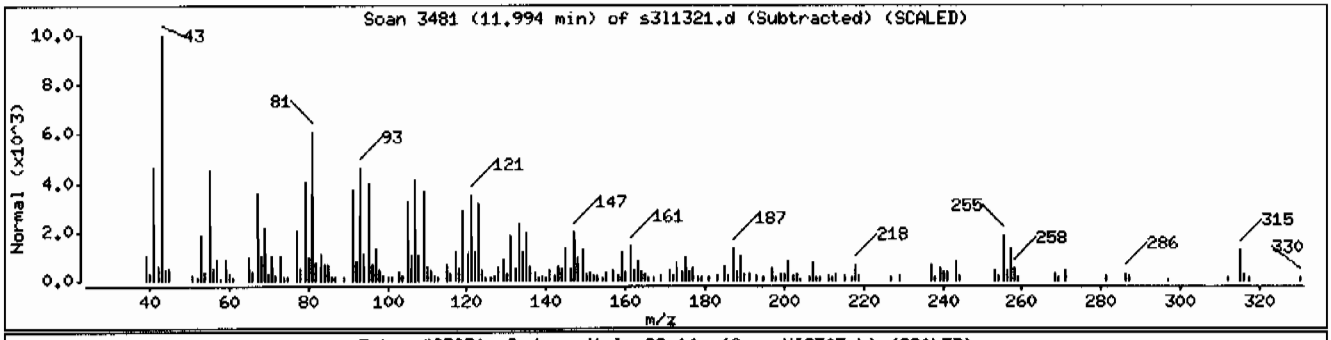

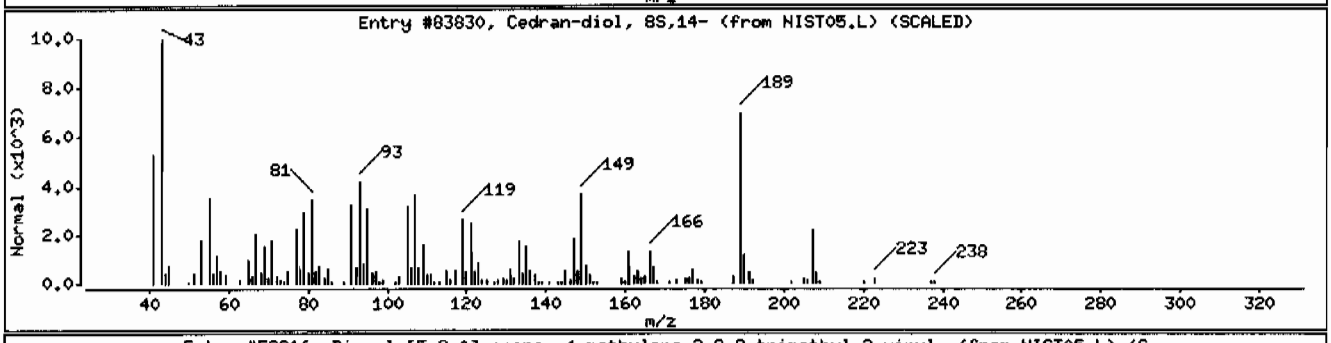

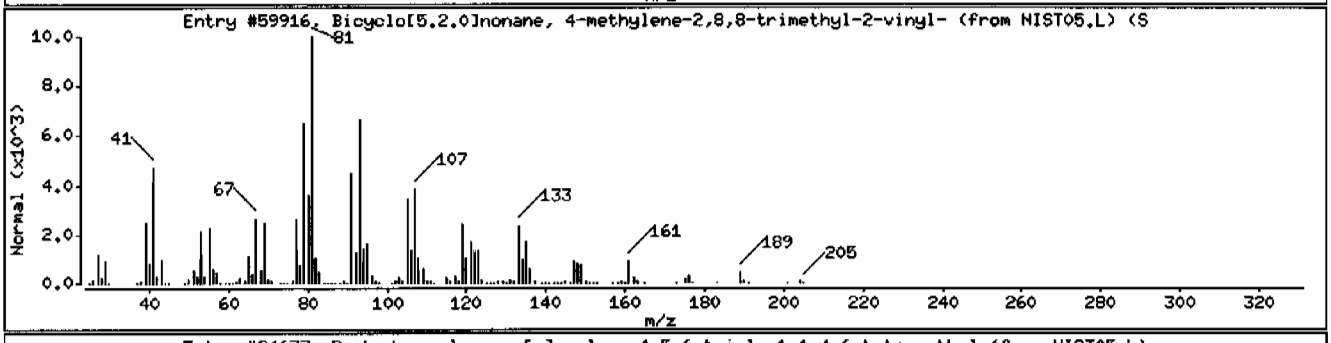

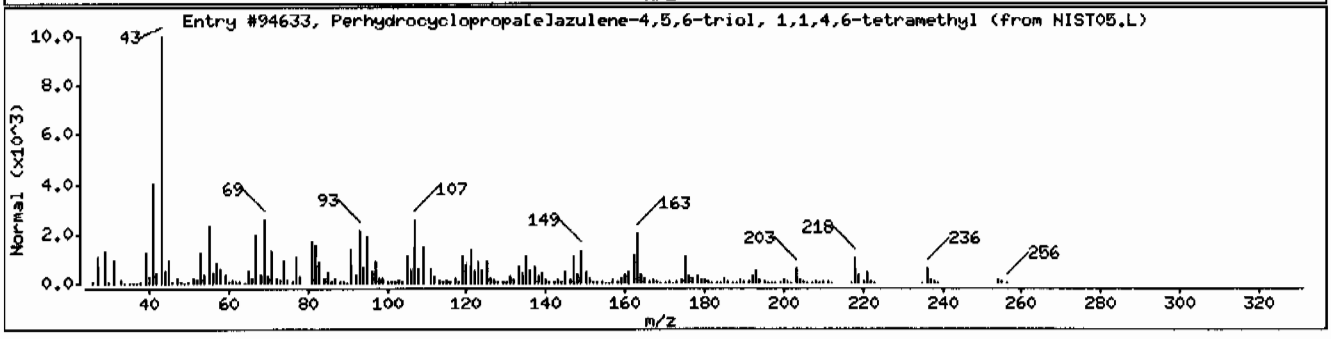

Data File: /chem/MSD3.i/s121309.b/s311321.d

Date : 13-DEC-2009 17:40

Client ID: RE03-09-14288

Instrument: MSD3.i

Sample Info: I2426540051932077I1ISVMFI1ILANL

Volume Injected (uL): 0.5

Operator: JLD1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Cedran-diol, 8S,14-	62600-05-9	NIST05.L	83830	40	C15H2602	238
Nerolidyl acetate	2306-78-7	NIST05.L	101424	40	C17H2802	264
1H-Cycloprop[e]azulen-4-ol, decahydro-1,	552-02-3	NIST05.L	73029	37	C15H260	222

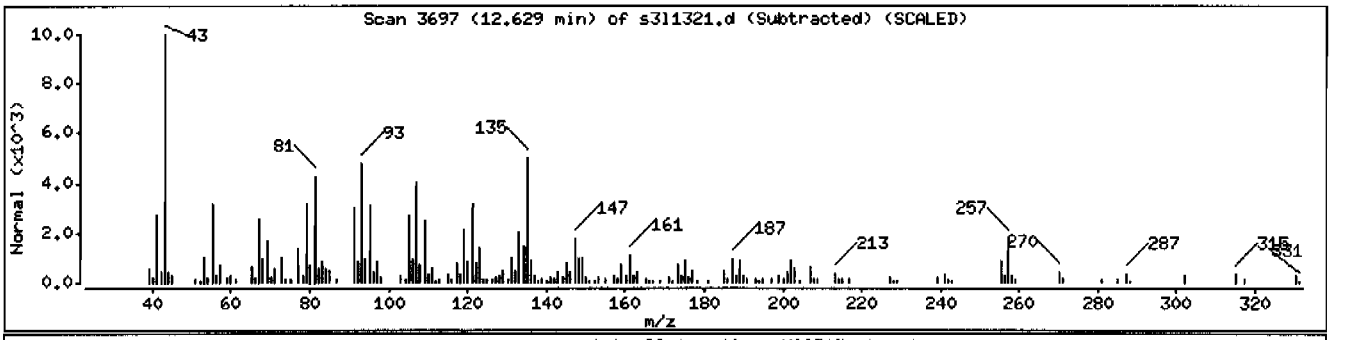

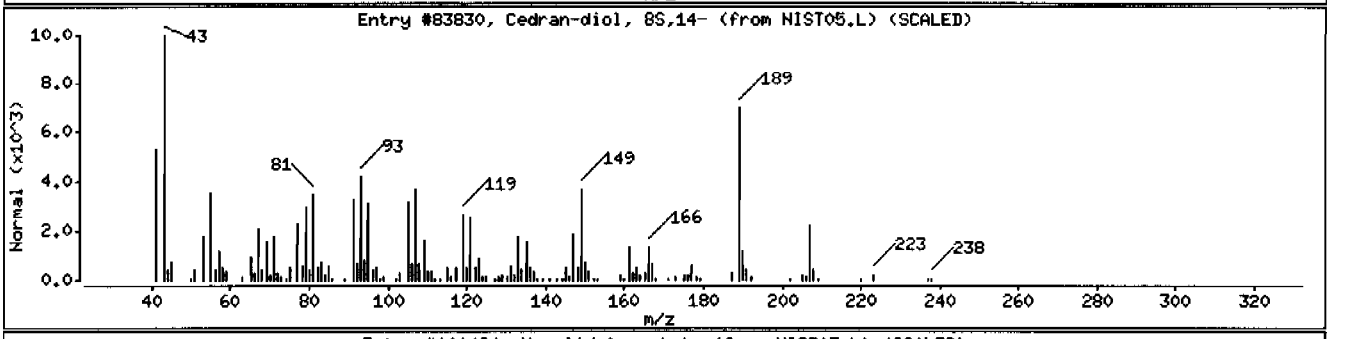

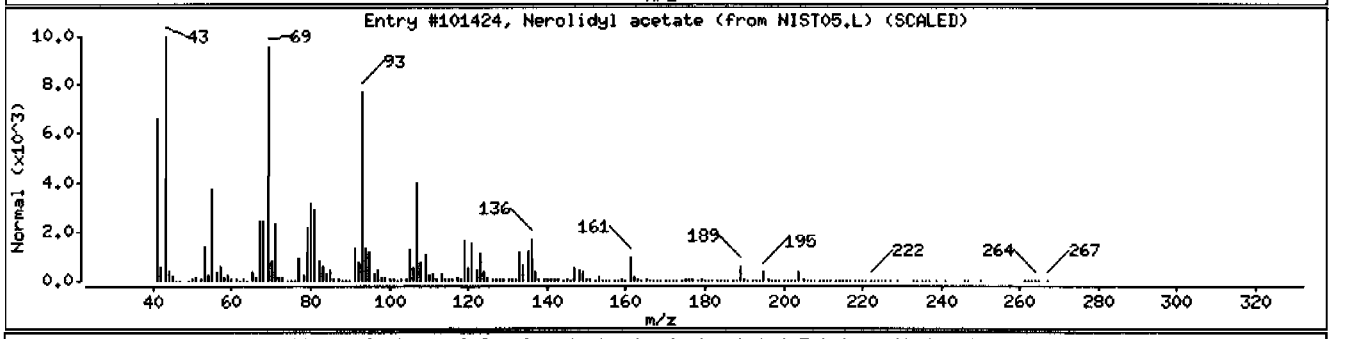

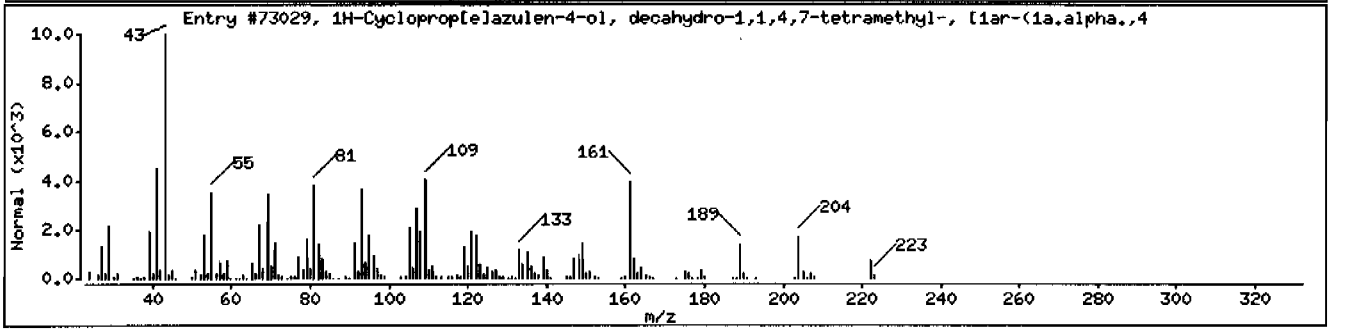

Data File: /chem/MSD3.i/s121309.b/s311321.d

Date : 13-DEC-2009 17:40

Client ID: RE03-09-14288 Instrument: MSD3.i

Sample Info: 1242654005193207711SVMF11LANL

Volume Injected (uL): 0.5 Operator: JLD1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
N-Methyl-1-adamantaneacetamide	31897-93-5	NIST05.L	62175	25	C13H21NO	207
Phenylacetic acid, 2-(1-adamantyl)ethyl	1000282-91-2	NIST05.L	123764	22	C20H26O2	298
2-Butenamide, 3-(4-methoxyphenylamino)-N	24572-60-9	NIST05.L	113243	20	C17H18N2O2	282

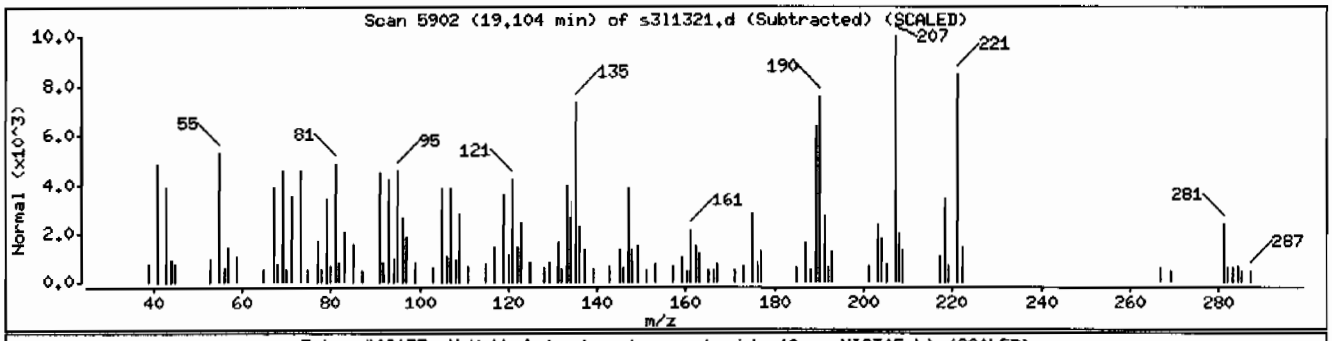

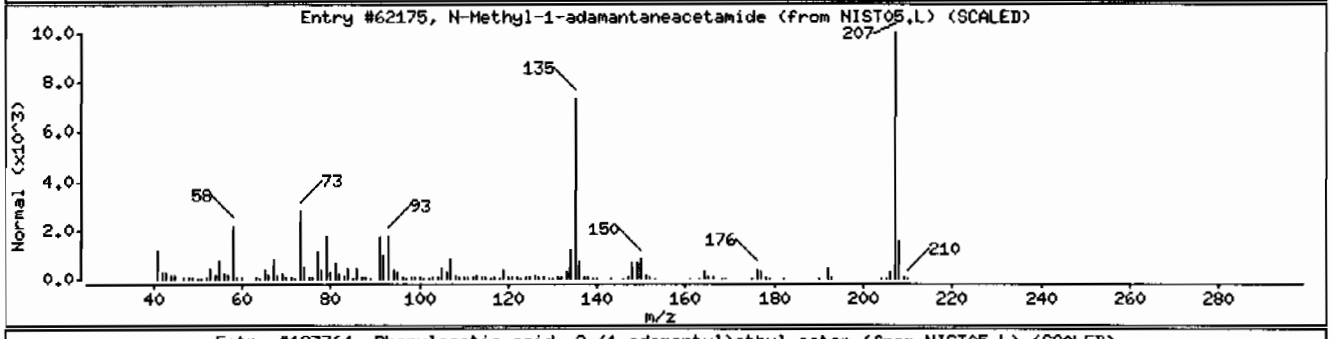

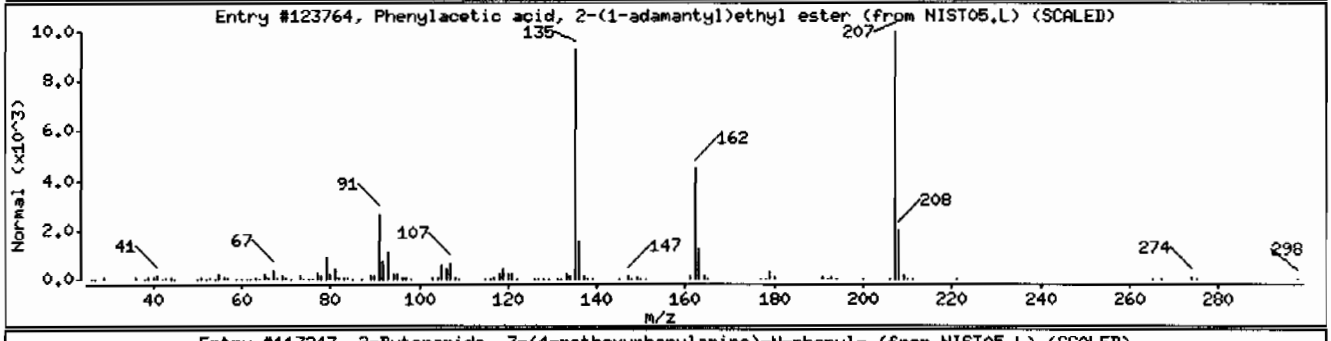

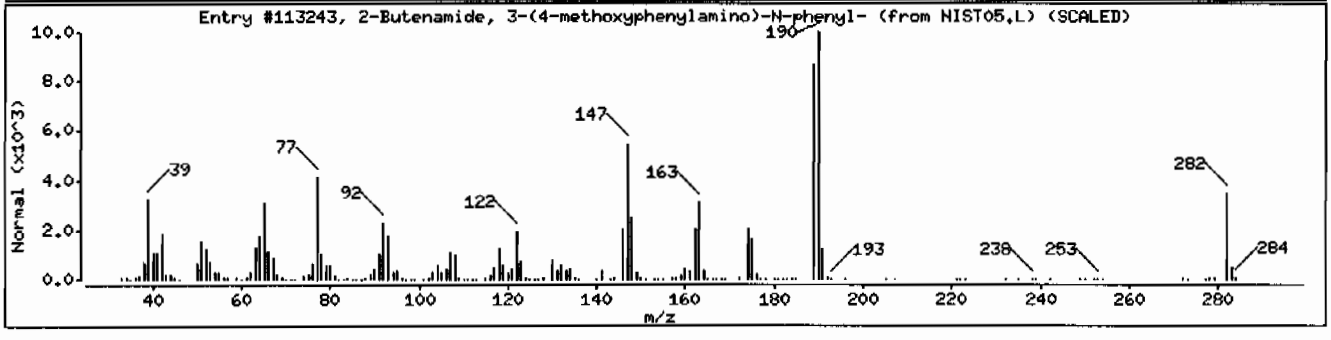

Data File: /chem/MSD3.i/s121309.b/s311321.d

Date : 13-DEC-2009 17:40

Client ID: RE03-09-14288 Instrument: MSD3.i

Sample Info: |2426540051932077|1|SVMF|1|LANL

Volume Injected (uL): 0.5 Operator: JLD1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
N-Methyl-1-adamantaneacetamide	31897-93-5	NIST05.L	62175	25	C13H21NO	207
1-Adamantanecarboxamide, N,N-dimethyl-,	1502-00-7	NIST05.L	62177	22	C13H21NO	207
5'-Methyl-[2,2']bithiophenyl-5-carboxyli	1000303-07-4	NIST05.L	159985	22	C18H13N3O2S2	367

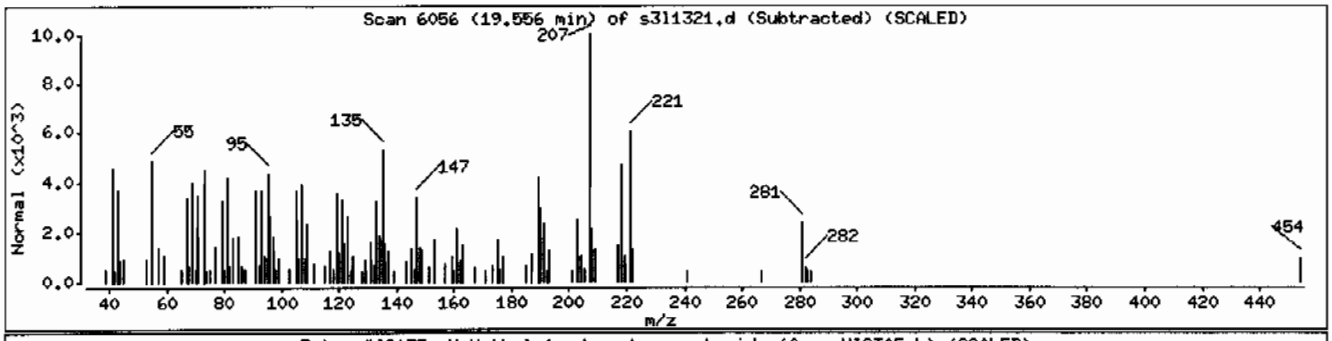

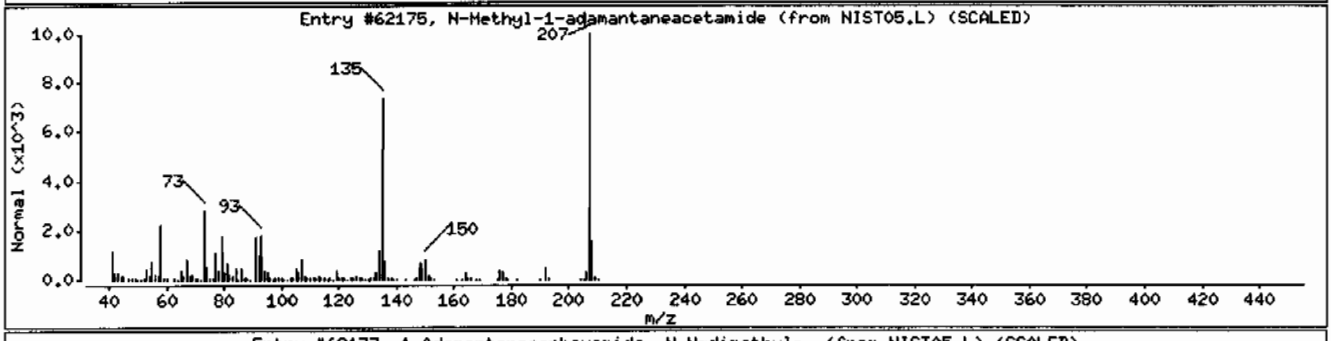

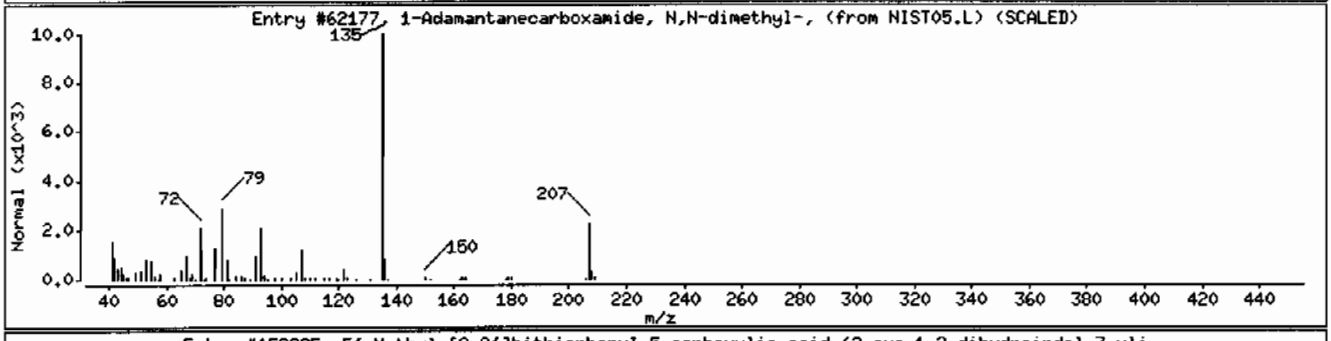

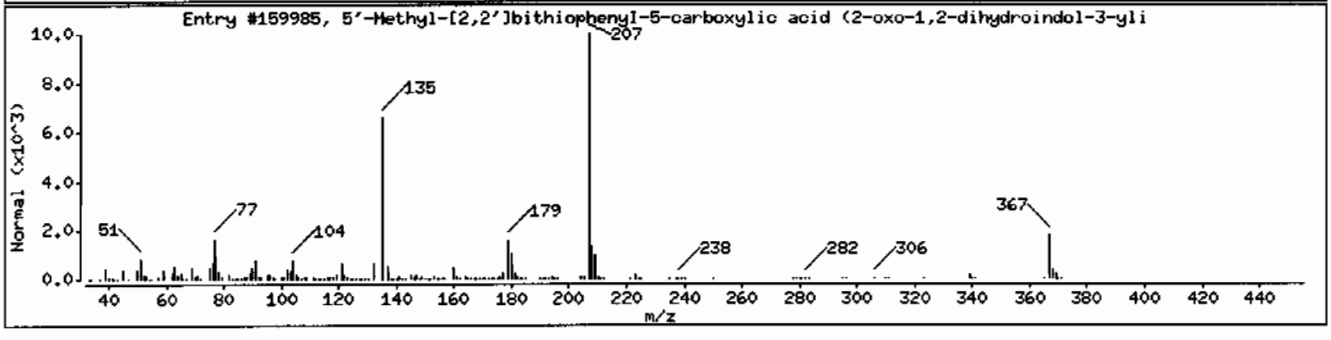

Standard Data

SW846 8270C//8270D/EPA 625								
Calibration Standard Concentration Levels*								
	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
1,4-Dichlorobenzene-d4 (INTERNAL STANDARD)								
Naphthalene-d8 (INTERNAL STANDARD)								
Acenaphthene-d10 (INTERNAL STANDARD)								
Phenanthrene-d10 (INTERNAL STANDARD)								
Chrysene-d12 (INTERNAL STANDARD)								
Perylene-d12 (INTERNAL STANDARD)								
2-Fluorophenol (SURROGATE)		10	20	40	50	80	100	120
Phenol-d5 (SURROGATE)		10	20	40	50	80	100	120
2-Chlorophenol-d4 (CLP SURROGATE)		10	20	40	50	80	100	120
1,2-Dichlorobenzene-d4 (CLP SURROGATE)		10	20	40	50	80	100	120
Nitrobenzene-d5 (SURROGATE)		10	20	40	50	80	100	120
2-Fluorobiphenyl (SURROGATE)		10	20	40	50	80	100	120
2,4,6-Tribromophenol (SURROGATE)		10	20	40	50	80	100	120
p-Terphenyl-d14 (SURROGATE)		10	20	40	50	80	100	120
N-Nitrosodimethylamine		10	20	40	50	80	100	120
Pyridine		10	20	40	50	80	100	120
Aniline		10	20	40	50	80	100	120
Benzaldehyde		10	20	40	50	80	100	120
Phenol		10	20	40	50	80	100	120
bis(2-Chloroethyl)ether	1	10	20	40	50	80	100	120
2-Chlorophenol		10	20	40	50	80	100	120
n-Decane		10	20	40	50	80	100	120
1,3-Dichlorobenzene		10	20	40	50	80	100	120
1,4-Dichlorobenzene		10	20	40	50	80	100	120
Benzyl Alcohol		10	20	40	50	80	100	120
1,2-Dichlorobenzene		10	20	40	50	80	100	120
bis(2-Chloroisopropyl)ether		10	20	40	50	80	100	120
o-Cresol (2-Methylphenol)		10	20	40	50	80	100	120
Acetophenone		10	20	40	50	80	100	120
N-Nitrosodipropylamine	1	10	20	40	50	80	100	120
m,p-Cresols (3-Methylphenol & 4-Methylphenol)		10	20	40	50	80	100	120
Hexachloroethane		10	20	40	50	80	100	120
Nitrobenzene		10	20	40	50	80	100	120
Isophorone		10	20	40	50	80	100	120
2-Nitrophenol		10	20	40	50	80	100	120
2,4-Dimethylphenol		10	20	40	50	80	100	120
bis(2-Chloroethoxy)methane		10	20	40	50	80	100	120
2,4-Dichlorophenol		10	20	40	50	80	100	120
Benzoic Acid			20	40	50	80	100	120
1,2,4-Trichlorobenzene		10	20	40	50	80	100	120
Naphthalene	1	10	20	40	50	80	100	120
alpha-Terpineol		10	20	40	50	80	100	120
4-Chloroaniline		10	20	40	50	80	100	120
Caprolactam		10	20	40	50	80	100	120

SW846 8270C//8270D/EPA 625								
Calibration Standard Concentration Levels*								
	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Hexachlorobutadiene		10	20	40	50	80	100	120
4-Chloro-3-methylphenol		10	20	40	50	80	100	120

2-Methylnaphthalene	1	10	20	40	50	80	100	120
1-Methylnaphthalene	1	10	20	40	50	80	100	120
Hexachlorocyclopentadiene		10	20	40	50	80	100	120
1,1'-Biphenyl		10	20	40	50	80	100	120
2,3-Dichloroaniline		10	20	40	50	80	100	120
2,4,6-Trichlorophenol		10	20	40	50	80	100	120
2,4,5-Trichlorophenol		10	20	40	50	80	100	120
2-Chloronaphthalene	1	10	20	40	50	80	100	120
o-Nitroaniline		10	20	40	50	80	100	120
m-Nitroaniline		10	20	40	50	80	100	120
Dimethylphthalate	1	10	20	40	50	80	100	120
2,6-Dinitrotoluene		10	20	40	50	80	100	120
Acenaphthylene	1	10	20	40	50	80	100	120
Acenaphthene	1	10	20	40	50	80	100	120
2,4-Dinitrophenol			20	40	50	80	100	120
Dibenzofuran		10	20	40	50	80	100	120
2,4-Dinitrotoluene		10	20	40	50	80	100	120
Diethylphthalate	1	10	20	40	50	80	100	120
4-Nitrophenol		10	20	40	50	80	100	120
Fluorene	1	10	20	40	50	80	100	120
4-Chlorophenyl phenyl ether		10	20	40	50	80	100	120
2-Methyl-4,6-dinitrophenol		10	20	40	50	80	100	120
p-Nitroaniline		10	20	40	50	80	100	120
Diphenylamine		10	20	40	50	80	100	120
1,2-Diphenylhydrazine		10	20	40	50	80	100	120
Tributylphosphate		10	20	40	50	80	100	120
4-Bromophenyl phenyether		10	20	40	50	80	100	120
Hexachlorobenzene		10	20	40	50	80	100	120
Atrazine		10	20	40	50	80	100	120
Pentachlorophenol		10	20	40	50	80	100	120
n-Octadecane		10	20	40	50	80	100	120
Phenanthrene	1	10	20	40	50	80	100	120
Anthracene	1	10	20	40	50	80	100	120
Di-n-butylphthalate	1	10	20	40	50	80	100	120
Fluoranthene	1	10	20	40	50	80	100	120
Benzidine		10	20	40	50	80	100	120
Pyrene	1	10	20	40	50	80	100	120
Butylbenzylphthalate	1	10	20	40	50	80	100	120
Benzo(a)anthracene	1	10	20	40	50	80	100	120
3,3'-Dichlorobenzidene		10	20	40	50	80	100	120
Chrysene	1	10	20	40	50	80	100	120
bis (2-Ethylhexyl) phthalate	1	10	20	40	50	80	100	120
Di-n-octylphthalate	1	10	20	40	50	80	100	120

SW846 8270C//8270D/EPA 625								
Calibration Standard Concentration Levels*								
	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Benzo(b)fluoranthene	1	10	20	40	50	80	100	120
Benzo(k)fluoranthene	1	10	20	40	50	80	100	120
Benzo(a)pyrene	1	10	20	40	50	80	100	120
Indeno-(1,2,3-cd)pyrene	1	10	20	40	50	80	100	120
Dibenzo(a,h)anthracene	1	10	20	40	50	80	100	120
Benzo(ghi)perylene	1	10	20	40	50	80	100	120
Carbazole	1	10	20	40	50	80	100	120

APPENDIX IX

1,4-Dioxane		10	20	40	50	80	100	120
Methyl methacrylate		10	20	40	50	80	100	120
Ethyl methacrylate		10	20	40	50	80	100	120
2-Picoline		10	20	40	50	80	100	120
N-Nitrosomethylethylamine		10	20	40	50	80	100	120
Methyl methanesulfonate		10	20	40	50	80	100	120
N-Nitrosodiethylamine		10	20	40	50	80	100	120
Ethyl methanesulfonate		10	20	40	50	80	100	120
Pentachloroethane		10	20	40	50	80	100	120
N-Nitrosopyrrolidine		10	20	40	50	80	100	120
N-Nitrosomorpholine		10	20	40	50	80	100	120
o-Toluidine		10	20	40	50	80	100	120
N-Nitrosopiperidine		10	20	40	50	80	100	120
a,a-Dimethhylphenethylamine		10	20	40	50	80	100	120
Triethylphosphorothioate		10	20	40	50	80	100	120
2,6-Dichlorophenol		10	20	40	50	80	100	120
Hexachloropropene		10	20	40	50	80	100	120
p-Phenylenediamine		10	20	40	50	80	100	120
N-Nitrosodi-n-butylamine		10	20	40	50	80	100	120
Safrole		10	20	40	50	80	100	120
1,2,4,5-Tetrachlorobenzene		10	20	40	50	80	100	120
Isosafrole		10	20	40	50	80	100	120
1,4-Naphthoquinone		10	20	40	50	80	100	120
m-Dinitrobenzene		10	20	40	50	80	100	120
Pentachlorobenzene		10	20	40	50	80	100	120
1-Naphthylamine		10	20	40	50	80	100	120
2-Naphthylamine		10	20	40	50	80	100	120
2,3,4,6-Tetrachlorophenol		10	20	40	50	80	100	120
5-Nitro-o-toluidine		10	20	40	50	80	100	120
Thionazin		10	20	40	50	80	100	120
Sulfotepp		10	20	40	50	80	100	120
Phorate		10	20	40	50	80	100	120
1,3,5-Trinitrobenzene		10	20	40	50	80	100	120
Phenacetin		10	20	40	50	80	100	120
Diallate (cis and trans)		10	20	40	50	80	100	120

SW846 8270C//8270D/EPA 625

Calibration Standard Concentration Levels*

	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Dimethoate		10	20	40	50	80	100	120
4-Aminobiphenyl		10	20	40	50	80	100	120
Pentachloronitrobenzene		10	20	40	50	80	100	120
Pronamide		10	20	40	50	80	100	120
Dinoseb		10	20	40	50	80	100	120
Disulfoton		10	20	40	50	80	100	120
Methyl parathion		10	20	40	50	80	100	120
4-Nitroquinoline oxide		10	20	40	50	80	100	120
Methapyrilene		10	20	40	50	80	100	120
Isodrin		10	20	40	50	80	100	120
Aramite		10	20	40	50	80	100	120
Kepone		10	20	40	50	80	100	120
p-(Dimethylamino)azobenzene		10	20	40	50	80	100	120

Chlorobenzilate		10	20	40	50	80	100	120
3,3'-Dimethylbenzidine		10	20	40	50	80	100	120
Famphur		10	20	40	50	80	100	120
2-Acetylaminofluorene		10	20	40	50	80	100	120
7,12-Dimethylbenz(a)anthracene		10	20	40	50	80	100	120
3-Methylcholanthrene		10	20	40	50	80	100	120
Hexachlorophene		500	1000	1250	1500	1750	2000	
p-Benzoquinone		10	20	40	50	80	100	120
Parathion		10	20	40	50	80	100	120
Methoxychlor		10	20	40	50	80	100	120
2-Ethoxyethanol		50	75	100	125	150	200	250
cis-Diallate		1.5	3	6	7.5	12	15	18
trans-Diallate		8.5	17	34	42	68	85	102
Dibenzo(a,e)pyrene		50	75	100	125	150	200	250
Phthalic anhydride		50	75	100	125	150	200	250
1,4-Dinitrobenzene		50	75	100	125	150	200	250
(2,3-Dibromopropyl)phosphate		50	75	100	125	150	200	250
Methylenebis(2-chloroaniline)		50	75	100	125	150	200	250
p-Toluidine		10	20	40	50	80	100	120
m-Toluidine		10	20	40	50	80	10	120

SW846 8270C//8270D/EPA 625								
Calibration Standard Concentration Levels*								
	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
bis(Chloromethyl)ether		10	20	40	50	80	100	120
Thiophenol		10	20	40	50	80	100	120
4-Chlorothiophenol		10	20	40	50	80	100	120
4-Chlorothio anisole		10	20	40	50	80	100	120
Phthalic acid		10	20	40	50	80	100	120
Hydroxymethyl phthalamide		10	20	40	50	80	100	120
Diphenyl sulfide		10	20	40	50	80	100	120
Diphenyl disulfide		10	20	40	50	80	100	120
Phenyl sulfone		10	20	40	50	80	100	120
Octachlorostyrene		10	20	40	50	80	100	120
2,2'-Dichlorobenzil		10	20	40	50	80	100	120
bis(p-Chlorophenyl)disulfide		10	20	40	50	80	100	120
bis(p-Chlorophenyl)sulfone		10	20	40	50	80	10	120

All values are mg/L without the prep factor.
# Indicates the calibration verification concentration level used
* Usual calibration levels using SCAN methodology
Level 1 may be included at request of client
(06/08)

Report Date: 14-Dec-2009 08:26

Calibration History

Method : /chem/MSD3.i/s121309.b/MSD3-8270R-AQA-120809.m
Start Cal Date: 06-DEC-2009 10:12
End Cal Date : 08-DEC-2009 12:26

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 1.00000		
06-DEC-2009 10:12	MEGAII	/chem/MSD3.i/s120609.b/s310603.d

Injection Date	Sublist	Calibration File
Cal Level: 2 , Cal Amount: 10.00000		
07-DEC-2009 18:53	NEV	/chem/MSD3.i/s120709.b/s310715.d
07-DEC-2009 02:36	HEX	/chem/MSD3.i/s120609.b/s310629.d
06-DEC-2009 23:25	PEST	/chem/MSD3.i/s120609.b/s310622.d
08-DEC-2009 09:42	AP12	/chem/MSD3.i/s120809.b/s310803.d
06-DEC-2009 10:41	MEGAII	/chem/MSD3.i/s120609.b/s310604.d

Injection Date	Sublist	Calibration File
Cal Level: 3 , Cal Amount: 20.00000		
07-DEC-2009 19:21	NEV	/chem/MSD3.i/s120709.b/s310716.d
07-DEC-2009 03:03	HEX	/chem/MSD3.i/s120609.b/s310630.d
06-DEC-2009 23:53	PEST	/chem/MSD3.i/s120609.b/s310623.d
08-DEC-2009 10:09	AP12	/chem/MSD3.i/s120809.b/s310804.d
06-DEC-2009 11:10	MEGAII	/chem/MSD3.i/s120609.b/s310605.d

Injection Date	Sublist	Calibration File
Cal Level: 4 , Cal Amount: 40.00000		
07-DEC-2009 19:48	NEV	/chem/MSD3.i/s120709.b/s310717.d
07-DEC-2009 03:30	HEX	/chem/MSD3.i/s120609.b/s310631.d
07-DEC-2009 00:20	PEST	/chem/MSD3.i/s120609.b/s310624.d
08-DEC-2009 10:37	AP12	/chem/MSD3.i/s120809.b/s310805.d
06-DEC-2009 11:39	MEGAII	/chem/MSD3.i/s120609.b/s310606.d

Injection Date	Sublist	Calibration File
Cal Level: 5 , Cal Amount: 50.00000		
07-DEC-2009 20:15	NEV	/chem/MSD3.i/s120709.b/s310718.d
07-DEC-2009 03:57	HEX	/chem/MSD3.i/s120609.b/s310632.d
07-DEC-2009 00:47	PEST	/chem/MSD3.i/s120609.b/s310625.d
08-DEC-2009 11:04	AP12	/chem/MSD3.i/s120809.b/s310806.d
06-DEC-2009 12:08	MEGAII	/chem/MSD3.i/s120609.b/s310607.d

Injection Date	Sublist	Calibration File
Cal Level: 6 , Cal Amount: 80.00000		
07-DEC-2009 20:43	NEV	/chem/MSD3.i/s120709.b/s310719.d
07-DEC-2009 04:24	HEX	/chem/MSD3.i/s120609.b/s310633.d
07-DEC-2009 01:14	PEST	/chem/MSD3.i/s120609.b/s310626.d
08-DEC-2009 11:31	AP12	/chem/MSD3.i/s120809.b/s310807.d
06-DEC-2009 12:37	MEGAII	/chem/MSD3.i/s120609.b/s310608.d

Cal Level: 7 , Cal Amount: 100.00000

07-DEC-2009 21:10	NEV	/chem/MSD3.i/s120709.b/s310720.d
07-DEC-2009 04:52	HEX	/chem/MSD3.i/s120609.b/s310634.d
07-DEC-2009 01:42	PEST	/chem/MSD3.i/s120609.b/s310627.d
08-DEC-2009 11:58	AP12	/chem/MSD3.i/s120809.b/s310808.d
06-DEC-2009 13:06	MEGAII	/chem/MSD3.i/s120609.b/s310609.d

Cal Level: 8 , Cal Amount: 120.00000		
07-DEC-2009 21:37	NEV	/chem/MSD3.i/s120709.b/s310721.d
07-DEC-2009 02:09	PEST	/chem/MSD3.i/s120609.b/s310628.d
08-DEC-2009 12:26	AP12	/chem/MSD3.i/s120809.b/s310809.d
06-DEC-2009 13:35	MEGAII	/chem/MSD3.i/s120609.b/s310610.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 40.0		
13-DEC-2009 12:38	AP12	/chem/MSD3.i/s121309.b/s311310.d
Ccal Level: 4 , Ccal Amount: 40.0		
13-DEC-2009 12:11	MEGAII	/chem/MSD3.i/s121309.b/s311309.d
Ccal Level: 4 , Ccal Amount: 40.0		
13-DEC-2009 11:42	MEGAII	/chem/MSD3.i/s121309.b/s311308.d
Ccal Level: 4 , Ccal Amount: 40.0		
13-DEC-2009 10:47	MEGAII	/chem/MSD3.i/s121309.b/s311306.d
Ccal Level: 4 , Ccal Amount: 40.0		
13-DEC-2009 09:40	MEGAII	/chem/MSD3.i/s121309.b/s311304.d
Ccal Level: 4 , Ccal Amount: 40.0		
13-DEC-2009 08:45	MEGAII	/chem/MSD3.i/s121309.b/s311302.d

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 06-DEC-2009 10:12
End Cal Date : 08-DEC-2009 12:26
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD3.i/s121309.b/MSD3-8270R-AQA-120809.m
Cal Date : 13-Dec-2009 12:57 jen00986

Calibration File Names:
Level 1: /chem/MSD3.i/s120609.b/s310603.d
Level 2: /chem/MSD3.i/s120709.b/s310715.d
Level 3: /chem/MSD3.i/s120709.b/s310716.d
Level 4: /chem/MSD3.i/s120709.b/s310717.d
Level 5: /chem/MSD3.i/s120709.b/s310718.d
Level 6: /chem/MSD3.i/s120709.b/s310719.d
Level 7: /chem/MSD3.i/s120709.b/s310720.d
Level 8: /chem/MSD3.i/s120709.b/s310721.d

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
1 N-Methyl-N-nitrosomethylamine	+++++	0.67943	0.74446	0.67067	0.68393	0.65729					
	0.63769	0.63366					AVRG		0.67245		5.53526
2 Pyridine	+++++	1.08752	1.22168	1.09411	1.11313	1.06272					
	1.01889	1.04243					AVRG		1.09150		6.02473
4 Aniline	+++++	0.54481	0.60225	0.53489	0.56504	0.55250					
	0.55388	0.55218					AVRG		0.55794		3.87001
209 Benzaldehyde	+++++	1.02071	1.05204	0.99760	0.95884	0.93374					
	0.91627	0.87080					AVRG		0.96429		6.55888
6 Phenol	+++++	1.36018	1.49856	1.37161	1.40855	1.36816					
	1.35072	1.36214					AVRG		1.38856		3.73513

GEL Laboratories LLC

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Cal Date : 13-Dec-2009 12:57 jen00986

Compound	1 Level 1 100 Level 7	10 Level 2 120 Level 8	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
7 bis(2-Chloroethyl) ether	4570	33228	75848	139734	174233	270102					
	336673	416426					LINR	-0.05098	0.82800		0.99934
8 2-Chlorophenol	+++++	1.06804	1.15967	1.05927	1.09176	1.05094					
	1.03133	1.03717					AVRG		1.07117		4.09784
203 n-Decane	+++++	1.26754	1.29419	1.09628	1.07334	0.95760					
	0.88318	+++++					AVRG		1.09536		14.92672
9 1,3-Dichlorobenzene	+++++	1.25893	1.36035	1.21900	1.24996	1.20774					
	1.17912	1.18576					AVRG		1.23726		5.00619
11 1,4-Dichlorobenzene	+++++	1.27305	1.36970	1.23422	1.26367	1.22968					
	1.19729	1.20110					AVRG		1.25267		4.70317
12 Benzyl alcohol	+++++	0.60530	0.71519	0.68049	0.70727	0.69235					
	0.68912	0.69045					AVRG		0.68288		5.29640
13 1,2-Dichlorobenzene	+++++	1.20730	1.29078	1.17369	1.20025	1.16469					
	1.13691	1.14538					AVRG		1.18843		4.38042
14 bis(2-Chloroisopropyl)ether	+++++	1.83611	1.91223	1.68921	1.71358	1.59874					
	1.52180	1.47742					AVRG		1.67844		9.48796
15 o-Cresol	+++++	0.90194	0.97040	0.87970	0.88721	0.87092					
	0.85992	0.86767					AVRG		0.89111		4.21876

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Cal Date : 13-Dec-2009 12:57 jen00986

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
16 Acetophenone	+++++	1.37378	1.40083	1.34491	1.31278	1.30638					
	1.31077	1.27196					AVRG		1.33163		3.32043
17 N-Nitrosodipropylamine	1.02808	0.84067	0.92144	0.82493	0.85947	0.83197					
	0.81546	0.82510					AVRG		0.86839		8.37826
18 m,p-Cresols	+++++	1.06214	1.16857	1.06639	1.10282	1.08174					
	1.06464	1.03101					AVRG		1.08247		4.03823
19 Hexachloroethane	+++++	0.46749	0.50498	0.47459	0.47798	0.46740					
	0.45744	0.45287					AVRG		0.47182		3.61877
21 Nitrobenzene	+++++	0.35630	0.36606	0.32304	0.34982	0.33326					
	0.32569	0.32366					AVRG		0.33969		5.16331
22 Isophorone	+++++	0.55832	0.58884	0.52216	0.56704	0.54306					
	0.53951	0.50734					AVRG		0.54662		5.03280
23 2-Nitrophenol	+++++	0.15227	0.14307	0.13034	0.14431	0.14096					
	0.14422	0.14523					AVRG		0.14291		4.59203
24 2,4-Dimethylphenol	+++++	0.25596	0.27128	0.24222	0.26226	0.25009					
	0.25253	0.25349					AVRG		0.25541		3.62148
25 bis(2-Chloroethoxy)methane	+++++	0.39619	0.41012	0.35978	0.38748	0.36749					
	0.36363	0.36713					AVRG		0.37883		5.07142

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Method file : /chem/MSD3.i/s121309.b/MSD3-8270R-AQA-120809.m
Cal Date : 13-Dec-2009 12:57 jen00986

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
26 2,4-Dichlorophenol	+++++	0.21194	0.22833	0.20908	0.22866	0.22067					
	0.22177	0.22381					AVRG		0.22061		3.43312
27 Benzoic acid	+++++	+++++	18928	55245	82612	163279					
	230526	301096					LINR	0.45335	0.18283		0.99292
28 1,2,4-Trichlorobenzene	+++++	0.26275	0.27079	0.23986	0.25845	0.24528					
	0.24522	0.24361					AVRG		0.25228		4.62981
30 Naphthalene	16169	115777	268135	496715	630869	955382					
	1186768	1469295					WLINR	-0.01295	0.80532		0.99757
204 alpha-Terpineol	+++++	0.21457	0.22479	0.19537	0.20806	0.19109					
	0.18517	0.18299					AVRG		0.20029		7.89726
31 4-Chloroaniline	+++++	0.21986	0.23798	0.26693	0.28046	0.27805					
	0.30019	0.28838					AVRG		0.26741		10.71392
189 Caprolactam	+++++	0.08696	0.09438	0.08713	0.09439	0.09659					
	0.09138	0.09132					AVRG		0.09173		4.02914
32 Hexachlorobutadiene	+++++	0.15996	0.16625	0.14801	0.15875	0.15027					
	0.15027	0.14963					AVRG		0.15474		4.47073
33 4-Chloro-3-methylphenol	+++++	0.22183	0.25638	0.23320	0.25267	0.24283					
	0.24408	0.24637					AVRG		0.24248		4.84281

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INITIAL CALIBRATION DATA

Start Cal Date : 06-DEC-2009 10:12
End Cal Date : 08-DEC-2009 12:26
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD3.i/s121309.b/MSD3-8270R-AQA-120809.m
Cal Date : 13-Dec-2009 12:57 jen00986

Compound	1 Level 1 100 Level 7	10 Level 2 120 Level 8	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
34 2-Methylnaphthalene	0.76526	0.56802	0.59085	0.52053	0.56147	0.53008					
	0.52618	0.52957					AVRG		0.57399		14.13925
35 1-Methylnaphthalene	0.67031	0.50808	0.52804	0.46484	0.50114	0.47703					
	0.47173	0.47551					AVRG		0.51209		13.17285
36 Hexachlorocyclopentadiene	+++++	0.08323	0.10853	0.11547	0.11629	0.12066					
	0.13967	0.11865					AVRG		0.11464		14.70842
208 1,1'-Biphenyl	+++++	1.26421	1.27174	1.22180	1.19959	1.20426					
	1.18145	1.17598					AVRG		1.21700		3.12176
205 2,3-Dichloroaniline	+++++	0.44734	0.48253	0.44572	0.45855	0.44168					
	0.43858	0.43829					AVRG		0.45038		3.50190
37 2,4,6-Trichlorophenol	+++++	0.25111	0.28591	0.26936	0.27725	0.27019					
	0.26815	0.26469					AVRG		0.26952		3.98735
38 2,4,5-Trichlorophenol	+++++	0.25727	0.30355	0.28556	0.30808	0.30395					
	0.30867	0.31187					AVRG		0.29699		6.56429
40 2-Chloronaphthalene	1.31721	0.99057	1.03775	0.93234	0.95481	0.90793					
	0.89665	0.89340					AVRG		0.99133		14.19802
42 o-Nitroaniline	+++++	0.32222	0.35527	0.33252	0.33758	0.32622					
	0.32561	0.32781					AVRG		0.33246		3.38307

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Start Cal Date : 06-DEC-2009 10:12
End Cal Date : 08-DEC-2009 12:26
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD3.i/s121309.b/MSD3-8270R-AQA-120809.m
Cal Date : 13-Dec-2009 12:57 jen00986

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
41 m-Nitroaniline	+++++	8998	20627	69767	92503	151360					
	195653	245193					LINR	0.16127	0.24605		0.99832
43 Dimethylphthalate	+++++	1.06546	1.13464	1.02321	1.04996	1.00027					
	0.99067	1.00551					AVRG		1.03853		4.84197
44 2,6-Dinitrotoluene	+++++	0.25693	0.28224	0.25773	0.26520	0.25587					
	0.25241	0.25655					AVRG		0.26099		3.88296
45 Acenaphthylene	1.95808	1.52016	1.62601	1.45179	1.48653	1.41128					
	1.39965	1.40305					AVRG		1.53207		12.27930
47 Acenaphthene	1.26814	0.92364	0.99186	0.89754	0.92376	0.87713					
	0.86122	0.86222					AVRG		0.95069		14.22336
48 2,4-Dinitrophenol	+++++	+++++	9531	25751	34616	67000					
	100458	124978					LINR	0.40363	0.13555		0.99006
49 Dibenzofuran	+++++	1.36845	1.44295	1.29685	1.32436	1.25126					
	1.23153	1.22744					AVRG		1.30612		6.07614
50 2,4-Dinitrotoluene	+++++	0.31836	0.36307	0.33598	0.34123	0.32861					
	0.32696	0.32767					AVRG		0.33455		4.33599
51 Diethylphthalate	+++++	1.06349	1.13795	1.02459	1.05132	0.99678					
	0.96898	0.97892					AVRG		1.03172		5.68951

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	100 Level 7	120 Level 8									
52 4-Nitrophenol	+++++	7109	22586	49176	61666	105195					
	146314	174964					LINR	0.13564	0.17470		0.99658
53 Fluorene	1.49556	1.11508	1.20308	1.08436	1.10021	1.04439					
	1.02768	1.01942					AVRG		1.13622		13.79124
54 4-Chlorophenylphenylether	+++++	0.50843	0.54216	0.48887	0.49926	0.47308					
	0.46366	0.46369					AVRG		0.49131		5.76111
55 2-Methyl-4,6-dinitrophenol	+++++	5577	20662	48253	62460	109150					
	151521	181628					LINR	0.17358	0.11171		0.99725
56 p-Nitroaniline	+++++	10479	23488	51535	72065	130730					
	188690	224423					LINR	0.22131	0.23039		0.99022
133 Diphenylamine	+++++	0.53712	0.54351	0.49810	0.51956	0.50623					
	0.50761	0.50884					AVRG		0.51728		3.29337
58 1,2-Diphenylhydrazine	+++++	0.79395	0.85739	0.77414	0.79443	0.73987					
	0.72082	0.71637					AVRG		0.77099		6.48952
59 Tributylphosphate	+++++	1.34754	1.40434	1.36844	1.34363	1.28089					
	1.28992	1.26412					AVRG		1.32841		3.86756
61 4-Bromophenylphenylether	+++++	0.14542	0.15923	0.14682	0.15277	0.14749					
	0.14638	0.14826					AVRG		0.14948		3.28199

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	100 Level 7	120 Level 8									
63 Hexachlorobenzene	+++++	0.17367	0.18968	0.17483	0.18358	0.17666					
	0.17653	0.17800					AVRG		0.17899		3.17123
207 Atrazine	+++++	0.04547	0.04789	0.04541	0.04379	0.04233					
	0.04166	0.03974					AVRG		0.04375		6.28656
65 Pentachlorophenol	+++++	5125	20120	47371	62276	108116					
	147939	190753					LINR	0.20373	0.11468		0.99761
206 n-Octadecane	+++++	0.49528	0.52742	0.45971	0.47133	0.42486					
	0.40259	0.39001					AVRG		0.45303		11.03990
68 Phenanthrene	1.28804	0.92662	1.00321	0.90696	0.91702	0.86826					
	0.86689	0.86023					AVRG		0.95465		14.92256
69 Anthracene	1.22432	0.94868	1.02723	0.93474	0.95117	0.89937					
	0.89891	0.88541					AVRG		0.97123		11.49124
72 Di-n-butylphthalate	+++++	1.01024	1.12625	1.03541	1.07328	1.00092					
	0.97512	0.96044					AVRG		1.02595		5.64681
76 Fluoranthene	1.13506	0.91582	1.01772	0.92132	0.92811	0.87998					
	0.89411	0.86792					AVRG		0.94500		9.45361
77 Benzidine	+++++	13242	28067	121292	145292	229608					
	+++++	+++++					LINR	0.23308	0.33868		0.99360

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
79 Pyrene	1.32796	1.10937	1.17546	1.07481	1.10786	1.08578					
	1.02162	1.04531					AVRG		1.11852		8.61766
85 Butylbenzylphthalate	+++++	0.48784	0.55867	0.52303	0.55554	0.53440					
	0.50034	0.51500					AVRG		0.52498		5.06830
89 Benzo(a)anthracene	1.27924	0.93976	0.99698	0.91211	0.93307	0.88441					
	0.88126	0.87764					AVRG		0.96306		13.89402
90 3,3'-Dichlorobenzidine	+++++	0.22599	0.25141	0.30097	0.28293	0.27489					
	0.29870	0.28934					AVRG		0.27489		9.92155
92 Chrysene	1.17240	0.86747	0.93266	0.84872	0.86424	0.83169					
	0.82423	0.81317					AVRG		0.89432		13.22520
93 bis(2-Ethylhexyl)phthalate	0.64156	0.70968	0.78820	0.71666	0.76491	0.70530					
	0.64105	0.62866					AVRG		0.69950		8.43497
94 Di-n-octylphthalate	+++++	1.30330	1.58098	1.48483	1.58864	1.49324					
	1.40369	1.48498					AVRG		1.47710		6.72530
95 Benzo(b)fluoranthene	1.14287	0.99761	1.08613	0.99866	1.06304	1.00973					
	1.05381	1.10097					AVRG		1.05660		4.97815
96 Benzo(k)fluoranthene	1.21762	0.97826	1.08557	0.98710	0.97424	0.95201					
	0.90253	0.89505					AVRG		0.99905		10.61976

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Compound	1 Level 1 100 Level 7	10 Level 2 120 Level 8	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
97 Benzo(a)pyrene	0.89631	0.80728	0.92629	0.85263	0.88988	0.85471					
	0.86398	0.86242					AVRG		0.86919		4.08253
99 Indeno(1,2,3-cd)pyrene	0.88470	0.67257	0.79574	0.73311	0.79072	0.73301					
	0.79815	0.70975					AVRG		0.76472		8.65543
100 Dibenzo(a,h)anthracene	0.77717	0.56282	0.65665	0.60884	0.66191	0.61909					
	0.67856	0.60613					AVRG		0.64640		9.99962
101 Benzo(ghi)perylene	0.82823	0.59201	0.66562	0.60292	0.65494	0.59680					
	0.64570	0.56162					AVRG		0.64348		12.85995
102 1,4-Dioxane	+++++	0.40773	0.40019	0.37522	0.38135	0.37922					
	0.35134	0.34853					AVRG		0.37765		5.89649
103 Methyl methacrylate	+++++	0.23020	0.22560	0.21852	0.21824	0.21052					
	0.19800	0.19960					AVRG		0.21438		5.74380
104 Ethyl methacrylate	+++++	0.87914	0.89122	0.84372	0.83343	0.83525					
	0.81038	0.79106					AVRG		0.84060		4.20722
105 2-Picoline	+++++	1.44338	1.43161	1.36083	1.33756	1.35081					
	1.31406	1.28591					AVRG		1.36059		4.27148
106 N-Nitrosomethylethylamine	+++++	0.56064	0.56927	0.54338	0.53547	0.54388					
	0.54172	0.53704					AVRG		0.54734		2.31584

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	100 Level 7	120 Level 8									
107 Methyl methanesulfonate	+++++	0.61824	0.61677	0.58583	0.57116	0.55903					
	0.55322	0.53955					AVRG		0.57769		5.32696
108 N-Nitrosodiethylamine	+++++	0.56922	0.58319	0.56262	0.55136	0.55913					
	0.56022	0.55186					AVRG		0.56251		1.95725
109 Ethyl Methanesulfonate	+++++	0.76770	0.77890	0.74736	0.72988	0.73521					
	0.72903	0.71628					AVRG		0.74348		3.03674
110 Pentachloroethane	+++++	0.31913	0.32392	0.31369	0.30674	0.31070					
	0.30692	0.30182					AVRG		0.31184		2.46493
111 N-Nitrosopyrrolidine	+++++	0.57409	0.60173	0.59457	0.58397	0.58513					
	0.53679	0.52882					AVRG		0.57216		4.95238
113 N-Nitrosomorpholine	+++++	0.72127	0.73483	0.70050	0.67638	0.66110					
	0.65461	0.62793					AVRG		0.68237		5.61742
114 o-Toluidine	+++++	1.85975	1.90667	1.81811	1.79337	1.79504					
	1.79339	1.75730					AVRG		1.81766		2.75332
115 N-Nitrosopiperidine	+++++	0.15150	0.15914	0.15436	0.15132	0.15496					
	0.15463	0.15261					AVRG		0.15407		1.74096
116 a,a-Dimethylphenethylamine	+++++	0.67729	0.77169	0.81345	0.80122	0.85594					
	0.86913	0.86098					AVRG		0.80710		8.35998

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	100 Level 7	120 Level 8									
117 Triethylphosphorothioate	+++++	0.13951	0.14249	0.14044	0.13647	0.13489					
	0.13602	0.13657					AVRG		0.13806		2.01303
118 2,6-Dichlorophenol	+++++	0.21873	0.22853	0.22163	0.21640	0.22058					
	0.21985	0.21964					AVRG		0.22077		1.71840
119 Hexachloropropene	+++++	0.10297	0.10669	0.11052	0.11353	0.11186					
	0.10484	0.11311					AVRG		0.10907		3.87058
120 p-Phenylenediamine	+++++	0.13359	0.22355	0.29709	0.28378	0.24514					
	0.24211	0.22968					AVRG		0.23642		22.39280 <-
121 N-Nitrosodi-n-butylamine	+++++	0.27093	0.28578	0.23871	0.22611	0.22352					
	0.22392	0.21998					AVRG		0.24128		10.92114
122 Safrole	+++++	0.20129	0.20683	0.19976	0.19759	0.19945					
	0.19971	0.19690					AVRG		0.20022		1.62805
123 1,2,4,5-Tetrachlorobenzene	+++++	0.45276	0.45501	0.43265	0.43285	0.44088					
	0.43460	0.43377					AVRG		0.44036		2.19640
124 Isosafrole	+++++	0.35063	0.35431	0.35388	0.34377	0.34758					
	0.34564	0.34446					AVRG		0.34861		1.25494
125 1,4-Naphthoquinone	+++++	0.32196	0.35500	0.34168	0.30941	0.25892					
	0.24523	+++++					AVRG		0.30537		14.53302

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	100 Level 7	120 Level 8									
126 m-Dinitrobenzene	+++++	0.16619	0.19197	0.18014	0.18390	0.18168					
	0.18356	0.18414					AVRG		0.18165		4.28018
127 Pentachlorobenzene	+++++	0.38359	0.39609	0.38672	0.37943	0.38393					
	0.38746	0.38462					AVRG		0.38598		1.33678
128 1-Naphthylamine	+++++	0.84495	0.88668	0.95833	0.93759	0.92482					
	0.92248	0.91625					AVRG		0.91301		4.05463
129 2-Naphthylamine	+++++	0.94397	0.99498	1.03743	1.00039	0.98529					
	0.99816	0.99350					AVRG		0.99339		2.76342
130 2,3,4,6-Tetrachlorophenol	+++++	0.17529	0.21735	0.21325	0.21981	0.22006					
	0.22600	0.23248					AVRG		0.21489		8.62469
131 5-Nitro-o-toluidine	+++++	0.25795	0.27853	0.30785	0.30393	0.29937					
	0.30291	0.30462					AVRG		0.29359		6.29534
132 Thionazin	+++++	0.17533	0.18440	0.18613	0.17835	0.17567					
	0.17701	0.17723					AVRG		0.17916		2.41147
134 Sulfotepp	+++++	0.09154	0.10186	0.09720	0.09862	0.09958					
	0.10232	0.10729					AVRG		0.09977		4.89510
135 Phorate	+++++	0.42827	0.45270	0.42158	0.41902	0.40069					
	0.40088	0.40448					AVRG		0.41823		4.47171

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136 1,3,5-Trinitrobenzene	+++++	0.12808	0.14692	0.16140	0.15102	0.13713					
	0.13583	0.12793					AVRG		0.14119		8.82180
137 Phenacetin	+++++	0.28642	0.30265	0.31883	0.31254	0.31358					
	0.32085	0.30246					AVRG		0.30819		3.88162
138 Diallate	+++++	0.30357	0.31931	0.29343	0.28535	0.29176					
	0.28790	0.27896					AVRG		0.29433		4.54773
139 Dimethoate	+++++	0.24879	0.25927	0.27775	0.26541	0.27158					
	0.27714	0.27670					AVRG		0.26809		4.08331
140 4-Aminobiphenyl	+++++	0.56974	0.56896	0.64069	0.65401	0.65794					
	0.65894	0.65393					AVRG		0.62917		6.56451
141 Pentachloronitrobenzene	+++++	0.07041	0.07621	0.07268	0.06990	0.07044					
	0.07038	0.06798					AVRG		0.07114		3.68329
142 Pronamide	+++++	0.28048	0.29529	0.28499	0.27501	0.28206					
	0.28587	0.27432					AVRG		0.28257		2.53690
143 Dinoseb	+++++	6717	26500	61800	81713	140328					
	191602	233762					LINR	0.16987	0.14277		0.99849
144 Disulfoton	+++++	0.41599	0.42335	0.38021	0.37998	0.35395					
	0.35526	0.35307					AVRG		0.38026		7.73460

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	100 Level 7	120 Level 8									
145 Methyl parathion	+++++	0.18007	0.19118	0.21428	0.20350	0.20818					
	0.21450	0.21468					AVRG		0.20377		6.59663
146 4-Nitroquinoline-1-oxide	+++++	0.02768	0.02926	0.02995	0.02654	0.02089					
	+++++	+++++					AVRG		0.02686		13.38493
147 Methapyrilene	+++++	0.43444	0.45260	0.45013	0.41798	0.38294					
	0.38330	0.35283					AVRG		0.41060		9.32538
148 Isodrin	+++++	0.11136	0.11509	0.11025	0.10831	0.11005					
	0.11176	0.10678					AVRG		0.11051		2.40356
149 Aramite	+++++	0.04841	0.05128	0.05360	0.05153	0.05052					
	0.05208	0.04904					AVRG		0.05092		3.49550
150 Kepone	+++++	0.07495	0.08066	0.07982	0.07514	0.07350					
	0.07917	0.07499					AVRG		0.07689		3.74818
151 p-(Dimethylamino)azobenzene	+++++	0.30929	0.33217	0.31520	0.31538	0.34418					
	0.32573	0.33035					AVRG		0.32461		3.73682
152 Chlorobenzilate	+++++	0.29428	0.31337	0.28335	0.28702	0.32621					
	0.30774	0.31100					AVRG		0.30328		5.12591
153 3,3'-Dimethylbenzidine	+++++	0.39844	0.41907	0.46528	0.45328	0.47396					
	0.50847	0.50603					AVRG		0.46065		8.94976

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 06-DEC-2009 10:12
End Cal Date : 08-DEC-2009 12:26
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD3.i/s121309.b/MSD3-8270R-AQA-120809.m
Cal Date : 13-Dec-2009 12:57 jen00986

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	100 Level 7	120 Level 8										
154 Famphur	+++++	0.31533	0.34031	0.34201	0.34625	0.34103						
	0.34999	0.34772					AVRG		0.34038		3.41584	
155 2-Acetylaminofluorene	+++++	0.25716	0.29468	0.35530	0.33142	0.30953						
	0.34644	0.32764					AVRG		0.31745		10.59557	
157 7,12Dimethylbenz(a)anthracene	+++++	0.48655	0.51522	0.48554	0.49693	0.54817						
	0.53260	0.54297					AVRG		0.51543		5.13016	
158 3-Methylcholanthrene	+++++	0.38837	0.41062	0.42686	0.41545	0.41685						
	0.42734	0.41943					AVRG		0.41499		3.17973	
26 Phthalic anhydride	+++++	0.07747	0.09334	0.10503	0.11483	0.11628						
	0.11560	0.10680					AVRG		0.10419		13.73404	
173 Carbazole	12686	90960	171626	321015	419223	755937						
	1022764	1238500					LINR	0.06293	0.72248		0.99446	
174 Hexachlorophene	+++++	198140	586522	834117	1079894	1373196						
	1600315	+++++					LINR	7.85464	0.07932		0.99930	
179 Dibenzo(a,e)pyrene	+++++	0.24543	0.29302	0.27951	0.33517	0.28803						
	0.33713	0.27082					AVRG		0.29273		11.40448	
185 (2,3-Dibromopropyl)phosphate	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 06-DEC-2009 10:12
End Cal Date : 08-DEC-2009 12:26
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD3.i/s121309.b/MSD3-8270R-AQA-120809.m
Cal Date : 13-Dec-2009 12:57 jen00986

Compound	1 Level 1 100 Level 7	10 Level 2 120 Level 8	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
184 p-Benzoquinone	+++++	840	2826	7498	11158	18965						
	+++++	+++++					LINR	0.21133	0.06632		0.99481	
191 Parathion	+++++	0.05805	0.06665	0.07157	0.06987	0.07239						
	0.07544	0.07721					AVRG		0.07017		9.07800	
192 Methoxychlor	+++++	0.45358	0.54818	0.49465	0.52243	0.45536						
	0.44261	0.40919					AVRG		0.47514		10.24430	
210 m-Toluidine	+++++	0.68301	0.72278	0.65734	0.78083	1.03755						
	0.75006	0.75849					AVRG		0.77001		16.31713	<-
211 p-Toluidine	+++++	0.51708	0.51422	0.52724	0.54280	0.41445						
	+++++	+++++					AVRG		0.50316		10.10363	
212 Cis Diallate	+++++	0.28865	0.30993	0.28793	0.28289	0.29619						
	0.29544	0.29054					AVRG		0.29308		2.97325	
213 Trans Diallate	+++++	0.35714	0.37566	0.34521	0.33571	0.34324						
	0.33871	0.32819					AVRG		0.34627		4.54773	
214 1,4-Dinitrobenzene	+++++	0.17934	0.21095	0.20092	0.20595	0.20371						
	0.20582	0.20972					AVRG		0.20234		5.28723	
215 2-Ethoxyethanol	+++++	0.60944	0.68466	0.61918	0.63214	0.59407						
	0.57967	0.55253					AVRG		0.61024		6.89616	

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 06-DEC-2009 10:12
End Cal Date : 08-DEC-2009 12:26
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD3.i/s121309.b/MSD3-8270R-AQA-120809.m
Cal Date : 13-Dec-2009 12:57 jen00986

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
216 Methylenebis(2-chloroaniline)	+++++	7663	22316	48353	64662	107290					
	157471	174027					LINR	0.13078	0.12648		0.99649
229 2,2'-Dichlorobenzil	+++++	0.57758	0.61602	0.66013	0.63336	0.65134					
	0.67904	0.61600					AVRG		0.63335		5.33125
230 4-Chlorothioanisole	+++++	0.21545	0.23158	0.24562	0.24193	0.24382					
	0.24202	0.24141					AVRG		0.2374		4.49231
231 4-Chlorothiophenol	+++++	13605	41055	91578	112321	212015					
	265258	288747					LINR	0.13864	0.19590		0.99917
232 bis(p-Chlorophenyl)sulfone	+++++	0.35314	0.36096	0.37562	0.35589	0.35991					
	0.36847	0.34174					AVRG		0.35939		3.02997
233 bis(p-Chlorophenyl)disulfide	+++++	0.11077	0.11922	0.13126	0.13549	0.13230					
	0.14002	0.12903					AVRG		0.12830		7.82061
234 Diphenyl disulfide	+++++	0.21112	0.21681	0.23039	0.22379	0.22126					
	0.22468	0.22037					AVRG		0.22120		2.76817
235 Diphenyl sulfide	+++++	0.68112	0.68689	0.72164	0.69798	0.69886					
	0.68822	0.68516					AVRG		0.69427		1.97762
236 Phenyl sulfone	+++++	0.42223	0.42275	0.44408	0.42843	0.42374					
	0.41928	0.41658					AVRG		0.42530		2.13170

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 06-DEC-2009 10:12
End Cal Date : 08-DEC-2009 12:26
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD3.i/s121309.b/MSD3-8270R-AQA-120809.m
Cal Date : 13-Dec-2009 12:57 jen00986

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	100 Level 7	120 Level 8										
237 Hydroxymethyl phthalimide	+++++	0.11067	0.11966	0.12210	0.11502	0.11423						
	0.11721	0.11574					AVRG		0.11637		3.21002	
238 Phthalic acid	+++++	5632	17570	45083	58670	118255						
	145548	176180					LINR	0.26415	0.11963		0.99275	
239 Thiophenol	+++++	0.68891	0.92477	1.00888	0.98947	1.04366						
	1.04124	1.03055					AVRG		0.96107		13.19970	
240 bis(Chloromethyl)ether	+++++	0.97322	0.96235	0.98507	0.95565	0.91448						
	0.90183	0.89061					AVRG		0.94046		3.98475	
241 Octachlorostyrene	+++++	0.06062	0.06084	0.06627	0.06427	0.06433						
	0.06570	0.06504					AVRG		0.06387		3.53490	
M 225 Trichlorophenols	+++++	0.25419	0.29473	0.27746	0.29266	0.28707						
	0.28841	0.28828					AVRG		0.28326		4.91915	<-
M 226 Tetrachlorophenols	+++++	0.17529	0.21735	0.21325	0.21981	0.22006						
	0.22600	0.23248					AVRG		0.21489		8.62469	
M 227 Benzo(b,k)fluoranthene	1.18031	0.98794	1.08585	0.99288	1.01864	0.98087						
	0.97817	0.99801					AVRG		1.02783		6.88676	
M 228 TTO Sum Semivolatiles	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 06-DEC-2009 10:12
End Cal Date : 08-DEC-2009 12:26
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD3.i/s121309.b/MSD3-8270R-AQA-120809.m
Cal Date : 13-Dec-2009 12:57 jen00986

Compound	1 Level 1 100 Level 7	10 Level 2 120 Level 8	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
$ 3 2-Fluorophenol	+++++	1.03069	1.13140	1.03553	1.05950	1.03309						
	1.01449	1.01911					AVRG		1.04626		3.84330	
$ 5 Phenol-d5	+++++	1.28227	1.42211	1.31250	1.36390	1.32493						
	1.30870	1.31628					AVRG		1.33296		3.46833	
$ 187 2-Chlorophenol-d4	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
$ 188 1,2-Dichlorobenzene-d4	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
$ 20 Nitrobenzene-d5	+++++	0.29639	0.31372	0.27919	0.30117	0.28569						
	0.28537	0.28488					AVRG		0.29235		4.12615	
$ 39 2-Fluorobiphenyl	+++++	0.96516	1.02647	0.92859	0.95106	0.90514						
	0.89226	0.89442					AVRG		0.93759		5.13265	
$ 60 2,4,6-Tribromophenol	+++++	0.08353	0.10758	0.10732	0.11276	0.11526						
	0.11914	0.12330					AVRG		0.10984		11.80767	
$ 81 p-Terphenyl-d14	+++++	0.64573	0.68682	0.63570	0.65257	0.64379						
	0.60582	0.62663					AVRG		0.64244		3.87670	

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 06-DEC-2009 10:12
End Cal Date : 08-DEC-2009 12:26
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD3.i/s121309.b/MSD3-8270R-AQA-120809.m
Cal Date : 13-Dec-2009 12:57 jen00986

Curve	Formula	Units
Averaged	Amt = Rsp/ml	Response
Linear	Amt = b + Rsp/ml	Response
Wt Linear	Amt = b + Rsp/ml	Response

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD3.i Injection Date: 06-DEC-2009 14:32
Lab File ID: s310612.d Init. Cal. Date(s): 06-DEC-2009 06-DEC-2009
Analysis Type: Init. Cal. Times: 10:12 13:35
Lab Sample ID: WBN091106-05.2 Quant Type: ISTD
Method: /chem/MSD3.i/s120609.b/MSD3-8270R-AQA-120609.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
$ 3 2-Fluorophenol	1.04626	1.15430	1.15430	0.000	10.32625	60.00000	Averaged
$ 5 Phenol-d5	1.33296	1.49094	1.49094	0.000	11.85229	60.00000	Averaged
$ 20 Nitrobenzene-d5	0.29235	0.36624	0.36624	0.000	25.27709	60.00000	Averaged
$ 39 2-Fluorobiphenyl	0.93759	1.17332	1.17332	0.000	25.14213	60.00000	Averaged
$ 60 2,4,6-Tribromophenol	0.10984	0.12530	0.12530	0.000	14.06723	60.00000	Averaged
$ 81 p-Terphenyl-d14	0.64244	0.73639	0.73639	0.000	14.62466	60.00000	Averaged
1 N-Methyl-N-nitrosomethylami	0.67245	0.80566	0.80566	0.000	19.80984	60.00000	Averaged
2 Pyridine	1.09150	1.04957	1.04957	0.000	-3.84142	60.00000	Averaged
4 Aniline	0.55794	0.61481	0.61481	0.000	10.19309	60.00000	Averaged
6 Phenol	1.38856	1.47050	1.47050	0.001	5.90118	20.00000	Averaged ccc
7 bis(2-Chloroethyl) ether	43.42385	40.00000	0.94109	0.000	8.55963	60.00000	Linear
8 2-Chlorophenol	1.07117	1.15560	1.15560	0.000	7.88268	60.00000	Averaged
203 n-Decane	1.09536	1.28042	1.28042	0.000	16.89536	60.00000	Averaged
9 1,3-Dichlorobenzene	1.23726	1.29764	1.29764	0.000	4.87961	60.00000	Averaged
11 1,4-Dichlorobenzene	1.25267	1.32574	1.32574	0.001	5.83245	20.00000	Averaged ccc
13 1,2-Dichlorobenzene	1.18843	1.24828	1.24828	0.000	5.03637	60.00000	Averaged
14 bis(2-Chloroisopropyl)ether	1.67844	1.85476	1.85476	0.000	10.50474	60.00000	Averaged
12 Benzyl alcohol	0.68288	0.73148	0.73148	0.000	7.11613	60.00000	Averaged
15 o-Cresol	0.89111	0.93477	0.93477	0.000	4.89945	60.00000	Averaged
18 m,p-Cresols	1.08247	1.21938	1.21938	0.000	12.64735	60.00000	Averaged
17 N-Nitrosodipropylamine	0.86839	0.93080	0.93080	0.050	7.18721	60.00000	Averaged spcc
19 Hexachloroethane	0.47182	0.48784	0.48784	0.000	3.39485	60.00000	Averaged
21 Nitrobenzene	0.33969	0.37876	0.37876	0.000	11.50328	60.00000	Averaged
22 Isophorone	0.54661	0.65632	0.65632	0.000	20.07192	60.00000	Averaged
23 2-Nitrophenol	0.14291	0.15056	0.15056	0.001	5.34662	20.00000	Averaged ccc
24 2,4-Dimethylphenol	0.25541	0.26831	0.26831	0.000	5.05223	60.00000	Averaged
25 bis(2-Chloroethoxy)methane	0.37883	0.40222	0.40222	0.000	6.17407	60.00000	Averaged
26 2,4-Dichlorophenol	0.22061	0.23934	0.23934	0.001	8.48979	20.00000	Averaged ccc
27 Benzoic acid	43.45484	40.00000	0.11574	0.000	8.63709	60.00000	Linear
28 1,2,4-Trichlorobenzene	0.25228	0.27159	0.27159	0.000	7.65453	60.00000	Averaged
30 Naphthalene	47.15937	40.00000	0.95988	0.000	17.89843	60.00000	Wt Linear
204 alpha-Terpineol	0.20029	0.24985	0.24985	0.000	24.74020	60.00000	Averaged
31 4-Chloroaniline	0.26741	0.31572	0.31572	0.000	18.06551	60.00000	Averaged
32 Hexachlorobutadiene	0.15474	0.15458	0.15458	0.001	-0.10095	20.00000	Averaged ccc
33 4-Chloro-3-methylphenol	0.24248	0.26379	0.26379	0.001	8.78721	20.00000	Averaged ccc
34 2-Methylnaphthalene	0.57399	0.66096	0.66096	0.000	15.15135	60.00000	Averaged

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD3.i
Lab File ID: s310612.d
Analysis Type:
Lab Sample ID: WBN091106-05.2 Quant Type: ISTD
Method: /chem/MSD3.i/s120609.b/MSD3-8270R-AQA-120609.m

Injection Date: 06-DEC-2009 14:32
Init. Cal. Date(s): 06-DEC-2009 06-DEC-2009
Init. Cal. Times: 10:12 13:35

	COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
35	1-Methylnaphthalene	0.51209	0.62141	0.62141	0.000	21.34928	60.00000	Averaged	
36	Hexachlorocyclopentadiene	0.11464	0.15698	0.15698	0.050	36.93089	60.00000	Averaged	spcc
205	2,3-Dichloroaniline	0.45038	0.55124	0.55124	0.000	22.39300	60.00000	Averaged	
37	2,4,6-Trichlorophenol	0.26952	0.28417	0.28417	0.001	5.43682	20.00000	Averaged	ccc
38	2,4,5-Trichlorophenol	0.29699	0.32180	0.32180	0.000	8.35389	60.00000	Averaged	
40	2-Chloronaphthalene	0.99133	0.99360	0.99360	0.000	0.22915	60.00000	Averaged	
42	o-Nitroaniline	0.33246	0.35120	0.35120	0.000	5.63447	60.00000	Averaged	
41	m-Nitroaniline	43.78973	40.00000	0.22968	0.000	9.47433	60.00000	Linear	
43	Dimethylphthalate	1.03853	1.18949	1.18949	0.000	14.53604	60.00000	Averaged	
44	2,6-Dinitrotoluene	0.26099	0.27989	0.27989	0.000	7.24061	60.00000	Averaged	
50	2,4-Dinitrotoluene	0.33455	0.37150	0.37150	0.000	11.04423	60.00000	Averaged	
45	Acenaphthylene	1.53207	1.78100	1.78100	0.000	16.24827	60.00000	Averaged	
47	Acenaphthene	0.95069	1.05630	1.05630	0.001	11.10924	20.00000	Averaged	ccc
48	2,4-Dinitrophenol	40.25225	40.00000	0.08170	0.050	0.63062	60.00000	Linear	spcc
49	Dibenzofuran	1.30612	1.37840	1.37840	0.000	5.53383	60.00000	Averaged	
51	Diethylphthalate	1.03172	1.20429	1.20429	0.000	16.72656	60.00000	Averaged	
52	4-Nitrophenol	40.13785	40.00000	0.15160	0.050	0.34464	60.00000	Linear	spcc
53	Fluorene	1.13622	1.28301	1.28301	0.000	12.91920	60.00000	Averaged	
54	4-Chlorophenylphenylether	0.49131	0.56006	0.56006	0.000	13.99345	60.00000	Averaged	
55	2-Methyl-4,6-dinitrophenol	47.03587	40.00000	0.11197	0.000	17.58968	60.00000	Linear	
56	p-Nitroaniline	36.94242	40.00000	0.16179	0.000	-7.64396	60.00000	Linear	
133	Diphenylamine	0.51728	0.54461	0.54461	0.001	5.28274	20.00000	Averaged	ccc
58	1,2-Diphenylhydrazine	0.77099	0.79967	0.79967	0.000	3.72000	60.00000	Averaged	
61	4-Bromophenylphenylether	0.14948	0.18517	0.18517	0.000	23.87351	60.00000	Averaged	
63	Hexachlorobenzene	0.17899	0.18176	0.18176	0.000	1.54793	60.00000	Averaged	
65	Pentachlorophenol	33.84495	40.00000	0.07367	0.001	-15.38762	20.00000	Linear	ccc
206	n-Octadecane	0.45303	0.52986	0.52986	0.000	16.95911	60.00000	Averaged	
68	Phenanthrene	0.95465	1.03135	1.03135	0.000	8.03438	60.00000	Averaged	
69	Anthracene	0.97123	1.06482	1.06482	0.000	9.63665	60.00000	Averaged	
72	Di-n-butylphthalate	1.02595	1.20841	1.20841	0.000	17.78441	60.00000	Averaged	
76	Fluoranthene	0.94500	1.05474	1.05474	0.001	11.61238	20.00000	Averaged	ccc
79	Pyrene	1.11852	1.19895	1.19895	0.000	7.19029	60.00000	Averaged	
85	Butylbenzylphthalate	0.52498	0.55344	0.55344	0.000	5.42216	60.00000	Averaged	
89	Benzo(a)anthracene	0.96306	1.04768	1.04768	0.000	8.78671	60.00000	Averaged	
92	Chrysene	0.89432	0.98196	0.98196	0.000	9.79961	60.00000	Averaged	
93	bis(2-Ethylhexyl)phthalate	0.69950	0.77615	0.77615	0.000	10.95720	60.00000	Averaged	

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD3.i
Lab File ID: s310612.d
Analysis Type:
Lab Sample ID: WBN091106-05.2
Method: /chem/MSD3.i/s120609.b/MSD3-8270R-AQA-120609.m

Injection Date: 06-DEC-2009 14:32
Init. Cal. Date(s): 06-DEC-2009 06-DEC-2009
Init. Cal. Times: 10:12 13:35
Quant Type: ISTD

	COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
	94 Di-n-octylphthalate	1.47710	1.51161	1.51161	0.001	2.33635	20.00000	Averaged	ccc
	95 Benzo(b)fluoranthene	1.05660	1.13924	1.13924	0.000	7.82075	60.00000	Averaged	
	96 Benzo(k)fluoranthene	0.99905	1.13161	1.13161	0.000	13.26928	60.00000	Averaged	
	97 Benzo(a)pyrene	0.86919	1.02524	1.02524	0.001	17.95354	20.00000	Averaged	ccc
	99 Indeno(1,2,3-cd)pyrene	0.76472	0.92909	0.92909	0.000	21.49400	60.00000	Averaged	
	100 Dibenzo(a,h)anthracene	0.64640	0.76366	0.76366	0.000	18.14175	60.00000	Averaged	
	101 Benzo(ghi)perylene	0.64348	0.76309	0.76309	0.000	18.58766	60.00000	Averaged	
	126 m-Dinitrobenzene	0.18165	0.20488	0.20488	0.000	12.78768	60.00000	Averaged	
	130 2,3,4,6-Tetrachlorophenol	0.21489	0.24322	0.24322	0.000	13.18574	60.00000	Averaged	
	143 Dinoseb	42.88147	40.00000	0.12880	0.000	7.20367	60.00000	Linear	
	173 Carbazole	35.13269	40.00000	0.58910	0.000	-12.16827	60.00000	Linear	
	184 p-Benzoquinone	49.07689	40.00000	0.06735	0.000	22.69223	60.00000	Linear	
	192 Methoxychlor	0.47514	0.58151	0.58151	0.000	22.38744	60.00000	Averaged	
	211 p-Toluidine	0.50316	1.04781	1.04781	0.000	108	60.00000	Averaged	<-
	210 m-Toluidine	0.77001	1.35472	1.35472	0.000	75.93485	60.00000	Averaged	<-
	26 Phthalic anhydride	0.10419	0.14261	0.14261	0.000	36.87446	60.00000	Averaged	
	179 Dibenzo(a,e)pyrene	0.29273	0.25193	0.25193	0.000	-13.93914	60.00000	Averaged	
	214 1,4-Dinitrobenzene	0.20234	0.22516	0.22516	0.000	11.27422	60.00000	Averaged	
	215 2-Ethoxyethanol	0.61024	0.74516	0.74516	0.000	22.10846	60.00000	Averaged	
	216 Methylenebis(2-chloroanilin	41.92976	40.00000	0.11604	0.000	4.82439	60.00000	Linear	
M	225 Trichlorophenols	0.28326	0.30299	0.30299	0.000	6.96608	60.00000	Averaged	
M	226 Tetrachlorophenols	0.21489	0.24322	0.24322	0.000	13.18574	60.00000	Averaged	
M	227 Benzo(b,k)fluoranthene	1.02783	1.13543	1.13543	0.000	10.46796	60.00000	Averaged	

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Data file : /chem/MSD3.i/s120609.b/s310612.d
Lab Smp Id: WBN091106-05.2 Client Smp ID: MEGAICV
Inj Date : 06-DEC-2009 14:32
Operator : JLD1 Inst ID: MSD3.i
Smp Info : |WBN091106-05.2|40PPM|1|SVMF|1|MEGAICV
Misc Info : |MSD8270|WBN091128-02|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD3.i/s120609.b/MSD3-8270R-AQA-120609.m
Meth Date : 07-Dec-2009 09:35 jen00986 Quant Type: ISTD
Cal Date : 06-DEC-2009 13:35 Cal File: s310610.d
Als bottle: 11 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: MEGAII.sub
Target Version: 3.50
Processing Host: hpclp1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	4.400	4.400	(1.000)	142754	40.0000	
* 29 Naphthalene-d8	136	5.661	5.661	(1.000)	536307	40.0000	
* 46 Acenaphthene-d10	164	7.515	7.515	(1.000)	297729	40.0000	
* 67 Phenanthrene-d10	188	9.111	9.111	(1.000)	496098	40.0000	
* 91 Chrysene-d12	240	11.998	11.998	(1.000)	451262	40.0000	
* 98 Perylene-d12	264	14.059	14.059	(1.000)	355260	40.0000	
$ 3 2-Fluorophenol	112	3.266	3.266	(0.742)	164781	40.0000	44.1
$ 5 Phenol-d5	99	4.048	4.048	(0.920)	212838	40.0000	44.7
$ 20 Nitrobenzene-d5	82	4.937	4.937	(0.872)	196418	40.0000	50.1
$ 39 2-Fluorobiphenyl	172	6.785	6.785	(0.903)	349330	40.0000	50.0
$ 60 2,4,6-Tribromophenol	329	8.357	8.357	(1.112)	37304	40.0000	45.6
$ 81 p-Terphenyl-d14	244	10.814	10.814	(0.901)	332306	40.0000	45.8
1 N-Methyl-N-nitrosomethylamine	74	2.308	2.308	(0.525)	115011	40.0000	47.9
2 Pyridine	79	2.334	2.334	(0.531)	149830	40.0000	38.5
4 Aniline	66	4.107	4.107	(0.933)	87766	40.0000	44.1
6 Phenol	94	4.060	4.060	(0.923)	209920	40.0000	42.4
7 bis(2-Chloroethyl) ether	63	4.145	4.145	(0.942)	134344	40.0000	43.4
8 2-Chlorophenol	128	4.209	4.209	(0.957)	164967	40.0000	43.2
203 n-Decane	43	4.212	4.212	(0.957)	182785	40.0000	46.8
9 1,3-Dichlorobenzene	146	4.347	4.347	(0.988)	185243	40.0000	42.0
11 1,4-Dichlorobenzene	146	4.415	4.415	(1.003)	189254	40.0000	42.3
13 1,2-Dichlorobenzene	146	4.561	4.561	(1.037)	178197	40.0000	42.0
14 bis(2-Chloroisopropyl)ether	45	4.640	4.640	(1.055)	264774	40.0000	44.2
12 Benzyl alcohol	108	4.526	4.526	(1.029)	104421	40.0000	42.8
15 o-Cresol	107	4.620	4.620	(1.050)	133442	40.0000	42.0
18 m,p-Cresols	107	4.775	4.775	(1.085)	174071	40.0000	45.0

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
17 N-Nitrosodipropylamine	70	4.778	4.778	(1.086)	132876	40.0000	42.9
19 Hexachloroethane	117	4.887	4.887	(1.111)	69641	40.0000	41.4
21 Nitrobenzene	77	4.957	4.957	(0.876)	203134	40.0000	44.6
22 Isophorone	82	5.186	5.186	(0.916)	351990	40.0000	48.0
23 2-Nitrophenol	139	5.268	5.268	(0.931)	80744	40.0000	42.1
24 2,4-Dimethylphenol	122	5.300	5.300	(0.936)	143896	40.0000	42.0
25 bis(2-Chloroethoxy)methane	93	5.394	5.394	(0.953)	215713	40.0000	42.5
26 2,4-Dichlorophenol	162	5.514	5.514	(0.974)	128360	40.0000	43.4
27 Benzoic acid	105	5.426	5.426	(0.959)	62070	40.0000	43.4
28 1,2,4-Trichlorobenzene	180	5.594	5.594	(0.988)	145656	40.0000	43.1
30 Naphthalene	128	5.682	5.682	(1.004)	514793	40.0000	47.2
204 alpha-Terpineol	59	5.682	5.682	(1.004)	133994	40.0000	49.9
31 4-Chloroaniline	127	5.737	5.737	(1.013)	169322	40.0000	47.2
32 Hexachlorobutadiene	225	5.796	5.796	(1.024)	82902	40.0000	40.0
33 4-Chloro-3-methylphenol	107	6.236	6.236	(1.102)	141471	40.0000	43.5
34 2-Methylnaphthalene	142	6.400	6.400	(1.131)	354479	40.0000	46.1
35 1-Methylnaphthalene	142	6.506	6.506	(1.149)	333268	40.0000	48.5
36 Hexachlorocyclopentadiene	237	6.559	6.559	(0.873)	46738	40.0000	54.8
205 2,3-Dichloroaniline	161	6.705	6.705	(0.892)	164120	40.0000	49.0
37 2,4,6-Trichlorophenol	196	6.696	6.696	(0.891)	84607	40.0000	42.2
38 2,4,5-Trichlorophenol	196	6.735	6.735	(0.896)	95810	40.0000	43.3
40 2-Chloronaphthalene	162	6.917	6.917	(0.920)	295825	40.0000	40.1
42 o-Nitroaniline	65	7.034	7.034	(0.936)	104561	40.0000	42.2
41 m-Nitroaniline	138	7.480	7.480	(0.995)	68382	40.0000	43.8
43 Dimethylphthalate	163	7.228	7.228	(0.962)	354146	40.0000	45.8
44 2,6-Dinitrotoluene	165	7.292	7.292	(0.970)	83330	40.0000	42.9
50 2,4-Dinitrotoluene	165	7.720	7.720	(1.027)	110607	40.0000	44.4
45 Acenaphthylene	152	7.365	7.365	(0.980)	530256	40.0000	46.5
47 Acenaphthene	154	7.550	7.550	(1.005)	314492	40.0000	44.4
48 2,4-Dinitrophenol	184	7.580	7.580	(1.009)	24323	40.0000	40.2
49 Dibenzofuran	168	7.732	7.732	(1.029)	410389	40.0000	42.2
51 Diethylphthalate	149	7.973	7.973	(1.061)	358552	40.0000	46.7
52 4-Nitrophenol	139	7.659	7.659	(1.019)	45137	40.0000	40.1
53 Fluorene	166	8.099	8.099	(1.078)	381990	40.0000	45.2
54 4-Chlorophenylphenylether	204	8.093	8.093	(1.077)	166746	40.0000	45.6
55 2-Methyl-4,6-dinitrophenol	198	8.155	8.155	(0.895)	55546	40.0000	47.0
56 p-Nitroaniline	138	8.137	8.137	(1.083)	48169	40.0000	36.9
133 Diphenylamine	169	8.225	8.225	(0.903)	270179	40.0000	42.1
58 1,2-Diphenylhydrazine	77	8.266	8.266	(0.907)	396717	40.0000	41.5
61 4-Bromophenylphenylether	248	8.618	8.618	(0.946)	91861	40.0000	49.5
63 Hexachlorobenzene	284	8.686	8.686	(0.953)	90173	40.0000	40.6
65 Pentachlorophenol	266	8.903	8.903	(0.977)	36548	40.0000	33.8
206 n-Octadecane	57	8.958	8.958	(0.983)	262862	40.0000	46.8
68 Phenanthrene	178	9.138	9.138	(1.003)	511653	40.0000	43.2
69 Anthracene	178	9.190	9.190	(1.009)	528256	40.0000	43.8
72 Di-n-butylphthalate	149	9.721	9.721	(1.067)	599490	40.0000	47.1
76 Fluoranthene	202	10.412	10.412	(1.143)	523255	40.0000	44.6

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
79 Pyrene	202	10.659	10.659	(0.888)	541039	40.0000	42.9
85 Butylbenzylphthalate	149	11.336	11.336	(0.945)	249747	40.0000	42.2
89 Benzo(a)anthracene	228	11.981	11.981	(0.999)	472778	40.0000	43.5
92 Chrysene	228	12.031	12.031	(1.003)	443123	40.0000	43.9
93 bis(2-Ethylhexyl)phthalate	149	11.975	11.975	(0.998)	350246	40.0000	44.4
94 Di-n-octylphthalate	149	12.834	12.834	(0.913)	537013	40.0000	40.9
95 Benzo(b)fluoranthene	252	13.452	13.452	(0.957)	404726	40.0000	43.1
96 Benzo(k)fluoranthene	252	13.499	13.499	(0.960)	402017	40.0000	45.3
97 Benzo(a)pyrene	252	13.965	13.965	(0.993)	364226	40.0000	47.2
99 Indeno(1,2,3-cd)pyrene	276	15.854	15.854	(1.128)	330068	40.0000	48.6
100 Dibenzo(a,h)anthracene	278	15.887	15.887	(1.130)	271299	40.0000	47.2
101 Benzo(ghi)perylene	276	16.326	16.326	(1.161)	271095	40.0000	47.4(Q)
126 m-Dinitrobenzene	168	7.266	7.266	(0.967)	61000	40.0000	45.1
130 2,3,4,6-Tetrachlorophenol	232	7.861	7.861	(1.046)	72415	40.0000	45.3
143 Dinoseb	211	9.090	9.090	(0.998)	63899	40.0000	42.9
173 Carbazole	167	9.363	9.363	(1.028)	292251	40.0000	35.1
184 p-Benzoquinone	54	3.679	3.679	(0.836)	9615	40.0000	49.1
192 Methoxychlor	227	11.890	11.890	(0.991)	262415	40.0000	49.0
211 p-Toluidine	106	4.825	4.825	(1.097)	149579	40.0000	83.3
210 m-Toluidine	106	4.860	4.860	(1.105)	193391	40.0000	70.4
26 Phthalic anhydride	104	6.468	6.468	(1.142)	76484	40.0000	54.7
179 Dibenzo(a,e)pyrene	302	19.318	19.318	(1.374)	89499	40.0000	34.4
214 1,4-Dinitrobenzene	75	7.181	7.181	(0.955)	67036	40.0000	44.5
215 2-Ethoxyethanol	59	2.106	2.106	(0.479)	106374	40.0000	48.8
216 Methylenebis(2-chloroaniline)	231	11.951	11.951	(0.996)	52365	40.0000	41.9(Q)
M 225 Trichlorophenols	196				180417	80.0000	85.6
M 226 Tetrachlorophenols	232				72415	40.0000	45.3
M 227 Benzo(b,k)fluoranthene	252				806743	80.0000	88.4

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: /chem/MSD3.i/s120609.b/s310612.d
Date : 06-DEC-2009 14:32
Client ID: MEGAICV
Sample Info: HBN091106-05,2|40PPM|1|SVMF|1|MEGAICV
Column phase: J&W DB-5MS

Instrument: MSD3.i
Operator: JLD1
Column diameter: 0.20

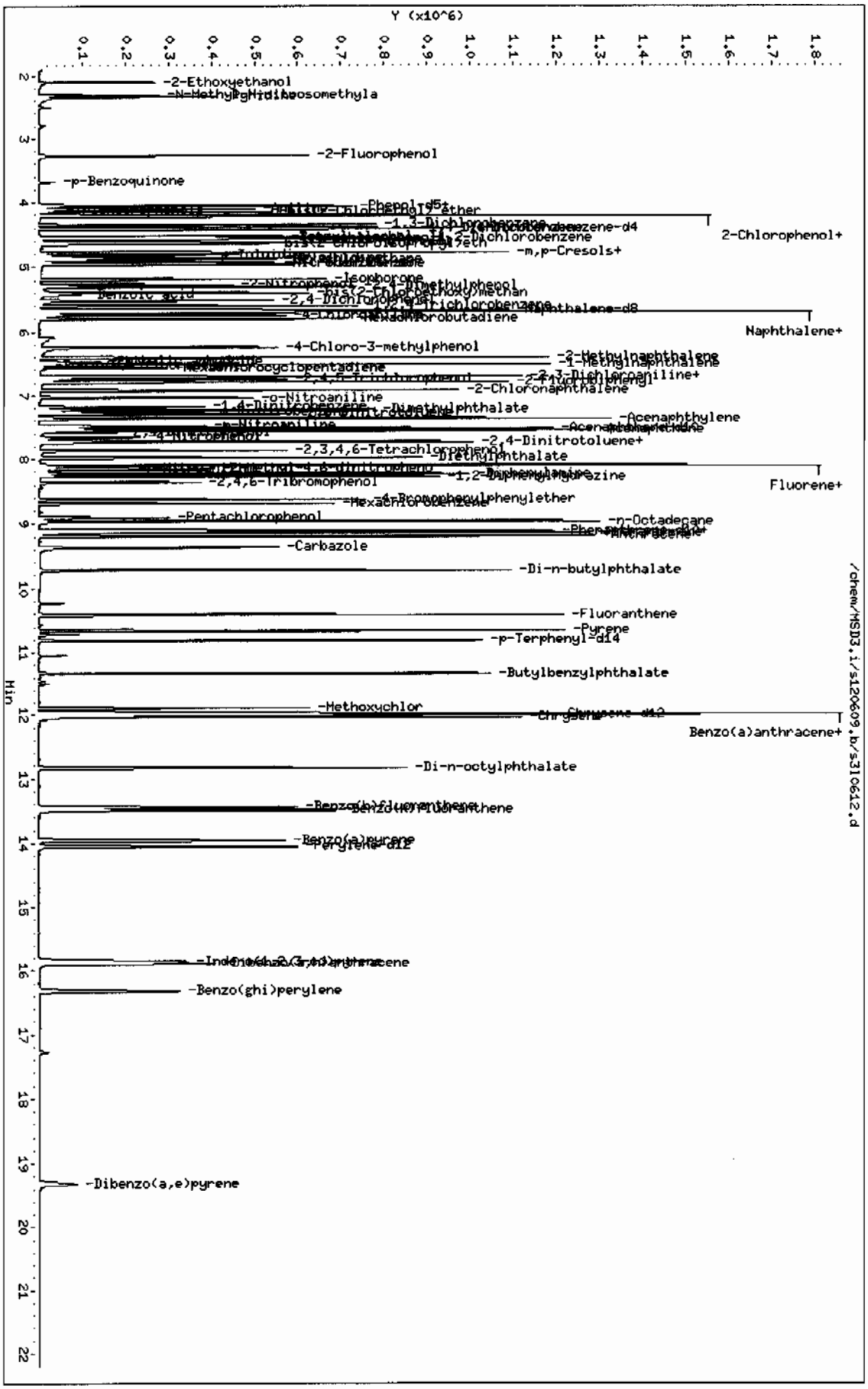

Page 1

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD3.i Injection Date: 08-DEC-2009 12:53
Lab File ID: s310810.d Init. Cal. Date(s): 06-DEC-2009 08-DEC-2009
Analysis Type: Init. Cal. Times: 10:12 12:26
Lab Sample ID: WBN091201-08.1 Quant Type: ISTD
Method: /chem/MSD3.i/s120809.b/MSD3-8270R-AQA-120809.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
209 Benzaldehyde	0.96429	0.83562	0.83562	0.000	-13.34312	60.00000	Averaged
16 Acetophenone	1.33163	1.33895	1.33895	0.000	0.54964	60.00000	Averaged
189 Caprolactam	0.09173	0.10481	0.10481	0.000	14.25028	60.00000	Averaged
208 1,1'-Biphenyl	1.21700	1.28860	1.28860	0.000	5.88284	60.00000	Averaged
207 Atrazine	0.04375	0.04859	0.04859	0.000	11.05025	60.00000	Averaged
77 Benzidine	45.89285	40.00000	0.30963	0.000	14.73212	60.00000	Linear
90 3,3'-Dichlorobenzidine	0.27489	0.29908	0.29908	0.000	8.79838	60.00000	Averaged
102 1,4-Dioxane	0.37765	0.47912	0.47912	0.000	26.86863	60.00000	Averaged
103 Methyl methacrylate	0.21438	0.27564	0.27564	0.000	28.57516	60.00000	Averaged
104 Ethyl methacrylate	0.84060	1.04720	1.04720	0.000	24.57729	60.00000	Averaged
105 2-Picoline	1.36059	1.30318	1.30318	0.000	-4.21984	60.00000	Averaged
106 N-Nitrosomethylethylamine	0.54734	0.55540	0.55540	0.000	1.47128	60.00000	Averaged
107 Methyl methanesulfonate	0.57769	0.63494	0.63494	0.000	9.91129	60.00000	Averaged
108 N-Nitrosodiethylamine	0.56251	0.56493	0.56493	0.000	0.42897	60.00000	Averaged
109 Ethyl Methanesulfonate	0.74348	0.93734	0.93734	0.000	26.07482	60.00000	Averaged
110 Pentachloroethane	0.31184	0.44234	0.44234	0.000	41.84610	60.00000	Averaged
111 N-Nitrosopyrrolidine	0.57216	0.57372	0.57372	0.000	0.27265	60.00000	Averaged
113 N-Nitrosomorpholine	0.68237	0.68126	0.68126	0.000	-0.16265	60.00000	Averaged
114 o-Toluidine	1.81766	1.78241	1.78241	0.000	-1.93930	60.00000	Averaged
115 N-Nitrosopiperidine	0.15407	0.15193	0.15193	0.000	-1.39002	60.00000	Averaged
116 a,a-Dimethylphenethylamine	0.80710	0.80910	0.80910	0.000	0.24773	60.00000	Averaged
118 2,6-Dichlorophenol	0.22077	0.23259	0.23259	0.000	5.35725	60.00000	Averaged
119 Hexachloropropene	0.10907	0.16896	0.16896	0.000	54.89885	60.00000	Averaged
120 p-Phenylenediamine	0.23642	0.29660	0.29660	0.000	25.45548	60.00000	Averaged
121 N-Nitrosodi-n-butylamine	0.24128	0.23927	0.23927	0.000	-0.83088	60.00000	Averaged
122 Safrole	0.20022	0.24043	0.24043	0.000	20.08440	60.00000	Averaged
123 1,2,4,5-Tetrachlorobenzene	0.44036	0.48375	0.48375	0.000	9.85235	60.00000	Averaged
124 Isosafrole	0.34861	0.47878	0.47878	0.000	37.33960	60.00000	Averaged
125 1,4-Naphthoquinone	0.30537	0.33871	0.33871	0.000	10.91756	60.00000	Averaged
127 Pentachlorobenzene	0.38598	0.40633	0.40633	0.000	5.27265	60.00000	Averaged
128 1-Naphthylamine	0.91301	0.96336	0.96336	0.000	5.51435	60.00000	Averaged
129 2-Naphthylamine	0.99339	1.04526	1.04526	0.000	5.22150	60.00000	Averaged
131 5-Nitro-o-toluidine	0.29359	0.30360	0.30360	0.000	3.40887	60.00000	Averaged
136 1,3,5-Trinitrobenzene	0.14119	0.19876	0.19876	0.000	40.77719	60.00000	Averaged
137 Phenacetin	0.30819	0.33666	0.33666	0.000	9.23923	60.00000	Averaged
138 Diallate	0.29433	0.28224	0.28224	0.000	-4.10819	60.00000	Averaged

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD3.i
Lab File ID: s310810.d
Analysis Type:
Lab Sample ID: WBN091201-08.1 Quant Type: ISTD
Method: /chem/MSD3.i/s120809.b/MSD3-8270R-AQA-120809.m

Injection Date: 08-DEC-2009 12:53
Init. Cal. Date(s): 06-DEC-2009 08-DEC-2009
Init. Cal. Times: 10:12 12:26

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
140 4-Aminobiphenyl	0.62917	0.64094	0.64094	0.000	1.86996	60.00000	Averaged
141 Pentachloronitrobenzene	0.07114	0.07592	0.07592	0.000	6.71989	60.00000	Averaged
142 Pronamide	0.28257	0.30697	0.30697	0.000	8.63356	60.00000	Averaged
146 4-Nitroquinoline-1-oxide	0.02686	0.02812	0.02812	0.000	4.65976	60.00000	Averaged
147 Methapyrilene	0.41060	0.48298	0.48298	0.000	17.62726	60.00000	Averaged
148 Isodrin	0.11051	0.10636	0.10636	0.000	-3.75445	60.00000	Averaged
149 Aramite	0.05092	0.04939	0.04939	0.000	-2.99836	60.00000	Averaged
150 Kepone	0.07689	0.08140	0.08140	0.000	5.86758	60.00000	Averaged
151 p-(Dimethylamino)azobenzene	0.32461	0.30773	0.30773	0.000	-5.20053	60.00000	Averaged
152 Chlorobenzilate	0.30328	0.29896	0.29896	0.000	-1.42415	60.00000	Averaged
153 3,3'-Dimethylbenzidine	0.46065	0.46573	0.46573	0.000	1.10408	60.00000	Averaged
155 2-Acetylaminofluorene	0.31745	0.34783	0.34783	0.000	9.56886	60.00000	Averaged
157 7,12Dimethylbenz(a)anthrace	0.51543	0.48052	0.48052	0.000	-6.77190	60.00000	Averaged
158 3-Methylcholanthrene	0.41499	0.45708	0.45708	0.000	10.14261	60.00000	Averaged
212 Cis Diallate	0.29308	0.37811	0.37811	0.000	29.01391	60.00000	Averaged
213 Trans Diallate	0.34627	0.33204	0.33204	0.000	-4.10819	60.00000	Averaged

GEL Laboratories LLC

Data file : /chem/MSD3.i/s120809.b/s310810.d
Lab Smp Id: WBN091201-08.1 Client Smp ID: APICV
Inj Date : 08-DEC-2009 12:53
Operator : JLD1 Inst ID: MSD3.i
Smp Info : |WBN091201-08.1|40PPM|1|SVMF|1|APICV
Misc Info : |MSD8270|WBN091128-02|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD3.i/s120809.b/MSD3-8270R-AQA-120809.m
Meth Date : 08-Dec-2009 13:43 jen00986 Quant Type: ISTD
Cal Date : 07-DEC-2009 19:48 Cal File: s310717.d
Als bottle: 10 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AP12.sub
Target Version: 3.50
Processing Host: hpclp1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	4.373	4.373	(1.000)	135959	40.0000	
* 29 Naphthalene-d8	136	5.633	5.633	(1.000)	495952	40.0000	
* 46 Acenaphthene-d10	164	7.485	7.485	(1.000)	282043	40.0000	
* 67 Phenanthrene-d10	188	9.086	9.086	(1.000)	478764	40.0000	
* 91 Chrysene-d12	240	11.964	11.964	(1.000)	464674	40.0000	
* 98 Perylene-d12	264	14.012	14.012	(1.000)	384673	40.0000	
209 Benzaldehyde	77	3.984	3.984	(0.911)	113610	40.0000	34.7
16 Acetophenone	105	4.757	4.757	(1.088)	182042	40.0000	40.2
189 Caprolactam	113	6.078	6.078	(1.079)	51979	40.0000	45.7
208 1,1'-Biphenyl	154	6.870	6.870	(0.918)	363440	40.0000	42.4
207 Atrazine	173	8.778	8.778	(0.966)	23263	40.0000	44.4
77 Benzidine	184	10.536	10.536	(0.881)	143877	40.0000	45.9
90 3,3'-Dichlorobenzidine	252	11.920	11.920	(0.996)	138973	40.0000	43.5
102 1,4-Dioxane	88	2.080	2.080	(0.476)	65141	40.0000	50.7
103 Methyl methacrylate	100	2.080	2.080	(0.476)	37476	40.0000	51.4
104 Ethyl methacrylate	69	2.572	2.572	(0.588)	142376	40.0000	49.8
105 2-Picoline	93	2.818	2.818	(0.644)	177179	40.0000	38.3
106 N-Nitrosomethylethylamine	88	2.891	2.891	(0.661)	75511	40.0000	40.6
107 Methyl methanesulfonate	80	3.122	3.122	(0.714)	86326	40.0000	44.0
108 N-Nitrosodiethylamine	102	3.433	3.433	(0.785)	76807	40.0000	40.2
109 Ethyl Methanesulfonate	79	3.679	3.679	(0.841)	127440	40.0000	50.4
110 Pentachloroethane	167	4.118	4.118	(0.942)	60140	40.0000	56.7
111 N-Nitrosopyrrolidine	100	4.745	4.745	(1.085)	78002	40.0000	40.1
113 N-Nitrosomorpholine	56	4.780	4.780	(1.093)	92624	40.0000	39.9
114 o-Toluidine	106	4.795	4.795	(1.096)	242335	40.0000	39.2
115 N-Nitrosopiperidine	114	5.076	5.076	(0.901)	75351	40.0000	39.4

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
116 a,a-Dimethylphenethylamine	58	5.495	5.495	(0.976)	401275	40.0000	40.1
118 2,6-Dichlorophenol	162	5.718	5.718	(1.015)	115355	40.0000	42.1
119 Hexachloropropene	213	5.739	5.739	(1.019)	83794	40.0000	62.0
120 p-Phenylenediamine	108	6.087	6.087	(1.081)	147101	40.0000	50.2
121 N-Nitrosodi-n-butylamine	84	6.049	6.049	(1.074)	118668	40.0000	39.7(T)
122 Safrole	162	6.278	6.278	(1.114)	119243	40.0000	48.0
123 1,2,4,5-Tetrachlorobenzene	216	6.547	6.547	(0.875)	136437	40.0000	43.9
124 Isosafrole	162	6.831	6.831	(0.913)	135036	40.0000	54.9
125 1,4-Naphthoquinone	158	7.084	7.084	(0.946)	95530	40.0000	44.4
127 Pentachlorobenzene	250	7.655	7.655	(1.023)	114602	40.0000	42.1
128 1-Naphthylamine	143	7.793	7.793	(1.041)	271709	40.0000	42.2
129 2-Naphthylamine	143	7.878	7.878	(1.052)	294808	40.0000	42.1
131 5-Nitro-o-toluidine	152	8.095	8.095	(1.081)	85629	40.0000	41.4
136 1,3,5-Trinitrobenzene	75	8.487	8.487	(0.934)	95158	40.0000	56.3
137 Phenacetin	108	8.543	8.543	(0.940)	161183	40.0000	43.7
138 Diallate	86	8.496	8.496	(0.935)	135124	40.0000	38.4
140 4-Aminobiphenyl	169	8.883	8.883	(0.978)	306858	40.0000	40.7
141 Pentachloronitrobenzene	237	8.883	8.883	(0.978)	36349	40.0000	42.7
142 Pronamide	173	8.936	8.936	(0.984)	146966	40.0000	43.4
146 4-Nitroquinoline-1-oxide	101	9.944	9.944	(1.094)	13461	40.0000	41.9
147 Methapyrilene	58	10.012	10.012	(1.102)	231234	40.0000	47.0
148 Isodrin	193	10.220	10.220	(1.125)	50923	40.0000	38.5
149 Aramite	185	10.759	10.759	(1.184)	23648	40.0000	38.8
150 Kepone	272	11.360	11.360	(1.250)	38972	40.0000	42.3
151 p-(Dimethylamino)azobenzene	120	10.944	10.944	(0.915)	142995	40.0000	37.9
152 Chlorobenzilate	251	10.988	10.988	(0.918)	138919	40.0000	39.4
153 3,3'-Dimethylbenzidine	212	11.307	11.307	(0.945)	216414	40.0000	40.4
155 2-Acetylaminofluorene	181	11.589	11.589	(0.969)	161627	40.0000	43.8
157 7,12Dimethylbenz(a)anthracene	256	13.394	13.394	(0.956)	184844	40.0000	37.3
158 3-Methylcholanthrene	268	14.478	14.478	(1.033)	175826	40.0000	44.0
212 Cis Diallate	86	8.593	8.593	(0.946)	27154	6.00000	7.7
213 Trans Diallate	86	8.496	8.496	(0.935)	135124	34.0000	32.6

QC Flag Legend

T - Target compound detected outside RT window.

Data File: /chem/MSD3.i/s120809.b/s310810.d
Date : 08-DEC-2009 12:53
Client ID: APICV
Sample Info: IWBN091201-08,1140PPM11ISVHF11APICV
Column phase: J&W DB-5MS

Instrument: MSD3.i
Operator: JLD1
Column diameter: 0.20

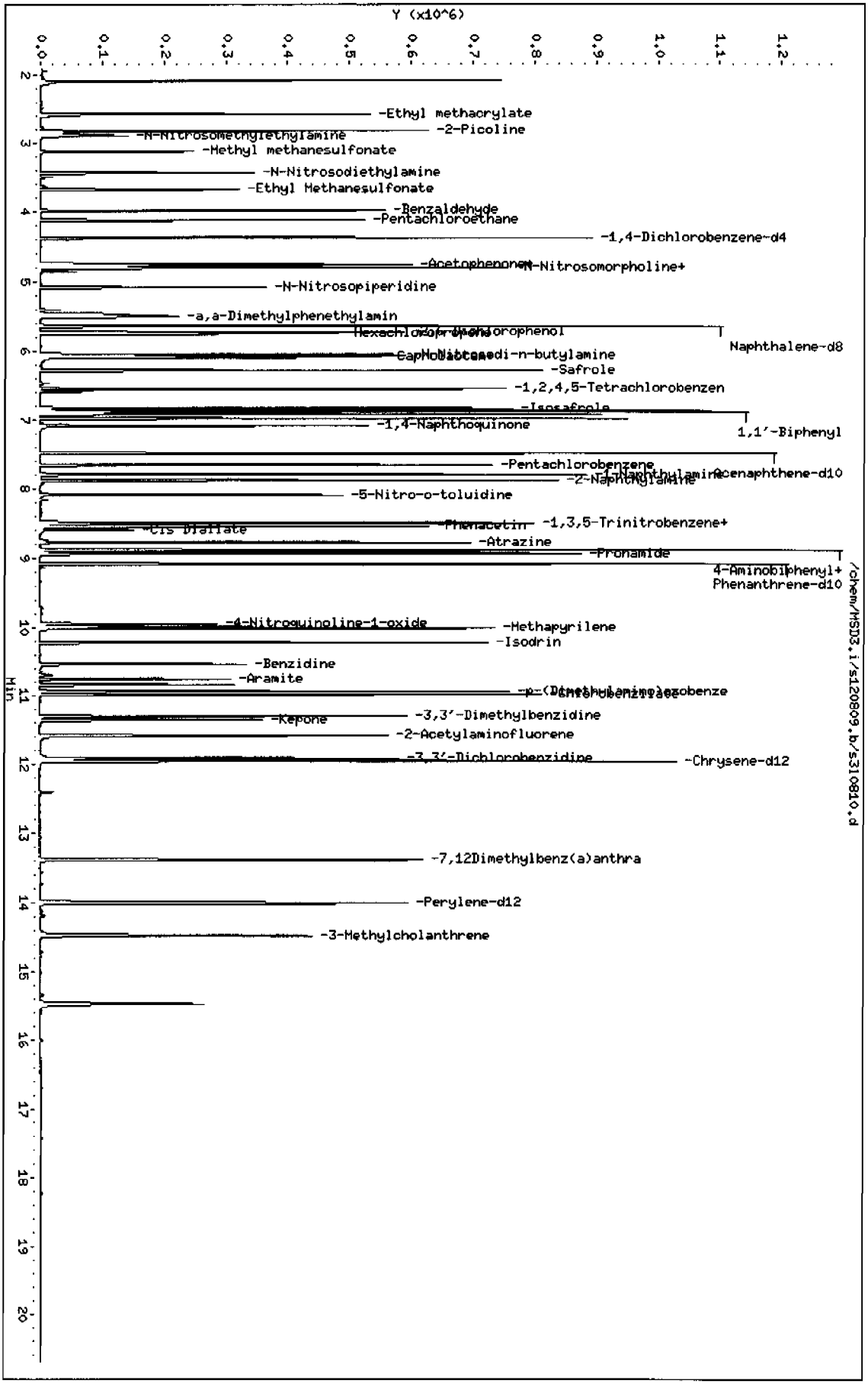

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD3.i Injection Date: 13-DEC-2009 12:11
Lab File ID: s311309.d Init. Cal. Date(s): 06-DEC-2009 08-DEC-2009
Analysis Type: Init. Cal. Times: 10:12 12:26
Lab Sample ID: WBN091201-17.2 Quant Type: ISTD
Method: /chem/MSD3.i/s121309.b/MSD3-8270R-AQA-120809.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
$ 3 2-Fluorophenol	1.04626	1.05567	1.05567	0.000	0.89946	60.00000	Averaged
$ 5 Phenol-d5	1.33296	1.33811	1.33811	0.000	0.38639	60.00000	Averaged
$ 20 Nitrobenzene-d5	0.29235	0.30298	0.30298	0.000	3.63919	60.00000	Averaged
$ 39 2-Fluorobiphenyl	0.93759	1.08925	1.08925	0.000	16.17633	60.00000	Averaged
$ 60 2,4,6-Tribromophenol	0.10984	0.13511	0.13511	0.000	23.00577	60.00000	Averaged
$ 81 p-Terphenyl-d14	0.64244	0.69993	0.69993	0.000	8.94925	60.00000	Averaged
1 N-Methyl-N-nitrosomethylami	0.67245	0.63970	0.63970	0.000	-4.87001	60.00000	Averaged
2 Pyridine	1.09150	0.82172	0.82172	0.000	-24.71603	60.00000	Averaged
4 Aniline	0.55794	0.50903	0.50903	0.000	-8.76616	60.00000	Averaged
6 Phenol	1.38856	1.33851	1.33851	0.001	-3.60435	20.00000	Averaged ccc
7 bis(2-Chloroethyl) ether	32.08574	40.00000	0.70639	0.000	-19.78564	60.00000	Linear
8 2-Chlorophenol	1.07117	1.11263	1.11263	0.000	3.87086	60.00000	Averaged
203 n-Decane	1.09536	0.98898	0.98898	0.000	-9.71189	60.00000	Averaged
9 1,3-Dichlorobenzene	1.23726	1.21123	1.21123	0.000	-2.10432	60.00000	Averaged
11 1,4-Dichlorobenzene	1.25267	1.22591	1.22591	0.001	-2.13647	20.00000	Averaged ccc
13 1,2-Dichlorobenzene	1.18843	1.15017	1.15017	0.000	-3.21902	60.00000	Averaged
14 bis(2-Chloroisopropyl)ether	1.67844	1.27512	1.27512	0.000	-24.02954	60.00000	Averaged
12 Benzyl alcohol	0.68288	0.71788	0.71788	0.000	5.12462	60.00000	Averaged
15 o-Cresol	0.89111	0.87499	0.87499	0.000	-1.80850	60.00000	Averaged
18 m,p-Cresols	1.08247	1.16398	1.16398	0.000	7.52956	60.00000	Averaged
17 N-Nitrosodipropylamine	0.86839	0.78104	0.78104	0.050	-10.05934	60.00000	Averaged spcc
19 Hexachloroethane	0.47182	0.44331	0.44331	0.000	-6.04231	60.00000	Averaged
21 Nitrobenzene	0.33969	0.30535	0.30535	0.000	-10.10815	60.00000	Averaged
22 Isophorone	0.54661	0.55358	0.55358	0.000	1.27516	60.00000	Averaged
23 2-Nitrophenol	0.14291	0.14809	0.14809	0.001	3.61899	20.00000	Averaged ccc
24 2,4-Dimethylphenol	0.25541	0.25457	0.25457	0.000	-0.32834	60.00000	Averaged
25 bis(2-Chloroethoxy)methane	0.37883	0.32334	0.32334	0.000	-14.64649	60.00000	Averaged
26 2,4-Dichlorophenol	0.22061	0.21585	0.21585	0.001	-2.15608	20.00000	Averaged ccc
27 Benzoic acid	44.43743	40.00000	0.12023	0.000	11.09358	60.00000	Linear
28 1,2,4-Trichlorobenzene	0.25228	0.24440	0.24440	0.000	-3.12430	60.00000	Averaged
30 Naphthalene	44.86664	40.00000	0.91373	0.000	12.16660	60.00000	Wt Linear
204 alpha-Terpineol	0.20029	0.19234	0.19234	0.000	-3.97057	60.00000	Averaged
31 4-Chloroaniline	0.26741	0.26664	0.26664	0.000	-0.28757	60.00000	Averaged
32 Hexachlorobutadiene	0.15474	0.12933	0.12933	0.001	-16.42141	20.00000	Averaged ccc
33 4-Chloro-3-methylphenol	0.24248	0.24968	0.24968	0.001	2.96895	20.00000	Averaged ccc
34 2-Methylnaphthalene	0.57399	0.62461	0.62461	0.000	8.81882	60.00000	Averaged

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD3.i Injection Date: 13-DEC-2009 12:11
Lab File ID: s311309.d Init. Cal. Date(s): 06-DEC-2009 08-DEC-2009
Analysis Type: Init. Cal. Times: 10:12 12:26
Lab Sample ID: WBN091201-17.2 Quant Type: ISTD
Method: /chem/MSD3.i/s121309.b/MSD3-8270R-AQA-120809.m

	COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
35	1-Methylnaphthalene	0.51209	0.58927	0.58927	0.000	15.07158	60.00000	Averaged
36	Hexachlorocyclopentadiene	0.11464	0.15103	0.15103	0.050	31.73838	60.00000	Averaged spcc
205	2,3-Dichloroaniline	0.45038	0.50617	0.50617	0.000	12.38536	60.00000	Averaged
37	2,4,6-Trichlorophenol	0.26952	0.28891	0.28891	0.001	7.19295	20.00000	Averaged ccc
38	2,4,5-Trichlorophenol	0.29699	0.31333	0.31333	0.000	5.50193	60.00000	Averaged
40	2-Chloronaphthalene	0.99133	0.89723	0.89723	0.000	-9.49273	60.00000	Averaged
42	o-Nitroaniline	0.33246	0.28357	0.28357	0.000	-14.70732	60.00000	Averaged
41	m-Nitroaniline	35.76013	40.00000	0.18029	0.000	-10.59969	60.00000	Linear
43	Dimethylphthalate	1.03853	1.07468	1.07468	0.000	3.48125	60.00000	Averaged
44	2,6-Dinitrotoluene	0.26099	0.25028	0.25028	0.000	-4.10114	60.00000	Averaged
50	2,4-Dinitrotoluene	0.33455	0.32677	0.32677	0.000	-2.32756	60.00000	Averaged
45	Acenaphthylene	1.53207	1.69939	1.69939	0.000	10.92110	60.00000	Averaged
47	Acenaphthene	0.95069	0.99117	0.99117	0.001	4.25826	20.00000	Averaged ccc
48	2,4-Dinitrophenol	45.52726	40.00000	0.09957	0.050	13.81814	60.00000	Linear spcc
49	Dibenzofuran	1.30612	1.28238	1.28238	0.000	-1.81742	60.00000	Averaged
51	Diethylphthalate	1.03172	1.08099	1.08099	0.000	4.77588	60.00000	Averaged
52	4-Nitrophenol	45.72940	40.00000	0.17603	0.050	14.32350	60.00000	Linear spcc
53	Fluorene	1.13622	1.18872	1.18872	0.000	4.62039	60.00000	Averaged
54	4-Chlorophenylphenylether	0.49131	0.51869	0.51869	0.000	5.57373	60.00000	Averaged
55	2-Methyl-4,6-dinitrophenol	47.77510	40.00000	0.11403	0.000	19.43774	60.00000	Linear
56	p-Nitroaniline	28.24201	40.00000	0.11168	0.000	-29.39497	60.00000	Linear
133	Diphenylamine	0.51728	0.48812	0.48812	0.001	-5.63818	20.00000	Averaged ccc
58	1,2-Diphenylhydrazine	0.77099	0.64587	0.64587	0.000	-16.22890	60.00000	Averaged
61	4-Bromophenylphenylether	0.14948	0.16276	0.16276	0.000	8.88363	60.00000	Averaged
63	Hexachlorobenzene	0.17899	0.16977	0.16977	0.000	-5.15392	60.00000	Averaged
65	Pentachlorophenol	40.30169	40.00000	0.09218	0.001	0.75423	20.00000	Linear ccc
206	n-Octadecane	0.45303	0.41443	0.41443	0.000	-8.52112	60.00000	Averaged
68	Phenanthrene	0.95465	0.93702	0.93702	0.000	-1.84680	60.00000	Averaged
69	Anthracene	0.97123	0.96538	0.96538	0.000	-0.60197	60.00000	Averaged
72	Di-n-butylphthalate	1.02595	1.09309	1.09309	0.000	6.54393	60.00000	Averaged
76	Fluoranthene	0.94500	0.96160	0.96160	0.001	1.75627	20.00000	Averaged ccc
79	Pyrene	1.11852	1.16856	1.16856	0.000	4.47349	60.00000	Averaged
85	Butylbenzylphthalate	0.52498	0.54895	0.54895	0.000	4.56610	60.00000	Averaged
89	Benzo(a)anthracene	0.96306	0.95920	0.95920	0.000	-0.40029	60.00000	Averaged
92	Chrysene	0.89432	0.89466	0.89466	0.000	0.03713	60.00000	Averaged
93	bis(2-Ethylhexyl)phthalate	0.69950	0.76994	0.76994	0.000	10.06993	60.00000	Averaged

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD3.i Injection Date: 13-DEC-2009 12:11
Lab File ID: s311309.d Init. Cal. Date(s): 06-DEC-2009 08-DEC-2009
Analysis Type: Init. Cal. Times: 10:12 12:26
Lab Sample ID: WBN091201-17.2 Quant Type: ISTD
Method: /chem/MSD3.i/s121309.b/MSD3-8270R-AQA-120809.m

	COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
	94 Di-n-octylphthalate	1.47710	1.45924	1.45924	0.001	-1.20910	20.00000	Averaged	ccc
	95 Benzo(b)fluoranthene	1.05660	1.05167	1.05167	0.000	-0.46748	60.00000	Averaged	
	96 Benzo(k)fluoranthene	0.99905	1.02941	1.02941	0.000	3.03919	60.00000	Averaged	
	97 Benzo(a)pyrene	0.86919	0.94569	0.94569	0.001	8.80188	20.00000	Averaged	ccc
	99 Indeno(1,2,3-cd)pyrene	0.76472	0.87237	0.87237	0.000	14.07769	60.00000	Averaged	
	100 Dibenzo(a,h)anthracene	0.64640	0.72067	0.72067	0.000	11.48977	60.00000	Averaged	
	101 Benzo(ghi)perylene	0.64348	0.71960	0.71960	0.000	11.82906	60.00000	Averaged	
	126 m-Dinitrobenzene	0.18165	0.18076	0.18076	0.000	-0.49259	60.00000	Averaged	
	130 2,3,4,6-Tetrachlorophenol	0.21489	0.24570	0.24570	0.000	14.33630	60.00000	Averaged	
	143 Dinoseb	43.96783	40.00000	0.13268	0.000	9.91957	60.00000	Linear	
	173 Carbazole	26.21256	40.00000	0.42798	0.000	-34.46860	60.00000	Linear	
	184 p-Benzoquinone	38.51235	40.00000	0.04984	0.000	-3.71912	60.00000	Linear	
	192 Methoxychlor	0.47514	0.56455	0.56455	0.000	18.81621	60.00000	Averaged	
	211 p-Toluidine	0.50316	0.89216	0.89216	0.000	77.31269	60.00000	Averaged	<-
	210 m-Toluidine	0.77001	1.24288	1.24288	0.000	61.41066	60.00000	Averaged	<-
	26 Phthalic anhydride	0.10419	0.12474	0.12474	0.000	19.71914	60.00000	Averaged	
	179 Dibenzo(a,e)pyrene	0.29273	0.27572	0.27572	0.000	-5.81006	60.00000	Averaged	
	214 1,4-Dinitrobenzene	0.20234	0.18588	0.18588	0.000	-8.13507	60.00000	Averaged	
	215 2-Ethoxyethanol	0.61024	0.53812	0.53812	0.000	-11.81917	60.00000	Averaged	
	216 Methylenebis(2-chloroanilin	35.79660	40.00000	0.09665	0.000	-10.50851	60.00000	Linear	
M	225 Trichlorophenols	0.28326	0.30112	0.30112	0.000	6.30644	60.00000	Averaged	
M	226 Tetrachlorophenols	0.21489	0.24570	0.24570	0.000	14.33630	60.00000	Averaged	
M	227 Benzo(b,k)fluoranthene	1.02783	1.04054	1.04054	0.000	1.23606	60.00000	Averaged	

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Data file : /chem/MSD3.i/s121309.b/s311309.d
Lab Smp Id: WBN091201-17.2 Client Smp ID: MEGACVS
Inj Date : 13-DEC-2009 12:11
Operator : JLD1 Inst ID: MSD3.i
Smp Info : |WBN091201-17.2|40PPM|1|SVMF|1|MEGACVS
Misc Info : |MSD8270|WBN091208-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD3.i/s121309.b/MSD3-8270R-AQA-120809.m
Meth Date : 14-Dec-2009 17:00 jen00986 Quant Type: ISTD
Cal Date : 07-DEC-2009 19:48 Cal File: s310717.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: MEGAII.sub
Target Version: 3.50
Processing Host: hpclp1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	4.294	4.294	(1.000)	138329	40.0000	
* 29 Naphthalene-d8	136	5.546	5.546	(1.000)	530737	40.0000	
* 46 Acenaphthene-d10	164	7.394	7.394	(1.000)	285323	40.0000	
* 67 Phenanthrene-d10	188	8.983	8.983	(1.000)	487976	40.0000	
* 91 Chrysene-d12	240	11.844	11.844	(1.000)	412486	40.0000	
* 98 Perylene-d12	264	13.827	13.827	(1.000)	335701	40.0000	
$ 3 2-Fluorophenol	112	3.175	3.175	(0.739)	146030	40.0000	40.4
$ 5 Phenol-d5	99	3.948	3.948	(0.919)	185099	40.0000	40.2
$ 20 Nitrobenzene-d5	82	4.828	4.828	(0.870)	160805	40.0000	41.4
$ 39 2-Fluorobiphenyl	172	6.669	6.669	(0.902)	310789	40.0000	46.5
$ 60 2,4,6-Tribromophenol	329	8.236	8.236	(1.114)	38551	40.0000	49.2
$ 81 p-Terphenyl-d14	244	10.686	10.686	(0.902)	288712	40.0000	43.6
1 N-Methyl-N-nitrosomethylamine	74	2.237	2.237	(0.521)	88489	40.0000	38.0
2 Pyridine	79	2.264	2.264	(0.527)	113668	40.0000	30.1
4 Aniline	66	4.001	4.001	(0.932)	70413	40.0000	36.5
6 Phenol	94	3.963	3.963	(0.923)	185155	40.0000	38.6
7 bis(2-Chloroethyl) ether	63	4.042	4.042	(0.941)	97714	40.0000	32.1
8 2-Chlorophenol	128	4.106	4.106	(0.956)	153909	40.0000	41.5
203 n-Decane	43	4.112	4.112	(0.958)	136804	40.0000	36.1
9 1,3-Dichlorobenzene	146	4.241	4.241	(0.988)	167548	40.0000	39.2
11 1,4-Dichlorobenzene	146	4.309	4.309	(1.003)	169579	40.0000	39.1
13 1,2-Dichlorobenzene	146	4.455	4.455	(1.038)	159102	40.0000	38.7
14 bis(2-Chloroisopropyl)ether	45	4.537	4.537	(1.057)	176386	40.0000	30.4
12 Benzyl alcohol	108	4.423	4.423	(1.030)	99303	40.0000	42.0
15 o-Cresol	107	4.517	4.517	(1.052)	121037	40.0000	39.3
18 m,p-Cresols	107	4.675	4.675	(1.089)	161012	40.0000	43.0

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
17 N-Nitrosodipropylamine	70	4.672	4.672	(1.088)	108040	40.0000	36.0
19 Hexachloroethane	117	4.778	4.778	(1.113)	61323	40.0000	37.6
21 Nitrobenzene	77	4.848	4.848	(0.874)	162062	40.0000	36.0
22 Isophorone	82	5.077	5.077	(0.915)	293804	40.0000	40.5
23 2-Nitrophenol	139	5.159	5.159	(0.930)	78595	40.0000	41.4
24 2,4-Dimethylphenol	122	5.194	5.194	(0.937)	135108	40.0000	39.9
25 bis(2-Chloroethoxy)methane	93	5.288	5.288	(0.953)	171611	40.0000	34.1
26 2,4-Dichlorophenol	162	5.399	5.399	(0.974)	114562	40.0000	39.1
27 Benzoic acid	105	5.326	5.326	(0.960)	63809	40.0000	44.4
28 1,2,4-Trichlorobenzene	180	5.482	5.482	(0.988)	129711	40.0000	38.8
30 Naphthalene	128	5.570	5.570	(1.004)	484948	40.0000	44.9
204 alpha-Terpineol	59	5.570	5.570	(1.004)	102082	40.0000	38.4
31 4-Chloroaniline	127	5.625	5.625	(1.014)	141516	40.0000	39.9
32 Hexachlorobutadiene	225	5.684	5.684	(1.025)	68638	40.0000	33.4
33 4-Chloro-3-methylphenol	107	6.127	6.127	(1.105)	132514	40.0000	41.2
34 2-Methylnaphthalene	142	6.282	6.282	(1.133)	331506	40.0000	43.5
35 1-Methylnaphthalene	142	6.388	6.388	(1.152)	312745	40.0000	46.0
36 Hexachlorocyclopentadiene	237	6.443	6.443	(0.871)	43092	40.0000	52.7
205 2,3-Dichloroaniline	161	6.587	6.587	(0.891)	144421	40.0000	45.0
37 2,4,6-Trichlorophenol	196	6.581	6.581	(0.890)	82432	40.0000	42.9
38 2,4,5-Trichlorophenol	196	6.620	6.620	(0.895)	89401	40.0000	42.2
40 2-Chloronaphthalene	162	6.799	6.799	(0.919)	256000	40.0000	36.2
42 o-Nitroaniline	65	6.919	6.919	(0.936)	80908	40.0000	34.1
41 m-Nitroaniline	138	7.362	7.362	(0.996)	51440	40.0000	35.8
43 Dimethylphthalate	163	7.115	7.115	(0.962)	306632	40.0000	41.4
44 2,6-Dinitrotoluene	165	7.177	7.177	(0.971)	71412	40.0000	38.4
50 2,4-Dinitrotoluene	165	7.602	7.602	(1.028)	93234	40.0000	39.1
45 Acenaphthylene	152	7.244	7.244	(0.980)	484874	40.0000	44.4
47 Acenaphthene	154	7.429	7.429	(1.005)	282804	40.0000	41.7
48 2,4-Dinitrophenol	184	7.461	7.461	(1.009)	28410	40.0000	45.5
49 Dibenzofuran	168	7.611	7.611	(1.029)	365893	40.0000	39.3
51 Diethylphthalate	149	7.857	7.857	(1.063)	308432	40.0000	41.9
52 4-Nitrophenol	139	7.546	7.546	(1.021)	50224	40.0000	45.7
53 Fluorene	166	7.978	7.978	(1.079)	339169	40.0000	41.8
54 4-Chlorophenylphenylether	204	7.975	7.975	(1.079)	147995	40.0000	42.2
55 2-Methyl-4,6-dinitrophenol	198	8.036	8.036	(0.895)	55644	40.0000	47.8
56 p-Nitroaniline	138	8.016	8.016	(1.084)	31864	40.0000	28.2
133 Diphenylamine	169	8.107	8.107	(0.902)	238189	40.0000	37.7
58 1,2-Diphenylhydrazine	77	8.145	8.145	(0.907)	315169	40.0000	33.5
61 4-Bromophenylphenylether	248	8.497	8.497	(0.946)	79423	40.0000	43.6
63 Hexachlorobenzene	284	8.561	8.561	(0.953)	82843	40.0000	37.9
65 Pentachlorophenol	266	8.778	8.778	(0.977)	44983	40.0000	40.3
206 n-Octadecane	57	8.843	8.843	(0.984)	202230	40.0000	36.6
68 Phenanthrene	178	9.010	9.010	(1.003)	457245	40.0000	39.3
69 Anthracene	178	9.063	9.063	(1.009)	471083	40.0000	39.8
72 Di-n-butylphthalate	149	9.599	9.599	(1.069)	533401	40.0000	42.6
76 Fluoranthene	202	10.282	10.282	(1.145)	469238	40.0000	40.7

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
79 Pyrene	202	10.528	10.528	(0.889)	482014	40.0000	41.8
85 Butylbenzylphthalate	149	11.208	11.208	(0.946)	226433	40.0000	41.8
89 Benzo(a)anthracene	228	11.827	11.827	(0.998)	395658	40.0000	39.8
92 Chrysene	228	11.877	11.877	(1.003)	369033	40.0000	40.0
93 bis(2-Ethylhexyl)phthalate	149	11.830	11.830	(0.999)	317590	40.0000	44.0
94 Di-n-octylphthalate	149	12.657	12.657	(0.915)	489867	40.0000	39.5
95 Benzo(b)fluoranthene	252	13.243	13.243	(0.958)	353045	40.0000	39.8
96 Benzo(k)fluoranthene	252	13.287	13.287	(0.961)	345574	40.0000	41.2
97 Benzo(a)pyrene	252	13.739	13.739	(0.994)	317470	40.0000	43.5
99 Indeno(1,2,3-cd)pyrene	276	15.573	15.573	(1.126)	292857	40.0000	45.6
100 Dibenzo(a,h)anthracene	278	15.606	15.606	(1.129)	241928	40.0000	44.6
101 Benzo(ghi)perylene	276	16.034	16.034	(1.160)	241570	40.0000	44.7
126 m-Dinitrobenzene	168	7.147	7.147	(0.967)	51575	40.0000	39.8
130 2,3,4,6-Tetrachlorophenol	232	7.743	7.743	(1.047)	70103	40.0000	45.7
143 Dinoseb	211	8.969	8.969	(0.998)	64745	40.0000	44.0
173 Carbazole	167	9.239	9.239	(1.028)	208846	40.0000	26.2
184 p-Benzoquinone	54	3.579	3.579	(0.833)	6894	40.0000	38.5
192 Methoxychlor	227	11.744	11.744	(0.992)	232867	40.0000	47.5
211 p-Toluidine	106	4.716	4.716	(1.098)	123412	40.0000	70.9
210 m-Toluidine	106	4.751	4.751	(1.107)	171926	40.0000	64.6
26 Phthalic anhydride	104	6.353	6.353	(1.145)	66203	40.0000	47.9
179 Dibenzo(a,e)pyrene	302	18.884	18.884	(1.366)	92560	40.0000	37.7
214 1,4-Dinitrobenzene	75	7.065	7.065	(0.956)	53037	40.0000	36.7
215 2-Ethoxyethanol	59	2.038	2.038	(0.475)	74437	40.0000	35.3
216 Methylenebis(2-chloroaniline)	231	11.803	11.803	(0.996)	39866	40.0000	35.8
M 225 Trichlorophenols	196				171833	80.0000	85.0
M 226 Tetrachlorophenols	232				70103	40.0000	45.7
M 227 Benzo(b,k)fluoranthene	252				698619	80.0000	81.0

Data File: /chem/MSD3.i/s121309.b/s311309.d
Date : 13-DEC-2009 12:11
Client ID: MEGACVS
Sample Info: !WEN091201-17,2140PPM11ISWMF11MEGACVS
Column phase: J&W DB-5MS

Instrument: MSD3.i
Operator: JLD1
Column diameter: 0.20

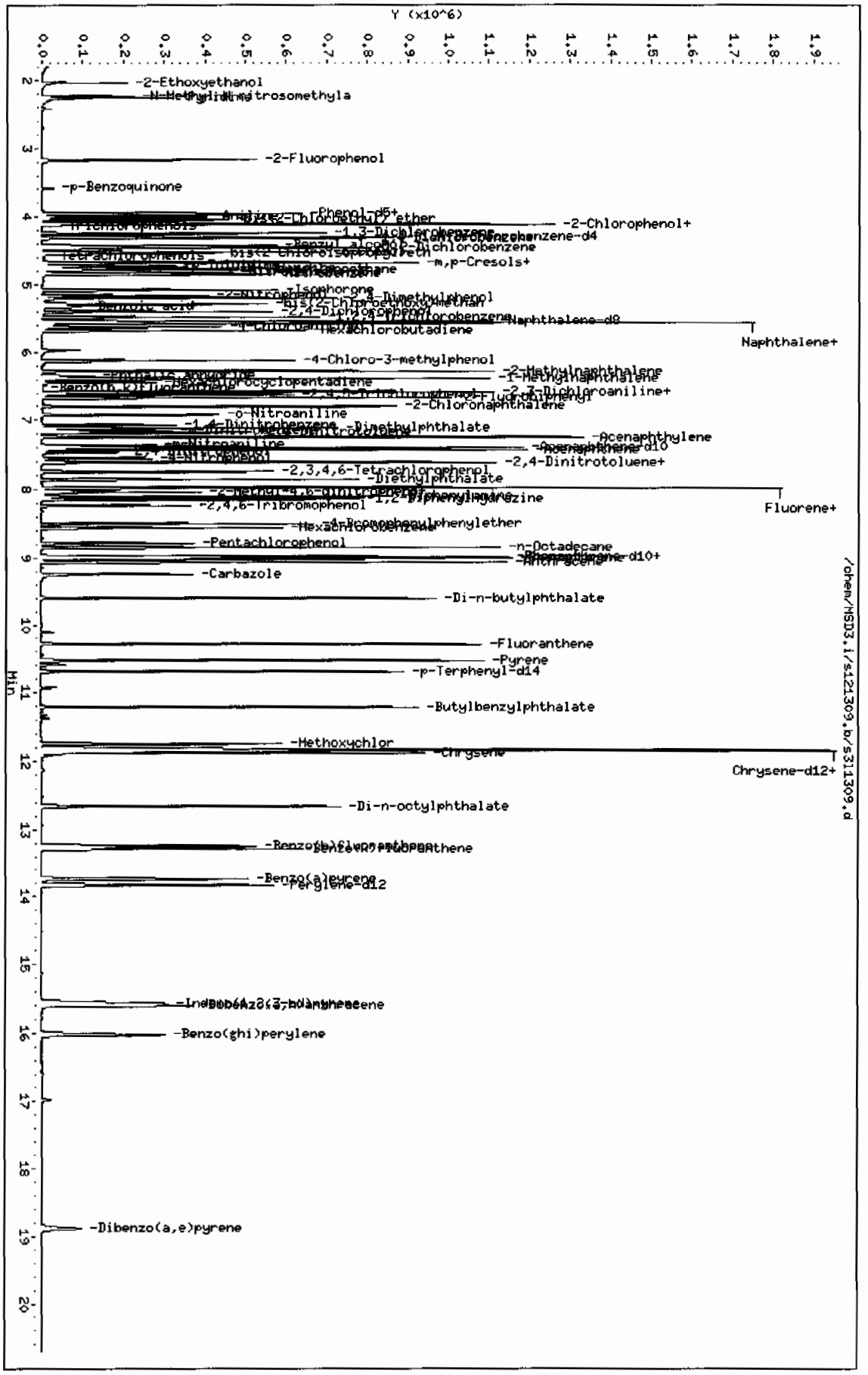

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD3.i Injection Date: 13-DEC-2009 12:38
Lab File ID: s311310.d Init. Cal. Date(s): 06-DEC-2009 08-DEC-2009
Analysis Type: Init. Cal. Times: 10:12 12:26
Lab Sample ID: WBN091201-08.3 Quant Type: ISTD
Method: /chem/MSD3.i/s121309.b/MSD3-8270R-AQA-120809.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
209 Benzaldehyde	0.96429	0.76411	0.76411	0.000	-20.75851	60.00000	Averaged
16 Acetophenone	1.33163	1.25948	1.25948	0.000	-5.41813	60.00000	Averaged
189 Caprolactam	0.09173	0.10088	0.10088	0.000	9.96894	60.00000	Averaged
208 1,1'-Biphenyl	1.21700	1.29629	1.29629	0.000	6.51507	60.00000	Averaged
207 Atrazine	0.04375	0.04993	0.04993	0.000	14.11326	60.00000	Averaged
77 Benzidine	34.23094	40.00000	0.21089	0.000	-14.42264	60.00000	Linear
90 3,3'-Dichlorobenzidine	0.27489	0.26714	0.26714	0.000	-2.81955	60.00000	Averaged
102 1,4-Dioxane	0.37765	0.44021	0.44021	0.000	16.56363	60.00000	Averaged
103 Methyl methacrylate	0.21438	0.27823	0.27823	0.000	29.78452	60.00000	Averaged
104 Ethyl methacrylate	0.84060	0.93375	0.93375	0.000	11.08130	60.00000	Averaged
105 2-Picoline	1.36059	1.23117	1.23117	0.000	-9.51264	60.00000	Averaged
106 N-Nitrosomethylethylamine	0.54734	0.51516	0.51516	0.000	-5.87950	60.00000	Averaged
107 Methyl methanesulfonate	0.57769	0.55809	0.55809	0.000	-3.39272	60.00000	Averaged
108 N-Nitrosodiethylamine	0.56251	0.53493	0.53493	0.000	-4.90354	60.00000	Averaged
109 Ethyl Methanesulfonate	0.74348	0.81222	0.81222	0.000	9.24525	60.00000	Averaged
110 Pentachloroethane	0.31184	0.42217	0.42217	0.000	35.37838	60.00000	Averaged
111 N-Nitrosopyrrolidine	0.57216	0.54394	0.54394	0.000	-4.93182	60.00000	Averaged
113 N-Nitrosomorpholine	0.68237	0.60503	0.60503	0.000	-11.33452	60.00000	Averaged
114 o-Toluidine	1.81766	1.74537	1.74537	0.000	-3.97712	60.00000	Averaged
115 N-Nitrosopiperidine	0.15407	0.14883	0.14883	0.000	-3.40394	60.00000	Averaged
116 a,a-Dimethylphenethylamine	0.80710	0.60858	0.60858	0.000	-24.59634	60.00000	Averaged
118 2,6-Dichlorophenol	0.22077	0.22838	0.22838	0.000	3.44971	60.00000	Averaged
119 Hexachloropropene	0.10907	0.14768	0.14768	0.000	35.39571	60.00000	Averaged
120 p-Phenylenediamine	0.23642	0.23378	0.23378	0.000	-1.11901	60.00000	Averaged
121 N-Nitrosodi-n-butylamine	0.24128	0.23009	0.23009	0.000	-4.63768	60.00000	Averaged
122 Safrole	0.20022	0.23123	0.23123	0.000	15.48867	60.00000	Averaged
123 1,2,4,5-Tetrachlorobenzene	0.44036	0.46193	0.46193	0.000	4.89933	60.00000	Averaged
124 Isosafrole	0.34861	0.47080	0.47080	0.000	35.05218	60.00000	Averaged
125 1,4-Naphthoquinone	0.30537	0.30776	0.30776	0.000	0.78323	60.00000	Averaged
127 Pentachlorobenzene	0.38598	0.39248	0.39248	0.000	1.68398	60.00000	Averaged
128 1-Naphthylamine	0.91301	0.96936	0.96936	0.000	6.17123	60.00000	Averaged
129 2-Naphthylamine	0.99339	1.03069	1.03069	0.000	3.75526	60.00000	Averaged
131 5-Nitro-o-toluidine	0.29359	0.28825	0.28825	0.000	-1.81915	60.00000	Averaged
136 1,3,5-Trinitrobenzene	0.14119	0.17316	0.17316	0.000	22.64863	60.00000	Averaged
137 Phenacetin	0.30819	0.30688	0.30688	0.000	-0.42367	60.00000	Averaged
138 Diallate	0.29433	0.26968	0.26968	0.000	-8.37530	60.00000	Averaged

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD3.i
Lab File ID: s311310.d
Analysis Type:
Lab Sample ID: WBN091201-08.3
Method: /chem/MSD3.i/s121309.b/MSD3-8270R-AQA-120809.m

Injection Date: 13-DEC-2009 12:38
Init. Cal. Date(s): 06-DEC-2009 08-DEC-2009
Init. Cal. Times: 10:12 12:26
Quant Type: ISTD

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
140 4-Aminobiphenyl	0.62917	0.55787	0.55787	0.000	-11.33291	60.00000	Averaged
141 Pentachloronitrobenzene	0.07114	0.06778	0.06778	0.000	-4.72308	60.00000	Averaged
142 Pronamide	0.28257	0.29605	0.29605	0.000	4.77030	60.00000	Averaged
146 4-Nitroquinoline-1-oxide	0.02686	0.02045	0.02045	0.000	-23.89507	60.00000	Averaged
147 Methapyrilene	0.41060	0.37958	0.37958	0.000	-7.55657	60.00000	Averaged
148 Isodrin	0.11051	0.09971	0.09971	0.000	-9.77614	60.00000	Averaged
149 Aramite	0.05092	0.04931	0.04931	0.000	-3.15493	60.00000	Averaged
150 Kepone	0.07689	0.07332	0.07332	0.000	-4.64508	60.00000	Averaged
151 p-(Dimethylamino)azobenzene	0.32461	0.33837	0.33837	0.000	4.23720	60.00000	Averaged
152 Chlorobenzilate	0.30328	0.33341	0.33341	0.000	9.93473	60.00000	Averaged
153 3,3'-Dimethylbenzidine	0.46065	0.42575	0.42575	0.000	-7.57484	60.00000	Averaged
155 2-Acetylaminofluorene	0.31745	0.33842	0.33842	0.000	6.60657	60.00000	Averaged
157 7,12Dimethylbenz(a)anthrace	0.51543	0.50838	0.50838	0.000	-1.36671	60.00000	Averaged
158 3-Methylcholanthrene	0.41499	0.46140	0.46140	0.000	11.18342	60.00000	Averaged
212 Cis Diallate	0.29308	0.35455	0.35455	0.000	20.97504	60.00000	Averaged
213 Trans Diallate	0.34627	0.31727	0.31727	0.000	-8.37530	60.00000	Averaged

GEL Laboratories LLC

Data file : /chem/MSD3.i/s121309.b/s311310.d
Lab Smp Id: WBN091201-08.3 Client Smp ID: APCVS
Inj Date : 13-DEC-2009 12:38
Operator : JLD1 Inst ID: MSD3.i
Smp Info : |WBN091201-08.3|40PPM|1|SVMF|1|APCVS
Misc Info : |MSD8270|WBN091208-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD3.i/s121309.b/MSD3-8270R-AQA-120809.m
Meth Date : 14-Dec-2009 17:00 jen00986 Quant Type: ISTD
Cal Date : 07-DEC-2009 19:48 Cal File: s310717.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AP12.sub
Target Version: 3.50
Processing Host: hpclp1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	4.291	4.291	(1.000)	152756	40.0000	
* 29 Naphthalene-d8	136	5.545	5.545	(1.000)	571407	40.0000	
* 46 Acenaphthene-d10	164	7.388	7.388	(1.000)	312867	40.0000	
* 67 Phenanthrene-d10	188	8.983	8.983	(1.000)	522913	40.0000	
* 91 Chrysene-d12	240	11.839	11.839	(1.000)	421476	40.0000	
* 98 Perylene-d12	264	13.822	13.822	(1.000)	329986	40.0000	
209 Benzaldehyde	77	3.904	3.904	(0.910)	116723	40.0000	31.7
16 Acetophenone	105	4.675	4.675	(1.089)	192393	40.0000	37.8
189 Caprolactam	113	5.990	5.990	(1.080)	57643	40.0000	44.0
208 1,1'-Biphenyl	154	6.778	6.778	(0.917)	405567	40.0000	42.6
207 Atrazine	173	8.684	8.684	(0.967)	26109	40.0000	45.6
77 Benzidine	184	10.437	10.437	(0.882)	88885	40.0000	34.2
90 3,3'-Dichlorobenzidine	252	11.800	11.800	(0.997)	112593	40.0000	38.9
102 1,4-Dioxane	88	2.038	2.038	(0.475)	67244	40.0000	46.6
103 Methyl methacrylate	100	2.038	2.038	(0.475)	42502	40.0000	51.9
104 Ethyl methacrylate	69	2.516	2.516	(0.586)	142636	40.0000	44.4
105 2-Picoline	93	2.753	2.753	(0.642)	188068	40.0000	36.2
106 N-Nitrosomethylethylamine	88	2.829	2.829	(0.659)	78694	40.0000	37.6
107 Methyl methanesulfonate	80	3.058	3.058	(0.713)	85251	40.0000	38.6
108 N-Nitrosodiethylamine	102	3.362	3.362	(0.784)	81714	40.0000	38.0
109 Ethyl Methanesulfonate	79	3.605	3.605	(0.840)	124071	40.0000	43.7
110 Pentachloroethane	167	4.036	4.036	(0.941)	64489	40.0000	54.2
111 N-Nitrosopyrrolidine	100	4.663	4.663	(1.087)	83090	40.0000	38.0
113 N-Nitrosomorpholine	56	4.698	4.698	(1.095)	92422	40.0000	35.5
114 o-Toluidine	106	4.713	4.713	(1.098)	266616	40.0000	38.4
115 N-Nitrosopiperidine	114	4.991	4.991	(0.900)	85042	40.0000	38.6

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
116 a,a-Dimethylphenethylamine	58	5.378	5.378	(0.970)	347749	40.0000	30.2
118 2,6-Dichlorophenol	162	5.633	5.633	(1.016)	130499	40.0000	41.4
119 Hexachloropropene	213	5.650	5.650	(1.019)	84387	40.0000	54.2
120 p-Phenylenediamine	108	5.999	5.999	(1.082)	133581	40.0000	39.6
121 N-Nitrosodi-n-butylamine	84	5.961	5.961	(1.075)	131474	40.0000	38.1(T)
122 Safrole	162	6.189	6.189	(1.116)	132127	40.0000	46.2
123 1,2,4,5-Tetrachlorobenzene	216	6.456	6.456	(0.874)	144524	40.0000	42.0
124 Isosafrole	162	6.740	6.740	(0.912)	147299	40.0000	54.0
125 1,4-Naphthoquinone	158	6.990	6.990	(0.946)	96288	40.0000	40.3
127 Pentachlorobenzene	250	7.561	7.561	(1.023)	122793	40.0000	40.7
128 1-Naphthylamine	143	7.699	7.699	(1.042)	303280	40.0000	42.5
129 2-Naphthylamine	143	7.784	7.784	(1.054)	322470	40.0000	41.5
131 5-Nitro-o-toluidine	152	7.998	7.998	(1.083)	90185	40.0000	39.3
136 1,3,5-Trinitrobenzene	75	8.396	8.396	(0.935)	90549	40.0000	49.0
137 Phenacetin	108	8.449	8.449	(0.941)	160474	40.0000	39.8
138 Diallate	86	8.402	8.402	(0.935)	141017	40.0000	36.6
140 4-Aminobiphenyl	169	8.786	8.786	(0.978)	291717	40.0000	35.5
141 Pentachloronitrobenzene	237	8.783	8.783	(0.978)	35444	40.0000	38.1
142 Pronamide	173	8.839	8.839	(0.984)	154810	40.0000	41.9
146 4-Nitroquinoline-1-oxide	101	9.841	9.841	(1.096)	10691	40.0000	30.4
147 Methapyrilene	58	9.909	9.909	(1.103)	198485	40.0000	37.0
148 Isodrin	193	10.114	10.114	(1.126)	52139	40.0000	36.1
149 Aramite	185	10.659	10.659	(1.187)	25787	40.0000	38.7
150 Kepone	272	11.249	11.249	(1.252)	38339	40.0000	38.1
151 p-(Dimethylamino)azobenzene	120	10.838	10.838	(0.916)	142614	40.0000	41.7
152 Chlorobenzilate	251	10.885	10.885	(0.919)	140524	40.0000	44.0
153 3,3'-Dimethylbenzidine	212	11.205	11.205	(0.946)	179445	40.0000	37.0
155 2-Acetylaminofluorene	181	11.475	11.475	(0.969)	142638	40.0000	42.6
157 7,12Dimethylbenz(a)anthracene	256	13.224	13.224	(0.957)	167759	40.0000	39.4
158 3-Methylcholanthrene	268	14.277	14.277	(1.033)	152255	40.0000	44.5
212 Cis Diallate	86	8.499	8.499	(0.946)	27810	6.00000	7.2
213 Trans Diallate	86	8.402	8.402	(0.935)	141017	34.0000	31.2

QC Flag Legend

T - Target compound detected outside RT window.

Data File: /chem/MSD3.i/s121309.b/s311310.d
Date : 13-DEC-2009 12:38
Client ID: APCVS
Sample Info: IWBN091201-08,3140PPM11ISVHF11APCVS
Column phase: J&W DB-5MS

Instrument: MSD3.i
Operator: JLD1
Column diameter: 0.20

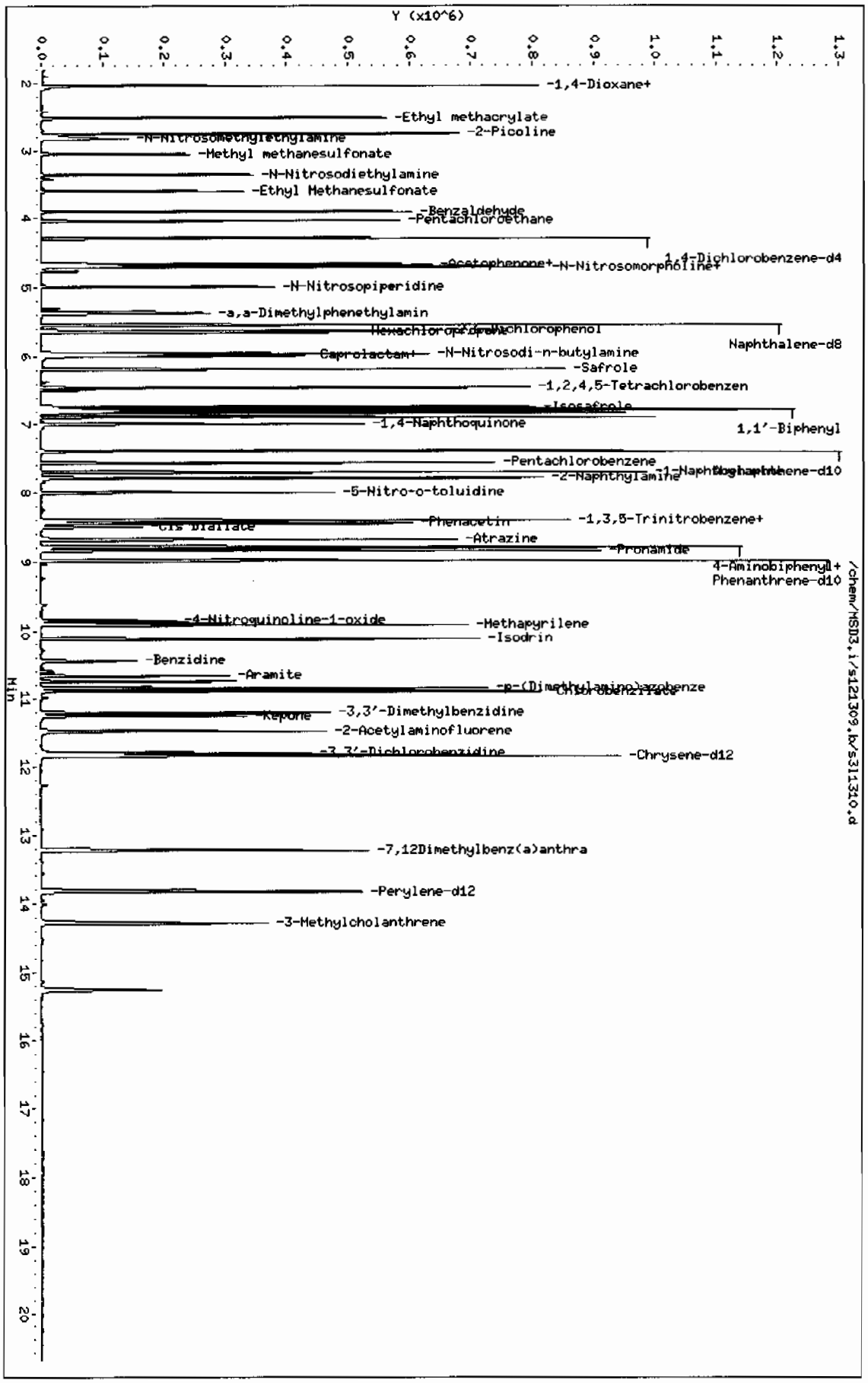

Page 1

Data File: /chem/MSD3.i/s121409.b/s311404.d
Report Date: 14-Dec-2009 17:00

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD3.i
Lab File ID: s311404.d
Analysis Type:
Lab Sample ID: WBN091201-17.2 Quant Type: ISTD
Method: /chem/MSD3.i/s121409.b/MSD3-8270R-AQA-120809.m

Injection Date: 14-DEC-2009 10:04
Init. Cal. Date(s): 06-DEC-2009 08-DEC-2009
Init. Cal. Times: 10:12 12:26

	COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
$	3 2-Fluorophenol	1.04626	1.12788	1.12788	0.000	7.80068	60.00000	Averaged	
$	5 Phenol-d5	1.33296	1.42615	1.42615	0.000	6.99171	60.00000	Averaged	
$	20 Nitrobenzene-d5	0.29235	0.32584	0.32584	0.000	11.45617	60.00000	Averaged	
$	39 2-Fluorobiphenyl	0.93759	1.17302	1.17302	0.000	25.11102	60.00000	Averaged	
$	60 2,4,6-Tribromophenol	0.10984	0.14122	0.14122	0.000	28.56776	60.00000	Averaged	
$	81 p-Terphenyl-d14	0.64244	0.83529	0.83529	0.000	30.01909	60.00000	Averaged	
	1 N-Methyl-N-nitrosomethylami	0.67245	0.68737	0.68737	0.000	2.21938	60.00000	Averaged	
	2 Pyridine	1.09150	0.87284	0.87284	0.000	-20.03254	60.00000	Averaged	
	4 Aniline	0.55794	0.53905	0.53905	0.000	-3.38540	60.00000	Averaged	
	6 Phenol	1.38856	1.38604	1.38604	0.001	-0.18156	20.00000	Averaged	ccc
	7 bis(2-Chloroethyl) ether	33.63903	40.00000	0.73854	0.000	-15.90242	60.00000	Linear	
	8 2-Chlorophenol	1.07117	1.19010	1.19010	0.000	11.10330	60.00000	Averaged	
	203 n-Decane	1.09536	1.03365	1.03365	0.000	-5.63306	60.00000	Averaged	
	9 1,3-Dichlorobenzene	1.23726	1.28266	1.28266	0.000	3.66864	60.00000	Averaged	
	11 1,4-Dichlorobenzene	1.25267	1.30372	1.30372	0.001	4.07507	20.00000	Averaged	ccc
	13 1,2-Dichlorobenzene	1.18843	1.22927	1.22927	0.000	3.43689	60.00000	Averaged	
	14 bis(2-Chloroisopropyl)ether	1.67844	1.33232	1.33232	0.000	-20.62147	60.00000	Averaged	
	12 Benzyl alcohol	0.68288	0.68706	0.68706	0.000	0.61204	60.00000	Averaged	
	15 o-Cresol	0.89111	0.91987	0.91987	0.000	3.22714	60.00000	Averaged	
	18 m,p-Cresols	1.08247	1.18809	1.18809	0.000	9.75705	60.00000	Averaged	
	17 N-Nitrosodipropylamine	0.86839	0.82191	0.82191	0.050	-5.35227	60.00000	Averaged	spcc
	19 Hexachloroethane	0.47182	0.47217	0.47217	0.000	0.07354	60.00000	Averaged	
	21 Nitrobenzene	0.33969	0.32518	0.32518	0.000	-4.27075	60.00000	Averaged	
	22 Isophorone	0.54661	0.58862	0.58862	0.000	7.68621	60.00000	Averaged	
	23 2-Nitrophenol	0.14291	0.15436	0.15436	0.001	8.00797	20.00000	Averaged	ccc
	24 2,4-Dimethylphenol	0.25541	0.26423	0.26423	0.000	3.45550	60.00000	Averaged	
	25 bis(2-Chloroethoxy)methane	0.37883	0.34503	0.34503	0.000	-8.92294	60.00000	Averaged	
	26 2,4-Dichlorophenol	0.22061	0.23468	0.23468	0.001	6.37785	20.00000	Averaged	ccc
	27 Benzoic acid	46.44796	40.00000	0.12942	0.000	16.11989	60.00000	Linear	
	28 1,2,4-Trichlorobenzene	0.25228	0.26475	0.26475	0.000	4.94420	60.00000	Averaged	
	30 Naphthalene	48.30820	40.00000	0.98301	0.000	20.77049	60.00000	Wt Linear	
	204 alpha-Terpineol	0.20029	0.20501	0.20501	0.000	2.35341	60.00000	Averaged	
	31 4-Chloroaniline	0.26741	0.24747	0.24747	0.000	-7.45640	60.00000	Averaged	
	32 Hexachlorobutadiene	0.15474	0.14132	0.14132	0.001	-8.66912	20.00000	Averaged	ccc
	33 4-Chloro-3-methylphenol	0.24248	0.26442	0.26442	0.001	9.04801	20.00000	Averaged	ccc
	34 2-Methylnaphthalene	0.57399	0.66471	0.66471	0.000	15.80409	60.00000	Averaged	

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD3.i
Lab File ID: s311404.d
Analysis Type:
Lab Sample ID: WBN091201-17.2 Quant Type: ISTD
Method: /chem/MSD3.i/s121409.b/MSD3-8270R-AQA-120809.m

Injection Date: 14-DEC-2009 10:04
Init. Cal. Date(s): 06-DEC-2009 08-DEC-2009
Init. Cal. Times: 10:12 12:26

	COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
35	1-Methylnaphthalene	0.51209	0.62973	0.62973	0.000	22.97421	60.00000	Averaged	
36	Hexachlorocyclopentadiene	0.11464	0.17878	0.17878	0.050	55.94588	60.00000	Averaged	spcc
205	2,3-Dichloroaniline	0.45038	0.53706	0.53706	0.000	19.24400	60.00000	Averaged	
37	2,4,6-Trichlorophenol	0.26952	0.30366	0.30366	0.001	12.66592	20.00000	Averaged	ccc
38	2,4,5-Trichlorophenol	0.29699	0.34247	0.34247	0.000	15.31433	60.00000	Averaged	
40	2-Chloronaphthalene	0.99133	0.95941	0.95941	0.000	-3.22060	60.00000	Averaged	
42	o-Nitroaniline	0.33246	0.29621	0.29621	0.000	-10.90311	60.00000	Averaged	
41	m-Nitroaniline	20.91719	40.00000	0.08898	0.000	-47.70702	60.00000	Linear	
43	Dimethylphthalate	1.03853	1.14751	1.14751	0.000	10.49336	60.00000	Averaged	
44	2,6-Dinitrotoluene	0.26099	0.26340	0.26340	0.000	0.92554	60.00000	Averaged	
50	2,4-Dinitrotoluene	0.33455	0.34838	0.34838	0.000	4.13388	60.00000	Averaged	
45	Acenaphthylene	1.53207	1.80350	1.80350	0.000	17.71672	60.00000	Averaged	
47	Acenaphthene	0.95069	1.05817	1.05817	0.001	11.30585	20.00000	Averaged	ccc
48	2,4-Dinitrophenol	45.59906	40.00000	0.09981	0.050	13.99765	60.00000	Linear	spcc
49	Dibenzofuran	1.30612	1.35966	1.35966	0.000	4.09895	60.00000	Averaged	
51	Diethylphthalate	1.03172	1.16213	1.16213	0.000	12.64010	60.00000	Averaged	
52	4-Nitrophenol	44.77473	40.00000	0.17186	0.050	11.93684	60.00000	Linear	spcc
53	Fluorene	1.13622	1.27427	1.27427	0.000	12.14974	60.00000	Averaged	
54	4-Chlorophenylphenylether	0.49131	0.55133	0.55133	0.000	12.21655	60.00000	Averaged	
55	2-Methyl-4,6-dinitrophenol	47.29341	40.00000	0.11268	0.000	18.23351	60.00000	Linear	
56	p-Nitroaniline	26.13865	40.00000	0.09956	0.000	-34.65338	60.00000	Linear	
133	Diphenylamine	0.51728	0.47740	0.47740	0.001	-7.70941	20.00000	Averaged	ccc
58	1,2-Diphenylhydrazine	0.77099	0.69093	0.69093	0.000	-10.38465	60.00000	Averaged	
61	4-Bromophenylphenylether	0.14948	0.17644	0.17644	0.000	18.03675	60.00000	Averaged	
63	Hexachlorobenzene	0.17899	0.18415	0.18415	0.000	2.87862	60.00000	Averaged	
65	Pentachlorophenol	40.43429	40.00000	0.09256	0.001	1.08573	20.00000	Linear	ccc
206	n-Octadecane	0.45303	0.43394	0.43394	0.000	-4.21263	60.00000	Averaged	
68	Phenanthrene	0.95465	1.01387	1.01387	0.000	6.20277	60.00000	Averaged	
69	Anthracene	0.97123	1.02920	1.02920	0.000	5.96895	60.00000	Averaged	
72	Di-n-butylphthalate	1.02595	1.15042	1.15042	0.000	12.13236	60.00000	Averaged	
76	Fluoranthene	0.94500	1.01281	1.01281	0.001	7.17503	20.00000	Averaged	ccc
79	Pyrene	1.11852	1.41444	1.41444	0.000	26.45612	60.00000	Averaged	
85	Butylbenzylphthalate	0.52498	0.62143	0.62143	0.000	18.37309	60.00000	Averaged	
89	Benzo(a)anthracene	0.96306	1.04433	1.04433	0.000	8.43876	60.00000	Averaged	
92	Chrysene	0.89432	0.94814	0.94814	0.000	6.01701	60.00000	Averaged	
93	bis(2-Ethylhexyl)phthalate	0.69950	0.87918	0.87918	0.000	25.68614	60.00000	Averaged	

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD3.i Injection Date: 14-DEC-2009 10:04
Lab File ID: s311404.d Init. Cal. Date(s): 06-DEC-2009 08-DEC-2009
Analysis Type: Init. Cal. Times: 10:12 12:26
Lab Sample ID: WBN091201-17.2 Quant Type: ISTD
Method: /chem/MSD3.i/s121409.b/MSD3-8270R-AQA-120809.m

	COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
	94 Di-n-octylphthalate	1.47710	1.73211	1.73211	0.001	17.26450	20.00000	Averaged	ccc
	95 Benzo(b)fluoranthene	1.05660	1.19401	1.19401	0.000	13.00405	60.00000	Averaged	
	96 Benzo(k)fluoranthene	0.99905	1.09023	1.09023	0.000	9.12746	60.00000	Averaged	
	97 Benzo(a)pyrene	0.86919	1.01022	1.01022	0.001	16.22601	20.00000	Averaged	ccc
	99 Indeno(1,2,3-cd)pyrene	0.76472	0.89956	0.89956	0.000	17.63306	60.00000	Averaged	
	100 Dibenzo(a,h)anthracene	0.64640	0.75050	0.75050	0.000	16.10499	60.00000	Averaged	
	101 Benzo(ghi)perylene	0.64348	0.72919	0.72919	0.000	13.31956	60.00000	Averaged	
	126 m-Dinitrobenzene	0.18165	0.19142	0.19142	0.000	5.37794	60.00000	Averaged	
	130 2,3,4,6-Tetrachlorophenol	0.21489	0.25103	0.25103	0.000	16.81854	60.00000	Averaged	
	143 Dinoseb	42.05857	40.00000	0.12587	0.000	5.14642	60.00000	Linear	
	173 Carbazole	24.12920	40.00000	0.39035	0.000	-39.67699	60.00000	Linear	
	184 p-Benzoquinone	65.95724	40.00000	0.09534	0.000	64.89310	60.00000	Linear	<-
	192 Methoxychlor	0.47514	0.52055	0.52055	0.000	9.55600	60.00000	Averaged	
	211 p-Toluidine	0.50316	0.89390	0.89390	0.000	77.65811	60.00000	Averaged	<-
	210 m-Toluidine	0.77001	1.19667	1.19667	0.000	55.40989	60.00000	Averaged	
	26 Phthalic anhydride	0.10419	0.12369	0.12369	0.000	18.71337	60.00000	Averaged	
	179 Dibenzo(a,e)pyrene	0.29273	0.25019	0.25019	0.000	-14.53184	60.00000	Averaged	
	214 1,4-Dinitrobenzene	0.20234	0.19542	0.19542	0.000	-3.42125	60.00000	Averaged	
	215 2-Ethoxyethanol	0.61024	0.56695	0.56695	0.000	-7.09397	60.00000	Averaged	
	216 Methylenebis(2-chloroanilin	21.95881	40.00000	0.05289	0.000	-45.10297	60.00000	Linear	
M	225 Trichlorophenols	0.28326	0.32307	0.32307	0.000	14.05434	60.00000	Averaged	
M	226 Tetrachlorophenols	0.21489	0.25103	0.25103	0.000	16.81854	60.00000	Averaged	
M	227 Benzo(b,k)fluoranthene	1.02783	1.14212	1.14212	0.000	11.11925	60.00000	Averaged	

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Data file : /chem/MSD3.i/s121409.b/s311404.d
Lab Smp Id: WBN091201-17.2 Client Smp ID: MEGACVS
Inj Date : 14-DEC-2009 10:04
Operator : JLD1 Inst ID: MSD3.i
Smp Info : |WBN091201-17.2|40PPM|1|SVMF|1|MEGACVS
Misc Info : |MSD8270|WBN091208-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD3.i/s121409.b/MSD3-8270R-AQA-120809.m
Meth Date : 14-Dec-2009 17:00 jen00986 Quant Type: ISTD
Cal Date : 07-DEC-2009 19:48 Cal File: s310717.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: MEGAII.sub
Target Version: 3.50
Processing Host: hpclp1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	4.271	4.271	(1.000)	137758	40.0000	
* 29 Naphthalene-d8	136	5.523	5.523	(1.000)	518959	40.0000	
* 46 Acenaphthene-d10	164	7.371	7.371	(1.000)	277384	40.0000	
* 67 Phenanthrene-d10	188	8.958	8.958	(1.000)	466504	40.0000	
* 91 Chrysene-d12	240	11.817	11.817	(1.000)	342352	40.0000	
* 98 Perylene-d12	264	13.787	13.787	(1.000)	245637	40.0000	
$ 3 2-Fluorophenol	112	3.157	3.157	(0.739)	155374	40.0000	43.1
$ 5 Phenol-d5	99	3.931	3.931	(0.920)	196464	40.0000	42.8
$ 20 Nitrobenzene-d5	82	4.808	4.808	(0.870)	169096	40.0000	44.6
$ 39 2-Fluorobiphenyl	172	6.647	6.647	(0.902)	325378	40.0000	50.0
$ 60 2,4,6-Tribromophenol	329	8.213	8.213	(1.114)	39173	40.0000	51.4
$ 81 p-Terphenyl-d14	244	10.662	10.662	(0.902)	285964	40.0000	52.0
1 N-Methyl-N-nitrosomethylamine	74	2.220	2.220	(0.520)	94691	40.0000	40.9
2 Pyridine	79	2.246	2.246	(0.526)	120241	40.0000	32.0
4 Aniline	66	3.980	3.980	(0.932)	74258	40.0000	38.6
6 Phenol	94	3.945	3.945	(0.924)	190938	40.0000	39.9
7 bis(2-Chloroethyl) ether	63	4.022	4.022	(0.942)	101740	40.0000	33.6
8 2-Chlorophenol	128	4.086	4.086	(0.957)	163946	40.0000	44.4
203 n-Decane	43	4.089	4.089	(0.957)	142394	40.0000	37.7
9 1,3-Dichlorobenzene	146	4.221	4.221	(0.988)	176696	40.0000	41.5
11 1,4-Dichlorobenzene	146	4.288	4.288	(1.004)	179598	40.0000	41.6
13 1,2-Dichlorobenzene	146	4.432	4.432	(1.038)	169342	40.0000	41.4
14 bis(2-Chloroisopropyl)ether	45	4.514	4.514	(1.057)	183538	40.0000	31.8
12 Benzyl alcohol	108	4.403	4.403	(1.031)	94648	40.0000	40.2
15 o-Cresol	107	4.500	4.500	(1.054)	126719	40.0000	41.3
18 m,p-Cresols	107	4.658	4.658	(1.091)	163669	40.0000	43.9

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
17 N-Nitrosodipropylamine	70	4.649	4.649	(1.089)	113225	40.0000	37.8
19 Hexachloroethane	117	4.755	4.755	(1.113)	65045	40.0000	40.0
21 Nitrobenzene	77	4.828	4.828	(0.874)	168756	40.0000	38.3
22 Isophorone	82	5.057	5.057	(0.916)	305470	40.0000	43.1
23 2-Nitrophenol	139	5.136	5.136	(0.930)	80106	40.0000	43.2
24 2,4-Dimethylphenol	122	5.177	5.177	(0.937)	137125	40.0000	41.4
25 bis(2-Chloroethoxy)methane	93	5.268	5.268	(0.954)	179055	40.0000	36.4
26 2,4-Dichlorophenol	162	5.382	5.382	(0.974)	121790	40.0000	42.6
27 Benzoic acid	105	5.306	5.306	(0.961)	67162	40.0000	46.4
28 1,2,4-Trichlorobenzene	180	5.459	5.459	(0.988)	137396	40.0000	42.0
30 Naphthalene	128	5.547	5.547	(1.004)	510144	40.0000	48.3
204 alpha-Terpineol	59	5.547	5.547	(1.004)	106390	40.0000	40.9
31 4-Chloroaniline	127	5.609	5.609	(1.015)	128427	40.0000	37.0
32 Hexachlorobutadiene	225	5.661	5.661	(1.025)	73340	40.0000	36.5
33 4-Chloro-3-methylphenol	107	6.107	6.107	(1.106)	137223	40.0000	43.6
34 2-Methylnaphthalene	142	6.262	6.262	(1.134)	344957	40.0000	46.3
35 1-Methylnaphthalene	142	6.365	6.365	(1.152)	326806	40.0000	49.2
36 Hexachlorocyclopentadiene	237	6.418	6.418	(0.871)	49591	40.0000	62.4
205 2,3-Dichloroaniline	161	6.567	6.567	(0.891)	148971	40.0000	47.7
37 2,4,6-Trichlorophenol	196	6.562	6.562	(0.890)	84230	40.0000	45.1
38 2,4,5-Trichlorophenol	196	6.600	6.600	(0.895)	94997	40.0000	46.1
40 2-Chloronaphthalene	162	6.776	6.776	(0.919)	266124	40.0000	38.7
42 o-Nitroaniline	65	6.899	6.899	(0.936)	82165	40.0000	35.6
41 m-Nitroaniline	138	7.345	7.345	(0.996)	24683	40.0000	20.9
43 Dimethylphthalate	163	7.093	7.093	(0.962)	318300	40.0000	44.2
44 2,6-Dinitrotoluene	165	7.157	7.157	(0.971)	73064	40.0000	40.4
50 2,4-Dinitrotoluene	165	7.583	7.583	(1.029)	96636	40.0000	41.6
45 Acenaphthylene	152	7.222	7.222	(0.980)	500262	40.0000	47.1
47 Acenaphthene	154	7.407	7.407	(1.005)	293520	40.0000	44.5
48 2,4-Dinitrophenol	184	7.445	7.445	(1.010)	27687	40.0000	45.6
49 Dibenzofuran	168	7.588	7.588	(1.029)	377147	40.0000	41.6
51 Diethylphthalate	149	7.835	7.835	(1.063)	322356	40.0000	45.0
52 4-Nitrophenol	139	7.533	7.533	(1.022)	47670	40.0000	44.8
53 Fluorene	166	7.955	7.955	(1.079)	353462	40.0000	44.8
54 4-Chlorophenylphenylether	204	7.949	7.949	(1.078)	152930	40.0000	44.9
55 2-Methyl-4,6-dinitrophenol	198	8.017	8.017	(0.895)	52568	40.0000	47.3
56 p-Nitroaniline	138	8.002	8.002	(1.086)	27617	40.0000	26.1
133 Diphenylamine	169	8.084	8.084	(0.902)	222710	40.0000	36.9
58 1,2-Diphenylhydrazine	77	8.123	8.123	(0.907)	322321	40.0000	35.8
61 4-Bromophenylphenylether	248	8.474	8.474	(0.946)	82311	40.0000	47.2
63 Hexachlorobenzene	284	8.539	8.539	(0.953)	85905	40.0000	41.2
65 Pentachlorophenol	266	8.756	8.756	(0.977)	43181	40.0000	40.4
206 n-Octadecane	57	8.817	8.817	(0.984)	202437	40.0000	38.3
68 Phenanthrene	178	8.985	8.985	(1.003)	472974	40.0000	42.5
69 Anthracene	178	9.041	9.041	(1.009)	480126	40.0000	42.4
72 Di-n-butylphthalate	149	9.574	9.574	(1.069)	536677	40.0000	44.8
76 Fluoranthene	202	10.257	10.257	(1.145)	472479	40.0000	42.9

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
79 Pyrene	202	10.503	10.503	(0.889)	484236	40.0000	50.6
85 Butylbenzylphthalate	149	11.183	11.183	(0.946)	212748	40.0000	47.3
89 Benzo(a)anthracene	228	11.802	11.802	(0.999)	357528	40.0000	43.4
92 Chrysene	228	11.847	11.847	(1.002)	324596	40.0000	42.4
93 bis(2-Ethylhexyl)phthalate	149	11.802	11.802	(0.999)	300988	40.0000	50.3
94 Di-n-octylphthalate	149	12.623	12.623	(0.916)	425470	40.0000	46.9
95 Benzo(b)fluoranthene	252	13.206	13.206	(0.958)	293292	40.0000	45.2
96 Benzo(k)fluoranthene	252	13.247	13.247	(0.961)	267802	40.0000	43.6
97 Benzo(a)pyrene	252	13.696	13.696	(0.993)	248148	40.0000	46.5
99 Indeno(1,2,3-cd)pyrene	276	15.522	15.522	(1.126)	220966	40.0000	47.0
100 Dibenzo(a,h)anthracene	278	15.554	15.554	(1.128)	184350	40.0000	46.4
101 Benzo(ghi)perylene	276	15.976	15.976	(1.159)	179116	40.0000	45.3
126 m-Dinitrobenzene	168	7.131	7.131	(0.967)	53098	40.0000	42.2
130 2,3,4,6-Tetrachlorophenol	232	7.720	7.720	(1.047)	69632	40.0000	46.7
143 Dinoseb	211	8.946	8.946	(0.999)	58717	40.0000	42.0
173 Carbazole	167	9.219	9.219	(1.029)	182102	40.0000	24.1
184 p-Benzoquinone	54	3.559	3.559	(0.833)	13134	40.0000	66.0
192 Methoxychlor	227	11.714	11.714	(0.991)	178210	40.0000	43.8
211 p-Toluidine	106	4.696	4.696	(1.100)	123142	40.0000	71.1
210 m-Toluidine	106	4.731	4.731	(1.108)	164851	40.0000	62.2
26 Phthalic anhydride	104	6.333	6.333	(1.147)	64190	40.0000	47.5
179 Dibenzo(a,e)pyrene	302	18.814	18.814	(1.365)	61456	40.0000	34.2
214 1,4-Dinitrobenzene	75	7.046	7.046	(0.956)	54207	40.0000	38.6
215 2-Ethoxyethanol	59	2.024	2.024	(0.474)	78102	40.0000	37.2
216 Methylenebis(2-chloroaniline)	231	11.779	11.779	(0.997)	18108	40.0000	22.0
M 225 Trichlorophenols	196				179227	80.0000	91.2
M 226 Tetrachlorophenols	232				69632	40.0000	46.7
M 227 Benzo(b,k)fluoranthene	252				561094	80.0000	88.9

Data File: /chem/MSD3.i/s121409.b/s311404.d
Date : 14-DEC-2009 10:04
Client ID: MEGACVS
Sample Info: IWBN091201-17,2140PPM1ISVMFI1IMEGACVS
Column phase: J&W DB-5MS

Instrument: MSD3.i
Operator: JLD1
Column diameter: 0.20

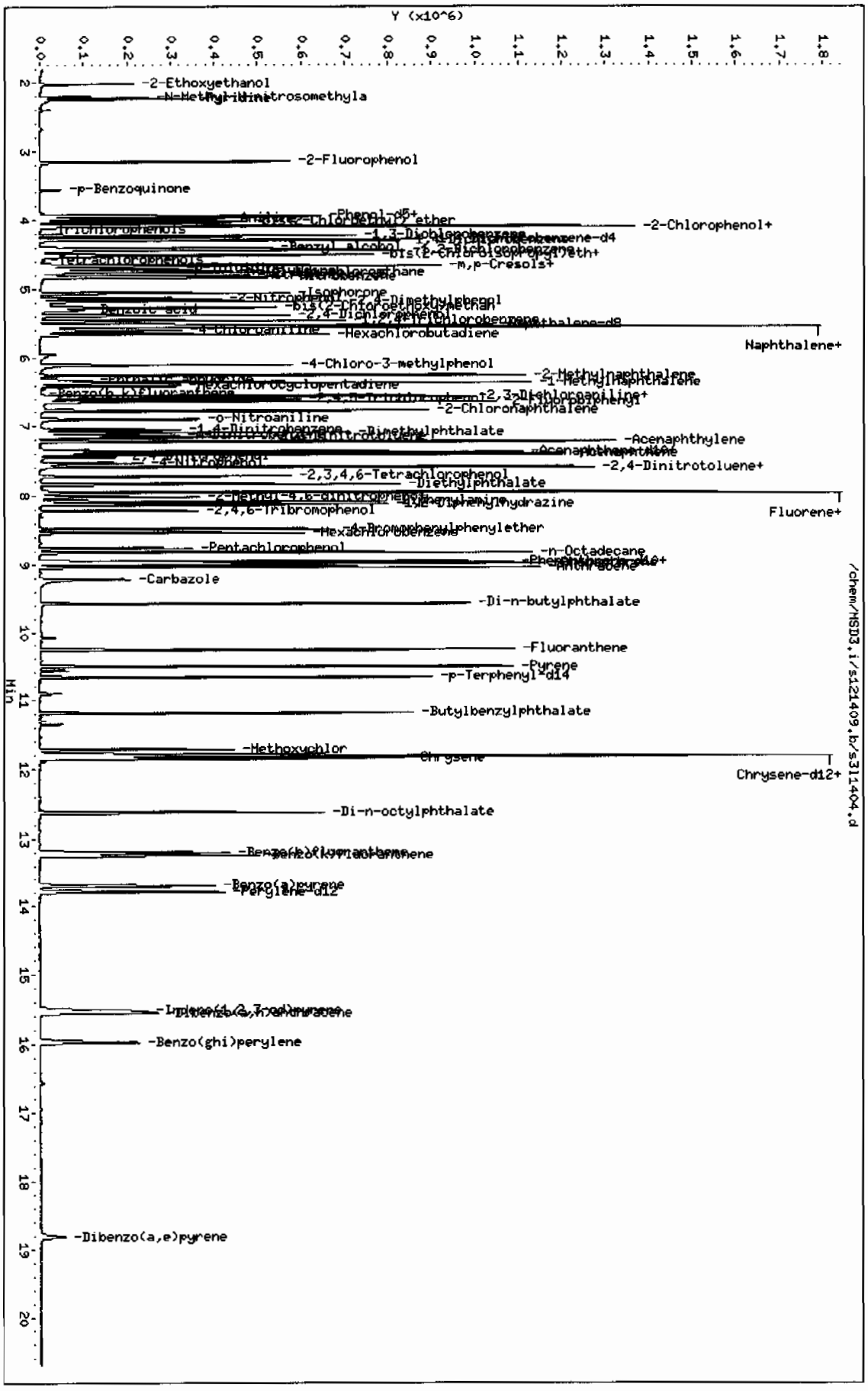

Page 1

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD3.i Injection Date: 14-DEC-2009 10:46
Lab File ID: s311405.d Init. Cal. Date(s): 06-DEC-2009 08-DEC-2009
Analysis Type: Init. Cal. Times: 10:12 12:26
Lab Sample ID: WBN091201-08.3 Quant Type: ISTD
Method: /chem/MSD3.i/s121409.b/MSD3-8270R-AQA-120809.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
209 Benzaldehyde	0.96429	0.76615	0.76615	0.000	-20.54707	60.00000	Averaged
16 Acetophenone	1.33163	1.26461	1.26461	0.000	-5.03272	60.00000	Averaged
189 Caprolactam	0.09173	0.10207	0.10207	0.000	11.26353	60.00000	Averaged
208 1,1'-Biphenyl	1.21700	1.28019	1.28019	0.000	5.19180	60.00000	Averaged
207 Atrazine	0.04375	0.04803	0.04803	0.000	9.75993	60.00000	Averaged
77 Benzidine	22.20305	40.00000	0.10905	0.000	-44.49237	60.00000	Linear
90 3,3'-Dichlorobenzidine	0.27489	0.25068	0.25068	0.000	-8.80596	60.00000	Averaged
102 1,4-Dioxane	0.37765	0.44167	0.44167	0.000	16.95043	60.00000	Averaged
103 Methyl methacrylate	0.21438	0.26571	0.26571	0.000	23.94303	60.00000	Averaged
104 Ethyl methacrylate	0.84060	0.92909	0.92909	0.000	10.52685	60.00000	Averaged
105 2-Picoline	1.36059	1.20036	1.20036	0.000	-11.77648	60.00000	Averaged
106 N-Nitrosomethylethylamine	0.54734	0.51567	0.51567	0.000	-5.78605	60.00000	Averaged
107 Methyl methanesulfonate	0.57769	0.56265	0.56265	0.000	-2.60273	60.00000	Averaged
108 N-Nitrosodiethylamine	0.56251	0.53888	0.53888	0.000	-4.20079	60.00000	Averaged
109 Ethyl Methanesulfonate	0.74348	0.81022	0.81022	0.000	8.97600	60.00000	Averaged
110 Pentachloroethane	0.31184	0.42476	0.42476	0.000	36.20893	60.00000	Averaged
111 N-Nitrosopyrrolidine	0.57216	0.56409	0.56409	0.000	-1.41064	60.00000	Averaged
113 N-Nitrosomorpholine	0.68237	0.62028	0.62028	0.000	-9.09927	60.00000	Averaged
114 o-Toluidine	1.81766	1.74921	1.74921	0.000	-3.76585	60.00000	Averaged
115 N-Nitrosopiperidine	0.15407	0.14861	0.14861	0.000	-3.54470	60.00000	Averaged
116 a,a-Dimethylphenethylamine	0.80710	0.60088	0.60088	0.000	-25.55095	60.00000	Averaged
118 2,6-Dichlorophenol	0.22077	0.22722	0.22722	0.000	2.92392	60.00000	Averaged
119 Hexachloropropene	0.10907	0.14006	0.14006	0.000	28.40413	60.00000	Averaged
120 p-Phenylenediamine	0.23642	0.19191	0.19191	0.000	-18.82647	60.00000	Averaged
121 N-Nitrosodi-n-butylamine	0.24128	0.24195	0.24195	0.000	0.27759	60.00000	Averaged
122 Safrole	0.20022	0.23400	0.23400	0.000	16.87204	60.00000	Averaged
123 1,2,4,5-Tetrachlorobenzene	0.44036	0.46279	0.46279	0.000	5.09346	60.00000	Averaged
124 Isosafrole	0.34861	0.46970	0.46970	0.000	34.73505	60.00000	Averaged
125 1,4-Naphthoquinone	0.30537	0.37749	0.37749	0.000	23.61706	60.00000	Averaged
127 Pentachlorobenzene	0.38598	0.39483	0.39483	0.000	2.29321	60.00000	Averaged
128 1-Naphthylamine	0.91301	0.85238	0.85238	0.000	-6.64101	60.00000	Averaged
129 2-Naphthylamine	0.99339	1.02812	1.02812	0.000	3.49669	60.00000	Averaged
131 5-Nitro-o-toluidine	0.29359	0.30314	0.30314	0.000	3.25184	60.00000	Averaged
136 1,3,5-Trinitrobenzene	0.14119	0.17206	0.17206	0.000	21.86813	60.00000	Averaged
137 Phenacetin	0.30819	0.30452	0.30452	0.000	-1.18934	60.00000	Averaged
138 Diallate	0.29433	0.25122	0.25122	0.000	-14.64736	60.00000	Averaged

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD3.i
Lab File ID: s311405.d
Analysis Type:
Lab Sample ID: WBN091201-08.3
Method: /chem/MSD3.i/s121409.b/MSD3-8270R-AQA-120809.m

Injection Date: 14-DEC-2009 10:46
Init. Cal. Date(s): 06-DEC-2009 08-DEC-2009
Init. Cal. Times: 10:12 12:26
Quant Type: ISTD

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
140 4-Aminobiphenyl	0.62917	0.49807	0.49807	0.000	-20.83803	60.00000	Averaged
141 Pentachloronitrobenzene	0.07114	0.06598	0.06598	0.000	-7.26102	60.00000	Averaged
142 Pronamide	0.28257	0.28469	0.28469	0.000	0.74924	60.00000	Averaged
146 4-Nitroquinoline-1-oxide	0.02686	0.01660	0.01660	0.000	-38.20582	60.00000	Averaged
147 Methapyrilene	0.41060	0.36112	0.36112	0.000	-12.05235	60.00000	Averaged
148 Isodrin	0.11051	0.09367	0.09367	0.000	-15.24164	60.00000	Averaged
149 Aramite	0.05092	0.04694	0.04694	0.000	-7.81938	60.00000	Averaged
150 Kepone	0.07689	0.07176	0.07176	0.000	-6.66538	60.00000	Averaged
151 p-(Dimethylamino)azobenzene	0.32461	0.32965	0.32965	0.000	1.55281	60.00000	Averaged
152 Chlorobenzilate	0.30328	0.30003	0.30003	0.000	-1.07094	60.00000	Averaged
153 3,3'-Dimethylbenzidine	0.46065	0.35011	0.35011	0.000	-23.99575	60.00000	Averaged
155 2-Acetylaminofluorene	0.31745	0.32808	0.32808	0.000	3.34843	60.00000	Averaged
157 7,12Dimethylbenz(a)anthrace	0.51543	0.50042	0.50042	0.000	-2.91218	60.00000	Averaged
158 3-Methylcholanthrene	0.41499	0.45123	0.45123	0.000	8.73381	60.00000	Averaged
212 Cis Diallate	0.29308	0.33623	0.33623	0.000	14.72503	60.00000	Averaged
213 Trans Diallate	0.34627	0.29555	0.29555	0.000	-14.64736	60.00000	Averaged

GEL Laboratories LLC

Data file : /chem/MSD3.i/s121409.b/s311405.d
Lab Smp Id: WBN091201-08.3 Client Smp ID: APCVS
Inj Date : 14-DEC-2009 10:46
Operator : JLD1 Inst ID: MSD3.i
Smp Info : |WBN091201-08.3|40PPM|1|SVMF|1|APCVS
Misc Info : |MSD8270|WBN091208-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD3.i/s121409.b/MSD3-8270R-AQA-120809.m
Meth Date : 14-Dec-2009 16:59 jen00986 Quant Type: ISTD
Cal Date : 07-DEC-2009 19:48 Cal File: s310717.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AP12.sub
Target Version: 3.50
Processing Host: hpclp1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	4.268	4.268	(1.000)	142730	40.0000	
* 29 Naphthalene-d8	136	5.518	5.518	(1.000)	540588	40.0000	
* 46 Acenaphthene-d10	164	7.365	7.365	(1.000)	303218	40.0000	
* 67 Phenanthrene-d10	188	8.960	8.960	(1.000)	525704	40.0000	
* 91 Chrysene-d12	240	11.813	11.813	(1.000)	436961	40.0000	
* 98 Perylene-d12	264	13.788	13.788	(1.000)	338588	40.0000	
209 Benzaldehyde	77	3.881	3.881	(0.909)	109353	40.0000	31.8
16 Acetophenone	105	4.651	4.651	(1.090)	180498	40.0000	38.0
189 Caprolactam	113	5.961	5.961	(1.080)	55176	40.0000	44.5
208 1,1'-Biphenyl	154	6.755	6.755	(0.917)	388176	40.0000	42.1
207 Atrazine	173	8.658	8.658	(0.966)	25247	40.0000	43.9
77 Benzidine	184	10.417	10.417	(0.882)	47651	40.0000	22.2
90 3,3'-Dichlorobenzidine	252	11.775	11.775	(0.997)	109539	40.0000	36.5
102 1,4-Dioxane	88	2.015	2.015	(0.472)	63039	40.0000	46.8(H)
103 Methyl methacrylate	100	2.015	2.015	(0.472)	37925	40.0000	49.6(H)
104 Ethyl methacrylate	69	2.492	2.492	(0.584)	132609	40.0000	44.2
105 2-Picoline	93	2.730	2.730	(0.640)	171328	40.0000	35.3
106 N-Nitrosomethylethylamine	88	2.806	2.806	(0.658)	73602	40.0000	37.7
107 Methyl methanesulfonate	80	3.034	3.034	(0.711)	80307	40.0000	39.0
108 N-Nitrosodiethylamine	102	3.339	3.339	(0.782)	76915	40.0000	38.3
109 Ethyl Methanesulfonate	79	3.585	3.585	(0.840)	115642	40.0000	43.6
110 Pentachloroethane	167	4.013	4.013	(0.940)	60626	40.0000	54.5
111 N-Nitrosopyrrolidine	100	4.640	4.640	(1.087)	80512	40.0000	39.4
113 N-Nitrosomorpholine	56	4.675	4.675	(1.095)	88533	40.0000	36.4
114 o-Toluidine	106	4.689	4.689	(1.099)	249665	40.0000	38.5(H)
115 N-Nitrosopiperidine	114	4.968	4.968	(0.900)	80338	40.0000	38.6

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
116 a,a-Dimethylphenethylamine	58	5.334	5.334	(0.967)	324828	40.0000	29.8
118 2,6-Dichlorophenol	162	5.609	5.609	(1.016)	122833	40.0000	41.2
119 Hexachloropropene	213	5.627	5.627	(1.020)	75713	40.0000	51.4
120 p-Phenylenediamine	108	5.982	5.982	(1.084)	103745	40.0000	32.5
121 N-Nitrosodi-n-butylamine	84	5.938	5.938	(1.076)	130794	40.0000	40.1(TH)
122 Safrole	162	6.163	6.163	(1.117)	126498	40.0000	46.7
123 1,2,4,5-Tetrachlorobenzene	216	6.430	6.430	(0.873)	140326	40.0000	42.0
124 Isosafrole	162	6.717	6.717	(0.912)	142421	40.0000	53.9
125 1,4-Naphthoquinone	158	6.969	6.969	(0.946)	114461	40.0000	49.4
127 Pentachlorobenzene	250	7.538	7.538	(1.023)	119719	40.0000	40.9
128 1-Naphthylamine	143	7.673	7.673	(1.042)	258457	40.0000	37.3
129 2-Naphthylamine	143	7.761	7.761	(1.054)	311746	40.0000	41.4
131 5-Nitro-o-toluidine	152	7.975	7.975	(1.083)	91918	40.0000	41.3
136 1,3,5-Trinitrobenzene	75	8.385	8.385	(0.936)	90453	40.0000	48.7
137 Phenacetin	108	8.429	8.429	(0.941)	160090	40.0000	39.5
138 Diallate	86	8.376	8.376	(0.935)	132065	40.0000	34.1
140 4-Aminobiphenyl	169	8.767	8.767	(0.978)	261835	40.0000	31.7
141 Pentachloronitrobenzene	237	8.764	8.764	(0.978)	34684	40.0000	37.1
142 Pronamide	173	8.817	8.817	(0.984)	149663	40.0000	40.3
146 4-Nitroquinoline-1-oxide	101	9.819	9.819	(1.096)	8727	40.0000	24.7(H)
147 Methapyrilene	58	9.886	9.886	(1.103)	189840	40.0000	35.2
148 Isodrin	193	10.088	10.088	(1.126)	49242	40.0000	33.9
149 Aramite	185	10.634	10.634	(1.187)	24676	40.0000	36.9
150 Kepone	272	11.223	11.223	(1.253)	37727	40.0000	37.3
151 p-(Dimethylamino)azobenzene	120	10.816	10.816	(0.916)	144046	40.0000	40.6(H)
152 Chlorobenzilate	251	10.863	10.863	(0.920)	131102	40.0000	39.6
153 3,3'-Dimethylbenzidine	212	11.182	11.182	(0.947)	152985	40.0000	30.4
155 2-Acetylaminofluorene	181	11.455	11.455	(0.970)	143359	40.0000	41.3
157 7,12Dimethylbenz(a)anthracene	256	13.193	13.193	(0.957)	169435	40.0000	38.8
158 3-Methylcholanthrene	268	14.242	14.242	(1.033)	152782	40.0000	43.5
212 Cis Diallate	86	8.473	8.473	(0.946)	26514	6.00000	6.9
213 Trans Diallate	86	8.376	8.376	(0.935)	132065	34.0000	29.0

QC Flag Legend

T - Target compound detected outside RT window.
H - Operator selected an alternate compound hit.

Data File: /chem/MSD3.i/s121409.b/s311405.d

Date : 14-DEC-2009 10:46

Client ID: APCVS

Sample Info: !WBN091201-08.3140PPM!1!SVMF!1!APCVS

Column phase: J&W DB-5MS

Instrument: MSD3.i

Operator: JLD1

Column diameter: 0.20

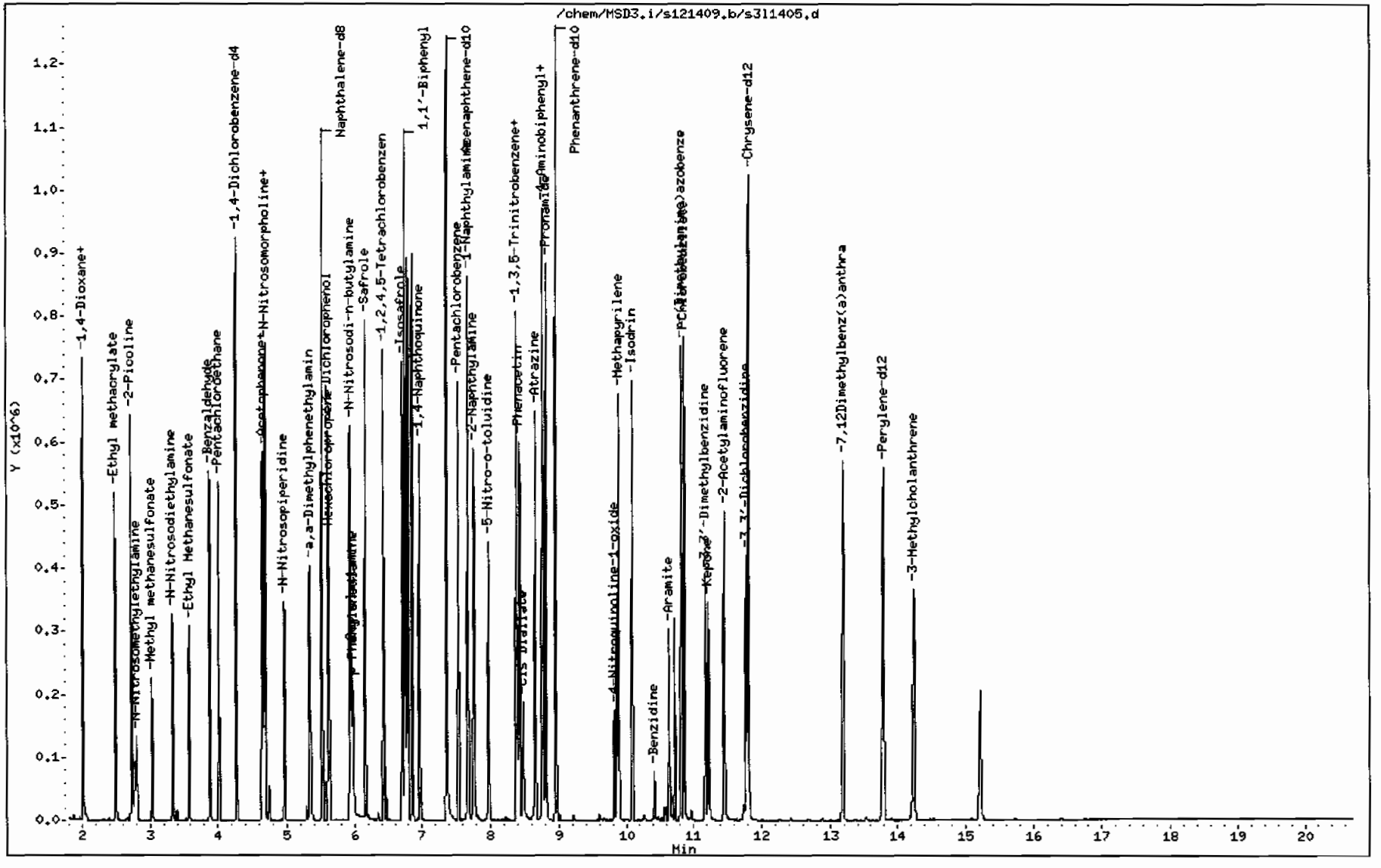

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD3.i Injection Date: 15-DEC-2009 08:16
Lab File ID: s311502.d Init. Cal. Date(s): 06-DEC-2009 08-DEC-2009
Analysis Type: Init. Cal. Times: 10:12 12:26
Lab Sample ID: WBN091201-17.2 Quant Type: ISTD
Method: /chem/MSD3.i/s121509.b/MSD3-8270R-AQA-120809.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
$ 3 2-Fluorophenol	1.04626	1.09920	1.09920	0.000	5.05940	60.00000	Averaged
$ 5 Phenol-d5	1.33296	1.39281	1.39281	0.000	4.49031	60.00000	Averaged
$ 20 Nitrobenzene-d5	0.29235	0.32681	0.32681	0.000	11.78915	60.00000	Averaged
$ 39 2-Fluorobiphenyl	0.93759	1.16648	1.16648	0.000	24.41280	60.00000	Averaged
$ 60 2,4,6-Tribromophenol	0.10984	0.13991	0.13991	0.000	27.37304	60.00000	Averaged
$ 81 p-Terphenyl-d14	0.64244	0.77141	0.77141	0.000	20.07602	60.00000	Averaged
1 N-Methyl-N-nitrosomethylami	0.67245	0.68409	0.68409	0.000	1.73204	60.00000	Averaged
2 Pyridine	1.09150	0.79446	0.79446	0.000	-27.21378	60.00000	Averaged
4 Aniline	0.55794	0.52027	0.52027	0.000	-6.75032	60.00000	Averaged
6 Phenol	1.38856	1.39005	1.39005	0.001	0.10742	20.00000	Averaged ccc
7 bis(2-Chloroethyl) ether	33.77803	40.00000	0.74141	0.000	-15.55492	60.00000	Linear
8 2-Chlorophenol	1.07117	1.16593	1.16593	0.000	8.84681	60.00000	Averaged
203 n-Decane	1.09536	1.04154	1.04154	0.000	-4.91267	60.00000	Averaged
9 1,3-Dichlorobenzene	1.23726	1.28186	1.28186	0.000	3.60435	60.00000	Averaged
11 1,4-Dichlorobenzene	1.25267	1.28944	1.28944	0.001	2.93484	20.00000	Averaged ccc
13 1,2-Dichlorobenzene	1.18843	1.22296	1.22296	0.000	2.90612	60.00000	Averaged
14 bis(2-Chloroisopropyl)ether	1.67844	1.33621	1.33621	0.000	-20.39009	60.00000	Averaged
12 Benzyl alcohol	0.68288	0.72634	0.72634	0.000	6.36366	60.00000	Averaged
15 o-Cresol	0.89111	0.90219	0.90219	0.000	1.24366	60.00000	Averaged
18 m,p-Cresols	1.08247	1.18664	1.18664	0.000	9.62262	60.00000	Averaged
17 N-Nitrosodipropylamine	0.86839	0.82756	0.82756	0.050	-4.70175	60.00000	Averaged spcc
19 Hexachloroethane	0.47182	0.46442	0.46442	0.000	-1.56857	60.00000	Averaged
21 Nitrobenzene	0.33969	0.32426	0.32426	0.000	-4.54129	60.00000	Averaged
22 Isophorone	0.54661	0.58962	0.58962	0.000	7.86961	60.00000	Averaged
23 2-Nitrophenol	0.14291	0.14886	0.14886	0.001	4.15725	20.00000	Averaged ccc
24 2,4-Dimethylphenol	0.25541	0.26672	0.26672	0.000	4.43149	60.00000	Averaged
25 bis(2-Chloroethoxy)methane	0.37883	0.34063	0.34063	0.000	-10.08430	60.00000	Averaged
26 2,4-Dichlorophenol	0.22061	0.22920	0.22920	0.001	3.89199	20.00000	Averaged ccc
27 Benzoic acid	49.93480	40.00000	0.14535	0.000	24.83700	60.00000	Linear
28 1,2,4-Trichlorobenzene	0.25228	0.26098	0.26098	0.000	3.44877	60.00000	Averaged
30 Naphthalene	47.88725	40.00000	0.97454	0.000	19.71812	60.00000	Wt Linear
204 alpha-Terpineol	0.20029	0.20624	0.20624	0.000	2.96675	60.00000	Averaged
31 4-Chloroaniline	0.26741	0.25764	0.25764	0.000	-3.65194	60.00000	Averaged
32 Hexachlorobutadiene	0.15474	0.14031	0.14031	0.001	-9.32517	20.00000	Averaged ccc
33 4-Chloro-3-methylphenol	0.24248	0.26105	0.26105	0.001	7.65912	20.00000	Averaged ccc
34 2-Methylnaphthalene	0.57399	0.66730	0.66730	0.000	16.25562	60.00000	Averaged

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD3.i Injection Date: 15-DEC-2009 08:16
Lab File ID: s311502.d Init. Cal. Date(s): 06-DEC-2009 08-DEC-2009
Analysis Type: Init. Cal. Times: 10:12 12:26
Lab Sample ID: WBN091201-17.2 Quant Type: ISTD
Method: /chem/MSD3.i/s121509.b/MSD3-8270R-AQA-120809.m

	COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
35	1-Methylnaphthalene	0.51209	0.63036	0.63036	0.000	23.09728	60.00000	Averaged	
36	Hexachlorocyclopentadiene	0.11464	0.17307	0.17307	0.050	50.96742	60.00000	Averaged	spcc
205	2,3-Dichloroaniline	0.45038	0.52456	0.52456	0.000	16.46895	60.00000	Averaged	
37	2,4,6-Trichlorophenol	0.26952	0.30773	0.30773	0.001	14.17486	20.00000	Averaged	ccc
38	2,4,5-Trichlorophenol	0.29699	0.33630	0.33630	0.000	13.23395	60.00000	Averaged	
40	2-Chloronaphthalene	0.99133	0.95576	0.95576	0.000	-3.58812	60.00000	Averaged	
42	o-Nitroaniline	0.33246	0.29606	0.29606	0.000	-10.94953	60.00000	Averaged	
41	m-Nitroaniline	26.36332	40.00000	0.12248	0.000	-34.09171	60.00000	Linear	
43	Dimethylphthalate	1.03853	1.15573	1.15573	0.000	11.28487	60.00000	Averaged	
44	2,6-Dinitrotoluene	0.26099	0.26356	0.26356	0.000	0.98670	60.00000	Averaged	
50	2,4-Dinitrotoluene	0.33455	0.34439	0.34439	0.000	2.94068	60.00000	Averaged	
45	Acenaphthylene	1.53207	1.77196	1.77196	0.000	15.65824	60.00000	Averaged	
47	Acenaphthene	0.95069	1.06252	1.06252	0.001	11.76348	20.00000	Averaged	ccc
48	2,4-Dinitrophenol	48.11432	40.00000	0.10834	0.050	20.28581	60.00000	Linear	spcc
49	Dibenzofuran	1.30612	1.34927	1.34927	0.000	3.30386	60.00000	Averaged	
51	Diethylphthalate	1.03172	1.16058	1.16058	0.000	12.48951	60.00000	Averaged	
52	4-Nitrophenol	45.65182	40.00000	0.17569	0.050	14.12954	60.00000	Linear	spcc
53	Fluorene	1.13622	1.27475	1.27475	0.000	12.19184	60.00000	Averaged	
54	4-Chlorophenylphenylether	0.49131	0.55080	0.55080	0.000	12.10830	60.00000	Averaged	
55	2-Methyl-4,6-dinitrophenol	49.21580	40.00000	0.11805	0.000	23.03949	60.00000	Linear	
56	p-Nitroaniline	25.21343	40.00000	0.09423	0.000	-36.96642	60.00000	Linear	
133	Diphenylamine	0.51728	0.46072	0.46072	0.001	-10.93412	20.00000	Averaged	ccc
58	1,2-Diphenylhydrazine	0.77099	0.69098	0.69098	0.000	-10.37805	60.00000	Averaged	
61	4-Bromophenylphenylether	0.14948	0.17378	0.17378	0.000	16.25756	60.00000	Averaged	
63	Hexachlorobenzene	0.17899	0.18583	0.18583	0.000	3.81868	60.00000	Averaged	
65	Pentachlorophenol	41.94264	40.00000	0.09689	0.001	4.85660	20.00000	Linear	ccc
206	n-Octadecane	0.45303	0.44850	0.44850	0.000	-0.99958	60.00000	Averaged	
68	Phenanthrene	0.95465	1.00449	1.00449	0.000	5.22028	60.00000	Averaged	
69	Anthracene	0.97123	1.01857	1.01857	0.000	4.87400	60.00000	Averaged	
72	Di-n-butylphthalate	1.02595	1.18322	1.18322	0.000	15.32916	60.00000	Averaged	
76	Fluoranthene	0.94500	1.00195	1.00195	0.001	6.02600	20.00000	Averaged	ccc
79	Pyrene	1.11852	1.29532	1.29532	0.000	15.80649	60.00000	Averaged	
85	Butylbenzylphthalate	0.52498	0.60086	0.60086	0.000	14.45413	60.00000	Averaged	
89	Benzo(a)anthracene	0.96306	1.03670	1.03670	0.000	7.64701	60.00000	Averaged	
92	Chrysene	0.89432	0.95106	0.95106	0.000	6.34457	60.00000	Averaged	
93	bis(2-Ethylhexyl)phthalate	0.69950	0.85532	0.85532	0.000	22.27517	60.00000	Averaged	

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD3.i Injection Date: 15-DEC-2009 08:16
Lab File ID: s311502.d Init. Cal. Date(s): 06-DEC-2009 08-DEC-2009
Analysis Type: Init. Cal. Times: 10:12 12:26
Lab Sample ID: WBN091201-17.2 Quant Type: ISTD
Method: /chem/MSD3.i/s121509.b/MSD3-8270R-AQA-120809.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
94 Di-n-octylphthalate	1.47710	1.62174	1.62174	0.001	9.79280	20.00000	Averaged	ccc
95 Benzo(b)fluoranthene	1.05660	1.14507	1.14507	0.000	8.37277	60.00000	Averaged	
96 Benzo(k)fluoranthene	0.99905	1.09342	1.09342	0.000	9.44661	60.00000	Averaged	
97 Benzo(a)pyrene	0.86919	1.01173	1.01173	0.001	16.39951	20.00000	Averaged	ccc
99 Indeno(1,2,3-cd)pyrene	0.76472	0.97128	0.97128	0.000	27.01179	60.00000	Averaged	
100 Dibenzo(a,h)anthracene	0.64640	0.79052	0.79052	0.000	22.29643	60.00000	Averaged	
101 Benzo(ghi)perylene	0.64348	0.81701	0.81701	0.000	26.96769	60.00000	Averaged	
126 m-Dinitrobenzene	0.18165	0.18325	0.18325	0.000	0.87925	60.00000	Averaged	
130 2,3,4,6-Tetrachlorophenol	0.21489	0.25633	0.25633	0.000	19.28350	60.00000	Averaged	
143 Dinoseb	42.77001	40.00000	0.12840	0.000	6.92502	60.00000	Linear	
173 Carbazole	23.28020	40.00000	0.37502	0.000	-41.79949	60.00000	Linear	
184 p-Benzoquinone	53.89176	40.00000	0.07534	0.000	34.72941	60.00000	Linear	
192 Methoxychlor	0.47514	0.60660	0.60660	0.000	27.66795	60.00000	Averaged	
211 p-Toluidine	0.50316	0.77368	0.77368	0.000	53.76390	60.00000	Averaged	
210 m-Toluidine	0.77001	1.11835	1.11835	0.000	45.23903	60.00000	Averaged	
26 Phthalic anhydride	0.10419	0.12655	0.12655	0.000	21.46233	60.00000	Averaged	
179 Dibenzo(a,e)pyrene	0.29273	0.32161	0.32161	0.000	9.86443	60.00000	Averaged	
214 1,4-Dinitrobenzene	0.20234	0.19271	0.19271	0.000	-4.76040	60.00000	Averaged	
215 2-Ethoxyethanol	0.61024	0.56829	0.56829	0.000	-6.87532	60.00000	Averaged	
216 Methylenebis(2-chloroanilin	31.41220	40.00000	0.08278	0.000	-21.46949	60.00000	Linear	
M 225 Trichlorophenols	0.28326	0.32201	0.32201	0.000	13.68159	60.00000	Averaged	
M 226 Tetrachlorophenols	0.21489	0.25633	0.25633	0.000	19.28350	60.00000	Averaged	
M 227 Benzo(b,k)fluoranthene	1.02783	1.11925	1.11925	0.000	8.89389	60.00000	Averaged	

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Data file : /chem/MSD3.i/s121509.b/s311502.d
Lab Smp Id: WBN091201-17.2 Client Smp ID: MEGACVS
Inj Date : 15-DEC-2009 08:16
Operator : JLD1 Inst ID: MSD3.i
Smp Info : |WBN091201-17.2|40PPM|1|SVMF|1|MEGACVS
Misc Info : |MSD8270|WBN091208-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD3.i/s121509.b/MSD3-8270R-AQA-120809.m
Meth Date : 15-Dec-2009 10:20 jen00986 Quant Type: ISTD
Cal Date : 07-DEC-2009 19:48 Cal File: s310717.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: MEGAII.sub
Target Version: 3.50
Processing Host: hpclp1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	4.256	4.256	(1.000)	126155	40.0000	
* 29 Naphthalene-d8	136	5.508	5.508	(1.000)	475346	40.0000	
* 46 Acenaphthene-d10	164	7.356	7.356	(1.000)	253476	40.0000	
* 67 Phenanthrene-d10	188	8.946	8.946	(1.000)	425192	40.0000	
* 91 Chrysene-d12	240	11.804	11.804	(1.000)	335852	40.0000	
* 98 Perylene-d12	264	13.769	13.769	(1.000)	268702	40.0000	
$ 3 2-Fluorophenol	112	3.143	3.143	(0.738)	138669	40.0000	42.0
$ 5 Phenol-d5	99	3.916	3.916	(0.920)	175710	40.0000	41.8
$ 20 Nitrobenzene-d5	82	4.793	4.793	(0.870)	155348	40.0000	44.7
$ 39 2-Fluorobiphenyl	172	6.632	6.632	(0.902)	295674	40.0000	49.8
$ 60 2,4,6-Tribromophenol	329	8.198	8.198	(1.114)	35464	40.0000	51.0
$ 81 p-Terphenyl-d14	244	10.649	10.649	(0.902)	259081	40.0000	48.0
1 N-Methyl-N-nitrosomethylamine	74	2.205	2.205	(0.518)	86302	40.0000	40.7
2 Pyridine	79	2.232	2.232	(0.524)	100225	40.0000	29.1
4 Aniline	66	3.966	3.966	(0.932)	65635	40.0000	37.3
6 Phenol	94	3.931	3.931	(0.924)	175362	40.0000	40.0
7 bis(2-Chloroethyl) ether	63	4.007	4.007	(0.941)	93533	40.0000	33.8
8 2-Chlorophenol	128	4.071	4.071	(0.957)	147088	40.0000	43.5
203 n-Decane	43	4.074	4.074	(0.957)	131396	40.0000	38.0
9 1,3-Dichlorobenzene	146	4.203	4.203	(0.988)	161713	40.0000	41.4
11 1,4-Dichlorobenzene	146	4.271	4.271	(1.003)	162669	40.0000	41.2
13 1,2-Dichlorobenzene	146	4.417	4.417	(1.038)	154283	40.0000	41.2
14 bis(2-Chloroisopropyl)ether	45	4.499	4.499	(1.057)	168569	40.0000	31.8
12 Benzyl alcohol	108	4.388	4.388	(1.031)	91631	40.0000	42.5
15 o-Cresol	107	4.485	4.485	(1.054)	113816	40.0000	40.5
18 m,p-Cresols	107	4.640	4.640	(1.090)	149700	40.0000	43.8

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	ON-COL (ng/ul)
17 N-Nitrosodipropylamine	70	4.634	4.634	(1.089)	104465	40.0000	38.1
19 Hexachloroethane	117	4.737	4.737	(1.113)	58589	40.0000	39.4
21 Nitrobenzene	77	4.810	4.810	(0.873)	154137	40.0000	38.2
22 Isophorone	82	5.042	5.042	(0.915)	280275	40.0000	43.1
23 2-Nitrophenol	139	5.121	5.121	(0.930)	70758	40.0000	41.7
24 2,4-Dimethylphenol	122	5.159	5.159	(0.937)	126786	40.0000	41.8
25 bis(2-Chloroethoxy)methane	93	5.250	5.250	(0.953)	161916	40.0000	36.0
26 2,4-Dichlorophenol	162	5.365	5.365	(0.974)	108948	40.0000	41.6
27 Benzoic acid	105	5.291	5.291	(0.961)	69093	40.0000	49.9
28 1,2,4-Trichlorobenzene	180	5.444	5.444	(0.988)	124056	40.0000	41.4
30 Naphthalene	128	5.532	5.532	(1.004)	463243	40.0000	47.9
204 alpha-Terpineol	59	5.532	5.532	(1.004)	98033	40.0000	41.2
31 4-Chloroaniline	127	5.591	5.591	(1.015)	122470	40.0000	38.5
32 Hexachlorobutadiene	225	5.646	5.646	(1.025)	66694	40.0000	36.3
33 4-Chloro-3-methylphenol	107	6.095	6.095	(1.106)	124090	40.0000	43.1
34 2-Methylnaphthalene	142	6.244	6.244	(1.134)	317199	40.0000	46.5
35 1-Methylnaphthalene	142	6.350	6.350	(1.153)	299641	40.0000	49.2
36 Hexachlorocyclopentadiene	237	6.403	6.403	(0.870)	43870	40.0000	60.4
205 2,3-Dichloroaniline	161	6.552	6.552	(0.891)	132963	40.0000	46.6
37 2,4,6-Trichlorophenol	196	6.546	6.546	(0.890)	78001	40.0000	45.7
38 2,4,5-Trichlorophenol	196	6.585	6.585	(0.895)	85243	40.0000	45.3
40 2-Chloronaphthalene	162	6.761	6.761	(0.919)	242263	40.0000	38.6
42 o-Nitroaniline	65	6.884	6.884	(0.936)	75044	40.0000	35.6
41 m-Nitroaniline	138	7.327	7.327	(0.996)	31047	40.0000	26.4
43 Dimethylphthalate	163	7.077	7.077	(0.962)	292949	40.0000	44.5
44 2,6-Dinitrotoluene	165	7.142	7.142	(0.971)	66807	40.0000	40.4
50 2,4-Dinitrotoluene	165	7.570	7.570	(1.029)	87295	40.0000	41.2
45 Acenaphthylene	152	7.207	7.207	(0.980)	449150	40.0000	46.3
47 Acenaphthene	154	7.391	7.391	(1.005)	269324	40.0000	44.7
48 2,4-Dinitrophenol	184	7.429	7.429	(1.010)	27461	40.0000	48.1
49 Dibenzofuran	168	7.573	7.573	(1.030)	342008	40.0000	41.3
51 Diethylphthalate	149	7.820	7.820	(1.063)	294178	40.0000	45.0
52 4-Nitrophenol	139	7.517	7.517	(1.022)	44532	40.0000	45.6
53 Fluorene	166	7.940	7.940	(1.079)	323118	40.0000	44.9
54 4-Chlorophenylphenylether	204	7.937	7.937	(1.079)	139614	40.0000	44.8
55 2-Methyl-4,6-dinitrophenol	198	8.004	8.004	(0.895)	50195	40.0000	49.2
56 p-Nitroaniline	138	7.984	7.984	(1.085)	23885	40.0000	25.2
133 Diphenylamine	169	8.069	8.069	(0.902)	195895	40.0000	35.6
58 1,2-Diphenylhydrazine	77	8.107	8.107	(0.906)	293799	40.0000	35.8
61 4-Bromophenylphenylether	248	8.459	8.459	(0.946)	73891	40.0000	46.5
63 Hexachlorobenzene	284	8.523	8.523	(0.953)	79013	40.0000	41.5
65 Pentachlorophenol	266	8.743	8.743	(0.977)	41195	40.0000	41.9
206 n-Octadecane	57	8.805	8.805	(0.984)	190699	40.0000	39.6
68 Phenanthrene	178	8.972	8.972	(1.003)	427101	40.0000	42.1
69 Anthracene	178	9.025	9.025	(1.009)	433086	40.0000	41.9
72 Di-n-butylphthalate	149	9.562	9.562	(1.069)	503096	40.0000	46.1
76 Fluoranthene	202	10.244	10.244	(1.145)	426021	40.0000	42.4

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
79 Pyrene	202	10.491	10.491	(0.889)	435036	40.0000	46.3
85 Butylbenzylphthalate	149	11.171	11.171	(0.946)	201799	40.0000	45.8
89 Benzo(a)anthracene	228	11.787	11.787	(0.998)	348179	40.0000	43.0
92 Chrysene	228	11.834	11.834	(1.002)	319417	40.0000	42.5
93 bis(2-Ethylhexyl)phthalate	149	11.790	11.790	(0.999)	287260	40.0000	48.9
94 Di-n-octylphthalate	149	12.608	12.608	(0.916)	435766	40.0000	43.9
95 Benzo(b)fluoranthene	252	13.191	13.191	(0.958)	307683	40.0000	43.3
96 Benzo(k)fluoranthene	252	13.232	13.232	(0.961)	293805	40.0000	43.8
97 Benzo(a)pyrene	252	13.681	13.681	(0.994)	271854	40.0000	46.6
99 Indeno(1,2,3-cd)pyrene	276	15.504	15.504	(1.126)	260963	40.0000	50.8
100 Dibenzo(a,h)anthracene	278	15.536	15.536	(1.128)	212414	40.0000	48.9
101 Benzo(ghi)perylene	276	15.964	15.964	(1.159)	219533	40.0000	50.8
126 m-Dinitrobenzene	168	7.116	7.116	(0.967)	46450	40.0000	40.4
130 2,3,4,6-Tetrachlorophenol	232	7.705	7.705	(1.047)	64973	40.0000	47.7
143 Dinoseb	211	8.934	8.934	(0.999)	54596	40.0000	42.8
173 Carbazole	167	9.204	9.204	(1.029)	159455	40.0000	23.3
184 p-Benzoquinone	54	3.547	3.547	(0.833)	9504	40.0000	53.9
192 Methoxychlor	227	11.704	11.704	(0.992)	203729	40.0000	51.1
211 p-Toluidine	106	4.681	4.681	(1.100)	97603	40.0000	61.5
210 m-Toluidine	106	4.717	4.717	(1.108)	141086	40.0000	58.1
26 Phthalic anhydride	104	6.318	6.318	(1.147)	60157	40.0000	48.6
179 Dibenzo(a,e)pyrene	302	18.795	18.795	(1.365)	86416	40.0000	43.9
214 1,4-Dinitrobenzene	75	7.033	7.033	(0.956)	48848	40.0000	38.1
215 2-Ethoxyethanol	59	2.006	2.006	(0.471)	71692	40.0000	37.2
216 Methylenebis(2-chloroaniline)	231	11.763	11.763	(0.996)	27803	40.0000	31.4
M 225 Trichlorophenols	196				163244	80.0000	90.9
M 226 Tetrachlorophenols	232				64973	40.0000	47.7
M 227 Benzo(b,k)fluoranthene	252				601489	80.0000	87.1

Data File: /chem/MSD3.i/s121509.b/s311502.d

Date : 15-DEC-2009 08:16

Client ID: MEGACVS

Sample Info: IWBN091201-17,2|40PPM|1|SVMF|1|MEGACVS

Column phase: J&W DB-5MS

Instrument: MSD3.i

Operator: JLD1

Column diameter: 0.20

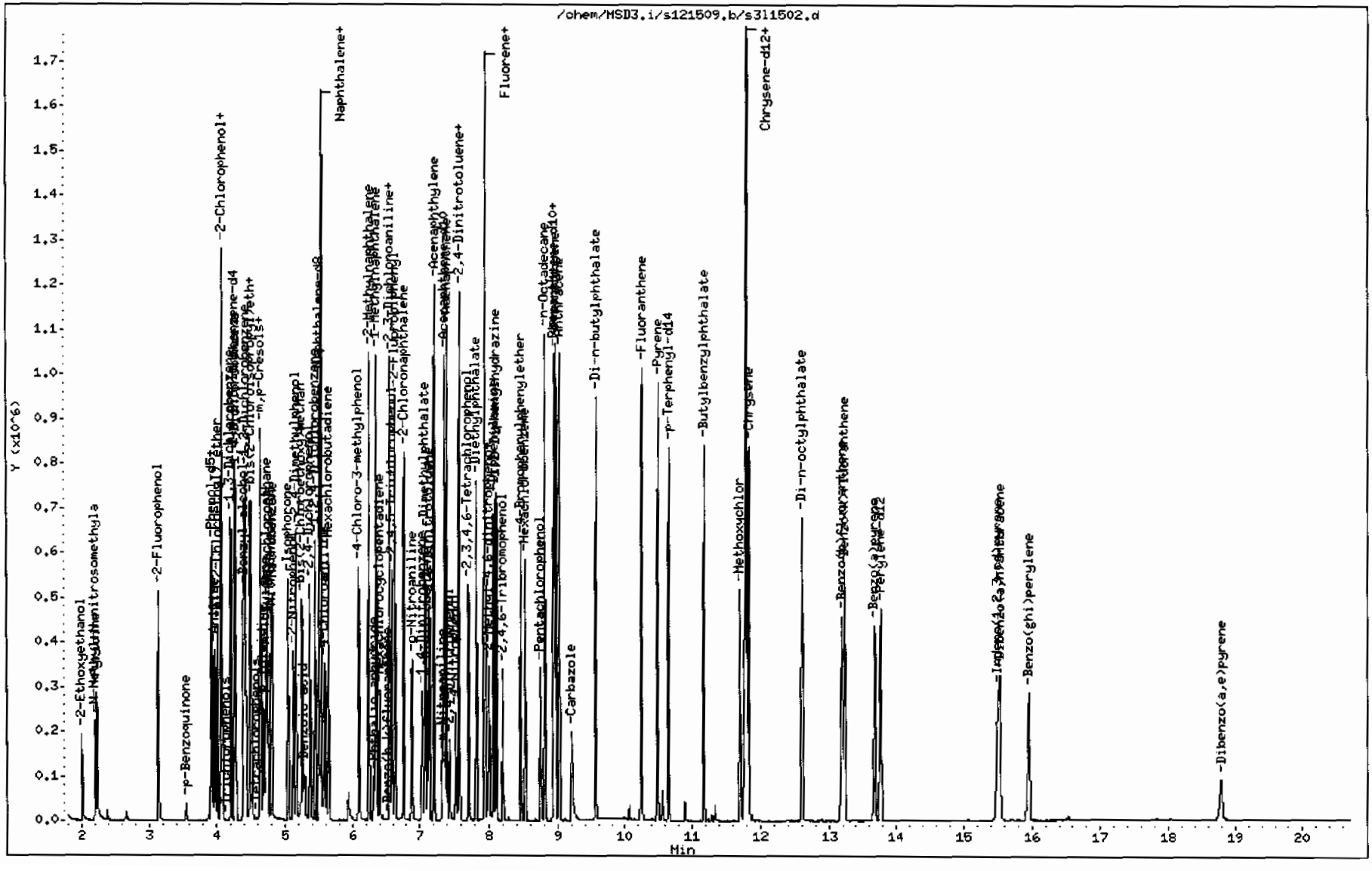

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD3.i Injection Date: 15-DEC-2009 08:44
Lab File ID: s311503.d Init. Cal. Date(s): 06-DEC-2009 08-DEC-2009
Analysis Type: Init. Cal. Times: 10:12 12:26
Lab Sample ID: WBN091201-08.4 Quant Type: ISTD
Method: /chem/MSD3.i/s121509.b/MSD3-8270R-AQA-120809.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
209 Benzaldehyde	0.96429	0.76051	0.76051	0.000	-21.13219	60.00000	Averaged
16 Acetophenone	1.33163	1.25342	1.25342	0.000	-5.87314	60.00000	Averaged
189 Caprolactam	0.09173	0.10029	0.10029	0.000	9.33118	60.00000	Averaged
208 1,1'-Biphenyl	1.21700	1.31029	1.31029	0.000	7.66513	60.00000	Averaged
207 Atrazine	0.04375	0.04691	0.04691	0.000	7.20409	60.00000	Averaged
77 Benzidine	20.39173	40.00000	0.09371	0.000	-49.02068	60.00000	Linear
90 3,3'-Dichlorobenzidine	0.27489	0.24431	0.24431	0.000	-11.12356	60.00000	Averaged
102 1,4-Dioxane	0.37765	0.46662	0.46662	0.000	23.55705	60.00000	Averaged
103 Methyl methacrylate	0.21438	0.28515	0.28515	0.000	33.00903	60.00000	Averaged
104 Ethyl methacrylate	0.84060	0.96112	0.96112	0.000	14.33675	60.00000	Averaged
105 2-Picoline	1.36059	1.23160	1.23160	0.000	-9.48103	60.00000	Averaged
106 N-Nitrosomethylethylamine	0.54734	0.51321	0.51321	0.000	-6.23617	60.00000	Averaged
107 Methyl methanesulfonate	0.57769	0.55735	0.55735	0.000	-3.52006	60.00000	Averaged
108 N-Nitrosodiethylamine	0.56251	0.54187	0.54187	0.000	-3.66945	60.00000	Averaged
109 Ethyl Methanesulfonate	0.74348	0.80263	0.80263	0.000	7.95639	60.00000	Averaged
110 Pentachloroethane	0.31184	0.43092	0.43092	0.000	38.18434	60.00000	Averaged
111 N-Nitrosopyrrolidine	0.57216	0.54066	0.54066	0.000	-5.50523	60.00000	Averaged
113 N-Nitrosomorpholine	0.68237	0.61273	0.61273	0.000	-10.20648	60.00000	Averaged
114 o-Toluidine	1.81766	1.73087	1.73087	0.000	-4.77509	60.00000	Averaged
115 N-Nitrosopiperidine	0.15407	0.14899	0.14899	0.000	-3.29648	60.00000	Averaged
116 a,a-Dimethylphenethylamine	0.80710	0.58397	0.58397	0.000	-27.64638	60.00000	Averaged
118 2,6-Dichlorophenol	0.22077	0.22537	0.22537	0.000	2.08619	60.00000	Averaged
119 Hexachloropropene	0.10907	0.14971	0.14971	0.000	37.25508	60.00000	Averaged
120 p-Phenylenediamine	0.23642	0.19399	0.19399	0.000	-17.94749	60.00000	Averaged
121 N-Nitrosodi-n-butylamine	0.24128	0.23333	0.23333	0.000	-3.29428	60.00000	Averaged
122 Safrole	0.20022	0.23690	0.23690	0.000	18.32246	60.00000	Averaged
123 1,2,4,5-Tetrachlorobenzene	0.44036	0.47124	0.47124	0.000	7.01363	60.00000	Averaged
124 Isosafrole	0.34861	0.46926	0.46926	0.000	34.60830	60.00000	Averaged
125 1,4-Naphthoquinone	0.30537	0.34759	0.34759	0.000	13.82490	60.00000	Averaged
127 Pentachlorobenzene	0.38598	0.39491	0.39491	0.000	2.31536	60.00000	Averaged
128 1-Naphthylamine	0.91301	0.93037	0.93037	0.000	1.90097	60.00000	Averaged
129 2-Naphthylamine	0.99339	0.97273	0.97273	0.000	-2.07960	60.00000	Averaged
131 5-Nitro-o-toluidine	0.29359	0.28479	0.28479	0.000	-2.99940	60.00000	Averaged
136 1,3,5-Trinitrobenzene	0.14119	0.15909	0.15909	0.000	12.68042	60.00000	Averaged
137 Phenacetin	0.30819	0.29366	0.29366	0.000	-4.71390	60.00000	Averaged
138 Diallate	0.29433	0.26051	0.26051	0.000	-11.48842	60.00000	Averaged

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD3.i
Lab File ID: s311503.d
Analysis Type:
Lab Sample ID: WBN091201-08.4
Method: /chem/MSD3.i/s121509.b/MSD3-8270R-AQA-120809.m

Injection Date: 15-DEC-2009 08:44
Init. Cal. Date(s): 06-DEC-2009 08-DEC-2009
Init. Cal. Times: 10:12 12:26
Quant Type: ISTD

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
140 4-Aminobiphenyl	0.62917	0.47387	0.47387	0.000	-24.68333	60.00000	Averaged
141 Pentachloronitrobenzene	0.07114	0.06829	0.06829	0.000	-4.01252	60.00000	Averaged
142 Pronamide	0.28257	0.29502	0.29502	0.000	4.40492	60.00000	Averaged
146 4-Nitroquinoline-1-oxide	0.02686	0.01600	0.01600	0.000	-40.44362	60.00000	Averaged
147 Methapyrilene	0.41060	0.33196	0.33196	0.000	-19.15396	60.00000	Averaged
148 Isodrin	0.11051	0.09690	0.09690	0.000	-12.31793	60.00000	Averaged
149 Aramite	0.05092	0.04623	0.04623	0.000	-9.22005	60.00000	Averaged
150 Kepone	0.07689	0.06915	0.06915	0.000	-10.06004	60.00000	Averaged
151 p-(Dimethylamino)azobenzene	0.32461	0.35600	0.35600	0.000	9.66799	60.00000	Averaged
152 Chlorobenzilate	0.30328	0.34779	0.34779	0.000	14.67648	60.00000	Averaged
153 3,3'-Dimethylbenzidine	0.46065	0.31311	0.31311	0.000	-32.02758	60.00000	Averaged
155 2-Acetylaminofluorene	0.31745	0.32001	0.32001	0.000	0.80678	60.00000	Averaged
157 7,12Dimethylbenz(a)anthrace	0.51543	0.49885	0.49885	0.000	-3.21586	60.00000	Averaged
158 3-Methylcholanthrene	0.41499	0.47138	0.47138	0.000	13.58776	60.00000	Averaged
212 Cis Diallate	0.29308	0.34256	0.34256	0.000	16.88485	60.00000	Averaged
213 Trans Diallate	0.34627	0.30649	0.30649	0.000	-11.48842	60.00000	Averaged

GEL Laboratories LLC

Data file : /chem/MSD3.i/s121509.b/s311503.d
Lab Smp Id: WBN091201-08.4 Client Smp ID: APCVS
Inj Date : 15-DEC-2009 08:44
Operator : JLD1 Inst ID: MSD3.i
Smp Info : |WBN091201-08.4|40PPM|1|SVMF|1|APCVS
Misc Info : |MSD8270|WBN091208-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD3.i/s121509.b/MSD3-8270R-AQA-120809.m
Meth Date : 15-Dec-2009 10:13 jen00986 Quant Type: ISTD
Cal Date : 07-DEC-2009 19:48 Cal File: s310717.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AP12.sub
Target Version: 3.50
Processing Host: hpclpl

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	4.253	4.253	(1.000)	135814	40.0000	
* 29 Naphthalene-d8	136	5.507	5.507	(1.000)	505414	40.0000	
* 46 Acenaphthene-d10	164	7.350	7.350	(1.000)	278628	40.0000	
* 67 Phenanthrene-d10	188	8.945	8.945	(1.000)	472767	40.0000	
* 91 Chrysene-d12	240	11.795	11.795	(1.000)	337514	40.0000	
* 98 Perylene-d12	264	13.761	13.761	(1.000)	270718	40.0000	
209 Benzaldehyde	77	3.869	3.869	(0.910)	103288	40.0000	31.5
16 Acetophenone	105	4.637	4.637	(1.090)	170232	40.0000	37.6
189 Caprolactam	113	5.952	5.952	(1.081)	50690	40.0000	43.7
208 1,1'-Biphenyl	154	6.741	6.741	(0.917)	365083	40.0000	43.1
207 Atrazine	173	8.646	8.646	(0.967)	22176	40.0000	42.9
77 Benzidine	184	10.402	10.402	(0.882)	31630	40.0000	20.4
90 3,3'-Dichlorobenzidine	252	11.760	11.760	(0.997)	82459	40.0000	35.6
102 1,4-Dioxane	88	2.006	2.006	(0.472)	63373	40.0000	49.4
103 Methyl methacrylate	100	2.006	2.006	(0.472)	38727	40.0000	53.2
104 Ethyl methacrylate	69	2.481	2.481	(0.583)	130533	40.0000	45.7
105 2-Picoline	93	2.721	2.721	(0.640)	167268	40.0000	36.2
106 N-Nitrosomethylethylamine	88	2.794	2.794	(0.657)	69701	40.0000	37.5
107 Methyl methanesulfonate	80	3.023	3.023	(0.711)	75696	40.0000	38.6
108 N-Nitrosodiethylamine	102	3.327	3.327	(0.782)	73594	40.0000	38.5
109 Ethyl Methanesulfonate	79	3.570	3.570	(0.840)	109009	40.0000	43.2
110 Pentachloroethane	167	4.001	4.001	(0.941)	58525	40.0000	55.3
111 N-Nitrosopyrrolidine	100	4.628	4.628	(1.088)	73429	40.0000	37.8
113 N-Nitrosomorpholine	56	4.663	4.663	(1.096)	83217	40.0000	35.9
114 o-Toluidine	106	4.675	4.675	(1.099)	235076	40.0000	38.1
115 N-Nitrosopiperidine	114	4.956	4.956	(0.900)	75304	40.0000	38.7

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
116 a,a-Dimethylphenethylamine	58	5.346	5.346	(0.971)	295145	40.0000	28.9
118 2,6-Dichlorophenol	162	5.595	5.595	(1.016)	113906	40.0000	40.8
119 Hexachloropropene	213	5.612	5.612	(1.019)	75666	40.0000	54.9
120 p-Phenylenediamine	108	5.967	5.967	(1.084)	98045	40.0000	32.8
121 N-Nitrosodi-n-butylamine	84	5.926	5.926	(1.076)	117928	40.0000	38.7(T)
122 Safrole	162	6.152	6.152	(1.117)	119735	40.0000	47.3
123 1,2,4,5-Tetrachlorobenzene	216	6.418	6.418	(0.873)	131302	40.0000	42.8
124 Isosafrole	162	6.702	6.702	(0.912)	130748	40.0000	53.8
125 1,4-Naphthoquinone	158	6.955	6.955	(0.946)	96847	40.0000	45.5
127 Pentachlorobenzene	250	7.523	7.523	(1.024)	110034	40.0000	40.9
128 1-Naphthylamine	143	7.661	7.661	(1.042)	259227	40.0000	40.8
129 2-Naphthylamine	143	7.746	7.746	(1.054)	271030	40.0000	39.2
131 5-Nitro-o-toluidine	152	7.963	7.963	(1.083)	79350	40.0000	38.8
136 1,3,5-Trinitrobenzene	75	8.376	8.376	(0.936)	75212	40.0000	45.1
137 Phenacetin	108	8.414	8.414	(0.941)	138834	40.0000	38.1
138 Diallate	86	8.364	8.364	(0.935)	123162	40.0000	35.4
140 4-Aminobiphenyl	169	8.752	8.752	(0.978)	224031	40.0000	30.1
141 Pentachloronitrobenzene	237	8.749	8.749	(0.978)	32284	40.0000	38.4
142 Pronamide	173	8.805	8.805	(0.984)	139476	40.0000	41.8
146 4-Nitroquinoline-1-oxide	101	9.804	9.804	(1.096)	7564	40.0000	23.8
147 Methapyrilene	58	9.874	9.874	(1.104)	156938	40.0000	32.3
148 Isodrin	193	10.074	10.074	(1.126)	45811	40.0000	35.1
149 Aramite	185	10.622	10.622	(1.187)	21854	40.0000	36.3
150 Kepone	272	11.208	11.208	(1.253)	32694	40.0000	36.0
151 p-(Dimethylamino)azobenzene	120	10.804	10.804	(0.916)	120154	40.0000	43.9
152 Chlorobenzilate	251	10.848	10.848	(0.920)	117384	40.0000	45.9
153 3,3'-Dimethylbenzidine	212	11.167	11.167	(0.947)	105680	40.0000	27.2
155 2-Acetylaminofluorene	181	11.437	11.437	(0.970)	108009	40.0000	40.3
157 7,12Dimethylbenz(a)anthracene	256	13.169	13.169	(0.957)	135048	40.0000	38.7
158 3-Methylcholanthrene	268	14.215	14.215	(1.033)	127610	40.0000	45.4
212 Cis Diallate	86	8.461	8.461	(0.946)	24293	6.00000	7.0
213 Trans Diallate	86	8.364	8.364	(0.935)	123162	34.0000	30.1

QC Flag Legend

T - Target compound detected outside RT window.

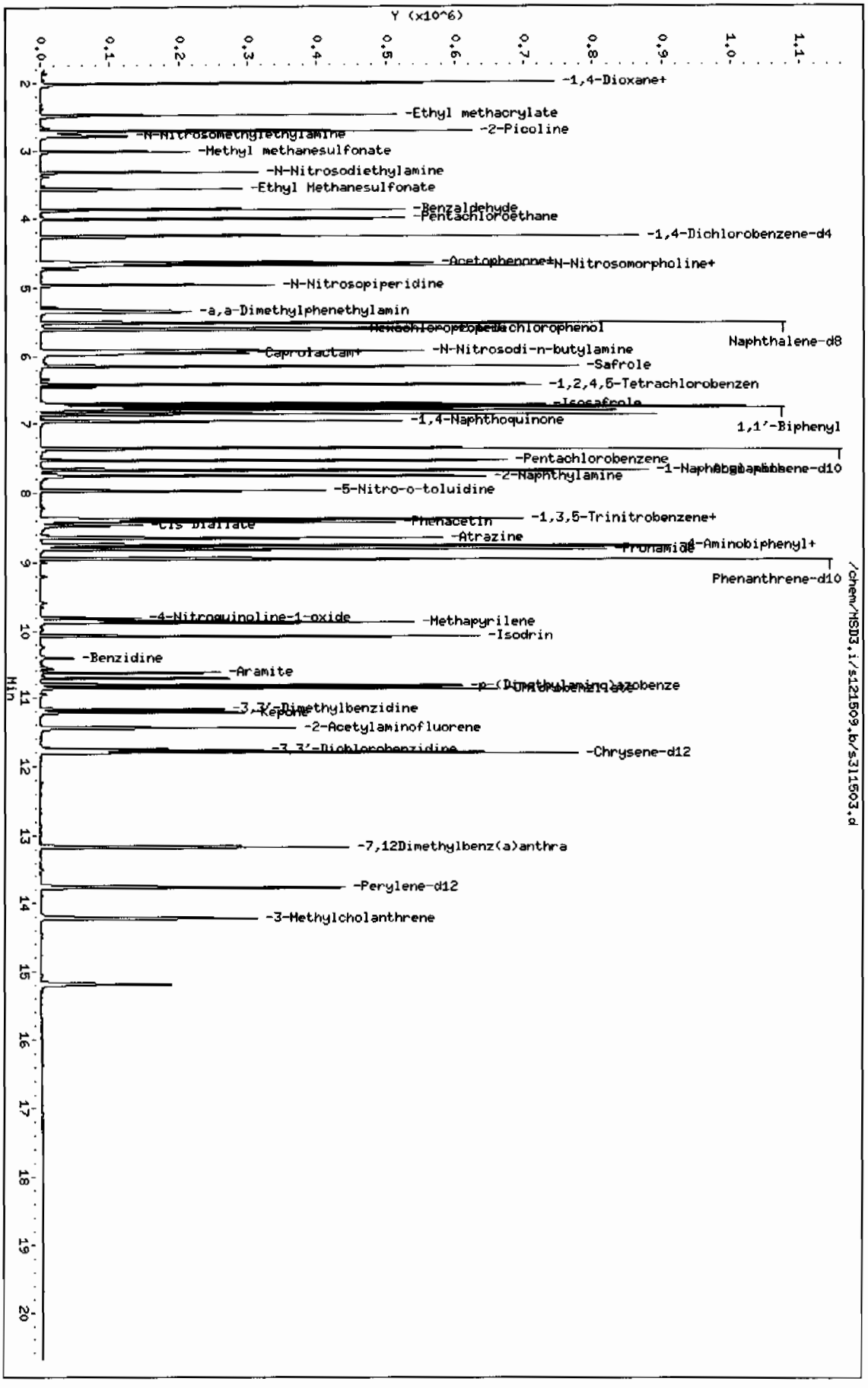
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Date : 15-DEC-2009 08:44
Client ID: APCVS
Sample Info: IWBN091201-08.4|40PPM|1|SVMF11|APCVS
Column phase: J&W DB-5MS
Instrument: MSD3.i
Operator: JLD1
Column diameter: 0.20
Page 1
Y (x10^6)
Min
-1,4-Dioxane+
-Ethyl methacrylate
-2-Picoline
-N-Nitrosomethylethylamine
-Methyl methanesulfonate
-N-Nitrosodiethylamine
-Ethyl Methanesulfonate
-Benzaldehyde
-Pentachloroethane
-1,4-Dichlorobenzene-d4
-Acetophenone+N-Nitrosomorpholine+
-N-Nitrosopiperidine
-a,a-Dimethylphenethylamin
Naphthalene-d8
-N-Nitrosodi-n-butylamine
-Caprolactam+
-Safrole
-1,2,4,5-Tetrachlorobenzen
-1,4-Naphthoquinone
1,1'-Biphenyl
-Pentachlorobenzene
-2-Naphthylamine
-5-Nitro-o-toluidine
-1,3,5-Trinitrobenzene+
-Phenacetin
-Atrazine
-4-Aminobiphenyl+
Phenanthrene-d10
-4-Nitroquinoline-1-oxide
-Methapyrilene
-Isodrin
-Benzidine
-Aramite
-2-Acetylaminofluorene
-Chrysene-d12
-7,12Dimethylbenz(a)anthra
-Perylene-d12
-3-Methylcholanthrene
/chem/MSD3.i/s121509.b/s311503.d

QC Data

Data File: /chem/MSD3.i/s120609.b/s310601.d

Date : 06-DEC-2009 09:33

Client ID: DFTPP

Instrument: MSD3.i

Sample Info: |WBN091128-01|DFTPP|1|SVM|1|DFTPP|

Operator: JLD1

Column phase: J&W DB-5MS

Column diameter: 0.20

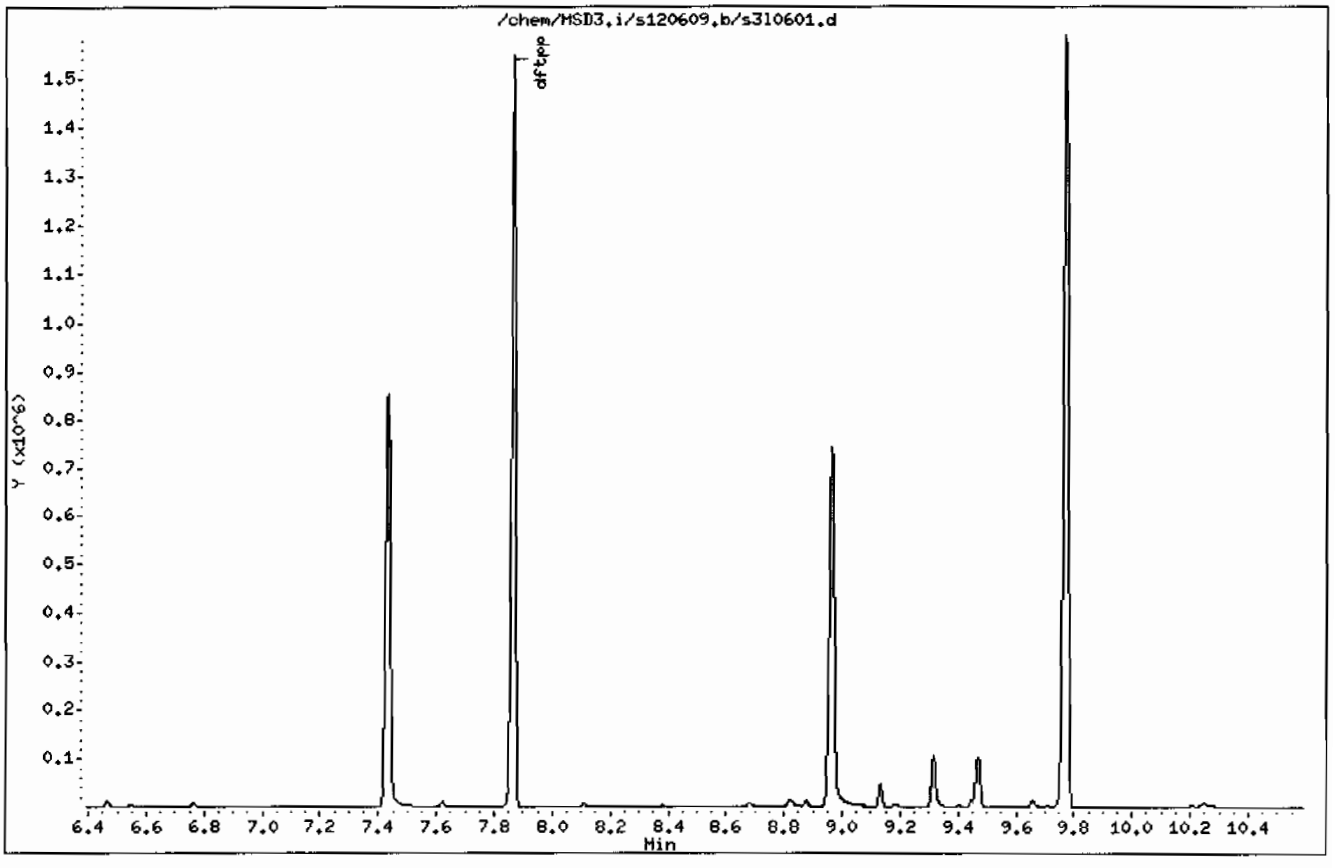

Data File: /chem/MSD3.i/s120609.b/s310601.d

Date : 06-DEC-2009 09:33

Client ID: DFTPP

Instrument: MSD3.i

Sample Info: |WBN091128-01|DFTPP|1|SVM|1|DFTPP|

Operator: JLD1

Column phase: J&W DB-5MS

Column diameter: 0.20

1 dftpp

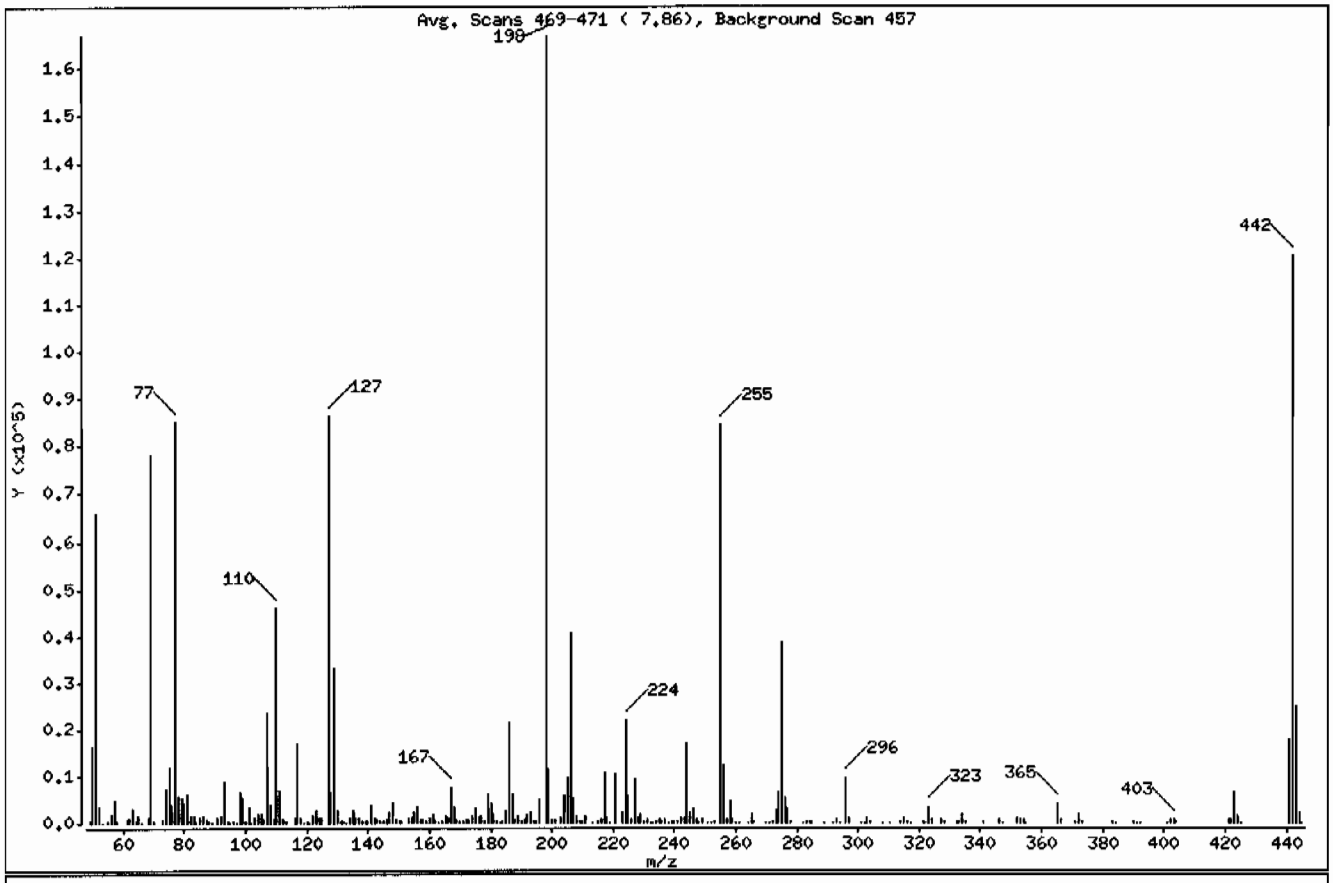

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	39.55
68	Less than 2.00% of mass 69	0.73 (1.56)
69	Mass 69 relative abundance	46.83
70	Less than 2.00% of mass 69	0.22 (0.47)
127	40.00 - 60.00% of mass 198	51.67
197	Less than 1.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.89
275	10.00 - 30.00% of mass 198	23.16
365	Greater than 1.00% of mass 198	2.62
441	Present, but less than mass 443	10.68
442	Greater than 40.00% of mass 198	72.12
443	17.00 - 23.00% of mass 442	14.87 (20.62)

Data File: /chem/MSD3.i/s120609.b/s310601.d

Date : 06-DEC-2009 09:33

Client ID: DFTPP

Instrument: MSD3.i

Sample Info: |WBN091128-01|DFTPP|1|SVM|1|DFTPP|

Operator: JLD1

Column phase: J&W DB-5MS

Column diameter: 0.20

Data File: s310601.d
Spectrum: Avg. Scans 469-471 (7.86), Background Scan 457
Location of Maximum: 198.00
Number of points: 267

m/z	Y	m/z	Y	m/z	Y	m/z	Y
49.00	454	125.00	1015	194.00	406	274.00	6545
50.00	16400	127.00	86224	195.00	257	275.00	38656
51.00	66008	128.00	6475	196.00	5080	276.00	5386
52.00	3339	129.00	33128	198.00	166848	277.00	2954
53.00	143	130.00	2817	199.00	11504	278.00	484
55.00	330	131.00	515	200.00	878	282.00	33
56.00	2047	132.00	252	201.00	812	283.00	382
57.00	4994	133.00	151	203.00	1107	284.00	216
58.00	208	134.00	975	204.00	5714	285.00	525
61.00	901	135.00	2608	205.00	9703	289.00	144
62.00	994	136.00	985	206.00	40568	292.00	124
63.00	2914	137.00	1296	207.00	5242	293.00	669
64.00	399	138.00	263	208.00	1364	294.00	164
65.00	1655	139.00	194	209.00	423	296.00	9510
66.00	143	140.00	398	210.00	468	297.00	1314
68.00	1222	141.00	3974	211.00	1601	301.00	79
69.00	78152	142.00	1335	213.00	34	302.00	171
70.00	369	143.00	875	215.00	409	303.00	1118
73.00	659	144.00	236	216.00	846	304.00	278
74.00	7372	145.00	205	217.00	10612	308.00	120
75.00	11947	146.00	711	218.00	1285	310.00	128
76.00	3932	147.00	2121	219.00	128	314.00	476
77.00	85096	148.00	4346	221.00	10259	315.00	1016
78.00	5733	149.00	876	223.00	2427	316.00	560
79.00	5475	150.00	227	224.00	21992	317.00	74
80.00	4318	151.00	528	225.00	5758	321.00	332
81.00	6073	153.00	1251	226.00	588	322.00	140
82.00	1476	154.00	969	227.00	9092	323.00	3381
83.00	1416	155.00	2164	228.00	1197	324.00	593
84.00	176	156.00	3395	229.00	1771	327.00	589
85.00	1001	157.00	622	230.00	264	328.00	329
86.00	1626	158.00	726	231.00	838	332.00	240
87.00	754	159.00	478	232.00	125	333.00	336
88.00	285	160.00	1207	233.00	159	334.00	2042
89.00	147	161.00	1974	234.00	540	335.00	501

Data File: /chem/MSD3.i/s120609.b/s310601.d

Date : 06-DEC-2009 09:33

Client ID: DFTPP

Instrument: MSD3.i

Sample Info: |WBN091128-01|DFTPP|1|SVM|1|DFTPP|

Operator: JLD1

Column phase: J&W DB-5MS

Column diameter: 0.20

Data File: s310601.d
Spectrum: Avg. Scans 469-471 (7.86), Background Scan 457
Location of Maximum: 198.00
Number of points: 267

m/z	Y	m/z	Y	m/z	Y	m/z	Y
91.00	1247	162.00	543	235.00	670	341.00	385
92.00	1521	163.00	159	236.00	404	346.00	659
93.00	8896	164.00	231	237.00	693	347.00	116
94.00	563	165.00	1473	238.00	35	352.00	974
95.00	149	166.00	1205	239.00	359	353.00	649
96.00	425	167.00	7680	240.00	266	354.00	942
97.00	108	168.00	3287	241.00	483	355.00	187
98.00	6638	169.00	605	242.00	1104	365.00	4374
99.00	5298	170.00	242	243.00	1209	366.00	632
100.00	495	171.00	296	244.00	16928	371.00	271
101.00	3283	172.00	718	245.00	2297	372.00	1774
102.00	160	173.00	917	246.00	3064	373.00	416
103.00	1060	174.00	1584	247.00	615	383.00	431
104.00	2104	175.00	3085	248.00	151	384.00	73
105.00	2041	176.00	1002	249.00	702	390.00	203
106.00	641	177.00	1531	251.00	147	391.00	152
107.00	23456	178.00	491	252.00	145	392.00	91
108.00	3844	179.00	6049	253.00	371	401.00	34
109.00	705	180.00	4046	255.00	84464	402.00	640
110.00	46008	181.00	1929	256.00	12330	403.00	955
111.00	7031	182.00	275	257.00	925	404.00	320
112.00	849	183.00	191	258.00	4732	421.00	880
113.00	287	184.00	437	259.00	740	422.00	803
116.00	1301	185.00	2808	260.00	136	423.00	6662
117.00	16872	186.00	21392	261.00	136	424.00	1444
118.00	1178	187.00	5960	264.00	170	425.00	135
119.00	174	188.00	606	265.00	1761	441.00	17832
120.00	304	189.00	1353	266.00	331	442.00	120360
121.00	69	190.00	216	270.00	36	443.00	24816
122.00	1603	191.00	683	271.00	179	444.00	2317
123.00	2530	192.00	1821	272.00	226	445.00	121
124.00	1051	193.00	2133	273.00	2531		

Data File: /chem/MSD3.i/s120809.b/s310801.d

Date : 08-DEC-2009 09:03

Client ID: DFTPP

Instrument: MSD3.i

Sample Info: |WBN091128-01|DFTPP|1|SVMI1|DFTPP|

Operator: JLD1

Column phase: J&W DB-5MS

Column diameter: 0.20

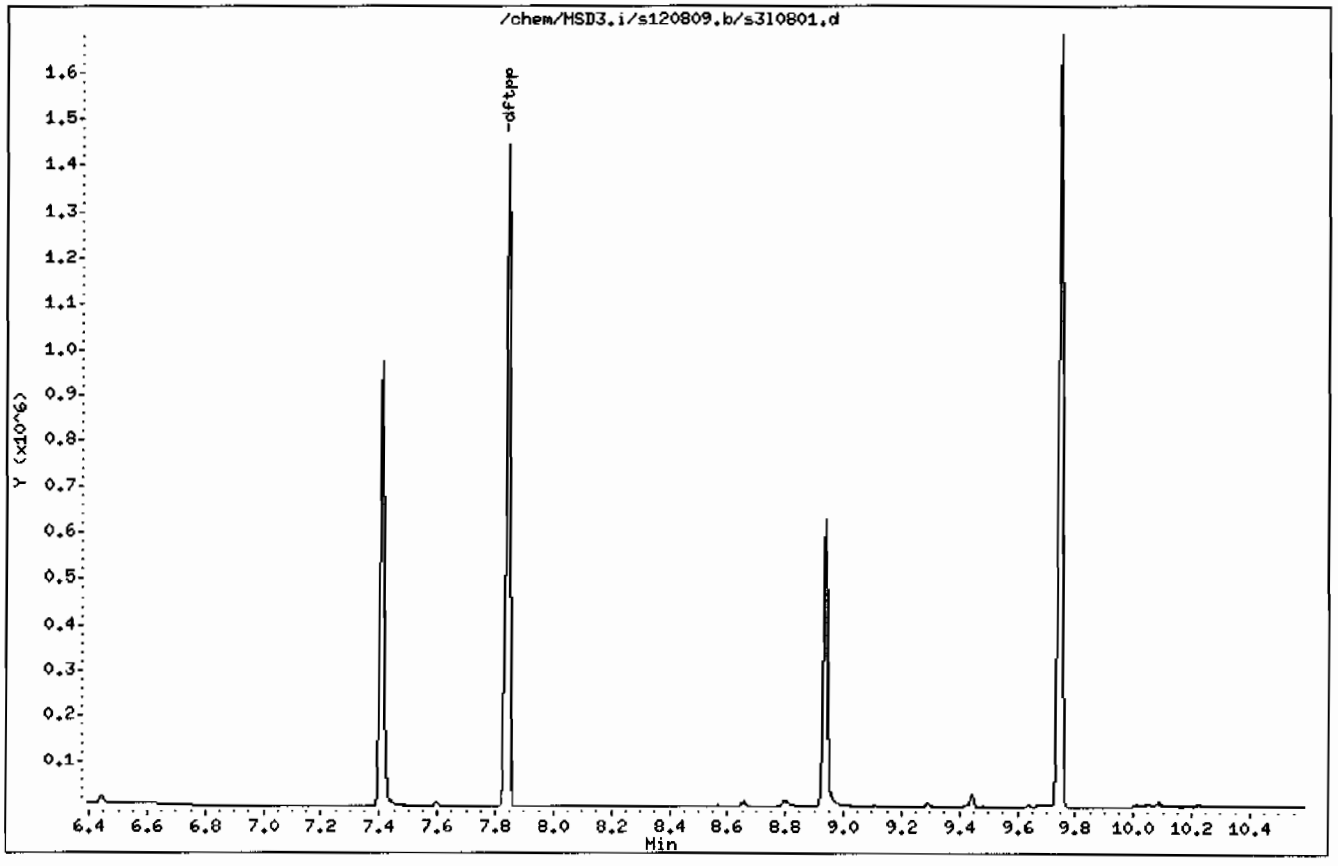

Data File: /chem/MSD3.i/s120809.b/s310801.d

Date : 08-DEC-2009 09:03

Client ID: DFTPP

Instrument: MSD3.i

Sample Info: |WBN091128-01|DFTPP|1|SVM|1|DFTPP|

Operator: JLD1

Column phase: J&W DB-5MS

Column diameter: 0.20

1 dftpp

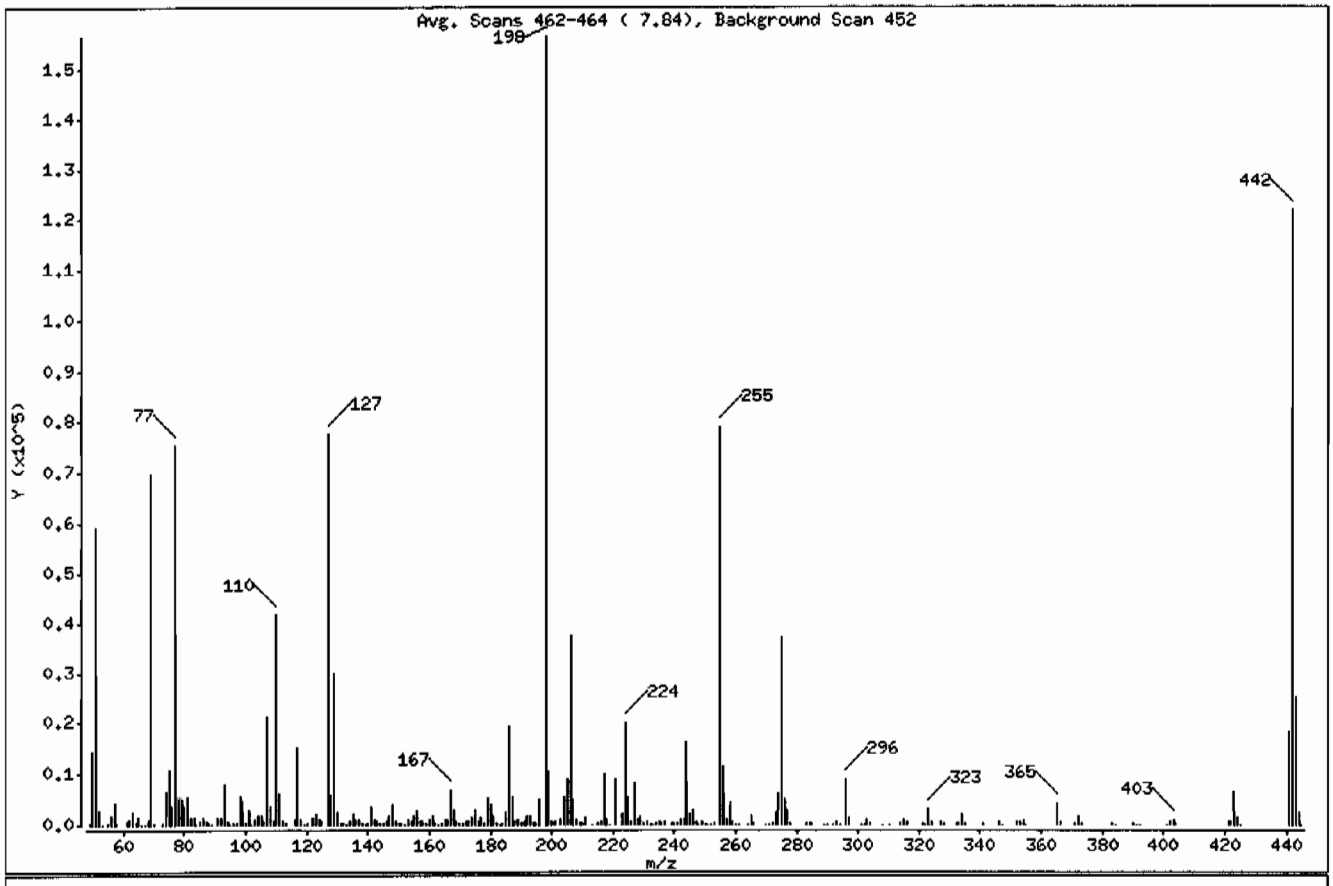

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	37.90
68	Less than 2.00% of mass 69	0.71 (1.60)
69	Mass 69 relative abundance	44.56
70	Less than 2.00% of mass 69	0.22 (0.50)
127	40.00 - 60.00% of mass 198	49.68
197	Less than 1.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.71
275	10.00 - 30.00% of mass 198	23.65
365	Greater than 1.00% of mass 198	2.78
441	Present, but less than mass 443	11.79
442	Greater than 40.00% of mass 198	77.95
443	17.00 - 23.00% of mass 442	16.20 (20.78)

Data File: /chem/MSD3.i/s120809.b/s310801.d

Date : 08-DEC-2009 09:03

Client ID: DFTPP

Instrument: MSD3.i

Sample Info: |WBN091128-01|DFTPP|1|SVH|1|DFTPP|

Operator: JLD1

Column phase: J&W DB-5MS

Column diameter: 0.20

Data File: s310801.d
Spectrum: Avg. Scans 462-464 (7.84), Background Scan 452
Location of Maximum: 198.00
Number of points: 267

m/z	Y	m/z	Y	m/z	Y	m/z	Y
49.00	371	125.00	892	193.00	1812	273.00	2426
50.00	14631	127.00	77696	194.00	363	274.00	6211
51.00	59272	128.00	5887	195.00	309	275.00	36984
52.00	2965	129.00	29992	196.00	4886	276.00	5012
53.00	90	130.00	2561	198.00	156352	277.00	2863
55.00	298	131.00	440	199.00	10496	278.00	489
56.00	1808	132.00	245	200.00	855	283.00	336
57.00	4439	133.00	125	201.00	806	284.00	229
58.00	190	134.00	821	203.00	991	285.00	493
61.00	789	135.00	2335	204.00	5313	289.00	79
62.00	916	136.00	931	205.00	8958	290.00	33
63.00	2630	137.00	1100	206.00	37416	292.00	131
64.00	316	138.00	267	207.00	4924	293.00	643
65.00	1278	139.00	137	208.00	1238	294.00	114
66.00	88	140.00	349	209.00	379	296.00	9002
67.00	33	141.00	3662	210.00	448	297.00	1267
68.00	1117	142.00	1198	211.00	1550	301.00	120
69.00	69696	143.00	784	213.00	69	302.00	155
70.00	351	144.00	204	215.00	386	303.00	1029
73.00	484	145.00	223	216.00	765	304.00	275
74.00	6616	146.00	622	217.00	9912	308.00	127
75.00	10620	147.00	1898	218.00	1163	310.00	133
76.00	3425	148.00	3999	219.00	81	314.00	453
77.00	75360	149.00	816	221.00	9107	315.00	989
78.00	5164	150.00	211	223.00	2285	316.00	593
79.00	4901	151.00	469	224.00	20216	321.00	281
80.00	3627	152.00	115	225.00	5266	322.00	156
81.00	5461	153.00	1117	226.00	540	323.00	3221
82.00	1305	154.00	883	227.00	8205	324.00	555
83.00	1322	155.00	1970	228.00	1157	327.00	564
84.00	142	156.00	3009	229.00	1703	328.00	300
85.00	842	157.00	578	230.00	240	332.00	203
86.00	1396	158.00	677	231.00	749	333.00	266
87.00	644	159.00	455	232.00	126	334.00	1982
88.00	268	160.00	1145	233.00	148	335.00	531

Data File: /chem/MSD3.i/s120809.b/s310801.d

Date : 08-DEC-2009 09:03

Client ID: DFTPP

Instrument: MSD3.i

Sample Info: |WBN091128-01|DFTPP|1|SVM|1|DFTPP|

Operator: JLD1

Column phase: J&W DB-5MS

Column diameter: 0.20

Data File: s310801.d

Spectrum: Avg. Scans 462-464 (7.84), Background Scan 452

Location of Maximum: 198.00

Number of points: 267

m/z	Y	m/z	Y	m/z	Y	m/z	Y
89.00	135	161.00	1618	234.00	509	341.00	356
91.00	1274	162.00	465	235.00	582	346.00	697
92.00	1260	163.00	122	236.00	356	347.00	35
93.00	7918	164.00	214	237.00	662	352.00	882
94.00	550	165.00	1257	239.00	299	353.00	640
95.00	152	166.00	1126	240.00	226	354.00	983
96.00	350	167.00	6920	241.00	517	355.00	151
97.00	183	168.00	2839	242.00	1027	365.00	4349
98.00	5701	169.00	541	243.00	1195	366.00	575
99.00	4729	170.00	240	244.00	16176	371.00	229
100.00	400	171.00	338	245.00	2192	372.00	1621
101.00	3029	172.00	659	246.00	2962	373.00	441
102.00	171	173.00	767	247.00	584	383.00	434
103.00	975	174.00	1414	248.00	139	384.00	116
104.00	1858	175.00	2835	249.00	556	390.00	209
105.00	1745	176.00	889	250.00	76	391.00	156
106.00	551	177.00	1326	251.00	137	392.00	114
107.00	21368	178.00	424	252.00	123	401.00	33
108.00	3539	179.00	5483	253.00	342	402.00	625
109.00	653	180.00	3793	255.00	78976	403.00	920
110.00	41792	181.00	1748	256.00	11585	404.00	327
111.00	6263	182.00	287	257.00	899	421.00	820
112.00	703	183.00	158	258.00	4279	422.00	810
113.00	248	184.00	380	259.00	672	423.00	6585
116.00	1218	185.00	2619	260.00	74	424.00	1344
117.00	15113	186.00	19424	261.00	35	425.00	126
118.00	1117	187.00	5539	264.00	162	441.00	18432
119.00	147	188.00	555	265.00	1750	442.00	121912
120.00	243	189.00	1221	266.00	349	443.00	25336
122.00	1455	190.00	207	270.00	69	444.00	2337
123.00	2158	191.00	613	271.00	151	445.00	135
124.00	980	192.00	1755	272.00	247		

Data File: /chem/MSD3.i/s121309.b/s311307.d

Page 1

Date : 13-DEC-2009 11:30

Client ID: DFTPP

Instrument: MSD3.i

Sample Info: |WBN091128-01|DFTPP|1|SVM|1|DFTPP|

Operator: JLD1

Column phase: J&W DB-5MS

Column diameter: 0.20

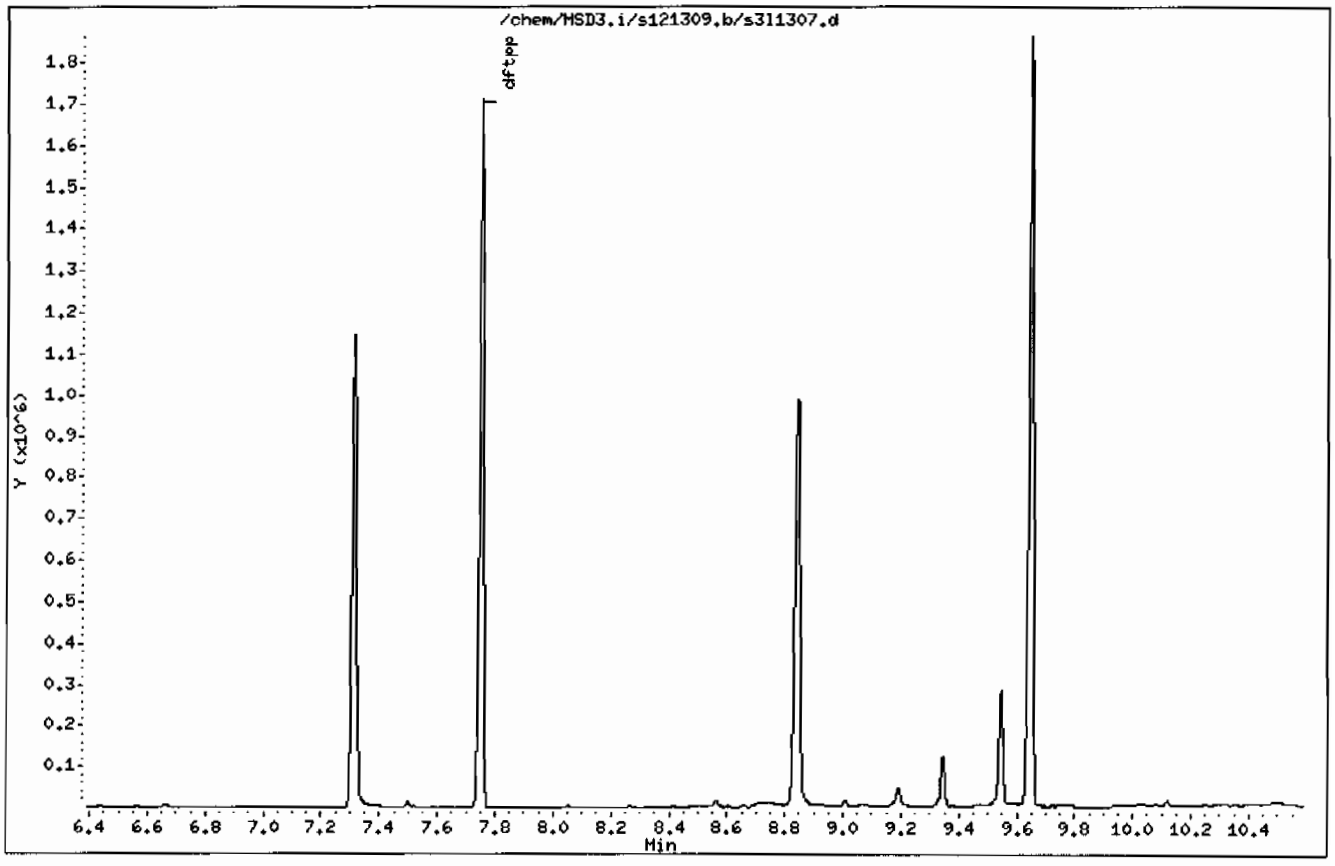

Data File: /chem/MSD3.i/s121309.b/s311307.d

Date : 13-DEC-2009 11:30

Client ID: DFTPP

Instrument: MSD3.i

Sample Info: |WBN091128-01|DFTPP|1|SVM|1|DFTPP|

Operator: JLD1

Column phase: J&W DB-5MS

Column diameter: 0.20

1 dftpp

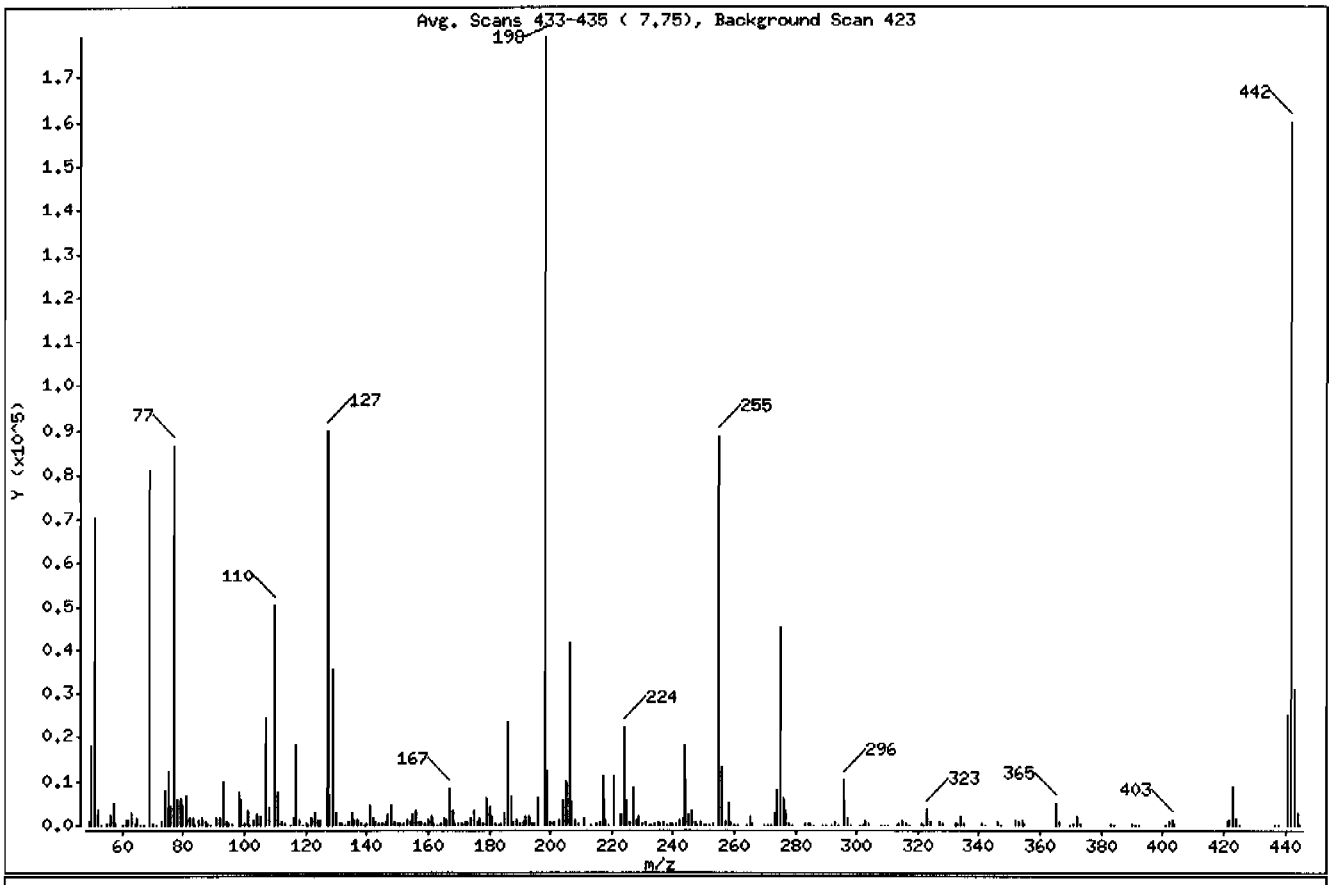

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	39.28
68	Less than 2.00% of mass 69	0.00 (0.00)
69	Mass 69 relative abundance	45.33
70	Less than 2.00% of mass 69	0.24 (0.53)
127	40.00 - 60.00% of mass 198	50.11
197	Less than 1.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.85
275	10.00 - 30.00% of mass 198	25.32
365	Greater than 1.00% of mass 198	2.71
441	Present, but less than mass 443	13.96
442	Greater than 40.00% of mass 198	89.26
443	17.00 - 23.00% of mass 442	17.25 (19.33)

Data File: /chem/MSD3.i/s121309.b/s311307.d

Date : 13-DEC-2009 11:30

Client ID: DFTPP

Instrument: MSD3.i

Sample Info: |WBN091128-01|DFTPP|1|SVM|1|DFTPP|

Operator: JLD1

Column phase: J&W DB-5MS

Column diameter: 0.20

Data File: s311307.d
Spectrum: Avg. Scans 433-435 (7.75), Background Scan 423
Location of Maximum: 198.00
Number of points: 277

m/z	Y	m/z	Y	m/z	Y	m/z	Y
49.00	753	129.00	35584	200.00	867	285.00	561
50.00	18272	130.00	2942	201.00	975	286.00	88
51.00	70424	131.00	570	203.00	1144	289.00	74
52.00	3625	132.00	316	204.00	5713	290.00	69
53.00	167	133.00	138	205.00	9994	292.00	178
55.00	430	134.00	1007	206.00	41640	293.00	705
56.00	2323	135.00	2702	207.00	5543	294.00	205
57.00	4869	136.00	1063	208.00	1408	296.00	10348
58.00	210	137.00	1296	209.00	418	297.00	1462
60.00	107	138.00	287	211.00	1686	298.00	35
61.00	1032	139.00	192	213.00	136	301.00	167
62.00	1118	140.00	453	215.00	455	302.00	181
63.00	3084	141.00	4598	216.00	937	303.00	1192
64.00	418	142.00	1543	217.00	11055	304.00	382
65.00	1552	143.00	896	218.00	1333	308.00	163
66.00	77	144.00	241	219.00	133	309.00	34
67.00	144	145.00	263	221.00	11268	310.00	160
69.00	81264	146.00	863	223.00	2582	313.00	70
70.00	428	147.00	2270	224.00	22088	314.00	548
71.00	117	148.00	4603	225.00	5699	315.00	1288
73.00	722	149.00	1005	226.00	678	316.00	606
74.00	7961	150.00	254	227.00	8735	317.00	70
75.00	12483	151.00	581	228.00	1331	321.00	340
76.00	4502	152.00	502	229.00	1950	322.00	138
77.00	86552	153.00	1387	230.00	256	323.00	3592
78.00	5844	154.00	1002	231.00	793	324.00	702
79.00	6355	155.00	2324	232.00	127	327.00	692
80.00	4627	156.00	3409	233.00	175	328.00	348
81.00	6410	157.00	824	234.00	515	332.00	258
82.00	1565	158.00	807	235.00	694	333.00	383
83.00	1475	159.00	581	236.00	414	334.00	2227
84.00	148	160.00	1379	237.00	715	335.00	613
85.00	1267	161.00	1968	238.00	74	341.00	420
86.00	1842	162.00	536	239.00	338	342.00	127
87.00	812	163.00	144	240.00	270	346.00	709

Data File: /chem/MSD3.i/s121309.b/s311307.d

Date : 13-DEC-2009 11:30

Client ID: DFTPP

Instrument: MSD3.i

Sample Info: |WBN091128-01|DFTPP|1|SVM|1|DFTPP|

Operator: JLD1

Column phase: J&W DB-5MS

Column diameter: 0.20

Data File: s311307.d
Spectrum: Avg. Scans 433-435 (7.75), Background Scan 423
Location of Maximum: 198.00
Number of points: 277

m/z	Y	m/z	Y	m/z	Y	m/z	Y
88.00	292	164.00	222	241.00	461	347.00	124
89.00	160	165.00	1598	242.00	1211	352.00	1120
91.00	1522	166.00	1222	243.00	1453	353.00	709
92.00	1679	167.00	8304	244.00	18032	354.00	1191
93.00	9732	168.00	3445	245.00	2438	355.00	240
94.00	656	169.00	582	246.00	3318	365.00	4860
95.00	215	170.00	281	247.00	728	366.00	653
96.00	488	171.00	378	248.00	149	370.00	116
98.00	7454	172.00	758	249.00	653	371.00	355
99.00	5599	173.00	983	250.00	72	372.00	1988
100.00	540	174.00	1535	251.00	158	373.00	559
101.00	3339	175.00	3149	252.00	162	383.00	436
102.00	203	176.00	1014	253.00	433	384.00	73
103.00	1347	177.00	1682	255.00	88696	390.00	258
104.00	2321	178.00	584	256.00	13275	391.00	189
105.00	2114	179.00	6340	257.00	1017	392.00	183
107.00	24408	180.00	4108	258.00	4763	401.00	139
108.00	4126	181.00	1947	259.00	860	402.00	808
110.00	50424	182.00	326	260.00	138	403.00	1086
111.00	7349	183.00	201	261.00	120	404.00	396
112.00	956	184.00	515	264.00	202	421.00	1026
113.00	260	185.00	2934	265.00	1932	422.00	1108
115.00	153	186.00	23344	266.00	365	423.00	8601
116.00	1615	187.00	6573	270.00	79	424.00	1693
117.00	18152	188.00	640	271.00	136	425.00	187
118.00	1272	189.00	1419	272.00	194	437.00	106
119.00	196	190.00	233	273.00	2868	438.00	46
120.00	297	191.00	682	274.00	8035	441.00	25016
121.00	139	192.00	1941	275.00	45400	442.00	160000
122.00	1774	193.00	2169	276.00	6201	443.00	30928
123.00	2681	194.00	417	277.00	3309	444.00	2814
124.00	1132	195.00	385	278.00	567	445.00	172
125.00	1132	196.00	6229	279.00	71		
127.00	89832	198.00	179264	283.00	324		
128.00	7132	199.00	12289	284.00	257		

Data File: /chem/MSD3.i/s121309.b/s311307.d

Date : 13-DEC-2009 11:30

Client ID: DFTPP

Instrument: MSD3.i

Sample Info: |WBN091128-01|DFTPP|1|SVM|1|DFTPP|

Operator: JLD1

Column phase: J&W DB-5MS

Column diameter: 0.20

Data File: s311307.d

Spectrum: Avg. Scans 433-435 (7.75), Background Scan 423

Location of Maximum: 198.00

Number of points: 277

m/z	Y	m/z	Y	m/z	Y	m/z	Y

Data File: /chem/MSD3.i/s121409.b/s311403.d

Page 1

Date : 14-DEC-2009 09:52

Client ID: DFTPP

Instrument: MSD3.i

Sample Info: |WBN091128-01|DFTPP|1|SVMI1|DFTPP|

Operator: JLD1

Column phase: J&W DB-5MS

Column diameter: 0.20

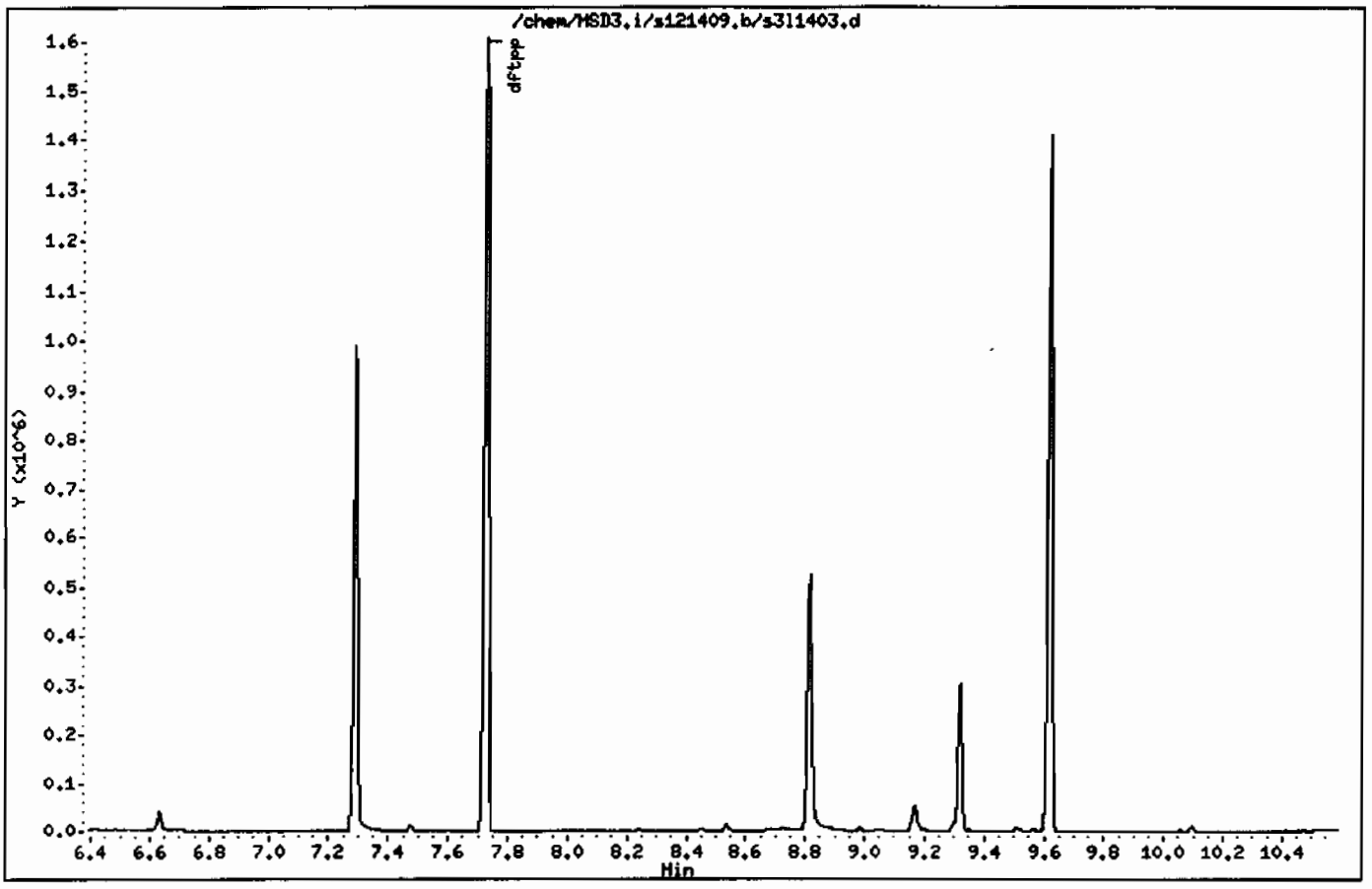

Data File: /chem/MSD3.i/s121409.b/s311403.d

Date : 14-DEC-2009 09:52

Client ID: DFTPP

Instrument: MSD3.i

Sample Info: |WBN091128-01|DFTPP|1|SVM|1|DFTPP|

Operator: JLD1

Column phase: J&W DB-5MS

Column diameter: 0.20

1 dftpp

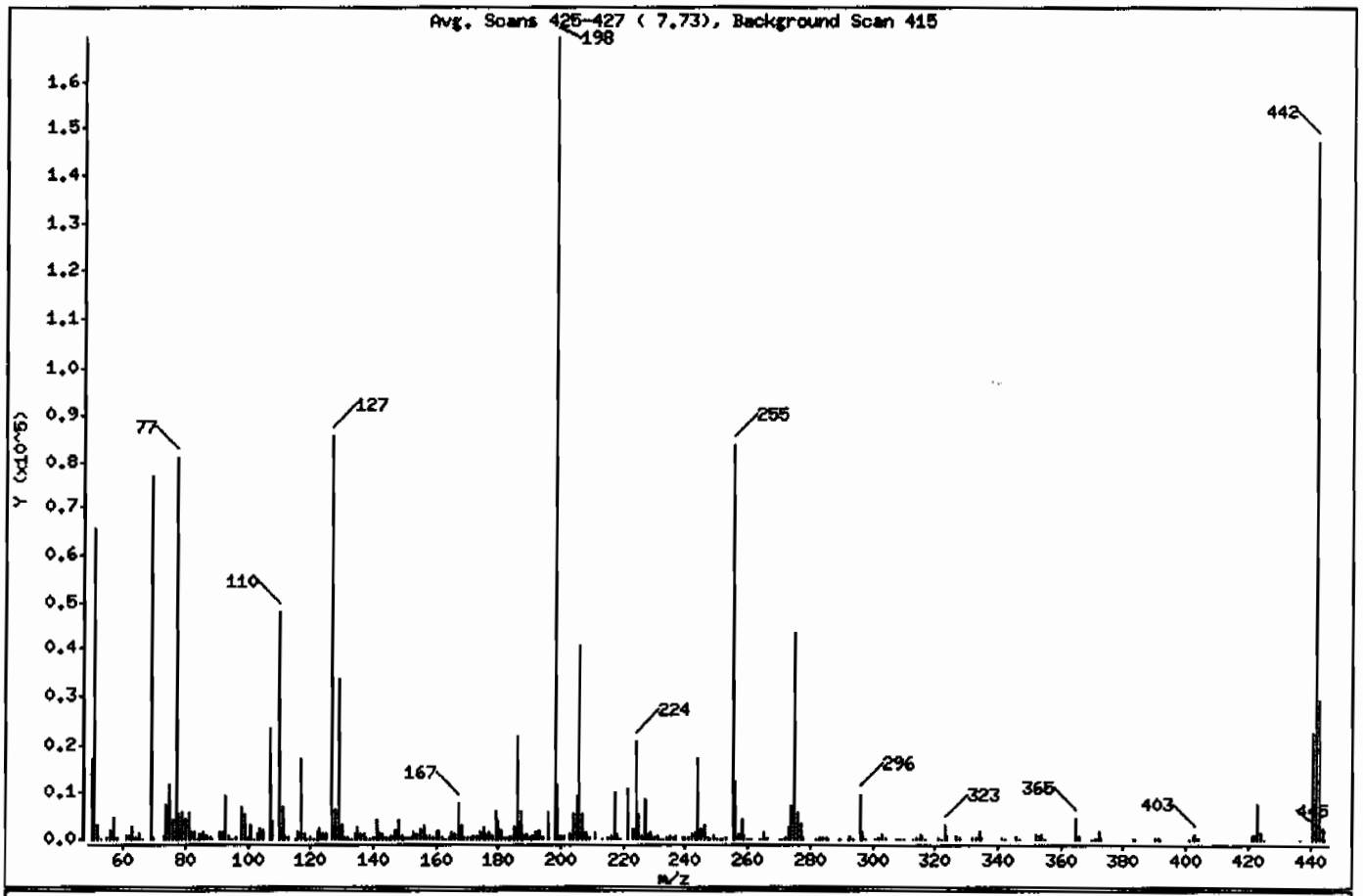

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	38.72
68	Less than 2.00% of mass 69	0.00 (0.00)
69	Mass 69 relative abundance	45.31
70	Less than 2.00% of mass 69	0.23 (0.50)
127	40.00 - 60.00% of mass 198	50.71
197	Less than 1.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.87
275	10.00 - 30.00% of mass 198	25.48
365	Greater than 1.00% of mass 198	2.78
441	Present, but less than mass 443	13.46
442	Greater than 40.00% of mass 198	87.13
443	17.00 - 23.00% of mass 442	17.19 (19.73)

Data File: /chem/MSD3.i/s121409.b/s311403.d

Date : 14-DEC-2009 09:52

Client ID: DFTPP

Instrument: MSD3.i

Sample Info: |WBN091128-01|DFTPP|1|SVM|1|DFTPP|

Operator: JLD1

Column phase: J&W DB-5MS

Column diameter: 0.20

Data File: s311403.d

Spectrum: Avg. Scans 425-427 (7.73), Background Scan 415

Location of Maximum: 198.00

Number of points: 270

m/z	Y	m/z	Y	m/z	Y	m/z	Y
50.00	17248	131.00	533	201.00	892	285.00	542
51.00	65528	132.00	258	203.00	1169	286.00	33
52.00	3301	133.00	87	204.00	5326	289.00	145
53.00	145	134.00	1068	205.00	9383	290.00	34
55.00	445	135.00	2695	206.00	40488	292.00	157
56.00	2084	136.00	1039	207.00	5474	293.00	690
57.00	4807	137.00	1246	208.00	1372	294.00	176
58.00	221	138.00	300	209.00	442	296.00	9673
61.00	974	139.00	192	211.00	1620	297.00	1383
62.00	964	140.00	438	213.00	125	298.00	33
63.00	2784	141.00	4308	215.00	394	301.00	140
64.00	404	142.00	1412	216.00	848	302.00	224
65.00	1346	143.00	978	217.00	10278	303.00	1213
66.00	80	144.00	221	218.00	1258	304.00	337
69.00	76672	145.00	220	219.00	128	308.00	139
70.00	387	146.00	775	221.00	10733	309.00	68
73.00	744	147.00	2138	223.00	2510	310.00	140
74.00	7456	148.00	4390	224.00	20760	313.00	71
75.00	11888	149.00	868	225.00	5497	314.00	527
76.00	4393	150.00	253	226.00	685	315.00	1062
77.00	81048	151.00	558	227.00	8466	316.00	613
78.00	5620	152.00	367	228.00	1287	317.00	131
79.00	5887	153.00	1422	229.00	1680	321.00	309
80.00	4442	154.00	1037	230.00	222	322.00	71
81.00	6015	155.00	2237	231.00	784	323.00	3194
82.00	1458	156.00	3243	232.00	122	324.00	624
83.00	1376	157.00	731	233.00	146	327.00	628
84.00	186	158.00	833	234.00	521	328.00	281
85.00	983	159.00	557	235.00	604	332.00	199
86.00	1692	160.00	1366	236.00	438	333.00	375
87.00	779	161.00	1839	237.00	655	334.00	2064
88.00	279	162.00	515	239.00	302	335.00	524
89.00	34	163.00	135	240.00	218	341.00	398
91.00	1457	164.00	277	241.00	426	342.00	71
92.00	1494	165.00	1631	242.00	1113	346.00	717

Data File: /chem/MSD3.i/s121409.b/s311403.d

Date : 14-DEC-2009 09:52

Client ID: DFTPP

Instrument: MSD3.i

Sample Info: |WBN091128-01|DFTPP|1|SVM|1|DFTPP|

Operator: JLD1

Column phase: J&W DB-5MS

Column diameter: 0.20

Data File: s311403.d

Spectrum: Avg. Scans 425-427 (7.73), Background Scan 415

Location of Maximum: 198.00

Number of points: 270

m/z	Y	m/z	Y	m/z	Y	m/z	Y
93.00	9234	166.00	1225	243.00	1401	347.00	144
94.00	664	167.00	7675	244.00	17112	352.00	980
95.00	174	168.00	3074	245.00	2248	353.00	793
96.00	382	169.00	563	246.00	3120	354.00	1170
98.00	7076	170.00	284	247.00	575	355.00	189
99.00	5364	171.00	391	248.00	162	365.00	4697
100.00	456	172.00	681	249.00	649	366.00	661
101.00	3076	173.00	905	250.00	83	370.00	73
102.00	185	174.00	1602	251.00	150	371.00	283
103.00	1222	175.00	2890	252.00	193	372.00	1948
104.00	2308	176.00	1015	253.00	373	373.00	478
105.00	2004	177.00	1573	255.00	83968	383.00	482
107.00	23256	178.00	586	256.00	12389	384.00	127
108.00	3868	179.00	6080	257.00	1029	390.00	254
110.00	48128	180.00	3962	258.00	4467	391.00	207
111.00	6972	181.00	1852	259.00	699	392.00	133
112.00	894	182.00	289	260.00	148	401.00	74
113.00	292	183.00	247	261.00	146	402.00	676
115.00	143	184.00	452	264.00	176	403.00	1073
116.00	1526	185.00	2769	265.00	1739	404.00	371
117.00	17032	186.00	21792	266.00	337	421.00	961
118.00	1268	187.00	6204	270.00	33	422.00	1045
119.00	166	188.00	610	271.00	152	423.00	7636
120.00	317	189.00	1353	272.00	271	424.00	1505
121.00	119	190.00	219	273.00	2786	425.00	159
122.00	1671	191.00	687	274.00	7418	437.00	77
123.00	2427	192.00	1746	275.00	43128	441.00	22784
124.00	1046	193.00	2000	276.00	5811	442.00	147456
125.00	1016	194.00	410	277.00	3379	443.00	29088
127.00	85824	196.00	5873	278.00	464	444.00	2693
128.00	6695	198.00	169216	282.00	35	445.00	81
129.00	33440	199.00	11630	283.00	362		
130.00	2986	200.00	784	284.00	230		

Data File: /chem/MSD3.i/s121509.b/s311501.d

Page 1

Date : 15-DEC-2009 08:04

Client ID: DFTPP

Instrument: MSD3.i

Sample Info: |WBN091213-01|DFTPP|1|SVM|1|DFTPP|

Operator: JLD1

Column phase: J&W DB-5MS

Column diameter: 0.20

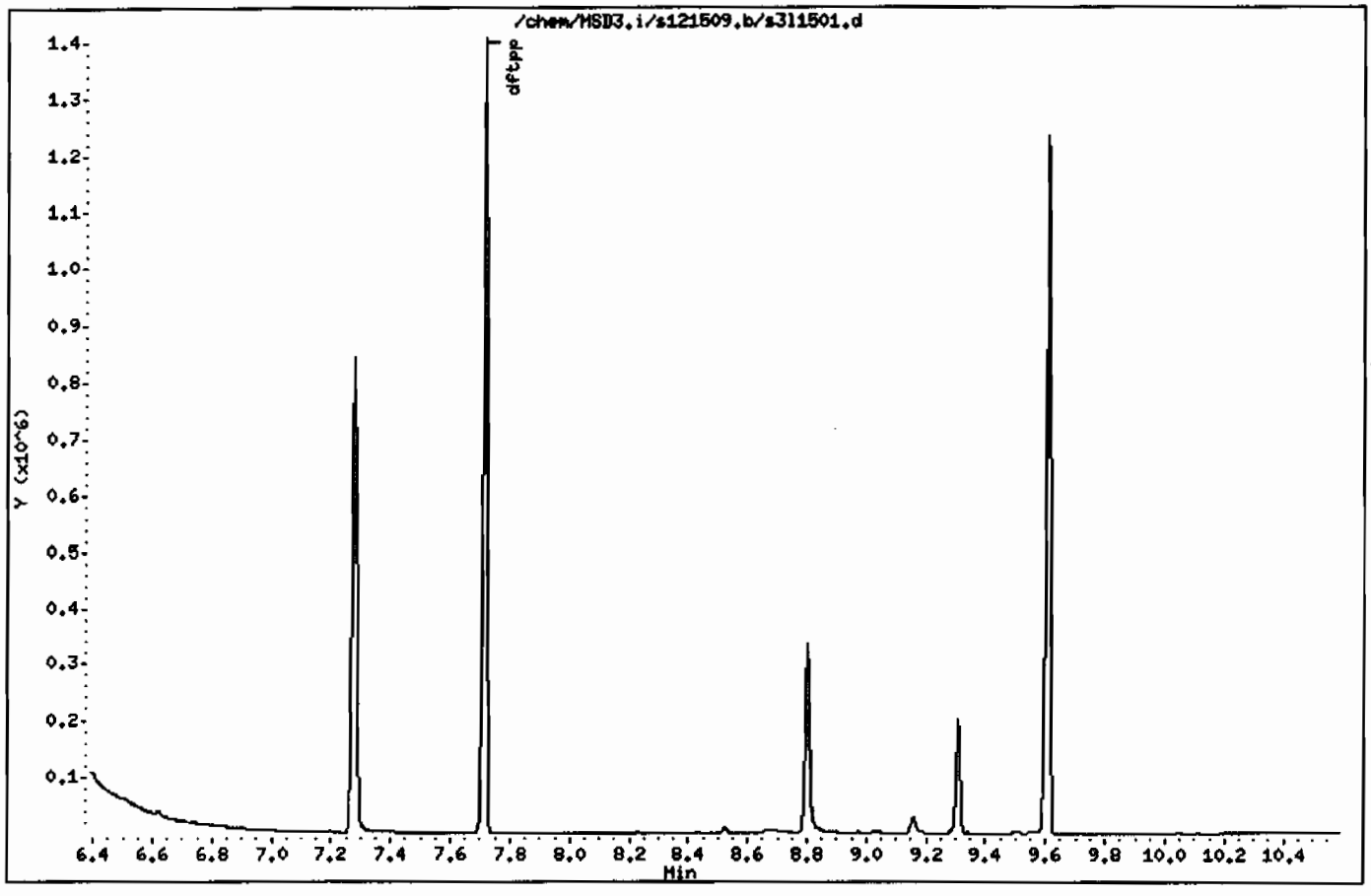

Data File: /chem/MSD3.i/s121509.b/s311501.d

Date : 15-DEC-2009 08:04

Client ID: DFTPP

Instrument: MSD3.i

Sample Info: |WBN091213-01|DFTPP|1|SVMI1|DFTPP|

Operator: JLD1

Column phase: J&W DB-5HS

Column diameter: 0.20

1 dftpp

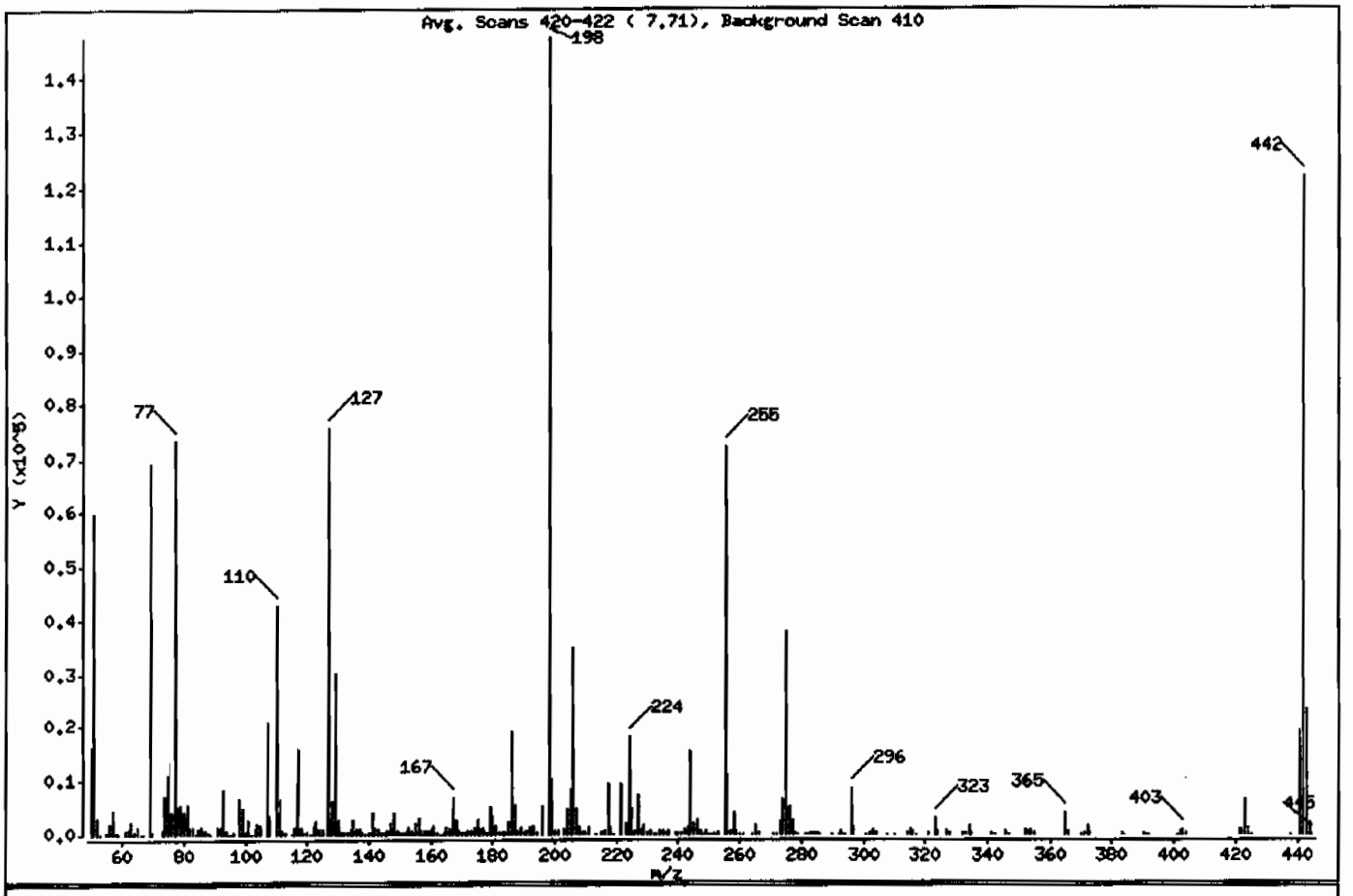

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	40.63
68	Less than 2.00% of mass 69	0.00 (0.00)
69	Mass 69 relative abundance	47.04
70	Less than 2.00% of mass 69	0.23 (0.49)
127	40.00 - 60.00% of mass 198	51.48
197	Less than 1.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	7.03
275	10.00 - 30.00% of mass 198	25.71
365	Greater than 1.00% of mass 198	2.78
441	Present, but less than mass 443	13.17
442	Greater than 40.00% of mass 198	82.71
443	17.00 - 23.00% of mass 442	15.95 (19.28)

Data File: /chem/MSD3.i/s121509.b/s311501.d

Date : 15-DEC-2009 08:04

Client ID: DFTPP

Instrument: MSD3.i

Sample Info: |WBN091213-01|DFTPP|1|SVH|1|DFTPP|

Operator: JLD1

Column phase: J&W DB-5MS

Column diameter: 0.20

Data File: s311501.d

Spectrum: Avg. Scans 420-422 (7.71), Background Scan 410

Location of Maximum: 198.00

Number of points: 269

m/z	Y	m/z	Y	m/z	Y	m/z	Y
50.00	15972	129.00	30120	199.00	10352	281.00	113
51.00	59864	130.00	2660	200.00	810	282.00	74
52.00	3055	131.00	465	201.00	833	283.00	321
53.00	136	132.00	280	203.00	962	284.00	208
55.00	313	133.00	198	204.00	4740	285.00	492
56.00	2065	134.00	899	205.00	8149	286.00	71
57.00	4391	135.00	2561	206.00	34824	290.00	73
58.00	188	136.00	961	207.00	4612	292.00	77
59.00	34	137.00	1097	208.00	1196	293.00	608
61.00	833	138.00	258	209.00	394	294.00	160
62.00	976	139.00	148	210.00	407	296.00	8353
63.00	2538	140.00	409	211.00	1442	297.00	1284
64.00	369	141.00	3952	213.00	106	301.00	74
65.00	1315	142.00	1237	215.00	408	302.00	216
66.00	109	143.00	864	216.00	727	303.00	959
67.00	168	144.00	221	217.00	9160	304.00	306
69.00	69312	145.00	195	218.00	1202	308.00	126
70.00	343	146.00	646	219.00	130	310.00	126
73.00	633	147.00	1949	221.00	9058	314.00	442
74.00	6993	148.00	3925	223.00	2136	315.00	965
75.00	10798	149.00	797	224.00	18136	316.00	580
76.00	4023	150.00	229	225.00	4834	317.00	37
77.00	73384	151.00	492	226.00	557	321.00	282
78.00	5065	152.00	325	227.00	7283	323.00	2905
79.00	5321	153.00	1196	228.00	1082	324.00	522
80.00	4066	154.00	843	229.00	1585	327.00	587
81.00	5492	155.00	1965	230.00	224	328.00	249
82.00	1343	156.00	2911	231.00	724	332.00	174
83.00	1271	157.00	662	232.00	125	333.00	267
84.00	164	158.00	709	233.00	116	334.00	1700
85.00	907	159.00	512	234.00	525	335.00	492
86.00	1481	160.00	1100	235.00	516	341.00	356
87.00	668	161.00	1699	236.00	411	342.00	109
88.00	241	162.00	463	237.00	541	346.00	617
89.00	143	163.00	132	239.00	283	347.00	74

Data File: /chem/MSD3.i/s121509.b/s311501.d

Date : 15-DEC-2009 08:04

Client ID: DFTPP

Instrument: MSD3.i

Sample Info: |WBN091213-01|DFTPP|1|SVM|1|DFTPP|

Operator: JLD1

Column phase: J&W DB-5MS

Column diameter: 0.20

Data File: s311501.d

Spectrum: Avg. Scans 420-422 (7.71), Background Scan 410

Location of Maximum: 198.00

Number of points: 269

m/z	Y	m/z	Y	m/z	Y	m/z	Y
91.00	1335	164.00	224	240.00	238	352.00	900
92.00	1393	165.00	1325	241.00	385	353.00	631
93.00	8135	166.00	1126	242.00	944	354.00	1000
94.00	607	167.00	6846	243.00	1218	355.00	230
95.00	167	168.00	2822	244.00	15135	365.00	4093
96.00	401	169.00	546	245.00	1973	366.00	545
98.00	6428	170.00	223	246.00	2710	370.00	110
99.00	4880	171.00	345	247.00	536	371.00	223
100.00	437	172.00	578	248.00	124	372.00	1596
101.00	2810	173.00	830	249.00	575	373.00	412
102.00	169	174.00	1409	250.00	129	383.00	414
103.00	1019	175.00	2741	251.00	139	384.00	35
104.00	1944	176.00	882	252.00	137	390.00	212
105.00	1851	177.00	1360	253.00	373	391.00	136
107.00	20736	178.00	461	255.00	72432	392.00	139
108.00	3408	179.00	5178	256.00	10747	401.00	81
110.00	42880	180.00	3278	257.00	813	402.00	635
111.00	6334	181.00	1694	258.00	4042	403.00	931
112.00	745	182.00	230	259.00	576	404.00	333
113.00	241	183.00	187	260.00	108	421.00	873
115.00	114	184.00	471	261.00	118	422.00	953
116.00	1415	185.00	2453	264.00	159	423.00	6501
117.00	15572	186.00	19048	265.00	1613	424.00	1311
118.00	1260	187.00	5401	266.00	311	425.00	106
119.00	183	188.00	552	271.00	116	438.00	88
120.00	266	189.00	1211	272.00	166	441.00	19400
121.00	89	190.00	194	273.00	2414	442.00	121864
122.00	1530	191.00	563	274.00	6360	443.00	23496
123.00	2219	192.00	1517	275.00	37880	444.00	2305
124.00	1070	193.00	1791	276.00	5071	445.00	84
125.00	953	194.00	376	277.00	2798		
127.00	75848	196.00	5021	278.00	494		
128.00	6141	198.00	147328	279.00	35		

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852			Matrix:	SOIL
Lab Sample ID:	1201993834				
Client Sample:	QC for batch 932076	Client:	LANL010	Project:	QC
Client ID:	MB for batch 932076	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	932077	Inst:	MSD3.I	Dilution:	1
Run Date:	12/13/2009 13:33	Analyst:	JLD1	Inj. Vol:	.5 uL
Prep Date:	12/11/2009 21:55	Aliquot:	30 g	Final Volume:	.95 mL
Data File:	s3I1312.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	317	ug/kg	63.3	317
108-95-2	Phenol	U	317	ug/kg	63.3	317
95-57-8	2-Chlorophenol	U	317	ug/kg	63.3	317
106-46-7	1,4-Dichlorobenzene	U	317	ug/kg	63.3	317
621-64-7	N-Nitrosodipropylamine	U	317	ug/kg	63.3	317
59-50-7	4-Chloro-3-methylphenol	U	317	ug/kg	63.3	317
83-32-9	Acenaphthene	U	31.7	ug/kg	10.5	31.7
121-14-2	2,4-Dinitrotoluene	U	317	ug/kg	31.7	317
100-02-7	4-Nitrophenol	U	317	ug/kg	105	317
87-86-5	Pentachlorophenol	U	317	ug/kg	79.2	317
129-00-0	Pyrene	U	31.7	ug/kg	9.50	31.7
110-86-1	Pyridine	U	317	ug/kg	63.3	317
62-53-3	Aniline	U	317	ug/kg	95.0	317
111-44-4	bis(2-Chloroethyl) ether	U	317	ug/kg	63.3	317
541-73-1	1,3-Dichlorobenzene	U	317	ug/kg	63.3	317
100-51-6	Benzyl alcohol	U	317	ug/kg	95.0	317
95-50-1	1,2-Dichlorobenzene	U	317	ug/kg	63.3	317
108-60-1	bis(2-Chloroisopropyl)ether	U	317	ug/kg	63.3	317
95-48-7	o-Cresol	U	317	ug/kg	63.3	317
65794-96-9	m,p-Cresols	U	317	ug/kg	95.0	317
67-72-1	Hexachloroethane	U	317	ug/kg	63.3	317
98-95-3	Nitrobenzene	U	317	ug/kg	63.3	317
78-59-1	Isophorone	U	317	ug/kg	63.3	317
88-75-5	2-Nitrophenol	U	317	ug/kg	63.3	317
105-67-9	2,4-Dimethylphenol	U	317	ug/kg	111	317
111-91-1	bis(2-Chloroethoxy)methane	U	317	ug/kg	63.3	317
120-83-2	2,4-Dichlorophenol	U	317	ug/kg	63.3	317
65-85-0	Benzoic acid	U	633	ug/kg	158	633
91-20-3	Naphthalene	U	31.7	ug/kg	9.50	31.7
106-47-8	4-Chloroaniline	U	317	ug/kg	63.3	317
87-68-3	Hexachlorobutadiene	U	317	ug/kg	63.3	317
91-57-6	2-Methylnaphthalene	U	31.7	ug/kg	6.33	31.7
77-47-4	Hexachlorocyclopentadiene	U	317	ug/kg	63.3	317
88-06-2	2,4,6-Trichlorophenol	U	317	ug/kg	63.3	317
95-95-4	2,4,5-Trichlorophenol	U	317	ug/kg	63.3	317
91-58-7	2-Chloronaphthalene	U	31.7	ug/kg	10.5	31.7
88-74-4	2-Nitroaniline	U	317	ug/kg	63.3	317
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	317	ug/kg	63.3	317

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-852**			**Matrix:**	**SOIL**
Lab Sample ID:	**1201993834**				
Client Sample:	**QC for batch 932076**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 932076**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**932077**	**Inst:**	**MSD3.I**	**Dilution:**	**1**
Run Date:	**12/13/2009 13:33**	**Analyst:**	**JLD1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/11/2009 21:55**	**Aliquot:**	**30 g**	**Final Volume:**	**.95 mL**
Data File:	**s3I1312.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	317	ug/kg	63.3	317
606-20-2	2,6-Dinitrotoluene	U	317	ug/kg	31.7	317
208-96-8	Acenaphthylene	U	31.7	ug/kg	9.50	31.7
51-28-5	2,4-Dinitrophenol	U	633	ug/kg	120	633
132-64-9	Dibenzofuran	U	317	ug/kg	63.3	317
84-66-2	Diethylphthalate	U	317	ug/kg	63.3	317
86-73-7	Fluorene	U	31.7	ug/kg	9.50	31.7
7005-72-3	4-Chlorophenylphenylether	U	317	ug/kg	63.3	317
534-52-1	2-Methyl-4,6-dinitrophenol	U	317	ug/kg	63.3	317
100-01-6	4-Nitroaniline	U	317	ug/kg	95.0	317
	p-Nitroaniline					
122-39-4	Diphenylamine	U	317	ug/kg	63.3	317
122-66-7	Azobenzene	U	317	ug/kg	63.3	317
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	317	ug/kg	63.3	317
118-74-1	Hexachlorobenzene	U	317	ug/kg	63.3	317
85-01-8	Phenanthrene	U	31.7	ug/kg	9.50	31.7
120-12-7	Anthracene	U	31.7	ug/kg	6.33	31.7
84-74-2	Di-n-butylphthalate	U	317	ug/kg	63.3	317
206-44-0	Fluoranthene	U	31.7	ug/kg	9.50	31.7
85-68-7	Butylbenzylphthalate	U	317	ug/kg	63.3	317
56-55-3	Benzo(a)anthracene	U	31.7	ug/kg	9.50	31.7
91-94-1	3,3'-Dichlorobenzidine	U	317	ug/kg	95.0	317
218-01-9	Chrysene	U	31.7	ug/kg	9.50	31.7
117-81-7	bis(2-Ethylhexyl)phthalate	U	317	ug/kg	63.3	317
117-84-0	Di-n-octylphthalate	U	317	ug/kg	63.3	317
205-99-2	Benzo(b)fluoranthene	U	31.7	ug/kg	9.50	31.7
207-08-9	Benzo(k)fluoranthene	U	31.7	ug/kg	9.50	31.7
50-32-8	Benzo(a)pyrene	U	31.7	ug/kg	9.50	31.7
193-39-5	Indeno(1,2,3-cd)pyrene	U	31.7	ug/kg	9.50	31.7
53-70-3	Dibenzo(a,h)anthracene	U	31.7	ug/kg	9.50	31.7
191-24-2	Benzo(ghi)perylene	U	31.7	ug/kg	9.50	31.7
120-82-1	1,2,4-Trichlorobenzene	U	317	ug/kg	63.3	317

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	1.95	128	ug/kg		J
	Unknown Aldol Condensate	2.95	329	ug/kg		JA

GEL Laboratories LLC

Data file : /chem/MSD3.i/s121309.b/s311312.d
Lab Smp Id: 1201993834 Client Smp ID: SBLK01
Inj Date : 13-DEC-2009 13:33
Operator : JLD1 Inst ID: MSD3.i
Smp Info : |1201993834|932077|1|SVMF|1|SBLK01
Misc Info : |MSD8270_S|WBN091208-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD3.i/s121309.b/MSD3-8270R-AQA-120809.m
Meth Date : 14-Dec-2009 11:36 jen00986 Quant Type: ISTD
Cal Date : 07-DEC-2009 19:48 Cal File: s310717.d
Als bottle: 5 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-852.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	0.95000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	0.00000	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	4.291	4.294	(1.000)	129528	40.0000	
* 29 Naphthalene-d8	136	5.539	5.546	(1.000)	486220	40.0000	
* 46 Acenaphthene-d10	164	7.387	7.394	(1.000)	263698	40.0000	
* 67 Phenanthrene-d10	188	8.978	8.983	(1.000)	442995	40.0000	
* 91 Chrysene-d12	240	11.836	11.844	(1.000)	343305	40.0000	
* 98 Perylene-d12	264	13.816	13.827	(1.000)	254013	40.0000	
$ 3 2-Fluorophenol	112	3.190	3.175	(0.743)	318951	94.1413	2980
$ 5 Phenol-d5	99	3.948	3.948	(0.920)	385960	89.4175	2830
$ 20 Nitrobenzene-d5	82	4.821	4.828	(0.870)	167346	47.0919	1490
$ 39 2-Fluorobiphenyl	172	6.667	6.669	(0.902)	321729	52.0514	1650
$ 60 2,4,6-Tribromophenol	329	8.231	8.236	(1.114)	79924	110.372	3500
$ 81 p-Terphenyl-d14	244	10.685	10.686	(0.903)	310177	56.2546	1780

GEL Laboratories LLC

Data file : /chem/MSD3.i/s121309.b/s311312.d
Lab Smp Id: 1201993834 Client Smp ID: SBLK01
Inj Date : 13-DEC-2009 13:33
Operator : JLD1 Inst ID: MSD3.i
Smp Info : |1201993834|932077|1|SVMF|1|SBLK01
Misc Info : |MSD8270_S|WBN091208-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD3.i/s121309.b/MSD3-8270R-AQA-120809.m
Meth Date : 14-Dec-2009 11:36 jen00986 Quant Type: ISTD
Cal Date : 07-DEC-2009 19:48 Cal File: s310717.d
Als bottle: 5 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-852.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	0.95000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	0.00000	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	4.291	765921	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown					CAS #:		
1.947	77554	4.05022509	128	0		0	10
Unknown Aldol Condensate					CAS #:		
2.949	199027	10.3941479	329	0		0	10

Data File: /chem/MSD3.i/s121309.b/s311312.d
Date : 13-DEC-2009 13:33
Client ID: SBLK01
Sample Info: 1120199383419320771ISVMF11ISBLK01
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD3.i

Operator: JLD1
Column diameter: 0.20

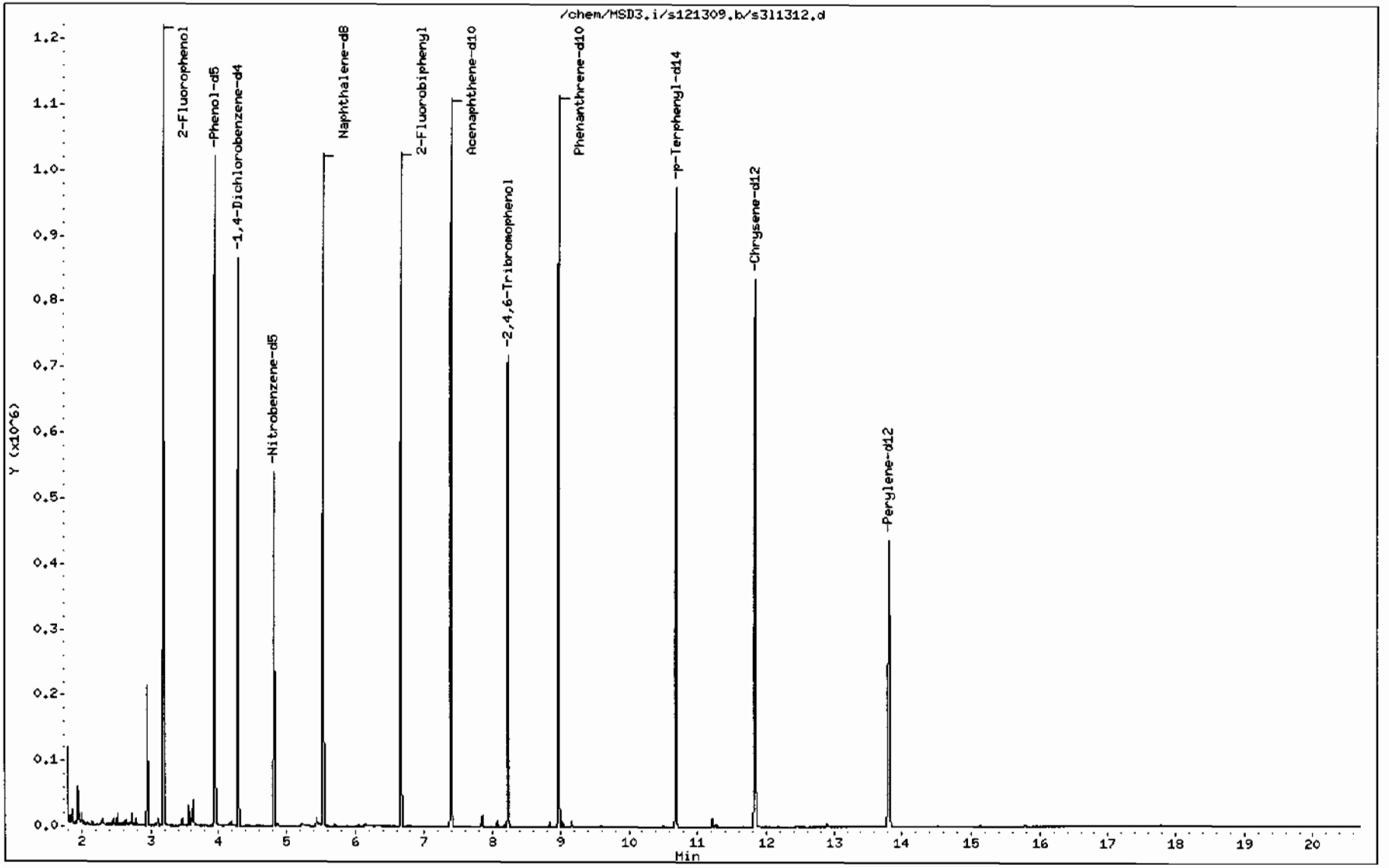

Data File: /chem/MSD3.i/s121309.b/s311312.d

Date : 13-DEC-2009 13:33

Client ID: SBLK01

Instrument: MSD3.i

Sample Info: |1201993834|932077|1|SVMF|1|SBLK01

Volume Injected (uL): 0.5

Operator: JLD1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
2-Propanone, 1-chloro-	78-95-5	NIST05.L	2354	38	C3H5ClO	92
2-Propanone, 1-chloro-	78-95-5	NIST05.L	2355	38	C3H5ClO	92
2-Propanone, 1-chloro-	78-95-5	NIST05.L	2356	38	C3H5ClO	92

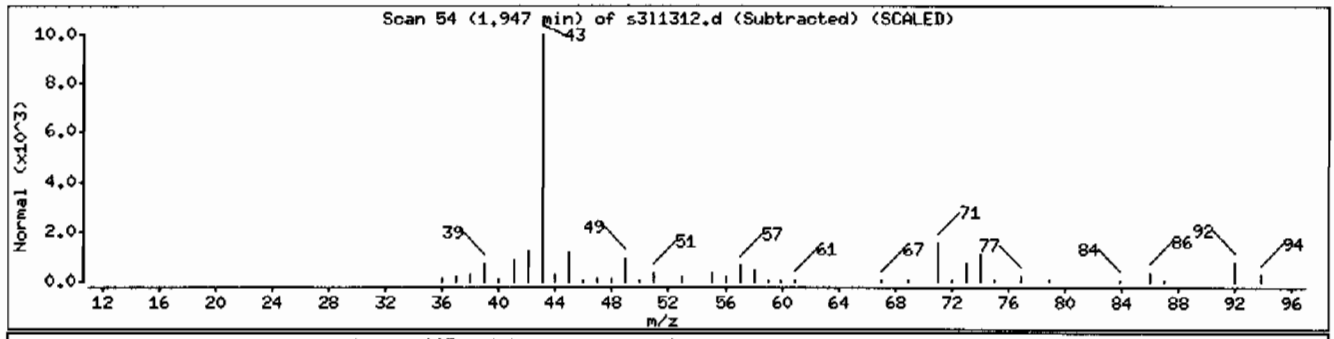

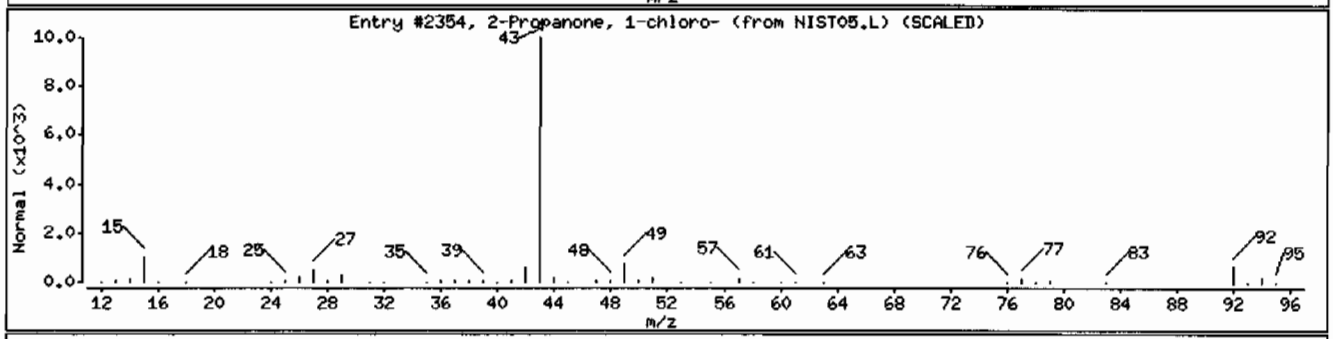

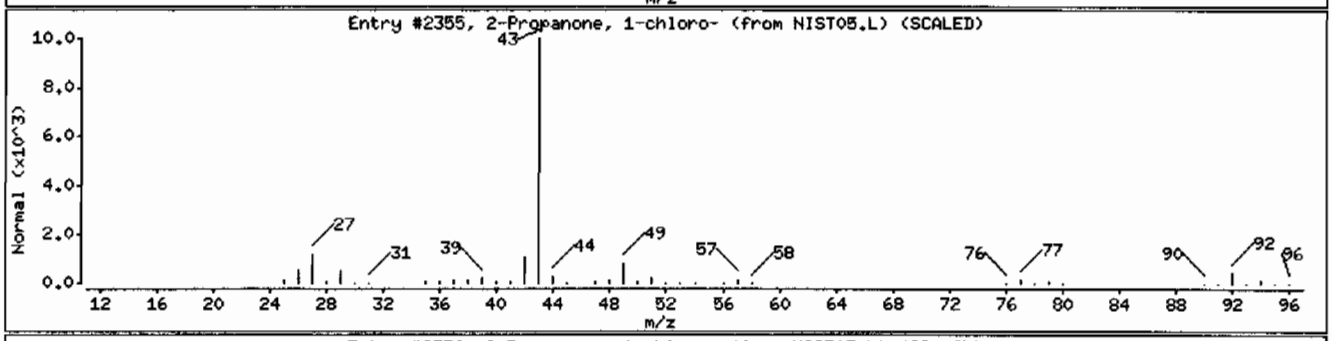

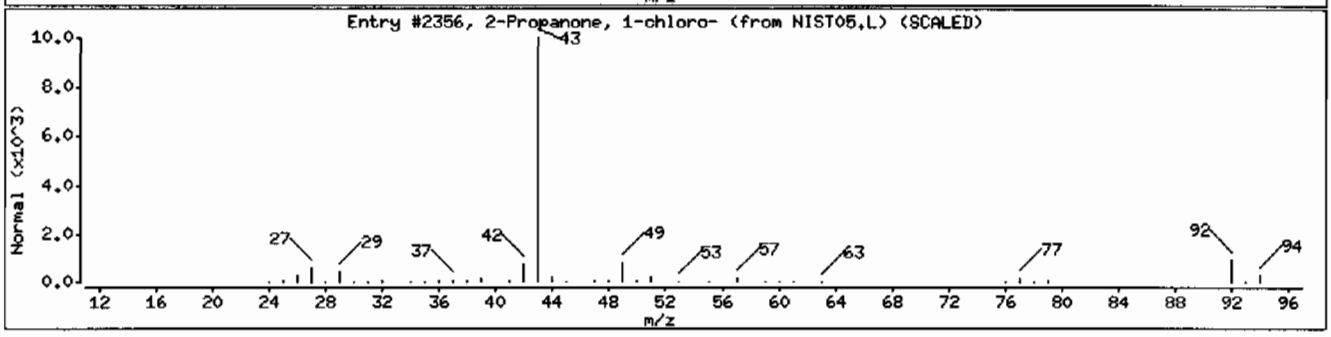

Data File: /chem/MSD3.i/s121309.b/s311312.d

Date : 13-DEC-2009 13:33

Client ID: SBLK01

Instrument: MSD3.i

Sample Info: |1201993834|932077|1|SVMF|1|SBLK01

Volume Injected (uL): 0.5

Operator: JLD1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	56	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	50	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7945	38	C6H12O2	116

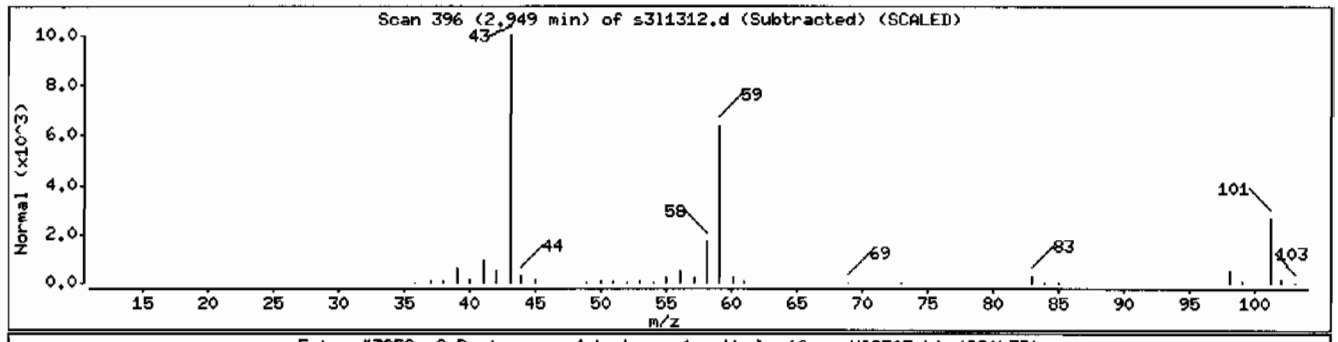

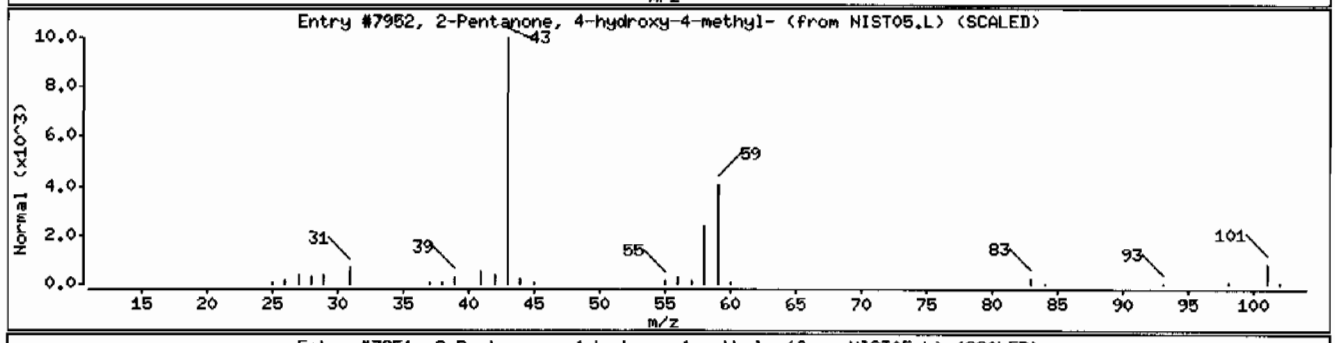

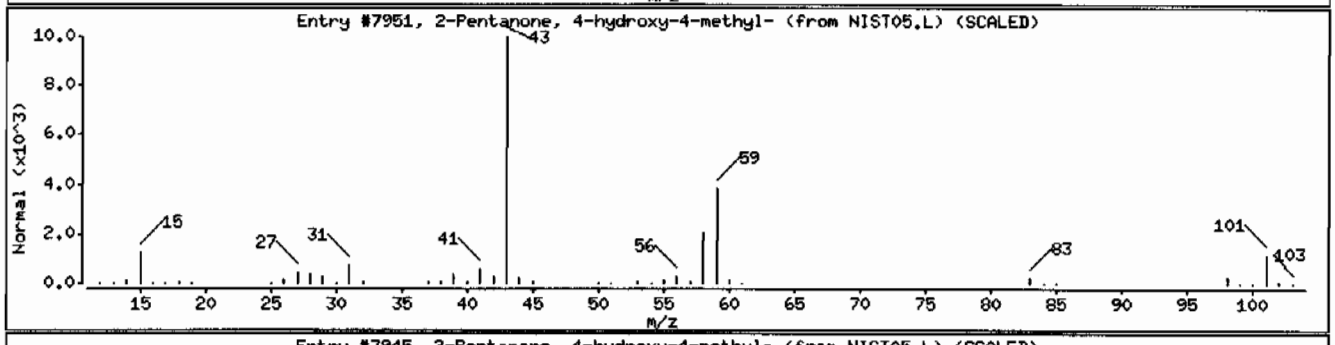

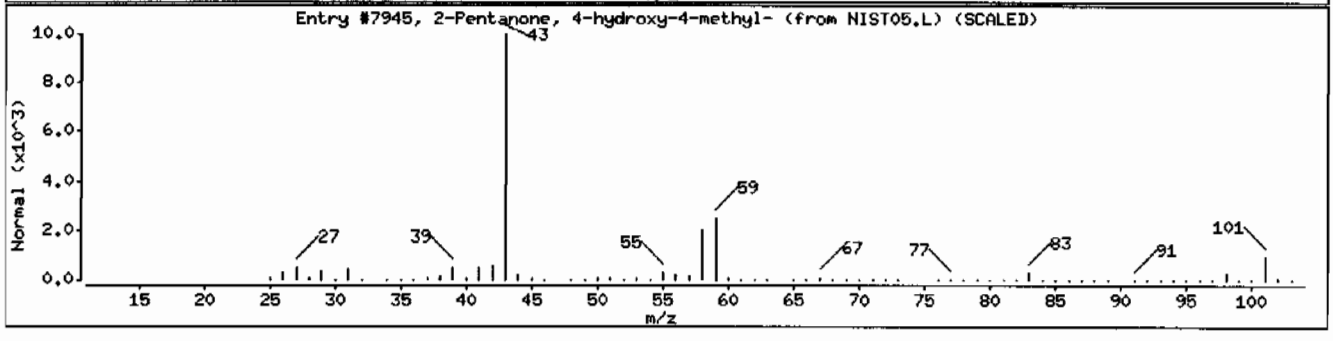

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-852**			**Matrix:**	**SOIL**
Lab Sample ID:	**1201993835**				
Client Sample:	**QC for batch 932076**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 932076**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**932077**	**Inst:**	**MSD3.I**	**Dilution:**	**1**
Run Date:	**12/13/2009 14:00**	**Analyst:**	**JLD1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/11/2009 21:55**	**Aliquot:**	**30 g**	**Final Volume:**	**.94 mL**
Data File:	**s3l1313.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine		1120	ug/kg	62.7	313
108-95-2	Phenol		1270	ug/kg	62.7	313
95-57-8	2-Chlorophenol		1320	ug/kg	62.7	313
106-46-7	1,4-Dichlorobenzene		1150	ug/kg	62.7	313
621-64-7	N-Nitrosodipropylamine		1160	ug/kg	62.7	313
59-50-7	4-Chloro-3-methylphenol		1340	ug/kg	62.7	313
83-32-9	Acenaphthene		1220	ug/kg	10.3	31.3
121-14-2	2,4-Dinitrotoluene		1300	ug/kg	31.3	313
100-02-7	4-Nitrophenol		1330	ug/kg	103	313
87-86-5	Pentachlorophenol		1370	ug/kg	78.3	313
129-00-0	Pyrene		1280	ug/kg	9.40	31.3
110-86-1	Pyridine		991	ug/kg	62.7	313
62-53-3	Aniline		701	ug/kg	94.0	313
111-44-4	bis(2-Chloroethyl) ether		1010	ug/kg	62.7	313
541-73-1	1,3-Dichlorobenzene		1150	ug/kg	62.7	313
100-51-6	Benzyl alcohol		1600	ug/kg	94.0	313
95-50-1	1,2-Dichlorobenzene		1140	ug/kg	62.7	313
108-60-1	bis(2-Chloroisopropyl)ether		967	ug/kg	62.7	313
95-48-7	o-Cresol		1250	ug/kg	62.7	313
65794-96-9	m,p-Cresols		1500	ug/kg	94.0	313
67-72-1	Hexachloroethane		1130	ug/kg	62.7	313
98-95-3	Nitrobenzene		1140	ug/kg	62.7	313
78-59-1	Isophorone		1330	ug/kg	62.7	313
88-75-5	2-Nitrophenol		1330	ug/kg	62.7	313
105-67-9	2,4-Dimethylphenol		1270	ug/kg	110	313
111-91-1	bis(2-Chloroethoxy)methane		1080	ug/kg	62.7	313
120-83-2	2,4-Dichlorophenol		1260	ug/kg	62.7	313
65-85-0	Benzoic acid		3060	ug/kg	157	627
91-20-3	Naphthalene		1300	ug/kg	9.40	31.3
106-47-8	4-Chloroaniline		658	ug/kg	62.7	313
87-68-3	Hexachlorobutadiene		1040	ug/kg	62.7	313
91-57-6	2-Methylnaphthalene		1270	ug/kg	6.27	31.3
77-47-4	Hexachlorocyclopentadiene		2210	ug/kg	62.7	313
88-06-2	2,4,6-Trichlorophenol		1410	ug/kg	62.7	313
95-95-4	2,4,5-Trichlorophenol		1350	ug/kg	62.7	313
91-58-7	2-Chloronaphthalene		1120	ug/kg	10.3	31.3
88-74-4	2-Nitroaniline		1070	ug/kg	62.7	313
99-09-2	*o-Nitroaniline* 3-Nitroaniline		1210	ug/kg	62.7	313

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852			**Matrix:**	SOIL
Lab Sample ID:	1201993835				
Client Sample:	QC for batch 932076	**Client:**	LANL010	**Project:**	QC
Client ID:	LCS for batch 932076	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	932077	**Inst:**	MSD3.I	**Dilution:**	1
Run Date:	12/13/2009 14:00	**Analyst:**	JLD1	**Inj. Vol:**	.5 uL
Prep Date:	12/11/2009 21:55	**Aliquot:**	30 g	**Final Volume:**	.94 mL
Data File:	s3l1313.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate		1350	ug/kg	62.7	313
606-20-2	2,6-Dinitrotoluene		1280	ug/kg	31.3	313
208-96-8	Acenaphthylene		1270	ug/kg	9.40	31.3
51-28-5	2,4-Dinitrophenol		1600	ug/kg	119	627
132-64-9	Dibenzofuran		1540	ug/kg	62.7	313
84-66-2	Diethylphthalate		1380	ug/kg	62.7	313
86-73-7	Fluorene		1250	ug/kg	9.40	31.3
7005-72-3	4-Chlorophenylphenylether		1390	ug/kg	62.7	313
534-52-1	2-Methyl-4,6-dinitrophenol		1350	ug/kg	62.7	313
100-01-6	4-Nitroaniline		1410	ug/kg	94.0	313
	p-Nitroaniline					
122-39-4	Diphenylamine		1320	ug/kg	62.7	313
122-66-7	Azobenzene		1130	ug/kg	62.7	313
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether		1450	ug/kg	62.7	313
118-74-1	Hexachlorobenzene		1250	ug/kg	62.7	313
85-01-8	Phenanthrene		1210	ug/kg	9.40	31.3
120-12-7	Anthracene		1200	ug/kg	6.27	31.3
84-74-2	Di-n-butylphthalate		1430	ug/kg	62.7	313
206-44-0	Fluoranthene		1260	ug/kg	9.40	31.3
85-68-7	Butylbenzylphthalate		1390	ug/kg	62.7	313
56-55-3	Benzo(a)anthracene		1240	ug/kg	9.40	31.3
91-94-1	3,3'-Dichlorobenzidine		915	ug/kg	94.0	313
218-01-9	Chrysene		1240	ug/kg	9.40	31.3
117-81-7	bis(2-Ethylhexyl)phthalate		1490	ug/kg	62.7	313
117-84-0	Di-n-octylphthalate		1390	ug/kg	62.7	313
205-99-2	Benzo(b)fluoranthene		1250	ug/kg	9.40	31.3
207-08-9	Benzo(k)fluoranthene		1310	ug/kg	9.40	31.3
50-32-8	Benzo(a)pyrene		1360	ug/kg	9.40	31.3
193-39-5	Indeno(1,2,3-cd)pyrene		1370	ug/kg	9.40	31.3
53-70-3	Dibenzo(a,h)anthracene		1360	ug/kg	9.40	31.3
191-24-2	Benzo(ghi)perylene		1330	ug/kg	9.40	31.3
120-82-1	1,2,4-Trichlorobenzene		1210	ug/kg	62.7	313

GEL Laboratories LLC

Data file : /chem/MSD3.i/s121309.b/s311313.d
Lab Smp Id: 1201993835 Client Smp ID: SBLK01LCS
Inj Date : 13-DEC-2009 14:00
Operator : JLD1 Inst ID: MSD3.i
Smp Info : |1201993835|932077|1|SVMF|1|SBLK01LCS
Misc Info : |MSD8270_S|WBN091208-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD3.i/s121309.b/MSD3-8270R-AQA-120809.m
Meth Date : 14-Dec-2009 11:36 jen00986 Quant Type: ISTD
Cal Date : 07-DEC-2009 19:48 Cal File: s310717.d
Als bottle: 6 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-852.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	0.94000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	0.00000	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	4.295	4.294	(1.000)	131927	40.0000	
* 29 Naphthalene-d8	136	5.544	5.546	(1.000)	504122	40.0000	
* 46 Acenaphthene-d10	164	7.392	7.394	(1.000)	277122	40.0000	
* 67 Phenanthrene-d10	188	8.983	8.983	(1.000)	474719	40.0000	
* 91 Chrysene-d12	240	11.846	11.844	(1.000)	409290	40.0000	
* 98 Perylene-d12	264	13.828	13.827	(1.000)	315041	40.0000	
$ 3 2-Fluorophenol	112	3.190	3.175	(0.743)	297336	86.1656	2700
$ 5 Phenol-d5	99	3.954	3.948	(0.921)	363117	82.5956	2590
$ 20 Nitrobenzene-d5	82	4.826	4.828	(0.870)	154949	42.0549	1320
$ 39 2-Fluorobiphenyl	172	6.671	6.669	(0.902)	301065	46.3488	1450
$ 60 2,4,6-Tribromophenol	329	8.237	8.236	(1.114)	84074	110.478	3460
$ 81 p-Terphenyl-d14	244	10.685	10.686	(0.902)	313583	47.7035	1490

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
6 Phenol	94	3.966	3.963	(0.924)	186113	40.6386	1270
8 2-Chlorophenol	128	4.107	4.106	(0.956)	149323	42.2665	1320
11 1,4-Dichlorobenzene	146	4.309	4.309	(1.003)	152134	36.8226	1150
17 N-Nitrosodipropylamine	70	4.670	4.672	(1.087)	106468	37.1732	1160(Q)
28 1,2,4-Trichlorobenzene	180	5.480	5.482	(0.988)	122845	38.6366	1210
33 4-Chloro-3-methylphenol	107	6.137	6.127	(1.107)	130923	42.8415	1340
47 Acenaphthene	154	7.428	7.429	(1.005)	256716	38.9766	1220
50 2,4-Dinitrotoluene	165	7.601	7.602	(1.028)	96013	41.4241	1300
52 4-Nitrophenol	139	7.554	7.546	(1.022)	44691	42.3506	1330
65 Pentachlorophenol	266	8.780	8.778	(0.977)	48621	43.8725	1370
79 Pyrene	202	10.527	10.528	(0.889)	466151	40.7297	1280
2 Pyridine	79	2.299	2.264	(0.535)	113885	31.6352	991
4 Aniline	66	3.998	4.001	(0.931)	41176	22.3762	701
7 bis(2-Chloroethyl) ether	63	4.042	4.042	(0.941)	93546	32.2155	1010
9 1,3-Dichlorobenzene	146	4.242	4.241	(0.988)	149221	36.5674	1140
12 Benzyl alcohol	108	4.424	4.423	(1.030)	114853	50.9946	1600
13 1,2-Dichlorobenzene	146	4.453	4.455	(1.037)	142906	36.4590	1140
14 bis(2-Chloroisopropyl)ether	45	4.532	4.537	(1.055)	170861	30.8648	967(Q)
15 o-Cresol	107	4.523	4.517	(1.053)	117371	39.9352	1250
18 m,p-Cresols	107	4.670	4.675	(1.087)	171372	48.0009	1500(Q)
19 Hexachloroethane	117	4.776	4.778	(1.112)	56040	36.0119	1130
21 Nitrobenzene	77	4.846	4.848	(0.874)	156418	36.5367	1140
22 Isophorone	82	5.075	5.077	(0.915)	293063	42.5412	1330
23 2-Nitrophenol	139	5.157	5.159	(0.930)	76537	42.4932	1330
24 2,4-Dimethylphenol	122	5.195	5.194	(0.937)	130917	40.6715	1270
25 bis(2-Chloroethoxy)methane	93	5.286	5.288	(0.953)	165285	34.6189	1080
26 2,4-Dichlorophenol	162	5.400	5.399	(0.974)	111535	40.1151	1260
27 Benzoic acid	105	5.359	5.326	(0.967)	183158	97.6220	3060
30 Naphthalene	128	5.568	5.570	(1.004)	425158	41.3717	1300
31 4-Chloroaniline	127	5.629	5.625	(1.015)	70783	21.0028	658
32 Hexachlorobutadiene	225	5.682	5.684	(1.025)	64693	33.1735	1040
34 2-Methylnaphthalene	142	6.283	6.282	(1.133)	293285	40.5421	1270
36 Hexachlorocyclopentadiene	237	6.442	6.443	(0.871)	56098	70.6299	2210
37 2,4,6-Trichlorophenol	196	6.583	6.581	(0.890)	83890	44.9269	1410
38 2,4,5-Trichlorophenol	196	6.627	6.620	(0.896)	88808	43.1614	1350
40 2-Chloronaphthalene	162	6.800	6.799	(0.920)	246334	35.8669	1120
42 o-Nitroaniline	65	6.920	6.919	(0.936)	78465	34.0661	1070
41 m-Nitroaniline	138	7.360	7.362	(0.996)	55086	38.7664	1210
43 Dimethylphthalate	163	7.108	7.115	(0.962)	309355	42.9959	1350
44 2,6-Dinitrotoluene	165	7.175	7.177	(0.971)	73584	40.6960	1280
45 Acenaphthylene	152	7.240	7.244	(0.979)	431066	40.6120	1270
48 2,4-Dinitrophenol	184	7.463	7.461	(1.010)	32915	51.1938	1600
49 Dibenzofuran	168	7.610	7.611	(1.029)	445973	49.2850	1540
51 Diethylphthalate	149	7.859	7.857	(1.063)	315725	44.1709	1380
53 Fluorene	166	7.976	7.978	(1.079)	312844	39.7424	1240
54 4-Chlorophenylphenylether	204	7.973	7.975	(1.079)	150719	44.2795	1390
55 2-Methyl-4,6-dinitrophenol	198	8.038	8.036	(0.895)	47839	43.0281	1350

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
56 p-Nitroaniline	138	8.023	8.016	(1.085)	57582	44.9286	1410
133 Diphenylamine	169	8.108	8.107	(0.903)	258905	42.1732	1320
58 1,2-Diphenylhydrazine	77	8.146	8.145	(0.907)	330316	36.0996	1130
61 4-Bromophenylphenylether	248	8.498	8.497	(0.946)	81942	46.1897	1450
63 Hexachlorobenzene	284	8.560	8.561	(0.953)	85082	40.0519	1250
68 Phenanthrene	178	9.009	9.010	(1.003)	437090	38.5788	1210
69 Anthracene	178	9.062	9.063	(1.009)	441822	38.3309	1200
72 Di-n-butylphthalate	149	9.601	9.599	(1.069)	557052	45.7501	1430
76 Fluoranthene	202	10.281	10.282	(1.145)	451977	40.3001	1260
85 Butylbenzylphthalate	149	11.210	11.208	(0.946)	238062	44.3179	1390
89 Benzo(a)anthracene	228	11.825	11.827	(0.998)	389212	39.4968	1240
90 3,3'-Dichlorobenzidine	252	11.802	11.800	(0.996)	82148	29.2056	915
92 Chrysene	228	11.875	11.877	(1.002)	361187	39.4699	1240
93 bis(2-Ethylhexyl)phthalate	149	11.831	11.830	(0.999)	339900	47.4888	1490
94 Di-n-octylphthalate	149	12.658	12.657	(0.915)	515679	44.3265	1390
95 Benzo(b)fluoranthene	252	13.241	13.243	(0.958)	332823	39.9939	1250
96 Benzo(k)fluoranthene	252	13.285	13.287	(0.961)	328574	41.7580	1310
97 Benzo(a)pyrene	252	13.734	13.739	(0.993)	296673	43.3368	1360
99 Indeno(1,2,3-cd)pyrene	276	15.568	15.573	(1.126)	263053	43.6751	1370
100 Dibenzo(a,h)anthracene	278	15.603	15.606	(1.128)	220667	43.3443	1360
101 Benzo(ghi)perylene	276	16.028	16.034	(1.159)	215788	42.5779	1330
1 N-Methyl-N-nitrosomethylamine	74	2.261	2.237	(0.526)	79607	35.8938	1120

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: /chem/MSD3.i/s121309.b/s311313.d
Date : 13-DEC-2009 14:00
Client ID: SBLK01LCS
Sample Info: I120199383519320771|SVMF1|SBLK01LCS
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD3.i
Operator: JLD1
Column diameter: 0.20

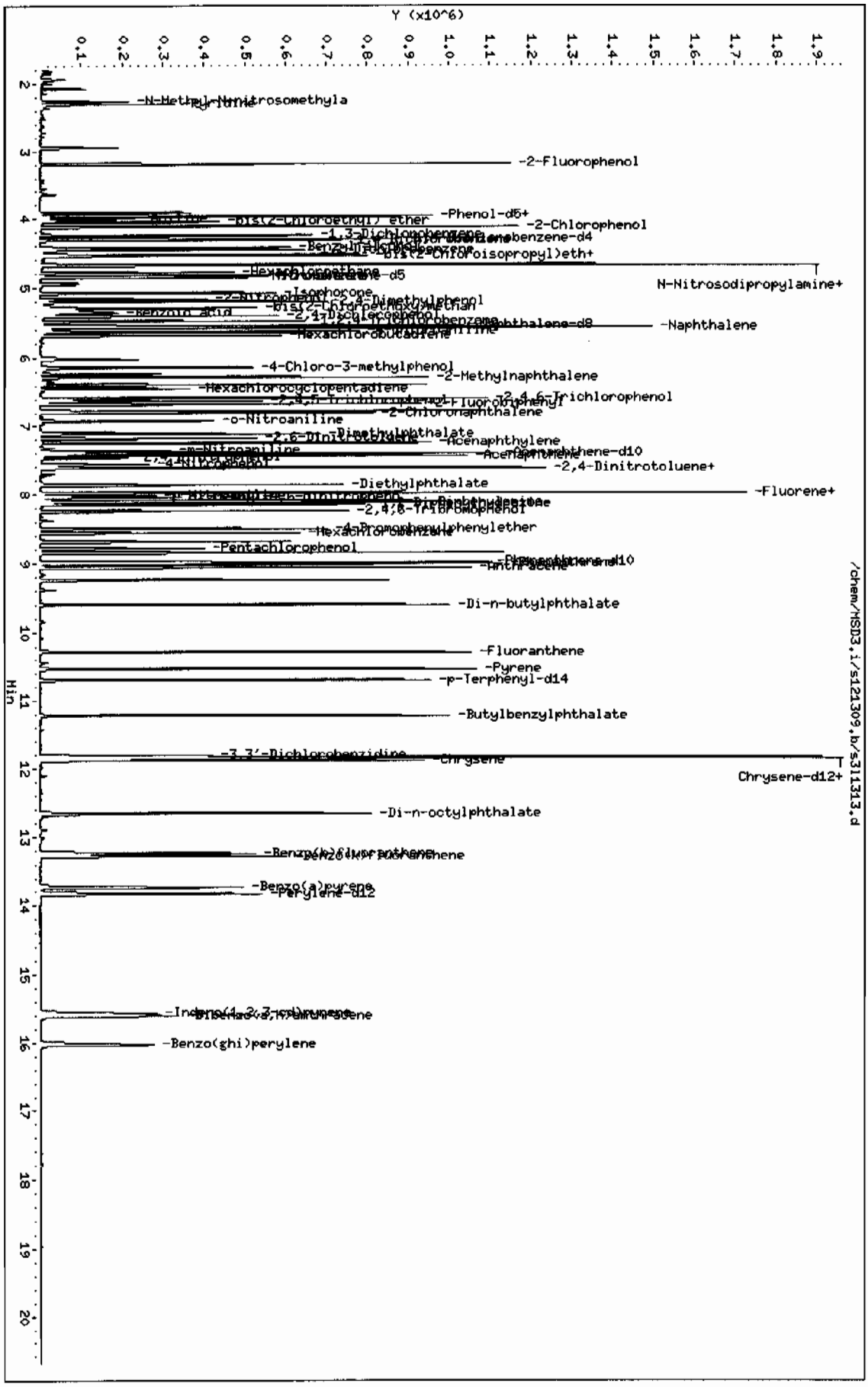

Page 1

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-852**	**Date Collected:**	**12/07/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**1201993836**	**Date Received:**	**12/10/2009 08:50**	**%Moisture:**	**14.6**
Client Sample:	**QC for batch 932076**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**RE03-09-14224MS**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**932077**	**Inst:**	**MSD3.I**	**Dilution:**	**1**
Run Date:	**12/13/2009 15:23**	**Analyst:**	**JLD1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/11/2009 21:55**	**Aliquot:**	**30.01 g**	**Final Volume:**	**1 mL**
Data File:	**s3l1316.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine		1320	ug/kg	78.0	390
108-95-2	Phenol		1510	ug/kg	78.0	390
95-57-8	2-Chlorophenol		1590	ug/kg	78.0	390
106-46-7	1,4-Dichlorobenzene		1380	ug/kg	78.0	390
621-64-7	N-Nitrosodipropylamine		1410	ug/kg	78.0	390
59-50-7	4-Chloro-3-methylphenol		1650	ug/kg	78.0	390
83-32-9	Acenaphthene		1500	ug/kg	12.9	39.0
121-14-2	2,4-Dinitrotoluene		1570	ug/kg	39.0	390
100-02-7	4-Nitrophenol		1620	ug/kg	129	390
87-86-5	Pentachlorophenol		1750	ug/kg	97.5	390
129-00-0	Pyrene		1530	ug/kg	11.7	39.0
110-86-1	Pyridine		990	ug/kg	78.0	390
62-53-3	Aniline		1210	ug/kg	117	390
111-44-4	bis(2-Chloroethyl) ether		1210	ug/kg	78.0	390
541-73-1	1,3-Dichlorobenzene		1370	ug/kg	78.0	390
100-51-6	Benzyl alcohol		1890	ug/kg	117	390
95-50-1	1,2-Dichlorobenzene		1350	ug/kg	78.0	390
108-60-1	bis(2-Chloroisopropyl)ether		1160	ug/kg	78.0	390
95-48-7	o-Cresol		1490	ug/kg	78.0	390
65794-96-9	m,p-Cresols		1830	ug/kg	117	390
67-72-1	Hexachloroethane		1350	ug/kg	78.0	390
98-95-3	Nitrobenzene		1370	ug/kg	78.0	390
78-59-1	Isophorone		1600	ug/kg	78.0	390
88-75-5	2-Nitrophenol		1600	ug/kg	78.0	390
105-67-9	2,4-Dimethylphenol		1500	ug/kg	137	390
111-91-1	bis(2-Chloroethoxy)methane		1310	ug/kg	78.0	390
120-83-2	2,4-Dichlorophenol		1520	ug/kg	78.0	390
65-85-0	Benzoic acid		3560	ug/kg	195	780
91-20-3	Naphthalene		1560	ug/kg	11.7	39.0
106-47-8	4-Chloroaniline		1170	ug/kg	78.0	390
87-68-3	Hexachlorobutadiene		1260	ug/kg	78.0	390
91-57-6	2-Methylnaphthalene		1530	ug/kg	7.80	39.0
77-47-4	Hexachlorocyclopentadiene		2620	ug/kg	78.0	390
88-06-2	2,4,6-Trichlorophenol		1720	ug/kg	78.0	390
95-95-4	2,4,5-Trichlorophenol		1680	ug/kg	78.0	390
91-58-7	2-Chloronaphthalene		1370	ug/kg	12.9	39.0
88-74-4	2-Nitroaniline		1300	ug/kg	78.0	390
	o-Nitroaniline					
99-09-2	3-Nitroaniline		1590	ug/kg	78.0	390

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	1201993836	**Date Received:**	12/10/2009 08:50	**%Moisture:**	14.6
Client Sample:	QC for batch 932076	**Client:**	LANL010	**Project:**	QC
Client ID:	RE03-09-14224MS	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	932077	**Inst:**	MSD3.I	**Dilution:**	1
Run Date:	12/13/2009 15:23	**Analyst:**	JLD1	**Inj. Vol:**	.5 uL
Prep Date:	12/11/2009 21:55	**Aliquot:**	30.01 g	**Final Volume:**	1 mL
Data File:	s311316.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate		1640	ug/kg	78.0	390
606-20-2	2,6-Dinitrotoluene		1540	ug/kg	39.0	390
208-96-8	Acenaphthylene		1570	ug/kg	11.7	39.0
51-28-5	2,4-Dinitrophenol		1880	ug/kg	148	780
132-64-9	Dibenzofuran		1900	ug/kg	78.0	390
84-66-2	Diethylphthalate		1680	ug/kg	78.0	390
86-73-7	Fluorene		1530	ug/kg	11.7	39.0
7005-72-3	4-Chlorophenylphenylether		1710	ug/kg	78.0	390
534-52-1	2-Methyl-4,6-dinitrophenol		1610	ug/kg	78.0	390
100-01-6	4-Nitroaniline		1540	ug/kg	117	390
	p-Nitroaniline					
122-39-4	Diphenylamine		1640	ug/kg	78.0	390
122-66-7	Azobenzene		1380	ug/kg	78.0	390
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether		1780	ug/kg	78.0	390
118-74-1	Hexachlorobenzene		1520	ug/kg	78.0	390
85-01-8	Phenanthrene		1470	ug/kg	11.7	39.0
120-12-7	Anthracene		1460	ug/kg	7.80	39.0
84-74-2	Di-n-butylphthalate		1720	ug/kg	78.0	390
206-44-0	Fluoranthene		1520	ug/kg	11.7	39.0
85-68-7	Butylbenzylphthalate		1670	ug/kg	78.0	390
56-55-3	Benzo(a)anthracene		1470	ug/kg	11.7	39.0
91-94-1	3,3'-Dichlorobenzidine		766	ug/kg	117	390
218-01-9	Chrysene		1480	ug/kg	11.7	39.0
117-81-7	bis(2-Ethylhexyl)phthalate		1780	ug/kg	78.0	390
117-84-0	Di-n-octylphthalate		1700	ug/kg	78.0	390
205-99-2	Benzo(b)fluoranthene		1520	ug/kg	11.7	39.0
207-08-9	Benzo(k)fluoranthene		1560	ug/kg	11.7	39.0
50-32-8	Benzo(a)pyrene		1620	ug/kg	11.7	39.0
193-39-5	Indeno(1,2,3-cd)pyrene		1620	ug/kg	11.7	39.0
53-70-3	Dibenzo(a,h)anthracene		1600	ug/kg	11.7	39.0
191-24-2	Benzo(ghi)perylene		1560	ug/kg	11.7	39.0
120-82-1	1,2,4-Trichlorobenzene		1430	ug/kg	78.0	390

GEL Laboratories LLC

Data file : /chem/MSD3.i/s121309.b/s311316.d
Lab Smp Id: 1201993836 Client Smp ID: RE03-09-14224MS
Inj Date : 13-DEC-2009 15:23
Operator : JLD1 Inst ID: MSD3.i
Smp Info : |1201993836|932077|1|SVMF|1|MS
Misc Info : |MSD8270_S|WBN091208-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD3.i/s121309.b/MSD3-8270R-AQA-120809.m
Meth Date : 14-Dec-2009 17:00 jen00986 Quant Type: ISTD
Cal Date : 07-DEC-2009 19:48 Cal File: s310717.d
Als bottle: 9 QC Sample: MS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-852.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.01000	weight of sample
M	14.57000	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	4.292	4.294	(1.000)	132514	40.0000	
* 29 Naphthalene-d8	136	5.544	5.546	(1.000)	507330	40.0000	
* 46 Acenaphthene-d10	164	7.390	7.394	(1.000)	278221	40.0000	
* 67 Phenanthrene-d10	188	8.983	8.983	(1.000)	481875	40.0000	
* 91 Chrysene-d12	240	11.846	11.844	(1.000)	414387	40.0000	
* 98 Perylene-d12	264	13.827	13.827	(1.000)	313914	40.0000	
$ 3 2-Fluorophenol	112	3.190	3.175	(0.743)	278496	80.3484	3130
$ 5 Phenol-d5	99	3.955	3.948	(0.921)	340807	77.1775	3010
$ 20 Nitrobenzene-d5	82	4.826	4.828	(0.870)	146908	39.6204	1540
$ 39 2-Fluorobiphenyl	172	6.668	6.669	(0.902)	288468	44.2340	1720
$ 60 2,4,6-Tribromophenol	329	8.238	8.236	(1.115)	79921	104.606	4080
$ 81 p-Terphenyl-d14	244	10.687	10.686	(0.902)	298671	44.8761	1750

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
6 Phenol	94	3.966	3.963	(0.924)	178313	38.7629	1510
8 2-Chlorophenol	128	4.107	4.106	(0.957)	144496	40.7190	1590
11 1,4-Dichlorobenzene	146	4.309	4.309	(1.004)	146646	35.3371	1380
17 N-Nitrosodipropylamine	70	4.667	4.672	(1.087)	103716	36.0519	1410(Q)
28 1,2,4-Trichlorobenzene	180	5.480	5.482	(0.988)	117692	36.7819	1430
33 4-Chloro-3-methylphenol	107	6.134	6.127	(1.106)	130354	42.3855	1650
47 Acenaphthene	154	7.425	7.429	(1.005)	253795	38.3809	1500
50 2,4-Dinitrotoluene	165	7.601	7.602	(1.029)	93500	40.1806	1570
52 4-Nitrophenol	139	7.551	7.546	(1.022)	43736	41.4188	1620
65 Pentachlorophenol	266	8.781	8.778	(0.977)	50559	44.7448	1740
79 Pyrene	202	10.525	10.528	(0.888)	454690	39.2396	1530
2 Pyridine	79	2.296	2.264	(0.535)	91821	25.3932	990
4 Aniline	66	3.999	4.001	(0.932)	57353	31.0292	1210
7 bis(2-Chloroethyl) ether	63	4.040	4.042	(0.941)	90792	31.0597	1210
9 1,3-Dichlorobenzene	146	4.242	4.241	(0.988)	143450	34.9974	1360
12 Benzyl alcohol	108	4.424	4.423	(1.031)	109336	48.3300	1880
13 1,2-Dichlorobenzene	146	4.450	4.455	(1.037)	136648	34.7080	1350
14 bis(2-Chloroisopropyl)ether	45	4.532	4.537	(1.056)	165163	29.7033	1160(Q)
15 o-Cresol	107	4.524	4.517	(1.054)	112804	38.2113	1490
18 m,p-Cresols	107	4.670	4.675	(1.088)	168196	46.9026	1830(Q)
19 Hexachloroethane	117	4.776	4.778	(1.113)	54171	34.6567	1350
21 Nitrobenzene	77	4.846	4.848	(0.874)	151376	35.1354	1370
22 Isophorone	82	5.075	5.077	(0.915)	283933	40.9553	1600
23 2-Nitrophenol	139	5.157	5.159	(0.930)	74321	41.0020	1600
24 2,4-Dimethylphenol	122	5.195	5.194	(0.937)	124782	38.5205	1500
25 bis(2-Chloroethoxy)methane	93	5.286	5.288	(0.953)	160984	33.5049	1310
26 2,4-Dichlorophenol	162	5.400	5.399	(0.974)	108766	38.8719	1520
27 Benzoic acid	105	5.354	5.326	(0.966)	169612	91.2777	3560
30 Naphthalene	128	5.565	5.570	(1.004)	413188	39.9349	1560
31 4-Chloroaniline	127	5.630	5.625	(1.015)	101471	29.9181	1170
32 Hexachlorobutadiene	225	5.682	5.684	(1.025)	63482	32.3467	1260
34 2-Methylnaphthalene	142	6.281	6.282	(1.133)	286160	39.3070	1530
36 Hexachlorocyclopentadiene	237	6.442	6.443	(0.872)	53661	67.2948	2620(R)
37 2,4,6-Trichlorophenol	196	6.583	6.581	(0.891)	82618	44.0709	1720
38 2,4,5-Trichlorophenol	196	6.627	6.620	(0.897)	88741	42.9585	1680
40 2-Chloronaphthalene	162	6.800	6.799	(0.920)	242837	35.2180	1370
42 o-Nitroaniline	65	6.920	6.919	(0.936)	77209	33.3884	1300
41 m-Nitroaniline	138	7.360	7.362	(0.996)	58516	40.6429	1580
43 Dimethylphthalate	163	7.108	7.115	(0.962)	303445	42.0079	1640
44 2,6-Dinitrotoluene	165	7.176	7.177	(0.971)	71686	39.4897	1540
45 Acenaphthylene	152	7.240	7.244	(0.980)	428962	40.2542	1570
48 2,4-Dinitrophenol	184	7.463	7.461	(1.010)	30342	48.3264	1880
49 Dibenzofuran	168	7.610	7.611	(1.030)	443408	48.8080	1900
51 Diethylphthalate	149	7.856	7.857	(1.063)	309903	43.1852	1680
53 Fluorene	166	7.974	7.978	(1.079)	310726	39.3174	1530
54 4-Chlorophenylphenylether	204	7.974	7.975	(1.079)	149841	43.8477	1710
55 2-Methyl-4,6-dinitrophenol	198	8.038	8.036	(0.895)	46318	41.3620	1610

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
56 p-Nitroaniline	138	8.021	8.016	(1.085)	49079	39.4799	1540
133 Diphenylamine	169	8.106	8.107	(0.902)	262452	42.1161	1640
58 1,2-Diphenylhydrazine	77	8.144	8.145	(0.907)	328177	35.3332	1380
61 4-Bromophenylphenylether	248	8.496	8.497	(0.946)	82057	45.5676	1780
63 Hexachlorobenzene	284	8.561	8.561	(0.953)	84279	39.0847	1520
68 Phenanthrene	178	9.010	9.010	(1.003)	433930	37.7311	1470
69 Anthracene	178	9.063	9.063	(1.009)	438402	37.4694	1460
72 Di-n-butylphthalate	149	9.599	9.599	(1.069)	544403	44.0473	1720
76 Fluoranthene	202	10.282	10.282	(1.145)	443441	38.9518	1520
85 Butylbenzylphthalate	149	11.209	11.208	(0.946)	233127	42.8654	1670
89 Benzo(a)anthracene	228	11.828	11.827	(0.998)	376743	37.7613	1470
90 3,3'-Dichlorobenzidine	252	11.802	11.800	(0.996)	55931	19.6402	766
92 Chrysene	228	11.875	11.877	(1.002)	350956	37.8802	1480
93 bis(2-Ethylhexyl)phthalate	149	11.831	11.830	(0.999)	331637	45.7644	1780
94 Di-n-octylphthalate	149	12.659	12.657	(0.916)	505918	43.6436	1700
95 Benzo(b)fluoranthene	252	13.246	13.243	(0.958)	322753	38.9231	1520
96 Benzo(k)fluoranthene	252	13.287	13.287	(0.961)	313872	40.0328	1560
97 Benzo(a)pyrene	252	13.736	13.739	(0.993)	282447	41.4069	1620
99 Indeno(1,2,3-cd)pyrene	276	15.569	15.573	(1.126)	249446	41.5646	1620
100 Dibenzo(a,h)anthracene	278	15.604	15.606	(1.129)	208029	41.0086	1600
101 Benzo(ghi)perylene	276	16.030	16.034	(1.159)	201496	39.9007	1560
1 N-Methyl-N-nitrosomethylamine	74	2.258	2.237	(0.526)	75337	33.8180	1320

QC Flag Legend

Q - Qualifier signal failed the ratio test.
R - Spike/Surrogate failed recovery limits.

Data File: /chem/MSD3.i/s121309.b/s311316.d
Date : 13-DEC-2009 15:23
Client ID: REO3-09-14224MS
Sample Info: 1120199383619320771111SVMF11:MS
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD3.i
Operator: JLD1
Column diameter: 0.20

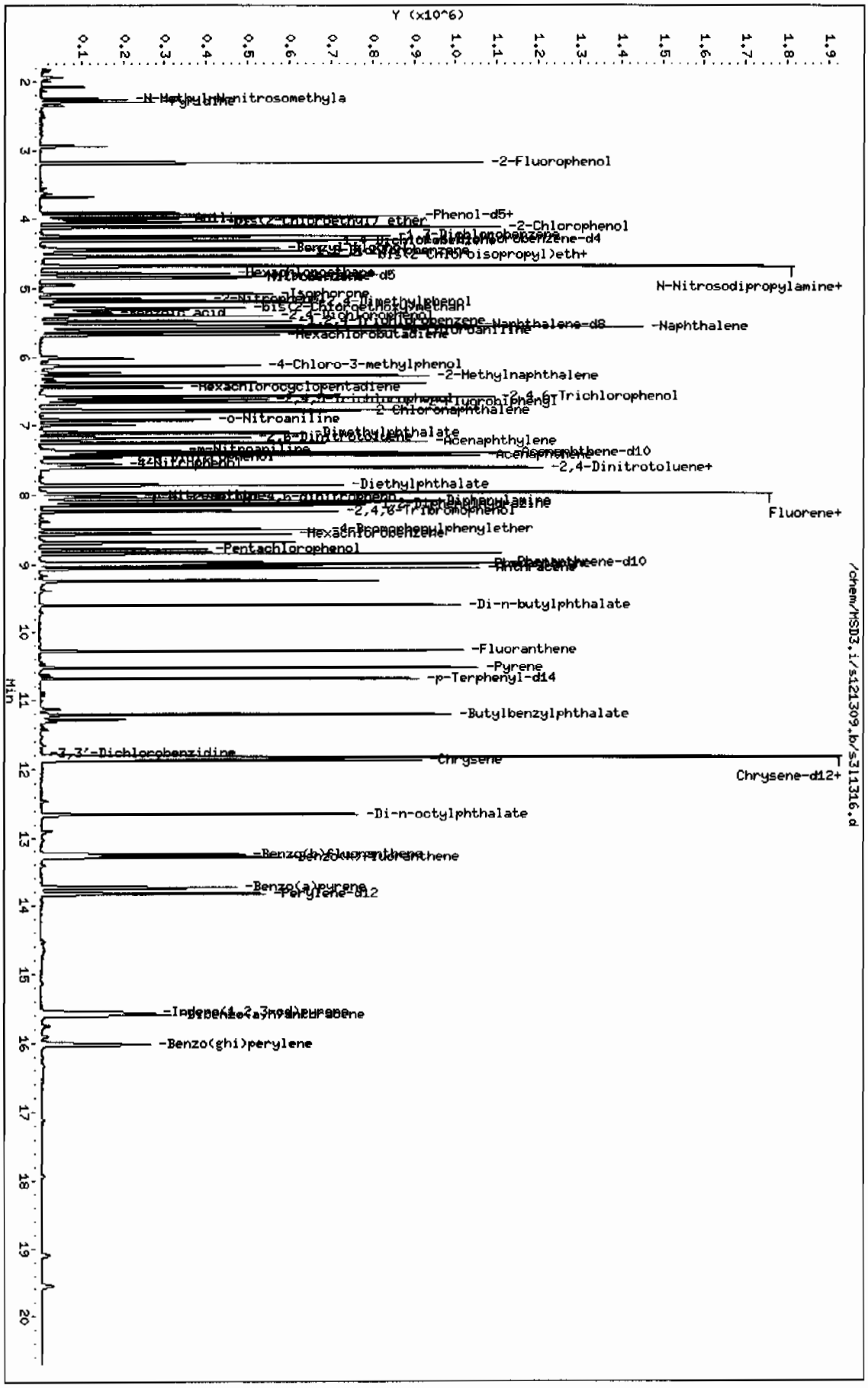

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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	1201993837	**Date Received:**	12/10/2009 08:50	**%Moisture:**	14.6
Client Sample:	QC for batch 932076	**Client:**	LANL010	**Project:**	QC
Client ID:	RE03-09-14224MSD	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	932077	**Inst:**	MSD3.I	**Dilution:**	1
Run Date:	12/13/2009 15:50	**Analyst:**	JLD1	**Inj. Vol:**	.5 uL
Prep Date:	12/11/2009 21:55	**Aliquot:**	30.19 g	**Final Volume:**	1 mL
Data File:	s311317.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine		1310	ug/kg	77.5	388
108-95-2	Phenol		1460	ug/kg	77.5	388
95-57-8	2-Chlorophenol		1530	ug/kg	77.5	388
106-46-7	1,4-Dichlorobenzene		1350	ug/kg	77.5	388
621-64-7	N-Nitrosodipropylamine		1360	ug/kg	77.5	388
59-50-7	4-Chloro-3-methylphenol		1560	ug/kg	77.5	388
83-32-9	Acenaphthene		1430	ug/kg	12.8	38.8
121-14-2	2,4-Dinitrotoluene		1490	ug/kg	38.8	388
100-02-7	4-Nitrophenol		1530	ug/kg	128	388
87-86-5	Pentachlorophenol		1630	ug/kg	96.9	388
129-00-0	Pyrene		1490	ug/kg	11.6	38.8
110-86-1	Pyridine		975	ug/kg	77.5	388
62-53-3	Aniline		1170	ug/kg	116	388
111-44-4	bis(2-Chloroethyl) ether		1180	ug/kg	77.5	388
541-73-1	1,3-Dichlorobenzene		1350	ug/kg	77.5	388
100-51-6	Benzyl alcohol		1820	ug/kg	116	388
95-50-1	1,2-Dichlorobenzene		1330	ug/kg	77.5	388
108-60-1	bis(2-Chloroisopropyl)ether		1130	ug/kg	77.5	388
95-48-7	o-Cresol		1460	ug/kg	77.5	388
65794-96-9	m,p-Cresols		1750	ug/kg	116	388
67-72-1	Hexachloroethane		1330	ug/kg	77.5	388
98-95-3	Nitrobenzene		1330	ug/kg	77.5	388
78-59-1	Isophorone		1550	ug/kg	77.5	388
88-75-5	2-Nitrophenol		1550	ug/kg	77.5	388
105-67-9	2,4-Dimethylphenol		1470	ug/kg	136	388
111-91-1	bis(2-Chloroethoxy)methane		1270	ug/kg	77.5	388
120-83-2	2,4-Dichlorophenol		1460	ug/kg	77.5	388
65-85-0	Benzoic acid		3030	ug/kg	194	775
91-20-3	Naphthalene		1510	ug/kg	11.6	38.8
106-47-8	4-Chloroaniline		1100	ug/kg	77.5	388
87-68-3	Hexachlorobutadiene		1220	ug/kg	77.5	388
91-57-6	2-Methylnaphthalene		1480	ug/kg	7.75	38.8
77-47-4	Hexachlorocyclopentadiene		2580	ug/kg	77.5	388
88-06-2	2,4,6-Trichlorophenol		1660	ug/kg	77.5	388
95-95-4	2,4,5-Trichlorophenol		1580	ug/kg	77.5	388
91-58-7	2-Chloronaphthalene		1330	ug/kg	12.8	38.8
88-74-4	2-Nitroaniline		1240	ug/kg	77.5	388
99-09-2	*o-Nitroaniline* 3-Nitroaniline		1450	ug/kg	77.5	388

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-852	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	1201993837	**Date Received:**	12/10/2009 08:50	**%Moisture:**	14.6
Client Sample:	QC for batch 932076	**Client:**	LANL010	**Project:**	QC
Client ID:	RE03-09-14224MSD	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	932077	**Inst:**	MSD3.I	**Dilution:**	1
Run Date:	12/13/2009 15:50	**Analyst:**	JLD1	**Inj. Vol:**	.5 uL
Prep Date:	12/11/2009 21:55	**Aliquot:**	30.19 g	**Final Volume:**	1 mL
Data File:	s3l1317.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate		1550	ug/kg	77.5	388
606-20-2	2,6-Dinitrotoluene		1470	ug/kg	38.8	388
208-96-8	Acenaphthylene		1510	ug/kg	11.6	38.8
51-28-5	2,4-Dinitrophenol		1720	ug/kg	147	775
132-64-9	Dibenzofuran		1830	ug/kg	77.5	388
84-66-2	Diethylphthalate		1630	ug/kg	77.5	388
86-73-7	Fluorene		1470	ug/kg	11.6	38.8
7005-72-3	4-Chlorophenylphenylether		1630	ug/kg	77.5	388
534-52-1	2-Methyl-4,6-dinitrophenol		1510	ug/kg	77.5	388
100-01-6	4-Nitroaniline		1290	ug/kg	116	388
	p-Nitroaniline					
122-39-4	Diphenylamine		1570	ug/kg	77.5	388
122-66-7	Azobenzene		1300	ug/kg	77.5	388
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether		1680	ug/kg	77.5	388
118-74-1	Hexachlorobenzene		1450	ug/kg	77.5	388
85-01-8	Phenanthrene		1390	ug/kg	11.6	38.8
120-12-7	Anthracene		1380	ug/kg	7.75	38.8
84-74-2	Di-n-butylphthalate		1600	ug/kg	77.5	388
206-44-0	Fluoranthene		1410	ug/kg	11.6	38.8
85-68-7	Butylbenzylphthalate		1620	ug/kg	77.5	388
56-55-3	Benzo(a)anthracene		1400	ug/kg	11.6	38.8
91-94-1	3,3'-Dichlorobenzidine		536	ug/kg	116	388
218-01-9	Chrysene		1390	ug/kg	11.6	38.8
117-81-7	bis(2-Ethylhexyl)phthalate		1720	ug/kg	77.5	388
117-84-0	Di-n-octylphthalate		1640	ug/kg	77.5	388
205-99-2	Benzo(b)fluoranthene		1420	ug/kg	11.6	38.8
207-08-9	Benzo(k)fluoranthene		1480	ug/kg	11.6	38.8
50-32-8	Benzo(a)pyrene		1520	ug/kg	11.6	38.8
193-39-5	Indeno(1,2,3-cd)pyrene		1480	ug/kg	11.6	38.8
53-70-3	Dibenzo(a,h)anthracene		1460	ug/kg	11.6	38.8
191-24-2	Benzo(ghi)perylene		1400	ug/kg	11.6	38.8
120-82-1	1,2,4-Trichlorobenzene		1410	ug/kg	77.5	388

GEL Laboratories LLC

Data file : /chem/MSD3.i/s121309.b/s311317.d
Lab Smp Id: 1201993837 Client Smp ID: RE03-09-14224MSD
Inj Date : 13-DEC-2009 15:50
Operator : JLD1 Inst ID: MSD3.i
Smp Info : |1201993837|932077|1|SVMF|1|MSD
Misc Info : |MSD8270_S|WBN091208-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD3.i/s121309.b/MSD3-8270R-AQA-120809.m
Meth Date : 14-Dec-2009 17:00 jen00986 Quant Type: ISTD
Cal Date : 07-DEC-2009 19:48 Cal File: s310717.d
Als bottle: 10 QC Sample: MSD
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-852.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.19000	weight of sample
M	14.57000	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT S1G MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	4.292	4.294	(1.000)	138383	40.0000	
* 29 Naphthalene-d8	136	5.544	5.546	(1.000)	527857	40.0000	
* 46 Acenaphthene-d10	164	7.390	7.394	(1.000)	287058	40.0000	
* 67 Phenanthrene-d10	188	8.983	8.983	(1.000)	496053	40.0000	
* 91 Chrysene-d12	240	11.847	11.844	(1.000)	409710	40.0000	
* 98 Perylene-d12	264	13.829	13.827	(1.000)	305935	40.0000	
$ 3 2-Fluorophenol	112	3.190	3.175	(0.743)	283340	78.2790	3040
$ 5 Phenol-d5	99	3.954	3.948	(0.921)	349294	75.7447	2940
$ 20 Nitrobenzene-d5	82	4.826	4.828	(0.870)	150543	39.0219	1510
$ 39 2-Fluorobiphenyl	172	6.668	6.669	(0.902)	290467	43.1694	1670
$ 60 2,4,6-Tribromophenol	329	8.238	8.236	(1.115)	77742	98.6217	3820
$ 81 p-Terphenyl-d14	244	10.687	10.686	(0.902)	287347	43.6675	1690

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
6 Phenol	94	3.966	3.963	(0.924)	180791	37.6348	1460
8 2-Chlorophenol	128	4.107	4.106	(0.957)	146055	39.4127	1530
11 1,4-Dichlorobenzene	146	4.309	4.309	(1.004)	150523	34.7330	1350
17 N-Nitrosodipropylamine	70	4.667	4.672	(1.087)	105603	35.1510	1360(Q)
28 1,2,4-Trichlorobenzene	180	5.480	5.482	(0.988)	121062	36.3638	1410
33 4-Chloro-3-methylphenol	107	6.134	6.127	(1.106)	128726	40.2285	1560
47 Acenaphthene	154	7.425	7.429	(1.005)	251166	36.8140	1430
50 2,4-Dinitrotoluene	165	7.601	7.602	(1.029)	92496	38.5255	1490
52 4-Nitrophenol	139	7.551	7.546	(1.022)	42574	39.3839	1530
65 Pentachlorophenol	266	8.781	8.778	(0.977)	48227	42.0591	1630
79 Pyrene	202	10.526	10.528	(0.888)	440062	38.4108	1490
2 Pyridine	79	2.302	2.264	(0.536)	94912	25.1348	974
4 Aniline	66	3.998	4.001	(0.932)	58156	30.1292	1170
7 bis(2-Chloroethyl) ether	63	4.040	4.042	(0.941)	93042	30.4414	1180(Q)
9 1,3-Dichlorobenzene	146	4.242	4.241	(0.988)	149074	34.8270	1350
12 Benzyl alcohol	108	4.424	4.423	(1.031)	110861	46.9258	1820
13 1,2-Dichlorobenzene	146	4.450	4.455	(1.037)	140918	34.2745	1330
14 bis(2-Chloroisopropyl)ether	45	4.532	4.537	(1.056)	169111	29.1235	1130(Q)
15 o-Cresol	107	4.523	4.517	(1.054)	115852	37.5794	1460
18 m,p-Cresols	107	4.670	4.675	(1.088)	169136	45.1644	1750(Q)
19 Hexachloroethane	117	4.776	4.778	(1.113)	55957	34.2810	1330
21 Nitrobenzene	77	4.846	4.848	(0.874)	153606	34.2665	1330
22 Isophorone	82	5.075	5.077	(0.915)	287736	39.8899	1550
23 2-Nitrophenol	139	5.157	5.159	(0.930)	75504	40.0348	1550
24 2,4-Dimethylphenol	122	5.195	5.194	(0.937)	127625	37.8660	1470
25 bis(2-Chloroethoxy)methane	93	5.286	5.288	(0.953)	163732	32.7516	1270
26 2,4-Dichlorophenol	162	5.400	5.399	(0.974)	109829	37.7254	1460
27 Benzoic acid	105	5.353	5.326	(0.966)	144499	78.0247	3020
30 Naphthalene	128	5.568	5.570	(1.004)	418508	38.8624	1510
31 4-Chloroaniline	127	5.629	5.625	(1.015)	100320	28.4285	1100
32 Hexachlorobutadiene	225	5.682	5.684	(1.025)	64122	31.4022	1220
34 2-Methylnaphthalene	142	6.281	6.282	(1.133)	288805	38.1277	1480
36 Hexachlorocyclopentadiene	237	6.442	6.443	(0.872)	54760	66.5589	2580(R)
37 2,4,6-Trichlorophenol	196	6.583	6.581	(0.891)	82661	42.7364	1660
38 2,4,5-Trichlorophenol	196	6.627	6.620	(0.897)	87024	40.8305	1580
40 2-Chloronaphthalene	162	6.800	6.799	(0.920)	244932	34.4283	1330
42 o-Nitroaniline	65	6.920	6.919	(0.936)	76325	31.9900	1240
41 m-Nitroaniline	138	7.361	7.362	(0.996)	54758	37.4621	1450
43 Dimethylphthalate	163	7.108	7.115	(0.962)	298709	40.0793	1550
44 2,6-Dinitrotoluene	165	7.176	7.177	(0.971)	70932	37.8714	1470
45 Acenaphthylene	152	7.240	7.244	(0.980)	427452	38.8776	1510
48 2,4-Dinitrophenol	184	7.463	7.461	(1.010)	27360	44.2703	1720
49 Dibenzofuran	168	7.610	7.611	(1.030)	442697	47.2296	1830
51 Diethylphthalate	149	7.856	7.857	(1.063)	311657	42.0926	1630
53 Fluorene	166	7.977	7.978	(1.079)	309288	37.9307	1470
54 4-Chlorophenylphenylether	204	7.974	7.975	(1.079)	147985	41.9714	1630
55 2-Methyl-4,6-dinitrophenol	198	8.035	8.036	(0.894)	44300	38.9215	1510

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
56 p-Nitroaniline	138	8.018	8.016	(1.085)	40389	33.2810	1290
133 Diphenylamine	169	8.106	8.107	(0.902)	259906	40.5155	1570
58 1,2-Diphenylhydrazine	77	8.144	8.145	(0.907)	321704	33.6463	1300
61 4-Bromophenylphenylether	248	8.496	8.497	(0.946)	80216	43.2721	1680
63 Hexachlorobenzene	284	8.561	8.561	(0.953)	82900	37.3464	1450
68 Phenanthrene	178	9.010	9.010	(1.003)	425630	35.9516	1390
69 Anthracene	178	9.063	9.063	(1.009)	429934	35.6954	1380
72 Di-n-butylphthalate	149	9.599	9.599	(1.069)	524379	41.2145	1600
76 Fluoranthene	202	10.282	10.282	(1.145)	425461	36.3043	1410
85 Butylbenzylphthalate	149	11.209	11.208	(0.946)	225285	41.8963	1620
89 Benzo(a)anthracene	228	11.829	11.827	(0.998)	356562	36.1465	1400
90 3,3'-Dichlorobenzidine	252	11.805	11.800	(0.996)	38941	13.8303	536(R)
92 Chrysene	228	11.876	11.877	(1.002)	328487	35.8597	1390
93 bis(2-Ethylhexyl)phthalate	149	11.835	11.830	(0.999)	317360	44.2942	1720
94 Di-n-octylphthalate	149	12.660	12.657	(0.915)	478487	42.3538	1640
95 Benzo(b)fluoranthene	252	13.244	13.243	(0.958)	296728	36.7178	1420
96 Benzo(k)fluoranthene	252	13.288	13.287	(0.961)	291777	38.1853	1480
97 Benzo(a)pyrene	252	13.737	13.739	(0.993)	260375	39.1667	1520
99 Indeno(1,2,3-cd)pyrene	276	15.568	15.573	(1.126)	222801	38.0930	1480
100 Dibenzo(a,h)anthracene	278	15.604	15.606	(1.128)	185967	37.6156	1460
101 Benzo(ghi)perylene	276	16.029	16.034	(1.159)	177459	36.0573	1400
1 N-Methyl-N-nitrosomethylamine	74	2.261	2.237	(0.527)	78536	33.7588	1310

QC Flag Legend

Q - Qualifier signal failed the ratio test.
R - Spike/Surrogate failed recovery limits.

Data File: /chem/MSD3.i/s121309.b/s311317.d

Date : 13-DEC-2009 15:50

Client ID: RE03-09-14224MSD

Sample Info: |1201993837|932077|1|SVMF|1|MSD

Volume Injected (uL): 0.5

Column phase: J&W DB-5MS

Instrument: MSD3.i

Operator: JLD1

Column diameter: 0.20

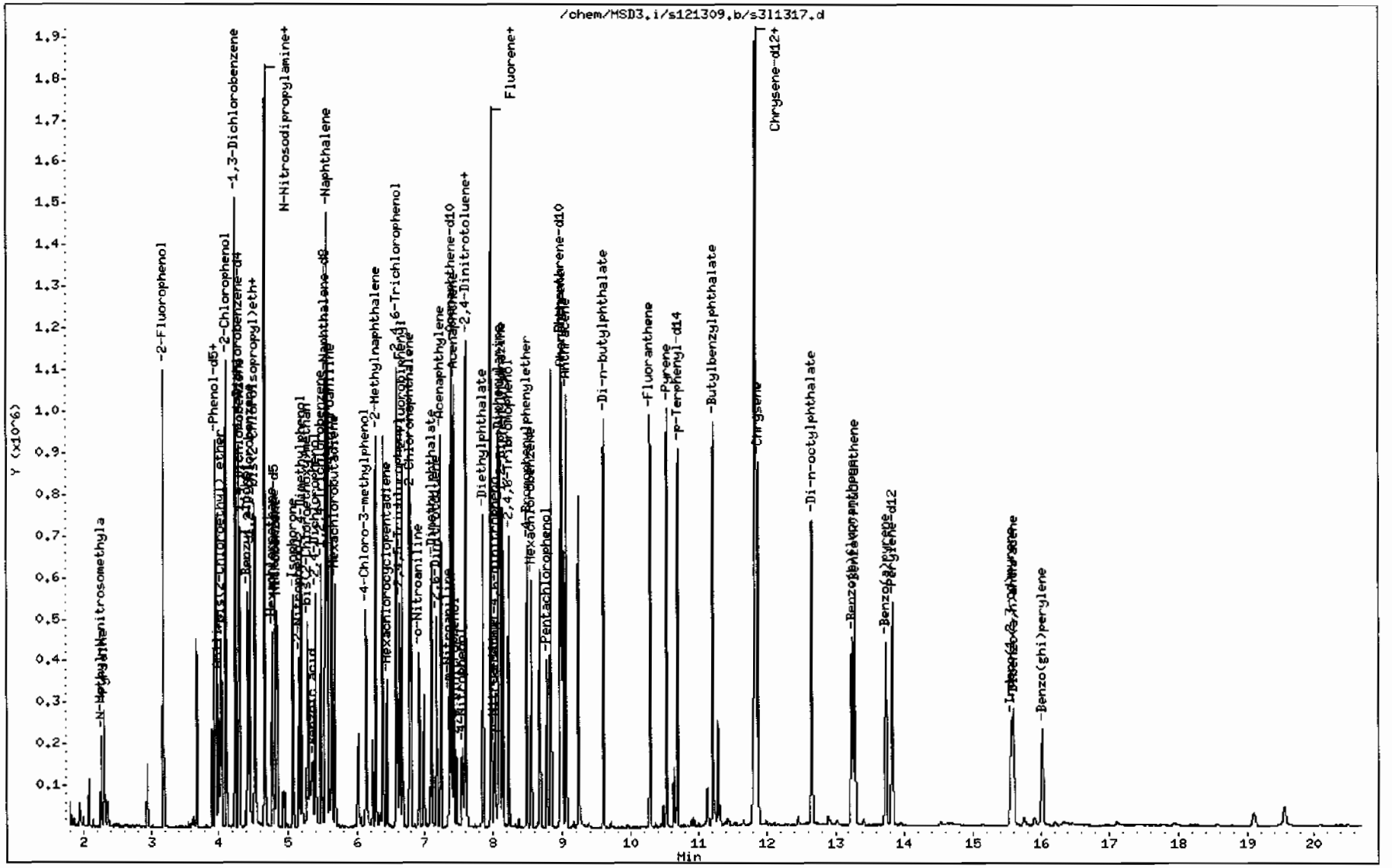

Miscellaneous Data

Prep Logbook

Extraction of Semivolatile and Nonvolatile Organic Compounds from Soil, Sludge, and Other Miscellaneous Solid Samples

Batch ID: 932076 **Verified by:** _____

Analyst: Alberto Velasco

Method: SW846 3550B

Lab SOP: GL-OA-E-010 REV# 18

Instrument: Semi-Volatiles Manual

Sample ID	Run Date	Aliquot (g)	Prepped Aliquot (mL)	Prepped Factor (mL/g)
1201993834 MB	11-DEC-2009 21:55:01	30	0.95	0.03167
1201993835 LCS	11-DEC-2009 21:55:01	30	0.94	0.03133
242654001	11-DEC-2009 21:55:01	30.17	1	0.03315
1201993836 MS (242654001)	11-DEC-2009 21:55:01	30.01	1	0.03332
1201993837 MSD (242654001)	11-DEC-2009 21:55:01	30.19	1	0.03312
242654002	11-DEC-2009 21:55:01	30.03	1	0.0333
242654003	11-DEC-2009 21:55:01	30.09	1	0.03323
242654004	11-DEC-2009 21:55:01	30.03	1	0.0333
242654005	11-DEC-2009 21:55:01	30.12	1	0.0332
242654006	11-DEC-2009 21:55:01	30.06	1	0.03327
242654007	11-DEC-2009 21:55:01	30.19	1	0.03312
242654008	11-DEC-2009 21:55:01	30.08	1	0.03324
242654009	11-DEC-2009 21:55:01	30.03	1	0.0333
242654010	11-DEC-2009 21:55:01	30.02	1	0.03331
242654011	11-DEC-2009 21:55:01	30.19	1	0.03312
242654012	11-DEC-2009 21:55:01	30.13	1	0.03319
242654013	11-DEC-2009 21:55:01	30.18	1	0.03313
242654014	11-DEC-2009 21:55:01	30.02	1	0.03331
242654015	11-DEC-2009 21:55:01	30.01	1	0.03332
242654016	11-DEC-2009 21:55:01	30.12	1	0.0332
242654017	11-DEC-2009 21:55:01	30.05	1	0.03328
242654018	11-DEC-2009 21:55:01	30.02	1	0.03331
242654019	11-DEC-2009 21:55:01	30.16	1	0.03316
242654020	11-DEC-2009 21:55:01	30.04	1	0.03329

Type	Sample Id	Description	Serial Number	Spike Amt	Units
LCS	1201993835	BENZIDINE LCS	UE091130-21	1	mL
LCS	1201993835	BNA LCS w/o Benzidine 50ppm	UE091202-11	1	mL
MS	1201993836	BENZIDINE LCS	UE091130-21	1	mL
MS	1201993836	BNA LCS w/o Benzidine 50ppm	UE091202-11	1	mL
MSD	1201993837	BENZIDINE LCS	UE091130-21	1	mL
MSD	1201993837	BNA LCS w/o Benzidine 50ppm	UE091202-11	1	mL
SURR	All	BNA for all Surrogate	UE091130-10	1	mL
REGNT	All	Acetone	1233927	150	mL
REGNT	All	Methylene Chloride	1239699-D	150	mL
SOURC	All	SODIUM SULFATE	1237409	30	g

Comments:

Verified By: AJS

Final Solvent: CH2Cl2

GEL ORGANIC RUN LOG INSTRUMENT ID: MSD3

DATE: 12/06/2009 METHOD: See raw data OPERATOR: JLD1 REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT:1202440-D
Multiplier Voltage: 976 Emv Extr. Injection Volume: 0.5, 1.0 ul
DFTPP Solution ID: WBN091128-01 Internal Std ID: WBN091128-02
CALIBRATION & QC INFORMATION:
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.

SOP: GL-OA-E-009 Rev. 22 Sequence Number: /chem/MSD3.i/s120609.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
s311406.d	WBN090825-05.1	JLD1	14-SEP-2009 11:51	40PPM	s091409	1.0	APCVS	USE; FOR RT ONLY
s310601-D.d	WBN091128-01	JLD1	06-DEC-2009 09:33	50NG	s120609	1.0	DFTPP	USE; 8270D MEGA ICAL/ICV
s310601.d	WBN091128-01	JLD1	06-DEC-2009 09:33	50NG	s120609	1.0	DFTPP	USE; 8270C MEGA ICAL/ICV
s310602.d	INSTRUMENTBLANK	JLD1	06-DEC-2009 09:45		s120609	1.0		IB
s310603-MQC.	WBN091201-16	JLD1	06-DEC-2009 10:12	01PPM	s120609	1.0	MEGAICAL	8270D MQC NOT NEEDED
s310603.d	WBN091201-16	JLD1	06-DEC-2009 10:12	01PPM	s120609	1.0	MEGAICAL	USE; LEV 1
s310604-MQC.d	WBN091201-15	JLD1	06-DEC-2009 10:41	10PPM	s120609	1.0	MEGAICAL	8270D MQC PASS
s310604.d	WBN091201-15	JLD1	06-DEC-2009 10:41	10PPM	s120609	1.0	MEGAICAL	USE; LEV 2
s310605-MQC.	WBN091201-14	JLD1	06-DEC-2009 11:10	20PPM	s120609	1.0	MEGAICAL	8270D MQC PASS
s310605.d	WBN091201-14	JLD1	06-DEC-2009 11:10	20PPM	s120609	1.0	MEGAICAL	USE; LEV 3
s310606.d	WBN091201-13.1	JLD1	06-DEC-2009 11:39	40PPM	s120609	1.0	MEGAICAL	USE; LEV 4
s310607.d	WBN091201-12	JLD1	06-DEC-2009 12:08	50PPM	s120609	1.0	MEGAICAL	USE; LEV 5
s310608.d	WBN091201-11	JLD1	06-DEC-2009 12:37	80PPM	s120609	1.0	MEGAICAL	USE; LEV 6
s310609.d	WBN091201-10	JLD1	06-DEC-2009 13:06	100PPM	s120609	1.0	MEGAICAL	USE; LEV 7
s310610.d	WBN091201-09	JLD1	06-DEC-2009 13:35	120PPM	s120609	1.0	MEGAICAL	USE; LEV 8
s310611.d	INSTRUMENTBLANK	JLD1	06-DEC-2009 14:04		s120609	1.0		IB
s310612-8270	WBN091106-05.2	JLD1	06-DEC-2009 14:32	40PPM	s120609	1.0	MEGAICV	USE; 8270D 36/210/211/26 ESTIMATED
s310612-BOE.	WBN091106-05.2	JLD1	06-DEC-2009 14:32	40PPM	s120609	1.0	MEGAICV	USE; BOE PASSED ALL BUT 210/211
s310612.d	WBN091106-05.2	JLD1	06-DEC-2009 14:32	40PPM	s120609	1.0	MEGAICV	USE; 8270C PASSED ALL BUT 210/211

s310613-D.d	WBN091128-01	JLD1	06-DEC-2009 19:35	50NG	s120609	1.0	DFTPP	USE; 8270D PEST/HEX ICAL; PEST ICV
s310613.d	WBN091128-01	JLD1	06-DEC-2009 19:35	50NG	s120609	1.0	DFTPP	USE; 8270C PEST/HEX ICAL; PEST ICV
s310614.d	INSTRUMENTBLANK	JLD1	06-DEC-2009 19:47		s120609	1.0		IB
s310615.d	WBN091201-01	JLD1	06-DEC-2009 20:14	10PPM	s120609	1.0	AP010	USE; AP ICAL FAILS C 77/146
s310616.d	WBN091201-02	JLD1	06-DEC-2009 20:41	20PPM	s120609	1.0	AP020	USE; AP ICAL FAILS C 77/146
s310617.d	WBN091201-03.1	JLD1	06-DEC-2009 21:09	40PPM	s120609	1.0	AP040	USE; AP ICAL FAILS C 77/146
s310618.d	WBN091201-04	JLD1	06-DEC-2009 21:36	50PPM	s120609	1.0	AP050	USE; AP ICAL FAILS C 77/146
s310619.d	WBN091201-05	JLD1	06-DEC-2009 22:04	80PPM	s120609	1.0	AP080	USE; AP ICAL FAILS C 77/146
s310620.d	WBN091201-06	JLD1	06-DEC-2009 22:31	100PPM	s120609	1.0	AP100	USE; AP ICAL FAILS C 77/146
s310621.d	WBN091201-07	JLD1	06-DEC-2009 22:58	120PPM	s120609	1.0	AP120	USE; AP ICAL FAILS C 77/146
s310622.d	WBN091202-25	JLD1	06-DEC-2009 23:25	10PPM	s120609	1.0	PEST010	USE; LEV 2
s310623.d	WBN091202-24	JLD1	06-DEC-2009 23:53	20PPM	s120609	1.0	PEST020	USE; LEV 3
s310624.d	WBN091202-23.1	JLD1	07-DEC-2009 00:20	40PPM	s120609	1.0	PEST040	USE; LEV 4
s310625.d	WBN091202-22	JLD1	07-DEC-2009 00:47	50PPM	s120609	1.0	PEST050	USE; LEV 5
s310626.d	WBN091202-21	JLD1	07-DEC-2009 01:14	80PPM	s120609	1.0	PEST080	USE; LEV 6
s310627.d	WBN091202-20	JLD1	07-DEC-2009 01:42	100PPM	s120609	1.0	PEST100	USE; LEV 7
s310628.d	WBN091202-19	JLD1	07-DEC-2009 02:09	120PPM	s120609	1.0	PEST120	USE; LEV 8
s310629-MQC.	WBN091202-16	JLD1	07-DEC-2009 02:36	500PPM	s120609	1.0	HEX500	8270 HEX PASS MQC
s310629.d	WBN091202-16	JLD1	07-DEC-2009 02:36	500PPM	s120609	1.0	HEX500	USE; LEV 2
s310630.d	WBN091202-15	JLD1	07-DEC-2009 03:03	1000PPM	s120609	1.0	HEX1000	USE; LEV 3
s310631.d	WBN091202-13	JLD1	07-DEC-2009 03:30	1250PPM	s120609	1.0	HEX1250	USE; LEV 4
s310632.d	WBN091202-12	JLD1	07-DEC-2009 03:57	1500PPM	s120609	1.0	HEX1500	USE; LEV 5

Instrument Batch: /chem/MSD3.i/s120609.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
s310633.d	WBN091202-11	JLD1	07-DEC-2009 04:24	1750PPM	s120609	1.0	HEX1750	USE; LEV 6
s310634.d	UBN090828-02.3	JLD1	07-DEC-2009 04:52	2000PPM	s120609	1.0	HEX2000	USE; LEV 7
s310635.d	WBN091201-08.1	JLD1	07-DEC-2009 05:19	40PPM	s120609	1.0	APICV	USE; AP ICAL FAILS C 77/146

s310636-8270	WBN091202-26.1	JLD1	07-DEC-2009 05:46	40PPM	s120609	1.0	PESTICV	USE; 8270D
s310636.d	WBN091202-26.1	JLD1	07-DEC-2009 05:46	40PPM	s120609	1.0	PESTICV	USE; 8270C
s310637.d	WBN091202-10.2	JLD1	07-DEC-2009 06:13	1250PPM	s120609	1.0	HEXICV	DUSE; ICV HIGH

Instrument Batch: /chem/MSD3.i/s120609.b

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GEL ORGANIC RUN LOG INSTRUMENT ID: MSD3

DATE: 12/08/2009 METHOD: See raw data OPERATOR: JLD1 REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT:1202440-D
Multiplier Voltage: 976 Emv Extr. Injection Volume: 0.5, 1.0 ul
DFTPP Solution ID: WBN091128-01 Internal Std ID: WBN091128-02
CALIBRATION & QC INFORMATION:
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.

SOP: GL-OA-E-009 Rev. 22 Sequence Number: /chem/MSD3.i/s120809.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
s310801-D.d	WBN091128-01	JLD1	08-DEC-2009 09:03	50NG	s120809	1.0	DFTPP	USE; 8270D AP ICAL/ICV; HEX ICV
s310801.d	WBN091128-01	JLD1	08-DEC-2009 09:03	50NG	s120809	1.0	DFTPP	USE; 8270C AP ICAL/ICV; HEX ICV
s310802.d	INSTRUMENTBLANK	JLD1	08-DEC-2009 09:15		s120809	1.0		IB
s310803-MQC.	WBN091201-01	JLD1	08-DEC-2009 09:42	10PPM	s120809	1.0	AP010	8270D FAIL MIN QUANT CHECK FOR C 77
s310803.d	WBN091201-01	JLD1	08-DEC-2009 09:42	10PPM	s120809	1.0	AP010	USE; LEV 2
s310804.d	WBN091201-02	JLD1	08-DEC-2009 10:09	20PPM	s120809	1.0	AP020	USE; LEV 3
s310805.d	WBN091201-03.1	JLD1	08-DEC-2009 10:37	40PPM	s120809	1.0	AP040	USE; LEV 4
s310806.d	WBN091201-04	JLD1	08-DEC-2009 11:04	50PPM	s120809	1.0	AP050	USE; LEV 5
s310807.d	WBN091201-05	JLD1	08-DEC-2009 11:31	80PPM	s120809	1.0	AP080	USE; LEV 6
s310808.d	WBN091201-06	JLD1	08-DEC-2009 11:58	100PPM	s120809	1.0	AP100	USE; LEV 7
s310809.d	WBN091201-07	JLD1	08-DEC-2009 12:26	120PPM	s120809	1.0	AP120	USE; LEV 8 (ICAL FAILS C 120)
s310810-8270	WBN091201-08.1	JLD1	08-DEC-2009 12:53	40PPM	s120809	1.0	APICV	USE; 8270D 110/119/124/136 ESTIMATED
s310810.d	WBN091201-08.1	JLD1	08-DEC-2009 12:53	40PPM	s120809	1.0	APICV	USE; 8270C PASS
s310811-8270	WBN090827-10.3	JLD1	08-DEC-2009 13:20	1250PPM	s120809	1.0	HEXICV	USE; 8270D PASS
s310811.d	WBN090827-10.3	JLD1	08-DEC-2009 13:20	1250PPM	s120809	1.0	HEXICV	USE; 8270C PASS

GEL ORGANIC RUN LOG INSTRUMENT ID: MSD3

DATE: 12/13/2009 METHOD: See raw data OPERATOR: JLD1 REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT:1202440-D
Multiplier Voltage: 1012 Emv Extr. Injection Volume: 0.5, 1.0 ul
DFTPP Solution ID: WBN091128-01 Internal Std ID: WBN091208-01
CALIBRATION & QC INFORMATION:
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.

SOP: GL-OA-E-009 Rev. 22 Sequence Number: /chem/MSD3.i/s121309.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
s311301.d	WBN091128-01	JLD1	13-DEC-2009 08:33	50NG	s121309	1.0	DFTPP	DUSE
s311302.d	WBN091201-13.2	JLD1	13-DEC-2009 08:45	40PPM	s121309	1.0	MEGACVS	DUSE; MAINTENANCE
s311303.d	WBN091128-01	JLD1	13-DEC-2009 09:27	50NG	s121309	1.0	DFTPP	DUSE
s311304.d	WBN091201-13.2	JLD1	13-DEC-2009 09:40	40PPM	s121309	1.0	MEGACVS	DUSE; MAINTENANCE
s311305.d	WBN091128-01	JLD1	13-DEC-2009 10:35	50NG	s121309	1.0	DFTPP	DUSE
s311306.d	WBN091201-13.2	JLD1	13-DEC-2009 10:47	40PPM	s121309	1.0	MEGACVS	DUSE; MAINTENANCE
s311307.d	WBN091128-01	JLD1	13-DEC-2009 11:30	50NG	s121309	1.0	DFTPP	USE
s311308.d	WBN091201-13.4	JLD1	13-DEC-2009 11:42	40PPM	s121309	1.0	MEGACVS	DUSE; C 65 HIGH
s311309.d	WBN091201-17.2	JLD1	13-DEC-2009 12:11	40PPM	s121309	1.0	MEGACVS	USE (138329)
s311310.d	WBN091201-08.3	JLD1	13-DEC-2009 12:38	40PPM	s121309	1.0	APCVS	USE
s311311.d	WBN091202-23.3	JLD1	13-DEC-2009 13:06	40PPM	s121309	1.0	PESTCVS	USE
s311312.d	1201993834	JLD1	13-DEC-2009 13:33	932077	10-852	1.0	SBLK01	USE
s311313.d	1201993835	JLD1	13-DEC-2009 14:00	932077	10-852	1.0	SBLK01LCS	USE
s311314.d	1201992634	JLD1	13-DEC-2009 14:28	931538	10-829	1.0	MSD	DUSE
s311315.d	242654001	JLD1	13-DEC-2009 14:55	932077	10-852	1.0	LANL	USE
s311316.d	1201993836	JLD1	13-DEC-2009 15:23	932077	10-852	1.0	MS	USE
s311317.d	1201993837	JLD1	13-DEC-2009 15:50	932077	10-852	1.0	MSD	USE
s311318.d	242654002	JLD1	13-DEC-2009 16:18	932077	10-852	1.0	LANL	USE
s311319.d	242654003	JLD1	13-DEC-2009 16:45	932077	10-852	1.0	LANL	USE

s311320.d	242654004	JLD1	13-DEC-2009 17:13	932077	10-852	1.0	LANL	USE
s311321.d	242654005	JLD1	13-DEC-2009 17:40	932077	10-852	1.0	LANL	USE
s311322.d	242654006	JLD1	13-DEC-2009 18:08	932077	10-852	1.0	LANL	USE
s311323.d	242654007	JLD1	13-DEC-2009 18:35	932077	10-852	1.0	LANL	USE; ISTD LOW; SEE RR S3L1423
s311324.d	242654008	JLD1	13-DEC-2009 19:02	932077	10-852	4.0	LANL	USE; ISTD LOW/SURR HIGH; SEE RR S3L1424
s311325.d	242654009	JLD1	13-DEC-2009 19:30	932077	10-852	1.0	LANL	DUSE; ISTD LOW; SEE RR S3L1425
s311326.d	242654010	JLD1	13-DEC-2009 19:57	932077	10-852	1.0	LANL	DUSE; ISTD LOW; SEE RR S3L1426
s311327.d	242654011	JLD1	13-DEC-2009 20:25	932077	10-852	1.0	LANL	DUSE; ISTD LOW; SEE RR S3L1427
s311328.d	242654012	JLD1	13-DEC-2009 20:52	932077	10-852	1.0	LANL	DUSE; ISTD LOW/SURR HIGH; SEE RR S3L1428
s311329.d	242654013	JLD1	13-DEC-2009 21:20	932077	10-852	1.0	LANL	DUSE; ISTD LOW/SURR HIGH; SEE RR S3L1429
s311330.d	242654014	JLD1	13-DEC-2009 21:47	932077	10-852	1.0	LANL	DUSE; ISTD LOW; SEE RR S3L1507
s311331.d	242654015	JLD1	13-DEC-2009 22:15	932077	10-852	1.0	LANL	DUSE; ISTD LOW/SURR HIGH; SEE RR S3L1508
s311332.d	242654016	JLD1	13-DEC-2009 22:42	932077	10-852	1.0	LANL	USE; ISTD LOW; SEE RR S3L1509
s311333.d	242654017	JLD1	13-DEC-2009 23:10	932077	10-852	1.0	LANL	DUSE; ISTD LOW; SEE RR S3L1510
s311334.d	242654018	JLD1	13-DEC-2009 23:37	932077	10-852	1.0	LANL	DUSE; OUT OF TUNE; SEE RR S3L1511
s311335.d	242654019	JLD1	14-DEC-2009 00:05	932077	10-852	1.0	LANL	DUSE; OUT OF TUNE; SEE RR S3L1512
s311336.d	242654020	JLD1	14-DEC-2009 00:32	932077	10-852	1.0	LANL	DUSE; OUT OF TUNE; SEE RR S3L1513

Instrument Batch: /chem/MSD3.i/s121309.b

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GEL ORGANIC RUN LOG INSTRUMENT ID: MSD3

DATE: 12/14/2009 METHOD: See raw data OPERATOR: JLD1 REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT:1202440-D
Multiplier Voltage: 1000 Emv Extr. Injection Volume: 0.5, 1.0 ul
DFTPP Solution ID: WBN091128-01 Internal Std ID: WBN091208-01
CALIBRATION & QC INFORMATION:
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.

SOP: GL-OA-E-009 Rev. 22 Sequence Number: /chem/MSD3.i/s121409.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
s311401.d	WBN091128-01	JLD1	14-DEC-2009 08:38	50NG	s121409	1.0	DFTPP	DUSE
s311402.d	WBN091201-13.4	JLD1	14-DEC-2009 08:50	40PPM	s121409	1.0	MEGACVS	DUSE; MAINTENANCE
s311403.d	WBN091128-01	JLD1	14-DEC-2009 09:52	50NG	s121409	1.0	DFTPP	USE
s311404-625.	WBN091201-17.2	JLD1	14-DEC-2009 10:04	40PPM	s121409	1.0	MEGACVS	DUSE; 625
s311404.d	WBN091201-17.2	JLD1	14-DEC-2009 10:04	40PPM	s121409	1.0	MEGACVS	USE (137758)
s311405-625.	WBN091201-08.3	JLD1	14-DEC-2009 10:46	40PPM	s121409	1.0	APCVS	DUSE; 625
s311405.d	WBN091201-08.3	JLD1	14-DEC-2009 10:46	40PPM	s121409	1.0	APCVS	USE
s311406.d	WBN091202-23.3	JLD1	14-DEC-2009 11:13	40PPM	s121409	1.0	PESTCVS	USE
s311407.d	1201992407	JLD1	14-DEC-2009 11:40	932183	242473	1.0	TBLK01	USE
s311408.d	1201994011	JLD1	14-DEC-2009 12:08	932183	242473	1.0	SBLK01	USE
s311409.d	1201994012	JLD1	14-DEC-2009 12:35	932183	242473	1.0	SBLK01LCS	USE
s311410.d	242473001	JLD1	14-DEC-2009 13:03	932183	242473	1.0	NREA	USE
s311411.d	242473002	JLD1	14-DEC-2009 13:30	932183	242473	1.0	NREA	USE
s311412.d	242473003	JLD1	14-DEC-2009 13:58	932183	242473	1.0	NREA	USE
s311413.d	242473004	JLD1	14-DEC-2009 14:25	932183	242473	1.0	NREA	USE
s311414.d	242473005	JLD1	14-DEC-2009 14:52	932183	242473	1.0	NREA	USE
s311415.d	242473006	JLD1	14-DEC-2009 15:20	932183	242473	1.0	NREA	USE
s311416.d	242473007	JLD1	14-DEC-2009 15:47	932183	242473	1.0	NREA	USE
s311417.d	1201994013	JLD1	14-DEC-2009 16:15	932183	242473	1.0	MS	USE

s311418.d	1201994014	JLD1	14-DEC-2009 16:42	932183	242473		1.0	MSD	USE
s311419.d	242473008	JLD1	14-DEC-2009 17:09	932183	242473		1.0	NREA	USE
s311420.d	242473009	JLD1	14-DEC-2009 17:37	932183	242473		1.0	NREA	USE
s311421.d	242473010	JLD1	14-DEC-2009 18:04	932183	242473		1.0	NREA	USE
s311422.d	242473011	JLD1	14-DEC-2009 18:32	932183	242473		1.0	NREA	USE
s311423.d	242654007	JLD1	14-DEC-2009 19:00	932077	10-852		1.0	LANL	DUSE; RR OF S3L1323; LOW ISTD CONFIRMED
s311424.d	242654008	JLD1	14-DEC-2009 19:27	932077	10-852		4.0	LANL	DUSE; RR OF S3L1324; LOW ISTD CONFIRMED
s311425.d	242654009	JLD1	14-DEC-2009 19:55	932077	10-852		1.0	LANL	USE; RR OF S3L1325; ISTD PASS
s311426.d	242654010	JLD1	14-DEC-2009 20:22	932077	10-852		1.0	LANL	USE; RR OF S3L1326; ISTD PASS
s311427.d	242654011	JLD1	14-DEC-2009 20:50	932077	10-852		1.0	LANL	USE; RR OF S3L1327; ISTD PASS
s311428.d	242654012	JLD1	14-DEC-2009 21:17	932077	10-852		1.0	LANL	USE; RR OF S3L1328; ISTD PASS
s311429.d	242654013	JLD1	14-DEC-2009 21:45	932077	10-852		1.0	LANL	USE; RR OF S3L1329; ISTD PASS
s311430.d	242654014	JLD1	14-DEC-2009 22:12	932077	10-852		1.0	LANL	DUSE; OUT OF TUNE; SEE S3L1507

Instrument Batch: /chem/MSD3.i/s121409.b

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GEL ORGANIC RUN LOG INSTRUMENT ID: MSD3

DATE: 12/15/2009 METHOD: See raw data OPERATOR: JLD1 REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT:1202440-D
Multiplier Voltage: 1000 Emv Extr. Injection Volume: 0.5, 1.0 ul
DFTPP Solution ID: WBN091213-01 Internal Std ID: WBN091208-01
CALIBRATION & QC INFORMATION:
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.

SOP: GL-OA-E-009 Rev. 23 Sequence Number: /chem/MSD3.i/s121509.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
s311501.d	WBN091213-01	JLD1	15-DEC-2009 08:04	50ng	s121509	1.0	DFTPP	USE
s311502.d	WBN091201-17.2	JLD1	15-DEC-2009 08:16	40PPM	s121509	1.0	MEGACVS	USE (126155)
s311503.d	WBN091201-08.4	JLD1	15-DEC-2009 08:44	40PPM	s121509	1.0	APCVS	USE
s311504.d	WBN091202-26.4	JLD1	15-DEC-2009 09:11	40PPM	s121509	1.0	PESTCVS	DUSE
s311505-1.d	1201995442	JLD1	15-DEC-2009 09:39	932786	242738	1.0	SBLK01	USE
s311505-2.d	1201995442	JLD1	15-DEC-2009 09:39	932786	242801	1.0	SBLK01	USE
s311505.d	1201995442	JLD1	15-DEC-2009 09:39	932786	242480	1.0	SBLK01	USE
s311506-1.d	1201995443	JLD1	15-DEC-2009 10:06	932786	242738	1.0	SBLK01LCS	USE
s311506-2.d	1201995443	JLD1	15-DEC-2009 10:06	932786	242801	1.0	SBLK01LCS	USE
s311506.d	1201995443	JLD1	15-DEC-2009 10:06	932786	242480	1.0	SBLK01LCS	USE
s311507.d	242654014	JLD1	15-DEC-2009 10:34	932077	10-852	1.0	LANL	USE; RR OF S3L1430; ISTD PASS
s311508.d	242654015	JLD1	15-DEC-2009 11:01	932077	10-852	1.0	LANL	USE; RR OF S3L1331; ISTD PASS
s311509.d	242654016	JLD1	15-DEC-2009 11:28	932077	10-852	1.0	LANL	DUSE; RR OF S3L1332; ISTD LOW
s311510.d	242654017	JLD1	15-DEC-2009 11:56	932077	10-852	1.0	LANL	USE; RR OF S3L1333; ISTD PASS
s311511.d	242654018	JLD1	15-DEC-2009 12:23	932077	10-852	1.0	LANL	USE; RR OF S3L1334; ISTD LOW/SURR HIGH
s311512.d	242654019	JLD1	15-DEC-2009 12:51	932077	10-852	1.0	LANL	USE; RR OF S3L1335; ISTD PASS
s311513.d	242654020	JLD1	15-DEC-2009 13:18	932077	10-852	1.0	LANL	USE; RR OF S3L1336; ISTD PASS
s311514.d	242480001	JLD1	15-DEC-2009 13:46	932786	242480	1.0	EAEN	USE; SURR HIGH
s311515.d	242738001	JLD1	15-DEC-2009 14:13	932786	242738	1.0	BRBA	DUSE; SEE S3L1523; ISTD LOW

s311516.d	242738002	JLD1	15-DEC-2009 14:40	932786	242738		1.0	BRBA	USE; SEE S3L1524; ISTD LOW
s311517.d	242738003	JLD1	15-DEC-2009 15:08	932786	242738		1.0	BRBA	USE; SEE S3L1525; ISTD LOW
s311518.d	242738004	JLD1	15-DEC-2009 15:35	932786	242738		1.0	BRBA	USE; SEE S3L1526; ISTD LOW
s311519.d	242738005	JLD1	15-DEC-2009 16:02	932786	242738		1.0	BRBA	USE; SEE S3L1527; ISTD LOW
s311520.d	242801001	JLD1	15-DEC-2009 16:30	932786	242801		1.0	BRKL	USE; ISTD LOW/SURR HIGH; SEE RR S3L1613
s311521.d	1201995440	JLD1	15-DEC-2009 16:57	932786	242801		1.0	MS	USE
s311522.d	1201995441	JLD1	15-DEC-2009 17:25	932786	242801		1.0	MSD	USE
s311523.d	242738001	JLD1	15-DEC-2009 17:52	932786	242738		1.0	BRBA	USE; RR OF S3L1515; ISTD PASS
s311524.d	242738002	JLD1	15-DEC-2009 18:19	932786	242738		1.0	BRBA	USE; RR OF S3L1516; ISTD PASS
s311525.d	242738003	JLD1	15-DEC-2009 18:47	932786	242738		1.0	BRBA	USE; RR OF S3L1517; ISTD PASS
s311526.d	242738004	JLD1	15-DEC-2009 19:14	932786	242738		1.0	BRBA	USE; RR OF S3L1518; ISTD PASS
s311527.d	242738005	JLD1	15-DEC-2009 19:41	932786	242738		1.0	BRBA	USE; RR OF S3L1519; ISTD PASS

COMPANY - WIDE NONCONFORMANCE REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
16-DEC-09	Federal	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
SEMIVOA GC/MS	SW846 8270C	Solid	LANL
Batch ID:	**Sample Numbers:**		
932077	See Below		

Potentially affected work order(s)(SDG): 242654(10-852)

Application Issues:

Failed Recovery for MS/PS

Failed RPD for MS/MSD, or PS/PSD

Failed Yield for Surrogates

Failed Recovery for MSD/PSD

Specification and Requirements Nonconformance Description:	NRG Disposition:
1. Sample 242654008 recovered p-Terphenyl-d14 at 131%. The limits are 40%-124%.	1. Sample 242654008 was analyzed at a dilution due to the sample extract being very dark and viscous. As a result, p-Terphenyl-d14 was diluted out of the acceptance limits and the data results have been reported.
2. Sample 242654018 recovered 2,4,6-Tribromophenol at 108% (limits are 37%-106%) and p-Terphenyl-d14 at 131% (limits are 40%-124%).	2. Since sample 242654018 was biased high for 2,4,6-Tribromophenol and p-Terphenyl-d14 and there were no target analytes detected in the sample, the data results have been reported.
3. The MS(1201993836) and MSD(1201993837) recovered spike analytes outside of the established acceptance limits. Please see the QC Summary report for the specific failures.	3. Since the MSD displayed similar recoveries to the MS, the failures, were attributed to matrix interference and the data resutls have been reported.
4. The MS(1201993836)/MSD(1201993837) RPD value for 3,3'Dicholorobenzidine was 35%. The limit is 30%.	4. The RPD failure was attributed to matrix interference and the data results have been reported.

Originator's Name:

Jennifer Dunagan Jones16-DEC-09

Data Validator/Group Leader:

Daniel Beacham 05-JAN-10

GEL Laboratories LLC

Data file : /chem/MSD3.i/s121409.b/s311423.d
Lab Smp Id: 242654007 Client Smp ID: RE03-09-14267
Inj Date : 14-DEC-2009 19:00
Operator : JLD1 Inst ID: MSD3.i
Smp Info : |242654007|932077|1|SVMF|1|LANL
Misc Info : |MSD8270_S|WBN091208-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD3.i/s121409.b/MSD3-8270R-AQA-120809.m
Meth Date : 14-Dec-2009 17:00 jen00986 Quant Type: ISTD
Cal Date : 07-DEC-2009 19:48 Cal File: s310717.d
Als bottle: 21
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-852.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.19000	weight of sample
M	14.20350	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	4.271	4.271	(1.000)	111929	40.0000	
* 29 Naphthalene-d8	136	5.519	5.523	(1.000)	420240	40.0000	
* 46 Acenaphthene-d10	164	7.363	7.371	(1.000)	232410	40.0000	
* 67 Phenanthrene-d10	188	8.955	8.958	(1.000)	377963	40.0000	
* 91 Chrysene-d12	240	11.809	11.817	(1.000)	232009	40.0000	
* 98 Perylene-d12	264	13.779	13.787	(1.000)	121797	40.0000	
$ 3 2-Fluorophenol	112	3.169	3.157	(0.742)	240918	82.2899	3180
$ 5 Phenol-d5	99	3.931	3.931	(0.920)	299568	80.3150	3100
$ 20 Nitrobenzene-d5	82	4.798	4.808	(0.869)	127746	41.5924	1600
$ 39 2-Fluorobiphenyl	172	6.641	6.647	(0.902)	263830	48.4304	1870
$ 60 2,4,6-Tribromophenol	329	8.208	8.213	(1.115)	63977	100.243	3870
$ 81 p-Terphenyl-d14	244	10.660	10.662	(0.903)	215790	57.9102	2240

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
79 Pyrene	202	10.495	10.503	(0.889)	9052	1.39526	53.9
76 Fluoranthene	202	10.251	10.257	(1.145)	10215	1.14397	44.2
89 Benzo(a)anthracene	228	11.794	11.802	(0.999)	4542	0.81311	31.4(a)
92 Chrysene	228	11.836	11.847	(1.002)	6865	1.32343	51.1
93 bis(2-Ethylhexyl)phthalate	149	11.800	11.802	(0.999)	9180	2.26261	87.4(a)
95 Benzo(b)fluoranthene	252	13.200	13.206	(0.958)	4793	1.48977	57.5
97 Benzo(a)pyrene	252	13.688	13.696	(0.993)	2540	0.95972	37.0(a)
99 Indeno(1,2,3-cd)pyrene	276	15.514	15.522	(1.126)	1361	0.58449	22.6(a)
101 Benzo(ghi)perylene	276	15.968	15.976	(1.159)	1574	0.80333	31.0(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

Data File: /chem/MSD3.i/s121409.b/s311423.d
Report Date: 15-Dec-2009 08:01

GEL Laboratories LLC

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: MSD3.i
Lab File ID: s311423.d
Lab Smp Id: 242654007
Analysis Type: SV
Quant Type: ISTD
Operator: JLD1
Method File: /chem/MSD3.i/s121409.b/MSD3-8270R-AQA-120809.m
Misc Info: |MSD8270_S|WBN091208-01|

Calibration Date: 14-DEC-2009
Calibration Time: 10:04
Client Smp ID: RE03-09-14267
Level: LOW
Sample Type: Soil

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 4

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF	
10 1,4-Dichlorobenze	137758	68879	275516	111929	-18.75	
29 Naphthalene-d8	518959	259480	1037918	420240	-19.02	
46 Acenaphthene-d10	277384	138692	554768	232410	-16.21	
67 Phenanthrene-d10	466504	233252	933008	377963	-18.98	
91 Chrysene-d12	342352	171176	684704	232009	-32.23	
98 Perylene-d12	245637	122818	491274	121797	-50.42	<-

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
10 1,4-Dichlorobenze	4.27	3.77	4.77	4.27	0.00
29 Naphthalene-d8	5.52	5.02	6.02	5.52	-0.08
46 Acenaphthene-d10	7.37	6.87	7.87	7.36	-0.12
67 Phenanthrene-d10	8.96	8.46	9.46	8.95	-0.04
91 Chrysene-d12	11.82	11.32	12.32	11.81	-0.07
98 Perylene-d12	13.79	13.29	14.29	13.78	-0.05

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

GEL Laboratories LLC

Data file : /chem/MSD3.i/s121409.b/s311424.d
Lab Smp Id: 242654008 Client Smp ID: RE03-09-14265
Inj Date : 14-DEC-2009 19:27
Operator : JLD1 Inst ID: MSD3.i
Smp Info : |242654008|932077|4|SVMF|1|LANL
Misc Info : |MSD8270_S|WBN091208-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD3.i/s121409.b/MSD3-8270R-AQA-120809.m
Meth Date : 14-Dec-2009 17:00 jen00986 Quant Type: ISTD
Cal Date : 07-DEC-2009 19:48 Cal File: s310717.d
Als bottle: 22
Dil Factor: 4.00000
Integrator: HP RTE Compound Sublist: 10-852.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	4.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.08000	weight of sample
M	13.03450	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	4.270	4.271	(1.000)	135616	40.0000	
* 29 Naphthalene-d8	136	5.521	5.523	(1.000)	502159	40.0000	
* 46 Acenaphthene-d10	164	7.364	7.371	(1.000)	269370	40.0000	
* 67 Phenanthrene-d10	188	8.957	8.958	(1.000)	415730	40.0000	
* 91 Chrysene-d12	240	11.807	11.817	(1.000)	198253	40.0000	
* 98 Perylene-d12	264	13.777	13.787	(1.000)	104414	40.0000	
$ 3 2-Fluorophenol	112	3.160	3.157	(0.740)	76604	21.5954	3300
$ 5 Phenol-d5	99	3.925	3.931	(0.919)	94263	20.8581	3190
$ 20 Nitrobenzene-d5	82	4.798	4.808	(0.869)	40633	11.0714	1690
$ 39 2-Fluorobiphenyl	172	6.643	6.647	(0.902)	80040	12.6767	1940(R)
$ 60 2,4,6-Tribromophenol	329	8.205	8.213	(1.114)	16912	22.8630	3500
$ 81 p-Terphenyl-d14	244	10.657	10.662	(0.903)	54334	17.0640	2610(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: /chem/MSD3.i/s121409.b/s311424.d
Report Date: 15-Dec-2009 14:30

GEL Laboratories LLC

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: MSD3.i
Lab File ID: s311424.d
Lab Smp Id: 242654008
Analysis Type: SV
Quant Type: ISTD
Operator: JLD1
Method File: /chem/MSD3.i/s121409.b/MSD3-8270R-AQA-120809.m
Misc Info: |MSD8270_S|WBN091208-01|

Calibration Date: 14-DEC-2009
Calibration Time: 10:04
Client Smp ID: RE03-09-14265
Level: LOW
Sample Type: Soil

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 4

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF	
10 1,4-Dichlorobenze	137758	68879	275516	135616	-1.55	
29 Naphthalene-d8	518959	259480	1037918	502159	-3.24	
46 Acenaphthene-d10	277384	138692	554768	269370	-2.89	
67 Phenanthrene-d10	466504	233252	933008	415730	-10.88	
91 Chrysene-d12	342352	171176	684704	198253	-42.09	
98 Perylene-d12	245637	122818	491274	104414	-57.49	<-

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
10 1,4-Dichlorobenze	4.27	3.77	4.77	4.27	-0.01
29 Naphthalene-d8	5.52	5.02	6.02	5.52	-0.04
46 Acenaphthene-d10	7.37	6.87	7.87	7.36	-0.10
67 Phenanthrene-d10	8.96	8.46	9.46	8.96	-0.02
91 Chrysene-d12	11.82	11.32	12.32	11.81	-0.08
98 Perylene-d12	13.79	13.29	14.29	13.78	-0.07

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

GEL Laboratories LLC

Data file : /chem/MSD3.i/s121509.b/s311509.d
Lab Smp Id: 242654016 Client Smp ID: RE03-09-14271
Inj Date : 15-DEC-2009 11:28
Operator : JLD1 Inst ID: MSD3.i
Smp Info : |242654016|932077|1|SVMF|1|LANL
Misc Info : |MSD8270_S|WBN091208-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD3.i/s121509.b/MSD3-8270R-AQA-120809.m
Meth Date : 15-Dec-2009 10:20 jen00986 Quant Type: ISTD
Cal Date : 07-DEC-2009 19:48 Cal File: s310717.d
Als bottle: 9
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-852.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariabl
e

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.12000	weight of sample
M	13.44250	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	4.256	4.256	(1.000)	136474	40.0000	
* 29 Naphthalene-d8	136	5.507	5.508	(1.000)	511480	40.0000	
* 46 Acenaphthene-d10	164	7.353	7.356	(1.000)	281051	40.0000	
* 67 Phenanthrene-d10	188	8.945	8.946	(1.000)	440384	40.0000	
* 91 Chrysene-d12	240	11.798	11.804	(1.000)	230333	40.0000	
* 98 Perylene-d12	264	13.763	13.769	(1.000)	122066	40.0000	
$ 3 2-Fluorophenol	112	3.157	3.143	(0.742)	185600	51.9934	1990
$ 5 Phenol-d5	99	3.919	3.916	(0.921)	229829	50.5358	1940
$ 20 Nitrobenzene-d5	82	4.786	4.793	(0.869)	96866	25.9123	994
$ 39 2-Fluorobiphenyl	172	6.629	6.632	(0.902)	199309	30.2545	1160
$ 60 2,4,6-Tribromophenol	329	8.194	8.198	(1.114)	47362	61.3665	2350
$ 81 p-Terphenyl-d14	244	10.649	10.649	(0.903)	149014	40.2809	1540

Data File: /chem/MSD3.i/s121509.b/s311509.d
Report Date: 15-Dec-2009 12:13

GEL Laboratories LLC

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: MSD3.i
Lab File ID: s311509.d
Lab Smp Id: 242654016
Analysis Type: SV
Quant Type: ISTD
Operator: JLD1
Method File: /chem/MSD3.i/s121509.b/MSD3-8270R-AQA-120809.m
Misc Info: |MSD8270_S|WBN091208-01|

Calibration Date: 15-DEC-2009
Calibration Time: 08:16
Client Smp ID: RE03-09-14271
Level: LOW
Sample Type: Soil

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 4

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF	
10 1,4-Dichlorobenze	126155	63078	252310	136474	8.18	
29 Naphthalene-d8	475346	237673	950692	511480	7.60	
46 Acenaphthene-d10	253476	126738	506952	281051	10.88	
67 Phenanthrene-d10	425192	212596	850384	440384	3.57	
91 Chrysene-d12	335852	167926	671704	230333	-31.42	
98 Perylene-d12	268702	134351	537404	122066	-54.57	<-

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
10 1,4-Dichlorobenze	4.26	3.76	4.76	4.26	0.00
29 Naphthalene-d8	5.51	5.01	6.01	5.51	-0.02
46 Acenaphthene-d10	7.36	6.86	7.86	7.35	-0.05
67 Phenanthrene-d10	8.95	8.45	9.45	8.95	-0.01
91 Chrysene-d12	11.80	11.30	12.30	11.80	-0.06
98 Perylene-d12	13.77	13.27	14.27	13.76	-0.04

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

GEL Laboratories LLC

Data file : /chem/MSD3.i/s121309.b/s311334.d
Lab Smp Id: 242654018 Client Smp ID: RE03-09-14285
Inj Date : 13-DEC-2009 23:37
Operator : JLD1 Inst ID: MSD3.i
Smp Info : |242654018|932077|1|SVMF|1|LANL
Misc Info : |MSD8270_S|WBN091208-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD3.i/s121309.b/MSD3-8270R-AQA-120809.m
Meth Date : 14-Dec-2009 11:36 jen00986 Quant Type: ISTD
Cal Date : 07-DEC-2009 19:48 Cal File: s310717.d
Als bottle: 27
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-852.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariabl
e

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.02000	weight of sample
M	888800.00000	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	4.294	4.294	(1.000)	132795	40.0000	
* 29 Naphthalene-d8	136	5.545	5.546	(1.000)	507484	40.0000	
* 46 Acenaphthene-d10	164	7.394	7.394	(1.000)	281696	40.0000	
* 67 Phenanthrene-d10	188	8.985	8.983	(1.000)	474076	40.0000	
* 91 Chrysene-d12	240	11.843	11.844	(1.000)	265689	40.0000	
* 98 Perylene-d12	264	13.833	13.827	(1.000)	159147	40.0000	
$ 3 2-Fluorophenol	112	3.193	3.175	(0.743)	275352	79.2732	79.3
$ 5 Phenol-d5	99	3.957	3.948	(0.922)	333623	75.3908	75.4
$ 20 Nitrobenzene-d5	82	4.825	4.828	(0.870)	146843	39.5908	39.6
$ 39 2-Fluorobiphenyl	172	6.670	6.669	(0.902)	298379	45.1894	45.2
$ 60 2,4,6-Tribromophenol	329	8.240	8.236	(1.115)	82788	107.022	107(R)
$ 81 p-Terphenyl-d14	244	10.693	10.686	(0.903)	268825	62.9977	63.0(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: /chem/MSD3.i/s121309.b/s311334.d
Report Date: 14-Dec-2009 13:47

GEL Laboratories LLC

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: MSD3.i
Lab File ID: s311334.d
Lab Smp Id: 242654018
Analysis Type: SV
Quant Type: ISTD
Operator: JLD1
Method File: /chem/MSD3.i/s121309.b/MSD3-8270R-AQA-120809.m
Misc Info: |MSD8270_S|WBN091208-01|

Calibration Date: 13-DEC-2009
Calibration Time: 12:11
Client Smp ID: RE03-09-14285
Level: LOW
Sample Type: Soil

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 4

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF	
10 1,4-Dichlorobenze	138329	69164	276658	132795	-4.00	
29 Naphthalene-d8	530737	265368	1061474	507484	-4.38	
46 Acenaphthene-d10	285323	142662	570646	281696	-1.27	
67 Phenanthrene-d10	487976	243988	975952	474076	-2.85	
91 Chrysene-d12	412486	206243	824972	265689	-35.59	
98 Perylene-d12	335701	167850	671402	159147	-52.59	<-

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
10 1,4-Dichlorobenze	4.29	3.79	4.79	4.29	0.01
29 Naphthalene-d8	5.55	5.05	6.05	5.55	-0.02
46 Acenaphthene-d10	7.39	6.89	7.89	7.39	0.00
67 Phenanthrene-d10	8.98	8.48	9.48	8.98	0.01
91 Chrysene-d12	11.84	11.34	12.34	11.84	-0.01
98 Perylene-d12	13.83	13.33	14.33	13.83	0.05

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

GC SEMIVOLATILE DRO ANALYSIS

DRO Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-852

Method/Analysis Information

Procedure:	**Analysis of Diesel Range Organics by Flame Ionization Detector**
Analytical Method:	SW846 8015A/B SVOC
Prep Method:	SW846 3550B
Analytical Batch Number:	934967
Prep Batch Number:	934965

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 8015A/B SVOC:

Sample ID	Client ID
242654001	RE03-09-14224
242654002	RE03-09-14227
242654003	RE03-09-14225
242654004	RE03-09-14226
242654005	RE03-09-14288
242654006	RE03-09-14287
242654007	RE03-09-14267
242654008	RE03-09-14265
242654009	RE03-09-14281
242654010	RE03-09-14284
242654011	RE03-09-14274
242654012	RE03-09-14277
242654013	RE03-09-14282
242654014	RE03-09-14269
242654015	RE03-09-14273
242654016	RE03-09-14271
242654017	RE03-09-14278
242654018	RE03-09-14285

242654019	RE03-09-14286
242654020	RE03-09-14283
1202000394	Method Blank (MB)
1202000395	Laboratory Control Sample (LCS)
1202000396	242654001(RE03-09-14224) Matrix Spike (MS)
1202000397	242654001(RE03-09-14224) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on a "dry weight" basis.

Preparation/Analytical Method Verification

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-003 REV# 18.

Raw data reports are processed and reviewed by the analyst using the Target software package. False positives have been removed from the Target quantitation reports per standard operating procedures (SOP) section 23.0.

Calibration Information

Initial Calibration
All initial calibration requirements have been met for this sample delivery group (SDG).

The linear equation used in Target and indicated on the initial calibration summary form is not a conventional linear equation (slope intercept formula) and does not match the equation found in SW-846 method 8000B. The x and y axes are inversed in Target, so that the instrument response is treated as the independent variable (x) and the concentration ratio is treated as the dependent variable (y). The equation used in Target to calculate sample results is adjusted to account for the linear equation inversion and reciprocal slope. The adjusted calculation has been independently verified to produce valid results.

Continuing Calibration Verification (CCV) Requirements
All associated calibration verification standard(s) (ICV or CCV) met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Surrogate Recoveries
All surrogate recoveries were within the established acceptance criteria for this SDG.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

QC Sample Designation
Sample 242654001 (RE03-09-14224) was selected for the matrix spike and matrix spike duplicate analysis.

Matrix Spike (MS) Recovery Statement
The MS recovery was within the established acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recovery was within the established acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD between the MS and MSD met the acceptance limits.

Technical Information

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

Sample Dilutions
Samples 242654007 (RE03-09-14267), 242654008 (RE03-09-14265), 242654014 (RE03-09-14269) and 242654016 (RE03-09-14271) were diluted at 1:20 due to thick and oily matrix of the extracts.

Sample Re-extraction/Re-analysis
Re-extractions were not required in this batch.

Miscellaneous Information

Electronic Package Comment

The following package was generated using an electronic data processing program referred to as "virtual packaging". In an effort to increase quality and efficiency, the laboratory is developing systems to eventually generate all data packages electronically. The following change from "traditional" packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. An electronic signature page inserted after the case narrative of each electronic package will indicate the analyst, reviewer, and report specialist names associated with the generation of the data and package. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Nonconformance (NCR) Documentation
Nonconformance report (NCR) is for documentation of any procedural anomalies that may deviate from referenced SOP or contractual document. A NCR was not required for this SDG.

Manual Integration
Certain standards and QC samples may have required manual integration to correctly position the baseline as set in the calibration standard injections. If manual integration was performed, copies of all manual integration peak profiles are included in the raw data section of this fraction.

Additional Comments
The additional comments field is used to address special issues associated with each analysis, clarify method/contractual issues pertaining to the analysis, and to list any report documents generated as a result of sample analysis or review. The following additional comments were required:

Due to software limitation, the Form VIIs will display the results either in the % difference or % drift depending on the type of the calibration curve. If the curve of all analytes is generated using an average response factor (RF), the Form VII will display results using the difference calculation (RF). If the curve of one or more analytes is generated using a linear curve, the Form VII will display results using the % drift calculation (by concentration) for all

analytes.

System Configuration

The GC-FID analysis was performed on the following instrument configuration:

Instrument ID	Instrument	System Configuration	Column ID	Column Description
FID7.I	Agilent GC FID	Agilent 6890N GC/FID	DB-5MS	30m x 0.25mm, 0.25um(J&W)

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Jimi Cao **Date:** 1/6/10

Roadmap for LANL 10-852 DRO

This roadmap was analyzed by kev01577 on 12-30-2009, 12:14.
This roadmap was reviewed by jcb on 01-04-2010, 15:40.
This roadmap was packaged by yml on 01-05-2010, 11:06.

Sample

exclude	manual	datafile	smpid	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
■	N	/chem/fid7.i/121509dr/007f0701.d	242654001	15-DEC-2009	14:06	10-852.sub	RE03-09-14224	1.00000	932455	
■	N	/chem/fid7.i/121709dr/007f0701.d	242654001	18-DEC-2009	03:37	10-852.sub	RE03-09-14224RE	1.00000	933843	DUSE, REEXTRACT
□	N	/chem/fid7.i/122809dr/007f0701.d	242654001	28-DEC-2009	13:50	10-852.sub	RE03-09-14224	1.00000	934967	USE
■	N	/chem/fid7.i/121509dr/010f1001.d	242654002	15-DEC-2009	15:56	10-852.sub	RE03-09-14227	1.00000	932455	
□	N	/chem/fid7.i/122809dr/010f1001.d	242654002	28-DEC-2009	15:41	10-852.sub	RE03-09-14227	1.00000	934967	USE
■	N	/chem/fid7.i/121509dr/011f1101.d	242654003	15-DEC-2009	16:33	10-852.sub	RE03-09-14225	1.00000	932455	
□	N	/chem/fid7.i/122809dr/011f1101.d	242654003	28-DEC-2009	16:18	10-852.sub	RE03-09-14225	1.00000	934967	USE
■	N	/chem/fid7.i/121509dr/012f1201.d	242654004	15-DEC-2009	17:10	10-852.sub	RE03-09-14226	1.00000	932455	
■	N	/chem/fid7.i/121709dr/008f0801.d	242654004	18-DEC-2009	04:13	10-852.sub	RE03-09-14226RE	1.00000	933843	DUSE, REEXTRACT
□	N	/chem/fid7.i/122809dr/012f1201.d	242654004	28-DEC-2009	16:55	10-852.sub	RE03-09-14226	1.00000	934967	USE
■	N	/chem/fid7.i/121509dr/015f1501.d	242654005	15-DEC-2009	19:00	10-852.sub	RE03-09-14288	1.00000	932455	
■	N	/chem/fid7.i/121709dr/009f0901.d	242654005	18-DEC-2009	04:50	10-852.sub	RE03-09-14288RE	1.00000	933843	DUSE, REEXTRACT
□	N	/chem/fid7.i/122809dr/015f1501.d	242654005	28-DEC-2009	18:45	10-852.sub	RE03-09-14288	1.00000	934967	USE
■	N	/chem/fid7.i/121509dr/016f1601.d	242654006	15-DEC-2009	19:37	10-852.sub	RE03-09-14287	1.00000	932455	
■	N	/chem/fid7.i/121709dr/010f1001.d	242654006	18-DEC-2009	05:26	10-852.sub	RE03-09-14287RE	1.00000	933843	DUSE, REEXTRACT
□	N	/chem/fid7.i/122809dr/016f1601.d	242654006	28-DEC-2009	19:21	10-852.sub	RE03-09-14287	1.00000	934967	USE
■	N	/chem/fid7.i/121509dr/017f1701.d	242654007	15-DEC-2009	20:14	10-852.sub	RE03-09-14267	20.00000	932455	
□	N	/chem/fid7.i/122809dr/017f1701.d	242654007	28-DEC-2009	19:58	10-852.sub	RE03-09-14267	20.00000	934967	USE
■	N	/chem/fid7.i/121509dr/018f1801.d	242654008	15-DEC-2009	20:51	10-852.sub	RE03-09-14265	20.00000	932455	

□	N	/chem/fid7.i/122809dr/018f1801.d	242654008	28-DEC-2009	20:35	10-852.sub	RE03-09-14265	20.00000	934967	USE
■	N	/chem/fid7.i/121509dr/019f1901.d	242654009	15-DEC-2009	21:28	10-852.sub	RE03-09-14281	1.00000	932455	
□	N	/chem/fid7.i/122809dr/019f1901.d	242654009	28-DEC-2009	21:12	10-852.sub	RE03-09-14281	1.00000	934967	USE
■	N	/chem/fid7.i/121509dr/020f2001.d	242654010	15-DEC-2009	22:04	10-852.sub	RE03-09-14284	1.00000	932455	
□	N	/chem/fid7.i/122809dr/020f2001.d	242654010	28-DEC-2009	21:48	10-852.sub	RE03-09-14284	1.00000	934967	USE
■	N	/chem/fid7.i/121509dr/021f2101.d	242654011	15-DEC-2009	22:41	10-852.sub	RE03-09-14274	1.00000	932455	
□	N	/chem/fid7.i/122809dr/021f2101.d	242654011	28-DEC-2009	22:25	10-852.sub	RE03-09-14274	1.00000	934967	USE
■	N	/chem/fid7.i/121509dr/022f2201.d	242654012	15-DEC-2009	23:18	10-852.sub	RE03-09-14277	10.00000	932455	
□	N	/chem/fid7.i/122809dr/022f2201.d	242654012	28-DEC-2009	23:02	10-852.sub	RE03-09-14277	1.00000	934967	USE
■	N	/chem/fid7.i/121509dr/025f2501.d	242654013	16-DEC-2009	01:08	10-852.sub	RE03-09-14282	1.00000	932455	
□	N	/chem/fid7.i/122809dr/025f2501.d	242654013	29-DEC-2009	00:52	10-852.sub	RE03-09-14282	1.00000	934967	USE
■	N	/chem/fid7.i/121509dr/026f2601.d	242654014	16-DEC-2009	01:44	10-852.sub	RE03-09-14269	20.00000	932455	
□	N	/chem/fid7.i/122809dr/026f2601.d	242654014	29-DEC-2009	01:28	10-852.sub	RE03-09-14269	20.00000	934967	USE
■	N	/chem/fid7.i/121509dr/027f2701.d	242654015	16-DEC-2009	02:21	10-852.sub	RE03-09-14273	1.00000	932455	
■	N	/chem/fid7.i/121709dr/011f1101.d	242654015	18-DEC-2009	06:03	10-852.sub	RE03-09-14273RE	1.00000	933843	DUSE, REEXTRACT
□	N	/chem/fid7.i/122809dr/027f2701.d	242654015	29-DEC-2009	02:05	10-852.sub	RE03-09-14273	1.00000	934967	USE
■	N	/chem/fid7.i/121509dr/028f2801.d	242654016	16-DEC-2009	02:57	10-852.sub	RE03-09-14271	20.00000	932455	

☐	N	/chem/fid7.i/122809dr/028f2801.d	242654016	29-DEC-2009	02:42	10-852.sub	RE03-09-14271	20.00000	934967	USE
■	N	/chem/fid7.i/121509dr/029f2901.d	242654017	16-DEC-2009	03:34	10-852.sub	RE03-09-14278	1.00000	932455	
■	N	/chem/fid7.i/121709dr/012f1201.d	242654017	18-DEC-2009	06:40	10-852.sub	RE03-09-14278RE	1.00000	933843	DUSE, REEXTRACT
☐	N	/chem/fid7.i/122809dr/029f2901.d	242654017	29-DEC-2009	03:19	10-852.sub	RE03-09-14278	1.00000	934967	USE
■	N	/chem/fid7.i/121509dr/030f3001.d	242654018	16-DEC-2009	04:11	10-852.sub	RE03-09-14285	1.00000	932455	
☐	N	/chem/fid7.i/122809dr/030f3001.d	242654018	29-DEC-2009	03:55	10-852.sub	RE03-09-14285	1.00000	934967	USE
■	N	/chem/fid7.i/121509dr/031f3101.d	242654019	16-DEC-2009	04:48	10-852.sub	RE03-09-14286	1.00000	932455	
☐	N	/chem/fid7.i/122809dr/031f3101.d	242654019	29-DEC-2009	04:32	10-852.sub	RE03-09-14286	1.00000	934967	USE
■	N	/chem/fid7.i/121509dr/032f3201.d	242654020	16-DEC-2009	05:25	10-852.sub	RE03-09-14283	1.00000	932455	
☐	N	/chem/fid7.i/122809dr/032f3201.d	242654020	29-DEC-2009	05:09	10-852.sub	RE03-09-14283	1.00000	934967	USE

QC Sample

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
■	N	/chem/fid7.i/121509dr/005f0501.d	1201994553	mb	15-DEC-2009	12:52	10-852.sub	DBLK01	1.00000	932455	
■	N	/chem/fid7.i/121709dr/005f0501.d	1201997993	mb	18-DEC-2009	02:24	10-852.sub	DBLK02	1.00000	933843	USE
☐	N	/chem/fid7.i/122809dr/005f0501.d	1202000394	mb	28-DEC-2009	12:36	10-852.sub	DBLK01	1.00000	934967	USE
■	N	/chem/fid7.i/121509dr/006f0601.d	1201994554	lcs	15-DEC-2009	13:30	10-852.sub	DBLK01LCS	1.00000	932455	
■	N	/chem/fid7.i/121709dr/006f0601.d	1201997994	lcs	18-DEC-2009	03:00	10-852.sub	DBLK02LCS	1.00000	933843	USE
☐	N	/chem/fid7.i/122809dr/006f0601.d	1202000395	lcs	28-DEC-2009	13:13	10-852.sub	DBLK01LCS	1.00000	934967	USE

■	N	/chem/fid7.i/121509dr/008f0801.d	1201994555	ms	15-DEC-2009	14:43	10-852.sub	RE03-09-14224MS	1.00000	932455	
□	N	/chem/fid7.i/122809dr/008f0801.d	1202000396	ms	28-DEC-2009	14:28	10-852.sub	RE03-09-14224MS	1.00000	934967	USE
■	N	/chem/fid7.i/121509dr/009f0901.d	1201994556	msd	15-DEC-2009	15:19	10-852.sub	RE03-09-14224MSD	1.00000	932455	
□	N	/chem/fid7.i/122809dr/009f0901.d	1202000397	msd	28-DEC-2009	15:04	10-852.sub	RE03-09-14224MSD	1.00000	934967	USE

SAMPLE DATA SUMMARY

Flame Ionization Detector
Certificate of Analysis
Sample Summary

SDG Number:	10-852	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242654001	**Date Received:**	12/10/2009 08:50	**%Moisture:**	14.6
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14224	**Method:**	SW846 8015A/B SVOC	**SOP Ref:**	GL-OA-E-003
Batch ID:	934967	**Inst:**	FID7.I	**Dilution:**	1
Run Date:	12/28/2009 13:50	**Analyst:**	KXR2	**Inj. Vol:**	1 uL
Prep Date:	12/21/2009 10:03	**Aliquot:**	30 g	**Final Volume:**	1 mL
Data File:	007f0701.d	**Column:**	DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics	J	5.25	mg/kg	2.54	7.80

Flame Ionization Detector
Certificate of Analysis
Sample Summary

SDG Number:	10–852	Date Collected:	12/07/2009 12:00	Matrix:	S
Lab Sample ID:	242654002	Date Received:	12/10/2009 08:50	%Moisture:	10.3
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03–09–14227	Method:	SW846 8015A/B SVOC	SOP Ref:	GL–OA–E–003
Batch ID:	934967	Inst:	FID7.I	Dilution:	1
Run Date:	12/28/2009 15:41	Analyst:	KXR2	Inj. Vol:	1 uL
Prep Date:	12/21/2009 10:03	Aliquot:	30 g	Final Volume:	1 mL
Data File:	010f1001.d	Column:	DB–5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics	U	7.43	mg/kg	2.41	7.43

Flame Ionization Detector
Certificate of Analysis
Sample Summary

SDG Number:	10-852	Date Collected:	12/07/2009 12:00	Matrix:	S
Lab Sample ID:	242654003	Date Received:	12/10/2009 08:50	%Moisture:	11.9
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14225	Method:	SW846 8015A/B SVOC	SOP Ref:	GL-OA-E-003
Batch ID:	934967	Inst:	FID7.I	Dilution:	1
Run Date:	12/28/2009 16:18	Analyst:	KXR2	Inj. Vol:	1 uL
Prep Date:	12/21/2009 10:03	Aliquot:	30 g	Final Volume:	1 mL
Data File:	011f1101.d	Column:	DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics	U	7.57	mg/kg	2.46	7.57

Flame Ionization Detector
Certificate of Analysis
Sample Summary

SDG Number:	10-852	Date Collected:	12/07/2009 12:00	Matrix:	S
Lab Sample ID:	242654004	Date Received:	12/10/2009 08:50	%Moisture:	9.5
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14226	Method:	SW846 8015A/B SVOC	SOP Ref:	GL-OA-E-003
Batch ID:	934967	Inst:	FID7.I	Dilution:	1
Run Date:	12/28/2009 16:55	Analyst:	KXR2	Inj. Vol:	1 uL
Prep Date:	12/21/2009 10:03	Aliquot:	30 g	Final Volume:	1 mL
Data File:	012f1201.d	Column:	DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics	U	7.37	mg/kg	2.39	7.37

Flame Ionization Detector
Certificate of Analysis
Sample Summary

SDG Number:	10-852	Date Collected:	12/07/2009 12:00	Matrix:	S
Lab Sample ID:	242654005	Date Received:	12/10/2009 08:50	%Moisture:	5.9
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14288	Method:	SW846 8015A/B SVOC	SOP Ref:	GL-OA-E-003
Batch ID:	934967	Inst:	FID7.I	Dilution:	1
Run Date:	12/28/2009 18:45	Analyst:	KXR2	Inj. Vol:	1 uL
Prep Date:	12/21/2009 10:03	Aliquot:	30.03 g	Final Volume:	1 mL
Data File:	015f1501.d	Column:	DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics	J	5.20	mg/kg	2.30	7.08

Flame Ionization Detector
Certificate of Analysis
Sample Summary

SDG Number:	10–852	Date Collected:	12/07/2009 12:00	Matrix:	S
Lab Sample ID:	242654006	Date Received:	12/10/2009 08:50	%Moisture:	11.7
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03–09–14287	Method:	SW846 8015A/B SVOC	SOP Ref:	GL–OA–E–003
Batch ID:	934967	Inst:	FID7.I	Dilution:	1
Run Date:	12/28/2009 19:21	Analyst:	KXR2	Inj. Vol:	1 uL
Prep Date:	12/21/2009 10:03	Aliquot:	30.01 g	Final Volume:	1 mL
Data File:	016f1601.d	Column:	DB–5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics		19.4	mg/kg	2.45	7.55

Flame Ionization Detector
Certificate of Analysis
Sample Summary

SDG Number:	10–852	Date Collected:	12/07/2009 12:00	Matrix:	S
Lab Sample ID:	242654007	Date Received:	12/10/2009 08:50	%Moisture:	14.2
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03–09–14267	Method:	SW846 8015A/B SVOC	SOP Ref:	GL–OA–E–003
Batch ID:	934967	Inst:	FID7.I	Dilution:	20
Run Date:	12/28/2009 19:58	Analyst:	KXR2	Inj. Vol:	1 uL
Prep Date:	12/21/2009 10:03	Aliquot:	30.09 g	Final Volume:	1 mL
Data File:	017f1701.d	Column:	DB–5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics	J	136	mg/kg	50.4	155

Flame Ionization Detector
Certificate of Analysis
Sample Summary

SDG Number:	10-852	Date Collected:	12/07/2009 12:00	Matrix:	S
Lab Sample ID:	242654008	Date Received:	12/10/2009 08:50	%Moisture:	13
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14265	Method:	SW846 8015A/B SVOC	SOP Ref:	GL-OA-E-003
Batch ID:	934967	Inst:	FID7.I	Dilution:	20
Run Date:	12/28/2009 20:35	Analyst:	KXR2	Inj. Vol:	1 uL
Prep Date:	12/21/2009 10:03	Aliquot:	30.09 g	Final Volume:	1 mL
Data File:	018f1801.d	Column:	DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics	J	79.0	mg/kg	49.7	153

Flame Ionization Detector
Certificate of Analysis
Sample Summary

SDG Number:	10-852	Date Collected:	12/07/2009 12:00	Matrix:	S
Lab Sample ID:	242654009	Date Received:	12/10/2009 08:50	%Moisture:	14.1
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14281	Method:	SW846 8015A/B SVOC	SOP Ref:	GL-OA-E-003
Batch ID:	934967	Inst:	FID7.I	Dilution:	1
Run Date:	12/28/2009 21:12	Analyst:	KXR2	Inj. Vol:	1 uL
Prep Date:	12/21/2009 10:03	Aliquot:	30.09 g	Final Volume:	1 mL
Data File:	019f1901.d	Column:	DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics	J	5.82	mg/kg	2.52	7.74

Flame Ionization Detector
Certificate of Analysis
Sample Summary

SDG Number:	10-852	Date Collected:	12/07/2009 12:00	Matrix:	S
Lab Sample ID:	242654010	Date Received:	12/10/2009 08:50	%Moisture:	13.2
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14284	Method:	SW846 8015A/B SVOC	SOP Ref:	GL-OA-E-003
Batch ID:	934967	Inst:	FID7.I	Dilution:	1
Run Date:	12/28/2009 21:48	Analyst:	KXR2	Inj. Vol:	1 uL
Prep Date:	12/21/2009 10:03	Aliquot:	30.04 g	Final Volume:	1 mL
Data File:	020f2001.d	Column:	DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics	U	7.67	mg/kg	2.49	7.67

Flame Ionization Detector
Certificate of Analysis
Sample Summary

SDG Number:	10-852	Date Collected:	12/07/2009 12:00	Matrix:	S
Lab Sample ID:	242654011	Date Received:	12/10/2009 08:50	%Moisture:	4.1
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14274	Method:	SW846 8015A/B SVOC	SOP Ref:	GL-OA-E-003
Batch ID:	934967	Inst:	FID7.I	Dilution:	1
Run Date:	12/28/2009 22:25	Analyst:	KXR2	Inj. Vol:	1 uL
Prep Date:	12/21/2009 10:03	Aliquot:	30.01 g	Final Volume:	1 mL
Data File:	021f2101.d	Column:	DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics	J	3.19	mg/kg	2.26	6.95

Flame Ionization Detector
Certificate of Analysis
Sample Summary

SDG Number:	10-852	Date Collected:	12/07/2009 12:00	Matrix:	S
Lab Sample ID:	242654012	Date Received:	12/10/2009 08:50	%Moisture:	12.2
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14277	Method:	SW846 8015A/B SVOC	SOP Ref:	GL-OA-E-003
Batch ID:	934967	Inst:	FID7.I	Dilution:	1
Run Date:	12/28/2009 23:02	Analyst:	KXR2	Inj. Vol:	1 uL
Prep Date:	12/21/2009 10:03	Aliquot:	30.09 g	Final Volume:	1 mL
Data File:	022f2201.d	Column:	DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics		78.8	mg/kg	2.46	7.57

Flame Ionization Detector
Certificate of Analysis
Sample Summary

SDG Number:	10-852	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242654013	**Date Received:**	12/10/2009 08:50	**%Moisture:**	14.2
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14282	**Method:**	SW846 8015A/B SVOC	**SOP Ref:**	GL-OA-E-003
Batch ID:	934967	**Inst:**	FID7.I	**Dilution:**	1
Run Date:	12/29/2009 00:52	**Analyst:**	KXR2	**Inj. Vol:**	1 uL
Prep Date:	12/21/2009 10:03	**Aliquot:**	30.02 g	**Final Volume:**	1 mL
Data File:	025f2501.d	**Column:**	DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics	U	7.76	mg/kg	2.52	7.76

Flame Ionization Detector
Certificate of Analysis
Sample Summary

SDG Number:	10-852	Date Collected:	12/07/2009 12:00	Matrix:	S
Lab Sample ID:	242654014	Date Received:	12/10/2009 08:50	%Moisture:	10.7
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14269	Method:	SW846 8015A/B SVOC	SOP Ref:	GL-OA-E-003
Batch ID:	934967	Inst:	FID7.I	Dilution:	20
Run Date:	12/29/2009 01:28	Analyst:	KXR2	Inj. Vol:	1 uL
Prep Date:	12/21/2009 10:03	Aliquot:	30.09 g	Final Volume:	1 mL
Data File:	026f2601.d	Column:	DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics	J	57.2	mg/kg	48.4	149

Flame Ionization Detector
Certificate of Analysis
Sample Summary

SDG Number:	10-852	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242654015	**Date Received:**	12/10/2009 08:50	**%Moisture:**	10.3
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14273	**Method:**	SW846 8015A/B SVOC	**SOP Ref:**	GL-OA-E-003
Batch ID:	934967	**Inst:**	FID7.1	**Dilution:**	1
Run Date:	12/29/2009 02:05	**Analyst:**	KXR2	**Inj. Vol:**	1 uL
Prep Date:	12/21/2009 10:03	**Aliquot:**	30.02 g	**Final Volume:**	1 mL
Data File:	027f2701.d	**Column:**	DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics		43.3	mg/kg	2.41	7.43

Flame Ionization Detector
Certificate of Analysis
Sample Summary

SDG Number:	10–852	Date Collected:	12/07/2009 12:00	Matrix:	S
Lab Sample ID:	242654016	Date Received:	12/10/2009 08:50	%Moisture:	13.4
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03–09–14271	Method:	SW846 8015A/B SVOC	SOP Ref:	GL–OA–E–003
Batch ID:	934967	Inst:	FID7.I	Dilution:	20
Run Date:	12/29/2009 02:42	Analyst:	KXR2	Inj. Vol:	1 uL
Prep Date:	12/21/2009 10:03	Aliquot:	30.02 g	Final Volume:	1 mL
Data File:	028f2801.d	Column:	DB–5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics	J	71.5	mg/kg	50.0	154

Flame Ionization Detector
Certificate of Analysis
Sample Summary

SDG Number:	10–852	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242654017	**Date Received:**	12/10/2009 08:50	**%Moisture:**	9.4
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03–09–14278	**Method:**	SW846 8015A/B SVOC	**SOP Ref:**	GL–OA–E–003
Batch ID:	934967	**Inst:**	FID7.I	**Dilution:**	1
Run Date:	12/29/2009 03:19	**Analyst:**	KXR2	**Inj. Vol:**	1 uL
Prep Date:	12/21/2009 10:03	**Aliquot:**	30.05 g	**Final Volume:**	1 mL
Data File:	029f2901.d	**Column:**	DB–5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics		31.4	mg/kg	2.39	7.35

Flame Ionization Detector
Certificate of Analysis
Sample Summary

SDG Number:	10-852	Date Collected:	12/07/2009 12:00	Matrix:	S
Lab Sample ID:	242654018	Date Received:	12/10/2009 08:50	%Moisture:	14.2
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14285	Method:	SW846 8015A/B SVOC	SOP Ref:	GL-OA-E-003
Batch ID:	934967	Inst:	FID7.I	Dilution:	1
Run Date:	12/29/2009 03:55	Analyst:	KXR2	Inj. Vol:	1 uL
Prep Date:	12/21/2009 10:03	Aliquot:	30.02 g	Final Volume:	1 mL
Data File:	030f3001.d	Column:	DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics	J	3.79	mg/kg	2.52	7.76

Flame Ionization Detector
Certificate of Analysis
Sample Summary

SDG Number:	10-852	Date Collected:	12/07/2009 12:00	Matrix:	S
Lab Sample ID:	242654019	Date Received:	12/10/2009 08:50	%Moisture:	13.4
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14286	Method:	SW846 8015A/B SVOC	SOP Ref:	GL-OA-E-003
Batch ID:	934967	Inst:	FID7.I	Dilution:	1
Run Date:	12/29/2009 04:32	Analyst:	KXR2	Inj. Vol:	1 uL
Prep Date:	12/21/2009 10:03	Aliquot:	30.04 g	Final Volume:	1 mL
Data File:	031f3101.d	Column:	DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics	U	7.69	mg/kg	2.50	7.69

Flame Ionization Detector
Certificate of Analysis
Sample Summary

SDG Number:	10–852	Date Collected:	12/07/2009 12:00	Matrix:	S
Lab Sample ID:	242654020	Date Received:	12/10/2009 08:50	%Moisture:	15.8
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03–09–14283	Method:	SW846 8015A/B SVOC	SOP Ref:	GL–OA–E–003
Batch ID:	934967	Inst:	FID7.I	Dilution:	1
Run Date:	12/29/2009 05:09	Analyst:	KXR2	Inj. Vol:	1 uL
Prep Date:	12/21/2009 10:03	Aliquot:	30.03 g	Final Volume:	1 mL
Data File:	032f3201.d	Column:	DB–5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics	U	7.91	mg/kg	2.57	7.91

QUALITY CONTROL SUMMARY

Flame Ionization Detector

Surrogate Recovery Report

SDG Number: 10-852

Matrix Type: SOLID

CAP Column (1) : DB-5MS

Sample ID	Client ID	OTP %REC	
1202000394	MB for batch 934965	43	
1202000395	LCS for batch 934965	74	
242654001	RE03-09-14224	33	
1202000396	RE03-09-14224MS	42	
1202000397	RE03-09-14224MSD	35	
242654002	RE03-09-14227	37	
242654003	RE03-09-14225	33	
242654004	RE03-09-14226	39	
242654005	RE03-09-14288	46	
242654006	RE03-09-14287	43	
242654007	RE03-09-14267	113	D
242654008	RE03-09-14265	82	D
242654009	RE03-09-14281	46	
242654010	RE03-09-14284	30	
242654011	RE03-09-14274	46	
242654012	RE03-09-14277	51	
242654013	RE03-09-14282	41	
242654014	RE03-09-14269	71	D
242654015	RE03-09-14273	44	
242654016	RE03-09-14271	24	D
242654017	RE03-09-14278	50	
242654018	RE03-09-14285	37	
242654019	RE03-09-14286	41	
242654020	RE03-09-14283	27	

Surrogate	Acceptance Limits
OTP = o-Terphenyl	(24%-124%)

* Recovery outside Acceptance Limits

\# Column to be used to flag recovery values

D Sample Diluted

Flame Ionization Detector
Quality Control Summary
Spike Recovery Report

SDG Number: 10-852
Client ID: LCS for batch 934965
Lab Sample ID: 1202000395
Instrument: FID7.I
Analyst: KXR2
Inj. Vol: 1 uL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 12/28/2009 13:13
Prep Batch ID: 934965
Batch ID: 934967
Dilution: 1

CAS No		Parmname	Amount Added mg/kg	Sample Conc. mg/kg	Spike Conc. mg/kg	Recovery %	Acceptance Limits
DRO	LCS	Diesel Range Organics	33.3	0.0	22.2	67	53-114

Flame Ionization Detector

Quality Control Summary

Spike Recovery Report

SDG Number:	**10–852**	**Sample Type:**	**Matrix Spike**
Client ID:	**RE03–09–14224MS**	**Matrix:**	**S**
Lab Sample ID:	**1202000396**	**%Moisture:**	**14.6**
Instrument:	**FID7.I**	**Analysis Date:**	**12/28/2009 14:28**
Analyst:	**KXR2**	**Prep Batch ID**	**934965**
Inj. Vol:	**1 uL**	**Batch ID:**	**934967**

Dilution: 1

CAS No		Parmname	Amount Added mg/kg	Sample Conc. mg/kg		Spike Conc. mg/kg	Recovery %	Acceptance Limits
DRO	MS	Diesel Range Organics	39.0	5.25	J	19.5	37	21–122

Flame Ionization Detector
Quality Control Summary
Spike Recovery Report

SDG Number:	**10–852**	**Sample Type:**	**Matrix Spike Duplicate**
Client ID:	**RE03–09–14224MSD**	**Matrix:**	**S**
Lab Sample ID:	**1202000397**	**%Moisture:**	**14.6**
Instrument:	**FID7.I**	**Analysis Date:**	**12/28/2009 15:04**
Analyst:	**KXR2**	**Prep Batch ID:**	**934965**
Inj. Vol:	**1 uL**	**Batch ID:**	**934967**

Dilution: 1

CAS No	Parmname	Amount Added mg/kg	Sample Conc. mg/kg		Spike Conc. mg/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
DRO	MSD Diesel Range Organics	39.0	5.25	J	15.2	26	21–122	25	0–30

Method Blank Summary

SDG Number:	10–852	Client:	LANL010	Matrix:	SOIL
Client ID:	MB for batch 934965	Instrument ID:	FID7.I	Data File:	005f0501.d
Lab Sample ID:	1202000394	Prep Date:	12/21/2009 10:03	Analyzed:	12/28/09 12:36
Column:	DB–5MS	Level:	LOW		

This method blank applies to the following samples and quality control samples:

	Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01	LCS for batch 934965	1202000395	006f0601.d	12/28/09	1313
02	RE03–09–14224	242654001	007f0701.d	12/28/09	1350
03	RE03–09–14224MS	1202000396	008f0801.d	12/28/09	1428
04	RE03–09–14224MSD	1202000397	009f0901.d	12/28/09	1504
05	RE03–09–14227	242654002	010f1001.d	12/28/09	1541
06	RE03–09–14225	242654003	011f1101.d	12/28/09	1618
07	RE03–09–14226	242654004	012f1201.d	12/28/09	1655
08	RE03–09–14288	242654005	015f1501.d	12/28/09	1845
09	RE03–09–14287	242654006	016f1601.d	12/28/09	1921
10	RE03–09–14267	242654007	017f1701.d	12/28/09	1958
11	RE03–09–14265	242654008	018f1801.d	12/28/09	2035
12	RE03–09–14281	242654009	019f1901.d	12/28/09	2112
13	RE03–09–14284	242654010	020f2001.d	12/28/09	2148
14	RE03–09–14274	242654011	021f2101.d	12/28/09	2225
15	RE03–09–14277	242654012	022f2201.d	12/28/09	2302
16	RE03–09–14282	242654013	025f2501.d	12/29/09	0052
17	RE03–09–14269	242654014	026f2601.d	12/29/09	0128
18	RE03–09–14273	242654015	027f2701.d	12/29/09	0205
19	RE03–09–14271	242654016	028f2801.d	12/29/09	0242
20	RE03–09–14278	242654017	029f2901.d	12/29/09	0319
21	RE03–09–14285	242654018	030f3001.d	12/29/09	0355
22	RE03–09–14286	242654019	031f3101.d	12/29/09	0432
23	RE03–09–14283	242654020	032f3201.d	12/29/09	0509

SAMPLE
DATA

Flame Ionization Detector
Certificate of Analysis
Sample Summary

SDG Number:	10-852	Date Collected:	12/07/2009 12:00	Matrix:	S
Lab Sample ID:	242654001	Date Received:	12/10/2009 08:50	%Moisture:	14.6
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14224	Method:	SW846 8015A/B SVOC	SOP Ref:	GL-OA-E-003
Batch ID:	934967	Inst:	FID7.I	Dilution:	1
Run Date:	12/28/2009 13:50	Analyst:	KXR2	Inj. Vol:	1 uL
Prep Date:	12/21/2009 10:03	Aliquot:	30 g	Final Volume:	1 mL
Data File:	007f0701.d	Column:	DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics	J	5.25	mg/kg	2.54	7.80

GEL Laboratories LLC

DB-5MS .25mm

Data file : /chem/fid7.i/122809dr/007f0701.d
Lab Smp Id: 242654001 Client Smp ID: RE03-09-14224
Inj Date : 28-DEC-2009 13:50
Operator : KXR2 Inst ID: fid7.i
Smp Info : |242654001|1|
Misc Info : |FIDDRO_S|934967|FID|LANL|
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fid7.i/122809dr/FID7a.i_b_DRO_121309.m
Meth Date : 29-Dec-2009 12:00 kev01577 Quant Type: ESTD
Cal Date : 13-DEC-2009 18:58 Cal File: 007f0701.d
Als bottle: 7
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-852.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weigth of sample extracted (g)
M	14.56650	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (mg/L)	FINAL (mg/Kg)	
S 1 Diesel Range Organics					CAS #:	
7.480- 17.855			1804617	134.500	5.2	(a)
$ 2 o-Terphenyl					CAS #: 84-15-1	
13.591	13.596	-0.005	176021	6.67647	0.26	(M)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

Data File: /chem/fid7.i/122809dr/007f0701.d

Date : 28-DEC-2009 13:50

Client ID: RE03-09-14224

Sample Info: |242654001|1|

Volume Injected (uL): 1.0

Column phase: DB-5MS

Instrument: fid7.i

Operator: KXR2

Column diameter: 0.25

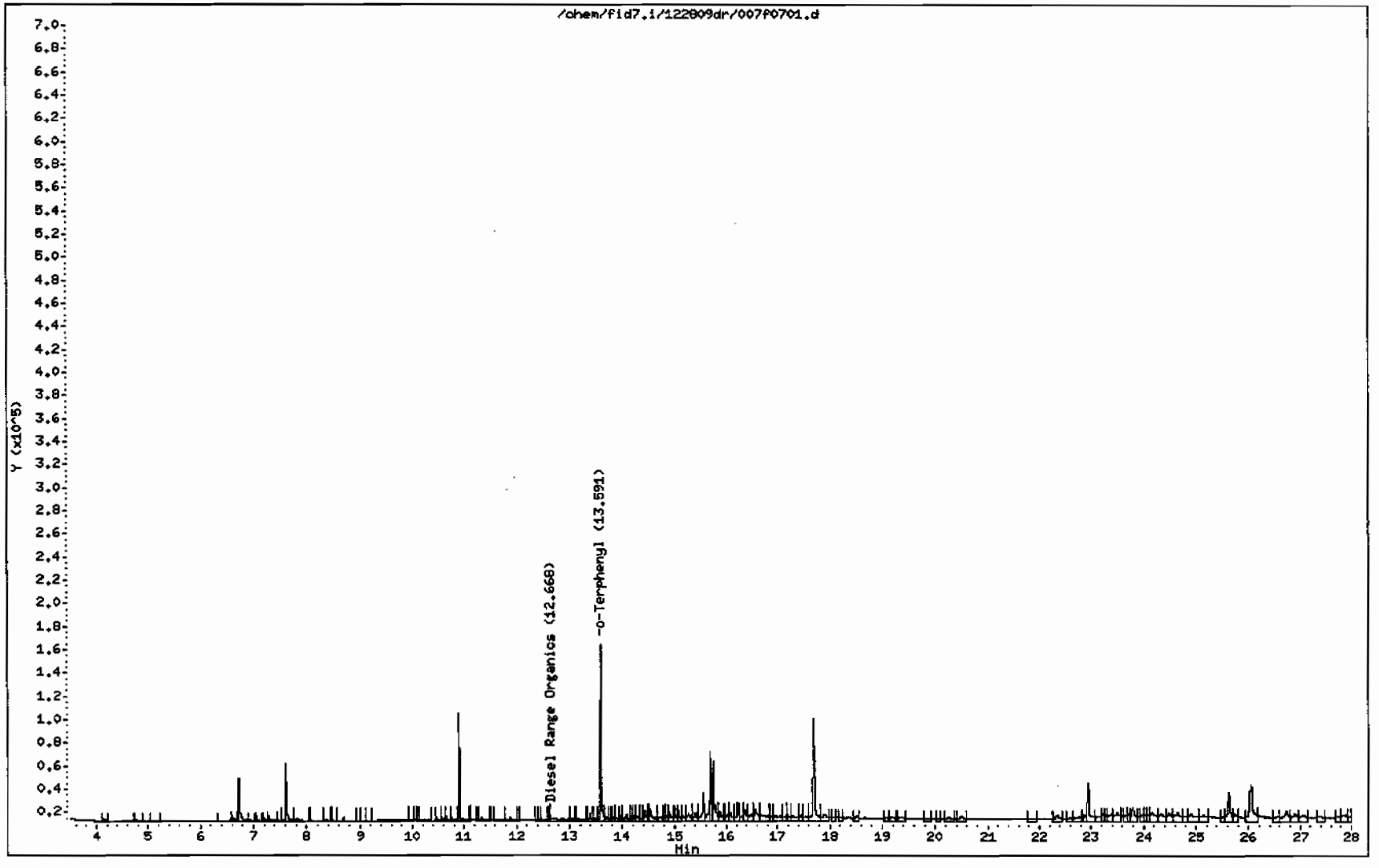

Before 1/7/10 12/30/09

Data File: /chem/fid7.i/122809dr/007f0701.d
Injection Date: 28-DEC-2009 13:50
Instrument: fid7.i
Client Sample ID: RE03-09-14224

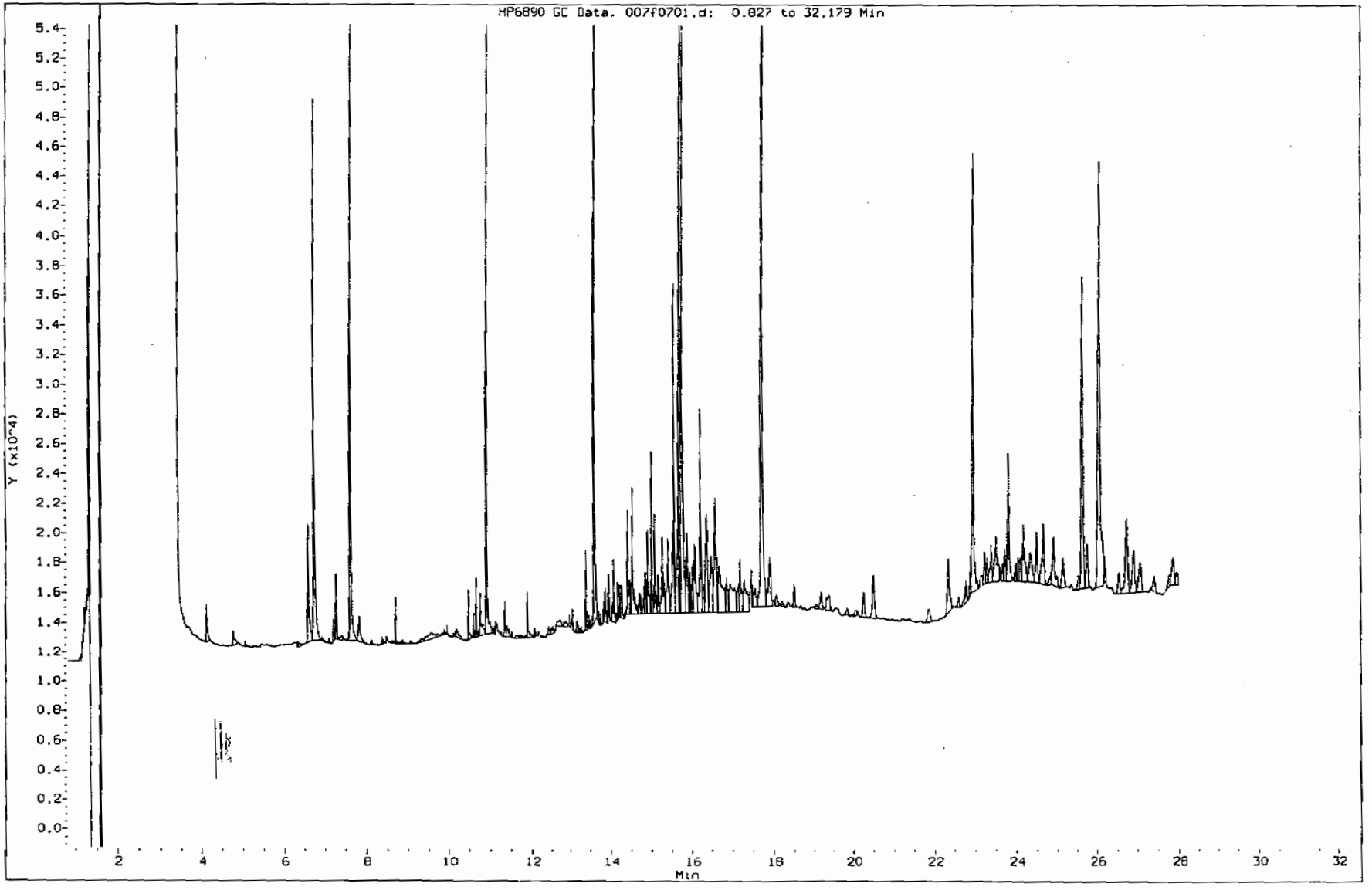

Data File: /chem/fid7.i/122809dr/007f0701.d
Injection Date: 28-DEC-2009 13:50
Instrument: fid7.i
Client Sample ID: RE03-09-14224

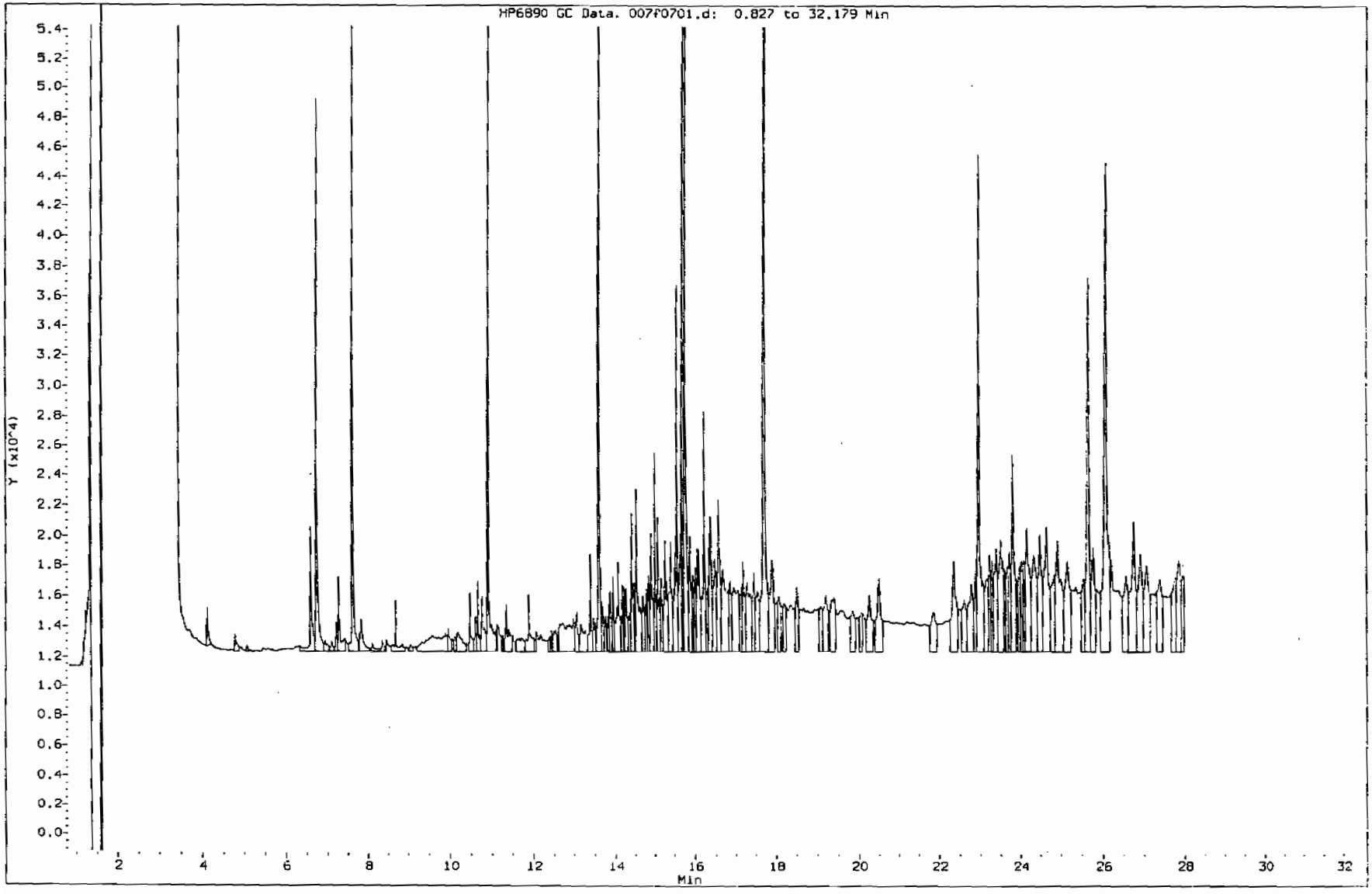

Flame Ionization Detector
Certificate of Analysis
Sample Summary

SDG Number:	10–852	Date Collected:	12/07/2009 12:00	Matrix:	S
Lab Sample ID:	242654002	Date Received:	12/10/2009 08:50	%Moisture:	10.3
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03–09–14227	Method:	SW846 8015A/B SVOC	SOP Ref:	GL–OA–E–003
Batch ID:	934967	Inst:	FID7.I	Dilution:	1
Run Date:	12/28/2009 15:41	Analyst:	KXR2	Inj. Vol:	1 uL
Prep Date:	12/21/2009 10:03	Aliquot:	30 g	Final Volume:	1 mL
Data File:	010f1001.d	Column:	DB–5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics	U	7.43	mg/kg	2.41	7.43

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DB-5MS .25mm

Data file : /chem/fid7.i/122809dr/010f1001.d
Lab Smp Id: 242654002 Client Smp ID: RE03-09-14227
Inj Date : 28-DEC-2009 15:41
Operator : KXR2 Inst ID: fid7.i
Smp Info : |242654002|1|
Misc Info : |FIDDRO_S|934967|FID|LANL|
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fid7.i/122809dr/FID7a.i_b_DRO_121309.m
Meth Date : 29-Dec-2009 12:00 kev01577 Quant Type: ESTD
Cal Date : 13-DEC-2009 18:58 Cal File: 007f0701.d
Als bottle: 10
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-852.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weigth of sample extracted (g)
M	10.27880	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (mg/L)	FINAL (mg/Kg)
$ 2 o-Terphenyl					CAS #: 84-15-1
13.590	13.596	-0.006	192713	7.30959	0.27

Data File: /chem/fid7.i/122809dr/010f1001.d
Date : 28-DEC-2009 15:41
Client ID: RE03-09-14227
Sample Info: |2426540021|1|
Volume Injected (uL): 1.0
Column phase: DB-5MS

Instrument: fid7.i

Operator: KXR2
Column diameter: 0.25

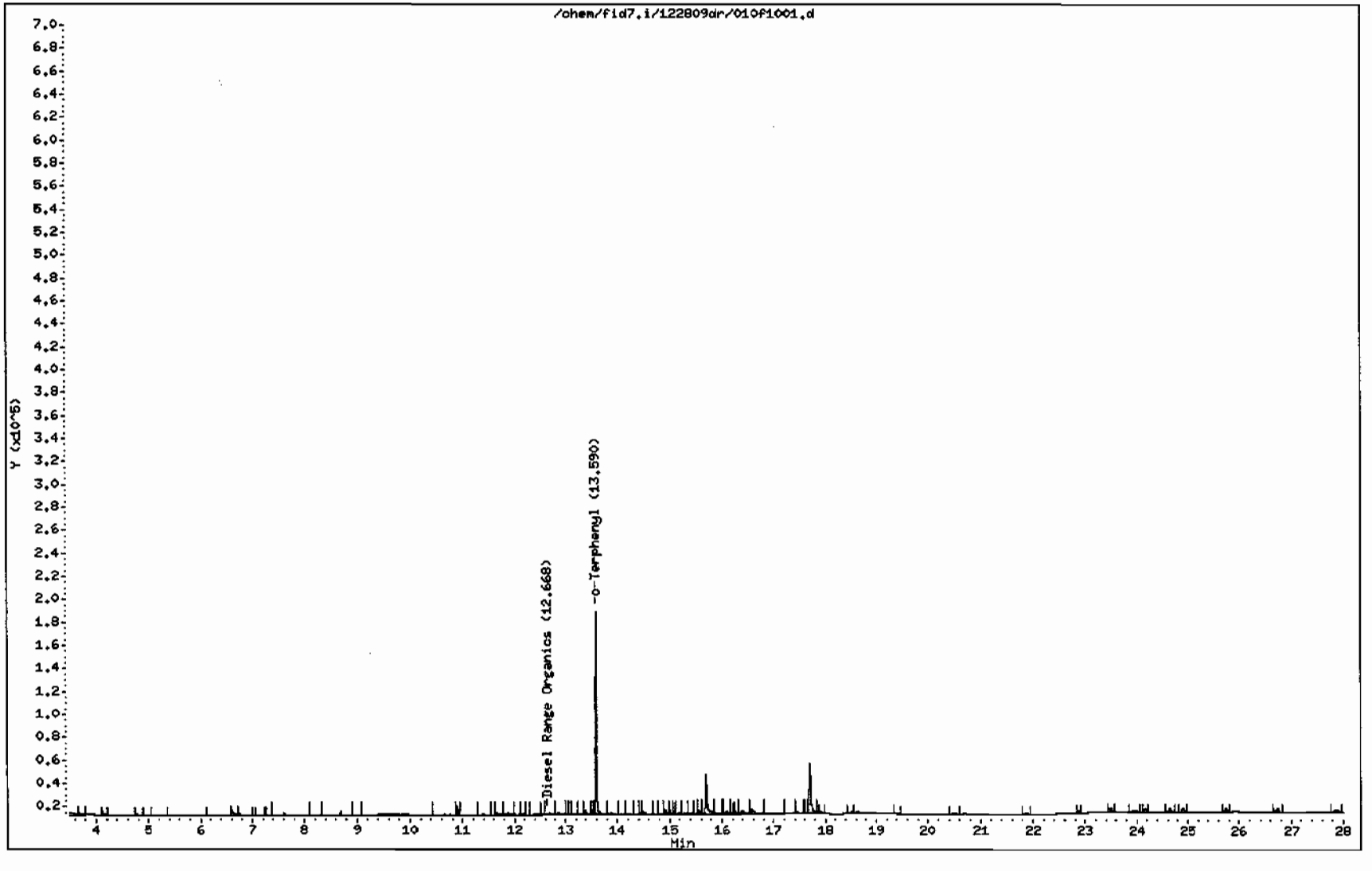

Flame Ionization Detector
Certificate of Analysis
Sample Summary

SDG Number:	10-852	Date Collected:	12/07/2009 12:00	Matrix:	S
Lab Sample ID:	242654003	Date Received:	12/10/2009 08:50	%Moisture:	11.9
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14225	Method:	SW846 8015A/B SVOC	SOP Ref:	GL-OA-E-003
Batch ID:	934967	Inst:	FID7.I	Dilution:	1
Run Date:	12/28/2009 16:18	Analyst:	KXR2	Inj. Vol:	1 uL
Prep Date:	12/21/2009 10:03	Aliquot:	30 g	Final Volume:	1 mL
Data File:	011f1101.d	Column:	DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics	U	7.57	mg/kg	2.46	7.57

GEL Laboratories LLC

DB-5MS .25mm

Data file : /chem/fid7.i/122809dr/011f1101.d
Lab Smp Id: 242654003 Client Smp ID: RE03-09-14225
Inj Date : 28-DEC-2009 16:18
Operator : KXR2 Inst ID: fid7.i
Smp Info : |242654003|1|
Misc Info : |FIDDRO_S|934967|FID|LANL|
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fid7.i/122809dr/FID7a.i_b_DRO_121309.m
Meth Date : 29-Dec-2009 12:00 kev01577 Quant Type: ESTD
Cal Date : 13-DEC-2009 18:58 Cal File: 007f0701.d
Als bottle: 11
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-852.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weigth of sample extracted (g)
M	11.93810	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (mg/L)	FINAL (mg/Kg)
$ 2 o-Terphenyl					CAS #: 84-15-1
13.591	13.596	-0.005	172212	6.53199	0.25

Data File: /chem/fid7.i/122809dr/011f1101.d
Date : 28-DEC-2009 16:18
Client ID: RE03-09-14225
Sample Info: |242654003|1|
Volume Injected (uL): 1.0
Column phase: DB-5MS

Instrument: fid7.i

Operator: KXR2
Column diameter: 0.25

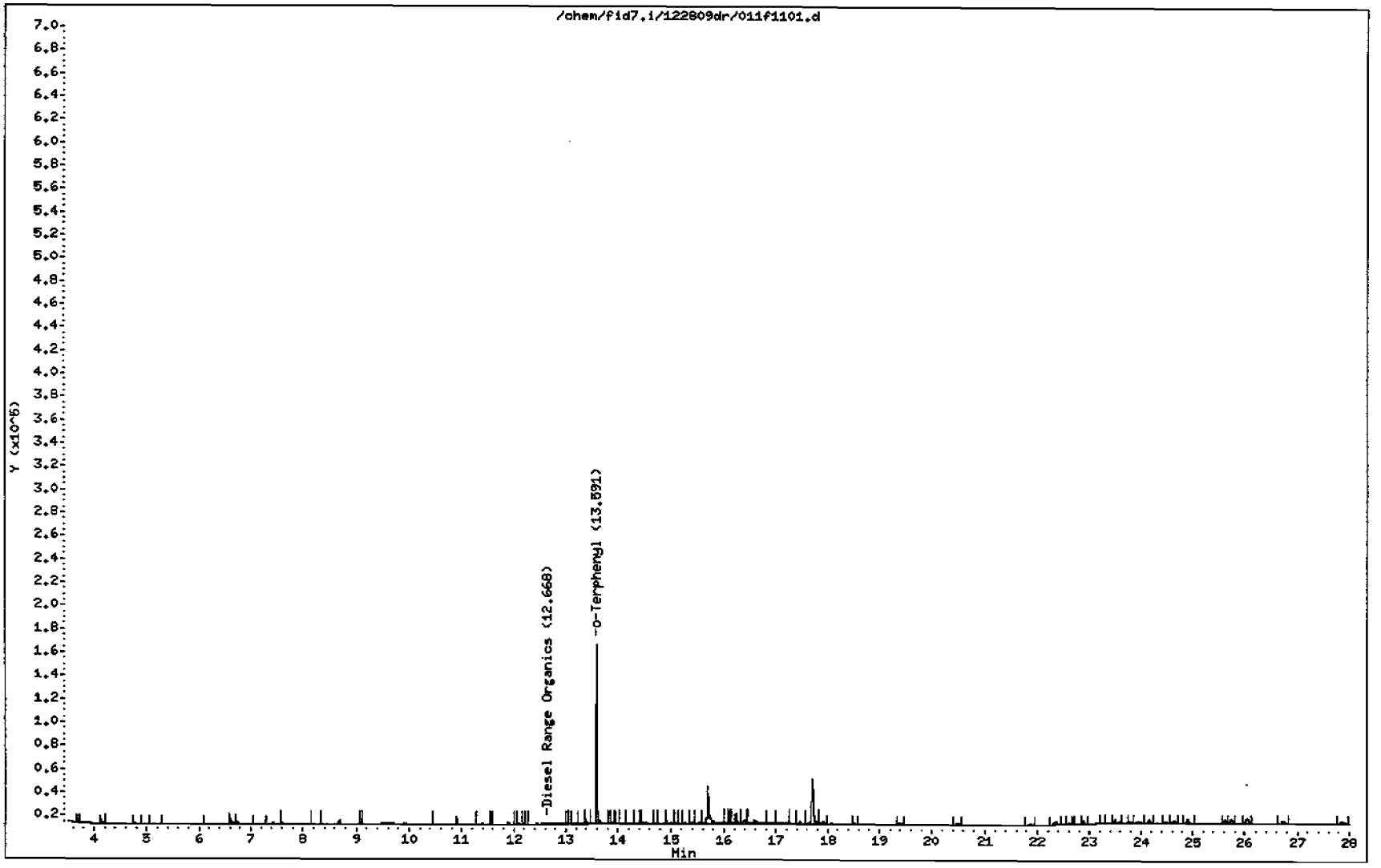

Flame Ionization Detector
Certificate of Analysis
Sample Summary

SDG Number:	10-852	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242654004	**Date Received:**	12/10/2009 08:50	**%Moisture:**	9.5
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14226	**Method:**	SW846 8015A/B SVOC	**SOP Ref:**	GL-OA-E-003
Batch ID:	934967	**Inst:**	FID7.I	**Dilution:**	1
Run Date:	12/28/2009 16:55	**Analyst:**	KXR2	**Inj. Vol:**	1 uL
Prep Date:	12/21/2009 10:03	**Aliquot:**	30 g	**Final Volume:**	1 mL
Data File:	012f1201.d	**Column:**	DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics	U	7.37	mg/kg	2.39	7.37

GEL Laboratories LLC

DB-5MS .25mm

Data file : /chem/fid7.i/122809dr/012f1201.d
Lab Smp Id: 242654004 Client Smp ID: RE03-09-14226
Inj Date : 28-DEC-2009 16:55
Operator : KXR2 Inst ID: fid7.i
Smp Info : |242654004|1|
Misc Info : |FIDDRO_S|934967|FID|LANL|
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fid7.i/122809dr/FID7a.i_b_DRO_121309.m
Meth Date : 29-Dec-2009 12:00 kev01577 Quant Type: ESTD
Cal Date : 13-DEC-2009 18:58 Cal File: 007f0701.d
Als bottle: 12
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-852.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weigth of sample extracted (g)
M	9.51940	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (mg/L)	FINAL (mg/Kg)
$ 2 o-Terphenyl					CAS #: 84-15-1
13.591	13.596	-0.005	205115	7.77996	0.29

Data File: /chem/fid7.i/122809dr/012f1201.d
Date : 28-DEC-2009 16:55
Client ID: RE03-09-14226
Sample Info: |242654004|1|
Volume Injected (uL): 1.0
Column phase: DB-5MS

Instrument: fid7.i
Operator: KXR2
Column diameter: 0.25

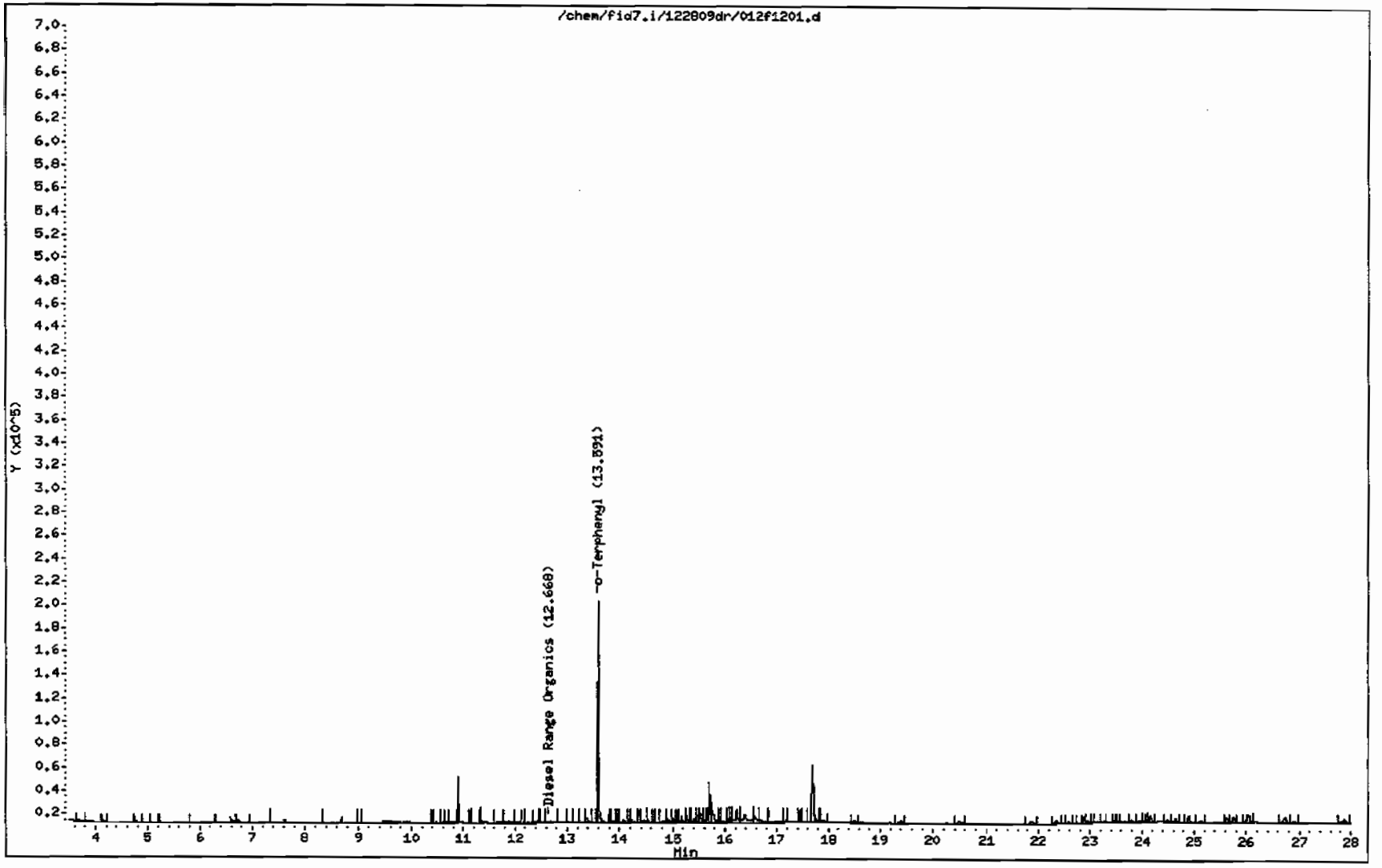

Flame Ionization Detector
Certificate of Analysis
Sample Summary

SDG Number:	10-852	Date Collected:	12/07/2009 12:00	Matrix:	S
Lab Sample ID:	242654005	Date Received:	12/10/2009 08:50	%Moisture:	5.9
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14288	Method:	SW846 8015A/B SVOC	SOP Ref:	GL-OA-E-003
Batch ID:	934967	Inst:	FID7.I	Dilution:	1
Run Date:	12/28/2009 18:45	Analyst:	KXR2	Inj. Vol:	1 uL
Prep Date:	12/21/2009 10:03	Aliquot:	30.03 g	Final Volume:	1 mL
Data File:	015f1501.d	Column:	DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics	J	5.20	mg/kg	2.30	7.08

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DB-5MS .25mm

Data file : /chem/fid7.i/122809dr/015f1501.d
Lab Smp Id: 242654005 Client Smp ID: RE03-09-14288
Inj Date : 28-DEC-2009 18:45
Operator : KXR2 Inst ID: fid7.i
Smp Info : |242654005|1|
Misc Info : |FIDDRO_S|934967|FID|LANL|
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fid7.i/122809dr/FID7a.i_b_DRO_121309.m
Meth Date : 29-Dec-2009 12:00 kev01577 Quant Type: ESTD
Cal Date : 13-DEC-2009 18:58 Cal File: 007f0701.d
Als bottle: 15
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-852.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.03000	Weigth of sample extracted (g)
M	5.94460	% Moisture

Cpnd Variable Local Compound Variable

	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (mg/L)	FINAL (mg/Kg)	
S	1 Diesel Range Organics					CAS #:	
	7.480- 17.855			1969679	146.803	5.2	(a)
$	2 o-Terphenyl					CAS #: 84-15-1	
	13.589	13.596	-0.007	243352	9.23031	0.33	(M)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

Data File: /chem/fid7.i/122809dr/015f1501.d
Date : 28-DEC-2009 18:45
Client ID: RE03-09-14288
Sample Info: 1242654005111
Volume Injected (uL): 1.0
Column phase: DB-5MS

Instrument: fid7.i
Operator: KXR2
Column diameter: 0.25

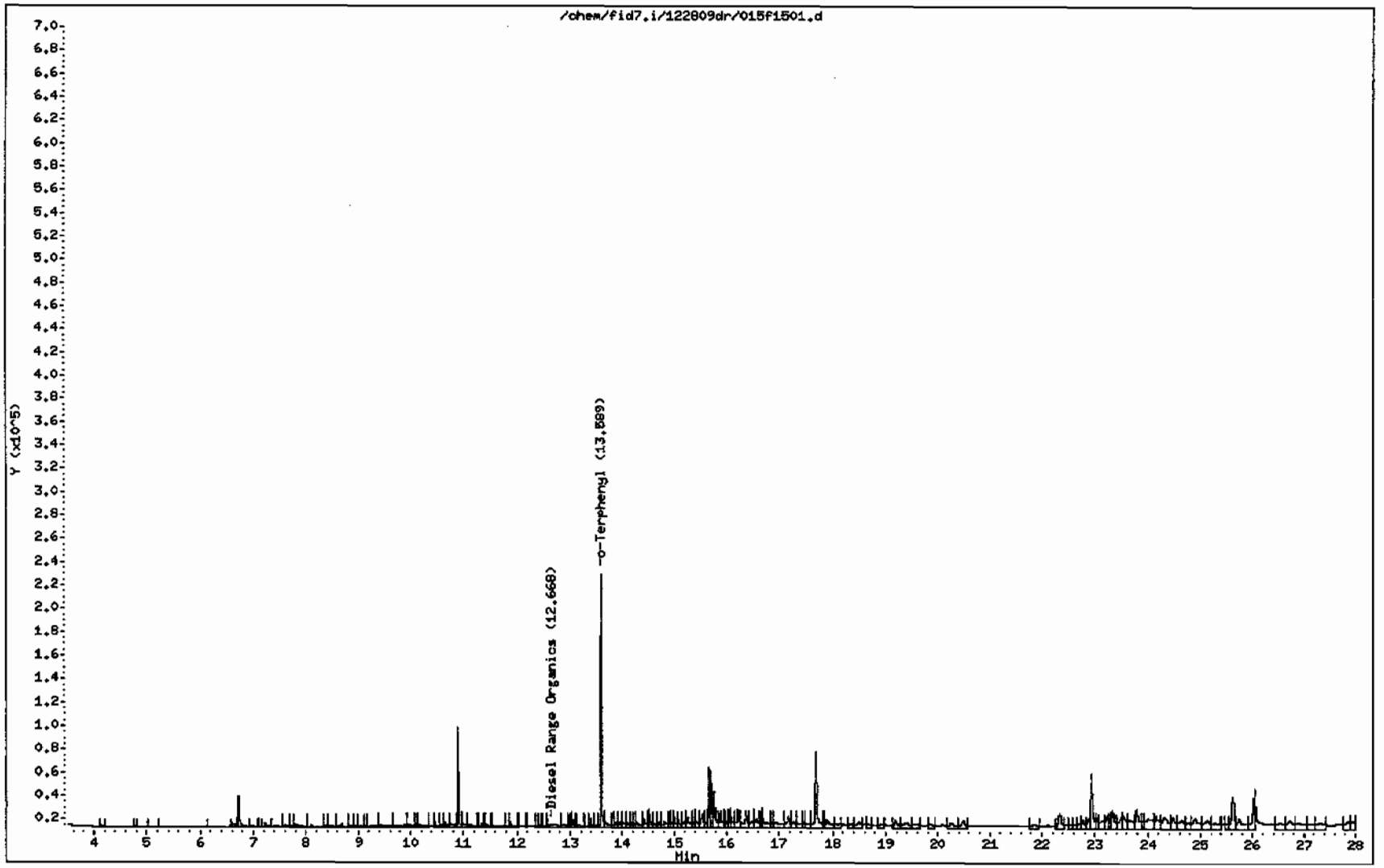

Data File: /chem/fid7.i/122809dr/015f1501.d
Injection Date: 28-DEC-2009 18:45
Instrument: fid7.i
Client Sample ID: RE03-09-14288

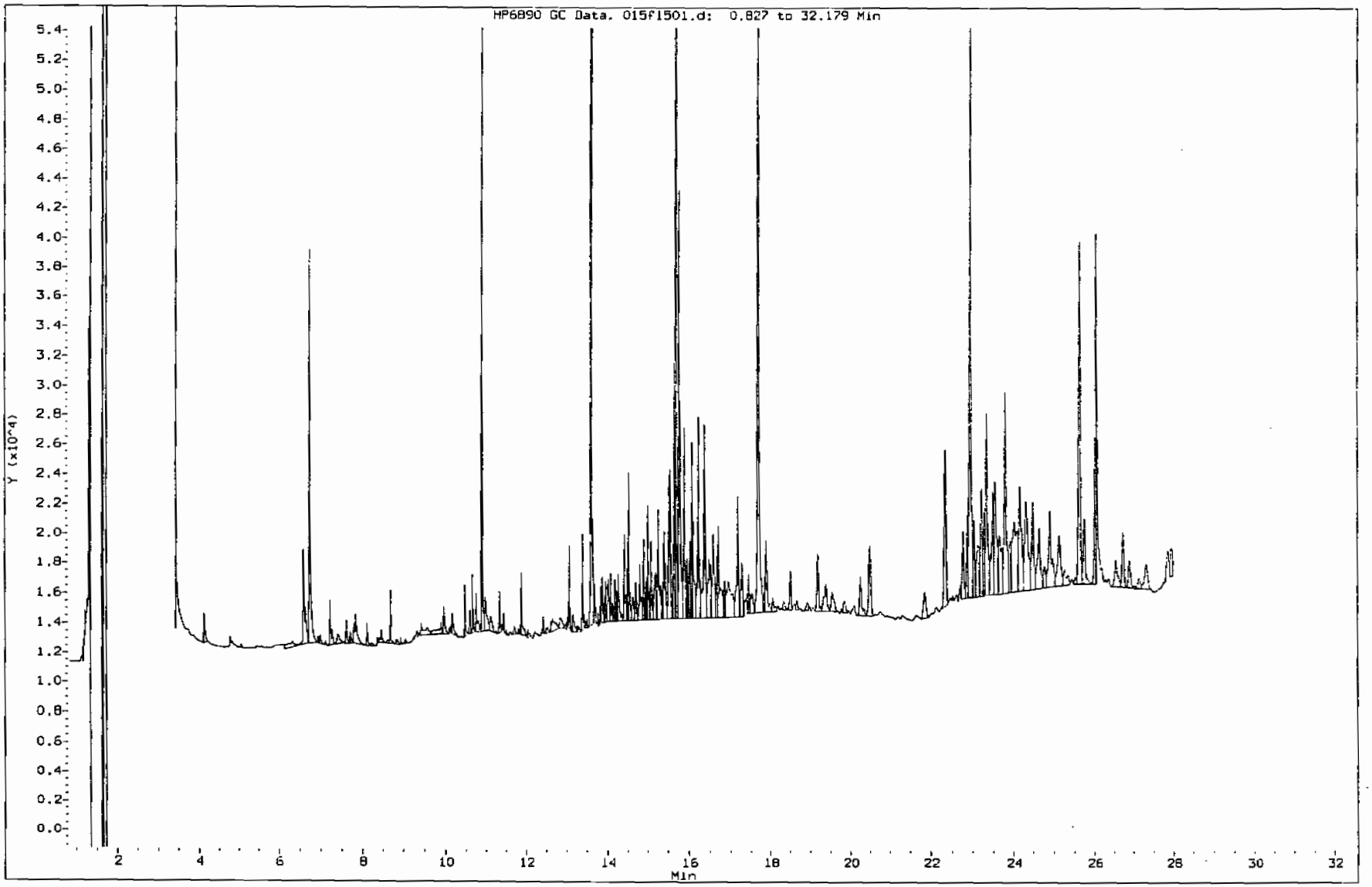

Data File: /chem/fid7.i/122809dr/015f1501.d
Injection Date: 28-DEC-2009 18:45
Instrument: fid7.i
Client Sample ID: RE03-09-14288

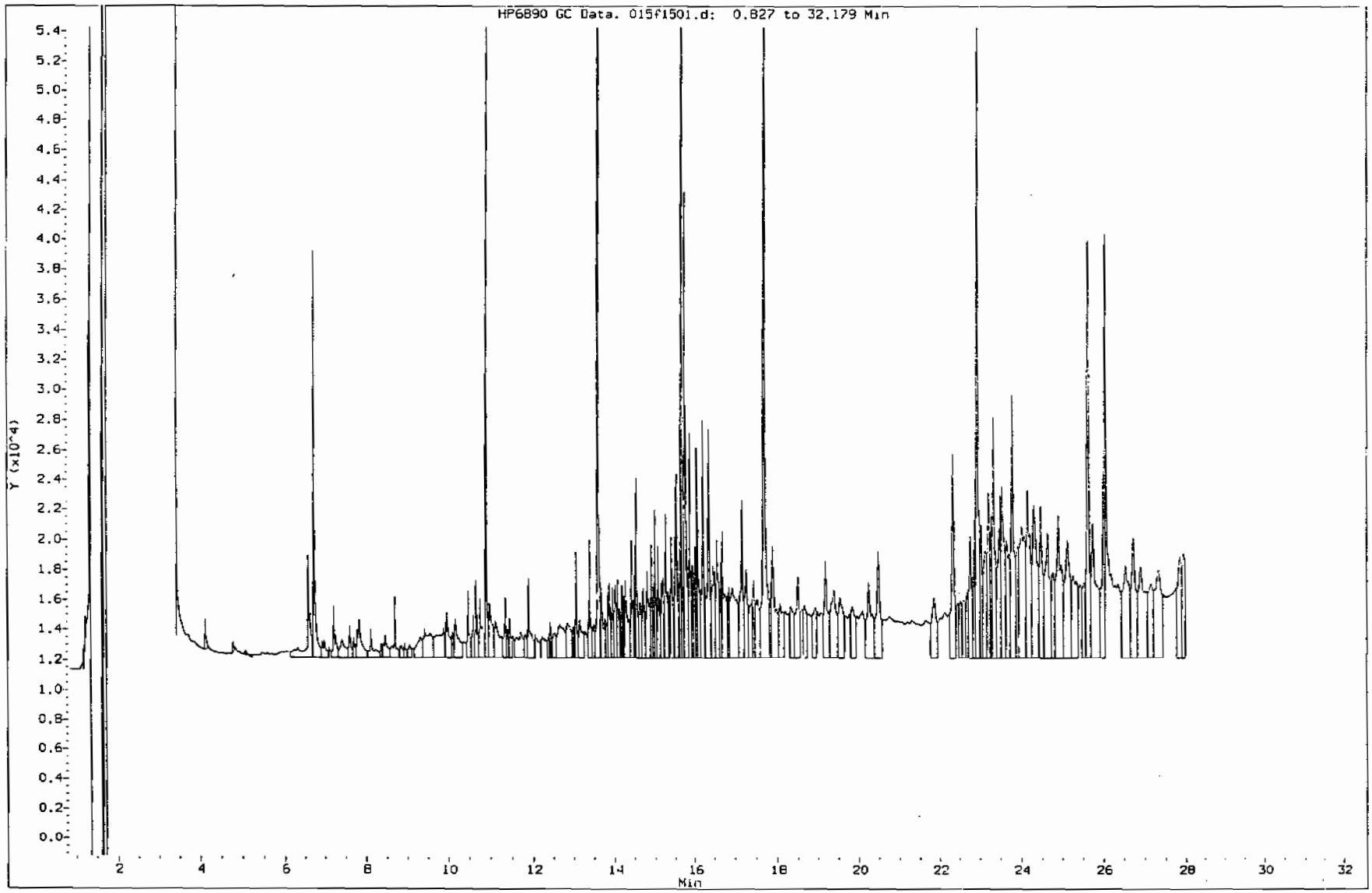

Flame Ionization Detector
Certificate of Analysis
Sample Summary

SDG Number:	10-852	Date Collected:	12/07/2009 12:00	Matrix:	S
Lab Sample ID:	242654006	Date Received:	12/10/2009 08:50	%Moisture:	11.7
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14287	Method:	SW846 8015A/B SVOC	SOP Ref:	GL-OA-E-003
Batch ID:	934967	Inst:	FID7.I	Dilution:	1
Run Date:	12/28/2009 19:21	Analyst:	KXR2	Inj. Vol:	1 uL
Prep Date:	12/21/2009 10:03	Aliquot:	30.01 g	Final Volume:	1 mL
Data File:	016f1601.d	Column:	DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics		19.4	mg/kg	2.45	7.55

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DB-5MS .25mm

Data file : /chem/fid7.i/122809dr/016f1601.d
Lab Smp Id: 242654006 Client Smp ID: RE03-09-14287
Inj Date : 28-DEC-2009 19:21
Operator : KXR2 Inst ID: fid7.i
Smp Info : |242654006|1|
Misc Info : |FIDDRO_S|934967|FID|LANL|
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fid7.i/122809dr/FID7a.i_b_DRO_121309.m
Meth Date : 29-Dec-2009 12:00 kev01577 Quant Type: ESTD
Cal Date : 13-DEC-2009 18:58 Cal File: 007f0701.d
Als bottle: 16
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-852.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.01000	Weigth of sample extracted (g)
M	11.68630	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (mg/L)	FINAL (mg/Kg)	
S 1 Diesel Range Organics					CAS #:	
7.480- 17.855			6894032	513.820	19.4	
$ 2 o-Terphenyl					CAS #: 84-15-1	
13.589	13.596	-0.007	224836	8.52797	0.32	(M)

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/fid7.i/122809dr/016f1601.d
Date : 28-DEC-2009 19:21
Client ID: RE03-09-14287
Sample Info: |242654006|1|
Volume Injected (uL): 1.0
Column phase: DB-5MS

Instrument: fid7.i
Operator: KXR2
Column diameter: 0.25

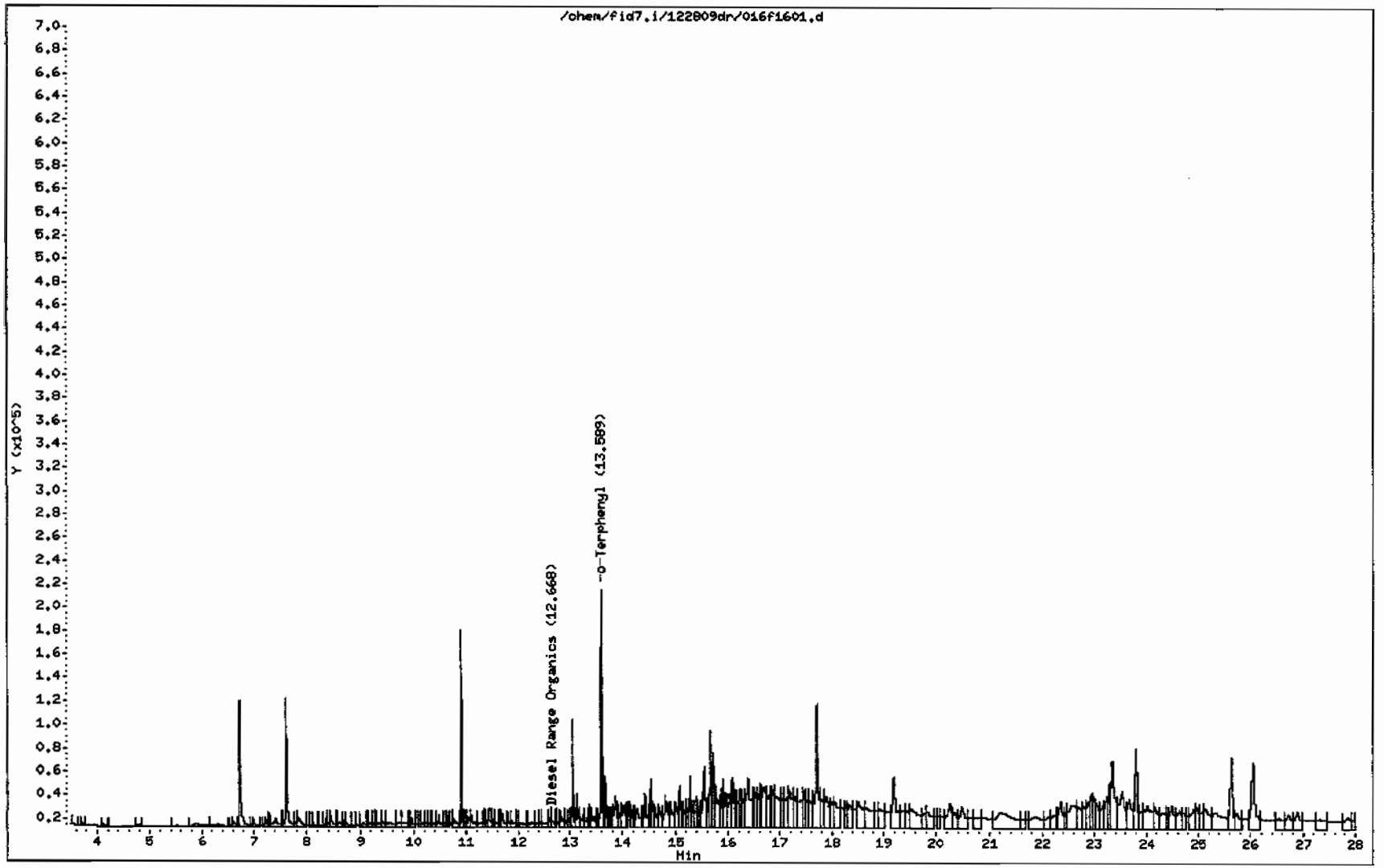

Data File: /chem/fid7.i/122809dr/016f1601.d
Injection Date: 28-DEC-2009 19:21
Instrument: fid7.i
Client Sample ID: RE03-09-14287

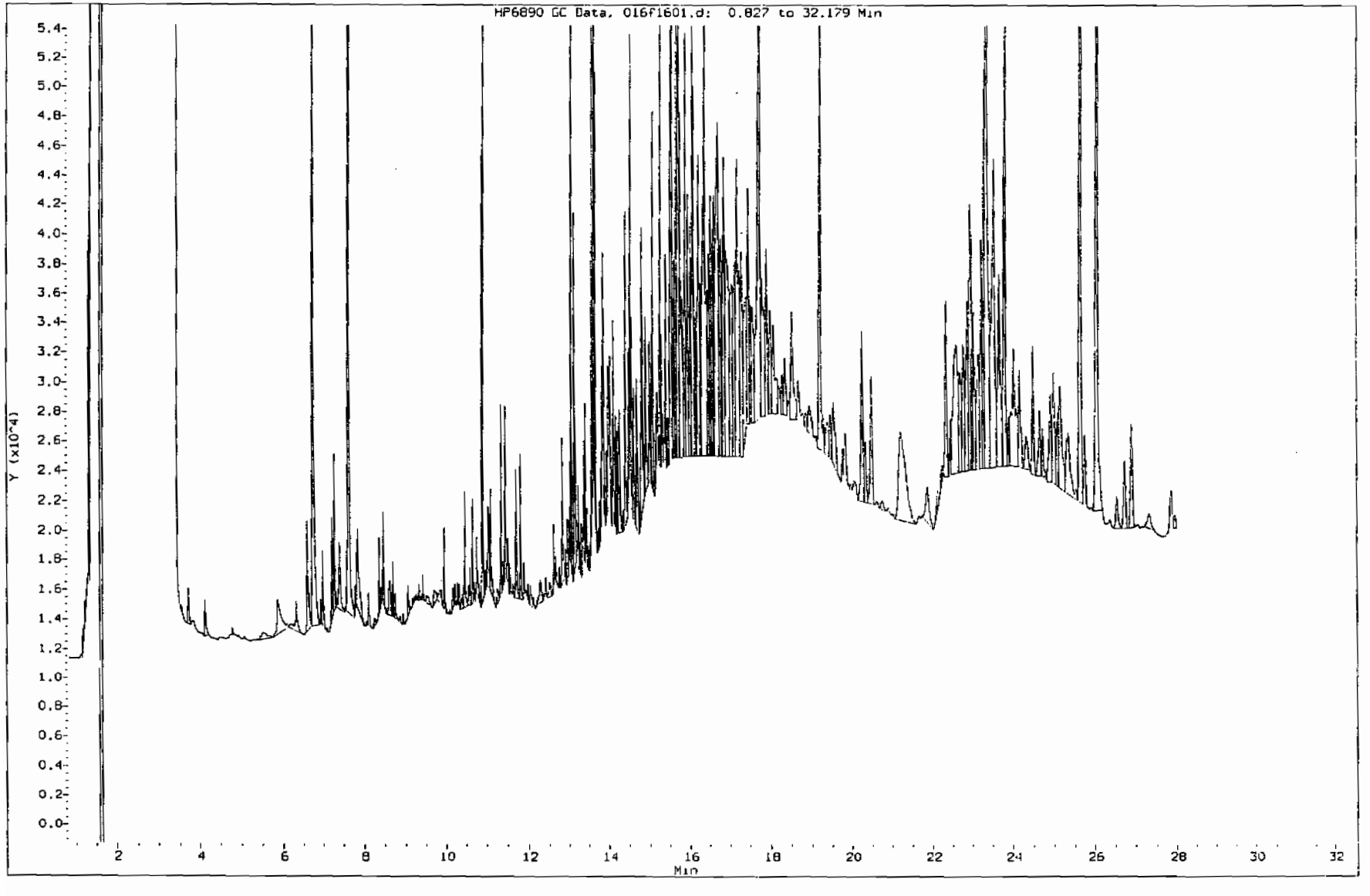

Data File: /chem/fid7.i/122809dr/016f1601.d
Injection Date: 28-DEC-2009 19:21
Instrument: fid7.i
Client Sample ID: RE03-09-14287

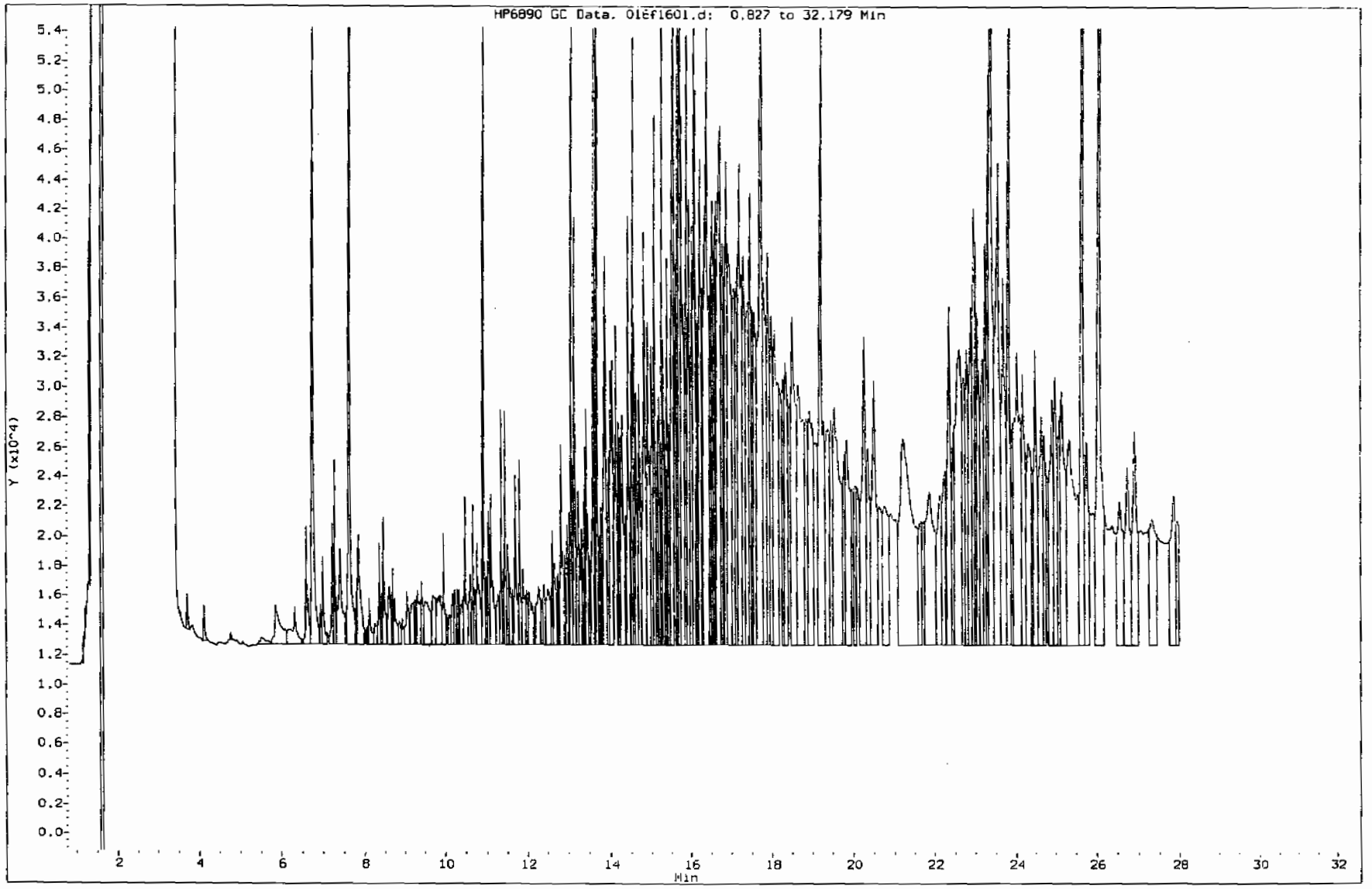

Flame Ionization Detector
Certificate of Analysis
Sample Summary

SDG Number:	10-852	Date Collected:	12/07/2009 12:00	Matrix:	S
Lab Sample ID:	242654007	Date Received:	12/10/2009 08:50	%Moisture:	14.2
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14267	Method:	SW846 8015A/B SVOC	SOP Ref:	GL-OA-E-003
Batch ID:	934967	Inst:	FID7.I	Dilution:	20
Run Date:	12/28/2009 19:58	Analyst:	KXR2	Inj. Vol:	1 uL
Prep Date:	12/21/2009 10:03	Aliquot:	30.09 g	Final Volume:	1 mL
Data File:	017f1701.d	Column:	DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics	J	136	mg/kg	50.4	155

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DB-5MS .25mm

Data file : /chem/fid7.i/122809dr/017f1701.d
Lab Smp Id: 242654007 Client Smp ID: RE03-09-14267
Inj Date : 28-DEC-2009 19:58
Operator : KXR2 Inst ID: fid7.i
Smp Info : |242654007|20|
Misc Info : |FIDDRO_S|934967|FID|LANL|
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fid7.i/122809dr/FID7a.i_b_DRO_121309.m
Meth Date : 29-Dec-2009 12:00 kev01577 Quant Type: ESTD
Cal Date : 13-DEC-2009 18:58 Cal File: 007f0701.d
Als bottle: 17
Dil Factor: 20.00000
Integrator: Falcon Compound Sublist: 10-852.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	20.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.09000	Weigth of sample extracted (g)
M	14.20350	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (mg/L)	FINAL (mg/Kg)	
S 1 Diesel Range Organics					CAS #:	
7.480- 17.855			2351189	175.237	136	(a)
$ 2 o-Terphenyl					CAS #: 84-15-1	
13.590	13.596	-0.006	29690	1.12615	0.87	(M)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

Data File: /chem/fid7.i/122809dr/017f1701.d

Date : 28-DEC-2009 19:58

Client ID: RE03-09-14267

Sample Info: 1242654007|20|

Volume Injected (uL): 1.0

Column phase: DB-5MS

Instrument: fid7.i

Operator: KXR2

Column diameter: 0.25

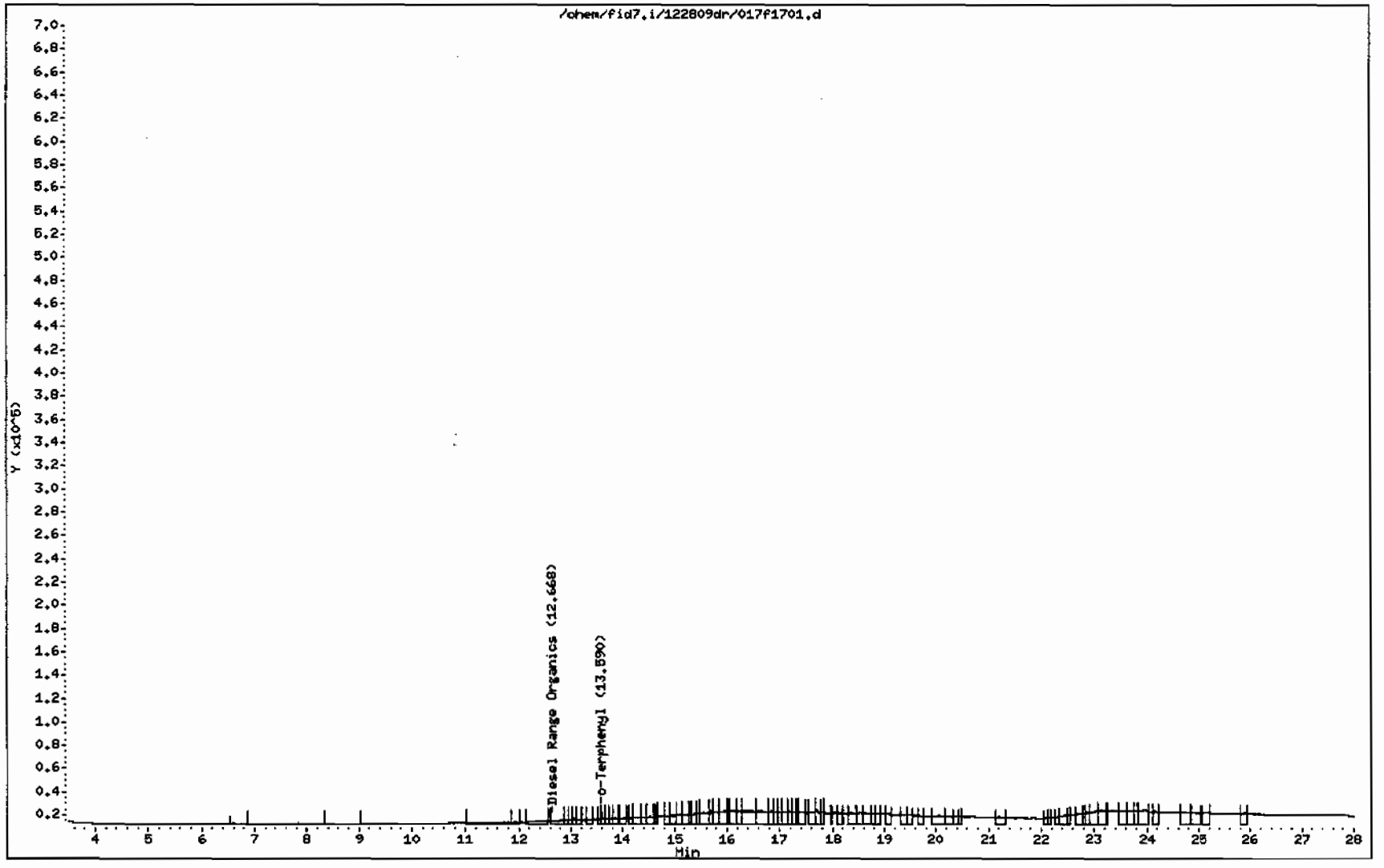

Data File: /chem/fid7.i/122809dr/017f1701.d
Injection Date: 28-DEC-2009 19:58
Instrument: fid7.i
Client Sample ID: RE03-09-14267

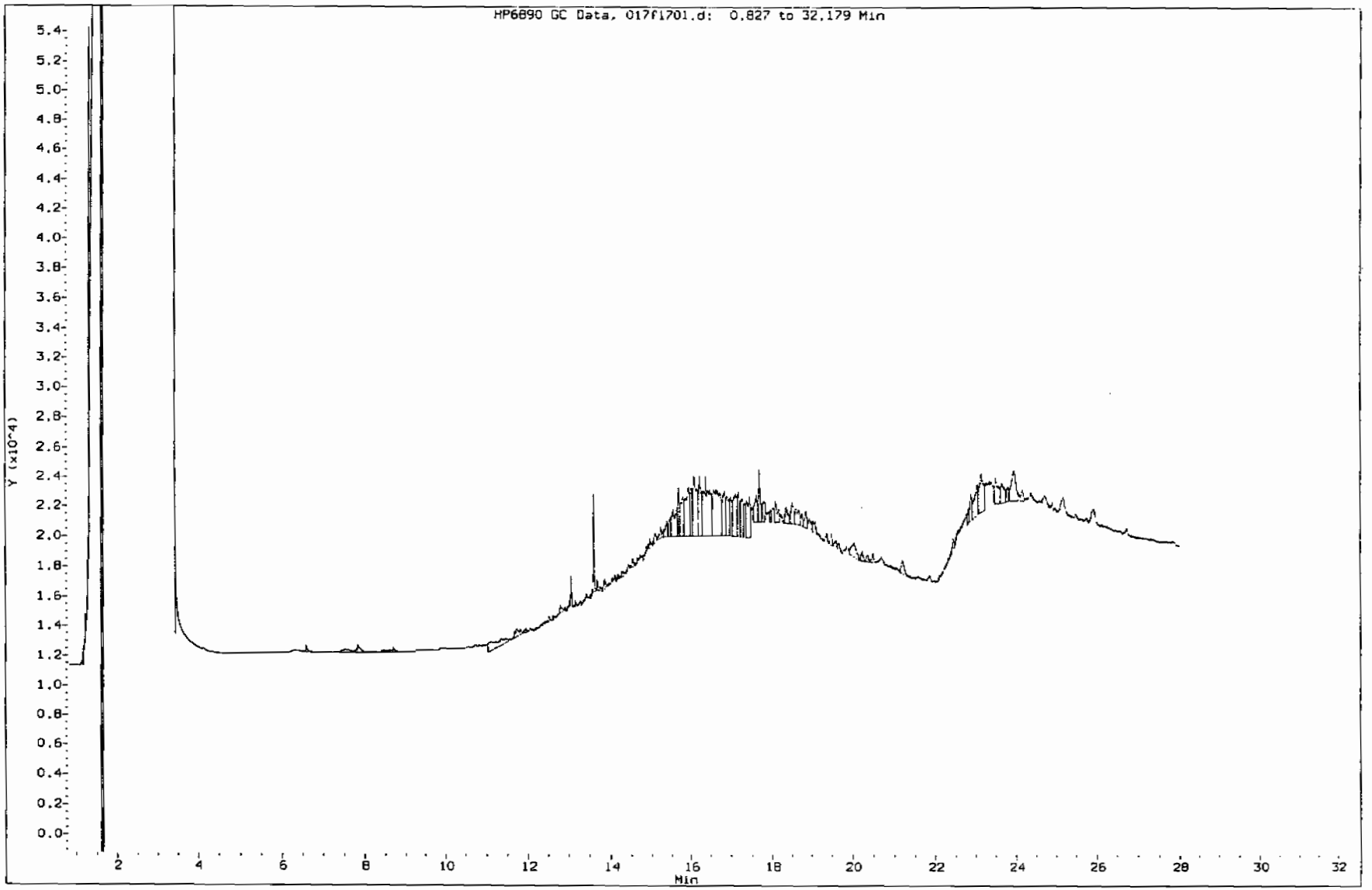

Data File: /chem/fid7.i/122809dr/017f1701.d
Injection Date: 28-DEC-2009 19:58
Instrument: fid7.i
Client Sample ID: RE03-09-14267

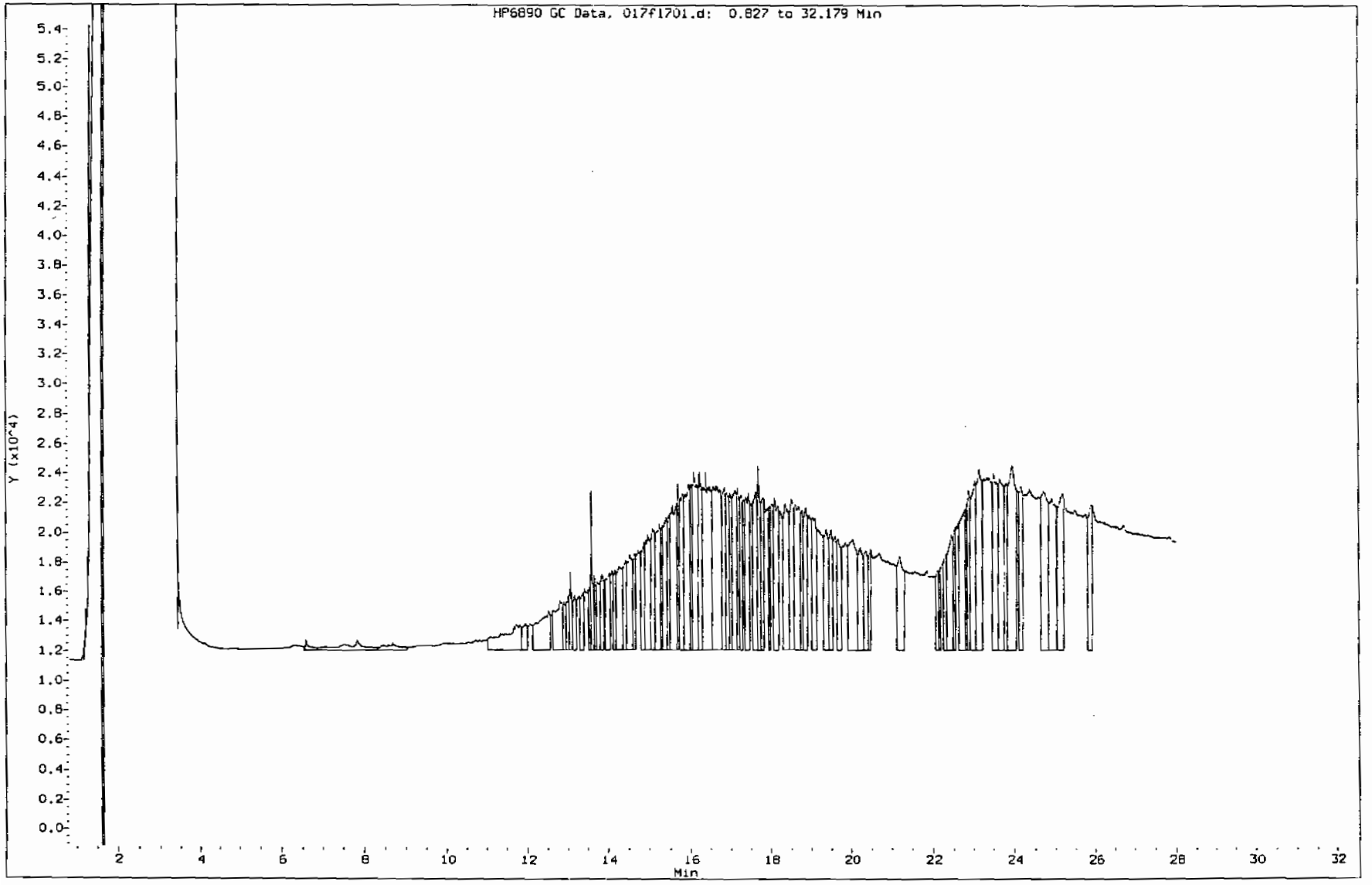

Flame Ionization Detector
Certificate of Analysis
Sample Summary

SDG Number:	10-852	Date Collected:	12/07/2009 12:00	Matrix:	S
Lab Sample ID:	242654008	Date Received:	12/10/2009 08:50	%Moisture:	13
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14265	Method:	SW846 8015A/B SVOC	SOP Ref:	GL-OA-E-003
Batch ID:	934967	Inst:	FID7,I	Dilution:	20
Run Date:	12/28/2009 20:35	Analyst:	KXR2	Inj. Vol:	1 uL
Prep Date:	12/21/2009 10:03	Aliquot:	30.09 g	Final Volume:	1 mL
Data File:	018f1801.d	Column:	DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics	J	79.0	mg/kg	49.7	153

GEL Laboratories LLC

DB-5MS .25mm

Data file : /chem/fid7.i/122809dr/018f1801.d
Lab Smp Id: 242654008 Client Smp ID: RE03-09-14265
Inj Date : 28-DEC-2009 20:35
Operator : KXR2 Inst ID: fid7.i
Smp Info : |242654008|20|
Misc Info : |FIDDRO_S|934967|FID|LANL|
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fid7.i/122809dr/FID7a.i_b_DRO_121309.m
Meth Date : 29-Dec-2009 12:00 kev01577 Quant Type: ESTD
Cal Date : 13-DEC-2009 18:58 Cal File: 007f0701.d
Als bottle: 18
Dil Factor: 20.00000
Integrator: Falcon Compound Sublist: 10-852.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	20.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.09000	Weigth of sample extracted (g)
M	13.03450	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (mg/L)	FINAL (mg/Kg)	
S 1 Diesel Range Organics					CAS #:	
7.480- 17.855			1386340	103.326	79.0	(aM)
$ 2 o-Terphenyl					CAS #: 84-15-1	
13.592	13.596	-0.004	21574	0.81832	0.62	(M)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

Data File: /chem/fid7.i/122809dr/018f1801.d
Date : 28-DEC-2009 20:35
Client ID: RE03-09-14265
Sample Info: 1242654008120|
Volume Injected (uL): 1.0
Column phase: DB-5MS

Instrument: fid7.i

Operator: KXR2
Column diameter: 0.25

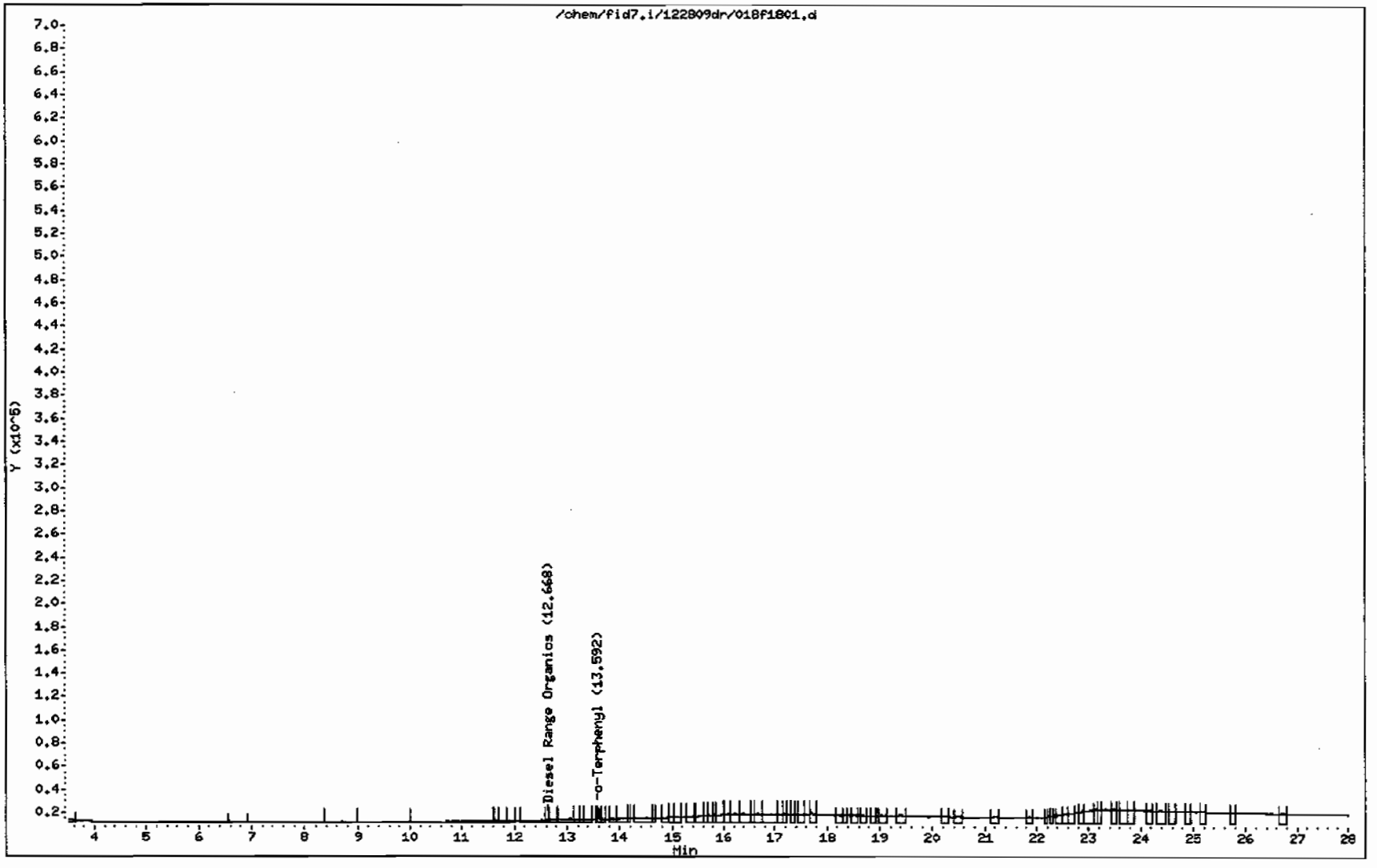

Data File: /chem/fid7.i/122809dr/018f1801.d
Injection Date: 28-DEC-2009 20:35
Instrument: fid7.i
Client Sample ID: RE03-09-14265

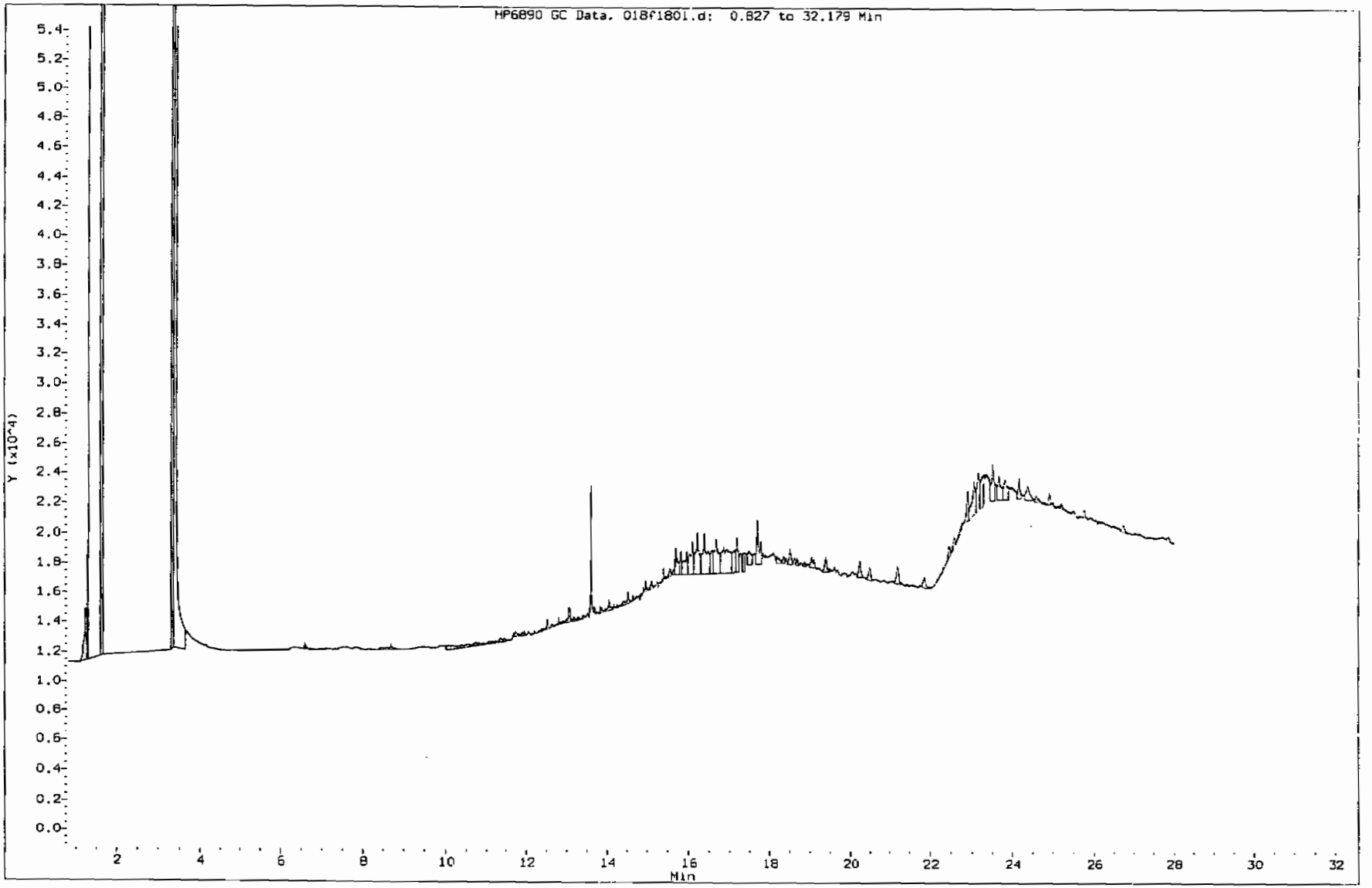

Data File: /chem/fid7.i/122809dr/018f1801.d
Injection Date: 28-DEC-2009 20:35
Instrument: fid7.i
Client Sample ID: RE03-09-14265

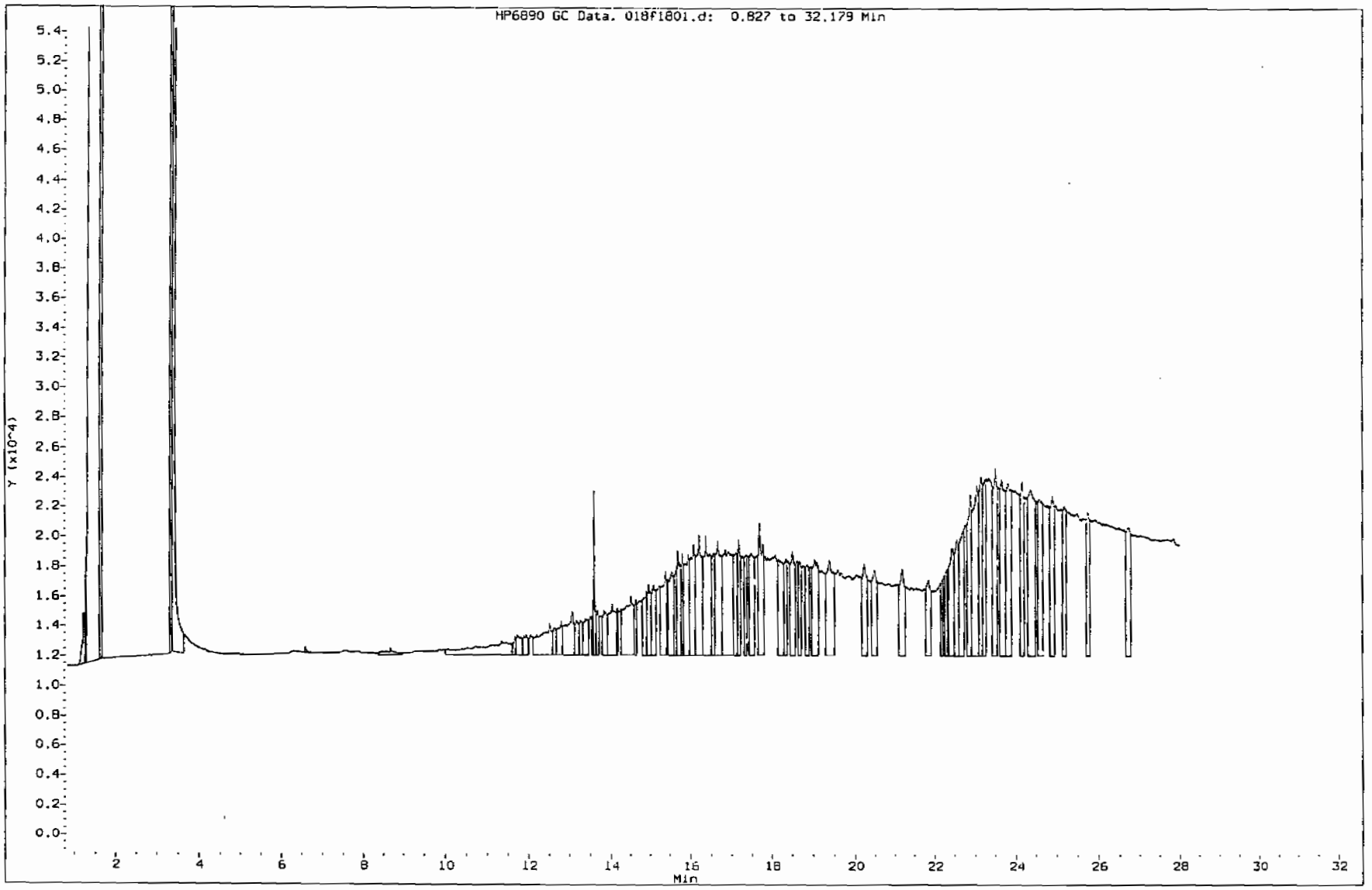

Flame Ionization Detector
Certificate of Analysis
Sample Summary

SDG Number:	10–852	Date Collected:	12/07/2009 12:00	Matrix:	S
Lab Sample ID:	242654009	Date Received:	12/10/2009 08:50	%Moisture:	14.1
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03–09–14281	Method:	SW846 8015A/B SVOC	SOP Ref:	GL–OA–E–003
Batch ID:	934967	Inst:	FID7.I	Dilution:	1
Run Date:	12/28/2009 21:12	Analyst:	KXR2	Inj. Vol:	1 uL
Prep Date:	12/21/2009 10:03	Aliquot:	30.09 g	Final Volume:	1 mL
Data File:	019f1901.d	Column:	DB–5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics	J	5.82	mg/kg	2.52	7.74

GEL Laboratories LLC

DB-5MS .25mm

Data file : /chem/fid7.i/122809dr/019f1901.d
Lab Smp Id: 242654009 Client Smp ID: RE03-09-14281
Inj Date : 28-DEC-2009 21:12
Operator : KXR2 Inst ID: fid7.i
Smp Info : |242654009|1|
Misc Info : |FIDDRO_S|934967|FID|LANL|
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fid7.i/122809dr/FID7a.i_b_DRO_121309.m
Meth Date : 29-Dec-2009 12:00 kev01577 Quant Type: ESTD
Cal Date : 13-DEC-2009 18:58 Cal File: 007f0701.d
Als bottle: 19
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-852.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.09000	Weigth of sample extracted (g)
M	14.14730	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (mg/L)	FINAL (mg/Kg)	
S 1 Diesel Range Organics					CAS #:	
7.480- 17.855			2016871	150.320	5.8	(a)
$ 2 o-Terphenyl					CAS #: 84-15-1	
13.591	13.596	-0.005	244464	9.27246	0.36	(M)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

Data File: /ohem/fid7.i/122809dr/019f1901.d
Date : 28-DEC-2009 21:12
Client ID: RE03-09-14281
Sample Info: 1242654009|1|
Volume Injected (uL): 1.0
Column phase: DB-5MS

Instrument: fid7.i

Operator: KXR2
Column diameter: 0.25

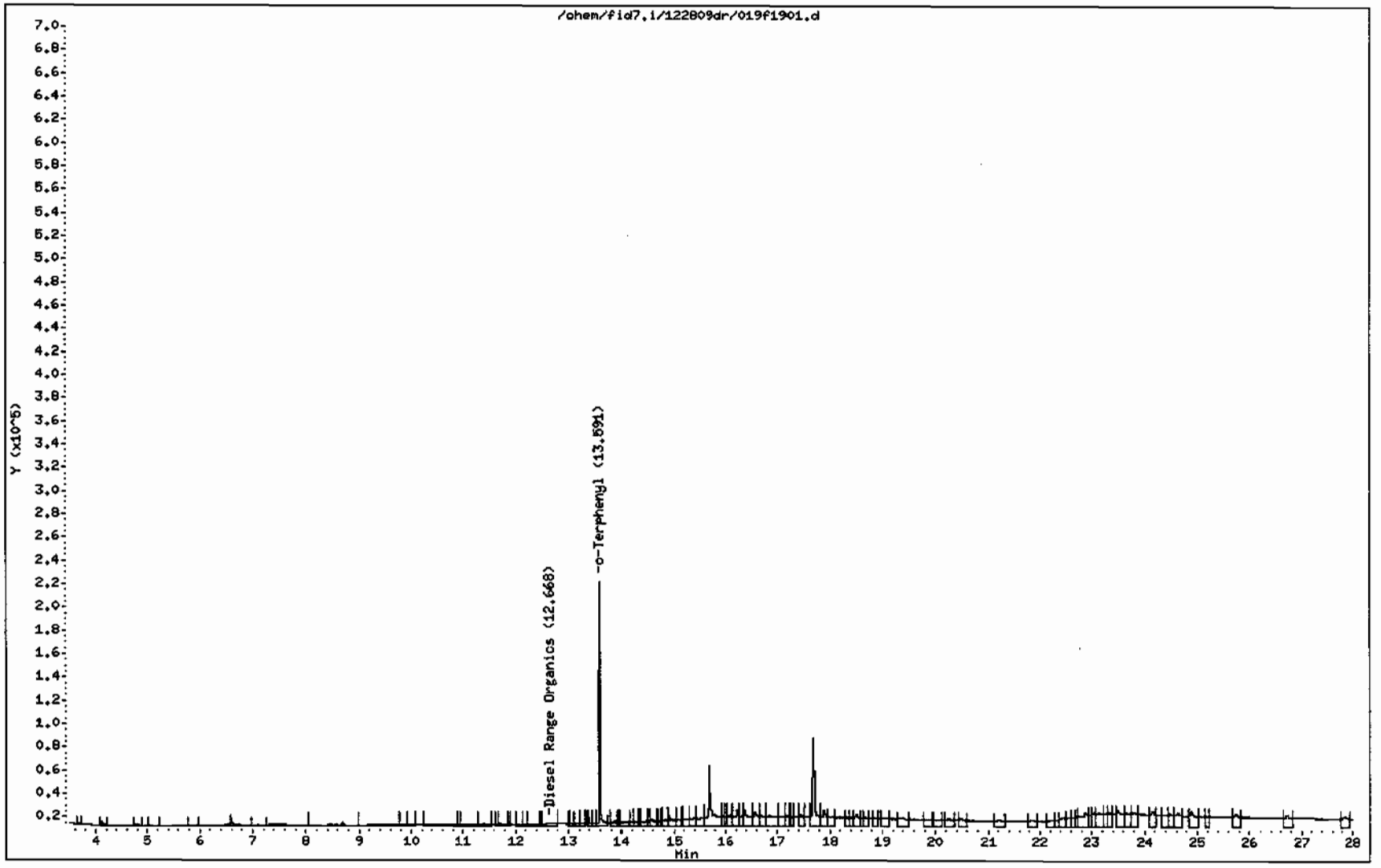

Data File: /chem/fid7.i/122809dr/019f1901.d
Injection Date: 28-DEC-2009 21:12
Instrument: fid7.i
Client Sample ID: RE03-09-14281

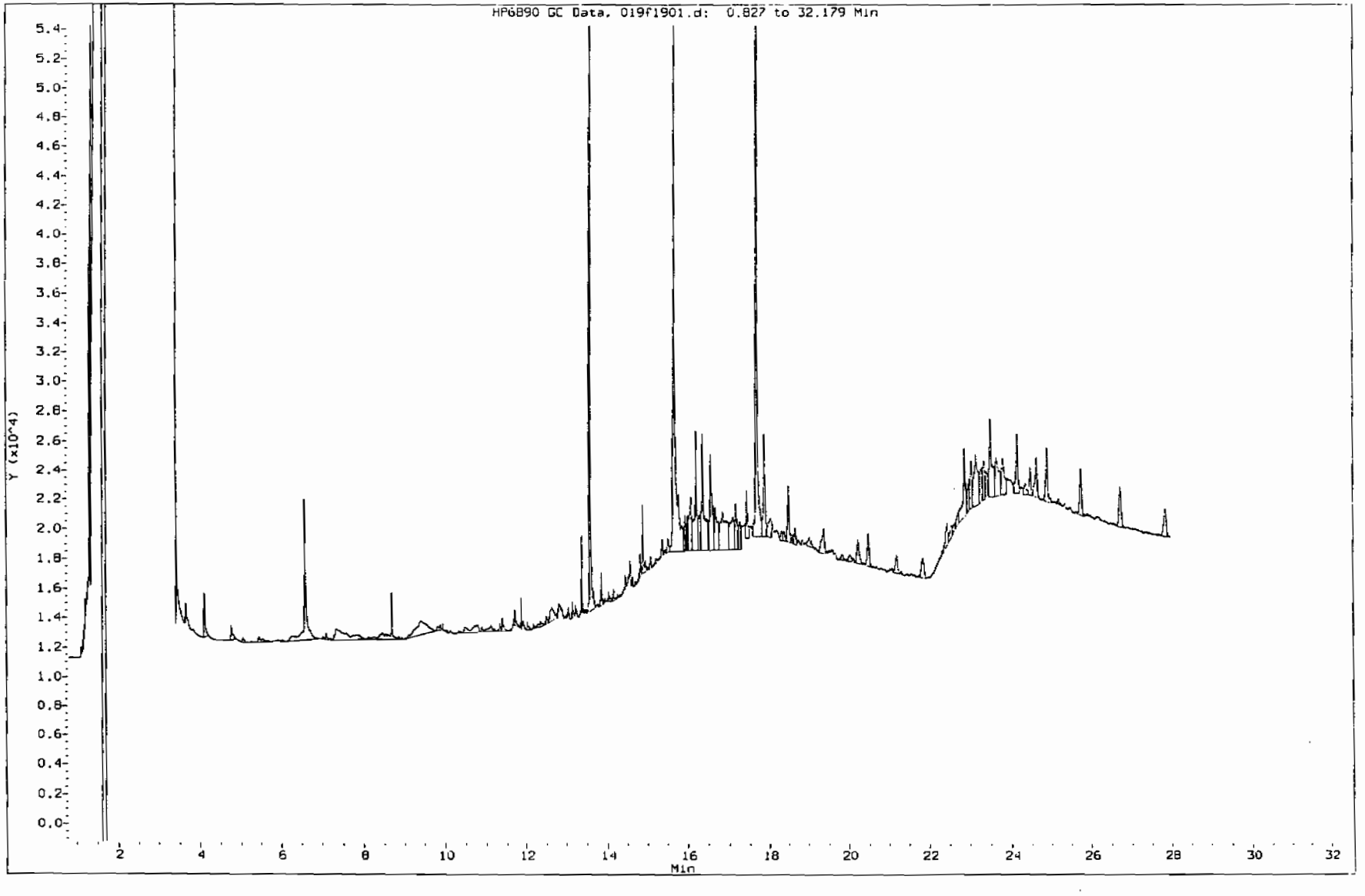

Data File: /chem/fid7.i/122809dr/019f1901.d
Injection Date: 28-DEC-2009 21:12
Instrument: fid7.i
Client Sample ID: RE03-09-14281

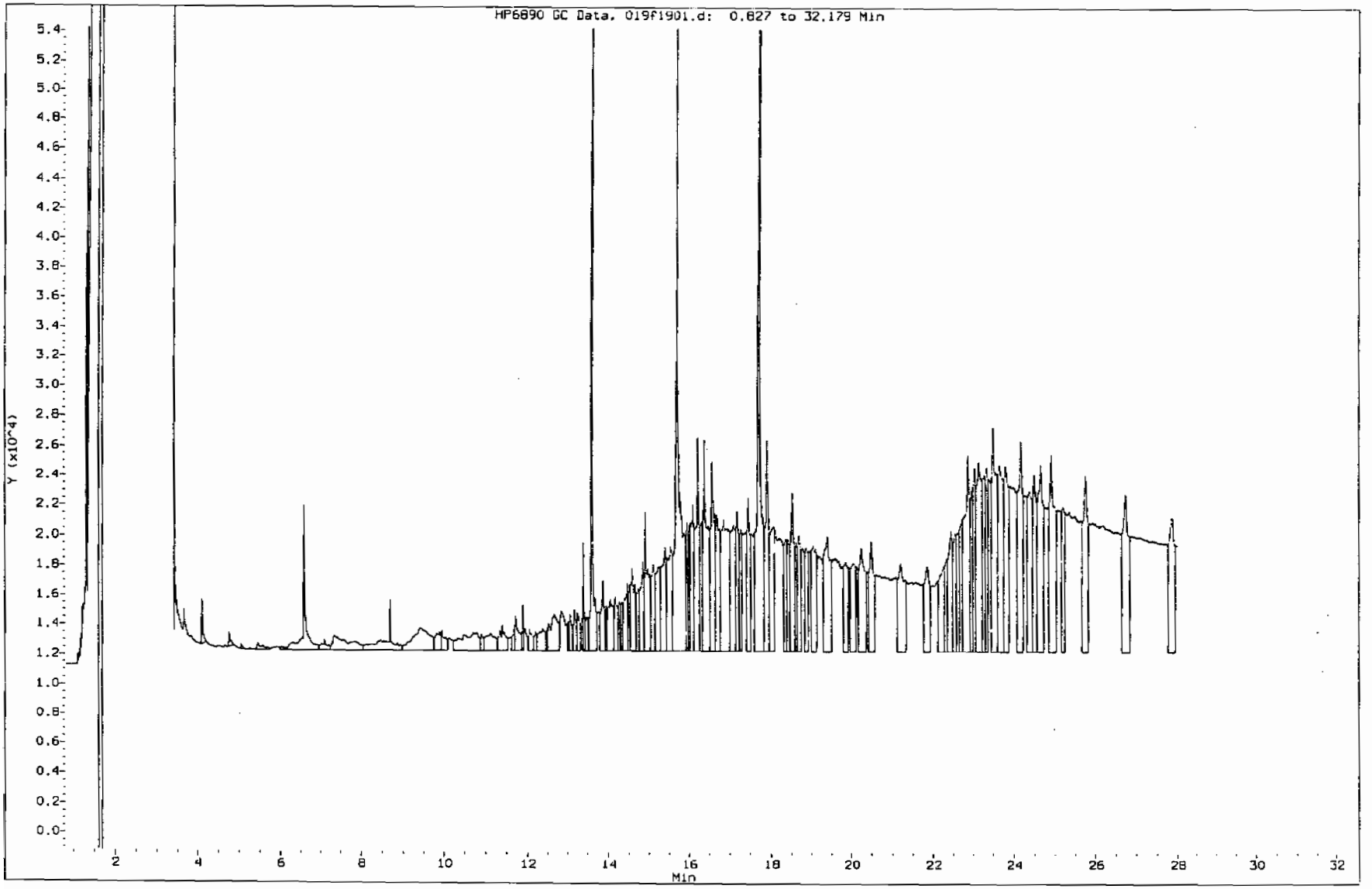

Flame Ionization Detector
Certificate of Analysis
Sample Summary

SDG Number:	10-852	Date Collected:	12/07/2009 12:00	Matrix:	S
Lab Sample ID:	242654010	Date Received:	12/10/2009 08:50	%Moisture:	13.2
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14284	Method:	SW846 8015A/B SVOC	SOP Ref:	GL-OA-E-003
Batch ID:	934967	Inst:	FID7.I	Dilution:	1
Run Date:	12/28/2009 21:48	Analyst:	KXR2	Inj. Vol:	1 uL
Prep Date:	12/21/2009 10:03	Aliquot:	30.04 g	Final Volume:	1 mL
Data File:	020f2001.d	Column:	DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics	U	7.67	mg/kg	2.49	7.67

GEL Laboratories LLC

DB-5MS .25mm

Data file : /chem/fid7.i/122809dr/020f2001.d
Lab Smp Id: 242654010 Client Smp ID: RE03-09-14284
Inj Date : 28-DEC-2009 21:48
Operator : KXR2 Inst ID: fid7.i
Smp Info : |242654010|1|
Misc Info : |FIDDRO_S|934967|FID|LANL|
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fid7.i/122809dr/FID7a.i_b_DRO_121309.m
Meth Date : 29-Dec-2009 12:00 kev01577 Quant Type: ESTD
Cal Date : 13-DEC-2009 18:58 Cal File: 007f0701.d
Als bottle: 20
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-852.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.04000	Weigth of sample extracted (g)
M	13.18970	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (mg/L)	FINAL (mg/Kg)
$ 2 o-Terphenyl					CAS #: 84-15-1
13.590	13.596	-0.006	158882	6.02638	0.23

Data File: /chem/fid7.i/122809dr/020f2001.d

Date : 29-DEC-2009 21:48

Client ID: RE03-09-14284

Sample Info: 1242654010|1|

Volume Injected (uL): 1.0

Column phase: DB-5MS

Instrument: fid7.i

Operator: KXR2

Column diameter: 0.25

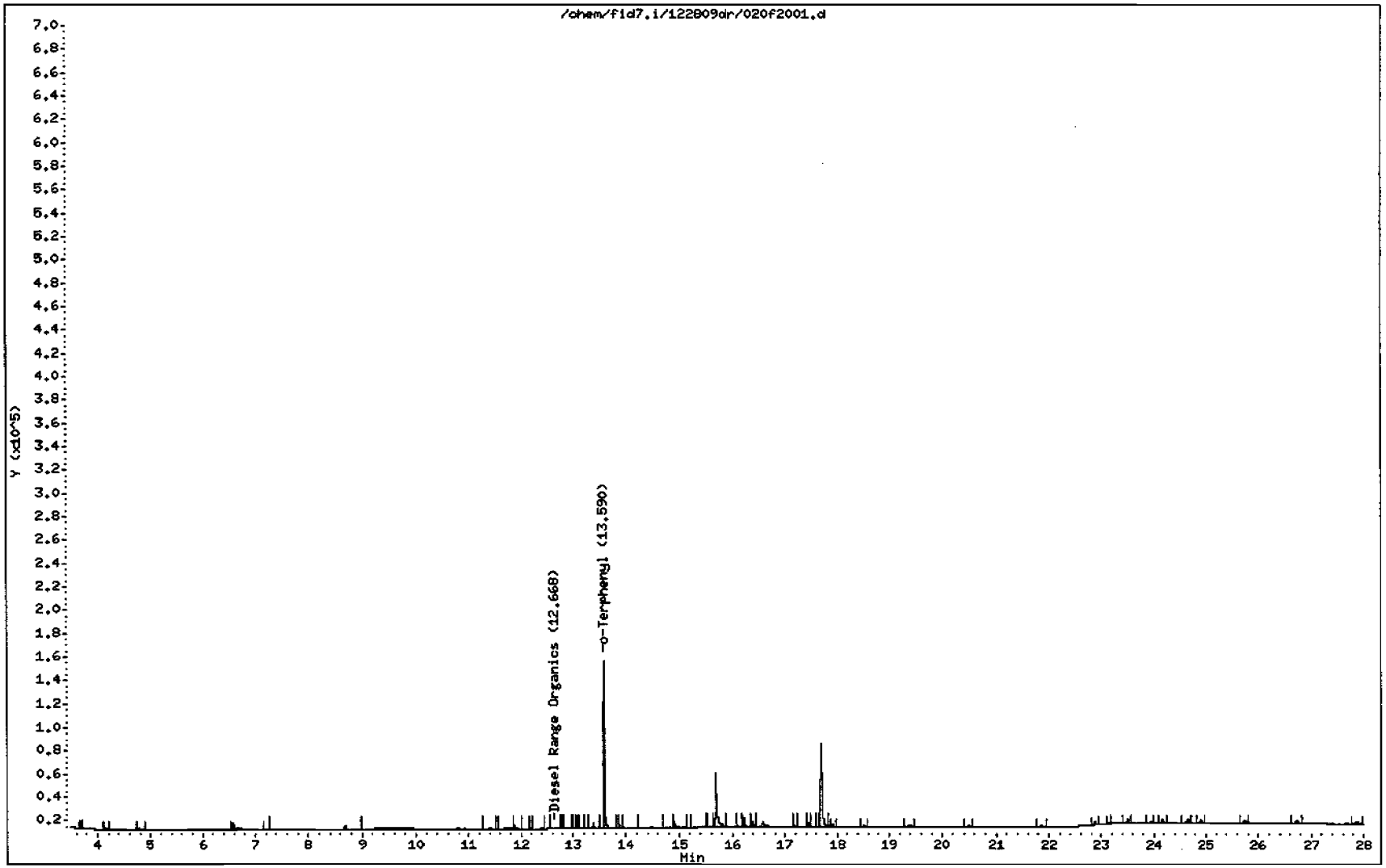

Flame Ionization Detector
Certificate of Analysis
Sample Summary

SDG Number:	10-852	Date Collected:	12/07/2009 12:00	Matrix:	S
Lab Sample ID:	242654011	Date Received:	12/10/2009 08:50	%Moisture:	4.1
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14274	Method:	SW846 8015A/B SVOC	SOP Ref:	GL-OA-E-003
Batch ID:	934967	Inst:	FID7.I	Dilution:	1
Run Date:	12/28/2009 22:25	Analyst:	KXR2	Inj. Vol:	1 uL
Prep Date:	12/21/2009 10:03	Aliquot:	30.01 g	Final Volume:	1 mL
Data File:	021f2101.d	Column:	DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics	J	3.19	mg/kg	2.26	6.95

GEL Laboratories LLC

DB-5MS .25mm

Data file : /chem/fid7.i/122809dr/021f2101.d
Lab Smp Id: 242654011 Client Smp ID: RE03-09-14274
Inj Date : 28-DEC-2009 22:25
Operator : KXR2 Inst ID: fid7.i
Smp Info : |242654011|1|
Misc Info : |FIDDRO_S|934967|FID|LANL|
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fid7.i/122809dr/FID7a.i_b_DRO_121309.m
Meth Date : 29-Dec-2009 12:00 kev01577 Quant Type: ESTD
Cal Date : 13-DEC-2009 18:58 Cal File: 007f0701.d
Als bottle: 21
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-852.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.01000	Weigth of sample extracted (g)
M	4.12440	% Moisture

Cpnd Variable Local Compound Variable

	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (mg/L)	FINAL (mg/Kg)	
S	1 Diesel Range Organics					CAS #:	
	7.480- 17.855			1232197	91.8371	3.2	(a)
$	2 o-Terphenyl					CAS #: 84-15-1	
	13.591	13.596	-0.005	240143	9.10857	0.32	(M)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

Data File: /chem/fid7.i/122809dr/021f2101.d

Date : 28-DEC-2009 22:25

Client ID: RE03-09-14274

Sample Info: |242654011|1|

Volume Injected (uL): 1.0

Column phase: DB-5MS

Instrument: fid7.i

Operator: KXR2

Column diameter: 0.25

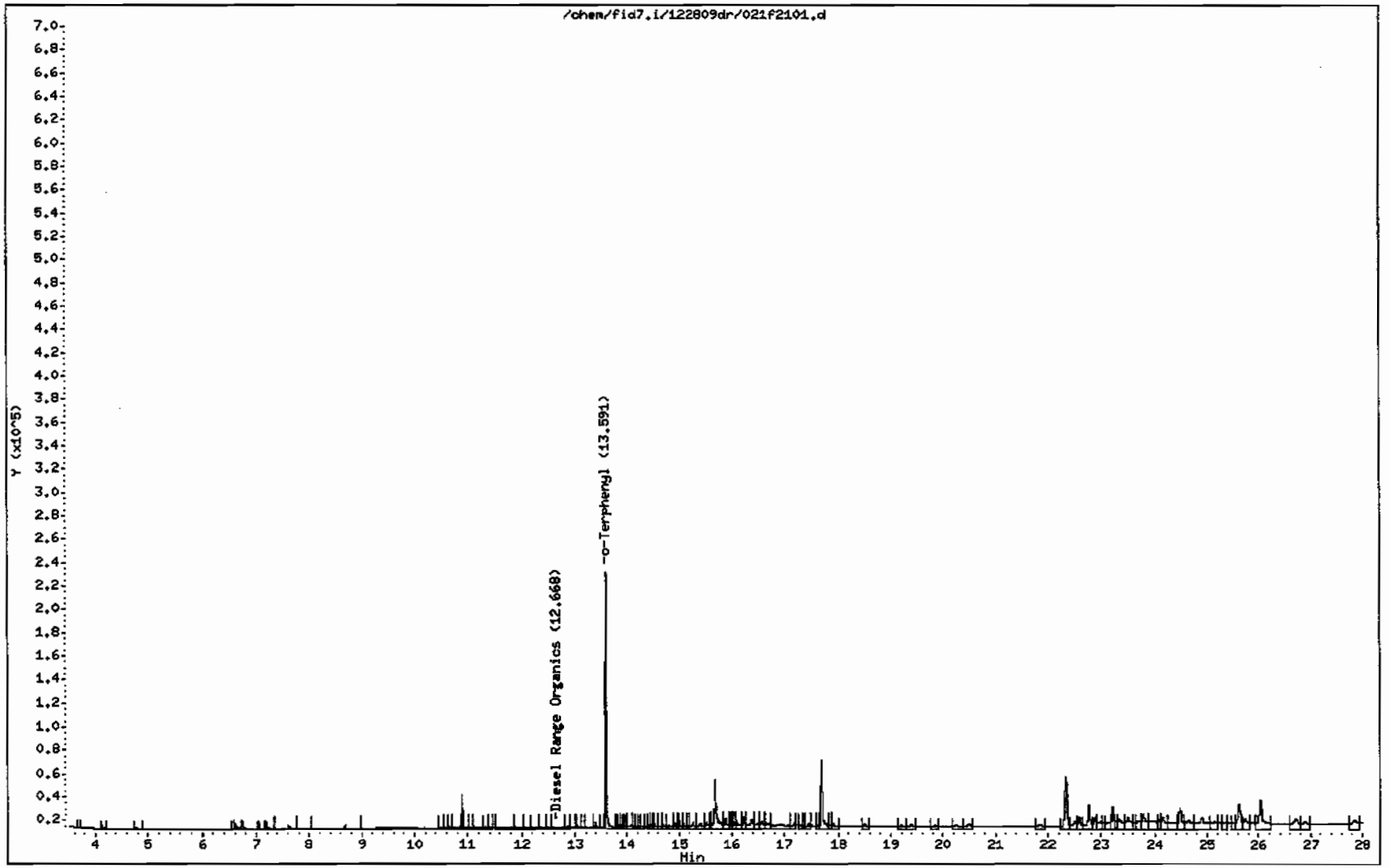

Data File: /chem/fid7.i/122809dr/021f2101.d
Injection Date: 28-DEC-2009 22:25
Instrument: fid7.i
Client Sample ID: RE03-09-14274

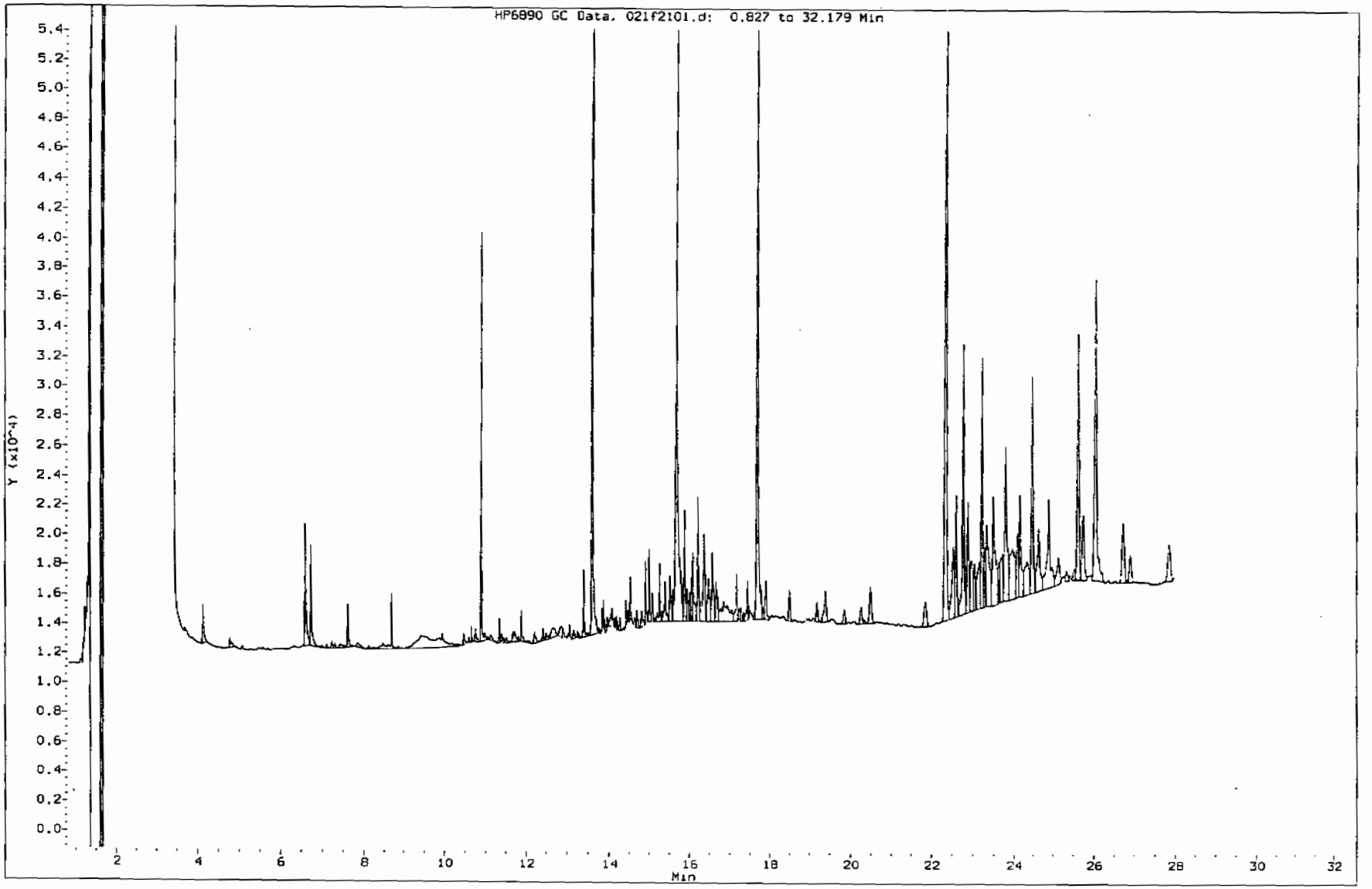

Data File: /chem/fid7.i/122809dr/021f2101.d
Injection Date: 28-DEC-2009 22:25
Instrument: fid7.i
Client Sample ID: RE03-09-14274

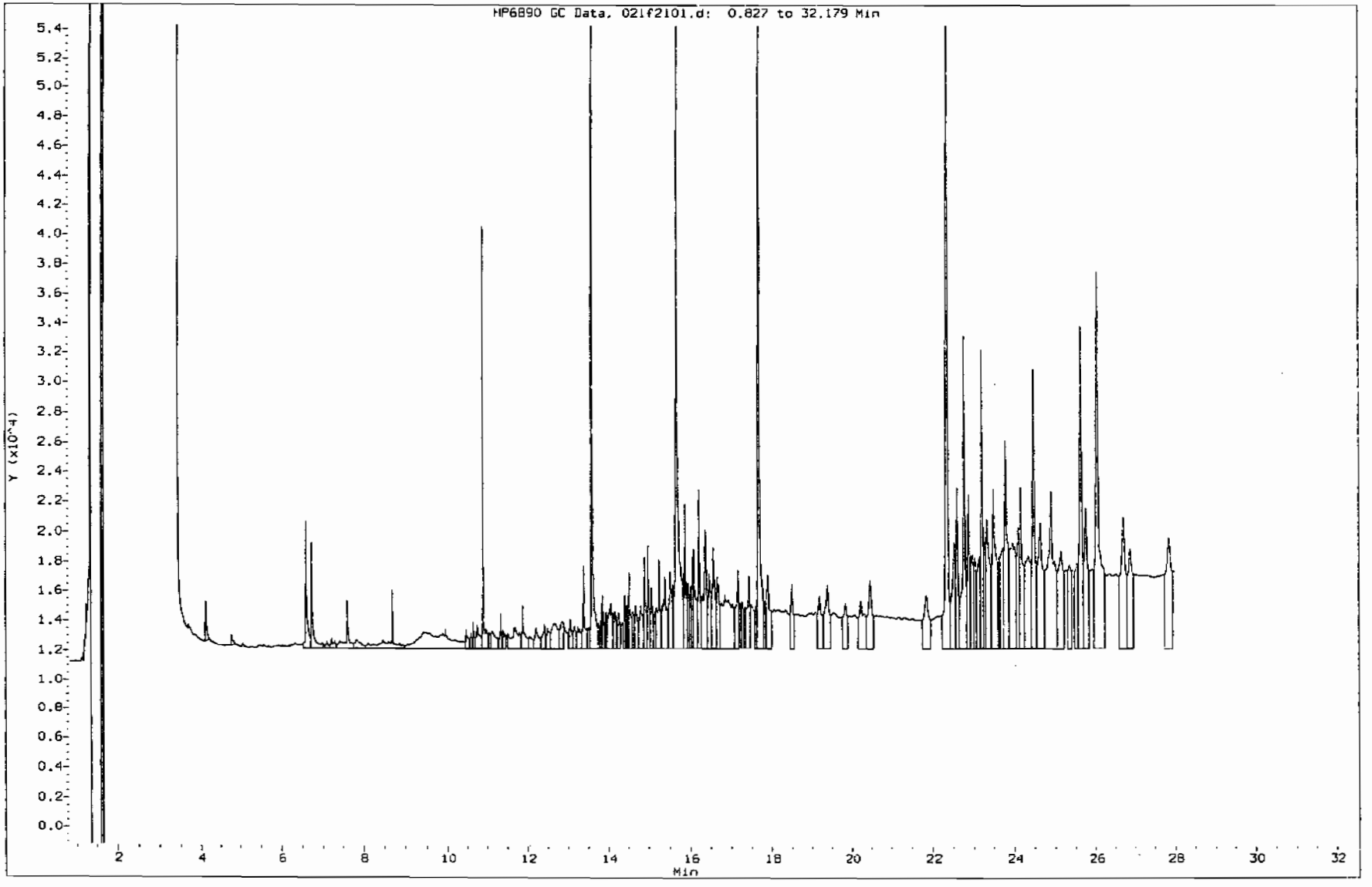

Flame Ionization Detector
Certificate of Analysis
Sample Summary

SDG Number:	10-852	Date Collected:	12/07/2009 12:00	Matrix:	S
Lab Sample ID:	242654012	Date Received:	12/10/2009 08:50	%Moisture:	12.2
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14277	Method:	SW846 8015A/B SVOC	SOP Ref:	GL-OA-E-003
Batch ID:	934967	Inst:	FID7.I	Dilution:	1
Run Date:	12/28/2009 23:02	Analyst:	KXR2	Inj. Vol:	1 uL
Prep Date:	12/21/2009 10:03	Aliquot:	30.09 g	Final Volume:	1 mL
Data File:	022f2201.d	Column:	DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics		78.8	mg/kg	2.46	7.57

GEL Laboratories LLC

DB-5MS .25mm

Data file : /chem/fid7.i/122809dr/022f2201.d
Lab Smp Id: 242654012 Client Smp ID: RE03-09-14277
Inj Date : 28-DEC-2009 23:02
Operator : KXR2 Inst ID: fid7.i
Smp Info : |242654012|1|
Misc Info : |FIDDRO_S|934967|FID|LANL|
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fid7.i/122809dr/FID7a.i_b_DRO_121309.m
Meth Date : 29-Dec-2009 12:00 kev01577 Quant Type: ESTD
Cal Date : 13-DEC-2009 18:58 Cal File: 007f0701.d
Als bottle: 22
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-852.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.09000	Weigth of sample extracted (g)
M	12.17400	% Moisture

Cpnd Variable Local Compound Variable

	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (mg/L)	FINAL (mg/Kg)	
S	1 Diesel Range Organics					CAS #:	
	7.480- 17.855			27957314	2083.69	78.8	
$	2 o-Terphenyl					CAS #: 84-15-1	
	13.591	13.596	-0.005	267698	10.1537	0.38	(M)

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/fid7.i/122809dr/022f2201.d
Date : 28-DEC-2009 23:02
Client ID: RE03-09-14277
Sample Info: |242654012111
Volume Injected (uL): 1.0
Column phase: DB-5MS

Page 1

Instrument: fid7.i

Operator: KXR2
Column diameter: 0.25

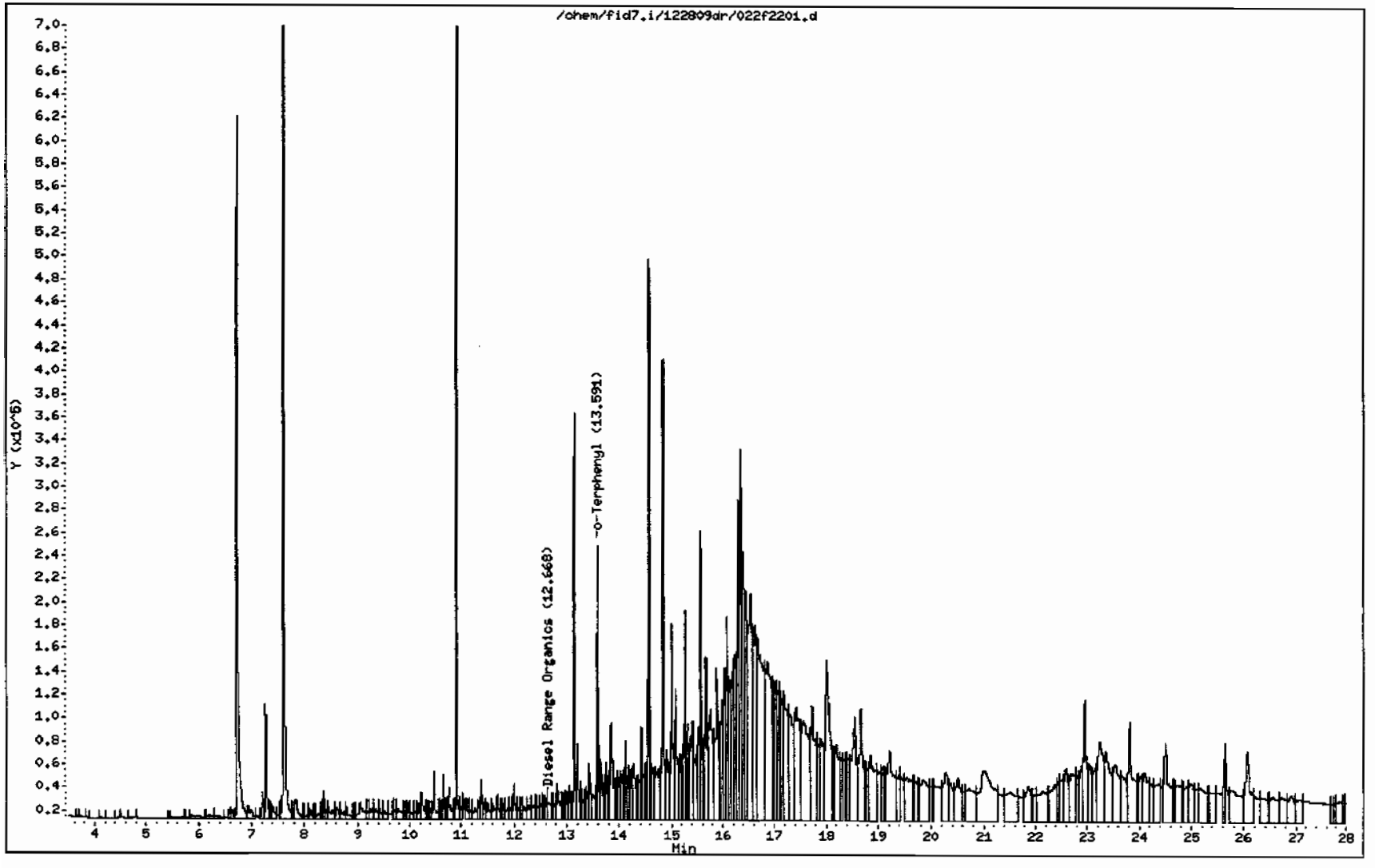

Data File: /chem/fid7.i/122809dr/022f2201.d
Injection Date: 28-DEC-2009 23:02
Instrument: fid7.i
Client Sample ID: RE03-09-14277

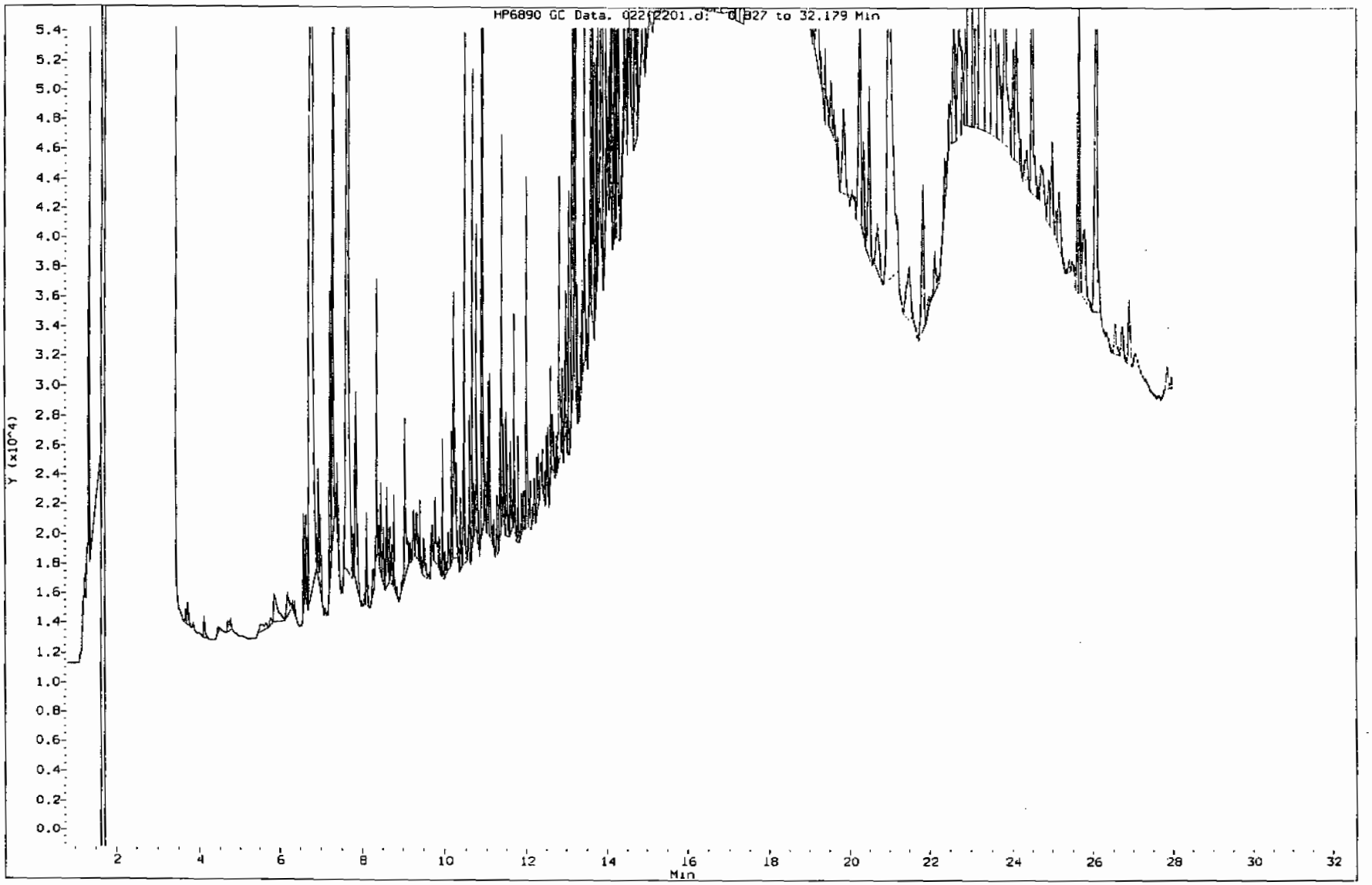

Data File: /chem/fid7.i/122809dr/022f2201.d
Injection Date: 28-DEC-2009 23:02
Instrument: fid7.i
Client Sample ID: RE03-09-14277

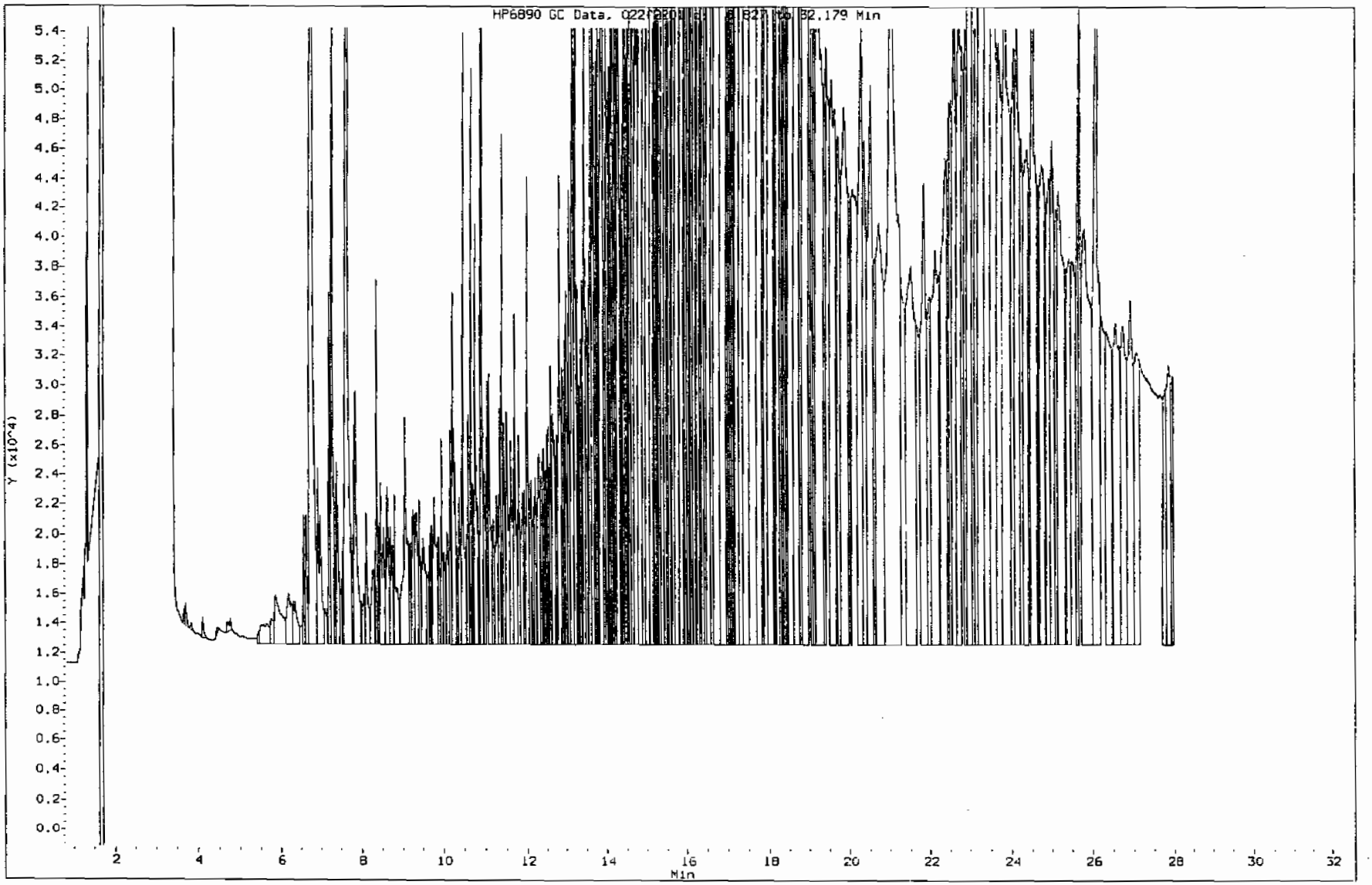

Flame Ionization Detector
Certificate of Analysis
Sample Summary

SDG Number:	10-852	Date Collected:	12/07/2009 12:00	Matrix:	S
Lab Sample ID:	242654013	Date Received:	12/10/2009 08:50	%Moisture:	14.2
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14282	Method:	SW846 8015A/B SVOC	SOP Ref:	GL-OA-E-003
Batch ID:	934967	Inst:	FID7.I	Dilution:	1
Run Date:	12/29/2009 00:52	Analyst:	KXR2	Inj. Vol:	1 uL
Prep Date:	12/21/2009 10:03	Aliquot:	30.02 g	Final Volume:	1 mL
Data File:	025f2501.d	Column:	DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics	U	7.76	mg/kg	2.52	7.76

GEL Laboratories LLC

DB-5MS .25mm

Data file : /chem/fid7.i/122809dr/025f2501.d
Lab Smp Id: 242654013 Client Smp ID: RE03-09-14282
Inj Date : 29-DEC-2009 00:52
Operator : KXR2 Inst ID: fid7.i
Smp Info : |242654013|1|
Misc Info : |FIDDRO_S|934967|FID|LANL|
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fid7.i/122809dr/FID7a.i_b_DRO_121309.m
Meth Date : 29-Dec-2009 12:00 kev01577 Quant Type: ESTD
Cal Date : 13-DEC-2009 18:58 Cal File: 007f0701.d
Als bottle: 25
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-852.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.02000	Weigth of sample extracted (g)
M	14.15270	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (mg/L)	FINAL (mg/Kg)
$ 2 o-Terphenyl					CAS #: 84-15-1
13.591	13.596	-0.005	213559	8.10027	0.31

Data File: /chem/fid7.i/122809dr/025f2501.d
Date : 29-DEC-2009 00:52
Client ID: RE03-09-14282
Sample Info: 1242654013111
Volume Injected (uL): 1.0
Column phase: DB-5MS

Instrument: fid7.i

Operator: KXR2
Column diameter: 0.25

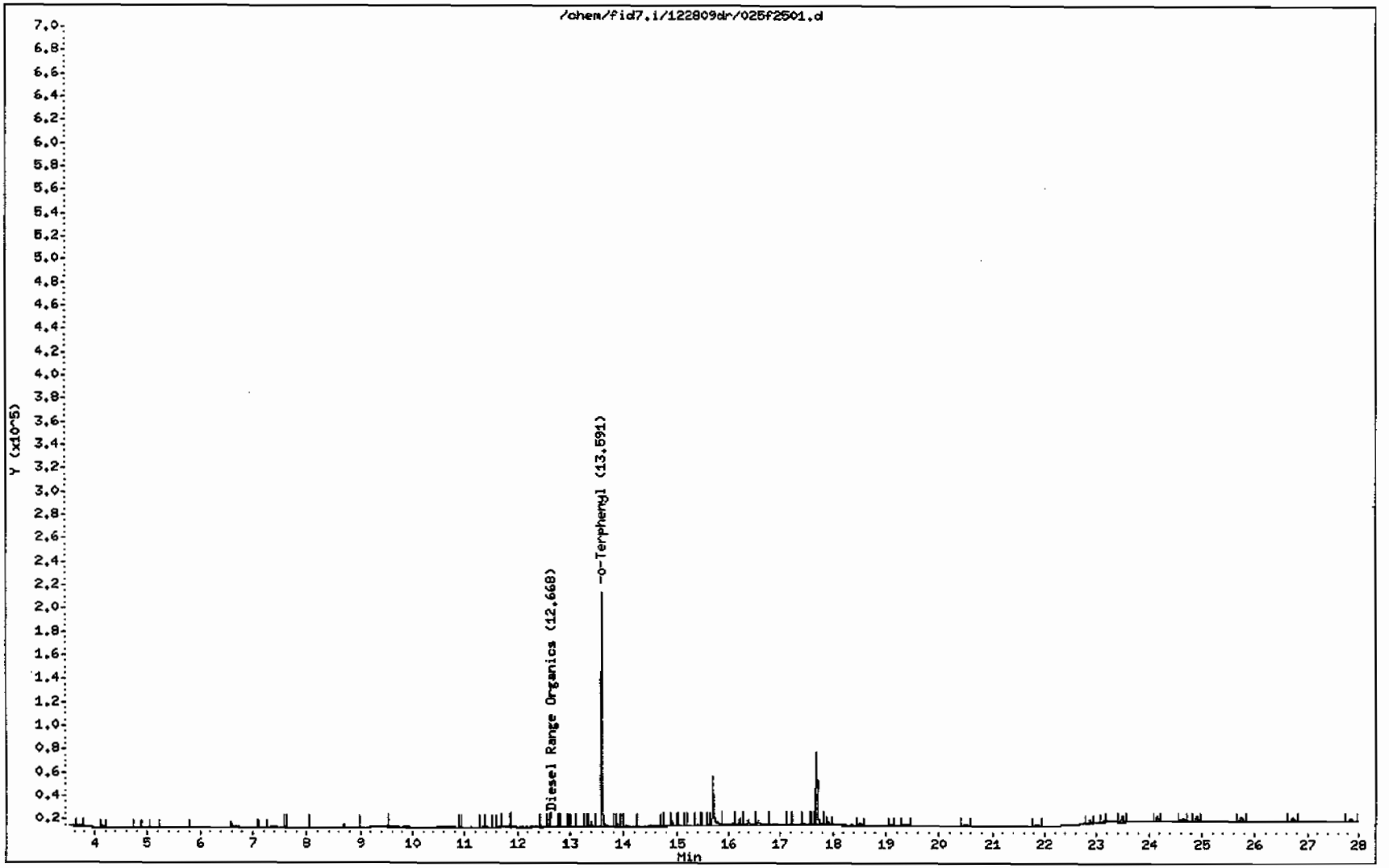

Flame Ionization Detector
Certificate of Analysis
Sample Summary

SDG Number:	10-852	Date Collected:	12/07/2009 12:00	Matrix:	S
Lab Sample ID:	242654014	Date Received:	12/10/2009 08:50	%Moisture:	10.7
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14269	Method:	SW846 8015A/B SVOC	SOP Ref:	GL-OA-E-003
Batch ID:	934967	Inst:	FID7.I	Dilution:	20
Run Date:	12/29/2009 01:28	Analyst:	KXR2	Inj. Vol:	1 uL
Prep Date:	12/21/2009 10:03	Aliquot:	30.09 g	Final Volume:	1 mL
Data File:	026f2601.d	Column:	DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics	J	57.2	mg/kg	48.4	149

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DB-5MS .25mm

Data file : /chem/fid7.i/122809dr/026f2601.d
Lab Smp Id: 242654014 Client Smp ID: RE03-09-14269
Inj Date : 29-DEC-2009 01:28
Operator : KXR2 Inst ID: fid7.i
Smp Info : |242654014|20|
Misc Info : |FIDDRO_S|934967|FID|LANL|
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fid7.i/122809dr/FID7a.i_b_DRO_121309.m
Meth Date : 29-Dec-2009 12:00 kev01577 Quant Type: ESTD
Cal Date : 13-DEC-2009 18:58 Cal File: 007f0701.d
Als bottle: 26
Dil Factor: 20.00000
Integrator: Falcon Compound Sublist: 10-852.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	20.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.09000	Weigth of sample extracted (g)
M	10.68240	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (mg/L)	FINAL (mg/Kg)	
S 1 Diesel Range Organics					CAS #:	
7.480- 17.855			1031587	76.8854	57.2	(aM)
$ 2 o-Terphenyl					CAS #: 84-15-1	
13.560	13.596	-0.036	18824	0.71402	0.53	(M)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

Data File: /chem/fid7.i/122809dr/026f2601.d

Date : 29-DEC-2009 01:28

Client ID: RE03-09-14269

Sample Info: |2426540141201

Volume Injected (uL): 1.0

Column phase: DB-5MS

Instrument: fid7.i

Operator: KXR2

Column diameter: 0.25

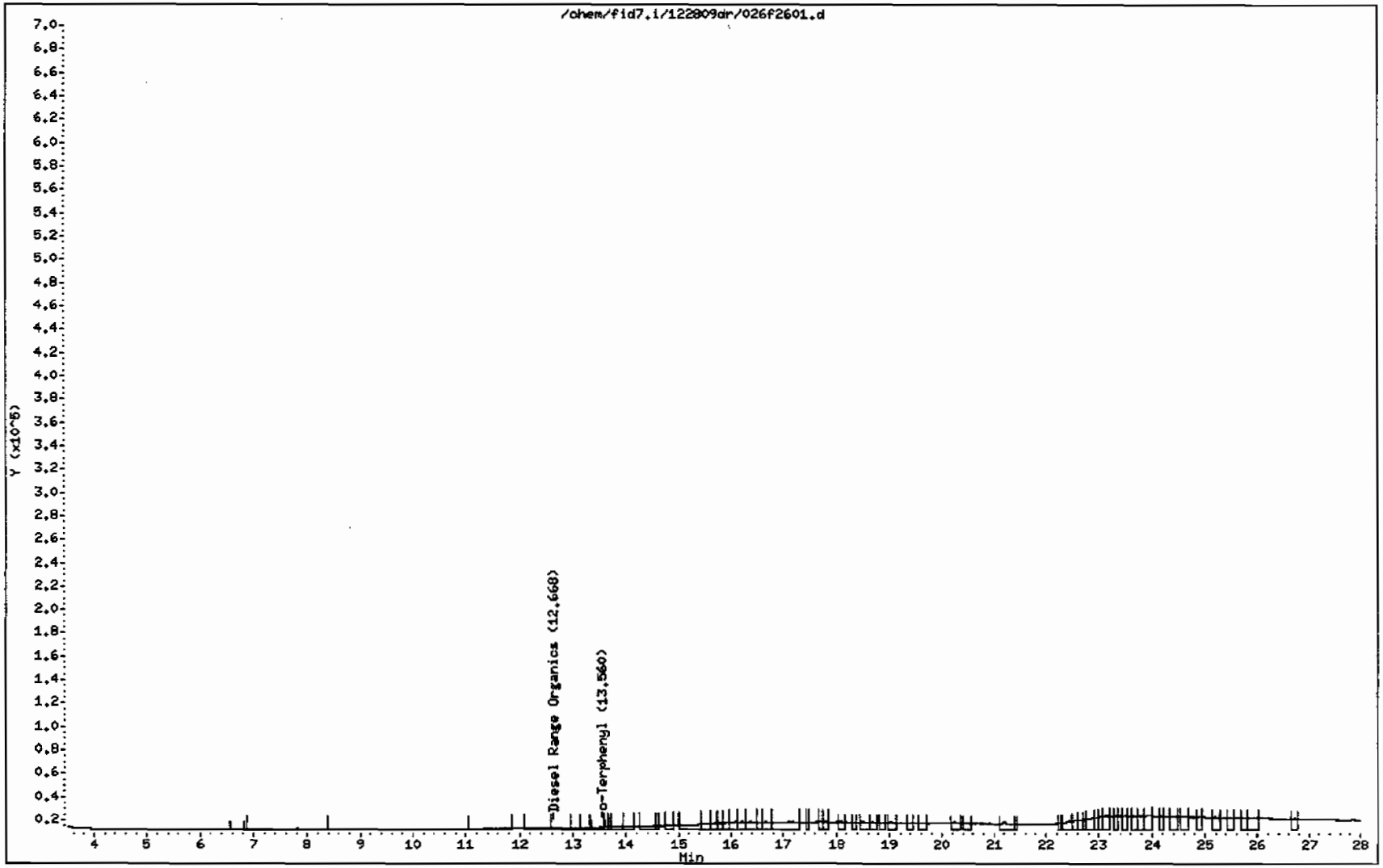

Data File: /chem/fid7.i/122809dr/026f2601.d
Injection Date: 29-DEC-2009 01:28
Instrument: fid7.i
Client Sample ID: RE03-09-14269

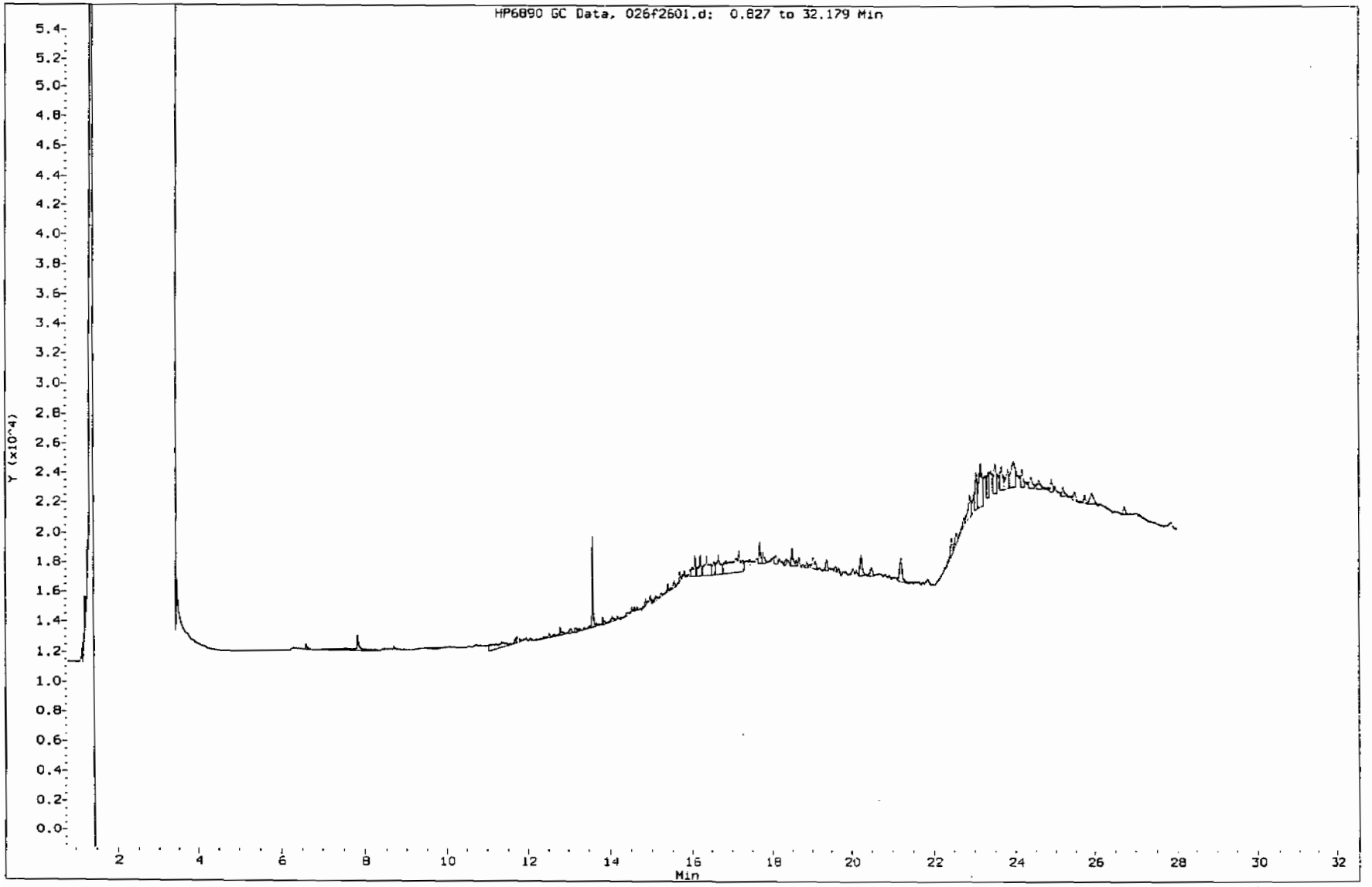

Data File: /chem/fid7.i/122809dr/026f2601.d
Injection Date: 29-DEC-2009 01:28
Instrument: fid7.i
Client Sample ID: RE03-09-14269

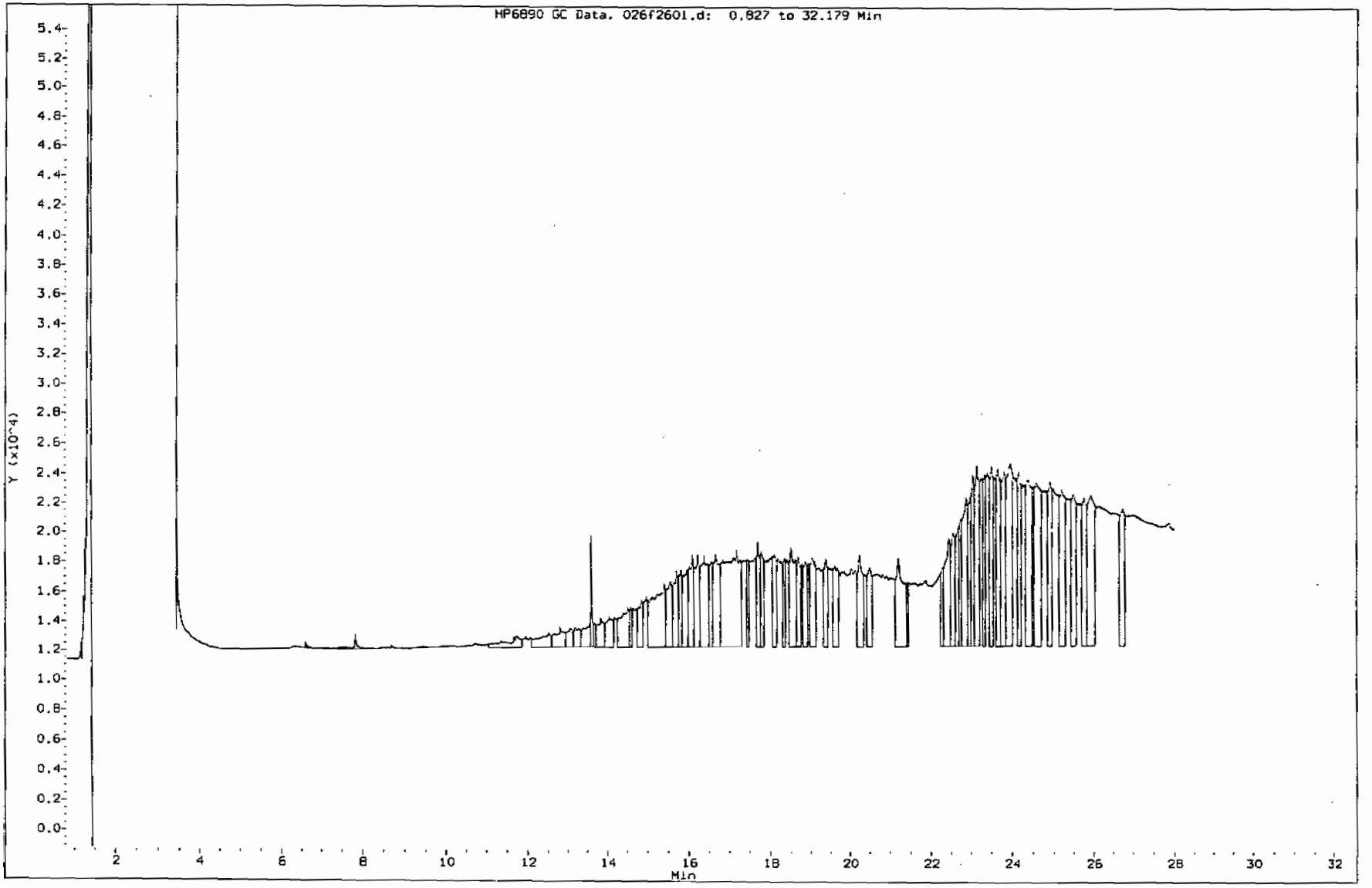

Flame Ionization Detector
Certificate of Analysis
Sample Summary

SDG Number:	10-852	Date Collected:	12/07/2009 12:00	Matrix:	S
Lab Sample ID:	242654015	Date Received:	12/10/2009 08:50	%Moisture:	10.3
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14273	Method:	SW846 8015A/B SVOC	SOP Ref:	GL-OA-E-003
Batch ID:	934967	Inst:	FID7.I	Dilution:	1
Run Date:	12/29/2009 02:05	Analyst:	KXR2	Inj. Vol:	1 uL
Prep Date:	12/21/2009 10:03	Aliquot:	30.02 g	Final Volume:	1 mL
Data File:	027f2701.d	Column:	DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics		43.3	mg/kg	2.41	7.43

GEL Laboratories LLC

DB-5MS .25mm

Data file : /chem/fid7.i/122809dr/027f2701.d
Lab Smp Id: 242654015 Client Smp ID: RE03-09-14273
Inj Date : 29-DEC-2009 02:05
Operator : KXR2 Inst ID: fid7.i
Smp Info : |242654015|1|
Misc Info : |FIDDRO_S|934967|FID|LANL|
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fid7.i/122809dr/FID7a.i_b_DRO_121309.m
Meth Date : 29-Dec-2009 12:00 kev01577 Quant Type: ESTD
Cal Date : 13-DEC-2009 18:58 Cal File: 007f0701.d
Als bottle: 27
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-852.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.02000	Weigth of sample extracted (g)
M	10.33890	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (mg/L)	FINAL (mg/Kg)	
S 1 Diesel Range Organics					CAS #:	
7.480- 17.855			15631889	1165.06	43.3	
$ 2 o-Terphenyl					CAS #: 84-15-1	
13.591	13.596	-0.005	233284	8.84843	0.33	(M)

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/fid7.i/122809dr/027f2701.d
Date : 29-DEC-2009 02:05
Client ID: RE03-09-14273
Sample Info: |2426540151|1|
Volume Injected (uL): 1.0
Column phase: DB-5MS

Instrument: fid7.i

Operator: KXR2
Column diameter: 0.25

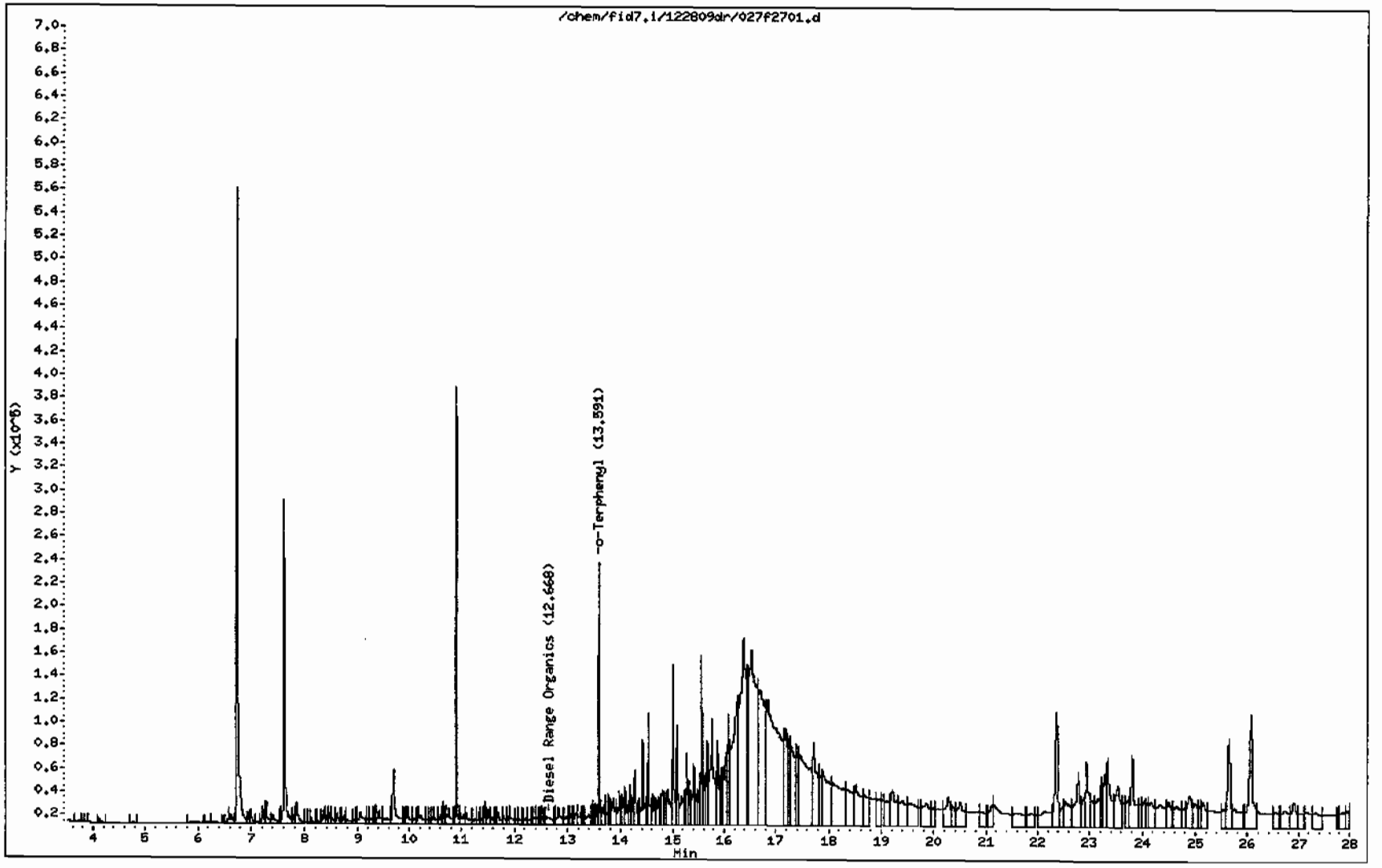

Data File: /chem/fid7.i/122809dr/027f2701.d
Injection Date: 29-DEC-2009 02:05
Instrument: fid7.i
Client Sample ID: RE03-09-14273

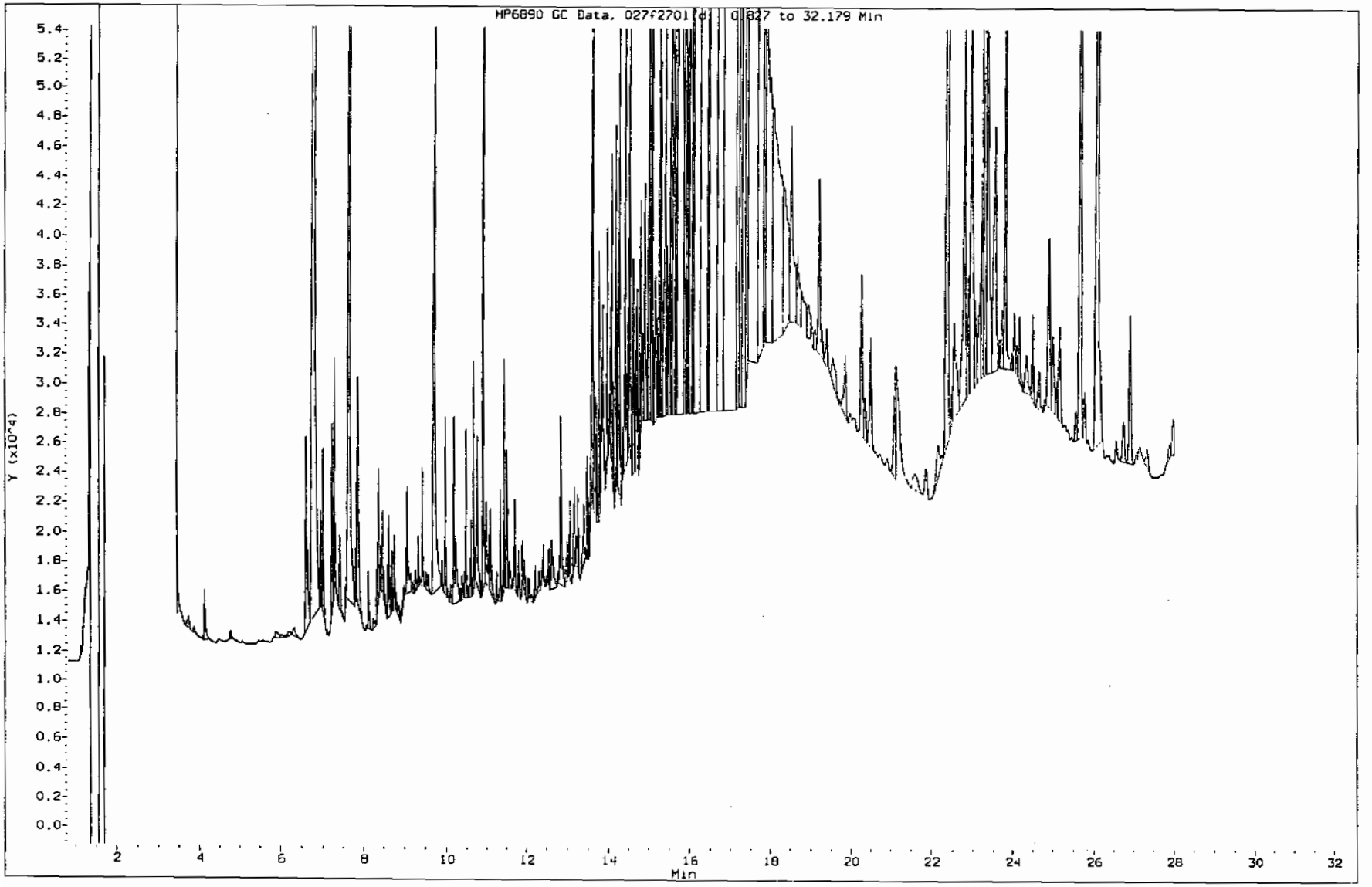

Data File: /chem/fid7.i/122809dr/027f2701.d
Injection Date: 29-DEC-2009 02:05
Instrument: fid7.i
Client Sample ID: RE03-09-14273

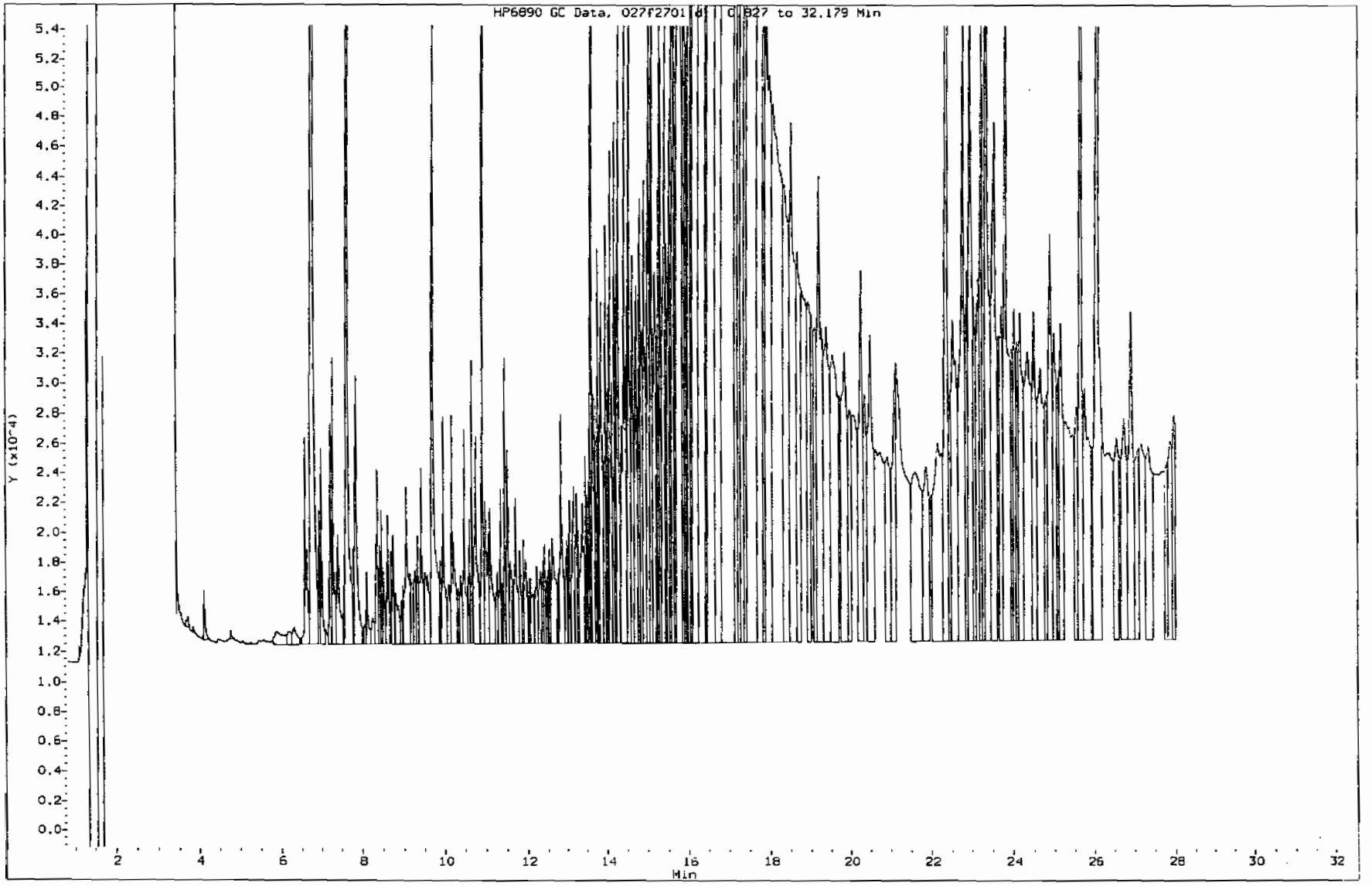

Flame Ionization Detector
Certificate of Analysis
Sample Summary

SDG Number:	10-852	Date Collected:	12/07/2009 12:00	Matrix:	S
Lab Sample ID:	242654016	Date Received:	12/10/2009 08:50	%Moisture:	13.4
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14271	Method:	SW846 8015A/B SVOC	SOP Ref:	GL-OA-E-003
Batch ID:	934967	Inst:	FID7.I	Dilution:	20
Run Date:	12/29/2009 02:42	Analyst:	KXR2	Inj. Vol:	1 uL
Prep Date:	12/21/2009 10:03	Aliquot:	30.02 g	Final Volume:	1 mL
Data File:	028f2801.d	Column:	DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics	J	71.5	mg/kg	50.0	154

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DB-5MS .25mm

Data file : /chem/fid7.i/122809dr/028f2801.d
Lab Smp Id: 242654016 Client Smp ID: RE03-09-14271
Inj Date : 29-DEC-2009 02:42
Operator : KXR2 Inst ID: fid7.i
Smp Info : |242654016|20|
Misc Info : |FIDDRO_S|934967|FID|LANL|
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fid7.i/122809dr/FID7a.i_b_DRO_121309.m
Meth Date : 29-Dec-2009 12:00 kev01577 Quant Type: ESTD
Cal Date : 13-DEC-2009 18:58 Cal File: 007f0701.d
Als bottle: 28
Dil Factor: 20.00000
Integrator: Falcon Compound Sublist: 10-852.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	20.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.02000	Weigth of sample extracted (g)
M	13.44250	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (mg/L)	FINAL (mg/Kg)	
S 1 Diesel Range Organics					CAS #:	
7.480-	17.855		1246237	92.8835	71.5	(aM)
$ 2 o-Terphenyl					CAS #: 84-15-1	
13.562	13.596	-0.034	6362	0.24133	0.18	(RM)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
R - Spike/Surrogate failed recovery limits.

QC Flag Legend

M - Compound response manually integrated.

Data File: /ohem/fid7.i/122809dr/028f2801.d

Date : 29-DEC-2009 02:42

Client ID: RE03-09-14271

Sample Info: |2426540161201

Volume Injected (uL): 1.0

Column phase: DB-5MS

Instrument: fid7.i

Operator: KXR2

Column diameter: 0.25

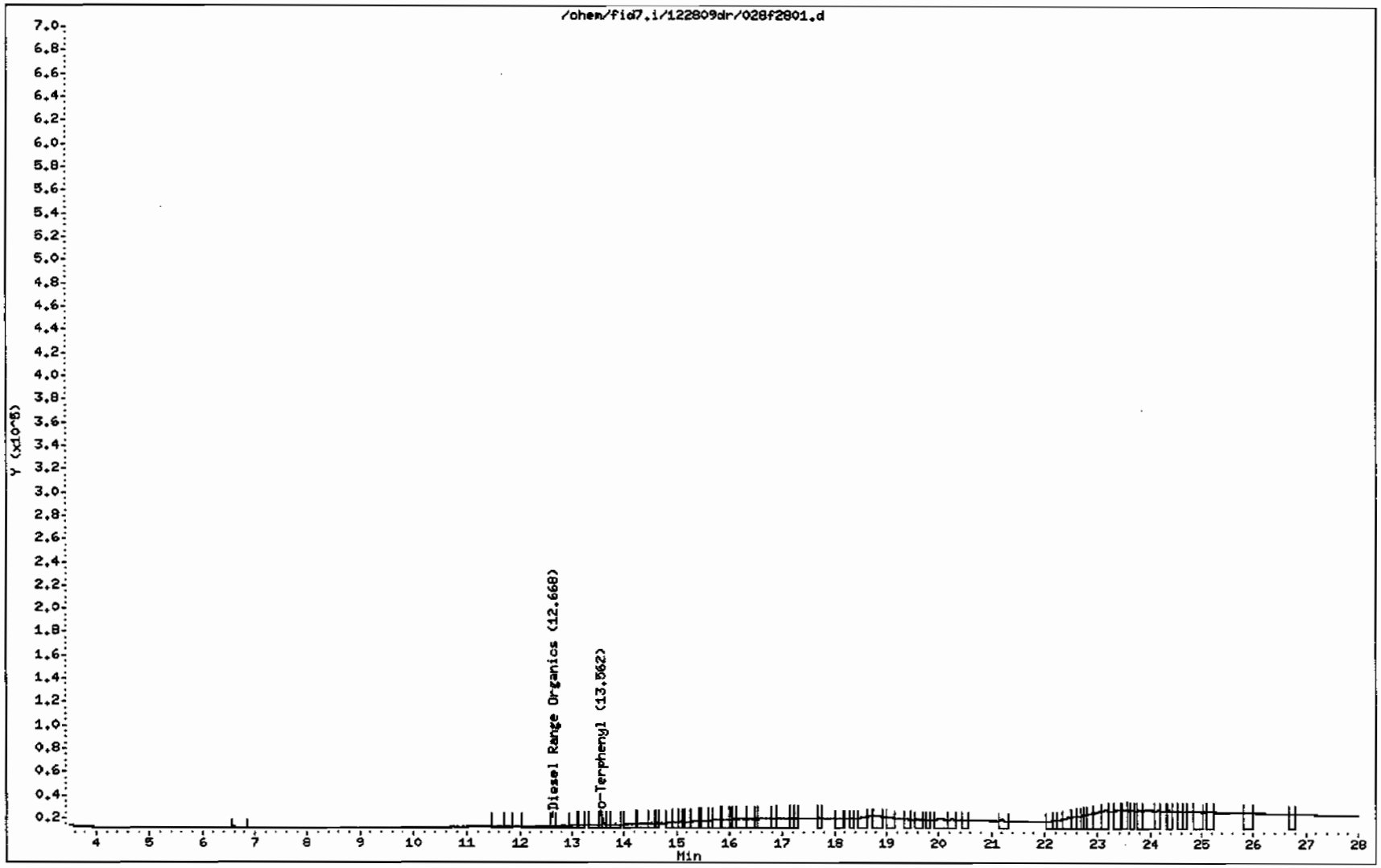

Data File: /chem/fid7.i/122809dr/028f2801.d
Injection Date: 29-DEC-2009 02:42
Instrument: fid7.i
Client Sample ID: RE03-09-14271

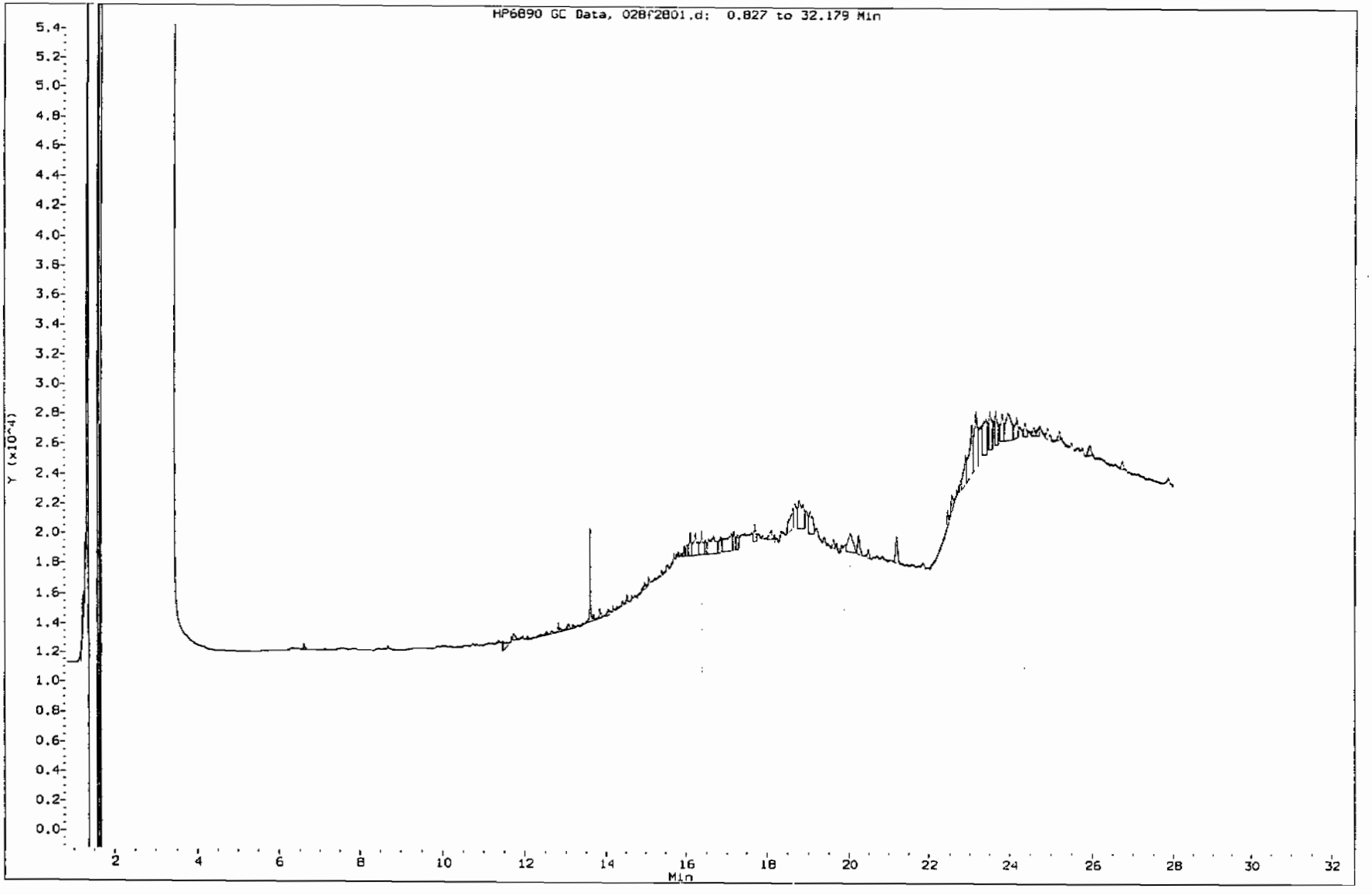

Data File: /chem/fid7.i/122809dr/028f2801.d
Injection Date: 29-DEC-2009 02:42
Instrument: fid7.i
Client Sample ID: RE03-09-14271

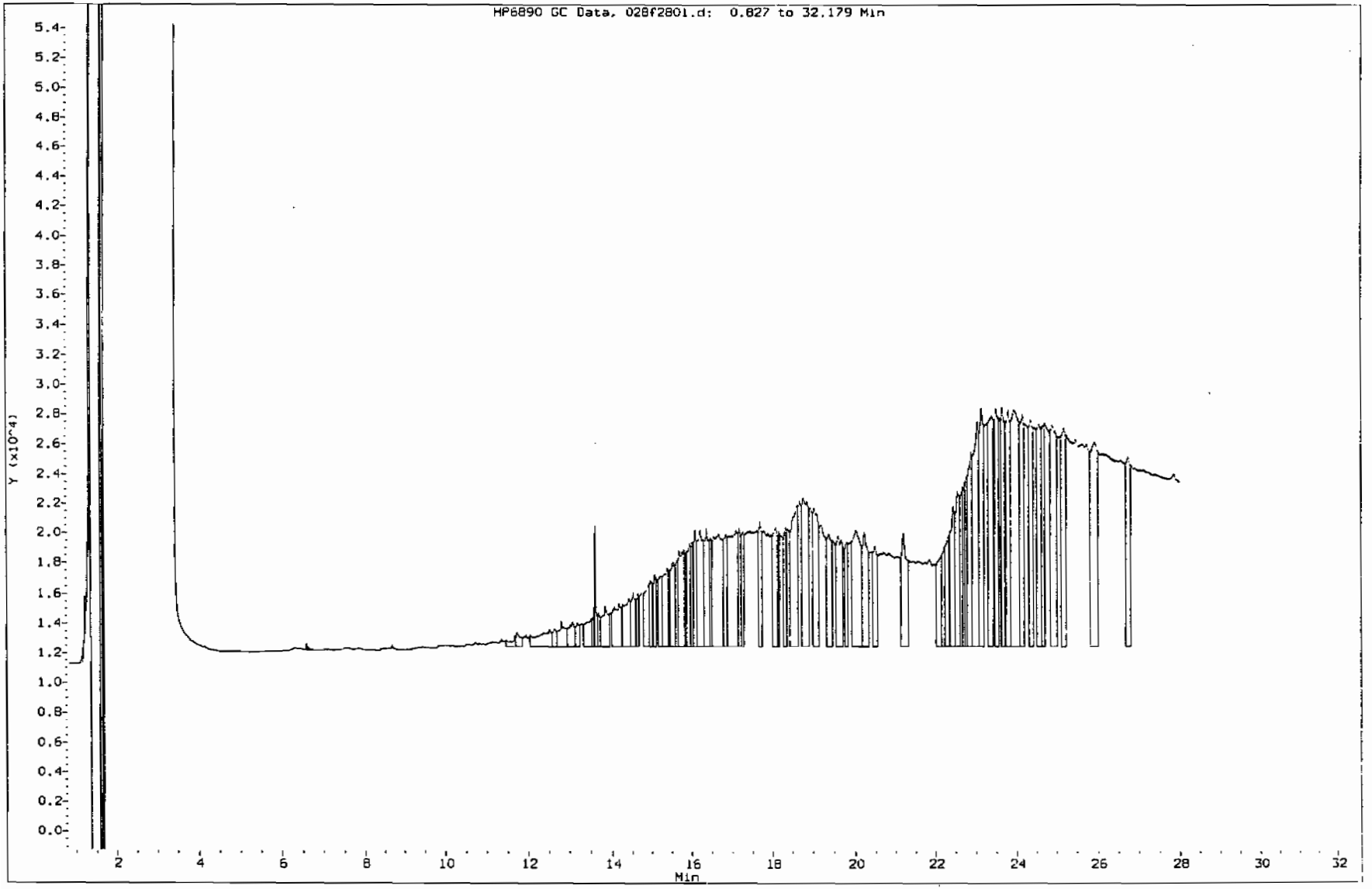

Flame Ionization Detector
Certificate of Analysis
Sample Summary

SDG Number:	**10-852**	**Date Collected:**	**12/07/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242654017**	**Date Received:**	**12/10/2009 08:50**	**%Moisture:**	**9.4**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14278**	**Method:**	**SW846 8015A/B SVOC**	**SOP Ref:**	**GL-OA-E-003**
Batch ID:	**934967**	**Inst:**	**FID7.I**	**Dilution:**	**1**
Run Date:	**12/29/2009 03:19**	**Analyst:**	**KXR2**	**Inj. Vol:**	**1 uL**
Prep Date:	**12/21/2009 10:03**	**Aliquot:**	**30.05 g**	**Final Volume:**	**1 mL**
Data File:	**029f2901.d**	**Column:**	**DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics		31.4	mg/kg	2.39	7.35

GEL Laboratories LLC

DB-5MS .25mm

Data file : /chem/fid7.i/122809dr/029f2901.d
Lab Smp Id: 242654017 Client Smp ID: RE03-09-14278
Inj Date : 29-DEC-2009 03:19
Operator : KXR2 Inst ID: fid7.i
Smp Info : |242654017|1|
Misc Info : |FIDDRO_S|934967|FID|LANL|
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fid7.i/122809dr/FID7a.i_b_DRO_121309.m
Meth Date : 29-Dec-2009 12:00 kev01577 Quant Type: ESTD
Cal Date : 13-DEC-2009 18:58 Cal File: 007f0701.d
Als bottle: 29
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-852.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.05000	Weigth of sample extracted (g)
M	9.40310	% Moisture

Cpnd Variable Local Compound Variable

	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (mg/L)	FINAL (mg/Kg)	
S	1 Diesel Range Organics					CAS #:	
	7.480- 17.855			11473509	855.134	31.4	
$	2 o-Terphenyl					CAS #: 84-15-1	
	13.592	13.596	-0.004	266053	10.0913	0.37	(M)

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/fid7.i/122809dr/029f2901.d
Date : 29-DEC-2009 03:19
Client ID: RE03-09-14278
Sample Info: |2426540171|1|
Volume Injected (uL): 1.0
Column phase: DB-5MS

Instrument: fid7.i

Operator: KXR2
Column diameter: 0.25

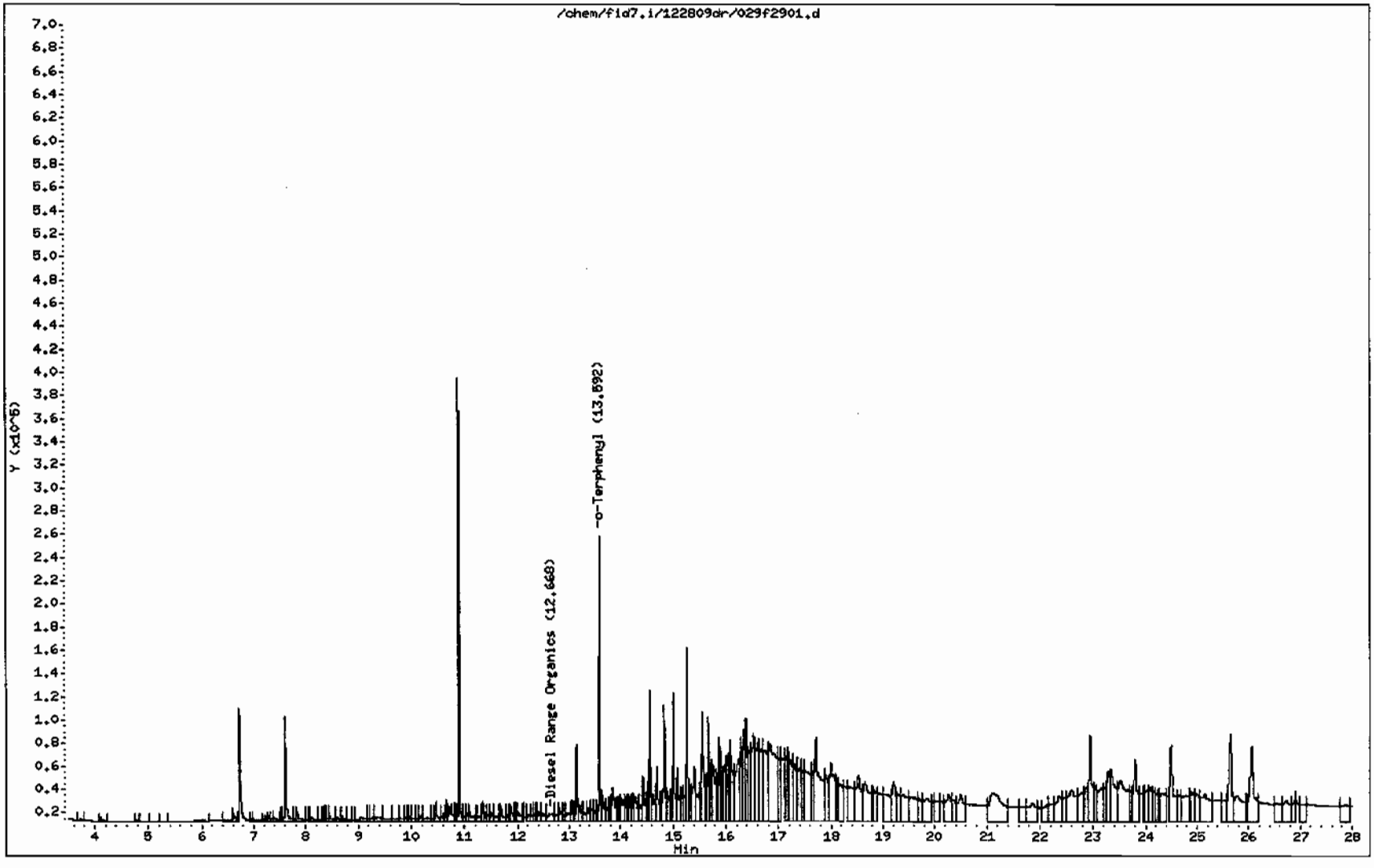

Return [illegible]

Data File: /chem/fid7.i/122809dr/029f2901.d
Injection Date: 29-DEC-2009 03:19
Instrument: fid7.i
Client Sample ID: RE03-09-14278

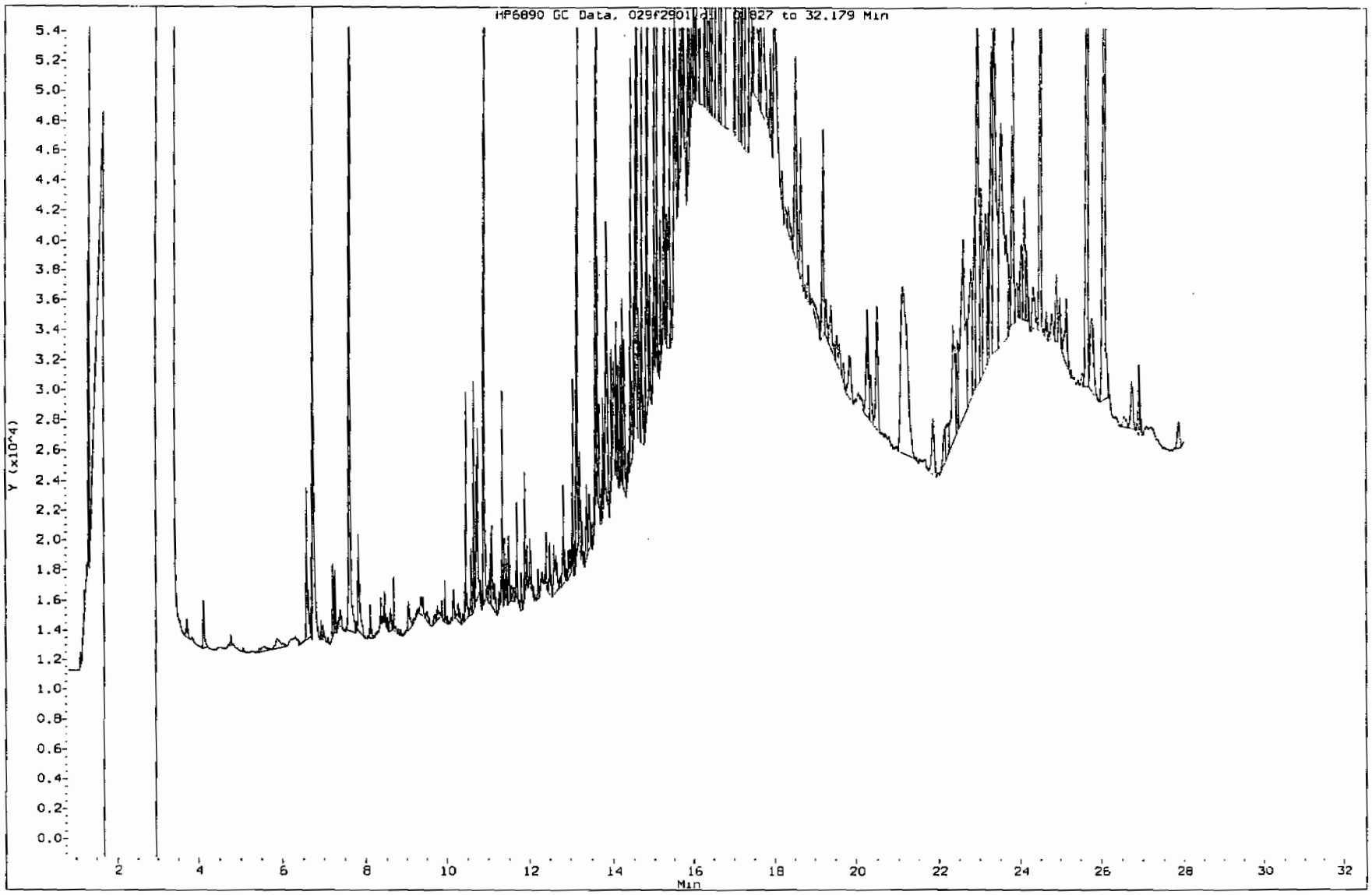

Data File: /chem/fid7.i/122809dr/029f2901.d
Injection Date: 29-DEC-2009 03:19
Instrument: fid7.i
Client Sample ID: RE03-09-14278

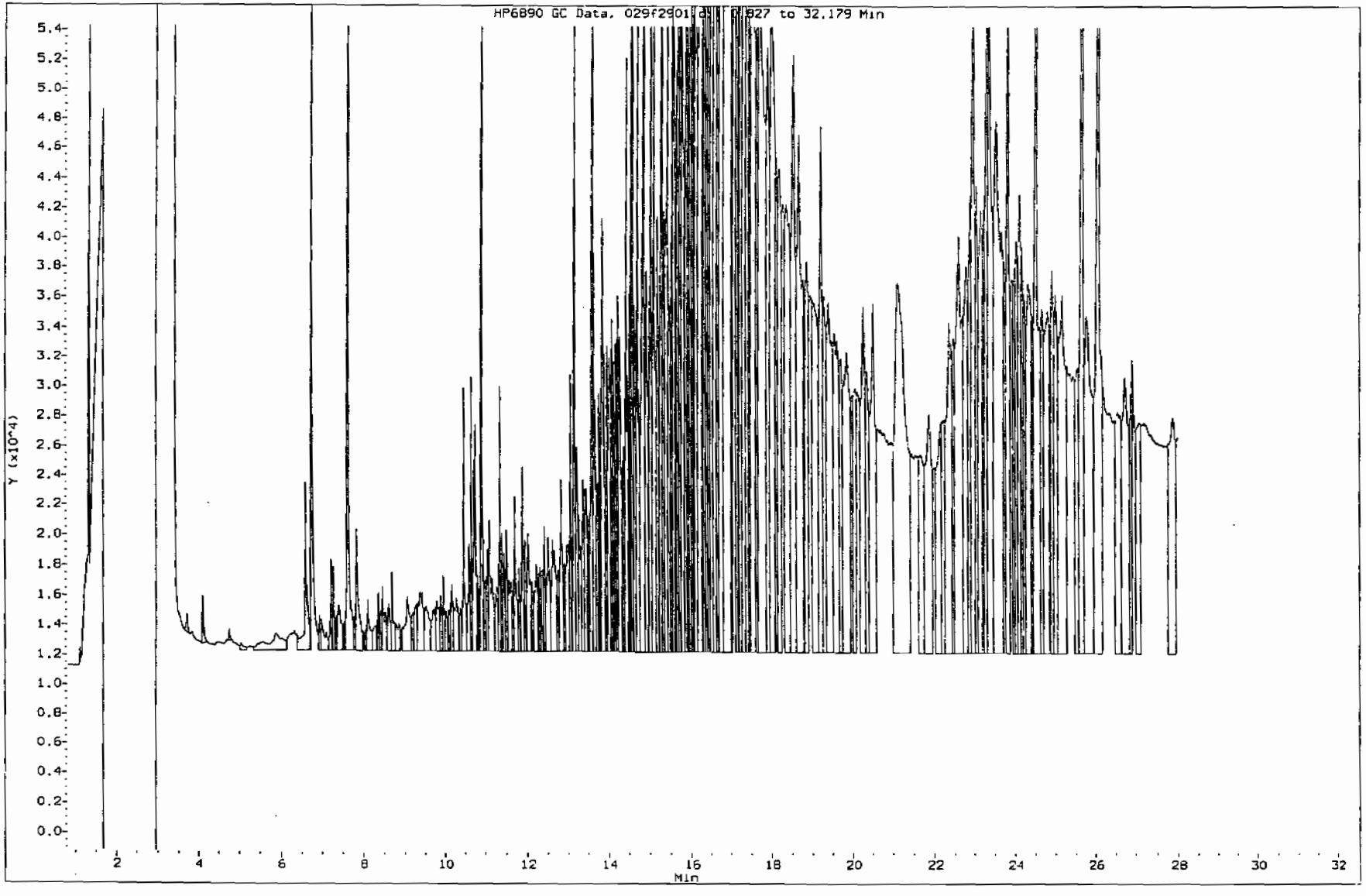

Flame Ionization Detector
Certificate of Analysis
Sample Summary

SDG Number:	10-852	Date Collected:	12/07/2009 12:00	Matrix:	S
Lab Sample ID:	242654018	Date Received:	12/10/2009 08:50	%Moisture:	14.2
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14285	Method:	SW846 8015A/B SVOC	SOP Ref:	GL-OA-E-003
Batch ID:	934967	Inst:	FID7.I	Dilution:	1
Run Date:	12/29/2009 03:55	Analyst:	KXR2	Inj. Vol:	1 uL
Prep Date:	12/21/2009 10:03	Aliquot:	30.02 g	Final Volume:	1 mL
Data File:	030f3001.d	Column:	DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics	J	3.79	mg/kg	2.52	7.76

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DB-5MS .25mm

Data file : /chem/fid7.i/122809dr/030f3001.d
Lab Smp Id: 242654018 Client Smp ID: RE03-09-14285
Inj Date : 29-DEC-2009 03:55
Operator : KXR2 Inst ID: fid7.i
Smp Info : |242654018|1|
Misc Info : |FIDDRO_S|934967|FID|LANL|
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fid7.i/122809dr/FID7a.i_b_DRO_121309.m
Meth Date : 29-Dec-2009 12:00 kev01577 Quant Type: ESTD
Cal Date : 13-DEC-2009 18:58 Cal File: 007f0701.d
Als bottle: 30
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-852.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.02000	Weigth of sample extracted (g)
M	14.17370	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (mg/L)	FINAL (mg/Kg)	
S 1 Diesel Range Organics					CAS #:	
7.480- 17.855			1310954	97.7070	3.8	(a)
$ 2 o-Terphenyl					CAS #: 84-15-1	
13.590	13.596	-0.006	194604	7.38128	0.29	(M)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

Data File: /chem/fid7.i/122809dr/030f3001.d

Page 1

Date : 29-DEC-2009 03:55

Client ID: RE03-09-14285

Instrument: fid7.i

Sample Info: 1242654018111

Volume Injected (uL): 1.0

Operator: KXR2

Column phase: DB-5MS

Column diameter: 0.25

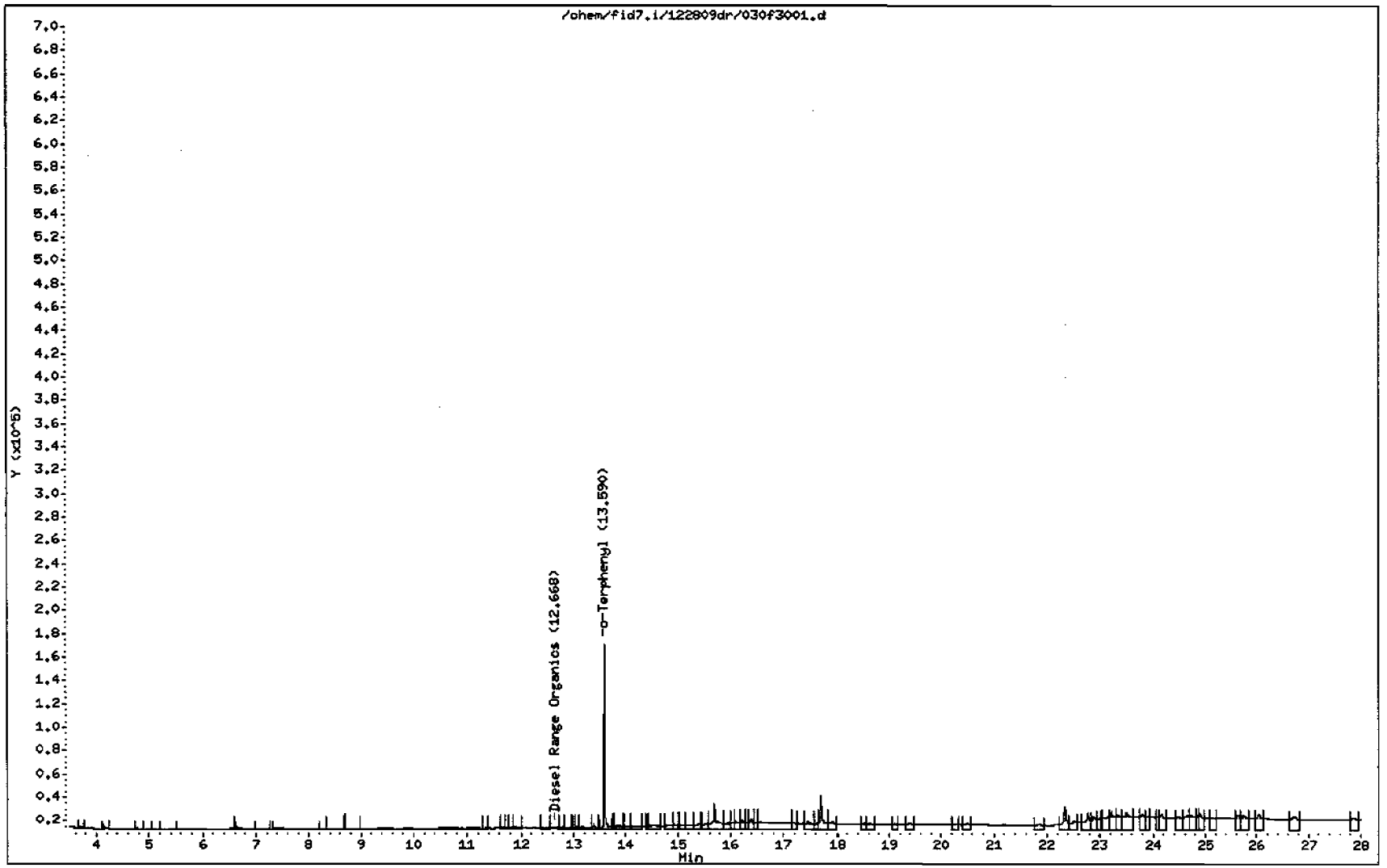

Data File: /chem/fid7.i/122809dr/030f3001.d
Injection Date: 29-DEC-2009 03:55
Instrument: fid7.i
Client Sample ID: RE03-09-14285

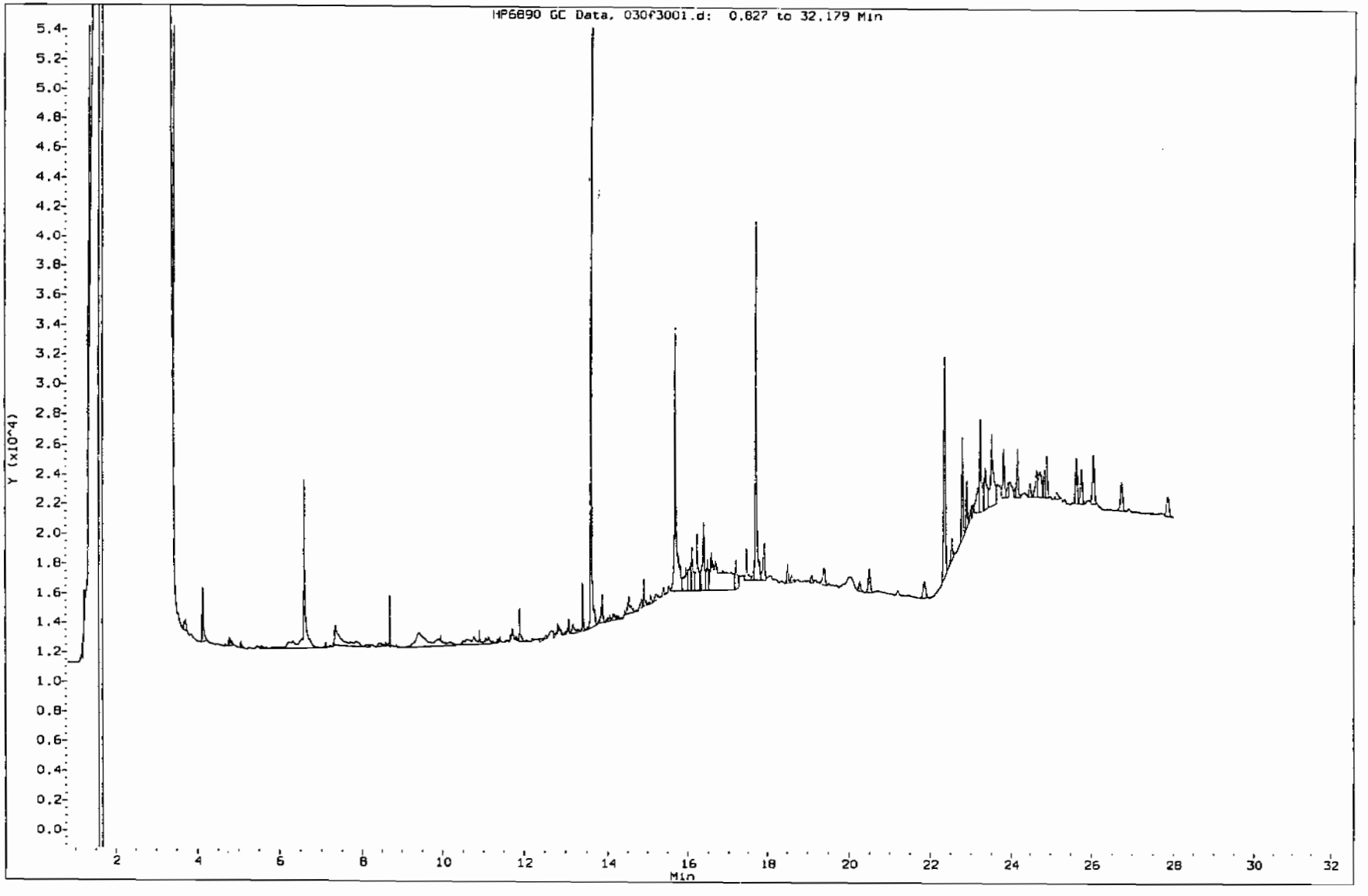

Data File: /chem/fid7.i/122809dr/030f3001.d
Injection Date: 29-DEC-2009 03:55
Instrument: fid7.i
Client Sample ID: RE03-09-14285

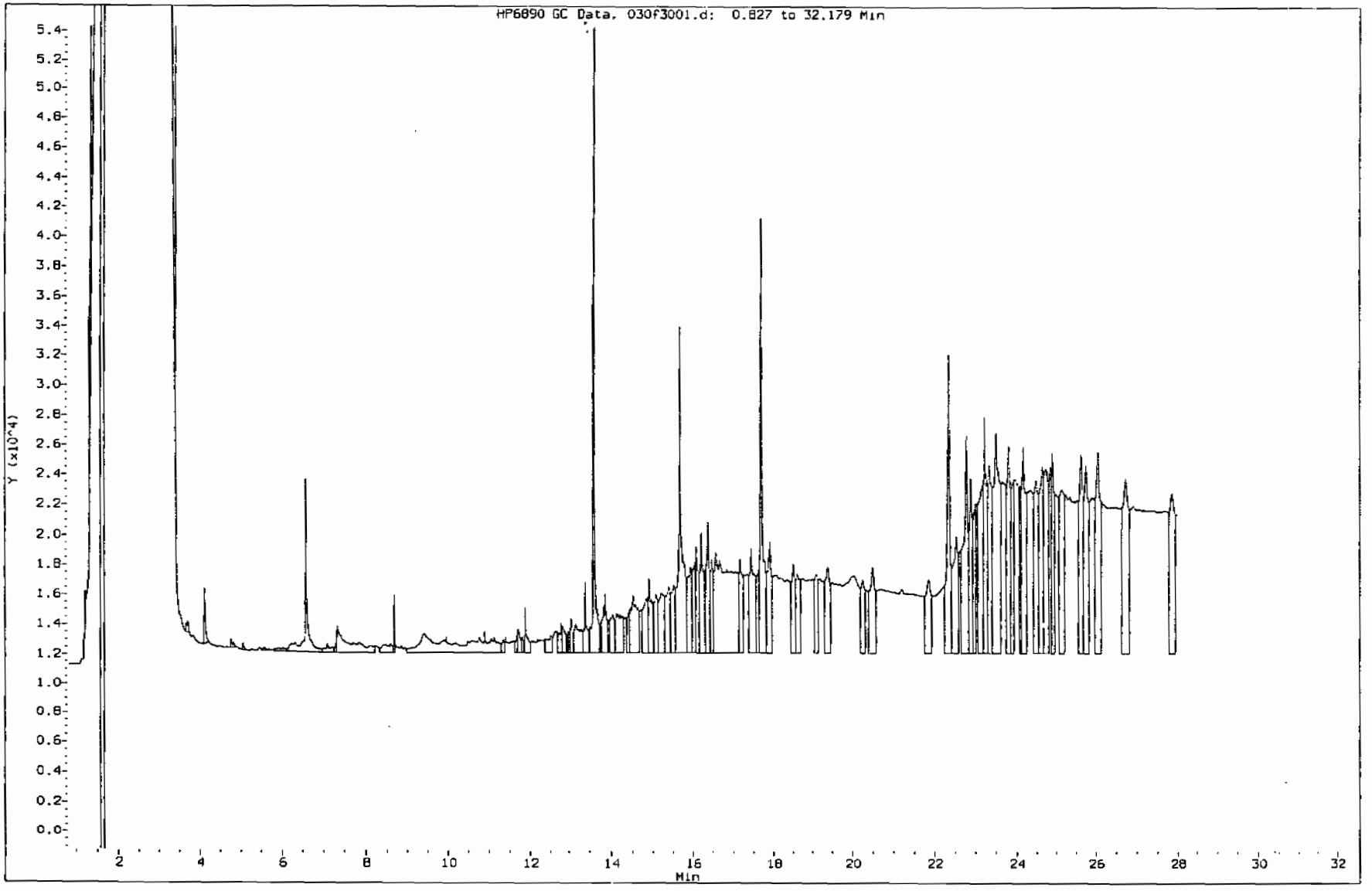

Flame Ionization Detector
Certificate of Analysis
Sample Summary

SDG Number:	10-852	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242654019	**Date Received:**	12/10/2009 08:50	**%Moisture:**	13.4
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14286	**Method:**	SW846 8015A/B SVOC	**SOP Ref:**	GL-OA-E-003
Batch ID:	934967	**Inst:**	FID7.I	**Dilution:**	1
Run Date:	12/29/2009 04:32	**Analyst:**	KXR2	**Inj. Vol:**	1 uL
Prep Date:	12/21/2009 10:03	**Aliquot:**	30.04 g	**Final Volume:**	1 mL
Data File:	031f3101.d	**Column:**	DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics	U	7.69	mg/kg	2.50	7.69

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DB-5MS .25mm

Data file : /chem/fid7.i/122809dr/031f3101.d
Lab Smp Id: 242654019 Client Smp ID: RE03-09-14286
Inj Date : 29-DEC-2009 04:32
Operator : KXR2 Inst ID: fid7.i
Smp Info : |242654019|1|
Misc Info : |FIDDRO_S|934967|FID|LANL|
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fid7.i/122809dr/FID7a.i_b_DRO_121309.m
Meth Date : 29-Dec-2009 12:00 kev01577 Quant Type: ESTD
Cal Date : 13-DEC-2009 18:58 Cal File: 007f0701.d
Als bottle: 31
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-852.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.04000	Weigth of sample extracted (g)
M	13.39690	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (mg/L)	FINAL (mg/Kg)
$ 2 o-Terphenyl					CAS #: 84-15-1
13.591	13.596	-0.005	214167	8.12333	0.31

Data File: /chem/fid7.i/122809dr/031f3101.d
Date : 29-DEC-2009 04:32
Client ID: RE03-09-14286
Sample Info: |242654019|1|
Volume Injected (uL): 1.0
Column phase: DB-5MS

Instrument: fid7.i

Operator: KXR2
Column diameter: 0.25

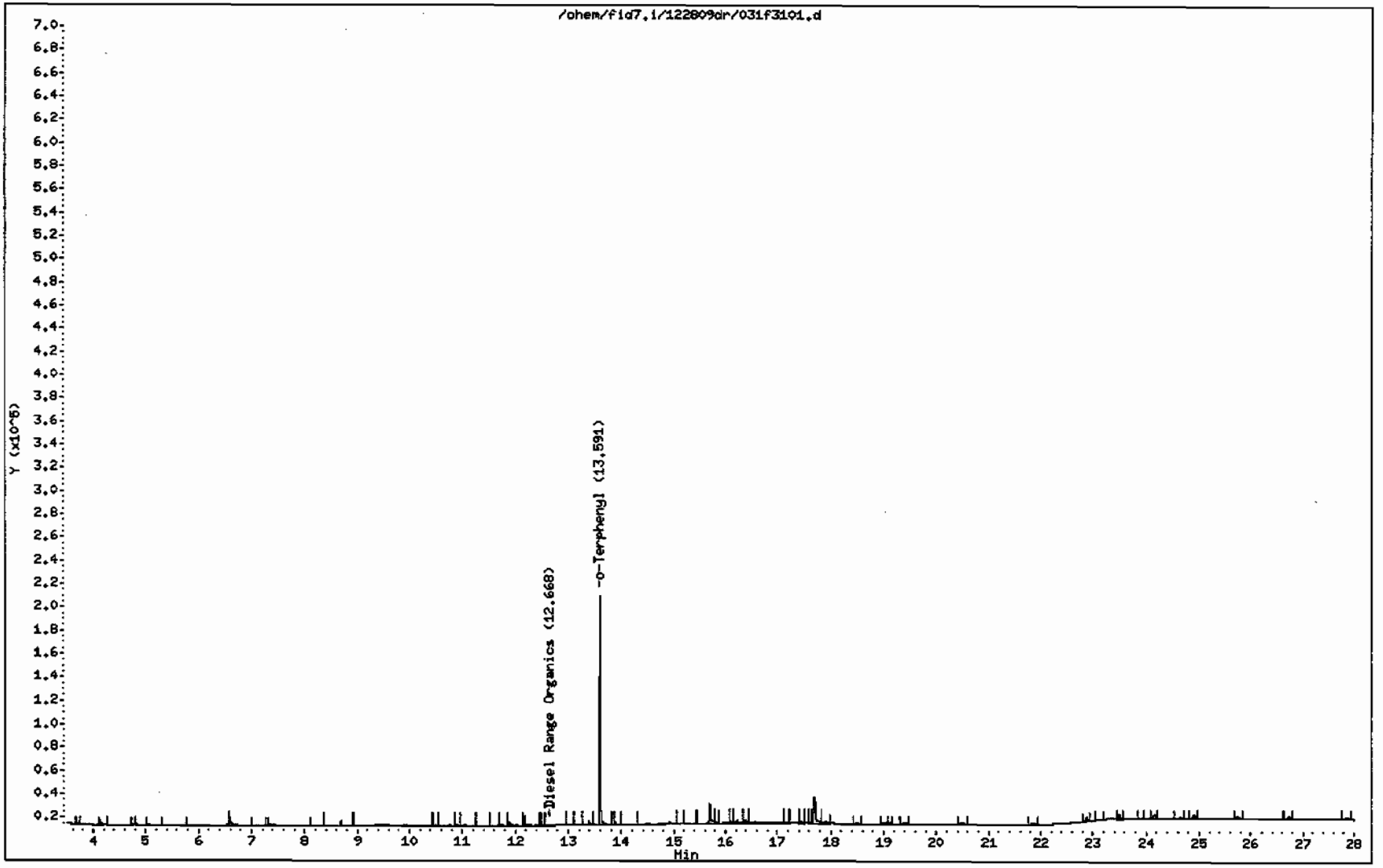

Flame Ionization Detector
Certificate of Analysis
Sample Summary

SDG Number:	10-852	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242654020	**Date Received:**	12/10/2009 08:50	**%Moisture:**	15.8
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14283	**Method:**	SW846 8015A/B SVOC	**SOP Ref:**	GL-OA-E-003
Batch ID:	934967	**Inst:**	FID7.I	**Dilution:**	1
Run Date:	12/29/2009 05:09	**Analyst:**	KXR2	**Inj. Vol:**	1 uL
Prep Date:	12/21/2009 10:03	**Aliquot:**	30.03 g	**Final Volume:**	1 mL
Data File:	032f3201.d	**Column:**	DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics	U	7.91	mg/kg	2.57	7.91

GEL Laboratories LLC

DB-5MS .25mm

Data file : /chem/fid7.i/122809dr/032f3201.d
Lab Smp Id: 242654020 Client Smp ID: RE03-09-14283
Inj Date : 29-DEC-2009 05:09
Operator : KXR2 Inst ID: fid7.i
Smp Info : |242654020|1|
Misc Info : |FIDDRO_S|934967|FID|LANL|
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fid7.i/122809dr/FID7a.i_b_DRO_121309.m
Meth Date : 29-Dec-2009 12:00 kev01577 Quant Type: ESTD
Cal Date : 13-DEC-2009 18:58 Cal File: 007f0701.d
Als bottle: 32
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-852.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.03000	Weigth of sample extracted (g)
M	15.84580	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (mg/L)	FINAL (mg/Kg)
$ 2 o-Terphenyl					CAS #: 84-15-1
13.591	13.596	-0.005	139887	5.30590	0.21

Data File: /chem/fid7.i/122809dr/032f3201.d
Date : 29-DEC-2009 05:09
Client ID: RE03-09-14283
Sample Info: |242654020111
Volume Injected (uL): 1.0
Column phase: DB-5MS

Instrument: fid7.i
Operator: KXR2
Column diameter: 0.25

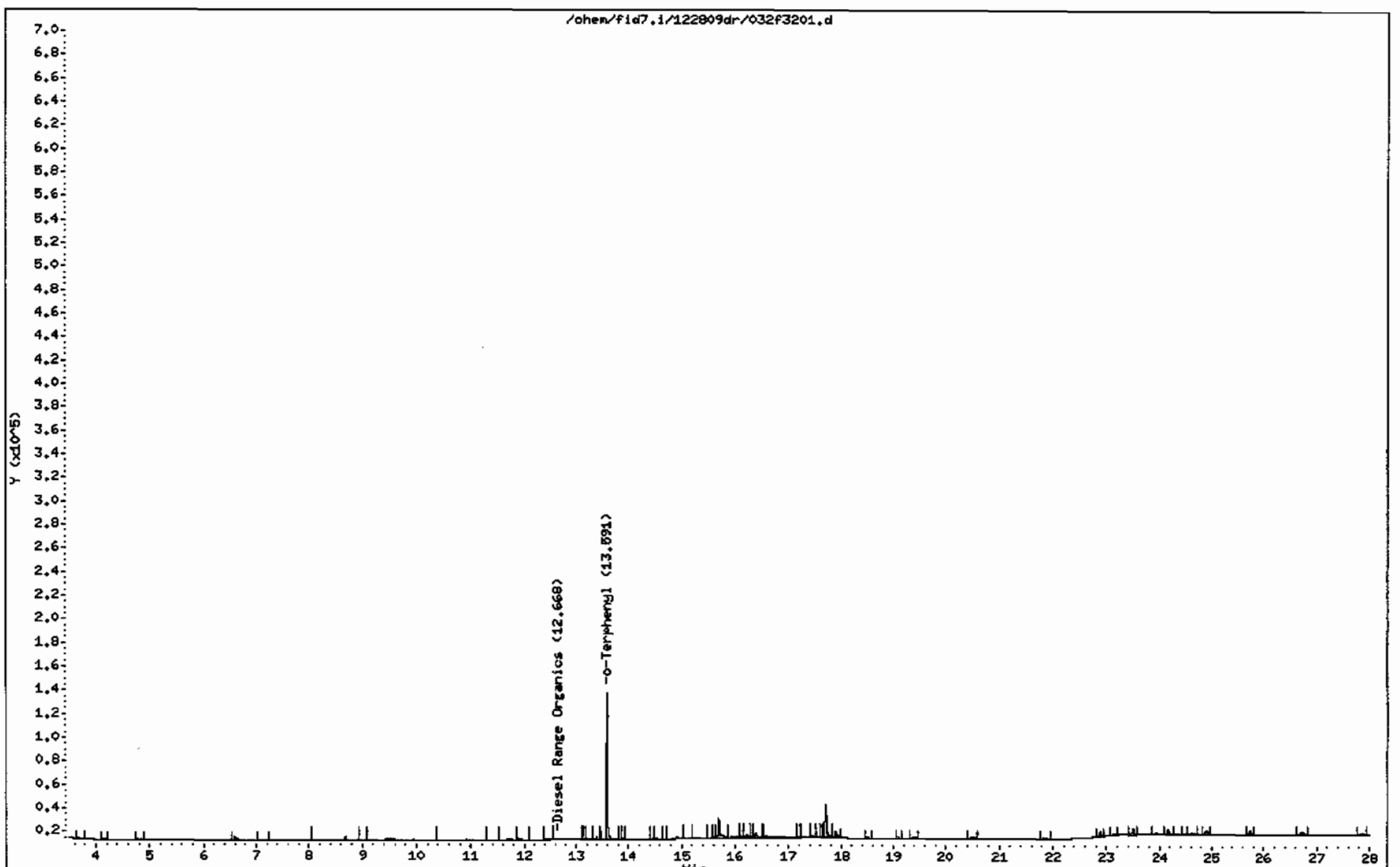

STANDARDS DATA

Report Date: 30-Dec-2009 12:51

Calibration History

Method : /chem/fid7.i/122809dr/FID7a.i_b_DRO_121309.m
Start Cal Date: 13-DEC-2009 16:31
End Cal Date : 13-DEC-2009 18:58

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 3 , Cal Amount: 200.00000		
13-DEC-2009 16:31	dro	/chem/fid7.i/121309dr/003f0301.d
Cal Level: 4 , Cal Amount: 500.00000		
13-DEC-2009 17:07	dro	/chem/fid7.i/121309dr/004f0401.d
Cal Level: 5 , Cal Amount: 1000.00000		
13-DEC-2009 17:45	dro	/chem/fid7.i/121309dr/005f0501.d
Cal Level: 6 , Cal Amount: 2000.00000		
13-DEC-2009 18:22	dro	/chem/fid7.i/121309dr/006f0601.d
Cal Level: 7 , Cal Amount: 5000.00000		
13-DEC-2009 18:58	dro	/chem/fid7.i/121309dr/007f0701.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 5

Ccal Level: 5 , Ccal Amount: 1000		
29-DEC-2009 11:16	dro	/chem/fid7.i/122809dr/042f4201.d
Ccal Level: 5 , Ccal Amount: 1000		
29-DEC-2009 05:45	dro	/chem/fid7.i/122809dr/033f3301.d
Ccal Level: 5 , Ccal Amount: 1000		
28-DEC-2009 23:39	dro	/chem/fid7.i/122809dr/023f2301.d
Ccal Level: 5 , Ccal Amount: 1000		
28-DEC-2009 17:32	dro	/chem/fid7.i/122809dr/013f1301.d
Ccal Level: 5 , Ccal Amount: 1000		
28-DEC-2009 11:22	dro	/chem/fid7.i/122809dr/003f0301.d

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COMPOUND LISTING

Method file : /chem/fid7.i/122809dr/FID7a.i_b_DRO_121309.m
Quant Method : ESTD Target Version : 3.50
Last Update : 29-Dec-2009 12:00 Number of Cpnds : 6
Data Type : GC DATA

Global Integrator : Falcon

Chromat Events	Values
Initial:Start Threshold	100.000000
Initial:End Threshold	50.000000
Initial:Area Threshold	100.000000
Initial:P-P Resolution	1.000000
Initial:Bunch Factor	11.000000
Initial:Negative Peaks	OFF
Initial:Tension	7.000000
5.000:Force Cluster ON	n/a
17.000:Force Cluster OFF	n/a
17.371:Tension	1.000000

	Compound	RT	RT Window	RF
	3 Decane (C10)	7.506	7.476-7.536	
S	1 Diesel Range Organics	12.668	7.480-17.855	1.342e+04
$	2 o-Terphenyl	13.596	13.566-13.626	2.636e+04
	4 Octacosane (C28)	17.822	17.792-17.852	
S	75 JP-4	6.750	3.500-10.000	
S	76 Motor oil	17.000	14.000-20.000	

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INITIAL CALIBRATION DATA

Start Cal Date : 13-DEC-2009 16:31
End Cal Date : 13-DEC-2009 18:58
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/fid7.i/122809dr/FID7a.i_b_DRO_121309.m
Cal Date : 29-Dec-2009 12:00 kev01577
Curve Type : Average

Calibration File Names:
Level 3: /chem/fid7.i/121309dr/003f0301.d
Level 4: /chem/fid7.i/121309dr/004f0401.d
Level 5: /chem/fid7.i/121309dr/005f0501.d
Level 6: /chem/fid7.i/121309dr/006f0601.d
Level 7: /chem/fid7.i/121309dr/007f0701.d

	Compound	200.000 Level 3	500.000 Level 4	1000.000 Level 5	2000.000 Level 6	5000.000 Level 7	RRF	% RSD
	3 Decane (C10)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
S	1 Diesel Range Organics	12370	13330	13518	14106	13763	13417	4.871
	4 Octacosane (C28)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
S	75 JP-4	+++++	+++++	+++++	+++++	+++++	+++++	+++++
S	76 Motor oil	+++++	+++++	+++++	+++++	+++++	+++++	+++++
$	2 o-Terphenyl	24795	27259	25475	26481	27813	26365	4.710

FORM 7
SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-852

Instrument ID: FID7 Calibration Date: 12/28/09 Time: 1122

Lab File ID: 003F0301 Init. Calib. Date(s): 12/13/09 12/13/09

Init. Calib. Times: 1631 1858

GC Column: DB-5MS ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Diesel Range Organics	13417.204	12858.132	0.01	-4.2	15.0
o-Terphenyl	26364.536	22933.123	0.01	-13.0	15.0

FORM VII SV

FORM 7
SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-852

Instrument ID: FID7 Calibration Date: 12/28/09 Time: 1732

Lab File ID: 013F1301 Init. Calib. Date(s): 12/13/09 12/13/09

Init. Calib. Times: 1631 1858

GC Column: DB-5MS ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Diesel Range Organics	13417.204	13374.593	0.01	-0.3	15.0
o-Terphenyl	26364.536	23929.670	0.01	-9.2	15.0

FORM VII SV

FORM 7
SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-852

Instrument ID: FID7 Calibration Date: 12/28/09 Time: 2339

Lab File ID: 023F2301 Init. Calib. Date(s): 12/13/09 12/13/09

Init. Calib. Times: 1631 1858

GC Column: DB-5MS ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Diesel Range Organics	13417.204	13888.957	0.01	3.5	15.0
o-Terphenyl	26364.536	22626.341	0.01	-14.2	15.0

FORM VII SV

FORM 7
SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-852

Instrument ID: FID7 Calibration Date: 12/29/09 Time: 0545

Lab File ID: 033F3301 Init. Calib. Date(s): 12/13/09 12/13/09

Init. Calib. Times: 1631 1858

GC Column: DB-5MS ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Diesel Range Organics	13417.204	14305.602	0.01	6.6	15.0
o-Terphenyl	26364.536	25797.594	0.01	-2.2	15.0

FORM VII SV

GEL Laboratories LLC

DB-5MS .25mm

Data file : /chem/fid7.i/122809dr/003f0301.d
Lab Smp Id: UFI091203-02 D1 Client Smp ID: DSTD01
Inj Date : 28-DEC-2009 11:22
Operator : KXR2 Inst ID: fid7.i
Smp Info : |UFI091203-02 D1
Misc Info :
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fid7.i/122809dr/FID7a.i_b_DRO_121309.m
Meth Date : 29-Dec-2009 12:00 kev01577 Quant Type: ESTD
Cal Date : 13-DEC-2009 18:58 Cal File: 007f0701.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: dro.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (mg/L)	AMOUNTS ON-COL (mg/L)
$ 1 Diesel Range Organics					CAS #:
7.480- 17.855			12858132	1000.00	958
$ 2 o-Terphenyl					CAS #: 84-15-1
13.596	13.596	0.000	573328	25.0000	21.7

Data File: /ohem/fid7.i/122809dr/003f0301.d
Date : 28-DEC-2009 11:22
Client ID: DSTD01
Sample Info: IUFI091203-02 D1

Column phase: DB-5MS

Instrument: fid7.i

Operator: KXR2
Column diameter: 0.25

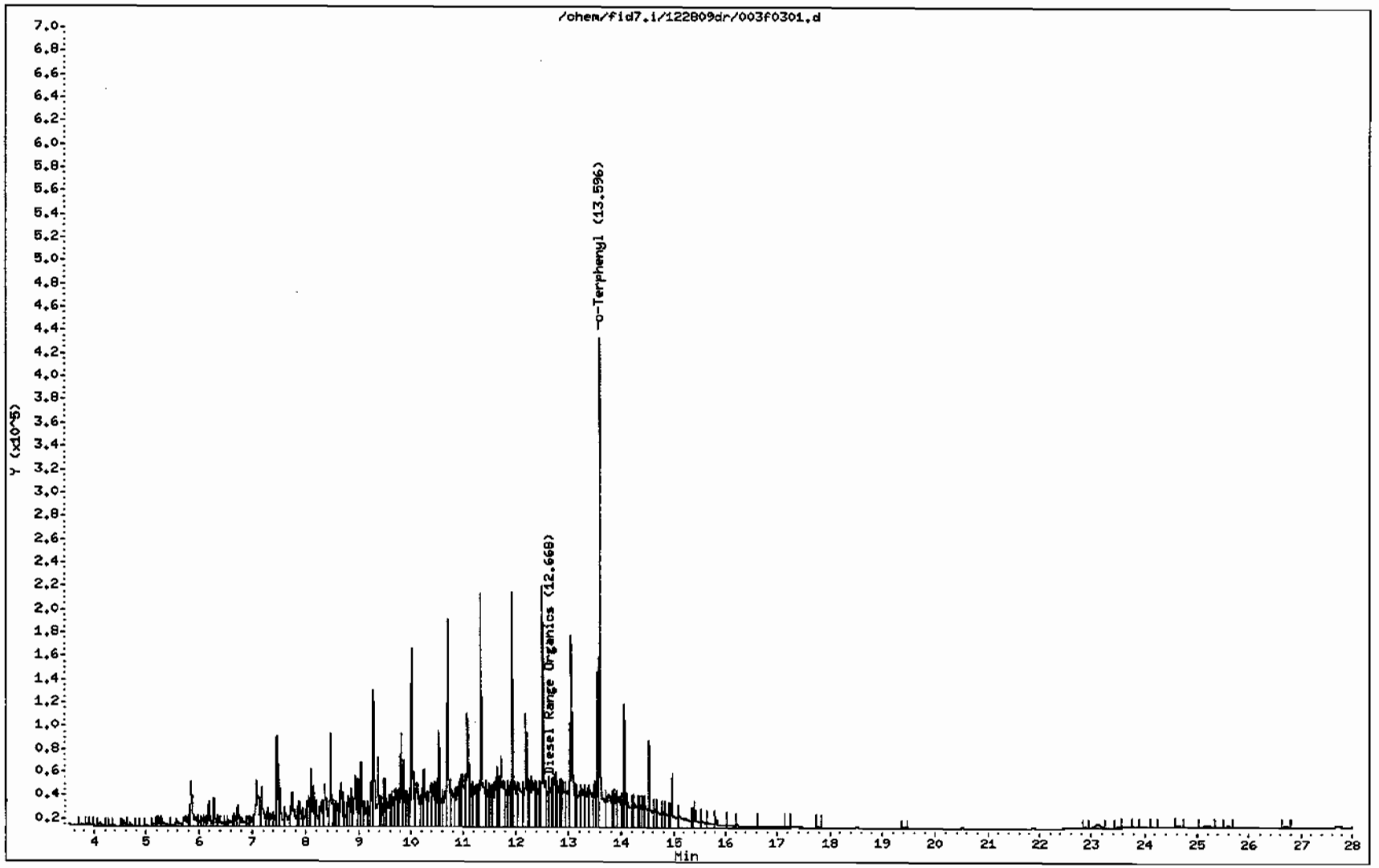

GEL Laboratories LLC

DB-5MS .25mm

Data file : /chem/fid7.i/122809dr/013f1301.d
Lab Smp Id: UFI091203-02 D2 Client Smp ID: DSTD02
Inj Date : 28-DEC-2009 17:32
Operator : KXR2 Inst ID: fid7.i
Smp Info : |UFI091203-02 D2
Misc Info :
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fid7.i/122809dr/FID7a.i_b_DRO_121309.m
Meth Date : 29-Dec-2009 12:00 kev01577 Quant Type: ESTD
Cal Date : 13-DEC-2009 18:58 Cal File: 007f0701.d
Als bottle: 13 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: dro.sub
Target Version: 3.50 Sample Matrix: None

	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (mg/L)	ON-COL (mg/L)
S 1 Diesel Range Organics						CAS #:
	7.480- 17.855			13374592	1000.00	997
$ 2 o-Terphenyl						CAS #: 84-15-1
	13.595	13.596	-0.001	598241	25.0000	22.7

Data File: /chem/fid7.i/122809dr/013f1301.d
Date : 28-DEC-2009 17:32
Client ID: DSTD02
Sample Info: IUFI091203-02 D2

Column phase: DB-5MS

Instrument: fid7.i

Operator: KXR2
Column diameter: 0.25

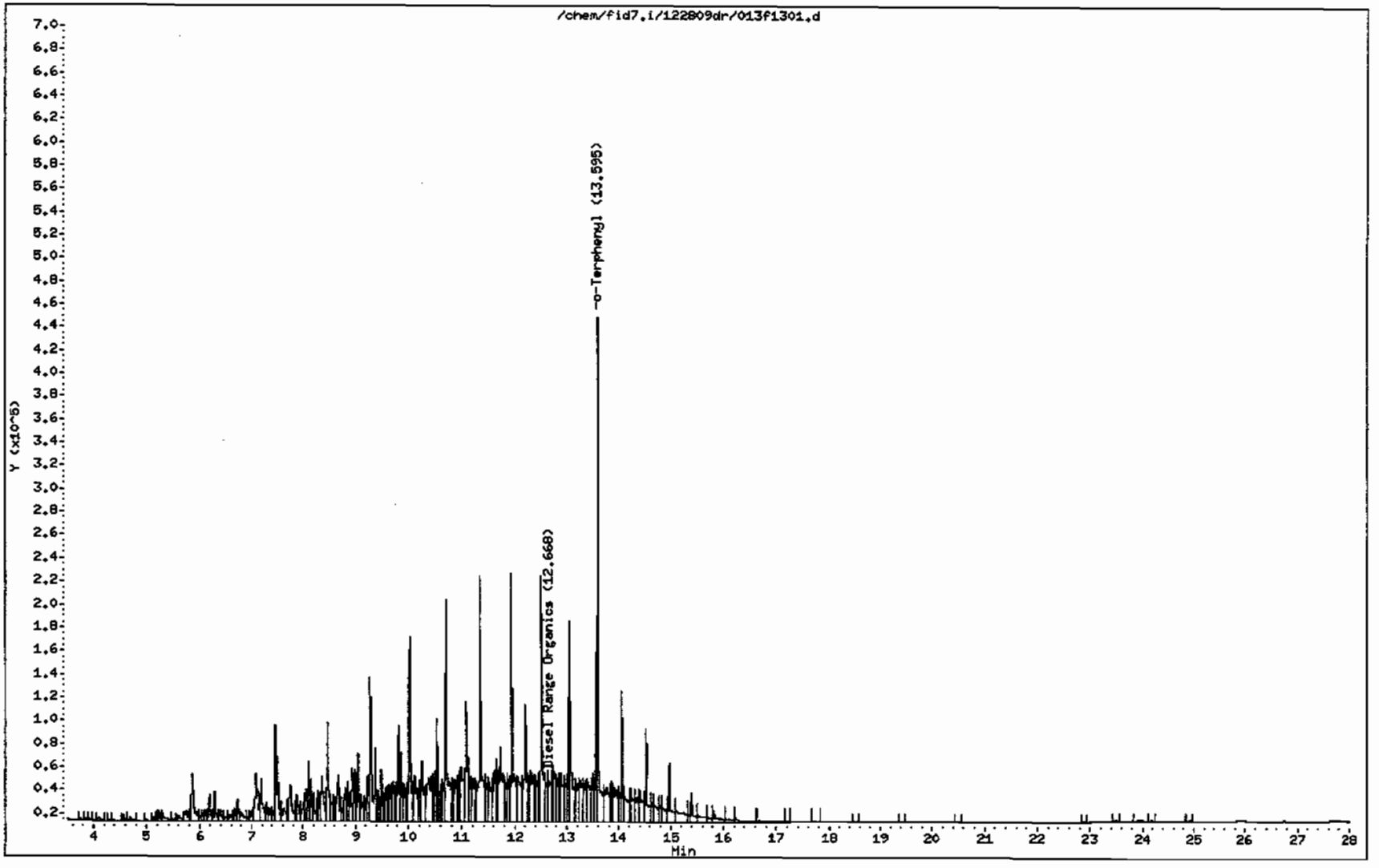

GEL Laboratories LLC

DB-5MS .25mm

Data file : /chem/fid7.i/122809dr/023f2301.d
Lab Smp Id: UFI091203-02 D3 Client Smp ID: DSTD03
Inj Date : 28-DEC-2009 23:39
Operator : KXR2 Inst ID: fid7.i
Smp Info : |UFI091203-02 D3
Misc Info :
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fid7.i/122809dr/FID7a.i_b_DRO_121309.m
Meth Date : 29-Dec-2009 12:00 kev01577 Quant Type: ESTD
Cal Date : 13-DEC-2009 18:58 Cal File: 007f0701.d
Als bottle: 23 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: dro.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (mg/L)	AMOUNTS ON-COL (mg/L)
$ 1 Diesel Range Organics					CAS #:
7.480- 17.855			13888957	1000.00	1040
$ 2 o-Terphenyl					CAS #: 84-15-1
13.597	13.596	0.001	565658	25.0000	21.4

Data File: /chem/fid7.i/122809dr/023f2301.d
Date : 28-DEC-2009 23:39
Client ID: DSTD03
Sample Info: IUFI091203-02 D3

Column phase: DB-5MS

Instrument: fid7.i

Operator: KXR2
Column diameter: 0.25

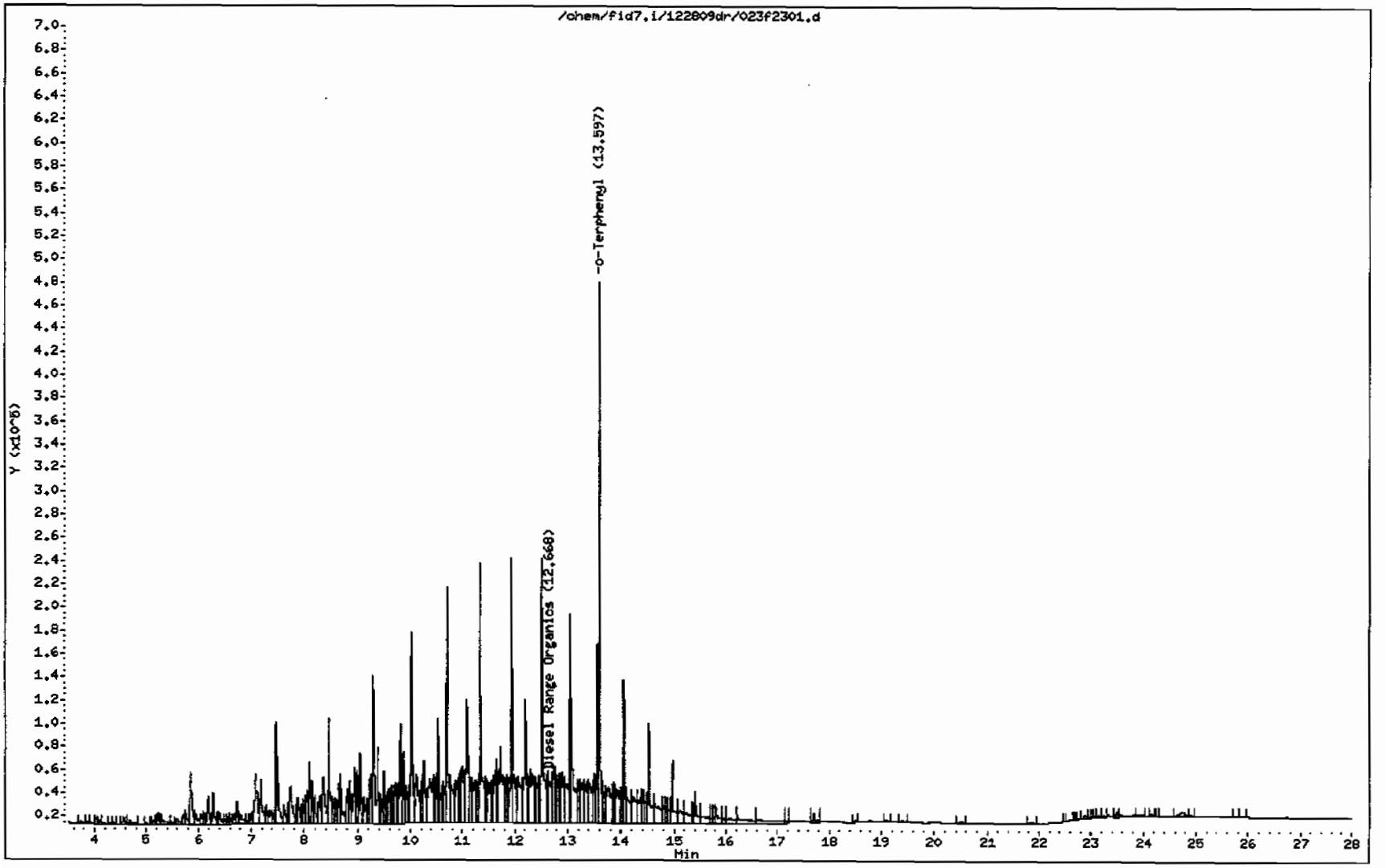

GEL Laboratories LLC

DB-5MS .25mm

Data file : /chem/fid7.i/122809dr/033f3301.d
Lab Smp Id: UFI091203-02 D4 Client Smp ID: DSTD04
Inj Date : 29-DEC-2009 05:45
Operator : KXR2 Inst ID: fid7.i
Smp Info : |UFI091203-02 D4
Misc Info :
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fid7.i/122809dr/FID7a.i_b_DRO_121309.m
Meth Date : 29-Dec-2009 12:00 kev01577 Quant Type: ESTD
Cal Date : 13-DEC-2009 18:58 Cal File: 007f0701.d
Als bottle: 33 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: dro.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (mg/L)	ON-COL (mg/L)
$ 1 Diesel Range Organics					CAS #:
7.480- 17.855			14305602	1000.00	1070
$ 2 o-Terphenyl					CAS #: 84-15-1
13.596	13.596	0.000	644939	25.0000	24.5

Data File: /chem/fid7.i/122809dr/033f3301.d
Date : 29-DEC-2009 05:45
Client ID: DSTD04
Sample Info: IUFI091203-02 D4

Column phase: DB-5MS

Instrument: fid7.i

Operator: KXR2
Column diameter: 0.25

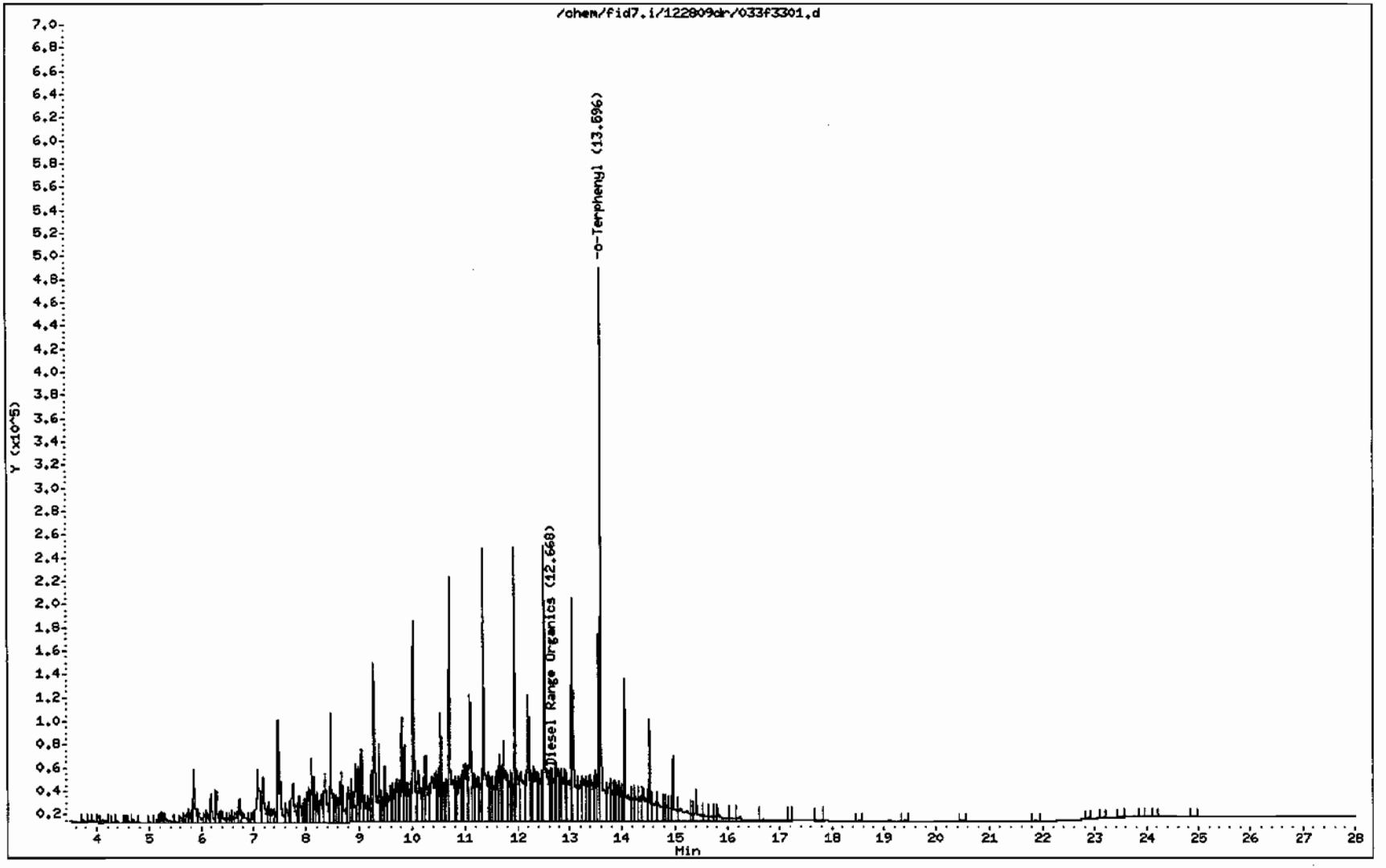

8D
DRO ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-852

GC Column: DB-5MS ID: 0.25 (mm) Init. Calib. Date(s): 12/13/09 12/13/09

Instrument ID: FID7

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 13.60

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	RT
01	DIBLK01	WFI091130-06	12/13/09	1516	13.59	
02	RTMARKER	UFI091013-03	12/13/09	1553		
03	CSTD01	UFI090827-10	12/13/09	1631	13.59	
04	CSTD02	UFI090827-11	12/13/09	1707	13.59	
05	CSTD03	UFI090827-12	12/13/09	1745	13.60	
06	CSTD04	UFI090827-13	12/13/09	1822	13.61	
07	CSTD05	UFI090827-14	12/13/09	1858	13.62	
08	DSTD01	WFI090928-01	12/13/09	1936	13.60	
09	DIBLK02	WFI091130-06	12/13/09	2012	13.59	
10	ZZZZZ	ZZZZZ	12/13/09	2049	13.59	
11	ZZZZZ	ZZZZZ	12/13/09	2126	13.59	
12	ZZZZZ	ZZZZZ	12/13/09	2203	13.59	
13	ZZZZZ	ZZZZZ	12/13/09	2240	13.59	
14	ZZZZZ	ZZZZZ	12/13/09	2318	13.60	
15	ZZZZZ	ZZZZZ	12/13/09	2354	13.59	
16	ZZZZZ	ZZZZZ	12/14/09	0032	13.59	
17	ZZZZZ	ZZZZZ	12/14/09	0109	13.59	
18	ZZZZZ	ZZZZZ	12/14/09	0146	13.59	
19	ZZZZZ	ZZZZZ	12/14/09	0223	13.59	
20	DSTD02	UFI091118-02	12/14/09	0300	13.60	
21	DIBLK03	WFI091130-06	12/14/09	0337	13.60	
22	ZZZZZ	ZZZZZ	12/14/09	0413	13.59	
23	ZZZZZ	ZZZZZ	12/14/09	0450	13.59	
24	ZZZZZ	ZZZZZ	12/14/09	0527	13.59	
25	ZZZZZ	ZZZZZ	12/14/09	0604	13.59	
26	ZZZZZ	ZZZZZ	12/14/09	0641	13.59	
27	ZZZZZ	ZZZZZ	12/14/09	0718	13.59	
28	ZZZZZ	ZZZZZ	12/14/09	0755	13.59	
29	ZZZZZ	ZZZZZ	12/14/09	0832	13.59	
30	ZZZZZ	ZZZZZ	12/14/09	0909	13.59	
31	DSTD03	UFI091118-02	12/14/09	0946	13.60	
32	DIBLK04	WFI091130-06	12/14/09	1023	13.60	

S1 = o-Terphenyl QC LIMITS (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
DRO ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-852

GC Column: DB-5MS ID: 0.25 (mm) Init. Calib. Date(s): 12/13/09 12/13/09

Instrument ID: FID7

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 13.60

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	RT
01	DIBLK01	WFI091130-06	12/28/09	1008	13.59	
02	RTMARKER	UFI091013-03	12/28/09	1045		
03	DSTD01	UFI091203-02	12/28/09	1122	13.60	
04	DIBLK02	WFI091130-06	12/28/09	1159	13.59	
05	DBLK01	1202000394	12/28/09	1236	13.59	
06	DBLK01LCS	1202000395	12/28/09	1313	13.59	
07	RE03-09-14224	242654001	12/28/09	1350	13.59	
08	RE03-09-14224MS	1202000396	12/28/09	1428	13.59	
09	RE03-09-14224MSD	1202000397	12/28/09	1504	13.59	
10	RE03-09-14227	242654002	12/28/09	1541	13.59	
11	RE03-09-14225	242654003	12/28/09	1618	13.59	
12	RE03-09-14226	242654004	12/28/09	1655	13.59	
13	DSTD02	UFI091203-02	12/28/09	1732	13.60	
14	DIBLK03	WFI091130-06	12/28/09	1808	13.59	
15	RE03-09-14288	242654005	12/28/09	1845	13.59	
16	RE03-09-14287	242654006	12/28/09	1921	13.59	
17	RE03-09-14267	242654007	12/28/09	1958	13.59	
18	RE03-09-14265	242654008	12/28/09	2035	13.59	
19	RE03-09-14281	242654009	12/28/09	2112	13.59	
20	RE03-09-14284	242654010	12/28/09	2148	13.59	
21	RE03-09-14274	242654011	12/28/09	2225	13.59	
22	RE03-09-14277	242654012	12/28/09	2302	13.59	
23	DSTD03	UFI091203-02	12/28/09	2339	13.60	
24	DIBLK04	WFI091130-06	12/29/09	0015	13.59	
25	RE03-09-14282	242654013	12/29/09	0052	13.59	
26	RE03-09-14269	242654014	12/29/09	0128	13.56*	
27	RE03-09-14273	242654015	12/29/09	0205	13.59	
28	RE03-09-14271	242654016	12/29/09	0242	13.56*	
29	RE03-09-14278	242654017	12/29/09	0319	13.59	
30	RE03-09-14285	242654018	12/29/09	0355	13.59	
31	RE03-09-14286	242654019	12/29/09	0432	13.59	
32	RE03-09-14283	242654020	12/29/09	0509	13.59	

S1 = o-Terphenyl QC LIMITS (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

8D
DRO ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-852

GC Column: DB-5MS ID: 0.25 (mm) Init. Calib. Date(s): 12/13/09 12/13/09

Instrument ID: FID7

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 13.60

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	RT
01	DSTD04	UFI091203-02	12/29/09	0545	13.60	
02	DIBLK05	WFI091130-06	12/29/09	0622	13.59	
03	ZZZZZ	ZZZZZ	12/29/09	0659	13.59	
04	ZZZZZ	ZZZZZ	12/29/09	0735	13.59	
05	ZZZZZ	ZZZZZ	12/29/09	0812	13.62	
06	ZZZZZ	ZZZZZ	12/29/09	0848		
07	ZZZZZ	ZZZZZ	12/29/09	0925	13.59	
08	ZZZZZ	ZZZZZ	12/29/09	1002	13.59	
09	ZZZZZ	ZZZZZ	12/29/09	1039	13.59	
10	DSTD05	UFI091203-02	12/29/09	1116	13.60	
11	DIBLK06	WFI091130-06	12/29/09	1153	13.59	
12	ZZZZZ	ZZZZZ	12/29/09	1245	13.57	
13	ZZZZZ	ZZZZZ	12/29/09	1322		
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						
31						
32						

S1 = o-Terphenyl

QC LIMITS
(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

QUALITY CONTROL DATA

Flame Ionization Detector
Certificate of Analysis
Sample Summary

SDG Number:	10-852			Matrix:	SOIL
Lab Sample ID:	1202000394				
Client Sample:	QC for batch 934965	Client:	LANL010	Project:	QC
Client ID:	MB for batch 934965	Method:	SW846 8015A/B SVOC	SOP Ref:	GL-OA-E-003
Batch ID:	934967	Inst:	FID7.I	Dilution:	1
Run Date:	12/28/2009 12:36	Analyst:	KXR2	Inj. Vol:	1 uL
Prep Date:	12/21/2009 10:03	Aliquot:	30 g	Final Volume:	1 mL
Data File:	005f0501.d	Column:	DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics	U	6.67	mg/kg	2.17	6.67

GEL Laboratories LLC

DB-5MS .25mm

Data file : /chem/fid7.i/122809dr/005f0501.d
Lab Smp Id: 1202000394 Client Smp ID: DBLK01
Inj Date : 28-DEC-2009 12:36
Operator : KXR2 Inst ID: fid7.i
Smp Info : |1202000394|1|
Misc Info : |FIDDRO_S|934967|FID|MB|
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fid7.i/122809dr/FID7a.i_b_DRO_121309.m
Meth Date : 29-Dec-2009 12:00 kev01577 Quant Type: ESTD
Cal Date : 13-DEC-2009 18:58 Cal File: 007f0701.d
Als bottle: 5 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-852.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weigth of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (mg/L)	FINAL (mg/Kg)
$ 2 o-Terphenyl					CAS #: 84-15-1
13.591	13.596	-0.005	224727	8.52386	0.28

Data File: /chem/fid7.i/122809dr/005f0501.d
Date : 28-DEC-2009 12:36
Client ID: DBLK01
Sample Info: |12020003941|1|
Volume Injected (uL): 1.0
Column phase: DB-5MS

Instrument: fid7.i
Operator: KXR2
Column diameter: 0.25

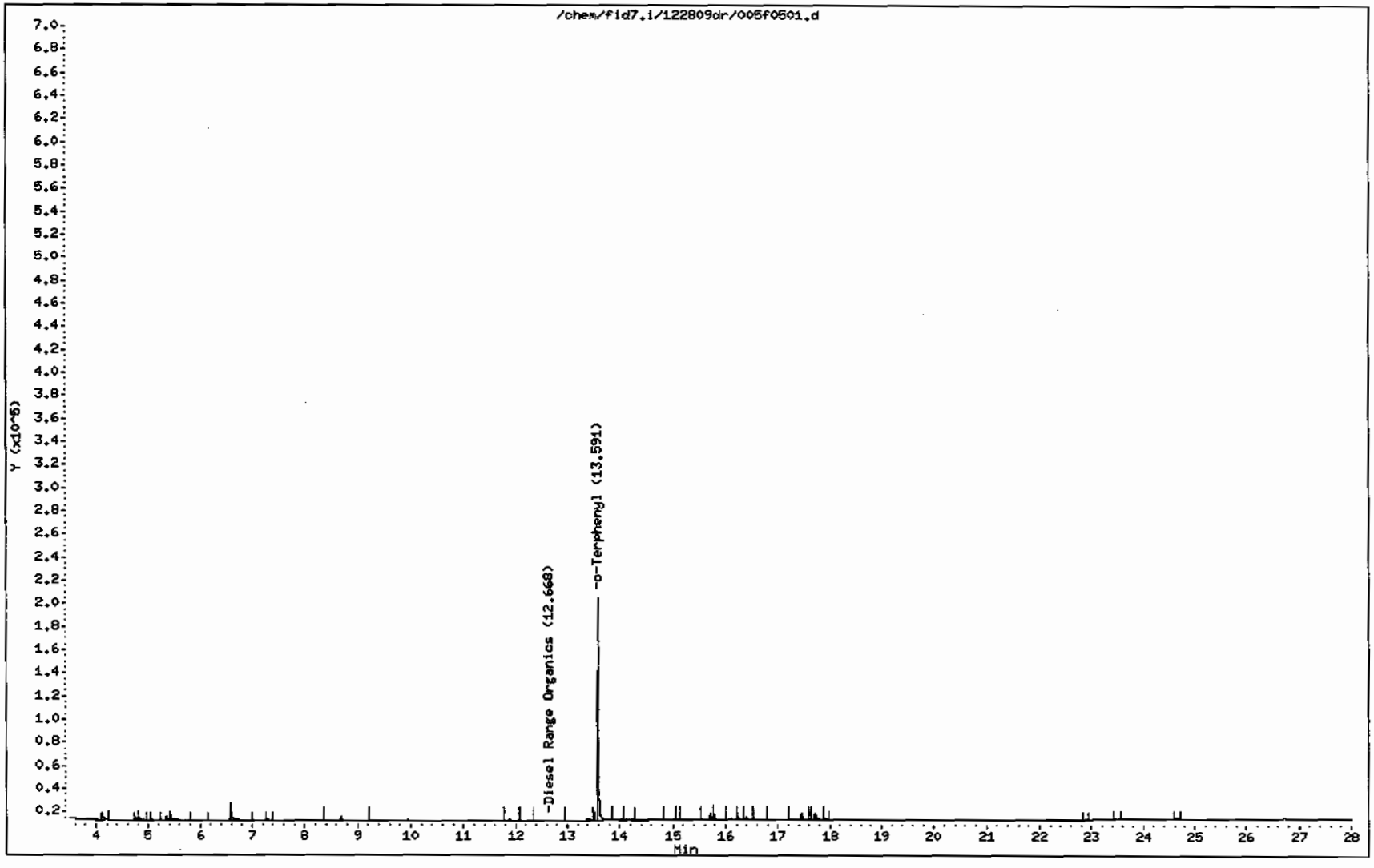

Flame Ionization Detector
Certificate of Analysis
Sample Summary

SDG Number:	**10-852**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202000395**				
Client Sample:	**QC for batch 934965**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 934965**	**Method:**	**SW846 8015A/B SVOC**	**SOP Ref:**	**GL-OA-E-003**
Batch ID:	**934967**	**Inst:**	**FID7.I**	**Dilution:**	**1**
Run Date:	**12/28/2009 13:13**	**Analyst:**	**KXR2**	**Inj. Vol:**	**1 uL**
Prep Date:	**12/21/2009 10:03**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**006f0601.d**	**Column:**	**DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics		22.2	mg/kg	2.17	6.67

GEL Laboratories LLC

DB-5MS .25mm

Data file : /chem/fid7.i/122809dr/006f0601.d
Lab Smp Id: 1202000395 Client Smp ID: DBLK01LCS
Inj Date : 28-DEC-2009 13:13
Operator : KXR2 Inst ID: fid7.i
Smp Info : |1202000395|1|
Misc Info : |FIDDRO_S|934967|FID|LCS|
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fid7.i/122809dr/FID7a.i_b_DRO_121309.m
Meth Date : 29-Dec-2009 12:00 kev01577 Quant Type: ESTD
Cal Date : 13-DEC-2009 18:58 Cal File: 007f0701.d
Als bottle: 6 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-852.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weigth of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (mg/L)	FINAL (mg/Kg)
S	1 Diesel Range Organics					CAS #:
	7.480- 17.855			8940265	666.329	22.2
$	2 o-Terphenyl					CAS #: 84-15-1
	13.592	13.596	-0.004	391002	14.8306	0.49

Data File: /chem/fid7.i/122809dr/006f0601.d

Page 1

Date : 28-DEC-2009 13:13

Client ID: DBLK01LCS

Instrument: fid7.i

Sample Info: |1202000395|1|

Volume Injected (uL): 1.0

Operator: KXR2

Column phase: DB-5MS

Column diameter: 0.25

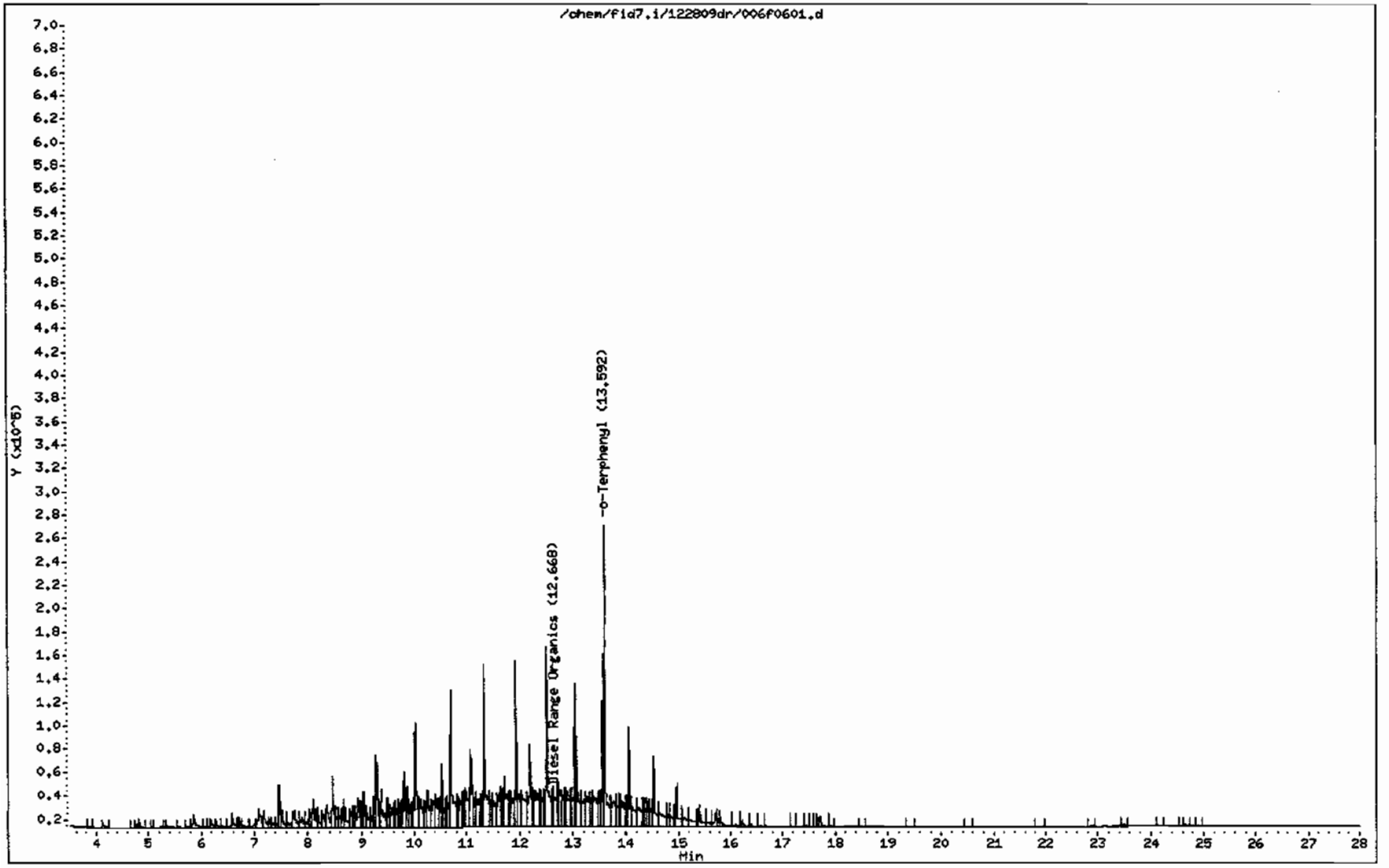

Flame Ionization Detector
Certificate of Analysis
Sample Summary

SDG Number:	10-852	Date Collected:	12/07/2009 12:00	Matrix:	S
Lab Sample ID:	1202000396	Date Received:	12/10/2009 08:50	%Moisture:	14.6
Client Sample:	QC for batch 934965	Client:	LANL010	Project:	QC
Client ID:	RE03-09-14224MS	Method:	SW846 8015A/B SVOC	SOP Ref:	GL-OA-E-003
Batch ID:	934967	Inst:	FID7.I	Dilution:	1
Run Date:	12/28/2009 14:28	Analyst:	KXR2	Inj. Vol:	1 uL
Prep Date:	12/21/2009 10:03	Aliquot:	30 g	Final Volume:	1 mL
Data File:	008f0801.d	Column:	DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics		19.5	mg/kg	2.54	7.80

GEL Laboratories LLC

DB-5MS .25mm

Data file : /chem/fid7.i/122809dr/008f0801.d
Lab Smp Id: 1202000396 Client Smp ID: RE03-09-14224MS
Inj Date : 28-DEC-2009 14:28
Operator : KXR2 Inst ID: fid7.i
Smp Info : |1202000396|1|
Misc Info : |FIDDRO_S|934967|FID|MS|
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fid7.i/122809dr/FID7a.i_b_DRO_121309.m
Meth Date : 29-Dec-2009 12:00 kev01577 Quant Type: ESTD
Cal Date : 13-DEC-2009 18:58 Cal File: 007f0701.d
Als bottle: 8 QC Sample: MS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-852.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weigth of sample extracted (g)
M	14.56650	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (mg/L)	FINAL (mg/Kg)	
S 1 Diesel Range Organics					CAS #:	
7.480- 17.855			6711920	500.247	19.5	
$ 2 o-Terphenyl					CAS #: 84-15-1	
13.590	13.596	-0.006	219811	8.33739	0.32	(M)

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/fid7.i/122809dr/008f0801.d
Date : 28-DEC-2009 14:28
Client ID: RE03-09-14224MS
Sample Info: |12020003961|1|
Volume Injected (uL): 1.0
Column phase: DB-5MS

Instrument: fid7.i

Operator: KXR2
Column diameter: 0.25

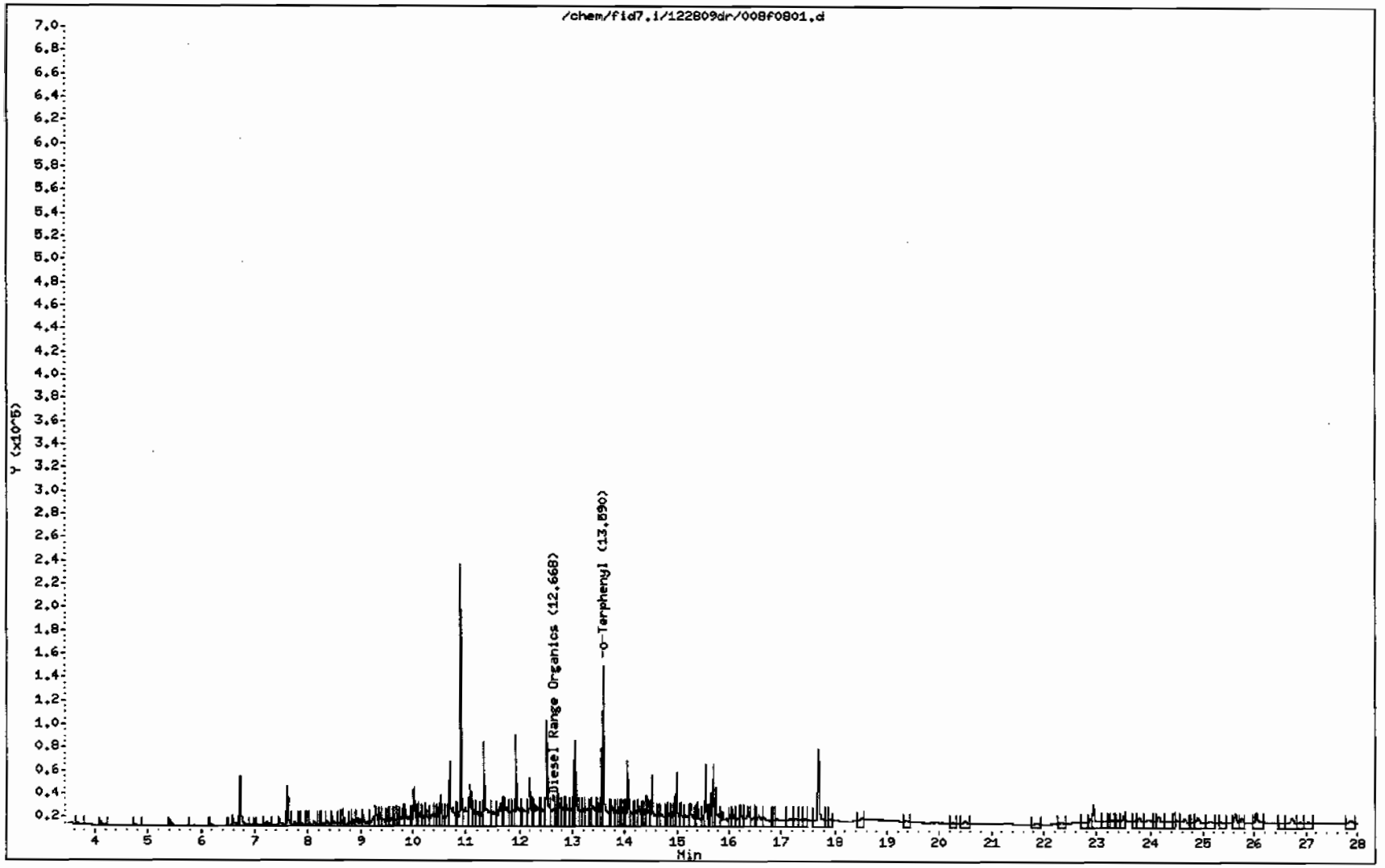

Data File: /chem/fid7.i/122809dr/008f0801.d
Injection Date: 28-DEC-2009 14:28
Instrument: fid7.i
Client Sample ID: RE03-09-14224MS

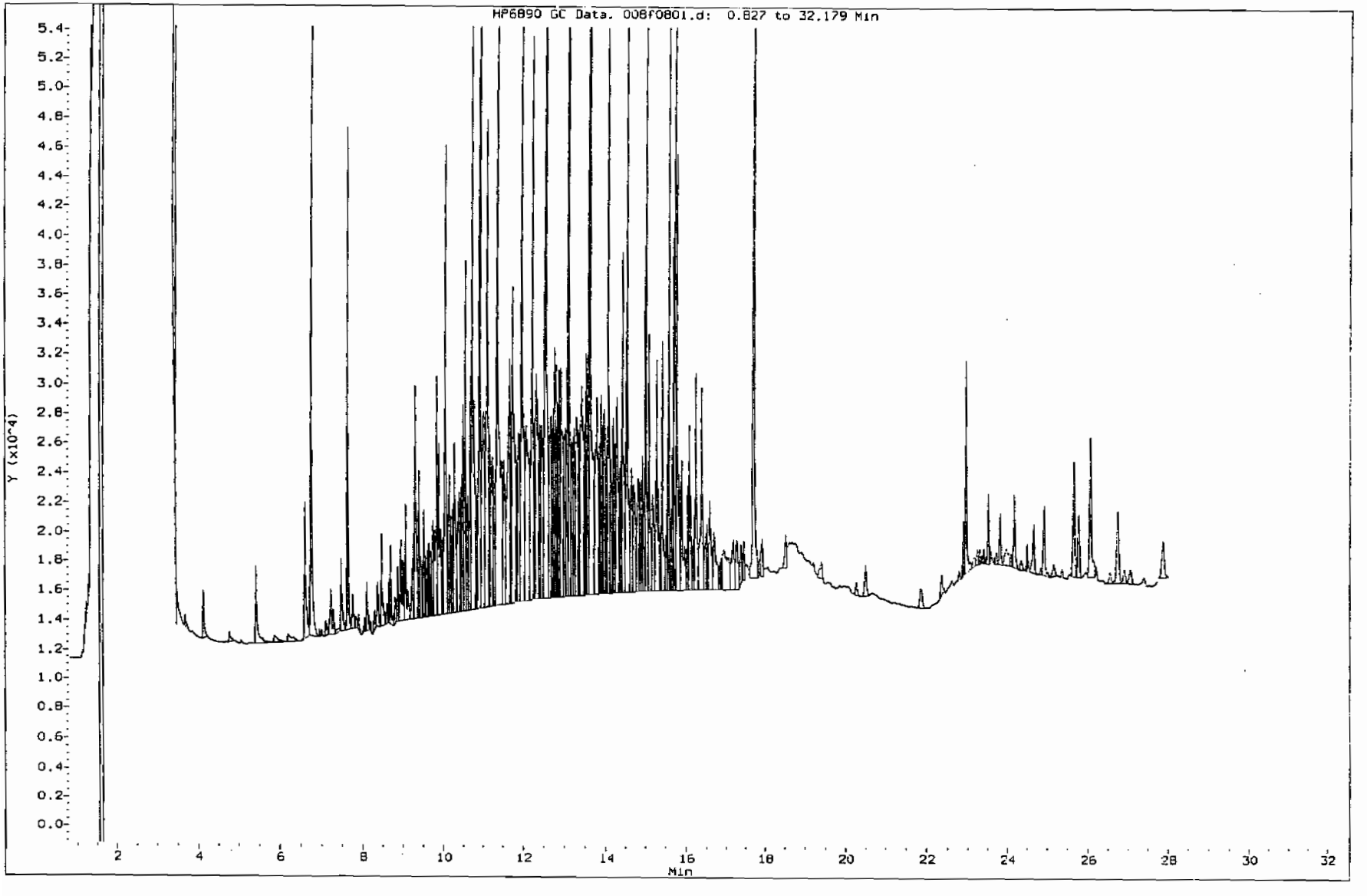

Data File: /chem/fid7.i/122809dr/008f0801.d
Injection Date: 28-DEC-2009 14:28
Instrument: fid7.i
Client Sample ID: RE03-09-14224MS

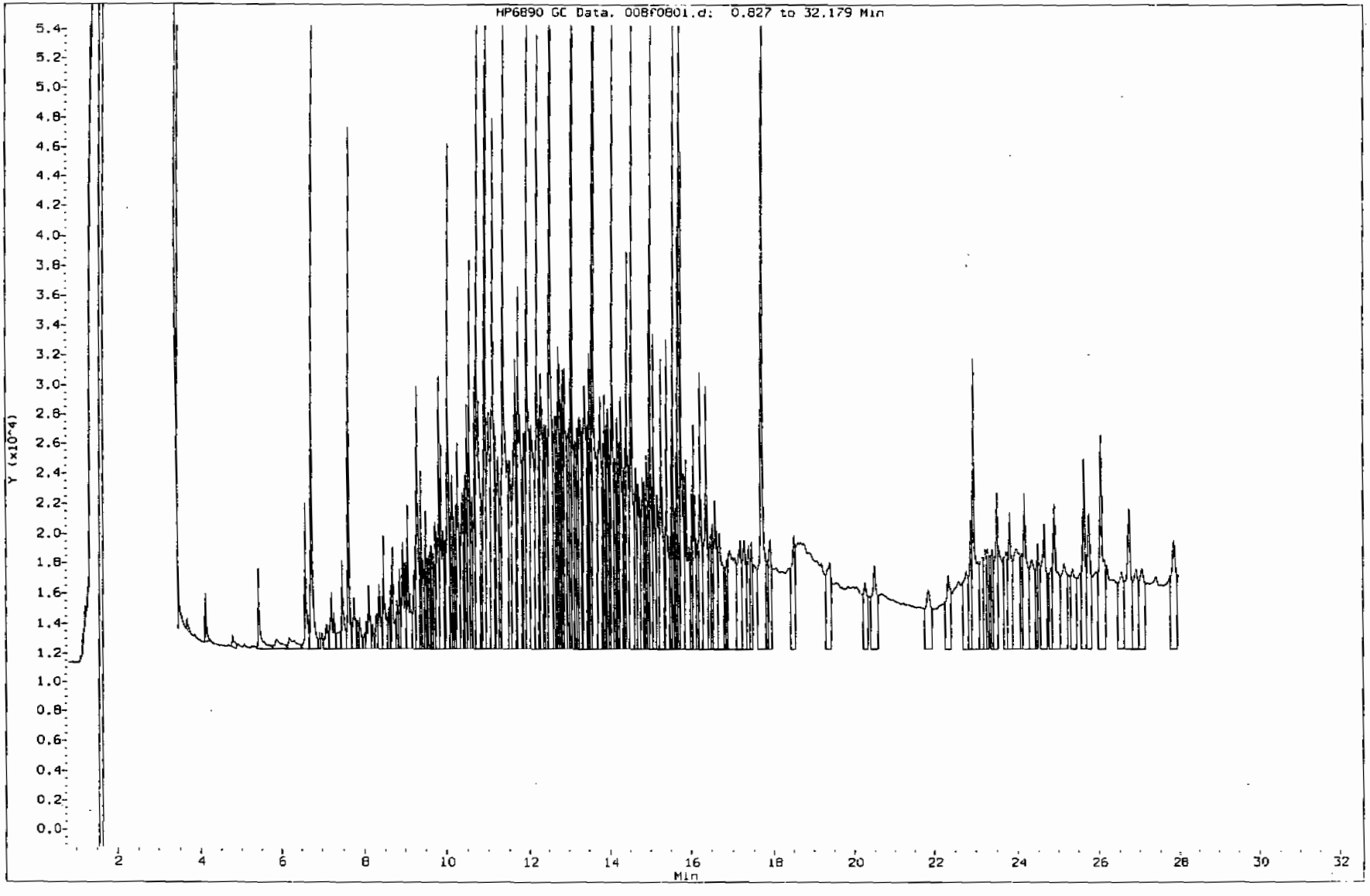

Flame Ionization Detector
Certificate of Analysis
Sample Summary

SDG Number:	10-852	Date Collected:	12/07/2009 12:00	Matrix:	S
Lab Sample ID:	1202000397	Date Received:	12/10/2009 08:50	%Moisture:	14.6
Client Sample:	QC for batch 934965	Client:	LANL010	Project:	QC
Client ID:	RE03-09-14224MSD	Method:	SW846 8015A/B SVOC	SOP Ref:	GL-OA-E-003
Batch ID:	934967	Inst:	FID7.I	Dilution:	1
Run Date:	12/28/2009 15:04	Analyst:	KXR2	Inj. Vol:	1 uL
Prep Date:	12/21/2009 10:03	Aliquot:	30 g	Final Volume:	1 mL
Data File:	009f0901.d	Column:	DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics		15.2	mg/kg	2.54	7.80

GEL Laboratories LLC

DB-5MS .25mm

Data file : /chem/fid7.i/122809dr/009f0901.d
Lab Smp Id: 1202000397 Client Smp ID: RE03-09-14224MSD
Inj Date : 28-DEC-2009 15:04
Operator : KXR2 Inst ID: fid7.i
Smp Info : |1202000397|1|
Misc Info : |FIDDRO_S|934967|FID|MSD|
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fid7.i/122809dr/FID7a.i_b_DRO_121309.m
Meth Date : 29-Dec-2009 12:00 kev01577 Quant Type: ESTD
Cal Date : 13-DEC-2009 18:58 Cal File: 007f0701.d
Als bottle: 9 QC Sample: MSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-852.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weigth of sample extracted (g)
M	14.56650	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (mg/L)	FINAL (mg/Kg)	
S 1 Diesel Range Organics					CAS #:	
7.480- 17.855			5231772	389.930	15.2	
$ 2 o-Terphenyl					CAS #: 84-15-1	
13.590	13.596	-0.006	182611	6.92639	0.27	(M)

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/fid7.i/122809dr/009f0901.d
Date : 28-DEC-2009 15:04
Client ID: RE03-09-14224MSD
Sample Info: |12020000397|1|
Volume Injected (uL): 1.0
Column phase: DB-5MS

Instrument: fid7.i

Operator: KXR2
Column diameter: 0.25

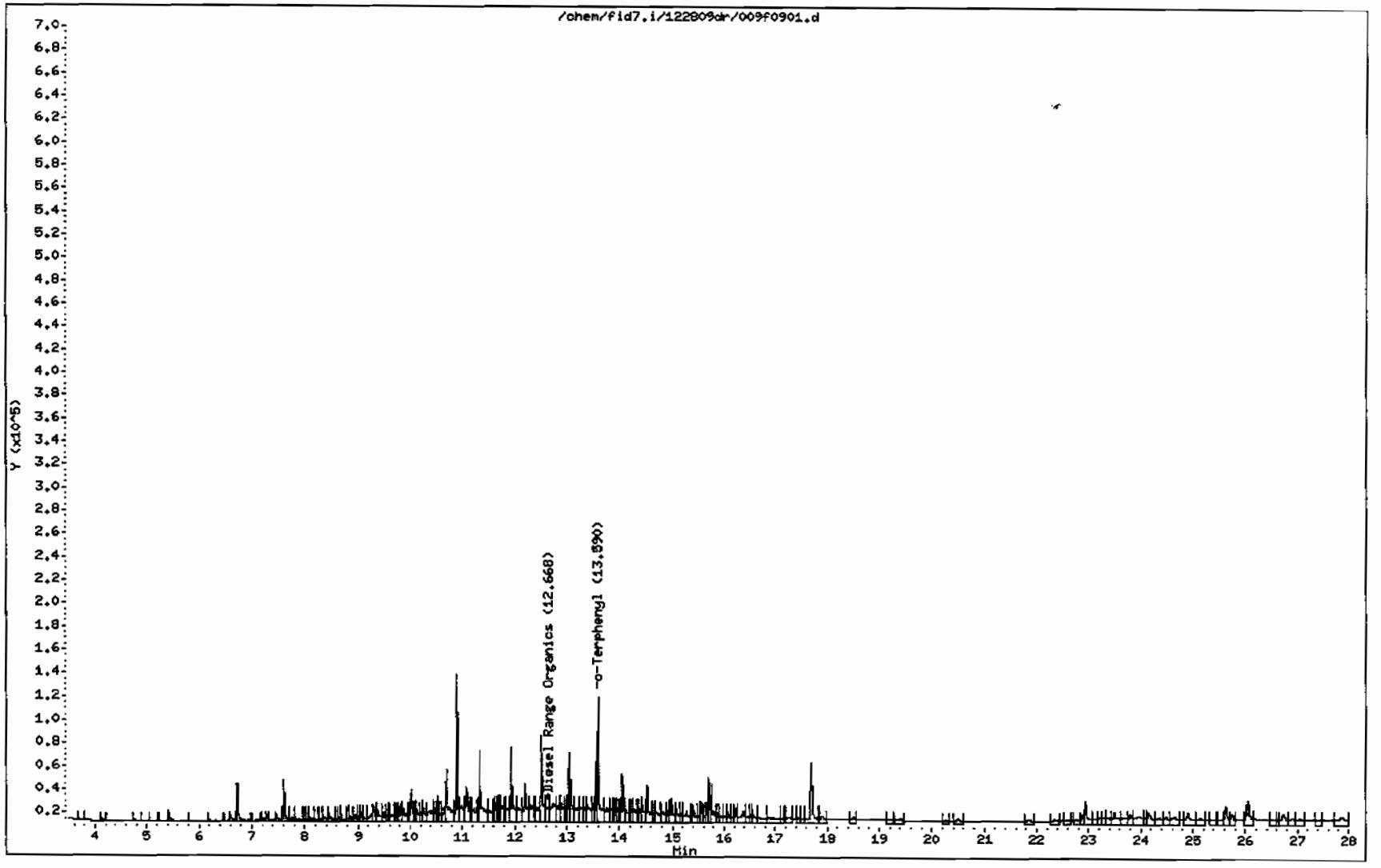

Data File: /chem/fid7.i/122809dr/009f0901.d
Injection Date: 28-DEC-2009 15:04
Instrument: fid7.i
Client Sample ID: RE03-09-14224MSD

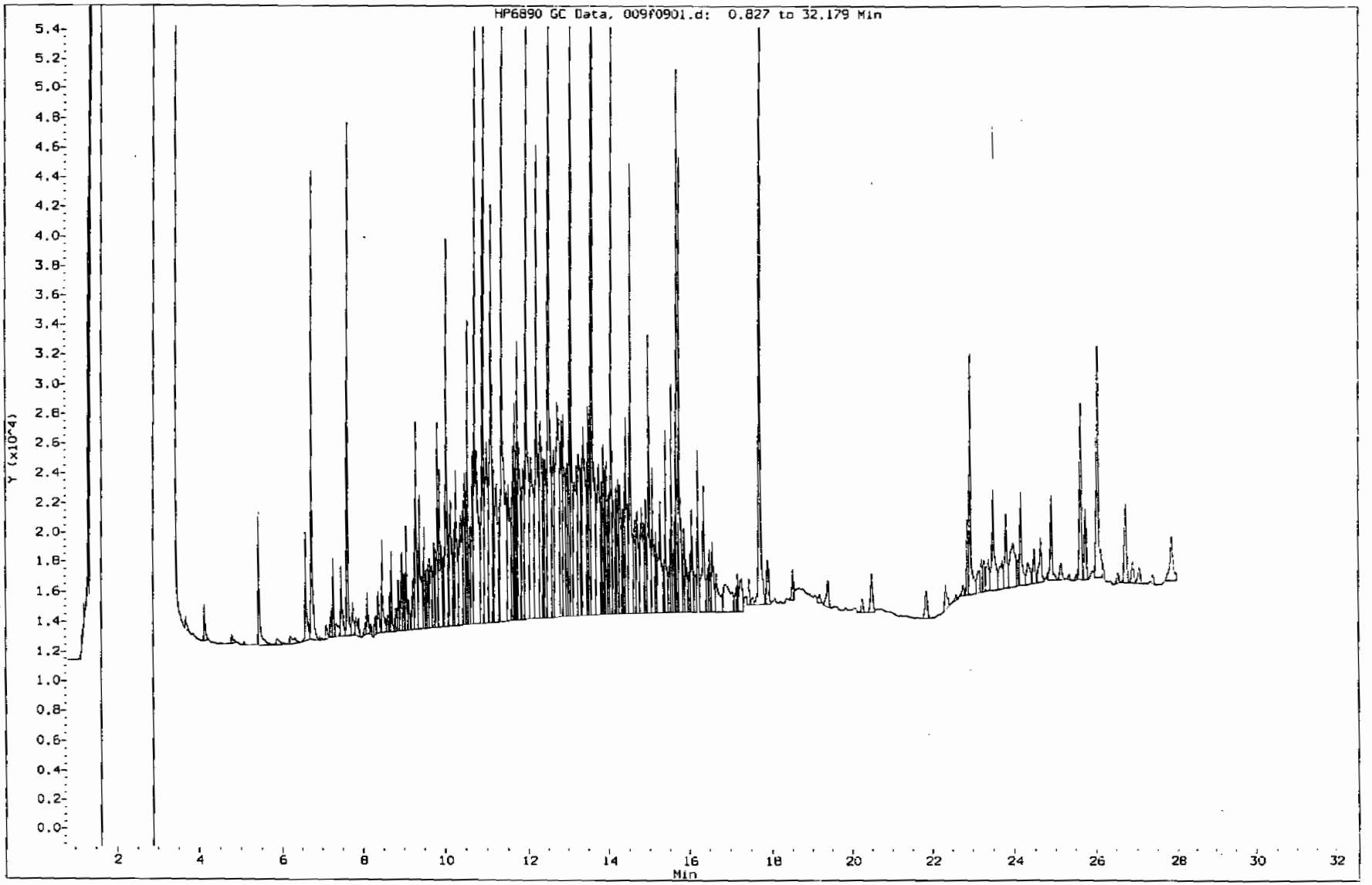

Data File: /chem/fid7.i/122809dr/009f0901.d
Injection Date: 28-DEC-2009 15:04
Instrument: fid7.i
Client Sample ID: RE03-09-14224MSD

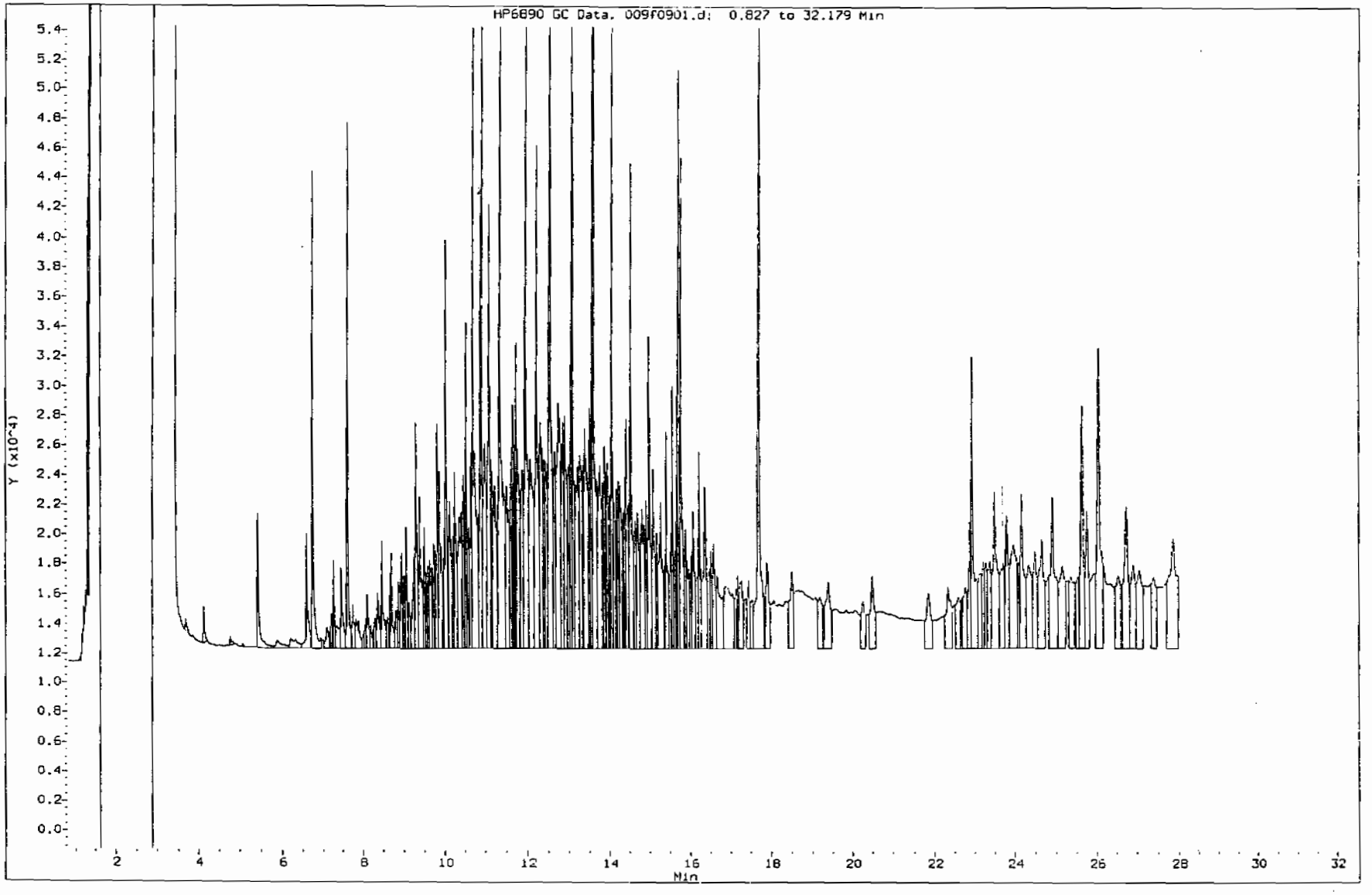

MISCELLANEOUS DATA

GEL ORGANIC RUN LOG INSTRUMENT ID: FID7.i

DATE: 12/14/2009 METHOD: FID7a.i_b_DRO_121309.m OPERATOR:KXR2 REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 16 on pg. 16 Solvent REMAT ID:CH2CL2

Calibration & QC Information
GC Column: DB-5MS 30m x 0.25mm x 0.25um
Initial Calibration Dates: See Calibration History and Standards Log
Initial Calibration Std ID's: See Calibration History and Standards Log
FID analysis of GEL SOP:GL-OA-E-003

Sequence Number:121309DR Injection Volume: 1.0 ul

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001f0101.d	WFI091130-06 B1	KXR2	13-DEC-2009 15:16		SDGa20942	1.0		CLEAN
002f0201.d	UFI091013-03 RT	KXR2	13-DEC-2009 15:53		SDGa20942	1.0		RTMARKER
003f0301.d	UFI090827-10 200	KXR2	13-DEC-2009 16:31		SDGa20942	1.0		CAL. LEVEL 1
004f0401.d	UFI090827-11 500	KXR2	13-DEC-2009 17:07		SDGa20942	1.0		CAL. LEVEL 2
005f0501.d	UFI090827-12 1000	KXR2	13-DEC-2009 17:45		SDGa20942	1.0		CAL. LEVEL 3
006f0601.d	UFI090827-13 2000	KXR2	13-DEC-2009 18:22		SDGa20942	1.0		CAL. LEVEL 4
007f0701.d	UFI090827-14 5000	KXR2	13-DEC-2009 18:58		SDGa20942	1.0		CAL. LEVEL 5
008f0801.d	WFI090928-01 D1	KXR2	13-DEC-2009 19:36		SDGa20942	1.0		PASSES
009f0901.d	WFI091130-06 B2	KXR2	13-DEC-2009 20:12		SDGa20942	1.0		CLEAN
010f1001.d	1201993826	KXR2	13-DEC-2009 20:49	932074	10-830	1.0	MB	USE
011f1101.d	1201993827	KXR2	13-DEC-2009 21:26	932074	10-830	1.0	LCS	USE
012f1201.d	242439002	KXR2	13-DEC-2009 22:03	932074	10-830	1.0	LANL	USE
013f1301.d	1201993828	KXR2	13-DEC-2009 22:40	932074	10-830	1.0	MS	USE
014f1401.d	1201993829	KXR2	13-DEC-2009 23:18	932074	10-830	1.0	MSD	USE
015f1501.d	242439003	KXR2	13-DEC-2009 23:54	932074	10-830	1.0	LANL	USE

Instrument Batch: /chem/fid7.i/121309dr Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
016f1601.d	242439004	KXR2	14-DEC-2009 00:32	932074	10-830	1.0	LANL	USE

017f1701.d	242439005	KXR2	14-DEC-2009 01:09	932074	10-830		5.0	LANL	USE
018f1801.d	242439006	KXR2	14-DEC-2009 01:46	932074	10-830		1.0	LANL	USE
019f1901.d	242439007	KXR2	14-DEC-2009 02:23	932074	10-830		1.0	LANL	USE
020f2001.d	UFI091118-02 D2	KXR2	14-DEC-2009 03:00		SDGa20942		1.0		PASSES
021f2101.d	WFI091130-06 B3	KXR2	14-DEC-2009 03:37		SDGa20942		1.0		CLEAN
022f2201.d	242439008	KXR2	14-DEC-2009 04:13	932074	10-830		1.0	LANL	USE
023f2301.d	242439009	KXR2	14-DEC-2009 04:50	932074	10-830		1.0	LANL	USE
024f2401.d	242439010	KXR2	14-DEC-2009 05:27	932074	10-830		1.0	LANL	USE
025f2501.d	242439011	KXR2	14-DEC-2009 06:04	932074	10-830		1.0	LANL	USE
026f2601.d	242439012	KXR2	14-DEC-2009 06:41	932074	10-830		1.0	LANL	USE
027f2701.d	242439013	KXR2	14-DEC-2009 07:18	932074	10-830		20.0	LANL	USE
028f2801.d	242439014	KXR2	14-DEC-2009 07:55	932074	10-830		1.0	LANL	USE
029f2901.d	242439015	KXR2	14-DEC-2009 08:32	932074	10-830		10.0	LANL	USE
030f3001.d	242439016	KXR2	14-DEC-2009 09:09	932074	10-830		1.0	LANL	USE
031f3101.d	UFI091118-02 D3	KXR2	14-DEC-2009 09:46		SDGa20942		1.0		PASSES
032f3201.d	WFI091130-06 B4	KXR2	14-DEC-2009 10:23		SDGa20942		1.0		CLEAN

GEL ORGANIC RUN LOG INSTRUMENT ID: FID7.i

DATE: 12/29/2009 METHOD: FID7a.i_b_DRO_121309.m OPERATOR:KXR2 REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 16 on pg. 16 Solvent REMAT ID:CH2CL2

Calibration & QC Information
GC Column: DB-5MS 30m x 0.25mm x 0.25um
Initial Calibration Dates: See Calibration History and Standards Log
Initial Calibration Std ID's: See Calibration History and Standards Log
FID analysis of GEL SOP:GL-OA-E-003

Sequence Number:122809DR Injection Volume: 1.0 ul

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001f0101.d	WFI091130-06 B1	KXR2	28-DEC-2009 10:08		SDGa23099	1.0		CLEAN
002f0201.d	UFI091013-03 RT	KXR2	28-DEC-2009 10:45		SDGa23099	1.0		RTMARKER
003f0301.d	UFI091203-02 D1	KXR2	28-DEC-2009 11:22		SDGa23099	1.0		PASSES
004f0401.d	WFI091130-06 B2	KXR2	28-DEC-2009 11:59		SDGa23099	1.0		CLEAN
005f0501.d	1202000394	KXR2	28-DEC-2009 12:36	934967	10-852	1.0	MB	USE
006f0601.d	1202000395	KXR2	28-DEC-2009 13:13	934967	10-852	1.0	LCS	USE
007f0701.d	242654001	KXR2	28-DEC-2009 13:50	934967	10-852	1.0	LANL	USE
008f0801.d	1202000396	KXR2	28-DEC-2009 14:28	934967	10-852	1.0	MS	USE
009f0901.d	1202000397	KXR2	28-DEC-2009 15:04	934967	10-852	1.0	MSD	USE
010f1001.d	242654002	KXR2	28-DEC-2009 15:41	934967	10-852	1.0	LANL	USE
011f1101.d	242654003	KXR2	28-DEC-2009 16:18	934967	10-852	1.0	LANL	USE
012f1201.d	242654004	KXR2	28-DEC-2009 16:55	934967	10-852	1.0	LANL	USE
013f1301.d	UFI091203-02 D2	KXR2	28-DEC-2009 17:32		SDGa23099	1.0		PASSES
014f1401.d	WFI091130-06 B3	KXR2	28-DEC-2009 18:08		SDGa23099	1.0		CLEAN
015f1501.d	242654005	KXR2	28-DEC-2009 18:45	934967	10-852	1.0	LANL	USE

Instrument Batch: /chem/fid7.i/122809dr Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
016f1601.d	242654006	KXR2	28-DEC-2009 19:21	934967	10-852	1.0	LANL	USE

017f1701.d	242654007	KXR2	28-DEC-2009 19:58	934967	10-852		20.0	LANL	USE
018f1801.d	242654008	KXR2	28-DEC-2009 20:35	934967	10-852		20.0	LANL	USE
019f1901.d	242654009	KXR2	28-DEC-2009 21:12	934967	10-852		1.0	LANL	USE
020f2001.d	242654010	KXR2	28-DEC-2009 21:48	934967	10-852		1.0	LANL	USE
021f2101.d	242654011	KXR2	28-DEC-2009 22:25	934967	10-852		1.0	LANL	USE
022f2201.d	242654012	KXR2	28-DEC-2009 23:02	934967	10-852		1.0	LANL	USE
023f2301.d	UFI091203-02 D3	KXR2	28-DEC-2009 23:39		SDGa23099		1.0		PASSES
024f2401.d	WFI091130-06 B4	KXR2	29-DEC-2009 00:15		SDGa23099		1.0		CLEAN
025f2501.d	242654013	KXR2	29-DEC-2009 00:52	934967	10-852		1.0	LANL	USE
026f2601.d	242654014	KXR2	29-DEC-2009 01:28	934967	10-852		20.0	LANL	USE
027f2701.d	242654015	KXR2	29-DEC-2009 02:05	934967	10-852		1.0	LANL	USE
028f2801.d	242654016	KXR2	29-DEC-2009 02:42	934967	10-852		20.0	LANL	USE
029f2901.d	242654017	KXR2	29-DEC-2009 03:19	934967	10-852		1.0	LANL	USE
030f3001.d	242654018	KXR2	29-DEC-2009 03:55	934967	10-852		1.0	LANL	USE
031f3101.d	242654019	KXR2	29-DEC-2009 04:32	934967	10-852		1.0	LANL	USE
032f3201.d	242654020	KXR2	29-DEC-2009 05:09	934967	10-852		1.0	LANL	USE
033f3301.d	UFI091203-02 D4	KXR2	29-DEC-2009 05:45		SDGa23099		1.0		PASSES
034f3401.d	WFI091130-06 B5	KXR2	29-DEC-2009 06:22		SDGa23099		1.0		CLEAN
035f3501.d	1202003523	KXR2	29-DEC-2009 06:59	936367	10-1000		1.0	MB	USE

Instrument Batch: /chem/fid7.i/122809dr

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
036f3601.d	1202003524	KXR2	29-DEC-2009 07:35	936367	10-1000	1.0	LCS	USE
037f3701.d	243390001	KXR2	29-DEC-2009 08:12	936367	10-1000	20.0	LANL	DUSE,OVERRANGE
038f3801.d	243390002	KXR2	29-DEC-2009 08:48	936367	10-1000	1.0	LANL	DUSE,OVERRANGE
039f3901.d	243393002	KXR2	29-DEC-2009 09:25	936367	10-1005	1.0	LANL	DUSE
040f4001.d	1202003525	KXR2	29-DEC-2009 10:02	936367	10-1005	1.0	MS	DUSE
041f4101.d	1202003526	KXR2	29-DEC-2009 10:39	936367	10-1005	1.0	MSD	DUSE

042f4201.d	UFI091203-02 D5	KXR2	29-DEC-2009 11:16			SDGa23099	1.0		PASSES
043f4301.d	WFI091130-06 B6	KXR2	29-DEC-2009 11:53			SDGa23099	1.0		CLEAN
044f4401.d	243390001	KXR2	29-DEC-2009 12:45	936367	10-1000		25.0	LANL	DUSE,ADDITIONAL DILUTION NEEDED
045f4501.d	243390002	KXR2	29-DEC-2009 13:22	936367	10-1000		25.0	LANL	DUSE,ADDITIONAL DILUTION NEEDED

Prep Logbook

Extraction of Semivolatile and Nonvolatile Organic Compounds from Soil, Sludge, and Other Miscellaneous Solid Samples

Batch ID: 934965 **Verified by:** _____

Analyst: Joshua McCartney

Method: SW846 3550B

Lab SOP: GL–OA–E–010 REV# 18

Instrument: Semi–Volatiles Manual

Sample ID	Run Date	Aliquot (g)	Prepped Aliquot (mL)	Prepped Factor (mL/g)
1202000394 MB	21–DEC–2009 10:03:51	30	1	0.03333
1202000395 LCS	21–DEC–2009 10:03:51	30	1	0.03333
242654001 – 3	21–DEC–2009 10:03:51	30	1	0.03333
1202000396 – 3 MS (242654001)	21–DEC–2009 10:03:51	30	1	0.03333
1202000397 – 3 MSD (242654001)	21–DEC–2009 10:03:51	30	1	0.03333
242654002 – 2	21–DEC–2009 10:03:51	30	1	0.03333
242654003 – 2	21–DEC–2009 10:03:51	30	1	0.03333
242654004 – 3	21–DEC–2009 10:03:51	30	1	0.03333
242654005 – 3	21–DEC–2009 10:03:51	30.03	1	0.0333
242654006 – 3	21–DEC–2009 10:03:51	30.01	1	0.03332
242654007 – 2	21–DEC–2009 10:03:51	30.09	1	0.03323
242654008 – 2	21–DEC–2009 10:03:51	30.09	1	0.03323
242654009 – 2	21–DEC–2009 10:03:51	30.09	1	0.03323
242654010 – 2	21–DEC–2009 10:03:51	30.04	1	0.03329
242654011 – 2	21–DEC–2009 10:03:51	30.01	1	0.03332
242654012 – 2	21–DEC–2009 10:03:51	30.09	1	0.03323
242654013 – 2	21–DEC–2009 10:03:51	30.02	1	0.03331
242654014 – 2	21–DEC–2009 10:03:51	30.09	1	0.03323
242654015 – 3	21–DEC–2009 10:03:51	30.02	1	0.03331
242654016 – 2	21–DEC–2009 10:03:51	30.02	1	0.03331
242654017 – 3	21–DEC–2009 10:03:51	30.05	1	0.03328
242654018 – 2	21–DEC–2009 10:03:51	30.02	1	0.03331
242654019 – 2	21–DEC–2009 10:03:51	30.04	1	0.03329
242654020 – 2	21–DEC–2009 10:03:51	30.03	1	0.0333

Type	Sample Id	Description	Serial Number	Spike Amt	Units
LCS	1202000395	TPH DRO LCS	UE091030–08	1	mL
MS	1202000396	TPH DRO LCS	UE091030–08	1	mL
MSD	1202000397	TPH DRO LCS	UE091030–08	1	mL
SURR	All	20 ppm surrogate	WE091210–04	1	mL
REGNT	All	Methylene Chloride	1242565–D	300	mL
SOURC	All	SODIUM SULFATE	1242582	30	g

Comments:

Verified By: RWH

Final Solvent: CH2Cl2

GC SEMIVOLATILE PCB ANALYSIS

PCB Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-852

Method/Analysis Information

Procedure:	**Analysis of Polychlorinated Biphenyls by ECD**
Analytical Method:	SW846 8082
Prep Method:	SW846 3550B
Analytical Batch Number:	932746
Prep Batch Number:	932744

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 8082:

Sample ID	Client ID
242654001	RE03-09-14224
242654002	RE03-09-14227
242654003	RE03-09-14225
242654004	RE03-09-14226
242654005	RE03-09-14288
242654006	RE03-09-14287
242654007	RE03-09-14267
242654008	RE03-09-14265
242654009	RE03-09-14281
242654010	RE03-09-14284
242654011	RE03-09-14274
242654012	RE03-09-14277
242654013	RE03-09-14282
242654014	RE03-09-14269
242654015	RE03-09-14273
242654016	RE03-09-14271
242654017	RE03-09-14278
242654018	RE03-09-14285

242654019	RE03-09-14286
242654020	RE03-09-14283
1201995318	Method Blank (MB)
1201995319	Laboratory Control Sample (LCS)
1201995320	242654001(RE03-09-14224) Matrix Spike (MS)
1201995321	242654001(RE03-09-14224) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on a "dry weight" basis.

Preparation/Analytical Method Verification

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-040 REV# 14.

Raw data reports are processed and reviewed by the analyst using the Target software package. False positives have been removed from the Target quantitation reports per standard operating procedures (SOP) section 23.0.

Calibration Information

Please note that the 'Cal Date' indicated on each quantitation report reflects the date and time of the most recent calibrated analyte(s) in the Target processing method. Since the laboratory may calibrate with multiple solutions on different days using the same processing method, the Target software will update the 'Cal Date' to the last calibration file, date and time. The correct dates and times for all calibration files are located on the Calibration History report in the Standard Data section in the data package.

Due to software limitations, the Calibration Summary Form 6 may not indicate all the calibration files comprising the initial calibration. A complete list of the initial calibration data files are shown in the Calibration History report located in the Standard Data section of the data package.

Initial Calibration
All initial calibration requirements have been met for this sample delivery group (SDG).

The linear equation used in Target and indicated on the initial calibration summary form is not a conventional linear equation (slope intercept formula) and does not match the equation found in SW-846 method 8000B. The x and y axes are inversed in Target, so that the instrument response is treated as the independent variable (x) and the concentration ratio is treated as the dependent variable (y). The equation used in Target to calculate sample results is adjusted to account for the linear equation inversion and reciprocal slope. The adjusted calculation has been independently verified to produce valid results.

Continuing Calibration Verification (CCV) Requirements
All associated calibration verification standard(s) (ICV or CCV) met the acceptance criteria.

Surrogate recovery did not meet the acceptance criteria in Aroclor-1254 stanard analyzed for this SDG; however, this had no adverse effects on the data all other standards associated with this SDG met surrogate recovery acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Surrogate Recoveries
Sample 242654008 (RE03-09-14265) did not meet the surrogate recovery acceptance criteria due to dilution. See NCR #770811 located in the Miscellaneous Data section

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

QC Sample Designation
Sample 242654001 (RE03-09-14224) was selected for the matrix spike and matrix spike duplicate analysis.

Matrix Spike (MS) Recovery Statement
The MS recoveries for this SDG were within the established acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recoveries for this SDG were within the established acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD between the MS and MSD met the acceptance limits.

Technical Information

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP. All sample extracts were cleaned using alumina. Additionally, copper was added to all sample extracts to remove sulfur.

Sample Dilutions
Samples 242654007 (RE03-09-14267), 242654008 (RE03-09-14265), 242654012 (RE03-09-14277), 242654014 (RE03-09-14269), 242654016 (RE03-09-14271) and 242654017 (RE03-09-14278) were diluted at 1:5 due to the oily matrix of the extracts.

Sample Re-extraction/Re-analysis
Re-extractions or re-analyses were not required in this SDG.

Miscellaneous Information

Electronic Package Comment

The following package was generated using an electronic data processing program referred to as "virtual packaging". In an effort to increase quality and efficiency, the laboratory is developing systems to eventually generate all data packages electronically. The following change from "traditional" packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. An electronic signature page inserted after the case narrative of each electronic package will indicate the analyst, reviewer, and report specialist names associated with the generation of the data and package. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Nonconformance (NCR) Documentation
Nonconformance report (NCR) is for documentation of any procedural anomalies that may deviate from referenced SOP or contractual document. NCR # 770811 was generated for this SDG. A copy is included in the Miscellaneous Data section of this package.

Manual Integration
Certain standards and samples may have required manual integration to correctly position the baseline as set in the calibration standard injections. If manual integration was performed, copies of all manual integration peak profiles are included in the raw data section of this PCB fraction.

Additional Comments
The additional comments field is used to address special issues associated with each analysis, clarify method/contractual issues pertaining to the analysis, and to list any report documents generated as a result of sample analysis or review. The following additional comments were required:

The higher results from either column have been chosen and reported in the data package for the client samples, MB and LCS. The data reported for the MS and MSD are from the same analytical column as the parent sample.

The data reported on the form I and III may differ slightly from the data reported on the form X. This is due to software limitations in rounding differences between the forms.

Aroclors quantitated on the raw data report by the Target data system do not necessarily represent positive Aroclor identification. In order for positive identification to be made, the Aroclor must match in pattern and retention time; as well as quantitate relatively close between the primary and confirmation columns, as specified in SW846 method 8000. When these conditions are not met, the Aroclor is reported as a non-detect on the data report. These situations will be noted on the raw data as DMP, representing does not match pattern, or DNC does not confirm.

Due to software limitation, the Form VIIs will display the results either in the % difference or % drift depending on the type of the calibration curve. If the curve of all analytes is generated using an average response factor (RF), the Form VII will display results using the %difference calculation (RF). If the curve of one or more analytes is generated using a linear curve, the Form VII will display results using the % drift calculation (by concentration) for all analytes.

System Configuration

The Semi-Volatiles-PCB analysis was performed on the following instrument configuration:

Instrument ID	Instrument	System Configuration	Column ID	Column Description
ECD2A.I_1	HP Gas Chromatograph	HP6890 Series ECD	Rtx-CLP I	30m x 0.25mm, 0.25um (Rtx-CLPesticide)
ECD2A.I_2	HP Gas Chromatograph	HP6890 Series ECD	Rtx-CLP II	30m x 0.25mm, 0.20um (Rtx-CLPesticide II)

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Jimmi Cao Date: 1/6/10

Roadmap for LANL 10-852 PCB

This roadmap was analyzed by jen01212 on 12-16-2009, 09:52.
This roadmap was reviewed by jcb on 12-16-2009, 15:59.
This roadmap was packaged by yml on 01-05-2010, 10:52.
This roadmap was validated by jim01140 on 01-06-2010, 09:24.

Front Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd2a.i/121509.b/037f3701.d	242654001	sample	15-DEC-2009	15:04	10-852.sub	RE03-09-14224	1.00000	932746	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd2a.i/121509.b/040f4001.d	242654002	sample	15-DEC-2009	15:37	10-852.sub	RE03-09-14227	1.00000	932746	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd2a.i/121509.b/041f4101.d	242654003	sample	15-DEC-2009	15:48	10-852.sub	RE03-09-14225	1.00000	932746	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd2a.i/121509.b/042f4201.d	242654004	sample	15-DEC-2009	15:59	10-852.sub	RE03-09-14226	1.00000	932746	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd2a.i/121509.b/043f4301.d	242654005	sample	15-DEC-2009	16:10	10-852.sub	RE03-09-14288	1.00000	932746	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd2a.i/121509.b/044f4401.d	242654006	sample	15-DEC-2009	16:21	10-852.sub	RE03-09-14287	1.00000	932746	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd2a.i/121509.b/047f4701.d	242654007	sample	15-DEC-2009	16:54	10-852.sub	RE03-09-14267	5.00000	932746	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd2a.i/121509.b/048f4801.d	242654008	sample	15-DEC-2009	17:05	10-852.sub	RE03-09-14265	5.00000	932746	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd2a.i/121509.b/049f4901.d	242654009	sample	15-DEC-2009	17:16	10-852.sub	RE03-09-14281	1.00000	932746	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd2a.i/121509.b/050f5001.d	242654010	sample	15-DEC-2009	17:28	10-852.sub	RE03-09-14284	1.00000	932746	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd2a.i/121509.b/051f5101.d	242654011	sample	15-DEC-2009	17:39	10-852.sub	RE03-09-14274	1.00000	932746	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd2a.i/121509.b/052f5201.d	242654012	sample	15-DEC-2009	17:50	10-852.sub	RE03-09-14277	5.00000	932746	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd2a.i/121509.b/053f5301.d	242654013	sample	15-DEC-2009	18:01	10-852.sub	RE03-09-14282	1.00000	932746	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd2a.i/121509.b/054f5401.d	242654014	sample	15-DEC-2009	18:12	10-852.sub	RE03-09-14269	5.00000	932746	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd2a.i/121509.b/055f5501.d	242654015	sample	15-DEC-2009	18:23	10-852.sub	RE03-09-14273	1.00000	932746	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd2a.i/121509.b/056f5601.d	242654016	sample	15-DEC-2009	18:34	10-852.sub	RE03-09-14271	5.00000	932746	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd2a.i/121509.b/059f5901.d	242654017	sample	15-DEC-2009	19:12	10-852.sub	RE03-09-14278	5.00000	932746	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd2a.i/121509.b/060f6001.d	242654018	sample	15-DEC-2009	19:23	10-852.sub	RE03-09-14285	1.00000	932746	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd2a.i/121509.b/061f6101.d	242654019	sample	15-DEC-2009	19:34	10-852.sub	RE03-09-14286	1.00000	932746	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd2a.i/121509.b/062f6201.d	242654020	sample	15-DEC-2009	19:45	10-852.sub	RE03-09-14283	1.00000	932746	UPLOAD BOTH, USE HIGHER

Back Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment

☐	N	/chem/ecd2a.i/121509.b/037b3701.d	242654001	sample	15-DEC-2009	15:04	10-852.sub	RE03-09-14224	1.00000	932746	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd2a.i/121509.b/040b4001.d	242654002	sample	15-DEC-2009	15:37	10-852.sub	RE03-09-14227	1.00000	932746	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd2a.i/121509.b/041b4101.d	242654003	sample	15-DEC-2009	15:48	10-852.sub	RE03-09-14225	1.00000	932746	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd2a.i/121509.b/042b4201.d	242654004	sample	15-DEC-2009	15:59	10-852.sub	RE03-09-14226	1.00000	932746	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd2a.i/121509.b/043b4301.d	242654005	sample	15-DEC-2009	16:10	10-852.sub	RE03-09-14288	1.00000	932746	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd2a.i/121509.b/044b4401.d	242654006	sample	15-DEC-2009	16:21	10-852.sub	RE03-09-14287	1.00000	932746	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd2a.i/121509.b/047b4701.d	242654007	sample	15-DEC-2009	16:54	10-852.sub	RE03-09-14267	5.00000	932746	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd2a.i/121509.b/048b4801.d	242654008	sample	15-DEC-2009	17:05	10-852.sub	RE03-09-14265	5.00000	932746	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd2a.i/121509.b/049b4901.d	242654009	sample	15-DEC-2009	17:16	10-852.sub	RE03-09-14281	1.00000	932746	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd2a.i/121509.b/050b5001.d	242654010	sample	15-DEC-2009	17:28	10-852.sub	RE03-09-14284	1.00000	932746	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd2a.i/121509.b/051b5101.d	242654011	sample	15-DEC-2009	17:39	10-852.sub	RE03-09-14274	1.00000	932746	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd2a.i/121509.b/052b5201.d	242654012	sample	15-DEC-2009	17:50	10-852.sub	RE03-09-14277	5.00000	932746	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd2a.i/121509.b/053b5301.d	242654013	sample	15-DEC-2009	18:01	10-852.sub	RE03-09-14282	1.00000	932746	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd2a.i/121509.b/054b5401.d	242654014	sample	15-DEC-2009	18:12	10-852.sub	RE03-09-14269	5.00000	932746	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd2a.i/121509.b/055b5501.d	242654015	sample	15-DEC-2009	18:23	10-852.sub	RE03-09-14273	1.00000	932746	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd2a.i/121509.b/056b5601.d	242654016	sample	15-DEC-2009	18:34	10-852.sub	RE03-09-14271	5.00000	932746	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd2a.i/121509.b/059b5901.d	242654017	sample	15-DEC-2009	19:12	10-852.sub	RE03-09-14278	5.00000	932746	UPLOAD BOTH, USE HIGHER

☐	N	/chem/ecd2a.i/121509.b/060b6001.d	242654018	sample	15-DEC-2009	19:23	10-852.sub	RE03-09-14285	1.00000	932746	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd2a.i/121509.b/061b6101.d	242654019	sample	15-DEC-2009	19:34	10-852.sub	RE03-09-14286	1.00000	932746	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd2a.i/121509.b/062b6201.d	242654020	sample	15-DEC-2009	19:45	10-852.sub	RE03-09-14283	1.00000	932746	UPLOAD BOTH, USE HIGHER

Front QC Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd2a.i/121509.b/035f3501.d	1201995318	mb	15-DEC-2009	14:42	10-852.sub	PBLK01	1.00000	932746	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd2a.i/121509.b/036f3601.d	1201995319	lcs	15-DEC-2009	14:53	10-852.sub	PBLK01LCS	1.00000	932746	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd2a.i/121509.b/038f3801.d	1201995320	ms	15-DEC-2009	15:15	10-852.sub	RE03-09-14224MS	1.00000	932746	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd2a.i/121509.b/039f3901.d	1201995321	msd	15-DEC-2009	15:26	10-852.sub	RE03-09-14224MSD	1.00000	932746	UPLOAD BOTH, USE HIGHER

Back QC Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd2a.i/121509.b/035b3501.d	1201995318	mb	15-DEC-2009	14:42	10-852.sub	PBLK01	1.00000	932746	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd2a.i/121509.b/036b3601.d	1201995319	lcs	15-DEC-2009	14:53	10-852.sub	PBLK01LCS	1.00000	932746	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd2a.i/121509.b/038b3801.d	1201995320	ms	15-DEC-2009	15:15	10-852.sub	RE03-09-14224MS	1.00000	932746	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd2a.i/121509.b/039b3901.d	1201995321	msd	15-DEC-2009	15:26	10-852.sub	RE03-09-14224MSD	1.00000	932746	UPLOAD BOTH, USE HIGHER

SAMPLE DATA SUMMARY

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10-852	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242654001	**Date Received:**	12/10/2009 08:50	**%Moisture:**	14.6
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14224	**Method:**	SW846 8082	**SOP Ref:**	GL-OA-E-040
Batch ID:	932746	**Inst:**	ECD2A.I	**Dilution:**	1
Run Date:	12/15/2009 15:04	**Analyst:**	JAOC	**Inj. Vol:**	1 uL
Prep Date:	12/14/2009 22:59	**Aliquot:**	30.02 g	**Final Volume:**	1 mL
Data File:	037f3701.d	**Column:**	1 CLP1	**Level:**	LOW
	037b3701.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.90	ug/kg	1.30	3.90	1
11104-28-2	Aroclor-1221	U	3.90	ug/kg	1.30	3.90	1
11141-16-5	Aroclor-1232	U	3.90	ug/kg	1.30	3.90	1
53469-21-9	Aroclor-1242	U	3.90	ug/kg	1.30	3.90	1
12672-29-6	Aroclor-1248	U	3.90	ug/kg	1.30	3.90	1
11097-69-1	Aroclor-1254	U	3.90	ug/kg	1.30	3.90	1
11096-82-5	Aroclor-1260	J	3.30	ug/kg	1.30	3.90	1

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10-852	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242654003	**Date Received:**	12/10/2009 08:50	**%Moisture:**	11.9
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14225	**Method:**	SW846 8082	**SOP Ref:**	GL-OA-E-040
Batch ID:	932746	**Inst:**	ECD2A.I	**Dilution:**	1
Run Date:	12/15/2009 15:48	**Analyst:**	JAOC	**Inj. Vol:**	1 uL
Prep Date:	12/14/2009 22:59	**Aliquot:**	30.02 g	**Final Volume:**	1 mL
Data File:	041f4101.d	**Column:**	1 CLP1	**Level:**	LOW
	041b4101.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.78	ug/kg	1.26	3.78	1
11104-28-2	Aroclor-1221	U	3.78	ug/kg	1.26	3.78	1
11141-16-5	Aroclor-1232	U	3.78	ug/kg	1.26	3.78	1
53469-21-9	Aroclor-1242	U	3.78	ug/kg	1.26	3.78	1
12672-29-6	Aroclor-1248	U	3.78	ug/kg	1.26	3.78	1
11097-69-1	Aroclor-1254	U	3.78	ug/kg	1.26	3.78	1
11096-82-5	Aroclor-1260	U	3.78	ug/kg	1.26	3.78	1

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10–852	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242654004	**Date Received:**	12/10/2009 08:50	**%Moisture:**	9.5
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03–09–14226	**Method:**	SW846 8082	**SOP Ref:**	GL–OA–E–040
Batch ID:	932746	**Inst:**	ECD2A.I	**Dilution:**	1
Run Date:	12/15/2009 15:59	**Analyst:**	JAOC	**Inj. Vol:**	1 uL
Prep Date:	12/14/2009 22:59	**Aliquot:**	30.02 g	**Final Volume:**	1 mL
Data File:	042f4201.d	**Column:**	1 CLP1	**Level:**	LOW
	042b4201.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	3.68	ug/kg	1.23	3.68	1
11104–28–2	Aroclor–1221	U	3.68	ug/kg	1.23	3.68	1
11141–16–5	Aroclor–1232	U	3.68	ug/kg	1.23	3.68	1
53469–21–9	Aroclor–1242	U	3.68	ug/kg	1.23	3.68	1
12672–29–6	Aroclor–1248	U	3.68	ug/kg	1.23	3.68	1
11097–69–1	Aroclor–1254	U	3.68	ug/kg	1.23	3.68	1
11096–82–5	Aroclor–1260	U	3.68	ug/kg	1.23	3.68	1

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10-852	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242654002	**Date Received:**	12/10/2009 08:50	**%Moisture:**	10.3
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14227	**Method:**	SW846 8082	**SOP Ref:**	GL-OA-E-040
Batch ID:	932746	**Inst:**	ECD2A.I	**Dilution:**	1
Run Date:	12/15/2009 15:37	**Analyst:**	JAOC	**Inj. Vol:**	1 uL
Prep Date:	12/14/2009 22:59	**Aliquot:**	30.05 g	**Final Volume:**	1 mL
Data File:	040f4001.d	**Column:**	1 CLP1	**Level:**	LOW
	040b4001.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.71	ug/kg	1.24	3.71	1
11104-28-2	Aroclor-1221	U	3.71	ug/kg	1.24	3.71	1
11141-16-5	Aroclor-1232	U	3.71	ug/kg	1.24	3.71	1
53469-21-9	Aroclor-1242	U	3.71	ug/kg	1.24	3.71	1
12672-29-6	Aroclor-1248	U	3.71	ug/kg	1.24	3.71	1
11097-69-1	Aroclor-1254	U	3.71	ug/kg	1.24	3.71	1
11096-82-5	Aroclor-1260	U	3.71	ug/kg	1.24	3.71	1

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10-852	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242654008	**Date Received:**	12/10/2009 08:50	**%Moisture:**	13
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14265	**Method:**	SW846 8082	**SOP Ref:**	GL-OA-E-040
Batch ID:	932746	**Inst:**	ECD2A.I	**Dilution:**	5
Run Date:	12/15/2009 17:05	**Analyst:**	JAOC	**Inj. Vol:**	1 uL
Prep Date:	12/14/2009 22:59	**Aliquot:**	30.01 g	**Final Volume:**	1 mL
Data File:	048f4801.d	**Column:**	1 CLP1	**Level:**	LOW
	048b4801.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	19.2	ug/kg	6.38	19.2	1
11104-28-2	Aroclor-1221	U	19.2	ug/kg	6.38	19.2	1
11141-16-5	Aroclor-1232	U	19.2	ug/kg	6.38	19.2	1
53469-21-9	Aroclor-1242	U	19.2	ug/kg	6.38	19.2	1
12672-29-6	Aroclor-1248	U	19.2	ug/kg	6.38	19.2	1
11097-69-1	Aroclor-1254	U	19.2	ug/kg	6.38	19.2	1
11096-82-5	Aroclor-1260	U	19.2	ug/kg	6.38	19.2	1

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10-852	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242654007	**Date Received:**	12/10/2009 08:50	**%Moisture:**	14.2
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14267	**Method:**	SW846 8082	**SOP Ref:**	GL-OA-E-040
Batch ID:	932746	**Inst:**	ECD2A.I	**Dilution:**	5
Run Date:	12/15/2009 16:54	**Analyst:**	JAOC	**Inj. Vol:**	1 uL
Prep Date:	12/14/2009 22:59	**Aliquot:**	30.07 g	**Final Volume:**	1 mL
Data File:	047f4701.d	**Column:**	1 CLP1	**Level:**	LOW
	047b4701.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	19.4	ug/kg	6.45	19.4	1
11104-28-2	Aroclor-1221	U	19.4	ug/kg	6.45	19.4	1
11141-16-5	Aroclor-1232	U	19.4	ug/kg	6.45	19.4	1
53469-21-9	Aroclor-1242	U	19.4	ug/kg	6.45	19.4	1
12672-29-6	Aroclor-1248	U	19.4	ug/kg	6.45	19.4	1
11097-69-1	Aroclor-1254	U	19.4	ug/kg	6.45	19.4	1
11096-82-5	Aroclor-1260	U	19.4	ug/kg	6.45	19.4	1

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10-852**	**Date Collected:**	**12/07/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242654014**	**Date Received:**	**12/10/2009 08:50**	**%Moisture:**	**10.7**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14269**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**932746**	**Inst:**	**ECD2A.I**	**Dilution:**	**5**
Run Date:	**12/15/2009 18:12**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**12/14/2009 22:59**	**Aliquot:**	**30.15 g**	**Final Volume:**	**1 mL**
Data File:	**054f5401.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	054b5401.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	18.6	ug/kg	6.18	18.6	1
11104-28-2	Aroclor-1221	U	18.6	ug/kg	6.18	18.6	1
11141-16-5	Aroclor-1232	U	18.6	ug/kg	6.18	18.6	1
53469-21-9	Aroclor-1242	U	18.6	ug/kg	6.18	18.6	1
12672-29-6	Aroclor-1248	U	18.6	ug/kg	6.18	18.6	1
11097-69-1	Aroclor-1254	U	18.6	ug/kg	6.18	18.6	1
11096-82-5	Aroclor-1260	U	18.6	ug/kg	6.18	18.6	1

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10-852	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242654016	**Date Received:**	12/10/2009 08:50	**%Moisture:**	13.4
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14271	**Method:**	SW846 8082	**SOP Ref:**	GL-OA-E-040
Batch ID:	932746	**Inst:**	ECD2A.I	**Dilution:**	5
Run Date:	12/15/2009 18:34	**Analyst:**	JAOC	**Inj. Vol:**	1 uL
Prep Date:	12/14/2009 22:59	**Aliquot:**	30.08 g	**Final Volume:**	1 mL
Data File:	056f5601.d	**Column:**	1 CLP1	**Level:**	LOW
	056b5601.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	19.2	ug/kg	6.39	19.2	1
11104-28-2	Aroclor-1221	U	19.2	ug/kg	6.39	19.2	1
11141-16-5	Aroclor-1232	U	19.2	ug/kg	6.39	19.2	1
53469-21-9	Aroclor-1242	U	19.2	ug/kg	6.39	19.2	1
12672-29-6	Aroclor-1248	U	19.2	ug/kg	6.39	19.2	1
11097-69-1	Aroclor-1254	U	19.2	ug/kg	6.39	19.2	1
11096-82-5	Aroclor-1260	U	19.2	ug/kg	6.39	19.2	1

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10-852	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242654015	**Date Received:**	12/10/2009 08:50	**%Moisture:**	10.3
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14273	**Method:**	SW846 8082	**SOP Ref:**	GL-OA-E-040
Batch ID:	932746	**Inst:**	ECD2A.I	**Dilution:**	1
Run Date:	12/15/2009 18:23	**Analyst:**	JAOC	**Inj. Vol:**	1 uL
Prep Date:	12/14/2009 22:59	**Aliquot:**	30.06 g	**Final Volume:**	1 mL
Data File:	055f5501.d	**Column:**	1 CLP1	**Level:**	LOW
	055b5501.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.71	ug/kg	1.24	3.71	1
11104-28-2	Aroclor-1221	U	3.71	ug/kg	1.24	3.71	1
11141-16-5	Aroclor-1232	U	3.71	ug/kg	1.24	3.71	1
53469-21-9	Aroclor-1242	U	3.71	ug/kg	1.24	3.71	1
12672-29-6	Aroclor-1248	U	3.71	ug/kg	1.24	3.71	1
11097-69-1	Aroclor-1254	U	3.71	ug/kg	1.24	3.71	1
11096-82-5	Aroclor-1260		3.80	ug/kg	1.24	3.71	1

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10-852	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242654011	**Date Received:**	12/10/2009 08:50	**%Moisture:**	4.1
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14274	**Method:**	SW846 8082	**SOP Ref:**	GL-OA-E-040
Batch ID:	932746	**Inst:**	ECD2A.I	**Dilution:**	1
Run Date:	12/15/2009 17:39	**Analyst:**	JAOC	**Inj. Vol:**	1 uL
Prep Date:	12/14/2009 22:59	**Aliquot:**	30.02 g	**Final Volume:**	1 mL
Data File:	051f5101.d	**Column:**	1 CLP1	**Level:**	LOW
	051b5101.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.47	ug/kg	1.16	3.47	1
11104-28-2	Aroclor-1221	U	3.47	ug/kg	1.16	3.47	1
11141-16-5	Aroclor-1232	U	3.47	ug/kg	1.16	3.47	1
53469-21-9	Aroclor-1242	U	3.47	ug/kg	1.16	3.47	1
12672-29-6	Aroclor-1248	U	3.47	ug/kg	1.16	3.47	1
11097-69-1	Aroclor-1254	U	3.47	ug/kg	1.16	3.47	1
11096-82-5	Aroclor-1260	U	3.47	ug/kg	1.16	3.47	1

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10-852	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242654012	**Date Received:**	12/10/2009 08:50	**%Moisture:**	12.2
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14277	**Method:**	SW846 8082	**SOP Ref:**	GL-OA-E-040
Batch ID:	932746	**Inst:**	ECD2A.I	**Dilution:**	5
Run Date:	12/15/2009 17:50	**Analyst:**	JAOC	**Inj. Vol:**	1 uL
Prep Date:	12/14/2009 22:59	**Aliquot:**	30.03 g	**Final Volume:**	1 mL
Data File:	052f5201.d	**Column:**	1 CLP1	**Level:**	LOW
	052b5201.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	19.0	ug/kg	6.31	19.0	1
11104-28-2	Aroclor-1221	U	19.0	ug/kg	6.31	19.0	1
11141-16-5	Aroclor-1232	U	19.0	ug/kg	6.31	19.0	1
53469-21-9	Aroclor-1242	U	19.0	ug/kg	6.31	19.0	1
12672-29-6	Aroclor-1248	U	19.0	ug/kg	6.31	19.0	1
11097-69-1	Aroclor-1254	U	19.0	ug/kg	6.31	19.0	1
11096-82-5	Aroclor-1260	U	19.0	ug/kg	6.31	19.0	1

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10-852	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242654017	**Date Received:**	12/10/2009 08:50	**%Moisture:**	9.4
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14278	**Method:**	SW846 8082	**SOP Ref:**	GL-OA-E-040
Batch ID:	932746	**Inst:**	ECD2A.I	**Dilution:**	5
Run Date:	12/15/2009 19:12	**Analyst:**	JAOC	**Inj. Vol:**	1 uL
Prep Date:	12/14/2009 22:59	**Aliquot:**	30.19 g	**Final Volume:**	1 mL
Data File:	059f5901.d	**Column:**	1 CLP1	**Level:**	LOW
	059b5901.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	18.3	ug/kg	6.09	18.3	1
11104-28-2	Aroclor-1221	U	18.3	ug/kg	6.09	18.3	1
11141-16-5	Aroclor-1232	U	18.3	ug/kg	6.09	18.3	1
53469-21-9	Aroclor-1242	U	18.3	ug/kg	6.09	18.3	1
12672-29-6	Aroclor-1248	U	18.3	ug/kg	6.09	18.3	1
11097-69-1	Aroclor-1254	U	18.3	ug/kg	6.09	18.3	1
11096-82-5	Aroclor-1260	U	18.3	ug/kg	6.09	18.3	1

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10–852	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242654009	**Date Received:**	12/10/2009 08:50	**%Moisture:**	14.1
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03–09–14281	**Method:**	SW846 8082	**SOP Ref:**	GL–OA–E–040
Batch ID:	932746	**Inst:**	ECD2A.I	**Dilution:**	1
Run Date:	12/15/2009 17:16	**Analyst:**	JAOC	**Inj. Vol:**	1 uL
Prep Date:	12/14/2009 22:59	**Aliquot:**	30.18 g	**Final Volume:**	1 mL
Data File:	049f4901.d	**Column:**	1 CLP1	**Level:**	LOW
	049b4901.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	3.86	ug/kg	1.29	3.86	1
11104–28–2	Aroclor–1221	U	3.86	ug/kg	1.29	3.86	1
11141–16–5	Aroclor–1232	U	3.86	ug/kg	1.29	3.86	1
53469–21–9	Aroclor–1242	U	3.86	ug/kg	1.29	3.86	1
12672–29–6	Aroclor–1248	U	3.86	ug/kg	1.29	3.86	1
11097–69–1	Aroclor–1254	U	3.86	ug/kg	1.29	3.86	1
11096–82–5	Aroclor–1260	U	3.86	ug/kg	1.29	3.86	1

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10-852**	**Date Collected:**	**12/07/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242654013**	**Date Received:**	**12/10/2009 08:50**	**%Moisture:**	**14.2**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14282**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**932746**	**Inst:**	**ECD2A.I**	**Dilution:**	**1**
Run Date:	**12/15/2009 18:01**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**12/14/2009 22:59**	**Aliquot:**	**30.06 g**	**Final Volume:**	**1 mL**
Data File:	**053f5301.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	053b5301.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.88	ug/kg	1.29	3.88	1
11104-28-2	Aroclor-1221	U	3.88	ug/kg	1.29	3.88	1
11141-16-5	Aroclor-1232	U	3.88	ug/kg	1.29	3.88	1
53469-21-9	Aroclor-1242	U	3.88	ug/kg	1.29	3.88	1
12672-29-6	Aroclor-1248	U	3.88	ug/kg	1.29	3.88	1
11097-69-1	Aroclor-1254	U	3.88	ug/kg	1.29	3.88	1
11096-82-5	Aroclor-1260	U	3.88	ug/kg	1.29	3.88	1

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10-852	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242654020	**Date Received:**	12/10/2009 08:50	**%Moisture:**	15.8
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14283	**Method:**	SW846 8082	**SOP Ref:**	GL-OA-E-040
Batch ID:	932746	**Inst:**	ECD2A.I	**Dilution:**	1
Run Date:	12/15/2009 19:45	**Analyst:**	JAOC	**Inj. Vol:**	1 uL
Prep Date:	12/14/2009 22:59	**Aliquot:**	30.14 g	**Final Volume:**	1 mL
Data File:	062f6201.d	**Column:**	1 CLP1	**Level:**	LOW
	062b6201.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.94	ug/kg	1.31	3.94	1
11104-28-2	Aroclor-1221	U	3.94	ug/kg	1.31	3.94	1
11141-16-5	Aroclor-1232	U	3.94	ug/kg	1.31	3.94	1
53469-21-9	Aroclor-1242	U	3.94	ug/kg	1.31	3.94	1
12672-29-6	Aroclor-1248	U	3.94	ug/kg	1.31	3.94	1
11097-69-1	Aroclor-1254	U	3.94	ug/kg	1.31	3.94	1
11096-82-5	Aroclor-1260	U	3.94	ug/kg	1.31	3.94	1

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10-852	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242654010	**Date Received:**	12/10/2009 08:50	**%Moisture:**	13.2
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14284	**Method:**	SW846 8082	**SOP Ref:**	GL-OA-E-040
Batch ID:	932746	**Inst:**	ECD2A.I	**Dilution:**	1
Run Date:	12/15/2009 17:28	**Analyst:**	JAOC	**Inj. Vol:**	1 uL
Prep Date:	12/14/2009 22:59	**Aliquot:**	30.02 g	**Final Volume:**	1 mL
Data File:	050f5001.d	**Column:**	1 CLP1	**Level:**	LOW
	050b5001.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.84	ug/kg	1.28	3.84	1
11104-28-2	Aroclor-1221	U	3.84	ug/kg	1.28	3.84	1
11141-16-5	Aroclor-1232	U	3.84	ug/kg	1.28	3.84	1
53469-21-9	Aroclor-1242	U	3.84	ug/kg	1.28	3.84	1
12672-29-6	Aroclor-1248	U	3.84	ug/kg	1.28	3.84	1
11097-69-1	Aroclor-1254	U	3.84	ug/kg	1.28	3.84	1
11096-82-5	Aroclor-1260	U	3.84	ug/kg	1.28	3.84	1

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10–852	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242654018	**Date Received:**	12/10/2009 08:50	**%Moisture:**	14.2
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03–09–14285	**Method:**	SW846 8082	**SOP Ref:**	GL–OA–E–040
Batch ID:	932746	**Inst:**	ECD2A.I	**Dilution:**	1
Run Date:	12/15/2009 19:23	**Analyst:**	JAOC	**Inj. Vol:**	1 uL
Prep Date:	12/14/2009 22:59	**Aliquot:**	30.12 g	**Final Volume:**	1 mL
Data File:	060f6001.d	**Column:**	1 CLP1	**Level:**	LOW
	060b6001.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	3.87	ug/kg	1.29	3.87	1
11104–28–2	Aroclor–1221	U	3.87	ug/kg	1.29	3.87	1
11141–16–5	Aroclor–1232	U	3.87	ug/kg	1.29	3.87	1
53469–21–9	Aroclor–1242	U	3.87	ug/kg	1.29	3.87	1
12672–29–6	Aroclor–1248	U	3.87	ug/kg	1.29	3.87	1
11097–69–1	Aroclor–1254	U	3.87	ug/kg	1.29	3.87	1
11096–82–5	Aroclor–1260	U	3.87	ug/kg	1.29	3.87	1

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10-852	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242654019	**Date Received:**	12/10/2009 08:50	**%Moisture:**	13.4
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14286	**Method:**	SW846 8082	**SOP Ref:**	GL-OA-E-040
Batch ID:	932746	**Inst:**	ECD2A.I	**Dilution:**	1
Run Date:	12/15/2009 19:34	**Analyst:**	JAOC	**Inj. Vol:**	1 uL
Prep Date:	12/14/2009 22:59	**Aliquot:**	30.17 g	**Final Volume:**	1 mL
Data File:	061f6101.d	**Column:**	1 CLP1	**Level:**	LOW
	061b6101.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.83	ug/kg	1.27	3.83	1
11104-28-2	Aroclor-1221	U	3.83	ug/kg	1.27	3.83	1
11141-16-5	Aroclor-1232	U	3.83	ug/kg	1.27	3.83	1
53469-21-9	Aroclor-1242	U	3.83	ug/kg	1.27	3.83	1
12672-29-6	Aroclor-1248	U	3.83	ug/kg	1.27	3.83	1
11097-69-1	Aroclor-1254	U	3.83	ug/kg	1.27	3.83	1
11096-82-5	Aroclor-1260	U	3.83	ug/kg	1.27	3.83	1

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10-852	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242654006	**Date Received:**	12/10/2009 08:50	**%Moisture:**	11.7
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14287	**Method:**	SW846 8082	**SOP Ref:**	GL-OA-E-040
Batch ID:	932746	**Inst:**	ECD2A.I	**Dilution:**	1
Run Date:	12/15/2009 16:21	**Analyst:**	JAOC	**Inj. Vol:**	1 uL
Prep Date:	12/14/2009 22:59	**Aliquot:**	30.13 g	**Final Volume:**	1 mL
Data File:	044f4401.d	**Column:**	1 CLP1	**Level:**	LOW
	044b4401.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.76	ug/kg	1.25	3.76	1
11104-28-2	Aroclor-1221	U	3.76	ug/kg	1.25	3.76	1
11141-16-5	Aroclor-1232	U	3.76	ug/kg	1.25	3.76	1
53469-21-9	Aroclor-1242	U	3.76	ug/kg	1.25	3.76	1
12672-29-6	Aroclor-1248	U	3.76	ug/kg	1.25	3.76	1
11097-69-1	Aroclor-1254	JP	3.30	ug/kg	1.25	3.76	2
11096-82-5	Aroclor-1260	J	2.90	ug/kg	1.25	3.76	1

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10-852	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242654005	**Date Received:**	12/10/2009 08:50	**%Moisture:**	5.9
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14288	**Method:**	SW846 8082	**SOP Ref:**	GL-OA-E-040
Batch ID:	932746	**Inst:**	ECD2A.I	**Dilution:**	1
Run Date:	12/15/2009 16:10	**Analyst:**	JAOC	**Inj. Vol:**	1 uL
Prep Date:	12/14/2009 22:59	**Aliquot:**	30.17 g	**Final Volume:**	1 mL
Data File:	043f4301.d	**Column:**	1 CLP1	**Level:**	LOW
	043b4301.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.52	ug/kg	1.17	3.52	1
11104-28-2	Aroclor-1221	U	3.52	ug/kg	1.17	3.52	1
11141-16-5	Aroclor-1232	U	3.52	ug/kg	1.17	3.52	1
53469-21-9	Aroclor-1242	U	3.52	ug/kg	1.17	3.52	1
12672-29-6	Aroclor-1248	U	3.52	ug/kg	1.17	3.52	1
11097-69-1	Aroclor-1254	U	3.52	ug/kg	1.17	3.52	1
11096-82-5	Aroclor-1260	U	3.52	ug/kg	1.17	3.52	1

QUALITY CONTROL SUMMARY

PCB

Surrogate Recovery Report

SDG Number: 10-852

Matrix Type: SOLID

CAP Column (1) : CLP1 **CAP Column (2) : CLP2**

Sample ID	Client ID	4CMX 1 %REC #		4CMX 2 %REC #		DCB 1 %REC #		DCB 2 %REC #	
1201995318	MB for batch 932744	66		69		76		77	
1201995319	LCS for batch 932744	65		68		77		77	
242654001	RE03-09-14224	62		65		70		76	
1201995320	RE03-09-14224MS	64		67		71		74	
1201995321	RE03-09-14224MSD	61		64		70		74	
242654002	RE03-09-14227	70		73		79		79	
242654003	RE03-09-14225	64		68		75		77	
242654004	RE03-09-14226	65		68		72		75	
242654005	RE03-09-14288	55		57		58		58	
242654006	RE03-09-14287	57		60		54		50	
242654007	RE03-09-14267	42	D	41	D	38	D	34	D
242654008	RE03-09-14265	34	D	33 *	D	31 *	D	27 *	D
242654009	RE03-09-14281	60		62		56		53	
242654010	RE03-09-14284	60		62		65		59	
242654011	RE03-09-14274	62		66		71		66	
242654012	RE03-09-14277	44	D	43	D	46	D	49	D
242654013	RE03-09-14282	59		63		66		62	
242654014	RE03-09-14269	46	D	46	D	42	D	37	D
242654015	RE03-09-14273	52		53		52		50	
242654016	RE03-09-14271	53	D	53	D	50	D	44	D
242654017	RE03-09-14278	47	D	44	D	54	D	56	D
242654018	RE03-09-14285	57		60		65		66	
242654019	RE03-09-14286	61		63		72		70	
242654020	RE03-09-14283	55		58		65		62	

Surrogate	Acceptance Limits
4CMX = 4cmx	(34%-105%)
DCB = Decachlorobiphenyl	(33%-115%)

* Recovery outside Acceptance Limits

\# Column to be used to flag recovery values

D Sample Diluted

PCB

Quality Control Summary
Spike Recovery Report

SDG Number: 10-852
Client ID: LCS for batch 932744
Lab Sample ID: 1201995319
Instrument: ECD2A.I
Analyst: JAOC
Inj. Vol: 1 uL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 12/15/2009 14:53
Prep Batch ID: 932744
Batch ID: 932746
Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
12674-11-2	LCS	Aroclor-1016	33.3	0.0	21.8	65	41-110
11096-82-5	LCS	Aroclor-1260	33.3	0.0	25.9	78	48-110

PCB

Quality Control Summary
Spike Recovery Report

SDG Number: **10-852**
Client ID: **RE03-09-14224MS**
Lab Sample ID: **1201995320**
Instrument: **ECD2A.I**
Analyst: **JAOC**
Inj. Vol: **1 uL**

Sample Type: **Matrix Spike**
Matrix: **S**
%Moisture: **14.6**
Analysis Date: **12/15/2009 15:15**
Prep Batch ID: **932744**
Batch ID: **932746**
Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
12674-11-2	MS	Aroclor-1016	39.0	0.00	U	27.1	70	23-117
11096-82-5	MS	Aroclor-1260	39.0	3.30	J	31.2	72	27-116

PCB

Quality Control Summary
Spike Recovery Report

SDG Number: 10-852
Client ID: RE03-09-14224MSD
Lab Sample ID: 1201995321
Instrument: ECD2A.I
Analyst: JAOC
Inj. Vol: 1 uL

Sample Type: Matrix Spike Duplicate
Matrix: S
%Moisture: 14.6
Analysis Date: 12/15/2009 15:26
Dilution: 1
Prep Batch ID: 932744
Batch ID: 932746

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
12674-11-2	MSD Aroclor-1016	38.9	0.00	U	26.3	68	23-117	3	0-30
11096-82-5	MSD Aroclor-1260	38.9	3.30	J	31.0	71	27-116	1	0-30

Method Blank Summary

SDG Number:	10-852	Client:	LANL010	Matrix:	SOIL
Client ID:	MB for batch 932744	Instrument ID:	ECD2A.I_2 ECD2A.I_1	Data File:	035b3501.d 035f3501.d
Lab Sample ID:	1201995318				
Column:	CLP2 CLP1	Prep Date:	12/14/2009 22:59	Analyzed:	12/15/09 14:42
		Level:	LOW		

This method blank applies to the following samples and quality control samples:

Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01 LCS for batch 932744	1201995319	036f3601.d 036b3601.d	12/15/09	1453
02 RE03-09-14224	242654001	037f3701.d 037b3701.d	12/15/09	1504
03 RE03-09-14224MS	1201995320	038f3801.d 038b3801.d	12/15/09	1515
04 RE03-09-14224MSD	1201995321	039f3901.d 039b3901.d	12/15/09	1526
05 RE03-09-14227	242654002	040f4001.d 040b4001.d	12/15/09	1537
06 RE03-09-14225	242654003	041f4101.d 041b4101.d	12/15/09	1548
07 RE03-09-14226	242654004	042f4201.d 042b4201.d	12/15/09	1559
08 RE03-09-14288	242654005	043f4301.d 043b4301.d	12/15/09	1610
09 RE03-09-14287	242654006	044f4401.d 044b4401.d	12/15/09	1621
10 RE03-09-14267	242654007	047f4701.d 047b4701.d	12/15/09	1654
11 RE03-09-14265	242654008	048f4801.d 048b4801.d	12/15/09	1705
12 RE03-09-14281	242654009	049f4901.d 049b4901.d	12/15/09	1716
13 RE03-09-14284	242654010	050f5001.d 050b5001.d	12/15/09	1728
14 RE03-09-14274	242654011	051f5101.d 051b5101.d	12/15/09	1739
15 RE03-09-14277	242654012	052f5201.d 052b5201.d	12/15/09	1750
16 RE03-09-14282	242654013	053f5301.d 053b5301.d	12/15/09	1801
17 RE03-09-14269	242654014	054f5401.d 054b5401.d	12/15/09	1812

Method Blank Summary

SDG Number:	10-852	Client:	LANL010	Matrix:	SOIL
Client ID:	MB for batch 932744	Instrument ID:	ECD2A.I_2 ECD2A.I_1	Data File:	035b3501.d 035f3501.d
Lab Sample ID:	1201995318				
Column:	CLP2 CLP1	Prep Date:	12/14/2009 22:59	Analyzed:	12/15/09 14:42
		Level:	LOW		

This method blank applies to the following samples and quality control samples:

Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
18 RE03-09-14273	242654015	055f5501.d 055b5501.d	12/15/09	1823
19 RE03-09-14271	242654016	056f5601.d 056b5601.d	12/15/09	1834
20 RE03-09-14278	242654017	059f5901.d 059b5901.d	12/15/09	1912
21 RE03-09-14285	242654018	060f6001.d 060b6001.d	12/15/09	1923
22 RE03-09-14286	242654019	061f6101.d 061b6101.d	12/15/09	1934
23 RE03-09-14283	242654020	062f6201.d 062b6201.d	12/15/09	1945

SAMPLE
DATA

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10–852	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242654001	**Date Received:**	12/10/2009 08:50	**%Moisture:**	14.6
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03–09–14224	**Method:**	SW846 8082	**SOP Ref:**	GL–OA–E–040
Batch ID:	932746	**Inst:**	ECD2A.I	**Dilution:**	1
Run Date:	12/15/2009 15:04	**Analyst:**	JAOC	**Inj. Vol:**	1 uL
Prep Date:	12/14/2009 22:59	**Aliquot:**	30.02 g	**Final Volume:**	1 mL
Data File:	037f3701.d	**Column:**	1 CLP1	**Level:**	LOW
	037b3701.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	3.90	ug/kg	1.30	3.90	1
11104–28–2	Aroclor–1221	U	3.90	ug/kg	1.30	3.90	1
11141–16–5	Aroclor–1232	U	3.90	ug/kg	1.30	3.90	1
53469–21–9	Aroclor–1242	U	3.90	ug/kg	1.30	3.90	1
12672–29–6	Aroclor–1248	U	3.90	ug/kg	1.30	3.90	1
11097–69–1	Aroclor–1254	U	3.90	ug/kg	1.30	3.90	1
11096–82–5	Aroclor–1260	J	3.30	ug/kg	1.30	3.90	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/121509.b/037f3701.d
Lab Smp Id: 242654001 Client Smp ID: RE03-09-14224
Inj Date : 15-DEC-2009 15:04
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |242654001|1|
Misc Info : |ECD82P_1S|932746|SVAF|LANL|SOIL|RE03-09-14224|||
Comment :
Method : /chem/ecd2a.i/121509.b/ECD2-F-8082-111209A.m
Meth Date : 16-Dec-2009 08:12 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012f1201.d
Als bottle: 37
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-852.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.02000	Weight of sample extracted (g)
M	14.56650	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.775	1.774	0.001	7735031	124.174	4.8	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.610	5.611	-0.001	7592666	140.315	5.5	80.00- 120.00	100.00
7 Aroclor-1260					CAS #: 11096-82-5		
4.016	4.017	-0.001	320370	76.9178	3.0	80.00- 120.00	100.00(a)
4.289	4.288	0.001	147114	56.7883	2.2	41.92- 81.92	45.92
4.456	4.454	0.002	417648	158.729	6.2	43.22- 83.22	130.36
4.667	4.667	0.000	306384	50.3292	2.0	133.43- 173.43	95.63
4.856	4.857	-0.001	221794	75.3850	2.9	53.80- 93.80	69.23
			Average of Peak Concentrations =		3.3		

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

Data File: /chem/ecd2a.i/121509.b/037f3701.d

Date : 15-DEC-2009 15:04

Client ID: RE03-09-14224

Sample Info: 1242654001|1|

Volume Injected (uL): 1.0

Column phase: CLP1

Instrument: ecd2a.i

Operator: JAOC

Column diameter: 0.25

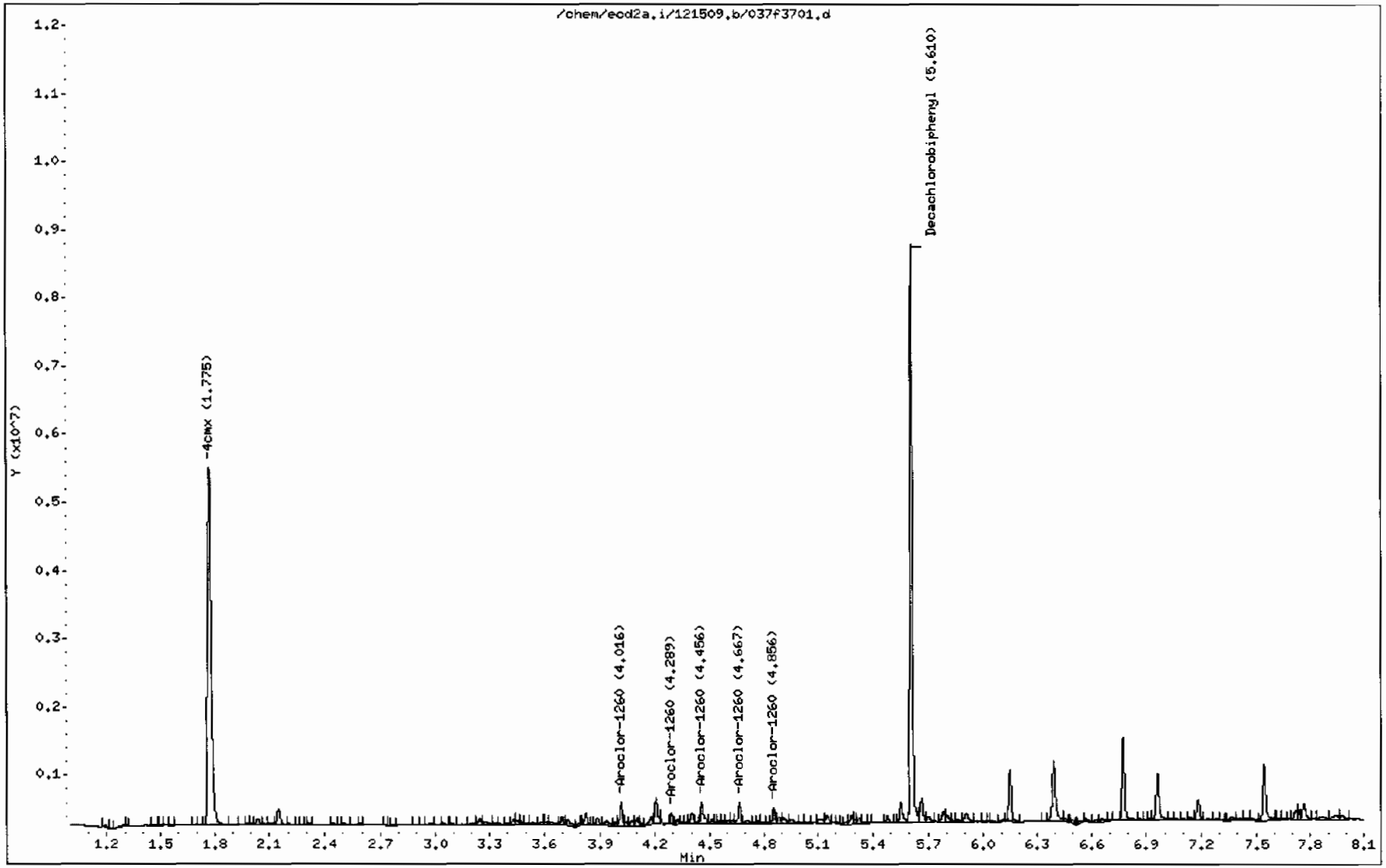

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/121509.b/037b3701.d
Lab Smp Id: 242654001 Client Smp ID: RE03-09-14224
Inj Date : 15-DEC-2009 15:04
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |242654001|1|
Misc Info : |ECD82P_1S|932746|SVAF|LANL|SOIL|RE03-09-14224|||
Comment :
Method : /chem/ecd2a.i/121509.b/ECD2-B-8082-111209A.m
Meth Date : 15-Dec-2009 14:28 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012b1201.d
Als bottle: 37
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-852.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.02000	Weight of sample extracted (g)
M	14.56650	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.071	2.070	0.001	16885415	130.573	5.1	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.303	6.303	0.000	17044628	151.128	5.9	80.00- 120.00	100.00
7 Aroclor-1260					CAS #: 11096-82-5		
4.416	4.416	0.000	254406	44.1148	1.7	80.00- 120.00	100.00(a)
4.568	4.568	0.000	447932	62.8775	2.4	106.06- 146.06	176.07
4.679	4.680	-0.001	475978	98.7773	3.8	65.31- 105.31	187.09
4.877	4.876	0.001	279209	49.5777	1.9	77.62- 117.62	109.75
5.503	5.503	0.000	523354	57.9091	2.2	139.41- 179.41	205.72
Average of Peak Concentrations =					2.4		

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

Data File: /chem/ecd2a.i/121509.b/037b3701.d

Date : 15-DEC-2009 15:04

Client ID: RE03-09-14224

Sample Info: |242654001|1|

Volume Injected (uL): 1.0

Column phase: CLP2

Instrument: ecd2a.i

Operator: JAOC

Column diameter: 0.25

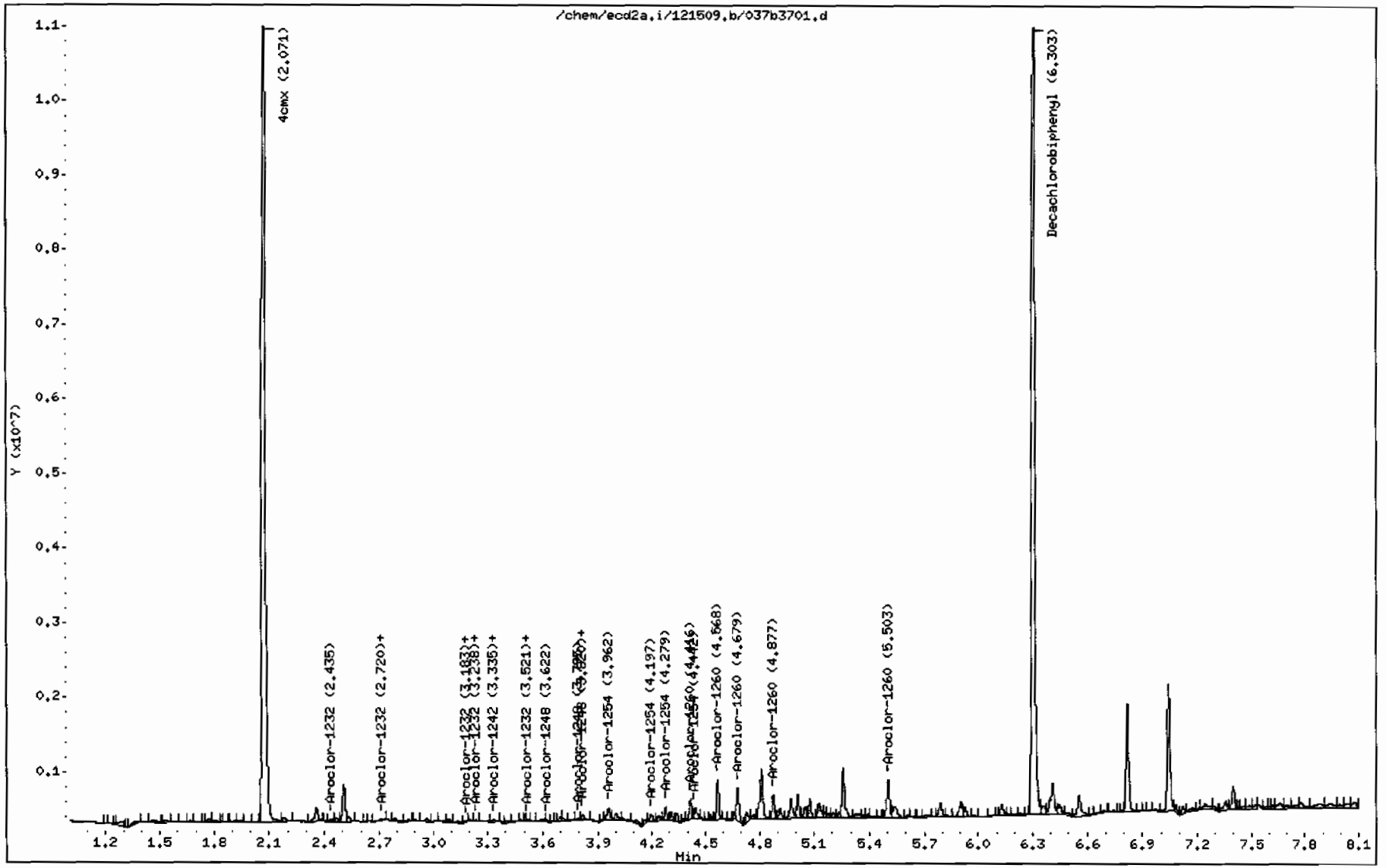

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10-852	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242654003	**Date Received:**	12/10/2009 08:50	**%Moisture:**	11.9
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14225	**Method:**	SW846 8082	**SOP Ref:**	GL-OA-E-040
Batch ID:	932746	**Inst:**	ECD2A.I	**Dilution:**	1
Run Date:	12/15/2009 15:48	**Analyst:**	JAOC	**Inj. Vol:**	1 uL
Prep Date:	12/14/2009 22:59	**Aliquot:**	30.02 g	**Final Volume:**	1 mL
Data File:	041f4101.d	**Column:**	1 CLP1	**Level:**	LOW
	041b4101.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.78	ug/kg	1.26	3.78	1
11104-28-2	Aroclor-1221	U	3.78	ug/kg	1.26	3.78	1
11141-16-5	Aroclor-1232	U	3.78	ug/kg	1.26	3.78	1
53469-21-9	Aroclor-1242	U	3.78	ug/kg	1.26	3.78	1
12672-29-6	Aroclor-1248	U	3.78	ug/kg	1.26	3.78	1
11097-69-1	Aroclor-1254	U	3.78	ug/kg	1.26	3.78	1
11096-82-5	Aroclor-1260	U	3.78	ug/kg	1.26	3.78	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/121509.b/041f4101.d
Lab Smp Id: 242654003 Client Smp ID: RE03-09-14225
Inj Date : 15-DEC-2009 15:48
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |242654003|1|
Misc Info : |ECD82P_1S|932746|SVAF|LANL|SOIL|RE03-09-14225|||
Comment :
Method : /chem/ecd2a.i/121509.b/ECD2-F-8082-111209A.m
Meth Date : 15-Dec-2009 16:48 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012f1201.d
Als bottle: 41
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-852.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.02000	Weight of sample extracted (g)
M	11.93810	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.773	1.774	-0.001	7990821	128.281	4.8	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.610	5.611	-0.001	8134498	150.328	5.7	80.00- 120.00	100.00

Data File: /chem/ecd2a.i/121509.b/041f4101.d

Date : 15-DEC-2009 15:48

Client ID: RE03-09-14225

Sample Info: 1242654003111

Volume Injected (uL): 1.0

Column phase: CLP1

Instrument: ecd2a.i

Operator: JAOC

Column diameter: 0.25

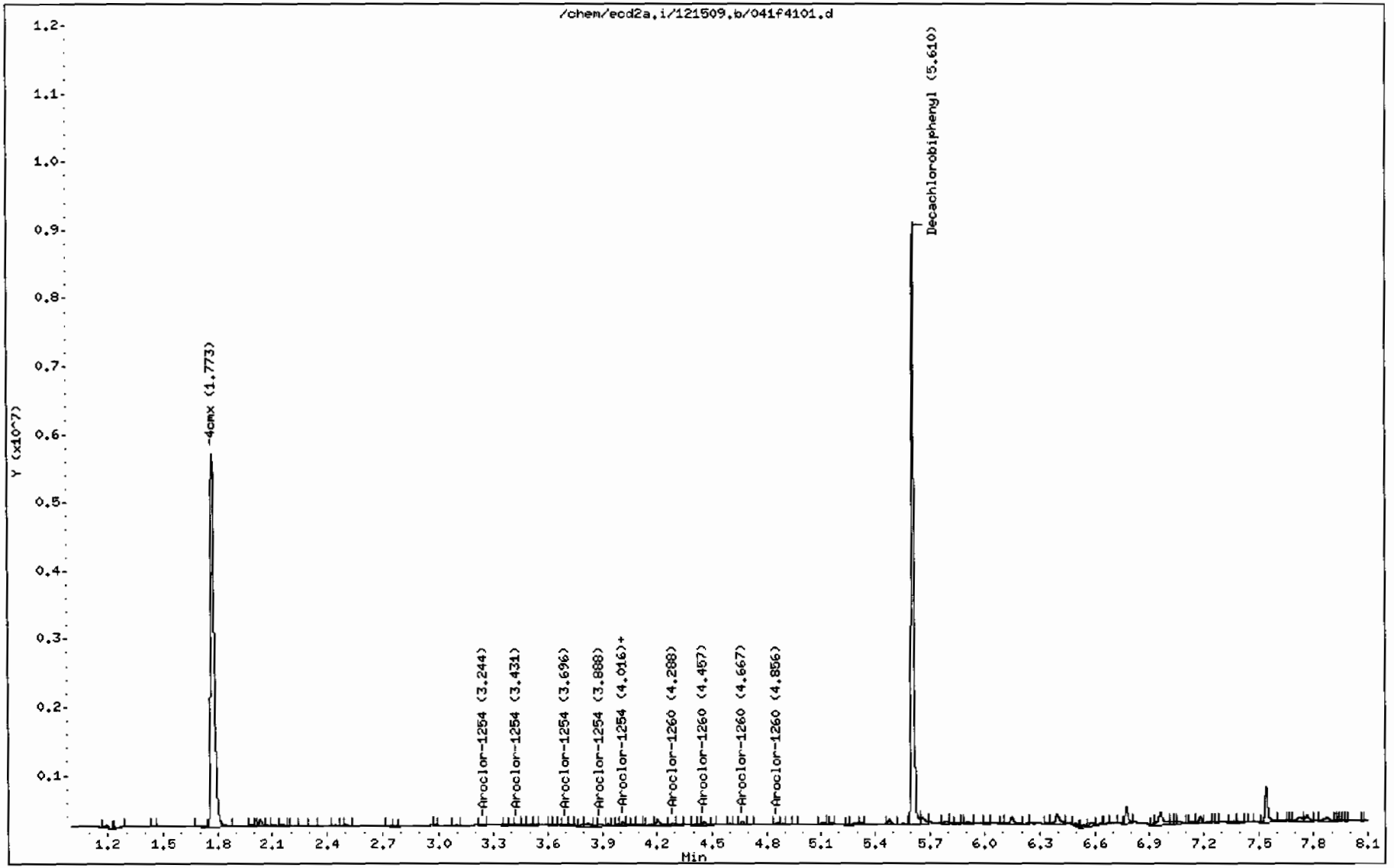

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/121509.b/041b4101.d
Lab Smp Id: 242654003 Client Smp ID: RE03-09-14225
Inj Date : 15-DEC-2009 15:48
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |242654003|1|
Misc Info : |ECD82P_1S|932746|SVAF|LANL|SOIL|RE03-09-14225|||
Comment :
Method : /chem/ecd2a.i/121509.b/ECD2-B-8082-111209A.m
Meth Date : 15-Dec-2009 16:44 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012b1201.d
Als bottle: 41
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-852.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.02000	Weight of sample extracted (g)
M	11.93810	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.070	2.070	0.000	17556563	135.763	5.1	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.303	6.303	0.000	17365926	153.976	5.8	80.00- 120.00	100.00

Data File: /chem/ecd2a.i/121509.b/041b4101.d
Date : 15-DEC-2009 15:48
Client ID: RE03-09-14225
Sample Info: 1242654003111
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd2a.i
Operator: JAOC
Column diameter: 0.25

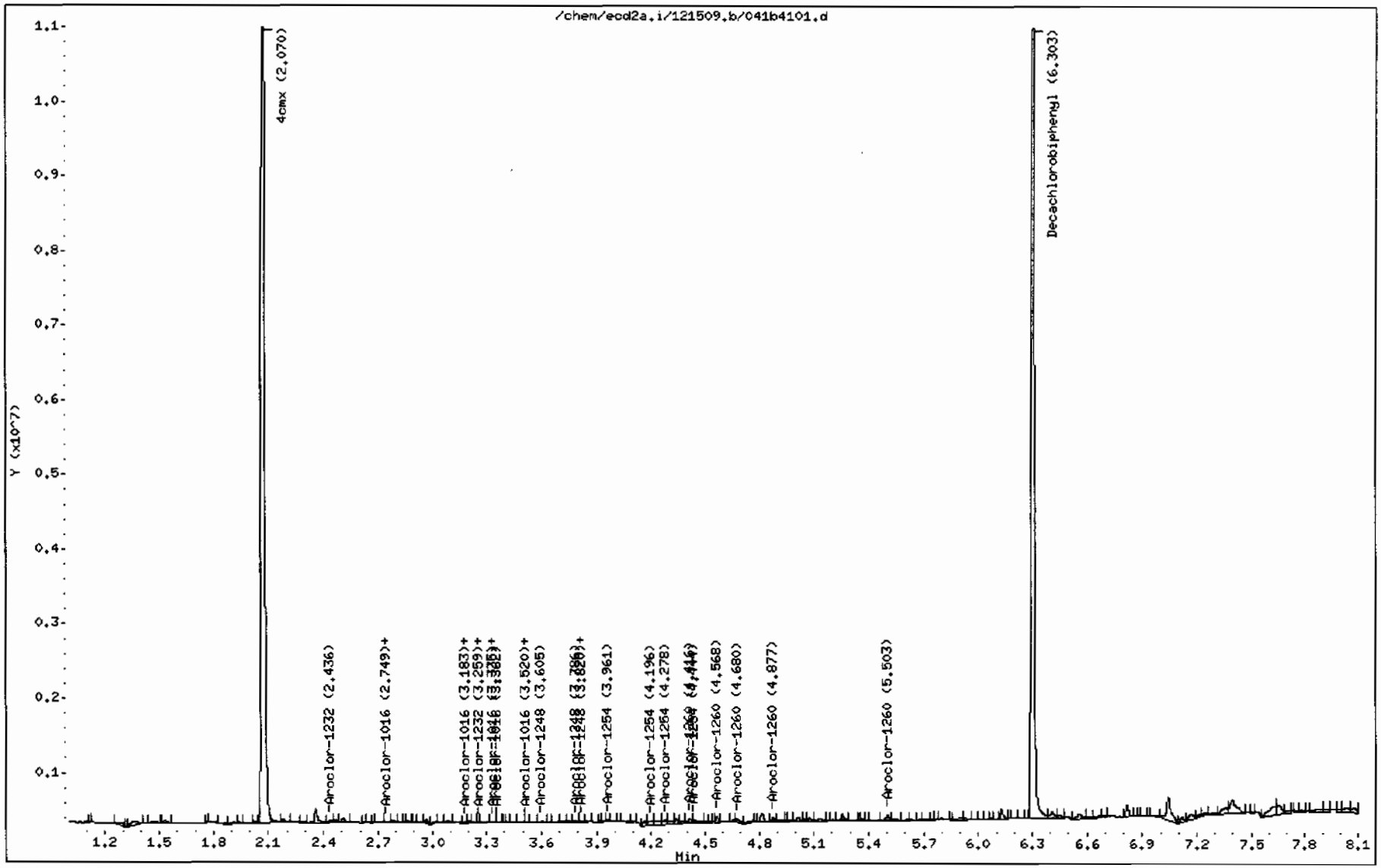

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10–852	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242654004	**Date Received:**	12/10/2009 08:50	**%Moisture:**	9.5
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03–09–14226	**Method:**	SW846 8082	**SOP Ref:**	GL–OA–E–040
Batch ID:	932746	**Inst:**	ECD2A.I	**Dilution:**	1
Run Date:	12/15/2009 15:59	**Analyst:**	JAOC	**Inj. Vol:**	1 uL
Prep Date:	12/14/2009 22:59	**Aliquot:**	30.02 g	**Final Volume:**	1 mL
Data File:	042f4201.d	**Column:**	1 CLP1	**Level:**	LOW
	042b4201.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	3.68	ug/kg	1.23	3.68	1
11104–28–2	Aroclor–1221	U	3.68	ug/kg	1.23	3.68	1
11141–16–5	Aroclor–1232	U	3.68	ug/kg	1.23	3.68	1
53469–21–9	Aroclor–1242	U	3.68	ug/kg	1.23	3.68	1
12672–29–6	Aroclor–1248	U	3.68	ug/kg	1.23	3.68	1
11097–69–1	Aroclor–1254	U	3.68	ug/kg	1.23	3.68	1
11096–82–5	Aroclor–1260	U	3.68	ug/kg	1.23	3.68	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/121509.b/042f4201.d
Lab Smp Id: 242654004 Client Smp ID: RE03-09-14226
Inj Date : 15-DEC-2009 15:59
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |242654004|1|
Misc Info : |ECD82P_1S|932746|SVAF|LANL|SOIL|RE03-09-14226|||
Comment :
Method : /chem/ecd2a.i/121509.b/ECD2-F-8082-111209A.m
Meth Date : 15-Dec-2009 16:48 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012f1201.d
Als bottle: 42
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-852.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.02000	Weight of sample extracted (g)
M	9.51940	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.773	1.774	-0.001	8134055	130.580	4.8	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.611	5.611	0.000	7796255	144.077	5.3	80.00- 120.00	100.00

Data File: /chem/ecd2a.i/121509.b/042f4201.d

Date : 15-DEC-2009 15:59

Client ID: RE03-09-14226

Sample Info: 1242654004111

Volume Injected (uL): 1.0

Column phase: CLP1

Instrument: ecd2a.i

Operator: JAOC

Column diameter: 0.25

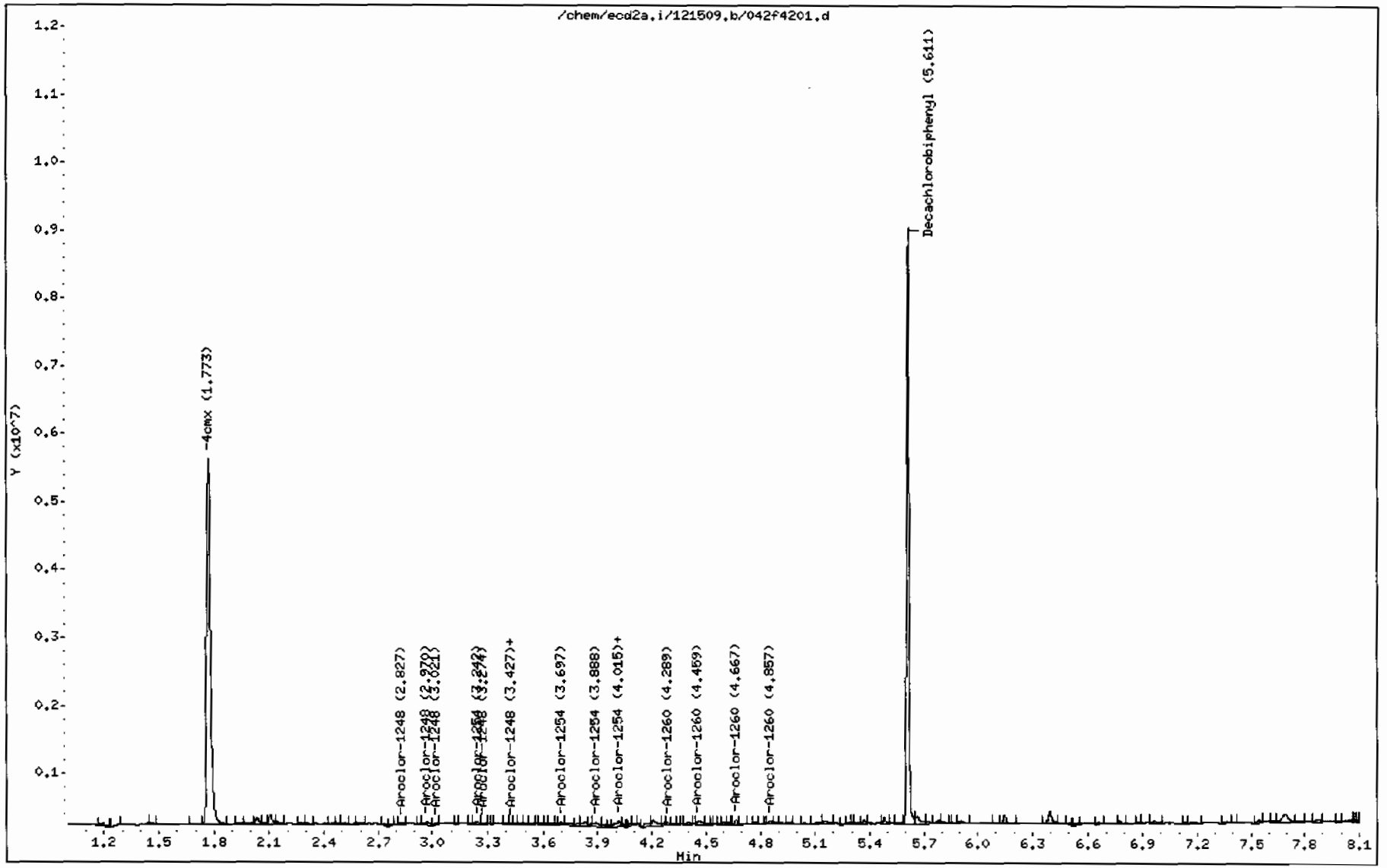

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/121509.b/042b4201.d
Lab Smp Id: 242654004 Client Smp ID: RE03-09-14226
Inj Date : 15-DEC-2009 15:59
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |242654004|1|
Misc Info : |ECD82P_1S|932746|SVAF|LANL|SOIL|RE03-09-14226|||
Comment :
Method : /chem/ecd2a.i/121509.b/ECD2-B-8082-111209A.m
Meth Date : 15-Dec-2009 16:44 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012b1201.d
Als bottle: 42
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-852.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.02000	Weight of sample extracted (g)
M	9.51940	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.070	2.070	0.000	17662792	136.584	5.0	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.303	6.303	0.000	16822993	149.163	5.5	80.00- 120.00	100.00

Data File: /chem/ecd2a.i/121509.b/042b4201.d

Date : 15-DEC-2009 15:59

Client ID: RE03-09-14226

Sample Info: |242654004|1|

Volume Injected (uL): 1.0

Column phase: CLP2

Instrument: ecd2a.i

Operator: JAOC

Column diameter: 0.25

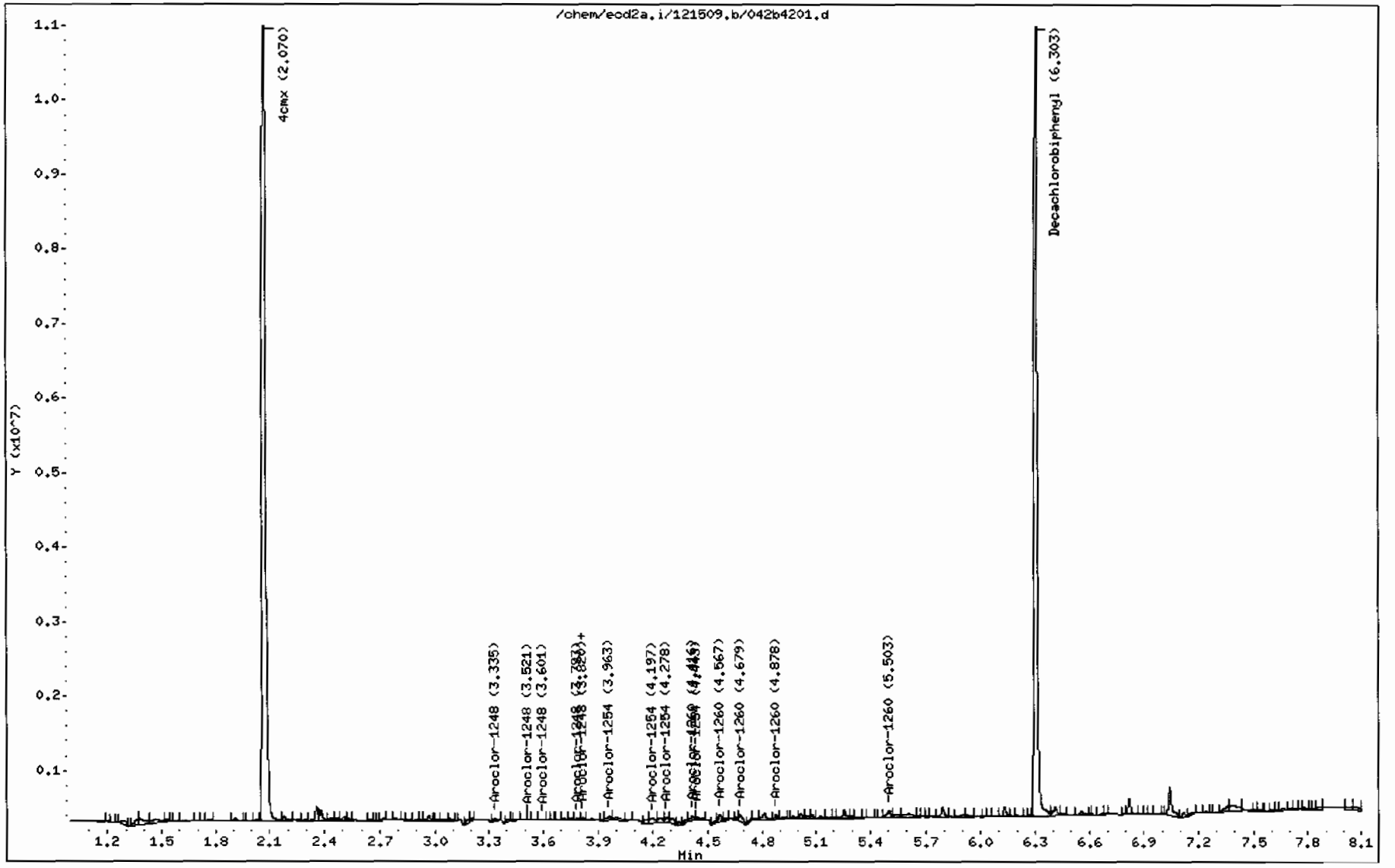

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10-852**	**Date Collected:**	**12/07/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242654002**	**Date Received:**	**12/10/2009 08:50**	**%Moisture:**	**10.3**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14227**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**932746**	**Inst:**	**ECD2A.I**	**Dilution:**	**1**
Run Date:	**12/15/2009 15:37**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**12/14/2009 22:59**	**Aliquot:**	**30.05 g**	**Final Volume:**	**1 mL**
Data File:	**040f4001.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	040b4001.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.71	ug/kg	1.24	3.71	1
11104-28-2	Aroclor-1221	U	3.71	ug/kg	1.24	3.71	1
11141-16-5	Aroclor-1232	U	3.71	ug/kg	1.24	3.71	1
53469-21-9	Aroclor-1242	U	3.71	ug/kg	1.24	3.71	1
12672-29-6	Aroclor-1248	U	3.71	ug/kg	1.24	3.71	1
11097-69-1	Aroclor-1254	U	3.71	ug/kg	1.24	3.71	1
11096-82-5	Aroclor-1260	U	3.71	ug/kg	1.24	3.71	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/121509.b/040f4001.d
Lab Smp Id: 242654002 Client Smp ID: RE03-09-14227
Inj Date : 15-DEC-2009 15:37
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |242654002|1|
Misc Info : |ECD82P_1S|932746|SVAF|LANL|SOIL|RE03-09-14227|||
Comment :
Method : /chem/ecd2a.i/121509.b/ECD2-F-8082-111209A.m
Meth Date : 15-Dec-2009 16:48 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012f1201.d
Als bottle: 40
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-852.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.05000	Weight of sample extracted (g)
M	10.27880	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.771	1.774	-0.003	8714225	139.894	5.2	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.611	5.611	0.000	8496345	157.015	5.8	80.00- 120.00	100.00

Data File: /chem/ecd2a.i/121509.b/040f4001.d

Date : 15-DEC-2009 15:37

Client ID: RE03-09-14227

Sample Info: |242654002|1|

Volume Injected (uL): 1.0

Column phase: CLP1

Instrument: ecd2a.i

Operator: JAOC

Column diameter: 0.25

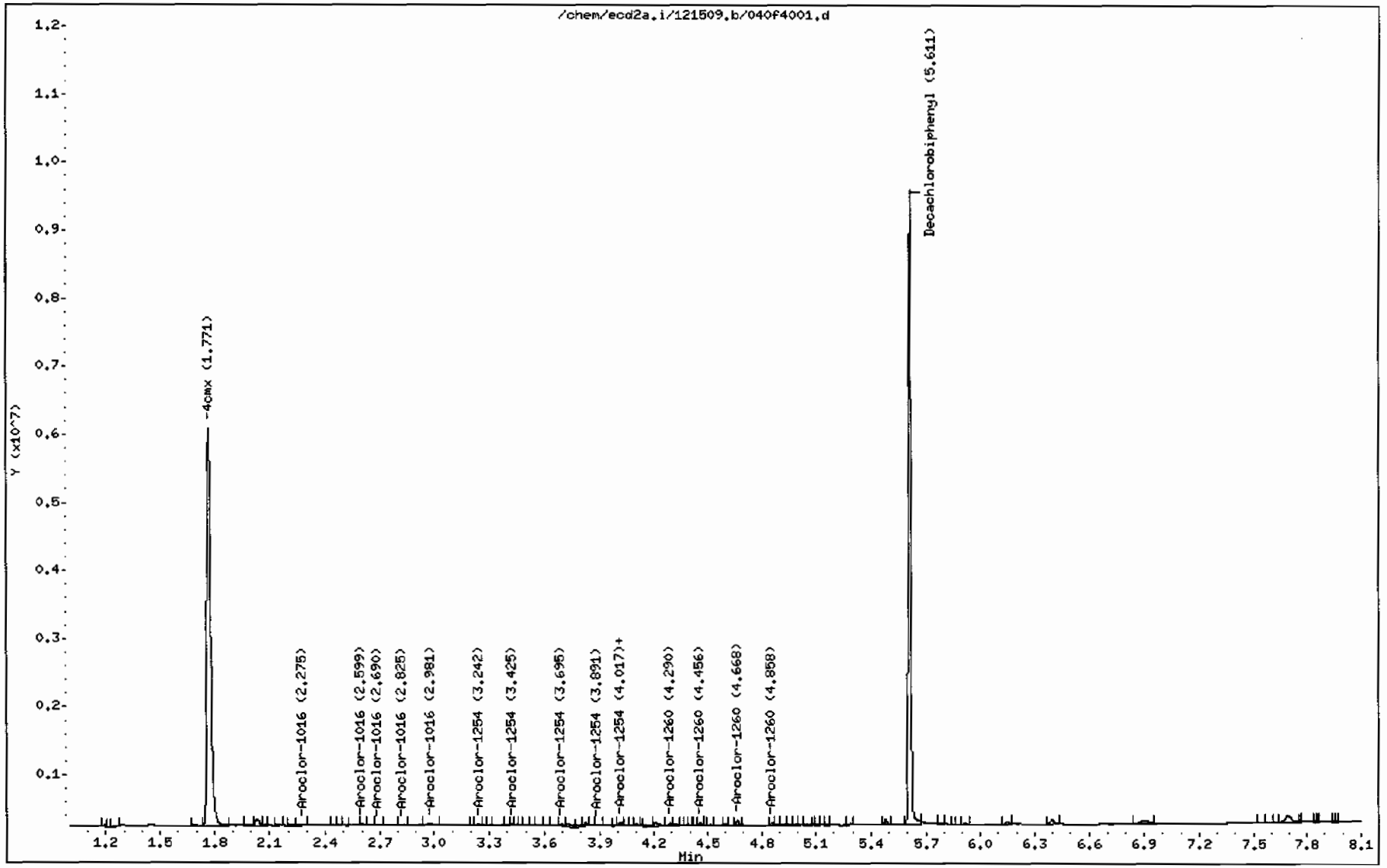

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/121509.b/040b4001.d
Lab Smp Id: 242654002 Client Smp ID: RE03-09-14227
Inj Date : 15-DEC-2009 15:37
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |242654002|1|
Misc Info : |ECD82P_1S|932746|SVAF|LANL|SOIL|RE03-09-14227|||
Comment :
Method : /chem/ecd2a.i/121509.b/ECD2-B-8082-111209A.m
Meth Date : 15-Dec-2009 16:44 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012b1201.d
Als bottle: 40
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-852.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.05000	Weight of sample extracted (g)
M	10.27880	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.069	2.070	-0.001	18867014	145.896	5.4	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.304	6.303	0.001	17832314	158.112	5.9	80.00- 120.00	100.00

Data File: /chem/ecd2a.i/121509.b/040b4001.d

Date : 15-DEC-2009 15:37

Client ID: RE03-09-14227

Sample Info: |242654002|1|

Volume Injected (uL): 1.0

Column phase: CLP2

Instrument: ecd2a.i

Operator: JAOC

Column diameter: 0.25

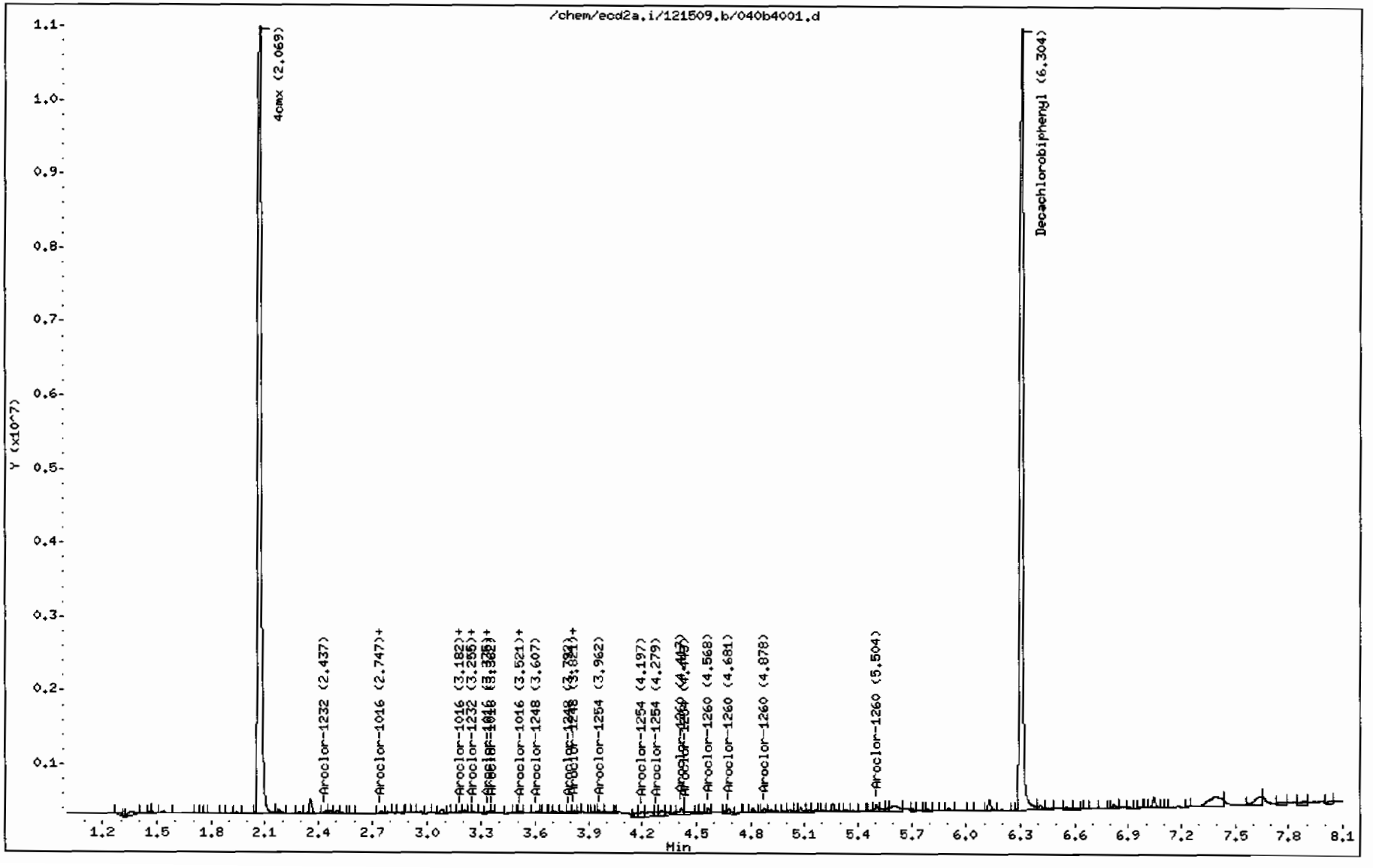

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10–852	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242654008	**Date Received:**	12/10/2009 08:50	**%Moisture:**	13
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03–09–14265	**Method:**	SW846 8082	**SOP Ref:**	GL–OA–E–040
Batch ID:	932746	**Inst:**	ECD2A.I	**Dilution:**	5
Run Date:	12/15/2009 17:05	**Analyst:**	JAOC	**Inj. Vol:**	1 uL
Prep Date:	12/14/2009 22:59	**Aliquot:**	30.01 g	**Final Volume:**	1 mL
Data File:	048f4801.d	**Column:**	1 CLP1	**Level:**	LOW
	048b4801.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	19.2	ug/kg	6.38	19.2	1
11104–28–2	Aroclor–1221	U	19.2	ug/kg	6.38	19.2	1
11141–16–5	Aroclor–1232	U	19.2	ug/kg	6.38	19.2	1
53469–21–9	Aroclor–1242	U	19.2	ug/kg	6.38	19.2	1
12672–29–6	Aroclor–1248	U	19.2	ug/kg	6.38	19.2	1
11097–69–1	Aroclor–1254	U	19.2	ug/kg	6.38	19.2	1
11096–82–5	Aroclor–1260	U	19.2	ug/kg	6.38	19.2	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/121509.b/048f4801.d
Lab Smp Id: 242654008 Client Smp ID: RE03-09-14265
Inj Date : 15-DEC-2009 17:05
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |242654008|5|
Misc Info : |ECD82P_1S|932746|SVAF|LANL|SOIL|RE03-09-14265|||
Comment :
Method : /chem/ecd2a.i/121509.b/ECD2-F-8082-111209A.m
Meth Date : 16-Dec-2009 08:12 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012f1201.d
Als bottle: 48
Dil Factor: 5.00000
Integrator: Falcon Compound Sublist: 10-852.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	5.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.01000	Weight of sample extracted (g)
M	13.03450	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.772	1.774	-0.002	843554	13.5420	2.6	80.00- 120.00	100.00(R)
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.612	5.611	0.001	675041	12.4750	2.4	80.00- 120.00	100.00(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: /chem/ecd2a.i/121509.b/048f4801.d

Page 1

Date : 15-DEC-2009 17:05

Client ID: RE03-09-14265

Instrument: ecd2a.i

Sample Info: 1242654008151

Volume Injected (uL): 1.0

Operator: JAOC

Column phase: CLP1

Column diameter: 0.25

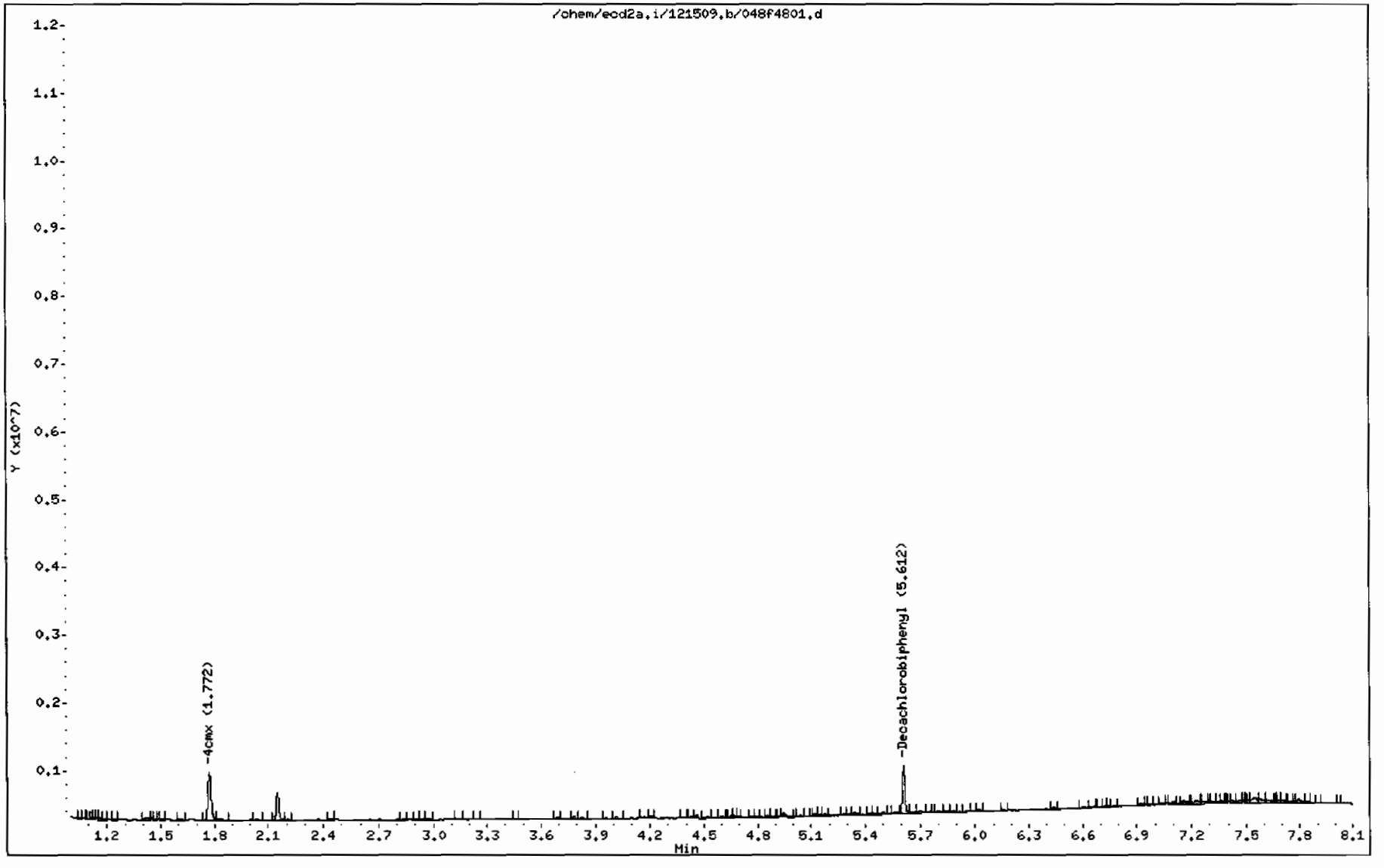

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/121509.b/048b4801.d
Lab Smp Id: 242654008 Client Smp ID: RE03-09-14265
Inj Date : 15-DEC-2009 17:05
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |242654008|5|
Misc Info : |ECD82P_1S|932746|SVAF|LANL|SOIL|RE03-09-14265|||
Comment :
Method : /chem/ecd2a.i/121509.b/ECD2-B-8082-111209A.m
Meth Date : 16-Dec-2009 08:01 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012b1201.d
Als bottle: 48
Dil Factor: 5.00000
Integrator: Falcon Compound Sublist: 10-852.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	5.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.01000	Weight of sample extracted (g)
M	13.03450	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.070	2.070	0.000	1711085	13.2316	2.5	80.00- 120.00	100.00(R)
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.304	6.303	0.001	1240129	10.9957	2.1	80.00- 120.00	100.00(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: /chem/ecd2a.i/121509.b/048b4801.d

Date : 15-DEC-2009 17:05

Client ID: RE03-09-14265

Sample Info: 1242654008151

Volume Injected (uL): 1.0

Column phase: CLP2

Instrument: ecd2a.i

Operator: JAOC

Column diameter: 0.25

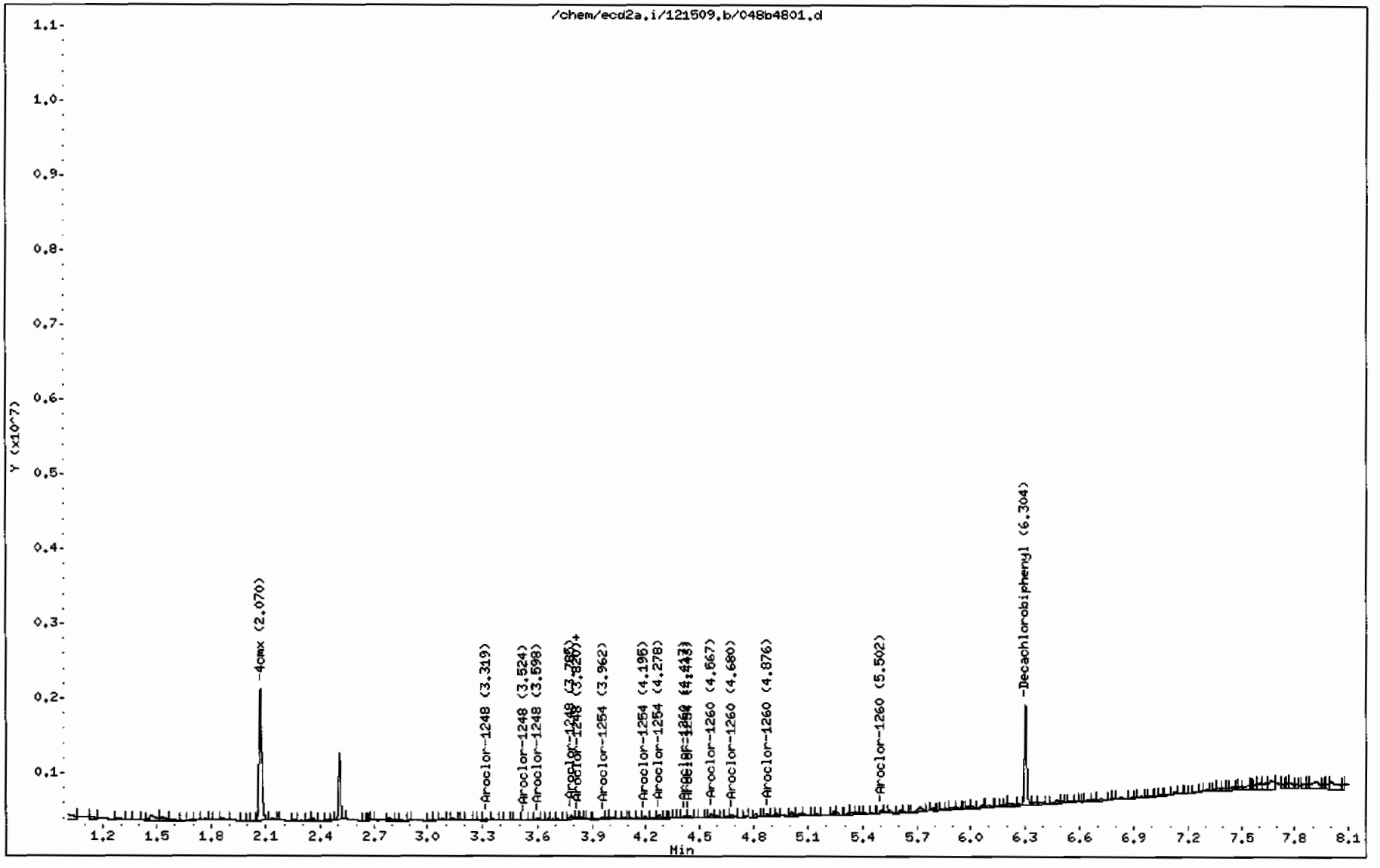

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10–852	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242654007	**Date Received:**	12/10/2009 08:50	**%Moisture:**	14.2
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03–09–14267	**Method:**	SW846 8082	**SOP Ref:**	GL–OA–E–040
Batch ID:	932746	**Inst:**	ECD2A.I	**Dilution:**	5
Run Date:	12/15/2009 16:54	**Analyst:**	JAOC	**Inj. Vol:**	1 uL
Prep Date:	12/14/2009 22:59	**Aliquot:**	30.07 g	**Final Volume:**	1 mL
Data File:	047f4701.d	**Column:**	1 CLP1	**Level:**	LOW
	047b4701.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	19.4	ug/kg	6.45	19.4	1
11104–28–2	Aroclor–1221	U	19.4	ug/kg	6.45	19.4	1
11141–16–5	Aroclor–1232	U	19.4	ug/kg	6.45	19.4	1
53469–21–9	Aroclor–1242	U	19.4	ug/kg	6.45	19.4	1
12672–29–6	Aroclor–1248	U	19.4	ug/kg	6.45	19.4	1
11097–69–1	Aroclor–1254	U	19.4	ug/kg	6.45	19.4	1
11096–82–5	Aroclor–1260	U	19.4	ug/kg	6.45	19.4	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/121509.b/047f4701.d
Lab Smp Id: 242654007 Client Smp ID: RE03-09-14267
Inj Date : 15-DEC-2009 16:54
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |242654007|5|
Misc Info : |ECD82P_1S|932746|SVAF|LANL|SOIL|RE03-09-14267|||
Comment :
Method : /chem/ecd2a.i/121509.b/ECD2-F-8082-111209A.m
Meth Date : 16-Dec-2009 08:12 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012f1201.d
Als bottle: 47
Dil Factor: 5.00000
Integrator: Falcon Compound Sublist: 10-852.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	5.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.07000	Weight of sample extracted (g)
M	14.20350	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.773	1.774	-0.001	1038144	16.6659	3.2	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.612	5.611	0.001	826074	15.2661	3.0	80.00- 120.00	100.00

Data File: /chem/ecd2a.i/121509.b/047f4701.d

Date : 15-DEC-2009 16:54

Client ID: RE03-09-14267

Sample Info: |242654007|5|

Volume Injected (uL): 1.0

Column phase: CLP1

Instrument: ecd2a.i

Operator: JAOC

Column diameter: 0.25

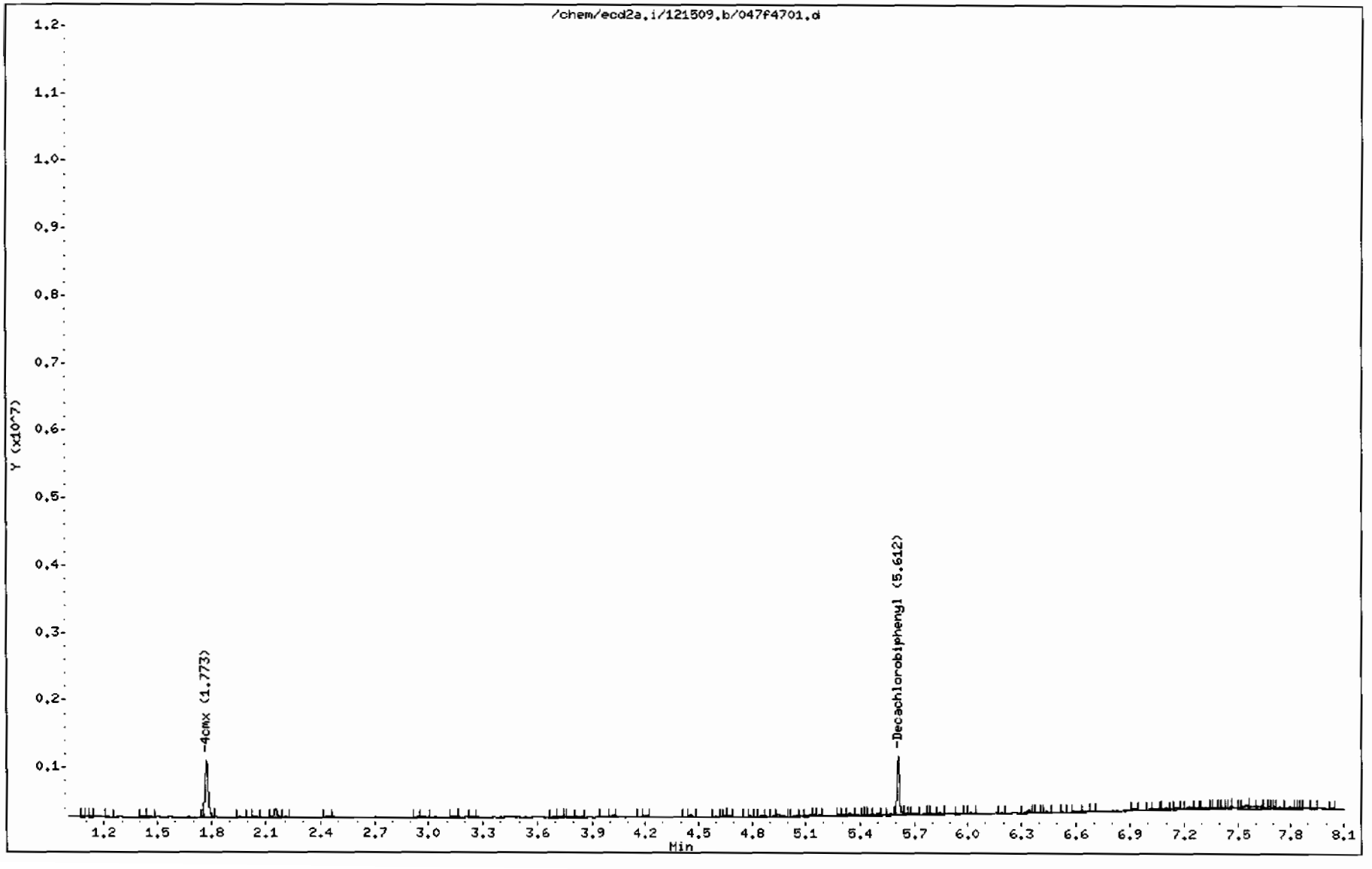

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/121509.b/047b4701.d
Lab Smp Id: 242654007 Client Smp ID: RE03-09-14267
Inj Date : 15-DEC-2009 16:54
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |242654007|5|
Misc Info : |ECD82P_1S|932746|SVAF|LANL|SOIL|RE03-09-14267|||
Comment :
Method : /chem/ecd2a.i/121509.b/ECD2-B-8082-111209A.m
Meth Date : 16-Dec-2009 08:01 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012b1201.d
Als bottle: 47
Dil Factor: 5.00000
Integrator: Falcon Compound Sublist: 10-852.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	5.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.07000	Weight of sample extracted (g)
M	14.20350	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.071	2.070	0.001	2118182	16.3796	3.2	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.304	6.303	0.001	1528906	13.5562	2.6	80.00- 120.00	100.00

Data File: /chem/ecd2a.i/121509.b/047b4701.d

Date : 15-DEC-2009 16:54

Client ID: RE03-09-14267

Sample Info: |2426540071|5|

Volume Injected (uL): 1.0

Column phase: CLP2

Instrument: ecd2a.i

Operator: JAOC

Column diameter: 0.25

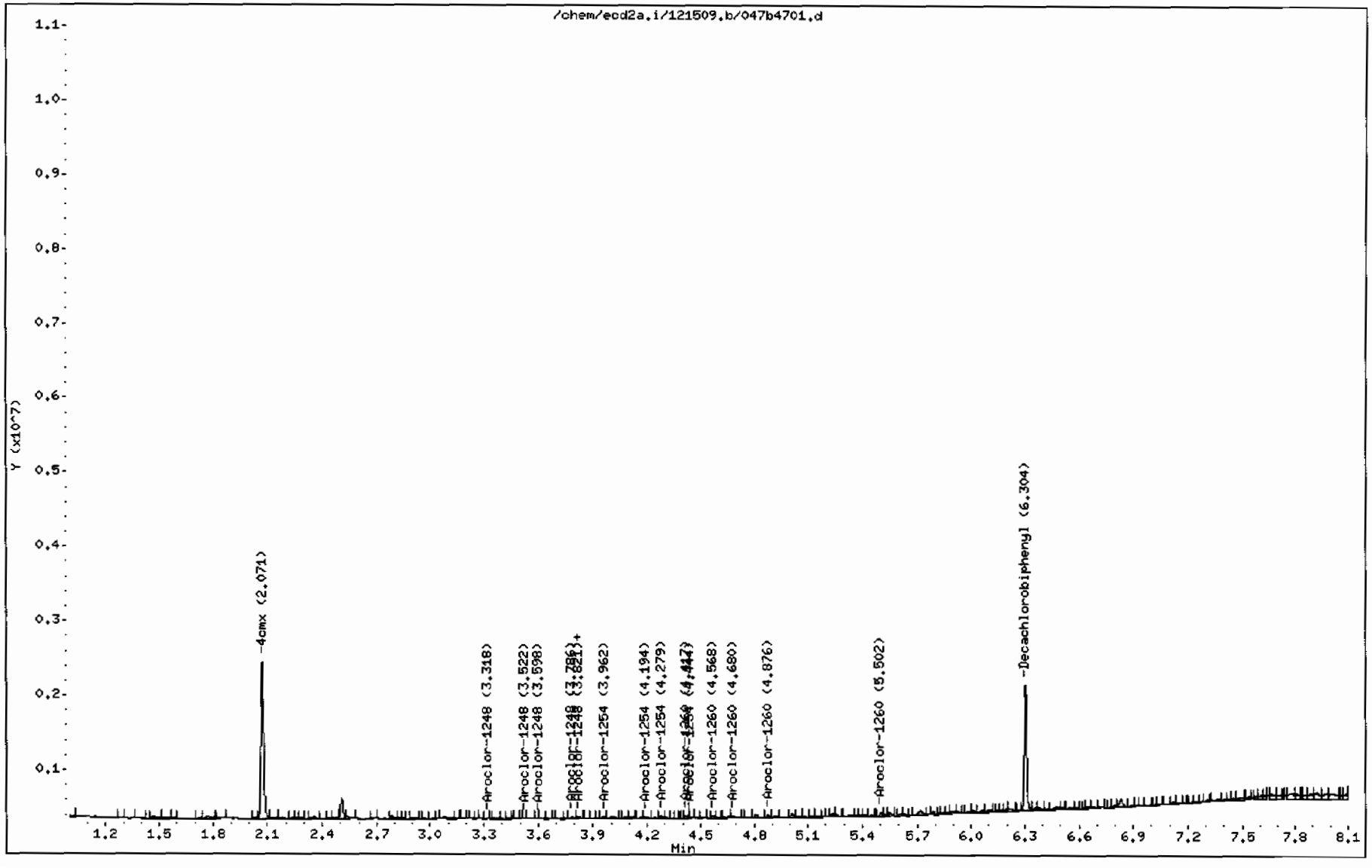

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10–852	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242654014	**Date Received:**	12/10/2009 08:50	**%Moisture:**	10.7
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03–09–14269	**Method:**	SW846 8082	**SOP Ref:**	GL–OA–E–040
Batch ID:	932746	**Inst:**	ECD2A.I	**Dilution:**	5
Run Date:	12/15/2009 18:12	**Analyst:**	JAOC	**Inj. Vol:**	1 uL
Prep Date:	12/14/2009 22:59	**Aliquot:**	30.15 g	**Final Volume:**	1 mL
Data File:	054f5401.d	**Column:**	1 CLP1	**Level:**	LOW
	054b5401.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	18.6	ug/kg	6.18	18.6	1
11104–28–2	Aroclor–1221	U	18.6	ug/kg	6.18	18.6	1
11141–16–5	Aroclor–1232	U	18.6	ug/kg	6.18	18.6	1
53469–21–9	Aroclor–1242	U	18.6	ug/kg	6.18	18.6	1
12672–29–6	Aroclor–1248	U	18.6	ug/kg	6.18	18.6	1
11097–69–1	Aroclor–1254	U	18.6	ug/kg	6.18	18.6	1
11096–82–5	Aroclor–1260	U	18.6	ug/kg	6.18	18.6	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/121509.b/054f5401.d
Lab Smp Id: 242654014 Client Smp ID: RE03-09-14269
Inj Date : 15-DEC-2009 18:12
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |242654014|5|
Misc Info : |ECD82P_1S|932746|SVAF|LANL|SOIL|RE03-09-14269|||
Comment :
Method : /chem/ecd2a.i/121509.b/ECD2-F-8082-111209A.m
Meth Date : 16-Dec-2009 08:12 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012f1201.d
Als bottle: 54
Dil Factor: 5.00000
Integrator: Falcon Compound Sublist: 10-852.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	5.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.15000	Weight of sample extracted (g)
M	10.68240	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.775	1.774	0.001	1140797	18.3138	3.4	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.612	5.611	0.001	907158	16.7646	3.1	80.00- 120.00	100.00

Data File: /chem/ecd2a.i/121509.b/054f5401.d

Date : 15-DEC-2009 18:12

Client ID: RE03-09-14269

Sample Info: |242654014|5|

Volume Injected (uL): 1.0

Column phase: CLP1

Instrument: ecd2a.i

Operator: JAOC

Column diameter: 0.25

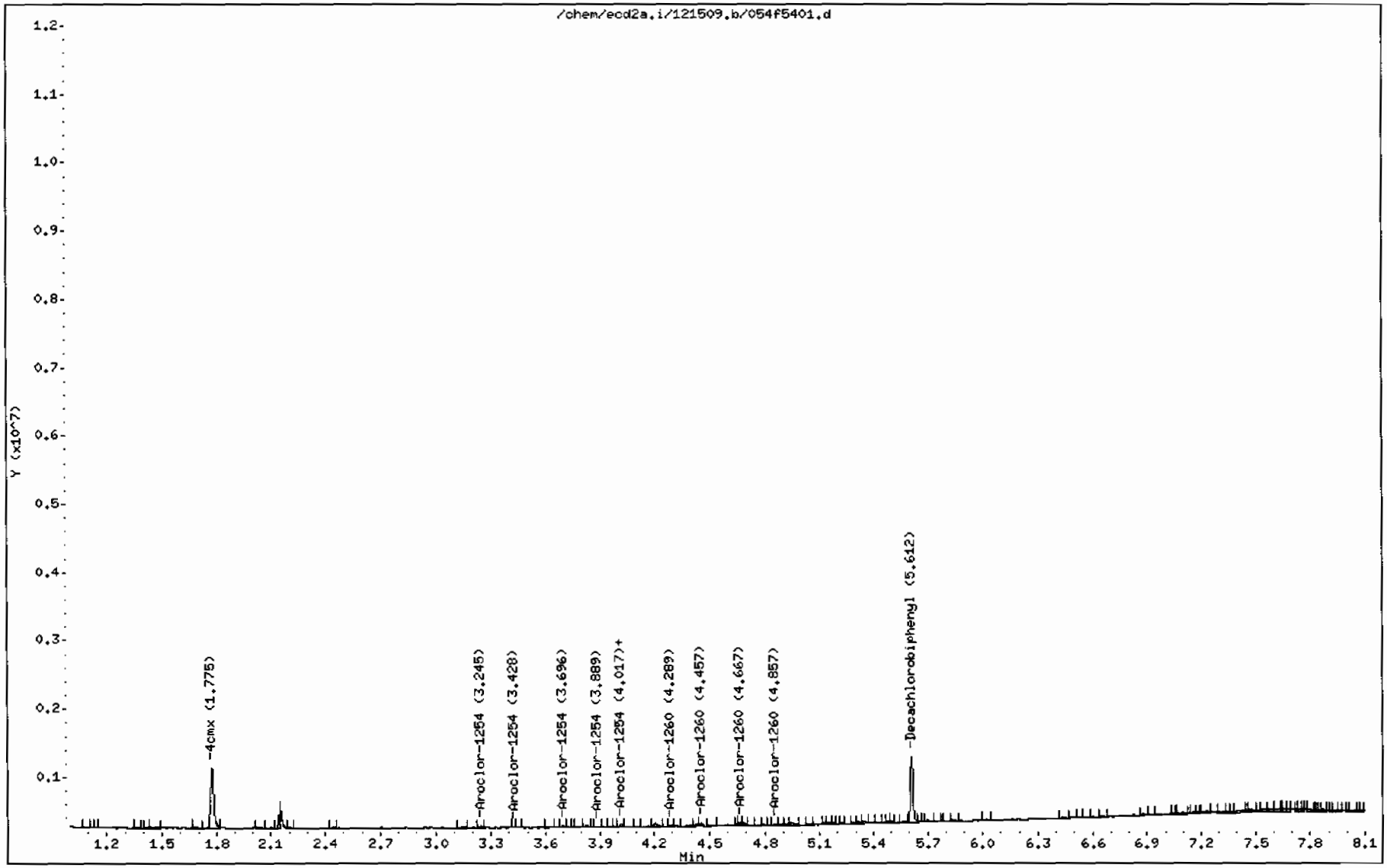

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/121509.b/054b5401.d
Lab Smp Id: 242654014 Client Smp ID: RE03-09-14269
Inj Date : 15-DEC-2009 18:12
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |242654014|5|
Misc Info : |ECD82P_1S|932746|SVAF|LANL|SOIL|RE03-09-14269|||
Comment :
Method : /chem/ecd2a.i/121509.b/ECD2-B-8082-111209A.m
Meth Date : 16-Dec-2009 08:01 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012b1201.d
Als bottle: 54
Dil Factor: 5.00000
Integrator: Falcon Compound Sublist: 10-852.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	5.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.15000	Weight of sample extracted (g)
M	10.68240	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.072	2.070	0.002	2402669	18.5795	3.4	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.305	6.303	0.002	1683773	14.9293	2.8	80.00- 120.00	100.00

Data File: /chem/ecd2a.i/121509.b/054b5401.d
Date : 15-DEC-2009 18:12
Client ID: RE03-09-14269
Sample Info: I2426540141:51
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd2a.i
Operator: JADC
Column diameter: 0.25

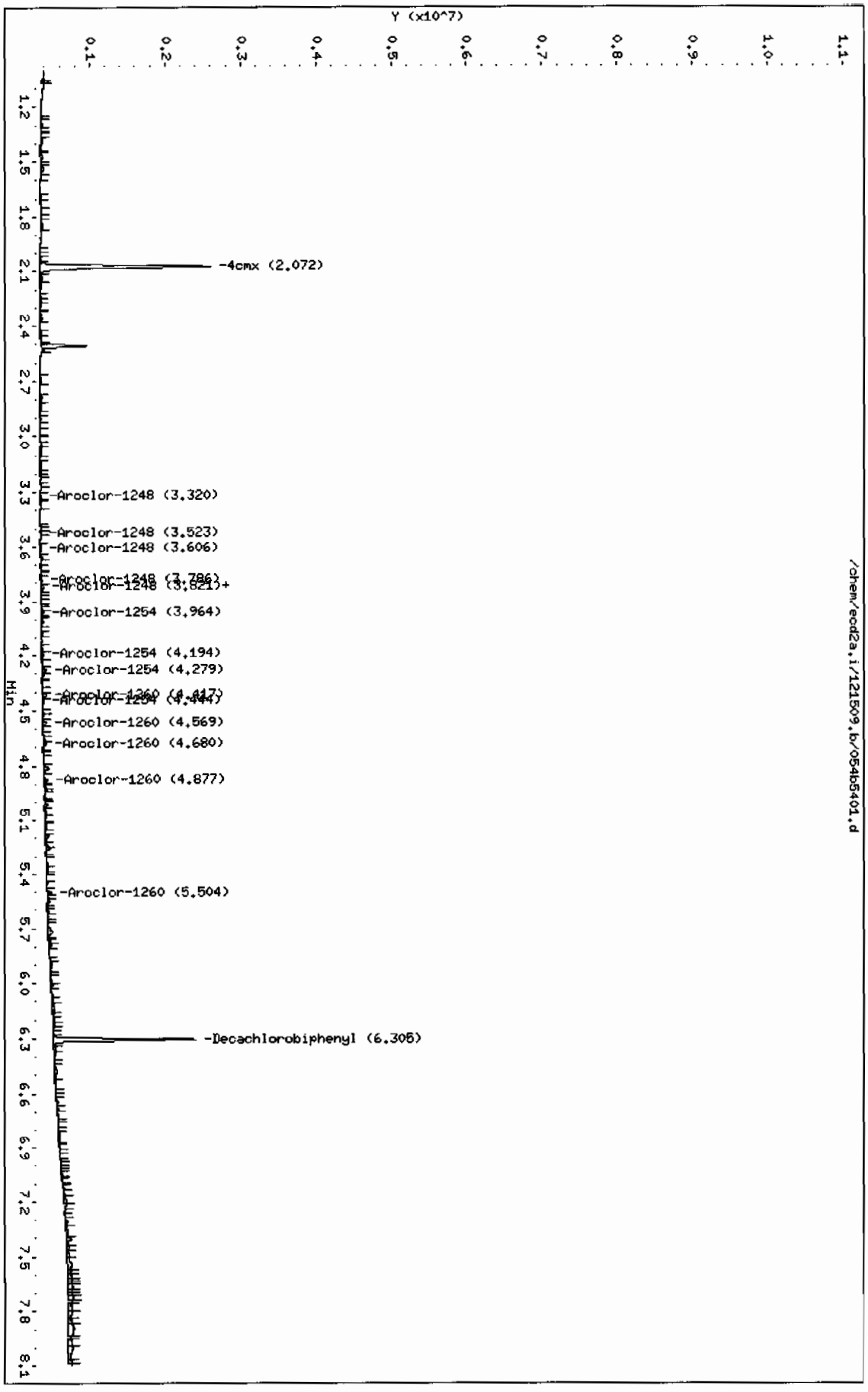

/chem/ecd2a.i/121509.b/054b5401.d

Page 1

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10–852	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242654016	**Date Received:**	12/10/2009 08:50	**%Moisture:**	13.4
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03–09–14271	**Method:**	SW846 8082	**SOP Ref:**	GL–OA–E–040
Batch ID:	932746	**Inst:**	ECD2A.I	**Dilution:**	5
Run Date:	12/15/2009 18:34	**Analyst:**	JAOC	**Inj. Vol:**	1 uL
Prep Date:	12/14/2009 22:59	**Aliquot:**	30.08 g	**Final Volume:**	1 mL
Data File:	056f5601.d	**Column:**	1 CLP1	**Level:**	LOW
	056b5601.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	19.2	ug/kg	6.39	19.2	1
11104–28–2	Aroclor–1221	U	19.2	ug/kg	6.39	19.2	1
11141–16–5	Aroclor–1232	U	19.2	ug/kg	6.39	19.2	1
53469–21–9	Aroclor–1242	U	19.2	ug/kg	6.39	19.2	1
12672–29–6	Aroclor–1248	U	19.2	ug/kg	6.39	19.2	1
11097–69–1	Aroclor–1254	U	19.2	ug/kg	6.39	19.2	1
11096–82–5	Aroclor–1260	U	19.2	ug/kg	6.39	19.2	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/121509.b/056f5601.d
Lab Smp Id: 242654016 Client Smp ID: RE03-09-14271
Inj Date : 15-DEC-2009 18:34
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |242654016|5|
Misc Info : |ECD82P_1S|932746|SVAF|LANL|SOIL|RE03-09-14271|||
Comment :
Method : /chem/ecd2a.i/121509.b/ECD2-F-8082-111209A.m
Meth Date : 16-Dec-2009 08:12 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012f1201.d
Als bottle: 56
Dil Factor: 5.00000
Integrator: Falcon Compound Sublist: 10-852.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	5.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.08000	Weight of sample extracted (g)
M	13.44250	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.775	1.774	0.001	1316794	21.1392	4.0	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.612	5.611	0.001	1077419	19.9111	3.8	80.00- 120.00	100.00

Data File: /chem/ecd2a.i/121509.b/056f5601.d

Date : 15-DEC-2009 18:34

Client ID: RE03-09-14271

Sample Info: 1242654016151

Volume Injected (uL): 1.0

Column phase: CLP1

Instrument: ecd2a.i

Operator: JAOC

Column diameter: 0.25

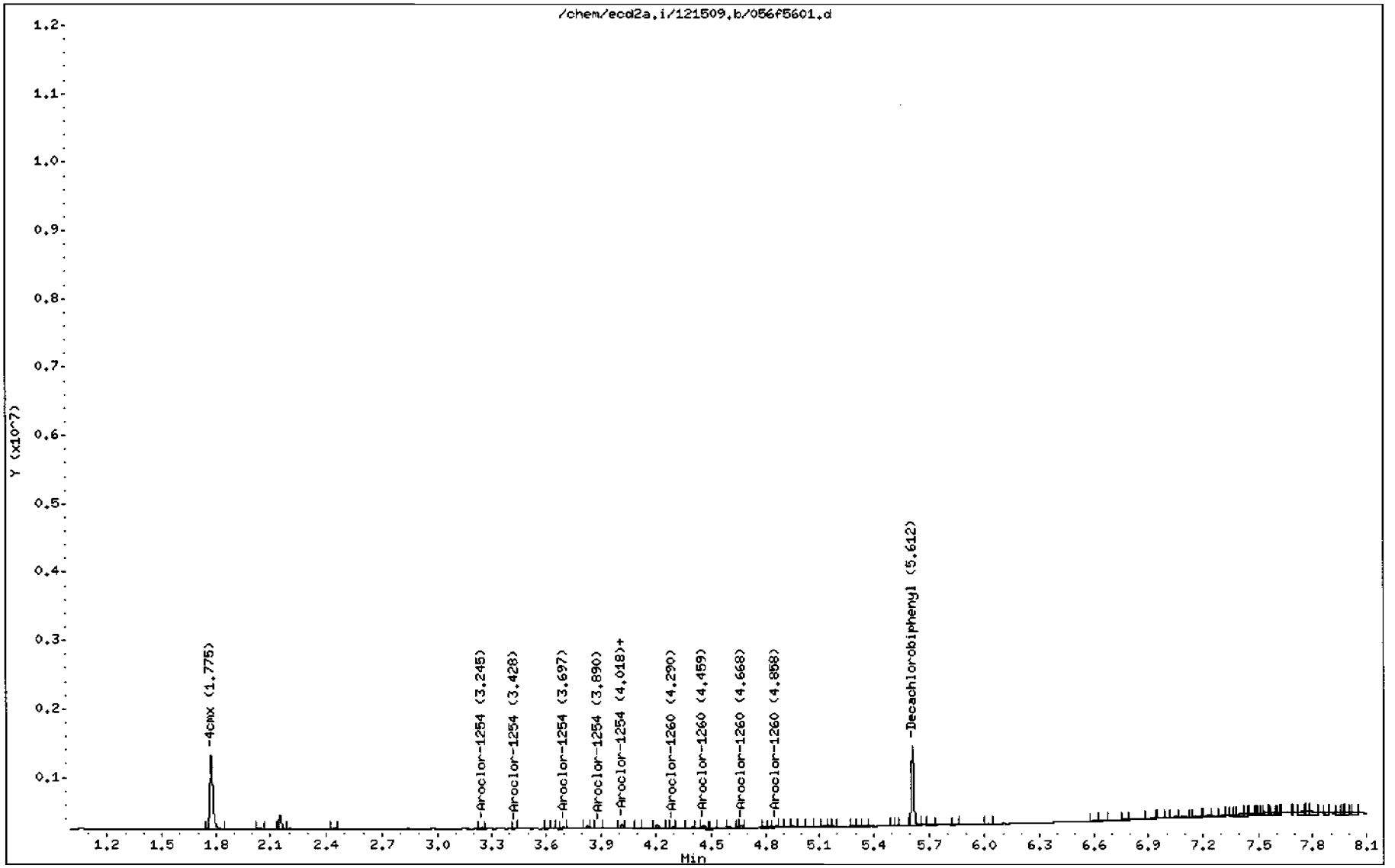

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/121509.b/056b5601.d
Lab Smp Id: 242654016 Client Smp ID: RE03-09-14271
Inj Date : 15-DEC-2009 18:34
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |242654016|5|
Misc Info : |ECD82P_1S|932746|SVAF|LANL|SOIL|RE03-09-14271|||
Comment :
Method : /chem/ecd2a.i/121509.b/ECD2-B-8082-111209A.m
Meth Date : 16-Dec-2009 08:01 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012b1201.d
Als bottle: 56
Dil Factor: 5.00000
Integrator: Falcon Compound Sublist: 10-852.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	5.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.08000	Weight of sample extracted (g)
M	13.44250	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.072	2.070	0.002	2721019	21.0413	4.0	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.305	6.303	0.002	1994188	17.6816	3.4	80.00- 120.00	100.00

Data File: /chem/ecd2a.i/121509.b/056b5601.d
Date : 15-DEC-2009 18:34
Client ID: RE03-09-14271
Sample Info: 1242654016151
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd2a.i
Operator: JAOC
Column diameter: 0.25

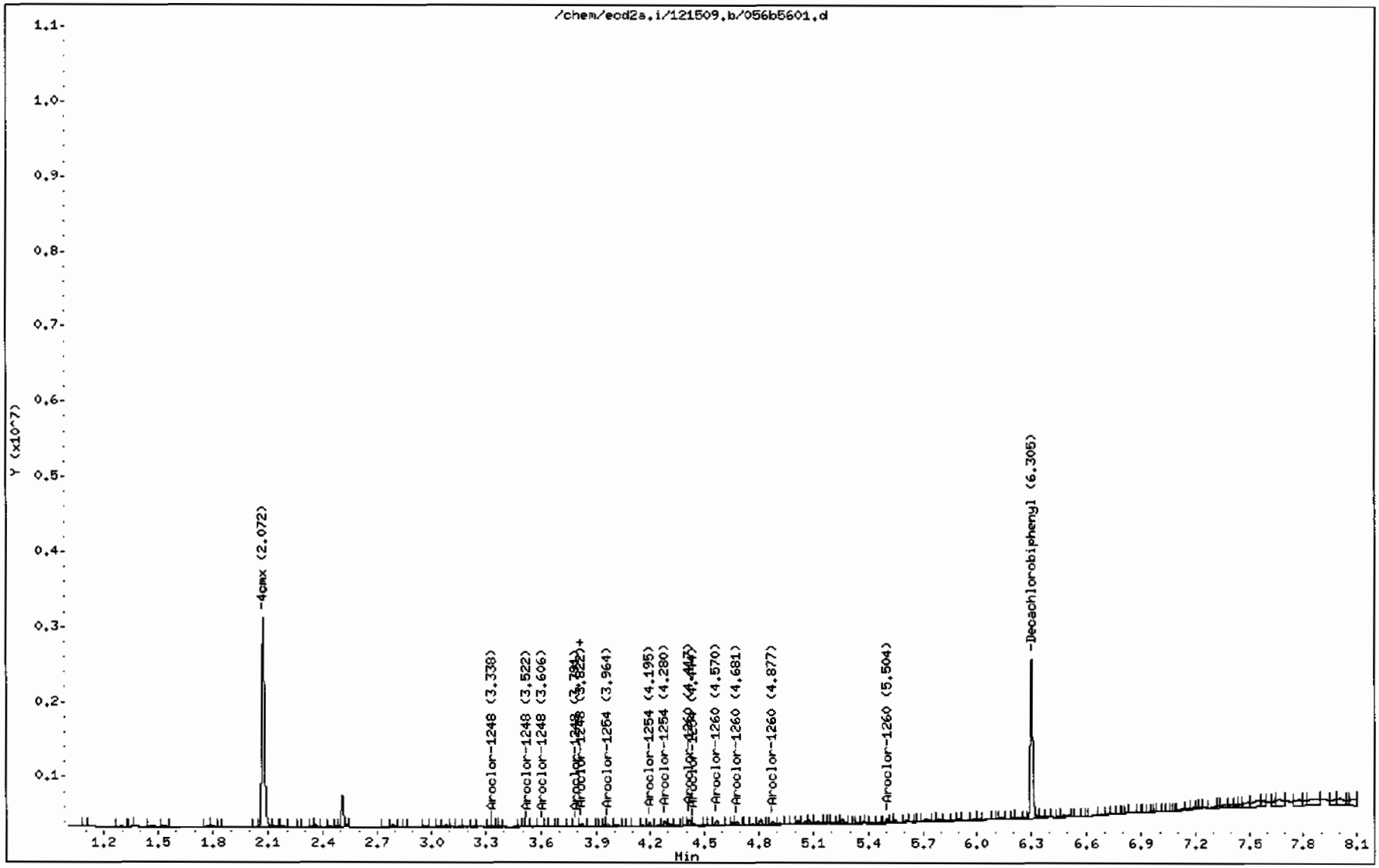

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10–852	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242654015	**Date Received:**	12/10/2009 08:50	**%Moisture:**	10.3
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03–09–14273	**Method:**	SW846 8082	**SOP Ref:**	GL–OA–E–040
Batch ID:	932746	**Inst:**	ECD2A.I	**Dilution:**	1
Run Date:	12/15/2009 18:23	**Analyst:**	JAOC	**Inj. Vol:**	1 uL
Prep Date:	12/14/2009 22:59	**Aliquot:**	30.06 g	**Final Volume:**	1 mL
Data File:	055f5501.d	**Column:**	1 CLP1	**Level:**	LOW
	055b5501.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	3.71	ug/kg	1.24	3.71	1
11104–28–2	Aroclor–1221	U	3.71	ug/kg	1.24	3.71	1
11141–16–5	Aroclor–1232	U	3.71	ug/kg	1.24	3.71	1
53469–21–9	Aroclor–1242	U	3.71	ug/kg	1.24	3.71	1
12672–29–6	Aroclor–1248	U	3.71	ug/kg	1.24	3.71	1
11097–69–1	Aroclor–1254	U	3.71	ug/kg	1.24	3.71	1
11096–82–5	Aroclor–1260		3.80	ug/kg	1.24	3.71	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/121509.b/055f5501.d
Lab Smp Id: 242654015 Client Smp ID: RE03-09-14273
Inj Date : 15-DEC-2009 18:23
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |242654015|1|
Misc Info : |ECD82P_1S|932746|SVAF|LANL|SOIL|RE03-09-14273|||
Comment :
Method : /chem/ecd2a.i/121509.b/ECD2-F-8082-111209A.m
Meth Date : 16-Dec-2009 08:12 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012f1201.d
Als bottle: 55
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-852.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.06000	Weight of sample extracted (g)
M	10.33890	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.774	1.774	0.000	6420558	103.073	3.8	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.611	5.611	0.000	5607381	103.626	3.8	80.00- 120.00	100.00(M)
7 Aroclor-1260					CAS #: 11096-82-5		
4.017	4.017	0.000	379559	91.1285	3.4	80.00- 120.00	100.00(M)
4.289	4.288	0.001	190364	73.4834	2.7	41.92- 81.92	50.15
4.457	4.454	0.003	460379	174.969	6.5	43.22- 83.22	121.29
4.667	4.667	0.000	439783	72.2425	2.7	133.43- 173.43	115.87
4.856	4.857	-0.001	293222	99.6625	3.7	53.80- 93.80	77.25
			Average of Peak Concentrations =		3.8		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd2a.i/121509.b/055f5501.d

Date : 15-DEC-2009 18:23

Client ID: RE03-09-14273

Sample Info: 1242654015111

Volume Injected (uL): 1.0

Column phase: CLP1

Instrument: ecd2a.i

Operator: JAOC

Column diameter: 0.25

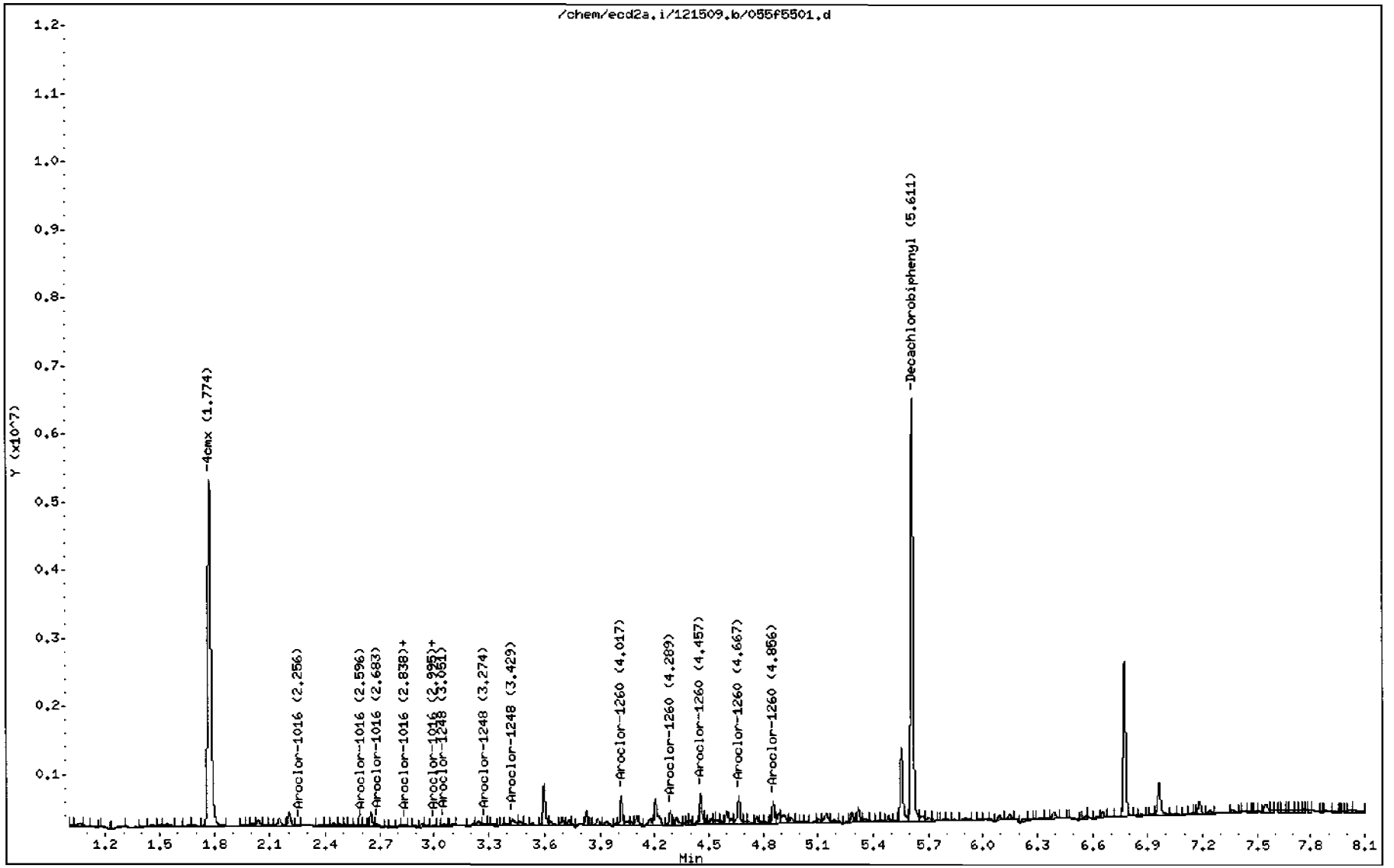

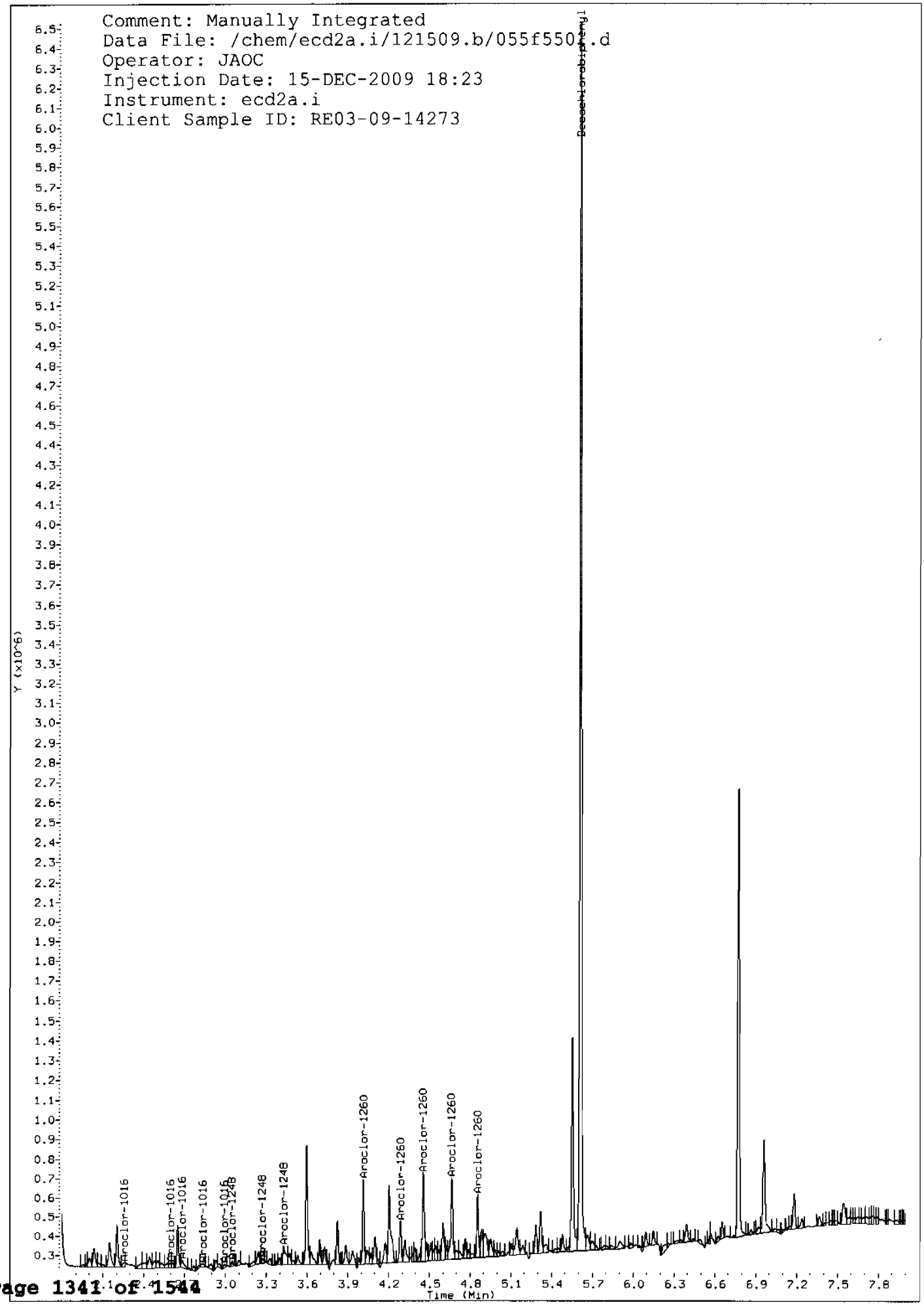
Comment: Manually Integrated
Data File: /chem/ecd2a.i/121509.b/055f550[illegible].d
Operator: JAOC
Injection Date: 15-DEC-2009 18:23
Instrument: ecd2a.i
Client Sample ID: RE03-09-14273
Decachlorobiphenyl
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1248
Aroclor-1248
Aroclor-1248
Aroclor-1248
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Y (x10^6)
Time (Min)

Comment: Before manual integration
Data File: /chem/ecd2a.i/121509.b/orig-05[illegible]f5501.d
Operator: JAOC
Injection Date: 15-DEC-2009 18:23
Instrument: ecd2a.i
Client Sample ID: RE03-09-14273

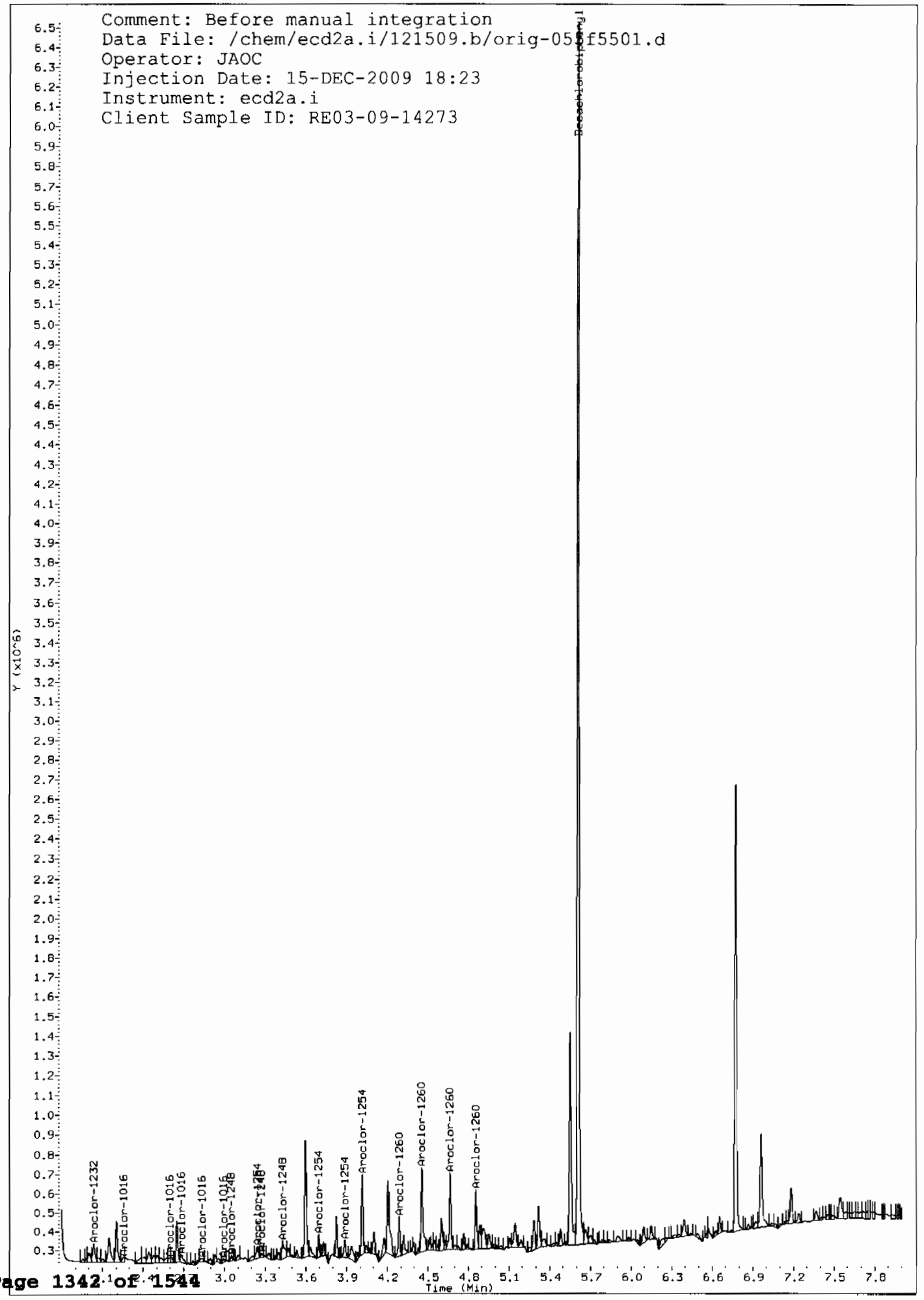

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/121509.b/055b5501.d
Lab Smp Id: 242654015 Client Smp ID: RE03-09-14273
Inj Date : 15-DEC-2009 18:23
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |242654015|1|
Misc Info : |ECD82P_1S|932746|SVAF|LANL|SOIL|RE03-09-14273|||
Comment :
Method : /chem/ecd2a.i/121509.b/ECD2-B-8082-111209A.m
Meth Date : 16-Dec-2009 08:01 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012b1201.d
Als bottle: 55
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-852.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.06000	Weight of sample extracted (g)
M	10.33890	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.071	2.070	0.001	13614035	105.276	3.9	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.304	6.303	0.001	11230865	99.5794	3.7	80.00- 120.00	100.00
7 Aroclor-1260					CAS #: 11096-82-5		
4.416	4.416	0.000	357787	62.0412	2.3	80.00- 120.00	100.00(aM)
4.568	4.568	0.000	471179	66.1407	2.4	107.52- 147.52	131.69
4.680	4.680	0.000	437245	90.7391	3.4	65.59- 105.59	122.21
4.877	4.876	0.001	333593	59.2343	2.2	80.20- 120.20	93.24
5.503	5.503	0.000	670835	74.2279	2.8	143.21- 183.21	187.50

Average of Peak Concentrations = 2.6

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

Data File: /chem/ecd2a.i/121509.b/055b5501.d

Date : 15-DEC-2009 18:23

Client ID: RE03-09-14273

Sample Info: |242654015|1|

Volume Injected (uL): 1.0

Column phase: CLP2

Instrument: ecd2a.i

Operator: JAOC

Column diameter: 0.25

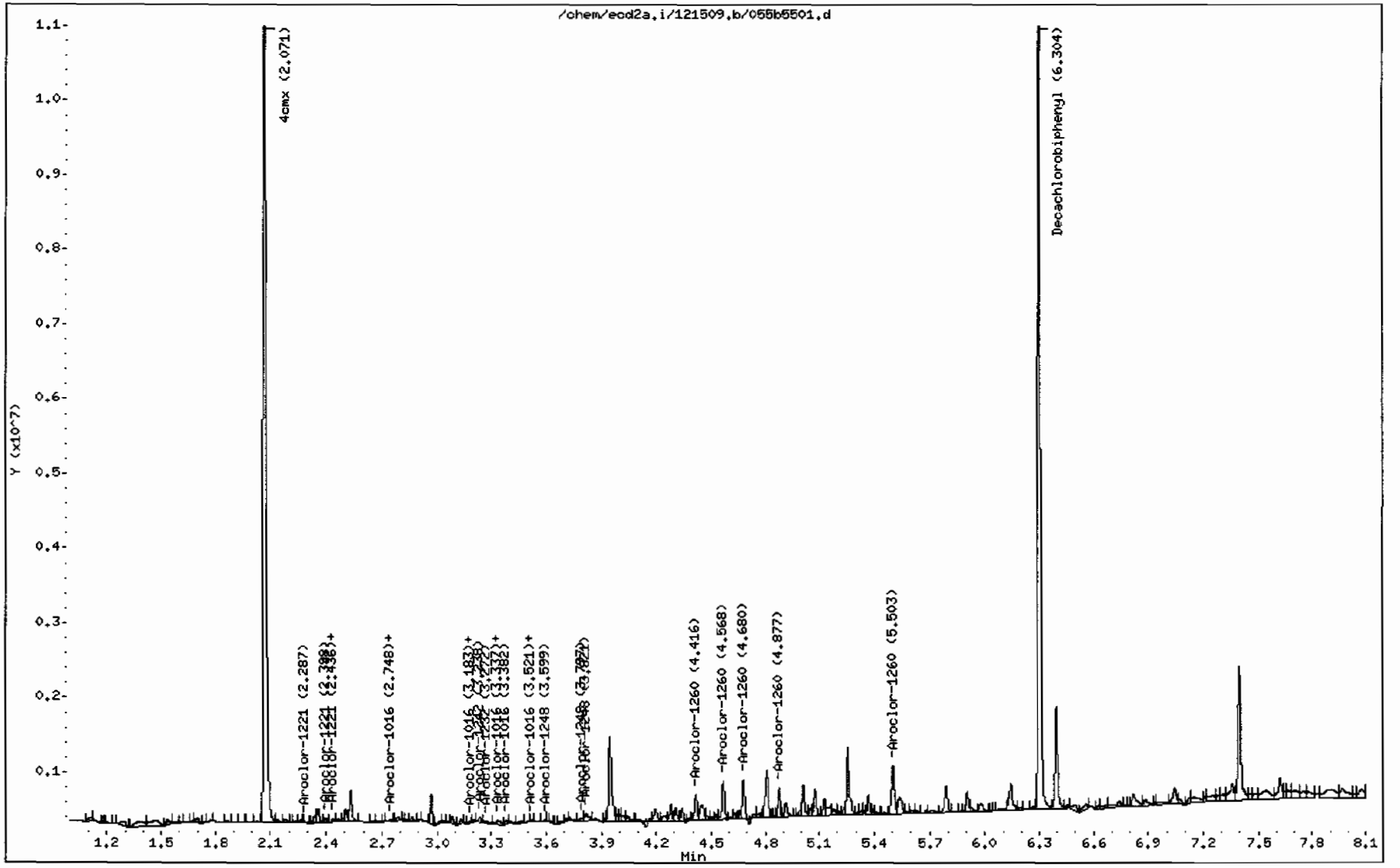

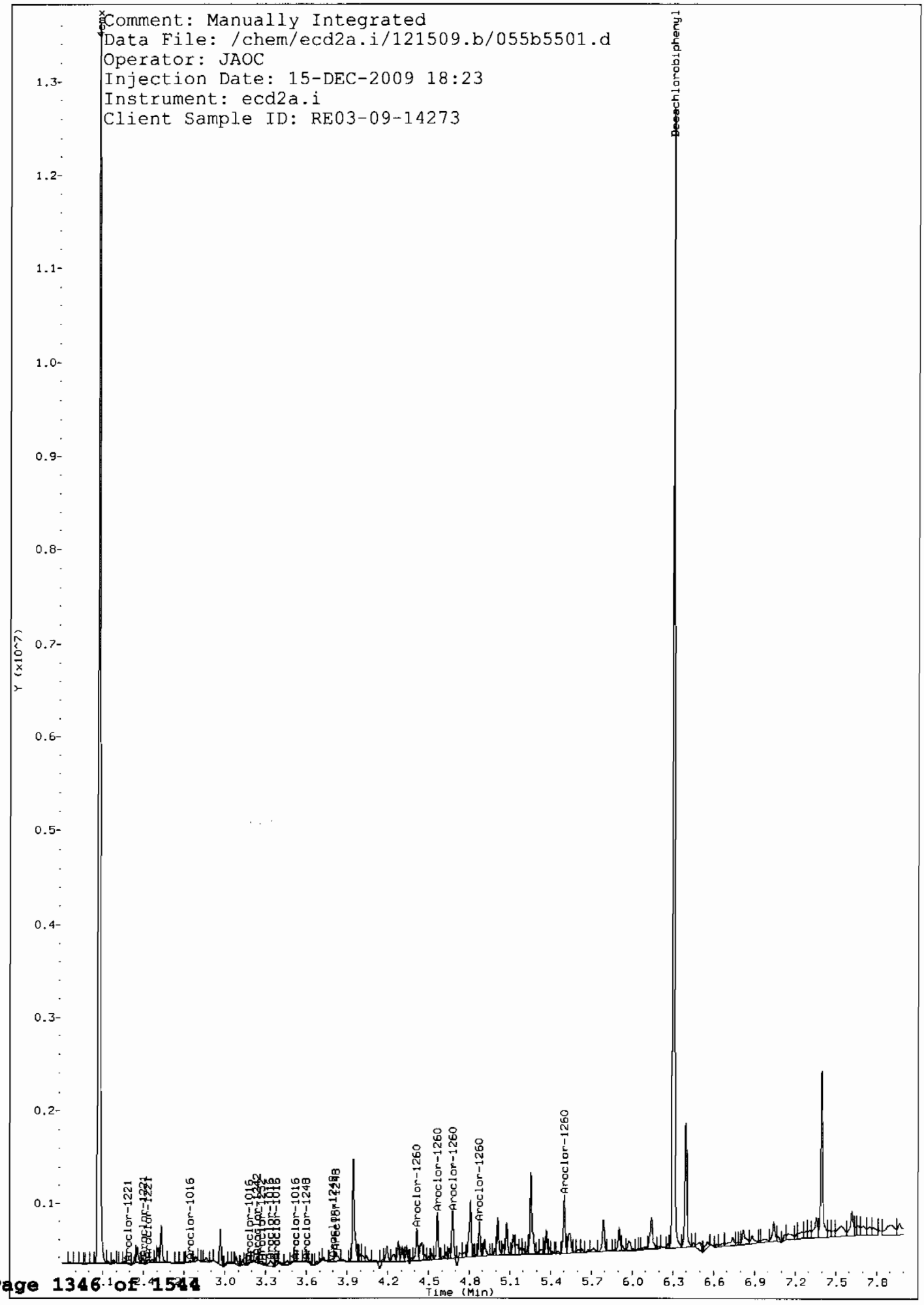
Comment: Manually Integrated
Data File: /chem/ecd2a.i/121509.b/055b5501.d
Operator: JAOC
Injection Date: 15-DEC-2009 18:23
Instrument: ecd2a.i
Client Sample ID: RE03-09-14273
Decachlorobiphenyl
Aroclor-1221
Aroclor-1016
Aroclor-1248
Aroclor-1260
Y (x10^7)
Time (Min)

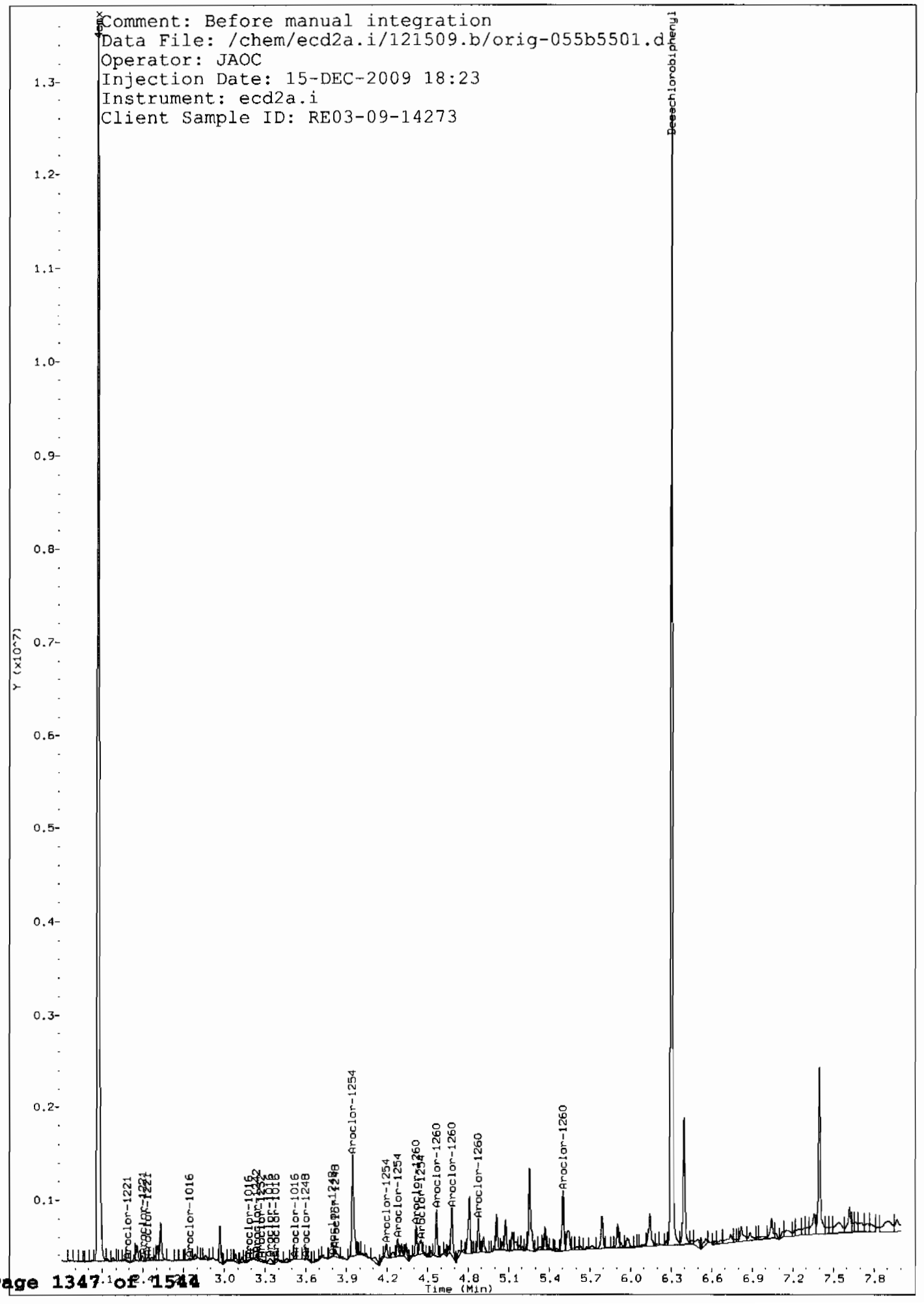
Comment: Before manual integration
Data File: /chem/ecd2a.i/121509.b/orig-055b5501.d
Operator: JAOC
Injection Date: 15-DEC-2009 18:23
Instrument: ecd2a.i
Client Sample ID: RE03-09-14273
Decachlorobiphenyl
Aroclor-1221
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1248
Aroclor-1254
Aroclor-1254
Aroclor-1254
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Y (x10^7)
Time (Min)

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10-852**	**Date Collected:**	**12/07/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242654011**	**Date Received:**	**12/10/2009 08:50**	**%Moisture:**	**4.1**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14274**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**932746**	**Inst:**	**ECD2A.I**	**Dilution:**	**1**
Run Date:	**12/15/2009 17:39**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**12/14/2009 22:59**	**Aliquot:**	**30.02 g**	**Final Volume:**	**1 mL**
Data File:	**051f5101.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	051b5101.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.47	ug/kg	1.16	3.47	1
11104-28-2	Aroclor-1221	U	3.47	ug/kg	1.16	3.47	1
11141-16-5	Aroclor-1232	U	3.47	ug/kg	1.16	3.47	1
53469-21-9	Aroclor-1242	U	3.47	ug/kg	1.16	3.47	1
12672-29-6	Aroclor-1248	U	3.47	ug/kg	1.16	3.47	1
11097-69-1	Aroclor-1254	U	3.47	ug/kg	1.16	3.47	1
11096-82-5	Aroclor-1260	U	3.47	ug/kg	1.16	3.47	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/121509.b/051f5101.d
Lab Smp Id: 242654011 Client Smp ID: RE03-09-14274
Inj Date : 15-DEC-2009 17:39
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |242654011|1|
Misc Info : |ECD82P_1S|932746|SVAF|LANL|SOIL|RE03-09-14274|||
Comment :
Method : /chem/ecd2a.i/121509.b/ECD2-F-8082-111209A.m
Meth Date : 16-Dec-2009 08:12 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012f1201.d
Als bottle: 51
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-852.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.02000	Weight of sample extracted (g)
M	4.12440	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.772	1.774	-0.002	7673548	123.187	4.3	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.612	5.611	0.001	7734069	142.928	5.0	80.00- 120.00	100.00

Data File: /chem/ecd2a.i/121509.b/051f5101.d
Date : 15-DEC-2009 17:39
Client ID: RE03-09-14274
Sample Info: 1242654011111
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecd2a.i
Operator: JAOC
Column diameter: 0.25

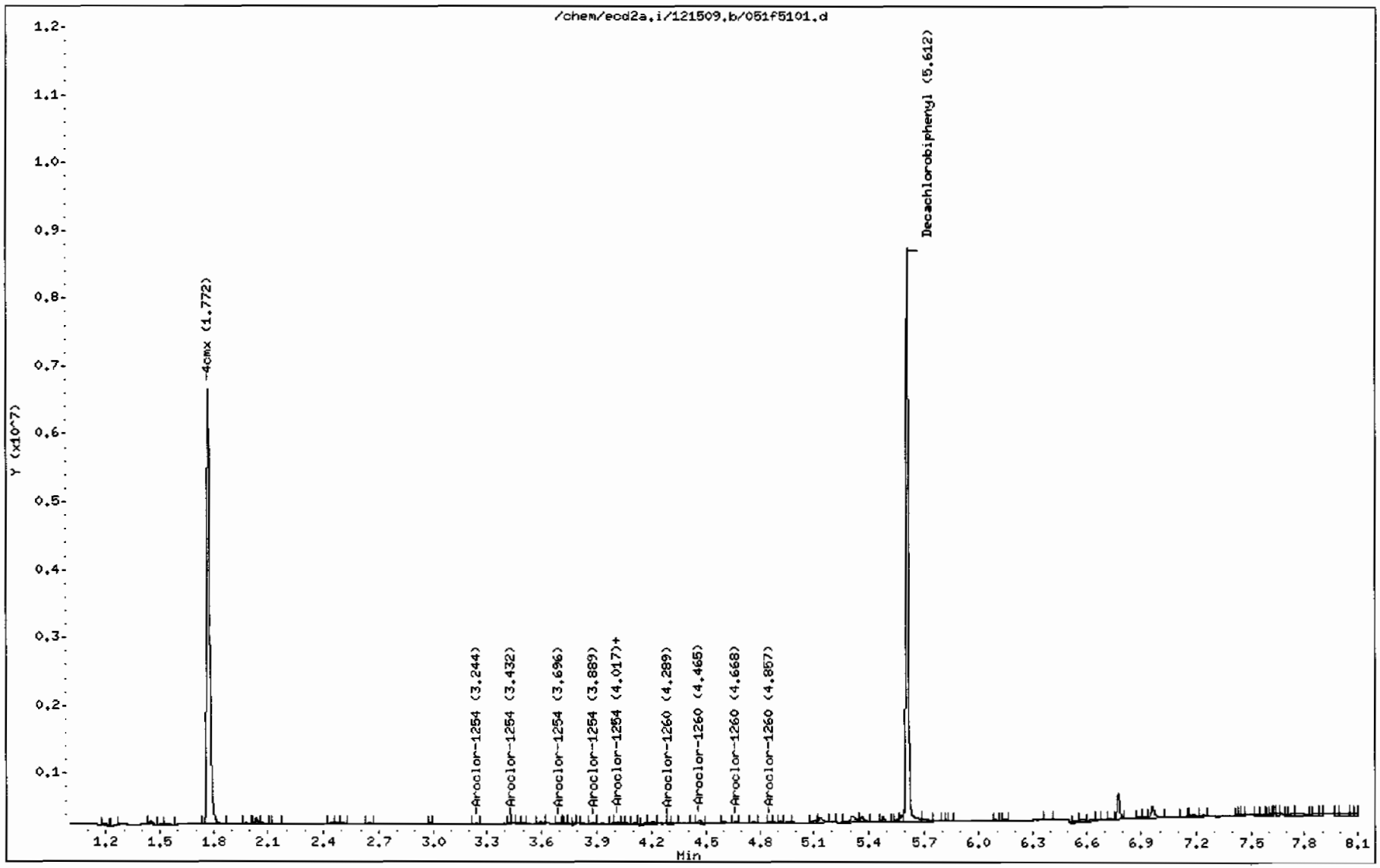

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/121509.b/051b5101.d
Lab Smp Id: 242654011 Client Smp ID: RE03-09-14274
Inj Date : 15-DEC-2009 17:39
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |242654011|1|
Misc Info : |ECD82P_1S|932746|SVAF|LANL|SOIL|RE03-09-14274|||
Comment :
Method : /chem/ecd2a.i/121509.b/ECD2-B-8082-111209A.m
Meth Date : 16-Dec-2009 08:01 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012b1201.d
Als bottle: 51
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-852.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.02000	Weight of sample extracted (g)
M	4.12440	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.070	2.070	0.000	17007833	131.519	4.6	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.304	6.303	0.001	14964972	132.688	4.6	80.00- 120.00	100.00

Data File: /chem/ecd2a.i/121509.b/051b5101.d

Date : 15-DEC-2009 17:39

Client ID: RE03-09-14274

Sample Info: 1242654011|1|

Volume Injected (uL): 1.0

Column phase: CLP2

Instrument: ecd2a.i

Operator: JAOC

Column diameter: 0.25

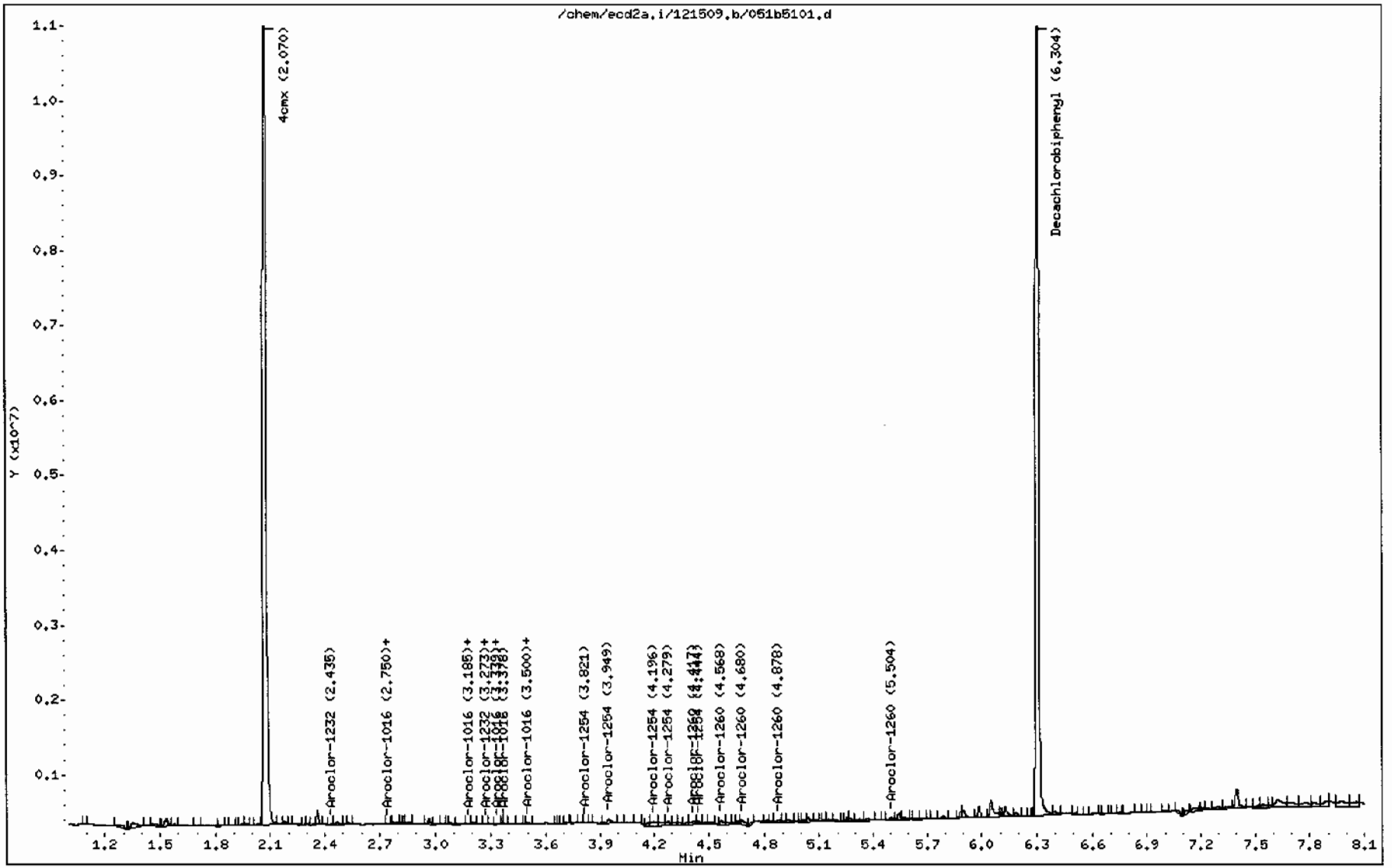

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10–852	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242654012	**Date Received:**	12/10/2009 08:50	**%Moisture:**	12.2
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03–09–14277	**Method:**	SW846 8082	**SOP Ref:**	GL–OA–E–040
Batch ID:	932746	**Inst:**	ECD2A.I	**Dilution:**	5
Run Date:	12/15/2009 17:50	**Analyst:**	JAOC	**Inj. Vol:**	1 uL
Prep Date:	12/14/2009 22:59	**Aliquot:**	30.03 g	**Final Volume:**	1 mL
Data File:	052f5201.d	**Column:**	1 CLP1	**Level:**	LOW
	052b5201.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	19.0	ug/kg	6.31	19.0	1
11104–28–2	Aroclor–1221	U	19.0	ug/kg	6.31	19.0	1
11141–16–5	Aroclor–1232	U	19.0	ug/kg	6.31	19.0	1
53469–21–9	Aroclor–1242	U	19.0	ug/kg	6.31	19.0	1
12672–29–6	Aroclor–1248	U	19.0	ug/kg	6.31	19.0	1
11097–69–1	Aroclor–1254	U	19.0	ug/kg	6.31	19.0	1
11096–82–5	Aroclor–1260	U	19.0	ug/kg	6.31	19.0	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/121509.b/052f5201.d
Lab Smp Id: 242654012 Client Smp ID: RE03-09-14277
Inj Date : 15-DEC-2009 17:50
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |242654012|5|
Misc Info : |ECD82P_1S|932746|SVAF|LANL|SOIL|RE03-09-14277|||
Comment :
Method : /chem/ecd2a.i/121509.b/ECD2-F-8082-111209A.m
Meth Date : 16-Dec-2009 08:12 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012f1201.d
Als bottle: 52
Dil Factor: 5.00000
Integrator: Falcon Compound Sublist: 10-852.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	5.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.03000	Weight of sample extracted (g)
M	12.17400	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.771	1.774	-0.003	1102201	17.6942	3.4	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.611	5.611	0.000	996988	18.4247	3.5	80.00- 120.00	100.00

Data File: /chem/ecd2a.i/121509.b/052f5201.d

Date : 15-DEC-2009 17:50

Client ID: RE03-09-14277

Sample Info: 1242654012|51

Volume Injected (uL): 1.0

Column phase: CLP1

Instrument: ecd2a.i

Operator: JAOC

Column diameter: 0.25

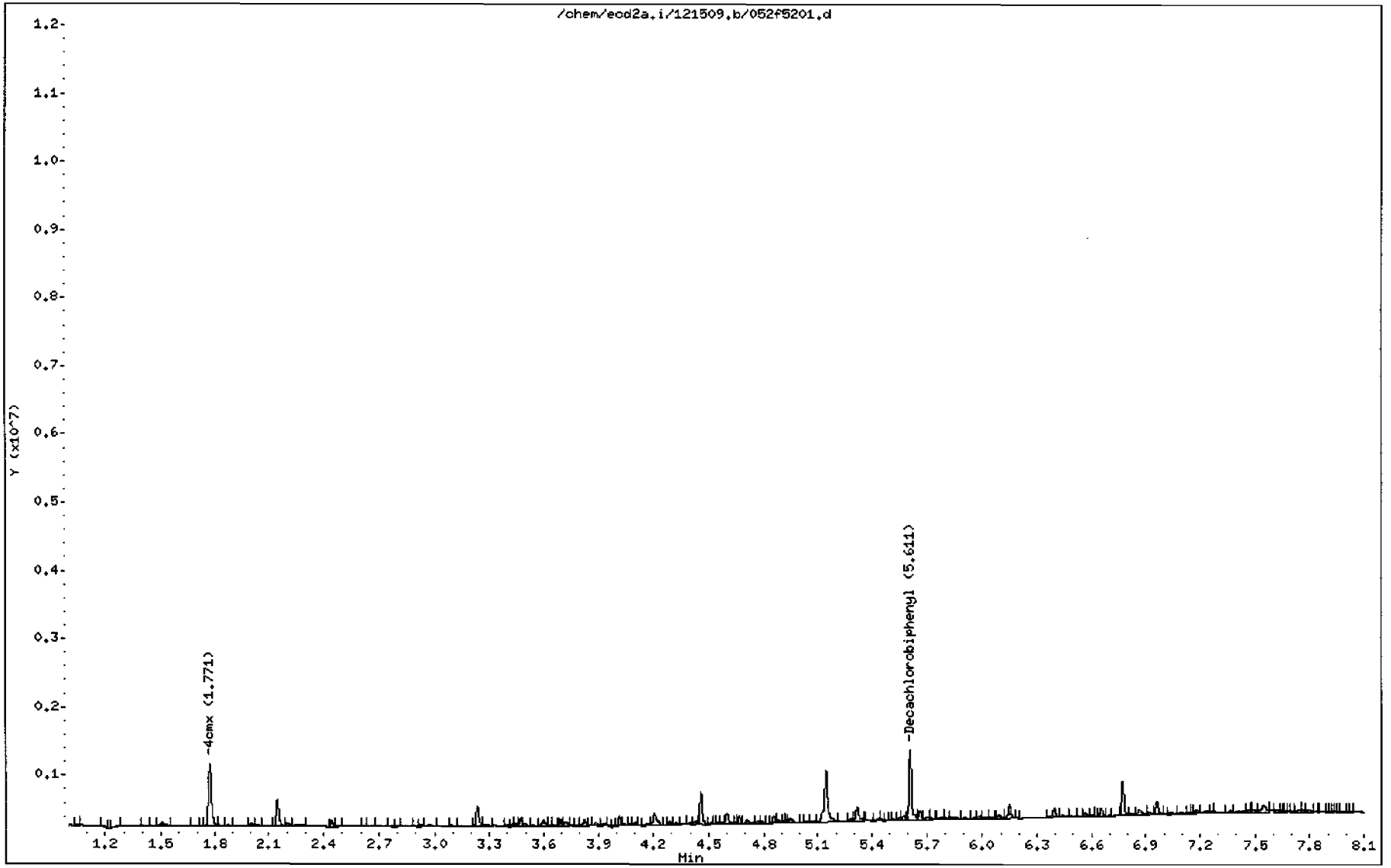

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/121509.b/052b5201.d
Lab Smp Id: 242654012 Client Smp ID: RE03-09-14277
Inj Date : 15-DEC-2009 17:50
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |242654012|5|
Misc Info : |ECD82P_1S|932746|SVAF|LANL|SOIL|RE03-09-14277|||
Comment :
Method : /chem/ecd2a.i/121509.b/ECD2-B-8082-111209A.m
Meth Date : 16-Dec-2009 08:01 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012b1201.d
Als bottle: 52
Dil Factor: 5.00000
Integrator: Falcon Compound Sublist: 10-852.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	5.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.03000	Weight of sample extracted (g)
M	12.17400	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.070	2.070	0.000	2244093	17.3533	3.3	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.304	6.303	0.001	2223608	19.7158	3.7	80.00- 120.00	100.00

Data File: /chem/ecd2a.i/121509.b/052b5201.d

Date : 15-DEC-2009 17:50

Client ID: RE03-09-14277

Sample Info: |242654012|5|

Volume Injected (uL): 1.0

Column phase: CLP2

Instrument: ecd2a.i

Operator: JADC

Column diameter: 0.25

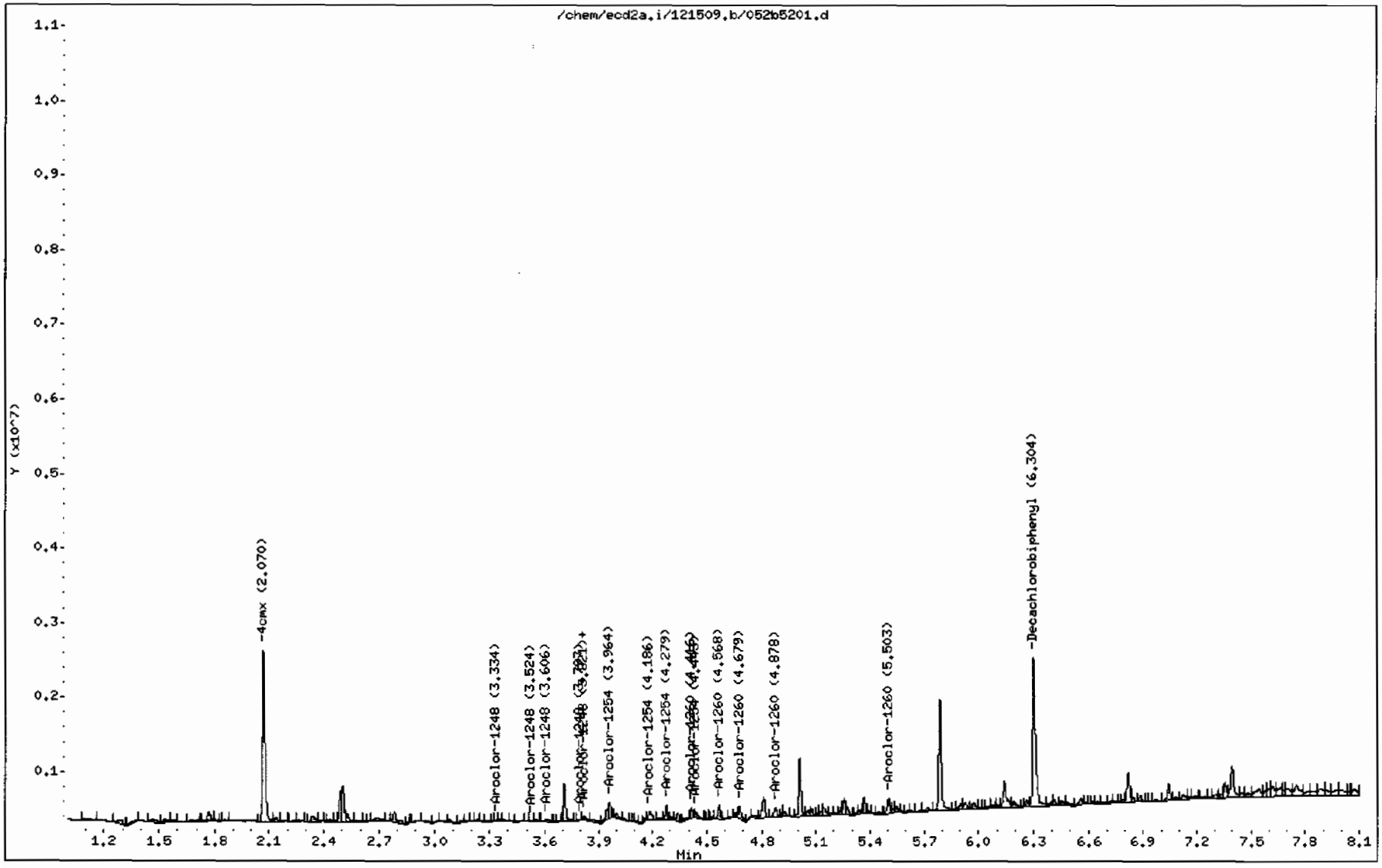

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10-852**	**Date Collected:**	**12/07/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242654017**	**Date Received:**	**12/10/2009 08:50**	**%Moisture:**	**9.4**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14278**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**932746**	**Inst:**	**ECD2A.I**	**Dilution:**	**5**
Run Date:	**12/15/2009 19:12**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**12/14/2009 22:59**	**Aliquot:**	**30.19 g**	**Final Volume:**	**1 mL**
Data File:	**059f5901.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	059b5901.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	18.3	ug/kg	6.09	18.3	1
11104-28-2	Aroclor-1221	U	18.3	ug/kg	6.09	18.3	1
11141-16-5	Aroclor-1232	U	18.3	ug/kg	6.09	18.3	1
53469-21-9	Aroclor-1242	U	18.3	ug/kg	6.09	18.3	1
12672-29-6	Aroclor-1248	U	18.3	ug/kg	6.09	18.3	1
11097-69-1	Aroclor-1254	U	18.3	ug/kg	6.09	18.3	1
11096-82-5	Aroclor-1260	U	18.3	ug/kg	6.09	18.3	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/121509.b/059f5901.d
Lab Smp Id: 242654017 Client Smp ID: RE03-09-14278
Inj Date : 15-DEC-2009 19:12
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |242654017|5|
Misc Info : |ECD82P_1S|932746|SVAF|LANL|SOIL|RE03-09-14278|||
Comment :
Method : /chem/ecd2a.i/121509.b/ECD2-F-8082-111209A.m
Meth Date : 16-Dec-2009 08:12 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012f1201.d
Als bottle: 59
Dil Factor: 5.00000
Integrator: Falcon Compound Sublist: 10-852.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	5.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.19000	Weight of sample extracted (g)
M	9.40310	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.774	1.774	0.000	1179317	18.9322	3.5	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.611	5.611	0.000	1158345	21.4066	3.9	80.00- 120.00	100.00

Data File: /chem/ecd2a.i/121509.b/059f5901.d

Date : 15-DEC-2009 19:12

Client ID: RE03-09-14278

Sample Info: |242654017|5|

Volume Injected (uL): 1.0

Column phase: CLP1

Instrument: ecd2a.i

Operator: JAOC

Column diameter: 0.25

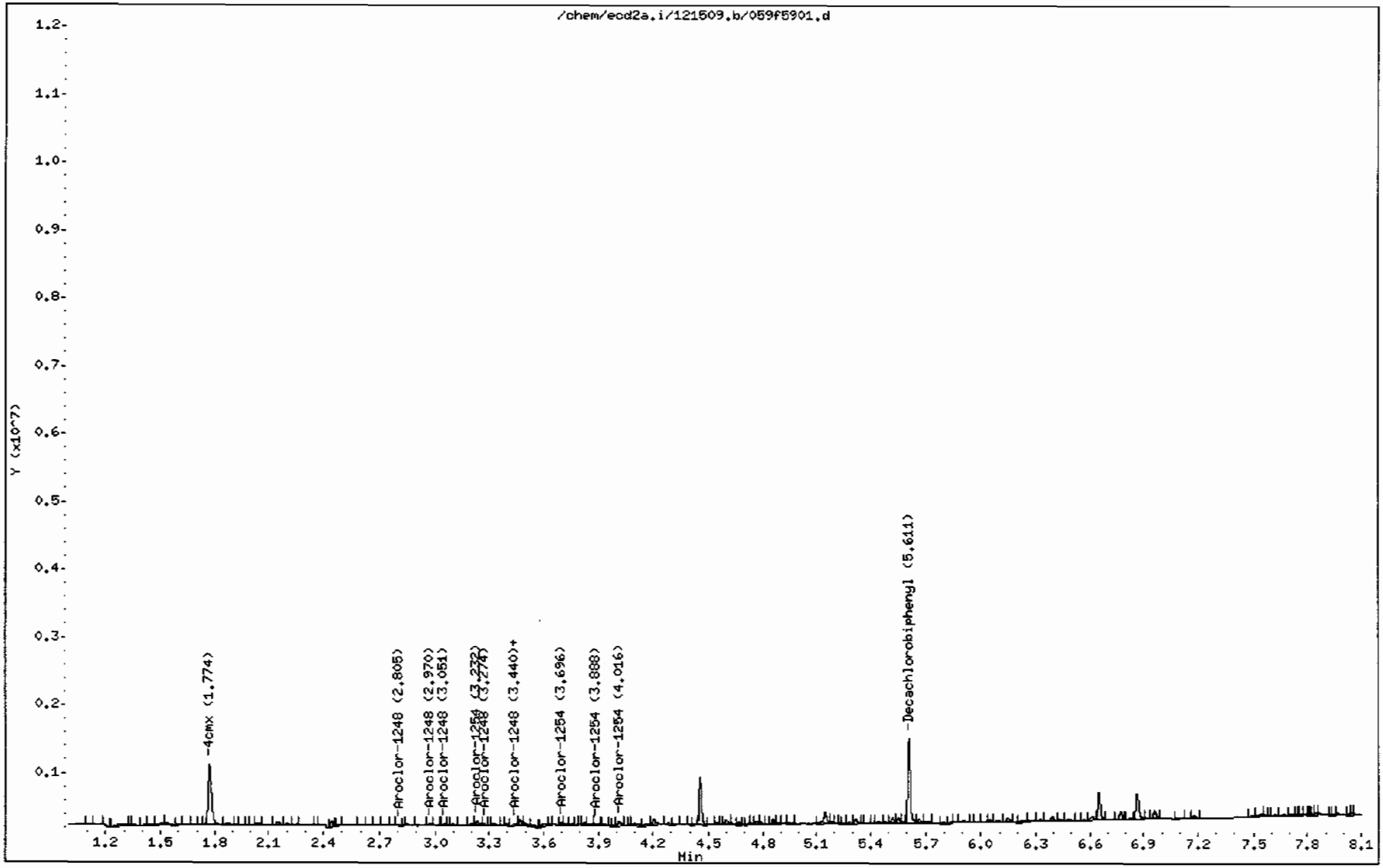

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/121509.b/059b5901.d
Lab Smp Id: 242654017 Client Smp ID: RE03-09-14278
Inj Date : 15-DEC-2009 19:12
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |242654017|5|
Misc Info : |ECD82P_1S|932746|SVAF|LANL|SOIL|RE03-09-14278|||
Comment :
Method : /chem/ecd2a.i/121509.b/ECD2-B-8082-111209A.m
Meth Date : 16-Dec-2009 08:01 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012b1201.d
Als bottle: 59
Dil Factor: 5.00000
Integrator: Falcon Compound Sublist: 10-852.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	5.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.19000	Weight of sample extracted (g)
M	9.40310	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.072	2.070	0.002	2292969	17.7312	3.2	80.00- 120.00	100.00(M)
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.303	6.303	0.000	2539960	22.5208	4.1	80.00- 120.00	100.00

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd2a.i/121509.b/059b5901.d
Date : 15-DEC-2009 19:12
Client ID: RE03-09-14278
Sample Info: 1242654017151
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd2a.i
Operator: JAOC
Column diameter: 0.25

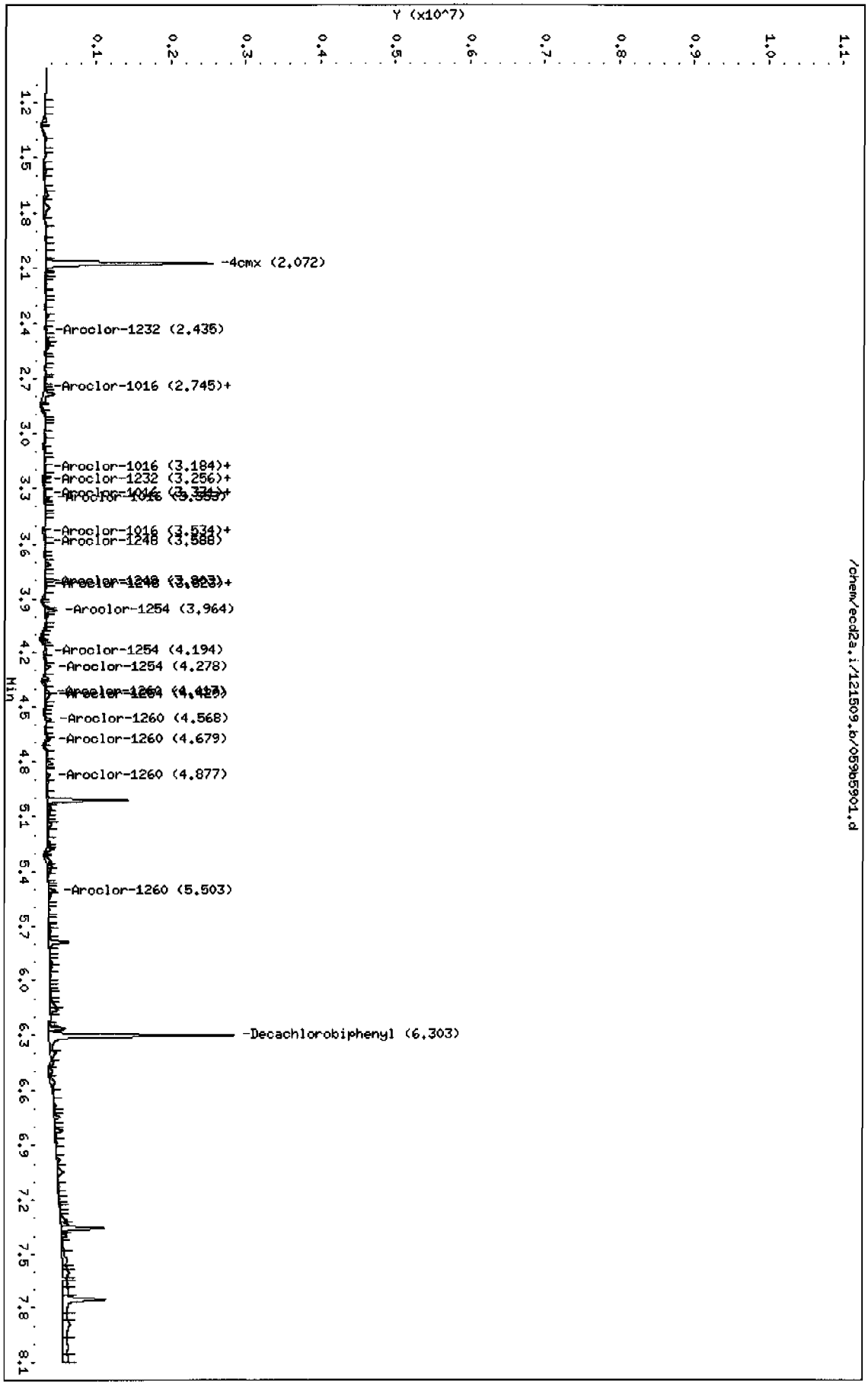

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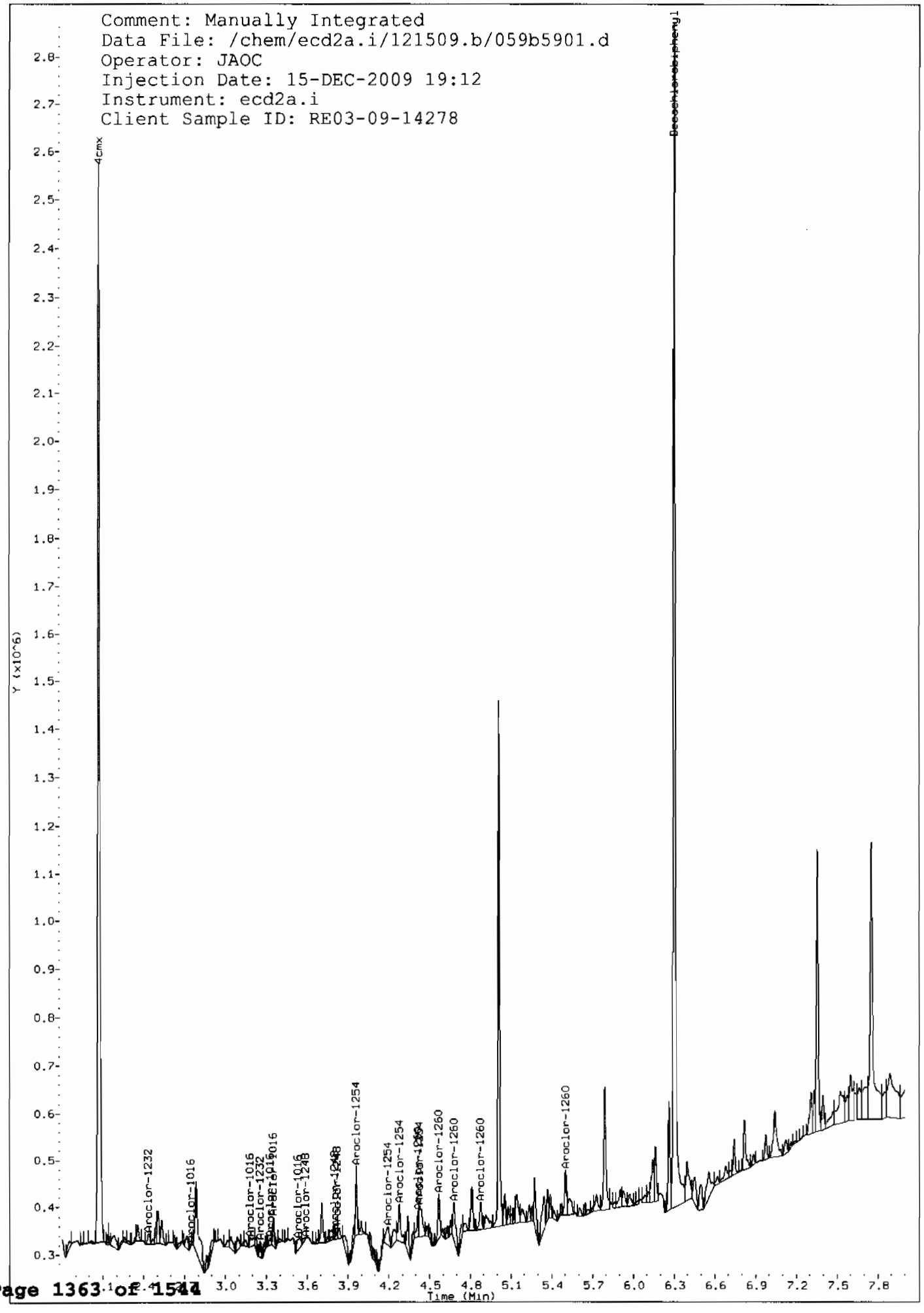
Comment: Manually Integrated
Data File: /chem/ecd2a.i/121509.b/059b5901.d
Operator: JAOC
Injection Date: 15-DEC-2009 19:12
Instrument: ecd2a.i
Client Sample ID: RE03-09-14278
4cmx
Decachlorobiphenyl
Aroclor-1232
Aroclor-1016
Aroclor-1016
Aroclor-1232
Aroclor-1016
Aroclor-1016
Aroclor-1248
Aroclor-1254
Aroclor-1254
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Aroclor-1260
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Y (x10^6)
Time (Min)

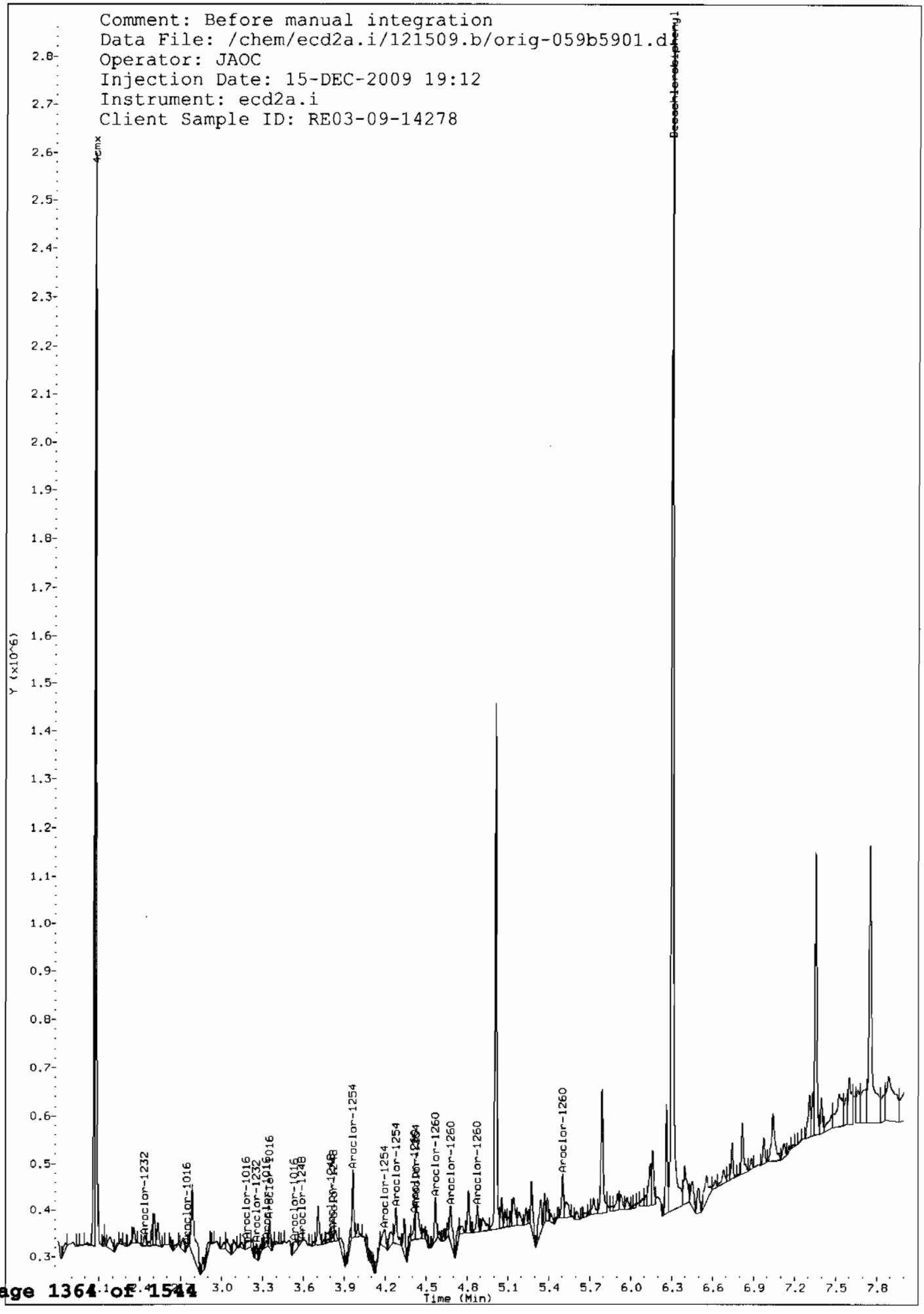
Comment: Before manual integration
Data File: /chem/ecd2a.i/121509.b/orig-059b5901.d
Operator: JAOC
Injection Date: 15-DEC-2009 19:12
Instrument: ecd2a.i
Client Sample ID: RE03-09-14278
4cmx
Decachlorobiphenyl
Aroclor-1232
Aroclor-1016
Aroclor-1016
Aroclor-1232
Aroclor-1016
Aroclor-1016
Aroclor-1248
Aroclor-1254
Aroclor-1254
Aroclor-1254
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Y (x10^6)
Time (Min)

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10–852	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242654009	**Date Received:**	12/10/2009 08:50	**%Moisture:**	14.1
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03–09–14281	**Method:**	SW846 8082	**SOP Ref:**	GL–OA–E–040
Batch ID:	932746	**Inst:**	ECD2A.I	**Dilution:**	1
Run Date:	12/15/2009 17:16	**Analyst:**	JAOC	**Inj. Vol:**	1 uL
Prep Date:	12/14/2009 22:59	**Aliquot:**	30.18 g	**Final Volume:**	1 mL
Data File:	049f4901.d	**Column:**	1 CLP1	**Level:**	LOW
	049b4901.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	3.86	ug/kg	1.29	3.86	1
11104–28–2	Aroclor–1221	U	3.86	ug/kg	1.29	3.86	1
11141–16–5	Aroclor–1232	U	3.86	ug/kg	1.29	3.86	1
53469–21–9	Aroclor–1242	U	3.86	ug/kg	1.29	3.86	1
12672–29–6	Aroclor–1248	U	3.86	ug/kg	1.29	3.86	1
11097–69–1	Aroclor–1254	U	3.86	ug/kg	1.29	3.86	1
11096–82–5	Aroclor–1260	U	3.86	ug/kg	1.29	3.86	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/121509.b/049f4901.d
Lab Smp Id: 242654009 Client Smp ID: RE03-09-14281
Inj Date : 15-DEC-2009 17:16
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |242654009|1|
Misc Info : |ECD82P_1S|932746|SVAF|LANL|SOIL|RE03-09-14281|||
Comment :
Method : /chem/ecd2a.i/121509.b/ECD2-F-8082-111209A.m
Meth Date : 16-Dec-2009 08:12 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012f1201.d
Als bottle: 49
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-852.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.18000	Weight of sample extracted (g)
M	14.14730	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.773	1.774	-0.001	7520629	120.733	4.6	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.611	5.611	0.000	6062056	112.029	4.3	80.00- 120.00	100.00

Data File: /chem/ecd2a.i/121509.b/049f4901.d
Date : 15-DEC-2009 17:16
Client ID: RE03-09-14281
Sample Info: |242654009|1|
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecd2a.i

Operator: JAOC
Column diameter: 0.25

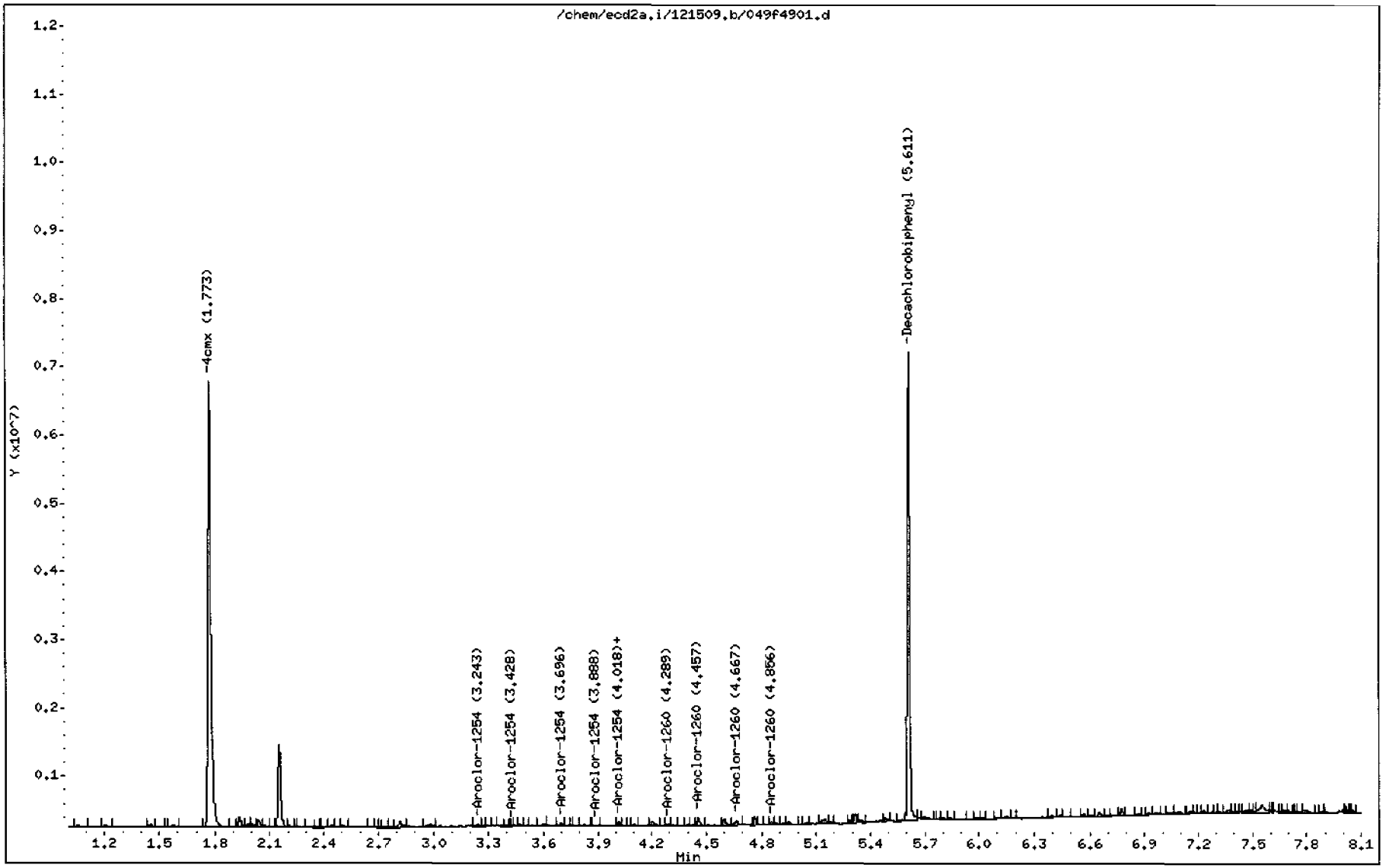

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/121509.b/049b4901.d
Lab Smp Id: 242654009 Client Smp ID: RE03-09-14281
Inj Date : 15-DEC-2009 17:16
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |242654009|1|
Misc Info : |ECD82P_1S|932746|SVAF|LANL|SOIL|RE03-09-14281|||
Comment :
Method : /chem/ecd2a.i/121509.b/ECD2-B-8082-111209A.m
Meth Date : 16-Dec-2009 08:01 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012b1201.d
Als bottle: 49
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-852.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.18000	Weight of sample extracted (g)
M	14.14730	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.071	2.070	0.001	16153324	124.912	4.8	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.304	6.303	0.001	12009743	106.485	4.1	80.00- 120.00	100.00

Data File: /chem/ecd2a.i/121509.b/0490b4901.d
Date : 15-DEC-2009 17:16
Client ID: RE03-09-14281
Sample Info: 1242654009141
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd2a.i
Operator: JADC
Column diameter: 0.25

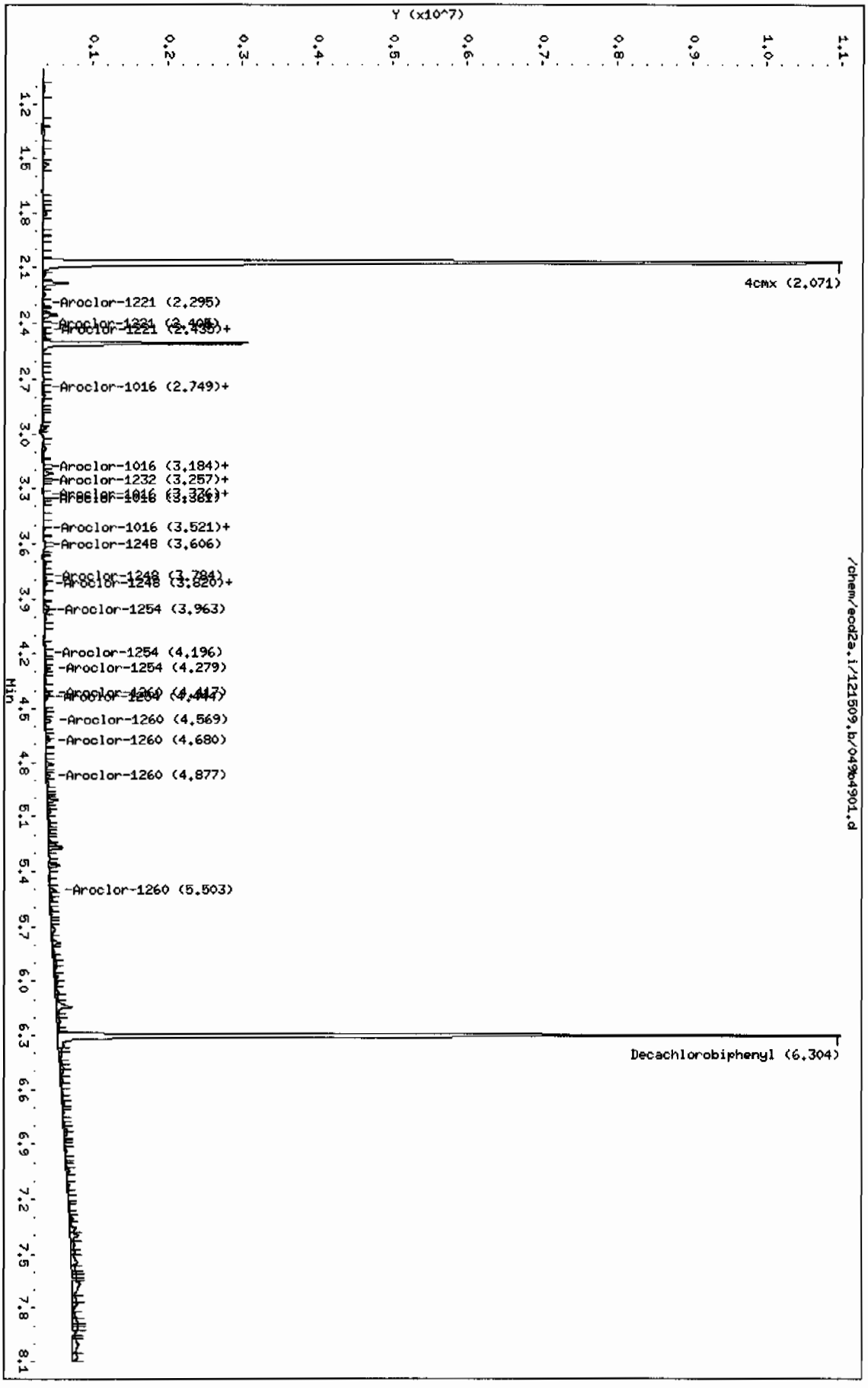

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PCB
Certificate of Analysis
Sample Summary

SDG Number:	10-852	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242654013	**Date Received:**	12/10/2009 08:50	**%Moisture:**	14.2
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14282	**Method:**	SW846 8082	**SOP Ref:**	GL-OA-E-040
Batch ID:	932746	**Inst:**	ECD2A.I	**Dilution:**	1
Run Date:	12/15/2009 18:01	**Analyst:**	JAOC	**Inj. Vol:**	1 uL
Prep Date:	12/14/2009 22:59	**Aliquot:**	30.06 g	**Final Volume:**	1 mL
Data File:	053f5301.d	**Column:**	1 CLP1	**Level:**	LOW
	053b5301.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.88	ug/kg	1.29	3.88	1
11104-28-2	Aroclor-1221	U	3.88	ug/kg	1.29	3.88	1
11141-16-5	Aroclor-1232	U	3.88	ug/kg	1.29	3.88	1
53469-21-9	Aroclor-1242	U	3.88	ug/kg	1.29	3.88	1
12672-29-6	Aroclor-1248	U	3.88	ug/kg	1.29	3.88	1
11097-69-1	Aroclor-1254	U	3.88	ug/kg	1.29	3.88	1
11096-82-5	Aroclor-1260	U	3.88	ug/kg	1.29	3.88	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/121509.b/053f5301.d
Lab Smp Id: 242654013 Client Smp ID: RE03-09-14282
Inj Date : 15-DEC-2009 18:01
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |242654013|1|
Misc Info : |ECD82P_1S|932746|SVAF|LANL|SOIL|RE03-09-14282|||
Comment :
Method : /chem/ecd2a.i/121509.b/ECD2-F-8082-111209A.m
Meth Date : 16-Dec-2009 08:12 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012f1201.d
Als bottle: 53
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-852.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.06000	Weight of sample extracted (g)
M	14.15270	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.776	1.774	0.002	7358498	118.130	4.6	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.612	5.611	0.001	7180251	132.693	5.1	80.00- 120.00	100.00

Data File: /chem/ecd2a.i/121509.b/053f5301.d

Page 1

Date : 15-DEC-2009 18:01

Client ID: RE03-09-14282

Instrument: ecd2a.i

Sample Info: 1242654013111

Volume Injected (uL): 1.0

Operator: JAOC

Column phase: CLP1

Column diameter: 0.25

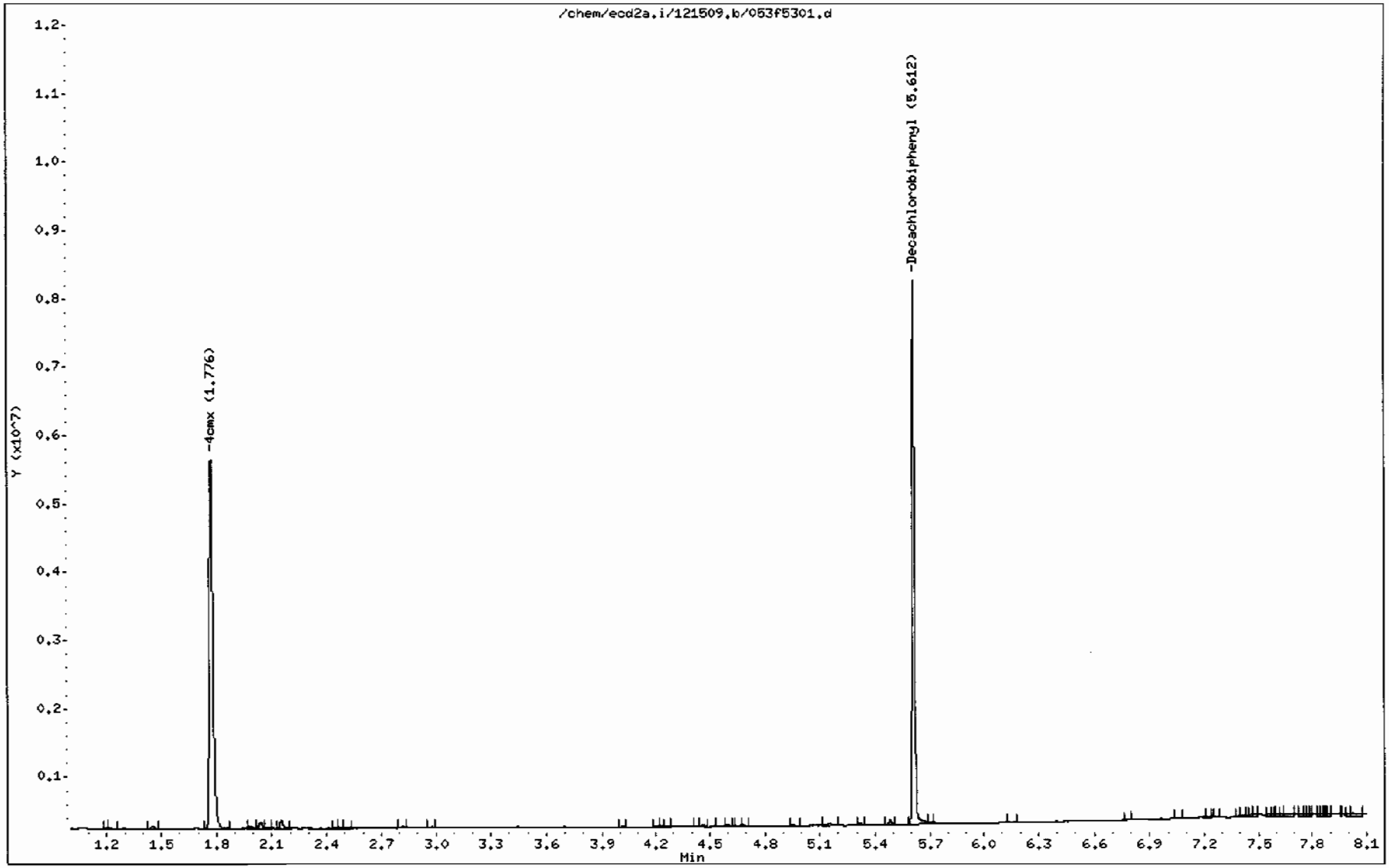

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/121509.b/053b5301.d
Lab Smp Id: 242654013 Client Smp ID: RE03-09-14282
Inj Date : 15-DEC-2009 18:01
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |242654013|1|
Misc Info : |ECD82P_1S|932746|SVAF|LANL|SOIL|RE03-09-14282|||
Comment :
Method : /chem/ecd2a.i/121509.b/ECD2-B-8082-111209A.m
Meth Date : 16-Dec-2009 08:01 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012b1201.d
Als bottle: 53
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-852.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.06000	Weight of sample extracted (g)
M	14.15270	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.073	2.070	0.003	16270841	125.820	4.9	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.304	6.303	0.001	13966004	123.831	4.8	80.00- 120.00	100.00

Data File: /chem/ecd2a.i/121509.b/053b5301.d
Date : 15-DEC-2009 18:01
Client ID: RE03-09-14282
Sample Info: 1242654013111
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd2a.i
Operator: JAOC
Column diameter: 0.25

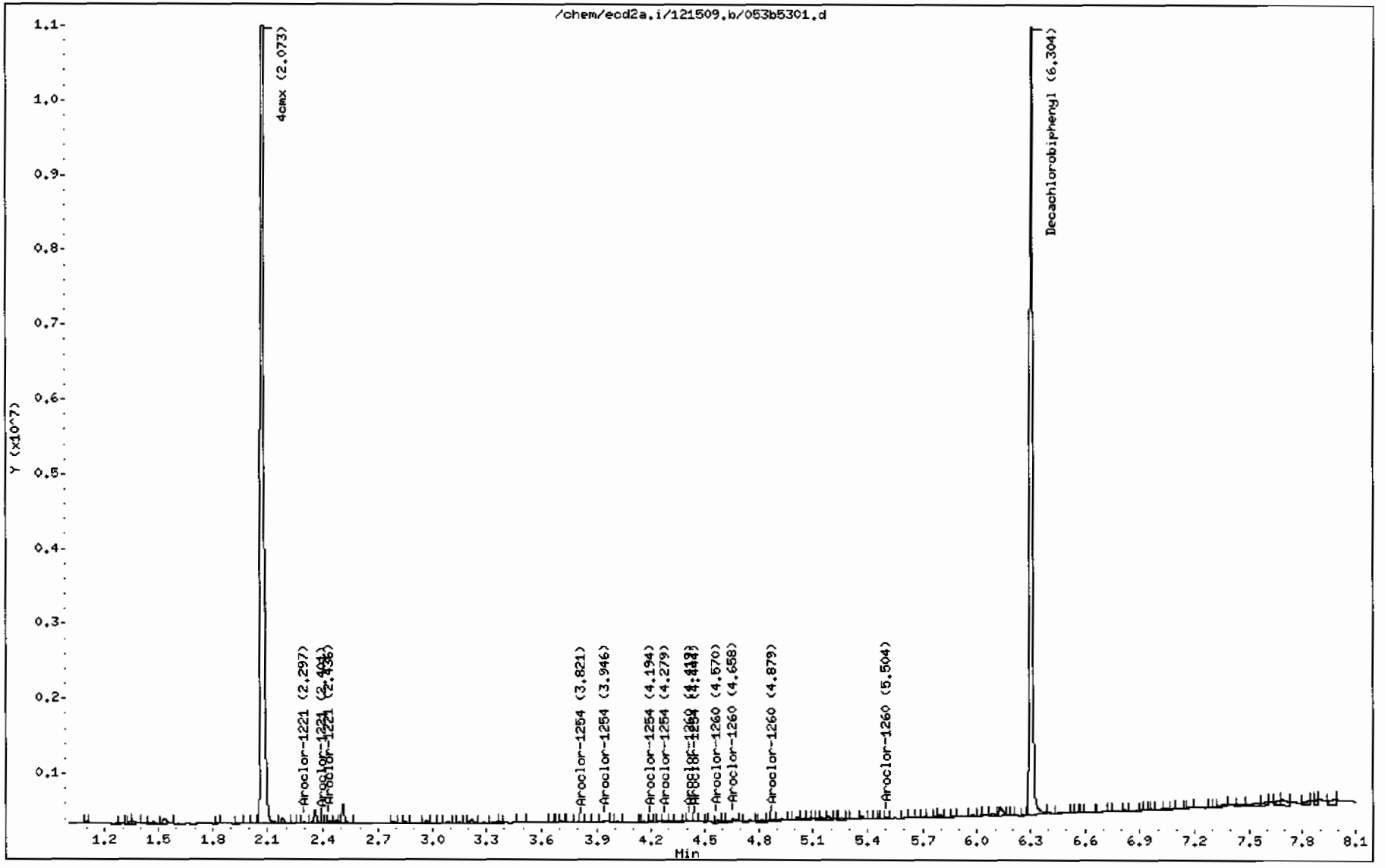

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10-852	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242654020	**Date Received:**	12/10/2009 08:50	**%Moisture:**	15.8
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14283	**Method:**	SW846 8082	**SOP Ref:**	GL-OA-E-040
Batch ID:	932746	**Inst:**	ECD2A.I	**Dilution:**	1
Run Date:	12/15/2009 19:45	**Analyst:**	JAOC	**Inj. Vol:**	1 uL
Prep Date:	12/14/2009 22:59	**Aliquot:**	30.14 g	**Final Volume:**	1 mL
Data File:	062f6201.d	**Column:**	1 CLP1	**Level:**	LOW
	062b6201.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.94	ug/kg	1.31	3.94	1
11104-28-2	Aroclor-1221	U	3.94	ug/kg	1.31	3.94	1
11141-16-5	Aroclor-1232	U	3.94	ug/kg	1.31	3.94	1
53469-21-9	Aroclor-1242	U	3.94	ug/kg	1.31	3.94	1
12672-29-6	Aroclor-1248	U	3.94	ug/kg	1.31	3.94	1
11097-69-1	Aroclor-1254	U	3.94	ug/kg	1.31	3.94	1
11096-82-5	Aroclor-1260	U	3.94	ug/kg	1.31	3.94	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/121509.b/062f6201.d
Lab Smp Id: 242654020 Client Smp ID: RE03-09-14283
Inj Date : 15-DEC-2009 19:45
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |242654020|1|
Misc Info : |ECD82P_1S|932746|SVAF|LANL|SOIL|RE03-09-14283|||
Comment :
Method : /chem/ecd2a.i/121509.b/ECD2-F-8082-111209A.m
Meth Date : 16-Dec-2009 08:12 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012f1201.d
Als bottle: 62
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-852.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.14000	Weight of sample extracted (g)
M	15.84580	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.775	1.774	0.001	6882143	110.483	4.4	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.611	5.611	0.000	7044500	130.185	5.1	80.00- 120.00	100.00

Data File: /chem/ecd2a.i/121509.b/062f6201.d

Date : 15-DEC-2009 19:45

Client ID: RE03-09-14283

Sample Info: 1242654020111

Volume Injected (uL): 1.0

Column phase: CLP1

Instrument: ecd2a.i

Operator: JAOC

Column diameter: 0.25

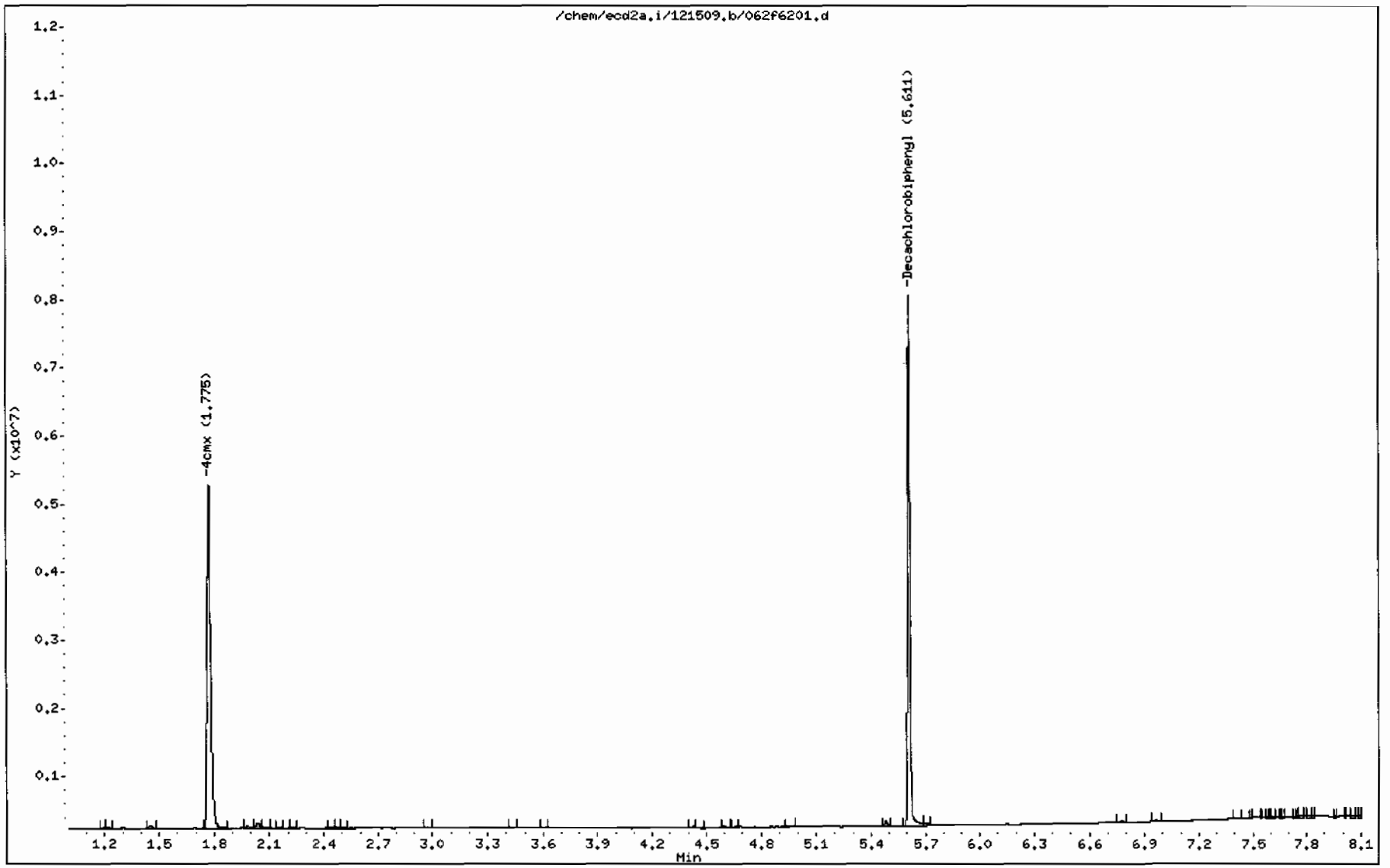

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RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/121509.b/062b6201.d
Lab Smp Id: 242654020 Client Smp ID: RE03-09-14283
Inj Date : 15-DEC-2009 19:45
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |242654020|1|
Misc Info : |ECD82P_1S|932746|SVAF|LANL|SOIL|RE03-09-14283|||
Comment :
Method : /chem/ecd2a.i/121509.b/ECD2-B-8082-111209A.m
Meth Date : 16-Dec-2009 08:01 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012b1201.d
Als bottle: 62
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-852.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.14000	Weight of sample extracted (g)
M	15.84580	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.072	2.070	0.002	15103658	116.795	4.6	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.304	6.303	0.001	13879900	123.067	4.8	80.00- 120.00	100.00

Data File: /chem/ecd2a.i/121509.b/062b6201.d
Date : 15-DEC-2009 19:45
Client ID: REQ3-09-14283
Sample Info: 1242654020141
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd2a.i
Operator: JADC
Column diameter: 0.25

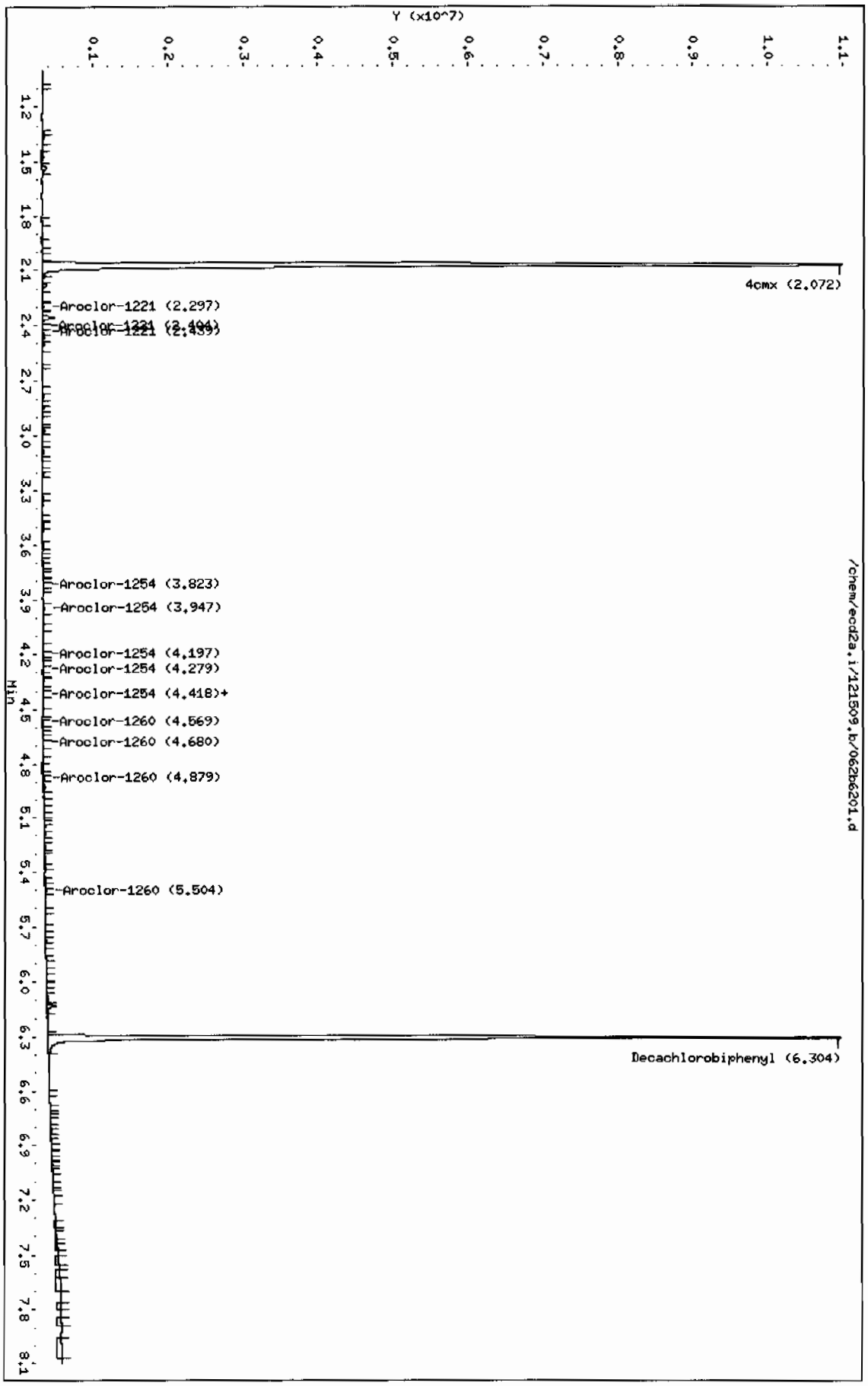

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PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–852**	**Date Collected:**	**12/07/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242654010**	**Date Received:**	**12/10/2009 08:50**	**%Moisture:**	**13.2**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03–09–14284**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**932746**	**Inst:**	**ECD2A.I**	**Dilution:**	**1**
Run Date:	**12/15/2009 17:28**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**12/14/2009 22:59**	**Aliquot:**	**30.02 g**	**Final Volume:**	**1 mL**
Data File:	**050f5001.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	050b5001.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	3.84	ug/kg	1.28	3.84	1
11104–28–2	Aroclor–1221	U	3.84	ug/kg	1.28	3.84	1
11141–16–5	Aroclor–1232	U	3.84	ug/kg	1.28	3.84	1
53469–21–9	Aroclor–1242	U	3.84	ug/kg	1.28	3.84	1
12672–29–6	Aroclor–1248	U	3.84	ug/kg	1.28	3.84	1
11097–69–1	Aroclor–1254	U	3.84	ug/kg	1.28	3.84	1
11096–82–5	Aroclor–1260	U	3.84	ug/kg	1.28	3.84	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/121509.b/050f5001.d
Lab Smp Id: 242654010 Client Smp ID: RE03-09-14284
Inj Date : 15-DEC-2009 17:28
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |242654010|1|
Misc Info : |ECD82P_1S|932746|SVAF|LANL|SOIL|RE03-09-14284|||
Comment :
Method : /chem/ecd2a.i/121509.b/ECD2-F-8082-111209A.m
Meth Date : 16-Dec-2009 08:12 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012f1201.d
Als bottle: 50
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-852.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.02000	Weight of sample extracted (g)
M	13.18970	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.773	1.774	-0.001	7464877	119.838	4.6	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.612	5.611	0.001	6999629	129.356	5.0	80.00- 120.00	100.00

Data File: /chem/ecd2a.i/121509.b/050f5001.d
Date : 15-DEC-2009 17:28
Client ID: RE03-09-14284
Sample Info: 1242654010111
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecd2a.i

Operator: JAOC
Column diameter: 0.25

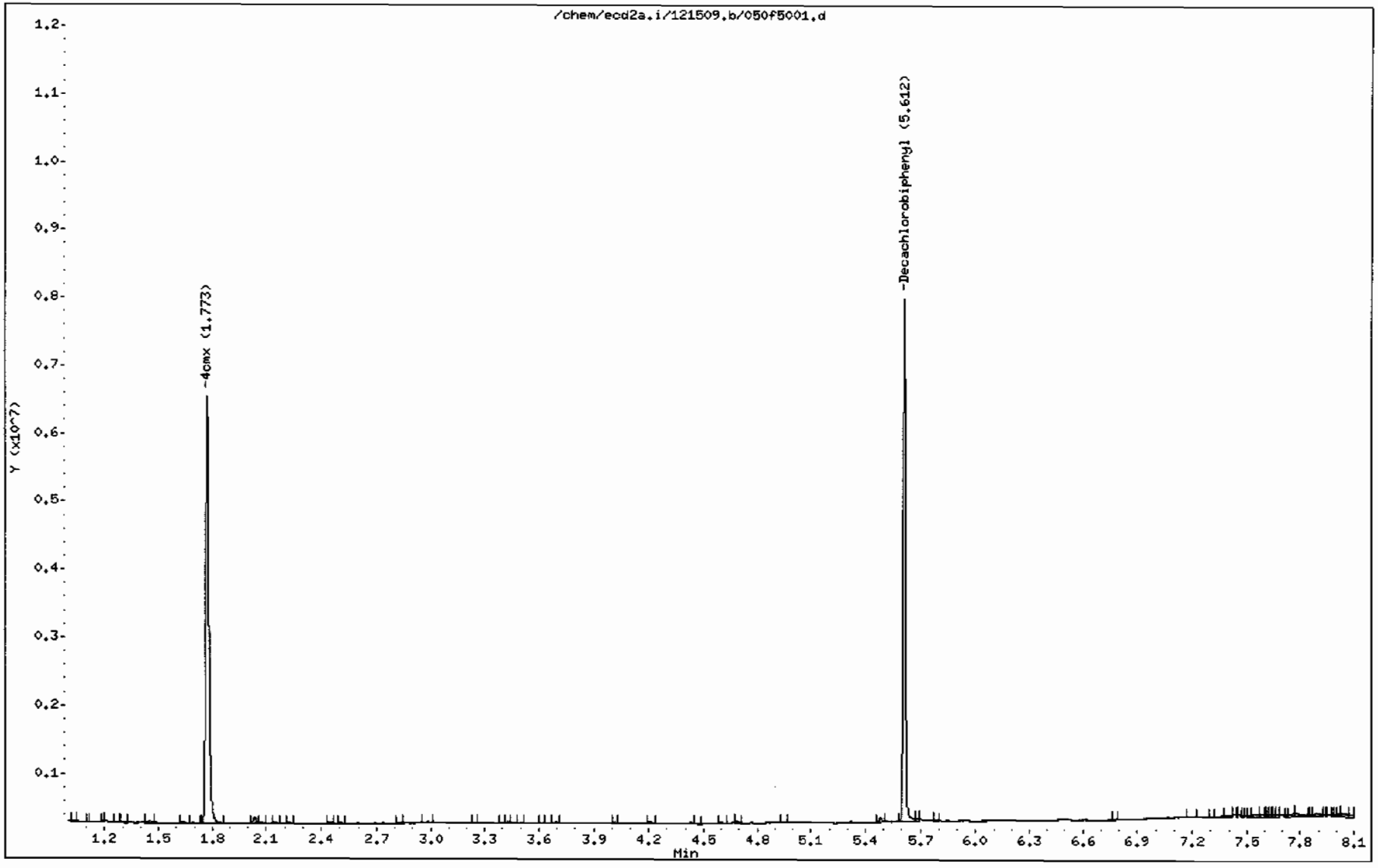

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RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/121509.b/050b5001.d
Lab Smp Id: 242654010 Client Smp ID: RE03-09-14284
Inj Date : 15-DEC-2009 17:28
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |242654010|1|
Misc Info : |ECD82P_1S|932746|SVAF|LANL|SOIL|RE03-09-14284|||
Comment :
Method : /chem/ecd2a.i/121509.b/ECD2-B-8082-111209A.m
Meth Date : 16-Dec-2009 08:01 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012b1201.d
Als bottle: 50
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-852.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.02000	Weight of sample extracted (g)
M	13.18970	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.071	2.070	0.001	16087151	124.400	4.8	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.305	6.303	0.002	13385500	118.684	4.6	80.00- 120.00	100.00

Data File: /chem/ecd2a.i/121509.b/050b5001.d
Date : 15-DEC-2009 17:28
Client ID: RE03-09-14284
Sample Info: 1242654010111
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd2a.i
Operator: JAOC
Column diameter: 0.25

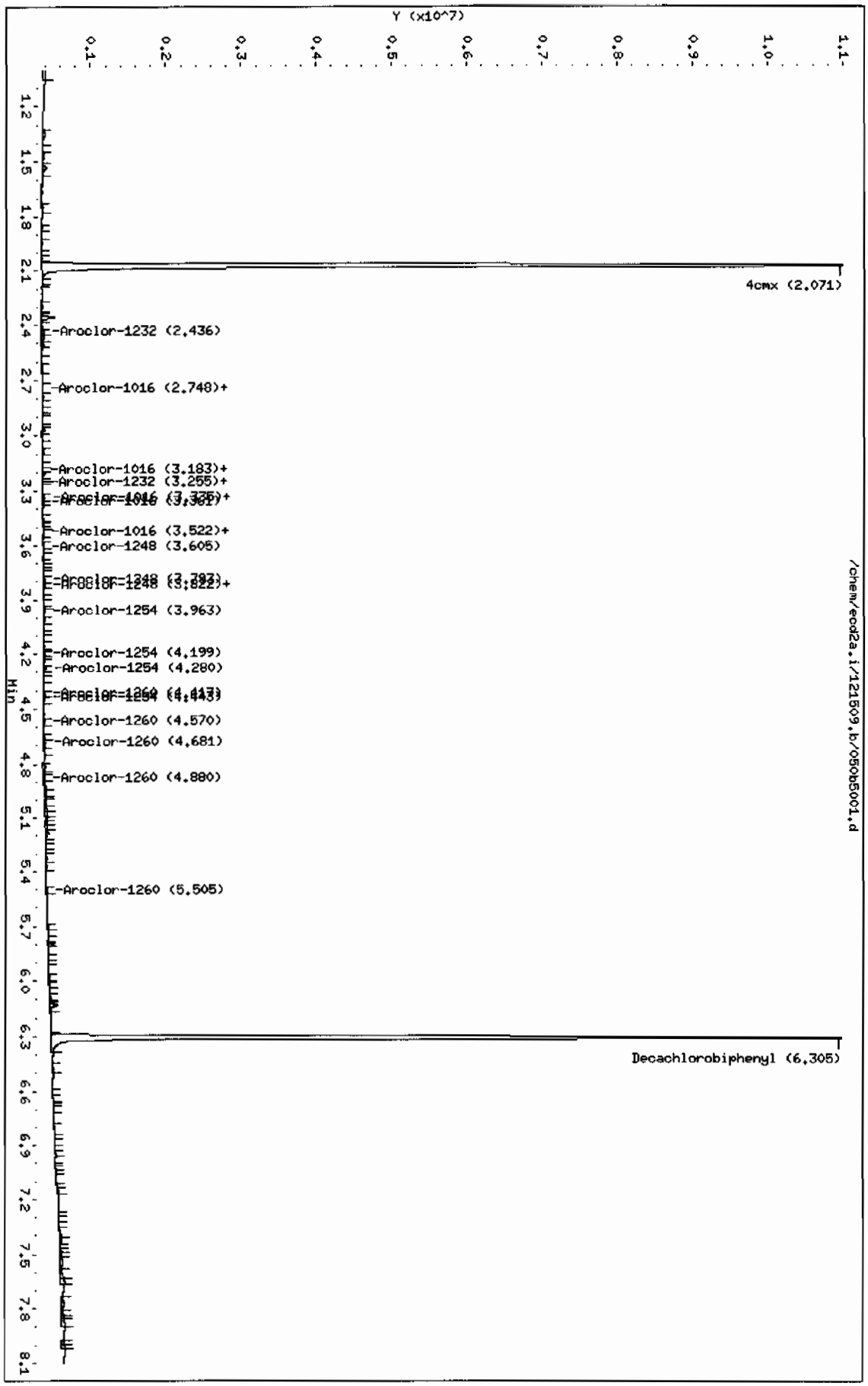

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PCB
Certificate of Analysis
Sample Summary

SDG Number:	10–852	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242654018	**Date Received:**	12/10/2009 08:50	**%Moisture:**	14.2
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03–09–14285	**Method:**	SW846 8082	**SOP Ref:**	GL–OA–E–040
Batch ID:	932746	**Inst:**	ECD2A.I	**Dilution:**	1
Run Date:	12/15/2009 19:23	**Analyst:**	JAOC	**Inj. Vol:**	1 uL
Prep Date:	12/14/2009 22:59	**Aliquot:**	30.12 g	**Final Volume:**	1 mL
Data File:	060f6001.d	**Column:**	1 CLP1	**Level:**	LOW
	060b6001.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	3.87	ug/kg	1.29	3.87	1
11104–28–2	Aroclor–1221	U	3.87	ug/kg	1.29	3.87	1
11141–16–5	Aroclor–1232	U	3.87	ug/kg	1.29	3.87	1
53469–21–9	Aroclor–1242	U	3.87	ug/kg	1.29	3.87	1
12672–29–6	Aroclor–1248	U	3.87	ug/kg	1.29	3.87	1
11097–69–1	Aroclor–1254	U	3.87	ug/kg	1.29	3.87	1
11096–82–5	Aroclor–1260	U	3.87	ug/kg	1.29	3.87	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/121509.b/060f6001.d
Lab Smp Id: 242654018 Client Smp ID: RE03-09-14285
Inj Date : 15-DEC-2009 19:23
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |242654018|1|
Misc Info : |ECD82P_1S|932746|SVAF|LANL|SOIL|RE03-09-14285|||
Comment :
Method : /chem/ecd2a.i/121509.b/ECD2-F-8082-111209A.m
Meth Date : 16-Dec-2009 08:12 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012f1201.d
Als bottle: 60
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-852.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.12000	Weight of sample extracted (g)
M	14.17370	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.775	1.774	0.001	7151020	114.799	4.4	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.610	5.611	-0.001	7028123	129.882	5.0	80.00- 120.00	100.00

Data File: /chem/ecd2a.i/121509.b/060f6001.d

Date : 15-DEC-2009 19:23

Client ID: RE03-09-14285

Sample Info: |242654018|1|

Volume Injected (uL): 1.0

Column phase: CLP1

Instrument: ecd2a.i

Operator: JAOC

Column diameter: 0.25

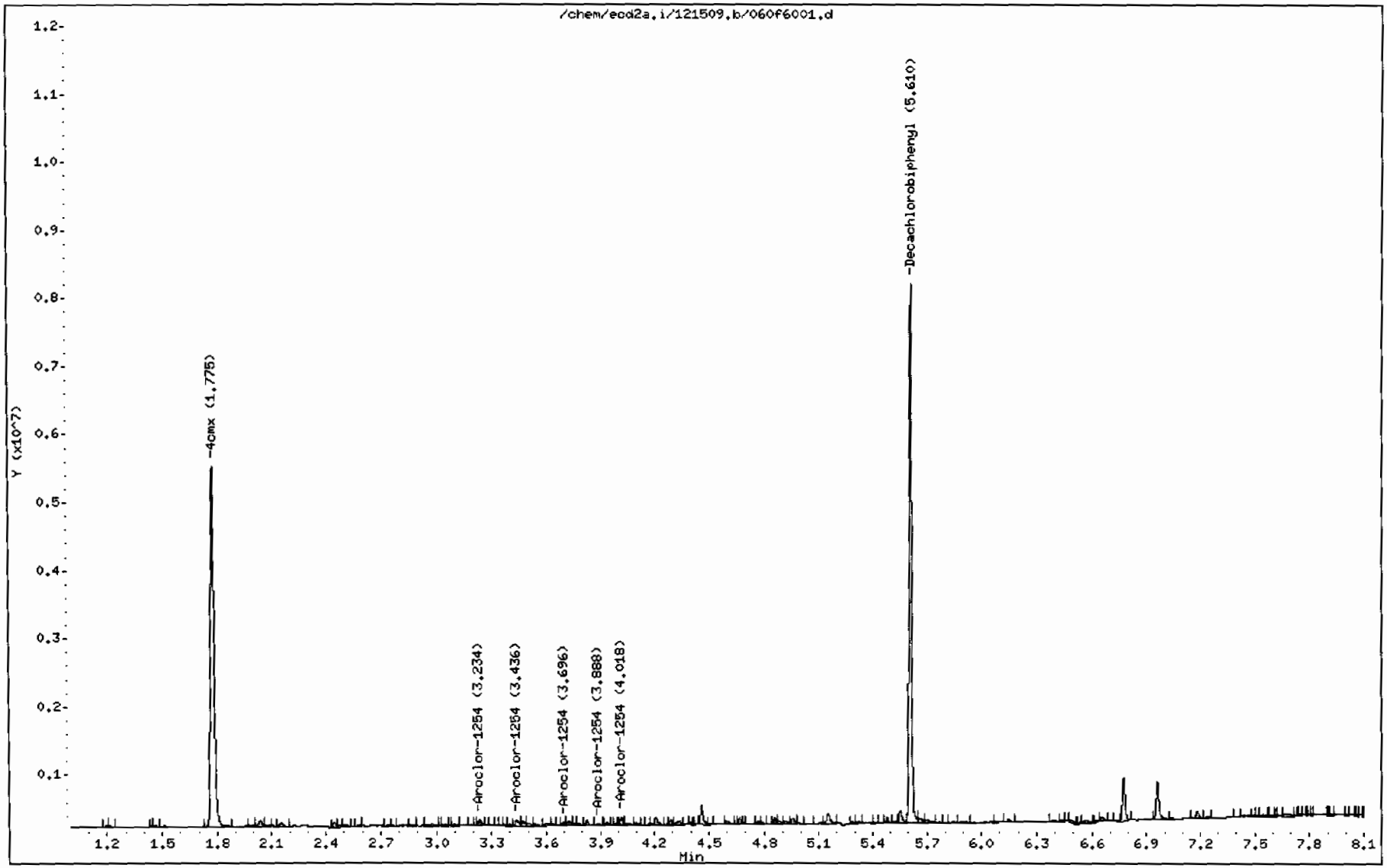

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/121509.b/060b6001.d
Lab Smp Id: 242654018 Client Smp ID: RE03-09-14285
Inj Date : 15-DEC-2009 19:23
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |242654018|1|
Misc Info : |ECD82P_1S|932746|SVAF|LANL|SOIL|RE03-09-14285|||
Comment :
Method : /chem/ecd2a.i/121509.b/ECD2-B-8082-111209A.m
Meth Date : 16-Dec-2009 08:01 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012b1201.d
Als bottle: 60
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-852.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.12000	Weight of sample extracted (g)
M	14.17370	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.072	2.070	0.002	15464641	119.586	4.6	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.304	6.303	0.001	14836341	131.548	5.1	80.00- 120.00	100.00

Data File: /chem/ecd2a.i/121509.b/060b6001.d

Date : 15-DEC-2009 19:23

Client ID: RE03-09-14285

Sample Info: |24265401811|

Volume Injected (uL): 1.0

Column phase: CLP2

Instrument: ecd2a.i

Operator: JAOC

Column diameter: 0.25

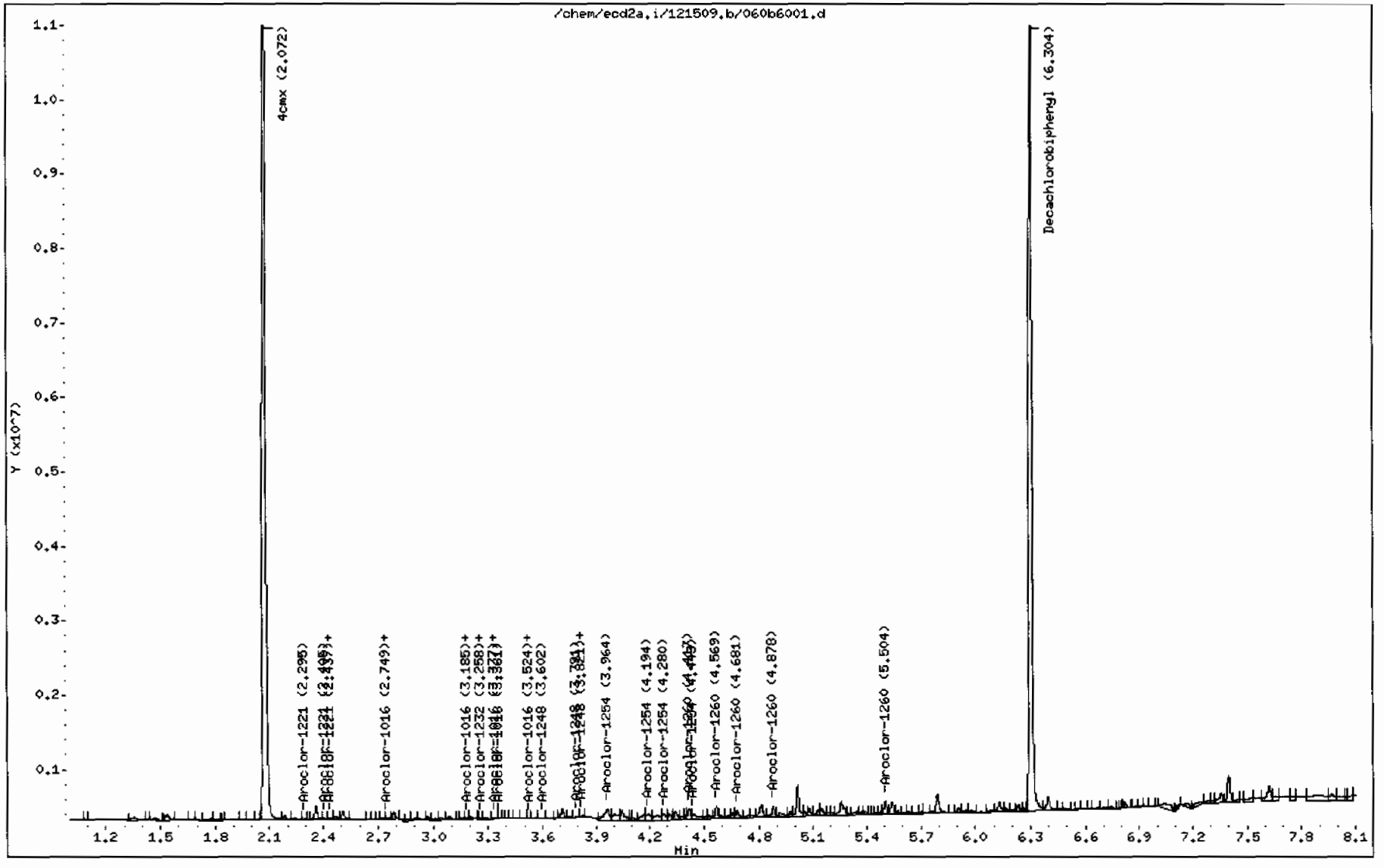

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10-852	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242654019	**Date Received:**	12/10/2009 08:50	**%Moisture:**	13.4
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14286	**Method:**	SW846 8082	**SOP Ref:**	GL-OA-E-040
Batch ID:	932746	**Inst:**	ECD2A.I	**Dilution:**	1
Run Date:	12/15/2009 19:34	**Analyst:**	JAOC	**Inj. Vol:**	1 uL
Prep Date:	12/14/2009 22:59	**Aliquot:**	30.17 g	**Final Volume:**	1 mL
Data File:	061f6101.d	**Column:**	1 CLP1	**Level:**	LOW
	061b6101.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.83	ug/kg	1.27	3.83	1
11104-28-2	Aroclor-1221	U	3.83	ug/kg	1.27	3.83	1
11141-16-5	Aroclor-1232	U	3.83	ug/kg	1.27	3.83	1
53469-21-9	Aroclor-1242	U	3.83	ug/kg	1.27	3.83	1
12672-29-6	Aroclor-1248	U	3.83	ug/kg	1.27	3.83	1
11097-69-1	Aroclor-1254	U	3.83	ug/kg	1.27	3.83	1
11096-82-5	Aroclor-1260	U	3.83	ug/kg	1.27	3.83	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/121509.b/061f6101.d
Lab Smp Id: 242654019 Client Smp ID: RE03-09-14286
Inj Date : 15-DEC-2009 19:34
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |242654019|1|
Misc Info : |ECD82P_1S|932746|SVAF|LANL|SOIL|RE03-09-14286|||
Comment :
Method : /chem/ecd2a.i/121509.b/ECD2-F-8082-111209A.m
Meth Date : 16-Dec-2009 08:12 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012f1201.d
Als bottle: 61
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-852.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.17000	Weight of sample extracted (g)
M	13.39690	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.776	1.774	0.002	7560519	121.373	4.6	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.612	5.611	0.001	7842630	144.934	5.5	80.00- 120.00	100.00

Data File: /chem/ecd2a.i/121509.b/061f6101.d

Date : 15-DEC-2009 19:34

Client ID: RE03-09-14286

Sample Info: 1242654019|1|

Volume Injected (uL): 1.0

Column phase: CLP1

Instrument: ecd2a.i

Operator: JAOC

Column diameter: 0.25

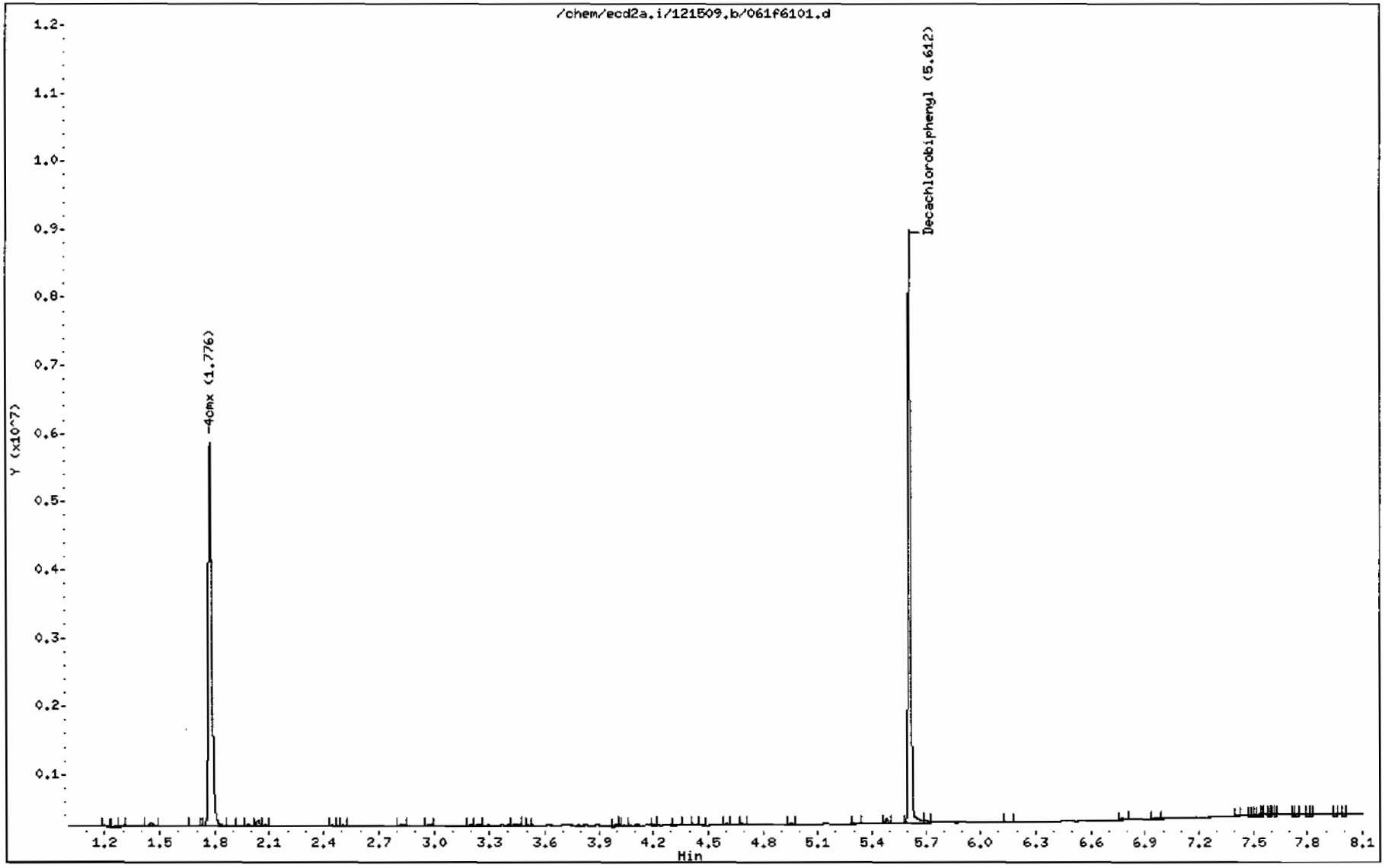

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/121509.b/061b6101.d
Lab Smp Id: 242654019 Client Smp ID: RE03-09-14286
Inj Date : 15-DEC-2009 19:34
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |242654019|1|
Misc Info : |ECD82P_1S|932746|SVAF|LANL|SOIL|RE03-09-14286|||
Comment :
Method : /chem/ecd2a.i/121509.b/ECD2-B-8082-111209A.m
Meth Date : 16-Dec-2009 08:01 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012b1201.d
Als bottle: 61
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-852.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.17000	Weight of sample extracted (g)
M	13.39690	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.073	2.070	0.003	16299962	126.046	4.8	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.304	6.303	0.001	15718339	139.368	5.3	80.00- 120.00	100.00

Data File: /chem/ecd2a.i/121509.b/061b6101.d
Date : 15-DEC-2009 19:34
Client ID: RE03-09-14286
Sample Info: 1242654019111
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd2a.i
Operator: JAOC
Column diameter: 0.25

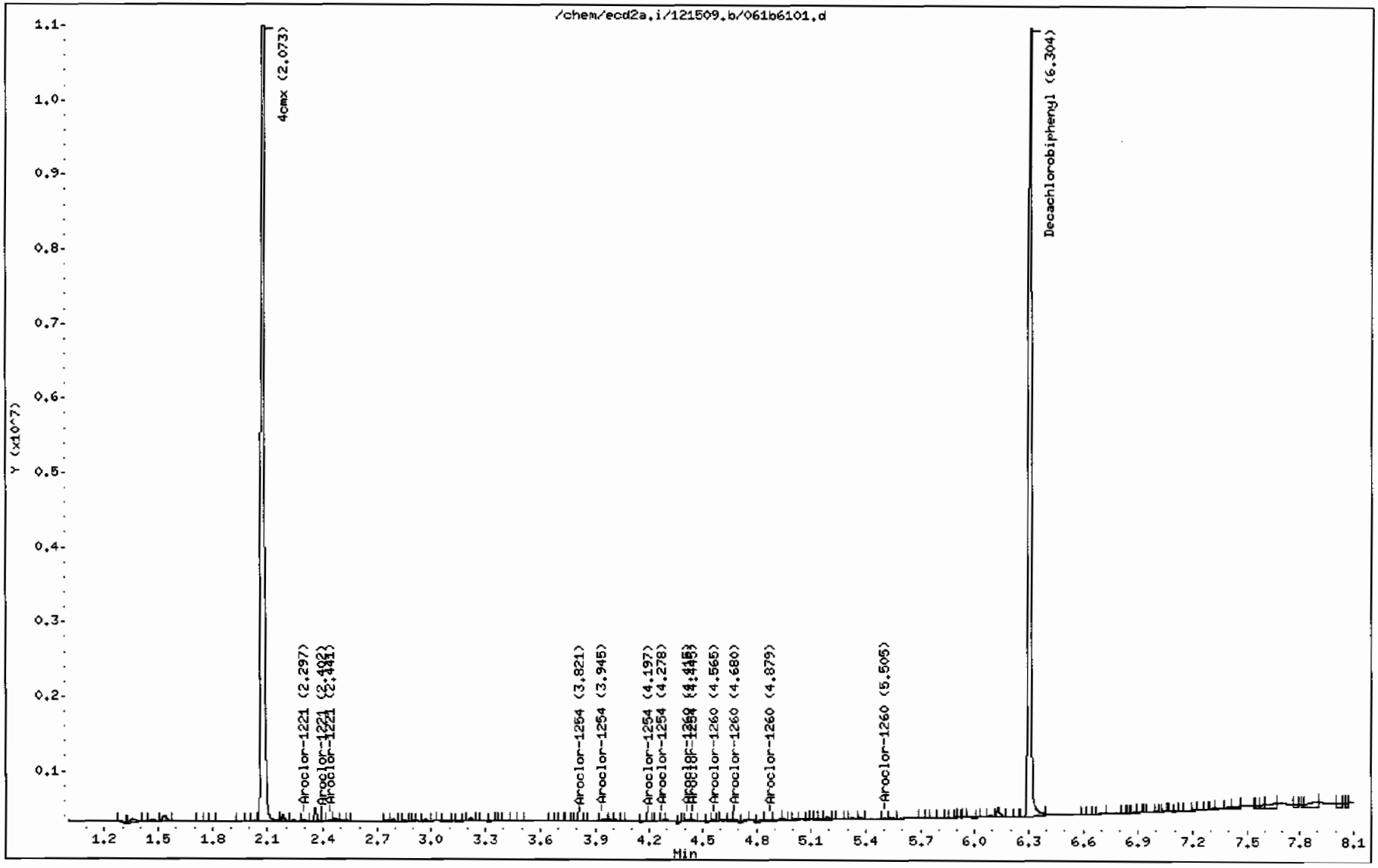

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–852**	**Date Collected:**	**12/07/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242654006**	**Date Received:**	**12/10/2009 08:50**	**%Moisture:**	**11.7**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03–09–14287**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**932746**	**Inst:**	**ECD2A.I**	**Dilution:**	**1**
Run Date:	**12/15/2009 16:21**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**12/14/2009 22:59**	**Aliquot:**	**30.13 g**	**Final Volume:**	**1 mL**
Data File:	**044f4401.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	044b4401.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	3.76	ug/kg	1.25	3.76	1
11104–28–2	Aroclor–1221	U	3.76	ug/kg	1.25	3.76	1
11141–16–5	Aroclor–1232	U	3.76	ug/kg	1.25	3.76	1
53469–21–9	Aroclor–1242	U	3.76	ug/kg	1.25	3.76	1
12672–29–6	Aroclor–1248	U	3.76	ug/kg	1.25	3.76	1
11097–69–1	Aroclor–1254	JP	3.30	ug/kg	1.25	3.76	2
11096–82–5	Aroclor–1260	J	2.90	ug/kg	1.25	3.76	1

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RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/121509.b/044f4401.d
Lab Smp Id: 242654006 Client Smp ID: RE03-09-14287
Inj Date : 15-DEC-2009 16:21
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |242654006|1|
Misc Info : |ECD82P_1S|932746|SVAF|LANL|SOIL|RE03-09-14287|||
Comment :
Method : /chem/ecd2a.i/121509.b/ECD2-F-8082-111209A.m
Meth Date : 15-Dec-2009 16:48 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012f1201.d
Als bottle: 44
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-852.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.13000	Weight of sample extracted (g)
M	11.68630	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.771	1.774	-0.003	7121911	114.332	4.3	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.610	5.611	-0.001	5889367	108.837	4.1	80.00- 120.00	100.00
6 Aroclor-1254					CAS #: 11097-69-1		
3.241	3.244	-0.003	75834	36.4577	1.4	80.00- 120.00	100.00(a)
3.429	3.427	0.002	202160	72.9257	2.7	113.31- 153.31	266.58
3.695	3.696	-0.001	132903	35.5128	1.3	161.19- 201.19	175.25
3.886	3.889	-0.003	106303	38.2013	1.4	113.78- 153.78	140.18
4.014	4.018	-0.004	248025	89.8627	3.4	111.75- 151.75	327.06
			Average of Peak Concentrations =		2.0		

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
7 Aroclor-1260					CAS #: 11096-82-5		
4.014	4.017	-0.003	248025	59.5484	2.2	80.00- 120.00	100.00(aM)
4.286	4.288	-0.002	114012	44.0104	1.6	40.74- 80.74	45.97
4.456	4.454	0.002	503733	191.446	7.2	42.26- 82.26	226.33
4.666	4.667	-0.001	198372	32.5863	1.2	127.18- 167.18	79.98
4.855	4.857	-0.002	164152	55.7932	2.1	51.44- 91.44	66.18
			Average of Peak Concentrations =		2.9		

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

Data File: /chem/ecd2a.i/121509.b/044f4401.d

Date : 15-DEC-2009 16:21

Client ID: RE03-09-14287

Sample Info: 1242654006111

Volume Injected (uL): 1.0

Column phase: CLP1

Instrument: ecd2a.i

Operator: JAOC

Column diameter: 0.25

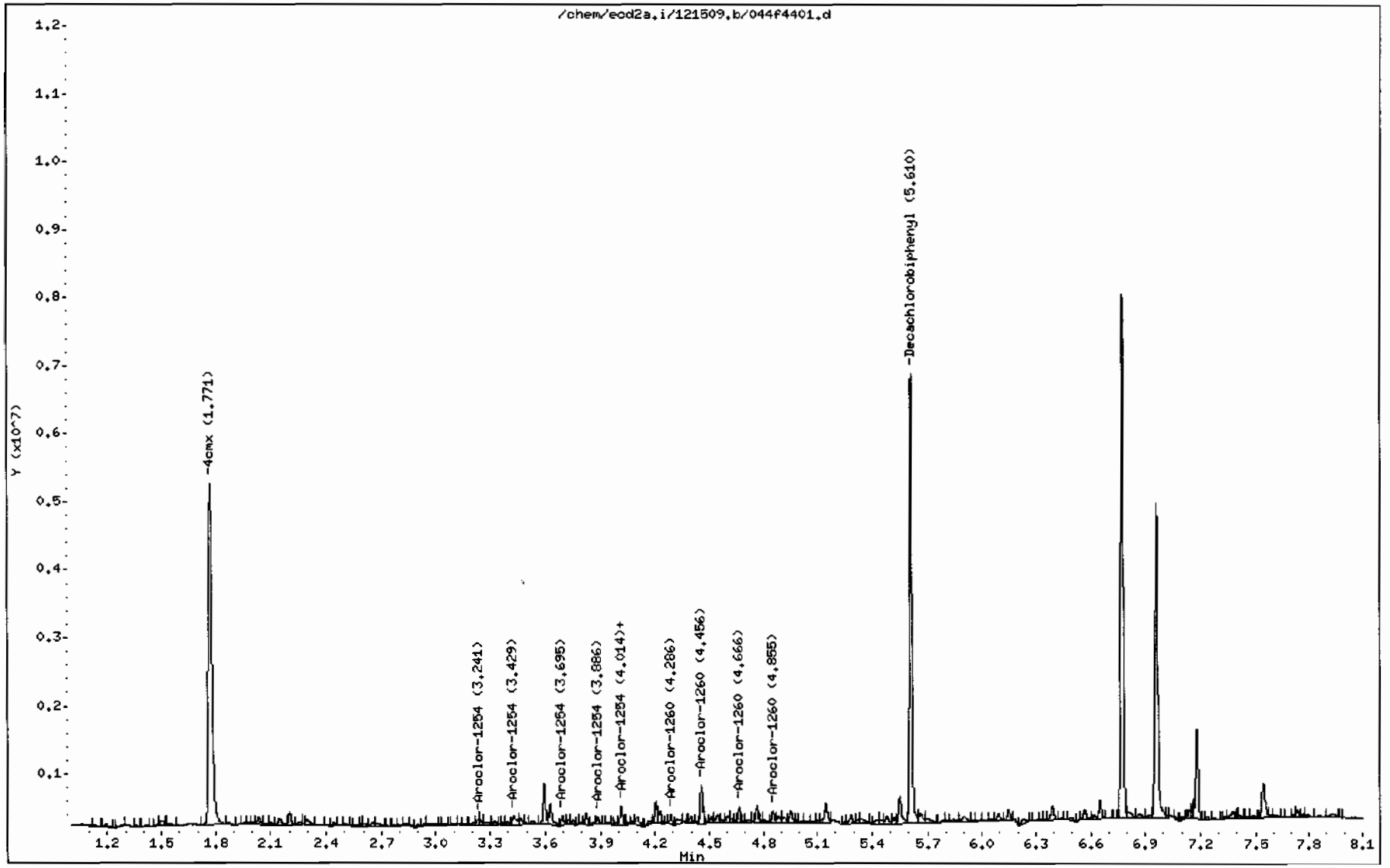

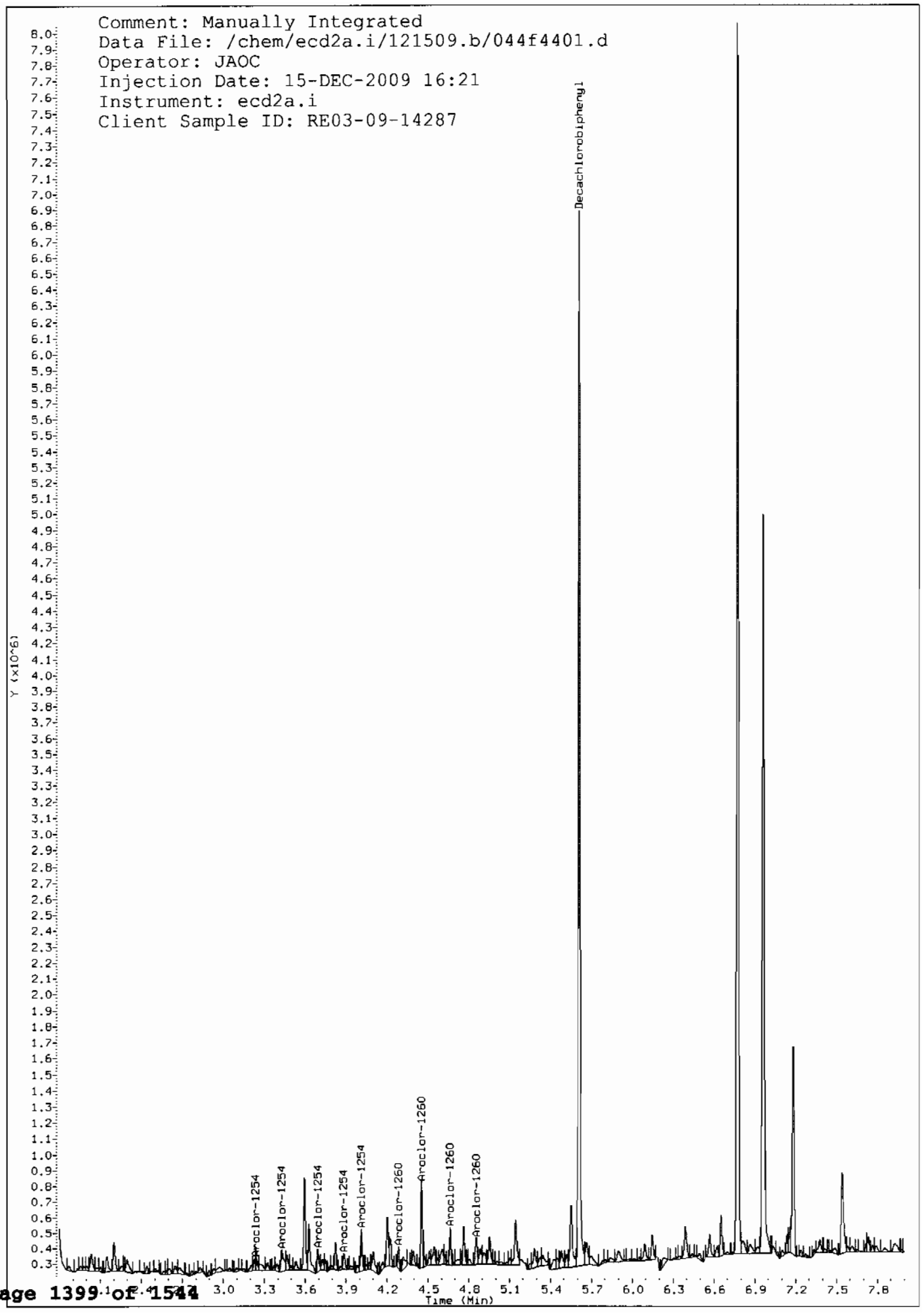
Comment: Manually Integrated
Data File: /chem/ecd2a.i/121509.b/044f4401.d
Operator: JAOC
Injection Date: 15-DEC-2009 16:21
Instrument: ecd2a.i
Client Sample ID: RE03-09-14287
Decachlorobiphenyl
Aroclor-1254
Aroclor-1254
Aroclor-1254
Aroclor-1254
Aroclor-1254
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Y (x10^6)
Time (Min)

Comment: Before manual integration
Data File: /chem/ecd2a.i/121509.b/orig-044f4401.d
Operator: JAOC
Injection Date: 15-DEC-2009 16:21
Instrument: ecd2a.i
Client Sample ID: RE03-09-14287

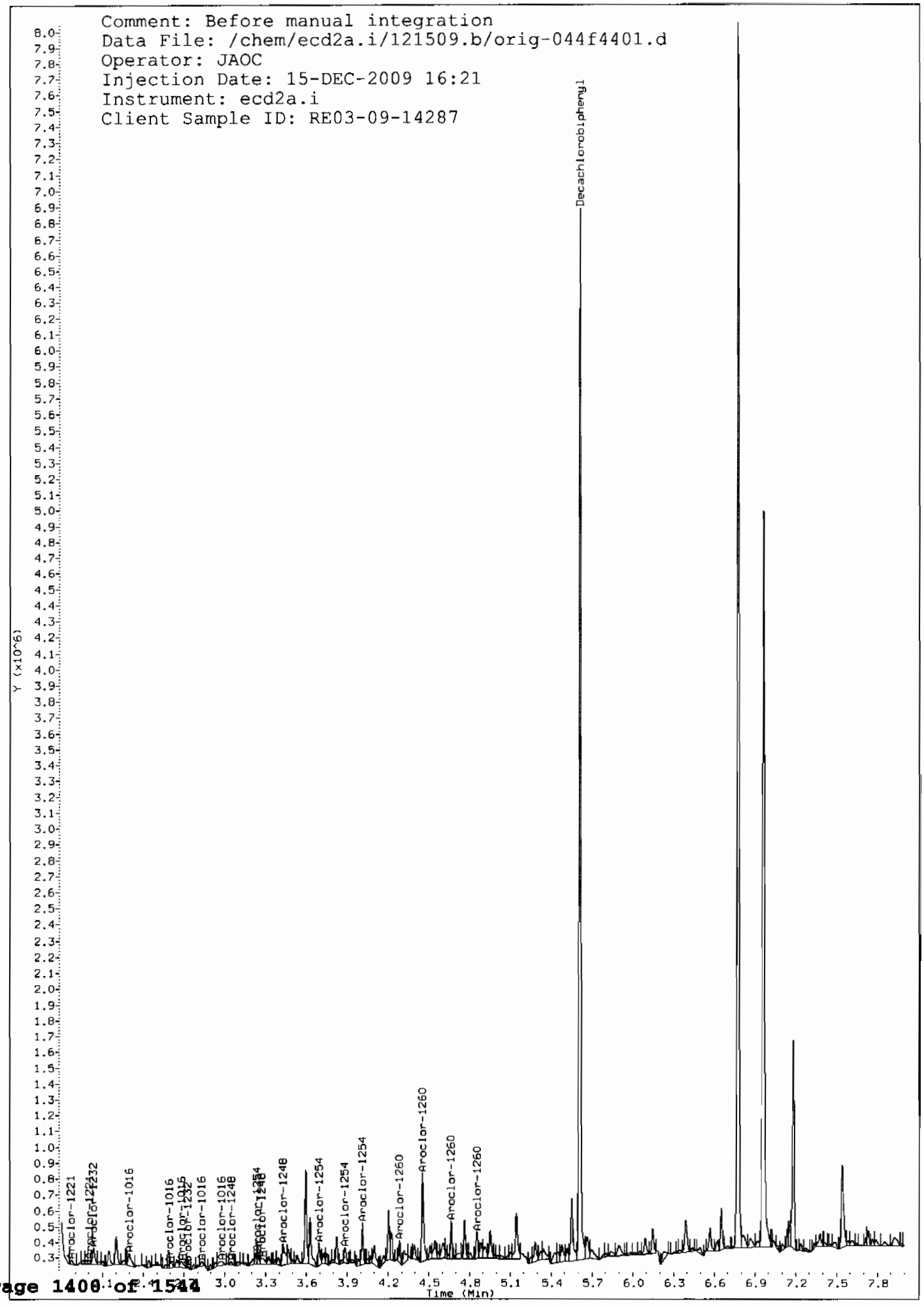

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/121509.b/044b4401.d
Lab Smp Id: 242654006 Client Smp ID: RE03-09-14287
Inj Date : 15-DEC-2009 16:21
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |242654006|1|
Misc Info : |ECD82P_1S|932746|SVAF|LANL|SOIL|RE03-09-14287|||
Comment :
Method : /chem/ecd2a.i/121509.b/ECD2-B-8082-111209A.m
Meth Date : 15-Dec-2009 16:44 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012b1201.d
Als bottle: 44
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-852.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.13000	Weight of sample extracted (g)
M	11.68630	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.069	2.070	-0.001	15488129	119.768	4.5	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.303	6.303	0.000	11326356	100.426	3.8	80.00- 120.00	100.00(M)
6 Aroclor-1254					CAS #: 11097-69-1		
3.820	3.821	-0.001	158142	31.7217	1.2	80.00- 120.00	100.00(aM)
3.947	3.962	-0.015	1017890	175.530	6.6	95.05- 135.05	643.65
4.193	4.198	-0.005	556250	138.268	5.2	60.96- 100.96	351.74
4.277	4.280	-0.003	263851	34.1273	1.3	135.61- 175.61	166.84
4.442	4.443	-0.001	330943	59.0094	2.2	91.93- 131.93	209.27

Average of Peak Concentrations = 3.3

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
7 Aroclor-1260					CAS #: 11096-82-5		
4.416	4.416	0.000	350260	60.7360	2.3	80.00- 120.00	100.00(aM)
4.567	4.568	-0.001	406958	57.1258	2.1	105.78- 145.78	116.19
4.678	4.680	-0.002	362553	75.2387	2.8	63.86- 103.86	103.51
4.877	4.876	0.001	367261	65.2125	2.4	77.06- 117.06	104.85
5.503	5.503	0.000	615561	68.1118	2.6	137.61- 177.61	175.74
			Average of Peak Concentrations =		2.4		

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

Data File: /chem/ecd2a.i/121509.b/044b4401.d

Date : 15-DEC-2009 16:21

Client ID: RE03-09-14287

Sample Info: |242654006|1|

Volume Injected (uL): 1.0

Column phase: CLP2

Instrument: ecd2a.i

Operator: JAOC

Column diameter: 0.25

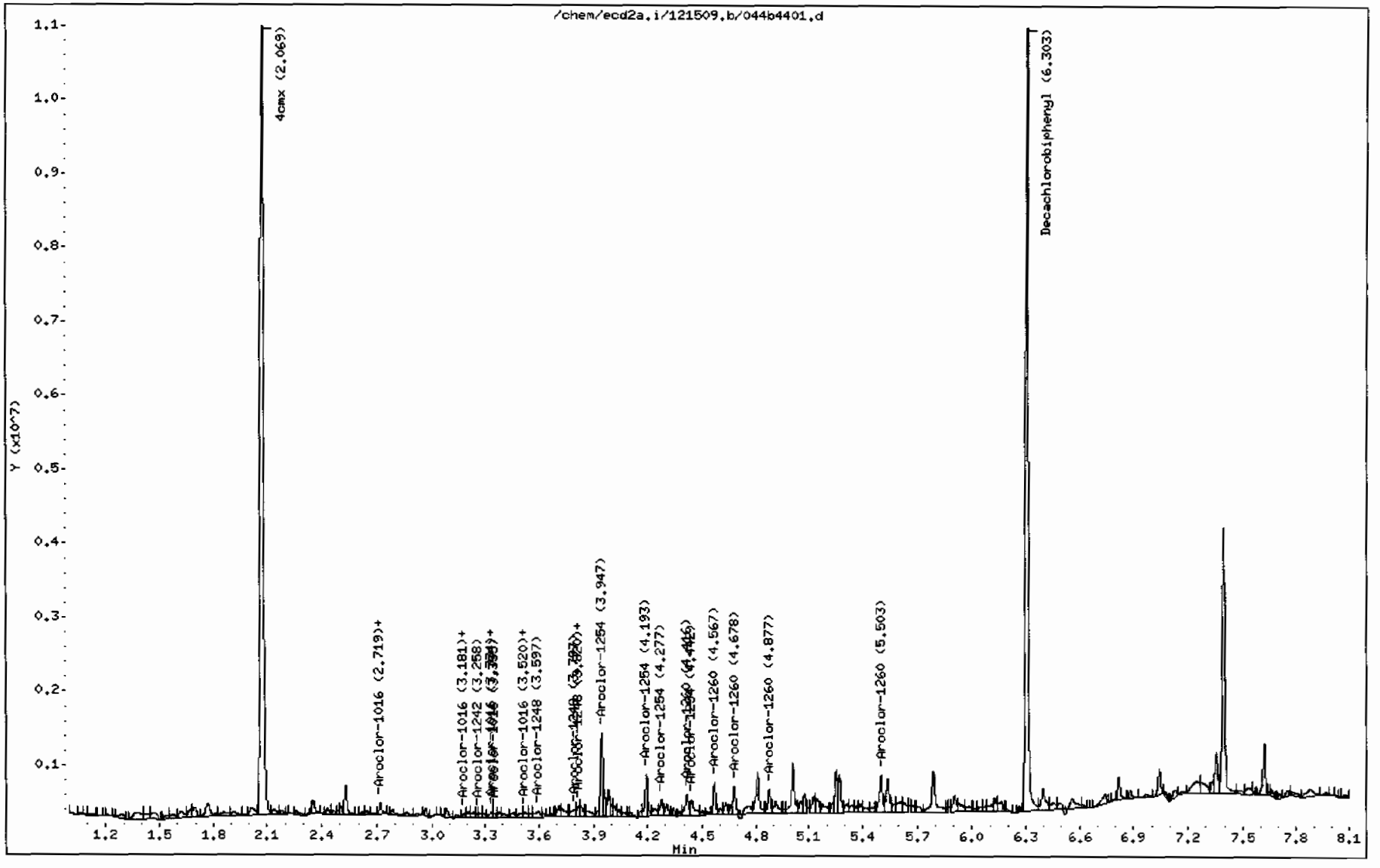

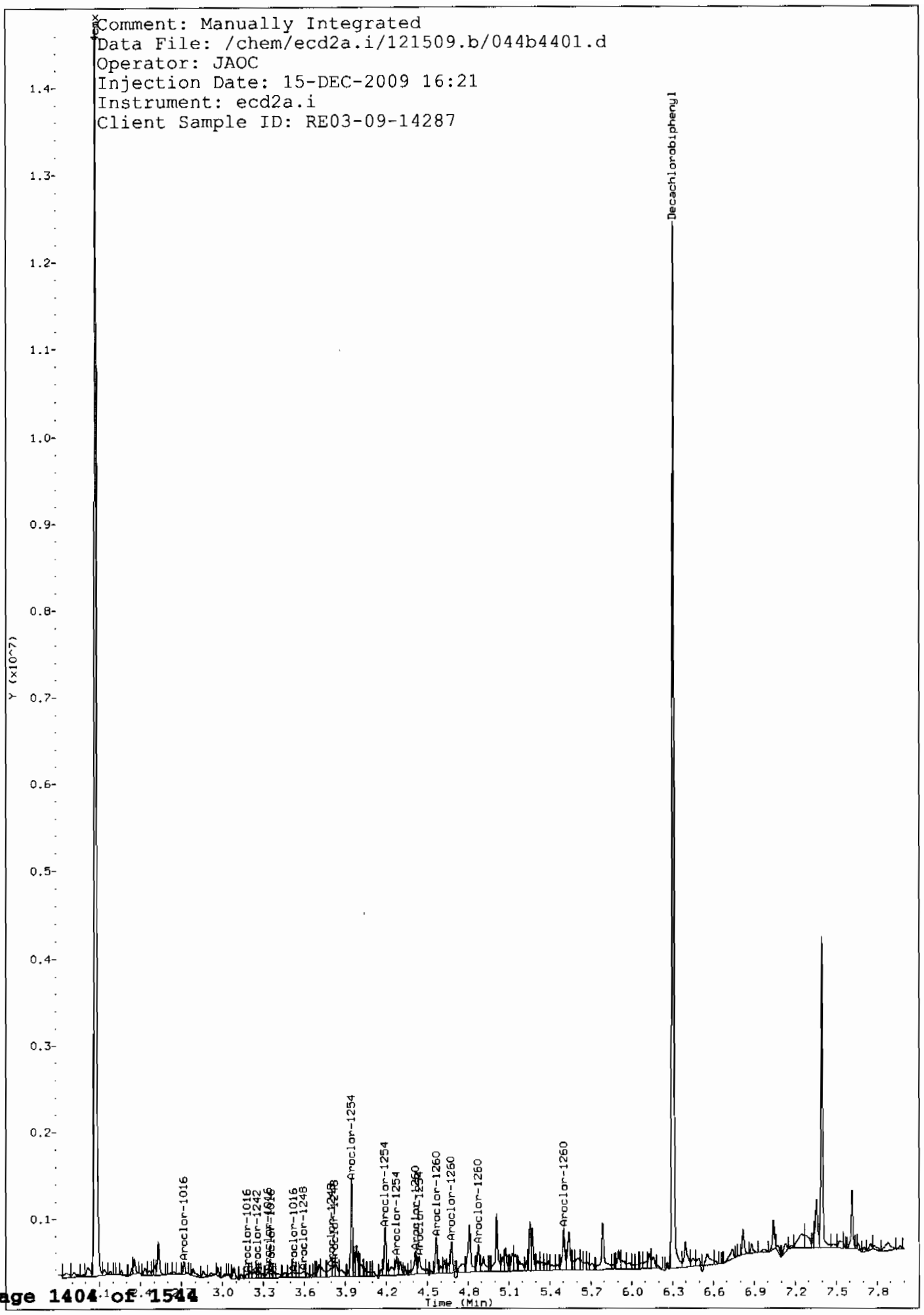
Comment: Manually Integrated
Data File: /chem/ecd2a.i/121509.b/044b4401.d
Operator: JAOC
Injection Date: 15-DEC-2009 16:21
Instrument: ecd2a.i
Client Sample ID: RE03-09-14287
Decachlorobiphenyl
Aroclor-1016
Aroclor-1254
Aroclor-1260
Y (x10^7)
Time (Min)

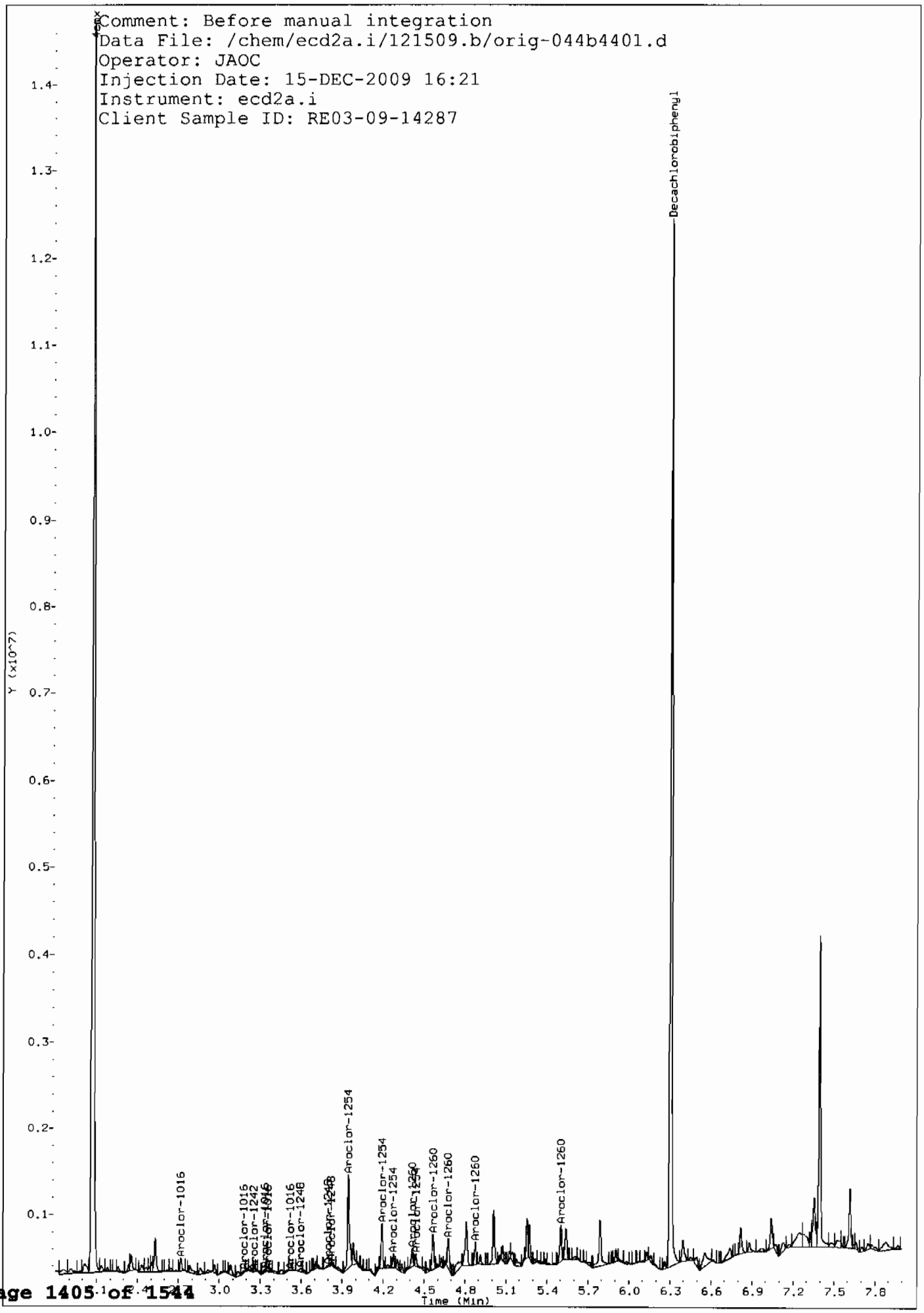
Comment: Before manual integration
Data File: /chem/ecd2a.i/121509.b/orig-044b4401.d
Operator: JAOC
Injection Date: 15-DEC-2009 16:21
Instrument: ecd2a.i
Client Sample ID: RE03-09-14287
Decachlorobiphenyl
Aroclor-1016
Aroclor-1016
Aroclor-1242
Aroclor-1016
Aroclor-1248
Aroclor-1254
Aroclor-1254
Aroclor-1254
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Y (x10^7)
Time (Min)

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10-852	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242654005	**Date Received:**	12/10/2009 08:50	**%Moisture:**	5.9
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14288	**Method:**	SW846 8082	**SOP Ref:**	GL-OA-E-040
Batch ID:	932746	**Inst:**	ECD2A.I	**Dilution:**	1
Run Date:	12/15/2009 16:10	**Analyst:**	JAOC	**Inj. Vol:**	1 uL
Prep Date:	12/14/2009 22:59	**Aliquot:**	30.17 g	**Final Volume:**	1 mL
Data File:	043f4301.d	**Column:**	1 CLP1	**Level:**	LOW
	043b4301.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.52	ug/kg	1.17	3.52	1
11104-28-2	Aroclor-1221	U	3.52	ug/kg	1.17	3.52	1
11141-16-5	Aroclor-1232	U	3.52	ug/kg	1.17	3.52	1
53469-21-9	Aroclor-1242	U	3.52	ug/kg	1.17	3.52	1
12672-29-6	Aroclor-1248	U	3.52	ug/kg	1.17	3.52	1
11097-69-1	Aroclor-1254	U	3.52	ug/kg	1.17	3.52	1
11096-82-5	Aroclor-1260	U	3.52	ug/kg	1.17	3.52	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/121509.b/043f4301.d
Lab Smp Id: 242654005 Client Smp ID: RE03-09-14288
Inj Date : 15-DEC-2009 16:10
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |242654005|1|
Misc Info : |ECD82P_1S|932746|SVAF|LANL|SOIL|RE03-09-14288|||
Comment :
Method : /chem/ecd2a.i/121509.b/ECD2-F-8082-111209A.m
Meth Date : 15-Dec-2009 16:48 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012f1201.d
Als bottle: 43
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-852.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.17000	Weight of sample extracted (g)
M	5.94460	% Moisture

Cpnd Variable Local Compound Variable

-

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.773	1.774	-0.001	6799692	109.159	3.8	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.612	5.611	0.001	6302103	116.465	4.1	80.00- 120.00	100.00

Data File: /chem/ecd2a.i/121509.b/043f4301.d

Date : 15-DEC-2009 16:10

Client ID: RE03-09-14288

Sample Info: |242654005|1|

Volume Injected (uL): 1.0

Column phase: CLP1

Instrument: ecd2a.i

Operator: JAOC

Column diameter: 0.25

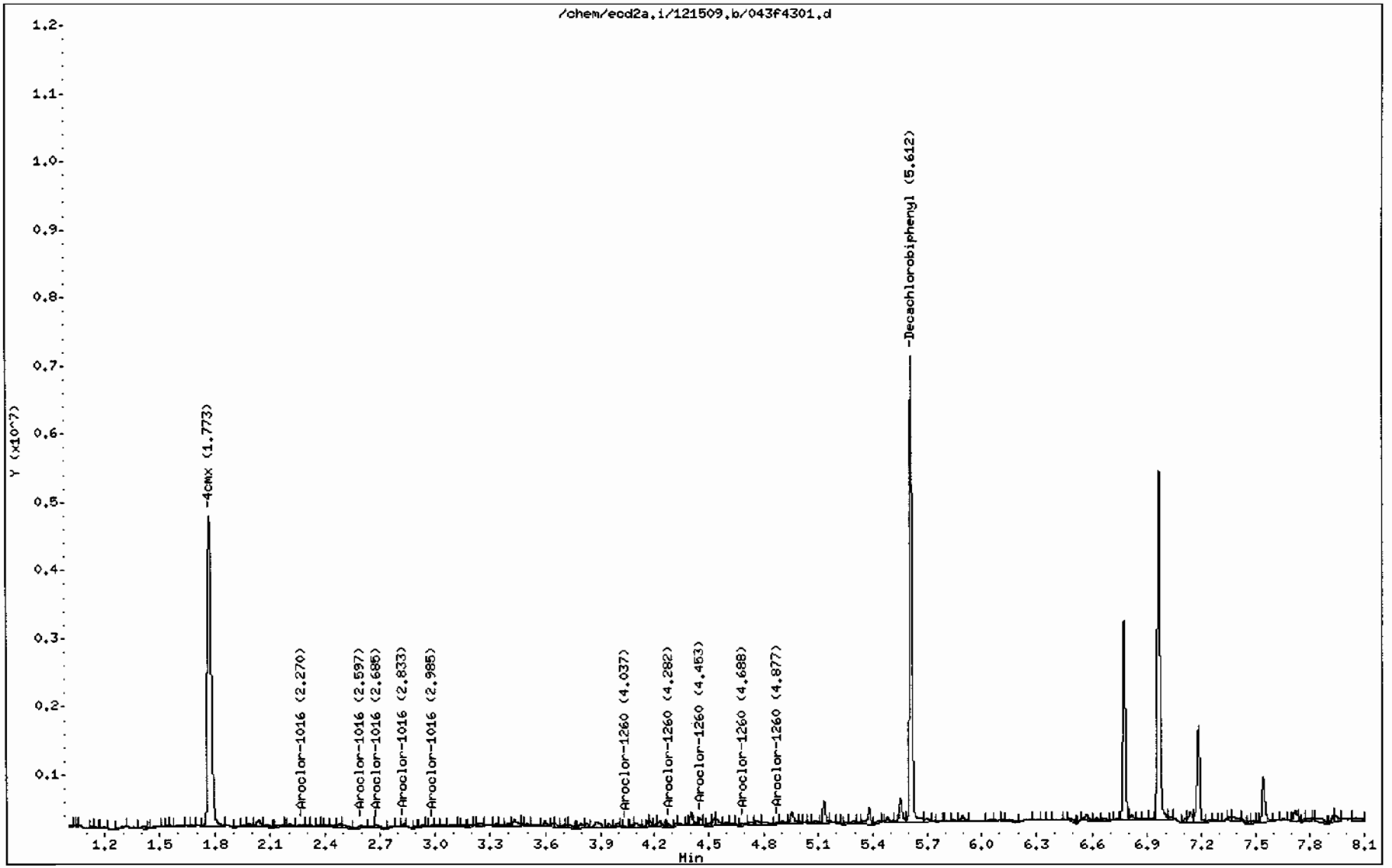

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/121509.b/043b4301.d
Lab Smp Id: 242654005 Client Smp ID: RE03-09-14288
Inj Date : 15-DEC-2009 16:10
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |242654005|1|
Misc Info : |ECD82P_1S|932746|SVAF|LANL|SOIL|RE03-09-14288|||
Comment :
Method : /chem/ecd2a.i/121509.b/ECD2-B-8082-111209A.m
Meth Date : 15-Dec-2009 16:44 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012b1201.d
Als bottle: 43
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-852.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.17000	Weight of sample extracted (g)
M	5.94460	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.070	2.070	0.000	14786066	114.339	4.0	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.303	6.303	0.000	13161552	116.698	4.1	80.00- 120.00	100.00

Data File: /chem/ecd2a.i/121509.b/043b4301.d
Date : 15-DEC-2009 16:10
Client ID: RE03-09-14288
Sample Info: 1242654005111
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd2a.i
Operator: JAOC
Column diameter: 0.25

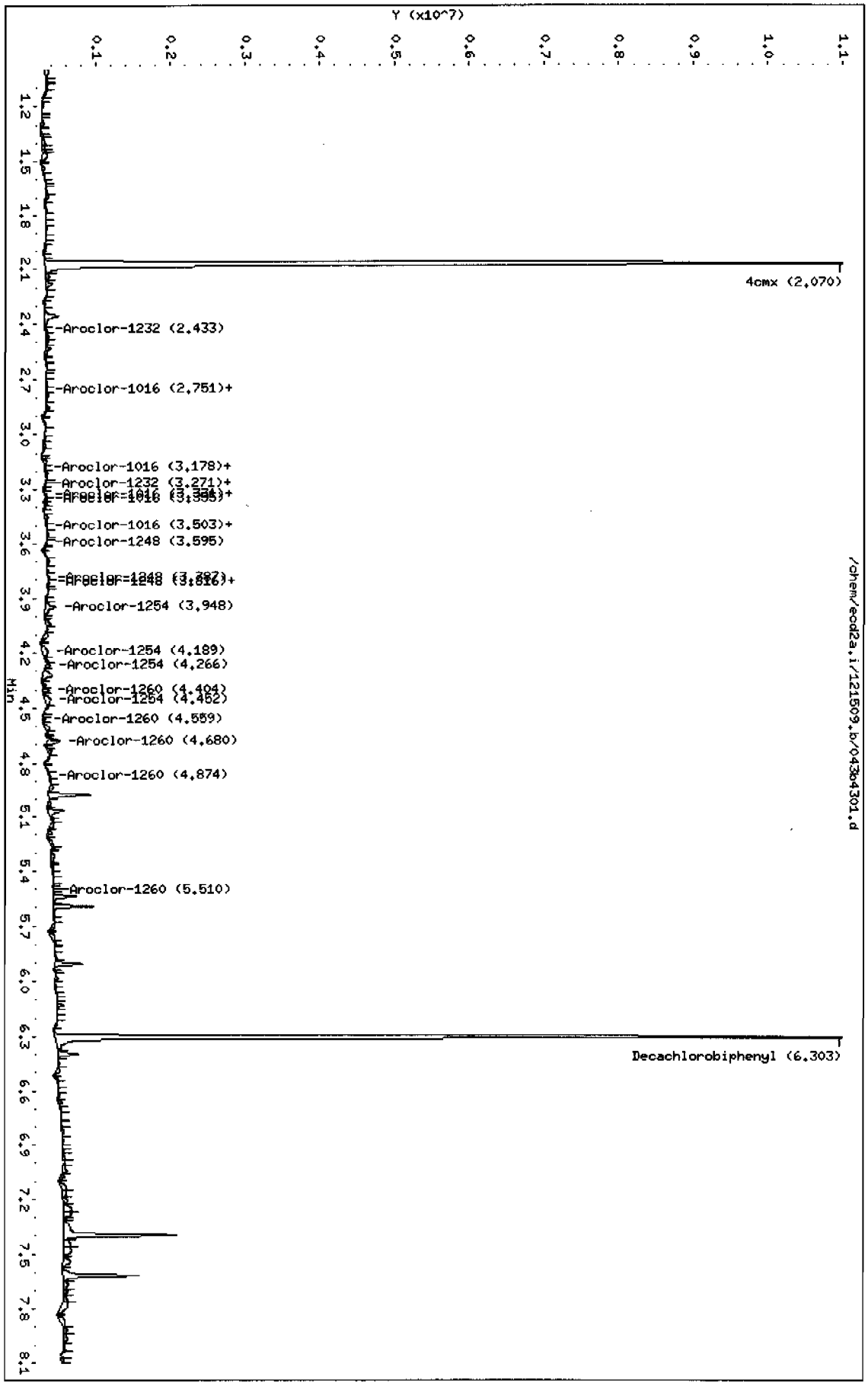

Page 1

STANDARDS DATA

Report Date: 15-Dec-2009 15:29

Calibration History

Method : /chem/ecd2a.i/121509.b/ECD2-F-8082-111209A.m
Start Cal Date: 12-NOV-2009 11:00
End Cal Date : 14-DEC-2009 09:35

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 100.00000		
02-DEC-2009 07:05	AR1262	/chem/ecd2a.i/120209.b/008f0801.d
12-NOV-2009 16:22	AR1268	/chem/ecd2a.i/111209a.b/035f3501.d
30-NOV-2009 10:12	AR1248	/chem/ecd2a.i/113009a.b/011f1101.d
12-NOV-2009 14:09	AR1242	/chem/ecd2a.i/111209a.b/023f2301.d
30-NOV-2009 08:43	AR1254	/chem/ecd2a.i/113009a.b/003f0301.d
14-DEC-2009 08:51	AR1660	/chem/ecd2a.i/121409.b/011f1101.d
Cal Level: 2 , Cal Amount: 250.00000		
02-DEC-2009 07:16	AR1262	/chem/ecd2a.i/120209.b/009f0901.d
12-NOV-2009 16:33	AR1268	/chem/ecd2a.i/111209a.b/036f3601.d
30-NOV-2009 10:23	AR1248	/chem/ecd2a.i/113009a.b/012f1201.d
12-NOV-2009 14:20	AR1242	/chem/ecd2a.i/111209a.b/024f2401.d
30-NOV-2009 08:54	AR1254	/chem/ecd2a.i/113009a.b/004f0401.d
14-DEC-2009 09:02	AR1660	/chem/ecd2a.i/121409.b/012f1201.d
Cal Level: 3 , Cal Amount: 500.00000		
02-DEC-2009 07:27	AR1262	/chem/ecd2a.i/120209.b/010f1001.d
12-NOV-2009 16:44	AR1268	/chem/ecd2a.i/111209a.b/037f3701.d
30-NOV-2009 10:34	AR1248	/chem/ecd2a.i/113009a.b/013f1301.d
12-NOV-2009 14:31	AR1242	/chem/ecd2a.i/111209a.b/025f2501.d
30-NOV-2009 09:05	AR1254	/chem/ecd2a.i/113009a.b/005f0501.d
14-DEC-2009 09:13	AR1660	/chem/ecd2a.i/121409.b/013f1301.d
Cal Level: 4 , Cal Amount: 1000.00000		
30-NOV-2009 10:45	AR1248	/chem/ecd2a.i/113009a.b/014f1401.d
12-NOV-2009 14:42	AR1242	/chem/ecd2a.i/111209a.b/026f2601.d
30-NOV-2009 09:16	AR1254	/chem/ecd2a.i/113009a.b/006f0601.d
14-DEC-2009 09:24	AR1660	/chem/ecd2a.i/121409.b/014f1401.d
12-NOV-2009 11:45	DDTANALOGSTD	/chem/ecd2a.i/111209a.b/010f1001.d
12-NOV-2009 16:55	AR1268	/chem/ecd2a.i/111209a.b/038f3801.d
02-DEC-2009 07:38	AR1262	/chem/ecd2a.i/120209.b/011f1101.d
12-NOV-2009 11:11	AR1221	/chem/ecd2a.i/111209a.b/007f0701.d
12-NOV-2009 11:00	AR1232	/chem/ecd2a.i/111209a.b/006f0601.d
Cal Level: 5 , Cal Amount: 4000.00000		
02-DEC-2009 07:50	AR1262	/chem/ecd2a.i/120209.b/012f1201.d
12-NOV-2009 17:07	AR1268	/chem/ecd2a.i/111209a.b/039f3901.d
30-NOV-2009 10:56	AR1248	/chem/ecd2a.i/113009a.b/015f1501.d

12-NOV-2009 14:53	AR1242	/chem/ecd2a.i/111209a.b/027f2701.d
30-NOV-2009 09:27	AR1254	/chem/ecd2a.i/113009a.b/007f0701.d
14-DEC-2009 09:35	AR1660	/chem/ecd2a.i/121409.b/015f1501.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 1000		
15-DEC-2009 14:13	AR1660	/chem/ecd2a.i/121509.b/033f3301.d
Ccal Level: 4 , Ccal Amount: 1000		
15-DEC-2009 12:54	AR1660	/chem/ecd2a.i/121509.b/026f2601.d
Ccal Level: 4 , Ccal Amount: 1000		
15-DEC-2009 11:52	AR1660	/chem/ecd2a.i/121509.b/021f2101.d
Ccal Level: 4 , Ccal Amount: 1000		
15-DEC-2009 09:34	AR1268	/chem/ecd2a.i/121509.b/009f0901.d
Ccal Level: 4 , Ccal Amount: 1000		
15-DEC-2009 09:23	AR1262	/chem/ecd2a.i/121509.b/008f0801.d
Ccal Level: 4 , Ccal Amount: 1000		
15-DEC-2009 09:12	AR1221	/chem/ecd2a.i/121509.b/007f0701.d
Ccal Level: 4 , Ccal Amount: 1000		
15-DEC-2009 09:01	AR1232	/chem/ecd2a.i/121509.b/006f0601.d
Ccal Level: 4 , Ccal Amount: 1000		
15-DEC-2009 08:50	AR1248	/chem/ecd2a.i/121509.b/005f0501.d
Ccal Level: 4 , Ccal Amount: 1000		
15-DEC-2009 08:39	AR1242	/chem/ecd2a.i/121509.b/004f0401.d
Ccal Level: 4 , Ccal Amount: 1000		
15-DEC-2009 08:27	AR1254	/chem/ecd2a.i/121509.b/003f0301.d
Ccal Level: 4 , Ccal Amount: 1000		
15-DEC-2009 08:16	AR1660	/chem/ecd2a.i/121509.b/002f0201.d

Report Date: 15-Dec-2009 15:29

Calibration History

Method : /chem/ecd2a.i/121509.b/ECD2-B-8082-111209A.m
Start Cal Date: 12-NOV-2009 11:00
End Cal Date : 14-DEC-2009 09:35

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 100.00000		
02-DEC-2009 07:05	AR1262	/chem/ecd2a.i/120209.b/008b0801.d
12-NOV-2009 16:22	AR1268	/chem/ecd2a.i/111209a.b/035b3501.d
30-NOV-2009 10:12	AR1248	/chem/ecd2a.i/113009a.b/011b1101.d
12-NOV-2009 14:09	AR1242	/chem/ecd2a.i/111209a.b/023b2301.d
30-NOV-2009 08:43	AR1254	/chem/ecd2a.i/113009a.b/003b0301.d
14-DEC-2009 08:51	AR1660	/chem/ecd2a.i/121409.b/011b1101.d
Cal Level: 2 , Cal Amount: 250.00000		
02-DEC-2009 07:16	AR1262	/chem/ecd2a.i/120209.b/009b0901.d
12-NOV-2009 16:33	AR1268	/chem/ecd2a.i/111209a.b/036b3601.d
30-NOV-2009 10:23	AR1248	/chem/ecd2a.i/113009a.b/012b1201.d
12-NOV-2009 14:20	AR1242	/chem/ecd2a.i/111209a.b/024b2401.d
30-NOV-2009 08:54	AR1254	/chem/ecd2a.i/113009a.b/004b0401.d
14-DEC-2009 09:02	AR1660	/chem/ecd2a.i/121409.b/012b1201.d
Cal Level: 3 , Cal Amount: 500.00000		
02-DEC-2009 07:27	AR1262	/chem/ecd2a.i/120209.b/010b1001.d
12-NOV-2009 16:44	AR1268	/chem/ecd2a.i/111209a.b/037b3701.d
30-NOV-2009 10:34	AR1248	/chem/ecd2a.i/113009a.b/013b1301.d
12-NOV-2009 14:31	AR1242	/chem/ecd2a.i/111209a.b/025b2501.d
30-NOV-2009 09:05	AR1254	/chem/ecd2a.i/113009a.b/005b0501.d
14-DEC-2009 09:13	AR1660	/chem/ecd2a.i/121409.b/013b1301.d
Cal Level: 4 , Cal Amount: 1000.00000		
30-NOV-2009 10:45	AR1248	/chem/ecd2a.i/113009a.b/014b1401.d
12-NOV-2009 14:42	AR1242	/chem/ecd2a.i/111209a.b/026b2601.d
30-NOV-2009 09:16	AR1254	/chem/ecd2a.i/113009a.b/006b0601.d
14-DEC-2009 09:24	AR1660	/chem/ecd2a.i/121409.b/014b1401.d
12-NOV-2009 11:45	DDTANALOGSTD	/chem/ecd2a.i/111209a.b/010b1001.d
12-NOV-2009 16:55	AR1268	/chem/ecd2a.i/111209a.b/038b3801.d
02-DEC-2009 07:38	AR1262	/chem/ecd2a.i/120209.b/011b1101.d
12-NOV-2009 11:11	AR1221	/chem/ecd2a.i/111209a.b/007b0701.d
12-NOV-2009 11:00	AR1232	/chem/ecd2a.i/111209a.b/006b0601.d
Cal Level: 5 , Cal Amount: 4000.00000		
02-DEC-2009 07:50	AR1262	/chem/ecd2a.i/120209.b/012b1201.d
12-NOV-2009 17:07	AR1268	/chem/ecd2a.i/111209a.b/039b3901.d
30-NOV-2009 10:56	AR1248	/chem/ecd2a.i/113009a.b/015b1501.d
12-NOV-2009 14:53	AR1242	/chem/ecd2a.i/111209a.b/027b2701.d
30-NOV-2009 09:27	AR1254	/chem/ecd2a.i/113009a.b/007b0701.d
14-DEC-2009 09:35	AR1660	/chem/ecd2a.i/121409.b/015b1501.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 1000		
15-DEC-2009 14:13	AR1660	/chem/ecd2a.i/121509.b/033b3301.d
Ccal Level: 4 , Ccal Amount: 1000		
15-DEC-2009 12:54	AR1660	/chem/ecd2a.i/121509.b/026b2601.d
Ccal Level: 4 , Ccal Amount: 1000		
15-DEC-2009 11:52	AR1660	/chem/ecd2a.i/121509.b/021b2101.d
Ccal Level: 4 , Ccal Amount: 1000		
15-DEC-2009 09:34	AR1268	/chem/ecd2a.i/121509.b/009b0901.d
Ccal Level: 4 , Ccal Amount: 1000		
15-DEC-2009 09:23	AR1262	/chem/ecd2a.i/121509.b/008b0801.d
Ccal Level: 4 , Ccal Amount: 1000		
15-DEC-2009 09:12	AR1221	/chem/ecd2a.i/121509.b/007b0701.d
Ccal Level: 4 , Ccal Amount: 1000		
15-DEC-2009 09:01	AR1232	/chem/ecd2a.i/121509.b/006b0601.d
Ccal Level: 4 , Ccal Amount: 1000		
15-DEC-2009 08:50	AR1248	/chem/ecd2a.i/121509.b/005b0501.d
Ccal Level: 4 , Ccal Amount: 1000		
15-DEC-2009 08:39	AR1242	/chem/ecd2a.i/121509.b/004b0401.d
Ccal Level: 4 , Ccal Amount: 1000		
15-DEC-2009 08:27	AR1254	/chem/ecd2a.i/121509.b/003b0301.d
Ccal Level: 4 , Ccal Amount: 1000		
15-DEC-2009 08:16	AR1660	/chem/ecd2a.i/121509.b/002b0201.d

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COMPOUND LISTING

Method file : /chem/ecd2a.i/121509.b/ECD2-F-8082-111209A.m
Quant Method : ESTD Target Version : 3.50
Last Update : 15-Dec-2009 14:28 Number of Cpnds : 15
Data Type : GC MULTI COMP

Global Integrator : Falcon

Chromat Events	Values
Initial:Start Threshold	500.000000
Initial:End Threshold	250.000000
Initial:Area Threshold	10000.000000
Initial:P-P Resolution	1.000000
Initial:Bunch Factor	2.000000
Initial:Negative Peaks	OFF
Initial:Tension	1.100000
8.500:Bunch Factor	2.000000

Compound	RT	RT Window	RF
1 Aroclor-1016	2.276	2.246-2.306	2.238e+03
	2.599	2.569-2.629	4.685e+03
	2.690	2.660-2.720	1.901e+03
	2.825	2.795-2.855	9.760e+02
	2.977	2.947-3.007	1.458e+03
2 Aroclor-1221	1.438	1.408-1.468	4.641e+02
	1.899	1.869-1.929	6.570e+02
	1.998	1.968-2.028	3.467e+02
3 Aroclor-1232	2.030	2.000-2.060	1.165e+03
	2.277	2.247-2.307	9.314e+02
	2.692	2.662-2.722	8.004e+02
	2.734	2.704-2.764	5.102e+02
	2.978	2.948-3.008	5.840e+02
4 Aroclor-1242	2.276	2.246-2.306	1.733e+03
	2.691	2.661-2.721	1.484e+03
	2.734	2.704-2.764	9.058e+02
	2.826	2.796-2.856	7.269e+02
	2.978	2.948-3.008	1.120e+03
5 Aroclor-1248	2.826	2.796-2.856	1.527e+03
	2.976	2.946-3.006	2.027e+03
	3.036	3.006-3.066	1.571e+03
	3.271	3.241-3.301	2.218e+03
	3.425	3.395-3.455	1.913e+03

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd2a.i/121509.b/ECD2-F-8082-111209A.m

	Compound	RT	RT Window	RF
	6 Aroclor-1254	3.244	3.214-3.274	2.080e+03
		3.427	3.397-3.457	2.772e+03
		3.696	3.666-3.726	3.742e+03
		3.889	3.859-3.919	2.783e+03
		4.018	3.988-4.048	2.760e+03
	7 Aroclor-1260	4.017	3.987-4.047	4.165e+03
		4.288	4.258-4.319	2.591e+03
		4.454	4.424-4.484	2.631e+03
		4.667	4.637-4.697	6.088e+03
		4.857	4.827-4.887	2.942e+03
	8 Aroclor-1262	3.826	3.796-3.856	2.273e+03
		4.018	3.988-4.048	3.072e+03
		4.290	4.260-4.320	4.004e+03
		4.455	4.425-4.485	3.573e+03
		4.857	4.827-4.887	2.501e+03
	9 Aroclor-1268	4.885	4.855-4.915	9.392e+03
		4.912	4.882-4.942	9.361e+03
		5.045	5.015-5.075	7.073e+03
		5.283	5.253-5.313	3.056e+03
		5.479	5.449-5.509	2.201e+04
M	10 Aroclor-Total	1.000	0.980-1.020	
$	11 4cmx	1.774	1.744-1.804	6.229e+04
$	12 Decachlorobiphenyl	5.611	5.581-5.641	5.411e+04
	13 4,4'-DDT	4.238	4.218-4.258	5.006e+04
	14 4,4'-DDD	4.044	4.024-4.064	7.298e+04
	15 4,4'-DDE	3.639	3.619-3.659	7.426e+04

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd2a.i/121509.b/ECD2-B-8082-111209A.m
Quant Method : ESTD Target Version : 3.50
Last Update : 15-Dec-2009 14:28 Number of Cpnds : 15
Data Type : GC MULTI COMP

Global Integrator : Falcon

Chromat Events	Values
Initial:Start Threshold	1000.000000
Initial:End Threshold	500.000000
Initial:Area Threshold	500.000000
Initial:P-P Resolution	0.000000
Initial:Bunch Factor	3.000000
Initial:Negative Peaks	OFF
Initial:Tension	4.000000
4.200:Tension	1.000000

Compound	RT	RT Window	RF
1 Aroclor-1016	2.748	2.718-2.778	4.538e+03
	3.182	3.152-3.212	3.602e+03
	3.333	3.303-3.363	2.053e+03
	3.362	3.332-3.392	2.137e+03
	3.521	3.490-3.550	2.871e+03
2 Aroclor-1221	2.293	2.263-2.323	1.263e+03
	2.398	2.368-2.428	7.739e+02
	2.443	2.413-2.473	3.051e+03
3 Aroclor-1232	2.445	2.415-2.475	2.061e+03
	2.749	2.719-2.779	1.960e+03
	3.184	3.154-3.214	1.498e+03
	3.256	3.226-3.286	9.309e+02
	3.521	3.491-3.551	1.107e+03
4 Aroclor-1242	2.748	2.718-2.778	3.445e+03
	3.183	3.153-3.213	2.681e+03
	3.255	3.225-3.285	1.637e+03
	3.335	3.305-3.365	1.508e+03
	3.522	3.492-3.552	2.145e+03
5 Aroclor-1248	3.334	3.304-3.364	3.282e+03
	3.521	3.491-3.551	4.187e+03
	3.607	3.577-3.637	4.451e+03
	3.796	3.766-3.826	4.697e+03
	3.826	3.796-3.856	5.389e+03

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd2a.i/121509.b/ECD2-B-8082-111209A.m

	Compound	RT	RT Window	RF
	6 Aroclor-1254	3.821	3.791-3.851	4.985e+03
		3.962	3.932-3.992	5.799e+03
		4.198	4.168-4.228	4.023e+03
		4.280	4.250-4.310	7.731e+03
		4.443	4.413-4.473	5.608e+03
	7 Aroclor-1260	4.416	4.386-4.446	5.767e+03
		4.568	4.538-4.598	7.124e+03
		4.680	4.650-4.710	4.819e+03
		4.876	4.846-4.906	5.632e+03
		5.503	5.473-5.533	9.038e+03
	8 Aroclor-1262	4.417	4.387-4.447	4.703e+03
		4.569	4.539-4.599	5.853e+03
		4.878	4.848-4.908	8.946e+03
		5.077	5.047-5.107	7.772e+03
		5.257	5.227-5.287	1.672e+04
	9 Aroclor-1268	5.501	5.471-5.531	2.032e+04
		5.533	5.503-5.563	2.018e+04
		5.705	5.675-5.735	1.496e+04
		5.905	5.875-5.935	6.438e+03
		6.129	6.099-6.159	4.409e+04
M	10 Aroclor-Total	1.000	0.980-1.020	
$	11 4cmx	2.070	2.040-2.100	1.293e+05
$	12 Decachlorobiphenyl	6.303	6.273-6.333	1.128e+05
	13 4,4'-DDT	4.814	4.794-4.834	8.705e+04
	14 4,4'-DDD	4.600	4.580-4.620	1.499e+05
	15 4,4'-DDE	4.195	4.175-4.215	1.504e+05

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 12-NOV-2009 11:00
End Cal Date : 14-DEC-2009 09:35
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd2a.i/121509.b/ECD2-F-8082-111209A.m
Cal Date : 15-Dec-2009 14:28 jen01212
Curve Type : Average

Calibration File Names:
Level 1: /chem/ecd2a.i/120209.b/008f0801.d
Level 2: /chem/ecd2a.i/120209.b/009f0901.d
Level 3: /chem/ecd2a.i/120209.b/010f1001.d
Level 4: /chem/ecd2a.i/113009a.b/014f1401.d
Level 5: /chem/ecd2a.i/120209.b/012f1201.d

Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
1 Aroclor-1016(1)	2466	2335	2250	2152	1986	2238	8.133
(2)	4869	4683	4664	4616	4594	4685	2.323
(3)	2072	1962	1892	1818	1764	1901	6.365
(4)	1061	990	984	930	915	976	5.885
(5)	1595	1490	1441	1389	1375	1458	6.121
2 Aroclor-1221(1)	+++++	+++++	+++++	464	+++++	464	0.000
(2)	+++++	+++++	+++++	657	+++++	657	0.000
(3)	+++++	+++++	+++++	347	+++++	347	0.000
3 Aroclor-1232(1)	+++++	+++++	+++++	1165	+++++	1165	0.000
(2)	+++++	+++++	+++++	931	+++++	931	0.000
(3)	+++++	+++++	+++++	800	+++++	800	0.000
(4)	+++++	+++++	+++++	510	+++++	510	0.000
(5)	+++++	+++++	+++++	584	+++++	584	0.000
4 Aroclor-1242(1)	1990	1799	1692	1619	1566	1733	9.686
(2)	1678	1536	1439	1387	1381	1484	8.410
(3)	1015	931	874	843	866	906	7.639
(4)	817	761	714	669	673	727	8.615
(5)	1272	1143	1059	1036	1087	1120	8.434
5 Aroclor-1248(1)	1738	1529	1527	1515	1325	1527	9.560
(2)	2238	2070	1990	2006	1832	2027	7.247
(3)	1706	1611	1571	1551	1415	1571	6.718
(4)	2322	2198	2161	2230	2178	2218	2.874
(5)	2083	1922	1902	1885	1770	1913	5.861
6 Aroclor-1254(1)	2304	2118	2048	2007	1924	2080	6.888
(2)	2981	2797	2739	2702	2642	2772	4.677
(3)	3870	3712	3711	3744	3675	3742	2.011
(4)	2886	2776	2725	2760	2767	2783	2.186
(5)	2994	2820	2741	2711	2533	2760	6.080

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 12-NOV-2009 11:00
End Cal Date : 14-DEC-2009 09:35
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd2a.i/121509.b/ECD2-F-8082-111209A.m
Cal Date : 15-Dec-2009 14:28 jen01212
Curve Type : Average

	Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
	7 Aroclor-1260(1)	4187	4145	4185	4134	4175	4165	0.584
	(2)	2696	2603	2589	2529	2536	2591	2.593
	(3)	2699	2626	2625	2591	2614	2631	1.539
	(4)	5867	6003	6142	6129	6296	6088	2.650
	(5)	2925	2904	2929	2920	3034	2942	1.769
	8 Aroclor-1262(1)	2530	2266	2239	2239	2092	2273	6.993
	(2)	3295	3066	3031	3051	2917	3072	4.482
	(3)	4237	3997	3977	3997	3815	4004	3.763
	(4)	3754	3532	3556	3594	3430	3573	3.295
	(5)	2578	2453	2481	2538	2454	2501	2.217
	9 Aroclor-1268(1)	9077	9136	9272	9373	10103	9392	4.409
	(2)	9332	9272	9238	9197	9765	9361	2.470
	(3)	6985	6923	6953	6984	7523	7073	3.568
	(4)	3112	3015	2984	2964	3207	3056	3.331
	(5)	21397	21592	21760	21851	23464	22013	3.767
M	10 Aroclor-Total	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	13 4,4'-DDT	+++++	+++++	+++++	50063	+++++	50063	0.000
	14 4,4'-DDD	+++++	+++++	+++++	72978	+++++	72978	0.000
	15 4,4'-DDE	+++++	+++++	+++++	74262	+++++	74262	0.000
$	11 4cmx	61300	61246	62868	63075	62969	62292	1.498
$	12 Decachlorobiphenyl	55102	53352	54400	53360	54345	54112	1.389

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 12-NOV-2009 11:00
End Cal Date : 14-DEC-2009 09:35
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd2a.i/121509.b/ECD2-B-8082-111209A.m
Cal Date : 15-Dec-2009 14:28 jen01212
Curve Type : Average

Calibration File Names:
Level 1: /chem/ecd2a.i/120209.b/008b0801.d
Level 2: /chem/ecd2a.i/120209.b/009b0901.d
Level 3: /chem/ecd2a.i/120209.b/010b1001.d
Level 4: /chem/ecd2a.i/113009a.b/014b1401.d
Level 5: /chem/ecd2a.i/120209.b/012b1201.d

Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	___ RRF	% RSD
1 Aroclor-1016(1)	4662	4582	4609	4551	4285	4538	3.244
(2)	3647	3696	3564	3575	3528	3602	1.886
(3)	2078	2044	2044	2059	2041	2053	0.760
(4)	2149	2125	2133	2140	2138	2137	0.428
(5)	2852	2832	2882	2908	2879	2871	1.025
2 Aroclor-1221(1)	*****	*****	*****	1263	*****	1263	0.000
(2)	*****	*****	*****	774	*****	774	0.000
(3)	*****	*****	*****	3051	*****	3051	0.000
3 Aroclor-1232(1)	*****	*****	*****	2061	*****	2061	0.000
(2)	*****	*****	*****	1960	*****	1960	0.000
(3)	*****	*****	*****	1498	*****	1498	0.000
(4)	*****	*****	*****	931	*****	931	0.000
(5)	*****	*****	*****	1107	*****	1107	0.000
4 Aroclor-1242(1)	3674	3489	3409	3384	3271	3445	4.346
(2)	2815	2677	2634	2637	2644	2681	2.863
(3)	1696	1624	1594	1606	1663	1637	2.599
(4)	1601	1513	1471	1467	1487	1508	3.655
(5)	2235	2100	2068	2141	2180	2145	3.068
5 Aroclor-1248(1)	3439	3315	3263	3296	3099	3282	3.723
(2)	4291	4205	4192	4250	3996	4187	2.717
(3)	4601	4495	4377	4484	4299	4451	2.609
(4)	4665	4612	4696	4831	4682	4697	1.733
(5)	5471	5399	5390	5477	5208	5389	2.022
6 Aroclor-1254(1)	5121	4955	4998	5025	4828	4985	2.145
(2)	5885	5693	5812	5852	5753	5799	1.330
(3)	4010	3906	3992	4126	4082	4023	2.109
(4)	7559	7611	7766	7925	7797	7731	1.909
(5)	5659	5569	5439	5821	5553	5608	2.538

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 12-NOV-2009 11:00
End Cal Date : 14-DEC-2009 09:35
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd2a.i/121509.b/ECD2-B-8082-111209A.m
Cal Date : 15-Dec-2009 14:28 jen01212
Curve Type : Average

Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
7 Aroclor-1260(1)	5735	5627	5779	5816	5877	5767	1.626
(2)	6687	7031	7243	7286	7372	7124	3.855
(3)	4572	4701	4890	4942	4988	4819	3.647
(4)	5377	5518	5714	5746	5803	5632	3.163
(5)	8369	8607	9231	9252	9728	9038	6.039
8 Aroclor-1262(1)	4855	4536	4634	4812	4677	4703	2.776
(2)	5760	5648	5834	6083	5942	5853	2.859
(3)	8687	8674	9001	9349	9021	8946	3.121
(4)	7559	7507	7790	8124	7880	7772	3.221
(5)	15890	16154	16824	17584	17141	16719	4.167
9 Aroclor-1268(1)	18829	19584	20101	20533	22559	20321	6.904
(2)	18822	19343	20333	20389	22025	20182	6.077
(3)	13874	14365	14864	15141	16565	14962	6.808
(4)	5734	6115	6404	6840	7097	6438	8.497
(5)	40707	42777	43856	44408	48724	44094	6.689
M 10 Aroclor-Total	+++++	+++++	+++++	+++++	+++++	+++++	+++++
13 4,4'-DDT	+++++	+++++	+++++	87046	+++++	87046	0.000
14 4,4'-DDD	+++++	+++++	+++++	149858	+++++	149858	0.000
15 4,4'-DDE	+++++	+++++	+++++	150414	+++++	150414	0.000
$ 11 4cmx	118604	126358	131414	133891	136323	129318	5.440
$ 12 Decachlorobiphenyl	109662	108705	113295	113170	119083	112783	3.614

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-852

Instrument ID: ECD2A Calibration Date: 12/15/09 Time: 0816

Lab File ID: 002F0201 Init. Calib. Date(s): 12/14/09 12/14/09

Heated Purge: (Y/N) N Init. Calib. Times: 0851 0935

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	2237.690	2088.317	0.01	-6.7	15.0
(2)	4685.268	4484.912	0.01	-4.3	15.0
(3)	1901.482	1780.660	0.01	-6.4	15.0
(4)	975.978	915.297	0.01	-6.2	15.0
(5)	1457.866	1358.205	0.01	-6.8	15.0
Aroclor-1260	4165.097	4166.934	0.01	0.0	15.0
(2)	2590.571	2581.265	0.01	-0.4	15.0
(3)	2631.205	2646.086	0.01	0.6	15.0
(4)	6087.596	6257.325	0.01	2.8	15.0
(5)	2942.150	3006.180	0.01	2.2	15.0
4cmx	62291.660	63783.750	0.01	2.4	15.0
Decachlorobiphenyl	54111.563	57604.510	0.01	6.4	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-852

Instrument ID: ECD2A Calibration Date: 12/15/09 Time: 0816

Lab File ID: 002B0201 Init. Calib. Date(s): 12/14/09 12/14/09

Heated Purge: (Y/N) N Init. Calib. Times: 0851 0935

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	4537.819	4340.925	0.01	-4.3	15.0
(2)	3602.166	3432.549	0.01	-4.7	15.0
(3)	2053.230	1984.937	0.01	-3.3	15.0
(4)	2137.091	2059.252	0.01	-3.6	15.0
(5)	2870.516	2804.871	0.01	-2.3	15.0
Aroclor-1260	5766.921	5844.156	0.01	1.3	15.0
(2)	7123.891	7406.471	0.01	4.0	15.0
(3)	4818.707	4991.405	0.01	3.6	15.0
(4)	5631.757	5835.242	0.01	3.6	15.0
(5)	9037.511	9585.440	0.01	6.1	15.0
4cmx	129318.03	134610.11	0.01	4.1	15.0
Decachlorobiphenyl	112782.99	120135.80	0.01	6.5	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-852

Instrument ID: ECD2A Calibration Date: 12/15/09 Time: 0827

Lab File ID: 003F0301 Init. Calib. Date(s): 11/30/09 11/30/09

Heated Purge: (Y/N) N Init. Calib. Times: 0843 0927

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D	
Aroclor-1254	2080.052	2124.985	0.01	2.2	15.0	
(2)	2772.138	2832.861	0.01	2.2	15.0	
(3)	3742.400	3850.304	0.01	2.9	15.0	
(4)	2782.705	2842.726	0.01	2.2	15.0	
(5)	2760.043	2799.644	0.01	1.4	15.0	
4cmx	62291.660	73124.320	0.01	17.4	15.0	<-
Decachlorobiphenyl	54111.563	64414.820	0.01	19.0	15.0	<-

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-852

Instrument ID: ECD2A Calibration Date: 12/15/09 Time: 0827

Lab File ID: 003B0301 Init. Calib. Date(s): 11/30/09 11/30/09

Heated Purge: (Y/N) N Init. Calib. Times: 0843 0927

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D	
Aroclor-1254	4985.297	5274.134	0.01	5.8	15.0	
(2)	5798.946	6067.795	0.01	4.6	15.0	
(3)	4022.990	4270.098	0.01	6.1	15.0	
(4)	7731.372	8207.240	0.01	6.2	15.0	
(5)	5608.308	5903.576	0.01	5.3	15.0	
4cmx	129318.03	157302.37	0.01	21.6	15.0	<-
Decachlorobiphenyl	112782.99	134276.04	0.01	19.0	15.0	<-

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-852

Instrument ID: ECD2A Calibration Date: 12/15/09 Time: 1413

Lab File ID: 033F3301 Init. Calib. Date(s): 12/14/09 12/14/09

Heated Purge: (Y/N) N Init. Calib. Times: 0851 0935

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	2237.690	1988.311	0.01	-11.1	15.0
(2)	4685.268	4306.017	0.01	-8.1	15.0
(3)	1901.482	1693.454	0.01	-10.9	15.0
(4)	975.978	871.760	0.01	-10.7	15.0
(5)	1457.866	1283.562	0.01	-12.0	15.0
Aroclor-1260	4165.097	3978.530	0.01	-4.5	15.0
(2)	2590.571	2433.906	0.01	-6.0	15.0
(3)	2631.205	2500.363	0.01	-5.0	15.0
(4)	6087.596	6008.728	0.01	-1.3	15.0
(5)	2942.150	2890.412	0.01	-1.8	15.0
4cmx	62291.660	61749.190	0.01	-0.9	15.0
Decachlorobiphenyl	54111.563	54624.850	0.01	0.9	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-852

Instrument ID: ECD2A Calibration Date: 12/15/09 Time: 1413

Lab File ID: 033B3301 Init. Calib. Date(s): 12/14/09 12/14/09

Heated Purge: (Y/N) N Init. Calib. Times: 0851 0935

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	4537.819	4219.396	0.01	-7.0	15.0
(2)	3602.166	3324.940	0.01	-7.7	15.0
(3)	2053.230	1886.291	0.01	-8.1	15.0
(4)	2137.091	1987.928	0.01	-7.0	15.0
(5)	2870.516	2688.452	0.01	-6.3	15.0
Aroclor-1260	5766.921	5514.196	0.01	-4.4	15.0
(2)	7123.891	6951.329	0.01	-2.4	15.0
(3)	4818.707	4704.239	0.01	-2.4	15.0
(4)	5631.757	5382.774	0.01	-4.4	15.0
(5)	9037.511	8789.906	0.01	-2.7	15.0
4cmx	129318.03	131960.65	0.01	2.0	15.0
Decachlorobiphenyl	112782.99	110825.32	0.01	-1.7	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-852

Instrument ID: ECD2A Calibration Date: 12/15/09 Time: 1632

Lab File ID: 045F4501 Init. Calib. Date(s): 12/14/09 12/14/09

Heated Purge: (Y/N) N Init. Calib. Times: 0851 0935

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	2237.690	1958.732	0.01	-12.5	15.0
(2)	4685.268	4253.440	0.01	-9.2	15.0
(3)	1901.482	1672.894	0.01	-12.0	15.0
(4)	975.978	832.476	0.01	-14.7	15.0
(5)	1457.866	1243.156	0.01	-14.7	15.0
Aroclor-1260	4165.097	3784.082	0.01	-9.1	15.0
(2)	2590.571	2298.507	0.01	-11.3	15.0
(3)	2631.205	2355.851	0.01	-10.5	15.0
(4)	6087.596	5569.340	0.01	-8.5	15.0
(5)	2942.150	2703.242	0.01	-8.1	15.0
4cmx	62291.660	61011.260	0.01	-2.0	15.0
Decachlorobiphenyl	54111.563	50408.350	0.01	-6.8	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-852

Instrument ID: ECD2A Calibration Date: 12/15/09 Time: 1632

Lab File ID: 045B4501 Init. Calib. Date(s): 12/14/09 12/14/09

Heated Purge: (Y/N) N Init. Calib. Times: 0851 0935

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	4537.819	4105.934	0.01	-9.5	15.0
(2)	3602.166	3221.813	0.01	-10.6	15.0
(3)	2053.230	1836.288	0.01	-10.6	15.0
(4)	2137.091	1907.006	0.01	-10.8	15.0
(5)	2870.516	2600.411	0.01	-9.4	15.0
Aroclor-1260	5766.921	5210.474	0.01	-9.6	15.0
(2)	7123.891	6553.588	0.01	-8.0	15.0
(3)	4818.707	4369.300	0.01	-9.3	15.0
(4)	5631.757	5057.335	0.01	-10.2	15.0
(5)	9037.511	8212.297	0.01	-9.1	15.0
4cmx	129318.03	130939.44	0.01	1.2	15.0
Decachlorobiphenyl	112782.99	97005.380	0.01	-14.0	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-852

Instrument ID: ECD2A Calibration Date: 12/15/09 Time: 1850

Lab File ID: 057F5701 Init. Calib. Date(s): 12/14/09 12/14/09

Heated Purge: (Y/N) N Init. Calib. Times: 0851 0935

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	2237.690	1927.694	0.01	-13.8	15.0
(2)	4685.268	4175.856	0.01	-10.9	15.0
(3)	1901.482	1662.248	0.01	-12.6	15.0
(4)	975.978	836.520	0.01	-14.3	15.0
(5)	1457.866	1258.160	0.01	-13.7	15.0
Aroclor-1260	4165.097	4090.980	0.01	-1.8	15.0
(2)	2590.571	2532.960	0.01	-2.2	15.0
(3)	2631.205	2586.371	0.01	-1.7	15.0
(4)	6087.596	6276.897	0.01	3.1	15.0
(5)	2942.150	3019.313	0.01	2.6	15.0
4cmx	62291.660	59766.450	0.01	-4.0	15.0
Decachlorobiphenyl	54111.563	54886.680	0.01	1.4	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-852

Instrument ID: ECD2A Calibration Date: 12/15/09 Time: 1850

Lab File ID: 057B5701 Init. Calib. Date(s): 12/14/09 12/14/09

Heated Purge: (Y/N) N Init. Calib. Times: 0851 0935

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	4537.819	4076.863	0.01	-10.2	15.0
(2)	3602.166	3206.017	0.01	-11.0	15.0
(3)	2053.230	1845.040	0.01	-10.1	15.0
(4)	2137.091	1919.130	0.01	-10.2	15.0
(5)	2870.516	2622.080	0.01	-8.6	15.0
Aroclor-1260	5766.921	5582.991	0.01	-3.2	15.0
(2)	7123.891	7150.126	0.01	0.4	15.0
(3)	4818.707	4814.685	0.01	-0.1	15.0
(4)	5631.757	5595.463	0.01	-0.6	15.0
(5)	9037.511	9123.278	0.01	0.9	15.0
4cmx	129318.03	127402.74	0.01	-1.5	15.0
Decachlorobiphenyl	112782.99	106993.67	0.01	-5.1	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-852

Instrument ID: ECD2A Calibration Date: 12/15/09 Time: 1956

Lab File ID: 063F6301 Init. Calib. Date(s): 12/14/09 12/14/09

Heated Purge: (Y/N) N Init. Calib. Times: 0851 0935

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	2237.690	2024.302	0.01	-9.5	15.0
(2)	4685.268	4391.251	0.01	-6.3	15.0
(3)	1901.482	1746.700	0.01	-8.1	15.0
(4)	975.978	914.577	0.01	-6.3	15.0
(5)	1457.866	1349.370	0.01	-7.4	15.0
Aroclor-1260	4165.097	4300.086	0.01	3.2	15.0
(2)	2590.571	2669.145	0.01	3.0	15.0
(3)	2631.205	2748.153	0.01	4.4	15.0
(4)	6087.596	6580.684	0.01	8.1	15.0
(5)	2942.150	3179.746	0.01	8.1	15.0
4cmx	62291.660	62177.510	0.01	-0.2	15.0
Decachlorobiphenyl	54111.563	58091.610	0.01	7.4	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-852

Instrument ID: ECD2A Calibration Date: 12/15/09 Time: 1956

Lab File ID: 063B6301 Init. Calib. Date(s): 12/14/09 12/14/09

Heated Purge: (Y/N) N Init. Calib. Times: 0851 0935

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	4537.819	4250.900	0.01	-6.3	15.0
(2)	3602.166	3420.273	0.01	-5.0	15.0
(3)	2053.230	1971.521	0.01	-4.0	15.0
(4)	2137.091	2043.936	0.01	-4.4	15.0
(5)	2870.516	2799.007	0.01	-2.5	15.0
Aroclor-1260	5766.921	5924.863	0.01	2.7	15.0
(2)	7123.891	7555.513	0.01	6.0	15.0
(3)	4818.707	5071.184	0.01	5.2	15.0
(4)	5631.757	5936.703	0.01	5.4	15.0
(5)	9037.511	9670.053	0.01	7.0	15.0
4cmx	129318.03	132901.72	0.01	2.8	15.0
Decachlorobiphenyl	112782.99	113356.14	0.01	0.5	15.0

FORM VII PEST

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/121509.b/002f0201.d
Lab Smp Id: WAR091211-60 01 Client Smp ID: AR166001
Inj Date : 15-DEC-2009 08:16
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |WAR091211-60 01
Misc Info : |PCB_CVS|1660||CVS|
Comment :
Method : /chem/ecd2a.i/121509.b/ECD2-F-8082-111209A.m
Meth Date : 15-Dec-2009 13:14 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012f1201.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.774	1.774	0.000	6378375	100.000	102	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.611	5.611	0.000	5760451	100.000	106	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.276	2.276	0.000	2088317	1000.00	933	80.00- 120.00	100.00
2.599	2.599	0.000	4484912	1000.00	957	193.89- 233.89	214.76
2.690	2.690	0.000	1780660	1000.00	936	65.76- 105.76	85.27
2.825	2.825	0.000	915297	1000.00	938	22.52- 62.52	43.83
2.977	2.977	0.000	1358205	1000.00	932	45.79- 85.79	65.04
Average of Peak Amounts =					939		
7 Aroclor-1260					CAS #: 11096-82-5		
4.017	4.017	0.000	4166934	1000.00	1000	80.00- 120.00	100.00
4.288	4.288	0.000	2581265	1000.00	996	42.04- 82.04	61.95
4.454	4.454	0.000	2646086	1000.00	1000	43.25- 83.25	63.50
4.667	4.667	0.000	6257325	1000.00	1030	128.47- 168.47	150.17
4.857	4.857	0.000	3006180	1000.00	1020	51.47- 91.47	72.14
Average of Peak Amounts =					1.01e+03		

Data File: /chem/ecd2a.i/121509.b/002f0201.d
Date : 15-DEC-2009 08:16
Client ID: AR166001
Sample Info: IWAR091211-60 01
Column Phase: CLP1

Instrument: ecd2a.i
Operator: JADC
Column diameter: 0.25

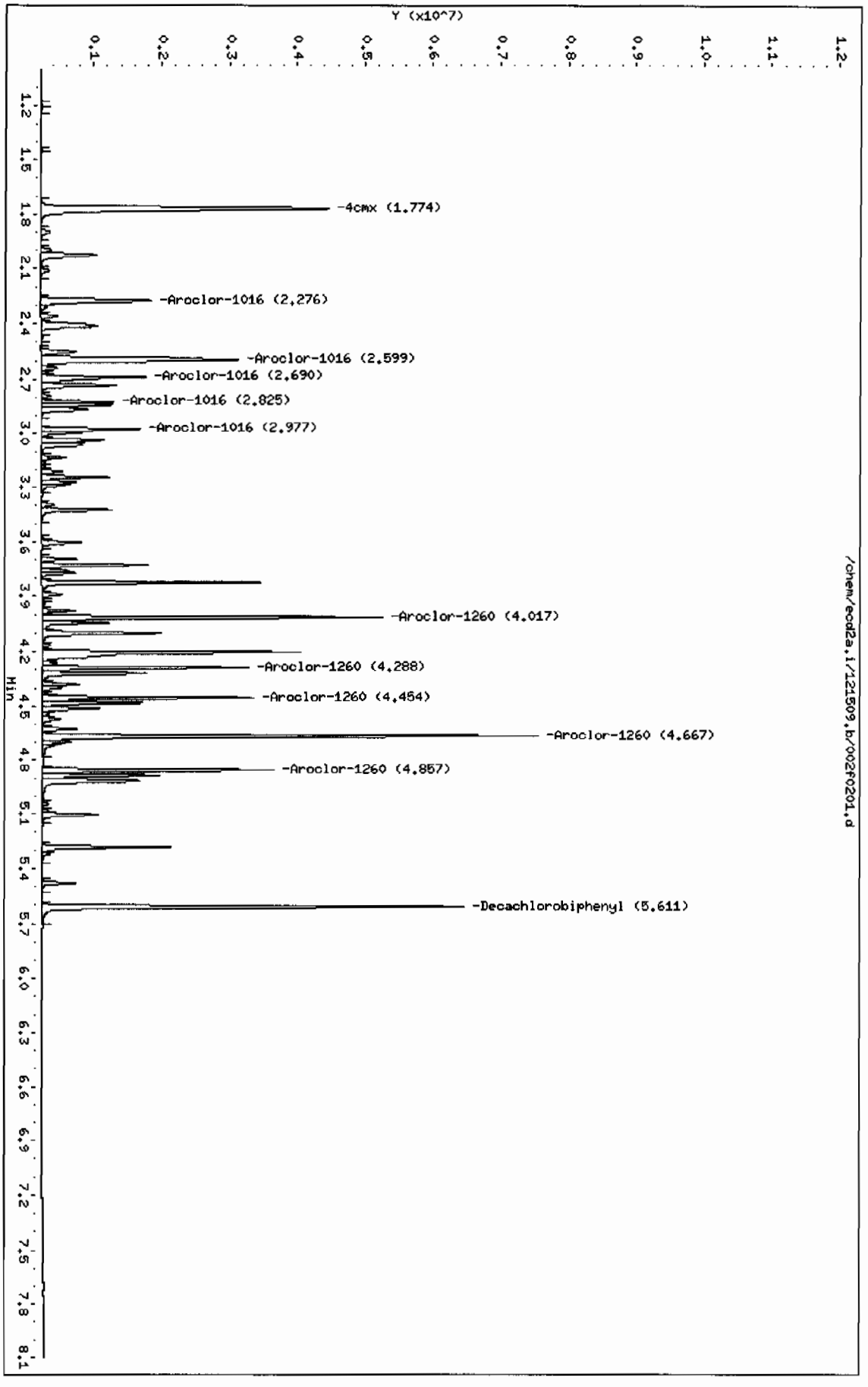

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RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/121509.b/002b0201.d
Lab Smp Id: WAR091211-60 01 Client Smp ID: AR166001
Inj Date : 15-DEC-2009 08:16
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |WAR091211-60 01
Misc Info : |PCB_CVS|1660||CVS|
Comment :
Method : /chem/ecd2a.i/121509.b/ECD2-B-8082-111209A.m
Meth Date : 15-Dec-2009 13:12 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012b1201.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.070	2.070	0.000	13461011	100.000	104	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.303	6.303	0.000	12013580	100.000	106	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.748	2.748	0.000	4340925	1000.00	957	80.00- 120.00	100.00
3.182	3.182	0.000	3432549	1000.00	953	58.47- 98.47	79.07
3.333	3.333	0.000	1984937	1000.00	967	25.16- 65.16	45.73
3.362	3.362	0.000	2059252	1000.00	964	26.91- 66.91	47.44
3.521	3.521	0.000	2804871	1000.00	977	43.73- 83.73	64.61
Average of Peak Amounts =					963		
7 Aroclor-1260					CAS #: 11096-82-5		
4.416	4.416	0.000	5844156	1000.00	1010	80.00- 120.00	100.00
4.568	4.568	0.000	7406471	1000.00	1040	106.32- 146.32	126.73
4.680	4.680	0.000	4991405	1000.00	1040	65.85- 105.85	85.41
4.876	4.876	0.000	5835242	1000.00	1040	78.91- 118.91	99.85
5.503	5.503	0.000	9585440	1000.00	1060	140.33- 180.33	164.02
Average of Peak Amounts =					1.04e+03		

Data File: /chem/ecd2a.i/121509.b/002b0201.d
Date : 15-DEC-2009 08:16
Client ID: AR166001
Sample Info: IWAR091211-60 01
Column phase: CLP2

Instrument: ecd2a.i
Operator: JADC
Column diameter: 0.25

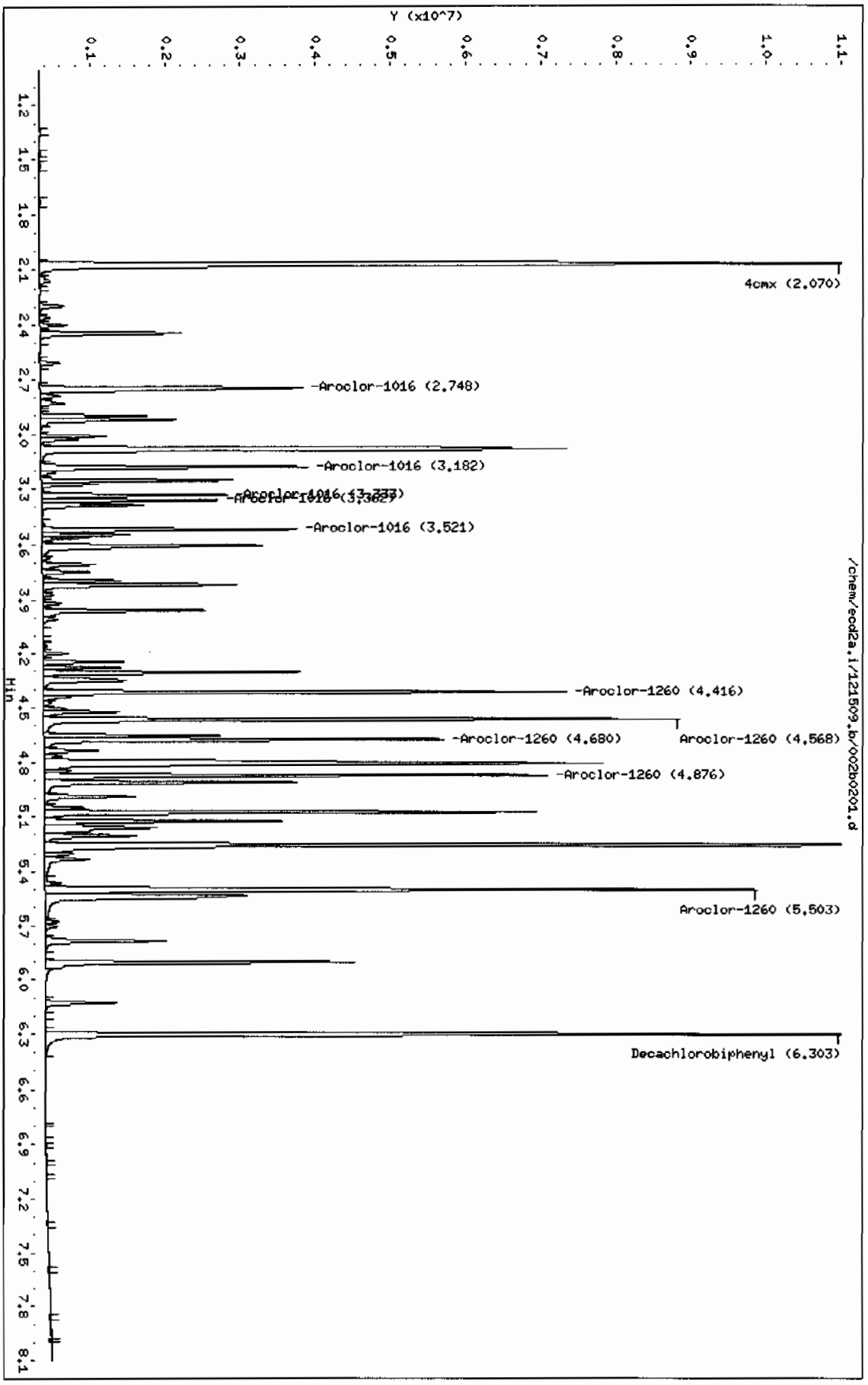

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RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/121509.b/003f0301.d
Lab Smp Id: WAR091102-54 Client Smp ID: AR125401
Inj Date : 15-DEC-2009 08:27
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |WAR091102-54
Misc Info : |PCB_CVS|1254||CVS|
Comment :
Method : /chem/ecd2a.i/121509.b/ECD2-F-8082-111209A.m
Meth Date : 15-Dec-2009 13:14 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012f1201.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1254.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.772	1.774	-0.002	7312432	100.000	117	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.612	5.611	0.001	6441482	100.000	119	80.00- 120.00	100.00
6 Aroclor-1254					CAS #: 11097-69-1		
3.244	3.244	0.000	2124985	1000.00	1020	80.00- 120.00	100.00
3.427	3.427	0.000	2832860	1000.00	1020	113.31- 153.31	133.31
3.696	3.696	0.000	3850303	1000.00	1030	161.19- 201.19	181.19
3.889	3.889	0.000	2842726	1000.00	1020	113.78- 153.78	133.78
4.018	4.018	0.000	2799644	1000.00	1010	111.75- 151.75	131.75

Average of Peak Amounts = 1.02e+03

Data File: /chem/ecd2a.i/121509.b/003f0301.d
Date : 15-DEC-2009 08:27
Client ID: AR125401
Sample Info: IWAR091L02-54
Column phase: CLP1

Instrument: ecd2a.i
Operator: JADC
Column diameter: 0.25

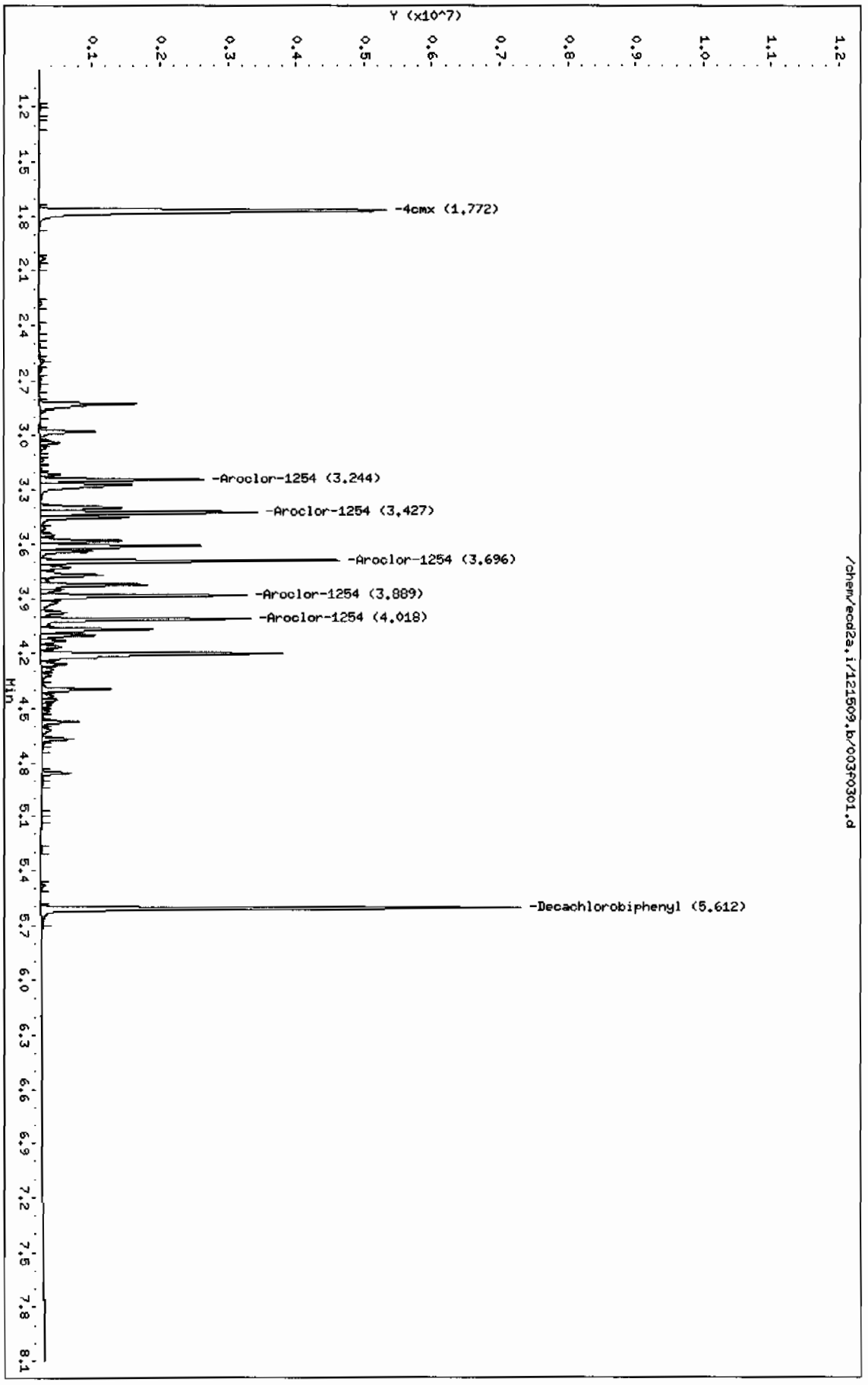

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GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/121509.b/003b0301.d
Lab Smp Id: WAR091102-54 Client Smp ID: AR125401
Inj Date : 15-DEC-2009 08:27
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |WAR091102-54
Misc Info : |PCB_CVS|1254||CVS|
Comment :
Method : /chem/ecd2a.i/121509.b/ECD2-B-8082-111209A.m
Meth Date : 15-Dec-2009 13:12 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012b1201.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1254.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.071	2.070	0.001	15730237	100.000	122	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.304	6.303	0.001	13427604	100.000	119	80.00- 120.00	100.00
6 Aroclor-1254					CAS #: 11097-69-1		
3.821	3.821	0.000	5274133	1000.00	1060	80.00- 120.00	100.00
3.962	3.962	0.000	6067795	1000.00	1050	95.05- 135.05	115.05
4.198	4.198	0.000	4270097	1000.00	1060	60.96- 100.96	80.96
4.280	4.280	0.000	8207239	1000.00	1060	135.61- 175.61	155.61
4.443	4.443	0.000	5903576	1000.00	1050	91.93- 131.93	111.93

Average of Peak Amounts = 1.06e+03

Data File: /chem/ecd2a.i/121509.b/003b0301.d

Date : 15-DEC-2009 08:27

Client ID: AR125401

Sample Info: IWAR091102-54

Column phase: CLP2

Instrument: ecd2a.i

Operator: JAOC

Column diameter: 0.25

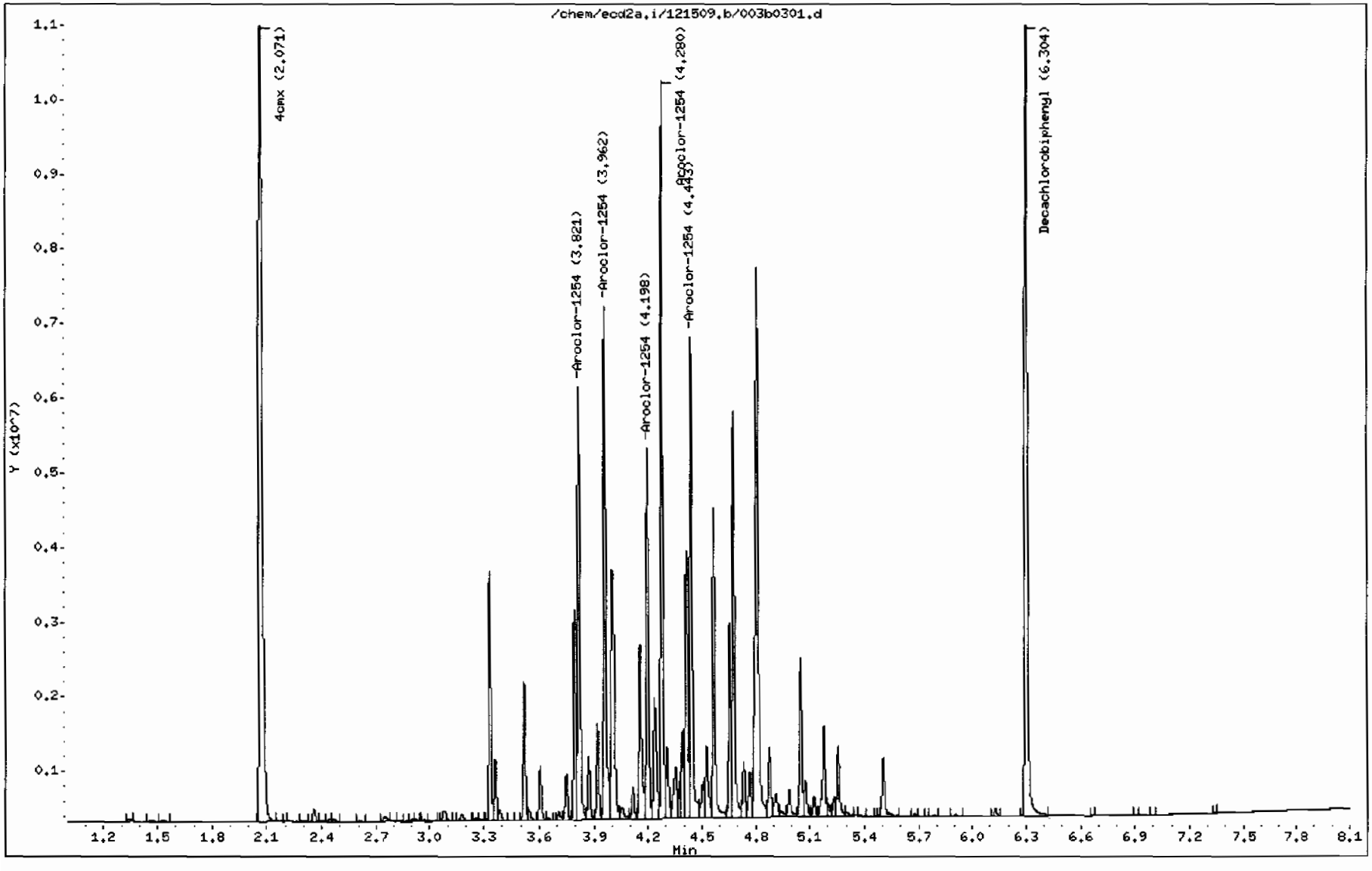

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RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/121509.b/004f0401.d
Lab Smp Id: WAR091102-42 Client Smp ID: AR124201
Inj Date : 15-DEC-2009 08:39
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |WAR091102-42
Misc Info : |PCB_CVS|1242||CVS|
Comment :
Method : /chem/ecd2a.i/121509.b/ECD2-F-8082-111209A.m
Meth Date : 15-Dec-2009 13:14 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012f1201.d
Als bottle: 4 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1242.sub
Target Version: 3.50 Sample Matrix: None

AMOUNTS

RT	EXP RT	DLT RT	RESPONSE	CAL-AMT (ug/L)	ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.774	1.774	0.000	6767758	100.000	109	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.612	5.611	0.001	6055426	100.000	112	80.00- 120.00	100.00
4 Aroclor-1242					CAS #: 53469-21-9		
2.276	2.276	0.000	1789186	1000.00	1030	80.00- 120.00	100.00
2.691	2.691	0.000	1485874	1000.00	1000	63.05- 103.05	83.05
2.734	2.734	0.000	912237	1000.00	1010	30.99- 70.99	50.99
2.826	2.826	0.000	743568	1000.00	1020	21.56- 61.56	41.56
2.978	2.978	0.000	1139528	1000.00	1020	43.69- 83.69	63.69

Average of Peak Amounts = 1.02e+03

Data File: /chem/ecd2a.i/121509.b/004f0401.d

Date : 15-DEC-2009 08:39

Client ID: AR124201

Sample Info: |WAR091102-42

Column phase: CLP1

Instrument: ecd2a.i

Operator: JAOC

Column diameter: 0.25

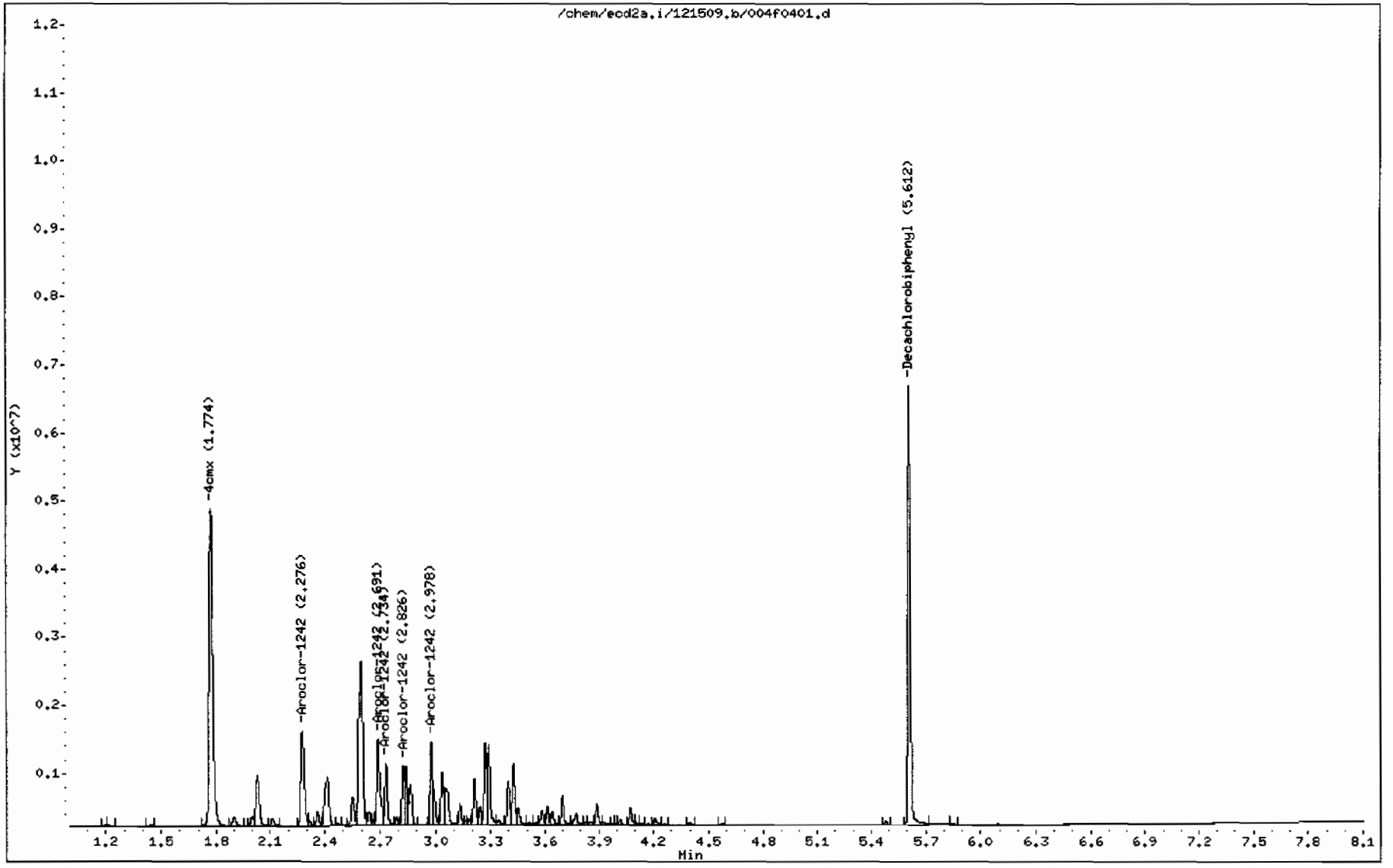

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/121509.b/004b0401.d
Lab Smp Id: WAR091102-42 Client Smp ID: AR124201
Inj Date : 15-DEC-2009 08:39
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |WAR091102-42
Misc Info : |PCB_CVS|1242||CVS|
Comment :
Method : /chem/ecd2a.i/121509.b/ECD2-B-8082-111209A.m
Meth Date : 15-Dec-2009 13:12 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012b1201.d
Als bottle: 4 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1242.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.071	2.070	0.001	14421093	100.000	112	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.304	6.303	0.001	12599841	100.000	112	80.00- 120.00	100.00
4 Aroclor-1242					CAS #: 53469-21-9		
2.748	2.748	0.000	3720629	1000.00	1080	80.00- 120.00	100.00
3.183	3.183	0.000	2859027	1000.00	1070	56.84- 96.84	76.84
3.255	3.255	0.000	1720378	1000.00	1050	26.24- 66.24	46.24
3.335	3.335	0.000	1602813	1000.00	1060	23.08- 63.08	43.08
3.522	3.522	0.000	2349020	1000.00	1100	43.14- 83.14	63.14

Average of Peak Amounts = 1.07e+03

Data File: /chem/ecd2a.i/121509.b/004b0401.d

Date : 15-DEC-2009 08:39

Client ID: AR124201

Sample Info: IWAR091102-42

Column phase: CLP2

Instrument: ecd2a.i

Operator: JAOC

Column diameter: 0.25

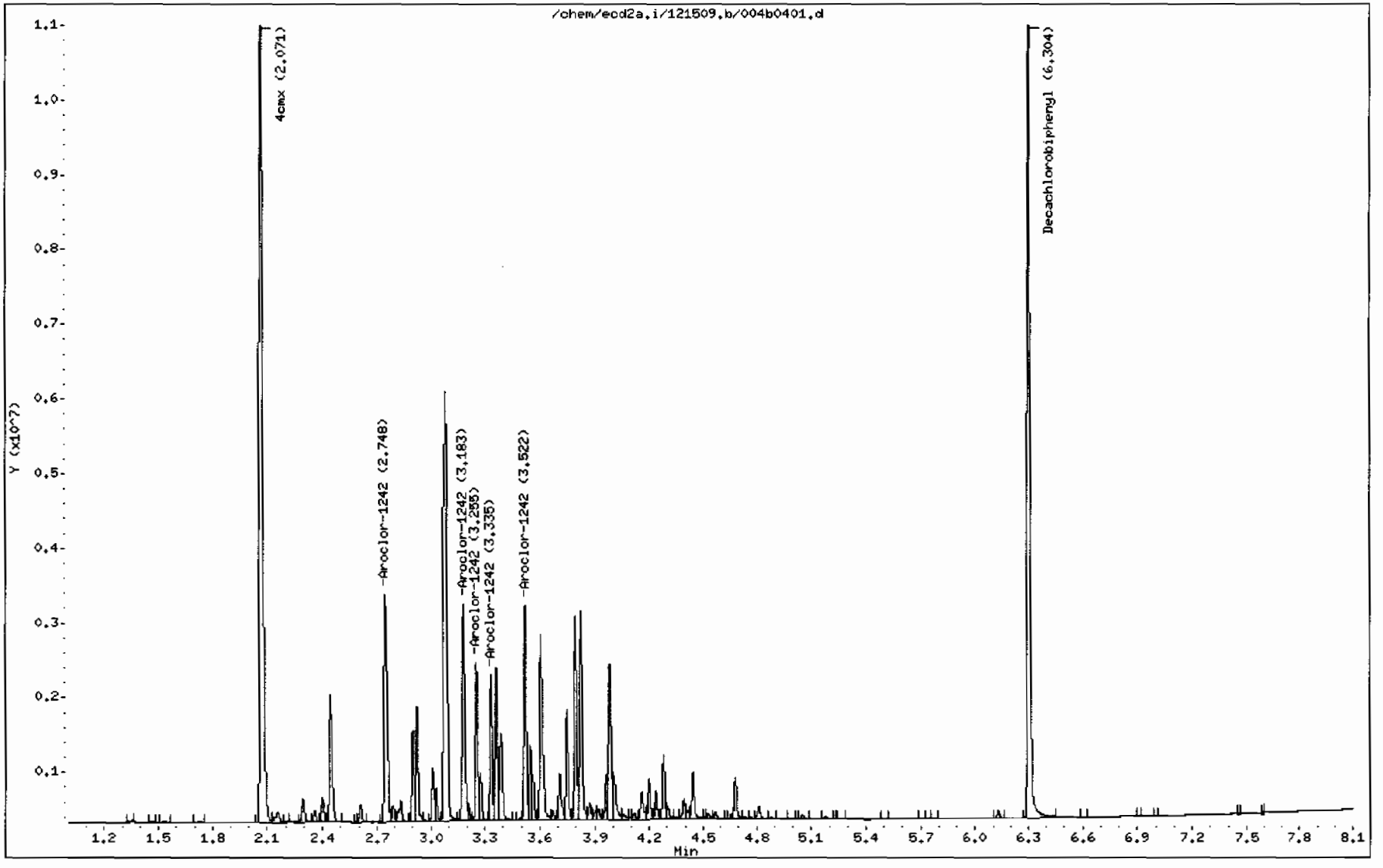

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/121509.b/005f0501.d
Lab Smp Id: WAR091027-48 Client Smp ID: AR124801
Inj Date : 15-DEC-2009 08:50
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |WAR091027-48
Misc Info : |PCB_CVS|1248||CVS|
Comment :
Method : /chem/ecd2a.i/121509.b/ECD2-F-8082-111209A.m
Meth Date : 15-Dec-2009 13:14 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012f1201.d
Als bottle: 5 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1248.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.771	1.774	-0.003	7394346	100.000	119	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.611	5.611	0.000	6495150	100.000	120	80.00- 120.00	100.00
5 Aroclor-1248					CAS #: 12672-29-6		
2.826	2.826	0.000	1525478	1000.00	999	80.00- 120.00	100.00
2.976	2.976	0.000	2015681	1000.00	994	112.13- 152.13	132.13
3.036	3.036	0.000	1535936	1000.00	978	80.69- 120.69	100.69
3.271	3.271	0.000	2201781	1000.00	993	124.33- 164.33	144.33
3.425	3.425	0.000	1820238	1000.00	952	99.32- 139.32	119.32
Average of Peak Amounts =					983		

Data File: /chem/ecd2a.i/121509.b/005f0501.d
Date : 15-DEC-2009 08:50
Client ID: AR124801
Sample Info: !WAR091027-48

Column phase: CLP1

Instrument: ecd2a.i

Operator: JAOC
Column diameter: 0.25

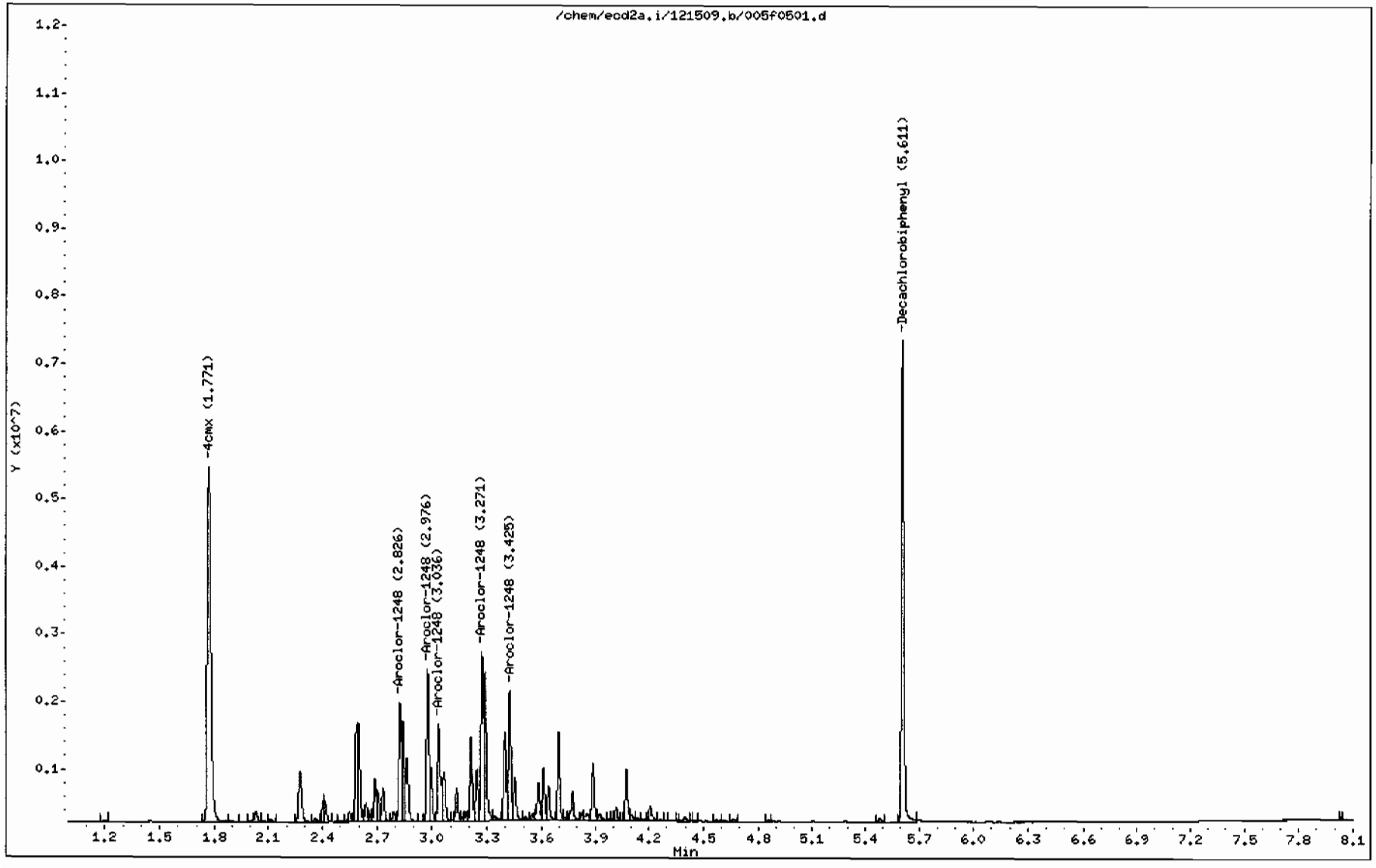

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/121509.b/005b0501.d
Lab Smp Id: WAR091027-48 Client Smp ID: AR124801
Inj Date : 15-DEC-2009 08:50
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |WAR091027-48
Misc Info : |PCB_CVS|1248.||CVS|
Comment :
Method : /chem/ecd2a.i/121509.b/ECD2-B-8082-111209A.m
Meth Date : 15-Dec-2009 13:12 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012b1201.d
Als bottle: 5 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1248.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.069	2.070	-0.001	15958912	100.000	123	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.304	6.303	0.001	13551391	100.000	120	80.00- 120.00	100.00
5 Aroclor-1248					CAS #: 12672-29-6		
3.334	3.334	0.000	3325313	1000.00	1010	80.00- 120.00	100.00
3.521	3.521	0.000	4259181	1000.00	1020	108.08- 148.08	128.08
3.607	3.607	0.000	4494421	1000.00	1010	115.16- 155.16	135.16
3.796	3.796	0.000	4677660	1000.00	996	120.67- 160.67	140.67
3.826	3.826	0.000	5380738	1000.00	998	141.81- 181.81	161.81

Average of Peak Amounts = 1.01e+03

Data File: /chem/ecd2a.i/121509.b/005b0501.d

Date : 15-DEC-2009 08:50

Client ID: AR124801

Sample Info: IWAR091027-48

Column phase: CLP2

Instrument: ecd2a.i

Operator: JAOC

Column diameter: 0.25

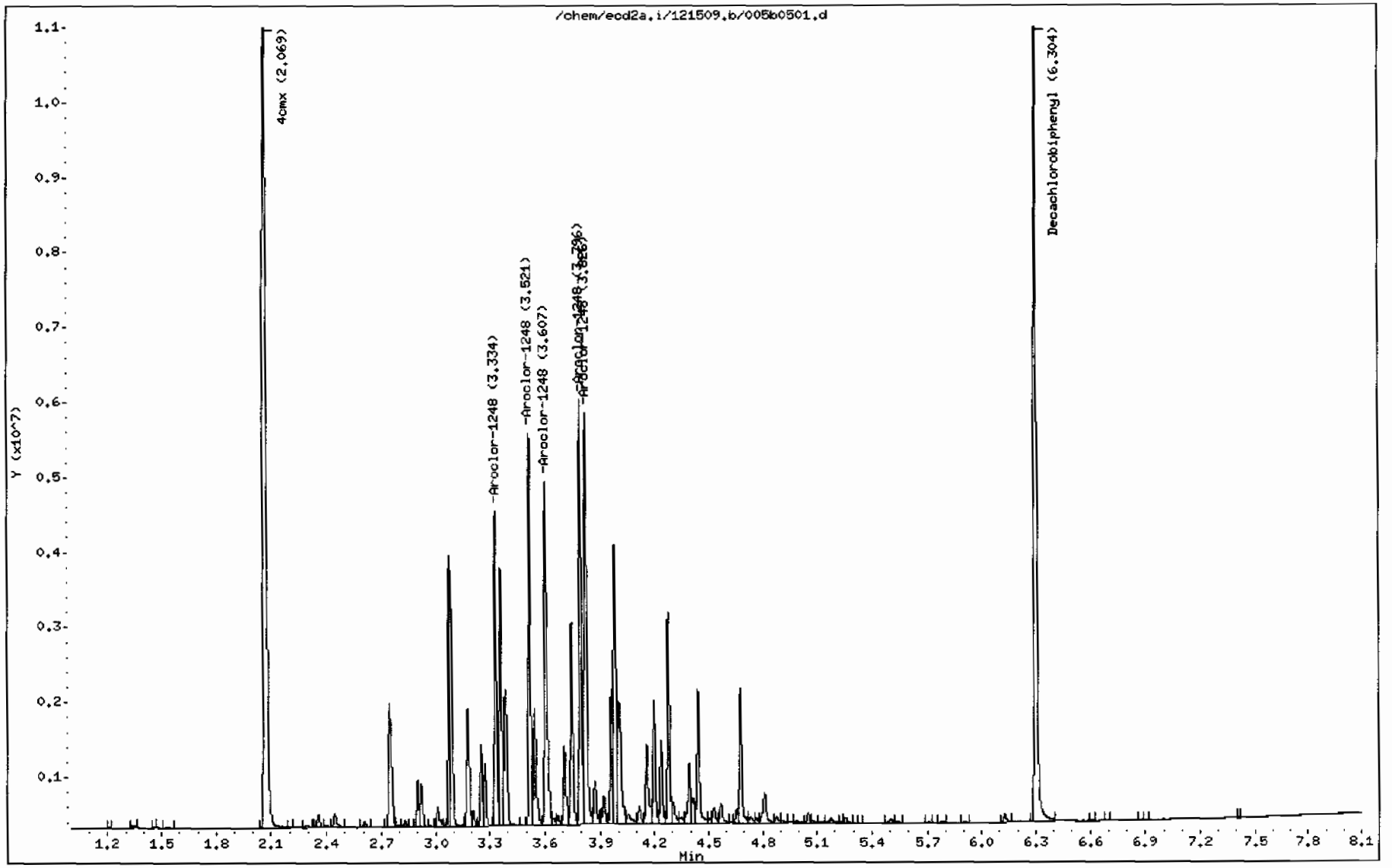

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/121509.b/006f0601.d
Lab Smp Id: WAR090930-32 Client Smp ID: AR123201
Inj Date : 15-DEC-2009 09:01
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |WAR090930-32
Misc Info : |PCB_CVS|1232||CVS|
Comment :
Method : /chem/ecd2a.i/121509.b/ECD2-F-8082-111209A.m
Meth Date : 15-Dec-2009 13:14 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012f1201.d
Als bottle: 6 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1232.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.776	1.774	0.002	9101720	100.000	146	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.611	5.611	0.000	8481408	100.000	157	80.00- 120.00	100.00
3 Aroclor-1232					CAS #: 11141-16-5		
2.030	2.030	0.000	1434855	1000.00	1230	80.00- 120.00	100.00
2.277	2.277	0.000	1145749	1000.00	1230	59.85- 99.85	79.85
2.692	2.692	0.000	978733	1000.00	1220	48.21- 88.21	68.21
2.734	2.734	0.000	622613	1000.00	1220	23.39- 63.39	43.39
2.978	2.978	0.000	728633	1000.00	1250	30.78- 70.78	50.78

Average of Peak Amounts = 1.23e+03

Data File: /chem/ecd2a.i/121509.b/006f0601.d

Date : 15-DEC-2009 09:01

Client ID: AR123201

Sample Info: IWAR090930-32

Column phase: CLP1

Instrument: ecd2a.i

Operator: JADC

Column diameter: 0.25

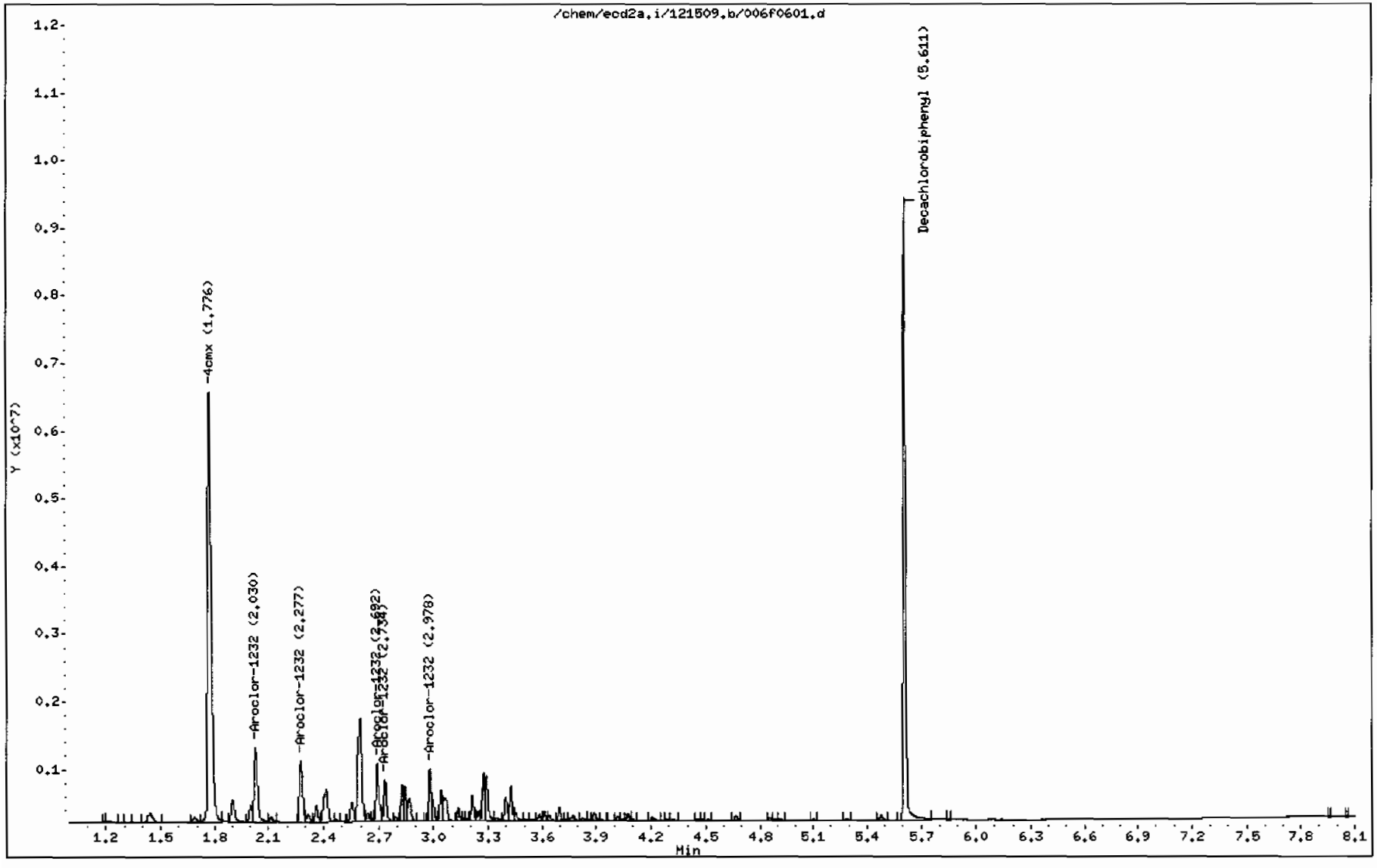

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/121509.b/006b0601.d
Lab Smp Id: WAR090930-32 Client Smp ID: AR123201
Inj Date : 15-DEC-2009 09:01
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |WAR090930-32
Misc Info : |PCB_CVS|1232||CVS|
Comment :
Method : /chem/ecd2a.i/121509.b/ECD2-B-8082-111209A.m
Meth Date : 15-Dec-2009 13:12 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012b1201.d
Als bottle: 6 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1232.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.073	2.070	0.003	19533622	100.000	151	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.304	6.303	0.001	17553797	100.000	156	80.00- 120.00	100.00
3 Aroclor-1232					CAS #: 11141-16-5		
2.445	2.445	0.000	2545981	1000.00	1240	80.00- 120.00	100.00
2.749	2.749	0.000	2428050	1000.00	1240	75.37- 115.37	95.37
3.184	3.184	0.000	1832825	1000.00	1220	51.99- 91.99	71.99
3.256	3.256	0.000	1128786	1000.00	1210	24.34- 64.34	44.34
3.521	3.521	0.000	1376524	1000.00	1240	34.07- 74.07	54.07

Average of Peak Amounts = 1.23e+03

Data File: /chem/ecd2a.i/121509.b/006b0601.d

Date : 15-DEC-2009 09:01

Client ID: AR123201

Sample Info: IWAR090930-32

Column phase: CLP2

Instrument: ecd2a.i

Operator: JAOC

Column diameter: 0.25

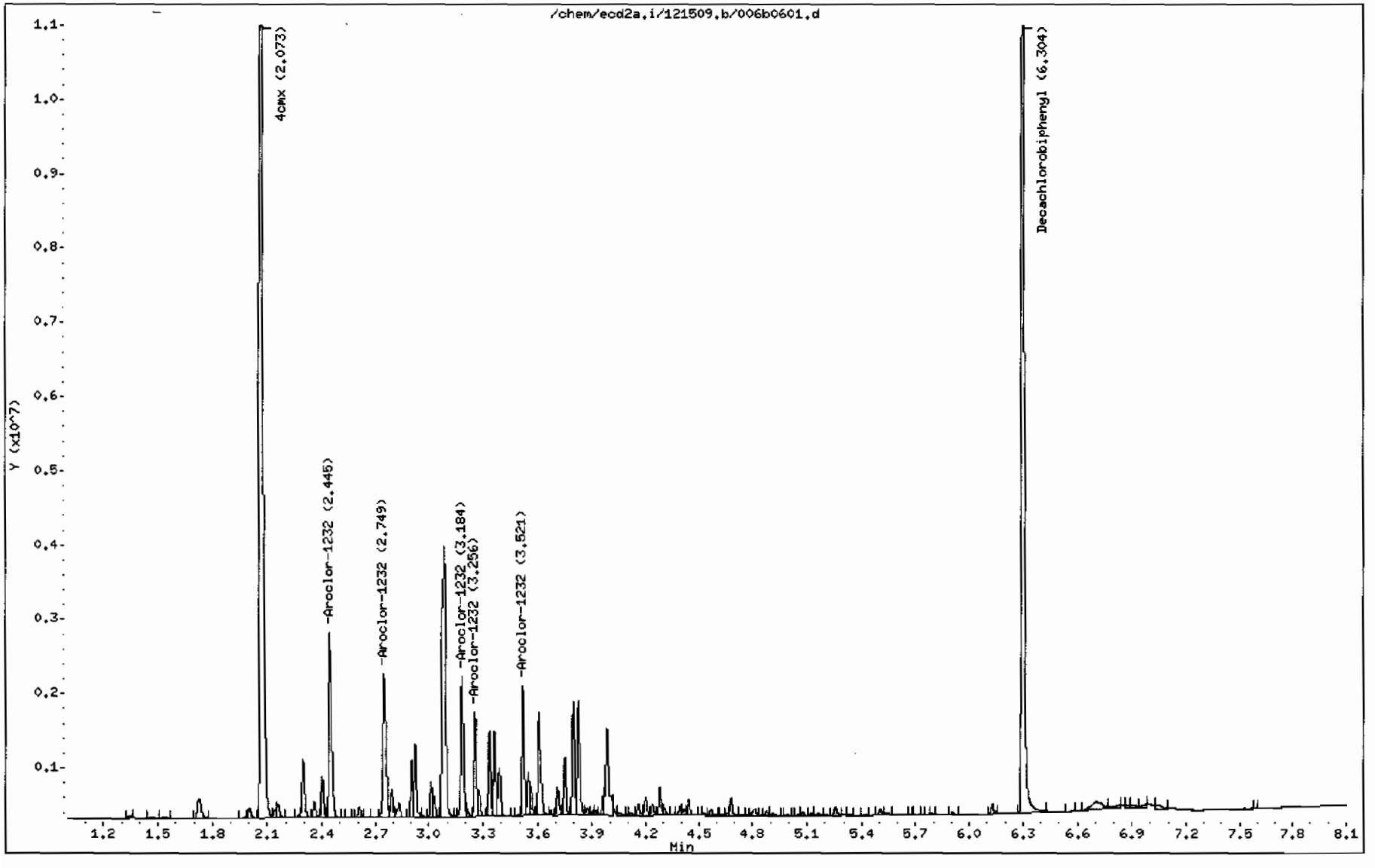

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/121509.b/007f0701.d
Lab Smp Id: WAR091111-21 Client Smp ID: AR122101
Inj Date : 15-DEC-2009 09:12
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |WAR091111-21
Misc Info : |PCB_CVS|1262||CVS|
Comment :
Method : /chem/ecd2a.i/121509.b/ECD2-F-8082-111209A.m
Meth Date : 15-Dec-2009 13:14 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012f1201.d
Als bottle: 7 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1221.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.772	1.774	-0.002	6742933	100.000	108	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.612	5.611	0.001	6028809	100.000	111	80.00- 120.00	100.00
2 Aroclor-1221					CAS #: 11104-28-2		
1.438	1.438	0.000	540499	1000.00	1160	80.00- 120.00	100.00
1.899	1.899	0.000	748016	1000.00	1140	118.39- 158.39	138.39
1.998	1.998	0.000	399898	1000.00	1150	53.99- 93.99	73.99

Average of Peak Amounts = 1.15e+03

Data File: /chem/ecd2a.i/121509.b/007f0701.d

Date : 15-DEC-2009 09:12

Client ID: AR122101

Sample Info: IWAR091111-21

Column phase: CLP1

Instrument: ecd2a.i

Operator: JAOC

Column diameter: 0.25

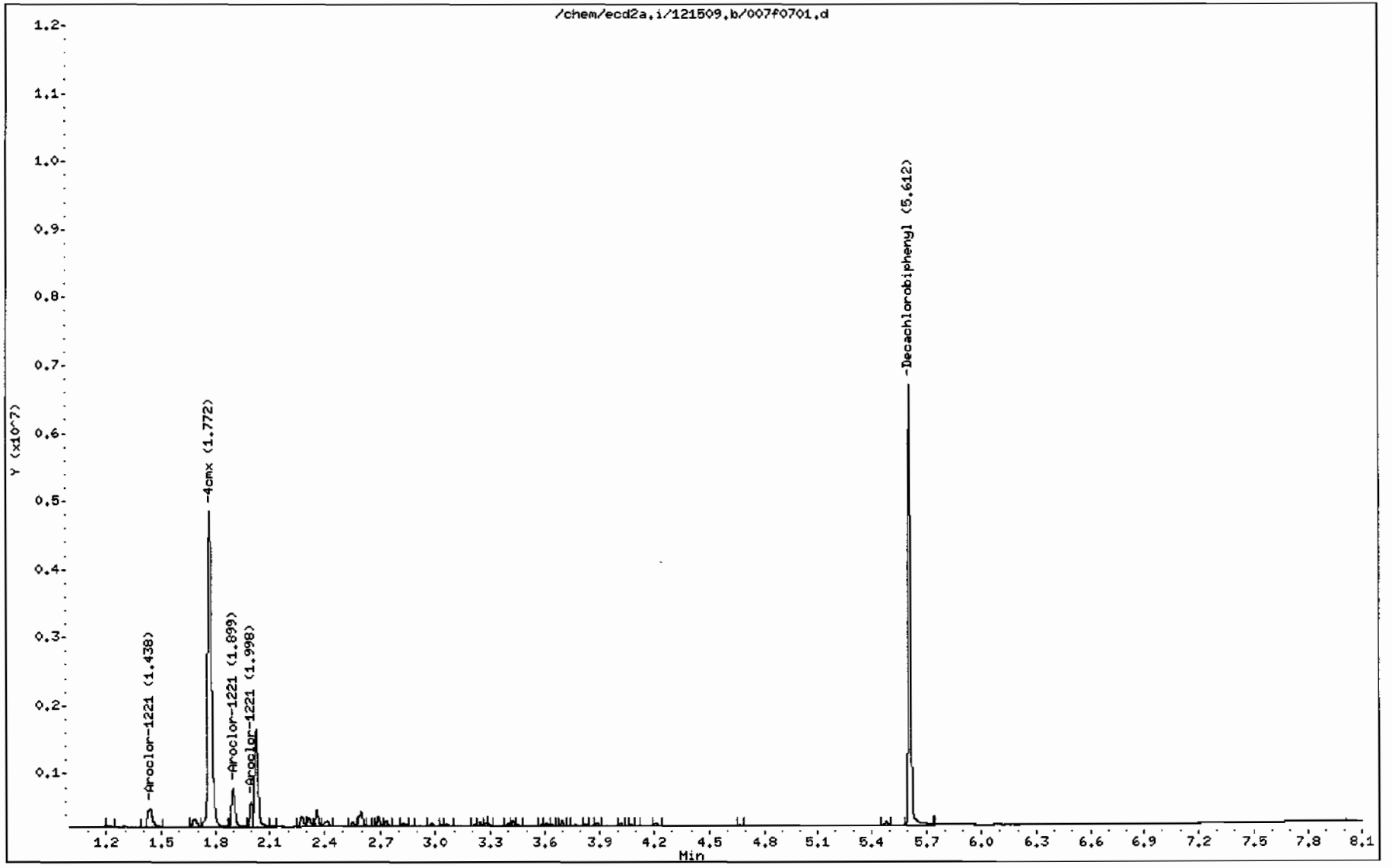

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/121509.b/007b0701.d
Lab Smp Id: WAR091111-21 Client Smp ID: AR122101
Inj Date : 15-DEC-2009 09:12
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |WAR091111-21
Misc Info : |PCB_CVS|1262||CVS|
Comment :
Method : /chem/ecd2a.i/121509.b/ECD2-B-8082-111209A.m
Meth Date : 15-Dec-2009 13:12 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012b1201.d
Als bottle: 7 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1221.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.069	2.070	-0.001	14065791	100.000	109	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.304	6.303	0.001	12527687	100.000	111	80.00- 120.00	100.00
2 Aroclor-1221					CAS #: 11104-28-2		
2.293	2.293	0.000	1409127	1000.00	1120	80.00- 120.00	100.00
2.398	2.398	0.000	858574	1000.00	1110	40.93- 80.93	60.93
2.443	2.443	0.000	3405609	1000.00	1120	221.68- 261.68	241.68

Average of Peak Amounts = 1.11e+03

Data File: /chem/ecd2a.i/121509.b/007b0701.d
Date : 15-DEC-2009 09:12
Client ID: AR122101
Sample Info: IWAR091111-21

Column phase: CLP2

Instrument: ecd2a.i

Operator: JAOC
Column diameter: 0.25

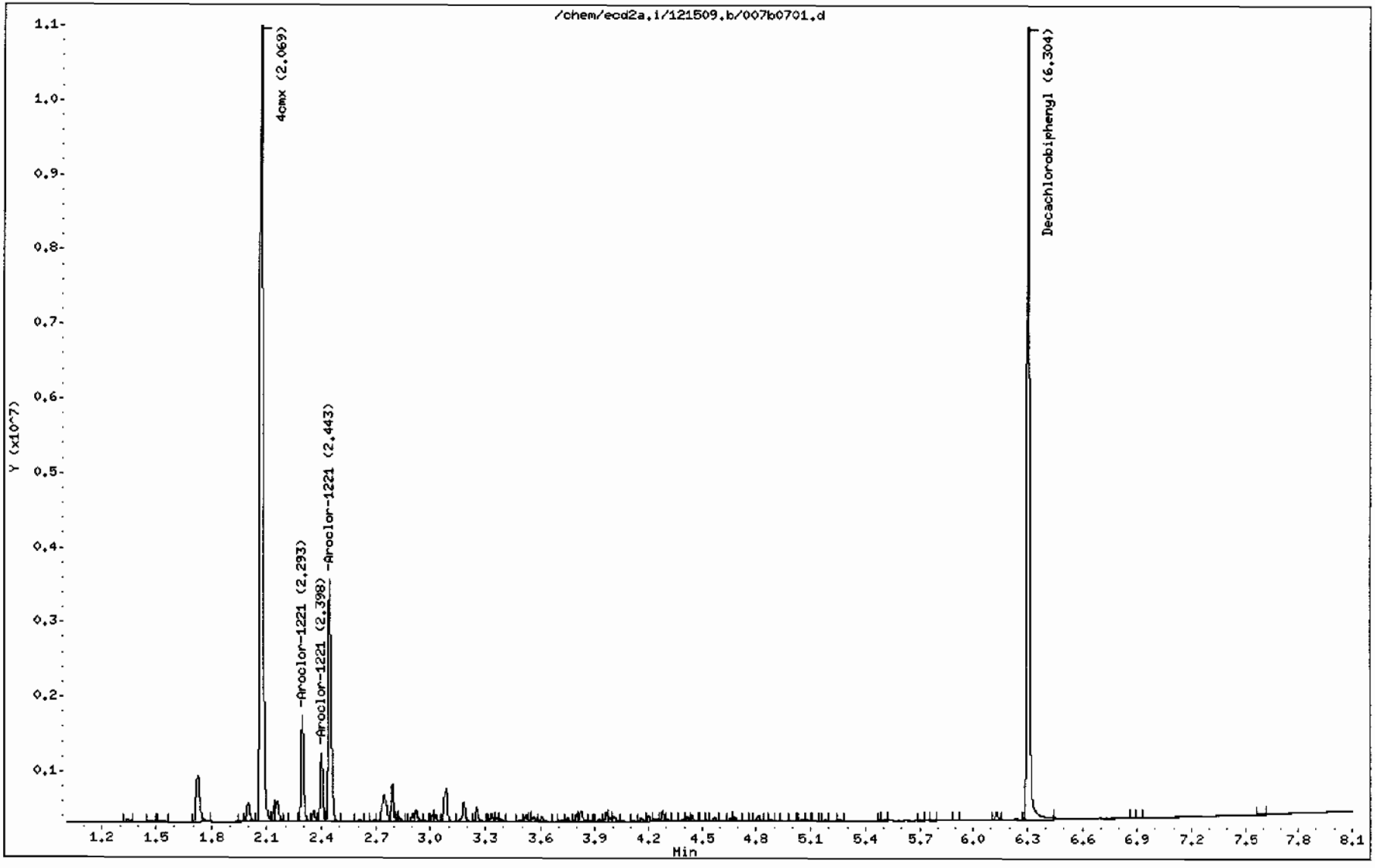

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/121509.b/033f3301.d
Lab Smp Id: WAR091211-60 04 Client Smp ID: AR166004
Inj Date : 15-DEC-2009 14:13
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |WAR091211-60 04
Misc Info : |PCB_CVS|1660||CVS|
Comment :
Method : /chem/ecd2a.i/121509.b/ECD2-F-8082-111209A.m
Meth Date : 15-Dec-2009 14:28 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012f1201.d
Als bottle: 33 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.769	1.774	-0.005	6174919	100.000	99.1	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.614	5.611	0.003	5462485	100.000	101	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.274	2.276	-0.002	1988311	1000.00	888	80.00- 120.00	100.00
2.599	2.599	0.000	4306016	1000.00	919	196.57- 236.57	216.57
2.690	2.690	0.000	1693453	1000.00	890	65.17- 105.17	85.17
2.825	2.825	0.000	871759	1000.00	893	23.84- 63.84	43.84
2.977	2.977	0.000	1283561	1000.00	880	44.56- 84.56	64.56
Average of Peak Amounts =					894		
7 Aroclor-1260					CAS #: 11096-82-5		
4.020	4.017	0.003	3978530	1000.00	955	80.00- 120.00	100.00
4.292	4.288	0.004	2433905	1000.00	940	41.18- 81.18	61.18
4.457	4.454	0.003	2500363	1000.00	950	42.85- 82.85	62.85
4.670	4.667	0.003	6008727	1000.00	987	131.03- 171.03	151.03
4.860	4.857	0.003	2890412	1000.00	982	52.65- 92.65	72.65
Average of Peak Amounts =					963		

Data File: /chem/ecd2a.i/121509.b/033f3301.d

Date : 15-DEC-2009 14:13

Client ID: AR166004

Sample Info: IWAR091211-60 04

Column phase: CLP1

Instrument: ecd2a.i

Operator: JAOC

Column diameter: 0.25

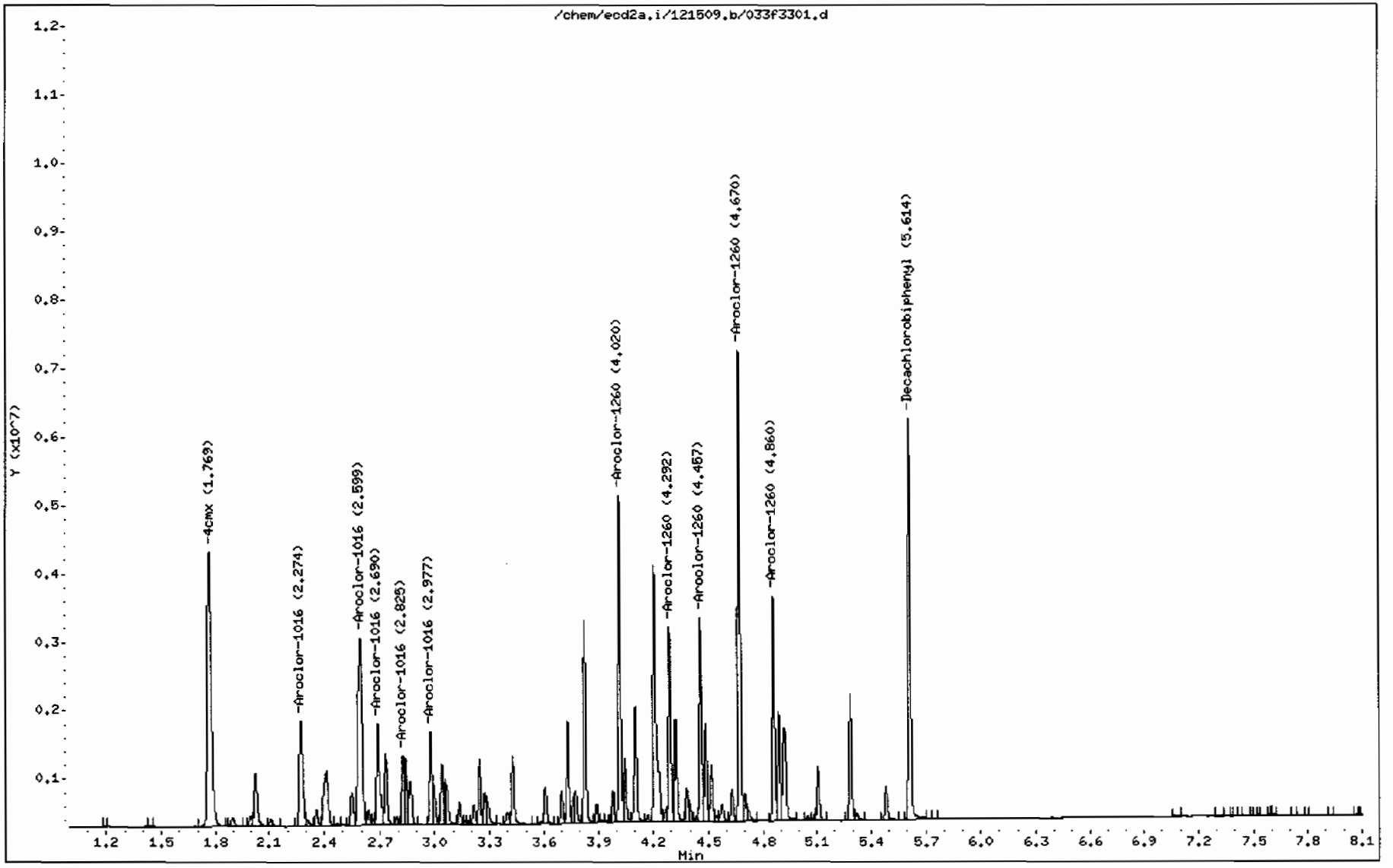

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/121509.b/033b3301.d
Lab Smp Id: WAR091211-60 04 Client Smp ID: AR166004
Inj Date : 15-DEC-2009 14:13
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |WAR091211-60 04
Misc Info : |PCB_CVS|1660||CVS|
Comment :
Method : /chem/ecd2a.i/121509.b/ECD2-B-8082-111209A.m
Meth Date : 15-Dec-2009 14:28 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012b1201.d
Als bottle: 33 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.067	2.070	-0.003	13196065	100.000	102	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.306	6.303	0.003	11082532	100.000	98.3	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.747	2.748	-0.001	4219396	1000.00	930	80.00- 120.00	100.00
3.182	3.182	0.000	3324940	1000.00	923	58.80- 98.80	78.80
3.333	3.333	0.000	1886291	1000.00	919	24.71- 64.71	44.71
3.362	3.362	0.000	1987928	1000.00	930	27.11- 67.11	47.11
3.521	3.521	0.000	2688451	1000.00	936	43.72- 83.72	63.72
Average of Peak Amounts =					928		
7 Aroclor-1260					CAS #: 11096-82-5		
4.418	4.416	0.002	5514195	1000.00	956	80.00- 120.00	100.00
4.571	4.568	0.003	6951328	1000.00	976	106.06- 146.06	126.06
4.682	4.680	0.002	4704239	1000.00	976	65.31- 105.31	85.31
4.880	4.876	0.004	5382773	1000.00	956	77.62- 117.62	97.62
5.506	5.503	0.003	8789906	1000.00	973	139.41- 179.41	159.41
Average of Peak Amounts =					967		

Data File: /chem/ecd2a.i/121509.b/033b3301.d

Date : 15-DEC-2009 14:13

Client ID: AR166004

Sample Info: IWAR091211-60 04

Column phase: CLP2

Instrument: ecd2a.i

Operator: JADC

Column diameter: 0.25

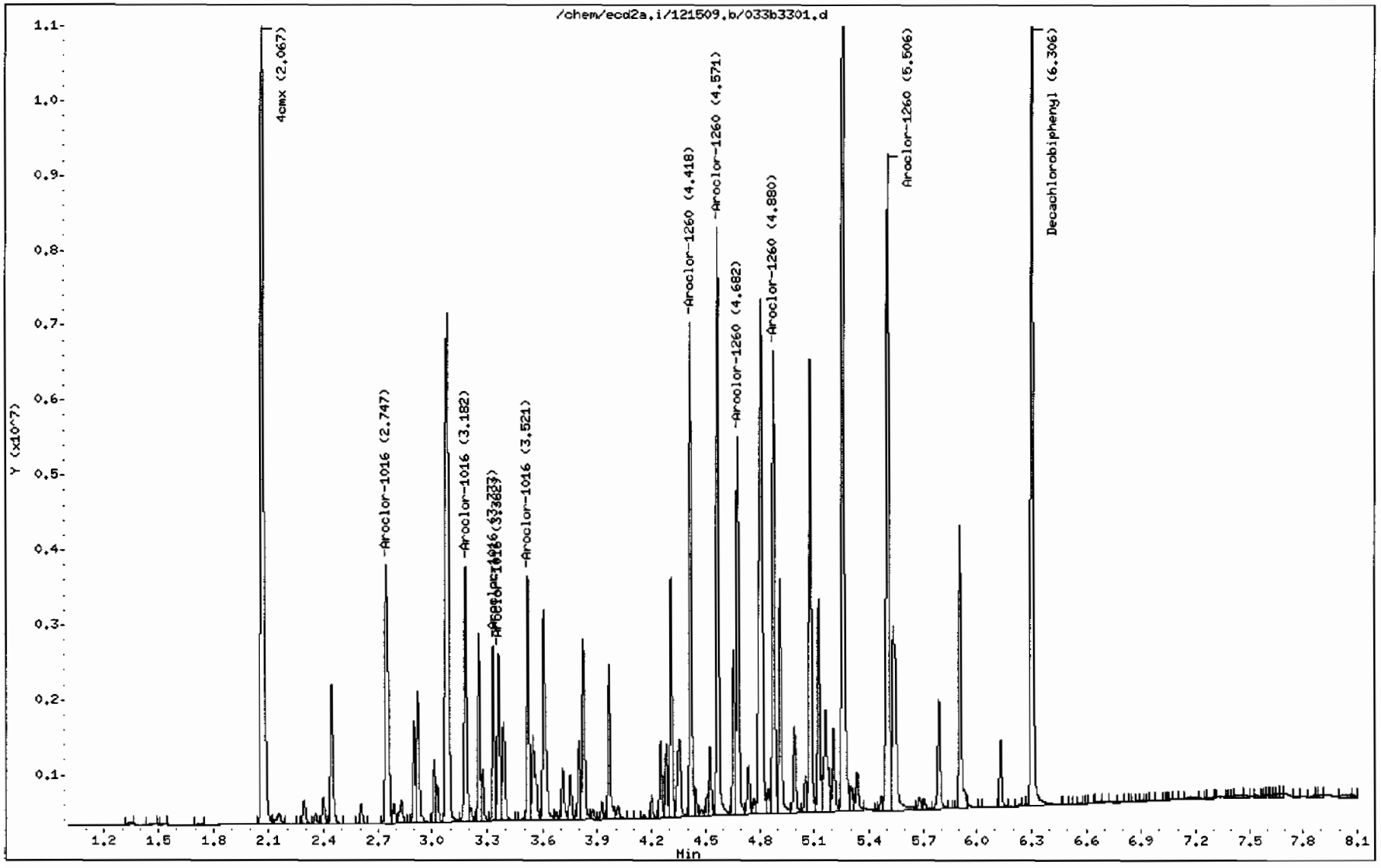

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/121509.b/045f4501.d
Lab Smp Id: WAR091211-60 05 Client Smp ID: AR166006
Inj Date : 15-DEC-2009 16:32
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |WAR091211-60 05
Misc Info : |PCB_CVS|1660||CVS|
Comment :
Method : /chem/ecd2a.i/121509.b/ECD2-F-8082-111209A.m
Meth Date : 15-Dec-2009 16:48 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012f1201.d
Als bottle: 45 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.771	1.774	-0.003	6101126	100.000	97.9	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.611	5.611	0.000	5040835	100.000	93.2	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.275	2.276	-0.001	1958732	1000.00	875	80.00- 120.00	100.00(M)
2.599	2.599	0.000	4253440	1000.00	908	197.15- 237.15	217.15
2.690	2.690	0.000	1672894	1000.00	880	65.41- 105.41	85.41
2.825	2.825	0.000	832476	1000.00	853	22.50- 62.50	42.50
2.977	2.977	0.000	1243156	1000.00	853	43.47- 83.47	63.47
Average of Peak Amounts =					874		
7 Aroclor-1260					CAS #: 11096-82-5		
4.017	4.017	0.000	3784082	1000.00	908	80.00- 120.00	100.00
4.289	4.288	0.001	2298507	1000.00	887	40.74- 80.74	60.74
4.455	4.454	0.001	2355851	1000.00	895	42.26- 82.26	62.26
4.667	4.667	0.000	5569340	1000.00	915	127.18- 167.18	147.18
4.856	4.857	-0.001	2703242	1000.00	919	51.44- 91.44	71.44
Average of Peak Amounts =					905		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd2a.i/121509.b/045f4501.d

Date : 15-DEC-2009 16:32

Client ID: AR166006

Sample Info: IWAR091211-60 05

Column phase: CLP1

Instrument: ecd2a.i

Operator: JAOC

Column diameter: 0.25

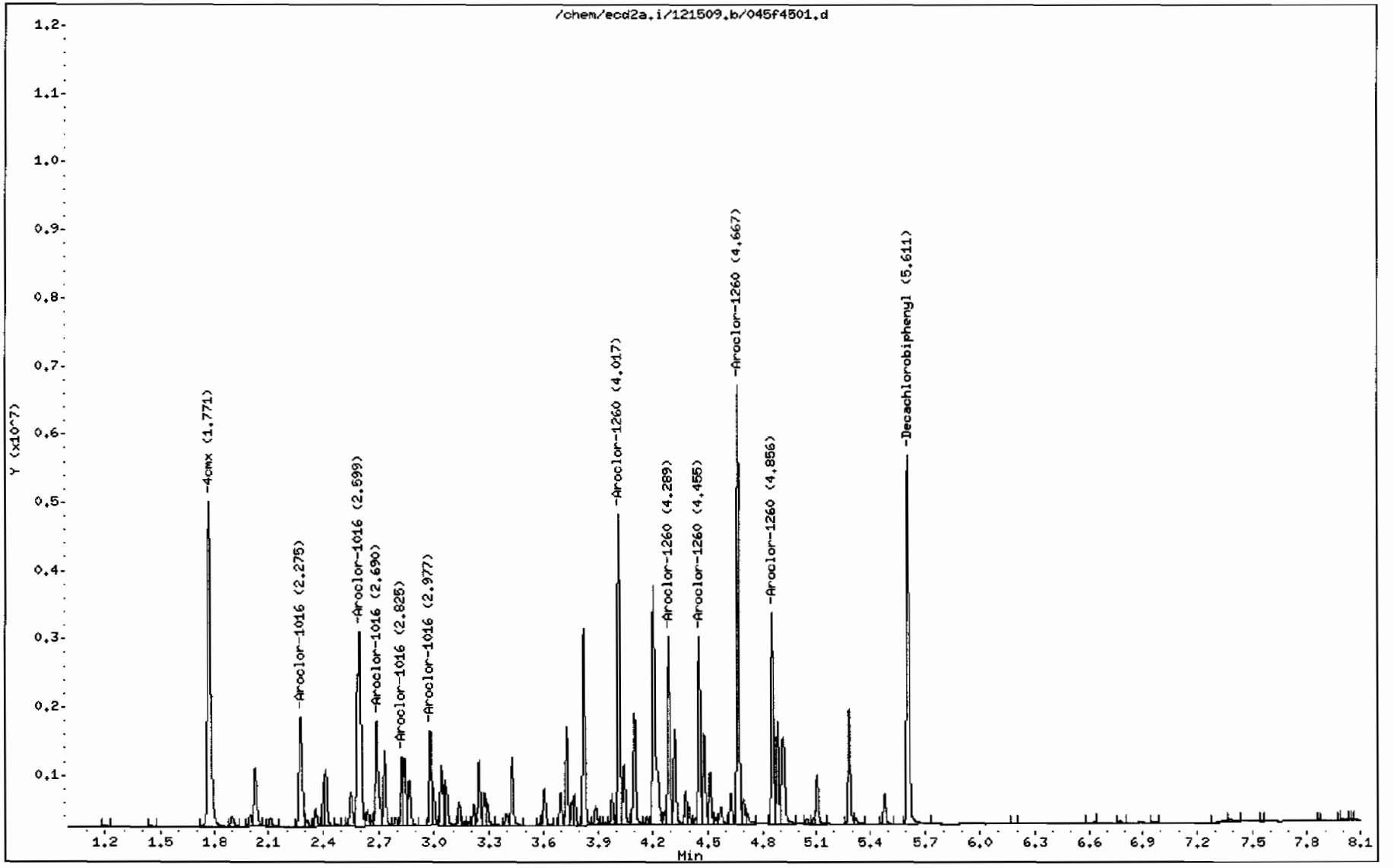

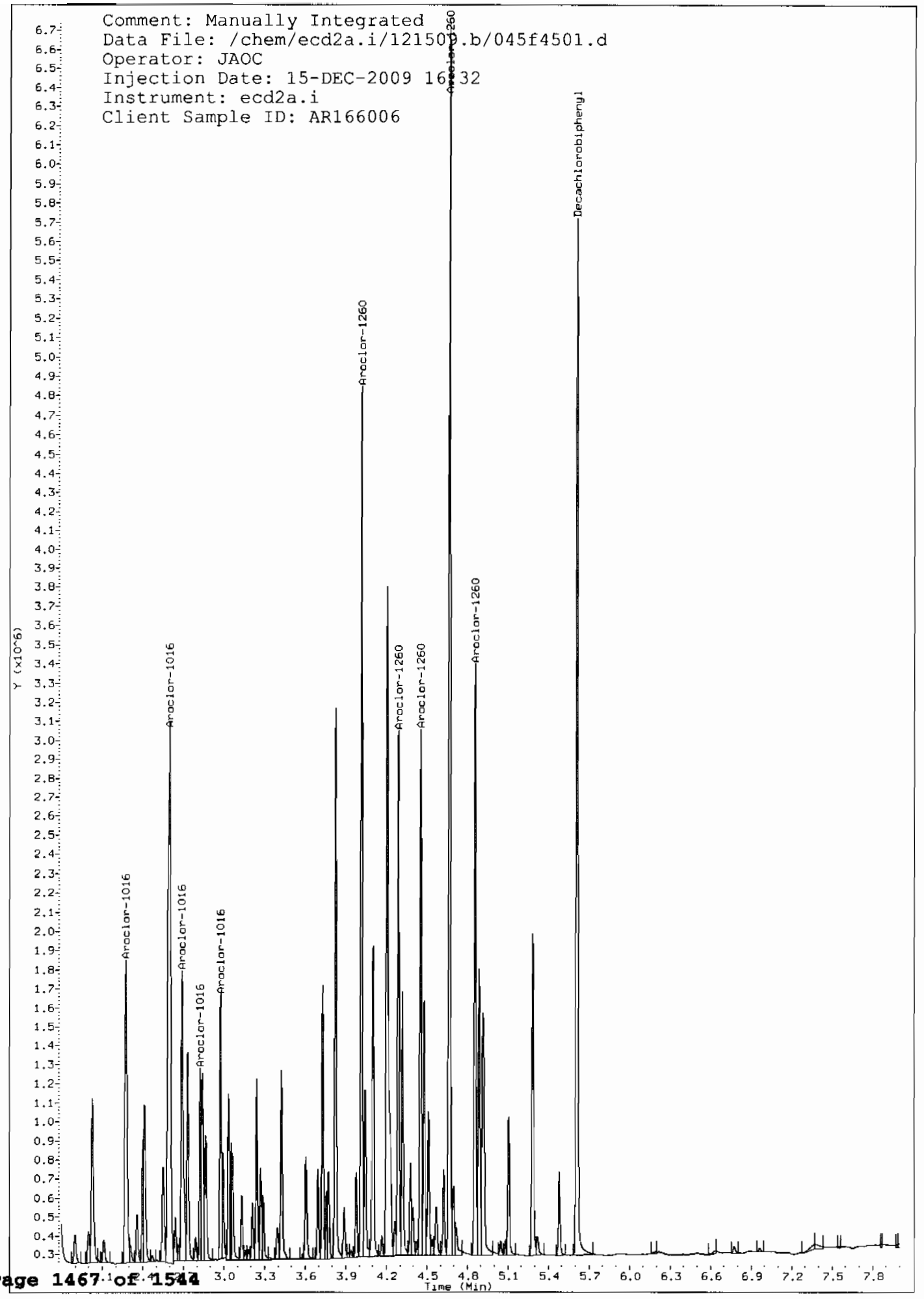
Comment: Manually Integrated
Data File: /chem/ecd2a.i/121509.b/045f4501.d
Operator: JAOC
Injection Date: 15-DEC-2009 16:32
Instrument: ecd2a.i
Client Sample ID: AR166006
Aroclor-1260
Decachlorobiphenyl
Aroclor-1016
Y (x10^6)
Time (Min)

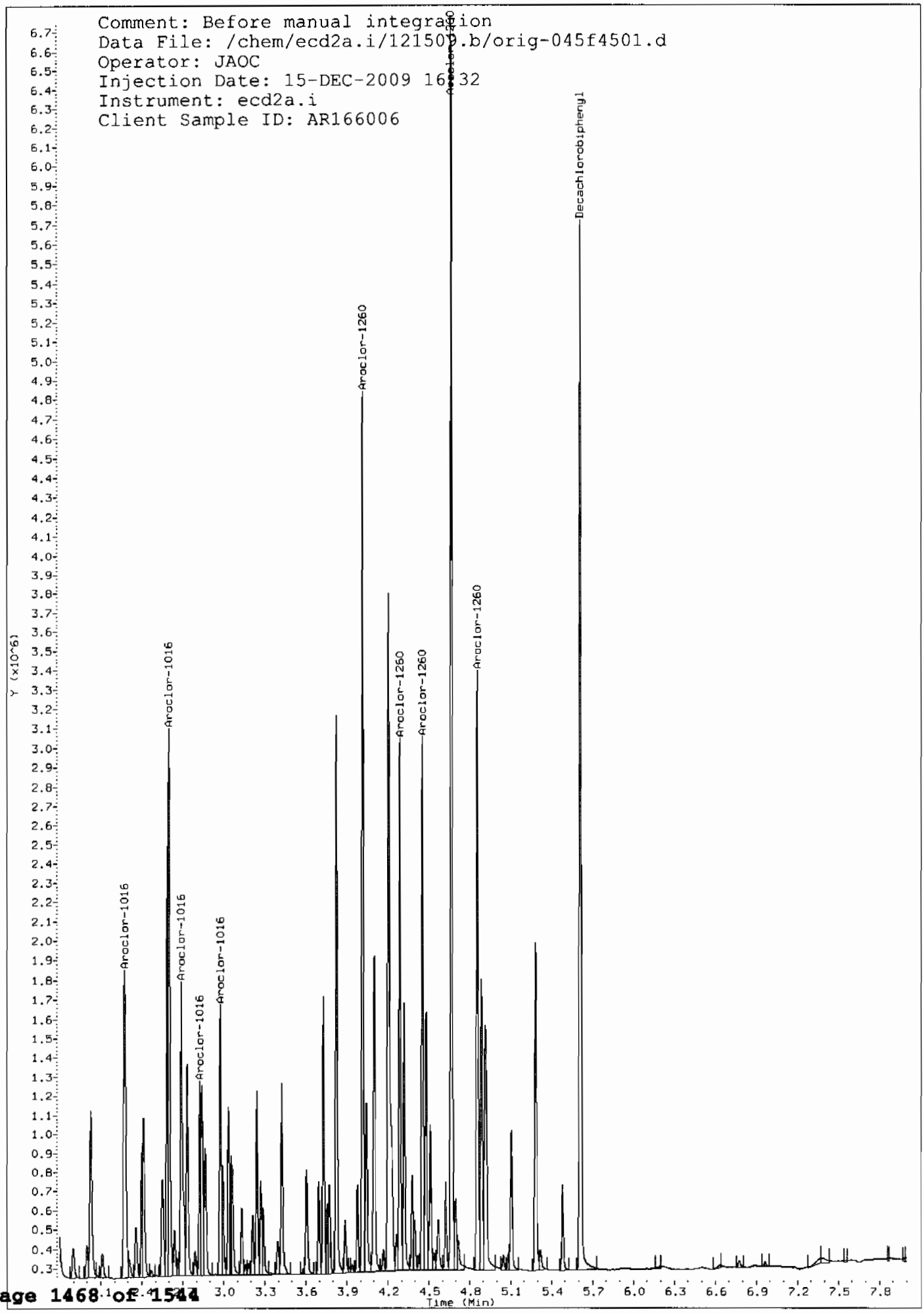
Comment: Before manual integration
Data File: /chem/ecd2a.i/121509.b/orig-045f4501.d
Operator: JAOC
Injection Date: 15-DEC-2009 16:32
Instrument: ecd2a.i
Client Sample ID: AR166006
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^6)
Time (Min)

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/121509.b/045b4501.d
Lab Smp Id: WAR091211-60 05 Client Smp ID: AR166005
Inj Date : 15-DEC-2009 16:32
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |WAR091211-60 05
Misc Info : |PCB_CVS|1660||CVS|
Comment :
Method : /chem/ecd2a.i/121509.b/ECD2-B-8082-111209A.m
Meth Date : 15-Dec-2009 16:44 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012b1201.d
Als bottle: 45 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.070	2.070	0.000	13093944	100.000	101	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.303	6.303	0.000	9700538	100.000	86.0	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.747	2.748	-0.001	4105933	1000.00	905	80.00- 120.00	100.00
3.182	3.182	0.000	3221813	1000.00	894	58.47- 98.47	78.47
3.333	3.333	0.000	1836288	1000.00	894	24.72- 64.72	44.72
3.362	3.362	0.000	1907006	1000.00	892	26.45- 66.45	46.45
3.521	3.521	0.000	2600410	1000.00	906	43.33- 83.33	63.33
Average of Peak Amounts =					898		
7 Aroclor-1260					CAS #: 11096-82-5		
4.417	4.416	0.001	5210474	1000.00	904	80.00- 120.00	100.00
4.569	4.568	0.001	6553588	1000.00	920	105.78- 145.78	125.78
4.680	4.680	0.000	4369299	1000.00	907	63.86- 103.86	83.86
4.877	4.876	0.001	5057335	1000.00	898	77.06- 117.06	97.06
5.502	5.503	-0.001	8212296	1000.00	909	137.61- 177.61	157.61
Average of Peak Amounts =					907		

Data File: /chem/ecd2a.i/121509.b/045b4501.d
Date : 15-DEC-2009 16:32
Client ID: AR166005
Sample Info: IWAR091211-60 05
Column phase: CLP2

Instrument: ecd2a.i
Operator: JADC
Column diameter: 0.25

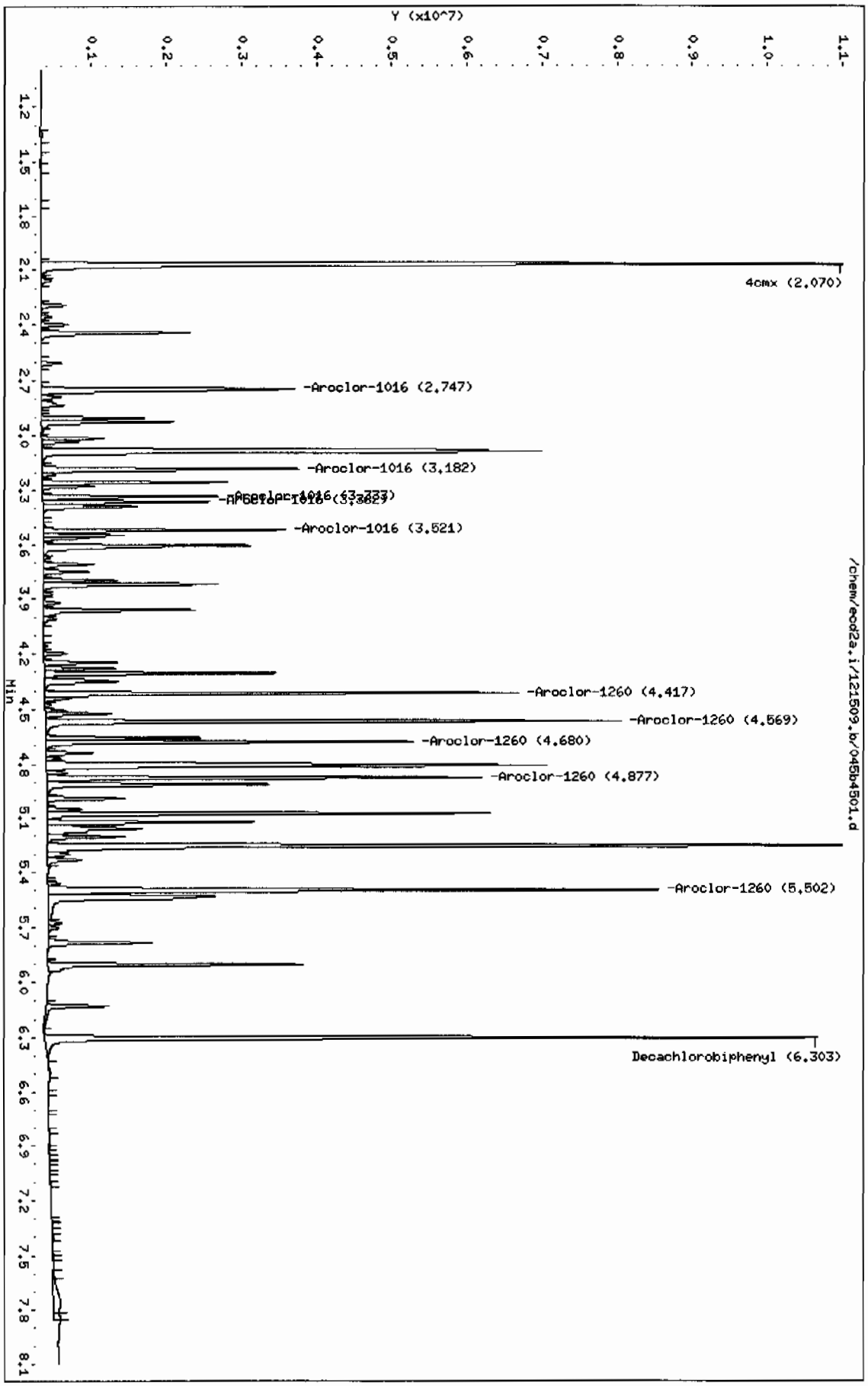

Page 1

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RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/121509.b/057f5701.d
Lab Smp Id: WAR091211-60 06 Client Smp ID: AR166006
Inj Date : 15-DEC-2009 18:50
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |WAR091211-60 06
Misc Info : |PCB_CVS|1660||CVS|
Comment :
Method : /chem/ecd2a.i/121509.b/ECD2-F-8082-111209A.m
Meth Date : 16-Dec-2009 08:12 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012f1201.d
Als bottle: 57 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.772	1.774	-0.002	5976645	100.000	95.9	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.609	5.611	-0.002	5488668	100.000	101	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.275	2.276	-0.001	1927694	1000.00	861	80.00- 120.00	100.00(M)
2.599	2.599	0.000	4175856	1000.00	891	196.62- 236.62	216.62
2.689	2.690	-0.001	1662248	1000.00	874	66.23- 106.23	86.23
2.825	2.825	0.000	836520	1000.00	857	23.39- 63.39	43.39
2.976	2.977	-0.001	1258160	1000.00	863	45.27- 85.27	65.27
Average of Peak Amounts =					869		
7 Aroclor-1260					CAS #: 11096-82-5		
4.016	4.017	-0.001	4090980	1000.00	982	80.00- 120.00	100.00
4.287	4.288	-0.001	2532960	1000.00	978	41.92- 81.92	61.92
4.452	4.454	-0.002	2586371	1000.00	983	43.22- 83.22	63.22
4.666	4.667	-0.001	6276897	1000.00	1030	133.43- 173.43	153.43
4.855	4.857	-0.002	3019313	1000.00	1030	53.80- 93.80	73.80
Average of Peak Amounts =					1e+03		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd2a.i/121509.b/057f5701.d

Date : 15-DEC-2009 18:50

Client ID: AR166006

Sample Info: IWAR091211-60 06

Column phase: CLP1

Instrument: ecd2a.i

Operator: JAOC

Column diameter: 0.25

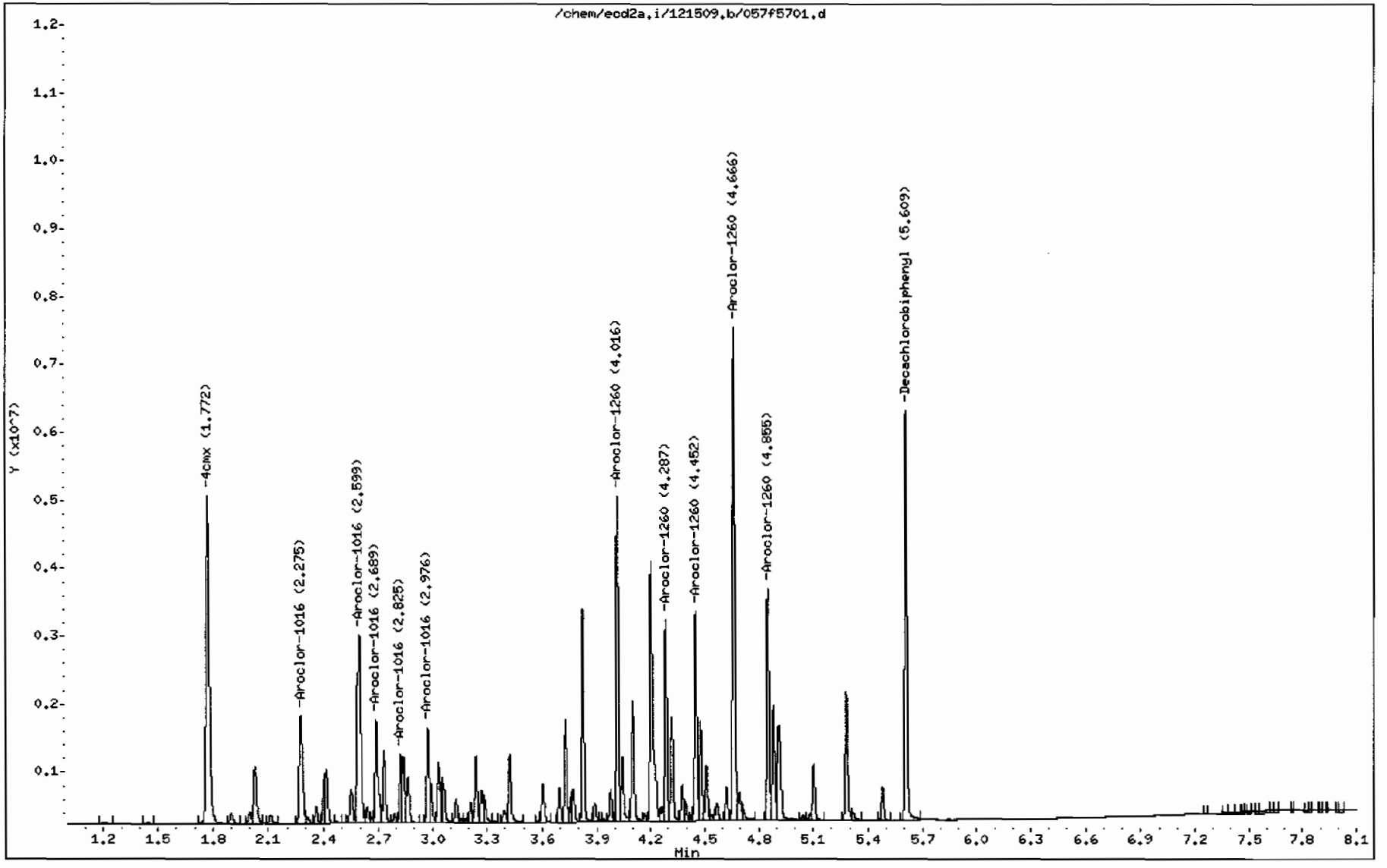

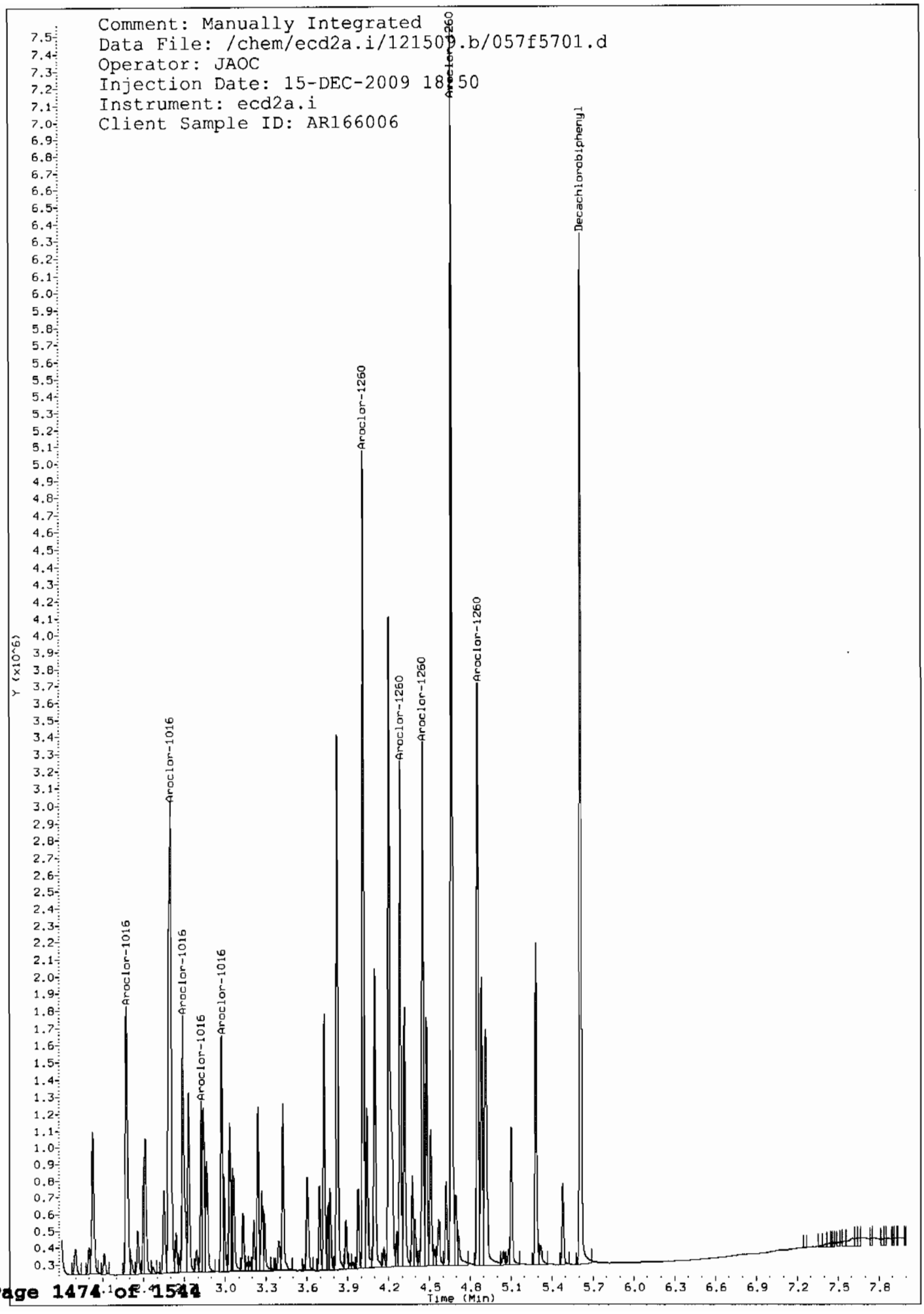
Comment: Manually Integrated
Data File: /chem/ecd2a.i/121509.b/057f5701.d
Operator: JAOC
Injection Date: 15-DEC-2009 18:50
Instrument: ecd2a.i
Client Sample ID: AR166006
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^6)
Time (Min)

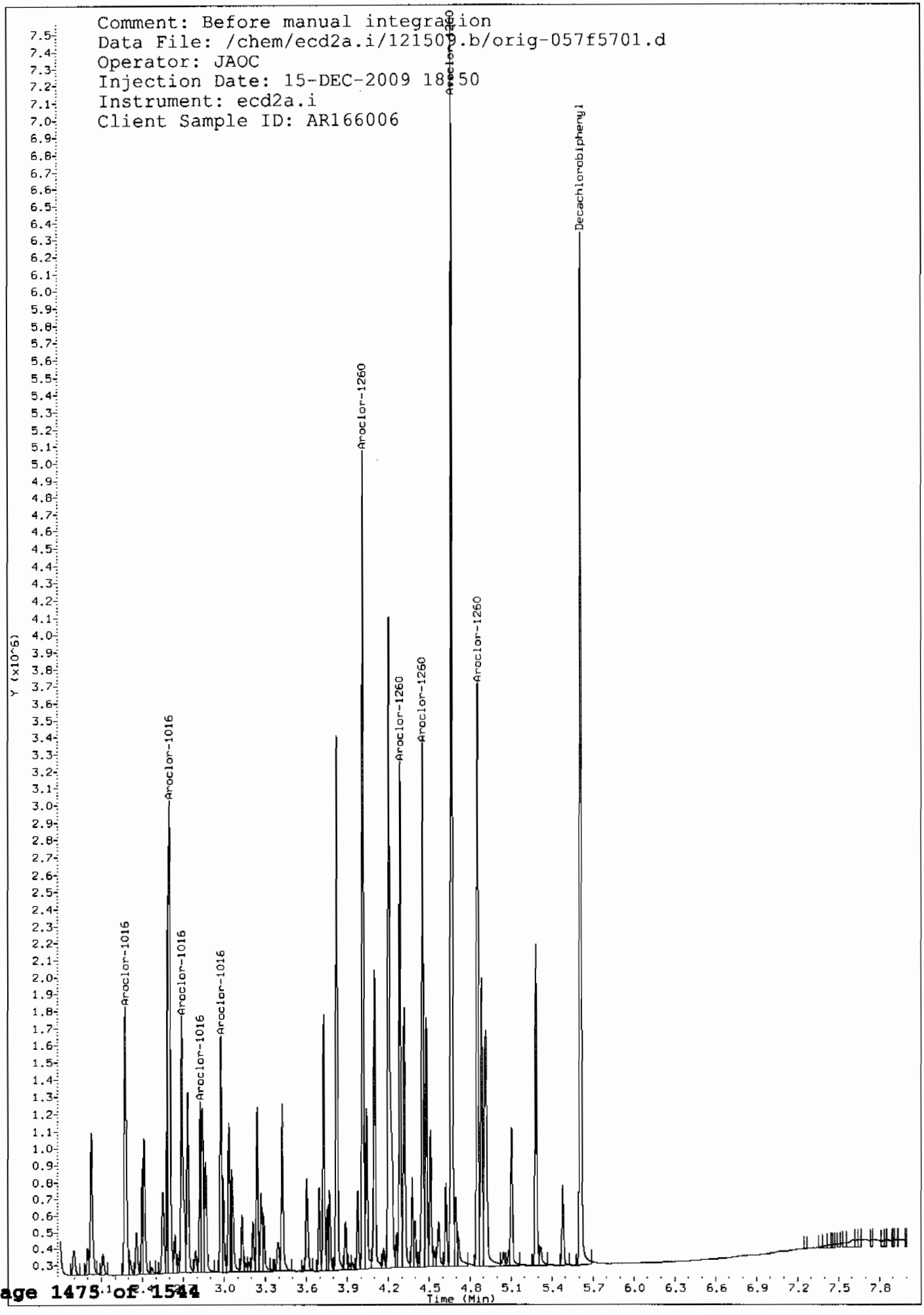
Comment: Before manual integration
Data File: /chem/ecd2a.i/121509.b/orig-057f5701.d
Operator: JAOC
Injection Date: 15-DEC-2009 18:50
Instrument: ecd2a.i
Client Sample ID: AR166006
Y (x10^6)
Time (Min)
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl

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RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/121509.b/057b5701.d
Lab Smp Id: WAR091211-60 06 Client Smp ID: AR166006
Inj Date : 15-DEC-2009 18:50
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |WAR091211-60 06
Misc Info : |PCB_CVS|1660||CVS|
Comment :
Method : /chem/ecd2a.i/121509.b/ECD2-B-8082-111209A.m
Meth Date : 16-Dec-2009 08:01 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012b1201.d
Als bottle: 57 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.071	2.070	0.001	12740274	100.000	98.5	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.303	6.303	0.000	10699367	100.000	94.9	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.747	2.748	-0.001	4076862	1000.00	898	80.00- 120.00	100.00
3.182	3.182	0.000	3206017	1000.00	890	60.46- 100.46	78.64
3.333	3.333	0.000	1845039	1000.00	899	26.38- 66.38	45.26
3.362	3.362	0.000	1919130	1000.00	898	28.08- 68.08	47.07
3.520	3.521	-0.001	2622079	1000.00	913	45.85- 85.85	64.32
Average of Peak Amounts =					900		
7 Aroclor-1260					CAS #: 11096-82-5		
4.417	4.416	0.001	5582991	1000.00	968	80.00- 120.00	100.00
4.568	4.568	0.000	7150125	1000.00	1000	107.52- 147.52	128.07
4.679	4.680	-0.001	4814684	1000.00	999	65.59- 105.59	86.24
4.877	4.876	0.001	5595462	1000.00	994	80.20- 120.20	100.22
5.503	5.503	0.000	9123277	1000.00	1010	143.21- 183.21	163.41
Average of Peak Amounts =					995		

Data File: /chem/ecd2a.i/121509.b/057b5701.d

Date : 15-DEC-2009 18:50

Client ID: AR166006

Sample Info: IWAR091211-60 06

Column phase: CLP2

Instrument: ecd2a.i

Operator: JAOC

Column diameter: 0.25

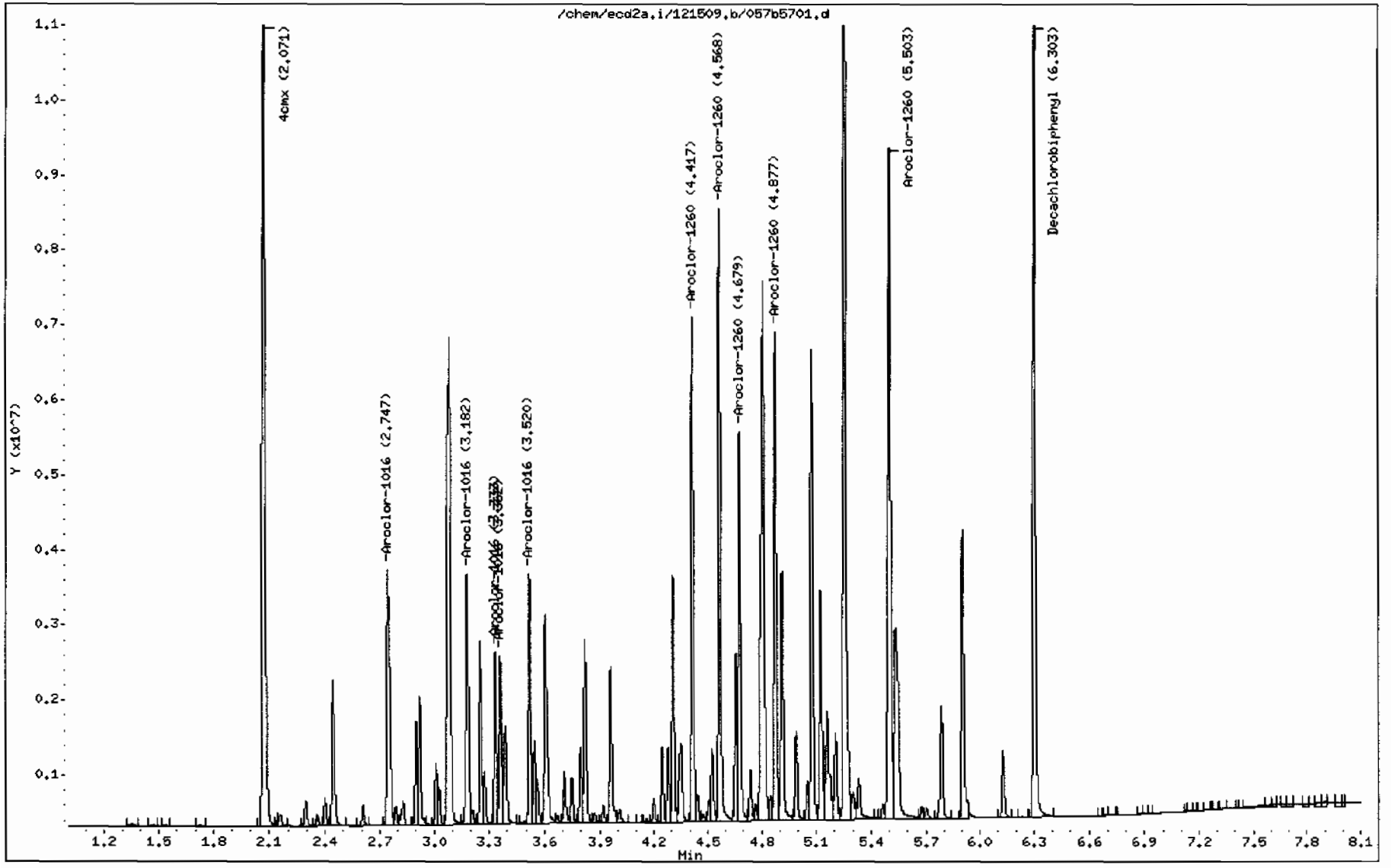

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RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/121509.b/063f6301.d
Lab Smp Id: WAR091211-60 07 Client Smp ID: AR166007
Inj Date : 15-DEC-2009 19:56
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |WAR091211-60 07
Misc Info : |PCB_CVS|1660||CVS|
Comment :
Method : /chem/ecd2a.i/121509.b/ECD2-F-8082-111209A.m
Meth Date : 16-Dec-2009 08:12 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012f1201.d
Als bottle: 63 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.774	1.774	0.000	6217751	100.000	99.8	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.612	5.611	0.001	5809161	100.000	107	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.276	2.276	0.000	2024301	1000.00	905	80.00- 120.00	100.00
2.600	2.599	0.001	4391251	1000.00	937	196.62- 236.62	216.93
2.691	2.690	0.001	1746699	1000.00	918	66.23- 106.23	86.29
2.826	2.825	0.001	914577	1000.00	937	23.39- 63.39	45.18
2.978	2.977	0.001	1349370	1000.00	926	45.27- 85.27	66.66
Average of Peak Amounts =					925		
7 Aroclor-1260					CAS #: 11096-82-5		
4.018	4.017	0.001	4300085	1000.00	1030	80.00- 120.00	100.00
4.291	4.288	0.003	2669144	1000.00	1030	41.92- 81.92	62.07
4.456	4.454	0.002	2748152	1000.00	1040	43.22- 83.22	63.91
4.669	4.667	0.002	6580683	1000.00	1080	133.43- 173.43	153.04
4.858	4.857	0.001	3179746	1000.00	1080	53.80- 93.80	73.95
Average of Peak Amounts =					1.05e+03		

Data File: /chem/ecd2a.i/121509.b/063f6301.d
Date : 15-DEC-2009 19:56
Client ID: AR166007
Sample Info: IWAR091211-60 07

Column phase: CLP1

Instrument: ecd2a.i

Operator: JAOC
Column diameter: 0.25

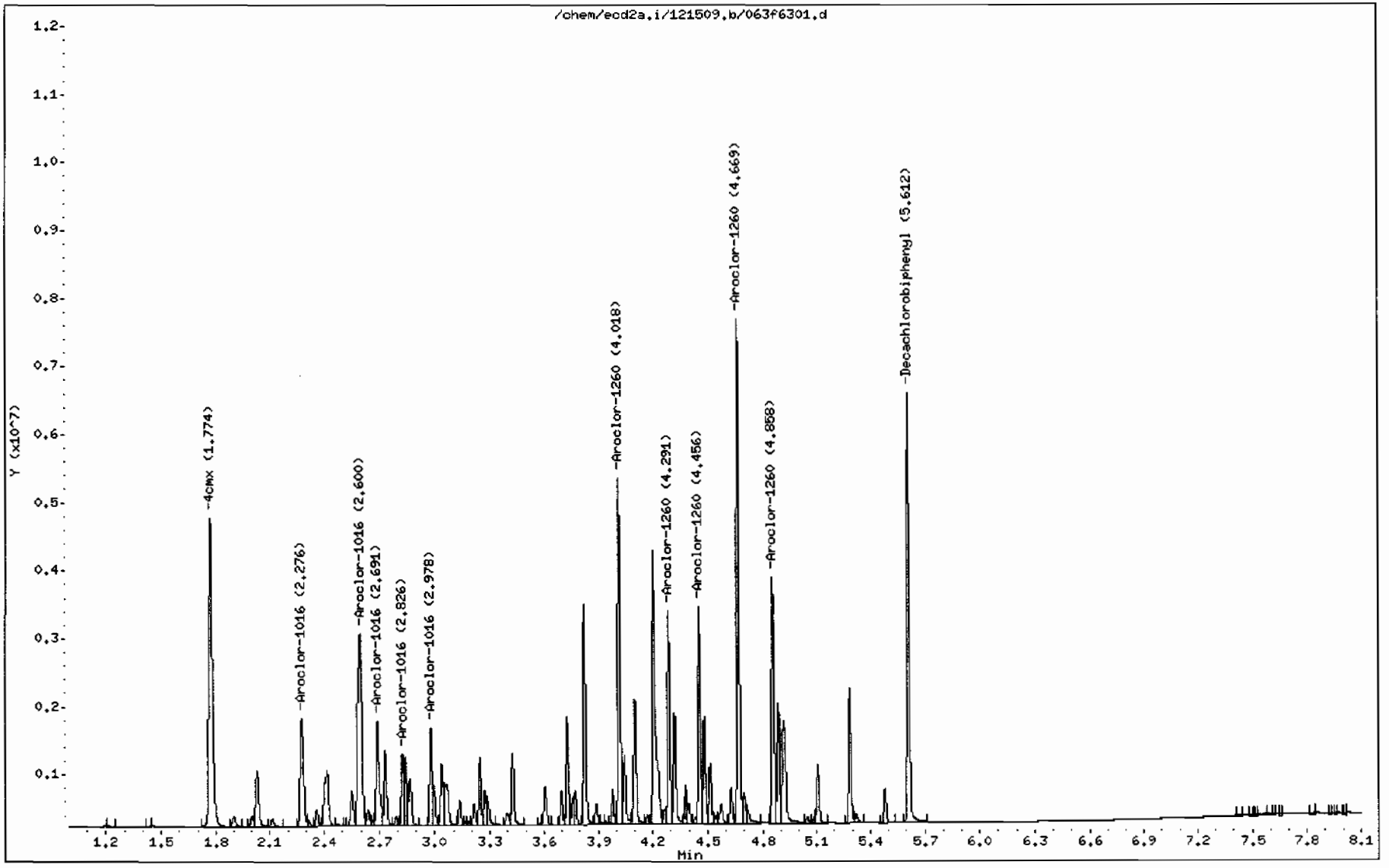

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/121509.b/063b6301.d
Lab Smp Id: WAR091211-60 07 Client Smp ID: AR166007
Inj Date : 15-DEC-2009 19:56
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |WAR091211-60 07
Misc Info : |PCB_CVS|1660||CVS|
Comment :
Method : /chem/ecd2a.i/121509.b/ECD2-B-8082-111209A.m
Meth Date : 16-Dec-2009 08:01 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012b1201.d
Als bottle: 63 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.072	2.070	0.002	13290172	100.000	103	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.304	6.303	0.001	11335614	100.000	100	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.748	2.748	0.000	4250899	1000.00	937	80.00- 120.00	100.00
3.183	3.182	0.001	3420273	1000.00	950	60.46- 100.46	80.46
3.334	3.333	0.001	1971521	1000.00	960	26.38- 66.38	46.38
3.363	3.362	0.001	2043936	1000.00	956	28.08- 68.08	48.08
3.521	3.521	0.000	2799007	1000.00	975	45.85- 85.85	65.85
Average of Peak Amounts =					956		
7 Aroclor-1260					CAS #: 11096-82-5		
4.418	4.416	0.002	5924862	1000.00	1030	80.00- 120.00	100.00
4.569	4.568	0.001	7555512	1000.00	1060	107.52- 147.52	127.52
4.681	4.680	0.001	5071184	1000.00	1050	65.59- 105.59	85.59
4.878	4.876	0.002	5936703	1000.00	1050	80.20- 120.20	100.20
5.503	5.503	0.000	9670053	1000.00	1070	143.21- 183.21	163.21
Average of Peak Amounts =					1.05e+03		

Data File: /chem/ecd2a.i/121509.b/063b6301.d
Date : 15-DEC-2009 19:56
Client ID: AR166007
Sample Info: IWAR091211-60 07

Column phase: CLP2

Instrument: ecd2a.i

Operator: JAOC
Column diameter: 0.25

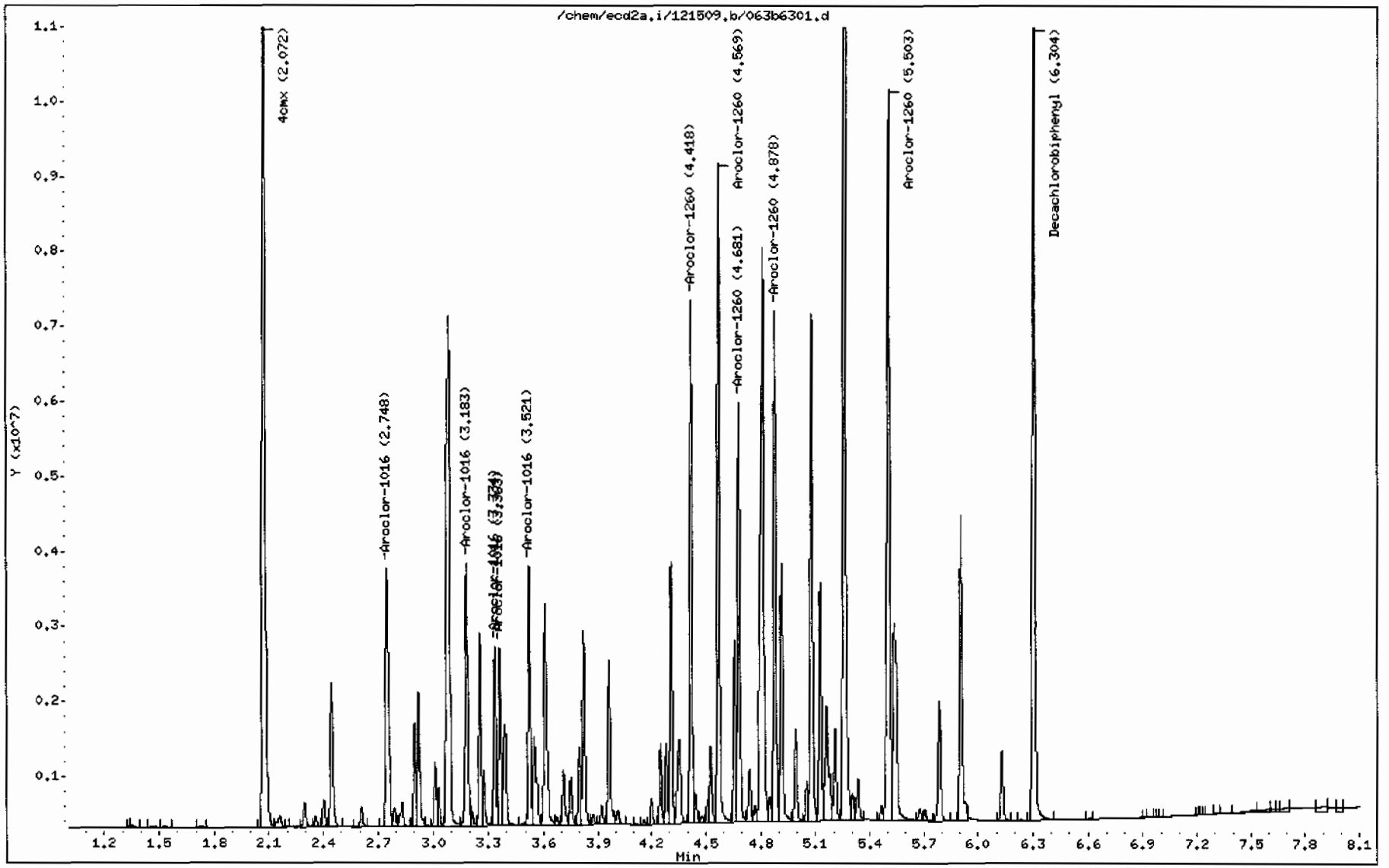

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-852

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 11/30/09 11/30/09

Instrument ID: ECD2A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 1.78 DCB: 5.61

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR090916-99	11/30/09	0821	1.78	5.62
02	ZZZZZ	ZZZZZ	11/30/09	0832	1.78	5.61
03	AR125401	WAR091130-05	11/30/09	0843	1.78	5.61
04	AR125402	WAR091130-06	11/30/09	0854	1.78	5.61
05	AR125403	WAR091130-07	11/30/09	0905	1.78	5.61
06	AR125404	WAR091130-08	11/30/09	0916	1.78	5.61
07	AR125405	IAR091027-01	11/30/09	0927	1.78	5.61
08	AR125401	WAR091102-54	11/30/09	0938	1.78	5.61
09	AR124201	WAR091102-42	11/30/09	0950	1.78	5.61
10	AR166001	WAR091119-60	11/30/09	1001	1.78	5.61
11	AR124801	WAR091130-13	11/30/09	1012	1.78	5.61
12	AR124802	WAR091130-14	11/30/09	1023	1.78	5.61
13	AR124803	WAR091130-15	11/30/09	1034	1.78	5.61
14	AR124804	WAR091130-16	11/30/09	1045	1.78	5.61
15	AR124805	IAR091027-02	11/30/09	1056	1.78	5.61
16	ZZZZZ	ZZZZZ	11/30/09	1107	1.78	5.61
17	AR123201	WAR090930-32	11/30/09	1118	1.78	5.61
18	AR124801	WAR091027-48	11/30/09	1129	1.78	5.61
19	AR122101	WAR091111-21	11/30/09	1140	1.78	5.61
20	AR126201	WAR091111-62	11/30/09	1151	1.78	5.61
21	AR126801	WAR091106-68	11/30/09	1202	1.78	5.61
22	DDTANALOGSTD	WAR091020-DD	11/30/09	1213		
23	PIBLK02	WAR090916-99	11/30/09	1225	1.78	5.61
24	ZZZZZ	ZZZZZ	11/30/09	1236	1.78	5.61
25	ZZZZZ	ZZZZZ	11/30/09	1247	1.78	5.61
26	ZZZZZ	ZZZZZ	11/30/09	1258	1.78	5.61
27	ZZZZZ	ZZZZZ	11/30/09	1309	1.78	5.61
28	ZZZZZ	ZZZZZ	11/30/09	1320	1.78	5.61
29	AR166002	WAR091119-60	11/30/09	1336	1.78	5.61
30	PIBLK03	WAR090916-99	11/30/09	1347	1.78	5.61
31	ZZZZZ	ZZZZZ	11/30/09	1358	1.78	5.61
32	ZZZZZ	ZZZZZ	11/30/09	1409	1.78	5.61

QC LIMITS
S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-852

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 11/30/09 11/30/09

Instrument ID: ECD2A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.08 DCB: 6.30

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR090916-99	11/30/09	0821	2.08	6.31
02	ZZZZZ	ZZZZZ	11/30/09	0832	2.08	6.31
03	AR125401	WAR091130-05	11/30/09	0843	2.08	6.31
04	AR125402	WAR091130-06	11/30/09	0854	2.08	6.31
05	AR125403	WAR091130-07	11/30/09	0905	2.08	6.31
06	AR125404	WAR091130-08	11/30/09	0916	2.08	6.31
07	AR125405	IAR091027-01	11/30/09	0927	2.08	6.31
08	AR125401	WAR091102-54	11/30/09	0938	2.08	6.30
09	AR124201	WAR091102-42	11/30/09	0950	2.08	6.31
10	AR166001	WAR091119-60	11/30/09	1001	2.08	6.30
11	AR124801	WAR091130-13	11/30/09	1012	2.08	6.30
12	AR124802	WAR091130-14	11/30/09	1023	2.08	6.31
13	AR124803	WAR091130-15	11/30/09	1034	2.08	6.31
14	AR124804	WAR091130-16	11/30/09	1045	2.08	6.31
15	AR124805	IAR091027-02	11/30/09	1056	2.08	6.31
16	ZZZZZ	ZZZZZ	11/30/09	1107	2.08	6.31
17	AR123201	WAR090930-32	11/30/09	1118	2.08	6.31
18	AR124801	WAR091027-48	11/30/09	1129	2.08	6.31
19	AR122101	WAR091111-21	11/30/09	1140	2.08	6.30
20	AR126201	WAR091111-62	11/30/09	1151	2.08	6.31
21	AR126801	WAR091106-68	11/30/09	1202	2.08	6.30
22	DDTANALOGSTD	WAR091020-DD	11/30/09	1213		
23	PIBLK02	WAR090916-99	11/30/09	1225	2.08	6.31
24	ZZZZZ	ZZZZZ	11/30/09	1236	2.07	6.30
25	ZZZZZ	ZZZZZ	11/30/09	1247	2.08	6.30
26	ZZZZZ	ZZZZZ	11/30/09	1258	2.08	6.30
27	ZZZZZ	ZZZZZ	11/30/09	1309	2.08	6.31
28	ZZZZZ	ZZZZZ	11/30/09	1320	2.08	6.30
29	AR166002	WAR091119-60	11/30/09	1336	2.07	6.30
30	PIBLK03	WAR090916-99	11/30/09	1347	2.08	6.30
31	ZZZZZ	ZZZZZ	11/30/09	1358	2.07	6.30
32	ZZZZZ	ZZZZZ	11/30/09	1409	2.08	6.30

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-852

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 12/14/09 12/14/09

Instrument ID: ECD2A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 1.77 DCB: 5.61

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR091130-99	12/14/09	0700	1.77	5.61
02	ZZZZZ	ZZZZZ	12/14/09	0711	1.77	5.61
03	AR125401	WAR091102-54	12/14/09	0722	1.77	5.61
04	AR124201	WAR091102-42	12/14/09	0733	1.77	5.61
05	AR124801	WAR091027-48	12/14/09	0744	1.77	5.61
06	AR123201	WAR090930-32	12/14/09	0755	1.77	5.61
07	AR122101	WAR091111-21	12/14/09	0807	1.77	5.61
08	ZZZZZ	ZZZZZ	12/14/09	0818	1.77	5.61
09	AR126201	WAR091111-62	12/14/09	0829	1.77	5.61
10	AR126801	WAR091106-68	12/14/09	0840	1.77	5.61
11	AR166001	WAR091214-01	12/14/09	0851	1.77	5.61
12	AR166002	WAR091214-02	12/14/09	0902	1.77	5.61
13	AR166003	WAR091214-03	12/14/09	0913	1.77	5.61
14	AR166004	WAR091214-04	12/14/09	0924	1.77	5.61
15	AR166005	IAR091102-01	12/14/09	0935	1.77	5.61
16	AR166001	WAR091211-60	12/14/09	0946	1.77	5.61
17	DDTANALOGSTD	WAR091020-DD	12/14/09	0958		
18	PIBLK02	WAR091130-99	12/14/09	1009	1.77	5.61
19	ZZZZZ	ZZZZZ	12/14/09	1020	1.77	5.61
20	ZZZZZ	ZZZZZ	12/14/09	1031	1.77	5.61
21	ZZZZZ	ZZZZZ	12/14/09	1042	1.77	
22	ZZZZZ	ZZZZZ	12/14/09	1053	1.76	
23	ZZZZZ	ZZZZZ	12/14/09	1104	1.76	
24	ZZZZZ	ZZZZZ	12/14/09	1115	1.77	5.61
25	ZZZZZ	ZZZZZ	12/14/09	1126	1.77	5.61
26	ZZZZZ	ZZZZZ	12/14/09	1137	1.76	
27	ZZZZZ	ZZZZZ	12/14/09	1148	1.77	5.61
28	ZZZZZ	ZZZZZ	12/14/09	1159	1.76	5.62
29	AR166002	WAR091211-60	12/14/09	1211	1.77	5.61
30	PIBLK03	WAR091130-99	12/14/09	1222	1.77	5.61
31	ZZZZZ	ZZZZZ	12/14/09	1233	1.77	5.61
32	ZZZZZ	ZZZZZ	12/14/09	1244	1.76	

QC LIMITS
S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-852

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 12/14/09 12/14/09

Instrument ID: ECD2A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.07 DCB: 6.30

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR091130-99	12/14/09	0700	2.07	6.31
02	ZZZZZ	ZZZZZ	12/14/09	0711	2.07	6.30
03	AR125401	WAR091102-54	12/14/09	0722	2.07	6.30
04	AR124201	WAR091102-42	12/14/09	0733	2.07	6.30
05	AR124801	WAR091027-48	12/14/09	0744	2.07	6.30
06	AR123201	WAR090930-32	12/14/09	0755	2.07	6.30
07	AR122101	WAR091111-21	12/14/09	0807	2.07	6.30
08	ZZZZZ	ZZZZZ	12/14/09	0818	2.07	6.30
09	AR166201	WAR091111-62	12/14/09	0829	2.07	6.30
10	AR126801	WAR091106-68	12/14/09	0840	2.07	6.30
11	AR166001	WAR091214-01	12/14/09	0851	2.07	6.30
12	AR166002	WAR091214-02	12/14/09	0902	2.07	6.30
13	AR166003	WAR091214-03	12/14/09	0913	2.07	6.30
14	AR166004	WAR091214-04	12/14/09	0924	2.07	6.30
15	AR166005	IAR091102-01	12/14/09	0935	2.07	6.30
16	AR166001	WAR091211-60	12/14/09	0946	2.07	6.30
17	DDTANALOGSTD	WAR091020-DD	12/14/09	0958		
18	PIBLK02	WAR091130-99	12/14/09	1009	2.07	6.30
19	ZZZZZ	ZZZZZ	12/14/09	1020	2.07	6.30
20	ZZZZZ	ZZZZZ	12/14/09	1031	2.07	6.30
21	ZZZZZ	ZZZZZ	12/14/09	1042	2.07	
22	ZZZZZ	ZZZZZ	12/14/09	1053	2.07	
23	ZZZZZ	ZZZZZ	12/14/09	1104	2.06	
24	ZZZZZ	ZZZZZ	12/14/09	1115	2.07	6.30
25	ZZZZZ	ZZZZZ	12/14/09	1126	2.07	6.31
26	ZZZZZ	ZZZZZ	12/14/09	1137	2.07	
27	ZZZZZ	ZZZZZ	12/14/09	1148	2.07	6.30
28	ZZZZZ	ZZZZZ	12/14/09	1159	2.06	6.30
29	AR166002	WAR091211-60	12/14/09	1211	2.07	6.30
30	PIBLK03	WAR091130-99	12/14/09	1222	2.07	6.30
31	ZZZZZ	ZZZZZ	12/14/09	1233	2.07	6.31
32	ZZZZZ	ZZZZZ	12/14/09	1244	2.07	

QC LIMITS
S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-852

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 11/30/09 12/14/09

Instrument ID: ECD2A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 1.77 DCB: 5.61

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR091130-99	12/15/09	0805	1.77	5.61
02	AR166001	WAR091211-60	12/15/09	0816	1.77	5.61
03	AR125401	WAR091102-54	12/15/09	0827	1.77	5.61
04	AR124201	WAR091102-42	12/15/09	0839	1.77	5.61
05	AR124801	WAR091027-48	12/15/09	0850	1.77	5.61
06	AR123201	WAR090930-32	12/15/09	0901	1.78	5.61
07	AR122101	WAR091111-21	12/15/09	0912	1.77	5.61
08	AR126201	WAR091111-62	12/15/09	0923	1.77	5.61
09	AR126801	WAR091106-68	12/15/09	0934	1.77	5.61
10	DDTANALOGSTD	WAR091020-DD	12/15/09	0945		
11	PIBLK02	WAR091130-99	12/15/09	0956	1.77	5.61
12	ZZZZZ	ZZZZZ	12/15/09	1007	1.77	5.61
13	ZZZZZ	ZZZZZ	12/15/09	1018	1.77	5.61
14	ZZZZZ	ZZZZZ	12/15/09	1029	1.77	5.61
15	ZZZZZ	ZZZZZ	12/15/09	1041	1.77	5.61
16	ZZZZZ	ZZZZZ	12/15/09	1052	1.77	5.61
17	ZZZZZ	ZZZZZ	12/15/09	1103	1.77	5.61
18	ZZZZZ	ZZZZZ	12/15/09	1114	1.77	5.61
19	ZZZZZ	ZZZZZ	12/15/09	1125	1.77	5.61
20	ZZZZZ	ZZZZZ	12/15/09	1136	1.77	5.61
21	AR166002	WAR091211-60	12/15/09	1152	1.77	5.61
22	PIBLK03	WAR091130-99	12/15/09	1205	1.77	5.61
23	ZZZZZ	ZZZZZ	12/15/09	1216	1.77	5.61
24	ZZZZZ	ZZZZZ	12/15/09	1227	1.77	5.61
25	ZZZZZ	ZZZZZ	12/15/09	1238	1.77	5.61
26	AR166003	WAR091211-60	12/15/09	1254	1.77	5.61
27	PIBLK04	WAR091130-99	12/15/09	1305	1.77	5.61
28	ZZZZZ	ZZZZZ	12/15/09	1316	1.78	5.61
29	ZZZZZ	ZZZZZ	12/15/09	1327	1.77	5.61
30	ZZZZZ	ZZZZZ	12/15/09	1338	1.78	5.61
31	ZZZZZ	ZZZZZ	12/15/09	1349	1.78	5.61
32	ZZZZZ	ZZZZZ	12/15/09	1400	1.78	5.61

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-852

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 11/30/09 12/14/09

Instrument ID: ECD2A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 1.77 DCB: 5.61

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	AR166004	WAR091211-60	12/15/09	1413	1.77	5.61
02	PIBLK05	WAR091130-99	12/15/09	1430	1.77	5.62
03	PBLK01	1201995318	12/15/09	1442	1.77	5.61
04	PBLK01LCS	1201995319	12/15/09	1453	1.77	5.61
05	RE03-09-14224	242654001	12/15/09	1504	1.77	5.61
06	RE03-09-14224MS	1201995320	12/15/09	1515	1.77	5.61
07	RE03-09-14224MSD	1201995321	12/15/09	1526	1.77	5.61
08	RE03-09-14227	242654002	12/15/09	1537	1.77	5.61
09	RE03-09-14225	242654003	12/15/09	1548	1.77	5.61
10	RE03-09-14226	242654004	12/15/09	1559	1.77	5.61
11	RE03-09-14288	242654005	12/15/09	1610	1.77	5.61
12	RE03-09-14287	242654006	12/15/09	1621	1.77	5.61
13	AR166006	WAR091211-60	12/15/09	1632	1.77	5.61
14	PIBLK06	WAR091130-99	12/15/09	1643	1.77	5.61
15	RE03-09-14267	242654007	12/15/09	1654	1.77	5.61
16	RE03-09-14265	242654008	12/15/09	1705	1.77	5.61
17	RE03-09-14281	242654009	12/15/09	1716	1.77	5.61
18	RE03-09-14284	242654010	12/15/09	1728	1.77	5.61
19	RE03-09-14274	242654011	12/15/09	1739	1.77	5.61
20	RE03-09-14277	242654012	12/15/09	1750	1.77	5.61
21	RE03-09-14282	242654013	12/15/09	1801	1.78	5.61
22	RE03-09-14269	242654014	12/15/09	1812	1.77	5.61
23	RE03-09-14273	242654015	12/15/09	1823	1.77	5.61
24	RE03-09-14271	242654016	12/15/09	1834	1.77	5.61
25	AR166006	WAR091211-60	12/15/09	1850	1.77	5.61
26	PIBLK07	WAR091130-99	12/15/09	1901	1.77	5.61
27	RE03-09-14278	242654017	12/15/09	1912	1.77	5.61
28	RE03-09-14285	242654018	12/15/09	1923	1.78	5.61
29	RE03-09-14286	242654019	12/15/09	1934	1.78	5.61
30	RE03-09-14283	242654020	12/15/09	1945	1.77	5.61
31	AR166007	WAR091211-60	12/15/09	1956	1.77	5.61
32	PIBLK08	WAR091130-99	12/15/09	2007	1.78	5.61

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-852

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 11/30/09 12/14/09

Instrument ID: ECD2A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.07 DCB: 6.30

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR091130-99	12/15/09	0805	2.07	6.30
02	AR166001	WAR091211-60	12/15/09	0816	2.07	6.30
03	AR125401	WAR091102-54	12/15/09	0827	2.07	6.30
04	AR124201	WAR091102-42	12/15/09	0839	2.07	6.30
05	AR124801	WAR091027-48	12/15/09	0850	2.07	6.30
06	AR123201	WAR090930-32	12/15/09	0901	2.07	6.30
07	AR122101	WAR091111-21	12/15/09	0912	2.07	6.30
08	AR126201	WAR091111-62	12/15/09	0923	2.07	6.30
09	AR126801	WAR091106-68	12/15/09	0934	2.07	6.30
10	DDTANALOGSTD	WAR091020-DD	12/15/09	0945		
11	PIBLK02	WAR091130-99	12/15/09	0956	2.07	6.30
12	ZZZZZ	ZZZZZ	12/15/09	1007	2.07	6.30
13	ZZZZZ	ZZZZZ	12/15/09	1018	2.07	6.30
14	ZZZZZ	ZZZZZ	12/15/09	1029	2.07	6.30
15	ZZZZZ	ZZZZZ	12/15/09	1041	2.07	6.30
16	ZZZZZ	ZZZZZ	12/15/09	1052	2.07	6.30
17	ZZZZZ	ZZZZZ	12/15/09	1103	2.07	6.30
18	ZZZZZ	ZZZZZ	12/15/09	1114	2.07	6.30
19	ZZZZZ	ZZZZZ	12/15/09	1125	2.07	6.30
20	ZZZZZ	ZZZZZ	12/15/09	1136	2.07	6.30
21	AR166002	WAR091211-60	12/15/09	1152	2.07	6.30
22	PIBLK03	WAR091130-99	12/15/09	1205	2.07	6.30
23	ZZZZZ	ZZZZZ	12/15/09	1216	2.07	6.30
24	ZZZZZ	ZZZZZ	12/15/09	1227	2.07	6.30
25	ZZZZZ	ZZZZZ	12/15/09	1238	2.07	6.30
26	AR166003	WAR091211-60	12/15/09	1254	2.07	6.30
27	PIBLK04	WAR091130-99	12/15/09	1305	2.07	6.30
28	ZZZZZ	ZZZZZ	12/15/09	1316	2.07	6.30
29	ZZZZZ	ZZZZZ	12/15/09	1327	2.07	6.30
30	ZZZZZ	ZZZZZ	12/15/09	1338	2.07	6.30
31	ZZZZZ	ZZZZZ	12/15/09	1349	2.07	6.30
32	ZZZZZ	ZZZZZ	12/15/09	1400	2.07	6.30

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-852

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 11/30/09 12/14/09

Instrument ID: ECD2A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.07 DCB: 6.30

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	AR166004	WAR091211-60	12/15/09	1413	2.07	6.31
02	PIBLK05	WAR091130-99	12/15/09	1430	2.07	6.31
03	PBLK01	1201995318	12/15/09	1442	2.07	6.30
04	PBLK01LCS	1201995319	12/15/09	1453	2.07	6.30
05	RE03-09-14224	242654001	12/15/09	1504	2.07	6.30
06	RE03-09-14224MS	1201995320	12/15/09	1515	2.07	6.30
07	RE03-09-14224MSD	1201995321	12/15/09	1526	2.07	6.30
08	RE03-09-14227	242654002	12/15/09	1537	2.07	6.30
09	RE03-09-14225	242654003	12/15/09	1548	2.07	6.30
10	RE03-09-14226	242654004	12/15/09	1559	2.07	6.30
11	RE03-09-14288	242654005	12/15/09	1610	2.07	6.30
12	RE03-09-14287	242654006	12/15/09	1621	2.07	6.30
13	AR166005	WAR091211-60	12/15/09	1632	2.07	6.30
14	PIBLK06	WAR091130-99	12/15/09	1643	2.07	6.30
15	RE03-09-14267	242654007	12/15/09	1654	2.07	6.30
16	RE03-09-14265	242654008	12/15/09	1705	2.07	6.30
17	RE03-09-14281	242654009	12/15/09	1716	2.07	6.30
18	RE03-09-14284	242654010	12/15/09	1728	2.07	6.30
19	RE03-09-14274	242654011	12/15/09	1739	2.07	6.30
20	RE03-09-14277	242654012	12/15/09	1750	2.07	6.30
21	RE03-09-14282	242654013	12/15/09	1801	2.07	6.30
22	RE03-09-14269	242654014	12/15/09	1812	2.07	6.31
23	RE03-09-14273	242654015	12/15/09	1823	2.07	6.30
24	RE03-09-14271	242654016	12/15/09	1834	2.07	6.30
25	AR166006	WAR091211-60	12/15/09	1850	2.07	6.30
26	PIBLK07	WAR091130-99	12/15/09	1901	2.07	6.30
27	RE03-09-14278	242654017	12/15/09	1912	2.07	6.30
28	RE03-09-14285	242654018	12/15/09	1923	2.07	6.30
29	RE03-09-14286	242654019	12/15/09	1934	2.07	6.30
30	RE03-09-14283	242654020	12/15/09	1945	2.07	6.30
31	AR166007	WAR091211-60	12/15/09	1956	2.07	6.30
32	PIBLK08	WAR091130-99	12/15/09	2007	2.07	6.30

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

Identification Summary

SDG Number: 10–852

Client ID: LCS for batch 932744

Lab Sample ID: 1201995319

Data File:	036f3601.d	**Data File:**	036b3601.d
Inst:	ECD2A.I_1	**Inst:**	ECD2A.I_2
Column:	CLP1	**Column:**	CLP2
Analyzed:	15–DEC–09 14:53	**Analyzed:**	15–DEC–09 14:53

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor–1016							1.83
Column 1	1	2.28	2.25 – 2.31	21.5		ug/kg	
	2	2.6	2.57 – 2.63	21.7		ug/kg	
	3	2.69	2.66 – 2.72	21.4		ug/kg	
	4	2.83	2.8 – 2.86	20.9		ug/kg	
	5	2.98	2.95 – 3.01	21.5		ug/kg	
					21.4		
Column 2	1	2.75	2.72 – 2.78	21.7		ug/kg	
	2	3.18	3.15 – 3.21	21.6		ug/kg	
	3	3.33	3.3 – 3.36	22		ug/kg	
	4	3.36	3.33 – 3.39	21.7		ug/kg	
	5	3.52	3.49 – 3.55	22		ug/kg	
					21.8		
Aroclor–1260							.595
Column 1	1	4.02	3.99 – 4.05	24.9		ug/kg	
	2	4.29	4.26 – 4.32	25		ug/kg	
	3	4.46	4.42 – 4.48	25.5		ug/kg	
	4	4.67	4.64 – 4.7	26.8		ug/kg	
	5	4.86	4.83 – 4.89	27.2		ug/kg	
					25.9		
Column 2	1	4.42	4.39 – 4.45	24.5		ug/kg	
	2	4.57	4.54 – 4.6	25.5		ug/kg	
	3	4.68	4.65 – 4.71	25.4		ug/kg	
	4	4.88	4.85 – 4.91	25.5		ug/kg	
	5	5.5	5.47 – 5.53	27.7		ug/kg	
					25.7		

Identification Summary

SDG Number: 10–852 **Client ID:** RE03–09–14224

Lab Sample ID: 242654001

Data File:	037f3701.d	**Data File:**	037b3701.d
Inst:	ECD2A.I_1	**Inst:**	ECD2A.I_2
Column:	CLP1	**Column:**	CLP2
Analyzed:	15–DEC–09 15:04	**Analyzed:**	15–DEC–09 15:04

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor–1260							28.7
Column 1	1	4.02	3.99 – 4.05	3		ug/kg	
	2	4.29	4.26 – 4.32	2.21		ug/kg	
	3	4.46	4.42 – 4.48	6.19		ug/kg	
	4	4.67	4.64 – 4.7	1.96		ug/kg	
	5	4.86	4.83 – 4.89	2.94		ug/kg	
					3.26		
Column 2	1	4.42	4.39 – 4.45	1.72		ug/kg	
	2	4.57	4.54 – 4.6	2.45		ug/kg	
	3	4.68	4.65 – 4.71	3.85		ug/kg	
	4	4.88	4.85 – 4.91	1.93		ug/kg	
	5	5.5	5.47 – 5.53	2.26		ug/kg	
					2.44		

Identification Summary

SDG Number: 10-852 **Client ID:** RE03-09-14224MS

Lab Sample ID: 1201995320

Data File:	038f3801.d	**Data File:**	038b3801.d
Inst:	ECD2A.I_1	**Inst:**	ECD2A.I_2
Column:	CLP1	**Column:**	CLP2
Analyzed:	15-DEC-09 15:15	**Analyzed:**	15-DEC-09 15:15

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor-1016							3.45
Column 1	1	2.28	2.25 - 2.31	25.4		ug/kg	
	2	2.6	2.57 - 2.63	26.3		ug/kg	
	3	2.69	2.66 - 2.72	25.1		ug/kg	
	4	2.83	2.8 - 2.86	26.7		ug/kg	
	5	2.98	2.95 - 3.01	32.2		ug/kg	
					27.2		
Column 2	1	2.75	2.72 - 2.78	25.6		ug/kg	
	2	3.18	3.15 - 3.21	25.4		ug/kg	
	3	3.33	3.3 - 3.36	26.7		ug/kg	
	4	3.36	3.33 - 3.39	25.8		ug/kg	
	5	3.52	3.49 - 3.55	27.6		ug/kg	
					26.2		
Aroclor-1260							.303
Column 1	1	4.02	3.99 - 4.05	29.4		ug/kg	
	2	4.29	4.26 - 4.32	30.1		ug/kg	
	3	4.45	4.42 - 4.48	32.1		ug/kg	
	4	4.67	4.64 - 4.7	30.5		ug/kg	
	5	4.86	4.83 - 4.89	33.9		ug/kg	
					31.2		
Column 2	1	4.42	4.39 - 4.45	28.3		ug/kg	
	2	4.57	4.54 - 4.6	30.9		ug/kg	
	3	4.68	4.65 - 4.71	32.5		ug/kg	
	4	4.88	4.85 - 4.91	31		ug/kg	
	5	5.5	5.47 - 5.53	33.9		ug/kg	
					31.3		

Identification Summary

SDG Number: 10-852 **Client ID:** RE03-09-14224MSD

Lab Sample ID: 1201995321

Data File:	039f3901.d	**Data File:**	039b3901.d
Inst:	ECD2A.I_1	**Inst:**	ECD2A.I_2
Column:	CLP1	**Column:**	CLP2
Analyzed:	15-DEC-09 15:26	**Analyzed:**	15-DEC-09 15:26

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor-1016							5.24
Column 1	1	2.28	2.25 - 2.31	23.9		ug/kg	
	2	2.6	2.57 - 2.63	25		ug/kg	
	3	2.69	2.66 - 2.72	24.1		ug/kg	
	4	2.83	2.8 - 2.86	25.9		ug/kg	
	5	2.98	2.95 - 3.01	32.6		ug/kg	
					26.3		
Column 2	1	2.75	2.72 - 2.78	24.7		ug/kg	
	2	3.18	3.15 - 3.21	24.4		ug/kg	
	3	3.33	3.3 - 3.36	25.4		ug/kg	
	4	3.36	3.33 - 3.39	24.5		ug/kg	
	5	3.52	3.49 - 3.55	25.9		ug/kg	
					25		
Aroclor-1260							2.79
Column 1	1	4.02	3.99 - 4.05	28.2		ug/kg	
	2	4.29	4.26 - 4.32	29.7		ug/kg	
	3	4.45	4.42 - 4.48	32.6		ug/kg	
	4	4.67	4.64 - 4.7	30.8		ug/kg	
	5	4.86	4.83 - 4.89	33.9		ug/kg	
					31		
Column 2	1	4.42	4.39 - 4.45	27.5		ug/kg	
	2	4.57	4.54 - 4.6	28.9		ug/kg	
	3	4.68	4.65 - 4.71	30.7		ug/kg	
	4	4.88	4.85 - 4.91	30.1		ug/kg	
	5	5.5	5.47 - 5.53	33.7		ug/kg	
					30.2		

Identification Summary

SDG Number: 10–852

Client ID: RE03–09–14273

Lab Sample ID: 242654015

Data File: 055f5501.d
Inst: ECD2A.I_1
Column: CLP1
Analyzed: 15–DEC–09 18:23

Data File: 055b5501.d
Inst: ECD2A.I_2
Column: CLP2
Analyzed: 15–DEC–09 18:23

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor–1260							36.8
Column 1	1	4.02	3.99 – 4.05	3.38		ug/kg	
	2	4.29	4.26 – 4.32	2.73		ug/kg	
	3	4.46	4.42 – 4.48	6.49		ug/kg	
	4	4.67	4.64 – 4.7	2.68		ug/kg	
	5	4.86	4.83 – 4.89	3.7		ug/kg	
					3.8		
Column 2	1	4.42	4.39 – 4.45	2.3		ug/kg	
	2	4.57	4.54 – 4.6	2.45		ug/kg	
	3	4.68	4.65 – 4.71	3.37		ug/kg	
	4	4.88	4.85 – 4.91	2.2		ug/kg	
	5	5.5	5.47 – 5.53	2.75		ug/kg	
					2.62		

Identification Summary

SDG Number: 10-852

Client ID: RE03-09-14287

Lab Sample ID: 242654006

Data File:	044f4401.d	**Data File:**	044b4401.d
Inst:	ECD2A.I_1	**Inst:**	ECD2A.I_2
Column:	CLP1	**Column:**	CLP2
Analyzed:	15-DEC-09 16:21	**Analyzed:**	15-DEC-09 16:21

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor-1254							46.6
Column 1	1	3.24	3.21 - 3.27	1.37		ug/kg	
	2	3.43	3.4 - 3.46	2.74		ug/kg	
	3	3.69	3.67 - 3.73	1.33		ug/kg	
	4	3.89	3.86 - 3.92	1.44		ug/kg	
	5	4.01	3.99 - 4.05	3.38		ug/kg	
					2.05		
Column 2	1	3.82	3.79 - 3.85	1.19		ug/kg	
	2	3.95	3.93 - 3.99	6.6		ug/kg	
	3	4.19	4.17 - 4.23	5.2		ug/kg	
	4	4.28	4.25 - 4.31	1.28		ug/kg	
	5	4.44	4.41 - 4.47	2.22		ug/kg	
					3.3		
Aroclor-1260							16
Column 1	1	4.01	3.99 - 4.05	2.24		ug/kg	
	2	4.29	4.26 - 4.32	1.65		ug/kg	
	3	4.46	4.42 - 4.48	7.19		ug/kg	
	4	4.67	4.64 - 4.7	1.22		ug/kg	
	5	4.85	4.83 - 4.89	2.1		ug/kg	
					2.88		
Column 2	1	4.42	4.39 - 4.45	2.28		ug/kg	
	2	4.57	4.54 - 4.6	2.15		ug/kg	
	3	4.68	4.65 - 4.71	2.83		ug/kg	
	4	4.88	4.85 - 4.91	2.45		ug/kg	
	5	5.5	5.47 - 5.53	2.56		ug/kg	
					2.45		

QUALITY CONTROL DATA

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10-852**			**Matrix:**	**SOIL**
Lab Sample ID:	**1201995318**				
Client Sample:	**QC for batch 932744**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 932744**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**932746**	**Inst:**	**ECD2A.I**	**Dilution:**	**1**
Run Date:	**12/15/2009 14:42**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**12/14/2009 22:59**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**035f3501.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	035b3501.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.33	ug/kg	1.11	3.33	1
11104-28-2	Aroclor-1221	U	3.33	ug/kg	1.11	3.33	1
11141-16-5	Aroclor-1232	U	3.33	ug/kg	1.11	3.33	1
53469-21-9	Aroclor-1242	U	3.33	ug/kg	1.11	3.33	1
12672-29-6	Aroclor-1248	U	3.33	ug/kg	1.11	3.33	1
11097-69-1	Aroclor-1254	U	3.33	ug/kg	1.11	3.33	1
11096-82-5	Aroclor-1260	U	3.33	ug/kg	1.11	3.33	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/121509.b/035f3501.d
Lab Smp Id: 1201995318 Client Smp ID: PBLK01
Inj Date : 15-DEC-2009 14:42
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |1201995318|1|
Misc Info : |ECD82P_1S|932746|SVAF|QC A|SOIL|MB|||
Comment :
Method : /chem/ecd2a.i/121509.b/ECD2-F-8082-111209A.m
Meth Date : 15-Dec-2009 14:28 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012f1201.d
Als bottle: 35 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-852.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.771	1.774	-0.003	8282266	132.959	4.4	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.612	5.611	0.001	8260512	152.657	5.1	80.00- 120.00	100.00

Data File: /chem/ecd2a.i/121509.b/035f3501.d

Date : 15-DEC-2009 14:42

Client ID: PBLK01

Sample Info: |1201995318|1|

Volume Injected (uL): 1.0

Column phase: CLP1

Instrument: ecd2a.i

Operator: JAOC

Column diameter: 0.25

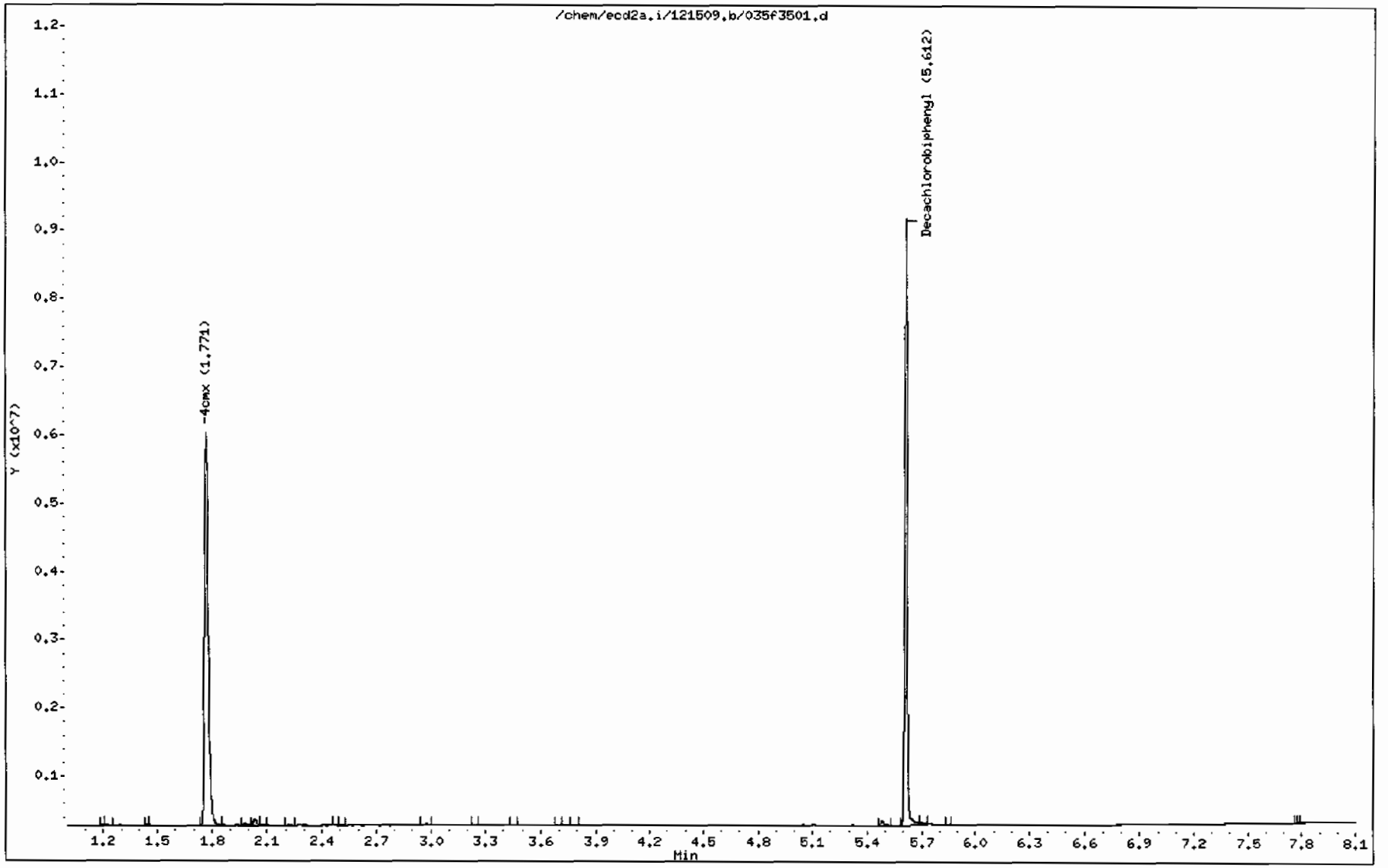

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/121509.b/035b3501.d
Lab Smp Id: 1201995318 Client Smp ID: PBLK01
Inj Date : 15-DEC-2009 14:42
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |1201995318|1|
Misc Info : |ECD82P_1S|932746|SVAF|QC A|SOIL|MB|||
Comment :
Method : /chem/ecd2a.i/121509.b/ECD2-B-8082-111209A.m
Meth Date : 15-Dec-2009 14:28 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012b1201.d
Als bottle: 35 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-852.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.069	2.070	-0.001	17905548	138.461	4.6	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.303	6.303	0.000	17332003	153.676	5.1	80.00- 120.00	100.00

Data File: /chem/ecd2a.i/121509.b/035b3501.d
Date : 15-DEC-2009 14:42
Client ID: PBLK01
Sample Info: 1120199531811
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd2a.i
Operator: JAOC
Column diameter: 0.25

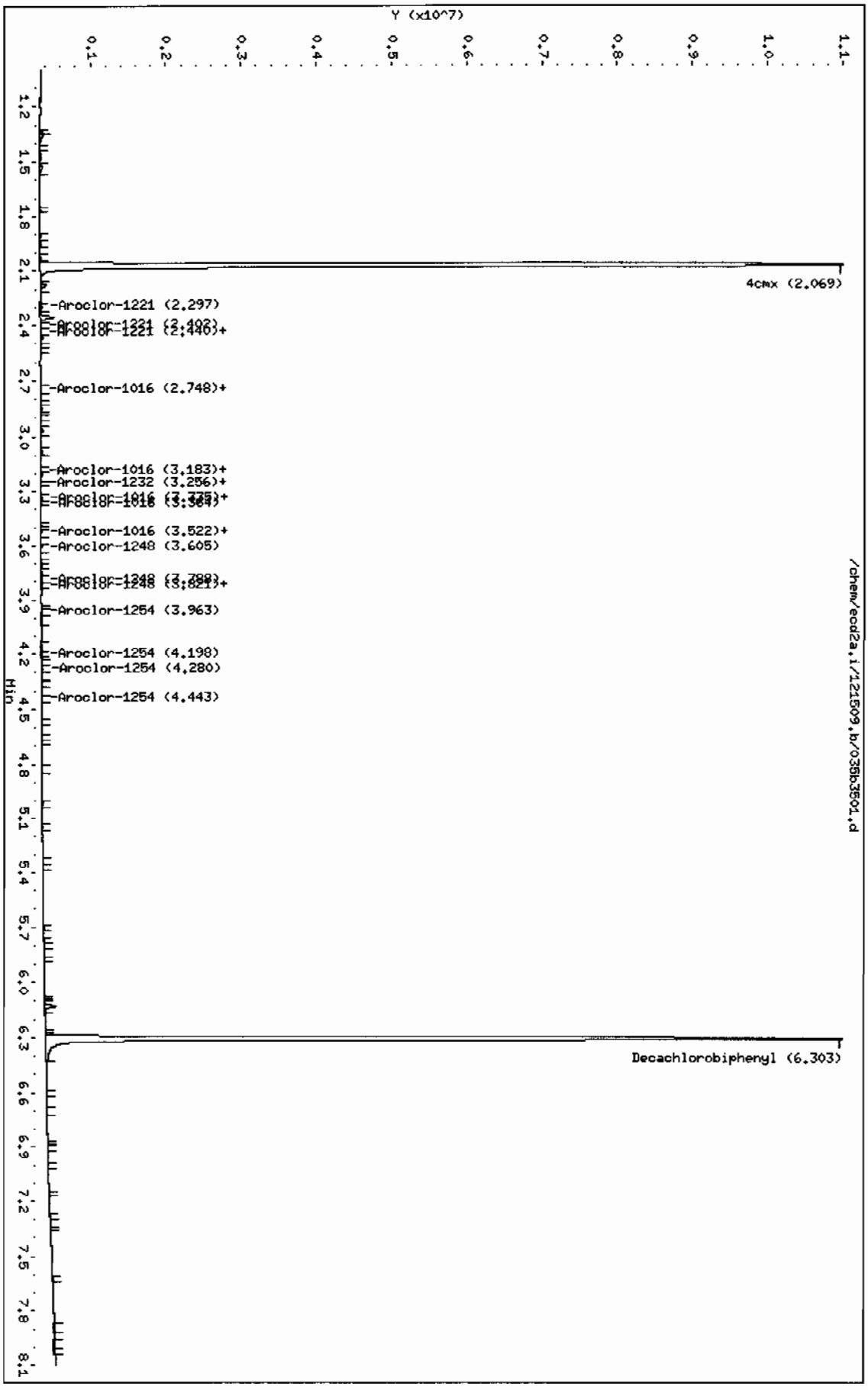

Page 1

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–852**			**Matrix:**	**SOIL**
Lab Sample ID:	**1201995319**				
Client Sample:	**QC for batch 932744**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 932744**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**932746**	**Inst:**	**ECD2A.I**	**Dilution:**	**1**
Run Date:	**12/15/2009 14:53**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**12/14/2009 22:59**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**036f3601.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	036b3601.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016		21.8	ug/kg	1.11	3.33	2
11104–28–2	Aroclor–1221	U	3.33	ug/kg	1.11	3.33	1
11141–16–5	Aroclor–1232	U	3.33	ug/kg	1.11	3.33	1
53469–21–9	Aroclor–1242	U	3.33	ug/kg	1.11	3.33	1
12672–29–6	Aroclor–1248	U	3.33	ug/kg	1.11	3.33	1
11097–69–1	Aroclor–1254	U	3.33	ug/kg	1.11	3.33	1
11096–82–5	Aroclor–1260		25.9	ug/kg	1.11	3.33	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/121509.b/036f3601.d
Lab Smp Id: 1201995319 Client Smp ID: PBLK01LCS
Inj Date : 15-DEC-2009 14:53
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |1201995319|1|
Misc Info : |ECD82P_1S|932746|SVAF|QC A|SOIL|LCS|||
Comment :
Method : /chem/ecd2a.i/121509.b/ECD2-F-8082-111209A.m
Meth Date : 16-Dec-2009 08:12 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012f1201.d
Als bottle: 36 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-852.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.773	1.774	-0.001	8158479	130.972	4.4	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.611	5.611	0.000	8301073	153.407	5.1	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.276	2.276	0.000	1441067	643.997	21.5	80.00- 120.00	100.00
2.599	2.599	0.000	3046286	650.184	21.7	196.62- 236.62	211.39
2.690	2.690	0.000	1219462	641.322	21.4	66.23- 106.23	84.62
2.826	2.825	0.001	613081	628.171	20.9	23.39- 63.39	42.54
2.977	2.977	0.000	942309	646.362	21.5	45.27- 85.27	65.39

Average of Peak Concentrations = 21.4

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
7 Aroclor-1260					CAS #: 11096-82-5		
4.018	4.017	0.001	3111013	746.925	24.9	80.00- 120.00	100.00
4.290	4.288	0.002	1943867	750.362	25.0	41.92- 81.92	62.48
4.456	4.454	0.002	2016402	766.342	25.5	43.22- 83.22	64.81
4.667	4.667	0.000	4894572	804.024	26.8	133.43- 173.43	157.33
4.856	4.857	-0.001	2398453	815.204	27.2	53.80- 93.80	77.10
			Average of Peak Concentrations =		25.9		

Data File: /chem/ecd2a.i/121509.b/036f3601.d
Date : 15-DEC-2009 14:53
Client ID: PBLK01LCS
Sample Info: i120199531911
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecd2a.i
Operator: JAOC
Column diameter: 0.25

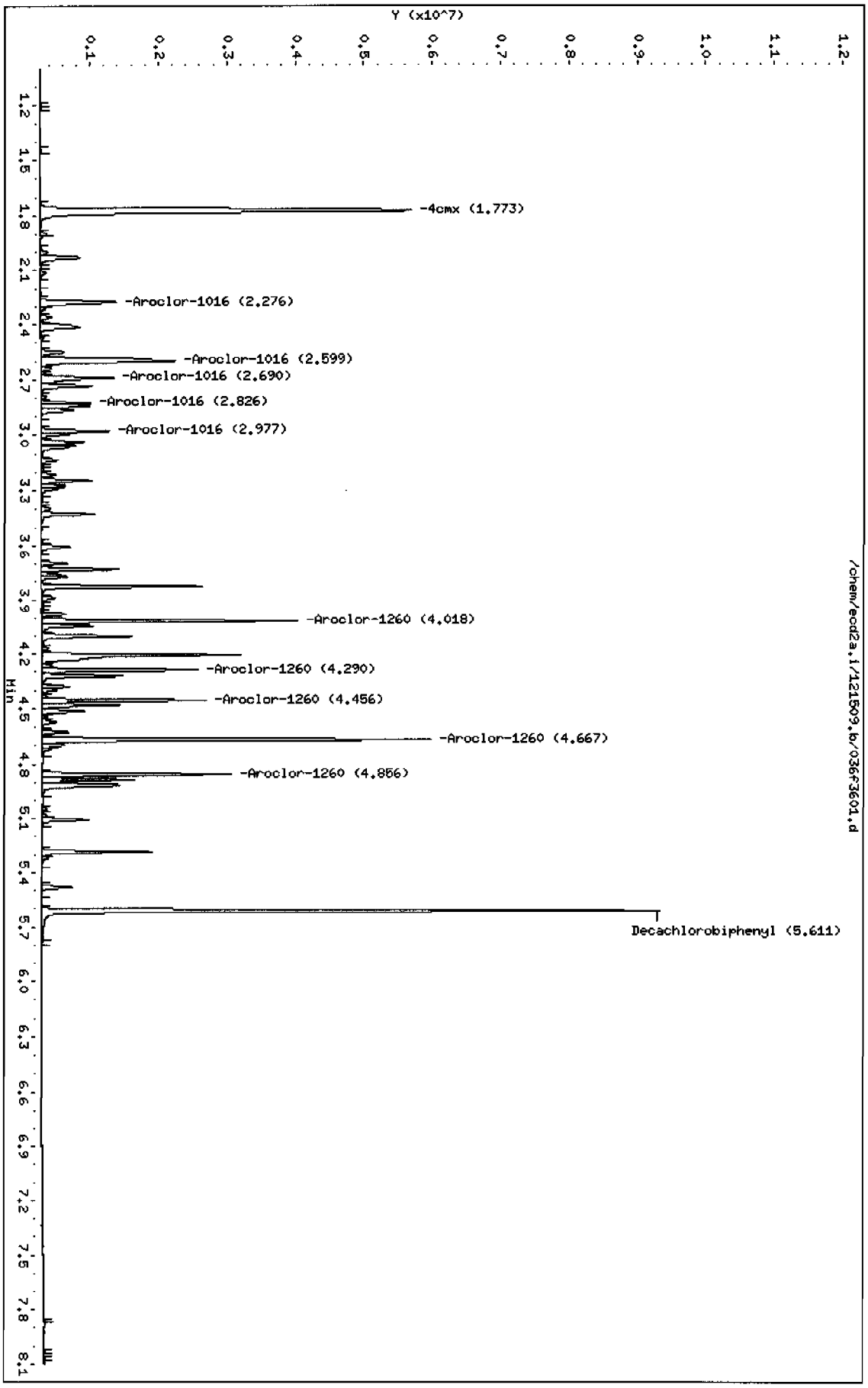

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GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/121509.b/036b3601.d
Lab Smp Id: 1201995319 Client Smp ID: PBLK01LCS
Inj Date : 15-DEC-2009 14:53
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |1201995319|1|
Misc Info : |ECD82P_1S|932746|SVAF|QC A|SOIL|LCS|||
Comment :
Method : /chem/ecd2a.i/121509.b/ECD2-B-8082-111209A.m
Meth Date : 16-Dec-2009 08:01 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012bl201.d
Als bottle: 36 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-852.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.069	2.070	-0.001	17570437	135.870	4.5	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.303	6.303	0.000	17271102	153.136	5.1	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.748	2.748	0.000	2952953	650.743	21.7	80.00- 120.00	100.00
3.183	3.182	0.001	2336056	648.514	21.6	60.46- 100.46	79.11
3.333	3.333	0.000	1355868	660.359	22.0	26.38- 66.38	45.92
3.362	3.362	0.000	1391457	651.099	21.7	28.08- 68.08	47.12
3.521	3.521	0.000	1890818	658.703	22.0	45.85- 85.85	64.03
			Average of Peak Concentrations =		21.8		

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
7 Aroclor-1260					CAS #: 11096-82-5		
4.417	4.416	0.001	4241355	735.463	24.5	80.00- 120.00	100.00
4.569	4.568	0.001	5443657	764.141	25.5	107.52- 147.52	128.35
4.680	4.680	0.000	3677647	763.202	25.4	65.59- 105.59	86.71
4.878	4.876	0.002	4307483	764.856	25.5	80.20- 120.20	101.56
5.503	5.503	0.000	7520665	832.161	27.7	143.21- 183.21	177.32
Average of Peak Concentrations =					25.7		

Data File: /chem/ecd2a.i/121509.b/036b3601.d
Date : 15-DEC-2009 14:53
Client ID: PBLK01LCS
Sample Info: 1120199531911
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd2a.i
Operator: JAOC
Column diameter: 0.25

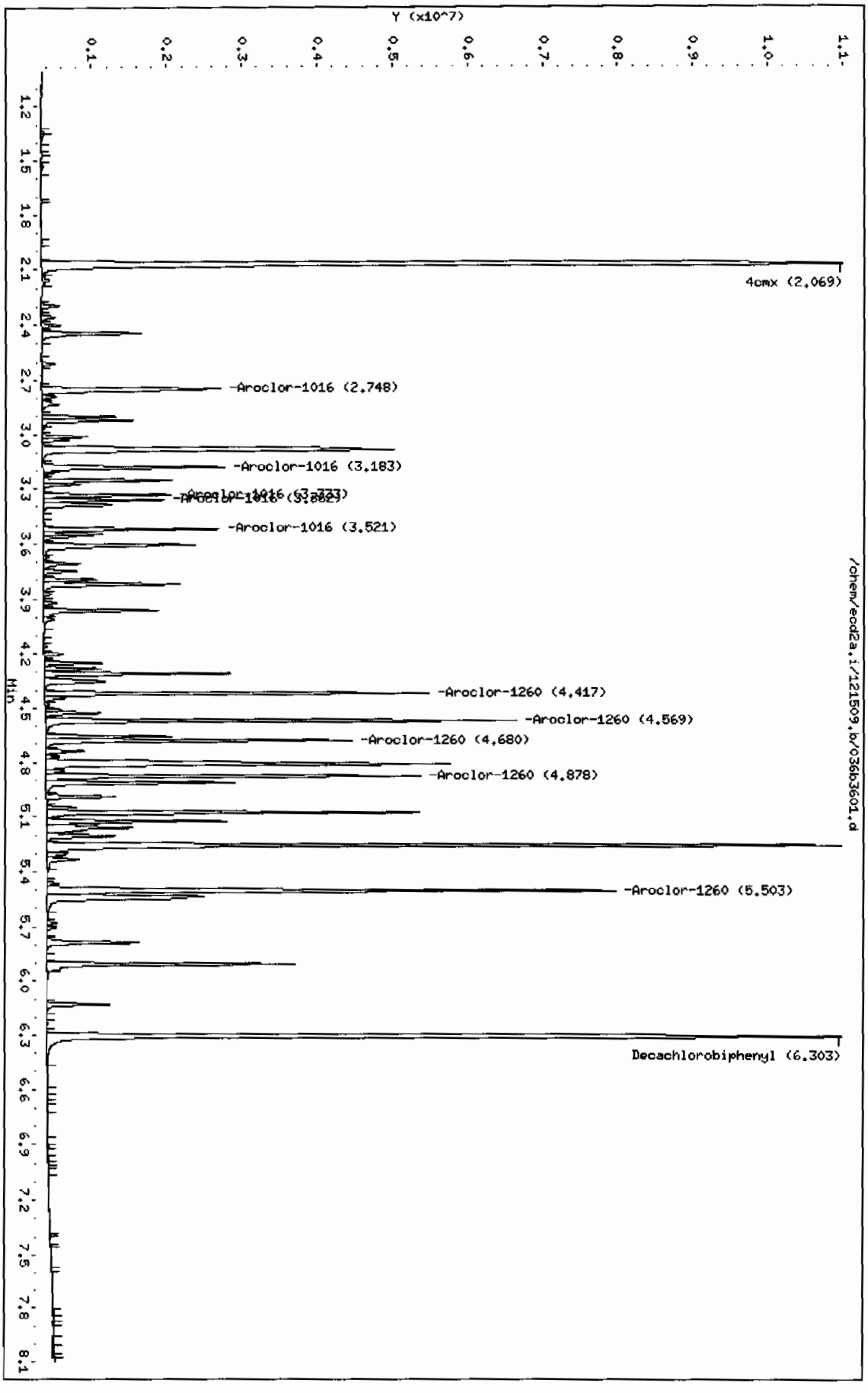

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PCB
Certificate of Analysis
Sample Summary

SDG Number:	10-852	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	1201995320	**Date Received:**	12/10/2009 08:50	**%Moisture:**	14.6
Client Sample:	QC for batch 932744	**Client:**	LANL010	**Project:**	QC
Client ID:	RE03-09-14224MS	**Method:**	SW846 8082	**SOP Ref:**	GL-OA-E-040
Batch ID:	932746	**Inst:**	ECD2A.I	**Dilution:**	1
Run Date:	12/15/2009 15:15	**Analyst:**	JAOC	**Inj. Vol:**	1 uL
Prep Date:	12/14/2009 22:59	**Aliquot:**	30.02 g	**Final Volume:**	1 mL
Data File:	038f3801.d	**Column:**	1 CLP1	**Level:**	LOW
	038b3801.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016		27.1	ug/kg	1.30	3.90	1
11104-28-2	Aroclor-1221	U	3.90	ug/kg	1.30	3.90	1
11141-16-5	Aroclor-1232	U	3.90	ug/kg	1.30	3.90	1
53469-21-9	Aroclor-1242	U	3.90	ug/kg	1.30	3.90	1
12672-29-6	Aroclor-1248	U	3.90	ug/kg	1.30	3.90	1
11097-69-1	Aroclor-1254	U	3.90	ug/kg	1.30	3.90	1
11096-82-5	Aroclor-1260		31.2	ug/kg	1.30	3.90	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/121509.b/038f3801.d
Lab Smp Id: 1201995320 Client Smp ID: RE03-09-14224MS
Inj Date : 15-DEC-2009 15:15
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |1201995320|1|
Misc Info : |ECD82P_1S|932746|SVAF|QC A|SOIL|MS|||
Comment :
Method : /chem/ecd2a.i/121509.b/ECD2-F-8082-111209A.m
Meth Date : 16-Dec-2009 08:12 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012f1201.d
Als bottle: 38 QC Sample: MS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-852.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.02000	Weight of sample extracted (g)
M	14.56650	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.771	1.774	-0.003	7954250	127.694	5.0	80.00- 120.00	100.00(M)
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.611	5.611	0.000	7642103	141.229	5.5	80.00- 120.00	100.00(M)
1 Aroclor-1016					CAS #: 12674-11-2		
2.276	2.276	0.000	1456955	651.098	25.4	80.00- 120.00	100.00(M)
2.599	2.599	0.000	3165932	675.721	26.3	196.62- 236.62	217.30
2.690	2.690	0.000	1224861	644.161	25.1	66.23- 106.23	84.07
2.826	2.825	0.001	669067	685.535	26.7	23.39- 63.39	45.92
2.976	2.977	-0.001	1203318	825.397	32.2	45.27- 85.27	82.59

Average of Peak Concentrations = 27.1

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
7 Aroclor-1260					CAS #: 11096-82-5		
4.016	4.017	-0.001	3144922	755.066	29.4	80.00- 120.00	100.00(M)
4.288	4.288	0.000	1997592	771.101	30.1	41.92- 81.92	63.52
4.455	4.454	0.001	2164264	822.537	32.1	43.22- 83.22	68.82
4.667	4.667	0.000	4764250	782.616	30.5	133.43- 173.43	151.49
4.856	4.857	-0.001	2561060	870.472	33.9	53.80- 93.80	81.43
			Average of Peak Concentrations =		31.2		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd2a.i/121509.b/038f3801.d

Date : 15-DEC-2009 15:15

Client ID: RE03-09-14224MS

Sample Info: |120199532011|

Volume Injected (uL): 1.0

Column phase: CLP1

Instrument: ecd2a.i

Operator: JAOC

Column diameter: 0.25

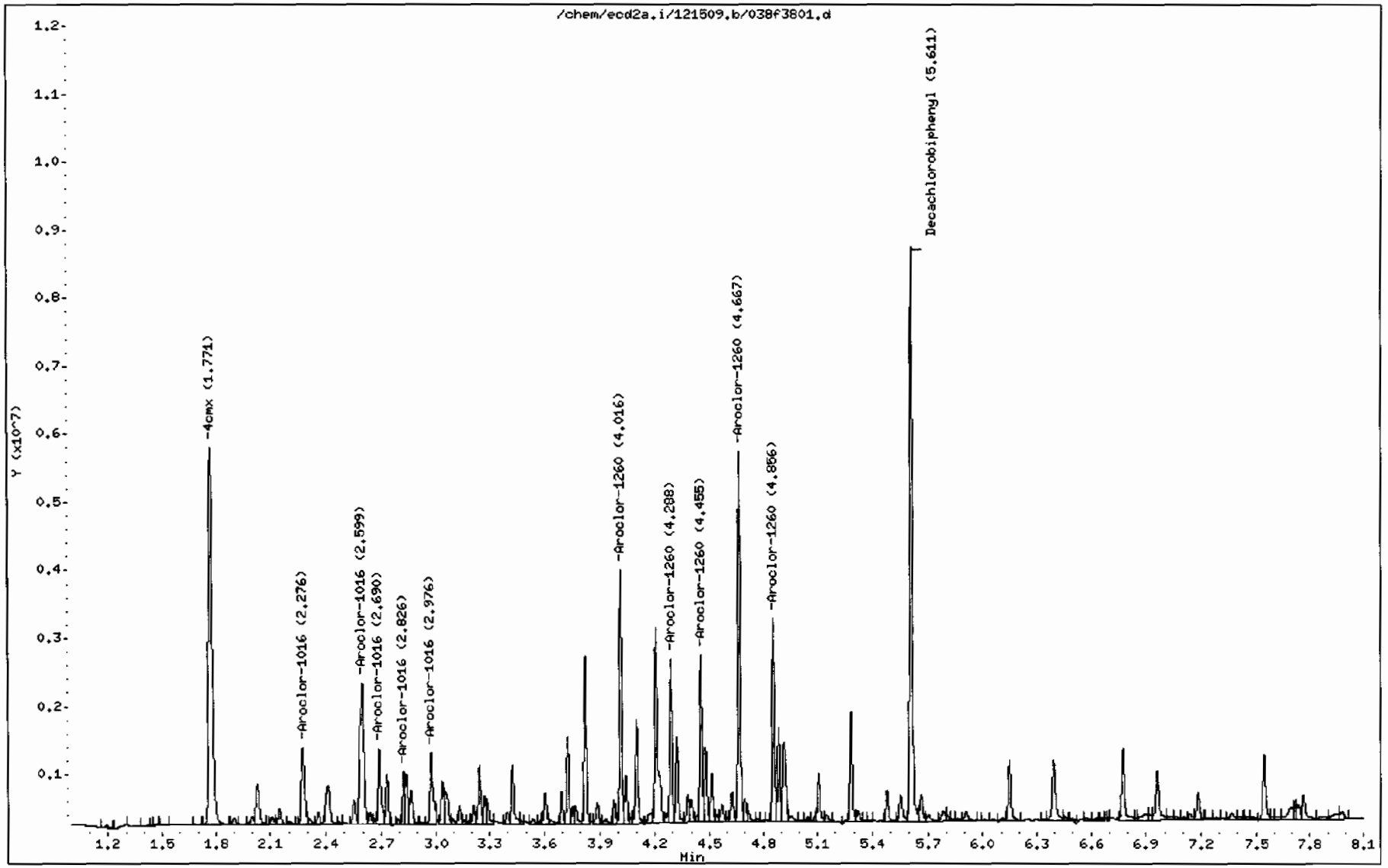

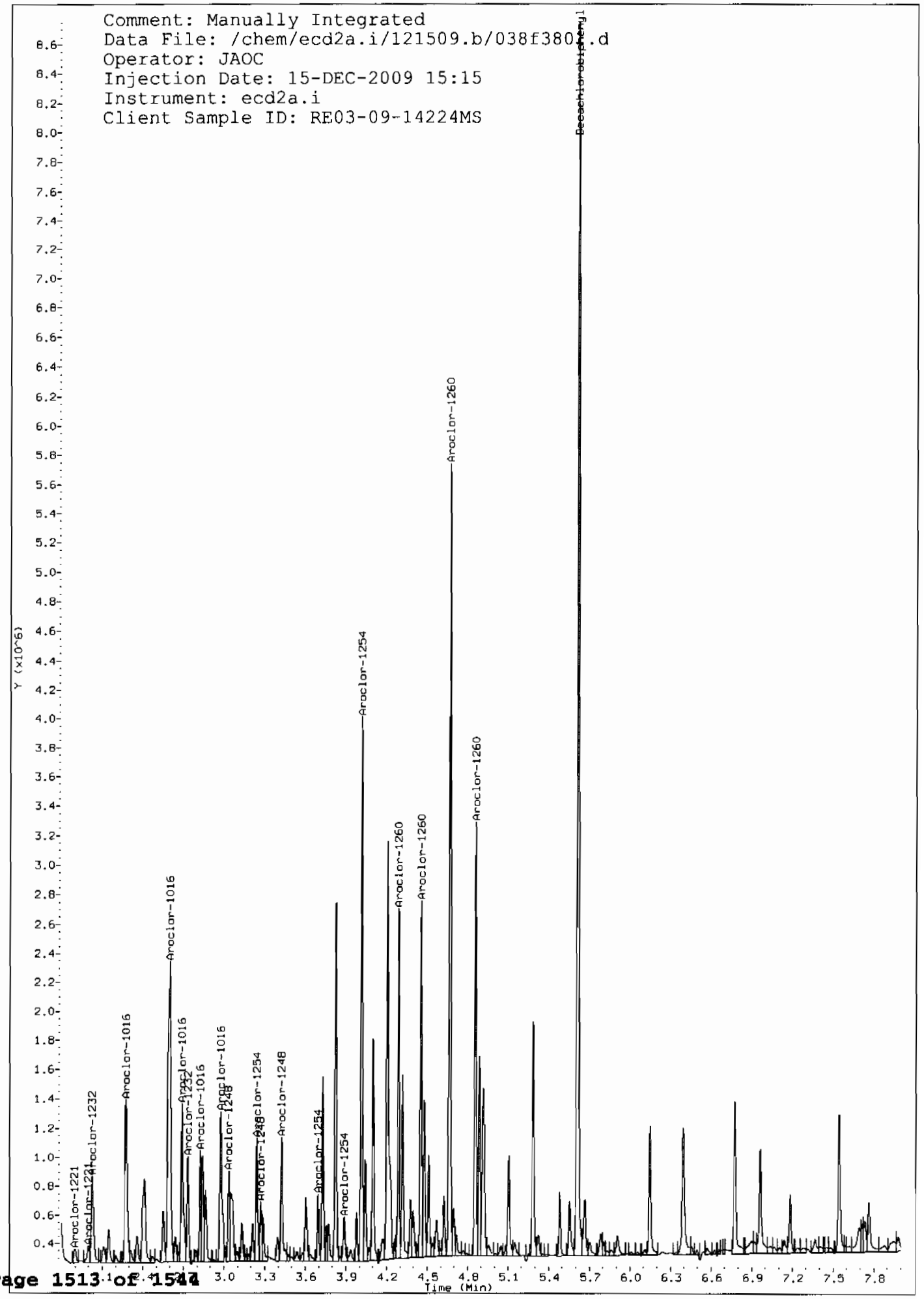
Comment: Manually Integrated
Data File: /chem/ecd2a.i/121509.b/038f3803.d
Operator: JAOC
Injection Date: 15-DEC-2009 15:15
Instrument: ecd2a.i
Client Sample ID: RE03-09-14224MS
Decachlorobiphenyl
Aroclor-1260
Aroclor-1254
Aroclor-1016
Aroclor-1221
Aroclor-1232
Aroclor-1248
Y (x10^6)
Time (Min)

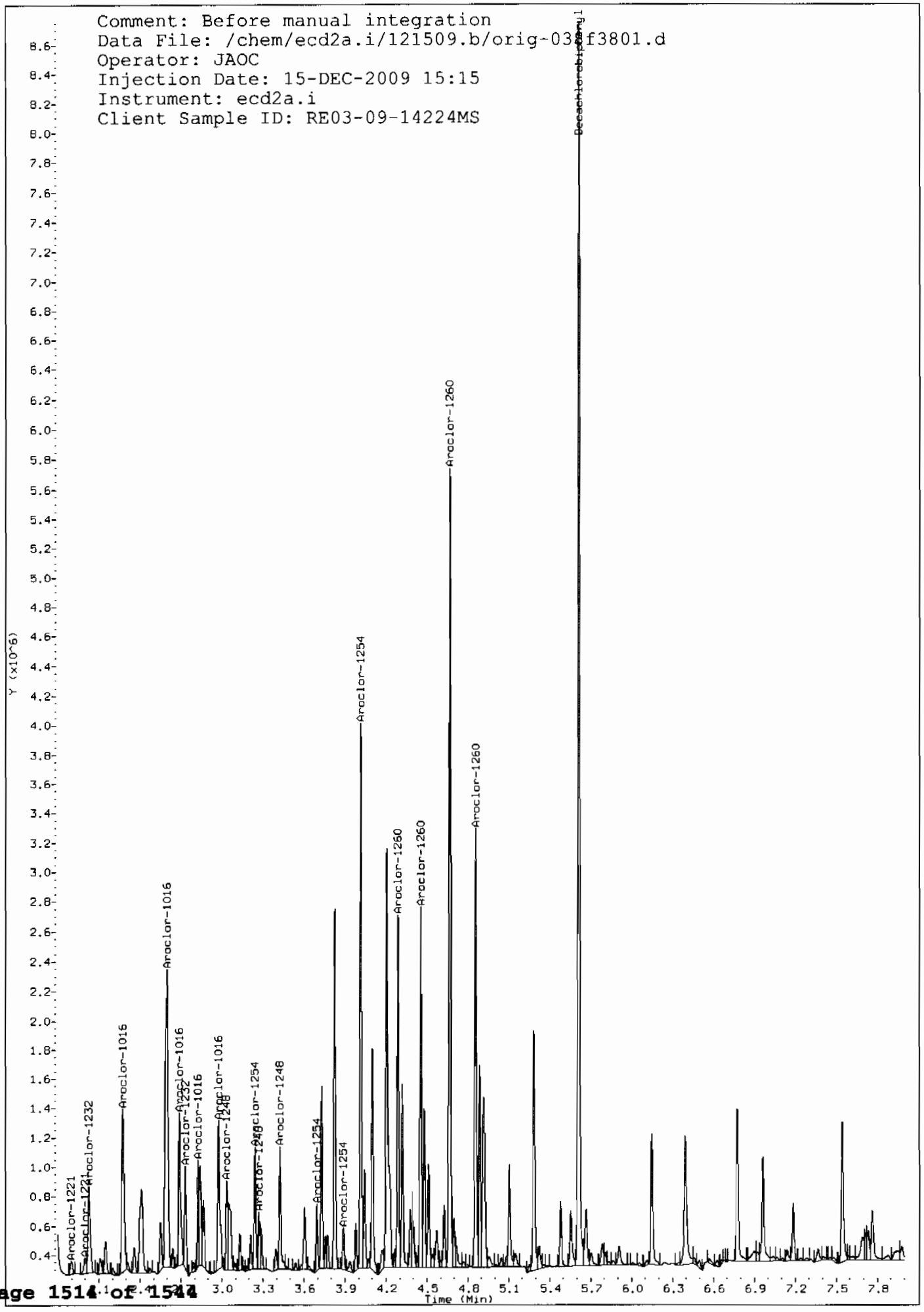
Comment: Before manual integration
Data File: /chem/ecd2a.i/121509.b/orig-038f3801.d
Operator: JAOC
Injection Date: 15-DEC-2009 15:15
Instrument: ecd2a.i
Client Sample ID: RE03-09-14224MS
Decachlorobiphenyl
Aroclor-1260
Aroclor-1254
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1016
Aroclor-1016
Aroclor-1232
Aroclor-1016
Aroclor-1016
Aroclor-1254
Aroclor-1248
Aroclor-1254
Aroclor-1254
Aroclor-1221
Aroclor-1232
Y (x10^6)
Time (Min)

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/121509.b/038b3801.d
Lab Smp Id: 1201995320 Client Smp ID: RE03-09-14224MS
Inj Date : 15-DEC-2009 15:15
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |1201995320|1|
Misc Info : |ECD82P_1S|932746|SVAF|QC A|SOIL|MS|||
Comment :
Method : /chem/ecd2a.i/121509.b/ECD2-B-8082-111209A.m
Meth Date : 16-Dec-2009 08:01 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012b1201.d
Als bottle: 38 QC Sample: MS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-852.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.02000	Weight of sample extracted (g)
M	14.56650	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.069	2.070	-0.001	17349892	134.165	5.2	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.303	6.303	0.000	16670864	147.814	5.8	80.00- 120.00	100.00(M)
1 Aroclor-1016					CAS #: 12674-11-2		
2.748	2.748	0.000	2977139	656.073	25.6	80.00- 120.00	100.00(M)
3.183	3.182	0.001	2346974	651.545	25.4	60.46- 100.46	78.83
3.333	3.333	0.000	1406445	684.991	26.7	26.38- 66.38	47.24
3.363	3.362	0.001	1416141	662.649	25.8	28.08- 68.08	47.57
3.521	3.521	0.000	2034147	708.635	27.6	45.85- 85.85	68.33

Average of Peak Concentrations = 26.2

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
7 Aroclor-1260					CAS #: 11096-82-5		
4.417	4.416	0.001	4179560	724.747	28.2	80.00- 120.00	100.00(M)
4.568	4.568	0.000	5642916	792.112	30.9	107.52- 147.52	135.01
4.679	4.680	-0.001	4010791	832.338	32.4	65.59- 105.59	95.96
4.877	4.876	0.001	4482927	796.009	31.0	80.20- 120.20	107.26
5.503	5.503	0.000	7851206	868.735	33.9	143.21- 183.21	187.85
Average of Peak Concentrations =					31.3		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd2a.i/121509.b/038b3801.d

Date : 15-DEC-2009 15:15

Client ID: RE03-09-14224MS

Sample Info: |120199532011|

Volume Injected (uL): 1.0

Column phase: CLP2

Instrument: ecd2a.i

Operator: JAOC

Column diameter: 0.25

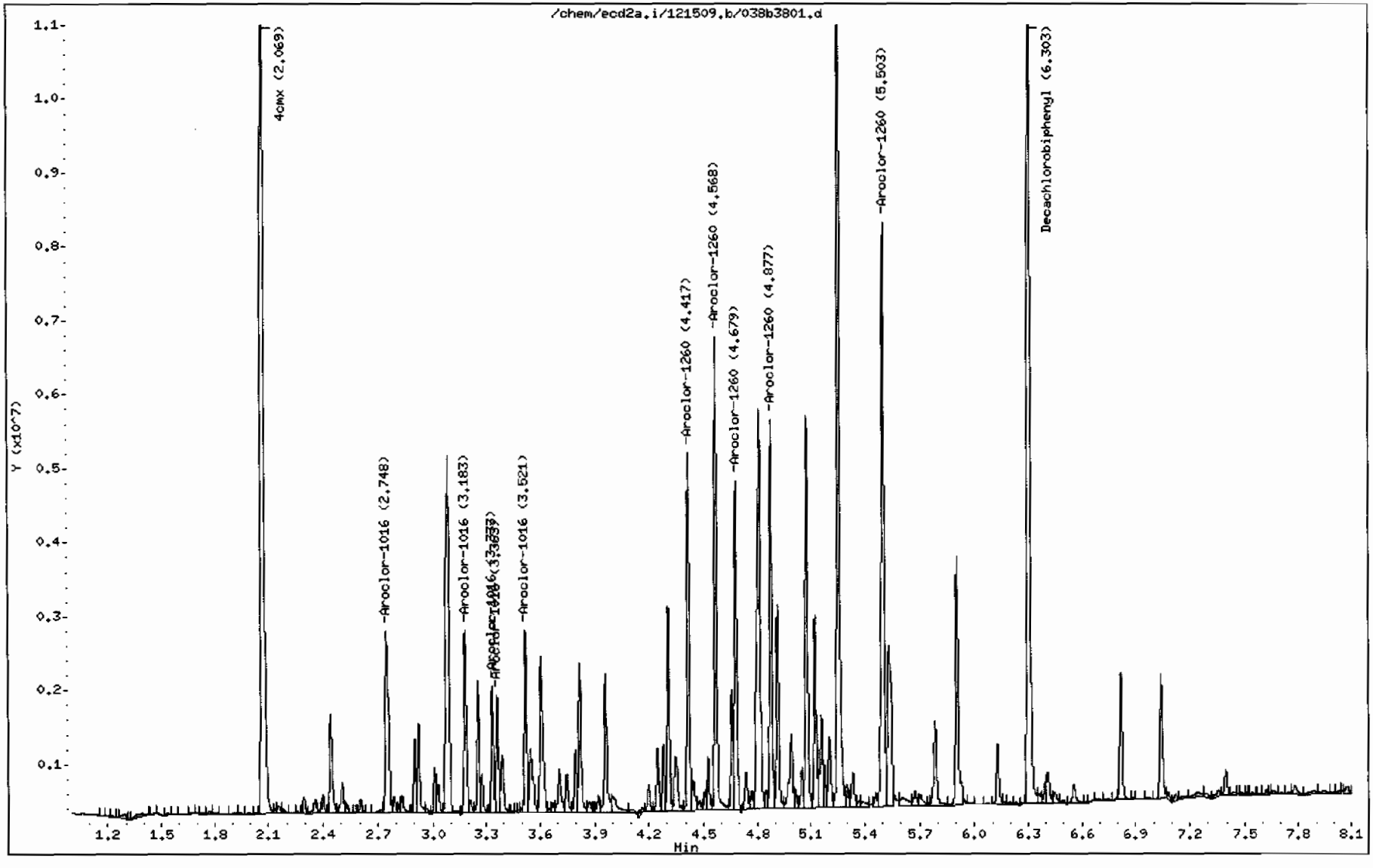

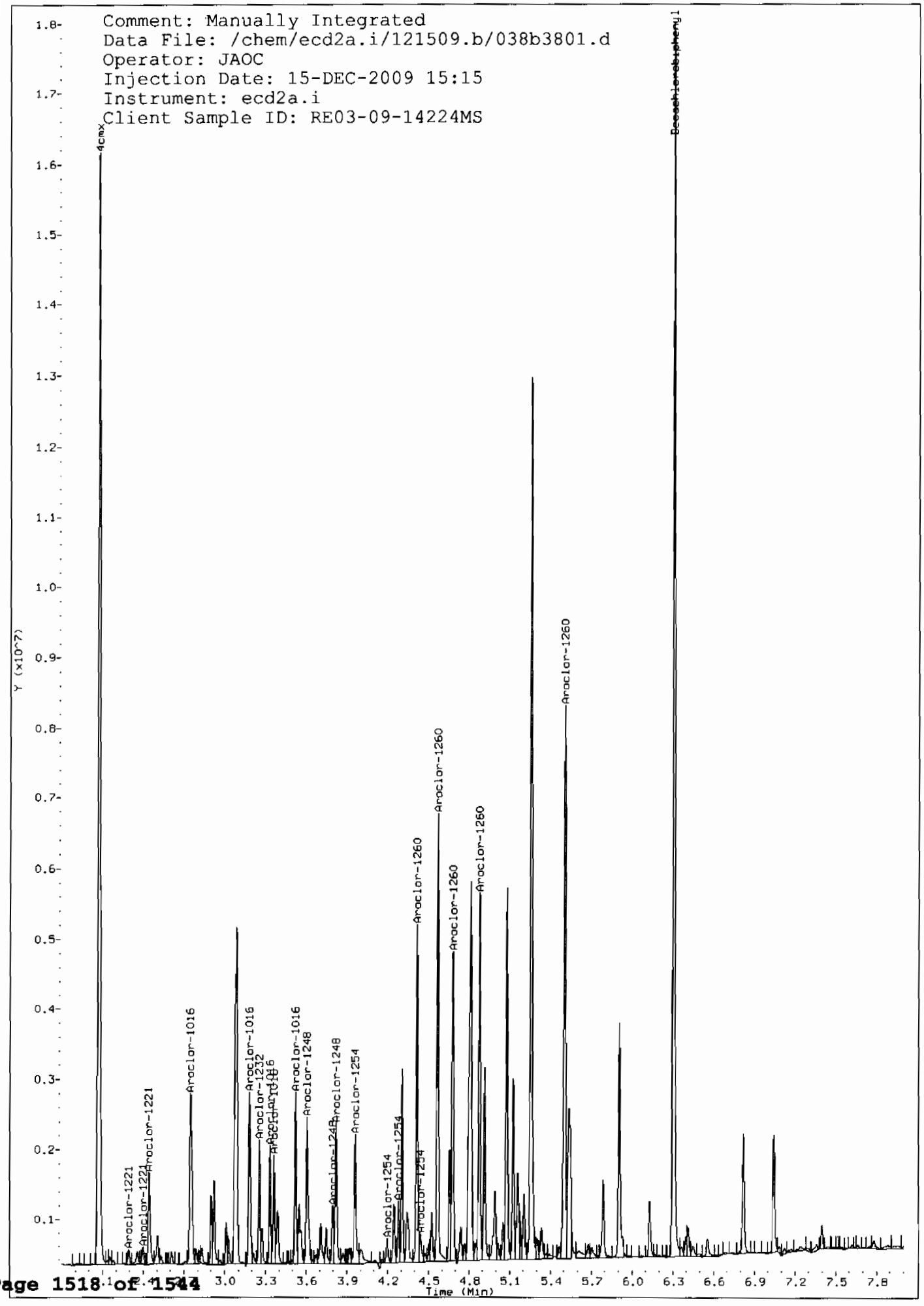
Comment: Manually Integrated
Data File: /chem/ecd2a.i/121509.b/038b3801.d
Operator: JAOC
Injection Date: 15-DEC-2009 15:15
Instrument: ecd2a.i
Client Sample ID: RE03-09-14224MS
4cmx
Decachlorobiphenyl
Aroclor-1221
Aroclor-1221
Aroclor-1221
Aroclor-1016
Aroclor-1016
Aroclor-1232
Aroclor-1016
Aroclor-1016
Aroclor-1248
Aroclor-1248
Aroclor-1248
Aroclor-1254
Aroclor-1254
Aroclor-1254
Aroclor-1254
Aroclor-1260
Aroclor-1260
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Y (x10^7)
Time (Min)

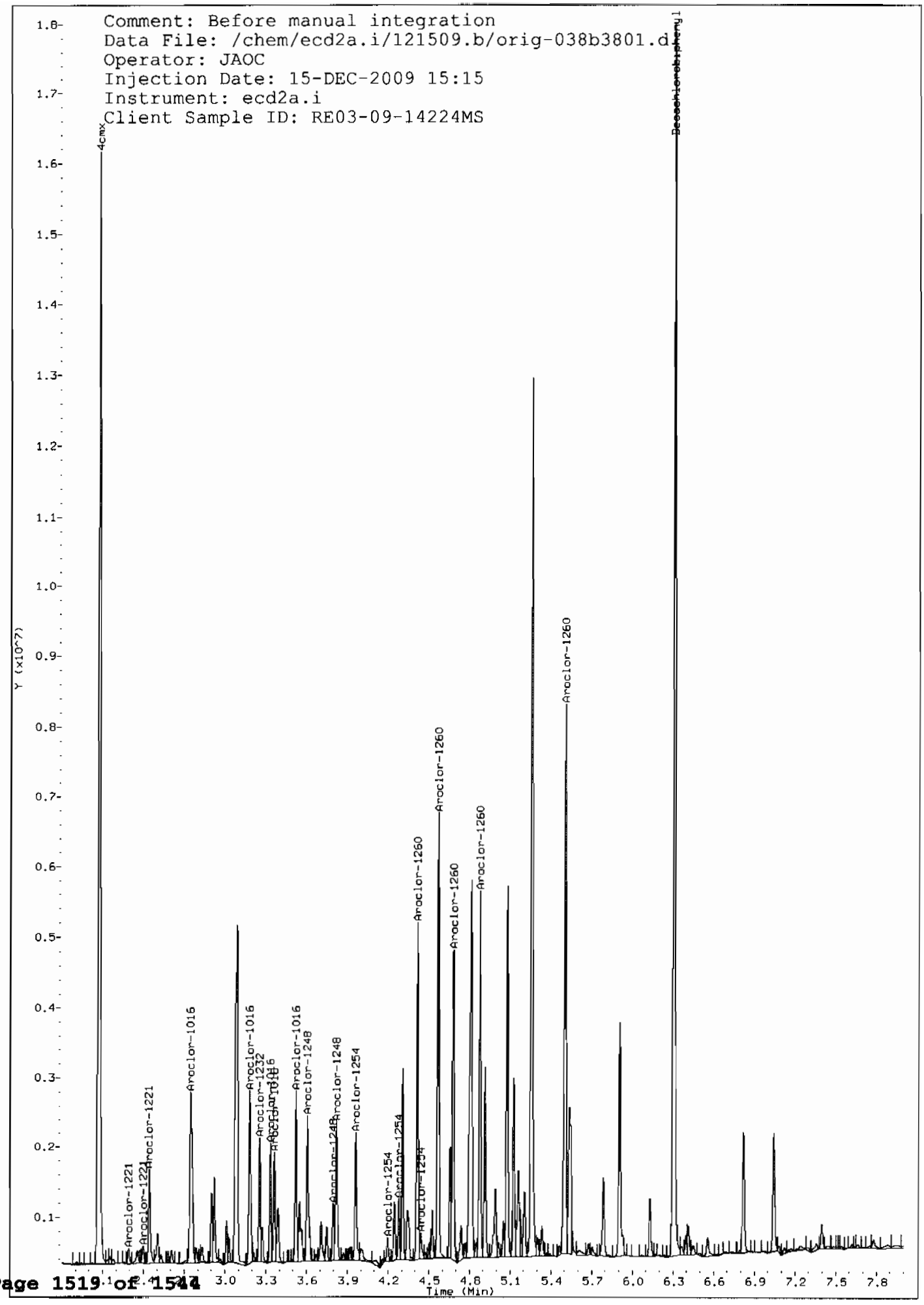
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Data File: /chem/ecd2a.i/121509.b/orig-038b3801.d
Operator: JAOC
Injection Date: 15-DEC-2009 15:15
Instrument: ecd2a.i
Client Sample ID: RE03-09-14224MS
4cmx
Decachlorobiphenyl
Aroclor-1221
Aroclor-1221
Aroclor-1221
Aroclor-1016
Aroclor-1016
Aroclor-1232
Aroclor-1016
Aroclor-1016
Aroclor-1248
Aroclor-1248
Aroclor-1248
Aroclor-1254
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Aroclor-1254
Aroclor-1254
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Y (x10^7)
Time (Min)

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10-852	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	1201995321	**Date Received:**	12/10/2009 08:50	**%Moisture:**	14.6
Client Sample:	QC for batch 932744	**Client:**	LANL010	**Project:**	QC
Client ID:	RE03-09-14224MSD	**Method:**	SW846 8082	**SOP Ref:**	GL-OA-E-040
Batch ID:	932746	**Inst:**	ECD2A.I	**Dilution:**	1
Run Date:	12/15/2009 15:26	**Analyst:**	JAOC	**Inj. Vol:**	1 uL
Prep Date:	12/14/2009 22:59	**Aliquot:**	30.08 g	**Final Volume:**	1 mL
Data File:	039f3901.d	**Column:**	1 CLP1	**Level:**	LOW
	039b3901.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016		26.3	ug/kg	1.30	3.89	1
11104-28-2	Aroclor-1221	U	3.89	ug/kg	1.30	3.89	1
11141-16-5	Aroclor-1232	U	3.89	ug/kg	1.30	3.89	1
53469-21-9	Aroclor-1242	U	3.89	ug/kg	1.30	3.89	1
12672-29-6	Aroclor-1248	U	3.89	ug/kg	1.30	3.89	1
11097-69-1	Aroclor-1254	U	3.89	ug/kg	1.30	3.89	1
11096-82-5	Aroclor-1260		31.0	ug/kg	1.30	3.89	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/121509.b/039f3901.d
Lab Smp Id: 1201995321 Client Smp ID: RE03-09-14224MSD
Inj Date : 15-DEC-2009 15:26
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |1201995321|1|
Misc Info : |ECD82P_1S|932746|SVAF|QC A|SOIL|MSD|||
Comment :
Method : /chem/ecd2a.i/121509.b/ECD2-F-8082-111209A.m
Meth Date : 16-Dec-2009 08:12 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012f1201.d
Als bottle: 39 QC Sample: MSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-852.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.08000	Weight of sample extracted (g)
M	14.56650	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.774	1.774	0.000	7631244	122.508	4.8	80.00- 120.00	100.00(M)
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.610	5.611	-0.001	7608716	140.612	5.5	80.00- 120.00	100.00(M)
1 Aroclor-1016					CAS #: 12674-11-2		
2.276	2.276	0.000	1375345	614.627	23.9	80.00- 120.00	100.00(M)
2.600	2.599	0.001	3012415	642.955	25.0	196.62- 236.62	145.05
2.691	2.690	0.001	1178218	619.632	24.1	66.23- 106.23	85.67
2.825	2.825	0.000	649392	665.376	25.9	23.39- 63.39	47.22
2.977	2.977	0.000	1221707	838.011	32.6	45.27- 85.27	84.62

Average of Peak Concentrations = 26.3

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
7 Aroclor-1260					CAS #: 11096-82-5		
4.016	4.017	-0.001	3014758	723.815	28.2	80.00- 120.00	100.00(M)
4.289	4.288	0.001	1974287	762.105	29.6	41.92- 81.92	65.49
4.455	4.454	0.001	2203540	837.464	32.6	43.22- 83.22	73.09
4.666	4.667	-0.001	4817028	791.286	30.8	133.43- 173.43	159.78
4.856	4.857	-0.001	2564205	871.541	33.9	53.80- 93.80	85.06
Average of Peak Concentrations =					31.0		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd2a.i/121509.b/039f3901.d

Date : 15-DEC-2009 15:26

Client ID: RE03-09-14224MSD

Sample Info: |1201995321|1|

Volume Injected (uL): 1.0

Column phase: CLP1

Instrument: ecd2a.i

Operator: JAOC

Column diameter: 0.25

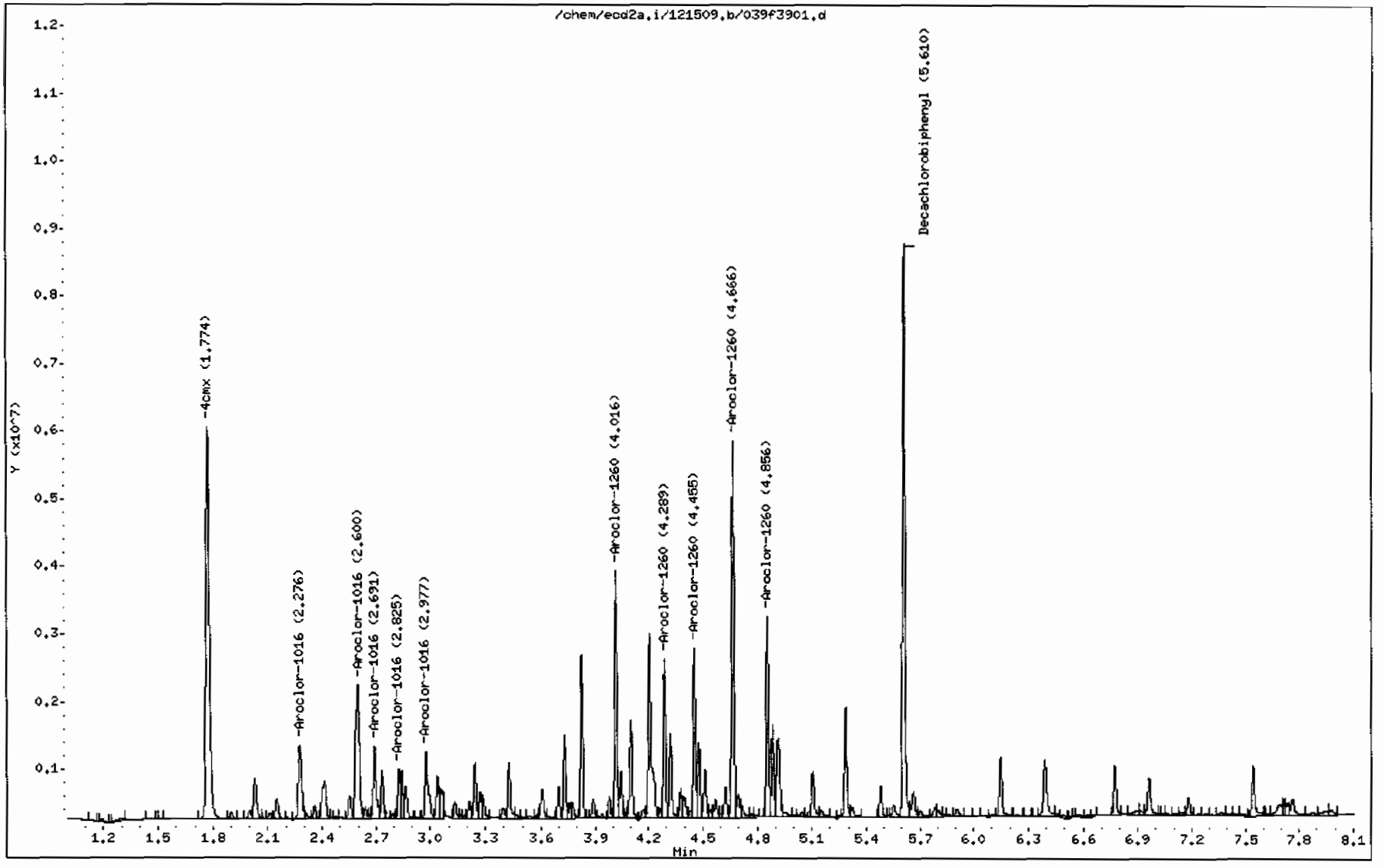

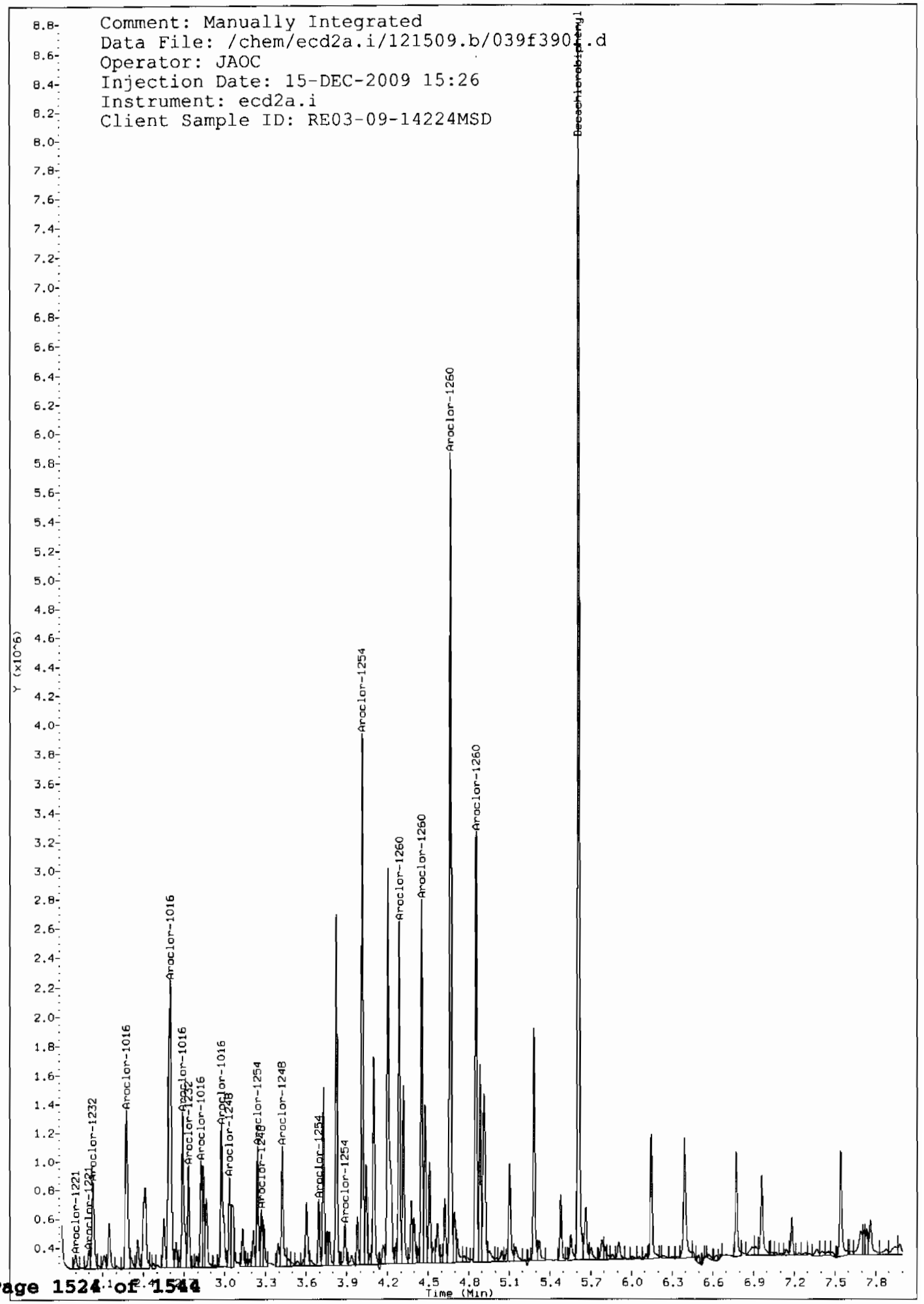
Comment: Manually Integrated
Data File: /chem/ecd2a.i/121509.b/039f3901.d
Operator: JAOC
Injection Date: 15-DEC-2009 15:26
Instrument: ecd2a.i
Client Sample ID: RE03-09-14224MSD
Decachlorobiphenyl
Aroclor-1260
Aroclor-1254
Aroclor-1016
Aroclor-1248
Aroclor-1232
Aroclor-1221
Y (x10^6)
Time (Min)

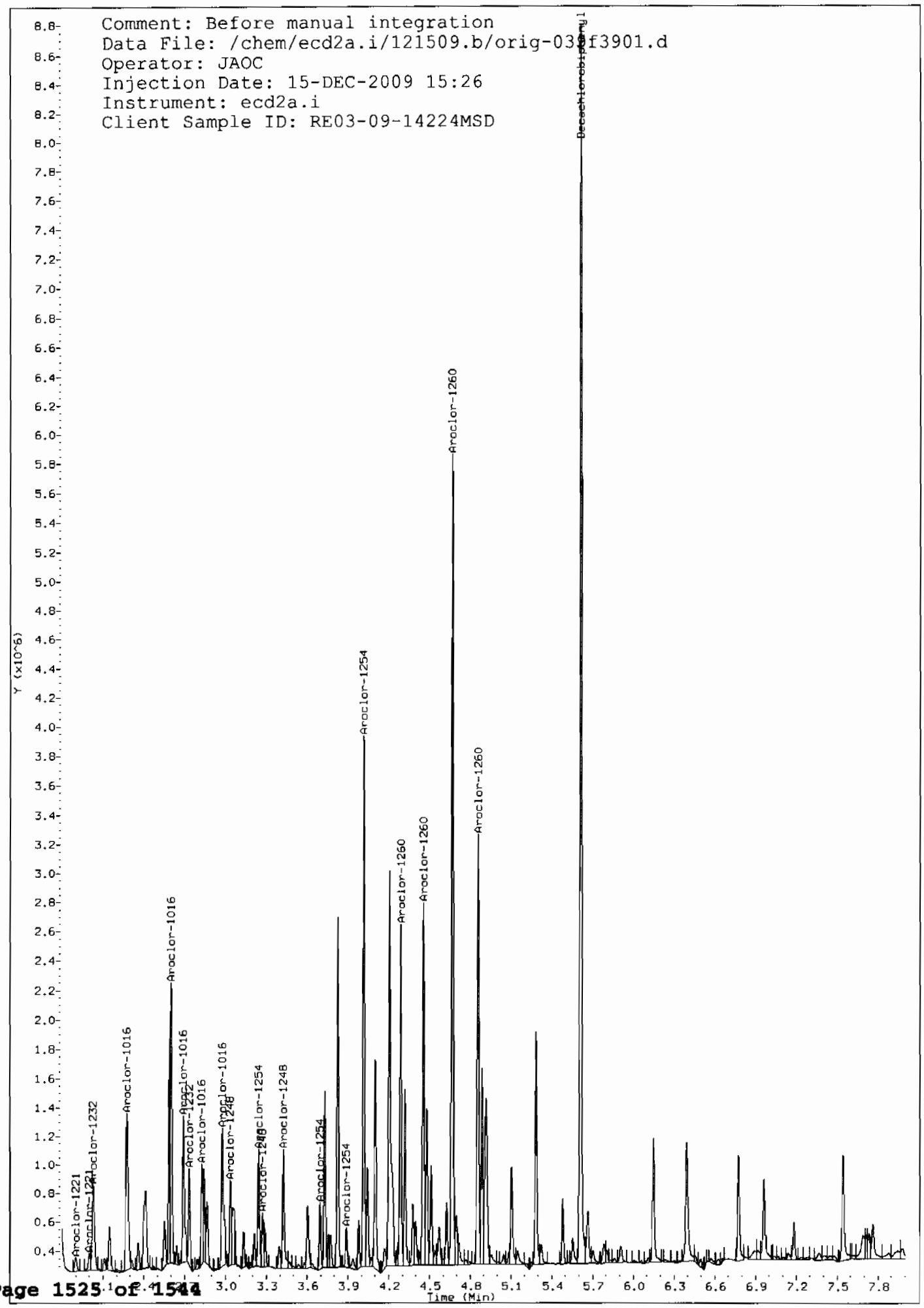
Comment: Before manual integration
Data File: /chem/ecd2a.i/121509.b/orig-03f3901.d
Operator: JAOC
Injection Date: 15-DEC-2009 15:26
Instrument: ecd2a.i
Client Sample ID: RE03-09-14224MSD
Decachlorobiphenyl
Aroclor-1260
Aroclor-1254
Aroclor-1016
Aroclor-1232
Aroclor-1221
Aroclor-1248
Y (x10^6)
Time (Min)

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/121509.b/039b3901.d
Lab Smp Id: 1201995321 Client Smp ID: RE03-09-14224MSD
Inj Date : 15-DEC-2009 15:26
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |1201995321|1|
Misc Info : |ECD82P_1S|932746|SVAF|QC A|SOIL|MSD|||
Comment :
Method : /chem/ecd2a.i/121509.b/ECD2-B-8082-111209A.m
Meth Date : 16-Dec-2009 08:01 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012b1201.d
Als bottle: 39 QC Sample: MSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-852.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.08000	Weight of sample extracted (g)
M	14.56650	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.071	2.070	0.001	16670100	128.908	5.0	80.00- 120.00	100.00(M)
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.303	6.303	0.000	16786611	148.840	5.8	80.00- 120.00	100.00(M)
1 Aroclor-1016					CAS #: 12674-11-2		
2.748	2.748	0.000	2880255	634.722	24.7	80.00- 120.00	100.00(M)
3.183	3.182	0.001	2261206	627.735	24.4	60.46- 100.46	78.51
3.334	3.333	0.001	1338266	651.786	25.4	26.38- 66.38	46.46
3.362	3.362	0.000	1344785	629.260	24.5	28.08- 68.08	46.69
3.521	3.521	0.000	1907237	664.423	25.8	45.85- 85.85	66.22
			Average of Peak Concentrations =		25.0		

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
7 Aroclor-1260					CAS #: 11096-82-5		
4.416	4.416	0.000	4073157	706.297	27.5	80.00- 120.00	100.00(M)
4.567	4.568	-0.001	5290276	742.610	28.9	107.52- 147.52	129.88
4.679	4.680	-0.001	3797042	787.979	30.7	65.59- 105.59	93.22
4.876	4.876	0.000	4349872	772.383	30.0	80.20- 120.20	106.79
5.503	5.503	0.000	7838281	867.305	33.7	143.21- 183.21	192.44
Average of Peak Concentrations =					30.2		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd2a.i/121509.b/039b3901.d

Date : 15-DEC-2009 15:26

Client ID: RE03-09-14224MSD

Sample Info: |120199532|1|

Volume Injected (uL): 1.0

Column phase: CLP2

Instrument: ecd2a.i

Operator: JAOC

Column diameter: 0.25

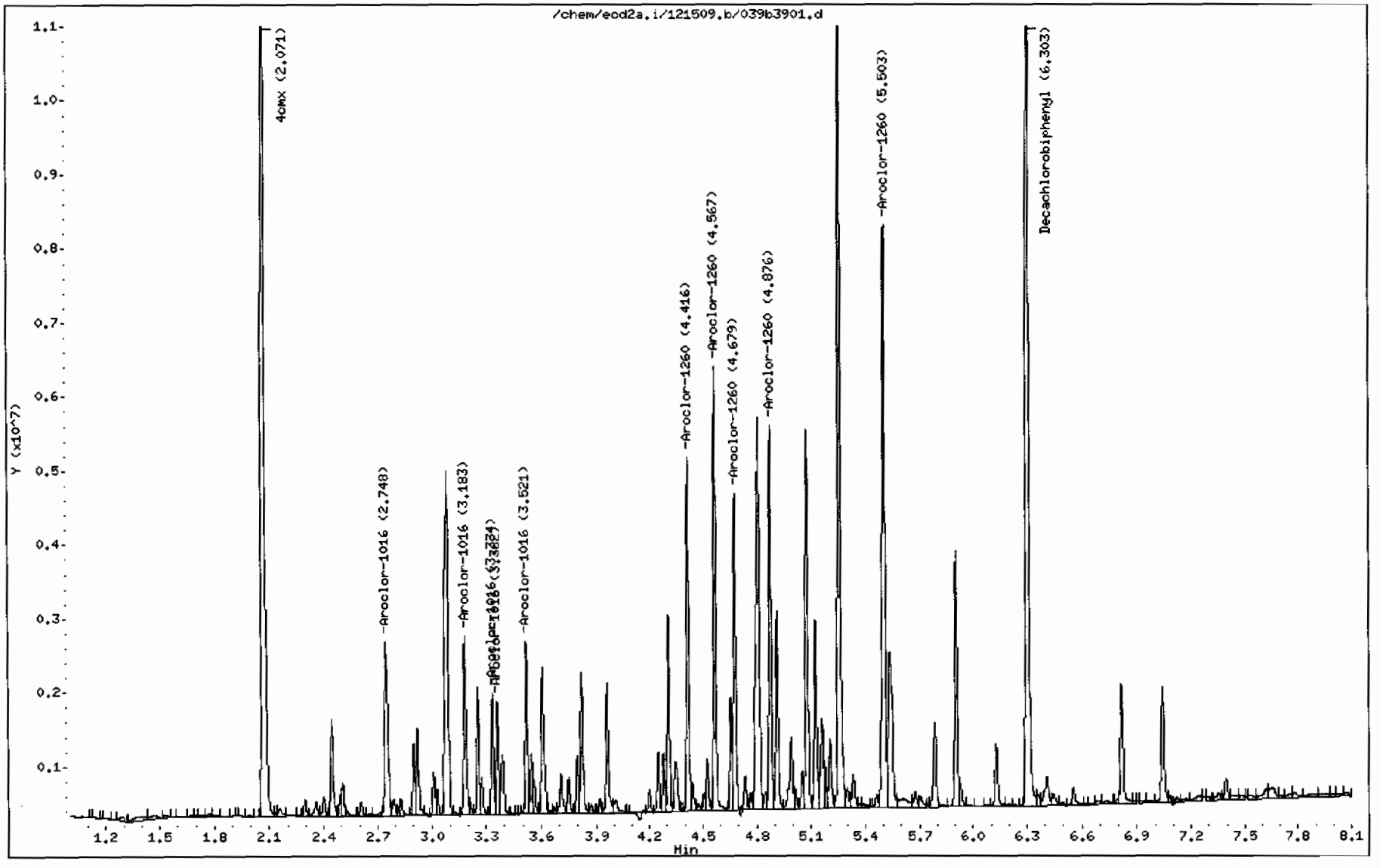

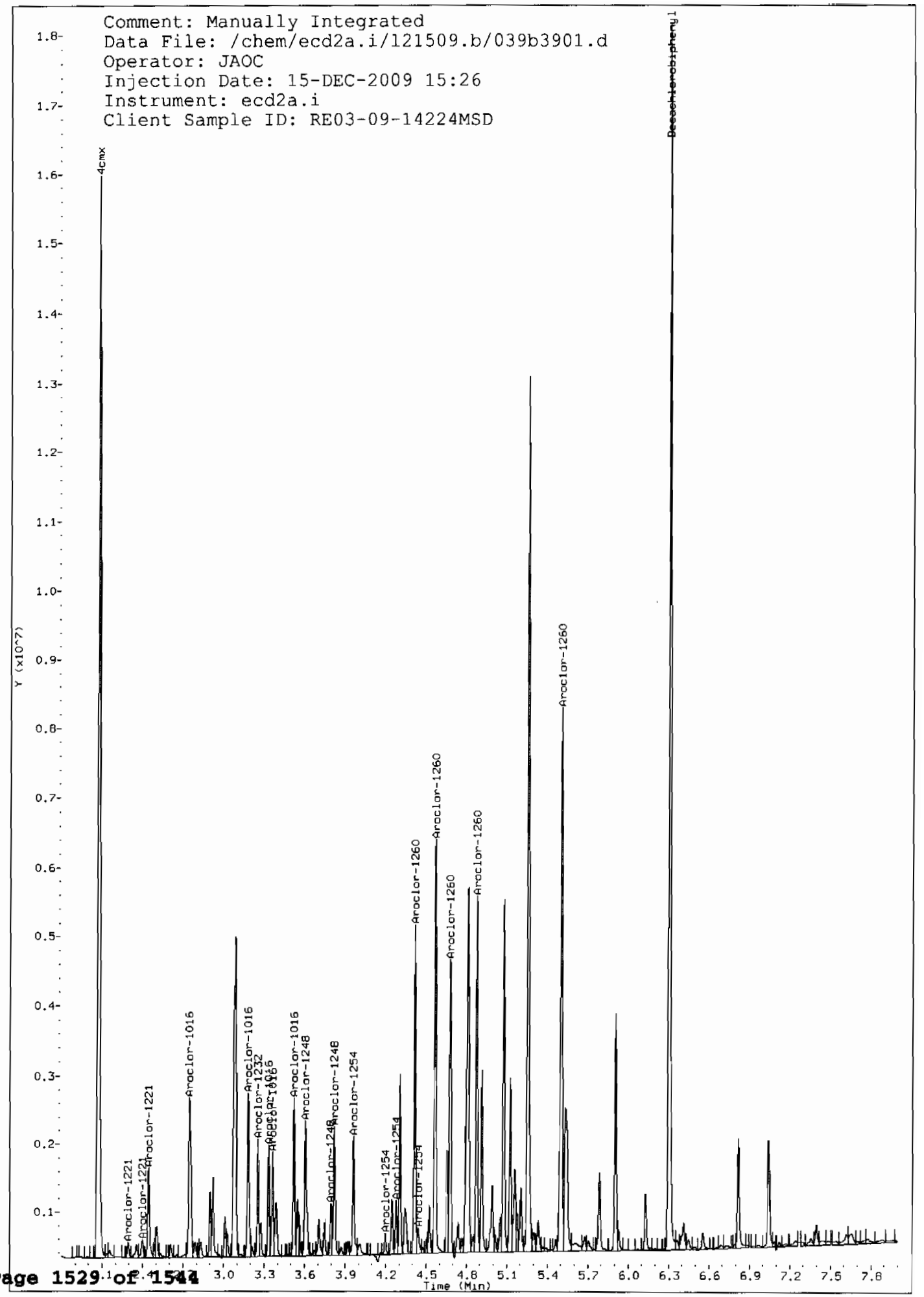
Comment: Manually Integrated
Data File: /chem/ecd2a.i/121509.b/039b3901.d
Operator: JAOC
Injection Date: 15-DEC-2009 15:26
Instrument: ecd2a.i
Client Sample ID: RE03-09-14224MSD
4cmx
Decachlorobiphenyl
Aroclor-1221
Aroclor-1221
Aroclor-1221
Aroclor-1016
Aroclor-1016
Aroclor-1232
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1248
Aroclor-1248
Aroclor-1248
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Aroclor-1254
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Aroclor-1260
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Y (x10^7)
Time (Min)

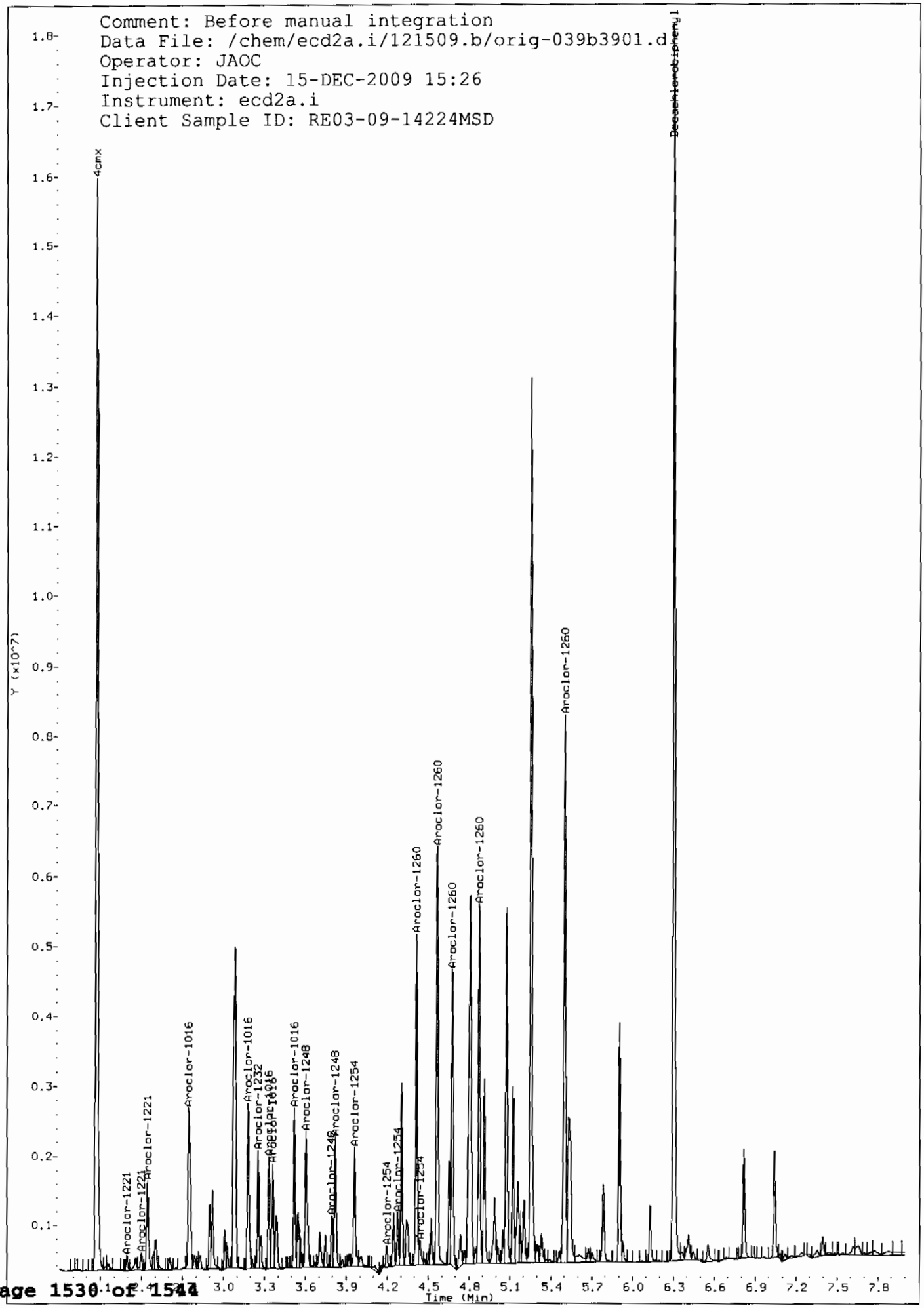
Comment: Before manual integration
Data File: /chem/ecd2a.i/121509.b/orig-039b3901.d
Operator: JAOC
Injection Date: 15-DEC-2009 15:26
Instrument: ecd2a.i
Client Sample ID: RE03-09-14224MSD
4cmx
Decachlorobiphenyl
Aroclor-1221
Aroclor-1221
Aroclor-1221
Aroclor-1016
Aroclor-1016
Aroclor-1232
Aroclor-1016
Aroclor-1016
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Aroclor-1254
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Aroclor-1254
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Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Y (x10^7)
Time (Min)

MISCELLANEOUS DATA

GEL ORGANIC RUN LOG INSTRUMENT ID: ECD2

DATE: 12/01/2009 METHOD: ECD2-F-8082-111209A.m OPERATOR:JAOC REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT:DA385
ALUMINA LOT:1206399-A
COPPER LOT:207783-A

Calibration & QC Information
Initial Calibration Dates: See Calibration History and Standards Log
Initial Calibration Std ID's: See Calibration History and Standards Log
GEL SOP GL-OA-E-040
EPA Method: 8082 Polychlorinated Biphenyls PCBs by Gas Chromatography
Sequence Number:113009A Injection Volume: 1.0 uL

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001f0101.d	WAR090916-39 IB	JAOC	30-NOV-2009 08:21		113009a	1.0	CLEAN	
002f0201.d	WAR091119-60 01	JAOC	30-NOV-2009 08:32		113009a	1.0	DUSE	
003f0301.d	WAR091130-05 54	JAOC	30-NOV-2009 08:43		113009a	1.0	1254 LEVEL 1	
004f0401.d	WAR091130-06 54	JAOC	30-NOV-2009 08:54		113009a	1.0	1254 LEVEL 2	
005f0501.d	WAR091130-07 54	JAOC	30-NOV-2009 09:05		113009a	1.0	1254 LEVEL 3	
006f0601.d	WAR091130-08 54	JAOC	30-NOV-2009 09:16		113009a	1.0	1254 LEVEL 4	
007f0701.d	IAR091027-01 54	JAOC	30-NOV-2009 09:27		113009a	1.0	1254 LEVEL 5	
008f0801.d	WAR091102-54	JAOC	30-NOV-2009 09:38		113009a	1.0	PASSES BOTH COLUMNS	
009f0901.d	WAR091102-42	JAOC	30-NOV-2009 09:50		113009a	1.0	PASSES BOTH COLUMNS	
010f1001.d	WAR091119-60 01	JAOC	30-NOV-2009 10:01		113009a	1.0	PASSES BOTH COLUMNS	
011f1101.d	WAR091130-13 48	JAOC	30-NOV-2009 10:12		113009a	1.0	1248 LEVEL 1	
012f1201.d	WAR091130-14 48	JAOC	30-NOV-2009 10:23		113009a	1.0	1248 LEVEL 2	
013f1301.d	WAR091130-15 48	JAOC	30-NOV-2009 10:34		113009a	1.0	1248 LEVEL 3	
014f1401.d	WAR091130-16 48	JAOC	30-NOV-2009 10:45		113009a	1.0	1248 LEVEL 4	
015f1501.d	IAR091027-02 48	JAOC	30-NOV-2009 10:56		113009a	1.0	1248 LEVEL 5	

Instrument Batch: /chem/ecd2a.i/113009a.b Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
016f1601.d	WAR091027-48	JAOC	30-NOV-2009 11:07		113009a	1.0	DUSE	

017f1701.d	WAR090930-32	JAOC	30-NOV-2009 11:18		113009a	1.0		PATTERN ONLY
018f1801.d	WAR091027-48	JAOC	30-NOV-2009 11:29		113009a	1.0		PASSES BOTH COLUMNS
019f1901.d	WAR091111-21	JAOC	30-NOV-2009 11:40		113009a	1.0		PATTERN ONLY
020f2001.d	WAR091111-62	JAOC	30-NOV-2009 11:51		113009a	1.0		PATTERN ONLY
021f2101.d	WAR091106-68	JAOC	30-NOV-2009 12:02		113009a	1.0		PATTERN ONLY
022f2201.d	WAR091020-DDT	JAOC	30-NOV-2009 12:13		113009a	1.0		DDT
023f2301.d	WAR090916-99 02	JAOC	30-NOV-2009 12:25		113009a	1.0		CLEAN
024f2401.d	1201981402	JAOC	30-NOV-2009 12:36	926725	EUI-7399	1.0	QC A	UPLOAD BOTH, USE HIGHER
025f2501.d	1201981405	JAOC	30-NOV-2009 12:47	926725	EUI-7399	1.0	QC A	UPLOAD BOTH, USE HIGHER
026f2601.d	241672001	JAOC	30-NOV-2009 12:58	926725	EUI-7399	200.0	CARE	UPLOAD BOTH, USE HIGHER
027f2701.d	1201981403	JAOC	30-NOV-2009 13:09	926725	EUI-7399	200.0	QC A	UPLOAD BOTH, USE HIGHER
028f2801.d	1201981404	JAOC	30-NOV-2009 13:20	926725	EUI-7399	200.0	QC A	UPLOAD BOTH, USE HIGHER
029f2901.d	WAR091119-60 02	JAOC	30-NOV-2009 13:36		113009a	1.0		PASSES BOTH COLUMNS
030f3001.d	WAR090916-99 03	JAOC	30-NOV-2009 13:47		113009a	1.0		CLEAN
031f3101.d	1201981478	JAOC	30-NOV-2009 13:58	926760	241688	1.0	QC A	UPLOAD BOTH, USE HIGHER
032f3201.d	1201981479	JAOC	30-NOV-2009 14:09	926760	241688	1.0	QC A	UPLOAD BOTH, USE HIGHER
033f3301.d	1201981480	JAOC	30-NOV-2009 14:34	926760	241688	1.0	QC A	UPLOAD BOTH, USE HIGHER
034f3401.d	241688001	JAOC	30-NOV-2009 14:45	926760	241688	1000.0	ROIT	UPLOAD BOTH, USE HIGHER
035f3501.d	241688002	JAOC	30-NOV-2009 14:56	926760	241688	1000.0	ROIT	UPLOAD BOTH, USE HIGHER

Instrument Batch: /chem/ecd2a.i/113009a.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
036f3601.d	WAR091119-60 03	JAOC	30-NOV-2009 15:12		113009a	1.0		PASSES BOTH COLUMNS
037f3701.d	WAR090916-99 04	JAOC	30-NOV-2009 15:23		113009a	1.0		CLEAN
038f3801.d	241034012	JAOC	30-NOV-2009 15:34	925599	10-463	100.0	LANL	UPLOAD BOTH, USE HIGHER
039f3901.d	241034013	JAOC	30-NOV-2009 15:45	925599	10-463	1.0	LANL	UPLOAD BOTH, USE HIGHER
040f4001.d	241034014	JAOC	30-NOV-2009 15:56	925599	10-463	5.0	LANL	UPLOAD BOTH, USE HIGHER
041f4101.d	241034015	JAOC	30-NOV-2009 16:07	925599	10-463	20.0	LANL	UPLOAD BOTH, USE HIGHER

042f4201.d	241034016	JAOC	30-NOV-2009 16:18	925599	10-463	100.0	LANL	UPLOAD BOTH, USE HIGHER
043f4301.d	241034017	JAOC	30-NOV-2009 16:29	925599	10-463	100.0	LANL	UPLOAD BOTH, USE HIGHER
044f4401.d	241038002	JAOC	30-NOV-2009 16:40	925599	10-462	10.0	LANL	UPLOAD BOTH, USE HIGHER
045f4501.d	WAR091119-60 04	JAOC	30-NOV-2009 16:51		113009a	1.0		PASSES BOTH COLUMNS
046f4601.d	WAR090916-99 05	JAOC	30-NOV-2009 17:02		113009a	1.0		CLEAN
047f4701.d	1201980278	JAOC	30-NOV-2009 17:13	926186	10-390	1.0	QC A	UPLOAD BOTH, USE HIGHER
048f4801.d	1201980281	JAOC	30-NOV-2009 17:24	926186	10-390	1.0	QC A	UPLOAD BOTH, USE HIGHER
049f4901.d	240638001	JAOC	30-NOV-2009 17:36	926186	10-390	1.0	LANL	UPLOAD BOTH, USE HIGHER
050f5001.d	1201980279	JAOC	30-NOV-2009 17:47	926186	10-390	1.0	QC A	UPLOAD BOTH, USE HIGHER
051f5101.d	1201980280	JAOC	30-NOV-2009 17:58	926186	10-390	1.0	QC A	UPLOAD BOTH, USE HIGHER
052f5201.d	240740003	JAOC	30-NOV-2009 18:09	926186	10-407	1.0	LANL	UPLOAD BOTH, USE HIGHER
053f5301.d	240740005	JAOC	30-NOV-2009 18:20	926186	10-407	5.0	LANL	UPLOAD BOTH, USE HIGHER
054f5401.d	WAR091119-60 05	JAOC	30-NOV-2009 18:31		113009a	1.0		PASSES BOTH COLUMNS
055f5501.d	WAR090916-99 06	JAOC	30-NOV-2009 18:42		113009a	1.0		CLEAN

Instrument Batch: /chem/ecd2a.i/113009a.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
056f5601.d	1201981445	JAOC	30-NOV-2009 18:53	926744	241365	1.0	QC A	DUSE, SAMPLE HAS SULFUR HITS
057f5701.d	1201981446	JAOC	30-NOV-2009 19:04	926744	241365	1.0	QC A	DUSE, SAMPLE HAS SULFUR HITS
058f5801.d	1201981447	JAOC	30-NOV-2009 19:15	926744	241365	1.0	QC A	DUSE, SAMPLE HAS SULFUR HITS
059f5901.d	241365001	JAOC	30-NOV-2009 19:26	926744	241365	1.0	GELC	DUSE, SAMPLE HAS SULFUR HITS
060f6001.d	WAR091119-60 06	JAOC	30-NOV-2009 19:42		113009a	1.0		PASSES BOTH COLUMNS
061f6101.d	WAR090916-99 07	JAOC	30-NOV-2009 19:53		113009a	1.0		CLEAN
062f6201.d	1201981383	JAOC	30-NOV-2009 20:05	926712	10-519	1.0	QC A	UPLOAD BOTH, USE HIGHER
063f6301.d	1201981386	JAOC	30-NOV-2009 20:16	926712	10-519	1.0	QC A	UPLOAD BOTH, USE HIGHER
064f6401.d	241033012	JAOC	30-NOV-2009 20:27	926712	10-460	10.0	LANL	UPLOAD BOTH, USE HIGHER
065f6501.d	241183002	JAOC	30-NOV-2009 20:38	926712	10-519	5.0	LANL	UPLOAD BOTH, USE HIGHER

066f6601.d	241183003	JAOC	30-NOV-2009 20:49	926712	10-519	10.0	LANL	UPLOAD BOTH, USE HIGHER
067f6701.d	241183004	JAOC	30-NOV-2009 21:00	926712	10-519	1.0	LANL	UPLOAD BOTH, USE HIGHER
068f6801.d	241318001	JAOC	30-NOV-2009 21:11	926712	10-543	10.0	LANL	UPLOAD BOTH, USE HIGHER
069f6901.d	241318002	JAOC	30-NOV-2009 21:22	926712	10-543	5.0	LANL	UPLOAD BOTH, USE HIGHER
070f7001.d	241318003	JAOC	30-NOV-2009 21:33	926712	10-543	5.0	LANL	UPLOAD BOTH, USE HIGHER
071f7101.d	241318004	JAOC	30-NOV-2009 21:44	926712	10-543	5.0	LANL	UPLOAD BOTH, USE HIGHER
072f7201.d	WAR091119-60 07	JAOC	30-NOV-2009 21:55		113009a	1.0		PASSES BOTH COLUMNS
073f7301.d	WAR090916-99 08	JAOC	30-NOV-2009 22:07		113009a	1.0		CLEAN
074f7401.d	241318005	JAOC	30-NOV-2009 22:18	926712	10-543	5.0	LANL	UPLOAD BOTH, USE HIGHER
075f7501.d	241318006	JAOC	30-NOV-2009 22:29	926712	10-543	1.0	LANL	UPLOAD BOTH, USE HIGHER

Instrument Batch: /chem/ecd2a.i/113009a.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
076f7601.d	241318007	JAOC	30-NOV-2009 22:40	926712	10-543	5.0	LANL	UPLOAD BOTH, USE HIGHER
077f7701.d	241318008	JAOC	30-NOV-2009 22:51	926712	10-543	1.0	LANL	UPLOAD BOTH, USE HIGHER
078f7801.d	241318009	JAOC	30-NOV-2009 23:02	926712	10-543	1.0	LANL	UPLOAD BOTH, USE HIGHER
079f7901.d	241318010	JAOC	30-NOV-2009 23:13	926712	10-543	5.0	LANL	UPLOAD BOTH, USE HIGHER
080f8001.d	241318013	JAOC	30-NOV-2009 23:24	926712	10-543	5.0	LANL	UPLOAD BOTH, USE HIGHER
081f8101.d	241318014	JAOC	30-NOV-2009 23:36	926712	10-543	1.0	LANL	UPLOAD BOTH, USE HIGHER
082f8201.d	241336001	JAOC	30-NOV-2009 23:47	926712	10-546	1.0	LANL	UPLOAD BOTH, USE HIGHER
083f8301.d	241336002	JAOC	30-NOV-2009 23:58	926712	10-546	5.0	LANL	UPLOAD BOTH, USE HIGHER
084f8401.d	WAR091119-60 08	JAOC	01-DEC-2009 00:09		113009a	1.0		PASSES BOTH COLUMNS
085f8501.d	WAR090916-99 09	JAOC	01-DEC-2009 00:20		113009a	1.0		CLEAN
086f8601.d	241417001	JAOC	01-DEC-2009 00:31	926712	10-575	10.0	LANL	UPLOAD BOTH, USE HIGHER
087f8701.d	1201981384	JAOC	01-DEC-2009 00:42	926712	10-575	10.0	QC A	UPLOAD BOTH, USE HIGHER
088f8801.d	1201981385	JAOC	01-DEC-2009 00:53	926712	10-575	10.0	QC A	UPLOAD BOTH, USE HIGHER
089f8901.d	241417002	JAOC	01-DEC-2009 01:05	926712	10-575	1.0	LANL	UPLOAD BOTH, USE HIGHER
090f9001.d	WAR091119-60 09	JAOC	01-DEC-2009 01:16		113009a	1.0		PASSES BOTH COLUMNS

091f9101.d	WAR090916-99 10	JAOC	01-DEC-2009 01:27	113009a	1.0	CLEAN

GEL ORGANIC RUN LOG INSTRUMENT ID: ECD2

DATE: 12/14/2009 METHOD: ECD2-F-8082-111209A.m OPERATOR:YS1 REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT:DA385
ALUMINA LOT:1230997-A
COPPER LOT:236547-A

Calibration & QC Information
Initial Calibration Dates: See Calibration History and Standards Log
Initial Calibration Std ID's: See Calibration History and Standards Log
GEL SOP GL-OA-E-040
EPA Method: 8082 Polychlorinated Biphenyls PCBs by Gas Chromatography
Sequence Number: Injection Volume: 1.0 uL

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001f0101.d	WAR091130-99 IB	YS1	14-DEC-2009 07:00		121409	1.0		CLEAN
002f0201.d	WAR091211-60 01	YS1	14-DEC-2009 07:11		121409	1.0		DUSE RE-I-CAL
003f0301.d	WAR091102-54	YS1	14-DEC-2009 07:22		121409	1.0		PASSED ON BOTH COLUMNS
004f0401.d	WAR091102-42	YS1	14-DEC-2009 07:33		121409	1.0		PASSED ON BOTH COLUMNS
005f0501.d	WAR091027-48	YS1	14-DEC-2009 07:44		121409	1.0		PASSED ON BOTH COLUMNS
006f0601.d	WAR090930-32	YS1	14-DEC-2009 07:55		121409	1.0		PATTERN ONLY
007f0701.d	WAR091111-21	YS1	14-DEC-2009 08:07		121409	1.0		PATTERN ONLY
008f0801.d	AR1660-4	YS1	14-DEC-2009 08:18		121409	1.0		DUSE SCREEN
009f0901.d	WAR091111-62	YS1	14-DEC-2009 08:29		121409	1.0		PATTERN ONLY
010f1001.d	WAR091106-68	YS1	14-DEC-2009 08:40		121409	1.0		PATTERN ONLY
011f1101.d	WAR091214-01 60	YS1	14-DEC-2009 08:51		121409	1.0		AR1660 I-CAL LEVEL 1
012f1201.d	WAR091214-02 60	YS1	14-DEC-2009 09:02		121409	1.0		AR1660 I-CAL LEVEL 2
013f1301.d	WAR091214-03 60	YS1	14-DEC-2009 09:13		121409	1.0		AR1660 I-CAL LEVEL 3
014f1401.d	WAR091214-04 60	YS1	14-DEC-2009 09:24		121409	1.0		AR1660 I-CAL LEVEL 4
015f1501.d	IAR091102-01	YS1	14-DEC-2009 09:35		121409	1.0		AR1660 I-CAL LEVEL 5

Instrument Batch: /chem/ecd2a.i/121409.b Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
016f1601.d	WAR091211-60 01	YS1	14-DEC-2009 09:46		121409	1.0		PASSED ON BOTH COLUMNS

017f1701.d	WAR091020-DDT	YS1	14-DEC-2009 09:58			121409		1.0		DDT ANALOG STANDARD
018f1801.d	WAR091130-99 02	YS1	14-DEC-2009 10:09		SOLV	121409		1.0	IB	CLEAN
019f1901.d	1201992205	YS1	14-DEC-2009 10:20		931371	241934		1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
020f2001.d	1201992206	YS1	14-DEC-2009 10:31		931371	241934		1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
021f2101.d	241934001	YS1	14-DEC-2009 10:42		931371	241934		10.0	NREA	UPLOAD BOTH COLUMNS, USE HIGHER
022f2201.d	1201992207	YS1	14-DEC-2009 10:53		931371	241934		10.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
023f2301.d	1201992208	YS1	14-DEC-2009 11:04		931371	241934		10.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
024f2401.d	241934002	YS1	14-DEC-2009 11:15		931371	241934		1.0	NREA	UPLOAD BOTH COLUMNS, USE HIGHER
025f2501.d	241934003	YS1	14-DEC-2009 11:26		931371	241934		1.0	NREA	UPLOAD BOTH COLUMNS, USE HIGHER
026f2601.d	241934004	YS1	14-DEC-2009 11:37		931371	241934		10.0	NREA	UPLOAD BOTH COLUMNS, USE HIGHER
027f2701.d	241934005	YS1	14-DEC-2009 11:48		931371	241934		1.0	NREA	UPLOAD BOTH COLUMNS, USE HIGHER
028f2801.d	241934006	YS1	14-DEC-2009 11:59		931371	241934		20.0	NREA	UPLOAD BOTH COLUMNS, USE HIGHER
029f2901.d	WAR091211-60 02	YS1	14-DEC-2009 12:11		1660	121409		1.0	CVS	PASSED ON BOTH COLUMNS
030f3001.d	WAR091130-99 03	YS1	14-DEC-2009 12:22		SOLV	121409		1.0	IB	CLEAN
031f3101.d	241934007	YS1	14-DEC-2009 12:33		931371	241934		1.0	NREA	UPLOAD BOTH COLUMNS, USE HIGHER
032f3201.d	241934008	YS1	14-DEC-2009 12:44		931371	241934		10.0	NREA	UPLOAD BOTH COLUMNS, USE HIGHER
033f3301.d	241934009	YS1	14-DEC-2009 13:00		931371	241934		1.0	NREA	USE RR5X AFTER MORE SULFUR CLEANED
034f3401.d	241934010	YS1	14-DEC-2009 13:11		931371	241934		10.0	NREA	UPLOAD BOTH COLUMNS, USE HIGHER
035f3501.d	241934011	YS1	14-DEC-2009 13:27		931371	241934		5.0	NREA	UPLOAD BOTH COLUMNS, USE HIGHER

Instrument Batch: /chem/ecd2a.i/121409.b Page: 2

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
036f3601.d	241935001	YS1	14-DEC-2009 13:43	931371	241935	1.0	NREA	UPLOAD BOTH COLUMNS, USE HIGHER
037f3701.d	241935004	YS1	14-DEC-2009 13:54	931371	241935	5.0	NREA	UPLOAD BOTH COLUMNS, USE HIGHER
038f3801.d	241935005	YS1	14-DEC-2009 14:05	931371	241935	5.0	NREA	UPLOAD BOTH COLUMNS, USE HIGHER
039f3901.d	241935006	YS1	14-DEC-2009 14:21	931371	241935	50.0	NREA	UPLOAD BOTH COLUMNS, USE HIGHER
040f4001.d	241935007	YS1	14-DEC-2009 14:36	931371	241935	5.0	NREA	UPLOAD BOTH COLUMNS, USE HIGHER
041f4101.d	WAR091211-60 03	YS1	14-DEC-2009 14:52		121409	1.0		PASSED ON BOTH COLUMNS

042f4201.d	WAR091130-99 04	YS1	14-DEC-2009 15:03	SOLV	121409		1.0	IB	CLEAN
043f4301.d	241934009	YS1	14-DEC-2009 15:14	931371	241934		5.0	NREA	UPLOAD BOTH COLUMNS, USE HIGHER
044f4401.d	241935008	YS1	14-DEC-2009 15:30	931371	241935		20000.0	NREA	UPLOAD BOTH COLUMNS, USE HIGHER
045f4501.d	WAR091211-60 04	YS1	14-DEC-2009 15:45		121409		1.0		PASSED ON BOTH COLUMNS

GEL ORGANIC RUN LOG INSTRUMENT ID: ECD2

DATE: 12/16/2009 METHOD: ECD2-F-8082-111209A.m OPERATOR:JAOC REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT:DA385
ALUMINA LOT:1230997-A
COPPER LOT:236547-A

Calibration & QC Information
Initial Calibration Dates: See Calibration History and Standards Log
Initial Calibration Std ID's: See Calibration History and Standards Log
GEL SOP GL-OA-E-040
EPA Method: 8082 Polychlorinated Biphenyls PCBs by Gas Chromatography
Sequence Number:111509 Injection Volume: 1.0 uL

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001f0101.d	WAR091130-99 IB	JAOC	15-DEC-2009 08:05		121509	1.0		CLEAN
002f0201.d	WAR091211-60 01	JAOC	15-DEC-2009 08:16		121509	1.0		PASSES BOTH COLUMNS
003f0301.d	WAR091102-54	JAOC	15-DEC-2009 08:27		121509	1.0		PASSES BOTH COLUMNS
004f0401.d	WAR091102-42	JAOC	15-DEC-2009 08:39		121509	1.0		PASSES BOTH COLUMNS
005f0501.d	WAR091027-48	JAOC	15-DEC-2009 08:50		121509	1.0		PASSES BOTH COLUMNS
006f0601.d	WAR090930-32	JAOC	15-DEC-2009 09:01		121509	1.0		PATTERN ONLY
007f0701.d	WAR091111-21	JAOC	15-DEC-2009 09:12		121509	1.0		PATTERN ONLY
008f0801.d	WAR091111-62	JAOC	15-DEC-2009 09:23		121509	1.0		PATTERN ONLY
009f0901.d	WAR091106-68	JAOC	15-DEC-2009 09:34		121509	1.0		PATTERN ONLY
010f1001.d	WAR091020-DDT	JAOC	15-DEC-2009 09:45		121509	1.0		DDT
011f1101.d	WAR091130-99 02	JAOC	15-DEC-2009 09:56		121509	1.0		CLEAN
012f1201.d	1201995311	JAOC	15-DEC-2009 10:07	932742	242557	1.0	QC A	UPLOAD BOTH, USE HIGHER
013f1301.d	1201995312	JAOC	15-DEC-2009 10:18	932742	242557	1.0	QC A	UPLOAD BOTH, USE HIGHER
014f1401.d	242012005	JAOC	15-DEC-2009 10:29	932742	242012	20.0	NREA	DUSE, CONFIRMS DCB HIGH
015f1501.d	242557017	JAOC	15-DEC-2009 10:41	932742	242557	1.0	NREA	DUSE, OVERRANGE

Instrument Batch: /chem/ecd2a.i/121509.b Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
016f1601.d	242557018	JAOC	15-DEC-2009 10:52	932742	242557	1.0	NREA	DUSE, OVERRANGE

017f1701.d	242557019	JAOC	15-DEC-2009 11:03	932742	242557		1.0	NREA	DUSE, AFTER OVERRANGE
018f1801.d	1201995315	JAOC	15-DEC-2009 11:14	932742	272557		1.0	QC A	UPLOAD BOTH, USE HIGHER
019f1901.d	1201995316	JAOC	15-DEC-2009 11:25	932742	242557		1.0	QC A	UPLOAD BOTH, USE HIGHER
020f2001.d	242557020	JAOC	15-DEC-2009 11:36	932742	242557		1.0	NREA	UPLOAD BOTH, USE HIGHER
021f2101.d	WAR091211-60 02	JAOC	15-DEC-2009 11:52		121509		1.0		PASSES BOTH COLUMNS
022f2201.d	WAR091130-99 03	JAOC	15-DEC-2009 12:05		121509		1.0		CLEAN
023f2301.d	242557017	JAOC	15-DEC-2009 12:16	932742	242557		100.0	NREA	UPLOAD BOTH, USE HIGHER
024f2401.d	242557018	JAOC	15-DEC-2009 12:27	932742	242557		100.0	NREA	UPLOAD BOTH, USE HIGHER
025f2501.d	242557019	JAOC	15-DEC-2009 12:38	932742	242557		1.0	NREA	SENT FOR RE, DOESN'T MATCH MS/MSD UPLOAD BOTH, USE HIGHER
026f2601.d	WAR091211-60 03	JAOC	15-DEC-2009 12:54		121509		1.0		PASSES BOTH COLUMNS
027f2701.d	WAR091130-99 04	JAOC	15-DEC-2009 13:05		121509		1.0		CLEAN
028f2801.d	1201995812	JAOC	15-DEC-2009 13:16	932929	242487		1.0	QC A	UPLOAD BOTH, USE HIGHER
029f2901.d	1201995813	JAOC	15-DEC-2009 13:27	932929	242487		1.0	QC A	UPLOAD BOTH, USE HIGHER
030f3001.d	1201995814	JAOC	15-DEC-2009 13:38	932929	242487		1.0	QC A	UPLOAD BOTH, USE HIGHER
031f3101.d	242487001	JAOC	15-DEC-2009 13:49	932929	242487		1.0	GWSD	UPLOAD BOTH, USE HIGHER
032f3201.d	1201995815	JAOC	15-DEC-2009 14:00	932929	242487		1.0	QC A	UPLOAD BOTH, USE HIGHER
033f3301.d	WAR091211-60 04	JAOC	15-DEC-2009 14:13		121509		1.0		PASSES BOTH COLUMNS
034f3401.d	WAR091130-99 05	JAOC	15-DEC-2009 14:30		121509		1.0		CLEAN
035f3501.d	1201995318	JAOC	15-DEC-2009 14:42	932746	10-852		1.0	QC A	UPLOAD BOTH, USE HIGHER
036f3601.d	1201995319	JAOC	15-DEC-2009 14:53	932746	10-852		1.0	QC A	UPLOAD BOTH, USE HIGHER
037f3701.d	242654001	JAOC	15-DEC-2009 15:04	932746	10-852		1.0	LANL	UPLOAD BOTH, USE HIGHER
038f3801.d	1201995320	JAOC	15-DEC-2009 15:15	932746	10-852		1.0	QC A	UPLOAD BOTH, USE HIGHER
039f3901.d	1201995321	JAOC	15-DEC-2009 15:26	932746	10-852		1.0	QC A	UPLOAD BOTH, USE HIGHER
040f4001.d	242654002	JAOC	15-DEC-2009 15:37	932746	10-852		1.0	LANL	UPLOAD BOTH, USE HIGHER
041f4101.d	242654003	JAOC	15-DEC-2009 15:48	932746	10-852		1.0	LANL	UPLOAD BOTH, USE HIGHER
042f4201.d	242654004	JAOC	15-DEC-2009 15:59	932746	10-852		1.0	LANL	UPLOAD BOTH, USE HIGHER
043f4301.d	242654005	JAOC	15-DEC-2009 16:10	932746	10-852		1.0	LANL	UPLOAD BOTH, USE HIGHER

044f4401.d	242654006	JAOC	15-DEC-2009 16:21	932746	10-852		1.0 LANL	UPLOAD BOTH, USE HIGHER
045f4501.d	WAR091211-60 05	JAOC	15-DEC-2009 16:32		121509		1.0	PASSES BOTH COLUMNS
046f4601.d	WAR091130-99 06	JAOC	15-DEC-2009 16:43		121509		1.0	CLEAN
047f4701.d	242654007	JAOC	15-DEC-2009 16:54	932746	10-852		5.0 LANL	UPLOAD BOTH, USE HIGHER
048f4801.d	242654008	JAOC	15-DEC-2009 17:05	932746	10-852		5.0 LANL	UPLOAD BOTH, USE HIGHER
049f4901.d	242654009	JAOC	15-DEC-2009 17:16	932746	10-852		1.0 LANL	UPLOAD BOTH, USE HIGHER
050f5001.d	242654010	JAOC	15-DEC-2009 17:28	932746	10-852		1.0 LANL	UPLOAD BOTH, USE HIGHER
051f5101.d	242654011	JAOC	15-DEC-2009 17:39	932746	10-852		1.0 LANL	UPLOAD BOTH, USE HIGHER
052f5201.d	242654012	JAOC	15-DEC-2009 17:50	932746	10-852		5.0 LANL	UPLOAD BOTH, USE HIGHER
053f5301.d	242654013	JAOC	15-DEC-2009 18:01	932746	10-852		1.0 LANL	UPLOAD BOTH, USE HIGHER
054f5401.d	242654014	JAOC	15-DEC-2009 18:12	932746	10-852		5.0 LANL	UPLOAD BOTH, USE HIGHER
055f5501.d	242654015	JAOC	15-DEC-2009 18:23	932746	10-852		1.0 LANL	UPLOAD BOTH, USE HIGHER

Instrument Batch: /chem/ecd2a.i/121509.b Page: 3

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
056f5601.d	242654016	JAOC	15-DEC-2009 18:34	932746	10-852		5.0 LANL	UPLOAD BOTH, USE HIGHER
057f5701.d	WAR091211-60 06	JAOC	15-DEC-2009 18:50		121509		1.0	PASSES BOTH COLUMNS
058f5801.d	WAR091130-99 07	JAOC	15-DEC-2009 19:01		121509		1.0	CLEAN
059f5901.d	242654017	JAOC	15-DEC-2009 19:12	932746	10-852		5.0 LANL	UPLOAD BOTH, USE HIGHER
060f6001.d	242654018	JAOC	15-DEC-2009 19:23	932746	10-852		1.0 LANL	UPLOAD BOTH, USE HIGHER
061f6101.d	242654019	JAOC	15-DEC-2009 19:34	932746	10-852		1.0 LANL	UPLOAD BOTH, USE HIGHER
062f6201.d	242654020	JAOC	15-DEC-2009 19:45	932746	10-852		1.0 LANL	UPLOAD BOTH, USE HIGHER
063f6301.d	WAR091211-60 07	JAOC	15-DEC-2009 19:56		121509		1.0	PASSES BOTH COLUMNS
064f6401.d	WAR091130-99 08	JAOC	15-DEC-2009 20:07		121509		1.0	CLEAN

Prep Logbook

Extraction of Semivolatile and Nonvolatile Organic Compounds from Soil, Sludge, and Other Miscellaneous Solid Samples

Batch ID: 932744 **Verified by:** _____

Analyst: Andrew Schwemin

Method: SW846 3550B

Lab SOP: GL-OA-E-010 REV# 18

Instrument: Semi-Volatiles Manual

Sample ID	Run Date	Aliquot (g)	Clean Up	Prior to Clean up (mL)	Amount Cleaned (mL)	After Clean up (mL)	Prepped Aliquot (mL)	Prepped Factor (mL/g)
1201995318 MB	14-DEC-2009 22:59:19	30	H2SO4/KMn2		2	9	1	0.03333
1201995319 LCS	14-DEC-2009 22:59:19	30	H2SO4/KMn2		2	9	1	0.03333
242654001	14-DEC-2009 22:59:19	30.02	H2SO4/KMn2		2	9	1	0.03331
1201995320 MS (242654001)	14-DEC-2009 22:59:19	30.02	H2SO4/KMn2		2	9	1	0.03331
1201995321 MSD (242654001)	14-DEC-2009 22:59:19	30.08	H2SO4/KMn2		2	9	1	0.03324
242654002	14-DEC-2009 22:59:19	30.05	H2SO4/KMn2		2	9	1	0.03328
242654003	14-DEC-2009 22:59:19	30.02	H2SO4/KMn2		2	9	1	0.03331
242654004	14-DEC-2009 22:59:19	30.02	H2SO4/KMn2		2	9	1	0.03331
242654005	14-DEC-2009 22:59:19	30.17	H2SO4/KMn2		2	9	1	0.03315
242654006	14-DEC-2009 22:59:19	30.13	H2SO4/KMn2		2	9	1	0.03319
242654007	14-DEC-2009 22:59:19	30.07	H2SO4/KMn2		2	9	1	0.03326
242654008	14-DEC-2009 22:59:19	30.01	H2SO4/KMn2		2	9	1	0.03332
242654009	14-DEC-2009 22:59:19	30.18	H2SO4/KMn2		2	9	1	0.03313
242654010	14-DEC-2009 22:59:19	30.02	H2SO4/KMn2		2	9	1	0.03331
242654011	14-DEC-2009 22:59:19	30.02	H2SO4/KMn2		2	9	1	0.03331
242654012	14-DEC-2009 22:59:19	30.03	H2SO4/KMn2		2	9	1	0.0333
242654013	14-DEC-2009 22:59:19	30.06	H2SO4/KMn2		2	9	1	0.03327
242654014	14-DEC-2009 22:59:19	30.15	H2SO4/KMn2		2	9	1	0.03317
242654015	14-DEC-2009 22:59:19	30.06	H2SO4/KMn2		2	9	1	0.03327
242654016	14-DEC-2009 22:59:19	30.08	H2SO4/KMn2		2	9	1	0.03324
242654017	14-DEC-2009 22:59:19	30.19	H2SO4/KMn2		2	9	1	0.03312
242654018	14-DEC-2009 22:59:19	30.12	H2SO4/KMn2		2	9	1	0.0332
242654019	14-DEC-2009 22:59:19	30.17	H2SO4/KMn2		2	9	1	0.03315
242654020	14-DEC-2009 22:59:19	30.14	H2SO4/KMn2		2	9	1	0.03318

Type	Sample Id	Description	Serial Number	Spike Amt	Units
LCS	1201995319	PCB Laboratory Control	WE091210-07	1	mL
MS	1201995320	PCB Laboratory Control	WE091210-07	1	mL
MSD	1201995321	PCB Laboratory Control	WE091210-07	1	mL
SURR	All	PEST LOW LEVEL SURROGATE 200 UG/L	UE091130-15	1	mL
REGNT	All	1:1 sulfuric acid	1133264a	5	mL
REGNT	All	Acetone	1233927	150	mL
REGNT	All	Hexane	1241300-B2	150	mL
REGNT	All	5% Potassium Permanganate	B1202457-F	5	mL
SOURC	All	SODIUM SULFATE	1242582	30	g

Comments:

Clean up Date: 12/14/09
Clean up Initials: AJS
Verified By: AV
Final Solvent: Hexane
Clean Up SOP: GL-OA-E-037

COMPANY - WIDE NONCONFORMANCE REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
16-DEC-09	Federal	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
GC/ECD	SW846 8082	Solid	LANL
Batch ID:	**Sample Numbers:**		
932746	See Below		

Potentially affected work order(s)(SDG): 242654(10-852)

Application Issues:

Failed Yield for Surrogates

Specification and Requirements Nonconformance Description:	NRG Disposition:
1. Sample 242654008 did not meet surrogate recovery acceptance limits.	1. The sample was analzyed at a dilution due to matrix interference. As a result, the surrogates were diluted outside of the acceptance limits.

Originator's Name:

Jennifer Criscione 16-DEC-09

Data Validator/Group Leader:

Cameron Bearden 16-DEC-09

Tuesday, December 15, 2009

REQUEST NUMBER: 10-941

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

These Samples are on:

LANL Request Number:10-941

Per Agreement Number:126310011

Project Cost Code: MR2A054196D0

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 12/15/2009

TURNAROUND/REPORT DUE: 1/14/2010

TURNAROUND REQ'D: 30 Days

RAD SCREENING: Not Required

LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:

Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:906.0	1	RE03-09-14208	S	12/14/2009	
		1	RE03-09-14209	S	12/14/2009	
		1	RE03-09-14210	S	12/14/2009	
		1	RE03-09-14211	S	12/14/2009	
		1	RE03-09-14220	S	12/14/2009	
		1	RE03-09-14221	S	12/14/2009	
		1	RE03-09-14222	S	12/14/2009	
		1	RE03-09-14223	S	12/14/2009	
		1	RE03-10-2734	S	12/14/2009	

Tuesday, December 15, 2009

REQUEST NUMBER: 10-941

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:6010B	1	RE03-09-14208	S	12/14/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14209	S	12/14/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14210	S	12/14/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14211	S	12/14/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14220	S	12/14/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14221	S	12/14/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14222	S	12/14/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14223	S	12/14/2009	Plus, B, Li, Si, Ti, U
		1	RE03-10-2734	S	12/14/2009	
		1	RE03-10-2748	W	12/14/2009	
		1	RE03-10-2760	W	12/14/2009	
	SW-846:6020	1	RE03-10-2748	W	12/14/2009	
		1	RE03-10-2760	W	12/14/2009	
	SW-846:9012A	1	RE03-09-14208	S	12/14/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14209	S	12/14/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14210	S	12/14/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14211	S	12/14/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14220	S	12/14/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14221	S	12/14/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14222	S	12/14/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14223	S	12/14/2009	Plus, B, Li, Si, Ti, U
		1	RE03-10-2734	S	12/14/2009	
		1	RE03-10-2748	W	12/14/2009	
		1	RE03-10-2760	W	12/14/2009	

Final Page of REQUEST NUMBER 10-941

Tuesday, December 15, 2009

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-941

REQUEST NUMBER: 10-941

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 1/14/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS:

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE03-09-14221	1	POLY	H3	Ice	S
RE03-09-14221	1	POLY	Metals+CN - GEL	Ice	S
RE03-09-14211	1	POLY	H3	Ice	S
RE03-09-14211	1	POLY	Metals+CN - GEL	Ice	S
RE03-09-14210	1	POLY	H3	Ice	S
RE03-09-14210	1	POLY	Metals+CN - GEL	Ice	S
RE03-09-14209	1	POLY	H3	Ice	S
RE03-09-14209	1	POLY	Metals+CN - GEL	Ice	S
RE03-09-14208	1	POLY	H3	Ice	S
RE03-09-14208	1	POLY	Metals+CN - GEL	Ice	S
RE03-09-14222	1	POLY	H3	Ice	S
RE03-09-14222	1	POLY	Metals+CN - GEL	Ice	S
RE03-09-14223	1	POLY	H3	Ice	S
RE03-09-14223	1	POLY	Metals+CN - GEL	Ice	S
RE03-09-14220	1	POLY	H3	Ice	S
RE03-09-14220	1	POLY	Metals+CN - GEL	Ice	S
RE03-10-2734	1	POLY	H3	Ice	S
RE03-10-2734	1	POLY	Metals+CN - GEL	Ice	S
RE03-10-2760	1	POLY	METALS-GEL	Nitric Acid	W
RE03-10-2760	1	POLY	TCN	Sodium Hydroxide	W
RE03-10-2748	1	POLY	METALS-GEL	Nitric Acid	W
RE03-10-2748	1	POLY	TCN	Sodium Hydroxide	W

Relinquished By:		Date	Time	Received By:		Date	Time
[illegible]	[illegible]	12/15/09	1400				
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

Received for DISPOSAL By:		Date	Time	Remarks:

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

ıT ID: 2276 EVENT NAME: Soil Sampling at TA-60

SAMPLE ID: RE03-09-14208 WORK ORDER:

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12-14-09	MEDIA:	NA	all H
TIME COLLECTED (HH:MM)		1210	SUB-MEDIA:	OTHER	NA
PRS ID:	60-004(f)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	03-608404	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	BH	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	1'	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	2'	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	S		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B ma 12/7/09	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C~~+8082+~~TPH-DRO	500 ML GLASS	Ice	Y	
1		H3	500 ML POLY	Ice	Y	
1		Metals+CN - GEL	125 ML POLY	Ice	Y	

SAMPLE DESC: dk reddish brown sandy clay (5YR 3/4)

SAMPLE COMMENTS: NA

LOCATION DESC: 4(f)-1

FIELD SCREENING/MEASUREMENT RESULTS: PID = 2.8 ppm samples: < MDA
BACKGROUND
α: 17 DPM
β: 1461

COLLECTED BY (PRINT) L. Horne REVIEWED BY (PRINT) M. Rains

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) M. Rains (Signature) [signature]	12/14/09 1510	(Printed Name) Sherri Sherwood (Signature) Sherri Sherwood	12/14/09 1510
RELINQUISHED BY (Printed Name) (Signature)	Date/Time	RECEIVED BY (Printed Name) (Signature)	Date/Time

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2276 **EVENT NAME:** Soil Sampling at TA-60

SAMPLE ID: RE03-09-14209 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12-14-09	MEDIA:	NA	mr 12/14/09 ~~all~~ H-OBT3
TIME COLLECTED (HH:MM)		1220	SUB-MEDIA:	OTHER	NA
PRS ID:	60-004(f)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	03-608404	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	BH	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	2'	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	3'	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	mr 12/14/09 ~~SR~~		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B mr 12/7/09	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C~~+8082~~+TP H-DRO	500 ML GLASS	Ice	Y	
1		H3	500 ML POLY	Ice	Y	
1		Metals+CN - GEL	125 ML POLY	Ice	Y	

SAMPLE DESC: reddish brown tuff (5 YR 5/4)

SAMPLE COMMENTS: Hit tuff @ 2.5'

LOCATION DESC: 4(f)-1

FIELD SCREENING/MEASUREMENT RESULTS: PID = 0.0 ppm BACKGROUND α: 17 β: 1461 DPM Samples: < MDA

COLLECTED BY (PRINT) M. Nauck **REVIEWED BY (PRINT)** M. Rains

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) M. Rains (Signature) [signature]	12/14/09 1510	(Printed Name) Sherri Sherwood (Signature) Sherri Sherwood	12/10/09 1510
RELINQUISHED BY (Printed Name) (Signature)	Date/Time	RECEIVED BY (Printed Name) (Signature)	Date/Time

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2276 **EVENT NAME:** Soil Sampling at TA-60

SAMPLE ID: RE03-09-14210 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12-14-09	MEDIA:	NA	QBT3
TIME COLLECTED (HH:MM)		1227	SUB-MEDIA:	OTHER	NA
PRS ID:	60-004(f)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	03-608404	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	BH	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	~~3~~ 4'	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	~~4~~ 5'	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	12/14/09 SR		EXCAVATED: YES / NO / NA		

mr 12/7/09

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B mr 12/7/09	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C~~+8082~~+TPH-DRO	500 ML GLASS	Ice	Y	
1		H3	500 ML POLY	Ice	Y	
1		Metals+CN - GEL	125 ML POLY	Ice	Y	

SAMPLE DESC: Brown tuff (7.5 YR 5/4)

SAMPLE COMMENTS: NA

LOCATION DESC: 4(f)-1

FIELD SCREENING/MEASUREMENT RESULTS: PID = 0.0 ppm samples: < MDA
BACKGROUND
α: 17
β: 1461 DPM

COLLECTED BY (PRINT) L. Horne **REVIEWED BY (PRINT)** M. Rains

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) M. Rains (Signature) [signature]	12/14/09 1510	(Printed Name) Sherri Sherwood (Signature) Sherri Sherwood	12/14/09 1510
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name) (Signature)		(Printed Name) (Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2276 **EVENT NAME:** Soil Sampling at TA-60

SAMPLE ID: RE03-09-14211 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12-14-09	MEDIA:	NA	QBT3
TIME COLLECTED (HH:MM)		1255	SUB-MEDIA:	OTHER	NA
PRS ID:	60-004(f)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	03-608404	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	BH	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	9'	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	10'	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	~~S~~ R mR 12/14/09		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B mR 12/7/09	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+~~8082~~+TP H-DRO	500 ML GLASS	Ice	Y	
1		H3	500 ML POLY	Ice	Y	
1		Metals+CN - GEL	125 ML POLY	Ice	Y	

SAMPLE DESC: Brown tuff (7.5 YR 4/3)

SAMPLE COMMENTS: NA

LOCATION DESC: 04(f)-1

FIELD SCREENING/MEASUREMENT RESULTS: PID = 0.5 ppm samples: < MDA
BACKGROUND
α: 17
β: mR 12/14/09 ~~1461~~ 1461 DPM

COLLECTED BY (PRINT) M. Nauck REVIEWED BY (PRINT) M. Rains

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) M. Rains (Signature) [signature]	12/14/09 1510	(Printed Name) Sherri Sherwood (Signature) Sherri Sherwood	12/14/09 1510
RELINQUISHED BY (Printed Name) (Signature)	Date/Time	RECEIVED BY (Printed Name) (Signature)	Date/Time

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2276 **EVENT NAME:** Soil Sampling at TA-60

SAMPLE ID: RE03-09-14220 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12-14-09	MEDIA:	NA	mp 12/14/09 ~~ok~~ all H
TIME COLLECTED (HH:MM)		0927	SUB-MEDIA:	OTHER	ok
PRS ID:	60-004(f)	ok	SAMPLE TECH CODE:	HA	
LOCATION ID:	03-608407		FIELD QC TYPE:	NA	
LOCATION TYPE:	BH		FIELD PREP:	NA	
TOP DEPTH:	0	1'	SAMPLE USAGE:	INV	
BOTTOM DEPTH:	0	2'	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	S		EXCAVATED: YES / NO (NA)		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / (NA)

BOREHOLE: YES / NO / (NA) BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+8082+TPH-DRO	500 ML GLASS	Ice	Y	
1		H3	500 ML POLY	Ice	Y	
1		Metals+CN - GEL	125 ML POLY	Ice	Y	

SAMPLE DESC: very dark brown clayey sand. (7.5 YR 2.5/2)

SAMPLE COMMENTS: sample interval began 3" beneath asphalt surface layer

LOCATION DESC: 4(f)-4

FIELD SCREENING/MEASUREMENT RESULTS: PID = 1.3 ppm BACKGROUND α: 17 β: 1461 DPM samples: < MDA

COLLECTED BY (PRINT) L. Horne REVIEWED BY (PRINT) M. Rains

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) M. Rains (Signature) [signature]	12/14/09 1510	(Printed Name) Sherri Sherwood (Signature) Sherri Sherwood	12/14/09 1510
RELINQUISHED BY (Printed Name) (Signature)	Date/Time	RECEIVED BY (Printed Name) (Signature)	Date/Time

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2276 **EVENT NAME:** Soil Sampling at TA-60

SAMPLE ID: RE03-09-14221 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12-14-09	MEDIA:	NA	all H
TIME COLLECTED (HH:MM)		0934	SUB-MEDIA:	OTHER	ok
PRS ID:	60-004(f)	ok	SAMPLE TECH CODE:	HA	
LOCATION ID:	03-608407		FIELD QC TYPE:	NA	
LOCATION TYPE:	BH		FIELD PREP:	NA	
TOP DEPTH:	0	2'	SAMPLE USAGE:	INV	
BOTTOM DEPTH:	0	3'	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	S		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	y	
1		8270C+8082+TPH-DRO	500 ML GLASS	Ice	y	
1		H3	500 ML POLY	Ice	y	
1		Metals+CN - GEL	125 ML POLY	Ice	y	

SAMPLE DESC: Brown clay (7.5 YR 4/4)

SAMPLE COMMENTS: NA

LOCATION DESC: 4(f)-4

FIELD SCREENING/MEASUREMENT RESULTS: PID = 0.0 ppm samples: < MDA

BACKGROUND
α: 17 DPM
β: 1461

COLLECTED BY (PRINT) L. Horne **REVIEWED BY (PRINT)** M. Rains

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) M. Rains (Signature) [signature]	12/14/09 1510	(Printed Name) Sherri Sherwood (Signature) Sherri Sherwood	12/14/09 1510
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name) (Signature)		(Printed Name) (Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2276 **EVENT NAME:** Soil Sampling at TA-60

SAMPLE ID: RE03-09-14222 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12-14-09	MEDIA:	NA	ale H
TIME COLLECTED (HH:MM)		1010	SUB-MEDIA:	OTHER	NA
PRS ID:	60-004(f)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	03-608407	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	BH		FIELD PREP:	NA	
TOP DEPTH:	0	4'	SAMPLE USAGE:	INV	
BOTTOM DEPTH:	0	5'	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	S		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B me 12/14/09	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C ~~+8082~~+TPH-DRO	500 ML GLASS	Ice	Y	
1		H3	500 ML POLY	Ice	Y	
1		Metals+CN - GEL	125 ML POLY	Ice	Y	

SAMPLE DESC: sandy clay. reddish brown (5YR 4/4)

SAMPLE COMMENTS:

LOCATION DESC: 4 (f)-4

FIELD SCREENING/MEASUREMENT RESULTS: PID = 0.0 ppm samples: < MDA
BACKGROUND
α: 17
β: 1461 DPM

COLLECTED BY (PRINT) L. Horne **REVIEWED BY (PRINT)** M. Rains

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) M. Rains (Signature) [signature]	12/14/09 1510	(Printed Name) Sherri Sherwood (Signature) Sherri Sherwood	12/14/09 1510
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name) (Signature)		(Printed Name) (Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2276 **EVENT NAME:** Soil Sampling at TA-60

SAMPLE ID: RE03-09-14223 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12-14-09	MEDIA:	NA	QBT2
TIME COLLECTED (HH:MM)		1040	SUB-MEDIA:	OTHER	NA
PRS ID:	60-004(f)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	03-608407	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	BH	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	9'	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	10'	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	mR 12/14/09 ~~S~~ R		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B mR 12/7/09	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C~~+8082~~+TPH-DRO	500 ML GLASS	Ice	Y	
1		H3	500 ML POLY	Ice	Y	
1		Metals+CN - GEL	125 ML POLY	Ice	Y	

SAMPLE DESC: dusky red tuff (10 R 3/4)

SAMPLE COMMENTS: Hit tuff @ 8'

LOCATION DESC: 4 (f) - 4

FIELD SCREENING/MEASUREMENT RESULTS: PID = 0.0 ppm Samples: LMDA
BACKGROUND
α: 17
β: 1461 DPM

COLLECTED BY (PRINT) M. Rains

REVIEWED BY (PRINT) ~~M. Rains~~ M. Nauck MN 12-14-09

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) M. Nauck	12-14-09	(Printed Name) Sherri Sherwood	12-14-09
(Signature)	1510	(Signature) Sherri Sherwood	1510
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2276 **EVENT NAME:** Soil Sampling at TA-60

SAMPLE ID: RE03-10-2734 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12-14-09	MEDIA:	ALLH	ok
TIME COLLECTED (HH:MM)		1010	SUB-MEDIA:	SOIL	
PRS ID:	60-004(f)	ok	SAMPLE TECH CODE:	HA	
LOCATION ID:	UNK	03-608407	FIELD QC TYPE:	FD	
LOCATION TYPE:	GENERIC	ok	FIELD PREP:	NA	
TOP DEPTH:	0	4'	SAMPLE USAGE:	QC	
BOTTOM DEPTH:	0	5'	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	S		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+8082+TPH-DRO	500 ML GLASS	Ice	Y	
1		H3	500 ML POLY	Ice	Y	
1		Metals+CN - GEL	125 ML POLY	Ice	Y	

SAMPLE DESC: QC Sample of RE03-09-14222

SAMPLE COMMENTS: NA

LOCATION DESC: NA

FIELD SCREENING/MEASUREMENT RESULTS: PID = 0.0 ppm
BACKGROUND
α: 17 DPM
β: 1461

COLLECTED BY (PRINT) M. Rains

REVIEWED BY (PRINT) ~~M. Rains~~ M. Nauck 12-14-09 M. Nauck

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) M. Nauck	12-14-09	(Printed Name) Sherri Sherwood	12-14-09
(Signature)	1510	(Signature) Sherri Sherwood	1510
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2276 **EVENT NAME:** Soil Sampling at TA-60

SAMPLE ID: RE03-10-2748 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12-14-09	MEDIA:	NA	ok
TIME COLLECTED (HH:MM)		1126	SUB-MEDIA:	OTHER	
PRS ID:	60-004(f)	ok	SAMPLE TECH CODE:	DC	
LOCATION ID:	UNK	03-608407	FIELD QC TYPE:	FB	
LOCATION TYPE:	GENERIC	ok	FIELD PREP:	UF	
TOP DEPTH:	0		SAMPLE USAGE:	QC	
BOTTOM DEPTH:	0		SCREEN/PORT DESC:		NA
FIELD MATRIX:	W		EXCAVATED: YES / NO (NA)		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO (NA)

BOREHOLE: YES / NO / (NA) BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		METALS-GEL	1 LITER POLY	Nitric Acid	Y	
1		TCN	500 ML POLY	Sodium Hydroxide	Y	

SAMPLE DESC: QC Sample of RE03-09-14223

SAMPLE COMMENTS: NA

LOCATION DESC: NA

FIELD SCREENING/MEASUREMENT RESULTS: NA

COLLECTED BY (PRINT) M. Nauck **REVIEWED BY (PRINT)** M. Rains

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) M. Rains (Signature) [signature]	12/14/09 1510	(Printed Name) Sherri Sherwood (Signature) Sherri Sherwood	12/14/09 1510
RELINQUISHED BY (Printed Name) (Signature)	**Date/Time**	**RECEIVED BY** (Printed Name) (Signature)	**Date/Time**

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2276 **EVENT NAME:** Soil Sampling at TA-60

SAMPLE ID: RE03-10-2760 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12-14-09	MEDIA:	NA	ok
TIME COLLECTED (HH:MM)		1128	SUB-MEDIA:	OTHER	
PRS ID:	60-004(f)	ok	SAMPLE TECH CODE:	DC	
LOCATION ID:	UNK	03-608407	FIELD QC TYPE:	FR	
LOCATION TYPE:	GENERIC	ok	FIELD PREP:	UF	
TOP DEPTH:	0		SAMPLE USAGE:	QC	
BOTTOM DEPTH:	0		SCREEN/PORT DESC:	NA	
FIELD MATRIX:	W		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		METALS-GEL	1 LITER POLY	Nitric Acid	Y	
1		TCN	500 ML POLY	Sodium Hydroxide	Y	

SAMPLE DESC: QC Sample of RE03-09-14223

SAMPLE COMMENTS: NA

LOCATION DESC: NA

FIELD SCREENING/MEASUREMENT RESULTS: NA

COLLECTED BY (PRINT) M. Nauck **REVIEWED BY (PRINT)** M. Rains

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) M. Rains (Signature) [signature]	12/14/09 1510	(Printed Name) Sherri Sherwood (Signature) Sherri Sherwood	12/14/09 1510
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name) (Signature)		(Printed Name) (Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2276 **EVENT NAME:** Soil Sampling at TA-60

SAMPLE ID: RE03-10-8963 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12-14-09	MEDIA:	NA	OK
TIME COLLECTED (HH:MM)		1400	SUB-MEDIA:	OTHER	
PRS ID:	60-004(f)	OK	SAMPLE TECH CODE:	DC	
LOCATION ID:	UNK		FIELD QC TYPE:	FTB	
LOCATION TYPE:	GENERIC		FIELD PREP:	NA	
TOP DEPTH:	0		SAMPLE USAGE:	QC	
BOTTOM DEPTH:	0		SCREEN/PORT DESC:	NA	
FIELD MATRIX:	S		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
~~2~~ 1	MN 12-14-09	8260B Trip Blank	40 ML SEPTUM AMBER GLASS	Ice	Y	

SAMPLE DESC: QC Sample of ~~WSTOR~~ MN 12-14-09 RE03-09-14215

SAMPLE COMMENTS: NA

LOCATION DESC: NA

FIELD SCREENING/MEASUREMENT RESULTS: NA

COLLECTED BY (PRINT) M. Rains

REVIEWED BY (PRINT) M. Nauck

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) M. Nauck	12-14-09	(Printed Name) Sherri Sherwood	12-14-09
(Signature)	1510	(Signature) Sherri Sherwood	1510
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

DATA VALIDATION COVER SHEET

5118-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY

Section I.

REQUEST NUMBER: 10-941 VALIDATION DATE: 02/09/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Peter Steves ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

☐ TPH-GRO	☐ HIGH EXPLOSIVES	☐ DIOXIN FURANS	☐ LCMSMS PERCHLORATES
☐ TPH-DRO	☒ METALS	☐ PCB CONGENERS	☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
☐ GENERAL CHEMISTRY	☐ RADIOCHEMISTRY	☐ LCMSMS HIGH EXPLOSIVES	

☐ OTHER (DESCRIBE):

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☐	☐	☒	8. QUANTITATION REPORTS
☐	☐	☒	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. In the solid MB, Hg and Si were detected. The associated Hg result for sample RE03-09-14221 was a detect >5X but ≤50X the MB concentration and, thus, was qualified J,I4a. The Hg result for sample -09-14220 and all the associated Si sample results were detects >50X the MB concentration and, thus, were not qualified, based on professional judgment. The Hg result for sample -09-14211 was an ND and, thus, was not qualified. The remaining associated Hg sample results were detects ≤5X the MB concentration and, thus, were qualified U,I4.

2. In the solid ICB/CCBs, Sb and Tl were detected. All associated Tl sample results and the associated Sb results for samples -09-14210 and -09-14220 were detects ≤5X the greatest associated blank concentration and, thus, were qualified U,I4b. The remaining associated Sb sample results were NDs and, thus, were not qualified. In the aqueous ICB/CCBs, Ba, Cr, Co, Fe, Ni and Ti were detected. The Ba, Fe, Ni and Ti results for sample -10-2760 were detects ≤5X the greatest associated blank concentration and, thus, were qualified U,I4b. All other associated sample results were either detects >5X the greatest associated blank concentration or were NDs and, thus, were not qualified.

3. In the FB blank, sample -10-2748, which was associated with samples -09-14208 through -09-14211, Si was detected. The associated sample results were detects >5X the FB blank concentration and, thus, were not qualified. In the FR blank, sample -10-2760, associated with all soil samples, Al, Ca, Cr, Mn, K, Si, Na, Tl and Zn were detected. The Cr result for sample -09-14211 and the Na results for samples -09-14221, -09-14210, -09-14209 and -09-14223 were detects ≤5X the FR blank concentrations and, thus, were qualified U,I4d. The remaining associated sample results were either detects >5X the FR blank concentration or were qualified NDs and, thus were not qualified.

4. The solid MS %R was < the laboratory LAL but ≥10% for Sb, Si, Zn, Se and Be. The associated Sb and Se sample result were NDs or were qualified ND and, thus, were qualified UJ,I6a. The remaining associated sample results were detects and, thus, were qualified J-,I6a. The solid MS %Rs were > the laboratory UAL for Hg and K. The Hg results for

DATA VALIDATION COVER SHEET

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Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

samples -09-14221 and -09-14220 and all associated K sample results were detects and, thus, were qualified J+,I6b. The remaining associated Hg sample results were either NDs or were qualified ND and, thus, were qualified UJ,I6b. Also, the solid MS %Rs were > the laboratory UAL for Al, Fe, Mg, Mn and Ti. However, the associated parent sample concentrations were >4X the spike concentrations. Thus, the associated sample results were not qualified, based on professional judgment.

5. The solid RPDs between the duplicate and its parent sample for Cu, Si and Zn were >35%, and the duplicate and parent sample results were ≥5X the RLs. The associated sample results were detects and, thus, were qualified J,I10a.

Reviewed by: Mary Donivan Level: I Date: 02/09/10

VALIDATOR'S SIGNATURE: Mr. Peter Steves DATE: 02/09/10

Form 5118-1, Revision 0.0

LOS ALAMOS
Environmental Restoration Project

METALS ANALYTICAL DATA VALIDATION CHECKLIST

5118-2

Metals Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, I9	J-, I9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, I9a	J-, I9a
☐	☐	☒	3. The instrument performance sample did not pass method acceptance criteria.	R, I16	R, I16
☐	☐	☒	4. The mass calibration is not within 0.1 amu or %RSD is >5% for any isotope (Be, Mg, Co, In, Pb).	UJ, I16a	J, I16a
☐	☐	☒	5. Samples were analyzed outside specific method tune time criteria.	N/A	J, I16b
☐	☐	☒	6. The required instrument performance sample information is missing. Contact the SMO or external laboratory for information.	R, I16c	R, I16c
☐	☒	☐	7. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, I7	J, I7
☐	☒	☐	8. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, I7a	J, I7a
☐	☒	☐	9. The initial Calibration Verification (ICV) and/or Continuing Calibration Verification (CCV) were recovered outside the method-specific limits.	UJ, I7c	J, I7c
☐	☒	☐	10. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, I7d	J, I7d
☐	☒	☐	11. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, I7f	R, I7f
☐	☒	☐	12. Metals interference check sample percent recover value is <50%.	R, I2	J-, I2

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5118-2

Metals Analytical Data Validation Checklist

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Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	13. Metals interference check sample percent recovery value is ≥50% and <80%	UJ, I2a	J-, I2a
☐	☒	☐	14. Metals interference check sample percent recovery value is >120%.	N/A	J+, I2b
☐	☒	☐	15. Metals interference check sample was not analyzed with the samples.	R, I2c	R, I2c
☒	☐	☐	16. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, I4	N/A
☒	☐	☐	17. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X.	N/A	J, I4a
☒	☐	☐	18. The sample result is ≤5X the concentration of the related analyte in the instrument blank and continuing calibration blank.	U, I4b	N/A
☐	☒	☐	19. Continuing calibration blanks were not analyzed at the appropriate method frequency.	UJ, I4c	J, I4c
☒	☐	☐	20. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	U, I4d	N/A
☐	☒	☐	21. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, I4e	R, I4e
☐	☒	☐	22. The associated matrix spike recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I6	R, I6
☒	☐	☐	23. The associated matrix spike recovery was <the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I6a	J+, I6a
☒	☐	☐	24. The associated matrix spike recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	UJ, I6b	J+, I6b

METALS ANALYTICAL DATA VALIDATION CHECKLIST

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Metals Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	25. Required matrix spike information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. If the LCS information is present, do not Reject. Qualify data based on the LCS information.	R, I6c	R, I6c
☒	☐	☐	26. The sample and the duplicate sample results were ≥5X the RL and the duplicate RPD was >20% for water samples and >35% for soil samples.	UJ, I10a	J, I10a
☐	☒	☐	27. The duplicate sample was not prepared and/or analyzed with the samples for unspecified reasons. The duplicate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	UJ, I10d	J, I10d
☐	☒	☐	28. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I12	R, I12
☐	☒	☐	29. The LCS percent recover was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I12a	J-, I12a
☐	☒	☐	30. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, I12b
☐	☒	☐	31. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. Do not Reject if MS/MSD information is present. Qualify according to MS/MSD criteria.	R, I12c	R, I12c
☐	☐	☒	32. The quantitating IS area count is <10% for metals window in relation to the initial calibration blank. Follow the method-specific windows.	R, I1a	J, I1a

METALS ANALYTICAL DATA VALIDATION CHECKLIST

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Metals Analytical Data Validation Checklist

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Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	33. The IS area count for the quantitating IS is <60% but >10% for metals window in relation to the initial calibration blank. Follow the method-specific windows.	UJ, I1b	J, I1b
☐	☐	☒	34. The IS area count for the quantitating IS is >125% in relation to the metals initial calibration blank. Follow method-specific windows.	UJ, I1c	J, I1c
☐	☐	☒	35. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, I1d	R, I1d
☐	☐	☒	36. Serial dilution sample RPD was >10% and the sample result was >50X the MDL (>100X the MDL for ICPMS). Qualify ONLY the sample used for the serial dilution.	UJ, I18	J, I18
☐	☐	☒	37. Serial dilution sample was not analyzed with the samples.	UJ, I18a	J, I18
☐	☐	☒	38. The sample result was reported as detected between the IDL and the EDL.	N/A	J, I1
☐	☒	☐	39. Duplicate, dilution, or reanalysis.	UJ, I88	J, I88
☒	☐	☐	40. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB, NQ, NQ
☐	☒	☐	41. The LANL project chemist identified quality deficiencies in the reported data that require further qualification. This code can ONLY be used and/or under advisement by the LANL project chemist.	UJ, R, I19	J, R, I19

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-941 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 243042001 **BASIS:** Dry Weight **DATE COLLECTED** 14-DEC-09

CLIENT ID: RE03-09-14221 **LEVEL:** Low **DATE RECEIVED** 16-DEC-09

MATRIX: SOIL **%SOLIDS:** 85

CAS No.	Analyte		Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum		12600000	ug/Kg		7760	22800	22800	1	P	HSC	12/29/09 14:27	122909A-2	934493
7440-36-0	Antimony	UJ,I6a	1140	ug/Kg	UN	377	1140	1140	1	P	HSC	12/29/09 14:27	122909A-2	934493
7440-38-2	Arsenic		2.16	mg/kg		0.23	1.15	1.15	2	MS	RMJ	01/05/10 03:16	100104-3	934497
7440-39-3	Barium		201000	ug/Kg	N	114	571	571	1	P	HSC	12/29/09 14:27	122909A-2	934493
7440-41-7	Beryllium	J-,I6a	0.801	mg/kg	N	0.023	0.115	0.115	2	MS	RMJ	01/06/10 04:27	100105-4	934497
7440-42-8	Boron		2840	ug/Kg	J	1140	5710	5710	1	P	HSC	12/29/09 14:27	122909A-2	934493
7440-43-9	Cadmium		571	ug/Kg	U	114	571	571	1	P	HSC	12/29/09 14:27	122909A-2	934493
7440-70-2	Calcium		2450000	ug/Kg		9130	28500	28500	1	P	HSC	12/29/09 14:27	122909A-2	934493
7440-47-3	Chromium		22800	ug/Kg		171	571	571	1	P	HSC	12/29/09 14:27	122909A-2	934493
7440-48-4	Cobalt		6450	ug/Kg		171	571	571	1	P	HSC	12/29/09 14:27	122909A-2	934493
7440-50-8	Copper	J,I10a	19800	ug/Kg	*	342	1140	1140	1	P	HSC	12/29/09 14:27	122909A-2	934493
7439-89-6	Iron		16000000	ug/Kg		9130	28500	28500	1	P	HSC	12/29/09 14:27	122909A-2	934493
7439-92-1	Lead		24100	ug/Kg	*	285	1140	1140	1	P	HSC	12/29/09 14:27	122909A-2	934493
7439-93-2	Lithium		12.3	mg/kg		0.459	2.3	2.3	2	MS	RMJ	01/06/10 05:56	100105-5	934497
7439-95-4	Magnesium		2610000	ug/Kg		9700	34200	34200	1	P	HSC	12/29/09 14:27	122909A-2	934493
7439-96-5	Manganese		404000	ug/Kg		228	1140	1140	1	P	HSC	12/29/09 14:27	122909A-2	934493
7439-97-6	Mercury	J,I4a	53.4	ug/kg	N	4.74	13.9	13.9	1	AV	JXL1	01/05/10 10:26	010510S1-6	934897
7440-02-0	Nickel		8.51	mg/kg		0.115	0.459	0.459	2	MS	RMJ	01/05/10 03:16	100104-3	934497
7440-09-7	Potassium	J+,I6b	1600000	ug/Kg	N	7300	28500	28500	1	P	HSC	12/29/09 14:27	122909A-2	934493
7782-49-2	Selenium	UJ,I6a	1.15	mg/kg	UN	0.574	1.15	1.15	2	MS	RMJ	01/05/10 03:16	100104-3	934497
7440-21-3	Silicon	J-,I6a	1380000	ug/Kg	*N	1760	11700	11700	1	P	HSC	01/11/10 13:33	011110A-1	939704
7440-22-4	Silver		469	ug/Kg	J	114	571	571	1	P	HSC	12/29/09 14:27	122909A-2	934493
7440-23-5	Sodium	U,I4d	144000	ug/Kg		7990	28500	28500	1	P	HSC	12/29/09 14:27	122909A-2	934493
7440-28-0	Thallium	U,I4b	0.283	mg/kg		0.0689	0.23	0.23	2	MS	RMJ	01/05/10 03:16	100104-3	934497
7440-32-6	Titanium		504000	ug/Kg		114	571	571	1	P	HSC	12/29/09 14:27	122909A-2	934493
7440-61-1	Uranium		0.859	mg/kg	*	0.0152	0.0459	0.0459	2	MS	RMJ	01/05/10 03:16	100104-3	934497
7440-62-2	Vanadium		29000	ug/Kg		114	571	571	1	P	HSC	12/29/09 14:27	122909A-2	934493
7440-66-6	Zinc	J-,I6a	67800	ug/Kg	*N	377	1140	1140	1	P	HSC	12/29/09 14:27	122909A-2	934493

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
934493	934492	SW846 3050B	0.514	g	50	mL	12/19/09	BCD1
934497	934496	SW846 3050B	0.511	g	50	mL	12/19/09	BCD1
934897	934894	SW846 7471A Prep	0.505	g	30	mL	01/04/10	TXB3

P.S. 2/9/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-941 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 243042002 **BASIS:** Dry Weight **DATE COLLECTED** 14-DEC-09

CLIENT ID: RE03-09-14211 **LEVEL:** Low **DATE RECEIVED** 16-DEC-09

MATRIX: SOIL **%SOLIDS:** 86

CAS No.	Analyte		Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum		6960000	ug/Kg		7570	22300	22300	1	P	HSC	12/29/09 15:01	122909A-2	934493
7440-36-0	Antimony	UJ,I6a	1110	ug/Kg	UN	368	1110	1110	1	P	HSC	12/29/09 15:01	122909A-2	934493
7440-38-2	Arsenic		1.04	mg/kg	J	0.226	1.13	1.13	2	MS	RMJ	01/05/10 03:45	100104-3	934497
7440-39-3	Barium		103000	ug/Kg	N	111	557	557	1	P	HSC	12/29/09 15:01	122909A-2	934493
7440-41-7	Beryllium	J-,I6a	0.850	mg/kg	N	0.0226	0.113	0.113	2	MS	RMJ	01/06/10 04:42	100105-4	934497
7440-42-8	Boron		5570	ug/Kg	U	1110	5570	5570	1	P	HSC	12/29/09 15:01	122909A-2	934493
7440-43-9	Cadmium		557	ug/Kg	U	111	557	557	1	P	HSC	12/29/09 15:01	122909A-2	934493
7440-70-2	Calcium		1740000	ug/Kg		8910	27800	27800	1	P	HSC	12/29/09 15:01	122909A-2	934493
7440-47-3	Chromium	U,I4d	4620	ug/Kg		167	557	557	1	P	HSC	12/29/09 15:01	122909A-2	934493
7440-48-4	Cobalt		936	ug/Kg		167	557	557	1	P	HSC	12/29/09 15:01	122909A-2	934493
7440-50-8	Copper	J,I10a	4820	ug/Kg	*	334	1110	1110	1	P	HSC	12/29/09 15:01	122909A-2	934493
7439-89-6	Iron		11000000	ug/Kg		8910	27800	27800	1	P	HSC	12/29/09 15:01	122909A-2	934493
7439-92-1	Lead		16200	ug/Kg	*	278	1110	1110	1	P	HSC	12/29/09 15:01	122909A-2	934493
7439-93-2	Lithium		12.2	mg/kg		0.452	2.26	2.26	2	MS	RMJ	01/06/10 06:11	100105-5	934497
7439-95-4	Magnesium		1470000	ug/Kg		9470	33400	33400	1	P	HSC	12/29/09 15:01	122909A-2	934493
7439-96-5	Manganese		188000	ug/Kg		223	1110	1110	1	P	HSC	12/29/09 15:01	122909A-2	934493
7439-97-6	Mercury	UJ,I6b	12.4	ug/kg	UN	4.2	12.4	12.4	1	AV	JXL1	01/05/10 10:36	010510S1-6	934897
7440-02-0	Nickel		5.88	mg/kg		0.113	0.452	0.452	2	MS	RMJ	01/05/10 03:45	100104-3	934497
7440-09-7	Potassium	J+,I6b	951000	ug/Kg	N	7130	27800	27800	1	P	HSC	12/29/09 15:01	122909A-2	934493
7782-49-2	Selenium	UJ,I6a	1.13	mg/kg	UN	0.565	1.13	1.13	2	MS	RMJ	01/05/10 03:45	100104-3	934497
7440-21-3	Silicon	J-,I6a	2310000	ug/Kg	*N	1750	11600	11600	1	P	HSC	01/11/10 13:59	011110A-1	939704
7440-22-4	Silver		460	ug/Kg	J	111	557	557	1	P	HSC	12/29/09 15:01	122909A-2	934493
7440-23-5	Sodium		228000	ug/Kg		7800	27800	27800	1	P	HSC	12/29/09 15:01	122909A-2	934493
7440-28-0	Thallium	U,I4b	0.205	mg/kg	J	0.0679	0.226	0.226	2	MS	RMJ	01/05/10 03:45	100104-3	934497
7440-32-6	Titanium		193000	ug/Kg		111	557	557	1	P	HSC	12/29/09 15:01	122909A-2	934493
7440-61-1	Uranium		0.668	mg/kg	*	0.0149	0.0452	0.0452	2	MS	RMJ	01/05/10 03:45	100104-3	934497
7440-62-2	Vanadium		7630	ug/Kg		111	557	557	1	P	HSC	12/29/09 15:01	122909A-2	934493
7440-66-6	Zinc	J-,I6a	57800	ug/Kg	*N	368	1110	1110	1	P	HSC	12/29/09 15:01	122909A-2	934493

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
934493	934492	SW846 3050B	0.524	g	50	mL	12/19/09	BCD1
934497	934496	SW846 3050B	0.516	g	50	mL	12/19/09	BCD1
934897	934894	SW846 7471A Prep	0.567	g	30	mL	01/04/10	TXB3

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METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-941 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 243042003 **BASIS:** Dry Weight **DATE COLLECTED** 14-DEC-09

CLIENT ID: RE03-09-14210 **LEVEL:** Low **DATE RECEIVED** 16-DEC-09

MATRIX: SOIL **%SOLIDS:** 86

CAS No.	Analyte		Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum		10200000	ug/Kg		7470	22000	22000	1	P	HSC	12/29/09 15:08	122909A-2	934493
7440-36-0	Antimony	U,I4b	423	ug/Kg	JN	362	1100	1100	1	P	HSC	12/29/09 15:08	122909A-2	934493
7440-38-2	Arsenic		1.54	mg/kg		0.227	1.14	1.14	2	MS	RMJ	01/05/10 04:04	100104-3	934497
7440-39-3	Barium		94000	ug/Kg	N	110	549	549	1	P	HSC	12/29/09 15:08	122909A-2	934493
7440-41-7	Beryllium	J-,I6a	0.575	mg/kg	N	0.0227	0.114	0.114	2	MS	RMJ	01/06/10 04:51	100105-4	934497
7440-42-8	Boron		5490	ug/Kg	U	1100	5490	5490	1	P	HSC	12/29/09 15:08	122909A-2	934493
7440-43-9	Cadmium		549	ug/Kg	U	110	549	549	1	P	HSC	12/29/09 15:08	122909A-2	934493
7440-70-2	Calcium		3090000	ug/Kg		8790	27500	27500	1	P	HSC	12/29/09 15:08	122909A-2	934493
7440-47-3	Chromium		12000	ug/Kg		165	549	549	1	P	HSC	12/29/09 15:08	122909A-2	934493
7440-48-4	Cobalt		2030	ug/Kg		165	549	549	1	P	HSC	12/29/09 15:08	122909A-2	934493
7440-50-8	Copper	J,I10a	7720	ug/Kg	*	329	1100	1100	1	P	HSC	12/29/09 15:08	122909A-2	934493
7439-89-6	Iron		13600000	ug/Kg		8790	27500	27500	1	P	HSC	12/29/09 15:08	122909A-2	934493
7439-92-1	Lead		22500	ug/Kg	*	275	1100	1100	1	P	HSC	12/29/09 15:08	122909A-2	934493
7439-93-2	Lithium		18.9	mg/kg		0.455	2.27	2.27	2	MS	RMJ	01/06/10 06:20	100105-5	934497
7439-95-4	Magnesium		2720000	ug/Kg		9330	32900	32900	1	P	HSC	12/29/09 15:08	122909A-2	934493
7439-96-5	Manganese		325000	ug/Kg		220	1100	1100	1	P	HSC	12/29/09 15:08	122909A-2	934493
7439-97-6	Mercury	U,I4	7.59	ug/kg	JN	4.69	13.8	13.8	1	AV	JXL1	01/05/10 10:38	010510S1-6	934897
7440-02-0	Nickel		5.29	mg/kg		0.114	0.455	0.455	2	MS	RMJ	01/05/10 04:04	100104-3	934497
7440-09-7	Potassium	J+,I6b	1780000	ug/Kg	N	7030	27500	27500	1	P	HSC	12/29/09 15:08	122909A-2	934493
7782-49-2	Selenium	UJ,I6a	1.14	mg/kg	UN	0.569	1.14	1.14	2	MS	RMJ	01/05/10 04:04	100104-3	934497
7440-21-3	Silicon	J-,I6a	1810000	ug/Kg	*N	1720	11400	11400	1	P	HSC	01/11/10 14:02	011110A-1	939704
7440-22-4	Silver		369	ug/Kg	J	110	549	549	1	P	HSC	12/29/09 15:08	122909A-2	934493
7440-23-5	Sodium	U,I4d	163000	ug/Kg		7690	27500	27500	1	P	HSC	12/29/09 15:08	122909A-2	934493
7440-28-0	Thallium	U,I4b	0.204	mg/kg	J	0.0682	0.227	0.227	2	MS	RMJ	01/05/10 04:04	100104-3	934497
7440-32-6	Titanium		357000	ug/Kg		110	549	549	1	P	HSC	12/29/09 15:08	122909A-2	934493
7440-61-1	Uranium		0.474	mg/kg	*	0.015	0.0455	0.0455	2	MS	RMJ	01/05/10 04:04	100104-3	934497
7440-62-2	Vanadium		15700	ug/Kg		110	549	549	1	P	HSC	12/29/09 15:08	122909A-2	934493
7440-66-6	Zinc	J-,I6a	98200	ug/Kg	*N	362	1100	1100	1	P	HSC	12/29/09 15:08	122909A-2	934493

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
934493	934492	SW846 3050B	0.527	g	50	mL	12/19/09	BCD1
934497	934496	SW846 3050B	0.509	g	50	mL	12/19/09	BCD1
934897	934894	SW846 7471A Prep	0.504	g	30	mL	01/04/10	TXB3

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METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-941 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 243042004 **BASIS:** Dry Weight **DATE COLLECTED** 14-DEC-09

CLIENT ID: RE03-09-14209 **LEVEL:** Low **DATE RECEIVED** 16-DEC-09

MATRIX: SOIL **%SOLIDS:** 88

CAS No.	Analyte		Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum		13500000	ug/Kg		7380	21700	21700	1	P	HSC	12/29/09 15:29	122909A-2	934493
7440-36-0	Antimony	UJ,I6a	1090	ug/Kg	UN	358	1090	1090	1	P	HSC	12/29/09 15:29	122909A-2	934493
7440-38-2	Arsenic		2.13	mg/kg		0.224	1.12	1.12	2	MS	RMJ	01/05/10 04:10	100104-3	934497
7440-39-3	Barium		170000	ug/Kg	N	109	543	543	1	P	HSC	12/29/09 15:29	122909A-2	934493
7440-41-7	Beryllium	J-,I6a	0.748	mg/kg	N	0.0224	0.112	0.112	2	MS	RMJ	01/06/10 04:54	100105-4	934497
7440-42-8	Boron		1340	ug/Kg	J	1090	5430	5430	1	P	HSC	12/29/09 15:29	122909A-2	934493
7440-43-9	Cadmium		543	ug/Kg	U	109	543	543	1	P	HSC	12/29/09 15:29	122909A-2	934493
7440-70-2	Calcium		2250000	ug/Kg		8680	27100	27100	1	P	HSC	12/29/09 15:29	122909A-2	934493
7440-47-3	Chromium		15400	ug/Kg		163	543	543	1	P	HSC	12/29/09 15:29	122909A-2	934493
7440-48-4	Cobalt		8870	ug/Kg		163	543	543	1	P	HSC	12/29/09 15:29	122909A-2	934493
7440-50-8	Copper	J,I10a	6860	ug/Kg	*	326	1090	1090	1	P	HSC	12/29/09 15:29	122909A-2	934493
7439-89-6	Iron		15100000	ug/Kg		8680	27100	27100	1	P	HSC	12/29/09 15:29	122909A-2	934493
7439-92-1	Lead		21200	ug/Kg	*	271	1090	1090	1	P	HSC	12/29/09 15:29	122909A-2	934493
7439-93-2	Lithium		12.4	mg/kg		0.449	2.24	2.24	2	MS	RMJ	01/06/10 06:23	100105-5	934497
7439-95-4	Magnesium		2590000	ug/Kg		9220	32600	32600	1	P	HSC	12/29/09 15:29	122909A-2	934493
7439-96-5	Manganese		438000	ug/Kg		217	1090	1090	1	P	HSC	12/29/09 15:29	122909A-2	934493
7439-97-6	Mercury	U,I4	14.2	ug/kg	N	4.18	12.3	12.3	1	AV	JXL1	01/05/10 10:40	010510S1-6	934897
7440-02-0	Nickel		8.1	mg/kg		0.112	0.449	0.449	2	MS	RMJ	01/05/10 04:10	100104-3	934497
7440-09-7	Potassium	J+,I6b	1790000	ug/Kg	N	6940	27100	27100	1	P	HSC	12/29/09 15:29	122909A-2	934493
7782-49-2	Selenium	UJ,I6a	1.12	mg/kg	UN	0.561	1.12	1.12	2	MS	RMJ	01/05/10 04:10	100104-3	934497
7440-21-3	Silicon	J-,I6a	1560000	ug/Kg	*N	1670	11100	11100	1	P	HSC	01/11/10 14:37	011110A-1	939704
7440-22-4	Silver		348	ug/Kg	J	109	543	543	1	P	HSC	12/29/09 15:29	122909A-2	934493
7440-23-5	Sodium	U,I4d	124000	ug/Kg		7600	27100	27100	1	P	HSC	12/29/09 15:29	122909A-2	934493
7440-28-0	Thallium	U,I4b	0.299	mg/kg		0.0673	0.224	0.224	2	MS	RMJ	01/05/10 04:10	100104-3	934497
7440-32-6	Titanium		440000	ug/Kg		109	543	543	1	P	HSC	12/29/09 15:29	122909A-2	934493
7440-61-1	Uranium		0.644	mg/kg	*	0.0148	0.0449	0.0449	2	MS	RMJ	01/05/10 04:10	100104-3	934497
7440-62-2	Vanadium		25600	ug/Kg		109	543	543	1	P	HSC	12/29/09 15:29	122909A-2	934493
7440-66-6	Zinc	J-,I6a	38700	ug/Kg	*N	358	1090	1090	1	P	HSC	12/29/09 15:29	122909A-2	934493

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
934493	934492	SW846 3050B	0.521	g	50	mL	12/19/09	BCD1
934497	934496	SW846 3050B	0.504	g	50	mL	12/19/09	BCD1
934897	934894	SW846 7471A Prep	0.552	g	30	mL	01/04/10	TXB3

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METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-941 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 243042005 **BASIS:** Dry Weight **DATE COLLECTED** 14-DEC-09

CLIENT ID: RE03-09-14208 **LEVEL:** Low **DATE RECEIVED** 16-DEC-09

MATRIX: SOIL **%SOLIDS:** 87

CAS No.	Analyte		Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum		12700000	ug/Kg		7450	21900	21900	1	P	HSC	12/29/09 15:36	122909A-2	934493
7440-36-0	Antimony	UJ,I6a	1100	ug/Kg	UN	362	1100	1100	1	P	HSC	12/29/09 15:36	122909A-2	934493
7440-38-2	Arsenic		2.01	mg/kg		0.226	1.13	1.13	2	MS	RMJ	01/05/10 04:16	100104-3	934497
7440-39-3	Barium		182000	ug/Kg	N	110	548	548	1	P	HSC	12/29/09 15:36	122909A-2	934493
7440-41-7	Beryllium	J-,I6a	0.909	mg/kg	N	0.0226	0.113	0.113	2	MS	RMJ	01/06/10 04:57	100105-4	934497
7440-42-8	Boron		1240	ug/Kg	J	1100	5480	5480	1	P	HSC	12/29/09 15:36	122909A-2	934493
7440-43-9	Cadmium		548	ug/Kg	U	110	548	548	1	P	HSC	12/29/09 15:36	122909A-2	934493
7440-70-2	Calcium		2010000	ug/Kg		8770	27400	27400	1	P	HSC	12/29/09 15:36	122909A-2	934493
7440-47-3	Chromium		14200	ug/Kg		164	548	548	1	P	HSC	12/29/09 15:36	122909A-2	934493
7440-48-4	Cobalt		6470	ug/Kg		164	548	548	1	P	HSC	12/29/09 15:36	122909A-2	934493
7440-50-8	Copper	J,I10a	6990	ug/Kg	*	329	1100	1100	1	P	HSC	12/29/09 15:36	122909A-2	934493
7439-89-6	Iron		14900000	ug/Kg		8770	27400	27400	1	P	HSC	12/29/09 15:36	122909A-2	934493
7439-92-1	Lead		14000	ug/Kg	*	274	1100	1100	1	P	HSC	12/29/09 15:36	122909A-2	934493
7439-93-2	Lithium		14.4	mg/kg		0.451	2.26	2.26	2	MS	RMJ	01/06/10 06:26	100105-5	934497
7439-95-4	Magnesium		2230000	ug/Kg		9320	32900	32900	1	P	HSC	12/29/09 15:36	122909A-2	934493
7439-96-5	Manganese		466000	ug/Kg		219	1100	1100	1	P	HSC	12/29/09 15:36	122909A-2	934493
7439-97-6	Mercury	U,I4	8.06	ug/kg	JN	4.4	12.9	12.9	1	AV	JXL1	01/05/10 10:42	010510S1-6	934897
7440-02-0	Nickel		8.17	mg/kg		0.113	0.451	0.451	2	MS	RMJ	01/05/10 04:16	100104-3	934497
7440-09-7	Potassium	J+,I6b	1840000	ug/Kg	N	7020	27400	27400	1	P	HSC	12/29/09 15:36	122909A-2	934493
7782-49-2	Selenium	UJ,I6a	1.13	mg/kg	UN	0.564	1.13	1.13	2	MS	RMJ	01/05/10 04:16	100104-3	934497
7440-21-3	Silicon	J-,I6a	2180000	ug/Kg	*N	1700	11400	11400	1	P	HSC	01/11/10 14:41	011110A-1	939704
7440-22-4	Silver		561	ug/Kg		110	548	548	1	P	HSC	12/29/09 15:36	122909A-2	934493
7440-23-5	Sodium		224000	ug/Kg		7670	27400	27400	1	P	HSC	12/29/09 15:36	122909A-2	934493
7440-28-0	Thallium	U,I4b	0.223	mg/kg	J	0.0677	0.226	0.226	2	MS	RMJ	01/05/10 04:16	100104-3	934497
7440-32-6	Titanium		560000	ug/Kg		110	548	548	1	P	HSC	12/29/09 15:36	122909A-2	934493
7440-61-1	Uranium		1.04	mg/kg	*	0.0149	0.0451	0.0451	2	MS	RMJ	01/05/10 04:16	100104-3	934497
7440-62-2	Vanadium		27400	ug/Kg		110	548	548	1	P	HSC	12/29/09 15:36	122909A-2	934493
7440-66-6	Zinc	J-,I6a	30400	ug/Kg	*N	362	1100	1100	1	P	HSC	12/29/09 15:36	122909A-2	934493

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
934493	934492	SW846 3050B	0.523	g	50	mL	12/19/09	BCD1
934497	934496	SW846 3050B	0.508	g	50	mL	12/19/09	BCD1
934897	934894	SW846 7471A Prep	0.532	g	30	mL	01/04/10	TXB3

P.S. 2/9/10

METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-941 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 243042006 **BASIS:** Dry Weight **DATE COLLECTED** 14-DEC-09

CLIENT ID: RE03-09-14222 **LEVEL:** Low **DATE RECEIVED** 16-DEC-09

MATRIX: SOIL **%SOLIDS:** 81

CAS No.	Analyte		Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum		11500000	ug/Kg		8250	24300	24300	1	P	HSC	12/29/09 15:43	122909A-2	934493
7440-36-0	Antimony	UJ,I6a	1210	ug/Kg	UN	400	1210	1210	1	P	HSC	12/29/09 15:43	122909A-2	934493
7440-38-2	Arsenic		2.58	mg/kg		0.24	1.2	1.2	2	MS	RMJ	01/05/10 04:22	100104-3	934497
7440-39-3	Barium		91400	ug/Kg	N	121	606	606	1	P	HSC	12/29/09 15:43	122909A-2	934493
7440-41-7	Beryllium	J-,I6a	0.739	mg/kg	N	0.024	0.12	0.12	2	MS	RMJ	01/06/10 05:00	100105-4	934497
7440-42-8	Boron		6060	ug/Kg	U	1210	6060	6060	1	P	HSC	12/29/09 15:43	122909A-2	934493
7440-43-9	Cadmium		606	ug/Kg	U	121	606	606	1	P	HSC	12/29/09 15:43	122909A-2	934493
7440-70-2	Calcium		4490000	ug/Kg		9700	30300	30300	1	P	HSC	12/29/09 15:43	122909A-2	934493
7440-47-3	Chromium		38200	ug/Kg		182	606	606	1	P	HSC	12/29/09 15:43	122909A-2	934493
7440-48-4	Cobalt		2410	ug/Kg		182	606	606	1	P	HSC	12/29/09 15:43	122909A-2	934493
7440-50-8	Copper	J,I10a	5770	ug/Kg	*	364	1210	1210	1	P	HSC	12/29/09 15:43	122909A-2	934493
7439-89-6	Iron		15800000	ug/Kg		9700	30300	30300	1	P	HSC	12/29/09 15:43	122909A-2	934493
7439-92-1	Lead		11800	ug/Kg	*	303	1210	1210	1	P	HSC	12/29/09 15:43	122909A-2	934493
7439-93-2	Lithium		16.7	mg/kg		0.48	2.4	2.4	2	MS	RMJ	01/06/10 06:29	100105-5	934497
7439-95-4	Magnesium		2360000	ug/Kg		10300	36400	36400	1	P	HSC	12/29/09 15:43	122909A-2	934493
7439-96-5	Manganese		211000	ug/Kg		243	1210	1210	1	P	HSC	12/29/09 15:43	122909A-2	934493
7439-97-6	Mercury	U,I4	19.5	ug/kg	N	4.4	12.9	12.9	1	AV	JXL1	01/05/10 10:48	010510S1-6	934897
7440-02-0	Nickel		8.68	mg/kg		0.12	0.48	0.48	2	MS	RMJ	01/05/10 04:22	100104-3	934497
7440-09-7	Potassium	J+,I6b	1250000	ug/Kg	N	7760	30300	30300	1	P	HSC	12/29/09 15:43	122909A-2	934493
7782-49-2	Selenium	UJ,I6a	1.2	mg/kg	UN	0.6	1.2	1.2	2	MS	RMJ	01/05/10 04:22	100104-3	934497
7440-21-3	Silicon	J-,I6a	1210000	ug/Kg	*N	1810	12100	12100	1	P	HSC	01/11/10 14:44	011110A-1	939704
7440-22-4	Silver		613	ug/Kg		121	606	606	1	P	HSC	12/29/09 15:43	122909A-2	934493
7440-23-5	Sodium		176000	ug/Kg		8490	30300	30300	1	P	HSC	12/29/09 15:43	122909A-2	934493
7440-28-0	Thallium	U,I4b	0.245	mg/kg		0.0721	0.24	0.24	2	MS	RMJ	01/05/10 04:22	100104-3	934497
7440-32-6	Titanium		342000	ug/Kg		121	606	606	1	P	HSC	12/29/09 15:43	122909A-2	934493
7440-61-1	Uranium		0.607	mg/kg	*	0.0159	0.048	0.048	2	MS	RMJ	01/05/10 04:22	100104-3	934497
7440-62-2	Vanadium		15500	ug/Kg		121	606	606	1	P	HSC	12/29/09 15:43	122909A-2	934493
7440-66-6	Zinc	J-,I6a	56900	ug/Kg	*N	400	1210	1210	1	P	HSC	12/29/09 15:43	122909A-2	934493

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
934493	934492	SW846 3050B	0.512	g	50	mL	12/19/09	BCD1
934497	934496	SW846 3050B	0.517	g	50	mL	12/19/09	BCD1
934897	934894	SW846 7471A Prep	0.576	g	30	mL	01/04/10	TXB3

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METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-941 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 243042007 **BASIS:** Dry Weight **DATE COLLECTED** 14-DEC-09

CLIENT ID: RE03-09-14223 **LEVEL:** Low **DATE RECEIVED** 16-DEC-09

MATRIX: SOIL **%SOLIDS:** 89

CAS No.	Analyte		Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum		3990000	ug/Kg		7580	22300	22300	1	P	HSC	12/29/09 15:50	122909A-2	934493
7440-36-0	Antimony	UJ,I6a	1110	ug/Kg	UN	368	1110	1110	1	P	HSC	12/29/09 15:50	122909A-2	934493
7440-38-2	Arsenic		2.05	mg/kg		0.221	1.11	1.11	2	MS	RMJ	01/05/10 04:28	100104-3	934497
7440-39-3	Barium		24500	ug/Kg	N	111	557	557	1	P	HSC	12/29/09 15:50	122909A-2	934493
7440-41-7	Beryllium	J-,I6a	0.551	mg/kg	N	0.0221	0.111	0.111	2	MS	RMJ	01/06/10 05:03	100105-4	934497
7440-42-8	Boron		5570	ug/Kg	U	1110	5570	5570	1	P	HSC	12/29/09 15:50	122909A-2	934493
7440-43-9	Cadmium		557	ug/Kg	U	111	557	557	1	P	HSC	12/29/09 15:50	122909A-2	934493
7440-70-2	Calcium		805000	ug/Kg		8920	27900	27900	1	P	HSC	12/29/09 15:50	122909A-2	934493
7440-47-3	Chromium		25500	ug/Kg		167	557	557	1	P	HSC	12/29/09 15:50	122909A-2	934493
7440-48-4	Cobalt		525	ug/Kg	J	167	557	557	1	P	HSC	12/29/09 15:50	122909A-2	934493
7440-50-8	Copper	J,I10a	2780	ug/Kg	*	334	1110	1110	1	P	HSC	12/29/09 15:50	122909A-2	934493
7439-89-6	Iron		9440000	ug/Kg		8920	27900	27900	1	P	HSC	12/29/09 15:50	122909A-2	934493
7439-92-1	Lead		5300	ug/Kg	*	279	1110	1110	1	P	HSC	12/29/09 15:50	122909A-2	934493
7439-93-2	Lithium		5.82	mg/kg		0.442	2.21	2.21	2	MS	RMJ	01/06/10 06:33	100105-5	934497
7439-95-4	Magnesium		626000	ug/Kg		9470	33400	33400	1	P	HSC	12/29/09 15:50	122909A-2	934493
7439-96-5	Manganese		73300	ug/Kg		223	1110	1110	1	P	HSC	12/29/09 15:50	122909A-2	934493
7439-97-6	Mercury	U,I4	4.94	ug/kg	JN	4.14	12.2	12.2	1	AV	JXL1	01/05/10 10:50	010510S1-6	934897
7440-02-0	Nickel		4.66	mg/kg		0.111	0.442	0.442	2	MS	RMJ	01/05/10 04:28	100104-3	934497
7440-09-7	Potassium	J+,I6b	407000	ug/Kg	N	7130	27900	27900	1	P	HSC	12/29/09 15:50	122909A-2	934493
7782-49-2	Selenium	UJ,I6a	1.11	mg/kg	UN	0.553	1.11	1.11	2	MS	RMJ	01/05/10 04:28	100104-3	934497
7440-21-3	Silicon	J-,I6a	1480000	ug/Kg	*N	1670	11100	11100	1	P	HSC	01/11/10 14:48	011110A-1	939704
7440-22-4	Silver		322	ug/Kg	J	111	557	557	1	P	HSC	12/29/09 15:50	122909A-2	934493
7440-23-5	Sodium	U,I4d	65400	ug/Kg		7800	27900	27900	1	P	HSC	12/29/09 15:50	122909A-2	934493
7440-28-0	Thallium	U,I4b	0.119	mg/kg	J	0.0663	0.221	0.221	2	MS	RMJ	01/05/10 04:28	100104-3	934497
7440-32-6	Titanium		139000	ug/Kg		111	557	557	1	P	HSC	12/29/09 15:50	122909A-2	934493
7440-61-1	Uranium		0.582	mg/kg	*	0.0146	0.0442	0.0442	2	MS	RMJ	01/05/10 04:28	100104-3	934497
7440-62-2	Vanadium		5990	ug/Kg		111	557	557	1	P	HSC	12/29/09 15:50	122909A-2	934493
7440-66-6	Zinc	J-,I6a	20700	ug/Kg	*N	368	1110	1110	1	P	HSC	12/29/09 15:50	122909A-2	934493

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
934493	934492	SW846 3050B	0.503	g	50	mL	12/19/09	BCD1
934497	934496	SW846 3050B	0.507	g	50	mL	12/19/09	BCD1
934897	934894	SW846 7471A Prep	0.552	g	30	mL	01/04/10	TXB3

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METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-941 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 243042008 **BASIS:** Dry Weight **DATE COLLECTED** 14-DEC-09

CLIENT ID: RE03-09-14220 **LEVEL:** Low **DATE RECEIVED** 16-DEC-09

MATRIX: SOIL **%SOLIDS:** 84

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	10100000	ug/Kg		7640	22500	22500	1	P	HSC	12/29/09 15:57	122909A-2	934493
7440-36-0	Antimony U,I4b	1010	ug/Kg	JN	371	1120	1120	1	P	HSC	12/29/09 15:57	122909A-2	934493
7440-38-2	Arsenic	1.84	mg/kg		0.229	1.14	1.14	2	MS	RMJ	01/05/10 04:33	100104-3	934497
7440-39-3	Barium	221000	ug/Kg	N	112	562	562	1	P	HSC	12/29/09 15:57	122909A-2	934493
7440-41-7	Beryllium J-,I6a	0.811	mg/kg	N	0.0229	0.114	0.114	2	MS	RMJ	01/06/10 05:07	100105-4	934497
7440-42-8	Boron	3840	ug/Kg	J	1120	5620	5620	1	P	HSC	12/29/09 15:57	122909A-2	934493
7440-43-9	Cadmium	693	ug/Kg		112	562	562	1	P	HSC	12/29/09 15:57	122909A-2	934493
7440-70-2	Calcium	3970000	ug/Kg		8990	28100	28100	1	P	HSC	12/29/09 15:57	122909A-2	934493
7440-47-3	Chromium	16200	ug/Kg		169	562	562	1	P	HSC	12/29/09 15:57	122909A-2	934493
7440-48-4	Cobalt	6890	ug/Kg		169	562	562	1	P	HSC	12/29/09 15:57	122909A-2	934493
7440-50-8	Copper J,I10a	65300	ug/Kg	*	337	1120	1120	1	P	HSC	12/29/09 15:57	122909A-2	934493
7439-89-6	Iron	15800000	ug/Kg		8990	28100	28100	1	P	HSC	12/29/09 15:57	122909A-2	934493
7439-92-1	Lead	61100	ug/Kg	*	281	1120	1120	1	P	HSC	12/29/09 15:57	122909A-2	934493
7439-93-2	Lithium	12.5	mg/kg		0.457	2.29	2.29	2	MS	RMJ	01/06/10 06:36	100105-5	934497
7439-95-4	Magnesium	2040000	ug/Kg		9550	33700	33700	1	P	HSC	12/29/09 15:57	122909A-2	934493
7439-96-5	Manganese	572000	ug/Kg		225	1120	1120	1	P	HSC	12/29/09 15:57	122909A-2	934493
7439-97-6	Mercury J+,I6b	583	ug/kg	N	4.47	13.2	13.2	1	AV	JXL1	01/05/10 10:52	010510S1-6	934897
7440-02-0	Nickel	9.9	mg/kg		0.114	0.457	0.457	2	MS	RMJ	01/05/10 04:33	100104-3	934497
7440-09-7	Potassium J+,I6b	1800000	ug/Kg	N	7190	28100	28100	1	P	HSC	12/29/09 15:57	122909A-2	934493
7782-49-2	Selenium UJ,I6a	1.14	mg/kg	UN	0.572	1.14	1.14	2	MS	RMJ	01/05/10 04:33	100104-3	934497
7440-21-3	Silicon J-,I6a	1620000	ug/Kg	*N	1710	11400	11400	1	P	HSC	01/11/10 14:52	011110A-1	939704
7440-22-4	Silver	1210	ug/Kg		112	562	562	1	P	HSC	12/29/09 15:57	122909A-2	934493
7440-23-5	Sodium	228000	ug/Kg		7870	28100	28100	1	P	HSC	12/29/09 15:57	122909A-2	934493
7440-28-0	Thallium U,I4b	0.196	mg/kg	J	0.0686	0.229	0.229	2	MS	RMJ	01/05/10 04:33	100104-3	934497
7440-32-6	Titanium	537000	ug/Kg		112	562	562	1	P	HSC	12/29/09 15:57	122909A-2	934493
7440-61-1	Uranium	3.47	mg/kg	*	0.0151	0.0457	0.0457	2	MS	RMJ	01/05/10 04:33	100104-3	934497
7440-62-2	Vanadium	24600	ug/Kg		112	562	562	1	P	HSC	12/29/09 15:57	122909A-2	934493
7440-66-6	Zinc J-,I6a	183000	ug/Kg	*N	371	1120	1120	1	P	HSC	12/29/09 15:57	122909A-2	934493

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
934493	934492	SW846 3050B	0.527	g	50	mL	12/19/09	BCD1
934497	934496	SW846 3050B	0.518	g	50	mL	12/19/09	BCD1
934897	934894	SW846 7471A Prep	0.54	g	30	mL	01/04/10	TXB3

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METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-941 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 243042009 **BASIS:** Dry Weight **DATE COLLECTED** 14-DEC-09

CLIENT ID: RE03-10-2734 **LEVEL:** Low **DATE RECEIVED** 16-DEC-09

MATRIX: SOIL **%SOLIDS:** 81

CAS No.	Analyte		Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum		12100000	ug/Kg		7890	23200	23200	1	P	HSC	12/29/09 16:04	122909A-2	934493
7440-36-0	Antimony	UJ,I6a	1160	ug/Kg	UN	383	1160	1160	1	P	HSC	12/29/09 16:04	122909A-2	934493
7440-38-2	Arsenic		2.29	mg/kg		0.244	1.22	1.22	2	MS	RMJ	01/05/10 04:39	100104-3	934497
7440-39-3	Barium		100000	ug/Kg	N	116	580	580	1	P	HSC	12/29/09 16:04	122909A-2	934493
7440-41-7	Beryllium	J-,I6a	0.752	mg/kg	N	0.0244	0.122	0.122	2	MS	RMJ	01/06/10 05:10	100105-4	934497
7440-42-8	Boron		5800	ug/Kg	U	1160	5800	5800	1	P	HSC	12/29/09 16:04	122909A-2	934493
7440-43-9	Cadmium		580	ug/Kg	U	116	580	580	1	P	HSC	12/29/09 16:04	122909A-2	934493
7440-70-2	Calcium		4720000	ug/Kg		9290	29000	29000	1	P	HSC	12/29/09 16:04	122909A-2	934493
7440-47-3	Chromium		29300	ug/Kg		174	580	580	1	P	HSC	12/29/09 16:04	122909A-2	934493
7440-48-4	Cobalt		2420	ug/Kg		174	580	580	1	P	HSC	12/29/09 16:04	122909A-2	934493
7440-50-8	Copper	J,I10a	6000	ug/Kg	*	348	1160	1160	1	P	HSC	12/29/09 16:04	122909A-2	934493
7439-89-6	Iron		15700000	ug/Kg		9290	29000	29000	1	P	HSC	12/29/09 16:04	122909A-2	934493
7439-92-1	Lead		11700	ug/Kg	*	290	1160	1160	1	P	HSC	12/29/09 16:04	122909A-2	934493
7439-93-2	Lithium		16.7	mg/kg		0.487	2.44	2.44	2	MS	RMJ	01/06/10 06:39	100105-5	934497
7439-95-4	Magnesium		2610000	ug/Kg		9870	34800	34800	1	P	HSC	12/29/09 16:04	122909A-2	934493
7439-96-5	Manganese		210000	ug/Kg		232	1160	1160	1	P	HSC	12/29/09 16:04	122909A-2	934493
7439-97-6	Mercury	U,I4	18.3	ug/kg	N	4.61	13.5	13.5	1	AV	JXL1	01/05/10 10:53	010510S1-6	934897
7440-02-0	Nickel		10.4	mg/kg		0.122	0.487	0.487	2	MS	RMJ	01/05/10 04:39	100104-3	934497
7440-09-7	Potassium	J+,I6b	1340000	ug/Kg	N	7430	29000	29000	1	P	HSC	12/29/09 16:04	122909A-2	934493
7782-49-2	Selenium	UJ,I6a	1.22	mg/kg	UN	0.609	1.22	1.22	2	MS	RMJ	01/05/10 04:39	100104-3	934497
7440-21-3	Silicon	J-,I6a	2250000	ug/Kg	*N	1820	12100	12100	1	P	HSC	01/11/10 14:55	011110A-1	939704
7440-22-4	Silver		443	ug/Kg	J	116	580	580	1	P	HSC	12/29/09 16:04	122909A-2	934493
7440-23-5	Sodium		167000	ug/Kg		8130	29000	29000	1	P	HSC	12/29/09 16:04	122909A-2	934493
7440-28-0	Thallium	U,I4b	0.234	mg/kg	J	0.0731	0.244	0.244	2	MS	RMJ	01/05/10 04:39	100104-3	934497
7440-32-6	Titanium		346000	ug/Kg		116	580	580	1	P	HSC	12/29/09 16:04	122909A-2	934493
7440-61-1	Uranium		0.585	mg/kg	*	0.0161	0.0487	0.0487	2	MS	RMJ	01/05/10 04:39	100104-3	934497
7440-62-2	Vanadium		16500	ug/Kg		116	580	580	1	P	HSC	12/29/09 16:04	122909A-2	934493
7440-66-6	Zinc	J-,I6a	59100	ug/Kg	*N	383	1160	1160	1	P	HSC	12/29/09 16:04	122909A-2	934493

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
934493	934492	SW846 3050B	0.534	g	50	mL	12/19/09	BCD1
934497	934496	SW846 3050B	0.509	g	50	mL	12/19/09	BCD1
934897	934894	SW846 7471A Prep	0.549	g	30	mL	01/04/10	TXB3

P.S. 2/9/10

METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-941-1 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 243043001 **BASIS:** As Received **DATE COLLECTED** 14-DEC-09

CLIENT ID: RE03-10-2760 **LEVEL:** Low **DATE RECEIVED** 16-DEC-09

MATRIX: WATER **%SOLIDS:** 0

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	118	ug/L	J	68	200	200	1	P	HSC	12/20/09 06:27	122009-1	934499
7440-36-0	Antimony	3	ug/L	U	1	3	3	1	MS	BAJ	12/31/09 02:54	091230-3	934501
7440-38-2	Arsenic	30	ug/L	U	5	30	30	1	P	HSC	12/20/09 06:27	122009-1	934499
7440-39-3	Barium U,I4b	2.04	ug/L	J	1	5	5	1	P	HSC	12/20/09 06:27	122009-1	934499
7440-41-7	Beryllium	0.50	ug/L	U	0.1	0.5	0.5	1	MS	BAJ	12/31/09 02:54	091230-3	934501
7440-42-8	Boron	50	ug/L	U	15	50	50	1	P	HSC	12/20/09 06:27	122009-1	934499
7440-43-9	Cadmium	1	ug/L	U	0.11	1	1	1	MS	BAJ	12/31/09 02:54	091230-3	934501
7440-70-2	Calcium	80.5	ug/L	J	50	200	200	1	P	HSC	12/20/09 06:27	122009-1	934499
7440-47-3	Chromium	11.1	ug/L		1	5	5	1	P	HSC	12/20/09 06:27	122009-1	934499
7440-48-4	Cobalt	5	ug/L	U	1	5	5	1	P	HSC	12/20/09 06:27	122009-1	934499
7440-50-8	Copper	10	ug/L	U	3	10	10	1	P	HSC	12/20/09 06:27	122009-1	934499
7439-89-6	Iron U,I4b	160	ug/L		30	100	100	1	P	HSC	12/20/09 06:27	122009-1	934499
7439-92-1	Lead	2	ug/L	U	0.5	2	2	1	MS	BAJ	12/31/09 02:54	091230-3	934501
7439-93-2	Lithium	10	ug/L	U	2	10	10	1	MS	BAJ	01/01/10 07:16	091231-9	934501
7439-95-4	Magnesium	300	ug/L	U	85	300	300	1	P	HSC	12/20/09 06:27	122009-1	934499
7439-96-5	Manganese	4.85	ug/L	J	1	5	5	1	MS	BAJ	01/01/10 07:16	091231-9	934501
7439-97-6	Mercury	0.20	ug/L	U	0.066	0.2	0.2	1	AV	ETL	12/24/09 09:54	122409W1-10	934909
7440-02-0	Nickel U,I4b	7.42	ug/L		1.5	5	5	1	P	HSC	12/20/09 06:27	122009-1	934499
7440-09-7	Potassium	87.3	ug/L	J	50	150	150	1	P	HSC	12/20/09 06:27	122009-1	934499
7782-49-2	Selenium	30	ug/L	U	5	30	30	1	P	HSC	12/20/09 06:27	122009-1	934499
7440-21-3	Silicon	388	ug/L		25	100	100	1	P	HSC	12/20/09 06:27	122009-1	934499
7440-22-4	Silver	5	ug/L	U	1	5	5	1	P	HSC	12/20/09 06:27	122009-1	934499
7440-23-5	Sodium	253	ug/L	J	100	300	300	1	P	HSC	12/20/09 06:27	122009-1	934499
7440-28-0	Thallium	0.355	ug/L	J	0.3	1	1	1	MS	BAJ	12/31/09 14:52	091231-4	934501
7440-32-6	Titanium U,I4b	2.83	ug/L	J	1	5	5	1	P	HSC	12/20/09 06:27	122009-1	934499
7440-61-1	Uranium	0.20	ug/L	U	0.05	0.2	0.2	1	MS	BAJ	01/01/10 08:37	091231-2	934501
7440-62-2	Vanadium	5	ug/L	U	1	5	5	1	P	HSC	12/20/09 06:27	122009-1	934499
7440-66-6	Zinc	5.87	ug/L	J	3.3	10	10	1	P	HSC	12/20/09 06:27	122009-1	934499

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
934499	934498	SW846 3005A	50	mL	50	mL	12/19/09	BCD1
934501	934500	SW846 3005A	50	mL	50	mL	12/19/09	BCD1
934909	934908	SW846 7470A Prep	20	mL	20	mL	12/23/09	TXB3

P.S. 2/9/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-941-1 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 243043002 **BASIS:** As Received **DATE COLLECTED** 14-DEC-09

CLIENT ID: RE03-10-2748 **LEVEL:** Low **DATE RECEIVED** 16-DEC-09

MATRIX: WATER **%SOLIDS:** 0

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	200	ug/L	U	68	200	200	1	P	HSC	12/20/09 06:42	122009-1	934499
7440-36-0	Antimony	3	ug/L	U	1	3	3	1	MS	BAJ	12/31/09 03:18	091230-3	934501
7440-38-2	Arsenic	30	ug/L	U	5	30	30	1	P	HSC	12/20/09 06:42	122009-1	934499
7440-39-3	Barium	5	ug/L	U	1	5	5	1	P	HSC	12/20/09 06:42	122009-1	934499
7440-41-7	Beryllium	0.50	ug/L	U	0.1	0.5	0.5	1	MS	BAJ	12/31/09 03:18	091230-3	934501
7440-42-8	Boron	50	ug/L	U	15	50	50	1	P	HSC	12/20/09 06:42	122009-1	934499
7440-43-9	Cadmium	1	ug/L	U	0.11	1	1	1	MS	BAJ	12/31/09 03:18	091230-3	934501
7440-70-2	Calcium	200	ug/L	U	50	200	200	1	P	HSC	12/20/09 06:42	122009-1	934499
7440-47-3	Chromium	5	ug/L	U	1	5	5	1	P	HSC	12/20/09 06:42	122009-1	934499
7440-48-4	Cobalt	5	ug/L	U	1	5	5	1	P	HSC	12/20/09 06:42	122009-1	934499
7440-50-8	Copper	10	ug/L	U	3	10	10	1	P	HSC	12/20/09 06:42	122009-1	934499
7439-89-6	Iron	100	ug/L	U	30	100	100	1	P	HSC	12/20/09 06:42	122009-1	934499
7439-92-1	Lead	2	ug/L	U	0.5	2	2	1	MS	BAJ	12/31/09 03:18	091230-3	934501
7439-93-2	Lithium	10	ug/L	U	2	10	10	1	MS	BAJ	01/01/10 07:26	091231-9	934501
7439-95-4	Magnesium	300	ug/L	U	85	300	300	1	P	HSC	12/20/09 06:42	122009-1	934499
7439-96-5	Manganese	5	ug/L	U	1	5	5	1	MS	BAJ	01/01/10 07:26	091231-9	934501
7439-97-6	Mercury	0.20	ug/L	U	0.066	0.2	0.2	1	AV	ETL	12/24/09 10:05	122409W1-10	934909
7440-02-0	Nickel	5	ug/L	U	1.5	5	5	1	P	HSC	12/20/09 06:42	122009-1	934499
7440-09-7	Potassium	150	ug/L	U	50	150	150	1	P	HSC	12/20/09 06:42	122009-1	934499
7782-49-2	Selenium	30	ug/L	U	5	30	30	1	P	HSC	12/20/09 06:42	122009-1	934499
7440-21-3	Silicon	158	ug/L		25	100	100	1	P	HSC	12/20/09 06:42	122009-1	934499
7440-22-4	Silver	5	ug/L	U	1	5	5	1	P	HSC	12/20/09 06:42	122009-1	934499
7440-23-5	Sodium	300	ug/L	U	100	300	300	1	P	HSC	12/20/09 06:42	122009-1	934499
7440-28-0	Thallium	1	ug/L	U	0.3	1	1	1	MS	BAJ	12/31/09 15:10	091231-4	934501
7440-32-6	Titanium	5	ug/L	U	1	5	5	1	P	HSC	12/20/09 06:42	122009-1	934499
7440-61-1	Uranium	0.20	ug/L	U	0.05	0.2	0.2	1	MS	BAJ	01/01/10 08:44	091231-2	934501
7440-62-2	Vanadium	5	ug/L	U	1	5	5	1	P	HSC	12/20/09 06:42	122009-1	934499
7440-66-6	Zinc	10	ug/L	U	3.3	10	10	1	P	HSC	12/20/09 06:42	122009-1	934499

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
934499	934498	SW846 3005A	50	mL	50	mL	12/19/09	BCD1
934501	934500	SW846 3005A	50	mL	50	mL	12/19/09	BCD1
934909	934908	SW846 7470A Prep	20	mL	20	mL	12/23/09	TXB3

P.S. 2/9/10

DATA VALIDATION COVER SHEET

5120-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY

Section I.

REQUEST NUMBER: 10-941 VALIDATION DATE: 02/09/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Peter Steves ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☒ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE): Total CN only

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☐	☐	☒	8. QUANTITATION REPORTS
☐	☐	☒	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. It should be noted that the aqueous matrix QC analysis was performed on a LANL sample from another RN. No sample data were qualified as a result.

Reviewed by: Mary Donivan Level: I Date: 02/09/10

VALIDATOR'S SIGNATURE: ## Mr. Peter Steves DATE: 02/09/10

GENERAL CHEMISTRY ANALYTICAL DATA VALIDATION CHECKLIST

5120-2

General Chemistry Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, I9	J-, I9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, I9a	J-, I9a
☐	☐	☒	3. The affected analytes are regarded as rejected because the analytical holding time was exceeded.	R, I9b	R, I9b
☐	☒	☐	4. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, I7	J, I7
☐	☒	☐	5. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, I7a	J, I7a
☐	☒	☐	6. The ICV and/or CCV were recovered outside the method specific limits.	UJ, I7c	J, I7c
☐	☒	☐	7. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, I7d	J, I7d
☐	☒	☐	8. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, I7f	R, I7f
☐	☐	☒	9. The interference check sample percent recovery value is <50%.	R, I2	J-, I2
☐	☐	☒	10. The interference check sample percent recovery value is ≥50% and <80%.	UJ, I2a	J-, I2a
☐	☐	☒	11. The interference check sample percent recovery value is >120%.	N/A	J+, I2b
☐	☐	☒	12. The interference check sample was not analyzed with the samples.	R, I2c	R, I2c
☐	☒	☐	13. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, I4	N/A

GENERAL CHEMISTRY ANALYTICAL DATA VALIDATION CHECKLIST

5120-2

General Chemistry Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	14. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X.	N/A	J, I4a
☐	☒	☐	15. The sample result is ≤5X the concentration of the related analyte in the instrument blank and continuing calibration blank.	U, I4b	N/A
☐	☒	☐	16. Continuing calibration blanks were not analyzed at the appropriate method frequency.	UJ, I4c	J, I4c
☐	☒	☐	17. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	U, I4d	N/A
☐	☒	☐	18. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, I4e	R, I4e
☐	☒	☐	19. The associate matrix spike recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I6	R, I6
☐	☒	☐	20. The associated matrix spike recovery was below the Lower Acceptance Limit (LAL) but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I6a	J-, I6a
☐	☒	☐	21. The associated matrix spike recovery was above the Upper Acceptance Limit (UAL). Follow the external laboratory limits located within the associated data package.	UJ, I6b	J+, I6b
☐	☒	☐	22. Required matrix spike information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. If LCS information is present, do not reject. Qualify data based on LCS information.	R, I6c	R, I6c
☐	☒	☐	23. The sample and/or the duplicate sample results RPD is not within the acceptance limits. Follow the external laboratory limits located within the associated data package.	UJ, I10b	J, I10b

GENERAL CHEMISTRY ANALYTICAL DATA VALIDATION CHECKLIST

5120-2

General Chemistry Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	24. The duplicate sample was not prepared and/or analyzed with the samples for unspecified reasons. The duplicate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	UJ, I10d	J, I10d
☐	☒	☐	25. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I12	R, I12
☐	☒	☐	26. The LCS percent recover was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I12a	J-, I12a
☐	☒	☐	27. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, I12b
☐	☒	☐	28. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. Do not Reject if MS/MSD information is present. Qualify according to MS/MSD criteria.	R, I12c	R, I12c
☐	☒	☐	29. Duplicate, dilution, or reanalysis	UJ, I88	J, I88
☐	☒	☐	30. The LANL project chemist identified quality deficiencies in the reported data that require further qualification. This code can ONLY be used and/or under advisement by the LANL project chemist.	UJ, R, I19	J, R, I19
☒	☐	☐	31. Qualification of data via data validation does not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB NQ, NQ (no qualification)

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: January 2, 2010

Client SDG: 10-941

Client Sample ID:	RE03-09-14221	Project:	LANL01004
Sample ID:	243042001	Client ID:	LANL010
Matrix:	S		
Collect Date:	14-DEC-09 12:00		
Receive Date:	16-DEC-09		
Collector:	Client		
Moisture:	14.8%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total Federal "Dry Weight Corrected"										
Cyanide, Total	U	ND	78.2	288	ug/kg	1	AXH3 12/23/09	1419	934598	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	12/23/09	1309	934597

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

P.S. 2/9/10

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Certificate of Analysis

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: January 2, 2010

Client SDG: 10-941

Client Sample ID:	RE03-09-14211	Project:	LANL01004
Sample ID:	243042002	Client ID:	LANL010
Matrix:	S		
Collect Date:	14-DEC-09 12:00		
Receive Date:	16-DEC-09		
Collector:	Client		
Moisture:	14.3%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total Federal "Dry Weight Corrected"										
Cyanide, Total	U	ND	77.8	286	ug/kg	1	AXH3 12/23/09	1422	934598	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	12/23/09	1309	934597

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

P.S. 2/9/10

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: January 2, 2010

Client SDG: 10-941

Client Sample ID:	RE03-09-14210	Project:	LANL01004
Sample ID:	243042003	Client ID:	LANL010
Matrix:	S		
Collect Date:	14-DEC-09 12:00		
Receive Date:	16-DEC-09		
Collector:	Client		
Moisture:	13.6%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total Federal "Dry Weight Corrected"										
Cyanide, Total	U	ND	70.3	258	ug/kg	1	AXH3 12/23/09	1423	934598	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	12/23/09	1309	934597

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: January 2, 2010

Client SDG: 10-941

Client Sample ID:	RE03-09-14209	Project:	LANL01004
Sample ID:	243042004	Client ID:	LANL010
Matrix:	S		
Collect Date:	14-DEC-09 12:00		
Receive Date:	16-DEC-09		
Collector:	Client		
Moisture:	11.6%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total Federal "Dry Weight Corrected"										
Cyanide, Total	U	ND	76.9	283	ug/kg	1	AXH3 12/23/09	1424	934598	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	12/23/09	1309	934597

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

P.S. 2/9/10

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: January 2, 2010

Client SDG: 10-941

Client Sample ID:	RE03-09-14208	Project:	LANL01004
Sample ID:	243042005	Client ID:	LANL010
Matrix:	S		
Collect Date:	14-DEC-09 12:00		
Receive Date:	16-DEC-09		
Collector:	Client		
Moisture:	12.8%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total Federal "Dry Weight Corrected"										
Cyanide, Total	U	ND	72.2	265	ug/kg	1	AXH3 12/23/09	1425	934598	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	12/23/09	1309	934597

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

P.S. 2/9/10

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Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: January 2, 2010

Client SDG: 10-941

Client Sample ID:	RE03-09-14222	Project:	LANL01004
Sample ID:	243042006	Client ID:	LANL010
Matrix:	S		
Collect Date:	14-DEC-09 12:00		
Receive Date:	16-DEC-09		
Collector:	Client		
Moisture:	19.5%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total Federal "Dry Weight Corrected"										
Cyanide, Total	U	ND	79.7	293	ug/kg	1	AXH3 12/23/09	1426	934598	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	12/23/09	1309	934597

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

P.S. 2/9/10

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TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: January 2, 2010

Client SDG: 10-941

Client Sample ID:	RE03-09-14223	Project:	LANL01004
Sample ID:	243042007	Client ID:	LANL010
Matrix:	S		
Collect Date:	14-DEC-09 12:00		
Receive Date:	16-DEC-09		
Collector:	Client		
Moisture:	10.8%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total Federal "Dry Weight Corrected"										
Cyanide, Total	U	ND	69.3	255	ug/kg	1	AXH3 12/23/09	1427	934598	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	12/23/09	1309	934597

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: January 2, 2010

Client SDG: 10-941

Client Sample ID:	RE03-09-14220	Project:	LANL01004
Sample ID:	243042008	Client ID:	LANL010
Matrix:	S		
Collect Date:	14-DEC-09 12:00		
Receive Date:	16-DEC-09		
Collector:	Client		
Moisture:	15.6%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total Federal "Dry Weight Corrected"										
Cyanide, Total	U	ND	76.0	279	ug/kg	1	AXC2 12/22/09	1545	934285	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	12/21/09	1327	934282

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: January 2, 2010

Client SDG: 10-941

Client Sample ID:	RE03-10-2734	Project:	LANL01004
Sample ID:	243042009	Client ID:	LANL010
Matrix:	S		
Collect Date:	14-DEC-09 12:00		
Receive Date:	16-DEC-09		
Collector:	Client		
Moisture:	19.3%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total Federal "Dry Weight Corrected"										
Cyanide, Total	U	ND	81.1	298	ug/kg	1	AXC2 12/22/09	1550	934285	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	12/21/09	1327	934282

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: December 24, 2009

Client SDG: 10-941-1

Client Sample ID:	RE03-10-2760	Project:	LANL01004
Sample ID:	243043001	Client ID:	LANL010
Matrix:	W		
Collect Date:	14-DEC-09 12:00		
Receive Date:	16-DEC-09		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "As Received"										
Cyanide, Total	U	ND	1.66	5.00	ug/L	1	AXC2 12/21/09	1211	934596	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	SXJ1	12/18/09	1400	934595

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: December 24, 2009

Client SDG: 10-941-1

Client Sample ID:	RE03-10-2748	Project:	LANL01004
Sample ID:	243043002	Client ID:	LANL010
Matrix:	W		
Collect Date:	14-DEC-09 12:00		
Receive Date:	16-DEC-09		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "As Received"										
Cyanide, Total	U	ND	1.66	5.00	ug/L	1	AXC2 12/21/09	1212	934596	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	SXJ1	12/18/09	1400	934595

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

P.S. 2/9/10

DATA VALIDATION COVER SHEET

5119-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-941 VALIDATION DATE: 02/09/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Peter Steves ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☒ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE): tritium only

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☐	☐	☒	8. QUANTITATION REPORTS
☐	☐	☒	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. An LCS was analyzed and evaluated in lieu of an MS sample for tritium. Acceptance criteria were met and, thus, no sample data were qualified as a result.

Reviewed by: Mary Donivan Level: I Date: 02/09/10

VALIDATOR'S SIGNATURE: Mr. Peter Steves DATE: 02/09/10

RAD ANALYTICAL DATA VALIDATION CHECKLIST

5119-2

Rad Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, R9	J-, R9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, R9a	J-, R9a
☐	☐	☒	3. The results for the affected analytes are considered not detected (U) because the associated sample concentration was less than or equal to the MDC.	U, R5	N/A
☐	☐	☒	4. The analyte should be regarded as rejected because spectral interferences prevent positive identification of the analytes.	R, R5a	R, R5a
☐	☒	☐	5. The MDC and/or TPU documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, R5b	J-, R5b
☐	☐	☒	6. The results for the affected analytes should be regarded as not detected (U) because the associated sample concentration was less than 3X the 1 sigma TPU.	U, R11	N/A
☐	☒	☐	7. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, R4	N/A
☐	☒	☐	8. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X.	N/A	J, R4a
☐	☐	☒	9. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	U, R4d	N/A
☐	☒	☐	10. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, R4e	R, R4e
☐	☐	☒	11. The tracer is <10%R. Follow the external laboratory limits located within the associated data package. Tracer%R is not applicable for Gamma Spectroscopy.	R, R3	R, R3

RAD ANALYTICAL DATA VALIDATION CHECKLIST

5119-2

Rad Analytical Data Validation Checklist

Records Use only

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Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	12. The tracer is < the Lower Acceptance Level (LAL) but ≥10%R. Follow the external laboratory limits located within the associated data package. Tracer%R is not applicable for Gamma Spectroscopy.	UJ, R3a	J-, R3a
☐	☐	☒	13. The Tracer%R value is > the Upper Acceptance Limit (UAL). Follow the external laboratory limits located within the associated data package. Tracer%R is not applicable for Gamma Spectroscopy.	N/A	J+, R3b
☐	☐	☒	14. Required tracer information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. Tracer%R is not applicable for Gamma Spectroscopy.	R, R3d	R, R3d
☐	☒	☐	15. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, R12	R, R12
☐	☒	☐	16. The LCS percent recovery was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, R12a	J-, R12a
☐	☒	☐	17. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, R12b
☐	☒	☐	18. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, R12c	R, R12c
☐	☒	☐	19. Associated duplicate sample has DER or RER > the analytical laboratory's acceptance limits.	R, R10	J, J10
☐	☒	☐	20. The duplicate sample was not prepared and/or analyzed with the samples for unspecified reasons. The duplicate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, R6	R, R6

RAD ANALYTICAL DATA VALIDATION CHECKLIST

5119-2 Rad Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	21. The associated matrix spike recovery was <10%. Follow the external laboratory limits. MS/MSD is not applicable to Gamma Spectroscopy.	R, R6	R, R6
☐	☐	☒	22. The associated matrix spike recovery was <10%. Follow the external laboratory limits. MS/MSD is not applicable to Gamma Spectroscopy.	UJ, R6a	J-, R6a
☐	☐	☒	23. The associated matrix spike recovery was above the UAL. Follow the external laboratory limits. MS/MSD is not applicable to Gamma Spectroscopy.	UJ, R6b	J+, R6b
☒	☐	☐	24. Required matrix spike information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. If LCS information is present, do not Reject. Qualify data based on LCS information. MS/MSD is not applicable to Gamma Spectroscopy.	R, R6c	R, R6c
☐	☒	☐	25. Duplicate, dilution, or reanalysis.	UJ, R88	J, R88
☐	☒	☐	26. The LANL project chemist identified quality deficiencies in the reported data that require further qualification. This code can ONLY be used and/or under advisement by the LANL project chemist.	UJ, R, R19	J, R, R19
☒	☐	☐	27. Quantification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB NQ, NQ

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: January 5, 2010

Client Sample ID:	RE03-09-14221	Project:	LANL01004
Sample ID:	243042001	Client ID:	LANL010
Matrix:	S		
Collect Date:	14-DEC-09		
Receive Date:	16-DEC-09		
Collector:	Client		
Moisture:	14.8%		

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids												
"As Received"												
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		658	198	+/-81.7	250	pCi/L		KXK2	01/05/10	0105	935212	2

The following Analytical Methods were performed

Method	Description
1	ASTM D 2216 (Modified)
2	GL-RAD-A-002

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
- F Estimated Value
- H Analytical holding time was exceeded
- J Value is estimated
- M M if above MDC and less than LLD
- M Matrix Related Failure
- N/A RPD or %Recovery limits do not apply.
- ND Analyte concentration is not detected above the detection limit
- NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- R Sample results are rejected
- U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: January 5, 2010

Client Sample ID:	RE03-09-14211	Project:	LANL01004
Sample ID:	243042002	Client ID:	LANL010
Matrix:	S		
Collect Date:	14-DEC-09		
Receive Date:	16-DEC-09		
Collector:	Client		
Moisture:	14.3%		

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids												
"As Received"												
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		917	204	+/-96.8	250	pCi/L		KXK2	01/05/10	0243	935212	2

The following Analytical Methods were performed

Method	Description
1	ASTM D 2216 (Modified)
2	GL-RAD-A-002

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
- F Estimated Value
- H Analytical holding time was exceeded
- J Value is estimated
- M M if above MDC and less than LLD
- M Matrix Related Failure
- N/A RPD or %Recovery limits do not apply.
- ND Analyte concentration is not detected above the detection limit
- NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- R Sample results are rejected
- U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
- UI Gamma Spectroscopy--Uncertain identification

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: January 5, 2010

Client Sample ID:	RE03-09-14210	Project:	LANL01004
Sample ID:	243042003	Client ID:	LANL010
Matrix:	S		
Collect Date:	14-DEC-09		
Receive Date:	16-DEC-09		
Collector:	Client		
Moisture:	13.6%		

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids												
"As Received"												
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		452	206	+/-76.1	250	pCi/L		KXK2	01/04/10	0952	935212	2

The following Analytical Methods were performed

Method	Description
1	ASTM D 2216 (Modified)
2	GL-RAD-A-002

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
- F Estimated Value
- H Analytical holding time was exceeded
- J Value is estimated
- M M if above MDC and less than LLD
- M Matrix Related Failure
- N/A RPD or %Recovery limits do not apply.
- ND Analyte concentration is not detected above the detection limit
- NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- R Sample results are rejected
- U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
- UI Gamma Spectroscopy--Uncertain identification

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: January 5, 2010

Client Sample ID:	RE03-09-14209	Project:	LANL01004
Sample ID:	243042004	Client ID:	LANL010
Matrix:	S		
Collect Date:	14-DEC-09		
Receive Date:	16-DEC-09		
Collector:	Client		
Moisture:	11.6%		

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids												
"As Received"												
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		240	205	+/-67.1	250	pCi/L		KXK2	01/04/10	1130	935212	2

The following Analytical Methods were performed

Method	Description
1	ASTM D 2216 (Modified)
2	GL-RAD-A-002

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
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- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
- F Estimated Value
- H Analytical holding time was exceeded
- J Value is estimated
- M M if above MDC and less than LLD
- M Matrix Related Failure
- N/A RPD or %Recovery limits do not apply.
- ND Analyte concentration is not detected above the detection limit
- NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- R Sample results are rejected
- U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
- UI Gamma Spectroscopy--Uncertain identification

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: January 5, 2010

Client Sample ID:	RE03-09-14208	Project:	LANL01004
Sample ID:	243042005	Client ID:	LANL010
Matrix:	S		
Collect Date:	14-DEC-09		
Receive Date:	16-DEC-09		
Collector:	Client		
Moisture:	12.8%		

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids												
"As Received"												
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		268	203	+/-67.6	250	pCi/L		KXK2	01/04/10	1308	935212	2

The following Analytical Methods were performed

Method	Description
1	ASTM D 2216 (Modified)
2	GL-RAD-A-002

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

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- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
- F Estimated Value
- H Analytical holding time was exceeded
- J Value is estimated
- M M if above MDC and less than LLD
- M Matrix Related Failure
- N/A RPD or %Recovery limits do not apply.
- ND Analyte concentration is not detected above the detection limit
- NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- R Sample results are rejected
- U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
- UI Gamma Spectroscopy--Uncertain identification

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: January 5, 2010

Client Sample ID:	RE03-09-14222	Project:	LANL01004
Sample ID:	243042006	Client ID:	LANL010
Matrix:	S		
Collect Date:	14-DEC-09		
Receive Date:	16-DEC-09		
Collector:	Client		
Moisture:	19.5%		

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids												
"As Received"												
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		1230	205	+/-119	250	pCi/L		KXK2	01/04/10	1446	935212	2

The following Analytical Methods were performed

Method	Description
1	ASTM D 2216 (Modified)
2	GL-RAD-A-002

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

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- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
- F Estimated Value
- H Analytical holding time was exceeded
- J Value is estimated
- M M if above MDC and less than LLD
- M Matrix Related Failure
- N/A RPD or %Recovery limits do not apply.
- ND Analyte concentration is not detected above the detection limit
- NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- R Sample results are rejected
- U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
- UI Gamma Spectroscopy--Uncertain identification

P.S. 2/9/10

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: January 5, 2010

Client Sample ID:	RE03-09-14223	Project:	LANL01004
Sample ID:	243042007	Client ID:	LANL010
Matrix:	S		
Collect Date:	14-DEC-09		
Receive Date:	16-DEC-09		
Collector:	Client		
Moisture:	10.8%		

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids												
"As Received"												
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		1060	205	+/-109	250	pCi/L		KXK2	01/04/10	1624	935212	2

The following Analytical Methods were performed

Method	Description
1	ASTM D 2216 (Modified)
2	GL-RAD-A-002

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
- F Estimated Value
- H Analytical holding time was exceeded
- J Value is estimated
- M M if above MDC and less than LLD
- M Matrix Related Failure
- N/A RPD or %Recovery limits do not apply.
- ND Analyte concentration is not detected above the detection limit
- NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- R Sample results are rejected
- U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
- UI Gamma Spectroscopy--Uncertain identification

P.S. 2/9/10

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: January 5, 2010

Client Sample ID:	RE03-09-14220	Project:	LANL01004
Sample ID:	243042008	Client ID:	LANL010
Matrix:	S		
Collect Date:	14-DEC-09		
Receive Date:	16-DEC-09		
Collector:	Client		
Moisture:	15.6%		

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids												
"As Received"												
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		474	206	+/-77.1	250	pCi/L		KXK2	01/04/10	1802	935212	2

The following Analytical Methods were performed

Method	Description
1	ASTM D 2216 (Modified)
2	GL-RAD-A-002

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
- F Estimated Value
- H Analytical holding time was exceeded
- J Value is estimated
- M M if above MDC and less than LLD
- M Matrix Related Failure
- N/A RPD or %Recovery limits do not apply.
- ND Analyte concentration is not detected above the detection limit
- NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- R Sample results are rejected
- U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
- UI Gamma Spectroscopy--Uncertain identification

P.S. 2/9/10

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: January 5, 2010

Client Sample ID:	RE03-10-2734	Project:	LANL01004
Sample ID:	243042009	Client ID:	LANL010
Matrix:	S		
Collect Date:	14-DEC-09		
Receive Date:	16-DEC-09		
Collector:	Client		
Moisture:	19.3%		

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids												
"As Received"												
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		1100	205	+/-111	250	pCi/L		KXK2	01/04/10	1940	935212	2

The following Analytical Methods were performed

Method	Description
1	ASTM D 2216 (Modified)
2	GL-RAD-A-002

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
- F Estimated Value
- H Analytical holding time was exceeded
- J Value is estimated
- M M if above MDC and less than LLD
- M Matrix Related Failure
- N/A RPD or %Recovery limits do not apply.
- ND Analyte concentration is not detected above the detection limit
- NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- R Sample results are rejected
- U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
- UI Gamma Spectroscopy--Uncertain identification

P.S. 2/9/10

Tuesday, December 15, 2009

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-941

REQUEST NUMBER: 10-941

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 1/14/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS: 243042, 243043

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE03-09-14221	1	POLY	H3	Ice	S
RE03-09-14221	1	POLY	Metals+CN - GEL	Ice	S
RE03-09-14211	1	POLY	H3	Ice	S
RE03-09-14211	1	POLY	Metals+CN - GEL	Ice	S
RE03-09-14210	1	POLY	H3	Ice	S
RE03-09-14210	1	POLY	Metals+CN - GEL	Ice	S
RE03-09-14209	1	POLY	H3	Ice	S
RE03-09-14209	1	POLY	Metals+CN - GEL	Ice	S
RE03-09-14208	1	POLY	H3	Ice	S
RE03-09-14208	1	POLY	Metals+CN - GEL	Ice	S
RE03-09-14222	1	POLY	H3	Ice	S
RE03-09-14222	1	POLY	Metals+CN - GEL	Ice	S
RE03-09-14223	1	POLY	H3	Ice	S
RE03-09-14223	1	POLY	Metals+CN - GEL	Ice	S
RE03-09-14220	1	POLY	H3	Ice	S
RE03-09-14220	1	POLY	Metals+CN - GEL	Ice	S
RE03-10-2734	1	POLY	H3	Ice	S
RE03-10-2734	1	POLY	Metals+CN - GEL	Ice	S
RE03-10-2760	1	POLY	METALS-GEL	Nitric Acid	W
RE03-10-2760	1	POLY	TCN	Sodium Hydroxide	W
RE03-10-2748	1	POLY	METALS-GEL	Nitric Acid	W
RE03-10-2748	1	POLY	TCN	Sodium Hydroxide	W

Relinquished By:	Date	Time	Received By:	Date	Time
[illegible]	12/15/09	1900	Patricia Dover-Dent P.D.Dent	12-16-09	09:10
Printed Name / Signature			Printed Name / Signature		
Printed Name / Signature			Printed Name / Signature		
Printed Name / Signature			Printed Name / Signature		

Received for DISPOSAL By: **Date** **Time** **Remarks:**

Tuesday, December 15, 2009

REQUEST NUMBER: 10-941

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis
General Engineering Laboratories, Inc., Charleston, SC.
2040 Savage Rd
Charleston, SC 29407

These Samples are on:
LANL Request Number:10-941
Per Agreement Number:126310011
Project Cost Code: MR2A054196D0

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 12/15/2009
TURNAROUND/REPORT DUE: 1/14/2010
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Not Required
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:906.0	1	RE03-09-14208	S	12/14/2009	
		1	RE03-09-14209	S	12/14/2009	
		1	RE03-09-14210	S	12/14/2009	
		1	RE03-09-14211	S	12/14/2009	
		1	RE03-09-14220	S	12/14/2009	
		1	RE03-09-14221	S	12/14/2009	
		1	RE03-09-14222	S	12/14/2009	
		1	RE03-09-14223	S	12/14/2009	
		1	RE03-10-2734	S	12/14/2009	

Tuesday, December 15, 2009

REQUEST NUMBER: 10-941

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:6010B	1	RE03-09-14208	S	12/14/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14209	S	12/14/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14210	S	12/14/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14211	S	12/14/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14220	S	12/14/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14221	S	12/14/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14222	S	12/14/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14223	S	12/14/2009	Plus, B, Li, Si, Ti, U
		1	RE03-10-2734	S	12/14/2009	
		1	RE03-10-2748	W	12/14/2009	
		1	RE03-10-2760	W	12/14/2009	
	SW-846:6020	1	RE03-10-2748	W	12/14/2009	
		1	RE03-10-2760	W	12/14/2009	
	SW-846:9012A	1	RE03-09-14208	S	12/14/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14209	S	12/14/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14210	S	12/14/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14211	S	12/14/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14220	S	12/14/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14221	S	12/14/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14222	S	12/14/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14223	S	12/14/2009	Plus, B, Li, Si, Ti, U
		1	RE03-10-2734	S	12/14/2009	
		1	RE03-10-2748	W	12/14/2009	
		1	RE03-10-2760	W	12/14/2009	

Final Page of REQUEST NUMBER 10-941

GEL Laboratories LLC

a member of The GEL Group INC

PO Box 30712 Charleston, SC 29417
2040 Savage Road Charleston, SC 29407
P 843.556.8171 F 843.766.1178

www.gel.com

December 19, 2009

Ms. Joylene Valdez
Los Alamos National Laboratory
PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545

Re: LANL ER Project
Work Orders: 243042 243043
SDG: 10-941

Dear Ms. Valdez:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the following analytical results for the sample(s) we received on December 16, 2009, and analyzed for General Chemistry, Metals and Radiochemistry. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 4485.

Sincerely,

for

Valerie Davis
Project Manager

Purchase Order: 72733-001-09
Chain of Custody: 10-941
Enclosures

problem solved

Los Alamos National Laboratory (72733-001-09)
LANL ER Project
Work Order #: 243042 and 243043
SDG: 10-941

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- Instrument QC Data Summary 1000
- Cyanide, Total 1002
- Miscellaneous 1025

General Chemistry Analysis **1027**
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- Sample Data Summary 1033
- Quality Control Summary 1037
- Instrument QC Data Summary 1040
- Cyanide, Total 1042

Radiological Analysis **1051**
- Sample Data Summary 1056
- Quality Control Data 1076
- Raw Data 1079

Background and Efficiency Data 1112
Standards Data 1115
Runlogs 1119

Case Narrative

Case Narrative for
Los Alamos National Laboratory (72733-001-09)
LANL ER Project
Workorder #: 243042 and 243043
SDG # : 10-941

December 19, 2009

Laboratory Identification:

GEL Laboratories LLC
2040 Savage Road
Charleston, South Carolina 29407
(843) 556-8171

Summary

Sample receipt The samples arrived at GEL Laboratories LLC, Charleston, South Carolina on December 16, 2009 for analysis. The samples were prepared/analyzed within the required holding time. Shipping container temperatures were checked, documented, and within specifications. The samples were screened according to GEL Standard Operating Procedure. The lab did not receive any H3 containers. Los Alamos was notified. Please see attached e-mail. All sample containers arrived without any visible signs of tampering or breakage. Containers were checked for pH, where appropriate, and matched the preservative as documented on the accompanying chain of custody. The containers for radiochemistry were received at 14C temperature. Shipping container temperature was within specification (0 - 6C).

Sample Identification The laboratory received the following samples:

Laboratory ID	Client ID
243042001	RE03-09-14221
243042002	RE03-09-14211
243042003	RE03-09-14210
243042004	RE03-09-14209
243042005	RE03-09-14208
243042006	RE03-09-14222
243042007	RE03-09-14223
243042008	RE03-09-14220
243042009	RE03-10-2734
243043001	RE03-10-2760
243043002	RE03-10-2748

Case Narrative

Sample analyses were conducted using methodology as outlined in GEL Laboratories, LLC (GEL) Standard Operating Procedures. Any technical or administrative problems during analysis, data review, and reduction are contained in the analytical case narratives in the enclosed data package.

Data Package The enclosed data package contains the following sections: Case Narrative, Chain of Custody, Cooler Receipt Checklist, Data Package Qualifier Definitions and data from the following fractions: General Chemistry, Metals and Radiochemistry.

I certify that this data report is in compliance with the terms and conditions of the subcontract and task order, both technically and for completeness, for other than the conditions detailed in the attached case narrative.

for

Valerie Davis

Project Manager

List of current GEL Certifications as of 19 December 2009

State	Certification
Arizona	AZ0668
Arkansas	88–0651
CLIA	42D0904046
California – NELAP	01151CA
Colorado	GEL
Connecticut	PH–0169
Dept. of Navy	NFESC 413
EPA Region 5	WG–15J
Florida – NELAP	E87156
Georgia	E87156 (FL/NELAP)
Georgia DW	967
Hawaii	N/A
ISO 17025	2567.01
Idaho	SC00012
Illinois – NELAP	200029
Indiana	C–SC–01
Kansas – NELAP	E–10332
Kentucky	90129
Louisiana – NELAP	03046
Maryland	270
Massachusetts	M–SC012
Nevada	SC00012
New Jersey – NELAP	SC002
New Mexico	FL NELAP E87156
New York – NELAP	11501
North Carolina	233
North Carolina DW	45709
Oklahoma	9904
Pennsylvania – NELAP	68–00485
South Carolina	10120001/10120002
Tennessee	TN 02934
Texas – NELAP	T104704235–07B–TX
U.S. Dept. of Agriculture	S–52597
Utah – NELAP	GEL
Vermont	VT87156
Virginia	00151
Washington	C1641

Chain of Custody and Supporting Documentation

Tuesday, December 15, 2009

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-941

REQUEST NUMBER: 10-941

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc.,
Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 1/14/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS: 243042, 243043

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE03-09-14221	1	POLY	H3	Ice	S
RE03-09-14221	1	POLY	Metals+CN - GEL	Ice	S
RE03-09-14211	1	POLY	H3	Ice	S
RE03-09-14211	1	POLY	Metals+CN - GEL	Ice	S
RE03-09-14210	1	POLY	H3	Ice	S
RE03-09-14210	1	POLY	Metals+CN - GEL	Ice	S
RE03-09-14209	1	POLY	H3	Ice	S
RE03-09-14209	1	POLY	Metals+CN - GEL	Ice	S
RE03-09-14208	1	POLY	H3	Ice	S
RE03-09-14208	1	POLY	Metals+CN - GEL	Ice	S
RE03-09-14222	1	POLY	H3	Ice	S
RE03-09-14222	1	POLY	Metals+CN - GEL	Ice	S
RE03-09-14223	1	POLY	H3	Ice	S
RE03-09-14223	1	POLY	Metals+CN - GEL	Ice	S
RE03-09-14220	1	POLY	H3	Ice	S
RE03-09-14220	1	POLY	Metals+CN - GEL	Ice	S
RE03-10-2734	1	POLY	H3	Ice	S
RE03-10-2734	1	POLY	Metals+CN - GEL	Ice	S
RE03-10-2760	1	POLY	METALS-GEL	Nitric Acid	W
RE03-10-2760	1	POLY	TCN	Sodium Hydroxide	W
RE03-10-2748	1	POLY	METALS-GEL	Nitric Acid	W
RE03-10-2748	1	POLY	TCN	Sodium Hydroxide	W

Relinquished By:		Date	Time	Received By:		Date	Time
		12/15/09	1900	Patricia Dover-Dent	P.N. West	12-16-09	09:10
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

Received for DISPOSAL By: Date Time **Remarks:**

Tuesday, December 15, 2009

REQUEST NUMBER: 10-941

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis
General Engineering Laboratories, Inc., Charleston, SC.
2040 Savage Rd
Charleston, SC 29407

These Samples are on:
LANL Request Number:10-941
Per Agreement Number:126310011
Project Cost Code: MR2A054196D0

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 12/15/2009
TURNAROUND/REPORT DUE: 1/14/2010
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Not Required
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:906.0	1	RE03-09-14208	S	12/14/2009	
		1	RE03-09-14209	S	12/14/2009	
		1	RE03-09-14210	S	12/14/2009	
		1	RE03-09-14211	S	12/14/2009	
		1	RE03-09-14220	S	12/14/2009	
		1	RE03-09-14221	S	12/14/2009	
		1	RE03-09-14222	S	12/14/2009	
		1	RE03-09-14223	S	12/14/2009	
		1	RE03-10-2734	S	12/14/2009	

Tuesday, December 15, 2009

REQUEST NUMBER: 10-941

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:6010B	1	RE03-09-14208	S	12/14/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14209	S	12/14/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14210	S	12/14/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14211	S	12/14/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14220	S	12/14/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14221	S	12/14/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14222	S	12/14/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14223	S	12/14/2009	Plus, B, Li, Si, Ti, U
		1	RE03-10-2734	S	12/14/2009	
		1	RE03-10-2748	W	12/14/2009	
		1	RE03-10-2760	W	12/14/2009	
	SW-846:6020	1	RE03-10-2748	W	12/14/2009	
		1	RE03-10-2760	W	12/14/2009	
	SW-846:9012A	1	RE03-09-14208	S	12/14/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14209	S	12/14/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14210	S	12/14/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14211	S	12/14/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14220	S	12/14/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14221	S	12/14/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14222	S	12/14/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14223	S	12/14/2009	Plus, B, Li, Si, Ti, U
		1	RE03-10-2734	S	12/14/2009	
		1	RE03-10-2748	W	12/14/2009	
		1	RE03-10-2760	W	12/14/2009	

Final Page of REQUEST NUMBER 10-941

GEL Laboratories LLC

SAMPLE RECEIPT & REVIEW FORM

Client:LANL	**SDG/ARCOC/Work Order:10-941**
Received By:Patricia Dover-Dent	**Date Received:December 16, 2009**

Suspected Hazard Information	**Yes**	**No**	*If Counts > x2 area background on samples not marked "radioactive", contact the Radiation Safety Group of further
COC/Samples marked as radioactive?		X	Maximum Counts Observed*:40CPM
Classified Radioactive II by RSO?		X	
COC/Samples marked containing PCBs?		X	
Shipped as a DOT Hazardous?		X	Hazard Class Shipped: UN#:
Samples identified as Foreign Soil?		X	

	Sample Receipt Criteria	**Yes**	**NA**	**No**	**Comments/Qualifiers (Required for Non-Conforming Items)**
1	Shipping containers received intact and sealed?	X			Circle Applicable: seals broken damaged container leaking container other (describe
2	Samples requiring cold preservation within (0 < 6 deg. C?	X			Preservation Method: ice bags **BLUE ICE** dry ice **NONE** other (describe) **1-3,14**
3	Chain of custody documents included with shipment?	X			
4	Sample containers intact and sealed?	X			Circle Applicable: seals broken damaged container leaking container other (describe)
5	Samples requiring chemical preservation at proper pH?	X			Sample ID's, containers affected and observed pH. If Preservative added, Lot#
6	VOA vials free of headspace (defined as < 6mm bubble)?		X		Sample ID's and containers affected:
7	Are Encore containers present?			X	(If yes, immediately deliver to Volatiles laboratory)
8	Samples received within holding time?	X			Id's and tests affected:
9	Sample ID's on COC match ID's on bottles?	X			Sample ID's and containers affected:
10	Date & time on COC match date & time on bottles?		X		Sample ID's affected: **No Time on Chain of Custody**
11	Number of containers received match number indicated on COC?			X	Sample ID's affected: **Please see attached E-mail**
12	COC form is properly signed in relinquished/received sections?	X			

Comments:FED EX #'S

7209 7849 2417 1C
7209 7849 2440 1C
7209 7849 2369 2C
7209 7849 2370 2C
7209 7849 2406 2C
7209 7849 2439 2C
7209 7849 2358 3C
7209 7849 2428 3C
7209 7849 2450 3C
7209 7849 2461 3C
7209 7849 2347 14C

PM (or PMA) review: Initials _____ Date 12/17/09

Subject: Re: Sample Receipt for 12/16/09
From: Dionne Francis <Dionne.Francis@gel.com>
Date: Wed, 23 Dec 2009 10:01:21 -0500
To: "Keith R. Greene" <kgreene@lanl.gov>
CC: Joylene Valdez <joylenev@lanl.gov>

Keith,

RN 10-927: should we cancel the analysis, we still have not rec'd the containers.

Dionne Francis wrote:

> Keith,
>
> RN 10-928, 941, 939: containers rec'd on 12/17/09
>
> RN 10-927: we still have not rec'd RE16-10-173, 172, 166, 176, 177, 171, 169, 170,175 and 176.
>
> Please advise.
> Thanks,
> Dionne
>
> Dionne Francis wrote:
>
> > Keith,
> >
> > RN 10-938: the Gross A/B containers were preserved prior to analysis.
> >
> > RN 10-932: the TKN+TOC containers for samples CAPA-10-6101 and 6105 were rec'd unpreserved. The lab will be preserved prior to analysis.
> >
> > RN 10-928: the lab did not receive the 8270C container for sample RE16-10-218 as listed on the COC.
> >
> > RN 10-941: the lab did not receive the H3 containers for any of the samples as listed on the COC.
> >
> > RN10-939: the lab did not receive the AM241+ISOU+ISOPU+SR90, H3 containers for sample WST03-10-2147 as listed on the COC.
> >
> > RN 10-927: the lab did not receive the AM241+ISOU+ISOPU+SR90 containers for sample RE16-10-173, 172, 166, 176, 177, 171, 169, 170,175 and 176.
> >
> > Thanks,
> > Dionne

--

Dionne Francis
Project Manager Assistant
GEL Laboratories, LLC
2040 Savage Road
Charleston, SC (USA) 29407
Direct: 843.769.7376 Ext. 4432
Main: 843.556.8171
Fax: 843.766.1178
E-mail: daf@gel.com
Web: www.gel.com

Let the Bible fill the memory, rule the heart, and guide the feet.

ORIGIN ID: SAFA (505)665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 15DEC09
ACTWGT: 51.0 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843)556-8171
REF: 6B010AMR2A0541900

1c

FedEx Express

1 of 2
MPS# 7209 7849 2417
Matr# 7209 7849 2440 0201

WED - 16DEC A1
PRIORITY OVERNIGHT

29407
SC-US

ORIGIN ID: SAFA (505)665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 15DEC09
ACTWGT: 81.0 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843)556-8171
REF: 6B010AMR3A0352VA00

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1 of 3
TRK# 7209 7849 2440 0201
MM MASTER MM

WED - 16DEC A1
PRIORITY OVERNIGHT

29407
SC-US
CHS

XX CHSA

Part # 156148-434 NRIT V3 06-09

FedEx
7209 7849 2417

WED - 16 DEC A1
PRIORITY OVERNIGHT

29407
SC-US
CHS

X CHSA

ORIGIN ID: SAFA (505)665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 15DEC09
ACTWGT: 54.0 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843)556-8171
REF: 6B010AMR1A015AGNM0

2c

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1 of 2
TRK# 7209 7849 2369 0201
MM MASTER MM

WED - 16DEC A1
PRIORITY OVERNIGHT

29407
SC-US
CHS

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2 of 2
MPS# 7209 7849 2370 0263
Matr# 7209 7849 2369 0201

WED - 16DEC A1
PRIORITY OVERNIGHT

29407
SC-US
CHS

XX CHSA

ORIGIN ID: SAFA (505)665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 15DEC09
ACTWGT: 54.0 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843)556-8171
REF: 6B010AMR2A05419600

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FedEx Express

1 of 2
TRK# 0201 7209 7849 2406
WED - 16DEC A1
PRIORITY OVERNIGHT
MASTER

XX CHSA
29407
SC-US
CHS

Part # 156148-434 NRIT V2 09-09

ORIGIN ID: SAFA (505)665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 15DEC09
ACTWGT: 52.0 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843)556-8171
REF: 6B010AMR3A0352VA00

2c

FedEx Express

2 of 2
MPS# 0263 7209 7849 2439
Matr# 7209 7849 2428 0201
WED - 16DEC A1
PRIORITY OVERNIGHT

XX CHSA
29407
SC-US
CHS

Part # 156148-434 NRIT V2 09-09

ORIGIN ID: SAFA (505)665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 15DEC09
ACTWGT: 52.0 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843)556-8171
REF: 6B010AMR1A015AGW10

3c

FedEx Express

3 of 3
MPS# 0263 7209 7849 2358
Matr# 7209 7849 2336 0201
WED - 16DEC A1
PRIORITY OVERNIGHT

XX CHSA
29407
SC-US
CHS

ORIGIN ID: SAFA (505)665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 15DEC09
ACTWGT: 48.0 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843)556-8171
REF: 6B010AMR3A0352VA00

3c

FedEx Express

1 of 2
TRK# 0201 7209 7849 2428
MASTER
WED - 16DEC A1
PRIORITY OVERNIGHT

XX CHSA
29407
SC-US
CHS

ORIGIN ID: SAFA (505)665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 15DEC09
ACTWGT: 40.0 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843)556-8171
REF: 6B010AMR3A0352VA00

3

FedEx Express

2 of 3
MPS# 0263 7209 7849 2450
Mstr# 7209 7849 2440 0201

WED - 16DEC A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

Part # 156148-434 NHIT V3 09-09

ORIGIN ID: SAFA (505)665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 15DEC09
ACTWGT: 40.0 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843)556-8171
REF: 6B010AMR3A0352VA00

3c

FedEx Express

3 of 3
MPS# 0263 7209 7849 2461
Mstr# 7209 7849 2440 0201

WED - 16DEC A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

Part # 156148-434 NHIT V3 09-09

ORIGIN ID: SAFA (505)665-9968
JOYLENE VALDEZ
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TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 15DEC09
ACTWGT: 46.0 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843)556-8171
REF: 6B010AMR1A015AGN10

14c

FedEx Express

2 of 3
MPS# 0263 7209 7849 2347
Mstr# 7209 7849 2338 0201

WED - 16DEC A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

Data Review Qualifier Flag Definition Sheet

Data Review Qualifier Definitions

Qualifier	Explanation
*	A quality control analyte recovery is outside of specified acceptance criteria
**	Analyte is a surrogate compound
<	Result is less than value reported
>	Result is greater than value reported
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL
A	The TIC is a suspected aldol-condensation product
B	Target analyte was detected in the associated blank
B	Metals-Either presence of analyte detected in the associated blank, or MDL/IDL < sample value < PQL
BD	Results are either below the MDC or tracer recovery is low
C	Analyte has been confirmed by GC/MS analysis
D	Results are reported from a diluted aliquot of the sample
d	5-day BOD-The 2:1 depletion requirement was not met for this sample
E	Organics-Concentration of the target analyte exceeds the instrument calibration range
E	Metals-%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
H	Analytical holding time was exceeded
h	Preparation or preservation holding time was exceeded
J	Value is estimated
N	Metals-The Matrix spike sample recovery is not within specified control limits
N	Organics-Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A	Spike recovery limits do not apply. Sample concentration exceeds spike concentration by 4X or more
ND	Analyte concentration is not detected above the reporting limit
UI	Gamma Spectroscopy-Uncertain identification
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
Z	Paint Filter Test-Particulates passed through the filter, however no free liquids were observed.

Metals Analysis

Case Narrative

Metals Fractional Narrative
Los Alamos National Laboratory (LANL)
SDG 10-941

Sample Analysis

Sample ID	Client ID
243042001	RE03-09-14221
243042002	RE03-09-14211
243042003	RE03-09-14210
243042004	RE03-09-14209
243042005	RE03-09-14208
243042006	RE03-09-14222
243042007	RE03-09-14223
243042008	RE03-09-14220
243042009	RE03-10-2734
1201999340	Method Blank (MB) **ICP**
1202010888	Method Blank (MB) **ICP**
1201999345	Laboratory Control Sample (LCS)
1202010889	Laboratory Control Sample (LCS)
1201999342	243042001(RE03-09-14221L) Serial Dilution (SD)
1201999341	243042001(RE03-09-14221D) Sample Duplicate (DUP)
1201999343	243042001(RE03-09-14221S) Matrix Spike (MS)
1201999344	243042001(RE03-09-14221SD) Matrix Spike Duplicate (MSD)
1201999349	Method Blank (MB) **ICP-MS**
1201999354	Laboratory Control Sample (LCS)
1201999351	243042001(RE03-09-14221L) Serial Dilution (SD)
1201999350	243042001(RE03-09-14221D) Sample Duplicate (DUP)
1201999352	243042001(RE03-09-14221S) Matrix Spike (MS)
1201999353	243042001(RE03-09-14221SD) Matrix Spike Duplicate (MSD)
1202000228	Method Blank (MB) **CVAA**
1202000229	Laboratory Control Sample (LCS)
1202000232	243042001(RE03-09-14221L) Serial Dilution (SD)
1202000230	243042001(RE03-09-14221D) Sample Duplicate (DUP)
1202000231	243042001(RE03-09-14221S) Matrix Spike (MS)
1202000233	243042001(RE03-09-14221SD) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on a "dry weight" basis.

Method/Analysis Information

Analytical Batch:	934493, 939704, 934497 and 934897
Prep Batch :	934492, 939703, 934496 and 934894
Standard Operating Procedures:	GL-MA-E-013 REV# 20, GL-MA-E-009 REV# 19, GL-MA-E-014 REV# 21 and GL-MA-E-010 REV# 23
Analytical Method:	SW846 3050B/6010B, SW846 3050B/6020 and SW846 7471A
Prep Method :	SW846 3050B and SW846 7471A Prep

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

System Configuration

The Metals analysis-ICP was performed on a P E 4300 Optima radial/axial-viewing inductively coupled plasma atomic emission spectrometer. The instrument is equipped with a Burgener nebulizer, cyclonic spray chamber, and yttrium or scandium internal standard. Operating conditions for the ICP are set at a power level of 1500 watts. The instrument has a peristaltic pump flow rate of 1.4L/min, argon gas flows of 15 L/min and 0.2 L/min for the torch and auxiliary gases, and a flow setting of 0.65L/min for the nebulizer.

The Metals analysis-ICP was performed on a P E 5300 Optima radial/axial-viewing inductively coupled plasma atomic emission spectrometer. The instrument is equipped with a Burgener nebulizer, cyclonic spray chamber, and yttrium or scandium internal standard. Operating conditions for the ICP are set at a power level of 1500 watts. The instrument has a peristaltic pump flow rate of 1.4L/min, argon gas flows of 15 L/min and 0.2 L/min for the torch and auxiliary gases, and a flow setting of 0.65L/min for the nebulizer.

The Metals analysis - ICPMS was performed on a Perkin Elmer ELAN 9000 inductively coupled plasma mass spectrometer (ICP-MS). The instrument is equipped with a cross-flow nebulizer, quadrupole mass spectrometer, and dual mode electron multiplier detector. Internal standards of scandium, germanium, indium, tantalum, and/or lutetium were utilized to cover the mass spectrum. Operating conditions are set at 1400W power and combined argon pressures of 360+/-7 kPa for the plasma and auxiliary gases, and 0.85 L/min carrier gas flow, and an initial lens voltage of 5.2.

The Metals analysis-Mercury was performed on a Perkin-Elmer Flow Injection Mercury System (FIMS-100) automated mercury analyzer. The instrument consists of a cold vapor atomic

absorption spectrometer set to detect mercury at a wavelength of 253.7 nm. Sample introduction through the flow injection system is performed via a peristaltic pump at 9 mL/min and nitrogen carrier gas rate of 80 mL/min.

Calibration Information

Instrument Calibration
All initial calibration requirements have been met for this sample delivery group (SDG).

CRDL Requirements
All CRDL standard(s) met the referenced advisory control limits.

ICSA/ICSAB Statement
All interference check samples (ICSA and ICSAB) associated with this SDG met the established acceptance criteria.

Continuing Calibration Blank (CCB) Requirements
All continuing calibration blanks (CCB) bracketing this batch met the established acceptance criteria.

Continuing Calibration Verification (CCV) Requirements
All continuing calibration verifications (CCV) bracketing this SDG met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MBs analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

Quality Control (QC) Sample Statement
The following sample was selected as the quality control (QC) sample for this SDG: 243042001 (RE03-09-14221)-ICP, ICP-MS and CVAA.

Matrix Spike (MS) Recovery Statement
The percent recoveries (%R) obtained from the MS analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. The MS met the recommended quality control acceptance criteria for percent recoveries for all applicable analytes with the exceptions of antimony, potassium, silicon, zinc, selenium, beryllium and mercury as indicated by the "N" qualifiers.

Matrix Spike Duplicate (MSD) Recovery Statement
The percent recovery (%R) obtained from the MSD analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. The MSD met the recommended quality control acceptance criteria for percent recoveries for all applicable

analytes with the exceptions of antimony, barium, potassium, selenium and mercury as indicated by the "N" qualifiers.

MS/MSD Relative Percent Difference (RPD) Statement
The relative percent difference (RPD) obtained from the designated matrix spike duplicate (MSD) is evaluated based on acceptance criteria of 20%. The RPD between qualifying elements results in the MS and MSD were within the acceptance limits of 20% with the exception of uranium as indicated by the "*" qualifier.

Duplicate Relative Percent Difference (RPD) Statement
The relative percent difference (RPD) obtained from the designated sample duplicate (DUP) is evaluated based on acceptance criteria of 20% when the sample is >5X the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the contract required detection limit (RL), a control of +/-RL is used to evaluate the DUP results. All applicable analytes met these requirements with the exceptions of copper, lead, silicon and zinc as indicated by the "*" qualifiers.

Serial Dilution % Difference Statement
The serial dilution is used to assess matrix suppression or enhancement. Raw element concentrations that are 25X the IDL/MDL for CVAA, 50X the IDL/MDL for ICP, and 100X the IDL/MDL for ICP-MS analyses are applicable for serial dilution assessment. All applicable analytes met the acceptance criteria of less than 10% difference (%D).

Technical Information

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Sample Dilutions
Dilutions are performed to minimize matrix interferences resulting from elevated mineral element concentrations present in solid samples and/or to bring over range target analyte concentrations into the linear calibration range of the instrument. The samples in this SDG were diluted the standard 2x for solids on the ICPMS.

Preparation Information
The samples in this SDG were prepared exactly according to the cited SOP.

Miscellaneous Information

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional

packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Nonconformance Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. The following NCR was generated for this SDG: NCR ID 777037, 777811, 777897 and 779186. A copy is included in the Miscellaneous Data section of this package.

Additional Comments
There were no additional comments needed for this SDG.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Nikki Lidell Elmore **Date:** 1·12·10

Sample Data Summary

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-941 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 243042001 **BASIS:** Dry Weight **DATE COLLECTED** 14-DEC-09

CLIENT ID: RE03-09-14221 **LEVEL:** Low **DATE RECEIVED** 16-DEC-09

MATRIX: SOIL **%SOLIDS:** 85

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	12600000	ug/Kg		7760	22800	22800	1	P	HSC	12/29/09 14:27	122909A-2	934493
7440-36-0	Antimony	1140	ug/Kg	UN	377	1140	1140	1	P	HSC	12/29/09 14:27	122909A-2	934493
7440-38-2	Arsenic	2.16	mg/kg		0.23	1.15	1.15	2	MS	RMJ	01/05/10 03:16	100104-3	934497
7440-39-3	Barium	201000	ug/Kg	N	114	571	571	1	P	HSC	12/29/09 14:27	122909A-2	934493
7440-41-7	Beryllium	0.801	mg/kg	N	0.023	0.115	0.115	2	MS	RMJ	01/06/10 04:27	100105-4	934497
7440-42-8	Boron	2840	ug/Kg	J	1140	5710	5710	1	P	HSC	12/29/09 14:27	122909A-2	934493
7440-43-9	Cadmium	571	ug/Kg	U	114	571	571	1	P	HSC	12/29/09 14:27	122909A-2	934493
7440-70-2	Calcium	2450000	ug/Kg		9130	28500	28500	1	P	HSC	12/29/09 14:27	122909A-2	934493
7440-47-3	Chromium	22800	ug/Kg		171	571	571	1	P	HSC	12/29/09 14:27	122909A-2	934493
7440-48-4	Cobalt	6450	ug/Kg		171	571	571	1	P	HSC	12/29/09 14:27	122909A-2	934493
7440-50-8	Copper	19800	ug/Kg	*	342	1140	1140	1	P	HSC	12/29/09 14:27	122909A-2	934493
7439-89-6	Iron	16000000	ug/Kg		9130	28500	28500	1	P	HSC	12/29/09 14:27	122909A-2	934493
7439-92-1	Lead	24100	ug/Kg	*	285	1140	1140	1	P	HSC	12/29/09 14:27	122909A-2	934493
7439-93-2	Lithium	12.3	mg/kg		0.459	2.3	2.3	2	MS	RMJ	01/06/10 05:56	100105-5	934497
7439-95-4	Magnesium	2610000	ug/Kg		9700	34200	34200	1	P	HSC	12/29/09 14:27	122909A-2	934493
7439-96-5	Manganese	404000	ug/Kg		228	1140	1140	1	P	HSC	12/29/09 14:27	122909A-2	934493
7439-97-6	Mercury	53.4	ug/kg	N	4.74	13.9	13.9	1	AV	JXL1	01/05/10 10:26	010510S1-6	934897
7440-02-0	Nickel	8.51	mg/kg		0.115	0.459	0.459	2	MS	RMJ	01/05/10 03:16	100104-3	934497
7440-09-7	Potassium	1600000	ug/Kg	N	7300	28500	28500	1	P	HSC	12/29/09 14:27	122909A-2	934493
7782-49-2	Selenium	1.15	mg/kg	UN	0.574	1.15	1.15	2	MS	RMJ	01/05/10 03:16	100104-3	934497
7440-21-3	Silicon	1380000	ug/Kg	*N	1760	11700	11700	1	P	HSC	01/11/10 13:33	011110A-1	939704
7440-22-4	Silver	469	ug/Kg	J	114	571	571	1	P	HSC	12/29/09 14:27	122909A-2	934493
7440-23-5	Sodium	144000	ug/Kg		7990	28500	28500	1	P	HSC	12/29/09 14:27	122909A-2	934493
7440-28-0	Thallium	0.283	mg/kg		0.0689	0.23	0.23	2	MS	RMJ	01/05/10 03:16	100104-3	934497
7440-32-6	Titanium	504000	ug/Kg		114	571	571	1	P	HSC	12/29/09 14:27	122909A-2	934493
7440-61-1	Uranium	0.859	mg/kg	*	0.0152	0.0459	0.0459	2	MS	RMJ	01/05/10 03:16	100104-3	934497
7440-62-2	Vanadium	29000	ug/Kg		114	571	571	1	P	HSC	12/29/09 14:27	122909A-2	934493
7440-66-6	Zinc	67800	ug/Kg	*N	377	1140	1140	1	P	HSC	12/29/09 14:27	122909A-2	934493

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
934493	934492	SW846 3050B	0.514	g	50	mL	12/19/09	BCD1
934497	934496	SW846 3050B	0.511	g	50	mL	12/19/09	BCD1
934897	934894	SW846 7471A Prep	0.505	g	30	mL	01/04/10	TXB3

METALS
–1–
INORGANICS ANALYSIS DATA PACKAGE

939704	939703	SW846 3050B	0.501	g	50	mL	01/08/10	BXA1

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-941 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 243042002 **BASIS:** Dry Weight **DATE COLLECTED** 14-DEC-09

CLIENT ID: RE03-09-14211 **LEVEL:** Low **DATE RECEIVED** 16-DEC-09

MATRIX: SOIL **%SOLIDS:** 86

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	6960000	ug/Kg		7570	22300	22300	1	P	HSC	12/29/09 15:01	122909A-2	934493
7440-36-0	Antimony	1110	ug/Kg	UN	368	1110	1110	1	P	HSC	12/29/09 15:01	122909A-2	934493
7440-38-2	Arsenic	1.04	mg/kg	J	0.226	1.13	1.13	2	MS	RMJ	01/05/10 03:45	100104-3	934497
7440-39-3	Barium	103000	ug/Kg	N	111	557	557	1	P	HSC	12/29/09 15:01	122909A-2	934493
7440-41-7	Beryllium	0.850	mg/kg	N	0.0226	0.113	0.113	2	MS	RMJ	01/06/10 04:42	100105-4	934497
7440-42-8	Boron	5570	ug/Kg	U	1110	5570	5570	1	P	HSC	12/29/09 15:01	122909A-2	934493
7440-43-9	Cadmium	557	ug/Kg	U	111	557	557	1	P	HSC	12/29/09 15:01	122909A-2	934493
7440-70-2	Calcium	1740000	ug/Kg		8910	27800	27800	1	P	HSC	12/29/09 15:01	122909A-2	934493
7440-47-3	Chromium	4620	ug/Kg		167	557	557	1	P	HSC	12/29/09 15:01	122909A-2	934493
7440-48-4	Cobalt	936	ug/Kg		167	557	557	1	P	HSC	12/29/09 15:01	122909A-2	934493
7440-50-8	Copper	4820	ug/Kg	*	334	1110	1110	1	P	HSC	12/29/09 15:01	122909A-2	934493
7439-89-6	Iron	11000000	ug/Kg		8910	27800	27800	1	P	HSC	12/29/09 15:01	122909A-2	934493
7439-92-1	Lead	16200	ug/Kg	*	278	1110	1110	1	P	HSC	12/29/09 15:01	122909A-2	934493
7439-93-2	Lithium	12.2	mg/kg		0.452	2.26	2.26	2	MS	RMJ	01/06/10 06:11	100105-5	934497
7439-95-4	Magnesium	1470000	ug/Kg		9470	33400	33400	1	P	HSC	12/29/09 15:01	122909A-2	934493
7439-96-5	Manganese	188000	ug/Kg		223	1110	1110	1	P	HSC	12/29/09 15:01	122909A-2	934493
7439-97-6	Mercury	12.4	ug/kg	UN	4.2	12.4	12.4	1	AV	JXL1	01/05/10 10:36	010510S1-6	934897
7440-02-0	Nickel	5.88	mg/kg		0.113	0.452	0.452	2	MS	RMJ	01/05/10 03:45	100104-3	934497
7440-09-7	Potassium	951000	ug/Kg	N	7130	27800	27800	1	P	HSC	12/29/09 15:01	122909A-2	934493
7782-49-2	Selenium	1.13	mg/kg	UN	0.565	1.13	1.13	2	MS	RMJ	01/05/10 03:45	100104-3	934497
7440-21-3	Silicon	2310000	ug/Kg	*N	1750	11600	11600	1	P	HSC	01/11/10 13:59	011110A-1	939704
7440-22-4	Silver	460	ug/Kg	J	111	557	557	1	P	HSC	12/29/09 15:01	122909A-2	934493
7440-23-5	Sodium	228000	ug/Kg		7800	27800	27800	1	P	HSC	12/29/09 15:01	122909A-2	934493
7440-28-0	Thallium	0.205	mg/kg	J	0.0679	0.226	0.226	2	MS	RMJ	01/05/10 03:45	100104-3	934497
7440-32-6	Titanium	193000	ug/Kg		111	557	557	1	P	HSC	12/29/09 15:01	122909A-2	934493
7440-61-1	Uranium	0.668	mg/kg	*	0.0149	0.0452	0.0452	2	MS	RMJ	01/05/10 03:45	100104-3	934497
7440-62-2	Vanadium	7630	ug/Kg		111	557	557	1	P	HSC	12/29/09 15:01	122909A-2	934493
7440-66-6	Zinc	57800	ug/Kg	*N	368	1110	1110	1	P	HSC	12/29/09 15:01	122909A-2	934493

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
934493	934492	SW846 3050B	0.524	g	50	mL	12/19/09	BCD1
934497	934496	SW846 3050B	0.516	g	50	mL	12/19/09	BCD1
934897	934894	SW846 7471A Prep	0.567	g	30	mL	01/04/10	TXB3

METALS
–1–
INORGANICS ANALYSIS DATA PACKAGE

939704	939703	SW846 3050B	0.501	g	50	mL	01/08/10	BXA1

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-941 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 243042003 **BASIS:** Dry Weight **DATE COLLECTED** 14-DEC-09

CLIENT ID: RE03-09-14210 **LEVEL:** Low **DATE RECEIVED** 16-DEC-09

MATRIX: SOIL **%SOLIDS:** 86

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	10200000	ug/Kg		7470	22000	22000	1	P	HSC	12/29/09 15:08	122909A-2	934493
7440-36-0	Antimony	423	ug/Kg	JN	362	1100	1100	1	P	HSC	12/29/09 15:08	122909A-2	934493
7440-38-2	Arsenic	1.54	mg/kg		0.227	1.14	1.14	2	MS	RMJ	01/05/10 04:04	100104-3	934497
7440-39-3	Barium	94000	ug/Kg	N	110	549	549	1	P	HSC	12/29/09 15:08	122909A-2	934493
7440-41-7	Beryllium	0.575	mg/kg	N	0.0227	0.114	0.114	2	MS	RMJ	01/06/10 04:51	100105-4	934497
7440-42-8	Boron	5490	ug/Kg	U	1100	5490	5490	1	P	HSC	12/29/09 15:08	122909A-2	934493
7440-43-9	Cadmium	549	ug/Kg	U	110	549	549	1	P	HSC	12/29/09 15:08	122909A-2	934493
7440-70-2	Calcium	3090000	ug/Kg		8790	27500	27500	1	P	HSC	12/29/09 15:08	122909A-2	934493
7440-47-3	Chromium	12000	ug/Kg		165	549	549	1	P	HSC	12/29/09 15:08	122909A-2	934493
7440-48-4	Cobalt	2030	ug/Kg		165	549	549	1	P	HSC	12/29/09 15:08	122909A-2	934493
7440-50-8	Copper	7720	ug/Kg	*	329	1100	1100	1	P	HSC	12/29/09 15:08	122909A-2	934493
7439-89-6	Iron	13600000	ug/Kg		8790	27500	27500	1	P	HSC	12/29/09 15:08	122909A-2	934493
7439-92-1	Lead	22500	ug/Kg	*	275	1100	1100	1	P	HSC	12/29/09 15:08	122909A-2	934493
7439-93-2	Lithium	18.9	mg/kg		0.455	2.27	2.27	2	MS	RMJ	01/06/10 06:20	100105-5	934497
7439-95-4	Magnesium	2720000	ug/Kg		9330	32900	32900	1	P	HSC	12/29/09 15:08	122909A-2	934493
7439-96-5	Manganese	325000	ug/Kg		220	1100	1100	1	P	HSC	12/29/09 15:08	122909A-2	934493
7439-97-6	Mercury	7.59	ug/kg	JN	4.69	13.8	13.8	1	AV	JXL1	01/05/10 10:38	010510S1-6	934897
7440-02-0	Nickel	5.29	mg/kg		0.114	0.455	0.455	2	MS	RMJ	01/05/10 04:04	100104-3	934497
7440-09-7	Potassium	1780000	ug/Kg	N	7030	27500	27500	1	P	HSC	12/29/09 15:08	122909A-2	934493
7782-49-2	Selenium	1.14	mg/kg	UN	0.569	1.14	1.14	2	MS	RMJ	01/05/10 04:04	100104-3	934497
7440-21-3	Silicon	1810000	ug/Kg	*N	1720	11400	11400	1	P	HSC	01/11/10 14:02	011110A-1	939704
7440-22-4	Silver	369	ug/Kg	J	110	549	549	1	P	HSC	12/29/09 15:08	122909A-2	934493
7440-23-5	Sodium	163000	ug/Kg		7690	27500	27500	1	P	HSC	12/29/09 15:08	122909A-2	934493
7440-28-0	Thallium	0.204	mg/kg	J	0.0682	0.227	0.227	2	MS	RMJ	01/05/10 04:04	100104-3	934497
7440-32-6	Titanium	357000	ug/Kg		110	549	549	1	P	HSC	12/29/09 15:08	122909A-2	934493
7440-61-1	Uranium	0.474	mg/kg	*	0.015	0.0455	0.0455	2	MS	RMJ	01/05/10 04:04	100104-3	934497
7440-62-2	Vanadium	15700	ug/Kg		110	549	549	1	P	HSC	12/29/09 15:08	122909A-2	934493
7440-66-6	Zinc	98200	ug/Kg	*N	362	1100	1100	1	P	HSC	12/29/09 15:08	122909A-2	934493

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
934493	934492	SW846 3050B	0.527	g	50	mL	12/19/09	BCD1
934497	934496	SW846 3050B	0.509	g	50	mL	12/19/09	BCD1
934897	934894	SW846 7471A Prep	0.504	g	30	mL	01/04/10	TXB3

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

939704	939703	SW846 3050B	0.506	g	50	mL	01/08/10	BXA1

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-941 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 243042004 **BASIS:** Dry Weight **DATE COLLECTED** 14-DEC-09

CLIENT ID: RE03-09-14209 **LEVEL:** Low **DATE RECEIVED** 16-DEC-09

MATRIX: SOIL **%SOLIDS:** 88

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	13500000	ug/Kg		7380	21700	21700	1	P	HSC	12/29/09 15:29	122909A-2	934493
7440-36-0	Antimony	1090	ug/Kg	UN	358	1090	1090	1	P	HSC	12/29/09 15:29	122909A-2	934493
7440-38-2	Arsenic	2.13	mg/kg		0.224	1.12	1.12	2	MS	RMJ	01/05/10 04:10	100104-3	934497
7440-39-3	Barium	170000	ug/Kg	N	109	543	543	1	P	HSC	12/29/09 15:29	122909A-2	934493
7440-41-7	Beryllium	0.748	mg/kg	N	0.0224	0.112	0.112	2	MS	RMJ	01/06/10 04:54	100105-4	934497
7440-42-8	Boron	1340	ug/Kg	J	1090	5430	5430	1	P	HSC	12/29/09 15:29	122909A-2	934493
7440-43-9	Cadmium	543	ug/Kg	U	109	543	543	1	P	HSC	12/29/09 15:29	122909A-2	934493
7440-70-2	Calcium	2250000	ug/Kg		8680	27100	27100	1	P	HSC	12/29/09 15:29	122909A-2	934493
7440-47-3	Chromium	15400	ug/Kg		163	543	543	1	P	HSC	12/29/09 15:29	122909A-2	934493
7440-48-4	Cobalt	8870	ug/Kg		163	543	543	1	P	HSC	12/29/09 15:29	122909A-2	934493
7440-50-8	Copper	6860	ug/Kg	*	326	1090	1090	1	P	HSC	12/29/09 15:29	122909A-2	934493
7439-89-6	Iron	15100000	ug/Kg		8680	27100	27100	1	P	HSC	12/29/09 15:29	122909A-2	934493
7439-92-1	Lead	21200	ug/Kg	*	271	1090	1090	1	P	HSC	12/29/09 15:29	122909A-2	934493
7439-93-2	Lithium	12.4	mg/kg		0.449	2.24	2.24	2	MS	RMJ	01/06/10 06:23	100105-5	934497
7439-95-4	Magnesium	2590000	ug/Kg		9220	32600	32600	1	P	HSC	12/29/09 15:29	122909A-2	934493
7439-96-5	Manganese	438000	ug/Kg		217	1090	1090	1	P	HSC	12/29/09 15:29	122909A-2	934493
7439-97-6	Mercury	14.2	ug/kg	N	4.18	12.3	12.3	1	AV	JXL1	01/05/10 10:40	010510S1-6	934897
7440-02-0	Nickel	8.1	mg/kg		0.112	0.449	0.449	2	MS	RMJ	01/05/10 04:10	100104-3	934497
7440-09-7	Potassium	1790000	ug/Kg	N	6940	27100	27100	1	P	HSC	12/29/09 15:29	122909A-2	934493
7782-49-2	Selenium	1.12	mg/kg	UN	0.561	1.12	1.12	2	MS	RMJ	01/05/10 04:10	100104-3	934497
7440-21-3	Silicon	1560000	ug/Kg	*N	1670	11100	11100	1	P	HSC	01/11/10 14:37	011110A-1	939704
7440-22-4	Silver	348	ug/Kg	J	109	543	543	1	P	HSC	12/29/09 15:29	122909A-2	934493
7440-23-5	Sodium	124000	ug/Kg		7600	27100	27100	1	P	HSC	12/29/09 15:29	122909A-2	934493
7440-28-0	Thallium	0.299	mg/kg		0.0673	0.224	0.224	2	MS	RMJ	01/05/10 04:10	100104-3	934497
7440-32-6	Titanium	440000	ug/Kg		109	543	543	1	P	HSC	12/29/09 15:29	122909A-2	934493
7440-61-1	Uranium	0.644	mg/kg	*	0.0148	0.0449	0.0449	2	MS	RMJ	01/05/10 04:10	100104-3	934497
7440-62-2	Vanadium	25600	ug/Kg		109	543	543	1	P	HSC	12/29/09 15:29	122909A-2	934493
7440-66-6	Zinc	38700	ug/Kg	*N	358	1090	1090	1	P	HSC	12/29/09 15:29	122909A-2	934493

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
934493	934492	SW846 3050B	0.521	g	50	mL	12/19/09	BCD1
934497	934496	SW846 3050B	0.504	g	50	mL	12/19/09	BCD1
934897	934894	SW846 7471A Prep	0.552	g	30	mL	01/04/10	TXB3

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

939704	939703	SW846 3050B	0.509	g	50	mL	01/08/10	BXA1

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-941 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 243042005 **BASIS:** Dry Weight **DATE COLLECTED** 14-DEC-09

CLIENT ID: RE03-09-14208 **LEVEL:** Low **DATE RECEIVED** 16-DEC-09

MATRIX: SOIL **%SOLIDS:** 87

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	12700000	ug/Kg		7450	21900	21900	1	P	HSC	12/29/09 15:36	122909A-2	934493
7440-36-0	Antimony	1100	ug/Kg	UN	362	1100	1100	1	P	HSC	12/29/09 15:36	122909A-2	934493
7440-38-2	Arsenic	2.01	mg/kg		0.226	1.13	1.13	2	MS	RMJ	01/05/10 04:16	100104-3	934497
7440-39-3	Barium	182000	ug/Kg	N	110	548	548	1	P	HSC	12/29/09 15:36	122909A-2	934493
7440-41-7	Beryllium	0.909	mg/kg	N	0.0226	0.113	0.113	2	MS	RMJ	01/06/10 04:57	100105-4	934497
7440-42-8	Boron	1240	ug/Kg	J	1100	5480	5480	1	P	HSC	12/29/09 15:36	122909A-2	934493
7440-43-9	Cadmium	548	ug/Kg	U	110	548	548	1	P	HSC	12/29/09 15:36	122909A-2	934493
7440-70-2	Calcium	2010000	ug/Kg		8770	27400	27400	1	P	HSC	12/29/09 15:36	122909A-2	934493
7440-47-3	Chromium	14200	ug/Kg		164	548	548	1	P	HSC	12/29/09 15:36	122909A-2	934493
7440-48-4	Cobalt	6470	ug/Kg		164	548	548	1	P	HSC	12/29/09 15:36	122909A-2	934493
7440-50-8	Copper	6990	ug/Kg	*	329	1100	1100	1	P	HSC	12/29/09 15:36	122909A-2	934493
7439-89-6	Iron	14900000	ug/Kg		8770	27400	27400	1	P	HSC	12/29/09 15:36	122909A-2	934493
7439-92-1	Lead	14000	ug/Kg	*	274	1100	1100	1	P	HSC	12/29/09 15:36	122909A-2	934493
7439-93-2	Lithium	14.4	mg/kg		0.451	2.26	2.26	2	MS	RMJ	01/06/10 06:26	100105-5	934497
7439-95-4	Magnesium	2230000	ug/Kg		9320	32900	32900	1	P	HSC	12/29/09 15:36	122909A-2	934493
7439-96-5	Manganese	466000	ug/Kg		219	1100	1100	1	P	HSC	12/29/09 15:36	122909A-2	934493
7439-97-6	Mercury	8.06	ug/kg	JN	4.4	12.9	12.9	1	AV	JXL1	01/05/10 10:42	010510S1-6	934897
7440-02-0	Nickel	8.17	mg/kg		0.113	0.451	0.451	2	MS	RMJ	01/05/10 04:16	100104-3	934497
7440-09-7	Potassium	1840000	ug/Kg	N	7020	27400	27400	1	P	HSC	12/29/09 15:36	122909A-2	934493
7782-49-2	Selenium	1.13	mg/kg	UN	0.564	1.13	1.13	2	MS	RMJ	01/05/10 04:16	100104-3	934497
7440-21-3	Silicon	2180000	ug/Kg	*N	1700	11400	11400	1	P	HSC	01/11/10 14:41	011110A-1	939704
7440-22-4	Silver	561	ug/Kg		110	548	548	1	P	HSC	12/29/09 15:36	122909A-2	934493
7440-23-5	Sodium	224000	ug/Kg		7670	27400	27400	1	P	HSC	12/29/09 15:36	122909A-2	934493
7440-28-0	Thallium	0.223	mg/kg	J	0.0677	0.226	0.226	2	MS	RMJ	01/05/10 04:16	100104-3	934497
7440-32-6	Titanium	560000	ug/Kg		110	548	548	1	P	HSC	12/29/09 15:36	122909A-2	934493
7440-61-1	Uranium	1.04	mg/kg	*	0.0149	0.0451	0.0451	2	MS	RMJ	01/05/10 04:16	100104-3	934497
7440-62-2	Vanadium	27400	ug/Kg		110	548	548	1	P	HSC	12/29/09 15:36	122909A-2	934493
7440-66-6	Zinc	30400	ug/Kg	*N	362	1100	1100	1	P	HSC	12/29/09 15:36	122909A-2	934493

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
934493	934492	SW846 3050B	0.523	g	50	mL	12/19/09	BCD1
934497	934496	SW846 3050B	0.508	g	50	mL	12/19/09	BCD1
934897	934894	SW846 7471A Prep	0.532	g	30	mL	01/04/10	TXB3

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

939704	939703	SW846 3050B	0.505	g	50	mL	01/08/10	BXA1

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-941 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 243042006 **BASIS:** Dry Weight **DATE COLLECTED** 14-DEC-09

CLIENT ID: RE03-09-14222 **LEVEL:** Low **DATE RECEIVED** 16-DEC-09

MATRIX: SOIL **%SOLIDS:** 81

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	11500000	ug/Kg		8250	24300	24300	1	P	HSC	12/29/09 15:43	122909A-2	934493
7440-36-0	Antimony	1210	ug/Kg	UN	400	1210	1210	1	P	HSC	12/29/09 15:43	122909A-2	934493
7440-38-2	Arsenic	2.58	mg/kg		0.24	1.2	1.2	2	MS	RMJ	01/05/10 04:22	100104-3	934497
7440-39-3	Barium	91400	ug/Kg	N	121	606	606	1	P	HSC	12/29/09 15:43	122909A-2	934493
7440-41-7	Beryllium	0.739	mg/kg	N	0.024	0.12	0.12	2	MS	RMJ	01/06/10 05:00	100105-4	934497
7440-42-8	Boron	6060	ug/Kg	U	1210	6060	6060	1	P	HSC	12/29/09 15:43	122909A-2	934493
7440-43-9	Cadmium	606	ug/Kg	U	121	606	606	1	P	HSC	12/29/09 15:43	122909A-2	934493
7440-70-2	Calcium	4490000	ug/Kg		9700	30300	30300	1	P	HSC	12/29/09 15:43	122909A-2	934493
7440-47-3	Chromium	38200	ug/Kg		182	606	606	1	P	HSC	12/29/09 15:43	122909A-2	934493
7440-48-4	Cobalt	2410	ug/Kg		182	606	606	1	P	HSC	12/29/09 15:43	122909A-2	934493
7440-50-8	Copper	5770	ug/Kg	*	364	1210	1210	1	P	HSC	12/29/09 15:43	122909A-2	934493
7439-89-6	Iron	15800000	ug/Kg		9700	30300	30300	1	P	HSC	12/29/09 15:43	122909A-2	934493
7439-92-1	Lead	11800	ug/Kg	*	303	1210	1210	1	P	HSC	12/29/09 15:43	122909A-2	934493
7439-93-2	Lithium	16.7	mg/kg		0.48	2.4	2.4	2	MS	RMJ	01/06/10 06:29	100105-5	934497
7439-95-4	Magnesium	2360000	ug/Kg		10300	36400	36400	1	P	HSC	12/29/09 15:43	122909A-2	934493
7439-96-5	Manganese	211000	ug/Kg		243	1210	1210	1	P	HSC	12/29/09 15:43	122909A-2	934493
7439-97-6	Mercury	19.5	ug/kg	N	4.4	12.9	12.9	1	AV	JXL1	01/05/10 10:48	010510S1-6	934897
7440-02-0	Nickel	8.68	mg/kg		0.12	0.48	0.48	2	MS	RMJ	01/05/10 04:22	100104-3	934497
7440-09-7	Potassium	1250000	ug/Kg	N	7760	30300	30300	1	P	HSC	12/29/09 15:43	122909A-2	934493
7782-49-2	Selenium	1.2	mg/kg	UN	0.6	1.2	1.2	2	MS	RMJ	01/05/10 04:22	100104-3	934497
7440-21-3	Silicon	1210000	ug/Kg	*N	1810	12100	12100	1	P	HSC	01/11/10 14:44	011110A-1	939704
7440-22-4	Silver	613	ug/Kg		121	606	606	1	P	HSC	12/29/09 15:43	122909A-2	934493
7440-23-5	Sodium	176000	ug/Kg		8490	30300	30300	1	P	HSC	12/29/09 15:43	122909A-2	934493
7440-28-0	Thallium	0.245	mg/kg		0.0721	0.24	0.24	2	MS	RMJ	01/05/10 04:22	100104-3	934497
7440-32-6	Titanium	342000	ug/Kg		121	606	606	1	P	HSC	12/29/09 15:43	122909A-2	934493
7440-61-1	Uranium	0.607	mg/kg	*	0.0159	0.048	0.048	2	MS	RMJ	01/05/10 04:22	100104-3	934497
7440-62-2	Vanadium	15500	ug/Kg		121	606	606	1	P	HSC	12/29/09 15:43	122909A-2	934493
7440-66-6	Zinc	56900	ug/Kg	*N	400	1210	1210	1	P	HSC	12/29/09 15:43	122909A-2	934493

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
934493	934492	SW846 3050B	0.512	g	50	mL	12/19/09	BCD1
934497	934496	SW846 3050B	0.517	g	50	mL	12/19/09	BCD1
934897	934894	SW846 7471A Prep	0.576	g	30	mL	01/04/10	TXB3

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

939704	939703	SW846 3050B	0.515	g	50	mL	01/08/10	BXA1

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-941 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 243042007 **BASIS:** Dry Weight **DATE COLLECTED** 14-DEC-09

CLIENT ID: RE03-09-14223 **LEVEL:** Low **DATE RECEIVED** 16-DEC-09

MATRIX: SOIL **%SOLIDS:** 89

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	3990000	ug/Kg		7580	22300	22300	1	P	HSC	12/29/09 15:50	122909A-2	934493
7440-36-0	Antimony	1110	ug/Kg	UN	368	1110	1110	1	P	HSC	12/29/09 15:50	122909A-2	934493
7440-38-2	Arsenic	2.05	mg/kg		0.221	1.11	1.11	2	MS	RMJ	01/05/10 04:28	100104-3	934497
7440-39-3	Barium	24500	ug/Kg	N	111	557	557	1	P	HSC	12/29/09 15:50	122909A-2	934493
7440-41-7	Beryllium	0.551	mg/kg	N	0.0221	0.111	0.111	2	MS	RMJ	01/06/10 05:03	100105-4	934497
7440-42-8	Boron	5570	ug/Kg	U	1110	5570	5570	1	P	HSC	12/29/09 15:50	122909A-2	934493
7440-43-9	Cadmium	557	ug/Kg	U	111	557	557	1	P	HSC	12/29/09 15:50	122909A-2	934493
7440-70-2	Calcium	805000	ug/Kg		8920	27900	27900	1	P	HSC	12/29/09 15:50	122909A-2	934493
7440-47-3	Chromium	25500	ug/Kg		167	557	557	1	P	HSC	12/29/09 15:50	122909A-2	934493
7440-48-4	Cobalt	525	ug/Kg	J	167	557	557	1	P	HSC	12/29/09 15:50	122909A-2	934493
7440-50-8	Copper	2780	ug/Kg	*	334	1110	1110	1	P	HSC	12/29/09 15:50	122909A-2	934493
7439-89-6	Iron	9440000	ug/Kg		8920	27900	27900	1	P	HSC	12/29/09 15:50	122909A-2	934493
7439-92-1	Lead	5300	ug/Kg	*	279	1110	1110	1	P	HSC	12/29/09 15:50	122909A-2	934493
7439-93-2	Lithium	5.82	mg/kg		0.442	2.21	2.21	2	MS	RMJ	01/06/10 06:33	100105-5	934497
7439-95-4	Magnesium	626000	ug/Kg		9470	33400	33400	1	P	HSC	12/29/09 15:50	122909A-2	934493
7439-96-5	Manganese	73300	ug/Kg		223	1110	1110	1	P	HSC	12/29/09 15:50	122909A-2	934493
7439-97-6	Mercury	4.94	ug/kg	JN	4.14	12.2	12.2	1	AV	JXL1	01/05/10 10:50	010510S1-6	934897
7440-02-0	Nickel	4.66	mg/kg		0.111	0.442	0.442	2	MS	RMJ	01/05/10 04:28	100104-3	934497
7440-09-7	Potassium	407000	ug/Kg	N	7130	27900	27900	1	P	HSC	12/29/09 15:50	122909A-2	934493
7782-49-2	Selenium	1.11	mg/kg	UN	0.553	1.11	1.11	2	MS	RMJ	01/05/10 04:28	100104-3	934497
7440-21-3	Silicon	1480000	ug/Kg	*N	1670	11100	11100	1	P	HSC	01/11/10 14:48	011110A-1	939704
7440-22-4	Silver	322	ug/Kg	J	111	557	557	1	P	HSC	12/29/09 15:50	122909A-2	934493
7440-23-5	Sodium	65400	ug/Kg		7800	27900	27900	1	P	HSC	12/29/09 15:50	122909A-2	934493
7440-28-0	Thallium	0.119	mg/kg	J	0.0663	0.221	0.221	2	MS	RMJ	01/05/10 04:28	100104-3	934497
7440-32-6	Titanium	139000	ug/Kg		111	557	557	1	P	HSC	12/29/09 15:50	122909A-2	934493
7440-61-1	Uranium	0.582	mg/kg	*	0.0146	0.0442	0.0442	2	MS	RMJ	01/05/10 04:28	100104-3	934497
7440-62-2	Vanadium	5990	ug/Kg		111	557	557	1	P	HSC	12/29/09 15:50	122909A-2	934493
7440-66-6	Zinc	20700	ug/Kg	*N	368	1110	1110	1	P	HSC	12/29/09 15:50	122909A-2	934493

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
934493	934492	SW846 3050B	0.503	g	50	mL	12/19/09	BCD1
934497	934496	SW846 3050B	0.507	g	50	mL	12/19/09	BCD1
934897	934894	SW846 7471A Prep	0.552	g	30	mL	01/04/10	TXB3

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

939704	939703	SW846 3050B	0.503	g	50	mL	01/08/10	BXA1

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-941 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 243042008 **BASIS:** Dry Weight **DATE COLLECTED** 14-DEC-09

CLIENT ID: RE03-09-14220 **LEVEL:** Low **DATE RECEIVED** 16-DEC-09

MATRIX: SOIL **%SOLIDS:** 84

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	10100000	ug/Kg		7640	22500	22500	1	P	HSC	12/29/09 15:57	122909A-2	934493
7440-36-0	Antimony	1010	ug/Kg	JN	371	1120	1120	1	P	HSC	12/29/09 15:57	122909A-2	934493
7440-38-2	Arsenic	1.84	mg/kg		0.229	1.14	1.14	2	MS	RMJ	01/05/10 04:33	100104-3	934497
7440-39-3	Barium	221000	ug/Kg	N	112	562	562	1	P	HSC	12/29/09 15:57	122909A-2	934493
7440-41-7	Beryllium	0.811	mg/kg	N	0.0229	0.114	0.114	2	MS	RMJ	01/06/10 05:07	100105-4	934497
7440-42-8	Boron	3840	ug/Kg	J	1120	5620	5620	1	P	HSC	12/29/09 15:57	122909A-2	934493
7440-43-9	Cadmium	693	ug/Kg		112	562	562	1	P	HSC	12/29/09 15:57	122909A-2	934493
7440-70-2	Calcium	3970000	ug/Kg		8990	28100	28100	1	P	HSC	12/29/09 15:57	122909A-2	934493
7440-47-3	Chromium	16200	ug/Kg		169	562	562	1	P	HSC	12/29/09 15:57	122909A-2	934493
7440-48-4	Cobalt	6890	ug/Kg		169	562	562	1	P	HSC	12/29/09 15:57	122909A-2	934493
7440-50-8	Copper	65300	ug/Kg	*	337	1120	1120	1	P	HSC	12/29/09 15:57	122909A-2	934493
7439-89-6	Iron	15800000	ug/Kg		8990	28100	28100	1	P	HSC	12/29/09 15:57	122909A-2	934493
7439-92-1	Lead	61100	ug/Kg	*	281	1120	1120	1	P	HSC	12/29/09 15:57	122909A-2	934493
7439-93-2	Lithium	12.5	mg/kg		0.457	2.29	2.29	2	MS	RMJ	01/06/10 06:36	100105-5	934497
7439-95-4	Magnesium	2040000	ug/Kg		9550	33700	33700	1	P	HSC	12/29/09 15:57	122909A-2	934493
7439-96-5	Manganese	572000	ug/Kg		225	1120	1120	1	P	HSC	12/29/09 15:57	122909A-2	934493
7439-97-6	Mercury	583	ug/kg	N	4.47	13.2	13.2	1	AV	JXL1	01/05/10 10:52	010510S1-6	934897
7440-02-0	Nickel	9.9	mg/kg		0.114	0.457	0.457	2	MS	RMJ	01/05/10 04:33	100104-3	934497
7440-09-7	Potassium	1800000	ug/Kg	N	7190	28100	28100	1	P	HSC	12/29/09 15:57	122909A-2	934493
7782-49-2	Selenium	1.14	mg/kg	UN	0.572	1.14	1.14	2	MS	RMJ	01/05/10 04:33	100104-3	934497
7440-21-3	Silicon	1620000	ug/Kg	*N	1710	11400	11400	1	P	HSC	01/11/10 14:52	011110A-1	939704
7440-22-4	Silver	1210	ug/Kg		112	562	562	1	P	HSC	12/29/09 15:57	122909A-2	934493
7440-23-5	Sodium	228000	ug/Kg		7870	28100	28100	1	P	HSC	12/29/09 15:57	122909A-2	934493
7440-28-0	Thallium	0.196	mg/kg	J	0.0686	0.229	0.229	2	MS	RMJ	01/05/10 04:33	100104-3	934497
7440-32-6	Titanium	537000	ug/Kg		112	562	562	1	P	HSC	12/29/09 15:57	122909A-2	934493
7440-61-1	Uranium	3.47	mg/kg	*	0.0151	0.0457	0.0457	2	MS	RMJ	01/05/10 04:33	100104-3	934497
7440-62-2	Vanadium	24600	ug/Kg		112	562	562	1	P	HSC	12/29/09 15:57	122909A-2	934493
7440-66-6	Zinc	183000	ug/Kg	*N	371	1120	1120	1	P	HSC	12/29/09 15:57	122909A-2	934493

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
934493	934492	SW846 3050B	0.527	g	50	mL	12/19/09	BCD1
934497	934496	SW846 3050B	0.518	g	50	mL	12/19/09	BCD1
934897	934894	SW846 7471A Prep	0.54	g	30	mL	01/04/10	TXB3

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

939704	939703	SW846 3050B	0.518	g	50	mL	01/08/10	BXA1

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-941 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 243042009 **BASIS:** Dry Weight **DATE COLLECTED** 14-DEC-09

CLIENT ID: RE03-10-2734 **LEVEL:** Low **DATE RECEIVED** 16-DEC-09

MATRIX: SOIL **%SOLIDS:** 81

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	12100000	ug/Kg		7890	23200	23200	1	P	HSC	12/29/09 16:04	122909A-2	934493
7440-36-0	Antimony	1160	ug/Kg	UN	383	1160	1160	1	P	HSC	12/29/09 16:04	122909A-2	934493
7440-38-2	Arsenic	2.29	mg/kg		0.244	1.22	1.22	2	MS	RMJ	01/05/10 04:39	100104-3	934497
7440-39-3	Barium	100000	ug/Kg	N	116	580	580	1	P	HSC	12/29/09 16:04	122909A-2	934493
7440-41-7	Beryllium	0.752	mg/kg	N	0.0244	0.122	0.122	2	MS	RMJ	01/06/10 05:10	100105-4	934497
7440-42-8	Boron	5800	ug/Kg	U	1160	5800	5800	1	P	HSC	12/29/09 16:04	122909A-2	934493
7440-43-9	Cadmium	580	ug/Kg	U	116	580	580	1	P	HSC	12/29/09 16:04	122909A-2	934493
7440-70-2	Calcium	4720000	ug/Kg		9290	29000	29000	1	P	HSC	12/29/09 16:04	122909A-2	934493
7440-47-3	Chromium	29300	ug/Kg		174	580	580	1	P	HSC	12/29/09 16:04	122909A-2	934493
7440-48-4	Cobalt	2420	ug/Kg		174	580	580	1	P	HSC	12/29/09 16:04	122909A-2	934493
7440-50-8	Copper	6000	ug/Kg	*	348	1160	1160	1	P	HSC	12/29/09 16:04	122909A-2	934493
7439-89-6	Iron	15700000	ug/Kg		9290	29000	29000	1	P	HSC	12/29/09 16:04	122909A-2	934493
7439-92-1	Lead	11700	ug/Kg	*	290	1160	1160	1	P	HSC	12/29/09 16:04	122909A-2	934493
7439-93-2	Lithium	16.7	mg/kg		0.487	2.44	2.44	2	MS	RMJ	01/06/10 06:39	100105-5	934497
7439-95-4	Magnesium	2610000	ug/Kg		9870	34800	34800	1	P	HSC	12/29/09 16:04	122909A-2	934493
7439-96-5	Manganese	210000	ug/Kg		232	1160	1160	1	P	HSC	12/29/09 16:04	122909A-2	934493
7439-97-6	Mercury	18.3	ug/kg	N	4.61	13.5	13.5	1	AV	JXL1	01/05/10 10:53	010510S1-6	934897
7440-02-0	Nickel	10.4	mg/kg		0.122	0.487	0.487	2	MS	RMJ	01/05/10 04:39	100104-3	934497
7440-09-7	Potassium	1340000	ug/Kg	N	7430	29000	29000	1	P	HSC	12/29/09 16:04	122909A-2	934493
7782-49-2	Selenium	1.22	mg/kg	UN	0.609	1.22	1.22	2	MS	RMJ	01/05/10 04:39	100104-3	934497
7440-21-3	Silicon	2250000	ug/Kg	*N	1820	12100	12100	1	P	HSC	01/11/10 14:55	011110A-1	939704
7440-22-4	Silver	443	ug/Kg	J	116	580	580	1	P	HSC	12/29/09 16:04	122909A-2	934493
7440-23-5	Sodium	167000	ug/Kg		8130	29000	29000	1	P	HSC	12/29/09 16:04	122909A-2	934493
7440-28-0	Thallium	0.234	mg/kg	J	0.0731	0.244	0.244	2	MS	RMJ	01/05/10 04:39	100104-3	934497
7440-32-6	Titanium	346000	ug/Kg		116	580	580	1	P	HSC	12/29/09 16:04	122909A-2	934493
7440-61-1	Uranium	0.585	mg/kg	*	0.0161	0.0487	0.0487	2	MS	RMJ	01/05/10 04:39	100104-3	934497
7440-62-2	Vanadium	16500	ug/Kg		116	580	580	1	P	HSC	12/29/09 16:04	122909A-2	934493
7440-66-6	Zinc	59100	ug/Kg	*N	383	1160	1160	1	P	HSC	12/29/09 16:04	122909A-2	934493

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
934493	934492	SW846 3050B	0.534	g	50	mL	12/19/09	BCD1
934497	934496	SW846 3050B	0.509	g	50	mL	12/19/09	BCD1
934897	934894	SW846 7471A Prep	0.549	g	30	mL	01/04/10	TXB3

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

939704	939703	SW846 3050B	0.512	g	50	mL	01/08/10	BXA1

Quality Control Summary

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–941

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS6,MER536,OPTIMA1,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
ICV01										
	Aluminum	5020	ug/L	5000	ug/L	100.3	90.0 – 110.0	P	29–DEC–09 09:08	122909A–2
	Antimony	510	ug/L	500	ug/L	102	90.0 – 110.0	P	29–DEC–09 09:08	122909A–2
	Barium	508	ug/L	500	ug/L	101.6	90.0 – 110.0	P	29–DEC–09 09:08	122909A–2
	Boron	516	ug/L	500	ug/L	103.2	90.0 – 110.0	P	29–DEC–09 09:08	122909A–2
	Cadmium	500	ug/L	500	ug/L	100.1	90.0 – 110.0	P	29–DEC–09 09:08	122909A–2
	Calcium	4990	ug/L	5000	ug/L	99.8	90.0 – 110.0	P	29–DEC–09 09:08	122909A–2
	Chromium	487	ug/L	500	ug/L	97.4	90.0 – 110.0	P	29–DEC–09 09:08	122909A–2
	Cobalt	499	ug/L	500	ug/L	99.7	90.0 – 110.0	P	29–DEC–09 09:08	122909A–2
	Copper	504	ug/L	500	ug/L	100.7	90.0 – 110.0	P	29–DEC–09 09:08	122909A–2
	Iron	5120	ug/L	5000	ug/L	102.3	90.0 – 110.0	P	29–DEC–09 09:08	122909A–2
	Lead	503	ug/L	500	ug/L	100.6	90.0 – 110.0	P	29–DEC–09 09:08	122909A–2
	Magnesium	5480	ug/L	5000	ug/L	109.5	90.0 – 110.0	P	29–DEC–09 09:08	122909A–2
	Manganese	517	ug/L	500	ug/L	103.4	90.0 – 110.0	P	29–DEC–09 09:08	122909A–2
	Potassium	2430	ug/L	2500	ug/L	97.2	90.0 – 110.0	P	29–DEC–09 09:08	122909A–2
	Silver	261	ug/L	250	ug/L	104.4	90.0 – 110.0	P	29–DEC–09 09:08	122909A–2
	Sodium	2420	ug/L	2500	ug/L	97	90.0 – 110.0	P	29–DEC–09 09:08	122909A–2
	Titanium	500	ug/L	500	ug/L	99.9	90.0 – 110.0	P	29–DEC–09 09:08	122909A–2
	Vanadium	515	ug/L	500	ug/L	103	90.0 – 110.0	P	29–DEC–09 09:08	122909A–2
	Zinc	513	ug/L	500	ug/L	102.6	90.0 – 110.0	P	29–DEC–09 09:08	122909A–2
	Arsenic	46.8	ug/L	50	ug/L	93.6	90.0 – 110.0	MS	05–JAN–10 02:05	100104–3
	Nickel	52.1	ug/L	50	ug/L	104.2	90.0 – 110.0	MS	05–JAN–10 02:05	100104–3
	Selenium	49.8	ug/L	50	ug/L	99.6	90.0 – 110.0	MS	05–JAN–10 02:05	100104–3
	Thallium	51.7	ug/L	50	ug/L	103.5	90.0 – 110.0	MS	05–JAN–10 02:05	100104–3
	Uranium	54.5	ug/L	50	ug/L	108.9	90.0 – 110.0	MS	05–JAN–10 02:05	100104–3
	Mercury	5.18	ug/L	5	ug/L	103.6	90.0 – 110.0	AV	05–JAN–10 09:50	010510S1–6
	Beryllium	49.7	ug/L	50	ug/L	99.4	90.0 – 110.0	MS	06–JAN–10 03:12	100105–4
	Lithium	47.1	ug/L	50	ug/L	94.1	90.0 – 110.0	MS	06–JAN–10 05:28	100105–5
	Silicon	4840	ug/L	5000	ug/L	96.8	90.0 – 110.0	P	11–JAN–10 12:45	011110A–1
CCV01										
	Aluminum	4970	ug/L	5000	ug/L	99.3	90.0 – 110.0	P	29–DEC–09 09:52	122909A–2

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–941

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS6,MER536,OPTIMA1,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Antimony	522	ug/L	500	ug/L	104.5	90.0 – 110.0	P	29–DEC–09 09:52	122909A–2
	Barium	506	ug/L	500	ug/L	101.2	90.0 – 110.0	P	29–DEC–09 09:52	122909A–2
	Boron	524	ug/L	500	ug/L	104.8	90.0 – 110.0	P	29–DEC–09 09:52	122909A–2
	Cadmium	507	ug/L	500	ug/L	101.5	90.0 – 110.0	P	29–DEC–09 09:52	122909A–2
	Calcium	5070	ug/L	5000	ug/L	101.4	90.0 – 110.0	P	29–DEC–09 09:52	122909A–2
	Chromium	506	ug/L	500	ug/L	101.2	90.0 – 110.0	P	29–DEC–09 09:52	122909A–2
	Cobalt	503	ug/L	500	ug/L	100.6	90.0 – 110.0	P	29–DEC–09 09:52	122909A–2
	Copper	504	ug/L	500	ug/L	100.8	90.0 – 110.0	P	29–DEC–09 09:52	122909A–2
	Iron	5190	ug/L	5000	ug/L	103.7	90.0 – 110.0	P	29–DEC–09 09:52	122909A–2
	Lead	517	ug/L	500	ug/L	103.5	90.0 – 110.0	P	29–DEC–09 09:52	122909A–2
	Magnesium	5410	ug/L	5000	ug/L	108.1	90.0 – 110.0	P	29–DEC–09 09:52	122909A–2
	Manganese	509	ug/L	500	ug/L	101.8	90.0 – 110.0	P	29–DEC–09 09:52	122909A–2
	Potassium	5160	ug/L	5000	ug/L	103.2	90.0 – 110.0	P	29–DEC–09 09:52	122909A–2
	Silver	505	ug/L	500	ug/L	100.9	90.0 – 110.0	P	29–DEC–09 09:52	122909A–2
	Sodium	10100	ug/L	10000	ug/L	101	90.0 – 110.0	P	29–DEC–09 09:52	122909A–2
	Titanium	505	ug/L	500	ug/L	101	90.0 – 110.0	P	29–DEC–09 09:52	122909A–2
	Vanadium	510	ug/L	500	ug/L	101.9	90.0 – 110.0	P	29–DEC–09 09:52	122909A–2
	Zinc	505	ug/L	500	ug/L	101	90.0 – 110.0	P	29–DEC–09 09:52	122909A–2
	Arsenic	47.4	ug/L	50	ug/L	94.7	90.0 – 110.0	MS	05–JAN–10 02:35	100104–3
	Nickel	53.3	ug/L	50	ug/L	106.5	90.0 – 110.0	MS	05–JAN–10 02:35	100104–3
	Selenium	50.7	ug/L	50	ug/L	101.3	90.0 – 110.0	MS	05–JAN–10 02:35	100104–3
	Thallium	51.7	ug/L	50	ug/L	103.4	90.0 – 110.0	MS	05–JAN–10 02:35	100104–3
	Uranium	54	ug/L	50	ug/L	108	90.0 – 110.0	MS	05–JAN–10 02:35	100104–3
	Mercury	5.06	ug/L	5	ug/L	101.2	80.0 – 120.0	AV	05–JAN–10 09:56	010510S1–6
	Beryllium	48.1	ug/L	50	ug/L	96.2	90.0 – 110.0	MS	06–JAN–10 03:27	100105–4
	Lithium	46	ug/L	50	ug/L	92	90.0 – 110.0	MS	06–JAN–10 05:43	100105–5
	Silicon	2460	ug/L	2500	ug/L	98.3	90.0 – 110.0	P	11–JAN–10 13:18	011110A–1
CCV02										
	Aluminum	5040	ug/L	5000	ug/L	100.8	90.0 – 110.0	P	29–DEC–09 11:00	122909A–2
	Antimony	508	ug/L	500	ug/L	101.6	90.0 – 110.0	P	29–DEC–09 11:00	122909A–2

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–941

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS6,MER536,OPTIMA1,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Barium	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	29–DEC–09 11:00	122909A–2
	Boron	509	ug/L	500	ug/L	101.8	90.0 – 110.0	P	29–DEC–09 11:00	122909A–2
	Cadmium	500	ug/L	500	ug/L	99.9	90.0 – 110.0	P	29–DEC–09 11:00	122909A–2
	Calcium	5040	ug/L	5000	ug/L	100.9	90.0 – 110.0	P	29–DEC–09 11:00	122909A–2
	Chromium	500	ug/L	500	ug/L	100.1	90.0 – 110.0	P	29–DEC–09 11:00	122909A–2
	Cobalt	495	ug/L	500	ug/L	99	90.0 – 110.0	P	29–DEC–09 11:00	122909A–2
	Copper	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	29–DEC–09 11:00	122909A–2
	Iron	5110	ug/L	5000	ug/L	102.1	90.0 – 110.0	P	29–DEC–09 11:00	122909A–2
	Lead	509	ug/L	500	ug/L	101.8	90.0 – 110.0	P	29–DEC–09 11:00	122909A–2
	Magnesium	5210	ug/L	5000	ug/L	104.2	90.0 – 110.0	P	29–DEC–09 11:00	122909A–2
	Manganese	504	ug/L	500	ug/L	100.8	90.0 – 110.0	P	29–DEC–09 11:00	122909A–2
	Potassium	5080	ug/L	5000	ug/L	101.6	90.0 – 110.0	P	29–DEC–09 11:00	122909A–2
	Silver	501	ug/L	500	ug/L	100.1	90.0 – 110.0	P	29–DEC–09 11:00	122909A–2
	Sodium	10100	ug/L	10000	ug/L	100.7	90.0 – 110.0	P	29–DEC–09 11:00	122909A–2
	Titanium	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	29–DEC–09 11:00	122909A–2
	Vanadium	506	ug/L	500	ug/L	101.1	90.0 – 110.0	P	29–DEC–09 11:00	122909A–2
	Zinc	497	ug/L	500	ug/L	99.4	90.0 – 110.0	P	29–DEC–09 11:00	122909A–2
	Arsenic	47.5	ug/L	50	ug/L	95	90.0 – 110.0	MS	05–JAN–10 03:04	100104–3
	Nickel	52.7	ug/L	50	ug/L	105.3	90.0 – 110.0	MS	05–JAN–10 03:04	100104–3
	Selenium	50.9	ug/L	50	ug/L	101.8	90.0 – 110.0	MS	05–JAN–10 03:04	100104–3
	Thallium	51.5	ug/L	50	ug/L	103	90.0 – 110.0	MS	05–JAN–10 03:04	100104–3
	Uranium	53.4	ug/L	50	ug/L	106.7	90.0 – 110.0	MS	05–JAN–10 03:04	100104–3
	Mercury	5.28	ug/L	5	ug/L	105.6	80.0 – 120.0	AV	05–JAN–10 10:20	010510S1–6
	Beryllium	51.5	ug/L	50	ug/L	103	90.0 – 110.0	MS	06–JAN–10 03:56	100105–4
	Lithium	48.9	ug/L	50	ug/L	97.8	90.0 – 110.0	MS	06–JAN–10 06:14	100105–5
	Silicon	2490	ug/L	2500	ug/L	99.8	90.0 – 110.0	P	11–JAN–10 13:51	011110A–1
CCV03										
	Aluminum	4720	ug/L	5000	ug/L	94.4	90.0 – 110.0	P	29–DEC–09 12:19	122909A–2
	Antimony	507	ug/L	500	ug/L	101.4	90.0 – 110.0	P	29–DEC–09 12:19	122909A–2
	Barium	508	ug/L	500	ug/L	101.7	90.0 – 110.0	P	29–DEC–09 12:19	122909A–2

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-941

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS6,MER536,OPTIMA1,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Boron	496	ug/L	500	ug/L	99.2	90.0 - 110.0	P	29-DEC-09 12:19	122909A-2
	Cadmium	507	ug/L	500	ug/L	101.4	90.0 - 110.0	P	29-DEC-09 12:19	122909A-2
	Calcium	4920	ug/L	5000	ug/L	98.5	90.0 - 110.0	P	29-DEC-09 12:19	122909A-2
	Chromium	508	ug/L	500	ug/L	101.6	90.0 - 110.0	P	29-DEC-09 12:19	122909A-2
	Cobalt	495	ug/L	500	ug/L	99.1	90.0 - 110.0	P	29-DEC-09 12:19	122909A-2
	Copper	507	ug/L	500	ug/L	101.4	90.0 - 110.0	P	29-DEC-09 12:19	122909A-2
	Iron	5130	ug/L	5000	ug/L	102.5	90.0 - 110.0	P	29-DEC-09 12:19	122909A-2
	Lead	508	ug/L	500	ug/L	101.7	90.0 - 110.0	P	29-DEC-09 12:19	122909A-2
	Magnesium	5140	ug/L	5000	ug/L	102.8	90.0 - 110.0	P	29-DEC-09 12:19	122909A-2
	Manganese	511	ug/L	500	ug/L	102.2	90.0 - 110.0	P	29-DEC-09 12:19	122909A-2
	Potassium	4830	ug/L	5000	ug/L	96.5	90.0 - 110.0	P	29-DEC-09 12:19	122909A-2
	Silver	507	ug/L	500	ug/L	101.4	90.0 - 110.0	P	29-DEC-09 12:19	122909A-2
	Sodium	10300	ug/L	10000	ug/L	103.1	90.0 - 110.0	P	29-DEC-09 12:19	122909A-2
	Titanium	509	ug/L	500	ug/L	101.7	90.0 - 110.0	P	29-DEC-09 12:19	122909A-2
	Vanadium	513	ug/L	500	ug/L	102.6	90.0 - 110.0	P	29-DEC-09 12:19	122909A-2
	Zinc	505	ug/L	500	ug/L	100.9	90.0 - 110.0	P	29-DEC-09 12:19	122909A-2
	Arsenic	48.7	ug/L	50	ug/L	97.5	90.0 - 110.0	MS	05-JAN-10 03:51	100104-3
	Nickel	53.6	ug/L	50	ug/L	107.3	90.0 - 110.0	MS	05-JAN-10 03:51	100104-3
	Selenium	51	ug/L	50	ug/L	101.9	90.0 - 110.0	MS	05-JAN-10 03:51	100104-3
	Thallium	50.2	ug/L	50	ug/L	100.3	90.0 - 110.0	MS	05-JAN-10 03:51	100104-3
	Uranium	53.9	ug/L	50	ug/L	107.9	90.0 - 110.0	MS	05-JAN-10 03:51	100104-3
	Mercury	5.32	ug/L	5	ug/L	106.4	80.0 - 120.0	AV	05-JAN-10 10:44	010510S1-6
	Beryllium	52.9	ug/L	50	ug/L	105.9	90.0 - 110.0	MS	06-JAN-10 04:14	100105-4
	Lithium	47.7	ug/L	50	ug/L	95.4	90.0 - 110.0	MS	06-JAN-10 06:42	100105-5
	Silicon	2500	ug/L	2500	ug/L	99.8	90.0 - 110.0	P	11-JAN-10 14:29	011110A-1
CCV04										
	Aluminum	5020	ug/L	5000	ug/L	100.4	90.0 - 110.0	P	29-DEC-09 13:35	122909A-2
	Antimony	492	ug/L	500	ug/L	98.4	90.0 - 110.0	P	29-DEC-09 13:35	122909A-2
	Barium	493	ug/L	500	ug/L	98.6	90.0 - 110.0	P	29-DEC-09 13:35	122909A-2
	Boron	479	ug/L	500	ug/L	95.9	90.0 - 110.0	P	29-DEC-09 13:35	122909A-2

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-941

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS6,MER536,OPTIMA1,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Cadmium	493	ug/L	500	ug/L	98.6	90.0 - 110.0	P	29-DEC-09 13:35	122909A-2
	Calcium	5140	ug/L	5000	ug/L	102.9	90.0 - 110.0	P	29-DEC-09 13:35	122909A-2
	Chromium	494	ug/L	500	ug/L	98.8	90.0 - 110.0	P	29-DEC-09 13:35	122909A-2
	Cobalt	486	ug/L	500	ug/L	97.3	90.0 - 110.0	P	29-DEC-09 13:35	122909A-2
	Copper	490	ug/L	500	ug/L	98.1	90.0 - 110.0	P	29-DEC-09 13:35	122909A-2
	Iron	5320	ug/L	5000	ug/L	106.4	90.0 - 110.0	P	29-DEC-09 13:35	122909A-2
	Lead	498	ug/L	500	ug/L	99.7	90.0 - 110.0	P	29-DEC-09 13:35	122909A-2
	Magnesium	5370	ug/L	5000	ug/L	107.4	90.0 - 110.0	P	29-DEC-09 13:35	122909A-2
	Manganese	496	ug/L	500	ug/L	99.2	90.0 - 110.0	P	29-DEC-09 13:35	122909A-2
	Potassium	5060	ug/L	5000	ug/L	101.2	90.0 - 110.0	P	29-DEC-09 13:35	122909A-2
	Silver	494	ug/L	500	ug/L	98.7	90.0 - 110.0	P	29-DEC-09 13:35	122909A-2
	Sodium	10300	ug/L	10000	ug/L	103.5	90.0 - 110.0	P	29-DEC-09 13:35	122909A-2
	Titanium	494	ug/L	500	ug/L	98.7	90.0 - 110.0	P	29-DEC-09 13:35	122909A-2
	Vanadium	498	ug/L	500	ug/L	99.7	90.0 - 110.0	P	29-DEC-09 13:35	122909A-2
	Zinc	488	ug/L	500	ug/L	97.7	90.0 - 110.0	P	29-DEC-09 13:35	122909A-2
	Arsenic	48.7	ug/L	50	ug/L	97.4	90.0 - 110.0	MS	05-JAN-10 04:45	100104-3
	Nickel	52.8	ug/L	50	ug/L	105.5	90.0 - 110.0	MS	05-JAN-10 04:45	100104-3
	Selenium	51.6	ug/L	50	ug/L	103.1	90.0 - 110.0	MS	05-JAN-10 04:45	100104-3
	Thallium	49.3	ug/L	50	ug/L	98.6	90.0 - 110.0	MS	05-JAN-10 04:45	100104-3
	Uranium	53.8	ug/L	50	ug/L	107.5	90.0 - 110.0	MS	05-JAN-10 04:45	100104-3
	Mercury	5.47	ug/L	5	ug/L	109.4	80.0 - 120.0	AV	05-JAN-10 11:07	010510S1-6
	Beryllium	44.8	ug/L	50	ug/L	89.6	90.0 - 110.0	MS	06-JAN-10 04:45	100105-4
	Silicon	2480	ug/L	2500	ug/L	99.2	90.0 - 110.0	P	11-JAN-10 14:59	011110A-1
CCV05										
	Aluminum	4930	ug/L	5000	ug/L	98.6	90.0 - 110.0	P	29-DEC-09 14:00	122909A-2
	Antimony	511	ug/L	500	ug/L	102.1	90.0 - 110.0	P	29-DEC-09 14:00	122909A-2
	Barium	506	ug/L	500	ug/L	101.3	90.0 - 110.0	P	29-DEC-09 14:00	122909A-2
	Boron	489	ug/L	500	ug/L	97.8	90.0 - 110.0	P	29-DEC-09 14:00	122909A-2
	Cadmium	507	ug/L	500	ug/L	101.3	90.0 - 110.0	P	29-DEC-09 14:00	122909A-2
	Calcium	5060	ug/L	5000	ug/L	101.2	90.0 - 110.0	P	29-DEC-09 14:00	122909A-2

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-941

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS6,MER536,OPTIMA1,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Chromium	508	ug/L	500	ug/L	101.5	90.0 – 110.0	P	29-DEC-09 14:00	122909A-2
	Cobalt	500	ug/L	500	ug/L	100	90.0 – 110.0	P	29-DEC-09 14:00	122909A-2
	Copper	502	ug/L	500	ug/L	100.4	90.0 – 110.0	P	29-DEC-09 14:00	122909A-2
	Iron	5200	ug/L	5000	ug/L	104.1	90.0 – 110.0	P	29-DEC-09 14:00	122909A-2
	Lead	511	ug/L	500	ug/L	102.3	90.0 – 110.0	P	29-DEC-09 14:00	122909A-2
	Magnesium	5300	ug/L	5000	ug/L	106	90.0 – 110.0	P	29-DEC-09 14:00	122909A-2
	Manganese	509	ug/L	500	ug/L	101.8	90.0 – 110.0	P	29-DEC-09 14:00	122909A-2
	Potassium	4990	ug/L	5000	ug/L	99.8	90.0 – 110.0	P	29-DEC-09 14:00	122909A-2
	Silver	505	ug/L	500	ug/L	101	90.0 – 110.0	P	29-DEC-09 14:00	122909A-2
	Sodium	10100	ug/L	10000	ug/L	101	90.0 – 110.0	P	29-DEC-09 14:00	122909A-2
	Titanium	506	ug/L	500	ug/L	101.1	90.0 – 110.0	P	29-DEC-09 14:00	122909A-2
	Vanadium	511	ug/L	500	ug/L	102.3	90.0 – 110.0	P	29-DEC-09 14:00	122909A-2
	Zinc	501	ug/L	500	ug/L	100.1	90.0 – 110.0	P	29-DEC-09 14:00	122909A-2
	Beryllium	49.1	ug/L	50	ug/L	98.2	90.0 – 110.0	MS	06-JAN-10 05:13	100105-4
CCV06										
	Aluminum	5060	ug/L	5000	ug/L	101.2	90.0 – 110.0	P	29-DEC-09 15:15	122909A-2
	Antimony	498	ug/L	500	ug/L	99.5	90.0 – 110.0	P	29-DEC-09 15:15	122909A-2
	Barium	500	ug/L	500	ug/L	100.1	90.0 – 110.0	P	29-DEC-09 15:15	122909A-2
	Boron	485	ug/L	500	ug/L	96.9	90.0 – 110.0	P	29-DEC-09 15:15	122909A-2
	Cadmium	500	ug/L	500	ug/L	100.1	90.0 – 110.0	P	29-DEC-09 15:15	122909A-2
	Calcium	5120	ug/L	5000	ug/L	102.4	90.0 – 110.0	P	29-DEC-09 15:15	122909A-2
	Chromium	502	ug/L	500	ug/L	100.3	90.0 – 110.0	P	29-DEC-09 15:15	122909A-2
	Cobalt	493	ug/L	500	ug/L	98.6	90.0 – 110.0	P	29-DEC-09 15:15	122909A-2
	Copper	498	ug/L	500	ug/L	99.5	90.0 – 110.0	P	29-DEC-09 15:15	122909A-2
	Iron	5270	ug/L	5000	ug/L	105.4	90.0 – 110.0	P	29-DEC-09 15:15	122909A-2
	Lead	505	ug/L	500	ug/L	101.1	90.0 – 110.0	P	29-DEC-09 15:15	122909A-2
	Magnesium	5370	ug/L	5000	ug/L	107.4	90.0 – 110.0	P	29-DEC-09 15:15	122909A-2
	Manganese	503	ug/L	500	ug/L	100.7	90.0 – 110.0	P	29-DEC-09 15:15	122909A-2
	Potassium	5160	ug/L	5000	ug/L	103.2	90.0 – 110.0	P	29-DEC-09 15:15	122909A-2
	Silver	500	ug/L	500	ug/L	100.1	90.0 – 110.0	P	29-DEC-09 15:15	122909A-2

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-941

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS6,MER536,OPTIMA1,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Sodium	10400	ug/L	10000	ug/L	103.9	90.0 - 110.0	P	29-DEC-09 15:15	122909A-2
	Titanium	500	ug/L	500	ug/L	100	90.0 - 110.0	P	29-DEC-09 15:15	122909A-2
	Vanadium	506	ug/L	500	ug/L	101.2	90.0 - 110.0	P	29-DEC-09 15:15	122909A-2
	Zinc	496	ug/L	500	ug/L	99.2	90.0 - 110.0	P	29-DEC-09 15:15	122909A-2
CCV07										
	Aluminum	5040	ug/L	5000	ug/L	100.9	90.0 - 110.0	P	29-DEC-09 16:24	122909A-2
	Antimony	506	ug/L	500	ug/L	101.3	90.0 - 110.0	P	29-DEC-09 16:24	122909A-2
	Barium	505	ug/L	500	ug/L	101.1	90.0 - 110.0	P	29-DEC-09 16:24	122909A-2
	Boron	484	ug/L	500	ug/L	96.9	90.0 - 110.0	P	29-DEC-09 16:24	122909A-2
	Cadmium	506	ug/L	500	ug/L	101.2	90.0 - 110.0	P	29-DEC-09 16:24	122909A-2
	Calcium	5120	ug/L	5000	ug/L	102.4	90.0 - 110.0	P	29-DEC-09 16:24	122909A-2
	Chromium	506	ug/L	500	ug/L	101.3	90.0 - 110.0	P	29-DEC-09 16:24	122909A-2
	Cobalt	500	ug/L	500	ug/L	100.1	90.0 - 110.0	P	29-DEC-09 16:24	122909A-2
	Copper	500	ug/L	500	ug/L	100.1	90.0 - 110.0	P	29-DEC-09 16:24	122909A-2
	Iron	5180	ug/L	5000	ug/L	103.6	90.0 - 110.0	P	29-DEC-09 16:24	122909A-2
	Lead	515	ug/L	500	ug/L	102.9	90.0 - 110.0	P	29-DEC-09 16:24	122909A-2
	Magnesium	5400	ug/L	5000	ug/L	108	90.0 - 110.0	P	29-DEC-09 16:24	122909A-2
	Manganese	508	ug/L	500	ug/L	101.6	90.0 - 110.0	P	29-DEC-09 16:24	122909A-2
	Potassium	5110	ug/L	5000	ug/L	102.1	90.0 - 110.0	P	29-DEC-09 16:24	122909A-2
	Silver	503	ug/L	500	ug/L	100.7	90.0 - 110.0	P	29-DEC-09 16:24	122909A-2
	Sodium	9650	ug/L	10000	ug/L	96.5	90.0 - 110.0	P	29-DEC-09 16:24	122909A-2
	Titanium	504	ug/L	500	ug/L	100.8	90.0 - 110.0	P	29-DEC-09 16:24	122909A-2
	Vanadium	510	ug/L	500	ug/L	102	90.0 - 110.0	P	29-DEC-09 16:24	122909A-2
	Zinc	501	ug/L	500	ug/L	100.2	90.0 - 110.0	P	29-DEC-09 16:24	122909A-2

METALS
–2b–
CRDL Standard for AA & ICP

SDG No: 10–941

Contract: LANL01004 **Lab Code:** GEL

AA CRDL Standard Source: SPEX

ICP CRDL Standard Source Solutions Plus

Instrument ID: ICPMS6,MER536,OPTIMA1,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Advisory Limits (%R)	M	Analysis Date/Time	Run Number
CRDL01										
	Nickel	2.22	ug/L	2	ug/L	111	70.0 – 130.0	MS	05–JAN–10 02:17	100104–3
	Thallium	1.21	ug/L	1	ug/L	120.8	70.0 – 130.0	MS	05–JAN–10 02:17	100104–3
	Selenium	5.57	ug/L	5	ug/L	111.3	70.0 – 130.0	MS	05–JAN–10 02:17	100104–3
	Arsenic	5.56	ug/L	5	ug/L	111.2	70.0 – 130.0	MS	05–JAN–10 02:17	100104–3
	Uranium	.254	ug/L	.2	ug/L	127	70.0 – 130.0	MS	05–JAN–10 02:17	100104–3
	Mercury	.188	ug/L	.2	ug/L	94	70.0 – 130.0	AV	05–JAN–10 09:54	010510S1–6
	Beryllium	.516	ug/L	.5	ug/L	103.2	70.0 – 130.0	MS	06–JAN–10 03:18	100105–4
	Lithium	10.5	ug/L	10	ug/L	104.9	70.0 – 130.0	MS	06–JAN–10 05:34	100105–5
PQL01										
	Aluminum	215	ug/L	200	ug/L	107.7	70.0 – 130.0	P	29–DEC–09 09:21	122909A–2
	Zinc	9.7	ug/L	10	ug/L	97	70.0 – 130.0	P	29–DEC–09 09:21	122909A–2
	Vanadium	5.31	ug/L	5	ug/L	106.2	70.0 – 130.0	P	29–DEC–09 09:21	122909A–2
	Copper	9.33	ug/L	10	ug/L	93.3	70.0 – 130.0	P	29–DEC–09 09:21	122909A–2
	Cobalt	5.07	ug/L	5	ug/L	101.4	70.0 – 130.0	P	29–DEC–09 09:21	122909A–2
	Chromium	4.7	ug/L	5	ug/L	94.1	70.0 – 130.0	P	29–DEC–09 09:21	122909A–2
	Cadmium	4.95	ug/L	5	ug/L	99	70.0 – 130.0	P	29–DEC–09 09:21	122909A–2
	Barium	4.92	ug/L	5	ug/L	98.4	70.0 – 130.0	P	29–DEC–09 09:21	122909A–2
	Antimony	8.84	ug/L	10	ug/L	88.4	70.0 – 130.0	P	29–DEC–09 09:21	122909A–2
	Sodium	273	ug/L	300	ug/L	90.9	70.0 – 130.0	P	29–DEC–09 09:21	122909A–2
	Titanium	4.93	ug/L	5	ug/L	98.5	70.0 – 130.0	P	29–DEC–09 09:21	122909A–2
	Boron	47.2	ug/L	50	ug/L	94.3	70.0 – 130.0	P	29–DEC–09 09:21	122909A–2
	Calcium	202	ug/L	200	ug/L	100.8	70.0 – 130.0	P	29–DEC–09 09:21	122909A–2
	Lead	9.66	ug/L	10	ug/L	96.6	70.0 – 130.0	P	29–DEC–09 09:21	122909A–2
	Magnesium	303	ug/L	300	ug/L	101.1	70.0 – 130.0	P	29–DEC–09 09:21	122909A–2
	Manganese	10.2	ug/L	10	ug/L	101.5	70.0 – 130.0	P	29–DEC–09 09:21	122909A–2
	Silver	4.94	ug/L	5	ug/L	98.9	70.0 – 130.0	P	29–DEC–09 09:21	122909A–2
	Potassium	125	ug/L	150	ug/L	83.3	70.0 – 130.0	P	29–DEC–09 09:21	122909A–2
	Iron	93.7	ug/L	100	ug/L	93.7	70.0 – 130.0	P	29–DEC–09 09:21	122909A–2
	Silicon	102	ug/L	100	ug/L	102.5	70.0 – 130.0	P	11–JAN–10 12:53	011110A–1

METALS
–2b–
CRDL Standard for AA & ICP

SDG No: 10–941

Contract: LANL01004 **Lab Code:** GEL

AA CRDL Standard Source:

ICP CRDL Standard Source

Instrument ID: ICPMS6,MER536,OPTIMA1,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Advisory Limits (%R)	M	Analysis Date/Time	Run Number
PQL02										
	Aluminum	203	ug/L	200	ug/L	101.5	70.0 – 130.0	P	29–DEC–09 12:26	122909A–2
	Iron	102	ug/L	100	ug/L	102	70.0 – 130.0	P	29–DEC–09 12:26	122909A–2
	Lead	10.3	ug/L	10	ug/L	103.4	70.0 – 130.0	P	29–DEC–09 12:26	122909A–2
	Magnesium	323	ug/L	300	ug/L	107.6	70.0 – 130.0	P	29–DEC–09 12:26	122909A–2
	Manganese	10.2	ug/L	10	ug/L	101.9	70.0 – 130.0	P	29–DEC–09 12:26	122909A–2
	Potassium	168	ug/L	150	ug/L	112.2	70.0 – 130.0	P	29–DEC–09 12:26	122909A–2
	Silver	5.47	ug/L	5	ug/L	109.4	70.0 – 130.0	P	29–DEC–09 12:26	122909A–2
	Sodium	331	ug/L	300	ug/L	110.3	70.0 – 130.0	P	29–DEC–09 12:26	122909A–2
	Antimony	10.4	ug/L	10	ug/L	103.9	70.0 – 130.0	P	29–DEC–09 12:26	122909A–2
	Barium	5.22	ug/L	5	ug/L	104.5	70.0 – 130.0	P	29–DEC–09 12:26	122909A–2
	Cadmium	5.06	ug/L	5	ug/L	101.3	70.0 – 130.0	P	29–DEC–09 12:26	122909A–2
	Chromium	4.68	ug/L	5	ug/L	93.5	70.0 – 130.0	P	29–DEC–09 12:26	122909A–2
	Cobalt	5	ug/L	5	ug/L	99.9	70.0 – 130.0	P	29–DEC–09 12:26	122909A–2
	Copper	9.16	ug/L	10	ug/L	91.6	70.0 – 130.0	P	29–DEC–09 12:26	122909A–2
	Vanadium	5.47	ug/L	5	ug/L	109.3	70.0 – 130.0	P	29–DEC–09 12:26	122909A–2
	Zinc	10.7	ug/L	10	ug/L	107.3	70.0 – 130.0	P	29–DEC–09 12:26	122909A–2
	Calcium	200	ug/L	200	ug/L	100.2	70.0 – 130.0	P	29–DEC–09 12:26	122909A–2
	Boron	47.1	ug/L	50	ug/L	94.2	70.0 – 130.0	P	29–DEC–09 12:26	122909A–2
	Titanium	4.97	ug/L	5	ug/L	99.5	70.0 – 130.0	P	29–DEC–09 12:26	122909A–2

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-941

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
ICB01										
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	29-DEC-09 09:14	122909A-2
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	29-DEC-09 09:14	122909A-2
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	29-DEC-09 09:14	122909A-2
	Boron	10.0	+/-50	U	10.0	50.0	SOL	P	29-DEC-09 09:14	122909A-2
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	29-DEC-09 09:14	122909A-2
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	29-DEC-09 09:14	122909A-2
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	29-DEC-09 09:14	122909A-2
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	29-DEC-09 09:14	122909A-2
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	29-DEC-09 09:14	122909A-2
	Iron	80.0	+/-250	U	80.0	250	SOL	P	29-DEC-09 09:14	122909A-2
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	29-DEC-09 09:14	122909A-2
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	29-DEC-09 09:14	122909A-2
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	29-DEC-09 09:14	122909A-2
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	29-DEC-09 09:14	122909A-2
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	29-DEC-09 09:14	122909A-2
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	29-DEC-09 09:14	122909A-2
	Titanium	1.0	+/-5	U	1.0	5.0	SOL	P	29-DEC-09 09:14	122909A-2
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	29-DEC-09 09:14	122909A-2
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	29-DEC-09 09:14	122909A-2
	Arsenic	1.0	+/-5	U	1.0	5.0	SOL	MS	05-JAN-10 02:11	100104-3
	Nickel	0.5	+/-2	U	0.5	2.0	SOL	MS	05-JAN-10 02:11	100104-3
	Selenium	2.5	+/-5	U	2.5	5.0	SOL	MS	05-JAN-10 02:11	100104-3
	Thallium	0.33	+/-1	J	0.3	1.0	SOL	MS	05-JAN-10 02:11	100104-3
	Uranium	0.066	+/-.2	U	0.066	0.2	SOL	MS	05-JAN-10 02:11	100104-3
	Mercury	-0.108	+/-.2	J	0.068	0.2	SOL	AV	05-JAN-10 09:52	010510S1-6
	Beryllium	0.1	+/-.5	U	0.1	0.5	SOL	MS	06-JAN-10 03:15	100105-4
	Lithium	2.0	+/-10	U	2.0	10.0	SOL	MS	06-JAN-10 05:31	100105-5
	Silicon	15.0	+/-100	U	15.0	100	SOL	P	11-JAN-10 12:49	011110A-1
CCB01										
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	29-DEC-09 09:59	122909A-2
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	29-DEC-09 09:59	122909A-2

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–941

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	29–DEC–09 09:59	122909A–2
	Boron	14.76	+/–50	J	10.0	50.0	SOL	P	29–DEC–09 09:59	122909A–2
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	29–DEC–09 09:59	122909A–2
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	29–DEC–09 09:59	122909A–2
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	29–DEC–09 09:59	122909A–2
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	29–DEC–09 09:59	122909A–2
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	29–DEC–09 09:59	122909A–2
	Iron	80.0	+/–250	U	80.0	250	SOL	P	29–DEC–09 09:59	122909A–2
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	29–DEC–09 09:59	122909A–2
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	29–DEC–09 09:59	122909A–2
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	29–DEC–09 09:59	122909A–2
	Potassium	90.42	+/–250	J	64.0	250	SOL	P	29–DEC–09 09:59	122909A–2
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	29–DEC–09 09:59	122909A–2
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	29–DEC–09 09:59	122909A–2
	Titanium	1.0	+/–5	U	1.0	5.0	SOL	P	29–DEC–09 09:59	122909A–2
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	29–DEC–09 09:59	122909A–2
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	29–DEC–09 09:59	122909A–2
	Arsenic	1.0	+/–5	U	1.0	5.0	SOL	MS	05–JAN–10 02:41	100104–3
	Nickel	0.5	+/–2	U	0.5	2.0	SOL	MS	05–JAN–10 02:41	100104–3
	Selenium	2.5	+/–5	U	2.5	5.0	SOL	MS	05–JAN–10 02:41	100104–3
	Thallium	0.318	+/–1	J	0.3	1.0	SOL	MS	05–JAN–10 02:41	100104–3
	Uranium	0.066	+/–.2	U	0.066	0.2	SOL	MS	05–JAN–10 02:41	100104–3
	Mercury	0.068	+/–.2	U	0.068	0.2	SOL	AV	05–JAN–10 09:58	010510S1–6
	Beryllium	0.1	+/–.5	U	0.1	0.5	SOL	MS	06–JAN–10 03:30	100105–4
	Lithium	2.0	+/–10	U	2.0	10.0	SOL	MS	06–JAN–10 05:46	100105–5
	Silicon	15.0	+/–100	U	15.0	100	SOL	P	11–JAN–10 13:21	011110A–1
CCB02										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	29–DEC–09 11:07	122909A–2
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	29–DEC–09 11:07	122909A–2
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	29–DEC–09 11:07	122909A–2
	Boron	10.0	+/–50	U	10.0	50.0	SOL	P	29–DEC–09 11:07	122909A–2

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–941

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	29–DEC–09 11:07	122909A–2
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	29–DEC–09 11:07	122909A–2
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	29–DEC–09 11:07	122909A–2
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	29–DEC–09 11:07	122909A–2
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	29–DEC–09 11:07	122909A–2
	Iron	80.0	+/–250	U	80.0	250	SOL	P	29–DEC–09 11:07	122909A–2
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	29–DEC–09 11:07	122909A–2
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	29–DEC–09 11:07	122909A–2
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	29–DEC–09 11:07	122909A–2
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	29–DEC–09 11:07	122909A–2
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	29–DEC–09 11:07	122909A–2
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	29–DEC–09 11:07	122909A–2
	Titanium	1.0	+/–5	U	1.0	5.0	SOL	P	29–DEC–09 11:07	122909A–2
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	29–DEC–09 11:07	122909A–2
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	29–DEC–09 11:07	122909A–2
	Arsenic	1.0	+/–5	U	1.0	5.0	SOL	MS	05–JAN–10 03:10	100104–3
	Nickel	0.5	+/–2	U	0.5	2.0	SOL	MS	05–JAN–10 03:10	100104–3
	Selenium	2.5	+/–5	U	2.5	5.0	SOL	MS	05–JAN–10 03:10	100104–3
	Thallium	0.527	+/–1	J	0.3	1.0	SOL	MS	05–JAN–10 03:10	100104–3
	Uranium	0.066	+/–.2	U	0.066	0.2	SOL	MS	05–JAN–10 03:10	100104–3
	Mercury	–0.087	+/–.2	J	0.068	0.2	SOL	AV	05–JAN–10 10:22	010510S1–6
	Beryllium	0.1	+/–.5	U	0.1	0.5	SOL	MS	06–JAN–10 03:59	100105–4
	Lithium	2.0	+/–10	U	2.0	10.0	SOL	MS	06–JAN–10 06:17	100105–5
	Silicon	15.0	+/–100	U	15.0	100	SOL	P	11–JAN–10 13:55	011110A–1
CCB03										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	29–DEC–09 12:33	122909A–2
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	29–DEC–09 12:33	122909A–2
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	29–DEC–09 12:33	122909A–2
	Boron	10.0	+/–50	U	10.0	50.0	SOL	P	29–DEC–09 12:33	122909A–2
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	29–DEC–09 12:33	122909A–2
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	29–DEC–09 12:33	122909A–2

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-941

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	29-DEC-09 12:33	122909A-2
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	29-DEC-09 12:33	122909A-2
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	29-DEC-09 12:33	122909A-2
	Iron	80.0	+/-250	U	80.0	250	SOL	P	29-DEC-09 12:33	122909A-2
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	29-DEC-09 12:33	122909A-2
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	29-DEC-09 12:33	122909A-2
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	29-DEC-09 12:33	122909A-2
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	29-DEC-09 12:33	122909A-2
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	29-DEC-09 12:33	122909A-2
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	29-DEC-09 12:33	122909A-2
	Titanium	1.0	+/-5	U	1.0	5.0	SOL	P	29-DEC-09 12:33	122909A-2
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	29-DEC-09 12:33	122909A-2
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	29-DEC-09 12:33	122909A-2
	Arsenic	1.0	+/-5	U	1.0	5.0	SOL	MS	05-JAN-10 03:57	100104-3
	Nickel	0.5	+/-2	U	0.5	2.0	SOL	MS	05-JAN-10 03:57	100104-3
	Selenium	2.5	+/-5	U	2.5	5.0	SOL	MS	05-JAN-10 03:57	100104-3
	Thallium	0.52	+/-1	J	0.3	1.0	SOL	MS	05-JAN-10 03:57	100104-3
	Uranium	0.066	+/-.2	U	0.066	0.2	SOL	MS	05-JAN-10 03:57	100104-3
	Mercury	-0.114	+/-.2	J	0.068	0.2	SOL	AV	05-JAN-10 10:46	010510S1-6
	Beryllium	0.1	+/-.5	U	0.1	0.5	SOL	MS	06-JAN-10 04:17	100105-4
	Lithium	2.0	+/-10	U	2.0	10.0	SOL	MS	06-JAN-10 06:45	100105-5
	Silicon	15.0	+/-100	U	15.0	100	SOL	P	11-JAN-10 14:33	011110A-1
CCB04										
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	29-DEC-09 13:42	122909A-2
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	29-DEC-09 13:42	122909A-2
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	29-DEC-09 13:42	122909A-2
	Boron	10.0	+/-50	U	10.0	50.0	SOL	P	29-DEC-09 13:42	122909A-2
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	29-DEC-09 13:42	122909A-2
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	29-DEC-09 13:42	122909A-2
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	29-DEC-09 13:42	122909A-2
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	29-DEC-09 13:42	122909A-2

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-941

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	29-DEC-09 13:42	122909A-2
	Iron	80.0	+/-250	U	80.0	250	SOL	P	29-DEC-09 13:42	122909A-2
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	29-DEC-09 13:42	122909A-2
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	29-DEC-09 13:42	122909A-2
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	29-DEC-09 13:42	122909A-2
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	29-DEC-09 13:42	122909A-2
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	29-DEC-09 13:42	122909A-2
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	29-DEC-09 13:42	122909A-2
	Titanium	1.0	+/-5	U	1.0	5.0	SOL	P	29-DEC-09 13:42	122909A-2
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	29-DEC-09 13:42	122909A-2
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	29-DEC-09 13:42	122909A-2
	Arsenic	1.0	+/-5	U	1.0	5.0	SOL	MS	05-JAN-10 04:51	100104-3
	Nickel	0.5	+/-2	U	0.5	2.0	SOL	MS	05-JAN-10 04:51	100104-3
	Selenium	2.5	+/-5	U	2.5	5.0	SOL	MS	05-JAN-10 04:51	100104-3
	Thallium	0.477	+/-1	J	0.3	1.0	SOL	MS	05-JAN-10 04:51	100104-3
	Uranium	0.066	+/-.2	U	0.066	0.2	SOL	MS	05-JAN-10 04:51	100104-3
	Mercury	-0.091	+/-.2	J	0.068	0.2	SOL	AV	05-JAN-10 11:09	010510S1-6
	Beryllium	0.1	+/-.5	U	0.1	0.5	SOL	MS	06-JAN-10 04:48	100105-4
	Silicon	15.0	+/-100	U	15.0	100	SOL	P	11-JAN-10 15:03	011110A-1
CCB05										
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	29-DEC-09 14:07	122909A-2
	Antimony	3.44	+/-10	J	3.3	10.0	SOL	P	29-DEC-09 14:07	122909A-2
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	29-DEC-09 14:07	122909A-2
	Boron	10.0	+/-50	U	10.0	50.0	SOL	P	29-DEC-09 14:07	122909A-2
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	29-DEC-09 14:07	122909A-2
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	29-DEC-09 14:07	122909A-2
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	29-DEC-09 14:07	122909A-2
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	29-DEC-09 14:07	122909A-2
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	29-DEC-09 14:07	122909A-2
	Iron	80.0	+/-250	U	80.0	250	SOL	P	29-DEC-09 14:07	122909A-2
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	29-DEC-09 14:07	122909A-2

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-941

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	29-DEC-09 14:07	122909A-2
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	29-DEC-09 14:07	122909A-2
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	29-DEC-09 14:07	122909A-2
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	29-DEC-09 14:07	122909A-2
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	29-DEC-09 14:07	122909A-2
	Titanium	1.0	+/-5	U	1.0	5.0	SOL	P	29-DEC-09 14:07	122909A-2
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	29-DEC-09 14:07	122909A-2
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	29-DEC-09 14:07	122909A-2
	Beryllium	0.1	+/-.5	U	0.1	0.5	SOL	MS	06-JAN-10 05:16	100105-4
CCB06										
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	29-DEC-09 15:22	122909A-2
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	29-DEC-09 15:22	122909A-2
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	29-DEC-09 15:22	122909A-2
	Boron	10.0	+/-50	U	10.0	50.0	SOL	P	29-DEC-09 15:22	122909A-2
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	29-DEC-09 15:22	122909A-2
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	29-DEC-09 15:22	122909A-2
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	29-DEC-09 15:22	122909A-2
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	29-DEC-09 15:22	122909A-2
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	29-DEC-09 15:22	122909A-2
	Iron	80.0	+/-250	U	80.0	250	SOL	P	29-DEC-09 15:22	122909A-2
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	29-DEC-09 15:22	122909A-2
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	29-DEC-09 15:22	122909A-2
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	29-DEC-09 15:22	122909A-2
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	29-DEC-09 15:22	122909A-2
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	29-DEC-09 15:22	122909A-2
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	29-DEC-09 15:22	122909A-2
	Titanium	1.0	+/-5	U	1.0	5.0	SOL	P	29-DEC-09 15:22	122909A-2
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	29-DEC-09 15:22	122909A-2
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	29-DEC-09 15:22	122909A-2
CCB07										
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	29-DEC-09 16:31	122909A-2

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–941

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	29–DEC–09 16:31	122909A–2
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	29–DEC–09 16:31	122909A–2
	Boron	10.0	+/–50	U	10.0	50.0	SOL	P	29–DEC–09 16:31	122909A–2
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	29–DEC–09 16:31	122909A–2
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	29–DEC–09 16:31	122909A–2
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	29–DEC–09 16:31	122909A–2
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	29–DEC–09 16:31	122909A–2
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	29–DEC–09 16:31	122909A–2
	Iron	80.0	+/–250	U	80.0	250	SOL	P	29–DEC–09 16:31	122909A–2
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	29–DEC–09 16:31	122909A–2
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	29–DEC–09 16:31	122909A–2
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	29–DEC–09 16:31	122909A–2
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	29–DEC–09 16:31	122909A–2
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	29–DEC–09 16:31	122909A–2
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	29–DEC–09 16:31	122909A–2
	Titanium	1.0	+/–5	U	1.0	5.0	SOL	P	29–DEC–09 16:31	122909A–2
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	29–DEC–09 16:31	122909A–2
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	29–DEC–09 16:31	122909A–2

METALS
–3b–
PREPARATION BLANK SUMMARY

SDG NO. 10–941

Contract: LANL01004

Matrix: SOIL

Sample ID	Analyte	Result	Units	Acceptance Window	Conc Qual	M	MDL	RDL
1201999340								
	Aluminum	6390	ug/Kg	+/–18800	U	P	6390	18800
	Antimony	310	ug/Kg	+/–940	U	P	310	940
	Boron	940	ug/Kg	+/–4700	U	P	940	4700
	Barium	94	ug/Kg	+/–470	U	P	94	470
	Cadmium	94	ug/Kg	+/–470	U	P	94	470
	Chromium	141	ug/Kg	+/–470	U	P	141	470
	Copper	282	ug/Kg	+/–940	U	P	282	940
	Lead	235	ug/Kg	+/–940	U	P	235	940
	Manganese	188	ug/Kg	+/–940	U	P	188	940
	Zinc	310	ug/Kg	+/–940	U	P	310	940
	Vanadium	94	ug/Kg	+/–470	U	P	94	470
	Titanium	94	ug/Kg	+/–470	U	P	94	470
	Sodium	6580	ug/Kg	+/–23500	U	P	6580	23500
	Silver	94	ug/Kg	+/–470	U	P	94	470
	Potassium	6020	ug/Kg	+/–23500	U	P	6020	23500
	Magnesium	7990	ug/Kg	+/–28200	U	P	7990	28200
	Iron	7520	ug/Kg	+/–23500	U	P	7520	23500
	Cobalt	141	ug/Kg	+/–470	U	P	141	470
	Calcium	7520	ug/Kg	+/–23500	U	P	7520	23500
1201999349								
	Uranium	0.0127	mg/kg	+/–0.0385	U	MS	0.0127	0.0385
	Beryllium	0.0192	mg/kg	+/–0.0962	U	MS	0.0192	0.0962
	Nickel	0.0962	mg/kg	+/–0.385	U	MS	0.0962	0.385
	Thallium	0.0577	mg/kg	+/–0.192	U	MS	0.0577	0.192
	Selenium	0.481	mg/kg	+/–0.962	U	MS	0.481	0.962
	Lithium	0.385	mg/kg	+/–1.92	U	MS	0.385	1.92
	Arsenic	0.192	mg/kg	+/–0.962	U	MS	0.192	0.962
1202000228								
	Mercury	10.3	ug/kg	+/–11	J	AV	3.75	11
1202010888								
	Silicon	1630	ug/Kg	+/–9860	J	P	1480	9860

METALS
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Interference Check Sample

SDG No: 10–941

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Silicon	20.9	ug/L					11–JAN–10 12:56	011110A–1
ICSAB01									
	Silicon	5220	ug/L	5000	ug/L	104	80.0 – 120.0	11–JAN–10 12:59	011110A–1

METALS
–4–
Interference Check Sample

SDG No: 10–941

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Aluminum	517000	ug/L	500000	ug/L	103	80.0 – 120.0	29–DEC–09 09:28	122909A–2
	Antimony	–0.439	ug/L					29–DEC–09 09:28	122909A–2
	Barium	–1.35	ug/L					29–DEC–09 09:28	122909A–2
	Boron	–13.9	ug/L					29–DEC–09 09:28	122909A–2
	Cadmium	–1.84	ug/L					29–DEC–09 09:28	122909A–2
	Calcium	481000	ug/L	500000	ug/L	96.2	80.0 – 120.0	29–DEC–09 09:28	122909A–2
	Chromium	1.9	ug/L					29–DEC–09 09:28	122909A–2
	Cobalt	–1.69	ug/L					29–DEC–09 09:28	122909A–2
	Copper	0.275	ug/L					29–DEC–09 09:28	122909A–2
	Iron	188000	ug/L	200000	ug/L	94.2	80.0 – 120.0	29–DEC–09 09:28	122909A–2
	Lead	–15.9	ug/L					29–DEC–09 09:28	122909A–2
	Magnesium	494000	ug/L	500000	ug/L	98.7	80.0 – 120.0	29–DEC–09 09:28	122909A–2
	Manganese	8.47	ug/L					29–DEC–09 09:28	122909A–2
	Potassium	–30.1	ug/L					29–DEC–09 09:28	122909A–2
	Silver	1.18	ug/L					29–DEC–09 09:28	122909A–2
	Sodium	0.094	ug/L					29–DEC–09 09:28	122909A–2
	Titanium	3.73	ug/L					29–DEC–09 09:28	122909A–2
	Vanadium	–2.87	ug/L					29–DEC–09 09:28	122909A–2
	Zinc	–0.394	ug/L					29–DEC–09 09:28	122909A–2
ICSAB01									
	Aluminum	528000	ug/L	500000	ug/L	106	80.0 – 120.0	29–DEC–09 09:34	122909A–2
	Antimony	542	ug/L	500	ug/L	108	80.0 – 120.0	29–DEC–09 09:34	122909A–2
	Barium	501	ug/L	500	ug/L	100	80.0 – 120.0	29–DEC–09 09:34	122909A–2
	Boron	508	ug/L	500	ug/L	102	80.0 – 120.0	29–DEC–09 09:34	122909A–2
	Cadmium	468	ug/L	500	ug/L	93.5	80.0 – 120.0	29–DEC–09 09:34	122909A–2
	Calcium	493000	ug/L	500000	ug/L	98.6	80.0 – 120.0	29–DEC–09 09:34	122909A–2
	Chromium	476	ug/L	500	ug/L	95.2	80.0 – 120.0	29–DEC–09 09:34	122909A–2
	Cobalt	461	ug/L	500	ug/L	92.3	80.0 – 120.0	29–DEC–09 09:34	122909A–2
	Copper	572	ug/L	500	ug/L	114	80.0 – 120.0	29–DEC–09 09:34	122909A–2

METALS
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Interference Check Sample

SDG No: 10-941

Contract: LANL01004 **Lab Code:** GEL

ICS:

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
	Iron	192000	ug/L	200000	ug/L	96	80.0 - 120.0	29-DEC-09 09:34	122909A-2
	Lead	464	ug/L	500	ug/L	92.9	80.0 - 120.0	29-DEC-09 09:34	122909A-2
	Magnesium	501000	ug/L	500000	ug/L	100	80.0 - 120.0	29-DEC-09 09:34	122909A-2
	Manganese	503	ug/L	500	ug/L	101	80.0 - 120.0	29-DEC-09 09:34	122909A-2
	Potassium	5500	ug/L	5000	ug/L	110	80.0 - 120.0	29-DEC-09 09:34	122909A-2
	Silver	279	ug/L	250	ug/L	111	80.0 - 120.0	29-DEC-09 09:34	122909A-2
	Sodium	5480	ug/L	5000	ug/L	110	80.0 - 120.0	29-DEC-09 09:34	122909A-2
	Titanium	522	ug/L	500	ug/L	104	80.0 - 120.0	29-DEC-09 09:34	122909A-2
	Vanadium	508	ug/L	500	ug/L	102	80.0 - 120.0	29-DEC-09 09:34	122909A-2
	Zinc	492	ug/L	500	ug/L	98.3	80.0 - 120.0	29-DEC-09 09:34	122909A-2

METALS
–4–
Interference Check Sample

SDG No: 10–941

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: ICPMS6

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Arsenic	–0.01	ug/L					05–JAN–10 02:23	100104–3
	Nickel	3.55	ug/L					05–JAN–10 02:23	100104–3
	Selenium	–1.21	ug/L					05–JAN–10 02:23	100104–3
	Thallium	0.076	ug/L					05–JAN–10 02:23	100104–3
	Uranium	0.01	ug/L					05–JAN–10 02:23	100104–3
ICSAB01									
	Arsenic	19.9	ug/L	20	ug/L	99.7	80.0 – 120.0	05–JAN–10 02:29	100104–3
	Nickel	22.2	ug/L	22.7	ug/L	97.9	80.0 – 120.0	05–JAN–10 02:29	100104–3
	Selenium	19.8	ug/L	20	ug/L	99.2	80.0 – 120.0	05–JAN–10 02:29	100104–3
	Thallium	16.7	ug/L	20	ug/L	83.3	80.0 – 120.0	05–JAN–10 02:29	100104–3
	Uranium	20.6	ug/L	20	ug/L	103	80.0 – 120.0	05–JAN–10 02:29	100104–3

METALS
–4–
Interference Check Sample

SDG No: 10–941

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: ICPMS6

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Beryllium	0.054	ug/L					06–JAN–10 03:21	100105–4
ICSAB01									
	Beryllium	18.9	ug/L	20	ug/L	94.6	80.0 – 120.0	06–JAN–10 03:24	100105–4

METALS
–4–
Interference Check Sample

SDG No: 10–941

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: ICPMS6

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Lithium	0.199	ug/L					06–JAN–10 05:37	100105–5
ICSAB01									
	Lithium	18.1	ug/L	20	ug/L	90.3	80.0 – 120.0	06–JAN–10 05:40	100105–5

METALS
–5a–

Matrix Spike Summary

SDG NO. 10–941 **Client ID** RE03–09–14221S

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 85

Sample ID: 243042001 **Spike ID:** 1201999343

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Aluminum	ug/Kg		19700000		12600000		570000	1240	N/A	P
Antimony	ug/Kg	75–125	40100		377	U	57000	70.2	N	P
Barium	ug/Kg	75–125	272000		201000		57000	125		P
Boron	ug/Kg	75–125	56300		2840	J	57000	93.9		P
Cadmium	ug/Kg	75–125	54700		114	U	57000	95.9		P
Calcium	ug/Kg		3010000		2450000		570000	99	N/A	P
Chromium	ug/Kg	75–125	77500		22800		57000	96		P
Cobalt	ug/Kg	75–125	61900		6450		57000	97.4		P
Copper	ug/Kg	75–125	74400		19800		57000	95.7		P
Iron	ug/Kg		18100000		16000000		570000	373	N/A	P
Lead	ug/Kg	75–125	73500		24100		57000	86.8		P
Magnesium	ug/Kg		3750000		2610000		570000	201	N/A	P
Manganese	ug/Kg		512000		404000		57000	190	N/A	P
Potassium	ug/Kg	75–125	2520000		1600000		570000	163	N	P
Silicon	ug/Kg	75–125	1790000		1380000		570000	71.5	N	P
Silver	ug/Kg	75–125	59400		469	J	57000	103		P
Sodium	ug/Kg	75–125	745000		144000		570000	105		P
Titanium	ug/Kg		667000		504000		57000	287	N/A	P
Vanadium	ug/Kg	75–125	88100		29000		57000	104		P
Zinc	ug/Kg	75–125	108000		67800		57000	70.7	N	P

METALS
–5a–

Matrix Spike Duplicate Summary

SDG NO. 10–941 **Client ID** RE03–09–14221SD

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 85

Sample ID: 243042001 **Spike ID:** 1201999344

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Antimony	ug/Kg	75–125	41500		377	U	57300	72.2	N	P
Barium	ug/Kg	75–125	288000		201000		57300	152	N	P
Boron	ug/Kg	75–125	58400		2840	J	57300	97		P
Cadmium	ug/Kg	75–125	55700		114	U	57300	97		P
Aluminum	ug/Kg		21000000		12600000		573000	1460	N/A	P
Calcium	ug/Kg		3400000		2450000		573000	166	N/A	P
Chromium	ug/Kg	75–125	77700		22800		57300	95.8		P
Cobalt	ug/Kg	75–125	62300		6450		57300	97.5		P
Copper	ug/Kg	75–125	78200		19800		57300	102		P
Iron	ug/Kg		18800000		16000000		573000	497	N/A	P
Lead	ug/Kg	75–125	77700		24100		57300	93.5		P
Magnesium	ug/Kg		3900000		2610000		573000	226	N/A	P
Manganese	ug/Kg		538000		404000		57300	234	N/A	P
Potassium	ug/Kg	75–125	2660000		1600000		573000	185	N	P
Silicon	ug/Kg	75–125	2020000		1380000		574000	111		P
Silver	ug/Kg	75–125	60500		469	J	57300	105		P
Sodium	ug/Kg	75–125	755000		144000		573000	107		P
Titanium	ug/Kg		704000		504000		57300	349	N/A	P
Vanadium	ug/Kg	75–125	90700		29000		57300	108		P
Zinc	ug/Kg	75–125	120000		67800		57300	90.7		P

METALS
-5a-
Matrix Spike Summary

SDG NO. 10-941 **Client ID** RE03-09-14221S

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 85

Sample ID: 243042001 **Spike ID:** 1201999352

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Lithium	mg/kg	75-125	17.1		12.3		5.79	83.4		MS
Nickel	mg/kg	75-125	13.2		8.51		5.79	80.4		MS
Selenium	mg/kg	75-125	1.43		0.574	U	2.31	61.7	N	MS
Thallium	mg/kg	75-125	9.77		0.283		11.6	82		MS
Uranium	mg/kg	75-125	5.99		0.859		5.79	88.8		MS
Arsenic	mg/kg	75-125	9.41		2.16		9.26	78.4		MS
Beryllium	mg/kg	75-125	4.99		0.801		5.79	72.4	N	MS

METALS
–5a–

Matrix Spike Duplicate Summary

SDG NO. 10–941 **Client ID** RE03–09–14221SD

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 85

Sample ID: 243042001 **Spike ID:** 1201999353

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Arsenic	mg/kg	75–125	10.4		2.16		9.24	88.8		MS
Beryllium	mg/kg	75–125	5.3		0.801		5.77	77.9		MS
Lithium	mg/kg	75–125	18.5		12.3		5.77	107		MS
Nickel	mg/kg	75–125	15		8.51		5.77	113		MS
Selenium	mg/kg	75–125	1.61		0.574	U	2.31	69.5	N	MS
Thallium	mg/kg	75–125	10.2		0.283		11.5	85.9		MS
Uranium	mg/kg	75–125	7.46		0.859		5.77	114		MS

METALS
–5a–
Matrix Spike Summary

SDG NO. 10–941 **Client ID** RE03–09–14221S

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 85

Sample ID: 243042001 **Spike ID:** 1202000231

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Mercury	ug/kg	75–125	244		53.4		125	153	N	AV

METALS
-5a-
Matrix Spike Duplicate Summary

SDG NO. 10-941 **Client ID** RE03-09-14221SD

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 85

Sample ID: 243042001 **Spike ID:** 1202000233

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Mercury	ug/kg	75-125	207		53.4		122	127	N	AV

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–941

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE03–09–14221D

Sample ID: 243042001 **Duplicate ID:** 1201999341 **Percent Solids for Dup:** 85

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	ug/Kg	+/–20%	12600000		12500000		.793		P
Antimony	ug/Kg		377	U	382	U			P
Barium	ug/Kg	+/–20%	201000		192000		4.82		P
Boron	ug/Kg	+/–5790	2840	J	1930	J	38.5		P
Cadmium	ug/Kg		114	U	116	U			P
Calcium	ug/Kg	+/–20%	2450000		2340000		4.63		P
Chromium	ug/Kg	+/–20%	22800		19000		18.3		P
Cobalt	ug/Kg	+/–20%	6450		6750		4.61		P
Copper	ug/Kg	+/–20%	19800		13000		42	*	P
Iron	ug/Kg	+/–20%	16000000		15900000		.792		P
Lead	ug/Kg	+/–20%	24100		18100		28.6	*	P
Magnesium	ug/Kg	+/–20%	2610000		2570000		1.27		P
Manganese	ug/Kg	+/–20%	404000		434000		7.04		P
Potassium	ug/Kg	+/–20%	1600000		1490000		7.15		P
Silicon	ug/Kg	+/–20%	1380000		2180000		45.1	*	P
Silver	ug/Kg	+/–579	469	J	525	J	11.2		P
Sodium	ug/Kg	+/–28900	144000		141000		2.06		P
Titanium	ug/Kg	+/–20%	504000		495000		1.78		P
Vanadium	ug/Kg	+/–20%	29000		29000		.321		P
Zinc	ug/Kg	+/–20%	67800		46700		36.8	*	P

Metals
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Duplicate Sample Summary

SDG No.: 10-941

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE03-09-14221SD

Sample ID: 1201999343 **Duplicate ID:** 1201999344 **Percent Solids for Dup:** 85

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	ug/Kg	+/-20	19700000		21000000		6.48		P
Antimony	ug/Kg	+/-20	40100		41500		3.49		P
Barium	ug/Kg	+/-20	272000		288000		5.64		P
Boron	ug/Kg	+/-20	56300		58400		3.61		P
Cadmium	ug/Kg	+/-20	54700		55700		1.74		P
Calcium	ug/Kg	+/-20	3010000		3400000		12		P
Chromium	ug/Kg	+/-20	77500		77700		.266		P
Cobalt	ug/Kg	+/-20	61900		62300		.627		P
Copper	ug/Kg	+/-20	74400		78200		5.04		P
Iron	ug/Kg	+/-20	18100000		18800000		3.91		P
Lead	ug/Kg	+/-20	73500		77700		5.46		P
Magnesium	ug/Kg	+/-20	3750000		3900000		4.04		P
Manganese	ug/Kg	+/-20	512000		538000		4.89		P
Potassium	ug/Kg	+/-20	2520000		2660000		5.19		P
Silicon	ug/Kg	+/-20	1790000		2020000		12		P
Silver	ug/Kg	+/-20	59400		60500		1.75		P
Sodium	ug/Kg	+/-20	745000		755000		1.32		P
Titanium	ug/Kg	+/-20	667000		704000		5.29		P
Vanadium	ug/Kg	+/-20	88100		90700		2.95		P
Zinc	ug/Kg	+/-20	108000		120000		10.3		P

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–941

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE03–09–14221D

Sample ID: 243042001 **Duplicate ID:** 1201999350 **Percent Solids for Dup:** 85

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Arsenic	mg/kg	+/–1.14	2.16		2.25		4.34		MS
Beryllium	mg/kg	+/–20%	0.801		0.787		1.77		MS
Lithium	mg/kg	+/–20%	12.3		12.2		.984		MS
Nickel	mg/kg	+/–20%	8.51		8.46		.537		MS
Selenium	mg/kg		0.574	U	0.571	U			MS
Thallium	mg/kg	+/–.228	0.283		0.224	J	23.4		MS
Uranium	mg/kg	+/–20%	0.859		0.867		1.01		MS

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–941

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE03–09–14221SD

Sample ID: 1201999352 **Duplicate ID:** 1201999353 **Percent Solids for Dup:** 85

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Arsenic	mg/kg	+/–20	9.41		10.4		9.54		MS
Beryllium	mg/kg	+/–20	4.99		5.3		6.05		MS
Lithium	mg/kg	+/–20	17.1		18.5		7.71		MS
Nickel	mg/kg	+/–20	13.2		15		13.3		MS
Selenium	mg/kg	+/–20	1.43		1.61		11.8		MS
Thallium	mg/kg	+/–20	9.77		10.2		4.3		MS
Uranium	mg/kg	+/–20	5.99		7.46		21.8	*	MS

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–941

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE03–09–14221D

Sample ID: 243042001 **Duplicate ID:** 1202000230 **Percent Solids for Dup:** 85

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Mercury	ug/kg	+/–13.8	53.4		62.4		15.6		AV

Metals
-6-
Duplicate Sample Summary

SDG No.: 10-941

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE03-09-14221SD

Sample ID: 1202000231 **Duplicate ID:** 1202000233 **Percent Solids for Dup:** 85

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Mercury	ug/kg	+/-20	244		207		16.4		AV

METALS
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Laboratory Control Sample Summary

SDG NO. 10-941

Contract: LANL01004

Aqueous LCS Source: **Solid LCS Source:** ERA

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1201999345								
	Aluminum	ug/Kg	10500000	9240000		88	56-144	P
	Antimony	ug/Kg	173000	132000		76.1	71-130	P
	Barium	ug/Kg	198000	195000		98.7	80-120	P
	Boron	ug/Kg	141000	148000		105	75-125	P
	Cadmium	ug/Kg	60700	58700		96.7	81-120	P
	Calcium	ug/Kg	9870000	10500000		106	83-117	P
	Chromium	ug/Kg	236000	241000		102	80-120	P
	Cobalt	ug/Kg	91200	92200		101	81-120	P
	Copper	ug/Kg	174000	190000		109	81-118	P
	Iron	ug/Kg	18000000	19300000		107	51-149	P
	Lead	ug/Kg	86000	83600		97.3	79-121	P
	Magnesium	ug/Kg	4000000	3970000		99.3	79-122	P
	Manganese	ug/Kg	558000	547000		98	81-119	P
	Potassium	ug/Kg	4300000	4270000		99.3	74-127	P
	Silver	ug/Kg	30100	32600		108	66-134	P
	Sodium	ug/Kg	1020000	1100000		108	74-127	P
	Titanium	ug/Kg	462000	589000		127	39-161	P
	Vanadium	ug/Kg	115000	123000		107	79-121	P
	Zinc	ug/Kg	594000	592000		99.6	80-121	P

METALS
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Laboratory Control Sample Summary

SDG NO. 10–941

Contract: LANL01004

Aqueous LCS Source: **Solid LCS Source:** ERA

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1201999354								
	Arsenic	mg/kg	104	110		105	83–120	MS
	Beryllium	mg/kg	77.6	83.2		107	81.2–126.8	MS
	Lithium	mg/kg	10.6	10.1	J	95.1	66.7–133.7	MS
	Nickel	mg/kg	134	144		107	83.3–121.4	MS
	Selenium	mg/kg	286	294		103	80.2–125.9	MS
	Thallium	mg/kg	121	128		106	78–123.2	MS
	Uranium	mg/kg	2.13	2.35		110	61.9–130.7	MS

METALS
-7-
Laboratory Control Sample Summary

SDG NO. 10-941

Contract: LANL01004

Aqueous LCS Source: **Solid LCS Source:** ERA

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202000229								
	Mercury	ug/kg	5150	5260		102	71.6-128.3	AV

METALS
-7-
Laboratory Control Sample Summary

SDG NO. 10-941

Contract: LANL01004

Aqueous LCS Source: **Solid LCS Source:** ERA

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202010889								
	Silicon	ug/Kg	1210000	1720000		142	10-190	P

METALS
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Serial Dilution Sample Summary

SDG NO. 10-941 **Client ID** RE03-09-14221L

Contract: LANL01004

Matrix: SOLID **Level:** Low

Sample ID: 243042001 **Serial Dilution ID:** 1201999342

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Aluminum	111000		110000		1.35		10	P
Antimony	3.3	U	16.5	U				P
Barium	1760		1800		2.27		10	P
Boron	24.9	J	50	U	100			P
Cadmium	1	U	5	U				P
Calcium	21500		21500		0		10	P
Chromium	200		203		1.25		10	P
Cobalt	56.5		57		.885			P
Copper	174		162		7.18		10	P
Iron	140000		144000		2.86		10	P
Lead	211		220		4.27		10	P
Magnesium	22800		23400		2.63		10	P
Manganese	3540		3640		2.82		10	P
Potassium	14000		13900		1.07		10	P
Silicon	11800		11700		1.27		10	P
Silver	4.11	J	5.85	J	42.3			P
Sodium	1260		1210	J	4.37			P
Titanium	4420		4430		.113		10	P
Vanadium	254		256		.591		10	P
Zinc	594		605		1.85		10	P

METALS
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Serial Dilution Sample Summary

SDG NO. 10-941 **Client ID** RE03-09-14221L

Contract: LANL01004

Matrix: SOLID **Level:** Low

Sample ID: 243042001 **Serial Dilution ID:** 1201999351

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Arsenic	9.4		10.3	J	9.04			MS
Beryllium	3.49		4.15		18.9			MS
Lithium	53.5		68.5		28			MS
Nickel	37.1		45.7		23.2			MS
Selenium	2.5	U	12.5	U				MS
Thallium	1.23		3.42	J	178			MS
Uranium	3.74		4.25		13.6			MS

METALS
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Serial Dilution Sample Summary

SDG NO. 10–941 **Client ID** RE03–09–14221L

Contract: LANL01004

Matrix: SOLID **Level:** Low

Sample ID: 243042001 **Serial Dilution ID:** 1202000232

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Mercury	.766		.34	U	100			AV

METALS
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SAMPLE PREPARATION SUMMARY

SDG No: 10-941 **Method Type:** P

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number 934492							
1201999340	MB for batch 934492	MB	S	19-DEC-09	.532g	50mL	
1201999345	LCS for batch 934492	LCS	S	19-DEC-09	.509g	50mL	
1201999343	RE03-09-14221S	MS	S	19-DEC-09	.515g	50mL	
1201999344	RE03-09-14221SD	MSD	S	19-DEC-09	.512g	50mL	
1201999341	RE03-09-14221D	DUP	S	19-DEC-09	.507g	50mL	
243042001	RE03-09-14221	SAMPLE	S	19-DEC-09	.514g	50mL	
243042002	RE03-09-14211	SAMPLE	S	19-DEC-09	.524g	50mL	
243042003	RE03-09-14210	SAMPLE	S	19-DEC-09	.527g	50mL	
243042004	RE03-09-14209	SAMPLE	S	19-DEC-09	.521g	50mL	
243042005	RE03-09-14208	SAMPLE	S	19-DEC-09	.523g	50mL	
243042006	RE03-09-14222	SAMPLE	S	19-DEC-09	.512g	50mL	
243042007	RE03-09-14223	SAMPLE	S	19-DEC-09	.503g	50mL	
243042008	RE03-09-14220	SAMPLE	S	19-DEC-09	.527g	50mL	
243042009	RE03-10-2734	SAMPLE	S	19-DEC-09	.534g	50mL	
Batch Number 939703							
1202010888	MB for batch 939703	MB	S	08-JAN-10	.507g	50mL	
1202010889	LCS for batch 939703	LCS	S	08-JAN-10	.522g	50mL	
1201999343	RE03-09-14221S	MS	S	08-JAN-10	.515g	50mL	
1201999344	RE03-09-14221SD	MSD	S	08-JAN-10	.511g	50mL	

METALS
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SAMPLE PREPARATION SUMMARY

SDG No: 10-941 **Method Type:** P

Contract: **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
1201999341	RE03-09-14221D	DUP	S	08-JAN-10	.509g	50mL	
243042001	RE03-09-14221	SAMPLE	S	08-JAN-10	.501g	50mL	
243042002	RE03-09-14211	SAMPLE	S	08-JAN-10	.501g	50mL	
243042003	RE03-09-14210	SAMPLE	S	08-JAN-10	.506g	50mL	
243042004	RE03-09-14209	SAMPLE	S	08-JAN-10	.509g	50mL	
243042005	RE03-09-14208	SAMPLE	S	08-JAN-10	.505g	50mL	
243042006	RE03-09-14222	SAMPLE	S	08-JAN-10	.515g	50mL	
243042007	RE03-09-14223	SAMPLE	S	08-JAN-10	.503g	50mL	
243042008	RE03-09-14220	SAMPLE	S	08-JAN-10	.518g	50mL	
243042009	RE03-10-2734	SAMPLE	S	08-JAN-10	.512g	50mL	

METALS
-13-
SAMPLE PREPARATION SUMMARY

SDG No: 10-941 **Method Type:** MS

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number	934496						
1201999349	MB for batch 934496	MB	S	19-DEC-09	.52g	50mL	
1201999354	LCS for batch 934496	LCS	S	19-DEC-09	.514g	50mL	
1201999352	RE03-09-14221S	MS	S	19-DEC-09	.507g	50mL	
1201999353	RE03-09-14221SD	MSD	S	19-DEC-09	.508g	50mL	
1201999350	RE03-09-14221D	DUP	S	19-DEC-09	.514g	50mL	
243042001	RE03-09-14221	SAMPLE	S	19-DEC-09	.511g	50mL	
243042002	RE03-09-14211	SAMPLE	S	19-DEC-09	.516g	50mL	
243042003	RE03-09-14210	SAMPLE	S	19-DEC-09	.509g	50mL	
243042004	RE03-09-14209	SAMPLE	S	19-DEC-09	.504g	50mL	
243042005	RE03-09-14208	SAMPLE	S	19-DEC-09	.508g	50mL	
243042006	RE03-09-14222	SAMPLE	S	19-DEC-09	.517g	50mL	
243042007	RE03-09-14223	SAMPLE	S	19-DEC-09	.507g	50mL	
243042008	RE03-09-14220	SAMPLE	S	19-DEC-09	.518g	50mL	
243042009	RE03-10-2734	SAMPLE	S	19-DEC-09	.509g	50mL	

METALS
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SAMPLE PREPARATION SUMMARY

SDG No: 10-941 **Method Type**: AV

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number	934894						
1202000228	MB for batch 934894	MB	S	04-JAN-10	.544g	30mL	
1202000229	LCS for batch 934894	LCS	S	04-JAN-10	.2g	30mL	
1202000231	RE03-09-14221S	MS	S	04-JAN-10	.565g	30mL	
1202000233	RE03-09-14221SD	MSD	S	04-JAN-10	.579g	30mL	
1202000230	RE03-09-14221D	DUP	S	04-JAN-10	.511g	30mL	
243042001	RE03-09-14221	SAMPLE	S	04-JAN-10	.505g	30mL	
243042002	RE03-09-14211	SAMPLE	S	04-JAN-10	.567g	30mL	
243042003	RE03-09-14210	SAMPLE	S	04-JAN-10	.504g	30mL	
243042004	RE03-09-14209	SAMPLE	S	04-JAN-10	.552g	30mL	
243042005	RE03-09-14208	SAMPLE	S	04-JAN-10	.532g	30mL	
243042006	RE03-09-14222	SAMPLE	S	04-JAN-10	.576g	30mL	
243042007	RE03-09-14223	SAMPLE	S	04-JAN-10	.552g	30mL	
243042008	RE03-09-14220	SAMPLE	S	04-JAN-10	.54g	30mL	
243042009	RE03-10-2734	SAMPLE	S	04-JAN-10	.549g	30mL	

Metals
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Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: ICPMS6
Start Date: 05–JAN–10 **End Date:** 05–JAN–10

Client Sdg: 10–941
Method MS
Data File: 100104–3

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Li	Mg	Mn	Hg	Ni	K	Se	Si	Ag	Na	Tl	Ti	U	V	Zn
S0.0	1	01:47			X															X		X				X		X		
S10	1	01:53			X															X		X				X		X		
S100	1	01:59			X															X		X				X		X		
ICV01	1	02:05			X															X		X				X		X		
ICB01	1	02:11			X															X		X				X		X		
CRDL01	1	02:17			X															X		X				X		X		
ICSA01	1	02:23			X															X		X				X		X		
ICSAB01	1	02:29			X															X		X				X		X		
CCV01	1	02:35			X															X		X				X		X		
CCB01	1	02:41			X															X		X				X		X		
1201999349	2	02:46			X															X		X				X		X		
ZZZZZZ	20	02:52																												
1201999354	40	02:58			X															X		X				X		X		
CCV02	1	03:04			X															X		X				X		X		
CCB02	1	03:10			X															X		X				X		X		
243042001	2	03:16			X															X		X				X		X		
1201999350	2	03:22			X															X		X				X		X		
1201999352	2	03:28			X															X		X				X		X		
1201999353	2	03:34			X															X		X				X		X		
1201999351	10	03:40			X															X		X				X		X		
243042002	2	03:45			X															X		X				X		X		
CCV03	1	03:51			X															X		X				X		X		
CCB03	1	03:57			X															X		X				X		X		
243042003	2	04:04			X															X		X				X		X		
243042004	2	04:10			X															X		X				X		X		
243042005	2	04:16			X															X		X				X		X		
243042006	2	04:22			X															X		X				X		X		
243042007	2	04:28			X															X		X				X		X		
243042008	2	04:33			X															X		X				X		X		
243042009	2	04:39			X															X		X				X		X		
CCV04	1	04:45			X															X		X				X		X		
CCB04	1	04:51			X															X		X				X		X		

Metals
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Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: ICPMS6
Start Date: 06–JAN–10 **End Date:** 06–JAN–10

Client Sdg: 10–941
Method MS
Data File: 100105–4

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Li	Mg	Mn	Hg	Ni	K	Se	Si	Ag	Na	Tl	Ti	U	V	Zn
S0.0	1	03:03					X																							
S10	1	03:06					X																							
S100	1	03:09					X																							
ICV01	1	03:12					X																							
ICB01	1	03:15					X																							
CRDL01	1	03:18					X																							
ICSA01	1	03:21					X																							
ICSAB01	1	03:24					X																							
CCV01	1	03:27					X																							
CCB01	1	03:30					X																							
ZZZZZZ	2	03:34																												
ZZZZZZ	40	03:37																												
ZZZZZZ	2	03:41																												
ZZZZZZ	2	03:44																												
ZZZZZZ	2	03:47																												
ZZZZZZ	2	03:50																												
ZZZZZZ	10	03:53																												
CCV02	1	03:56					X																							
CCB02	1	03:59					X																							
ZZZZZZ	2	04:02																												
ZZZZZZ	2	04:05																												
ZZZZZZ	2	04:08																												
ZZZZZZ	2	04:11																												
CCV03	1	04:14					X																							
CCB03	1	04:17					X																							
1201999349	2	04:21					X																							
1201999354	40	04:24					X																							
243042001	2	04:27					X																							
1201999350	2	04:30					X																							
1201999352	2	04:33					X																							
1201999353	2	04:36					X																							
1201999351	10	04:39					X																							
243042002	2	04:42					X																							
CCV04	1	04:45					X																							
CCB04	1	04:48					X																							
243042003	2	04:51					X																							
243042004	2	04:54					X																							
243042005	2	04:57					X																							
243042006	2	05:00					X																							
243042007	2	05:03					X																							

Metals
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Analysis Run Log

Samp No.	D/F	Run Time																												
243042008	2	05:07					X																							
243042009	2	05:10					X																							
CCV05	1	05:13					X																							
CCB05	1	05:16					X																							

Metals
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Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: ICPMS6
Start Date: 06-JAN-10 **End Date:** 06-JAN-10

Client Sdg: 10-941
Method MS
Data File: 100105-5

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Li	Mg	Mn	Hg	Ni	K	Se	Si	Ag	Na	Tl	Ti	U	V	Zn
S0.0	1	05:19														X														
S10	1	05:22														X														
S100	1	05:25														X														
ICV01	1	05:28														X														
ICB01	1	05:31														X														
CRDL01	1	05:34														X														
ICSA01	1	05:37														X														
ICSAB01	1	05:40														X														
CCV01	1	05:43														X														
CCB01	1	05:46														X														
1201999349	2	05:50														X														
1201999354	20	05:53														X														
243042001	2	05:56														X														
1201999350	2	05:59														X														
1201999352	2	06:02														X														
1201999353	2	06:05														X														
1201999351	10	06:08														X														
243042002	2	06:11														X														
CCV02	1	06:14														X														
CCB02	1	06:17														X														
243042003	2	06:20														X														
243042004	2	06:23														X														
243042005	2	06:26														X														
243042006	2	06:29														X														
243042007	2	06:33														X														
243042008	2	06:36														X														
243042009	2	06:39														X														
CCV03	1	06:42														X														
CCB03	1	06:45														X														

Metals
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Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: OPTIMA3
Start Date: 29–DEC–09
End Date: 29–DEC–09
Client Sdg: 10–941
Method P
Data File: 122909A–2

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Li	Mg	Mn	Hg	Ni	K	Se	Si	Ag	Na	Tl	Ti	U	V	Zn
S0.0	1	08:35	X	X		X		X	X	X	X	X	X	X	X		X	X			X			X	X		X		X	X
S0.1	1	08:42		X		X		X	X		X	X	X		X			X			X			X			X		X	X
S0.5	1	08:48	X	X		X		X	X	X	X	X	X		X		X	X			X			X			X		X	X
SCAL	1	08:55	X	X		X		X	X	X	X	X	X	X	X		X	X			X			X	X		X		X	X
S10	1	09:02	X							X				X			X								X					
ICV01	1	09:08	X	X		X		X	X	X	X	X	X	X	X		X	X			X			X	X		X		X	X
ICB01	1	09:14	X	X		X		X	X	X	X	X	X	X	X		X	X			X			X	X		X		X	X
PQL01	1	09:21	X	X		X		X	X	X	X	X	X	X	X		X	X			X			X	X		X		X	X
ICSA01	1	09:28	X	X		X		X	X	X	X	X	X	X	X		X	X			X			X	X		X		X	X
ICSAB01	1	09:34	X	X		X		X	X	X	X	X	X	X	X		X	X			X			X	X		X		X	X
LR01	1	09:40	X	X		X		X	X	X	X	X	X	X	X		X	X			X			X	X		X		X	X
LR02	1	09:46	X	X		X		X	X	X	X	X	X	X	X		X	X			X			X	X		X		X	X
CCV01	1	09:52	X	X		X		X	X	X	X	X	X	X	X		X	X			X			X	X		X		X	X
CCB01	1	09:59	X	X		X		X	X	X	X	X	X	X	X		X	X			X			X	X		X		X	X
ZZZZZZ	1	10:18																												
ZZZZZZ	1	10:25																												
ZZZZZZ	1	10:32																												
ZZZZZZ	1	10:39																												
ZZZZZZ	1	10:46																												
ZZZZZZ	5	10:53																												
CCV02	1	11:00	X	X		X		X	X	X	X	X	X	X	X		X	X			X			X	X		X		X	X
CCB02	1	11:07	X	X		X		X	X	X	X	X	X	X	X		X	X			X			X	X		X		X	X
ZZZZZZ	1	11:15																												
ZZZZZZ	1	11:22																												
ZZZZZZ	1	11:30																												
ZZZZZZ	1	11:37																												
ZZZZZZ	1	11:44																												
ZZZZZZ	1	11:51																												
ZZZZZZ	1	11:58																												
ZZZZZZ	1	12:05																												
ZZZZZZ	5	12:12																												
CCV03	1	12:19	X	X		X		X	X	X	X	X	X	X	X		X	X			X			X	X		X		X	X
PQL02	1	12:26	X	X		X		X	X	X	X	X	X	X	X		X	X			X			X	X		X		X	X
CCB03	1	12:33	X	X		X		X	X	X	X	X	X	X	X		X	X			X			X	X		X		X	X
ZZZZZZ	1	12:40																												
ZZZZZZ	1	12:47																												
ZZZZZZ	1	12:53																												
ZZZZZZ	1	13:00																												
ZZZZZZ	1	13:07																												
ZZZZZZ	1	13:14																												

Metals
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Analysis Run Log

Samp No.	D/F	Run Time																											
ZZZZZZ	5	13:21																											
ZZZZZZ	1	13:28																											
CCV04	1	13:35	X	X		X		X	X	X	X	X	X	X	X		X	X			X			X	X		X		X	X
CCB04	1	13:42	X	X		X		X	X	X	X	X	X	X	X		X	X			X			X	X		X		X	X
CCV05	1	14:00	X	X		X		X	X	X	X	X	X	X	X		X	X			X			X	X		X		X	X
CCB05	1	14:07	X	X		X		X	X	X	X	X	X	X	X		X	X			X			X	X		X		X	X
1201999340	1	14:14	X	X		X		X	X	X	X	X	X	X	X		X	X			X			X	X		X		X	X
1201999345	1	14:21	X	X		X		X	X	X	X	X	X	X	X		X	X			X			X	X		X		X	X
243042001	1	14:27	X	X		X		X	X	X	X	X	X	X	X		X	X			X			X	X		X		X	X
1201999341	1	14:34	X	X		X		X	X	X	X	X	X	X	X		X	X			X			X	X		X		X	X
1201999343	1	14:41	X	X		X		X	X	X	X	X	X	X	X		X	X			X			X	X		X		X	X
1201999344	1	14:48	X	X		X		X	X	X	X	X	X	X	X		X	X			X			X	X		X		X	X
1201999342	5	14:54	X	X		X		X	X	X	X	X	X	X	X		X	X			X			X	X		X		X	X
243042002	1	15:01	X	X		X		X	X	X	X	X	X	X	X		X	X			X			X	X		X		X	X
243042003	1	15:08	X	X		X		X	X	X	X	X	X	X	X		X	X			X			X	X		X		X	X
CCV06	1	15:15	X	X		X		X	X	X	X	X	X	X	X		X	X			X			X	X		X		X	X
CCB06	1	15:22	X	X		X		X	X	X	X	X	X	X	X		X	X			X			X	X		X		X	X
243042004	1	15:29	X	X		X		X	X	X	X	X	X	X	X		X	X			X			X	X		X		X	X
243042005	1	15:36	X	X		X		X	X	X	X	X	X	X	X		X	X			X			X	X		X		X	X
243042006	1	15:43	X	X		X		X	X	X	X	X	X	X	X		X	X			X			X	X		X		X	X
243042007	1	15:50	X	X		X		X	X	X	X	X	X	X	X		X	X			X			X	X		X		X	X
243042008	1	15:57	X	X		X		X	X	X	X	X	X	X	X		X	X			X			X	X		X		X	X
243042009	1	16:04	X	X		X		X	X	X	X	X	X	X	X		X	X			X			X	X		X		X	X
ZZZZZZ	5	16:11																											
ZZZZZZ	5	16:18																											
CCV07	1	16:24	X	X		X		X	X	X	X	X	X	X	X		X	X			X			X	X		X		X	X
CCB07	1	16:31	X	X		X		X	X	X	X	X	X	X	X		X	X			X			X	X		X		X	X

Metals
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Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: MER536
Start Date: 05-JAN-10 **End Date:** 05-JAN-10

Client Sdg: 10-941
Method AV
Data File: 010510S1-6

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Li	Mg	Mn	Hg	Ni	K	Se	Si	Ag	Na	Tl	Ti	U	V	Zn
S0.0	1	09:38																	X											
S0.2	1	09:40																	X											
S0.5	1	09:42																	X											
S2.0	1	09:44																	X											
S5.0	1	09:46																	X											
S10	1	09:48																	X											
ICV01	1	09:50																	X											
ICB01	1	09:52																	X											
CRDL01	1	09:54																	X											
CCV01	1	09:56																	X											
CCB01	1	09:58																	X											
1202000228	1	10:00																	X											
1202000229	10	10:02																	X											
ZZZZZZ	1	10:04																												
ZZZZZZ	1	10:06																												
ZZZZZZ	1	10:08																												
ZZZZZZ	1	10:10																												
ZZZZZZ	1	10:12																												
ZZZZZZ	1	10:14																												
ZZZZZZ	1	10:16																												
ZZZZZZ	1	10:18																												
CCV02	1	10:20																	X											
CCB02	1	10:22																	X											
ZZZZZZ	1	10:24																												
243042001	1	10:26																	X											
1202000230	1	10:28																	X											
1202000231	1	10:30																	X											
1202000233	1	10:32																	X											
1202000232	5	10:34																	X											
243042002	1	10:36																	X											
243042003	1	10:38																	X											
243042004	1	10:40																	X											
243042005	1	10:42																	X											
CCV03	1	10:44																	X											
CCB03	1	10:46																	X											
243042006	1	10:48																	X											
243042007	1	10:50																	X											
243042008	1	10:52																	X											
243042009	1	10:53																	X											
ZZZZZZ	1	10:55																												

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time																										
ZZZZZZ	1	10:57																										
ZZZZZZ	1	10:59																										
ZZZZZZ	1	11:01																										
ZZZZZZ	1	11:03																										
ZZZZZZ	1	11:05																										
CCV04	1	11:07															X											
CCB04	1	11:09															X											

Metals
-14-
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: OPTIMA1
Start Date: 11-JAN-10 **End Date:** 11-JAN-10

Client Sdg: 10-941
Method P
Data File: 011110A-1

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Li	Mg	Mn	Hg	Ni	K	Se	Si	Ag	Na	Tl	Ti	U	V	Zn
S0.0	1	12:29																					X							
S0.1	1	12:33																					X							
S0.5	1	12:36																					X							
SCAL	1	12:39																					X							
S10	1	12:43																												
ICV01	1	12:45																					X							
ICB01	1	12:49																					X							
PQL01	1	12:53																					X							
ICSA01	1	12:56																					X							
ICSAB01	1	12:59																					X							
LR01	1	13:02																					X							
LR02	1	13:04																					X							
ZZZZZZ	1	13:08																												
ZZZZZZ	1	13:12																												
CCV01	1	13:18																					X							
CCB01	1	13:21																					X							
1202010888	1	13:26																					X							
1202010889	1	13:29																					X							
243042001	1	13:33																					X							
1201999341	1	13:37																					X							
1201999343	1	13:40																					X							
1201999344	1	13:44																					X							
1201999342	5	13:48																					X							
CCV02	1	13:51																					X							
CCB02	1	13:55																					X							
243042002	1	13:59																					X							
243042003	1	14:02																					X							
CCV03	1	14:29																					X							
CCB03	1	14:33																					X							
243042004	1	14:37																					X							
243042005	1	14:41																					X							
243042006	1	14:44																					X							
243042007	1	14:48																					X							
243042008	1	14:52																					X							
243042009	1	14:55																					X							
CCV04	1	14:59																					X							
CCB04	1	15:03																					X							

Standards

METALS
-10-
Instrument Detection Limits

SDG NO. 10-941

Contract: LANL01004 **Lab Code: GEL** **MDL Effective Date:** 01-JUL-09

ICP/MS	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
SOLID	Aluminum		15.0	50
	Antimony		0.5	3
	Arsenic		1.0	5
	Barium		0.5	2
	Beryllium		0.1	.5
	Boron		4.0	15
	Cadmium		0.1	1
	Calcium		33.0	100
	Chromium		1.0	3
	Cobalt		0.3	1
	Copper		0.33	1
	Iron		25.0	100
	Lead		0.5	2
	Lithium		2.0	10
	Magnesium		7.5	25
	Manganese		1.0	5
	Nickel		0.5	2
	Potassium		80.0	300
	Selenium		2.5	5
	Silver		0.2	1
	Sodium		80.0	250
	Thallium		0.3	1
	Titanium		2.0	10
	Uranium		0.066	.2
	Vanadium		2.0	10
	Zinc		2.0	10

METALS
-10-
Instrument Detection Limits

SDG NO. 10-941

Contract: LANL01004 **Lab Code: GEL** **MDL Effective Date:** 15-JUN-09

MERCURY	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
SOLID	Mercury		0.068	.2

METALS
-10-
Instrument Detection Limits

SDG NO. 10-941

Contract: LANL01004 **Lab Code: GEL** **MDL Effective Date:** 01-JUL-09

ICP	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
SOLID	Aluminum	396.153	68.0	200
	Antimony	206.836	3.3	10
	Arsenic	188.979	5.0	30
	Barium	233.527	1.0	5
	Beryllium	313.107	1.0	5
	Boron	249.677	10.0	50
	Cadmium	226.502	1.0	5
	Calcium	317.933	80.0	250
	Chromium	267.716	1.5	5
	Cobalt	228.616	1.5	5
	Copper	324.752	3.0	10
	Iron	238.204	80.0	250
	Lead	220.353	2.5	10
	Magnesium	279.077	85.0	300
	Manganese	257.61	2.0	10
	Nickel	231.604	1.5	5
	Potassium	766.49	64.0	250
	Selenium	196.026	5.0	30
	Silicon	251.611	15.0	100
	Silver	328.068	1.0	5
	Sodium	589.592	70.0	250
	Thallium	190.801	5.0	20
	Titanium	334.94	1.0	5
	Uranium	409.014	10.0	50
	Vanadium	292.402	1.0	5
	Zinc	213.857	3.3	10

METALS
-11-
Interelement Correction Factors

Lab Code: GEL **GEL Job No:** 10-941
Contract: LANL01004
Instrument: OPTIMA3 **Effective Dates:** 01-NOV-09
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Parmname	Wavelength	Aluminum	Antimony	Arsenic	Barium	Beryllium
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.02738	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	-0.44940	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	-0.22121	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	-0.33886	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	-0.13648	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	-0.05571	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.19671	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	-0.02739	0.00000	0.00000	0.00000	0.00000
Tin	189.927	-0.00058	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA3
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-941
Effective Dates: 01-NOV-09

Parmname	Wavelength	Boron	Cadmium	Chromium	Cobalt	Copper
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	24.5549	0.00000	0.00000
Arsenic	188.979	0.52529	0.00000	-0.67113	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	2.54031	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.38952	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	-31.5465	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	0.78023
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.63859	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	160.41
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	5.22870	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.35099	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	1.93161	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.39273	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	1.19810

METALS
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Interelement Correction Factors

Lab Code: GEL
GEL Job No: 10-941
Contract: LANL01004
Instrument: OPTIMA3
Effective Dates: 01-NOV-09
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Parmname	Wavelength	Iron	Lead	Magnesium	Manganese	Molybdenum
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	42.8126
Antimony	206.836	-0.01635	0.00000	0.00000	0.00000	-22.2146
Arsenic	188.979	-0.21271	0.00000	0.00000	0.00000	1.34645
Barium	233.527	-0.03709	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.13266	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.09998	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	-0.01788	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.01425	0.00000	0.00000	0.00000	-2.64232
Copper	324.752	-0.05101	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.09069	0.00000	0.00000	0.00000	-2.44485
Magnesium	279.077	0.85543	0.00000	0.00000	0.00000	-20.2401
Manganese	257.61	-0.09972	0.00000	0.01862	0.00000	0.00000
Molybdenum	202.031	-0.07094	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.80633	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	-0.03176	0.00000	0.01823	12.4291	-3.60863
Selenium	196.026	-3.00009	0.00000	0.00000	0.00000	-3.17982
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	17.4444
Silver	328.068	-0.31825	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	-5.85948	0.00000
Tin	189.927	-0.01337	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.12581	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.15211	0.00000	-0.02256	0.00000	-14.2921
Zinc	213.857	0.09548	0.00000	0.03423	0.00000	0.00000

METALS
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Interelement Correction Factors

Lab Code: GEL
GEL Job No: 10-941
Contract: LANL01004
Instrument: OPTIMA3
Effective Dates: 01-NOV-09
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Parmname	Wavelength	Nickel	Phosphorous	Potassium	Selenium	Silicon
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	-0.64279	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	0.44040	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.33191	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	6.38465	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL **GEL Job No:** 10-941
Contract: LANL01004
Instrument: OPTIMA3 **Effective Dates:** 01-NOV-09
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Parmname	Wavelength	Silver	Strontium	Sulfur	Thallium	Tin
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	0.00000	-17.4077
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	-13.8713
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	3.10491
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA3
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-941
Effective Dates: 01-NOV-09

Parmname	Wavelength	Titanium	Uranium	Vanadium	Zinc
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	2.73145	0.00000	-2.31857	0.00000
Arsenic	188.979	-8.38419	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	-2.24883	0.00000
Beryllium	313.107	-1.96555	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.32181	-1.76281	0.00000
Cobalt	228.616	2.12623	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.85359	-3.92851	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	-7.67419	0.00000	2.18873	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.44145	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	1.10141	-1.94183	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
GEL Job No: 10-941
Contract: LANL01004
Instrument: OPTIMA1
Effective Dates: 01-NOV-09
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Parmname	Wavelength	Aluminum	Antimony	Arsenic	Barium	Beryllium
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	-0.08714	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	-0.36980	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	-0.02864	0.00000	0.00000	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA1
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-941
Effective Dates: 01-NOV-09

Parmname	Wavelength	Boron	Cadmium	Chromium	Cobalt	Copper
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	4.75140	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	-33.0980	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	1.36057
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.03970	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	122.96
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	4.07230	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	1.45160

METALS
-11-
Interelement Correction Factors

Lab Code: GEL **GEL Job No:** 10-941
Contract: LANL01004
Instrument: OPTIMA1 **Effective Dates:** 01-NOV-09
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Parmname	Wavelength	Iron	Lead	Magnesium	Manganese	Molybdenum
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	38.0301
Antimony	206.836	0.00000	0.00000	0.00000	0.00000	1.47380
Arsenic	188.979	-0.82061	0.00000	0.00000	0.00000	1.83900
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.31446	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.07749	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	-2.33110
Copper	324.752	-0.24488	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.01248	0.00000	0.00000	0.00000	-2.95230
Magnesium	279.077	1.47510	0.00000	0.00000	0.00000	-24.9658
Manganese	257.61	-0.12666	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	-0.03930	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	1.17810	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	-0.61937	0.00000	0.41160	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	17.0660
Silver	328.068	-0.07890	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.14830	0.00000	0.14260	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	-4.63400	0.00000
Tin	189.927	-0.09214	0.00000	-0.16050	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.18670	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	-0.08158	0.00000	0.00000	0.00000	-6.97050
Zinc	213.857	0.06940	0.00000	0.02727	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA1
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-941
Effective Dates: 01-NOV-09

Parmname	Wavelength	Nickel	Phosphorous	Selenium	Silicon	Silver
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	-1.09390	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	5.19130	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA1
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-941
Effective Dates: 01-NOV-09

Parmname	Wavelength	Sulfur	Thallium	Tin	Titanium	Uranium
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	-3.74360	-0.55870
Arsenic	188.979	0.00000	0.00000	0.00000	-2.71110	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.37024	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	-0.71290
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	2.08900	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	0.84100
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	-21.8313	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	38.5869	36.0710	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	-7.24690	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	-1.61770
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA1
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-941
Effective Dates: 01-NOV-09

Parmname	Wavelength	Vanadium	Zinc
Aluminum	396.153	0.00000	0.00000
Antimony	206.836	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000
Barium	233.527	-2.10080	0.00000
Beryllium	313.107	0.00000	0.00000
Boron	249.677	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000
Chromium	267.716	-2.34600	0.00000
Cobalt	228.616	0.00000	0.00000
Copper	324.752	0.00000	0.00000
Iron	238.204	0.00000	0.00000
Lead	220.353	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000
Manganese	257.61	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000
Nickel	231.604	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000
Selenium	196.026	0.00000	0.00000
Silicon	251.611	0.00000	0.00000
Silver	328.068	-6.85200	0.00000
Sulfur	181.975	0.00000	0.00000
Thallium	190.801	0.00000	0.00000
Tin	189.927	0.00000	0.00000
Titanium	334.94	0.00000	0.00000
Uranium	409.014	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000
Zinc	213.857	0.00000	0.00000

METALS
-12-
Linear Ranges

SDG NO. 10-941

Contract: LANL01004 **Lab Code: GEL**

Instrument ID ICPMS6

Analyte	Integration Time (msec)	LDR	Units	Effective Date
Aluminum	1	50000	ug/L	01-NOV-09
Antimony	1000	250	ug/L	01-NOV-09
Arsenic	1000	1000	ug/L	01-NOV-09
Barium	1000	1000	ug/L	01-NOV-09
Beryllium	1000	1000	ug/L	01-NOV-09
Boron	1000	200	ug/L	01-NOV-09
Cadmium	1000	1000	ug/L	01-NOV-09
Calcium	500	50000	ug/L	01-NOV-09
Chromium	1000	1000	ug/L	01-NOV-09
Cobalt	1000	1000	ug/L	01-NOV-09
Copper	1000	1000	ug/L	01-NOV-09
Iron	500	50000	ug/L	01-NOV-09
Lead	1000	5000	ug/L	01-NOV-09
Lithium	1000	1000	ug/L	01-NOV-09
Magnesium	1	50000	ug/L	01-NOV-09
Manganese	1000	1000	ug/L	01-NOV-09
Nickel	1000	1000	ug/L	01-NOV-09
Potassium	1	50000	ug/L	01-NOV-09
Selenium	1000	500	ug/L	01-NOV-09
Silver	1000	250	ug/L	01-NOV-09
Sodium	1	50000	ug/L	01-NOV-09
Thallium	1000	500	ug/L	01-NOV-09
Titanium	1000	100	ug/L	01-NOV-09
Uranium	1000	5000	ug/L	01-NOV-09
Vanadium	1000	100	ug/L	01-NOV-09
Zinc	1000	2500	ug/L	01-NOV-09

METALS
–12–
Linear Ranges

SDG NO. 10–941

Contract: LANL01004 **Lab Code: GEL**

Instrument ID OPTIMA3

Analyte	Integration Time (sec)	LDR	Units	Effective Date
Aluminum	20	500000	ug/L	01–NOV–09
Antimony	20	10000	ug/L	01–NOV–09
Arsenic	20	10000	ug/L	01–NOV–09
Barium	20	15000	ug/L	01–NOV–09
Beryllium	20	3000	ug/L	01–NOV–09
Boron	20	5000	ug/L	01–NOV–09
Cadmium	20	10000	ug/L	01–NOV–09
Calcium	20	500000	ug/L	01–NOV–09
Chromium	20	25000	ug/L	01–NOV–09
Cobalt	20	10000	ug/L	01–NOV–09
Copper	20	20000	ug/L	01–NOV–09
Iron	20	500000	ug/L	01–NOV–09
Lead	20	25000	ug/L	01–NOV–09
Magnesium	20	500000	ug/L	01–NOV–09
Manganese	20	10000	ug/L	01–NOV–09
Nickel	20	10000	ug/L	01–NOV–09
Potassium	20	300000	ug/L	01–NOV–09
Selenium	20	10000	ug/L	01–NOV–09
Silicon	20	50000	ug/L	01–NOV–09
Silver	20	1000	ug/L	01–NOV–09
Sodium	20	500000	ug/L	01–NOV–09
Thallium	20	10000	ug/L	01–NOV–09
Titanium	20	10000	ug/L	01–NOV–09
Uranium	20	15000	ug/L	01–NOV–09
Vanadium	20	10000	ug/L	01–NOV–09
Zinc	20	15000	ug/L	01–NOV–09

METALS
–12–
Linear Ranges

SDG NO. 10–941

Contract: LANL01004 **Lab Code: GEL**

Instrument ID OPTIMA1

Analyte	Integration Time (sec)	LDR	Units	Effective Date
Aluminum	20	500000	ug/L	01–NOV–09
Antimony	20	10000	ug/L	01–NOV–09
Arsenic	20	10000	ug/L	01–NOV–09
Barium	20	15000	ug/L	01–NOV–09
Beryllium	20	3000	ug/L	01–NOV–09
Boron	20	5000	ug/L	01–NOV–09
Cadmium	20	10000	ug/L	01–NOV–09
Calcium	20	500000	ug/L	01–NOV–09
Chromium	20	25000	ug/L	01–NOV–09
Cobalt	20	10000	ug/L	01–NOV–09
Copper	20	20000	ug/L	01–NOV–09
Iron	20	500000	ug/L	01–NOV–09
Lead	20	25000	ug/L	01–NOV–09
Magnesium	20	500000	ug/L	01–NOV–09
Manganese	20	10000	ug/L	01–NOV–09
Nickel	20	10000	ug/L	01–NOV–09
Potassium	20	300000	ug/L	01–NOV–09
Selenium	20	10000	ug/L	01–NOV–09
Silicon	20	50000	ug/L	01–NOV–09
Silver	20	1000	ug/L	01–NOV–09
Sodium	20	500000	ug/L	01–NOV–09
Thallium	20	10000	ug/L	01–NOV–09
Titanium	20	10000	ug/L	01–NOV–09
Uranium	20	15000	ug/L	01–NOV–09
Vanadium	20	10000	ug/L	01–NOV–09
Zinc	20	15000	ug/L	01–NOV–09

Raw Data

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Analysis Begun

Start Time: 1/11/2010 12:29:51 **Plasma On Time:** 1/11/2010 07:03:49
Logged In Analyst: optima **Technique:** ICP Continuous
Spectrometer Model: Optima 4300 DV, S/N 077N1030502 **Autosampler Model:** AS-93plus

Sample Information File: C:\pe\optima1\Sample Information\011110.sif
Batch ID:
Results Data Set: 011110A
Results Library: c:\pe\optima1\Results\Results.mdb

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Method Loaded
Method Name: Gen Eng fast_new Si **Method Last Saved:** 1/11/2010 11:38:08
IEC File: 101509.iec **MSF File:**
Method Description:

Analyte	Calibration Equation	Processing	View	Internal Standard	IEC
Ag 328.068	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Al 396.153Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
As 188.979	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
B 249.677	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ba 233.527	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Be 313.107	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ca 317.933Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
Cd 226.502	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Co 228.616	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cr 267.716	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cu 324.752	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Fe 238.204 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
K 766.490 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
Mg 279.077 IEC	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
Mn 257.610	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Mo 202.031	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Na 589.592 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
Ni 231.604	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
P 214.914	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Pb 220.353	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
S 181.975 Axial	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sb 206.836	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sc 361.383	Lin Thru 0	Peak Area	Axial	n/a	n/a
Sc RADIAL	Lin, Calc Int	Peak Area	Radial	n/a	n/a
Se 196.026	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
SiO2	Lin Thru 0	Peak Area	Axial	Sc 361.383	No
Si 251.611	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sn 189.927	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sr 421.552	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
Ti 334.940	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Tl 190.801	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
U 409.014	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
V 292.402	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y 371.029	Lin, Calc Int	Peak Area	Axial	n/a	n/a
Zn 213.857	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes

==========

Sequence No.: 1 **Autosampler Location:** 8
Sample ID: S0 **Date Collected:** 1/11/2010 12:29:54
Analyst: **Data Type:** Original
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: S0

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	55413.8	55413.8	99.7	%	12:30:27
1	Al 396.153Radial†	35.6	35.8	[0.00]	µg/L	12:30:27
1	Ca 317.933Radial†	204.2	204.9	[0.00]	µg/L	12:30:48
1	Fe 238.204 Radial†	13.1	13.1	[0.00]	µg/L	12:30:48

1	K 766.490 Radial†	522.6	524.3	[0.00]	µg/L	12:30:27
1	Mg 279.077 IEC†	7.5	7.5	[0.00]	µg/L	12:30:48
1	Na 589.592 Radial†	398.3	399.7	[0.00]	µg/L	12:30:27
1	Sr 421.552†	-51.6	-51.8	[0.00]	µg/L	12:30:27
1	Sc 361.383	1865772.7	1865772.7	99.861	%	12:31:49
1	Y 371.029	1151577.3	1151577.3	100.01	%	12:31:49
1	Ag 328.068†	-183.7	-184.0	[0.00]	µg/L	12:31:55
1	As 188.979†	-3.5	-3.5	[0.00]	µg/L	12:32:15
1	B 249.677†	403.0	403.5	[0.00]	µg/L	12:31:55
1	Ba 233.527†	-50.9	-51.0	[0.00]	µg/L	12:32:15
1	Be 313.107†	4222.1	4228.0	[0.00]	µg/L	12:31:49
1	Cd 226.502†	-126.2	-126.4	[0.00]	µg/L	12:32:15
1	Co 228.616†	8.7	8.7	[0.00]	µg/L	12:32:15
1	Cr 267.716†	-132.6	-132.7	[0.00]	µg/L	12:31:55
1	Cu 324.752†	5955.5	5963.8	[0.00]	µg/L	12:31:55
1	Mn 257.610†	-239.7	-240.0	[0.00]	µg/L	12:31:55
1	Mo 202.031†	23.4	23.4	[0.00]	µg/L	12:32:15
1	Ni 231.604†	331.8	332.2	[0.00]	µg/L	12:32:15
1	P 214.914†	272.6	273.0	[0.00]	µg/L	12:32:15
1	Pb 220.353†	75.7	75.8	[0.00]	µg/L	12:32:15
1	S 181.975 Axial†	37.5	37.5	[0.00]	µg/L	12:32:15
1	Sb 206.836†	18.7	18.8	[0.00]	µg/L	12:32:15
1	Se 196.026†	15.6	15.7	[0.00]	µg/L	12:32:15
1	SiO2†	3635.4	3640.4	[0.00]	µg/L	12:31:55
1	Si 251.611†	353.0	353.5	[0.00]	µg/L	12:32:15
1	Sn 189.927†	31.9	31.9	[0.00]	µg/L	12:32:15
1	Ti 334.940†	569.6	570.4	[0.00]	µg/L	12:31:55
1	Tl 190.801†	-28.1	-28.2	[0.00]	µg/L	12:32:15
1	U 409.014†	-57.9	-58.0	[0.00]	µg/L	12:31:55
1	V 292.402†	-258.0	-258.4	[0.00]	µg/L	12:31:55
1	Zn 213.857†	652.0	652.9	[0.00]	µg/L	12:32:15
2	Sc RADIAL	55697.1	55697.1	100	%	12:30:53
2	Al 396.153Radial†	28.3	28.2	[0.00]	µg/L	12:30:53
2	Ca 317.933Radial†	197.7	197.4	[0.00]	µg/L	12:31:13
2	Fe 238.204 Radial†	13.3	13.3	[0.00]	µg/L	12:31:13
2	K 766.490 Radial†	576.6	575.6	[0.00]	µg/L	12:30:53
2	Mg 279.077 IEC†	10.4	10.3	[0.00]	µg/L	12:31:13
2	Na 589.592 Radial†	373.1	372.4	[0.00]	µg/L	12:30:53
2	Sr 421.552†	-42.2	-42.1	[0.00]	µg/L	12:30:53
2	Sc 361.383	1866258.5	1866258.5	99.887	%	12:32:21
2	Y 371.029	1149883.5	1149883.5	99.861	%	12:32:21
2	Ag 328.068†	-216.6	-216.8	[0.00]	µg/L	12:32:27
2	As 188.979†	-3.5	-3.5	[0.00]	µg/L	12:32:47
2	B 249.677†	382.0	382.4	[0.00]	µg/L	12:32:27
2	Ba 233.527†	-46.6	-46.6	[0.00]	µg/L	12:32:47
2	Be 313.107†	4161.1	4165.8	[0.00]	µg/L	12:32:21
2	Cd 226.502†	-134.5	-134.6	[0.00]	µg/L	12:32:47
2	Co 228.616†	11.3	11.3	[0.00]	µg/L	12:32:47
2	Cr 267.716†	-138.9	-139.1	[0.00]	µg/L	12:32:27
2	Cu 324.752†	5936.4	5943.1	[0.00]	µg/L	12:32:27
2	Mn 257.610†	-252.1	-252.4	[0.00]	µg/L	12:32:27
2	Mo 202.031†	14.8	14.8	[0.00]	µg/L	12:32:47
2	Ni 231.604†	325.0	325.4	[0.00]	µg/L	12:32:47
2	P 214.914†	255.4	255.7	[0.00]	µg/L	12:32:47
2	Pb 220.353†	82.1	82.2	[0.00]	µg/L	12:32:47
2	S 181.975 Axial†	28.5	28.6	[0.00]	µg/L	12:32:47
2	Sb 206.836†	29.0	29.0	[0.00]	µg/L	12:32:47
2	Se 196.026†	10.9	10.9	[0.00]	µg/L	12:32:47
2	SiO2†	3597.3	3601.4	[0.00]	µg/L	12:32:27
2	Si 251.611†	351.8	352.2	[0.00]	µg/L	12:32:47
2	Sn 189.927†	32.5	32.5	[0.00]	µg/L	12:32:47
2	Ti 334.940†	580.6	581.3	[0.00]	µg/L	12:32:27
2	Tl 190.801†	-26.0	-26.0	[0.00]	µg/L	12:32:47
2	U 409.014†	48.6	48.7	[0.00]	µg/L	12:32:27
2	V 292.402†	-279.0	-279.4	[0.00]	µg/L	12:32:27
2	Zn 213.857†	659.4	660.2	[0.00]	µg/L	12:32:47
3	Sc RADIAL	55678.8	55678.8	100	%	12:31:19
3	Al 396.153Radial†	16.2	16.1	[0.00]	µg/L	12:31:19
3	Ca 317.933Radial†	203.4	203.1	[0.00]	µg/L	12:31:39
3	Fe 238.204 Radial†	13.3	13.3	[0.00]	µg/L	12:31:39
3	K 766.490 Radial†	468.9	468.2	[0.00]	µg/L	12:31:19

3	Mg 279.077 IEC†	7.9	7.9	[0.00]	µg/L	12:31:39
3	Na 589.592 Radial†	421.5	420.8	[0.00]	µg/L	12:31:19
3	Sr 421.552†	-20.3	-20.2	[0.00]	µg/L	12:31:19
3	Sc 361.383	1873062.1	1873062.1	100.25	%	12:32:53
3	Y 371.029	1152982.1	1152982.1	100.13	%	12:32:53
3	Ag 328.068†	-228.4	-227.8	[0.00]	µg/L	12:32:59
3	As 188.979†	-5.8	-5.8	[0.00]	µg/L	12:33:19
3	B 249.677†	393.6	392.6	[0.00]	µg/L	12:32:59
3	Ba 233.527†	-39.8	-39.7	[0.00]	µg/L	12:33:19
3	Be 313.107†	4053.6	4043.4	[0.00]	µg/L	12:32:53
3	Cd 226.502†	-136.6	-136.3	[0.00]	µg/L	12:33:19
3	Co 228.616†	14.8	14.8	[0.00]	µg/L	12:33:19
3	Cr 267.716†	-152.0	-151.6	[0.00]	µg/L	12:32:59
3	Cu 324.752†	5910.3	5895.5	[0.00]	µg/L	12:32:59
3	Mn 257.610†	-262.4	-261.7	[0.00]	µg/L	12:32:59
3	Mo 202.031†	22.6	22.5	[0.00]	µg/L	12:33:19
3	Ni 231.604†	335.7	334.8	[0.00]	µg/L	12:33:19
3	P 214.914†	264.9	264.3	[0.00]	µg/L	12:33:19
3	Pb 220.353†	85.5	85.3	[0.00]	µg/L	12:33:19
3	S 181.975 Axial†	33.9	33.8	[0.00]	µg/L	12:33:19
3	Sb 206.836†	25.8	25.7	[0.00]	µg/L	12:33:19
3	Se 196.026†	15.3	15.3	[0.00]	µg/L	12:33:19
3	SiO2†	3637.5	3628.3	[0.00]	µg/L	12:32:59
3	Si 251.611†	344.7	343.8	[0.00]	µg/L	12:33:19
3	Sn 189.927†	32.9	32.8	[0.00]	µg/L	12:33:19
3	Ti 334.940†	640.0	638.3	[0.00]	µg/L	12:32:59
3	Tl 190.801†	-26.4	-26.4	[0.00]	µg/L	12:33:19
3	U 409.014†	109.8	109.5	[0.00]	µg/L	12:32:59
3	V 292.402†	-285.2	-284.5	[0.00]	µg/L	12:32:59
3	Zn 213.857†	647.4	645.8	[0.00]	µg/L	12:33:19

Mean Data: S0

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1868364.4	4075.55	0.22%	100.00	%
Sc RADIAL	55596.6	158.54	0.29%	100	%
Y 371.029	1151481.0	1551.56	0.13%	100.00	%
Ag 328.068†	-209.5	22.82	10.89%	[0.00]	µg/L
Al 396.153Radial†	26.7	9.89	37.05%	[0.00]	µg/L
As 188.979†	-4.3	1.35	31.65%	[0.00]	µg/L
B 249.677†	392.8	10.56	2.69%	[0.00]	µg/L
Ba 233.527†	-45.8	5.70	12.44%	[0.00]	µg/L
Be 313.107†	4145.7	93.87	2.26%	[0.00]	µg/L
Ca 317.933Radial†	201.8	3.94	1.95%	[0.00]	µg/L
Cd 226.502†	-132.4	5.30	4.00%	[0.00]	µg/L
Co 228.616†	11.6	3.06	26.34%	[0.00]	µg/L
Cr 267.716†	-141.2	9.62	6.81%	[0.00]	µg/L
Cu 324.752†	5934.1	35.04	0.59%	[0.00]	µg/L
Fe 238.204 Radial†	13.2	0.10	0.79%	[0.00]	µg/L
K 766.490 Radial†	522.7	53.70	10.27%	[0.00]	µg/L
Mg 279.077 IEC†	8.6	1.54	17.92%	[0.00]	µg/L
Mn 257.610†	-251.4	10.89	4.33%	[0.00]	µg/L
Mo 202.031†	20.2	4.75	23.49%	[0.00]	µg/L
Na 589.592 Radial†	397.6	24.28	6.11%	[0.00]	µg/L
Ni 231.604†	330.8	4.88	1.47%	[0.00]	µg/L
P 214.914†	264.3	8.64	3.27%	[0.00]	µg/L
Pb 220.353†	81.1	4.81	5.94%	[0.00]	µg/L
S 181.975 Axial†	33.3	4.51	13.54%	[0.00]	µg/L
Sb 206.836†	24.5	5.25	21.42%	[0.00]	µg/L
Se 196.026†	14.0	2.63	18.86%	[0.00]	µg/L
SiO2†	3623.4	20.00	0.55%	[0.00]	µg/L
Si 251.611†	349.8	5.24	1.50%	[0.00]	µg/L
Sn 189.927†	32.4	0.45	1.39%	[0.00]	µg/L
Sr 421.552†	-38.0	16.16	42.50%	[0.00]	µg/L
Ti 334.940†	596.7	36.50	6.12%	[0.00]	µg/L
Tl 190.801†	-26.9	1.15	4.26%	[0.00]	µg/L
U 409.014†	33.4	84.77	253.86%	[0.00]	µg/L
V 292.402†	-274.1	13.83	5.04%	[0.00]	µg/L
Zn 213.857†	652.9	7.18	1.10%	[0.00]	µg/L

Sequence No.: 2
Sample ID: S0.1
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 2
Date Collected: 1/11/2010 12:33:28
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	56802.7	56802.7	102	%	12:34:03
1	K 766.490 Radial†	2015.9	1450.4	[1000]	µg/L	12:34:03
1	Sr 421.552†	7878.7	7749.5	[100]	µg/L	12:34:03
1	Sc 361.383	1879211.6	1879211.6	100.58	%	12:34:24
1	Y 371.029	1157887.7	1157887.7	100.56	%	12:34:24
1	Ag 328.068†	10797.0	10944.2	[100]	µg/L	12:34:30
1	As 188.979†	60.3	64.2	[100]	µg/L	12:34:50
1	B 249.677†	3063.2	2652.6	[100]	µg/L	12:34:30
1	Ba 233.527†	3738.8	3763.0	[100]	µg/L	12:34:30
1	Be 313.107†	166955.8	161846.3	[100]	µg/L	12:34:24
1	Cd 226.502†	3769.6	3880.3	[100]	µg/L	12:34:30
1	Co 228.616†	2083.4	2059.7	[100]	µg/L	12:34:50
1	Cr 267.716†	4542.4	4657.3	[100]	µg/L	12:34:30
1	Cu 324.752†	20208.7	14157.9	[100]	µg/L	12:34:30
1	Mn 257.610†	30245.3	30322.1	[100]	µg/L	12:34:30
1	Mo 202.031†	887.4	862.0	[100]	µg/L	12:34:50
1	Ni 231.604†	2202.9	1859.4	[100]	µg/L	12:34:30
1	P 214.914†	586.1	318.4	[500]	µg/L	12:34:50
1	Pb 220.353†	473.6	389.8	[100]	µg/L	12:34:50
1	S 181.975 Axial†	88.8	54.9	[200]	µg/L	12:34:50
1	Sb 206.836†	134.5	109.2	[100]	µg/L	12:34:50
1	Se 196.026†	115.7	101.1	[100]	µg/L	12:34:50
1	SiO2†	10211.1	6528.8	[1069.5]	µg/L	12:34:30
1	Si 251.611†	8105.8	7709.2	[500]	µg/L	12:34:30
1	Sn 189.927†	234.7	201.0	[100]	µg/L	12:34:50
1	Ti 334.940†	42067.7	41228.2	[100]	µg/L	12:34:30
1	Tl 190.801†	37.6	64.3	[100]	µg/L	12:34:50
1	U 409.014†	1004.7	965.5	[100]	µg/L	12:34:30
1	V 292.402†	8290.9	8517.1	[100]	µg/L	12:34:30
1	Zn 213.857†	4829.8	4149.0	[100]	µg/L	12:34:30
2	Sc RADIAL	56370.4	56370.4	101	%	12:34:09
2	K 766.490 Radial†	1975.6	1425.7	[1000]	µg/L	12:34:09
2	Sr 421.552†	7814.9	7745.7	[100]	µg/L	12:34:09
2	Sc 361.383	1887689.9	1887689.9	101.03	%	12:34:56
2	Y 371.029	1162739.1	1162739.1	100.98	%	12:34:56
2	Ag 328.068†	10748.6	10848.1	[100]	µg/L	12:35:02
2	As 188.979†	55.4	59.1	[100]	µg/L	12:35:22
2	B 249.677†	3091.4	2666.9	[100]	µg/L	12:35:02
2	Ba 233.527†	3748.8	3756.2	[100]	µg/L	12:35:02
2	Be 313.107†	167933.2	162068.2	[100]	µg/L	12:34:56
2	Cd 226.502†	3768.3	3862.2	[100]	µg/L	12:35:02
2	Co 228.616†	2085.7	2052.7	[100]	µg/L	12:35:22
2	Cr 267.716†	4467.4	4562.9	[100]	µg/L	12:35:02
2	Cu 324.752†	20110.4	13970.4	[100]	µg/L	12:35:02
2	Mn 257.610†	30121.9	30065.0	[100]	µg/L	12:35:02
2	Mo 202.031†	895.0	865.6	[100]	µg/L	12:35:22
2	Ni 231.604†	2179.7	1826.5	[100]	µg/L	12:35:02
2	P 214.914†	595.6	325.2	[500]	µg/L	12:35:22
2	Pb 220.353†	469.8	383.9	[100]	µg/L	12:35:22
2	S 181.975 Axial†	91.6	57.3	[200]	µg/L	12:35:22
2	Sb 206.836†	142.0	116.0	[100]	µg/L	12:35:22
2	Se 196.026†	111.1	96.0	[100]	µg/L	12:35:22
2	SiO2†	10163.4	6436.0	[1069.5]	µg/L	12:35:02
2	Si 251.611†	8079.9	7647.3	[500]	µg/L	12:35:02
2	Sn 189.927†	234.9	200.0	[100]	µg/L	12:35:22
2	Ti 334.940†	41985.5	40959.0	[100]	µg/L	12:35:02
2	Tl 190.801†	32.2	58.7	[100]	µg/L	12:35:22
2	U 409.014†	1066.8	1022.5	[100]	µg/L	12:35:02
2	V 292.402†	8259.2	8448.7	[100]	µg/L	12:35:02

2	Zn 213.857†	4807.5	4105.4	[100]	µg/L	12:35:02
3	Sc RADIAL	56668.8	56668.8	102	%	12:34:14
3	K 766.490 Radial†	1938.7	1379.3	[1000]	µg/L	12:34:14
3	Sr 421.552†	7821.0	7711.1	[100]	µg/L	12:34:14
3	Sc 361.383	1885561.6	1885561.6	100.92	%	12:35:28
3	Y 371.029	1161443.0	1161443.0	100.87	%	12:35:28
3	Ag 328.068†	10754.2	10865.7	[100]	µg/L	12:35:33
3	As 188.979†	60.0	63.7	[100]	µg/L	12:35:54
3	B 249.677†	3040.6	2620.1	[100]	µg/L	12:35:33
3	Ba 233.527†	3739.2	3750.8	[100]	µg/L	12:35:33
3	Be 313.107†	167123.8	161453.8	[100]	µg/L	12:35:28
3	Cd 226.502†	3736.8	3835.2	[100]	µg/L	12:35:33
3	Co 228.616†	2083.2	2052.6	[100]	µg/L	12:35:54
3	Cr 267.716†	4482.4	4582.7	[100]	µg/L	12:35:33
3	Cu 324.752†	20112.7	13995.1	[100]	µg/L	12:35:33
3	Mn 257.610†	30062.3	30039.5	[100]	µg/L	12:35:33
3	Mo 202.031†	890.0	861.6	[100]	µg/L	12:35:54
3	Ni 231.604†	2199.8	1849.0	[100]	µg/L	12:35:33
3	P 214.914†	585.9	316.2	[500]	µg/L	12:35:54
3	Pb 220.353†	470.6	385.2	[100]	µg/L	12:35:54
3	S 181.975 Axial†	93.1	59.0	[200]	µg/L	12:35:54
3	Sb 206.836†	137.0	111.2	[100]	µg/L	12:35:54
3	Se 196.026†	114.9	99.9	[100]	µg/L	12:35:54
3	SiO2†	10130.8	6415.0	[1069.5]	µg/L	12:35:33
3	Si 251.611†	8092.0	7668.4	[500]	µg/L	12:35:33
3	Sn 189.927†	232.4	197.8	[100]	µg/L	12:35:54
3	Ti 334.940†	41817.5	40839.4	[100]	µg/L	12:35:33
3	Tl 190.801†	32.8	59.4	[100]	µg/L	12:35:54
3	U 409.014†	1038.9	996.1	[100]	µg/L	12:35:33
3	V 292.402†	8219.0	8418.1	[100]	µg/L	12:35:33
3	Zn 213.857†	4797.8	4101.1	[100]	µg/L	12:35:33

Mean Data: S0.1

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1884154.4	4410.84	0.23%	100.85	%
Sc RADIAL	56613.9	221.33	0.39%	102	%
Y 371.029	1160689.9	2511.85	0.22%	100.80	%
Ag 328.068†	10886.0	51.18	0.47%	[100]	µg/L
As 188.979†	62.3	2.83	4.54%	[100]	µg/L
B 249.677†	2646.5	24.01	0.91%	[100]	µg/L
Ba 233.527†	3756.7	6.08	0.16%	[100]	µg/L
Be 313.107†	161789.5	311.12	0.19%	[100]	µg/L
Cd 226.502†	3859.2	22.71	0.59%	[100]	µg/L
Co 228.616†	2055.0	4.07	0.20%	[100]	µg/L
Cr 267.716†	4601.0	49.82	1.08%	[100]	µg/L
Cu 324.752†	14041.2	101.89	0.73%	[100]	µg/L
K 766.490 Radial†	1418.5	36.11	2.55%	[1000]	µg/L
Mn 257.610†	30142.2	156.30	0.52%	[100]	µg/L
Mo 202.031†	863.1	2.16	0.25%	[100]	µg/L
Ni 231.604†	1845.0	16.77	0.91%	[100]	µg/L
P 214.914†	320.0	4.68	1.46%	[500]	µg/L
Pb 220.353†	386.3	3.09	0.80%	[100]	µg/L
S 181.975 Axial†	57.1	2.03	3.56%	[200]	µg/L
Sb 206.836†	112.1	3.50	3.12%	[100]	µg/L
Se 196.026†	99.0	2.63	2.66%	[100]	µg/L
SiO2†	6459.9	60.53	0.94%	[1069.5]	µg/L
Si 251.611†	7675.0	31.44	0.41%	[500]	µg/L
Sn 189.927†	199.6	1.61	0.81%	[100]	µg/L
Sr 421.552†	7735.4	21.17	0.27%	[100]	µg/L
Ti 334.940†	41008.9	199.15	0.49%	[100]	µg/L
Tl 190.801†	60.8	3.01	4.95%	[100]	µg/L
U 409.014†	994.7	28.53	2.87%	[100]	µg/L
V 292.402†	8461.3	50.69	0.60%	[100]	µg/L
Zn 213.857†	4118.5	26.50	0.64%	[100]	µg/L

Sequence No.: 3
Sample ID: S0.5
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 3
Date Collected: 1/11/2010 12:36:03
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	56040.3	56040.3	101	%	12:36:36
1	Al 396.153Radial†	6911.3	6829.8	[5000]	µg/L	12:36:36
1	Ca 317.933Radial†	5674.3	5427.5	[5000]	µg/L	12:36:56
1	K 766.490 Radial†	7958.7	7373.0	[5000]	µg/L	12:36:36
1	Mg 279.077 IEC†	418.5	406.6	[5000]	µg/L	12:36:56
1	Sr 421.552†	38534.9	38267.8	[500]	µg/L	12:36:36
1	Sc 361.383	1899437.1	1899437.1	101.66	%	12:38:00
1	Y 371.029	1168993.8	1168993.8	101.52	%	12:38:00
1	Ag 328.068†	55180.7	54487.5	[500]	µg/L	12:38:06
1	As 188.979†	307.8	307.1	[500]	µg/L	12:38:26
1	B 249.677†	13625.1	13009.4	[500]	µg/L	12:38:06
1	Ba 233.527†	18517.1	18260.0	[500]	µg/L	12:38:06
1	Be 313.107†	808890.7	791512.5	[500]	µg/L	12:38:00
1	Cd 226.502†	18666.6	18493.6	[500]	µg/L	12:38:06
1	Co 228.616†	10350.9	10169.9	[500]	µg/L	12:38:06
1	Cr 267.716†	22592.0	22363.6	[500]	µg/L	12:38:06
1	Cu 324.752†	76538.3	69352.1	[500]	µg/L	12:38:06
1	Mn 257.610†	150708.4	148494.4	[500]	µg/L	12:38:00
1	Mo 202.031†	4366.5	4274.8	[500]	µg/L	12:38:26
1	Ni 231.604†	9431.3	8946.2	[500]	µg/L	12:38:06
1	P 214.914†	1895.5	1600.2	[2500]	µg/L	12:38:26
1	Pb 220.353†	2023.6	1909.4	[500]	µg/L	12:38:26
1	S 181.975 Axial†	315.4	277.0	[1000]	µg/L	12:38:26
1	Sb 206.836†	598.7	564.4	[500]	µg/L	12:38:26
1	Se 196.026†	505.9	483.7	[500]	µg/L	12:38:26
1	SiO2†	36432.7	32213.4	[5347.5]	µg/L	12:38:06
1	Si 251.611†	39185.2	38194.4	[2500]	µg/L	12:38:06
1	Sn 189.927†	1069.1	1019.2	[500]	µg/L	12:38:26
1	Ti 334.940†	213107.2	209024.3	[500]	µg/L	12:38:00
1	Tl 190.801†	302.8	324.7	[500]	µg/L	12:38:26
1	U 409.014†	5116.0	4998.9	[500]	µg/L	12:38:06
1	V 292.402†	41685.8	41278.0	[500]	µg/L	12:38:06
1	Zn 213.857†	20872.9	19878.5	[500]	µg/L	12:38:06
2	Sc RADIAL	56295.4	56295.4	101	%	12:37:02
2	Al 396.153Radial†	6943.9	6831.0	[5000]	µg/L	12:37:02
2	Ca 317.933Radial†	5704.8	5432.2	[5000]	µg/L	12:37:22
2	K 766.490 Radial†	8091.2	7468.1	[5000]	µg/L	12:37:02
2	Mg 279.077 IEC†	420.0	406.2	[5000]	µg/L	12:37:22
2	Sr 421.552†	38685.0	38242.8	[500]	µg/L	12:37:02
2	Sc 361.383	1895511.6	1895511.6	101.45	%	12:38:33
2	Y 371.029	1166274.6	1166274.6	101.28	%	12:38:33
2	Ag 328.068†	55231.8	54650.3	[500]	µg/L	12:38:39
2	As 188.979†	303.5	303.4	[500]	µg/L	12:39:00
2	B 249.677†	13577.7	12990.4	[500]	µg/L	12:38:39
2	Ba 233.527†	18477.7	18258.8	[500]	µg/L	12:38:39
2	Be 313.107†	808028.6	792310.4	[500]	µg/L	12:38:33
2	Cd 226.502†	18674.1	18539.1	[500]	µg/L	12:38:39
2	Co 228.616†	10341.7	10182.0	[500]	µg/L	12:38:39
2	Cr 267.716†	22597.9	22415.5	[500]	µg/L	12:38:39
2	Cu 324.752†	76724.4	69691.4	[500]	µg/L	12:38:39
2	Mn 257.610†	150625.5	148719.7	[500]	µg/L	12:38:33
2	Mo 202.031†	4336.1	4253.7	[500]	µg/L	12:39:00
2	Ni 231.604†	9435.2	8969.2	[500]	µg/L	12:38:39
2	P 214.914†	1879.5	1588.3	[2500]	µg/L	12:39:00
2	Pb 220.353†	2027.2	1917.0	[500]	µg/L	12:39:00
2	S 181.975 Axial†	312.4	274.6	[1000]	µg/L	12:39:00
2	Sb 206.836†	592.4	559.4	[500]	µg/L	12:39:00
2	Se 196.026†	512.9	491.6	[500]	µg/L	12:39:00
2	SiO2†	36418.4	32273.5	[5347.5]	µg/L	12:38:39

2	Si 251.611†	39188.4	38277.3	[2500]	µg/L	12:38:39
2	Sn 189.927†	1053.9	1006.4	[500]	µg/L	12:39:00
2	Ti 334.940†	212957.6	209311.0	[500]	µg/L	12:38:33
2	Tl 190.801†	292.8	315.5	[500]	µg/L	12:39:00
2	U 409.014†	5035.2	4929.7	[500]	µg/L	12:38:39
2	V 292.402†	41670.2	41347.5	[500]	µg/L	12:38:39
2	Zn 213.857†	20885.1	19933.1	[500]	µg/L	12:38:39
3	Sc RADIAL	56279.6	56279.6	101	%	12:37:28
3	Al 396.153Radial†	6918.7	6808.1	[5000]	µg/L	12:37:28
3	Ca 317.933Radial†	5672.1	5401.4	[5000]	µg/L	12:37:48
3	K 766.490 Radial†	8036.8	7416.5	[5000]	µg/L	12:37:28
3	Mg 279.077 IEC†	412.8	399.2	[5000]	µg/L	12:37:48
3	Sr 421.552†	38624.8	38194.1	[500]	µg/L	12:37:28
3	Sc 361.383	1900143.1	1900143.1	101.70	%	12:39:07
3	Y 371.029	1169227.6	1169227.6	101.54	%	12:39:07
3	Ag 328.068†	52534.9	51865.9	[500]	µg/L	12:39:12
3	As 188.979†	259.8	259.7	[500]	µg/L	12:39:33
3	B 249.677†	12875.8	12267.7	[500]	µg/L	12:39:12
3	Ba 233.527†	17168.5	16927.1	[500]	µg/L	12:39:12
3	Be 313.107†	765661.3	748710.4	[500]	µg/L	12:39:07
3	Cd 226.502†	17253.0	17096.9	[500]	µg/L	12:39:12
3	Co 228.616†	9487.6	9317.4	[500]	µg/L	12:39:12
3	Cr 267.716†	20192.5	19996.0	[500]	µg/L	12:39:12
3	Cu 324.752†	70927.0	63806.7	[500]	µg/L	12:39:12
3	Mn 257.610†	142629.6	140495.6	[500]	µg/L	12:39:07
3	Mo 202.031†	3635.5	3554.4	[500]	µg/L	12:39:33
3	Ni 231.604†	8718.7	8242.0	[500]	µg/L	12:39:12
3	P 214.914†	1653.4	1361.5	[2500]	µg/L	12:39:33
3	Pb 220.353†	1756.4	1645.9	[500]	µg/L	12:39:33
3	S 181.975 Axial†	278.8	240.8	[1000]	µg/L	12:39:33
3	Sb 206.836†	514.5	481.4	[500]	µg/L	12:39:33
3	Se 196.026†	439.6	418.3	[500]	µg/L	12:39:33
3	SiO2†	34342.2	30144.5	[5347.5]	µg/L	12:39:12
3	Si 251.611†	36592.4	35630.6	[2500]	µg/L	12:39:12
3	Sn 189.927†	885.2	838.0	[500]	µg/L	12:39:33
3	Ti 334.940†	200594.1	196642.7	[500]	µg/L	12:39:07
3	Tl 190.801†	269.6	291.9	[500]	µg/L	12:39:33
3	U 409.014†	4582.3	4472.2	[500]	µg/L	12:39:12
3	V 292.402†	37970.7	37609.8	[500]	µg/L	12:39:12
3	Zn 213.857†	19232.0	18257.4	[500]	µg/L	12:39:12

Mean Data: S0.5

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1898363.9	2495.28	0.13%	101.61	%
Sc RADIAL	56205.1	142.94	0.25%	101	%
Y 371.029	1168165.3	1641.56	0.14%	101.45	%
Ag 328.068†	53667.9	1562.74	2.91%	[500]	µg/L
Al 396.153Radial†	6823.0	12.91	0.19%	[5000]	µg/L
As 188.979†	290.0	26.36	9.09%	[500]	µg/L
B 249.677†	12755.8	422.86	3.32%	[500]	µg/L
Ba 233.527†	17815.3	769.21	4.32%	[500]	µg/L
Be 313.107†	777511.1	24945.31	3.21%	[500]	µg/L
Ca 317.933Radial†	5420.4	16.57	0.31%	[5000]	µg/L
Cd 226.502†	18043.2	819.83	4.54%	[500]	µg/L
Co 228.616†	9889.8	495.76	5.01%	[500]	µg/L
Cr 267.716†	21591.7	1382.16	6.40%	[500]	µg/L
Cu 324.752†	67616.7	3303.95	4.89%	[500]	µg/L
K 766.490 Radial†	7419.2	47.58	0.64%	[5000]	µg/L
Mg 279.077 IEC†	404.0	4.15	1.03%	[5000]	µg/L
Mn 257.610†	145903.2	4684.51	3.21%	[500]	µg/L
Mo 202.031†	4027.7	409.96	10.18%	[500]	µg/L
Ni 231.604†	8719.2	413.36	4.74%	[500]	µg/L
P 214.914†	1516.6	134.50	8.87%	[2500]	µg/L
Pb 220.353†	1824.1	154.37	8.46%	[500]	µg/L
S 181.975 Axial†	264.1	20.21	7.65%	[1000]	µg/L
Sb 206.836†	535.0	46.56	8.70%	[500]	µg/L
Se 196.026†	464.5	40.20	8.65%	[500]	µg/L
SiO2†	31543.8	1212.19	3.84%	[5347.5]	µg/L
Si 251.611†	37367.4	1504.69	4.03%	[2500]	µg/L

Sn 189.927†	954.5	101.14	10.60%	[500] µg/L
Sr 421.552†	38234.9	37.48	0.10%	[500] µg/L
Ti 334.940†	204992.7	7232.73	3.53%	[500] µg/L
Tl 190.801†	310.7	16.91	5.44%	[500] µg/L
U 409.014†	4800.3	286.19	5.96%	[500] µg/L
V 292.402†	40078.4	2138.18	5.34%	[500] µg/L
Zn 213.857†	19356.3	952.11	4.92%	[500] µg/L

Sequence No.: 4
Sample ID: SCAL
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 4
Date Collected: 1/11/2010 12:39:42
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: SCAL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	57273.3	57273.3	103	%	12:40:15
1	Al 396.153Radial†	14131.0	13690.6	[10000]	µg/L	12:40:15
1	Ca 317.933Radial†	11658.2	11115.1	[10000]	µg/L	12:40:15
1	Fe 238.204 Radial†	555.4	525.9	[10000]	µg/L	12:40:36
1	K 766.490 Radial†	15753.5	14769.6	[10000]	µg/L	12:40:15
1	Mg 279.077 IEC†	836.8	803.7	[10000]	µg/L	12:40:36
1	Na 589.592 Radial†	23975.5	22876.0	[10000]	µg/L	12:40:15
1	Sr 421.552†	79169.6	76889.8	[1000]	µg/L	12:40:15
1	Sc 361.383	1898477.2	1898477.2	101.61	%	12:41:40
1	Y 371.029	1165802.9	1165802.9	101.24	%	12:41:40
1	Ag 328.068†	110850.7	109302.0	[1000]	µg/L	12:41:46
1	As 188.979†	626.7	621.0	[1000]	µg/L	12:42:06
1	B 249.677†	27127.9	26304.7	[1000]	µg/L	12:41:46
1	Ba 233.527†	37360.9	36814.1	[1000]	µg/L	12:41:46
1	Be 313.107†	1628692.8	1598713.5	[1000]	µg/L	12:41:40
1	Cd 226.502†	37752.1	37285.7	[1000]	µg/L	12:41:46
1	Co 228.616†	20853.6	20511.2	[1000]	µg/L	12:41:46
1	Cr 267.716†	45863.5	45277.2	[1000]	µg/L	12:41:46
1	Cu 324.752†	150039.3	141725.3	[1000]	µg/L	12:41:46
1	Mn 257.610†	299865.8	295360.9	[1000]	µg/L	12:41:46
1	Mo 202.031†	8733.1	8574.3	[1000]	µg/L	12:42:06
1	Ni 231.604†	18533.3	17908.5	[1000]	µg/L	12:41:46
1	P 214.914†	3589.2	3268.0	[5000]	µg/L	12:42:06
1	Pb 220.353†	4053.8	3908.4	[1000]	µg/L	12:42:06
1	S 181.975 Axial†	603.6	560.8	[2000]	µg/L	12:42:06
1	Sb 206.836†	1172.1	1129.0	[1000]	µg/L	12:42:06
1	Se 196.026†	1018.9	988.8	[1000]	µg/L	12:42:06
1	SiO2†	68108.0	63404.3	[10695]	µg/L	12:41:46
1	Si 251.611†	76535.1	74971.3	[5000]	µg/L	12:41:46
1	Sn 189.927†	2136.1	2069.8	[1000]	µg/L	12:42:06
1	Ti 334.940†	424935.5	417598.7	[1000]	µg/L	12:41:40
1	Tl 190.801†	635.6	652.4	[1000]	µg/L	12:42:06
1	U 409.014†	9809.9	9620.9	[1000]	µg/L	12:41:46
1	V 292.402†	84601.4	83533.5	[1000]	µg/L	12:41:46
1	Zn 213.857†	41238.2	39931.2	[1000]	µg/L	12:41:46
2	Sc RADIAL	56980.9	56980.9	102	%	12:40:41
2	Al 396.153Radial†	14092.9	13723.9	[10000]	µg/L	12:40:41
2	Ca 317.933Radial†	11619.0	11134.9	[10000]	µg/L	12:40:41
2	Fe 238.204 Radial†	561.3	534.4	[10000]	µg/L	12:41:02
2	K 766.490 Radial†	15700.0	14795.9	[10000]	µg/L	12:40:41
2	Mg 279.077 IEC†	839.0	810.0	[10000]	µg/L	12:41:02
2	Na 589.592 Radial†	23997.5	23016.9	[10000]	µg/L	12:40:41
2	Sr 421.552†	78851.4	76973.7	[1000]	µg/L	12:40:41
2	Sc 361.383	1892551.0	1892551.0	101.29	%	12:42:13
2	Y 371.029	1163821.5	1163821.5	101.07	%	12:42:13
2	Ag 328.068†	111650.6	110433.2	[1000]	µg/L	12:42:19
2	As 188.979†	616.9	613.3	[1000]	µg/L	12:42:40
2	B 249.677†	27424.7	26681.4	[1000]	µg/L	12:42:19
2	Ba 233.527†	37772.6	37335.6	[1000]	µg/L	12:42:19
2	Be 313.107†	1628287.6	1603332.5	[1000]	µg/L	12:42:13
2	Cd 226.502†	38160.8	37805.6	[1000]	µg/L	12:42:19
2	Co 228.616†	21090.7	20809.6	[1000]	µg/L	12:42:19
2	Cr 267.716†	46193.7	45744.5	[1000]	µg/L	12:42:19
2	Cu 324.752†	151403.6	143534.5	[1000]	µg/L	12:42:19
2	Mn 257.610†	302590.2	298974.5	[1000]	µg/L	12:42:19
2	Mo 202.031†	8600.9	8470.8	[1000]	µg/L	12:42:40
2	Ni 231.604†	18760.9	18190.3	[1000]	µg/L	12:42:19
2	P 214.914†	3553.9	3244.2	[5000]	µg/L	12:42:40
2	Pb 220.353†	4005.9	3873.6	[1000]	µg/L	12:42:40

2	S 181.975 Axial†	594.7	553.9	[2000]	µg/L	12:42:40
2	Sb 206.836†	1164.1	1124.7	[1000]	µg/L	12:42:40
2	Se 196.026†	1018.4	991.4	[1000]	µg/L	12:42:40
2	SiO2†	68694.4	64193.2	[10695]	µg/L	12:42:19
2	Si 251.611†	77283.7	75946.2	[5000]	µg/L	12:42:19
2	Sn 189.927†	2089.4	2030.3	[1000]	µg/L	12:42:40
2	Ti 334.940†	425048.2	419019.5	[1000]	µg/L	12:42:13
2	Tl 190.801†	634.8	653.6	[1000]	µg/L	12:42:40
2	U 409.014†	9986.7	9825.7	[1000]	µg/L	12:42:19
2	V 292.402†	85467.4	84649.2	[1000]	µg/L	12:42:19
2	Zn 213.857†	41677.6	40492.0	[1000]	µg/L	12:42:19
3	Sc RADIAL	57335.8	57335.8	103	%	12:41:08
3	Al 396.153Radial†	14178.0	13721.3	[10000]	µg/L	12:41:08
3	Ca 317.933Radial†	11727.8	11170.3	[10000]	µg/L	12:41:08
3	Fe 238.204 Radial†	556.9	526.8	[10000]	µg/L	12:41:28
3	K 766.490 Radial†	15792.2	14790.4	[10000]	µg/L	12:41:08
3	Mg 279.077 IEC†	841.1	807.0	[10000]	µg/L	12:41:28
3	Na 589.592 Radial†	24149.5	23019.3	[10000]	µg/L	12:41:08
3	Sr 421.552†	79444.8	77073.0	[1000]	µg/L	12:41:08
3	Sc 361.383	1887880.0	1887880.0	101.04	%	12:42:46
3	Y 371.029	1160959.4	1160959.4	100.82	%	12:42:46
3	Ag 328.068†	103695.5	102833.1	[1000]	µg/L	12:42:52
3	As 188.979†	520.2	519.0	[1000]	µg/L	12:43:13
3	B 249.677†	25222.6	24569.0	[1000]	µg/L	12:42:52
3	Ba 233.527†	33784.6	33481.1	[1000]	µg/L	12:42:52
3	Be 313.107†	1499750.1	1480101.0	[1000]	µg/L	12:42:46
3	Cd 226.502†	33941.8	33723.3	[1000]	µg/L	12:42:52
3	Co 228.616†	18571.7	18368.1	[1000]	µg/L	12:42:52
3	Cr 267.716†	39642.4	39373.8	[1000]	µg/L	12:42:52
3	Cu 324.752†	134657.1	127331.0	[1000]	µg/L	12:42:52
3	Mn 257.610†	266978.0	264469.6	[1000]	µg/L	12:42:52
3	Mo 202.031†	7147.4	7053.2	[1000]	µg/L	12:43:13
3	Ni 231.604†	16596.3	16093.9	[1000]	µg/L	12:42:52
3	P 214.914†	3044.2	2748.4	[5000]	µg/L	12:43:13
3	Pb 220.353†	3435.3	3318.7	[1000]	µg/L	12:43:13
3	S 181.975 Axial†	521.0	482.3	[2000]	µg/L	12:43:13
3	Sb 206.836†	991.7	956.9	[1000]	µg/L	12:43:13
3	Se 196.026†	876.2	853.2	[1000]	µg/L	12:43:13
3	SiO2†	62573.0	58302.8	[10695]	µg/L	12:42:52
3	Si 251.611†	70027.7	68954.0	[5000]	µg/L	12:42:52
3	Sn 189.927†	1710.7	1660.6	[1000]	µg/L	12:43:13
3	Ti 334.940†	388499.0	383886.3	[1000]	µg/L	12:42:46
3	Tl 190.801†	555.0	576.1	[1000]	µg/L	12:43:13
3	U 409.014†	8544.3	8422.6	[1000]	µg/L	12:42:52
3	V 292.402†	74988.5	74487.4	[1000]	µg/L	12:42:52
3	Zn 213.857†	36866.9	35832.9	[1000]	µg/L	12:42:52

Mean Data: SCAL

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1892969.4	5310.98	0.28%	101.32	%
Sc RADIAL	57196.7	189.47	0.33%	103	%
Y 371.029	1163527.9	2435.02	0.21%	101.05	%
Ag 328.068†	107522.8	4100.55	3.81%	[1000]	µg/L
Al 396.153Radial†	13711.9	18.52	0.14%	[10000]	µg/L
As 188.979†	584.4	56.78	9.72%	[1000]	µg/L
B 249.677†	25851.7	1126.72	4.36%	[1000]	µg/L
Ba 233.527†	35876.9	2091.18	5.83%	[1000]	µg/L
Be 313.107†	1560715.7	69852.53	4.48%	[1000]	µg/L
Ca 317.933Radial†	11140.1	27.94	0.25%	[10000]	µg/L
Cd 226.502†	36271.5	2222.07	6.13%	[1000]	µg/L
Co 228.616†	19896.3	1331.83	6.69%	[1000]	µg/L
Cr 267.716†	43465.2	3550.91	8.17%	[1000]	µg/L
Cu 324.752†	137530.3	8879.03	6.46%	[1000]	µg/L
Fe 238.204 Radial†	529.0	4.66	0.88%	[10000]	µg/L
K 766.490 Radial†	14785.3	13.86	0.09%	[10000]	µg/L
Mg 279.077 IEC†	806.9	3.16	0.39%	[10000]	µg/L
Mn 257.610†	286268.3	18964.56	6.62%	[1000]	µg/L
Mo 202.031†	8032.8	849.89	10.58%	[1000]	µg/L
Na 589.592 Radial†	22970.7	82.07	0.36%	[10000]	µg/L

Ni 231.604†	17397.6	1137.78	6.54%	[1000]	µg/L
P 214.914†	3086.9	293.33	9.50%	[5000]	µg/L
Pb 220.353†	3700.2	330.87	8.94%	[1000]	µg/L
S 181.975 Axial†	532.3	43.44	8.16%	[2000]	µg/L
Sb 206.836†	1070.2	98.13	9.17%	[1000]	µg/L
Se 196.026†	944.5	79.04	8.37%	[1000]	µg/L
SiO2†	61966.7	3197.50	5.16%	[10695]	µg/L
Si 251.611†	73290.5	3787.02	5.17%	[5000]	µg/L
Sn 189.927†	1920.2	225.72	11.76%	[1000]	µg/L
Sr 421.552†	76978.9	91.68	0.12%	[1000]	µg/L
Ti 334.940†	406834.8	19886.67	4.89%	[1000]	µg/L
Tl 190.801†	627.4	44.39	7.08%	[1000]	µg/L
U 409.014†	9289.7	757.90	8.16%	[1000]	µg/L
V 292.402†	80890.0	5572.84	6.89%	[1000]	µg/L
Zn 213.857†	38752.0	2543.53	6.56%	[1000]	µg/L

Sequence No.: 5
Sample ID: S10
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 5
Date Collected: 1/11/2010 12:43:22
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S10

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	55973.6	55973.6	101	%	12:43:55
1	Al 396.153Radial†	68447.1	67959.3	[50000]	µg/L	12:43:55
1	Ca 317.933Radial†	55367.4	54792.6	[50000]	µg/L	12:43:55
1	Fe 238.204 Radial†	1096.5	1075.9	[20000]	µg/L	12:44:15
1	Mg 279.077 IEC†	4066.4	4030.4	[50000]	µg/L	12:44:15
1	Na 589.592 Radial†	46993.8	46279.6	[20000]	µg/L	12:43:55
1	Sc 361.383	1883698.1	1883698.1	100.82	%	12:45:19
1	Y 371.029	1150893.4	1150893.4	99.949	%	12:45:19
2	Sc RADIAL	56186.8	56186.8	101	%	12:44:21
2	Al 396.153Radial†	68965.9	68214.7	[50000]	µg/L	12:44:21
2	Ca 317.933Radial†	55914.0	55124.8	[50000]	µg/L	12:44:21
2	Fe 238.204 Radial†	1096.4	1071.7	[20000]	µg/L	12:44:41
2	Mg 279.077 IEC†	4069.3	4018.0	[50000]	µg/L	12:44:41
2	Na 589.592 Radial†	47412.0	46516.3	[20000]	µg/L	12:44:21
2	Sc 361.383	1884626.9	1884626.9	100.87	%	12:45:27
2	Y 371.029	1151761.5	1151761.5	100.02	%	12:45:27
3	Sc RADIAL	56187.5	56187.5	101	%	12:44:46
3	Al 396.153Radial†	68673.2	67924.3	[50000]	µg/L	12:44:46
3	Ca 317.933Radial†	55591.5	54805.0	[50000]	µg/L	12:44:46
3	Fe 238.204 Radial†	1096.3	1071.5	[20000]	µg/L	12:45:07
3	Mg 279.077 IEC†	4074.7	4023.3	[50000]	µg/L	12:45:07
3	Na 589.592 Radial†	47192.9	46299.0	[20000]	µg/L	12:44:46
3	Sc 361.383	1895196.0	1895196.0	101.44	%	12:45:34
3	Y 371.029	1157968.0	1157968.0	100.56	%	12:45:34

Mean Data: S10

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1887840.3	6387.09	0.34%	101.04	%
Sc RADIAL	56116.0	123.26	0.22%	101	%
Y 371.029	1153541.0	3858.45	0.33%	100.18	%
Al 396.153Radial†	68032.8	158.53	0.23%	[50000]	µg/L
Ca 317.933Radial†	54907.5	188.30	0.34%	[50000]	µg/L
Fe 238.204 Radial†	1073.0	2.47	0.23%	[20000]	µg/L
Mg 279.077 IEC†	4023.9	6.22	0.15%	[50000]	µg/L
Na 589.592 Radial†	46365.0	131.44	0.28%	[20000]	µg/L

Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 328.068	3	Lin Thru 0	0.0	107.5	0.00000	0.999999	
Al 396.153Radial	3	Lin Thru 0	0.0	1.361	0.00000	0.999999	
As 188.979	3	Lin Thru 0	0.0	0.5839	0.00000	0.999977	
B 249.677	3	Lin Thru 0	0.0	25.79	0.00000	0.999983	
Ba 233.527	3	Lin Thru 0	0.0	35.84	0.00000	0.999987	
Be 313.107	3	Lin Thru 0	0.0	1560	0.00000	0.999993	
Ca 317.933Radial	3	Lin Thru 0	0.0	1.099	0.00000	0.999995	
Cd 226.502	3	Lin Thru 0	0.0	36.25	0.00000	0.999981	
Co 228.616	3	Lin Thru 0	0.0	19.88	0.00000	0.999993	
Cr 267.716	3	Lin Thru 0	0.0	43.43	0.00000	0.999983	
Cu 324.752	3	Lin Thru 0	0.0	137.1	0.00000	0.999975	
Fe 238.204 Radia	2	Lin Thru 0	0.0	0.0535	0.00000	0.999984	
K 766.490 Radial	3	Lin Thru 0	0.0	1.479	0.00000	0.999992	
Mg 279.077 IEC	3	Lin Thru 0	0.0	0.0805	0.00000	1.000000	
Mn 257.610	3	Lin Thru 0	0.0	287.5	0.00000	0.999961	
Mo 202.031	3	Lin Thru 0	0.0	8.042	0.00000	0.999978	
Na 589.592 Radia	2	Lin Thru 0	0.0	2.314	0.00000	0.999993	

Ni 231.604	3	Lin Thru 0	0.0	17.41	0.00000	0.999985
P 214.914	3	Lin Thru 0	0.0	0.6154	0.00000	0.999970
Pb 220.353	3	Lin Thru 0	0.0	3.691	0.00000	0.999976
S 181.975 Axial	3	Lin Thru 0	0.0	0.2659	0.00000	0.999974
Sb 206.836	3	Lin Thru 0	0.0	1.071	0.00000	0.999991
Se 196.026	3	Lin Thru 0	0.0	0.9418	0.00000	0.999968
SiO2	3	Lin Thru 0	0.0	5.817	0.00000	0.999968
Si 251.611	3	Lin Thru 0	0.0	14.72	0.00000	0.999962
Sn 189.927	3	Lin Thru 0	0.0	1.919	0.00000	0.999991
Sr 421.552	3	Lin Thru 0	0.0	76.88	0.00000	0.999996
Ti 334.940	3	Lin Thru 0	0.0	407.5	0.00000	0.999995
Tl 190.801	3	Lin Thru 0	0.0	0.6260	0.00000	0.999990
U 409.014	3	Lin Thru 0	0.0	9.357	0.00000	0.999897
V 292.402	3	Lin Thru 0	0.0	80.77	0.00000	0.999984
Zn 213.857	3	Lin Thru 0	0.0	38.76	0.00000	0.999984

Sequence No.: 6
Sample ID: ICV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 9
Date Collected: 1/11/2010 12:45:43
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56216.6	56216.6	101	%			12:46:17
1	Al 396.153Radial†	6942.0	6838.7	5002.3	µg/L	5002.3	ppb	12:46:17
1	Ca 317.933Radial†	5621.4	5357.6	4876.7	µg/L	4876.7	ppb	12:46:37
1	Fe 238.204 Radial†	289.3	272.8	5117.1	µg/L	5117.1	ppb	12:46:37
1	K 766.490 Radial†	4288.2	3718.2	2513.8	µg/L	2513.8	ppb	12:46:17
1	Mg 279.077 IEC†	423.3	410.1	5101.8	µg/L	5101.8	ppb	12:46:37
1	Na 589.592 Radial†	6164.6	5698.9	2462.8	µg/L	2462.8	ppb	12:46:17
1	Sr 421.552†	40359.0	39952.0	519.66	µg/L	519.66	ppb	12:46:17
1	Sc 361.383	1867501.5	1867501.5	99.954	%			12:47:40
1	Y 371.029	1147640.0	1147640.0	99.666	%			12:47:40
1	Ag 328.068†	28288.5	28511.1	269.28	µg/L	269.28	ppb	12:47:45
1	As 188.979†	292.3	296.7	509.25	µg/L	509.25	ppb	12:48:06
1	B 249.677†	14232.9	13846.7	535.32	µg/L	535.32	ppb	12:47:45
1	Ba 233.527†	18851.0	18905.5	528.59	µg/L	528.59	ppb	12:47:45
1	Be 313.107†	426047.3	422098.4	270.38	µg/L	270.38	ppb	12:47:40
1	Cd 226.502†	18754.2	18895.3	521.44	µg/L	521.44	ppb	12:47:45
1	Co 228.616†	10535.9	10529.1	529.95	µg/L	529.95	ppb	12:47:45
1	Cr 267.716†	22203.0	22354.4	515.98	µg/L	515.98	ppb	12:47:45
1	Cu 324.752†	77463.9	71565.5	522.47	µg/L	522.47	ppb	12:47:45
1	Mn 257.610†	154195.5	154518.2	538.12	µg/L	538.12	ppb	12:47:40
1	Mo 202.031†	4693.0	4674.9	581.51	µg/L	581.51	ppb	12:48:06
1	Ni 231.604†	9468.9	9142.4	524.98	µg/L	524.98	ppb	12:47:45
1	P 214.914†	1916.7	1653.3	2630.8	µg/L	2630.8	ppb	12:48:06
1	Pb 220.353†	2010.9	1930.7	523.72	µg/L	523.72	ppb	12:48:06
1	S 181.975 Axial†	736.4	703.4	2643.8	µg/L	2643.8	ppb	12:48:06
1	Sb 206.836†	596.9	572.7	533.59	µg/L	533.59	ppb	12:48:06
1	Se 196.026†	2486.2	2473.4	2629.7	µg/L	2629.7	ppb	12:48:06
1	SiO2†	65776.9	62183.9	10691	µg/L	10691	ppb	12:47:45
1	Si 251.611†	73713.0	73397.2	4933.9	µg/L	4933.9	ppb	12:47:45
1	Sn 189.927†	1152.9	1121.0	585.61	µg/L	585.61	ppb	12:48:06
1	Ti 334.940†	211037.0	210537.8	516.39	µg/L	516.39	ppb	12:47:40
1	Tl 190.801†	308.2	335.2	538.11	µg/L	538.11	ppb	12:48:06
1	U 409.014†	4924.6	4893.5	521.75	µg/L	521.75	ppb	12:47:45
1	V 292.402†	42772.0	43065.8	538.21	µg/L	538.21	ppb	12:47:45
1	Zn 213.857†	21389.8	20746.8	530.34	µg/L	530.34	ppb	12:47:45
2	Sc RADIAL	55962.4	55962.4	101	%			12:46:43
2	Al 396.153Radial†	6909.3	6837.4	5001.4	µg/L	5001.4	ppb	12:46:43
2	Ca 317.933Radial†	5634.6	5395.9	4911.6	µg/L	4911.6	ppb	12:47:03
2	Fe 238.204 Radial†	286.4	271.3	5087.9	µg/L	5087.9	ppb	12:47:03
2	K 766.490 Radial†	4249.5	3699.0	2500.9	µg/L	2500.9	ppb	12:46:43
2	Mg 279.077 IEC†	425.0	413.6	5145.8	µg/L	5145.8	ppb	12:47:03
2	Na 589.592 Radial†	6109.8	5672.3	2451.3	µg/L	2451.3	ppb	12:46:43
2	Sr 421.552†	40056.2	39832.4	518.11	µg/L	518.11	ppb	12:46:43
2	Sc 361.383	1858674.8	1858674.8	99.481	%			12:48:12
2	Y 371.029	1142776.4	1142776.4	99.244	%			12:48:12
2	Ag 328.068†	28398.9	28756.5	271.61	µg/L	271.61	ppb	12:48:17
2	As 188.979†	291.9	297.7	510.93	µg/L	510.93	ppb	12:48:38
2	B 249.677†	14321.9	14003.7	541.41	µg/L	541.41	ppb	12:48:17
2	Ba 233.527†	18967.6	19112.3	534.38	µg/L	534.38	ppb	12:48:17
2	Be 313.107†	424601.4	422669.2	270.74	µg/L	270.74	ppb	12:48:12
2	Cd 226.502†	18898.3	19129.2	527.91	µg/L	527.91	ppb	12:48:17
2	Co 228.616†	10578.0	10621.5	534.60	µg/L	534.60	ppb	12:48:17
2	Cr 267.716†	22382.9	22640.7	522.59	µg/L	522.59	ppb	12:48:17
2	Cu 324.752†	77858.2	72329.9	528.04	µg/L	528.04	ppb	12:48:17
2	Mn 257.610†	153260.1	154310.4	537.39	µg/L	537.39	ppb	12:48:12
2	Mo 202.031†	4656.2	4660.3	579.69	µg/L	579.69	ppb	12:48:38
2	Ni 231.604†	9511.6	9230.4	530.03	µg/L	530.03	ppb	12:48:17
2	P 214.914†	1913.4	1659.1	2639.7	µg/L	2639.7	ppb	12:48:38
2	Pb 220.353†	2019.5	1948.9	528.62	µg/L	528.62	ppb	12:48:38

2	S 181.975 Axial†	736.8	707.4	2658.7 µg/L	2658.7 ppb	12:48:38
2	Sb 206.836†	599.8	578.4	538.92 µg/L	538.92 ppb	12:48:38
2	Se 196.026†	2484.3	2483.3	2640.2 µg/L	2640.2 ppb	12:48:38
2	SiO2†	66120.7	62842.0	10804 µg/L	10804 ppb	12:48:17
2	Si 251.611†	74116.0	74152.6	4985.2 µg/L	4985.2 ppb	12:48:17
2	Sn 189.927†	1146.3	1119.9	585.03 µg/L	585.03 ppb	12:48:38
2	Ti 334.940†	210239.6	210738.9	516.88 µg/L	516.88 ppb	12:48:12
2	Tl 190.801†	306.7	335.2	537.97 µg/L	537.97 ppb	12:48:38
2	U 409.014†	5040.3	5033.1	536.68 µg/L	536.68 ppb	12:48:17
2	V 292.402†	43143.3	43642.3	545.36 µg/L	545.36 ppb	12:48:17
2	Zn 213.857†	21523.4	20982.7	536.40 µg/L	536.40 ppb	12:48:17
3	Sc RADIAL	56552.0	56552.0	102 %		12:47:08
3	Al 396.153Radial†	7023.9	6878.6	5035.2 µg/L	5035.2 ppb	12:47:08
3	Ca 317.933Radial†	5637.0	5340.0	4860.6 µg/L	4860.6 ppb	12:47:29
3	Fe 238.204 Radial†	279.5	261.5	4903.8 µg/L	4903.8 ppb	12:47:29
3	K 766.490 Radial†	4267.2	3672.4	2482.9 µg/L	2482.9 ppb	12:47:08
3	Mg 279.077 IEC†	424.8	409.1	5087.3 µg/L	5087.3 ppb	12:47:29
3	Na 589.592 Radial†	6139.5	5638.1	2436.5 µg/L	2436.5 ppb	12:47:08
3	Sr 421.552†	40626.6	39978.3	520.00 µg/L	520.00 ppb	12:47:08
3	Sc 361.383	1875137.6	1875137.6	100.36 %		12:48:44
3	Y 371.029	1152619.1	1152619.1	100.10 %		12:48:44
3	Ag 328.068†	26937.6	27049.8	255.33 µg/L	255.33 ppb	12:48:50
3	As 188.979†	246.4	249.7	428.85 µg/L	428.85 ppb	12:49:10
3	B 249.677†	13541.8	13100.0	506.43 µg/L	506.43 ppb	12:48:50
3	Ba 233.527†	17483.3	17466.0	488.33 µg/L	488.33 ppb	12:48:50
3	Be 313.107†	403148.9	397546.9	254.65 µg/L	254.65 ppb	12:48:44
3	Cd 226.502†	17279.4	17349.4	478.73 µg/L	478.73 ppb	12:48:50
3	Co 228.616†	9676.7	9630.2	484.58 µg/L	484.58 ppb	12:48:50
3	Cr 267.716†	19862.3	19931.7	460.08 µg/L	460.08 ppb	12:48:50
3	Cu 324.752†	71465.0	65272.8	476.55 µg/L	476.55 ppb	12:48:50
3	Mn 257.610†	145967.2	145691.3	507.39 µg/L	507.39 ppb	12:48:44
3	Mo 202.031†	3949.9	3915.4	487.07 µg/L	487.07 ppb	12:49:10
3	Ni 231.604†	8717.6	8355.3	479.78 µg/L	479.78 ppb	12:48:50
3	P 214.914†	1679.8	1409.4	2238.2 µg/L	2238.2 ppb	12:49:10
3	Pb 220.353†	1763.3	1675.8	454.50 µg/L	454.50 ppb	12:49:10
3	S 181.975 Axial†	671.9	636.2	2391.2 µg/L	2391.2 ppb	12:49:10
3	Sb 206.836†	518.4	492.0	458.49 µg/L	458.49 ppb	12:49:10
3	Se 196.026†	2204.7	2182.8	2321.1 µg/L	2321.1 ppb	12:49:10
3	SiO2†	61924.2	58077.1	9984.5 µg/L	9984.5 ppb	12:48:50
3	Si 251.611†	69043.8	68444.6	4604.3 µg/L	4604.3 ppb	12:48:50
3	Sn 189.927†	957.9	922.0	481.90 µg/L	481.90 ppb	12:49:10
3	Ti 334.940†	198337.3	197024.2	483.23 µg/L	483.23 ppb	12:48:44
3	Tl 190.801†	286.2	312.0	501.01 µg/L	501.01 ppb	12:49:10
3	U 409.014†	4350.5	4301.4	458.51 µg/L	458.51 ppb	12:48:50
3	V 292.402†	38940.3	39073.8	488.02 µg/L	488.02 ppb	12:48:50
3	Zn 213.857†	19723.5	18999.3	485.62 µg/L	485.62 ppb	12:48:50

Mean Data: ICV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1867104.6	99.933	%	0.4410				0.44%
Sc RADIAL	56243.7	101	%	0.5				0.53%
Y 371.029	1147678.5	99.670	%	0.4274				0.43%
Ag 328.068†	28105.8	265.41	µg/L	8.804	265.41	ppb	8.804	3.32%
QC value within limits for Ag 328.068 Recovery = 106.16%								
Al 396.153Radial†	6851.6	5013.0	µg/L	19.24	5013.0	ppb	19.24	0.38%
QC value within limits for Al 396.153Radial Recovery = 100.26%								
As 188.979†	281.4	483.01	µg/L	46.913	483.01	ppb	46.913	9.71%
QC value within limits for As 188.979 Recovery = 96.60%								
B 249.677†	13650.1	527.72	µg/L	18.687	527.72	ppb	18.687	3.54%
QC value within limits for B 249.677 Recovery = 105.54%								
Ba 233.527†	18494.6	517.10	µg/L	25.086	517.10	ppb	25.086	4.85%
QC value within limits for Ba 233.527 Recovery = 103.42%								
Be 313.107†	414104.9	265.26	µg/L	9.186	265.26	ppb	9.186	3.46%
QC value within limits for Be 313.107 Recovery = 106.10%								
Ca 317.933Radial†	5364.5	4883.0	µg/L	26.04	4883.0	ppb	26.04	0.53%
QC value within limits for Ca 317.933Radial Recovery = 97.66%								
Cd 226.502†	18458.0	509.36	µg/L	26.721	509.36	ppb	26.721	5.25%
QC value within limits for Cd 226.502 Recovery = 101.87%								
Co 228.616†	10260.3	516.38	µg/L	27.634	516.38	ppb	27.634	5.35%

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   QC value within limits for Co 228.616  Recovery = 103.28%
Cr 267.716†            21642.3      499.55 µg/L        34.341      499.55 ppb        34.341   6.87%
   QC value within limits for Cr 267.716  Recovery = 99.91%
Cu 324.752†            69722.7      509.02 µg/L        28.258      509.02 ppb        28.258   5.55%
   QC value within limits for Cu 324.752  Recovery = 101.80%
Fe 238.204 Radial†       268.5      5036.2 µg/L        115.65      5036.2 ppb        115.65   2.30%
   QC value within limits for Fe 238.204 Radial  Recovery = 100.72%
K 766.490 Radial†       3696.6      2499.2 µg/L         15.54      2499.2 ppb         15.54   0.62%
   QC value within limits for K 766.490 Radial  Recovery = 99.97%
Mg 279.077 IEC†          410.9      5111.6 µg/L         30.45      5111.6 ppb         30.45   0.60%
   QC value within limits for Mg 279.077 IEC  Recovery = 102.23%
Mn 257.610†           151506.6      527.63 µg/L        17.536      527.63 ppb        17.536   3.32%
   QC value within limits for Mn 257.610  Recovery = 105.53%
Mo 202.031†            4416.9      549.42 µg/L        54.010      549.42 ppb        54.010   9.83%
   QC value within limits for Mo 202.031  Recovery = 109.88%
Na 589.592 Radial†      5669.8      2450.2 µg/L         13.17      2450.2 ppb         13.17   0.54%
   QC value within limits for Na 589.592 Radial  Recovery = 98.01%
Ni 231.604†            8909.4      511.60 µg/L        27.670      511.60 ppb        27.670   5.41%
   QC value within limits for Ni 231.604  Recovery = 102.32%
P 214.914†             1573.9      2502.9 µg/L        229.24      2502.9 ppb        229.24   9.16%
   QC value within limits for P 214.914  Recovery = 100.12%
Pb 220.353†            1851.8      502.28 µg/L        41.448      502.28 ppb        41.448   8.25%
   QC value within limits for Pb 220.353  Recovery = 100.46%
S 181.975 Axial†         682.3      2564.6 µg/L        150.32      2564.6 ppb        150.32   5.86%
   QC value within limits for S 181.975 Axial  Recovery = 102.58%
Sb 206.836†              547.7      510.33 µg/L        44.980      510.33 ppb        44.980   8.81%
   QC value within limits for Sb 206.836  Recovery = 102.07%
Se 196.026†            2379.8      2530.4 µg/L        181.30      2530.4 ppb        181.30   7.16%
   QC value within limits for Se 196.026  Recovery = 101.21%
SiO2†                 61034.3       10493 µg/L         443.9       10493 ppb         443.9   4.23%
   QC value within limits for SiO2  Recovery = 98.11%
Si 251.611†           71998.1      4841.1 µg/L        206.73      4841.1 ppb        206.73   4.27%
   QC value within limits for Si 251.611  Recovery = 96.82%
Sn 189.927†            1054.3      550.85 µg/L        59.708      550.85 ppb        59.708  10.84%
   QC value greater than the upper limit for Sn 189.927  Recovery = 110.17%
Sr 421.552†           39920.9      519.26 µg/L         1.011      519.26 ppb         1.011   0.19%
   QC value within limits for Sr 421.552  Recovery = 103.85%
Ti 334.940†          206100.3      505.50 µg/L        19.290      505.50 ppb        19.290   3.82%
   QC value within limits for Ti 334.940  Recovery = 101.10%
Tl 190.801†              327.5      525.69 µg/L        21.380      525.69 ppb        21.380   4.07%
   QC value within limits for Tl 190.801  Recovery = 105.14%
U 409.014†             4742.7      505.65 µg/L        41.497      505.65 ppb        41.497   8.21%
   QC value within limits for U 409.014  Recovery = 101.13%
V 292.402†            41927.3      523.86 µg/L        31.245      523.86 ppb        31.245   5.96%
   QC value within limits for V 292.402  Recovery = 104.77%
Zn 213.857†           20242.9      517.45 µg/L        27.735      517.45 ppb        27.735   5.36%
   QC value within limits for Zn 213.857  Recovery = 103.49%
QC Failed.  Continue with analysis.
```

Sequence No.: 7
Sample ID: ICB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 10
Date Collected: 1/11/2010 12:49:36
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	55291.3	55291.3	99.5	%			12:50:09
1	Al 396.153Radial†	21.7	-4.9	-3.6103	µg/L	-3.6103	ppb	12:50:09
1	Ca 317.933Radial†	203.9	3.3	2.9779	µg/L	2.9779	ppb	12:50:29
1	Fe 238.204 Radial†	15.3	2.2	40.985	µg/L	40.985	ppb	12:50:29
1	K 766.490 Radial†	483.8	-36.2	-24.480	µg/L	-24.480	ppb	12:50:09
1	Mg 279.077 IEC†	11.2	2.7	33.801	µg/L	33.801	ppb	12:50:29
1	Na 589.592 Radial†	431.1	35.8	15.489	µg/L	15.489	ppb	12:50:09
1	Sr 421.552†	-5.1	32.9	0.4278	µg/L	0.4278	ppb	12:50:09
1	Sc 361.383	1865086.0	1865086.0	99.825	%			12:51:31
1	Y 371.029	1148556.9	1148556.9	99.746	%			12:51:31
1	Ag 328.068†	-220.0	-10.8	-0.0996	µg/L	-0.0996	ppb	12:51:37
1	As 188.979†	-6.8	-2.6	-4.3760	µg/L	-4.3760	ppb	12:51:57
1	B 249.677†	424.5	32.4	1.2432	µg/L	1.2432	ppb	12:51:37
1	Ba 233.527†	-42.7	3.0	0.0832	µg/L	0.0832	ppb	12:51:57
1	Be 313.107†	4190.7	52.4	0.0336	µg/L	0.0336	ppb	12:51:31
1	Cd 226.502†	-128.0	4.2	0.1068	µg/L	0.1068	ppb	12:51:57
1	Co 228.616†	12.7	1.2	0.0589	µg/L	0.0589	ppb	12:51:57
1	Cr 267.716†	-160.2	-19.4	-0.4466	µg/L	-0.4466	ppb	12:51:37
1	Cu 324.752†	5996.1	72.6	0.5330	µg/L	0.5330	ppb	12:51:37
1	Mn 257.610†	-240.6	10.4	0.0412	µg/L	0.0412	ppb	12:51:37
1	Mo 202.031†	22.9	2.7	0.3357	µg/L	0.3357	ppb	12:51:57
1	Ni 231.604†	324.8	-5.4	-0.3103	µg/L	-0.3103	ppb	12:51:57
1	P 214.914†	266.4	2.6	4.1316	µg/L	4.1316	ppb	12:51:57
1	Pb 220.353†	77.2	-3.8	-1.0258	µg/L	-1.0258	ppb	12:51:57
1	S 181.975 Axial†	39.7	6.4	24.154	µg/L	24.154	ppb	12:51:57
1	Sb 206.836†	29.3	4.8	4.5266	µg/L	4.5266	ppb	12:51:57
1	Se 196.026†	8.6	-5.3	-5.6671	µg/L	-5.6671	ppb	12:51:57
1	SiO2†	3633.1	16.1	2.7680	µg/L	2.7680	ppb	12:51:37
1	Si 251.611†	370.7	21.6	1.4961	µg/L	1.4961	ppb	12:51:57
1	Sn 189.927†	31.1	-1.3	-0.6678	µg/L	-0.6678	ppb	12:51:57
1	Ti 334.940†	588.4	-7.3	-0.0180	µg/L	-0.0180	ppb	12:51:37
1	Tl 190.801†	-27.4	-0.6	-0.9224	µg/L	-0.9224	ppb	12:51:57
1	U 409.014†	8.7	-24.6	-2.6404	µg/L	-2.6404	ppb	12:51:37
1	V 292.402†	-299.0	-25.5	-0.3165	µg/L	-0.3165	ppb	12:51:37
1	Zn 213.857†	646.4	-5.4	-0.1496	µg/L	-0.1496	ppb	12:51:57
2	Sc RADIAL	54797.2	54797.2	98.6	%			12:50:35
2	Al 396.153Radial†	27.3	1.0	0.7338	µg/L	0.7338	ppb	12:50:35
2	Ca 317.933Radial†	205.5	6.7	6.0659	µg/L	6.0659	ppb	12:50:55
2	Fe 238.204 Radial†	15.3	2.3	42.296	µg/L	42.296	ppb	12:50:55
2	K 766.490 Radial†	531.5	16.6	11.208	µg/L	11.208	ppb	12:50:35
2	Mg 279.077 IEC†	8.3	-0.2	-1.9552	µg/L	-1.9552	ppb	12:50:55
2	Na 589.592 Radial†	399.2	7.3	3.1702	µg/L	3.1702	ppb	12:50:35
2	Sr 421.552†	-19.1	18.7	0.2428	µg/L	0.2428	ppb	12:50:35
2	Sc 361.383	1859392.6	1859392.6	99.520	%			12:52:03
2	Y 371.029	1146261.6	1146261.6	99.547	%			12:52:03
2	Ag 328.068†	-233.1	-24.7	-0.2266	µg/L	-0.2266	ppb	12:52:09
2	As 188.979†	-3.1	1.1	1.9397	µg/L	1.9397	ppb	12:52:29
2	B 249.677†	436.4	45.7	1.7585	µg/L	1.7585	ppb	12:52:09
2	Ba 233.527†	-44.8	0.8	0.0228	µg/L	0.0228	ppb	12:52:29
2	Be 313.107†	4238.3	113.0	0.0724	µg/L	0.0724	ppb	12:52:03
2	Cd 226.502†	-125.6	6.2	0.1621	µg/L	0.1621	ppb	12:52:29
2	Co 228.616†	19.4	7.9	0.3959	µg/L	0.3959	ppb	12:52:29
2	Cr 267.716†	-140.6	-0.1	-0.0030	µg/L	-0.0030	ppb	12:52:09
2	Cu 324.752†	5972.0	66.7	0.4903	µg/L	0.4903	ppb	12:52:09
2	Mn 257.610†	-214.0	36.4	0.1318	µg/L	0.1318	ppb	12:52:09
2	Mo 202.031†	14.0	-6.2	-0.7631	µg/L	-0.7631	ppb	12:52:29
2	Ni 231.604†	335.2	6.0	0.3460	µg/L	0.3460	ppb	12:52:29
2	P 214.914†	269.1	6.1	9.8306	µg/L	9.8306	ppb	12:52:29
2	Pb 220.353†	77.1	-3.6	-0.9830	µg/L	-0.9830	ppb	12:52:29

2	S 181.975 Axial†	35.6	2.5	9.2844 µg/L	9.2844 ppb	12:52:29
2	Sb 206.836†	30.5	6.1	5.7318 µg/L	5.7318 ppb	12:52:29
2	Se 196.026†	14.6	0.7	0.7499 µg/L	0.7499 ppb	12:52:29
2	SiO2†	3654.2	48.5	8.3305 µg/L	8.3305 ppb	12:52:09
2	Si 251.611†	372.4	24.4	1.6626 µg/L	1.6626 ppb	12:52:29
2	Sn 189.927†	32.3	0.0	0.0094 µg/L	0.0094 ppb	12:52:29
2	Ti 334.940†	596.9	3.2	0.0074 µg/L	0.0074 ppb	12:52:09
2	Tl 190.801†	-26.9	-0.1	-0.2045 µg/L	-0.2045 ppb	12:52:29
2	U 409.014†	-10.9	-44.4	-4.7497 µg/L	-4.7497 ppb	12:52:09
2	V 292.402†	-275.5	-2.8	-0.0466 µg/L	-0.0466 ppb	12:52:09
2	Zn 213.857†	646.9	-2.9	-0.0881 µg/L	-0.0881 ppb	12:52:29
3	Sc RADIAL	55645.5	55645.5	100 %		12:51:01
3	Al 396.153Radial†	-3.7	-30.4	-22.369 µg/L	-22.369 ppb	12:51:01
3	Ca 317.933Radial†	196.3	-5.6	-5.1168 µg/L	-5.1168 ppb	12:51:21
3	Fe 238.204 Radial†	14.9	1.7	30.870 µg/L	30.870 ppb	12:51:21
3	K 766.490 Radial†	554.9	31.7	21.455 µg/L	21.455 ppb	12:51:01
3	Mg 279.077 IEC†	9.8	1.3	15.517 µg/L	15.517 ppb	12:51:21
3	Na 589.592 Radial†	435.2	37.2	16.066 µg/L	16.066 ppb	12:51:01
3	Sr 421.552†	12.7	50.7	0.6595 µg/L	0.6595 ppb	12:51:01
3	Sc 361.383	1870117.7	1870117.7	100.09 %		12:52:35
3	Y 371.029	1152035.4	1152035.4	100.05 %		12:52:35
3	Ag 328.068†	-188.8	20.9	0.2003 µg/L	0.2003 ppb	12:52:41
3	As 188.979†	-2.5	1.8	3.0435 µg/L	3.0435 ppb	12:53:01
3	B 249.677†	415.2	22.0	0.8416 µg/L	0.8416 ppb	12:52:41
3	Ba 233.527†	-36.1	9.7	0.2723 µg/L	0.2723 ppb	12:53:01
3	Be 313.107†	4171.7	22.1	0.0142 µg/L	0.0142 ppb	12:52:35
3	Cd 226.502†	-127.2	5.4	0.1455 µg/L	0.1455 ppb	12:53:01
3	Co 228.616†	5.8	-5.8	-0.2898 µg/L	-0.2898 ppb	12:53:01
3	Cr 267.716†	-152.0	-10.7	-0.2463 µg/L	-0.2463 ppb	12:52:41
3	Cu 324.752†	6010.4	70.6	0.5178 µg/L	0.5178 ppb	12:52:41
3	Mn 257.610†	-258.2	-6.5	-0.0188 µg/L	-0.0188 ppb	12:52:41
3	Mo 202.031†	26.6	6.3	0.7839 µg/L	0.7839 ppb	12:53:01
3	Ni 231.604†	338.3	7.2	0.4108 µg/L	0.4108 ppb	12:53:01
3	P 214.914†	259.3	-5.2	-8.6158 µg/L	-8.6158 ppb	12:53:01
3	Pb 220.353†	94.4	13.2	3.5779 µg/L	3.5779 ppb	12:53:01
3	S 181.975 Axial†	38.1	4.8	18.067 µg/L	18.067 ppb	12:53:01
3	Sb 206.836†	30.2	5.7	5.2953 µg/L	5.2953 ppb	12:53:01
3	Se 196.026†	9.7	-4.2	-4.4747 µg/L	-4.4747 ppb	12:53:01
3	SiO2†	3644.1	17.3	2.9743 µg/L	2.9743 ppb	12:52:41
3	Si 251.611†	361.8	11.7	0.8273 µg/L	0.8273 ppb	12:53:01
3	Sn 189.927†	30.0	-2.4	-1.2775 µg/L	-1.2775 ppb	12:53:01
3	Ti 334.940†	540.8	-56.4	-0.1381 µg/L	-0.1381 ppb	12:52:41
3	Tl 190.801†	-24.4	2.5	3.9688 µg/L	3.9688 ppb	12:53:01
3	U 409.014†	46.3	12.9	1.3705 µg/L	1.3705 ppb	12:52:41
3	V 292.402†	-236.4	37.9	0.4782 µg/L	0.4782 ppb	12:52:41
3	Zn 213.857†	646.1	-7.4	-0.2030 µg/L	-0.2030 ppb	12:53:01

Mean Data: ICB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1864865.4	99.813	%	0.2872				0.29%
Sc RADIAL	55244.7	99.4	%	0.77				0.77%
Y 371.029	1148951.3	99.780	%	0.2525				0.25%
Ag 328.068†	-4.9	-0.0420	µg/L	0.21920	-0.0420	ppb	0.21920	521.83%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-11.4	-8.4153	µg/L	12.27818	-8.4153	ppb	12.27818	145.90%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	0.1	0.2024	µg/L	4.00322	0.2024	ppb	4.00322	>999.9%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	33.3	1.2811	µg/L	0.45960	1.2811	ppb	0.45960	35.87%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	4.5	0.1261	µg/L	0.13020	0.1261	ppb	0.13020	103.25%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	62.5	0.0401	µg/L	0.02964	0.0401	ppb	0.02964	73.97%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	1.4	1.3090	µg/L	5.77515	1.3090	ppb	5.77515	441.19%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	5.2	0.1381	µg/L	0.02838	0.1381	ppb	0.02838	20.54%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	1.1	0.0550	µg/L	0.34290	0.0550	ppb	0.34290	623.53%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -10.1     -0.2320 µg/L       0.22213     -0.2320 ppb        0.22213  95.76%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               70.0      0.5137 µg/L       0.02161      0.5137 ppb        0.02161   4.21%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         2.0     38.050 µg/L        6.2531     38.050 ppb         6.2531  16.43%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          4.0      2.7280 µg/L      24.11299      2.7280 ppb       24.11299 883.92%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            1.3     15.788 µg/L       17.8796     15.788 ppb        17.8796 113.25%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               13.4      0.0514 µg/L       0.07581      0.0514 ppb        0.07581 147.46%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                0.9      0.1188 µg/L       0.79599      0.1188 ppb        0.79599 669.95%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        26.8     11.575 µg/L        7.2847     11.575 ppb         7.2847  62.93%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                2.6      0.1488 µg/L       0.39897      0.1488 ppb        0.39897 268.06%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 1.2      1.7822 µg/L       9.44496      1.7822 ppb        9.44496 529.97%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                1.9      0.5230 µg/L       2.64571      0.5230 ppb        2.64571 505.84%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           4.6     17.169 µg/L        7.4754     17.169 ppb         7.4754  43.54%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                5.6      5.1846 µg/L       0.61020      5.1846 ppb        0.61020  11.77%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               -2.9     -3.1307 µg/L       3.41309     -3.1307 ppb        3.41309 109.02%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     27.3      4.6910 µg/L       3.15363      4.6910 ppb        3.15363  67.23%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               19.2      1.3287 µg/L       0.44209      1.3287 ppb        0.44209  33.27%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               -1.2     -0.6453 µg/L       0.64375     -0.6453 ppb        0.64375  99.76%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               34.1      0.4434 µg/L       0.20876      0.4434 ppb        0.20876  47.09%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              -20.2     -0.0496 µg/L       0.07770     -0.0496 ppb        0.07770 156.80%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                0.6      0.9473 µg/L       2.64122      0.9473 ppb        2.64122 278.82%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -18.7     -2.0065 µg/L       3.10892     -2.0065 ppb        3.10892 154.94%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 3.2      0.0384 µg/L       0.40411      0.0384 ppb        0.40411 >999.9%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               -5.2     -0.1469 µg/L       0.05748     -0.1469 ppb        0.05748  39.14%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 8
Sample ID: PQL
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 101
Date Collected: 1/11/2010 12:53:11
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: PQL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	55694.6	55694.6	100	%			12:53:43
1	Al 396.153Radial†	312.1	284.8	208.83	µg/L	208.83	ppb	12:53:43
1	Ca 317.933Radial†	425.2	222.6	202.63	µg/L	202.63	ppb	12:54:03
1	Fe 238.204 Radial†	20.4	7.1	133.64	µg/L	133.64	ppb	12:54:03
1	K 766.490 Radial†	748.7	224.7	151.88	µg/L	151.88	ppb	12:53:43
1	Mg 279.077 IEC†	36.8	28.1	349.43	µg/L	349.43	ppb	12:54:03
1	Na 589.592 Radial†	1077.1	677.5	292.79	µg/L	292.79	ppb	12:53:43
1	Sr 421.552†	376.6	414.0	5.3848	µg/L	5.3848	ppb	12:53:43
1	Sc 361.383	1878996.7	1878996.7	100.57	%			12:55:05
1	Y 371.029	1157403.9	1157403.9	100.51	%			12:55:05
1	Ag 328.068†	354.9	562.4	5.2786	µg/L	5.2786	ppb	12:55:10
1	As 188.979†	9.9	14.1	24.159	µg/L	24.159	ppb	12:55:31
1	B 249.677†	1740.7	1338.0	51.842	µg/L	51.842	ppb	12:55:10
1	Ba 233.527†	148.8	193.8	5.4179	µg/L	5.4179	ppb	12:55:31
1	Be 313.107†	12171.0	7956.4	5.0982	µg/L	5.0982	ppb	12:55:05
1	Cd 226.502†	55.5	187.6	5.1974	µg/L	5.1974	ppb	12:55:31
1	Co 228.616†	116.3	104.0	5.2469	µg/L	5.2469	ppb	12:55:31
1	Cr 267.716†	86.7	227.3	5.2471	µg/L	5.2471	ppb	12:55:10
1	Cu 324.752†	7368.5	1392.7	10.170	µg/L	10.170	ppb	12:55:10
1	Mn 257.610†	2850.9	3086.2	10.752	µg/L	10.752	ppb	12:55:10
1	Mo 202.031†	111.7	90.8	11.301	µg/L	11.301	ppb	12:55:31
1	Ni 231.604†	405.5	72.4	4.1586	µg/L	4.1586	ppb	12:55:31
1	P 214.914†	365.0	98.7	159.12	µg/L	159.12	ppb	12:55:31
1	Pb 220.353†	131.9	50.0	13.530	µg/L	13.530	ppb	12:55:31
1	S 181.975 Axial†	59.8	26.2	98.311	µg/L	98.311	ppb	12:55:31
1	Sb 206.836†	36.6	11.9	11.129	µg/L	11.129	ppb	12:55:31
1	Se 196.026†	41.9	27.7	29.575	µg/L	29.575	ppb	12:55:31
1	SiO2†	4954.8	1303.4	224.08	µg/L	224.08	ppb	12:55:10
1	Si 251.611†	1917.1	1556.5	105.06	µg/L	105.06	ppb	12:55:10
1	Sn 189.927†	44.6	11.9	6.3214	µg/L	6.3214	ppb	12:55:31
1	Ti 334.940†	2686.2	2074.4	5.0787	µg/L	5.0787	ppb	12:55:10
1	Tl 190.801†	-16.8	10.1	16.226	µg/L	16.226	ppb	12:55:31
1	U 409.014†	525.5	489.2	52.243	µg/L	52.243	ppb	12:55:10
1	V 292.402†	154.5	427.7	5.4619	µg/L	5.4619	ppb	12:55:10
1	Zn 213.857†	1065.5	406.5	10.413	µg/L	10.413	ppb	12:55:31
2	Sc RADIAL	56335.1	56335.1	101	%			12:54:09
2	Al 396.153Radial†	312.9	282.1	206.84	µg/L	206.84	ppb	12:54:09
2	Ca 317.933Radial†	425.9	218.5	198.92	µg/L	198.92	ppb	12:54:29
2	Fe 238.204 Radial†	21.2	7.7	144.78	µg/L	144.78	ppb	12:54:29
2	K 766.490 Radial†	797.2	264.0	178.50	µg/L	178.50	ppb	12:54:09
2	Mg 279.077 IEC†	34.1	25.1	311.32	µg/L	311.32	ppb	12:54:29
2	Na 589.592 Radial†	1087.5	675.6	291.94	µg/L	291.94	ppb	12:54:09
2	Sr 421.552†	376.3	409.4	5.3246	µg/L	5.3246	ppb	12:54:09
2	Sc 361.383	1881187.6	1881187.6	100.69	%			12:55:37
2	Y 371.029	1160682.0	1160682.0	100.80	%			12:55:37
2	Ag 328.068†	300.4	507.9	4.7703	µg/L	4.7703	ppb	12:55:42
2	As 188.979†	15.1	19.3	33.035	µg/L	33.035	ppb	12:56:03
2	B 249.677†	1748.3	1343.5	52.051	µg/L	52.051	ppb	12:55:42
2	Ba 233.527†	133.9	178.8	4.9985	µg/L	4.9985	ppb	12:56:03
2	Be 313.107†	12128.0	7899.6	5.0618	µg/L	5.0618	ppb	12:55:37
2	Cd 226.502†	44.3	176.4	4.8877	µg/L	4.8877	ppb	12:56:03
2	Co 228.616†	118.6	106.2	5.3569	µg/L	5.3569	ppb	12:56:03
2	Cr 267.716†	76.5	217.1	5.0118	µg/L	5.0118	ppb	12:55:42
2	Cu 324.752†	7322.7	1338.7	9.7774	µg/L	9.7774	ppb	12:55:42
2	Mn 257.610†	2817.2	3049.4	10.625	µg/L	10.625	ppb	12:55:42
2	Mo 202.031†	102.7	81.8	10.176	µg/L	10.176	ppb	12:56:03
2	Ni 231.604†	415.0	81.4	4.6736	µg/L	4.6736	ppb	12:56:03
2	P 214.914†	349.9	83.2	134.09	µg/L	134.09	ppb	12:56:03
2	Pb 220.353†	125.1	43.2	11.675	µg/L	11.675	ppb	12:56:03

2	S 181.975 Axial†	61.1	27.4	102.93 µg/L	102.93 ppb	12:56:03
2	Sb 206.836†	36.6	11.9	11.073 µg/L	11.073 ppb	12:56:03
2	Se 196.026†	49.1	34.8	37.108 µg/L	37.108 ppb	12:56:03
2	SiO2†	4966.8	1309.6	225.14 µg/L	225.14 ppb	12:55:42
2	Si 251.611†	1918.1	1555.2	104.96 µg/L	104.96 ppb	12:55:42
2	Sn 189.927†	45.6	12.8	6.7826 µg/L	6.7826 ppb	12:56:03
2	Ti 334.940†	2708.8	2093.7	5.1263 µg/L	5.1263 ppb	12:55:42
2	Tl 190.801†	-14.3	12.7	20.274 µg/L	20.274 ppb	12:56:03
2	U 409.014†	506.9	470.0	50.194 µg/L	50.194 ppb	12:55:42
2	V 292.402†	132.9	406.0	5.1830 µg/L	5.1830 ppb	12:55:42
2	Zn 213.857†	1063.4	403.2	10.323 µg/L	10.323 ppb	12:56:03
3	Sc RADIAL	55947.6	55947.6	101 %		12:54:35
3	Al 396.153Radial†	269.5	241.1	176.75 µg/L	176.75 ppb	12:54:35
3	Ca 317.933Radial†	416.9	212.4	193.37 µg/L	193.37 ppb	12:54:55
3	Fe 238.204 Radial†	18.0	4.6	86.787 µg/L	86.787 ppb	12:54:55
3	K 766.490 Radial†	794.5	266.8	180.41 µg/L	180.41 ppb	12:54:35
3	Mg 279.077 IEC†	36.7	27.9	346.37 µg/L	346.37 ppb	12:54:55
3	Na 589.592 Radial†	1099.5	695.0	300.33 µg/L	300.33 ppb	12:54:35
3	Sr 421.552†	379.8	415.4	5.4033 µg/L	5.4033 ppb	12:54:35
3	Sc 361.383	1902536.1	1902536.1	101.83 %		12:56:09
3	Y 371.029	1173251.4	1173251.4	101.89 %		12:56:09
3	Ag 328.068†	290.8	495.2	4.6488 µg/L	4.6488 ppb	12:56:14
3	As 188.979†	11.5	15.5	26.618 µg/L	26.618 ppb	12:56:35
3	B 249.677†	1654.4	1231.8	47.738 µg/L	47.738 ppb	12:56:14
3	Ba 233.527†	122.9	166.5	4.6557 µg/L	4.6557 ppb	12:56:35
3	Be 313.107†	11982.2	7621.3	4.8835 µg/L	4.8835 ppb	12:56:09
3	Cd 226.502†	33.7	165.5	4.5956 µg/L	4.5956 ppb	12:56:35
3	Co 228.616†	95.4	82.1	4.1414 µg/L	4.1414 ppb	12:56:35
3	Cr 267.716†	48.6	188.9	4.3622 µg/L	4.3622 ppb	12:56:14
3	Cu 324.752†	7363.1	1296.7	9.4664 µg/L	9.4664 ppb	12:56:14
3	Mn 257.610†	2640.7	2844.6	9.9056 µg/L	9.9056 ppb	12:56:14
3	Mo 202.031†	99.7	77.6	9.6553 µg/L	9.6553 ppb	12:56:35
3	Ni 231.604†	418.3	80.0	4.5940 µg/L	4.5940 ppb	12:56:35
3	P 214.914†	351.7	81.1	130.71 µg/L	130.71 ppb	12:56:35
3	Pb 220.353†	110.0	26.9	7.2722 µg/L	7.2722 ppb	12:56:35
3	S 181.975 Axial†	57.5	23.2	87.067 µg/L	87.067 ppb	12:56:35
3	Sb 206.836†	31.8	6.8	6.3109 µg/L	6.3109 ppb	12:56:35
3	Se 196.026†	42.6	27.9	29.810 µg/L	29.810 ppb	12:56:35
3	SiO2†	4896.6	1185.3	203.78 µg/L	203.78 ppb	12:56:14
3	Si 251.611†	1826.3	1443.7	97.447 µg/L	97.447 ppb	12:56:14
3	Sn 189.927†	44.3	11.1	5.8887 µg/L	5.8887 ppb	12:56:35
3	Ti 334.940†	2582.7	1939.6	4.7486 µg/L	4.7486 ppb	12:56:14
3	Tl 190.801†	-15.1	12.1	19.291 µg/L	19.291 ppb	12:56:35
3	U 409.014†	527.5	484.7	51.772 µg/L	51.772 ppb	12:56:14
3	V 292.402†	148.7	420.1	5.3550 µg/L	5.3550 ppb	12:56:14
3	Zn 213.857†	1019.1	347.9	8.9124 µg/L	8.9124 ppb	12:56:35

Mean Data: PQL

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1887573.5	101.03	%	0.696				0.69%
Sc RADIAL	55992.5	101	%	0.6				0.58%
Y 371.029	1163779.1	101.07	%	0.726				0.72%
Ag 328.068†	521.8	4.8992	µg/L	0.33415	4.8992	ppb	0.33415	6.82%
QC value within limits for Ag 328.068 Recovery = 97.98%								
Al 396.153Radial†	269.3	197.47	µg/L	17.976	197.47	ppb	17.976	9.10%
QC value within limits for Al 396.153Radial Recovery = 98.74%								
As 188.979†	16.3	27.937	µg/L	4.5825	27.937	ppb	4.5825	16.40%
QC value within limits for As 188.979 Recovery = 93.12%								
B 249.677†	1304.5	50.544	µg/L	2.4318	50.544	ppb	2.4318	4.81%
QC value within limits for B 249.677 Recovery = 101.09%								
Ba 233.527†	179.7	5.0240	µg/L	0.38174	5.0240	ppb	0.38174	7.60%
QC value within limits for Ba 233.527 Recovery = 100.48%								
Be 313.107†	7825.7	5.0145	µg/L	0.11489	5.0145	ppb	0.11489	2.29%
QC value within limits for Be 313.107 Recovery = 100.29%								
Ca 317.933Radial†	217.9	198.31	µg/L	4.656	198.31	ppb	4.656	2.35%
QC value within limits for Ca 317.933Radial Recovery = 99.15%								
Cd 226.502†	176.5	4.8936	µg/L	0.30094	4.8936	ppb	0.30094	6.15%
QC value within limits for Cd 226.502 Recovery = 97.87%								
Co 228.616†	97.4	4.9150	µg/L	0.67229	4.9150	ppb	0.67229	13.68%

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   QC value within limits for Co 228.616  Recovery = 98.30%
Cr 267.716†              211.1      4.8737 µg/L       0.45832      4.8737 ppb        0.45832   9.40%
   QC value within limits for Cr 267.716  Recovery = 97.47%
Cu 324.752†             1342.7      9.8047 µg/L       0.35276      9.8047 ppb        0.35276   3.60%
   QC value within limits for Cu 324.752  Recovery = 98.05%
Fe 238.204 Radial†         6.5      121.73 µg/L        30.774      121.73 ppb         30.774  25.28%
   QC value within limits for Fe 238.204 Radial  Recovery = 121.73%
K 766.490 Radial†        251.8      170.26 µg/L        15.946      170.26 ppb         15.946   9.37%
   QC value within limits for K 766.490 Radial  Recovery = 113.51%
Mg 279.077 IEC†           27.0      335.71 µg/L        21.176      335.71 ppb         21.176   6.31%
   QC value within limits for Mg 279.077 IEC  Recovery = 111.90%
Mn 257.610†             2993.4      10.428 µg/L        0.4564      10.428 ppb         0.4564   4.38%
   QC value within limits for Mn 257.610  Recovery = 104.28%
Mo 202.031†               83.4      10.377 µg/L        0.8410      10.377 ppb         0.8410   8.10%
   QC value within limits for Mo 202.031  Recovery = 103.77%
Na 589.592 Radial†       682.7      295.02 µg/L         4.620      295.02 ppb          4.620   1.57%
   QC value within limits for Na 589.592 Radial  Recovery = 98.34%
Ni 231.604†               77.9      4.4754 µg/L       0.27721      4.4754 ppb        0.27721   6.19%
   QC value within limits for Ni 231.604  Recovery = 89.51%
P 214.914†                87.7      141.31 µg/L        15.521      141.31 ppb         15.521  10.98%
   QC value within limits for P 214.914  Recovery = 94.20%
Pb 220.353†               40.0      10.826 µg/L        3.2142      10.826 ppb         3.2142  29.69%
   QC value within limits for Pb 220.353  Recovery = 108.26%
S 181.975 Axial†          25.6      96.102 µg/L        8.1586      96.102 ppb         8.1586   8.49%
   QC value within limits for S 181.975 Axial  Recovery = 96.10%
Sb 206.836†               10.2      9.5042 µg/L       2.76563      9.5042 ppb        2.76563  29.10%
   QC value within limits for Sb 206.836  Recovery = 95.04%
Se 196.026†               30.1      32.165 µg/L        4.2830      32.165 ppb         4.2830  13.32%
   QC value within limits for Se 196.026  Recovery = 107.22%
SiO2†                   1266.1      217.67 µg/L        12.041      217.67 ppb         12.041   5.53%
   QC value within limits for SiO2  Recovery = 102.19%
Si 251.611†             1518.5      102.49 µg/L         4.368      102.49 ppb          4.368   4.26%
   QC value within limits for Si 251.611  Recovery = 102.49%
Sn 189.927†               12.0      6.3309 µg/L       0.44702      6.3309 ppb        0.44702   7.06%
   QC value less than the lower limit for Sn 189.927  Recovery = 63.31%
Sr 421.552†              412.9      5.3709 µg/L       0.04118      5.3709 ppb        0.04118   0.77%
   QC value within limits for Sr 421.552  Recovery = 107.42%
Ti 334.940†             2035.9      4.9846 µg/L       0.20571      4.9846 ppb        0.20571   4.13%
   QC value within limits for Ti 334.940  Recovery = 99.69%
Tl 190.801†               11.6      18.597 µg/L        2.1112      18.597 ppb         2.1112  11.35%
   QC value within limits for Tl 190.801  Recovery = 92.99%
U 409.014†               481.3      51.403 µg/L        1.0732      51.403 ppb         1.0732   2.09%
   QC value within limits for U 409.014  Recovery = 102.81%
V 292.402†               417.9      5.3333 µg/L       0.14072      5.3333 ppb        0.14072   2.64%
   QC value within limits for V 292.402  Recovery = 106.67%
Zn 213.857†              385.8      9.8828 µg/L       0.84160      9.8828 ppb        0.84160   8.52%
   QC value within limits for Zn 213.857  Recovery = 98.83%
QC Failed.  Continue with analysis.
```

Sequence No.: 9
Sample ID: ICSA
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 103
Date Collected: 1/11/2010 12:56:43
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSA

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	54946.4	54946.4	98.8	%			12:57:24
1	Al 396.153Radial†	671701.9	679623.1	499320	µg/L	499320	ppb	12:57:19
1	Ca 317.933Radial†	516610.8	522521.9	475620	µg/L	475620	ppb	12:57:19
1	Fe 238.204 Radial†	9837.3	9940.5	185800	µg/L	185800	ppb	12:57:24
1	K 766.490 Radial†	553.9	37.8	25.539	µg/L	25.539	ppb	12:57:24
1	Mg 279.077 IEC†	38273.3	38717.6	480750	µg/L	480750	ppb	12:57:24
1	Na 589.592 Radial†	479.6	87.6	37.851	µg/L	37.851	ppb	12:57:24
1	Sr 421.552†	224.5	265.2	3.4489	µg/L	3.4489	ppb	12:57:24
1	Sc 361.383	1806841.8	1806841.8	96.707	%			12:57:58
1	Y 371.029	1102693.0	1102693.0	95.763	%			12:57:58
1	Ag 328.068†	-2326.4	-2196.1	-5.7993	µg/L	-5.7993	ppb	12:57:58
1	As 188.979†	18.2	23.1	12.760	µg/L	12.760	ppb	12:58:18
1	B 249.677†	805.4	440.0	-41.365	µg/L	-41.365	ppb	12:57:58
1	Ba 233.527†	208.1	260.9	7.2713	µg/L	7.2713	ppb	12:58:18
1	Be 313.107†	3625.5	-396.8	-0.2639	µg/L	-0.2639	ppb	12:57:58
1	Cd 226.502†	691.7	847.7	-2.6022	µg/L	-2.6022	ppb	12:58:18
1	Co 228.616†	16.4	5.3	0.1766	µg/L	0.1766	ppb	12:58:18
1	Cr 267.716†	-239.9	-106.9	-2.4723	µg/L	-2.4723	ppb	12:58:18
1	Cu 324.752†	2195.6	-3663.7	-9.8544	µg/L	-9.8544	ppb	12:57:58
1	Mn 257.610†	-2592.7	-2429.6	14.904	µg/L	14.904	ppb	12:57:58
1	Mo 202.031†	-105.6	-129.5	-8.7964	µg/L	-8.7964	ppb	12:58:18
1	Ni 231.604†	319.6	-0.3	-0.0183	µg/L	-0.0183	ppb	12:58:18
1	P 214.914†	263.3	7.9	-22.165	µg/L	-22.165	ppb	12:58:18
1	Pb 220.353†	-4.5	-85.8	-10.612	µg/L	-10.612	ppb	12:58:18
1	S 181.975 Axial†	58.4	27.1	5.6963	µg/L	5.6963	ppb	12:58:18
1	Sb 206.836†	50.5	27.8	2.1890	µg/L	2.1890	ppb	12:58:18
1	Se 196.026†	-59.5	-75.5	-12.465	µg/L	-12.465	ppb	12:58:18
1	SiO2†	3394.1	-113.7	-19.555	µg/L	-19.555	ppb	12:58:18
1	Si 251.611†	554.0	223.1	21.693	µg/L	21.693	ppb	12:58:18
1	Sn 189.927†	-315.3	-358.4	-0.5231	µg/L	-0.5231	ppb	12:58:18
1	Ti 334.940†	10783.1	10553.6	-2.1703	µg/L	-2.1703	ppb	12:57:58
1	Tl 190.801†	9.9	37.1	10.564	µg/L	10.564	ppb	12:58:18
1	U 409.014†	443.6	425.3	-17.698	µg/L	-17.698	ppb	12:57:58
1	V 292.402†	-599.1	-345.5	1.0315	µg/L	1.0315	ppb	12:57:58
1	Zn 213.857†	1920.9	1333.4	-16.692	µg/L	-16.692	ppb	12:58:18
2	Sc RADIAL	54802.1	54802.1	98.6	%			12:57:36
2	Al 396.153Radial†	676254.4	686031.0	504030	µg/L	504030	ppb	12:57:30
2	Ca 317.933Radial†	520101.5	527439.4	480090	µg/L	480090	ppb	12:57:30
2	Fe 238.204 Radial†	9785.5	9914.1	185310	µg/L	185310	ppb	12:57:36
2	K 766.490 Radial†	475.9	-39.9	-26.970	µg/L	-26.970	ppb	12:57:36
2	Mg 279.077 IEC†	38042.1	38585.0	479110	µg/L	479110	ppb	12:57:36
2	Na 589.592 Radial†	472.4	81.6	35.263	µg/L	35.263	ppb	12:57:36
2	Sr 421.552†	249.1	290.8	3.7820	µg/L	3.7820	ppb	12:57:36
2	Sc 361.383	1815806.8	1815806.8	97.187	%			12:58:25
2	Y 371.029	1109052.4	1109052.4	96.315	%			12:58:25
2	Ag 328.068†	-2317.5	-2175.1	-5.6472	µg/L	-5.6472	ppb	12:58:25
2	As 188.979†	11.9	16.5	0.5113	µg/L	0.5113	ppb	12:58:46
2	B 249.677†	814.0	444.7	-41.027	µg/L	-41.027	ppb	12:58:25
2	Ba 233.527†	208.1	259.9	7.2422	µg/L	7.2422	ppb	12:58:46
2	Be 313.107†	3596.3	-445.3	-0.2951	µg/L	-0.2951	ppb	12:58:25
2	Cd 226.502†	698.0	850.6	-2.4518	µg/L	-2.4518	ppb	12:58:46
2	Co 228.616†	18.4	7.3	0.2780	µg/L	0.2780	ppb	12:58:46
2	Cr 267.716†	-189.0	-53.3	-1.2386	µg/L	-1.2386	ppb	12:58:46
2	Cu 324.752†	2258.4	-3610.4	-9.5102	µg/L	-9.5102	ppb	12:58:25
2	Mn 257.610†	-2647.6	-2472.9	14.691	µg/L	14.691	ppb	12:58:25
2	Mo 202.031†	-91.9	-114.8	-6.9883	µg/L	-6.9883	ppb	12:58:46
2	Ni 231.604†	312.3	-9.5	-0.5445	µg/L	-0.5445	ppb	12:58:46
2	P 214.914†	270.9	14.4	-9.1266	µg/L	-9.1266	ppb	12:58:46
2	Pb 220.353†	5.2	-75.8	-7.7600	µg/L	-7.7600	ppb	12:58:46

2	S 181.975 Axial†	70.8	39.6	52.989 µg/L	52.989 ppb		12:58:46
2	Sb 206.836†	63.2	40.5	13.890 µg/L	13.890 ppb		12:58:46
2	Se 196.026†	-58.0	-73.6	-8.3381 µg/L	-8.3381 ppb		12:58:46
2	SiO2†	3398.6	-126.4	-21.732 µg/L	-21.732 ppb		12:58:46
2	Si 251.611†	540.5	206.3	20.137 µg/L	20.137 ppb		12:58:46
2	Sn 189.927†	-297.6	-338.6	10.485 µg/L	10.485 ppb		12:58:46
2	Ti 334.940†	10922.9	10642.4	-2.2167 µg/L	-2.2167 ppb		12:58:25
2	Tl 190.801†	21.3	48.8	28.771 µg/L	28.771 ppb		12:58:46
2	U 409.014†	475.8	456.2	-14.573 µg/L	-14.573 ppb		12:58:25
2	V 292.402†	-654.3	-399.2	0.3705 µg/L	0.3705 ppb		12:58:25
2	Zn 213.857†	1904.4	1306.6	-17.245 µg/L	-17.245 ppb		12:58:46
3	Sc RADIAL	54919.9	54919.9	98.8 %			12:57:47
3	Al 396.153Radial†	677554.1	685875.3	503920 µg/L	503920 ppb		12:57:41
3	Ca 317.933Radial†	522161.0	528392.5	480960 µg/L	480960 ppb		12:57:41
3	Fe 238.204 Radial†	9809.5	9917.1	185360 µg/L	185360 ppb		12:57:47
3	K 766.490 Radial†	509.8	-6.7	-4.5107 µg/L	-4.5107 ppb		12:57:47
3	Mg 279.077 IEC†	38139.5	38600.8	479300 µg/L	479300 ppb		12:57:47
3	Na 589.592 Radial†	495.9	104.3	45.091 µg/L	45.091 ppb		12:57:47
3	Sr 421.552†	243.6	284.7	3.7025 µg/L	3.7025 ppb		12:57:47
3	Sc 361.383	1813008.3	1813008.3	97.037 %			12:58:52
3	Y 371.029	1106587.4	1106587.4	96.101 %			12:58:52
3	Ag 328.068†	-2334.7	-2196.5	-5.8350 µg/L	-5.8350 ppb		12:58:52
3	As 188.979†	23.8	28.8	21.394 µg/L	21.394 ppb		12:59:13
3	B 249.677†	808.1	440.0	-41.229 µg/L	-41.229 ppb		12:58:52
3	Ba 233.527†	193.0	244.7	6.8177 µg/L	6.8177 ppb		12:59:13
3	Be 313.107†	3580.8	-455.6	-0.3016 µg/L	-0.3016 ppb		12:58:52
3	Cd 226.502†	711.2	865.4	-2.0507 µg/L	-2.0507 ppb		12:59:13
3	Co 228.616†	10.9	-0.4	-0.1108 µg/L	-0.1108 ppb		12:59:13
3	Cr 267.716†	-219.7	-85.2	-1.9713 µg/L	-1.9713 ppb		12:59:13
3	Cu 324.752†	2192.7	-3674.4	-9.9722 µg/L	-9.9722 ppb		12:58:52
3	Mn 257.610†	-2645.2	-2474.5	14.692 µg/L	14.692 ppb		12:58:52
3	Mo 202.031†	-98.3	-121.6	-7.8305 µg/L	-7.8305 ppb		12:59:13
3	Ni 231.604†	307.0	-14.4	-0.8282 µg/L	-0.8282 ppb		12:59:13
3	P 214.914†	279.9	24.2	6.5131 µg/L	6.5131 ppb		12:59:13
3	Pb 220.353†	-0.0	-81.1	-9.2096 µg/L	-9.2096 ppb		12:59:13
3	S 181.975 Axial†	68.2	37.0	43.164 µg/L	43.164 ppb		12:59:13
3	Sb 206.836†	67.6	45.1	18.127 µg/L	18.127 ppb		12:59:13
3	Se 196.026†	-35.6	-50.6	16.412 µg/L	16.412 ppb		12:59:13
3	SiO2†	3373.9	-146.4	-25.172 µg/L	-25.172 ppb		12:59:13
3	Si 251.611†	545.4	212.3	20.824 µg/L	20.824 ppb		12:59:13
3	Sn 189.927†	-310.2	-352.1	3.6850 µg/L	3.6850 ppb		12:59:13
3	Ti 334.940†	10853.4	10588.1	-2.4012 µg/L	-2.4012 ppb		12:58:52
3	Tl 190.801†	8.4	35.5	7.4039 µg/L	7.4039 ppb		12:59:13
3	U 409.014†	487.2	468.6	-13.305 µg/L	-13.305 ppb		12:58:52
3	V 292.402†	-574.6	-318.1	1.3726 µg/L	1.3726 ppb		12:58:52
3	Zn 213.857†	1927.2	1333.1	-16.573 µg/L	-16.573 ppb		12:59:13

Mean Data: ICSA

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1811885.6	96.977	%	0.2455				0.25%
Sc RADIAL	54889.5	98.7	%	0.14				0.14%
Y 371.029	1106110.9	96.060	%	0.2785				0.29%
Ag 328.068†	-2189.2	-5.7605	µg/L	0.09973	-5.7605	ppb	0.09973	1.73%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	683843.1	502420	µg/L	2685.6	502420	ppb	2685.6	0.53%
QC value within limits for Al 396.153Radial Recovery = 100.48%								
As 188.979†	22.8	11.555	µg/L	10.4931	11.555	ppb	10.4931	90.81%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	441.5	-41.207	µg/L	0.1699	-41.207	ppb	0.1699	0.41%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	255.2	7.1104	µg/L	0.25389	7.1104	ppb	0.25389	3.57%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-432.5	-0.2869	µg/L	0.02016	-0.2869	ppb	0.02016	7.03%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	526117.9	478890	µg/L	2867.7	478890	ppb	2867.7	0.60%
QC value within limits for Ca 317.933Radial Recovery = 95.78%								
Cd 226.502†	854.6	-2.3682	µg/L	0.28510	-2.3682	ppb	0.28510	12.04%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	4.1	0.1146	µg/L	0.20165	0.1146	ppb	0.20165	175.97%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -81.8     -1.8940 µg/L       0.62047     -1.8940 ppb        0.62047  32.76%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -3649.5     -9.7789 µg/L       0.24009     -9.7789 ppb        0.24009   2.46%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†      9923.9      185490 µg/L         270.2      185490 ppb          270.2   0.15%
   QC value within limits for Fe 238.204 Radial  Recovery = 92.74%
K 766.490 Radial†         -2.9     -1.9806 µg/L      26.34547     -1.9806 ppb       26.34547 >999.9%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†        38634.5      479720 µg/L         899.5      479720 ppb          899.5   0.19%
   QC value within limits for Mg 279.077 IEC  Recovery = 95.94%
Mn 257.610†            -2459.0      14.762 µg/L        0.1223      14.762 ppb         0.1223   0.83%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†             -121.9     -7.8717 µg/L       0.90475     -7.8717 ppb        0.90475  11.49%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        91.2      39.402 µg/L        5.0943      39.402 ppb         5.0943  12.93%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               -8.1     -0.4637 µg/L       0.41096     -0.4637 ppb        0.41096  88.63%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                15.5     -8.2595 µg/L      14.35872     -8.2595 ppb       14.35872 173.85%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -80.9     -9.1937 µg/L       1.42581     -9.1937 ppb        1.42581  15.51%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          34.5      33.950 µg/L       24.9565      33.950 ppb        24.9565  73.51%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               37.8      11.402 µg/L        8.2551      11.402 ppb         8.2551  72.40%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              -66.6     -1.4640 µg/L      15.61775     -1.4640 ppb       15.61775 >999.9%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                   -128.9     -22.153 µg/L        2.8324     -22.153 ppb         2.8324  12.79%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†              213.9      20.884 µg/L        0.7798      20.884 ppb         0.7798   3.73%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†              -349.7      4.5490 µg/L       5.55474      4.5490 ppb        5.55474 122.11%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              280.2      3.6445 µg/L       0.17396      3.6445 ppb        0.17396   4.77%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†            10594.7     -2.2627 µg/L       0.12212     -2.2627 ppb        0.12212   5.40%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               40.5      15.579 µg/L       11.5328      15.579 ppb        11.5328  74.03%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               450.1     -15.192 µg/L        2.2607     -15.192 ppb         2.2607  14.88%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              -354.2      0.9249 µg/L       0.50950      0.9249 ppb        0.50950  55.09%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†             1324.3     -16.836 µg/L        0.3584     -16.836 ppb         0.3584   2.13%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 10
Sample ID: ICSAB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 104
Date Collected: 1/11/2010 12:59:23
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSAB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	54897.4	54897.4	98.7	%			13:00:02
1	Al 396.153Radial†	671922.3	680453.4	499910	µg/L	499910	ppb	12:59:57
1	Ca 317.933Radial†	514150.5	520497.1	473770	µg/L	473770	ppb	12:59:57
1	Fe 238.204 Radial†	9648.5	9758.2	182410	µg/L	182410	ppb	13:00:02
1	K 766.490 Radial†	8001.0	7580.2	5124.9	µg/L	5124.9	ppb	13:00:02
1	Mg 279.077 IEC†	38122.9	38599.9	479310	µg/L	479310	ppb	13:00:02
1	Na 589.592 Radial†	12119.3	11876.0	5132.2	µg/L	5132.2	ppb	13:00:02
1	Sr 421.552†	37406.4	37920.9	493.24	µg/L	493.24	ppb	13:00:02
1	Sc 361.383	1801490.0	1801490.0	96.421	%			13:00:37
1	Y 371.029	1099552.9	1099552.9	95.490	%			13:00:37
1	Ag 328.068†	25761.5	26927.3	268.39	µg/L	268.39	ppb	13:00:37
1	As 188.979†	300.1	315.5	513.20	µg/L	513.20	ppb	13:00:57
1	B 249.677†	13914.4	14038.1	486.99	µg/L	486.99	ppb	13:00:37
1	Ba 233.527†	17434.5	18127.4	506.84	µg/L	506.84	ppb	13:00:37
1	Be 313.107†	366769.9	376239.3	240.97	µg/L	240.97	ppb	13:00:37
1	Cd 226.502†	17154.1	17923.3	469.74	µg/L	469.74	ppb	13:00:37
1	Co 228.616†	8647.4	8956.8	450.63	µg/L	450.63	ppb	13:00:57
1	Cr 267.716†	20579.8	21484.9	495.91	µg/L	495.91	ppb	13:00:37
1	Cu 324.752†	78930.5	75926.4	570.37	µg/L	570.37	ppb	13:00:37
1	Mn 257.610†	133333.7	138534.7	504.81	µg/L	504.81	ppb	13:00:37
1	Mo 202.031†	3895.8	4020.1	507.06	µg/L	507.06	ppb	13:00:57
1	Ni 231.604†	7976.3	7941.5	456.02	µg/L	456.02	ppb	13:00:57
1	P 214.914†	1811.6	1614.6	2533.1	µg/L	2533.1	ppb	13:00:57
1	Pb 220.353†	1788.6	1773.9	493.57	µg/L	493.57	ppb	13:00:57
1	S 181.975 Axial†	748.9	743.4	2700.3	µg/L	2700.3	ppb	13:00:57
1	Sb 206.836†	606.9	604.9	540.45	µg/L	540.45	ppb	13:00:57
1	Se 196.026†	2140.8	2206.3	2415.6	µg/L	2415.6	ppb	13:00:57
1	SiO2†	66415.1	65257.1	11219	µg/L	11219	ppb	13:00:37
1	Si 251.611†	75012.6	77447.4	5217.5	µg/L	5217.5	ppb	13:00:37
1	Sn 189.927†	687.9	681.0	541.14	µg/L	541.14	ppb	13:00:57
1	Ti 334.940†	211699.2	218961.2	509.39	µg/L	509.39	ppb	13:00:37
1	Tl 190.801†	324.3	363.2	535.24	µg/L	535.24	ppb	13:00:57
1	U 409.014†	5016.8	5169.6	490.10	µg/L	490.10	ppb	13:00:37
1	V 292.402†	39524.6	41265.9	520.51	µg/L	520.51	ppb	13:00:37
1	Zn 213.857†	20280.0	20379.9	472.38	µg/L	472.38	ppb	13:00:37
2	Sc RADIAL	54562.3	54562.3	98.1	%			13:00:14
2	Al 396.153Radial†	673945.8	686694.5	504500	µg/L	504500	ppb	13:00:08
2	Ca 317.933Radial†	516939.1	526536.5	479270	µg/L	479270	ppb	13:00:08
2	Fe 238.204 Radial†	9651.4	9821.1	183580	µg/L	183580	ppb	13:00:14
2	K 766.490 Radial†	7994.8	7623.7	5154.2	µg/L	5154.2	ppb	13:00:14
2	Mg 279.077 IEC†	37971.2	38682.4	480330	µg/L	480330	ppb	13:00:14
2	Na 589.592 Radial†	12078.2	11909.5	5146.7	µg/L	5146.7	ppb	13:00:14
2	Sr 421.552†	37288.4	38033.3	494.70	µg/L	494.70	ppb	13:00:14
2	Sc 361.383	1799690.1	1799690.1	96.324	%			13:01:05
2	Y 371.029	1097503.7	1097503.7	95.312	%			13:01:05
2	Ag 328.068†	25786.9	26980.4	268.98	µg/L	268.98	ppb	13:01:05
2	As 188.979†	302.9	318.7	518.01	µg/L	518.01	ppb	13:01:25
2	B 249.677†	13998.9	14140.2	490.58	µg/L	490.58	ppb	13:01:05
2	Ba 233.527†	17477.7	18190.5	508.60	µg/L	508.60	ppb	13:01:05
2	Be 313.107†	366288.2	376119.7	240.90	µg/L	240.90	ppb	13:01:05
2	Cd 226.502†	17206.0	17994.9	471.56	µg/L	471.56	ppb	13:01:05
2	Co 228.616†	8647.0	8965.4	451.06	µg/L	451.06	ppb	13:01:25
2	Cr 267.716†	20595.9	21523.0	496.78	µg/L	496.78	ppb	13:01:05
2	Cu 324.752†	79025.2	76106.6	571.79	µg/L	571.79	ppb	13:01:05
2	Mn 257.610†	133577.4	138926.0	506.32	µg/L	506.32	ppb	13:01:05
2	Mo 202.031†	3912.9	4042.0	509.83	µg/L	509.83	ppb	13:01:25
2	Ni 231.604†	7995.0	7969.3	457.62	µg/L	457.62	ppb	13:01:25
2	P 214.914†	1806.8	1611.4	2528.4	µg/L	2528.4	ppb	13:01:25
2	Pb 220.353†	1798.0	1785.5	496.85	µg/L	496.85	ppb	13:01:25

2	S 181.975 Axial†	756.7	752.3	2733.3 µg/L	2733.3 ppb	13:01:25
2	Sb 206.836†	598.6	596.9	532.73 µg/L	532.73 ppb	13:01:25
2	Se 196.026†	2145.3	2213.2	2424.9 µg/L	2424.9 ppb	13:01:25
2	SiO2†	66453.0	65365.4	11237 µg/L	11237 ppb	13:01:05
2	Si 251.611†	75109.3	77625.6	5229.1 µg/L	5229.1 ppb	13:01:05
2	Sn 189.927†	707.5	702.1	553.40 µg/L	553.40 ppb	13:01:25
2	Ti 334.940†	211713.3	219195.4	509.64 µg/L	509.64 ppb	13:01:05
2	Tl 190.801†	321.3	360.5	530.25 µg/L	530.25 ppb	13:01:25
2	U 409.014†	5008.0	5165.7	489.13 µg/L	489.13 ppb	13:01:05
2	V 292.402†	39504.0	41285.5	520.80 µg/L	520.80 ppb	13:01:05
2	Zn 213.857†	20335.5	20458.5	474.08 µg/L	474.08 ppb	13:01:05
3	Sc RADIAL	54377.4	54377.4	97.8 %		13:00:25
3	Al 396.153Radial†	674527.0	689623.3	506650 µg/L	506650 ppb	13:00:19
3	Ca 317.933Radial†	515104.1	526451.0	479190 µg/L	479190 ppb	13:00:19
3	Fe 238.204 Radial†	9608.2	9810.4	183380 µg/L	183380 ppb	13:00:25
3	K 766.490 Radial†	7970.5	7626.5	5156.1 µg/L	5156.1 ppb	13:00:25
3	Mg 279.077 IEC†	37854.0	38694.1	480480 µg/L	480480 ppb	13:00:25
3	Na 589.592 Radial†	12043.5	11915.9	5149.5 µg/L	5149.5 ppb	13:00:25
3	Sr 421.552†	37203.4	38075.6	495.25 µg/L	495.25 ppb	13:00:25
3	Sc 361.383	1794453.4	1794453.4	96.044 %		13:01:33
3	Y 371.029	1094155.8	1094155.8	95.022 %		13:01:33
3	Ag 328.068†	25569.6	26832.3	267.57 µg/L	267.57 ppb	13:01:33
3	As 188.979†	300.8	317.4	515.81 µg/L	515.81 ppb	13:01:53
3	B 249.677†	13879.5	14058.3	487.46 µg/L	487.46 ppb	13:01:33
3	Ba 233.527†	17304.8	18063.4	505.05 µg/L	505.05 ppb	13:01:33
3	Be 313.107†	364731.8	375608.9	240.57 µg/L	240.57 ppb	13:01:33
3	Cd 226.502†	17069.7	17905.2	469.12 µg/L	469.12 ppb	13:01:33
3	Co 228.616†	8693.6	9040.0	454.82 µg/L	454.82 ppb	13:01:53
3	Cr 267.716†	20514.5	21500.6	496.27 µg/L	496.27 ppb	13:01:33
3	Cu 324.752†	78523.8	75823.9	569.71 µg/L	569.71 ppb	13:01:33
3	Mn 257.610†	132868.9	138592.9	505.13 µg/L	505.13 ppb	13:01:33
3	Mo 202.031†	3915.2	4056.2	511.58 µg/L	511.58 ppb	13:01:53
3	Ni 231.604†	8013.3	8012.6	460.10 µg/L	460.10 ppb	13:01:53
3	P 214.914†	1816.8	1627.4	2555.4 µg/L	2555.4 ppb	13:01:53
3	Pb 220.353†	1791.2	1783.9	496.46 µg/L	496.46 ppb	13:01:53
3	S 181.975 Axial†	755.1	752.9	2735.6 µg/L	2735.6 ppb	13:01:53
3	Sb 206.836†	617.0	617.9	552.32 µg/L	552.32 ppb	13:01:53
3	Se 196.026†	2159.5	2234.5	2447.4 µg/L	2447.4 ppb	13:01:53
3	SiO2†	66175.8	65278.2	11222 µg/L	11222 ppb	13:01:33
3	Si 251.611†	74679.7	77405.9	5214.5 µg/L	5214.5 ppb	13:01:33
3	Sn 189.927†	691.6	687.6	545.89 µg/L	545.89 ppb	13:01:53
3	Ti 334.940†	210591.2	218668.5	508.35 µg/L	508.35 ppb	13:01:33
3	Tl 190.801†	317.7	357.6	525.91 µg/L	525.91 ppb	13:01:53
3	U 409.014†	5131.8	5309.8	504.58 µg/L	504.58 ppb	13:01:33
3	V 292.402†	39250.6	41141.4	519.05 µg/L	519.05 ppb	13:01:33
3	Zn 213.857†	20184.6	20363.0	471.66 µg/L	471.66 ppb	13:01:33

Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1798544.5	96.263	%	0.1957				0.20%
Sc RADIAL	54612.4	98.2	%	0.47				0.48%
Y 371.029	1097070.8	95.275	%	0.2366				0.25%
Ag 328.068†	26913.4	268.31	µg/L	0.706	268.31	ppb	0.706	0.26%
QC value within limits for Ag 328.068 Recovery = 107.32%								
Al 396.153Radial†	685590.4	503690	µg/L	3441.0	503690	ppb	3441.0	0.68%
QC value within limits for Al 396.153Radial Recovery = 100.74%								
As 188.979†	317.2	515.67	µg/L	2.410	515.67	ppb	2.410	0.47%
QC value within limits for As 188.979 Recovery = 103.13%								
B 249.677†	14078.9	488.34	µg/L	1.950	488.34	ppb	1.950	0.40%
QC value within limits for B 249.677 Recovery = 97.67%								
Ba 233.527†	18127.1	506.83	µg/L	1.775	506.83	ppb	1.775	0.35%
QC value within limits for Ba 233.527 Recovery = 101.37%								
Be 313.107†	375989.3	240.81	µg/L	0.214	240.81	ppb	0.214	0.09%
QC value within limits for Be 313.107 Recovery = 96.33%								
Ca 317.933Radial†	524494.9	477410	µg/L	3151.6	477410	ppb	3151.6	0.66%
QC value within limits for Ca 317.933Radial Recovery = 95.48%								
Cd 226.502†	17941.2	470.14	µg/L	1.264	470.14	ppb	1.264	0.27%
QC value within limits for Cd 226.502 Recovery = 94.03%								
Co 228.616†	8987.4	452.17	µg/L	2.308	452.17	ppb	2.308	0.51%

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   QC value within limits for Co 228.616  Recovery = 90.43%
Cr 267.716†            21502.8      496.32 µg/L        0.441      496.32 ppb        0.441   0.09%
   QC value within limits for Cr 267.716  Recovery = 99.26%
Cu 324.752†            75952.3      570.63 µg/L        1.063      570.63 ppb        1.063   0.19%
   QC value within limits for Cu 324.752  Recovery = 114.13%
Fe 238.204 Radial†      9796.6      183120 µg/L        629.6      183120 ppb        629.6   0.34%
   QC value within limits for Fe 238.204 Radial  Recovery = 91.56%
K 766.490 Radial†       7610.1      5145.1 µg/L        17.53      5145.1 ppb        17.53   0.34%
   QC value within limits for K 766.490 Radial  Recovery = 102.90%
Mg 279.077 IEC†        38658.8      480040 µg/L        637.5      480040 ppb        637.5   0.13%
   QC value within limits for Mg 279.077 IEC  Recovery = 96.01%
Mn 257.610†           138684.5      505.42 µg/L        0.794      505.42 ppb        0.794   0.16%
   QC value within limits for Mn 257.610  Recovery = 101.08%
Mo 202.031†             4039.4      509.49 µg/L        2.280      509.49 ppb        2.280   0.45%
   QC value within limits for Mo 202.031  Recovery = 101.90%
Na 589.592 Radial†     11900.5      5142.8 µg/L         9.26      5142.8 ppb         9.26   0.18%
   QC value within limits for Na 589.592 Radial  Recovery = 102.86%
Ni 231.604†             7974.5      457.92 µg/L        2.056      457.92 ppb        2.056   0.45%
   QC value within limits for Ni 231.604  Recovery = 91.58%
P 214.914†              1617.8      2539.0 µg/L        14.45      2539.0 ppb        14.45   0.57%
   QC value within limits for P 214.914  Recovery = 101.56%
Pb 220.353†             1781.1      495.63 µg/L        1.793      495.63 ppb        1.793   0.36%
   QC value within limits for Pb 220.353  Recovery = 99.13%
S 181.975 Axial†         749.5      2723.1 µg/L        19.77      2723.1 ppb        19.77   0.73%
   QC value within limits for S 181.975 Axial  Recovery = 108.92%
Sb 206.836†              606.6      541.83 µg/L        9.871      541.83 ppb        9.871   1.82%
   QC value within limits for Sb 206.836  Recovery = 108.37%
Se 196.026†             2218.0      2429.3 µg/L        16.36      2429.3 ppb        16.36   0.67%
   QC value within limits for Se 196.026  Recovery = 97.17%
SiO2†                  65300.2       11226 µg/L          9.9       11226 ppb          9.9   0.09%
   QC value within limits for SiO2  Recovery = 104.97%
Si 251.611†            77493.0      5220.4 µg/L         7.72      5220.4 ppb         7.72   0.15%
   QC value within limits for Si 251.611  Recovery = 104.41%
Sn 189.927†              690.2      546.81 µg/L        6.183      546.81 ppb        6.183   1.13%
   QC value within limits for Sn 189.927  Recovery = 109.36%
Sr 421.552†            38009.9      494.40 µg/L        1.040      494.40 ppb        1.040   0.21%
   QC value within limits for Sr 421.552  Recovery = 98.88%
Ti 334.940†           218941.7      509.12 µg/L        0.683      509.12 ppb        0.683   0.13%
   QC value within limits for Ti 334.940  Recovery = 101.82%
Tl 190.801†              360.4      530.47 µg/L        4.667      530.47 ppb        4.667   0.88%
   QC value within limits for Tl 190.801  Recovery = 106.09%
U 409.014†              5215.0      494.60 µg/L        8.653      494.60 ppb        8.653   1.75%
   QC value within limits for U 409.014  Recovery = 98.92%
V 292.402†             41230.9      520.12 µg/L        0.939      520.12 ppb        0.939   0.18%
   QC value within limits for V 292.402  Recovery = 104.02%
Zn 213.857†            20400.5      472.70 µg/L        1.242      472.70 ppb        1.242   0.26%
   QC value within limits for Zn 213.857  Recovery = 94.54%
All analyte(s) passed QC.
```

Sequence No.: 11
Sample ID: LR1
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 105
Date Collected: 1/11/2010 13:02:03
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	53894.5	53894.5	96.9	%			13:02:43
1	Al 396.153Radial†	673506.9	694750.7	510440	µg/L	510440	ppb	13:02:37
1	Ca 317.933Radial†	515279.3	531350.9	483650	µg/L	483650	ppb	13:02:37
1	Fe 238.204 Radial†	23346.2	24070.3	449900	µg/L	449900	ppb	13:02:43
1	K 766.490 Radial†	715.3	215.2	145.50	µg/L	145.50	ppb	13:02:43
1	Mg 279.077 IEC†	37453.8	38628.1	479250	µg/L	479250	ppb	13:02:43
1	Na 589.592 Radial†	1131323.8	1166655.3	504170	µg/L	504170	ppb	13:02:37
1	Sr 421.552†	362.2	411.6	5.3543	µg/L	5.3543	ppb	13:02:43
1	Sc 361.383	1807213.4	1807213.4	96.727	%			13:03:18
1	Y 371.029	1100091.6	1100091.6	95.537	%			13:03:18
1	Ag 328.068†	-4748.7	-4699.8	-8.4122	µg/L	-8.4122	ppb	13:03:18
1	As 188.979†	-0.6	3.6	63.916	µg/L	63.916	ppb	13:03:38
1	B 249.677†	1379.9	1033.7	-101.39	µg/L	-101.39	ppb	13:03:18
1	Ba 233.527†	474.6	536.5	14.911	µg/L	14.911	ppb	13:03:38
1	Be 313.107†	-668.2	-4836.6	-3.1111	µg/L	-3.1111	ppb	13:03:18
1	Cd 226.502†	1894.6	2091.1	5.4889	µg/L	5.4889	ppb	13:03:18
1	Co 228.616†	125.6	118.2	5.8109	µg/L	5.8109	ppb	13:03:38
1	Cr 267.716†	-270.4	-138.4	-3.2507	µg/L	-3.2507	ppb	13:03:38
1	Cu 324.752†	-4182.7	-10258.4	-33.978	µg/L	-33.978	ppb	13:03:18
1	Mn 257.610†	-14475.5	-14713.9	5.3713	µg/L	5.3713	ppb	13:03:18
1	Mo 202.031†	-231.6	-259.7	-14.611	µg/L	-14.611	ppb	13:03:38
1	Ni 231.604†	288.7	-32.4	-1.8584	µg/L	-1.8584	ppb	13:03:38
1	P 214.914†	454.9	206.0	-1.7626	µg/L	-1.7626	ppb	13:03:38
1	Pb 220.353†	110.2	32.8	5.8456	µg/L	5.8456	ppb	13:03:38
1	S 181.975 Axial†	71.2	40.3	16.382	µg/L	16.382	ppb	13:03:38
1	Sb 206.836†	44.7	21.7	4.6525	µg/L	4.6525	ppb	13:03:38
1	Se 196.026†	-311.9	-336.4	-285.89	µg/L	-285.89	ppb	13:03:38
1	SiO2†	3235.8	-278.1	-47.805	µg/L	-47.805	ppb	13:03:38
1	Si 251.611†	-169.3	-524.9	-28.305	µg/L	-28.305	ppb	13:03:38
1	Sn 189.927†	-348.8	-393.0	-68.952	µg/L	-68.952	ppb	13:03:38
1	Ti 334.940†	12068.7	11880.4	0.6114	µg/L	0.6114	ppb	13:03:18
1	Tl 190.801†	-13.8	12.6	-29.223	µg/L	-29.223	ppb	13:03:38
1	U 409.014†	137267.2	141878.6	15050	µg/L	15050	ppb	13:03:18
1	V 292.402†	-2414.1	-2221.7	9.7474	µg/L	9.7474	ppb	13:03:18
1	Zn 213.857†	3447.4	2911.1	-47.864	µg/L	-47.864	ppb	13:03:38
2	Sc RADIAL	54000.4	54000.4	97.1	%			13:02:55
2	Al 396.153Radial†	680228.0	700307.8	514520	µg/L	514520	ppb	13:02:49
2	Ca 317.933Radial†	522406.7	537646.5	489380	µg/L	489380	ppb	13:02:49
2	Fe 238.204 Radial†	23530.8	24213.1	452570	µg/L	452570	ppb	13:02:55
2	K 766.490 Radial†	755.2	254.8	172.25	µg/L	172.25	ppb	13:02:55
2	Mg 279.077 IEC†	37733.7	38840.4	481890	µg/L	481890	ppb	13:02:55
2	Na 589.592 Radial†	1141358.3	1174697.5	507640	µg/L	507640	ppb	13:02:49
2	Sr 421.552†	359.4	408.1	5.3083	µg/L	5.3083	ppb	13:02:55
2	Sc 361.383	1797703.8	1797703.8	96.218	%			13:03:45
2	Y 371.029	1092271.9	1092271.9	94.858	%			13:03:45
2	Ag 328.068†	-4758.7	-4736.2	-8.5421	µg/L	-8.5421	ppb	13:03:45
2	As 188.979†	-1.0	3.2	63.027	µg/L	63.027	ppb	13:04:06
2	B 249.677†	1440.1	1103.9	-99.511	µg/L	-99.511	ppb	13:03:45
2	Ba 233.527†	465.5	529.6	14.717	µg/L	14.717	ppb	13:04:06
2	Be 313.107†	-857.0	-5036.4	-3.2391	µg/L	-3.2391	ppb	13:03:45
2	Cd 226.502†	1855.9	2061.2	4.3308	µg/L	4.3308	ppb	13:03:45
2	Co 228.616†	117.4	110.4	5.4112	µg/L	5.4112	ppb	13:04:06
2	Cr 267.716†	-269.4	-138.8	-3.2613	µg/L	-3.2613	ppb	13:04:06
2	Cu 324.752†	-4171.4	-10269.5	-33.816	µg/L	-33.816	ppb	13:03:45
2	Mn 257.610†	-14416.5	-14731.8	5.6447	µg/L	5.6447	ppb	13:03:45
2	Mo 202.031†	-247.1	-277.1	-16.670	µg/L	-16.670	ppb	13:04:06
2	Ni 231.604†	281.6	-38.2	-2.1912	µg/L	-2.1912	ppb	13:04:06
2	P 214.914†	460.3	214.1	9.4437	µg/L	9.4437	ppb	13:04:06
2	Pb 220.353†	98.2	20.9	2.6661	µg/L	2.6661	ppb	13:04:06

2	S 181.975 Axial†	75.6	45.2	34.158 µg/L	34.158 ppb	13:04:06
2	Sb 206.836†	48.4	25.8	8.2080 µg/L	8.2080 ppb	13:04:06
2	Se 196.026†	-303.5	-329.4	-276.73 µg/L	-276.73 ppb	13:04:06
2	SiO2†	3267.9	-227.0	-39.024 µg/L	-39.024 ppb	13:04:06
2	Si 251.611†	-185.6	-542.7	-28.926 µg/L	-28.926 ppb	13:04:06
2	Sn 189.927†	-373.6	-420.7	-82.023 µg/L	-82.023 ppb	13:04:06
2	Ti 334.940†	11914.5	11786.2	0.0420 µg/L	0.0420 ppb	13:03:45
2	Tl 190.801†	13.7	41.1	15.510 µg/L	15.510 ppb	13:04:06
2	U 409.014†	137046.9	142400.2	15105 µg/L	15105 ppb	13:03:45
2	V 292.402†	-2424.2	-2245.4	9.6065 µg/L	9.6065 ppb	13:03:45
2	Zn 213.857†	3428.0	2909.8	-48.625 µg/L	-48.625 ppb	13:04:06
3	Sc RADIAL	54064.9	54064.9	97.2 %		13:03:06
3	Al 396.153Radial†	673487.5	692541.0	508810 µg/L	508810 ppb	13:03:01
3	Ca 317.933Radial†	516805.9	531245.4	483560 µg/L	483560 ppb	13:03:01
3	Fe 238.204 Radial†	23419.2	24069.4	449880 µg/L	449880 ppb	13:03:06
3	K 766.490 Radial†	852.9	354.4	239.60 µg/L	239.60 ppb	13:03:06
3	Mg 279.077 IEC†	37714.9	38774.8	481070 µg/L	481070 ppb	13:03:06
3	Na 589.592 Radial†	1131042.5	1162687.9	502460 µg/L	502460 ppb	13:03:01
3	Sr 421.552†	373.7	422.3	5.4929 µg/L	5.4929 ppb	13:03:06
3	Sc 361.383	1801925.3	1801925.3	96.444 %		13:04:12
3	Y 371.029	1094870.5	1094870.5	95.084 %		13:04:12
3	Ag 328.068†	-4746.3	-4711.8	-8.5390 µg/L	-8.5390 ppb	13:04:12
3	As 188.979†	2.7	7.1	69.844 µg/L	69.844 ppb	13:04:33
3	B 249.677†	1358.5	1015.7	-102.09 µg/L	-102.09 ppb	13:04:12
3	Ba 233.527†	466.0	529.0	14.697 µg/L	14.697 ppb	13:04:33
3	Be 313.107†	-758.1	-4931.8	-3.1722 µg/L	-3.1722 ppb	13:04:12
3	Cd 226.502†	1909.9	2112.8	6.1117 µg/L	6.1117 ppb	13:04:12
3	Co 228.616†	136.1	129.5	6.3771 µg/L	6.3771 ppb	13:04:33
3	Cr 267.716†	-259.2	-127.6	-3.0066 µg/L	-3.0066 ppb	13:04:33
3	Cu 324.752†	-4162.9	-10250.5	-33.922 µg/L	-33.922 ppb	13:04:12
3	Mn 257.610†	-14411.4	-14691.3	5.4478 µg/L	5.4478 ppb	13:04:12
3	Mo 202.031†	-238.2	-267.3	-15.552 µg/L	-15.552 ppb	13:04:33
3	Ni 231.604†	275.8	-44.8	-2.5739 µg/L	-2.5739 ppb	13:04:33
3	P 214.914†	462.7	215.5	12.825 µg/L	12.825 ppb	13:04:33
3	Pb 220.353†	106.2	29.0	4.7454 µg/L	4.7454 ppb	13:04:33
3	S 181.975 Axial†	83.8	53.6	66.204 µg/L	66.204 ppb	13:04:33
3	Sb 206.836†	59.1	36.7	18.663 µg/L	18.663 ppb	13:04:33
3	Se 196.026†	-318.9	-344.6	-295.01 µg/L	-295.01 ppb	13:04:33
3	SiO2†	3267.4	-235.5	-40.493 µg/L	-40.493 ppb	13:04:33
3	Si 251.611†	-140.7	-495.7	-26.115 µg/L	-26.115 ppb	13:04:33
3	Sn 189.927†	-358.8	-404.5	-74.513 µg/L	-74.513 ppb	13:04:33
3	Ti 334.940†	12079.8	11928.5	0.7350 µg/L	0.7350 ppb	13:04:12
3	Tl 190.801†	6.8	33.9	4.6098 µg/L	4.6098 ppb	13:04:33
3	U 409.014†	137157.8	142181.5	15083 µg/L	15083 ppb	13:04:12
3	V 292.402†	-2569.0	-2389.7	7.7132 µg/L	7.7132 ppb	13:04:12
3	Zn 213.857†	3446.5	2920.6	-47.613 µg/L	-47.613 ppb	13:04:33

Mean Data: LR1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1802280.8	96.463	%	0.2550				0.26%
Sc RADIAL	53986.6	97.1	%	0.15				0.16%
Y 371.029	1095744.6	95.160	%	0.3459				0.36%
Ag 328.068†	-4715.9	-8.4978	µg/L	0.07412	-8.4978	ppb	0.07412	0.87%
Al 396.153Radial†	695866.5	511260	µg/L	2940.2	511260	ppb	2940.2	0.58%
QC value within limits for Al 396.153Radial Recovery = 102.25%								
As 188.979†	4.6	65.596	µg/L	3.7057	65.596	ppb	3.7057	5.65%
B 249.677†	1051.1	-101.00	µg/L	1.332	-101.00	ppb	1.332	1.32%
Ba 233.527†	531.7	14.775	µg/L	0.1182	14.775	ppb	0.1182	0.80%
Be 313.107†	-4934.9	-3.1741	µg/L	0.06404	-3.1741	ppb	0.06404	2.02%
Ca 317.933Radial†	533414.3	485530	µg/L	3336.5	485530	ppb	3336.5	0.69%
QC value within limits for Ca 317.933Radial Recovery = 97.11%								
Cd 226.502†	2088.4	5.3105	µg/L	0.90378	5.3105	ppb	0.90378	17.02%
Co 228.616†	119.4	5.8664	µg/L	0.48536	5.8664	ppb	0.48536	8.27%
Cr 267.716†	-134.9	-3.1729	µg/L	0.14408	-3.1729	ppb	0.14408	4.54%
Cu 324.752†	-10259.4	-33.905	µg/L	0.0820	-33.905	ppb	0.0820	0.24%
Fe 238.204 Radial†	24117.6	450780	µg/L	1545.9	450780	ppb	1545.9	0.34%
QC value within limits for Fe 238.204 Radial Recovery = 90.16%								
K 766.490 Radial†	274.8	185.78	µg/L	48.486	185.78	ppb	48.486	26.10%
Mg 279.077 IEC†	38747.8	480740	µg/L	1349.3	480740	ppb	1349.3	0.28%

QC value within limits for Mg 279.077 IEC Recovery = 96.15%

Mn 257.610†	-14712.4	5.4879 µg/L	0.14106	5.4879 ppb	0.14106	2.57%
Mo 202.031†	-268.0	-15.611 µg/L	1.0308	-15.611 ppb	1.0308	6.60%
Na 589.592 Radial†	1168013.6	504760 µg/L	2644.3	504760 ppb	2644.3	0.52%

QC value within limits for Na 589.592 Radial Recovery = 100.95%

Ni 231.604†	-38.4	-2.2078 µg/L	0.35805	-2.2078 ppb	0.35805	16.22%
P 214.914†	211.9	6.8355 µg/L	7.63574	6.8355 ppb	7.63574	111.71%
Pb 220.353†	27.6	4.4190 µg/L	1.61467	4.4190 ppb	1.61467	36.54%
S 181.975 Axial†	46.4	38.915 µg/L	25.2496	38.915 ppb	25.2496	64.88%
Sb 206.836†	28.1	10.508 µg/L	7.2827	10.508 ppb	7.2827	69.31%
Se 196.026†	-336.8	-285.88 µg/L	9.143	-285.88 ppb	9.143	3.20%
SiO2†	-246.9	-42.440 µg/L	4.7034	-42.440 ppb	4.7034	11.08%
Si 251.611†	-521.1	-27.782 µg/L	1.4767	-27.782 ppb	1.4767	5.32%
Sn 189.927†	-406.1	-75.163 µg/L	6.5596	-75.163 ppb	6.5596	8.73%
Sr 421.552†	414.0	5.3852 µg/L	0.09611	5.3852 ppb	0.09611	1.78%
Ti 334.940†	11865.0	0.4628 µg/L	0.36967	0.4628 ppb	0.36967	79.87%
Tl 190.801†	29.2	-3.0343 µg/L	23.32568	-3.0343 ppb	23.32568	768.74%
U 409.014†	142153.5	15080 µg/L	27.6	15080 ppb	27.6	0.18%

QC value within limits for U 409.014 Recovery = 100.53%

V 292.402†	-2285.6	9.0224 µg/L	1.13594	9.0224 ppb	1.13594	12.59%
Zn 213.857†	2913.8	-48.034 µg/L	0.5271	-48.034 ppb	0.5271	1.10%

All analyte(s) passed QC.

Sequence No.: 12
Sample ID: LR2
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 108
Date Collected: 1/11/2010 13:04:42
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR2

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	55275.1	55275.1	99.4	%			13:05:24
1	Al 396.153Radial†	629.3	606.3	47.803	µg/L	47.803	ppb	13:05:24
1	Ca 317.933Radial†	429.3	230.0	209.33	µg/L	209.33	ppb	13:05:45
1	Fe 238.204 Radial†	7.2	-6.0	218.85	µg/L	218.85	ppb	13:05:45
1	K 766.490 Radial†	453425.0	455539.8	307980	µg/L	307980	ppb	13:05:19
1	Mg 279.077 IEC†	-5.9	-14.5	80.893	µg/L	80.893	ppb	13:05:45
1	Na 589.592 Radial†	2564.5	2181.8	942.87	µg/L	942.87	ppb	13:05:24
1	Sr 421.552†	755639.9	760073.3	9886.4	µg/L	9886.4	ppb	13:05:19
1	Sc 361.383	1906597.7	1906597.7	102.05	%			13:07:15
1	Y 371.029	1170299.8	1170299.8	101.63	%			13:07:15
1	Ag 328.068†	-7644.7	-7281.9	2.8483	µg/L	2.8483	ppb	13:07:15
1	As 188.979†	5959.4	5844.1	10017	µg/L	10017	ppb	13:07:21
1	B 249.677†	135689.0	132575.2	5140.8	µg/L	5140.8	ppb	13:07:15
1	Ba 233.527†	528592.6	518038.5	14475	µg/L	14475	ppb	13:07:15
1	Be 313.107†	4700221.3	4601821.5	2946.1	µg/L	2946.1	ppb	13:07:05
1	Cd 226.502†	370332.2	363038.3	10025	µg/L	10025	ppb	13:07:15
1	Co 228.616†	203075.8	198991.9	10014	µg/L	10014	ppb	13:07:15
1	Cr 267.716†	1127690.3	1105217.8	25473	µg/L	25473	ppb	13:07:15
1	Cu 324.752†	2981441.3	2915720.0	21267	µg/L	21267	ppb	13:07:15
1	Mn 257.610†	2925828.9	2867408.3	9974.0	µg/L	9974.0	ppb	13:07:15
1	Mo 202.031†	85827.4	84086.0	10456	µg/L	10456	ppb	13:07:15
1	Ni 231.604†	182038.7	178057.5	10225	µg/L	10225	ppb	13:07:15
1	P 214.914†	12001.4	11496.4	16317	µg/L	16317	ppb	13:07:21
1	Pb 220.353†	99730.3	97649.3	26457	µg/L	26457	ppb	13:07:15
1	S 181.975 Axial†	14283.7	13964.0	52515	µg/L	52515	ppb	13:07:21
1	Sb 206.836†	11728.6	11468.9	10614	µg/L	10614	ppb	13:07:21
1	Se 196.026†	9779.3	9569.3	10498	µg/L	10498	ppb	13:07:21
1	SiO2†	607293.0	591491.6	101690	µg/L	101690	ppb	13:07:15
1	Si 251.611†	710922.9	696316.8	46203	µg/L	46203	ppb	13:07:15
1	Sn 189.927†	22526.5	22042.3	11489	µg/L	11489	ppb	13:07:21
1	Ti 334.940†	4171936.3	4087679.3	10031	µg/L	10031	ppb	13:07:05
1	Tl 190.801†	6603.1	6497.5	10440	µg/L	10440	ppb	13:07:21
1	U 409.014†	889.5	838.3	89.600	µg/L	89.600	ppb	13:07:15
1	V 292.402†	848989.1	832238.3	10376	µg/L	10376	ppb	13:07:15
1	Zn 213.857†	596714.1	584095.2	14984	µg/L	14984	ppb	13:07:15
2	Sc RADIAL	55279.2	55279.2	99.4	%			13:05:56
2	Al 396.153Radial†	469.3	445.3	-66.051	µg/L	-66.051	ppb	13:05:56
2	Ca 317.933Radial†	457.8	258.6	235.39	µg/L	235.39	ppb	13:06:16
2	Fe 238.204 Radial†	8.5	-4.7	239.91	µg/L	239.91	ppb	13:06:16
2	K 766.490 Radial†	451224.3	453291.9	306460	µg/L	306460	ppb	13:05:50
2	Mg 279.077 IEC†	3.9	-4.6	200.83	µg/L	200.83	ppb	13:06:16
2	Na 589.592 Radial†	1894.5	1507.8	651.58	µg/L	651.58	ppb	13:05:56
2	Sr 421.552†	751153.9	755504.2	9827.0	µg/L	9827.0	ppb	13:05:50
2	Sc 361.383	1909337.3	1909337.3	102.19	%			13:07:40
2	Y 371.029	1170129.1	1170129.1	101.62	%			13:07:40
2	Ag 328.068†	-7575.6	-7203.5	2.8315	µg/L	2.8315	ppb	13:07:40
2	As 188.979†	5835.9	5714.9	9795.8	µg/L	9795.8	ppb	13:07:46
2	B 249.677†	135157.4	131864.1	5113.2	µg/L	5113.2	ppb	13:07:40
2	Ba 233.527†	524541.2	513330.7	14344	µg/L	14344	ppb	13:07:40
2	Be 313.107†	4711379.8	4606131.7	2948.9	µg/L	2948.9	ppb	13:07:30
2	Cd 226.502†	367243.4	359495.1	9927.4	µg/L	9927.4	ppb	13:07:40
2	Co 228.616†	201186.0	196857.1	9906.2	µg/L	9906.2	ppb	13:07:40
2	Cr 267.716†	1113243.4	1089495.3	25110	µg/L	25110	ppb	13:07:40
2	Cu 324.752†	2955911.5	2886545.9	21055	µg/L	21055	ppb	13:07:40
2	Mn 257.610†	2901064.2	2839061.1	9875.4	µg/L	9875.4	ppb	13:07:40
2	Mo 202.031†	84998.0	83153.8	10340	µg/L	10340	ppb	13:07:40
2	Ni 231.604†	180436.9	176234.1	10120	µg/L	10120	ppb	13:07:40
2	P 214.914†	11667.9	11153.2	15776	µg/L	15776	ppb	13:07:46
2	Pb 220.353†	99122.6	96914.4	26257	µg/L	26257	ppb	13:07:40

2	S 181.975 Axial†	13958.4	13625.6	51242 µg/L	51242 ppb	13:07:46
2	Sb 206.836†	11410.5	11141.1	10310 µg/L	10310 ppb	13:07:46
2	Se 196.026†	9545.0	9326.2	10239 µg/L	10239 ppb	13:07:46
2	SiO2†	604124.3	587536.9	101010 µg/L	101010 ppb	13:07:40
2	Si 251.611†	707622.0	692087.2	45932 µg/L	45932 ppb	13:07:40
2	Sn 189.927†	21782.7	21282.8	11093 µg/L	11093 ppb	13:07:46
2	Ti 334.940†	4186248.4	4095818.2	10051 µg/L	10051 ppb	13:07:30
2	Tl 190.801†	6519.5	6406.5	10295 µg/L	10295 ppb	13:07:46
2	U 409.014†	886.1	833.7	89.102 µg/L	89.102 ppb	13:07:40
2	V 292.402†	841198.4	823421.0	10266 µg/L	10266 ppb	13:07:40
2	Zn 213.857†	591173.8	577834.7	14824 µg/L	14824 ppb	13:07:40
3	Sc RADIAL	54892.2	54892.2	98.7 %		13:06:27
3	Al 396.153Radial†	667.9	649.8	120.85 µg/L	120.85 ppb	13:06:27
3	Ca 317.933Radial†	441.4	245.3	223.24 µg/L	223.24 ppb	13:06:48
3	Fe 238.204 Radial†	4.1	-9.1	126.12 µg/L	126.12 ppb	13:06:48
3	K 766.490 Radial†	451285.8	456554.1	308670 µg/L	308670 ppb	13:06:22
3	Mg 279.077 IEC†	-4.7	-13.4	68.327 µg/L	68.327 ppb	13:06:48
3	Na 589.592 Radial†	1782.3	1407.5	608.24 µg/L	608.24 ppb	13:06:27
3	Sr 421.552†	751390.0	761070.2	9899.3 µg/L	9899.3 ppb	13:06:22
3	Sc 361.383	1907194.8	1907194.8	102.08 %		13:08:05
3	Y 371.029	1169636.1	1169636.1	101.58 %		13:08:05
3	Ag 328.068†	-6740.5	-6393.7	3.5443 µg/L	3.5443 ppb	13:08:05
3	As 188.979†	5300.9	5197.3	8909.4 µg/L	8909.4 ppb	13:08:11
3	B 249.677†	126319.3	123354.6	4783.3 µg/L	4783.3 ppb	13:08:05
3	Ba 233.527†	478547.7	468850.3	13101 µg/L	13101 ppb	13:08:05
3	Be 313.107†	4440222.1	4345673.8	2782.1 µg/L	2782.1 ppb	13:07:55
3	Cd 226.502†	334921.5	328234.9	9064.0 µg/L	9064.0 ppb	13:08:05
3	Co 228.616†	181555.2	177847.1	8948.8 µg/L	8948.8 ppb	13:08:05
3	Cr 267.716†	984135.3	964239.5	22224 µg/L	22224 ppb	13:08:05
3	Cu 324.752†	2669609.6	2609322.4	19033 µg/L	19033 ppb	13:08:05
3	Mn 257.610†	2618475.9	2565415.3	8923.6 µg/L	8923.6 ppb	13:08:05
3	Mo 202.031†	76982.4	75394.8	9375.1 µg/L	9375.1 ppb	13:08:05
3	Ni 231.604†	162886.4	159239.2	9144.0 µg/L	9144.0 ppb	13:08:05
3	P 214.914†	10422.6	9946.1	14035 µg/L	14035 ppb	13:08:11
3	Pb 220.353†	91407.1	89464.9	24239 µg/L	24239 ppb	13:08:05
3	S 181.975 Axial†	12837.8	12543.1	47172 µg/L	47172 ppb	13:08:11
3	Sb 206.836†	10301.5	10067.3	9319.7 µg/L	9319.7 ppb	13:08:11
3	Se 196.026†	8666.5	8476.0	9338.3 µg/L	9338.3 ppb	13:08:11
3	SiO2†	558818.5	543817.6	93492 µg/L	93492 ppb	13:08:05
3	Si 251.611†	653955.3	640291.0	42501 µg/L	42501 ppb	13:08:05
3	Sn 189.927†	19168.8	18746.1	9770.7 µg/L	9770.7 ppb	13:08:11
3	Ti 334.940†	3942457.1	3861592.3	9476.6 µg/L	9476.6 ppb	13:07:55
3	Tl 190.801†	6063.2	5966.6	9589.3 µg/L	9589.3 ppb	13:08:11
3	U 409.014†	896.9	845.2	90.350 µg/L	90.350 ppb	13:08:05
3	V 292.402†	758263.3	743099.2	9265.2 µg/L	9265.2 ppb	13:08:05
3	Zn 213.857†	537076.3	525488.6	13481 µg/L	13481 ppb	13:08:05

Mean Data: LR2

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1907709.9	102.11	%	0.077				0.08%
Sc RADIAL	55148.8	99.2	%	0.40				0.40%
Y 371.029	1170021.7	101.61	%	0.030				0.03%
Ag 328.068†	-6959.7	3.0747	µg/L	0.40680	3.0747	ppb	0.40680	13.23%
Al 396.153Radial†	567.1	34.201	µg/L	94.1899	34.201	ppb	94.1899	275.40%
As 188.979†	5585.4	9574.0	µg/L	586.03	9574.0	ppb	586.03	6.12%
QC value within limits for As 188.979 Recovery = 95.74%								
B 249.677†	129264.6	5012.4	µg/L	198.93	5012.4	ppb	198.93	3.97%
QC value within limits for B 249.677 Recovery = 100.25%								
Ba 233.527†	500073.2	13973	µg/L	758.6	13973	ppb	758.6	5.43%
QC value within limits for Ba 233.527 Recovery = 93.15%								
Be 313.107†	4517875.7	2892.4	µg/L	95.48	2892.4	ppb	95.48	3.30%
QC value within limits for Be 313.107 Recovery = 96.41%								
Ca 317.933Radial†	244.6	222.65	µg/L	13.037	222.65	ppb	13.037	5.86%
Cd 226.502†	350256.1	9672.2	µg/L	528.96	9672.2	ppb	528.96	5.47%
QC value within limits for Cd 226.502 Recovery = 96.72%								
Co 228.616†	191232.0	9623.0	µg/L	586.30	9623.0	ppb	586.30	6.09%
QC value within limits for Co 228.616 Recovery = 96.23%								
Cr 267.716†	1052984.2	24269	µg/L	1780.3	24269	ppb	1780.3	7.34%
QC value within limits for Cr 267.716 Recovery = 97.08%								

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Cu 324.752†          2803862.8       20452 µg/L        1233.5       20452 ppb         1233.5   6.03%
   QC value within limits for Cu 324.752  Recovery = 102.26%
Fe 238.204 Radial†        -6.6      194.96 µg/L        60.538      194.96 ppb         60.538  31.05%
K 766.490 Radial†     455128.6      307710 µg/L        1128.7      307710 ppb         1128.7   0.37%
   QC value within limits for K 766.490 Radial  Recovery = 102.57%
Mg 279.077 IEC†         -10.8      116.68 µg/L        73.144      116.68 ppb         73.144  62.69%
Mn 257.610†          2757294.9      9591.0 µg/L        580.12      9591.0 ppb         580.12   6.05%
   QC value within limits for Mn 257.610  Recovery = 95.91%
Mo 202.031†            80878.2       10057 µg/L         593.3       10057 ppb          593.3   5.90%
   QC value within limits for Mo 202.031  Recovery = 100.57%
Na 589.592 Radial†      1699.0      734.23 µg/L       181.980      734.23 ppb        181.980  24.79%
Ni 231.604†           171176.9      9829.5 µg/L        595.96      9829.5 ppb         595.96   6.06%
   QC value within limits for Ni 231.604  Recovery = 98.29%
P 214.914†             10865.3       15376 µg/L        1192.4       15376 ppb         1192.4   7.75%
   QC value within limits for P 214.914  Recovery = 102.51%
Pb 220.353†            94676.2       25651 µg/L        1226.8       25651 ppb         1226.8   4.78%
   QC value within limits for Pb 220.353  Recovery = 102.60%
S 181.975 Axial†       13377.6       50310 µg/L        2791.2       50310 ppb         2791.2   5.55%
   QC value within limits for S 181.975 Axial  Recovery = 100.62%
Sb 206.836†            10892.4       10081 µg/L         676.8       10081 ppb          676.8   6.71%
   QC value within limits for Sb 206.836  Recovery = 100.81%
Se 196.026†             9123.8       10025 µg/L         608.8       10025 ppb          608.8   6.07%
   QC value within limits for Se 196.026  Recovery = 100.25%
SiO2†                 574282.0       98729 µg/L        4548.4       98729 ppb         4548.4   4.61%
   QC value within limits for SiO2  Recovery = 92.27%
Si 251.611†           676231.7       44879 µg/L        2063.4       44879 ppb         2063.4   4.60%
   QC value less than the lower limit for Si 251.611  Recovery = 89.76%
Sn 189.927†            20690.4       10784 µg/L         899.7       10784 ppb          899.7   8.34%
   QC value within limits for Sn 189.927  Recovery = 107.84%
Sr 421.552†           758882.6      9870.9 µg/L        38.60      9870.9 ppb          38.60   0.39%
   QC value within limits for Sr 421.552  Recovery = 98.71%
Ti 334.940†          4015029.9      9853.2 µg/L       326.25      9853.2 ppb         326.25   3.31%
   QC value within limits for Ti 334.940  Recovery = 98.53%
Tl 190.801†             6290.2       10108 µg/L         455.1       10108 ppb          455.1   4.50%
   QC value within limits for Tl 190.801  Recovery = 101.08%
U 409.014†               839.0      89.684 µg/L        0.6283      89.684 ppb        0.6283   0.70%
V 292.402†            799586.2      9969.3 µg/L        612.22      9969.3 ppb         612.22   6.14%
   QC value within limits for V 292.402  Recovery = 99.69%
Zn 213.857†           562472.8       14430 µg/L         825.3       14430 ppb          825.3   5.72%
   QC value within limits for Zn 213.857  Recovery = 96.20%
QC Failed.  Continue with analysis.
```

Analysis Begun

Start Time: 1/11/2010 13:18:13 **Plasma On Time:** 1/11/2010 07:03:49
Logged In Analyst: optima **Technique:** ICP Continuous
Spectrometer Model: Optima 4300 DV, S/N 077N1030502 **Autosampler Model:** AS-93plus

Sample Information File: C:\pe\optima1\Sample Information\011110.sif
Batch ID:
Results Data Set: 011110A
Results Library: c:\pe\optima1\Results\Results.mdb

Method Loaded
Method Name: Gen Eng fast_new Si **Method Last Saved:** 1/11/2010 12:33:21
IEC File: 101509.iec **MSF File:**
Method Description:

Analyte	Calibration Equation	Processing	View	Internal Standard	IEC
Ag 328.068	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Al 396.153Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
As 188.979	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
B 249.677	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ba 233.527	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Be 313.107	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ca 317.933Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
Cd 226.502	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Co 228.616	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cr 267.716	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cu 324.752	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Fe 238.204 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
K 766.490 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
Mg 279.077 IEC	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
Mn 257.610	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Mo 202.031	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Na 589.592 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
Ni 231.604	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
P 214.914	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Pb 220.353	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
S 181.975 Axial	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sb 206.836	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sc 361.383	Lin Thru 0	Peak Area	Axial	n/a	n/a
Sc RADIAL	Lin, Calc Int	Peak Area	Radial	n/a	n/a
Se 196.026	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
SiO2	Lin Thru 0	Peak Area	Axial	Sc 361.383	No
Si 251.611	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sn 189.927	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sr 421.552	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
Ti 334.940	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Tl 190.801	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
U 409.014	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
V 292.402	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y 371.029	Lin, Calc Int	Peak Area	Axial	n/a	n/a
Zn 213.857	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes

Sequence No.: 1 **Autosampler Location:** 7
Sample ID: CCV **Date Collected:** 1/11/2010 13:18:15
Analyst: **Data Type:** Original
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	55807.1	55807.1	100	%			13:18:50
1	Al 396.153Radial†	6810.4	6758.0	4945.2	µg/L	4945.2	ppb	13:18:50
1	Ca 317.933Radial†	5638.2	5415.2	4929.1	µg/L	4929.1	ppb	13:18:50
1	Fe 238.204 Radial†	275.1	260.8	4891.0	µg/L	4891.0	ppb	13:19:10

1	K 766.490 Radial†	8061.7	7508.6	5076.4	µg/L	5076.4 ppb	13:18:50
1	Mg 279.077 IEC†	401.5	391.3	4868.0	µg/L	4868.0 ppb	13:19:10
1	Na 589.592 Radial†	23162.4	22677.4	9800.0	µg/L	9800.0 ppb	13:18:50
1	Sr 421.552†	37196.4	37094.1	482.49	µg/L	482.49 ppb	13:18:50
1	Sc 361.383	1923187.8	1923187.8	102.93	%		13:20:14
1	Y 371.029	1183855.2	1183855.2	102.81	%		13:20:14
1	Ag 328.068†	54872.9	53518.2	501.69	µg/L	501.69 ppb	13:20:19
1	As 188.979†	303.3	298.9	512.97	µg/L	512.97 ppb	13:20:40
1	B 249.677†	13516.4	12738.2	492.41	µg/L	492.41 ppb	13:20:19
1	Ba 233.527†	18432.2	17952.5	501.94	µg/L	501.94 ppb	13:20:19
1	Be 313.107†	805724.4	778610.3	498.91	µg/L	498.91 ppb	13:20:14
1	Cd 226.502†	18643.2	18244.1	503.48	µg/L	503.48 ppb	13:20:19
1	Co 228.616†	10361.8	10054.8	505.98	µg/L	505.98 ppb	13:20:19
1	Cr 267.716†	22618.0	22114.4	510.38	µg/L	510.38 ppb	13:20:19
1	Cu 324.752†	76527.3	68411.6	499.44	µg/L	499.44 ppb	13:20:19
1	Mn 257.610†	150638.4	146595.6	510.53	µg/L	510.53 ppb	13:20:14
1	Mo 202.031†	4356.1	4211.7	523.90	µg/L	523.90 ppb	13:20:40
1	Ni 231.604†	9398.7	8800.0	505.32	µg/L	505.32 ppb	13:20:19
1	P 214.914†	1892.0	1573.8	2503.4	µg/L	2503.4 ppb	13:20:40
1	Pb 220.353†	2038.3	1899.1	515.03	µg/L	515.03 ppb	13:20:40
1	S 181.975 Axial†	315.5	273.2	1026.2	µg/L	1026.2 ppb	13:20:40
1	Sb 206.836†	593.3	551.9	514.25	µg/L	514.25 ppb	13:20:40
1	Se 196.026†	500.7	472.5	508.02	µg/L	508.02 ppb	13:20:40
1	SiO2†	36221.1	31565.2	5426.6	µg/L	5426.6 ppb	13:20:19
1	Si 251.611†	38878.3	37420.2	2492.7	µg/L	2492.7 ppb	13:20:19
1	Sn 189.927†	1068.5	1005.6	525.48	µg/L	525.48 ppb	13:20:40
1	Ti 334.940†	212536.6	205881.3	504.96	µg/L	504.96 ppb	13:20:14
1	Tl 190.801†	296.1	314.5	505.01	µg/L	505.01 ppb	13:20:40
1	U 409.014†	4950.0	4775.5	509.18	µg/L	509.18 ppb	13:20:19
1	V 292.402†	41468.6	40560.6	506.76	µg/L	506.76 ppb	13:20:19
1	Zn 213.857†	20751.4	19506.9	498.55	µg/L	498.55 ppb	13:20:19
2	Sc RADIAL	55788.1	55788.1	100	%		13:19:15
2	Al 396.153Radial†	6830.2	6780.0	4961.4	µg/L	4961.4 ppb	13:19:15
2	Ca 317.933Radial†	5659.5	5438.3	4950.1	µg/L	4950.1 ppb	13:19:15
2	Fe 238.204 Radial†	271.0	256.9	4818.0	µg/L	4818.0 ppb	13:19:36
2	K 766.490 Radial†	8062.9	7512.5	5079.1	µg/L	5079.1 ppb	13:19:15
2	Mg 279.077 IEC†	406.0	396.0	4925.6	µg/L	4925.6 ppb	13:19:36
2	Na 589.592 Radial†	23181.9	22704.7	9811.8	µg/L	9811.8 ppb	13:19:15
2	Sr 421.552†	37392.2	37301.8	485.19	µg/L	485.19 ppb	13:19:15
2	Sc 361.383	1919443.7	1919443.7	102.73	%		13:20:47
2	Y 371.029	1180888.8	1180888.8	102.55	%		13:20:47
2	Ag 328.068†	55277.8	54016.3	506.34	µg/L	506.34 ppb	13:20:52
2	As 188.979†	306.3	302.4	519.02	µg/L	519.02 ppb	13:21:13
2	B 249.677†	13687.3	12930.2	499.87	µg/L	499.87 ppb	13:20:52
2	Ba 233.527†	18600.0	18150.8	507.48	µg/L	507.48 ppb	13:20:52
2	Be 313.107†	801545.9	776069.8	497.28	µg/L	497.28 ppb	13:20:47
2	Cd 226.502†	18796.2	18428.4	508.58	µg/L	508.58 ppb	13:20:52
2	Co 228.616†	10415.6	10126.8	509.61	µg/L	509.61 ppb	13:20:52
2	Cr 267.716†	22727.2	22263.6	513.83	µg/L	513.83 ppb	13:20:52
2	Cu 324.752†	77133.9	69147.1	504.80	µg/L	504.80 ppb	13:20:52
2	Mn 257.610†	150109.5	146366.2	509.73	µg/L	509.73 ppb	13:20:47
2	Mo 202.031†	4335.9	4200.2	522.48	µg/L	522.48 ppb	13:21:13
2	Ni 231.604†	9434.4	8852.5	508.34	µg/L	508.34 ppb	13:20:52
2	P 214.914†	1880.3	1565.9	2490.1	µg/L	2490.1 ppb	13:21:13
2	Pb 220.353†	2030.6	1895.5	514.02	µg/L	514.02 ppb	13:21:13
2	S 181.975 Axial†	318.1	276.3	1037.7	µg/L	1037.7 ppb	13:21:13
2	Sb 206.836†	590.7	550.4	512.87	µg/L	512.87 ppb	13:21:13
2	Se 196.026†	502.0	474.7	510.30	µg/L	510.30 ppb	13:21:13
2	SiO2†	36427.0	31834.2	5472.9	µg/L	5472.9 ppb	13:20:52
2	Si 251.611†	39205.9	37812.8	2519.4	µg/L	2519.4 ppb	13:20:52
2	Sn 189.927†	1065.7	1004.9	525.12	µg/L	525.12 ppb	13:21:13
2	Ti 334.940†	211592.4	205364.9	503.69	µg/L	503.69 ppb	13:20:47
2	Tl 190.801†	298.0	317.0	508.85	µg/L	508.85 ppb	13:21:13
2	U 409.014†	5008.4	4841.7	516.27	µg/L	516.27 ppb	13:20:52
2	V 292.402†	41729.3	40892.9	510.88	µg/L	510.88 ppb	13:20:52
2	Zn 213.857†	20950.5	19740.1	504.56	µg/L	504.56 ppb	13:20:52
3	Sc RADIAL	56175.5	56175.5	101	%		13:19:41
3	Al 396.153Radial†	6862.8	6765.3	4953.6	µg/L	4953.6 ppb	13:19:41
3	Ca 317.933Radial†	5718.7	5458.0	4968.1	µg/L	4968.1 ppb	13:19:41
3	Fe 238.204 Radial†	269.3	253.3	4749.2	µg/L	4749.2 ppb	13:20:02
3	K 766.490 Radial†	8120.8	7514.4	5080.4	µg/L	5080.4 ppb	13:19:41

3	Mg 279.077 IEC†	405.6	392.9	4885.2 µg/L	4885.2 ppb	13:20:02
3	Na 589.592 Radial†	23250.9	22613.7	9772.5 µg/L	9772.5 ppb	13:19:41
3	Sr 421.552†	37503.2	37154.8	483.28 µg/L	483.28 ppb	13:19:41
3	Sc 361.383	1902460.1	1902460.1	101.82 %		13:21:20
3	Y 371.029	1170031.5	1170031.5	101.61 %		13:21:20
3	Ag 328.068†	52071.5	51347.9	481.21 µg/L	481.21 ppb	13:21:26
3	As 188.979†	259.4	259.0	444.75 µg/L	444.75 ppb	13:21:46
3	B 249.677†	12854.9	12231.7	472.81 µg/L	472.81 ppb	13:21:26
3	Ba 233.527†	17083.1	16822.7	470.33 µg/L	470.33 ppb	13:21:26
3	Be 313.107†	756955.7	739243.9	473.69 µg/L	473.69 ppb	13:21:20
3	Cd 226.502†	17131.9	16957.3	467.92 µg/L	467.92 ppb	13:21:26
3	Co 228.616†	9444.1	9263.2	466.03 µg/L	466.03 ppb	13:21:26
3	Cr 267.716†	20117.6	19898.2	459.26 µg/L	459.26 ppb	13:21:26
3	Cu 324.752†	70922.3	63717.1	465.19 µg/L	465.19 ppb	13:21:26
3	Mn 257.610†	142020.2	139726.3	486.62 µg/L	486.62 ppb	13:21:20
3	Mo 202.031†	3668.8	3582.9	445.70 µg/L	445.70 ppb	13:21:46
3	Ni 231.604†	8625.5	8140.1	467.43 µg/L	467.43 ppb	13:21:26
3	P 214.914†	1643.0	1349.2	2141.0 µg/L	2141.0 ppb	13:21:46
3	Pb 220.353†	1761.7	1649.0	447.13 µg/L	447.13 ppb	13:21:46
3	S 181.975 Axial†	284.8	246.4	925.40 µg/L	925.40 ppb	13:21:46
3	Sb 206.836†	518.0	484.2	451.26 µg/L	451.26 ppb	13:21:46
3	Se 196.026†	455.8	433.7	466.78 µg/L	466.78 ppb	13:21:46
3	SiO2†	34091.2	29856.8	5132.9 µg/L	5132.9 ppb	13:21:26
3	Si 251.611†	36390.9	35388.9	2360.3 µg/L	2360.3 ppb	13:21:26
3	Sn 189.927†	890.0	841.6	440.02 µg/L	440.02 ppb	13:21:46
3	Ti 334.940†	199081.3	194916.7	478.05 µg/L	478.05 ppb	13:21:20
3	Tl 190.801†	270.6	292.6	469.95 µg/L	469.95 ppb	13:21:46
3	U 409.014†	4453.4	4340.2	462.69 µg/L	462.69 ppb	13:21:26
3	V 292.402†	37696.7	37295.2	465.71 µg/L	465.71 ppb	13:21:26
3	Zn 213.857†	19112.3	18116.8	462.97 µg/L	462.97 ppb	13:21:26

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1915030.6	102.50	%	0.591				0.58%
Sc RADIAL	55923.6	101	%	0.4				0.39%
Y 371.029	1178258.5	102.33	%	0.632				0.62%
Ag 328.068†	52960.8	496.41	µg/L	13.371	496.41	ppb	13.371	2.69%
QC value within limits for Ag 328.068 Recovery = 99.28%								
Al 396.153Radial†	6767.8	4953.4	µg/L	8.10	4953.4	ppb	8.10	0.16%
QC value within limits for Al 396.153Radial Recovery = 99.07%								
As 188.979†	286.8	492.25	µg/L	41.249	492.25	ppb	41.249	8.38%
QC value within limits for As 188.979 Recovery = 98.45%								
B 249.677†	12633.4	488.36	µg/L	13.978	488.36	ppb	13.978	2.86%
QC value within limits for B 249.677 Recovery = 97.67%								
Ba 233.527†	17642.0	493.25	µg/L	20.040	493.25	ppb	20.040	4.06%
QC value within limits for Ba 233.527 Recovery = 98.65%								
Be 313.107†	764641.3	489.96	µg/L	14.117	489.96	ppb	14.117	2.88%
QC value within limits for Be 313.107 Recovery = 97.99%								
Ca 317.933Radial†	5437.1	4949.1	µg/L	19.52	4949.1	ppb	19.52	0.39%
QC value within limits for Ca 317.933Radial Recovery = 98.98%								
Cd 226.502†	17876.6	493.33	µg/L	22.146	493.33	ppb	22.146	4.49%
QC value within limits for Cd 226.502 Recovery = 98.67%								
Co 228.616†	9814.9	493.87	µg/L	24.178	493.87	ppb	24.178	4.90%
QC value within limits for Co 228.616 Recovery = 98.77%								
Cr 267.716†	21425.4	494.49	µg/L	30.560	494.49	ppb	30.560	6.18%
QC value within limits for Cr 267.716 Recovery = 98.90%								
Cu 324.752†	67091.9	489.81	µg/L	21.491	489.81	ppb	21.491	4.39%
QC value within limits for Cu 324.752 Recovery = 97.96%								
Fe 238.204 Radial†	257.0	4819.4	µg/L	70.94	4819.4	ppb	70.94	1.47%
QC value within limits for Fe 238.204 Radial Recovery = 96.39%								
K 766.490 Radial†	7511.8	5078.6	µg/L	2.01	5078.6	ppb	2.01	0.04%
QC value within limits for K 766.490 Radial Recovery = 101.57%								
Mg 279.077 IEC†	393.4	4893.0	µg/L	29.55	4893.0	ppb	29.55	0.60%
QC value within limits for Mg 279.077 IEC Recovery = 97.86%								
Mn 257.610†	144229.4	502.29	µg/L	13.579	502.29	ppb	13.579	2.70%
QC value within limits for Mn 257.610 Recovery = 100.46%								
Mo 202.031†	3998.3	497.36	µg/L	44.741	497.36	ppb	44.741	9.00%
QC value within limits for Mo 202.031 Recovery = 99.47%								
Na 589.592 Radial†	22665.3	9794.8	µg/L	20.18	9794.8	ppb	20.18	0.21%

QC value within limits for Na 589.592 Radial Recovery = 97.95%

Ni 231.604†	8597.6	493.70 µg/L	22.798	493.70 ppb	22.798	4.62%

QC value within limits for Ni 231.604 Recovery = 98.74%

P 214.914†	1496.3	2378.2 µg/L	205.48	2378.2 ppb	205.48	8.64%

QC value within limits for P 214.914 Recovery = 95.13%

Pb 220.353†	1814.5	492.06 µg/L	38.914	492.06 ppb	38.914	7.91%

QC value within limits for Pb 220.353 Recovery = 98.41%

S 181.975 Axial†	265.3	996.43 µg/L	61.786	996.43 ppb	61.786	6.20%

QC value within limits for S 181.975 Axial Recovery = 99.64%

Sb 206.836†	528.9	492.80 µg/L	35.975	492.80 ppb	35.975	7.30%

QC value within limits for Sb 206.836 Recovery = 98.56%

Se 196.026†	460.3	495.03 µg/L	24.492	495.03 ppb	24.492	4.95%

QC value within limits for Se 196.026 Recovery = 99.01%

SiO2†	31085.4	5344.1 µg/L	184.37	5344.1 ppb	184.37	3.45%

QC value within limits for SiO2 Recovery = 99.94%

Si 251.611†	36874.0	2457.5 µg/L	85.21	2457.5 ppb	85.21	3.47%

QC value within limits for Si 251.611 Recovery = 98.30%

Sn 189.927†	950.7	496.87 µg/L	49.238	496.87 ppb	49.238	9.91%

QC value within limits for Sn 189.927 Recovery = 99.37%

Sr 421.552†	37183.6	483.65 µg/L	1.389	483.65 ppb	1.389	0.29%

QC value within limits for Sr 421.552 Recovery = 96.73%

Ti 334.940†	202054.3	495.56 µg/L	15.184	495.56 ppb	15.184	3.06%

QC value within limits for Ti 334.940 Recovery = 99.11%

Tl 190.801†	308.0	494.61 µg/L	21.435	494.61 ppb	21.435	4.33%

QC value within limits for Tl 190.801 Recovery = 98.92%

U 409.014†	4652.5	496.04 µg/L	29.107	496.04 ppb	29.107	5.87%

QC value within limits for U 409.014 Recovery = 99.21%

V 292.402†	39582.9	494.45 µg/L	24.973	494.45 ppb	24.973	5.05%

QC value within limits for V 292.402 Recovery = 98.89%

Zn 213.857†	19121.3	488.69 µg/L	22.477	488.69 ppb	22.477	4.60%

QC value within limits for Zn 213.857 Recovery = 97.74%

All analyte(s) passed QC.

Sequence No.: 2
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 1/11/2010 13:21:55
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	55684.8	55684.8	100	%			13:22:28
1	Al 396.153Radial†	13.9	-12.9	-9.4842	µg/L	-9.4842	ppb	13:22:28
1	Ca 317.933Radial†	197.7	-4.5	-4.0545	µg/L	-4.0545	ppb	13:22:48
1	Fe 238.204 Radial†	15.6	2.3	42.943	µg/L	42.943	ppb	13:22:48
1	K 766.490 Radial†	643.2	119.5	80.772	µg/L	80.772	ppb	13:22:28
1	Mg 279.077 IEC†	10.1	1.5	18.469	µg/L	18.469	ppb	13:22:48
1	Na 589.592 Radial†	531.6	133.1	57.536	µg/L	57.536	ppb	13:22:28
1	Sr 421.552†	3.1	41.2	0.5356	µg/L	0.5356	ppb	13:22:28
1	Sc 361.383	1885845.4	1885845.4	100.94	%			13:23:50
1	Y 371.029	1161504.0	1161504.0	100.87	%			13:23:50
1	Ag 328.068†	-169.8	41.3	0.3917	µg/L	0.3917	ppb	13:23:55
1	As 188.979†	-3.5	0.8	1.3940	µg/L	1.3940	ppb	13:24:16
1	B 249.677†	453.1	56.0	2.1585	µg/L	2.1585	ppb	13:23:55
1	Ba 233.527†	-30.4	15.6	0.4373	µg/L	0.4373	ppb	13:24:16
1	Be 313.107†	4336.4	150.5	0.0964	µg/L	0.0964	ppb	13:23:50
1	Cd 226.502†	-130.3	3.4	0.0853	µg/L	0.0853	ppb	13:24:16
1	Co 228.616†	23.6	11.7	0.5921	µg/L	0.5921	ppb	13:24:16
1	Cr 267.716†	-126.5	15.8	0.3657	µg/L	0.3657	ppb	13:23:55
1	Cu 324.752†	6266.0	273.8	2.0011	µg/L	2.0011	ppb	13:23:55
1	Mn 257.610†	-179.4	73.7	0.2617	µg/L	0.2617	ppb	13:23:55
1	Mo 202.031†	29.3	8.8	1.0975	µg/L	1.0975	ppb	13:24:16
1	Ni 231.604†	335.6	1.7	0.0981	µg/L	0.0981	ppb	13:24:16
1	P 214.914†	258.5	-8.2	-13.658	µg/L	-13.658	ppb	13:24:16
1	Pb 220.353†	91.1	9.1	2.4773	µg/L	2.4773	ppb	13:24:16
1	S 181.975 Axial†	37.5	3.9	14.667	µg/L	14.667	ppb	13:24:16
1	Sb 206.836†	33.3	8.5	7.9298	µg/L	7.9298	ppb	13:24:16
1	Se 196.026†	17.5	3.4	3.6488	µg/L	3.6488	ppb	13:24:16
1	SiO2†	3658.7	1.4	0.2466	µg/L	0.2466	ppb	13:23:55
1	Si 251.611†	397.0	43.5	3.0283	µg/L	3.0283	ppb	13:24:16
1	Sn 189.927†	26.4	-6.3	-3.2663	µg/L	-3.2663	ppb	13:24:16
1	Ti 334.940†	645.2	42.6	0.1047	µg/L	0.1047	ppb	13:23:55
1	Tl 190.801†	-31.8	-4.7	-7.4752	µg/L	-7.4752	ppb	13:24:16
1	U 409.014†	11.8	-21.7	-2.3233	µg/L	-2.3233	ppb	13:23:55
1	V 292.402†	-227.7	48.4	0.6048	µg/L	0.6048	ppb	13:23:55
1	Zn 213.857†	654.5	-4.5	-0.1304	µg/L	-0.1304	ppb	13:24:16
2	Sc RADIAL	54833.2	54833.2	98.6	%			13:22:54
2	Al 396.153Radial†	23.5	-2.8	-2.1449	µg/L	-2.1449	ppb	13:22:54
2	Ca 317.933Radial†	206.2	7.3	6.6280	µg/L	6.6280	ppb	13:23:14
2	Fe 238.204 Radial†	14.7	1.6	30.494	µg/L	30.494	ppb	13:23:14
2	K 766.490 Radial†	613.2	99.0	66.934	µg/L	66.934	ppb	13:22:54
2	Mg 279.077 IEC†	9.4	0.9	11.110	µg/L	11.110	ppb	13:23:14
2	Na 589.592 Radial†	517.2	126.7	54.761	µg/L	54.761	ppb	13:22:54
2	Sr 421.552†	-8.7	29.2	0.3800	µg/L	0.3800	ppb	13:22:54
2	Sc 361.383	1905863.0	1905863.0	102.01	%			13:24:22
2	Y 371.029	1174369.7	1174369.7	101.99	%			13:24:22
2	Ag 328.068†	-144.1	68.3	0.6405	µg/L	0.6405	ppb	13:24:27
2	As 188.979†	-0.7	3.5	6.0327	µg/L	6.0327	ppb	13:24:48
2	B 249.677†	468.6	66.5	2.5695	µg/L	2.5695	ppb	13:24:27
2	Ba 233.527†	-33.2	13.3	0.3710	µg/L	0.3710	ppb	13:24:48
2	Be 313.107†	4236.8	7.7	0.0049	µg/L	0.0049	ppb	13:24:22
2	Cd 226.502†	-117.2	17.5	0.4849	µg/L	0.4849	ppb	13:24:48
2	Co 228.616†	15.5	3.5	0.1808	µg/L	0.1808	ppb	13:24:48
2	Cr 267.716†	-107.4	35.9	0.8281	µg/L	0.8281	ppb	13:24:27
2	Cu 324.752†	6279.1	221.4	1.6178	µg/L	1.6178	ppb	13:24:27
2	Mn 257.610†	-224.8	31.0	0.1116	µg/L	0.1116	ppb	13:24:27
2	Mo 202.031†	32.2	11.3	1.4121	µg/L	1.4121	ppb	13:24:48
2	Ni 231.604†	319.3	-17.8	-1.0221	µg/L	-1.0221	ppb	13:24:48
2	P 214.914†	259.5	-9.9	-16.347	µg/L	-16.347	ppb	13:24:48
2	Pb 220.353†	79.9	-2.8	-0.7586	µg/L	-0.7586	ppb	13:24:48

2	S 181.975 Axial†	38.3	4.2	15.922 µg/L	15.922 ppb	13:24:48
2	Sb 206.836†	25.0	0.0	0.0255 µg/L	0.0255 ppb	13:24:48
2	Se 196.026†	10.8	-3.4	-3.4902 µg/L	-3.4902 ppb	13:24:48
2	SiO2†	3698.2	2.0	0.3493 µg/L	0.3493 ppb	13:24:27
2	Si 251.611†	393.4	35.8	2.5151 µg/L	2.5151 ppb	13:24:48
2	Sn 189.927†	26.1	-6.8	-3.5547 µg/L	-3.5547 ppb	13:24:48
2	Ti 334.940†	693.8	83.5	0.2044 µg/L	0.2044 ppb	13:24:27
2	Tl 190.801†	-28.3	-0.8	-1.3320 µg/L	-1.3320 ppb	13:24:48
2	U 409.014†	128.8	92.9	9.9210 µg/L	9.9210 ppb	13:24:27
2	V 292.402†	-243.9	35.0	0.4602 µg/L	0.4602 ppb	13:24:27
2	Zn 213.857†	646.8	-18.9	-0.4916 µg/L	-0.4916 ppb	13:24:48
3	Sc RADIAL	54883.3	54883.3	98.7 %		13:23:20
3	Al 396.153Radial†	14.6	-11.9	-8.7794 µg/L	-8.7794 ppb	13:23:20
3	Ca 317.933Radial†	198.6	-0.7	-0.6052 µg/L	-0.6052 ppb	13:23:40
3	Fe 238.204 Radial†	14.4	1.4	26.121 µg/L	26.121 ppb	13:23:40
3	K 766.490 Radial†	632.8	118.3	80.003 µg/L	80.003 ppb	13:23:20
3	Mg 279.077 IEC†	8.5	-0.0	-0.3183 µg/L	-0.3183 ppb	13:23:40
3	Na 589.592 Radial†	538.7	148.1	64.001 µg/L	64.001 ppb	13:23:20
3	Sr 421.552†	7.4	45.6	0.5928 µg/L	0.5928 ppb	13:23:20
3	Sc 361.383	1903760.4	1903760.4	101.89 %		13:24:54
3	Y 371.029	1173578.4	1173578.4	101.92 %		13:24:54
3	Ag 328.068†	-226.7	-13.0	-0.1159 µg/L	-0.1159 ppb	13:24:59
3	As 188.979†	-5.9	-1.5	-2.5765 µg/L	-2.5765 ppb	13:25:20
3	B 249.677†	415.0	14.4	0.5505 µg/L	0.5505 ppb	13:24:59
3	Ba 233.527†	-27.5	18.8	0.5258 µg/L	0.5258 ppb	13:25:20
3	Be 313.107†	4414.6	186.8	0.1197 µg/L	0.1197 ppb	13:24:54
3	Cd 226.502†	-114.2	20.4	0.5552 µg/L	0.5552 ppb	13:25:20
3	Co 228.616†	19.1	7.2	0.3622 µg/L	0.3622 ppb	13:25:20
3	Cr 267.716†	-100.0	43.0	0.9914 µg/L	0.9914 ppb	13:24:59
3	Cu 324.752†	6314.8	263.3	1.9225 µg/L	1.9225 ppb	13:24:59
3	Mn 257.610†	-166.9	87.6	0.3081 µg/L	0.3081 ppb	13:24:59
3	Mo 202.031†	24.9	4.2	0.5201 µg/L	0.5201 ppb	13:25:20
3	Ni 231.604†	327.4	-9.5	-0.5447 µg/L	-0.5447 ppb	13:25:20
3	P 214.914†	263.7	-5.5	-9.1901 µg/L	-9.1901 ppb	13:25:20
3	Pb 220.353†	88.4	5.7	1.5325 µg/L	1.5325 ppb	13:25:20
3	S 181.975 Axial†	28.8	-5.0	-18.788 µg/L	-18.788 ppb	13:25:20
3	Sb 206.836†	24.5	-0.5	-0.4791 µg/L	-0.4791 ppb	13:25:20
3	Se 196.026†	4.9	-9.2	-9.6471 µg/L	-9.6471 ppb	13:25:20
3	SiO2†	3620.9	-69.8	-11.998 µg/L	-11.998 ppb	13:24:59
3	Si 251.611†	386.9	29.9	2.0756 µg/L	2.0756 ppb	13:25:20
3	Sn 189.927†	28.7	-4.2	-2.2138 µg/L	-2.2138 ppb	13:25:20
3	Ti 334.940†	665.2	56.2	0.1380 µg/L	0.1380 ppb	13:24:59
3	Tl 190.801†	-35.4	-7.9	-12.635 µg/L	-12.635 ppb	13:25:20
3	U 409.014†	6.7	-26.8	-2.8705 µg/L	-2.8705 ppb	13:24:59
3	V 292.402†	-247.4	31.3	0.3870 µg/L	0.3870 ppb	13:24:59
3	Zn 213.857†	652.9	-12.2	-0.3221 µg/L	-0.3221 ppb	13:25:20

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	1898489.6	101.61	%	0.589				0.58%
Sc RADIAL	55133.8	99.2	%	0.86				0.87%
Y 371.029	1169817.4	101.59	%	0.626				0.62%
Ag 328.068†	32.2	0.3054	µg/L	0.38551	0.3054	ppb	0.38551	126.22%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-9.2	-6.8028	µg/L	4.04922	-6.8028	ppb	4.04922	59.52%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	0.9	1.6167	µg/L	4.30891	1.6167	ppb	4.30891	266.52%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	45.6	1.7595	µg/L	1.06700	1.7595	ppb	1.06700	60.64%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	15.9	0.4447	µg/L	0.07763	0.4447	ppb	0.07763	17.46%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	115.0	0.0736	µg/L	0.06068	0.0736	ppb	0.06068	82.40%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	0.7	0.6561	µg/L	5.45179	0.6561	ppb	5.45179	830.96%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	13.7	0.3751	µg/L	0.25343	0.3751	ppb	0.25343	67.56%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	7.5	0.3783	µg/L	0.20615	0.3783	ppb	0.20615	54.49%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              31.6      0.7284 µg/L       0.32452      0.7284 ppb        0.32452  44.55%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             252.8      1.8471 µg/L       0.20248      1.8471 ppb        0.20248  10.96%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        1.8      33.186 µg/L        8.7284     33.186 ppb         8.7284  26.30%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       112.3      75.903 µg/L        7.7771     75.903 ppb         7.7771  10.25%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           0.8      9.7535 µg/L       9.46672      9.7535 ppb        9.46672  97.06%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              64.1      0.2271 µg/L       0.10273      0.2271 ppb        0.10273  45.23%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               8.1      1.0099 µg/L       0.45239      1.0099 ppb        0.45239  44.80%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      136.0      58.766 µg/L        4.7414     58.766 ppb         4.7414   8.07%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              -8.5     -0.4896 µg/L       0.56212     -0.4896 ppb        0.56212 114.82%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -7.8    -13.065 µg/L        3.6150    -13.065 ppb         3.6150  27.67%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               4.0      1.0838 µg/L       1.66397      1.0838 ppb        1.66397 153.54%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          1.0      3.9337 µg/L      19.68745      3.9337 ppb       19.68745 500.48%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               2.7      2.4921 µg/L       4.71597      2.4921 ppb        4.71597 189.24%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              -3.1     -3.1628 µg/L       6.65395     -3.1628 ppb        6.65395 210.38%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                   -22.1     -3.8007 µg/L       7.09935     -3.8007 ppb        7.09935 186.79%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†              36.4      2.5397 µg/L       0.47681      2.5397 ppb        0.47681  18.77%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†              -5.8     -3.0116 µg/L       0.70581     -3.0116 ppb        0.70581  23.44%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              38.7      0.5028 µg/L       0.11013      0.5028 ppb        0.11013  21.91%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              60.7      0.1490 µg/L       0.05079      0.1490 ppb        0.05079  34.08%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -4.5     -7.1476 µg/L       5.65887     -7.1476 ppb        5.65887  79.17%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               14.8      1.5757 µg/L       7.23235      1.5757 ppb        7.23235 458.98%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               38.2      0.4840 µg/L       0.11088      0.4840 ppb        0.11088  22.91%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†             -11.8     -0.3147 µg/L       0.18072     -0.3147 ppb        0.18072  57.42%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
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Analysis Begun

Start Time: 1/11/2010 13:26:13 **Plasma On Time: 1/11/2010 07:03:49**
Logged In Analyst: optima **Technique: ICP Continuous**
Spectrometer Model: Optima 4300 DV, S/N 077N1030502Autosampler Model: AS-93plus

Sample Information File: C:\pe\optima1\Sample Information\011110.sif
Batch ID:
Results Data Set: 011110A
Results Library: c:\pe\optima1\Results\Results.mdb

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Sequence No.: 1 **Autosampler Location: 301**
Sample ID: 1202010888|939704|1 **Date Collected: 1/11/2010 13:26:15**
Analyst: HSC **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: 1202010888|939704|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	53757.3	53757.3	96.7	%			13:26:51
1	Al 396.153Radial†	40.3	15.0	10.964	µg/L	10.964	ppb	13:26:51
1	Ca 317.933Radial†	211.1	16.5	15.019	µg/L	15.019	ppb	13:27:11
1	Fe 238.204 Radial†	19.1	6.5	121.98	µg/L	121.98	ppb	13:27:11
1	K 766.490 Radial†	648.6	148.0	100.09	µg/L	100.09	ppb	13:26:51
1	Mg 279.077 IEC†	14.6	6.6	81.351	µg/L	81.351	ppb	13:27:11
1	Na 589.592 Radial†	640.8	265.1	114.56	µg/L	114.56	ppb	13:26:51
1	Sr 421.552†	-20.1	17.2	0.2237	µg/L	0.2237	ppb	13:26:51
1	Sc 361.383	1879077.8	1879077.8	100.57	%			13:28:13
1	Y 371.029	1157172.4	1157172.4	100.49	%			13:28:13
1	Ag 328.068†	-275.6	-64.5	-0.5879	µg/L	-0.5879	ppb	13:28:19
1	As 188.979†	-6.4	-2.1	-3.5625	µg/L	-3.5625	ppb	13:28:39
1	B 249.677†	479.3	83.7	3.2090	µg/L	3.2090	ppb	13:28:19
1	Ba 233.527†	-35.2	10.8	0.3016	µg/L	0.3016	ppb	13:28:39
1	Be 313.107†	4281.8	111.7	0.0714	µg/L	0.0714	ppb	13:28:13
1	Cd 226.502†	-121.4	11.7	0.3135	µg/L	0.3135	ppb	13:28:39
1	Co 228.616†	14.0	2.3	0.1142	µg/L	0.1142	ppb	13:28:39
1	Cr 267.716†	-160.5	-18.4	-0.4226	µg/L	-0.4226	ppb	13:28:19
1	Cu 324.752†	6495.1	524.0	3.8329	µg/L	3.8329	ppb	13:28:19
1	Mn 257.610†	80.6	331.5	1.1684	µg/L	1.1684	ppb	13:28:19
1	Mo 202.031†	25.9	5.5	0.6894	µg/L	0.6894	ppb	13:28:39
1	Ni 231.604†	361.7	28.8	1.6544	µg/L	1.6544	ppb	13:28:39
1	P 214.914†	278.3	12.4	19.588	µg/L	19.588	ppb	13:28:39
1	Pb 220.353†	82.5	0.9	0.2283	µg/L	0.2283	ppb	13:28:39
1	S 181.975 Axial†	36.9	3.4	12.904	µg/L	12.904	ppb	13:28:39
1	Sb 206.836†	24.9	0.3	0.2547	µg/L	0.2547	ppb	13:28:39
1	Se 196.026†	13.5	-0.5	-0.4418	µg/L	-0.4418	ppb	13:28:39
1	SiO2†	3794.8	149.8	25.758	µg/L	25.758	ppb	13:28:19
1	Si 251.611†	604.4	251.1	16.886	µg/L	16.886	ppb	13:28:39
1	Sn 189.927†	37.8	5.1	2.6739	µg/L	2.6739	ppb	13:28:39
1	Ti 334.940†	813.9	212.6	0.5208	µg/L	0.5208	ppb	13:28:19
1	Tl 190.801†	-29.3	-2.2	-3.5818	µg/L	-3.5818	ppb	13:28:39
1	U 409.014†	122.3	88.2	9.4053	µg/L	9.4053	ppb	13:28:19
1	V 292.402†	-244.8	30.6	0.4027	µg/L	0.4027	ppb	13:28:19
1	Zn 213.857†	712.0	55.0	1.3726	µg/L	1.3726	ppb	13:28:39
2	Sc RADIAL	54085.0	54085.0	97.3	%			13:27:17
2	Al 396.153Radial†	15.9	-10.3	-7.6140	µg/L	-7.6140	ppb	13:27:17
2	Ca 317.933Radial†	218.1	22.4	20.374	µg/L	20.374	ppb	13:27:37
2	Fe 238.204 Radial†	18.3	5.6	105.08	µg/L	105.08	ppb	13:27:37
2	K 766.490 Radial†	699.6	196.4	132.78	µg/L	132.78	ppb	13:27:17
2	Mg 279.077 IEC†	12.9	4.7	57.803	µg/L	57.803	ppb	13:27:37
2	Na 589.592 Radial†	636.7	256.9	111.02	µg/L	111.02	ppb	13:27:17
2	Sr 421.552†	6.7	45.0	0.5848	µg/L	0.5848	ppb	13:27:17
2	Sc 361.383	1875937.3	1875937.3	100.41	%			13:28:45
2	Y 371.029	1154675.9	1154675.9	100.28	%			13:28:45
2	Ag 328.068†	-152.9	57.3	0.5468	µg/L	0.5468	ppb	13:28:50
2	As 188.979†	-5.5	-1.2	-2.1080	µg/L	-2.1080	ppb	13:29:11

2	B 249.677†	489.9	95.1	3.6547	µg/L	3.6547 ppb	13:28:50
2	Ba 233.527†	-26.8	19.1	0.5354	µg/L	0.5354 ppb	13:29:11
2	Be 313.107†	4243.7	80.8	0.0517	µg/L	0.0517 ppb	13:28:45
2	Cd 226.502†	-125.6	7.3	0.1971	µg/L	0.1971 ppb	13:29:11
2	Co 228.616†	13.3	1.6	0.0815	µg/L	0.0815 ppb	13:29:11
2	Cr 267.716†	-107.2	34.4	0.7942	µg/L	0.7942 ppb	13:28:50
2	Cu 324.752†	6472.6	512.3	3.7465	µg/L	3.7465 ppb	13:28:50
2	Mn 257.610†	66.2	317.3	1.1168	µg/L	1.1168 ppb	13:28:50
2	Mo 202.031†	24.5	4.1	0.5188	µg/L	0.5188 ppb	13:29:11
2	Ni 231.604†	358.9	26.7	1.5308	µg/L	1.5308 ppb	13:29:11
2	P 214.914†	275.7	10.3	16.218	µg/L	16.218 ppb	13:29:11
2	Pb 220.353†	100.0	18.5	5.0051	µg/L	5.0051 ppb	13:29:11
2	S 181.975 Axial†	37.8	4.4	16.455	µg/L	16.455 ppb	13:29:11
2	Sb 206.836†	26.9	2.3	2.1223	µg/L	2.1223 ppb	13:29:11
2	Se 196.026†	24.8	10.7	11.497	µg/L	11.497 ppb	13:29:11
2	SiO2†	3797.1	158.4	27.240	µg/L	27.240 ppb	13:28:50
2	Si 251.611†	589.8	237.6	15.994	µg/L	15.994 ppb	13:29:11
2	Sn 189.927†	36.2	3.6	1.8734	µg/L	1.8734 ppb	13:29:11
2	Ti 334.940†	757.2	157.5	0.3853	µg/L	0.3853 ppb	13:28:50
2	Tl 190.801†	-28.6	-1.6	-2.5966	µg/L	-2.5966 ppb	13:29:11
2	U 409.014†	143.3	109.3	11.664	µg/L	11.664 ppb	13:28:50
2	V 292.402†	-205.6	69.3	0.8835	µg/L	0.8835 ppb	13:28:50
2	Zn 213.857†	711.7	55.9	1.3992	µg/L	1.3992 ppb	13:29:11
3	Sc RADIAL	54577.9	54577.9	98.2	%		13:27:42
3	Al 396.153Radial†	16.7	-9.7	-7.2070	µg/L	-7.2070 ppb	13:27:42
3	Ca 317.933Radial†	211.0	13.1	11.963	µg/L	11.963 ppb	13:28:03
3	Fe 238.204 Radial†	16.8	3.9	72.456	µg/L	72.456 ppb	13:28:03
3	K 766.490 Radial†	664.2	153.8	104.01	µg/L	104.01 ppb	13:27:42
3	Mg 279.077 IEC†	9.5	1.1	13.098	µg/L	13.098 ppb	13:28:03
3	Na 589.592 Radial†	625.2	239.2	103.38	µg/L	103.38 ppb	13:27:42
3	Sr 421.552†	21.2	59.6	0.7751	µg/L	0.7751 ppb	13:27:42
3	Sc 361.383	1846301.8	1846301.8	98.819	%		13:29:17
3	Y 371.029	1137168.4	1137168.4	98.757	%		13:29:17
3	Ag 328.068†	-203.7	3.4	0.0434	µg/L	0.0434 ppb	13:29:22
3	As 188.979†	-3.7	0.5	0.8672	µg/L	0.8672 ppb	13:29:43
3	B 249.677†	470.4	83.1	3.2006	µg/L	3.2006 ppb	13:29:22
3	Ba 233.527†	-52.2	-7.1	-0.1958	µg/L	-0.1958 ppb	13:29:43
3	Be 313.107†	4148.7	52.6	0.0335	µg/L	0.0335 ppb	13:29:17
3	Cd 226.502†	-122.3	8.6	0.2304	µg/L	0.2304 ppb	13:29:43
3	Co 228.616†	7.9	-3.6	-0.1791	µg/L	-0.1791 ppb	13:29:43
3	Cr 267.716†	-107.9	32.0	0.7391	µg/L	0.7391 ppb	13:29:22
3	Cu 324.752†	6383.0	525.2	3.8374	µg/L	3.8374 ppb	13:29:22
3	Mn 257.610†	101.6	354.3	1.2413	µg/L	1.2413 ppb	13:29:22
3	Mo 202.031†	33.4	13.6	1.6947	µg/L	1.6947 ppb	13:29:43
3	Ni 231.604†	342.6	15.9	0.9126	µg/L	0.9126 ppb	13:29:43
3	P 214.914†	273.0	12.0	18.905	µg/L	18.905 ppb	13:29:43
3	Pb 220.353†	89.5	9.4	2.5525	µg/L	2.5525 ppb	13:29:43
3	S 181.975 Axial†	38.4	5.6	20.883	µg/L	20.883 ppb	13:29:43
3	Sb 206.836†	32.3	8.2	7.6638	µg/L	7.6638 ppb	13:29:43
3	Se 196.026†	19.6	5.9	6.3753	µg/L	6.3753 ppb	13:29:43
3	SiO2†	3784.8	206.6	35.523	µg/L	35.523 ppb	13:29:22
3	Si 251.611†	588.4	245.6	16.560	µg/L	16.560 ppb	13:29:43
3	Sn 189.927†	33.7	1.7	0.8539	µg/L	0.8539 ppb	13:29:43
3	Ti 334.940†	825.0	238.2	0.5839	µg/L	0.5839 ppb	13:29:22
3	Tl 190.801†	-27.6	-1.0	-1.6285	µg/L	-1.6285 ppb	13:29:43
3	U 409.014†	47.5	14.7	1.5551	µg/L	1.5551 ppb	13:29:22
3	V 292.402†	-198.3	73.4	0.9256	µg/L	0.9256 ppb	13:29:22
3	Zn 213.857†	718.2	73.9	1.8759	µg/L	1.8759 ppb	13:29:43

Mean Data: 1202010888|939704|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1867105.6	99.933	%	0.9680				0.97%
Sc RADIAL	54140.1	97.4	%	0.74				0.76%
Y 371.029	1149672.2	99.843	%	0.9466				0.95%
Ag 328.068†	-1.3	0.0008	µg/L	0.56853	0.0008	ppb	0.56853	>999.9%
Al 396.153Radial†	-1.7	-1.2857	µg/L	10.61052	-1.2857	ppb	10.61052	825.29%
As 188.979†	-1.0	-1.6011	µg/L	2.25796	-1.6011	ppb	2.25796	141.02%
B 249.677†	87.3	3.3548	µg/L	0.25977	3.3548	ppb	0.25977	7.74%
Ba 233.527†	7.6	0.2137	µg/L	0.37345	0.2137	ppb	0.37345	174.76%

Be 313.107†	81.7	0.0522	µg/L	0.01896	0.0522	ppb	0.01896	36.33%
Ca 317.933Radial†	17.3	15.785	µg/L	4.2580	15.785	ppb	4.2580	26.97%
Cd 226.502†	9.2	0.2470	µg/L	0.05994	0.2470	ppb	0.05994	24.27%
Co 228.616†	0.1	0.0055	µg/L	0.16071	0.0055	ppb	0.16071	>999.9%
Cr 267.716†	16.0	0.3702	µg/L	0.68719	0.3702	ppb	0.68719	185.62%
Cu 324.752†	520.5	3.8056	µg/L	0.05120	3.8056	ppb	0.05120	1.35%
Fe 238.204 Radial†	5.3	99.839	µg/L	25.1729	99.839	ppb	25.1729	25.21%
K 766.490 Radial†	166.1	112.29	µg/L	17.851	112.29	ppb	17.851	15.90%
Mg 279.077 IEC†	4.1	50.750	µg/L	34.6688	50.750	ppb	34.6688	68.31%
Mn 257.610†	334.3	1.1755	µg/L	0.06257	1.1755	ppb	0.06257	5.32%
Mo 202.031†	7.8	0.9677	µg/L	0.63539	0.9677	ppb	0.63539	65.66%
Na 589.592 Radial†	253.7	109.65	µg/L	5.715	109.65	ppb	5.715	5.21%
Ni 231.604†	23.8	1.3660	µg/L	0.39742	1.3660	ppb	0.39742	29.09%
P 214.914†	11.6	18.237	µg/L	1.7819	18.237	ppb	1.7819	9.77%
Pb 220.353†	9.6	2.5953	µg/L	2.38871	2.5953	ppb	2.38871	92.04%
S 181.975 Axial†	4.5	16.747	µg/L	3.9980	16.747	ppb	3.9980	23.87%
Sb 206.836†	3.6	3.3469	µg/L	3.85337	3.3469	ppb	3.85337	115.13%
Se 196.026†	5.4	5.8103	µg/L	5.98962	5.8103	ppb	5.98962	103.09%
SiO2†	171.6	29.507	µg/L	5.2626	29.507	ppb	5.2626	17.84%
Si 251.611†	244.8	16.480	µg/L	0.4517	16.480	ppb	0.4517	2.74%
Sn 189.927†	3.5	1.8004	µg/L	0.91219	1.8004	ppb	0.91219	50.67%
Sr 421.552†	40.6	0.5279	µg/L	0.28007	0.5279	ppb	0.28007	53.05%
Ti 334.940†	202.8	0.4967	µg/L	0.10151	0.4967	ppb	0.10151	20.44%
Tl 190.801†	-1.6	-2.6023	µg/L	0.97665	-2.6023	ppb	0.97665	37.53%
U 409.014†	70.7	7.5416	µg/L	5.30602	7.5416	ppb	5.30602	70.36%
V 292.402†	57.8	0.7373	µg/L	0.29048	0.7373	ppb	0.29048	39.40%
Zn 213.857†	61.6	1.5492	µg/L	0.28317	1.5492	ppb	0.28317	18.28%

Sequence No.: 2
Sample ID: 1202010889|939704|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 302
Date Collected: 1/11/2010 13:29:52
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202010889|939704|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56049.1	56049.1	101	%			13:30:26
1	Al 396.153Radial†	139095.5	137945.8	101320	µg/L	101320	ppb	13:30:26
1	Ca 317.933Radial†	122428.3	121238.1	110350	µg/L	110350	ppb	13:30:26
1	Fe 238.204 Radial†	10293.9	10197.5	190640	µg/L	190640	ppb	13:30:46
1	K 766.490 Radial†	67292.2	66226.2	44774	µg/L	44774	ppb	13:30:26
1	Mg 279.077 IEC†	3348.0	3312.4	40889	µg/L	40889	ppb	13:30:46
1	Na 589.592 Radial†	26770.1	26156.3	11303	µg/L	11303	ppb	13:30:26
1	Sr 421.552†	199963.9	198387.5	2580.5	µg/L	2580.5	ppb	13:30:26
1	Sc 361.383	1899466.5	1899466.5	101.66	%			13:31:51
1	Y 371.029	1196226.1	1196226.1	103.89	%			13:31:51
1	Ag 328.068†	35448.7	35077.8	350.87	µg/L	350.87	ppb	13:31:57
1	As 188.979†	723.5	715.9	1283.7	µg/L	1283.7	ppb	13:32:17
1	B 249.677†	48459.4	47273.1	1773.1	µg/L	1773.1	ppb	13:31:57
1	Ba 233.527†	80053.5	78788.5	2201.2	µg/L	2201.2	ppb	13:31:57
1	Be 313.107†	1465004.2	1436870.3	918.71	µg/L	918.71	ppb	13:31:51
1	Cd 226.502†	27242.5	26928.8	717.92	µg/L	717.92	ppb	13:31:57
1	Co 228.616†	23275.2	22882.5	1139.5	µg/L	1139.5	ppb	13:31:57
1	Cr 267.716†	134114.4	132059.5	3044.0	µg/L	3044.0	ppb	13:31:57
1	Cu 324.752†	313599.1	302530.0	2224.0	µg/L	2224.0	ppb	13:31:57
1	Mn 257.610†	1923657.0	1892410.2	6606.5	µg/L	6606.5	ppb	13:31:51
1	Mo 202.031†	5503.2	5392.8	678.07	µg/L	678.07	ppb	13:32:17
1	Ni 231.604†	30852.2	30016.2	1723.6	µg/L	1723.6	ppb	13:31:57
1	P 214.914†	5797.6	5438.4	8404.0	µg/L	8404.0	ppb	13:32:17
1	Pb 220.353†	3741.2	3598.8	974.70	µg/L	974.70	ppb	13:32:17
1	S 181.975 Axial†	1369.0	1313.3	4904.8	µg/L	4904.8	ppb	13:32:17
1	Sb 206.836†	2488.8	2423.5	2266.4	µg/L	2266.4	ppb	13:32:17
1	Se 196.026†	3051.5	2987.5	3255.1	µg/L	3255.1	ppb	13:32:17
1	SiO2†	236425.2	228930.6	39357	µg/L	39357	ppb	13:31:57
1	Si 251.611†	275178.0	270322.4	18062	µg/L	18062	ppb	13:31:57
1	Sn 189.927†	2319.6	2249.2	1169.4	µg/L	1169.4	ppb	13:32:17
1	Ti 334.940†	2621271.2	2577753.5	6319.5	µg/L	6319.5	ppb	13:31:51
1	Tl 190.801†	878.2	890.7	1476.1	µg/L	1476.1	ppb	13:32:17
1	U 409.014†	-966.8	-984.4	-147.40	µg/L	-147.40	ppb	13:31:57
1	V 292.402†	113744.3	112155.9	1398.5	µg/L	1398.5	ppb	13:31:57
1	Zn 213.857†	272028.8	266921.7	6821.8	µg/L	6821.8	ppb	13:31:57
2	Sc RADIAL	56463.3	56463.3	102	%			13:30:52
2	Al 396.153Radial†	140999.7	138808.5	101960	µg/L	101960	ppb	13:30:52
2	Ca 317.933Radial†	123936.1	121831.7	110900	µg/L	110900	ppb	13:30:52
2	Fe 238.204 Radial†	10274.7	10103.7	188890	µg/L	188890	ppb	13:31:12
2	K 766.490 Radial†	68275.7	66704.9	45098	µg/L	45098	ppb	13:30:52
2	Mg 279.077 IEC†	3340.6	3280.7	40498	µg/L	40498	ppb	13:31:12
2	Na 589.592 Radial†	27110.7	26296.9	11364	µg/L	11364	ppb	13:30:52
2	Sr 421.552†	202384.1	199315.3	2592.5	µg/L	2592.5	ppb	13:30:52
2	Sc 361.383	1887427.5	1887427.5	101.02	%			13:32:24
2	Y 371.029	1187500.5	1187500.5	103.13	%			13:32:24
2	Ag 328.068†	35456.3	35307.7	352.91	µg/L	352.91	ppb	13:32:30
2	As 188.979†	717.9	714.9	1281.4	µg/L	1281.4	ppb	13:32:51
2	B 249.677†	48443.2	47561.1	1784.8	µg/L	1784.8	ppb	13:32:30
2	Ba 233.527†	79797.3	79037.1	2208.1	µg/L	2208.1	ppb	13:32:30
2	Be 313.107†	1451036.4	1432235.2	915.74	µg/L	915.74	ppb	13:32:24
2	Cd 226.502†	27190.7	27048.5	721.47	µg/L	721.47	ppb	13:32:30
2	Co 228.616†	23199.3	22953.3	1143.1	µg/L	1143.1	ppb	13:32:30
2	Cr 267.716†	133685.0	132475.9	3053.6	µg/L	3053.6	ppb	13:32:30
2	Cu 324.752†	313684.4	304582.1	2238.8	µg/L	2238.8	ppb	13:32:30
2	Mn 257.610†	1908463.9	1889439.8	6596.0	µg/L	6596.0	ppb	13:32:24
2	Mo 202.031†	5483.1	5407.5	679.83	µg/L	679.83	ppb	13:32:51
2	Ni 231.604†	30671.2	30030.6	1724.5	µg/L	1724.5	ppb	13:32:30
2	P 214.914†	5777.9	5455.2	8432.0	µg/L	8432.0	ppb	13:32:51
2	Pb 220.353†	3751.9	3632.9	983.97	µg/L	983.97	ppb	13:32:51

2	S 181.975 Axial†	1359.0	1312.0	4900.3 µg/L	4900.3 ppb	13:32:51
2	Sb 206.836†	2492.7	2443.0	2284.5 µg/L	2284.5 ppb	13:32:51
2	Se 196.026†	3045.7	3001.0	3270.1 µg/L	3270.1 ppb	13:32:51
2	SiO2†	236018.0	230010.9	39543 µg/L	39543 ppb	13:32:30
2	Si 251.611†	274818.7	271693.2	18155 µg/L	18155 ppb	13:32:30
2	Sn 189.927†	2321.9	2266.1	1178.6 µg/L	1178.6 ppb	13:32:51
2	Ti 334.940†	2599965.9	2573109.5	6308.1 µg/L	6308.1 ppb	13:32:24
2	Tl 190.801†	880.1	898.1	1487.7 µg/L	1487.7 ppb	13:32:51
2	U 409.014†	-948.0	-971.8	-145.76 µg/L	-145.76 ppb	13:32:30
2	V 292.402†	113535.5	112662.9	1404.7 µg/L	1404.7 ppb	13:32:30
2	Zn 213.857†	271356.3	267962.7	6849.1 µg/L	6849.1 ppb	13:32:30
3	Sc RADIAL	56296.7	56296.7	101 %		13:31:18
3	Al 396.153Radial†	141159.6	139377.5	102380 µg/L	102380 ppb	13:31:18
3	Ca 317.933Radial†	123717.6	121977.3	111030 µg/L	111030 ppb	13:31:18
3	Fe 238.204 Radial†	10246.9	10106.3	188930 µg/L	188930 ppb	13:31:38
3	K 766.490 Radial†	68316.0	66943.7	45260 µg/L	45260 ppb	13:31:18
3	Mg 279.077 IEC†	3343.1	3293.0	40649 µg/L	40649 ppb	13:31:38
3	Na 589.592 Radial†	27200.4	26464.5	11437 µg/L	11437 ppb	13:31:18
3	Sr 421.552†	202405.7	199926.7	2600.5 µg/L	2600.5 ppb	13:31:18
3	Sc 361.383	1899429.0	1899429.0	101.66 %		13:32:58
3	Y 371.029	1195356.2	1195356.2	103.81 %		13:32:58
3	Ag 328.068†	34845.1	34484.8	344.90 µg/L	344.90 ppb	13:33:04
3	As 188.979†	695.1	687.9	1234.9 µg/L	1234.9 ppb	13:33:24
3	B 249.677†	47415.8	46247.5	1733.9 µg/L	1733.9 ppb	13:33:04
3	Ba 233.527†	77683.6	76458.9	2136.1 µg/L	2136.1 ppb	13:33:04
3	Be 313.107†	1436668.6	1409026.6	900.90 µg/L	900.90 ppb	13:32:58
3	Cd 226.502†	26463.5	26163.2	696.96 µg/L	696.96 ppb	13:33:04
3	Co 228.616†	22536.5	22156.3	1103.1 µg/L	1103.1 ppb	13:33:04
3	Cr 267.716†	129102.7	127132.5	2930.5 µg/L	2930.5 ppb	13:33:04
3	Cu 324.752†	303574.9	292675.9	2152.0 µg/L	2152.0 ppb	13:33:04
3	Mn 257.610†	1889625.0	1858972.2	6490.0 µg/L	6490.0 ppb	13:32:58
3	Mo 202.031†	5246.5	5140.4	646.62 µg/L	646.62 ppb	13:33:24
3	Ni 231.604†	29769.4	28951.8	1662.5 µg/L	1662.5 ppb	13:33:04
3	P 214.914†	5567.8	5212.5	8046.9 µg/L	8046.9 ppb	13:33:24
3	Pb 220.353†	3631.1	3490.6	945.45 µg/L	945.45 ppb	13:33:24
3	S 181.975 Axial†	1319.9	1265.0	4723.6 µg/L	4723.6 ppb	13:33:24
3	Sb 206.836†	2385.4	2321.9	2171.5 µg/L	2171.5 ppb	13:33:24
3	Se 196.026†	2936.5	2874.5	3136.0 µg/L	3136.0 ppb	13:33:24
3	SiO2†	229421.2	222045.7	38174 µg/L	38174 ppb	13:33:04
3	Si 251.611†	267086.6	262368.6	17528 µg/L	17528 ppb	13:33:04
3	Sn 189.927†	2215.0	2146.3	1116.2 µg/L	1116.2 ppb	13:33:24
3	Ti 334.940†	2570244.7	2527612.4	6196.4 µg/L	6196.4 ppb	13:32:58
3	Tl 190.801†	854.9	867.8	1438.4 µg/L	1438.4 ppb	13:33:24
3	U 409.014†	-1043.2	-1059.6	-155.15 µg/L	-155.15 ppb	13:33:04
3	V 292.402†	109881.2	108358.2	1351.2 µg/L	1351.2 ppb	13:33:04
3	Zn 213.857†	265073.8	260085.6	6646.3 µg/L	6646.3 ppb	13:33:04

Mean Data: 1202010889|939704|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1895441.0	101.45	%	0.371				0.37%
Sc RADIAL	56269.7	101	%	0.4				0.37%
Y 371.029	1193027.6	103.61	%	0.417				0.40%
Ag 328.068†	34956.8	349.56	µg/L	4.166	349.56	ppb	4.166	1.19%
Al 396.153Radial†	138710.6	101890	µg/L	530.1	101890	ppb	530.1	0.52%
As 188.979†	706.3	1266.7	µg/L	27.53	1266.7	ppb	27.53	2.17%
B 249.677†	47027.2	1764.0	µg/L	26.68	1764.0	ppb	26.68	1.51%
Ba 233.527†	78094.8	2181.8	µg/L	39.74	2181.8	ppb	39.74	1.82%
Be 313.107†	1426044.0	911.78	µg/L	9.538	911.78	ppb	9.538	1.05%
Ca 317.933Radial†	121682.3	110760	µg/L	356.4	110760	ppb	356.4	0.32%
Cd 226.502†	26713.5	712.12	µg/L	13.241	712.12	ppb	13.241	1.86%
Co 228.616†	22664.0	1128.6	µg/L	22.10	1128.6	ppb	22.10	1.96%
Cr 267.716†	130556.0	3009.4	µg/L	68.50	3009.4	ppb	68.50	2.28%
Cu 324.752†	299929.3	2204.9	µg/L	46.46	2204.9	ppb	46.46	2.11%
Fe 238.204 Radial†	10135.9	189490	µg/L	999.1	189490	ppb	999.1	0.53%
K 766.490 Radial†	66624.9	45044	µg/L	247.0	45044	ppb	247.0	0.55%
Mg 279.077 IEC†	3295.3	40678	µg/L	197.2	40678	ppb	197.2	0.48%
Mn 257.610†	1880274.1	6564.2	µg/L	64.45	6564.2	ppb	64.45	0.98%
Mo 202.031†	5313.6	668.17	µg/L	18.687	668.17	ppb	18.687	2.80%
Na 589.592 Radial†	26305.9	11368	µg/L	66.7	11368	ppb	66.7	0.59%

Ni 231.604†	29666.2	1703.5	µg/L	35.53	1703.5	ppb	35.53	2.09%
P 214.914†	5368.7	8294.3	µg/L	214.69	8294.3	ppb	214.69	2.59%
Pb 220.353†	3574.1	968.04	µg/L	20.106	968.04	ppb	20.106	2.08%
S 181.975 Axial†	1296.8	4842.9	µg/L	103.36	4842.9	ppb	103.36	2.13%
Sb 206.836†	2396.1	2240.8	µg/L	60.66	2240.8	ppb	60.66	2.71%
Se 196.026†	2954.3	3220.4	µg/L	73.48	3220.4	ppb	73.48	2.28%
SiO2†	226995.7	39025	µg/L	742.8	39025	ppb	742.8	1.90%
Si 251.611†	268128.1	17915	µg/L	338.1	17915	ppb	338.1	1.89%
Sn 189.927†	2220.5	1154.7	µg/L	33.68	1154.7	ppb	33.68	2.92%
Sr 421.552†	199209.9	2591.2	µg/L	10.08	2591.2	ppb	10.08	0.39%
Ti 334.940†	2559491.8	6274.6	µg/L	68.01	6274.6	ppb	68.01	1.08%
Tl 190.801†	885.5	1467.4	µg/L	25.80	1467.4	ppb	25.80	1.76%
U 409.014†	-1005.3	-149.44	µg/L	5.018	-149.44	ppb	5.018	3.36%
V 292.402†	111059.0	1384.8	µg/L	29.28	1384.8	ppb	29.28	2.11%
Zn 213.857†	264990.0	6772.4	µg/L	110.04	6772.4	ppb	110.04	1.62%

Sequence No.: 3
Sample ID: 243042001|939704|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 303
Date Collected: 1/11/2010 13:33:33
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 243042001|939704|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	55733.6	55733.6	100	%			13:34:06
1	Al 396.153Radial†	143809.1	143428.9	105380	µg/L	105380	ppb	13:34:06
1	Ca 317.933Radial†	21285.8	21031.7	19144	µg/L	19144	ppb	13:34:27
1	Fe 238.204 Radial†	7072.0	7041.3	131610	µg/L	131610	ppb	13:34:27
1	K 766.490 Radial†	20208.8	19636.4	13276	µg/L	13276	ppb	13:34:06
1	Mg 279.077 IEC†	1703.2	1690.5	20808	µg/L	20808	ppb	13:34:27
1	Na 589.592 Radial†	3121.6	2716.3	1173.9	µg/L	1173.9	ppb	13:34:27
1	Sr 421.552†	21660.7	21645.5	281.55	µg/L	281.55	ppb	13:34:06
1	Sc 361.383	1913284.2	1913284.2	102.40	%			13:35:31
1	Y 371.029	1207351.2	1207351.2	104.85	%			13:35:31
1	Ag 328.068†	-1586.6	-1339.8	-0.2779	µg/L	-0.2779	ppb	13:35:37
1	As 188.979†	18.2	22.1	90.160	µg/L	90.160	ppb	13:35:57
1	B 249.677†	1399.1	973.4	-3.6420	µg/L	-3.6420	ppb	13:35:37
1	Ba 233.527†	60412.3	59039.8	1647.8	µg/L	1647.8	ppb	13:35:37
1	Be 313.107†	20577.0	15948.2	8.4386	µg/L	8.4386	ppb	13:35:37
1	Cd 226.502†	496.8	617.6	-1.3378	µg/L	-1.3378	ppb	13:35:37
1	Co 228.616†	2297.1	2231.5	102.19	µg/L	102.19	ppb	13:35:57
1	Cr 267.716†	6402.9	6393.7	147.84	µg/L	147.84	ppb	13:35:37
1	Cu 324.752†	19378.4	12989.3	106.69	µg/L	106.69	ppb	13:35:37
1	Mn 257.610†	1321328.4	1290557.9	4505.6	µg/L	4505.6	ppb	13:35:31
1	Mo 202.031†	8.3	-12.1	3.6681	µg/L	3.6681	ppb	13:35:57
1	Ni 231.604†	2011.4	1633.4	93.792	µg/L	93.792	ppb	13:35:57
1	P 214.914†	1049.3	760.4	1106.7	µg/L	1106.7	ppb	13:35:57
1	Pb 220.353†	743.8	645.2	176.25	µg/L	176.25	ppb	13:35:57
1	S 181.975 Axial†	169.5	132.2	474.84	µg/L	474.84	ppb	13:35:57
1	Sb 206.836†	36.8	11.4	27.003	µg/L	27.003	ppb	13:35:57
1	Se 196.026†	-92.9	-104.7	-94.284	µg/L	-94.284	ppb	13:35:57
1	SiO2†	153811.1	146576.6	25199	µg/L	25199	ppb	13:35:37
1	Si 251.611†	181494.5	176883.6	11839	µg/L	11839	ppb	13:35:31
1	Sn 189.927†	-69.3	-100.1	-68.662	µg/L	-68.662	ppb	13:35:57
1	Ti 334.940†	2011696.1	1963869.2	4818.3	µg/L	4818.3	ppb	13:35:31
1	Tl 190.801†	-60.5	-32.2	8.9495	µg/L	8.9495	ppb	13:35:57
1	U 409.014†	-584.4	-604.1	-90.281	µg/L	-90.281	ppb	13:35:31
1	V 292.402†	21468.1	21238.1	266.61	µg/L	266.61	ppb	13:35:37
1	Zn 213.857†	17575.1	16509.5	389.40	µg/L	389.40	ppb	13:35:37
2	Sc RADIAL	56075.3	56075.3	101	%			13:34:32
2	Al 396.153Radial†	145983.0	144710.1	106320	µg/L	106320	ppb	13:34:32
2	Ca 317.933Radial†	21399.7	21015.2	19129	µg/L	19129	ppb	13:34:53
2	Fe 238.204 Radial†	7109.9	7035.9	131510	µg/L	131510	ppb	13:34:53
2	K 766.490 Radial†	20330.5	19634.2	13274	µg/L	13274	ppb	13:34:32
2	Mg 279.077 IEC†	1702.8	1679.6	20674	µg/L	20674	ppb	13:34:53
2	Na 589.592 Radial†	3109.8	2685.6	1160.6	µg/L	1160.6	ppb	13:34:53
2	Sr 421.552†	21783.3	21635.4	281.41	µg/L	281.41	ppb	13:34:32
2	Sc 361.383	1900196.4	1900196.4	101.70	%			13:36:05
2	Y 371.029	1198647.5	1198647.5	104.10	%			13:36:05
2	Ag 328.068†	-1643.2	-1406.2	-0.9043	µg/L	-0.9043	ppb	13:36:10
2	As 188.979†	17.2	21.2	88.631	µg/L	88.631	ppb	13:36:31
2	B 249.677†	1374.4	958.6	-4.1855	µg/L	-4.1855	ppb	13:36:10
2	Ba 233.527†	59879.4	58922.1	1644.5	µg/L	1644.5	ppb	13:36:10
2	Be 313.107†	20591.6	16101.0	8.5379	µg/L	8.5379	ppb	13:36:10
2	Cd 226.502†	491.9	616.0	-1.3553	µg/L	-1.3553	ppb	13:36:10
2	Co 228.616†	2312.7	2262.4	103.75	µg/L	103.75	ppb	13:36:31
2	Cr 267.716†	6353.3	6388.0	147.71	µg/L	147.71	ppb	13:36:10
2	Cu 324.752†	19274.3	13017.3	106.89	µg/L	106.89	ppb	13:36:10
2	Mn 257.610†	1311049.1	1289337.9	4501.4	µg/L	4501.4	ppb	13:36:05
2	Mo 202.031†	12.9	-7.6	4.2292	µg/L	4.2292	ppb	13:36:31
2	Ni 231.604†	2018.0	1653.4	94.943	µg/L	94.943	ppb	13:36:31
2	P 214.914†	1046.5	764.7	1114.0	µg/L	1114.0	ppb	13:36:31
2	Pb 220.353†	742.2	648.7	177.20	µg/L	177.20	ppb	13:36:31

2	S 181.975 Axial†	180.9	144.5	521.12 µg/L	521.12 ppb	13:36:31
2	Sb 206.836†	33.2	8.1	23.900 µg/L	23.900 ppb	13:36:31
2	Se 196.026†	-78.7	-91.3	-80.080 µg/L	-80.080 ppb	13:36:31
2	SiO2†	152596.6	146416.9	25172 µg/L	25172 ppb	13:36:10
2	Si 251.611†	180205.7	176837.1	11836 µg/L	11836 ppb	13:36:05
2	Sn 189.927†	-74.8	-106.0	-71.765 µg/L	-71.765 ppb	13:36:31
2	Ti 334.940†	1996377.3	1962337.5	4814.6 µg/L	4814.6 ppb	13:36:05
2	Tl 190.801†	-58.2	-30.3	11.985 µg/L	11.985 ppb	13:36:31
2	U 409.014†	-454.8	-480.5	-77.055 µg/L	-77.055 ppb	13:36:05
2	V 292.402†	21310.3	21227.4	266.49 µg/L	266.49 ppb	13:36:10
2	Zn 213.857†	17440.9	16495.8	389.07 µg/L	389.07 ppb	13:36:10
3	Sc RADIAL	55902.6	55902.6	101 %		13:34:58
3	Al 396.153Radial†	145430.4	144607.5	106240 µg/L	106240 ppb	13:34:58
3	Ca 317.933Radial†	21443.9	21124.7	19228 µg/L	19228 ppb	13:35:18
3	Fe 238.204 Radial†	7107.2	7055.1	131870 µg/L	131870 ppb	13:35:18
3	K 766.490 Radial†	20288.0	19654.2	13288 µg/L	13288 ppb	13:34:58
3	Mg 279.077 IEC†	1713.0	1695.1	20865 µg/L	20865 ppb	13:35:18
3	Na 589.592 Radial†	3090.6	2676.0	1156.4 µg/L	1156.4 ppb	13:35:18
3	Sr 421.552†	21702.2	21621.5	281.23 µg/L	281.23 ppb	13:34:58
3	Sc 361.383	1913264.3	1913264.3	102.40 %		13:36:38
3	Y 371.029	1205915.2	1205915.2	104.73 %		13:36:38
3	Ag 328.068†	-1660.8	-1412.3	-0.9724 µg/L	-0.9724 ppb	13:36:44
3	As 188.979†	12.2	16.1	79.804 µg/L	79.804 ppb	13:37:04
3	B 249.677†	1339.2	914.9	-5.9909 µg/L	-5.9909 ppb	13:36:44
3	Ba 233.527†	58971.8	57633.7	1608.6 µg/L	1608.6 ppb	13:36:44
3	Be 313.107†	20377.6	15753.7	8.3496 µg/L	8.3496 ppb	13:36:44
3	Cd 226.502†	491.9	612.7	-1.5031 µg/L	-1.5031 ppb	13:36:44
3	Co 228.616†	2160.8	2098.5	95.701 µg/L	95.701 ppb	13:37:04
3	Cr 267.716†	6227.8	6222.8	143.89 µg/L	143.89 ppb	13:36:44
3	Cu 324.752†	19125.9	12742.9	104.92 µg/L	104.92 ppb	13:36:44
3	Mn 257.610†	1298150.4	1267937.3	4427.0 µg/L	4427.0 ppb	13:36:38
3	Mo 202.031†	19.0	-1.7	4.9744 µg/L	4.9744 ppb	13:37:04
3	Ni 231.604†	1933.1	1556.9	89.400 µg/L	89.400 ppb	13:37:04
3	P 214.914†	999.6	711.8	1028.0 µg/L	1028.0 ppb	13:37:04
3	Pb 220.353†	702.8	605.2	165.43 µg/L	165.43 ppb	13:37:04
3	S 181.975 Axial†	167.6	130.4	467.81 µg/L	467.81 ppb	13:37:04
3	Sb 206.836†	41.9	16.4	31.327 µg/L	31.327 ppb	13:37:04
3	Se 196.026†	-81.3	-93.3	-82.228 µg/L	-82.228 ppb	13:37:04
3	SiO2†	150981.7	143815.1	24724 µg/L	24724 ppb	13:36:44
3	Si 251.611†	179210.2	174654.7	11691 µg/L	11691 ppb	13:36:38
3	Sn 189.927†	-67.9	-98.7	-67.985 µg/L	-67.985 ppb	13:37:04
3	Ti 334.940†	1971434.9	1924573.3	4721.9 µg/L	4721.9 ppb	13:36:38
3	Tl 190.801†	-60.4	-32.1	8.2284 µg/L	8.2284 ppb	13:37:04
3	U 409.014†	-468.3	-490.7	-78.214 µg/L	-78.214 ppb	13:36:38
3	V 292.402†	20981.5	20763.2	260.76 µg/L	260.76 ppb	13:36:44
3	Zn 213.857†	17355.3	16295.1	383.82 µg/L	383.82 ppb	13:36:44

Mean Data: 243042001|939704|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1908915.0	102.17	%	0.404				0.40%
Sc RADIAL	55903.8	101	%	0.3				0.31%
Y 371.029	1203971.3	104.56	%	0.405				0.39%
Ag 328.068†	-1386.1	-0.7182	µg/L	0.38283	-0.7182	ppb	0.38283	53.30%
Al 396.153Radial†	144248.8	105980	µg/L	523.1	105980	ppb	523.1	0.49%
As 188.979†	19.8	86.199	µg/L	5.5899	86.199	ppb	5.5899	6.48%
B 249.677†	948.9	-4.6061	µg/L	1.22964	-4.6061	ppb	1.22964	26.70%
Ba 233.527†	58531.9	1633.6	µg/L	21.77	1633.6	ppb	21.77	1.33%
Be 313.107†	15934.3	8.4420	µg/L	0.09420	8.4420	ppb	0.09420	1.12%
Ca 317.933Radial†	21057.2	19167	µg/L	53.7	19167	ppb	53.7	0.28%
Cd 226.502†	615.5	-1.3987	µg/L	0.09082	-1.3987	ppb	0.09082	6.49%
Co 228.616†	2197.5	100.55	µg/L	4.268	100.55	ppb	4.268	4.24%
Cr 267.716†	6334.9	146.48	µg/L	2.243	146.48	ppb	2.243	1.53%
Cu 324.752†	12916.5	106.17	µg/L	1.085	106.17	ppb	1.085	1.02%
Fe 238.204 Radial†	7044.1	131670	µg/L	184.3	131670	ppb	184.3	0.14%
K 766.490 Radial†	19641.6	13279	µg/L	7.4	13279	ppb	7.4	0.06%
Mg 279.077 IEC†	1688.4	20782	µg/L	98.3	20782	ppb	98.3	0.47%
Mn 257.610†	1282611.0	4478.0	µg/L	44.23	4478.0	ppb	44.23	0.99%
Mo 202.031†	-7.1	4.2906	µg/L	0.65533	4.2906	ppb	0.65533	15.27%
Na 589.592 Radial†	2692.7	1163.6	µg/L	9.09	1163.6	ppb	9.09	0.78%

Ni 231.604†	1614.6	92.711	µg/L	2.9252	92.711	ppb	2.9252	3.16%
P 214.914†	745.6	1082.9	µg/L	47.67	1082.9	ppb	47.67	4.40%
Pb 220.353†	633.1	172.96	µg/L	6.541	172.96	ppb	6.541	3.78%
S 181.975 Axial†	135.7	487.92	µg/L	28.966	487.92	ppb	28.966	5.94%
Sb 206.836†	12.0	27.410	µg/L	3.7302	27.410	ppb	3.7302	13.61%
Se 196.026†	-96.4	-85.531	µg/L	7.6563	-85.531	ppb	7.6563	8.95%
SiO2†	145602.9	25032	µg/L	266.5	25032	ppb	266.5	1.06%
Si 251.611†	176125.1	11789	µg/L	84.6	11789	ppb	84.6	0.72%
Sn 189.927†	-101.6	-69.471	µg/L	2.0157	-69.471	ppb	2.0157	2.90%
Sr 421.552†	21634.1	281.40	µg/L	0.157	281.40	ppb	0.157	0.06%
Ti 334.940†	1950260.0	4785.0	µg/L	54.63	4785.0	ppb	54.63	1.14%
Tl 190.801†	-31.6	9.7210	µg/L	1.99368	9.7210	ppb	1.99368	20.51%
U 409.014†	-525.1	-81.850	µg/L	7.3242	-81.850	ppb	7.3242	8.95%
V 292.402†	21076.2	264.62	µg/L	3.342	264.62	ppb	3.342	1.26%
Zn 213.857†	16433.5	387.43	µg/L	3.128	387.43	ppb	3.128	0.81%

Sequence No.: 4
Sample ID: 1201999341|939704|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 304
Date Collected: 1/11/2010 13:37:14
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1201999341|939704|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56425.0	56425.0	101	%			13:37:47
1	Al 396.153Radial†	164773.7	162327.9	119260	µg/L	119260	ppb	13:37:47
1	Ca 317.933Radial†	22711.6	22176.3	20186	µg/L	20186	ppb	13:38:07
1	Fe 238.204 Radial†	7278.8	7158.7	133810	µg/L	133810	ppb	13:38:07
1	K 766.490 Radial†	21092.1	20259.7	13697	µg/L	13697	ppb	13:37:47
1	Mg 279.077 IEC†	1845.9	1810.2	22293	µg/L	22293	ppb	13:38:07
1	Na 589.592 Radial†	3159.9	2715.8	1173.6	µg/L	1173.6	ppb	13:38:07
1	Sr 421.552†	22697.5	22402.3	291.39	µg/L	291.39	ppb	13:37:47
1	Sc 361.383	1914624.0	1914624.0	102.48	%			13:39:12
1	Y 371.029	1209272.1	1209272.1	105.02	%			13:39:12
1	Ag 328.068†	-1725.8	-1474.5	-1.3312	µg/L	-1.3312	ppb	13:39:18
1	As 188.979†	15.3	19.2	86.015	µg/L	86.015	ppb	13:39:38
1	B 249.677†	1421.4	994.2	-3.5266	µg/L	-3.5266	ppb	13:39:18
1	Ba 233.527†	63207.7	61726.3	1722.8	µg/L	1722.8	ppb	13:39:18
1	Be 313.107†	21533.6	16867.6	8.9897	µg/L	8.9897	ppb	13:39:18
1	Cd 226.502†	467.3	588.5	-2.4386	µg/L	-2.4386	ppb	13:39:18
1	Co 228.616†	1440.0	1393.6	59.821	µg/L	59.821	ppb	13:39:38
1	Cr 267.716†	6500.0	6484.1	149.93	µg/L	149.93	ppb	13:39:18
1	Cu 324.752†	19387.2	12984.7	106.86	µg/L	106.86	ppb	13:39:18
1	Mn 257.610†	1110687.9	1084103.8	3787.8	µg/L	3787.8	ppb	13:39:12
1	Mo 202.031†	6.3	-14.1	3.5055	µg/L	3.5055	ppb	13:39:38
1	Ni 231.604†	2079.4	1698.4	97.526	µg/L	97.526	ppb	13:39:38
1	P 214.914†	1026.8	737.7	1072.3	µg/L	1072.3	ppb	13:39:38
1	Pb 220.353†	641.3	544.7	149.39	µg/L	149.39	ppb	13:39:38
1	S 181.975 Axial†	181.0	143.3	515.88	µg/L	515.88	ppb	13:39:38
1	Sb 206.836†	27.0	1.9	18.404	µg/L	18.404	ppb	13:39:38
1	Se 196.026†	-85.6	-97.5	-86.160	µg/L	-86.160	ppb	13:39:38
1	SiO2†	249581.0	239927.5	41248	µg/L	41248	ppb	13:39:12
1	Si 251.611†	289389.7	282047.9	18979	µg/L	18979	ppb	13:39:12
1	Sn 189.927†	-73.3	-103.9	-70.514	µg/L	-70.514	ppb	13:39:38
1	Ti 334.940†	2056165.0	2005889.0	4921.4	µg/L	4921.4	ppb	13:39:12
1	Tl 190.801†	-66.1	-37.7	-0.2739	µg/L	-0.2739	ppb	13:39:38
1	U 409.014†	-517.0	-537.9	-83.676	µg/L	-83.676	ppb	13:39:12
1	V 292.402†	21808.3	21555.4	270.61	µg/L	270.61	ppb	13:39:18
1	Zn 213.857†	17038.7	15974.1	374.97	µg/L	374.97	ppb	13:39:18
2	Sc RADIAL	56373.9	56373.9	101	%			13:38:13
2	Al 396.153Radial†	165869.5	163555.6	120160	µg/L	120160	ppb	13:38:13
2	Ca 317.933Radial†	22892.6	22375.1	20367	µg/L	20367	ppb	13:38:33
2	Fe 238.204 Radial†	7291.8	7178.1	134170	µg/L	134170	ppb	13:38:33
2	K 766.490 Radial†	21240.5	20424.9	13809	µg/L	13809	ppb	13:38:13
2	Mg 279.077 IEC†	1849.8	1815.7	22361	µg/L	22361	ppb	13:38:33
2	Na 589.592 Radial†	3182.9	2741.4	1184.7	µg/L	1184.7	ppb	13:38:33
2	Sr 421.552†	22821.9	22545.3	293.25	µg/L	293.25	ppb	13:38:13
2	Sc 361.383	1901000.4	1901000.4	101.75	%			13:39:46
2	Y 371.029	1202629.0	1202629.0	104.44	%			13:39:46
2	Ag 328.068†	-1731.3	-1492.0	-1.4422	µg/L	-1.4422	ppb	13:39:52
2	As 188.979†	13.2	17.2	82.840	µg/L	82.840	ppb	13:40:12
2	B 249.677†	1407.0	990.0	-3.8011	µg/L	-3.8011	ppb	13:39:52
2	Ba 233.527†	63645.6	62598.8	1747.1	µg/L	1747.1	ppb	13:39:52
2	Be 313.107†	21557.4	17041.6	9.0935	µg/L	9.0935	ppb	13:39:52
2	Cd 226.502†	449.1	573.8	-2.8908	µg/L	-2.8908	ppb	13:39:52
2	Co 228.616†	1443.9	1407.5	60.476	µg/L	60.476	ppb	13:40:12
2	Cr 267.716†	6540.3	6569.2	151.90	µg/L	151.90	ppb	13:39:52
2	Cu 324.752†	19470.5	13202.1	108.48	µg/L	108.48	ppb	13:39:52
2	Mn 257.610†	1106767.0	1088017.6	3801.4	µg/L	3801.4	ppb	13:39:46
2	Mo 202.031†	7.8	-12.5	3.7123	µg/L	3.7123	ppb	13:40:12
2	Ni 231.604†	2076.8	1710.3	98.211	µg/L	98.211	ppb	13:40:12
2	P 214.914†	1023.2	741.3	1077.8	µg/L	1077.8	ppb	13:40:12
2	Pb 220.353†	648.2	555.9	152.45	µg/L	152.45	ppb	13:40:12

2	S 181.975 Axial†	178.5	142.2	511.49 µg/L	511.49 ppb	13:40:12
2	Sb 206.836†	26.8	1.8	18.414 µg/L	18.414 ppb	13:40:12
2	Se 196.026†	-88.1	-100.6	-89.291 µg/L	-89.291 ppb	13:40:12
2	SiO2†	248205.8	240321.3	41315 µg/L	41315 ppb	13:39:46
2	Si 251.611†	288095.7	282799.9	19029 µg/L	19029 ppb	13:39:46
2	Sn 189.927†	-75.3	-106.4	-71.847 µg/L	-71.847 ppb	13:40:12
2	Ti 334.940†	2050238.1	2014443.4	4942.4 µg/L	4942.4 ppb	13:39:46
2	Tl 190.801†	-58.2	-30.3	11.757 µg/L	11.757 ppb	13:40:12
2	U 409.014†	-493.8	-518.7	-81.705 µg/L	-81.705 ppb	13:39:46
2	V 292.402†	21930.0	21827.6	273.99 µg/L	273.99 ppb	13:39:52
2	Zn 213.857†	17195.6	16247.5	381.92 µg/L	381.92 ppb	13:39:52
3	Sc RADIAL	56341.9	56341.9	101 %		13:38:39
3	Al 396.153Radial†	165860.8	163640.1	120230 µg/L	120230 ppb	13:38:39
3	Ca 317.933Radial†	22928.5	22423.4	20411 µg/L	20411 ppb	13:38:59
3	Fe 238.204 Radial†	7309.5	7199.6	134570 µg/L	134570 ppb	13:38:59
3	K 766.490 Radial†	21180.9	20378.0	13777 µg/L	13777 ppb	13:38:39
3	Mg 279.077 IEC†	1865.6	1832.4	22567 µg/L	22567 ppb	13:38:59
3	Na 589.592 Radial†	3184.7	2744.9	1186.2 µg/L	1186.2 ppb	13:38:59
3	Sr 421.552†	22770.7	22507.5	292.76 µg/L	292.76 ppb	13:38:39
3	Sc 361.383	1907084.6	1907084.6	102.07 %		13:40:20
3	Y 371.029	1204398.9	1204398.9	104.60 %		13:40:20
3	Ag 328.068†	-1652.1	-1409.1	-0.7050 µg/L	-0.7050 ppb	13:40:26
3	As 188.979†	14.5	18.5	84.861 µg/L	84.861 ppb	13:40:46
3	B 249.677†	1363.8	943.3	-5.7403 µg/L	-5.7403 ppb	13:40:26
3	Ba 233.527†	61943.3	60731.4	1695.0 µg/L	1695.0 ppb	13:40:26
3	Be 313.107†	21117.3	16542.8	8.8050 µg/L	8.8050 ppb	13:40:26
3	Cd 226.502†	467.4	590.3	-2.5069 µg/L	-2.5069 ppb	13:40:26
3	Co 228.616†	1358.8	1319.6	56.232 µg/L	56.232 ppb	13:40:46
3	Cr 267.716†	6342.8	6355.2	146.94 µg/L	146.94 ppb	13:40:26
3	Cu 324.752†	19059.6	12738.5	105.13 µg/L	105.13 ppb	13:40:26
3	Mn 257.610†	1092829.9	1070893.2	3741.9 µg/L	3741.9 ppb	13:40:20
3	Mo 202.031†	16.1	-4.5	4.7301 µg/L	4.7301 ppb	13:40:46
3	Ni 231.604†	1996.7	1625.3	93.332 µg/L	93.332 ppb	13:40:46
3	P 214.914†	976.7	692.6	998.72 µg/L	998.72 ppb	13:40:46
3	Pb 220.353†	625.4	531.6	145.87 µg/L	145.87 ppb	13:40:46
3	S 181.975 Axial†	169.8	133.1	477.34 µg/L	477.34 ppb	13:40:46
3	Sb 206.836†	30.5	5.3	21.429 µg/L	21.429 ppb	13:40:46
3	Se 196.026†	-74.8	-87.2	-75.187 µg/L	-75.187 ppb	13:40:46
3	SiO2†	246435.0	237808.2	40883 µg/L	40883 ppb	13:40:20
3	Si 251.611†	285800.6	279648.1	18818 µg/L	18818 ppb	13:40:20
3	Sn 189.927†	-73.8	-104.7	-70.972 µg/L	-70.972 ppb	13:40:46
3	Ti 334.940†	2021739.3	1980094.6	4858.1 µg/L	4858.1 ppb	13:40:20
3	Tl 190.801†	-63.6	-35.4	2.7861 µg/L	2.7861 ppb	13:40:46
3	U 409.014†	-613.0	-633.9	-94.095 µg/L	-94.095 ppb	13:40:20
3	V 292.402†	21205.7	21049.2	264.35 µg/L	264.35 ppb	13:40:26
3	Zn 213.857†	16772.6	15779.1	369.75 µg/L	369.75 ppb	13:40:26

Mean Data: 1201999341|939704|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1907569.7	102.10	%	0.365				0.36%
Sc RADIAL	56380.3	101	%	0.1				0.07%
Y 371.029	1205433.3	104.69	%	0.299				0.29%
Ag 328.068†	-1458.5	-1.1595	µg/L	0.39748	-1.1595	ppb	0.39748	34.28%
Al 396.153Radial†	163174.5	119880	µg/L	539.6	119880	ppb	539.6	0.45%
As 188.979†	18.3	84.572	µg/L	1.6070	84.572	ppb	1.6070	1.90%
B 249.677†	975.8	-4.3560	µg/L	1.20664	-4.3560	ppb	1.20664	27.70%
Ba 233.527†	61685.5	1721.6	µg/L	26.08	1721.6	ppb	26.08	1.51%
Be 313.107†	16817.3	8.9627	µg/L	0.14614	8.9627	ppb	0.14614	1.63%
Ca 317.933Radial†	22325.0	20321	µg/L	119.2	20321	ppb	119.2	0.59%
Cd 226.502†	584.2	-2.6121	µg/L	0.24378	-2.6121	ppb	0.24378	9.33%
Co 228.616†	1373.6	58.843	µg/L	2.2845	58.843	ppb	2.2845	3.88%
Cr 267.716†	6469.5	149.59	µg/L	2.493	149.59	ppb	2.493	1.67%
Cu 324.752†	12975.1	106.82	µg/L	1.673	106.82	ppb	1.673	1.57%
Fe 238.204 Radial†	7178.8	134180	µg/L	382.1	134180	ppb	382.1	0.28%
K 766.490 Radial†	20354.2	13761	µg/L	57.6	13761	ppb	57.6	0.42%
Mg 279.077 IEC†	1819.4	22407	µg/L	142.8	22407	ppb	142.8	0.64%
Mn 257.610†	1081004.9	3777.0	µg/L	31.18	3777.0	ppb	31.18	0.83%
Mo 202.031†	-10.4	3.9826	µg/L	0.65553	3.9826	ppb	0.65553	16.46%
Na 589.592 Radial†	2734.1	1181.5	µg/L	6.86	1181.5	ppb	6.86	0.58%

Ni 231.604†	1678.0	96.356	µg/L	2.6416	96.356	ppb	2.6416	2.74%
P 214.914†	723.9	1049.6	µg/L	44.16	1049.6	ppb	44.16	4.21%
Pb 220.353†	544.1	149.24	µg/L	3.292	149.24	ppb	3.292	2.21%
S 181.975 Axial†	139.5	501.57	µg/L	21.095	501.57	ppb	21.095	4.21%
Sb 206.836†	3.0	19.415	µg/L	1.7436	19.415	ppb	1.7436	8.98%
Se 196.026†	-95.1	-83.546	µg/L	7.4064	-83.546	ppb	7.4064	8.87%
SiO2†	239352.3	41149	µg/L	232.4	41149	ppb	232.4	0.56%
Si 251.611†	281498.6	18942	µg/L	110.3	18942	ppb	110.3	0.58%
Sn 189.927†	-105.0	-71.111	µg/L	0.6771	-71.111	ppb	0.6771	0.95%
Sr 421.552†	22485.0	292.47	µg/L	0.964	292.47	ppb	0.964	0.33%
Ti 334.940†	2000142.3	4907.3	µg/L	43.88	4907.3	ppb	43.88	0.89%
Tl 190.801†	-34.5	4.7564	µg/L	6.25278	4.7564	ppb	6.25278	131.46%
U 409.014†	-563.5	-86.492	µg/L	6.6576	-86.492	ppb	6.6576	7.70%
V 292.402†	21477.4	269.65	µg/L	4.889	269.65	ppb	4.889	1.81%
Zn 213.857†	16000.2	375.55	µg/L	6.102	375.55	ppb	6.102	1.62%

Sequence No.: 5
Sample ID: 1201999343|939704|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 305
Date Collected: 1/11/2010 13:40:55
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1201999343|939704|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	55849.6	55849.6	100	%			13:41:28
1	Al 396.153Radial†	231433.4	230358.2	169230	µg/L	169230	ppb	13:41:28
1	Ca 317.933Radial†	28876.9	28544.3	25982	µg/L	25982	ppb	13:41:49
1	Fe 238.204 Radial†	8315.7	8264.8	154500	µg/L	154500	ppb	13:41:49
1	K 766.490 Radial†	33366.9	32693.0	22103	µg/L	22103	ppb	13:41:28
1	Mg 279.077 IEC†	2491.7	2471.8	30495	µg/L	30495	ppb	13:41:49
1	Na 589.592 Radial†	15042.1	14576.3	6299.1	µg/L	6299.1	ppb	13:41:28
1	Sr 421.552†	63117.1	62869.2	817.75	µg/L	817.75	ppb	13:41:28
1	Sc 361.383	1905860.1	1905860.1	102.01	%			13:42:54
1	Y 371.029	1203994.3	1203994.3	104.56	%			13:42:54
1	Ag 328.068†	55923.4	55032.7	529.77	µg/L	529.77	ppb	13:42:59
1	As 188.979†	327.4	325.2	618.15	µg/L	618.15	ppb	13:43:20
1	B 249.677†	14729.7	14047.1	496.11	µg/L	496.11	ppb	13:42:59
1	Ba 233.527†	98060.3	96176.9	2685.1	µg/L	2685.1	ppb	13:42:59
1	Be 313.107†	862439.0	841325.8	537.04	µg/L	537.04	ppb	13:42:54
1	Cd 226.502†	19217.2	18971.6	502.70	µg/L	502.70	ppb	13:42:59
1	Co 228.616†	12389.0	12133.6	598.84	µg/L	598.84	ppb	13:43:20
1	Cr 267.716†	34052.6	33523.8	773.84	µg/L	773.84	ppb	13:42:59
1	Cu 324.752†	99809.7	91911.9	684.44	µg/L	684.44	ppb	13:42:59
1	Mn 257.610†	2260452.2	2216231.8	7728.4	µg/L	7728.4	ppb	13:42:54
1	Mo 202.031†	4258.5	4154.5	522.67	µg/L	522.67	ppb	13:43:20
1	Ni 231.604†	12060.7	11492.6	659.94	µg/L	659.94	ppb	13:43:20
1	P 214.914†	1544.2	1249.5	1839.3	µg/L	1839.3	ppb	13:43:20
1	Pb 220.353†	2874.1	2736.4	744.75	µg/L	744.75	ppb	13:43:20
1	S 181.975 Axial†	1607.4	1542.5	5773.8	µg/L	5773.8	ppb	13:43:20
1	Sb 206.836†	573.3	537.5	519.42	µg/L	519.42	ppb	13:43:20
1	Se 196.026†	372.9	351.6	400.15	µg/L	400.15	ppb	13:43:20
1	SiO2†	207452.2	199747.4	34340	µg/L	34340	ppb	13:42:59
1	Si 251.611†	240542.3	235460.1	15738	µg/L	15738	ppb	13:42:59
1	Sn 189.927†	1001.3	949.2	477.61	µg/L	477.61	ppb	13:43:20
1	Ti 334.940†	2540076.5	2489506.7	6107.9	µg/L	6107.9	ppb	13:42:54
1	Tl 190.801†	265.9	287.6	545.34	µg/L	545.34	ppb	13:43:20
1	U 409.014†	4053.0	3939.8	390.68	µg/L	390.68	ppb	13:42:59
1	V 292.402†	67448.0	66395.1	830.71	µg/L	830.71	ppb	13:42:59
1	Zn 213.857†	39642.7	38209.8	939.20	µg/L	939.20	ppb	13:42:59
2	Sc RADIAL	55878.1	55878.1	101	%			13:41:55
2	Al 396.153Radial†	232915.5	231715.3	170220	µg/L	170220	ppb	13:41:55
2	Ca 317.933Radial†	29025.5	28677.4	26103	µg/L	26103	ppb	13:42:15
2	Fe 238.204 Radial†	8350.2	8294.9	155060	µg/L	155060	ppb	13:42:15
2	K 766.490 Radial†	33623.4	32931.3	22264	µg/L	22264	ppb	13:41:55
2	Mg 279.077 IEC†	2496.8	2475.6	30542	µg/L	30542	ppb	13:42:15
2	Na 589.592 Radial†	15109.4	14635.7	6324.8	µg/L	6324.8	ppb	13:41:55
2	Sr 421.552†	63419.6	63138.1	821.25	µg/L	821.25	ppb	13:41:55
2	Sc 361.383	1896590.7	1896590.7	101.51	%			13:43:27
2	Y 371.029	1197659.6	1197659.6	104.01	%			13:43:27
2	Ag 328.068†	56004.5	55380.6	533.08	µg/L	533.08	ppb	13:43:33
2	As 188.979†	333.9	333.2	632.00	µg/L	632.00	ppb	13:43:53
2	B 249.677†	14815.3	14202.0	501.94	µg/L	501.94	ppb	13:43:33
2	Ba 233.527†	97897.5	96486.3	2693.8	µg/L	2693.8	ppb	13:43:33
2	Be 313.107†	857861.0	840948.0	536.79	µg/L	536.79	ppb	13:43:27
2	Cd 226.502†	19266.5	19112.2	506.50	µg/L	506.50	ppb	13:43:33
2	Co 228.616†	12356.6	12161.1	600.21	µg/L	600.21	ppb	13:43:53
2	Cr 267.716†	34154.0	33786.9	779.91	µg/L	779.91	ppb	13:43:33
2	Cu 324.752†	99788.3	92369.0	687.82	µg/L	687.82	ppb	13:43:33
2	Mn 257.610†	2248575.7	2215362.4	7725.4	µg/L	7725.4	ppb	13:43:27
2	Mo 202.031†	4267.4	4183.6	526.31	µg/L	526.31	ppb	13:43:53
2	Ni 231.604†	12052.1	11541.9	662.77	µg/L	662.77	ppb	13:43:53
2	P 214.914†	1552.0	1264.6	1863.0	µg/L	1863.0	ppb	13:43:53
2	Pb 220.353†	2861.6	2737.9	745.19	µg/L	745.19	ppb	13:43:53

2	S 181.975 Axial†	1599.1	1542.0	5771.6 µg/L	5771.6 ppb	13:43:53
2	Sb 206.836†	568.8	535.8	517.79 µg/L	517.79 ppb	13:43:53
2	Se 196.026†	381.8	362.1	411.51 µg/L	411.51 ppb	13:43:53
2	SiO2†	207511.1	200799.4	34521 µg/L	34521 ppb	13:43:33
2	Si 251.611†	240697.7	236765.7	15827 µg/L	15827 ppb	13:43:33
2	Sn 189.927†	997.5	950.2	478.07 µg/L	478.07 ppb	13:43:53
2	Ti 334.940†	2529865.1	2491617.4	6113.1 µg/L	6113.1 ppb	13:43:27
2	Tl 190.801†	260.7	283.7	539.25 µg/L	539.25 ppb	13:43:53
2	U 409.014†	3957.8	3865.5	382.62 µg/L	382.62 ppb	13:43:33
2	V 292.402†	67487.9	66757.5	835.23 µg/L	835.23 ppb	13:43:33
2	Zn 213.857†	39593.6	38351.4	942.68 µg/L	942.68 ppb	13:43:33
3	Sc RADIAL	56350.6	56350.6	101 %		13:42:21
3	Al 396.153Radial†	234551.7	231386.5	169980 µg/L	169980 ppb	13:42:21
3	Ca 317.933Radial†	29078.0	28487.1	25930 µg/L	25930 ppb	13:42:41
3	Fe 238.204 Radial†	8319.1	8194.5	153180 µg/L	153180 ppb	13:42:41
3	K 766.490 Radial†	33787.9	32813.1	22184 µg/L	22184 ppb	13:42:21
3	Mg 279.077 IEC†	2502.7	2460.7	30358 µg/L	30358 ppb	13:42:41
3	Na 589.592 Radial†	15270.7	14668.7	6339.1 µg/L	6339.1 ppb	13:42:21
3	Sr 421.552†	63960.6	63142.8	821.31 µg/L	821.31 ppb	13:42:21
3	Sc 361.383	1896027.6	1896027.6	101.48 %		13:44:01
3	Y 371.029	1195981.7	1195981.7	103.86 %		13:44:01
3	Ag 328.068†	55570.7	54969.4	528.99 µg/L	528.99 ppb	13:44:06
3	As 188.979†	316.3	315.9	601.57 µg/L	601.57 ppb	13:44:27
3	B 249.677†	14598.2	13992.4	494.41 µg/L	494.41 ppb	13:44:06
3	Ba 233.527†	96222.2	94864.1	2648.5 µg/L	2648.5 ppb	13:44:06
3	Be 313.107†	845649.8	829166.0	529.27 µg/L	529.27 ppb	13:44:01
3	Cd 226.502†	19023.5	18878.4	500.27 µg/L	500.27 ppb	13:44:06
3	Co 228.616†	11806.2	11622.4	573.25 µg/L	573.25 ppb	13:44:27
3	Cr 267.716†	33324.2	32979.2	761.27 µg/L	761.27 ppb	13:44:06
3	Cu 324.752†	98082.5	90717.3	675.61 µg/L	675.61 ppb	13:44:06
3	Mn 257.610†	2221328.0	2189170.0	7634.1 µg/L	7634.1 ppb	13:44:01
3	Mo 202.031†	4072.6	3992.9	502.52 µg/L	502.52 ppb	13:44:27
3	Ni 231.604†	11502.3	11003.7	631.86 µg/L	631.86 ppb	13:44:27
3	P 214.914†	1505.4	1219.2	1792.5 µg/L	1792.5 ppb	13:44:27
3	Pb 220.353†	2772.9	2651.4	721.71 µg/L	721.71 ppb	13:44:27
3	S 181.975 Axial†	1578.3	1522.0	5696.8 µg/L	5696.8 ppb	13:44:27
3	Sb 206.836†	556.5	523.9	506.46 µg/L	506.46 ppb	13:44:27
3	Se 196.026†	369.1	349.8	398.27 µg/L	398.27 ppb	13:44:27
3	SiO2†	203312.4	196722.7	33820 µg/L	33820 ppb	13:44:06
3	Si 251.611†	235864.2	232073.2	15512 µg/L	15512 ppb	13:44:06
3	Sn 189.927†	959.2	912.8	458.86 µg/L	458.86 ppb	13:44:27
3	Ti 334.940†	2491600.5	2454651.2	6022.4 µg/L	6022.4 ppb	13:44:01
3	Tl 190.801†	256.7	279.8	532.19 µg/L	532.19 ppb	13:44:27
3	U 409.014†	3940.5	3849.6	381.29 µg/L	381.29 ppb	13:44:06
3	V 292.402†	66037.3	65347.9	817.55 µg/L	817.55 ppb	13:44:06
3	Zn 213.857†	39152.4	37928.3	932.45 µg/L	932.45 ppb	13:44:06

Mean Data: 1201999343|939704|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1899492.8	101.67	%	0.296				0.29%
Sc RADIAL	56026.1	101	%	0.5				0.50%
Y 371.029	1199211.9	104.15	%	0.367				0.35%
Ag 328.068†	55127.6	530.61	µg/L	2.173	530.61	ppb	2.173	0.41%
Al 396.153Radial†	231153.3	169810	µg/L	520.2	169810	ppb	520.2	0.31%
As 188.979†	324.8	617.24	µg/L	15.235	617.24	ppb	15.235	2.47%
B 249.677†	14080.5	497.49	µg/L	3.952	497.49	ppb	3.952	0.79%
Ba 233.527†	95842.4	2675.8	µg/L	24.05	2675.8	ppb	24.05	0.90%
Be 313.107†	837146.6	534.37	µg/L	4.413	534.37	ppb	4.413	0.83%
Ca 317.933Radial†	28569.6	26005	µg/L	88.9	26005	ppb	88.9	0.34%
Cd 226.502†	18987.4	503.16	µg/L	3.136	503.16	ppb	3.136	0.62%
Co 228.616†	11972.4	590.77	µg/L	15.186	590.77	ppb	15.186	2.57%
Cr 267.716†	33429.9	771.68	µg/L	9.506	771.68	ppb	9.506	1.23%
Cu 324.752†	91666.1	682.62	µg/L	6.308	682.62	ppb	6.308	0.92%
Fe 238.204 Radial†	8251.4	154250	µg/L	963.7	154250	ppb	963.7	0.62%
K 766.490 Radial†	32812.4	22184	µg/L	80.6	22184	ppb	80.6	0.36%
Mg 279.077 IEC†	2469.4	30465	µg/L	95.6	30465	ppb	95.6	0.31%
Mn 257.610†	2206921.4	7696.0	µg/L	53.61	7696.0	ppb	53.61	0.70%
Mo 202.031†	4110.3	517.17	µg/L	12.812	517.17	ppb	12.812	2.48%
Na 589.592 Radial†	14626.9	6321.0	µg/L	20.23	6321.0	ppb	20.23	0.32%

Ni 231.604†	11346.0	651.52 µg/L	17.086	651.52 ppb	17.086	2.62%
P 214.914†	1244.4	1831.6 µg/L	35.91	1831.6 ppb	35.91	1.96%
Pb 220.353†	2708.6	737.22 µg/L	13.433	737.22 ppb	13.433	1.82%
S 181.975 Axial†	1535.5	5747.4 µg/L	43.83	5747.4 ppb	43.83	0.76%
Sb 206.836†	532.4	514.56 µg/L	7.062	514.56 ppb	7.062	1.37%
Se 196.026†	354.5	403.31 µg/L	7.165	403.31 ppb	7.165	1.78%
SiO2†	199089.8	34227 µg/L	363.8	34227 ppb	363.8	1.06%
Si 251.611†	234766.3	15693 µg/L	162.1	15693 ppb	162.1	1.03%
Sn 189.927†	937.4	471.51 µg/L	10.958	471.51 ppb	10.958	2.32%
Sr 421.552†	63050.0	820.10 µg/L	2.038	820.10 ppb	2.038	0.25%
Ti 334.940†	2478591.8	6081.1 µg/L	50.94	6081.1 ppb	50.94	0.84%
Tl 190.801†	283.7	538.93 µg/L	6.580	538.93 ppb	6.580	1.22%
U 409.014†	3885.0	384.86 µg/L	5.082	384.86 ppb	5.082	1.32%
V 292.402†	66166.8	827.83 µg/L	9.182	827.83 ppb	9.182	1.11%
Zn 213.857†	38163.1	938.11 µg/L	5.199	938.11 ppb	5.199	0.55%

Sequence No.: 6
Sample ID: 1201999344|939704|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 306
Date Collected: 1/11/2010 13:44:36
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1201999344|939704|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	55789.5	55789.5	100	%			13:45:09
1	Al 396.153Radial†	231090.2	230264.4	169160	µg/L	169160	ppb	13:45:09
1	Ca 317.933Radial†	27957.5	27659.0	25176	µg/L	25176	ppb	13:45:30
1	Fe 238.204 Radial†	7978.9	7938.1	148390	µg/L	148390	ppb	13:45:30
1	K 766.490 Radial†	32411.4	31776.6	21484	µg/L	21484	ppb	13:45:09
1	Mg 279.077 IEC†	2410.9	2394.0	29536	µg/L	29536	ppb	13:45:30
1	Na 589.592 Radial†	14604.9	14156.7	6117.8	µg/L	6117.8	ppb	13:45:09
1	Sr 421.552†	60286.5	60116.1	781.94	µg/L	781.94	ppb	13:45:09
1	Sc 361.383	1908319.0	1908319.0	102.14	%			13:46:35
1	Y 371.029	1203904.2	1203904.2	104.55	%			13:46:35
1	Ag 328.068†	54413.1	53483.4	514.66	µg/L	514.66	ppb	13:46:41
1	As 188.979†	312.6	310.3	590.41	µg/L	590.41	ppb	13:47:01
1	B 249.677†	14504.1	13807.6	488.75	µg/L	488.75	ppb	13:46:41
1	Ba 233.527†	83581.9	81877.8	2286.1	µg/L	2286.1	ppb	13:46:41
1	Be 313.107†	832468.0	810892.8	517.58	µg/L	517.58	ppb	13:46:35
1	Cd 226.502†	18653.4	18395.3	487.61	µg/L	487.61	ppb	13:46:41
1	Co 228.616†	11208.7	10962.5	540.17	µg/L	540.17	ppb	13:47:01
1	Cr 267.716†	33053.5	32502.6	750.25	µg/L	750.25	ppb	13:46:41
1	Cu 324.752†	96676.6	88718.3	660.59	µg/L	660.59	ppb	13:46:41
1	Mn 257.610†	1170587.1	1146329.9	4006.1	µg/L	4006.1	ppb	13:46:35
1	Mo 202.031†	4119.0	4012.5	504.78	µg/L	504.78	ppb	13:47:01
1	Ni 231.604†	11475.0	10903.9	626.13	µg/L	626.13	ppb	13:47:01
1	P 214.914†	1440.6	1146.1	1681.1	µg/L	1681.1	ppb	13:47:01
1	Pb 220.353†	2595.9	2460.5	670.05	µg/L	670.05	ppb	13:47:01
1	S 181.975 Axial†	1576.8	1510.5	5654.3	µg/L	5654.3	ppb	13:47:01
1	Sb 206.836†	540.1	504.2	488.01	µg/L	488.01	ppb	13:47:01
1	Se 196.026†	374.7	352.8	400.67	µg/L	400.67	ppb	13:47:01
1	SiO2†	231242.3	222777.4	38299	µg/L	38299	ppb	13:46:41
1	Si 251.611†	269128.1	263143.6	17625	µg/L	17625	ppb	13:46:41
1	Sn 189.927†	983.4	930.4	468.58	µg/L	468.58	ppb	13:47:01
1	Ti 334.940†	2484983.9	2432359.1	5967.7	µg/L	5967.7	ppb	13:46:35
1	Tl 190.801†	252.3	273.9	508.31	µg/L	508.31	ppb	13:47:01
1	U 409.014†	3942.1	3826.2	379.72	µg/L	379.72	ppb	13:46:41
1	V 292.402†	64912.1	63827.1	798.60	µg/L	798.60	ppb	13:46:41
1	Zn 213.857†	38304.5	36849.6	905.98	µg/L	905.98	ppb	13:46:41
2	Sc RADIAL	55724.7	55724.7	100	%			13:45:36
2	Al 396.153Radial†	231907.0	231347.2	169950	µg/L	169950	ppb	13:45:36
2	Ca 317.933Radial†	27994.0	27727.9	25239	µg/L	25239	ppb	13:45:56
2	Fe 238.204 Radial†	7986.3	7954.7	148700	µg/L	148700	ppb	13:45:56
2	K 766.490 Radial†	32403.2	31806.0	21504	µg/L	21504	ppb	13:45:36
2	Mg 279.077 IEC†	2407.5	2393.3	29528	µg/L	29528	ppb	13:45:56
2	Na 589.592 Radial†	14666.6	14235.3	6151.8	µg/L	6151.8	ppb	13:45:36
2	Sr 421.552†	60319.5	60218.9	783.28	µg/L	783.28	ppb	13:45:36
2	Sc 361.383	1905485.6	1905485.6	101.99	%			13:47:08
2	Y 371.029	1201017.7	1201017.7	104.30	%			13:47:08
2	Ag 328.068†	54301.4	53453.0	514.41	µg/L	514.41	ppb	13:47:14
2	As 188.979†	322.8	320.8	608.51	µg/L	608.51	ppb	13:47:35
2	B 249.677†	14446.9	13772.6	487.29	µg/L	487.29	ppb	13:47:14
2	Ba 233.527†	83614.0	82030.9	2290.4	µg/L	2290.4	ppb	13:47:14
2	Be 313.107†	833280.2	812901.2	518.86	µg/L	518.86	ppb	13:47:08
2	Cd 226.502†	18637.9	18407.2	487.89	µg/L	487.89	ppb	13:47:14
2	Co 228.616†	11224.2	10993.9	541.72	µg/L	541.72	ppb	13:47:35
2	Cr 267.716†	33130.8	32626.5	753.11	µg/L	753.11	ppb	13:47:14
2	Cu 324.752†	96637.4	88820.7	661.36	µg/L	661.36	ppb	13:47:14
2	Mn 257.610†	1172222.3	1149637.4	4017.6	µg/L	4017.6	ppb	13:47:08
2	Mo 202.031†	4134.2	4033.4	507.39	µg/L	507.39	ppb	13:47:35
2	Ni 231.604†	11492.3	10937.6	628.07	µg/L	628.07	ppb	13:47:35
2	P 214.914†	1460.4	1167.7	1716.1	µg/L	1716.1	ppb	13:47:35
2	Pb 220.353†	2598.9	2467.1	671.90	µg/L	671.90	ppb	13:47:35

2	S 181.975 Axial†	1593.1	1528.7	5722.9 µg/L	5722.9 ppb	13:47:35
2	Sb 206.836†	534.1	499.1	483.29 µg/L	483.29 ppb	13:47:35
2	Se 196.026†	373.2	351.9	399.75 µg/L	399.75 ppb	13:47:35
2	SiO2†	231169.1	223042.3	38345 µg/L	38345 ppb	13:47:14
2	Si 251.611†	268843.6	263256.4	17632 µg/L	17632 ppb	13:47:14
2	Sn 189.927†	991.8	940.0	473.55 µg/L	473.55 ppb	13:47:35
2	Ti 334.940†	2489479.3	2440384.6	5987.4 µg/L	5987.4 ppb	13:47:08
2	Tl 190.801†	268.6	290.2	534.57 µg/L	534.57 ppb	13:47:35
2	U 409.014†	3868.8	3760.1	372.59 µg/L	372.59 ppb	13:47:14
2	V 292.402†	64887.4	63897.4	799.49 µg/L	799.49 ppb	13:47:14
2	Zn 213.857†	38323.5	36924.0	907.80 µg/L	907.80 ppb	13:47:14
3	Sc RADIAL	56278.6	56278.6	101 %		13:46:02
3	Al 396.153Radial†	233357.6	230502.8	169330 µg/L	169330 ppb	13:46:02
3	Ca 317.933Radial†	27946.7	27406.2	24946 µg/L	24946 ppb	13:46:22
3	Fe 238.204 Radial†	7995.9	7885.8	147410 µg/L	147410 ppb	13:46:22
3	K 766.490 Radial†	32703.8	31784.7	21489 µg/L	21489 ppb	13:46:02
3	Mg 279.077 IEC†	2407.9	2370.1	29241 µg/L	29241 ppb	13:46:22
3	Na 589.592 Radial†	14736.6	14160.3	6119.4 µg/L	6119.4 ppb	13:46:02
3	Sr 421.552†	60771.1	60072.6	781.37 µg/L	781.37 ppb	13:46:02
3	Sc 361.383	1894594.8	1894594.8	101.40 %		13:47:42
3	Y 371.029	1194057.6	1194057.6	103.70 %		13:47:42
3	Ag 328.068†	54165.3	53624.9	515.82 µg/L	515.82 ppb	13:47:48
3	As 188.979†	311.7	311.7	592.24 µg/L	592.24 ppb	13:48:08
3	B 249.677†	14290.7	13700.0	484.88 µg/L	484.88 ppb	13:47:48
3	Ba 233.527†	82361.3	81266.9	2269.0 µg/L	2269.0 ppb	13:47:48
3	Be 313.107†	814659.3	799234.7	510.14 µg/L	510.14 ppb	13:47:42
3	Cd 226.502†	18565.6	18440.9	488.98 µg/L	488.98 ppb	13:47:48
3	Co 228.616†	10657.6	10498.4	516.97 µg/L	516.97 ppb	13:48:08
3	Cr 267.716†	32368.7	32061.7	740.08 µg/L	740.08 ppb	13:47:48
3	Cu 324.752†	94941.3	87692.7	653.02 µg/L	653.02 ppb	13:47:48
3	Mn 257.610†	1147707.4	1132068.9	3956.3 µg/L	3956.3 ppb	13:47:42
3	Mo 202.031†	3939.6	3864.8	486.37 µg/L	486.37 ppb	13:48:08
3	Ni 231.604†	10941.8	10459.5	600.62 µg/L	600.62 ppb	13:48:08
3	P 214.914†	1393.6	1110.0	1624.2 µg/L	1624.2 ppb	13:48:08
3	Pb 220.353†	2495.9	2380.3	648.31 µg/L	648.31 ppb	13:48:08
3	S 181.975 Axial†	1539.8	1485.2	5559.4 µg/L	5559.4 ppb	13:48:08
3	Sb 206.836†	521.6	489.9	474.34 µg/L	474.34 ppb	13:48:08
3	Se 196.026†	351.9	333.0	379.61 µg/L	379.61 ppb	13:48:08
3	SiO2†	227016.2	220249.8	37865 µg/L	37865 ppb	13:47:48
3	Si 251.611†	264014.6	260009.6	17416 µg/L	17416 ppb	13:47:48
3	Sn 189.927†	946.2	900.7	453.20 µg/L	453.20 ppb	13:48:08
3	Ti 334.940†	2430408.9	2396163.6	5878.9 µg/L	5878.9 ppb	13:47:42
3	Tl 190.801†	258.6	281.9	520.40 µg/L	520.40 ppb	13:48:08
3	U 409.014†	3869.5	3782.5	375.25 µg/L	375.25 ppb	13:47:48
3	V 292.402†	63572.3	62966.3	787.78 µg/L	787.78 ppb	13:47:48
3	Zn 213.857†	37961.5	36783.0	904.67 µg/L	904.67 ppb	13:47:48

Mean Data: 1201999344|939704|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1902799.8	101.84	%	0.388				0.38%
Sc RADIAL	55930.9	101	%	0.5				0.54%
Y 371.029	1199659.8	104.18	%	0.440				0.42%
Ag 328.068†	53520.4	514.96	µg/L	0.757	514.96	ppb	0.757	0.15%
Al 396.153Radial†	230704.8	169480	µg/L	417.8	169480	ppb	417.8	0.25%
As 188.979†	314.3	597.05	µg/L	9.963	597.05	ppb	9.963	1.67%
B 249.677†	13760.1	486.97	µg/L	1.951	486.97	ppb	1.951	0.40%
Ba 233.527†	81725.2	2281.8	µg/L	11.29	2281.8	ppb	11.29	0.49%
Be 313.107†	807676.3	515.53	µg/L	4.709	515.53	ppb	4.709	0.91%
Ca 317.933Radial†	27597.7	25120	µg/L	154.2	25120	ppb	154.2	0.61%
Cd 226.502†	18414.5	488.16	µg/L	0.721	488.16	ppb	0.721	0.15%
Co 228.616†	10818.3	532.95	µg/L	13.864	532.95	ppb	13.864	2.60%
Cr 267.716†	32397.0	747.81	µg/L	6.850	747.81	ppb	6.850	0.92%
Cu 324.752†	88410.6	658.32	µg/L	4.610	658.32	ppb	4.610	0.70%
Fe 238.204 Radial†	7926.2	148170	µg/L	673.0	148170	ppb	673.0	0.45%
K 766.490 Radial†	31789.1	21492	µg/L	10.3	21492	ppb	10.3	0.05%
Mg 279.077 IEC†	2385.8	29435	µg/L	168.1	29435	ppb	168.1	0.57%
Mn 257.610†	1142678.7	3993.3	µg/L	32.56	3993.3	ppb	32.56	0.82%
Mo 202.031†	3970.3	499.51	µg/L	11.458	499.51	ppb	11.458	2.29%
Na 589.592 Radial†	14184.1	6129.7	µg/L	19.16	6129.7	ppb	19.16	0.31%

Ni 231.604†	10767.0	618.27 µg/L	15.322	618.27 ppb	15.322	2.48%
P 214.914†	1141.3	1673.8 µg/L	46.38	1673.8 ppb	46.38	2.77%
Pb 220.353†	2436.0	663.42 µg/L	13.118	663.42 ppb	13.118	1.98%
S 181.975 Axial†	1508.1	5645.6 µg/L	82.08	5645.6 ppb	82.08	1.45%
Sb 206.836†	497.7	481.88 µg/L	6.938	481.88 ppb	6.938	1.44%
Se 196.026†	345.9	393.34 µg/L	11.901	393.34 ppb	11.901	3.03%
SiO2†	222023.2	38170 µg/L	265.0	38170 ppb	265.0	0.69%
Si 251.611†	262136.5	17558 µg/L	122.5	17558 ppb	122.5	0.70%
Sn 189.927†	923.7	465.11 µg/L	10.614	465.11 ppb	10.614	2.28%
Sr 421.552†	60135.9	782.20 µg/L	0.977	782.20 ppb	0.977	0.12%
Ti 334.940†	2422969.1	5944.7 µg/L	57.81	5944.7 ppb	57.81	0.97%
Tl 190.801†	282.0	521.09 µg/L	13.144	521.09 ppb	13.144	2.52%
U 409.014†	3789.6	375.85 µg/L	3.602	375.85 ppb	3.602	0.96%
V 292.402†	63563.6	795.29 µg/L	6.518	795.29 ppb	6.518	0.82%
Zn 213.857†	36852.2	906.15 µg/L	1.573	906.15 ppb	1.573	0.17%

Sequence No.: 7
Sample ID: 1201999342|939704|5
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 307
Date Collected: 1/11/2010 13:48:18
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1201999342|939704|5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	55553.0	55553.0	99.9	%			13:48:51
1	Al 396.153Radial†	29274.3	29270.6	21505	µg/L	21505	ppb	13:48:51
1	Ca 317.933Radial†	4427.5	4229.2	3849.5	µg/L	3849.5	ppb	13:49:11
1	Fe 238.204 Radial†	1436.5	1424.4	26624	µg/L	26624	ppb	13:49:11
1	K 766.490 Radial†	4615.7	4096.6	2769.7	µg/L	2769.7	ppb	13:48:51
1	Mg 279.077 IEC†	348.0	339.7	4181.4	µg/L	4181.4	ppb	13:49:11
1	Na 589.592 Radial†	902.9	506.0	218.66	µg/L	218.66	ppb	13:48:51
1	Sr 421.552†	4314.0	4355.4	56.651	µg/L	56.651	ppb	13:48:51
1	Sc 361.383	1921266.0	1921266.0	102.83	%			13:50:14
1	Y 371.029	1187897.2	1187897.2	103.16	%			13:50:14
1	Ag 328.068†	-430.7	-209.3	0.5188	µg/L	0.5188	ppb	13:50:19
1	As 188.979†	-7.2	-2.8	5.8007	µg/L	5.8007	ppb	13:50:40
1	B 249.677†	634.3	224.0	0.3128	µg/L	0.3128	ppb	13:50:19
1	Ba 233.527†	12233.2	11942.1	333.30	µg/L	333.30	ppb	13:50:19
1	Be 313.107†	8013.9	3647.5	1.9800	µg/L	1.9800	ppb	13:50:14
1	Cd 226.502†	-14.2	118.6	-0.4421	µg/L	-0.4421	ppb	13:50:40
1	Co 228.616†	469.5	445.0	20.366	µg/L	20.366	ppb	13:50:40
1	Cr 267.716†	1214.8	1322.5	30.577	µg/L	30.577	ppb	13:50:19
1	Cu 324.752†	8475.9	2308.4	19.255	µg/L	19.255	ppb	13:50:19
1	Mn 257.610†	268658.7	261512.7	913.00	µg/L	913.00	ppb	13:50:14
1	Mo 202.031†	25.5	4.5	1.6120	µg/L	1.6120	ppb	13:50:40
1	Ni 231.604†	684.6	335.0	19.234	µg/L	19.234	ppb	13:50:40
1	P 214.914†	422.0	146.1	211.68	µg/L	211.68	ppb	13:50:40
1	Pb 220.353†	223.1	135.8	37.101	µg/L	37.101	ppb	13:50:40
1	S 181.975 Axial†	66.3	31.2	112.69	µg/L	112.69	ppb	13:50:40
1	Sb 206.836†	30.1	4.7	7.6772	µg/L	7.6772	ppb	13:50:40
1	Se 196.026†	-10.1	-23.8	-21.755	µg/L	-21.755	ppb	13:50:40
1	SiO2†	34223.8	29658.1	5098.7	µg/L	5098.7	ppb	13:50:19
1	Si 251.611†	36559.6	35203.2	2355.9	µg/L	2355.9	ppb	13:50:19
1	Sn 189.927†	10.5	-22.2	-14.926	µg/L	-14.926	ppb	13:50:40
1	Ti 334.940†	405944.4	394170.1	967.10	µg/L	967.10	ppb	13:50:14
1	Tl 190.801†	-27.6	0.0	12.262	µg/L	12.262	ppb	13:50:40
1	U 409.014†	-49.6	-81.6	-13.922	µg/L	-13.922	ppb	13:50:14
1	V 292.402†	4144.7	4304.7	54.049	µg/L	54.049	ppb	13:50:19
1	Zn 213.857†	4114.0	3347.8	78.983	µg/L	78.983	ppb	13:50:19
2	Sc RADIAL	56166.7	56166.7	101	%			13:49:17
2	Al 396.153Radial†	29384.9	29059.9	21350	µg/L	21350	ppb	13:49:17
2	Ca 317.933Radial†	4438.0	4191.2	3815.0	µg/L	3815.0	ppb	13:49:37
2	Fe 238.204 Radial†	1453.2	1425.3	26640	µg/L	26640	ppb	13:49:37
2	K 766.490 Radial†	4627.5	4057.8	2743.4	µg/L	2743.4	ppb	13:49:17
2	Mg 279.077 IEC†	353.5	341.3	4201.1	µg/L	4201.1	ppb	13:49:37
2	Na 589.592 Radial†	920.6	513.6	221.95	µg/L	221.95	ppb	13:49:17
2	Sr 421.552†	4362.2	4356.0	56.659	µg/L	56.659	ppb	13:49:17
2	Sc 361.383	1909978.7	1909978.7	102.23	%			13:50:46
2	Y 371.029	1180445.8	1180445.8	102.52	%			13:50:46
2	Ag 328.068†	-491.9	-271.7	-0.0589	µg/L	-0.0589	ppb	13:50:51
2	As 188.979†	-1.7	2.6	15.114	µg/L	15.114	ppb	13:51:12
2	B 249.677†	619.6	213.2	-0.1083	µg/L	-0.1083	ppb	13:50:51
2	Ba 233.527†	12246.6	12025.6	335.63	µg/L	335.63	ppb	13:50:51
2	Be 313.107†	7834.6	3518.2	1.8964	µg/L	1.8964	ppb	13:50:46
2	Cd 226.502†	-22.2	110.7	-0.6631	µg/L	-0.6631	ppb	13:51:12
2	Co 228.616†	467.7	445.9	20.405	µg/L	20.405	ppb	13:51:12
2	Cr 267.716†	1199.9	1315.0	30.403	µg/L	30.403	ppb	13:50:51
2	Cu 324.752†	8523.5	2403.6	19.951	µg/L	19.951	ppb	13:50:51
2	Mn 257.610†	267778.7	262195.8	915.37	µg/L	915.37	ppb	13:50:46
2	Mo 202.031†	21.3	0.6	1.1247	µg/L	1.1247	ppb	13:51:12
2	Ni 231.604†	684.2	338.5	19.439	µg/L	19.439	ppb	13:51:12
2	P 214.914†	430.8	157.1	229.38	µg/L	229.38	ppb	13:51:12
2	Pb 220.353†	221.0	135.1	36.892	µg/L	36.892	ppb	13:51:12

2	S 181.975 Axial†	61.3	26.7	95.807	µg/L	95.807 ppb	13:51:12
2	Sb 206.836†	28.6	3.4	6.5003	µg/L	6.5003 ppb	13:51:12
2	Se 196.026†	-8.3	-22.0	-19.958	µg/L	-19.958 ppb	13:51:12
2	SiO2†	34246.9	29877.4	5136.4	µg/L	5136.4 ppb	13:50:51
2	Si 251.611†	36479.5	35334.9	2364.8	µg/L	2364.8 ppb	13:50:51
2	Sn 189.927†	11.8	-20.8	-14.215	µg/L	-14.215 ppb	13:51:12
2	Ti 334.940†	404345.6	394939.1	968.98	µg/L	968.98 ppb	13:50:46
2	Tl 190.801†	-37.2	-9.5	-3.0086	µg/L	-3.0086 ppb	13:51:12
2	U 409.014†	-66.4	-98.4	-15.716	µg/L	-15.716 ppb	13:50:46
2	V 292.402†	4135.3	4319.3	54.224	µg/L	54.224 ppb	13:50:51
2	Zn 213.857†	4118.7	3376.1	79.705	µg/L	79.705 ppb	13:50:51
3	Sc RADIAL	55776.3	55776.3	100	%		13:49:42
3	Al 396.153Radial†	29229.0	29108.1	21386	µg/L	21386 ppb	13:49:42
3	Ca 317.933Radial†	4424.4	4208.4	3830.6	µg/L	3830.6 ppb	13:50:03
3	Fe 238.204 Radial†	1441.1	1423.3	26603	µg/L	26603 ppb	13:50:03
3	K 766.490 Radial†	4630.5	4092.9	2767.1	µg/L	2767.1 ppb	13:49:42
3	Mg 279.077 IEC†	348.8	339.1	4174.0	µg/L	4174.0 ppb	13:50:03
3	Na 589.592 Radial†	891.9	491.4	212.36	µg/L	212.36 ppb	13:49:42
3	Sr 421.552†	4293.7	4317.9	56.163	µg/L	56.163 ppb	13:49:42
3	Sc 361.383	1900928.2	1900928.2	101.74	%		13:51:18
3	Y 371.029	1173380.9	1173380.9	101.90	%		13:51:18
3	Ag 328.068†	-435.2	-218.2	0.4077	µg/L	0.4077 ppb	13:51:24
3	As 188.979†	-1.6	2.7	15.073	µg/L	15.073 ppb	13:51:44
3	B 249.677†	599.3	196.2	-0.7594	µg/L	-0.7594 ppb	13:51:24
3	Ba 233.527†	11519.7	11368.1	317.28	µg/L	317.28 ppb	13:51:24
3	Be 313.107†	7598.3	3322.4	1.7859	µg/L	1.7859 ppb	13:51:18
3	Cd 226.502†	-16.8	115.9	-0.5155	µg/L	-0.5155 ppb	13:51:44
3	Co 228.616†	416.5	397.8	18.073	µg/L	18.073 ppb	13:51:44
3	Cr 267.716†	1126.6	1248.5	28.863	µg/L	28.863 ppb	13:51:24
3	Cu 324.752†	8349.2	2272.1	18.988	µg/L	18.988 ppb	13:51:24
3	Mn 257.610†	256841.5	252693.1	882.32	µg/L	882.32 ppb	13:51:18
3	Mo 202.031†	26.0	5.4	1.7112	µg/L	1.7112 ppb	13:51:44
3	Ni 231.604†	635.4	293.7	16.862	µg/L	16.862 ppb	13:51:44
3	P 214.914†	405.1	133.9	191.79	µg/L	191.79 ppb	13:51:44
3	Pb 220.353†	215.6	130.8	35.730	µg/L	35.730 ppb	13:51:44
3	S 181.975 Axial†	63.6	29.2	105.37	µg/L	105.37 ppb	13:51:44
3	Sb 206.836†	22.0	-2.9	0.4469	µg/L	0.4469 ppb	13:51:44
3	Se 196.026†	-3.5	-17.4	-14.987	µg/L	-14.987 ppb	13:51:44
3	SiO2†	32729.7	28545.7	4907.5	µg/L	4907.5 ppb	13:51:24
3	Si 251.611†	34663.8	33720.2	2256.7	µg/L	2256.7 ppb	13:51:24
3	Sn 189.927†	3.3	-29.2	-18.560	µg/L	-18.560 ppb	13:51:44
3	Ti 334.940†	385608.9	378406.5	928.41	µg/L	928.41 ppb	13:51:18
3	Tl 190.801†	-35.2	-7.7	-0.5200	µg/L	-0.5200 ppb	13:51:44
3	U 409.014†	-50.8	-83.3	-14.104	µg/L	-14.104 ppb	13:51:18
3	V 292.402†	3783.9	3993.1	50.191	µg/L	50.191 ppb	13:51:24
3	Zn 213.857†	3913.7	3193.7	75.026	µg/L	75.026 ppb	13:51:24

Mean Data: 1201999342|939704|5

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1910724.3	102.27	%	0.545				0.53%
Sc RADIAL	55832.0	100	%	0.6				0.56%
Y 371.029	1180574.6	102.53	%	0.630				0.61%
Ag 328.068†	-233.1	0.2892	µg/L	0.30654	0.2892	ppb	0.30654	105.99%
Al 396.153Radial†	29146.2	21414	µg/L	81.1	21414	ppb	81.1	0.38%
As 188.979†	0.8	11.996	µg/L	5.3651	11.996	ppb	5.3651	44.73%
B 249.677†	211.1	-0.1850	µg/L	0.54019	-0.1850	ppb	0.54019	292.06%
Ba 233.527†	11778.6	328.74	µg/L	9.991	328.74	ppb	9.991	3.04%
Be 313.107†	3496.1	1.8874	µg/L	0.09736	1.8874	ppb	0.09736	5.16%
Ca 317.933Radial†	4209.6	3831.7	µg/L	17.32	3831.7	ppb	17.32	0.45%
Cd 226.502†	115.1	-0.5402	µg/L	0.11256	-0.5402	ppb	0.11256	20.84%
Co 228.616†	429.5	19.615	µg/L	1.3355	19.615	ppb	1.3355	6.81%
Cr 267.716†	1295.3	29.948	µg/L	0.9436	29.948	ppb	0.9436	3.15%
Cu 324.752†	2328.0	19.398	µg/L	0.4972	19.398	ppb	0.4972	2.56%
Fe 238.204 Radial†	1424.3	26623	µg/L	18.6	26623	ppb	18.6	0.07%
K 766.490 Radial†	4082.4	2760.1	µg/L	14.48	2760.1	ppb	14.48	0.52%
Mg 279.077 IEC†	340.0	4185.5	µg/L	14.01	4185.5	ppb	14.01	0.33%
Mn 257.610†	258800.5	903.56	µg/L	18.438	903.56	ppb	18.438	2.04%
Mo 202.031†	3.5	1.4826	µg/L	0.31396	1.4826	ppb	0.31396	21.18%
Na 589.592 Radial†	503.7	217.66	µg/L	4.872	217.66	ppb	4.872	2.24%

Ni 231.604†	322.4	18.512 µg/L	1.4321	18.512 ppb	1.4321	7.74%
P 214.914†	145.7	210.95 µg/L	18.805	210.95 ppb	18.805	8.91%
Pb 220.353†	133.9	36.574 µg/L	0.7387	36.574 ppb	0.7387	2.02%
S 181.975 Axial†	29.0	104.62 µg/L	8.467	104.62 ppb	8.467	8.09%
Sb 206.836†	1.8	4.8748 µg/L	3.87959	4.8748 ppb	3.87959	79.58%
Se 196.026†	-21.1	-18.900 µg/L	3.5060	-18.900 ppb	3.5060	18.55%
SiO2†	29360.4	5047.6 µg/L	122.75	5047.6 ppb	122.75	2.43%
Si 251.611†	34752.8	2325.8 µg/L	60.00	2325.8 ppb	60.00	2.58%
Sn 189.927†	-24.1	-15.900 µg/L	2.3309	-15.900 ppb	2.3309	14.66%
Sr 421.552†	4343.1	56.491 µg/L	0.2838	56.491 ppb	0.2838	0.50%
Ti 334.940†	389171.9	954.83 µg/L	22.899	954.83 ppb	22.899	2.40%
Tl 190.801†	-5.7	2.9112 µg/L	8.19317	2.9112 ppb	8.19317	281.44%
U 409.014†	-87.8	-14.581 µg/L	0.9878	-14.581 ppb	0.9878	6.78%
V 292.402†	4205.7	52.821 µg/L	2.2793	52.821 ppb	2.2793	4.32%
Zn 213.857†	3305.9	77.905 µg/L	2.5188	77.905 ppb	2.5188	3.23%

Sequence No.: 8
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 1/11/2010 13:51:54
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56450.8	56450.8	102	%			13:52:32
1	Al 396.153Radial†	6948.3	6816.4	4987.8	µg/L	4987.8	ppb	13:52:32
1	Ca 317.933Radial†	5620.0	5333.1	4854.4	µg/L	4854.4	ppb	13:52:52
1	Fe 238.204 Radial†	272.0	254.6	4775.8	µg/L	4775.8	ppb	13:52:52
1	K 766.490 Radial†	8058.7	7414.1	5012.5	µg/L	5012.5	ppb	13:52:32
1	Mg 279.077 IEC†	401.3	386.6	4809.3	µg/L	4809.3	ppb	13:52:52
1	Na 589.592 Radial†	23177.6	22429.2	9692.8	µg/L	9692.8	ppb	13:52:32
1	Sr 421.552†	37555.0	37024.7	481.59	µg/L	481.59	ppb	13:52:32
1	Sc 361.383	1900523.8	1900523.8	101.72	%			13:53:55
1	Y 371.029	1169165.9	1169165.9	101.54	%			13:53:55
1	Ag 328.068†	55283.0	54557.0	511.39	µg/L	511.39	ppb	13:54:01
1	As 188.979†	305.3	304.4	522.38	µg/L	522.38	ppb	13:54:22
1	B 249.677†	13653.9	13030.0	503.75	µg/L	503.75	ppb	13:54:01
1	Ba 233.527†	18534.4	18266.5	510.72	µg/L	510.72	ppb	13:54:01
1	Be 313.107†	798001.3	780352.3	500.03	µg/L	500.03	ppb	13:53:55
1	Cd 226.502†	18659.1	18475.8	509.90	µg/L	509.90	ppb	13:54:01
1	Co 228.616†	10356.7	10169.8	511.78	µg/L	511.78	ppb	13:54:01
1	Cr 267.716†	22613.7	22372.2	516.34	µg/L	516.34	ppb	13:54:01
1	Cu 324.752†	76672.3	69440.8	506.94	µg/L	506.94	ppb	13:54:01
1	Mn 257.610†	149522.1	147243.3	512.77	µg/L	512.77	ppb	13:53:55
1	Mo 202.031†	4374.8	4280.6	532.46	µg/L	532.46	ppb	13:54:22
1	Ni 231.604†	9436.1	8945.6	513.68	µg/L	513.68	ppb	13:54:01
1	P 214.914†	1907.3	1610.7	2562.8	µg/L	2562.8	ppb	13:54:22
1	Pb 220.353†	2035.3	1919.7	520.61	µg/L	520.61	ppb	13:54:22
1	S 181.975 Axial†	317.8	279.1	1048.2	µg/L	1048.2	ppb	13:54:22
1	Sb 206.836†	599.2	564.6	526.05	µg/L	526.05	ppb	13:54:22
1	Se 196.026†	502.2	479.7	515.58	µg/L	515.58	ppb	13:54:22
1	SiO2†	36606.1	32363.3	5563.8	µg/L	5563.8	ppb	13:54:01
1	Si 251.611†	39374.5	38358.4	2555.8	µg/L	2555.8	ppb	13:54:01
1	Sn 189.927†	1075.5	1024.9	535.48	µg/L	535.48	ppb	13:54:22
1	Ti 334.940†	211034.7	206867.0	507.38	µg/L	507.38	ppb	13:53:55
1	Tl 190.801†	292.9	314.8	505.42	µg/L	505.42	ppb	13:54:22
1	U 409.014†	5014.6	4896.3	522.12	µg/L	522.12	ppb	13:54:01
1	V 292.402†	41598.1	41168.2	514.37	µg/L	514.37	ppb	13:54:01
1	Zn 213.857†	20878.9	19872.7	507.96	µg/L	507.96	ppb	13:54:01
2	Sc RADIAL	56161.0	56161.0	101	%			13:52:57
2	Al 396.153Radial†	6976.6	6879.8	5034.8	µg/L	5034.8	ppb	13:52:57
2	Ca 317.933Radial†	5584.4	5326.5	4848.3	µg/L	4848.3	ppb	13:53:18
2	Fe 238.204 Radial†	273.2	257.2	4824.3	µg/L	4824.3	ppb	13:53:18
2	K 766.490 Radial†	8132.0	7527.5	5089.2	µg/L	5089.2	ppb	13:52:57
2	Mg 279.077 IEC†	397.2	384.6	4784.5	µg/L	4784.5	ppb	13:53:18
2	Na 589.592 Radial†	23319.1	22687.1	9804.2	µg/L	9804.2	ppb	13:52:57
2	Sr 421.552†	37763.6	37422.1	486.75	µg/L	486.75	ppb	13:52:57
2	Sc 361.383	1905562.2	1905562.2	101.99	%			13:54:29
2	Y 371.029	1173016.2	1173016.2	101.87	%			13:54:29
2	Ag 328.068†	55268.5	54399.2	509.92	µg/L	509.92	ppb	13:54:34
2	As 188.979†	301.8	300.2	515.23	µg/L	515.23	ppb	13:54:55
2	B 249.677†	13645.0	12985.7	502.02	µg/L	502.02	ppb	13:54:34
2	Ba 233.527†	18561.9	18245.4	510.13	µg/L	510.13	ppb	13:54:34
2	Be 313.107†	800767.6	780990.4	500.43	µg/L	500.43	ppb	13:54:29
2	Cd 226.502†	18642.9	18411.4	508.11	µg/L	508.11	ppb	13:54:34
2	Co 228.616†	10385.4	10171.0	511.82	µg/L	511.82	ppb	13:54:34
2	Cr 267.716†	22535.7	22237.0	513.22	µg/L	513.22	ppb	13:54:34
2	Cu 324.752†	76753.8	69321.4	506.07	µg/L	506.07	ppb	13:54:34
2	Mn 257.610†	150197.2	147516.6	513.73	µg/L	513.73	ppb	13:54:29
2	Mo 202.031†	4291.6	4187.6	520.91	µg/L	520.91	ppb	13:54:55
2	Ni 231.604†	9439.8	8924.7	512.48	µg/L	512.48	ppb	13:54:34
2	P 214.914†	1882.5	1581.5	2515.1	µg/L	2515.1	ppb	13:54:55
2	Pb 220.353†	1997.2	1877.1	509.05	µg/L	509.05	ppb	13:54:55

2	S 181.975 Axial†	312.6	273.2	1026.2 µg/L	1026.2 ppb	13:54:55
2	Sb 206.836†	591.3	555.2	517.38 µg/L	517.38 ppb	13:54:55
2	Se 196.026†	496.2	472.6	508.11 µg/L	508.11 ppb	13:54:55
2	SiO2†	36634.9	32296.4	5552.3 µg/L	5552.3 ppb	13:54:34
2	Si 251.611†	39313.9	38196.7	2545.6 µg/L	2545.6 ppb	13:54:34
2	Sn 189.927†	1049.2	996.3	520.57 µg/L	520.57 ppb	13:54:55
2	Ti 334.940†	211678.4	206949.6	507.58 µg/L	507.58 ppb	13:54:29
2	Tl 190.801†	295.2	316.3	507.80 µg/L	507.80 ppb	13:54:55
2	U 409.014†	4977.7	4847.2	516.86 µg/L	516.86 ppb	13:54:34
2	V 292.402†	41638.2	41099.5	513.43 µg/L	513.43 ppb	13:54:34
2	Zn 213.857†	20915.2	19854.0	507.47 µg/L	507.47 ppb	13:54:34
3	Sc RADIAL	55828.2	55828.2	100 %		13:53:23
3	Al 396.153Radial†	6864.3	6809.2	4985.8 µg/L	4985.8 ppb	13:53:23
3	Ca 317.933Radial†	5546.1	5321.3	4843.7 µg/L	4843.7 ppb	13:53:44
3	Fe 238.204 Radial†	272.0	257.6	4830.5 µg/L	4830.5 ppb	13:53:44
3	K 766.490 Radial†	8044.9	7488.8	5063.1 µg/L	5063.1 ppb	13:53:23
3	Mg 279.077 IEC†	398.8	388.5	4831.3 µg/L	4831.3 ppb	13:53:44
3	Na 589.592 Radial†	22985.1	22492.1	9719.9 µg/L	9719.9 ppb	13:53:23
3	Sr 421.552†	37044.9	36929.3	480.34 µg/L	480.34 ppb	13:53:23
3	Sc 361.383	1916290.4	1916290.4	102.57 %		13:55:02
3	Y 371.029	1178993.6	1178993.6	102.39 %		13:55:02
3	Ag 328.068†	52730.7	51621.5	483.78 µg/L	483.78 ppb	13:55:08
3	As 188.979†	266.2	263.8	452.92 µg/L	452.92 ppb	13:55:28
3	B 249.677†	12995.3	12277.5	474.56 µg/L	474.56 ppb	13:55:08
3	Ba 233.527†	17284.9	16898.4	472.45 µg/L	472.45 ppb	13:55:08
3	Be 313.107†	766485.6	743170.3	476.20 µg/L	476.20 ppb	13:55:02
3	Cd 226.502†	17327.4	17026.5	469.83 µg/L	469.83 ppb	13:55:08
3	Co 228.616†	9601.0	9349.3	470.36 µg/L	470.36 ppb	13:55:08
3	Cr 267.716†	20262.5	19896.9	459.23 µg/L	459.23 ppb	13:55:08
3	Cu 324.752†	71374.5	63655.3	464.74 µg/L	464.74 ppb	13:55:08
3	Mn 257.610†	143956.3	140607.4	489.70 µg/L	489.70 ppb	13:55:02
3	Mo 202.031†	3695.4	3582.7	445.69 µg/L	445.69 ppb	13:55:28
3	Ni 231.604†	8785.1	8234.6	472.85 µg/L	472.85 ppb	13:55:08
3	P 214.914†	1681.7	1375.4	2183.4 µg/L	2183.4 ppb	13:55:28
3	Pb 220.353†	1784.0	1658.3	449.63 µg/L	449.63 ppb	13:55:28
3	S 181.975 Axial†	288.8	248.2	932.20 µg/L	932.20 ppb	13:55:28
3	Sb 206.836†	514.1	476.8	444.32 µg/L	444.32 ppb	13:55:28
3	Se 196.026†	447.9	422.7	455.11 µg/L	455.11 ppb	13:55:28
3	SiO2†	34637.8	30148.2	5183.0 µg/L	5183.0 ppb	13:55:08
3	Si 251.611†	36999.2	35724.1	2383.1 µg/L	2383.1 ppb	13:55:08
3	Sn 189.927†	893.6	838.8	438.52 µg/L	438.52 ppb	13:55:28
3	Ti 334.940†	201417.5	195783.4	480.18 µg/L	480.18 ppb	13:55:02
3	Tl 190.801†	263.7	284.0	456.21 µg/L	456.21 ppb	13:55:28
3	U 409.014†	4531.7	4384.9	467.46 µg/L	467.46 ppb	13:55:08
3	V 292.402†	38211.8	37530.2	468.63 µg/L	468.63 ppb	13:55:08
3	Zn 213.857†	19320.7	18184.5	464.67 µg/L	464.67 ppb	13:55:08

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1907458.8	102.09	%	0.431				0.42%
Sc RADIAL	56146.7	101	%	0.6				0.55%
Y 371.029	1173725.2	101.93	%	0.430				0.42%
Ag 328.068†	53525.9	501.70	µg/L	15.535	501.70	ppb	15.535	3.10%
QC value within limits for Ag 328.068 Recovery = 100.34%								
Al 396.153Radial†	6835.1	5002.8	µg/L	27.73	5002.8	ppb	27.73	0.55%
QC value within limits for Al 396.153Radial Recovery = 100.06%								
As 188.979†	289.5	496.84	µg/L	38.207	496.84	ppb	38.207	7.69%
QC value within limits for As 188.979 Recovery = 99.37%								
B 249.677†	12764.4	493.45	µg/L	16.380	493.45	ppb	16.380	3.32%
QC value within limits for B 249.677 Recovery = 98.69%								
Ba 233.527†	17803.4	497.77	µg/L	21.924	497.77	ppb	21.924	4.40%
QC value within limits for Ba 233.527 Recovery = 99.55%								
Be 313.107†	768171.0	492.22	µg/L	13.874	492.22	ppb	13.874	2.82%
QC value within limits for Be 313.107 Recovery = 98.44%								
Ca 317.933Radial†	5327.0	4848.8	µg/L	5.38	4848.8	ppb	5.38	0.11%
QC value within limits for Ca 317.933Radial Recovery = 96.98%								
Cd 226.502†	17971.2	495.95	µg/L	22.635	495.95	ppb	22.635	4.56%
QC value within limits for Cd 226.502 Recovery = 99.19%								
Co 228.616†	9896.7	497.99	µg/L	23.925	497.99	ppb	23.925	4.80%

```
   QC value within limits for Co 228.616  Recovery = 99.60%
Cr 267.716†            21502.0      496.26 µg/L        32.106      496.26 ppb         32.106   6.47%
   QC value within limits for Cr 267.716  Recovery = 99.25%
Cu 324.752†            67472.5      492.59 µg/L        24.115      492.59 ppb         24.115   4.90%
   QC value within limits for Cu 324.752  Recovery = 98.52%
Fe 238.204 Radial†       256.5      4810.2 µg/L         29.94      4810.2 ppb          29.94   0.62%
   QC value within limits for Fe 238.204 Radial  Recovery = 96.20%
K 766.490 Radial†       7476.8      5054.9 µg/L         38.99      5054.9 ppb          38.99   0.77%
   QC value within limits for K 766.490 Radial  Recovery = 101.10%
Mg 279.077 IEC†          386.6      4808.4 µg/L         23.42      4808.4 ppb          23.42   0.49%
   QC value within limits for Mg 279.077 IEC  Recovery = 96.17%
Mn 257.610†           145122.4      505.40 µg/L        13.607      505.40 ppb         13.607   2.69%
   QC value within limits for Mn 257.610  Recovery = 101.08%
Mo 202.031†             4017.0      499.69 µg/L        47.119      499.69 ppb         47.119   9.43%
   QC value within limits for Mo 202.031  Recovery = 99.94%
Na 589.592 Radial†     22536.1      9739.0 µg/L         58.12      9739.0 ppb          58.12   0.60%
   QC value within limits for Na 589.592 Radial  Recovery = 97.39%
Ni 231.604†             8701.6      499.67 µg/L        23.234      499.67 ppb         23.234   4.65%
   QC value within limits for Ni 231.604  Recovery = 99.93%
P 214.914†              1522.5      2420.5 µg/L        206.66      2420.5 ppb         206.66   8.54%
   QC value within limits for P 214.914  Recovery = 96.82%
Pb 220.353†             1818.4      493.10 µg/L        38.083      493.10 ppb         38.083   7.72%
   QC value within limits for Pb 220.353  Recovery = 98.62%
S 181.975 Axial†         266.9      1002.2 µg/L         61.62      1002.2 ppb          61.62   6.15%
   QC value within limits for S 181.975 Axial  Recovery = 100.22%
Sb 206.836†              532.2      495.91 µg/L        44.894      495.91 ppb         44.894   9.05%
   QC value within limits for Sb 206.836  Recovery = 99.18%
Se 196.026†              458.3      492.93 µg/L        32.973      492.93 ppb         32.973   6.69%
   QC value within limits for Se 196.026  Recovery = 98.59%
SiO2†                  31602.6      5433.0 µg/L        216.63      5433.0 ppb         216.63   3.99%
   QC value within limits for SiO2  Recovery = 101.60%
Si 251.611†            37426.4      2494.8 µg/L         96.92      2494.8 ppb          96.92   3.89%
   QC value within limits for Si 251.611  Recovery = 99.79%
Sn 189.927†              953.3      498.19 µg/L        52.210      498.19 ppb         52.210  10.48%
   QC value within limits for Sn 189.927  Recovery = 99.64%
Sr 421.552†            37125.4      482.90 µg/L         3.399      482.90 ppb          3.399   0.70%
   QC value within limits for Sr 421.552  Recovery = 96.58%
Ti 334.940†           203200.0      498.38 µg/L        15.763      498.38 ppb         15.763   3.16%
   QC value within limits for Ti 334.940  Recovery = 99.68%
Tl 190.801†              305.0      489.81 µg/L        29.124      489.81 ppb         29.124   5.95%
   QC value within limits for Tl 190.801  Recovery = 97.96%
U 409.014†              4709.5      502.14 µg/L        30.156      502.14 ppb         30.156   6.01%
   QC value within limits for U 409.014  Recovery = 100.43%
V 292.402†             39932.6      498.81 µg/L        26.136      498.81 ppb         26.136   5.24%
   QC value within limits for V 292.402  Recovery = 99.76%
Zn 213.857†            19303.7      493.37 µg/L        24.855      493.37 ppb         24.855   5.04%
   QC value within limits for Zn 213.857  Recovery = 98.67%
All analyte(s) passed QC.
```

Sequence No.: 9
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 1/11/2010 13:55:38
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	54558.9	54558.9	98.1	%			13:56:11
1	Al 396.153Radial†	46.4	20.5	15.061	µg/L	15.061	ppb	13:56:11
1	Ca 317.933Radial†	194.0	-4.1	-3.7208	µg/L	-3.7208	ppb	13:56:31
1	Fe 238.204 Radial†	17.6	4.7	87.761	µg/L	87.761	ppb	13:56:31
1	K 766.490 Radial†	599.1	87.8	59.330	µg/L	59.330	ppb	13:56:11
1	Mg 279.077 IEC†	6.5	-2.0	-25.050	µg/L	-25.050	ppb	13:56:31
1	Na 589.592 Radial†	397.0	6.9	2.9683	µg/L	2.9683	ppb	13:56:11
1	Sr 421.552†	8.4	46.6	0.6062	µg/L	0.6062	ppb	13:56:11
1	Sc 361.383	1881850.5	1881850.5	100.72	%			13:57:33
1	Y 371.029	1159285.5	1159285.5	100.68	%			13:57:33
1	Ag 328.068†	-226.4	-15.3	-0.1331	µg/L	-0.1331	ppb	13:57:38
1	As 188.979†	-3.0	1.3	2.2033	µg/L	2.2033	ppb	13:57:59
1	B 249.677†	446.3	50.2	1.9194	µg/L	1.9194	ppb	13:57:38
1	Ba 233.527†	-41.8	4.3	0.1205	µg/L	0.1205	ppb	13:57:59
1	Be 313.107†	4189.0	13.2	0.0085	µg/L	0.0085	ppb	13:57:33
1	Cd 226.502†	-124.7	8.6	0.2217	µg/L	0.2217	ppb	13:57:59
1	Co 228.616†	7.7	-4.0	-0.1974	µg/L	-0.1974	ppb	13:57:59
1	Cr 267.716†	-135.1	7.0	0.1618	µg/L	0.1618	ppb	13:57:38
1	Cu 324.752†	6096.5	118.7	0.8738	µg/L	0.8738	ppb	13:57:38
1	Mn 257.610†	-164.0	88.5	0.3190	µg/L	0.3190	ppb	13:57:38
1	Mo 202.031†	25.6	5.2	0.6486	µg/L	0.6486	ppb	13:57:59
1	Ni 231.604†	328.5	-4.7	-0.2690	µg/L	-0.2690	ppb	13:57:59
1	P 214.914†	266.3	0.1	-0.1345	µg/L	-0.1345	ppb	13:57:59
1	Pb 220.353†	72.0	-9.6	-2.6036	µg/L	-2.6036	ppb	13:57:59
1	S 181.975 Axial†	31.9	-1.6	-6.0887	µg/L	-6.0887	ppb	13:57:59
1	Sb 206.836†	25.2	0.5	0.4842	µg/L	0.4842	ppb	13:57:59
1	Se 196.026†	15.0	1.0	1.1077	µg/L	1.1077	ppb	13:57:59
1	SiO2†	3747.8	97.6	16.771	µg/L	16.771	ppb	13:57:38
1	Si 251.611†	426.2	73.3	5.0470	µg/L	5.0470	ppb	13:57:59
1	Sn 189.927†	27.4	-5.2	-2.7414	µg/L	-2.7414	ppb	13:57:59
1	Ti 334.940†	639.5	38.3	0.0941	µg/L	0.0941	ppb	13:57:38
1	Tl 190.801†	-21.8	5.2	8.2723	µg/L	8.2723	ppb	13:57:59
1	U 409.014†	-21.4	-54.6	-5.8544	µg/L	-5.8544	ppb	13:57:38
1	V 292.402†	-251.6	24.3	0.2982	µg/L	0.2982	ppb	13:57:38
1	Zn 213.857†	627.6	-29.8	-0.7930	µg/L	-0.7930	ppb	13:57:59
2	Sc RADIAL	55222.4	55222.4	99.3	%			13:56:37
2	Al 396.153Radial†	17.2	-9.4	-6.9220	µg/L	-6.9220	ppb	13:56:37
2	Ca 317.933Radial†	196.6	-3.9	-3.5130	µg/L	-3.5130	ppb	13:56:57
2	Fe 238.204 Radial†	16.0	2.9	53.350	µg/L	53.350	ppb	13:56:57
2	K 766.490 Radial†	596.8	78.1	52.806	µg/L	52.806	ppb	13:56:37
2	Mg 279.077 IEC†	14.1	5.6	69.122	µg/L	69.122	ppb	13:56:57
2	Na 589.592 Radial†	378.1	-16.9	-7.3180	µg/L	-7.3180	ppb	13:56:37
2	Sr 421.552†	29.6	67.9	0.8826	µg/L	0.8826	ppb	13:56:37
2	Sc 361.383	1884006.6	1884006.6	100.84	%			13:58:05
2	Y 371.029	1160384.0	1160384.0	100.77	%			13:58:05
2	Ag 328.068†	-222.3	-10.9	-0.0959	µg/L	-0.0959	ppb	13:58:11
2	As 188.979†	-4.2	0.1	0.2297	µg/L	0.2297	ppb	13:58:31
2	B 249.677†	422.1	25.8	0.9820	µg/L	0.9820	ppb	13:58:11
2	Ba 233.527†	-34.0	12.0	0.3361	µg/L	0.3361	ppb	13:58:31
2	Be 313.107†	4142.1	-38.0	-0.0244	µg/L	-0.0244	ppb	13:58:05
2	Cd 226.502†	-122.9	10.5	0.2840	µg/L	0.2840	ppb	13:58:31
2	Co 228.616†	10.6	-1.1	-0.0533	µg/L	-0.0533	ppb	13:58:31
2	Cr 267.716†	-161.7	-19.2	-0.4411	µg/L	-0.4411	ppb	13:58:11
2	Cu 324.752†	5992.7	8.8	0.0694	µg/L	0.0694	ppb	13:58:11
2	Mn 257.610†	-189.6	63.3	0.2270	µg/L	0.2270	ppb	13:58:11
2	Mo 202.031†	20.8	0.4	0.0546	µg/L	0.0546	ppb	13:58:31
2	Ni 231.604†	335.2	1.7	0.0948	µg/L	0.0948	ppb	13:58:31
2	P 214.914†	276.4	9.8	15.746	µg/L	15.746	ppb	13:58:31
2	Pb 220.353†	84.4	2.6	0.7109	µg/L	0.7109	ppb	13:58:31

2	S 181.975 Axial†	36.2	2.6	9.9227 µg/L	9.9227 ppb	13:58:31
2	Sb 206.836†	27.3	2.6	2.4015 µg/L	2.4015 ppb	13:58:31
2	Se 196.026†	15.2	1.2	1.2644 µg/L	1.2644 ppb	13:58:31
2	SiO2†	3690.5	36.5	6.2764 µg/L	6.2764 ppb	13:58:11
2	Si 251.611†	429.2	75.8	5.2966 µg/L	5.2966 ppb	13:58:31
2	Sn 189.927†	24.1	-8.5	-4.4373 µg/L	-4.4373 ppb	13:58:31
2	Ti 334.940†	655.2	53.1	0.1304 µg/L	0.1304 ppb	13:58:11
2	Tl 190.801†	-25.7	1.4	2.1886 µg/L	2.1886 ppb	13:58:31
2	U 409.014†	47.7	13.9	1.4742 µg/L	1.4742 ppb	13:58:11
2	V 292.402†	-258.6	17.6	0.2220 µg/L	0.2220 ppb	13:58:11
2	Zn 213.857†	630.1	-28.1	-0.7402 µg/L	-0.7402 ppb	13:58:31
3	Sc RADIAL	54821.5	54821.5	98.6 %		13:57:03
3	Al 396.153Radial†	1203.4	1193.7	876.95 µg/L	876.95 ppb	13:57:03
3	Ca 317.933Radial†	198.7	-0.3	-0.2472 µg/L	-0.2472 ppb	13:57:23
3	Fe 238.204 Radial†	16.8	3.8	71.745 µg/L	71.745 ppb	13:57:23
3	K 766.490 Radial†	530.1	14.9	10.064 µg/L	10.064 ppb	13:57:03
3	Mg 279.077 IEC†	11.1	2.6	32.627 µg/L	32.627 ppb	13:57:23
3	Na 589.592 Radial†	407.1	15.2	6.5836 µg/L	6.5836 ppb	13:57:03
3	Sr 421.552†	10.4	48.6	0.6318 µg/L	0.6318 ppb	13:57:03
3	Sc 361.383	1891314.5	1891314.5	101.23 %		13:58:37
3	Y 371.029	1165495.4	1165495.4	101.22 %		13:58:37
3	Ag 328.068†	-176.6	35.0	0.3383 µg/L	0.3383 ppb	13:58:42
3	As 188.979†	-6.6	-2.3	-3.8604 µg/L	-3.8604 ppb	13:59:03
3	B 249.677†	391.0	-6.6	-0.2785 µg/L	-0.2785 ppb	13:58:42
3	Ba 233.527†	-35.1	11.1	0.3113 µg/L	0.3113 ppb	13:59:03
3	Be 313.107†	4245.5	48.3	0.0310 µg/L	0.0310 ppb	13:58:37
3	Cd 226.502†	-126.6	7.4	0.1943 µg/L	0.1943 ppb	13:59:03
3	Co 228.616†	10.0	-1.7	-0.0822 µg/L	-0.0822 ppb	13:59:03
3	Cr 267.716†	-128.4	14.3	0.3310 µg/L	0.3310 ppb	13:58:42
3	Cu 324.752†	6011.4	4.4	0.0383 µg/L	0.0383 ppb	13:58:42
3	Mn 257.610†	-190.0	63.7	0.2306 µg/L	0.2306 ppb	13:58:42
3	Mo 202.031†	30.8	10.2	1.2743 µg/L	1.2743 ppb	13:59:03
3	Ni 231.604†	326.4	-8.3	-0.4784 µg/L	-0.4784 ppb	13:59:03
3	P 214.914†	275.7	8.1	13.324 µg/L	13.324 ppb	13:59:03
3	Pb 220.353†	77.3	-4.7	-1.2586 µg/L	-1.2586 ppb	13:59:03
3	S 181.975 Axial†	32.0	-1.7	-6.5329 µg/L	-6.5329 ppb	13:59:03
3	Sb 206.836†	18.7	-6.0	-5.6183 µg/L	-5.6183 ppb	13:59:03
3	Se 196.026†	20.6	6.4	6.8123 µg/L	6.8123 ppb	13:59:03
3	SiO2†	3739.2	70.4	12.109 µg/L	12.109 ppb	13:58:42
3	Si 251.611†	428.3	73.3	5.0620 µg/L	5.0620 ppb	13:59:03
3	Sn 189.927†	27.2	-5.5	-2.8857 µg/L	-2.8857 ppb	13:59:03
3	Ti 334.940†	614.4	10.3	0.0252 µg/L	0.0252 ppb	13:58:42
3	Tl 190.801†	-34.2	-6.9	-10.959 µg/L	-10.959 ppb	13:59:03
3	U 409.014†	48.1	14.1	1.4946 µg/L	1.4946 ppb	13:58:42
3	V 292.402†	-197.8	78.7	0.9874 µg/L	0.9874 ppb	13:58:42
3	Zn 213.857†	643.3	-17.4	-0.4661 µg/L	-0.4661 ppb	13:59:03

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	1885723.9	100.93	%	0.265				0.26%
Sc RADIAL	54867.6	98.7	%	0.60				0.61%
Y 371.029	1161721.6	100.89	%	0.288				0.29%
Ag 328.068†	3.0	0.0365	µg/L	0.26208	0.0365	ppb	0.26208	718.87%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	401.6	295.03	µg/L	504.079	295.03	ppb	504.079	170.86%
QC value greater than the upper limit for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-0.3	-0.4758	µg/L	3.09280	-0.4758	ppb	3.09280	650.07%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	23.1	0.8743	µg/L	1.10294	0.8743	ppb	1.10294	126.15%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	9.1	0.2560	µg/L	0.11794	0.2560	ppb	0.11794	46.07%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	7.8	0.0050	µg/L	0.02785	0.0050	ppb	0.02785	557.48%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-2.7	-2.4937	µg/L	1.94827	-2.4937	ppb	1.94827	78.13%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	8.9	0.2333	µg/L	0.04600	0.2333	ppb	0.04600	19.72%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	-2.2	-0.1110	µg/L	0.07623	-0.1110	ppb	0.07623	68.70%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                0.7      0.0172 µg/L       0.40582      0.0172 ppb        0.40582 >999.9%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               44.0      0.3271 µg/L       0.47364      0.3271 ppb        0.47364 144.78%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         3.8      70.952 µg/L       17.2195      70.952 ppb        17.2195  24.27%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         60.2      40.733 µg/L       26.7598      40.733 ppb        26.7598  65.69%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            2.1      25.566 µg/L       47.4817      25.566 ppb        47.4817 185.72%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               71.9      0.2589 µg/L       0.05213      0.2589 ppb        0.05213  20.13%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                5.3      0.6592 µg/L       0.60989      0.6592 ppb        0.60989  92.53%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†         1.7      0.7446 µg/L       7.21263      0.7446 ppb        7.21263 968.63%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               -3.8     -0.2175 µg/L       0.29003     -0.2175 ppb        0.29003 133.33%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 6.0      9.6452 µg/L       8.55567      9.6452 ppb        8.55567  88.70%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               -3.9     -1.0505 µg/L       1.66706     -1.0505 ppb        1.66706 158.70%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          -0.2     -0.8996 µg/L       9.37504     -0.8996 ppb        9.37504 >999.9%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               -1.0     -0.9109 µg/L       4.18796     -0.9109 ppb        4.18796 459.76%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                2.8      3.0614 µg/L       3.24926      3.0614 ppb        3.24926 106.13%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     68.2      11.719 µg/L        5.2580      11.719 ppb         5.2580  44.87%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               74.1      5.1352 µg/L       0.13997      5.1352 ppb        0.13997   2.73%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               -6.4     -3.3548 µg/L       0.94022     -3.3548 ppb        0.94022  28.03%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               54.3      0.7069 µg/L       0.15272      0.7069 ppb        0.15272  21.61%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               33.9      0.0832 µg/L       0.05345      0.0832 ppb        0.05345  64.22%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               -0.1     -0.1662 µg/L       9.82968     -0.1662 ppb        9.82968 >999.9%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                -8.9     -0.9619 µg/L       4.23706     -0.9619 ppb        4.23706 440.51%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                40.2      0.5025 µg/L       0.42167      0.5025 ppb        0.42167  83.91%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              -25.1     -0.6664 µg/L       0.17546     -0.6664 ppb        0.17546  26.33%
   QC value within limits for Zn 213.857  Recovery = Not calculated
QC Failed.  Continue with analysis.
```

Sequence No.: 10
Sample ID: 243042002|939704|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 308
Date Collected: 1/11/2010 13:59:12
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 243042002|939704|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	55809.1	55809.1	100	%			13:59:51
1	Al 396.153Radial†	104463.4	104038.8	76437	µg/L	76437	ppb	13:59:51
1	Ca 317.933Radial†	17888.8	17618.9	16037	µg/L	16037	ppb	13:59:51
1	Fe 238.204 Radial†	5228.7	5195.5	97111	µg/L	97111	ppb	14:00:11
1	K 766.490 Radial†	14990.5	14410.7	9742.8	µg/L	9742.8	ppb	13:59:51
1	Mg 279.077 IEC†	1150.3	1137.3	13987	µg/L	13987	ppb	14:00:11
1	Na 589.592 Radial†	4993.8	4577.2	1978.0	µg/L	1978.0	ppb	13:59:51
1	Sr 421.552†	12626.9	12616.9	164.11	µg/L	164.11	ppb	13:59:51
1	Sc 361.383	1891480.0	1891480.0	101.24	%			14:01:15
1	Y 371.029	1302725.2	1302725.2	113.13	%			14:01:15
1	Ag 328.068†	-1306.8	-1081.3	-1.8216	µg/L	-1.8216	ppb	14:01:20
1	As 188.979†	10.9	15.1	60.274	µg/L	60.274	ppb	14:01:41
1	B 249.677†	1016.0	610.8	-6.8542	µg/L	-6.8542	ppb	14:01:20
1	Ba 233.527†	26109.1	25835.8	721.01	µg/L	721.01	ppb	14:01:20
1	Be 313.107†	22922.1	18496.2	11.061	µg/L	11.061	ppb	14:01:20
1	Cd 226.502†	289.2	418.1	-2.1969	µg/L	-2.1969	ppb	14:01:41
1	Co 228.616†	452.2	435.1	17.411	µg/L	17.411	ppb	14:01:41
1	Cr 267.716†	1801.7	1920.8	44.425	µg/L	44.425	ppb	14:01:41
1	Cu 324.752†	11320.3	5247.8	47.095	µg/L	47.095	ppb	14:01:20
1	Mn 257.610†	832646.2	822721.9	2874.0	µg/L	2874.0	ppb	14:01:15
1	Mo 202.031†	53.6	32.7	7.8795	µg/L	7.8795	ppb	14:01:41
1	Ni 231.604†	1381.5	1033.8	59.368	µg/L	59.368	ppb	14:01:41
1	P 214.914†	884.8	609.7	899.10	µg/L	899.10	ppb	14:01:41
1	Pb 220.353†	921.7	829.4	225.97	µg/L	225.97	ppb	14:01:41
1	S 181.975 Axial†	86.6	52.2	180.02	µg/L	180.02	ppb	14:01:41
1	Sb 206.836†	26.4	1.5	8.3037	µg/L	8.3037	ppb	14:01:41
1	Se 196.026†	-68.2	-81.3	-72.819	µg/L	-72.819	ppb	14:01:41
1	SiO2†	256509.4	249751.3	42937	µg/L	42937	ppb	14:01:15
1	Si 251.611†	297623.1	293636.1	19867	µg/L	19867	ppb	14:01:15
1	Sn 189.927†	-33.0	-65.0	-45.989	µg/L	-45.989	ppb	14:01:41
1	Ti 334.940†	886196.3	874769.6	2145.8	µg/L	2145.8	ppb	14:01:15
1	Tl 190.801†	-57.1	-29.5	-14.885	µg/L	-14.885	ppb	14:01:41
1	U 409.014†	-2577.6	-2579.5	-294.77	µg/L	-294.77	ppb	14:01:15
1	V 292.402†	6586.4	6780.0	86.314	µg/L	86.314	ppb	14:01:20
1	Zn 213.857†	23402.5	22463.5	552.67	µg/L	552.67	ppb	14:01:20
2	Sc RADIAL	56330.9	56330.9	101	%			14:00:17
2	Al 396.153Radial†	105954.5	104546.6	76811	µg/L	76811	ppb	14:00:17
2	Ca 317.933Radial†	18141.7	17703.4	16114	µg/L	16114	ppb	14:00:17
2	Fe 238.204 Radial†	5201.9	5120.9	95715	µg/L	95715	ppb	14:00:37
2	K 766.490 Radial†	15133.9	14413.9	9745.0	µg/L	9745.0	ppb	14:00:17
2	Mg 279.077 IEC†	1150.2	1126.6	13856	µg/L	13856	ppb	14:00:37
2	Na 589.592 Radial†	5049.0	4585.6	1981.7	µg/L	1981.7	ppb	14:00:17
2	Sr 421.552†	12762.0	12633.7	164.33	µg/L	164.33	ppb	14:00:17
2	Sc 361.383	1886395.5	1886395.5	100.97	%			14:01:47
2	Y 371.029	1298459.7	1298459.7	112.76	%			14:01:47
2	Ag 328.068†	-1331.3	-1109.1	-2.1880	µg/L	-2.1880	ppb	14:01:53
2	As 188.979†	12.5	16.6	62.467	µg/L	62.467	ppb	14:02:13
2	B 249.677†	1010.6	608.0	-6.5209	µg/L	-6.5209	ppb	14:01:53
2	Ba 233.527†	26114.1	25910.3	723.09	µg/L	723.09	ppb	14:01:53
2	Be 313.107†	22843.2	18479.1	11.050	µg/L	11.050	ppb	14:01:53
2	Cd 226.502†	281.9	411.7	-2.1765	µg/L	-2.1765	ppb	14:02:13
2	Co 228.616†	433.8	418.1	16.549	µg/L	16.549	ppb	14:02:13
2	Cr 267.716†	1805.9	1929.8	44.633	µg/L	44.633	ppb	14:02:13
2	Cu 324.752†	11241.9	5200.4	46.622	µg/L	46.622	ppb	14:01:53
2	Mn 257.610†	830803.2	823113.4	2875.2	µg/L	2875.2	ppb	14:01:47
2	Mo 202.031†	46.7	26.0	7.0004	µg/L	7.0004	ppb	14:02:13
2	Ni 231.604†	1376.6	1032.6	59.297	µg/L	59.297	ppb	14:02:13
2	P 214.914†	887.5	614.7	909.04	µg/L	909.04	ppb	14:02:13
2	Pb 220.353†	922.4	832.4	226.82	µg/L	226.82	ppb	14:02:13

2	S 181.975 Axial†	85.8	51.7	178.06 µg/L	178.06 ppb	14:02:13
2	Sb 206.836†	24.6	-0.2	6.7233 µg/L	6.7233 ppb	14:02:13
2	Se 196.026†	-56.2	-69.7	-60.421 µg/L	-60.421 ppb	14:02:13
2	SiO2†	256226.2	250153.7	43006 µg/L	43006 ppb	14:01:47
2	Si 251.611†	297458.9	294265.8	19910 µg/L	19910 ppb	14:01:47
2	Sn 189.927†	-30.8	-63.0	-44.642 µg/L	-44.642 ppb	14:02:13
2	Ti 334.940†	884815.2	875761.1	2148.2 µg/L	2148.2 ppb	14:01:47
2	Tl 190.801†	-55.1	-27.7	-12.008 µg/L	-12.008 ppb	14:02:13
2	U 409.014†	-2535.9	-2545.1	-290.84 µg/L	-290.84 ppb	14:01:47
2	V 292.402†	6597.2	6808.2	86.625 µg/L	86.625 ppb	14:01:53
2	Zn 213.857†	23232.4	22357.4	550.31 µg/L	550.31 ppb	14:01:53
3	Sc RADIAL	56265.9	56265.9	101 %		14:00:43
3	Al 396.153Radial†	106168.8	104879.2	77055 µg/L	77055 ppb	14:00:43
3	Ca 317.933Radial†	18099.4	17682.3	16095 µg/L	16095 ppb	14:00:43
3	Fe 238.204 Radial†	5208.0	5132.8	95939 µg/L	95939 ppb	14:01:03
3	K 766.490 Radial†	15163.9	14460.8	9776.7 µg/L	9776.7 ppb	14:00:43
3	Mg 279.077 IEC†	1150.8	1128.5	13879 µg/L	13879 ppb	14:01:03
3	Na 589.592 Radial†	5041.5	4583.9	1980.9 µg/L	1980.9 ppb	14:00:43
3	Sr 421.552†	12804.6	12690.3	165.06 µg/L	165.06 ppb	14:00:43
3	Sc 361.383	1891822.5	1891822.5	101.26 %		14:02:20
3	Y 371.029	1300828.8	1300828.8	112.97 %		14:02:20
3	Ag 328.068†	-1328.1	-1102.1	-2.1111 µg/L	-2.1111 ppb	14:02:25
3	As 188.979†	15.2	19.2	66.935 µg/L	66.935 ppb	14:02:46
3	B 249.677†	1040.6	634.9	-5.5514 µg/L	-5.5514 ppb	14:02:25
3	Ba 233.527†	25688.7	25416.0	709.30 µg/L	709.30 ppb	14:02:25
3	Be 313.107†	22545.3	18120.0	10.829 µg/L	10.829 ppb	14:02:25
3	Cd 226.502†	264.3	393.4	-2.7156 µg/L	-2.7156 ppb	14:02:46
3	Co 228.616†	423.7	406.8	16.038 µg/L	16.038 ppb	14:02:46
3	Cr 267.716†	1713.4	1833.3	42.409 µg/L	42.409 ppb	14:02:46
3	Cu 324.752†	11206.4	5133.3	46.153 µg/L	46.153 ppb	14:02:25
3	Mn 257.610†	824548.2	814575.4	2845.5 µg/L	2845.5 ppb	14:02:20
3	Mo 202.031†	45.2	24.4	6.8013 µg/L	6.8013 ppb	14:02:46
3	Ni 231.604†	1333.3	985.9	56.617 µg/L	56.617 ppb	14:02:46
3	P 214.914†	866.3	591.3	870.97 µg/L	870.97 ppb	14:02:46
3	Pb 220.353†	893.5	801.3	218.40 µg/L	218.40 ppb	14:02:46
3	S 181.975 Axial†	78.7	44.4	150.93 µg/L	150.93 ppb	14:02:46
3	Sb 206.836†	24.0	-0.8	6.0208 µg/L	6.0208 ppb	14:02:46
3	Se 196.026†	-59.3	-72.5	-63.394 µg/L	-63.394 ppb	14:02:46
3	SiO2†	254851.3	248067.8	42647 µg/L	42647 ppb	14:02:20
3	Si 251.611†	295718.8	291702.2	19736 µg/L	19736 ppb	14:02:20
3	Sn 189.927†	-30.2	-62.3	-44.320 µg/L	-44.320 ppb	14:02:46
3	Ti 334.940†	876510.8	865045.7	2121.9 µg/L	2121.9 ppb	14:02:20
3	Tl 190.801†	-48.8	-21.3	-2.0046 µg/L	-2.0046 ppb	14:02:46
3	U 409.014†	-2558.0	-2559.7	-292.45 µg/L	-292.45 ppb	14:02:20
3	V 292.402†	6544.2	6737.1	85.746 µg/L	85.746 ppb	14:02:25
3	Zn 213.857†	23091.0	22151.7	544.96 µg/L	544.96 ppb	14:02:25

Mean Data: 243042002|939704|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1889899.3	101.15	%	0.163				0.16%
Sc RADIAL	56135.3	101	%	0.5				0.51%
Y 371.029	1300671.3	112.96	%	0.186				0.16%
Ag 328.068†	-1097.5	-2.0402	µg/L	0.19322	-2.0402	ppb	0.19322	9.47%
Al 396.153Radial†	104488.2	76768	µg/L	310.9	76768	ppb	310.9	0.41%
As 188.979†	17.0	63.226	µg/L	3.3945	63.226	ppb	3.3945	5.37%
B 249.677†	617.9	-6.3088	µg/L	0.67682	-6.3088	ppb	0.67682	10.73%
Ba 233.527†	25720.7	717.80	µg/L	7.437	717.80	ppb	7.437	1.04%
Be 313.107†	18365.1	10.980	µg/L	0.1308	10.980	ppb	0.1308	1.19%
Ca 317.933Radial†	17668.2	16082	µg/L	40.0	16082	ppb	40.0	0.25%
Cd 226.502†	407.7	-2.3630	µg/L	0.30550	-2.3630	ppb	0.30550	12.93%
Co 228.616†	420.0	16.666	µg/L	0.6938	16.666	ppb	0.6938	4.16%
Cr 267.716†	1894.6	43.822	µg/L	1.2281	43.822	ppb	1.2281	2.80%
Cu 324.752†	5193.8	46.623	µg/L	0.4707	46.623	ppb	0.4707	1.01%
Fe 238.204 Radial†	5149.7	96255	µg/L	749.8	96255	ppb	749.8	0.78%
K 766.490 Radial†	14428.5	9754.9	µg/L	18.95	9754.9	ppb	18.95	0.19%
Mg 279.077 IEC†	1130.8	13907	µg/L	69.5	13907	ppb	69.5	0.50%
Mn 257.610†	820136.9	2864.9	µg/L	16.80	2864.9	ppb	16.80	0.59%
Mo 202.031†	27.7	7.2271	µg/L	0.57370	7.2271	ppb	0.57370	7.94%
Na 589.592 Radial†	4582.2	1980.2	µg/L	1.92	1980.2	ppb	1.92	0.10%

Ni 231.604†	1017.5	58.427	µg/L	1.5684	58.427	ppb	1.5684	2.68%
P 214.914†	605.2	893.04	µg/L	19.748	893.04	ppb	19.748	2.21%
Pb 220.353†	821.1	223.73	µg/L	4.635	223.73	ppb	4.635	2.07%
S 181.975 Axial†	49.4	169.67	µg/L	16.259	169.67	ppb	16.259	9.58%
Sb 206.836†	0.2	7.0159	µg/L	1.16925	7.0159	ppb	1.16925	16.67%
Se 196.026†	-74.5	-65.545	µg/L	6.4727	-65.545	ppb	6.4727	9.88%
SiO2†	249324.3	42863	µg/L	190.2	42863	ppb	190.2	0.44%
Si 251.611†	293201.4	19838	µg/L	90.3	19838	ppb	90.3	0.45%
Sn 189.927†	-63.4	-44.984	µg/L	0.8852	-44.984	ppb	0.8852	1.97%
Sr 421.552†	12647.0	164.50	µg/L	0.500	164.50	ppb	0.500	0.30%
Ti 334.940†	871858.8	2138.7	µg/L	14.53	2138.7	ppb	14.53	0.68%
Tl 190.801†	-26.2	-9.6324	µg/L	6.76061	-9.6324	ppb	6.76061	70.19%
U 409.014†	-2561.4	-292.69	µg/L	1.976	-292.69	ppb	1.976	0.68%
V 292.402†	6775.1	86.228	µg/L	0.4456	86.228	ppb	0.4456	0.52%
Zn 213.857†	22324.2	549.31	µg/L	3.950	549.31	ppb	3.950	0.72%

Sequence No.: 11
Sample ID: 243042003|939704|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 309
Date Collected: 1/11/2010 14:02:55
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 243042003|939704|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56170.2	56170.2	101	%			14:03:27
1	Al 396.153Radial†	120585.6	119327.4	87670	µg/L	87670	ppb	14:03:27
1	Ca 317.933Radial†	28281.4	27790.7	25296	µg/L	25296	ppb	14:03:27
1	Fe 238.204 Radial†	6061.5	5986.4	111890	µg/L	111890	ppb	14:03:48
1	K 766.490 Radial†	18121.4	17413.6	11773	µg/L	11773	ppb	14:03:27
1	Mg 279.077 IEC†	1340.0	1317.7	16206	µg/L	16206	ppb	14:03:48
1	Na 589.592 Radial†	3054.6	2625.8	1134.7	µg/L	1134.7	ppb	14:03:27
1	Sr 421.552†	12366.7	12278.5	159.71	µg/L	159.71	ppb	14:03:27
1	Sc 361.383	1895360.7	1895360.7	101.44	%			14:04:51
1	Y 371.029	1219935.0	1219935.0	105.94	%			14:04:51
1	Ag 328.068†	-1539.5	-1308.0	-2.5124	µg/L	-2.5124	ppb	14:04:57
1	As 188.979†	8.9	13.0	62.539	µg/L	62.539	ppb	14:05:17
1	B 249.677†	1087.7	679.4	-8.8426	µg/L	-8.8426	ppb	14:04:57
1	Ba 233.527†	27712.7	27363.7	763.72	µg/L	763.72	ppb	14:04:57
1	Be 313.107†	16929.9	12543.0	6.8842	µg/L	6.8842	ppb	14:04:57
1	Cd 226.502†	361.7	488.9	-2.2618	µg/L	-2.2618	ppb	14:05:17
1	Co 228.616†	498.1	479.4	17.617	µg/L	17.617	ppb	14:05:17
1	Cr 267.716†	3005.3	3103.6	71.747	µg/L	71.747	ppb	14:04:57
1	Cu 324.752†	13350.4	7226.1	62.867	µg/L	62.867	ppb	14:04:57
1	Mn 257.610†	659480.6	650338.8	2276.2	µg/L	2276.2	ppb	14:04:51
1	Mo 202.031†	104.0	82.3	14.628	µg/L	14.628	ppb	14:05:17
1	Ni 231.604†	1234.4	886.0	50.879	µg/L	50.879	ppb	14:05:17
1	P 214.914†	816.8	540.9	772.01	µg/L	772.01	ppb	14:05:17
1	Pb 220.353†	704.6	613.5	167.55	µg/L	167.55	ppb	14:05:17
1	S 181.975 Axial†	119.4	84.4	298.58	µg/L	298.58	ppb	14:05:17
1	Sb 206.836†	25.2	0.3	10.245	µg/L	10.245	ppb	14:05:17
1	Se 196.026†	-77.4	-90.2	-76.949	µg/L	-76.949	ppb	14:05:17
1	SiO2†	206691.4	200124.1	34405	µg/L	34405	ppb	14:04:51
1	Si 251.611†	239212.2	235455.2	15879	µg/L	15879	ppb	14:04:51
1	Sn 189.927†	-57.0	-88.6	-58.575	µg/L	-58.575	ppb	14:05:17
1	Ti 334.940†	1291238.3	1272250.1	3120.7	µg/L	3120.7	ppb	14:04:51
1	Tl 190.801†	-52.9	-25.3	-4.2141	µg/L	-4.2141	ppb	14:05:17
1	U 409.014†	-1773.3	-1781.4	-212.80	µg/L	-212.80	ppb	14:04:51
1	V 292.402†	9613.2	9750.3	123.69	µg/L	123.69	ppb	14:04:57
1	Zn 213.857†	32153.4	31042.5	769.97	µg/L	769.97	ppb	14:04:57
2	Sc RADIAL	56000.7	56000.7	101	%			14:03:53
2	Al 396.153Radial†	120872.9	119974.0	88145	µg/L	88145	ppb	14:03:53
2	Ca 317.933Radial†	28181.6	27776.4	25283	µg/L	25283	ppb	14:03:53
2	Fe 238.204 Radial†	6100.5	6043.3	112960	µg/L	112960	ppb	14:04:14
2	K 766.490 Radial†	18051.6	17398.6	11763	µg/L	11763	ppb	14:03:53
2	Mg 279.077 IEC†	1346.2	1327.9	16332	µg/L	16332	ppb	14:04:14
2	Na 589.592 Radial†	3016.3	2596.9	1122.2	µg/L	1122.2	ppb	14:03:53
2	Sr 421.552†	12358.7	12307.5	160.09	µg/L	160.09	ppb	14:03:53
2	Sc 361.383	1882706.7	1882706.7	100.77	%			14:05:23
2	Y 371.029	1211196.7	1211196.7	105.19	%			14:05:23
2	Ag 328.068†	-1503.3	-1282.3	-2.1800	µg/L	-2.1800	ppb	14:05:29
2	As 188.979†	10.5	14.6	65.637	µg/L	65.637	ppb	14:05:49
2	B 249.677†	1047.3	646.5	-10.451	µg/L	-10.451	ppb	14:05:29
2	Ba 233.527†	27915.3	27748.4	774.46	µg/L	774.46	ppb	14:05:29
2	Be 313.107†	17003.6	12728.4	7.0015	µg/L	7.0015	ppb	14:05:29
2	Cd 226.502†	378.0	507.5	-1.8989	µg/L	-1.8989	ppb	14:05:49
2	Co 228.616†	498.0	482.5	17.766	µg/L	17.766	ppb	14:05:49
2	Cr 267.716†	3089.8	3207.5	74.141	µg/L	74.141	ppb	14:05:29
2	Cu 324.752†	13427.9	7391.4	64.169	µg/L	64.169	ppb	14:05:29
2	Mn 257.610†	655444.4	650702.7	2277.6	µg/L	2277.6	ppb	14:05:23
2	Mo 202.031†	98.9	77.9	14.130	µg/L	14.130	ppb	14:05:49
2	Ni 231.604†	1239.9	899.7	51.662	µg/L	51.662	ppb	14:05:49
2	P 214.914†	819.0	548.5	783.05	µg/L	783.05	ppb	14:05:49
2	Pb 220.353†	691.1	604.7	165.18	µg/L	165.18	ppb	14:05:49

2	S 181.975 Axial†	122.3	88.0	312.01 µg/L	312.01 ppb	14:05:49
2	Sb 206.836†	30.3	5.6	15.170 µg/L	15.170 ppb	14:05:49
2	Se 196.026†	-78.8	-92.2	-79.042 µg/L	-79.042 ppb	14:05:49
2	SiO2†	205520.6	200331.6	34441 µg/L	34441 ppb	14:05:23
2	Si 251.611†	237957.4	235794.9	15902 µg/L	15902 ppb	14:05:23
2	Sn 189.927†	-59.5	-91.4	-60.229 µg/L	-60.229 ppb	14:05:49
2	Ti 334.940†	1284385.2	1274004.2	3125.0 µg/L	3125.0 ppb	14:05:23
2	Tl 190.801†	-53.2	-26.0	-5.2419 µg/L	-5.2419 ppb	14:05:49
2	U 409.014†	-1794.3	-1814.0	-216.47 µg/L	-216.47 ppb	14:05:23
2	V 292.402†	9665.9	9866.3	125.15 µg/L	125.15 ppb	14:05:29
2	Zn 213.857†	32427.6	31527.6	782.19 µg/L	782.19 ppb	14:05:29
3	Sc RADIAL	56013.2	56013.2	101 %		14:04:19
3	Al 396.153Radial†	121416.0	120486.3	88521 µg/L	88521 ppb	14:04:19
3	Ca 317.933Radial†	28318.3	27905.9	25401 µg/L	25401 ppb	14:04:19
3	Fe 238.204 Radial†	6093.5	6035.0	112800 µg/L	112800 ppb	14:04:40
3	K 766.490 Radial†	18222.4	17564.1	11875 µg/L	11875 ppb	14:04:19
3	Mg 279.077 IEC†	1351.9	1333.2	16398 µg/L	16398 ppb	14:04:40
3	Na 589.592 Radial†	3020.9	2600.8	1124.0 µg/L	1124.0 ppb	14:04:19
3	Sr 421.552†	12425.9	12371.5	160.92 µg/L	160.92 ppb	14:04:19
3	Sc 361.383	1893118.6	1893118.6	101.32 %		14:05:56
3	Y 371.029	1216660.7	1216660.7	105.66 %		14:05:56
3	Ag 328.068†	-1494.6	-1265.5	-2.0685 µg/L	-2.0685 ppb	14:06:01
3	As 188.979†	13.6	17.6	70.604 µg/L	70.604 ppb	14:06:22
3	B 249.677†	1049.1	642.6	-10.555 µg/L	-10.555 ppb	14:06:01
3	Ba 233.527†	27064.5	26756.4	746.77 µg/L	746.77 ppb	14:06:01
3	Be 313.107†	16802.1	12436.7	6.8283 µg/L	6.8283 ppb	14:06:01
3	Cd 226.502†	337.7	465.7	-3.0256 µg/L	-3.0256 ppb	14:06:22
3	Co 228.616†	480.1	462.2	16.821 µg/L	16.821 ppb	14:06:22
3	Cr 267.716†	2934.4	3037.2	70.209 µg/L	70.209 ppb	14:06:01
3	Cu 324.752†	13114.8	7009.2	61.367 µg/L	61.367 ppb	14:06:01
3	Mn 257.610†	652749.7	644465.8	2255.9 µg/L	2255.9 ppb	14:05:56
3	Mo 202.031†	95.7	74.2	13.659 µg/L	13.659 ppb	14:06:22
3	Ni 231.604†	1191.5	845.1	48.527 µg/L	48.527 ppb	14:06:22
3	P 214.914†	799.5	524.7	745.16 µg/L	745.16 ppb	14:06:22
3	Pb 220.353†	669.7	579.9	158.45 µg/L	158.45 ppb	14:06:22
3	S 181.975 Axial†	116.7	81.9	288.77 µg/L	288.77 ppb	14:06:22
3	Sb 206.836†	33.5	8.5	17.810 µg/L	17.810 ppb	14:06:22
3	Se 196.026†	-65.1	-78.2	-64.043 µg/L	-64.043 ppb	14:06:22
3	SiO2†	204916.3	198613.5	34145 µg/L	34145 ppb	14:05:56
3	Si 251.611†	237298.0	233845.3	15771 µg/L	15771 ppb	14:05:56
3	Sn 189.927†	-58.6	-90.2	-59.522 µg/L	-59.522 ppb	14:06:22
3	Ti 334.940†	1276129.1	1258845.9	3087.8 µg/L	3087.8 ppb	14:05:56
3	Tl 190.801†	-55.6	-28.0	-8.8504 µg/L	-8.8504 ppb	14:06:22
3	U 409.014†	-1678.9	-1690.4	-203.24 µg/L	-203.24 ppb	14:05:56
3	V 292.402†	9330.8	9482.9	120.42 µg/L	120.42 ppb	14:06:01
3	Zn 213.857†	31521.9	30456.8	754.63 µg/L	754.63 ppb	14:06:01

Mean Data: 243042003|939704|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1890395.3	101.18	%	0.361				0.36%
Sc RADIAL	56061.3	101	%	0.2				0.17%
Y 371.029	1215930.8	105.60	%	0.383				0.36%
Ag 328.068†	-1285.3	-2.2536	µg/L	0.23094	-2.2536	ppb	0.23094	10.25%
Al 396.153Radial†	119929.3	88112	µg/L	426.7	88112	ppb	426.7	0.48%
As 188.979†	15.1	66.260	µg/L	4.0685	66.260	ppb	4.0685	6.14%
B 249.677†	656.1	-9.9495	µg/L	0.96006	-9.9495	ppb	0.96006	9.65%
Ba 233.527†	27289.5	761.65	µg/L	13.961	761.65	ppb	13.961	1.83%
Be 313.107†	12569.4	6.9047	µg/L	0.08838	6.9047	ppb	0.08838	1.28%
Ca 317.933Radial†	27824.4	25327	µg/L	64.6	25327	ppb	64.6	0.26%
Cd 226.502†	487.4	-2.3954	µg/L	0.57508	-2.3954	ppb	0.57508	24.01%
Co 228.616†	474.7	17.402	µg/L	0.5082	17.402	ppb	0.5082	2.92%
Cr 267.716†	3116.1	72.032	µg/L	1.9816	72.032	ppb	1.9816	2.75%
Cu 324.752†	7208.9	62.801	µg/L	1.4022	62.801	ppb	1.4022	2.23%
Fe 238.204 Radial†	6021.5	112550	µg/L	574.7	112550	ppb	574.7	0.51%
K 766.490 Radial†	17458.8	11804	µg/L	61.9	11804	ppb	61.9	0.52%
Mg 279.077 IEC†	1326.3	16312	µg/L	97.2	16312	ppb	97.2	0.60%
Mn 257.610†	648502.4	2269.9	µg/L	12.15	2269.9	ppb	12.15	0.54%
Mo 202.031†	78.1	14.139	µg/L	0.4849	14.139	ppb	0.4849	3.43%
Na 589.592 Radial†	2607.8	1127.0	µg/L	6.78	1127.0	ppb	6.78	0.60%

Ni 231.604†	876.9	50.356	µg/L	1.6316	50.356	ppb	1.6316	3.24%
P 214.914†	538.0	766.74	µg/L	19.487	766.74	ppb	19.487	2.54%
Pb 220.353†	599.3	163.73	µg/L	4.720	163.73	ppb	4.720	2.88%
S 181.975 Axial†	84.8	299.78	µg/L	11.668	299.78	ppb	11.668	3.89%
Sb 206.836†	4.8	14.408	µg/L	3.8394	14.408	ppb	3.8394	26.65%
Se 196.026†	-86.9	-73.345	µg/L	8.1232	-73.345	ppb	8.1232	11.08%
SiO2†	199689.7	34330	µg/L	161.2	34330	ppb	161.2	0.47%
Si 251.611†	235031.8	15851	µg/L	70.0	15851	ppb	70.0	0.44%
Sn 189.927†	-90.1	-59.442	µg/L	0.8295	-59.442	ppb	0.8295	1.40%
Sr 421.552†	12319.2	160.24	µg/L	0.619	160.24	ppb	0.619	0.39%
Ti 334.940†	1268366.8	3111.2	µg/L	20.35	3111.2	ppb	20.35	0.65%
Tl 190.801†	-26.4	-6.1022	µg/L	2.43490	-6.1022	ppb	2.43490	39.90%
U 409.014†	-1761.9	-210.84	µg/L	6.831	-210.84	ppb	6.831	3.24%
V 292.402†	9699.8	123.09	µg/L	2.424	123.09	ppb	2.424	1.97%
Zn 213.857†	31009.0	768.93	µg/L	13.810	768.93	ppb	13.810	1.80%

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Analysis Begun

Start Time: 1/11/2010 14:29:41 **Plasma On Time: 1/11/2010 07:03:49**
Logged In Analyst: optima **Technique: ICP Continuous**
Spectrometer Model: Optima 4300 DV, S/N 077N1030502Autosampler Model: AS-93plus

Sample Information File: C:\pe\optima1\Sample Information\011110.sif
Batch ID:
Results Data Set: 011110A
Results Library: c:\pe\optima1\Results\Results.mdb

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Method Loaded
Method Name: Gen Eng fast_new Si **Method Last Saved: 1/6/2010 21:39:31**
IEC File: 101509.iec **MSF File:**
Method Description:

Analyte	Calibration Equation	Processing	View	Internal Standard	IEC
Ag 328.068	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Al 396.153Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
As 188.979	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
B 249.677	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ba 233.527	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Be 313.107	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ca 317.933Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
Cd 226.502	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Co 228.616	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cr 267.716	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cu 324.752	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Fe 238.204 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
K 766.490 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
Mg 279.077 IEC	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
Mn 257.610	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Mo 202.031	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Na 589.592 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
Ni 231.604	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
P 214.914	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Pb 220.353	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
S 181.975 Axial	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sb 206.836	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sc 361.383	Lin Thru 0	Peak Area	Axial	n/a	n/a
Sc RADIAL	Lin, Calc Int	Peak Area	Radial	n/a	n/a
Se 196.026	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
SiO2	Lin Thru 0	Peak Area	Axial	Sc 361.383	No
Si 251.611	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sn 189.927	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sr 421.552	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
Ti 334.940	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Tl 190.801	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
U 409.014	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
V 292.402	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y 371.029	Lin, Calc Int	Peak Area	Axial	n/a	n/a
Zn 213.857	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes

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Sequence No.: 1 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 1/11/2010 14:29:57**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	55057.2	55057.2	99.0	%			14:30:43
1	Al 396.153Radial†	6791.5	6831.4	4998.9	µg/L	4998.9	ppb	14:30:43
1	Ca 317.933Radial†	5509.4	5361.6	4880.3	µg/L	4880.3	ppb	14:31:03
1	Fe 238.204 Radial†	268.0	257.4	4828.0	µg/L	4828.0	ppb	14:31:03

1	K 766.490 Radial†	7950.3	7505.5	5074.4 µg/L	5074.4 ppb	14:30:43
1	Mg 279.077 IEC†	394.1	389.4	4843.6 µg/L	4843.6 ppb	14:31:03
1	Na 589.592 Radial†	22733.5	22558.6	9748.7 µg/L	9748.7 ppb	14:30:43
1	Sr 421.552†	36756.1	37154.2	483.27 µg/L	483.27 ppb	14:30:43
1	Sc 361.383	1896505.0	1896505.0	101.51 %		14:32:07
1	Y 371.029	1168184.8	1168184.8	100.21 %		14:32:07
1	Ag 328.068†	55368.7	54756.7	513.28 µg/L	513.28 ppb	14:32:13
1	As 188.979†	300.3	300.1	514.98 µg/L	514.98 ppb	14:32:33
1	B 249.677†	13596.1	13001.6	502.64 µg/L	502.64 ppb	14:32:13
1	Ba 233.527†	18623.5	18392.9	514.25 µg/L	514.25 ppb	14:32:13
1	Be 313.107†	799915.9	783900.9	502.30 µg/L	502.30 ppb	14:32:07
1	Cd 226.502†	18734.5	18588.9	513.02 µg/L	513.02 ppb	14:32:13
1	Co 228.616†	10464.3	10297.5	518.19 µg/L	518.19 ppb	14:32:13
1	Cr 267.716†	22738.8	22542.5	520.27 µg/L	520.27 ppb	14:32:13
1	Cu 324.752†	76750.3	69677.3	508.67 µg/L	508.67 ppb	14:32:13
1	Mn 257.610†	150194.6	148217.4	516.17 µg/L	516.17 ppb	14:32:07
1	Mo 202.031†	4349.2	4264.4	530.45 µg/L	530.45 ppb	14:32:33
1	Ni 231.604†	9484.0	9012.5	517.52 µg/L	517.52 ppb	14:32:13
1	P 214.914†	1896.7	1604.3	2552.0 µg/L	2552.0 ppb	14:32:33
1	Pb 220.353†	2023.1	1912.0	518.50 µg/L	518.50 ppb	14:32:33
1	S 181.975 Axial†	317.6	279.6	1050.1 µg/L	1050.1 ppb	14:32:33
1	Sb 206.836†	601.9	568.5	529.72 µg/L	529.72 ppb	14:32:33
1	Se 196.026†	502.9	481.4	517.49 µg/L	517.49 ppb	14:32:33
1	SiO2†	36643.4	32476.3	5583.2 µg/L	5583.2 ppb	14:32:13
1	Si 251.611†	39372.9	38438.8	2561.3 µg/L	2561.3 ppb	14:32:13
1	Sn 189.927†	1067.1	1018.9	532.36 µg/L	532.36 ppb	14:32:33
1	Ti 334.940†	211666.9	207929.5	509.99 µg/L	509.99 ppb	14:32:07
1	Tl 190.801†	286.2	308.8	495.89 µg/L	495.89 ppb	14:32:33
1	U 409.014†	5082.4	4973.6	530.37 µg/L	530.37 ppb	14:32:13
1	V 292.402†	41819.4	41473.0	518.14 µg/L	518.14 ppb	14:32:13
1	Zn 213.857†	20995.9	20031.4	512.02 µg/L	512.02 ppb	14:32:13
2	Sc RADIAL	55286.9	55286.9	99.4 %		14:31:09
2	Al 396.153Radial†	6845.6	6857.3	5017.9 µg/L	5017.9 ppb	14:31:09
2	Ca 317.933Radial†	5521.1	5350.2	4869.9 µg/L	4869.9 ppb	14:31:29
2	Fe 238.204 Radial†	266.0	254.3	4770.0 µg/L	4770.0 ppb	14:31:29
2	K 766.490 Radial†	8009.9	7532.0	5092.3 µg/L	5092.3 ppb	14:31:09
2	Mg 279.077 IEC†	397.0	390.6	4859.4 µg/L	4859.4 ppb	14:31:29
2	Na 589.592 Radial†	22841.0	22571.3	9754.2 µg/L	9754.2 ppb	14:31:09
2	Sr 421.552†	36906.0	37150.8	483.23 µg/L	483.23 ppb	14:31:09
2	Sc 361.383	1884324.7	1884324.7	100.85 %		14:32:40
2	Y 371.029	1159949.4	1159949.4	99.502 %		14:32:40
2	Ag 328.068†	55019.8	54763.3	513.33 µg/L	513.33 ppb	14:32:46
2	As 188.979†	301.8	303.5	520.88 µg/L	520.88 ppb	14:33:06
2	B 249.677†	13620.4	13112.2	506.94 µg/L	506.94 ppb	14:32:46
2	Ba 233.527†	18378.0	18268.1	510.77 µg/L	510.77 ppb	14:32:46
2	Be 313.107†	797264.6	786366.0	503.88 µg/L	503.88 ppb	14:32:40
2	Cd 226.502†	18578.1	18553.2	512.03 µg/L	512.03 ppb	14:32:46
2	Co 228.616†	10332.2	10233.0	514.95 µg/L	514.95 ppb	14:32:46
2	Cr 267.716†	22542.0	22492.3	519.11 µg/L	519.11 ppb	14:32:46
2	Cu 324.752†	76274.3	69694.1	508.79 µg/L	508.79 ppb	14:32:46
2	Mn 257.610†	149642.1	148626.0	517.58 µg/L	517.58 ppb	14:32:40
2	Mo 202.031†	4311.7	4255.0	529.28 µg/L	529.28 ppb	14:33:06
2	Ni 231.604†	9396.9	8986.5	516.03 µg/L	516.03 ppb	14:32:46
2	P 214.914†	1884.1	1603.9	2551.5 µg/L	2551.5 ppb	14:33:06
2	Pb 220.353†	2002.1	1904.1	516.37 µg/L	516.37 ppb	14:33:06
2	S 181.975 Axial†	317.3	281.4	1056.7 µg/L	1056.7 ppb	14:33:06
2	Sb 206.836†	590.5	560.9	522.69 µg/L	522.69 ppb	14:33:06
2	Se 196.026†	504.5	486.3	522.64 µg/L	522.64 ppb	14:33:06
2	SiO2†	36315.9	32384.9	5567.5 µg/L	5567.5 ppb	14:32:46
2	Si 251.611†	39070.0	38389.2	2558.0 µg/L	2558.0 ppb	14:32:46
2	Sn 189.927†	1058.0	1016.6	531.21 µg/L	531.21 ppb	14:33:06
2	Ti 334.940†	210957.4	208573.9	511.57 µg/L	511.57 ppb	14:32:40
2	Tl 190.801†	286.3	310.7	498.95 µg/L	498.95 ppb	14:33:06
2	U 409.014†	4916.9	4841.8	516.30 µg/L	516.30 ppb	14:32:46
2	V 292.402†	41490.6	41413.3	517.37 µg/L	517.37 ppb	14:32:46
2	Zn 213.857†	20717.5	19889.0	508.37 µg/L	508.37 ppb	14:32:46
3	Sc RADIAL	55009.4	55009.4	98.9 %		14:31:35
3	Al 396.153Radial†	6850.5	6896.9	5050.1 µg/L	5050.1 ppb	14:31:35
3	Ca 317.933Radial†	5532.9	5390.2	4906.3 µg/L	4906.3 ppb	14:31:55
3	Fe 238.204 Radial†	268.2	257.8	4834.2 µg/L	4834.2 ppb	14:31:55
3	K 766.490 Radial†	7994.5	7557.1	5109.2 µg/L	5109.2 ppb	14:31:35

3	Mg 279.077 IEC†	398.2	393.9	4897.6 µg/L	4897.6 ppb	14:31:55
3	Na 589.592 Radial†	22903.9	22750.7	9831.7 µg/L	9831.7 ppb	14:31:35
3	Sr 421.552†	36872.1	37303.7	485.21 µg/L	485.21 ppb	14:31:35
3	Sc 361.383	1896672.4	1896672.4	101.52 %		14:33:13
3	Y 371.029	1169142.0	1169142.0	100.29 %		14:33:13
3	Ag 328.068†	52052.3	51484.9	482.51 µg/L	482.51 ppb	14:33:19
3	As 188.979†	265.5	265.8	456.38 µg/L	456.38 ppb	14:33:40
3	B 249.677†	12788.6	12204.8	471.74 µg/L	471.74 ppb	14:33:19
3	Ba 233.527†	17112.4	16902.7	472.57 µg/L	472.57 ppb	14:33:19
3	Be 313.107†	761275.7	745767.9	477.87 µg/L	477.87 ppb	14:33:13
3	Cd 226.502†	17084.1	16961.5	468.04 µg/L	468.04 ppb	14:33:19
3	Co 228.616†	9492.1	9338.8	469.84 µg/L	469.84 ppb	14:33:19
3	Cr 267.716†	20067.6	19909.2	459.52 µg/L	459.52 ppb	14:33:19
3	Cu 324.752†	70414.4	63429.4	463.10 µg/L	463.10 ppb	14:33:19
3	Mn 257.610†	143218.5	141332.4	492.22 µg/L	492.22 ppb	14:33:13
3	Mo 202.031†	3678.9	3603.7	448.30 µg/L	448.30 ppb	14:33:40
3	Ni 231.604†	8627.1	8167.5	469.00 µg/L	469.00 ppb	14:33:19
3	P 214.914†	1667.3	1378.2	2188.3 µg/L	2188.3 ppb	14:33:40
3	Pb 220.353†	1766.0	1658.6	449.72 µg/L	449.72 ppb	14:33:40
3	S 181.975 Axial†	289.2	251.6	944.65 µg/L	944.65 ppb	14:33:40
3	Sb 206.836†	518.2	485.9	452.85 µg/L	452.85 ppb	14:33:40
3	Se 196.026†	437.4	416.9	448.95 µg/L	448.95 ppb	14:33:40
3	SiO2†	34199.8	30066.0	5168.9 µg/L	5168.9 ppb	14:33:19
3	Si 251.611†	36417.2	35523.9	2369.1 µg/L	2369.1 ppb	14:33:19
3	Sn 189.927†	894.7	849.0	443.82 µg/L	443.82 ppb	14:33:40
3	Ti 334.940†	200042.5	196460.2	481.84 µg/L	481.84 ppb	14:33:13
3	Tl 190.801†	266.2	289.0	464.29 µg/L	464.29 ppb	14:33:40
3	U 409.014†	4520.2	4419.3	471.12 µg/L	471.12 ppb	14:33:19
3	V 292.402†	37822.6	37532.1	468.68 µg/L	468.68 ppb	14:33:19
3	Zn 213.857†	19113.7	18175.5	464.46 µg/L	464.46 ppb	14:33:19

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1892500.7	101.29	%	0.379				0.37%
Sc RADIAL	55117.8	99.1	%	0.27				0.27%
Y 371.029	1165758.7	100.000	%	0.4335				0.43%
Ag 328.068†	53668.3	503.04	µg/L	17.780	503.04	ppb	17.780	3.53%
QC value within limits for Ag 328.068 Recovery = 100.61%								
Al 396.153Radial†	6861.8	5022.3	µg/L	25.91	5022.3	ppb	25.91	0.52%
QC value within limits for Al 396.153Radial Recovery = 100.45%								
As 188.979†	289.8	497.41	µg/L	35.658	497.41	ppb	35.658	7.17%
QC value within limits for As 188.979 Recovery = 99.48%								
B 249.677†	12772.8	493.77	µg/L	19.202	493.77	ppb	19.202	3.89%
QC value within limits for B 249.677 Recovery = 98.75%								
Ba 233.527†	17854.6	499.20	µg/L	23.124	499.20	ppb	23.124	4.63%
QC value within limits for Ba 233.527 Recovery = 99.84%								
Be 313.107†	772011.6	494.68	µg/L	14.584	494.68	ppb	14.584	2.95%
QC value within limits for Be 313.107 Recovery = 98.94%								
Ca 317.933Radial†	5367.4	4885.5	µg/L	18.75	4885.5	ppb	18.75	0.38%
QC value within limits for Ca 317.933Radial Recovery = 97.71%								
Cd 226.502†	18034.5	497.70	µg/L	25.692	497.70	ppb	25.692	5.16%
QC value within limits for Cd 226.502 Recovery = 99.54%								
Co 228.616†	9956.4	500.99	µg/L	27.032	500.99	ppb	27.032	5.40%
QC value within limits for Co 228.616 Recovery = 100.20%								
Cr 267.716†	21648.0	499.63	µg/L	34.743	499.63	ppb	34.743	6.95%
QC value within limits for Cr 267.716 Recovery = 99.93%								
Cu 324.752†	67600.2	493.52	µg/L	26.345	493.52	ppb	26.345	5.34%
QC value within limits for Cu 324.752 Recovery = 98.70%								
Fe 238.204 Radial†	256.5	4810.7	µg/L	35.42	4810.7	ppb	35.42	0.74%
QC value within limits for Fe 238.204 Radial Recovery = 96.21%								
K 766.490 Radial†	7531.6	5092.0	µg/L	17.44	5092.0	ppb	17.44	0.34%
QC value within limits for K 766.490 Radial Recovery = 101.84%								
Mg 279.077 IEC†	391.3	4866.9	µg/L	27.76	4866.9	ppb	27.76	0.57%
QC value within limits for Mg 279.077 IEC Recovery = 97.34%								
Mn 257.610†	146058.6	508.65	µg/L	14.252	508.65	ppb	14.252	2.80%
QC value within limits for Mn 257.610 Recovery = 101.73%								
Mo 202.031†	4041.0	502.68	µg/L	47.096	502.68	ppb	47.096	9.37%
QC value within limits for Mo 202.031 Recovery = 100.54%								
Na 589.592 Radial†	22626.9	9778.2	µg/L	46.42	9778.2	ppb	46.42	0.47%

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   QC value within limits for Na 589.592 Radial  Recovery = 97.78%
Ni 231.604†            8722.2      500.85 µg/L        27.592      500.85 ppb        27.592   5.51%
   QC value within limits for Ni 231.604  Recovery = 100.17%
P 214.914†             1528.8      2430.6 µg/L       209.83      2430.6 ppb        209.83   8.63%
   QC value within limits for P 214.914  Recovery = 97.22%
Pb 220.353†            1824.9      494.86 µg/L        39.108      494.86 ppb        39.108   7.90%
   QC value within limits for Pb 220.353  Recovery = 98.97%
S 181.975 Axial†        270.8      1017.2 µg/L        62.88      1017.2 ppb         62.88   6.18%
   QC value within limits for S 181.975 Axial  Recovery = 101.72%
Sb 206.836†             538.4      501.75 µg/L        42.497      501.75 ppb        42.497   8.47%
   QC value within limits for Sb 206.836  Recovery = 100.35%
Se 196.026†             461.5      496.36 µg/L        41.138      496.36 ppb        41.138   8.29%
   QC value within limits for Se 196.026  Recovery = 99.27%
SiO2†                  31642.4      5439.9 µg/L       234.84      5439.9 ppb        234.84   4.32%
   QC value within limits for SiO2  Recovery = 101.73%
Si 251.611†            37450.6      2496.1 µg/L       110.00      2496.1 ppb        110.00   4.41%
   QC value within limits for Si 251.611  Recovery = 99.85%
Sn 189.927†             961.5      502.46 µg/L        50.792      502.46 ppb        50.792  10.11%
   QC value within limits for Sn 189.927  Recovery = 100.49%
Sr 421.552†            37202.9      483.90 µg/L         1.136      483.90 ppb         1.136   0.23%
   QC value within limits for Sr 421.552  Recovery = 96.78%
Ti 334.940†           204321.2      501.13 µg/L        16.727      501.13 ppb        16.727   3.34%
   QC value within limits for Ti 334.940  Recovery = 100.23%
Tl 190.801†             302.9      486.38 µg/L        19.192      486.38 ppb        19.192   3.95%
   QC value within limits for Tl 190.801  Recovery = 97.28%
U 409.014†             4744.9      505.93 µg/L        30.953      505.93 ppb        30.953   6.12%
   QC value within limits for U 409.014  Recovery = 101.19%
V 292.402†            40139.5      501.40 µg/L        28.334      501.40 ppb        28.334   5.65%
   QC value within limits for V 292.402  Recovery = 100.28%
Zn 213.857†           19365.3      494.95 µg/L        26.469      494.95 ppb        26.469   5.35%
   QC value within limits for Zn 213.857  Recovery = 98.99%
All analyte(s) passed QC.
```

Sequence No.: 2
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 1/11/2010 14:33:49
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	54285.9	54285.9	97.6	%			14:34:21
1	Al 396.153Radial†	38.7	13.0	9.5282	µg/L	9.5282	ppb	14:34:21
1	Ca 317.933Radial†	197.5	0.4	0.3956	µg/L	0.3956	ppb	14:34:42
1	Fe 238.204 Radial†	13.4	0.5	9.1483	µg/L	9.1483	ppb	14:34:42
1	K 766.490 Radial†	574.6	65.8	44.461	µg/L	44.461	ppb	14:34:21
1	Mg 279.077 IEC†	10.1	1.7	21.221	µg/L	21.221	ppb	14:34:42
1	Na 589.592 Radial†	359.0	-29.9	-12.940	µg/L	-12.940	ppb	14:34:21
1	Sr 421.552†	-5.7	32.2	0.4189	µg/L	0.4189	ppb	14:34:21
1	Sc 361.383	1905310.5	1905310.5	101.98	%			14:35:44
1	Y 371.029	1177140.1	1177140.1	100.98	%			14:35:44
1	Ag 328.068†	-234.1	-20.0	-0.1839	µg/L	-0.1839	ppb	14:35:49
1	As 188.979†	-8.7	-4.3	-7.3673	µg/L	-7.3673	ppb	14:36:10
1	B 249.677†	433.2	32.0	1.2372	µg/L	1.2372	ppb	14:35:49
1	Ba 233.527†	-33.0	13.4	0.3737	µg/L	0.3737	ppb	14:36:10
1	Be 313.107†	4128.1	-97.6	-0.0625	µg/L	-0.0625	ppb	14:35:49
1	Cd 226.502†	-129.7	5.3	0.1387	µg/L	0.1387	ppb	14:36:10
1	Co 228.616†	9.0	-2.8	-0.1409	µg/L	-0.1409	ppb	14:36:10
1	Cr 267.716†	-137.2	6.7	0.1537	µg/L	0.1537	ppb	14:35:49
1	Cu 324.752†	5951.9	-97.7	-0.7115	µg/L	-0.7115	ppb	14:35:49
1	Mn 257.610†	-214.4	41.1	0.1442	µg/L	0.1442	ppb	14:35:49
1	Mo 202.031†	20.5	-0.2	-0.0201	µg/L	-0.0201	ppb	14:36:10
1	Ni 231.604†	326.2	-10.9	-0.6274	µg/L	-0.6274	ppb	14:36:10
1	P 214.914†	270.5	1.0	1.6698	µg/L	1.6698	ppb	14:36:10
1	Pb 220.353†	77.7	-4.9	-1.3319	µg/L	-1.3319	ppb	14:36:10
1	S 181.975 Axial†	36.2	2.2	8.2671	µg/L	8.2671	ppb	14:36:10
1	Sb 206.836†	28.5	3.5	3.2221	µg/L	3.2221	ppb	14:36:10
1	Se 196.026†	13.0	-1.2	-1.2401	µg/L	-1.2401	ppb	14:36:10
1	SiO2†	3704.0	8.8	1.5146	µg/L	1.5146	ppb	14:35:49
1	Si 251.611†	368.7	11.7	0.8520	µg/L	0.8520	ppb	14:36:10
1	Sn 189.927†	29.6	-3.4	-1.7624	µg/L	-1.7624	ppb	14:36:10
1	Ti 334.940†	553.9	-53.6	-0.1315	µg/L	-0.1315	ppb	14:35:49
1	Tl 190.801†	-25.6	1.7	2.7795	µg/L	2.7795	ppb	14:36:10
1	U 409.014†	-34.4	-67.1	-7.1781	µg/L	-7.1781	ppb	14:35:49
1	V 292.402†	-262.6	16.6	0.1936	µg/L	0.1936	ppb	14:35:49
1	Zn 213.857†	635.1	-30.2	-0.7765	µg/L	-0.7765	ppb	14:36:10
2	Sc RADIAL	54110.8	54110.8	97.3	%			14:34:47
2	Al 396.153Radial†	14.2	-12.1	-8.8842	µg/L	-8.8842	ppb	14:34:47
2	Ca 317.933Radial†	191.9	-4.6	-4.2228	µg/L	-4.2228	ppb	14:35:08
2	Fe 238.204 Radial†	15.5	2.7	49.618	µg/L	49.618	ppb	14:35:08
2	K 766.490 Radial†	548.1	40.4	27.335	µg/L	27.335	ppb	14:34:47
2	Mg 279.077 IEC†	6.1	-2.3	-28.724	µg/L	-28.724	ppb	14:35:08
2	Na 589.592 Radial†	339.4	-48.9	-21.134	µg/L	-21.134	ppb	14:34:47
2	Sr 421.552†	9.5	47.7	0.6210	µg/L	0.6210	ppb	14:34:47
2	Sc 361.383	1906314.7	1906314.7	102.03	%			14:36:16
2	Y 371.029	1177124.3	1177124.3	100.97	%			14:36:16
2	Ag 328.068†	-317.1	-101.3	-0.9374	µg/L	-0.9374	ppb	14:36:21
2	As 188.979†	-2.8	1.5	2.5789	µg/L	2.5789	ppb	14:36:42
2	B 249.677†	386.3	-14.2	-0.5667	µg/L	-0.5667	ppb	14:36:21
2	Ba 233.527†	-50.3	-3.5	-0.0986	µg/L	-0.0986	ppb	14:36:42
2	Be 313.107†	4192.2	-37.0	-0.0238	µg/L	-0.0238	ppb	14:36:21
2	Cd 226.502†	-122.3	12.6	0.3307	µg/L	0.3307	ppb	14:36:42
2	Co 228.616†	5.3	-6.4	-0.3250	µg/L	-0.3250	ppb	14:36:42
2	Cr 267.716†	-120.5	23.1	0.5322	µg/L	0.5322	ppb	14:36:21
2	Cu 324.752†	5952.0	-100.6	-0.7296	µg/L	-0.7296	ppb	14:36:21
2	Mn 257.610†	-210.2	45.3	0.1639	µg/L	0.1639	ppb	14:36:21
2	Mo 202.031†	19.5	-1.1	-0.1379	µg/L	-0.1379	ppb	14:36:42
2	Ni 231.604†	319.0	-18.1	-1.0406	µg/L	-1.0406	ppb	14:36:42
2	P 214.914†	280.8	10.9	17.762	µg/L	17.762	ppb	14:36:42
2	Pb 220.353†	91.9	9.0	2.4343	µg/L	2.4343	ppb	14:36:42

2	S 181.975 Axial†	30.0	-3.9	-14.753 µg/L	-14.753 ppb		14:36:42
2	Sb 206.836†	27.2	2.1	1.9626 µg/L	1.9626 ppb		14:36:42
2	Se 196.026†	18.7	4.4	4.6704 µg/L	4.6704 ppb		14:36:42
2	SiO2†	3643.4	-52.5	-9.0319 µg/L	-9.0319 ppb		14:36:21
2	Si 251.611†	388.1	30.6	2.1139 µg/L	2.1139 ppb		14:36:42
2	Sn 189.927†	30.3	-2.8	-1.4560 µg/L	-1.4560 ppb		14:36:42
2	Ti 334.940†	713.6	102.7	0.2522 µg/L	0.2522 ppb		14:36:21
2	Tl 190.801†	-31.5	-4.0	-6.3654 µg/L	-6.3654 ppb		14:36:42
2	U 409.014†	-70.0	-102.0	-10.909 µg/L	-10.909 ppb		14:36:21
2	V 292.402†	-268.0	11.4	0.1242 µg/L	0.1242 ppb		14:36:21
2	Zn 213.857†	645.3	-20.5	-0.5347 µg/L	-0.5347 ppb		14:36:42
3	Sc RADIAL	54226.7	54226.7	97.5 %			14:35:13
3	Al 396.153Radial†	12.6	-13.8	-10.123 µg/L	-10.123 ppb		14:35:13
3	Ca 317.933Radial†	195.2	-1.7	-1.5340 µg/L	-1.5340 ppb		14:35:33
3	Fe 238.204 Radial†	15.7	2.8	52.786 µg/L	52.786 ppb		14:35:33
3	K 766.490 Radial†	590.7	82.9	56.028 µg/L	56.028 ppb		14:35:13
3	Mg 279.077 IEC†	11.2	2.8	35.313 µg/L	35.313 ppb		14:35:33
3	Na 589.592 Radial†	325.5	-63.9	-27.635 µg/L	-27.635 ppb		14:35:13
3	Sr 421.552†	10.7	49.0	0.6375 µg/L	0.6375 ppb		14:35:13
3	Sc 361.383	1880646.7	1880646.7	100.66 %			14:36:48
3	Y 371.029	1161103.9	1161103.9	99.601 %			14:36:48
3	Ag 328.068†	-339.5	-127.7	-1.1812 µg/L	-1.1812 ppb		14:36:54
3	As 188.979†	-4.1	0.2	0.3062 µg/L	0.3062 ppb		14:37:14
3	B 249.677†	421.4	25.8	0.9823 µg/L	0.9823 ppb		14:36:54
3	Ba 233.527†	-39.9	6.1	0.1712 µg/L	0.1712 ppb		14:37:14
3	Be 313.107†	4173.2	0.2	0.0001 µg/L	0.0001 ppb		14:36:54
3	Cd 226.502†	-115.7	17.5	0.4649 µg/L	0.4649 ppb		14:37:14
3	Co 228.616†	5.8	-5.8	-0.2926 µg/L	-0.2926 ppb		14:37:14
3	Cr 267.716†	-143.8	-1.7	-0.0388 µg/L	-0.0388 ppb		14:36:54
3	Cu 324.752†	5963.1	-10.0	-0.0681 µg/L	-0.0681 ppb		14:36:54
3	Mn 257.610†	-167.9	84.6	0.3009 µg/L	0.3009 ppb		14:36:54
3	Mo 202.031†	20.7	0.3	0.0402 µg/L	0.0402 ppb		14:37:14
3	Ni 231.604†	325.9	-7.0	-0.4022 µg/L	-0.4022 ppb		14:37:14
3	P 214.914†	262.7	-3.3	-5.4033 µg/L	-5.4033 ppb		14:37:14
3	Pb 220.353†	87.0	5.3	1.4439 µg/L	1.4439 ppb		14:37:14
3	S 181.975 Axial†	29.1	-4.4	-16.540 µg/L	-16.540 ppb		14:37:14
3	Sb 206.836†	19.5	-5.1	-4.7979 µg/L	-4.7979 ppb		14:37:14
3	Se 196.026†	21.1	7.0	7.4533 µg/L	7.4533 ppb		14:37:14
3	SiO2†	3648.0	0.9	0.1466 µg/L	0.1466 ppb		14:36:54
3	Si 251.611†	370.6	18.3	1.2972 µg/L	1.2972 ppb		14:37:14
3	Sn 189.927†	29.0	-3.7	-1.9046 µg/L	-1.9046 ppb		14:37:14
3	Ti 334.940†	610.7	10.0	0.0246 µg/L	0.0246 ppb		14:36:54
3	Tl 190.801†	-29.9	-2.8	-4.5350 µg/L	-4.5350 ppb		14:37:14
3	U 409.014†	-92.1	-124.8	-13.353 µg/L	-13.353 ppb		14:36:54
3	V 292.402†	-244.0	31.7	0.3725 µg/L	0.3725 ppb		14:36:54
3	Zn 213.857†	628.2	-28.8	-0.7563 µg/L	-0.7563 ppb		14:37:14

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1897424.0	101.56	%	0.778				0.77%
Sc RADIAL	54207.8	97.5	%	0.16				0.16%
Y 371.029	1171789.4	100.52	%	0.794				0.79%
Ag 328.068†	-83.0	-0.7675	µg/L	0.51990	-0.7675	ppb	0.51990	67.74%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-4.3	-3.1597	µg/L	11.00546	-3.1597	ppb	11.00546	348.31%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-0.9	-1.4941	µg/L	5.21174	-1.4941	ppb	5.21174	348.83%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	14.5	0.5509	µg/L	0.97627	0.5509	ppb	0.97627	177.21%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	5.3	0.1488	µg/L	0.23695	0.1488	ppb	0.23695	159.25%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-44.8	-0.0287	µg/L	0.03162	-0.0287	ppb	0.03162	110.04%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-2.0	-1.7871	µg/L	2.31959	-1.7871	ppb	2.31959	129.80%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	11.8	0.3114	µg/L	0.16399	0.3114	ppb	0.16399	52.66%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	-5.0	-0.2528	µg/L	0.09831	-0.2528	ppb	0.09831	38.88%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                 9.3      0.2157 µg/L       0.29050      0.2157 ppb        0.29050 134.66%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               -69.4     -0.5031 µg/L       0.37680     -0.5031 ppb        0.37680  74.90%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          2.0      37.184 µg/L       24.3314      37.184 ppb        24.3314  65.43%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          63.0      42.608 µg/L       14.4357      42.608 ppb        14.4357  33.88%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             0.8      9.2701 µg/L      33.64972      9.2701 ppb       33.64972 362.99%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                57.0      0.2030 µg/L       0.08534      0.2030 ppb        0.08534  42.04%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                -0.3     -0.0393 µg/L       0.09057     -0.0393 ppb        0.09057 230.65%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        -47.6     -20.570 µg/L        7.3635     -20.570 ppb         7.3635  35.80%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               -12.0     -0.6901 µg/L       0.32377     -0.6901 ppb        0.32377  46.92%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                  2.9      4.6762 µg/L      11.87172      4.6762 ppb       11.87172 253.87%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                 3.1      0.8488 µg/L       1.95236      0.8488 ppb        1.95236 230.02%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -2.0     -7.6756 µg/L      13.83565     -7.6756 ppb       13.83565 180.26%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 0.1      0.1289 µg/L       4.31297      0.1289 ppb        4.31297 >999.9%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 3.4      3.6279 µg/L       4.43944      3.6279 ppb        4.43944 122.37%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     -14.3     -2.4569 µg/L       5.73504     -2.4569 ppb        5.73504 233.43%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†                20.2      1.4210 µg/L       0.63998      1.4210 ppb        0.63998  45.04%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                -3.3     -1.7077 µg/L       0.22928     -1.7077 ppb        0.22928  13.43%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                43.0      0.5591 µg/L       0.12175      0.5591 ppb        0.12175  21.78%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                19.7      0.0485 µg/L       0.19296      0.0485 ppb        0.19296 398.11%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                -1.7     -2.7070 µg/L       4.83876     -2.7070 ppb        4.83876 178.75%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                -98.0     -10.480 µg/L        3.1095     -10.480 ppb         3.1095  29.67%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 19.9      0.2301 µg/L       0.12810      0.2301 ppb        0.12810  55.68%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               -26.5     -0.6892 µg/L       0.13414     -0.6892 ppb        0.13414  19.46%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 3
Sample ID: 243042004|939704|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 310
Date Collected: 1/11/2010 14:37:23
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 243042004|939704|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	54838.7	54838.7	98.6	%			14:38:02
1	Al 396.153Radial†	138492.9	140380.3	103140	µg/L	103140	ppb	14:38:02
1	Ca 317.933Radial†	18926.0	18985.7	17281	µg/L	17281	ppb	14:38:22
1	Fe 238.204 Radial†	6329.2	6403.4	119690	µg/L	119690	ppb	14:38:22
1	K 766.490 Radial†	20846.0	20611.4	13935	µg/L	13935	ppb	14:38:02
1	Mg 279.077 IEC†	1505.5	1517.7	18680	µg/L	18680	ppb	14:38:22
1	Na 589.592 Radial†	2742.1	2382.4	1029.5	µg/L	1029.5	ppb	14:38:22
1	Sr 421.552†	16779.0	17049.0	221.76	µg/L	221.76	ppb	14:38:02
1	Sc 361.383	1877531.4	1877531.4	100.49	%			14:39:27
1	Y 371.029	1178725.6	1178725.6	101.11	%			14:39:27
1	Ag 328.068†	-1590.8	-1373.5	-1.7919	µg/L	-1.7919	ppb	14:39:33
1	As 188.979†	11.5	15.7	73.729	µg/L	73.729	ppb	14:39:53
1	B 249.677†	1095.5	697.3	-10.597	µg/L	-10.597	ppb	14:39:33
1	Ba 233.527†	48390.0	48199.6	1345.3	µg/L	1345.3	ppb	14:39:33
1	Be 313.107†	19382.9	15142.5	8.2012	µg/L	8.2012	ppb	14:39:33
1	Cd 226.502†	379.7	510.2	-2.6373	µg/L	-2.6373	ppb	14:39:53
1	Co 228.616†	1380.7	1362.4	60.041	µg/L	60.041	ppb	14:39:53
1	Cr 267.716†	5630.5	5744.2	132.79	µg/L	132.79	ppb	14:39:33
1	Cu 324.752†	11777.4	5785.8	53.069	µg/L	53.069	ppb	14:39:33
1	Mn 257.610†	1002162.9	997521.2	3484.8	µg/L	3484.8	ppb	14:39:27
1	Mo 202.031†	13.9	-6.4	3.9072	µg/L	3.9072	ppb	14:39:53
1	Ni 231.604†	1763.5	1424.1	81.774	µg/L	81.774	ppb	14:39:53
1	P 214.914†	867.1	598.5	863.36	µg/L	863.36	ppb	14:39:53
1	Pb 220.353†	617.1	533.0	145.98	µg/L	145.98	ppb	14:39:53
1	S 181.975 Axial†	140.9	107.0	381.82	µg/L	381.82	ppb	14:39:53
1	Sb 206.836†	32.7	8.0	21.171	µg/L	21.171	ppb	14:39:53
1	Se 196.026†	-83.8	-97.3	-85.994	µg/L	-85.994	ppb	14:39:53
1	SiO2†	182419.0	177905.0	30585	µg/L	30585	ppb	14:39:27
1	Si 251.611†	210981.1	209601.2	14089	µg/L	14089	ppb	14:39:27
1	Sn 189.927†	-68.0	-100.1	-67.272	µg/L	-67.272	ppb	14:39:53
1	Ti 334.940†	1665417.5	1656689.5	4064.6	µg/L	4064.6	ppb	14:39:27
1	Tl 190.801†	-53.6	-26.5	8.9904	µg/L	8.9904	ppb	14:39:53
1	U 409.014†	-508.0	-538.9	-80.979	µg/L	-80.979	ppb	14:39:27
1	V 292.402†	17991.2	18177.4	228.39	µg/L	228.39	ppb	14:39:33
1	Zn 213.857†	12897.1	12181.2	281.13	µg/L	281.13	ppb	14:39:33
2	Sc RADIAL	55480.9	55480.9	99.8	%			14:38:28
2	Al 396.153Radial†	140977.8	141245.0	103770	µg/L	103770	ppb	14:38:28
2	Ca 317.933Radial†	18954.9	18792.7	17106	µg/L	17106	ppb	14:38:48
2	Fe 238.204 Radial†	6318.3	6318.3	118100	µg/L	118100	ppb	14:38:48
2	K 766.490 Radial†	21166.1	20687.5	13986	µg/L	13986	ppb	14:38:28
2	Mg 279.077 IEC†	1521.4	1516.0	18660	µg/L	18660	ppb	14:38:48
2	Na 589.592 Radial†	2732.0	2340.1	1011.3	µg/L	1011.3	ppb	14:38:48
2	Sr 421.552†	17064.0	17137.7	222.91	µg/L	222.91	ppb	14:38:28
2	Sc 361.383	1890265.4	1890265.4	101.17	%			14:40:01
2	Y 371.029	1186963.0	1186963.0	101.82	%			14:40:01
2	Ag 328.068†	-1515.6	-1288.5	-1.1500	µg/L	-1.1500	ppb	14:40:07
2	As 188.979†	11.0	15.1	72.248	µg/L	72.248	ppb	14:40:27
2	B 249.677†	1062.4	657.2	-11.651	µg/L	-11.651	ppb	14:40:07
2	Ba 233.527†	48033.9	47523.2	1326.4	µg/L	1326.4	ppb	14:40:07
2	Be 313.107†	19353.6	14983.7	8.0983	µg/L	8.0983	ppb	14:40:07
2	Cd 226.502†	388.3	516.3	-2.2496	µg/L	-2.2496	ppb	14:40:27
2	Co 228.616†	1363.8	1336.4	58.729	µg/L	58.729	ppb	14:40:27
2	Cr 267.716†	5640.2	5716.0	132.14	µg/L	132.14	ppb	14:40:07
2	Cu 324.752†	11684.5	5615.0	51.679	µg/L	51.679	ppb	14:40:07
2	Mn 257.610†	1009271.1	997828.9	3485.7	µg/L	3485.7	ppb	14:40:01
2	Mo 202.031†	22.5	2.0	4.8885	µg/L	4.8885	ppb	14:40:27
2	Ni 231.604†	1748.3	1397.3	80.235	µg/L	80.235	ppb	14:40:27
2	P 214.914†	855.3	581.1	837.25	µg/L	837.25	ppb	14:40:27
2	Pb 220.353†	618.3	530.0	145.22	µg/L	145.22	ppb	14:40:27

2	S 181.975 Axial†	133.7	98.8	351.39 µg/L	351.39 ppb	14:40:27
2	Sb 206.836†	21.1	-3.7	10.247 µg/L	10.247 ppb	14:40:27
2	Se 196.026†	-76.8	-89.9	-78.073 µg/L	-78.073 ppb	14:40:27
2	SiO2†	184153.5	178396.5	30669 µg/L	30669 ppb	14:40:01
2	Si 251.611†	212852.8	210036.8	14118 µg/L	14118 ppb	14:40:01
2	Sn 189.927†	-69.8	-101.4	-67.671 µg/L	-67.671 ppb	14:40:27
2	Ti 334.940†	1677972.3	1657934.3	4067.7 µg/L	4067.7 ppb	14:40:01
2	Tl 190.801†	-61.9	-34.3	-3.4028 µg/L	-3.4028 ppb	14:40:27
2	U 409.014†	-511.6	-539.1	-80.688 µg/L	-80.688 ppb	14:40:01
2	V 292.402†	17837.8	17905.2	224.98 µg/L	224.98 ppb	14:40:07
2	Zn 213.857†	12834.2	12032.6	277.74 µg/L	277.74 ppb	14:40:07
3	Sc RADIAL	54813.0	54813.0	98.6 %		14:38:54
3	Al 396.153Radial†	140012.0	141986.8	104320 µg/L	104320 ppb	14:38:54
3	Ca 317.933Radial†	19052.8	19123.3	17407 µg/L	17407 ppb	14:39:14
3	Fe 238.204 Radial†	6341.0	6418.4	119970 µg/L	119970 ppb	14:39:14
3	K 766.490 Radial†	21035.9	20813.9	14072 µg/L	14072 ppb	14:38:54
3	Mg 279.077 IEC†	1530.0	1543.3	18997 µg/L	18997 ppb	14:39:14
3	Na 589.592 Radial†	2740.3	2381.9	1029.3 µg/L	1029.3 ppb	14:39:14
3	Sr 421.552†	16936.1	17216.2	223.93 µg/L	223.93 ppb	14:38:54
3	Sc 361.383	1880285.6	1880285.6	100.64 %		14:40:35
3	Y 371.029	1178453.9	1178453.9	101.09 %		14:40:35
3	Ag 328.068†	-1533.4	-1314.1	-1.2666 µg/L	-1.2666 ppb	14:40:41
3	As 188.979†	15.7	19.9	80.759 µg/L	80.759 ppb	14:41:01
3	B 249.677†	1084.3	684.6	-11.179 µg/L	-11.179 ppb	14:40:41
3	Ba 233.527†	47103.9	46851.0	1307.6 µg/L	1307.6 ppb	14:40:41
3	Be 313.107†	19013.9	14747.7	7.9742 µg/L	7.9742 ppb	14:40:41
3	Cd 226.502†	351.3	481.5	-3.4789 µg/L	-3.4789 ppb	14:41:01
3	Co 228.616†	1287.9	1268.2	55.449 µg/L	55.449 ppb	14:41:01
3	Cr 267.716†	5468.7	5575.2	128.88 µg/L	128.88 ppb	14:40:41
3	Cu 324.752†	11626.3	5618.5	51.874 µg/L	51.874 ppb	14:40:41
3	Mn 257.610†	987387.3	981378.5	3428.7 µg/L	3428.7 ppb	14:40:35
3	Mo 202.031†	19.4	-0.9	4.5999 µg/L	4.5999 ppb	14:41:01
3	Ni 231.604†	1673.9	1332.5	76.516 µg/L	76.516 ppb	14:41:01
3	P 214.914†	846.8	577.1	828.97 µg/L	828.97 ppb	14:41:01
3	Pb 220.353†	599.2	514.3	140.97 µg/L	140.97 ppb	14:41:01
3	S 181.975 Axial†	129.6	95.4	338.39 µg/L	338.39 ppb	14:41:01
3	Sb 206.836†	29.4	4.7	17.854 µg/L	17.854 ppb	14:41:01
3	Se 196.026†	-59.6	-73.2	-60.208 µg/L	-60.208 ppb	14:41:01
3	SiO2†	180774.3	176004.8	30258 µg/L	30258 ppb	14:40:35
3	Si 251.611†	208826.4	207152.6	13924 µg/L	13924 ppb	14:40:35
3	Sn 189.927†	-57.5	-89.5	-61.706 µg/L	-61.706 ppb	14:41:01
3	Ti 334.940†	1639020.7	1628032.5	3994.3 µg/L	3994.3 ppb	14:40:35
3	Tl 190.801†	-55.2	-28.0	5.9309 µg/L	5.9309 ppb	14:41:01
3	U 409.014†	-556.1	-586.0	-86.069 µg/L	-86.069 ppb	14:40:35
3	V 292.402†	17432.6	17596.1	221.19 µg/L	221.19 ppb	14:40:41
3	Zn 213.857†	12609.6	11876.7	273.23 µg/L	273.23 ppb	14:40:41

Mean Data: 243042004|939704|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1882694.1	100.77	%	0.359				0.36%
Sc RADIAL	55044.2	99.0	%	0.68				0.69%
Y 371.029	1181380.8	101.34	%	0.415				0.41%
Ag 328.068†	-1325.4	-1.4028	µg/L	0.34195	-1.4028	ppb	0.34195	24.38%
Al 396.153Radial†	141204.1	103740	µg/L	590.7	103740	ppb	590.7	0.57%
As 188.979†	16.9	75.579	µg/L	4.5473	75.579	ppb	4.5473	6.02%
B 249.677†	679.7	-11.142	µg/L	0.5283	-11.142	ppb	0.5283	4.74%
Ba 233.527†	47524.6	1326.4	µg/L	18.82	1326.4	ppb	18.82	1.42%
Be 313.107†	14958.0	8.0912	µg/L	0.11369	8.0912	ppb	0.11369	1.41%
Ca 317.933Radial†	18967.3	17265	µg/L	151.2	17265	ppb	151.2	0.88%
Cd 226.502†	502.7	-2.7886	µg/L	0.62846	-2.7886	ppb	0.62846	22.54%
Co 228.616†	1322.3	58.073	µg/L	2.3648	58.073	ppb	2.3648	4.07%
Cr 267.716†	5678.4	131.27	µg/L	2.093	131.27	ppb	2.093	1.59%
Cu 324.752†	5673.1	52.207	µg/L	0.7526	52.207	ppb	0.7526	1.44%
Fe 238.204 Radial†	6380.0	119250	µg/L	1009.2	119250	ppb	1009.2	0.85%
K 766.490 Radial†	20704.3	13998	µg/L	69.2	13998	ppb	69.2	0.49%
Mg 279.077 IEC†	1525.7	18779	µg/L	189.0	18779	ppb	189.0	1.01%
Mn 257.610†	992242.9	3466.4	µg/L	32.65	3466.4	ppb	32.65	0.94%
Mo 202.031†	-1.8	4.4652	µg/L	0.50435	4.4652	ppb	0.50435	11.30%
Na 589.592 Radial†	2368.1	1023.4	µg/L	10.49	1023.4	ppb	10.49	1.03%

Ni 231.604†	1384.6	79.508	µg/L	2.7032	79.508	ppb	2.7032	3.40%
P 214.914†	585.6	843.19	µg/L	17.947	843.19	ppb	17.947	2.13%
Pb 220.353†	525.8	144.06	µg/L	2.702	144.06	ppb	2.702	1.88%
S 181.975 Axial†	100.4	357.20	µg/L	22.288	357.20	ppb	22.288	6.24%
Sb 206.836†	3.0	16.424	µg/L	5.6007	16.424	ppb	5.6007	34.10%
Se 196.026†	-86.8	-74.758	µg/L	13.2086	-74.758	ppb	13.2086	17.67%
SiO2†	177435.4	30504	µg/L	217.1	30504	ppb	217.1	0.71%
Si 251.611†	208930.2	14044	µg/L	104.3	14044	ppb	104.3	0.74%
Sn 189.927†	-97.0	-65.550	µg/L	3.3347	-65.550	ppb	3.3347	5.09%
Sr 421.552†	17134.3	222.87	µg/L	1.088	222.87	ppb	1.088	0.49%
Ti 334.940†	1647552.1	4042.2	µg/L	41.52	4042.2	ppb	41.52	1.03%
Tl 190.801†	-29.6	3.8395	µg/L	6.45586	3.8395	ppb	6.45586	168.14%
U 409.014†	-554.7	-82.579	µg/L	3.0265	-82.579	ppb	3.0265	3.66%
V 292.402†	17892.9	224.85	µg/L	3.598	224.85	ppb	3.598	1.60%
Zn 213.857†	12030.1	277.36	µg/L	3.964	277.36	ppb	3.964	1.43%

Sequence No.: 4
Sample ID: 243042005|939704|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 311
Date Collected: 1/11/2010 14:41:10
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 243042005|939704|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	54992.7	54992.7	98.9	%			14:41:43
1	Al 396.153Radial†	159741.4	161468.9	118630	µg/L	118630	ppb	14:41:43
1	Ca 317.933Radial†	19404.4	19415.7	17673	µg/L	17673	ppb	14:42:03
1	Fe 238.204 Radial†	6683.3	6743.5	126050	µg/L	126050	ppb	14:42:03
1	K 766.490 Radial†	24272.2	24016.0	16237	µg/L	16237	ppb	14:41:43
1	Mg 279.077 IEC†	1498.5	1506.4	18529	µg/L	18529	ppb	14:42:03
1	Na 589.592 Radial†	4815.3	4470.5	1931.9	µg/L	1931.9	ppb	14:42:03
1	Sr 421.552†	18090.1	18326.8	238.38	µg/L	238.38	ppb	14:41:43
1	Sc 361.383	1894078.7	1894078.7	101.38	%			14:43:08
1	Y 371.029	1196579.2	1196579.2	102.64	%			14:43:08
1	Ag 328.068†	-1669.9	-1437.7	-1.6193	µg/L	-1.6193	ppb	14:43:13
1	As 188.979†	15.5	19.5	85.700	µg/L	85.700	ppb	14:43:34
1	B 249.677†	1171.3	762.5	-10.068	µg/L	-10.068	ppb	14:43:13
1	Ba 233.527†	61313.9	60527.3	1689.3	µg/L	1689.3	ppb	14:43:13
1	Be 313.107†	22987.3	18529.5	9.9041	µg/L	9.9041	ppb	14:43:13
1	Cd 226.502†	407.8	534.7	-2.8460	µg/L	-2.8460	ppb	14:43:13
1	Co 228.616†	1382.6	1352.2	56.885	µg/L	56.885	ppb	14:43:34
1	Cr 267.716†	5133.6	5205.1	120.47	µg/L	120.47	ppb	14:43:13
1	Cu 324.752†	12873.3	6764.4	60.784	µg/L	60.784	ppb	14:43:13
1	Mn 257.610†	1221176.6	1204849.2	4206.8	µg/L	4206.8	ppb	14:43:08
1	Mo 202.031†	6.5	-13.9	3.2296	µg/L	3.2296	ppb	14:43:34
1	Ni 231.604†	1784.0	1428.9	82.053	µg/L	82.053	ppb	14:43:34
1	P 214.914†	979.8	702.2	1029.1	µg/L	1029.1	ppb	14:43:34
1	Pb 220.353†	573.9	485.0	133.36	µg/L	133.36	ppb	14:43:34
1	S 181.975 Axial†	190.4	154.5	559.72	µg/L	559.72	ppb	14:43:34
1	Sb 206.836†	22.0	-2.8	15.843	µg/L	15.843	ppb	14:43:34
1	Se 196.026†	-76.4	-89.3	-74.727	µg/L	-74.727	ppb	14:43:34
1	SiO2†	250393.8	243371.1	41840	µg/L	41840	ppb	14:43:08
1	Si 251.611†	290466.0	286172.8	19244	µg/L	19244	ppb	14:43:08
1	Sn 189.927†	-71.8	-103.3	-70.116	µg/L	-70.116	ppb	14:43:34
1	Ti 334.940†	2202513.4	2172015.1	5329.2	µg/L	5329.2	ppb	14:43:08
1	Tl 190.801†	-73.5	-45.7	-7.9372	µg/L	-7.9372	ppb	14:43:34
1	U 409.014†	-417.7	-445.5	-72.199	µg/L	-72.199	ppb	14:43:08
1	V 292.402†	21360.4	21344.5	267.79	µg/L	267.79	ppb	14:43:13
1	Zn 213.857†	12297.8	11477.9	261.24	µg/L	261.24	ppb	14:43:13
2	Sc RADIAL	55252.6	55252.6	99.4	%			14:42:09
2	Al 396.153Radial†	161036.4	162012.3	119030	µg/L	119030	ppb	14:42:09
2	Ca 317.933Radial†	19397.5	19316.4	17582	µg/L	17582	ppb	14:42:29
2	Fe 238.204 Radial†	6671.4	6699.7	125230	µg/L	125230	ppb	14:42:29
2	K 766.490 Radial†	24500.8	24130.7	16314	µg/L	16314	ppb	14:42:09
2	Mg 279.077 IEC†	1491.4	1492.1	18354	µg/L	18354	ppb	14:42:29
2	Na 589.592 Radial†	4836.7	4469.2	1931.3	µg/L	1931.3	ppb	14:42:29
2	Sr 421.552†	18261.1	18412.8	239.50	µg/L	239.50	ppb	14:42:09
2	Sc 361.383	1898013.2	1898013.2	101.59	%			14:43:42
2	Y 371.029	1198963.3	1198963.3	102.85	%			14:43:42
2	Ag 328.068†	-1683.3	-1447.5	-1.7711	µg/L	-1.7711	ppb	14:43:47
2	As 188.979†	16.9	20.9	87.762	µg/L	87.762	ppb	14:44:08
2	B 249.677†	1125.5	715.1	-11.651	µg/L	-11.651	ppb	14:43:47
2	Ba 233.527†	61637.7	60720.6	1694.7	µg/L	1694.7	ppb	14:43:47
2	Be 313.107†	23115.1	18608.3	9.9524	µg/L	9.9524	ppb	14:43:47
2	Cd 226.502†	455.2	580.5	-1.4780	µg/L	-1.4780	ppb	14:43:47
2	Co 228.616†	1374.1	1341.1	56.313	µg/L	56.313	ppb	14:44:08
2	Cr 267.716†	5150.5	5211.2	120.61	µg/L	120.61	ppb	14:43:47
2	Cu 324.752†	12863.7	6728.6	60.449	µg/L	60.449	ppb	14:43:47
2	Mn 257.610†	1224160.0	1205288.9	4208.2	µg/L	4208.2	ppb	14:43:42
2	Mo 202.031†	11.2	-9.2	3.7771	µg/L	3.7771	ppb	14:44:08
2	Ni 231.604†	1767.6	1409.2	80.919	µg/L	80.919	ppb	14:44:08
2	P 214.914†	974.9	695.4	1019.2	µg/L	1019.2	ppb	14:44:08
2	Pb 220.353†	576.7	486.6	133.81	µg/L	133.81	ppb	14:44:08

2	S 181.975 Axial†	199.5	163.1	592.26	µg/L	592.26 ppb	14:44:08
2	Sb 206.836†	22.5	-2.3	16.296	µg/L	16.296 ppb	14:44:08
2	Se 196.026†	-83.0	-95.6	-81.365	µg/L	-81.365 ppb	14:44:08
2	SiO2†	251130.8	243584.5	41876	µg/L	41876 ppb	14:43:42
2	Si 251.611†	291306.6	286406.3	19259	µg/L	19259 ppb	14:43:42
2	Sn 189.927†	-72.5	-103.8	-70.310	µg/L	-70.310 ppb	14:44:08
2	Ti 334.940†	2209594.3	2174481.6	5335.3	µg/L	5335.3 ppb	14:43:42
2	Tl 190.801†	-65.3	-37.4	5.3837	µg/L	5.3837 ppb	14:44:08
2	U 409.014†	-558.5	-583.2	-86.757	µg/L	-86.757 ppb	14:43:42
2	V 292.402†	21445.6	21384.7	268.24	µg/L	268.24 ppb	14:43:47
2	Zn 213.857†	12364.7	11518.6	262.52	µg/L	262.52 ppb	14:43:47
3	Sc RADIAL	55133.7	55133.7	99.2	%		14:42:35
3	Al 396.153Radial†	161717.5	163048.4	119790	µg/L	119790 ppb	14:42:35
3	Ca 317.933Radial†	19298.8	19259.0	17530	µg/L	17530 ppb	14:42:55
3	Fe 238.204 Radial†	6662.8	6705.5	125340	µg/L	125340 ppb	14:42:55
3	K 766.490 Radial†	24634.4	24318.5	16441	µg/L	16441 ppb	14:42:35
3	Mg 279.077 IEC†	1492.0	1495.9	18401	µg/L	18401 ppb	14:42:55
3	Na 589.592 Radial†	4825.6	4468.5	1931.1	µg/L	1931.1 ppb	14:42:55
3	Sr 421.552†	18294.2	18485.8	240.45	µg/L	240.45 ppb	14:42:35
3	Sc 361.383	1883575.5	1883575.5	100.81	%		14:44:16
3	Y 371.029	1191659.8	1191659.8	102.22	%		14:44:16
3	Ag 328.068†	-1643.9	-1421.0	-1.5539	µg/L	-1.5539 ppb	14:44:21
3	As 188.979†	13.9	18.0	82.707	µg/L	82.707 ppb	14:44:42
3	B 249.677†	1157.7	755.5	-10.119	µg/L	-10.119 ppb	14:44:21
3	Ba 233.527†	60302.2	59861.0	1670.7	µg/L	1670.7 ppb	14:44:21
3	Be 313.107†	22579.9	18251.8	9.7527	µg/L	9.7527 ppb	14:44:21
3	Cd 226.502†	431.2	560.1	-2.0419	µg/L	-2.0419 ppb	14:44:21
3	Co 228.616†	1313.8	1291.6	53.988	µg/L	53.988 ppb	14:44:42
3	Cr 267.716†	4972.3	5073.3	117.43	µg/L	117.43 ppb	14:44:21
3	Cu 324.752†	12686.7	6650.1	59.886	µg/L	59.886 ppb	14:44:21
3	Mn 257.610†	1198911.9	1189481.4	4153.3	µg/L	4153.3 ppb	14:44:16
3	Mo 202.031†	10.0	-10.3	3.6460	µg/L	3.6460 ppb	14:44:42
3	Ni 231.604†	1718.0	1373.3	78.861	µg/L	78.861 ppb	14:44:42
3	P 214.914†	947.9	676.0	987.78	µg/L	987.78 ppb	14:44:42
3	Pb 220.353†	546.7	461.2	126.94	µg/L	126.94 ppb	14:44:42
3	S 181.975 Axial†	195.7	160.8	583.57	µg/L	583.57 ppb	14:44:42
3	Sb 206.836†	23.6	-1.1	17.238	µg/L	17.238 ppb	14:44:42
3	Se 196.026†	-75.4	-88.7	-73.920	µg/L	-73.920 ppb	14:44:42
3	SiO2†	246466.1	240852.4	41407	µg/L	41407 ppb	14:44:16
3	Si 251.611†	285814.2	283156.2	19041	µg/L	19041 ppb	14:44:16
3	Sn 189.927†	-78.1	-109.9	-73.514	µg/L	-73.514 ppb	14:44:42
3	Ti 334.940†	2160777.8	2142731.5	5257.4	µg/L	5257.4 ppb	14:44:16
3	Tl 190.801†	-62.0	-34.6	9.2320	µg/L	9.2320 ppb	14:44:42
3	U 409.014†	-338.9	-369.6	-63.945	µg/L	-63.945 ppb	14:44:16
3	V 292.402†	20839.3	20945.1	262.84	µg/L	262.84 ppb	14:44:21
3	Zn 213.857†	12145.0	11394.0	259.29	µg/L	259.29 ppb	14:44:21

Mean Data: 243042005|939704|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	1891889.1	101.26	%	0.399				0.39%
Sc RADIAL	55126.3	99.2	%	0.23				0.24%
Y 371.029	1195734.1	102.57	%	0.319				0.31%
Ag 328.068†	-1435.4	-1.6481	µg/L	0.11142	-1.6481	ppb	0.11142	6.76%
Al 396.153Radial†	162176.6	119150	µg/L	589.6	119150	ppb	589.6	0.49%
As 188.979†	19.5	85.390	µg/L	2.5418	85.390	ppb	2.5418	2.98%
B 249.677†	744.3	-10.613	µg/L	0.8997	-10.613	ppb	0.8997	8.48%
Ba 233.527†	60369.6	1684.9	µg/L	12.59	1684.9	ppb	12.59	0.75%
Be 313.107†	18463.2	9.8697	µg/L	0.10416	9.8697	ppb	0.10416	1.06%
Ca 317.933Radial†	19330.4	17595	µg/L	72.1	17595	ppb	72.1	0.41%
Cd 226.502†	558.4	-2.1220	µg/L	0.68747	-2.1220	ppb	0.68747	32.40%
Co 228.616†	1328.3	55.729	µg/L	1.5341	55.729	ppb	1.5341	2.75%
Cr 267.716†	5163.2	119.50	µg/L	1.801	119.50	ppb	1.801	1.51%
Cu 324.752†	6714.4	60.373	µg/L	0.4537	60.373	ppb	0.4537	0.75%
Fe 238.204 Radial†	6716.2	125540	µg/L	444.6	125540	ppb	444.6	0.35%
K 766.490 Radial†	24155.1	16331	µg/L	103.2	16331	ppb	103.2	0.63%
Mg 279.077 IEC†	1498.2	18428	µg/L	91.1	18428	ppb	91.1	0.49%
Mn 257.610†	1199873.1	4189.4	µg/L	31.33	4189.4	ppb	31.33	0.75%
Mo 202.031†	-11.1	3.5509	µg/L	0.28586	3.5509	ppb	0.28586	8.05%
Na 589.592 Radial†	4469.4	1931.4	µg/L	0.44	1931.4	ppb	0.44	0.02%

Ni 231.604†	1403.8	80.611	µg/L	1.6184	80.611	ppb	1.6184	2.01%
P 214.914†	691.2	1012.0	µg/L	21.58	1012.0	ppb	21.58	2.13%
Pb 220.353†	477.6	131.37	µg/L	3.843	131.37	ppb	3.843	2.93%
S 181.975 Axial†	159.5	578.52	µg/L	16.850	578.52	ppb	16.850	2.91%
Sb 206.836†	-2.1	16.459	µg/L	0.7120	16.459	ppb	0.7120	4.33%
Se 196.026†	-91.2	-76.671	µg/L	4.0857	-76.671	ppb	4.0857	5.33%
SiO2†	242602.7	41708	µg/L	261.2	41708	ppb	261.2	0.63%
Si 251.611†	285245.1	19181	µg/L	121.5	19181	ppb	121.5	0.63%
Sn 189.927†	-105.7	-71.313	µg/L	1.9082	-71.313	ppb	1.9082	2.68%
Sr 421.552†	18408.5	239.44	µg/L	1.035	239.44	ppb	1.035	0.43%
Ti 334.940†	2163076.1	5307.3	µg/L	43.34	5307.3	ppb	43.34	0.82%
Tl 190.801†	-39.2	2.2262	µg/L	9.00957	2.2262	ppb	9.00957	404.71%
U 409.014†	-466.1	-74.300	µg/L	11.5503	-74.300	ppb	11.5503	15.55%
V 292.402†	21224.8	266.29	µg/L	2.997	266.29	ppb	2.997	1.13%
Zn 213.857†	11463.5	261.02	µg/L	1.629	261.02	ppb	1.629	0.62%

Sequence No.: 5
Sample ID: 243042006|939704|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 312
Date Collected: 1/11/2010 14:44:50
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 243042006|939704|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	54785.4	54785.4	98.5	%			14:45:23
1	Al 396.153Radial†	123908.8	125716.7	92364	µg/L	92364	ppb	14:45:23
1	Ca 317.933Radial†	45487.0	45958.7	41833	µg/L	41833	ppb	14:45:23
1	Fe 238.204 Radial†	6113.3	6190.6	115710	µg/L	115710	ppb	14:45:43
1	K 766.490 Radial†	15557.5	15265.1	10320	µg/L	10320	ppb	14:45:23
1	Mg 279.077 IEC†	1449.8	1462.7	18002	µg/L	18002	ppb	14:45:43
1	Na 589.592 Radial†	3260.0	2910.6	1257.8	µg/L	1257.8	ppb	14:45:43
1	Sr 421.552†	17627.6	17926.6	233.17	µg/L	233.17	ppb	14:45:23
1	Sc 361.383	1883092.3	1883092.3	100.79	%			14:46:48
1	Y 371.029	1221584.9	1221584.9	104.79	%			14:46:48
1	Ag 328.068†	-1519.0	-1297.6	-2.0087	µg/L	-2.0087	ppb	14:46:54
1	As 188.979†	16.7	20.8	73.534	µg/L	73.534	ppb	14:47:14
1	B 249.677†	1072.1	670.9	-10.371	µg/L	-10.371	ppb	14:46:54
1	Ba 233.527†	28088.3	27914.4	779.12	µg/L	779.12	ppb	14:46:54
1	Be 313.107†	19104.0	14808.9	8.4172	µg/L	8.4172	ppb	14:46:54
1	Cd 226.502†	371.7	501.2	-2.3019	µg/L	-2.3019	ppb	14:47:14
1	Co 228.616†	523.9	508.2	19.510	µg/L	19.510	ppb	14:47:14
1	Cr 267.716†	10554.8	10613.4	244.70	µg/L	244.70	ppb	14:46:54
1	Cu 324.752†	10692.1	4674.3	44.600	µg/L	44.600	ppb	14:46:54
1	Mn 257.610†	481179.8	477667.8	1676.1	µg/L	1676.1	ppb	14:46:48
1	Mo 202.031†	68.8	48.0	10.516	µg/L	10.516	ppb	14:47:14
1	Ni 231.604†	2740.0	2387.7	137.11	µg/L	137.11	ppb	14:47:14
1	P 214.914†	978.9	707.0	1041.3	µg/L	1041.3	ppb	14:47:14
1	Pb 220.353†	458.2	373.5	102.57	µg/L	102.57	ppb	14:47:14
1	S 181.975 Axial†	142.4	108.0	386.54	µg/L	386.54	ppb	14:47:14
1	Sb 206.836†	35.5	10.7	17.533	µg/L	17.533	ppb	14:47:14
1	Se 196.026†	-83.6	-96.9	-79.472	µg/L	-79.472	ppb	14:47:14
1	SiO2†	130243.0	125601.0	21593	µg/L	21593	ppb	14:46:54
1	Si 251.611†	150856.9	149327.2	10037	µg/L	10037	ppb	14:46:48
1	Sn 189.927†	-65.2	-97.1	-59.644	µg/L	-59.644	ppb	14:47:14
1	Ti 334.940†	1193486.0	1183554.9	2902.1	µg/L	2902.1	ppb	14:46:48
1	Tl 190.801†	-40.1	-12.9	8.3576	µg/L	8.3576	ppb	14:47:14
1	U 409.014†	-957.8	-983.7	-129.24	µg/L	-129.24	ppb	14:46:48
1	V 292.402†	10805.7	10995.2	139.32	µg/L	139.32	ppb	14:46:54
1	Zn 213.857†	20218.7	19407.7	468.36	µg/L	468.36	ppb	14:46:54
2	Sc RADIAL	54850.9	54850.9	98.7	%			14:45:49
2	Al 396.153Radial†	124872.2	126543.1	92971	µg/L	92971	ppb	14:45:49
2	Ca 317.933Radial†	45692.9	46112.3	41973	µg/L	41973	ppb	14:45:49
2	Fe 238.204 Radial†	6119.0	6188.9	115680	µg/L	115680	ppb	14:46:09
2	K 766.490 Radial†	15662.0	15352.2	10379	µg/L	10379	ppb	14:45:49
2	Mg 279.077 IEC†	1450.6	1461.7	17990	µg/L	17990	ppb	14:46:09
2	Na 589.592 Radial†	3276.8	2923.7	1263.5	µg/L	1263.5	ppb	14:46:09
2	Sr 421.552†	17772.8	18052.4	234.81	µg/L	234.81	ppb	14:45:49
2	Sc 361.383	1888067.4	1888067.4	101.05	%			14:47:22
2	Y 371.029	1223712.2	1223712.2	104.97	%			14:47:22
2	Ag 328.068†	-1533.0	-1307.4	-2.1162	µg/L	-2.1162	ppb	14:47:27
2	As 188.979†	15.0	19.1	70.504	µg/L	70.504	ppb	14:47:48
2	B 249.677†	1087.6	683.4	-9.8780	µg/L	-9.8780	ppb	14:47:27
2	Ba 233.527†	27858.9	27613.9	770.73	µg/L	770.73	ppb	14:47:27
2	Be 313.107†	18901.0	14558.1	8.2532	µg/L	8.2532	ppb	14:47:27
2	Cd 226.502†	348.6	477.4	-2.9523	µg/L	-2.9523	ppb	14:47:48
2	Co 228.616†	530.3	513.1	19.739	µg/L	19.739	ppb	14:47:48
2	Cr 267.716†	10422.8	10455.2	241.05	µg/L	241.05	ppb	14:47:27
2	Cu 324.752†	10607.1	4562.3	43.781	µg/L	43.781	ppb	14:47:27
2	Mn 257.610†	483704.2	478907.9	1680.4	µg/L	1680.4	ppb	14:47:22
2	Mo 202.031†	59.6	38.7	9.3589	µg/L	9.3589	ppb	14:47:48
2	Ni 231.604†	2721.3	2362.1	135.64	µg/L	135.64	ppb	14:47:48
2	P 214.914†	965.7	691.3	1016.3	µg/L	1016.3	ppb	14:47:48
2	Pb 220.353†	464.6	378.7	103.99	µg/L	103.99	ppb	14:47:48

2	S 181.975 Axial†	138.7	103.9	371.15	µg/L	371.15 ppb	14:47:48
2	Sb 206.836†	37.0	12.1	18.886	µg/L	18.886 ppb	14:47:48
2	Se 196.026†	-74.0	-87.2	-68.993	µg/L	-68.993 ppb	14:47:48
2	SiO2†	128996.1	124026.6	21322	µg/L	21322 ppb	14:47:27
2	Si 251.611†	152012.7	150076.6	10088	µg/L	10088 ppb	14:47:22
2	Sn 189.927†	-59.4	-91.2	-56.502	µg/L	-56.502 ppb	14:47:48
2	Ti 334.940†	1200351.8	1187228.8	2911.1	µg/L	2911.1 ppb	14:47:22
2	Tl 190.801†	-43.2	-15.9	3.7391	µg/L	3.7391 ppb	14:47:48
2	U 409.014†	-910.3	-934.2	-123.96	µg/L	-123.96 ppb	14:47:22
2	V 292.402†	10675.5	10838.2	137.38	µg/L	137.38 ppb	14:47:27
2	Zn 213.857†	19935.6	19074.6	459.79	µg/L	459.79 ppb	14:47:27
3	Sc RADIAL	55139.4	55139.4	99.2	%		14:46:15
3	Al 396.153Radial†	125818.6	126835.1	93186	µg/L	93186 ppb	14:46:15
3	Ca 317.933Radial†	46027.4	46207.3	42059	µg/L	42059 ppb	14:46:15
3	Fe 238.204 Radial†	6133.7	6171.3	115350	µg/L	115350 ppb	14:46:35
3	K 766.490 Radial†	15773.4	15381.4	10399	µg/L	10399 ppb	14:46:15
3	Mg 279.077 IEC†	1451.7	1455.1	17908	µg/L	17908 ppb	14:46:35
3	Na 589.592 Radial†	3266.6	2896.1	1251.5	µg/L	1251.5 ppb	14:46:35
3	Sr 421.552†	17927.1	18113.7	235.61	µg/L	235.61 ppb	14:46:15
3	Sc 361.383	1889598.3	1889598.3	101.14	%		14:47:56
3	Y 371.029	1224953.2	1224953.2	105.08	%		14:47:56
3	Ag 328.068†	-1611.0	-1383.3	-2.8666	µg/L	-2.8666 ppb	14:48:01
3	As 188.979†	17.4	21.4	74.305	µg/L	74.305 ppb	14:48:21
3	B 249.677†	1094.9	689.7	-9.5275	µg/L	-9.5275 ppb	14:48:01
3	Ba 233.527†	27420.7	27158.3	758.01	µg/L	758.01 ppb	14:48:01
3	Be 313.107†	18724.6	14368.5	8.1498	µg/L	8.1498 ppb	14:48:01
3	Cd 226.502†	337.8	466.4	-3.2178	µg/L	-3.2178 ppb	14:48:21
3	Co 228.616†	494.9	477.7	18.060	µg/L	18.060 ppb	14:48:21
3	Cr 267.716†	10195.1	10221.7	235.67	µg/L	235.67 ppb	14:48:01
3	Cu 324.752†	10535.3	4482.7	43.170	µg/L	43.170 ppb	14:48:01
3	Mn 257.610†	477506.8	472392.3	1657.7	µg/L	1657.7 ppb	14:47:56
3	Mo 202.031†	59.9	39.0	9.3867	µg/L	9.3867 ppb	14:48:21
3	Ni 231.604†	2605.6	2245.5	128.95	µg/L	128.95 ppb	14:48:21
3	P 214.914†	955.9	680.8	999.75	µg/L	999.75 ppb	14:48:21
3	Pb 220.353†	457.5	371.3	102.00	µg/L	102.00 ppb	14:48:21
3	S 181.975 Axial†	137.9	103.1	367.93	µg/L	367.93 ppb	14:48:21
3	Sb 206.836†	49.2	24.2	30.004	µg/L	30.004 ppb	14:48:21
3	Se 196.026†	-68.8	-82.0	-63.372	µg/L	-63.372 ppb	14:48:21
3	SiO2†	127476.6	122420.7	21046	µg/L	21046 ppb	14:48:01
3	Si 251.611†	150316.6	148277.6	9967.2	µg/L	9967.2 ppb	14:47:56
3	Sn 189.927†	-61.1	-92.8	-57.290	µg/L	-57.290 ppb	14:48:21
3	Ti 334.940†	1181066.9	1167198.2	2861.9	µg/L	2861.9 ppb	14:47:56
3	Tl 190.801†	-40.3	-13.0	7.9407	µg/L	7.9407 ppb	14:48:21
3	U 409.014†	-928.9	-951.9	-125.78	µg/L	-125.78 ppb	14:47:56
3	V 292.402†	10464.4	10620.8	134.68	µg/L	134.68 ppb	14:48:01
3	Zn 213.857†	19783.5	18908.3	455.62	µg/L	455.62 ppb	14:48:01

Mean Data: 243042006|939704|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1886919.4	100.99	%	0.182				0.18%
Sc RADIAL	54925.3	98.8	%	0.34				0.34%
Y 371.029	1223416.8	104.95	%	0.146				0.14%
Ag 328.068†	-1329.4	-2.3305	µg/L	0.46734	-2.3305	ppb	0.46734	20.05%
Al 396.153Radial†	126364.9	92840	µg/L	426.2	92840	ppb	426.2	0.46%
As 188.979†	20.5	72.781	µg/L	2.0096	72.781	ppb	2.0096	2.76%
B 249.677†	681.3	-9.9254	µg/L	0.42357	-9.9254	ppb	0.42357	4.27%
Ba 233.527†	27562.2	769.28	µg/L	10.627	769.28	ppb	10.627	1.38%
Be 313.107†	14578.5	8.2734	µg/L	0.13486	8.2734	ppb	0.13486	1.63%
Ca 317.933Radial†	46092.7	41955	µg/L	114.2	41955	ppb	114.2	0.27%
Cd 226.502†	481.7	-2.8240	µg/L	0.47121	-2.8240	ppb	0.47121	16.69%
Co 228.616†	499.7	19.103	µg/L	0.9107	19.103	ppb	0.9107	4.77%
Cr 267.716†	10430.1	240.48	µg/L	4.543	240.48	ppb	4.543	1.89%
Cu 324.752†	4573.1	43.850	µg/L	0.7175	43.850	ppb	0.7175	1.64%
Fe 238.204 Radial†	6183.6	115580	µg/L	199.4	115580	ppb	199.4	0.17%
K 766.490 Radial†	15332.9	10366	µg/L	40.9	10366	ppb	40.9	0.39%
Mg 279.077 IEC†	1459.8	17967	µg/L	50.9	17967	ppb	50.9	0.28%
Mn 257.610†	476322.7	1671.4	µg/L	12.06	1671.4	ppb	12.06	0.72%
Mo 202.031†	41.9	9.7539	µg/L	0.66026	9.7539	ppb	0.66026	6.77%
Na 589.592 Radial†	2910.1	1257.6	µg/L	5.98	1257.6	ppb	5.98	0.48%

Ni 231.604†	2331.8	133.90	µg/L	4.354	133.90	ppb	4.354	3.25%
P 214.914†	693.0	1019.1	µg/L	20.91	1019.1	ppb	20.91	2.05%
Pb 220.353†	374.5	102.85	µg/L	1.024	102.85	ppb	1.024	1.00%
S 181.975 Axial†	105.0	375.20	µg/L	9.945	375.20	ppb	9.945	2.65%
Sb 206.836†	15.7	22.141	µg/L	6.8428	22.141	ppb	6.8428	30.91%
Se 196.026†	-88.7	-70.612	µg/L	8.1714	-70.612	ppb	8.1714	11.57%
SiO2†	124016.1	21321	µg/L	273.4	21321	ppb	273.4	1.28%
Si 251.611†	149227.1	10031	µg/L	60.5	10031	ppb	60.5	0.60%
Sn 189.927†	-93.7	-57.812	µg/L	1.6344	-57.812	ppb	1.6344	2.83%
Sr 421.552†	18030.9	234.53	µg/L	1.241	234.53	ppb	1.241	0.53%
Ti 334.940†	1179327.3	2891.7	µg/L	26.17	2891.7	ppb	26.17	0.91%
Tl 190.801†	-13.9	6.6791	µg/L	2.55464	6.6791	ppb	2.55464	38.25%
U 409.014†	-956.6	-126.33	µg/L	2.686	-126.33	ppb	2.686	2.13%
V 292.402†	10818.1	137.13	µg/L	2.334	137.13	ppb	2.334	1.70%
Zn 213.857†	19130.2	461.26	µg/L	6.496	461.26	ppb	6.496	1.41%

Sequence No.: 6
Sample ID: 243042007|939704|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 313
Date Collected: 1/11/2010 14:48:31
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 243042007|939704|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	54581.8	54581.8	98.2	%			14:49:03
1	Al 396.153Radial†	63007.7	64152.4	47132	µg/L	47132	ppb	14:49:03
1	Ca 317.933Radial†	9833.5	9814.5	8933.5	µg/L	8933.5	ppb	14:49:03
1	Fe 238.204 Radial†	5633.0	5724.5	107000	µg/L	107000	ppb	14:49:23
1	K 766.490 Radial†	7620.5	7239.5	4894.5	µg/L	4894.5	ppb	14:49:03
1	Mg 279.077 IEC†	550.9	552.6	6707.9	µg/L	6707.9	ppb	14:49:23
1	Na 589.592 Radial†	2000.6	1640.2	708.80	µg/L	708.80	ppb	14:49:03
1	Sr 421.552†	6769.3	6933.2	90.181	µg/L	90.181	ppb	14:49:03
1	Sc 361.383	1879045.0	1879045.0	100.57	%			14:50:26
1	Y 371.029	1284848.2	1284848.2	110.22	%			14:50:26
1	Ag 328.068†	-1570.9	-1352.4	-3.5745	µg/L	-3.5745	ppb	14:50:32
1	As 188.979†	18.8	22.9	77.534	µg/L	77.534	ppb	14:50:52
1	B 249.677†	965.7	567.3	-11.647	µg/L	-11.647	ppb	14:50:32
1	Ba 233.527†	10658.3	10643.5	297.13	µg/L	297.13	ppb	14:50:32
1	Be 313.107†	17136.5	12893.4	7.5597	µg/L	7.5597	ppb	14:50:32
1	Cd 226.502†	306.1	436.8	-2.9788	µg/L	-2.9788	ppb	14:50:52
1	Co 228.616†	262.4	249.3	8.6193	µg/L	8.6193	ppb	14:50:52
1	Cr 267.716†	13058.2	13125.2	302.41	µg/L	302.41	ppb	14:50:32
1	Cu 324.752†	8351.9	2370.3	27.004	µg/L	27.004	ppb	14:50:32
1	Mn 257.610†	295877.2	294446.8	1037.7	µg/L	1037.7	ppb	14:50:26
1	Mo 202.031†	209.9	188.4	27.634	µg/L	27.634	ppb	14:50:52
1	Ni 231.604†	2795.5	2448.8	140.62	µg/L	140.62	ppb	14:50:52
1	P 214.914†	934.7	665.1	969.39	µg/L	969.39	ppb	14:50:52
1	Pb 220.353†	357.6	274.5	74.716	µg/L	74.716	ppb	14:50:52
1	S 181.975 Axial†	85.8	52.0	178.65	µg/L	178.65	ppb	14:50:52
1	Sb 206.836†	28.7	4.1	8.8472	µg/L	8.8472	ppb	14:50:52
1	Se 196.026†	-71.8	-85.4	-83.467	µg/L	-83.467	ppb	14:50:52
1	SiO2†	171088.3	166492.5	28623	µg/L	28623	ppb	14:50:26
1	Si 251.611†	197745.1	196271.3	13263	µg/L	13263	ppb	14:50:26
1	Sn 189.927†	-18.8	-51.1	-44.002	µg/L	-44.002	ppb	14:50:52
1	Ti 334.940†	781086.8	776050.3	1904.0	µg/L	1904.0	ppb	14:50:26
1	Tl 190.801†	-50.0	-22.9	-15.139	µg/L	-15.139	ppb	14:50:52
1	U 409.014†	-2577.4	-2596.2	-297.98	µg/L	-297.98	ppb	14:50:26
1	V 292.402†	6418.0	6655.5	85.191	µg/L	85.191	ppb	14:50:32
1	Zn 213.857†	11796.3	11076.3	255.83	µg/L	255.83	ppb	14:50:32
2	Sc RADIAL	54564.1	54564.1	98.1	%			14:49:29
2	Al 396.153Radial†	63633.7	64811.1	47616	µg/L	47616	ppb	14:49:29
2	Ca 317.933Radial†	9903.6	9889.2	9001.5	µg/L	9001.5	ppb	14:49:29
2	Fe 238.204 Radial†	5659.5	5753.4	107540	µg/L	107540	ppb	14:49:49
2	K 766.490 Radial†	7673.4	7295.9	4932.7	µg/L	4932.7	ppb	14:49:29
2	Mg 279.077 IEC†	558.5	560.5	6805.7	µg/L	6805.7	ppb	14:49:49
2	Na 589.592 Radial†	2017.8	1658.4	716.67	µg/L	716.67	ppb	14:49:29
2	Sr 421.552†	6834.5	7001.8	91.074	µg/L	91.074	ppb	14:49:29
2	Sc 361.383	1877301.1	1877301.1	100.48	%			14:50:58
2	Y 371.029	1284253.7	1284253.7	110.16	%			14:50:58
2	Ag 328.068†	-1547.8	-1330.9	-3.3265	µg/L	-3.3265	ppb	14:51:04
2	As 188.979†	27.1	31.2	91.878	µg/L	91.878	ppb	14:51:24
2	B 249.677†	981.1	583.6	-11.188	µg/L	-11.188	ppb	14:51:04
2	Ba 233.527†	10714.5	10709.3	298.97	µg/L	298.97	ppb	14:51:04
2	Be 313.107†	17177.9	12950.4	7.5956	µg/L	7.5956	ppb	14:51:04
2	Cd 226.502†	323.4	454.3	-2.5694	µg/L	-2.5694	ppb	14:51:24
2	Co 228.616†	264.7	251.8	8.7416	µg/L	8.7416	ppb	14:51:24
2	Cr 267.716†	13092.9	13171.7	303.48	µg/L	303.48	ppb	14:51:04
2	Cu 324.752†	8331.6	2357.8	26.961	µg/L	26.961	ppb	14:51:04
2	Mn 257.610†	296230.5	295071.7	1039.9	µg/L	1039.9	ppb	14:50:58
2	Mo 202.031†	216.2	195.0	28.470	µg/L	28.470	ppb	14:51:24
2	Ni 231.604†	2835.7	2491.4	143.07	µg/L	143.07	ppb	14:51:24
2	P 214.914†	936.2	667.4	972.71	µg/L	972.71	ppb	14:51:24
2	Pb 220.353†	357.3	274.5	74.732	µg/L	74.732	ppb	14:51:24

2	S 181.975 Axial†	90.3	56.5	195.70 µg/L	195.70 ppb	14:51:24
2	Sb 206.836†	26.1	1.4	6.3765 µg/L	6.3765 ppb	14:51:24
2	Se 196.026†	-68.6	-82.3	-80.115 µg/L	-80.115 ppb	14:51:24
2	SiO2†	171264.3	166825.7	28680 µg/L	28680 ppb	14:50:58
2	Si 251.611†	197773.4	196482.2	13277 µg/L	13277 ppb	14:50:58
2	Sn 189.927†	-19.2	-51.6	-44.323 µg/L	-44.323 ppb	14:51:24
2	Ti 334.940†	781058.1	776743.3	1905.7 µg/L	1905.7 ppb	14:50:58
2	Tl 190.801†	-44.9	-17.8	-7.0496 µg/L	-7.0496 ppb	14:51:24
2	U 409.014†	-2584.1	-2605.2	-299.05 µg/L	-299.05 ppb	14:50:58
2	V 292.402†	6467.5	6710.8	85.894 µg/L	85.894 ppb	14:51:04
2	Zn 213.857†	11872.0	11162.5	257.89 µg/L	257.89 ppb	14:51:04
3	Sc RADIAL	54464.9	54464.9	98.0 %		14:49:55
3	Al 396.153Radial†	63639.1	64934.8	47707 µg/L	47707 ppb	14:49:55
3	Ca 317.933Radial†	9852.2	9855.1	8970.4 µg/L	8970.4 ppb	14:49:55
3	Fe 238.204 Radial†	5669.5	5774.1	107920 µg/L	107920 ppb	14:50:15
3	K 766.490 Radial†	7647.1	7283.3	4924.1 µg/L	4924.1 ppb	14:49:55
3	Mg 279.077 IEC†	557.9	560.9	6810.1 µg/L	6810.1 ppb	14:50:15
3	Na 589.592 Radial†	2015.9	1660.2	717.45 µg/L	717.45 ppb	14:49:55
3	Sr 421.552†	6836.2	7016.3	91.262 µg/L	91.262 ppb	14:49:55
3	Sc 361.383	1864951.8	1864951.8	99.817 %		14:51:31
3	Y 371.029	1273775.5	1273775.5	109.27 %		14:51:31
3	Ag 328.068†	-1583.1	-1376.4	-3.7261 µg/L	-3.7261 ppb	14:51:36
3	As 188.979†	24.2	28.5	87.385 µg/L	87.385 ppb	14:51:57
3	B 249.677†	971.0	579.9	-11.451 µg/L	-11.451 ppb	14:51:36
3	Ba 233.527†	10568.4	10633.6	296.86 µg/L	296.86 ppb	14:51:36
3	Be 313.107†	16928.8	12814.0	7.5158 µg/L	7.5158 ppb	14:51:36
3	Cd 226.502†	288.5	421.4	-3.5430 µg/L	-3.5430 ppb	14:51:57
3	Co 228.616†	247.2	236.0	7.9900 µg/L	7.9900 ppb	14:51:57
3	Cr 267.716†	12808.1	12972.7	298.90 µg/L	298.90 ppb	14:51:36
3	Cu 324.752†	8416.4	2497.7	28.017 µg/L	28.017 ppb	14:51:36
3	Mn 257.610†	291349.2	292133.8	1029.7 µg/L	1029.7 ppb	14:51:31
3	Mo 202.031†	215.4	195.6	28.562 µg/L	28.562 ppb	14:51:57
3	Ni 231.604†	2711.3	2385.5	136.98 µg/L	136.98 ppb	14:51:57
3	P 214.914†	900.2	637.5	923.64 µg/L	923.64 ppb	14:51:57
3	Pb 220.353†	345.0	264.5	72.027 µg/L	72.027 ppb	14:51:57
3	S 181.975 Axial†	85.0	51.9	178.09 µg/L	178.09 ppb	14:51:57
3	Sb 206.836†	24.8	0.3	5.2937 µg/L	5.2937 ppb	14:51:57
3	Se 196.026†	-70.1	-84.2	-82.213 µg/L	-82.213 ppb	14:51:57
3	SiO2†	169080.5	165766.5	28498 µg/L	28498 ppb	14:51:31
3	Si 251.611†	195174.8	195182.1	13189 µg/L	13189 ppb	14:51:31
3	Sn 189.927†	-12.2	-44.7	-40.805 µg/L	-40.805 ppb	14:51:57
3	Ti 334.940†	767535.3	768343.2	1885.0 µg/L	1885.0 ppb	14:51:31
3	Tl 190.801†	-47.3	-20.5	-11.553 µg/L	-11.553 ppb	14:51:57
3	U 409.014†	-2649.4	-2687.7	-307.93 µg/L	-307.93 ppb	14:51:31
3	V 292.402†	6353.0	6638.7	85.000 µg/L	85.000 ppb	14:51:36
3	Zn 213.857†	11708.0	11076.5	255.60 µg/L	255.60 ppb	14:51:36

Mean Data: 243042007|939704|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1873766.0	100.29	%	0.411				0.41%
Sc RADIAL	54536.9	98.1	%	0.11				0.12%
Y 371.029	1280959.1	109.88	%	0.534				0.49%
Ag 328.068†	-1353.2	-3.5424	µg/L	0.20171	-3.5424	ppb	0.20171	5.69%
Al 396.153Radial†	64632.8	47485	µg/L	309.0	47485	ppb	309.0	0.65%
As 188.979†	27.5	85.599	µg/L	7.3371	85.599	ppb	7.3371	8.57%
B 249.677†	576.9	-11.429	µg/L	0.2306	-11.429	ppb	0.2306	2.02%
Ba 233.527†	10662.1	297.65	µg/L	1.149	297.65	ppb	1.149	0.39%
Be 313.107†	12885.9	7.5570	µg/L	0.03997	7.5570	ppb	0.03997	0.53%
Ca 317.933Radial†	9852.9	8968.5	µg/L	34.06	8968.5	ppb	34.06	0.38%
Cd 226.502†	437.5	-3.0304	µg/L	0.48885	-3.0304	ppb	0.48885	16.13%
Co 228.616†	245.7	8.4503	µg/L	0.40329	8.4503	ppb	0.40329	4.77%
Cr 267.716†	13089.9	301.60	µg/L	2.398	301.60	ppb	2.398	0.80%
Cu 324.752†	2408.6	27.327	µg/L	0.5975	27.327	ppb	0.5975	2.19%
Fe 238.204 Radial†	5750.7	107490	µg/L	465.1	107490	ppb	465.1	0.43%
K 766.490 Radial†	7272.9	4917.1	µg/L	20.01	4917.1	ppb	20.01	0.41%
Mg 279.077 IEC†	558.0	6774.6	µg/L	57.80	6774.6	ppb	57.80	0.85%
Mn 257.610†	293884.1	1035.8	µg/L	5.34	1035.8	ppb	5.34	0.52%
Mo 202.031†	193.0	28.222	µg/L	0.5111	28.222	ppb	0.5111	1.81%
Na 589.592 Radial†	1652.9	714.31	µg/L	4.784	714.31	ppb	4.784	0.67%

Ni 231.604†	2441.9	140.22 µg/L	3.060	140.22 ppb	3.060	2.18%
P 214.914†	656.7	955.25 µg/L	27.423	955.25 ppb	27.423	2.87%
Pb 220.353†	271.1	73.825 µg/L	1.5574	73.825 ppb	1.5574	2.11%
S 181.975 Axial†	53.5	184.15 µg/L	10.010	184.15 ppb	10.010	5.44%
Sb 206.836†	1.9	6.8391 µg/L	1.82135	6.8391 ppb	1.82135	26.63%
Se 196.026†	-84.0	-81.932 µg/L	1.6937	-81.932 ppb	1.6937	2.07%
SiO2†	166361.6	28600 µg/L	93.1	28600 ppb	93.1	0.33%
Si 251.611†	195978.5	13243 µg/L	47.1	13243 ppb	47.1	0.36%
Sn 189.927†	-49.1	-43.043 µg/L	1.9449	-43.043 ppb	1.9449	4.52%
Sr 421.552†	6983.8	90.839 µg/L	0.5775	90.839 ppb	0.5775	0.64%
Ti 334.940†	773712.3	1898.2 µg/L	11.44	1898.2 ppb	11.44	0.60%
Tl 190.801†	-20.4	-11.247 µg/L	4.0534	-11.247 ppb	4.0534	36.04%
U 409.014†	-2629.7	-301.65 µg/L	5.465	-301.65 ppb	5.465	1.81%
V 292.402†	6668.3	85.362 µg/L	0.4712	85.362 ppb	0.4712	0.55%
Zn 213.857†	11105.1	256.44 µg/L	1.264	256.44 ppb	1.264	0.49%

Sequence No.: 7
Sample ID: 243042008|939704|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 314
Date Collected: 1/11/2010 14:52:06
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 243042008|939704|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	55226.3	55226.3	99.3	%			14:52:39
1	Al 396.153Radial†	128913.0	129750.6	95328	µg/L	95328	ppb	14:52:39
1	Ca 317.933Radial†	28961.9	28954.3	26355	µg/L	26355	ppb	14:52:39
1	Fe 238.204 Radial†	5786.6	5812.1	108640	µg/L	108640	ppb	14:52:59
1	K 766.490 Radial†	24216.7	23856.3	16129	µg/L	16129	ppb	14:52:39
1	Mg 279.077 IEC†	1318.6	1318.9	16225	µg/L	16225	ppb	14:52:59
1	Na 589.592 Radial†	4988.1	4623.9	1998.2	µg/L	1998.2	ppb	14:52:39
1	Sr 421.552†	19147.1	19313.5	251.21	µg/L	251.21	ppb	14:52:39
1	Sc 361.383	1895266.0	1895266.0	101.44	%			14:54:04
1	Y 371.029	1195241.6	1195241.6	102.53	%			14:54:04
1	Ag 328.068†	-1242.1	-1015.0	0.7058	µg/L	0.7058	ppb	14:54:10
1	As 188.979†	10.4	14.5	68.598	µg/L	68.598	ppb	14:54:30
1	B 249.677†	1697.0	1280.1	15.476	µg/L	15.476	ppb	14:54:10
1	Ba 233.527†	68569.2	67641.7	1887.7	µg/L	1887.7	ppb	14:54:10
1	Be 313.107†	20498.2	16061.5	8.4835	µg/L	8.4835	ppb	14:54:10
1	Cd 226.502†	716.6	838.8	8.0349	µg/L	8.0349	ppb	14:54:30
1	Co 228.616†	1428.1	1396.2	60.025	µg/L	60.025	ppb	14:54:30
1	Cr 267.716†	8665.5	8683.7	200.49	µg/L	200.49	ppb	14:54:10
1	Cu 324.752†	117026.5	109431.3	808.06	µg/L	808.06	ppb	14:54:10
1	Mn 257.610†	925745.0	912856.3	3188.9	µg/L	3188.9	ppb	14:54:04
1	Mo 202.031†	58.4	37.4	8.9158	µg/L	8.9158	ppb	14:54:30
1	Ni 231.604†	2518.8	2152.3	123.59	µg/L	123.59	ppb	14:54:30
1	P 214.914†	1421.9	1137.4	1656.6	µg/L	1656.6	ppb	14:54:30
1	Pb 220.353†	2223.2	2110.6	572.25	µg/L	572.25	ppb	14:54:30
1	S 181.975 Axial†	371.1	332.5	1232.2	µg/L	1232.2	ppb	14:54:30
1	Sb 206.836†	47.0	21.8	36.419	µg/L	36.419	ppb	14:54:30
1	Se 196.026†	-81.1	-93.9	-75.619	µg/L	-75.619	ppb	14:54:30
1	SiO2†	186255.3	179988.2	30943	µg/L	30943	ppb	14:54:04
1	Si 251.611†	215446.0	212038.2	14223	µg/L	14223	ppb	14:54:04
1	Sn 189.927†	-32.7	-64.6	-45.199	µg/L	-45.199	ppb	14:54:30
1	Ti 334.940†	2023628.5	1994308.3	4892.6	µg/L	4892.6	ppb	14:54:04
1	Tl 190.801†	-63.5	-35.7	-4.0237	µg/L	-4.0237	ppb	14:54:30
1	U 409.014†	-313.7	-342.7	-58.484	µg/L	-58.484	ppb	14:54:04
1	V 292.402†	18570.5	18581.0	233.14	µg/L	233.14	ppb	14:54:10
1	Zn 213.857†	66718.6	65118.6	1648.5	µg/L	1648.5	ppb	14:54:10
2	Sc RADIAL	55269.7	55269.7	99.4	%			14:53:05
2	Al 396.153Radial†	129725.6	130466.1	95854	µg/L	95854	ppb	14:53:05
2	Ca 317.933Radial†	29162.0	29132.7	26518	µg/L	26518	ppb	14:53:05
2	Fe 238.204 Radial†	5769.4	5790.3	108230	µg/L	108230	ppb	14:53:25
2	K 766.490 Radial†	24377.5	23999.0	16225	µg/L	16225	ppb	14:53:05
2	Mg 279.077 IEC†	1320.0	1319.2	16230	µg/L	16230	ppb	14:53:25
2	Na 589.592 Radial†	5013.6	4645.6	2007.6	µg/L	2007.6	ppb	14:53:05
2	Sr 421.552†	19288.2	19440.3	252.86	µg/L	252.86	ppb	14:53:05
2	Sc 361.383	1885289.6	1885289.6	100.91	%			14:54:38
2	Y 371.029	1190243.7	1190243.7	102.10	%			14:54:38
2	Ag 328.068†	-1257.5	-1036.7	0.4802	µg/L	0.4802	ppb	14:54:44
2	As 188.979†	12.0	16.1	71.287	µg/L	71.287	ppb	14:55:04
2	B 249.677†	1637.0	1229.5	13.642	µg/L	13.642	ppb	14:54:44
2	Ba 233.527†	68756.1	68184.6	1902.9	µg/L	1902.9	ppb	14:54:44
2	Be 313.107†	20478.2	16148.7	8.5295	µg/L	8.5295	ppb	14:54:44
2	Cd 226.502†	700.7	826.8	7.7567	µg/L	7.7567	ppb	14:55:04
2	Co 228.616†	1428.7	1404.2	60.371	µg/L	60.371	ppb	14:55:04
2	Cr 267.716†	8648.9	8712.4	201.15	µg/L	201.15	ppb	14:54:44
2	Cu 324.752†	117341.1	110353.6	814.75	µg/L	814.75	ppb	14:54:44
2	Mn 257.610†	925010.3	916957.4	3203.2	µg/L	3203.2	ppb	14:54:38
2	Mo 202.031†	54.8	34.1	8.4948	µg/L	8.4948	ppb	14:55:04
2	Ni 231.604†	2505.4	2152.1	123.58	µg/L	123.58	ppb	14:55:04
2	P 214.914†	1412.6	1135.6	1653.5	µg/L	1653.5	ppb	14:55:04
2	Pb 220.353†	2212.8	2111.8	572.60	µg/L	572.60	ppb	14:55:04

2	S 181.975 Axial†	374.1	337.4	1250.6 µg/L	1250.6 ppb	14:55:04
2	Sb 206.836†	45.5	20.5	35.301 µg/L	35.301 ppb	14:55:04
2	Se 196.026†	-75.2	-88.5	-69.718 µg/L	-69.718 ppb	14:55:04
2	SiO2†	186255.7	180960.2	31110 µg/L	31110 ppb	14:54:38
2	Si 251.611†	215343.9	213060.8	14291 µg/L	14291 ppb	14:54:38
2	Sn 189.927†	-30.0	-62.1	-43.780 µg/L	-43.780 ppb	14:55:04
2	Ti 334.940†	2023993.5	2005226.5	4919.4 µg/L	4919.4 ppb	14:54:38
2	Tl 190.801†	-63.0	-35.6	-3.5351 µg/L	-3.5351 ppb	14:55:04
2	U 409.014†	-371.2	-401.2	-64.674 µg/L	-64.674 ppb	14:54:38
2	V 292.402†	18577.1	18684.4	234.39 µg/L	234.39 ppb	14:54:44
2	Zn 213.857†	66708.7	65456.9	1657.3 µg/L	1657.3 ppb	14:54:44
3	Sc RADIAL	55021.4	55021.4	99.0 %		14:53:31
3	Al 396.153Radial†	129681.4	131010.3	96253 µg/L	96253 ppb	14:53:31
3	Ca 317.933Radial†	28987.4	29088.6	26477 µg/L	26477 ppb	14:53:31
3	Fe 238.204 Radial†	5787.6	5834.8	109060 µg/L	109060 ppb	14:53:51
3	K 766.490 Radial†	24337.1	24068.8	16273 µg/L	16273 ppb	14:53:31
3	Mg 279.077 IEC†	1313.3	1318.4	16219 µg/L	16219 ppb	14:53:51
3	Na 589.592 Radial†	5012.0	4666.8	2016.8 µg/L	2016.8 ppb	14:53:31
3	Sr 421.552†	19199.3	19438.1	252.83 µg/L	252.83 ppb	14:53:31
3	Sc 361.383	1906173.8	1906173.8	102.02 %		14:55:12
3	Y 371.029	1202463.0	1202463.0	103.15 %		14:55:12
3	Ag 328.068†	-1220.4	-986.7	0.9573 µg/L	0.9573 ppb	14:55:17
3	As 188.979†	11.5	15.5	70.234 µg/L	70.234 ppb	14:55:38
3	B 249.677†	1655.4	1229.7	13.388 µg/L	13.388 ppb	14:55:17
3	Ba 233.527†	67245.3	65957.3	1840.7 µg/L	1840.7 ppb	14:55:17
3	Be 313.107†	20004.4	15461.9	8.1248 µg/L	8.1248 ppb	14:55:17
3	Cd 226.502†	660.2	779.5	6.3272 µg/L	6.3272 ppb	14:55:38
3	Co 228.616†	1379.3	1340.3	57.356 µg/L	57.356 ppb	14:55:38
3	Cr 267.716†	8483.1	8456.0	195.23 µg/L	195.23 ppb	14:55:17
3	Cu 324.752†	114871.1	106658.5	787.88 µg/L	787.88 ppb	14:55:17
3	Mn 257.610†	920094.8	902095.9	3151.6 µg/L	3151.6 ppb	14:55:12
3	Mo 202.031†	56.8	35.4	8.6896 µg/L	8.6896 ppb	14:55:38
3	Ni 231.604†	2394.6	2016.2	115.78 µg/L	115.78 ppb	14:55:38
3	P 214.914†	1371.7	1080.2	1566.0 µg/L	1566.0 ppb	14:55:38
3	Pb 220.353†	2145.4	2021.7	548.24 µg/L	548.24 ppb	14:55:38
3	S 181.975 Axial†	360.7	320.3	1186.0 µg/L	1186.0 ppb	14:55:38
3	Sb 206.836†	42.4	17.0	31.697 µg/L	31.697 ppb	14:55:38
3	Se 196.026†	-71.3	-83.8	-64.737 µg/L	-64.737 ppb	14:55:38
3	SiO2†	185865.5	178555.4	30697 µg/L	30697 ppb	14:55:12
3	Si 251.611†	214868.6	210256.9	14104 µg/L	14104 ppb	14:55:12
3	Sn 189.927†	-26.5	-58.4	-41.999 µg/L	-41.999 ppb	14:55:38
3	Ti 334.940†	2006573.6	1966176.1	4823.6 µg/L	4823.6 ppb	14:55:12
3	Tl 190.801†	-59.8	-31.8	1.7581 µg/L	1.7581 ppb	14:55:38
3	U 409.014†	-359.6	-385.9	-63.190 µg/L	-63.190 ppb	14:55:12
3	V 292.402†	18133.9	18048.3	226.54 µg/L	226.54 ppb	14:55:17
3	Zn 213.857†	65730.4	63773.7	1613.7 µg/L	1613.7 ppb	14:55:17

Mean Data: 243042008|939704|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1895576.4	101.46	%	0.559				0.55%
Sc RADIAL	55172.5	99.2	%	0.24				0.24%
Y 371.029	1195982.8	102.59	%	0.527				0.51%
Ag 328.068†	-1012.8	0.7144	µg/L	0.23866	0.7144	ppb	0.23866	33.41%
Al 396.153Radial†	130409.0	95812	µg/L	464.2	95812	ppb	464.2	0.48%
As 188.979†	15.4	70.040	µg/L	1.3551	70.040	ppb	1.3551	1.93%
B 249.677†	1246.4	14.169	µg/L	1.1392	14.169	ppb	1.1392	8.04%
Ba 233.527†	67261.2	1877.1	µg/L	32.41	1877.1	ppb	32.41	1.73%
Be 313.107†	15890.7	8.3793	µg/L	0.22160	8.3793	ppb	0.22160	2.64%
Ca 317.933Radial†	29058.5	26450	µg/L	84.6	26450	ppb	84.6	0.32%
Cd 226.502†	815.1	7.3729	µg/L	0.91628	7.3729	ppb	0.91628	12.43%
Co 228.616†	1380.3	59.251	µg/L	1.6498	59.251	ppb	1.6498	2.78%
Cr 267.716†	8617.4	198.96	µg/L	3.245	198.96	ppb	3.245	1.63%
Cu 324.752†	108814.5	803.57	µg/L	13.992	803.57	ppb	13.992	1.74%
Fe 238.204 Radial†	5812.4	108640	µg/L	416.7	108640	ppb	416.7	0.38%
K 766.490 Radial†	23974.7	16209	µg/L	73.2	16209	ppb	73.2	0.45%
Mg 279.077 IEC†	1318.8	16225	µg/L	5.5	16225	ppb	5.5	0.03%
Mn 257.610†	910636.6	3181.2	µg/L	26.65	3181.2	ppb	26.65	0.84%
Mo 202.031†	35.6	8.7001	µg/L	0.21069	8.7001	ppb	0.21069	2.42%
Na 589.592 Radial†	4645.4	2007.5	µg/L	9.26	2007.5	ppb	9.26	0.46%

Ni 231.604†	2106.9	120.98	µg/L	4.506	120.98	ppb	4.506	3.72%
P 214.914†	1117.8	1625.4	µg/L	51.42	1625.4	ppb	51.42	3.16%
Pb 220.353†	2081.4	564.36	µg/L	13.967	564.36	ppb	13.967	2.47%
S 181.975 Axial†	330.1	1222.9	µg/L	33.29	1222.9	ppb	33.29	2.72%
Sb 206.836†	19.8	34.472	µg/L	2.4677	34.472	ppb	2.4677	7.16%
Se 196.026†	-88.7	-70.025	µg/L	5.4475	-70.025	ppb	5.4475	7.78%
SiO2†	179834.6	30917	µg/L	208.0	30917	ppb	208.0	0.67%
Si 251.611†	211785.3	14206	µg/L	94.7	14206	ppb	94.7	0.67%
Sn 189.927†	-61.7	-43.660	µg/L	1.6032	-43.660	ppb	1.6032	3.67%
Sr 421.552†	19397.3	252.30	µg/L	0.944	252.30	ppb	0.944	0.37%
Ti 334.940†	1988570.3	4878.5	µg/L	49.44	4878.5	ppb	49.44	1.01%
Tl 190.801†	-34.4	-1.9336	µg/L	3.20639	-1.9336	ppb	3.20639	165.83%
U 409.014†	-376.6	-62.116	µg/L	3.2317	-62.116	ppb	3.2317	5.20%
V 292.402†	18437.9	231.36	µg/L	4.215	231.36	ppb	4.215	1.82%
Zn 213.857†	64783.1	1639.8	µg/L	23.03	1639.8	ppb	23.03	1.40%

Sequence No.: 8
Sample ID: 243042009|939704|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 315
Date Collected: 1/11/2010 14:55:48
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 243042009|939704|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	55243.7	55243.7	99.4	%			14:56:20
1	Al 396.153Radial†	140509.6	141380.5	103870	µg/L	103870	ppb	14:56:20
1	Ca 317.933Radial†	47531.9	47633.8	43358	µg/L	43358	ppb	14:56:20
1	Fe 238.204 Radial†	6370.6	6398.1	119590	µg/L	119590	ppb	14:56:41
1	K 766.490 Radial†	16617.6	16201.1	10953	µg/L	10953	ppb	14:56:20
1	Mg 279.077 IEC†	1510.7	1511.7	18606	µg/L	18606	ppb	14:56:41
1	Na 589.592 Radial†	3498.8	3123.5	1349.8	µg/L	1349.8	ppb	14:56:41
1	Sr 421.552†	18441.8	18597.7	241.90	µg/L	241.90	ppb	14:56:20
1	Sc 361.383	1882260.0	1882260.0	100.74	%			14:57:45
1	Y 371.029	1222123.7	1222123.7	104.84	%			14:57:45
1	Ag 328.068†	-1671.7	-1449.8	-3.0607	µg/L	-3.0607	ppb	14:57:51
1	As 188.979†	15.6	19.7	73.448	µg/L	73.448	ppb	14:58:11
1	B 249.677†	1148.4	747.1	-8.6361	µg/L	-8.6361	ppb	14:57:51
1	Ba 233.527†	29584.2	29411.6	820.91	µg/L	820.91	ppb	14:57:51
1	Be 313.107†	19584.0	15293.7	8.6095	µg/L	8.6095	ppb	14:57:51
1	Cd 226.502†	394.4	523.9	-2.1482	µg/L	-2.1482	ppb	14:57:51
1	Co 228.616†	620.8	604.6	23.703	µg/L	23.703	ppb	14:58:11
1	Cr 267.716†	16835.8	16852.6	388.39	µg/L	388.39	ppb	14:57:51
1	Cu 324.752†	11162.5	5145.9	48.393	µg/L	48.393	ppb	14:57:51
1	Mn 257.610†	533939.0	530248.7	1859.5	µg/L	1859.5	ppb	14:57:45
1	Mo 202.031†	97.2	76.3	14.185	µg/L	14.185	ppb	14:58:11
1	Ni 231.604†	3881.2	3521.7	202.23	µg/L	202.23	ppb	14:58:11
1	P 214.914†	1070.4	798.2	1188.6	µg/L	1188.6	ppb	14:58:11
1	Pb 220.353†	477.9	393.3	108.24	µg/L	108.24	ppb	14:58:11
1	S 181.975 Axial†	148.6	114.2	409.19	µg/L	409.19	ppb	14:58:11
1	Sb 206.836†	32.5	7.7	15.194	µg/L	15.194	ppb	14:58:11
1	Se 196.026†	-91.2	-104.5	-86.320	µg/L	-86.320	ppb	14:58:11
1	SiO2†	239999.7	234604.5	40333	µg/L	40333	ppb	14:57:45
1	Si 251.611†	278472.4	276066.8	18635	µg/L	18635	ppb	14:57:45
1	Sn 189.927†	-83.0	-114.8	-69.131	µg/L	-69.131	ppb	14:58:11
1	Ti 334.940†	1324409.3	1314035.4	3222.2	µg/L	3222.2	ppb	14:57:45
1	Tl 190.801†	-44.1	-17.0	5.9653	µg/L	5.9653	ppb	14:58:11
1	U 409.014†	-952.5	-978.9	-129.54	µg/L	-129.54	ppb	14:57:45
1	V 292.402†	11487.9	11677.2	147.90	µg/L	147.90	ppb	14:57:51
1	Zn 213.857†	19581.9	18784.4	450.88	µg/L	450.88	ppb	14:57:51
2	Sc RADIAL	55071.4	55071.4	99.1	%			14:56:46
2	Al 396.153Radial†	141687.4	143011.9	105070	µg/L	105070	ppb	14:56:46
2	Ca 317.933Radial†	47541.7	47793.3	43503	µg/L	43503	ppb	14:56:46
2	Fe 238.204 Radial†	6415.4	6463.3	120810	µg/L	120810	ppb	14:57:07
2	K 766.490 Radial†	16685.7	16322.1	11035	µg/L	11035	ppb	14:56:46
2	Mg 279.077 IEC†	1523.3	1529.3	18822	µg/L	18822	ppb	14:57:07
2	Na 589.592 Radial†	3524.5	3160.5	1365.8	µg/L	1365.8	ppb	14:57:07
2	Sr 421.552†	18506.9	18721.4	243.51	µg/L	243.51	ppb	14:56:46
2	Sc 361.383	1879937.7	1879937.7	100.62	%			14:58:19
2	Y 371.029	1222208.2	1222208.2	104.84	%			14:58:19
2	Ag 328.068†	-1625.3	-1405.8	-2.5591	µg/L	-2.5591	ppb	14:58:25
2	As 188.979†	20.5	24.6	82.159	µg/L	82.159	ppb	14:58:45
2	B 249.677†	1139.8	739.9	-9.2966	µg/L	-9.2966	ppb	14:58:25
2	Ba 233.527†	29468.4	29332.7	818.70	µg/L	818.70	ppb	14:58:25
2	Be 313.107†	19456.9	15191.4	8.5441	µg/L	8.5441	ppb	14:58:25
2	Cd 226.502†	385.5	515.5	-2.5502	µg/L	-2.5502	ppb	14:58:25
2	Co 228.616†	625.7	610.2	23.978	µg/L	23.978	ppb	14:58:45
2	Cr 267.716†	16810.4	16848.1	388.28	µg/L	388.28	ppb	14:58:25
2	Cu 324.752†	11119.6	5117.0	48.292	µg/L	48.292	ppb	14:58:25
2	Mn 257.610†	533104.8	530074.3	1859.0	µg/L	1859.0	ppb	14:58:19
2	Mo 202.031†	80.0	59.3	12.122	µg/L	12.122	ppb	14:58:45
2	Ni 231.604†	3910.3	3555.4	204.17	µg/L	204.17	ppb	14:58:45
2	P 214.914†	1069.1	798.3	1187.7	µg/L	1187.7	ppb	14:58:45
2	Pb 220.353†	469.8	385.8	106.23	µg/L	106.23	ppb	14:58:45

2	S 181.975 Axial†	152.6	118.3	424.40	µg/L	424.40 ppb	14:58:45
2	Sb 206.836†	33.6	8.9	16.297	µg/L	16.297 ppb	14:58:45
2	Se 196.026†	-75.2	-88.7	-69.473	µg/L	-69.473 ppb	14:58:45
2	SiO2†	239558.7	234460.5	40308	µg/L	40308 ppb	14:58:19
2	Si 251.611†	278066.9	276005.3	18631	µg/L	18631 ppb	14:58:19
2	Sn 189.927†	-86.4	-118.3	-71.099	µg/L	-71.099 ppb	14:58:45
2	Ti 334.940†	1322555.5	1313816.9	3221.6	µg/L	3221.6 ppb	14:58:19
2	Tl 190.801†	-47.2	-20.1	1.1056	µg/L	1.1056 ppb	14:58:45
2	U 409.014†	-978.0	-1005.4	-132.61	µg/L	-132.61 ppb	14:58:19
2	V 292.402†	11427.3	11631.0	147.35	µg/L	147.35 ppb	14:58:25
2	Zn 213.857†	19609.0	18835.3	451.86	µg/L	451.86 ppb	14:58:25
3	Sc RADIAL	55784.9	55784.9	100	%		14:57:12
3	Al 396.153Radial†	142661.5	142153.1	104440	µg/L	104440 ppb	14:57:12
3	Ca 317.933Radial†	48081.2	47717.1	43434	µg/L	43434 ppb	14:57:12
3	Fe 238.204 Radial†	6423.1	6388.2	119400	µg/L	119400 ppb	14:57:33
3	K 766.490 Radial†	16840.1	16260.5	10993	µg/L	10993 ppb	14:57:12
3	Mg 279.077 IEC†	1540.9	1527.1	18797	µg/L	18797 ppb	14:57:33
3	Na 589.592 Radial†	3523.6	3114.1	1345.7	µg/L	1345.7 ppb	14:57:33
3	Sr 421.552†	18672.2	18647.2	242.55	µg/L	242.55 ppb	14:57:12
3	Sc 361.383	1885690.0	1885690.0	100.93	%		14:58:53
3	Y 371.029	1222907.3	1222907.3	104.90	%		14:58:53
3	Ag 328.068†	-1680.5	-1455.5	-3.1465	µg/L	-3.1465 ppb	14:58:59
3	As 188.979†	14.0	18.1	70.460	µg/L	70.460 ppb	14:59:19
3	B 249.677†	1188.3	784.6	-7.1249	µg/L	-7.1249 ppb	14:58:59
3	Ba 233.527†	29060.0	28838.8	804.92	µg/L	804.92 ppb	14:58:59
3	Be 313.107†	19259.8	14937.1	8.4005	µg/L	8.4005 ppb	14:58:59
3	Cd 226.502†	383.2	512.1	-2.4545	µg/L	-2.4545 ppb	14:58:59
3	Co 228.616†	589.8	572.7	22.203	µg/L	22.203 ppb	14:59:19
3	Cr 267.716†	16511.8	16501.2	380.29	µg/L	380.29 ppb	14:58:59
3	Cu 324.752†	11085.7	5049.8	47.674	µg/L	47.674 ppb	14:58:59
3	Mn 257.610†	527619.6	523023.2	1834.3	µg/L	1834.3 ppb	14:58:53
3	Mo 202.031†	79.1	58.1	11.921	µg/L	11.921 ppb	14:59:19
3	Ni 231.604†	3722.5	3357.5	192.80	µg/L	192.80 ppb	14:59:19
3	P 214.914†	1039.6	765.7	1136.5	µg/L	1136.5 ppb	14:59:19
3	Pb 220.353†	451.2	365.9	100.84	µg/L	100.84 ppb	14:59:19
3	S 181.975 Axial†	156.1	121.4	436.16	µg/L	436.16 ppb	14:59:19
3	Sb 206.836†	31.3	6.5	13.896	µg/L	13.896 ppb	14:59:19
3	Se 196.026†	-80.1	-93.3	-74.479	µg/L	-74.479 ppb	14:59:19
3	SiO2†	237736.6	231928.9	39873	µg/L	39873 ppb	14:58:53
3	Si 251.611†	275827.0	272942.9	18425	µg/L	18425 ppb	14:58:53
3	Sn 189.927†	-66.8	-98.7	-60.609	µg/L	-60.609 ppb	14:59:19
3	Ti 334.940†	1305022.4	1292435.3	3169.2	µg/L	3169.2 ppb	14:58:53
3	Tl 190.801†	-37.5	-10.3	16.214	µg/L	16.214 ppb	14:59:19
3	U 409.014†	-923.5	-948.4	-126.25	µg/L	-126.25 ppb	14:58:53
3	V 292.402†	11301.1	11471.3	145.34	µg/L	145.34 ppb	14:58:59
3	Zn 213.857†	19390.6	18559.5	445.18	µg/L	445.18 ppb	14:58:59

Mean Data: 243042009|939704|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1882629.3	100.76	%	0.155				0.15%
Sc RADIAL	55366.7	99.6	%	0.67				0.67%
Y 371.029	1222413.0	104.86	%	0.037				0.04%
Ag 328.068†	-1437.0	-2.9221	µg/L	0.31730	-2.9221	ppb	0.31730	10.86%
Al 396.153Radial†	142181.8	104460	µg/L	599.6	104460	ppb	599.6	0.57%
As 188.979†	20.8	75.356	µg/L	6.0786	75.356	ppb	6.0786	8.07%
B 249.677†	757.2	-8.3525	µg/L	1.11327	-8.3525	ppb	1.11327	13.33%
Ba 233.527†	29194.4	814.84	µg/L	8.665	814.84	ppb	8.665	1.06%
Be 313.107†	15140.7	8.5180	µg/L	0.10687	8.5180	ppb	0.10687	1.25%
Ca 317.933Radial†	47714.7	43431	µg/L	72.6	43431	ppb	72.6	0.17%
Cd 226.502†	517.2	-2.3843	µg/L	0.21000	-2.3843	ppb	0.21000	8.81%
Co 228.616†	595.9	23.295	µg/L	0.9551	23.295	ppb	0.9551	4.10%
Cr 267.716†	16734.0	385.65	µg/L	4.645	385.65	ppb	4.645	1.20%
Cu 324.752†	5104.2	48.120	µg/L	0.3891	48.120	ppb	0.3891	0.81%
Fe 238.204 Radial†	6416.5	119930	µg/L	763.3	119930	ppb	763.3	0.64%
K 766.490 Radial†	16261.2	10994	µg/L	40.9	10994	ppb	40.9	0.37%
Mg 279.077 IEC†	1522.7	18741	µg/L	118.4	18741	ppb	118.4	0.63%
Mn 257.610†	527782.1	1850.9	µg/L	14.39	1850.9	ppb	14.39	0.78%
Mo 202.031†	64.6	12.743	µg/L	1.2530	12.743	ppb	1.2530	9.83%
Na 589.592 Radial†	3132.7	1353.8	µg/L	10.60	1353.8	ppb	10.60	0.78%

Ni 231.604†	3478.2	199.73	µg/L	6.080	199.73	ppb	6.080	3.04%
P 214.914†	787.4	1170.9	µg/L	29.82	1170.9	ppb	29.82	2.55%
Pb 220.353†	381.7	105.10	µg/L	3.827	105.10	ppb	3.827	3.64%
S 181.975 Axial†	118.0	423.25	µg/L	13.518	423.25	ppb	13.518	3.19%
Sb 206.836†	7.7	15.129	µg/L	1.2021	15.129	ppb	1.2021	7.95%
Se 196.026†	-95.5	-76.757	µg/L	8.6516	-76.757	ppb	8.6516	11.27%
SiO2†	233664.7	40171	µg/L	258.7	40171	ppb	258.7	0.64%
Si 251.611†	275005.0	18564	µg/L	120.4	18564	ppb	120.4	0.65%
Sn 189.927†	-110.6	-66.946	µg/L	5.5755	-66.946	ppb	5.5755	8.33%
Sr 421.552†	18655.4	242.65	µg/L	0.810	242.65	ppb	0.810	0.33%
Ti 334.940†	1306762.5	3204.3	µg/L	30.45	3204.3	ppb	30.45	0.95%
Tl 190.801†	-15.8	7.7616	µg/L	7.71259	7.7616	ppb	7.71259	99.37%
U 409.014†	-977.5	-129.47	µg/L	3.177	-129.47	ppb	3.177	2.45%
V 292.402†	11593.2	146.86	µg/L	1.349	146.86	ppb	1.349	0.92%
Zn 213.857†	18726.4	449.31	µg/L	3.605	449.31	ppb	3.605	0.80%

Sequence No.: 9
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 1/11/2010 14:59:28
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	55062.3	55062.3	99.0	%			15:00:05
1	Al 396.153Radial†	6966.2	7007.0	5128.0	µg/L	5128.0	ppb	15:00:05
1	Ca 317.933Radial†	5544.5	5396.6	4912.1	µg/L	4912.1	ppb	15:00:26
1	Fe 238.204 Radial†	269.6	258.9	4856.5	µg/L	4856.5	ppb	15:00:26
1	K 766.490 Radial†	8082.5	7638.2	5164.1	µg/L	5164.1	ppb	15:00:05
1	Mg 279.077 IEC†	390.5	385.7	4797.9	µg/L	4797.9	ppb	15:00:26
1	Na 589.592 Radial†	22964.9	22790.1	9848.8	µg/L	9848.8	ppb	15:00:05
1	Sr 421.552†	36855.8	37251.5	484.54	µg/L	484.54	ppb	15:00:05
1	Sc 361.383	1902590.3	1902590.3	101.83	%			15:01:29
1	Y 371.029	1171360.8	1171360.8	100.48	%			15:01:29
1	Ag 328.068†	54726.6	53951.6	505.73	µg/L	505.73	ppb	15:01:35
1	As 188.979†	304.3	303.1	520.15	µg/L	520.15	ppb	15:01:55
1	B 249.677†	13418.0	12783.8	494.18	µg/L	494.18	ppb	15:01:35
1	Ba 233.527†	18263.0	17980.3	502.72	µg/L	502.72	ppb	15:01:35
1	Be 313.107†	799186.7	780664.3	500.22	µg/L	500.22	ppb	15:01:29
1	Cd 226.502†	18367.7	18169.7	501.43	µg/L	501.43	ppb	15:01:35
1	Co 228.616†	10218.4	10023.0	504.38	µg/L	504.38	ppb	15:01:35
1	Cr 267.716†	22320.6	22060.2	509.14	µg/L	509.14	ppb	15:01:35
1	Cu 324.752†	75891.8	68592.4	500.76	µg/L	500.76	ppb	15:01:35
1	Mn 257.610†	150454.6	147999.5	515.41	µg/L	515.41	ppb	15:01:29
1	Mo 202.031†	4345.5	4247.1	528.30	µg/L	528.30	ppb	15:01:55
1	Ni 231.604†	9274.5	8776.9	503.99	µg/L	503.99	ppb	15:01:35
1	P 214.914†	1885.7	1587.4	2525.6	µg/L	2525.6	ppb	15:01:55
1	Pb 220.353†	2015.1	1897.8	514.67	µg/L	514.67	ppb	15:01:55
1	S 181.975 Axial†	314.0	275.1	1033.2	µg/L	1033.2	ppb	15:01:55
1	Sb 206.836†	594.2	559.0	520.89	µg/L	520.89	ppb	15:01:55
1	Se 196.026†	490.6	467.8	503.12	µg/L	503.12	ppb	15:01:55
1	SiO2†	36116.8	31843.7	5474.5	µg/L	5474.5	ppb	15:01:35
1	Si 251.611†	38834.1	37785.7	2517.2	µg/L	2517.2	ppb	15:01:35
1	Sn 189.927†	1061.2	1009.7	527.59	µg/L	527.59	ppb	15:01:55
1	Ti 334.940†	212009.4	207598.9	509.17	µg/L	509.17	ppb	15:01:29
1	Tl 190.801†	287.4	309.1	496.39	µg/L	496.39	ppb	15:01:55
1	U 409.014†	4997.5	4874.2	519.74	µg/L	519.74	ppb	15:01:35
1	V 292.402†	41213.9	40746.6	509.11	µg/L	509.11	ppb	15:01:35
1	Zn 213.857†	20650.8	19626.3	501.64	µg/L	501.64	ppb	15:01:35
2	Sc RADIAL	54721.2	54721.2	98.4	%			15:00:31
2	Al 396.153Radial†	6887.1	6970.6	5101.4	µg/L	5101.4	ppb	15:00:31
2	Ca 317.933Radial†	5516.2	5402.7	4917.7	µg/L	4917.7	ppb	15:00:52
2	Fe 238.204 Radial†	266.1	257.1	4823.0	µg/L	4823.0	ppb	15:00:52
2	K 766.490 Radial†	8017.2	7622.7	5153.6	µg/L	5153.6	ppb	15:00:31
2	Mg 279.077 IEC†	390.0	387.6	4821.7	µg/L	4821.7	ppb	15:00:52
2	Na 589.592 Radial†	22827.3	22794.9	9850.8	µg/L	9850.8	ppb	15:00:31
2	Sr 421.552†	36577.3	37200.5	483.87	µg/L	483.87	ppb	15:00:31
2	Sc 361.383	1905809.7	1905809.7	102.00	%			15:02:02
2	Y 371.029	1174209.6	1174209.6	100.72	%			15:02:02
2	Ag 328.068†	55161.8	54287.5	508.87	µg/L	508.87	ppb	15:02:08
2	As 188.979†	305.5	303.8	521.30	µg/L	521.30	ppb	15:02:28
2	B 249.677†	13563.3	12903.9	498.85	µg/L	498.85	ppb	15:02:08
2	Ba 233.527†	18466.3	18149.2	507.44	µg/L	507.44	ppb	15:02:08
2	Be 313.107†	801736.7	781838.5	500.98	µg/L	500.98	ppb	15:02:02
2	Cd 226.502†	18531.0	18299.3	505.01	µg/L	505.01	ppb	15:02:08
2	Co 228.616†	10352.8	10137.8	510.15	µg/L	510.15	ppb	15:02:08
2	Cr 267.716†	22546.5	22244.6	513.39	µg/L	513.39	ppb	15:02:08
2	Cu 324.752†	76453.3	69017.0	503.85	µg/L	503.85	ppb	15:02:08
2	Mn 257.610†	150810.3	148098.6	515.75	µg/L	515.75	ppb	15:02:02
2	Mo 202.031†	4324.7	4219.5	524.87	µg/L	524.87	ppb	15:02:28
2	Ni 231.604†	9326.5	8812.5	506.03	µg/L	506.03	ppb	15:02:08
2	P 214.914†	1882.8	1581.5	2515.6	µg/L	2515.6	ppb	15:02:28
2	Pb 220.353†	2010.5	1889.9	512.54	µg/L	512.54	ppb	15:02:28

2	S 181.975 Axial†	314.4	274.9	1032.4 µg/L	1032.4 ppb	15:02:28
2	Sb 206.836†	594.4	558.2	520.13 µg/L	520.13 ppb	15:02:28
2	Se 196.026†	498.3	474.5	510.23 µg/L	510.23 ppb	15:02:28
2	SiO2†	36420.1	32081.1	5515.3 µg/L	5515.3 ppb	15:02:08
2	Si 251.611†	39181.1	38061.4	2536.1 µg/L	2536.1 ppb	15:02:08
2	Sn 189.927†	1057.6	1004.4	524.82 µg/L	524.82 ppb	15:02:28
2	Ti 334.940†	212502.3	207730.4	509.50 µg/L	509.50 ppb	15:02:02
2	Tl 190.801†	290.1	311.3	499.82 µg/L	499.82 ppb	15:02:28
2	U 409.014†	4943.8	4813.2	513.23 µg/L	513.23 ppb	15:02:08
2	V 292.402†	41486.3	40945.2	511.54 µg/L	511.54 ppb	15:02:08
2	Zn 213.857†	20803.6	19742.0	504.62 µg/L	504.62 ppb	15:02:08
3	Sc RADIAL	54839.2	54839.2	98.6 %		15:00:57
3	Al 396.153Radial†	6938.7	7007.8	5131.7 µg/L	5131.7 ppb	15:00:57
3	Ca 317.933Radial†	5474.7	5348.5	4868.4 µg/L	4868.4 ppb	15:01:17
3	Fe 238.204 Radial†	264.5	254.9	4780.2 µg/L	4780.2 ppb	15:01:17
3	K 766.490 Radial†	8015.1	7603.1	5140.3 µg/L	5140.3 ppb	15:00:57
3	Mg 279.077 IEC†	388.5	385.3	4791.2 µg/L	4791.2 ppb	15:01:17
3	Na 589.592 Radial†	22931.5	22850.6	9874.9 µg/L	9874.9 ppb	15:00:57
3	Sr 421.552†	36929.7	37477.8	487.48 µg/L	487.48 ppb	15:00:57
3	Sc 361.383	1904474.2	1904474.2	101.93 %		15:02:36
3	Y 371.029	1173631.8	1173631.8	100.68 %		15:02:36
3	Ag 328.068†	52495.3	51709.5	484.60 µg/L	484.60 ppb	15:02:41
3	As 188.979†	265.8	265.0	454.96 µg/L	454.96 ppb	15:03:02
3	B 249.677†	12900.5	12263.1	474.02 µg/L	474.02 ppb	15:02:41
3	Ba 233.527†	17244.0	16962.9	474.25 µg/L	474.25 ppb	15:02:41
3	Be 313.107†	767243.0	748550.0	479.65 µg/L	479.65 ppb	15:02:36
3	Cd 226.502†	17215.0	17021.0	469.69 µg/L	469.69 ppb	15:02:41
3	Co 228.616†	9545.1	9352.5	470.51 µg/L	470.51 ppb	15:02:41
3	Cr 267.716†	20276.1	20032.8	462.37 µg/L	462.37 ppb	15:02:41
3	Cu 324.752†	71008.1	63727.6	465.27 µg/L	465.27 ppb	15:02:41
3	Mn 257.610†	144434.9	141947.7	494.35 µg/L	494.35 ppb	15:02:36
3	Mo 202.031†	3676.4	3586.4	446.15 µg/L	446.15 ppb	15:03:02
3	Ni 231.604†	8682.7	8187.2	470.13 µg/L	470.13 ppb	15:02:41
3	P 214.914†	1666.0	1370.1	2175.0 µg/L	2175.0 ppb	15:03:02
3	Pb 220.353†	1766.7	1652.1	447.95 µg/L	447.95 ppb	15:03:02
3	S 181.975 Axial†	282.9	244.3	917.30 µg/L	917.30 ppb	15:03:02
3	Sb 206.836†	520.9	486.5	453.38 µg/L	453.38 ppb	15:03:02
3	Se 196.026†	444.2	421.8	454.26 µg/L	454.26 ppb	15:03:02
3	SiO2†	34453.9	30177.3	5188.0 µg/L	5188.0 ppb	15:02:41
3	Si 251.611†	36795.5	35748.1	2384.4 µg/L	2384.4 ppb	15:02:41
3	Sn 189.927†	894.3	845.0	441.71 µg/L	441.71 ppb	15:03:02
3	Ti 334.940†	202000.8	197574.1	484.57 µg/L	484.57 ppb	15:02:36
3	Tl 190.801†	264.6	286.5	460.23 µg/L	460.23 ppb	15:03:02
3	U 409.014†	4514.3	4395.3	468.57 µg/L	468.57 ppb	15:02:41
3	V 292.402†	38089.9	37641.8	470.02 µg/L	470.02 ppb	15:02:41
3	Zn 213.857†	19237.3	18219.6	465.60 µg/L	465.60 ppb	15:02:41

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1904291.4	101.92	%	0.087				0.08%
Sc RADIAL	54874.2	98.7	%	0.31				0.32%
Y 371.029	1173067.4	100.63	%	0.129				0.13%
Ag 328.068†	53316.2	499.74	µg/L	13.197	499.74	ppb	13.197	2.64%
QC value within limits for Ag 328.068 Recovery = 99.95%								
Al 396.153Radial†	6995.2	5120.4	µg/L	16.56	5120.4	ppb	16.56	0.32%
QC value within limits for Al 396.153Radial Recovery = 102.41%								
As 188.979†	290.6	498.80	µg/L	37.972	498.80	ppb	37.972	7.61%
QC value within limits for As 188.979 Recovery = 99.76%								
B 249.677†	12650.3	489.02	µg/L	13.200	489.02	ppb	13.200	2.70%
QC value within limits for B 249.677 Recovery = 97.80%								
Ba 233.527†	17697.5	494.80	µg/L	17.954	494.80	ppb	17.954	3.63%
QC value within limits for Ba 233.527 Recovery = 98.96%								
Be 313.107†	770350.9	493.62	µg/L	12.103	493.62	ppb	12.103	2.45%
QC value within limits for Be 313.107 Recovery = 98.72%								
Ca 317.933Radial†	5382.6	4899.4	µg/L	26.99	4899.4	ppb	26.99	0.55%
QC value within limits for Ca 317.933Radial Recovery = 97.99%								
Cd 226.502†	17830.0	492.04	µg/L	19.445	492.04	ppb	19.445	3.95%
QC value within limits for Cd 226.502 Recovery = 98.41%								
Co 228.616†	9837.8	495.02	µg/L	21.414	495.02	ppb	21.414	4.33%

```
   QC value within limits for Co 228.616  Recovery = 99.00%
Cr 267.716†            21445.9      494.97 µg/L        28.312      494.97 ppb         28.312   5.72%
   QC value within limits for Cr 267.716  Recovery = 98.99%
Cu 324.752†            67112.4      489.96 µg/L        21.440      489.96 ppb         21.440   4.38%
   QC value within limits for Cu 324.752  Recovery = 97.99%
Fe 238.204 Radial†       257.0      4819.9 µg/L         38.24      4819.9 ppb          38.24   0.79%
   QC value within limits for Fe 238.204 Radial  Recovery = 96.40%
K 766.490 Radial†       7621.3      5152.7 µg/L         11.91      5152.7 ppb          11.91   0.23%
   QC value within limits for K 766.490 Radial  Recovery = 103.05%
Mg 279.077 IEC†          386.2      4803.6 µg/L         16.01      4803.6 ppb          16.01   0.33%
   QC value within limits for Mg 279.077 IEC  Recovery = 96.07%
Mn 257.610†           146015.3      508.51 µg/L        12.259      508.51 ppb         12.259   2.41%
   QC value within limits for Mn 257.610  Recovery = 101.70%
Mo 202.031†             4017.7      499.77 µg/L        46.469      499.77 ppb         46.469   9.30%
   QC value within limits for Mo 202.031  Recovery = 99.95%
Na 589.592 Radial†     22811.9      9858.1 µg/L         14.52      9858.1 ppb          14.52   0.15%
   QC value within limits for Na 589.592 Radial  Recovery = 98.58%
Ni 231.604†             8592.2      493.39 µg/L        20.164      493.39 ppb         20.164   4.09%
   QC value within limits for Ni 231.604  Recovery = 98.68%
P 214.914†              1513.0      2405.4 µg/L        199.57      2405.4 ppb         199.57   8.30%
   QC value within limits for P 214.914  Recovery = 96.22%
Pb 220.353†             1813.3      491.72 µg/L        37.919      491.72 ppb         37.919   7.71%
   QC value within limits for Pb 220.353  Recovery = 98.34%
S 181.975 Axial†         264.8      994.28 µg/L        66.661      994.28 ppb         66.661   6.70%
   QC value within limits for S 181.975 Axial  Recovery = 99.43%
Sb 206.836†              534.5      498.13 µg/L        38.759      498.13 ppb         38.759   7.78%
   QC value within limits for Sb 206.836  Recovery = 99.63%
Se 196.026†              454.7      489.20 µg/L        30.468      489.20 ppb         30.468   6.23%
   QC value within limits for Se 196.026  Recovery = 97.84%
SiO2†                  31367.4      5392.6 µg/L        178.35      5392.6 ppb         178.35   3.31%
   QC value within limits for SiO2  Recovery = 100.84%
Si 251.611†            37198.4      2479.2 µg/L         82.67      2479.2 ppb          82.67   3.33%
   QC value within limits for Si 251.611  Recovery = 99.17%
Sn 189.927†              953.0      498.04 µg/L        48.803      498.04 ppb         48.803   9.80%
   QC value within limits for Sn 189.927  Recovery = 99.61%
Sr 421.552†            37309.9      485.30 µg/L         1.920      485.30 ppb          1.920   0.40%
   QC value within limits for Sr 421.552  Recovery = 97.06%
Ti 334.940†           204301.1      501.08 µg/L        14.296      501.08 ppb         14.296   2.85%
   QC value within limits for Ti 334.940  Recovery = 100.22%
Tl 190.801†              302.3      485.48 µg/L        21.933      485.48 ppb         21.933   4.52%
   QC value within limits for Tl 190.801  Recovery = 97.10%
U 409.014†              4694.2      500.51 µg/L        27.852      500.51 ppb         27.852   5.56%
   QC value within limits for U 409.014  Recovery = 100.10%
V 292.402†             39777.8      496.89 µg/L        23.303      496.89 ppb         23.303   4.69%
   QC value within limits for V 292.402  Recovery = 99.38%
Zn 213.857†            19196.0      490.62 µg/L        21.720      490.62 ppb         21.720   4.43%
   QC value within limits for Zn 213.857  Recovery = 98.12%
All analyte(s) passed QC.
```

Sequence No.: 10
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 1/11/2010 15:03:12
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	53815.5	53815.5	96.8	%			15:03:44
1	Al 396.153Radial†	11.5	-14.8	-10.901	µg/L	-10.901	ppb	15:03:44
1	Ca 317.933Radial†	197.3	2.0	1.8641	µg/L	1.8641	ppb	15:04:05
1	Fe 238.204 Radial†	17.2	4.6	85.093	µg/L	85.093	ppb	15:04:05
1	K 766.490 Radial†	549.2	44.7	30.205	µg/L	30.205	ppb	15:03:44
1	Mg 279.077 IEC†	9.6	1.3	16.081	µg/L	16.081	ppb	15:04:05
1	Na 589.592 Radial†	303.5	-84.0	-36.320	µg/L	-36.320	ppb	15:03:44
1	Sr 421.552†	-18.1	19.4	0.2519	µg/L	0.2519	ppb	15:03:44
1	Sc 361.383	1874415.9	1874415.9	100.32	%			15:05:06
1	Y 371.029	1153844.2	1153844.2	98.978	%			15:05:06
1	Ag 328.068†	-262.6	-52.2	-0.4775	µg/L	-0.4775	ppb	15:05:12
1	As 188.979†	-9.8	-5.5	-9.4593	µg/L	-9.4593	ppb	15:05:33
1	B 249.677†	376.8	-17.2	-0.6945	µg/L	-0.6945	ppb	15:05:12
1	Ba 233.527†	-49.8	-3.8	-0.1057	µg/L	-0.1057	ppb	15:05:33
1	Be 313.107†	4199.0	39.8	0.0255	µg/L	0.0255	ppb	15:05:06
1	Cd 226.502†	-126.4	6.4	0.1676	µg/L	0.1676	ppb	15:05:33
1	Co 228.616†	5.4	-6.2	-0.3115	µg/L	-0.3115	ppb	15:05:33
1	Cr 267.716†	-113.6	27.9	0.6436	µg/L	0.6436	ppb	15:05:12
1	Cu 324.752†	5914.7	-38.6	-0.2736	µg/L	-0.2736	ppb	15:05:12
1	Mn 257.610†	-219.6	32.5	0.1239	µg/L	0.1239	ppb	15:05:12
1	Mo 202.031†	27.2	6.9	0.8633	µg/L	0.8633	ppb	15:05:33
1	Ni 231.604†	331.1	-0.8	-0.0462	µg/L	-0.0462	ppb	15:05:33
1	P 214.914†	275.1	9.9	15.909	µg/L	15.909	ppb	15:05:33
1	Pb 220.353†	88.3	6.9	1.8658	µg/L	1.8658	ppb	15:05:33
1	S 181.975 Axial†	34.7	1.2	4.6708	µg/L	4.6708	ppb	15:05:33
1	Sb 206.836†	24.9	0.3	0.2682	µg/L	0.2682	ppb	15:05:33
1	Se 196.026†	11.0	-3.0	-3.1584	µg/L	-3.1584	ppb	15:05:33
1	SiO2†	3659.2	24.0	4.1289	µg/L	4.1289	ppb	15:05:12
1	Si 251.611†	368.2	17.2	1.2398	µg/L	1.2398	ppb	15:05:33
1	Sn 189.927†	27.8	-4.7	-2.4879	µg/L	-2.4879	ppb	15:05:33
1	Ti 334.940†	559.9	-38.6	-0.0948	µg/L	-0.0948	ppb	15:05:12
1	Tl 190.801†	-28.7	-1.8	-2.8123	µg/L	-2.8123	ppb	15:05:33
1	U 409.014†	62.6	29.0	3.0810	µg/L	3.0810	ppb	15:05:12
1	V 292.402†	-253.2	21.6	0.2814	µg/L	0.2814	ppb	15:05:12
1	Zn 213.857†	629.5	-25.5	-0.6800	µg/L	-0.6800	ppb	15:05:33
2	Sc RADIAL	53692.7	53692.7	96.6	%			15:04:10
2	Al 396.153Radial†	24.2	-1.6	-1.1613	µg/L	-1.1613	ppb	15:04:10
2	Ca 317.933Radial†	196.6	1.8	1.6047	µg/L	1.6047	ppb	15:04:31
2	Fe 238.204 Radial†	16.2	3.6	66.703	µg/L	66.703	ppb	15:04:31
2	K 766.490 Radial†	578.1	75.9	51.291	µg/L	51.291	ppb	15:04:10
2	Mg 279.077 IEC†	13.2	5.1	63.176	µg/L	63.176	ppb	15:04:31
2	Na 589.592 Radial†	266.2	-122.0	-52.708	µg/L	-52.708	ppb	15:04:10
2	Sr 421.552†	-15.7	21.8	0.2838	µg/L	0.2838	ppb	15:04:10
2	Sc 361.383	1863051.7	1863051.7	99.716	%			15:05:38
2	Y 371.029	1146543.6	1146543.6	98.352	%			15:05:38
2	Ag 328.068†	-249.4	-40.6	-0.3680	µg/L	-0.3680	ppb	15:05:44
2	As 188.979†	-8.6	-4.4	-7.4709	µg/L	-7.4709	ppb	15:06:04
2	B 249.677†	407.4	15.7	0.5871	µg/L	0.5871	ppb	15:05:44
2	Ba 233.527†	-30.8	14.9	0.4164	µg/L	0.4164	ppb	15:06:04
2	Be 313.107†	4281.7	148.2	0.0950	µg/L	0.0950	ppb	15:05:38
2	Cd 226.502†	-117.6	14.5	0.3907	µg/L	0.3907	ppb	15:06:04
2	Co 228.616†	17.8	6.3	0.3133	µg/L	0.3133	ppb	15:06:04
2	Cr 267.716†	-151.9	-11.2	-0.2565	µg/L	-0.2565	ppb	15:05:44
2	Cu 324.752†	5922.8	5.6	0.0466	µg/L	0.0466	ppb	15:05:44
2	Mn 257.610†	-215.6	35.2	0.1309	µg/L	0.1309	ppb	15:05:44
2	Mo 202.031†	13.7	-6.5	-0.8083	µg/L	-0.8083	ppb	15:06:04
2	Ni 231.604†	329.7	-0.2	-0.0100	µg/L	-0.0100	ppb	15:06:04
2	P 214.914†	269.7	6.1	9.8692	µg/L	9.8692	ppb	15:06:04
2	Pb 220.353†	95.2	14.3	3.8831	µg/L	3.8831	ppb	15:06:04

2	S 181.975 Axial†	37.0	3.8	14.439 µg/L	14.439 ppb	15:06:04
2	Sb 206.836†	25.0	0.6	0.5471 µg/L	0.5471 ppb	15:06:04
2	Se 196.026†	18.1	4.2	4.5120 µg/L	4.5120 ppb	15:06:04
2	SiO2†	3675.6	62.7	10.782 µg/L	10.782 ppb	15:05:44
2	Si 251.611†	375.3	26.6	1.8537 µg/L	1.8537 ppb	15:06:04
2	Sn 189.927†	29.5	-2.9	-1.4928 µg/L	-1.4928 ppb	15:06:04
2	Ti 334.940†	642.0	47.2	0.1157 µg/L	0.1157 ppb	15:05:44
2	Tl 190.801†	-26.0	0.8	1.2489 µg/L	1.2489 ppb	15:06:04
2	U 409.014†	33.0	-0.3	-0.0443 µg/L	-0.0443 ppb	15:05:44
2	V 292.402†	-226.5	46.9	0.5767 µg/L	0.5767 ppb	15:05:44
2	Zn 213.857†	632.4	-18.7	-0.5018 µg/L	-0.5018 ppb	15:06:04
3	Sc RADIAL	53676.7	53676.7	96.5 %		15:04:36
3	Al 396.153Radial†	18.3	-7.8	-5.7625 µg/L	-5.7625 ppb	15:04:36
3	Ca 317.933Radial†	200.0	5.4	4.9132 µg/L	4.9132 ppb	15:04:56
3	Fe 238.204 Radial†	17.3	4.7	88.396 µg/L	88.396 ppb	15:04:56
3	K 766.490 Radial†	542.4	39.1	26.456 µg/L	26.456 ppb	15:04:36
3	Mg 279.077 IEC†	9.1	0.8	9.9894 µg/L	9.9894 ppb	15:04:56
3	Na 589.592 Radial†	293.4	-93.7	-40.511 µg/L	-40.511 ppb	15:04:36
3	Sr 421.552†	-35.5	1.2	0.0160 µg/L	0.0160 ppb	15:04:36
3	Sc 361.383	1884510.0	1884510.0	100.86 %		15:06:10
3	Y 371.029	1161461.7	1161461.7	99.631 %		15:06:10
3	Ag 328.068†	-227.9	-16.4	-0.1460 µg/L	-0.1460 ppb	15:06:16
3	As 188.979†	-8.2	-3.9	-6.6241 µg/L	-6.6241 ppb	15:06:36
3	B 249.677†	420.8	24.4	0.9167 µg/L	0.9167 ppb	15:06:16
3	Ba 233.527†	-47.8	-1.6	-0.0436 µg/L	-0.0436 ppb	15:06:36
3	Be 313.107†	4332.1	149.3	0.0956 µg/L	0.0956 ppb	15:06:10
3	Cd 226.502†	-131.5	2.1	0.0428 µg/L	0.0428 ppb	15:06:36
3	Co 228.616†	16.8	5.0	0.2553 µg/L	0.2553 ppb	15:06:36
3	Cr 267.716†	-162.8	-20.3	-0.4668 µg/L	-0.4668 ppb	15:06:16
3	Cu 324.752†	5920.2	-64.7	-0.4639 µg/L	-0.4639 ppb	15:06:16
3	Mn 257.610†	-215.8	37.4	0.1412 µg/L	0.1412 ppb	15:06:16
3	Mo 202.031†	27.2	6.8	0.8444 µg/L	0.8444 ppb	15:06:36
3	Ni 231.604†	327.7	-5.9	-0.3379 µg/L	-0.3379 ppb	15:06:36
3	P 214.914†	261.5	-5.0	-8.2480 µg/L	-8.2480 ppb	15:06:36
3	Pb 220.353†	80.4	-1.4	-0.3687 µg/L	-0.3687 ppb	15:06:36
3	S 181.975 Axial†	31.4	-2.1	-8.0121 µg/L	-8.0121 ppb	15:06:36
3	Sb 206.836†	18.8	-5.8	-5.4618 µg/L	-5.4618 ppb	15:06:36
3	Se 196.026†	11.5	-2.5	-2.6701 µg/L	-2.6701 ppb	15:06:36
3	SiO2†	3625.8	-28.7	-4.9277 µg/L	-4.9277 ppb	15:06:16
3	Si 251.611†	368.3	15.3	1.0842 µg/L	1.0842 ppb	15:06:36
3	Sn 189.927†	29.0	-3.7	-1.9424 µg/L	-1.9424 ppb	15:06:36
3	Ti 334.940†	686.0	83.5	0.2046 µg/L	0.2046 ppb	15:06:16
3	Tl 190.801†	-25.1	2.0	3.1616 µg/L	3.1616 ppb	15:06:36
3	U 409.014†	14.4	-19.2	-2.0650 µg/L	-2.0650 ppb	15:06:16
3	V 292.402†	-276.6	-0.2	0.0032 µg/L	0.0032 ppb	15:06:16
3	Zn 213.857†	619.3	-39.0	-1.0271 µg/L	-1.0271 ppb	15:06:36

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1873992.6	100.30	%	0.575				0.57%
Sc RADIAL	53728.3	96.6	%	0.14				0.14%
Y 371.029	1153949.8	98.987	%	0.6399				0.65%
Ag 328.068†	-36.4	-0.3305	µg/L	0.16892	-0.3305	ppb	0.16892	51.11%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-8.1	-5.9417	µg/L	4.87246	-5.9417	ppb	4.87246	82.00%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-4.6	-7.8514	µg/L	1.45539	-7.8514	ppb	1.45539	18.54%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	7.6	0.2698	µg/L	0.85118	0.2698	ppb	0.85118	315.50%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	3.2	0.0890	µg/L	0.28523	0.0890	ppb	0.28523	320.40%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	112.4	0.0720	µg/L	0.04028	0.0720	ppb	0.04028	55.92%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	3.1	2.7940	µg/L	1.83988	2.7940	ppb	1.83988	65.85%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	7.7	0.2004	µg/L	0.17627	0.2004	ppb	0.17627	87.97%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	1.7	0.0857	µg/L	0.34519	0.0857	ppb	0.34519	402.84%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -1.2     -0.0266 µg/L       0.58983     -0.0266 ppb        0.58983 >999.9%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -32.6     -0.2303 µg/L       0.25797     -0.2303 ppb        0.25797 112.01%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       4.3      80.064 µg/L       11.6881      80.064 ppb        11.6881  14.60%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       53.2      35.984 µg/L       13.3882      35.984 ppb        13.3882  37.21%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          2.4      29.749 µg/L       29.1083      29.749 ppb        29.1083  97.85%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†             35.1       0.1320 µg/L       0.00873      0.1320 ppb        0.00873   6.61%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              2.4       0.2998 µg/L       0.95968      0.2998 ppb        0.95968 320.12%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      -99.9     -43.180 µg/L        8.5139     -43.180 ppb         8.5139  19.72%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              -2.3      -0.1314 µg/L       0.17980      -0.1314 ppb        0.17980 136.87%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               3.7       5.8436 µg/L      12.57179       5.8436 ppb       12.57179 215.14%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              6.6       1.7934 µg/L       2.12681       1.7934 ppb        2.12681 118.59%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         1.0       3.6993 µg/L      11.25716       3.6993 ppb       11.25716 304.30%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -1.7      -1.5489 µg/L       3.39159      -1.5489 ppb        3.39159 218.97%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              -0.4      -0.4389 µg/L       4.29451      -0.4389 ppb        4.29451 978.56%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    19.4       3.3278 µg/L       7.88549       3.3278 ppb        7.88549 236.96%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†              19.7       1.3926 µg/L       0.40683       1.3926 ppb        0.40683  29.21%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†              -3.8      -1.9744 µg/L       0.49831      -1.9744 ppb        0.49831  25.24%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              14.1       0.1839 µg/L       0.14630       0.1839 ppb        0.14630  79.56%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              30.7       0.0751 µg/L       0.15377       0.0751 ppb        0.15377 204.63%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               0.3       0.5328 µg/L       3.05065       0.5328 ppb        3.05065 572.61%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                3.2       0.3239 µg/L       2.59265       0.3239 ppb        2.59265 800.45%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               22.8       0.2871 µg/L       0.28681       0.2871 ppb        0.28681  99.89%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†             -27.7      -0.7363 µg/L       0.26713      -0.7363 ppb        0.26713  36.28%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

==========

Reprocessing Begun
Logged In Analyst: Optima3 **Technique: ICP Continuous**

Results Data Set (original): 122909
Results Library (original): C:\pe\Optima3\Results\Results.mdb
Results Data Set (reprocessed): 122909A
Results Library (reprocessed): C:\pe\Optima3\Results\Results.mdb

==========

Method Loaded
Method Name: General Eng.2AX **Method Last Saved: 12/29/2009 10:08:09**
IEC File: 101209.iec **MSF File:**
Method Description:

Analyte	Calibration Equation	Processing	View	Internal Standard	IEC
Ag 328.068	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Al 396.153Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
As 188.979	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
B 249.677	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ba 233.527	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Be 313.107	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ca 317.933Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	No
Cd 226.502	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Co 228.616	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cr 267.716	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cu 324.752	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Fe 238.204 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
K 766.490 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Mg 279.077 IEC	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Mn 257.610	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Mo 202.031	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Na 589.592 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	No
Ni 231.604	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
P 214.914	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Pb 220.353	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
S 181.975 Axial	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sb 206.836	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sc 361.383	Lin Thru 0	Peak Area	Axial	n/a	n/a
Sc Radial	Lin, Calc Int	Peak Area	Radial	n/a	n/a
Se 196.026	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Si 251.611	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sn 189.927	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sr 421.552	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Ti 334.940	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Tl 190.801	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
U 409.014	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
V 292.402	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y 371.029	Lin, Calc Int	Peak Area	Axial	n/a	n/a
Zn 213.857	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y RADIAL	Lin, Calc Int	Peak Area	Radial	n/a	n/a
SiO2	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes

==========

Sequence No.: 1 **Autosampler Location: 8**
Sample ID: S0 **Date Collected: 12/29/2009 08:35:23**
Analyst: **Data Type: Reprocessed on 12/29/2009 10:09:24**
Logged In Analyst (Original) : Optima3
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: S0

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc 361.383	928875.4	928875.4	98.948	%	08:38:33
1	Sc Radial	4976.6	4976.6	101	%	08:37:16
1	Y 371.029	810124.9	810124.9	99.023	%	08:38:33
1	Y RADIAL	5325.9	5325.9	100.4	%	08:37:16
1	Ag 328.068†	478.0	483.0	[0.00]	ug/L	08:38:38

1	Al 396.153Radial†	-27.1	-27.0	[0.00]	ug/L	08:37:16
1	As 188.979†	-42.5	-42.9	[0.00]	ug/L	08:38:58
1	B 249.677†	-461.7	-466.6	[0.00]	ug/L	08:38:38
1	Ba 233.527†	18.9	19.1	[0.00]	ug/L	08:38:58
1	Be 313.107†	-4701.2	-4751.2	[0.00]	ug/L	08:38:38
1	Ca 317.933Radial†	20.9	20.7	[0.00]	ug/L	08:37:36
1	Cd 226.502†	-251.6	-254.2	[0.00]	ug/L	08:38:58
1	Co 228.616†	-94.4	-95.4	[0.00]	ug/L	08:38:58
1	Cr 267.716†	150.9	152.5	[0.00]	ug/L	08:38:38
1	Cu 324.752†	8454.6	8544.4	[0.00]	ug/L	08:38:38
1	Fe 238.204 Radial†	12.3	12.2	[0.00]	ug/L	08:37:36
1	K 766.490 Radial†	3320.2	3299.6	[0.00]	ug/L	08:37:16
1	Mg 279.077 IEC†	2.2	2.2	[0.00]	ug/L	08:37:36
1	Mn 257.610†	626.3	632.9	[0.00]	ug/L	08:38:38
1	Mo 202.031†	30.0	30.3	[0.00]	ug/L	08:38:58
1	Na 589.592 Radial†	-1796.2	-1785.0	[0.00]	ug/L	08:37:16
1	Ni 231.604†	140.2	141.7	[0.00]	ug/L	08:38:58
1	P 214.914†	269.9	272.7	[0.00]	ug/L	08:38:58
1	Pb 220.353†	-73.0	-73.8	[0.00]	ug/L	08:38:58
1	S 181.975 Axial†	65.9	66.6	[0.00]	ug/L	08:38:58
1	Sb 206.836†	40.8	41.2	[0.00]	ug/L	08:38:58
1	Se 196.026†	-36.6	-36.9	[0.00]	ug/L	08:38:58
1	Si 251.611†	736.2	744.0	[0.00]	ug/L	08:38:58
1	Sn 189.927†	3.8	3.9	[0.00]	ug/L	08:38:58
1	Sr 421.552†	21.2	21.1	[0.00]	ug/L	08:37:16
1	Ti 334.940†	-1706.2	-1724.3	[0.00]	ug/L	08:38:38
1	Tl 190.801†	-57.1	-57.7	[0.00]	ug/L	08:38:58
1	U 409.014†	-2956.4	-2987.8	[0.00]	ug/L	08:38:33
1	V 292.402†	-1792.4	-1811.4	[0.00]	ug/L	08:38:38
1	Zn 213.857†	917.0	926.8	[0.00]	ug/L	08:38:58
1	SiO2†	795.2	803.7	[0.00]	ug/L	08:40:04
2	Sc 361.383	946946.0	946946.0	100.87	%	08:39:03
2	Sc Radial	4832.6	4832.6	97.7	%	08:37:41
2	Y 371.029	825185.2	825185.2	100.86	%	08:39:03
2	Y RADIAL	5182.3	5182.3	97.69	%	08:37:41
2	Ag 328.068†	462.7	458.7	[0.00]	ug/L	08:39:08
2	Al 396.153Radial†	-13.8	-14.1	[0.00]	ug/L	08:37:41
2	As 188.979†	-27.8	-27.6	[0.00]	ug/L	08:39:28
2	B 249.677†	-337.4	-334.4	[0.00]	ug/L	08:39:08
2	Ba 233.527†	31.9	31.6	[0.00]	ug/L	08:39:28
2	Be 313.107†	-4695.3	-4654.7	[0.00]	ug/L	08:39:08
2	Ca 317.933Radial†	18.0	18.5	[0.00]	ug/L	08:38:01
2	Cd 226.502†	-265.9	-263.6	[0.00]	ug/L	08:39:28
2	Co 228.616†	-96.9	-96.0	[0.00]	ug/L	08:39:28
2	Cr 267.716†	132.7	131.5	[0.00]	ug/L	08:39:08
2	Cu 324.752†	8466.0	8392.8	[0.00]	ug/L	08:39:08
2	Fe 238.204 Radial†	13.6	14.0	[0.00]	ug/L	08:38:01
2	K 766.490 Radial†	3321.8	3399.5	[0.00]	ug/L	08:37:41
2	Mg 279.077 IEC†	5.0	5.1	[0.00]	ug/L	08:38:01
2	Mn 257.610†	654.8	649.1	[0.00]	ug/L	08:39:08
2	Mo 202.031†	28.2	27.9	[0.00]	ug/L	08:39:28
2	Na 589.592 Radial†	-1794.7	-1836.7	[0.00]	ug/L	08:37:41
2	Ni 231.604†	130.8	129.6	[0.00]	ug/L	08:39:28
2	P 214.914†	277.1	274.7	[0.00]	ug/L	08:39:28
2	Pb 220.353†	-91.2	-90.4	[0.00]	ug/L	08:39:28
2	S 181.975 Axial†	54.7	54.3	[0.00]	ug/L	08:39:28
2	Sb 206.836†	42.8	42.5	[0.00]	ug/L	08:39:28
2	Se 196.026†	-29.4	-29.2	[0.00]	ug/L	08:39:28
2	Si 251.611†	742.3	735.8	[0.00]	ug/L	08:39:28
2	Sn 189.927†	-0.5	-0.5	[0.00]	ug/L	08:39:28
2	Sr 421.552†	15.8	16.1	[0.00]	ug/L	08:37:41
2	Ti 334.940†	-1691.3	-1676.7	[0.00]	ug/L	08:39:08
2	Tl 190.801†	-42.0	-41.6	[0.00]	ug/L	08:39:28
2	U 409.014†	-2884.2	-2859.2	[0.00]	ug/L	08:39:03
2	V 292.402†	-1831.9	-1816.1	[0.00]	ug/L	08:39:08
2	Zn 213.857†	917.5	909.6	[0.00]	ug/L	08:39:28
2	SiO2†	743.3	736.9	[0.00]	ug/L	08:40:09
3	Sc 361.383	940434.2	940434.2	100.18	%	08:39:33
3	Sc Radial	5027.7	5027.7	102	%	08:38:06
3	Y 371.029	819038.7	819038.7	100.11	%	08:39:33
3	Y RADIAL	5406.5	5406.5	101.9	%	08:38:06

3	Ag 328.068†	455.9	455.1	[0.00]	ug/L	08:39:38
3	Al 396.153Radial†	-23.3	-22.9	[0.00]	ug/L	08:38:06
3	As 188.979†	-34.0	-34.0	[0.00]	ug/L	08:39:58
3	B 249.677†	-387.8	-387.1	[0.00]	ug/L	08:39:38
3	Ba 233.527†	9.6	9.6	[0.00]	ug/L	08:39:58
3	Be 313.107†	-4706.6	-4698.2	[0.00]	ug/L	08:39:38
3	Ca 317.933Radial†	25.6	25.1	[0.00]	ug/L	08:38:26
3	Cd 226.502†	-252.6	-252.1	[0.00]	ug/L	08:39:58
3	Co 228.616†	-91.4	-91.2	[0.00]	ug/L	08:39:58
3	Cr 267.716†	117.4	117.2	[0.00]	ug/L	08:39:38
3	Cu 324.752†	8527.7	8512.4	[0.00]	ug/L	08:39:38
3	Fe 238.204 Radial†	13.9	13.7	[0.00]	ug/L	08:38:26
3	K 766.490 Radial†	3355.9	3301.1	[0.00]	ug/L	08:38:06
3	Mg 279.077 IEC†	0.8	0.8	[0.00]	ug/L	08:38:26
3	Mn 257.610†	628.8	627.7	[0.00]	ug/L	08:39:38
3	Mo 202.031†	18.2	18.2	[0.00]	ug/L	08:39:58
3	Na 589.592 Radial†	-1800.0	-1770.6	[0.00]	ug/L	08:38:06
3	Ni 231.604†	145.6	145.4	[0.00]	ug/L	08:39:58
3	P 214.914†	266.6	266.1	[0.00]	ug/L	08:39:58
3	Pb 220.353†	-89.8	-89.7	[0.00]	ug/L	08:39:58
3	S 181.975 Axial†	64.3	64.1	[0.00]	ug/L	08:39:58
3	Sb 206.836†	52.2	52.1	[0.00]	ug/L	08:39:58
3	Se 196.026†	-32.0	-31.9	[0.00]	ug/L	08:39:58
3	Si 251.611†	739.6	738.3	[0.00]	ug/L	08:39:58
3	Sn 189.927†	6.8	6.8	[0.00]	ug/L	08:39:58
3	Sr 421.552†	-4.2	-4.2	[0.00]	ug/L	08:38:06
3	Ti 334.940†	-1716.4	-1713.3	[0.00]	ug/L	08:39:38
3	Tl 190.801†	-49.1	-49.0	[0.00]	ug/L	08:39:58
3	U 409.014†	-2914.2	-2909.0	[0.00]	ug/L	08:39:33
3	V 292.402†	-1806.0	-1802.7	[0.00]	ug/L	08:39:38
3	Zn 213.857†	909.3	907.7	[0.00]	ug/L	08:39:58
3	SiO2†	734.9	733.6	[0.00]	ug/L	08:40:14

Mean Data: S0

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	938751.9	9151.98	0.97%	100.00	%
Sc Radial	4945.6	101.17	2.05%	100	%
Y 371.029	818116.3	7572.39	0.93%	100.000	%
Y RADIAL	5304.9	113.53	2.14%	100.0	%
Ag 328.068†	465.6	15.22	3.27%	[0.00]	ug/L
Al 396.153Radial†	-21.3	6.57	30.81%	[0.00]	ug/L
As 188.979†	-34.8	7.70	22.09%	[0.00]	ug/L
B 249.677†	-396.1	66.55	16.80%	[0.00]	ug/L
Ba 233.527†	20.1	11.07	55.09%	[0.00]	ug/L
Be 313.107†	-4701.4	48.33	1.03%	[0.00]	ug/L
Ca 317.933Radial†	21.4	3.40	15.85%	[0.00]	ug/L
Cd 226.502†	-256.7	6.11	2.38%	[0.00]	ug/L
Co 228.616†	-94.2	2.60	2.76%	[0.00]	ug/L
Cr 267.716†	133.7	17.79	13.30%	[0.00]	ug/L
Cu 324.752†	8483.2	79.96	0.94%	[0.00]	ug/L
Fe 238.204 Radial†	13.3	0.93	7.02%	[0.00]	ug/L
K 766.490 Radial†	3333.4	57.24	1.72%	[0.00]	ug/L
Mg 279.077 IEC†	2.7	2.19	80.97%	[0.00]	ug/L
Mn 257.610†	636.6	11.19	1.76%	[0.00]	ug/L
Mo 202.031†	25.5	6.42	25.20%	[0.00]	ug/L
Na 589.592 Radial†	-1797.4	34.75	1.93%	[0.00]	ug/L
Ni 231.604†	138.9	8.23	5.92%	[0.00]	ug/L
P 214.914†	271.2	4.47	1.65%	[0.00]	ug/L
Pb 220.353†	-84.6	9.40	11.11%	[0.00]	ug/L
S 181.975 Axial†	61.7	6.54	10.61%	[0.00]	ug/L
Sb 206.836†	45.2	5.95	13.14%	[0.00]	ug/L
Se 196.026†	-32.7	3.95	12.08%	[0.00]	ug/L
Si 251.611†	739.4	4.18	0.57%	[0.00]	ug/L
Sn 189.927†	3.4	3.70	108.73%	[0.00]	ug/L
Sr 421.552†	11.0	13.37	121.39%	[0.00]	ug/L
Ti 334.940†	-1704.8	24.92	1.46%	[0.00]	ug/L
Tl 190.801†	-49.5	8.04	16.27%	[0.00]	ug/L
U 409.014†	-2918.7	64.82	2.22%	[0.00]	ug/L
V 292.402†	-1810.1	6.77	0.37%	[0.00]	ug/L

Zn 213.857†	914.7	10.52	1.15%	[0.00] ug/L
SiO2†	758.0	39.55	5.22%	[0.00] ug/L

Sequence No.: 2
Sample ID: S0.1
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 2
Date Collected: 12/29/2009 08:42:24
Data Type: Reprocessed on 12/29/2009 10:09:26

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc 361.383	942358.1	942358.1	100.38	%	08:44:49
1	Sc Radial	4985.1	4985.1	101	%	08:44:22
1	Y 371.029	817049.9	817049.9	99.870	%	08:44:49
1	Y RADIAL	5349.2	5349.2	100.8	%	08:44:22
1	Ag 328.068†	24570.7	24011.1	[100]	ug/L	08:44:49
1	As 188.979†	276.8	310.6	[100]	ug/L	08:45:09
1	B 249.677†	4497.7	4876.6	[100]	ug/L	08:44:49
1	Ba 233.527†	14764.1	14687.5	[100]	ug/L	08:44:49
1	Be 313.107†	309107.9	312626.4	[100]	ug/L	08:44:49
1	Cd 226.502†	10615.0	10831.1	[100]	ug/L	08:45:09
1	Co 228.616†	5562.1	5635.0	[100]	ug/L	08:45:09
1	Cr 267.716†	10710.5	10535.8	[100]	ug/L	08:44:49
1	Cu 324.752†	43022.5	34374.6	[100]	ug/L	08:44:49
1	K 766.490 Radial†	8577.9	5176.6	[1000]	ug/L	08:44:17
1	Mn 257.610†	102888.9	101858.5	[100]	ug/L	08:44:49
1	Mo 202.031†	1739.6	1707.5	[100]	ug/L	08:45:09
1	Ni 231.604†	4956.6	4798.7	[100]	ug/L	08:45:09
1	P 214.914†	1364.8	1088.4	[500]	ug/L	08:45:09
1	Pb 220.353†	934.3	1015.4	[100]	ug/L	08:45:09
1	S 181.975 Axial†	234.2	171.7	[200]	ug/L	08:45:09
1	Sb 206.836†	382.4	335.7	[100]	ug/L	08:45:09
1	Se 196.026†	172.4	204.4	[100]	ug/L	08:45:09
1	Si 251.611†	19281.8	18468.6	[500]	ug/L	08:44:49
1	Sn 189.927†	717.7	711.5	[100]	ug/L	08:45:09
1	Sr 421.552†	15105.0	14974.4	[100]	ug/L	08:44:22
1	Ti 334.940†	66154.5	67606.1	[100]	ug/L	08:44:49
1	Tl 190.801†	329.0	377.2	[100]	ug/L	08:45:09
1	U 409.014†	870.9	3786.2	[100]	ug/L	08:44:49
1	V 292.402†	14962.3	16715.1	[100]	ug/L	08:44:49
1	Zn 213.857†	13732.6	12765.4	[100]	ug/L	08:44:49
1	SiO2†	19350.5	18518.5	[1069.5]	ug/L	08:46:07
2	Sc 361.383	932073.1	932073.1	99.289	%	08:45:15
2	Sc Radial	4916.4	4916.4	99.4	%	08:44:32
2	Y 371.029	810206.3	810206.3	99.033	%	08:45:15
2	Y RADIAL	5235.4	5235.4	98.69	%	08:44:32
2	Ag 328.068†	24203.5	23911.3	[100]	ug/L	08:45:15
2	As 188.979†	268.9	305.7	[100]	ug/L	08:45:35
2	B 249.677†	4390.4	4817.9	[100]	ug/L	08:45:15
2	Ba 233.527†	14542.0	14626.1	[100]	ug/L	08:45:15
2	Be 313.107†	305516.1	312406.7	[100]	ug/L	08:45:15
2	Cd 226.502†	10585.3	10917.8	[100]	ug/L	08:45:35
2	Co 228.616†	5575.7	5709.8	[100]	ug/L	08:45:35
2	Cr 267.716†	10683.1	10625.9	[100]	ug/L	08:45:15
2	Cu 324.752†	42621.4	34443.6	[100]	ug/L	08:45:15
2	K 766.490 Radial†	8484.5	5201.6	[1000]	ug/L	08:44:27
2	Mn 257.610†	101621.4	101713.0	[100]	ug/L	08:45:15
2	Mo 202.031†	1725.1	1712.0	[100]	ug/L	08:45:35
2	Ni 231.604†	4945.7	4842.2	[100]	ug/L	08:45:35
2	P 214.914†	1372.2	1110.9	[500]	ug/L	08:45:35
2	Pb 220.353†	938.9	1030.3	[100]	ug/L	08:45:35
2	S 181.975 Axial†	244.9	185.0	[200]	ug/L	08:45:35
2	Sb 206.836†	380.2	337.7	[100]	ug/L	08:45:35
2	Se 196.026†	163.6	197.5	[100]	ug/L	08:45:35
2	Si 251.611†	19056.7	18453.9	[500]	ug/L	08:45:15
2	Sn 189.927†	698.5	700.1	[100]	ug/L	08:45:35
2	Sr 421.552†	14866.4	14943.8	[100]	ug/L	08:44:32
2	Ti 334.940†	65372.0	67545.2	[100]	ug/L	08:45:15
2	Tl 190.801†	325.7	377.5	[100]	ug/L	08:45:35

2	U 409.014†	500.7	3422.9	[100]	ug/L	08:45:15
2	V 292.402†	14769.9	16685.8	[100]	ug/L	08:45:15
2	Zn 213.857†	13572.1	12754.7	[100]	ug/L	08:45:15
2	SiO2†	19347.3	18727.9	[1069.5]	ug/L	08:46:12
3	Sc 361.383	949057.5	949057.5	101.10	%	08:45:41
3	Sc Radial	4883.5	4883.5	98.7	%	08:44:42
3	Y 371.029	824233.1	824233.1	100.75	%	08:45:41
3	Y RADIAL	5221.4	5221.4	98.43	%	08:44:42
3	Ag 328.068†	24688.0	23954.3	[100]	ug/L	08:45:41
3	As 188.979†	271.5	303.4	[100]	ug/L	08:46:01
3	B 249.677†	4533.6	4880.4	[100]	ug/L	08:45:41
3	Ba 233.527†	14829.7	14648.6	[100]	ug/L	08:45:41
3	Be 313.107†	311267.6	312589.0	[100]	ug/L	08:45:41
3	Cd 226.502†	10614.7	10756.1	[100]	ug/L	08:46:01
3	Co 228.616†	5563.6	5597.4	[100]	ug/L	08:46:01
3	Cr 267.716†	10772.6	10521.9	[100]	ug/L	08:45:41
3	Cu 324.752†	43347.8	34393.9	[100]	ug/L	08:45:41
3	K 766.490 Radial†	8536.0	5311.3	[1000]	ug/L	08:44:37
3	Mn 257.610†	103649.0	101887.0	[100]	ug/L	08:45:41
3	Mo 202.031†	1727.2	1683.0	[100]	ug/L	08:46:01
3	Ni 231.604†	4983.6	4790.6	[100]	ug/L	08:46:01
3	P 214.914†	1359.2	1073.3	[500]	ug/L	08:46:01
3	Pb 220.353†	923.2	997.8	[100]	ug/L	08:46:01
3	S 181.975 Axial†	235.4	171.1	[200]	ug/L	08:46:01
3	Sb 206.836†	395.4	345.9	[100]	ug/L	08:46:01
3	Se 196.026†	163.4	194.3	[100]	ug/L	08:46:01
3	Si 251.611†	19398.0	18448.0	[500]	ug/L	08:45:41
3	Sn 189.927†	700.7	689.7	[100]	ug/L	08:46:01
3	Sr 421.552†	14721.8	14898.3	[100]	ug/L	08:44:42
3	Ti 334.940†	66448.8	67432.0	[100]	ug/L	08:45:41
3	Tl 190.801†	334.9	380.7	[100]	ug/L	08:46:01
3	U 409.014†	741.5	3652.2	[100]	ug/L	08:45:41
3	V 292.402†	15044.5	16691.2	[100]	ug/L	08:45:41
3	Zn 213.857†	13733.7	12669.9	[100]	ug/L	08:45:41
3	SiO2†	19280.4	18313.0	[1069.5]	ug/L	08:46:17

Mean Data: S0.1

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	941162.9	8555.06	0.91%	100.26	%
Sc Radial	4928.3	51.86	1.05%	99.6	%
Y 371.029	817163.1	7014.06	0.86%	99.883	%
Y RADIAL	5268.7	70.12	1.33%	99.32	%
Ag 328.068†	23958.9	50.03	0.21%	[100]	ug/L
As 188.979†	306.5	3.69	1.20%	[100]	ug/L
B 249.677†	4858.3	35.03	0.72%	[100]	ug/L
Ba 233.527†	14654.0	31.07	0.21%	[100]	ug/L
Be 313.107†	312540.7	117.55	0.04%	[100]	ug/L
Cd 226.502†	10835.0	80.91	0.75%	[100]	ug/L
Co 228.616†	5647.4	57.21	1.01%	[100]	ug/L
Cr 267.716†	10561.2	56.45	0.53%	[100]	ug/L
Cu 324.752†	34404.0	35.61	0.10%	[100]	ug/L
K 766.490 Radial†	5229.8	71.65	1.37%	[1000]	ug/L
Mn 257.610†	101819.5	93.32	0.09%	[100]	ug/L
Mo 202.031†	1700.8	15.61	0.92%	[100]	ug/L
Ni 231.604†	4810.5	27.75	0.58%	[100]	ug/L
P 214.914†	1090.9	18.92	1.73%	[500]	ug/L
Pb 220.353†	1014.5	16.27	1.60%	[100]	ug/L
S 181.975 Axial†	175.9	7.85	4.46%	[200]	ug/L
Sb 206.836†	339.8	5.41	1.59%	[100]	ug/L
Se 196.026†	198.7	5.16	2.60%	[100]	ug/L
Si 251.611†	18456.8	10.62	0.06%	[500]	ug/L
Sn 189.927†	700.5	10.90	1.56%	[100]	ug/L
Sr 421.552†	14938.8	38.32	0.26%	[100]	ug/L
Ti 334.940†	67527.8	88.36	0.13%	[100]	ug/L
Tl 190.801†	378.5	1.94	0.51%	[100]	ug/L
U 409.014†	3620.4	183.70	5.07%	[100]	ug/L
V 292.402†	16697.4	15.61	0.09%	[100]	ug/L
Zn 213.857†	12730.0	52.32	0.41%	[100]	ug/L
SiO2†	18519.8	207.46	1.12%	[1069.5]	ug/L

Sequence No.: 3
Sample ID: S0.5
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 3
Date Collected: 12/29/2009 08:48:27
Data Type: Reprocessed on 12/29/2009 10:09:27

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc 361.383	926662.7	926662.7	98.712	%	08:51:39
1	Sc Radial	4792.0	4792.0	96.9	%	08:50:20
1	Y 371.029	797940.6	797940.6	97.534	%	08:51:39
1	Y RADIAL	5079.3	5079.3	95.75	%	08:50:20
1	Ag 328.068†	118639.9	119722.1	[500]	ug/L	08:51:39
1	Al 396.153Radial†	6150.9	6369.5	[5000]	ug/L	08:50:20
1	As 188.979†	1469.9	1523.9	[500]	ug/L	08:51:59
1	B 249.677†	24484.9	25200.4	[500]	ug/L	08:51:39
1	Ba 233.527†	72489.6	73415.2	[500]	ug/L	08:51:39
1	Be 313.107†	1557126.5	1582141.9	[500]	ug/L	08:51:39
1	Ca 317.933Radial†	3166.9	3247.0	[5000]	ug/L	08:50:40
1	Cd 226.502†	54741.5	55712.3	[500]	ug/L	08:51:39
1	Co 228.616†	27723.4	28179.3	[500]	ug/L	08:51:59
1	Cr 267.716†	52512.3	53063.7	[500]	ug/L	08:51:39
1	Cu 324.752†	180585.6	174458.3	[500]	ug/L	08:51:39
1	K 766.490 Radial†	28325.6	25900.5	[5000]	ug/L	08:50:20
1	Mg 279.077 IEC†	162.5	165.0	[5000]	ug/L	08:50:40
1	Mn 257.610†	500900.6	506798.7	[500]	ug/L	08:51:39
1	Mo 202.031†	8441.2	8525.8	[500]	ug/L	08:51:59
1	Ni 231.604†	23849.1	24021.4	[500]	ug/L	08:51:59
1	P 214.914†	5731.8	5535.4	[2500]	ug/L	08:51:59
1	Pb 220.353†	4923.4	5072.3	[500]	ug/L	08:51:59
1	S 181.975 Axial†	964.7	915.6	[1000]	ug/L	08:51:59
1	Sb 206.836†	1776.8	1754.7	[500]	ug/L	08:51:59
1	Se 196.026†	1005.1	1050.9	[500]	ug/L	08:51:59
1	Si 251.611†	92946.7	93419.9	[2500]	ug/L	08:51:39
1	Sn 189.927†	3518.0	3560.5	[500]	ug/L	08:51:59
1	Sr 421.552†	72258.4	74564.5	[500]	ug/L	08:50:20
1	Ti 334.940†	333562.5	339618.9	[500]	ug/L	08:51:39
1	Tl 190.801†	1856.5	1930.2	[500]	ug/L	08:51:59
1	U 409.014†	13953.2	17053.9	[500]	ug/L	08:51:39
1	V 292.402†	81375.8	84247.5	[500]	ug/L	08:51:39
1	Zn 213.857†	64128.1	64050.0	[500]	ug/L	08:51:39
1	SiO2†	92321.9	92768.2	[5347.5]	ug/L	08:52:59
2	Sc 361.383	934890.0	934890.0	99.589	%	08:52:06
2	Sc Radial	4841.7	4841.7	97.9	%	08:50:45
2	Y 371.029	803643.8	803643.8	98.231	%	08:52:06
2	Y RADIAL	5152.1	5152.1	97.12	%	08:50:45
2	Ag 328.068†	119822.6	119852.0	[500]	ug/L	08:52:06
2	Al 396.153Radial†	6206.7	6361.2	[5000]	ug/L	08:50:45
2	As 188.979†	1459.9	1500.8	[500]	ug/L	08:52:26
2	B 249.677†	24854.5	25353.3	[500]	ug/L	08:52:06
2	Ba 233.527†	73189.5	73471.8	[500]	ug/L	08:52:06
2	Be 313.107†	1569973.0	1581159.7	[500]	ug/L	08:52:06
2	Ca 317.933Radial†	3143.1	3189.1	[5000]	ug/L	08:51:05
2	Cd 226.502†	55144.4	55628.8	[500]	ug/L	08:52:06
2	Co 228.616†	27509.5	27717.3	[500]	ug/L	08:52:26
2	Cr 267.716†	52953.1	53038.1	[500]	ug/L	08:52:06
2	Cu 324.752†	182559.0	174829.9	[500]	ug/L	08:52:06
2	K 766.490 Radial†	28602.8	25883.4	[5000]	ug/L	08:50:45
2	Mg 279.077 IEC†	163.6	164.4	[5000]	ug/L	08:51:05
2	Mn 257.610†	505346.3	506797.2	[500]	ug/L	08:52:06
2	Mo 202.031†	8407.1	8416.4	[500]	ug/L	08:52:26
2	Ni 231.604†	23738.2	23697.4	[500]	ug/L	08:52:26
2	P 214.914†	5687.5	5439.8	[2500]	ug/L	08:52:26
2	Pb 220.353†	4914.2	5019.1	[500]	ug/L	08:52:26
2	S 181.975 Axial†	955.0	897.2	[1000]	ug/L	08:52:26
2	Sb 206.836†	1751.1	1713.1	[500]	ug/L	08:52:26

2	Se 196.026†	1005.8	1042.6	[500]	ug/L	08:52:26
2	Si 251.611†	93802.0	93450.1	[2500]	ug/L	08:52:06
2	Sn 189.927†	3452.9	3463.8	[500]	ug/L	08:52:26
2	Sr 421.552†	73282.4	74844.4	[500]	ug/L	08:50:45
2	Ti 334.940†	337098.5	340195.8	[500]	ug/L	08:52:06
2	Tl 190.801†	1832.8	1889.8	[500]	ug/L	08:52:26
2	U 409.014†	14297.5	17275.2	[500]	ug/L	08:52:06
2	V 292.402†	82274.6	84424.5	[500]	ug/L	08:52:06
2	Zn 213.857†	64743.1	64095.9	[500]	ug/L	08:52:06
2	SiO2†	93176.7	92803.6	[5347.5]	ug/L	08:53:04
3	Sc 361.383	919928.3	919928.3	97.995	%	08:52:34
3	Sc Radial	4925.8	4925.8	99.6	%	08:51:10
3	Y 371.029	791909.2	791909.2	96.797	%	08:52:34
3	Y RADIAL	5229.3	5229.3	98.58	%	08:51:10
3	Ag 328.068†	117537.2	119476.7	[500]	ug/L	08:52:34
3	Al 396.153Radial†	6383.2	6430.3	[5000]	ug/L	08:51:10
3	As 188.979†	1458.7	1523.4	[500]	ug/L	08:52:54
3	B 249.677†	24283.1	25176.0	[500]	ug/L	08:52:34
3	Ba 233.527†	71900.9	73352.0	[500]	ug/L	08:52:34
3	Be 313.107†	1543394.1	1579676.3	[500]	ug/L	08:52:34
3	Ca 317.933Radial†	3145.5	3136.7	[5000]	ug/L	08:51:30
3	Cd 226.502†	54125.4	55489.6	[500]	ug/L	08:52:34
3	Co 228.616†	27502.5	28159.5	[500]	ug/L	08:52:54
3	Cr 267.716†	52023.6	52954.4	[500]	ug/L	08:52:34
3	Cu 324.752†	178998.5	174177.9	[500]	ug/L	08:52:34
3	K 766.490 Radial†	29153.4	25937.6	[5000]	ug/L	08:51:10
3	Mg 279.077 IEC†	163.1	161.1	[5000]	ug/L	08:51:30
3	Mn 257.610†	496712.9	506240.0	[500]	ug/L	08:52:34
3	Mo 202.031†	8419.3	8566.1	[500]	ug/L	08:52:54
3	Ni 231.604†	23703.0	24049.1	[500]	ug/L	08:52:54
3	P 214.914†	5686.2	5531.4	[2500]	ug/L	08:52:54
3	Pb 220.353†	4890.9	5075.6	[500]	ug/L	08:52:54
3	S 181.975 Axial†	955.7	913.6	[1000]	ug/L	08:52:54
3	Sb 206.836†	1751.0	1741.6	[500]	ug/L	08:52:54
3	Se 196.026†	1015.6	1069.0	[500]	ug/L	08:52:54
3	Si 251.611†	92031.3	93175.1	[2500]	ug/L	08:52:34
3	Sn 189.927†	3461.2	3528.7	[500]	ug/L	08:52:54
3	Sr 421.552†	74661.6	74951.6	[500]	ug/L	08:51:10
3	Ti 334.940†	331045.3	339523.9	[500]	ug/L	08:52:34
3	Tl 190.801†	1847.2	1934.5	[500]	ug/L	08:52:54
3	U 409.014†	14101.8	17309.0	[500]	ug/L	08:52:34
3	V 292.402†	80737.2	84199.3	[500]	ug/L	08:52:34
3	Zn 213.857†	63332.1	63713.3	[500]	ug/L	08:52:34
3	SiO2†	92507.3	93642.2	[5347.5]	ug/L	08:53:09

Mean Data: S0.5

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	927160.4	7493.22	0.81%	98.765	%
Sc Radial	4853.1	67.63	1.39%	98.1	%
Y 371.029	797831.2	5868.09	0.74%	97.521	%
Y RADIAL	5153.6	75.02	1.46%	97.15	%
Ag 328.068†	119683.6	190.61	0.16%	[500]	ug/L
Al 396.153Radial†	6387.0	37.70	0.59%	[5000]	ug/L
As 188.979†	1516.0	13.19	0.87%	[500]	ug/L
B 249.677†	25243.2	96.07	0.38%	[500]	ug/L
Ba 233.527†	73413.0	59.90	0.08%	[500]	ug/L
Be 313.107†	1580992.6	1241.27	0.08%	[500]	ug/L
Ca 317.933Radial†	3190.9	55.15	1.73%	[5000]	ug/L
Cd 226.502†	55610.2	112.54	0.20%	[500]	ug/L
Co 228.616†	28018.7	261.18	0.93%	[500]	ug/L
Cr 267.716†	53018.7	57.16	0.11%	[500]	ug/L
Cu 324.752†	174488.7	327.05	0.19%	[500]	ug/L
K 766.490 Radial†	25907.2	27.70	0.11%	[5000]	ug/L
Mg 279.077 IEC†	163.5	2.11	1.29%	[5000]	ug/L
Mn 257.610†	506612.0	322.15	0.06%	[500]	ug/L
Mo 202.031†	8502.8	77.47	0.91%	[500]	ug/L
Ni 231.604†	23922.6	195.55	0.82%	[500]	ug/L
P 214.914†	5502.2	54.07	0.98%	[2500]	ug/L
Pb 220.353†	5055.7	31.69	0.63%	[500]	ug/L

S 181.975 Axial†	908.8	10.08	1.11%	[1000]	ug/L
Sb 206.836†	1736.5	21.30	1.23%	[500]	ug/L
Se 196.026†	1054.2	13.52	1.28%	[500]	ug/L
Si 251.611†	93348.4	150.81	0.16%	[2500]	ug/L
Sn 189.927†	3517.6	49.31	1.40%	[500]	ug/L
Sr 421.552†	74786.8	199.89	0.27%	[500]	ug/L
Ti 334.940†	339779.5	363.58	0.11%	[500]	ug/L
Tl 190.801†	1918.2	24.62	1.28%	[500]	ug/L
U 409.014†	17212.7	138.56	0.81%	[500]	ug/L
V 292.402†	84290.4	118.62	0.14%	[500]	ug/L
Zn 213.857†	63953.0	208.91	0.33%	[500]	ug/L
SiO2†	93071.3	494.67	0.53%	[5347.5]	ug/L

Sequence No.: 4
Sample ID: SCAL
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 4
Date Collected: 12/29/2009 08:55:20
Data Type: Reprocessed on 12/29/2009 10:09:28

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: SCAL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc 361.383	918155.4	918155.4	97.806	%	08:58:31
1	Sc Radial	4792.5	4792.5	96.9	%	08:57:33
1	Y 371.029	773056.9	773056.9	94.492	%	08:58:37
1	Y RADIAL	5038.7	5038.7	94.98	%	08:57:33
1	Ag 328.068†	236840.1	241687.4	[1000]	ug/L	08:58:37
1	Al 396.153Radial†	12178.9	12589.4	[10000]	ug/L	08:57:13
1	As 188.979†	2958.9	3060.1	[1000]	ug/L	08:58:57
1	B 249.677†	49754.0	51266.2	[1000]	ug/L	08:58:37
1	Ba 233.527†	143766.2	146971.2	[1000]	ug/L	08:58:37
1	Be 313.107†	3074906.4	3148585.5	[1000]	ug/L	08:58:31
1	Ca 317.933Radial†	6281.8	6461.1	[10000]	ug/L	08:57:33
1	Cd 226.502†	108162.6	110845.6	[1000]	ug/L	08:58:37
1	Co 228.616†	55645.5	56987.9	[1000]	ug/L	08:58:37
1	Cr 267.716†	104136.3	106338.6	[1000]	ug/L	08:58:37
1	Cu 324.752†	350815.4	350201.8	[1000]	ug/L	08:58:37
1	Fe 238.204 Radial†	1140.2	1163.3	[10000]	ug/L	08:57:33
1	K 766.490 Radial†	52985.7	51345.6	[10000]	ug/L	08:57:13
1	Mg 279.077 IEC†	321.0	328.6	[10000]	ug/L	08:57:33
1	Mn 257.610†	985560.2	1007032.2	[1000]	ug/L	08:58:31
1	Mo 202.031†	16705.3	17054.6	[1000]	ug/L	08:58:57
1	Na 589.592 Radial†	31058.4	33848.3	[10000]	ug/L	08:57:13
1	Ni 231.604†	47397.0	48321.3	[1000]	ug/L	08:58:37
1	P 214.914†	11115.1	11093.2	[5000]	ug/L	08:58:57
1	Pb 220.353†	9810.3	10115.0	[1000]	ug/L	08:58:57
1	S 181.975 Axial†	1861.8	1841.9	[2000]	ug/L	08:58:57
1	Sb 206.836†	3497.6	3530.8	[1000]	ug/L	08:58:57
1	Se 196.026†	2046.7	2125.2	[1000]	ug/L	08:58:57
1	Si 251.611†	184660.8	188063.8	[5000]	ug/L	08:58:37
1	Sn 189.927†	6954.7	7107.3	[1000]	ug/L	08:58:57
1	Sr 421.552†	144280.5	148880.3	[1000]	ug/L	08:57:13
1	Ti 334.940†	664769.5	681386.7	[1000]	ug/L	08:58:31
1	Tl 190.801†	3712.4	3845.1	[1000]	ug/L	08:58:57
1	U 409.014†	32836.2	36491.5	[1000]	ug/L	08:58:37
1	V 292.402†	164301.4	169797.1	[1000]	ug/L	08:58:37
1	Zn 213.857†	125827.3	127735.2	[1000]	ug/L	08:58:37
1	SiO2†	183307.6	186661.6	[10695]	ug/L	09:00:07
2	Sc 361.383	919168.3	919168.3	97.914	%	08:59:03
2	Sc Radial	4827.4	4827.4	97.6	%	08:57:58
2	Y 371.029	781394.9	781394.9	95.511	%	08:59:09
2	Y RADIAL	5094.9	5094.9	96.04	%	08:57:58
2	Ag 328.068†	239167.3	243797.4	[1000]	ug/L	08:59:09
2	Al 396.153Radial†	12709.7	13042.3	[10000]	ug/L	08:57:38
2	As 188.979†	2953.3	3051.1	[1000]	ug/L	08:59:29
2	B 249.677†	50345.5	51814.3	[1000]	ug/L	08:59:09
2	Ba 233.527†	144782.2	147846.8	[1000]	ug/L	08:59:09
2	Be 313.107†	3069627.1	3139729.3	[1000]	ug/L	08:59:03
2	Ca 317.933Radial†	6297.0	6429.8	[10000]	ug/L	08:57:58
2	Cd 226.502†	108843.5	111419.1	[1000]	ug/L	08:59:09
2	Co 228.616†	56007.3	57294.8	[1000]	ug/L	08:59:09
2	Cr 267.716†	104813.0	106912.4	[1000]	ug/L	08:59:09
2	Cu 324.752†	354408.1	353475.8	[1000]	ug/L	08:59:09
2	Fe 238.204 Radial†	1142.0	1156.7	[10000]	ug/L	08:57:58
2	K 766.490 Radial†	55315.1	53336.7	[10000]	ug/L	08:57:38
2	Mg 279.077 IEC†	320.1	325.2	[10000]	ug/L	08:57:58
2	Mn 257.610†	986480.9	1006862.1	[1000]	ug/L	08:59:03
2	Mo 202.031†	16636.8	16965.8	[1000]	ug/L	08:59:29
2	Na 589.592 Radial†	32576.9	35172.4	[10000]	ug/L	08:57:38
2	Ni 231.604†	47820.2	48700.2	[1000]	ug/L	08:59:09

2	P 214.914†	11053.3	11017.6	[5000]	ug/L	08:59:29
2	Pb 220.353†	9760.4	10053.0	[1000]	ug/L	08:59:29
2	S 181.975 Axial†	1840.4	1818.0	[2000]	ug/L	08:59:29
2	Sb 206.836†	3451.6	3479.9	[1000]	ug/L	08:59:29
2	Se 196.026†	2025.9	2101.8	[1000]	ug/L	08:59:29
2	Si 251.611†	186072.7	189297.8	[5000]	ug/L	08:59:09
2	Sn 189.927†	6901.8	7045.5	[1000]	ug/L	08:59:29
2	Sr 421.552†	150847.3	154531.6	[1000]	ug/L	08:57:38
2	Ti 334.940†	665534.0	681418.5	[1000]	ug/L	08:59:03
2	Tl 190.801†	3675.7	3803.5	[1000]	ug/L	08:59:29
2	U 409.014†	33151.8	36776.8	[1000]	ug/L	08:59:09
2	V 292.402†	165695.3	171035.6	[1000]	ug/L	08:59:09
2	Zn 213.857†	126925.2	128714.8	[1000]	ug/L	08:59:09
2	SiO2†	181990.6	185110.0	[10695]	ug/L	09:00:12
3	Sc 361.383	920164.2	920164.2	98.020	%	08:59:35
3	Sc Radial	4830.8	4830.8	97.7	%	08:58:23
3	Y 371.029	777296.1	777296.1	95.010	%	08:59:41
3	Y RADIAL	5102.6	5102.6	96.19	%	08:58:23
3	Ag 328.068†	237320.5	241648.9	[1000]	ug/L	08:59:41
3	Al 396.153Radial†	12778.6	13103.6	[10000]	ug/L	08:58:03
3	As 188.979†	2928.1	3022.1	[1000]	ug/L	09:00:01
3	B 249.677†	49907.6	51311.8	[1000]	ug/L	08:59:41
3	Ba 233.527†	143838.6	146724.1	[1000]	ug/L	08:59:41
3	Be 313.107†	3078907.9	3145804.4	[1000]	ug/L	08:59:35
3	Ca 317.933Radial†	6355.1	6484.7	[10000]	ug/L	08:58:23
3	Cd 226.502†	108187.1	110629.1	[1000]	ug/L	08:59:41
3	Co 228.616†	55714.1	56933.8	[1000]	ug/L	08:59:41
3	Cr 267.716†	104397.5	106372.6	[1000]	ug/L	08:59:41
3	Cu 324.752†	351234.5	349846.3	[1000]	ug/L	08:59:41
3	Fe 238.204 Radial†	1148.5	1162.5	[10000]	ug/L	08:58:23
3	K 766.490 Radial†	55436.3	53420.7	[10000]	ug/L	08:58:03
3	Mg 279.077 IEC†	322.0	326.9	[10000]	ug/L	08:58:23
3	Mn 257.610†	986330.4	1005618.1	[1000]	ug/L	08:59:35
3	Mo 202.031†	16625.0	16935.4	[1000]	ug/L	09:00:01
3	Na 589.592 Radial†	32743.0	35318.8	[10000]	ug/L	08:58:03
3	Ni 231.604†	47425.4	48244.5	[1000]	ug/L	08:59:41
3	P 214.914†	11037.6	10989.4	[5000]	ug/L	09:00:01
3	Pb 220.353†	9746.7	10028.2	[1000]	ug/L	09:00:01
3	S 181.975 Axial†	1831.4	1806.7	[2000]	ug/L	09:00:01
3	Sb 206.836†	3454.3	3478.8	[1000]	ug/L	09:00:01
3	Se 196.026†	2029.7	2103.3	[1000]	ug/L	09:00:01
3	Si 251.611†	184582.1	187571.3	[5000]	ug/L	08:59:41
3	Sn 189.927†	6920.5	7056.9	[1000]	ug/L	09:00:01
3	Sr 421.552†	151966.2	155567.6	[1000]	ug/L	08:58:03
3	Ti 334.940†	665567.9	680717.4	[1000]	ug/L	08:59:35
3	Tl 190.801†	3667.6	3791.1	[1000]	ug/L	09:00:01
3	U 409.014†	32804.2	36385.5	[1000]	ug/L	08:59:41
3	V 292.402†	164755.9	169894.1	[1000]	ug/L	08:59:41
3	Zn 213.857†	125920.9	127549.8	[1000]	ug/L	08:59:41
3	SiO2†	185464.6	188453.0	[10695]	ug/L	09:00:17

Mean Data: SCAL

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	919162.6	1004.44	0.11%	97.913	%
Sc Radial	4816.9	21.21	0.44%	97.4	%
Y 371.029	777249.3	4169.17	0.54%	95.005	%
Y RADIAL	5078.7	34.85	0.69%	95.74	%
Ag 328.068†	242377.9	1229.45	0.51%	[1000]	ug/L
Al 396.153Radial†	12911.8	280.88	2.18%	[10000]	ug/L
As 188.979†	3044.4	19.85	0.65%	[1000]	ug/L
B 249.677†	51464.1	304.13	0.59%	[1000]	ug/L
Ba 233.527†	147180.7	589.95	0.40%	[1000]	ug/L
Be 313.107†	3144706.4	4529.04	0.14%	[1000]	ug/L
Ca 317.933Radial†	6458.5	27.57	0.43%	[10000]	ug/L
Cd 226.502†	110964.6	408.21	0.37%	[1000]	ug/L
Co 228.616†	57072.2	194.69	0.34%	[1000]	ug/L
Cr 267.716†	106541.2	321.93	0.30%	[1000]	ug/L
Cu 324.752†	351174.7	2000.79	0.57%	[1000]	ug/L
Fe 238.204 Radial†	1160.8	3.64	0.31%	[10000]	ug/L

K 766.490 Radial†	52701.0	1174.56	2.23%	[10000]	ug/L
Mg 279.077 IEC†	326.9	1.67	0.51%	[10000]	ug/L
Mn 257.610†	1006504.1	772.06	0.08%	[1000]	ug/L
Mo 202.031†	16985.2	61.91	0.36%	[1000]	ug/L
Na 589.592 Radial†	34779.8	810.03	2.33%	[10000]	ug/L
Ni 231.604†	48422.0	243.94	0.50%	[1000]	ug/L
P 214.914†	11033.4	53.68	0.49%	[5000]	ug/L
Pb 220.353†	10065.4	44.70	0.44%	[1000]	ug/L
S 181.975 Axial†	1822.2	17.96	0.99%	[2000]	ug/L
Sb 206.836†	3496.5	29.71	0.85%	[1000]	ug/L
Se 196.026†	2110.1	13.13	0.62%	[1000]	ug/L
Si 251.611†	188311.0	889.37	0.47%	[5000]	ug/L
Sn 189.927†	7069.9	32.91	0.47%	[1000]	ug/L
Sr 421.552†	152993.2	3599.32	2.35%	[1000]	ug/L
Ti 334.940†	681174.2	395.95	0.06%	[1000]	ug/L
Tl 190.801†	3813.2	28.29	0.74%	[1000]	ug/L
U 409.014†	36551.3	202.34	0.55%	[1000]	ug/L
V 292.402†	170242.3	688.76	0.40%	[1000]	ug/L
Zn 213.857†	128000.0	625.98	0.49%	[1000]	ug/L
SiO2†	186741.5	1672.93	0.90%	[10695]	ug/L

Sequence No.: 5
Sample ID: S10
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 5
Date Collected: 12/29/2009 09:02:28
Data Type: Reprocessed on 12/29/2009 10:09:29

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S10

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc 361.383	908101.3	908101.3	96.735	%	09:05:39
1	Sc Radial	4814.3	4814.3	97.3	%	09:04:42
1	Y 371.029	777198.0	777198.0	94.998	%	09:05:39
1	Y RADIAL	5124.0	5124.0	96.59	%	09:04:42
1	Al 396.153Radial†	61339.2	63033.9	[50000]	ug/L	09:04:22
1	Ca 317.933Radial†	30688.4	31504.1	[50000]	ug/L	09:04:22
1	Fe 238.204 Radial†	2215.7	2262.9	[20000]	ug/L	09:04:42
1	Mg 279.077 IEC†	1516.8	1555.5	[50000]	ug/L	09:04:42
1	Na 589.592 Radial†	66358.3	69966.0	[20000]	ug/L	09:04:22
2	Sc 361.383	898632.4	898632.4	95.726	%	09:05:45
2	Sc Radial	4818.2	4818.2	97.4	%	09:05:07
2	Y 371.029	769935.7	769935.7	94.111	%	09:05:45
2	Y RADIAL	5101.4	5101.4	96.16	%	09:05:07
2	Al 396.153Radial†	61840.8	63497.2	[50000]	ug/L	09:04:47
2	Ca 317.933Radial†	30905.7	31701.4	[50000]	ug/L	09:04:47
2	Fe 238.204 Radial†	2219.8	2265.2	[20000]	ug/L	09:05:07
2	Mg 279.077 IEC†	1524.0	1561.5	[50000]	ug/L	09:05:07
2	Na 589.592 Radial†	66582.6	70140.4	[20000]	ug/L	09:04:47
3	Sc 361.383	898592.9	898592.9	95.722	%	09:05:50
3	Sc Radial	4765.2	4765.2	96.4	%	09:05:32
3	Y 371.029	769208.1	769208.1	94.022	%	09:05:50
3	Y RADIAL	5057.5	5057.5	95.34	%	09:05:32
3	Al 396.153Radial†	62629.6	65022.7	[50000]	ug/L	09:05:12
3	Ca 317.933Radial†	31299.9	32463.8	[50000]	ug/L	09:05:12
3	Fe 238.204 Radial†	2201.0	2271.1	[20000]	ug/L	09:05:32
3	Mg 279.077 IEC†	1508.7	1563.1	[50000]	ug/L	09:05:32
3	Na 589.592 Radial†	67708.8	72070.5	[20000]	ug/L	09:05:12

Mean Data: S10

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	901775.5	5478.31	0.61%	96.061	%
Sc Radial	4799.2	29.57	0.62%	97.0	%
Y 371.029	772113.9	4417.93	0.57%	94.377	%
Y RADIAL	5094.3	33.81	0.66%	96.03	%
Al 396.153Radial†	63851.3	1040.64	1.63%	[50000]	ug/L
Ca 317.933Radial†	31889.8	506.83	1.59%	[50000]	ug/L
Fe 238.204 Radial†	2266.4	4.23	0.19%	[20000]	ug/L
Mg 279.077 IEC†	1560.0	4.03	0.26%	[50000]	ug/L
Na 589.592 Radial†	70725.6	1167.90	1.65%	[20000]	ug/L

Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 328.068	3	Lin Thru 0	0.0	241.8	0.00000	0.999987	
Al 396.153Radial	3	Lin Thru 0	0.0	1.278	0.00000	0.999998	
As 188.979	3	Lin Thru 0	0.0	3.042	0.00000	0.999998	
B 249.677	3	Lin Thru 0	0.0	51.25	0.00000	0.999960	
Ba 233.527	3	Lin Thru 0	0.0	147.1	0.00000	0.999999	
Be 313.107	3	Lin Thru 0	0.0	3148	0.00000	0.999997	
Ca 317.933Radial	3	Lin Thru 0	0.0	0.6381	0.00000	0.999997	
Cd 226.502	3	Lin Thru 0	0.0	111.0	0.00000	0.999997	
Co 228.616	3	Lin Thru 0	0.0	56.86	0.00000	0.999974	
Cr 267.716	3	Lin Thru 0	0.0	106.4	0.00000	0.999998	
Cu 324.752	3	Lin Thru 0	0.0	350.7	0.00000	0.999995	
Fe 238.204 Radia	2	Lin Thru 0	0.0	0.1139	0.00000	0.999953	

K 766.490 Radial	3	Lin Thru 0	0.0	5.252	0.00000	0.999977
Mg 279.077 IEC	3	Lin Thru 0	0.0	0.0313	0.00000	0.999948
Mn 257.610	3	Lin Thru 0	0.0	1008	0.00000	0.999996
Mo 202.031	3	Lin Thru 0	0.0	16.99	0.00000	1.000000
Na 589.592 Radia	2	Lin Thru 0	0.0	3.525	0.00000	0.999978
Ni 231.604	3	Lin Thru 0	0.0	48.31	0.00000	0.999989
P 214.914	3	Lin Thru 0	0.0	2.205	0.00000	0.999999
Pb 220.353	3	Lin Thru 0	0.0	10.08	0.00000	0.999998
S 181.975 Axial	3	Lin Thru 0	0.0	0.9104	0.00000	0.999995
Sb 206.836	3	Lin Thru 0	0.0	3.491	0.00000	0.999994
Se 196.026	3	Lin Thru 0	0.0	2.109	0.00000	0.999987
Si 251.611	3	Lin Thru 0	0.0	37.59	0.00000	0.999993
Sn 189.927	3	Lin Thru 0	0.0	7.063	0.00000	0.999998
Sr 421.552	3	Lin Thru 0	0.0	152.3	0.00000	0.999959
Ti 334.940	3	Lin Thru 0	0.0	680.8	0.00000	0.999999
Tl 190.801	3	Lin Thru 0	0.0	3.818	0.00000	0.999997
U 409.014	3	Lin Thru 0	0.0	36.13	0.00000	0.999725
V 292.402	3	Lin Thru 0	0.0	169.9	0.00000	0.999991
Zn 213.857	3	Lin Thru 0	0.0	128.0	0.00000	1.000000
SiO2	3	Lin Thru 0	0.0	17.45	0.00000	0.999999

Sequence No.: 6
Sample ID: ICV
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 9
Date Collected: 12/29/2009 09:08:02
Data Type: Reprocessed on 12/29/2009 10:09:30

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc 361.383	933660.0	933660.0	99.458	%			09:11:12
1	Sc Radial	4836.4	4836.4	97.8	%			09:09:54
1	Y 371.029	805849.4	805849.4	98.501	%			09:11:12
1	Y RADIAL	5182.0	5182.0	97.68	%			09:09:54
1	Ag 328.068†	62663.6	62539.8	261.93	ug/L	261.93	ppb	09:11:12
1	Al 396.153Radial†	6420.5	6586.9	5132.5	ug/L	5132.5	ppb	09:09:54
1	As 188.979†	1429.4	1472.0	488.20	ug/L	488.20	ppb	09:11:32
1	B 249.677†	25942.4	26480.0	514.75	ug/L	514.75	ppb	09:11:12
1	Ba 233.527†	74219.3	74603.9	508.42	ug/L	508.42	ppb	09:11:12
1	Be 313.107†	817275.7	826434.2	263.51	ug/L	263.51	ppb	09:11:12
1	Ca 317.933Radial†	3214.1	3265.3	5117.1	ug/L	5117.1	ppb	09:10:14
1	Cd 226.502†	55073.0	55630.0	501.00	ug/L	501.00	ppb	09:11:12
1	Co 228.616†	28269.2	28517.6	501.86	ug/L	501.86	ppb	09:11:32
1	Cr 267.716†	51649.8	51797.8	487.50	ug/L	487.50	ppb	09:11:12
1	Cu 324.752†	184125.4	176646.4	503.99	ug/L	503.99	ppb	09:11:12
1	Fe 238.204 Radial†	591.6	591.7	5212.0	ug/L	5212.0	ppb	09:10:14
1	K 766.490 Radial†	16072.1	13101.8	2489.2	ug/L	2489.2	ppb	09:09:54
1	Mg 279.077 IEC†	174.0	175.3	5610.8	ug/L	5610.8	ppb	09:10:14
1	Mn 257.610†	518694.2	520886.4	517.20	ug/L	517.20	ppb	09:11:12
1	Mo 202.031†	9201.5	9226.2	543.55	ug/L	543.55	ppb	09:11:32
1	Na 589.592 Radial†	6738.3	8687.9	2464.9	ug/L	2464.9	ppb	09:09:54
1	Ni 231.604†	24253.3	24246.7	501.63	ug/L	501.63	ppb	09:11:32
1	P 214.914†	5861.0	5621.8	2473.5	ug/L	2473.5	ppb	09:11:32
1	Pb 220.353†	4969.7	5081.4	506.02	ug/L	506.02	ppb	09:11:32
1	S 181.975 Axial†	2359.9	2311.1	2537.5	ug/L	2537.5	ppb	09:11:32
1	Sb 206.836†	1791.1	1755.6	512.20	ug/L	512.20	ppb	09:11:32
1	Se 196.026†	5489.9	5552.5	2651.8	ug/L	2651.8	ppb	09:11:32
1	Si 251.611†	183606.6	183868.5	4879.1	ug/L	4879.1	ppb	09:11:12
1	Sn 189.927†	3812.9	3830.3	542.95	ug/L	542.95	ppb	09:11:32
1	Sr 421.552†	79373.1	81155.3	532.87	ug/L	532.87	ppb	09:09:54
1	Ti 334.940†	336655.6	340196.4	499.58	ug/L	499.58	ppb	09:11:12
1	Tl 190.801†	1975.3	2035.5	536.45	ug/L	536.45	ppb	09:11:32
1	U 409.014†	14676.8	17675.5	487.67	ug/L	487.67	ppb	09:11:12
1	V 292.402†	84003.3	86271.5	515.12	ug/L	515.12	ppb	09:11:12
1	Zn 213.857†	66882.1	66332.2	514.05	ug/L	514.05	ppb	09:11:12
1	SiO2†	183793.8	184038.1	10522	ug/L	10522	ppb	09:12:30
2	Sc 361.383	945841.3	945841.3	100.76	%			09:11:38
2	Sc Radial	5009.2	5009.2	101	%			09:10:20
2	Y 371.029	815520.7	815520.7	99.683	%			09:11:38
2	Y RADIAL	5358.6	5358.6	101.0	%			09:10:20
2	Ag 328.068†	63297.2	62357.2	261.12	ug/L	261.12	ppb	09:11:38
2	Al 396.153Radial†	6375.8	6316.2	4920.9	ug/L	4920.9	ppb	09:10:20
2	As 188.979†	1415.8	1440.1	477.68	ug/L	477.68	ppb	09:11:58
2	B 249.677†	26421.4	26619.4	517.50	ug/L	517.50	ppb	09:11:38
2	Ba 233.527†	75251.3	74667.2	508.85	ug/L	508.85	ppb	09:11:38
2	Be 313.107†	828062.0	826556.7	263.55	ug/L	263.55	ppb	09:11:38
2	Ca 317.933Radial†	3209.1	3147.0	4931.7	ug/L	4931.7	ppb	09:10:40
2	Cd 226.502†	55861.8	55699.8	501.64	ug/L	501.64	ppb	09:11:38
2	Co 228.616†	28367.6	28249.2	497.13	ug/L	497.13	ppb	09:11:58
2	Cr 267.716†	52312.2	51786.4	487.39	ug/L	487.39	ppb	09:11:38
2	Cu 324.752†	186391.2	176510.9	503.59	ug/L	503.59	ppb	09:11:38
2	Fe 238.204 Radial†	595.2	574.4	5059.9	ug/L	5059.9	ppb	09:10:40
2	K 766.490 Radial†	16175.2	12636.7	2400.7	ug/L	2400.7	ppb	09:10:20
2	Mg 279.077 IEC†	173.2	168.3	5388.3	ug/L	5388.3	ppb	09:10:40
2	Mn 257.610†	525853.1	521275.1	517.58	ug/L	517.58	ppb	09:11:38
2	Mo 202.031†	9253.4	9158.5	539.56	ug/L	539.56	ppb	09:11:58
2	Na 589.592 Radial†	6682.9	8395.6	2382.0	ug/L	2382.0	ppb	09:10:20
2	Ni 231.604†	24355.5	24034.0	497.23	ug/L	497.23	ppb	09:11:58

2	P 214.914†	5876.6	5561.4	2446.1	ug/L	2446.1 ppb	09:11:58
2	Pb 220.353†	5003.7	5050.8	502.94	ug/L	502.94 ppb	09:11:58
2	S 181.975 Axial†	2371.0	2291.5	2516.1	ug/L	2516.1 ppb	09:11:58
2	Sb 206.836†	1803.2	1744.4	508.86	ug/L	508.86 ppb	09:11:58
2	Se 196.026†	5500.1	5491.6	2622.4	ug/L	2622.4 ppb	09:11:58
2	Si 251.611†	185914.5	183781.6	4876.9	ug/L	4876.9 ppb	09:11:38
2	Sn 189.927†	3841.6	3809.4	539.97	ug/L	539.97 ppb	09:11:58
2	Sr 421.552†	79145.0	78129.9	513.00	ug/L	513.00 ppb	09:10:20
2	Ti 334.940†	341485.6	340630.8	500.20	ug/L	500.20 ppb	09:11:38
2	Tl 190.801†	1990.9	2025.4	533.85	ug/L	533.85 ppb	09:11:58
2	U 409.014†	15137.1	17942.3	495.07	ug/L	495.07 ppb	09:11:38
2	V 292.402†	85261.8	86432.8	516.05	ug/L	516.05 ppb	09:11:38
2	Zn 213.857†	67655.8	66234.0	513.33	ug/L	513.33 ppb	09:11:38
2	SiO2†	182840.8	180712.3	10331	ug/L	10331 ppb	09:12:35
3	Sc 361.383	948205.7	948205.7	101.01	%		09:12:04
3	Sc Radial	5027.6	5027.6	102	%		09:10:45
3	Y 371.029	818011.2	818011.2	99.987	%		09:12:04
3	Y RADIAL	5376.4	5376.4	101.3	%		09:10:45
3	Ag 328.068†	63151.8	62056.5	259.88	ug/L	259.88 ppb	09:12:04
3	Al 396.153Radial†	6497.4	6412.7	4996.4	ug/L	4996.4 ppb	09:10:45
3	As 188.979†	1419.5	1440.1	477.69	ug/L	477.69 ppb	09:12:24
3	B 249.677†	26386.2	26519.2	515.54	ug/L	515.54 ppb	09:12:04
3	Ba 233.527†	75068.7	74300.1	506.35	ug/L	506.35 ppb	09:12:04
3	Be 313.107†	828495.0	824936.0	263.03	ug/L	263.03 ppb	09:12:04
3	Ca 317.933Radial†	3215.5	3141.6	4923.3	ug/L	4923.3 ppb	09:11:05
3	Cd 226.502†	55687.0	55388.5	498.83	ug/L	498.83 ppb	09:12:04
3	Co 228.616†	28425.1	28235.9	496.90	ug/L	496.90 ppb	09:12:24
3	Cr 267.716†	52274.3	51619.3	485.82	ug/L	485.82 ppb	09:12:04
3	Cu 324.752†	186639.6	176295.5	502.98	ug/L	502.98 ppb	09:12:04
3	Fe 238.204 Radial†	599.4	576.4	5077.4	ug/L	5077.4 ppb	09:11:05
3	K 766.490 Radial†	16219.2	12621.4	2397.8	ug/L	2397.8 ppb	09:10:45
3	Mg 279.077 IEC†	175.0	169.5	5426.0	ug/L	5426.0 ppb	09:11:05
3	Mn 257.610†	525129.5	519257.3	515.58	ug/L	515.58 ppb	09:12:04
3	Mo 202.031†	9275.2	9157.2	539.48	ug/L	539.48 ppb	09:12:24
3	Na 589.592 Radial†	6864.1	8549.6	2425.7	ug/L	2425.7 ppb	09:10:45
3	Ni 231.604†	24375.7	23993.8	496.40	ug/L	496.40 ppb	09:12:24
3	P 214.914†	5864.6	5534.9	2434.2	ug/L	2434.2 ppb	09:12:24
3	Pb 220.353†	4984.5	5019.5	499.84	ug/L	499.84 ppb	09:12:24
3	S 181.975 Axial†	2396.7	2311.1	2537.6	ug/L	2537.6 ppb	09:12:24
3	Sb 206.836†	1809.5	1746.3	509.39	ug/L	509.39 ppb	09:12:24
3	Se 196.026†	5500.7	5478.5	2616.2	ug/L	2616.2 ppb	09:12:24
3	Si 251.611†	185939.7	183346.5	4865.4	ug/L	4865.4 ppb	09:12:04
3	Sn 189.927†	3838.1	3796.4	538.12	ug/L	538.12 ppb	09:12:24
3	Sr 421.552†	80129.0	78811.3	517.48	ug/L	517.48 ppb	09:10:45
3	Ti 334.940†	341379.0	339680.1	498.81	ug/L	498.81 ppb	09:12:04
3	Tl 190.801†	1995.7	2025.3	533.79	ug/L	533.79 ppb	09:12:24
3	U 409.014†	14812.7	17583.7	485.15	ug/L	485.15 ppb	09:12:04
3	V 292.402†	85096.8	86058.4	513.82	ug/L	513.82 ppb	09:12:04
3	Zn 213.857†	67596.5	66007.9	511.56	ug/L	511.56 ppb	09:12:04
3	SiO2†	182723.8	180143.9	10299	ug/L	10299 ppb	09:12:40

Mean Data: ICV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	942569.0	100.41	%	0.831				0.83%
Sc Radial	4957.7	100	%	2.1				2.13%
Y 371.029	813127.1	99.390	%	0.7853				0.79%
Y RADIAL	5305.7	100.0	%	2.03				2.03%
Ag 328.068†	62317.8	260.98	ug/L	1.029	260.98	ppb	1.029	0.39%
QC value within limits for Ag 328.068 Recovery = 104.39%								
Al 396.153Radial†	6438.6	5016.6	ug/L	107.28	5016.6	ppb	107.28	2.14%
QC value within limits for Al 396.153Radial Recovery = 100.33%								
As 188.979†	1450.7	481.19	ug/L	6.073	481.19	ppb	6.073	1.26%
QC value within limits for As 188.979 Recovery = 96.24%								
B 249.677†	26539.5	515.93	ug/L	1.416	515.93	ppb	1.416	0.27%
QC value within limits for B 249.677 Recovery = 103.19%								
Ba 233.527†	74523.7	507.87	ug/L	1.337	507.87	ppb	1.337	0.26%
QC value within limits for Ba 233.527 Recovery = 101.57%								
Be 313.107†	825975.7	263.36	ug/L	0.288	263.36	ppb	0.288	0.11%
QC value within limits for Be 313.107 Recovery = 105.35%								

Ca 317.933Radial†	3184.6	4990.7 ug/L	109.56	4990.7 ppb	109.56	2.20%
QC value within limits for Ca 317.933Radial Recovery = 99.81%						
Cd 226.502†	55572.8	500.49 ug/L	1.471	500.49 ppb	1.471	0.29%
QC value within limits for Cd 226.502 Recovery = 100.10%						
Co 228.616†	28334.2	498.63 ug/L	2.800	498.63 ppb	2.800	0.56%
QC value within limits for Co 228.616 Recovery = 99.73%						
Cr 267.716†	51734.5	486.90 ug/L	0.940	486.90 ppb	0.940	0.19%
QC value within limits for Cr 267.716 Recovery = 97.38%						
Cu 324.752†	176484.3	503.52 ug/L	0.508	503.52 ppb	0.508	0.10%
QC value within limits for Cu 324.752 Recovery = 100.70%						
Fe 238.204 Radial†	580.8	5116.4 ug/L	83.25	5116.4 ppb	83.25	1.63%
QC value within limits for Fe 238.204 Radial Recovery = 102.33%						
K 766.490 Radial†	12786.6	2429.2 ug/L	51.99	2429.2 ppb	51.99	2.14%
QC value within limits for K 766.490 Radial Recovery = 97.17%						
Mg 279.077 IEC†	171.0	5475.0 ug/L	119.10	5475.0 ppb	119.10	2.18%
QC value within limits for Mg 279.077 IEC Recovery = 109.50%						
Mn 257.610†	520472.9	516.78 ug/L	1.064	516.78 ppb	1.064	0.21%
QC value within limits for Mn 257.610 Recovery = 103.36%						
Mo 202.031†	9180.7	540.86 ug/L	2.330	540.86 ppb	2.330	0.43%
QC value within limits for Mo 202.031 Recovery = 108.17%						
Na 589.592 Radial†	8544.4	2424.2 ug/L	41.50	2424.2 ppb	41.50	1.71%
QC value within limits for Na 589.592 Radial Recovery = 96.97%						
Ni 231.604†	24091.5	498.42 ug/L	2.811	498.42 ppb	2.811	0.56%
QC value within limits for Ni 231.604 Recovery = 99.68%						
P 214.914†	5572.7	2451.3 ug/L	20.12	2451.3 ppb	20.12	0.82%
QC value within limits for P 214.914 Recovery = 98.05%						
Pb 220.353†	5050.6	502.93 ug/L	3.089	502.93 ppb	3.089	0.61%
QC value within limits for Pb 220.353 Recovery = 100.59%						
S 181.975 Axial†	2304.6	2530.4 ug/L	12.40	2530.4 ppb	12.40	0.49%
QC value within limits for S 181.975 Axial Recovery = 101.22%						
Sb 206.836†	1748.8	510.15 ug/L	1.793	510.15 ppb	1.793	0.35%
QC value within limits for Sb 206.836 Recovery = 102.03%						
Se 196.026†	5507.5	2630.1 ug/L	19.00	2630.1 ppb	19.00	0.72%
QC value within limits for Se 196.026 Recovery = 105.21%						
Si 251.611†	183665.5	4873.8 ug/L	7.40	4873.8 ppb	7.40	0.15%
QC value within limits for Si 251.611 Recovery = 97.48%						
Sn 189.927†	3812.0	540.35 ug/L	2.436	540.35 ppb	2.436	0.45%
QC value within limits for Sn 189.927 Recovery = 108.07%						
Sr 421.552†	79365.5	521.11 ug/L	10.420	521.11 ppb	10.420	2.00%
QC value within limits for Sr 421.552 Recovery = 104.22%						
Ti 334.940†	340169.1	499.53 ug/L	0.697	499.53 ppb	0.697	0.14%
QC value within limits for Ti 334.940 Recovery = 99.91%						
Tl 190.801†	2028.7	534.70 ug/L	1.523	534.70 ppb	1.523	0.28%
QC value within limits for Tl 190.801 Recovery = 106.94%						
U 409.014†	17733.8	489.30 ug/L	5.159	489.30 ppb	5.159	1.05%
QC value within limits for U 409.014 Recovery = 97.86%						
V 292.402†	86254.2	515.00 ug/L	1.117	515.00 ppb	1.117	0.22%
QC value within limits for V 292.402 Recovery = 103.00%						
Zn 213.857†	66191.3	512.98 ug/L	1.279	512.98 ppb	1.279	0.25%
QC value within limits for Zn 213.857 Recovery = 102.60%						
SiO2†	181631.5	10384 ug/L	120.4	10384 ppb	120.4	1.16%
QC value within limits for SiO2 Recovery = 97.09%						

All analyte(s) passed QC.

Sequence No.: 7
Sample ID: ICB
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 10
Date Collected: 12/29/2009 09:14:51
Data Type: Reprocessed on 12/29/2009 10:09:31

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc 361.383	950820.2	950820.2	101.29	%			09:18:01
1	Sc Radial	5034.7	5034.7	102	%			09:16:44
1	Y 371.029	829204.5	829204.5	101.36	%			09:18:01
1	Y RADIAL	5397.3	5397.3	101.7	%			09:16:44
1	Ag 328.068†	660.9	186.9	0.7791	ug/L	0.7791	ppb	09:18:06
1	Al 396.153Radial†	-18.0	3.7	2.8560	ug/L	2.8560	ppb	09:16:44
1	As 188.979†	-31.5	3.8	1.2342	ug/L	1.2342	ppb	09:18:26
1	B 249.677†	-324.7	75.5	1.4717	ug/L	1.4717	ppb	09:18:06
1	Ba 233.527†	21.6	1.3	0.0101	ug/L	0.0101	ppb	09:18:26
1	Be 313.107†	-4608.3	151.5	0.0481	ug/L	0.0481	ppb	09:18:06
1	Ca 317.933Radial†	15.3	-6.5	-10.117	ug/L	-10.117	ppb	09:17:04
1	Cd 226.502†	-267.2	-7.2	-0.0649	ug/L	-0.0649	ppb	09:18:26
1	Co 228.616†	-73.5	21.6	0.3806	ug/L	0.3806	ppb	09:18:26
1	Cr 267.716†	84.0	-50.8	-0.4752	ug/L	-0.4752	ppb	09:18:06
1	Cu 324.752†	8455.9	-134.6	-0.3840	ug/L	-0.3840	ppb	09:18:06
1	Fe 238.204 Radial†	13.4	-0.1	-0.7044	ug/L	-0.7044	ppb	09:17:04
1	K 766.490 Radial†	3463.0	68.3	13.029	ug/L	13.029	ppb	09:16:44
1	Mg 279.077 IEC†	4.1	1.3	41.397	ug/L	41.397	ppb	09:17:04
1	Mn 257.610†	552.6	-91.0	-0.0911	ug/L	-0.0911	ppb	09:18:06
1	Mo 202.031†	28.2	2.3	0.1372	ug/L	0.1372	ppb	09:18:26
1	Na 589.592 Radial†	-1936.6	-104.9	-29.759	ug/L	-29.759	ppb	09:16:44
1	Ni 231.604†	117.3	-23.1	-0.4779	ug/L	-0.4779	ppb	09:18:26
1	P 214.914†	259.4	-15.1	-6.7785	ug/L	-6.7785	ppb	09:18:26
1	Pb 220.353†	-97.9	-12.0	-1.1913	ug/L	-1.1913	ppb	09:18:26
1	S 181.975 Axial†	60.4	-2.0	-2.2216	ug/L	-2.2216	ppb	09:18:26
1	Sb 206.836†	57.6	11.7	3.3552	ug/L	3.3552	ppb	09:18:26
1	Se 196.026†	-36.6	-3.4	-1.6249	ug/L	-1.6249	ppb	09:18:26
1	Si 251.611†	765.1	16.0	0.4191	ug/L	0.4191	ppb	09:18:26
1	Sn 189.927†	3.6	0.2	0.0265	ug/L	0.0265	ppb	09:18:26
1	Sr 421.552†	-4.1	-15.1	-0.0988	ug/L	-0.0988	ppb	09:16:44
1	Ti 334.940†	-1732.1	-5.3	-0.0065	ug/L	-0.0065	ppb	09:18:06
1	Tl 190.801†	-47.4	2.7	0.7035	ug/L	0.7035	ppb	09:18:26
1	U 409.014†	-3095.5	-137.5	-3.8053	ug/L	-3.8053	ppb	09:18:01
1	V 292.402†	-1710.6	121.2	0.7089	ug/L	0.7089	ppb	09:18:06
1	Zn 213.857†	959.3	32.4	0.2556	ug/L	0.2556	ppb	09:18:26
1	SiO2†	786.0	18.0	1.0139	ug/L	1.0139	ppb	09:19:32
2	Sc 361.383	959976.9	959976.9	102.26	%			09:18:31
2	Sc Radial	5037.8	5037.8	102	%			09:17:09
2	Y 371.029	835244.5	835244.5	102.09	%			09:18:31
2	Y RADIAL	5353.4	5353.4	100.9	%			09:17:09
2	Ag 328.068†	592.4	113.7	0.4663	ug/L	0.4663	ppb	09:18:36
2	Al 396.153Radial†	-16.1	5.5	4.2572	ug/L	4.2572	ppb	09:17:09
2	As 188.979†	-37.6	-1.9	-0.6258	ug/L	-0.6258	ppb	09:18:57
2	B 249.677†	-279.9	122.3	2.3895	ug/L	2.3895	ppb	09:18:36
2	Ba 233.527†	8.1	-12.2	-0.0822	ug/L	-0.0822	ppb	09:18:57
2	Be 313.107†	-4633.2	170.6	0.0543	ug/L	0.0543	ppb	09:18:36
2	Ca 317.933Radial†	24.0	2.1	3.3379	ug/L	3.3379	ppb	09:17:29
2	Cd 226.502†	-254.9	7.4	0.0683	ug/L	0.0683	ppb	09:18:57
2	Co 228.616†	-106.8	-10.3	-0.1787	ug/L	-0.1787	ppb	09:18:57
2	Cr 267.716†	113.2	-23.0	-0.2164	ug/L	-0.2164	ppb	09:18:36
2	Cu 324.752†	8301.1	-365.7	-1.0435	ug/L	-1.0435	ppb	09:18:36
2	Fe 238.204 Radial†	12.0	-1.5	-12.780	ug/L	-12.780	ppb	09:17:29
2	K 766.490 Radial†	3355.6	-39.1	-7.4415	ug/L	-7.4415	ppb	09:17:09
2	Mg 279.077 IEC†	1.7	-1.1	-33.693	ug/L	-33.693	ppb	09:17:29
2	Mn 257.610†	546.2	-102.5	-0.1023	ug/L	-0.1023	ppb	09:18:36
2	Mo 202.031†	37.1	10.9	0.6380	ug/L	0.6380	ppb	09:18:57
2	Na 589.592 Radial†	-1897.9	-65.7	-18.648	ug/L	-18.648	ppb	09:17:09
2	Ni 231.604†	143.6	1.5	0.0319	ug/L	0.0319	ppb	09:18:57

2	P 214.914†	269.0	-8.1	-3.4829	ug/L	-3.4829 ppb	09:18:57
2	Pb 220.353†	-91.7	-5.1	-0.4998	ug/L	-0.4998 ppb	09:18:57
2	S 181.975 Axial†	69.6	6.4	6.9954	ug/L	6.9954 ppb	09:18:57
2	Sb 206.836†	34.4	-11.6	-3.2963	ug/L	-3.2963 ppb	09:18:57
2	Se 196.026†	-29.2	4.1	1.9204	ug/L	1.9204 ppb	09:18:57
2	Si 251.611†	775.8	19.3	0.5033	ug/L	0.5033 ppb	09:18:57
2	Sn 189.927†	6.7	3.1	0.4452	ug/L	0.4452 ppb	09:18:57
2	Sr 421.552†	-7.3	-18.2	-0.1196	ug/L	-0.1196 ppb	09:17:09
2	Ti 334.940†	-1699.5	42.9	0.0626	ug/L	0.0626 ppb	09:18:36
2	Tl 190.801†	-48.6	1.9	0.5087	ug/L	0.5087 ppb	09:18:57
2	U 409.014†	-2936.3	47.3	1.3122	ug/L	1.3122 ppb	09:18:31
2	V 292.402†	-1789.3	60.4	0.3682	ug/L	0.3682 ppb	09:18:36
2	Zn 213.857†	938.4	2.9	0.0258	ug/L	0.0258 ppb	09:18:57
2	SiO2†	812.7	36.7	2.0797	ug/L	2.0797 ppb	09:19:37
3	Sc 361.383	962140.2	962140.2	102.49	%		09:19:02
3	Sc Radial	5118.2	5118.2	103	%		09:17:34
3	Y 371.029	837315.9	837315.9	102.35	%		09:19:02
3	Y RADIAL	5459.5	5459.5	102.9	%		09:17:34
3	Ag 328.068†	598.5	118.4	0.4889	ug/L	0.4889 ppb	09:19:07
3	Al 396.153Radial†	1.3	22.5	17.633	ug/L	17.633 ppb	09:17:34
3	As 188.979†	-41.8	-6.0	-1.9708	ug/L	-1.9708 ppb	09:19:27
3	B 249.677†	-305.7	97.8	1.9096	ug/L	1.9096 ppb	09:19:07
3	Ba 233.527†	6.1	-14.1	-0.0958	ug/L	-0.0958 ppb	09:19:27
3	Be 313.107†	-4685.7	129.6	0.0413	ug/L	0.0413 ppb	09:19:07
3	Ca 317.933Radial†	16.7	-5.3	-8.3790	ug/L	-8.3790 ppb	09:17:54
3	Cd 226.502†	-252.4	10.4	0.0941	ug/L	0.0941 ppb	09:19:27
3	Co 228.616†	-80.4	15.7	0.2767	ug/L	0.2767 ppb	09:19:27
3	Cr 267.716†	165.7	28.0	0.2632	ug/L	0.2632 ppb	09:19:07
3	Cu 324.752†	8417.1	-270.7	-0.7724	ug/L	-0.7724 ppb	09:19:07
3	Fe 238.204 Radial†	12.9	-0.8	-7.3165	ug/L	-7.3165 ppb	09:17:54
3	K 766.490 Radial†	3269.7	-173.9	-33.095	ug/L	-33.095 ppb	09:17:34
3	Mg 279.077 IEC†	3.8	1.0	30.839	ug/L	30.839 ppb	09:17:54
3	Mn 257.610†	611.6	-39.9	-0.0408	ug/L	-0.0408 ppb	09:19:07
3	Mo 202.031†	26.9	0.8	0.0465	ug/L	0.0465 ppb	09:19:27
3	Na 589.592 Radial†	-1943.3	-80.3	-22.788	ug/L	-22.788 ppb	09:17:34
3	Ni 231.604†	146.8	4.3	0.0887	ug/L	0.0887 ppb	09:19:27
3	P 214.914†	275.8	-2.1	-0.8036	ug/L	-0.8036 ppb	09:19:27
3	Pb 220.353†	-71.5	14.9	1.4814	ug/L	1.4814 ppb	09:19:27
3	S 181.975 Axial†	63.3	0.1	0.1413	ug/L	0.1413 ppb	09:19:27
3	Sb 206.836†	46.5	0.1	0.0620	ug/L	0.0620 ppb	09:19:27
3	Se 196.026†	-33.4	0.1	0.0281	ug/L	0.0281 ppb	09:19:27
3	Si 251.611†	756.2	-1.5	-0.0363	ug/L	-0.0363 ppb	09:19:27
3	Sn 189.927†	16.0	12.2	1.7247	ug/L	1.7247 ppb	09:19:27
3	Sr 421.552†	22.2	10.4	0.0684	ug/L	0.0684 ppb	09:17:34
3	Ti 334.940†	-1685.9	59.9	0.0881	ug/L	0.0881 ppb	09:19:07
3	Tl 190.801†	-46.0	4.6	1.2091	ug/L	1.2091 ppb	09:19:27
3	U 409.014†	-3045.0	-52.3	-1.4478	ug/L	-1.4478 ppb	09:19:02
3	V 292.402†	-1834.7	19.9	0.1168	ug/L	0.1168 ppb	09:19:07
3	Zn 213.857†	957.4	19.4	0.1514	ug/L	0.1514 ppb	09:19:27
3	SiO2†	759.7	-16.8	-0.9495	ug/L	-0.9495 ppb	09:19:42

Mean Data: ICB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	957645.8	102.01	%	0.640				0.63%
Sc Radial	5063.6	102	%	1.0				0.93%
Y 371.029	833921.6	101.93	%	0.515				0.51%
Y RADIAL	5403.4	101.9	%	1.01				0.99%
Ag 328.068†	139.7	0.5781	ug/L	0.17446	0.5781	ppb	0.17446	30.18%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	10.6	8.2488	ug/L	8.15719	8.2488	ppb	8.15719	98.89%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-1.4	-0.4541	ug/L	1.60937	-0.4541	ppb	1.60937	354.41%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	98.6	1.9236	ug/L	0.45906	1.9236	ppb	0.45906	23.86%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-8.3	-0.0559	ug/L	0.05763	-0.0559	ppb	0.05763	103.02%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	150.6	0.0479	ug/L	0.00649	0.0479	ppb	0.00649	13.54%
QC value within limits for Be 313.107 Recovery = Not calculated								

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Ca 317.933Radial†          -3.2     -5.0528 ug/L       7.31837     -5.0528 ppb        7.31837 144.84%
   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                 3.5      0.0325 ug/L       0.08532      0.0325 ppb        0.08532 262.63%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                 9.0      0.1595 ug/L       0.29750      0.1595 ppb        0.29750 186.49%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†               -15.3     -0.1428 ug/L       0.37466     -0.1428 ppb        0.37466 262.31%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -257.0     -0.7333 ug/L       0.33147     -0.7333 ppb        0.33147  45.20%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -0.8     -6.9336 ug/L       6.04683     -6.9336 ppb        6.04683  87.21%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         -48.2     -9.1692 ug/L      23.11023     -9.1692 ppb       23.11023 252.04%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             0.4      12.848 ug/L       40.6495      12.848 ppb        40.6495 316.39%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               -77.8     -0.0781 ug/L       0.03274     -0.0781 ppb        0.03274  41.93%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 4.7      0.2739 ug/L       0.31855      0.2739 ppb        0.31855 116.31%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        -83.6     -23.732 ug/L        5.6151     -23.732 ppb         5.6151  23.66%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                -5.7     -0.1191 ug/L       0.31203     -0.1191 ppb        0.31203 261.97%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -8.4     -3.6883 ug/L       2.99274     -3.6883 ppb        2.99274  81.14%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -0.7     -0.0699 ug/L       1.38723     -0.0699 ppb        1.38723 >999.9%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            1.5      1.6384 ug/L       4.78742      1.6384 ppb        4.78742 292.20%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 0.1      0.0403 ug/L       3.32576      0.0403 ppb        3.32576 >999.9%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 0.3      0.1078 ug/L       1.77399      0.1078 ppb        1.77399 >999.9%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                11.3      0.2954 ug/L       0.29029      0.2954 ppb        0.29029  98.28%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 5.2      0.7321 ug/L       0.88472      0.7321 ppb        0.88472 120.84%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                -7.6     -0.0500 ug/L       0.10305     -0.0500 ppb        0.10305 206.11%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                32.5      0.0481 ug/L       0.04894      0.0481 ppb        0.04894 101.77%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 3.1      0.8071 ug/L       0.36149      0.8071 ppb        0.36149  44.79%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                -47.5     -1.3136 ug/L       2.56140     -1.3136 ppb        2.56140 194.99%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 67.2      0.3980 ug/L       0.29719      0.3980 ppb        0.29719  74.67%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                18.3      0.1443 ug/L       0.11507      0.1443 ppb        0.11507  79.75%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                      12.6      0.7147 ug/L       1.53662      0.7147 ppb        1.53662 215.00%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 8
Sample ID: PQL
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 11
Date Collected: 12/29/2009 09:21:53
Data Type: Reprocessed on 12/29/2009 10:09:32

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: PQL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc 361.383	946055.4	946055.4	100.78	%			09:25:03
1	Sc Radial	5014.1	5014.1	101	%			09:23:46
1	Y 371.029	824277.8	824277.8	100.75	%			09:25:03
1	Y RADIAL	5353.5	5353.5	100.9	%			09:23:46
1	Ag 328.068†	1693.4	1214.7	5.0323	ug/L	5.0323	ppb	09:25:03
1	Al 396.153Radial†	264.8	282.5	220.70	ug/L	220.70	ppb	09:23:46
1	As 188.979†	46.6	81.1	26.682	ug/L	26.682	ppb	09:25:24
1	B 249.677†	2036.2	2416.5	47.128	ug/L	47.128	ppb	09:25:24
1	Ba 233.527†	759.3	733.4	4.9995	ug/L	4.9995	ppb	09:25:24
1	Be 313.107†	11059.3	15675.3	4.9890	ug/L	4.9890	ppb	09:25:03
1	Ca 317.933Radial†	157.2	133.6	209.37	ug/L	209.37	ppb	09:24:06
1	Cd 226.502†	294.2	548.5	4.9349	ug/L	4.9349	ppb	09:25:24
1	Co 228.616†	196.5	289.2	5.1023	ug/L	5.1023	ppb	09:25:24
1	Cr 267.716†	654.4	515.6	4.8383	ug/L	4.8383	ppb	09:25:24
1	Cu 324.752†	11869.2	3294.4	9.3995	ug/L	9.3995	ppb	09:25:03
1	Fe 238.204 Radial†	25.5	11.9	104.81	ug/L	104.81	ppb	09:24:06
1	K 766.490 Radial†	4137.8	747.9	142.19	ug/L	142.19	ppb	09:23:46
1	Mg 279.077 IEC†	11.2	8.3	265.63	ug/L	265.63	ppb	09:24:06
1	Mn 257.610†	10953.4	10232.3	10.157	ug/L	10.157	ppb	09:25:03
1	Mo 202.031†	202.3	175.3	10.327	ug/L	10.327	ppb	09:25:24
1	Na 589.592 Radial†	-815.6	993.0	281.73	ug/L	281.73	ppb	09:23:46
1	Ni 231.604†	388.0	246.1	5.0919	ug/L	5.0919	ppb	09:25:24
1	P 214.914†	597.1	321.3	144.32	ug/L	144.32	ppb	09:25:24
1	Pb 220.353†	18.2	102.7	10.250	ug/L	10.250	ppb	09:25:24
1	S 181.975 Axial†	149.3	86.5	94.950	ug/L	94.950	ppb	09:25:24
1	Sb 206.836†	74.6	28.8	8.5285	ug/L	8.5285	ppb	09:25:24
1	Se 196.026†	25.3	57.8	27.805	ug/L	27.805	ppb	09:25:24
1	Si 251.611†	4472.6	3698.7	98.129	ug/L	98.129	ppb	09:25:24
1	Sn 189.927†	80.4	76.4	10.842	ug/L	10.842	ppb	09:25:24
1	Sr 421.552†	771.1	749.6	4.9202	ug/L	4.9202	ppb	09:23:46
1	Ti 334.940†	1610.5	3302.8	4.8376	ug/L	4.8376	ppb	09:25:03
1	Tl 190.801†	43.1	92.2	24.224	ug/L	24.224	ppb	09:25:24
1	U 409.014†	-1047.9	1878.9	51.986	ug/L	51.986	ppb	09:25:03
1	V 292.402†	-939.8	877.6	5.3969	ug/L	5.3969	ppb	09:25:24
1	Zn 213.857†	2199.6	1267.9	9.8492	ug/L	9.8492	ppb	09:25:24
1	SiO2†	4554.4	3761.2	214.99	ug/L	214.99	ppb	09:26:20
2	Sc 361.383	952100.6	952100.6	101.42	%			09:25:29
2	Sc Radial	5002.6	5002.6	101	%			09:24:11
2	Y 371.029	828812.9	828812.9	101.31	%			09:25:29
2	Y RADIAL	5367.6	5367.6	101.2	%			09:24:11
2	Ag 328.068†	1736.1	1246.1	5.1602	ug/L	5.1602	ppb	09:25:29
2	Al 396.153Radial†	244.0	262.5	205.04	ug/L	205.04	ppb	09:24:11
2	As 188.979†	48.0	82.2	27.039	ug/L	27.039	ppb	09:25:49
2	B 249.677†	2084.8	2451.7	47.815	ug/L	47.815	ppb	09:25:49
2	Ba 233.527†	773.1	742.2	5.0589	ug/L	5.0589	ppb	09:25:49
2	Be 313.107†	11102.5	15648.2	4.9805	ug/L	4.9805	ppb	09:25:29
2	Ca 317.933Radial†	150.0	126.9	198.79	ug/L	198.79	ppb	09:24:31
2	Cd 226.502†	298.0	550.5	4.9537	ug/L	4.9537	ppb	09:25:49
2	Co 228.616†	194.0	285.5	5.0360	ug/L	5.0360	ppb	09:25:49
2	Cr 267.716†	650.8	508.0	4.7671	ug/L	4.7671	ppb	09:25:49
2	Cu 324.752†	11849.4	3200.1	9.1301	ug/L	9.1301	ppb	09:25:29
2	Fe 238.204 Radial†	24.3	10.7	94.506	ug/L	94.506	ppb	09:24:31
2	K 766.490 Radial†	4025.9	646.7	122.92	ug/L	122.92	ppb	09:24:11
2	Mg 279.077 IEC†	13.5	10.7	341.69	ug/L	341.69	ppb	09:24:31
2	Mn 257.610†	11058.4	10266.7	10.189	ug/L	10.189	ppb	09:25:29
2	Mo 202.031†	196.3	168.1	9.9044	ug/L	9.9044	ppb	09:25:49
2	Na 589.592 Radial†	-900.8	906.9	257.30	ug/L	257.30	ppb	09:24:11
2	Ni 231.604†	391.6	247.3	5.1154	ug/L	5.1154	ppb	09:25:49

2	P 214.914†	601.4	321.8	144.58 ug/L	144.58 ppb	09:25:49
2	Pb 220.353†	11.9	96.3	9.6150 ug/L	9.6150 ppb	09:25:49
2	S 181.975 Axial†	167.1	103.1	113.18 ug/L	113.18 ppb	09:25:49
2	Sb 206.836†	70.7	24.4	7.2809 ug/L	7.2809 ppb	09:25:49
2	Se 196.026†	34.4	66.6	31.923 ug/L	31.923 ppb	09:25:49
2	Si 251.611†	4450.0	3648.2	96.802 ug/L	96.802 ppb	09:25:49
2	Sn 189.927†	78.6	74.0	10.507 ug/L	10.507 ppb	09:25:49
2	Sr 421.552†	710.0	690.9	4.5349 ug/L	4.5349 ppb	09:24:11
2	Ti 334.940†	1663.2	3344.7	4.8997 ug/L	4.8997 ppb	09:25:29
2	Tl 190.801†	30.2	79.3	20.830 ug/L	20.830 ppb	09:25:49
2	U 409.014†	-1152.7	1782.1	49.308 ug/L	49.308 ppb	09:25:29
2	V 292.402†	-994.2	829.8	5.1075 ug/L	5.1075 ppb	09:25:49
2	Zn 213.857†	2196.6	1251.1	9.7161 ug/L	9.7161 ppb	09:25:49
2	SiO2†	4468.9	3648.2	208.55 ug/L	208.55 ppb	09:26:25
3	Sc 361.383	962008.2	962008.2	102.48 %		09:25:55
3	Sc Radial	5035.8	5035.8	102 %		09:24:37
3	Y 371.029	836452.5	836452.5	102.24 %		09:25:55
3	Y RADIAL	5364.4	5364.4	101.1 %		09:24:37
3	Ag 328.068†	1627.4	1122.5	4.6414 ug/L	4.6414 ppb	09:25:55
3	Al 396.153Radial†	265.9	282.5	220.71 ug/L	220.71 ppb	09:24:37
3	As 188.979†	52.5	86.1	28.315 ug/L	28.315 ppb	09:26:15
3	B 249.677†	2039.7	2386.5	46.545 ug/L	46.545 ppb	09:26:15
3	Ba 233.527†	727.5	689.8	4.7030 ug/L	4.7030 ppb	09:26:15
3	Be 313.107†	11127.0	15559.4	4.9526 ug/L	4.9526 ppb	09:25:55
3	Ca 317.933Radial†	149.4	125.3	196.34 ug/L	196.34 ppb	09:24:57
3	Cd 226.502†	301.5	550.8	4.9574 ug/L	4.9574 ppb	09:26:15
3	Co 228.616†	198.4	287.8	5.0753 ug/L	5.0753 ppb	09:26:15
3	Cr 267.716†	629.5	480.5	4.5078 ug/L	4.5078 ppb	09:26:15
3	Cu 324.752†	12089.0	3313.6	9.4531 ug/L	9.4531 ppb	09:25:55
3	Fe 238.204 Radial†	23.0	9.3	81.703 ug/L	81.703 ppb	09:24:57
3	K 766.490 Radial†	3982.4	577.7	109.78 ug/L	109.78 ppb	09:24:37
3	Mg 279.077 IEC†	12.4	9.5	302.42 ug/L	302.42 ppb	09:24:57
3	Mn 257.610†	11094.6	10189.8	10.112 ug/L	10.112 ppb	09:25:55
3	Mo 202.031†	193.2	163.1	9.6068 ug/L	9.6068 ppb	09:26:15
3	Na 589.592 Radial†	-828.1	984.1	279.21 ug/L	279.21 ppb	09:24:37
3	Ni 231.604†	367.0	219.2	4.5350 ug/L	4.5350 ppb	09:26:15
3	P 214.914†	603.1	317.3	142.52 ug/L	142.52 ppb	09:26:15
3	Pb 220.353†	6.7	91.1	9.1029 ug/L	9.1029 ppb	09:26:15
3	S 181.975 Axial†	148.7	83.4	91.604 ug/L	91.604 ppb	09:26:15
3	Sb 206.836†	83.7	36.4	10.710 ug/L	10.710 ppb	09:26:15
3	Se 196.026†	21.8	54.0	25.920 ug/L	25.920 ppb	09:26:15
3	Si 251.611†	4454.6	3607.5	95.727 ug/L	95.727 ppb	09:26:15
3	Sn 189.927†	79.5	74.2	10.524 ug/L	10.524 ppb	09:26:15
3	Sr 421.552†	781.0	756.0	4.9625 ug/L	4.9625 ppb	09:24:37
3	Ti 334.940†	1781.9	3443.6	5.0428 ug/L	5.0428 ppb	09:25:55
3	Tl 190.801†	28.3	77.1	20.263 ug/L	20.263 ppb	09:26:15
3	U 409.014†	-982.8	1959.6	54.224 ug/L	54.224 ppb	09:25:55
3	V 292.402†	-950.4	882.6	5.4249 ug/L	5.4249 ppb	09:26:15
3	Zn 213.857†	2196.2	1228.5	9.5443 ug/L	9.5443 ppb	09:26:15
3	SiO2†	4579.0	3710.3	212.13 ug/L	212.13 ppb	09:26:30

Mean Data: PQL

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	953388.1	101.56	%	0.858				0.84%
Sc Radial	5017.5	101	%	0.3				0.34%
Y 371.029	829847.7	101.43	%	0.752				0.74%
Y RADIAL	5361.8	101.1	%	0.14				0.14%
Ag 328.068†	1194.4	4.9446	ug/L	0.27031	4.9446	ppb	0.27031	5.47%
QC value within limits for Ag 328.068 Recovery = 98.89%								
Al 396.153Radial†	275.8	215.48	ug/L	9.041	215.48	ppb	9.041	4.20%
QC value within limits for Al 396.153Radial Recovery = 107.74%								
As 188.979†	83.1	27.345	ug/L	0.8586	27.345	ppb	0.8586	3.14%
QC value within limits for As 188.979 Recovery = 91.15%								
B 249.677†	2418.2	47.162	ug/L	0.6357	47.162	ppb	0.6357	1.35%
QC value within limits for B 249.677 Recovery = 94.32%								
Ba 233.527†	721.8	4.9205	ug/L	0.19064	4.9205	ppb	0.19064	3.87%
QC value within limits for Ba 233.527 Recovery = 98.41%								
Be 313.107†	15627.6	4.9740	ug/L	0.01906	4.9740	ppb	0.01906	0.38%
QC value within limits for Be 313.107 Recovery = 99.48%								

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Ca 317.933Radial†        128.6      201.50 ug/L        6.924      201.50 ppb        6.924   3.44%
   QC value within limits for Ca 317.933Radial  Recovery = 100.75%
Cd 226.502†              550.0      4.9486 ug/L      0.01206      4.9486 ppb      0.01206   0.24%
   QC value within limits for Cd 226.502  Recovery = 98.97%
Co 228.616†              287.5      5.0712 ug/L      0.03334      5.0712 ppb      0.03334   0.66%
   QC value within limits for Co 228.616  Recovery = 101.42%
Cr 267.716†              501.4      4.7044 ug/L      0.17392      4.7044 ppb      0.17392   3.70%
   QC value within limits for Cr 267.716  Recovery = 94.09%
Cu 324.752†             3269.3      9.3276 ug/L      0.17309      9.3276 ppb      0.17309   1.86%
   QC value within limits for Cu 324.752  Recovery = 93.28%
Fe 238.204 Radial†        10.6      93.672 ug/L      11.5749      93.672 ppb      11.5749  12.36%
   QC value within limits for Fe 238.204 Radial  Recovery = 93.67%
K 766.490 Radial†        657.4      124.97 ug/L       16.301      124.97 ppb       16.301  13.04%
   QC value within limits for K 766.490 Radial  Recovery = 83.31%
Mg 279.077 IEC†           9.5      303.25 ug/L       38.036      303.25 ppb       38.036  12.54%
   QC value within limits for Mg 279.077 IEC  Recovery = 101.08%
Mn 257.610†            10229.6      10.153 ug/L       0.0387      10.153 ppb       0.0387   0.38%
   QC value within limits for Mn 257.610  Recovery = 101.53%
Mo 202.031†              168.8      9.9460 ug/L      0.36181      9.9460 ppb      0.36181   3.64%
   QC value within limits for Mo 202.031  Recovery = 99.46%
Na 589.592 Radial†       961.3      272.75 ug/L       13.439      272.75 ppb       13.439   4.93%
   QC value within limits for Na 589.592 Radial  Recovery = 90.92%
Ni 231.604†              237.5      4.9141 ug/L      0.32851      4.9141 ppb      0.32851   6.69%
   QC value within limits for Ni 231.604  Recovery = 98.28%
P 214.914†               320.1      143.80 ug/L        1.120      143.80 ppb        1.120   0.78%
   QC value within limits for P 214.914  Recovery = 95.87%
Pb 220.353†               96.7      9.6561 ug/L      0.57476      9.6561 ppb      0.57476   5.95%
   QC value within limits for Pb 220.353  Recovery = 96.56%
S 181.975 Axial†          91.0      99.911 ug/L      11.6114      99.911 ppb      11.6114  11.62%
   QC value within limits for S 181.975 Axial  Recovery = 99.91%
Sb 206.836†               29.9      8.8398 ug/L      1.73561      8.8398 ppb      1.73561  19.63%
   QC value within limits for Sb 206.836  Recovery = 88.40%
Se 196.026†               59.4      28.549 ug/L       3.0699      28.549 ppb       3.0699  10.75%
   QC value within limits for Se 196.026  Recovery = 95.16%
Si 251.611†             3651.5      96.886 ug/L       1.2028      96.886 ppb       1.2028   1.24%
   QC value within limits for Si 251.611  Recovery = 96.89%
Sn 189.927†               74.9      10.624 ug/L       0.1884      10.624 ppb       0.1884   1.77%
   QC value within limits for Sn 189.927  Recovery = 106.24%
Sr 421.552†              732.2      4.8059 ug/L      0.23563      4.8059 ppb      0.23563   4.90%
   QC value within limits for Sr 421.552  Recovery = 96.12%
Ti 334.940†             3363.7      4.9267 ug/L      0.10521      4.9267 ppb      0.10521   2.14%
   QC value within limits for Ti 334.940  Recovery = 98.53%
Tl 190.801†               82.9      21.772 ug/L       2.1419      21.772 ppb       2.1419   9.84%
   QC value within limits for Tl 190.801  Recovery = 108.86%
U 409.014†              1873.5      51.839 ug/L       2.4616      51.839 ppb       2.4616   4.75%
   QC value within limits for U 409.014  Recovery = 103.68%
V 292.402†               863.3      5.3098 ug/L      0.17570      5.3098 ppb      0.17570   3.31%
   QC value within limits for V 292.402  Recovery = 106.20%
Zn 213.857†             1249.2      9.7032 ug/L      0.15283      9.7032 ppb      0.15283   1.58%
   QC value within limits for Zn 213.857  Recovery = 97.03%
SiO2†                   3706.6      211.89 ug/L        3.228      211.89 ppb        3.228   1.52%
   QC value within limits for SiO2  Recovery = 99.48%
All analyte(s) passed QC.
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Sequence No.: 9
Sample ID: ICSA
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 13
Date Collected: 12/29/2009 09:28:42
Data Type: Reprocessed on 12/29/2009 10:09:33

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSA

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc 361.383	799914.7	799914.7	85.210	%			09:31:08
1	Sc Radial	4512.0	4512.0	91.2	%			09:30:41
1	Y 371.029	679741.6	679741.6	83.086	%			09:31:08
1	Y RADIAL	4837.9	4837.9	91.20	%			09:30:41
1	Ag 328.068†	-10939.4	-13303.7	0.8441	ug/L	0.8441	ppb	09:31:08
1	Al 396.153Radial†	598089.6	655583.6	513150	ug/L	513150	ppb	09:30:36
1	As 188.979†	-99.8	-82.3	1.8080	ug/L	1.8080	ppb	09:31:28
1	B 249.677†	206.0	637.8	-12.491	ug/L	-12.491	ppb	09:31:08
1	Ba 233.527†	-775.5	-930.1	-1.5520	ug/L	-1.5520	ppb	09:31:28
1	Be 313.107†	-5046.1	-1220.6	-0.4285	ug/L	-0.4285	ppb	09:31:08
1	Ca 317.933Radial†	278078.6	304778.7	477630	ug/L	477630	ppb	09:30:36
1	Cd 226.502†	1386.7	1884.0	-1.8152	ug/L	-1.8152	ppb	09:31:28
1	Co 228.616†	-39.5	47.9	-1.8438	ug/L	-1.8438	ppb	09:31:28
1	Cr 267.716†	-63.8	-208.7	1.4234	ug/L	1.4234	ppb	09:31:28
1	Cu 324.752†	4547.7	-3146.2	0.6165	ug/L	0.6165	ppb	09:31:08
1	Fe 238.204 Radial†	19539.2	21403.5	187960	ug/L	187960	ppb	09:30:41
1	K 766.490 Radial†	2661.7	-415.9	-63.603	ug/L	-63.603	ppb	09:30:36
1	Mg 279.077 IEC†	14042.6	15389.3	491950	ug/L	491950	ppb	09:30:41
1	Mn 257.610†	-320.4	-1012.6	8.5773	ug/L	8.5773	ppb	09:31:08
1	Mo 202.031†	-246.1	-314.3	-0.4824	ug/L	-0.4824	ppb	09:31:28
1	Na 589.592 Radial†	-1636.4	3.8	1.0699	ug/L	1.0699	ppb	09:30:41
1	Ni 231.604†	272.7	181.1	3.7494	ug/L	3.7494	ppb	09:31:28
1	P 214.914†	239.4	9.8	27.284	ug/L	27.284	ppb	09:31:28
1	Pb 220.353†	-1051.3	-1149.1	-14.366	ug/L	-14.366	ppb	09:31:28
1	S 181.975 Axial†	86.3	39.6	-57.407	ug/L	-57.407	ppb	09:31:28
1	Sb 206.836†	81.5	50.5	2.0324	ug/L	2.0324	ppb	09:31:28
1	Se 196.026†	-1255.3	-1440.5	-12.253	ug/L	-12.253	ppb	09:31:28
1	Si 251.611†	480.6	-175.4	-4.1067	ug/L	-4.1067	ppb	09:31:28
1	Sn 189.927†	-402.5	-475.8	-14.984	ug/L	-14.984	ppb	09:31:28
1	Sr 421.552†	534.6	575.0	-0.6514	ug/L	-0.6514	ppb	09:30:41
1	Ti 334.940†	-13474.9	-14108.8	4.1865	ug/L	4.1865	ppb	09:31:08
1	Tl 190.801†	-109.0	-78.5	-6.7051	ug/L	-6.7051	ppb	09:31:28
1	U 409.014†	-2166.0	376.7	-13.217	ug/L	-13.217	ppb	09:31:08
1	V 292.402†	593.6	2506.7	-2.9570	ug/L	-2.9570	ppb	09:31:28
1	Zn 213.857†	3664.3	3385.6	-0.1436	ug/L	-0.1436	ppb	09:31:28
1	SiO2†	539.4	-125.0	-5.9477	ug/L	-5.9477	ppb	09:32:24
2	Sc 361.383	816755.7	816755.7	87.004	%			09:31:33
2	Sc Radial	4487.8	4487.8	90.7	%			09:30:51
2	Y 371.029	694523.7	694523.7	84.893	%			09:31:33
2	Y RADIAL	4790.9	4790.9	90.31	%			09:30:51
2	Ag 328.068†	-11139.1	-13268.5	1.2550	ug/L	1.2550	ppb	09:31:33
2	Al 396.153Radial†	600891.6	662207.4	518340	ug/L	518340	ppb	09:30:46
2	As 188.979†	-110.2	-91.8	-1.1563	ug/L	-1.1563	ppb	09:31:53
2	B 249.677†	41.1	443.3	-16.420	ug/L	-16.420	ppb	09:31:33
2	Ba 233.527†	-731.8	-861.3	-1.0585	ug/L	-1.0585	ppb	09:31:53
2	Be 313.107†	-5069.7	-1125.6	-0.4000	ug/L	-0.4000	ppb	09:31:33
2	Ca 317.933Radial†	279120.7	307571.2	482010	ug/L	482010	ppb	09:30:46
2	Cd 226.502†	1411.9	1879.4	-1.9558	ug/L	-1.9558	ppb	09:31:53
2	Co 228.616†	-24.8	65.7	-1.5431	ug/L	-1.5431	ppb	09:31:53
2	Cr 267.716†	-11.1	-146.4	2.0244	ug/L	2.0244	ppb	09:31:53
2	Cu 324.752†	4506.0	-3304.1	0.2171	ug/L	0.2171	ppb	09:31:33
2	Fe 238.204 Radial†	19537.4	21517.1	188960	ug/L	188960	ppb	09:30:51
2	K 766.490 Radial†	2884.2	-155.0	-13.717	ug/L	-13.717	ppb	09:30:46
2	Mg 279.077 IEC†	14048.0	15478.2	494800	ug/L	494800	ppb	09:30:51
2	Mn 257.610†	-409.4	-1107.1	8.5300	ug/L	8.5300	ppb	09:31:33
2	Mo 202.031†	-255.5	-319.2	-0.6733	ug/L	-0.6733	ppb	09:31:53
2	Na 589.592 Radial†	-1637.6	-7.3	-2.0593	ug/L	-2.0593	ppb	09:30:51
2	Ni 231.604†	290.5	195.0	4.0359	ug/L	4.0359	ppb	09:31:53

2	P 214.914†	226.5	-10.8	19.006	ug/L	19.006	ppb	09:31:53
2	Pb 220.353†	-1057.6	-1131.0	-11.484	ug/L	-11.484	ppb	09:31:53
2	S 181.975 Axial†	96.2	48.9	-48.282	ug/L	-48.282	ppb	09:31:53
2	Sb 206.836†	70.9	36.2	-2.1312	ug/L	-2.1312	ppb	09:31:53
2	Se 196.026†	-1244.2	-1397.4	12.168	ug/L	12.168	ppb	09:31:53
2	Si 251.611†	556.0	-100.3	-2.1321	ug/L	-2.1321	ppb	09:31:53
2	Sn 189.927†	-389.5	-451.0	-11.011	ug/L	-11.011	ppb	09:31:53
2	Sr 421.552†	492.7	531.9	-0.9750	ug/L	-0.9750	ppb	09:30:51
2	Ti 334.940†	-14274.2	-14701.5	3.5419	ug/L	3.5419	ppb	09:31:33
2	Tl 190.801†	-99.3	-64.7	-2.9542	ug/L	-2.9542	ppb	09:31:53
2	U 409.014†	-2058.5	552.7	-8.4719	ug/L	-8.4719	ppb	09:31:33
2	V 292.402†	615.1	2517.0	-2.9774	ug/L	-2.9774	ppb	09:31:53
2	Zn 213.857†	3683.6	3319.1	-0.8135	ug/L	-0.8135	ppb	09:31:53
2	SiO2†	550.3	-125.6	-6.0315	ug/L	-6.0315	ppb	09:32:29
3	Sc 361.383	806522.1	806522.1	85.914	%			09:31:59
3	Sc Radial	4518.4	4518.4	91.4	%			09:31:01
3	Y 371.029	687058.5	687058.5	83.981	%			09:31:59
3	Y RADIAL	4814.3	4814.3	90.75	%			09:31:01
3	Ag 328.068†	-10916.3	-13171.6	1.4476	ug/L	1.4476	ppb	09:31:59
3	Al 396.153Radial†	606315.9	663662.0	519470	ug/L	519470	ppb	09:30:56
3	As 188.979†	-112.4	-96.0	-2.6215	ug/L	-2.6215	ppb	09:32:19
3	B 249.677†	199.7	628.5	-12.732	ug/L	-12.732	ppb	09:31:59
3	Ba 233.527†	-768.9	-915.1	-1.4378	ug/L	-1.4378	ppb	09:32:19
3	Be 313.107†	-5041.8	-1167.1	-0.4135	ug/L	-0.4135	ppb	09:31:59
3	Ca 317.933Radial†	281965.4	308602.6	483620	ug/L	483620	ppb	09:30:56
3	Cd 226.502†	1409.8	1897.6	-1.7363	ug/L	-1.7363	ppb	09:32:19
3	Co 228.616†	-31.9	57.1	-1.6871	ug/L	-1.6871	ppb	09:32:19
3	Cr 267.716†	11.7	-120.1	2.2628	ug/L	2.2628	ppb	09:32:19
3	Cu 324.752†	4390.5	-3372.8	-0.0074	ug/L	-0.0074	ppb	09:31:59
3	Fe 238.204 Radial†	19612.3	21453.3	188400	ug/L	188400	ppb	09:31:01
3	K 766.490 Radial†	2907.3	-151.2	-13.009	ug/L	-13.009	ppb	09:30:56
3	Mg 279.077 IEC†	14115.3	15447.1	493800	ug/L	493800	ppb	09:31:01
3	Mn 257.610†	-578.0	-1309.4	8.2921	ug/L	8.2921	ppb	09:31:59
3	Mo 202.031†	-258.4	-326.2	-1.1431	ug/L	-1.1431	ppb	09:32:19
3	Na 589.592 Radial†	-1638.1	4.5	1.2716	ug/L	1.2716	ppb	09:31:01
3	Ni 231.604†	285.7	193.7	4.0085	ug/L	4.0085	ppb	09:32:19
3	P 214.914†	250.6	20.5	34.021	ug/L	34.021	ppb	09:32:19
3	Pb 220.353†	-1137.5	-1239.4	-21.942	ug/L	-21.942	ppb	09:32:19
3	S 181.975 Axial†	103.6	58.9	-37.505	ug/L	-37.505	ppb	09:32:19
3	Sb 206.836†	73.0	39.7	-1.2179	ug/L	-1.2179	ppb	09:32:19
3	Se 196.026†	-1247.7	-1419.6	0.0872	ug/L	0.0872	ppb	09:32:19
3	Si 251.611†	567.5	-78.9	-1.5493	ug/L	-1.5493	ppb	09:32:19
3	Sn 189.927†	-396.0	-464.4	-12.737	ug/L	-12.737	ppb	09:32:19
3	Sr 421.552†	490.7	526.1	-1.0282	ug/L	-1.0282	ppb	09:31:01
3	Ti 334.940†	-14186.6	-14807.7	3.4710	ug/L	3.4710	ppb	09:31:59
3	Tl 190.801†	-91.2	-56.7	-0.8449	ug/L	-0.8449	ppb	09:32:19
3	U 409.014†	-2096.3	478.7	-10.449	ug/L	-10.449	ppb	09:31:59
3	V 292.402†	642.7	2558.2	-2.6824	ug/L	-2.6824	ppb	09:32:19
3	Zn 213.857†	3695.2	3386.4	-0.2243	ug/L	-0.2243	ppb	09:32:19
3	SiO2†	541.0	-128.4	-6.1633	ug/L	-6.1633	ppb	09:32:34

Mean Data: ICSA

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	807730.8	86.043	%	0.9039				1.05%
Sc Radial	4506.1	91.1	%	0.33				0.36%
Y 371.029	687107.9	83.987	%	0.9034				1.08%
Y RADIAL	4814.4	90.75	%	0.443				0.49%
Ag 328.068†	-13247.9	1.1822	ug/L	0.30826	1.1822	ppb	0.30826	26.07%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	660484.3	516990	ug/L	3370.5	516990	ppb	3370.5	0.65%
QC value within limits for Al 396.153Radial Recovery = 103.40%								
As 188.979†	-90.1	-0.6566	ug/L	2.25663	-0.6566	ppb	2.25663	343.70%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	569.9	-13.881	ug/L	2.2024	-13.881	ppb	2.2024	15.87%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-902.2	-1.3494	ug/L	0.25838	-1.3494	ppb	0.25838	19.15%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-1171.1	-0.4140	ug/L	0.01424	-0.4140	ppb	0.01424	3.44%
QC value within limits for Be 313.107 Recovery = Not calculated								

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Ca 317.933Radial†     306984.2      481090 ug/L        3100.4      481090 ppb        3100.4   0.64%
   QC value within limits for Ca 317.933Radial  Recovery = 96.22%
Cd 226.502†             1887.0     -1.8358 ug/L       0.11120     -1.8358 ppb       0.11120   6.06%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†               56.9     -1.6914 ug/L       0.15039     -1.6914 ppb       0.15039   8.89%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†             -158.4      1.9035 ug/L       0.43255      1.9035 ppb       0.43255  22.72%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -3274.4      0.2754 ug/L       0.31602      0.2754 ppb       0.31602 114.75%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†     21458.0      188440 ug/L         499.9      188440 ppb         499.9   0.27%
   QC value within limits for Fe 238.204 Radial  Recovery = 94.22%
K 766.490 Radial†       -240.7     -30.110 ug/L       29.0079     -30.110 ppb       29.0079  96.34%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†        15438.2      493520 ug/L        1442.3      493520 ppb        1442.3   0.29%
   QC value within limits for Mg 279.077 IEC  Recovery = 98.70%
Mn 257.610†            -1143.0      8.4665 ug/L       0.15289      8.4665 ppb       0.15289   1.81%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†             -319.9     -0.7662 ug/L       0.34001     -0.7662 ppb       0.34001  44.37%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        0.3      0.0941 ug/L       1.86762      0.0941 ppb       1.86762 >999.9%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               189.9      3.9313 ug/L       0.15809      3.9313 ppb       0.15809   4.02%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                  6.5      26.770 ug/L        7.5203      26.770 ppb        7.5203  28.09%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†            -1173.2     -15.931 ug/L        5.4018     -15.931 ppb        5.4018  33.91%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          49.1     -47.731 ug/L        9.9621     -47.731 ppb        9.9621  20.87%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               42.1     -0.4389 ug/L       2.18837     -0.4389 ppb       2.18837 498.62%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†            -1419.1      0.0008 ug/L      12.21110      0.0008 ppb      12.21110 >999.9%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†             -118.2     -2.5960 ug/L       1.34029     -2.5960 ppb       1.34029  51.63%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†             -463.7     -12.911 ug/L        1.9919     -12.911 ppb        1.9919  15.43%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              544.3     -0.8849 ug/L       0.20395     -0.8849 ppb       0.20395  23.05%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†           -14539.4      3.7331 ug/L       0.39424      3.7331 ppb       0.39424  10.56%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -66.6     -3.5014 ug/L       2.96815     -3.5014 ppb       2.96815  84.77%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               469.4     -10.713 ug/L        2.3833     -10.713 ppb        2.3833  22.25%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              2527.3     -2.8723 ug/L       0.16475     -2.8723 ppb       0.16475   5.74%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†             3363.7     -0.3938 ug/L       0.36569     -0.3938 ppb       0.36569  92.86%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                   -126.3     -6.0475 ug/L       0.10871     -6.0475 ppb       0.10871   1.80%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 10
Sample ID: ICSAB
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 14
Date Collected: 12/29/2009 09:34:46
Data Type: Reprocessed on 12/29/2009 10:09:34

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSAB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc 361.383	815341.1	815341.1	86.854	%			09:37:11
1	Sc Radial	4459.1	4459.1	90.2	%			09:36:43
1	Y 371.029	692769.4	692769.4	84.679	%			09:37:11
1	Y RADIAL	4797.8	4797.8	90.44	%			09:36:43
1	Ag 328.068†	46518.5	53094.0	278.57	ug/L	278.57	ppb	09:37:11
1	Al 396.153Radial†	613808.8	680808.2	532870	ug/L	532870	ppb	09:36:38
1	As 188.979†	1246.8	1470.3	516.76	ug/L	516.76	ppb	09:37:16
1	B 249.677†	23384.0	27319.5	506.27	ug/L	506.27	ppb	09:37:11
1	Ba 233.527†	63289.2	72848.6	501.25	ug/L	501.25	ppb	09:37:11
1	Be 313.107†	673971.2	780685.5	248.97	ug/L	248.97	ppb	09:37:11
1	Ca 317.933Radial†	285757.4	316917.5	496650	ug/L	496650	ppb	09:36:38
1	Cd 226.502†	46392.4	53671.1	464.50	ug/L	464.50	ppb	09:37:16
1	Co 228.616†	22628.0	26147.2	457.32	ug/L	457.32	ppb	09:37:16
1	Cr 267.716†	43358.6	49787.7	471.98	ug/L	471.98	ppb	09:37:16
1	Cu 324.752†	178500.8	197035.6	571.73	ug/L	571.73	ppb	09:37:11
1	Fe 238.204 Radial†	19868.9	22023.7	193420	ug/L	193420	ppb	09:36:43
1	K 766.490 Radial†	29210.9	29065.0	5543.3	ug/L	5543.3	ppb	09:36:38
1	Mg 279.077 IEC†	14205.5	15752.8	503580	ug/L	503580	ppb	09:36:43
1	Mn 257.610†	432285.5	497080.1	503.08	ug/L	503.08	ppb	09:37:11
1	Mo 202.031†	7028.7	8067.1	493.37	ug/L	493.37	ppb	09:37:16
1	Na 589.592 Radial†	15893.6	19425.3	5511.3	ug/L	5511.3	ppb	09:36:43
1	Ni 231.604†	19257.9	22034.0	455.85	ug/L	455.85	ppb	09:37:16
1	P 214.914†	5158.5	5668.2	2510.7	ug/L	2510.7	ppb	09:37:16
1	Pb 220.353†	3023.6	3565.9	458.36	ug/L	458.36	ppb	09:37:16
1	S 181.975 Axial†	2176.4	2444.2	2579.9	ug/L	2579.9	ppb	09:37:16
1	Sb 206.836†	1664.5	1871.2	530.97	ug/L	530.97	ppb	09:37:16
1	Se 196.026†	3563.9	4136.0	2654.0	ug/L	2654.0	ppb	09:37:16
1	Si 251.611†	175840.6	201716.6	5354.5	ug/L	5354.5	ppb	09:37:11
1	Sn 189.927†	2639.6	3035.8	484.29	ug/L	484.29	ppb	09:37:16
1	Sr 421.552†	71235.1	78997.1	514.14	ug/L	514.14	ppb	09:36:38
1	Ti 334.940†	291945.3	337839.2	521.74	ug/L	521.74	ppb	09:37:11
1	Tl 190.801†	1516.4	1795.4	488.04	ug/L	488.04	ppb	09:37:16
1	U 409.014†	13930.9	18958.2	499.53	ug/L	499.53	ppb	09:37:11
1	V 292.402†	74906.0	88053.9	507.33	ug/L	507.33	ppb	09:37:11
1	Zn 213.857†	58242.8	66143.9	486.00	ug/L	486.00	ppb	09:37:16
1	SiO2†	177166.2	203224.2	11622	ug/L	11622	ppb	09:37:43
2	Sc 361.383	809756.6	809756.6	86.259	%			09:37:22
2	Sc Radial	4487.4	4487.4	90.7	%			09:36:54
2	Y 371.029	688162.3	688162.3	84.115	%			09:37:22
2	Y RADIAL	4789.3	4789.3	90.28	%			09:36:54
2	Ag 328.068†	46238.7	53138.9	278.43	ug/L	278.43	ppb	09:37:22
2	Al 396.153Radial†	606704.8	668684.3	523380	ug/L	523380	ppb	09:36:48
2	As 188.979†	1263.6	1499.7	526.20	ug/L	526.20	ppb	09:37:27
2	B 249.677†	23216.0	27310.4	506.24	ug/L	506.24	ppb	09:37:22
2	Ba 233.527†	62820.8	72808.2	500.95	ug/L	500.95	ppb	09:37:22
2	Be 313.107†	668893.4	780150.4	248.80	ug/L	248.80	ppb	09:37:22
2	Ca 317.933Radial†	282605.7	311444.7	488080	ug/L	488080	ppb	09:36:48
2	Cd 226.502†	47305.8	55098.4	477.51	ug/L	477.51	ppb	09:37:27
2	Co 228.616†	23131.3	26910.3	470.79	ug/L	470.79	ppb	09:37:27
2	Cr 267.716†	44244.2	51158.6	484.84	ug/L	484.84	ppb	09:37:27
2	Cu 324.752†	177096.9	196825.5	571.06	ug/L	571.06	ppb	09:37:22
2	Fe 238.204 Radial†	19855.0	21869.4	192070	ug/L	192070	ppb	09:36:54
2	K 766.490 Radial†	28988.5	28615.5	5457.4	ug/L	5457.4	ppb	09:36:48
2	Mg 279.077 IEC†	14242.5	15694.3	501710	ug/L	501710	ppb	09:36:54
2	Mn 257.610†	429614.4	497416.0	503.31	ug/L	503.31	ppb	09:37:22
2	Mo 202.031†	7218.1	8342.5	509.45	ug/L	509.45	ppb	09:37:27
2	Na 589.592 Radial†	15931.5	19355.9	5491.6	ug/L	5491.6	ppb	09:36:54
2	Ni 231.604†	19746.9	22753.7	470.74	ug/L	470.74	ppb	09:37:27

2	P 214.914†	5266.3	5834.0	2584.1	ug/L	2584.1 ppb	09:37:27
2	Pb 220.353†	3148.2	3734.3	473.10	ug/L	473.10 ppb	09:37:27
2	S 181.975 Axial†	2276.9	2578.0	2728.8	ug/L	2728.8 ppb	09:37:27
2	Sb 206.836†	1728.7	1958.8	556.61	ug/L	556.61 ppb	09:37:27
2	Se 196.026†	3692.0	4312.8	2732.0	ug/L	2732.0 ppb	09:37:27
2	Si 251.611†	174686.9	201775.3	5355.7	ug/L	5355.7 ppb	09:37:22
2	Sn 189.927†	2715.4	3144.5	498.77	ug/L	498.77 ppb	09:37:27
2	Sr 421.552†	70353.6	77527.3	504.57	ug/L	504.57 ppb	09:36:48
2	Ti 334.940†	290151.8	338078.2	521.64	ug/L	521.64 ppb	09:37:22
2	Tl 190.801†	1576.2	1876.7	509.02	ug/L	509.02 ppb	09:37:27
2	U 409.014†	13791.4	18907.1	498.26	ug/L	498.26 ppb	09:37:22
2	V 292.402†	74501.9	88180.2	508.46	ug/L	508.46 ppb	09:37:22
2	Zn 213.857†	59743.0	68345.4	503.24	ug/L	503.24 ppb	09:37:27
2	SiO2†	176659.2	204043.3	11669	ug/L	11669 ppb	09:37:49
3	Sc 361.383	825581.3	825581.3	87.945	%		09:37:33
3	Sc Radial	4451.6	4451.6	90.0	%		09:37:04
3	Y 371.029	701090.6	701090.6	85.696	%		09:37:33
3	Y RADIAL	4747.7	4747.7	89.50	%		09:37:04
3	Ag 328.068†	47275.7	53290.6	278.51	ug/L	278.51 ppb	09:37:33
3	Al 396.153Radial†	608347.7	675879.7	529020	ug/L	529020 ppb	09:36:59
3	As 188.979†	1206.0	1406.2	495.25	ug/L	495.25 ppb	09:37:38
3	B 249.677†	23861.0	27527.9	510.70	ug/L	510.70 ppb	09:37:33
3	Ba 233.527†	64044.1	72803.2	500.88	ug/L	500.88 ppb	09:37:33
3	Be 313.107†	683019.6	781349.2	249.18	ug/L	249.18 ppb	09:37:33
3	Ca 317.933Radial†	283517.9	314959.5	493580	ug/L	493580 ppb	09:36:59
3	Cd 226.502†	46576.6	53218.0	460.70	ug/L	460.70 ppb	09:37:38
3	Co 228.616†	22846.6	26072.6	456.04	ug/L	456.04 ppb	09:37:38
3	Cr 267.716†	43771.9	49638.4	470.53	ug/L	470.53 ppb	09:37:38
3	Cu 324.752†	181151.0	197499.9	572.91	ug/L	572.91 ppb	09:37:33
3	Fe 238.204 Radial†	19554.0	21710.7	190670	ug/L	190670 ppb	09:37:04
3	K 766.490 Radial†	28947.8	28826.9	5497.8	ug/L	5497.8 ppb	09:36:59
3	Mg 279.077 IEC†	14020.7	15573.9	497870	ug/L	497870 ppb	09:37:04
3	Mn 257.610†	438594.4	498080.3	503.90	ug/L	503.90 ppb	09:37:33
3	Mo 202.031†	7086.4	8032.4	491.06	ug/L	491.06 ppb	09:37:38
3	Na 589.592 Radial†	15595.3	19123.4	5425.7	ug/L	5425.7 ppb	09:37:04
3	Ni 231.604†	19417.2	21940.0	453.90	ug/L	453.90 ppb	09:37:38
3	P 214.914†	5255.2	5704.4	2527.9	ug/L	2527.9 ppb	09:37:38
3	Pb 220.353†	3098.9	3608.3	461.93	ug/L	461.93 ppb	09:37:38
3	S 181.975 Axial†	2236.2	2481.0	2621.1	ug/L	2621.1 ppb	09:37:38
3	Sb 206.836†	1710.6	1899.9	539.29	ug/L	539.29 ppb	09:37:38
3	Se 196.026†	3615.1	4143.3	2648.2	ug/L	2648.2 ppb	09:37:38
3	Si 251.611†	178394.4	202109.2	5364.9	ug/L	5364.9 ppb	09:37:33
3	Sn 189.927†	2697.7	3064.1	487.94	ug/L	487.94 ppb	09:37:38
3	Sr 421.552†	70424.3	78228.5	509.12	ug/L	509.12 ppb	09:36:59
3	Ti 334.940†	295639.3	337870.3	521.63	ug/L	521.63 ppb	09:37:33
3	Tl 190.801†	1558.7	1821.9	494.89	ug/L	494.89 ppb	09:37:38
3	U 409.014†	13974.5	18808.8	495.75	ug/L	495.75 ppb	09:37:33
3	V 292.402†	75913.5	88129.8	508.03	ug/L	508.03 ppb	09:37:33
3	Zn 213.857†	58884.4	66041.6	485.55	ug/L	485.55 ppb	09:37:38
3	SiO2†	178443.9	202147.0	11561	ug/L	11561 ppb	09:37:54

Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	816893.0	87.019	%	0.8549				0.98%
Sc Radial	4466.0	90.3	%	0.38				0.42%
Y 371.029	694007.4	84.830	%	0.8009				0.94%
Y RADIAL	4778.3	90.07	%	0.505				0.56%
Ag 328.068†	53174.5	278.51	ug/L	0.069	278.51	ppb	0.069	0.02%
QC value within limits for Ag 328.068 Recovery = 111.40%								
Al 396.153Radial†	675124.1	528420	ug/L	4772.9	528420	ppb	4772.9	0.90%
QC value within limits for Al 396.153Radial Recovery = 105.68%								
As 188.979†	1458.8	512.73	ug/L	15.864	512.73	ppb	15.864	3.09%
QC value within limits for As 188.979 Recovery = 102.55%								
B 249.677†	27385.9	507.73	ug/L	2.570	507.73	ppb	2.570	0.51%
QC value within limits for B 249.677 Recovery = 101.55%								
Ba 233.527†	72820.0	501.03	ug/L	0.200	501.03	ppb	0.200	0.04%
QC value within limits for Ba 233.527 Recovery = 100.21%								
Be 313.107†	780728.4	248.98	ug/L	0.190	248.98	ppb	0.190	0.08%
QC value within limits for Be 313.107 Recovery = 99.59%								

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Ca 317.933Radial†     314440.5      492770 ug/L        4345.8      492770 ppb         4345.8   0.88%
   QC value within limits for Ca 317.933Radial  Recovery = 98.55%
Cd 226.502†            53995.8      467.57 ug/L         8.816      467.57 ppb          8.816   1.89%
   QC value within limits for Cd 226.502  Recovery = 93.51%
Co 228.616†            26376.7      461.38 ug/L         8.174      461.38 ppb          8.174   1.77%
   QC value within limits for Co 228.616  Recovery = 92.28%
Cr 267.716†            50194.9      475.79 ug/L         7.876      475.79 ppb          7.876   1.66%
   QC value within limits for Cr 267.716  Recovery = 95.16%
Cu 324.752†           197120.3      571.90 ug/L         0.938      571.90 ppb          0.938   0.16%
   QC value within limits for Cu 324.752  Recovery = 114.38%
Fe 238.204 Radial†     21867.9      192050 ug/L        1374.2      192050 ppb         1374.2   0.72%
   QC value within limits for Fe 238.204 Radial  Recovery = 96.03%
K 766.490 Radial†      28835.8      5499.5 ug/L         42.97      5499.5 ppb          42.97   0.78%
   QC value within limits for K 766.490 Radial  Recovery = 109.99%
Mg 279.077 IEC†        15673.7      501050 ug/L        2915.5      501050 ppb         2915.5   0.58%
   QC value within limits for Mg 279.077 IEC  Recovery = 100.21%
Mn 257.610†           497525.4      503.43 ug/L         0.425      503.43 ppb          0.425   0.08%
   QC value within limits for Mn 257.610  Recovery = 100.69%
Mo 202.031†             8147.3      497.96 ug/L        10.017      497.96 ppb         10.017   2.01%
   QC value within limits for Mo 202.031  Recovery = 99.59%
Na 589.592 Radial†     19301.5      5476.2 ug/L         44.86      5476.2 ppb          44.86   0.82%
   QC value within limits for Na 589.592 Radial  Recovery = 109.52%
Ni 231.604†            22242.5      460.16 ug/L         9.210      460.16 ppb          9.210   2.00%
   QC value within limits for Ni 231.604  Recovery = 92.03%
P 214.914†              5735.5      2540.9 ug/L         38.38      2540.9 ppb          38.38   1.51%
   QC value within limits for P 214.914  Recovery = 101.63%
Pb 220.353†             3636.2      464.46 ug/L         7.689      464.46 ppb          7.689   1.66%
   QC value within limits for Pb 220.353  Recovery = 92.89%
S 181.975 Axial†        2501.1      2643.3 ug/L         76.85      2643.3 ppb          76.85   2.91%
   QC value within limits for S 181.975 Axial  Recovery = 105.73%
Sb 206.836†             1910.0      542.29 ug/L        13.081      542.29 ppb         13.081   2.41%
   QC value within limits for Sb 206.836  Recovery = 108.46%
Se 196.026†             4197.4      2678.1 ug/L         46.82      2678.1 ppb          46.82   1.75%
   QC value within limits for Se 196.026  Recovery = 107.12%
Si 251.611†           201867.1      5358.4 ug/L          5.72      5358.4 ppb           5.72   0.11%
   QC value within limits for Si 251.611  Recovery = 107.17%
Sn 189.927†             3081.5      490.33 ug/L         7.532      490.33 ppb          7.532   1.54%
   QC value within limits for Sn 189.927  Recovery = 98.07%
Sr 421.552†            78251.0      509.27 ug/L         4.788      509.27 ppb          4.788   0.94%
   QC value within limits for Sr 421.552  Recovery = 101.85%
Ti 334.940†           337929.2      521.67 ug/L         0.062      521.67 ppb          0.062   0.01%
   QC value within limits for Ti 334.940  Recovery = 104.33%
Tl 190.801†             1831.3      497.32 ug/L        10.697      497.32 ppb         10.697   2.15%
   QC value within limits for Tl 190.801  Recovery = 99.46%
U 409.014†             18891.3      497.85 ug/L         1.927      497.85 ppb          1.927   0.39%
   QC value within limits for U 409.014  Recovery = 99.57%
V 292.402†             88121.3      507.94 ug/L         0.571      507.94 ppb          0.571   0.11%
   QC value within limits for V 292.402  Recovery = 101.59%
Zn 213.857†            66843.6      491.59 ug/L        10.088      491.59 ppb         10.088   2.05%
   QC value within limits for Zn 213.857  Recovery = 98.32%
SiO2†                 203138.2       11617 ug/L          54.2       11617 ppb           54.2   0.47%
   QC value within limits for SiO2  Recovery = 108.62%
All analyte(s) passed QC.
```

Sequence No.: 11
Sample ID: LR1
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 15
Date Collected: 12/29/2009 09:40:04
Data Type: Reprocessed on 12/29/2009 10:09:35

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc 361.383	786308.2	786308.2	83.761	%			09:42:30
1	Sc Radial	4424.0	4424.0	89.5	%			09:42:01
1	Y 371.029	668997.2	668997.2	81.773	%			09:42:30
1	Y RADIAL	4753.7	4753.7	89.61	%			09:42:01
1	Ag 328.068†	-26033.2	-31545.9	3.6163	ug/L	3.6163	ppb	09:42:30
1	Al 396.153Radial†	573766.3	641433.8	502080	ug/L	502080	ppb	09:41:56
1	As 188.979†	-240.6	-252.4	-12.101	ug/L	-12.101	ppb	09:42:50
1	B 249.677†	1102.0	1711.8	-27.600	ug/L	-27.600	ppb	09:42:30
1	Ba 233.527†	-2059.3	-2478.6	-5.2061	ug/L	-5.2061	ppb	09:42:50
1	Be 313.107†	-11736.4	-9310.4	-3.0029	ug/L	-3.0029	ppb	09:42:30
1	Ca 317.933Radial†	270119.4	301944.7	473190	ug/L	473190	ppb	09:41:56
1	Cd 226.502†	3632.1	4593.0	-4.5797	ug/L	-4.5797	ppb	09:42:50
1	Co 228.616†	177.6	306.2	-1.2306	ug/L	-1.2306	ppb	09:42:50
1	Cr 267.716†	70.7	-49.3	3.0059	ug/L	3.0059	ppb	09:42:50
1	Cu 324.752†	626.0	-7735.8	1.3930	ug/L	1.3930	ppb	09:42:30
1	Fe 238.204 Radial†	46842.3	52351.7	459740	ug/L	459740	ppb	09:42:01
1	K 766.490 Radial†	2975.4	-7.2	-213.15	ug/L	-213.15	ppb	09:41:56
1	Mg 279.077 IEC†	13821.1	15447.9	493590	ug/L	493590	ppb	09:42:01
1	Mn 257.610†	-29010.8	-35271.8	1.6557	ug/L	1.6557	ppb	09:42:30
1	Mo 202.031†	-540.9	-671.3	4.5572	ug/L	4.5572	ppb	09:42:30
1	Na 589.592 Radial†	1682683.6	1882866.7	534200	ug/L	534200	ppb	09:41:56
1	Ni 231.604†	318.8	241.7	5.0011	ug/L	5.0011	ppb	09:42:50
1	P 214.914†	664.0	521.5	38.418	ug/L	38.418	ppb	09:42:50
1	Pb 220.353†	-787.4	-855.4	-10.046	ug/L	-10.046	ppb	09:42:50
1	S 181.975 Axial†	126.3	89.1	-0.8995	ug/L	-0.8995	ppb	09:42:50
1	Sb 206.836†	51.2	15.9	-3.7160	ug/L	-3.7160	ppb	09:42:50
1	Se 196.026†	-2906.2	-3437.0	-116.52	ug/L	-116.52	ppb	09:42:50
1	Si 251.611†	-563.6	-1412.3	-36.646	ug/L	-36.646	ppb	09:42:50
1	Sn 189.927†	-440.1	-528.8	-19.330	ug/L	-19.330	ppb	09:42:50
1	Sr 421.552†	762.2	841.1	1.1370	ug/L	1.1370	ppb	09:42:01
1	Ti 334.940†	-14568.1	-15687.6	-4.9379	ug/L	-4.9379	ppb	09:42:30
1	Tl 190.801†	-103.4	-74.0	-6.1076	ug/L	-6.1076	ppb	09:42:50
1	U 409.014†	448444.0	538303.7	14843	ug/L	14843	ppb	09:42:30
1	V 292.402†	1949.6	4137.7	-6.0395	ug/L	-6.0395	ppb	09:42:30
1	Zn 213.857†	6726.1	7115.5	14.863	ug/L	14.863	ppb	09:42:50
1	SiO2†	-464.8	-1313.0	-73.248	ug/L	-73.248	ppb	09:43:47
2	Sc 361.383	786735.5	786735.5	83.807	%			09:42:55
2	Sc Radial	4322.5	4322.5	87.4	%			09:42:12
2	Y 371.029	669133.9	669133.9	81.790	%			09:42:55
2	Y RADIAL	4650.4	4650.4	87.66	%			09:42:12
2	Ag 328.068†	-26013.1	-31505.1	3.6645	ug/L	3.6645	ppb	09:42:55
2	Al 396.153Radial†	572717.4	655297.5	512930	ug/L	512930	ppb	09:42:07
2	As 188.979†	-233.6	-243.9	-9.2794	ug/L	-9.2794	ppb	09:43:16
2	B 249.677†	1096.7	1704.7	-27.770	ug/L	-27.770	ppb	09:42:55
2	Ba 233.527†	-2117.1	-2546.3	-5.6600	ug/L	-5.6600	ppb	09:43:16
2	Be 313.107†	-11628.9	-9174.6	-2.9594	ug/L	-2.9594	ppb	09:42:55
2	Ca 317.933Radial†	270116.7	309033.3	484300	ug/L	484300	ppb	09:42:07
2	Cd 226.502†	3648.0	4609.5	-4.4534	ug/L	-4.4534	ppb	09:43:16
2	Co 228.616†	199.6	332.4	-0.7703	ug/L	-0.7703	ppb	09:43:16
2	Cr 267.716†	58.3	-64.2	2.8568	ug/L	2.8568	ppb	09:43:16
2	Cu 324.752†	703.7	-7643.5	1.6679	ug/L	1.6679	ppb	09:42:55
2	Fe 238.204 Radial†	45790.5	52378.0	459970	ug/L	459970	ppb	09:42:12
2	K 766.490 Radial†	2926.9	15.5	-213.48	ug/L	-213.48	ppb	09:42:07
2	Mg 279.077 IEC†	13503.5	15447.3	493580	ug/L	493580	ppb	09:42:12
2	Mn 257.610†	-29294.1	-35591.0	1.3624	ug/L	1.3624	ppb	09:42:55
2	Mo 202.031†	-519.1	-644.8	6.1343	ug/L	6.1343	ppb	09:42:55
2	Na 589.592 Radial†	1678741.1	1922533.4	545460	ug/L	545460	ppb	09:42:07
2	Ni 231.604†	335.9	261.9	5.4173	ug/L	5.4173	ppb	09:43:16

2	P 214.914†	683.7	544.7	52.325	ug/L	52.325	ppb	09:43:16
2	Pb 220.353†	-763.4	-826.2	-4.7350	ug/L	-4.7350	ppb	09:43:16
2	S 181.975 Axial†	128.7	91.9	0.0496	ug/L	0.0496	ppb	09:43:16
2	Sb 206.836†	86.4	57.9	8.0047	ug/L	8.0047	ppb	09:43:16
2	Se 196.026†	-2957.4	-3496.2	-142.04	ug/L	-142.04	ppb	09:43:16
2	Si 251.611†	-630.4	-1491.6	-38.777	ug/L	-38.777	ppb	09:43:16
2	Sn 189.927†	-455.7	-547.2	-20.769	ug/L	-20.769	ppb	09:43:16
2	Sr 421.552†	709.3	800.5	0.7678	ug/L	0.7678	ppb	09:42:12
2	Ti 334.940†	-14477.7	-15570.4	-4.2046	ug/L	-4.2046	ppb	09:42:55
2	Tl 190.801†	-98.3	-67.8	-4.1760	ug/L	-4.1760	ppb	09:43:16
2	U 409.014†	449955.1	539816.0	14884	ug/L	14884	ppb	09:42:55
2	V 292.402†	1967.8	4158.1	-5.8513	ug/L	-5.8513	ppb	09:42:55
2	Zn 213.857†	6767.4	7160.4	15.199	ug/L	15.199	ppb	09:43:16
2	SiO2†	-719.0	-1616.0	-90.656	ug/L	-90.656	ppb	09:43:52
3	Sc 361.383	791943.6	791943.6	84.361	%			09:43:21
3	Sc Radial	4368.4	4368.4	88.3	%			09:42:22
3	Y 371.029	672698.8	672698.8	82.225	%			09:43:21
3	Y RADIAL	4699.7	4699.7	88.59	%			09:42:22
3	Ag 328.068†	-26284.2	-31622.3	2.8674	ug/L	2.8674	ppb	09:43:21
3	Al 396.153Radial†	570473.2	645876.3	505550	ug/L	505550	ppb	09:42:17
3	As 188.979†	-222.7	-229.1	-4.6064	ug/L	-4.6064	ppb	09:43:41
3	B 249.677†	963.2	1537.8	-30.859	ug/L	-30.859	ppb	09:43:21
3	Ba 233.527†	-2087.8	-2494.9	-5.3433	ug/L	-5.3433	ppb	09:43:41
3	Be 313.107†	-11828.1	-9319.5	-3.0052	ug/L	-3.0052	ppb	09:43:21
3	Ca 317.933Radial†	268589.8	304059.5	476500	ug/L	476500	ppb	09:42:17
3	Cd 226.502†	3636.3	4567.0	-4.7098	ug/L	-4.7098	ppb	09:43:41
3	Co 228.616†	202.5	334.3	-0.7286	ug/L	-0.7286	ppb	09:43:41
3	Cr 267.716†	35.7	-91.4	2.5776	ug/L	2.5776	ppb	09:43:41
3	Cu 324.752†	788.4	-7548.7	1.8737	ug/L	1.8737	ppb	09:43:21
3	Fe 238.204 Radial†	46148.9	52233.7	458710	ug/L	458710	ppb	09:42:22
3	K 766.490 Radial†	2933.4	-12.4	-214.33	ug/L	-214.33	ppb	09:42:17
3	Mg 279.077 IEC†	13565.4	15355.2	490630	ug/L	490630	ppb	09:42:22
3	Mn 257.610†	-29332.8	-35407.0	1.4734	ug/L	1.4734	ppb	09:43:21
3	Mo 202.031†	-577.0	-709.5	2.2096	ug/L	2.2096	ppb	09:43:21
3	Na 589.592 Radial†	1663808.9	1885460.4	534940	ug/L	534940	ppb	09:42:17
3	Ni 231.604†	326.8	248.5	5.1397	ug/L	5.1397	ppb	09:43:41
3	P 214.914†	683.5	539.1	48.294	ug/L	48.294	ppb	09:43:41
3	Pb 220.353†	-799.3	-862.8	-9.9236	ug/L	-9.9236	ppb	09:43:41
3	S 181.975 Axial†	130.4	92.9	2.5575	ug/L	2.5575	ppb	09:43:41
3	Sb 206.836†	79.2	48.6	5.4979	ug/L	5.4979	ppb	09:43:41
3	Se 196.026†	-2911.9	-3419.1	-110.66	ug/L	-110.66	ppb	09:43:41
3	Si 251.611†	-549.8	-1391.1	-36.044	ug/L	-36.044	ppb	09:43:41
3	Sn 189.927†	-444.1	-529.9	-19.144	ug/L	-19.144	ppb	09:43:41
3	Sr 421.552†	763.9	853.8	1.1899	ug/L	1.1899	ppb	09:42:22
3	Ti 334.940†	-14517.8	-15504.3	-4.5151	ug/L	-4.5151	ppb	09:43:21
3	Tl 190.801†	-130.7	-105.5	-14.247	ug/L	-14.247	ppb	09:43:41
3	U 409.014†	453013.3	539910.3	14887	ug/L	14887	ppb	09:43:21
3	V 292.402†	1966.1	4140.6	-5.8775	ug/L	-5.8775	ppb	09:43:21
3	Zn 213.857†	6692.6	7018.6	14.260	ug/L	14.260	ppb	09:43:41
3	SiO2†	-567.8	-1431.0	-79.928	ug/L	-79.928	ppb	09:43:57

Mean Data: LR1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	788329.1	83.976	%	0.3342				0.40%
Sc Radial	4371.7	88.4	%	1.03				1.16%
Y 371.029	670276.6	81.929	%	0.2565				0.31%
Y RADIAL	4701.3	88.62	%	0.974				1.10%
Ag 328.068†	-31557.8	3.3827	ug/L	0.44694	3.3827	ppb	0.44694	13.21%
Al 396.153Radial†	647535.8	506850	ug/L	5541.1	506850	ppb	5541.1	1.09%
QC value within limits for Al 396.153Radial Recovery = 101.37%								
As 188.979†	-241.8	-8.6624	ug/L	3.78537	-8.6624	ppb	3.78537	43.70%
B 249.677†	1651.4	-28.743	ug/L	1.8343	-28.743	ppb	1.8343	6.38%
Ba 233.527†	-2506.6	-5.4031	ug/L	0.23280	-5.4031	ppb	0.23280	4.31%
Be 313.107†	-9268.2	-2.9892	ug/L	0.02581	-2.9892	ppb	0.02581	0.86%
Ca 317.933Radial†	305012.5	478000	ug/L	5703.0	478000	ppb	5703.0	1.19%
QC value within limits for Ca 317.933Radial Recovery = 95.60%								
Cd 226.502†	4589.8	-4.5810	ug/L	0.12821	-4.5810	ppb	0.12821	2.80%
Co 228.616†	324.3	-0.9098	ug/L	0.27856	-0.9098	ppb	0.27856	30.62%
Cr 267.716†	-68.3	2.8134	ug/L	0.21741	2.8134	ppb	0.21741	7.73%

Cu 324.752†	-7642.7	1.6448	ug/L	0.24119	1.6448	ppb	0.24119	14.66%
Fe 238.204 Radial†	52321.1	459470	ug/L	675.1	459470	ppb	675.1	0.15%
QC value within limits for Fe 238.204 Radial Recovery = 91.89%								
K 766.490 Radial†	-1.4	-213.65	ug/L	0.608	-213.65	ppb	0.608	0.28%
Mg 279.077 IEC†	15416.8	492600	ug/L	1706.1	492600	ppb	1706.1	0.35%
QC value within limits for Mg 279.077 IEC Recovery = 98.52%								
Mn 257.610†	-35423.3	1.4971	ug/L	0.14808	1.4971	ppb	0.14808	9.89%
Mo 202.031†	-675.2	4.3003	ug/L	1.97492	4.3003	ppb	1.97492	45.92%
Na 589.592 Radial†	1896953.5	538200	ug/L	6295.9	538200	ppb	6295.9	1.17%
QC value within limits for Na 589.592 Radial Recovery = 107.64%								
Ni 231.604†	250.7	5.1861	ug/L	0.21194	5.1861	ppb	0.21194	4.09%
P 214.914†	535.1	46.346	ug/L	7.1555	46.346	ppb	7.1555	15.44%
Pb 220.353†	-848.1	-8.2349	ug/L	3.03159	-8.2349	ppb	3.03159	36.81%
S 181.975 Axial†	91.3	0.5692	ug/L	1.78612	0.5692	ppb	1.78612	313.81%
Sb 206.836†	40.8	3.2622	ug/L	6.17189	3.2622	ppb	6.17189	189.20%
Se 196.026†	-3450.8	-123.07	ug/L	16.685	-123.07	ppb	16.685	13.56%
Si 251.611†	-1431.7	-37.156	ug/L	1.4364	-37.156	ppb	1.4364	3.87%
Sn 189.927†	-535.3	-19.747	ug/L	0.8893	-19.747	ppb	0.8893	4.50%
Sr 421.552†	831.8	1.0315	ug/L	0.22996	1.0315	ppb	0.22996	22.29%
Ti 334.940†	-15587.4	-4.5525	ug/L	0.36806	-4.5525	ppb	0.36806	8.08%
Tl 190.801†	-82.4	-8.1768	ug/L	5.34473	-8.1768	ppb	5.34473	65.36%
U 409.014†	539343.3	14871	ug/L	25.0	14871	ppb	25.0	0.17%
QC value within limits for U 409.014 Recovery = 99.14%								
V 292.402†	4145.5	-5.9228	ug/L	0.10194	-5.9228	ppb	0.10194	1.72%
Zn 213.857†	7098.1	14.774	ug/L	0.4762	14.774	ppb	0.4762	3.22%
SiO2†	-1453.3	-81.277	ug/L	8.7822	-81.277	ppb	8.7822	10.81%

All analyte(s) passed QC.

Sequence No.: 12
Sample ID: LR2
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 16
Date Collected: 12/29/2009 09:46:06
Data Type: Reprocessed on 12/29/2009 10:09:36

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR2

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc 361.383	889057.4	889057.4	94.706	%			09:49:42
1	Sc Radial	4806.7	4806.7	97.2	%			09:48:04
1	Y 371.029	756704.3	756704.3	92.493	%			09:49:42
1	Y RADIAL	5128.8	5128.8	96.68	%			09:48:04
1	Ag 328.068†	-7871.0	-8776.6	3.0941	ug/L	3.0941	ppb	09:49:47
1	Al 396.153Radial†	603.8	642.6	79.729	ug/L	79.729	ppb	09:48:04
1	As 188.979†	29086.5	30747.1	10192	ug/L	10192	ppb	09:49:47
1	B 249.677†	245299.9	259407.1	5038.1	ug/L	5038.1	ppb	09:49:42
1	Ba 233.527†	2011788.6	2124218.7	14463	ug/L	14463	ppb	09:49:42
1	Be 313.107†	8807541.9	9304546.4	2975.5	ug/L	2975.5	ppb	09:49:35
1	Ca 317.933Radial†	33.2	12.7	19.952	ug/L	19.952	ppb	09:48:24
1	Cd 226.502†	1026306.8	1083929.5	9772.0	ug/L	9772.0	ppb	09:49:42
1	Co 228.616†	505081.3	533407.4	9382.5	ug/L	9382.5	ppb	09:49:47
1	Cr 267.716†	2433990.7	2569906.4	24163	ug/L	24163	ppb	09:49:42
1	Cu 324.752†	6971125.8	7352298.1	20966	ug/L	20966	ppb	09:49:35
1	Fe 238.204 Radial†	-22.5	-36.4	-23.955	ug/L	-23.955	ppb	09:48:24
1	K 766.490 Radial†	1517363.3	1557876.8	296530	ug/L	296530	ppb	09:47:59
1	Mg 279.077 IEC†	-6.0	-8.9	-84.535	ug/L	-84.535	ppb	09:48:24
1	Mn 257.610†	9317040.7	9837185.9	9759.8	ug/L	9759.8	ppb	09:49:35
1	Mo 202.031†	159094.8	167962.1	9886.2	ug/L	9886.2	ppb	09:49:47
1	Na 589.592 Radial†	-1546.8	206.0	58.432	ug/L	58.432	ppb	09:48:04
1	Ni 231.604†	454719.0	479996.9	9930.8	ug/L	9930.8	ppb	09:49:42
1	P 214.914†	37419.3	39239.6	14578	ug/L	14578	ppb	09:49:47
1	Pb 220.353†	236823.4	250145.4	24836	ug/L	24836	ppb	09:49:47
1	S 181.975 Axial†	45280.6	47749.9	52450	ug/L	52450	ppb	09:49:47
1	Sb 206.836†	35327.5	37256.9	10479	ug/L	10479	ppb	09:49:47
1	Se 196.026†	20770.7	21964.4	10446	ug/L	10446	ppb	09:49:47
1	Si 251.611†	1728261.9	1824124.8	48220	ug/L	48220	ppb	09:49:42
1	Sn 189.927†	71009.7	74975.5	10616	ug/L	10616	ppb	09:49:47
1	Sr 421.552†	1427120.5	1468348.6	9642.0	ug/L	9642.0	ppb	09:47:59
1	Ti 334.940†	6498591.3	6863539.0	10073	ug/L	10073	ppb	09:49:35
1	Tl 190.801†	36348.6	38429.8	10130	ug/L	10130	ppb	09:49:47
1	U 409.014†	-2092.3	709.4	-26.962	ug/L	-26.962	ppb	09:49:42
1	V 292.402†	1616894.8	1709082.2	10181	ug/L	10181	ppb	09:49:42
1	Zn 213.857†	1735195.8	1831271.0	14221	ug/L	14221	ppb	09:49:42
1	SiO2†	1718238.3	1813522.3	103270	ug/L	103270	ppb	09:50:34
2	Sc 361.383	910196.7	910196.7	96.958	%			09:50:02
2	Sc Radial	4771.3	4771.3	96.5	%			09:48:35
2	Y 371.029	775089.2	775089.2	94.741	%			09:50:02
2	Y RADIAL	5056.1	5056.1	95.31	%			09:48:35
2	Ag 328.068†	-7898.8	-8612.2	2.9590	ug/L	2.9590	ppb	09:50:07
2	Al 396.153Radial†	613.6	657.3	104.25	ug/L	104.25	ppb	09:48:35
2	As 188.979†	28827.8	29767.0	9867.8	ug/L	9867.8	ppb	09:50:07
2	B 249.677†	247008.5	255153.8	4955.8	ug/L	4955.8	ppb	09:50:02
2	Ba 233.527†	2018796.5	2082111.1	14176	ug/L	14176	ppb	09:50:02
2	Be 313.107†	8817151.0	9098468.5	2909.6	ug/L	2909.6	ppb	09:49:55
2	Ca 317.933Radial†	35.5	15.4	24.113	ug/L	24.113	ppb	09:48:55
2	Cd 226.502†	1032332.0	1064975.5	9601.1	ug/L	9601.1	ppb	09:50:02
2	Co 228.616†	502163.2	518011.5	9111.5	ug/L	9111.5	ppb	09:50:07
2	Cr 267.716†	2440790.7	2517230.7	23668	ug/L	23668	ppb	09:50:02
2	Cu 324.752†	6955643.0	7165375.7	20433	ug/L	20433	ppb	09:49:55
2	Fe 238.204 Radial†	-22.7	-36.8	-35.465	ug/L	-35.465	ppb	09:48:55
2	K 766.490 Radial†	1485359.6	1536281.7	292420	ug/L	292420	ppb	09:48:30
2	Mg 279.077 IEC†	-5.6	-8.5	-77.754	ug/L	-77.754	ppb	09:48:55
2	Mn 257.610†	9318870.5	9610590.3	9534.9	ug/L	9534.9	ppb	09:49:55
2	Mo 202.031†	157886.8	162814.7	9583.2	ug/L	9583.2	ppb	09:50:07
2	Na 589.592 Radial†	-1414.7	331.0	93.917	ug/L	93.917	ppb	09:48:35
2	Ni 231.604†	456683.6	470872.1	9742.1	ug/L	9742.1	ppb	09:50:02

2	P 214.914†	37135.4	38029.3	14110	ug/L	14110 ppb	09:50:07
2	Pb 220.353†	235220.6	242684.7	24095	ug/L	24095 ppb	09:50:07
2	S 181.975 Axial†	44892.3	46239.0	50790	ug/L	50790 ppb	09:50:07
2	Sb 206.836†	35000.9	36053.7	10135	ug/L	10135 ppb	09:50:07
2	Se 196.026†	20577.3	21255.6	10109	ug/L	10109 ppb	09:50:07
2	Si 251.611†	1735687.1	1789400.6	47304	ug/L	47304 ppb	09:50:02
2	Sn 189.927†	70438.0	72644.4	10286	ug/L	10286 ppb	09:50:07
2	Sr 421.552†	1389089.8	1439817.9	9454.7	ug/L	9454.7 ppb	09:48:30
2	Ti 334.940†	6494960.7	6700428.7	9833.6	ug/L	9833.6 ppb	09:49:55
2	Tl 190.801†	36002.2	37181.2	9801.6	ug/L	9801.6 ppb	09:50:07
2	U 409.014†	-2004.8	851.0	-22.088	ug/L	-22.088 ppb	09:50:02
2	V 292.402†	1621344.2	1674019.9	9970.7	ug/L	9970.7 ppb	09:50:02
2	Zn 213.857†	1741694.1	1795420.8	13943	ug/L	13943 ppb	09:50:02
2	SiO2†	1721268.2	1774510.7	101050	ug/L	101050 ppb	09:50:42
3	Sc 361.383	888989.9	888989.9	94.699	%		09:50:22
3	Sc Radial	4771.8	4771.8	96.5	%		09:49:05
3	Y 371.029	755683.0	755683.0	92.369	%		09:50:22
3	Y RADIAL	5031.3	5031.3	94.84	%		09:49:05
3	Ag 328.068†	-7993.7	-8906.7	2.7183	ug/L	2.7183 ppb	09:50:27
3	Al 396.153Radial†	582.1	624.6	67.766	ug/L	67.766 ppb	09:49:05
3	As 188.979†	28885.2	30536.9	10123	ug/L	10123 ppb	09:50:27
3	B 249.677†	246561.1	260758.6	5064.5	ug/L	5064.5 ppb	09:50:22
3	Ba 233.527†	2022725.5	2135929.1	14542	ug/L	14542 ppb	09:50:22
3	Be 313.107†	8786881.5	9283435.8	2968.8	ug/L	2968.8 ppb	09:50:15
3	Ca 317.933Radial†	32.6	12.3	19.336	ug/L	19.336 ppb	09:49:25
3	Cd 226.502†	1034458.8	1092620.1	9850.4	ug/L	9850.4 ppb	09:50:22
3	Co 228.616†	504390.1	532718.0	9370.3	ug/L	9370.3 ppb	09:50:27
3	Cr 267.716†	2446207.7	2583002.5	24286	ug/L	24286 ppb	09:50:22
3	Cu 324.752†	6933360.8	7312978.2	20854	ug/L	20854 ppb	09:50:15
3	Fe 238.204 Radial†	-20.1	-34.1	-4.1334	ug/L	-4.1334 ppb	09:49:25
3	K 766.490 Radial†	1525031.5	1577239.3	300220	ug/L	300220 ppb	09:49:00
3	Mg 279.077 IEC†	-5.9	-8.8	-81.803	ug/L	-81.803 ppb	09:49:25
3	Mn 257.610†	9295443.4	9815126.9	9737.9	ug/L	9737.9 ppb	09:50:15
3	Mo 202.031†	158297.4	167132.8	9837.4	ug/L	9837.4 ppb	09:50:27
3	Na 589.592 Radial†	-1484.3	259.1	73.519	ug/L	73.519 ppb	09:49:05
3	Ni 231.604†	457633.2	483110.7	9995.3	ug/L	9995.3 ppb	09:50:22
3	P 214.914†	37319.2	39137.0	14548	ug/L	14548 ppb	09:50:27
3	Pb 220.353†	235524.8	248793.1	24702	ug/L	24702 ppb	09:50:27
3	S 181.975 Axial†	44972.4	47428.1	52096	ug/L	52096 ppb	09:50:27
3	Sb 206.836†	35068.8	36986.6	10397	ug/L	10397 ppb	09:50:27
3	Se 196.026†	20618.3	21805.0	10371	ug/L	10371 ppb	09:50:27
3	Si 251.611†	1736285.5	1832736.1	48449	ug/L	48449 ppb	09:50:22
3	Sn 189.927†	70612.5	74561.7	10557	ug/L	10557 ppb	09:50:27
3	Sr 421.552†	1432849.3	1485022.2	9751.5	ug/L	9751.5 ppb	09:49:00
3	Ti 334.940†	6477718.7	6842019.2	10041	ug/L	10041 ppb	09:50:15
3	Tl 190.801†	36026.4	38092.5	10041	ug/L	10041 ppb	09:50:27
3	U 409.014†	-2162.0	635.7	-29.245	ug/L	-29.245 ppb	09:50:22
3	V 292.402†	1623074.2	1715737.2	10219	ug/L	10219 ppb	09:50:22
3	Zn 213.857†	1744567.8	1841306.8	14299	ug/L	14299 ppb	09:50:22
3	SiO2†	1741748.9	1838486.7	104700	ug/L	104700 ppb	09:50:49

Mean Data: LR2

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	896081.4	95.455	%	1.3022				1.36%
Sc Radial	4783.3	96.7	%	0.41				0.42%
Y 371.029	762492.2	93.201	%	1.3349				1.43%
Y RADIAL	5072.1	95.61	%	0.955				1.00%
Ag 328.068†	-8765.2	2.9238	ug/L	0.19036	2.9238	ppb	0.19036	6.51%
Al 396.153Radial†	641.5	83.914	ug/L	18.5968	83.914	ppb	18.5968	22.16%
As 188.979†	30350.4	10061	ug/L	170.7	10061	ppb	170.7	1.70%
QC value within limits for As 188.979 Recovery = 100.61%								
B 249.677†	258439.9	5019.5	ug/L	56.70	5019.5	ppb	56.70	1.13%
QC value within limits for B 249.677 Recovery = 100.39%								
Ba 233.527†	2114086.3	14394	ug/L	192.7	14394	ppb	192.7	1.34%
QC value within limits for Ba 233.527 Recovery = 95.96%								
Be 313.107†	9228816.9	2951.3	ug/L	36.27	2951.3	ppb	36.27	1.23%
QC value within limits for Be 313.107 Recovery = 98.38%								
Ca 317.933Radial†	13.5	21.134	ug/L	2.5985	21.134	ppb	2.5985	12.30%
Cd 226.502†	1080508.4	9741.2	ug/L	127.44	9741.2	ppb	127.44	1.31%

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   QC value within limits for Cd 226.502  Recovery = 97.41%
Co 228.616†          528045.7      9288.1 ug/L       153.05      9288.1 ppb        153.05   1.65%
   QC value within limits for Co 228.616  Recovery = 92.88%
Cr 267.716†         2556713.2       24039 ug/L        327.3       24039 ppb         327.3   1.36%
   QC value within limits for Cr 267.716  Recovery = 96.16%
Cu 324.752†         7276884.0       20751 ug/L        281.0       20751 ppb         281.0   1.35%
   QC value within limits for Cu 324.752  Recovery = 103.75%
Fe 238.204 Radial†      -35.8     -21.184 ug/L      15.8484     -21.184 ppb       15.8484  74.81%
K 766.490 Radial†   1557132.6      296390 ug/L       3900.2      296390 ppb        3900.2   1.32%
   QC value within limits for K 766.490 Radial  Recovery = 98.80%
Mg 279.077 IEC†          -8.7     -81.364 ug/L       3.4118     -81.364 ppb        3.4118   4.19%
Mn 257.610†         9754301.1      9677.5 ug/L       123.96      9677.5 ppb        123.96   1.28%
   QC value within limits for Mn 257.610  Recovery = 96.78%
Mo 202.031†          165969.8      9769.0 ug/L       162.67      9769.0 ppb        162.67   1.67%
   QC value within limits for Mo 202.031  Recovery = 97.69%
Na 589.592 Radial†      265.4      75.290 ug/L      17.8085      75.290 ppb       17.8085  23.65%
Ni 231.604†          477993.2      9889.4 ug/L       131.58      9889.4 ppb        131.58   1.33%
   QC value within limits for Ni 231.604  Recovery = 98.89%
P 214.914†            38802.0       14412 ug/L        262.1       14412 ppb         262.1   1.82%
   QC value within limits for P 214.914  Recovery = 96.08%
Pb 220.353†          247207.7       24544 ug/L        394.7       24544 ppb         394.7   1.61%
   QC value within limits for Pb 220.353  Recovery = 98.18%
S 181.975 Axial†      47139.0       51779 ug/L        874.2       51779 ppb         874.2   1.69%
   QC value within limits for S 181.975 Axial  Recovery = 103.56%
Sb 206.836†           36765.7       10337 ug/L        180.1       10337 ppb         180.1   1.74%
   QC value within limits for Sb 206.836  Recovery = 103.37%
Se 196.026†           21675.0       10309 ug/L        176.9       10309 ppb         176.9   1.72%
   QC value within limits for Se 196.026  Recovery = 103.09%
Si 251.611†         1815420.5       47991 ug/L        605.9       47991 ppb         605.9   1.26%
   QC value within limits for Si 251.611  Recovery = 95.98%
Sn 189.927†           74060.5       10486 ug/L        176.1       10486 ppb         176.1   1.68%
   QC value within limits for Sn 189.927  Recovery = 104.86%
Sr 421.552†         1464396.2      9616.1 ug/L       150.11      9616.1 ppb        150.11   1.56%
   QC value within limits for Sr 421.552  Recovery = 96.16%
Ti 334.940†         6801995.6      9982.6 ug/L       130.05      9982.6 ppb        130.05   1.30%
   QC value within limits for Ti 334.940  Recovery = 99.83%
Tl 190.801†           37901.2      9990.9 ug/L       169.86      9990.9 ppb        169.86   1.70%
   QC value within limits for Tl 190.801  Recovery = 99.91%
U 409.014†              732.0     -26.098 ug/L       3.6558     -26.098 ppb        3.6558  14.01%
V 292.402†          1699613.1       10124 ug/L        133.9       10124 ppb         133.9   1.32%
   QC value within limits for V 292.402  Recovery = 101.24%
Zn 213.857†         1822666.2       14154 ug/L        187.3       14154 ppb         187.3   1.32%
   QC value within limits for Zn 213.857  Recovery = 94.36%
SiO2†               1808839.9      103010 ug/L       1838.8      103010 ppb        1838.8   1.79%
   QC value within limits for SiO2  Recovery = 96.27%
All analyte(s) passed QC.
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Sequence No.: 13
Sample ID: CCV
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 12/29/2009 09:52:59
Data Type: Reprocessed on 12/29/2009 10:09:37

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc 361.383	912660.2	912660.2	97.221	%			09:56:10
1	Sc Radial	4904.0	4904.0	99.2	%			09:54:51
1	Y 371.029	786104.6	786104.6	96.087	%			09:56:10
1	Y RADIAL	5211.1	5211.1	98.23	%			09:54:51
1	Ag 328.068†	117981.4	120888.8	503.25	ug/L	503.25	ppb	09:56:10
1	Al 396.153Radial†	6260.4	6334.8	4936.5	ug/L	4936.5	ppb	09:54:51
1	As 188.979†	1581.2	1661.3	550.48	ug/L	550.48	ppb	09:56:30
1	B 249.677†	25810.8	26944.7	523.81	ug/L	523.81	ppb	09:56:10
1	Ba 233.527†	72078.9	74119.4	505.11	ug/L	505.11	ppb	09:56:10
1	Be 313.107†	1549676.0	1598680.4	508.83	ug/L	508.83	ppb	09:56:10
1	Ca 317.933Radial†	3199.1	3204.8	5022.4	ug/L	5022.4	ppb	09:55:11
1	Cd 226.502†	54550.2	56366.4	507.64	ug/L	507.64	ppb	09:56:10
1	Co 228.616†	27902.9	28794.8	506.64	ug/L	506.64	ppb	09:56:30
1	Cr 267.716†	52373.7	53737.3	505.71	ug/L	505.71	ppb	09:56:10
1	Cu 324.752†	179490.8	176139.0	502.54	ug/L	502.54	ppb	09:56:10
1	Fe 238.204 Radial†	592.8	584.5	5149.1	ug/L	5149.1	ppb	09:55:11
1	K 766.490 Radial†	29921.8	26842.5	5102.0	ug/L	5102.0	ppb	09:54:51
1	Mg 279.077 IEC†	170.5	169.2	5417.2	ug/L	5417.2	ppb	09:55:11
1	Mn 257.610†	498176.2	511781.8	508.17	ug/L	508.17	ppb	09:56:10
1	Mo 202.031†	8523.2	8741.4	515.01	ug/L	515.01	ppb	09:56:30
1	Na 589.592 Radial†	33346.3	35426.8	10051	ug/L	10051	ppb	09:54:51
1	Ni 231.604†	24046.6	24595.2	508.84	ug/L	508.84	ppb	09:56:30
1	P 214.914†	5779.7	5673.8	2496.8	ug/L	2496.8	ppb	09:56:30
1	Pb 220.353†	5012.6	5240.6	521.71	ug/L	521.71	ppb	09:56:30
1	S 181.975 Axial†	975.6	941.9	1033.6	ug/L	1033.6	ppb	09:56:30
1	Sb 206.836†	1814.6	1821.2	529.36	ug/L	529.36	ppb	09:56:30
1	Se 196.026†	1014.7	1076.4	528.86	ug/L	528.86	ppb	09:56:30
1	Si 251.611†	92522.8	94428.5	2499.7	ug/L	2499.7	ppb	09:56:10
1	Sn 189.927†	3518.4	3615.6	512.53	ug/L	512.53	ppb	09:56:30
1	Sr 421.552†	75230.9	75858.7	498.09	ug/L	498.09	ppb	09:54:51
1	Ti 334.940†	331865.3	343057.6	503.77	ug/L	503.77	ppb	09:56:10
1	Tl 190.801†	1873.1	1976.1	520.86	ug/L	520.86	ppb	09:56:30
1	U 409.014†	13926.6	17243.4	475.68	ug/L	475.68	ppb	09:56:10
1	V 292.402†	81105.9	85234.7	508.58	ug/L	508.58	ppb	09:56:10
1	Zn 213.857†	64186.7	65107.0	504.44	ug/L	504.44	ppb	09:56:10
1	SiO2†	93184.3	95090.3	5423.1	ug/L	5423.1	ppb	09:57:30
2	Sc 361.383	911521.3	911521.3	97.099	%			09:56:37
2	Sc Radial	4824.5	4824.5	97.6	%			09:55:16
2	Y 371.029	785640.5	785640.5	96.030	%			09:56:37
2	Y RADIAL	5135.4	5135.4	96.80	%			09:55:16
2	Ag 328.068†	117829.1	120883.5	503.22	ug/L	503.22	ppb	09:56:37
2	Al 396.153Radial†	6187.0	6363.7	4959.1	ug/L	4959.1	ppb	09:55:16
2	As 188.979†	1551.6	1632.7	541.10	ug/L	541.10	ppb	09:56:57
2	B 249.677†	25743.0	26908.1	523.10	ug/L	523.10	ppb	09:56:37
2	Ba 233.527†	71815.4	73940.7	503.89	ug/L	503.89	ppb	09:56:37
2	Be 313.107†	1547913.3	1598856.6	508.89	ug/L	508.89	ppb	09:56:37
2	Ca 317.933Radial†	3153.1	3210.9	5031.9	ug/L	5031.9	ppb	09:55:36
2	Cd 226.502†	54144.2	56018.4	504.51	ug/L	504.51	ppb	09:56:37
2	Co 228.616†	27761.5	28685.1	504.71	ug/L	504.71	ppb	09:56:57
2	Cr 267.716†	52197.8	53623.4	504.64	ug/L	504.64	ppb	09:56:37
2	Cu 324.752†	179063.5	175929.6	501.94	ug/L	501.94	ppb	09:56:37
2	Fe 238.204 Radial†	583.0	584.4	5147.9	ug/L	5147.9	ppb	09:55:36
2	K 766.490 Radial†	29795.6	27210.3	5172.1	ug/L	5172.1	ppb	09:55:16
2	Mg 279.077 IEC†	162.4	163.7	5241.9	ug/L	5241.9	ppb	09:55:36
2	Mn 257.610†	496462.0	510656.6	507.05	ug/L	507.05	ppb	09:56:37
2	Mo 202.031†	8511.7	8740.5	514.96	ug/L	514.96	ppb	09:56:57
2	Na 589.592 Radial†	33038.6	35665.5	10119	ug/L	10119	ppb	09:55:16
2	Ni 231.604†	23893.9	24468.8	506.23	ug/L	506.23	ppb	09:56:57

2	P 214.914†	5730.3	5630.3	2477.2 ug/L	2477.2 ppb	09:56:57
2	Pb 220.353†	4966.8	5199.8	517.67 ug/L	517.67 ppb	09:56:57
2	S 181.975 Axial†	960.1	927.1	1017.4 ug/L	1017.4 ppb	09:56:57
2	Sb 206.836†	1785.6	1793.8	521.52 ug/L	521.52 ppb	09:56:57
2	Se 196.026†	1023.1	1086.4	533.58 ug/L	533.58 ppb	09:56:57
2	Si 251.611†	92388.1	94408.7	2499.1 ug/L	2499.1 ppb	09:56:37
2	Sn 189.927†	3514.0	3615.5	512.53 ug/L	512.53 ppb	09:56:57
2	Sr 421.552†	74716.1	76580.9	502.83 ug/L	502.83 ppb	09:55:16
2	Ti 334.940†	331286.8	342888.4	503.52 ug/L	503.52 ppb	09:56:37
2	Tl 190.801†	1862.0	1967.1	518.51 ug/L	518.51 ppb	09:56:57
2	U 409.014†	13994.9	17331.7	478.13 ug/L	478.13 ppb	09:56:37
2	V 292.402†	80888.8	85115.3	507.88 ug/L	507.88 ppb	09:56:37
2	Zn 213.857†	63821.8	64813.7	502.17 ug/L	502.17 ppb	09:56:37
2	SiO2†	94998.1	97078.0	5537.0 ug/L	5537.0 ppb	09:57:35
3	Sc 361.383	920206.5	920206.5	98.024 %		09:57:05
3	Sc Radial	4738.7	4738.7	95.8 %		09:55:41
3	Y 371.029	793701.9	793701.9	97.016 %		09:57:05
3	Y RADIAL	5017.5	5017.5	94.58 %		09:55:41
3	Ag 328.068†	119861.2	121811.2	507.11 ug/L	507.11 ppb	09:57:05
3	Al 396.153Radial†	6128.1	6417.0	5001.1 ug/L	5001.1 ppb	09:55:41
3	As 188.979†	1555.2	1621.4	537.43 ug/L	537.43 ppb	09:57:25
3	B 249.677†	26096.3	27018.3	525.25 ug/L	525.25 ppb	09:57:05
3	Ba 233.527†	73164.5	74619.0	508.52 ug/L	508.52 ppb	09:57:05
3	Be 313.107†	1577463.0	1613955.7	513.69 ug/L	513.69 ppb	09:57:05
3	Ca 317.933Radial†	3172.4	3289.5	5155.0 ug/L	5155.0 ppb	09:56:01
3	Cd 226.502†	55253.5	56623.7	509.95 ug/L	509.95 ppb	09:57:05
3	Co 228.616†	27665.0	28316.7	498.21 ug/L	498.21 ppb	09:57:25
3	Cr 267.716†	53050.9	53986.3	508.06 ug/L	508.06 ppb	09:57:05
3	Cu 324.752†	182556.5	177752.4	507.14 ug/L	507.14 ppb	09:57:05
3	Fe 238.204 Radial†	584.8	597.1	5259.0 ug/L	5259.0 ppb	09:56:01
3	K 766.490 Radial†	29459.1	27412.3	5210.4 ug/L	5210.4 ppb	09:55:41
3	Mg 279.077 IEC†	169.1	173.8	5562.0 ug/L	5562.0 ppb	09:56:01
3	Mn 257.610†	505629.3	515182.9	511.55 ug/L	511.55 ppb	09:57:05
3	Mo 202.031†	8490.5	8636.1	508.83 ug/L	508.83 ppb	09:57:25
3	Na 589.592 Radial†	32514.3	35731.7	10138 ug/L	10138 ppb	09:55:41
3	Ni 231.604†	23872.4	24214.6	500.97 ug/L	500.97 ppb	09:57:25
3	P 214.914†	5722.7	5566.9	2447.5 ug/L	2447.5 ppb	09:57:25
3	Pb 220.353†	4963.9	5148.5	512.56 ug/L	512.56 ppb	09:57:25
3	S 181.975 Axial†	959.8	917.4	1006.7 ug/L	1006.7 ppb	09:57:25
3	Sb 206.836†	1786.6	1777.4	516.49 ug/L	516.49 ppb	09:57:25
3	Se 196.026†	1019.0	1072.2	527.22 ug/L	527.22 ppb	09:57:25
3	Si 251.611†	94026.1	95181.7	2519.8 ug/L	2519.8 ppb	09:57:05
3	Sn 189.927†	3500.2	3567.3	505.71 ug/L	505.71 ppb	09:57:25
3	Sr 421.552†	73490.4	76688.8	503.54 ug/L	503.54 ppb	09:55:41
3	Ti 334.940†	337463.4	345969.2	508.05 ug/L	508.05 ppb	09:57:05
3	Tl 190.801†	1850.3	1937.0	510.72 ug/L	510.72 ppb	09:57:25
3	U 409.014†	14161.3	17365.4	479.04 ug/L	479.04 ppb	09:57:05
3	V 292.402†	82416.4	85887.4	512.32 ug/L	512.32 ppb	09:57:05
3	Zn 213.857†	65108.8	65506.3	507.59 ug/L	507.59 ppb	09:57:05
3	SiO2†	93913.8	95048.5	5420.9 ug/L	5420.9 ppb	09:57:40

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	914796.0	97.448	%	0.5028				0.52%
Sc Radial	4822.4	97.5	%	1.67				1.71%
Y 371.029	788482.3	96.378	%	0.5532				0.57%
Y RADIAL	5121.3	96.54	%	1.839				1.90%
Ag 328.068†	121194.5	504.52	ug/L	2.238	504.52	ppb	2.238	0.44%
QC value within limits for Ag 328.068 Recovery = 100.90%								
Al 396.153Radial†	6371.8	4965.5	ug/L	32.77	4965.5	ppb	32.77	0.66%
QC value within limits for Al 396.153Radial Recovery = 99.31%								
As 188.979†	1638.5	543.00	ug/L	6.730	543.00	ppb	6.730	1.24%
QC value within limits for As 188.979 Recovery = 108.60%								
B 249.677†	26957.1	524.06	ug/L	1.096	524.06	ppb	1.096	0.21%
QC value within limits for B 249.677 Recovery = 104.81%								
Ba 233.527†	74226.4	505.84	ug/L	2.397	505.84	ppb	2.397	0.47%
QC value within limits for Ba 233.527 Recovery = 101.17%								
Be 313.107†	1603830.9	510.47	ug/L	2.791	510.47	ppb	2.791	0.55%
QC value within limits for Be 313.107 Recovery = 102.09%								

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Ca 317.933Radial†       3235.0      5069.8 ug/L         74.01      5069.8 ppb          74.01   1.46%
   QC value within limits for Ca 317.933Radial  Recovery = 101.40%
Cd 226.502†            56336.2      507.37 ug/L         2.730      507.37 ppb          2.730   0.54%
   QC value within limits for Cd 226.502  Recovery = 101.47%
Co 228.616†            28598.9      503.19 ug/L         4.419      503.19 ppb          4.419   0.88%
   QC value within limits for Co 228.616  Recovery = 100.64%
Cr 267.716†            53782.4      506.14 ug/L         1.749      506.14 ppb          1.749   0.35%
   QC value within limits for Cr 267.716  Recovery = 101.23%
Cu 324.752†           176607.0      503.87 ug/L         2.848      503.87 ppb          2.848   0.57%
   QC value within limits for Cu 324.752  Recovery = 100.77%
Fe 238.204 Radial†       588.7      5185.3 ug/L         63.78      5185.3 ppb          63.78   1.23%
   QC value within limits for Fe 238.204 Radial  Recovery = 103.71%
K 766.490 Radial†      27155.0      5161.5 ug/L         54.95      5161.5 ppb          54.95   1.06%
   QC value within limits for K 766.490 Radial  Recovery = 103.23%
Mg 279.077 IEC†          168.9      5407.0 ug/L        160.30      5407.0 ppb         160.30   2.96%
   QC value within limits for Mg 279.077 IEC  Recovery = 108.14%
Mn 257.610†           512540.4      508.92 ug/L         2.341      508.92 ppb          2.341   0.46%
   QC value within limits for Mn 257.610  Recovery = 101.78%
Mo 202.031†             8706.0      512.93 ug/L         3.556      512.93 ppb          3.556   0.69%
   QC value within limits for Mo 202.031  Recovery = 102.59%
Na 589.592 Radial†     35608.0       10103 ug/L          45.5       10103 ppb           45.5   0.45%
   QC value within limits for Na 589.592 Radial  Recovery = 101.03%
Ni 231.604†            24426.2      505.34 ug/L         4.010      505.34 ppb          4.010   0.79%
   QC value within limits for Ni 231.604  Recovery = 101.07%
P 214.914†              5623.7      2473.8 ug/L         24.86      2473.8 ppb          24.86   1.00%
   QC value within limits for P 214.914  Recovery = 98.95%
Pb 220.353†             5196.3      517.31 ug/L         4.585      517.31 ppb          4.585   0.89%
   QC value within limits for Pb 220.353  Recovery = 103.46%
S 181.975 Axial†         928.8      1019.2 ug/L         13.53      1019.2 ppb          13.53   1.33%
   QC value within limits for S 181.975 Axial  Recovery = 101.92%
Sb 206.836†             1797.4      522.45 ug/L         6.486      522.45 ppb          6.486   1.24%
   QC value within limits for Sb 206.836  Recovery = 104.49%
Se 196.026†             1078.3      529.89 ug/L         3.304      529.89 ppb          3.304   0.62%
   QC value within limits for Se 196.026  Recovery = 105.98%
Si 251.611†            94673.0      2506.2 ug/L         11.78      2506.2 ppb          11.78   0.47%
   QC value within limits for Si 251.611  Recovery = 100.25%
Sn 189.927†             3599.5      510.26 ug/L         3.936      510.26 ppb          3.936   0.77%
   QC value within limits for Sn 189.927  Recovery = 102.05%
Sr 421.552†            76376.1      501.48 ug/L         2.963      501.48 ppb          2.963   0.59%
   QC value within limits for Sr 421.552  Recovery = 100.30%
Ti 334.940†           343971.7      505.12 ug/L         2.547      505.12 ppb          2.547   0.50%
   QC value within limits for Ti 334.940  Recovery = 101.02%
Tl 190.801†             1960.1      516.70 ug/L         5.308      516.70 ppb          5.308   1.03%
   QC value within limits for Tl 190.801  Recovery = 103.34%
U 409.014†             17313.5      477.62 ug/L         1.737      477.62 ppb          1.737   0.36%
   QC value within limits for U 409.014  Recovery = 95.52%
V 292.402†             85412.5      509.60 ug/L         2.389      509.60 ppb          2.389   0.47%
   QC value within limits for V 292.402  Recovery = 101.92%
Zn 213.857†            65142.4      504.74 ug/L         2.723      504.74 ppb          2.723   0.54%
   QC value within limits for Zn 213.857  Recovery = 100.95%
SiO2†                  95739.0      5460.3 ug/L         66.39      5460.3 ppb          66.39   1.22%
   QC value within limits for SiO2  Recovery = 102.11%
All analyte(s) passed QC.
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Sequence No.: 14
Sample ID: CCB
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 12/29/2009 09:59:50
Data Type: Reprocessed on 12/29/2009 10:09:38

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc 361.383	934777.5	934777.5	99.577	%			10:03:00
1	Sc Radial	4770.1	4770.1	96.5	%			10:01:43
1	Y 371.029	814406.0	814406.0	99.546	%			10:03:00
1	Y RADIAL	5110.1	5110.1	96.33	%			10:01:43
1	Ag 328.068†	487.3	23.7	0.0911	ug/L	0.0911	ppb	10:03:05
1	Al 396.153Radial†	-5.6	15.5	12.050	ug/L	12.050	ppb	10:01:43
1	As 188.979†	10.2	45.0	14.795	ug/L	14.795	ppb	10:03:25
1	B 249.677†	396.0	793.7	15.489	ug/L	15.489	ppb	10:03:05
1	Ba 233.527†	13.6	-6.5	-0.0453	ug/L	-0.0453	ppb	10:03:25
1	Be 313.107†	-4630.4	51.2	0.0163	ug/L	0.0163	ppb	10:03:05
1	Ca 317.933Radial†	17.7	-3.1	-4.8943	ug/L	-4.8943	ppb	10:02:03
1	Cd 226.502†	-209.4	46.3	0.4186	ug/L	0.4186	ppb	10:03:25
1	Co 228.616†	-92.7	1.1	0.0230	ug/L	0.0230	ppb	10:03:25
1	Cr 267.716†	129.7	-3.5	-0.0347	ug/L	-0.0347	ppb	10:03:05
1	Cu 324.752†	8612.0	165.4	0.4712	ug/L	0.4712	ppb	10:03:05
1	Fe 238.204 Radial†	11.7	-1.1	-9.9066	ug/L	-9.9066	ppb	10:02:03
1	K 766.490 Radial†	3721.6	525.1	100.01	ug/L	100.01	ppb	10:01:43
1	Mg 279.077 IEC†	0.4	-2.3	-74.130	ug/L	-74.130	ppb	10:02:03
1	Mn 257.610†	567.2	-67.0	-0.0661	ug/L	-0.0661	ppb	10:03:05
1	Mo 202.031†	46.7	21.4	1.2596	ug/L	1.2596	ppb	10:03:25
1	Na 589.592 Radial†	-1828.3	-98.2	-27.853	ug/L	-27.853	ppb	10:01:43
1	Ni 231.604†	159.6	21.4	0.4421	ug/L	0.4421	ppb	10:03:25
1	P 214.914†	250.7	-19.4	-8.8082	ug/L	-8.8082	ppb	10:03:25
1	Pb 220.353†	-72.6	11.8	1.1737	ug/L	1.1737	ppb	10:03:25
1	S 181.975 Axial†	67.3	5.9	6.5091	ug/L	6.5091	ppb	10:03:25
1	Sb 206.836†	63.3	18.4	5.3389	ug/L	5.3389	ppb	10:03:25
1	Se 196.026†	-19.6	13.0	6.1245	ug/L	6.1245	ppb	10:03:25
1	Si 251.611†	868.3	132.6	3.4636	ug/L	3.4636	ppb	10:03:25
1	Sn 189.927†	24.5	21.2	2.9987	ug/L	2.9987	ppb	10:03:25
1	Sr 421.552†	-24.8	-36.7	-0.2409	ug/L	-0.2409	ppb	10:01:43
1	Ti 334.940†	-1688.1	9.5	0.0128	ug/L	0.0128	ppb	10:03:05
1	Tl 190.801†	-54.1	-4.9	-1.2709	ug/L	-1.2709	ppb	10:03:25
1	U 409.014†	-2829.4	77.2	2.1387	ug/L	2.1387	ppb	10:03:00
1	V 292.402†	-1888.2	-86.2	-0.4854	ug/L	-0.4854	ppb	10:03:05
1	Zn 213.857†	1107.0	197.1	1.5396	ug/L	1.5396	ppb	10:03:25
1	SiO2†	909.9	155.7	8.7836	ug/L	8.7836	ppb	10:04:31
2	Sc 361.383	940786.7	940786.7	100.22	%			10:03:30
2	Sc Radial	4752.8	4752.8	96.1	%			10:02:08
2	Y 371.029	819555.6	819555.6	100.18	%			10:03:30
2	Y RADIAL	5106.8	5106.8	96.27	%			10:02:08
2	Ag 328.068†	482.1	15.5	0.0533	ug/L	0.0533	ppb	10:03:35
2	Al 396.153Radial†	-19.4	1.2	0.8738	ug/L	0.8738	ppb	10:02:08
2	As 188.979†	2.7	37.5	12.323	ug/L	12.323	ppb	10:03:55
2	B 249.677†	372.1	767.3	14.977	ug/L	14.977	ppb	10:03:35
2	Ba 233.527†	18.1	-2.0	-0.0140	ug/L	-0.0140	ppb	10:03:55
2	Be 313.107†	-4670.7	40.8	0.0129	ug/L	0.0129	ppb	10:03:35
2	Ca 317.933Radial†	20.2	-0.4	-0.6763	ug/L	-0.6763	ppb	10:02:28
2	Cd 226.502†	-210.3	46.9	0.4252	ug/L	0.4252	ppb	10:03:55
2	Co 228.616†	-87.0	7.4	0.1325	ug/L	0.1325	ppb	10:03:55
2	Cr 267.716†	129.1	-4.9	-0.0464	ug/L	-0.0464	ppb	10:03:35
2	Cu 324.752†	8486.6	-14.9	-0.0443	ug/L	-0.0443	ppb	10:03:35
2	Fe 238.204 Radial†	9.0	-3.9	-33.881	ug/L	-33.881	ppb	10:02:28
2	K 766.490 Radial†	3720.5	538.1	102.45	ug/L	102.45	ppb	10:02:08
2	Mg 279.077 IEC†	3.3	0.8	24.091	ug/L	24.091	ppb	10:02:28
2	Mn 257.610†	562.0	-75.8	-0.0790	ug/L	-0.0790	ppb	10:03:35
2	Mo 202.031†	36.8	11.2	0.6577	ug/L	0.6577	ppb	10:03:55
2	Na 589.592 Radial†	-1800.0	-75.6	-21.442	ug/L	-21.442	ppb	10:02:08
2	Ni 231.604†	119.6	-19.6	-0.4053	ug/L	-0.4053	ppb	10:03:55

2	P 214.914†	271.9	0.2	0.1437	ug/L	0.1437 ppb	10:03:55
2	Pb 220.353†	-96.8	-11.9	-1.1811	ug/L	-1.1811 ppb	10:03:55
2	S 181.975 Axial†	59.0	-2.8	-3.0556	ug/L	-3.0556 ppb	10:03:55
2	Sb 206.836†	47.4	2.0	0.6434	ug/L	0.6434 ppb	10:03:55
2	Se 196.026†	-44.4	-11.6	-5.6034	ug/L	-5.6034 ppb	10:03:55
2	Si 251.611†	853.5	112.3	2.9342	ug/L	2.9342 ppb	10:03:55
2	Sn 189.927†	20.9	17.4	2.4682	ug/L	2.4682 ppb	10:03:55
2	Sr 421.552†	-16.3	-28.0	-0.1839	ug/L	-0.1839 ppb	10:02:08
2	Ti 334.940†	-1720.6	-12.1	-0.0181	ug/L	-0.0181 ppb	10:03:35
2	Tl 190.801†	-46.4	3.2	0.8244	ug/L	0.8244 ppb	10:03:55
2	U 409.014†	-2907.0	17.9	0.5005	ug/L	0.5005 ppb	10:03:30
2	V 292.402†	-1767.5	46.4	0.2894	ug/L	0.2894 ppb	10:03:35
2	Zn 213.857†	1085.5	168.5	1.3199	ug/L	1.3199 ppb	10:03:55
2	SiO2†	887.8	127.8	7.2086	ug/L	7.2086 ppb	10:04:36
3	Sc 361.383	952728.4	952728.4	101.49	%		10:04:01
3	Sc Radial	4910.4	4910.4	99.3	%		10:02:33
3	Y 371.029	830696.4	830696.4	101.54	%		10:04:01
3	Y RADIAL	5268.7	5268.7	99.32	%		10:02:33
3	Ag 328.068†	630.6	155.7	0.6314	ug/L	0.6314 ppb	10:04:06
3	Al 396.153Radial†	-17.5	3.7	2.9140	ug/L	2.9140 ppb	10:02:33
3	As 188.979†	-5.6	29.3	9.6238	ug/L	9.6238 ppb	10:04:26
3	B 249.677†	316.6	708.0	13.821	ug/L	13.821 ppb	10:04:06
3	Ba 233.527†	22.0	1.6	0.0087	ug/L	0.0087 ppb	10:04:26
3	Be 313.107†	-4651.8	117.8	0.0378	ug/L	0.0378 ppb	10:04:06
3	Ca 317.933Radial†	25.2	4.0	6.2057	ug/L	6.2057 ppb	10:02:53
3	Cd 226.502†	-204.8	54.9	0.4975	ug/L	0.4975 ppb	10:04:26
3	Co 228.616†	-116.4	-20.5	-0.3595	ug/L	-0.3595 ppb	10:04:26
3	Cr 267.716†	98.6	-36.6	-0.3447	ug/L	-0.3447 ppb	10:04:06
3	Cu 324.752†	8574.2	-34.7	-0.1008	ug/L	-0.1008 ppb	10:04:06
3	Fe 238.204 Radial†	9.4	-3.8	-33.759	ug/L	-33.759 ppb	10:02:53
3	K 766.490 Radial†	3668.4	361.4	68.809	ug/L	68.809 ppb	10:02:33
3	Mg 279.077 IEC†	0.7	-2.0	-65.480	ug/L	-65.480 ppb	10:02:53
3	Mn 257.610†	611.6	-34.0	-0.0359	ug/L	-0.0359 ppb	10:04:06
3	Mo 202.031†	29.7	3.8	0.2229	ug/L	0.2229 ppb	10:04:26
3	Na 589.592 Radial†	-1762.9	21.9	6.2160	ug/L	6.2160 ppb	10:02:33
3	Ni 231.604†	127.4	-13.3	-0.2761	ug/L	-0.2761 ppb	10:04:26
3	P 214.914†	269.8	-5.4	-2.3633	ug/L	-2.3633 ppb	10:04:26
3	Pb 220.353†	-69.0	16.7	1.6573	ug/L	1.6573 ppb	10:04:26
3	S 181.975 Axial†	73.6	10.8	11.895	ug/L	11.895 ppb	10:04:26
3	Sb 206.836†	54.1	8.0	2.3419	ug/L	2.3419 ppb	10:04:26
3	Se 196.026†	-30.5	2.6	1.1157	ug/L	1.1157 ppb	10:04:26
3	Si 251.611†	864.8	112.8	2.9676	ug/L	2.9676 ppb	10:04:26
3	Sn 189.927†	16.3	12.7	1.7970	ug/L	1.7970 ppb	10:04:26
3	Sr 421.552†	17.8	7.0	0.0456	ug/L	0.0456 ppb	10:02:33
3	Ti 334.940†	-1590.5	137.7	0.2029	ug/L	0.2029 ppb	10:04:06
3	Tl 190.801†	-51.7	-1.4	-0.3738	ug/L	-0.3738 ppb	10:04:26
3	U 409.014†	-2983.9	-21.4	-0.5884	ug/L	-0.5884 ppb	10:04:01
3	V 292.402†	-1916.2	-78.0	-0.4534	ug/L	-0.4534 ppb	10:04:06
3	Zn 213.857†	1085.1	154.5	1.2130	ug/L	1.2130 ppb	10:04:26
3	SiO2†	942.7	170.8	9.7173	ug/L	9.7173 ppb	10:04:41

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	942764.2	100.43	%	0.973				0.97%
Sc Radial	4811.1	97.3	%	1.75				1.80%
Y 371.029	821552.7	100.42	%	1.018				1.01%
Y RADIAL	5161.8	97.30	%	1.744				1.79%
Ag 328.068†	65.0	0.2586	ug/L	0.32336	0.2586	ppb	0.32336	125.04%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	6.8	5.2794	ug/L	5.95188	5.2794	ppb	5.95188	112.74%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	37.3	12.247	ug/L	2.5866	12.247	ppb	2.5866	21.12%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	756.4	14.763	ug/L	0.8544	14.763	ppb	0.8544	5.79%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-2.3	-0.0169	ug/L	0.02712	-0.0169	ppb	0.02712	160.56%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	69.9	0.0223	ug/L	0.01350	0.0223	ppb	0.01350	60.42%
QC value within limits for Be 313.107 Recovery = Not calculated								

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Ca 317.933Radial†          0.1      0.2117 ug/L       5.60305      0.2117 ppb        5.60305 >999.9%
   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†               49.3      0.4471 ug/L       0.04378      0.4471 ppb        0.04378   9.79%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†               -4.0     -0.0680 ug/L       0.25828     -0.0680 ppb        0.25828 379.81%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -15.0     -0.1420 ug/L       0.17572     -0.1420 ppb        0.17572 123.78%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               38.6      0.1087 ug/L       0.31522      0.1087 ppb        0.31522 290.01%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        -2.9     -25.849 ug/L       13.8065     -25.849 ppb        13.8065  53.41%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        474.9      90.423 ug/L       18.7585      90.423 ppb        18.7585  20.75%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           -1.2     -38.506 ug/L       54.3833     -38.506 ppb        54.3833 141.23%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              -58.9     -0.0603 ug/L       0.02213     -0.0603 ppb        0.02213  36.69%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               12.2      0.7134 ug/L       0.52059      0.7134 ppb        0.52059  72.98%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       -50.6     -14.360 ug/L       18.1050     -14.360 ppb        18.1050 126.08%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               -3.9     -0.0798 ug/L       0.45657     -0.0798 ppb        0.45657 572.28%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -8.2     -3.6759 ug/L       4.61805     -3.6759 ppb        4.61805 125.63%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                5.5      0.5500 ug/L       1.51856      0.5500 ppb        1.51856 276.11%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           4.7      5.1160 ug/L       7.57178      5.1160 ppb        7.57178 148.00%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                9.5      2.7747 ug/L       2.37751      2.7747 ppb        2.37751  85.68%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                1.3      0.5456 ug/L       5.88468      0.5456 ppb        5.88468 >999.9%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†              119.2      3.1218 ug/L       0.29646      3.1218 ppb        0.29646   9.50%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               17.1      2.4213 ug/L       0.60226      2.4213 ppb        0.60226  24.87%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              -19.2     -0.1264 ug/L       0.15167     -0.1264 ppb        0.15167 120.00%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               45.0      0.0659 ug/L       0.11966      0.0659 ppb        0.11966 181.65%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               -1.0     -0.2734 ug/L       1.05122     -0.2734 ppb        1.05122 384.44%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                24.6      0.6836 ug/L       1.37272      0.6836 ppb        1.37272 200.81%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               -39.3     -0.2165 ug/L       0.43840     -0.2165 ppb        0.43840 202.53%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              173.3      1.3575 ug/L       0.16647      1.3575 ppb        0.16647  12.26%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                    151.5      8.5698 ug/L       1.26794      8.5698 ppb        1.26794  14.80%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 7
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 12/29/2009 11:00:10
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4959.1	4959.1	100	%			11:02:02
1	Y RADIAL	5265.3	5265.3	99.25	%			11:02:02
1	Al 396.153Radial†	6658.2	6661.4	5192.3	ug/L	5192.3	ppb	11:02:02
1	Ca 317.933Radial†	3301.2	3270.8	5125.8	ug/L	5125.8	ppb	11:02:22
1	Fe 238.204 Radial†	608.2	593.3	5225.8	ug/L	5225.8	ppb	11:02:22
1	K 766.490 Radial†	30797.1	27379.9	5204.3	ug/L	5204.3	ppb	11:02:02
1	Mg 279.077 IEC†	168.1	164.9	5280.4	ug/L	5280.4	ppb	11:02:22
1	Na 589.592 Radial†	34800.8	36503.5	10357	ug/L	10357	ppb	11:02:02
1	Sr 421.552†	79494.6	79267.3	520.47	ug/L	520.47	ppb	11:02:02
1	Sc 361.383	947803.0	947803.0	100.96	%			11:03:21
1	Y 371.029	817954.7	817954.7	99.980	%			11:03:21
1	Ag 328.068†	121622.1	119995.0	499.56	ug/L	499.56	ppb	11:03:21
1	As 188.979†	1523.4	1543.7	511.83	ug/L	511.83	ppb	11:03:41
1	B 249.677†	25889.9	26038.7	506.14	ug/L	506.14	ppb	11:03:21
1	Ba 233.527†	74159.6	73431.3	500.43	ug/L	500.43	ppb	11:03:21
1	Be 313.107†	1599586.8	1589012.7	505.76	ug/L	505.76	ppb	11:03:21
1	Cd 226.502†	55734.0	55458.4	499.45	ug/L	499.45	ppb	11:03:21
1	Co 228.616†	28554.3	28375.8	499.27	ug/L	499.27	ppb	11:03:41
1	Cr 267.716†	53875.3	53227.0	500.91	ug/L	500.91	ppb	11:03:21
1	Cu 324.752†	185104.2	174853.3	498.88	ug/L	498.88	ppb	11:03:21
1	Mn 257.610†	512068.7	506542.1	502.98	ug/L	502.98	ppb	11:03:21
1	Mo 202.031†	8763.5	8654.3	509.89	ug/L	509.89	ppb	11:03:41
1	Ni 231.604†	24590.5	24216.8	501.01	ug/L	501.01	ppb	11:03:41
1	P 214.914†	5927.3	5599.6	2463.7	ug/L	2463.7	ppb	11:03:41
1	Pb 220.353†	5116.4	5152.1	512.97	ug/L	512.97	ppb	11:03:41
1	S 181.975 Axial†	1003.0	931.8	1022.5	ug/L	1022.5	ppb	11:03:41
1	Sb 206.836†	1833.0	1770.3	514.62	ug/L	514.62	ppb	11:03:41
1	Se 196.026†	1043.5	1066.2	524.28	ug/L	524.28	ppb	11:03:41
1	Si 251.611†	95349.2	93699.3	2480.3	ug/L	2480.3	ppb	11:03:21
1	Sn 189.927†	3590.9	3553.2	503.71	ug/L	503.71	ppb	11:03:41
1	Ti 334.940†	342232.1	340668.7	500.27	ug/L	500.27	ppb	11:03:21
1	Tl 190.801†	1918.3	1949.5	513.88	ug/L	513.88	ppb	11:03:41
1	U 409.014†	14706.0	17484.3	482.35	ug/L	482.35	ppb	11:03:21
1	V 292.402†	83810.4	84820.1	506.07	ug/L	506.07	ppb	11:03:21
1	Zn 213.857†	65596.1	64055.0	496.28	ug/L	496.28	ppb	11:03:21
1	SiO2†	95442.2	93772.7	5347.8	ug/L	5347.8	ppb	11:04:41
2	Sc Radial	5092.7	5092.7	103	%			11:02:27
2	Y RADIAL	5393.5	5393.5	101.7	%			11:02:27
2	Al 396.153Radial†	6498.7	6332.4	4935.0	ug/L	4935.0	ppb	11:02:27
2	Ca 317.933Radial†	3285.0	3168.7	4965.7	ug/L	4965.7	ppb	11:02:47
2	Fe 238.204 Radial†	601.5	570.9	5029.2	ug/L	5029.2	ppb	11:02:47
2	K 766.490 Radial†	30462.5	26249.7	4989.2	ug/L	4989.2	ppb	11:02:27
2	Mg 279.077 IEC†	167.0	159.5	5105.4	ug/L	5105.4	ppb	11:02:47
2	Na 589.592 Radial†	34164.9	34976.0	9923.3	ug/L	9923.3	ppb	11:02:27
2	Sr 421.552†	77846.6	75588.1	496.31	ug/L	496.31	ppb	11:02:27
2	Sc 361.383	957987.0	957987.0	102.05	%			11:03:48
2	Y 371.029	824608.1	824608.1	100.79	%			11:03:48
2	Ag 328.068†	123263.6	120323.0	500.85	ug/L	500.85	ppb	11:03:48
2	As 188.979†	1530.8	1534.9	508.91	ug/L	508.91	ppb	11:04:09
2	B 249.677†	26452.6	26317.5	511.62	ug/L	511.62	ppb	11:03:48
2	Ba 233.527†	75174.9	73645.4	501.88	ug/L	501.88	ppb	11:03:48
2	Be 313.107†	1617540.9	1589764.2	506.00	ug/L	506.00	ppb	11:03:48
2	Cd 226.502†	56398.4	55522.6	500.05	ug/L	500.05	ppb	11:03:48
2	Co 228.616†	28626.0	28145.4	495.20	ug/L	495.20	ppb	11:04:09
2	Cr 267.716†	54342.2	53117.3	499.88	ug/L	499.88	ppb	11:03:48
2	Cu 324.752†	188276.6	176013.1	502.17	ug/L	502.17	ppb	11:03:48
2	Mn 257.610†	519248.6	508186.2	504.59	ug/L	504.59	ppb	11:03:48
2	Mo 202.031†	8789.4	8587.5	505.94	ug/L	505.94	ppb	11:04:09
2	Ni 231.604†	24613.8	23980.7	496.13	ug/L	496.13	ppb	11:04:09

2	P 214.914†	5933.4	5543.1	2437.6 ug/L	2437.6 ppb	11:04:09
2	Pb 220.353†	5130.0	5111.6	508.90 ug/L	508.90 ppb	11:04:09
2	S 181.975 Axial†	1009.8	927.9	1018.2 ug/L	1018.2 ppb	11:04:09
2	Sb 206.836†	1826.0	1744.1	507.03 ug/L	507.03 ppb	11:04:09
2	Se 196.026†	1046.6	1058.3	519.88 ug/L	519.88 ppb	11:04:09
2	Si 251.611†	96841.8	94158.0	2492.7 ug/L	2492.7 ppb	11:03:48
2	Sn 189.927†	3619.8	3543.7	502.34 ug/L	502.34 ppb	11:04:09
2	Ti 334.940†	346918.1	341657.2	501.71 ug/L	501.71 ppb	11:03:48
2	Tl 190.801†	1911.2	1922.3	506.79 ug/L	506.79 ppb	11:04:09
2	U 409.014†	14855.3	17475.7	482.14 ug/L	482.14 ppb	11:03:48
2	V 292.402†	84615.2	84726.3	505.49 ug/L	505.49 ppb	11:03:48
2	Zn 213.857†	66370.8	64123.5	496.85 ug/L	496.85 ppb	11:03:48
2	SiO2†	95925.5	93241.4	5317.6 ug/L	5317.6 ppb	11:04:47
3	Sc Radial	4988.2	4988.2	101 %		11:02:52
3	Y RADIAL	5314.4	5314.4	100.2 %		11:02:52
3	Al 396.153Radial†	6445.2	6411.4	4997.0 ug/L	4997.0 ppb	11:02:52
3	Ca 317.933Radial†	3262.4	3213.1	5035.3 ug/L	5035.3 ppb	11:03:12
3	Fe 238.204 Radial†	593.4	575.1	5065.8 ug/L	5065.8 ppb	11:03:12
3	K 766.490 Radial†	30121.6	26531.0	5042.8 ug/L	5042.8 ppb	11:02:52
3	Mg 279.077 IEC†	168.0	163.8	5244.3 ug/L	5244.3 ppb	11:03:12
3	Na 589.592 Radial†	33455.7	34967.5	9920.9 ug/L	9920.9 ppb	11:02:52
3	Sr 421.552†	76779.7	76113.0	499.76 ug/L	499.76 ppb	11:02:52
3	Sc 361.383	955495.6	955495.6	101.78 %		11:04:16
3	Y 371.029	822555.2	822555.2	100.54 %		11:04:16
3	Ag 328.068†	123052.0	120430.1	501.30 ug/L	501.30 ppb	11:04:16
3	As 188.979†	1514.4	1522.7	504.92 ug/L	504.92 ppb	11:04:36
3	B 249.677†	26265.2	26201.0	509.35 ug/L	509.35 ppb	11:04:16
3	Ba 233.527†	74869.8	73537.7	501.15 ug/L	501.15 ppb	11:04:16
3	Be 313.107†	1610374.2	1586856.1	505.07 ug/L	505.07 ppb	11:04:16
3	Cd 226.502†	56199.8	55471.6	499.58 ug/L	499.58 ppb	11:04:16
3	Co 228.616†	28290.5	27889.0	490.68 ug/L	490.68 ppb	11:04:36
3	Cr 267.716†	54264.6	53179.9	500.46 ug/L	500.46 ppb	11:04:16
3	Cu 324.752†	187772.8	175999.1	502.13 ug/L	502.13 ppb	11:04:16
3	Mn 257.610†	517578.2	507871.8	504.28 ug/L	504.28 ppb	11:04:16
3	Mo 202.031†	8688.9	8511.2	501.45 ug/L	501.45 ppb	11:04:36
3	Ni 231.604†	24375.0	23809.0	492.57 ug/L	492.57 ppb	11:04:36
3	P 214.914†	5863.0	5489.1	2413.0 ug/L	2413.0 ppb	11:04:36
3	Pb 220.353†	5076.2	5071.8	504.95 ug/L	504.95 ppb	11:04:36
3	S 181.975 Axial†	1006.6	927.3	1017.6 ug/L	1017.6 ppb	11:04:36
3	Sb 206.836†	1803.7	1726.9	501.89 ug/L	501.89 ppb	11:04:36
3	Se 196.026†	1023.6	1038.3	510.50 ug/L	510.50 ppb	11:04:36
3	Si 251.611†	96433.1	94003.9	2488.7 ug/L	2488.7 ppb	11:04:16
3	Sn 189.927†	3571.6	3505.6	496.97 ug/L	496.97 ppb	11:04:36
3	Ti 334.940†	345912.6	341555.8	501.57 ug/L	501.57 ppb	11:04:16
3	Tl 190.801†	1909.5	1925.5	507.67 ug/L	507.67 ppb	11:04:36
3	U 409.014†	14921.0	17578.2	484.97 ug/L	484.97 ppb	11:04:16
3	V 292.402†	84334.5	84666.8	505.08 ug/L	505.08 ppb	11:04:16
3	Zn 213.857†	66222.0	64146.8	497.05 ug/L	497.05 ppb	11:04:16
3	SiO2†	95998.0	93557.8	5335.9 ug/L	5335.9 ppb	11:04:52

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	953761.9	101.60	%	0.566				0.56%
Sc Radial	5013.3	101	%	1.4				1.40%
Y 371.029	821706.0	100.44	%	0.416				0.41%
Y RADIAL	5324.4	100.4	%	1.22				1.22%
Ag 328.068†	120249.4	500.57	ug/L	0.904	500.57	ppb	0.904	0.18%
QC value within limits for Ag 328.068 Recovery = 100.11%								
Al 396.153Radial†	6468.4	5041.4	ug/L	134.31	5041.4	ppb	134.31	2.66%
QC value within limits for Al 396.153Radial Recovery = 100.83%								
As 188.979†	1533.8	508.55	ug/L	3.470	508.55	ppb	3.470	0.68%
QC value within limits for As 188.979 Recovery = 101.71%								
B 249.677†	26185.7	509.04	ug/L	2.752	509.04	ppb	2.752	0.54%
QC value within limits for B 249.677 Recovery = 101.81%								
Ba 233.527†	73538.1	501.15	ug/L	0.725	501.15	ppb	0.725	0.14%
QC value within limits for Ba 233.527 Recovery = 100.23%								
Be 313.107†	1588544.3	505.61	ug/L	0.479	505.61	ppb	0.479	0.09%
QC value within limits for Be 313.107 Recovery = 101.12%								
Ca 317.933Radial†	3217.5	5042.3	ug/L	80.27	5042.3	ppb	80.27	1.59%

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   QC value within limits for Ca 317.933Radial  Recovery = 100.85%
Cd 226.502†            55484.2      499.69 ug/L        0.313      499.69 ppb          0.313   0.06%
   QC value within limits for Cd 226.502  Recovery = 99.94%
Co 228.616†            28136.7      495.05 ug/L        4.294      495.05 ppb          4.294   0.87%
   QC value within limits for Co 228.616  Recovery = 99.01%
Cr 267.716†            53174.8      500.42 ug/L        0.519      500.42 ppb          0.519   0.10%
   QC value within limits for Cr 267.716  Recovery = 100.08%
Cu 324.752†           175621.8      501.06 ug/L        1.893      501.06 ppb          1.893   0.38%
   QC value within limits for Cu 324.752  Recovery = 100.21%
Fe 238.204 Radial†       579.8      5106.9 ug/L       104.56      5106.9 ppb         104.56   2.05%
   QC value within limits for Fe 238.204 Radial  Recovery = 102.14%
K 766.490 Radial†      26720.2      5078.8 ug/L       111.96      5078.8 ppb         111.96   2.20%
   QC value within limits for K 766.490 Radial  Recovery = 101.58%
Mg 279.077 IEC†          162.7      5210.0 ug/L        92.39      5210.0 ppb          92.39   1.77%
   QC value within limits for Mg 279.077 IEC  Recovery = 104.20%
Mn 257.610†           507533.4      503.95 ug/L        0.857      503.95 ppb          0.857   0.17%
   QC value within limits for Mn 257.610  Recovery = 100.79%
Mo 202.031†             8584.3      505.76 ug/L        4.223      505.76 ppb          4.223   0.83%
   QC value within limits for Mo 202.031  Recovery = 101.15%
Na 589.592 Radial†     35482.3       10067 ug/L        250.9       10067 ppb          250.9   2.49%
   QC value within limits for Na 589.592 Radial  Recovery = 100.67%
Ni 231.604†            24002.2      496.57 ug/L        4.236      496.57 ppb          4.236   0.85%
   QC value within limits for Ni 231.604  Recovery = 99.31%
P 214.914†              5543.9      2438.1 ug/L        25.33      2438.1 ppb          25.33   1.04%
   QC value within limits for P 214.914  Recovery = 97.52%
Pb 220.353†             5111.9      508.94 ug/L        4.012      508.94 ppb          4.012   0.79%
   QC value within limits for Pb 220.353  Recovery = 101.79%
S 181.975 Axial†         929.0      1019.4 ug/L         2.66      1019.4 ppb           2.66   0.26%
   QC value within limits for S 181.975 Axial  Recovery = 101.94%
Sb 206.836†             1747.1      507.85 ug/L        6.402      507.85 ppb          6.402   1.26%
   QC value within limits for Sb 206.836  Recovery = 101.57%
Se 196.026†             1054.3      518.22 ug/L        7.037      518.22 ppb          7.037   1.36%
   QC value within limits for Se 196.026  Recovery = 103.64%
Si 251.611†            93953.7      2487.2 ug/L         6.30      2487.2 ppb           6.30   0.25%
   QC value within limits for Si 251.611  Recovery = 99.49%
Sn 189.927†             3534.2      501.01 ug/L        3.564      501.01 ppb          3.564   0.71%
   QC value within limits for Sn 189.927  Recovery = 100.20%
Sr 421.552†            76989.5      505.51 ug/L       13.067      505.51 ppb         13.067   2.58%
   QC value within limits for Sr 421.552  Recovery = 101.10%
Ti 334.940†           341293.9      501.18 ug/L        0.795      501.18 ppb          0.795   0.16%
   QC value within limits for Ti 334.940  Recovery = 100.24%
Tl 190.801†             1932.4      509.45 ug/L        3.866      509.45 ppb          3.866   0.76%
   QC value within limits for Tl 190.801  Recovery = 101.89%
U 409.014†             17512.7      483.15 ug/L        1.577      483.15 ppb          1.577   0.33%
   QC value within limits for U 409.014  Recovery = 96.63%
V 292.402†             84737.7      505.55 ug/L        0.500      505.55 ppb          0.500   0.10%
   QC value within limits for V 292.402  Recovery = 101.11%
Zn 213.857†            64108.4      496.73 ug/L        0.404      496.73 ppb          0.404   0.08%
   QC value within limits for Zn 213.857  Recovery = 99.35%
SiO2†                  93524.0      5333.8 ug/L        15.18      5333.8 ppb          15.18   0.28%
   QC value within limits for SiO2  Recovery = 99.74%
All analyte(s) passed QC.
```

Sequence No.: 8
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 12/29/2009 11:07:02
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5129.0	5129.0	104	%			11:08:55
1	Y RADIAL	5490.5	5490.5	103.5	%			11:08:55
1	Al 396.153Radial†	-9.4	12.2	9.5291	ug/L	9.5291	ppb	11:08:55
1	Ca 317.933Radial†	26.2	3.9	6.0487	ug/L	6.0487	ppb	11:09:15
1	Fe 238.204 Radial†	12.2	-1.5	-13.334	ug/L	-13.334	ppb	11:09:15
1	K 766.490 Radial†	3458.0	1.0	0.1713	ug/L	0.1713	ppb	11:08:55
1	Mg 279.077 IEC†	1.9	-0.9	-29.281	ug/L	-29.281	ppb	11:09:15
1	Na 589.592 Radial†	-1736.5	123.0	34.908	ug/L	34.908	ppb	11:08:55
1	Sr 421.552†	2.0	-9.1	-0.0597	ug/L	-0.0597	ppb	11:08:55
1	Sc 361.383	933812.7	933812.7	99.474	%			11:10:11
1	Y 371.029	815864.0	815864.0	99.725	%			11:10:11
1	Ag 328.068†	586.9	124.4	0.5102	ug/L	0.5102	ppb	11:10:17
1	As 188.979†	-31.6	3.1	1.0017	ug/L	1.0017	ppb	11:10:37
1	B 249.677†	153.4	550.3	10.740	ug/L	10.740	ppb	11:10:17
1	Ba 233.527†	17.1	-2.9	-0.0204	ug/L	-0.0204	ppb	11:10:37
1	Be 313.107†	-4576.0	101.2	0.0321	ug/L	0.0321	ppb	11:10:17
1	Cd 226.502†	-250.0	5.3	0.0494	ug/L	0.0494	ppb	11:10:37
1	Co 228.616†	-83.7	10.1	0.1799	ug/L	0.1799	ppb	11:10:37
1	Cr 267.716†	101.4	-31.8	-0.2985	ug/L	-0.2985	ppb	11:10:17
1	Cu 324.752†	8443.2	4.6	0.0124	ug/L	0.0124	ppb	11:10:17
1	Mn 257.610†	629.2	-4.0	-0.0048	ug/L	-0.0048	ppb	11:10:17
1	Mo 202.031†	35.4	10.1	0.5956	ug/L	0.5956	ppb	11:10:37
1	Ni 231.604†	150.4	12.3	0.2543	ug/L	0.2543	ppb	11:10:37
1	P 214.914†	270.8	1.0	0.4789	ug/L	0.4789	ppb	11:10:37
1	Pb 220.353†	-92.8	-8.6	-0.8521	ug/L	-0.8521	ppb	11:10:37
1	S 181.975 Axial†	71.4	10.1	11.083	ug/L	11.083	ppb	11:10:37
1	Sb 206.836†	46.0	1.0	0.3033	ug/L	0.3033	ppb	11:10:37
1	Se 196.026†	-39.0	-6.5	-3.1312	ug/L	-3.1312	ppb	11:10:37
1	Si 251.611†	799.1	64.0	1.6909	ug/L	1.6909	ppb	11:10:37
1	Sn 189.927†	5.2	1.8	0.2546	ug/L	0.2546	ppb	11:10:37
1	Ti 334.940†	-1700.5	-4.7	-0.0062	ug/L	-0.0062	ppb	11:10:17
1	Tl 190.801†	-50.2	-1.0	-0.2609	ug/L	-0.2609	ppb	11:10:37
1	U 409.014†	-2930.0	-26.8	-0.7406	ug/L	-0.7406	ppb	11:10:11
1	V 292.402†	-1814.8	-14.3	-0.0756	ug/L	-0.0756	ppb	11:10:17
1	Zn 213.857†	969.4	59.9	0.4678	ug/L	0.4678	ppb	11:10:37
1	SiO2†	893.4	140.1	8.0048	ug/L	8.0048	ppb	11:11:43
2	Sc Radial	5014.9	5014.9	101	%			11:09:20
2	Y RADIAL	5403.8	5403.8	101.9	%			11:09:20
2	Al 396.153Radial†	-17.9	3.7	2.8615	ug/L	2.8615	ppb	11:09:20
2	Ca 317.933Radial†	15.6	-6.1	-9.5691	ug/L	-9.5691	ppb	11:09:40
2	Fe 238.204 Radial†	9.3	-4.1	-35.934	ug/L	-35.934	ppb	11:09:40
2	K 766.490 Radial†	3503.1	121.4	23.106	ug/L	23.106	ppb	11:09:20
2	Mg 279.077 IEC†	1.6	-1.1	-36.695	ug/L	-36.695	ppb	11:09:40
2	Na 589.592 Radial†	-1781.3	40.7	11.547	ug/L	11.547	ppb	11:09:20
2	Sr 421.552†	-24.5	-35.2	-0.2311	ug/L	-0.2311	ppb	11:09:20
2	Sc 361.383	969188.3	969188.3	103.24	%			11:10:42
2	Y 371.029	845350.8	845350.8	103.33	%			11:10:42
2	Ag 328.068†	619.8	134.7	0.5432	ug/L	0.5432	ppb	11:10:47
2	As 188.979†	-31.7	4.1	1.3487	ug/L	1.3487	ppb	11:11:07
2	B 249.677†	35.5	430.4	8.4039	ug/L	8.4039	ppb	11:10:47
2	Ba 233.527†	15.5	-5.1	-0.0339	ug/L	-0.0339	ppb	11:11:07
2	Be 313.107†	-4733.9	116.1	0.0370	ug/L	0.0370	ppb	11:10:47
2	Cd 226.502†	-264.9	0.0	0.0038	ug/L	0.0038	ppb	11:11:07
2	Co 228.616†	-98.2	-0.8	-0.0140	ug/L	-0.0140	ppb	11:11:07
2	Cr 267.716†	85.1	-51.4	-0.4837	ug/L	-0.4837	ppb	11:10:47
2	Cu 324.752†	8684.0	-71.9	-0.2069	ug/L	-0.2069	ppb	11:10:47
2	Mn 257.610†	628.2	-28.1	-0.0308	ug/L	-0.0308	ppb	11:10:47
2	Mo 202.031†	29.0	2.6	0.1488	ug/L	0.1488	ppb	11:11:07
2	Ni 231.604†	131.1	-11.9	-0.2460	ug/L	-0.2460	ppb	11:11:07

2	P 214.914†	261.7	-17.7	-7.9473 ug/L	-7.9473 ppb	11:11:07
2	Pb 220.353†	-96.0	-8.4	-0.8283 ug/L	-0.8283 ppb	11:11:07
2	S 181.975 Axial†	74.4	10.4	11.454 ug/L	11.454 ppb	11:11:07
2	Sb 206.836†	54.8	7.9	2.2665 ug/L	2.2665 ppb	11:11:07
2	Se 196.026†	-37.1	-3.2	-1.6407 ug/L	-1.6407 ppb	11:11:07
2	Si 251.611†	810.9	46.1	1.2161 ug/L	1.2161 ppb	11:11:07
2	Sn 189.927†	2.4	-1.1	-0.1574 ug/L	-0.1574 ppb	11:11:07
2	Ti 334.940†	-1698.3	59.8	0.0850 ug/L	0.0850 ppb	11:10:47
2	Tl 190.801†	-54.9	-3.7	-0.9649 ug/L	-0.9649 ppb	11:11:07
2	U 409.014†	-2800.8	205.8	5.7030 ug/L	5.7030 ppb	11:10:42
2	V 292.402†	-1747.8	117.2	0.7076 ug/L	0.7076 ppb	11:10:47
2	Zn 213.857†	979.6	34.2	0.2719 ug/L	0.2719 ppb	11:11:07
2	SiO2†	834.0	49.8	2.8325 ug/L	2.8325 ppb	11:11:48
3	Sc Radial	5011.6	5011.6	101 %		11:09:45
3	Y RADIAL	5369.0	5369.0	101.2 %		11:09:45
3	Al 396.153Radial†	-41.6	-19.8	-15.471 ug/L	-15.471 ppb	11:09:45
3	Ca 317.933Radial†	22.7	0.9	1.4880 ug/L	1.4880 ppb	11:10:05
3	Fe 238.204 Radial†	10.6	-2.8	-24.548 ug/L	-24.548 ppb	11:10:05
3	K 766.490 Radial†	3450.2	71.4	13.571 ug/L	13.571 ppb	11:09:45
3	Mg 279.077 IEC†	2.4	-0.4	-12.136 ug/L	-12.136 ppb	11:10:05
3	Na 589.592 Radial†	-1678.5	141.0	40.018 ug/L	40.018 ppb	11:09:45
3	Sr 421.552†	0.2	-10.8	-0.0710 ug/L	-0.0710 ppb	11:09:45
3	Sc 361.383	969874.6	969874.6	103.32 %		11:11:12
3	Y 371.029	845501.1	845501.1	103.35 %		11:11:12
3	Ag 328.068†	548.0	64.8	0.2596 ug/L	0.2596 ppb	11:11:17
3	As 188.979†	-27.2	8.5	2.7895 ug/L	2.7895 ppb	11:11:37
3	B 249.677†	79.3	472.8	9.2293 ug/L	9.2293 ppb	11:11:17
3	Ba 233.527†	19.1	-1.6	-0.0106 ug/L	-0.0106 ppb	11:11:37
3	Be 313.107†	-4588.6	260.0	0.0828 ug/L	0.0828 ppb	11:11:17
3	Cd 226.502†	-254.5	10.3	0.0949 ug/L	0.0949 ppb	11:11:37
3	Co 228.616†	-79.4	17.3	0.3052 ug/L	0.3052 ppb	11:11:37
3	Cr 267.716†	96.5	-40.3	-0.3795 ug/L	-0.3795 ppb	11:11:17
3	Cu 324.752†	8297.6	-451.9	-1.2899 ug/L	-1.2899 ppb	11:11:17
3	Mn 257.610†	644.1	-13.1	-0.0153 ug/L	-0.0153 ppb	11:11:17
3	Mo 202.031†	25.8	-0.5	-0.0309 ug/L	-0.0309 ppb	11:11:37
3	Ni 231.604†	119.4	-23.3	-0.4830 ug/L	-0.4830 ppb	11:11:37
3	P 214.914†	269.5	-10.3	-4.4282 ug/L	-4.4282 ppb	11:11:37
3	Pb 220.353†	-68.1	18.7	1.8588 ug/L	1.8588 ppb	11:11:37
3	S 181.975 Axial†	72.4	8.4	9.2627 ug/L	9.2627 ppb	11:11:37
3	Sb 206.836†	43.4	-3.3	-0.9008 ug/L	-0.9008 ppb	11:11:37
3	Se 196.026†	-29.8	3.8	1.7444 ug/L	1.7444 ppb	11:11:37
3	Si 251.611†	812.8	47.4	1.2513 ug/L	1.2513 ppb	11:11:37
3	Sn 189.927†	14.6	10.8	1.5245 ug/L	1.5245 ppb	11:11:37
3	Ti 334.940†	-1704.8	54.7	0.0797 ug/L	0.0797 ppb	11:11:17
3	Tl 190.801†	-52.7	-1.6	-0.4184 ug/L	-0.4184 ppb	11:11:37
3	U 409.014†	-2945.8	67.4	1.8692 ug/L	1.8692 ppb	11:11:12
3	V 292.402†	-1813.3	54.9	0.3301 ug/L	0.3301 ppb	11:11:17
3	Zn 213.857†	973.8	27.8	0.2238 ug/L	0.2238 ppb	11:11:37
3	SiO2†	879.4	93.2	5.3204 ug/L	5.3204 ppb	11:11:53

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	957625.2	102.01	%	2.197				2.15%
Sc Radial	5051.8	102	%	1.4				1.32%
Y 371.029	835572.0	102.13	%	2.086				2.04%
Y RADIAL	5421.1	102.2	%	1.18				1.15%
Ag 328.068†	108.0	0.4377	ug/L	0.15506	0.4377	ppb	0.15506	35.43%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-1.3	-1.0267	ug/L	12.94548	-1.0267	ppb	12.94548	>999.9%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	5.2	1.7133	ug/L	0.94805	1.7133	ppb	0.94805	55.33%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	484.5	9.4576	ug/L	1.18452	9.4576	ppb	1.18452	12.52%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-3.2	-0.0217	ug/L	0.01173	-0.0217	ppb	0.01173	54.15%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	159.1	0.0506	ug/L	0.02792	0.0506	ppb	0.02792	55.13%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-0.4	-0.6774	ug/L	8.03097	-0.6774	ppb	8.03097	>999.9%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                 5.2      0.0494 ug/L       0.04555      0.0494 ppb        0.04555  92.27%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                 8.9      0.1571 ug/L       0.16083      0.1571 ppb        0.16083 102.41%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†               -41.2     -0.3873 ug/L       0.09283     -0.3873 ppb        0.09283  23.97%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -173.1     -0.4948 ug/L       0.69730     -0.4948 ppb        0.69730 140.93%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -2.8     -24.605 ug/L       11.3000     -24.605 ppb        11.3000  45.92%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          64.6      12.283 ug/L       11.5215      12.283 ppb        11.5215  93.80%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -0.8     -26.037 ug/L       12.5967     -26.037 ppb        12.5967  48.38%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               -15.1     -0.0169 ug/L       0.01309     -0.0169 ppb        0.01309  77.29%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 4.1      0.2378 ug/L       0.32261      0.2378 ppb        0.32261 135.64%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        101.6      28.824 ug/L       15.1792      28.824 ppb        15.1792  52.66%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                -7.6     -0.1583 ug/L       0.37641     -0.1583 ppb        0.37641 237.85%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -9.0     -3.9655 ug/L       4.23210     -3.9655 ppb        4.23210 106.72%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                 0.6      0.0595 ug/L       1.55835      0.0595 ppb        1.55835 >999.9%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            9.6      10.600 ug/L        1.1729      10.600 ppb         1.1729  11.07%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 1.9      0.5563 ug/L       1.59873      0.5563 ppb        1.59873 287.37%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -2.0     -1.0091 ug/L       2.49841     -1.0091 ppb        2.49841 247.58%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                52.5      1.3861 ug/L       0.26454      1.3861 ppb        0.26454  19.08%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 3.8      0.5406 ug/L       0.87668      0.5406 ppb        0.87668 162.17%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               -18.4     -0.1206 ug/L       0.09584     -0.1206 ppb        0.09584  79.47%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                36.6      0.0529 ug/L       0.05120      0.0529 ppb        0.05120  96.86%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                -2.1     -0.5481 ug/L       0.36948     -0.5481 ppb        0.36948  67.42%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 82.1      2.2772 ug/L       3.24112      2.2772 ppb        3.24112 142.33%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 52.6      0.3207 ug/L       0.39167      0.3207 ppb        0.39167 122.13%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                40.6      0.3212 ug/L       0.12921      0.3212 ppb        0.12921  40.23%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                      94.4      5.3859 ug/L       2.58676      5.3859 ppb        2.58676  48.03%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 10
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 12/29/2009 12:19:32
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5412.6	5412.6	109	%			12:21:24
1	Y RADIAL	5717.0	5717.0	107.8	%			12:21:24
1	Al 396.153Radial†	6070.2	5567.8	4336.4	ug/L	4336.4	ppb	12:21:24
1	Ca 317.933Radial†	3213.5	2914.8	4568.0	ug/L	4568.0	ppb	12:21:44
1	Fe 238.204 Radial†	601.3	536.1	4723.6	ug/L	4723.6	ppb	12:21:44
1	K 766.490 Radial†	29232.0	23376.6	4442.3	ug/L	4442.3	ppb	12:21:24
1	Mg 279.077 IEC†	167.4	150.3	4812.4	ug/L	4812.4	ppb	12:21:44
1	Na 589.592 Radial†	34928.8	33712.7	9564.9	ug/L	9564.9	ppb	12:21:24
1	Sr 421.552†	75792.2	69242.2	454.64	ug/L	454.64	ppb	12:21:24
1	Sc 361.383	938755.0	938755.0	100.00	%			12:22:43
1	Y 371.029	808946.9	808946.9	98.879	%			12:22:43
1	Ag 328.068†	122004.6	121538.6	505.80	ug/L	505.80	ppb	12:22:43
1	As 188.979†	1504.1	1539.0	510.26	ug/L	510.26	ppb	12:23:03
1	B 249.677†	25005.1	25401.0	493.77	ug/L	493.77	ppb	12:22:43
1	Ba 233.527†	74358.7	74338.3	506.60	ug/L	506.60	ppb	12:22:43
1	Be 313.107†	1597263.4	1601959.5	509.88	ug/L	509.88	ppb	12:22:43
1	Cd 226.502†	55795.5	56051.9	504.85	ug/L	504.85	ppb	12:22:43
1	Co 228.616†	28140.3	28234.4	496.77	ug/L	496.77	ppb	12:23:03
1	Cr 267.716†	53929.7	53795.8	506.26	ug/L	506.26	ppb	12:22:43
1	Cu 324.752†	185916.9	177433.1	506.21	ug/L	506.21	ppb	12:22:43
1	Mn 257.610†	513732.9	513094.6	509.44	ug/L	509.44	ppb	12:22:43
1	Mo 202.031†	8647.6	8622.1	507.95	ug/L	507.95	ppb	12:23:03
1	Ni 231.604†	24260.2	24121.3	499.04	ug/L	499.04	ppb	12:23:03
1	P 214.914†	5827.0	5555.8	2442.8	ug/L	2442.8	ppb	12:23:03
1	Pb 220.353†	5057.7	5142.3	511.83	ug/L	511.83	ppb	12:23:03
1	S 181.975 Axial†	990.9	929.2	1019.8	ug/L	1019.8	ppb	12:23:03
1	Sb 206.836†	1796.9	1751.6	509.12	ug/L	509.12	ppb	12:23:03
1	Se 196.026†	1021.8	1054.5	517.04	ug/L	517.04	ppb	12:23:03
1	Si 251.611†	95557.8	94818.1	2510.4	ug/L	2510.4	ppb	12:22:43
1	Sn 189.927†	3557.8	3554.3	503.81	ug/L	503.81	ppb	12:23:03
1	Ti 334.940†	343636.3	345339.9	507.10	ug/L	507.10	ppb	12:22:43
1	Tl 190.801†	1876.7	1926.1	507.83	ug/L	507.83	ppb	12:23:03
1	U 409.014†	14571.1	17489.8	482.55	ug/L	482.55	ppb	12:22:43
1	V 292.402†	83960.2	85770.0	511.69	ug/L	511.69	ppb	12:22:43
1	Zn 213.857†	65744.6	64829.7	502.37	ug/L	502.37	ppb	12:22:43
1	SiO2†	93181.3	92423.0	5271.1	ug/L	5271.1	ppb	12:24:04
2	Sc Radial	5004.6	5004.6	101	%			12:21:49
2	Y RADIAL	5313.3	5313.3	100.2	%			12:21:49
2	Al 396.153Radial†	6287.7	6234.9	4858.8	ug/L	4858.8	ppb	12:21:49
2	Ca 317.933Radial†	3339.3	3278.5	5137.8	ug/L	5137.8	ppb	12:22:09
2	Fe 238.204 Radial†	628.9	608.2	5356.5	ug/L	5356.5	ppb	12:22:09
2	K 766.490 Radial†	29958.7	26272.2	4993.1	ug/L	4993.1	ppb	12:21:49
2	Mg 279.077 IEC†	173.0	168.2	5384.8	ug/L	5384.8	ppb	12:22:09
2	Na 589.592 Radial†	36101.2	37473.1	10632	ug/L	10632	ppb	12:21:49
2	Sr 421.552†	78420.9	77485.6	508.77	ug/L	508.77	ppb	12:21:49
2	Sc 361.383	939561.4	939561.4	100.09	%			12:23:11
2	Y 371.029	810106.4	810106.4	99.021	%			12:23:11
2	Ag 328.068†	122645.6	122074.4	508.23	ug/L	508.23	ppb	12:23:11
2	As 188.979†	1489.0	1522.5	504.99	ug/L	504.99	ppb	12:23:31
2	B 249.677†	25226.4	25600.8	497.60	ug/L	497.60	ppb	12:23:11
2	Ba 233.527†	74888.3	74803.7	509.78	ug/L	509.78	ppb	12:23:11
2	Be 313.107†	1610488.1	1613801.9	513.65	ug/L	513.65	ppb	12:23:11
2	Cd 226.502†	56282.6	56490.7	508.73	ug/L	508.73	ppb	12:23:11
2	Co 228.616†	27905.7	27975.8	492.19	ug/L	492.19	ppb	12:23:31
2	Cr 267.716†	54285.9	54105.3	509.18	ug/L	509.18	ppb	12:23:11
2	Cu 324.752†	186873.0	178228.8	508.51	ug/L	508.51	ppb	12:23:11
2	Mn 257.610†	517117.0	516034.9	512.41	ug/L	512.41	ppb	12:23:11
2	Mo 202.031†	8566.6	8533.8	502.81	ug/L	502.81	ppb	12:23:31
2	Ni 231.604†	24053.7	23894.1	494.34	ug/L	494.34	ppb	12:23:31

2	P 214.914†	5753.4	5477.2	2406.4 ug/L	2406.4 ppb	12:23:31
2	Pb 220.353†	4986.2	5066.5	504.36 ug/L	504.36 ppb	12:23:31
2	S 181.975 Axial†	975.3	912.8	1001.7 ug/L	1001.7 ppb	12:23:31
2	Sb 206.836†	1775.7	1728.9	502.33 ug/L	502.33 ppb	12:23:31
2	Se 196.026†	1004.0	1035.8	510.21 ug/L	510.21 ppb	12:23:31
2	Si 251.611†	96106.0	95283.8	2522.7 ug/L	2522.7 ppb	12:23:11
2	Sn 189.927†	3523.1	3516.6	498.54 ug/L	498.54 ppb	12:23:31
2	Ti 334.940†	345770.8	347177.7	509.82 ug/L	509.82 ppb	12:23:11
2	Tl 190.801†	1856.0	1903.9	502.07 ug/L	502.07 ppb	12:23:31
2	U 409.014†	14839.0	17744.9	489.53 ug/L	489.53 ppb	12:23:11
2	V 292.402†	84414.5	86151.8	513.79 ug/L	513.79 ppb	12:23:11
2	Zn 213.857†	66254.5	65282.7	505.89 ug/L	505.89 ppb	12:23:11
2	SiO2†	94336.5	93497.2	5332.4 ug/L	5332.4 ppb	12:24:09
3	Sc Radial	4911.5	4911.5	99.3 %		12:22:14
3	Y RADIAL	5224.7	5224.7	98.49 %		12:22:14
3	Al 396.153Radial†	6302.9	6368.1	4962.9 ug/L	4962.9 ppb	12:22:14
3	Ca 317.933Radial†	3232.5	3233.5	5067.4 ug/L	5067.4 ppb	12:22:34
3	Fe 238.204 Radial†	610.9	601.9	5301.3 ug/L	5301.3 ppb	12:22:34
3	K 766.490 Radial†	29653.6	26526.4	5041.5 ug/L	5041.5 ppb	12:22:14
3	Mg 279.077 IEC†	164.7	163.2	5223.7 ug/L	5223.7 ppb	12:22:34
3	Na 589.592 Radial†	35740.6	37786.5	10721 ug/L	10721 ppb	12:22:14
3	Sr 421.552†	77809.9	78339.9	514.38 ug/L	514.38 ppb	12:22:14
3	Sc 361.383	934403.2	934403.2	99.537 %		12:23:38
3	Y 371.029	805224.2	805224.2	98.424 %		12:23:38
3	Ag 328.068†	121755.6	121856.6	507.31 ug/L	507.31 ppb	12:23:38
3	As 188.979†	1488.5	1530.3	507.52 ug/L	507.52 ppb	12:23:58
3	B 249.677†	25031.5	25544.1	496.48 ug/L	496.48 ppb	12:23:38
3	Ba 233.527†	74330.1	74655.9	508.77 ug/L	508.77 ppb	12:23:38
3	Be 313.107†	1595423.3	1607549.7	511.66 ug/L	511.66 ppb	12:23:38
3	Cd 226.502†	55895.3	56412.1	508.03 ug/L	508.03 ppb	12:23:38
3	Co 228.616†	28043.0	28267.7	497.34 ug/L	497.34 ppb	12:23:58
3	Cr 267.716†	53921.7	54038.9	508.55 ug/L	508.55 ppb	12:23:38
3	Cu 324.752†	185235.2	177614.1	506.75 ug/L	506.75 ppb	12:23:38
3	Mn 257.610†	513620.2	515374.0	511.75 ug/L	511.75 ppb	12:23:38
3	Mo 202.031†	8581.0	8595.4	506.43 ug/L	506.43 ppb	12:23:58
3	Ni 231.604†	24134.7	24108.1	498.76 ug/L	498.76 ppb	12:23:58
3	P 214.914†	5788.6	5544.3	2437.2 ug/L	2437.2 ppb	12:23:58
3	Pb 220.353†	5005.0	5112.9	509.00 ug/L	509.00 ppb	12:23:58
3	S 181.975 Axial†	974.4	917.2	1006.5 ug/L	1006.5 ppb	12:23:58
3	Sb 206.836†	1792.3	1755.4	510.07 ug/L	510.07 ppb	12:23:58
3	Se 196.026†	1023.4	1060.8	521.91 ug/L	521.91 ppb	12:23:58
3	Si 251.611†	95350.6	95055.0	2516.5 ug/L	2516.5 ppb	12:23:38
3	Sn 189.927†	3536.8	3549.9	503.24 ug/L	503.24 ppb	12:23:58
3	Ti 334.940†	343188.0	346489.9	508.81 ug/L	508.81 ppb	12:23:38
3	Tl 190.801†	1870.5	1928.6	508.53 ug/L	508.53 ppb	12:23:58
3	U 409.014†	14537.1	17523.4	483.41 ug/L	483.41 ppb	12:23:38
3	V 292.402†	83786.5	85986.5	512.87 ug/L	512.87 ppb	12:23:38
3	Zn 213.857†	65812.5	65204.1	505.26 ug/L	505.26 ppb	12:23:38
3	SiO2†	93769.1	93447.4	5329.4 ug/L	5329.4 ppb	12:24:14

Mean Data: CCV

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	937573.2	99.874	%	0.2956				0.30%
Sc Radial	5109.6	103	%	5.4				5.22%
Y 371.029	808092.5	98.775	%	0.3118				0.32%
Y RADIAL	5418.3	102.1	%	4.95				4.84%
Ag 328.068†	121823.2	507.11	ug/L	1.223	507.11	ppb	1.223	0.24%
QC value within limits for Ag 328.068 Recovery = 101.42%								
Al 396.153Radial†	6056.9	4719.3	ug/L	335.71	4719.3	ppb	335.71	7.11%
QC value within limits for Al 396.153Radial Recovery = 94.39%								
As 188.979†	1530.6	507.59	ug/L	2.639	507.59	ppb	2.639	0.52%
QC value within limits for As 188.979 Recovery = 101.52%								
B 249.677†	25515.3	495.95	ug/L	1.968	495.95	ppb	1.968	0.40%
QC value within limits for B 249.677 Recovery = 99.19%								
Ba 233.527†	74599.3	508.38	ug/L	1.628	508.38	ppb	1.628	0.32%
QC value within limits for Ba 233.527 Recovery = 101.68%								
Be 313.107†	1607770.4	511.73	ug/L	1.885	511.73	ppb	1.885	0.37%
QC value within limits for Be 313.107 Recovery = 102.35%								
Ca 317.933Radial†	3142.3	4924.4	ug/L	310.67	4924.4	ppb	310.67	6.31%

QC value within limits for Ca 317.933Radial Recovery = 98.49%

Cd 226.502†	56318.3	507.21 ug/L	2.072	507.21 ppb	2.072	0.41%
QC value within limits for Cd 226.502 Recovery = 101.44%						
Co 228.616†	28159.3	495.43 ug/L	2.821	495.43 ppb	2.821	0.57%
QC value within limits for Co 228.616 Recovery = 99.09%						
Cr 267.716†	53980.0	508.00 ug/L	1.538	508.00 ppb	1.538	0.30%
QC value within limits for Cr 267.716 Recovery = 101.60%						
Cu 324.752†	177758.7	507.15 ug/L	1.202	507.15 ppb	1.202	0.24%
QC value within limits for Cu 324.752 Recovery = 101.43%						
Fe 238.204 Radial†	582.1	5127.2 ug/L	350.55	5127.2 ppb	350.55	6.84%
QC value within limits for Fe 238.204 Radial Recovery = 102.54%						
K 766.490 Radial†	25391.7	4825.6 ug/L	332.86	4825.6 ppb	332.86	6.90%
QC value within limits for K 766.490 Radial Recovery = 96.51%						
Mg 279.077 IEC†	160.6	5140.3 ug/L	295.19	5140.3 ppb	295.19	5.74%
QC value within limits for Mg 279.077 IEC Recovery = 102.81%						
Mn 257.610†	514834.5	511.20 ug/L	1.560	511.20 ppb	1.560	0.31%
QC value within limits for Mn 257.610 Recovery = 102.24%						
Mo 202.031†	8583.8	505.73 ug/L	2.641	505.73 ppb	2.641	0.52%
QC value within limits for Mo 202.031 Recovery = 101.15%						
Na 589.592 Radial†	36324.1	10306 ug/L	643.2	10306 ppb	643.2	6.24%
QC value within limits for Na 589.592 Radial Recovery = 103.06%						
Ni 231.604†	24041.1	497.38 ug/L	2.639	497.38 ppb	2.639	0.53%
QC value within limits for Ni 231.604 Recovery = 99.48%						
P 214.914†	5525.8	2428.8 ug/L	19.61	2428.8 ppb	19.61	0.81%
QC value within limits for P 214.914 Recovery = 97.15%						
Pb 220.353†	5107.2	508.40 ug/L	3.774	508.40 ppb	3.774	0.74%
QC value within limits for Pb 220.353 Recovery = 101.68%						
S 181.975 Axial†	919.8	1009.4 ug/L	9.40	1009.4 ppb	9.40	0.93%
QC value within limits for S 181.975 Axial Recovery = 100.94%						
Sb 206.836†	1745.3	507.18 ug/L	4.222	507.18 ppb	4.222	0.83%
QC value within limits for Sb 206.836 Recovery = 101.44%						
Se 196.026†	1050.4	516.38 ug/L	5.880	516.38 ppb	5.880	1.14%
QC value within limits for Se 196.026 Recovery = 103.28%						
Si 251.611†	95052.3	2516.5 ug/L	6.16	2516.5 ppb	6.16	0.24%
QC value within limits for Si 251.611 Recovery = 100.66%						
Sn 189.927†	3540.3	501.86 ug/L	2.893	501.86 ppb	2.893	0.58%
QC value within limits for Sn 189.927 Recovery = 100.37%						
Sr 421.552†	75022.5	492.60 ug/L	32.989	492.60 ppb	32.989	6.70%
QC value within limits for Sr 421.552 Recovery = 98.52%						
Ti 334.940†	346335.8	508.58 ug/L	1.378	508.58 ppb	1.378	0.27%
QC value within limits for Ti 334.940 Recovery = 101.72%						
Tl 190.801†	1919.5	506.14 ug/L	3.542	506.14 ppb	3.542	0.70%
QC value within limits for Tl 190.801 Recovery = 101.23%						
U 409.014†	17586.0	485.16 ug/L	3.806	485.16 ppb	3.806	0.78%
QC value within limits for U 409.014 Recovery = 97.03%						
V 292.402†	85969.4	512.78 ug/L	1.052	512.78 ppb	1.052	0.21%
QC value within limits for V 292.402 Recovery = 102.56%						
Zn 213.857†	65105.5	504.51 ug/L	1.874	504.51 ppb	1.874	0.37%
QC value within limits for Zn 213.857 Recovery = 100.90%						
SiO2†	93122.5	5311.0 ug/L	34.59	5311.0 ppb	34.59	0.65%
QC value within limits for SiO2 Recovery = 99.32%						

All analyte(s) passed QC.

Sequence No.: 11
Sample ID: PQL
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 11
Date Collected: 12/29/2009 12:26:23
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: PQL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4943.4	4943.4	100.0	%			12:28:17
1	Y RADIAL	5310.1	5310.1	100.1	%			12:28:17
1	Al 396.153Radial†	258.2	279.6	218.38	ug/L	218.38	ppb	12:28:17
1	Ca 317.933Radial†	151.3	130.0	203.65	ug/L	203.65	ppb	12:28:37
1	Fe 238.204 Radial†	25.3	12.0	105.81	ug/L	105.81	ppb	12:28:37
1	K 766.490 Radial†	4215.5	884.0	168.09	ug/L	168.09	ppb	12:28:17
1	Mg 279.077 IEC†	13.5	10.8	345.00	ug/L	345.00	ppb	12:28:37
1	Na 589.592 Radial†	-670.0	1127.2	319.80	ug/L	319.80	ppb	12:28:17
1	Sr 421.552†	752.7	742.0	4.8707	ug/L	4.8707	ppb	12:28:17
1	Sc 361.383	927584.8	927584.8	98.810	%			12:29:35
1	Y 371.029	810278.9	810278.9	99.042	%			12:29:35
1	Ag 328.068†	1777.0	1332.8	5.5186	ug/L	5.5186	ppb	12:29:35
1	As 188.979†	57.6	93.1	30.631	ug/L	30.631	ppb	12:29:55
1	B 249.677†	2032.9	2453.4	47.847	ug/L	47.847	ppb	12:29:55
1	Ba 233.527†	798.5	788.0	5.3707	ug/L	5.3707	ppb	12:29:55
1	Be 313.107†	10794.0	15625.3	4.9733	ug/L	4.9733	ppb	12:29:35
1	Cd 226.502†	298.1	558.3	5.0227	ug/L	5.0227	ppb	12:29:55
1	Co 228.616†	190.1	286.6	5.0578	ug/L	5.0578	ppb	12:29:55
1	Cr 267.716†	622.2	495.9	4.6528	ug/L	4.6528	ppb	12:29:55
1	Cu 324.752†	11580.7	3236.9	9.2357	ug/L	9.2357	ppb	12:29:35
1	Mn 257.610†	10791.3	10284.6	10.208	ug/L	10.208	ppb	12:29:35
1	Mo 202.031†	207.8	184.9	10.891	ug/L	10.891	ppb	12:29:55
1	Ni 231.604†	384.5	250.2	5.1772	ug/L	5.1772	ppb	12:29:55
1	P 214.914†	589.5	325.4	146.22	ug/L	146.22	ppb	12:29:55
1	Pb 220.353†	19.5	104.4	10.420	ug/L	10.420	ppb	12:29:55
1	S 181.975 Axial†	158.2	98.4	108.02	ug/L	108.02	ppb	12:29:55
1	Sb 206.836†	82.2	38.0	11.193	ug/L	11.193	ppb	12:29:55
1	Se 196.026†	25.6	58.6	28.185	ug/L	28.185	ppb	12:29:55
1	Si 251.611†	4428.9	3742.8	99.284	ug/L	99.284	ppb	12:29:55
1	Sn 189.927†	81.1	78.6	11.156	ug/L	11.156	ppb	12:29:55
1	Ti 334.940†	1617.0	3341.2	4.8927	ug/L	4.8927	ppb	12:29:35
1	Tl 190.801†	14.0	63.6	16.732	ug/L	16.732	ppb	12:29:55
1	U 409.014†	-936.0	1971.4	54.546	ug/L	54.546	ppb	12:29:35
1	V 292.402†	-938.5	860.3	5.3099	ug/L	5.3099	ppb	12:29:55
1	Zn 213.857†	2307.6	1420.7	11.040	ug/L	11.040	ppb	12:29:55
1	SiO2†	4585.6	3882.7	221.92	ug/L	221.92	ppb	12:30:51
2	Sc Radial	4960.0	4960.0	100	%			12:28:43
2	Y RADIAL	5302.9	5302.9	99.96	%			12:28:43
2	Al 396.153Radial†	235.1	255.7	199.72	ug/L	199.72	ppb	12:28:43
2	Ca 317.933Radial†	150.3	128.4	201.18	ug/L	201.18	ppb	12:29:03
2	Fe 238.204 Radial†	23.2	9.9	87.091	ug/L	87.091	ppb	12:29:03
2	K 766.490 Radial†	4288.3	942.5	179.21	ug/L	179.21	ppb	12:28:43
2	Mg 279.077 IEC†	11.4	8.6	276.08	ug/L	276.08	ppb	12:29:03
2	Na 589.592 Radial†	-635.4	1163.9	330.22	ug/L	330.22	ppb	12:28:43
2	Sr 421.552†	788.8	775.5	5.0905	ug/L	5.0905	ppb	12:28:43
2	Sc 361.383	949750.2	949750.2	101.17	%			12:30:00
2	Y 371.029	829823.7	829823.7	101.43	%			12:30:00
2	Ag 328.068†	1757.6	1271.7	5.2587	ug/L	5.2587	ppb	12:30:00
2	As 188.979†	54.6	88.8	29.202	ug/L	29.202	ppb	12:30:20
2	B 249.677†	2014.2	2386.9	46.553	ug/L	46.553	ppb	12:30:20
2	Ba 233.527†	782.2	753.0	5.1329	ug/L	5.1329	ppb	12:30:20
2	Be 313.107†	11097.6	15670.4	4.9878	ug/L	4.9878	ppb	12:30:00
2	Cd 226.502†	308.4	561.5	5.0530	ug/L	5.0530	ppb	12:30:20
2	Co 228.616†	180.0	272.1	4.8008	ug/L	4.8008	ppb	12:30:20
2	Cr 267.716†	648.6	507.3	4.7593	ug/L	4.7593	ppb	12:30:20
2	Cu 324.752†	11823.3	3203.2	9.1386	ug/L	9.1386	ppb	12:30:00
2	Mn 257.610†	10994.2	10230.3	10.153	ug/L	10.153	ppb	12:30:00
2	Mo 202.031†	198.6	170.8	10.062	ug/L	10.062	ppb	12:30:20
2	Ni 231.604†	368.5	225.4	4.6621	ug/L	4.6621	ppb	12:30:20

2	P 214.914†	582.2	304.3	136.65 ug/L	136.65 ppb	12:30:20
2	Pb 220.353†	17.2	101.6	10.143 ug/L	10.143 ppb	12:30:20
2	S 181.975 Axial†	163.5	99.9	109.72 ug/L	109.72 ppb	12:30:20
2	Sb 206.836†	86.7	40.4	11.841 ug/L	11.841 ppb	12:30:20
2	Se 196.026†	29.0	61.3	29.401 ug/L	29.401 ppb	12:30:20
2	Si 251.611†	4430.1	3639.4	96.550 ug/L	96.550 ppb	12:30:20
2	Sn 189.927†	68.8	64.6	9.1660 ug/L	9.1660 ppb	12:30:20
2	Ti 334.940†	1739.2	3423.8	5.0130 ug/L	5.0130 ppb	12:30:00
2	Tl 190.801†	32.3	81.4	21.379 ug/L	21.379 ppb	12:30:20
2	U 409.014†	-898.4	2030.7	56.190 ug/L	56.190 ppb	12:30:00
2	V 292.402†	-934.4	886.5	5.4564 ug/L	5.4564 ppb	12:30:20
2	Zn 213.857†	2306.9	1365.5	10.616 ug/L	10.616 ppb	12:30:20
2	SiO2†	4571.5	3760.5	214.95 ug/L	214.95 ppb	12:30:56
3	Sc Radial	4908.7	4908.7	99.3 %		12:29:08
3	Y RADIAL	5222.4	5222.4	98.44 %		12:29:08
3	Al 396.153Radial†	221.4	244.4	190.83 ug/L	190.83 ppb	12:29:08
3	Ca 317.933Radial†	145.6	125.3	196.33 ug/L	196.33 ppb	12:29:28
3	Fe 238.204 Radial†	25.9	12.9	113.02 ug/L	113.02 ppb	12:29:28
3	K 766.490 Radial†	4131.6	829.3	157.66 ug/L	157.66 ppb	12:29:08
3	Mg 279.077 IEC†	13.4	10.8	346.85 ug/L	346.85 ppb	12:29:28
3	Na 589.592 Radial†	-584.3	1208.8	342.95 ug/L	342.95 ppb	12:29:08
3	Sr 421.552†	779.2	774.1	5.0813 ug/L	5.0813 ppb	12:29:08
3	Sc 361.383	955995.9	955995.9	101.84 %		12:30:26
3	Y 371.029	834648.7	834648.7	102.02 %		12:30:26
3	Ag 328.068†	1857.7	1358.5	5.6265 ug/L	5.6265 ppb	12:30:26
3	As 188.979†	54.9	88.8	29.206 ug/L	29.206 ppb	12:30:46
3	B 249.677†	2043.5	2402.7	46.856 ug/L	46.856 ppb	12:30:46
3	Ba 233.527†	792.3	758.0	5.1674 ug/L	5.1674 ppb	12:30:46
3	Be 313.107†	11174.5	15674.3	4.9890 ug/L	4.9890 ppb	12:30:26
3	Cd 226.502†	318.0	568.9	5.1177 ug/L	5.1177 ppb	12:30:46
3	Co 228.616†	200.3	290.9	5.1318 ug/L	5.1318 ppb	12:30:46
3	Cr 267.716†	637.5	492.3	4.6185 ug/L	4.6185 ppb	12:30:46
3	Cu 324.752†	11891.1	3193.4	9.1120 ug/L	9.1120 ppb	12:30:26
3	Mn 257.610†	11115.4	10278.3	10.202 ug/L	10.202 ppb	12:30:26
3	Mo 202.031†	206.1	176.9	10.425 ug/L	10.425 ppb	12:30:46
3	Ni 231.604†	398.7	252.6	5.2262 ug/L	5.2262 ppb	12:30:46
3	P 214.914†	602.4	320.3	143.92 ug/L	143.92 ppb	12:30:46
3	Pb 220.353†	20.5	104.8	10.452 ug/L	10.452 ppb	12:30:46
3	S 181.975 Axial†	167.4	102.7	112.79 ug/L	112.79 ppb	12:30:46
3	Sb 206.836†	73.9	27.3	8.1288 ug/L	8.1288 ppb	12:30:46
3	Se 196.026†	22.9	55.1	26.550 ug/L	26.550 ppb	12:30:46
3	Si 251.611†	4442.5	3623.0	96.109 ug/L	96.109 ppb	12:30:46
3	Sn 189.927†	80.7	75.9	10.763 ug/L	10.763 ppb	12:30:46
3	Ti 334.940†	1754.9	3428.0	5.0185 ug/L	5.0185 ppb	12:30:26
3	Tl 190.801†	25.4	74.4	19.545 ug/L	19.545 ppb	12:30:46
3	U 409.014†	-863.2	2071.0	57.304 ug/L	57.304 ppb	12:30:26
3	V 292.402†	-911.4	915.1	5.6303 ug/L	5.6303 ppb	12:30:46
3	Zn 213.857†	2311.0	1354.6	10.523 ug/L	10.523 ppb	12:30:46
3	SiO2†	4519.5	3680.0	210.32 ug/L	210.32 ppb	12:31:01

Mean Data: PQL

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	944443.6	100.61	%	1.590				1.58%
Sc Radial	4937.4	99.8	%	0.53				0.53%
Y 371.029	824917.1	100.83	%	1.577				1.56%
Y RADIAL	5278.4	99.50	%	0.918				0.92%
Ag 328.068†	1321.0	5.4680	ug/L	0.18906	5.4680	ppb	0.18906	3.46%
QC value within limits for Ag 328.068 Recovery = 109.36%								
Al 396.153Radial†	259.9	202.98	ug/L	14.060	202.98	ppb	14.060	6.93%
QC value within limits for Al 396.153Radial Recovery = 101.49%								
As 188.979†	90.2	29.680	ug/L	0.8241	29.680	ppb	0.8241	2.78%
QC value within limits for As 188.979 Recovery = 98.93%								
B 249.677†	2414.3	47.086	ug/L	0.6767	47.086	ppb	0.6767	1.44%
QC value within limits for B 249.677 Recovery = 94.17%								
Ba 233.527†	766.3	5.2237	ug/L	0.12853	5.2237	ppb	0.12853	2.46%
QC value within limits for Ba 233.527 Recovery = 104.47%								
Be 313.107†	15656.7	4.9834	ug/L	0.00878	4.9834	ppb	0.00878	0.18%
QC value within limits for Be 313.107 Recovery = 99.67%								
Ca 317.933Radial†	127.9	200.39	ug/L	3.726	200.39	ppb	3.726	1.86%

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   QC value within limits for Ca 317.933Radial  Recovery = 100.19%
Cd 226.502†              562.9      5.0645 ug/L       0.04854      5.0645 ppb        0.04854   0.96%
   QC value within limits for Cd 226.502  Recovery = 101.29%
Co 228.616†              283.2      4.9968 ug/L       0.17375      4.9968 ppb        0.17375   3.48%
   QC value within limits for Co 228.616  Recovery = 99.94%
Cr 267.716†              498.5      4.6769 ug/L       0.07345      4.6769 ppb        0.07345   1.57%
   QC value within limits for Cr 267.716  Recovery = 93.54%
Cu 324.752†             3211.2      9.1621 ug/L       0.06513      9.1621 ppb        0.06513   0.71%
   QC value within limits for Cu 324.752  Recovery = 91.62%
Fe 238.204 Radial†        11.6      101.98 ug/L        13.386      101.98 ppb         13.386  13.13%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.98%
K 766.490 Radial†        885.3      168.32 ug/L        10.778      168.32 ppb         10.778   6.40%
   QC value within limits for K 766.490 Radial  Recovery = 112.21%
Mg 279.077 IEC†           10.1      322.64 ug/L        40.335      322.64 ppb         40.335  12.50%
   QC value within limits for Mg 279.077 IEC  Recovery = 107.55%
Mn 257.610†            10264.4      10.188 ug/L        0.0299      10.188 ppb         0.0299   0.29%
   QC value within limits for Mn 257.610  Recovery = 101.88%
Mo 202.031†              177.5      10.459 ug/L        0.4152      10.459 ppb         0.4152   3.97%
   QC value within limits for Mo 202.031  Recovery = 104.59%
Na 589.592 Radial†      1166.6      330.99 ug/L        11.594      330.99 ppb         11.594   3.50%
   QC value within limits for Na 589.592 Radial  Recovery = 110.33%
Ni 231.604†              242.7      5.0218 ug/L       0.31248      5.0218 ppb        0.31248   6.22%
   QC value within limits for Ni 231.604  Recovery = 100.44%
P 214.914†               316.7      142.27 ug/L         4.995      142.27 ppb          4.995   3.51%
   QC value within limits for P 214.914  Recovery = 94.84%
Pb 220.353†              103.6      10.338 ug/L        0.1698      10.338 ppb         0.1698   1.64%
   QC value within limits for Pb 220.353  Recovery = 103.38%
S 181.975 Axial†         100.3      110.18 ug/L         2.419      110.18 ppb          2.419   2.20%
   QC value within limits for S 181.975 Axial  Recovery = 110.18%
Sb 206.836†               35.2      10.387 ug/L        1.9828      10.387 ppb         1.9828  19.09%
   QC value within limits for Sb 206.836  Recovery = 103.87%
Se 196.026†               58.3      28.045 ug/L        1.4309      28.045 ppb         1.4309   5.10%
   QC value within limits for Se 196.026  Recovery = 93.48%
Si 251.611†             3668.4      97.314 ug/L        1.7196      97.314 ppb         1.7196   1.77%
   QC value within limits for Si 251.611  Recovery = 97.31%
Sn 189.927†               73.0      10.362 ug/L        1.0541      10.362 ppb         1.0541  10.17%
   QC value within limits for Sn 189.927  Recovery = 103.62%
Sr 421.552†              763.9      5.0142 ug/L       0.12435      5.0142 ppb        0.12435   2.48%
   QC value within limits for Sr 421.552  Recovery = 100.28%
Ti 334.940†             3397.7      4.9747 ug/L       0.07113      4.9747 ppb        0.07113   1.43%
   QC value within limits for Ti 334.940  Recovery = 99.49%
Tl 190.801†               73.1      19.219 ug/L        2.3403      19.219 ppb         2.3403  12.18%
   QC value within limits for Tl 190.801  Recovery = 96.09%
U 409.014†              2024.4      56.013 ug/L        1.3875      56.013 ppb         1.3875   2.48%
   QC value within limits for U 409.014  Recovery = 112.03%
V 292.402†               887.3      5.4655 ug/L       0.16040      5.4655 ppb        0.16040   2.93%
   QC value within limits for V 292.402  Recovery = 109.31%
Zn 213.857†             1380.3      10.726 ug/L        0.2755      10.726 ppb         0.2755   2.57%
   QC value within limits for Zn 213.857  Recovery = 107.26%
SiO2†                   3774.4      215.73 ug/L         5.836      215.73 ppb          5.836   2.71%
   QC value within limits for SiO2  Recovery = 101.28%
All analyte(s) passed QC.
```

Sequence No.: 12
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 12/29/2009 12:33:13
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4907.6	4907.6	99.2	%			12:35:05
1	Y RADIAL	5263.8	5263.8	99.23	%			12:35:05
1	Al 396.153Radial†	-9.5	11.7	9.1679	ug/L	9.1679	ppb	12:35:05
1	Ca 317.933Radial†	18.7	-2.6	-4.0684	ug/L	-4.0684	ppb	12:35:25
1	Fe 238.204 Radial†	11.9	-1.3	-11.167	ug/L	-11.167	ppb	12:35:25
1	K 766.490 Radial†	3480.3	173.9	33.095	ug/L	33.095	ppb	12:35:05
1	Mg 279.077 IEC†	2.5	-0.2	-6.1930	ug/L	-6.1930	ppb	12:35:25
1	Na 589.592 Radial†	-1666.6	117.9	33.450	ug/L	33.450	ppb	12:35:05
1	Sr 421.552†	11.8	0.9	0.0059	ug/L	0.0059	ppb	12:35:05
1	Sc 361.383	941652.2	941652.2	100.31	%			12:36:22
1	Y 371.029	820772.0	820772.0	100.32	%			12:36:22
1	Ag 328.068†	524.3	57.1	0.2274	ug/L	0.2274	ppb	12:36:27
1	As 188.979†	-41.0	-6.1	-1.9966	ug/L	-1.9966	ppb	12:36:47
1	B 249.677†	-549.0	-151.2	-2.9500	ug/L	-2.9500	ppb	12:36:27
1	Ba 233.527†	54.1	33.9	0.2295	ug/L	0.2295	ppb	12:36:47
1	Be 313.107†	-4618.8	96.8	0.0308	ug/L	0.0308	ppb	12:36:27
1	Cd 226.502†	-269.1	-11.6	-0.1037	ug/L	-0.1037	ppb	12:36:47
1	Co 228.616†	-82.1	12.4	0.2180	ug/L	0.2180	ppb	12:36:47
1	Cr 267.716†	133.6	-0.5	-0.0071	ug/L	-0.0071	ppb	12:36:27
1	Cu 324.752†	8123.7	-384.6	-1.0972	ug/L	-1.0972	ppb	12:36:27
1	Mn 257.610†	609.8	-28.7	-0.0295	ug/L	-0.0295	ppb	12:36:27
1	Mo 202.031†	25.2	-0.3	-0.0214	ug/L	-0.0214	ppb	12:36:47
1	Ni 231.604†	140.4	1.1	0.0219	ug/L	0.0219	ppb	12:36:47
1	P 214.914†	276.0	4.0	1.9835	ug/L	1.9835	ppb	12:36:47
1	Pb 220.353†	-67.9	16.9	1.6810	ug/L	1.6810	ppb	12:36:47
1	S 181.975 Axial†	76.7	14.8	16.251	ug/L	16.251	ppb	12:36:47
1	Sb 206.836†	39.7	-5.7	-1.6448	ug/L	-1.6448	ppb	12:36:47
1	Se 196.026†	-36.9	-4.1	-1.9613	ug/L	-1.9613	ppb	12:36:47
1	Si 251.611†	728.9	-12.7	-0.3471	ug/L	-0.3471	ppb	12:36:47
1	Sn 189.927†	-1.7	-5.1	-0.7160	ug/L	-0.7160	ppb	12:36:47
1	Ti 334.940†	-1707.3	2.8	0.0016	ug/L	0.0016	ppb	12:36:27
1	Tl 190.801†	-44.5	5.0	1.3201	ug/L	1.3201	ppb	12:36:47
1	U 409.014†	-2740.8	186.3	5.1589	ug/L	5.1589	ppb	12:36:22
1	V 292.402†	-1853.9	-38.1	-0.2129	ug/L	-0.2129	ppb	12:36:27
1	Zn 213.857†	1001.3	83.6	0.6549	ug/L	0.6549	ppb	12:36:47
1	SiO2†	711.1	-49.2	-2.8363	ug/L	-2.8363	ppb	12:37:53
2	Sc Radial	4907.9	4907.9	99.2	%			12:35:30
2	Y RADIAL	5235.0	5235.0	98.68	%			12:35:30
2	Al 396.153Radial†	-11.0	10.3	8.0290	ug/L	8.0290	ppb	12:35:30
2	Ca 317.933Radial†	18.9	-2.4	-3.7001	ug/L	-3.7001	ppb	12:35:50
2	Fe 238.204 Radial†	13.8	0.7	5.9185	ug/L	5.9185	ppb	12:35:50
2	K 766.490 Radial†	3483.2	176.6	33.618	ug/L	33.618	ppb	12:35:30
2	Mg 279.077 IEC†	2.8	0.1	3.9333	ug/L	3.9333	ppb	12:35:50
2	Na 589.592 Radial†	-1655.8	128.9	36.567	ug/L	36.567	ppb	12:35:30
2	Sr 421.552†	10.1	-0.8	-0.0054	ug/L	-0.0054	ppb	12:35:30
2	Sc 361.383	934099.8	934099.8	99.504	%			12:36:52
2	Y 371.029	815991.5	815991.5	99.740	%			12:36:52
2	Ag 328.068†	620.1	157.6	0.6505	ug/L	0.6505	ppb	12:36:57
2	As 188.979†	-37.6	-2.9	-0.9607	ug/L	-0.9607	ppb	12:37:17
2	B 249.677†	-529.5	-136.1	-2.6564	ug/L	-2.6564	ppb	12:36:57
2	Ba 233.527†	48.4	28.5	0.1940	ug/L	0.1940	ppb	12:37:17
2	Be 313.107†	-4608.9	69.5	0.0223	ug/L	0.0223	ppb	12:36:57
2	Cd 226.502†	-235.9	19.5	0.1756	ug/L	0.1756	ppb	12:37:17
2	Co 228.616†	-95.6	-1.8	-0.0317	ug/L	-0.0317	ppb	12:37:17
2	Cr 267.716†	135.3	2.2	0.0195	ug/L	0.0195	ppb	12:36:57
2	Cu 324.752†	8423.7	-17.6	-0.0499	ug/L	-0.0499	ppb	12:36:57
2	Mn 257.610†	653.9	20.5	0.0209	ug/L	0.0209	ppb	12:36:57
2	Mo 202.031†	29.2	3.9	0.2310	ug/L	0.2310	ppb	12:37:17
2	Ni 231.604†	152.1	13.9	0.2880	ug/L	0.2880	ppb	12:37:17

2	P 214.914†	273.5	3.7	1.6767 ug/L	1.6767 ppb	12:37:17
2	Pb 220.353†	-78.8	5.4	0.5414 ug/L	0.5414 ppb	12:37:17
2	S 181.975 Axial†	74.7	13.4	14.724 ug/L	14.724 ppb	12:37:17
2	Sb 206.836†	46.0	1.0	0.2890 ug/L	0.2890 ppb	12:37:17
2	Se 196.026†	-33.3	-0.7	-0.3335 ug/L	-0.3335 ppb	12:37:17
2	Si 251.611†	768.8	33.2	0.8698 ug/L	0.8698 ppb	12:37:17
2	Sn 189.927†	1.5	-1.9	-0.2754 ug/L	-0.2754 ppb	12:37:17
2	Ti 334.940†	-1616.5	80.2	0.1158 ug/L	0.1158 ppb	12:36:57
2	Tl 190.801†	-51.9	-2.7	-0.7104 ug/L	-0.7104 ppb	12:37:17
2	U 409.014†	-2755.7	149.3	4.1313 ug/L	4.1313 ppb	12:36:52
2	V 292.402†	-1798.0	3.2	0.0289 ug/L	0.0289 ppb	12:36:57
2	Zn 213.857†	1018.1	108.5	0.8453 ug/L	0.8453 ppb	12:37:17
2	SiO2†	787.8	33.7	1.8985 ug/L	1.8985 ppb	12:37:58
3	Sc Radial	4855.6	4855.6	98.2 %		12:35:55
3	Y RADIAL	5214.0	5214.0	98.29 %		12:35:55
3	Al 396.153Radial†	-8.9	12.2	9.5526 ug/L	9.5526 ppb	12:35:55
3	Ca 317.933Radial†	20.4	-0.6	-1.0115 ug/L	-1.0115 ppb	12:36:15
3	Fe 238.204 Radial†	11.3	-1.7	-15.136 ug/L	-15.136 ppb	12:36:15
3	K 766.490 Radial†	3348.9	77.5	14.749 ug/L	14.749 ppb	12:35:55
3	Mg 279.077 IEC†	4.9	2.3	73.446 ug/L	73.446 ppb	12:36:15
3	Na 589.592 Radial†	-1634.2	133.0	37.725 ug/L	37.725 ppb	12:35:55
3	Sr 421.552†	37.2	26.9	0.1766 ug/L	0.1766 ppb	12:35:55
3	Sc 361.383	926869.1	926869.1	98.734 %		12:37:23
3	Y 371.029	809959.4	809959.4	99.003 %		12:37:23
3	Ag 328.068†	551.5	92.9	0.3835 ug/L	0.3835 ppb	12:37:28
3	As 188.979†	-40.9	-6.6	-2.1652 ug/L	-2.1652 ppb	12:37:48
3	B 249.677†	-593.9	-205.4	-4.0073 ug/L	-4.0073 ppb	12:37:28
3	Ba 233.527†	46.0	26.5	0.1797 ug/L	0.1797 ppb	12:37:48
3	Be 313.107†	-4535.9	107.3	0.0341 ug/L	0.0341 ppb	12:37:28
3	Cd 226.502†	-257.3	-4.0	-0.0345 ug/L	-0.0345 ppb	12:37:48
3	Co 228.616†	-80.2	13.0	0.2291 ug/L	0.2291 ppb	12:37:48
3	Cr 267.716†	72.8	-60.0	-0.5621 ug/L	-0.5621 ppb	12:37:28
3	Cu 324.752†	8359.4	-16.6	-0.0481 ug/L	-0.0481 ppb	12:37:28
3	Mn 257.610†	633.2	4.8	0.0018 ug/L	0.0018 ppb	12:37:28
3	Mo 202.031†	30.2	5.1	0.2977 ug/L	0.2977 ppb	12:37:48
3	Ni 231.604†	132.7	-4.5	-0.0938 ug/L	-0.0938 ppb	12:37:48
3	P 214.914†	257.0	-10.9	-4.9139 ug/L	-4.9139 ppb	12:37:48
3	Pb 220.353†	-77.2	6.5	0.6449 ug/L	0.6449 ppb	12:37:48
3	S 181.975 Axial†	68.1	7.3	7.9913 ug/L	7.9913 ppb	12:37:48
3	Sb 206.836†	41.7	-3.0	-0.8242 ug/L	-0.8242 ppb	12:37:48
3	Se 196.026†	-27.8	4.5	2.0945 ug/L	2.0945 ppb	12:37:48
3	Si 251.611†	734.2	4.3	0.1010 ug/L	0.1010 ppb	12:37:48
3	Sn 189.927†	8.9	5.6	0.7966 ug/L	0.7966 ppb	12:37:48
3	Ti 334.940†	-1682.1	1.1	0.0040 ug/L	0.0040 ppb	12:37:28
3	Tl 190.801†	-35.6	13.4	3.4975 ug/L	3.4975 ppb	12:37:48
3	U 409.014†	-3061.7	-182.3	-5.0439 ug/L	-5.0439 ppb	12:37:23
3	V 292.402†	-1792.1	-5.0	-0.0311 ug/L	-0.0311 ppb	12:37:28
3	Zn 213.857†	1010.7	109.0	0.8508 ug/L	0.8508 ppb	12:37:48
3	SiO2†	748.3	-0.1	-0.0336 ug/L	-0.0336 ppb	12:38:03

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	934207.0	99.516	%	0.7874				0.79%
Sc Radial	4890.4	98.9	%	0.61				0.62%
Y 371.029	815574.3	99.689	%	0.6623				0.66%
Y RADIAL	5237.6	98.73	%	0.472				0.48%
Ag 328.068†	102.6	0.4205	ug/L	0.21398	0.4205	ppb	0.21398	50.89%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	11.4	8.9165	ug/L	0.79230	8.9165	ppb	0.79230	8.89%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-5.2	-1.7075	ug/L	0.65223	-1.7075	ppb	0.65223	38.20%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-164.3	-3.2046	ug/L	0.71051	-3.2046	ppb	0.71051	22.17%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	29.6	0.2010	ug/L	0.02566	0.2010	ppb	0.02566	12.76%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	91.2	0.0290	ug/L	0.00608	0.0290	ppb	0.00608	20.92%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-1.9	-2.9267	ug/L	1.66878	-2.9267	ppb	1.66878	57.02%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                 1.3      0.0125 ug/L       0.14548      0.0125 ppb        0.14548 >999.9%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                 7.8      0.1385 ug/L       0.14749      0.1385 ppb        0.14749 106.51%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†               -19.4     -0.1832 ug/L       0.32835     -0.1832 ppb        0.32835 179.19%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -139.6     -0.3984 ug/L       0.60520     -0.3984 ppb        0.60520 151.91%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -0.8     -6.7948 ug/L      11.18747     -6.7948 ppb       11.18747 164.65%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         142.7      27.154 ug/L       10.7460      27.154 ppb        10.7460  39.57%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             0.7      23.729 ug/L       43.3530      23.729 ppb        43.3530 182.70%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                -1.1     -0.0022 ug/L       0.02544     -0.0022 ppb        0.02544 >999.9%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 2.9      0.1691 ug/L       0.16828      0.1691 ppb        0.16828  99.52%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        126.6      35.914 ug/L        2.2110      35.914 ppb         2.2110   6.16%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                 3.5      0.0721 ug/L       0.19577      0.0721 ppb        0.19577 271.66%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -1.1     -0.4179 ug/L       3.89665     -0.4179 ppb        3.89665 932.43%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                 9.6      0.9558 ug/L       0.63019      0.9558 ppb        0.63019  65.93%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           11.8      12.989 ug/L        4.3948      12.989 ppb         4.3948  33.84%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                -2.6     -0.7266 ug/L       0.97058     -0.7266 ppb        0.97058 133.57%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -0.1     -0.0668 ug/L       2.04097     -0.0668 ppb        2.04097 >999.9%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                 8.3      0.2079 ug/L       0.61545      0.2079 ppb        0.61545 296.03%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                -0.5     -0.0649 ug/L       0.77793     -0.0649 ppb        0.77793 >999.9%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                 9.0      0.0590 ug/L       0.10199      0.0590 ppb        0.10199 172.75%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                28.0      0.0405 ug/L       0.06527      0.0405 ppb        0.06527 161.24%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 5.2      1.3691 ug/L       2.10434      1.3691 ppb        2.10434 153.71%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 51.1      1.4154 ug/L       5.61749      1.4154 ppb        5.61749 396.88%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                -13.3     -0.0717 ug/L       0.12593     -0.0717 ppb        0.12593 175.67%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               100.3      0.7837 ug/L       0.11156      0.7837 ppb        0.11156  14.24%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                      -5.2     -0.3238 ug/L       2.38072     -0.3238 ppb        2.38072 735.19%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 9
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 12/29/2009 13:35:45
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4691.4	4691.4	94.9	%			13:37:37
1	Y RADIAL	4985.1	4985.1	93.97	%			13:37:37
1	Al 396.153Radial†	6086.9	6438.1	5018.2	ug/L	5018.2	ppb	13:37:37
1	Ca 317.933Radial†	3164.8	3314.9	5194.9	ug/L	5194.9	ppb	13:37:57
1	Fe 238.204 Radial†	595.5	614.5	5411.6	ug/L	5411.6	ppb	13:37:57
1	K 766.490 Radial†	28471.8	26681.3	5071.4	ug/L	5071.4	ppb	13:37:37
1	Mg 279.077 IEC†	162.3	168.4	5391.3	ug/L	5391.3	ppb	13:37:57
1	Na 589.592 Radial†	33071.2	36660.8	10401	ug/L	10401	ppb	13:37:37
1	Sr 421.552†	73951.1	77947.5	511.80	ug/L	511.80	ppb	13:37:37
1	Sc 361.383	949169.3	949169.3	101.11	%			13:38:56
1	Y 371.029	819132.0	819132.0	100.12	%			13:38:56
1	Ag 328.068†	118661.6	116893.7	486.75	ug/L	486.75	ppb	13:38:56
1	As 188.979†	1477.8	1496.4	496.23	ug/L	496.23	ppb	13:39:16
1	B 249.677†	24125.3	24256.5	471.38	ug/L	471.38	ppb	13:38:56
1	Ba 233.527†	72213.6	71400.9	486.60	ug/L	486.60	ppb	13:38:56
1	Be 313.107†	1552325.4	1539989.6	490.16	ug/L	490.16	ppb	13:38:56
1	Cd 226.502†	54361.7	54021.7	486.48	ug/L	486.48	ppb	13:38:56
1	Co 228.616†	27761.0	27550.5	484.74	ug/L	484.74	ppb	13:39:16
1	Cr 267.716†	52461.5	51752.0	487.04	ug/L	487.04	ppb	13:38:56
1	Cu 324.752†	179759.7	169303.6	483.06	ug/L	483.06	ppb	13:38:56
1	Mn 257.610†	498963.0	492850.2	489.41	ug/L	489.41	ppb	13:38:56
1	Mo 202.031†	8515.9	8396.9	494.76	ug/L	494.76	ppb	13:39:16
1	Ni 231.604†	23969.5	23567.6	487.58	ug/L	487.58	ppb	13:39:16
1	P 214.914†	5761.2	5426.7	2387.5	ug/L	2387.5	ppb	13:39:16
1	Pb 220.353†	4942.8	4973.2	495.13	ug/L	495.13	ppb	13:39:16
1	S 181.975 Axial†	957.0	884.8	970.88	ug/L	970.88	ppb	13:39:16
1	Sb 206.836†	1741.8	1677.4	487.82	ug/L	487.82	ppb	13:39:16
1	Se 196.026†	1005.3	1027.0	506.19	ug/L	506.19	ppb	13:39:16
1	Si 251.611†	92619.3	90863.4	2405.3	ug/L	2405.3	ppb	13:38:56
1	Sn 189.927†	3505.3	3463.4	491.00	ug/L	491.00	ppb	13:39:16
1	Ti 334.940†	333488.3	331533.0	486.86	ug/L	486.86	ppb	13:38:56
1	Tl 190.801†	1845.1	1874.3	494.10	ug/L	494.10	ppb	13:39:16
1	U 409.014†	14214.8	16977.5	468.32	ug/L	468.32	ppb	13:38:56
1	V 292.402†	81589.5	82504.1	492.19	ug/L	492.19	ppb	13:38:56
1	Zn 213.857†	63725.5	62111.4	481.18	ug/L	481.18	ppb	13:38:56
1	SiO2†	92911.4	91133.6	5197.3	ug/L	5197.3	ppb	13:40:16
2	Sc Radial	4754.8	4754.8	96.1	%			13:38:02
2	Y RADIAL	5038.6	5038.6	94.98	%			13:38:02
2	Al 396.153Radial†	6104.9	6371.2	4965.6	ug/L	4965.6	ppb	13:38:02
2	Ca 317.933Radial†	3165.0	3270.5	5125.4	ug/L	5125.4	ppb	13:38:22
2	Fe 238.204 Radial†	586.1	596.4	5252.5	ug/L	5252.5	ppb	13:38:22
2	K 766.490 Radial†	28542.4	26354.4	5009.0	ug/L	5009.0	ppb	13:38:02
2	Mg 279.077 IEC†	165.7	169.7	5432.0	ug/L	5432.0	ppb	13:38:22
2	Na 589.592 Radial†	33088.8	36214.1	10275	ug/L	10275	ppb	13:38:02
2	Sr 421.552†	74108.7	77071.7	506.05	ug/L	506.05	ppb	13:38:02
2	Sc 361.383	923469.1	923469.1	98.372	%			13:39:23
2	Y 371.029	797301.7	797301.7	97.456	%			13:39:23
2	Ag 328.068†	118772.7	120272.7	500.72	ug/L	500.72	ppb	13:39:23
2	As 188.979†	1446.9	1505.7	499.36	ug/L	499.36	ppb	13:39:43
2	B 249.677†	24190.2	24986.6	485.63	ug/L	485.63	ppb	13:39:23
2	Ba 233.527†	72259.1	73434.9	500.45	ug/L	500.45	ppb	13:39:23
2	Be 313.107†	1553153.6	1583558.6	504.02	ug/L	504.02	ppb	13:39:23
2	Cd 226.502†	54484.2	55642.5	501.10	ug/L	501.10	ppb	13:39:23
2	Co 228.616†	27281.3	27827.0	489.59	ug/L	489.59	ppb	13:39:43
2	Cr 267.716†	52570.3	53306.6	501.66	ug/L	501.66	ppb	13:39:23
2	Cu 324.752†	180020.5	174516.5	497.92	ug/L	497.92	ppb	13:39:23
2	Mn 257.610†	499362.5	506990.0	503.42	ug/L	503.42	ppb	13:39:23
2	Mo 202.031†	8367.2	8480.2	499.65	ug/L	499.65	ppb	13:39:43
2	Ni 231.604†	23600.6	23852.2	493.47	ug/L	493.47	ppb	13:39:43

2	P 214.914†	5648.3	5470.6	2405.1 ug/L	2405.1 ppb	13:39:43
2	Pb 220.353†	4887.8	5053.3	503.09 ug/L	503.09 ppb	13:39:43
2	S 181.975 Axial†	948.9	902.9	990.82 ug/L	990.82 ppb	13:39:43
2	Sb 206.836†	1724.0	1707.3	496.23 ug/L	496.23 ppb	13:39:43
2	Se 196.026†	983.7	1032.6	508.38 ug/L	508.38 ppb	13:39:43
2	Si 251.611†	92914.1	93712.4	2481.0 ug/L	2481.0 ppb	13:39:23
2	Sn 189.927†	3450.9	3504.6	496.83 ug/L	496.83 ppb	13:39:43
2	Ti 334.940†	333742.8	340970.8	500.71 ug/L	500.71 ppb	13:39:23
2	Tl 190.801†	1815.8	1895.3	499.75 ug/L	499.75 ppb	13:39:43
2	U 409.014†	14245.0	17399.5	480.00 ug/L	480.00 ppb	13:39:23
2	V 292.402†	81578.5	84738.6	505.44 ug/L	505.44 ppb	13:39:23
2	Zn 213.857†	63875.4	64017.8	496.03 ug/L	496.03 ppb	13:39:23
2	SiO2†	92653.9	93429.3	5328.7 ug/L	5328.7 ppb	13:40:21
3	Sc Radial	4758.7	4758.7	96.2 %		13:38:27
3	Y RADIAL	5080.8	5080.8	95.78 %		13:38:27
3	Al 396.153Radial†	6239.8	6506.2	5071.5 ug/L	5071.5 ppb	13:38:27
3	Ca 317.933Radial†	3159.3	3261.9	5111.9 ug/L	5111.9 ppb	13:38:47
3	Fe 238.204 Radial†	591.8	601.8	5299.8 ug/L	5299.8 ppb	13:38:47
3	K 766.490 Radial†	29025.7	26832.2	5100.1 ug/L	5100.1 ppb	13:38:27
3	Mg 279.077 IEC†	161.6	165.2	5288.5 ug/L	5288.5 ppb	13:38:47
3	Na 589.592 Radial†	33437.8	36548.3	10369 ug/L	10369 ppb	13:38:27
3	Sr 421.552†	75551.8	78507.8	515.48 ug/L	515.48 ppb	13:38:27
3	Sc 361.383	944102.7	944102.7	100.57 %		13:39:51
3	Y 371.029	814744.7	814744.7	99.588 %		13:39:51
3	Ag 328.068†	119607.3	118463.8	493.22 ug/L	493.22 ppb	13:39:51
3	As 188.979†	1464.0	1490.6	494.34 ug/L	494.34 ppb	13:40:11
3	B 249.677†	24500.1	24757.3	481.16 ug/L	481.16 ppb	13:39:51
3	Ba 233.527†	72681.0	72249.0	492.37 ug/L	492.37 ppb	13:39:51
3	Be 313.107†	1564264.8	1560100.6	496.56 ug/L	496.56 ppb	13:39:51
3	Cd 226.502†	54632.4	54579.4	491.52 ug/L	491.52 ppb	13:39:51
3	Co 228.616†	27604.0	27541.8	484.57 ug/L	484.57 ppb	13:40:11
3	Cr 267.716†	52903.5	52470.0	493.79 ug/L	493.79 ppb	13:39:51
3	Cu 324.752†	181422.7	171911.2	490.49 ug/L	490.49 ppb	13:39:51
3	Mn 257.610†	501896.1	498415.0	494.92 ug/L	494.92 ppb	13:39:51
3	Mo 202.031†	8470.3	8396.8	494.74 ug/L	494.74 ppb	13:40:11
3	Ni 231.604†	23845.2	23571.1	487.66 ug/L	487.66 ppb	13:40:11
3	P 214.914†	5704.4	5400.9	2374.6 ug/L	2374.6 ppb	13:40:11
3	Pb 220.353†	4936.8	4993.5	497.16 ug/L	497.16 ppb	13:40:11
3	S 181.975 Axial†	955.7	888.6	975.04 ug/L	975.04 ppb	13:40:11
3	Sb 206.836†	1746.8	1691.7	491.71 ug/L	491.71 ppb	13:40:11
3	Se 196.026†	1003.4	1030.4	507.49 ug/L	507.49 ppb	13:40:11
3	Si 251.611†	93407.0	92138.3	2439.2 ug/L	2439.2 ppb	13:39:51
3	Sn 189.927†	3475.6	3452.5	489.45 ug/L	489.45 ppb	13:40:11
3	Ti 334.940†	335903.1	335704.1	492.98 ug/L	492.98 ppb	13:39:51
3	Tl 190.801†	1835.9	1875.0	494.36 ug/L	494.36 ppb	13:40:11
3	U 409.014†	14350.4	17187.7	474.14 ug/L	474.14 ppb	13:39:51
3	V 292.402†	82013.4	83358.7	497.24 ug/L	497.24 ppb	13:39:51
3	Zn 213.857†	64271.1	62992.2	488.06 ug/L	488.06 ppb	13:39:51
3	SiO2†	94119.1	92827.7	5294.4 ug/L	5294.4 ppb	13:40:27

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	938913.7	100.02	%	1.450				1.45%
Sc Radial	4735.0	95.7	%	0.76				0.80%
Y 371.029	810392.8	99.056	%	1.4115				1.42%
Y RADIAL	5034.8	94.91	%	0.904				0.95%
Ag 328.068†	118543.4	493.56	ug/L	6.989	493.56	ppb	6.989	1.42%
QC value within limits for Ag 328.068 Recovery = 98.71%								
Al 396.153Radial†	6438.5	5018.4	ug/L	52.95	5018.4	ppb	52.95	1.06%
QC value within limits for Al 396.153Radial Recovery = 100.37%								
As 188.979†	1497.6	496.64	ug/L	2.533	496.64	ppb	2.533	0.51%
QC value within limits for As 188.979 Recovery = 99.33%								
B 249.677†	24666.8	479.39	ug/L	7.291	479.39	ppb	7.291	1.52%
QC value within limits for B 249.677 Recovery = 95.88%								
Ba 233.527†	72361.6	493.14	ug/L	6.958	493.14	ppb	6.958	1.41%
QC value within limits for Ba 233.527 Recovery = 98.63%								
Be 313.107†	1561216.3	496.91	ug/L	6.941	496.91	ppb	6.941	1.40%
QC value within limits for Be 313.107 Recovery = 99.38%								
Ca 317.933Radial†	3282.5	5144.1	ug/L	44.53	5144.1	ppb	44.53	0.87%

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   QC value within limits for Ca 317.933Radial  Recovery = 102.88%
Cd 226.502†            54747.9      493.03 ug/L         7.428      493.03 ppb          7.428   1.51%
   QC value within limits for Cd 226.502  Recovery = 98.61%
Co 228.616†            27639.8      486.30 ug/L         2.848      486.30 ppb          2.848   0.59%
   QC value within limits for Co 228.616  Recovery = 97.26%
Cr 267.716†            52509.5      494.16 ug/L         7.318      494.16 ppb          7.318   1.48%
   QC value within limits for Cr 267.716  Recovery = 98.83%
Cu 324.752†           171910.4      490.49 ug/L         7.429      490.49 ppb          7.429   1.51%
   QC value within limits for Cu 324.752  Recovery = 98.10%
Fe 238.204 Radial†       604.2      5321.3 ug/L        81.71      5321.3 ppb         81.71   1.54%
   QC value within limits for Fe 238.204 Radial  Recovery = 106.43%
K 766.490 Radial†      26622.7      5060.1 ug/L        46.54      5060.1 ppb         46.54   0.92%
   QC value within limits for K 766.490 Radial  Recovery = 101.20%
Mg 279.077 IEC†          167.8      5370.6 ug/L        73.95      5370.6 ppb         73.95   1.38%
   QC value within limits for Mg 279.077 IEC  Recovery = 107.41%
Mn 257.610†           499418.4      495.92 ug/L         7.059      495.92 ppb          7.059   1.42%
   QC value within limits for Mn 257.610  Recovery = 99.18%
Mo 202.031†             8424.7      496.38 ug/L         2.827      496.38 ppb          2.827   0.57%
   QC value within limits for Mo 202.031  Recovery = 99.28%
Na 589.592 Radial†     36474.4       10348 ug/L        65.9        10348 ppb          65.9   0.64%
   QC value within limits for Na 589.592 Radial  Recovery = 103.48%
Ni 231.604†            23663.7      489.57 ug/L         3.380      489.57 ppb          3.380   0.69%
   QC value within limits for Ni 231.604  Recovery = 97.91%
P 214.914†              5432.7      2389.1 ug/L        15.32      2389.1 ppb         15.32   0.64%
   QC value within limits for P 214.914  Recovery = 95.56%
Pb 220.353†             5006.7      498.46 ug/L         4.135      498.46 ppb          4.135   0.83%
   QC value within limits for Pb 220.353  Recovery = 99.69%
S 181.975 Axial†         892.1      978.91 ug/L        10.520      978.91 ppb         10.520   1.07%
   QC value within limits for S 181.975 Axial  Recovery = 97.89%
Sb 206.836†             1692.2      491.92 ug/L         4.208      491.92 ppb          4.208   0.86%
   QC value within limits for Sb 206.836  Recovery = 98.38%
Se 196.026†             1030.0      507.35 ug/L         1.105      507.35 ppb          1.105   0.22%
   QC value within limits for Se 196.026  Recovery = 101.47%
Si 251.611†            92238.0      2441.8 ug/L        37.92      2441.8 ppb         37.92   1.55%
   QC value within limits for Si 251.611  Recovery = 97.67%
Sn 189.927†             3473.5      492.43 ug/L         3.889      492.43 ppb          3.889   0.79%
   QC value within limits for Sn 189.927  Recovery = 98.49%
Sr 421.552†            77842.3      511.11 ug/L         4.753      511.11 ppb          4.753   0.93%
   QC value within limits for Sr 421.552  Recovery = 102.22%
Ti 334.940†           336069.3      493.52 ug/L         6.940      493.52 ppb          6.940   1.41%
   QC value within limits for Ti 334.940  Recovery = 98.70%
Tl 190.801†             1881.5      496.07 ug/L         3.188      496.07 ppb          3.188   0.64%
   QC value within limits for Tl 190.801  Recovery = 99.21%
U 409.014†             17188.2      474.16 ug/L         5.836      474.16 ppb          5.836   1.23%
   QC value within limits for U 409.014  Recovery = 94.83%
V 292.402†             83533.8      498.29 ug/L         6.687      498.29 ppb          6.687   1.34%
   QC value within limits for V 292.402  Recovery = 99.66%
Zn 213.857†            63040.4      488.42 ug/L         7.431      488.42 ppb          7.431   1.52%
   QC value within limits for Zn 213.857  Recovery = 97.68%
SiO2†                  92463.5      5273.4 ug/L        68.15      5273.4 ppb         68.15   1.29%
   QC value within limits for SiO2  Recovery = 98.61%
All analyte(s) passed QC.
```

Sequence No.: 10
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 12/29/2009 13:42:37
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4889.0	4889.0	98.9	%			13:44:29
1	Y RADIAL	5204.8	5204.8	98.11	%			13:44:29
1	Al 396.153Radial†	1.7	23.0	18.009	ug/L	18.009	ppb	13:44:29
1	Ca 317.933Radial†	16.7	-4.5	-7.0596	ug/L	-7.0596	ppb	13:44:49
1	Fe 238.204 Radial†	11.5	-1.6	-14.328	ug/L	-14.328	ppb	13:44:49
1	K 766.490 Radial†	3322.5	27.6	5.2589	ug/L	5.2589	ppb	13:44:29
1	Mg 279.077 IEC†	3.3	0.6	19.135	ug/L	19.135	ppb	13:44:49
1	Na 589.592 Radial†	-1777.8	-1.0	-0.2766	ug/L	-0.2766	ppb	13:44:29
1	Sr 421.552†	-2.5	-13.5	-0.0886	ug/L	-0.0886	ppb	13:44:29
1	Sc 361.383	901426.9	901426.9	96.024	%			13:45:46
1	Y 371.029	785575.6	785575.6	96.022	%			13:45:46
1	Ag 328.068†	603.9	163.3	0.6785	ug/L	0.6785	ppb	13:45:46
1	As 188.979†	-46.8	-13.9	-4.5664	ug/L	-4.5664	ppb	13:46:06
1	B 249.677†	-393.0	-13.2	-0.2556	ug/L	-0.2556	ppb	13:45:46
1	Ba 233.527†	10.2	-9.4	-0.0651	ug/L	-0.0651	ppb	13:46:06
1	Be 313.107†	-4447.1	70.2	0.0223	ug/L	0.0223	ppb	13:45:46
1	Cd 226.502†	-254.9	-8.8	-0.0777	ug/L	-0.0777	ppb	13:46:06
1	Co 228.616†	-89.1	1.5	0.0272	ug/L	0.0272	ppb	13:46:06
1	Cr 267.716†	156.8	29.6	0.2803	ug/L	0.2803	ppb	13:45:46
1	Cu 324.752†	8123.7	-23.1	-0.0667	ug/L	-0.0667	ppb	13:45:46
1	Mn 257.610†	620.2	9.3	0.0074	ug/L	0.0074	ppb	13:45:46
1	Mo 202.031†	34.4	10.3	0.6073	ug/L	0.6073	ppb	13:46:06
1	Ni 231.604†	119.3	-14.6	-0.3029	ug/L	-0.3029	ppb	13:46:06
1	P 214.914†	262.5	2.2	1.0241	ug/L	1.0241	ppb	13:46:06
1	Pb 220.353†	-100.5	-20.0	-1.9829	ug/L	-1.9829	ppb	13:46:06
1	S 181.975 Axial†	68.1	9.3	10.201	ug/L	10.201	ppb	13:46:06
1	Sb 206.836†	54.9	11.9	3.4124	ug/L	3.4124	ppb	13:46:06
1	Se 196.026†	-45.4	-14.6	-6.9483	ug/L	-6.9483	ppb	13:46:06
1	Si 251.611†	763.2	55.4	1.4609	ug/L	1.4609	ppb	13:46:06
1	Sn 189.927†	2.3	-1.0	-0.1468	ug/L	-0.1468	ppb	13:46:06
1	Ti 334.940†	-1637.4	-0.4	0.0034	ug/L	0.0034	ppb	13:45:46
1	Tl 190.801†	-51.5	-4.2	-1.0897	ug/L	-1.0897	ppb	13:46:06
1	U 409.014†	-3152.1	-363.9	-10.073	ug/L	-10.073	ppb	13:45:46
1	V 292.402†	-1783.5	-47.3	-0.2866	ug/L	-0.2866	ppb	13:45:46
1	Zn 213.857†	953.7	78.5	0.6156	ug/L	0.6156	ppb	13:46:06
1	SiO2†	826.0	102.1	5.8277	ug/L	5.8277	ppb	13:47:02
2	Sc Radial	4774.3	4774.3	96.5	%			13:44:54
2	Y RADIAL	5100.6	5100.6	96.15	%			13:44:54
2	Al 396.153Radial†	-24.5	-4.1	-3.2450	ug/L	-3.2450	ppb	13:44:54
2	Ca 317.933Radial†	20.3	-0.4	-0.6190	ug/L	-0.6190	ppb	13:45:14
2	Fe 238.204 Radial†	12.0	-0.8	-7.0130	ug/L	-7.0130	ppb	13:45:14
2	K 766.490 Radial†	3287.8	72.4	13.791	ug/L	13.791	ppb	13:44:54
2	Mg 279.077 IEC†	3.6	1.0	33.242	ug/L	33.242	ppb	13:45:14
2	Na 589.592 Radial†	-1789.8	-56.6	-16.061	ug/L	-16.061	ppb	13:44:54
2	Sr 421.552†	-3.9	-15.0	-0.0987	ug/L	-0.0987	ppb	13:44:54
2	Sc 361.383	895248.3	895248.3	95.366	%			13:46:11
2	Y 371.029	779857.7	779857.7	95.324	%			13:46:11
2	Ag 328.068†	487.5	45.6	0.1974	ug/L	0.1974	ppb	13:46:11
2	As 188.979†	-33.2	0.0	0.0107	ug/L	0.0107	ppb	13:46:31
2	B 249.677†	-518.1	-147.2	-2.8715	ug/L	-2.8715	ppb	13:46:11
2	Ba 233.527†	22.9	3.9	0.0257	ug/L	0.0257	ppb	13:46:31
2	Be 313.107†	-4479.5	4.1	0.0008	ug/L	0.0008	ppb	13:46:11
2	Cd 226.502†	-238.4	6.7	0.0611	ug/L	0.0611	ppb	13:46:31
2	Co 228.616†	-94.1	-4.5	-0.0767	ug/L	-0.0767	ppb	13:46:31
2	Cr 267.716†	137.0	9.9	0.0968	ug/L	0.0968	ppb	13:46:11
2	Cu 324.752†	8149.0	61.7	0.1757	ug/L	0.1757	ppb	13:46:11
2	Mn 257.610†	579.0	-29.5	-0.0306	ug/L	-0.0306	ppb	13:46:11
2	Mo 202.031†	35.4	11.6	0.6826	ug/L	0.6826	ppb	13:46:31
2	Ni 231.604†	140.4	8.3	0.1726	ug/L	0.1726	ppb	13:46:31

2	P 214.914†	269.4	11.3	5.0979 ug/L	5.0979 ppb		13:46:31
2	Pb 220.353†	-75.9	5.0	0.4987 ug/L	0.4987 ppb		13:46:31
2	S 181.975 Axial†	66.9	8.5	9.3249 ug/L	9.3249 ppb		13:46:31
2	Sb 206.836†	40.5	-2.7	-0.7703 ug/L	-0.7703 ppb		13:46:31
2	Se 196.026†	-27.0	4.4	2.0474 ug/L	2.0474 ppb		13:46:31
2	Si 251.611†	760.2	57.7	1.5200 ug/L	1.5200 ppb		13:46:31
2	Sn 189.927†	1.7	-1.6	-0.2326 ug/L	-0.2326 ppb		13:46:31
2	Ti 334.940†	-1789.8	-172.0	-0.2462 ug/L	-0.2462 ppb		13:46:11
2	Tl 190.801†	-45.8	1.4	0.3632 ug/L	0.3632 ppb		13:46:31
2	U 409.014†	-3288.4	-529.5	-14.656 ug/L	-14.656 ppb		13:46:11
2	V 292.402†	-1786.1	-62.8	-0.3864 ug/L	-0.3864 ppb		13:46:11
2	Zn 213.857†	956.8	88.6	0.6904 ug/L	0.6904 ppb		13:46:31
2	SiO2†	800.1	81.0	4.6075 ug/L	4.6075 ppb		13:47:07
3	Sc Radial	4830.9	4830.9	97.7 %			13:45:19
3	Y RADIAL	5177.9	5177.9	97.61 %			13:45:19
3	Al 396.153Radial†	2.9	24.3	19.007 ug/L	19.007 ppb		13:45:19
3	Ca 317.933Radial†	18.3	-2.7	-4.2332 ug/L	-4.2332 ppb		13:45:39
3	Fe 238.204 Radial†	14.0	1.1	9.6928 ug/L	9.6928 ppb		13:45:39
3	K 766.490 Radial†	3198.7	-58.8	-11.176 ug/L	-11.176 ppb		13:45:19
3	Mg 279.077 IEC†	3.8	1.2	38.650 ug/L	38.650 ppb		13:45:39
3	Na 589.592 Radial†	-1814.2	-59.9	-16.987 ug/L	-16.987 ppb		13:45:19
3	Sr 421.552†	-10.2	-21.5	-0.1410 ug/L	-0.1410 ppb		13:45:19
3	Sc 361.383	889315.3	889315.3	94.734 %			13:46:37
3	Y 371.029	775948.9	775948.9	94.846 %			13:46:37
3	Ag 328.068†	449.0	8.4	0.0454 ug/L	0.0454 ppb		13:46:37
3	As 188.979†	-32.8	0.2	0.0643 ug/L	0.0643 ppb		13:46:57
3	B 249.677†	-432.3	-60.2	-1.1772 ug/L	-1.1772 ppb		13:46:37
3	Ba 233.527†	16.6	-2.6	-0.0182 ug/L	-0.0182 ppb		13:46:57
3	Be 313.107†	-4603.1	-157.6	-0.0502 ug/L	-0.0502 ppb		13:46:37
3	Cd 226.502†	-252.1	-9.5	-0.0865 ug/L	-0.0865 ppb		13:46:57
3	Co 228.616†	-77.1	12.9	0.2280 ug/L	0.2280 ppb		13:46:57
3	Cr 267.716†	103.1	-24.9	-0.2313 ug/L	-0.2313 ppb		13:46:37
3	Cu 324.752†	8070.3	35.7	0.1024 ug/L	0.1024 ppb		13:46:37
3	Mn 257.610†	640.7	39.7	0.0396 ug/L	0.0396 ppb		13:46:37
3	Mo 202.031†	31.7	8.0	0.4718 ug/L	0.4718 ppb		13:46:57
3	Ni 231.604†	133.1	1.6	0.0329 ug/L	0.0329 ppb		13:46:57
3	P 214.914†	268.6	12.3	5.5708 ug/L	5.5708 ppb		13:46:57
3	Pb 220.353†	-81.1	-0.9	-0.0893 ug/L	-0.0893 ppb		13:46:57
3	S 181.975 Axial†	56.5	-2.1	-2.2657 ug/L	-2.2657 ppb		13:46:57
3	Sb 206.836†	58.7	16.7	4.7984 ug/L	4.7984 ppb		13:46:57
3	Se 196.026†	-37.6	-7.0	-3.2963 ug/L	-3.2963 ppb		13:46:57
3	Si 251.611†	733.7	35.1	0.9313 ug/L	0.9313 ppb		13:46:57
3	Sn 189.927†	0.4	-2.9	-0.4166 ug/L	-0.4166 ppb		13:46:57
3	Ti 334.940†	-1666.2	-54.1	-0.0750 ug/L	-0.0750 ppb		13:46:37
3	Tl 190.801†	-45.1	1.8	0.4811 ug/L	0.4811 ppb		13:46:57
3	U 409.014†	-3116.1	-370.7	-10.261 ug/L	-10.261 ppb		13:46:37
3	V 292.402†	-1766.0	-54.1	-0.3320 ug/L	-0.3320 ppb		13:46:37
3	Zn 213.857†	934.6	71.9	0.5596 ug/L	0.5596 ppb		13:46:57
3	SiO2†	798.2	84.6	4.8398 ug/L	4.8398 ppb		13:47:12

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	895330.2	95.375	%	0.6451				0.68%
Sc Radial	4831.4	97.7	%	1.16				1.19%
Y 371.029	780460.7	95.397	%	0.5918				0.62%
Y RADIAL	5161.1	97.29	%	1.020				1.05%
Ag 328.068†	72.4	0.3071	ug/L	0.33047	0.3071	ppb	0.33047	107.61%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	14.4	11.257	ug/L	12.5688	11.257	ppb	12.5688	111.66%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-4.5	-1.4971	ug/L	2.65816	-1.4971	ppb	2.65816	177.55%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-73.5	-1.4348	ug/L	1.32679	-1.4348	ppb	1.32679	92.47%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-2.7	-0.0192	ug/L	0.04541	-0.0192	ppb	0.04541	236.79%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-27.8	-0.0090	ug/L	0.03724	-0.0090	ppb	0.03724	412.07%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-2.5	-3.9706	ug/L	3.22832	-3.9706	ppb	3.22832	81.31%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                -3.9     -0.0343 ug/L       0.08279     -0.0343 ppb        0.08279 241.04%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                 3.3      0.0595 ug/L       0.15493      0.0595 ppb        0.15493 260.33%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                 4.8      0.0486 ug/L       0.25921      0.0486 ppb        0.25921 533.34%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†                24.8      0.0705 ug/L       0.12434      0.0705 ppb        0.12434 176.49%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -0.4     -3.8827 ug/L      12.31248     -3.8827 ppb       12.31248 317.11%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          13.7      2.6244 ug/L      12.69038      2.6244 ppb       12.69038 483.56%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             0.9      30.343 ug/L       10.0753      30.343 ppb        10.0753  33.21%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                 6.5      0.0055 ug/L       0.03514      0.0055 ppb        0.03514 638.53%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                10.0      0.5872 ug/L       0.10679      0.5872 ppb        0.10679  18.19%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        -39.2     -11.108 ug/L        9.3919     -11.108 ppb         9.3919  84.55%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                -1.6     -0.0325 ug/L       0.24442     -0.0325 ppb        0.24442 752.97%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                  8.6      3.8976 ug/L       2.49975      3.8976 ppb        2.49975  64.14%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -5.3     -0.5245 ug/L       1.29678     -0.5245 ppb        1.29678 247.24%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            5.2      5.7535 ug/L       6.95860      5.7535 ppb        6.95860 120.95%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 8.6      2.4802 ug/L       2.89906      2.4802 ppb        2.89906 116.89%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -5.7     -2.7324 ug/L       4.52429     -2.7324 ppb        4.52429 165.58%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                49.4      1.3041 ug/L       0.32419      1.3041 ppb        0.32419  24.86%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                -1.9     -0.2653 ug/L       0.13783     -0.2653 ppb        0.13783  51.95%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               -16.7     -0.1094 ug/L       0.02777     -0.1094 ppb        0.02777  25.37%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               -75.5     -0.1059 ug/L       0.12763     -0.1059 ppb        0.12763 120.47%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                -0.3     -0.0818 ug/L       0.87488     -0.0818 ppb        0.87488 >999.9%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -421.4     -11.663 ug/L        2.5933     -11.663 ppb         2.5933  22.24%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               -54.7     -0.3350 ug/L       0.04992     -0.3350 ppb        0.04992  14.90%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                79.7      0.6219 ug/L       0.06565      0.6219 ppb        0.06565  10.56%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                      89.2      5.0917 ug/L       0.64796      5.0917 ppb        0.64796  12.73%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
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Analysis Begun

Start Time: 12/29/2009 14:00:38 **Plasma On Time: 12/28/2009 05:59:12**
Logged In Analyst: Optima3 **Technique: ICP Continuous**
Spectrometer Model: Optima 5300 DV, S/N 077C7090601Autosampler Model: S10

Sample Information File: C:\pe\Optima3\Sample Information\122909A.sif
Batch ID:
Results Data Set: 122909A
Results Library: C:\pe\Optima3\Results\Results.mdb

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Sequence No.: 1 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 12/29/2009 14:00:39**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4806.4	4806.4	97.2	%			14:02:31
1	Y RADIAL	5099.1	5099.1	96.12	%			14:02:31
1	Al 396.153Radial†	6066.8	6263.9	4880.9	ug/L	4880.9	ppb	14:02:31
1	Ca 317.933Radial†	3163.7	3233.8	5067.9	ug/L	5067.9	ppb	14:02:51
1	Fe 238.204 Radial†	586.7	590.4	5200.8	ug/L	5200.8	ppb	14:02:51
1	K 766.490 Radial†	28464.0	25955.1	4933.1	ug/L	4933.1	ppb	14:02:31
1	Mg 279.077 IEC†	164.5	166.5	5331.9	ug/L	5331.9	ppb	14:02:51
1	Na 589.592 Radial†	32495.9	35234.6	9996.7	ug/L	9996.7	ppb	14:02:31
1	Sr 421.552†	73462.5	75579.4	496.25	ug/L	496.25	ppb	14:02:31
1	Sc 361.383	915587.6	915587.6	97.532	%			14:03:50
1	Y 371.029	789464.7	789464.7	96.498	%			14:03:50
1	Ag 328.068†	119507.4	122065.3	508.14	ug/L	508.14	ppb	14:03:50
1	As 188.979†	1472.2	1544.3	512.09	ug/L	512.09	ppb	14:04:10
1	B 249.677†	24317.5	25328.8	492.28	ug/L	492.28	ppb	14:03:50
1	Ba 233.527†	72980.7	74807.1	509.80	ug/L	509.80	ppb	14:03:50
1	Be 313.107†	1562737.2	1606975.7	511.48	ug/L	511.48	ppb	14:03:50
1	Cd 226.502†	54907.0	56552.8	509.32	ug/L	509.32	ppb	14:03:50
1	Co 228.616†	27900.4	28700.5	504.97	ug/L	504.97	ppb	14:04:10
1	Cr 267.716†	53027.7	54235.5	510.40	ug/L	510.40	ppb	14:03:50
1	Cu 324.752†	181040.2	177137.2	505.39	ug/L	505.39	ppb	14:03:50
1	Mn 257.610†	503298.8	515395.7	511.76	ug/L	511.76	ppb	14:03:50
1	Mo 202.031†	8559.3	8750.4	515.55	ug/L	515.55	ppb	14:04:10
1	Ni 231.604†	24020.8	24489.6	506.66	ug/L	506.66	ppb	14:04:10
1	P 214.914†	5790.2	5665.6	2492.6	ug/L	2492.6	ppb	14:04:10
1	Pb 220.353†	4979.8	5190.4	516.71	ug/L	516.71	ppb	14:04:10
1	S 181.975 Axial†	969.3	932.1	1022.9	ug/L	1022.9	ppb	14:04:10
1	Sb 206.836†	1784.2	1784.1	518.58	ug/L	518.58	ppb	14:04:10
1	Se 196.026†	1019.4	1077.8	529.70	ug/L	529.70	ppb	14:04:10
1	Si 251.611†	93464.6	95089.9	2517.3	ug/L	2517.3	ppb	14:03:50
1	Sn 189.927†	3515.8	3601.4	510.53	ug/L	510.53	ppb	14:04:10
1	Ti 334.940†	335929.1	346132.9	508.28	ug/L	508.28	ppb	14:03:50
1	Tl 190.801†	1864.7	1961.4	517.05	ug/L	517.05	ppb	14:04:10
1	U 409.014†	14435.5	17719.4	488.84	ug/L	488.84	ppb	14:03:50
1	V 292.402†	82119.9	86007.5	513.15	ug/L	513.15	ppb	14:03:50
1	Zn 213.857†	64274.6	64986.1	503.51	ug/L	503.51	ppb	14:03:50
1	SiO2†	92378.4	93957.5	5358.3	ug/L	5358.3	ppb	14:05:11
2	Sc Radial	4887.0	4887.0	98.8	%			14:02:56
2	Y RADIAL	5233.5	5233.5	98.66	%			14:02:56
2	Al 396.153Radial†	6083.0	6177.3	4813.6	ug/L	4813.6	ppb	14:02:56
2	Ca 317.933Radial†	3130.6	3146.7	4931.3	ug/L	4931.3	ppb	14:03:16
2	Fe 238.204 Radial†	580.6	574.3	5058.7	ug/L	5058.7	ppb	14:03:16
2	K 766.490 Radial†	28582.4	25592.0	4864.0	ug/L	4864.0	ppb	14:02:56
2	Mg 279.077 IEC†	160.9	160.2	5127.2	ug/L	5127.2	ppb	14:03:16
2	Na 589.592 Radial†	32647.6	34836.8	9883.8	ug/L	9883.8	ppb	14:02:56
2	Sr 421.552†	73806.5	74681.2	490.36	ug/L	490.36	ppb	14:02:56
2	Sc 361.383	923322.1	923322.1	98.356	%			14:04:18
2	Y 371.029	797121.1	797121.1	97.434	%			14:04:18

2	Ag 328.068†	119103.1	120627.8	502.14 ug/L	502.14 ppb	14:04:18
2	As 188.979†	1465.7	1525.0	505.69 ug/L	505.69 ppb	14:04:38
2	B 249.677†	24218.9	25019.7	486.29 ug/L	486.29 ppb	14:04:18
2	Ba 233.527†	72725.7	73920.9	503.76 ug/L	503.76 ppb	14:04:18
2	Be 313.107†	1564741.3	1595591.2	507.85 ug/L	507.85 ppb	14:04:18
2	Cd 226.502†	54820.9	55993.7	504.29 ug/L	504.29 ppb	14:04:18
2	Co 228.616†	27645.4	28201.6	496.19 ug/L	496.19 ppb	14:04:38
2	Cr 267.716†	52939.7	53690.6	505.27 ug/L	505.27 ppb	14:04:18
2	Cu 324.752†	180554.3	175088.4	499.54 ug/L	499.54 ppb	14:04:18
2	Mn 257.610†	502352.0	510110.3	506.50 ug/L	506.50 ppb	14:04:18
2	Mo 202.031†	8474.8	8590.9	506.15 ug/L	506.15 ppb	14:04:38
2	Ni 231.604†	23858.8	24118.6	498.98 ug/L	498.98 ppb	14:04:38
2	P 214.914†	5732.2	5556.8	2444.2 ug/L	2444.2 ppb	14:04:38
2	Pb 220.353†	4931.5	5098.5	507.57 ug/L	507.57 ppb	14:04:38
2	S 181.975 Axial†	954.9	909.2	997.73 ug/L	997.73 ppb	14:04:38
2	Sb 206.836†	1751.7	1735.8	504.51 ug/L	504.51 ppb	14:04:38
2	Se 196.026†	996.0	1045.3	513.79 ug/L	513.79 ppb	14:04:38
2	Si 251.611†	93068.8	93884.7	2485.5 ug/L	2485.5 ppb	14:04:18
2	Sn 189.927†	3480.3	3535.1	501.13 ug/L	501.13 ppb	14:04:38
2	Ti 334.940†	335492.3	342803.6	503.39 ug/L	503.39 ppb	14:04:18
2	Tl 190.801†	1837.5	1917.7	505.59 ug/L	505.59 ppb	14:04:38
2	U 409.014†	14184.2	17339.9	478.36 ug/L	478.36 ppb	14:04:18
2	V 292.402†	82187.9	85371.4	509.27 ug/L	509.27 ppb	14:04:18
2	Zn 213.857†	64213.4	64371.8	498.78 ug/L	498.78 ppb	14:04:18
2	SiO2†	94149.9	94965.3	5416.5 ug/L	5416.5 ppb	14:05:16
3	Sc Radial	4630.2	4630.2	93.6 %		14:03:22
3	Y RADIAL	4920.2	4920.2	92.75 %		14:03:22
3	Al 396.153Radial†	6092.4	6528.8	5088.6 ug/L	5088.6 ppb	14:03:22
3	Ca 317.933Radial†	3116.8	3307.7	5183.6 ug/L	5183.6 ppb	14:03:42
3	Fe 238.204 Radial†	581.1	607.4	5349.9 ug/L	5349.9 ppb	14:03:42
3	K 766.490 Radial†	28565.4	27178.2	5165.8 ug/L	5165.8 ppb	14:03:22
3	Mg 279.077 IEC†	161.6	170.0	5440.5 ug/L	5440.5 ppb	14:03:42
3	Na 589.592 Radial†	32713.1	36739.3	10424 ug/L	10424 ppb	14:03:22
3	Sr 421.552†	73662.7	78670.5	516.55 ug/L	516.55 ppb	14:03:22
3	Sc 361.383	919965.5	919965.5	97.999 %		14:04:45
3	Y 371.029	794183.7	794183.7	97.075 %		14:04:45
3	Ag 328.068†	119239.2	121208.6	504.64 ug/L	504.64 ppb	14:04:45
3	As 188.979†	1467.2	1532.0	508.07 ug/L	508.07 ppb	14:05:05
3	B 249.677†	24217.1	25107.7	487.96 ug/L	487.96 ppb	14:04:45
3	Ba 233.527†	72707.4	74172.1	505.48 ug/L	505.48 ppb	14:04:45
3	Be 313.107†	1564726.2	1601380.4	509.69 ug/L	509.69 ppb	14:04:45
3	Cd 226.502†	54842.4	56219.0	506.29 ug/L	506.29 ppb	14:04:45
3	Co 228.616†	27652.2	28311.1	498.11 ug/L	498.11 ppb	14:05:05
3	Cr 267.716†	52962.2	53910.0	507.34 ug/L	507.34 ppb	14:04:45
3	Cu 324.752†	180608.9	175813.8	501.62 ug/L	501.62 ppb	14:04:45
3	Mn 257.610†	502209.8	511828.7	508.23 ug/L	508.23 ppb	14:04:45
3	Mo 202.031†	8470.6	8618.1	507.77 ug/L	507.77 ppb	14:05:05
3	Ni 231.604†	23848.5	24196.6	500.59 ug/L	500.59 ppb	14:05:05
3	P 214.914†	5719.8	5565.4	2447.6 ug/L	2447.6 ppb	14:05:05
3	Pb 220.353†	4934.1	5119.4	509.69 ug/L	509.69 ppb	14:05:05
3	S 181.975 Axial†	951.4	909.1	997.58 ug/L	997.58 ppb	14:05:05
3	Sb 206.836†	1760.9	1751.6	509.07 ug/L	509.07 ppb	14:05:05
3	Se 196.026†	997.1	1050.1	517.02 ug/L	517.02 ppb	14:05:05
3	Si 251.611†	93210.9	94375.0	2498.4 ug/L	2498.4 ppb	14:04:45
3	Sn 189.927†	3485.6	3553.4	503.75 ug/L	503.75 ppb	14:05:05
3	Ti 334.940†	335446.5	344001.3	505.16 ug/L	505.16 ppb	14:04:45
3	Tl 190.801†	1839.6	1926.7	507.96 ug/L	507.96 ppb	14:05:05
3	U 409.014†	14377.0	17589.3	485.23 ug/L	485.23 ppb	14:04:45
3	V 292.402†	82300.3	85791.0	511.74 ug/L	511.74 ppb	14:04:45
3	Zn 213.857†	64095.3	64489.5	499.66 ug/L	499.66 ppb	14:04:45
3	SiO2†	93250.5	94396.7	5383.6 ug/L	5383.6 ppb	14:05:21

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	919625.1	97.963	%	0.4132				0.42%
Sc Radial	4774.5	96.5	%	2.66				2.75%
Y 371.029	793589.8	97.002	%	0.4721				0.49%
Y RADIAL	5084.3	95.84	%	2.964				3.09%
Ag 328.068†	121300.6	504.97	ug/L	3.012	504.97	ppb	3.012	0.60%

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   QC value within limits for Ag 328.068  Recovery = 100.99%
Al 396.153Radial†       6323.4      4927.7 ug/L        143.38      4927.7 ppb         143.38   2.91%
   QC value within limits for Al 396.153Radial  Recovery = 98.55%
As 188.979†             1533.8      508.62 ug/L         3.234      508.62 ppb          3.234   0.64%
   QC value within limits for As 188.979  Recovery = 101.72%
B 249.677†             25152.1      488.84 ug/L         3.091      488.84 ppb          3.091   0.63%
   QC value within limits for B 249.677  Recovery = 97.77%
Ba 233.527†            74300.0      506.35 ug/L         3.110      506.35 ppb          3.110   0.61%
   QC value within limits for Ba 233.527  Recovery = 101.27%
Be 313.107†          1601315.8      509.67 ug/L         1.813      509.67 ppb          1.813   0.36%
   QC value within limits for Be 313.107  Recovery = 101.93%
Ca 317.933Radial†       3229.4      5060.9 ug/L        126.26      5060.9 ppb        126.26   2.49%
   QC value within limits for Ca 317.933Radial  Recovery = 101.22%
Cd 226.502†            56255.1      506.63 ug/L         2.531      506.63 ppb          2.531   0.50%
   QC value within limits for Cd 226.502  Recovery = 101.33%
Co 228.616†            28404.4      499.76 ug/L         4.619      499.76 ppb          4.619   0.92%
   QC value within limits for Co 228.616  Recovery = 99.95%
Cr 267.716†            53945.4      507.67 ug/L         2.579      507.67 ppb          2.579   0.51%
   QC value within limits for Cr 267.716  Recovery = 101.53%
Cu 324.752†           176013.2      502.18 ug/L         2.965      502.18 ppb          2.965   0.59%
   QC value within limits for Cu 324.752  Recovery = 100.44%
Fe 238.204 Radial†       590.7      5203.2 ug/L        145.61      5203.2 ppb        145.61   2.80%
   QC value within limits for Fe 238.204 Radial  Recovery = 104.06%
K 766.490 Radial†      26241.8      4987.6 ug/L        158.11      4987.6 ppb        158.11   3.17%
   QC value within limits for K 766.490 Radial  Recovery = 99.75%
Mg 279.077 IEC†          165.6      5299.9 ug/L        159.07      5299.9 ppb        159.07   3.00%
   QC value within limits for Mg 279.077 IEC  Recovery = 106.00%
Mn 257.610†           512444.9      508.83 ug/L         2.678      508.83 ppb          2.678   0.53%
   QC value within limits for Mn 257.610  Recovery = 101.77%
Mo 202.031†            8653.1      509.82 ug/L         5.025      509.82 ppb          5.025   0.99%
   QC value within limits for Mo 202.031  Recovery = 101.96%
Na 589.592 Radial†     35603.6       10101 ug/L         284.7       10101 ppb          284.7   2.82%
   QC value within limits for Na 589.592 Radial  Recovery = 101.01%
Ni 231.604†            24268.3      502.08 ug/L         4.047      502.08 ppb          4.047   0.81%
   QC value within limits for Ni 231.604  Recovery = 100.42%
P 214.914†              5595.9      2461.4 ug/L        27.00      2461.4 ppb         27.00   1.10%
   QC value within limits for P 214.914  Recovery = 98.46%
Pb 220.353†             5136.1      511.32 ug/L         4.784      511.32 ppb          4.784   0.94%
   QC value within limits for Pb 220.353  Recovery = 102.26%
S 181.975 Axial†         916.8      1006.1 ug/L        14.59      1006.1 ppb         14.59   1.45%
   QC value within limits for S 181.975 Axial  Recovery = 100.61%
Sb 206.836†             1757.1      510.72 ug/L         7.182      510.72 ppb          7.182   1.41%
   QC value within limits for Sb 206.836  Recovery = 102.14%
Se 196.026†             1057.8      520.17 ug/L         8.409      520.17 ppb          8.409   1.62%
   QC value within limits for Se 196.026  Recovery = 104.03%
Si 251.611†            94449.8      2500.4 ug/L        16.02      2500.4 ppb         16.02   0.64%
   QC value within limits for Si 251.611  Recovery = 100.02%
Sn 189.927†             3563.3      505.13 ug/L         4.850      505.13 ppb          4.850   0.96%
   QC value within limits for Sn 189.927  Recovery = 101.03%
Sr 421.552†            76310.4      501.05 ug/L        13.741      501.05 ppb         13.741   2.74%
   QC value within limits for Sr 421.552  Recovery = 100.21%
Ti 334.940†           344312.6      505.61 ug/L         2.476      505.61 ppb          2.476   0.49%
   QC value within limits for Ti 334.940  Recovery = 101.12%
Tl 190.801†             1935.2      510.20 ug/L         6.050      510.20 ppb          6.050   1.19%
   QC value within limits for Tl 190.801  Recovery = 102.04%
U 409.014†             17549.5      484.14 ug/L         5.322      484.14 ppb          5.322   1.10%
   QC value within limits for U 409.014  Recovery = 96.83%
V 292.402†             85723.3      511.39 ug/L         1.961      511.39 ppb          1.961   0.38%
   QC value within limits for V 292.402  Recovery = 102.28%
Zn 213.857†            64615.8      500.65 ug/L         2.515      500.65 ppb          2.515   0.50%
   QC value within limits for Zn 213.857  Recovery = 100.13%
SiO2†                  94439.8      5386.2 ug/L        29.19      5386.2 ppb         29.19   0.54%
   QC value within limits for SiO2  Recovery = 100.72%
All analyte(s) passed QC.
```

Sequence No.: 2
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 12/29/2009 14:07:31
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4958.1	4958.1	100	%			14:09:23
1	Y RADIAL	5312.7	5312.7	100.1	%			14:09:23
1	Al 396.153Radial†	-25.4	-4.0	-3.1663	ug/L	-3.1663	ppb	14:09:23
1	Ca 317.933Radial†	21.4	-0.1	-0.0971	ug/L	-0.0971	ppb	14:09:43
1	Fe 238.204 Radial†	14.9	1.6	14.227	ug/L	14.227	ppb	14:09:43
1	K 766.490 Radial†	3380.7	38.9	7.4090	ug/L	7.4090	ppb	14:09:23
1	Mg 279.077 IEC†	3.3	0.6	19.311	ug/L	19.311	ppb	14:09:43
1	Na 589.592 Radial†	-1844.6	-42.5	-12.057	ug/L	-12.057	ppb	14:09:23
1	Sr 421.552†	16.6	5.5	0.0361	ug/L	0.0361	ppb	14:09:23
1	Sc 361.383	935193.0	935193.0	99.621	%			14:10:40
1	Y 371.029	816468.3	816468.3	99.799	%			14:10:40
1	Ag 328.068†	507.0	43.3	0.1852	ug/L	0.1852	ppb	14:10:45
1	As 188.979†	-39.2	-4.5	-1.4702	ug/L	-1.4702	ppb	14:11:05
1	B 249.677†	-491.4	-97.2	-1.8976	ug/L	-1.8976	ppb	14:10:45
1	Ba 233.527†	15.7	-4.3	-0.0277	ug/L	-0.0277	ppb	14:11:05
1	Be 313.107†	-4502.5	181.8	0.0577	ug/L	0.0577	ppb	14:10:45
1	Cd 226.502†	-255.5	0.2	0.0003	ug/L	0.0003	ppb	14:11:05
1	Co 228.616†	-104.4	-10.6	-0.1847	ug/L	-0.1847	ppb	14:11:05
1	Cr 267.716†	180.9	47.9	0.4508	ug/L	0.4508	ppb	14:10:45
1	Cu 324.752†	8001.7	-451.1	-1.2855	ug/L	-1.2855	ppb	14:10:45
1	Mn 257.610†	615.1	-19.2	-0.0180	ug/L	-0.0180	ppb	14:10:45
1	Mo 202.031†	34.2	8.9	0.5225	ug/L	0.5225	ppb	14:11:05
1	Ni 231.604†	131.2	-7.2	-0.1498	ug/L	-0.1498	ppb	14:11:05
1	P 214.914†	259.5	-10.7	-4.6359	ug/L	-4.6359	ppb	14:11:05
1	Pb 220.353†	-85.6	-1.3	-0.1269	ug/L	-0.1269	ppb	14:11:05
1	S 181.975 Axial†	62.2	0.7	0.8204	ug/L	0.8204	ppb	14:11:05
1	Sb 206.836†	64.9	19.9	5.6989	ug/L	5.6989	ppb	14:11:05
1	Se 196.026†	-42.3	-9.8	-4.6035	ug/L	-4.6035	ppb	14:11:05
1	Si 251.611†	745.6	9.1	0.2290	ug/L	0.2290	ppb	14:11:05
1	Sn 189.927†	4.3	0.9	0.1292	ug/L	0.1292	ppb	14:11:05
1	Ti 334.940†	-1727.7	-29.4	-0.0438	ug/L	-0.0438	ppb	14:10:45
1	Tl 190.801†	-53.1	-3.8	-1.0028	ug/L	-1.0028	ppb	14:11:05
1	U 409.014†	-2879.1	28.6	0.7882	ug/L	0.7882	ppb	14:10:40
1	V 292.402†	-1716.3	87.2	0.5206	ug/L	0.5206	ppb	14:10:45
1	Zn 213.857†	917.8	6.7	0.0531	ug/L	0.0531	ppb	14:11:05
1	SiO2†	781.4	26.4	1.4850	ug/L	1.4850	ppb	14:12:11
2	Sc Radial	4941.9	4941.9	99.9	%			14:09:48
2	Y RADIAL	5278.5	5278.5	99.50	%			14:09:48
2	Al 396.153Radial†	-8.1	13.2	10.306	ug/L	10.306	ppb	14:09:48
2	Ca 317.933Radial†	19.7	-1.7	-2.6562	ug/L	-2.6562	ppb	14:10:08
2	Fe 238.204 Radial†	13.1	-0.2	-1.3381	ug/L	-1.3381	ppb	14:10:08
2	K 766.490 Radial†	3433.1	102.3	19.491	ug/L	19.491	ppb	14:09:48
2	Mg 279.077 IEC†	4.6	1.9	59.211	ug/L	59.211	ppb	14:10:08
2	Na 589.592 Radial†	-1899.8	-103.8	-29.445	ug/L	-29.445	ppb	14:09:48
2	Sr 421.552†	-16.4	-27.5	-0.1803	ug/L	-0.1803	ppb	14:09:48
2	Sc 361.383	915209.5	915209.5	97.492	%			14:11:10
2	Y 371.029	799534.1	799534.1	97.729	%			14:11:10
2	Ag 328.068†	567.5	116.4	0.4792	ug/L	0.4792	ppb	14:11:15
2	As 188.979†	-34.7	-0.8	-0.2493	ug/L	-0.2493	ppb	14:11:36
2	B 249.677†	-518.1	-135.4	-2.6421	ug/L	-2.6421	ppb	14:11:15
2	Ba 233.527†	2.6	-17.5	-0.1197	ug/L	-0.1197	ppb	14:11:36
2	Be 313.107†	-4503.1	82.4	0.0259	ug/L	0.0259	ppb	14:11:15
2	Cd 226.502†	-260.0	-10.0	-0.0899	ug/L	-0.0899	ppb	14:11:36
2	Co 228.616†	-82.2	9.9	0.1747	ug/L	0.1747	ppb	14:11:36
2	Cr 267.716†	135.7	5.5	0.0503	ug/L	0.0503	ppb	14:11:15
2	Cu 324.752†	8135.1	-138.9	-0.3961	ug/L	-0.3961	ppb	14:11:15
2	Mn 257.610†	635.5	15.3	0.0139	ug/L	0.0139	ppb	14:11:15
2	Mo 202.031†	29.8	5.1	0.2996	ug/L	0.2996	ppb	14:11:36
2	Ni 231.604†	142.6	7.4	0.1525	ug/L	0.1525	ppb	14:11:36

2	P 214.914†	281.6	17.7	8.0954	ug/L	8.0954 ppb	14:11:36
2	Pb 220.353†	-105.5	-23.6	-2.3413	ug/L	-2.3413 ppb	14:11:36
2	S 181.975 Axial†	67.5	7.6	8.3254	ug/L	8.3254 ppb	14:11:36
2	Sb 206.836†	53.7	9.9	2.8550	ug/L	2.8550 ppb	14:11:36
2	Se 196.026†	-29.2	2.7	1.2945	ug/L	1.2945 ppb	14:11:36
2	Si 251.611†	721.3	0.5	-0.0029	ug/L	-0.0029 ppb	14:11:36
2	Sn 189.927†	11.6	8.5	1.1982	ug/L	1.1982 ppb	14:11:36
2	Ti 334.940†	-1741.2	-81.2	-0.1196	ug/L	-0.1196 ppb	14:11:15
2	Tl 190.801†	-46.8	1.4	0.3687	ug/L	0.3687 ppb	14:11:36
2	U 409.014†	-2834.6	11.2	0.3100	ug/L	0.3100 ppb	14:11:10
2	V 292.402†	-1840.6	-77.9	-0.4520	ug/L	-0.4520 ppb	14:11:15
2	Zn 213.857†	904.4	13.0	0.0992	ug/L	0.0992 ppb	14:11:36
2	SiO2†	791.8	54.1	3.0681	ug/L	3.0681 ppb	14:12:16
3	Sc Radial	4720.7	4720.7	95.5	%		14:10:13
3	Y RADIAL	5037.5	5037.5	94.96	%		14:10:13
3	Al 396.153Radial†	6.3	27.9	21.835	ug/L	21.835 ppb	14:10:13
3	Ca 317.933Radial†	20.4	-0.1	-0.1967	ug/L	-0.1967 ppb	14:10:33
3	Fe 238.204 Radial†	10.8	-2.0	-17.354	ug/L	-17.354 ppb	14:10:33
3	K 766.490 Radial†	3289.1	112.5	21.430	ug/L	21.430 ppb	14:10:13
3	Mg 279.077 IEC†	-1.7	-4.5	-142.32	ug/L	-142.32 ppb	14:10:33
3	Na 589.592 Radial†	-1783.4	-71.0	-20.141	ug/L	-20.141 ppb	14:10:13
3	Sr 421.552†	44.7	35.8	0.2352	ug/L	0.2352 ppb	14:10:13
3	Sc 361.383	925513.7	925513.7	98.590	%		14:11:41
3	Y 371.029	809017.7	809017.7	98.888	%		14:11:41
3	Ag 328.068†	446.2	-13.0	-0.0595	ug/L	-0.0595 ppb	14:11:46
3	As 188.979†	-42.1	-7.9	-2.6017	ug/L	-2.6017 ppb	14:12:06
3	B 249.677†	-558.6	-170.5	-3.3249	ug/L	-3.3249 ppb	14:11:46
3	Ba 233.527†	22.0	2.3	0.0142	ug/L	0.0142 ppb	14:12:06
3	Be 313.107†	-4409.8	228.4	0.0722	ug/L	0.0722 ppb	14:11:46
3	Cd 226.502†	-263.4	-10.5	-0.0933	ug/L	-0.0933 ppb	14:12:06
3	Co 228.616†	-89.0	3.9	0.0714	ug/L	0.0714 ppb	14:12:06
3	Cr 267.716†	84.4	-48.2	-0.4530	ug/L	-0.4530 ppb	14:11:46
3	Cu 324.752†	8047.7	-320.4	-0.9144	ug/L	-0.9144 ppb	14:11:46
3	Mn 257.610†	604.5	-23.4	-0.0223	ug/L	-0.0223 ppb	14:11:46
3	Mo 202.031†	33.6	8.7	0.5080	ug/L	0.5080 ppb	14:12:06
3	Ni 231.604†	139.3	2.4	0.0499	ug/L	0.0499 ppb	14:12:06
3	P 214.914†	265.5	-1.9	-0.6708	ug/L	-0.6708 ppb	14:12:06
3	Pb 220.353†	-70.7	12.9	1.2889	ug/L	1.2889 ppb	14:12:06
3	S 181.975 Axial†	59.8	-1.0	-1.0944	ug/L	-1.0944 ppb	14:12:06
3	Sb 206.836†	50.6	6.0	1.7690	ug/L	1.7690 ppb	14:12:06
3	Se 196.026†	-43.0	-11.0	-5.2458	ug/L	-5.2458 ppb	14:12:06
3	Si 251.611†	731.1	2.1	0.0376	ug/L	0.0376 ppb	14:12:06
3	Sn 189.927†	10.4	7.2	1.0122	ug/L	1.0122 ppb	14:12:06
3	Ti 334.940†	-1793.9	-114.7	-0.1677	ug/L	-0.1677 ppb	14:11:46
3	Tl 190.801†	-47.0	1.8	0.4619	ug/L	0.4619 ppb	14:12:06
3	U 409.014†	-2930.1	-53.3	-1.4722	ug/L	-1.4722 ppb	14:11:41
3	V 292.402†	-1836.9	-53.1	-0.3082	ug/L	-0.3082 ppb	14:11:46
3	Zn 213.857†	933.3	32.0	0.2566	ug/L	0.2566 ppb	14:12:06
3	SiO2†	725.6	-22.0	-1.3057	ug/L	-1.3057 ppb	14:12:21

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	925305.4	98.568	%	1.0645				1.08%
Sc Radial	4873.5	98.5	%	2.68				2.72%
Y 371.029	808340.0	98.805	%	1.0374				1.05%
Y RADIAL	5209.6	98.20	%	2.828				2.88%
Ag 328.068†	48.9	0.2016	ug/L	0.26973	0.2016	ppb	0.26973	133.78%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	12.4	9.6582	ug/L	12.51305	9.6582	ppb	12.51305	129.56%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-4.4	-1.4404	ug/L	1.17647	-1.4404	ppb	1.17647	81.68%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-134.4	-2.6215	ug/L	0.71385	-2.6215	ppb	0.71385	27.23%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-6.5	-0.0444	ug/L	0.06853	-0.0444	ppb	0.06853	154.35%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	164.2	0.0519	ug/L	0.02366	0.0519	ppb	0.02366	45.56%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-0.6	-0.9833	ug/L	1.44959	-0.9833	ppb	1.44959	147.41%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              -6.8     -0.0609 ug/L      0.05305     -0.0609 ppb       0.05305  87.05%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†               1.1      0.0205 ug/L      0.18505      0.0205 ppb       0.18505 904.59%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†               1.7      0.0160 ug/L      0.45290      0.0160 ppb       0.45290 >999.9%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -303.4     -0.8653 ug/L      0.44674     -0.8653 ppb       0.44674  51.63%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       -0.2     -1.4884 ug/L     15.79102     -1.4884 ppb      15.79102 >999.9%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        84.5      16.110 ug/L      7.5972      16.110 ppb        7.5972  47.16%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          -0.7     -21.267 ug/L    106.7200     -21.267 ppb     106.7200 501.80%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              -9.1     -0.0088 ug/L      0.01979     -0.0088 ppb       0.01979 224.97%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               7.5      0.4434 ug/L      0.12474      0.4434 ppb       0.12474  28.14%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      -72.4     -20.547 ug/L      8.7012     -20.547 ppb       8.7012  42.35%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               0.8      0.0175 ug/L      0.15374      0.0175 ppb       0.15374 877.54%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                1.7      0.9295 ug/L      6.51479      0.9295 ppb       6.51479 700.85%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -4.0     -0.3931 ug/L      1.82966     -0.3931 ppb       1.82966 465.44%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          2.4      2.6838 ug/L      4.97869      2.6838 ppb       4.97869 185.51%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              11.9      3.4410 ug/L      2.02940      3.4410 ppb       2.02940  58.98%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              -6.0     -2.8516 ug/L      3.60495     -2.8516 ppb       3.60495 126.42%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†               3.9      0.0879 ug/L      0.12385      0.0879 ppb       0.12385 140.92%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               5.5      0.7799 ug/L      0.57110      0.7799 ppb       0.57110  73.23%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               4.6      0.0303 ug/L      0.20782      0.0303 ppb       0.20782 684.78%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             -75.1     -0.1104 ug/L      0.06251     -0.1104 ppb       0.06251  56.63%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -0.2     -0.0574 ug/L      0.82005     -0.0574 ppb       0.82005 >999.9%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -4.5     -0.1247 ug/L      1.19129     -0.1247 ppb       1.19129 955.69%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              -14.6     -0.0799 ug/L      0.52498     -0.0799 ppb       0.52498 657.35%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              17.2      0.1363 ug/L      0.10667      0.1363 ppb       0.10667  78.27%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                    19.5      1.0825 ug/L      2.21453      1.0825 ppb       2.21453 204.58%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 3
Sample ID: 1201999340|934493|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 19
Date Collected: 12/29/2009 14:14:32
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1201999340|934493|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4778.6	4778.6	96.6	%			14:16:24
1	Y RADIAL	5091.9	5091.9	95.99	%			14:16:24
1	Al 396.153Radial†	5.5	27.0	21.095	ug/L	21.095	ppb	14:16:24
1	Ca 317.933Radial†	25.4	4.8	7.5039	ug/L	7.5039	ppb	14:16:44
1	Fe 238.204 Radial†	20.2	7.7	67.372	ug/L	67.372	ppb	14:16:44
1	K 766.490 Radial†	3305.1	87.2	16.600	ug/L	16.600	ppb	14:16:24
1	Mg 279.077 IEC†	3.3	0.7	23.724	ug/L	23.724	ppb	14:16:44
1	Na 589.592 Radial†	-1710.5	27.1	7.6973	ug/L	7.6973	ppb	14:16:24
1	Sr 421.552†	-24.4	-36.3	-0.2385	ug/L	-0.2385	ppb	14:16:24
1	Sc 361.383	874238.3	874238.3	93.128	%			14:17:41
1	Y 371.029	785851.8	785851.8	96.056	%			14:17:41
1	Ag 328.068†	373.6	-64.4	-0.2347	ug/L	-0.2347	ppb	14:17:41
1	As 188.979†	-36.3	-4.1	-1.3367	ug/L	-1.3367	ppb	14:18:01
1	B 249.677†	-569.1	-215.0	-4.2051	ug/L	-4.2051	ppb	14:17:41
1	Ba 233.527†	5.1	-14.6	-0.0976	ug/L	-0.0976	ppb	14:18:01
1	Be 313.107†	-4550.6	-185.0	-0.0587	ug/L	-0.0587	ppb	14:17:41
1	Cd 226.502†	-258.0	-20.4	-0.1905	ug/L	-0.1905	ppb	14:18:01
1	Co 228.616†	-84.7	3.3	0.0591	ug/L	0.0591	ppb	14:18:01
1	Cr 267.716†	134.9	11.2	0.1096	ug/L	0.1096	ppb	14:17:41
1	Cu 324.752†	8088.8	202.5	0.5810	ug/L	0.5810	ppb	14:17:41
1	Mn 257.610†	845.9	271.8	0.2759	ug/L	0.2759	ppb	14:17:41
1	Mo 202.031†	33.7	10.7	0.6388	ug/L	0.6388	ppb	14:18:01
1	Ni 231.604†	139.3	10.7	0.2205	ug/L	0.2205	ppb	14:18:01
1	P 214.914†	273.3	22.3	9.9810	ug/L	9.9810	ppb	14:18:01
1	Pb 220.353†	-85.9	-7.6	-0.7548	ug/L	-0.7548	ppb	14:18:01
1	S 181.975 Axial†	73.7	17.4	19.128	ug/L	19.128	ppb	14:18:01
1	Sb 206.836†	40.0	-2.3	-0.6162	ug/L	-0.6162	ppb	14:18:01
1	Se 196.026†	-27.7	2.9	1.6124	ug/L	1.6124	ppb	14:18:01
1	Si 251.611†	1338.2	697.5	18.534	ug/L	18.534	ppb	14:18:01
1	Sn 189.927†	12.3	9.8	1.3918	ug/L	1.3918	ppb	14:18:01
1	Ti 334.940†	-1579.0	9.2	0.0188	ug/L	0.0188	ppb	14:17:41
1	Tl 190.801†	-43.0	3.3	0.8654	ug/L	0.8654	ppb	14:18:01
1	U 409.014†	-3089.0	-398.3	-11.032	ug/L	-11.032	ppb	14:17:41
1	V 292.402†	-1689.8	-4.4	-0.0482	ug/L	-0.0482	ppb	14:17:41
1	Zn 213.857†	1042.7	205.0	1.5951	ug/L	1.5951	ppb	14:18:01
1	SiO2†	1403.9	749.5	42.910	ug/L	42.910	ppb	14:18:58
2	Sc Radial	4836.5	4836.5	97.8	%			14:16:49
2	Y RADIAL	5198.2	5198.2	97.99	%			14:16:49
2	Al 396.153Radial†	-9.7	11.4	8.9049	ug/L	8.9049	ppb	14:16:49
2	Ca 317.933Radial†	24.4	3.5	5.5522	ug/L	5.5522	ppb	14:17:10
2	Fe 238.204 Radial†	18.6	5.7	50.038	ug/L	50.038	ppb	14:17:10
2	K 766.490 Radial†	3123.3	-139.6	-26.585	ug/L	-26.585	ppb	14:16:49
2	Mg 279.077 IEC†	4.3	1.7	55.277	ug/L	55.277	ppb	14:17:10
2	Na 589.592 Radial†	-1732.3	26.1	7.4040	ug/L	7.4040	ppb	14:16:49
2	Sr 421.552†	-41.0	-52.9	-0.3474	ug/L	-0.3474	ppb	14:16:49
2	Sc 361.383	872842.2	872842.2	92.979	%			14:18:07
2	Y 371.029	784731.6	784731.6	95.919	%			14:18:07
2	Ag 328.068†	505.2	77.8	0.3439	ug/L	0.3439	ppb	14:18:07
2	As 188.979†	-28.2	4.5	1.4815	ug/L	1.4815	ppb	14:18:27
2	B 249.677†	-549.4	-194.8	-3.8070	ug/L	-3.8070	ppb	14:18:07
2	Ba 233.527†	19.9	1.3	0.0092	ug/L	0.0092	ppb	14:18:27
2	Be 313.107†	-4493.0	-130.9	-0.0418	ug/L	-0.0418	ppb	14:18:07
2	Cd 226.502†	-260.9	-23.9	-0.2207	ug/L	-0.2207	ppb	14:18:27
2	Co 228.616†	-90.3	-2.9	-0.0499	ug/L	-0.0499	ppb	14:18:27
2	Cr 267.716†	165.1	43.8	0.4148	ug/L	0.4148	ppb	14:18:07
2	Cu 324.752†	8080.7	207.7	0.5948	ug/L	0.5948	ppb	14:18:07
2	Mn 257.610†	891.7	322.4	0.3239	ug/L	0.3239	ppb	14:18:07
2	Mo 202.031†	29.6	6.3	0.3783	ug/L	0.3783	ppb	14:18:27
2	Ni 231.604†	103.8	-27.3	-0.5641	ug/L	-0.5641	ppb	14:18:27

2	P 214.914†	264.2	13.0	5.7920	ug/L	5.7920 ppb	14:18:27
2	Pb 220.353†	-81.6	-3.1	-0.3143	ug/L	-0.3143 ppb	14:18:27
2	S 181.975 Axial†	69.3	12.8	14.082	ug/L	14.082 ppb	14:18:27
2	Sb 206.836†	57.5	16.6	4.7725	ug/L	4.7725 ppb	14:18:27
2	Se 196.026†	-38.5	-8.7	-3.9795	ug/L	-3.9795 ppb	14:18:27
2	Si 251.611†	1341.3	703.2	18.704	ug/L	18.704 ppb	14:18:27
2	Sn 189.927†	13.9	11.5	1.6336	ug/L	1.6336 ppb	14:18:27
2	Ti 334.940†	-1641.4	-60.6	-0.0851	ug/L	-0.0851 ppb	14:18:07
2	Tl 190.801†	-46.3	-0.4	-0.1003	ug/L	-0.1003 ppb	14:18:27
2	U 409.014†	-2994.6	-302.1	-8.3682	ug/L	-8.3682 ppb	14:18:07
2	V 292.402†	-1744.0	-65.7	-0.4039	ug/L	-0.4039 ppb	14:18:07
2	Zn 213.857†	1040.0	203.8	1.5913	ug/L	1.5913 ppb	14:18:27
2	SiO2†	1426.9	776.6	44.502	ug/L	44.502 ppb	14:19:03
3	Sc Radial	4789.8	4789.8	96.9	%		14:17:15
3	Y RADIAL	5108.7	5108.7	96.30	%		14:17:15
3	Al 396.153Radial†	20.1	42.1	32.879	ug/L	32.879 ppb	14:17:15
3	Ca 317.933Radial†	24.9	4.3	6.7249	ug/L	6.7249 ppb	14:17:35
3	Fe 238.204 Radial†	19.3	6.6	58.029	ug/L	58.029 ppb	14:17:35
3	K 766.490 Radial†	3162.6	-67.9	-12.929	ug/L	-12.929 ppb	14:17:15
3	Mg 279.077 IEC†	3.6	1.0	31.572	ug/L	31.572 ppb	14:17:35
3	Na 589.592 Radial†	-1712.5	29.3	8.3029	ug/L	8.3029 ppb	14:17:15
3	Sr 421.552†	28.5	18.4	0.1206	ug/L	0.1206 ppb	14:17:15
3	Sc 361.383	869247.7	869247.7	92.596	%		14:18:32
3	Y 371.029	781758.6	781758.6	95.556	%		14:18:32
3	Ag 328.068†	459.0	30.1	0.1461	ug/L	0.1461 ppb	14:18:32
3	As 188.979†	-39.4	-7.7	-2.5126	ug/L	-2.5126 ppb	14:18:52
3	B 249.677†	-637.8	-292.7	-5.7185	ug/L	-5.7185 ppb	14:18:32
3	Ba 233.527†	12.5	-6.6	-0.0442	ug/L	-0.0442 ppb	14:18:52
3	Be 313.107†	-4463.3	-118.8	-0.0378	ug/L	-0.0378 ppb	14:18:32
3	Cd 226.502†	-251.7	-15.2	-0.1424	ug/L	-0.1424 ppb	14:18:52
3	Co 228.616†	-90.9	-3.9	-0.0677	ug/L	-0.0677 ppb	14:18:52
3	Cr 267.716†	146.1	24.0	0.2276	ug/L	0.2276 ppb	14:18:32
3	Cu 324.752†	7976.2	130.8	0.3759	ug/L	0.3759 ppb	14:18:32
3	Mn 257.610†	816.7	245.5	0.2487	ug/L	0.2487 ppb	14:18:32
3	Mo 202.031†	36.6	14.1	0.8360	ug/L	0.8360 ppb	14:18:52
3	Ni 231.604†	143.2	15.7	0.3256	ug/L	0.3256 ppb	14:18:52
3	P 214.914†	277.8	28.9	12.991	ug/L	12.991 ppb	14:18:52
3	Pb 220.353†	-98.4	-21.6	-2.1432	ug/L	-2.1432 ppb	14:18:52
3	S 181.975 Axial†	75.2	19.5	21.451	ug/L	21.451 ppb	14:18:52
3	Sb 206.836†	45.8	4.2	1.2169	ug/L	1.2169 ppb	14:18:52
3	Se 196.026†	-34.4	-4.5	-1.9270	ug/L	-1.9270 ppb	14:18:52
3	Si 251.611†	1342.7	710.7	18.896	ug/L	18.896 ppb	14:18:52
3	Sn 189.927†	2.3	-0.9	-0.1294	ug/L	-0.1294 ppb	14:18:52
3	Ti 334.940†	-1585.4	-7.4	-0.0084	ug/L	-0.0084 ppb	14:18:32
3	Tl 190.801†	-55.9	-11.0	-2.8653	ug/L	-2.8653 ppb	14:18:52
3	U 409.014†	-2863.3	-173.6	-4.8124	ug/L	-4.8124 ppb	14:18:32
3	V 292.402†	-1749.8	-79.6	-0.4744	ug/L	-0.4744 ppb	14:18:32
3	Zn 213.857†	1040.6	209.1	1.6271	ug/L	1.6271 ppb	14:18:52
3	SiO2†	1370.6	722.1	41.366	ug/L	41.366 ppb	14:19:08

Mean Data: 1201999340|934493|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	872109.4	92.901	%	0.2743				0.30%
Sc Radial	4801.7	97.1	%	0.62				0.64%
Y 371.029	784114.0	95.844	%	0.2586				0.27%
Y RADIAL	5133.0	96.76	%	1.077				1.11%
Ag 328.068†	14.5	0.0851	ug/L	0.29407	0.0851	ppb	0.29407	345.59%
Al 396.153Radial†	26.8	20.960	ug/L	11.9877	20.960	ppb	11.9877	57.19%
As 188.979†	-2.4	-0.7893	ug/L	2.05254	-0.7893	ppb	2.05254	260.05%
B 249.677†	-234.2	-4.5769	ug/L	1.00856	-4.5769	ppb	1.00856	22.04%
Ba 233.527†	-6.6	-0.0442	ug/L	0.05337	-0.0442	ppb	0.05337	120.72%
Be 313.107†	-144.9	-0.0461	ug/L	0.01114	-0.0461	ppb	0.01114	24.16%
Ca 317.933Radial†	4.2	6.5937	ug/L	0.98249	6.5937	ppb	0.98249	14.90%
Cd 226.502†	-19.8	-0.1845	ug/L	0.03948	-0.1845	ppb	0.03948	21.40%
Co 228.616†	-1.1	-0.0195	ug/L	0.06862	-0.0195	ppb	0.06862	352.28%
Cr 267.716†	26.3	0.2507	ug/L	0.15392	0.2507	ppb	0.15392	61.40%
Cu 324.752†	180.3	0.5172	ug/L	0.12261	0.5172	ppb	0.12261	23.71%
Fe 238.204 Radial†	6.7	58.480	ug/L	8.6756	58.480	ppb	8.6756	14.84%
K 766.490 Radial†	-40.1	-7.6382	ug/L	22.07328	-7.6382	ppb	22.07328	288.98%

Mg 279.077 IEC†	1.2	36.858	ug/L	16.4275	36.858	ppb	16.4275 44.57%
Mn 257.610†	279.9	0.2828	ug/L	0.03804	0.2828	ppb	0.03804 13.45%
Mo 202.031†	10.4	0.6177	ug/L	0.22957	0.6177	ppb	0.22957 37.17%
Na 589.592 Radial†	27.5	7.8014	ug/L	0.45842	7.8014	ppb	0.45842 5.88%
Ni 231.604†	-0.3	-0.0060	ug/L	0.48621	-0.0060	ppb	0.48621 >999.9%
P 214.914†	21.4	9.5879	ug/L	3.61543	9.5879	ppb	3.61543 37.71%
Pb 220.353†	-10.8	-1.0707	ug/L	0.95452	-1.0707	ppb	0.95452 89.15%
S 181.975 Axial†	16.6	18.220	ug/L	3.7672	18.220	ppb	3.7672 20.68%
Sb 206.836†	6.2	1.7911	ug/L	2.73985	1.7911	ppb	2.73985 152.97%
Se 196.026†	-3.4	-1.4314	ug/L	2.82870	-1.4314	ppb	2.82870 197.62%
Si 251.611†	703.8	18.711	ug/L	0.1808	18.711	ppb	0.1808 0.97%
Sn 189.927†	6.8	0.9653	ug/L	0.95575	0.9653	ppb	0.95575 99.01%
Sr 421.552†	-23.6	-0.1551	ug/L	0.24493	-0.1551	ppb	0.24493 157.93%
Ti 334.940†	-19.6	-0.0249	ug/L	0.05389	-0.0249	ppb	0.05389 216.29%
Tl 190.801†	-2.7	-0.7001	ug/L	1.93632	-0.7001	ppb	1.93632 276.59%
U 409.014†	-291.3	-8.0710	ug/L	3.12064	-8.0710	ppb	3.12064 38.66%
V 292.402†	-49.9	-0.3088	ug/L	0.22842	-0.3088	ppb	0.22842 73.96%
Zn 213.857†	206.0	1.6045	ug/L	0.01968	1.6045	ppb	0.01968 1.23%
SiO2†	749.4	42.926	ug/L	1.5682	42.926	ppb	1.5682 3.65%

Sequence No.: 4
Sample ID: 1201999345|934493|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 20
Date Collected: 12/29/2009 14:21:18
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1201999345|934493|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4954.5	4954.5	100	%			14:23:31
1	Y RADIAL	5830.1	5830.1	109.9	%			14:23:31
1	Al 396.153Radial†	120455.3	120260.7	94110	ug/L	94110	ppb	14:23:11
1	Ca 317.933Radial†	68253.9	68110.1	106740	ug/L	106740	ppb	14:23:11
1	Fe 238.204 Radial†	22462.3	22408.8	196820	ug/L	196820	ppb	14:23:11
1	K 766.490 Radial†	232264.0	228514.3	43443	ug/L	43443	ppb	14:23:11
1	Mg 279.077 IEC†	1280.3	1275.3	40623	ug/L	40623	ppb	14:23:31
1	Na 589.592 Radial†	37883.1	39612.6	11239	ug/L	11239	ppb	14:23:11
1	Sr 421.552†	372239.2	371561.0	2438.9	ug/L	2438.9	ppb	14:23:11
1	Sc 361.383	926674.0	926674.0	98.713	%			14:24:32
1	Y 371.029	882916.7	882916.7	107.92	%			14:24:32
1	Ag 328.068†	63062.8	63419.1	331.74	ug/L	331.74	ppb	14:24:32
1	As 188.979†	3208.1	3284.7	1160.5	ug/L	1160.5	ppb	14:24:37
1	B 249.677†	77225.6	78628.2	1505.8	ug/L	1505.8	ppb	14:24:32
1	Ba 233.527†	287354.9	291080.1	1986.6	ug/L	1986.6	ppb	14:24:32
1	Be 313.107†	2502312.3	2539627.8	818.52	ug/L	818.52	ppb	14:24:32
1	Cd 226.502†	67586.5	68724.1	600.37	ug/L	600.37	ppb	14:24:37
1	Co 228.616†	53603.4	54396.2	942.40	ug/L	942.40	ppb	14:24:37
1	Cr 267.716†	257583.3	260806.8	2456.3	ug/L	2456.3	ppb	14:24:32
1	Cu 324.752†	675434.5	675754.7	1937.0	ug/L	1937.0	ppb	14:24:32
1	Mn 257.610†	5517079.1	5588349.9	5563.2	ug/L	5563.2	ppb	14:24:32
1	Mo 202.031†	8683.1	8770.8	535.11	ug/L	535.11	ppb	14:24:37
1	Ni 231.604†	65050.9	65759.8	1360.7	ug/L	1360.7	ppb	14:24:32
1	P 214.914†	19365.4	19346.6	8351.8	ug/L	8351.8	ppb	14:24:37
1	Pb 220.353†	8360.6	8554.2	853.77	ug/L	853.77	ppb	14:24:37
1	S 181.975 Axial†	3601.2	3586.4	3920.9	ug/L	3920.9	ppb	14:24:37
1	Sb 206.836†	4852.7	4870.7	1352.6	ug/L	1352.6	ppb	14:24:37
1	Se 196.026†	5432.9	5536.4	3254.4	ug/L	3254.4	ppb	14:24:37
1	Si 251.611†	1222787.0	1237984.9	32905	ug/L	32905	ppb	14:24:32
1	Sn 189.927†	7536.2	7631.1	1094.3	ug/L	1094.3	ppb	14:24:37
1	Ti 334.940†	4022370.0	4076500.7	5992.5	ug/L	5992.5	ppb	14:24:32
1	Tl 190.801†	4606.8	4716.3	1308.6	ug/L	1308.6	ppb	14:24:37
1	U 409.014†	-10367.8	-7584.3	-239.43	ug/L	-239.43	ppb	14:24:32
1	V 292.402†	212950.4	217536.0	1250.9	ug/L	1250.9	ppb	14:24:32
1	Zn 213.857†	764079.9	773123.9	6018.6	ug/L	6018.6	ppb	14:24:32
1	SiO2†	1218889.6	1234018.1	70665	ug/L	70665	ppb	14:25:13
2	Sc Radial	4912.9	4912.9	99.3	%			14:23:56
2	Y RADIAL	5779.7	5779.7	109.0	%			14:23:56
2	Al 396.153Radial†	119304.9	120121.6	94002	ug/L	94002	ppb	14:23:36
2	Ca 317.933Radial†	67642.0	68071.5	106680	ug/L	106680	ppb	14:23:36
2	Fe 238.204 Radial†	22257.6	22392.7	196680	ug/L	196680	ppb	14:23:36
2	K 766.490 Radial†	230157.0	228358.0	43413	ug/L	43413	ppb	14:23:36
2	Mg 279.077 IEC†	1259.9	1265.6	40313	ug/L	40313	ppb	14:23:56
2	Na 589.592 Radial†	37285.3	39331.3	11159	ug/L	11159	ppb	14:23:36
2	Sr 421.552†	368156.4	370599.8	2432.6	ug/L	2432.6	ppb	14:23:36
2	Sc 361.383	933274.0	933274.0	99.416	%			14:24:47
2	Y 371.029	887992.2	887992.2	108.54	%			14:24:47
2	Ag 328.068†	63423.2	63329.9	331.32	ug/L	331.32	ppb	14:24:47
2	As 188.979†	3133.8	3187.0	1128.4	ug/L	1128.4	ppb	14:24:52
2	B 249.677†	77944.8	78798.4	1509.1	ug/L	1509.1	ppb	14:24:47
2	Ba 233.527†	289864.3	291545.5	1989.7	ug/L	1989.7	ppb	14:24:47
2	Be 313.107†	2518217.8	2537699.8	817.90	ug/L	817.90	ppb	14:24:47
2	Cd 226.502†	66871.0	67520.1	589.53	ug/L	589.53	ppb	14:24:52
2	Co 228.616†	53128.6	53534.7	927.22	ug/L	927.22	ppb	14:24:52
2	Cr 267.716†	259645.2	261035.5	2458.4	ug/L	2458.4	ppb	14:24:47
2	Cu 324.752†	680169.4	675678.4	1936.8	ug/L	1936.8	ppb	14:24:47
2	Mn 257.610†	5562088.1	5594098.1	5568.9	ug/L	5568.9	ppb	14:24:47
2	Mo 202.031†	8569.6	8594.5	524.72	ug/L	524.72	ppb	14:24:52
2	Ni 231.604†	65559.0	65804.9	1361.7	ug/L	1361.7	ppb	14:24:47

2	P 214.914†	19097.2	18938.1	8166.2	ug/L	8166.2 ppb	14:24:52
2	Pb 220.353†	8283.5	8416.7	840.09	ug/L	840.09 ppb	14:24:52
2	S 181.975 Axial†	3602.1	3561.5	3893.6	ug/L	3893.6 ppb	14:24:52
2	Sb 206.836†	4771.4	4754.2	1318.4	ug/L	1318.4 ppb	14:24:52
2	Se 196.026†	5379.2	5443.4	3209.8	ug/L	3209.8 ppb	14:24:52
2	Si 251.611†	1231927.5	1238418.9	32917	ug/L	32917 ppb	14:24:47
2	Sn 189.927†	7363.6	7403.4	1062.0	ug/L	1062.0 ppb	14:24:52
2	Ti 334.940†	4050652.4	4076132.4	5992.0	ug/L	5992.0 ppb	14:24:47
2	Tl 190.801†	4616.0	4692.5	1302.5	ug/L	1302.5 ppb	14:24:52
2	U 409.014†	-10484.1	-7627.0	-240.60	ug/L	-240.60 ppb	14:24:47
2	V 292.402†	214327.1	217395.2	1249.9	ug/L	1249.9 ppb	14:24:47
2	Zn 213.857†	769931.5	773535.9	6021.8	ug/L	6021.8 ppb	14:24:47
2	SiO2†	1222274.8	1228690.9	70360	ug/L	70360 ppb	14:25:19
3	Sc Radial	4927.5	4927.5	99.6	%		14:24:21
3	Y RADIAL	5819.5	5819.5	109.7	%		14:24:21
3	Al 396.153Radial†	119876.0	120337.4	94170	ug/L	94170 ppb	14:24:01
3	Ca 317.933Radial†	68073.2	68301.7	107040	ug/L	107040 ppb	14:24:01
3	Fe 238.204 Radial†	22326.9	22395.6	196700	ug/L	196700 ppb	14:24:01
3	K 766.490 Radial†	231309.1	228825.0	43502	ug/L	43502 ppb	14:24:01
3	Mg 279.077 IEC†	1266.5	1268.4	40403	ug/L	40403 ppb	14:24:21
3	Na 589.592 Radial†	37368.7	39303.3	11151	ug/L	11151 ppb	14:24:01
3	Sr 421.552†	369679.7	371025.9	2435.4	ug/L	2435.4 ppb	14:24:01
3	Sc 361.383	925867.0	925867.0	98.627	%		14:25:01
3	Y 371.029	880646.3	880646.3	107.64	%		14:25:01
3	Ag 328.068†	63055.5	63467.4	331.90	ug/L	331.90 ppb	14:25:01
3	As 188.979†	3199.9	3279.3	1158.7	ug/L	1158.7 ppb	14:25:06
3	B 249.677†	77187.2	78657.5	1506.3	ug/L	1506.3 ppb	14:25:01
3	Ba 233.527†	287809.6	291794.8	1991.4	ug/L	1991.4 ppb	14:25:01
3	Be 313.107†	2498121.7	2537588.2	817.88	ug/L	817.88 ppb	14:25:01
3	Cd 226.502†	67756.4	68956.0	602.47	ug/L	602.47 ppb	14:25:06
3	Co 228.616†	53751.4	54593.6	945.86	ug/L	945.86 ppb	14:25:06
3	Cr 267.716†	257701.5	261154.0	2459.5	ug/L	2459.5 ppb	14:25:01
3	Cu 324.752†	673895.7	674790.7	1934.3	ug/L	1934.3 ppb	14:25:01
3	Mn 257.610†	5520444.7	5596633.4	5571.5	ug/L	5571.5 ppb	14:25:01
3	Mo 202.031†	8687.3	8782.8	535.81	ug/L	535.81 ppb	14:25:06
3	Ni 231.604†	65013.4	65779.2	1361.1	ug/L	1361.1 ppb	14:25:01
3	P 214.914†	19400.8	19399.6	8376.3	ug/L	8376.3 ppb	14:25:06
3	Pb 220.353†	8418.8	8620.6	860.39	ug/L	860.39 ppb	14:25:06
3	S 181.975 Axial†	3604.9	3593.4	3928.5	ug/L	3928.5 ppb	14:25:06
3	Sb 206.836†	4845.1	4867.3	1351.5	ug/L	1351.5 ppb	14:25:06
3	Se 196.026†	5419.7	5527.8	3250.0	ug/L	3250.0 ppb	14:25:06
3	Si 251.611†	1222631.1	1238906.4	32930	ug/L	32930 ppb	14:25:01
3	Sn 189.927†	7518.5	7619.7	1092.7	ug/L	1092.7 ppb	14:25:06
3	Ti 334.940†	4021678.0	4079350.4	5996.7	ug/L	5996.7 ppb	14:25:01
3	Tl 190.801†	4625.7	4739.5	1314.8	ug/L	1314.8 ppb	14:25:06
3	U 409.014†	-10380.5	-7606.3	-240.03	ug/L	-240.03 ppb	14:25:01
3	V 292.402†	212825.6	217597.4	1251.3	ug/L	1251.3 ppb	14:25:01
3	Zn 213.857†	764216.1	773936.6	6024.9	ug/L	6024.9 ppb	14:25:01
3	SiO2†	1220762.0	1236992.7	70835	ug/L	70835 ppb	14:25:24

Mean Data: 1201999345|934493|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	928605.0	98.919	%	0.4329				0.44%
Sc Radial	4931.6	99.7	%	0.43				0.43%
Y 371.029	883851.7	108.03	%	0.460				0.43%
Y RADIAL	5809.8	109.5	%	0.50				0.46%
Ag 328.068†	63405.5	331.66	ug/L	0.298	331.66	ppb	0.298	0.09%
Al 396.153Radial†	120239.9	94094	ug/L	85.4	94094	ppb	85.4	0.09%
As 188.979†	3250.3	1149.2	ug/L	18.07	1149.2	ppb	18.07	1.57%
B 249.677†	78694.7	1507.1	ug/L	1.81	1507.1	ppb	1.81	0.12%
Ba 233.527†	291473.5	1989.2	ug/L	2.46	1989.2	ppb	2.46	0.12%
Be 313.107†	2538305.3	818.10	ug/L	0.362	818.10	ppb	0.362	0.04%
Ca 317.933Radial†	68161.1	106820	ug/L	193.1	106820	ppb	193.1	0.18%
Cd 226.502†	68400.1	597.46	ug/L	6.940	597.46	ppb	6.940	1.16%
Co 228.616†	54174.8	938.49	ug/L	9.915	938.49	ppb	9.915	1.06%
Cr 267.716†	260998.8	2458.1	ug/L	1.66	2458.1	ppb	1.66	0.07%
Cu 324.752†	675407.9	1936.0	ug/L	1.53	1936.0	ppb	1.53	0.08%
Fe 238.204 Radial†	22399.0	196730	ug/L	75.5	196730	ppb	75.5	0.04%
K 766.490 Radial†	228565.8	43453	ug/L	45.2	43453	ppb	45.2	0.10%

Mg 279.077 IEC†	1269.8	40447	ug/L	159.4	40447	ppb	159.4	0.39%
Mn 257.610†	5593027.1	5567.9	ug/L	4.21	5567.9	ppb	4.21	0.08%
Mo 202.031†	8716.0	531.88	ug/L	6.210	531.88	ppb	6.210	1.17%
Na 589.592 Radial†	39415.8	11183	ug/L	48.5	11183	ppb	48.5	0.43%
Ni 231.604†	65781.3	1361.2	ug/L	0.47	1361.2	ppb	0.47	0.03%
P 214.914†	19228.1	8298.1	ug/L	114.88	8298.1	ppb	114.88	1.38%
Pb 220.353†	8530.5	851.41	ug/L	10.354	851.41	ppb	10.354	1.22%
S 181.975 Axial†	3580.4	3914.3	ug/L	18.37	3914.3	ppb	18.37	0.47%
Sb 206.836†	4830.7	1340.8	ug/L	19.45	1340.8	ppb	19.45	1.45%
Se 196.026†	5502.5	3238.1	ug/L	24.56	3238.1	ppb	24.56	0.76%
Si 251.611†	1238436.8	32917	ug/L	12.2	32917	ppb	12.2	0.04%
Sn 189.927†	7551.4	1083.0	ug/L	18.18	1083.0	ppb	18.18	1.68%
Sr 421.552†	371062.2	2435.6	ug/L	3.16	2435.6	ppb	3.16	0.13%
Ti 334.940†	4077327.9	5993.8	ug/L	2.60	5993.8	ppb	2.60	0.04%
Tl 190.801†	4716.1	1308.6	ug/L	6.14	1308.6	ppb	6.14	0.47%
U 409.014†	-7605.9	-240.02	ug/L	0.584	-240.02	ppb	0.584	0.24%
V 292.402†	217509.5	1250.7	ug/L	0.69	1250.7	ppb	0.69	0.06%
Zn 213.857†	773532.1	6021.8	ug/L	3.18	6021.8	ppb	3.18	0.05%
SiO2†	1233233.9	70620	ug/L	240.7	70620	ppb	240.7	0.34%

Sequence No.: 5
Sample ID: 243042001|934493|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 21
Date Collected: 12/29/2009 14:27:35
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 243042001|934493|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4904.2	4904.2	99.2	%			14:29:48
1	Y RADIAL	5765.0	5765.0	108.7	%			14:29:48
1	Al 396.153Radial†	139003.7	140199.4	109740	ug/L	109740	ppb	14:29:28
1	Ca 317.933Radial†	13485.2	13577.7	21278	ug/L	21278	ppb	14:29:28
1	Fe 238.204 Radial†	15709.5	15829.0	139010	ug/L	139010	ppb	14:29:28
1	K 766.490 Radial†	75652.0	72957.8	13863	ug/L	13863	ppb	14:29:28
1	Mg 279.077 IEC†	706.2	709.5	22569	ug/L	22569	ppb	14:29:48
1	Na 589.592 Radial†	2578.6	4397.8	1247.7	ug/L	1247.7	ppb	14:29:28
1	Sr 421.552†	43510.6	43867.2	287.86	ug/L	287.86	ppb	14:29:28
1	Sc 361.383	940436.2	940436.2	100.18	%			14:30:47
1	Y 371.029	902093.8	902093.8	110.26	%			14:30:47
1	Ag 328.068†	-10152.2	-10599.6	3.5848	ug/L	3.5848	ppb	14:30:52
1	As 188.979†	-54.5	-19.6	52.151	ug/L	52.151	ppb	14:31:12
1	B 249.677†	1838.1	2230.9	24.921	ug/L	24.921	ppb	14:30:52
1	Ba 233.527†	260310.2	259823.9	1770.4	ug/L	1770.4	ppb	14:30:52
1	Be 313.107†	-10562.3	-5842.1	6.8164	ug/L	6.8164	ppb	14:30:52
1	Cd 226.502†	1344.4	1598.6	0.5839	ug/L	0.5839	ppb	14:31:12
1	Co 228.616†	3710.7	3798.3	56.142	ug/L	56.142	ppb	14:31:12
1	Cr 267.716†	20995.2	20823.9	198.70	ug/L	198.70	ppb	14:31:12
1	Cu 324.752†	67585.7	58981.4	175.28	ug/L	175.28	ppb	14:30:52
1	Mn 257.610†	3559524.7	3552512.9	3538.0	ug/L	3538.0	ppb	14:30:47
1	Mo 202.031†	-42.1	-67.5	9.3501	ug/L	9.3501	ppb	14:31:12
1	Ni 231.604†	6049.9	5900.2	122.10	ug/L	122.10	ppb	14:31:12
1	P 214.914†	3085.6	2808.9	1171.7	ug/L	1171.7	ppb	14:31:12
1	Pb 220.353†	1903.8	1985.0	210.10	ug/L	210.10	ppb	14:31:12
1	S 181.975 Axial†	587.6	524.9	554.99	ug/L	554.99	ppb	14:31:12
1	Sb 206.836†	109.1	63.7	1.0431	ug/L	1.0431	ppb	14:31:12
1	Se 196.026†	-887.0	-852.8	46.075	ug/L	46.075	ppb	14:31:12
1	Si 251.611†	1283477.0	1280438.8	34057	ug/L	34057	ppb	14:30:47
1	Sn 189.927†	-68.2	-71.5	-5.9913	ug/L	-5.9913	ppb	14:31:12
1	Ti 334.940†	3007475.1	3003793.5	4413.2	ug/L	4413.2	ppb	14:30:47
1	Tl 190.801†	-264.5	-214.6	0.3473	ug/L	0.3473	ppb	14:31:12
1	U 409.014†	-10411.7	-7474.4	-224.76	ug/L	-224.76	ppb	14:30:52
1	V 292.402†	46016.7	47744.3	255.01	ug/L	255.01	ppb	14:30:52
1	Zn 213.857†	78717.1	77661.4	597.88	ug/L	597.88	ppb	14:30:52
1	SiO2†	1259373.6	1256360.0	71994	ug/L	71994	ppb	14:32:23
2	Sc Radial	4837.7	4837.7	97.8	%			14:30:13
2	Y RADIAL	5702.1	5702.1	107.5	%			14:30:13
2	Al 396.153Radial†	139139.9	142264.8	111360	ug/L	111360	ppb	14:29:53
2	Ca 317.933Radial†	13478.7	13757.9	21560	ug/L	21560	ppb	14:29:53
2	Fe 238.204 Radial†	15718.3	16055.6	141000	ug/L	141000	ppb	14:29:53
2	K 766.490 Radial†	75766.4	74123.0	14085	ug/L	14085	ppb	14:29:53
2	Mg 279.077 IEC†	710.7	723.9	23027	ug/L	23027	ppb	14:30:13
2	Na 589.592 Radial†	2623.9	4479.9	1271.0	ug/L	1271.0	ppb	14:29:53
2	Sr 421.552†	43472.1	44430.8	291.56	ug/L	291.56	ppb	14:29:53
2	Sc 361.383	939363.2	939363.2	100.07	%			14:31:19
2	Y 371.029	901647.2	901647.2	110.21	%			14:31:19
2	Ag 328.068†	-9996.1	-10455.2	4.8305	ug/L	4.8305	ppb	14:31:24
2	As 188.979†	-56.0	-21.2	51.909	ug/L	51.909	ppb	14:31:44
2	B 249.677†	1880.8	2275.7	25.531	ug/L	25.531	ppb	14:31:24
2	Ba 233.527†	256252.6	256065.7	1744.9	ug/L	1744.9	ppb	14:31:24
2	Be 313.107†	-10467.2	-5759.0	6.8378	ug/L	6.8378	ppb	14:31:24
2	Cd 226.502†	1357.2	1613.0	0.5144	ug/L	0.5144	ppb	14:31:44
2	Co 228.616†	3740.8	3832.6	56.710	ug/L	56.710	ppb	14:31:44
2	Cr 267.716†	21214.0	21066.4	201.01	ug/L	201.01	ppb	14:31:44
2	Cu 324.752†	66422.8	57896.4	172.29	ug/L	172.29	ppb	14:31:24
2	Mn 257.610†	3551371.9	3548424.1	3534.1	ug/L	3534.1	ppb	14:31:19
2	Mo 202.031†	-47.8	-73.2	9.2038	ug/L	9.2038	ppb	14:31:44
2	Ni 231.604†	6064.0	5921.2	122.54	ug/L	122.54	ppb	14:31:44

2	P 214.914†	3136.8	2863.5	1195.8 ug/L	1195.8 ppb	14:31:44
2	Pb 220.353†	1897.3	1980.6	209.86 ug/L	209.86 ppb	14:31:44
2	S 181.975 Axial†	592.2	530.2	560.43 ug/L	560.43 ppb	14:31:44
2	Sb 206.836†	101.6	56.3	-1.1938 ug/L	-1.1938 ppb	14:31:44
2	Se 196.026†	-902.3	-869.0	44.837 ug/L	44.837 ppb	14:31:44
2	Si 251.611†	1281971.8	1280398.1	34056 ug/L	34056 ppb	14:31:19
2	Sn 189.927†	-89.6	-93.0	-8.9805 ug/L	-8.9805 ppb	14:31:44
2	Ti 334.940†	3002324.7	3002075.5	4410.7 ug/L	4410.7 ppb	14:31:19
2	Tl 190.801†	-256.4	-206.7	2.4062 ug/L	2.4062 ppb	14:31:44
2	U 409.014†	-10493.5	-7568.0	-227.61 ug/L	-227.61 ppb	14:31:24
2	V 292.402†	45334.4	47115.0	251.00 ug/L	251.00 ppb	14:31:24
2	Zn 213.857†	77493.6	76528.5	588.91 ug/L	588.91 ppb	14:31:24
2	SiO2†	1274136.9	1272549.7	72922 ug/L	72922 ppb	14:32:28
3	Sc Radial	4841.8	4841.8	97.9 %		14:30:38
3	Y RADIAL	5726.7	5726.7	108.0 %		14:30:38
3	Al 396.153Radial†	138778.1	141776.7	110970 ug/L	110970 ppb	14:30:18
3	Ca 317.933Radial†	13466.6	13734.0	21523 ug/L	21523 ppb	14:30:18
3	Fe 238.204 Radial†	15673.7	15996.7	140480 ug/L	140480 ppb	14:30:18
3	K 766.490 Radial†	75535.0	73822.2	14028 ug/L	14028 ppb	14:30:18
3	Mg 279.077 IEC†	707.5	720.0	22903 ug/L	22903 ppb	14:30:38
3	Na 589.592 Radial†	2608.4	4461.8	1265.9 ug/L	1265.9 ppb	14:30:18
3	Sr 421.552†	43512.0	44434.4	291.58 ug/L	291.58 ppb	14:30:18
3	Sc 361.383	929115.7	929115.7	98.974 %		14:31:51
3	Y 371.029	890729.5	890729.5	108.88 %		14:31:51
3	Ag 328.068†	-10067.6	-10637.6	3.9165 ug/L	3.9165 ppb	14:31:56
3	As 188.979†	-69.9	-35.8	47.115 ug/L	47.115 ppb	14:32:16
3	B 249.677†	1792.0	2206.7	24.253 ug/L	24.253 ppb	14:31:56
3	Ba 233.527†	256797.6	259440.8	1767.8 ug/L	1767.8 ppb	14:31:56
3	Be 313.107†	-10297.7	-5703.2	6.8817 ug/L	6.8817 ppb	14:31:56
3	Cd 226.502†	1327.3	1597.7	0.4290 ug/L	0.4290 ppb	14:32:16
3	Co 228.616†	3698.2	3830.8	56.668 ug/L	56.668 ppb	14:32:16
3	Cr 267.716†	20873.3	20956.1	199.97 ug/L	199.97 ppb	14:32:16
3	Cu 324.752†	66320.4	58525.0	174.06 ug/L	174.06 ppb	14:31:56
3	Mn 257.610†	3530995.0	3566979.6	3552.5 ug/L	3552.5 ppb	14:31:51
3	Mo 202.031†	-40.7	-66.6	9.5456 ug/L	9.5456 ppb	14:32:16
3	Ni 231.604†	6040.6	5964.3	123.43 ug/L	123.43 ppb	14:32:16
3	P 214.914†	3066.5	2827.2	1179.3 ug/L	1179.3 ppb	14:32:16
3	Pb 220.353†	1914.6	2019.0	213.63 ug/L	213.63 ppb	14:32:16
3	S 181.975 Axial†	572.3	516.6	545.61 ug/L	545.61 ppb	14:32:16
3	Sb 206.836†	112.8	68.7	2.3429 ug/L	2.3429 ppb	14:32:16
3	Se 196.026†	-897.6	-874.3	40.683 ug/L	40.683 ppb	14:32:16
3	Si 251.611†	1270626.5	1283065.2	34127 ug/L	34127 ppb	14:31:51
3	Sn 189.927†	-98.5	-102.9	-10.395 ug/L	-10.395 ppb	14:32:16
3	Ti 334.940†	2978550.7	3011147.2	4424.1 ug/L	4424.1 ppb	14:31:51
3	Tl 190.801†	-256.6	-209.8	1.7848 ug/L	1.7848 ppb	14:32:16
3	U 409.014†	-10275.9	-7463.8	-224.65 ug/L	-224.65 ppb	14:31:56
3	V 292.402†	45489.6	47771.4	254.94 ug/L	254.94 ppb	14:31:56
3	Zn 213.857†	77599.4	77489.5	596.45 ug/L	596.45 ppb	14:31:56
3	SiO2†	1259179.9	1271481.3	72861 ug/L	72861 ppb	14:32:34

Mean Data: 243042001|934493|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	936305.0	99.739	%	0.6657				0.67%
Sc Radial	4861.2	98.3	%	0.75				0.77%
Y 371.029	898156.8	109.78	%	0.787				0.72%
Y RADIAL	5731.3	108.0	%	0.60				0.55%
Ag 328.068†	-10564.2	4.1106	ug/L	0.64513	4.1106	ppb	0.64513	15.69%
Al 396.153Radial†	141413.6	110690	ug/L	845.0	110690	ppb	845.0	0.76%
As 188.979†	-25.5	50.391	ug/L	2.8400	50.391	ppb	2.8400	5.64%
B 249.677†	2237.7	24.902	ug/L	0.6391	24.902	ppb	0.6391	2.57%
Ba 233.527†	258443.5	1761.0	ug/L	14.04	1761.0	ppb	14.04	0.80%
Be 313.107†	-5768.1	6.8453	ug/L	0.03331	6.8453	ppb	0.03331	0.49%
Ca 317.933Radial†	13689.9	21454	ug/L	153.4	21454	ppb	153.4	0.71%
Cd 226.502†	1603.1	0.5091	ug/L	0.07760	0.5091	ppb	0.07760	15.24%
Co 228.616†	3820.5	56.507	ug/L	0.3164	56.507	ppb	0.3164	0.56%
Cr 267.716†	20948.8	199.89	ug/L	1.156	199.89	ppb	1.156	0.58%
Cu 324.752†	58467.6	173.88	ug/L	1.504	173.88	ppb	1.504	0.87%
Fe 238.204 Radial†	15960.4	140160	ug/L	1032.6	140160	ppb	1032.6	0.74%
K 766.490 Radial†	73634.3	13992	ug/L	115.3	13992	ppb	115.3	0.82%

Mg 279.077 IEC†	717.8	22833	ug/L	236.6	22833	ppb	236.6	1.04%
Mn 257.610†	3555972.2	3541.5	ug/L	9.68	3541.5	ppb	9.68	0.27%
Mo 202.031†	-69.1	9.3665	ug/L	0.17148	9.3665	ppb	0.17148	1.83%
Na 589.592 Radial†	4446.5	1261.5	ug/L	12.23	1261.5	ppb	12.23	0.97%
Ni 231.604†	5928.6	122.69	ug/L	0.677	122.69	ppb	0.677	0.55%
P 214.914†	2833.2	1182.3	ug/L	12.35	1182.3	ppb	12.35	1.04%
Pb 220.353†	1994.9	211.20	ug/L	2.110	211.20	ppb	2.110	1.00%
S 181.975 Axial†	523.9	553.67	ug/L	7.498	553.67	ppb	7.498	1.35%
Sb 206.836†	62.9	0.7307	ug/L	1.78895	0.7307	ppb	1.78895	244.81%
Se 196.026†	-865.4	43.865	ug/L	2.8243	43.865	ppb	2.8243	6.44%
Si 251.611†	1281300.7	34080	ug/L	40.6	34080	ppb	40.6	0.12%
Sn 189.927†	-89.1	-8.4556	ug/L	2.24832	-8.4556	ppb	2.24832	26.59%
Sr 421.552†	44244.1	290.33	ug/L	2.142	290.33	ppb	2.142	0.74%
Ti 334.940†	3005672.1	4416.0	ug/L	7.08	4416.0	ppb	7.08	0.16%
Tl 190.801†	-210.4	1.5128	ug/L	1.05610	1.5128	ppb	1.05610	69.81%
U 409.014†	-7502.1	-225.67	ug/L	1.675	-225.67	ppb	1.675	0.74%
V 292.402†	47543.6	253.65	ug/L	2.293	253.65	ppb	2.293	0.90%
Zn 213.857†	77226.5	594.41	ug/L	4.818	594.41	ppb	4.818	0.81%
SiO2†	1266797.0	72592	ug/L	518.9	72592	ppb	518.9	0.71%

Sequence No.: 6
Sample ID: 1201999341|934493|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 22
Date Collected: 12/29/2009 14:34:45
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1201999341|934493|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4954.1	4954.1	100	%			14:36:58
1	Y RADIAL	5841.8	5841.8	110.1	%			14:36:58
1	Al 396.153Radial†	139673.3	139456.4	109160	ug/L	109160	ppb	14:36:38
1	Ca 317.933Radial†	12968.6	12925.0	20255	ug/L	20255	ppb	14:36:58
1	Fe 238.204 Radial†	15749.1	15709.0	137960	ug/L	137960	ppb	14:36:38
1	K 766.490 Radial†	71451.2	67995.9	12916	ug/L	12916	ppb	14:36:38
1	Mg 279.077 IEC†	707.1	703.2	22367	ug/L	22367	ppb	14:36:58
1	Na 589.592 Radial†	2522.1	4315.2	1224.3	ug/L	1224.3	ppb	14:36:38
1	Sr 421.552†	43492.1	43406.9	284.85	ug/L	284.85	ppb	14:36:38
1	Sc 361.383	936278.6	936278.6	99.737	%			14:37:57
1	Y 371.029	895937.0	895937.0	109.51	%			14:37:57
1	Ag 328.068†	-9688.3	-10179.5	4.9632	ug/L	4.9632	ppb	14:38:02
1	As 188.979†	-59.9	-25.2	48.894	ug/L	48.894	ppb	14:38:22
1	B 249.677†	1436.0	1835.9	17.351	ug/L	17.351	ppb	14:38:02
1	Ba 233.527†	241319.5	241936.9	1648.7	ug/L	1648.7	ppb	14:38:02
1	Be 313.107†	-10154.9	-5480.4	6.6471	ug/L	6.6471	ppb	14:38:02
1	Cd 226.502†	1246.8	1506.7	-0.1500	ug/L	-0.1500	ppb	14:38:22
1	Co 228.616†	3775.8	3880.0	57.857	ug/L	57.857	ppb	14:38:22
1	Cr 267.716†	17211.7	17123.4	163.90	ug/L	163.90	ppb	14:38:22
1	Cu 324.752†	45026.9	36662.6	111.58	ug/L	111.58	ppb	14:38:02
1	Mn 257.610†	3746212.2	3755471.5	3739.3	ug/L	3739.3	ppb	14:37:57
1	Mo 202.031†	-67.6	-93.2	7.7366	ug/L	7.7366	ppb	14:38:22
1	Ni 231.604†	5169.6	5044.4	104.38	ug/L	104.38	ppb	14:38:22
1	P 214.914†	2893.8	2630.3	1101.4	ug/L	1101.4	ppb	14:38:22
1	Pb 220.353†	1358.5	1446.7	156.67	ug/L	156.67	ppb	14:38:22
1	S 181.975 Axial†	514.6	454.3	477.56	ug/L	477.56	ppb	14:38:22
1	Sb 206.836†	99.7	54.8	-0.4264	ug/L	-0.4264	ppb	14:38:22
1	Se 196.026†	-889.4	-859.1	39.718	ug/L	39.718	ppb	14:38:22
1	Si 251.611†	1154386.7	1156696.7	30765	ug/L	30765	ppb	14:37:57
1	Sn 189.927†	-115.1	-118.8	-12.819	ug/L	-12.819	ppb	14:38:22
1	Ti 334.940†	2896011.5	2905366.2	4268.6	ug/L	4268.6	ppb	14:37:57
1	Tl 190.801†	-276.3	-227.6	-3.0059	ug/L	-3.0059	ppb	14:38:22
1	U 409.014†	-10315.9	-7424.5	-223.18	ug/L	-223.18	ppb	14:38:02
1	V 292.402†	44911.7	46840.4	250.00	ug/L	250.00	ppb	14:38:02
1	Zn 213.857†	53411.9	52638.3	402.60	ug/L	402.60	ppb	14:38:02
1	SiO2†	1156541.6	1158838.6	66406	ug/L	66406	ppb	14:39:32
2	Sc Radial	4969.9	4969.9	100	%			14:37:23
2	Y RADIAL	5839.2	5839.2	110.1	%			14:37:23
2	Al 396.153Radial†	139549.3	138888.4	108710	ug/L	108710	ppb	14:37:03
2	Ca 317.933Radial†	12872.6	12788.3	20041	ug/L	20041	ppb	14:37:23
2	Fe 238.204 Radial†	15783.4	15693.0	137820	ug/L	137820	ppb	14:37:03
2	K 766.490 Radial†	71760.2	68075.9	12931	ug/L	12931	ppb	14:37:03
2	Mg 279.077 IEC†	699.6	693.5	22057	ug/L	22057	ppb	14:37:23
2	Na 589.592 Radial†	2548.9	4333.8	1229.6	ug/L	1229.6	ppb	14:37:03
2	Sr 421.552†	43541.6	43317.7	284.26	ug/L	284.26	ppb	14:37:03
2	Sc 361.383	925199.0	925199.0	98.556	%			14:38:29
2	Y 371.029	885352.4	885352.4	108.22	%			14:38:29
2	Ag 328.068†	-9729.0	-10337.1	4.2851	ug/L	4.2851	ppb	14:38:34
2	As 188.979†	-63.4	-29.4	47.572	ug/L	47.572	ppb	14:38:54
2	B 249.677†	1318.3	1733.7	15.370	ug/L	15.370	ppb	14:38:34
2	Ba 233.527†	241928.3	245452.1	1672.6	ug/L	1672.6	ppb	14:38:34
2	Be 313.107†	-10124.7	-5571.6	6.6382	ug/L	6.6382	ppb	14:38:34
2	Cd 226.502†	1273.0	1548.3	0.2396	ug/L	0.2396	ppb	14:38:54
2	Co 228.616†	3831.1	3981.5	59.632	ug/L	59.632	ppb	14:38:54
2	Cr 267.716†	17254.5	17373.5	166.26	ug/L	166.26	ppb	14:38:54
2	Cu 324.752†	45029.4	37205.8	113.13	ug/L	113.13	ppb	14:38:34
2	Mn 257.610†	3709574.0	3763277.4	3747.0	ug/L	3747.0	ppb	14:38:29
2	Mo 202.031†	-66.6	-93.0	7.7329	ug/L	7.7329	ppb	14:38:54
2	Ni 231.604†	5211.5	5149.0	106.55	ug/L	106.55	ppb	14:38:54

2	P 214.914†	2953.5	2725.6	1144.4	ug/L	1144.4	ppb	14:38:54
2	Pb 220.353†	1369.1	1473.8	159.27	ug/L	159.27	ppb	14:38:54
2	S 181.975 Axial†	517.3	463.2	487.43	ug/L	487.43	ppb	14:38:54
2	Sb 206.836†	100.9	57.2	0.1769	ug/L	0.1769	ppb	14:38:54
2	Se 196.026†	-877.6	-857.8	39.821	ug/L	39.821	ppb	14:38:54
2	Si 251.611†	1142659.4	1158658.4	30818	ug/L	30818	ppb	14:38:29
2	Sn 189.927†	-119.8	-124.9	-13.704	ug/L	-13.704	ppb	14:38:54
2	Ti 334.940†	2868594.5	2912320.1	4278.8	ug/L	4278.8	ppb	14:38:29
2	Tl 190.801†	-265.1	-219.6	-0.8106	ug/L	-0.8106	ppb	14:38:54
2	U 409.014†	-10411.6	-7645.5	-229.28	ug/L	-229.28	ppb	14:38:34
2	V 292.402†	44920.0	47388.1	253.21	ug/L	253.21	ppb	14:38:34
2	Zn 213.857†	53489.0	53357.8	408.23	ug/L	408.23	ppb	14:38:34
2	SiO2†	1153673.3	1169815.0	67035	ug/L	67035	ppb	14:39:38
3	Sc Radial	4917.1	4917.1	99.4	%			14:37:48
3	Y RADIAL	5804.2	5804.2	109.4	%			14:37:48
3	Al 396.153Radial†	136002.0	136813.7	107090	ug/L	107090	ppb	14:37:28
3	Ca 317.933Radial†	12912.4	12966.0	20320	ug/L	20320	ppb	14:37:48
3	Fe 238.204 Radial†	15377.6	15453.6	135710	ug/L	135710	ppb	14:37:28
3	K 766.490 Radial†	69794.1	66866.3	12700	ug/L	12700	ppb	14:37:28
3	Mg 279.077 IEC†	699.3	700.7	22290	ug/L	22290	ppb	14:37:48
3	Na 589.592 Radial†	2428.7	4240.2	1203.0	ug/L	1203.0	ppb	14:37:28
3	Sr 421.552†	42454.1	42689.8	280.14	ug/L	280.14	ppb	14:37:28
3	Sc 361.383	946295.0	946295.0	100.80	%			14:39:01
3	Y 371.029	904291.8	904291.8	110.53	%			14:39:01
3	Ag 328.068†	-9755.3	-10143.1	4.3608	ug/L	4.3608	ppb	14:39:06
3	As 188.979†	-79.8	-44.3	42.454	ug/L	42.454	ppb	14:39:26
3	B 249.677†	1428.0	1812.7	17.196	ug/L	17.196	ppb	14:39:06
3	Ba 233.527†	243294.7	241335.2	1644.6	ug/L	1644.6	ppb	14:39:06
3	Be 313.107†	-9914.7	-5134.3	6.7984	ug/L	6.7984	ppb	14:39:06
3	Cd 226.502†	1248.4	1495.1	-0.0307	ug/L	-0.0307	ppb	14:39:26
3	Co 228.616†	3803.4	3867.3	57.622	ug/L	57.622	ppb	14:39:26
3	Cr 267.716†	17189.9	16919.1	161.94	ug/L	161.94	ppb	14:39:26
3	Cu 324.752†	45384.4	36539.4	111.12	ug/L	111.12	ppb	14:39:06
3	Mn 257.610†	3805340.8	3774370.9	3757.8	ug/L	3757.8	ppb	14:39:01
3	Mo 202.031†	-59.9	-84.8	8.0146	ug/L	8.0146	ppb	14:39:26
3	Ni 231.604†	5204.9	5024.5	103.97	ug/L	103.97	ppb	14:39:26
3	P 214.914†	2950.5	2655.8	1114.2	ug/L	1114.2	ppb	14:39:26
3	Pb 220.353†	1333.3	1407.3	152.48	ug/L	152.48	ppb	14:39:26
3	S 181.975 Axial†	522.0	456.2	480.04	ug/L	480.04	ppb	14:39:26
3	Sb 206.836†	93.3	47.3	-2.5116	ug/L	-2.5116	ppb	14:39:26
3	Se 196.026†	-876.9	-837.2	42.777	ug/L	42.777	ppb	14:39:26
3	Si 251.611†	1173198.9	1163107.6	30936	ug/L	30936	ppb	14:39:01
3	Sn 189.927†	-101.0	-103.6	-10.678	ug/L	-10.678	ppb	14:39:26
3	Ti 334.940†	2941445.1	2919702.9	4289.7	ug/L	4289.7	ppb	14:39:01
3	Tl 190.801†	-275.4	-223.8	-1.7873	ug/L	-1.7873	ppb	14:39:26
3	U 409.014†	-10408.6	-7407.0	-222.41	ug/L	-222.41	ppb	14:39:06
3	V 292.402†	45303.5	46752.5	249.80	ug/L	249.80	ppb	14:39:06
3	Zn 213.857†	53770.1	52426.8	401.07	ug/L	401.07	ppb	14:39:06
3	SiO2†	1163995.9	1153959.3	66126	ug/L	66126	ppb	14:39:44

Mean Data: 1201999341|934493|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	935924.2	99.699	%	1.1241				1.13%
Sc Radial	4947.0	100	%	0.5				0.55%
Y 371.029	895193.7	109.42	%	1.160				1.06%
Y RADIAL	5828.4	109.9	%	0.40				0.36%
Ag 328.068†	-10219.9	4.5364	ug/L	0.37158	4.5364	ppb	0.37158	8.19%
Al 396.153Radial†	138386.1	108320	ug/L	1088.9	108320	ppb	1088.9	1.01%
As 188.979†	-33.0	46.307	ug/L	3.4017	46.307	ppb	3.4017	7.35%
B 249.677†	1794.1	16.639	ug/L	1.1017	16.639	ppb	1.1017	6.62%
Ba 233.527†	242908.0	1655.3	ug/L	15.14	1655.3	ppb	15.14	0.91%
Be 313.107†	-5395.4	6.6946	ug/L	0.09005	6.6946	ppb	0.09005	1.35%
Ca 317.933Radial†	12893.1	20205	ug/L	145.9	20205	ppb	145.9	0.72%
Cd 226.502†	1516.7	0.0196	ug/L	0.19958	0.0196	ppb	0.19958	>999.9%
Co 228.616†	3909.6	58.370	ug/L	1.0988	58.370	ppb	1.0988	1.88%
Cr 267.716†	17138.7	164.03	ug/L	2.161	164.03	ppb	2.161	1.32%
Cu 324.752†	36802.6	111.94	ug/L	1.051	111.94	ppb	1.051	0.94%
Fe 238.204 Radial†	15618.5	137160	ug/L	1256.0	137160	ppb	1256.0	0.92%
K 766.490 Radial†	67646.1	12849	ug/L	129.1	12849	ppb	129.1	1.00%

Mg 279.077 IEC†	699.1	22238	ug/L	161.6	22238	ppb	161.6	0.73%
Mn 257.610†	3764373.3	3748.0	ug/L	9.31	3748.0	ppb	9.31	0.25%
Mo 202.031†	-90.4	7.8280	ug/L	0.16158	7.8280	ppb	0.16158	2.06%
Na 589.592 Radial†	4296.4	1219.0	ug/L	14.06	1219.0	ppb	14.06	1.15%
Ni 231.604†	5072.6	104.97	ug/L	1.384	104.97	ppb	1.384	1.32%
P 214.914†	2670.6	1120.0	ug/L	22.04	1120.0	ppb	22.04	1.97%
Pb 220.353†	1442.6	156.14	ug/L	3.424	156.14	ppb	3.424	2.19%
S 181.975 Axial†	457.9	481.68	ug/L	5.131	481.68	ppb	5.131	1.07%
Sb 206.836†	53.1	-0.9203	ug/L	1.41067	-0.9203	ppb	1.41067	153.28%
Se 196.026†	-851.3	40.772	ug/L	1.7369	40.772	ppb	1.7369	4.26%
Si 251.611†	1159487.6	30840	ug/L	87.4	30840	ppb	87.4	0.28%
Sn 189.927†	-115.8	-12.400	ug/L	1.5559	-12.400	ppb	1.5559	12.55%
Sr 421.552†	43138.1	283.08	ug/L	2.567	283.08	ppb	2.567	0.91%
Ti 334.940†	2912463.1	4279.0	ug/L	10.53	4279.0	ppb	10.53	0.25%
Tl 190.801†	-223.6	-1.8679	ug/L	1.09990	-1.8679	ppb	1.09990	58.88%
U 409.014†	-7492.3	-224.96	ug/L	3.766	-224.96	ppb	3.766	1.67%
V 292.402†	46993.7	251.00	ug/L	1.914	251.00	ppb	1.914	0.76%
Zn 213.857†	52807.6	403.97	ug/L	3.768	403.97	ppb	3.768	0.93%
SiO2†	1160871.0	66522	ug/L	465.4	66522	ppb	465.4	0.70%

Sequence No.: 7
Sample ID: 1201999343|934493|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 23
Date Collected: 12/29/2009 14:41:55
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1201999343|934493|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4816.5	4816.5	97.4	%			14:44:09
1	Y RADIAL	5676.1	5676.1	107.0	%			14:44:09
1	Al 396.153Radial†	218196.5	224069.0	175370	ug/L	175370	ppb	14:43:49
1	Ca 317.933Radial†	16657.2	17082.4	26771	ug/L	26771	ppb	14:43:49
1	Fe 238.204 Radial†	17905.7	18372.6	161360	ug/L	161360	ppb	14:43:49
1	K 766.490 Radial†	118607.4	118454.6	22522	ug/L	22522	ppb	14:43:49
1	Mg 279.077 IEC†	1012.0	1036.4	33014	ug/L	33014	ppb	14:44:09
1	Na 589.592 Radial†	21002.3	23362.9	6628.5	ug/L	6628.5	ppb	14:43:49
1	Sr 421.552†	124577.7	127907.4	839.67	ug/L	839.67	ppb	14:43:49
1	Sc 361.383	926810.1	926810.1	98.728	%			14:45:10
1	Y 371.029	882288.4	882288.4	107.84	%			14:45:10
1	Ag 328.068†	111831.2	112806.5	523.02	ug/L	523.02	ppb	14:45:10
1	As 188.979†	1372.1	1424.6	541.98	ug/L	541.98	ppb	14:45:15
1	B 249.677†	25886.5	26616.1	496.56	ug/L	496.56	ppb	14:45:10
1	Ba 233.527†	346950.4	351400.7	2394.6	ug/L	2394.6	ppb	14:45:10
1	Be 313.107†	1590562.0	1615757.5	524.80	ug/L	524.80	ppb	14:45:10
1	Cd 226.502†	53802.9	54752.8	477.55	ug/L	477.55	ppb	14:45:15
1	Co 228.616†	30973.3	31466.6	540.62	ug/L	540.62	ppb	14:45:15
1	Cr 267.716†	71267.4	72052.0	681.16	ug/L	681.16	ppb	14:45:10
1	Cu 324.752†	231816.0	226319.7	653.60	ug/L	653.60	ppb	14:45:10
1	Mn 257.610†	4468567.3	4525507.5	4505.4	ug/L	4505.4	ppb	14:45:10
1	Mo 202.031†	7614.5	7687.2	467.93	ug/L	467.93	ppb	14:45:15
1	Ni 231.604†	28751.6	28983.2	599.65	ug/L	599.65	ppb	14:45:15
1	P 214.914†	4148.0	3930.3	1614.6	ug/L	1614.6	ppb	14:45:15
1	Pb 220.353†	6034.5	6196.9	641.78	ug/L	641.78	ppb	14:45:15
1	S 181.975 Axial†	5177.3	5182.3	5657.9	ug/L	5657.9	ppb	14:45:15
1	Sb 206.836†	1304.9	1276.4	351.07	ug/L	351.07	ppb	14:45:15
1	Se 196.026†	29.0	62.0	561.84	ug/L	561.84	ppb	14:45:15
1	Si 251.611†	1250150.9	1265519.5	33648	ug/L	33648	ppb	14:45:10
1	Sn 189.927†	3347.5	3387.2	484.65	ug/L	484.65	ppb	14:45:15
1	Ti 334.940†	3941072.9	3993557.8	5866.9	ug/L	5866.9	ppb	14:45:10
1	Tl 190.801†	1540.6	1609.9	493.19	ug/L	493.19	ppb	14:45:15
1	U 409.014†	7598.7	10615.3	272.23	ug/L	272.23	ppb	14:45:10
1	V 292.402†	131936.9	135447.0	773.79	ug/L	773.79	ppb	14:45:10
1	Zn 213.857†	122748.9	123415.8	950.27	ug/L	950.27	ppb	14:45:10
1	SiO2†	1268240.1	1283823.2	73541	ug/L	73541	ppb	14:45:50
2	Sc Radial	4898.6	4898.6	99.0	%			14:44:34
2	Y RADIAL	5788.5	5788.5	109.1	%			14:44:34
2	Al 396.153Radial†	218455.3	220574.2	172630	ug/L	172630	ppb	14:44:14
2	Ca 317.933Radial†	16781.5	16921.2	26518	ug/L	26518	ppb	14:44:14
2	Fe 238.204 Radial†	18009.9	18169.5	159580	ug/L	159580	ppb	14:44:14
2	K 766.490 Radial†	118722.3	116528.9	22155	ug/L	22155	ppb	14:44:14
2	Mg 279.077 IEC†	1022.6	1029.7	32799	ug/L	32799	ppb	14:44:34
2	Na 589.592 Radial†	21080.2	23080.1	6548.2	ug/L	6548.2	ppb	14:44:14
2	Sr 421.552†	125115.6	126306.0	829.15	ug/L	829.15	ppb	14:44:14
2	Sc 361.383	931358.7	931358.7	99.212	%			14:45:24
2	Y 371.029	887382.5	887382.5	108.47	%			14:45:24
2	Ag 328.068†	111973.9	112397.1	520.73	ug/L	520.73	ppb	14:45:24
2	As 188.979†	1423.1	1469.2	556.21	ug/L	556.21	ppb	14:45:29
2	B 249.677†	25834.6	26435.7	493.26	ug/L	493.26	ppb	14:45:24
2	Ba 233.527†	347276.8	350013.4	2385.2	ug/L	2385.2	ppb	14:45:24
2	Be 313.107†	1594624.4	1611983.9	523.57	ug/L	523.57	ppb	14:45:24
2	Cd 226.502†	54604.0	55294.1	482.60	ug/L	482.60	ppb	14:45:29
2	Co 228.616†	31380.5	31723.8	545.20	ug/L	545.20	ppb	14:45:29
2	Cr 267.716†	71443.7	71877.1	679.48	ug/L	679.48	ppb	14:45:24
2	Cu 324.752†	232853.2	226218.4	653.22	ug/L	653.22	ppb	14:45:24
2	Mn 257.610†	4473173.9	4508045.5	4487.9	ug/L	4487.9	ppb	14:45:24
2	Mo 202.031†	7703.2	7738.9	470.80	ug/L	470.80	ppb	14:45:29
2	Ni 231.604†	29052.6	29144.3	602.98	ug/L	602.98	ppb	14:45:29

2	P 214.914†	4254.3	4016.9	1654.6 ug/L	1654.6 ppb	14:45:29
2	Pb 220.353†	6157.3	6290.8	650.65 ug/L	650.65 ppb	14:45:29
2	S 181.975 Axial†	5254.9	5235.0	5716.3 ug/L	5716.3 ppb	14:45:29
2	Sb 206.836†	1297.7	1262.8	347.48 ug/L	347.48 ppb	14:45:29
2	Se 196.026†	43.9	76.9	562.91 ug/L	562.91 ppb	14:45:29
2	Si 251.611†	1252785.3	1261990.6	33554 ug/L	33554 ppb	14:45:24
2	Sn 189.927†	3417.3	3441.0	492.21 ug/L	492.21 ppb	14:45:29
2	Ti 334.940†	3949569.9	3982626.5	5850.9 ug/L	5850.9 ppb	14:45:24
2	Tl 190.801†	1544.8	1606.5	492.00 ug/L	492.00 ppb	14:45:29
2	U 409.014†	7478.4	10456.5	268.06 ug/L	268.06 ppb	14:45:24
2	V 292.402†	132226.4	135086.1	771.99 ug/L	771.99 ppb	14:45:24
2	Zn 213.857†	122868.4	122929.0	946.55 ug/L	946.55 ppb	14:45:24
2	SiO2†	1258360.6	1267591.5	72611 ug/L	72611 ppb	14:45:56
3	Sc Radial	4927.1	4927.1	99.6 %		14:44:59
3	Y RADIAL	5828.2	5828.2	109.9 %		14:44:59
3	Al 396.153Radial†	216921.0	217756.5	170430 ug/L	170430 ppb	14:44:39
3	Ca 317.933Radial†	16580.8	16621.6	26048 ug/L	26048 ppb	14:44:39
3	Fe 238.204 Radial†	17735.4	17788.7	156230 ug/L	156230 ppb	14:44:39
3	K 766.490 Radial†	117508.7	114616.4	21790 ug/L	21790 ppb	14:44:39
3	Mg 279.077 IEC†	1031.5	1032.6	32897 ug/L	32897 ppb	14:44:59
3	Na 589.592 Radial†	20800.8	22676.3	6433.7 ug/L	6433.7 ppb	14:44:39
3	Sr 421.552†	123996.1	124450.4	816.97 ug/L	816.97 ppb	14:44:39
3	Sc 361.383	925285.7	925285.7	98.566 %		14:45:39
3	Y 371.029	880929.1	880929.1	107.68 %		14:45:39
3	Ag 328.068†	111481.6	112638.4	520.62 ug/L	520.62 ppb	14:45:39
3	As 188.979†	1389.7	1444.8	547.74 ug/L	547.74 ppb	14:45:44
3	B 249.677†	25673.1	26442.8	493.84 ug/L	493.84 ppb	14:45:39
3	Ba 233.527†	346168.1	351185.9	2393.0 ug/L	2393.0 ppb	14:45:39
3	Be 313.107†	1586786.2	1614580.8	524.41 ug/L	524.41 ppb	14:45:39
3	Cd 226.502†	53949.3	54991.1	480.21 ug/L	480.21 ppb	14:45:44
3	Co 228.616†	31186.7	31734.8	545.43 ug/L	545.43 ppb	14:45:44
3	Cr 267.716†	71126.8	72028.2	680.84 ug/L	680.84 ppb	14:45:39
3	Cu 324.752†	230902.8	225780.1	651.80 ug/L	651.80 ppb	14:45:39
3	Mn 257.610†	4457266.3	4521498.5	4500.9 ug/L	4500.9 ppb	14:45:39
3	Mo 202.031†	7659.8	7745.8	470.89 ug/L	470.89 ppb	14:45:44
3	Ni 231.604†	28663.6	28941.9	598.79 ug/L	598.79 ppb	14:45:44
3	P 214.914†	4188.3	3978.1	1639.2 ug/L	1639.2 ppb	14:45:44
3	Pb 220.353†	6055.5	6228.2	644.22 ug/L	644.22 ppb	14:45:44
3	S 181.975 Axial†	5171.9	5185.5	5662.4 ug/L	5662.4 ppb	14:45:44
3	Sb 206.836†	1319.2	1293.2	356.19 ug/L	356.19 ppb	14:45:44
3	Se 196.026†	47.1	80.5	553.86 ug/L	553.86 ppb	14:45:44
3	Si 251.611†	1246878.6	1264285.6	33615 ug/L	33615 ppb	14:45:39
3	Sn 189.927†	3412.3	3458.5	494.59 ug/L	494.59 ppb	14:45:44
3	Ti 334.940†	3929801.6	3988698.7	5859.8 ug/L	5859.8 ppb	14:45:39
3	Tl 190.801†	1594.0	1666.7	507.83 ug/L	507.83 ppb	14:45:44
3	U 409.014†	7612.8	10642.2	273.62 ug/L	273.62 ppb	14:45:39
3	V 292.402†	131621.4	135347.1	774.04 ug/L	774.04 ppb	14:45:39
3	Zn 213.857†	122471.1	123338.8	949.95 ug/L	949.95 ppb	14:45:39
3	SiO2†	1245745.5	1263117.4	72355 ug/L	72355 ppb	14:46:02

Mean Data: 1201999343|934493|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	927818.2	98.835	%	0.3366				0.34%
Sc Radial	4880.7	98.7	%	1.16				1.18%
Y 371.029	883533.3	108.00	%	0.416				0.39%
Y RADIAL	5764.3	108.7	%	1.49				1.37%
Ag 328.068†	112614.0	521.46	ug/L	1.356	521.46	ppb	1.356	0.26%
Al 396.153Radial†	220799.9	172810	ug/L	2475.3	172810	ppb	2475.3	1.43%
As 188.979†	1446.2	548.65	ug/L	7.157	548.65	ppb	7.157	1.30%
B 249.677†	26498.2	494.55	ug/L	1.758	494.55	ppb	1.758	0.36%
Ba 233.527†	350866.7	2390.9	ug/L	5.08	2390.9	ppb	5.08	0.21%
Be 313.107†	1614107.4	524.26	ug/L	0.629	524.26	ppb	0.629	0.12%
Ca 317.933Radial†	16875.1	26446	ug/L	366.5	26446	ppb	366.5	1.39%
Cd 226.502†	55012.7	480.12	ug/L	2.530	480.12	ppb	2.530	0.53%
Co 228.616†	31641.7	543.75	ug/L	2.716	543.75	ppb	2.716	0.50%
Cr 267.716†	71985.8	680.50	ug/L	0.891	680.50	ppb	0.891	0.13%
Cu 324.752†	226106.1	652.87	ug/L	0.949	652.87	ppb	0.949	0.15%
Fe 238.204 Radial†	18110.2	159060	ug/L	2603.1	159060	ppb	2603.1	1.64%
K 766.490 Radial†	116533.3	22156	ug/L	365.7	22156	ppb	365.7	1.65%

Mg 279.077 IEC†	1032.9	32903	ug/L	107.5	32903	ppb	107.5	0.33%
Mn 257.610†	4518350.5	4498.0	ug/L	9.09	4498.0	ppb	9.09	0.20%
Mo 202.031†	7723.9	469.88	ug/L	1.683	469.88	ppb	1.683	0.36%
Na 589.592 Radial†	23039.8	6536.8	ug/L	97.90	6536.8	ppb	97.90	1.50%
Ni 231.604†	29023.1	600.47	ug/L	2.214	600.47	ppb	2.214	0.37%
P 214.914†	3975.1	1636.1	ug/L	20.14	1636.1	ppb	20.14	1.23%
Pb 220.353†	6238.6	645.55	ug/L	4.578	645.55	ppb	4.578	0.71%
S 181.975 Axial†	5200.9	5678.8	ug/L	32.49	5678.8	ppb	32.49	0.57%
Sb 206.836†	1277.5	351.58	ug/L	4.377	351.58	ppb	4.377	1.24%
Se 196.026†	73.1	559.54	ug/L	4.944	559.54	ppb	4.944	0.88%
Si 251.611†	1263931.9	33605	ug/L	47.6	33605	ppb	47.6	0.14%
Sn 189.927†	3428.9	490.48	ug/L	5.194	490.48	ppb	5.194	1.06%
Sr 421.552†	126221.3	828.60	ug/L	11.357	828.60	ppb	11.357	1.37%
Ti 334.940†	3988294.3	5859.2	ug/L	8.05	5859.2	ppb	8.05	0.14%
Tl 190.801†	1627.7	497.67	ug/L	8.814	497.67	ppb	8.814	1.77%
U 409.014†	10571.3	271.30	ug/L	2.894	271.30	ppb	2.894	1.07%
V 292.402†	135293.4	773.28	ug/L	1.120	773.28	ppb	1.120	0.14%
Zn 213.857†	123227.9	948.92	ug/L	2.063	948.92	ppb	2.063	0.22%
SiO2†	1271510.7	72836	ug/L	624.3	72836	ppb	624.3	0.86%

Sequence No.: 8
Sample ID: 1201999344|934493|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 24
Date Collected: 12/29/2009 14:48:13
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1201999344|934493|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4861.9	4861.9	98.3	%			14:50:26
1	Y RADIAL	5752.7	5752.7	108.4	%			14:50:26
1	Al 396.153Radial†	231417.5	235424.5	184260	ug/L	184260	ppb	14:50:06
1	Ca 317.933Radial†	18741.2	19042.5	29842	ug/L	29842	ppb	14:50:06
1	Fe 238.204 Radial†	18513.6	18819.2	165280	ug/L	165280	ppb	14:50:06
1	K 766.490 Radial†	123716.3	122513.7	23293	ug/L	23293	ppb	14:50:06
1	Mg 279.077 IEC†	1059.0	1074.6	34230	ug/L	34230	ppb	14:50:26
1	Na 589.592 Radial†	21219.9	23382.8	6634.1	ug/L	6634.1	ppb	14:50:06
1	Sr 421.552†	127144.7	129323.5	848.94	ug/L	848.94	ppb	14:50:06
1	Sc 361.383	923871.6	923871.6	98.415	%			14:51:27
1	Y 371.029	880279.1	880279.1	107.60	%			14:51:27
1	Ag 328.068†	112655.9	114004.8	529.33	ug/L	529.33	ppb	14:51:27
1	As 188.979†	1409.6	1467.1	559.01	ug/L	559.01	ppb	14:51:32
1	B 249.677†	26655.1	27480.5	512.89	ug/L	512.89	ppb	14:51:27
1	Ba 233.527†	364354.4	370202.8	2522.6	ug/L	2522.6	ppb	14:51:27
1	Be 313.107†	1610921.8	1641569.4	533.58	ug/L	533.58	ppb	14:51:27
1	Cd 226.502†	54694.7	55832.3	486.88	ug/L	486.88	ppb	14:51:32
1	Co 228.616†	31193.0	31789.7	545.70	ug/L	545.70	ppb	14:51:32
1	Cr 267.716†	70918.0	71926.5	680.09	ug/L	680.09	ppb	14:51:27
1	Cu 324.752†	242106.4	237522.7	685.75	ug/L	685.75	ppb	14:51:27
1	Mn 257.610†	4658406.4	4732800.3	4711.4	ug/L	4711.4	ppb	14:51:27
1	Mo 202.031†	7715.5	7814.3	475.79	ug/L	475.79	ppb	14:51:32
1	Ni 231.604†	28643.0	28965.4	599.28	ug/L	599.28	ppb	14:51:32
1	P 214.914†	4385.3	4184.7	1724.8	ug/L	1724.8	ppb	14:51:32
1	Pb 220.353†	6389.6	6577.2	681.19	ug/L	681.19	ppb	14:51:32
1	S 181.975 Axial†	5229.9	5252.4	5733.1	ug/L	5733.1	ppb	14:51:32
1	Sb 206.836†	1362.0	1338.7	368.27	ug/L	368.27	ppb	14:51:32
1	Se 196.026†	42.4	75.7	582.06	ug/L	582.06	ppb	14:51:32
1	Si 251.611†	1261480.7	1281059.3	34061	ug/L	34061	ppb	14:51:27
1	Sn 189.927†	3373.2	3424.1	490.24	ug/L	490.24	ppb	14:51:32
1	Ti 334.940†	4125680.3	4193835.2	6161.3	ug/L	6161.3	ppb	14:51:27
1	Tl 190.801†	1549.6	1624.0	500.53	ug/L	500.53	ppb	14:51:32
1	U 409.014†	7436.0	10474.4	267.84	ug/L	267.84	ppb	14:51:27
1	V 292.402†	134920.0	138903.1	793.34	ug/L	793.34	ppb	14:51:27
1	Zn 213.857†	134909.0	136167.2	1049.6	ug/L	1049.6	ppb	14:51:27
1	SiO2†	1248959.7	1268318.0	72652	ug/L	72652	ppb	14:52:07
2	Sc Radial	4858.8	4858.8	98.2	%			14:50:51
2	Y RADIAL	5741.2	5741.2	108.2	%			14:50:51
2	Al 396.153Radial†	229906.4	234036.6	183170	ug/L	183170	ppb	14:50:31
2	Ca 317.933Radial†	18600.4	18911.4	29637	ug/L	29637	ppb	14:50:31
2	Fe 238.204 Radial†	18359.9	18674.7	164020	ug/L	164020	ppb	14:50:31
2	K 766.490 Radial†	123088.7	121955.1	23187	ug/L	23187	ppb	14:50:31
2	Mg 279.077 IEC†	1053.7	1069.8	34079	ug/L	34079	ppb	14:50:51
2	Na 589.592 Radial†	20983.3	23155.7	6569.7	ug/L	6569.7	ppb	14:50:31
2	Sr 421.552†	125894.7	128133.6	841.13	ug/L	841.13	ppb	14:50:31
2	Sc 361.383	915569.9	915569.9	97.531	%			14:51:41
2	Y 371.029	872529.7	872529.7	106.65	%			14:51:41
2	Ag 328.068†	111168.0	113517.1	526.89	ug/L	526.89	ppb	14:51:41
2	As 188.979†	1357.2	1426.4	545.15	ug/L	545.15	ppb	14:51:46
2	B 249.677†	26145.7	27203.8	507.67	ug/L	507.67	ppb	14:51:41
2	Ba 233.527†	359340.0	368418.3	2510.4	ug/L	2510.4	ppb	14:51:41
2	Be 313.107†	1588627.1	1633552.1	530.96	ug/L	530.96	ppb	14:51:41
2	Cd 226.502†	53643.7	55258.6	481.83	ug/L	481.83	ppb	14:51:46
2	Co 228.616†	30561.3	31429.3	539.44	ug/L	539.44	ppb	14:51:46
2	Cr 267.716†	70027.2	71666.5	677.62	ug/L	677.62	ppb	14:51:41
2	Cu 324.752†	237913.4	235454.1	679.78	ug/L	679.78	ppb	14:51:41
2	Mn 257.610†	4592915.4	4708570.4	4687.2	ug/L	4687.2	ppb	14:51:41
2	Mo 202.031†	7620.4	7787.8	474.11	ug/L	474.11	ppb	14:51:46
2	Ni 231.604†	28047.8	28619.0	592.11	ug/L	592.11	ppb	14:51:46

2	P 214.914†	4274.1	4111.1	1692.9 ug/L	1692.9 ppb	14:51:46
2	Pb 220.353†	6260.7	6503.8	673.78 ug/L	673.78 ppb	14:51:46
2	S 181.975 Axial†	5167.1	5236.2	5715.6 ug/L	5715.6 ppb	14:51:46
2	Sb 206.836†	1308.1	1296.0	356.04 ug/L	356.04 ppb	14:51:46
2	Se 196.026†	7.6	40.5	561.22 ug/L	561.22 ppb	14:51:46
2	Si 251.611†	1242425.2	1273143.7	33850 ug/L	33850 ppb	14:51:41
2	Sn 189.927†	3305.2	3385.5	484.74 ug/L	484.74 ppb	14:51:46
2	Ti 334.940†	4066397.2	4171062.2	6127.8 ug/L	6127.8 ppb	14:51:41
2	Tl 190.801†	1499.1	1586.5	490.32 ug/L	490.32 ppb	14:51:46
2	U 409.014†	7031.1	10127.8	258.41 ug/L	258.41 ppb	14:51:41
2	V 292.402†	133316.9	138502.5	791.17 ug/L	791.17 ppb	14:51:41
2	Zn 213.857†	132908.4	135358.9	1043.4 ug/L	1043.4 ppb	14:51:41
2	SiO2†	1247951.2	1278791.0	73252 ug/L	73252 ppb	14:52:13
3	Sc Radial	4835.1	4835.1	97.8 %		14:51:16
3	Y RADIAL	5718.4	5718.4	107.8 %		14:51:16
3	Al 396.153Radial†	227965.7	233200.3	182510 ug/L	182510 ppb	14:50:56
3	Ca 317.933Radial†	18421.5	18821.3	29496 ug/L	29496 ppb	14:50:56
3	Fe 238.204 Radial†	18270.7	18675.2	164020 ug/L	164020 ppb	14:50:56
3	K 766.490 Radial†	122143.0	121602.9	23120 ug/L	23120 ppb	14:50:56
3	Mg 279.077 IEC†	1042.2	1063.3	33870 ug/L	33870 ppb	14:51:16
3	Na 589.592 Radial†	20815.6	23089.0	6550.8 ug/L	6550.8 ppb	14:50:56
3	Sr 421.552†	124792.1	127634.9	837.85 ug/L	837.85 ppb	14:50:56
3	Sc 361.383	919689.1	919689.1	97.969 %		14:51:56
3	Y 371.029	877205.3	877205.3	107.22 %		14:51:56
3	Ag 328.068†	111572.6	113419.6	526.49 ug/L	526.49 ppb	14:51:56
3	As 188.979†	1440.4	1505.1	571.08 ug/L	571.08 ppb	14:52:01
3	B 249.677†	26316.2	27257.8	508.71 ug/L	508.71 ppb	14:51:56
3	Ba 233.527†	361119.7	368584.7	2511.6 ug/L	2511.6 ppb	14:51:56
3	Be 313.107†	1597115.0	1634920.5	531.41 ug/L	531.41 ppb	14:51:56
3	Cd 226.502†	54589.2	55977.4	488.32 ug/L	488.32 ppb	14:52:01
3	Co 228.616†	31108.9	31847.9	546.79 ug/L	546.79 ppb	14:52:01
3	Cr 267.716†	70309.3	71632.9	677.31 ug/L	677.31 ppb	14:51:56
3	Cu 324.752†	239877.1	236366.0	682.38 ug/L	682.38 ppb	14:51:56
3	Mn 257.610†	4615134.1	4710157.5	4688.8 ug/L	4688.8 ppb	14:51:56
3	Mo 202.031†	7711.2	7845.6	477.51 ug/L	477.51 ppb	14:52:01
3	Ni 231.604†	28590.6	29044.4	600.91 ug/L	600.91 ppb	14:52:01
3	P 214.914†	4328.0	4146.5	1708.5 ug/L	1708.5 ppb	14:52:01
3	Pb 220.353†	6337.4	6553.4	678.55 ug/L	678.55 ppb	14:52:01
3	S 181.975 Axial†	5271.9	5319.5	5807.2 ug/L	5807.2 ppb	14:52:01
3	Sb 206.836†	1331.9	1314.3	361.52 ug/L	361.52 ppb	14:52:01
3	Se 196.026†	6.2	39.0	560.43 ug/L	560.43 ppb	14:52:01
3	Si 251.611†	1250259.0	1275434.3	33911 ug/L	33911 ppb	14:51:56
3	Sn 189.927†	3381.9	3448.6	493.66 ug/L	493.66 ppb	14:52:01
3	Ti 334.940†	4089682.0	4176155.5	6135.3 ug/L	6135.3 ppb	14:51:56
3	Tl 190.801†	1538.5	1619.8	499.04 ug/L	499.04 ppb	14:52:01
3	U 409.014†	7141.6	10208.3	260.64 ug/L	260.64 ppb	14:51:56
3	V 292.402†	133873.9	138458.9	790.96 ug/L	790.96 ppb	14:51:56
3	Zn 213.857†	133470.5	135322.3	1043.1 ug/L	1043.1 ppb	14:51:56
3	SiO2†	1248670.9	1273794.7	72966 ug/L	72966 ppb	14:52:19

Mean Data: 1201999344|934493|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	919710.2	97.972	%	0.4422				0.45%
Sc Radial	4851.9	98.1	%	0.30				0.30%
Y 371.029	876671.3	107.16	%	0.477				0.45%
Y RADIAL	5737.5	108.2	%	0.33				0.30%
Ag 328.068†	113647.2	527.57	ug/L	1.538	527.57	ppb	1.538	0.29%
Al 396.153Radial†	234220.4	183310	ug/L	879.4	183310	ppb	879.4	0.48%
As 188.979†	1466.2	558.41	ug/L	12.975	558.41	ppb	12.975	2.32%
B 249.677†	27314.0	509.76	ug/L	2.762	509.76	ppb	2.762	0.54%
Ba 233.527†	369068.6	2514.9	ug/L	6.72	2514.9	ppb	6.72	0.27%
Be 313.107†	1636680.7	531.98	ug/L	1.397	531.98	ppb	1.397	0.26%
Ca 317.933Radial†	18925.1	29658	ug/L	174.3	29658	ppb	174.3	0.59%
Cd 226.502†	55689.4	485.68	ug/L	3.404	485.68	ppb	3.404	0.70%
Co 228.616†	31689.0	543.98	ug/L	3.968	543.98	ppb	3.968	0.73%
Cr 267.716†	71742.0	678.34	ug/L	1.524	678.34	ppb	1.524	0.22%
Cu 324.752†	236447.6	682.64	ug/L	2.990	682.64	ppb	2.990	0.44%
Fe 238.204 Radial†	18723.0	164440	ug/L	731.1	164440	ppb	731.1	0.44%
K 766.490 Radial†	122023.9	23200	ug/L	87.4	23200	ppb	87.4	0.38%

Mg 279.077 IEC†	1069.2	34060	ug/L	180.6	34060	ppb	180.6	0.53%
Mn 257.610†	4717176.0	4695.8	ug/L	13.52	4695.8	ppb	13.52	0.29%
Mo 202.031†	7815.9	475.81	ug/L	1.700	475.81	ppb	1.700	0.36%
Na 589.592 Radial†	23209.2	6584.9	ug/L	43.69	6584.9	ppb	43.69	0.66%
Ni 231.604†	28876.3	597.43	ug/L	4.681	597.43	ppb	4.681	0.78%
P 214.914†	4147.4	1708.8	ug/L	15.94	1708.8	ppb	15.94	0.93%
Pb 220.353†	6544.8	677.84	ug/L	3.759	677.84	ppb	3.759	0.55%
S 181.975 Axial†	5269.4	5752.0	ug/L	48.64	5752.0	ppb	48.64	0.85%
Sb 206.836†	1316.3	361.94	ug/L	6.124	361.94	ppb	6.124	1.69%
Se 196.026†	51.7	567.90	ug/L	12.270	567.90	ppb	12.270	2.16%
Si 251.611†	1276545.8	33940	ug/L	108.3	33940	ppb	108.3	0.32%
Sn 189.927†	3419.4	489.55	ug/L	4.500	489.55	ppb	4.500	0.92%
Sr 421.552†	128364.0	842.64	ug/L	5.695	842.64	ppb	5.695	0.68%
Ti 334.940†	4180351.0	6141.5	ug/L	17.56	6141.5	ppb	17.56	0.29%
Tl 190.801†	1610.1	496.63	ug/L	5.515	496.63	ppb	5.515	1.11%
U 409.014†	10270.2	262.29	ug/L	4.930	262.29	ppb	4.930	1.88%
V 292.402†	138621.5	791.82	ug/L	1.321	791.82	ppb	1.321	0.17%
Zn 213.857†	135616.1	1045.4	ug/L	3.68	1045.4	ppb	3.68	0.35%
SiO2†	1273634.6	72957	ug/L	300.3	72957	ppb	300.3	0.41%

Sequence No.: 9
Sample ID: 1201999342|934493|5
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 25
Date Collected: 12/29/2009 14:54:30
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1201999342|934493|5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4827.5	4827.5	97.6	%			14:56:23
1	Y RADIAL	5238.6	5238.6	98.75	%			14:56:23
1	Al 396.153Radial†	27342.0	28032.3	21942	ug/L	21942	ppb	14:56:23
1	Ca 317.933Radial†	2709.8	2754.6	4316.9	ug/L	4316.9	ppb	14:56:43
1	Fe 238.204 Radial†	3236.8	3302.7	29004	ug/L	29004	ppb	14:56:43
1	K 766.490 Radial†	17557.8	14654.1	2784.3	ug/L	2784.3	ppb	14:56:23
1	Mg 279.077 IEC†	150.3	151.2	4810.9	ug/L	4810.9	ppb	14:56:43
1	Na 589.592 Radial†	-904.2	871.1	247.15	ug/L	247.15	ppb	14:56:23
1	Sr 421.552†	8734.0	8936.7	58.644	ug/L	58.644	ppb	14:56:23
1	Sc 361.383	934617.3	934617.3	99.560	%			14:57:41
1	Y 371.029	826718.0	826718.0	101.05	%			14:57:41
1	Ag 328.068†	-1698.1	-2171.2	0.9008	ug/L	0.9008	ppb	14:57:41
1	As 188.979†	-42.6	-7.9	9.3359	ug/L	9.3359	ppb	14:58:01
1	B 249.677†	-103.5	292.1	1.8179	ug/L	1.8179	ppb	14:57:41
1	Ba 233.527†	52691.4	52904.4	360.49	ug/L	360.49	ppb	14:57:41
1	Be 313.107†	-5782.3	-1106.5	1.3915	ug/L	1.3915	ppb	14:57:41
1	Cd 226.502†	70.4	327.3	0.0657	ug/L	0.0657	ppb	14:58:01
1	Co 228.616†	675.5	772.7	11.433	ug/L	11.433	ppb	14:58:01
1	Cr 267.716†	4359.5	4245.0	40.514	ug/L	40.514	ppb	14:58:01
1	Cu 324.752†	19184.3	10786.0	32.237	ug/L	32.237	ppb	14:57:41
1	Mn 257.610†	728382.6	730968.3	728.02	ug/L	728.02	ppb	14:57:41
1	Mo 202.031†	-0.5	-25.9	1.2534	ug/L	1.2534	ppb	14:58:01
1	Ni 231.604†	1348.3	1215.4	25.152	ug/L	25.152	ppb	14:58:01
1	P 214.914†	832.2	564.7	235.12	ug/L	235.12	ppb	14:58:01
1	Pb 220.353†	354.4	440.6	46.250	ug/L	46.250	ppb	14:58:01
1	S 181.975 Axial†	170.9	110.0	116.51	ug/L	116.51	ppb	14:58:01
1	Sb 206.836†	58.0	13.0	0.2115	ug/L	0.2115	ppb	14:58:01
1	Se 196.026†	-208.1	-176.4	10.185	ug/L	10.185	ppb	14:58:01
1	Si 251.611†	256992.1	257389.6	6846.0	ug/L	6846.0	ppb	14:57:41
1	Sn 189.927†	-29.4	-32.9	-3.8160	ug/L	-3.8160	ppb	14:58:01
1	Ti 334.940†	599370.5	603726.8	887.01	ug/L	887.01	ppb	14:57:41
1	Tl 190.801†	-99.1	-50.1	-1.6587	ug/L	-1.6587	ppb	14:58:01
1	U 409.014†	-4121.4	-1221.0	-37.523	ug/L	-37.523	ppb	14:57:41
1	V 292.402†	7779.8	9624.3	51.269	ug/L	51.269	ppb	14:57:41
1	Zn 213.857†	16644.3	15803.3	121.62	ug/L	121.62	ppb	14:57:41
1	SiO2†	254592.2	254960.4	14610	ug/L	14610	ppb	14:58:58
2	Sc Radial	4909.6	4909.6	99.3	%			14:56:48
2	Y RADIAL	5316.4	5316.4	100.2	%			14:56:48
2	Al 396.153Radial†	27589.2	27813.0	21770	ug/L	21770	ppb	14:56:48
2	Ca 317.933Radial†	2711.4	2709.9	4246.7	ug/L	4246.7	ppb	14:57:09
2	Fe 238.204 Radial†	3240.3	3250.8	28548	ug/L	28548	ppb	14:57:09
2	K 766.490 Radial†	17702.3	14498.9	2754.8	ug/L	2754.8	ppb	14:56:48
2	Mg 279.077 IEC†	145.7	144.1	4582.9	ug/L	4582.9	ppb	14:57:09
2	Na 589.592 Radial†	-946.2	844.3	239.54	ug/L	239.54	ppb	14:56:48
2	Sr 421.552†	8778.5	8831.9	57.956	ug/L	57.956	ppb	14:56:48
2	Sc 361.383	937417.8	937417.8	99.858	%			14:58:07
2	Y 371.029	828420.7	828420.7	101.26	%			14:58:07
2	Ag 328.068†	-1554.3	-2022.1	1.3706	ug/L	1.3706	ppb	14:58:07
2	As 188.979†	-42.1	-7.3	9.4306	ug/L	9.4306	ppb	14:58:27
2	B 249.677†	-135.6	260.3	1.2577	ug/L	1.2577	ppb	14:58:07
2	Ba 233.527†	52756.7	52811.7	359.85	ug/L	359.85	ppb	14:58:07
2	Be 313.107†	-5732.2	-1039.0	1.4064	ug/L	1.4064	ppb	14:58:07
2	Cd 226.502†	75.9	332.7	0.1594	ug/L	0.1594	ppb	14:58:27
2	Co 228.616†	679.7	774.9	11.485	ug/L	11.485	ppb	14:58:27
2	Cr 267.716†	4346.2	4218.7	40.260	ug/L	40.260	ppb	14:58:27
2	Cu 324.752†	19300.4	10844.7	32.381	ug/L	32.381	ppb	14:58:07
2	Mn 257.610†	730259.5	730662.2	727.67	ug/L	727.67	ppb	14:58:07
2	Mo 202.031†	6.4	-19.1	1.6151	ug/L	1.6151	ppb	14:58:27
2	Ni 231.604†	1342.7	1205.7	24.952	ug/L	24.952	ppb	14:58:27

2	P 214.914†	827.1	557.1	231.92	ug/L	231.92 ppb	14:58:27
2	Pb 220.353†	321.1	406.2	42.832	ug/L	42.832 ppb	14:58:27
2	S 181.975 Axial†	155.3	93.8	98.794	ug/L	98.794 ppb	14:58:27
2	Sb 206.836†	61.5	16.4	1.1760	ug/L	1.1760 ppb	14:58:27
2	Se 196.026†	-211.7	-179.3	7.3604	ug/L	7.3604 ppb	14:58:27
2	Si 251.611†	257242.0	256868.7	6832.2	ug/L	6832.2 ppb	14:58:07
2	Sn 189.927†	-39.6	-43.0	-5.2581	ug/L	-5.2581 ppb	14:58:27
2	Ti 334.940†	598914.2	601471.3	883.69	ug/L	883.69 ppb	14:58:07
2	Tl 190.801†	-88.7	-39.3	1.1275	ug/L	1.1275 ppb	14:58:27
2	U 409.014†	-4314.7	-1402.1	-42.480	ug/L	-42.480 ppb	14:58:07
2	V 292.402†	7798.3	9619.4	51.304	ug/L	51.304 ppb	14:58:07
2	Zn 213.857†	16589.5	15698.5	120.83	ug/L	120.83 ppb	14:58:07
2	SiO2†	255746.6	255352.5	14633	ug/L	14633 ppb	14:59:04
3	Sc Radial	4847.1	4847.1	98.0	%		14:57:14
3	Y RADIAL	5294.8	5294.8	99.81	%		14:57:14
3	Al 396.153Radial†	27490.1	28070.0	21971	ug/L	21971 ppb	14:57:14
3	Ca 317.933Radial†	2728.9	2762.9	4329.8	ug/L	4329.8 ppb	14:57:34
3	Fe 238.204 Radial†	3245.6	3298.3	28965	ug/L	28965 ppb	14:57:34
3	K 766.490 Radial†	17570.6	14594.3	2773.0	ug/L	2773.0 ppb	14:57:14
3	Mg 279.077 IEC†	146.1	146.4	4656.9	ug/L	4656.9 ppb	14:57:34
3	Na 589.592 Radial†	-943.9	834.4	236.72	ug/L	236.72 ppb	14:57:14
3	Sr 421.552†	8667.7	8832.8	57.961	ug/L	57.961 ppb	14:57:14
3	Sc 361.383	926717.5	926717.5	98.718	%		14:58:33
3	Y 371.029	819295.2	819295.2	100.14	%		14:58:33
3	Ag 328.068†	-1600.6	-2087.0	1.2415	ug/L	1.2415 ppb	14:58:33
3	As 188.979†	-34.2	0.2	11.956	ug/L	11.956 ppb	14:58:53
3	B 249.677†	-169.0	224.9	0.5109	ug/L	0.5109 ppb	14:58:33
3	Ba 233.527†	52144.1	52801.2	359.79	ug/L	359.79 ppb	14:58:33
3	Be 313.107†	-5685.9	-1058.3	1.3996	ug/L	1.3996 ppb	14:58:33
3	Cd 226.502†	64.1	321.6	0.0180	ug/L	0.0180 ppb	14:58:53
3	Co 228.616†	663.4	766.3	11.328	ug/L	11.328 ppb	14:58:53
3	Cr 267.716†	4356.1	4278.9	40.833	ug/L	40.833 ppb	14:58:53
3	Cu 324.752†	19084.1	10848.7	32.414	ug/L	32.414 ppb	14:58:33
3	Mn 257.610†	721622.0	730356.4	727.41	ug/L	727.41 ppb	14:58:33
3	Mo 202.031†	9.9	-15.4	1.8675	ug/L	1.8675 ppb	14:58:53
3	Ni 231.604†	1357.5	1236.3	25.584	ug/L	25.584 ppb	14:58:53
3	P 214.914†	832.1	571.8	238.30	ug/L	238.30 ppb	14:58:53
3	Pb 220.353†	319.7	408.4	43.065	ug/L	43.065 ppb	14:58:53
3	S 181.975 Axial†	163.7	104.1	110.03	ug/L	110.03 ppb	14:58:53
3	Sb 206.836†	49.3	4.7	-2.1705	ug/L	-2.1705 ppb	14:58:53
3	Se 196.026†	-219.8	-190.0	3.6138	ug/L	3.6138 ppb	14:58:53
3	Si 251.611†	254414.4	256978.8	6835.1	ug/L	6835.1 ppb	14:58:33
3	Sn 189.927†	-39.6	-43.5	-5.3093	ug/L	-5.3093 ppb	14:58:53
3	Ti 334.940†	591848.3	601238.8	883.36	ug/L	883.36 ppb	14:58:33
3	Tl 190.801†	-75.5	-27.0	4.3547	ug/L	4.3547 ppb	14:58:53
3	U 409.014†	-4389.1	-1527.4	-46.002	ug/L	-46.002 ppb	14:58:33
3	V 292.402†	7637.9	9547.2	50.814	ug/L	50.814 ppb	14:58:33
3	Zn 213.857†	16349.2	15646.9	120.40	ug/L	120.40 ppb	14:58:33
3	SiO2†	252559.7	255081.4	14617	ug/L	14617 ppb	14:59:09

Mean Data: 1201999342|934493|5

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	932917.5	99.378	%	0.5911				0.59%
Sc Radial	4861.4	98.3	%	0.87				0.88%
Y 371.029	824811.3	100.82	%	0.593				0.59%
Y RADIAL	5283.2	99.59	%	0.757				0.76%
Ag 328.068†	-2093.5	1.1710	ug/L	0.24274	1.1710	ppb	0.24274	20.73%
Al 396.153Radial†	27971.8	21895	ug/L	108.6	21895	ppb	108.6	0.50%
As 188.979†	-5.0	10.241	ug/L	1.4859	10.241	ppb	1.4859	14.51%
B 249.677†	259.1	1.1955	ug/L	0.65572	1.1955	ppb	0.65572	54.85%
Ba 233.527†	52839.1	360.05	ug/L	0.389	360.05	ppb	0.389	0.11%
Be 313.107†	-1067.9	1.3992	ug/L	0.00747	1.3992	ppb	0.00747	0.53%
Ca 317.933Radial†	2742.5	4297.8	ug/L	44.69	4297.8	ppb	44.69	1.04%
Cd 226.502†	327.2	0.0810	ug/L	0.07196	0.0810	ppb	0.07196	88.81%
Co 228.616†	771.3	11.415	ug/L	0.0799	11.415	ppb	0.0799	0.70%
Cr 267.716†	4247.6	40.536	ug/L	0.2875	40.536	ppb	0.2875	0.71%
Cu 324.752†	10826.5	32.344	ug/L	0.0942	32.344	ppb	0.0942	0.29%
Fe 238.204 Radial†	3283.9	28839	ug/L	252.6	28839	ppb	252.6	0.88%
K 766.490 Radial†	14582.4	2770.7	ug/L	14.91	2770.7	ppb	14.91	0.54%

Mg 279.077 IEC†	147.2	4683.6	ug/L	116.32	4683.6	ppb	116.32	2.48%
Mn 257.610†	730662.3	727.70	ug/L	0.305	727.70	ppb	0.305	0.04%
Mo 202.031†	-20.1	1.5786	ug/L	0.30866	1.5786	ppb	0.30866	19.55%
Na 589.592 Radial†	849.9	241.14	ug/L	5.397	241.14	ppb	5.397	2.24%
Ni 231.604†	1219.1	25.229	ug/L	0.3233	25.229	ppb	0.3233	1.28%
P 214.914†	564.5	235.11	ug/L	3.193	235.11	ppb	3.193	1.36%
Pb 220.353†	418.4	44.049	ug/L	1.9098	44.049	ppb	1.9098	4.34%
S 181.975 Axial†	102.6	108.45	ug/L	8.964	108.45	ppb	8.964	8.27%
Sb 206.836†	11.4	-0.2610	ug/L	1.72258	-0.2610	ppb	1.72258	660.00%
Se 196.026†	-181.9	7.0532	ug/L	3.29647	7.0532	ppb	3.29647	46.74%
Si 251.611†	257079.0	6837.7	ug/L	7.30	6837.7	ppb	7.30	0.11%
Sn 189.927†	-39.8	-4.7945	ug/L	0.84779	-4.7945	ppb	0.84779	17.68%
Sr 421.552†	8867.1	58.187	ug/L	0.3955	58.187	ppb	0.3955	0.68%
Ti 334.940†	602145.6	884.69	ug/L	2.017	884.69	ppb	2.017	0.23%
Tl 190.801†	-38.8	1.2745	ug/L	3.00940	1.2745	ppb	3.00940	236.13%
U 409.014†	-1383.5	-42.001	ug/L	4.2597	-42.001	ppb	4.2597	10.14%
V 292.402†	9597.0	51.129	ug/L	0.2736	51.129	ppb	0.2736	0.54%
Zn 213.857†	15716.2	120.95	ug/L	0.617	120.95	ppb	0.617	0.51%
SiO2†	255131.5	14620	ug/L	11.5	14620	ppb	11.5	0.08%

Sequence No.: 10
Sample ID: 243042002|934493|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 26
Date Collected: 12/29/2009 15:01:20
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 243042002|934493|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4807.1	4807.1	97.2	%			15:03:32
1	Y RADIAL	7194.5	7194.5	135.6	%			15:03:32
1	Al 396.153Radial†	77020.0	79260.0	62040	ug/L	62040	ppb	15:03:12
1	Ca 317.933Radial†	9620.6	9876.3	15477	ug/L	15477	ppb	15:03:12
1	Fe 238.204 Radial†	10895.7	11196.3	98324	ug/L	98324	ppb	15:03:12
1	K 766.490 Radial†	46567.1	44575.2	8474.9	ug/L	8474.9	ppb	15:03:12
1	Mg 279.077 IEC†	407.5	416.5	13235	ug/L	13235	ppb	15:03:32
1	Na 589.592 Radial†	5224.7	7172.6	2035.0	ug/L	2035.0	ppb	15:03:12
1	Sr 421.552†	23687.3	24358.7	159.81	ug/L	159.81	ppb	15:03:12
1	Sc 361.383	929876.0	929876.0	99.055	%			15:04:30
1	Y 371.029	1143710.4	1143710.4	139.80	%			15:04:30
1	Ag 328.068†	-6596.6	-7125.2	3.8844	ug/L	3.8844	ppb	15:04:35
1	As 188.979†	-18.1	16.6	35.181	ug/L	35.181	ppb	15:04:55
1	B 249.677†	487.6	888.3	4.2574	ug/L	4.2574	ppb	15:04:35
1	Ba 233.527†	136013.2	137291.3	935.96	ug/L	935.96	ppb	15:04:35
1	Be 313.107†	12175.9	16993.5	8.8026	ug/L	8.8026	ppb	15:04:35
1	Cd 226.502†	668.4	931.4	-1.4092	ug/L	-1.4092	ppb	15:04:55
1	Co 228.616†	642.8	743.2	8.3871	ug/L	8.3871	ppb	15:04:55
1	Cr 267.716†	4352.9	4260.8	42.087	ug/L	42.087	ppb	15:04:35
1	Cu 324.752†	21985.8	13712.5	44.118	ug/L	44.118	ppb	15:04:35
1	Mn 257.610†	1673152.6	1688486.6	1684.8	ug/L	1684.8	ppb	15:04:30
1	Mo 202.031†	11.4	-13.9	8.6047	ug/L	8.6047	ppb	15:04:55
1	Ni 231.604†	2296.2	2179.2	45.106	ug/L	45.106	ppb	15:04:55
1	P 214.914†	2024.4	1772.5	739.08	ug/L	739.08	ppb	15:04:55
1	Pb 220.353†	1332.1	1429.4	147.70	ug/L	147.70	ppb	15:04:55
1	S 181.975 Axial†	273.5	214.5	223.37	ug/L	223.37	ppb	15:04:55
1	Sb 206.836†	76.3	31.8	3.3041	ug/L	3.3041	ppb	15:04:55
1	Se 196.026†	-624.2	-597.5	32.683	ug/L	32.683	ppb	15:04:55
1	Si 251.611†	1192214.7	1202855.3	31995	ug/L	31995	ppb	15:04:30
1	Sn 189.927†	-67.6	-71.6	-7.1855	ug/L	-7.1855	ppb	15:04:55
1	Ti 334.940†	1166324.2	1179161.7	1733.0	ug/L	1733.0	ppb	15:04:30
1	Tl 190.801†	-177.1	-129.3	-9.3235	ug/L	-9.3235	ppb	15:04:55
1	U 409.014†	-18805.6	-16066.4	-457.17	ug/L	-457.17	ppb	15:04:30
1	V 292.402†	12838.9	14771.6	69.495	ug/L	69.495	ppb	15:04:35
1	Zn 213.857†	68325.0	68062.5	525.95	ug/L	525.95	ppb	15:04:35
1	SiO2†	1202850.2	1213573.6	69546	ug/L	69546	ppb	15:06:03
2	Sc Radial	4841.4	4841.4	97.9	%			15:03:57
2	Y RADIAL	7206.1	7206.1	135.8	%			15:03:57
2	Al 396.153Radial†	78931.0	80652.0	63129	ug/L	63129	ppb	15:03:37
2	Ca 317.933Radial†	9895.8	10087.5	15808	ug/L	15808	ppb	15:03:37
2	Fe 238.204 Radial†	11170.0	11397.3	100090	ug/L	100090	ppb	15:03:37
2	K 766.490 Radial†	47849.6	45546.6	8660.0	ug/L	8660.0	ppb	15:03:37
2	Mg 279.077 IEC†	407.0	413.1	13123	ug/L	13123	ppb	15:03:57
2	Na 589.592 Radial†	5389.4	7302.9	2072.0	ug/L	2072.0	ppb	15:03:37
2	Sr 421.552†	24254.2	24765.5	162.48	ug/L	162.48	ppb	15:03:37
2	Sc 361.383	931230.7	931230.7	99.199	%			15:05:01
2	Y 371.029	1143752.9	1143752.9	139.80	%			15:05:01
2	Ag 328.068†	-6552.0	-7070.5	4.6869	ug/L	4.6869	ppb	15:05:06
2	As 188.979†	-15.8	18.9	36.207	ug/L	36.207	ppb	15:05:26
2	B 249.677†	671.5	1073.0	7.6256	ug/L	7.6256	ppb	15:05:06
2	Ba 233.527†	134236.9	135301.0	922.47	ug/L	922.47	ppb	15:05:06
2	Be 313.107†	12087.9	16886.8	8.7669	ug/L	8.7669	ppb	15:05:06
2	Cd 226.502†	663.2	925.2	-1.6418	ug/L	-1.6418	ppb	15:05:26
2	Co 228.616†	656.7	756.2	8.5866	ug/L	8.5866	ppb	15:05:26
2	Cr 267.716†	4243.0	4143.6	41.014	ug/L	41.014	ppb	15:05:06
2	Cu 324.752†	21621.6	13313.0	43.069	ug/L	43.069	ppb	15:05:06
2	Mn 257.610†	1676684.4	1689589.6	1686.0	ug/L	1686.0	ppb	15:05:01
2	Mo 202.031†	7.3	-18.1	8.5290	ug/L	8.5290	ppb	15:05:26
2	Ni 231.604†	2318.1	2197.9	45.491	ug/L	45.491	ppb	15:05:26

2	P 214.914†	2056.5	1802.0	751.56 ug/L	751.56 ppb	15:05:26
2	Pb 220.353†	1334.9	1430.3	147.88 ug/L	147.88 ppb	15:05:26
2	S 181.975 Axial†	281.4	222.0	231.39 ug/L	231.39 ppb	15:05:26
2	Sb 206.836†	56.7	11.9	-2.3613 ug/L	-2.3613 ppb	15:05:26
2	Se 196.026†	-619.6	-591.9	40.988 ug/L	40.988 ppb	15:05:26
2	Si 251.611†	1192885.6	1201780.6	31966 ug/L	31966 ppb	15:05:01
2	Sn 189.927†	-64.5	-68.5	-6.6772 ug/L	-6.6772 ppb	15:05:26
2	Ti 334.940†	1167394.2	1178527.5	1732.1 ug/L	1732.1 ppb	15:05:01
2	Tl 190.801†	-165.9	-117.8	-6.2812 ug/L	-6.2812 ppb	15:05:26
2	U 409.014†	-18587.4	-15818.8	-450.54 ug/L	-450.54 ppb	15:05:01
2	V 292.402†	12741.5	14654.4	68.546 ug/L	68.546 ppb	15:05:06
2	Zn 213.857†	67561.7	67192.6	519.07 ug/L	519.07 ppb	15:05:06
2	SiO2†	1187914.1	1196750.3	68582 ug/L	68582 ppb	15:06:09
3	Sc Radial	4887.4	4887.4	98.8 %		15:04:22
3	Y RADIAL	7298.3	7298.3	137.6 %		15:04:22
3	Al 396.153Radial†	78576.9	79535.1	62255 ug/L	62255 ppb	15:04:02
3	Ca 317.933Radial†	9809.6	9905.1	15523 ug/L	15523 ppb	15:04:02
3	Fe 238.204 Radial†	11087.2	11206.1	98410 ug/L	98410 ppb	15:04:02
3	K 766.490 Radial†	47406.5	44638.3	8487.0 ug/L	8487.0 ppb	15:04:02
3	Mg 279.077 IEC†	415.2	417.4	13265 ug/L	13265 ppb	15:04:22
3	Na 589.592 Radial†	5339.5	7200.6	2042.9 ug/L	2042.9 ppb	15:04:02
3	Sr 421.552†	24101.2	24377.6	159.93 ug/L	159.93 ppb	15:04:02
3	Sc 361.383	947625.8	947625.8	100.95 %		15:05:32
3	Y 371.029	1164383.8	1164383.8	142.32 %		15:05:32
3	Ag 328.068†	-6742.4	-7144.9	3.8163 ug/L	3.8163 ppb	15:05:37
3	As 188.979†	2.0	36.9	41.855 ug/L	41.855 ppb	15:05:57
3	B 249.677†	502.8	894.2	4.3604 ug/L	4.3604 ppb	15:05:37
3	Ba 233.527†	134926.2	133642.6	911.15 ug/L	911.15 ppb	15:05:37
3	Be 313.107†	12092.7	16680.8	8.7029 ug/L	8.7029 ppb	15:05:37
3	Cd 226.502†	672.9	923.3	-1.4915 ug/L	-1.4915 ppb	15:05:57
3	Co 228.616†	647.8	736.0	8.2511 ug/L	8.2511 ppb	15:05:57
3	Cr 267.716†	4370.8	4196.1	41.475 ug/L	41.475 ppb	15:05:37
3	Cu 324.752†	21838.8	13151.1	42.522 ug/L	42.522 ppb	15:05:37
3	Mn 257.610†	1701787.9	1685215.2	1681.5 ug/L	1681.5 ppb	15:05:32
3	Mo 202.031†	22.8	-2.8	9.2651 ug/L	9.2651 ppb	15:05:57
3	Ni 231.604†	2322.9	2162.3	44.754 ug/L	44.754 ppb	15:05:57
3	P 214.914†	2035.2	1745.0	726.86 ug/L	726.86 ppb	15:05:57
3	Pb 220.353†	1297.1	1369.6	141.80 ug/L	141.80 ppb	15:05:57
3	S 181.975 Axial†	286.5	222.2	231.78 ug/L	231.78 ppb	15:05:57
3	Sb 206.836†	74.5	28.6	2.4037 ug/L	2.4037 ppb	15:05:57
3	Se 196.026†	-623.0	-584.5	39.114 ug/L	39.114 ppb	15:05:57
3	Si 251.611†	1213692.1	1201587.3	31961 ug/L	31961 ppb	15:05:32
3	Sn 189.927†	-69.9	-72.7	-7.3256 ug/L	-7.3256 ppb	15:05:57
3	Ti 334.940†	1188468.8	1179044.3	1732.8 ug/L	1732.8 ppb	15:05:32
3	Tl 190.801†	-160.6	-109.6	-4.1763 ug/L	-4.1763 ppb	15:05:57
3	U 409.014†	-18884.8	-15789.3	-449.51 ug/L	-449.51 ppb	15:05:32
3	V 292.402†	12730.5	14421.4	67.446 ug/L	67.446 ppb	15:05:37
3	Zn 213.857†	67840.6	66290.6	512.11 ug/L	512.11 ppb	15:05:37
3	SiO2†	1209726.3	1197639.9	68633 ug/L	68633 ppb	15:06:15

Mean Data: 243042002|934493|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	936244.2	99.733	%	1.0525				1.06%
Sc Radial	4845.3	98.0	%	0.81				0.83%
Y 371.029	1150615.7	140.64	%	1.457				1.04%
Y RADIAL	7233.0	136.3	%	1.07				0.79%
Ag 328.068†	-7113.5	4.1292	ug/L	0.48418	4.1292	ppb	0.48418	11.73%
Al 396.153Radial†	79815.7	62475	ug/L	577.1	62475	ppb	577.1	0.92%
As 188.979†	24.1	37.748	ug/L	3.5935	37.748	ppb	3.5935	9.52%
B 249.677†	951.8	5.4144	ug/L	1.91559	5.4144	ppb	1.91559	35.38%
Ba 233.527†	135411.6	923.20	ug/L	12.419	923.20	ppb	12.419	1.35%
Be 313.107†	16853.7	8.7574	ug/L	0.05050	8.7574	ppb	0.05050	0.58%
Ca 317.933Radial†	9956.3	15603	ug/L	179.5	15603	ppb	179.5	1.15%
Cd 226.502†	926.6	-1.5142	ug/L	0.11796	-1.5142	ppb	0.11796	7.79%
Co 228.616†	745.1	8.4082	ug/L	0.16877	8.4082	ppb	0.16877	2.01%
Cr 267.716†	4200.2	41.525	ug/L	0.5382	41.525	ppb	0.5382	1.30%
Cu 324.752†	13392.2	43.236	ug/L	0.8113	43.236	ppb	0.8113	1.88%
Fe 238.204 Radial†	11266.6	98941	ug/L	994.8	98941	ppb	994.8	1.01%
K 766.490 Radial†	44920.0	8540.7	ug/L	103.55	8540.7	ppb	103.55	1.21%

Mg 279.077 IEC†	415.7	13207	ug/L	74.7	13207	ppb	74.7	0.57%
Mn 257.610†	1687763.8	1684.1	ug/L	2.33	1684.1	ppb	2.33	0.14%
Mo 202.031†	-11.6	8.7996	ug/L	0.40495	8.7996	ppb	0.40495	4.60%
Na 589.592 Radial†	7225.4	2050.0	ug/L	19.46	2050.0	ppb	19.46	0.95%
Ni 231.604†	2179.8	45.117	ug/L	0.3687	45.117	ppb	0.3687	0.82%
P 214.914†	1773.2	739.17	ug/L	12.354	739.17	ppb	12.354	1.67%
Pb 220.353†	1409.8	145.79	ug/L	3.459	145.79	ppb	3.459	2.37%
S 181.975 Axial†	219.5	228.84	ug/L	4.748	228.84	ppb	4.748	2.07%
Sb 206.836†	24.1	1.1155	ug/L	3.04449	1.1155	ppb	3.04449	272.93%
Se 196.026†	-591.3	37.595	ug/L	4.3557	37.595	ppb	4.3557	11.59%
Si 251.611†	1202074.4	31974	ug/L	18.2	31974	ppb	18.2	0.06%
Sn 189.927†	-70.9	-7.0628	ug/L	0.34122	-7.0628	ppb	0.34122	4.83%
Sr 421.552†	24500.6	160.74	ug/L	1.506	160.74	ppb	1.506	0.94%
Ti 334.940†	1178911.2	1732.6	ug/L	0.49	1732.6	ppb	0.49	0.03%
Tl 190.801†	-118.9	-6.5937	ug/L	2.58778	-6.5937	ppb	2.58778	39.25%
U 409.014†	-15891.5	-452.41	ug/L	4.159	-452.41	ppb	4.159	0.92%
V 292.402†	14615.8	68.496	ug/L	1.0254	68.496	ppb	1.0254	1.50%
Zn 213.857†	67181.9	519.04	ug/L	6.924	519.04	ppb	6.924	1.33%
SiO2†	1202654.6	68920	ug/L	542.6	68920	ppb	542.6	0.79%

Sequence No.: 11
Sample ID: 243042003|934493|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 27
Date Collected: 12/29/2009 15:08:26
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 243042003|934493|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4941.5	4941.5	99.9	%			15:10:38
1	Y RADIAL	6275.4	6275.4	118.3	%			15:10:38
1	Al 396.153Radial†	117243.0	117363.3	91864	ug/L	91864	ppb	15:10:18
1	Ca 317.933Radial†	17849.0	17842.7	27962	ug/L	27962	ppb	15:10:18
1	Fe 238.204 Radial†	14072.6	14071.2	123570	ug/L	123570	ppb	15:10:38
1	K 766.490 Radial†	87975.1	84716.0	16106	ug/L	16106	ppb	15:10:18
1	Mg 279.077 IEC†	776.7	774.7	24666	ug/L	24666	ppb	15:10:38
1	Na 589.592 Radial†	3422.7	5223.1	1481.9	ug/L	1481.9	ppb	15:10:18
1	Sr 421.552†	26776.1	26787.7	175.64	ug/L	175.64	ppb	15:10:18
1	Sc 361.383	938294.6	938294.6	99.951	%			15:11:37
1	Y 371.029	969620.8	969620.8	118.52	%			15:11:37
1	Ag 328.068†	-8854.3	-9324.2	3.3271	ug/L	3.3271	ppb	15:11:37
1	As 188.979†	-45.9	-11.1	42.666	ug/L	42.666	ppb	15:11:57
1	B 249.677†	857.7	1254.2	8.0126	ug/L	8.0126	ppb	15:11:37
1	Ba 233.527†	125059.1	125100.0	853.90	ug/L	853.90	ppb	15:11:37
1	Be 313.107†	-8032.9	-3335.5	5.3117	ug/L	5.3117	ppb	15:11:37
1	Cd 226.502†	1031.4	1288.5	-0.7039	ug/L	-0.7039	ppb	15:11:57
1	Co 228.616†	1425.0	1519.9	18.427	ug/L	18.427	ppb	15:11:57
1	Cr 267.716†	11498.2	11370.1	109.46	ug/L	109.46	ppb	15:11:57
1	Cu 324.752†	30801.7	22333.5	69.989	ug/L	69.989	ppb	15:11:37
1	Mn 257.610†	2958974.9	2959780.4	2948.4	ug/L	2948.4	ppb	15:11:37
1	Mo 202.031†	93.1	67.7	15.829	ug/L	15.829	ppb	15:11:57
1	Ni 231.604†	3222.1	3084.8	63.843	ug/L	63.843	ppb	15:11:57
1	P 214.914†	2309.0	2039.0	845.60	ug/L	845.60	ppb	15:11:57
1	Pb 220.353†	1888.5	1974.0	206.36	ug/L	206.36	ppb	15:11:57
1	S 181.975 Axial†	346.8	285.3	295.33	ug/L	295.33	ppb	15:11:57
1	Sb 206.836†	95.4	50.2	2.5952	ug/L	2.5952	ppb	15:11:57
1	Se 196.026†	-829.2	-796.9	21.593	ug/L	21.593	ppb	15:11:57
1	Si 251.611†	1094385.7	1094179.7	29101	ug/L	29101	ppb	15:11:37
1	Sn 189.927†	-115.1	-118.6	-12.180	ug/L	-12.180	ppb	15:11:57
1	Ti 334.940†	2204024.5	2206803.5	3243.1	ug/L	3243.1	ppb	15:11:37
1	Tl 190.801†	-263.6	-214.3	-12.040	ug/L	-12.040	ppb	15:11:57
1	U 409.014†	-17867.6	-14957.7	-429.79	ug/L	-429.79	ppb	15:11:37
1	V 292.402†	26334.8	28157.7	143.15	ug/L	143.15	ppb	15:11:37
1	Zn 213.857†	116053.6	115195.4	892.40	ug/L	892.40	ppb	15:11:37
1	SiO2†	1096740.9	1096517.3	62831	ug/L	62831	ppb	15:12:57
2	Sc Radial	4934.7	4934.7	99.8	%			15:11:03
2	Y RADIAL	6265.2	6265.2	118.1	%			15:11:03
2	Al 396.153Radial†	117908.4	118191.0	92512	ug/L	92512	ppb	15:10:43
2	Ca 317.933Radial†	17876.5	17894.6	28043	ug/L	28043	ppb	15:10:43
2	Fe 238.204 Radial†	14100.8	14118.8	123990	ug/L	123990	ppb	15:11:03
2	K 766.490 Radial†	88394.0	85256.5	16208	ug/L	16208	ppb	15:10:43
2	Mg 279.077 IEC†	777.7	776.7	24732	ug/L	24732	ppb	15:11:03
2	Na 589.592 Radial†	3393.5	5198.5	1474.9	ug/L	1474.9	ppb	15:10:43
2	Sr 421.552†	27014.8	27063.7	177.46	ug/L	177.46	ppb	15:10:43
2	Sc 361.383	940107.5	940107.5	100.14	%			15:12:04
2	Y 371.029	969968.5	969968.5	118.56	%			15:12:04
2	Ag 328.068†	-8906.5	-9359.3	3.3223	ug/L	3.3223	ppb	15:12:04
2	As 188.979†	-35.4	-0.5	46.307	ug/L	46.307	ppb	15:12:24
2	B 249.677†	969.7	1364.4	10.107	ug/L	10.107	ppb	15:12:04
2	Ba 233.527†	125620.6	125419.3	856.08	ug/L	856.08	ppb	15:12:04
2	Be 313.107†	-7762.2	-3049.7	5.4212	ug/L	5.4212	ppb	15:12:04
2	Cd 226.502†	993.6	1248.8	-1.1048	ug/L	-1.1048	ppb	15:12:24
2	Co 228.616†	1437.4	1529.6	18.569	ug/L	18.569	ppb	15:12:24
2	Cr 267.716†	11420.1	11269.9	108.53	ug/L	108.53	ppb	15:12:24
2	Cu 324.752†	31131.9	22603.8	70.781	ug/L	70.781	ppb	15:12:04
2	Mn 257.610†	2973508.7	2968584.4	2957.1	ug/L	2957.1	ppb	15:12:04
2	Mo 202.031†	70.5	44.9	14.528	ug/L	14.528	ppb	15:12:24
2	Ni 231.604†	3159.9	3016.5	62.429	ug/L	62.429	ppb	15:12:24

2	P 214.914†	2300.7	2026.2	839.56	ug/L	839.56 ppb	15:12:24
2	Pb 220.353†	1873.2	1955.1	204.60	ug/L	204.60 ppb	15:12:24
2	S 181.975 Axial†	345.4	283.2	292.93	ug/L	292.93 ppb	15:12:24
2	Sb 206.836†	102.7	57.3	4.5757	ug/L	4.5757 ppb	15:12:24
2	Se 196.026†	-824.7	-790.8	25.915	ug/L	25.915 ppb	15:12:24
2	Si 251.611†	1100817.0	1098490.3	29216	ug/L	29216 ppb	15:12:04
2	Sn 189.927†	-113.8	-117.0	-11.944	ug/L	-11.944 ppb	15:12:24
2	Ti 334.940†	2214793.2	2213304.3	3252.6	ug/L	3252.6 ppb	15:12:04
2	Tl 190.801†	-220.6	-170.8	-0.5017	ug/L	-0.5017 ppb	15:12:24
2	U 409.014†	-17985.8	-15041.2	-432.15	ug/L	-432.15 ppb	15:12:04
2	V 292.402†	26382.4	28154.4	143.03	ug/L	143.03 ppb	15:12:04
2	Zn 213.857†	116547.1	115464.4	894.49	ug/L	894.49 ppb	15:12:04
2	SiO2†	1098935.1	1096592.4	62836	ug/L	62836 ppb	15:13:03
3	Sc Radial	4898.5	4898.5	99.0	%		15:11:28
3	Y RADIAL	6242.1	6242.1	117.7	%		15:11:28
3	Al 396.153Radial†	118565.0	119726.9	93715	ug/L	93715 ppb	15:11:08
3	Ca 317.933Radial†	18010.0	18161.8	28462	ug/L	28462 ppb	15:11:08
3	Fe 238.204 Radial†	14060.5	14182.5	124550	ug/L	124550 ppb	15:11:28
3	K 766.490 Radial†	88624.9	86144.1	16377	ug/L	16377 ppb	15:11:08
3	Mg 279.077 IEC†	779.3	784.1	24966	ug/L	24966 ppb	15:11:28
3	Na 589.592 Radial†	3409.3	5239.5	1486.5	ug/L	1486.5 ppb	15:11:08
3	Sr 421.552†	27138.0	27388.1	179.58	ug/L	179.58 ppb	15:11:08
3	Sc 361.383	940724.0	940724.0	100.21	%		15:12:31
3	Y 371.029	969439.9	969439.9	118.50	%		15:12:31
3	Ag 328.068†	-8929.8	-9376.7	3.4314	ug/L	3.4314 ppb	15:12:31
3	As 188.979†	-32.4	2.5	47.409	ug/L	47.409 ppb	15:12:51
3	B 249.677†	902.8	1296.9	8.7173	ug/L	8.7173 ppb	15:12:31
3	Ba 233.527†	126054.8	125770.5	858.48	ug/L	858.48 ppb	15:12:31
3	Be 313.107†	-7658.1	-2940.7	5.4630	ug/L	5.4630 ppb	15:12:31
3	Cd 226.502†	1037.4	1291.9	-0.7718	ug/L	-0.7718 ppb	15:12:51
3	Co 228.616†	1433.7	1524.9	18.476	ug/L	18.476 ppb	15:12:51
3	Cr 267.716†	11509.7	11351.9	109.31	ug/L	109.31 ppb	15:12:51
3	Cu 324.752†	30871.0	22323.0	70.009	ug/L	70.009 ppb	15:12:31
3	Mn 257.610†	2981686.8	2974799.5	2963.3	ug/L	2963.3 ppb	15:12:31
3	Mo 202.031†	94.5	68.8	15.988	ug/L	15.988 ppb	15:12:51
3	Ni 231.604†	3204.8	3059.2	63.313	ug/L	63.313 ppb	15:12:51
3	P 214.914†	2311.4	2035.4	843.82	ug/L	843.82 ppb	15:12:51
3	Pb 220.353†	1870.3	1951.0	204.41	ug/L	204.41 ppb	15:12:51
3	S 181.975 Axial†	338.3	275.9	284.61	ug/L	284.61 ppb	15:12:51
3	Sb 206.836†	102.3	56.8	4.3919	ug/L	4.3919 ppb	15:12:51
3	Se 196.026†	-811.8	-777.4	34.191	ug/L	34.191 ppb	15:12:51
3	Si 251.611†	1103035.8	1099984.0	29256	ug/L	29256 ppb	15:12:31
3	Sn 189.927†	-128.9	-132.0	-14.023	ug/L	-14.023 ppb	15:12:51
3	Ti 334.940†	2218734.3	2215787.8	3256.3	ug/L	3256.3 ppb	15:12:31
3	Tl 190.801†	-234.0	-184.1	-3.8828	ug/L	-3.8828 ppb	15:12:51
3	U 409.014†	-17921.0	-14964.8	-430.11	ug/L	-430.11 ppb	15:12:31
3	V 292.402†	26494.4	28248.9	143.53	ug/L	143.53 ppb	15:12:31
3	Zn 213.857†	116889.4	115729.6	896.52	ug/L	896.52 ppb	15:12:31
3	SiO2†	1103093.3	1100022.8	63032	ug/L	63032 ppb	15:13:09

Mean Data: 243042003|934493|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	939708.7	100.10	%	0.135				0.13%
Sc Radial	4924.9	99.6	%	0.47				0.47%
Y 371.029	969676.4	118.53	%	0.033				0.03%
Y RADIAL	6260.9	118.0	%	0.32				0.27%
Ag 328.068†	-9353.4	3.3602	ug/L	0.06168	3.3602	ppb	0.06168	1.84%
Al 396.153Radial†	118427.1	92697	ug/L	938.8	92697	ppb	938.8	1.01%
As 188.979†	-3.0	45.461	ug/L	2.4821	45.461	ppb	2.4821	5.46%
B 249.677†	1305.2	8.9455	ug/L	1.06546	8.9455	ppb	1.06546	11.91%
Ba 233.527†	125429.9	856.15	ug/L	2.293	856.15	ppb	2.293	0.27%
Be 313.107†	-3108.6	5.3986	ug/L	0.07817	5.3986	ppb	0.07817	1.45%
Ca 317.933Radial†	17966.4	28156	ug/L	268.3	28156	ppb	268.3	0.95%
Cd 226.502†	1276.4	-0.8602	ug/L	0.21455	-0.8602	ppb	0.21455	24.94%
Co 228.616†	1524.8	18.491	ug/L	0.0723	18.491	ppb	0.0723	0.39%
Cr 267.716†	11330.6	109.10	ug/L	0.501	109.10	ppb	0.501	0.46%
Cu 324.752†	22420.1	70.260	ug/L	0.4516	70.260	ppb	0.4516	0.64%
Fe 238.204 Radial†	14124.2	124040	ug/L	490.4	124040	ppb	490.4	0.40%
K 766.490 Radial†	85372.2	16230	ug/L	137.3	16230	ppb	137.3	0.85%

Mg 279.077 IEC†	778.5	24788	ug/L	157.4	24788	ppb	157.4	0.63%
Mn 257.610†	2967721.4	2956.3	ug/L	7.53	2956.3	ppb	7.53	0.25%
Mo 202.031†	60.5	15.448	ug/L	0.8010	15.448	ppb	0.8010	5.19%
Na 589.592 Radial†	5220.3	1481.1	ug/L	5.86	1481.1	ppb	5.86	0.40%
Ni 231.604†	3053.5	63.195	ug/L	0.7147	63.195	ppb	0.7147	1.13%
P 214.914†	2033.5	842.99	ug/L	3.104	842.99	ppb	3.104	0.37%
Pb 220.353†	1960.0	205.12	ug/L	1.076	205.12	ppb	1.076	0.52%
S 181.975 Axial†	281.5	290.95	ug/L	5.625	290.95	ppb	5.625	1.93%
Sb 206.836†	54.8	3.8543	ug/L	1.09424	3.8543	ppb	1.09424	28.39%
Se 196.026†	-788.4	27.233	ug/L	6.4017	27.233	ppb	6.4017	23.51%
Si 251.611†	1097551.3	29191	ug/L	80.1	29191	ppb	80.1	0.27%
Sn 189.927†	-122.5	-12.716	ug/L	1.1384	-12.716	ppb	1.1384	8.95%
Sr 421.552†	27079.8	177.56	ug/L	1.971	177.56	ppb	1.971	1.11%
Ti 334.940†	2211965.2	3250.6	ug/L	6.83	3250.6	ppb	6.83	0.21%
Tl 190.801†	-189.7	-5.4748	ug/L	5.93160	-5.4748	ppb	5.93160	108.34%
U 409.014†	-14987.9	-430.68	ug/L	1.282	-430.68	ppb	1.282	0.30%
V 292.402†	28187.0	143.24	ug/L	0.260	143.24	ppb	0.260	0.18%
Zn 213.857†	115463.2	894.47	ug/L	2.058	894.47	ppb	2.058	0.23%
SiO2†	1097710.9	62900	ug/L	114.7	62900	ppb	114.7	0.18%

Sequence No.: 12
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 12/29/2009 15:15:19
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4852.0	4852.0	98.1	%			15:17:11
1	Y RADIAL	5147.3	5147.3	97.03	%			15:17:11
1	Al 396.153Radial†	6138.4	6278.1	4892.6	ug/L	4892.6	ppb	15:17:11
1	Ca 317.933Radial†	3144.3	3183.5	4989.0	ug/L	4989.0	ppb	15:17:31
1	Fe 238.204 Radial†	586.8	584.9	5151.8	ug/L	5151.8	ppb	15:17:31
1	K 766.490 Radial†	28909.8	26134.1	4967.2	ug/L	4967.2	ppb	15:17:11
1	Mg 279.077 IEC†	163.9	164.3	5261.0	ug/L	5261.0	ppb	15:17:31
1	Na 589.592 Radial†	33016.0	35450.3	10058	ug/L	10058	ppb	15:17:11
1	Sr 421.552†	74276.4	75698.1	497.03	ug/L	497.03	ppb	15:17:11
1	Sc 361.383	926977.1	926977.1	98.746	%			15:18:30
1	Y 371.029	800425.8	800425.8	97.838	%			15:18:30
1	Ag 328.068†	119019.9	120066.1	499.83	ug/L	499.83	ppb	15:18:30
1	As 188.979†	1464.0	1517.4	503.20	ug/L	503.20	ppb	15:18:50
1	B 249.677†	24154.6	24857.5	483.12	ug/L	483.12	ppb	15:18:30
1	Ba 233.527†	72336.8	73235.5	499.09	ug/L	499.09	ppb	15:18:30
1	Be 313.107†	1560871.3	1585399.4	504.61	ug/L	504.61	ppb	15:18:30
1	Cd 226.502†	54453.8	55402.1	498.95	ug/L	498.95	ppb	15:18:30
1	Co 228.616†	27602.6	28047.4	493.48	ug/L	493.48	ppb	15:18:50
1	Cr 267.716†	52752.5	53288.8	501.49	ug/L	501.49	ppb	15:18:30
1	Cu 324.752†	180379.4	174187.4	496.97	ug/L	496.97	ppb	15:18:30
1	Mn 257.610†	500279.2	505997.3	502.43	ug/L	502.43	ppb	15:18:30
1	Mo 202.031†	8465.5	8547.6	503.60	ug/L	503.60	ppb	15:18:50
1	Ni 231.604†	23827.9	23991.6	496.35	ug/L	496.35	ppb	15:18:50
1	P 214.914†	5747.0	5548.8	2440.8	ug/L	2440.8	ppb	15:18:50
1	Pb 220.353†	4935.4	5082.8	506.01	ug/L	506.01	ppb	15:18:50
1	S 181.975 Axial†	959.3	909.8	998.36	ug/L	998.36	ppb	15:18:50
1	Sb 206.836†	1749.0	1725.9	501.69	ug/L	501.69	ppb	15:18:50
1	Se 196.026†	1015.7	1061.3	521.66	ug/L	521.66	ppb	15:18:50
1	Si 251.611†	93081.3	93524.3	2475.9	ug/L	2475.9	ppb	15:18:30
1	Sn 189.927†	3479.0	3519.8	498.97	ug/L	498.97	ppb	15:18:50
1	Ti 334.940†	334174.8	340124.4	499.46	ug/L	499.46	ppb	15:18:30
1	Tl 190.801†	1855.0	1928.0	508.28	ug/L	508.28	ppb	15:18:50
1	U 409.014†	14176.3	17275.0	476.57	ug/L	476.57	ppb	15:18:30
1	V 292.402†	81815.0	84664.3	505.07	ug/L	505.07	ppb	15:18:30
1	Zn 213.857†	63960.4	63858.2	494.77	ug/L	494.77	ppb	15:18:30
1	SiO2†	93268.1	93694.8	5343.8	ug/L	5343.8	ppb	15:19:51
2	Sc Radial	4424.8	4424.8	89.5	%			15:17:36
2	Y RADIAL	4680.9	4680.9	88.24	%			15:17:36
2	Al 396.153Radial†	6188.5	6938.2	5409.1	ug/L	5409.1	ppb	15:17:36
2	Ca 317.933Radial†	3139.1	3487.1	5464.8	ug/L	5464.8	ppb	15:17:56
2	Fe 238.204 Radial†	581.9	637.2	5611.1	ug/L	5611.1	ppb	15:17:56
2	K 766.490 Radial†	29139.9	29236.3	5557.5	ug/L	5557.5	ppb	15:17:36
2	Mg 279.077 IEC†	162.5	178.9	5725.3	ug/L	5725.3	ppb	15:17:56
2	Na 589.592 Radial†	33152.6	38852.1	11023	ug/L	11023	ppb	15:17:36
2	Sr 421.552†	74869.5	83670.7	549.38	ug/L	549.38	ppb	15:17:36
2	Sc 361.383	915776.7	915776.7	97.553	%			15:18:58
2	Y 371.029	790842.9	790842.9	96.666	%			15:18:58
2	Ag 328.068†	117806.1	120296.0	500.93	ug/L	500.93	ppb	15:18:58
2	As 188.979†	1441.9	1512.9	501.79	ug/L	501.79	ppb	15:19:18
2	B 249.677†	23891.7	24887.2	483.63	ug/L	483.63	ppb	15:18:58
2	Ba 233.527†	71641.5	73418.7	500.35	ug/L	500.35	ppb	15:18:58
2	Be 313.107†	1545046.4	1588510.2	505.60	ug/L	505.60	ppb	15:18:58
2	Cd 226.502†	54024.5	55636.5	501.02	ug/L	501.02	ppb	15:18:58
2	Co 228.616†	27462.7	28245.9	496.97	ug/L	496.97	ppb	15:19:18
2	Cr 267.716†	52219.9	53396.2	502.51	ug/L	502.51	ppb	15:18:58
2	Cu 324.752†	178319.1	174309.6	497.34	ug/L	497.34	ppb	15:18:58
2	Mn 257.610†	495103.4	506888.0	503.35	ug/L	503.35	ppb	15:18:58
2	Mo 202.031†	8414.9	8600.5	506.76	ug/L	506.76	ppb	15:19:18
2	Ni 231.604†	23731.9	24188.4	500.43	ug/L	500.43	ppb	15:19:18

2	P 214.914†	5718.3	5590.6	2459.6	ug/L	2459.6 ppb	15:19:18
2	Pb 220.353†	4920.1	5128.1	510.60	ug/L	510.60 ppb	15:19:18
2	S 181.975 Axial†	959.7	922.1	1011.8	ug/L	1011.8 ppb	15:19:18
2	Sb 206.836†	1731.2	1729.4	502.76	ug/L	502.76 ppb	15:19:18
2	Se 196.026†	1018.7	1077.0	530.61	ug/L	530.61 ppb	15:19:18
2	Si 251.611†	92143.5	93715.8	2480.7	ug/L	2480.7 ppb	15:18:58
2	Sn 189.927†	3458.0	3541.3	502.07	ug/L	502.07 ppb	15:19:18
2	Ti 334.940†	330737.2	340739.6	500.39	ug/L	500.39 ppb	15:18:58
2	Tl 190.801†	1823.3	1918.5	505.80	ug/L	505.80 ppb	15:19:18
2	U 409.014†	14078.2	17350.1	478.58	ug/L	478.58 ppb	15:18:58
2	V 292.402†	81038.3	84881.5	506.33	ug/L	506.33 ppb	15:18:58
2	Zn 213.857†	63324.7	63998.8	495.81	ug/L	495.81 ppb	15:18:58
2	SiO2†	93245.7	94827.0	5408.1	ug/L	5408.1 ppb	15:19:56
3	Sc Radial	4871.2	4871.2	98.5	%		15:18:01
3	Y RADIAL	5153.5	5153.5	97.15	%		15:18:01
3	Al 396.153Radial†	6136.0	6251.1	4871.7	ug/L	4871.7 ppb	15:18:01
3	Ca 317.933Radial†	3105.0	3131.0	4906.7	ug/L	4906.7 ppb	15:18:21
3	Fe 238.204 Radial†	577.0	572.5	5043.3	ug/L	5043.3 ppb	15:18:21
3	K 766.490 Radial†	28983.9	26093.4	4959.4	ug/L	4959.4 ppb	15:18:01
3	Mg 279.077 IEC†	160.3	160.1	5124.9	ug/L	5124.9 ppb	15:18:21
3	Na 589.592 Radial†	33216.7	35521.7	10078	ug/L	10078 ppb	15:18:01
3	Sr 421.552†	74383.9	75509.5	495.79	ug/L	495.79 ppb	15:18:01
3	Sc 361.383	929222.1	929222.1	98.985	%		15:19:25
3	Y 371.029	800420.4	800420.4	97.837	%		15:19:25
3	Ag 328.068†	119477.0	120236.7	500.50	ug/L	500.50 ppb	15:19:25
3	As 188.979†	1460.9	1510.7	500.99	ug/L	500.99 ppb	15:19:45
3	B 249.677†	24408.4	25054.8	486.99	ug/L	486.99 ppb	15:19:25
3	Ba 233.527†	72824.1	73550.8	501.24	ug/L	501.24 ppb	15:19:25
3	Be 313.107†	1563460.8	1584196.6	504.23	ug/L	504.23 ppb	15:19:25
3	Cd 226.502†	54858.3	55677.6	501.44	ug/L	501.44 ppb	15:19:25
3	Co 228.616†	27377.1	27752.1	488.27	ug/L	488.27 ppb	15:19:45
3	Cr 267.716†	52843.9	53252.2	501.15	ug/L	501.15 ppb	15:19:25
3	Cu 324.752†	181320.9	174697.3	498.42	ug/L	498.42 ppb	15:19:25
3	Mn 257.610†	503022.7	507544.9	503.96	ug/L	503.96 ppb	15:19:25
3	Mo 202.031†	8390.5	8451.1	497.91	ug/L	497.91 ppb	15:19:45
3	Ni 231.604†	23636.7	23740.2	491.15	ug/L	491.15 ppb	15:19:45
3	P 214.914†	5677.8	5464.9	2402.6	ug/L	2402.6 ppb	15:19:45
3	Pb 220.353†	4883.9	5018.6	499.63	ug/L	499.63 ppb	15:19:45
3	S 181.975 Axial†	960.5	908.7	997.17	ug/L	997.17 ppb	15:19:45
3	Sb 206.836†	1707.9	1680.1	488.36	ug/L	488.36 ppb	15:19:45
3	Se 196.026†	993.5	1036.3	509.46	ug/L	509.46 ppb	15:19:45
3	Si 251.611†	93713.0	93934.7	2486.9	ug/L	2486.9 ppb	15:19:25
3	Sn 189.927†	3452.2	3484.2	493.92	ug/L	493.92 ppb	15:19:45
3	Ti 334.940†	335843.7	340992.8	500.73	ug/L	500.73 ppb	15:19:25
3	Tl 190.801†	1833.8	1902.1	501.52	ug/L	501.52 ppb	15:19:45
3	U 409.014†	14379.1	17445.2	481.29	ug/L	481.29 ppb	15:19:25
3	V 292.402†	82173.7	84826.5	505.96	ug/L	505.96 ppb	15:19:25
3	Zn 213.857†	64431.9	64178.0	497.31	ug/L	497.31 ppb	15:19:25
3	SiO2†	93475.3	93676.0	5342.9	ug/L	5342.9 ppb	15:20:01

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	923991.9	98.428	%	0.7673				0.78%
Sc Radial	4716.0	95.4	%	5.10				5.35%
Y 371.029	797229.7	97.447	%	0.6761				0.69%
Y RADIAL	4993.9	94.14	%	5.111				5.43%
Ag 328.068†	120199.6	500.42	ug/L	0.555	500.42	ppb	0.555	0.11%
QC value within limits for Ag 328.068 Recovery = 100.08%								
Al 396.153Radial†	6489.2	5057.8	ug/L	304.45	5057.8	ppb	304.45	6.02%
QC value within limits for Al 396.153Radial Recovery = 101.16%								
As 188.979†	1513.7	501.99	ug/L	1.117	501.99	ppb	1.117	0.22%
QC value within limits for As 188.979 Recovery = 100.40%								
B 249.677†	24933.2	484.58	ug/L	2.107	484.58	ppb	2.107	0.43%
QC value within limits for B 249.677 Recovery = 96.92%								
Ba 233.527†	73401.7	500.23	ug/L	1.077	500.23	ppb	1.077	0.22%
QC value within limits for Ba 233.527 Recovery = 100.05%								
Be 313.107†	1586035.4	504.81	ug/L	0.707	504.81	ppb	0.707	0.14%
QC value within limits for Be 313.107 Recovery = 100.96%								
Ca 317.933Radial†	3267.2	5120.2	ug/L	301.30	5120.2	ppb	301.30	5.88%

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   QC value within limits for Ca 317.933Radial  Recovery = 102.40%
Cd 226.502†            55572.1      500.47 ug/L        1.332      500.47 ppb         1.332   0.27%
   QC value within limits for Cd 226.502  Recovery = 100.09%
Co 228.616†            28015.2      492.90 ug/L        4.378      492.90 ppb         4.378   0.89%
   QC value within limits for Co 228.616  Recovery = 98.58%
Cr 267.716†            53312.4      501.72 ug/L        0.710      501.72 ppb         0.710   0.14%
   QC value within limits for Cr 267.716  Recovery = 100.34%
Cu 324.752†           174398.1      497.58 ug/L        0.752      497.58 ppb         0.752   0.15%
   QC value within limits for Cu 324.752  Recovery = 99.52%
Fe 238.204 Radial†       598.2      5268.7 ug/L       301.44      5268.7 ppb        301.44   5.72%
   QC value within limits for Fe 238.204 Radial  Recovery = 105.37%
K 766.490 Radial†      27154.6      5161.4 ug/L       343.06      5161.4 ppb        343.06   6.65%
   QC value within limits for K 766.490 Radial  Recovery = 103.23%
Mg 279.077 IEC†          167.8      5370.4 ug/L       314.79      5370.4 ppb        314.79   5.86%
   QC value within limits for Mg 279.077 IEC  Recovery = 107.41%
Mn 257.610†           506810.1      503.25 ug/L        0.769      503.25 ppb         0.769   0.15%
   QC value within limits for Mn 257.610  Recovery = 100.65%
Mo 202.031†             8533.1      502.76 ug/L        4.486      502.76 ppb         4.486   0.89%
   QC value within limits for Mo 202.031  Recovery = 100.55%
Na 589.592 Radial†     36608.0       10386 ug/L        551.5       10386 ppb         551.5   5.31%
   QC value within limits for Na 589.592 Radial  Recovery = 103.86%
Ni 231.604†            23973.4      495.98 ug/L        4.648      495.98 ppb         4.648   0.94%
   QC value within limits for Ni 231.604  Recovery = 99.20%
P 214.914†              5534.8      2434.3 ug/L       29.05      2434.3 ppb        29.05   1.19%
   QC value within limits for P 214.914  Recovery = 97.37%
Pb 220.353†             5076.5      505.41 ug/L        5.506      505.41 ppb         5.506   1.09%
   QC value within limits for Pb 220.353  Recovery = 101.08%
S 181.975 Axial†         913.5      1002.5 ug/L         8.14      1002.5 ppb         8.14   0.81%
   QC value within limits for S 181.975 Axial  Recovery = 100.25%
Sb 206.836†             1711.8      497.61 ug/L        8.021      497.61 ppb         8.021   1.61%
   QC value within limits for Sb 206.836  Recovery = 99.52%
Se 196.026†             1058.2      520.58 ug/L       10.616      520.58 ppb        10.616   2.04%
   QC value within limits for Se 196.026  Recovery = 104.12%
Si 251.611†            93725.0      2481.2 ug/L        5.53      2481.2 ppb         5.53   0.22%
   QC value within limits for Si 251.611  Recovery = 99.25%
Sn 189.927†             3515.1      498.32 ug/L        4.112      498.32 ppb         4.112   0.83%
   QC value within limits for Sn 189.927  Recovery = 99.66%
Sr 421.552†            78292.8      514.07 ug/L       30.587      514.07 ppb        30.587   5.95%
   QC value within limits for Sr 421.552  Recovery = 102.81%
Ti 334.940†           340618.9      500.20 ug/L        0.657      500.20 ppb         0.657   0.13%
   QC value within limits for Ti 334.940  Recovery = 100.04%
Tl 190.801†             1916.2      505.20 ug/L        3.415      505.20 ppb         3.415   0.68%
   QC value within limits for Tl 190.801  Recovery = 101.04%
U 409.014†             17356.8      478.81 ug/L        2.370      478.81 ppb         2.370   0.50%
   QC value within limits for U 409.014  Recovery = 95.76%
V 292.402†             84790.8      505.79 ug/L        0.651      505.79 ppb         0.651   0.13%
   QC value within limits for V 292.402  Recovery = 101.16%
Zn 213.857†            64011.6      495.97 ug/L        1.278      495.97 ppb         1.278   0.26%
   QC value within limits for Zn 213.857  Recovery = 99.19%
SiO2†                  94065.9      5364.9 ug/L       37.37      5364.9 ppb        37.37   0.70%
   QC value within limits for SiO2  Recovery = 100.33%
All analyte(s) passed QC.
```

Sequence No.: 13
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 12/29/2009 15:22:10
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4573.0	4573.0	92.5	%			15:24:03
1	Y RADIAL	4905.8	4905.8	92.48	%			15:24:03
1	Al 396.153Radial†	4.0	25.7	20.088	ug/L	20.088	ppb	15:24:03
1	Ca 317.933Radial†	20.7	1.0	1.5358	ug/L	1.5358	ppb	15:24:23
1	Fe 238.204 Radial†	13.3	1.1	9.3440	ug/L	9.3440	ppb	15:24:23
1	K 766.490 Radial†	3287.1	221.6	42.205	ug/L	42.205	ppb	15:24:03
1	Mg 279.077 IEC†	4.4	2.0	65.283	ug/L	65.283	ppb	15:24:23
1	Na 589.592 Radial†	-1797.9	-147.0	-41.703	ug/L	-41.703	ppb	15:24:03
1	Sr 421.552†	24.3	15.3	0.1002	ug/L	0.1002	ppb	15:24:03
1	Sc 361.383	939223.0	939223.0	100.05	%			15:25:20
1	Y 371.029	821255.3	821255.3	100.38	%			15:25:20
1	Ag 328.068†	529.9	64.0	0.2657	ug/L	0.2657	ppb	15:25:25
1	As 188.979†	-29.8	5.1	1.6723	ug/L	1.6723	ppb	15:25:45
1	B 249.677†	-489.8	-93.5	-1.8261	ug/L	-1.8261	ppb	15:25:25
1	Ba 233.527†	15.7	-4.4	-0.0300	ug/L	-0.0300	ppb	15:25:45
1	Be 313.107†	-4470.8	232.8	0.0738	ug/L	0.0738	ppb	15:25:25
1	Cd 226.502†	-246.6	10.2	0.0909	ug/L	0.0909	ppb	15:25:45
1	Co 228.616†	-95.4	-1.2	-0.0201	ug/L	-0.0201	ppb	15:25:45
1	Cr 267.716†	146.8	13.0	0.1216	ug/L	0.1216	ppb	15:25:25
1	Cu 324.752†	8166.5	-320.8	-0.9142	ug/L	-0.9142	ppb	15:25:25
1	Mn 257.610†	583.6	-53.3	-0.0532	ug/L	-0.0532	ppb	15:25:25
1	Mo 202.031†	27.2	1.7	0.1025	ug/L	0.1025	ppb	15:25:45
1	Ni 231.604†	138.1	-0.9	-0.0180	ug/L	-0.0180	ppb	15:25:45
1	P 214.914†	258.7	-12.6	-5.5385	ug/L	-5.5385	ppb	15:25:45
1	Pb 220.353†	-70.2	14.5	1.4399	ug/L	1.4399	ppb	15:25:45
1	S 181.975 Axial†	65.6	3.9	4.2595	ug/L	4.2595	ppb	15:25:45
1	Sb 206.836†	31.5	-13.8	-3.9206	ug/L	-3.9206	ppb	15:25:45
1	Se 196.026†	-33.0	-0.3	-0.1320	ug/L	-0.1320	ppb	15:25:45
1	Si 251.611†	801.5	61.7	1.6206	ug/L	1.6206	ppb	15:25:45
1	Sn 189.927†	14.9	11.5	1.6332	ug/L	1.6332	ppb	15:25:45
1	Ti 334.940†	-1744.5	-38.8	-0.0578	ug/L	-0.0578	ppb	15:25:25
1	Tl 190.801†	-53.4	-4.0	-1.0352	ug/L	-1.0352	ppb	15:25:45
1	U 409.014†	-2850.0	70.1	1.9395	ug/L	1.9395	ppb	15:25:20
1	V 292.402†	-1830.9	-19.9	-0.1121	ug/L	-0.1121	ppb	15:25:25
1	Zn 213.857†	928.6	13.5	0.1037	ug/L	0.1037	ppb	15:25:45
1	SiO2†	834.3	75.8	4.2994	ug/L	4.2994	ppb	15:26:51
2	Sc Radial	4766.2	4766.2	96.4	%			15:24:28
2	Y RADIAL	5084.2	5084.2	95.84	%			15:24:28
2	Al 396.153Radial†	-24.6	-4.2	-3.3155	ug/L	-3.3155	ppb	15:24:28
2	Ca 317.933Radial†	15.8	-5.0	-7.8553	ug/L	-7.8553	ppb	15:24:48
2	Fe 238.204 Radial†	13.4	0.7	5.9902	ug/L	5.9902	ppb	15:24:48
2	K 766.490 Radial†	3376.8	170.5	32.482	ug/L	32.482	ppb	15:24:28
2	Mg 279.077 IEC†	2.5	-0.1	-4.5462	ug/L	-4.5462	ppb	15:24:48
2	Na 589.592 Radial†	-1862.8	-135.5	-38.449	ug/L	-38.449	ppb	15:24:28
2	Sr 421.552†	18.2	7.9	0.0520	ug/L	0.0520	ppb	15:24:28
2	Sc 361.383	924465.1	924465.1	98.478	%			15:25:50
2	Y 371.029	808707.9	808707.9	98.850	%			15:25:50
2	Ag 328.068†	584.5	128.0	0.5341	ug/L	0.5341	ppb	15:25:55
2	As 188.979†	-43.5	-9.4	-3.0802	ug/L	-3.0802	ppb	15:26:15
2	B 249.677†	-500.2	-111.9	-2.1840	ug/L	-2.1840	ppb	15:25:55
2	Ba 233.527†	-4.0	-24.1	-0.1635	ug/L	-0.1635	ppb	15:26:15
2	Be 313.107†	-4527.5	103.9	0.0327	ug/L	0.0327	ppb	15:25:55
2	Cd 226.502†	-252.2	0.6	0.0049	ug/L	0.0049	ppb	15:26:15
2	Co 228.616†	-89.9	3.0	0.0538	ug/L	0.0538	ppb	15:26:15
2	Cr 267.716†	83.5	-48.9	-0.4584	ug/L	-0.4584	ppb	15:25:55
2	Cu 324.752†	8170.4	-186.5	-0.5315	ug/L	-0.5315	ppb	15:25:55
2	Mn 257.610†	643.7	17.1	0.0176	ug/L	0.0176	ppb	15:25:55
2	Mo 202.031†	31.1	6.1	0.3585	ug/L	0.3585	ppb	15:26:15
2	Ni 231.604†	145.3	8.6	0.1786	ug/L	0.1786	ppb	15:26:15

2	P 214.914†	267.0	-0.0	0.0768	ug/L	0.0768 ppb	15:26:15
2	Pb 220.353†	-81.8	1.6	0.1573	ug/L	0.1573 ppb	15:26:15
2	S 181.975 Axial†	56.2	-4.6	-5.0438	ug/L	-5.0438 ppb	15:26:15
2	Sb 206.836†	44.8	0.3	0.1082	ug/L	0.1082 ppb	15:26:15
2	Se 196.026†	-44.4	-12.4	-5.8530	ug/L	-5.8530 ppb	15:26:15
2	Si 251.611†	909.1	183.8	4.8697	ug/L	4.8697 ppb	15:26:15
2	Sn 189.927†	7.5	4.2	0.5984	ug/L	0.5984 ppb	15:26:15
2	Ti 334.940†	-1778.3	-101.0	-0.1474	ug/L	-0.1474 ppb	15:25:55
2	Tl 190.801†	-44.3	4.5	1.1670	ug/L	1.1670 ppb	15:26:15
2	U 409.014†	-2970.7	-98.0	-2.7119	ug/L	-2.7119 ppb	15:25:50
2	V 292.402†	-1768.2	14.6	0.0850	ug/L	0.0850 ppb	15:25:55
2	Zn 213.857†	938.8	38.6	0.3012	ug/L	0.3012 ppb	15:26:15
2	SiO2†	817.7	72.3	4.1001	ug/L	4.1001 ppb	15:26:56
3	Sc Radial	4446.4	4446.4	89.9	%		15:24:53
3	Y RADIAL	4741.2	4741.2	89.37	%		15:24:53
3	Al 396.153Radial†	-21.3	-2.3	-1.8273	ug/L	-1.8273 ppb	15:24:53
3	Ca 317.933Radial†	21.3	2.3	3.5977	ug/L	3.5977 ppb	15:25:13
3	Fe 238.204 Radial†	13.3	1.5	13.443	ug/L	13.443 ppb	15:25:13
3	K 766.490 Radial†	3422.1	472.9	90.080	ug/L	90.080 ppb	15:24:53
3	Mg 279.077 IEC†	2.5	0.1	3.4537	ug/L	3.4537 ppb	15:25:13
3	Na 589.592 Radial†	-1869.5	-282.0	-80.003	ug/L	-80.003 ppb	15:24:53
3	Sr 421.552†	-24.1	-37.8	-0.2481	ug/L	-0.2481 ppb	15:24:53
3	Sc 361.383	927029.5	927029.5	98.751	%		15:26:20
3	Y 371.029	809552.7	809552.7	98.953	%		15:26:20
3	Ag 328.068†	545.4	86.7	0.3651	ug/L	0.3651 ppb	15:26:25
3	As 188.979†	-25.3	9.2	3.0379	ug/L	3.0379 ppb	15:26:45
3	B 249.677†	-561.3	-172.3	-3.3637	ug/L	-3.3637 ppb	15:26:25
3	Ba 233.527†	5.6	-14.5	-0.0986	ug/L	-0.0986 ppb	15:26:45
3	Be 313.107†	-4516.2	128.0	0.0405	ug/L	0.0405 ppb	15:26:25
3	Cd 226.502†	-252.7	0.8	0.0057	ug/L	0.0057 ppb	15:26:45
3	Co 228.616†	-93.4	-0.3	-0.0067	ug/L	-0.0067 ppb	15:26:45
3	Cr 267.716†	146.9	15.0	0.1417	ug/L	0.1417 ppb	15:26:25
3	Cu 324.752†	8103.4	-277.3	-0.7901	ug/L	-0.7901 ppb	15:26:25
3	Mn 257.610†	671.3	43.2	0.0441	ug/L	0.0441 ppb	15:26:25
3	Mo 202.031†	21.8	-3.4	-0.1986	ug/L	-0.1986 ppb	15:26:45
3	Ni 231.604†	153.6	16.7	0.3454	ug/L	0.3454 ppb	15:26:45
3	P 214.914†	268.0	0.2	0.2034	ug/L	0.2034 ppb	15:26:45
3	Pb 220.353†	-102.7	-19.3	-1.9203	ug/L	-1.9203 ppb	15:26:45
3	S 181.975 Axial†	55.7	-5.3	-5.7931	ug/L	-5.7931 ppb	15:26:45
3	Sb 206.836†	49.5	4.9	1.4013	ug/L	1.4013 ppb	15:26:45
3	Se 196.026†	-42.3	-10.1	-4.7575	ug/L	-4.7575 ppb	15:26:45
3	Si 251.611†	830.3	101.4	2.6708	ug/L	2.6708 ppb	15:26:45
3	Sn 189.927†	5.6	2.3	0.3283	ug/L	0.3283 ppb	15:26:45
3	Ti 334.940†	-1732.5	-49.6	-0.0710	ug/L	-0.0710 ppb	15:26:25
3	Tl 190.801†	-38.2	10.7	2.8120	ug/L	2.8120 ppb	15:26:45
3	U 409.014†	-3026.2	-145.8	-4.0383	ug/L	-4.0383 ppb	15:26:20
3	V 292.402†	-1839.7	-52.9	-0.3239	ug/L	-0.3239 ppb	15:26:25
3	Zn 213.857†	934.3	31.4	0.2432	ug/L	0.2432 ppb	15:26:45
3	SiO2†	878.2	131.3	7.4627	ug/L	7.4627 ppb	15:27:01

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	930239.2	99.093	%	0.8400				0.85%
Sc Radial	4595.2	92.9	%	3.26				3.51%
Y 371.029	813172.0	99.396	%	0.8572				0.86%
Y RADIAL	4910.4	92.56	%	3.235				3.49%
Ag 328.068†	92.9	0.3883	ug/L	0.13570	0.3883	ppb	0.13570	34.95%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	6.4	4.9817	ug/L	13.10352	4.9817	ppb	13.10352	263.03%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	1.6	0.5433	ug/L	3.21151	0.5433	ppb	3.21151	591.10%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-125.9	-2.4579	ug/L	0.80456	-2.4579	ppb	0.80456	32.73%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-14.3	-0.0974	ug/L	0.06677	-0.0974	ppb	0.06677	68.57%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	154.9	0.0490	ug/L	0.02184	0.0490	ppb	0.02184	44.56%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-0.6	-0.9073	ug/L	6.10486	-0.9073	ppb	6.10486	672.88%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                3.8      0.0338 ug/L       0.04941      0.0338 ppb        0.04941 146.16%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                0.5      0.0090 ug/L       0.03933      0.0090 ppb        0.03933 436.93%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†               -7.0     -0.0650 ug/L       0.34085     -0.0650 ppb        0.34085 524.05%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -261.5     -0.7453 ug/L       0.19526     -0.7453 ppb        0.19526  26.20%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         1.1      9.5924 ug/L       3.73255      9.5924 ppb        3.73255  38.91%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        288.3     54.922 ug/L       30.8331     54.922 ppb        30.8331  56.14%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            0.7     21.397 ug/L       38.2167     21.397 ppb        38.2167 178.61%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                2.3      0.0029 ug/L       0.05029      0.0029 ppb        0.05029 >999.9%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                1.5      0.0875 ug/L       0.27883      0.0875 ppb        0.27883 318.68%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      -188.2    -53.385 ug/L       23.1090    -53.385 ppb        23.1090  43.29%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                8.1      0.1687 ug/L       0.18193      0.1687 ppb        0.18193 107.86%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -4.1     -1.7528 ug/L       3.27917     -1.7528 ppb        3.27917 187.09%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               -1.1     -0.1077 ug/L       1.69568     -0.1077 ppb        1.69568 >999.9%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          -2.0     -2.1925 ug/L       5.60011     -2.1925 ppb        5.60011 255.43%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               -2.9     -0.8037 ug/L       2.77568     -0.8037 ppb        2.77568 345.37%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               -7.6     -3.5808 ug/L       3.03654     -3.5808 ppb        3.03654  84.80%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†              115.6      3.0537 ug/L       1.65805      3.0537 ppb        1.65805  54.30%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                6.0      0.8533 ug/L       0.68875      0.8533 ppb        0.68875  80.71%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               -4.9     -0.0320 ug/L       0.18870     -0.0320 ppb        0.18870 590.47%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              -63.1     -0.0921 ug/L       0.04835     -0.0921 ppb        0.04835  52.52%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                3.7      0.9813 ug/L       1.93029      0.9813 ppb        1.93029 196.72%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -57.9     -1.6036 ug/L       3.13926     -1.6036 ppb        3.13926 195.76%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               -19.4     -0.1170 ug/L       0.20452     -0.1170 ppb        0.20452 174.82%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               27.8      0.2160 ug/L       0.10153      0.2160 ppb        0.10153  47.00%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                     93.1      5.2874 ug/L       1.88651      5.2874 ppb        1.88651  35.68%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
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Sequence No.: 14
Sample ID: 243042004|934493|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 28
Date Collected: 12/29/2009 15:29:11
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 243042004|934493|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4785.6	4785.6	96.8	%			15:31:23
1	Y RADIAL	5537.0	5537.0	104.4	%			15:31:23
1	Al 396.153Radial†	150909.6	155976.4	122090	ug/L	122090	ppb	15:31:03
1	Ca 317.933Radial†	12570.3	12969.1	20324	ug/L	20324	ppb	15:31:03
1	Fe 238.204 Radial†	15075.7	15566.5	136700	ug/L	136700	ppb	15:31:03
1	K 766.490 Radial†	85319.4	84838.6	16121	ug/L	16121	ppb	15:31:03
1	Mg 279.077 IEC†	727.5	749.2	23839	ug/L	23839	ppb	15:31:23
1	Na 589.592 Radial†	2050.7	3916.7	1111.2	ug/L	1111.2	ppb	15:31:03
1	Sr 421.552†	35735.2	36919.0	242.24	ug/L	242.24	ppb	15:31:03
1	Sc 361.383	931724.6	931724.6	99.251	%			15:32:22
1	Y 371.029	874949.7	874949.7	106.95	%			15:32:22
1	Ag 328.068†	-10206.8	-10749.4	2.2117	ug/L	2.2117	ppb	15:32:27
1	As 188.979†	-50.9	-16.5	49.801	ug/L	49.801	ppb	15:32:47
1	B 249.677†	1163.5	1568.3	12.238	ug/L	12.238	ppb	15:32:27
1	Ba 233.527†	230173.7	231889.7	1580.4	ug/L	1580.4	ppb	15:32:27
1	Be 313.107†	-6671.3	-2020.3	7.3352	ug/L	7.3352	ppb	15:32:27
1	Cd 226.502†	1179.5	1445.1	-0.5871	ug/L	-0.5871	ppb	15:32:47
1	Co 228.616†	5035.6	5167.8	80.948	ug/L	80.948	ppb	15:32:47
1	Cr 267.716†	14722.2	14699.5	141.11	ug/L	141.11	ppb	15:32:47
1	Cu 324.752†	28134.4	19863.4	63.616	ug/L	63.616	ppb	15:32:27
1	Mn 257.610†	4035907.3	4065710.5	4046.9	ug/L	4046.9	ppb	15:32:22
1	Mo 202.031†	-56.3	-82.2	8.2661	ug/L	8.2661	ppb	15:32:47
1	Ni 231.604†	4657.4	4553.7	94.211	ug/L	94.211	ppb	15:32:47
1	P 214.914†	2334.2	2080.6	865.28	ug/L	865.28	ppb	15:32:47
1	Pb 220.353†	1678.7	1776.0	192.40	ug/L	192.40	ppb	15:32:47
1	S 181.975 Axial†	451.9	393.7	408.40	ug/L	408.40	ppb	15:32:47
1	Sb 206.836†	80.7	36.1	-5.0317	ug/L	-5.0317	ppb	15:32:47
1	Se 196.026†	-890.3	-864.4	35.510	ug/L	35.510	ppb	15:32:47
1	Si 251.611†	1193476.1	1201738.2	31963	ug/L	31963	ppb	15:32:22
1	Sn 189.927†	-115.1	-119.4	-12.898	ug/L	-12.898	ppb	15:32:47
1	Ti 334.940†	2740591.2	2762966.1	4059.5	ug/L	4059.5	ppb	15:32:22
1	Tl 190.801†	-274.4	-227.0	-2.3840	ug/L	-2.3840	ppb	15:32:47
1	U 409.014†	-13399.1	-10581.5	-310.37	ug/L	-310.37	ppb	15:32:27
1	V 292.402†	42560.3	44691.4	237.65	ug/L	237.65	ppb	15:32:27
1	Zn 213.857†	47709.9	47155.0	359.90	ug/L	359.90	ppb	15:32:27
1	SiO2†	1191758.8	1199989.3	68762	ug/L	68762	ppb	15:33:58
2	Sc Radial	4758.3	4758.3	96.2	%			15:31:48
2	Y RADIAL	5507.0	5507.0	103.8	%			15:31:48
2	Al 396.153Radial†	151201.8	157176.5	123030	ug/L	123030	ppb	15:31:28
2	Ca 317.933Radial†	12570.6	13044.1	20442	ug/L	20442	ppb	15:31:28
2	Fe 238.204 Radial†	15077.2	15657.6	137500	ug/L	137500	ppb	15:31:28
2	K 766.490 Radial†	85661.9	85701.3	16285	ug/L	16285	ppb	15:31:28
2	Mg 279.077 IEC†	718.3	743.9	23669	ug/L	23669	ppb	15:31:48
2	Na 589.592 Radial†	2083.9	3963.4	1124.5	ug/L	1124.5	ppb	15:31:28
2	Sr 421.552†	35824.7	37224.2	244.25	ug/L	244.25	ppb	15:31:28
2	Sc 361.383	928940.7	928940.7	98.955	%			15:32:54
2	Y 371.029	873988.0	873988.0	106.83	%			15:32:54
2	Ag 328.068†	-10145.3	-10718.1	2.5959	ug/L	2.5959	ppb	15:32:59
2	As 188.979†	-59.3	-25.1	47.000	ug/L	47.000	ppb	15:33:19
2	B 249.677†	1231.3	1640.4	13.534	ug/L	13.534	ppb	15:32:59
2	Ba 233.527†	226957.6	229334.5	1563.0	ug/L	1563.0	ppb	15:32:59
2	Be 313.107†	-6670.3	-2039.4	7.3066	ug/L	7.3066	ppb	15:32:59
2	Cd 226.502†	1182.3	1451.4	-0.6090	ug/L	-0.6090	ppb	15:33:19
2	Co 228.616†	5090.5	5238.5	82.193	ug/L	82.193	ppb	15:33:19
2	Cr 267.716†	14765.6	14787.8	141.95	ug/L	141.95	ppb	15:33:19
2	Cu 324.752†	27749.4	19559.3	62.789	ug/L	62.789	ppb	15:32:59
2	Mn 257.610†	4011598.7	4053331.4	4034.7	ug/L	4034.7	ppb	15:32:54
2	Mo 202.031†	-71.8	-98.0	7.4124	ug/L	7.4124	ppb	15:33:19
2	Ni 231.604†	4698.6	4609.3	95.363	ug/L	95.363	ppb	15:33:19

2	P 214.914†	2353.0	2106.7	876.92	ug/L	876.92 ppb	15:33:19
2	Pb 220.353†	1720.0	1822.8	197.18	ug/L	197.18 ppb	15:33:19
2	S 181.975 Axial†	474.0	417.3	434.16	ug/L	434.16 ppb	15:33:19
2	Sb 206.836†	97.2	53.0	-0.2234	ug/L	-0.2234 ppb	15:33:19
2	Se 196.026†	-905.4	-882.3	29.657	ug/L	29.657 ppb	15:33:19
2	Si 251.611†	1185675.9	1197459.3	31849	ug/L	31849 ppb	15:32:54
2	Sn 189.927†	-113.6	-118.2	-12.711	ug/L	-12.711 ppb	15:33:19
2	Ti 334.940†	2724702.0	2755184.3	4048.1	ug/L	4048.1 ppb	15:32:54
2	Tl 190.801†	-260.6	-213.9	0.9048	ug/L	0.9048 ppb	15:33:19
2	U 409.014†	-13273.7	-10495.2	-308.08	ug/L	-308.08 ppb	15:32:59
2	V 292.402†	42068.8	44323.2	235.36	ug/L	235.36 ppb	15:32:59
2	Zn 213.857†	46881.5	46462.0	354.44	ug/L	354.44 ppb	15:32:59
2	SiO2†	1177276.1	1188952.1	68129	ug/L	68129 ppb	15:34:03
3	Sc Radial	4695.5	4695.5	94.9	%		15:32:13
3	Y RADIAL	5463.1	5463.1	103.0	%		15:32:13
3	Al 396.153Radial†	156234.1	164576.9	128820	ug/L	128820 ppb	15:31:53
3	Ca 317.933Radial†	12993.0	13663.6	21413	ug/L	21413 ppb	15:31:53
3	Fe 238.204 Radial†	15589.1	16406.2	144080	ug/L	144080 ppb	15:31:53
3	K 766.490 Radial†	88215.9	89581.2	17025	ug/L	17025 ppb	15:31:53
3	Mg 279.077 IEC†	720.8	756.5	24067	ug/L	24067 ppb	15:32:13
3	Na 589.592 Radial†	2283.6	4202.7	1192.4	ug/L	1192.4 ppb	15:31:53
3	Sr 421.552†	37179.3	39148.5	256.87	ug/L	256.87 ppb	15:31:53
3	Sc 361.383	927809.7	927809.7	98.834	%		15:33:26
3	Y 371.029	871931.8	871931.8	106.58	%		15:33:26
3	Ag 328.068†	-10122.3	-10707.3	4.8229	ug/L	4.8229 ppb	15:33:31
3	As 188.979†	-51.6	-17.3	50.602	ug/L	50.602 ppb	15:33:51
3	B 249.677†	1158.3	1568.1	11.251	ug/L	11.251 ppb	15:33:31
3	Ba 233.527†	227154.8	229813.6	1566.5	ug/L	1566.5 ppb	15:33:31
3	Be 313.107†	-6376.7	-1750.6	7.4054	ug/L	7.4054 ppb	15:33:31
3	Cd 226.502†	1192.7	1463.5	-1.1575	ug/L	-1.1575 ppb	15:33:51
3	Co 228.616†	5090.2	5244.4	82.196	ug/L	82.196 ppb	15:33:51
3	Cr 267.716†	14890.8	14932.6	143.43	ug/L	143.43 ppb	15:33:51
3	Cu 324.752†	27812.3	19657.0	63.403	ug/L	63.403 ppb	15:33:31
3	Mn 257.610†	4011190.4	4057859.8	4039.9	ug/L	4039.9 ppb	15:33:26
3	Mo 202.031†	-75.0	-101.3	7.8459	ug/L	7.8459 ppb	15:33:51
3	Ni 231.604†	4711.4	4628.0	95.750	ug/L	95.750 ppb	15:33:51
3	P 214.914†	2368.0	2124.8	881.73	ug/L	881.73 ppb	15:33:51
3	Pb 220.353†	1711.3	1816.1	197.28	ug/L	197.28 ppb	15:33:51
3	S 181.975 Axial†	481.1	425.1	441.58	ug/L	441.58 ppb	15:33:51
3	Sb 206.836†	103.5	59.5	1.5506	ug/L	1.5506 ppb	15:33:51
3	Se 196.026†	-925.8	-904.0	40.750	ug/L	40.750 ppb	15:33:51
3	Si 251.611†	1185343.7	1198583.7	31878	ug/L	31878 ppb	15:33:26
3	Sn 189.927†	-110.8	-115.5	-12.130	ug/L	-12.130 ppb	15:33:51
3	Ti 334.940†	2723802.8	2757630.8	4051.7	ug/L	4051.7 ppb	15:33:26
3	Tl 190.801†	-274.0	-227.7	-2.5029	ug/L	-2.5029 ppb	15:33:51
3	U 409.014†	-13263.6	-10501.3	-309.08	ug/L	-309.08 ppb	15:33:31
3	V 292.402†	41982.5	44287.7	234.15	ug/L	234.15 ppb	15:33:31
3	Zn 213.857†	47046.1	46686.3	355.83	ug/L	355.83 ppb	15:33:31
3	SiO2†	1190704.2	1203988.8	68991	ug/L	68991 ppb	15:34:09

Mean Data: 243042004|934493|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	929491.7	99.014	%	0.2146				0.22%
Sc Radial	4746.5	96.0	%	0.93				0.97%
Y 371.029	873623.2	106.78	%	0.188				0.18%
Y RADIAL	5502.4	103.7	%	0.70				0.67%
Ag 328.068†	-10724.9	3.2102	ug/L	1.40985	3.2102	ppb	1.40985	43.92%
Al 396.153Radial†	159243.3	124650	ug/L	3645.9	124650	ppb	3645.9	2.93%
As 188.979†	-19.6	49.135	ug/L	1.8914	49.135	ppb	1.8914	3.85%
B 249.677†	1592.3	12.341	ug/L	1.1450	12.341	ppb	1.1450	9.28%
Ba 233.527†	230346.0	1570.0	ug/L	9.19	1570.0	ppb	9.19	0.59%
Be 313.107†	-1936.7	7.3491	ug/L	0.05085	7.3491	ppb	0.05085	0.69%
Ca 317.933Radial†	13225.6	20726	ug/L	597.3	20726	ppb	597.3	2.88%
Cd 226.502†	1453.3	-0.7845	ug/L	0.32314	-0.7845	ppb	0.32314	41.19%
Co 228.616†	5216.9	81.779	ug/L	0.7196	81.779	ppb	0.7196	0.88%
Cr 267.716†	14806.6	142.16	ug/L	1.173	142.16	ppb	1.173	0.83%
Cu 324.752†	19693.3	63.269	ug/L	0.4292	63.269	ppb	0.4292	0.68%
Fe 238.204 Radial†	15876.8	139430	ug/L	4046.3	139430	ppb	4046.3	2.90%
K 766.490 Radial†	86707.0	16477	ug/L	481.5	16477	ppb	481.5	2.92%

Mg 279.077 IEC†	749.8	23858	ug/L	199.6	23858	ppb	199.6	0.84%
Mn 257.610†	4058967.3	4040.5	ug/L	6.12	4040.5	ppb	6.12	0.15%
Mo 202.031†	-93.8	7.8415	ug/L	0.42687	7.8415	ppb	0.42687	5.44%
Na 589.592 Radial†	4027.6	1142.7	ug/L	43.52	1142.7	ppb	43.52	3.81%
Ni 231.604†	4597.0	95.108	ug/L	0.8005	95.108	ppb	0.8005	0.84%
P 214.914†	2104.0	874.64	ug/L	8.459	874.64	ppb	8.459	0.97%
Pb 220.353†	1805.0	195.62	ug/L	2.791	195.62	ppb	2.791	1.43%
S 181.975 Axial†	412.0	428.04	ug/L	17.415	428.04	ppb	17.415	4.07%
Sb 206.836†	49.5	-1.2348	ug/L	3.40574	-1.2348	ppb	3.40574	275.81%
Se 196.026†	-883.6	35.306	ug/L	5.5495	35.306	ppb	5.5495	15.72%
Si 251.611†	1199260.4	31897	ug/L	59.1	31897	ppb	59.1	0.19%
Sn 189.927†	-117.7	-12.580	ug/L	0.4002	-12.580	ppb	0.4002	3.18%
Sr 421.552†	37763.9	247.79	ug/L	7.932	247.79	ppb	7.932	3.20%
Ti 334.940†	2758593.8	4053.1	ug/L	5.84	4053.1	ppb	5.84	0.14%
Tl 190.801†	-222.9	-1.3274	ug/L	1.93402	-1.3274	ppb	1.93402	145.70%
U 409.014†	-10526.0	-309.17	ug/L	1.147	-309.17	ppb	1.147	0.37%
V 292.402†	44434.1	235.72	ug/L	1.776	235.72	ppb	1.776	0.75%
Zn 213.857†	46767.8	356.72	ug/L	2.835	356.72	ppb	2.835	0.79%
SiO2†	1197643.4	68627	ug/L	446.1	68627	ppb	446.1	0.65%

Sequence No.: 15
Sample ID: 243042005|934493|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 29
Date Collected: 12/29/2009 15:36:20
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 243042005|934493|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4851.3	4851.3	98.1	%			15:38:32
1	Y RADIAL	5711.7	5711.7	107.7	%			15:38:32
1	Al 396.153Radial†	145255.4	148100.3	115920	ug/L	115920	ppb	15:38:12
1	Ca 317.933Radial†	11565.9	11769.3	18444	ug/L	18444	ppb	15:38:12
1	Fe 238.204 Radial†	15243.1	15526.2	136350	ug/L	136350	ppb	15:38:12
1	K 766.490 Radial†	90255.5	88676.6	16848	ug/L	16848	ppb	15:38:12
1	Mg 279.077 IEC†	630.2	639.7	20340	ug/L	20340	ppb	15:38:32
1	Na 589.592 Radial†	5348.5	7249.9	2056.9	ug/L	2056.9	ppb	15:38:12
1	Sr 421.552†	37343.2	38058.1	249.74	ug/L	249.74	ppb	15:38:12
1	Sc 361.383	932178.7	932178.7	99.300	%			15:39:31
1	Y 371.029	896061.7	896061.7	109.53	%			15:39:31
1	Ag 328.068†	-9625.6	-10159.1	4.5619	ug/L	4.5619	ppb	15:39:36
1	As 188.979†	-78.0	-43.7	49.577	ug/L	49.577	ppb	15:39:56
1	B 249.677†	1084.8	1488.5	10.778	ug/L	10.778	ppb	15:39:36
1	Ba 233.527†	244182.4	245884.1	1675.5	ug/L	1675.5	ppb	15:39:36
1	Be 313.107†	-13175.6	-8567.2	7.3166	ug/L	7.3166	ppb	15:39:36
1	Cd 226.502†	1125.3	1389.9	-1.0531	ug/L	-1.0531	ppb	15:39:56
1	Co 228.616†	3917.3	4039.1	58.921	ug/L	58.921	ppb	15:39:56
1	Cr 267.716†	13550.2	13512.0	129.95	ug/L	129.95	ppb	15:39:56
1	Cu 324.752†	28457.6	20175.1	64.486	ug/L	64.486	ppb	15:39:36
1	Mn 257.610†	4244932.7	4274228.9	4253.8	ug/L	4253.8	ppb	15:39:31
1	Mo 202.031†	-53.6	-79.4	8.3934	ug/L	8.3934	ppb	15:39:56
1	Ni 231.604†	4310.6	4202.1	86.945	ug/L	86.945	ppb	15:39:56
1	P 214.914†	2526.8	2273.4	950.78	ug/L	950.78	ppb	15:39:56
1	Pb 220.353†	1047.9	1139.9	127.91	ug/L	127.91	ppb	15:39:56
1	S 181.975 Axial†	574.1	516.4	544.45	ug/L	544.45	ppb	15:39:56
1	Sb 206.836†	127.7	83.3	6.1503	ug/L	6.1503	ppb	15:39:56
1	Se 196.026†	-841.5	-814.8	56.870	ug/L	56.870	ppb	15:39:56
1	Si 251.611†	1073976.7	1080810.4	28745	ug/L	28745	ppb	15:39:31
1	Sn 189.927†	-97.9	-102.0	-10.638	ug/L	-10.638	ppb	15:39:56
1	Ti 334.940†	3450847.7	3476885.9	5108.0	ug/L	5108.0	ppb	15:39:31
1	Tl 190.801†	-296.1	-248.7	1.0839	ug/L	1.0839	ppb	15:39:56
1	U 409.014†	-10688.4	-7845.1	-234.55	ug/L	-234.55	ppb	15:39:36
1	V 292.402†	45330.0	47459.7	252.92	ug/L	252.92	ppb	15:39:36
1	Zn 213.857†	37568.9	36919.1	280.10	ug/L	280.10	ppb	15:39:36
1	SiO2†	1072324.7	1079128.0	61835	ug/L	61835	ppb	15:41:07
2	Sc Radial	4800.9	4800.9	97.1	%			15:38:57
2	Y RADIAL	5649.2	5649.2	106.5	%			15:38:57
2	Al 396.153Radial†	146859.4	151306.9	118430	ug/L	118430	ppb	15:38:37
2	Ca 317.933Radial†	11694.5	12025.5	18846	ug/L	18846	ppb	15:38:37
2	Fe 238.204 Radial†	15415.0	15866.3	139340	ug/L	139340	ppb	15:38:37
2	K 766.490 Radial†	91501.1	90925.5	17276	ug/L	17276	ppb	15:38:37
2	Mg 279.077 IEC†	627.6	643.8	20469	ug/L	20469	ppb	15:38:57
2	Na 589.592 Radial†	5407.0	7367.4	2090.3	ug/L	2090.3	ppb	15:38:37
2	Sr 421.552†	37718.8	38844.6	254.90	ug/L	254.90	ppb	15:38:37
2	Sc 361.383	933666.4	933666.4	99.458	%			15:40:03
2	Y 371.029	897173.8	897173.8	109.66	%			15:40:03
2	Ag 328.068†	-9377.2	-9893.9	6.6446	ug/L	6.6446	ppb	15:40:08
2	As 188.979†	-86.7	-52.4	47.197	ug/L	47.197	ppb	15:40:28
2	B 249.677†	1147.7	1550.0	11.578	ug/L	11.578	ppb	15:40:08
2	Ba 233.527†	243285.0	244590.1	1666.8	ug/L	1666.8	ppb	15:40:08
2	Be 313.107†	-13052.2	-8421.9	7.3599	ug/L	7.3599	ppb	15:40:08
2	Cd 226.502†	1151.5	1414.4	-1.1302	ug/L	-1.1302	ppb	15:40:28
2	Co 228.616†	4011.0	4127.0	60.420	ug/L	60.420	ppb	15:40:28
2	Cr 267.716†	13751.5	13692.7	131.70	ug/L	131.70	ppb	15:40:28
2	Cu 324.752†	28455.1	20126.8	64.501	ug/L	64.501	ppb	15:40:08
2	Mn 257.610†	4253483.8	4276014.9	4255.9	ug/L	4255.9	ppb	15:40:03
2	Mo 202.031†	-69.1	-95.0	7.7665	ug/L	7.7665	ppb	15:40:28
2	Ni 231.604†	4377.8	4262.7	88.200	ug/L	88.200	ppb	15:40:28

2	P 214.914†	2594.7	2337.6	978.35	ug/L	978.35 ppb	15:40:28
2	Pb 220.353†	1079.4	1169.9	131.20	ug/L	131.20 ppb	15:40:28
2	S 181.975 Axial†	589.1	530.7	559.60	ug/L	559.60 ppb	15:40:28
2	Sb 206.836†	103.0	58.3	-1.1117	ug/L	-1.1117 ppb	15:40:28
2	Se 196.026†	-868.7	-840.7	54.289	ug/L	54.289 ppb	15:40:28
2	Si 251.611†	1076668.4	1081793.3	28771	ug/L	28771 ppb	15:40:03
2	Sn 189.927†	-103.3	-107.3	-11.300	ug/L	-11.300 ppb	15:40:28
2	Ti 334.940†	3455381.6	3475906.9	5106.6	ug/L	5106.6 ppb	15:40:03
2	Tl 190.801†	-322.4	-274.7	-5.6496	ug/L	-5.6496 ppb	15:40:28
2	U 409.014†	-10771.7	-7911.7	-236.78	ug/L	-236.78 ppb	15:40:08
2	V 292.402†	45053.1	47108.6	250.39	ug/L	250.39 ppb	15:40:08
2	Zn 213.857†	37413.2	36702.3	278.23	ug/L	278.23 ppb	15:40:08
2	SiO2†	1083263.4	1088405.6	62366	ug/L	62366 ppb	15:41:13
3	Sc Radial	4962.0	4962.0	100	%		15:39:23
3	Y RADIAL	5841.8	5841.8	110.1	%		15:39:23
3	Al 396.153Radial†	143567.5	143116.2	112020	ug/L	112020 ppb	15:39:03
3	Ca 317.933Radial†	11390.5	11331.5	17758	ug/L	17758 ppb	15:39:03
3	Fe 238.204 Radial†	15036.5	14973.7	131500	ug/L	131500 ppb	15:39:03
3	K 766.490 Radial†	89208.1	85581.0	16258	ug/L	16258 ppb	15:39:03
3	Mg 279.077 IEC†	637.7	632.9	20126	ug/L	20126 ppb	15:39:23
3	Na 589.592 Radial†	5230.3	7010.5	1989.0	ug/L	1989.0 ppb	15:39:03
3	Sr 421.552†	36934.4	36801.8	241.50	ug/L	241.50 ppb	15:39:03
3	Sc 361.383	955106.6	955106.6	101.74	%		15:40:35
3	Y 371.029	915803.0	915803.0	111.94	%		15:40:35
3	Ag 328.068†	-9561.2	-9863.0	4.1358	ug/L	4.1358 ppb	15:40:40
3	As 188.979†	-86.7	-50.4	46.671	ug/L	46.671 ppb	15:41:01
3	B 249.677†	1113.1	1490.1	11.456	ug/L	11.456 ppb	15:40:40
3	Ba 233.527†	243663.6	239471.2	1631.8	ug/L	1631.8 ppb	15:40:40
3	Be 313.107†	-12873.6	-7951.8	7.5174	ug/L	7.5174 ppb	15:40:40
3	Cd 226.502†	1146.8	1383.8	-0.6238	ug/L	-0.6238 ppb	15:41:01
3	Co 228.616†	3942.4	3969.1	57.732	ug/L	57.732 ppb	15:41:01
3	Cr 267.716†	13616.4	13249.5	127.38	ug/L	127.38 ppb	15:41:01
3	Cu 324.752†	28484.8	19513.9	62.353	ug/L	62.353 ppb	15:40:40
3	Mn 257.610†	4350023.5	4274899.5	4254.0	ug/L	4254.0 ppb	15:40:35
3	Mo 202.031†	-64.8	-89.1	7.3590	ug/L	7.3590 ppb	15:41:01
3	Ni 231.604†	4384.6	4170.7	86.296	ug/L	86.296 ppb	15:41:01
3	P 214.914†	2560.4	2245.4	940.97	ug/L	940.97 ppb	15:41:01
3	Pb 220.353†	1045.6	1112.4	124.70	ug/L	124.70 ppb	15:41:01
3	S 181.975 Axial†	593.9	522.0	551.35	ug/L	551.35 ppb	15:41:01
3	Sb 206.836†	93.6	46.7	-4.2754	ug/L	-4.2754 ppb	15:41:01
3	Se 196.026†	-844.0	-796.9	49.631	ug/L	49.631 ppb	15:41:01
3	Si 251.611†	1103889.9	1084248.1	28837	ug/L	28837 ppb	15:40:35
3	Sn 189.927†	-96.4	-98.2	-10.238	ug/L	-10.238 ppb	15:41:01
3	Ti 334.940†	3537608.7	3478737.4	5110.7	ug/L	5110.7 ppb	15:40:35
3	Tl 190.801†	-301.3	-246.7	1.5640	ug/L	1.5640 ppb	15:41:01
3	U 409.014†	-10529.9	-7430.9	-222.47	ug/L	-222.47 ppb	15:40:40
3	V 292.402†	45154.6	46191.4	246.20	ug/L	246.20 ppb	15:40:40
3	Zn 213.857†	37576.4	36018.2	273.32	ug/L	273.32 ppb	15:40:40
3	SiO2†	1084994.6	1065657.7	61063	ug/L	61063 ppb	15:41:19

Mean Data: 243042005|934493|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	940317.2	100.17	%	1.367				1.36%
Sc Radial	4871.4	98.5	%	1.67				1.69%
Y 371.029	903012.8	110.38	%	1.356				1.23%
Y RADIAL	5734.2	108.1	%	1.85				1.71%
Ag 328.068†	-9972.0	5.1141	ug/L	1.34242	5.1141	ppb	1.34242	26.25%
Al 396.153Radial†	147507.8	115460	ug/L	3230.7	115460	ppb	3230.7	2.80%
As 188.979†	-48.8	47.815	ug/L	1.5483	47.815	ppb	1.5483	3.24%
B 249.677†	1509.6	11.271	ug/L	0.4312	11.271	ppb	0.4312	3.83%
Ba 233.527†	243315.1	1658.1	ug/L	23.15	1658.1	ppb	23.15	1.40%
Be 313.107†	-8313.6	7.3980	ug/L	0.10569	7.3980	ppb	0.10569	1.43%
Ca 317.933Radial†	11708.8	18349	ug/L	549.9	18349	ppb	549.9	3.00%
Cd 226.502†	1396.0	-0.9357	ug/L	0.27283	-0.9357	ppb	0.27283	29.16%
Co 228.616†	4045.1	59.025	ug/L	1.3470	59.025	ppb	1.3470	2.28%
Cr 267.716†	13484.7	129.68	ug/L	2.172	129.68	ppb	2.172	1.67%
Cu 324.752†	19938.6	63.780	ug/L	1.2358	63.780	ppb	1.2358	1.94%
Fe 238.204 Radial†	15455.4	135730	ug/L	3956.1	135730	ppb	3956.1	2.91%
K 766.490 Radial†	88394.3	16794	ug/L	511.4	16794	ppb	511.4	3.05%

Mg 279.077 IEC†	638.8	20312	ug/L	173.4	20312	ppb	173.4	0.85%
Mn 257.610†	4275047.8	4254.6	ug/L	1.14	4254.6	ppb	1.14	0.03%
Mo 202.031†	-87.8	7.8396	ug/L	0.52108	7.8396	ppb	0.52108	6.65%
Na 589.592 Radial†	7209.3	2045.4	ug/L	51.61	2045.4	ppb	51.61	2.52%
Ni 231.604†	4211.8	87.147	ug/L	0.9681	87.147	ppb	0.9681	1.11%
P 214.914†	2285.5	956.70	ug/L	19.381	956.70	ppb	19.381	2.03%
Pb 220.353†	1140.7	127.94	ug/L	3.253	127.94	ppb	3.253	2.54%
S 181.975 Axial†	523.0	551.80	ug/L	7.582	551.80	ppb	7.582	1.37%
Sb 206.836†	62.8	0.2544	ug/L	5.34540	0.2544	ppb	5.34540	>999.9%
Se 196.026†	-817.5	53.597	ug/L	3.6687	53.597	ppb	3.6687	6.84%
Si 251.611†	1082284.0	28785	ug/L	47.2	28785	ppb	47.2	0.16%
Sn 189.927†	-102.5	-10.725	ug/L	0.5363	-10.725	ppb	0.5363	5.00%
Sr 421.552†	37901.5	248.71	ug/L	6.761	248.71	ppb	6.761	2.72%
Ti 334.940†	3477176.8	5108.4	ug/L	2.08	5108.4	ppb	2.08	0.04%
Tl 190.801†	-256.7	-1.0005	ug/L	4.03331	-1.0005	ppb	4.03331	403.11%
U 409.014†	-7729.2	-231.27	ug/L	7.697	-231.27	ppb	7.697	3.33%
V 292.402†	46919.9	249.83	ug/L	3.394	249.83	ppb	3.394	1.36%
Zn 213.857†	36546.6	277.22	ug/L	3.500	277.22	ppb	3.500	1.26%
SiO2†	1077730.5	61755	ug/L	655.2	61755	ppb	655.2	1.06%

Sequence No.: 16
Sample ID: 243042006|934493|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 30
Date Collected: 12/29/2009 15:43:29
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 243042006|934493|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4780.4	4780.4	96.7	%			15:45:41
1	Y RADIAL	6140.2	6140.2	115.7	%			15:45:41
1	Al 396.153Radial†	119087.6	123224.1	96452	ug/L	96452	ppb	15:45:21
1	Ca 317.933Radial†	23150.6	23929.1	37500	ug/L	37500	ppb	15:45:21
1	Fe 238.204 Radial†	14578.3	15068.8	132330	ug/L	132330	ppb	15:45:21
1	K 766.490 Radial†	56439.4	55056.3	10473	ug/L	10473	ppb	15:45:21
1	Mg 279.077 IEC†	603.9	622.0	19778	ug/L	19778	ppb	15:45:41
1	Na 589.592 Radial†	3236.8	5146.1	1460.0	ug/L	1460.0	ppb	15:45:21
1	Sr 421.552†	34456.7	35636.4	233.66	ug/L	233.66	ppb	15:45:21
1	Sc 361.383	943221.3	943221.3	100.48	%			15:46:40
1	Y 371.029	987565.1	987565.1	120.71	%			15:46:40
1	Ag 328.068†	-8945.6	-9368.8	5.7810	ug/L	5.7810	ppb	15:46:40
1	As 188.979†	-35.7	-0.7	44.017	ug/L	44.017	ppb	15:47:00
1	B 249.677†	728.1	1120.7	4.2443	ug/L	4.2443	ppb	15:46:40
1	Ba 233.527†	110615.2	110071.0	751.92	ug/L	751.92	ppb	15:46:40
1	Be 313.107†	-522.5	4181.3	6.8600	ug/L	6.8600	ppb	15:46:40
1	Cd 226.502†	1004.5	1256.4	-1.8006	ug/L	-1.8006	ppb	15:47:00
1	Co 228.616†	1484.2	1571.4	19.982	ug/L	19.982	ppb	15:47:00
1	Cr 267.716†	33415.5	33123.5	313.94	ug/L	313.94	ppb	15:46:40
1	Cu 324.752†	22912.7	14320.9	47.588	ug/L	47.588	ppb	15:46:40
1	Mn 257.610†	1746105.1	1737194.6	1736.4	ug/L	1736.4	ppb	15:46:40
1	Mo 202.031†	34.1	8.5	13.185	ug/L	13.185	ppb	15:47:00
1	Ni 231.604†	8461.7	8282.7	171.45	ug/L	171.45	ppb	15:47:00
1	P 214.914†	2498.1	2215.1	923.58	ug/L	923.58	ppb	15:47:00
1	Pb 220.353†	771.3	852.2	95.340	ug/L	95.340	ppb	15:47:00
1	S 181.975 Axial†	380.9	317.4	329.65	ug/L	329.65	ppb	15:47:00
1	Sb 206.836†	104.9	59.2	1.1620	ug/L	1.1620	ppb	15:47:00
1	Se 196.026†	-808.0	-771.5	61.630	ug/L	61.630	ppb	15:47:00
1	Si 251.611†	1167829.3	1161556.2	30895	ug/L	30895	ppb	15:46:40
1	Sn 189.927†	-139.9	-142.6	-14.480	ug/L	-14.480	ppb	15:47:00
1	Ti 334.940†	1923440.9	1916031.5	2816.3	ug/L	2816.3	ppb	15:46:40
1	Tl 190.801†	-185.7	-135.4	-1.6044	ug/L	-1.6044	ppb	15:47:00
1	U 409.014†	-14162.2	-11176.4	-326.62	ug/L	-326.62	ppb	15:46:40
1	V 292.402†	23836.8	25533.9	126.80	ug/L	126.80	ppb	15:46:40
1	Zn 213.857†	62184.0	60974.6	467.77	ug/L	467.77	ppb	15:46:40
1	SiO2†	1160073.2	1153818.1	66120	ug/L	66120	ppb	15:48:01
2	Sc Radial	4826.3	4826.3	97.6	%			15:46:07
2	Y RADIAL	6191.2	6191.2	116.7	%			15:46:07
2	Al 396.153Radial†	118651.0	121604.7	95184	ug/L	95184	ppb	15:45:47
2	Ca 317.933Radial†	23138.6	23689.0	37124	ug/L	37124	ppb	15:45:47
2	Fe 238.204 Radial†	14515.5	14861.0	130510	ug/L	130510	ppb	15:45:47
2	K 766.490 Radial†	56211.2	54267.1	10323	ug/L	10323	ppb	15:45:47
2	Mg 279.077 IEC†	595.6	607.7	19320	ug/L	19320	ppb	15:46:07
2	Na 589.592 Radial†	3293.8	5172.7	1467.6	ug/L	1467.6	ppb	15:45:47
2	Sr 421.552†	34441.5	35281.7	231.34	ug/L	231.34	ppb	15:45:47
2	Sc 361.383	937462.4	937462.4	99.863	%			15:47:08
2	Y 371.029	980841.7	980841.7	119.89	%			15:47:08
2	Ag 328.068†	-8896.0	-9373.9	5.1596	ug/L	5.1596	ppb	15:47:08
2	As 188.979†	-32.6	2.1	44.647	ug/L	44.647	ppb	15:47:28
2	B 249.677†	892.5	1289.8	7.7855	ug/L	7.7855	ppb	15:47:08
2	Ba 233.527†	110240.4	110371.9	753.92	ug/L	753.92	ppb	15:47:08
2	Be 313.107†	-397.6	4303.2	6.8975	ug/L	6.8975	ppb	15:47:08
2	Cd 226.502†	1004.2	1262.2	-1.5639	ug/L	-1.5639	ppb	15:47:28
2	Co 228.616†	1476.0	1572.3	20.028	ug/L	20.028	ppb	15:47:28
2	Cr 267.716†	33291.8	33203.9	314.67	ug/L	314.67	ppb	15:47:08
2	Cu 324.752†	22745.0	14293.1	47.415	ug/L	47.415	ppb	15:47:08
2	Mn 257.610†	1738134.4	1739888.6	1738.9	ug/L	1738.9	ppb	15:47:08
2	Mo 202.031†	54.2	28.8	14.204	ug/L	14.204	ppb	15:47:28
2	Ni 231.604†	8511.1	8383.9	173.54	ug/L	173.54	ppb	15:47:28

2	P 214.914†	2509.5	2241.8	936.78	ug/L	936.78	ppb	15:47:28
2	Pb 220.353†	815.8	901.5	100.10	ug/L	100.10	ppb	15:47:28
2	S 181.975 Axial†	384.7	323.6	336.68	ug/L	336.68	ppb	15:47:28
2	Sb 206.836†	98.9	53.8	-0.3128	ug/L	-0.3128	ppb	15:47:28
2	Se 196.026†	-817.6	-786.1	48.846	ug/L	48.846	ppb	15:47:28
2	Si 251.611†	1161377.5	1162235.6	30914	ug/L	30914	ppb	15:47:08
2	Sn 189.927†	-119.1	-122.6	-11.713	ug/L	-11.713	ppb	15:47:28
2	Ti 334.940†	1911296.2	1915629.9	2815.7	ug/L	2815.7	ppb	15:47:08
2	Tl 190.801†	-190.2	-141.0	-3.0829	ug/L	-3.0829	ppb	15:47:28
2	U 409.014†	-14226.8	-11327.7	-330.58	ug/L	-330.58	ppb	15:47:08
2	V 292.402†	23714.4	25557.1	127.22	ug/L	127.22	ppb	15:47:08
2	Zn 213.857†	61863.9	61034.3	468.34	ug/L	468.34	ppb	15:47:08
2	SiO2†	1152470.8	1153298.0	66090	ug/L	66090	ppb	15:48:07
3	Sc Radial	4872.8	4872.8	98.5	%			15:46:32
3	Y RADIAL	6249.3	6249.3	117.8	%			15:46:32
3	Al 396.153Radial†	117493.5	119271.7	93358	ug/L	93358	ppb	15:46:12
3	Ca 317.933Radial†	22870.2	23190.7	36343	ug/L	36343	ppb	15:46:12
3	Fe 238.204 Radial†	14356.5	14557.9	127850	ug/L	127850	ppb	15:46:12
3	K 766.490 Radial†	55732.8	53232.8	10126	ug/L	10126	ppb	15:46:12
3	Mg 279.077 IEC†	600.0	606.3	19278	ug/L	19278	ppb	15:46:32
3	Na 589.592 Radial†	3178.2	5023.2	1425.2	ug/L	1425.2	ppb	15:46:12
3	Sr 421.552†	34113.1	34612.2	226.95	ug/L	226.95	ppb	15:46:12
3	Sc 361.383	937702.9	937702.9	99.888	%			15:47:35
3	Y 371.029	980012.9	980012.9	119.79	%			15:47:35
3	Ag 328.068†	-8914.0	-9389.5	4.2221	ug/L	4.2221	ppb	15:47:35
3	As 188.979†	-26.1	8.7	46.464	ug/L	46.464	ppb	15:47:55
3	B 249.677†	817.2	1214.2	6.6646	ug/L	6.6646	ppb	15:47:35
3	Ba 233.527†	110610.9	110714.5	756.18	ug/L	756.18	ppb	15:47:35
3	Be 313.107†	-288.0	4413.0	6.9477	ug/L	6.9477	ppb	15:47:35
3	Cd 226.502†	999.1	1256.9	-1.3462	ug/L	-1.3462	ppb	15:47:55
3	Co 228.616†	1457.2	1553.1	19.711	ug/L	19.711	ppb	15:47:55
3	Cr 267.716†	33379.9	33283.5	315.37	ug/L	315.37	ppb	15:47:35
3	Cu 324.752†	22882.0	14424.3	47.654	ug/L	47.654	ppb	15:47:35
3	Mn 257.610†	1745412.1	1746728.1	1745.4	ug/L	1745.4	ppb	15:47:35
3	Mo 202.031†	48.8	23.4	13.629	ug/L	13.629	ppb	15:47:55
3	Ni 231.604†	8477.2	8347.8	172.80	ug/L	172.80	ppb	15:47:55
3	P 214.914†	2511.0	2242.6	938.59	ug/L	938.59	ppb	15:47:55
3	Pb 220.353†	769.7	855.2	95.312	ug/L	95.312	ppb	15:47:55
3	S 181.975 Axial†	391.5	330.3	344.43	ug/L	344.43	ppb	15:47:55
3	Sb 206.836†	98.7	53.6	-0.4757	ug/L	-0.4757	ppb	15:47:55
3	Se 196.026†	-815.7	-783.9	41.308	ug/L	41.308	ppb	15:47:55
3	Si 251.611†	1165672.5	1166237.1	31020	ug/L	31020	ppb	15:47:35
3	Sn 189.927†	-136.6	-140.2	-14.315	ug/L	-14.315	ppb	15:47:55
3	Ti 334.940†	1917062.6	1920912.0	2823.4	ug/L	2823.4	ppb	15:47:35
3	Tl 190.801†	-193.4	-144.1	-3.8627	ug/L	-3.8627	ppb	15:47:55
3	U 409.014†	-14296.4	-11393.7	-332.07	ug/L	-332.07	ppb	15:47:35
3	V 292.402†	23890.7	25727.5	128.61	ug/L	128.61	ppb	15:47:35
3	Zn 213.857†	62215.1	61370.1	471.10	ug/L	471.10	ppb	15:47:35
3	SiO2†	1157541.7	1158078.6	66364	ug/L	66364	ppb	15:48:13

Mean Data: 243042006|934493|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	939462.2	100.08	%	0.347				0.35%
Sc Radial	4826.5	97.6	%	0.93				0.96%
Y 371.029	982806.6	120.13	%	0.506				0.42%
Y RADIAL	6193.6	116.8	%	1.03				0.88%
Ag 328.068†	-9377.4	5.0542	ug/L	0.78476	5.0542	ppb	0.78476	15.53%
Al 396.153Radial†	121366.8	94998	ug/L	1555.2	94998	ppb	1555.2	1.64%
As 188.979†	3.4	45.043	ug/L	1.2707	45.043	ppb	1.2707	2.82%
B 249.677†	1208.3	6.2315	ug/L	1.80989	6.2315	ppb	1.80989	29.04%
Ba 233.527†	110385.8	754.01	ug/L	2.134	754.01	ppb	2.134	0.28%
Be 313.107†	4299.2	6.9017	ug/L	0.04400	6.9017	ppb	0.04400	0.64%
Ca 317.933Radial†	23602.9	36989	ug/L	590.3	36989	ppb	590.3	1.60%
Cd 226.502†	1258.5	-1.5702	ug/L	0.22727	-1.5702	ppb	0.22727	14.47%
Co 228.616†	1565.6	19.907	ug/L	0.1712	19.907	ppb	0.1712	0.86%
Cr 267.716†	33203.6	314.66	ug/L	0.714	314.66	ppb	0.714	0.23%
Cu 324.752†	14346.1	47.552	ug/L	0.1231	47.552	ppb	0.1231	0.26%
Fe 238.204 Radial†	14829.3	130230	ug/L	2256.3	130230	ppb	2256.3	1.73%
K 766.490 Radial†	54185.4	10307	ug/L	174.4	10307	ppb	174.4	1.69%

Mg 279.077 IEC†	612.0	19459	ug/L	277.3	19459	ppb	277.3	1.43%
Mn 257.610†	1741270.4	1740.2	ug/L	4.66	1740.2	ppb	4.66	0.27%
Mo 202.031†	20.2	13.673	ug/L	0.5107	13.673	ppb	0.5107	3.74%
Na 589.592 Radial†	5114.0	1450.9	ug/L	22.63	1450.9	ppb	22.63	1.56%
Ni 231.604†	8338.1	172.60	ug/L	1.062	172.60	ppb	1.062	0.62%
P 214.914†	2233.2	932.98	ug/L	8.196	932.98	ppb	8.196	0.88%
Pb 220.353†	869.7	96.918	ug/L	2.7577	96.918	ppb	2.7577	2.85%
S 181.975 Axial†	323.7	336.92	ug/L	7.395	336.92	ppb	7.395	2.19%
Sb 206.836†	55.5	0.1245	ug/L	0.90216	0.1245	ppb	0.90216	724.61%
Se 196.026†	-780.5	50.595	ug/L	10.2735	50.595	ppb	10.2735	20.31%
Si 251.611†	1163343.0	30943	ug/L	67.3	30943	ppb	67.3	0.22%
Sn 189.927†	-135.2	-13.503	ug/L	1.5518	-13.503	ppb	1.5518	11.49%
Sr 421.552†	35176.8	230.65	ug/L	3.410	230.65	ppb	3.410	1.48%
Ti 334.940†	1917524.5	2818.5	ug/L	4.29	2818.5	ppb	4.29	0.15%
Tl 190.801†	-140.2	-2.8500	ug/L	1.14699	-2.8500	ppb	1.14699	40.25%
U 409.014†	-11299.3	-329.75	ug/L	2.818	-329.75	ppb	2.818	0.85%
V 292.402†	25606.2	127.54	ug/L	0.945	127.54	ppb	0.945	0.74%
Zn 213.857†	61126.3	469.07	ug/L	1.783	469.07	ppb	1.783	0.38%
SiO2†	1155064.9	66191	ug/L	150.4	66191	ppb	150.4	0.23%

Sequence No.: 17
Sample ID: 243042007|934493|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 31
Date Collected: 12/29/2009 15:50:23
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 243042007|934493|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4764.5	4764.5	96.3	%			15:52:15
1	Y RADIAL	6695.3	6695.3	126.2	%			15:52:15
1	Al 396.153Radial†	44314.3	46020.5	36021	ug/L	36021	ppb	15:52:15
1	Ca 317.933Radial†	4470.1	4618.6	7238.0	ug/L	7238.0	ppb	15:52:15
1	Fe 238.204 Radial†	9337.4	9679.2	85001	ug/L	85001	ppb	15:52:15
1	K 766.490 Radial†	21921.8	19421.9	3696.3	ug/L	3696.3	ppb	15:52:15
1	Mg 279.077 IEC†	177.5	181.6	5733.9	ug/L	5733.9	ppb	15:52:35
1	Na 589.592 Radial†	209.0	2014.3	571.51	ug/L	571.51	ppb	15:52:15
1	Sr 421.552†	10627.6	11020.6	72.301	ug/L	72.301	ppb	15:52:15
1	Sc 361.383	929661.1	929661.1	99.032	%			15:53:33
1	Y 371.029	1056370.0	1056370.0	129.12	%			15:53:33
1	Ag 328.068†	-5728.3	-6249.9	3.0105	ug/L	3.0105	ppb	15:53:33
1	As 188.979†	20.2	55.2	41.841	ug/L	41.841	ppb	15:53:53
1	B 249.677†	220.5	618.7	0.7760	ug/L	0.7760	ppb	15:53:33
1	Ba 233.527†	31715.6	32005.7	219.87	ug/L	219.87	ppb	15:53:33
1	Be 313.107†	2148.5	6870.9	4.6266	ug/L	4.6266	ppb	15:53:33
1	Cd 226.502†	556.3	818.4	-1.0542	ug/L	-1.0542	ppb	15:53:53
1	Co 228.616†	374.6	472.4	4.4952	ug/L	4.4952	ppb	15:53:53
1	Cr 267.716†	24127.8	24230.0	229.40	ug/L	229.40	ppb	15:53:33
1	Cu 324.752†	15548.1	7216.9	24.916	ug/L	24.916	ppb	15:53:33
1	Mn 257.610†	648274.5	653977.1	657.20	ug/L	657.20	ppb	15:53:33
1	Mo 202.031†	234.5	211.3	20.586	ug/L	20.586	ppb	15:53:53
1	Ni 231.604†	5381.3	5295.1	109.61	ug/L	109.61	ppb	15:53:53
1	P 214.914†	1661.7	1406.7	578.14	ug/L	578.14	ppb	15:53:53
1	Pb 220.353†	392.6	481.1	48.871	ug/L	48.871	ppb	15:53:53
1	S 181.975 Axial†	186.2	126.4	131.72	ug/L	131.72	ppb	15:53:53
1	Sb 206.836†	54.7	10.0	-5.4238	ug/L	-5.4238	ppb	15:53:53
1	Se 196.026†	-537.2	-509.8	28.508	ug/L	28.508	ppb	15:53:53
1	Si 251.611†	839907.0	847380.7	22540	ug/L	22540	ppb	15:53:33
1	Sn 189.927†	-48.6	-52.5	-5.5194	ug/L	-5.5194	ppb	15:53:53
1	Ti 334.940†	836631.3	846517.1	1243.9	ug/L	1243.9	ppb	15:53:33
1	Tl 190.801†	-132.9	-84.8	-8.0717	ug/L	-8.0717	ppb	15:53:53
1	U 409.014†	-15053.6	-12282.1	-351.11	ug/L	-351.11	ppb	15:53:33
1	V 292.402†	9719.9	11625.0	53.688	ug/L	53.688	ppb	15:53:33
1	Zn 213.857†	25193.3	24524.9	186.31	ug/L	186.31	ppb	15:53:33
1	SiO2†	862742.0	870420.4	49882	ug/L	49882	ppb	15:54:51
2	Sc Radial	4901.1	4901.1	99.1	%			15:52:40
2	Y RADIAL	6873.0	6873.0	129.6	%			15:52:40
2	Al 396.153Radial†	45296.3	45729.5	35794	ug/L	35794	ppb	15:52:40
2	Ca 317.933Radial†	4593.3	4613.7	7230.2	ug/L	7230.2	ppb	15:52:40
2	Fe 238.204 Radial†	9575.9	9649.8	84743	ug/L	84743	ppb	15:52:40
2	K 766.490 Radial†	22183.3	19051.7	3625.8	ug/L	3625.8	ppb	15:52:40
2	Mg 279.077 IEC†	178.1	177.0	5588.4	ug/L	5588.4	ppb	15:53:00
2	Na 589.592 Radial†	285.6	2085.6	591.74	ug/L	591.74	ppb	15:52:40
2	Sr 421.552†	10959.9	11048.5	72.484	ug/L	72.484	ppb	15:52:40
2	Sc 361.383	939541.0	939541.0	100.08	%			15:53:59
2	Y 371.029	1065525.8	1065525.8	130.24	%			15:53:59
2	Ag 328.068†	-5800.4	-6261.1	2.8765	ug/L	2.8765	ppb	15:53:59
2	As 188.979†	23.0	57.8	42.660	ug/L	42.660	ppb	15:54:19
2	B 249.677†	156.0	552.0	-0.4928	ug/L	-0.4928	ppb	15:53:59
2	Ba 233.527†	32138.7	32091.6	220.44	ug/L	220.44	ppb	15:53:59
2	Be 313.107†	2011.5	6711.2	4.5781	ug/L	4.5781	ppb	15:53:59
2	Cd 226.502†	566.6	822.7	-0.9902	ug/L	-0.9902	ppb	15:54:19
2	Co 228.616†	391.8	485.7	4.7285	ug/L	4.7285	ppb	15:54:19
2	Cr 267.716†	24325.5	24171.4	228.85	ug/L	228.85	ppb	15:53:59
2	Cu 324.752†	15636.4	7140.1	24.683	ug/L	24.683	ppb	15:53:59
2	Mn 257.610†	655530.0	654342.9	657.54	ug/L	657.54	ppb	15:53:59
2	Mo 202.031†	228.5	202.9	20.065	ug/L	20.065	ppb	15:54:19
2	Ni 231.604†	5364.3	5220.9	108.08	ug/L	108.08	ppb	15:54:19

2	P 214.914†	1690.7	1418.1	583.47	ug/L	583.47	ppb	15:54:19
2	Pb 220.353†	371.1	455.4	46.288	ug/L	46.288	ppb	15:54:19
2	S 181.975 Axial†	188.7	126.9	132.36	ug/L	132.36	ppb	15:54:19
2	Sb 206.836†	66.7	21.4	-2.1122	ug/L	-2.1122	ppb	15:54:19
2	Se 196.026†	-546.1	-512.9	26.167	ug/L	26.167	ppb	15:54:19
2	Si 251.611†	850540.2	849086.5	22585	ug/L	22585	ppb	15:53:59
2	Sn 189.927†	-34.8	-38.2	-3.4983	ug/L	-3.4983	ppb	15:54:19
2	Ti 334.940†	846288.9	847282.9	1245.0	ug/L	1245.0	ppb	15:53:59
2	Tl 190.801†	-119.1	-69.6	-4.0839	ug/L	-4.0839	ppb	15:54:19
2	U 409.014†	-15183.0	-12251.5	-350.23	ug/L	-350.23	ppb	15:53:59
2	V 292.402†	9798.9	11600.8	53.575	ug/L	53.575	ppb	15:53:59
2	Zn 213.857†	25444.8	24508.8	186.21	ug/L	186.21	ppb	15:53:59
2	SiO2†	849711.6	848239.9	48611	ug/L	48611	ppb	15:54:57
3	Sc Radial	4886.6	4886.6	98.8	%			15:53:05
3	Y RADIAL	6841.0	6841.0	129.0	%			15:53:05
3	Al 396.153Radial†	45039.4	45604.6	35696	ug/L	35696	ppb	15:53:05
3	Ca 317.933Radial†	4567.0	4600.7	7209.9	ug/L	7209.9	ppb	15:53:05
3	Fe 238.204 Radial†	9511.2	9612.8	84418	ug/L	84418	ppb	15:53:05
3	K 766.490 Radial†	22095.9	19029.4	3621.5	ug/L	3621.5	ppb	15:53:05
3	Mg 279.077 IEC†	175.6	175.0	5524.8	ug/L	5524.8	ppb	15:53:25
3	Na 589.592 Radial†	300.8	2101.9	596.35	ug/L	596.35	ppb	15:53:05
3	Sr 421.552†	10851.1	10971.2	71.976	ug/L	71.976	ppb	15:53:05
3	Sc 361.383	938450.9	938450.9	99.968	%			15:54:25
3	Y 371.029	1062790.0	1062790.0	129.91	%			15:54:25
3	Ag 328.068†	-5794.9	-6262.4	2.7690	ug/L	2.7690	ppb	15:54:25
3	As 188.979†	24.0	58.8	42.935	ug/L	42.935	ppb	15:54:45
3	B 249.677†	321.6	717.8	2.7850	ug/L	2.7850	ppb	15:54:25
3	Ba 233.527†	32074.5	32064.7	220.25	ug/L	220.25	ppb	15:54:25
3	Be 313.107†	2102.8	6804.9	4.6065	ug/L	4.6065	ppb	15:54:25
3	Cd 226.502†	553.3	810.2	-1.0705	ug/L	-1.0705	ppb	15:54:45
3	Co 228.616†	401.6	496.0	4.9168	ug/L	4.9168	ppb	15:54:45
3	Cr 267.716†	24298.1	24172.2	228.85	ug/L	228.85	ppb	15:54:25
3	Cu 324.752†	15787.9	7309.7	25.151	ug/L	25.151	ppb	15:54:25
3	Mn 257.610†	655300.2	654873.8	658.04	ug/L	658.04	ppb	15:54:25
3	Mo 202.031†	237.2	211.9	20.561	ug/L	20.561	ppb	15:54:45
3	Ni 231.604†	5405.3	5268.1	109.05	ug/L	109.05	ppb	15:54:45
3	P 214.914†	1702.9	1432.2	590.04	ug/L	590.04	ppb	15:54:45
3	Pb 220.353†	383.3	468.1	47.555	ug/L	47.555	ppb	15:54:45
3	S 181.975 Axial†	189.2	127.6	133.09	ug/L	133.09	ppb	15:54:45
3	Sb 206.836†	66.9	21.7	-2.0244	ug/L	-2.0244	ppb	15:54:45
3	Se 196.026†	-545.9	-513.4	24.907	ug/L	24.907	ppb	15:54:45
3	Si 251.611†	848319.6	847852.3	22553	ug/L	22553	ppb	15:54:25
3	Sn 189.927†	-40.7	-44.2	-4.3555	ug/L	-4.3555	ppb	15:54:45
3	Ti 334.940†	844859.7	846835.5	1244.3	ug/L	1244.3	ppb	15:54:25
3	Tl 190.801†	-110.4	-61.0	-1.8424	ug/L	-1.8424	ppb	15:54:45
3	U 409.014†	-15355.7	-12442.0	-355.46	ug/L	-355.46	ppb	15:54:25
3	V 292.402†	9848.6	11661.9	53.980	ug/L	53.980	ppb	15:54:25
3	Zn 213.857†	25374.7	24468.2	185.91	ug/L	185.91	ppb	15:54:25
3	SiO2†	860298.5	859816.5	49275	ug/L	49275	ppb	15:55:03

Mean Data: 243042007|934493|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	935884.3	99.695	%	0.5770				0.58%
Sc Radial	4850.7	98.1	%	1.52				1.55%
Y 371.029	1061561.9	129.76	%	0.574				0.44%
Y RADIAL	6803.1	128.2	%	1.79				1.39%
Ag 328.068†	-6257.8	2.8853	ug/L	0.12101	2.8853	ppb	0.12101	4.19%
Al 396.153Radial†	45784.9	35837	ug/L	167.0	35837	ppb	167.0	0.47%
As 188.979†	57.3	42.479	ug/L	0.5692	42.479	ppb	0.5692	1.34%
B 249.677†	629.5	1.0227	ug/L	1.65279	1.0227	ppb	1.65279	161.60%
Ba 233.527†	32054.0	220.19	ug/L	0.294	220.19	ppb	0.294	0.13%
Be 313.107†	6795.6	4.6037	ug/L	0.02438	4.6037	ppb	0.02438	0.53%
Ca 317.933Radial†	4611.0	7226.0	ug/L	14.50	7226.0	ppb	14.50	0.20%
Cd 226.502†	817.1	-1.0383	ug/L	0.04248	-1.0383	ppb	0.04248	4.09%
Co 228.616†	484.7	4.7135	ug/L	0.21118	4.7135	ppb	0.21118	4.48%
Cr 267.716†	24191.2	229.03	ug/L	0.320	229.03	ppb	0.320	0.14%
Cu 324.752†	7222.2	24.917	ug/L	0.2336	24.917	ppb	0.2336	0.94%
Fe 238.204 Radial†	9647.3	84721	ug/L	292.0	84721	ppb	292.0	0.34%
K 766.490 Radial†	19167.7	3647.9	ug/L	42.01	3647.9	ppb	42.01	1.15%

Mg 279.077 IEC†	177.9	5615.7	ug/L	107.22	5615.7	ppb	107.22	1.91%
Mn 257.610†	654397.9	657.59	ug/L	0.420	657.59	ppb	0.420	0.06%
Mo 202.031†	208.7	20.404	ug/L	0.2940	20.404	ppb	0.2940	1.44%
Na 589.592 Radial†	2067.3	586.53	ug/L	13.214	586.53	ppb	13.214	2.25%
Ni 231.604†	5261.3	108.91	ug/L	0.778	108.91	ppb	0.778	0.71%
P 214.914†	1419.0	583.89	ug/L	5.957	583.89	ppb	5.957	1.02%
Pb 220.353†	468.2	47.572	ug/L	1.2916	47.572	ppb	1.2916	2.72%
S 181.975 Axial†	126.9	132.39	ug/L	0.684	132.39	ppb	0.684	0.52%
Sb 206.836†	17.7	-3.1868	ug/L	1.93776	-3.1868	ppb	1.93776	60.81%
Se 196.026†	-512.0	26.527	ug/L	1.8275	26.527	ppb	1.8275	6.89%
Si 251.611†	848106.5	22559	ug/L	23.4	22559	ppb	23.4	0.10%
Sn 189.927†	-44.9	-4.4577	ug/L	1.01443	-4.4577	ppb	1.01443	22.76%
Sr 421.552†	11013.4	72.254	ug/L	0.2572	72.254	ppb	0.2572	0.36%
Ti 334.940†	846878.5	1244.4	ug/L	0.56	1244.4	ppb	0.56	0.05%
Tl 190.801†	-71.8	-4.6660	ug/L	3.15515	-4.6660	ppb	3.15515	67.62%
U 409.014†	-12325.2	-352.26	ug/L	2.800	-352.26	ppb	2.800	0.79%
V 292.402†	11629.2	53.748	ug/L	0.2093	53.748	ppb	0.2093	0.39%
Zn 213.857†	24500.6	186.14	ug/L	0.210	186.14	ppb	0.210	0.11%
SiO2†	859492.3	49256	ug/L	635.8	49256	ppb	635.8	1.29%

Sequence No.: 18
Sample ID: 243042008|934493|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 32
Date Collected: 12/29/2009 15:57:13
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 243042008|934493|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4771.1	4771.1	96.5	%			15:59:26
1	Y RADIAL	5606.6	5606.6	105.7	%			15:59:26
1	Al 396.153Radial†	109231.4	113247.6	88643	ug/L	88643	ppb	15:59:06
1	Ca 317.933Radial†	21564.6	22331.8	34997	ug/L	34997	ppb	15:59:06
1	Fe 238.204 Radial†	15366.6	15915.3	139770	ug/L	139770	ppb	15:59:06
1	K 766.490 Radial†	83711.4	83439.5	15835	ug/L	15835	ppb	15:59:06
1	Mg 279.077 IEC†	555.6	573.2	18211	ug/L	18211	ppb	15:59:26
1	Na 589.592 Radial†	5035.9	7017.5	1991.0	ug/L	1991.0	ppb	15:59:06
1	Sr 421.552†	40616.6	42091.1	276.07	ug/L	276.07	ppb	15:59:06
1	Sc 361.383	925041.9	925041.9	98.540	%			16:00:24
1	Y 371.029	886205.9	886205.9	108.32	%			16:00:24
1	Ag 328.068†	-8273.3	-8861.5	10.658	ug/L	10.658	ppb	16:00:30
1	As 188.979†	-79.2	-45.5	46.659	ug/L	46.659	ppb	16:00:50
1	B 249.677†	2194.7	2623.3	32.465	ug/L	32.465	ppb	16:00:30
1	Ba 233.527†	281033.0	285178.1	1942.7	ug/L	1942.7	ppb	16:00:30
1	Be 313.107†	-14928.3	-10448.2	6.0501	ug/L	6.0501	ppb	16:00:30
1	Cd 226.502†	1938.0	2223.3	6.1210	ug/L	6.1210	ppb	16:00:50
1	Co 228.616†	3951.4	4104.2	60.855	ug/L	60.855	ppb	16:00:50
1	Cr 267.716†	14816.5	14902.3	143.00	ug/L	143.00	ppb	16:00:50
1	Cu 324.752†	204205.9	198749.3	573.88	ug/L	573.88	ppb	16:00:30
1	Mn 257.610†	5032067.9	5106011.4	5079.4	ug/L	5079.4	ppb	16:00:24
1	Mo 202.031†	-55.6	-81.9	8.5788	ug/L	8.5788	ppb	16:00:50
1	Ni 231.604†	4802.8	4735.1	97.978	ug/L	97.978	ppb	16:00:50
1	P 214.914†	4026.9	3815.4	1556.4	ug/L	1556.4	ppb	16:00:50
1	Pb 220.353†	5206.0	5367.8	540.74	ug/L	540.74	ppb	16:00:50
1	S 181.975 Axial†	1072.7	1026.9	1110.5	ug/L	1110.5	ppb	16:00:50
1	Sb 206.836†	128.5	85.2	8.0359	ug/L	8.0359	ppb	16:00:50
1	Se 196.026†	-854.6	-834.6	53.490	ug/L	53.490	ppb	16:00:50
1	Si 251.611†	1175077.5	1191753.9	31697	ug/L	31697	ppb	16:00:24
1	Sn 189.927†	-87.9	-92.6	-7.5555	ug/L	-7.5555	ppb	16:00:50
1	Ti 334.940†	3196102.7	3245176.9	4768.5	ug/L	4768.5	ppb	16:00:24
1	Tl 190.801†	-308.8	-264.0	-1.3629	ug/L	-1.3629	ppb	16:00:50
1	U 409.014†	-9427.9	-6649.0	-201.90	ug/L	-201.90	ppb	16:00:30
1	V 292.402†	38901.0	41287.7	216.45	ug/L	216.45	ppb	16:00:30
1	Zn 213.857†	204582.6	206700.1	1606.0	ug/L	1606.0	ppb	16:00:30
1	SiO2†	1179051.5	1195768.1	68520	ug/L	68520	ppb	16:02:00
2	Sc Radial	4745.1	4745.1	95.9	%			15:59:51
2	Y RADIAL	5563.1	5563.1	104.9	%			15:59:51
2	Al 396.153Radial†	112162.8	116924.2	91521	ug/L	91521	ppb	15:59:31
2	Ca 317.933Radial†	22119.3	23032.7	36095	ug/L	36095	ppb	15:59:31
2	Fe 238.204 Radial†	15764.9	16417.9	144180	ug/L	144180	ppb	15:59:31
2	K 766.490 Radial†	85958.6	86257.9	16372	ug/L	16372	ppb	15:59:31
2	Mg 279.077 IEC†	550.4	571.0	18134	ug/L	18134	ppb	15:59:51
2	Na 589.592 Radial†	5316.1	7338.2	2082.0	ug/L	2082.0	ppb	15:59:31
2	Sr 421.552†	41895.4	43654.9	286.33	ug/L	286.33	ppb	15:59:31
2	Sc 361.383	917641.9	917641.9	97.751	%			16:00:57
2	Y 371.029	879141.9	879141.9	107.46	%			16:00:57
2	Ag 328.068†	-8391.9	-9050.6	11.363	ug/L	11.363	ppb	16:01:02
2	As 188.979†	-75.1	-41.9	48.644	ug/L	48.644	ppb	16:01:22
2	B 249.677†	2321.1	2770.5	34.750	ug/L	34.750	ppb	16:01:02
2	Ba 233.527†	287001.5	293583.7	1999.9	ug/L	1999.9	ppb	16:01:02
2	Be 313.107†	-15212.1	-10860.7	5.9485	ug/L	5.9485	ppb	16:01:02
2	Cd 226.502†	1953.6	2255.2	5.9681	ug/L	5.9681	ppb	16:01:22
2	Co 228.616†	3975.8	4161.5	61.794	ug/L	61.794	ppb	16:01:22
2	Cr 267.716†	14918.5	15127.9	145.21	ug/L	145.21	ppb	16:01:22
2	Cu 324.752†	209267.5	205598.4	593.64	ug/L	593.64	ppb	16:01:02
2	Mn 257.610†	5008976.2	5123568.9	5097.3	ug/L	5097.3	ppb	16:00:57
2	Mo 202.031†	-45.4	-71.9	9.5865	ug/L	9.5865	ppb	16:01:22
2	Ni 231.604†	4858.8	4831.7	99.978	ug/L	99.978	ppb	16:01:22

2	P 214.914†	4044.3	3866.1	1573.6	ug/L	1573.6 ppb	16:01:22
2	Pb 220.353†	5216.4	5421.1	546.30	ug/L	546.30 ppb	16:01:22
2	S 181.975 Axial†	1079.8	1043.0	1127.6	ug/L	1127.6 ppb	16:01:22
2	Sb 206.836†	129.1	86.8	8.4167	ug/L	8.4167 ppb	16:01:22
2	Se 196.026†	-875.2	-862.7	54.374	ug/L	54.374 ppb	16:01:22
2	Si 251.611†	1169220.9	1195378.9	31793	ug/L	31793 ppb	16:00:57
2	Sn 189.927†	-92.3	-97.9	-8.1323	ug/L	-8.1323 ppb	16:01:22
2	Ti 334.940†	3180494.3	3255365.0	4783.5	ug/L	4783.5 ppb	16:00:57
2	Tl 190.801†	-321.2	-279.2	-5.0647	ug/L	-5.0647 ppb	16:01:22
2	U 409.014†	-9432.8	-6731.1	-204.73	ug/L	-204.73 ppb	16:01:02
2	V 292.402†	39722.8	42446.7	222.59	ug/L	222.59 ppb	16:01:02
2	Zn 213.857†	208940.9	212832.9	1653.6	ug/L	1653.6 ppb	16:01:02
2	SiO2†	1171056.5	1197238.1	68604	ug/L	68604 ppb	16:02:06
3	Sc Radial	4751.1	4751.1	96.1	%		16:00:16
3	Y RADIAL	5587.8	5587.8	105.3	%		16:00:16
3	Al 396.153Radial†	108478.0	112941.3	88404	ug/L	88404 ppb	15:59:56
3	Ca 317.933Radial†	21354.2	22207.2	34802	ug/L	34802 ppb	15:59:56
3	Fe 238.204 Radial†	15205.4	15814.8	138880	ug/L	138880 ppb	15:59:56
3	K 766.490 Radial†	83052.4	83119.9	15774	ug/L	15774 ppb	15:59:56
3	Mg 279.077 IEC†	552.5	572.4	18186	ug/L	18186 ppb	16:00:16
3	Na 589.592 Radial†	5066.3	7071.2	2006.2	ug/L	2006.2 ppb	15:59:56
3	Sr 421.552†	40455.1	42100.6	276.14	ug/L	276.14 ppb	15:59:56
3	Sc 361.383	920356.6	920356.6	98.040	%		16:01:29
3	Y 371.029	880747.0	880747.0	107.66	%		16:01:29
3	Ag 328.068†	-8236.4	-8866.6	10.349	ug/L	10.349 ppb	16:01:34
3	As 188.979†	-69.6	-36.2	49.697	ug/L	49.697 ppb	16:01:54
3	B 249.677†	2319.1	2761.5	35.277	ug/L	35.277 ppb	16:01:34
3	Ba 233.527†	281003.3	286599.7	1952.3	ug/L	1952.3 ppb	16:01:34
3	Be 313.107†	-14713.8	-10306.5	6.1205	ug/L	6.1205 ppb	16:01:34
3	Cd 226.502†	1950.1	2245.7	6.4119	ug/L	6.4119 ppb	16:01:54
3	Co 228.616†	3957.3	4130.6	61.308	ug/L	61.308 ppb	16:01:54
3	Cr 267.716†	14887.7	15051.5	144.39	ug/L	144.39 ppb	16:01:54
3	Cu 324.752†	203591.6	199177.6	575.06	ug/L	575.06 ppb	16:01:34
3	Mn 257.610†	5018489.1	5118157.8	5091.4	ug/L	5091.4 ppb	16:01:29
3	Mo 202.031†	-57.7	-84.3	8.3507	ug/L	8.3507 ppb	16:01:54
3	Ni 231.604†	4851.9	4809.9	99.528	ug/L	99.528 ppb	16:01:54
3	P 214.914†	4061.0	3871.0	1582.0	ug/L	1582.0 ppb	16:01:54
3	Pb 220.353†	5223.7	5412.7	545.22	ug/L	545.22 ppb	16:01:54
3	S 181.975 Axial†	1078.0	1037.8	1122.6	ug/L	1122.6 ppb	16:01:54
3	Sb 206.836†	136.4	93.9	10.453	ug/L	10.453 ppb	16:01:54
3	Se 196.026†	-870.4	-855.1	40.972	ug/L	40.972 ppb	16:01:54
3	Si 251.611†	1172526.4	1195222.5	31789	ug/L	31789 ppb	16:01:29
3	Sn 189.927†	-84.3	-89.4	-7.1331	ug/L	-7.1331 ppb	16:01:54
3	Ti 334.940†	3188548.5	3253983.2	4781.4	ug/L	4781.4 ppb	16:01:29
3	Tl 190.801†	-314.5	-271.3	-3.1249	ug/L	-3.1249 ppb	16:01:54
3	U 409.014†	-9505.5	-6776.9	-205.33	ug/L	-205.33 ppb	16:01:34
3	V 292.402†	38756.7	41341.4	216.88	ug/L	216.88 ppb	16:01:34
3	Zn 213.857†	204483.7	207656.0	1613.5	ug/L	1613.5 ppb	16:01:34
3	SiO2†	1177832.0	1200615.5	68798	ug/L	68798 ppb	16:02:12

Mean Data: 243042008|934493|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	921013.5	98.110	%	0.3988				0.41%
Sc Radial	4755.8	96.2	%	0.28				0.29%
Y 371.029	882031.6	107.81	%	0.453				0.42%
Y RADIAL	5585.8	105.3	%	0.41				0.39%
Ag 328.068†	-8926.2	10.790	ug/L	0.5200	10.790	ppb	0.5200	4.82%
Al 396.153Radial†	114371.0	89523	ug/L	1734.8	89523	ppb	1734.8	1.94%
As 188.979†	-41.2	48.333	ug/L	1.5429	48.333	ppb	1.5429	3.19%
B 249.677†	2718.4	34.164	ug/L	1.4949	34.164	ppb	1.4949	4.38%
Ba 233.527†	288453.9	1965.0	ug/L	30.66	1965.0	ppb	30.66	1.56%
Be 313.107†	-10538.4	6.0397	ug/L	0.08649	6.0397	ppb	0.08649	1.43%
Ca 317.933Radial†	22523.9	35298	ug/L	697.4	35298	ppb	697.4	1.98%
Cd 226.502†	2241.4	6.1670	ug/L	0.22547	6.1670	ppb	0.22547	3.66%
Co 228.616†	4132.1	61.319	ug/L	0.4700	61.319	ppb	0.4700	0.77%
Cr 267.716†	15027.3	144.20	ug/L	1.118	144.20	ppb	1.118	0.77%
Cu 324.752†	201175.1	580.86	ug/L	11.082	580.86	ppb	11.082	1.91%
Fe 238.204 Radial†	16049.3	140940	ug/L	2837.6	140940	ppb	2837.6	2.01%
K 766.490 Radial†	84272.4	15994	ug/L	329.0	15994	ppb	329.0	2.06%

Mg 279.077 IEC†	572.2	18177	ug/L	39.1	18177	ppb	39.1	0.21%
Mn 257.610†	5115912.7	5089.4	ug/L	9.10	5089.4	ppb	9.10	0.18%
Mo 202.031†	-79.4	8.8387	ug/L	0.65763	8.8387	ppb	0.65763	7.44%
Na 589.592 Radial†	7142.3	2026.4	ug/L	48.73	2026.4	ppb	48.73	2.40%
Ni 231.604†	4792.2	99.161	ug/L	1.0491	99.161	ppb	1.0491	1.06%
P 214.914†	3850.9	1570.7	ug/L	13.08	1570.7	ppb	13.08	0.83%
Pb 220.353†	5400.5	544.09	ug/L	2.945	544.09	ppb	2.945	0.54%
S 181.975 Axial†	1035.9	1120.2	ug/L	8.80	1120.2	ppb	8.80	0.79%
Sb 206.836†	88.6	8.9687	ug/L	1.29983	8.9687	ppb	1.29983	14.49%
Se 196.026†	-850.8	49.612	ug/L	7.4958	49.612	ppb	7.4958	15.11%
Si 251.611†	1194118.4	31760	ug/L	54.5	31760	ppb	54.5	0.17%
Sn 189.927†	-93.3	-7.6070	ug/L	0.50155	-7.6070	ppb	0.50155	6.59%
Sr 421.552†	42615.5	279.51	ug/L	5.904	279.51	ppb	5.904	2.11%
Ti 334.940†	3251508.4	4777.8	ug/L	8.14	4777.8	ppb	8.14	0.17%
Tl 190.801†	-271.5	-3.1842	ug/L	1.85161	-3.1842	ppb	1.85161	58.15%
U 409.014†	-6719.0	-203.99	ug/L	1.833	-203.99	ppb	1.833	0.90%
V 292.402†	41691.9	218.64	ug/L	3.426	218.64	ppb	3.426	1.57%
Zn 213.857†	209063.0	1624.4	ug/L	25.63	1624.4	ppb	25.63	1.58%
SiO2†	1197873.9	68641	ug/L	142.5	68641	ppb	142.5	0.21%

Sequence No.: 19
Sample ID: 243042009|934493|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 33
Date Collected: 12/29/2009 16:04:22
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 243042009|934493|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4961.4	4961.4	100	%			16:06:35
1	Y RADIAL	6522.8	6522.8	123.0	%			16:06:35
1	Al 396.153Radial†	132434.2	132034.9	103350	ug/L	103350	ppb	16:06:15
1	Ca 317.933Radial†	25938.8	25834.9	40487	ug/L	40487	ppb	16:06:15
1	Fe 238.204 Radial†	15356.7	15294.6	134320	ug/L	134320	ppb	16:06:15
1	K 766.490 Radial†	63963.9	60427.4	11496	ug/L	11496	ppb	16:06:15
1	Mg 279.077 IEC†	716.1	711.1	22624	ug/L	22624	ppb	16:06:35
1	Na 589.592 Radial†	3305.2	5092.1	1444.7	ug/L	1444.7	ppb	16:06:15
1	Sr 421.552†	37977.6	37845.9	248.14	ug/L	248.14	ppb	16:06:15
1	Sc 361.383	922620.0	922620.0	98.282	%			16:07:34
1	Y 371.029	988199.0	988199.0	120.79	%			16:07:34
1	Ag 328.068†	-9429.4	-10059.9	3.6227	ug/L	3.6227	ppb	16:07:34
1	As 188.979†	-46.5	-12.4	41.827	ug/L	41.827	ppb	16:07:54
1	B 249.677†	880.8	1292.3	7.3251	ug/L	7.3251	ppb	16:07:34
1	Ba 233.527†	124561.7	126719.5	865.18	ug/L	865.18	ppb	16:07:34
1	Be 313.107†	1109.7	5830.5	7.7148	ug/L	7.7148	ppb	16:07:34
1	Cd 226.502†	1158.5	1435.4	-0.4001	ug/L	-0.4001	ppb	16:07:54
1	Co 228.616†	1536.2	1657.3	21.175	ug/L	21.175	ppb	16:07:54
1	Cr 267.716†	26381.3	26708.9	253.74	ug/L	253.74	ppb	16:07:34
1	Cu 324.752†	23735.3	15667.1	51.528	ug/L	51.528	ppb	16:07:34
1	Mn 257.610†	1781792.6	1812310.4	1811.0	ug/L	1811.0	ppb	16:07:34
1	Mo 202.031†	-5.6	-31.1	11.041	ug/L	11.041	ppb	16:07:54
1	Ni 231.604†	7202.7	7189.8	148.82	ug/L	148.82	ppb	16:07:54
1	P 214.914†	2863.0	2641.9	1117.2	ug/L	1117.2	ppb	16:07:54
1	Pb 220.353†	791.9	890.4	100.51	ug/L	100.51	ppb	16:07:54
1	S 181.975 Axial†	428.6	374.4	390.92	ug/L	390.92	ppb	16:07:54
1	Sb 206.836†	102.2	58.7	1.8299	ug/L	1.8299	ppb	16:07:54
1	Se 196.026†	-898.2	-881.3	16.922	ug/L	16.922	ppb	16:07:54
1	Si 251.611†	1338929.3	1361600.9	36217	ug/L	36217	ppb	16:07:34
1	Sn 189.927†	-154.2	-160.3	-16.642	ug/L	-16.642	ppb	16:07:54
1	Ti 334.940†	1994100.8	2030672.1	2984.9	ug/L	2984.9	ppb	16:07:34
1	Tl 190.801†	-201.5	-155.5	-5.0017	ug/L	-5.0017	ppb	16:07:54
1	U 409.014†	-14657.5	-11995.1	-349.41	ug/L	-349.41	ppb	16:07:34
1	V 292.402†	25962.5	28226.5	142.18	ug/L	142.18	ppb	16:07:34
1	Zn 213.857†	66085.9	66326.7	509.53	ug/L	509.53	ppb	16:07:34
1	SiO2†	1375518.2	1398810.9	80160	ug/L	80160	ppb	16:08:54
2	Sc Radial	4942.3	4942.3	99.9	%			16:07:00
2	Y RADIAL	6511.8	6511.8	122.8	%			16:07:00
2	Al 396.153Radial†	132054.6	132165.7	103450	ug/L	103450	ppb	16:06:40
2	Ca 317.933Radial†	25754.4	25750.5	40355	ug/L	40355	ppb	16:06:40
2	Fe 238.204 Radial†	15251.0	15248.1	133910	ug/L	133910	ppb	16:06:40
2	K 766.490 Radial†	63472.8	60182.6	11449	ug/L	11449	ppb	16:06:40
2	Mg 279.077 IEC†	708.1	705.9	22458	ug/L	22458	ppb	16:07:00
2	Na 589.592 Radial†	3210.9	5010.6	1421.6	ug/L	1421.6	ppb	16:06:40
2	Sr 421.552†	37863.3	37878.0	248.36	ug/L	248.36	ppb	16:06:40
2	Sc 361.383	940958.8	940958.8	100.24	%			16:08:01
2	Y 371.029	1005246.7	1005246.7	122.87	%			16:08:01
2	Ag 328.068†	-9655.0	-10097.9	3.3374	ug/L	3.3374	ppb	16:08:01
2	As 188.979†	-12.7	22.2	53.146	ug/L	53.146	ppb	16:08:21
2	B 249.677†	969.7	1363.5	8.7697	ug/L	8.7697	ppb	16:08:01
2	Ba 233.527†	127101.2	126783.0	865.60	ug/L	865.60	ppb	16:08:01
2	Be 313.107†	1352.1	6050.2	7.7851	ug/L	7.7851	ppb	16:08:01
2	Cd 226.502†	1130.1	1384.1	-0.8231	ug/L	-0.8231	ppb	16:08:21
2	Co 228.616†	1548.0	1638.6	20.852	ug/L	20.852	ppb	16:08:21
2	Cr 267.716†	26781.2	26584.6	252.57	ug/L	252.57	ppb	16:08:01
2	Cu 324.752†	24319.0	15778.8	51.825	ug/L	51.825	ppb	16:08:01
2	Mn 257.610†	1816459.9	1811562.9	1810.2	ug/L	1810.2	ppb	16:08:01
2	Mo 202.031†	-2.5	-27.9	11.191	ug/L	11.191	ppb	16:08:21
2	Ni 231.604†	7258.1	7102.2	147.01	ug/L	147.01	ppb	16:08:21

2	P 214.914†	2885.0	2607.1	1101.7	ug/L	1101.7	ppb	16:08:21
2	Pb 220.353†	803.6	886.4	100.16	ug/L	100.16	ppb	16:08:21
2	S 181.975 Axial†	436.8	374.1	390.54	ug/L	390.54	ppb	16:08:21
2	Sb 206.836†	80.3	34.9	-4.9700	ug/L	-4.9700	ppb	16:08:21
2	Se 196.026†	-883.8	-849.1	30.936	ug/L	30.936	ppb	16:08:21
2	Si 251.611†	1368473.1	1364524.0	36294	ug/L	36294	ppb	16:08:01
2	Sn 189.927†	-151.0	-154.0	-15.771	ug/L	-15.771	ppb	16:08:21
2	Ti 334.940†	2033894.9	2030829.4	2985.1	ug/L	2985.1	ppb	16:08:01
2	Tl 190.801†	-183.9	-134.0	0.6461	ug/L	0.6461	ppb	16:08:21
2	U 409.014†	-15162.9	-12208.7	-355.27	ug/L	-355.27	ppb	16:08:01
2	V 292.402†	26540.7	28288.6	142.59	ug/L	142.59	ppb	16:08:01
2	Zn 213.857†	67415.9	66343.1	509.70	ug/L	509.70	ppb	16:08:01
2	SiO2†	1365593.9	1361633.0	78029	ug/L	78029	ppb	16:09:00
3	Sc Radial	4885.7	4885.7	98.8	%			16:07:25
3	Y RADIAL	6452.6	6452.6	121.6	%			16:07:25
3	Al 396.153Radial†	132816.2	134465.2	105250	ug/L	105250	ppb	16:07:05
3	Ca 317.933Radial†	26020.2	26317.7	41243	ug/L	41243	ppb	16:07:05
3	Fe 238.204 Radial†	15351.6	15526.5	136350	ug/L	136350	ppb	16:07:05
3	K 766.490 Radial†	63949.3	61399.6	11681	ug/L	11681	ppb	16:07:05
3	Mg 279.077 IEC†	698.2	704.1	22398	ug/L	22398	ppb	16:07:25
3	Na 589.592 Radial†	3310.3	5148.3	1460.7	ug/L	1460.7	ppb	16:07:05
3	Sr 421.552†	38074.2	38529.8	252.63	ug/L	252.63	ppb	16:07:05
3	Sc 361.383	933079.7	933079.7	99.396	%			16:08:28
3	Y 371.029	995639.1	995639.1	121.70	%			16:08:28
3	Ag 328.068†	-9487.5	-10010.8	4.4996	ug/L	4.4996	ppb	16:08:28
3	As 188.979†	-12.9	21.8	53.301	ug/L	53.301	ppb	16:08:48
3	B 249.677†	937.1	1338.9	7.9664	ug/L	7.9664	ppb	16:08:28
3	Ba 233.527†	125421.2	126163.5	861.45	ug/L	861.45	ppb	16:08:28
3	Be 313.107†	1356.8	6066.4	7.7678	ug/L	7.7678	ppb	16:08:28
3	Cd 226.502†	1124.9	1388.4	-1.0281	ug/L	-1.0281	ppb	16:08:48
3	Co 228.616†	1511.8	1615.2	20.428	ug/L	20.428	ppb	16:08:48
3	Cr 267.716†	26438.6	26465.6	251.50	ug/L	251.50	ppb	16:08:28
3	Cu 324.752†	24001.8	15664.5	51.624	ug/L	51.624	ppb	16:08:28
3	Mn 257.610†	1793358.0	1803623.2	1802.6	ug/L	1802.6	ppb	16:08:28
3	Mo 202.031†	0.9	-24.5	11.626	ug/L	11.626	ppb	16:08:48
3	Ni 231.604†	7212.8	7117.7	147.33	ug/L	147.33	ppb	16:08:48
3	P 214.914†	2829.8	2575.8	1086.3	ug/L	1086.3	ppb	16:08:48
3	Pb 220.353†	815.5	905.1	102.22	ug/L	102.22	ppb	16:08:48
3	S 181.975 Axial†	436.1	377.1	393.51	ug/L	393.51	ppb	16:08:48
3	Sb 206.836†	101.0	56.4	1.3024	ug/L	1.3024	ppb	16:08:48
3	Se 196.026†	-861.8	-834.3	45.814	ug/L	45.814	ppb	16:08:48
3	Si 251.611†	1350633.4	1358104.5	36124	ug/L	36124	ppb	16:08:28
3	Sn 189.927†	-125.4	-129.6	-12.180	ug/L	-12.180	ppb	16:08:48
3	Ti 334.940†	2009132.7	2023051.0	2973.8	ug/L	2973.8	ppb	16:08:28
3	Tl 190.801†	-194.7	-146.4	-2.6999	ug/L	-2.6999	ppb	16:08:48
3	U 409.014†	-15035.3	-12208.0	-355.56	ug/L	-355.56	ppb	16:08:28
3	V 292.402†	26217.4	28186.8	141.64	ug/L	141.64	ppb	16:08:28
3	Zn 213.857†	66535.9	66025.7	507.09	ug/L	507.09	ppb	16:08:28
3	SiO2†	1389392.4	1397080.5	80061	ug/L	80061	ppb	16:09:06

Mean Data: 243042009|934493|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	932219.5	99.304	%	0.9800				0.99%
Sc Radial	4929.8	99.7	%	0.80				0.80%
Y 371.029	996361.6	121.79	%	1.045				0.86%
Y RADIAL	6495.7	122.4	%	0.71				0.58%
Ag 328.068†	-10056.2	3.8199	ug/L	0.60568	3.8199	ppb	0.60568	15.86%
Al 396.153Radial†	132888.6	104020	ug/L	1070.0	104020	ppb	1070.0	1.03%
As 188.979†	10.5	49.425	ug/L	6.5804	49.425	ppb	6.5804	13.31%
B 249.677†	1331.6	8.0204	ug/L	0.72384	8.0204	ppb	0.72384	9.02%
Ba 233.527†	126555.4	864.08	ug/L	2.284	864.08	ppb	2.284	0.26%
Be 313.107†	5982.4	7.7559	ug/L	0.03661	7.7559	ppb	0.03661	0.47%
Ca 317.933Radial†	25967.7	40695	ug/L	479.6	40695	ppb	479.6	1.18%
Cd 226.502†	1402.6	-0.7504	ug/L	0.32026	-0.7504	ppb	0.32026	42.68%
Co 228.616†	1637.0	20.818	ug/L	0.3742	20.818	ppb	0.3742	1.80%
Cr 267.716†	26586.4	252.61	ug/L	1.124	252.61	ppb	1.124	0.45%
Cu 324.752†	15703.4	51.659	ug/L	0.1519	51.659	ppb	0.1519	0.29%
Fe 238.204 Radial†	15356.4	134860	ug/L	1309.5	134860	ppb	1309.5	0.97%
K 766.490 Radial†	60669.9	11542	ug/L	122.7	11542	ppb	122.7	1.06%

Mg 279.077 IEC†	707.0	22493	ug/L	116.9	22493	ppb	116.9	0.52%
Mn 257.610†	1809165.5	1808.0	ug/L	4.65	1808.0	ppb	4.65	0.26%
Mo 202.031†	-27.9	11.286	ug/L	0.3037	11.286	ppb	0.3037	2.69%
Na 589.592 Radial†	5083.7	1442.3	ug/L	19.65	1442.3	ppb	19.65	1.36%
Ni 231.604†	7136.6	147.72	ug/L	0.967	147.72	ppb	0.967	0.65%
P 214.914†	2608.3	1101.7	ug/L	15.46	1101.7	ppb	15.46	1.40%
Pb 220.353†	894.0	100.96	ug/L	1.103	100.96	ppb	1.103	1.09%
S 181.975 Axial†	375.2	391.66	ug/L	1.618	391.66	ppb	1.618	0.41%
Sb 206.836†	50.0	-0.6126	ug/L	3.78281	-0.6126	ppb	3.78281	617.52%
Se 196.026†	-854.9	31.224	ug/L	14.4483	31.224	ppb	14.4483	46.27%
Si 251.611†	1361409.8	36211	ug/L	85.5	36211	ppb	85.5	0.24%
Sn 189.927†	-148.0	-14.864	ug/L	2.3651	-14.864	ppb	2.3651	15.91%
Sr 421.552†	38084.6	249.71	ug/L	2.530	249.71	ppb	2.530	1.01%
Ti 334.940†	2028184.2	2981.3	ug/L	6.50	2981.3	ppb	6.50	0.22%
Tl 190.801†	-145.3	-2.3518	ug/L	2.83996	-2.3518	ppb	2.83996	120.76%
U 409.014†	-12137.3	-353.41	ug/L	3.468	-353.41	ppb	3.468	0.98%
V 292.402†	28234.0	142.13	ug/L	0.479	142.13	ppb	0.479	0.34%
Zn 213.857†	66231.8	508.78	ug/L	1.459	508.78	ppb	1.459	0.29%
SiO2†	1385841.4	79417	ug/L	1202.5	79417	ppb	1202.5	1.51%

Sequence No.: 22
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 12/29/2009 16:24:53
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4734.0	4734.0	95.7	%			16:26:45
1	Y RADIAL	5031.2	5031.2	94.84	%			16:26:45
1	Al 396.153Radial†	6157.6	6454.3	5030.1	ug/L	5030.1	ppb	16:26:45
1	Ca 317.933Radial†	3139.5	3258.4	5106.3	ug/L	5106.3	ppb	16:27:05
1	Fe 238.204 Radial†	570.4	582.6	5132.2	ug/L	5132.2	ppb	16:27:05
1	K 766.490 Radial†	28762.7	26715.5	5078.0	ug/L	5078.0	ppb	16:26:45
1	Mg 279.077 IEC†	164.1	168.7	5401.2	ug/L	5401.2	ppb	16:27:05
1	Na 589.592 Radial†	30764.1	33937.1	9628.6	ug/L	9628.6	ppb	16:26:45
1	Sr 421.552†	72056.0	75266.9	494.20	ug/L	494.20	ppb	16:26:45
1	Sc 361.383	916343.0	916343.0	97.613	%			16:28:04
1	Y 371.029	790423.9	790423.9	96.615	%			16:28:04
1	Ag 328.068†	118456.3	120887.5	503.24	ug/L	503.24	ppb	16:28:04
1	As 188.979†	1482.3	1553.4	515.03	ug/L	515.03	ppb	16:28:24
1	B 249.677†	23873.5	24853.4	483.02	ug/L	483.02	ppb	16:28:04
1	Ba 233.527†	72317.9	74066.4	504.75	ug/L	504.75	ppb	16:28:04
1	Be 313.107†	1557140.2	1599920.9	509.23	ug/L	509.23	ppb	16:28:04
1	Cd 226.502†	54496.8	56086.2	505.12	ug/L	505.12	ppb	16:28:04
1	Co 228.616†	27729.9	28502.3	501.49	ug/L	501.49	ppb	16:28:24
1	Cr 267.716†	52519.6	53670.3	505.08	ug/L	505.08	ppb	16:28:04
1	Cu 324.752†	179454.5	175359.8	500.31	ug/L	500.31	ppb	16:28:04
1	Mn 257.610†	499435.8	511012.8	507.40	ug/L	507.40	ppb	16:28:04
1	Mo 202.031†	8492.4	8674.6	511.08	ug/L	511.08	ppb	16:28:24
1	Ni 231.604†	23943.2	24389.8	504.59	ug/L	504.59	ppb	16:28:24
1	P 214.914†	5756.3	5625.9	2475.4	ug/L	2475.4	ppb	16:28:24
1	Pb 220.353†	4974.3	5180.6	515.77	ug/L	515.77	ppb	16:28:24
1	S 181.975 Axial†	941.7	903.1	991.00	ug/L	991.00	ppb	16:28:24
1	Sb 206.836†	1752.3	1749.9	508.75	ug/L	508.75	ppb	16:28:24
1	Se 196.026†	1016.6	1074.1	527.74	ug/L	527.74	ppb	16:28:24
1	Si 251.611†	92824.2	94354.8	2497.8	ug/L	2497.8	ppb	16:28:04
1	Sn 189.927†	3488.6	3570.5	506.16	ug/L	506.16	ppb	16:28:24
1	Ti 334.940†	332861.4	342706.2	503.26	ug/L	503.26	ppb	16:28:04
1	Tl 190.801†	1842.7	1937.2	510.70	ug/L	510.70	ppb	16:28:24
1	U 409.014†	13904.0	17162.6	473.45	ug/L	473.45	ppb	16:28:04
1	V 292.402†	81688.7	85496.5	510.07	ug/L	510.07	ppb	16:28:04
1	Zn 213.857†	63951.7	64600.9	500.52	ug/L	500.52	ppb	16:28:04
1	SiO2†	93451.5	94978.8	5416.9	ug/L	5416.9	ppb	16:29:25
2	Sc Radial	4681.3	4681.3	94.7	%			16:27:10
2	Y RADIAL	4991.5	4991.5	94.09	%			16:27:10
2	Al 396.153Radial†	6118.6	6485.4	5054.7	ug/L	5054.7	ppb	16:27:10
2	Ca 317.933Radial†	3123.5	3278.5	5137.8	ug/L	5137.8	ppb	16:27:30
2	Fe 238.204 Radial†	573.3	592.4	5217.9	ug/L	5217.9	ppb	16:27:30
2	K 766.490 Radial†	28609.7	26891.9	5111.6	ug/L	5111.6	ppb	16:27:10
2	Mg 279.077 IEC†	164.2	170.8	5467.2	ug/L	5467.2	ppb	16:27:30
2	Na 589.592 Radial†	30557.7	34080.7	9669.3	ug/L	9669.3	ppb	16:27:10
2	Sr 421.552†	71416.1	75437.9	495.32	ug/L	495.32	ppb	16:27:10
2	Sc 361.383	920715.6	920715.6	98.079	%			16:28:32
2	Y 371.029	794365.7	794365.7	97.097	%			16:28:32
2	Ag 328.068†	118962.6	120827.4	503.02	ug/L	503.02	ppb	16:28:32
2	As 188.979†	1481.3	1545.1	512.33	ug/L	512.33	ppb	16:28:52
2	B 249.677†	24015.8	24882.3	483.58	ug/L	483.58	ppb	16:28:32
2	Ba 233.527†	72640.1	74043.0	504.59	ug/L	504.59	ppb	16:28:32
2	Be 313.107†	1566156.7	1601538.0	509.74	ug/L	509.74	ppb	16:28:32
2	Cd 226.502†	54750.2	56079.3	505.05	ug/L	505.05	ppb	16:28:32
2	Co 228.616†	27575.2	28209.6	496.33	ug/L	496.33	ppb	16:28:52
2	Cr 267.716†	52869.9	53771.8	506.04	ug/L	506.04	ppb	16:28:32
2	Cu 324.752†	180378.3	175428.6	500.52	ug/L	500.52	ppb	16:28:32
2	Mn 257.610†	501714.3	510906.0	507.30	ug/L	507.30	ppb	16:28:32
2	Mo 202.031†	8468.4	8608.8	507.21	ug/L	507.21	ppb	16:28:52
2	Ni 231.604†	23841.5	24169.7	500.04	ug/L	500.04	ppb	16:28:52

2	P 214.914†	5735.7	5576.9	2453.1 ug/L	2453.1 ppb	16:28:52
2	Pb 220.353†	4937.8	5119.1	509.66 ug/L	509.66 ppb	16:28:52
2	S 181.975 Axial†	962.1	919.3	1008.7 ug/L	1008.7 ppb	16:28:52
2	Sb 206.836†	1731.4	1720.1	500.05 ug/L	500.05 ppb	16:28:52
2	Se 196.026†	997.4	1049.6	516.38 ug/L	516.38 ppb	16:28:52
2	Si 251.611†	93139.9	94225.1	2494.4 ug/L	2494.4 ppb	16:28:32
2	Sn 189.927†	3485.6	3550.5	503.34 ug/L	503.34 ppb	16:28:52
2	Ti 334.940†	334672.6	342933.4	503.60 ug/L	503.60 ppb	16:28:32
2	Tl 190.801†	1850.4	1936.1	510.44 ug/L	510.44 ppb	16:28:52
2	U 409.014†	13935.5	17127.2	472.46 ug/L	472.46 ppb	16:28:32
2	V 292.402†	81944.2	85359.5	509.19 ug/L	509.19 ppb	16:28:32
2	Zn 213.857†	64301.3	64646.2	500.89 ug/L	500.89 ppb	16:28:32
2	SiO2†	93527.0	94601.1	5395.4 ug/L	5395.4 ppb	16:29:30
3	Sc Radial	4663.2	4663.2	94.3 %		16:27:35
3	Y RADIAL	4971.6	4971.6	93.72 %		16:27:35
3	Al 396.153Radial†	6086.0	6475.9	5047.0 ug/L	5047.0 ppb	16:27:35
3	Ca 317.933Radial†	3100.9	3267.3	5120.3 ug/L	5120.3 ppb	16:27:55
3	Fe 238.204 Radial†	567.7	588.8	5186.5 ug/L	5186.5 ppb	16:27:55
3	K 766.490 Radial†	28594.4	26992.9	5130.8 ug/L	5130.8 ppb	16:27:35
3	Mg 279.077 IEC†	159.4	166.3	5324.1 ug/L	5324.1 ppb	16:27:55
3	Na 589.592 Radial†	30379.8	34017.2	9651.3 ug/L	9651.3 ppb	16:27:35
3	Sr 421.552†	71003.3	75292.6	494.37 ug/L	494.37 ppb	16:27:35
3	Sc 361.383	910527.0	910527.0	96.993 %		16:28:59
3	Y 371.029	785247.4	785247.4	95.982 %		16:28:59
3	Ag 328.068†	117910.6	121100.1	504.14 ug/L	504.14 ppb	16:28:59
3	As 188.979†	1459.4	1539.5	510.47 ug/L	510.47 ppb	16:29:19
3	B 249.677†	23897.5	25034.3	486.54 ug/L	486.54 ppb	16:28:59
3	Ba 233.527†	72095.8	74310.6	506.42 ug/L	506.42 ppb	16:28:59
3	Be 313.107†	1550715.5	1603486.6	510.36 ug/L	510.36 ppb	16:28:59
3	Cd 226.502†	54400.8	56343.8	507.44 ug/L	507.44 ppb	16:28:59
3	Co 228.616†	27656.4	28607.9	503.35 ug/L	503.35 ppb	16:29:19
3	Cr 267.716†	52452.3	53944.5	507.66 ug/L	507.66 ppb	16:28:59
3	Cu 324.752†	178271.6	175314.5	500.19 ug/L	500.19 ppb	16:28:59
3	Mn 257.610†	497497.7	512282.8	508.67 ug/L	508.67 ppb	16:28:59
3	Mo 202.031†	8470.6	8707.7	513.03 ug/L	513.03 ppb	16:29:19
3	Ni 231.604†	23900.7	24502.7	506.93 ug/L	506.93 ppb	16:29:19
3	P 214.914†	5730.1	5636.5	2480.3 ug/L	2480.3 ppb	16:29:19
3	Pb 220.353†	4967.4	5206.0	518.29 ug/L	518.29 ppb	16:29:19
3	S 181.975 Axial†	951.6	919.5	1009.0 ug/L	1009.0 ppb	16:29:19
3	Sb 206.836†	1745.1	1754.0	509.95 ug/L	509.95 ppb	16:29:19
3	Se 196.026†	1002.8	1066.6	524.35 ug/L	524.35 ppb	16:29:19
3	Si 251.611†	92266.7	94387.4	2498.6 ug/L	2498.6 ppb	16:28:59
3	Sn 189.927†	3484.1	3588.7	508.74 ug/L	508.74 ppb	16:29:19
3	Ti 334.940†	331541.4	343523.5	504.46 ug/L	504.46 ppb	16:28:59
3	Tl 190.801†	1855.3	1962.2	517.25 ug/L	517.25 ppb	16:29:19
3	U 409.014†	13917.3	17267.4	476.34 ug/L	476.34 ppb	16:28:59
3	V 292.402†	81247.6	85576.2	510.56 ug/L	510.56 ppb	16:28:59
3	Zn 213.857†	63722.5	64783.1	501.93 ug/L	501.93 ppb	16:28:59
3	SiO2†	93224.5	95356.3	5438.4 ug/L	5438.4 ppb	16:29:35

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	915861.9	97.562	%	0.5445				0.56%
Sc Radial	4692.8	94.9	%	0.74				0.78%
Y 371.029	790012.3	96.565	%	0.5590				0.58%
Y RADIAL	4998.1	94.22	%	0.572				0.61%
Ag 328.068†	120938.3	503.47	ug/L	0.593	503.47	ppb	0.593	0.12%
QC value within limits for Ag 328.068 Recovery = 100.69%								
Al 396.153Radial†	6471.9	5044.0	ug/L	12.56	5044.0	ppb	12.56	0.25%
QC value within limits for Al 396.153Radial Recovery = 100.88%								
As 188.979†	1546.0	512.61	ug/L	2.292	512.61	ppb	2.292	0.45%
QC value within limits for As 188.979 Recovery = 102.52%								
B 249.677†	24923.3	484.38	ug/L	1.890	484.38	ppb	1.890	0.39%
QC value within limits for B 249.677 Recovery = 96.88%								
Ba 233.527†	74140.0	505.25	ug/L	1.009	505.25	ppb	1.009	0.20%
QC value within limits for Ba 233.527 Recovery = 101.05%								
Be 313.107†	1601648.5	509.78	ug/L	0.568	509.78	ppb	0.568	0.11%
QC value within limits for Be 313.107 Recovery = 101.96%								
Ca 317.933Radial†	3268.0	5121.5	ug/L	15.77	5121.5	ppb	15.77	0.31%

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   QC value within limits for Ca 317.933Radial  Recovery = 102.43%
Cd 226.502†            56169.8      505.87 ug/L         1.359      505.87 ppb          1.359   0.27%
   QC value within limits for Cd 226.502  Recovery = 101.17%
Co 228.616†            28439.9      500.39 ug/L         3.636      500.39 ppb          3.636   0.73%
   QC value within limits for Co 228.616  Recovery = 100.08%
Cr 267.716†            53795.5      506.26 ug/L         1.303      506.26 ppb          1.303   0.26%
   QC value within limits for Cr 267.716  Recovery = 101.25%
Cu 324.752†           175367.6      500.34 ug/L         0.165      500.34 ppb          0.165   0.03%
   QC value within limits for Cu 324.752  Recovery = 100.07%
Fe 238.204 Radial†       587.9      5178.9 ug/L         43.34      5178.9 ppb          43.34   0.84%
   QC value within limits for Fe 238.204 Radial  Recovery = 103.58%
K 766.490 Radial†      26866.8      5106.8 ug/L         26.72      5106.8 ppb          26.72   0.52%
   QC value within limits for K 766.490 Radial  Recovery = 102.14%
Mg 279.077 IEC†          168.6      5397.5 ug/L         71.65      5397.5 ppb          71.65   1.33%
   QC value within limits for Mg 279.077 IEC  Recovery = 107.95%
Mn 257.610†           511400.5      507.79 ug/L         0.762      507.79 ppb          0.762   0.15%
   QC value within limits for Mn 257.610  Recovery = 101.56%
Mo 202.031†             8663.7      510.44 ug/L         2.960      510.44 ppb          2.960   0.58%
   QC value within limits for Mo 202.031  Recovery = 102.09%
Na 589.592 Radial†     34011.7      9649.7 ug/L         20.40      9649.7 ppb          20.40   0.21%
   QC value within limits for Na 589.592 Radial  Recovery = 96.50%
Ni 231.604†            24354.1      503.85 ug/L         3.504      503.85 ppb          3.504   0.70%
   QC value within limits for Ni 231.604  Recovery = 100.77%
P 214.914†              5613.1      2469.6 ug/L         14.49      2469.6 ppb          14.49   0.59%
   QC value within limits for P 214.914  Recovery = 98.78%
Pb 220.353†             5168.6      514.57 ug/L         4.441      514.57 ppb          4.441   0.86%
   QC value within limits for Pb 220.353  Recovery = 102.91%
S 181.975 Axial†         913.9      1002.9 ug/L         10.31      1002.9 ppb          10.31   1.03%
   QC value within limits for S 181.975 Axial  Recovery = 100.29%
Sb 206.836†             1741.3      506.25 ug/L         5.404      506.25 ppb          5.404   1.07%
   QC value within limits for Sb 206.836  Recovery = 101.25%
Se 196.026†             1063.5      522.82 ug/L         5.831      522.82 ppb          5.831   1.12%
   QC value within limits for Se 196.026  Recovery = 104.56%
Si 251.611†            94322.4      2496.9 ug/L          2.23      2496.9 ppb           2.23   0.09%
   QC value within limits for Si 251.611  Recovery = 99.88%
Sn 189.927†             3569.9      506.08 ug/L         2.702      506.08 ppb          2.702   0.53%
   QC value within limits for Sn 189.927  Recovery = 101.22%
Sr 421.552†            75332.4      494.63 ug/L         0.605      494.63 ppb          0.605   0.12%
   QC value within limits for Sr 421.552  Recovery = 98.93%
Ti 334.940†           343054.4      503.77 ug/L         0.619      503.77 ppb          0.619   0.12%
   QC value within limits for Ti 334.940  Recovery = 100.75%
Tl 190.801†             1945.2      512.80 ug/L         3.860      512.80 ppb          3.860   0.75%
   QC value within limits for Tl 190.801  Recovery = 102.56%
U 409.014†             17185.7      474.08 ug/L         2.016      474.08 ppb          2.016   0.43%
   QC value within limits for U 409.014  Recovery = 94.82%
V 292.402†             85477.4      509.94 ug/L         0.692      509.94 ppb          0.692   0.14%
   QC value within limits for V 292.402  Recovery = 101.99%
Zn 213.857†            64676.8      501.11 ug/L         0.729      501.11 ppb          0.729   0.15%
   QC value within limits for Zn 213.857  Recovery = 100.22%
SiO2†                  94978.7      5416.9 ug/L         21.51      5416.9 ppb          21.51   0.40%
   QC value within limits for SiO2  Recovery = 101.30%
All analyte(s) passed QC.
```

Sequence No.: 23
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 12/29/2009 16:31:44
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4840.9	4840.9	97.9	%			16:33:37
1	Y RADIAL	5194.3	5194.3	97.92	%			16:33:37
1	Al 396.153Radial†	6.8	28.3	22.104	ug/L	22.104	ppb	16:33:37
1	Ca 317.933Radial†	19.5	-1.5	-2.3282	ug/L	-2.3282	ppb	16:33:57
1	Fe 238.204 Radial†	13.7	0.7	6.4791	ug/L	6.4791	ppb	16:33:57
1	K 766.490 Radial†	3290.6	28.4	5.4231	ug/L	5.4231	ppb	16:33:37
1	Mg 279.077 IEC†	5.8	3.2	103.19	ug/L	103.19	ppb	16:33:57
1	Na 589.592 Radial†	-1911.6	-155.5	-44.126	ug/L	-44.126	ppb	16:33:37
1	Sr 421.552†	8.1	-2.7	-0.0179	ug/L	-0.0179	ppb	16:33:37
1	Sc 361.383	884770.2	884770.2	94.250	%			16:34:54
1	Y 371.029	771708.6	771708.6	94.328	%			16:34:54
1	Ag 328.068†	477.3	40.8	0.1838	ug/L	0.1838	ppb	16:34:54
1	As 188.979†	-38.1	-5.6	-1.8455	ug/L	-1.8455	ppb	16:35:14
1	B 249.677†	-540.3	-177.2	-3.4582	ug/L	-3.4582	ppb	16:34:54
1	Ba 233.527†	13.7	-5.5	-0.0395	ug/L	-0.0395	ppb	16:35:14
1	Be 313.107†	-4335.3	101.6	0.0323	ug/L	0.0323	ppb	16:34:54
1	Cd 226.502†	-232.5	9.9	0.0889	ug/L	0.0889	ppb	16:35:14
1	Co 228.616†	-87.0	1.9	0.0341	ug/L	0.0341	ppb	16:35:14
1	Cr 267.716†	167.6	44.1	0.4194	ug/L	0.4194	ppb	16:34:54
1	Cu 324.752†	7968.0	-29.1	-0.0826	ug/L	-0.0826	ppb	16:34:54
1	Mn 257.610†	666.7	70.7	0.0689	ug/L	0.0689	ppb	16:34:54
1	Mo 202.031†	33.0	9.5	0.5604	ug/L	0.5604	ppb	16:35:14
1	Ni 231.604†	129.9	-1.1	-0.0222	ug/L	-0.0222	ppb	16:35:14
1	P 214.914†	260.4	5.1	2.3194	ug/L	2.3194	ppb	16:35:14
1	Pb 220.353†	-117.7	-40.2	-3.9847	ug/L	-3.9847	ppb	16:35:14
1	S 181.975 Axial†	62.5	4.7	5.1338	ug/L	5.1338	ppb	16:35:14
1	Sb 206.836†	42.7	0.0	0.0013	ug/L	0.0013	ppb	16:35:14
1	Se 196.026†	-33.1	-2.4	-1.1205	ug/L	-1.1205	ppb	16:35:14
1	Si 251.611†	752.1	58.6	1.5495	ug/L	1.5495	ppb	16:35:14
1	Sn 189.927†	-0.1	-3.5	-0.4952	ug/L	-0.4952	ppb	16:35:14
1	Ti 334.940†	-1604.3	2.7	0.0120	ug/L	0.0120	ppb	16:34:54
1	Tl 190.801†	-50.5	-4.1	-1.0722	ug/L	-1.0722	ppb	16:35:14
1	U 409.014†	-3395.8	-684.3	-18.943	ug/L	-18.943	ppb	16:34:54
1	V 292.402†	-1849.0	-151.8	-0.9209	ug/L	-0.9209	ppb	16:34:54
1	Zn 213.857†	926.6	68.5	0.5313	ug/L	0.5313	ppb	16:35:14
1	SiO2†	851.5	145.4	8.3101	ug/L	8.3101	ppb	16:36:10
2	Sc Radial	4717.9	4717.9	95.4	%			16:34:02
2	Y RADIAL	5007.4	5007.4	94.39	%			16:34:02
2	Al 396.153Radial†	4.6	26.1	20.417	ug/L	20.417	ppb	16:34:02
2	Ca 317.933Radial†	18.1	-2.5	-3.9428	ug/L	-3.9428	ppb	16:34:22
2	Fe 238.204 Radial†	12.0	-0.7	-6.4531	ug/L	-6.4531	ppb	16:34:22
2	K 766.490 Radial†	3373.4	202.8	38.638	ug/L	38.638	ppb	16:34:02
2	Mg 279.077 IEC†	4.5	2.0	65.499	ug/L	65.499	ppb	16:34:22
2	Na 589.592 Radial†	-1814.6	-104.7	-29.717	ug/L	-29.717	ppb	16:34:02
2	Sr 421.552†	-31.3	-43.8	-0.2874	ug/L	-0.2874	ppb	16:34:02
2	Sc 361.383	885815.8	885815.8	94.361	%			16:35:19
2	Y 371.029	773447.9	773447.9	94.540	%			16:35:19
2	Ag 328.068†	492.9	56.8	0.2419	ug/L	0.2419	ppb	16:35:19
2	As 188.979†	-34.0	-1.2	-0.3796	ug/L	-0.3796	ppb	16:35:39
2	B 249.677†	-635.8	-277.7	-5.4192	ug/L	-5.4192	ppb	16:35:19
2	Ba 233.527†	19.9	1.1	0.0057	ug/L	0.0057	ppb	16:35:39
2	Be 313.107†	-4408.4	29.5	0.0090	ug/L	0.0090	ppb	16:35:19
2	Cd 226.502†	-242.5	-0.3	-0.0025	ug/L	-0.0025	ppb	16:35:39
2	Co 228.616†	-82.4	6.9	0.1231	ug/L	0.1231	ppb	16:35:39
2	Cr 267.716†	134.8	9.2	0.0893	ug/L	0.0893	ppb	16:35:19
2	Cu 324.752†	8013.9	9.6	0.0272	ug/L	0.0272	ppb	16:35:19
2	Mn 257.610†	649.2	51.4	0.0491	ug/L	0.0491	ppb	16:35:19
2	Mo 202.031†	34.3	10.9	0.6428	ug/L	0.6428	ppb	16:35:39
2	Ni 231.604†	111.3	-21.0	-0.4341	ug/L	-0.4341	ppb	16:35:39

2	P 214.914†	266.7	11.5	5.2309	ug/L	5.2309 ppb	16:35:39
2	Pb 220.353†	-89.4	-10.1	-0.9930	ug/L	-0.9930 ppb	16:35:39
2	S 181.975 Axial†	66.5	8.8	9.6122	ug/L	9.6122 ppb	16:35:39
2	Sb 206.836†	36.7	-6.4	-1.8028	ug/L	-1.8028 ppb	16:35:39
2	Se 196.026†	-33.3	-2.6	-1.2325	ug/L	-1.2325 ppb	16:35:39
2	Si 251.611†	776.8	83.8	2.2044	ug/L	2.2044 ppb	16:35:39
2	Sn 189.927†	7.0	4.1	0.5754	ug/L	0.5754 ppb	16:35:39
2	Ti 334.940†	-1738.5	-137.7	-0.1965	ug/L	-0.1965 ppb	16:35:19
2	Tl 190.801†	-48.2	-1.6	-0.4147	ug/L	-0.4147 ppb	16:35:39
2	U 409.014†	-3211.5	-484.8	-13.418	ug/L	-13.418 ppb	16:35:19
2	V 292.402†	-1800.8	-98.3	-0.5928	ug/L	-0.5928 ppb	16:35:19
2	Zn 213.857†	927.8	68.6	0.5370	ug/L	0.5370 ppb	16:35:39
2	SiO2†	825.5	116.8	6.6345	ug/L	6.6345 ppb	16:36:15
3	Sc Radial	4719.0	4719.0	95.4	%		16:34:27
3	Y RADIAL	5042.2	5042.2	95.05	%		16:34:27
3	Al 396.153Radial†	4.7	26.2	20.479	ug/L	20.479 ppb	16:34:27
3	Ca 317.933Radial†	23.4	3.1	4.8994	ug/L	4.8994 ppb	16:34:47
3	Fe 238.204 Radial†	10.6	-2.2	-19.026	ug/L	-19.026 ppb	16:34:47
3	K 766.490 Radial†	3288.9	113.5	21.630	ug/L	21.630 ppb	16:34:27
3	Mg 279.077 IEC†	2.1	-0.5	-17.436	ug/L	-17.436 ppb	16:34:47
3	Na 589.592 Radial†	-1845.0	-136.2	-38.638	ug/L	-38.638 ppb	16:34:27
3	Sr 421.552†	-8.7	-20.2	-0.1326	ug/L	-0.1326 ppb	16:34:27
3	Sc 361.383	894349.5	894349.5	95.270	%		16:35:45
3	Y 371.029	780567.4	780567.4	95.410	%		16:35:45
3	Ag 328.068†	484.6	43.0	0.1842	ug/L	0.1842 ppb	16:35:45
3	As 188.979†	-31.3	2.0	0.6470	ug/L	0.6470 ppb	16:36:05
3	B 249.677†	-580.1	-212.8	-4.1496	ug/L	-4.1496 ppb	16:35:45
3	Ba 233.527†	9.1	-10.5	-0.0734	ug/L	-0.0734 ppb	16:36:05
3	Be 313.107†	-4505.5	-27.9	-0.0092	ug/L	-0.0092 ppb	16:35:45
3	Cd 226.502†	-251.5	-7.4	-0.0644	ug/L	-0.0644 ppb	16:36:05
3	Co 228.616†	-95.3	-5.8	-0.1002	ug/L	-0.1002 ppb	16:36:05
3	Cr 267.716†	113.5	-14.6	-0.1334	ug/L	-0.1334 ppb	16:35:45
3	Cu 324.752†	8184.7	107.9	0.3067	ug/L	0.3067 ppb	16:35:45
3	Mn 257.610†	612.5	6.3	0.0047	ug/L	0.0047 ppb	16:35:45
3	Mo 202.031†	31.9	8.0	0.4711	ug/L	0.4711 ppb	16:36:05
3	Ni 231.604†	141.0	9.1	0.1892	ug/L	0.1892 ppb	16:36:05
3	P 214.914†	261.4	3.2	1.4237	ug/L	1.4237 ppb	16:36:05
3	Pb 220.353†	-90.7	-10.6	-1.0475	ug/L	-1.0475 ppb	16:36:05
3	S 181.975 Axial†	62.8	4.2	4.6629	ug/L	4.6629 ppb	16:36:05
3	Sb 206.836†	18.4	-26.0	-7.4313	ug/L	-7.4313 ppb	16:36:05
3	Se 196.026†	-27.0	4.3	1.9991	ug/L	1.9991 ppb	16:36:05
3	Si 251.611†	758.1	56.3	1.4832	ug/L	1.4832 ppb	16:36:05
3	Sn 189.927†	1.2	-2.2	-0.3094	ug/L	-0.3094 ppb	16:36:05
3	Ti 334.940†	-1729.5	-110.6	-0.1544	ug/L	-0.1544 ppb	16:35:45
3	Tl 190.801†	-56.1	-9.4	-2.4631	ug/L	-2.4631 ppb	16:36:05
3	U 409.014†	-3389.5	-639.1	-17.687	ug/L	-17.687 ppb	16:35:45
3	V 292.402†	-1824.1	-104.6	-0.6408	ug/L	-0.6408 ppb	16:35:45
3	Zn 213.857†	925.1	56.3	0.4399	ug/L	0.4399 ppb	16:36:05
3	SiO2†	801.6	83.4	4.7464	ug/L	4.7464 ppb	16:36:20

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	888311.8	94.627	%	0.5598				0.59%
Sc Radial	4759.3	96.2	%	1.43				1.49%
Y 371.029	775241.3	94.759	%	0.5737				0.61%
Y RADIAL	5081.3	95.79	%	1.874				1.96%
Ag 328.068†	46.9	0.2033	ug/L	0.03342	0.2033	ppb	0.03342	16.44%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	26.9	21.000	ug/L	0.9562	21.000	ppb	0.9562	4.55%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-1.6	-0.5260	ug/L	1.25267	-0.5260	ppb	1.25267	238.14%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-222.6	-4.3423	ug/L	0.99460	-4.3423	ppb	0.99460	22.90%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-5.0	-0.0357	ug/L	0.03967	-0.0357	ppb	0.03967	111.07%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	34.4	0.0107	ug/L	0.02078	0.0107	ppb	0.02078	194.41%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-0.3	-0.4572	ug/L	4.70869	-0.4572	ppb	4.70869	>999.9%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                0.7      0.0073 ug/L       0.07716      0.0073 ppb        0.07716 >999.9%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                1.0      0.0190 ug/L       0.11238      0.0190 ppb        0.11238 591.67%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†               12.9      0.1251 ug/L       0.27810      0.1251 ppb        0.27810 222.32%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               29.5      0.0837 ug/L       0.20072      0.0837 ppb        0.20072 239.66%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        -0.7     -6.3334 ug/L      12.75297     -6.3334 ppb       12.75297 201.36%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        114.9      21.897 ug/L       16.6091      21.897 ppb        16.6091  75.85%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            1.6      50.418 ug/L       61.7123      50.418 ppb        61.7123 122.40%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               42.8      0.0409 ug/L       0.03288      0.0409 ppb        0.03288  80.36%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                9.5      0.5581 ug/L       0.08585      0.5581 ppb        0.08585  15.38%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      -132.2     -37.493 ug/L        7.2720     -37.493 ppb         7.2720  19.40%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               -4.3     -0.0890 ug/L       0.31699     -0.0890 ppb        0.31699 356.05%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 6.6      2.9913 ug/L       1.99052      2.9913 ppb        1.99052  66.54%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -20.3     -2.0084 ug/L       1.71175     -2.0084 ppb        1.71175  85.23%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           5.9      6.4696 ug/L       2.73167      6.4696 ppb        2.73167  42.22%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -10.8     -3.0776 ug/L       3.87680     -3.0776 ppb        3.87680 125.97%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               -0.2     -0.1180 ug/L       1.83429     -0.1180 ppb        1.83429 >999.9%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†               66.3      1.7457 ug/L       0.39861      1.7457 ppb        0.39861  22.83%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               -0.5     -0.0764 ug/L       0.57209     -0.0764 ppb        0.57209 748.48%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              -22.2     -0.1459 ug/L       0.13526     -0.1459 ppb        0.13526  92.67%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              -81.9     -0.1130 ug/L       0.11024     -0.1130 ppb        0.11024  97.59%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               -5.0     -1.3167 ug/L       1.04583     -1.3167 ppb        1.04583  79.43%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -602.7     -16.683 ug/L        2.8961     -16.683 ppb         2.8961  17.36%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               -118.2     -0.7182 ug/L       0.17718     -0.7182 ppb        0.17718  24.67%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               64.5      0.5027 ug/L       0.05445      0.5027 ppb        0.05445  10.83%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                    115.2      6.5637 ug/L       1.78291      6.5637 ppb        1.78291  27.16%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

ICPMS #6 Daily Performance Report

Sample ID: Sample
Sample Date/Time: Tuesday, January 05, 2010 00:23:06
Sample Description:
Method File: C:\elandata\Method\Daily2.mth
Dataset File: c:\elandata\Dataset\091212\Sample.241
Tuning File: c:\elandata\Tuning\default2.tun
Optimization File: c:\elandata\Optimize\default.dac
Dual Detector Mode: Pulse

Acq. Dead Time(ns): 35
Current Dead Time (ns): 35

Number of Replicates: 5

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Be	9.0	2307.2	2307.186	34.408	1.5
	Mg	24.0	29610.3	29610.258	332.675	1.1
	Co	58.9	56197.3	56197.323	429.600	0.8
	Rh	102.9	117901.9	117901.934	315.739	0.3
	In	114.9	134880.0	134879.954	434.479	0.3
	Pb	208.0	80330.6	80330.632	601.625	0.7
⌈>	Ba	137.9	118267.1	118267.146	509.240	0.4
⌊	Ba++	69.0	2889.5	0.024	0.001	2.3
⌈>	Ce	139.9	151389.4	151389.369	1215.154	0.8
⌊	CeO	155.9	2987.7	0.020	0.000	2.4
	Bkgd	220.0	26.0	26.000	4.610	17.7

Current Optimization File Data

Current Value	Description
0.84	Nebulizer Gas Flow
13.75	Lens Voltage
1450.00	ICP RF Power
-1781.25	Analog Stage Voltage
900.00	Pulse Stage Voltage
30.00	Discriminator Threshold
-6.00	AC Rod Offset

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	29	11.8	4082.6
Co	59	29	12.8	86671.8
In	115	29	14.3	154139.4

ICPMS #6 Instrument Tuning Report

File Name: default2.tun
File Path: c:\elandata\Tuning

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Pk. Width
He	3.0	3.0	579	2080	0.661
Be	9.0	9.1	2054	2080	0.680
Mg	24.0	24.0	5686	2120	0.656
Mg	25.0	25.1	5929	2080	0.748
Mg	26.0	26.0	6160	2120	0.701
Co	58.9	58.9	14156	2170	0.659
Rh	102.9	102.9	24847	2230	0.714
In	114.9	114.9	27766	2260	0.697
Ce	139.9	139.9	33849	2280	0.768
Pb	206.0	206.0	49936	2430	0.714
Pb	207.0	207.0	50147	2385	0.718
Pb	208.0	208.0	50439	2430	0.746
U	238.1	238.1	57719	2470	0.736

Report Date/Time: Tuesday, January 05, 2010 00:20:36

ICPMS#6 - Summary Report

Sample ID: Blank
Sample Date/Time: Tuesday, January 05, 2010 01:47:59
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 noirs thtimozr.mth
Dataset File: c:\elandata\dataset\100104\Blank.063

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7		ug/L		66	
	Be	9		ug/L		21	
	B	11		ug/L		679	
	Na	23		ug/L		20349	
	Mg	24		ug/L		1667	
	Al	27		ug/L		3334	
	P	31		ug/L		9727	
	K	39		ug/L		879996	
	Ca	43		ug/L		591	
>	Sc	45		ug/L		1096390	
	V	51		ug/L		28735	
	Cr	52		ug/L		6223	
	Cr	53		ug/L		171907	
	Mn	55		ug/L		1784	
	Fe	57		ug/L		8186	
	Co	59		ug/L		228	
	Ni	60		ug/L		99	
	Cu	63		ug/L		447	
	Cu	65		ug/L		145	
	Zn	66		ug/L		468	
	Zn	67		ug/L		22126	
	Zn	68		ug/L		1926	
>	Ge	74		ug/L		317525	
	As	75		ug/L		621	
	Se	77		ug/L		8095	
	Se	82		ug/L		-48	
	Kr	83		ug/L		134	
	Sr	88		ug/L		159	
	Y	89		ug/L		66	
	Ag	107		ug/L		45	
	Cd	111		ug/L		15	
	Cd	114		ug/L		36	
>	In	115		ug/L		185488	
	Sn	120		ug/L		231	
	Sb	121		ug/L		974	
	Sb	123		ug/L		736	
	Ba	135		ug/L		41	
	Ba	137		ug/L		46	
	Ho	165		ug/L		35	
>	Lu	175		ug/L		229304	
	Tl	205		ug/L		1026	
	Pb	208		ug/L		1248	
	Bi	209		ug/L		46	
	U	238		ug/L		115	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Simple Linear	
Be	9	Simple Linear	
B	11	Linear Thru Zero	
Na	23	Simple Linear	
Mg	24	Simple Linear	
Al	27	Simple Linear	
P	31	Simple Linear	
K	39	Simple Linear	
Ca	43	Simple Linear	
Sc	45	Linear Thru Zero	
V	51	Simple Linear	
Cr	52	Simple Linear	
Cr	53	Simple Linear	
Mn	55	Simple Linear	
Fe	57	Simple Linear	
Co	59	Simple Linear	
Ni	60	Simple Linear	
Cu	63	Simple Linear	
Cu	65	Simple Linear	
Zn	66	Simple Linear	
Zn	67	Simple Linear	
Zn	68	Simple Linear	
Ge	74	Simple Linear	
As	75	Simple Linear	
Se	77	Simple Linear	
Se	82	Simple Linear	
Kr	83	Simple Linear	
Sr	88	Simple Linear	
Y	89	Simple Linear	
Ag	107	Simple Linear	
Cd	111	Simple Linear	
Cd	114	Simple Linear	
In	115	Simple Linear	
Sn	120	Simple Linear	
Sb	121	Simple Linear	
Sb	123	Simple Linear	
Ba	135	Simple Linear	
Ba	137	Simple Linear	
Ho	165	Simple Linear	
Lu	175	Simple Linear	
Tl	205	Simple Linear	
Pb	208	Simple Linear	
Bi	209	Simple Linear	
U	238	Simple Linear	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115					
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175					
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Tuesday, January 05, 2010 01:53:53
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 noirs thtimozr.mth
Dataset File: c:\elandata\dataset\100104\Standard 1.064

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	10.000	ug/L	0.389	10895	0.010
	Be	9	10.000	ug/L	3.828	3912	0.004
	B	11	20.000	ug/L	5.300	9349	0.008
	Na	23	1000.000	ug/L	11.703	3995668	3.645
	Mg	24	1000.000	ug/L	7.742	2741283	2.511
	Al	27	1000.000	ug/L	4.316	4331379	3.965
	P	31	1000.000	ug/L	1.320	278500	0.246
	K	39	1000.000	ug/L	5.805	5695807	4.416
	Ca	43	1000.000	ug/L	2.562	11187	0.010
>	Sc	45		ug/L		1091556	1091556.147
	V	51	10.000	ug/L	16.313	92906	0.059
	Cr	52	10.000	ug/L	1.238	59004	0.048
	Cr	53		ug/L		175747	0.004
	Mn	55	10.000	ug/L	1.091	77140	0.069
	Fe	57	1000.000	ug/L	1.699	154040	0.134
	Co	59	10.000	ug/L	1.857	55871	0.051
	Ni	60	10.000	ug/L	1.491	11694	0.011
	Cu	63		ug/L		26773	0.024
	Cu	65	10.000	ug/L	0.740	13093	0.012
	Zn	66	10.000	ug/L	0.722	8478	0.025
	Zn	67		ug/L		22935	0.003
	Zn	68		ug/L		7869	0.019
>	Ge	74		ug/L		315291	315290.815
	As	75	10.000	ug/L	6.564	10353	0.031
	Se	77		ug/L		8476	0.001
	Se	82	10.000	ug/L	3.093	855	0.003
	Kr	83		ug/L		130	-0.000
	Sr	88	10.000	ug/L	0.646	106711	0.572
	Y	89		ug/L		77	0.000
	Ag	107	10.000	ug/L	1.700	47741	0.256
	Cd	111	10.000	ug/L	1.524	11167	0.060
	Cd	114		ug/L		26011	0.139
>	In	115		ug/L		186218	186218.168
	Sn	120	10.000	ug/L	1.867	45773	0.245
	Sb	121	10.000	ug/L	7.022	37692	0.197
	Sb	123		ug/L		28828	0.151
	Ba	135		ug/L		10279	0.044
	Ba	137	10.000	ug/L	1.915	18139	0.078
	Ho	165		ug/L		31	-0.000
>	Lu	175		ug/L		232472	232472.322
	Tl	205	10.000	ug/L	0.295	88073	0.374
	Pb	208	10.000	ug/L	2.745	147275	0.628
	Bi	209		ug/L		66	0.000
	U	238	10.000	ug/L	2.415	145940	0.627

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115					
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175					
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Tuesday, January 05, 2010 01:59:45
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 nolrs thtimozr.mth
Dataset File: c:\elandata\dataset\100104\Standard 2.065

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**100.080**	**ug/L**	1.308	113996	0.108
	Be	9	**100.066**	**ug/L**	1.443	40336	0.038
	B	11	**200.114**	**ug/L**	2.317	89716	0.084
	Na	23	**10000.955**	**ug/L**	2.812	38880691	36.800
	Mg	24	**9999.637**	**ug/L**	7.737	26428131	25.019
	Al	27	**10014.947**	**ug/L**	6.608	49304981	46.686
	P	31	**9996.448**	**ug/L**	0.531	2520097	2.377
	K	39	**10007.996**	**ug/L**	7.278	51574317	48.038
	Ca	43	**9999.768**	**ug/L**	0.433	102867	0.097
>	Sc	45		**ug/L**		1056052	1056052.329
	V	51	**99.930**	**ug/L**	1.421	608351	0.550
	Cr	52	**100.004**	**ug/L**	0.533	519197	0.486
	Cr	53		**ug/L**		208788	0.041
	Mn	55	**99.987**	**ug/L**	0.941	721043	0.681
	Fe	57	**9997.884**	**ug/L**	1.091	1389752	1.309
	Co	59	**99.991**	**ug/L**	0.924	533503	0.505
	Ni	60	**100.005**	**ug/L**	0.908	112867	0.107
	Cu	63		**ug/L**		254249	0.240
	Cu	65	**99.992**	**ug/L**	0.858	124401	0.118
	Zn	66	**99.986**	**ug/L**	0.889	76777	0.251
	Zn	67		**ug/L**		33424	0.040
	Zn	68		**ug/L**		59559	0.190
>	Ge	74		**ug/L**		304497	304497.149
	As	75	**100.049**	**ug/L**	0.222	99509	0.325
	Se	77		**ug/L**		13383	0.018
	Se	82	**99.996**	**ug/L**	1.982	8638	0.029
	Kr	83		**ug/L**		126	-0.000
	Sr	88	**99.979**	**ug/L**	2.055	1009873	5.605
	Y	89		**ug/L**		163	0.001
	Ag	107	**100.000**	**ug/L**	1.048	461668	2.562
	Cd	111	**100.020**	**ug/L**	0.989	110106	0.611
	Cd	114		**ug/L**		256079	1.421
>	In	115		**ug/L**		180166	180165.905
	Sn	120	**100.001**	**ug/L**	1.403	441266	2.448
	Sb	121	**100.098**	**ug/L**	3.620	394967	2.188
	Sb	123		**ug/L**		304220	1.685
	Ba	135		**ug/L**		101238	0.447
	Ba	137	**99.999**	**ug/L**	0.410	176093	0.778
	Ho	165		**ug/L**		32	-0.000
>	Lu	175		**ug/L**		226328	226328.371
	Tl	205	**99.998**	**ug/L**	0.385	846730	3.737
	Pb	208	**99.990**	**ug/L**	0.943	1408280	6.217
	Bi	209		**ug/L**		147	0.000
	U	238	**99.982**	**ug/L**	0.979	1395201	6.164

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	0.9999
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115					
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175					
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Tuesday, January 05, 2010 02:05:38
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 noirs thtimozr.mth
Dataset File: c:\elandata\dataset\100104\QC Std 1.066

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**48.949**	**ug/L**	1.028	55583	0.053
	Be	9	**50.960**	**ug/L**	1.123	20476	0.019
	B	11	**100.147**	**ug/L**	0.774	45059	0.042
	Na	23	**4785.206**	**ug/L**	2.286	18545703	17.608
	Mg	24	**5097.874**	**ug/L**	6.225	13420535	12.755
	Al	27	**4853.369**	**ug/L**	4.083	23809359	22.625
	P	31	**5116.328**	**ug/L**	0.996	1289645	1.217
	K	39	**4667.835**	**ug/L**	7.520	24415501	22.405
	Ca	43	**5001.405**	**ug/L**	0.533	51544	0.048
>	Sc	45		**ug/L**		1052183	1052182.879
	V	51	**50.942**	**ug/L**	2.384	322510	0.280
	Cr	52	**51.835**	**ug/L**	0.942	270998	0.252
	Cr	53		**ug/L**		181773	0.016
	Mn	55	**52.560**	**ug/L**	1.225	378461	0.358
	Fe	57	**5129.086**	**ug/L**	1.787	714181	0.671
	Co	59	**50.622**	**ug/L**	0.856	269221	0.256
	Ni	60	**52.114**	**ug/L**	0.415	58648	0.056
	Cu	63		**ug/L**		130476	0.124
	Cu	65	**51.359**	**ug/L**	1.030	63732	0.060
	Zn	66	**52.477**	**ug/L**	0.755	40603	0.132
	Zn	67		**ug/L**		27376	0.020
	Zn	68		**ug/L**		31983	0.099
>	Ge	74		**ug/L**		305197	305196.825
	As	75	**46.782**	**ug/L**	1.230	46952	0.152
	Se	77		**ug/L**		10284	0.008
	Se	82	**49.795**	**ug/L**	2.327	4288	0.014
	Kr	83		**ug/L**		127	-0.000
	Sr	88	**51.904**	**ug/L**	0.826	524839	2.910
	Y	89		**ug/L**		93	0.000
	Ag	107	**50.666**	**ug/L**	0.946	234134	1.298
	Cd	111	**50.150**	**ug/L**	0.721	55262	0.306
	Cd	114		**ug/L**		130150	0.722
>	In	115		**ug/L**		180313	180312.509
	Sn	120	**51.110**	**ug/L**	0.688	225841	1.251
	Sb	121	**49.940**	**ug/L**	4.659	197718	1.091
	Sb	123		**ug/L**		151478	0.836
	Ba	135		**ug/L**		50849	0.228
	Ba	137	**51.601**	**ug/L**	1.833	89308	0.401
	Ho	165		**ug/L**		35	0.000
>	Lu	175		**ug/L**		222413	222413.285
	Tl	205	**51.735**	**ug/L**	0.325	430967	1.933
	Pb	208	**51.618**	**ug/L**	0.560	715011	3.209
	Bi	209		**ug/L**		178	0.001
	U	238	**54.471**	**ug/L**	0.934	747070	3.358

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	0.9999
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7	97.899				
	Be	9	101.921				
	B	11	100.147				
	Na	23	95.704				
	Mg	24	101.957				
	Al	27	96.106				
	P	31	102.327				
	K	39	93.357				
	Ca	43	100.028				
>	Sc	45		96.0			
	V	51	101.884				
	Cr	52	103.669				
	Cr	53					
	Mn	55	105.121				
	Fe	57	102.582				
	Co	59	101.245				
	Ni	60	104.227				
	Cu	63					
	Cu	65	102.718				
	Zn	66	104.954				
	Zn	67					
	Zn	68					
>	Ge	74		96.1			
	As	75	93.564				
	Se	77					
	Se	82	99.591				
	Kr	83					
	Sr	88	103.807				
	Y	89					
	Ag	107	101.332				
	Cd	111	100.300				
	Cd	114					
>	In	115		97.2			
	Sn	120	102.219				
	Sb	121	99.879				
	Sb	123					
	Ba	135					
	Ba	137	103.201				
	Ho	165					
>	Lu	175		97.0			
	Tl	205	103.469				
	Pb	208	103.236				
	Bi	209					
	U	238	108.942				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Tuesday, January 05, 2010 02:11:33
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 noirs thtimozr.mth
Dataset File: c:\elandata\dataset\100104\QC Std 2.067

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.041**	**ug/L**	34.470	113	0.000
	Be	9	**0.005**	**ug/L**	140.751	23	0.000
	B	11	**1.619**	**ug/L**	30.096	1409	0.001
	Na	23	**-0.285**	**ug/L**	208.644	19013	-0.001
	Mg	24	**0.134**	**ug/L**	478.965	2000	0.000
	Al	27	**0.603**	**ug/L**	69.317	6335	0.003
	P	31	**-0.359**	**ug/L**	472.452	9524	-0.000
	K	39	**-1.187**	**ug/L**	881.271	864097	-0.006
	Ca	43	**-4.894**	**ug/L**	84.334	533	-0.000
>	Sc	45		**ug/L**		1084371	1084371.305
	V	51	**-0.398**	**ug/L**	82.964	26063	-0.002
	Cr	52	**0.143**	**ug/L**	41.615	6911	0.001
	Cr	53		**ug/L**		164118	-0.005
	Mn	55	**-0.016**	**ug/L**	53.077	1645	-0.000
	Fe	57	**1.021**	**ug/L**	173.850	8239	0.000
	Co	59	**-0.000**	**ug/L**	10057.738	225	-0.000
	Ni	60	**0.004**	**ug/L**	219.005	103	0.000
	Cu	63		**ug/L**		263	-0.000
	Cu	65	**0.006**	**ug/L**	189.874	150	0.000
	Zn	66	**-0.048**	**ug/L**	50.276	428	-0.000
	Zn	67		**ug/L**		21468	-0.002
	Zn	68		**ug/L**		1823	-0.000
>	Ge	74		**ug/L**		316958	316957.704
	As	75	**0.059**	**ug/L**	638.779	682	0.000
	Se	77		**ug/L**		7360	-0.002
	Se	82	**0.251**	**ug/L**	42.003	-25	0.000
	Kr	83		**ug/L**		121	-0.000
	Sr	88	**-0.000**	**ug/L**	196.610	154	-0.000
	Y	89		**ug/L**		53	-0.000
	Ag	107	**0.007**	**ug/L**	35.872	76	0.000
	Cd	111	**0.006**	**ug/L**	130.201	21	0.000
	Cd	114		**ug/L**		43	0.000
>	In	115		**ug/L**		184887	184886.982
	Sn	120	**0.058**	**ug/L**	10.680	493	0.001
	Sb	121	**0.828**	**ug/L**	20.747	4315	0.018
	Sb	123		**ug/L**		3299	0.014
	Ba	135		**ug/L**		37	-0.000
	Ba	137	**-0.002**	**ug/L**	465.610	43	-0.000
	Ho	165		**ug/L**		26	-0.000
>	Lu	175		**ug/L**		230623	230623.313
	Tl	205	**0.330**	**ug/L**	10.741	3875	0.012
	Pb	208	**-0.009**	**ug/L**	28.410	1123	-0.001
	Bi	209		**ug/L**		46	-0.000
	U	238	**0.046**	**ug/L**	17.552	772	0.003

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	0.9999
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		98.9			
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		99.8			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		99.7			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		100.6			
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Tuesday, January 05, 2010 02:17:28
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 noirs thtlmozr.mth
Dataset File: c:\elandata\dataset\100104\QC Std 3.068

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**10.744**	**ug/L**	1.980	12525	0.012
	Be	9	**0.554**	**ug/L**	7.747	248	0.000
	B	11	**16.200**	**ug/L**	1.135	8012	0.007
	Na	23	**255.092**	**ug/L**	2.946	1029851	0.939
	Mg	24	**17.624**	**ug/L**	15.726	49086	0.044
	Al	27	**31.502**	**ug/L**	8.078	161242	0.147
	P	31	**57.027**	**ug/L**	1.013	24136	0.014
	K	39	**302.917**	**ug/L**	7.786	2427834	1.454
	Ca	43	**212.122**	**ug/L**	3.544	2790	0.002
>	Sc	45		**ug/L**		1075827	1075826.999
	V	51	**10.506**	**ug/L**	6.965	90386	0.058
	Cr	52	**11.277**	**ug/L**	0.886	65063	0.055
	Cr	53		**ug/L**		169338	0.001
	Mn	55	**5.886**	**ug/L**	0.583	44892	0.040
	Fe	57	**112.598**	**ug/L**	2.334	23888	0.015
	Co	59	**1.100**	**ug/L**	1.475	6202	0.006
	Ni	60	**2.220**	**ug/L**	3.636	2647	0.002
	Cu	63		**ug/L**		3247	0.003
	Cu	65	**1.160**	**ug/L**	2.704	1610	0.001
	Zn	66	**12.555**	**ug/L**	0.724	10372	0.031
	Zn	67		**ug/L**		23220	0.004
	Zn	68		**ug/L**		9091	0.023
>	Ge	74		**ug/L**		314741	314741.307
	As	75	**5.561**	**ug/L**	6.405	6297	0.018
	Se	77		**ug/L**		7926	-0.000
	Se	82	**5.567**	**ug/L**	5.801	452	0.002
	Kr	83		**ug/L**		122	-0.000
	Sr	88	**11.466**	**ug/L**	0.680	118948	0.643
	Y	89		**ug/L**		64	-0.000
	Ag	107	**1.055**	**ug/L**	1.086	5042	0.027
	Cd	111	**1.132**	**ug/L**	4.115	1293	0.007
	Cd	114		**ug/L**		2915	0.016
>	In	115		**ug/L**		184795	184795.184
	Sn	120	**5.355**	**ug/L**	0.602	24455	0.131
	Sb	121	**2.966**	**ug/L**	8.618	12944	0.065
	Sb	123		**ug/L**		9790	0.049
	Ba	135		**ug/L**		2251	0.010
	Ba	137	**2.138**	**ug/L**	3.707	3856	0.017
	Ho	165		**ug/L**		35	-0.000
>	Lu	175		**ug/L**		229107	229106.945
	Tl	205	**1.208**	**ug/L**	0.532	11364	0.045
	Pb	208	**2.230**	**ug/L**	1.422	33015	0.139
	Bi	209		**ug/L**		49	0.000
	U	238	**0.254**	**ug/L**	5.263	3708	0.016

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	0.9999
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7	107.442				
	Be	9	110.825				
	B	11	108.002				
	Na	23	102.037				
	Mg	24	117.494				
	Al	27	105.007				
	P	31	114.055				
	K	39	100.972				
	Ca	43	106.061				
>	Sc	45		98.1			
	V	51	105.061				
	Cr	52	112.772				
	Cr	53					
	Mn	55	117.724				
	Fe	57	112.598				
	Co	59	110.036				
	Ni	60	110.992				
	Cu	63					
	Cu	65	115.968				
	Zn	66	125.554				
	Zn	67					
	Zn	68					
>	Ge	74		99.1			
	As	75	111.218				
	Se	77					
	Se	82	111.350				
	Kr	83					
	Sr	88	114.663				
	Y	89					
	Ag	107	105.544				
	Cd	111	113.206				
	Cd	114					
>	In	115		99.6			
	Sn	120	107.098				
	Sb	121	98.875				
	Sb	123					
	Ba	135					
	Ba	137	106.920				
	Ho	165					
>	Lu	175		99.9			
	Tl	205	120.763				
	Pb	208	111.517				
	Bi	209					
	U	238	127.223				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Tuesday, January 05, 2010 02:23:21
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 noirs thtlmozr.mth
Dataset File: c:\elandata\dataset\100104\QC Std 4.069

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.266**	**ug/L**	3.813	351	0.000
	Be	9	**0.066**	**ug/L**	29.826	45	0.000
	B	11	**1.060**	**ug/L**	16.505	1078	0.000
	Na	23	**95375.121**	**ug/L**	1.154	354568691	350.951
	Mg	24	**97326.979**	**ug/L**	3.209	245984915	243.512
	Al	27	**86941.386**	**ug/L**	2.614	409464113	405.288
	P	31	**92708.254**	**ug/L**	1.614	22282628	22.049
	K	39	**88303.064**	**ug/L**	3.529	429054422	423.852
	Ca	43	**91076.302**	**ug/L**	0.762	891838	0.882
>	Sc	45		**ug/L**		1010229	1010229.294
	V	51	**-1.100**	**ug/L**	65.339	20360	-0.006
	Cr	52	**3.089**	**ug/L**	2.130	20896	0.015
	Cr	53		**ug/L**		137752	-0.020
	Mn	55	**5.694**	**ug/L**	0.358	40829	0.039
	Fe	57	**93329.248**	**ug/L**	0.646	12347566	12.215
	Co	59	**0.360**	**ug/L**	1.994	2046	0.002
	Ni	60	**3.545**	**ug/L**	1.509	3915	0.004
	Cu	63		**ug/L**		5458	0.005
	Cu	65	**3.560**	**ug/L**	0.706	4366	0.004
	Zn	66	**4.278**	**ug/L**	1.178	3557	0.011
	Zn	67		**ug/L**		21396	0.004
	Zn	68		**ug/L**		2353	0.002
>	Ge	74		**ug/L**		291572	291571.846
	As	75	**-0.010**	**ug/L**	3227.158	562	-0.000
	Se	77		**ug/L**		8281	0.003
	Se	82	**-1.206**	**ug/L**	0.480	-144	-0.000
	Kr	83		**ug/L**		296	0.001
	Sr	88	**1.149**	**ug/L**	1.686	11015	0.064
	Y	89		**ug/L**		389	0.002
	Ag	107	**0.280**	**ug/L**	35.548	1253	0.007
	Cd	111	**1.140**	**ug/L**	39.650	1192	0.007
	Cd	114		**ug/L**		7783	0.046
>	In	115		**ug/L**		168751	168750.511
	Sn	120	**0.132**	**ug/L**	5.396	756	0.003
	Sb	121	**0.203**	**ug/L**	24.218	1636	0.004
	Sb	123		**ug/L**		1263	0.004
	Ba	135		**ug/L**		661	0.003
	Ba	137	**0.638**	**ug/L**	1.126	1116	0.005
	Ho	165		**ug/L**		578	0.003
>	Lu	175		**ug/L**		216115	216114.961
	Tl	205	**0.076**	**ug/L**	8.472	1578	0.003
	Pb	208	**0.177**	**ug/L**	4.364	3558	0.011
	Bi	209		**ug/L**		495	0.002
	U	238	**0.010**	**ug/L**	19.344	244	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	0.9999
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23	95.375				
	Mg	24	97.327				
	Al	27	86.941				
	P	31	92.708				
	K	39	88.303				
	Ca	43	91.076				
>	Sc	45		92.1			
	V	51					
	Cr	52	83.476				
	Cr	53					
	Mn	55	98.166				
	Fe	57	93.329				
	Co	59	143.934				
	Ni	60	131.289				
	Cu	63					
	Cu	65	122.767				
	Zn	66	118.846				
	Zn	67					
	Zn	68					
>	Ge	74		91.8			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88	95.751				
	Y	89					
	Ag	107					
	Cd	111	284.943				
	Cd	114					
>	In	115		91.0			
	Sn	120					
	Sb	121	203.182				
	Sb	123					
	Ba	135					
	Ba	137	95.206				
	Ho	165					
>	Lu	175		94.2			
	Tl	205					
	Pb	208	88.621				
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

Sample ID: QC Std 4

Report Date/Time: Tuesday, January 05, 2010 02:25:52

ICPMS#6 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Tuesday, January 05, 2010 02:29:15
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 noirs thtimozr.mth
Dataset File: c:\elandata\dataset\100104\QC Std 5.070

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**20.669**	**ug/L**	2.532	23188	0.022
	Be	9	**20.406**	**ug/L**	1.340	8102	0.008
	B	11	**20.410**	**ug/L**	0.404	9572	0.009
	Na	23	**98491.919**	**ug/L**	7.396	376040117	362.420
	Mg	24	**100094.709**	**ug/L**	1.403	260012154	250.437
	Al	27	**88470.517**	**ug/L**	2.892	428085737	412.416
	P	31	**96269.443**	**ug/L**	0.848	23776961	22.896
	K	39	**89880.882**	**ug/L**	2.781	448806287	431.425
	Ca	43	**93599.376**	**ug/L**	1.478	941736	0.907
>	Sc	45		**ug/L**		1038129	1038129.317
	V	51	**18.270**	**ug/L**	4.588	131549	0.101
	Cr	52	**22.400**	**ug/L**	0.977	118891	0.109
	Cr	53		**ug/L**		146190	-0.016
	Mn	55	**25.847**	**ug/L**	1.146	184470	0.176
	Fe	57	**96779.091**	**ug/L**	0.940	13156653	12.667
	Co	59	**19.293**	**ug/L**	1.511	101359	0.097
	Ni	60	**22.221**	**ug/L**	1.819	24723	0.024
	Cu	63		**ug/L**		50963	0.049
	Cu	65	**21.648**	**ug/L**	1.799	26580	0.025
	Zn	66	**23.248**	**ug/L**	1.239	17774	0.058
	Zn	67		**ug/L**		23129	0.008
	Zn	68		**ug/L**		12920	0.037
>	Ge	74		**ug/L**		297443	297442.623
	As	75	**19.938**	**ug/L**	4.228	19840	0.065
	Se	77		**ug/L**		9538	0.007
	Se	82	**19.833**	**ug/L**	1.192	1638	0.006
	Kr	83		**ug/L**		314	0.001
	Sr	88	**21.581**	**ug/L**	1.427	210783	1.210
	Y	89		**ug/L**		415	0.002
	Ag	107	**19.025**	**ug/L**	0.763	84909	0.487
	Cd	111	**19.481**	**ug/L**	1.670	20735	0.119
	Cd	114		**ug/L**		54892	0.315
>	In	115		**ug/L**		174098	174098.094
	Sn	120	**20.158**	**ug/L**	1.202	86132	0.494
	Sb	121	**20.723**	**ug/L**	0.887	79760	0.453
	Sb	123		**ug/L**		61179	0.347
	Ba	135		**ug/L**		19701	0.088
	Ba	137	**19.562**	**ug/L**	0.932	34167	0.152
	Ho	165		**ug/L**		614	0.003
>	Lu	175		**ug/L**		224256	224255.794
	Tl	205	**16.657**	**ug/L**	2.567	140613	0.622
	Pb	208	**18.705**	**ug/L**	1.279	262018	1.163
	Bi	209		**ug/L**		709	0.003
	U	238	**20.643**	**ug/L**	2.452	285483	1.273

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	0.9999
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7	103.344				
	Be	9	102.030				
	B	11	102.048				
	Na	23	98.492				
	Mg	24	100.095				
	Al	27	88.471				
	P	31	96.269				
	K	39	89.881				
	Ca	43	93.599				
>	Sc	45		94.7			
	V	51	91.348				
	Cr	52	94.515				
	Cr	53					
	Mn	55	100.181				
	Fe	57	96.779				
	Co	59	95.275				
	Ni	60	97.889				
	Cu	63					
	Cu	65	94.533				
	Zn	66	98.507				
	Zn	67					
	Zn	68					
>	Ge	74		93.7			
	As	75	99.691				
	Se	77					
	Se	82	99.166				
	Kr	83					
	Sr	88	101.799				
	Y	89					
	Ag	107	95.125				
	Cd	111	95.496				
	Cd	114					
>	In	115		93.9			
	Sn	120	100.791				
	Sb	121	103.102				
	Sb	123					
	Ba	135					
	Ba	137	94.640				
	Ho	165					
>	Lu	175		97.8			
	Tl	205	83.286				
	Pb	208	92.601				
	Bi	209					
	U	238	103.214				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Tuesday, January 05, 2010 02:35:09
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 noirs thtimozr.mth
Dataset File: c:\elandata\dataset\100104\QC Std 6.071

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**55.638**	**ug/L**	4.403	61026	0.060
	Be	9	**55.458**	**ug/L**	0.508	21527	0.021
	B	11	**105.997**	**ug/L**	2.981	46042	0.045
	Na	23	**4993.887**	**ug/L**	3.019	18699847	18.376
	Mg	24	**5364.495**	**ug/L**	2.625	13646064	13.422
	Al	27	**4618.416**	**ug/L**	2.234	21888343	21.529
	P	31	**5208.477**	**ug/L**	1.270	1268285	1.239
	K	39	**4899.692**	**ug/L**	1.449	24724124	23.518
	Ca	43	**5118.770**	**ug/L**	1.584	50955	0.050
>	Sc	45		**ug/L**		1016552	1016552.298
	V	51	**51.872**	**ug/L**	2.165	316803	0.285
	Cr	52	**52.479**	**ug/L**	1.497	265013	0.255
	Cr	53		**ug/L**		177511	0.018
	Mn	55	**53.836**	**ug/L**	0.813	374490	0.367
	Fe	57	**5277.942**	**ug/L**	1.145	709827	0.691
	Co	59	**51.803**	**ug/L**	0.791	266175	0.262
	Ni	60	**53.256**	**ug/L**	0.112	57902	0.057
	Cu	63		**ug/L**		129682	0.127
	Cu	65	**52.474**	**ug/L**	1.138	62908	0.062
	Zn	66	**52.494**	**ug/L**	0.410	39718	0.132
	Zn	67		**ug/L**		27074	0.021
	Zn	68		**ug/L**		31525	0.100
>	Ge	74		**ug/L**		298438	298438.376
	As	75	**47.358**	**ug/L**	0.716	46474	0.154
	Se	77		**ug/L**		10022	0.008
	Se	82	**50.666**	**ug/L**	1.256	4268	0.014
	Kr	83		**ug/L**		121	-0.000
	Sr	88	**53.217**	**ug/L**	1.499	522337	2.984
	Y	89		**ug/L**		86	0.000
	Ag	107	**51.642**	**ug/L**	1.311	231638	1.323
	Cd	111	**51.643**	**ug/L**	0.657	55240	0.316
	Cd	114		**ug/L**		129038	0.737
>	In	115		**ug/L**		175034	175034.235
	Sn	120	**52.796**	**ug/L**	1.831	226444	1.293
	Sb	121	**50.209**	**ug/L**	5.909	192946	1.097
	Sb	123		**ug/L**		148150	0.843
	Ba	135		**ug/L**		51352	0.230
	Ba	137	**52.188**	**ug/L**	0.902	90473	0.406
	Ho	165		**ug/L**		44	0.000
>	Lu	175		**ug/L**		222768	222768.370
	Tl	205	**51.690**	**ug/L**	1.542	431259	1.932
	Pb	208	**51.947**	**ug/L**	1.118	720700	3.230
	Bi	209		**ug/L**		185	0.001
	U	238	**54.008**	**ug/L**	0.957	741853	3.330

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	0.9999
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7	111.275				
	Be	9	110.917				
	B	11	105.997				
	Na	23	99.878				
	Mg	24	107.290				
	Al	27	91.454				
	P	31	104.170				
	K	39	97.994				
	Ca	43	102.375				
>	Sc	45		92.7			
	V	51	103.743				
	Cr	52	104.958				
	Cr	53					
	Mn	55	107.672				
	Fe	57	105.559				
	Co	59	103.607				
	Ni	60	106.511				
	Cu	63					
	Cu	65	104.948				
	Zn	66	104.988				
	Zn	67					
	Zn	68					
>	Ge	74		94.0			
	As	75	94.716				
	Se	77					
	Se	82	101.333				
	Kr	83					
	Sr	88	106.435				
	Y	89					
	Ag	107	103.284				
	Cd	111	103.286				
	Cd	114					
>	In	115		94.4			
	Sn	120	105.593				
	Sb	121	100.418				
	Sb	123					
	Ba	135					
	Ba	137	104.375				
	Ho	165					
>	Lu	175		97.1			
	Tl	205	103.379				
	Pb	208	103.894				
	Bi	209					
	U	238	108.017				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 6	Li	7	CCV is out of limits (+/- 10%)
QC Std 6	Be	9	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Tuesday, January 05, 2010 02:41:04
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 noirs thtimozr.mth
Dataset File: c:\elandata\dataset\100104\QC Std 7.072

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	0.066	ug/L	21.364	140	0.000
	Be	9	-0.004	ug/L	154.093	19	-0.000
	B	11	1.183	ug/L	30.722	1194	0.000
	Na	23	2.832	ug/L	43.268	31034	0.010
	Mg	24	0.391	ug/L	57.325	2667	0.001
	Al	27	1.159	ug/L	33.063	9003	0.005
	P	31	0.885	ug/L	46.544	9708	0.000
	K	39	1.966	ug/L	233.447	867932	0.009
	Ca	43	-1.746	ug/L	247.678	557	-0.000
>	Sc	45		ug/L		1068946	1068945.818
	V	51	-0.504	ug/L	152.653	25000	-0.003
	Cr	52	0.273	ug/L	17.393	7488	0.001
	Cr	53		ug/L		162871	-0.004
	Mn	55	-0.011	ug/L	73.990	1656	-0.000
	Fe	57	4.342	ug/L	18.918	8589	0.001
	Co	59	-0.005	ug/L	17.334	198	-0.000
	Ni	60	0.002	ug/L	912.192	99	0.000
	Cu	63		ug/L		255	-0.000
	Cu	65	0.003	ug/L	354.827	145	0.000
	Zn	66	-0.053	ug/L	84.887	416	-0.000
	Zn	67		ug/L		21876	0.001
	Zn	68		ug/L		1831	-0.000
>	Ge	74		ug/L		310408	310407.859
	As	75	-0.192	ug/L	291.516	413	-0.001
	Se	77		ug/L		7835	-0.000
	Se	82	0.124	ug/L	83.133	-36	0.000
	Kr	83		ug/L		132	0.000
	Sr	88	0.000	ug/L	413.512	158	0.000
	Y	89		ug/L		57	-0.000
	Ag	107	0.005	ug/L	8.457	65	0.000
	Cd	111	0.018	ug/L	27.938	34	0.000
	Cd	114		ug/L		41	0.000
>	In	115		ug/L		181451	181450.742
	Sn	120	0.045	ug/L	18.015	428	0.001
	Sb	121	0.562	ug/L	25.952	3184	0.012
	Sb	123		ug/L		2514	0.010
	Ba	135		ug/L		46	0.000
	Ba	137	0.003	ug/L	170.500	52	0.000
	Ho	165		ug/L		32	-0.000
>	Lu	175		ug/L		230222	230221.872
	Tl	205	0.318	ug/L	11.703	3765	0.012
	Pb	208	-0.015	ug/L	11.597	1035	-0.001
	Bi	209		ug/L		36	-0.000
	U	238	0.036	ug/L	27.381	623	0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	0.9999
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		97.5			
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		97.8			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		97.8			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		100.4			
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1201999349
Sample Date/Time: Tuesday, January 05, 2010 02:46:59
Sample Type:
Sample Description: LANL 6020 MB
Number of Replicates: 3
Batch ID: 934497|2|rmj
Method File: c:\elandata\Method\6020 noirs thtimozr.mth
Dataset File: c:\elandata\dataset\100104\1201999349.073

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.019**	**ug/L**	45.466	99	0.000
	Be	9	**-0.008**	**ug/L**	66.271	20	-0.000
	B	11	**0.275**	**ug/L**	13.077	895	0.000
	Na	23	**3.308**	**ug/L**	32.487	37383	0.012
	Mg	24	**1.035**	**ug/L**	31.729	5001	0.003
	Al	27	**2.993**	**ug/L**	8.363	20682	0.014
	P	31	**26.029**	**ug/L**	2.305	18326	0.006
	K	39	**-21.164**	**ug/L**	64.898	852855	-0.102
	Ca	43	**-6.970**	**ug/L**	7.440	573	-0.000
>	Sc	45		**ug/L**		1216659	1216658.604
	V	51	**-1.173**	**ug/L**	73.357	24009	-0.006
	Cr	52	**0.202**	**ug/L**	16.390	8101	0.001
	Cr	53		**ug/L**		125264	-0.054
	Mn	55	**0.164**	**ug/L**	14.749	3339	0.001
	Fe	57	**4.993**	**ug/L**	30.949	9879	0.001
	Co	59	**-0.000**	**ug/L**	71114.354	253	-0.000
	Ni	60	**0.016**	**ug/L**	61.743	130	0.000
	Cu	63		**ug/L**		531	0.000
	Cu	65	**0.086**	**ug/L**	6.953	283	0.000
	Zn	66	**0.458**	**ug/L**	8.567	901	0.001
	Zn	67		**ug/L**		15955	-0.023
	Zn	68		**ug/L**		1933	-0.000
>	Ge	74		**ug/L**		343841	343840.991
	As	75	**-0.261**	**ug/L**	60.109	381	-0.001
	Se	77		**ug/L**		5464	-0.010
	Se	82	**0.351**	**ug/L**	31.502	-17	0.000
	Kr	83		**ug/L**		113	-0.000
	Sr	88	**0.018**	**ug/L**	4.735	387	0.001
	Y	89		**ug/L**		70	-0.000
	Ag	107	**0.005**	**ug/L**	32.923	76	0.000
	Cd	111	**0.023**	**ug/L**	5.443	46	0.000
	Cd	114		**ug/L**		45	0.000
>	In	115		**ug/L**		206874	206873.760
	Sn	120	**0.067**	**ug/L**	9.152	598	0.002
	Sb	121	**0.026**	**ug/L**	97.628	1205	0.001
	Sb	123		**ug/L**		944	0.001
	Ba	135		**ug/L**		98	0.000
	Ba	137	**0.051**	**ug/L**	7.147	155	0.000
	Ho	165		**ug/L**		33	-0.000
>	Lu	175		**ug/L**		261043	261043.145
	Tl	205	**0.228**	**ug/L**	19.004	3392	0.009
	Pb	208	**0.179**	**ug/L**	20.163	4327	0.011
	Bi	209		**ug/L**		88	0.000
	U	238	**0.008**	**ug/L**	43.434	266	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	0.9999
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		111.0			
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		108.3			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		111.5			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		113.8			
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1201999354
Sample Date/Time: Tuesday, January 05, 2010 02:58:45
Sample Type:
Sample Description: LANL 6020 LCS
Number of Replicates: 3
Batch ID: 934497|40|rmj
Method File: c:\elandata\Method\6020 noirs thtimozr.mth
Dataset File: c:\elandata\dataset\100104\1201999354.075

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**3.011**	**ug/L**	2.454	3593	0.003
	Be	9	**21.569**	**ug/L**	1.935	8965	0.008
	B	11	**41.472**	**ug/L**	0.881	19672	0.017
	Na	23	**295.511**	**ug/L**	7.404	1202400	1.087
	Mg	24	**1282.991**	**ug/L**	3.868	3490927	3.210
	Al	27	**3328.921**	**ug/L**	3.037	16872540	15.518
	P	31	**241.126**	**ug/L**	1.693	71986	0.057
	K	39	**1197.330**	**ug/L**	4.707	7118902	5.747
	Ca	43	**2852.097**	**ug/L**	1.165	30620	0.028
>	Sc	45		**ug/L**		1087018	1087017.748
	V	51	**31.431**	**ug/L**	2.563	216486	0.173
	Cr	52	**65.235**	**ug/L**	0.315	350754	0.317
	Cr	53		**ug/L**		196817	0.024
	Mn	55	**153.584**	**ug/L**	0.780	1139099	1.046
	Fe	57	**5029.037**	**ug/L**	0.879	723591	0.658
	Co	59	**25.396**	**ug/L**	0.482	139646	0.128
	Ni	60	**36.948**	**ug/L**	0.204	42986	0.039
	Cu	63		**ug/L**		125556	0.115
	Cu	65	**47.577**	**ug/L**	0.613	61004	0.056
	Zn	66	**165.581**	**ug/L**	0.348	131211	0.415
	Zn	67		**ug/L**		41325	0.062
	Zn	68		**ug/L**		101031	0.315
>	Ge	74		**ug/L**		314949	314948.725
	As	75	**28.168**	**ug/L**	0.909	29421	0.091
	Se	77		**ug/L**		12684	0.015
	Se	82	**75.667**	**ug/L**	1.569	6749	0.022
	Kr	83		**ug/L**		125	-0.000
	Sr	88	**65.309**	**ug/L**	0.830	668379	3.661
	Y	89		**ug/L**		39728	0.217
	Ag	107	**2.338**	**ug/L**	0.343	10976	0.060
	Cd	111	**16.292**	**ug/L**	1.149	18181	0.100
	Cd	114		**ug/L**		42371	0.232
>	In	115		**ug/L**		182506	182505.735
	Sn	120	**12.025**	**ug/L**	0.292	53954	0.294
	Sb	121	**13.416**	**ug/L**	1.057	54466	0.293
	Sb	123		**ug/L**		41945	0.226
	Ba	135		**ug/L**		58240	0.253
	Ba	137	**56.912**	**ug/L**	1.072	101977	0.443
	Ho	165		**ug/L**		2127	0.009
>	Lu	175		**ug/L**		230251	230251.333
	Tl	205	**32.838**	**ug/L**	1.656	283571	1.227
	Pb	208	**23.173**	**ug/L**	0.904	332999	1.441
	Bi	209		**ug/L**		2783	0.012
	U	238	**0.603**	**ug/L**	0.720	8680	0.037

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	0.9999
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		99.1			
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		99.2			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		98.4			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		100.4			
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Tuesday, January 05, 2010 03:04:38
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 noirs thtimozr.mth
Dataset File: c:\elandata\dataset\100104\QC Std 6.076

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**54.333**	ug/L	2.812	63418	0.059
	Be	9	**53.945**	ug/L	0.513	22284	0.021
	B	11	**104.859**	ug/L	0.909	48477	0.044
	Na	23	**5415.202**	ug/L	6.308	21571167	19.926
	Mg	24	**5795.715**	ug/L	0.963	15688527	14.501
	Al	27	**5002.839**	ug/L	7.307	25237723	23.321
	P	31	**5281.673**	ug/L	1.064	1368465	1.256
	K	39	**4735.733**	ug/L	4.218	25457961	22.731
	Ca	43	**5217.434**	ug/L	0.145	55260	0.051
>	Sc	45		ug/L		1081808	1081807.928
	V	51	**52.599**	ug/L	2.603	341445	0.289
	Cr	52	**53.264**	ug/L	1.247	286134	0.259
	Cr	53		ug/L		195404	0.024
	Mn	55	**54.297**	ug/L	1.081	401906	0.370
	Fe	57	**5272.879**	ug/L	0.918	754654	0.690
	Co	59	**51.422**	ug/L	1.238	281159	0.260
	Ni	60	**52.668**	ug/L	1.567	60935	0.056
	Cu	63		ug/L		136282	0.126
	Cu	65	**52.126**	ug/L	1.907	66496	0.061
	Zn	66	**53.900**	ug/L	0.922	42781	0.135
	Zn	67		ug/L		28389	0.021
	Zn	68		ug/L		34109	0.103
>	Ge	74		ug/L		313159	313158.621
	As	75	**47.512**	ug/L	2.240	48923	0.154
	Se	77		ug/L		11196	0.010
	Se	82	**50.893**	ug/L	3.183	4499	0.015
	Kr	83		ug/L		123	-0.000
	Sr	88	**54.665**	ug/L	0.433	548321	3.065
	Y	89		ug/L		96	0.000
	Ag	107	**53.158**	ug/L	1.525	243663	1.362
	Cd	111	**52.799**	ug/L	0.356	57713	0.323
	Cd	114		ug/L		134186	0.750
>	In	115		ug/L		178861	178860.624
	Sn	120	**52.685**	ug/L	0.204	230924	1.290
	Sb	121	**50.749**	ug/L	3.574	199299	1.109
	Sb	123		ug/L		155106	0.863
	Ba	135		ug/L		52904	0.229
	Ba	137	**52.317**	ug/L	1.436	93986	0.407
	Ho	165		ug/L		47	0.000
>	Lu	175		ug/L		230855	230855.040
	Tl	205	**51.483**	ug/L	0.469	445165	1.924
	Pb	208	**52.233**	ug/L	1.483	750943	3.248
	Bi	209		ug/L		190	0.001
	U	238	**53.365**	ug/L	1.739	759573	3.290

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	0.9999
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7	108.666				
	Be	9	107.891				
	B	11	104.859				
	Na	23	108.304				
	Mg	24	115.914				
	Al	27	99.066				
	P	31	105.633				
	K	39	94.715				
	Ca	43	104.349				
>	Sc	45		98.7			
	V	51	105.198				
	Cr	52	106.528				
	Cr	53					
	Mn	55	108.594				
	Fe	57	105.458				
	Co	59	102.843				
	Ni	60	105.335				
	Cu	63					
	Cu	65	104.252				
	Zn	66	107.801				
	Zn	67					
	Zn	68					
>	Ge	74		98.6			
	As	75	95.024				
	Se	77					
	Se	82	101.787				
	Kr	83					
	Sr	88	109.330				
	Y	89					
	Ag	107	106.317				
	Cd	111	105.598				
	Cd	114					
>	In	115		96.4			
	Sn	120	105.370				
	Sb	121	101.497				
	Sb	123					
	Ba	135					
	Ba	137	104.634				
	Ho	165					
>	Lu	175		100.7			
	Tl	205	102.967				
	Pb	208	104.466				
	Bi	209					
	U	238	106.729				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 6	Mg	24	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Tuesday, January 05, 2010 03:10:32
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 nolrs thtimozr.mth
Dataset File: c:\elandata\dataset\100104\QC Std 7.077

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.024**	**ug/L**	90.264	96	0.000
	Be	9	**0.001**	**ug/L**	1156.374	22	0.000
	B	11	**1.291**	**ug/L**	23.198	1289	0.001
	Na	23	**1.188**	**ug/L**	169.641	25357	0.004
	Mg	24	**-0.247**	**ug/L**	147.078	1000	-0.001
	Al	27	**0.184**	**ug/L**	259.844	4334	0.001
	P	31	**-0.019**	**ug/L**	8491.298	9821	-0.000
	K	39	**1.711**	**ug/L**	391.876	898052	0.008
	Ca	43	**0.252**	**ug/L**	1095.166	599	0.000
>	Sc	45		**ug/L**		1107770	1107769.830
	V	51	**-0.336**	**ug/L**	211.128	26962	-0.002
	Cr	52	**0.418**	**ug/L**	6.152	8540	0.002
	Cr	53		**ug/L**		176426	0.002
	Mn	55	**-0.001**	**ug/L**	488.736	1791	-0.000
	Fe	57	**3.043**	**ug/L**	39.715	8713	0.000
	Co	59	**-0.005**	**ug/L**	57.492	201	-0.000
	Ni	60	**-0.001**	**ug/L**	775.935	99	-0.000
	Cu	63		**ug/L**		333	-0.000
	Cu	65	**-0.002**	**ug/L**	293.675	143	-0.000
	Zn	66	**-0.033**	**ug/L**	85.722	445	-0.000
	Zn	67		**ug/L**		22215	-0.000
	Zn	68		**ug/L**		1976	0.000
>	Ge	74		**ug/L**		320521	320521.301
	As	75	**-0.118**	**ug/L**	330.629	504	-0.000
	Se	77		**ug/L**		8509	0.001
	Se	82	**0.062**	**ug/L**	427.863	-43	0.000
	Kr	83		**ug/L**		147	0.000
	Sr	88	**0.001**	**ug/L**	120.110	169	0.000
	Y	89		**ug/L**		56	-0.000
	Ag	107	**0.005**	**ug/L**	30.781	67	0.000
	Cd	111	**0.008**	**ug/L**	169.963	23	0.000
	Cd	114		**ug/L**		46	0.000
>	In	115		**ug/L**		182318	182318.380
	Sn	120	**0.047**	**ug/L**	20.254	435	0.001
	Sb	121	**0.620**	**ug/L**	24.333	3424	0.014
	Sb	123		**ug/L**		2652	0.011
	Ba	135		**ug/L**		39	-0.000
	Ba	137	**0.003**	**ug/L**	201.385	51	0.000
	Ho	165		**ug/L**		30	-0.000
>	Lu	175		**ug/L**		229509	229508.934
	Tl	205	**0.527**	**ug/L**	10.823	5542	0.020
	Pb	208	**-0.016**	**ug/L**	24.571	1020	-0.001
	Bi	209		**ug/L**		51	0.000
	U	238	**0.035**	**ug/L**	24.807	608	0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	0.9999
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		101.0			
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		100.9			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		98.3			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		100.1			
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 243042001
Sample Date/Time: Tuesday, January 05, 2010 03:16:27
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 934497|2|rmj
Method File: c:\elandata\Method\6020 noirs thtimozr.mth
Dataset File: c:\elandata\dataset\100104\243042001.078

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**67.002**	**ug/L**	1.744	89421	0.072
	Be	9	**3.801**	**ug/L**	2.047	1817	0.001
	B	11	**21.475**	**ug/L**	3.614	11963	0.009
	Na	23	**657.398**	**ug/L**	6.891	3016397	2.419
	Mg	24	**13527.510**	**ug/L**	3.971	41878424	33.846
	Al	27	**70629.092**	**ug/L**	3.337	407348020	329.246
	P	31	**512.311**	**ug/L**	1.271	161704	0.122
	K	39	**8702.253**	**ug/L**	1.612	52671643	41.771
	Ca	43	**8616.110**	**ug/L**	0.219	103924	0.083
>	Sc	45		**ug/L**		1237135	1237135.390
	V	51	**110.971**	**ug/L**	1.341	787851	0.611
	Cr	52	**56.861**	**ug/L**	1.347	348860	0.276
	Cr	53		**ug/L**		139609	-0.044
	Mn	55	**1383.184**	**ug/L**	1.259	11659256	9.423
	Fe	57	**57168.354**	**ug/L**	1.133	9266111	7.482
	Co	59	**23.912**	**ug/L**	1.121	149655	0.121
	Ni	60	**37.060**	**ug/L**	0.985	49070	0.040
	Cu	63		**ug/L**		126330	0.102
	Cu	65	**43.471**	**ug/L**	0.380	63449	0.051
	Zn	66	**187.947**	**ug/L**	1.635	149676	0.471
	Zn	67		**ug/L**		41321	0.061
	Zn	68		**ug/L**		122230	0.380
>	Ge	74		**ug/L**		316686	316686.459
	As	75	**9.396**	**ug/L**	5.820	10277	0.031
	Se	77		**ug/L**		4197	-0.012
	Se	82	**-1.456**	**ug/L**	8.136	-179	-0.000
	Kr	83		**ug/L**		360	0.001
	Sr	88	**139.842**	**ug/L**	1.070	1502616	7.840
	Y	89		**ug/L**		575172	3.001
	Ag	107	**0.396**	**ug/L**	4.341	1990	0.010
	Cd	111	**1.327**	**ug/L**	9.768	1569	0.008
	Cd	114		**ug/L**		1106	0.006
>	In	115		**ug/L**		191651	191651.230
	Sn	120	**1.004**	**ug/L**	0.603	4951	0.025
	Sb	121	**0.291**	**ug/L**	11.926	2224	0.006
	Sb	123		**ug/L**		1777	0.005
	Ba	135		**ug/L**		797762	3.123
	Ba	137	**686.989**	**ug/L**	1.379	1365109	5.344
	Ho	165		**ug/L**		32048	0.125
>	Lu	175		**ug/L**		255466	255465.910
	Tl	205	**1.234**	**ug/L**	5.359	12921	0.046
	Pb	208	**63.209**	**ug/L**	0.751	1005370	3.930
	Bi	209		**ug/L**		14464	0.056
	U	238	**3.739**	**ug/L**	2.898	59017	0.231

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	0.9999
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		112.8			
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		99.7			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		103.3			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		111.4			
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Al 27 Upper, S, EEE	Al	27	Sample is out of limits (over linear range)
V 51 Upper, S, EEE	V	51	Sample is out of limits (over linear range)
Mn 55 Upper, S, EEE	Mn	55	Sample is out of limits (over linear range)
Fe 57 Upper, S, EEE	Fe	57	Sample is out of limits (over linear range)

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: 1201999350
Sample Date/Time: Tuesday, January 05, 2010 03:22:21
Sample Type:
Sample Description: LANL 6020 DUP
Number of Replicates: 3
Batch ID: 934497|2|rmj
Method File: c:\elandata\Method\6020 noirs thtimozr.mth
Dataset File: c:\elandata\dataset\100104\1201999350.079

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**63.408**	**ug/L**	2.527	84825	0.068
	Be	9	**3.716**	**ug/L**	2.506	1782	0.001
	B	11	**19.518**	**ug/L**	1.579	10970	0.008
	Na	23	**592.488**	**ug/L**	3.293	2726242	2.180
	Mg	24	**12705.845**	**ug/L**	5.344	39438904	31.790
	Al	27	**67541.241**	**ug/L**	2.103	390419271	314.852
	P	31	**548.063**	**ug/L**	0.311	172647	0.130
	K	39	**8824.765**	**ug/L**	8.011	53549503	42.359
	Ca	43	**8692.378**	**ug/L**	0.355	105092	0.084
>	Sc	45		**ug/L**		1240135	1240134.690
	V	51	**108.909**	**ug/L**	0.490	775703	0.599
	Cr	52	**55.563**	**ug/L**	1.047	341866	0.270
	Cr	53		**ug/L**		135066	-0.048
	Mn	55	**1269.157**	**ug/L**	0.841	10725113	8.646
	Fe	57	**56937.554**	**ug/L**	0.543	9251311	7.452
	Co	59	**22.244**	**ug/L**	0.725	139569	0.112
	Ni	60	**37.078**	**ug/L**	0.561	49211	0.040
	Cu	63		**ug/L**		143371	0.115
	Cu	65	**48.361**	**ug/L**	0.844	70737	0.057
	Zn	66	**186.064**	**ug/L**	1.840	149547	0.466
	Zn	67		**ug/L**		40932	0.058
	Zn	68		**ug/L**		123149	0.379
>	Ge	74		**ug/L**		319599	319598.521
	As	75	**9.870**	**ug/L**	5.697	10864	0.032
	Se	77		**ug/L**		4002	-0.013
	Se	82	**-0.580**	**ug/L**	12.406	-101	-0.000
	Kr	83		**ug/L**		309	0.001
	Sr	88	**137.956**	**ug/L**	1.187	1492913	7.734
	Y	89		**ug/L**		577664	2.993
	Ag	107	**0.458**	**ug/L**	1.713	2310	0.012
	Cd	111	**1.543**	**ug/L**	4.940	1836	0.009
	Cd	114		**ug/L**		1235	0.006
>	In	115		**ug/L**		193018	193018.239
	Sn	120	**1.000**	**ug/L**	1.425	4966	0.024
	Sb	121	**0.169**	**ug/L**	9.950	1726	0.004
	Sb	123		**ug/L**		1388	0.003
	Ba	135		**ug/L**		847791	3.294
	Ba	137	**727.043**	**ug/L**	1.024	1455563	5.655
	Ho	165		**ug/L**		31749	0.123
>	Lu	175		**ug/L**		257389	257389.455
	Tl	205	**0.981**	**ug/L**	0.407	10586	0.037
	Pb	208	**63.690**	**ug/L**	1.639	1020540	3.960
	Bi	209		**ug/L**		14053	0.054
	U	238	**3.799**	**ug/L**	1.889	60401	0.234

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	0.9999
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		113.1			
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		100.7			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		104.1			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		112.2			
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Al 27 Upper, S, EEE	Al	27	Sample is out of limits (over linear range)
V 51 Upper, S, EEE	V	51	Sample is out of limits (over linear range)
Mn 55 Upper, S, EEE	Mn	55	Sample is out of limits (over linear range)
Fe 57 Upper, S, EEE	Fe	57	Sample is out of limits (over linear range)

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: 1201999352
Sample Date/Time: Tuesday, January 05, 2010 03:28:15
Sample Type:
Sample Description: LANL 6020 MS
Number of Replicates: 3
Batch ID: 934497|2|rmj
Method File: c:\elandata\Method\6020 nolrs thtimozr.mth
Dataset File: c:\elandata\dataset\100104\1201999352.080

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**89.971**	**ug/L**	1.162	119095	0.097
	Be	9	**24.911**	**ug/L**	0.925	11686	0.010
	B	11	**60.800**	**ug/L**	1.472	32205	0.026
	Na	23	**1510.326**	**ug/L**	10.182	6842808	5.558
	Mg	24	**13506.639**	**ug/L**	4.127	41471837	33.794
	Al	27	**75087.381**	**ug/L**	1.886	429567003	350.029
	P	31	**1279.467**	**ug/L**	1.232	384335	0.304
	K	39	**9482.372**	**ug/L**	1.940	56841481	45.515
	Ca	43	**9151.089**	**ug/L**	1.598	109456	0.089
>	Sc	45		**ug/L**		1227233	1227232.871
	V	51	**128.616**	**ug/L**	1.105	900711	0.708
	Cr	52	**78.526**	**ug/L**	0.985	475274	0.382
	Cr	53		**ug/L**		151757	-0.033
	Mn	55	**1385.735**	**ug/L**	0.647	11587742	9.440
	Fe	57	**56999.723**	**ug/L**	1.561	9164990	7.460
	Co	59	**44.275**	**ug/L**	0.760	274675	0.224
	Ni	60	**56.873**	**ug/L**	0.782	74641	0.061
	Cu	63		**ug/L**		180818	0.147
	Cu	65	**62.451**	**ug/L**	0.721	90354	0.073
	Zn	66	**210.540**	**ug/L**	1.362	167988	0.528
	Zn	67		**ug/L**		43935	0.069
	Zn	68		**ug/L**		137811	0.428
>	Ge	74		**ug/L**		317389	317389.169
	As	75	**40.682**	**ug/L**	0.504	42542	0.132
	Se	77		**ug/L**		4589	-0.011
	Se	82	**6.168**	**ug/L**	8.598	511	0.002
	Kr	83		**ug/L**		346	0.001
	Sr	88	**159.133**	**ug/L**	1.305	1701078	8.922
	Y	89		**ug/L**		542110	2.843
	Ag	107	**21.518**	**ug/L**	2.089	105153	0.551
	Cd	111	**6.121**	**ug/L**	3.326	7143	0.037
	Cd	114		**ug/L**		12831	0.067
>	In	115		**ug/L**		190674	190673.586
	Sn	120	**9.336**	**ug/L**	0.353	43817	0.229
	Sb	121	**20.330**	**ug/L**	0.916	85709	0.444
	Sb	123		**ug/L**		65876	0.342
	Ba	135		**ug/L**		836459	3.355
	Ba	137	**740.264**	**ug/L**	0.611	1435802	5.758
	Ho	165		**ug/L**		29912	0.120
>	Lu	175		**ug/L**		249355	249355.141
	Tl	205	**42.235**	**ug/L**	1.694	394603	1.578
	Pb	208	**143.633**	**ug/L**	2.087	2227830	8.931
	Bi	209		**ug/L**		16215	0.065
	U	238	**25.904**	**ug/L**	2.628	398262	1.597

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	0.9999
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		111.9			
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		100.0			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		102.8			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		108.7			
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Al 27 Upper, S, EEE	Al	27	Sample is out of limits (over linear range)
V 51 Upper, S, EEE	V	51	Sample is out of limits (over linear range)
Mn 55 Upper, S, EEE	Mn	55	Sample is out of limits (over linear range)
Fe 57 Upper, S, EEE	Fe	57	Sample is out of limits (over linear range)

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: 1201999353
Sample Date/Time: Tuesday, January 05, 2010 03:34:10
Sample Type:
Sample Description: LANL 6020 MSD
Number of Replicates: 3
Batch ID: 934497|2|rmj
Method File: c:\elandata\Method\6020 noirs thtlmozr.mth
Dataset File: c:\elandata\dataset\100104\1201999353.081

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**94.948**	ug/L	2.155	126342	0.102
	Be	9	**26.225**	ug/L	1.381	12368	0.010
	B	11	**64.953**	ug/L	3.000	34540	0.027
	Na	23	**1649.590**	ug/L	6.907	7513790	6.070
	Mg	24	**14882.938**	ug/L	2.019	45944290	37.237
	Al	27	**86022.664**	ug/L	1.456	494742686	401.005
	P	31	**1388.676**	ug/L	0.884	418442	0.330
	K	39	**10839.361**	ug/L	2.142	65181158	52.029
	Ca	43	**10261.682**	ug/L	0.945	123313	0.099
>	Sc	45		ug/L		1233791	1233790.602
	V	51	**138.483**	ug/L	0.552	972514	0.762
	Cr	52	**92.592**	ug/L	0.512	562132	0.450
	Cr	53		ug/L		159227	-0.028
	Mn	55	**1405.935**	ug/L	0.492	11819317	9.578
	Fe	57	**63001.264**	ug/L	1.237	10182742	8.246
	Co	59	**44.622**	ug/L	0.572	278304	0.225
	Ni	60	**65.103**	ug/L	0.543	85884	0.070
	Cu	63		ug/L		213638	0.173
	Cu	65	**72.905**	ug/L	0.638	106014	0.086
	Zn	66	**251.259**	ug/L	1.395	199662	0.630
	Zn	67		ug/L		48735	0.084
	Zn	68		ug/L		159974	0.500
>	Ge	74		ug/L		316227	316226.526
	As	75	**44.846**	ug/L	1.651	46662	0.146
	Se	77		ug/L		4526	-0.011
	Se	82	**6.954**	ug/L	2.784	580	0.002
	Kr	83		ug/L		354	0.001
	Sr	88	**177.267**	ug/L	1.862	1880062	9.938
	Y	89		ug/L		633300	3.348
	Ag	107	**22.772**	ug/L	1.712	110418	0.583
	Cd	111	**6.850**	ug/L	2.476	7931	0.042
	Cd	114		ug/L		14075	0.074
>	In	115		ug/L		189176	189176.302
	Sn	120	**10.182**	ug/L	1.059	47390	0.249
	Sb	121	**20.744**	ug/L	1.661	86745	0.453
	Sb	123		ug/L		66921	0.350
	Ba	135		ug/L		938513	3.709
	Ba	137	**823.390**	ug/L	1.081	1620442	6.405
	Ho	165		ug/L		34576	0.137
>	Lu	175		ug/L		253011	253011.045
	Tl	205	**44.178**	ug/L	1.825	418734	1.651
	Pb	208	**155.458**	ug/L	2.672	2446270	9.666
	Bi	209		ug/L		15285	0.060
	U	238	**32.318**	ug/L	2.349	504134	1.993

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	0.9999
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		112.5			
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		99.6			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		102.0			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		110.3			
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Al 27 Upper, S, EEE	Al	27	Sample is out of limits (over linear range)
V 51 Upper, S, EEE	V	51	Sample is out of limits (over linear range)
Mn 55 Upper, S, EEE	Mn	55	Sample is out of limits (over linear range)
Fe 57 Upper, S, EEE	Fe	57	Sample is out of limits (over linear range)

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: 1201999351
Sample Date/Time: Tuesday, January 05, 2010 03:40:04
Sample Type:
Sample Description: LANL 6020 SDILT
Number of Replicates: 3
Batch ID: 934497|10|rmj
Method File: c:\elandata\Method\6020 noirs thtimozr.mth
Dataset File: c:\elandata\dataset\100104\1201999351.082

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**16.032**	**ug/L**	1.918	18700	0.017
	Be	9	**0.966**	**ug/L**	3.401	418	0.000
	B	11	**6.102**	**ug/L**	4.346	3441	0.003
	Na	23	**148.461**	**ug/L**	5.550	609066	0.546
	Mg	24	**3216.400**	**ug/L**	3.267	8681260	8.047
	Al	27	**17851.541**	**ug/L**	6.599	89722369	83.217
	P	31	**129.947**	**ug/L**	1.610	42897	0.031
	K	39	**2139.358**	**ug/L**	0.703	11940277	10.269
	Ca	43	**2040.714**	**ug/L**	1.831	21901	0.020
>	Sc	45		**ug/L**		1078448	1078448.086
	V	51	**26.344**	**ug/L**	3.118	184575	0.145
	Cr	52	**13.674**	**ug/L**	1.411	77775	0.066
	Cr	53		**ug/L**		131480	-0.035
	Mn	55	**333.463**	**ug/L**	0.379	2451671	2.272
	Fe	57	**13317.961**	**ug/L**	1.091	1887801	1.743
	Co	59	**5.845**	**ug/L**	2.187	32054	0.030
	Ni	60	**9.142**	**ug/L**	2.082	10624	0.010
	Cu	63		**ug/L**		27609	0.025
	Cu	65	**10.713**	**ug/L**	0.949	13738	0.013
	Zn	66	**42.762**	**ug/L**	0.361	33015	0.107
	Zn	67		**ug/L**		23437	0.007
	Zn	68		**ug/L**		27692	0.085
>	Ge	74		**ug/L**		303771	303770.726
	As	75	**2.049**	**ug/L**	10.841	2615	0.007
	Se	77		**ug/L**		5154	-0.009
	Se	82	**-0.047**	**ug/L**	376.465	-50	-0.000
	Kr	83		**ug/L**		165	0.000
	Sr	88	**32.733**	**ug/L**	2.394	327493	1.835
	Y	89		**ug/L**		121459	0.681
	Ag	107	**0.091**	**ug/L**	2.340	461	0.002
	Cd	111	**0.261**	**ug/L**	10.505	299	0.002
	Cd	114		**ug/L**		259	0.001
>	In	115		**ug/L**		178396	178395.775
	Sn	120	**0.226**	**ug/L**	1.760	1208	0.006
	Sb	121	**-0.043**	**ug/L**	11.488	771	-0.001
	Sb	123		**ug/L**		610	-0.001
	Ba	135		**ug/L**		166020	0.724
	Ba	137	**163.593**	**ug/L**	1.860	291766	1.273
	Ho	165		**ug/L**		6489	0.028
>	Lu	175		**ug/L**		229292	229292.096
	Tl	205	**0.683**	**ug/L**	9.014	6885	0.026
	Pb	208	**14.564**	**ug/L**	1.790	208843	0.906
	Bi	209		**ug/L**		3107	0.013
	U	238	**0.850**	**ug/L**	2.443	12123	0.052

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	0.9999
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45			98.4		
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74			95.7		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115			96.2		
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175			100.0		
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 243042002
Sample Date/Time: Tuesday, January 05, 2010 03:45:57
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 934497|2|rmj
Method File: c:\elandata\Method\6020 noirs thtimozr.mth
Dataset File: c:\elandata\dataset\100104\243042002.083

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**65.913**	ug/L	1.300	86132	0.071
	Be	9	**4.342**	ug/L	2.271	2030	0.002
	B	11	**14.416**	ug/L	2.668	8109	0.006
	Na	23	**937.444**	ug/L	7.690	4198172	3.450
	Mg	24	**9517.373**	ug/L	8.191	28867651	23.812
	Al	27	**52391.727**	ug/L	5.040	295829887	244.230
	P	31	**342.528**	ug/L	1.416	109419	0.081
	K	39	**5834.985**	ug/L	3.585	34894963	28.008
	Ca	43	**6595.103**	ug/L	1.117	78035	0.064
>	Sc	45		ug/L		1211330	1211330.183
	V	51	**43.377**	ug/L	2.113	320827	0.239
	Cr	52	**27.055**	ug/L	0.733	166130	0.131
	Cr	53		ug/L		109591	-0.066
	Mn	55	**807.886**	ug/L	0.684	6668615	5.504
	Fe	57	**44974.075**	ug/L	1.236	7138699	5.886
	Co	59	**6.287**	ug/L	1.878	38705	0.032
	Ni	60	**26.008**	ug/L	1.289	33747	0.028
	Cu	63		ug/L		64752	0.053
	Cu	65	**22.870**	ug/L	1.135	32758	0.027
	Zn	66	**238.342**	ug/L	0.110	186379	0.598
	Zn	67		ug/L		43290	0.069
	Zn	68		ug/L		142660	0.452
>	Ge	74		ug/L		311131	311131.368
	As	75	**4.576**	ug/L	2.755	5231	0.015
	Se	77		ug/L		3814	-0.013
	Se	82	**0.764**	ug/L	21.075	21	0.000
	Kr	83		ug/L		319	0.001
	Sr	88	**71.163**	ug/L	0.469	756032	3.990
	Y	89		ug/L		1585711	8.369
	Ag	107	**0.430**	ug/L	1.418	2133	0.011
	Cd	111	**1.677**	ug/L	1.674	1957	0.010
	Cd	114		ug/L		310	0.001
>	In	115		ug/L		189459	189458.974
	Sn	120	**1.771**	ug/L	2.224	8453	0.043
	Sb	121	**0.061**	ug/L	9.201	1247	0.001
	Sb	123		ug/L		991	0.001
	Ba	135		ug/L		270239	1.014
	Ba	137	**228.206**	ug/L	0.575	473282	1.775
	Ho	165		ug/L		88737	0.333
>	Lu	175		ug/L		266589	266589.172
	Tl	205	**0.908**	ug/L	5.136	10241	0.034
	Pb	208	**71.754**	ug/L	1.563	1190730	4.461
	Bi	209		ug/L		22972	0.086
	U	238	**2.954**	ug/L	1.411	48689	0.182

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	0.9999
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		110.5			
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		98.0			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		102.1			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		116.3			
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Al 27 Upper, S, EEE	Al	27	Sample is out of limits (over linear range)

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Tuesday, January 05, 2010 03:51:50
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 noirs thtimozr.mth
Dataset File: c:\elandata\dataset\100104\QC Std 6.084

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**56.045**	**ug/L**	3.220	64057	0.060
	Be	9	**55.678**	**ug/L**	0.842	22525	0.021
	B	11	**107.136**	**ug/L**	2.594	48501	0.045
	Na	23	**5367.535**	**ug/L**	8.178	20933432	19.751
	Mg	24	**5672.571**	**ug/L**	4.361	15043706	14.193
	Al	27	**5188.404**	**ug/L**	2.453	25634490	24.186
	P	31	**5280.638**	**ug/L**	0.907	1340203	1.256
	K	39	**5232.896**	**ug/L**	2.086	27460580	25.118
	Ca	43	**5199.368**	**ug/L**	0.565	53936	0.050
>	Sc	45		**ug/L**		1059548	1059548.328
	V	51	**52.651**	**ug/L**	1.043	334733	0.290
	Cr	52	**54.042**	**ug/L**	0.798	284284	0.263
	Cr	53		**ug/L**		181748	0.015
	Mn	55	**54.839**	**ug/L**	0.955	397593	0.374
	Fe	57	**5309.465**	**ug/L**	1.000	744281	0.695
	Co	59	**51.802**	**ug/L**	0.828	277439	0.262
	Ni	60	**53.636**	**ug/L**	0.664	60784	0.057
	Cu	63		**ug/L**		135623	0.128
	Cu	65	**53.521**	**ug/L**	0.618	66877	0.063
	Zn	66	**54.237**	**ug/L**	0.335	42454	0.136
	Zn	67		**ug/L**		26737	0.017
	Zn	68		**ug/L**		33162	0.101
>	Ge	74		**ug/L**		308860	308859.911
	As	75	**48.725**	**ug/L**	0.535	49466	0.158
	Se	77		**ug/L**		10442	0.008
	Se	82	**50.970**	**ug/L**	1.067	4443	0.015
	Kr	83		**ug/L**		126	-0.000
	Sr	88	**55.838**	**ug/L**	1.444	549713	3.130
	Y	89		**ug/L**		176	0.001
	Ag	107	**53.889**	**ug/L**	1.509	242446	1.381
	Cd	111	**53.591**	**ug/L**	1.454	57495	0.327
	Cd	114		**ug/L**		133270	0.759
>	In	115		**ug/L**		175565	175565.207
	Sn	120	**53.747**	**ug/L**	1.241	231223	1.316
	Sb	121	**52.597**	**ug/L**	4.551	202723	1.149
	Sb	123		**ug/L**		156454	0.887
	Ba	135		**ug/L**		52229	0.233
	Ba	137	**53.139**	**ug/L**	0.551	92712	0.413
	Ho	165		**ug/L**		50	0.000
>	Lu	175		**ug/L**		224189	224188.652
	Tl	205	**50.162**	**ug/L**	1.438	421236	1.874
	Pb	208	**52.985**	**ug/L**	0.411	739787	3.294
	Bi	209		**ug/L**		198	0.001
	U	238	**53.935**	**ug/L**	0.449	745588	3.325

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	0.9999
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7	112.089				
	Be	9	111.355				
	B	11	107.136				
	Na	23	107.351				
	Mg	24	113.451				
	Al	27	102.741				
	P	31	105.613				
	K	39	104.658				
	Ca	43	103.987				
>	Sc	45		96.6			
	V	51	105.301				
	Cr	52	108.083				
	Cr	53					
	Mn	55	109.678				
	Fe	57	106.189				
	Co	59	103.603				
	Ni	60	107.273				
	Cu	63					
	Cu	65	107.042				
	Zn	66	108.474				
	Zn	67					
	Zn	68					
>	Ge	74		97.3			
	As	75	97.450				
	Se	77					
	Se	82	101.940				
	Kr	83					
	Sr	88	111.675				
	Y	89					
	Ag	107	107.779				
	Cd	111	107.182				
	Cd	114					
>	In	115		94.7			
	Sn	120	107.495				
	Sb	121	105.195				
	Sb	123					
	Ba	135					
	Ba	137	106.278				
	Ho	165					
>	Lu	175		97.8			
	Tl	205	100.323				
	Pb	208	105.969				
	Bi	209					
	U	238	107.870				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 6	Li	7	CCV is out of limits (+/- 10%)
QC Std 6	Be	9	CCV is out of limits (+/- 10%)
QC Std 6	Mg	24	CCV is out of limits (+/- 10%)
QC Std 6	Sr	88	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Tuesday, January 05, 2010 03:57:45
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 noirs thtimozr.mth
Dataset File: c:\elandata\dataset\100104\QC Std 7.085

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.078**	ug/L	17.285	159	0.000
	Be	9	**0.006**	ug/L	114.933	24	0.000
	B	11	**1.195**	ug/L	26.984	1231	0.001
	Na	23	**-0.824**	ug/L	83.986	17010	-0.003
	Mg	24	**-0.243**	ug/L	1.212	1000	-0.001
	Al	27	**0.130**	ug/L	149.049	4001	0.001
	P	31	**-0.764**	ug/L	103.088	9529	-0.000
	K	39	**-6.572**	ug/L	169.424	845737	-0.032
	Ca	43	**-6.014**	ug/L	50.026	527	-0.000
>	Sc	45		ug/L		1096472	1096472.149
	V	51	**-0.467**	ug/L	63.805	25929	-0.003
	Cr	52	**0.588**	ug/L	2.641	9355	0.003
	Cr	53		ug/L		161255	-0.010
	Mn	55	**0.021**	ug/L	44.470	1939	0.000
	Fe	57	**5.760**	ug/L	12.595	9014	0.001
	Co	59	**-0.004**	ug/L	89.312	207	-0.000
	Ni	60	**-0.008**	ug/L	140.746	89	-0.000
	Cu	63		ug/L		144	-0.000
	Cu	65	**-0.016**	ug/L	35.166	124	-0.000
	Zn	66	**-0.066**	ug/L	55.634	417	-0.000
	Zn	67		ug/L		20909	-0.004
	Zn	68		ug/L		1726	-0.001
>	Ge	74		ug/L		319161	319161.006
	As	75	**-0.112**	ug/L	365.046	508	-0.000
	Se	77		ug/L		7520	-0.002
	Se	82	**0.298**	ug/L	35.766	-21	0.000
	Kr	83		ug/L		113	-0.000
	Sr	88	**-0.001**	ug/L	78.773	147	-0.000
	Y	89		ug/L		74	0.000
	Ag	107	**0.004**	ug/L	34.856	62	0.000
	Cd	111	**0.007**	ug/L	34.505	22	0.000
	Cd	114		ug/L		41	0.000
>	In	115		ug/L		182080	182079.799
	Sn	120	**0.038**	ug/L	9.287	394	0.001
	Sb	121	**0.435**	ug/L	23.960	2690	0.010
	Sb	123		ug/L		2084	0.007
	Ba	135		ug/L		37	-0.000
	Ba	137	**0.005**	ug/L	90.761	55	0.000
	Ho	165		ug/L		39	0.000
>	Lu	175		ug/L		230079	230079.361
	Tl	205	**0.520**	ug/L	14.428	5495	0.019
	Pb	208	**-0.023**	ug/L	10.655	923	-0.001
	Bi	209		ug/L		50	0.000
	U	238	**0.030**	ug/L	22.580	538	0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	0.9999
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

Sample ID: QC Std 7

Report Date/Time: Tuesday, January 05, 2010 04:00:17

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		100.0			
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		100.5			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		98.2			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		100.3			
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 243042003
Sample Date/Time: Tuesday, January 05, 2010 04:04:19
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 934497|2|rmj
Method File: c:\elandata\Method\6020 noirs thtlmozr.mth
Dataset File: c:\elandata\dataset\100104\243042003.086

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**102.304**	**ug/L**	0.303	136377	0.110
	Be	9	**2.907**	**ug/L**	1.975	1394	0.001
	B	11	**13.797**	**ug/L**	5.164	7952	0.006
	Na	23	**656.198**	**ug/L**	1.555	3007330	2.415
	Mg	24	**9992.358**	**ug/L**	8.097	30900584	25.001
	Al	27	**49102.174**	**ug/L**	3.123	282921715	228.896
	P	31	**383.845**	**ug/L**	0.827	123799	0.091
	K	39	**6861.390**	**ug/L**	2.470	41698384	32.934
	Ca	43	**12957.236**	**ug/L**	0.266	155805	0.126
>	Sc	45		**ug/L**		1235982	1235982.313
	V	51	**53.952**	**ug/L**	1.402	399335	0.297
	Cr	52	**31.214**	**ug/L**	0.490	194490	0.152
	Cr	53		**ug/L**		117622	-0.062
	Mn	55	**1079.668**	**ug/L**	1.028	9093042	7.355
	Fe	57	**47301.117**	**ug/L**	0.531	7661138	6.191
	Co	59	**8.968**	**ug/L**	1.326	56238	0.045
	Ni	60	**23.261**	**ug/L**	0.963	30812	0.025
	Cu	63		**ug/L**		89416	0.072
	Cu	65	**30.731**	**ug/L**	0.857	44860	0.036
	Zn	66	**271.514**	**ug/L**	0.565	216377	0.681
	Zn	67		**ug/L**		48889	0.084
	Zn	68		**ug/L**		164711	0.513
>	Ge	74		**ug/L**		317170	317170.082
	As	75	**6.780**	**ug/L**	4.403	7601	0.022
	Se	77		**ug/L**		4401	-0.012
	Se	82	**-0.103**	**ug/L**	208.081	-57	-0.000
	Kr	83		**ug/L**		280	0.000
	Sr	88	**85.430**	**ug/L**	0.720	920559	4.790
	Y	89		**ug/L**		891463	4.639
	Ag	107	**0.399**	**ug/L**	0.781	2012	0.010
	Cd	111	**1.590**	**ug/L**	2.587	1883	0.010
	Cd	114		**ug/L**		405	0.002
>	In	115		**ug/L**		192168	192167.899
	Sn	120	**1.755**	**ug/L**	1.804	8494	0.043
	Sb	121	**0.232**	**ug/L**	7.153	1985	0.005
	Sb	123		**ug/L**		1576	0.004
	Ba	135		**ug/L**		398118	1.513
	Ba	137	**336.292**	**ug/L**	1.734	688523	2.616
	Ho	165		**ug/L**		49510	0.188
>	Lu	175		**ug/L**		263250	263250.303
	Tl	205	**0.898**	**ug/L**	2.268	10013	0.034
	Pb	208	**76.136**	**ug/L**	2.081	1247332	4.734
	Bi	209		**ug/L**		31009	0.118
	U	238	**2.083**	**ug/L**	1.817	33928	0.128

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	0.9999
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		112.7			
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		99.9			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		103.6			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		114.8			
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
	Mn	55	Sample is out of limits (over linear range)

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: 243042004
Sample Date/Time: Tuesday, January 05, 2010 04:10:20
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 934497|2|rmj
Method File: c:\elandata\Method\6020 noirs thtimozr.mth
Dataset File: c:\elandata\dataset\100104\243042004.087

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**69.974**	**ug/L**	3.934	92041	0.075
	Be	9	**3.938**	**ug/L**	1.342	1855	0.002
	B	11	**18.440**	**ug/L**	2.677	10235	0.008
	Na	23	**629.487**	**ug/L**	2.929	2847140	2.316
	Mg	24	**13856.845**	**ug/L**	4.224	42285010	34.670
	Al	27	**71545.211**	**ug/L**	3.978	406713192	333.517
	P	31	**396.728**	**ug/L**	0.271	125893	0.094
	K	39	**9916.469**	**ug/L**	1.848	59036133	47.599
	Ca	43	**8420.633**	**ug/L**	0.500	100143	0.082
>	Sc	45		**ug/L**		1219575	1219574.995
	V	51	**96.534**	**ug/L**	0.945	679761	0.531
	Cr	52	**52.344**	**ug/L**	1.207	317113	0.254
	Cr	53		**ug/L**		128096	-0.052
	Mn	55	**1570.839**	**ug/L**	0.524	13052873	10.701
	Fe	57	**55662.217**	**ug/L**	0.756	8893790	7.285
	Co	59	**35.796**	**ug/L**	1.496	220724	0.181
	Ni	60	**36.106**	**ug/L**	0.218	47131	0.039
	Cu	63		**ug/L**		79417	0.065
	Cu	65	**27.853**	**ug/L**	1.533	40132	0.033
	Zn	66	**149.618**	**ug/L**	0.635	117695	0.375
	Zn	67		**ug/L**		34549	0.041
	Zn	68		**ug/L**		96738	0.303
>	Ge	74		**ug/L**		312527	312527.363
	As	75	**9.503**	**ug/L**	0.519	10254	0.031
	Se	77		**ug/L**		3764	-0.013
	Se	82	**-1.135**	**ug/L**	39.807	-148	-0.000
	Kr	83		**ug/L**		323	0.001
	Sr	88	**122.652**	**ug/L**	1.407	1300723	6.876
	Y	89		**ug/L**		477253	2.523
	Ag	107	**0.376**	**ug/L**	3.732	1869	0.010
	Cd	111	**1.218**	**ug/L**	5.614	1423	0.007
	Cd	114		**ug/L**		445	0.002
>	In	115		**ug/L**		189148	189148.431
	Sn	120	**0.770**	**ug/L**	2.381	3799	0.019
	Sb	121	**0.094**	**ug/L**	13.815	1381	0.002
	Sb	123		**ug/L**		1067	0.002
	Ba	135		**ug/L**		694049	2.764
	Ba	137	**615.293**	**ug/L**	0.687	1201848	4.786
	Ho	165		**ug/L**		25163	0.100
>	Lu	175		**ug/L**		251104	251104.476
	Tl	205	**1.333**	**ug/L**	1.683	13630	0.050
	Pb	208	**65.708**	**ug/L**	0.502	1027243	4.085
	Bi	209		**ug/L**		16468	0.065
	U	238	**2.871**	**ug/L**	1.318	44567	0.177

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	0.9999
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		111.2			
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		98.4			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		102.0			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		109.5			
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
	Al	27	Sample is out of limits (over linear range)
	Mn	55	Sample is out of limits (over linear range)
	Fe	57	Sample is out of limits (over linear range)

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: 243042005
Sample Date/Time: Tuesday, January 05, 2010 04:16:14
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 934497|2|rmj
Method File: c:\elandata\Method\6020 noirs thtimozr.mth
Dataset File: c:\elandata\dataset\100104\243042005.088

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**78.587**	**ug/L**	0.543	102664	0.085
	Be	9	**4.630**	**ug/L**	0.959	2163	0.002
	B	11	**16.979**	**ug/L**	1.915	9417	0.007
	Na	23	**1015.593**	**ug/L**	1.472	4548775	3.737
	Mg	24	**11668.872**	**ug/L**	6.706	35373037	29.196
	Al	27	**77290.763**	**ug/L**	0.644	436338502	360.300
	P	31	**499.536**	**ug/L**	0.436	154630	0.119
	K	39	**9154.173**	**ug/L**	8.228	54207899	43.940
	Ca	43	**8041.693**	**ug/L**	0.408	94995	0.078
>	Sc	45		**ug/L**		1211079	1211079.371
	V	51	**100.665**	**ug/L**	0.398	702573	0.554
	Cr	52	**48.854**	**ug/L**	0.434	294391	0.237
	Cr	53		**ug/L**		121480	-0.056
	Mn	55	**1616.645**	**ug/L**	0.274	13340283	11.014
	Fe	57	**55897.145**	**ug/L**	0.655	8869563	7.316
	Co	59	**23.716**	**ug/L**	0.765	145306	0.120
	Ni	60	**36.190**	**ug/L**	0.989	46909	0.039
	Cu	63		**ug/L**		84858	0.070
	Cu	65	**30.267**	**ug/L**	2.018	43291	0.036
	Zn	66	**141.116**	**ug/L**	0.012	111364	0.354
	Zn	67		**ug/L**		33793	0.038
	Zn	68		**ug/L**		93255	0.291
>	Ge	74		**ug/L**		313458	313458.444
	As	75	**8.889**	**ug/L**	3.395	9660	0.029
	Se	77		**ug/L**		3612	-0.014
	Se	82	**-1.499**	**ug/L**	39.805	-181	-0.000
	Kr	83		**ug/L**		364	0.001
	Sr	88	**122.153**	**ug/L**	1.592	1304866	6.848
	Y	89		**ug/L**		595357	3.125
	Ag	107	**0.471**	**ug/L**	3.004	2346	0.012
	Cd	111	**1.488**	**ug/L**	7.565	1747	0.009
	Cd	114		**ug/L**		602	0.003
>	In	115		**ug/L**		190528	190528.453
	Sn	120	**1.088**	**ug/L**	1.174	5314	0.027
	Sb	121	**0.047**	**ug/L**	24.756	1195	0.001
	Sb	123		**ug/L**		952	0.001
	Ba	135		**ug/L**		881590	3.482
	Ba	137	**767.057**	**ug/L**	0.996	1510427	5.967
	Ho	165		**ug/L**		32201	0.127
>	Lu	175		**ug/L**		253151	253151.227
	Tl	205	**0.989**	**ug/L**	0.788	10484	0.037
	Pb	208	**55.214**	**ug/L**	0.397	870433	3.433
	Bi	209		**ug/L**		12803	0.050
	U	238	**4.615**	**ug/L**	1.087	72149	0.284

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	0.9999
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		110.5			
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		98.7			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		102.7			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		110.4			
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
	Al	27	Sample is out of limits (over linear range)
	V	51	Sample is out of limits (over linear range)
	Mn	55	Sample is out of limits (over linear range)
	Fe	57	Sample is out of limits (over linear range)

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: 243042006
Sample Date/Time: Tuesday, January 05, 2010 04:22:07
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 934497|2|rmj
Method File: c:\elandata\Method\6020 noirs thtimozr.mth
Dataset File: c:\elandata\dataset\100104\243042006.089

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**86.932**	**ug/L**	0.681	115953	0.094
	Be	9	**3.788**	**ug/L**	1.746	1810	0.001
	B	11	**16.078**	**ug/L**	1.381	9145	0.007
	Na	23	**759.072**	**ug/L**	6.506	3475808	2.793
	Mg	24	**11430.988**	**ug/L**	2.735	35373037	28.600
	Al	27	**60581.387**	**ug/L**	4.141	349155445	282.407
	P	31	**588.837**	**ug/L**	1.130	184146	0.140
	K	39	**6266.095**	**ug/L**	1.044	38186941	30.077
	Ca	43	**22965.477**	**ug/L**	1.064	275768	0.222
>	Sc	45		**ug/L**		1236579	1236579.081
	V	51	**62.354**	**ug/L**	2.435	456673	0.343
	Cr	52	**55.352**	**ug/L**	0.970	339634	0.269
	Cr	53		**ug/L**		128657	-0.053
	Mn	55	**555.870**	**ug/L**	0.864	4684911	3.787
	Fe	57	**51698.359**	**ug/L**	0.206	8376504	6.767
	Co	59	**9.045**	**ug/L**	0.847	56741	0.046
	Ni	60	**36.140**	**ug/L**	0.995	47831	0.039
	Cu	63		**ug/L**		69938	0.056
	Cu	65	**24.021**	**ug/L**	1.691	35116	0.028
	Zn	66	**181.334**	**ug/L**	1.265	143401	0.455
	Zn	67		**ug/L**		36604	0.047
	Zn	68		**ug/L**		113455	0.355
>	Ge	74		**ug/L**		314428	314428.310
	As	75	**10.739**	**ug/L**	2.487	11578	0.035
	Se	77		**ug/L**		4171	-0.012
	Se	82	**0.029**	**ug/L**	933.190	-45	0.000
	Kr	83		**ug/L**		282	0.000
	Sr	88	**131.267**	**ug/L**	0.757	1416459	7.359
	Y	89		**ug/L**		1002313	5.208
	Ag	107	**0.492**	**ug/L**	1.036	2474	0.013
	Cd	111	**1.733**	**ug/L**	4.157	2053	0.011
	Cd	114		**ug/L**		458	0.002
>	In	115		**ug/L**		192458	192457.975
	Sn	120	**1.595**	**ug/L**	0.704	7754	0.039
	Sb	121	**0.188**	**ug/L**	10.822	1800	0.004
	Sb	123		**ug/L**		1396	0.003
	Ba	135		**ug/L**		439476	1.675
	Ba	137	**377.138**	**ug/L**	1.796	769762	2.934
	Ho	165		**ug/L**		50793	0.193
>	Lu	175		**ug/L**		262423	262423.312
	Tl	205	**1.021**	**ug/L**	1.774	11185	0.038
	Pb	208	**46.817**	**ug/L**	0.769	765279	2.911
	Bi	209		**ug/L**		20031	0.076
	U	238	**2.528**	**ug/L**	1.439	41033	0.156

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	0.9999
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		112.8			
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		99.0			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		103.8			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		114.4			
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
	Al	27	Sample is out of limits (over linear range)
	Fe	57	Sample is out of limits (over linear range)

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: 243042007
Sample Date/Time: Tuesday, January 05, 2010 04:28:02
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 934497|2|rmj
Method File: c:\elandata\Method\6020 noirs thtimozr.mth
Dataset File: c:\elandata\dataset\100104\243042007.090

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**33.478**	**ug/L**	0.988	41618	0.036
	Be	9	**2.954**	**ug/L**	5.048	1319	0.001
	B	11	**9.580**	**ug/L**	3.180	5362	0.004
	Na	23	**349.425**	**ug/L**	7.289	1501927	1.286
	Mg	24	**4388.477**	**ug/L**	3.872	12645480	10.980
	Al	27	**29414.478**	**ug/L**	5.532	157860583	137.119
	P	31	**335.465**	**ug/L**	0.441	102072	0.080
	K	39	**2933.645**	**ug/L**	2.554	17135430	14.081
	Ca	43	**3581.113**	**ug/L**	1.387	40559	0.035
>	Sc	45		**ug/L**		1151343	1151343.212
	V	51	**30.174**	**ug/L**	4.786	221297	0.166
	Cr	52	**38.178**	**ug/L**	0.884	220128	0.186
	Cr	53		**ug/L**		109155	-0.062
	Mn	55	**283.895**	**ug/L**	0.379	2228616	1.934
	Fe	57	**37971.357**	**ug/L**	0.550	5730551	4.970
	Co	59	**3.153**	**ug/L**	1.691	18574	0.016
	Ni	60	**21.080**	**ug/L**	0.835	26020	0.023
	Cu	63		**ug/L**		36553	0.031
	Cu	65	**13.319**	**ug/L**	0.449	18198	0.016
	Zn	66	**91.187**	**ug/L**	0.287	70427	0.229
	Zn	67		**ug/L**		23411	0.007
	Zn	68		**ug/L**		54556	0.172
>	Ge	74		**ug/L**		306074	306073.793
	As	75	**9.256**	**ug/L**	2.376	9797	0.030
	Se	77		**ug/L**		3488	-0.014
	Se	82	**0.831**	**ug/L**	44.018	26	0.000
	Kr	83		**ug/L**		256	0.000
	Sr	88	**41.456**	**ug/L**	1.750	430166	2.324
	Y	89		**ug/L**		1317970	7.123
	Ag	107	**0.321**	**ug/L**	0.754	1568	0.008
	Cd	111	**1.225**	**ug/L**	7.554	1400	0.007
	Cd	114		**ug/L**		282	0.001
>	In	115		**ug/L**		185034	185033.609
	Sn	120	**1.149**	**ug/L**	2.596	5433	0.028
	Sb	121	**0.105**	**ug/L**	3.022	1397	0.002
	Sb	123		**ug/L**		1065	0.002
	Ba	135		**ug/L**		131209	0.498
	Ba	137	**112.352**	**ug/L**	1.155	230359	0.874
	Ho	165		**ug/L**		75442	0.286
>	Lu	175		**ug/L**		263542	263542.459
	Tl	205	**0.538**	**ug/L**	1.052	6481	0.020
	Pb	208	**21.446**	**ug/L**	1.612	352823	1.333
	Bi	209		**ug/L**		6019	0.023
	U	238	**2.631**	**ug/L**	1.587	42873	0.162

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	0.9999
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		105.0			
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		96.4			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		99.8			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		114.9			
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 243042008
Sample Date/Time: Tuesday, January 05, 2010 04:33:56
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 934497|2|rm|
Method File: c:\elandata\Method\6020 noirs thtimozr.mth
Dataset File: c:\elandata\dataset\100104\243042008.091

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**68.870**	**ug/L**	3.101	86940	0.074
	Be	9	**4.102**	**ug/L**	2.071	1854	0.002
	B	11	**30.185**	**ug/L**	1.467	15614	0.013
	Na	23	**1109.189**	**ug/L**	3.090	4799638	4.081
	Mg	24	**11101.079**	**ug/L**	5.867	32526931	27.775
	Al	27	**65966.323**	**ug/L**	2.475	359947523	307.510
	P	31	**771.118**	**ug/L**	0.565	225049	0.183
	K	39	**9873.679**	**ug/L**	3.392	56402551	47.393
	Ca	43	**12632.802**	**ug/L**	0.306	143867	0.122
>	Sc	45		**ug/L**		1170443	1170442.819
	V	51	**87.266**	**ug/L**	0.695	592743	0.480
	Cr	52	**59.582**	**ug/L**	0.869	345552	0.290
	Cr	53		**ug/L**		123947	-0.051
	Mn	55	**1254.338**	**ug/L**	0.692	10003728	8.545
	Fe	57	**50351.730**	**ug/L**	0.184	7722227	6.590
	Co	59	**27.083**	**ug/L**	0.432	160344	0.137
	Ni	60	**43.287**	**ug/L**	1.681	54206	0.046
	Cu	63		**ug/L**		589574	0.503
	Cu	65	**213.169**	**ug/L**	1.796	293721	0.251
	Zn	66	**880.360**	**ug/L**	0.559	671151	2.207
	Zn	67		**ug/L**		121024	0.329
	Zn	68		**ug/L**		516140	1.692
>	Ge	74		**ug/L**		303882	303882.403
	As	75	**8.046**	**ug/L**	1.955	8532	0.026
	Se	77		**ug/L**		3671	-0.013
	Se	82	**-0.739**	**ug/L**	35.168	-110	-0.000
	Kr	83		**ug/L**		307	0.001
	Sr	88	**131.056**	**ug/L**	1.794	1358347	7.347
	Y	89		**ug/L**		523727	2.833
	Ag	107	**1.595**	**ug/L**	5.077	7598	0.041
	Cd	111	**6.161**	**ug/L**	3.321	6972	0.038
	Cd	114		**ug/L**		12421	0.067
>	In	115		**ug/L**		184883	184883.376
	Sn	120	**2.899**	**ug/L**	1.592	13351	0.071
	Sb	121	**1.345**	**ug/L**	1.999	6405	0.029
	Sb	123		**ug/L**		4964	0.023
	Ba	135		**ug/L**		889203	3.616
	Ba	137	**796.162**	**ug/L**	0.664	1522816	6.193
	Ho	165		**ug/L**		28281	0.115
>	Lu	175		**ug/L**		245892	245891.676
	Tl	205	**0.858**	**ug/L**	0.839	8981	0.032
	Pb	208	**220.054**	**ug/L**	0.943	3365551	13.682
	Bi	209		**ug/L**		37863	0.154
	U	238	**15.174**	**ug/L**	1.023	230146	0.935

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	0.9999
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		106.8			
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		95.7			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		99.7			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		107.2			
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
	Al	27	Sample is out of limits (over linear range)
	Mn	55	Sample is out of limits (over linear range)
	Fe	57	Sample is out of limits (over linear range)

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: 243042009
Sample Date/Time: Tuesday, January 05, 2010 04:39:49
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 934497|2|rmj
Method File: c:\elandata\Method\6020 noirs thtimozr.mth
Dataset File: c:\elandata\dataset\100104\243042009.092

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**89.906**	**ug/L**	1.809	117408	0.097
	Be	9	**3.638**	**ug/L**	3.479	1703	0.001
	B	11	**16.497**	**ug/L**	1.678	9168	0.007
	Na	23	**781.936**	**ug/L**	3.721	3506032	2.877
	Mg	24	**11205.111**	**ug/L**	7.150	33949984	28.035
	Al	27	**59916.548**	**ug/L**	3.744	338151759	279.308
	P	31	**518.734**	**ug/L**	1.676	160114	0.123
	K	39	**6214.413**	**ug/L**	5.294	37089615	29.829
	Ca	43	**22482.976**	**ug/L**	0.976	264346	0.218
>	Sc	45		**ug/L**		1210715	1210714.722
	V	51	**60.352**	**ug/L**	1.528	433807	0.332
	Cr	52	**71.367**	**ug/L**	0.494	426754	0.347
	Cr	53		**ug/L**		137130	-0.044
	Mn	55	**584.064**	**ug/L**	1.349	4819512	3.979
	Fe	57	**50703.031**	**ug/L**	1.477	8043863	6.636
	Co	59	**8.851**	**ug/L**	1.237	54372	0.045
	Ni	60	**42.659**	**ug/L**	0.688	55262	0.046
	Cu	63		**ug/L**		64211	0.053
	Cu	65	**22.634**	**ug/L**	0.976	32408	0.027
	Zn	66	**184.519**	**ug/L**	0.678	141848	0.463
	Zn	67		**ug/L**		35530	0.047
	Zn	68		**ug/L**		110357	0.355
>	Ge	74		**ug/L**		305656	305656.062
	As	75	**9.388**	**ug/L**	4.510	9911	0.030
	Se	77		**ug/L**		4248	-0.012
	Se	82	**-0.104**	**ug/L**	93.759	-55	-0.000
	Kr	83		**ug/L**		271	0.000
	Sr	88	**122.512**	**ug/L**	1.561	1296845	6.869
	Y	89		**ug/L**		937380	4.965
	Ag	107	**0.444**	**ug/L**	6.698	2195	0.011
	Cd	111	**1.656**	**ug/L**	4.572	1927	0.010
	Cd	114		**ug/L**		440	0.002
>	In	115		**ug/L**		188801	188801.278
	Sn	120	**1.927**	**ug/L**	0.916	9140	0.047
	Sb	121	**0.139**	**ug/L**	6.782	1563	0.003
	Sb	123		**ug/L**		1217	0.002
	Ba	135		**ug/L**		391362	1.528
	Ba	137	**341.796**	**ug/L**	0.742	680725	2.659
	Ho	165		**ug/L**		47055	0.184
>	Lu	175		**ug/L**		256022	256021.736
	Tl	205	**0.960**	**ug/L**	2.007	10330	0.036
	Pb	208	**41.934**	**ug/L**	1.316	668890	2.607
	Bi	209		**ug/L**		18007	0.070
	U	238	**2.401**	**ug/L**	0.641	38024	0.148

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	0.9999
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		110.4			
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		96.3			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		101.8			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		111.7			
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
	Al	27	Sample is out of limits (over linear range)
	Fe	57	Sample is out of limits (over linear range)

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Tuesday, January 05, 2010 04:45:43
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 nolrs thtimozr.mth
Dataset File: c:\elandata\dataset\100104\QC Std 6.093

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**58.316**	**ug/L**	1.995	65233	0.063
	Be	9	**55.876**	**ug/L**	1.308	22122	0.021
	B	11	**107.417**	**ug/L**	3.189	47585	0.045
	Na	23	**5212.717**	**ug/L**	3.900	19902779	19.181
	Mg	24	**5621.447**	**ug/L**	4.271	14586296	14.065
	Al	27	**5131.424**	**ug/L**	6.173	24811198	23.921
	P	31	**5227.875**	**ug/L**	0.430	1298375	1.243
	K	39	**4732.766**	**ug/L**	1.802	24388068	22.717
	Ca	43	**5141.415**	**ug/L**	2.557	52206	0.050
>	Sc	45		**ug/L**		1036830	1036829.809
	V	51	**52.214**	**ug/L**	0.816	325080	0.287
	Cr	52	**53.683**	**ug/L**	0.239	276361	0.261
	Cr	53		**ug/L**		174965	0.012
	Mn	55	**53.938**	**ug/L**	0.493	382668	0.367
	Fe	57	**5264.230**	**ug/L**	1.194	722086	0.689
	Co	59	**51.497**	**ug/L**	0.735	269873	0.260
	Ni	60	**52.751**	**ug/L**	0.866	58497	0.056
	Cu	63		**ug/L**		131680	0.127
	Cu	65	**52.389**	**ug/L**	0.373	64057	0.062
	Zn	66	**53.323**	**ug/L**	1.217	40483	0.134
	Zn	67		**ug/L**		24576	0.012
	Zn	68		**ug/L**		31869	0.100
>	Ge	74		**ug/L**		299536	299535.594
	As	75	**48.708**	**ug/L**	1.552	47951	0.158
	Se	77		**ug/L**		10738	0.010
	Se	82	**51.553**	**ug/L**	1.604	4359	0.015
	Kr	83		**ug/L**		120	-0.000
	Sr	88	**54.001**	**ug/L**	0.948	523611	3.027
	Y	89		**ug/L**		163	0.001
	Ag	107	**52.995**	**ug/L**	1.538	234820	1.358
	Cd	111	**52.510**	**ug/L**	2.520	55482	0.321
	Cd	114		**ug/L**		127906	0.740
>	In	115		**ug/L**		172904	172903.918
	Sn	120	**52.980**	**ug/L**	0.143	224483	1.297
	Sb	121	**51.680**	**ug/L**	3.744	196188	1.129
	Sb	123		**ug/L**		150500	0.866
	Ba	135		**ug/L**		51064	0.232
	Ba	137	**52.560**	**ug/L**	0.309	89788	0.409
	Ho	165		**ug/L**		48	0.000
>	Lu	175		**ug/L**		219507	219507.073
	Tl	205	**49.311**	**ug/L**	1.420	405452	1.843
	Pb	208	**52.089**	**ug/L**	0.563	712118	3.239
	Bi	209		**ug/L**		208	0.001
	U	238	**53.747**	**ug/L**	1.086	727479	3.314

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	0.9999
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7	116.633				
	Be	9	111.752				
	B	11	107.417				
	Na	23	104.254				
	Mg	24	112.429				
	Al	27	101.612				
	P	31	104.558				
	K	39	94.655				
	Ca	43	102.828				
>	Sc	45		94.6			
	V	51	104.428				
	Cr	52	107.366				
	Cr	53					
	Mn	55	107.875				
	Fe	57	105.285				
	Co	59	102.993				
	Ni	60	105.502				
	Cu	63					
	Cu	65	104.779				
	Zn	66	106.645				
	Zn	67					
	Zn	68					
>	Ge	74		94.3			
	As	75	97.417				
	Se	77					
	Se	82	103.107				
	Kr	83					
	Sr	88	108.001				
	Y	89					
	Ag	107	105.990				
	Cd	111	105.020				
	Cd	114					
>	In	115		93.2			
	Sn	120	105.961				
	Sb	121	103.361				
	Sb	123					
	Ba	135					
	Ba	137	105.120				
	Ho	165					
>	Lu	175		95.7			
	Tl	205	98.622				
	Pb	208	104.178				
	Bi	209					
	U	238	107.494				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 6	Li	7	CCV is out of limits (+/- 10%)
QC Std 6	Be	9	CCV is out of limits (+/- 10%)
QC Std 6	Mg	24	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Tuesday, January 05, 2010 04:51:38
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 noirs thtimozr.mth
Dataset File: c:\elandata\dataset\100104\QC Std 7.094

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	0.083	ug/L	13.101	163	0.000
	Be	9	-0.014	ug/L	46.761	15	-0.000
	B	11	1.032	ug/L	30.602	1147	0.000
	Na	23	-0.294	ug/L	221.662	19013	-0.001
	Mg	24	-0.484	ug/L	44.037	333	-0.001
	Al	27	0.729	ug/L	81.054	7002	0.003
	P	31	-0.986	ug/L	61.670	9395	-0.000
	K	39	-5.840	ug/L	79.740	842472	-0.028
	Ca	43	-7.140	ug/L	49.529	511	-0.000
>	Sc	45		ug/L		1087728	1087727.657
	V	51	-0.586	ug/L	175.518	24986	-0.003
	Cr	52	0.815	ug/L	5.066	10484	0.004
	Cr	53		ug/L		153994	-0.015
	Mn	55	0.016	ug/L	20.925	1886	0.000
	Fe	57	7.418	ug/L	4.388	9178	0.001
	Co	59	-0.009	ug/L	30.893	176	-0.000
	Ni	60	-0.022	ug/L	7.759	72	-0.000
	Cu	63		ug/L		138	-0.000
	Cu	65	-0.024	ug/L	33.507	113	-0.000
	Zn	66	-0.095	ug/L	50.564	388	-0.000
	Zn	67		ug/L		18907	-0.010
	Zn	68		ug/L		1568	-0.001
>	Ge	74		ug/L		314204	314203.614
	As	75	0.394	ug/L	153.360	1014	0.001
	Se	77		ug/L		7679	-0.001
	Se	82	0.474	ug/L	49.041	-5	0.000
	Kr	83		ug/L		103	-0.000
	Sr	88	0.001	ug/L	350.521	161	0.000
	Y	89		ug/L		81	0.000
	Ag	107	0.004	ug/L	62.288	63	0.000
	Cd	111	0.010	ug/L	127.140	26	0.000
	Cd	114		ug/L		35	0.000
>	In	115		ug/L		181483	181482.864
	Sn	120	0.028	ug/L	27.386	350	0.001
	Sb	121	0.394	ug/L	26.055	2516	0.009
	Sb	123		ug/L		1945	0.007
	Ba	135		ug/L		36	-0.000
	Ba	137	0.005	ug/L	52.081	54	0.000
	Ho	165		ug/L		32	-0.000
>	Lu	175		ug/L		225487	225486.572
	Tl	205	0.477	ug/L	16.119	5029	0.018
	Pb	208	-0.028	ug/L	4.233	829	-0.002
	Bi	209		ug/L		44	-0.000
	U	238	0.030	ug/L	29.096	531	0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	0.9999
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		99.2			
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		99.0			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		97.8			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		98.3			
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS #6 Daily Performance Report

Sample ID: Sample
Sample Date/Time: Wednesday, January 06, 2010 00:24:28
Sample Description:
Method File: C:\elandata\Method\Daily2.mth
Dataset File: c:\elandata\Dataset\091212\Sample.245
Tuning File: c:\elandata\Tuning\default2.tun
Optimization File: c:\elandata\Optimize\default.dac
Dual Detector Mode: Pulse

Acq. Dead Time(ns): 35
Current Dead Time (ns): 35

Number of Replicates: 5

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Be	9.0	2818.1	2818.078	70.857	2.5
	Mg	24.0	34800.3	34800.342	460.816	1.3
	Co	58.9	54045.3	54045.259	866.028	1.6
	Rh	102.9	92575.8	92575.800	581.515	0.6
	In	114.9	107384.7	107384.708	803.269	0.7
	Pb	208.0	69418.7	69418.661	493.196	0.7
⌈>	Ba	137.9	100463.3	100463.264	1151.734	1.1
⌊	Ba++	69.0	2070.7	0.021	0.001	4.0
⌈>	Ce	139.9	125874.0	125873.970	1388.050	1.1
⌊	CeO	155.9	2718.8	0.022	0.001	2.8
	Bkgd	220.0	24.3	24.300	3.115	12.8

Current Optimization File Data

Current Value	Description
0.84	Nebulizer Gas Flow
13.75	Lens Voltage
1450.00	ICP RF Power
-1781.25	Analog Stage Voltage
900.00	Pulse Stage Voltage
30.00	Discriminator Threshold
-6.00	AC Rod Offset

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	21	9.5	5299.0
Co	59	21	10.3	78666.3
In	115	21	11.8	134130.7

ICPMS #6 Instrument Tuning Report

File Name: default2.tun
File Path: c:\elandata\Tuning

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Pk. Width
He	3.0	3.0	582	2080	0.649
Be	9.0	9.0	2049	2080	0.672
Mg	24.0	24.0	5694	2120	0.615
Mg	25.0	25.0	5937	2080	0.728
Mg	26.0	26.0	6157	2120	0.668
Co	58.9	58.9	14164	2170	0.626
Rh	102.9	103.0	24869	2230	0.681
In	114.9	114.9	27789	2260	0.672
Ce	139.9	139.9	33859	2280	0.744
Pb	206.0	206.0	49948	2430	0.688
Pb	207.0	207.0	50147	2385	0.694
Pb	208.0	208.0	50439	2430	0.704
U	238.1	238.0	57731	2470	0.695

Report Date/Time: Wednesday, January 06, 2010 00:23:41

ICPMS#6 - Summary Report

Sample ID: Blank
Sample Date/Time: Wednesday, January 06, 2010 03:03:18
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be.mth
Dataset File: c:\elandata\dataset\100105\Blank.056

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9		ug/L		21	
Sc	45		ug/L		1110460	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	
Sc	45	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
Be	9					
Sc	45					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Wednesday, January 06, 2010 03:06:23
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be.mth
Dataset File: c:\elandata\dataset\100105\Standard 1.057

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	10.000	ug/L	3.929	4836	0.005
⌊>	Sc	45		ug/L		948050	948049.865

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈	Be	9					
⌊>	Sc	45					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Wednesday, January 06, 2010 03:09:25
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be.mth
Dataset File: c:\elandata\dataset\100105\Standard 2.058

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	100.013	ug/L	4.853	48656	0.052
⌊>	Sc	45		ug/L		943993	943992.626

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈	Be	9					
⌊>	Sc	45					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Wednesday, January 06, 2010 03:12:28
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be.mth
Dataset File: c:\elandata\dataset\100105\QC Std 1.059

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	49.715	ug/L	6.090	24299	0.026
⌊>	Sc	45		ug/L		948661	948660.669

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈	Be	9	99.430				
⌊>	Sc	45		85.4			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Wednesday, January 06, 2010 03:15:33
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be.mth
Dataset File: c:\elandata\dataset\100105\QC Std 2.060

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	-0.003	ug/L	304.288	20	-0.000
⌊>	Sc	45		ug/L		1121861	1121861.425

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈	Be	9					
⌊>	Sc	45		101.0			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Wednesday, January 06, 2010 03:18:38
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be.mth
Dataset File: c:\elandata\dataset\100105\QC Std 3.061

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	0.516	ug/L	10.289	275	0.000
>	Sc	45		ug/L		964837	964837.471

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9	103.233				
>	Sc	45		86.9			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Wednesday, January 06, 2010 03:21:42
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be.mth
Dataset File: c:\elandata\dataset\100105\QC Std 4.062

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	0.054	ug/L	22.375	43	0.000
⌊>	Sc	45		ug/L		915070	915070.486

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈	Be	9					
⌊>	Sc	45		82.4			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Wednesday, January 06, 2010 03:24:46
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be.mth
Dataset File: c:\elandata\dataset\100105\QC Std 5.063

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	18.913	ug/L	3.322	8729	0.010
Sc	45		ug/L		894378	894378.092

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
Be	9	94.566				
Sc	45		80.5			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Wednesday, January 06, 2010 03:27:49
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be.mth
Dataset File: c:\elandata\dataset\100105\QC Std 6.064

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	48.095	ug/L	6.786	22913	0.025
Sc	45		ug/L		924261	924260.754

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
Be	9	96.190				
Sc	45		83.2			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Wednesday, January 06, 2010 03:30:54
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be.mth
Dataset File: c:\elandata\dataset\100105\QC Std 7.065

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	-0.004	ug/L	293.215	19	-0.000
Sc	45		ug/L		1092494	1092493.801

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
Be	9					
Sc	45		98.4			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Wednesday, January 06, 2010 03:56:24
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be.mth
Dataset File: c:\elandata\dataset\100105\QC Std 6.073

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	51.498	ug/L	6.093	24937	0.027
Sc	45		ug/L		939633	939632.519

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
Be	9	102.996				
Sc	45		84.6			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Wednesday, January 06, 2010 03:59:28
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be.mth
Dataset File: c:\elandata\dataset\100105\QC Std 7.074

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	-0.009	ug/L	47.046	16	-0.000
⌊>	Sc	45		ug/L		1119133	1119132.843

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈	Be	9					
⌊>	Sc	45		100.8			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Wednesday, January 06, 2010 04:14:52
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be.mth
Dataset File: c:\elandata\dataset\100105\QC Std 6.079

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	52.931	ug/L	3.592	25663	0.027
Sc	45		ug/L		940727	940726.559

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
Be	9	105.862				
Sc	45		84.7			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Wednesday, January 06, 2010 04:17:57
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be.mth
Dataset File: c:\elandata\dataset\100105\QC Std 7.080

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	-0.009	ug/L	46.839	17	-0.000
>	Sc	45		ug/L		1129814	1129814.436

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		101.7			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1201999349
Sample Date/Time: Wednesday, January 06, 2010 04:21:02
Sample Type:
Sample Description: LANL 6020 MB
Number of Replicates: 3
Batch ID: 934497|2|rmj
Method File: c:\elandata\Method\be.mth
Dataset File: c:\elandata\dataset\100105\1201999349.081

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	-0.011	ug/L	78.671	16	-0.000
>	Sc	45		ug/L		1167519	1167518.879

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		105.1			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1201999354
Sample Date/Time: Wednesday, January 06, 2010 04:24:05
Sample Type:
Sample Description: LANL 6020 LCS
Number of Replicates: 3
Batch ID: 934497|40|rmj
Method File: c:\elandata\Method\be.mth
Dataset File: c:\elandata\dataset\100105\1201999354.082

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	21.383	ug/L	5.392	10916	0.011
Sc	45		ug/L		989569	989569.228

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
Be	9					
Sc	45		89.1			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 243042001
Sample Date/Time: Wednesday, January 06, 2010 04:27:09
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 934497|2|rm|
Method File: c:\elandata\Method\be.mth
Dataset File: c:\elandata\dataset\100105\243042001.083

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	3.487	ug/L	4.963	2228	0.002
Sc	45		ug/L		1227381	1227381.029

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
Be	9					
Sc	45		110.5			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1201999350
Sample Date/Time: Wednesday, January 06, 2010 04:30:12
Sample Type:
Sample Description: LANL 6020 DUP
Number of Replicates: 3
Batch ID: 934497|2|rm|
Method File: c:\elandata\Method\be.mth
Dataset File: c:\elandata\dataset\100105\1201999350.084

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	3.446	ug/L	5.137	2203	0.002
Sc	45		ug/L		1228575	1228574.801

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
Be	9					
Sc	45		110.6			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1201999352
Sample Date/Time: Wednesday, January 06, 2010 04:33:16
Sample Type:
Sample Description: LANL 6020 MS
Number of Replicates: 3
Batch ID: 934497|2|rmj
Method File: c:\elandata\Method\be.mth
Dataset File: c:\elandata\dataset\100105\1201999352.085

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	21.561	ug/L	4.123	13650	0.011
⌊>	Sc	45		ug/L		1227240	1227240.142

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈	Be	9					
⌊>	Sc	45		110.5			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1201999353
Sample Date/Time: Wednesday, January 06, 2010 04:36:21
Sample Type:
Sample Description: LANL 6020 MSD
Number of Replicates: 3
Batch ID: 934497|2|rmj
Method File: c:\elandata\Method\be.mth
Dataset File: c:\elandata\dataset\100105\1201999353.086

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	22.951	ug/L	5.971	14489	0.012
⌊>	Sc	45		ug/L		1223529	1223529.016

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈	Be	9					
⌊>	Sc	45		110.2			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1201999351
Sample Date/Time: Wednesday, January 06, 2010 04:39:25
Sample Type:
Sample Description: LANL 6020 SDILT
Number of Replicates: 3
Batch ID: 934497|10|rmj
Method File: c:\elandata\Method\be.mth
Dataset File: c:\elandata\dataset\100105\1201999351.087

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	0.830	ug/L	4.544	454	0.000
⌊>	Sc	45		ug/L		1017591	1017591.186

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈	Be	9					
⌊>	Sc	45		91.6			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 243042002
Sample Date/Time: Wednesday, January 06, 2010 04:42:29
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 934497|2|rm|
Method File: c:\elandata\Method\be.mth
Dataset File: c:\elandata\dataset\100105\243042002.088

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	3.756	ug/L	6.218	2392	0.002
⌊>	Sc	45		ug/L		1224917	1224917.008

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈	Be	9					
⌊>	Sc	45		110.3			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Wednesday, January 06, 2010 04:45:32
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be.mth
Dataset File: c:\elandata\dataset\100105\QC Std 6.089

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	44.815	ug/L	8.306	23867	0.023
Sc	45		ug/L		1038682	1038682.479

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
Be	9	89.630				
Sc	45		93.5			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 6	Be	9	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Wednesday, January 06, 2010 04:48:37
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be.mth
Dataset File: c:\elandata\dataset\100105\QC Std 7.090

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	-0.008	ug/L	218.513	17	-0.000
Sc	45		ug/L		1113771	1113770.794

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
Be	9					
Sc	45		100.3			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 243042003
Sample Date/Time: Wednesday, January 06, 2010 04:51:42
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 934497|2|rm|
Method File: c:\elandata\Method\be.mth
Dataset File: c:\elandata\dataset\100105\243042003.091

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	2.530	ug/L	9.105	1622	0.001
Sc	45		ug/L		1227355	1227354.660

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
Be	9					
Sc	45		110.5			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 243042004
Sample Date/Time: Wednesday, January 06, 2010 04:54:46
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 934497|2|rmj
Method File: c:\elandata\Method\be.mth
Dataset File: c:\elandata\dataset\100105\243042004.092

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	3.335	ug/L	3.425	2108	0.002
⌊>	Sc	45		ug/L		1213468	1213468.016

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈	Be	9					
⌊>	Sc	45		109.3			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 243042005
Sample Date/Time: Wednesday, January 06, 2010 04:57:50
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 934497|2|rmj
Method File: c:\elandata\Method\be.mth
Dataset File: c:\elandata\dataset\100105\243042005.093

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	4.028	ug/L	5.791	2550	0.002
⌊>	Sc	45		ug/L		1217455	1217454.992

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈	Be	9					
⌊>	Sc	45		109.6			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 243042006
Sample Date/Time: Wednesday, January 06, 2010 05:00:54
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 934497|2|rmj
Method File: c:\elandata\Method\be.mth
Dataset File: c:\elandata\dataset\100105\243042006.094

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	3.075	ug/L	2.066	1992	0.002
Sc	45		ug/L		1243332	1243331.591

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
Be	9					
Sc	45		112.0			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 243042007
Sample Date/Time: Wednesday, January 06, 2010 05:03:59
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 934497|2|rmj
Method File: c:\elandata\Method\be.mth
Dataset File: c:\elandata\dataset\100105\243042007.095

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	2.491	ug/L	4.346	1558	0.001
Sc	45		ug/L		1197022	1197021.744

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
Be	9					
Sc	45		107.8			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 243042008
Sample Date/Time: Wednesday, January 06, 2010 05:07:03
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 934497|2|rmj
Method File: c:\elandata\Method\be.mth
Dataset File: c:\elandata\dataset\100105\243042008.096

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	3.546	ug/L	7.010	2211	0.002
⌊>	Sc	45		ug/L		1197829	1197829.050

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈	Be	9					
⌊>	Sc	45		107.9			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 243042009
Sample Date/Time: Wednesday, January 06, 2010 05:10:08
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 934497|2|rmj
Method File: c:\elandata\Method\be.mth
Dataset File: c:\elandata\dataset\100105\243042009.097

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	3.089	ug/L	8.419	1965	0.002
⌊>	Sc	45		ug/L		1220215	1220215.235

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈	Be	9					
⌊>	Sc	45		109.9			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Wednesday, January 06, 2010 05:13:11
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be.mth
Dataset File: c:\elandata\dataset\100105\QC Std 6.098

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	49.114	ug/L	4.261	23420	0.025
>	Sc	45		ug/L		925021	925020.947

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9	98.229				
>	Sc	45		83.3			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Wednesday, January 06, 2010 05:16:16
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be.mth
Dataset File: c:\elandata\dataset\100105\QC Std 7.099

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	-0.010	ug/L	91.974	16	-0.000
⌊>	Sc	45		ug/L		1117168	1117167.655

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈	Be	9					
⌊>	Sc	45		100.6			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: Blank
Sample Date/Time: Wednesday, January 06, 2010 05:19:23
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li.mth
Dataset File: c:\elandata\dataset\100105\Blank.100

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7		ug/L		158	
>	Sc	45		ug/L		1087607	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Simple Linear	
Sc	45	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
Li	7					
Sc	45					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Wednesday, January 06, 2010 05:22:27
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li.mth
Dataset File: c:\elandata\dataset\100105\Standard 1.101

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Li	7	10.000	ug/L	7.236	15227	0.016
⌊>	Sc	45		ug/L		937443	937442.831

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
Li	7					
Sc	45					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Wednesday, January 06, 2010 05:25:29
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li.mth
Dataset File: c:\elandata\dataset\100105\Standard 2.102

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	100.067	ug/L	7.391	152809	0.173
>	Sc	45		ug/L		884906	884906.256

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
Li	7					
Sc	45					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Wednesday, January 06, 2010 05:28:32
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li.mth
Dataset File: c:\elandata\dataset\100105\QC Std 1.103

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**47.060**	**ug/L**	7.756	77683	0.081
>	Sc	45		**ug/L**		955405	955405.136

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
Li	7	94.120				
Sc	45		87.8			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Wednesday, January 06, 2010 05:31:37
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li.mth
Dataset File: c:\elandata\dataset\100105\QC Std 2.104

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	0.005	ug/L	146.329	171	0.000
>	Sc	45		ug/L		1109946	1109946.216

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

Sample ID: QC Std 2

Report Date/Time: Wednesday, January 06, 2010 05:31:49

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
Li	7					
Sc	45		102.1			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Wednesday, January 06, 2010 05:34:42
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li.mth
Dataset File: c:\elandata\dataset\100105\QC Std 3.105

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	10.486	ug/L	7.161	17195	0.018
>	Sc	45		ug/L		943124	943124.030

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈	Li	7	104.860				
⌊>	Sc	45		86.7			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Wednesday, January 06, 2010 05:37:46
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li.mth
Dataset File: c:\elandata\dataset\100105\QC Std 4.106

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	0.199	ug/L	6.385	438	0.000
>	Sc	45		ug/L		895757	895757.159

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈	Li	7					
⌊>	Sc	45		82.4			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Wednesday, January 06, 2010 05:40:50
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li.mth
Dataset File: c:\elandata\dataset\100105\QC Std 5.107

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	18.061	ug/L	6.145	27770	0.031
>	Sc	45		ug/L		887008	887007.988

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

Sample ID: QC Std 5

Report Date/Time: Wednesday, January 06, 2010 05:41:01

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈	Li	7	90.307				
⌊>	Sc	45		81.6			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Wednesday, January 06, 2010 05:43:53
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li.mth
Dataset File: c:\elandata\dataset\100105\QC Std 6.108

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Li	7	45.984	ug/L	8.926	72749	0.079
⌊>	Sc	45		ug/L		915697	915696.828

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
Li	7	91.968				
Sc	45		84.2			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

Sample ID: QC Std 6

Report Date/Time: Wednesday, January 06, 2010 05:44:03

ICPMS#6 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Wednesday, January 06, 2010 05:46:58
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li.mth
Dataset File: c:\elandata\dataset\100105\QC Std 7.109

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	0.014	ug/L	60.206	186	0.000
>	Sc	45		ug/L		1102674	1102674.103

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
Li	7					
Sc	45		101.4			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1201999349
Sample Date/Time: Wednesday, January 06, 2010 05:50:03
Sample Type:
Sample Description: LANL 6020 MB
Number of Replicates: 3
Batch ID: 934497|2|rm|
Method File: c:\elandata\Method\li.mth
Dataset File: c:\elandata\dataset\100105\1201999349.110

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Li	7	-0.015	ug/L	23.849	136	-0.000
⌊>	Sc	45		ug/L		1143444	1143443.877

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈	Li	7					
⌊>	Sc	45		105.1			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1201999354
Sample Date/Time: Wednesday, January 06, 2010 05:53:06
Sample Type:
Sample Description: LANL 6020 LCS
Number of Replicates: 3
Batch ID: 934497|20|rmj
Method File: c:\elandata\Method\li.mth
Dataset File: c:\elandata\dataset\100105\1201999354.111

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	5.184	ug/L	8.592	8846	0.009
>	Sc	45		ug/L		972894	972894.362

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈	Li	7					
⌊>	Sc	45		89.5			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 243042001
Sample Date/Time: Wednesday, January 06, 2010 05:56:10
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 934497|2|rmj
Method File: c:\elandata\Method\li.mth
Dataset File: c:\elandata\dataset\100105\243042001.112

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	53.525	ug/L	6.045	111958	0.092
>	Sc	45		ug/L		1210643	1210643.074

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈	Li	7					
⌊>	Sc	45		111.3			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1201999350
Sample Date/Time: Wednesday, January 06, 2010 05:59:14
Sample Type:
Sample Description: LANL 6020 DUP
Number of Replicates: 3
Batch ID: 934497|2|rmj
Method File: c:\elandata\Method\li.mth
Dataset File: c:\elandata\dataset\100105\1201999350.113

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	53.312	ug/L	7.130	109028	0.092
>	Sc	45		ug/L		1183802	1183802.465

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈	Li	7					
⌊>	Sc	45		108.8			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1201999352
Sample Date/Time: Wednesday, January 06, 2010 06:02:18
Sample Type:
Sample Description: LANL 6020 MS
Number of Replicates: 3
Batch ID: 934497|2|rm|
Method File: c:\elandata\Method\li.mth
Dataset File: c:\elandata\dataset\100105\1201999352.114

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**73.951**	**ug/L**	5.589	152075	0.128
>	Sc	45		**ug/L**		1190863	1190863.139

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
[	Li	7					
|>	Sc	45		109.5			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1201999353
Sample Date/Time: Wednesday, January 06, 2010 06:05:22
Sample Type:
Sample Description: LANL 6020 MSD
Number of Replicates: 3
Batch ID: 934497|2|rmj
Method File: c:\elandata\Method\li.mth
Dataset File: c:\elandata\dataset\100105\1201999353.115

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	80.035	ug/L	9.353	167352	0.138
>	Sc	45		ug/L		1211717	1211717.377

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈	Li	7					
⌊>	Sc	45		111.4			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1201999351
Sample Date/Time: Wednesday, January 06, 2010 06:08:27
Sample Type:
Sample Description: LANL 6020 SDILT
Number of Replicates: 3
Batch ID: 934497|10|rm|
Method File: c:\elandata\Method\li.mth
Dataset File: c:\elandata\dataset\100105\1201999351.116

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	13.670	ug/L	9.598	23782	0.024
>	Sc	45		ug/L		1001869	1001868.881

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
Li	7					
Sc	45		92.1			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 243042002
Sample Date/Time: Wednesday, January 06, 2010 06:11:30
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 934497|2|rmj
Method File: c:\elandata\Method\li.mth
Dataset File: c:\elandata\dataset\100105\243042002.117

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	53.841	ug/L	6.231	112778	0.093
>	Sc	45		ug/L		1212405	1212405.227

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
Li	7					
Sc	45		111.5			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Wednesday, January 06, 2010 06:14:34
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li.mth
Dataset File: c:\elandata\dataset\100105\QC Std 6.118

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	48.907	ug/L	6.861	78074	0.084
>	Sc	45		ug/L		924068	924068.430

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

Sample ID: QC Std 6

Report Date/Time: Wednesday, January 06, 2010 06:14:44

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
Li	7	97.814				
Sc	45		85.0			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Wednesday, January 06, 2010 06:17:39
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li.mth
Dataset File: c:\elandata\dataset\100105\QC Std 7.119

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	0.030	ug/L	26.741	210	0.000
>	Sc	45		ug/L		1073942	1073942.022

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
Li	7					
Sc	45		98.7			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 243042003
Sample Date/Time: Wednesday, January 06, 2010 06:20:44
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 934497|2|rm|
Method File: c:\elandata\Method\li.mth
Dataset File: c:\elandata\dataset\100105\243042003.120

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Li	7	**83.068**	**ug/L**	5.963	174812	0.143
⌊>	Sc	45		**ug/L**		1216997	1216997.375

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈	Li	7					
⌊>	Sc	45		111.9			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 243042004
Sample Date/Time: Wednesday, January 06, 2010 06:23:47
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 934497|2|rmj
Method File: c:\elandata\Method\li.mth
Dataset File: c:\elandata\dataset\100105\243042004.121

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**55.151**	**ug/L**	6.700	114384	0.095
>	Sc	45		**ug/L**		1200758	1200758.416

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
Li	7					
Sc	45		110.4			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 243042005
Sample Date/Time: Wednesday, January 06, 2010 06:26:51
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 934497|2|rmj
Method File: c:\elandata\Method\li.mth
Dataset File: c:\elandata\dataset\100105\243042005.122

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	63.577	ug/L	7.326	130259	0.110
>	Sc	45		ug/L		1187437	1187436.733

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
>	Sc	45		109.2			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 243042006
Sample Date/Time: Wednesday, January 06, 2010 06:29:55
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 934497|2|rmj
Method File: c:\elandata\Method\li.mth
Dataset File: c:\elandata\dataset\100105\243042006.123

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	69.741	ug/L	7.749	146836	0.120
>	Sc	45		ug/L		1218945	1218944.820

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈	Li	7					
⌊>	Sc	45		112.1			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 243042007
Sample Date/Time: Wednesday, January 06, 2010 06:33:00
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 934497|2|rmj
Method File: c:\elandata\Method\li.mth
Dataset File: c:\elandata\dataset\100105\243042007.124

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Li	7	26.321	ug/L	7.120	53770	0.045
⌊>	Sc	45		ug/L		1179735	1179734.662

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
Li	7					
Sc	45		108.5			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 243042008
Sample Date/Time: Wednesday, January 06, 2010 06:36:05
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 934497|2|rmj
Method File: c:\elandata\Method\li.mth
Dataset File: c:\elandata\dataset\100105\243042008.125

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Li	7	**54.496**	**ug/L**	7.327	112878	0.094
⌊>	Sc	45		**ug/L**		1198553	1198552.910

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈	Li	7					
⌊>	Sc	45		110.2			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 243042009
Sample Date/Time: Wednesday, January 06, 2010 06:39:09
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 934497|2|rmj
Method File: c:\elandata\Method\li.mth
Dataset File: c:\elandata\dataset\100105\243042009.126

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**68.536**	**ug/L**	6.020	144165	0.118
>	Sc	45		**ug/L**		1217463	1217463.146

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈	Li	7					
⌊>	Sc	45		111.9			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Wednesday, January 06, 2010 06:42:12
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li.mth
Dataset File: c:\elandata\dataset\100105\QC Std 6.127

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**47.683**	**ug/L**	7.575	74930	0.082
>	Sc	45		**ug/L**		909342	909341.694

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
Li	7	95.367				
Sc	45		83.6			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

Sample ID: QC Std 6

Report Date/Time: Wednesday, January 06, 2010 06:42:23

ICPMS#6 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Wednesday, January 06, 2010 06:45:17
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li.mth
Dataset File: c:\elandata\dataset\100105\QC Std 7.128

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	0.027	ug/L	44.183	207	0.000
>	Sc	45		ug/L		1081523	1081522.785

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈	Li	7					
⌊>	Sc	45		99.4			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

==========
Method Name: SOIL
Method Description: 7471A, ILM04 ANALYST JXL1
Element: Hg

Date: 01/05/2010
Technique:FI-MHS
Calibration Type:
Hg, Calc. Intercept : Linear
Wavelength: 253.7 nm
Sample Info Name: 010510S1.SIF Results Data Set Name: 010510S1

==========
Element: Hg Seq. No.: 1 AS Loc.: 1 Date: 01/05/2010
Sample ID: Calib Blank

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1			0.0048	0.0048	09:37:42	No
2			0.0045	0.0045	09:38:18	No
Mean:			0.0047			
SD :			0.0002			
%RSD:			3.8005			

Auto-zero performed.

==========
Element: Hg Seq. No.: 2 AS Loc.: 2 Date: 01/05/2010
Sample ID: S0.2

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1			0.0014	0.0061	09:39:41	No
2			0.0014	0.0060	09:40:16	No
Mean:			0.0014			
SD :			0.0000			
%RSD:			2.0677			

[Hg] Standard number 1 applied. [0.200]
Correlation Coefficient: 1.00000 Slope: 0.00697
Intercept : 0.00000

==========
Element: Hg Seq. No.: 3 AS Loc.: 3 Date: 01/05/2010
Sample ID: S0.5

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1			0.0041	0.0088	09:41:39	No
2			0.0039	0.0085	09:42:14	No
Mean:			0.0040			
SD :			0.0002			
%RSD:			4.4163			

[Hg] Standard number 2 applied. [0.500]
Correlation Coefficient: 0.99826 Slope: 0.00807
Intercept : -0.00008

==========
Element: Hg Seq. No.: 4 AS Loc.: 4 Date: 01/05/2010
Sample ID: S2.0

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1			0.0169	0.0216	09:43:39	No
2			0.0168	0.0214	09:44:14	No
Mean:			0.0168			
SD :			0.0001			
%RSD:			0.4922			

[Hg] Standard number 3 applied. [2.000]

Correlation Coefficient: 0.99985 Slope: 0.00849
Intercept : -0.00017

==========
Element: Hg Seq. No.: 5 AS Loc.: 5 Date: 01/05/2010
Sample ID: S5.0

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1			0.0428	0.0475	09:45:39	No
2			0.0440	0.0486	09:46:14	No
Mean:			0.0434			
SD :			0.0008			
%RSD:			1.8382			

[Hg] Standard number 4 applied. [5.000]
Correlation Coefficient: 0.99993 Slope: 0.00871
Intercept : -0.00029

==========
Element: Hg Seq. No.: 6 AS Loc.: 6 Date: 01/05/2010
Sample ID: S10

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1			0.0843	0.0890	09:47:40	No
2			0.0853	0.0900	09:48:15	No
Mean:			0.0848			
SD :			0.0007			
%RSD:			0.8188			

[Hg] Standard number 5 applied. [10.00]
Correlation Coefficient: 0.99992 Slope: 0.00853
Intercept : -0.00008

Calibration data for Hg

Standard ID	Mean Signal (Pk Height)	Entered Concentration (µg/L)	Calculated Concentration (µg/L)	Standard Deviation	%RSD
Calib Blank	0.0047	---	----	----	----
S0.2	0.0014	0.200	0.173	0.0000	2.1
S0.5	0.0040	0.500	0.479	0.0002	4.4
S2.0	0.0168	2.000	1.985	0.0001	0.5
S5.0	0.0434	5.000	5.098	0.0008	1.8
S10	0.0848	10.000	9.956	0.0007	0.8

Correlation Coefficient: 0.99992 Slope: 0.00853 Intercept: -0.0001

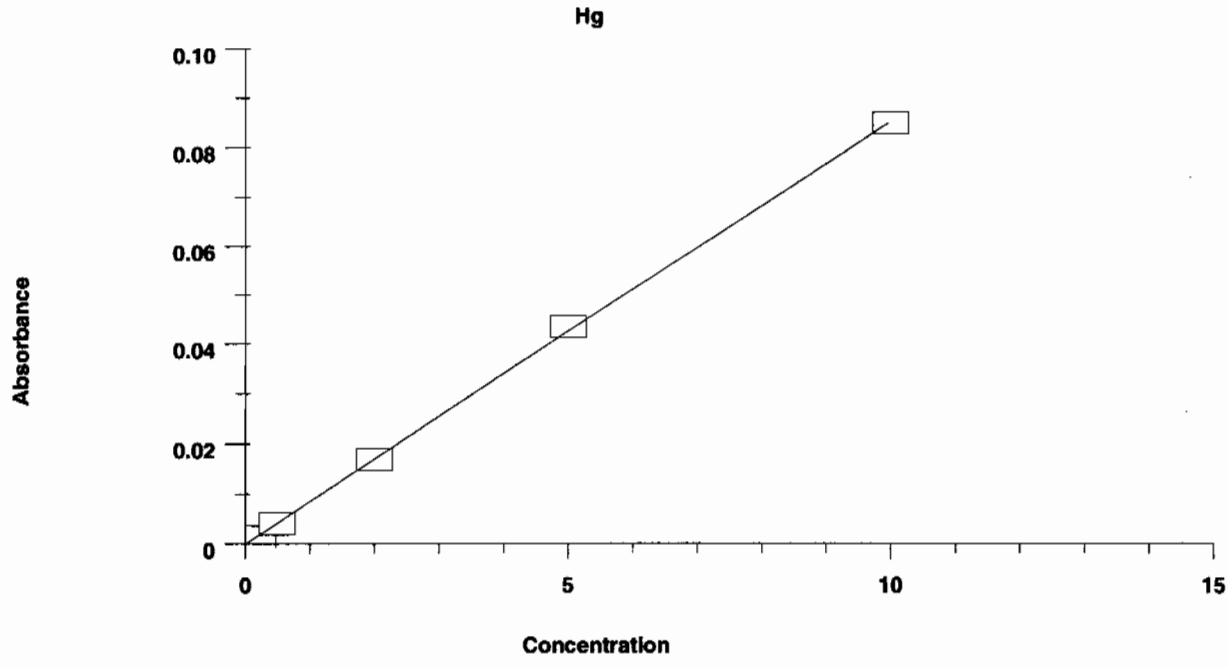

==========

Element: Hg Seq. No.: 7 AS Loc.: 9 Date: 01/05/2010
Sample ID: ICV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	5.119	5.119	0.0436	0.0482	09:49:44	No
2	5.240	5.240	0.0446	0.0493	09:50:19	No
Mean:	5.180	5.180	0.0441			
SD :	0.0855	0.0855	0.0007			
%RSD:	1.7	1.7	1.6531			

QC value within specified limits.

==========

Element: Hg Seq. No.: 8 AS Loc.: 10 Date: 01/05/2010
Sample ID: ICB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.106	-0.106	-0.0010	0.0037	09:51:41	No
2	-0.110	-0.110	-0.0010	0.0036	09:52:16	No
Mean:	-0.108	-0.108	-0.0010			
SD :	0.0031	0.0031	0.0000			
%RSD:	2.9	2.9	2.6727			

QC value within specified limits.

==========

Element: Hg Seq. No.: 9 AS Loc.: 11 Date: 01/05/2010
Sample ID: CRDL

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.202	0.202	0.0016	0.0063	09:53:38	No
2	0.174	0.174	0.0014	0.0061	09:54:13	No
Mean:	0.188	0.188	0.0015			
SD :	0.0194	0.0194	0.0002			
%RSD:	10.3	10.3	10.8749			

QC value within specified limits.

==========

Element: Hg Seq. No.: 10 AS Loc.: 7 Date: 01/05/2010
Sample ID: CCV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	5.078	5.078	0.0432	0.0479	09:55:38	No
2	5.044	5.044	0.0429	0.0476	09:56:13	No
Mean:	5.061	5.061	0.0431			
SD :	0.0243	0.0243	0.0002			
%RSD:	0.5	0.5	0.4803			

QC value within specified limits.

==========

Element: Hg Seq. No.: 11 AS Loc.: 8 Date: 01/05/2010
Sample ID: CCB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.070	-0.070	-0.0007	0.0040	09:57:41	No
2	-0.048	-0.048	-0.0005	0.0042	09:58:16	No
Mean:	-0.059	-0.059	-0.0006			
SD :	0.0157	0.0157	0.0001			
%RSD:	26.7	26.7	22.9902			

QC value within specified limits.

==========

Element: Hg Seq. No.: 12 AS Loc.: 12 Date: 01/05/2010
Sample ID: 1202000228|i||934897|MB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.189	0.189	0.0015	0.0062	09:59:42	No
2	0.184	0.184	0.0015	0.0061	10:00:18	No
Mean:	0.187	0.187	0.0015			
SD :	0.0039	0.0039	0.0000			
%RSD:	2.1	2.1	2.1994			

==========

Element: Hg Seq. No.: 13 AS Loc.: 13 Date: 01/05/2010
Sample ID: 1202000229|i|10||LCS

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	3.559	3.559	0.0303	0.0349	10:01:43	No
2	3.451	3.451	0.0293	0.0340	10:02:18	No
Mean:	3.505	3.505	0.0298			
SD :	0.0760	0.0760	0.0006			
%RSD:	2.2	2.2	2.1750			

==========

Element: Hg Seq. No.: 14 AS Loc.: 14 Date: 01/05/2010
Sample ID: 242938001|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.517	0.517	0.0043	0.0090	10:03:44	No
2	0.420	0.420	0.0035	0.0082	10:04:18	No
Mean:	0.469	0.469	0.0039			
SD :	0.0685	0.0685	0.0006			
%RSD:	14.6	14.6	14.9158			

==========

Element: Hg Seq. No.: 15 AS Loc.: 15 Date: 01/05/2010
Sample ID: 242938002|i|||

%RSD: 0.2 0.2 0.1680

==========

Element: Hg Seq. No.: 21 AS Loc.: 21 Date: 01/05/2010
Sample ID: 242938008|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.272	0.272	0.0022	0.0069	10:17:31	No
2	0.236	0.236	0.0019	0.0066	10:18:06	No
Mean:	0.254	0.254	0.0021			
SD :	0.0258	0.0258	0.0002			
%RSD:	10.1	10.1	10.5405			

==========

Element: Hg Seq. No.: 22 AS Loc.: 7 Date: 01/05/2010
Sample ID: CCV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	5.244	5.244	0.0446	0.0493	10:19:30	No
2	5.319	5.319	0.0453	0.0499	10:20:05	No
Mean:	5.282	5.282	0.0450			
SD :	0.0531	0.0531	0.0005			
%RSD:	1.0	1.0	1.0066			

QC value within specified limits.

==========

Element: Hg Seq. No.: 23 AS Loc.: 8 Date: 01/05/2010
Sample ID: CCB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.075	-0.075	-0.0007	0.0039	10:21:33	No
2	-0.100	-0.100	-0.0009	0.0037	10:22:08	No
Mean:	-0.087	-0.087	-0.0008			
SD :	0.0177	0.0177	0.0002			
%RSD:	20.3	20.3	18.2868			

QC value within specified limits.

==========

Element: Hg Seq. No.: 24 AS Loc.: 22 Date: 01/05/2010
Sample ID: 242938009|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.371	0.371	0.0031	0.0077	10:23:33	No
2	0.367	0.367	0.0030	0.0077	10:24:07	No
Mean:	0.369	0.369	0.0031			
SD :	0.0033	0.0033	0.0000			
%RSD:	0.9	0.9	0.9072			

==========

Element: Hg Seq. No.: 25 AS Loc.: 23 Date: 01/05/2010
Sample ID: 243042001|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.762	0.762	0.0064	0.0111	10:25:32	No
2	0.770	0.770	0.0065	0.0111	10:26:07	No
Mean:	0.766	0.766	0.0065			
SD :	0.0059	0.0059	0.0000			
%RSD:	0.8	0.8	0.7738			

==========

Element: Hg Seq. No.: 26 AS Loc.: 24 Date: 01/05/2010
Sample ID: 1202000230|i|||DUP

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.926	0.926	0.0078	0.0125	10:27:31	No
2	0.887	0.887	0.0075	0.0121	10:28:06	No
Mean:	0.906	0.906	0.0076			
SD :	0.0275	0.0275	0.0002			
%RSD:	3.0	3.0	3.0702			

Element: Hg Seq. No.: 27 AS Loc.: 25 Date: 01/05/2010
Sample ID: 1202000231|i|||MS

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	3.913	3.913	0.0333	0.0379	10:29:30	No
2	3.936	3.936	0.0335	0.0381	10:30:05	No
Mean:	3.924	3.924	0.0334			
SD :	0.0168	0.0168	0.0001			
%RSD:	0.4	0.4	0.4297			

Element: Hg Seq. No.: 28 AS Loc.: 26 Date: 01/05/2010
Sample ID: 1202000233|i|||MSD

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	3.440	3.440	0.0292	0.0339	10:31:30	No
2	3.383	3.383	0.0288	0.0334	10:32:05	No
Mean:	3.411	3.411	0.0290			
SD :	0.0397	0.0397	0.0003			
%RSD:	1.2	1.2	1.1679			

Element: Hg Seq. No.: 29 AS Loc.: 27 Date: 01/05/2010
Sample ID: 1202000232|i|5||SDILT

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.012	-0.012	-0.0002	0.0045	10:33:30	No
2	-0.021	-0.021	-0.0003	0.0044	10:34:05	No
Mean:	-0.017	-0.017	-0.0002			
SD :	0.0062	0.0062	0.0001			
%RSD:	37.3	37.3	23.6900			

Element: Hg Seq. No.: 30 AS Loc.: 28 Date: 01/05/2010
Sample ID: 243042002|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.023	0.023	0.0001	0.0048	10:35:31	No
2	0.018	0.018	0.0001	0.0047	10:36:06	No
Mean:	0.021	0.021	0.0001			
SD :	0.0036	0.0036	0.0000			
%RSD:	17.4	17.4	32.1176			

Element: Hg Seq. No.: 31 AS Loc.: 29 Date: 01/05/2010
Sample ID: 243042003|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.119	0.119	0.0009	0.0056	10:37:32	No
2	0.102	0.102	0.0008	0.0054	10:38:07	No
Mean:	0.110	0.110	0.0009			
SD :	0.0119	0.0119	0.0001			

%RSD: 10.8 10.8 11.8279

==========

Element: Hg Seq. No.: 32 AS Loc.: 30 Date: 01/05/2010
Sample ID: 243042004|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.235	0.235	0.0019	0.0066	10:39:34	No
2	0.227	0.227	0.0019	0.0065	10:40:08	No
Mean:	0.231	0.231	0.0019			
SD :	0.0055	0.0055	0.0000			
%RSD:	2.4	2.4	2.4637			

==========

Element: Hg Seq. No.: 33 AS Loc.: 31 Date: 01/05/2010
Sample ID: 243042005|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.127	0.127	0.0010	0.0057	10:41:35	No
2	0.122	0.122	0.0010	0.0056	10:42:09	No
Mean:	0.125	0.125	0.0010			
SD :	0.0035	0.0035	0.0000			
%RSD:	2.8	2.8	3.0182			

==========

Element: Hg Seq. No.: 34 AS Loc.: 7 Date: 01/05/2010
Sample ID: CCV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	5.317	5.317	0.0453	0.0499	10:43:36	No
2	5.320	5.320	0.0453	0.0499	10:44:11	No
Mean:	5.318	5.318	0.0453			
SD :	0.0021	0.0021	0.0000			
%RSD:						

QC value within specified limits.

==========

Element: Hg Seq. No.: 35 AS Loc.: 8 Date: 01/05/2010
Sample ID: CCB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.112	-0.112	-0.0010	0.0036	10:45:39	No
2	-0.116	-0.116	-0.0011	0.0036	10:46:14	No
Mean:	-0.114	-0.114	-0.0011			
SD :	0.0022	0.0022	0.0000			
%RSD:	1.9	1.9	1.7579			

QC value within specified limits.

==========

Element: Hg Seq. No.: 36 AS Loc.: 32 Date: 01/05/2010
Sample ID: 243042006|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.297	0.297	0.0025	0.0071	10:47:39	No
2	0.306	0.306	0.0025	0.0072	10:48:14	No
Mean:	0.302	0.302	0.0025			
SD :	0.0061	0.0061	0.0001			
%RSD:	2.0	2.0	2.1015			

==========

Element: Hg Seq. No.: 37 AS Loc.: 33 Date: 01/05/2010
Sample ID: 243042007|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.095	0.095	0.0007	0.0054	10:49:34	No
2	0.067	0.067	0.0005	0.0051	10:50:09	No
Mean:	0.081	0.081	0.0006			
SD :	0.0203	0.0203	0.0002			
%RSD:	25.0	25.0	28.4026			

Element: Hg Seq. No.: 38 AS Loc.: 34 Date: 01/05/2010
Sample ID: 243042008|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	8.929	8.929	0.0761	0.0807	10:51:29	No
2	8.797	8.797	0.0749	0.0796	10:52:04	No
Mean:	8.863	8.863	0.0755			
SD :	0.0933	0.0933	0.0008			
%RSD:	1.1	1.1	1.0537			

Element: Hg Seq. No.: 39 AS Loc.: 35 Date: 01/05/2010
Sample ID: 243042009|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.278	0.278	0.0023	0.0069	10:53:25	No
2	0.261	0.261	0.0021	0.0068	10:53:59	No
Mean:	0.269	0.269	0.0022			
SD :	0.0120	0.0120	0.0001			
%RSD:	4.4	4.4	4.6059			

Element: Hg Seq. No.: 40 AS Loc.: 36 Date: 01/05/2010
Sample ID: 1202002037|i||935653|MB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.198	-0.198	-0.0018	0.0029	10:55:21	No
2	-0.189	-0.189	-0.0017	0.0030	10:55:56	No
Mean:	-0.193	-0.193	-0.0017			
SD :	0.0063	0.0063	0.0001			
%RSD:	3.2	3.2	3.0819			

Element: Hg Seq. No.: 41 AS Loc.: 37 Date: 01/05/2010
Sample ID: 1202002038|i|||LCS

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	2.149	2.149	0.0182	0.0229	10:57:18	No
2	2.154	2.154	0.0183	0.0229	10:57:54	No
Mean:	2.152	2.152	0.0183			
SD :	0.0035	0.0035	0.0000			
%RSD:	0.2	0.2	0.1648			

Element: Hg Seq. No.: 42 AS Loc.: 38 Date: 01/05/2010
Sample ID: 243282003|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.793	0.793	0.0067	0.0113	10:59:16	No
2	0.797	0.797	0.0067	0.0114	10:59:51	No
Mean:	0.795	0.795	0.0067			
SD :	0.0031	0.0031	0.0000			

%RSD: 0.4 0.4 0.4000

==========

Element: Hg Seq. No.: 43 AS Loc.: 39 Date: 01/05/2010
Sample ID: 1202002039|i|||DUP

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.892	0.892	0.0075	0.0122	11:01:14	No
2	0.855	0.855	0.0072	0.0119	11:01:49	No
Mean:	0.874	0.874	0.0074			
SD :	0.0264	0.0264	0.0002			
%RSD:	3.0	3.0	3.0540			

==========

Element: Hg Seq. No.: 44 AS Loc.: 40 Date: 01/05/2010
Sample ID: 1202002040|i|||MS

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	3.180	3.180	0.0270	0.0317	11:03:13	No
2	3.177	3.177	0.0270	0.0317	11:03:48	No
Mean:	3.178	3.178	0.0270			
SD :	0.0021	0.0021	0.0000			
%RSD:						

==========

Element: Hg Seq. No.: 45 AS Loc.: 41 Date: 01/05/2010
Sample ID: 1202002042|i|||MSD

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	3.131	3.131	0.0266	0.0313	11:05:12	No
2	3.096	3.096	0.0263	0.0310	11:05:47	No
Mean:	3.113	3.113	0.0265			
SD :	0.0251	0.0251	0.0002			
%RSD:	0.8	0.8	0.8094			

==========

Element: Hg Seq. No.: 46 AS Loc.: 7 Date: 01/05/2010
Sample ID: CCV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	5.432	5.432	0.0462	0.0509	11:07:13	No
2	5.506	5.506	0.0469	0.0515	11:07:47	No
Mean:	5.469	5.469	0.0465			
SD :	0.0525	0.0525	0.0004			
%RSD:	1.0	1.0	0.9623			

QC value within specified limits.

==========

Element: Hg Seq. No.: 47 AS Loc.: 8 Date: 01/05/2010
Sample ID: CCB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.102	-0.102	-0.0009	0.0037	11:09:16	No
2	-0.081	-0.081	-0.0008	0.0039	11:09:51	No
Mean:	-0.091	-0.091	-0.0009			
SD :	0.0150	0.0150	0.0001			
%RSD:	16.5	16.5	14.9058			

QC value within specified limits.

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Element: Hg Seq. No.: 48 AS Loc.: 42 Date: 01/05/2010
Sample ID: 1202002041|i|5||SDILT

Miscellaneous

Prep LogBook

Analyst: BCD1 Verified by:_____

Batch: 934492

Lab SOP: GL-MA-E-009 REV# 19

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1201999345	UI062540-I	.509	g
MS	1201999343	UI091216-01	.25	mL
MS	1201999343	UI091216-06	.25	mL
MSD	1201999344	UI091216-01	.25	mL
MSD	1201999344	UI091216-06	.25	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1201999340		SW846 3050B	19-DEC-2009 12:14	0.532 g	50 mL	93.98496	SOIL
LCS	1201999345		SW846 3050B	19-DEC-2009 12:14	0.509 g	50 mL	98.23183	SOIL
SAMPLE	243042001		SW846 3050B	19-DEC-2009 12:14	0.514 g	50 mL	97.27626	SOIL
DUP	1201999341	243042001	SW846 3050B	19-DEC-2009 12:14	0.507 g	50 mL	98.61933	SOIL
SDILT	1201999342	243042001	SW846 3050B	19-DEC-2009 12:14	0.514 g	50 mL	97.27626	SOIL
MS	1201999343	243042001	SW846 3050B	19-DEC-2009 12:14	0.515 g	50 mL	97.08738	SOIL
MSD	1201999344	243042001	SW846 3050B	19-DEC-2009 12:14	0.512 g	50 mL	97.65625	SOIL
SAMPLE	243042002		SW846 3050B	19-DEC-2009 12:14	0.524 g	50 mL	95.41985	SOIL
SAMPLE	243042003		SW846 3050B	19-DEC-2009 12:14	0.527 g	50 mL	94.87666	SOIL
SAMPLE	243042004		SW846 3050B	19-DEC-2009 12:14	0.521 g	50 mL	95.96929	SOIL
SAMPLE	243042005		SW846 3050B	19-DEC-2009 12:14	0.523 g	50 mL	95.60229	SOIL
SAMPLE	243042006		SW846 3050B	19-DEC-2009 12:14	0.512 g	50 mL	97.65625	SOIL
SAMPLE	243042007		SW846 3050B	19-DEC-2009 12:14	0.503 g	50 mL	99.40358	SOIL
SAMPLE	243042008		SW846 3050B	19-DEC-2009 12:14	0.527 g	50 mL	94.87666	SOIL
SAMPLE	243042009		SW846 3050B	19-DEC-2009 12:14	0.534 g	50 mL	93.63296	SOIL

Reagent/Solvent Lot ID	Amount	Description
1244970	10 mL	HYDROCHLORIC ACID
1238345	1.25 mL	Nitric Acid CONC.

Comments The QC sample is a brown, clumpy soil.

Prep LogBook

Analyst: BCD1 Verified by:_____

Batch: 934496

Lab SOP: GL-MA-E-009 REV# 19

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1201999354	UI062540-MS	.514	g
MS	1201999352	UI091015-A	.5	mL
MS	1201999352	UI091015-B	.5	mL
MSD	1201999353	UI091015-A	.5	mL
MSD	1201999353	UI091015-B	.5	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1201999349		SW846 3050B	19-DEC-2009 12:24	0.52 g	50 mL	96.15385	SOIL
LCS	1201999354		SW846 3050B	19-DEC-2009 12:24	0.514 g	50 mL	97.27626	SOIL
SAMPLE	243042001		SW846 3050B	19-DEC-2009 12:24	0.511 g	50 mL	97.84736	SOIL
DUP	1201999350	243042001	SW846 3050B	19-DEC-2009 12:24	0.514 g	50 mL	97.27626	SOIL
SDILT	1201999351	243042001	SW846 3050B	19-DEC-2009 12:24	0.511 g	50 mL	97.84736	SOIL
MS	1201999352	243042001	SW846 3050B	19-DEC-2009 12:24	0.507 g	50 mL	98.61933	SOIL
MSD	1201999353	243042001	SW846 3050B	19-DEC-2009 12:24	0.508 g	50 mL	98.4252	SOIL
SAMPLE	243042002		SW846 3050B	19-DEC-2009 12:24	0.516 g	50 mL	96.89922	SOIL
SAMPLE	243042003		SW846 3050B	19-DEC-2009 12:24	0.509 g	50 mL	98.23183	SOIL
SAMPLE	243042004		SW846 3050B	19-DEC-2009 12:24	0.504 g	50 mL	99.20635	SOIL
SAMPLE	243042005		SW846 3050B	19-DEC-2009 12:24	0.508 g	50 mL	98.4252	SOIL
SAMPLE	243042006		SW846 3050B	19-DEC-2009 12:24	0.517 g	50 mL	96.7118	SOIL
SAMPLE	243042007		SW846 3050B	19-DEC-2009 12:24	0.507 g	50 mL	98.61933	SOIL
SAMPLE	243042008		SW846 3050B	19-DEC-2009 12:24	0.518 g	50 mL	96.5251	SOIL
SAMPLE	243042009		SW846 3050B	19-DEC-2009 12:24	0.509 g	50 mL	98.23183	SOIL

Reagent/Solvent Lot ID	Amount	Description
1203655-02	1.5 mL	Hydrogen Peroxide 30%
1238345	5 mL	Nitric Acid CONC.

Comments The QC sample is a brown, clumpy soil.

Prep LogBook

Analyst: BXA1 Verified by:_____

Batch: 939703

Lab SOP: GL-MA-E-009 REV# 19

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1202010889	UI062540-I	.522	g
MS	1201999343	UI091216-01	.25	mL
MS	1201999343	UI091216-06	.25	mL
MSD	1201999344	UI091216-01	.25	mL
MSD	1201999344	UI091216-06	.25	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1202010888		SW846 3050B	08-JAN-2010 17:11	0.507 g	50 mL	98.61933	SOIL
LCS	1202010889		SW846 3050B	08-JAN-2010 17:11	0.522 g	50 mL	95.78544	SOIL
SAMPLE	243042001		SW846 3050B	08-JAN-2010 17:11	0.501 g	50 mL	99.8004	SOIL
DUP	1201999341	243042001	SW846 3050B	08-JAN-2010 17:11	0.509 g	50 mL	98.23183	SOIL
SDILT	1201999342	243042001	SW846 3050B	08-JAN-2010 17:11	0.501 g	50 mL	99.8004	SOIL
MS	1201999343	243042001	SW846 3050B	08-JAN-2010 17:11	0.515 g	50 mL	97.08738	SOIL
MSD	1201999344	243042001	SW846 3050B	08-JAN-2010 17:11	0.511 g	50 mL	97.84736	SOIL
SAMPLE	243042002		SW846 3050B	08-JAN-2010 17:11	0.501 g	50 mL	99.8004	SOIL
SAMPLE	243042003		SW846 3050B	08-JAN-2010 17:11	0.506 g	50 mL	98.81423	SOIL
SAMPLE	243042004		SW846 3050B	08-JAN-2010 17:11	0.509 g	50 mL	98.23183	SOIL
SAMPLE	243042005		SW846 3050B	08-JAN-2010 17:11	0.505 g	50 mL	99.0099	SOIL
SAMPLE	243042006		SW846 3050B	08-JAN-2010 17:11	0.515 g	50 mL	97.08738	SOIL
SAMPLE	243042007		SW846 3050B	08-JAN-2010 17:11	0.503 g	50 mL	99.40358	SOIL
SAMPLE	243042008		SW846 3050B	08-JAN-2010 17:11	0.518 g	50 mL	96.5251	SOIL
SAMPLE	243042009		SW846 3050B	08-JAN-2010 17:11	0.512 g	50 mL	97.65625	SOIL

Reagent/Solvent Lot ID	Amount	Description
1244970	10 mL	HYDROCHLORIC ACID
1234886	1.25 mL	Nitric Acid CONC.

Comments sample#243042001 is a soft, clumpy, brown soil.

Prep LogBook

Analyst: TXB3 Verified by:_____

Batch: 934894

Lab SOP: GL-MA-E-010 REV# 23

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1202000229	UI031809A	.2	g
MS	1202000231	WHG100104-14	.3	mL
MSD	1202000233	WHG100104-14	.3	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1202000228		SW846 7471A Prep	04-JAN-2010 14:35	0.544 g	30 mL	55.14706	SOIL
LCS	1202000229		SW846 7471A Prep	04-JAN-2010 14:35	0.2 g	30 mL	150	SOIL
SAMPLE	242938001		SW846 7471A Prep	04-JAN-2010 14:35	0.505 g	30 mL	59.40594	SOIL
SAMPLE	242938002		SW846 7471A Prep	04-JAN-2010 14:35	0.553 g	30 mL	54.24955	SOIL
SAMPLE	242938003		SW846 7471A Prep	04-JAN-2010 14:35	0.531 g	30 mL	56.49718	SOIL
SAMPLE	242938004		SW846 7471A Prep	04-JAN-2010 14:35	0.505 g	30 mL	59.40594	SOIL
SAMPLE	242938005		SW846 7471A Prep	04-JAN-2010 14:35	0.567 g	30 mL	52.91005	SOIL
SAMPLE	242938006		SW846 7471A Prep	04-JAN-2010 14:35	0.573 g	30 mL	52.35602	SOIL
SAMPLE	242938007		SW846 7471A Prep	04-JAN-2010 14:35	0.516 g	30 mL	58.13953	SOIL
SAMPLE	242938008		SW846 7471A Prep	04-JAN-2010 14:35	0.526 g	30 mL	57.03422	SOIL
SAMPLE	242938009		SW846 7471A Prep	04-JAN-2010 14:35	0.525 g	30 mL	57.14286	SOIL
SAMPLE	243042001		SW846 7471A Prep	04-JAN-2010 14:35	0.505 g	30 mL	59.40594	SOIL
DUP	1202000230	243042001	SW846 7471A Prep	04-JAN-2010 14:35	0.511 g	30 mL	58.70841	SOIL
MS	1202000231	243042001	SW846 7471A Prep	04-JAN-2010 14:35	0.565 g	30 mL	53.09735	SOIL
MSD	1202000233	243042001	SW846 7471A Prep	04-JAN-2010 14:35	0.579 g	30 mL	51.81347	SOIL
SDILT	1202000232	243042001	SW846 7471A Prep	04-JAN-2010 14:35	0.505 g	30 mL	59.40594	SOIL
SAMPLE	243042002		SW846 7471A Prep	04-JAN-2010 14:35	0.567 g	30 mL	52.91005	SOIL
SAMPLE	243042003		SW846 7471A Prep	04-JAN-2010 14:35	0.504 g	30 mL	59.52381	SOIL
SAMPLE	243042004		SW846 7471A Prep	04-JAN-2010 14:35	0.552 g	30 mL	54.34783	SOIL
SAMPLE	243042005		SW846 7471A Prep	04-JAN-2010 14:35	0.532 g	30 mL	56.39098	SOIL
SAMPLE	243042006		SW846 7471A Prep	04-JAN-2010 14:35	0.576 g	30 mL	52.08333	SOIL
SAMPLE	243042007		SW846 7471A Prep	04-JAN-2010 14:35	0.552 g	30 mL	54.34783	SOIL
SAMPLE	243042008		SW846 7471A Prep	04-JAN-2010 14:35	0.54 g	30 mL	55.55556	SOIL
SAMPLE	243042009		SW846 7471A Prep	04-JAN-2010 14:35	0.549 g	30 mL	54.64481	SOIL

Reagent/Solvent Lot ID	Amount	Description
1236355-A	1.125 mL	Hydrochloric Acid Conc.
1240182-1	.375 mL	NITRIC ACID
1244904-C	7.5 mL	5% KMnO4 solution
1206350-C	2 mL	Hg reducing agent
WHG100104-07	30 uL	Mercury Working Standard 1st Source CAL S 0.2/CRA
WHG100104-08	75 uL	Mercury Working Standard 1st Source CAL S 0.5

Comments: Sample 243042001 is a rocky brown soil.
Digestion Start Date: 04-JAN-10 14:35
Digestion End Date: 04-JAN-10 15:05

Prep LogBook

WHG100104-11	1.5 mL	Mercury Working 1st Source CAL S 10.0
WHG100104-09	300 uL	Mercury Working 1st Source CAL S 2.0
WHG100104-10	750 uL	Mercury Working 1st Source CAL S 5.0/CCV
WHG100104-12	750 uL	Mercury Working 2nd Source S 5.0/ICV

COMPANY - WIDE NONCONFORMANCE REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
05-JAN-10	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
MERCURY	SW846 7471A	Solid	LANL
Batch ID:	**Sample Numbers:**		
934897	See Below		

Potentially affected work order(s)(SDG): 242938(10-918),243042(10-941)

Application Issues:

Failed Recovery for MS/PS

Failed Recovery for MSD/PSD

Specification and Requirements Nonconformance Description:	NRG Disposition:
1. Failed Recovery for MS/PS: QC 1202000231MS 2. Failed Recovery for MSD/PSD: QC 1202000233MSD	1/2. The matrix spike recovery failed outside of the control limits for Hg due to possible matrix interferences and/or non-homogeneity. Sample is a rocky, brown soil. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported.

Originator's Name:

Jason Loy 05-JAN-10

Data Validator/Group Leader:

Eric Lawson 06-JAN-10

NCR Report No.: 777811
Revision No.:

COMPANY - WIDE NONCONFORMANCE REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
06-JAN-10	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
ICP/MS	SW846 3050B/6020	Solid	LANL
Batch ID:	**Sample Numbers:**		
934497	See Below		

Potentially affected work order(s)(SDG): 243042(10-941)

Application Issues:

Failed Recovery for MS/PS

Failed RPD for MS/MSD, or PS/PSD

Failed Recovery for MSD/PSD

Specification and Requirements Nonconformance Description:	NRG Disposition:
1. Failed Recovery for MS/PS: QC 1201999352MS 2. Failed RPD for MS/MSD, or PS/PSD: QC 1201999353MSD 3. Failed Recovery for MSD/PSD: QC 1201999353MSD	The matrix spike and matrix spike duplicate recovery failed outside of the control limits for Se due to possible matrix interferences and/or non-homogeneity. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported. The matrix spike also failed outside of the control limits for Be due to possible matrix interferences and/or non-homogeneity. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported The matrix spike and matrix spike duplicate % RPD failed outside of the control limits for U due to possible matrix interferences and /or sample non-homogeneity. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported

Originator's Name:

Rose Jenkins 07-JAN-10

Data Validator/Group Leader:

Samantha Jacobs 07-JAN-10

COMPANY - WIDE NONCONFORMANCE REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
07-JAN-10	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
ICP	SW846 3050B/6010B	Solid	LANL
Batch ID:	**Sample Numbers:**		
934493	See Below		

Potentially affected work order(s)(SDG): 243042(10-941)

Application Issues:

Failed Recovery for MS/PS

Failed RPD for DUP

Failed Recovery for MSD/PSD

Specification and Requirements Nonconformance Description:	NRG Disposition:
1. Failed Recovery for MS/PS: QC 1201999343MS 2. Failed RPD for DUP: QC 1201999341DUP 3. Failed Recovery for MSD/PSD: QC 1201999344MSD	1. The matrix spike recovery failed outside of the control limits for antimony,potassium and zinc due to possible matrix interferences and/or non-homogeneity. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported. 2. The sample and sample duplicate % RPD failed outside the control limits for copper,lead and zinc due to possible sample non-homogeneity and/or matrix interference. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported. 3. The matrix spike duplicate recovery failed outside of the control limits for antimony,barium and potassium due to possible matrix interferences and/or non-homogeneity. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported.

Originator's Name:

Helen Camello 11-JAN-10

Data Validator/Group Leader:

Louise Smith 11-JAN-10

NCR Report No.: 779186
Revision No.:

COMPANY - WIDE NONCONFORMANCE REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
12-JAN-10	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
ICP	SW846 3050B/6010B	Solid	LANL
Batch ID:	**Sample Numbers:**		
939704	See Below		

Potentially affected work order(s)(SDG): 243042(10-941)

Application Issues:

Failed Recovery for MS/PS

Failed RPD for DUP

Specification and Requirements Nonconformance Description:	NRG Disposition:
1. Failed Recovery for MS/PS: QC 1201999343MS 2. Failed RPD for DUP: QC 1201999341DUP	1. The matrix spike recovery failed outside of the control limits for silicon due to possible matrix interferences and/or non-homogeneity. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported. 2. The sample and sample duplicate % RPD failed outside the control limits for silicon due to possible sample non-homogeneity and/or matrix interference. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported.

Originator's Name:

Helen Camello 12-JAN-10

Data Validator/Group Leader:

Louise Smith 12-JAN-10

Standard Logbook

Serial ID: UHG1167639-01 **Opened:** 13-AUG-09 **Amount :** 125 mL
Name: MHGSTOCK1 **Received:** 13-AUG-09 **Catalog Number :** PLHG4-2Y
Type: Source Material **Expires:** 13-AUG-10 **Lot Number :** 15-37HG
Employee: Bryan Davis **Solvent :** 10% HNO3
Supplier: Spex
Description: Mercury Source Standard #1 1,000 mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Mercury	1000 mg/L		

Serial ID: UHG1167641-02 **Opened:** 13-AUG-09 **Amount :** 100 mL
Name: MHGSTOCK2 **Received:** 13-AUG-09 **Catalog Number :** AHG1KN-100
Type: Source Material **Expires:** 13-AUG-10 **Lot Number :** 4905530
Employee: Bryan Davis **Solvent :** 3% HNO3
Supplier: Ricca Chemical Company
Description: Mercury Source Standard #2 1,000 mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Mercury	999.7 mg/L		

Serial ID: UI031809A **Opened:** 18-MAR-09 **Catalog Number :** 540
Name: METALSOILSRM **Received:** 18-MAR-09 **Lot Number :** D061-540
Type: Source Material **Expires:** 10-OCT-10
Employee: Jamie Johnson
Supplier: ERA
Description: Metals LCS Soil SRM
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	10600 mg/kg	Antimony	126 mg/kg
Arsenic	225 mg/kg	Barium	565 mg/kg
Beryllium	162 mg/kg	Boron	107 mg/kg
Cadmium	69.1 mg/kg	Calcium	10000 mg/kg
Chromium	124 mg/kg	Cobalt	115 mg/kg
Copper	66.7 mg/kg	Iron	17600 mg/kg
Lead	223 mg/kg	Magnesium	4260 mg/kg
Manganese	368 mg/kg	Mercury	5.15 mg/kg
Molybdenum	107 mg/kg	Nickel	172 mg/kg
Potassium	4090 mg/kg	Selenium	147 mg/kg
Silver	35.2 mg/kg	Sodium	538 mg/kg
Strontium	117 mg/kg	Thallium	173 mg/kg
Tin	164 mg/kg	Titanium	381 mg/kg
Vanadium	93.9 mg/kg	Zinc	349 mg/kg

Standard Logbook

Serial ID: UI062540-I **Opened:** 12-JUN-09 **Amount :** 80 g
Name: ICP SOIL SRM **Received:** 12-JUN-09 **Lot Number :** D062-540
Type: Source Material **Expires:** 31-JAN-12
Employee: Bryan Davis
Supplier: ERA
Description: Metals Soil LCS SRM ICP/Hg
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	10500 mg/kg	Antimony	173 mg/kg
Arsenic	104 mg/kg	Barium	198 mg/kg
Beryllium	77.6 mg/kg	Boron	141 mg/kg
Cadmium	60.7 mg/kg	Calcium	9870 mg/kg
Chromium	236 mg/kg	Cobalt	91.2 mg/kg
Copper	174 mg/kg	Iron	18000 mg/kg
Lead	86 mg/kg	Magnesium	4000 mg/kg
Manganese	558 mg/kg	Mercury	8.46 mg/kg
Molybdenum	48.6 mg/kg	Nickel	134 mg/kg
Phosphorous	736 mg/kg	Potassium	4300 mg/kg
Selenium	286 mg/kg	Silica	2591 mg/kg
Silicon	1211 mg/kg	Silver	30.1 mg/kg
Sodium	1020 mg/kg	Strontium	227 mg/kg
Sulfur	385 mg/kg	Thallium	121 mg/kg
Tin	104 mg/kg	Titanium	462 mg/kg
Vanadium	115 mg/kg	Zinc	594 mg/kg

Serial ID: UI062540-MS **Opened:** 12-JUN-09 **Lot Number :** D062-540
Name: ICPMS SOIL SRM **Received:** 12-JUN-09
Type: Source Material **Expires:** 31-JAN-12
Employee: Bryan Davis
Supplier: ERA
Description: Metals Soil LCS SRM ICPMS
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	10500 mg/kg	Antimony	67.4 mg/kg
Arsenic	104 mg/kg	Barium	198 mg/kg
Beryllium	77.6 mg/kg	Boron	141 mg/kg
Cadmium	60.6 mg/kg	Calcium	9870 mg/kg
Chromium	236 mg/kg	Cobalt	91.2 mg/kg
Copper	174 mg/kg	Iron	18000 mg/kg
Lead	86 mg/kg	Lithium	10.6 mg/kg
Magnesium	4000 mg/kg	Manganese	558 mg/kg
Mercury	8.46 mg/kg	Molybdenum	48.6 mg/kg
Nickel	134 mg/kg	Phosphorous	755 mg/kg
Potassium	4300 mg/kg	Selenium	286 mg/kg
Silver	30.1 mg/kg	Sodium	1020 mg/kg

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Strontium	227 mg/kg	Thallium	121 mg/kg
Thorium	9.84 mg/kg	Tin	104 mg/kg
Titanium	462 mg/kg	Uranium	2.13 mg/kg
Uranium-235	.0153 mg/kg	Uranium-238	2.11 mg/kg
Vanadium	92.4 mg/kg	Zinc	594 mg/kg
Zirconium	10.6 mg/kg		

Serial ID: UI090422-40 **Opened:** 04-MAY-09 **Amount :** 500 mL
Name: TRACE ICP ICSA SOLN A **Received:** 22-APR-09 **Catalog Number :** 160005-01-03
Type: Source Material **Expires:** 04-MAY-10 **Lot Number :** 1013357
Employee: Helen Camello **Solvent :** 5%HNO3
Supplier: o2si
Description: TRACE ICP ICSA SOLN A mg/L+/-0.5%IN5%HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	5000 mg/L	Calcium	5000 mg/L
Iron	2000 mg/L	Magnesium	5000 mg/L

Serial ID: UI090610-03 **Opened:** 10-JUN-09 **Catalog Number :** 060074-06-01
Name: ICPMS Tungsten - 10mg/L S **Received:** 10-JUN-09 **Lot Number :** 1016338
Type: Source Material **Expires:** 10-JUN-10 **Solvent :** 2% HNO3
Employee: Paul Boyd
Supplier: O2SI
Description: ICPMS Tungsten standard SPIKE - 10mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Tungsten	10 mg/L		

Serial ID: UI090701-09 **Opened:** 01-JUL-09 **Amount :** 250 mL
Name: ICP-MS CRDL Master #1 **Received:** 01-JUL-09 **Catalog Number :** 160044-09-02
Type: Source Material **Expires:** 01-JUL-10 **Lot Number :** 1016477
Employee: Paul Boyd **Solvent :** +/- 0.5% IN 2% HNO3
Supplier: O2SI
Description: ICPMS CRDL Master Soln #1
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	15 mg/L	Arsenic	5 mg/L
Barium	2 mg/L	Beryllium	.5 mg/L
Boron	15 mg/L	Cadmium	1 mg/L
Calcium	100 mg/L	Chromium	3 mg/L
Cobalt	1 mg/L	Copper	1 mg/L

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Iron	25 mg/L	Lead	2 mg/L
Lithium	10 mg/L	Magnesium	15 mg/L
Manganese	5 mg/L	Nickel	2 mg/L
Phosphorous	50 mg/L	Potassium	300 mg/L
Selenium	5 mg/L	Sodium	250 mg/L
Strontium	10 mg/L	Thallium	1 mg/L
Thorium	1 mg/L	Uranium	.2 mg/L
Vanadium	10 mg/L	Zinc	10 mg/L

Serial ID: UI090701-10 **Opened:** 01-JUL-09 **Amount :** 250 mL
Name: ICP-MS CRDL Master #2 **Received:** 01-JUL-09 **Catalog Number :** 160044-08-02
Type: Source Material **Expires:** 01-JUL-10 **Lot Number :** 1016476
Employee: Paul Boyd **Solvent :** +/- 0.5% IN 2% HNO3
Supplier: 02SI
Description: ICPMS CRDL Soln #2
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	2 mg/L	Molybdenum	.5 mg/L
Silver	1 mg/L	Tin	2 mg/L
Titanium	10 mg/L	Tungsten	5 mg/L
Zirconium	2 mg/L		

Serial ID: UI090701-40 **Opened:** 01-JUL-09 **Amount :** 500 mL
Name: TRACE ICP Stock PQL St **Received:** 30-JUN-09 **Catalog Number :** 160543-01-03
Type: Source Material **Expires:** 01-JUL-10 **Lot Number :** 1016475
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3+TrHF
Supplier: 02si
Description: TRACE ICP Stock PQL Standard
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	100 mg/L	Antimony	5 mg/L
Arsenic	15 mg/L	Barium	2.5 mg/L
Beryllium	2.5 mg/L	Boron	25 mg/L
Cadmium	2.5 mg/L	Calcium	100 mg/L
Chromium	2.5 mg/L	Cobalt	2.5 mg/L
Copper	5 mg/L	Iron	50 mg/L
Lead	5 mg/L	Magnesium	150 mg/L
Manganese	5 mg/L	Molybdenum	5 mg/L
Nickel	2.5 mg/L	Phosphorous	75 mg/L
Potassium	75 mg/L	Selenium	15 mg/L
Silicon	50 mg/L	Silver	2.5 mg/L
Sodium	150 mg/L	Strontium	2.5 mg/L
Sulfur	50 mg/L	Thallium	10 mg/L

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Tin	5 mg/L	Titanium	2.5 mg/L
Uranium	25 mg/L	Vanadium	2.5 mg/L
Zinc	5 mg/L		

Serial ID: UI090828-42 **Opened:** 16-SEP-09 **Amount :** 500 mL
Name: TRACE ICP Na-1000SOUR **Received:** 27-AUG-09 **Catalog Number :** 060011-02-03
Type: Source Material **Expires:** 16-SEP-10 **Lot Number :** 1017098
Employee: Helen Camello **Solvent :** 1%HNO3
Supplier: 02SI
Description: Sodium 1000 +/- 3 ug/mL in 1% HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Sodium	1000 ug/mL		

Serial ID: UI090925-40 **Opened:** 23-OCT-09 **Amount :** 500 mL
Name: SECOND SOURCE STD -1 **Received:** 25-SEP-09 **Catalog Number :** SGELMX38-500N
Type: Source Material **Expires:** 30-SEP-10 **Lot Number :** 4909129
Employee: Helen Camello **Solvent :** 5%HNO3
Supplier: SPECTRO PURE
Description: SECOND SOURCE STD #1A 5%HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Arsenic	100 mg/L
Barium	100 mg/L	Boron	100 mg/L
Cadmium	100 mg/L	Calcium	1000 mg/L
Chromium	100 mg/L	Cobalt	100 mg/L
Copper	100 mg/L	Iron	1000 mg/L
Lead	100 mg/L	Phosphorous	500 mg/L
Potassium	500 mg/L	Selenium	500 mg/L
Sodium	500 mg/L	Strontium	100 mg/L

Serial ID: UI090925-41 **Opened:** 23-OCT-09 **Amount :** 500 mL
Name: SECOND SOURCE STD -1 **Received:** 25-SEP-09 **Catalog Number :** SGELMX39-500B
Type: Source Material **Expires:** 30-SEP-10 **Lot Number :** 4909130
Employee: Helen Camello **Solvent :** 5%HNO3,TR.HF
Supplier: SPECTRO PURE
Description: SECOND SOURCE STD #1B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	100 mg/L	Beryllium	50 mg/L
Magnesium	1000 mg/L	Manganese	100 mg/L

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Molybdenum	100 mg/L	Nickel	100 mg/L
Silver	50 mg/L	Sulfur	500 mg/L
Thallium	100 mg/L	Tin	100 mg/L
Titanium	100 mg/L	Uranium	100 mg/L
Vanadium	100 mg/L	Zinc	100 mg/L

Serial ID: UI091015-42 **Opened:** 28-OCT-09 **Amount :** 500 mL
Name: SI 1000mg/L **Received:** 15-OCT-09 **Catalog Number :** 060014-02-03
Type: Source Material **Expires:** 28-OCT-10 **Lot Number :** 1017581
Employee: Helen Camello **Solvent :** 0.3%H2O(NH4)2SiF6
Supplier: o2si
Description: Silicon 1000mg/L+/-0.3%in H2O(NH4)2SiF6
Comments: None

Analyte	Concentration	Analyte	Concentration
Silica	2139 mg/L	Silicon	1000 mg/L

Serial ID: UI091015-A **Opened:** 15-OCT-09 **Catalog Number :** 160067-03
Name: ICP-MS DOE SOIL SPIKE **Received:** 15-OCT-09 **Lot Number :** 1017142
Type: Source Material **Expires:** 15-OCT-10
Employee: Francena Armstrong
Supplier: 02si
Description: ICP-MS Spike for soil products.
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	200 mg/L	Arsenic	8 mg/L
Barium	5 mg/L	Beryllium	5 mg/L
Boron	10 mg/L	Cadmium	1 mg/L
Calcium	200 mg/L	Chromium	5 mg/L
Cobalt	5 mg/L	Copper	5 mg/L
Iron	200 mg/L	Lead	20 mg/L
Lithium	5 mg/L	Magnesium	200 mg/L
Manganese	5 mg/L	Nickel	5 mg/L
Phosphorus, Total as P	200 mg/L	Potassium	200 mg/L
Selenium	2 mg/L	Sodium	200 mg/L
Strontium	5 mg/L	Thallium	10 mg/L
Thorium	5 mg/L	Uranium	5 mg/L
Uranium-235	.036 mg/L	Uranium-238	4.964 mg/L
Vanadium	5 mg/L	Zinc	5 mg/L

Standard Logbook

Serial ID: UI091015-B **Opened:** 15-OCT-09 **Catalog Number :** 160067-03
Name: ICP-MS DOE SOIL SPIKE **Received:** 15-OCT-09 **Lot Number :** 1017142
Type: Source Material **Expires:** 15-OCT-10
Employee: Francena Armstrong
Supplier: 02si
Description: ICP-MS Spike for Soil Products
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	20 mg/L	Molybdenum	5 mg/L
Silicon	200 mg/L	Silver	5 mg/L
Tin	5 mg/L	Zirconium	5 mg/L

Serial ID: UI091102-40 **Opened:** 16-NOV-09 **Amount :** 500 mL
Name: TRACE CALSTD#1A SOUF **Received:** 02-NOV-09 **Catalog Number :** HP2270-1-500
Type: Source Material **Expires:** 31-OCT-10 **Lot Number :** 0930215
Employee: Helen Camello **Solvent :** HNO3
Supplier: Environmental Express
Description: Trace Calibration Std #1A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	2000 mg/L	Arsenic	200 mg/L
Barium	200 mg/L	Beryllium	200 mg/L
Boron	200 mg/L	Cadmium	200 mg/L
Calcium	2000 mg/L	Chromium	200 mg/L
Cobalt	200 mg/L	Copper	200 mg/L
Iron	2000 mg/L	Lead	200 mg/L
Magnesium	2000 mg/L	Manganese	200 mg/L
Nickel	200 mg/L	Phosphorous	1000 mg/L
Potassium	2000 mg/L	Selenium	200 mg/L
Sodium	2000 mg/L	Strontium	200 mg/L
Thallium	200 mg/L	Uranium	200 mg/L
Vanadium	200 mg/L	Zinc	200 mg/L

Serial ID: UI091102-41 **Opened:** 16-NOV-09 **Amount :** 500 mL
Name: TRACE CALSTD#1B SOUF **Received:** 02-NOV-09 **Catalog Number :** HP2270-2-500
Type: Source Material **Expires:** 31-OCT-10 **Lot Number :** 0930216
Employee: Helen Camello **Solvent :** HNO3
Supplier: Environmental Express
Description: Trace Calibration Standard #1B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	200 mg/L	Molybdenum	200 mg/L
Silver	200 mg/L	Sulfur	400 mg/L

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Tin	200 mg/L	Titanium	200 mg/L

Serial ID: UI091102-42 **Opened:** 17-NOV-09 **Amount :** 200 mL
Name: SILICON **Received:** 02-NOV-09 **Catalog Number :** HP100050-4F
Type: Source Material **Expires:** 17-NOV-10 **Lot Number :** 0921924
Employee: Helen Camello **Solvent :** H20/tr HF
Supplier: ENVIRNMENTAL EXPRESS
Description: SILICON 1000mg/L H20/tr HF
Comments: None

Analyte	Concentration	Analyte	Concentration
Silica	2139 mg/L	Silicon	1000 mg/L

Serial ID: UI091130-48 **Opened:** 11-DEC-09 **Amount :** 1000 mL
Name: Trace ICP ICSA **Received:** 01-DEC-09 **Catalog Number :** 160005-02
Type: Source Material **Expires:** 01-JAN-10 **Lot Number :** 1018045
Employee: Helen Camello **Solvent :** 3% HCl + 1% HNO3
Supplier: o2si
Description: Trace ICP Interferent Check Standard A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 UG/L	Calcium	500000 UG/L
Iron	200000 UG/L	Magnesium	500000 UG/L

Serial ID: UI091212-11 **Opened:** 12-DEC-09 **Amount :** 1000 mL
Name: ICP-MS ICSA Master A **Received:** 12-DEC-09 **Catalog Number :** 160013-01-01L
Type: Source Material **Expires:** 12-DEC-10 **Lot Number :** 1015303
Employee: Paul Boyd **Solvent :** 2% HNO3
Supplier: 02SI
Description: ICP-MS ICSA Master A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Calcium	1000 mg/L
Carbon	2000 mg/L	Chloride	10000 mg/L
Iron	1000 mg/L	Magnesium	1000 mg/L
Molybdenum	20 mg/L	Phosphorous	1000 mg/L
Potassium	1000 mg/L	Sodium	1000 mg/L
Sulfur	1000 mg/L	Titanium	20 mg/L

Standard Logbook

Serial ID: UI091215-48 **Opened:** 04-JAN-10 **Amount :** 1000 mL
Name: Trace ICP ICSA **Received:** 18-DEC-09 **Catalog Number :** 160005-02
Type: Source Material **Expires:** 04-JAN-11 **Lot Number :** 1018219
Employee: Helen Camello **Solvent :** 3% HCl + 1% HNO3
Supplier: o2si
Description: Trace ICP Interferent Check Standard A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 UG/L	Calcium	500000 UG/L
Iron	200000 UG/L	Magnesium	500000 UG/L

Serial ID: UI091215-49.13 **Opened:** 11-JAN-10 **Amount :** 100 ml
Name: Trace ICP ICSAB **Received:** 18-DEC-09 **Catalog Number :** 160066-04
Type: Source Material **Expires:** 12-JAN-10 **Lot Number :** 1018220
Employee: Helen Camello **Solvent :** 3% HCl + 1% HNO3
Supplier: o2si
Description: Trace ICP Inteferent Check Standard AB
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 ug/L	Antimony	500 ug/L
Arsenic	500 ug/L	Barium	500 ug/L
Beryllium	250 ug/L	Boron	500 ug/L
Cadmium	500 ug/L	Calcium	500000 ug/L
Chromium	500 ug/L	Cobalt	500 ug/L
Copper	500 ug/L	Iron	200000 ug/L
Lead	500 ug/L	Magnesium	500000 ug/L
Manganese	500 ug/L	Molybdenum	500 ug/L
Nickel	500 ug/L	Phosphorous	2500 ug/L
Potassium	5000 ug/L	Selenium	2500 ug/L
Silica	10696.5 ug/L	Silicon	5000 ug/L
Silver	250 ug/L	Sodium	5000 ug/L
Strontium	500 ug/L	Sulfur	2500 ug/L
Thallium	500 ug/L	Tin	500 ug/L
Titanium	500 ug/L	Uranium	500 ug/L
Vanadium	500 ug/L	Zinc	500 ug/L

Serial ID: UI091216-01 **Opened:** 16-DEC-09 **Lot Number :** 1018095
Name: METALSPIKE-1 **Received:** 16-DEC-09
Type: Source Material **Expires:** 16-DEC-10
Employee: Francena Armstrong
Supplier: OS2I
Description: Metals Spike Mix I
Comments: None

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 ug/mL	Arsenic	100 ug/mL
Barium	100 ug/mL	Beryllium	100 ug/mL
Boron	100 ug/mL	Cadmium	100 ug/mL
Calcium	1000 ug/mL	Cobalt	100 ug/mL
Iron	1000 ug/mL	Lead	100 ug/mL
Magnesium	1000 ug/mL	Phosphorous	100 ug/mL
Potassium	1000 ug/mL	Silver	100 ug/mL
Sodium	1000 ug/mL	Strontium	100 ug/mL

Serial ID: UI091216-06 **Opened:** 16-DEC-09 **Lot Number :** 1018096
Name: METALSPIKE-2 **Received:** 16-DEC-09
Type: Source Material **Expires:** 16-DEC-10
Employee: Francena Armstrong
Supplier: OS2I
Description: Metals Spike Mix II
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	100 ug/mL	Chromium	100 ug/mL
Copper	100 ug/mL	Manganese	100 ug/mL
Molybdenum	100 ug/mL	Nickel	100 ug/mL
Selenium	100 ug/mL	Silica	2141 ug/mL
Silicon	1000 ug/mL	Sulfur	1000 ug/mL
Thallium	100 ug/mL	Tin	100 ug/mL
Titanium	100 ug/mL	Uranium	100 ug/mL
Vanadium	100 ug/mL	Zinc	100 ug/mL

Serial ID: UI091217-06 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master A **Received:** 17-DEC-09 **Catalog Number :** 160055-01
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018209
Employee: Paul Boyd **Solvent :** +/- 0.5% in 5% HNO3 100 cm2
Supplier: 02SI
Description: ICPMS ICV/CCV SOLN A - 10ppm
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	2020 mg/L	Calcium	2000 mg/L
Iron	2000 mg/L	Magnesium	2000 mg/L
Phosphorous	2000 mg/L	Potassium	2000 mg/L
Sodium	2000 mg/L		

Standard Logbook

Serial ID: UI091217-07 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master B **Received:** 17-DEC-09 **Catalog Number :** 160054-02
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018210
Employee: Paul Boyd **Solvent :** +/- 0.5% in 5% HNO3 100 cm2
Supplier: 02SI
Description: ICPMS ICV/CCV Soln B - 10ppm
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	20 mg/L	Barium	20 mg/L
Beryllium	20 mg/L	Boron	40 mg/L
Cadmium	20 mg/L	Chromium	20 mg/L
Cobalt	20 mg/L	Copper	20 mg/L
Lead	20 mg/L	Lithium	20 mg/L
Manganese	20 mg/L	Nickel	20 mg/L
Selenium	20 mg/L	Strontium	20 mg/L
Thallium	20 mg/L	Thorium	20 mg/L
Uranium	20 mg/L	Vanadium	20 mg/L
Zinc	20 mg/L		

Serial ID: UI091217-08 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master C **Received:** 17-DEC-09 **Catalog Number :** 160054-03
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018211
Employee: Paul Boyd **Solvent :** +/- 0.5% in 5% HNO3 100 cm2
Supplier: 02SI
Description: ICPMS ICV/CCV Soln C - 10ppm
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	20 mg/L	Molybdenum	20 mg/L
Silver	20 mg/L	Tin	20 mg/L
Titanium	20 mg/L	Tungsten	20 mg/L
Zirconium	20 mg/L		

Serial ID: UI091217-12 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICSAB Master B **Received:** 17-DEC-09 **Catalog Number :** 160033-02
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018212
Employee: Paul Boyd **Solvent :** +/- 0.5% in 2% HNO3
Supplier: 02SI
Description: ICPMS ICSAB Master B
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	2 mg/L	Barium	2 mg/L
Beryllium	2 mg/L	Boron	2 mg/L
Cadmium	2 mg/L	Chromium	2 mg/L

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Cobalt	2 mg/L	Copper	2 mg/L
Lead	2 mg/L	Lithium	2 mg/L
Manganese	2 mg/L	Nickel	2 mg/L
Selenium	2 mg/L	Strontium	2 mg/L
Thallium	2 mg/L	Thorium	2 mg/L
Uranium	2 mg/L	Vanadium	2 mg/L
Zinc	2 mg/L		

Serial ID: UI091217-13 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICSAB Master C **Received:** 17-DEC-09 **Catalog Number :** 160033-03
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1016926
Employee: Paul Boyd **Solvent :** +/- 0.5% in 2% HNO3
Supplier: 02SI
Description: ICPMS ICSAB Master C
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	2 mg/L	Silver	2 mg/L
Tin	2 mg/L	Tungsten	2 mg/L
Zirconium	2 mg/L		

Serial ID: UI091228-40 **Opened:** 28-DEC-09 **Amount :** 500 mL
Name: ICP HIGH RANGE STD-A **Received:** 21-DEC-09 **Catalog Number :** 160211-05-03
Type: Source Material **Expires:** 28-DEC-10 **Lot Number :** 1018160
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3
Supplier: 02SI
Description: ICP HIGH RANGE STD SOLUTION A
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	10000 ug/L	Arsenic	10000 ug/L
Barium	15000 ug/L	Beryllium	3000 ug/L
Boron	5000 ug/L	Cadmium	10000 ug/L
Chromium	25000 ug/L	Cobalt	10000 ug/L
Copper	20000 ug/L	Lead	25000 ug/L
Manganese	10000 ug/L	Molybdenum	10000 ug/L
Nickel	10000 ug/L	Phosphorous	15000 ug/L
Potassium	300000 ug/L	Selenium	10000 ug/L
Silica	107000 ug/L	Silicon	50000 ug/L
Silver	1000 ug/L	Strontium	10000 ug/L
Sulfur	50000 ug/L	Thallium	10000 ug/L
Tin	10000 ug/L	Titanium	10000 ug/L
Vanadium	10000 ug/L	Zinc	15000 ug/L

Standard Logbook

Serial ID: UI091228-41 **Opened:** 28-DEC-09 **Amount :** 500 mL
Name: ICP HIGH RANGE STD B **Received:** 21-DEC-09 **Catalog Number :** 160211-05-03
Type: Source Material **Expires:** 28-DEC-10 **Lot Number :** 1018160
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3
Supplier: 02SI
Description: ICP HIGH RANGE STD SOLUTION B
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 ug/L	Calcium	500000 ug/L
Iron	500000 ug/L	Magnesium	500000 ug/L
Sodium	500000 ug/L	Uranium	15000 ug/L

Serial ID: UMS090303-01 **Opened:** 03-MAR-09 **Amount :** 250 mL
Name: ICPMSCalSPIKEB **Received:** 03-MAR-09 **Catalog Number :** ZGEL-100-250
Type: Source Material **Expires:** 28-FEB-10 **Lot Number :** 14-81JB
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution B
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	10 mg/L	Barium	10 mg/L
Beryllium	10 mg/L	Boron	20 mg/L
Cadmium	10 mg/L	Chromium	10 mg/L
Cobalt	10 mg/L	Copper	10 mg/L
Lead	10 mg/L	Lithium	10 mg/L
Manganese	10 mg/L	Nickel	10 mg/L
Selenium	10 mg/L	Silver	10 mg/L
Strontium	10 mg/L	Thallium	10 mg/L
Thorium	10 mg/L	Uranium	10 mg/L
Vanadium	10 mg/L	Zinc	10 mg/L

Serial ID: UMS090303-02 **Opened:** 03-MAR-09 **Catalog Number :** ZGEL-102-250
Name: ICPMSCalSPIKEA **Received:** 03-MAR-09 **Lot Number :** 14-83JB
Type: Source Material **Expires:** 28-FEB-10
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Calcium	1000 mg/L
Iron	1000 mg/L	Magnesium	1000 mg/L
Phosphorous	1000 mg/L	Potassium	1000 mg/L
Sodium	1000 mg/L		

Standard Logbook

Serial ID: UMS090303-03 **Opened:** 03-MAR-09 **Amount :** 250 ml
Name: ICPMSCalSPIKEC **Received:** 03-MAR-09 **Catalog Number :** ZGEL-101-250
Type: Source Material **Expires:** 28-FEB-10 **Lot Number :** 15-199JB
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution C
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	10 mg/L	Molybdenum	10 mg/L
Tin	10 mg/L	Titanium	10 mg/L
Zirconium	10 mg/L		

Serial ID: IHG100104-01 **Opened:** 04-JAN-10 **Instrument Id :** Mercury
Name: MHGINTER1 **Received:** 04-JAN-10 **Pipet Id :** Minou1
Type: Intermediate **Expires:** 05-JAN-10 **Solvent :** 1mL HNO3 + Typel H2O
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Intermediate 1st Source 200 ug/L
Comments: Prepare fresh daily

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167639-01	Mercury	1000 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: IHG100104-02 **Opened:** 04-JAN-10 **Pipet Id :** Minou1
Name: MHGINTER2 **Received:** 04-JAN-10 **Solvent :** 2% HNO3-1240182
Type: Intermediate **Expires:** 05-JAN-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Intermediate 2nd Source 200 ug/L
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167641-02	Mercury	999.7 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: WHG100104-07 **Opened:** 04-JAN-10 **Pipet Id :** Hg1289245
Name: MHGWORKCALS0.2CRA **Received:** 04-JAN-10 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 09-JAN-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working Standard 1st Source CAL S 0.2/CRA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100104-01	Mercury	200 ug/L	30 uL	30 mL	.2 ug/L

Standard Logbook

Serial ID: WHG100104-08 **Opened:** 04-JAN-10 **Pipet Id :** Hg1289245
Name: MHGWORKCALS0.5 **Received:** 04-JAN-10 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 09-JAN-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working Standard 1st Source CAL S 0.5
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100104-01	Mercury	200 ug/L	75 uL	30 mL	.5 ug/L

Serial ID: WHG100104-09 **Opened:** 04-JAN-10 **Pipet Id :** Hg1289245
Name: MHGWORKCALS2.0 **Received:** 04-JAN-10 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 09-JAN-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL S 2.0
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100104-01	Mercury	200 ug/L	300 uL	30 mL	2 ug/L

Serial ID: WHG100104-10 **Opened:** 04-JAN-10 **Pipet Id :** Hg1289245
Name: MHGWORKCALS5.0CCV **Received:** 04-JAN-10 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 09-JAN-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL S 5.0/CCV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100104-01	Mercury	200 ug/L	750 uL	30 mL	5 ug/L

Serial ID: WHG100104-11 **Opened:** 04-JAN-10 **Pipet Id :** Hg1289245
Name: MHGWORKCALS10.0 **Received:** 04-JAN-10 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 09-JAN-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working 1st Source CAL S 10.0
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100104-01	Mercury	200 ug/L	1.5 mL	30 mL	10 ug/L

Standard Logbook

Serial ID: WHG100104-12 **Opened:** 04-JAN-10 **Pipet Id :** Hg1289245
Name: MHGWORKS5.0ICV **Received:** 04-JAN-10 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 09-JAN-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 2nd Source S 5.0/ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100104-02	Mercury	200 ug/L	750 uL	30 mL	5 ug/L

Serial ID: WHG100104-14 **Opened:** 04-JAN-10 **Pipet Id :** Hg1289245
Name: MHGSOILMSSPIKE **Received:** 04-JAN-10 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 09-JAN-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury soil working intermediate standard for MS
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167639-01	Mercury	1000 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: WI091229-42 **Opened:** 29-DEC-09 **Balance Id :** 216
Name: TRACE ICP 0.1 PPM STD. **Received:** 02-NOV-09 **Pipet Id :** 1099667
Type: Working **Expires:** 30-DEC-09 **Solvent :** 3%HCL and 1%HNO3 -1247358
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP 0.1 PPM CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WI091229-44	Aluminum	10000 ug/L	10 mL	100 mL	1000 ug/L
WI091229-44	Antimony	1000 ug/L	10 mL	100 mL	100 ug/L
WI091229-44	Arsenic	1000 ug/L	10 mL	100 mL	100 ug/L
WI091229-44	Barium	1000 ug/L	10 mL	100 mL	100 ug/L
WI091229-44	Beryllium	1000 ug/L	10 mL	100 mL	100 ug/L
WI091229-44	Boron	1000 ug/L	10 mL	100 mL	100 ug/L
WI091229-44	Cadmium	1000 ug/L	10 mL	100 mL	100 ug/L
WI091229-44	Calcium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI091229-44	Chromium	1000 ug/L	10 mL	100 mL	100 ug/L
WI091229-44	Cobalt	1000 ug/L	10 mL	100 mL	100 ug/L
WI091229-44	Copper	1000 ug/L	10 mL	100 mL	100 ug/L
WI091229-44	Iron	10000 ug/L	10 mL	100 mL	1000 ug/L
WI091229-44	Lead	1000 ug/L	10 mL	100 mL	100 ug/L
WI091229-44	Magnesium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI091229-44	Manganese	1000 ug/L	10 mL	100 mL	100 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WI091229-44	Molybdenum	1000 ug/L	10 mL	100 mL	100 ug/L
WI091229-44	Nickel	1000 ug/L	10 mL	100 mL	100 ug/L
WI091229-44	Phosphorous	5000 ug/L	10 mL	100 mL	500 ug/L
WI091229-44	Potassium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI091229-44	Selenium	1000 ug/L	10 mL	100 mL	100 ug/L
WI091229-44	Silica	10698 ug/L	10 mL	100 mL	1069 ug/L
WI091229-44	Silicon	5000 ug/L	10 mL	100 mL	500 ug/L
WI091229-44	Silver	1000 ug/L	10 mL	100 mL	100 ug/L
WI091229-44	Sodium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI091229-44	Strontium	1000 ug/L	10 mL	100 mL	100 ug/L
WI091229-44	Sulfur	2000 ug/L	10 mL	100 mL	200 ug/L
WI091229-44	Thallium	1000 ug/L	10 mL	100 mL	100 ug/L
WI091229-44	Tin	1000 ug/L	10 mL	100 mL	100 ug/L
WI091229-44	Titanium	1000 ug/L	10 mL	100 mL	100 ug/L
WI091229-44	Uranium	1000 ug/L	10 mL	100 mL	100 ug/L
WI091229-44	Vanadium	1000 ug/L	10 mL	100 mL	100 ug/L
WI091229-44	Zinc	1000 ug/L	10 mL	100 mL	100 ug/L

Serial ID: WI091229-43 **Opened:** 29-DEC-09 **Balance Id :** 216
Name: TRACE ICP 0.5/CCV STD. **Received:** 02-NOV-09 **Pipet Id :** 1099667
Type: Working **Expires:** 30-DEC-09 **Solvent :** 3%HCL and 1%HNO3 -1247358
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP 0.5/CCV CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090828-42	Sodium	1000 ug/mL	5 mL	1000 mL	5000 UG/L
UI091015-42	Silica	2139 mg/L	2.5 mL	1000 mL	5348.25 UG/L
UI091015-42	Silicon	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI091102-40	Aluminum	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Arsenic	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Barium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Beryllium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Boron	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Cadmium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Calcium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Chromium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Cobalt	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Copper	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Iron	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Lead	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Magnesium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Manganese	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Nickel	200 mg/L	2.5 mL	1000 mL	500 UG/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091102-40	Phosphorous	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI091102-40	Potassium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Selenium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Sodium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Strontium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Thallium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Uranium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Vanadium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Zinc	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Antimony	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Molybdenum	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Silver	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Sulfur	400 mg/L	2.5 mL	1000 mL	1000 UG/L
UI091102-41	Tin	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Titanium	200 mg/L	2.5 mL	1000 mL	500 UG/L

Serial ID: WI091229-44 **Opened:** 29-DEC-09 **Balance Id :** 216
Name: TRACE ICP SCAL 1.0 **Received:** 02-NOV-09 **Pipet Id :** 1099667
Type: Working **Expires:** 30-DEC-09 **Solvent :** 3%HCL and 1 %HNO3-1247358
Employee: Helen Camello
Supplier: o2si
Description: Trace ICP Calibration Standard 1.0ppm
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091015-42	Silica	2139 mg/L	2.5 mL	500 mL	10698 ug/L
UI091015-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI091102-40	Aluminum	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Arsenic	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Barium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Beryllium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Boron	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Cadmium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Calcium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Chromium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Cobalt	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Copper	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Iron	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Lead	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Magnesium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Manganese	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Nickel	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Phosphorous	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI091102-40	Potassium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Selenium	200 mg/L	2.5 mL	500 mL	1000 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091102-40	Sodium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Strontium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Thallium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Uranium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Vanadium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Zinc	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Antimony	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Molybdenum	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Silver	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Sulfur	400 mg/L	2.5 mL	500 mL	2000 ug/L
UI091102-41	Tin	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Titanium	200 mg/L	2.5 mL	500 mL	1000 ug/L

Serial ID: WI091229-45 **Opened:** 29-DEC-09 **Balance Id :** 216
Name: TRACE ICP S-10 STD **Received:** 22-APR-09 **Pipet Id :** 1099667
Type: Working **Expires:** 30-DEC-09 **Solvent :** 3%HCL and 1%HNO3 -1247358
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP S-10 CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090422-40	Aluminum	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Calcium	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Iron	2000 mg/L	5 mL	500 mL	20000 UG/L
UI090422-40	Magnesium	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090828-42	Sodium	1000 ug/mL	10 mL	500 mL	20000 UG/L

Serial ID: WI091229-46 **Opened:** 29-DEC-09 **Balance Id :** 216
Name: ICP TRACE ICV **Received:** 25-SEP-09 **Pipet Id :** 1099667
Type: Working **Expires:** 30-DEC-09 **Solvent :** 3%HCL AND 1%HNO3-1247358
Employee: Helen Camello
Supplier: GEL
Description: Initial Calibration Verification ICP Trace Metals
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090925-40	Aluminum	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Arsenic	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Barium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Boron	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cadmium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Calcium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Chromium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cobalt	100 mg/L	2.5 mL	500 mL	500 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090925-40	Copper	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Iron	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Lead	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Phosphorous	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Potassium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Selenium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Sodium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Strontium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Antimony	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Beryllium	50 mg/L	2.5 mL	500 mL	250 ug/L
UI090925-41	Magnesium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-41	Manganese	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Molybdenum	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Nickel	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Silver	50 mg/L	2.5 mL	500 mL	250 ug/L
UI090925-41	Sulfur	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-41	Thallium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Tin	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Titanium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Uranium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Vanadium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Zinc	100 mg/L	2.5 mL	500 mL	500 ug/L
UI091102-42	Silica	2139 mg/L	2.5 mL	500 mL	10695 ug/L
UI091102-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L

Serial ID: WI091229-47 **Opened:** 29-DEC-09 **Balance Id :** 216
Name: PQL Working Standard **Received:** 30-JUN-09 **Pipet Id :** 1099667
Type: Working **Expires:** 30-DEC-09 **Solvent :** 3%HCL &1%HNO3-1247358
Employee: Helen Camello
Supplier: 02si
Description: PQL Working Standard
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-40	Aluminum	100 mg/L	2 mL	1000 mL	200 ug/L
UI090701-40	Antimony	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Arsenic	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Barium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Beryllium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Boron	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Cadmium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Calcium	100 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Chromium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Cobalt	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Copper	5 mg/L	2 mL	1000 mL	10 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-40	Iron	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Lead	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Magnesium	150 mg/L	2 mL	1000 mL	300 ug/L
UI090701-40	Manganese	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Molybdenum	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Nickel	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Phosphorous	75 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Potassium	75 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Selenium	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Silicon	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Silver	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sodium	150 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Strontium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sulfur	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Thallium	10 mg/L	2 mL	1000 mL	20 ug/L
UI090701-40	Tin	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Titanium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Uranium	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Vanadium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Zinc	5 mg/L	2 mL	1000 mL	10 ug/L

Serial ID: WI100111-42 **Opened:** 11-JAN-10 **Balance Id :** 216
Name: TRACE ICP 0.1 PPM STD. **Received:** 02-NOV-09 **Pipet Id :** 1099667
Type: Working **Expires:** 12-JAN-10 **Solvent :** 3%HCL and 1%HNO3 -1253514
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP 0.1 PPM CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WI100111-44	Aluminum	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100111-44	Antimony	1000 ug/L	10 mL	100 mL	100 ug/L
WI100111-44	Arsenic	1000 ug/L	10 mL	100 mL	100 ug/L
WI100111-44	Barium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100111-44	Beryllium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100111-44	Boron	1000 ug/L	10 mL	100 mL	100 ug/L
WI100111-44	Cadmium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100111-44	Calcium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100111-44	Chromium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100111-44	Cobalt	1000 ug/L	10 mL	100 mL	100 ug/L
WI100111-44	Copper	1000 ug/L	10 mL	100 mL	100 ug/L
WI100111-44	Iron	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100111-44	Lead	1000 ug/L	10 mL	100 mL	100 ug/L
WI100111-44	Magnesium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100111-44	Manganese	1000 ug/L	10 mL	100 mL	100 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WI100111-44	Molybdenum	1000 ug/L	10 mL	100 mL	100 ug/L
WI100111-44	Nickel	1000 ug/L	10 mL	100 mL	100 ug/L
WI100111-44	Phosphorous	5000 ug/L	10 mL	100 mL	500 ug/L
WI100111-44	Potassium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100111-44	Selenium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100111-44	Silica	10698 ug/L	10 mL	100 mL	1069 ug/L
WI100111-44	Silicon	5000 ug/L	10 mL	100 mL	500 ug/L
WI100111-44	Silver	1000 ug/L	10 mL	100 mL	100 ug/L
WI100111-44	Sodium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100111-44	Strontium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100111-44	Sulfur	2000 ug/L	10 mL	100 mL	200 ug/L
WI100111-44	Thallium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100111-44	Tin	1000 ug/L	10 mL	100 mL	100 ug/L
WI100111-44	Titanium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100111-44	Uranium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100111-44	Vanadium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100111-44	Zinc	1000 ug/L	10 mL	100 mL	100 ug/L

Serial ID: WI100111-43 **Opened:** 11-JAN-10 **Balance Id :** 216
Name: TRACE ICP 0.5/CCV STD. **Received:** 02-NOV-09 **Pipet Id :** 1099667
Type: Working **Expires:** 12-JAN-10 **Solvent :** 3%HCL and 1%HNO3 -1253514
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP 0.5/CCV CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090828-42	Sodium	1000 ug/mL	5 mL	1000 mL	5000 UG/L
UI091015-42	Silica	2139 mg/L	2.5 mL	1000 mL	5348.25 UG/L
UI091015-42	Silicon	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI091102-40	Aluminum	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Arsenic	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Barium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Beryllium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Boron	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Cadmium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Calcium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Chromium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Cobalt	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Copper	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Iron	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Lead	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Magnesium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Manganese	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Nickel	200 mg/L	2.5 mL	1000 mL	500 UG/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091102-40	Phosphorous	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI091102-40	Potassium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Selenium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Sodium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Strontium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Thallium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Uranium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Vanadium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Zinc	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Antimony	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Molybdenum	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Silver	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Sulfur	400 mg/L	2.5 mL	1000 mL	1000 UG/L
UI091102-41	Tin	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Titanium	200 mg/L	2.5 mL	1000 mL	500 UG/L

Serial ID: WI100111-44 **Opened:** 11-JAN-10 **Balance Id :** 216
Name: TRACE ICP SCAL 1.0 **Received:** 02-NOV-09 **Pipet Id :** 1099667
Type: Working **Expires:** 12-JAN-10 **Solvent :** 3%HCL and 1 %HNO3-1253514
Employee: Helen Camello
Supplier: o2si
Description: Trace ICP Calibration Standard 1.0ppm
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091015-42	Silica	2139 mg/L	2.5 mL	500 mL	10698 ug/L
UI091015-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI091102-40	Aluminum	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Arsenic	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Barium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Beryllium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Boron	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Cadmium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Calcium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Chromium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Cobalt	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Copper	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Iron	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Lead	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Magnesium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Manganese	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Nickel	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Phosphorous	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI091102-40	Potassium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Selenium	200 mg/L	2.5 mL	500 mL	1000 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091102-40	Sodium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Strontium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Thallium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Uranium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Vanadium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Zinc	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Antimony	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Molybdenum	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Silver	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Sulfur	400 mg/L	2.5 mL	500 mL	2000 ug/L
UI091102-41	Tin	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Titanium	200 mg/L	2.5 mL	500 mL	1000 ug/L

Serial ID: WI100111-45 **Opened:** 11-JAN-10 **Balance Id :** 216
Name: TRACE ICP S-10 STD **Received:** 22-APR-09 **Pipet Id :** 1099667
Type: Working **Expires:** 12-JAN-10 **Solvent :** 3%HCL and 1%HNO3 -1253514
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP S-10 CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090422-40	Aluminum	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Calcium	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Iron	2000 mg/L	5 mL	500 mL	20000 UG/L
UI090422-40	Magnesium	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090828-42	Sodium	1000 ug/mL	10 mL	500 mL	20000 UG/L

Serial ID: WI100111-46 **Opened:** 11-JAN-10 **Balance Id :** 216
Name: ICP TRACE ICV **Received:** 25-SEP-09 **Pipet Id :** 1099667
Type: Working **Expires:** 12-JAN-10 **Solvent :** 3%HCL AND 1%HNO3-1253514
Employee: Helen Camello
Supplier: GEL
Description: Initial Calibration Verification ICP Trace Metals
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090925-40	Aluminum	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Arsenic	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Barium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Boron	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cadmium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Calcium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Chromium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cobalt	100 mg/L	2.5 mL	500 mL	500 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090925-40	Copper	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Iron	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Lead	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Phosphorous	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Potassium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Selenium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Sodium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Strontium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Antimony	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Beryllium	50 mg/L	2.5 mL	500 mL	250 ug/L
UI090925-41	Magnesium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-41	Manganese	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Molybdenum	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Nickel	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Silver	50 mg/L	2.5 mL	500 mL	250 ug/L
UI090925-41	Sulfur	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-41	Thallium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Tin	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Titanium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Uranium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Vanadium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Zinc	100 mg/L	2.5 mL	500 mL	500 ug/L
UI091102-42	Silica	2139 mg/L	2.5 mL	500 mL	10695 ug/L
UI091102-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L

Serial ID: WI100111-47 **Opened:** 11-JAN-10 **Balance Id :** 216
Name: PQL Working Standard **Received:** 30-JUN-09 **Pipet Id :** 1099667
Type: Working **Expires:** 12-JAN-10 **Solvent :** 3%HCL &1%HNO3-1253514
Employee: Helen Camello
Supplier: 02si
Description: PQL Working Standard
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-40	Aluminum	100 mg/L	2 mL	1000 mL	200 ug/L
UI090701-40	Antimony	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Arsenic	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Barium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Beryllium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Boron	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Cadmium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Calcium	100 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Chromium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Cobalt	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Copper	5 mg/L	2 mL	1000 mL	10 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-40	Iron	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Lead	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Magnesium	150 mg/L	2 mL	1000 mL	300 ug/L
UI090701-40	Manganese	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Molybdenum	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Nickel	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Phosphorous	75 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Potassium	75 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Selenium	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Silicon	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Silver	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sodium	150 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Strontium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sulfur	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Thallium	10 mg/L	2 mL	1000 mL	20 ug/L
UI090701-40	Tin	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Titanium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Uranium	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Vanadium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Zinc	5 mg/L	2 mL	1000 mL	10 ug/L

Serial ID: WMS100104-04AB **Opened:** 04-JAN-10 **Solvent :** 2%HNO3/1%HCl - 1238829
Name: ICPMS Cal Standard 10 **Received:** 04-JAN-10
Type: Working **Expires:** 05-JAN-10
Employee: Rose Jenkins
Supplier: GEL
Description: ICPMS Calibration Standard (10 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100104-04B	Aluminum	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100104-04B	Antimony	100 ug/l	5 mL	50 mL	10 ug/l
WMS100104-04B	Arsenic	100 ug/l	5 mL	50 mL	10 ug/l
WMS100104-04B	Barium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100104-04B	Beryllium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100104-04B	Boron	200 ug/l	5 mL	50 mL	20 ug/l
WMS100104-04B	Cadmium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100104-04B	Calcium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100104-04B	Chromium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100104-04B	Cobalt	100 ug/l	5 mL	50 mL	10 ug/l
WMS100104-04B	Copper	100 ug/l	5 mL	50 mL	10 ug/l
WMS100104-04B	Iron	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100104-04B	Lead	100 ug/l	5 mL	50 mL	10 ug/l
WMS100104-04B	Lithium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100104-04B	Magnesium	10000 ug/l	5 mL	50 mL	1000 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100104-04B	Manganese	100 ug/l	5 mL	50 mL	10 ug/l
WMS100104-04B	Molybdenum	100 ug/l	5 mL	50 mL	10 ug/l
WMS100104-04B	Nickel	100 ug/l	5 mL	50 mL	10 ug/l
WMS100104-04B	Phosphorous	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100104-04B	Potassium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100104-04B	Selenium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100104-04B	Silver	100 ug/l	5 mL	50 mL	10 ug/l
WMS100104-04B	Sodium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100104-04B	Strontium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100104-04B	Thallium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100104-04B	Thorium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100104-04B	Tin	100 ug/l	5 mL	50 mL	10 ug/l
WMS100104-04B	Titanium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100104-04B	Tungsten	100 ug/L	5 mL	50 mL	10 ug/L
WMS100104-04B	Uranium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100104-04B	Vanadium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100104-04B	Zinc	100 ug/l	5 mL	50 mL	10 ug/l
WMS100104-04B	Zirconium	100 ug/l	5 mL	50 mL	10 ug/l

Serial ID: WMS100104-04B **Opened:** 04-JAN-10 **Amount :** 50 mL
Name: ICPMS Cal Standard 100 **Received:** 04-JAN-10 **Solvent :** 2%HNO3/1%HCl- 1238829
Type: Working **Expires:** 05-JAN-10
Employee: Rose Jenkins
Supplier: GEL
Description: ICPMS Calibration Standard (100 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090610-03	Tungsten	10 mg/L	.5 mL	50 mL	100 ug/L
UMS090303-01	Arsenic	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Barium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Beryllium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Boron	20 mg/L	.5	50 mL	200 ug/l
UMS090303-01	Cadmium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Chromium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Cobalt	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Copper	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Lead	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Lithium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Manganese	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Nickel	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Selenium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Silver	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Strontium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Thallium	10 mg/L	.5	50 mL	100 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UMS090303-01	Thorium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Uranium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Vanadium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Zinc	10 mg/L	.5	50 mL	100 ug/l
UMS090303-02	Aluminum	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Calcium	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Iron	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Magnesium	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Phosphorous	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Potassium	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Sodium	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-03	Antimony	10 mg/L	.5	50 mL	100 ug/l
UMS090303-03	Molybdenum	10 mg/L	.5	50 mL	100 ug/l
UMS090303-03	Tin	10 mg/L	.5	50 mL	100 ug/l
UMS090303-03	Titanium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-03	Zirconium	10 mg/L	.5	50 mL	100 ug/l

Serial ID: WMS100104-05B **Opened:** 04-JAN-10 **Solvent :** 2%HNO3/1%HCl - 1238829
Name: ICPMS ICV **Received:** 04-JAN-10
Type: Working **Expires:** 05-JAN-10
Employee: Rose Jenkins
Supplier: GEL
Description: ICPMS ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-06	Aluminum	2020 mg/L	.125 mL	50 mL	5050 ug/L
UI091217-06	Calcium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Iron	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Magnesium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Phosphorous	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Potassium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Sodium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-07	Arsenic	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Barium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Beryllium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Boron	40 mg/L	.125 mL	50 mL	100 ug/L
UI091217-07	Cadmium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Chromium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Cobalt	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Copper	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lead	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lithium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Manganese	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Nickel	20 mg/L	.125 mL	50 mL	50 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-07	Selenium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Strontium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thallium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thorium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Uranium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Vanadium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Zinc	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Antimony	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Molybdenum	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Silver	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tin	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Titanium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tungsten	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Zirconium	20 mg/L	.125 mL	50 mL	50 ug/L

Serial ID: WMS100104-06B **Opened:** 04-JAN-10 **Solvent :** 2%HNO3/1%HCl - 1238829
Name: ICPMS CRDL **Received:** 04-JAN-10
Type: Working **Expires:** 05-JAN-10
Employee: Rose Jenkins
Supplier: GEL
Description: ICPMS CRDL
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Aluminum	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Arsenic	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Barium	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Beryllium	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-09	Boron	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Cadmium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Calcium	100 mg/L	.05 mL	50 mL	100 ug/L
UI090701-09	Chromium	3 mg/L	.05 mL	50 mL	3 ug/L
UI090701-09	Cobalt	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Copper	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Iron	25 mg/L	.05 mL	50 mL	25 ug/L
UI090701-09	Lead	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Lithium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Magnesium	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Manganese	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Nickel	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Phosphorous	50 mg/L	.05 mL	50 mL	50 ug/L
UI090701-09	Potassium	300 mg/L	.05 mL	50 mL	300 ug/L
UI090701-09	Selenium	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Sodium	250 mg/L	.05 mL	50 mL	250 ug/L
UI090701-09	Strontium	10 mg/L	.05 mL	50 mL	10 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Thallium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Thorium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Uranium	.2 mg/L	.05 mL	50 mL	.2 ug/L
UI090701-09	Vanadium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Zinc	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Antimony	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-10	Molybdenum	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-10	Silver	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-10	Tin	2 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Titanium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Tungsten	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Zirconium	2 mg/L	.05 mL	50 mL	2 ug/L

Serial ID: WMS100104-07B **Opened:** 04-JAN-10 **Lot Number :** 1010773
Name: ICPMS ICSA **Received:** 04-JAN-10 **Solvent :** 2%HNO3/1%HCl - 1238829
Type: Working **Expires:** 05-JAN-10
Employee: Rose Jenkins
Supplier: GEL
Description: ICPMS ICSA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI091212-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI091212-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: WMS100104-08B **Opened:** 04-JAN-10 **Solvent :** 2%HNO3/1%HCl - 1238829
Name: ICPMS ICSAB **Received:** 04-JAN-10
Type: Working **Expires:** 05-JAN-10
Employee: Rose Jenkins
Supplier: GEL
Description: ICPMS ICSAB
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI091212-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI091212-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L
UI091217-12	Arsenic	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Barium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Beryllium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Boron	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Cadmium	2 mg/L	.5 mL	50 mL	20.2 ug/L
UI091217-12	Chromium	2 mg/L	.5 mL	50 mL	22.2 ug/L
UI091217-12	Cobalt	2 mg/L	.5 mL	50 mL	20.4 ug/L
UI091217-12	Copper	2 mg/L	.5 mL	50 mL	23.4 ug/L
UI091217-12	Lead	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Lithium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Manganese	2 mg/L	.5 mL	50 mL	22.7 ug/L
UI091217-12	Nickel	2 mg/L	.5 mL	50 mL	22.4 ug/L
UI091217-12	Selenium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Strontium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thallium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thorium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Uranium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Vanadium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Zinc	2 mg/L	.5 mL	50 mL	27 ug/L
UI091217-13	Antimony	2 mg/L	.5 mL	50 mL	20.5 ug/L
UI091217-13	Silver	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tin	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tungsten	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Zirconium	2 mg/L	.5 mL	50 mL	20 ug/L

Serial ID: WMS100105-04AB **Opened:** 05-JAN-10 **Balance Id :** 40245216
Name: ICPMS Cal Standard 10 **Received:** 05-JAN-10 **Pipet Id :** 3541598
Type: Working **Expires:** 06-JAN-10 **Solvent :** 2%HNO3/1%HCl - 1238829
Employee: Rose Jenkins
Supplier: GEL
Description: ICPMS Calibration Standard (10 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100105-04B	Aluminum	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100105-04B	Antimony	100 ug/l	5 mL	50 mL	10 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100105-04B	Arsenic	100 ug/l	5 mL	50 mL	10 ug/l
WMS100105-04B	Barium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100105-04B	Beryllium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100105-04B	Boron	200 ug/l	5 mL	50 mL	20 ug/l
WMS100105-04B	Cadmium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100105-04B	Calcium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100105-04B	Chromium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100105-04B	Cobalt	100 ug/l	5 mL	50 mL	10 ug/l
WMS100105-04B	Copper	100 ug/l	5 mL	50 mL	10 ug/l
WMS100105-04B	Iron	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100105-04B	Lead	100 ug/l	5 mL	50 mL	10 ug/l
WMS100105-04B	Lithium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100105-04B	Magnesium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100105-04B	Manganese	100 ug/l	5 mL	50 mL	10 ug/l
WMS100105-04B	Molybdenum	100 ug/l	5 mL	50 mL	10 ug/l
WMS100105-04B	Nickel	100 ug/l	5 mL	50 mL	10 ug/l
WMS100105-04B	Phosphorous	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100105-04B	Potassium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100105-04B	Selenium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100105-04B	Silver	100 ug/l	5 mL	50 mL	10 ug/l
WMS100105-04B	Sodium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100105-04B	Strontium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100105-04B	Thallium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100105-04B	Thorium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100105-04B	Tin	100 ug/l	5 mL	50 mL	10 ug/l
WMS100105-04B	Titanium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100105-04B	Tungsten	100 ug/L	5 mL	50 mL	10 ug/L
WMS100105-04B	Uranium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100105-04B	Vanadium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100105-04B	Zinc	100 ug/l	5 mL	50 mL	10 ug/l
WMS100105-04B	Zirconium	100 ug/l	5 mL	50 mL	10 ug/l

Serial ID: WMS100105-04B **Opened:** 05-JAN-10 **Amount :** 50 mL
Name: ICPMS Cal Standard 100 **Received:** 05-JAN-10 **Balance Id :** 40245216
Type: Working **Expires:** 06-JAN-10 **Pipet Id :** 1758088
Employee: Rose Jenkins **Solvent :** 2%HNO3/1%HCl- 1238829
Supplier: GEL
Description: ICPMS Calibration Standard (100 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090610-03	Tungsten	10 mg/L	.5 mL	50 mL	100 ug/L
UMS090303-01	Arsenic	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Barium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Beryllium	10 mg/L	.5	50 mL	100 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UMS090303-01	Boron	20 mg/L	.5	50 mL	200 ug/l
UMS090303-01	Cadmium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Chromium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Cobalt	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Copper	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Lead	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Lithium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Manganese	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Nickel	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Selenium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Silver	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Strontium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Thallium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Thorium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Uranium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Vanadium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Zinc	10 mg/L	.5	50 mL	100 ug/l
UMS090303-02	Aluminum	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Calcium	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Iron	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Magnesium	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Phosphorous	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Potassium	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Sodium	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-03	Antimony	10 mg/L	.5	50 mL	100 ug/l
UMS090303-03	Molybdenum	10 mg/L	.5	50 mL	100 ug/l
UMS090303-03	Tin	10 mg/L	.5	50 mL	100 ug/l
UMS090303-03	Titanium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-03	Zirconium	10 mg/L	.5	50 mL	100 ug/l

Serial ID: WMS100105-05B **Opened:** 05-JAN-10 **Balance Id :** 40245216
Name: ICPMS ICV **Received:** 05-JAN-10 **Pipet Id :** 1758088
Type: Working **Expires:** 06-JAN-10 **Solvent :** 2%HNO3/1%HCl - 1238829
Employee: Rose Jenkins
Supplier: GEL
Description: ICPMS ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-06	Aluminum	2020 mg/L	.125 mL	50 mL	5050 ug/L
UI091217-06	Calcium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Iron	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Magnesium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Phosphorous	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Potassium	2000 mg/L	.125 mL	50 mL	5000 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-06	Sodium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-07	Arsenic	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Barium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Beryllium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Boron	40 mg/L	.125 mL	50 mL	100 ug/L
UI091217-07	Cadmium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Chromium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Cobalt	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Copper	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lead	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lithium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Manganese	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Nickel	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Selenium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Strontium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thallium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thorium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Uranium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Vanadium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Zinc	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Antimony	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Molybdenum	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Silver	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tin	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Titanium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tungsten	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Zirconium	20 mg/L	.125 mL	50 mL	50 ug/L

Serial ID: WMS100105-06B **Opened:** 05-JAN-10 **Balance Id :** 40245216
Name: ICPMS CRDL **Received:** 05-JAN-10 **Pipet Id :** 3820544
Type: Working **Expires:** 06-JAN-10 **Solvent :** 2%HNO3/1%HCl - 1238829
Employee: Rose Jenkins
Supplier: GEL
Description: ICPMS CRDL
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Aluminum	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Arsenic	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Barium	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Beryllium	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-09	Boron	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Cadmium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Calcium	100 mg/L	.05 mL	50 mL	100 ug/L
UI090701-09	Chromium	3 mg/L	.05 mL	50 mL	3 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Cobalt	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Copper	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Iron	25 mg/L	.05 mL	50 mL	25 ug/L
UI090701-09	Lead	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Lithium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Magnesium	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Manganese	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Nickel	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Phosphorous	50 mg/L	.05 mL	50 mL	50 ug/L
UI090701-09	Potassium	300 mg/L	.05 mL	50 mL	300 ug/L
UI090701-09	Selenium	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Sodium	250 mg/L	.05 mL	50 mL	250 ug/L
UI090701-09	Strontium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Thallium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Thorium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Uranium	.2 mg/L	.05 mL	50 mL	.2 ug/L
UI090701-09	Vanadium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Zinc	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Antimony	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-10	Molybdenum	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-10	Silver	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-10	Tin	2 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Titanium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Tungsten	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Zirconium	2 mg/L	.05 mL	50 mL	2 ug/L

Serial ID: WMS100105-07B **Opened:** 05-JAN-10 **Balance Id :** 40245216
Name: ICPMS ICSA **Received:** 05-JAN-10 **Lot Number :** 1010773
Type: Working **Expires:** 06-JAN-10 **Pipet Id :** 3541598
Employee: Rose Jenkins **Solvent :** 2%HNO3/1%HCl - 1238829
Supplier: GEL
Description: ICPMS ICSA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI091212-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI091212-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: WMS100105-08B
Name: ICPMS ICSAB
Type: Working
Employee: Rose Jenkins
Supplier: GEL
Description: ICPMS ICSAB
Comments: None

Opened: 05-JAN-10
Received: 05-JAN-10
Expires: 06-JAN-10

Balance Id : 40245216
Pipet Id : 3541598/1758088
Solvent : 2%HNO3/1%HCl - 1238829

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI091212-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI091212-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L
UI091217-12	Arsenic	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Barium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Beryllium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Boron	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Cadmium	2 mg/L	.5 mL	50 mL	20.2 ug/L
UI091217-12	Chromium	2 mg/L	.5 mL	50 mL	22.2 ug/L
UI091217-12	Cobalt	2 mg/L	.5 mL	50 mL	20.4 ug/L
UI091217-12	Copper	2 mg/L	.5 mL	50 mL	23.4 ug/L
UI091217-12	Lead	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Lithium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Manganese	2 mg/L	.5 mL	50 mL	22.7 ug/L
UI091217-12	Nickel	2 mg/L	.5 mL	50 mL	22.4 ug/L
UI091217-12	Selenium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Strontium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thallium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thorium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Uranium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Vanadium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Zinc	2 mg/L	.5 mL	50 mL	27 ug/L
UI091217-13	Antimony	2 mg/L	.5 mL	50 mL	20.5 ug/L
UI091217-13	Silver	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tin	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tungsten	2 mg/L	.5 mL	50 mL	20 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-13	Zirconium	2 mg/L	.5 mL	50 mL	20 ug/L

Serial ID: 1156689-A **Opened:** 20-JUL-09 **Lot Number :** 41226920
Name: B-KMnO4(VWR)-MER **Received:** 20-JUL-09
Type: Reagent/Solvent **Expires:** 20-JUL-10
Employee: Tara Griffin **Verified:** 07-AUG-07
Supplier: VWR
Description: Potassium Permanganate
Comments: None

Serial ID: 1164796-A **Opened:** 06-AUG-09 **Lot Number :** 49149927
Name: B-NH2OH.HCl-MER **Received:** 06-AUG-09
Type: Reagent/Solvent **Expires:** 06-AUG-10
Employee: Tara Griffin
Supplier: Fisher Scientific
Description: Hydroxlyamine Hydrochloride
Comments: None

Serial ID: 1203655-02 **Opened:** 15-OCT-09 **Lot Number :** ZU74081198 mL
Name: B-H2O2 **Received:** 15-OCT-09
Type: Reagent/Solvent **Expires:** 15-OCT-10
Employee: Francena Armstrong
Supplier: EM SCIENCE
Description: Hydrogen Peroxide 30%
Comments: None

Serial ID: 1206350-C **Opened:** 22-OCT-09 **Balance Id :** BAL-002
Name: B-NaCl.NH2OH.HCl-MER **Received:** 22-OCT-09
Type: Reagent/Solvent **Expires:** 06-AUG-10
Employee: Tara Griffin
Supplier: GEL
Description: Hg reducing agent
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1164796-A	B-NH2OH.HCl-MER	N/A	120 g	1000 mL	N/A

Serial ID: 1234886 **Opened:** 27-NOV-09 **Lot Number :** H20053 L
Name: I-HNO3 **Received:** 27-NOV-09
Type: Reagent/Solvent **Expires:** 27-NOV-10
Employee: Bryan Davis
Supplier: BAKER

Standard Logbook

Description: Nitric Acid CONC.
Comments: None

Serial ID: 1236355-A **Opened:** 01-DEC-09 **Lot Number :** 200930201
Name: B-HCl-MER **Received:** 01-DEC-09
Type: Reagent/Solvent **Expires:** 01-DEC-10
Employee: Tara Griffin
Supplier: Aristar
Description: Hydrochloric Acid Conc.
Comments: None

Serial ID: 1238345 **Opened:** 04-DEC-09 **Lot Number :** H20053 L
Name: I-HNO3 **Received:** 04-DEC-09
Type: Reagent/Solvent **Expires:** 04-DEC-10
Employee: Francena Armstrong
Supplier: BAKER
Description: Nitric Acid CONC.
Comments: None

Serial ID: 1240182-1 **Opened:** 09-DEC-09 **Instrument Id :** MERCURY
Name: B-HNO3-MER **Received:** 09-DEC-09 **Lot Number :** H34040
Type: Reagent/Solvent **Expires:** 09-DEC-10
Employee: Tara Griffin
Supplier: Mallinckrodt Chemicals
Description: NITRIC ACID
Comments: None

Serial ID: 1244904-C **Opened:** 18-DEC-09 **Balance Id :** BAL-002
Name: B-KMnO4-MER **Received:** 18-DEC-09
Type: Reagent/Solvent **Expires:** 18-JUN-10
Employee: Tara Griffin
Supplier: GEL
Description: 5% KMnO4 solution
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1156689-A	B-KMnO4(VWR)-MER	Crystals	50 g	1000 mL	3%

Standard Logbook

Serial ID: 1244970 **Opened:** 18-DEC-09 **Lot Number :** H41032
Name: I-HCL **Received:** 18-DEC-09 **Preservative_Id :** 5 none
Type: Reagent/Solvent **Expires:** 18-DEC-10
Employee: Francena Armstrong
Supplier: J.T. BAKER
Description: HYDROCHLORIC ACID
Comments: None

Serial ID: 1249336 **Opened:** 04-JAN-10 **Solvent :** Type I Water
Name: B-2%HNO3/1%HCl-ICPMS **Received:** 04-JAN-10
Type: Reagent/Solvent **Expires:** 11-JAN-10
Employee: Paul Boyd
Supplier: GEL
Description: 2%HNO3/1%HCl Solution (Type I Water)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1238345	I-HNO3	69.0-70.0	180 mL	9 l	N/A
1244970	I-HCL	36.5-38.0	90 mL	9 l	N/A

Serial ID: 1253514 **Opened:** 11-JAN-10 **Amount :** 20 L
Name: B-ICP-RINSE SOLN **Received:** 11-JAN-10 **Lot Number :** H04040+G34050
Type: Reagent/Solvent **Expires:** 17-JAN-10 **Solvent :** 3%HCL+1%HNO3
Employee: Helen Camello
Supplier: GEL
Description: 3%HCL+1%HNO3 RINSE SOLN.
Comments: None

Metals Analysis

Case Narrative

Metals Fractional Narrative
Los Alamos National Laboratory (LANL)
SDG 10-941-1

Sample Analysis

Sample ID	Client ID
243043001	RE03-10-2760
243043002	RE03-10-2748
1201999355	Method Blank (MB) **ICP**
1201999356	Laboratory Control Sample (LCS)
1201999359	243043001(RE03-10-2760L) Serial Dilution (SD)
1201999357	243043001(RE03-10-2760D) Sample Duplicate (DUP)
1201999358	243043001(RE03-10-2760S) Matrix Spike (MS)
1201999360	Method Blank (MB) **ICP-MS**
1201999361	Laboratory Control Sample (LCS)
1201999364	243043001(RE03-10-2760L) Serial Dilution (SD)
1201999362	243043001(RE03-10-2760D) Sample Duplicate (DUP)
1201999363	243043001(RE03-10-2760S) Matrix Spike (MS)
1202000246	Method Blank (MB) **CVAA**
1202000247	Laboratory Control Sample (LCS)
1202000250	243043001(RE03-10-2760L) Serial Dilution (SD)
1202000248	243043001(RE03-10-2760D) Sample Duplicate (DUP)
1202000249	243043001(RE03-10-2760S) Matrix Spike (MS)

The samples in this SDG were analyzed on an "as received" basis.

Method/Analysis Information

Analytical Batch:	934499, 934501 and 934909
Prep Batch :	934498, 934500 and 934908
Standard Operating Procedures:	GL-MA-E-013 REV# 20, GL-MA-E-006 REV# 9, GL-MA-E-014 REV# 21 and GL-MA-E-010 REV# 23
Analytical Method:	SW846 3005/6010B, SW846 3005/6020 and SW846 7470A
Prep Method :	SW846 3005A and SW846 7470A Prep

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

System Configuration

The Metals analysis-ICP was performed on a P E 4300 Optima radial/axial-viewing inductively coupled plasma atomic emission spectrometer. The instrument is equipped with a Burgener nebulizer, cyclonic spray chamber, and yttrium or scandium internal standard. Operating conditions for the ICP are set at a power level of 1500 watts. The instrument has a peristaltic pump flow rate of 1.4L/min, argon gas flows of 15 L/min and 0.2 L/min for the torch and auxiliary gases, and a flow setting of 0.65L/min for the nebulizer.

The Metals analysis - ICPMS was performed on a Perkin Elmer ELAN 6100E inductively coupled plasma mass spectrometer (ICP-MS). The instrument is equipped with a cross-flow nebulizer, quadrupole mass spectrometer, and dual mode electron multiplier detector. Internal standards of scandium, germanium, indium, tantalum, and/or lutetium were utilized to cover the mass spectrum. Operating conditions are set at 1400W power and combined argon pressures of 360+/-7 kPa for the plasma and auxiliary gases, and 0.85 L/min carrier gas flow, and an initial lens voltage of 5.2.

The Metals analysis - ICPMS was performed on a Perkin Elmer ELAN 9000 inductively coupled plasma mass spectrometer (ICP-MS). The instrument is equipped with a cross-flow nebulizer, quadrupole mass spectrometer, and dual mode electron multiplier detector. Internal standards of scandium, germanium, indium, tantalum, and/or lutetium were utilized to cover the mass spectrum. Operating conditions are set at 1400W power and combined argon pressures of 360+/-7 kPa for the plasma and auxiliary gases, and 0.85 L/min carrier gas flow, and an initial lens voltage of 5.2.

The Metals analysis-Mercury was performed on a Perkin-Elmer Flow Injection Mercury System (FIMS-100) automated mercury analyzer. The instrument consists of a cold vapor atomic absorption spectrometer set to detect mercury at a wavelength of 253.7 nm. Sample introduction through the flow injection system is performed via a peristaltic pump at 9 mL/min and nitrogen carrier gas rate of 80 mL/min.

Calibration Information

Instrument Calibration
All initial calibration requirements have been met for this sample delivery group (SDG).

CRDL Requirements
All CRDL standard(s) met the referenced advisory control limits with the exception of iron that recovered outside of the advisory control limits of 70-130%.

ICSA/ICSAB Statement
All interference check samples (ICSA and ICSAB) associated with this SDG met the established acceptance criteria.

Continuing Calibration Blank (CCB) Requirements
All continuing calibration blanks (CCB) bracketing this batch met the established acceptance criteria.

Continuing Calibration Verification (CCV) Requirements
All continuing calibration verifications (CCV) bracketing this SDG met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MBs analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

Quality Control (QC) Sample Statement
The following sample was selected as the quality control (QC) sample for this SDG: 243043001 (RE03-10-2760)-ICP, ICP-MS and CVAA.

Matrix Spike (MS) Recovery Statement
The percent recoveries (%R) obtained from the MS analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. All applicable elements met the acceptance criteria.

Duplicate Relative Percent Difference (RPD) Statement
The RPD obtained from the designated sample duplicate (DUP) is evaluated based on acceptance criteria of 20% when the sample is >5X the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control of +/-RL is used to evaluate the DUP results. All applicable analytes met these requirements.

Serial Dilution % Difference Statement
The serial dilution is used to assess matrix suppression or enhancement. Raw element concentrations that are 25X the IDL/MDL for CVAA, 50X the IDL/MDL for ICP, and 100X the IDL/MDL for ICP-MS analyses are applicable for serial dilution assessment. All applicable analytes met the acceptance criteria of less than 10% difference (%D).

Technical Information

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight

on the day of expiration. All samples in this SDG met the specified holding time.

Sample Dilutions
Dilutions are performed to minimize matrix interferences resulting from elevated mineral element concentrations present in solid samples and/or to bring over range target analyte concentrations into the linear calibration range of the instrument. The samples in this SDG did not require dilutions.

Preparation Information
The samples in this SDG were prepared exactly according to the cited SOP.

Miscellaneous Information

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Nonconformance Documentation
Nonconformance reports (NCRs) are generated to document procedural anomalies that may deviate from referenced SOP or contractual documents. A nonconformance report (NCR) was not generated for this SDG.

Additional Comments
Additional comments were not required for this SDG.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Nik-Cole A. Elmore **Date:** 1.11.10

Sample Data Summary

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-941-1 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 243043001 **BASIS:** As Received **DATE COLLECTED** 14-DEC-09

CLIENT ID: RE03-10-2760 **LEVEL:** Low **DATE RECEIVED** 16-DEC-09

MATRIX: WATER **%SOLIDS:** 0

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	118	ug/L	J	68	200	200	1	P	HSC	12/20/09 06:27	122009-1	934499
7440-36-0	Antimony	3	ug/L	U	1	3	3	1	MS	BAJ	12/31/09 02:54	091230-3	934501
7440-38-2	Arsenic	30	ug/L	U	5	30	30	1	P	HSC	12/20/09 06:27	122009-1	934499
7440-39-3	Barium	2.04	ug/L	J	1	5	5	1	P	HSC	12/20/09 06:27	122009-1	934499
7440-41-7	Beryllium	0.50	ug/L	U	0.1	0.5	0.5	1	MS	BAJ	12/31/09 02:54	091230-3	934501
7440-42-8	Boron	50	ug/L	U	15	50	50	1	P	HSC	12/20/09 06:27	122009-1	934499
7440-43-9	Cadmium	1	ug/L	U	0.11	1	1	1	MS	BAJ	12/31/09 02:54	091230-3	934501
7440-70-2	Calcium	80.5	ug/L	J	50	200	200	1	P	HSC	12/20/09 06:27	122009-1	934499
7440-47-3	Chromium	11.1	ug/L		1	5	5	1	P	HSC	12/20/09 06:27	122009-1	934499
7440-48-4	Cobalt	5	ug/L	U	1	5	5	1	P	HSC	12/20/09 06:27	122009-1	934499
7440-50-8	Copper	10	ug/L	U	3	10	10	1	P	HSC	12/20/09 06:27	122009-1	934499
7439-89-6	Iron	160	ug/L		30	100	100	1	P	HSC	12/20/09 06:27	122009-1	934499
7439-92-1	Lead	2	ug/L	U	0.5	2	2	1	MS	BAJ	12/31/09 02:54	091230-3	934501
7439-93-2	Lithium	10	ug/L	U	2	10	10	1	MS	BAJ	01/01/10 07:16	091231-9	934501
7439-95-4	Magnesium	300	ug/L	U	85	300	300	1	P	HSC	12/20/09 06:27	122009-1	934499
7439-96-5	Manganese	4.85	ug/L	J	1	5	5	1	MS	BAJ	01/01/10 07:16	091231-9	934501
7439-97-6	Mercury	0.20	ug/L	U	0.066	0.2	0.2	1	AV	ETL	12/24/09 09:54	122409W1-10	934909
7440-02-0	Nickel	7.42	ug/L		1.5	5	5	1	P	HSC	12/20/09 06:27	122009-1	934499
7440-09-7	Potassium	87.3	ug/L	J	50	150	150	1	P	HSC	12/20/09 06:27	122009-1	934499
7782-49-2	Selenium	30	ug/L	U	5	30	30	1	P	HSC	12/20/09 06:27	122009-1	934499
7440-21-3	Silicon	388	ug/L		25	100	100	1	P	HSC	12/20/09 06:27	122009-1	934499
7440-22-4	Silver	5	ug/L	U	1	5	5	1	P	HSC	12/20/09 06:27	122009-1	934499
7440-23-5	Sodium	253	ug/L	J	100	300	300	1	P	HSC	12/20/09 06:27	122009-1	934499
7440-28-0	Thallium	0.355	ug/L	J	0.3	1	1	1	MS	BAJ	12/31/09 14:52	091231-4	934501
7440-32-6	Titanium	2.83	ug/L	J	1	5	5	1	P	HSC	12/20/09 06:27	122009-1	934499
7440-61-1	Uranium	0.20	ug/L	U	0.05	0.2	0.2	1	MS	BAJ	01/01/10 08:37	091231-2	934501
7440-62-2	Vanadium	5	ug/L	U	1	5	5	1	P	HSC	12/20/09 06:27	122009-1	934499
7440-66-6	Zinc	5.87	ug/L	J	3.3	10	10	1	P	HSC	12/20/09 06:27	122009-1	934499

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
934499	934498	SW846 3005A	50	mL	50	mL	12/19/09	BCD1
934501	934500	SW846 3005A	50	mL	50	mL	12/19/09	BCD1
934909	934908	SW846 7470A Prep	20	mL	20	mL	12/23/09	TXB3

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-941-1 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 243043002 **BASIS:** As Received **DATE COLLECTED** 14-DEC-09

CLIENT ID: RE03-10-2748 **LEVEL:** Low **DATE RECEIVED** 16-DEC-09

MATRIX: WATER **%SOLIDS:** 0

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	200	ug/L	U	68	200	200	1	P	HSC	12/20/09 06:42	122009-1	934499
7440-36-0	Antimony	3	ug/L	U	1	3	3	1	MS	BAJ	12/31/09 03:18	091230-3	934501
7440-38-2	Arsenic	30	ug/L	U	5	30	30	1	P	HSC	12/20/09 06:42	122009-1	934499
7440-39-3	Barium	5	ug/L	U	1	5	5	1	P	HSC	12/20/09 06:42	122009-1	934499
7440-41-7	Beryllium	0.50	ug/L	U	0.1	0.5	0.5	1	MS	BAJ	12/31/09 03:18	091230-3	934501
7440-42-8	Boron	50	ug/L	U	15	50	50	1	P	HSC	12/20/09 06:42	122009-1	934499
7440-43-9	Cadmium	1	ug/L	U	0.11	1	1	1	MS	BAJ	12/31/09 03:18	091230-3	934501
7440-70-2	Calcium	200	ug/L	U	50	200	200	1	P	HSC	12/20/09 06:42	122009-1	934499
7440-47-3	Chromium	5	ug/L	U	1	5	5	1	P	HSC	12/20/09 06:42	122009-1	934499
7440-48-4	Cobalt	5	ug/L	U	1	5	5	1	P	HSC	12/20/09 06:42	122009-1	934499
7440-50-8	Copper	10	ug/L	U	3	10	10	1	P	HSC	12/20/09 06:42	122009-1	934499
7439-89-6	Iron	100	ug/L	U	30	100	100	1	P	HSC	12/20/09 06:42	122009-1	934499
7439-92-1	Lead	2	ug/L	U	0.5	2	2	1	MS	BAJ	12/31/09 03:18	091230-3	934501
7439-93-2	Lithium	10	ug/L	U	2	10	10	1	MS	BAJ	01/01/10 07:26	091231-9	934501
7439-95-4	Magnesium	300	ug/L	U	85	300	300	1	P	HSC	12/20/09 06:42	122009-1	934499
7439-96-5	Manganese	5	ug/L	U	1	5	5	1	MS	BAJ	01/01/10 07:26	091231-9	934501
7439-97-6	Mercury	0.20	ug/L	U	0.066	0.2	0.2	1	AV	ETL	12/24/09 10:05	122409W1-10	934909
7440-02-0	Nickel	5	ug/L	U	1.5	5	5	1	P	HSC	12/20/09 06:42	122009-1	934499
7440-09-7	Potassium	150	ug/L	U	50	150	150	1	P	HSC	12/20/09 06:42	122009-1	934499
7782-49-2	Selenium	30	ug/L	U	5	30	30	1	P	HSC	12/20/09 06:42	122009-1	934499
7440-21-3	Silicon	158	ug/L		25	100	100	1	P	HSC	12/20/09 06:42	122009-1	934499
7440-22-4	Silver	5	ug/L	U	1	5	5	1	P	HSC	12/20/09 06:42	122009-1	934499
7440-23-5	Sodium	300	ug/L	U	100	300	300	1	P	HSC	12/20/09 06:42	122009-1	934499
7440-28-0	Thallium	1	ug/L	U	0.3	1	1	1	MS	BAJ	12/31/09 15:10	091231-4	934501
7440-32-6	Titanium	5	ug/L	U	1	5	5	1	P	HSC	12/20/09 06:42	122009-1	934499
7440-61-1	Uranium	0.20	ug/L	U	0.05	0.2	0.2	1	MS	BAJ	01/01/10 08:44	091231-2	934501
7440-62-2	Vanadium	5	ug/L	U	1	5	5	1	P	HSC	12/20/09 06:42	122009-1	934499
7440-66-6	Zinc	10	ug/L	U	3.3	10	10	1	P	HSC	12/20/09 06:42	122009-1	934499

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
934499	934498	SW846 3005A	50	mL	50	mL	12/19/09	BCD1
934501	934500	SW846 3005A	50	mL	50	mL	12/19/09	BCD1
934909	934908	SW846 7470A Prep	20	mL	20	mL	12/23/09	TXB3

Quality Control Summary

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–941–1

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,ICPMS5,OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
ICV01										
	Aluminum	5060	ug/L	5000	ug/L	101.2	90.0 – 110.0	P	20–DEC–09 05:35	122009–1
	Arsenic	477	ug/L	500	ug/L	95.5	90.0 – 110.0	P	20–DEC–09 05:35	122009–1
	Barium	517	ug/L	500	ug/L	103.5	90.0 – 110.0	P	20–DEC–09 05:35	122009–1
	Boron	521	ug/L	500	ug/L	104.3	90.0 – 110.0	P	20–DEC–09 05:35	122009–1
	Calcium	4930	ug/L	5000	ug/L	98.6	90.0 – 110.0	P	20–DEC–09 05:35	122009–1
	Chromium	500	ug/L	500	ug/L	100	90.0 – 110.0	P	20–DEC–09 05:35	122009–1
	Cobalt	518	ug/L	500	ug/L	103.6	90.0 – 110.0	P	20–DEC–09 05:35	122009–1
	Copper	500	ug/L	500	ug/L	99.9	90.0 – 110.0	P	20–DEC–09 05:35	122009–1
	Iron	5090	ug/L	5000	ug/L	101.7	90.0 – 110.0	P	20–DEC–09 05:35	122009–1
	Magnesium	5280	ug/L	5000	ug/L	105.6	90.0 – 110.0	P	20–DEC–09 05:35	122009–1
	Nickel	513	ug/L	500	ug/L	102.6	90.0 – 110.0	P	20–DEC–09 05:35	122009–1
	Potassium	2450	ug/L	2500	ug/L	97.9	90.0 – 110.0	P	20–DEC–09 05:35	122009–1
	Selenium	2520	ug/L	2500	ug/L	101	90.0 – 110.0	P	20–DEC–09 05:35	122009–1
	Silicon	4820	ug/L	5000	ug/L	96.4	90.0 – 110.0	P	20–DEC–09 05:35	122009–1
	Silver	267	ug/L	250	ug/L	107	90.0 – 110.0	P	20–DEC–09 05:35	122009–1
	Sodium	2500	ug/L	2500	ug/L	100.1	90.0 – 110.0	P	20–DEC–09 05:35	122009–1
	Titanium	497	ug/L	500	ug/L	99.3	90.0 – 110.0	P	20–DEC–09 05:35	122009–1
	Vanadium	523	ug/L	500	ug/L	104.7	90.0 – 110.0	P	20–DEC–09 05:35	122009–1
	Zinc	517	ug/L	500	ug/L	103.4	90.0 – 110.0	P	20–DEC–09 05:35	122009–1
	Mercury	5.15	ug/L	5	ug/L	103	90.0 – 110.0	AV	24–DEC–09 07:33	122409W1–10
	Antimony	51.9	ug/L	50	ug/L	103.9	90.0 – 110.0	MS	31–DEC–09 01:40	091230–3
	Beryllium	52	ug/L	50	ug/L	104.1	90.0 – 110.0	MS	31–DEC–09 01:40	091230–3
	Cadmium	51.4	ug/L	50	ug/L	102.7	90.0 – 110.0	MS	31–DEC–09 01:40	091230–3
	Lead	54.8	ug/L	50	ug/L	109.6	90.0 – 110.0	MS	31–DEC–09 01:40	091230–3
	Thallium	51.8	ug/L	50	ug/L	103.5	90.0 – 110.0	MS	31–DEC–09 13:31	091231–4
	Lithium	54.1	ug/L	50	ug/L	108.2	90.0 – 110.0	MS	01–JAN–10 06:55	091231–9
	Manganese	53.2	ug/L	50	ug/L	106.3	90.0 – 110.0	MS	01–JAN–10 06:55	091231–9
	Uranium	52.8	ug/L	50	ug/L	105.6	90.0 – 110.0	MS	01–JAN–10 08:22	091231–2
CCV01										
	Aluminum	4960	ug/L	5000	ug/L	99.1	90.0 – 110.0	P	20–DEC–09 05:58	122009–1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-941-1

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,ICPMS5,OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Arsenic	507	ug/L	500	ug/L	101.4	90.0 – 110.0	P	20-DEC-09 05:58	122009-1
	Barium	511	ug/L	500	ug/L	102.2	90.0 – 110.0	P	20-DEC-09 05:58	122009-1
	Boron	505	ug/L	500	ug/L	101.1	90.0 – 110.0	P	20-DEC-09 05:58	122009-1
	Calcium	4960	ug/L	5000	ug/L	99.2	90.0 – 110.0	P	20-DEC-09 05:58	122009-1
	Chromium	512	ug/L	500	ug/L	102.4	90.0 – 110.0	P	20-DEC-09 05:58	122009-1
	Cobalt	511	ug/L	500	ug/L	102.2	90.0 – 110.0	P	20-DEC-09 05:58	122009-1
	Copper	493	ug/L	500	ug/L	98.6	90.0 – 110.0	P	20-DEC-09 05:58	122009-1
	Iron	5100	ug/L	5000	ug/L	101.9	90.0 – 110.0	P	20-DEC-09 05:58	122009-1
	Magnesium	5160	ug/L	5000	ug/L	103.1	90.0 – 110.0	P	20-DEC-09 05:58	122009-1
	Nickel	511	ug/L	500	ug/L	102.1	90.0 – 110.0	P	20-DEC-09 05:58	122009-1
	Potassium	5010	ug/L	5000	ug/L	100.1	90.0 – 110.0	P	20-DEC-09 05:58	122009-1
	Selenium	500	ug/L	500	ug/L	100.1	90.0 – 110.0	P	20-DEC-09 05:58	122009-1
	Silicon	2490	ug/L	2500	ug/L	99.4	90.0 – 110.0	P	20-DEC-09 05:58	122009-1
	Silver	504	ug/L	500	ug/L	100.9	90.0 – 110.0	P	20-DEC-09 05:58	122009-1
	Sodium	9940	ug/L	10000	ug/L	99.4	90.0 – 110.0	P	20-DEC-09 05:58	122009-1
	Titanium	500	ug/L	500	ug/L	100	90.0 – 110.0	P	20-DEC-09 05:58	122009-1
	Vanadium	512	ug/L	500	ug/L	102.4	90.0 – 110.0	P	20-DEC-09 05:58	122009-1
	Zinc	510	ug/L	500	ug/L	101.9	90.0 – 110.0	P	20-DEC-09 05:58	122009-1
	Mercury	5.05	ug/L	5	ug/L	100.9	80.0 – 120.0	AV	24-DEC-09 07:39	122409W1-10
	Antimony	50.7	ug/L	50	ug/L	101.3	90.0 – 110.0	MS	31-DEC-09 02:11	091230-3
	Beryllium	51.7	ug/L	50	ug/L	103.4	90.0 – 110.0	MS	31-DEC-09 02:11	091230-3
	Cadmium	50.9	ug/L	50	ug/L	101.8	90.0 – 110.0	MS	31-DEC-09 02:11	091230-3
	Lead	53.3	ug/L	50	ug/L	106.5	90.0 – 110.0	MS	31-DEC-09 02:11	091230-3
	Thallium	51.5	ug/L	50	ug/L	103.1	90.0 – 110.0	MS	31-DEC-09 13:53	091231-4
	Lithium	53.6	ug/L	50	ug/L	107.3	90.0 – 110.0	MS	01-JAN-10 07:07	091231-9
	Manganese	50.3	ug/L	50	ug/L	100.6	90.0 – 110.0	MS	01-JAN-10 07:07	091231-9
	Uranium	52.3	ug/L	50	ug/L	104.6	90.0 – 110.0	MS	01-JAN-10 08:30	091231-2
CCV02										
	Aluminum	4910	ug/L	5000	ug/L	98.3	90.0 – 110.0	P	20-DEC-09 06:45	122009-1
	Arsenic	502	ug/L	500	ug/L	100.5	90.0 – 110.0	P	20-DEC-09 06:45	122009-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-941-1

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,ICPMS5,OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Barium	507	ug/L	500	ug/L	101.3	90.0 – 110.0	P	20-DEC-09 06:45	122009-1
	Boron	498	ug/L	500	ug/L	99.5	90.0 – 110.0	P	20-DEC-09 06:45	122009-1
	Calcium	4910	ug/L	5000	ug/L	98.1	90.0 – 110.0	P	20-DEC-09 06:45	122009-1
	Chromium	504	ug/L	500	ug/L	100.9	90.0 – 110.0	P	20-DEC-09 06:45	122009-1
	Cobalt	507	ug/L	500	ug/L	101.4	90.0 – 110.0	P	20-DEC-09 06:45	122009-1
	Copper	487	ug/L	500	ug/L	97.4	90.0 – 110.0	P	20-DEC-09 06:45	122009-1
	Iron	5050	ug/L	5000	ug/L	101	90.0 – 110.0	P	20-DEC-09 06:45	122009-1
	Magnesium	5100	ug/L	5000	ug/L	102	90.0 – 110.0	P	20-DEC-09 06:45	122009-1
	Nickel	507	ug/L	500	ug/L	101.5	90.0 – 110.0	P	20-DEC-09 06:45	122009-1
	Potassium	4920	ug/L	5000	ug/L	98.4	90.0 – 110.0	P	20-DEC-09 06:45	122009-1
	Selenium	504	ug/L	500	ug/L	100.8	90.0 – 110.0	P	20-DEC-09 06:45	122009-1
	Silicon	2460	ug/L	2500	ug/L	98.3	90.0 – 110.0	P	20-DEC-09 06:45	122009-1
	Silver	502	ug/L	500	ug/L	100.4	90.0 – 110.0	P	20-DEC-09 06:45	122009-1
	Sodium	9890	ug/L	10000	ug/L	98.9	90.0 – 110.0	P	20-DEC-09 06:45	122009-1
	Titanium	494	ug/L	500	ug/L	98.9	90.0 – 110.0	P	20-DEC-09 06:45	122009-1
	Vanadium	507	ug/L	500	ug/L	101.5	90.0 – 110.0	P	20-DEC-09 06:45	122009-1
	Zinc	503	ug/L	500	ug/L	100.6	90.0 – 110.0	P	20-DEC-09 06:45	122009-1
	Mercury	5.07	ug/L	5	ug/L	101.5	80.0 – 120.0	AV	24-DEC-09 08:02	122409W1-10
	Antimony	54	ug/L	50	ug/L	108	90.0 – 110.0	MS	31-DEC-09 02:29	091230-3
	Beryllium	52.4	ug/L	50	ug/L	104.7	90.0 – 110.0	MS	31-DEC-09 02:29	091230-3
	Cadmium	51.6	ug/L	50	ug/L	103.1	90.0 – 110.0	MS	31-DEC-09 02:29	091230-3
	Lead	54.5	ug/L	50	ug/L	108.9	90.0 – 110.0	MS	31-DEC-09 02:29	091230-3
	Thallium	52.1	ug/L	50	ug/L	104.1	90.0 – 110.0	MS	31-DEC-09 14:34	091231-4
	Lithium	50.5	ug/L	50	ug/L	101	90.0 – 110.0	MS	01-JAN-10 07:28	091231-9
	Manganese	50.1	ug/L	50	ug/L	100.2	90.0 – 110.0	MS	01-JAN-10 07:28	091231-9
	Uranium	52.5	ug/L	50	ug/L	105	90.0 – 110.0	MS	01-JAN-10 08:46	091231-2
CCV03										
	Mercury	5.03	ug/L	5	ug/L	100.6	80.0 – 120.0	AV	24-DEC-09 08:25	122409W1-10
	Antimony	49.8	ug/L	50	ug/L	99.6	90.0 – 110.0	MS	31-DEC-09 03:25	091230-3
	Beryllium	50.1	ug/L	50	ug/L	100.1	90.0 – 110.0	MS	31-DEC-09 03:25	091230-3

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-941-1

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,ICPMS5,OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Cadmium	50.5	ug/L	50	ug/L	101	90.0 - 110.0	MS	31-DEC-09 03:25	091230-3
	Lead	53.4	ug/L	50	ug/L	106.7	90.0 - 110.0	MS	31-DEC-09 03:25	091230-3
	Thallium	50.9	ug/L	50	ug/L	101.7	90.0 - 110.0	MS	31-DEC-09 15:15	091231-4
CCV04										
	Mercury	4.88	ug/L	5	ug/L	97.5	80.0 - 120.0	AV	24-DEC-09 08:48	122409W1-10
CCV05										
	Mercury	4.95	ug/L	5	ug/L	99	80.0 - 120.0	AV	24-DEC-09 09:11	122409W1-10
CCV06										
	Mercury	5.02	ug/L	5	ug/L	100.5	80.0 - 120.0	AV	24-DEC-09 09:35	122409W1-10
CCV07										
	Mercury	5.08	ug/L	5	ug/L	101.5	80.0 - 120.0	AV	24-DEC-09 09:58	122409W1-10
CCV08										
	Mercury	4.92	ug/L	5	ug/L	98.5	80.0 - 120.0	AV	24-DEC-09 10:21	122409W1-10

METALS
-2b-
CRDL Standard for AA & ICP

SDG No: 10-941-1

Contract: LANL01004 **Lab Code:** GEL

AA CRDL Standard Source: SPEX

ICP CRDL Standard Source Solutions Plus

Instrument ID: HG3,ICPMS4,ICPMS5,OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Advisory Limits (%R)	M	Analysis Date/Time	Run Number
CRDL01										
	Mercury	.22	ug/L	.2	ug/L	110	70.0 - 130.0	AV	24-DEC-09 07:37	122409W1-10
	Cadmium	1.1	ug/L	1	ug/L	109.5	70.0 - 130.0	MS	31-DEC-09 01:53	091230-3
	Lead	2.49	ug/L	2	ug/L	124.5	70.0 - 130.0	MS	31-DEC-09 01:53	091230-3
	Beryllium	.565	ug/L	.5	ug/L	113	70.0 - 130.0	MS	31-DEC-09 01:53	091230-3
	Antimony	3.42	ug/L	3	ug/L	114.1	70.0 - 130.0	MS	31-DEC-09 01:53	091230-3
	Thallium	1.27	ug/L	1	ug/L	126.8	70.0 - 130.0	MS	31-DEC-09 13:40	091231-4
	Manganese	5.99	ug/L	5	ug/L	119.8	70.0 - 130.0	MS	01-JAN-10 07:00	091231-9
	Lithium	11.6	ug/L	10	ug/L	115.9	70.0 - 130.0	MS	01-JAN-10 07:00	091231-9
	Uranium	.199	ug/L	.2	ug/L	99.5	70.0 - 130.0	MS	01-JAN-10 08:25	091231-2
PQL01										
	Aluminum	209	ug/L	200	ug/L	104.6	70.0 - 130.0	P	20-DEC-09 05:42	122009-1
	Iron	132	ug/L	100	ug/L	132.1	70.0 - 130.0	P	20-DEC-09 05:42	122009-1
	Magnesium	318	ug/L	300	ug/L	106	70.0 - 130.0	P	20-DEC-09 05:42	122009-1
	Nickel	5.76	ug/L	5	ug/L	115.2	70.0 - 130.0	P	20-DEC-09 05:42	122009-1
	Potassium	138	ug/L	150	ug/L	91.8	70.0 - 130.0	P	20-DEC-09 05:42	122009-1
	Silver	5.77	ug/L	5	ug/L	115.4	70.0 - 130.0	P	20-DEC-09 05:42	122009-1
	Sodium	307	ug/L	300	ug/L	102.3	70.0 - 130.0	P	20-DEC-09 05:42	122009-1
	Arsenic	33	ug/L	30	ug/L	109.9	70.0 - 130.0	P	20-DEC-09 05:42	122009-1
	Barium	5.11	ug/L	5	ug/L	102.2	70.0 - 130.0	P	20-DEC-09 05:42	122009-1
	Chromium	4.86	ug/L	5	ug/L	97.2	70.0 - 130.0	P	20-DEC-09 05:42	122009-1
	Cobalt	5.36	ug/L	5	ug/L	107.1	70.0 - 130.0	P	20-DEC-09 05:42	122009-1
	Copper	9.83	ug/L	10	ug/L	98.3	70.0 - 130.0	P	20-DEC-09 05:42	122009-1
	Vanadium	5.52	ug/L	5	ug/L	110.4	70.0 - 130.0	P	20-DEC-09 05:42	122009-1
	Zinc	10.2	ug/L	10	ug/L	101.7	70.0 - 130.0	P	20-DEC-09 05:42	122009-1
	Calcium	204	ug/L	200	ug/L	102.2	70.0 - 130.0	P	20-DEC-09 05:42	122009-1
	Selenium	24.1	ug/L	30	ug/L	80.3	70.0 - 130.0	P	20-DEC-09 05:42	122009-1
	Boron	51.1	ug/L	50	ug/L	102.2	70.0 - 130.0	P	20-DEC-09 05:42	122009-1
	Silicon	98.6	ug/L	100	ug/L	98.6	70.0 - 130.0	P	20-DEC-09 05:42	122009-1
	Titanium	4.97	ug/L	5	ug/L	99.4	70.0 - 130.0	P	20-DEC-09 05:42	122009-1

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-941-1

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
ICB01										
	Aluminum	68.0	+/-200	U	68.0	200	LIQ	P	20-DEC-09 05:38	122009-1
	Arsenic	5.0	+/-30	U	5.0	30.0	LIQ	P	20-DEC-09 05:38	122009-1
	Barium	1.0	+/-5	U	1.0	5.0	LIQ	P	20-DEC-09 05:38	122009-1
	Boron	15.0	+/-50	U	15.0	50.0	LIQ	P	20-DEC-09 05:38	122009-1
	Calcium	50.0	+/-200	U	50.0	200	LIQ	P	20-DEC-09 05:38	122009-1
	Chromium	1.0	+/-5	U	1.0	5.0	LIQ	P	20-DEC-09 05:38	122009-1
	Cobalt	1.0	+/-5	U	1.0	5.0	LIQ	P	20-DEC-09 05:38	122009-1
	Copper	3.0	+/-10	U	3.0	10.0	LIQ	P	20-DEC-09 05:38	122009-1
	Iron	30.0	+/-100	U	30.0	100	LIQ	P	20-DEC-09 05:38	122009-1
	Magnesium	85.0	+/-300	U	85.0	300	LIQ	P	20-DEC-09 05:38	122009-1
	Nickel	1.5	+/-5	U	1.5	5.0	LIQ	P	20-DEC-09 05:38	122009-1
	Potassium	50.0	+/-150	U	50.0	150	LIQ	P	20-DEC-09 05:38	122009-1
	Selenium	-8.37	+/-30	J	5.0	30.0	LIQ	P	20-DEC-09 05:38	122009-1
	Silicon	25.0	+/-100	U	25.0	100	LIQ	P	20-DEC-09 05:38	122009-1
	Silver	1.0	+/-5	U	1.0	5.0	LIQ	P	20-DEC-09 05:38	122009-1
	Sodium	100	+/-300	U	100	300	LIQ	P	20-DEC-09 05:38	122009-1
	Titanium	1.0	+/-5	U	1.0	5.0	LIQ	P	20-DEC-09 05:38	122009-1
	Vanadium	1.0	+/-5	U	1.0	5.0	LIQ	P	20-DEC-09 05:38	122009-1
	Zinc	3.3	+/-10	U	3.3	10.0	LIQ	P	20-DEC-09 05:38	122009-1
	Mercury	0.066	+/-.2	U	0.066	0.2	LIQ	AV	24-DEC-09 07:35	122409W1-10
	Antimony	1.0	+/-3	U	1.0	3.0	LIQ	MS	31-DEC-09 01:46	091230-3
	Beryllium	0.1	+/-.5	U	0.1	0.5	LIQ	MS	31-DEC-09 01:46	091230-3
	Cadmium	0.11	+/-1	U	0.11	1.0	LIQ	MS	31-DEC-09 01:46	091230-3
	Lead	0.5	+/-2	U	0.5	2.0	LIQ	MS	31-DEC-09 01:46	091230-3
	Thallium	0.3	+/-1	U	0.3	1.0	LIQ	MS	31-DEC-09 13:35	091231-4
	Lithium	2.0	+/-10	U	2.0	10.0	LIQ	MS	01-JAN-10 06:58	091231-9
	Manganese	1.0	+/-5	U	1.0	5.0	LIQ	MS	01-JAN-10 06:58	091231-9
	Uranium	0.05	+/-.2	U	0.05	0.2	LIQ	MS	01-JAN-10 08:23	091231-2
CCB01										
	Aluminum	68.0	+/-200	U	68.0	200	LIQ	P	20-DEC-09 06:02	122009-1
	Arsenic	5.0	+/-30	U	5.0	30.0	LIQ	P	20-DEC-09 06:02	122009-1

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-941-1

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Barium	1.78	+/-5	J	1.0	5.0	LIQ	P	20-DEC-09 06:02	122009-1
	Boron	15.0	+/-50	U	15.0	50.0	LIQ	P	20-DEC-09 06:02	122009-1
	Calcium	50.0	+/-200	U	50.0	200	LIQ	P	20-DEC-09 06:02	122009-1
	Chromium	1.89	+/-5	J	1.0	5.0	LIQ	P	20-DEC-09 06:02	122009-1
	Cobalt	1.14	+/-5	J	1.0	5.0	LIQ	P	20-DEC-09 06:02	122009-1
	Copper	3.0	+/-10	U	3.0	10.0	LIQ	P	20-DEC-09 06:02	122009-1
	Iron	49.58	+/-100	J	30.0	100	LIQ	P	20-DEC-09 06:02	122009-1
	Magnesium	85.0	+/-300	U	85.0	300	LIQ	P	20-DEC-09 06:02	122009-1
	Nickel	2.09	+/-5	J	1.5	5.0	LIQ	P	20-DEC-09 06:02	122009-1
	Potassium	50.0	+/-150	U	50.0	150	LIQ	P	20-DEC-09 06:02	122009-1
	Selenium	-7.36	+/-30	J	5.0	30.0	LIQ	P	20-DEC-09 06:02	122009-1
	Silicon	25.0	+/-100	U	25.0	100	LIQ	P	20-DEC-09 06:02	122009-1
	Silver	1.0	+/-5	U	1.0	5.0	LIQ	P	20-DEC-09 06:02	122009-1
	Sodium	100	+/-300	U	100	300	LIQ	P	20-DEC-09 06:02	122009-1
	Titanium	1.16	+/-5	J	1.0	5.0	LIQ	P	20-DEC-09 06:02	122009-1
	Vanadium	1.0	+/-5	U	1.0	5.0	LIQ	P	20-DEC-09 06:02	122009-1
	Zinc	3.3	+/-10	U	3.3	10.0	LIQ	P	20-DEC-09 06:02	122009-1
	Mercury	0.066	+/-.2	U	0.066	0.2	LIQ	AV	24-DEC-09 07:41	122409W1-10
	Antimony	1.0	+/-3	U	1.0	3.0	LIQ	MS	31-DEC-09 02:17	091230-3
	Beryllium	0.1	+/-.5	U	0.1	0.5	LIQ	MS	31-DEC-09 02:17	091230-3
	Cadmium	0.11	+/-1	U	0.11	1.0	LIQ	MS	31-DEC-09 02:17	091230-3
	Lead	0.5	+/-2	U	0.5	2.0	LIQ	MS	31-DEC-09 02:17	091230-3
	Thallium	0.3	+/-1	U	0.3	1.0	LIQ	MS	31-DEC-09 13:58	091231-4
	Lithium	2.0	+/-10	U	2.0	10.0	LIQ	MS	01-JAN-10 07:09	091231-9
	Manganese	1.0	+/-5	U	1.0	5.0	LIQ	MS	01-JAN-10 07:09	091231-9
	Uranium	0.05	+/-.2	U	0.05	0.2	LIQ	MS	01-JAN-10 08:32	091231-2
CCB02										
	Aluminum	68.0	+/-200	U	68.0	200	LIQ	P	20-DEC-09 06:49	122009-1
	Arsenic	5.0	+/-30	U	5.0	30.0	LIQ	P	20-DEC-09 06:49	122009-1
	Barium	1.0	+/-5	U	1.0	5.0	LIQ	P	20-DEC-09 06:49	122009-1
	Boron	15.0	+/-50	U	15.0	50.0	LIQ	P	20-DEC-09 06:49	122009-1

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-941-1

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Calcium	50.0	+/-200	U	50.0	200	LIQ	P	20-DEC-09 06:49	122009-1
	Chromium	1.0	+/-5	U	1.0	5.0	LIQ	P	20-DEC-09 06:49	122009-1
	Cobalt	1.0	+/-5	U	1.0	5.0	LIQ	P	20-DEC-09 06:49	122009-1
	Copper	3.0	+/-10	U	3.0	10.0	LIQ	P	20-DEC-09 06:49	122009-1
	Iron	30.0	+/-100	U	30.0	100	LIQ	P	20-DEC-09 06:49	122009-1
	Magnesium	85.0	+/-300	U	85.0	300	LIQ	P	20-DEC-09 06:49	122009-1
	Nickel	1.5	+/-5	U	1.5	5.0	LIQ	P	20-DEC-09 06:49	122009-1
	Potassium	50.0	+/-150	U	50.0	150	LIQ	P	20-DEC-09 06:49	122009-1
	Selenium	-11.28	+/-30	J	5.0	30.0	LIQ	P	20-DEC-09 06:49	122009-1
	Silicon	25.0	+/-100	U	25.0	100	LIQ	P	20-DEC-09 06:49	122009-1
	Silver	1.0	+/-5	U	1.0	5.0	LIQ	P	20-DEC-09 06:49	122009-1
	Sodium	100	+/-300	U	100	300	LIQ	P	20-DEC-09 06:49	122009-1
	Titanium	1.0	+/-5	U	1.0	5.0	LIQ	P	20-DEC-09 06:49	122009-1
	Vanadium	1.0	+/-5	U	1.0	5.0	LIQ	P	20-DEC-09 06:49	122009-1
	Zinc	3.3	+/-10	U	3.3	10.0	LIQ	P	20-DEC-09 06:49	122009-1
	Mercury	0.066	+/-.2	U	0.066	0.2	LIQ	AV	24-DEC-09 08:04	122409W1-10
	Antimony	1.0	+/-3	U	1.0	3.0	LIQ	MS	31-DEC-09 02:35	091230-3
	Beryllium	0.1	+/-.5	U	0.1	0.5	LIQ	MS	31-DEC-09 02:35	091230-3
	Cadmium	0.11	+/-1	U	0.11	1.0	LIQ	MS	31-DEC-09 02:35	091230-3
	Lead	0.5	+/-2	U	0.5	2.0	LIQ	MS	31-DEC-09 02:35	091230-3
	Thallium	0.3	+/-1	U	0.3	1.0	LIQ	MS	31-DEC-09 14:39	091231-4
	Lithium	2.0	+/-10	U	2.0	10.0	LIQ	MS	01-JAN-10 07:31	091231-9
	Manganese	1.0	+/-5	U	1.0	5.0	LIQ	MS	01-JAN-10 07:31	091231-9
	Uranium	0.05	+/-.2	U	0.05	0.2	LIQ	MS	01-JAN-10 08:47	091231-2
CCB03										
	Mercury	0.066	+/-.2	U	0.066	0.2	LIQ	AV	24-DEC-09 08:27	122409W1-10
	Antimony	1.0	+/-3	U	1.0	3.0	LIQ	MS	31-DEC-09 03:31	091230-3
	Beryllium	0.1	+/-.5	U	0.1	0.5	LIQ	MS	31-DEC-09 03:31	091230-3
	Cadmium	0.11	+/-1	U	0.11	1.0	LIQ	MS	31-DEC-09 03:31	091230-3
	Lead	0.5	+/-2	U	0.5	2.0	LIQ	MS	31-DEC-09 03:31	091230-3
	Thallium	0.3	+/-1	U	0.3	1.0	LIQ	MS	31-DEC-09 15:19	091231-4

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-941-1

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
CCB04										
	Mercury	0.066	+/-.2	U	0.066	0.2	LIQ	AV	24-DEC-09 08:50	122409W1-10
CCB05										
	Mercury	0.066	+/-.2	U	0.066	0.2	LIQ	AV	24-DEC-09 09:13	122409W1-10
CCB06										
	Mercury	0.066	+/-.2	U	0.066	0.2	LIQ	AV	24-DEC-09 09:36	122409W1-10
CCB07										
	Mercury	0.066	+/-.2	U	0.066	0.2	LIQ	AV	24-DEC-09 10:00	122409W1-10
CCB08										
	Mercury	0.066	+/-.2	U	0.066	0.2	LIQ	AV	24-DEC-09 10:23	122409W1-10

METALS
–3b–
PREPARATION BLANK SUMMARY

SDG NO. 10–941–1

Contract: LANL01004

Matrix: WATER

Sample ID	Analyte	Result	Units	Acceptance Window	Conc Qual	M	MDL	RDL
1201999355								
	Copper	3	ug/L	+/–10	U	P	3	10
	Iron	30	ug/L	+/–100	U	P	30	100
	Magnesium	85	ug/L	+/–300	U	P	85	300
	Nickel	1.5	ug/L	+/–5	U	P	1.5	5
	Potassium	50	ug/L	+/–150	U	P	50	150
	Selenium	5	ug/L	+/–30	U	P	5	30
	Silicon	25	ug/L	+/–100	U	P	25	100
	Silver	1	ug/L	+/–5	U	P	1	5
	Sodium	100	ug/L	+/–300	U	P	100	300
	Cobalt	1	ug/L	+/–5	U	P	1	5
	Chromium	1	ug/L	+/–5	U	P	1	5
	Calcium	50	ug/L	+/–200	U	P	50	200
	Boron	15	ug/L	+/–50	U	P	15	50
	Barium	1	ug/L	+/–5	U	P	1	5
	Arsenic	5	ug/L	+/–30	U	P	5	30
	Aluminum	68	ug/L	+/–200	U	P	68	200
	Titanium	1	ug/L	+/–5	U	P	1	5
	Vanadium	1	ug/L	+/–5	U	P	1	5
	Zinc	3.3	ug/L	+/–10	U	P	3.3	10
1201999360								
	Antimony	1	ug/L	+/–3	U	MS	1	3
	Beryllium	0.1	ug/L	+/–0.5	U	MS	0.1	0.5
	Cadmium	0.11	ug/L	+/–1	U	MS	0.11	1
	Lead	0.5	ug/L	+/–2	U	MS	0.5	2
	Lithium	2	ug/L	+/–10	U	MS	2	10
	Manganese	1	ug/L	+/–5	U	MS	1	5
	Thallium	0.3	ug/L	+/–1	U	MS	0.3	1
	Uranium	0.05	ug/L	+/–0.2	U	MS	0.05	0.2
1202000246								
	Mercury	0.066	ug/L	+/–0.2	U	AV	0.066	0.2

METALS
–4–
Interference Check Sample

SDG No: 10–941–1

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Aluminum	493000	ug/L	500000	ug/L	98.7	80.0 – 120.0	20–DEC–09 05:46	122009–1
	Arsenic	–28.9	ug/L					20–DEC–09 05:46	122009–1
	Barium	5.74	ug/L					20–DEC–09 05:46	122009–1
	Boron	23.7	ug/L					20–DEC–09 05:46	122009–1
	Calcium	474000	ug/L	500000	ug/L	94.8	80.0 – 120.0	20–DEC–09 05:46	122009–1
	Chromium	–3.23	ug/L					20–DEC–09 05:46	122009–1
	Cobalt	–1.15	ug/L					20–DEC–09 05:46	122009–1
	Copper	7.27	ug/L					20–DEC–09 05:46	122009–1
	Iron	186000	ug/L	200000	ug/L	93.2	80.0 – 120.0	20–DEC–09 05:46	122009–1
	Magnesium	480000	ug/L	500000	ug/L	96	80.0 – 120.0	20–DEC–09 05:46	122009–1
	Nickel	–0.119	ug/L					20–DEC–09 05:46	122009–1
	Potassium	–85.8	ug/L					20–DEC–09 05:46	122009–1
	Selenium	12.3	ug/L					20–DEC–09 05:46	122009–1
	Silicon	16.7	ug/L					20–DEC–09 05:46	122009–1
	Silver	–4.19	ug/L					20–DEC–09 05:46	122009–1
	Sodium	15.3	ug/L					20–DEC–09 05:46	122009–1
	Titanium	–1.1	ug/L					20–DEC–09 05:46	122009–1
	Vanadium	–2.35	ug/L					20–DEC–09 05:46	122009–1
	Zinc	4.2	ug/L					20–DEC–09 05:46	122009–1
ICSAB01									
	Aluminum	498000	ug/L	500000	ug/L	99.7	80.0 – 120.0	20–DEC–09 05:49	122009–1
	Arsenic	482	ug/L	500	ug/L	96.5	80.0 – 120.0	20–DEC–09 05:49	122009–1
	Barium	509	ug/L	500	ug/L	102	80.0 – 120.0	20–DEC–09 05:49	122009–1
	Boron	549	ug/L	500	ug/L	110	80.0 – 120.0	20–DEC–09 05:49	122009–1
	Calcium	478000	ug/L	500000	ug/L	95.7	80.0 – 120.0	20–DEC–09 05:49	122009–1
	Chromium	494	ug/L	500	ug/L	98.8	80.0 – 120.0	20–DEC–09 05:49	122009–1
	Cobalt	444	ug/L	500	ug/L	88.8	80.0 – 120.0	20–DEC–09 05:49	122009–1
	Copper	553	ug/L	500	ug/L	111	80.0 – 120.0	20–DEC–09 05:49	122009–1
	Iron	188000	ug/L	200000	ug/L	93.8	80.0 – 120.0	20–DEC–09 05:49	122009–1

METALS
-4-
Interference Check Sample

SDG No: 10-941-1

Contract: LANL01004 **Lab Code:** GEL

ICS:

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
	Magnesium	485000	ug/L	500000	ug/L	97	80.0 – 120.0	20-DEC-09 05:49	122009-1
	Nickel	447	ug/L	500	ug/L	89.3	80.0 – 120.0	20-DEC-09 05:49	122009-1
	Potassium	5080	ug/L	5000	ug/L	102	80.0 – 120.0	20-DEC-09 05:49	122009-1
	Selenium	2390	ug/L	2500	ug/L	95.5	80.0 – 120.0	20-DEC-09 05:49	122009-1
	Silicon	5210	ug/L	5000	ug/L	104	80.0 – 120.0	20-DEC-09 05:49	122009-1
	Silver	265	ug/L	250	ug/L	106	80.0 – 120.0	20-DEC-09 05:49	122009-1
	Sodium	5060	ug/L	5000	ug/L	101	80.0 – 120.0	20-DEC-09 05:49	122009-1
	Titanium	501	ug/L	500	ug/L	100	80.0 – 120.0	20-DEC-09 05:49	122009-1
	Vanadium	524	ug/L	500	ug/L	105	80.0 – 120.0	20-DEC-09 05:49	122009-1
	Zinc	489	ug/L	500	ug/L	97.8	80.0 – 120.0	20-DEC-09 05:49	122009-1

METALS
–4–
Interference Check Sample

SDG No: 10–941–1

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: ICPMS4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Uranium	–0.041	ug/L					01–JAN–10 08:27	091231–2
ICSAB01									
	Uranium	20.4	ug/L	20	ug/L	102	80.0 – 120.0	01–JAN–10 08:29	091231–2

METALS
-4-
Interference Check Sample

SDG No: 10-941-1

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: ICPMS5

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Antimony	0.165	ug/L					31-DEC-09 01:59	091230-3
	Beryllium	0.06	ug/L					31-DEC-09 01:59	091230-3
	Cadmium	0.64	ug/L					31-DEC-09 01:59	091230-3
	Lead	0.196	ug/L					31-DEC-09 01:59	091230-3
ICSAB01									
	Antimony	21.9	ug/L	20.1	ug/L	109	80.0 – 120.0	31-DEC-09 02:05	091230-3
	Beryllium	19.7	ug/L	20	ug/L	98.6	80.0 – 120.0	31-DEC-09 02:05	091230-3
	Cadmium	19.9	ug/L	20.4	ug/L	97.3	80.0 – 120.0	31-DEC-09 02:05	091230-3
	Lead	21.8	ug/L	20.5	ug/L	106	80.0 – 120.0	31-DEC-09 02:05	091230-3

METALS
-4-
Interference Check Sample

SDG No: 10--941-1

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: ICPMS5

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Thallium	0.026	ug/L					31-DEC-09 13:44	091231-4
ICSAB01									
	Thallium	21.8	ug/L	20	ug/L	109	80.0 - 120.0	31-DEC-09 13:49	091231-4

METALS
–4–
Interference Check Sample

SDG No: 10–941–1

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: ICPMS5

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Lithium	0.107	ug/L					01–JAN–10 07:02	091231–9
	Manganese	6.14	ug/L					01–JAN–10 07:02	091231–9
ICSAB01									
	Lithium	21.6	ug/L	20	ug/L	108	80.0 – 120.0	01–JAN–10 07:05	091231–9
	Manganese	27.1	ug/L	25.8	ug/L	105	80.0 – 120.0	01–JAN–10 07:05	091231–9

METALS
-5a-

Matrix Spike Summary

SDG NO. 10-941-1 **Client ID** RE03-10-2760S

Contract: LANL01004 **Level:** Low

Matrix: WATER **% Solids:**

Sample ID: 243043001 **Spike ID:** 1201999358

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Aluminum	ug/L	75-125	5180		118	J	5000	101		P
Arsenic	ug/L	75-125	515		5	U	500	103		P
Barium	ug/L	75-125	533		2.04	J	500	106		P
Boron	ug/L	75-125	512		15	U	500	102		P
Calcium	ug/L	75-125	5110		80.5	J	5000	101		P
Chromium	ug/L	75-125	537		11.1		500	105		P
Cobalt	ug/L	75-125	518		1	U	500	104		P
Copper	ug/L	75-125	510		3	U	500	102		P
Iron	ug/L	75-125	5360		160		5000	104		P
Magnesium	ug/L	75-125	5250		85	U	5000	105		P
Nickel	ug/L	75-125	536		7.42		500	106		P
Potassium	ug/L	75-125	5080		87.3	J	5000	99.8		P
Selenium	ug/L	75-125	485		5	U	500	97		P
Silicon	ug/L	75-125	5500		388		5000	102		P
Silver	ug/L	75-125	514		1	U	500	103		P
Sodium	ug/L	75-125	5310		253	J	5000	101		P
Titanium	ug/L	75-125	516		2.83	J	500	103		P
Vanadium	ug/L	75-125	529		1	U	500	106		P
Zinc	ug/L	75-125	513		5.87	J	500	101		P

METALS
-5a-
Matrix Spike Summary

SDG NO. 10-941-1 **Client ID** RE03-10-2760S

Contract: LANL01004 **Level:** Low

Matrix: WATER **% Solids:**

Sample ID: 243043001 **Spike ID:** 1201999363

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Lead	ug/L	75-125	45.3		0.5	U	40	113		MS
Lithium	ug/L	75-125	56.4		2	U	50	112		MS
Manganese	ug/L	75-125	60.4		4.85	J	50	111		MS
Thallium	ug/L	75-125	84		0.355	J	100	83.6		MS
Uranium	ug/L	75-125	58.5		0.05	U	50	117		MS
Antimony	ug/L	75-125	202		1	U	200	101		MS
Beryllium	ug/L	75-125	55		0.1	U	50	110		MS
Cadmium	ug/L	75-125	11		0.11	U	10	110		MS

METALS
–5a–
Matrix Spike Summary

SDG NO. 10–941–1 **Client ID** RE03–10–2760S

Contract: LANL01004 **Level:** Low

Matrix: WATER **% Solids:**

Sample ID: 243043001 **Spike ID:** 1202000249

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Mercury	ug/L	75–125	1.97		0.066	U	2	98.6		AV

Metals
-6-
Duplicate Sample Summary

SDG No.: 10-941-1

Contract: LANL01004 **Lab Code:** GEL

Matrix: LIQUID **Level:** Low **Client ID:** RE03-10-2760D

Sample ID: 243043001 **Duplicate ID:** 1201999357 **Percent Solids for Dup:** N/A

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	ug/L	+/-200	118	J	110	J	6.77		P
Arsenic	ug/L		5	U	5	U			P
Barium	ug/L	+/-5	2.04	J	1.78	J	13.6		P
Boron	ug/L		15	U	15	U			P
Calcium	ug/L	+/-200	80.5	J	79.7	J	.992		P
Chromium	ug/L	+/-5	11.1		11.2		.969		P
Cobalt	ug/L		1	U	1	U			P
Copper	ug/L		3	U	3	U			P
Iron	ug/L	+/-100	160		165		3.06		P
Magnesium	ug/L		85	U	85	U			P
Nickel	ug/L	+/-5	7.42		7.73		4.09		P
Potassium	ug/L	+/-150	87.3	J	88.5	J	1.35		P
Selenium	ug/L		5	U	5	U			P
Silicon	ug/L	+/-100	388		379		2.41		P
Silver	ug/L		1	U	1	U			P
Sodium	ug/L	+/-300	253	J	250	J	.942		P
Titanium	ug/L	+/-5	2.83	J	2.84	J	.123		P
Vanadium	ug/L		1	U	1	U			P
Zinc	ug/L	+/-10	5.87	J	6.02	J	2.6		P

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–941–1

Contract: LANL01004 **Lab Code:** GEL

Matrix: LIQUID **Level:** Low **Client ID:** RE03–10–2760D

Sample ID: 243043001 **Duplicate ID:** 1201999362 **Percent Solids for Dup:** N/A

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Antimony	ug/L		1	U	1	U			MS
Beryllium	ug/L		0.1	U	0.1	U			MS
Cadmium	ug/L		0.11	U	0.11	U			MS
Lead	ug/L		0.5	U	0.5	U			MS
Lithium	ug/L		2	U	2	U			MS
Manganese	ug/L	+/–5	4.85	J	4.93	J	1.53		MS
Thallium	ug/L		0.355	J	0.3	U	200		MS
Uranium	ug/L		0.05	U	0.05	U			MS

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–941–1

Contract: LANL01004 **Lab Code:** GEL

Matrix: LIQUID **Level:** Low **Client ID:** RE03–10–2760D

Sample ID: 243043001 **Duplicate ID:** 1202000248 **Percent Solids for Dup:** N/A

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Mercury	ug/L		0.066	U	0.066	U			AV

METALS
-7-
Laboratory Control Sample Summary

SDG NO. 10-941-1

Contract: LANL01004

Aqueous LCS Source:OS2I **Solid LCS Source:**

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1201999356								
	Calcium	ug/L	5000	5090		102	80-120	P
	Chromium	ug/L	500	527		105	80-120	P
	Cobalt	ug/L	500	524		105	80-120	P
	Copper	ug/L	500	510		102	80-120	P
	Iron	ug/L	5000	5270		105	80-120	P
	Magnesium	ug/L	5000	5280		106	80-120	P
	Nickel	ug/L	500	534		107	80-120	P
	Potassium	ug/L	5000	5050		101	80-120	P
	Selenium	ug/L	500	500		100	80-120	P
	Silicon	ug/L	5000	5070		101	80-120	P
	Silver	ug/L	500	519		104	80-120	P
	Sodium	ug/L	5000	5140		103	80-120	P
	Titanium	ug/L	500	517		103	80-120	P
	Vanadium	ug/L	500	531		106	80-120	P
	Zinc	ug/L	500	512		102	80-120	P
	Aluminum	ug/L	5000	5070		101	80-120	P
	Arsenic	ug/L	500	525		105	80-120	P
	Barium	ug/L	500	537		107	80-120	P
	Boron	ug/L	500	517		103	80-120	P

METALS
-7-
Laboratory Control Sample Summary

SDG NO. 10-941-1

Contract: LANL01004

Aqueous LCS Source:O2si **Solid LCS Source:**

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1201999361								
	Antimony	ug/L	50	54.4		109	80-120	MS
	Beryllium	ug/L	50	53.7		107	80-120	MS
	Cadmium	ug/L	50	51.3		103	80-120	MS
	Lead	ug/L	50	54.2		108	80-120	MS
	Lithium	ug/L	50	53.2		106	80-120	MS
	Manganese	ug/L	50	53		106	80-120	MS
	Thallium	ug/L	50	46		92	80-120	MS
	Uranium	ug/L	50	57.4		115	80-120	MS

METALS
-7-
Laboratory Control Sample Summary

SDG NO. 10-941-1

Contract: LANL01004

Aqueous LCS Source: GEL **Solid LCS Source:**

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202000247								
	Mercury	ug/L	2	2.02		101	80-120	AV

METALS
-9-
Serial Dilution Sample Summary

SDG NO. 10-941-1 **Client ID** RE03-10-2760L

Contract: LANL01004

Matrix: LIQUID **Level:** Low

Sample ID: 243043001 **Serial Dilution ID:** 1201999359

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Aluminum	118	J	340	U	100			P
Arsenic	5	U	25	U				P
Barium	2.04	J	5	U	100			P
Boron	15	U	75	U				P
Calcium	80.5	J	250	U	100			P
Chromium	11.1		11.6	J	4.05			P
Cobalt	1	U	5	U				P
Copper	3	U	15	U				P
Iron	160		264	J	64.7			P
Magnesium	85	U	425	U				P
Nickel	7.42		8.55	J	15.2			P
Potassium	87.3	J	250	U	100			P
Selenium	5	U	25	U				P
Silicon	388		386	J	.515			P
Silver	1	U	5.1	J				P
Sodium	253	J	500	U	100			P
Titanium	2.83	J	5	U	100			P
Vanadium	1	U	5	U				P
Zinc	5.87	J	16.5	U	100			P

METALS
-9-
Serial Dilution Sample Summary

SDG NO. 10-941-1 **Client ID** RE03-10-2760L

Contract: LANL01004

Matrix: LIQUID **Level:** Low

Sample ID: 243043001 **Serial Dilution ID:** 1201999364

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Antimony	1	U	5	U				MS
Beryllium	.1	U	.5	U				MS
Cadmium	.11	U	.55	U				MS
Lead	.5	U	2.5	U				MS
Lithium	2	U	10	U				MS
Manganese	4.85	J	5		3.09			MS
Thallium	.355	J	3.02	J	749			MS
Uranium	.05	U	.25	U				MS

METALS
–9–
Serial Dilution Sample Summary

SDG NO. 10–941–1 **Client ID** RE03–10–2760L

Contract: LANL01004

Matrix: LIQUID **Level:** Low

Sample ID: 243043001 **Serial Dilution ID:** 1202000250

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Mercury	.066	U	.33	U				AV

METALS
-13-
SAMPLE PREPARATION SUMMARY

SDG No: 10-941-1 **Method Type:** P

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number	934498						
1201999355	MB for batch 934498	MB	W	19-DEC-09	50mL	50mL	
1201999356	LCS for batch 934498	LCS	W	19-DEC-09	50mL	50mL	
1201999358	RE03-10-2760S	MS	W	19-DEC-09	50mL	50mL	
1201999357	RE03-10-2760D	DUP	W	19-DEC-09	50mL	50mL	
243043001	RE03-10-2760	SAMPLE	W	19-DEC-09	50mL	50mL	
243043002	RE03-10-2748	SAMPLE	W	19-DEC-09	50mL	50mL	

METALS
-13-
SAMPLE PREPARATION SUMMARY

SDG No: 10-941-1 **Method Type:** MS

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number	934500						
1201999360	MB for batch 934500	MB	W	19-DEC-09	50mL	50mL	
1201999361	LCS for batch 934500	LCS	W	19-DEC-09	50mL	50mL	
1201999363	RE03-10-2760S	MS	W	19-DEC-09	50mL	50mL	
1201999362	RE03-10-2760D	DUP	W	19-DEC-09	50mL	50mL	
243043001	RE03-10-2760	SAMPLE	W	19-DEC-09	50mL	50mL	
243043002	RE03-10-2748	SAMPLE	W	19-DEC-09	50mL	50mL	

METALS
–13–
SAMPLE PREPARATION SUMMARY

SDG No: 10–941–1 **Method Type:** AV

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number	934908						
1202000246	MB for batch 934908	MB	W	23–DEC–09	20mL	20mL	
1202000247	LCS for batch 934908	LCS	W	23–DEC–09	20mL	20mL	
1202000249	RE03–10–2760S	MS	W	23–DEC–09	20mL	20mL	
1202000248	RE03–10–2760D	DUP	W	23–DEC–09	20mL	20mL	
243043001	RE03–10–2760	SAMPLE	W	23–DEC–09	20mL	20mL	
243043002	RE03–10–2748	SAMPLE	W	23–DEC–09	20mL	20mL	

Metals
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Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: ICPMS5
Start Date: 31–DEC–09 **End Date:** 31–DEC–09

Client Sdg: 10–941–1
Method MS
Data File: 091230–3

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Li	Mg	Mn	Hg	Ni	K	Se	Si	Ag	Na	Tl	Ti	U	V	Zn
S0.0	1	01:22		X			X		X						X															
S10	1	01:28		X			X		X						X															
S100	1	01:34		X			X		X						X															
ICV01	1	01:40		X			X		X						X															
ICB01	1	01:46		X			X		X						X															
CRDL01	1	01:53		X			X		X						X															
ICSA01	1	01:59		X			X		X						X															
ICSAB01	1	02:05		X			X		X						X															
CCV01	1	02:11		X			X		X						X															
CCB01	1	02:17		X			X		X						X															
LR01	1	02:23		X			X		X						X															
CCV02	1	02:29		X			X		X						X															
CCB02	1	02:35		X			X		X						X															
1201999360	1	02:42		X			X		X						X															
1201999361	1	02:48		X			X		X						X															
243043001	1	02:54		X			X		X						X															
1201999362	1	03:00		X			X		X						X															
1201999363	1	03:06		X			X		X						X															
1201999364	5	03:12		X			X		X						X															
243043002	1	03:18		X			X		X						X															
CCV03	1	03:25		X			X		X						X															
CCB03	1	03:31		X			X		X						X															

Metals
–14–
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: ICPMS5
Start Date: 31–DEC–09 **End Date:** 01–JAN–10

Client Sdg: 10–941–1
Method MS
Data File: 091231–4

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Li	Mg	Mn	Hg	Ni	K	Se	Si	Ag	Na	Tl	Ti	U	V	Zn
S0.0	1	13:17																								X				
S10	1	13:22																								X				
S100	1	13:26																								X				
ICV01	1	13:31																								X				
ICB01	1	13:35																								X				
CRDL01	1	13:40																								X				
ICSA01	1	13:44																								X				
ICSAB01	1	13:49																								X				
CCV01	1	13:53																								X				
CCB01	1	13:58																								X				
ZZZZZZ	1	14:02																												
ZZZZZZ	1	14:07																												
ZZZZZZ	1	14:11																												
ZZZZZZ	1	14:16																												
ZZZZZZ	1	14:20																												
ZZZZZZ	5	14:25																												
ZZZZZZ	1	14:30																												
CCV02	1	14:34																								X				
CCB02	1	14:39																								X				
1201999360	1	14:43																								X				
1201999361	1	14:48																								X				
243043001	1	14:52																								X				
1201999362	1	14:57																								X				
1201999363	1	15:01																								X				
1201999364	5	15:06																								X				
243043002	1	15:10																								X				
CCV03	1	15:15																								X				
CCB03	1	15:19																								X				

Metals
-14-
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: ICPMS5
Start Date: 31-DEC-09 **End Date:** 01-JAN-10

Client Sdg: 10-941-1
Method MS
Data File: 091231-9

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Li	Mg	Mn	Hg	Ni	K	Se	Si	Ag	Na	Tl	Ti	U	V	Zn
S0.0	1	06:49														X		X												
S10	1	06:51														X		X												
S100	1	06:53														X		X												
ICV01	1	06:55														X		X												
ICB01	1	06:58														X		X												
CRDL01	1	07:00														X		X												
ICSA01	1	07:02														X		X												
ICSAB01	1	07:05														X		X												
CCV01	1	07:07														X		X												
CCB01	1	07:09														X		X												
1201999360	1	07:12														X		X												
1201999361	1	07:14														X		X												
243043001	1	07:16														X		X												
1201999362	1	07:19														X		X												
1201999363	1	07:21														X		X												
1201999364	5	07:24														X		X												
243043002	1	07:26														X		X												
CCV02	1	07:28														X		X												
CCB02	1	07:31														X		X												

Metals
–14–
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: HG3
Start Date: 24–DEC–09 **End Date:** 24–DEC–09

Client Sdg: 10–941–1
Method AV
Data File: 122409W1–10

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Li	Mg	Mn	Hg	Ni	K	Se	Si	Ag	Na	Tl	Ti	U	V	Zn
S0.0	1	07:22																	X											
S0.2	1	07:24																	X											
S0.5	1	07:26																	X											
S2.0	1	07:28																	X											
S5.0	1	07:29																	X											
S10.0	1	07:31																	X											
ICV01	1	07:33																	X											
ICB01	1	07:35																	X											
CRDL01	1	07:37																	X											
CCV01	1	07:39																	X											
CCB01	1	07:41																	X											
ZZZZZZ	1	07:43																												
ZZZZZZ	1	07:45																												
ZZZZZZ	1	07:47																												
ZZZZZZ	1	07:49																												
ZZZZZZ	1	07:51																												
ZZZZZZ	1	07:53																												
ZZZZZZ	5	07:54																												
ZZZZZZ	1	07:56																												
ZZZZZZ	1	07:58																												
ZZZZZZ	1	08:00																												
CCV02	1	08:02																	X											
CCB02	1	08:04																	X											
ZZZZZZ	1	08:06																												
ZZZZZZ	1	08:08																												
ZZZZZZ	1	08:10																												
ZZZZZZ	5	08:12																												
ZZZZZZ	1	08:14																												
ZZZZZZ	1	08:16																												
ZZZZZZ	1	08:18																												
ZZZZZZ	1	08:19																												
ZZZZZZ	1	08:21																												
ZZZZZZ	5	08:23																												
CCV03	1	08:25																	X											
CCB03	1	08:27																	X											
ZZZZZZ	1	08:29																												
ZZZZZZ	1	08:31																												
ZZZZZZ	1	08:33																												
ZZZZZZ	1	08:35																												
ZZZZZZ	1	08:37																												

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time																										
ZZZZZZ	1	08:39																										
ZZZZZZ	1	08:41																										
ZZZZZZ	1	08:43																										
ZZZZZZ	1	08:44																										
ZZZZZZ	1	08:46																										
CCV04	1	08:48															X											
CCB04	1	08:50															X											
ZZZZZZ	1	08:52																										
ZZZZZZ	5	08:54																										
ZZZZZZ	1	08:56																										
ZZZZZZ	1	08:58																										
ZZZZZZ	1	09:00																										
ZZZZZZ	1	09:02																										
ZZZZZZ	1	09:04																										
ZZZZZZ	1	09:06																										
ZZZZZZ	5	09:08																										
ZZZZZZ	1	09:10																										
CCV05	1	09:11															X											
CCB05	1	09:13															X											
ZZZZZZ	1	09:15																										
ZZZZZZ	1	09:17																										
ZZZZZZ	1	09:19																										
ZZZZZZ	1	09:21																										
ZZZZZZ	1	09:23																										
ZZZZZZ	1	09:25																										
ZZZZZZ	1	09:27																										
ZZZZZZ	1	09:29																										
ZZZZZZ	1	09:31																										
ZZZZZZ	1	09:33																										
CCV06	1	09:35															X											
CCB06	1	09:36															X											
ZZZZZZ	1	09:38																										
ZZZZZZ	1	09:40																										
ZZZZZZ	5	09:42																										
ZZZZZZ	1	09:44																										
ZZZZZZ	1	09:46																										
ZZZZZZ	1	09:48																										
1202000246	1	09:50															X											
1202000247	1	09:52															X											
243043001	1	09:54															X											

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Li	Mg	Mn	Hg	Ni	K	Se	Si	Ag	Na	Tl	Ti	U	V	Zn
1202000248	1	09:56																	X											
CCV07	1	09:58																	X											
CCB07	1	10:00																	X											
1202000249	1	10:02																	X											
1202000250	5	10:03																	X											
243043002	1	10:05																	X											
ZZZZZZ	1	10:07																												
ZZZZZZ	1	10:09																												
ZZZZZZ	1	10:11																												
ZZZZZZ	1	10:13																												
ZZZZZZ	1	10:15																												
ZZZZZZ	1	10:17																												
ZZZZZZ	1	10:19																												
CCV08	1	10:21																	X											
CCB08	1	10:23																	X											

Metals
-14-
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: ICPMS4
Start Date: 31-DEC-09 **End Date:** 01-JAN-10

Client Sdg: 10-941-1
Method MS
Data File: 091231-2

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Li	Mg	Mn	Hg	Ni	K	Se	Si	Ag	Na	Tl	Ti	U	V	Zn
S0.0	1	08:17																										X		
S10	1	08:18																										X		
S100	1	08:20																										X		
ICV01	1	08:22																										X		
ICB01	1	08:23																										X		
CRDL01	1	08:25																										X		
ICSA01	1	08:27																										X		
ICSAB01	1	08:29																										X		
CCV01	1	08:30																										X		
CCB01	1	08:32																										X		
1201999360	1	08:34																										X		
1201999361	1	08:35																										X		
243043001	1	08:37																										X		
1201999362	1	08:39																										X		
1201999363	1	08:40																										X		
1201999364	5	08:42																										X		
243043002	1	08:44																										X		
CCV02	1	08:46																										X		
CCB02	1	08:47																										X		

Metals
–14–
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: OPTIMA1
Start Date: 20–DEC–09 **End Date:** 20–DEC–09

Client Sdg: 10–941–1
Method P
Data File: 122009–1

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Li	Mg	Mn	Hg	Ni	K	Se	Si	Ag	Na	Tl	Ti	U	V	Zn
S0.0	1	05:19	X		X	X		X		X	X	X	X	X			X			X	X	X	X	X	X		X		X	X
S0.1	1	05:23			X	X		X			X	X	X							X	X	X	X	X			X		X	X
S0.5	1	05:25	X		X	X		X		X	X	X	X				X			X	X	X	X	X			X		X	X
SCAL	1	05:29	X		X	X		X		X	X	X	X	X			X			X	X	X	X	X	X		X		X	X
S10	1	05:32	X							X				X			X								X					
ICV01	1	05:35	X		X	X		X		X	X	X	X	X			X			X	X	X	X	X	X		X		X	X
ICB01	1	05:38	X		X	X		X		X	X	X	X	X			X			X	X	X	X	X	X		X		X	X
PQL01	1	05:42	X		X	X		X		X	X	X	X	X			X			X	X	X	X	X	X		X		X	X
ICSA01	1	05:46	X		X	X		X		X	X	X	X	X			X			X	X	X	X	X	X		X		X	X
ICSAB01	1	05:49	X		X	X		X		X	X	X	X	X			X			X	X	X	X	X	X		X		X	X
LR01	1	05:51	X		X	X		X		X	X	X	X	X			X			X	X	X	X	X	X		X		X	X
LR02	1	05:54	X		X	X		X		X	X	X	X	X			X			X	X	X	X	X	X		X		X	X
CCV01	1	05:58	X		X	X		X		X	X	X	X	X			X			X	X	X	X	X	X		X		X	X
CCB01	1	06:02	X		X	X		X		X	X	X	X	X			X			X	X	X	X	X	X		X		X	X
1201999355	1	06:20	X		X	X		X		X	X	X	X	X			X			X	X	X	X	X	X		X		X	X
1201999356	1	06:24	X		X	X		X		X	X	X	X	X			X			X	X	X	X	X	X		X		X	X
243043001	1	06:27	X		X	X		X		X	X	X	X	X			X			X	X	X	X	X	X		X		X	X
1201999357	1	06:31	X		X	X		X		X	X	X	X	X			X			X	X	X	X	X	X		X		X	X
1201999358	1	06:34	X		X	X		X		X	X	X	X	X			X			X	X	X	X	X	X		X		X	X
1201999359	5	06:38	X		X	X		X		X	X	X	X	X			X			X	X	X	X	X	X		X		X	X
243043002	1	06:42	X		X	X		X		X	X	X	X	X			X			X	X	X	X	X	X		X		X	X
CCV02	1	06:45	X		X	X		X		X	X	X	X	X			X			X	X	X	X	X	X		X		X	X
CCB02	1	06:49	X		X	X		X		X	X	X	X	X			X			X	X	X	X	X	X		X		X	X

Standards

METALS
-10-
Instrument Detection Limits

SDG NO. 10-941-1

Contract: LANL01004 **Lab Code: GEL** **MDL Effective Date:** 01-JUL-09

ICP/MS	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
LIQUID	Aluminum		15.0	30
	Antimony		1.0	3
	Arsenic		1.6	5
	Barium		0.6	2
	Beryllium		0.1	.5
	Boron		4.0	15
	Cadmium		0.11	1
	Calcium		65.0	200
	Chromium		2.0	10
	Cobalt		0.1	1
	Copper		0.33	1
	Iron		33.0	100
	Lead		0.5	2
	Lithium		2.0	10
	Magnesium		5.2	15
	Manganese		1.0	5
	Nickel		0.5	2
	Potassium		80.0	300
	Selenium		1.0	5
	Silver		0.2	1
	Sodium		80.0	250
	Thallium		0.3	1
	Titanium		2.0	10
	Uranium		0.05	.2
	Vanadium		3.0	10
	Zinc		3.0	10

METALS
-10-
Instrument Detection Limits

SDG NO. 10-941-1

Contract: LANL01004 **Lab Code: GEL** **MDL Effective Date:** 01-JUL-09

	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
MERCURY				
LIQUID	Mercury		0.066	.2

METALS
-10-
Instrument Detection Limits

SDG NO. 10-941-1

Contract: LANL01004 **Lab Code: GEL** **MDL Effective Date:** 01-JUL-09

ICP	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
LIQUID	Aluminum	396.153	68.0	200
	Antimony	206.836	3.0	10
	Arsenic	188.979	5.0	30
	Barium	233.527	1.0	5
	Beryllium	313.107	1.0	5
	Boron	249.677	15.0	50
	Cadmium	226.502	1.0	5
	Calcium	317.933	50.0	200
	Chromium	267.716	1.0	5
	Cobalt	228.616	1.0	5
	Copper	324.752	3.0	10
	Iron	238.204	30.0	100
	Lead	220.353	3.3	10
	Magnesium	279.077	85.0	300
	Manganese	257.61	2.0	10
	Nickel	231.604	1.5	5
	Potassium	766.49	50.0	150
	Selenium	196.026	5.0	30
	Silicon	251.611	25.0	100
	Silver	328.068	1.0	5
	Sodium	589.592	100	300
	Thallium	190.801	5.0	20
	Titanium	334.94	1.0	5
	Uranium	409.014	10.0	50
	Vanadium	292.402	1.0	5
	Zinc	213.857	3.3	10

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA1
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-941-1
Effective Dates: 01-NOV-09

Parmname	Wavelength	Aluminum	Antimony	Arsenic	Barium	Beryllium
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	-0.08714	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	-0.36980	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	-0.02864	0.00000	0.00000	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA1
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-941-1
Effective Dates: 01-NOV-09

Parmname	Wavelength	Boron	Cadmium	Chromium	Cobalt	Copper
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	4.75140	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	-33.0980	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	1.36057
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.03970	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	122.96
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	4.07230	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	1.45160

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA1
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-941-1
Effective Dates: 01-NOV-09

Parmname	Wavelength	Iron	Lead	Magnesium	Manganese	Molybdenum
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	38.0301
Antimony	206.836	0.00000	0.00000	0.00000	0.00000	1.47380
Arsenic	188.979	-0.82061	0.00000	0.00000	0.00000	1.83900
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.31446	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.07749	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	-2.33110
Copper	324.752	-0.24488	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.01248	0.00000	0.00000	0.00000	-2.95230
Magnesium	279.077	1.47510	0.00000	0.00000	0.00000	-24.9658
Manganese	257.61	-0.12666	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	-0.03930	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	1.17810	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	-0.61937	0.00000	0.41160	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	17.0660
Silver	328.068	-0.07890	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.14830	0.00000	0.14260	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	-4.63400	0.00000
Tin	189.927	-0.09214	0.00000	-0.16050	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.18670	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	-0.08158	0.00000	0.00000	0.00000	-6.97050
Zinc	213.857	0.06940	0.00000	0.02727	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA1
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-941-1
Effective Dates: 01-NOV-09

Parmname	Wavelength	Nickel	Phosphorous	Selenium	Silicon	Silver
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	-1.09390	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	5.19130	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA1
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-941-1
Effective Dates: 01-NOV-09

Parmname	Wavelength	Sulfur	Thallium	Tin	Titanium	Uranium
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	-3.74360	-0.55870
Arsenic	188.979	0.00000	0.00000	0.00000	-2.71110	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.37024	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	-0.71290
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	2.08900	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	0.84100
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	-21.8313	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	38.5869	36.0710	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	-7.24690	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	-1.61770
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA1
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-941-1
Effective Dates: 01-NOV-09

Parmname	Wavelength	Vanadium	Zinc
Aluminum	396.153	0.00000	0.00000
Antimony	206.836	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000
Barium	233.527	-2.10080	0.00000
Beryllium	313.107	0.00000	0.00000
Boron	249.677	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000
Chromium	267.716	-2.34600	0.00000
Cobalt	228.616	0.00000	0.00000
Copper	324.752	0.00000	0.00000
Iron	238.204	0.00000	0.00000
Lead	220.353	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000
Manganese	257.61	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000
Nickel	231.604	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000
Selenium	196.026	0.00000	0.00000
Silicon	251.611	0.00000	0.00000
Silver	328.068	-6.85200	0.00000
Sulfur	181.975	0.00000	0.00000
Thallium	190.801	0.00000	0.00000
Tin	189.927	0.00000	0.00000
Titanium	334.94	0.00000	0.00000
Uranium	409.014	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000
Zinc	213.857	0.00000	0.00000

METALS
–12–
Linear Ranges

SDG NO. 10–941–1

Contract: LANL01004 **Lab Code: GEL**

Instrument ID ICPMS5

Analyte	Integration Time (msec)	LDR	Units	Effective Date
Aluminum	1	50000	ug/L	01–NOV–09
Antimony	1000	250	ug/L	01–NOV–09
Arsenic	1000	1000	ug/L	01–NOV–09
Barium	1000	1000	ug/L	01–NOV–09
Beryllium	1000	1000	ug/L	01–NOV–09
Boron	1000	200	ug/L	01–NOV–09
Cadmium	1000	1000	ug/L	01–NOV–09
Calcium	500	50000	ug/L	01–NOV–09
Chromium	1000	1000	ug/L	01–NOV–09
Cobalt	1000	1000	ug/L	01–NOV–09
Copper	1000	1000	ug/L	01–NOV–09
Iron	500	50000	ug/L	01–NOV–09
Lead	1000	5000	ug/L	01–NOV–09
Lithium	1000	1000	ug/L	01–NOV–09
Magnesium	1	50000	ug/L	01–NOV–09
Manganese	1000	1000	ug/L	01–NOV–09
Nickel	1000	1000	ug/L	01–NOV–09
Potassium	1	50000	ug/L	01–NOV–09
Selenium	1000	500	ug/L	01–NOV–09
Silver	1000	250	ug/L	01–NOV–09
Sodium	1	50000	ug/L	01–NOV–09
Thallium	1000	500	ug/L	01–NOV–09
Titanium	1000	100	ug/L	01–NOV–09
Uranium	1000	5000	ug/L	01–NOV–09
Vanadium	1000	100	ug/L	01–NOV–09
Zinc	1000	2500	ug/L	01–NOV–09

METALS
-12-
Linear Ranges

SDG NO. 10-941-1

Contract: LANL01004 **Lab Code: GEL**

Instrument ID ICPMS4

Analyte	Integration Time (msec)	LDR	Units	Effective Date
Silver	1000	250	ug/L	01-NOV-09
Sodium	1	50000	ug/L	01-NOV-09
Thallium	1000	500	ug/L	01-NOV-09
Titanium	1000	100	ug/L	01-NOV-09
Uranium	1000	5000	ug/L	01-NOV-09
Vanadium	1000	100	ug/L	01-NOV-09
Zinc	1000	2500	ug/L	01-NOV-09
Aluminum	1	50000	ug/L	01-NOV-09
Antimony	1000	250	ug/L	01-NOV-09
Arsenic	1000	1000	ug/L	01-NOV-09
Barium	1000	1000	ug/L	01-NOV-09
Beryllium	1000	1000	ug/L	01-NOV-09
Boron	1000	200	ug/L	01-NOV-09
Cadmium	1000	1000	ug/L	01-NOV-09
Calcium	500	50000	ug/L	01-NOV-09
Chromium	1000	1000	ug/L	01-NOV-09
Cobalt	1000	1000	ug/L	01-NOV-09
Copper	1000	1000	ug/L	01-NOV-09
Iron	500	50000	ug/L	01-NOV-09
Lead	1000	5000	ug/L	01-NOV-09
Lithium	1000	1000	ug/L	01-NOV-09
Magnesium	1	50000	ug/L	01-NOV-09
Manganese	1000	1000	ug/L	01-NOV-09
Nickel	1000	1000	ug/L	01-NOV-09
Potassium	1	50000	ug/L	01-NOV-09
Selenium	1000	500	ug/L	01-NOV-09

METALS
–12–
Linear Ranges

SDG NO. 10–941–1

Contract: LANL01004 **Lab Code:** GEL

Instrument ID OPTIMA1

Analyte	Integration Time (sec)	LDR	Units	Effective Date
Aluminum	20	500000	ug/L	01–NOV–09
Antimony	20	10000	ug/L	01–NOV–09
Arsenic	20	10000	ug/L	01–NOV–09
Barium	20	15000	ug/L	01–NOV–09
Beryllium	20	3000	ug/L	01–NOV–09
Boron	20	5000	ug/L	01–NOV–09
Cadmium	20	10000	ug/L	01–NOV–09
Calcium	20	500000	ug/L	01–NOV–09
Chromium	20	25000	ug/L	01–NOV–09
Cobalt	20	10000	ug/L	01–NOV–09
Copper	20	20000	ug/L	01–NOV–09
Iron	20	500000	ug/L	01–NOV–09
Lead	20	25000	ug/L	01–NOV–09
Magnesium	20	500000	ug/L	01–NOV–09
Manganese	20	10000	ug/L	01–NOV–09
Nickel	20	10000	ug/L	01–NOV–09
Potassium	20	300000	ug/L	01–NOV–09
Selenium	20	10000	ug/L	01–NOV–09
Silicon	20	50000	ug/L	01–NOV–09
Silver	20	1000	ug/L	01–NOV–09
Sodium	20	500000	ug/L	01–NOV–09
Thallium	20	10000	ug/L	01–NOV–09
Titanium	20	10000	ug/L	01–NOV–09
Uranium	20	15000	ug/L	01–NOV–09
Vanadium	20	10000	ug/L	01–NOV–09
Zinc	20	15000	ug/L	01–NOV–09

Raw Data

12/20/2009 05:11:51 Hg ReAlign... Actual peak offset (nm): 0.005
Drift (nm): 0.000 Slit adjustment: 2

Analysis Begun

Start Time: 12/20/2009 05:19:24 **Plasma On Time: 12/19/2009 15:28:13**
Logged In Analyst: optima **Technique: ICP Continuous**
Spectrometer Model: Optima 4300 DV, S/N 077N1030502Autosampler Model: AS-93plus

Sample Information File: C:\pe\optima1\Sample Information\122009.sif
Batch ID:
Results Data Set: 122009
Results Library: c:\pe\optima1\Results\Results.mdb

Method Loaded
Method Name: Gen Eng fast_new Si **Method Last Saved: 12/19/2009 17:48:38**
IEC File: 101509.iec **MSF File:**
Method Description:

Analyte	Calibration Equation	Processing	View	Internal Standard	IEC
Ag 328.068	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Al 396.153Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
As 188.979	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
B 249.677	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ba 233.527	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Be 313.107	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ca 317.933Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
Cd 226.502	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Co 228.616	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cr 267.716	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cu 324.752	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Fe 238.204 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
K 766.490 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
Mg 279.077 IEC	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
Mn 257.610	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Mo 202.031	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Na 589.592 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
Ni 231.604	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
P 214.914	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Pb 220.353	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
S 181.975 Axial	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sb 206.836	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sc 361.383	Lin Thru 0	Peak Area	Axial	n/a	n/a
Sc RADIAL	Lin, Calc Int	Peak Area	Radial	n/a	n/a
Se 196.026	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
SiO2	Lin Thru 0	Peak Area	Axial	Sc 361.383	No
Si 251.611	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sn 189.927	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sr 421.552	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
Ti 334.940	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Tl 190.801	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
U 409.014	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
V 292.402	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y 371.029	Lin, Calc Int	Peak Area	Axial	n/a	n/a
Zn 213.857	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes

Sequence No.: 1 **Autosampler Location: 8**
Sample ID: S0 **Date Collected: 12/20/2009 05:19:27**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: S0

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time

1	Sc RADIAL	113820.3	113820.3	101	%	05:20:01
1	Al 396.153Radial†	188.8	187.8	[0.00]	µg/L	05:20:01
1	Ca 317.933Radial†	406.8	404.6	[0.00]	µg/L	05:20:21
1	Fe 238.204 Radial†	5.1	5.1	[0.00]	µg/L	05:20:21
1	K 766.490 Radial†	762.6	758.6	[0.00]	µg/L	05:20:01
1	Mg 279.077 IEC†	15.5	15.4	[0.00]	µg/L	05:20:21
1	Na 589.592 Radial†	-739.4	-735.5	[0.00]	µg/L	05:20:01
1	Sr 421.552†	-82.0	-81.5	[0.00]	µg/L	05:20:01
1	Sc 361.383	2093368.7	2093368.7	100.42	%	05:21:23
1	Y 371.029	1287129.7	1287129.7	100.31	%	05:21:23
1	Ag 328.068†	50.0	49.8	[0.00]	µg/L	05:21:29
1	As 188.979†	-0.9	-0.9	[0.00]	µg/L	05:21:50
1	B 249.677†	114.2	113.7	[0.00]	µg/L	05:21:29
1	Ba 233.527†	-81.5	-81.2	[0.00]	µg/L	05:21:50
1	Be 313.107†	3518.6	3504.0	[0.00]	µg/L	05:21:29
1	Cd 226.502†	-101.5	-101.0	[0.00]	µg/L	05:21:50
1	Co 228.616†	-84.3	-83.9	[0.00]	µg/L	05:21:50
1	Cr 267.716†	-105.5	-105.1	[0.00]	µg/L	05:21:29
1	Cu 324.752†	3602.9	3587.9	[0.00]	µg/L	05:21:29
1	Mn 257.610†	-218.7	-217.8	[0.00]	µg/L	05:21:50
1	Mo 202.031†	1.6	1.6	[0.00]	µg/L	05:21:50
1	Ni 231.604†	311.1	309.8	[0.00]	µg/L	05:21:50
1	P 214.914†	214.0	213.1	[0.00]	µg/L	05:21:50
1	Pb 220.353†	52.9	52.7	[0.00]	µg/L	05:21:50
1	S 181.975 Axial†	24.5	24.4	[0.00]	µg/L	05:21:50
1	Sb 206.836†	22.5	22.4	[0.00]	µg/L	05:21:50
1	Se 196.026†	21.9	21.8	[0.00]	µg/L	05:21:50
1	SiO2†	2292.9	2283.4	[0.00]	µg/L	05:21:29
1	Si 251.611†	344.6	343.1	[0.00]	µg/L	05:21:50
1	Sn 189.927†	23.5	23.4	[0.00]	µg/L	05:21:50
1	Ti 334.940†	866.8	863.2	[0.00]	µg/L	05:21:29
1	Tl 190.801†	-20.2	-20.1	[0.00]	µg/L	05:21:50
1	U 409.014†	690.9	688.0	[0.00]	µg/L	05:21:29
1	V 292.402†	-117.0	-116.6	[0.00]	µg/L	05:21:29
1	Zn 213.857†	592.2	589.8	[0.00]	µg/L	05:21:50
2	Sc RADIAL	112066.3	112066.3	99.0	%	05:20:27
2	Al 396.153Radial†	177.7	179.5	[0.00]	µg/L	05:20:27
2	Ca 317.933Radial†	401.1	405.2	[0.00]	µg/L	05:20:47
2	Fe 238.204 Radial†	8.3	8.4	[0.00]	µg/L	05:20:47
2	K 766.490 Radial†	796.5	804.7	[0.00]	µg/L	05:20:27
2	Mg 279.077 IEC†	16.9	17.1	[0.00]	µg/L	05:20:47
2	Na 589.592 Radial†	-770.8	-778.7	[0.00]	µg/L	05:20:27
2	Sr 421.552†	-113.9	-115.0	[0.00]	µg/L	05:20:27
2	Sc 361.383	2078644.3	2078644.3	99.712	%	05:21:56
2	Y 371.029	1278245.3	1278245.3	99.616	%	05:21:56
2	Ag 328.068†	63.6	63.8	[0.00]	µg/L	05:22:01
2	As 188.979†	-0.3	-0.3	[0.00]	µg/L	05:22:22
2	B 249.677†	112.5	112.8	[0.00]	µg/L	05:22:01
2	Ba 233.527†	-81.4	-81.6	[0.00]	µg/L	05:22:22
2	Be 313.107†	3549.1	3559.4	[0.00]	µg/L	05:22:01
2	Cd 226.502†	-107.7	-108.0	[0.00]	µg/L	05:22:22
2	Co 228.616†	-89.3	-89.6	[0.00]	µg/L	05:22:22
2	Cr 267.716†	-124.8	-125.2	[0.00]	µg/L	05:22:01
2	Cu 324.752†	3532.3	3542.5	[0.00]	µg/L	05:22:01
2	Mn 257.610†	-239.9	-240.6	[0.00]	µg/L	05:22:22
2	Mo 202.031†	-1.7	-1.7	[0.00]	µg/L	05:22:22
2	Ni 231.604†	340.3	341.3	[0.00]	µg/L	05:22:22
2	P 214.914†	208.3	208.9	[0.00]	µg/L	05:22:22
2	Pb 220.353†	61.5	61.6	[0.00]	µg/L	05:22:22
2	S 181.975 Axial†	28.4	28.5	[0.00]	µg/L	05:22:22
2	Sb 206.836†	20.4	20.4	[0.00]	µg/L	05:22:22
2	Se 196.026†	16.7	16.7	[0.00]	µg/L	05:22:22
2	SiO2†	2255.5	2262.0	[0.00]	µg/L	05:22:01
2	Si 251.611†	372.3	373.4	[0.00]	µg/L	05:22:22
2	Sn 189.927†	27.8	27.9	[0.00]	µg/L	05:22:22
2	Ti 334.940†	877.6	880.1	[0.00]	µg/L	05:22:01
2	Tl 190.801†	-20.5	-20.5	[0.00]	µg/L	05:22:22
2	U 409.014†	807.2	809.5	[0.00]	µg/L	05:22:01
2	V 292.402†	-144.7	-145.1	[0.00]	µg/L	05:22:01
2	Zn 213.857†	577.8	579.5	[0.00]	µg/L	05:22:22
3	Sc RADIAL	113754.6	113754.6	100	%	05:20:53

3	Al 396.153Radial†	175.3	174.5	[0.00]	µg/L	05:20:53
3	Ca 317.933Radial†	402.2	400.3	[0.00]	µg/L	05:21:13
3	Fe 238.204 Radial†	6.1	6.1	[0.00]	µg/L	05:21:13
3	K 766.490 Radial†	805.5	801.7	[0.00]	µg/L	05:20:53
3	Mg 279.077 IEC†	13.5	13.5	[0.00]	µg/L	05:21:13
3	Na 589.592 Radial†	-746.6	-743.0	[0.00]	µg/L	05:20:53
3	Sr 421.552†	-113.2	-112.7	[0.00]	µg/L	05:20:53
3	Sc 361.383	2081960.0	2081960.0	99.871	%	05:22:28
3	Y 371.029	1284147.9	1284147.9	100.08	%	05:22:28
3	Ag 328.068†	106.1	106.2	[0.00]	µg/L	05:22:33
3	As 188.979†	3.0	3.0	[0.00]	µg/L	05:22:54
3	B 249.677†	122.8	122.9	[0.00]	µg/L	05:22:33
3	Ba 233.527†	-81.5	-81.6	[0.00]	µg/L	05:22:54
3	Be 313.107†	3447.0	3451.4	[0.00]	µg/L	05:22:33
3	Cd 226.502†	-113.2	-113.3	[0.00]	µg/L	05:22:54
3	Co 228.616†	-82.9	-83.0	[0.00]	µg/L	05:22:54
3	Cr 267.716†	-150.5	-150.7	[0.00]	µg/L	05:22:33
3	Cu 324.752†	3602.5	3607.2	[0.00]	µg/L	05:22:33
3	Mn 257.610†	-226.1	-226.4	[0.00]	µg/L	05:22:54
3	Mo 202.031†	-1.9	-1.9	[0.00]	µg/L	05:22:54
3	Ni 231.604†	330.8	331.2	[0.00]	µg/L	05:22:54
3	P 214.914†	212.9	213.2	[0.00]	µg/L	05:22:54
3	Pb 220.353†	42.7	42.7	[0.00]	µg/L	05:22:54
3	S 181.975 Axial†	28.5	28.5	[0.00]	µg/L	05:22:54
3	Sb 206.836†	24.6	24.6	[0.00]	µg/L	05:22:54
3	Se 196.026†	16.7	16.7	[0.00]	µg/L	05:22:54
3	SiO2†	2260.1	2263.0	[0.00]	µg/L	05:22:33
3	Si 251.611†	352.7	353.2	[0.00]	µg/L	05:22:54
3	Sn 189.927†	20.4	20.5	[0.00]	µg/L	05:22:54
3	Ti 334.940†	836.1	837.1	[0.00]	µg/L	05:22:33
3	Tl 190.801†	-19.8	-19.8	[0.00]	µg/L	05:22:54
3	U 409.014†	783.9	784.9	[0.00]	µg/L	05:22:33
3	V 292.402†	-115.4	-115.6	[0.00]	µg/L	05:22:33
3	Zn 213.857†	583.7	584.5	[0.00]	µg/L	05:22:54

Mean Data: S0

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	2084657.7	7723.97	0.37%	100.000	%
Sc RADIAL	113213.7	994.23	0.88%	100	%
Y 371.029	1283174.3	4521.50	0.35%	100.00	%
Ag 328.068†	73.3	29.35	40.06%	[0.00]	µg/L
Al 396.153Radial†	180.6	6.75	3.74%	[0.00]	µg/L
As 188.979†	0.6	2.13	360.53%	[0.00]	µg/L
B 249.677†	116.5	5.59	4.80%	[0.00]	µg/L
Ba 233.527†	-81.5	0.24	0.29%	[0.00]	µg/L
Be 313.107†	3504.9	53.98	1.54%	[0.00]	µg/L
Ca 317.933Radial†	403.4	2.68	0.66%	[0.00]	µg/L
Cd 226.502†	-107.5	6.17	5.74%	[0.00]	µg/L
Co 228.616†	-85.5	3.54	4.14%	[0.00]	µg/L
Cr 267.716†	-127.0	22.84	17.98%	[0.00]	µg/L
Cu 324.752†	3579.2	33.20	0.93%	[0.00]	µg/L
Fe 238.204 Radial†	6.5	1.70	26.16%	[0.00]	µg/L
K 766.490 Radial†	788.3	25.79	3.27%	[0.00]	µg/L
Mg 279.077 IEC†	15.3	1.82	11.90%	[0.00]	µg/L
Mn 257.610†	-228.3	11.52	5.04%	[0.00]	µg/L
Mo 202.031†	-0.7	1.93	292.58%	[0.00]	µg/L
Na 589.592 Radial†	-752.4	23.08	3.07%	[0.00]	µg/L
Ni 231.604†	327.4	16.06	4.91%	[0.00]	µg/L
P 214.914†	211.7	2.43	1.15%	[0.00]	µg/L
Pb 220.353†	52.4	9.45	18.05%	[0.00]	µg/L
S 181.975 Axial†	27.1	2.35	8.65%	[0.00]	µg/L
Sb 206.836†	22.5	2.08	9.27%	[0.00]	µg/L
Se 196.026†	18.4	2.93	15.92%	[0.00]	µg/L
SiO2†	2269.5	12.06	0.53%	[0.00]	µg/L
Si 251.611†	356.6	15.41	4.32%	[0.00]	µg/L
Sn 189.927†	23.9	3.76	15.73%	[0.00]	µg/L
Sr 421.552†	-103.1	18.70	18.13%	[0.00]	µg/L
Ti 334.940†	860.2	21.65	2.52%	[0.00]	µg/L
Tl 190.801†	-20.2	0.36	1.77%	[0.00]	µg/L

U 409.014†	760.8	64.24	8.44%	[0.00] µg/L
V 292.402†	-125.7	16.76	13.33%	[0.00] µg/L
Zn 213.857†	584.6	5.13	0.88%	[0.00] µg/L

Sequence No.: 2
Sample ID: S0.1
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 2
Date Collected: 12/20/2009 05:23:03
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	117104.0	117104.0	103	%	05:23:38
1	K 766.490 Radial†	2674.7	1797.6	[1000]	µg/L	05:23:38
1	Sr 421.552†	18324.6	17818.9	[100]	µg/L	05:23:38
1	Sc 361.383	2092872.7	2092872.7	100.39	%	05:24:00
1	Y 371.029	1286930.7	1286930.7	100.29	%	05:24:00
1	Ag 328.068†	11445.5	11327.3	[100]	µg/L	05:24:06
1	As 188.979†	53.1	52.3	[100]	µg/L	05:24:26
1	B 249.677†	2343.1	2217.4	[100]	µg/L	05:24:06
1	Ba 233.527†	3948.4	4014.4	[100]	µg/L	05:24:06
1	Be 313.107†	163855.7	159707.6	[100]	µg/L	05:24:00
1	Cd 226.502†	3864.8	3957.1	[100]	µg/L	05:24:06
1	Co 228.616†	2024.3	2101.8	[100]	µg/L	05:24:26
1	Cr 267.716†	4820.1	4928.1	[100]	µg/L	05:24:06
1	Cu 324.752†	18169.7	14519.2	[100]	µg/L	05:24:06
1	Mn 257.610†	31844.7	31948.0	[100]	µg/L	05:24:06
1	Mo 202.031†	898.2	895.4	[100]	µg/L	05:24:26
1	Ni 231.604†	2229.9	1893.8	[100]	µg/L	05:24:06
1	P 214.914†	439.1	225.7	[500]	µg/L	05:24:26
1	Pb 220.353†	448.5	394.3	[100]	µg/L	05:24:26
1	S 181.975 Axial†	66.2	38.8	[200]	µg/L	05:24:26
1	Sb 206.836†	119.3	96.4	[100]	µg/L	05:24:26
1	Se 196.026†	87.8	69.1	[100]	µg/L	05:24:26
1	SiO2†	8047.9	5746.9	[1069.5]	µg/L	05:24:06
1	Si 251.611†	7007.2	6623.1	[500]	µg/L	05:24:06
1	Sn 189.927†	231.2	206.4	[100]	µg/L	05:24:26
1	Ti 334.940†	45318.9	44280.8	[100]	µg/L	05:24:06
1	Tl 190.801†	43.5	63.5	[100]	µg/L	05:24:26
1	U 409.014†	1862.3	1094.1	[100]	µg/L	05:24:06
1	V 292.402†	8940.8	9031.5	[100]	µg/L	05:24:06
1	Zn 213.857†	4498.5	3896.3	[100]	µg/L	05:24:06
2	Sc RADIAL	118363.6	118363.6	105	%	05:23:44
2	K 766.490 Radial†	2672.2	1767.6	[1000]	µg/L	05:23:44
2	Sr 421.552†	18306.8	17613.4	[100]	µg/L	05:23:44
2	Sc 361.383	1988145.9	1988145.9	95.370	%	05:24:32
2	Y 371.029	1240928.7	1240928.7	96.708	%	05:24:32
2	Ag 328.068†	11448.4	11930.8	[100]	µg/L	05:24:38
2	As 188.979†	54.5	56.6	[100]	µg/L	05:24:58
2	B 249.677†	2344.8	2342.1	[100]	µg/L	05:24:38
2	Ba 233.527†	3962.1	4236.0	[100]	µg/L	05:24:38
2	Be 313.107†	169517.6	174241.7	[100]	µg/L	05:24:32
2	Cd 226.502†	3864.3	4159.3	[100]	µg/L	05:24:38
2	Co 228.616†	2010.6	2193.7	[100]	µg/L	05:24:58
2	Cr 267.716†	4786.9	5146.2	[100]	µg/L	05:24:38
2	Cu 324.752†	18109.7	15409.6	[100]	µg/L	05:24:38
2	Mn 257.610†	31675.6	33441.6	[100]	µg/L	05:24:38
2	Mo 202.031†	900.1	944.4	[100]	µg/L	05:24:58
2	Ni 231.604†	2246.3	2028.0	[100]	µg/L	05:24:38
2	P 214.914†	440.2	249.8	[500]	µg/L	05:24:58
2	Pb 220.353†	455.2	424.9	[100]	µg/L	05:24:58
2	S 181.975 Axial†	67.9	44.0	[200]	µg/L	05:24:58
2	Sb 206.836†	123.9	107.4	[100]	µg/L	05:24:58
2	Se 196.026†	93.9	80.1	[100]	µg/L	05:24:58
2	SiO2†	7974.7	6092.3	[1069.5]	µg/L	05:24:38
2	Si 251.611†	7009.4	6993.1	[500]	µg/L	05:24:38
2	Sn 189.927†	236.5	224.1	[100]	µg/L	05:24:58
2	Ti 334.940†	45386.4	46729.4	[100]	µg/L	05:24:38
2	Tl 190.801†	48.8	71.4	[100]	µg/L	05:24:58
2	U 409.014†	1932.8	1265.8	[100]	µg/L	05:24:38
2	V 292.402†	8905.2	9463.2	[100]	µg/L	05:24:38

2	Zn 213.857†	4486.1	4119.3	[100]	µg/L	05:24:38
3	Sc RADIAL	116556.8	116556.8	103	%	05:23:50
3	K 766.490 Radial†	2671.4	1806.4	[1000]	µg/L	05:23:50
3	Sr 421.552†	18311.4	17889.3	[100]	µg/L	05:23:50
3	Sc 361.383	2093417.4	2093417.4	100.42	%	05:25:05
3	Y 371.029	1289352.7	1289352.7	100.48	%	05:25:05
3	Ag 328.068†	11383.8	11262.9	[100]	µg/L	05:25:10
3	As 188.979†	56.4	55.5	[100]	µg/L	05:25:31
3	B 249.677†	2351.0	2224.7	[100]	µg/L	05:25:10
3	Ba 233.527†	3947.5	4012.4	[100]	µg/L	05:25:10
3	Be 313.107†	165223.0	161026.7	[100]	µg/L	05:25:05
3	Cd 226.502†	3831.2	3922.7	[100]	µg/L	05:25:10
3	Co 228.616†	1989.8	2067.0	[100]	µg/L	05:25:31
3	Cr 267.716†	4756.5	4863.5	[100]	µg/L	05:25:10
3	Cu 324.752†	17983.0	14328.6	[100]	µg/L	05:25:10
3	Mn 257.610†	31380.9	31477.9	[100]	µg/L	05:25:10
3	Mo 202.031†	887.6	884.6	[100]	µg/L	05:25:31
3	Ni 231.604†	2205.7	1869.0	[100]	µg/L	05:25:10
3	P 214.914†	442.2	228.6	[500]	µg/L	05:25:31
3	Pb 220.353†	455.4	401.2	[100]	µg/L	05:25:31
3	S 181.975 Axial†	65.8	38.4	[200]	µg/L	05:25:31
3	Sb 206.836†	122.9	99.9	[100]	µg/L	05:25:31
3	Se 196.026†	91.8	73.0	[100]	µg/L	05:25:31
3	SiO2†	7912.0	5609.5	[1069.5]	µg/L	05:25:10
3	Si 251.611†	6926.7	6541.2	[500]	µg/L	05:25:10
3	Sn 189.927†	228.4	203.5	[100]	µg/L	05:25:31
3	Ti 334.940†	44985.7	43937.3	[100]	µg/L	05:25:10
3	Tl 190.801†	49.8	69.8	[100]	µg/L	05:25:31
3	U 409.014†	1913.3	1144.4	[100]	µg/L	05:25:10
3	V 292.402†	8831.7	8920.5	[100]	µg/L	05:25:10
3	Zn 213.857†	4439.3	3836.1	[100]	µg/L	05:25:10

Mean Data: S0.1

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	2058145.4	60621.89	2.95%	98.728	%
Sc RADIAL	117341.5	926.50	0.79%	104	%
Y 371.029	1272404.0	27285.32	2.14%	99.161	%
Ag 328.068†	11507.0	368.47	3.20%	[100]	µg/L
As 188.979†	54.8	2.22	4.04%	[100]	µg/L
B 249.677†	2261.4	69.99	3.10%	[100]	µg/L
Ba 233.527†	4087.6	128.48	3.14%	[100]	µg/L
Be 313.107†	164992.0	8037.59	4.87%	[100]	µg/L
Cd 226.502†	4013.0	127.86	3.19%	[100]	µg/L
Co 228.616†	2120.8	65.46	3.09%	[100]	µg/L
Cr 267.716†	4979.3	148.14	2.98%	[100]	µg/L
Cu 324.752†	14752.4	577.03	3.91%	[100]	µg/L
K 766.490 Radial†	1790.5	20.34	1.14%	[1000]	µg/L
Mn 257.610†	32289.1	1025.33	3.18%	[100]	µg/L
Mo 202.031†	908.1	31.90	3.51%	[100]	µg/L
Ni 231.604†	1930.3	85.52	4.43%	[100]	µg/L
P 214.914†	234.7	13.18	5.62%	[500]	µg/L
Pb 220.353†	406.8	16.04	3.94%	[100]	µg/L
S 181.975 Axial†	40.4	3.15	7.81%	[200]	µg/L
Sb 206.836†	101.2	5.64	5.57%	[100]	µg/L
Se 196.026†	74.0	5.57	7.52%	[100]	µg/L
SiO2†	5816.2	248.80	4.28%	[1069.5]	µg/L
Si 251.611†	6719.1	240.75	3.58%	[500]	µg/L
Sn 189.927†	211.3	11.16	5.28%	[100]	µg/L
Sr 421.552†	17773.9	143.37	0.81%	[100]	µg/L
Ti 334.940†	44982.5	1522.60	3.38%	[100]	µg/L
Tl 190.801†	68.2	4.19	6.14%	[100]	µg/L
U 409.014†	1168.1	88.26	7.56%	[100]	µg/L
V 292.402†	9138.4	286.70	3.14%	[100]	µg/L
Zn 213.857†	3950.6	149.20	3.78%	[100]	µg/L

Sequence No.: 3
Sample ID: S0.5
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 3
Date Collected: 12/20/2009 05:25:40
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	115930.5	115930.5	102	%	05:26:13
1	Al 396.153Radial†	10150.2	9731.8	[5000]	µg/L	05:26:13
1	Ca 317.933Radial†	12971.8	12264.4	[5000]	µg/L	05:26:33
1	K 766.490 Radial†	9885.4	8865.4	[5000]	µg/L	05:26:13
1	Mg 279.077 IEC†	908.0	871.4	[5000]	µg/L	05:26:33
1	Sr 421.552†	89850.8	87848.3	[500]	µg/L	05:26:13
1	Sc 361.383	2094675.3	2094675.3	100.48	%	05:27:37
1	Y 371.029	1281731.6	1281731.6	99.888	%	05:27:37
1	Ag 328.068†	53712.6	53382.4	[500]	µg/L	05:27:42
1	As 188.979†	268.8	266.9	[500]	µg/L	05:28:03
1	B 249.677†	10940.4	10771.6	[500]	µg/L	05:27:42
1	Ba 233.527†	19089.6	19079.8	[500]	µg/L	05:27:42
1	Be 313.107†	794931.0	787624.4	[500]	µg/L	05:27:37
1	Cd 226.502†	18523.5	18542.3	[500]	µg/L	05:27:42
1	Co 228.616†	9983.5	10021.2	[500]	µg/L	05:27:42
1	Cr 267.716†	23156.4	23172.6	[500]	µg/L	05:27:42
1	Cu 324.752†	71914.6	67991.5	[500]	µg/L	05:27:42
1	Mn 257.610†	154166.5	153657.5	[500]	µg/L	05:27:37
1	Mo 202.031†	4385.0	4364.6	[500]	µg/L	05:28:03
1	Ni 231.604†	9256.7	8885.0	[500]	µg/L	05:27:42
1	P 214.914†	1384.2	1165.8	[2500]	µg/L	05:28:03
1	Pb 220.353†	2022.5	1960.4	[500]	µg/L	05:28:03
1	S 181.975 Axial†	221.2	193.0	[1000]	µg/L	05:28:03
1	Sb 206.836†	522.7	497.7	[500]	µg/L	05:28:03
1	Se 196.026†	383.4	363.2	[500]	µg/L	05:28:03
1	SiO2†	29427.7	27017.5	[5347.5]	µg/L	05:27:42
1	Si 251.611†	31966.3	31456.8	[2500]	µg/L	05:27:42
1	Sn 189.927†	1047.4	1018.5	[500]	µg/L	05:28:03
1	Ti 334.940†	220751.1	218835.2	[500]	µg/L	05:27:37
1	Tl 190.801†	309.5	328.2	[500]	µg/L	05:28:03
1	U 409.014†	5967.1	5177.7	[500]	µg/L	05:27:42
1	V 292.402†	42986.1	42906.3	[500]	µg/L	05:27:42
1	Zn 213.857†	18799.6	18125.1	[500]	µg/L	05:27:42
2	Sc RADIAL	116766.0	116766.0	103	%	05:26:39
2	Al 396.153Radial†	10142.1	9653.0	[5000]	µg/L	05:26:39
2	Ca 317.933Radial†	12968.6	12170.7	[5000]	µg/L	05:26:59
2	K 766.490 Radial†	10063.7	8969.3	[5000]	µg/L	05:26:39
2	Mg 279.077 IEC†	912.7	869.6	[5000]	µg/L	05:26:59
2	Sr 421.552†	90307.1	87662.9	[500]	µg/L	05:26:39
2	Sc 361.383	2102215.9	2102215.9	100.84	%	05:28:10
2	Y 371.029	1285477.6	1285477.6	100.18	%	05:28:10
2	Ag 328.068†	55247.1	54712.4	[500]	µg/L	05:28:16
2	As 188.979†	261.0	258.2	[500]	µg/L	05:28:36
2	B 249.677†	11335.6	11124.4	[500]	µg/L	05:28:16
2	Ba 233.527†	19667.9	19585.1	[500]	µg/L	05:28:16
2	Be 313.107†	801826.7	791624.7	[500]	µg/L	05:28:10
2	Cd 226.502†	19084.4	19032.5	[500]	µg/L	05:28:16
2	Co 228.616†	10259.4	10259.2	[500]	µg/L	05:28:16
2	Cr 267.716†	23872.3	23799.9	[500]	µg/L	05:28:16
2	Cu 324.752†	73815.2	69619.5	[500]	µg/L	05:28:16
2	Mn 257.610†	155418.4	154348.6	[500]	µg/L	05:28:10
2	Mo 202.031†	4331.2	4295.7	[500]	µg/L	05:28:36
2	Ni 231.604†	9543.2	9136.1	[500]	µg/L	05:28:16
2	P 214.914†	1365.1	1141.9	[2500]	µg/L	05:28:36
2	Pb 220.353†	2005.7	1936.6	[500]	µg/L	05:28:36
2	S 181.975 Axial†	216.7	187.7	[1000]	µg/L	05:28:36
2	Sb 206.836†	525.2	498.3	[500]	µg/L	05:28:36
2	Se 196.026†	380.2	358.6	[500]	µg/L	05:28:36
2	SiO2†	30225.7	27703.8	[5347.5]	µg/L	05:28:16

2	Si 251.611†	32840.8	32210.0	[2500]	µg/L	05:28:16
2	Sn 189.927†	1029.8	997.3	[500]	µg/L	05:28:36
2	Ti 334.940†	222453.7	219735.6	[500]	µg/L	05:28:10
2	Tl 190.801†	307.6	325.2	[500]	µg/L	05:28:36
2	U 409.014†	6089.1	5277.4	[500]	µg/L	05:28:16
2	V 292.402†	44201.5	43958.0	[500]	µg/L	05:28:16
2	Zn 213.857†	19437.8	18690.8	[500]	µg/L	05:28:16
3	Sc RADIAL	114954.2	114954.2	102	%	05:27:05
3	Al 396.153Radial†	10079.2	9746.0	[5000]	µg/L	05:27:05
3	Ca 317.933Radial†	12984.2	12384.2	[5000]	µg/L	05:27:25
3	K 766.490 Radial†	10010.4	9070.5	[5000]	µg/L	05:27:05
3	Mg 279.077 IEC†	910.5	881.3	[5000]	µg/L	05:27:25
3	Sr 421.552†	89300.4	88051.4	[500]	µg/L	05:27:05
3	Sc 361.383	2074108.9	2074108.9	99.494	%	05:28:43
3	Y 371.029	1268584.3	1268584.3	98.863	%	05:28:43
3	Ag 328.068†	53316.9	53514.8	[500]	µg/L	05:28:49
3	As 188.979†	236.0	236.6	[500]	µg/L	05:29:09
3	B 249.677†	10875.9	10814.7	[500]	µg/L	05:28:49
3	Ba 233.527†	18673.8	18850.3	[500]	µg/L	05:28:49
3	Be 313.107†	766867.9	767263.2	[500]	µg/L	05:28:43
3	Cd 226.502†	18078.1	18277.5	[500]	µg/L	05:28:49
3	Co 228.616†	9666.2	9800.9	[500]	µg/L	05:28:49
3	Cr 267.716†	22049.0	22288.1	[500]	µg/L	05:28:49
3	Cu 324.752†	69790.7	66566.5	[500]	µg/L	05:28:49
3	Mn 257.610†	148608.4	149592.5	[500]	µg/L	05:28:43
3	Mo 202.031†	3766.9	3786.7	[500]	µg/L	05:29:09
3	Ni 231.604†	9030.9	8749.4	[500]	µg/L	05:28:49
3	P 214.914†	1222.7	1017.2	[2500]	µg/L	05:29:09
3	Pb 220.353†	1803.2	1760.0	[500]	µg/L	05:29:09
3	S 181.975 Axial†	200.3	174.1	[1000]	µg/L	05:29:09
3	Sb 206.836†	471.3	451.3	[500]	µg/L	05:29:09
3	Se 196.026†	347.4	330.8	[500]	µg/L	05:29:09
3	SiO2†	28966.2	26844.0	[5347.5]	µg/L	05:28:49
3	Si 251.611†	31303.9	31106.6	[2500]	µg/L	05:28:49
3	Sn 189.927†	879.5	860.0	[500]	µg/L	05:29:09
3	Ti 334.940†	212401.1	212621.2	[500]	µg/L	05:28:43
3	Tl 190.801†	291.6	313.2	[500]	µg/L	05:29:09
3	U 409.014†	5726.7	4995.0	[500]	µg/L	05:28:49
3	V 292.402†	41548.5	41885.5	[500]	µg/L	05:28:49
3	Zn 213.857†	18356.3	17865.0	[500]	µg/L	05:28:49

Mean Data: S0.5

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	2090333.4	14547.88	0.70%	100.27	%
Sc RADIAL	115883.6	906.83	0.78%	102	%
Y 371.029	1278597.8	8871.93	0.69%	99.643	%
Ag 328.068†	53869.9	732.63	1.36%	[500]	µg/L
Al 396.153Radial†	9710.3	50.12	0.52%	[5000]	µg/L
As 188.979†	253.9	15.60	6.15%	[500]	µg/L
B 249.677†	10903.6	192.49	1.77%	[500]	µg/L
Ba 233.527†	19171.7	375.95	1.96%	[500]	µg/L
Be 313.107†	782170.8	13064.35	1.67%	[500]	µg/L
Ca 317.933Radial†	12273.1	107.04	0.87%	[5000]	µg/L
Cd 226.502†	18617.4	383.06	2.06%	[500]	µg/L
Co 228.616†	10027.1	229.21	2.29%	[500]	µg/L
Cr 267.716†	23086.9	759.55	3.29%	[500]	µg/L
Cu 324.752†	68059.1	1527.63	2.24%	[500]	µg/L
K 766.490 Radial†	8968.4	102.56	1.14%	[5000]	µg/L
Mg 279.077 IEC†	874.1	6.32	0.72%	[5000]	µg/L
Mn 257.610†	152532.8	2569.78	1.68%	[500]	µg/L
Mo 202.031†	4149.0	315.67	7.61%	[500]	µg/L
Ni 231.604†	8923.5	196.17	2.20%	[500]	µg/L
P 214.914†	1108.3	79.82	7.20%	[2500]	µg/L
Pb 220.353†	1885.7	109.47	5.81%	[500]	µg/L
S 181.975 Axial†	184.9	9.71	5.25%	[1000]	µg/L
Sb 206.836†	482.4	27.00	5.60%	[500]	µg/L
Se 196.026†	350.9	17.53	5.00%	[500]	µg/L
SiO2†	27188.4	454.65	1.67%	[5347.5]	µg/L
Si 251.611†	31591.1	563.83	1.78%	[2500]	µg/L

Sn 189.927†	958.6	86.04	8.98%	[500] µg/L
Sr 421.552†	87854.2	194.35	0.22%	[500] µg/L
Ti 334.940†	217064.0	3873.80	1.78%	[500] µg/L
Tl 190.801†	322.2	7.94	2.46%	[500] µg/L
U 409.014†	5150.0	143.24	2.78%	[500] µg/L
V 292.402†	42916.6	1036.27	2.41%	[500] µg/L
Zn 213.857†	18227.0	422.22	2.32%	[500] µg/L

Sequence No.: 4
Sample ID: SCAL
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 4
Date Collected: 12/20/2009 05:29:18
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: SCAL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	115108.2	115108.2	102	%	05:29:51
1	Al 396.153Radial†	20460.0	19942.7	[10000]	µg/L	05:29:51
1	Ca 317.933Radial†	26126.2	25292.8	[10000]	µg/L	05:30:11
1	Fe 238.204 Radial†	1871.7	1834.4	[10000]	µg/L	05:30:11
1	K 766.490 Radial†	19521.3	18411.7	[10000]	µg/L	05:29:51
1	Mg 279.077 IEC†	1848.1	1802.4	[10000]	µg/L	05:30:11
1	Na 589.592 Radial†	37635.4	37768.4	[10000]	µg/L	05:29:51
1	Sr 421.552†	182153.8	179259.0	[1000]	µg/L	05:29:51
1	Sc 361.383	2091898.8	2091898.8	100.35	%	05:31:16
1	Y 371.029	1277129.0	1277129.0	99.529	%	05:31:16
1	Ag 328.068†	110234.5	109779.6	[1000]	µg/L	05:31:21
1	As 188.979†	540.1	537.7	[1000]	µg/L	05:31:42
1	B 249.677†	22608.3	22413.6	[1000]	µg/L	05:31:21
1	Ba 233.527†	39104.8	39050.9	[1000]	µg/L	05:31:21
1	Be 313.107†	1612903.2	1603815.2	[1000]	µg/L	05:31:16
1	Cd 226.502†	37900.6	37876.8	[1000]	µg/L	05:31:21
1	Co 228.616†	20420.5	20435.4	[1000]	µg/L	05:31:21
1	Cr 267.716†	47636.1	47598.1	[1000]	µg/L	05:31:21
1	Cu 324.752†	148259.2	144166.8	[1000]	µg/L	05:31:16
1	Mn 257.610†	312847.0	311992.4	[1000]	µg/L	05:31:16
1	Mo 202.031†	8878.2	8848.2	[1000]	µg/L	05:31:21
1	Ni 231.604†	18529.0	18137.4	[1000]	µg/L	05:31:21
1	P 214.914†	2566.6	2345.9	[5000]	µg/L	05:31:42
1	Pb 220.353†	4006.7	3940.5	[1000]	µg/L	05:31:42
1	S 181.975 Axial†	419.3	390.7	[2000]	µg/L	05:31:42
1	Sb 206.836†	1040.1	1014.0	[1000]	µg/L	05:31:42
1	Se 196.026†	767.2	746.1	[1000]	µg/L	05:31:42
1	SiO2†	57998.7	55528.5	[10695]	µg/L	05:31:21
1	Si 251.611†	64991.7	64410.1	[5000]	µg/L	05:31:21
1	Sn 189.927†	2086.9	2055.7	[1000]	µg/L	05:31:42
1	Ti 334.940†	452937.6	450509.6	[1000]	µg/L	05:31:16
1	Tl 190.801†	648.2	666.1	[1000]	µg/L	05:31:42
1	U 409.014†	11419.0	10618.7	[1000]	µg/L	05:31:21
1	V 292.402†	87948.3	87769.6	[1000]	µg/L	05:31:21
1	Zn 213.857†	37722.0	37006.8	[1000]	µg/L	05:31:21
2	Sc RADIAL	115537.0	115537.0	102	%	05:30:17
2	Al 396.153Radial†	20510.1	19917.1	[10000]	µg/L	05:30:17
2	Ca 317.933Radial†	26242.3	25311.3	[10000]	µg/L	05:30:37
2	Fe 238.204 Radial†	1881.9	1837.6	[10000]	µg/L	05:30:37
2	K 766.490 Radial†	19528.3	18347.3	[10000]	µg/L	05:30:17
2	Mg 279.077 IEC†	1852.1	1799.6	[10000]	µg/L	05:30:37
2	Na 589.592 Radial†	37870.6	37861.5	[10000]	µg/L	05:30:17
2	Sr 421.552†	182537.6	178970.1	[1000]	µg/L	05:30:17
2	Sc 361.383	2085647.0	2085647.0	100.05	%	05:31:49
2	Y 371.029	1274249.7	1274249.7	99.304	%	05:31:49
2	Ag 328.068†	111672.4	111546.1	[1000]	µg/L	05:31:54
2	As 188.979†	530.8	530.0	[1000]	µg/L	05:32:15
2	B 249.677†	22918.4	22791.1	[1000]	µg/L	05:31:54
2	Ba 233.527†	39585.4	39648.1	[1000]	µg/L	05:31:54
2	Be 313.107†	1607700.9	1603433.4	[1000]	µg/L	05:31:49
2	Cd 226.502†	38230.8	38320.2	[1000]	µg/L	05:31:54
2	Co 228.616†	20655.0	20730.7	[1000]	µg/L	05:31:54
2	Cr 267.716†	48174.6	48278.7	[1000]	µg/L	05:31:54
2	Cu 324.752†	147640.0	143990.8	[1000]	µg/L	05:31:49
2	Mn 257.610†	311924.2	312004.6	[1000]	µg/L	05:31:49
2	Mo 202.031†	8963.8	8960.2	[1000]	µg/L	05:31:54
2	Ni 231.604†	18732.1	18395.8	[1000]	µg/L	05:31:54
2	P 214.914†	2572.4	2359.4	[5000]	µg/L	05:32:15
2	Pb 220.353†	4005.3	3951.0	[1000]	µg/L	05:32:15

2	S 181.975 Axial†	421.2	393.8	[2000]	µg/L	05:32:15
2	Sb 206.836†	1046.3	1023.3	[1000]	µg/L	05:32:15
2	Se 196.026†	760.9	742.1	[1000]	µg/L	05:32:15
2	SiO2†	58567.9	56270.7	[10695]	µg/L	05:31:54
2	Si 251.611†	65845.0	65457.2	[5000]	µg/L	05:31:54
2	Sn 189.927†	2085.3	2060.4	[1000]	µg/L	05:32:15
2	Ti 334.940†	451386.2	450311.9	[1000]	µg/L	05:31:49
2	Tl 190.801†	652.7	672.6	[1000]	µg/L	05:32:15
2	U 409.014†	11556.2	10789.9	[1000]	µg/L	05:31:54
2	V 292.402†	89074.9	89158.4	[1000]	µg/L	05:31:54
2	Zn 213.857†	38203.0	37600.3	[1000]	µg/L	05:31:54
3	Sc RADIAL	114160.3	114160.3	101	%	05:30:43
3	Al 396.153Radial†	20285.0	19936.3	[10000]	µg/L	05:30:43
3	Ca 317.933Radial†	26165.2	25544.9	[10000]	µg/L	05:31:03
3	Fe 238.204 Radial†	1875.7	1853.7	[10000]	µg/L	05:31:03
3	K 766.490 Radial†	19411.1	18461.8	[10000]	µg/L	05:30:43
3	Mg 279.077 IEC†	1848.0	1817.4	[10000]	µg/L	05:31:03
3	Na 589.592 Radial†	37451.5	37893.4	[10000]	µg/L	05:30:43
3	Sr 421.552†	180201.5	178810.5	[1000]	µg/L	05:30:43
3	Sc 361.383	2082196.1	2082196.1	99.882	%	05:32:22
3	Y 371.029	1270563.7	1270563.7	99.017	%	05:32:22
3	Ag 328.068†	106702.6	106755.5	[1000]	µg/L	05:32:28
3	As 188.979†	470.2	470.2	[1000]	µg/L	05:32:48
3	B 249.677†	21814.4	21723.7	[1000]	µg/L	05:32:28
3	Ba 233.527†	37032.6	37157.8	[1000]	µg/L	05:32:28
3	Be 313.107†	1530725.1	1529029.8	[1000]	µg/L	05:32:22
3	Cd 226.502†	35699.1	35848.7	[1000]	µg/L	05:32:28
3	Co 228.616†	19170.2	19278.4	[1000]	µg/L	05:32:28
3	Cr 267.716†	43797.6	43976.4	[1000]	µg/L	05:32:28
3	Cu 324.752†	141422.6	138010.6	[1000]	µg/L	05:32:22
3	Mn 257.610†	297642.8	298222.9	[1000]	µg/L	05:32:22
3	Mo 202.031†	8295.1	8305.6	[1000]	µg/L	05:32:28
3	Ni 231.604†	17301.6	16994.6	[1000]	µg/L	05:32:28
3	P 214.914†	2280.3	2071.3	[5000]	µg/L	05:32:48
3	Pb 220.353†	3583.5	3535.4	[1000]	µg/L	05:32:48
3	S 181.975 Axial†	384.0	357.3	[2000]	µg/L	05:32:48
3	Sb 206.836†	928.6	907.2	[1000]	µg/L	05:32:48
3	Se 196.026†	696.8	679.2	[1000]	µg/L	05:32:48
3	SiO2†	55293.2	53089.2	[10695]	µg/L	05:32:28
3	Si 251.611†	62162.2	61879.1	[5000]	µg/L	05:32:28
3	Sn 189.927†	1788.1	1766.3	[1000]	µg/L	05:32:48
3	Ti 334.940†	428544.7	428191.1	[1000]	µg/L	05:32:22
3	Tl 190.801†	596.4	617.3	[1000]	µg/L	05:32:48
3	U 409.014†	10581.1	9832.8	[1000]	µg/L	05:32:28
3	V 292.402†	82168.2	82391.1	[1000]	µg/L	05:32:28
3	Zn 213.857†	35486.5	34943.9	[1000]	µg/L	05:32:28

Mean Data: SCAL

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	2086580.6	4918.25	0.24%	100.09	%
Sc RADIAL	114935.2	704.51	0.61%	102	%
Y 371.029	1273980.8	3290.89	0.26%	99.284	%
Ag 328.068†	109360.4	2422.67	2.22%	[1000]	µg/L
Al 396.153Radial†	19932.0	13.32	0.07%	[10000]	µg/L
As 188.979†	512.6	36.95	7.21%	[1000]	µg/L
B 249.677†	22309.4	541.27	2.43%	[1000]	µg/L
Ba 233.527†	38618.9	1300.12	3.37%	[1000]	µg/L
Be 313.107†	1578759.5	43067.56	2.73%	[1000]	µg/L
Ca 317.933Radial†	25383.0	140.48	0.55%	[10000]	µg/L
Cd 226.502†	37348.6	1317.67	3.53%	[1000]	µg/L
Co 228.616†	20148.2	767.59	3.81%	[1000]	µg/L
Cr 267.716†	46617.7	2312.65	4.96%	[1000]	µg/L
Cu 324.752†	142056.1	3504.58	2.47%	[1000]	µg/L
Fe 238.204 Radial†	1841.9	10.34	0.56%	[10000]	µg/L
K 766.490 Radial†	18407.0	57.39	0.31%	[10000]	µg/L
Mg 279.077 IEC†	1806.4	9.56	0.53%	[10000]	µg/L
Mn 257.610†	307406.6	7953.33	2.59%	[1000]	µg/L
Mo 202.031†	8704.7	350.10	4.02%	[1000]	µg/L
Na 589.592 Radial†	37841.1	64.92	0.17%	[10000]	µg/L

Ni 231.604†	17842.6	745.66	4.18%	[1000]	µg/L
P 214.914†	2258.9	162.63	7.20%	[5000]	µg/L
Pb 220.353†	3809.0	237.00	6.22%	[1000]	µg/L
S 181.975 Axial†	380.6	20.25	5.32%	[2000]	µg/L
Sb 206.836†	981.5	64.51	6.57%	[1000]	µg/L
Se 196.026†	722.5	37.54	5.20%	[1000]	µg/L
SiO2†	54962.8	1664.50	3.03%	[10695]	µg/L
Si 251.611†	63915.5	1839.61	2.88%	[5000]	µg/L
Sn 189.927†	1960.8	168.47	8.59%	[1000]	µg/L
Sr 421.552†	179013.2	227.33	0.13%	[1000]	µg/L
Ti 334.940†	443004.2	12828.90	2.90%	[1000]	µg/L
Tl 190.801†	652.0	30.23	4.64%	[1000]	µg/L
U 409.014†	10413.8	510.37	4.90%	[1000]	µg/L
V 292.402†	86439.7	3574.28	4.13%	[1000]	µg/L
Zn 213.857†	36517.0	1394.30	3.82%	[1000]	µg/L

Sequence No.: 5
Sample ID: S10
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 5
Date Collected: 12/20/2009 05:32:58
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S10

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	115472.6	115472.6	102	%	05:33:30
1	Al 396.153Radial†	101072.1	98914.3	[50000]	µg/L	05:33:30
1	Ca 317.933Radial†	130236.4	127285.3	[50000]	µg/L	05:33:30
1	Fe 238.204 Radial†	3731.2	3651.8	[20000]	µg/L	05:33:50
1	Mg 279.077 IEC†	8963.0	8772.3	[50000]	µg/L	05:33:50
1	Na 589.592 Radial†	75560.6	74834.8	[20000]	µg/L	05:33:30
1	Sc 361.383	2101325.8	2101325.8	100.80	%	05:34:54
1	Y 371.029	1273115.4	1273115.4	99.216	%	05:34:54
2	Sc RADIAL	115444.5	115444.5	102	%	05:33:56
2	Al 396.153Radial†	101343.5	99204.6	[50000]	µg/L	05:33:56
2	Ca 317.933Radial†	130381.0	127458.3	[50000]	µg/L	05:33:56
2	Fe 238.204 Radial†	3756.6	3677.5	[20000]	µg/L	05:34:16
2	Mg 279.077 IEC†	8997.4	8808.2	[50000]	µg/L	05:34:16
2	Na 589.592 Radial†	75824.5	75111.7	[20000]	µg/L	05:33:56
2	Sc 361.383	2111789.6	2111789.6	101.30	%	05:35:02
2	Y 371.029	1280063.5	1280063.5	99.758	%	05:35:02
3	Sc RADIAL	115019.8	115019.8	102	%	05:34:22
3	Al 396.153Radial†	100996.0	99229.5	[50000]	µg/L	05:34:22
3	Ca 317.933Radial†	129745.6	127304.9	[50000]	µg/L	05:34:22
3	Fe 238.204 Radial†	3702.0	3637.4	[20000]	µg/L	05:34:42
3	Mg 279.077 IEC†	8896.9	8741.9	[50000]	µg/L	05:34:42
3	Na 589.592 Radial†	75419.9	74988.0	[20000]	µg/L	05:34:22
3	Sc 361.383	2088146.6	2088146.6	100.17	%	05:35:10
3	Y 371.029	1265384.0	1265384.0	98.614	%	05:35:10

Mean Data: S10

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	2100420.7	11847.46	0.56%	100.76	%
Sc RADIAL	115312.3	253.68	0.22%	102	%
Y 371.029	1272854.3	7343.23	0.58%	99.196	%
Al 396.153Radial†	99116.2	175.22	0.18%	[50000]	µg/L
Ca 317.933Radial†	127349.5	94.74	0.07%	[50000]	µg/L
Fe 238.204 Radial†	3655.5	20.32	0.56%	[20000]	µg/L
Mg 279.077 IEC†	8774.1	33.20	0.38%	[50000]	µg/L
Na 589.592 Radial†	74978.2	138.71	0.19%	[20000]	µg/L

Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 328.068	3	Lin Thru 0	0.0	109.1	0.00000	0.999970	
Al 396.153Radial	3	Lin Thru 0	0.0	1.982	0.00000	0.999997	
As 188.979	3	Lin Thru 0	0.0	0.5119	0.00000	0.999973	
B 249.677	3	Lin Thru 0	0.0	22.21	0.00000	0.999958	
Ba 233.527	3	Lin Thru 0	0.0	38.58	0.00000	0.999982	
Be 313.107	3	Lin Thru 0	0.0	1576	0.00000	0.999985	
Ca 317.933Radial	3	Lin Thru 0	0.0	2.546	0.00000	0.999994	
Cd 226.502	3	Lin Thru 0	0.0	37.35	0.00000	0.999977	
Co 228.616	3	Lin Thru 0	0.0	20.14	0.00000	0.999987	
Cr 267.716	3	Lin Thru 0	0.0	46.55	0.00000	0.999973	
Cu 324.752	3	Lin Thru 0	0.0	140.9	0.00000	0.999850	
Fe 238.204 Radia	2	Lin Thru 0	0.0	0.1831	0.00000	0.999995	
K 766.490 Radial	3	Lin Thru 0	0.0	1.831	0.00000	0.999946	
Mg 279.077 IEC	3	Lin Thru 0	0.0	0.1757	0.00000	0.999984	
Mn 257.610	3	Lin Thru 0	0.0	307.1	0.00000	0.999985	
Mo 202.031	3	Lin Thru 0	0.0	8.627	0.00000	0.999813	
Na 589.592 Radia	2	Lin Thru 0	0.0	3.756	0.00000	0.999993	

Ni 231.604	3	Lin Thru 0	0.0	17.86	0.00000	0.999974
P 214.914	3	Lin Thru 0	0.0	0.4502	0.00000	0.999965
Pb 220.353	3	Lin Thru 0	0.0	3.804	0.00000	0.999973
S 181.975 Axial	3	Lin Thru 0	0.0	0.1893	0.00000	0.999918
Sb 206.836	3	Lin Thru 0	0.0	0.9784	0.00000	0.999972
Se 196.026	3	Lin Thru 0	0.0	0.7185	0.00000	0.999930
SiO2	3	Lin Thru 0	0.0	5.131	0.00000	0.999977
Si 251.611	3	Lin Thru 0	0.0	12.76	0.00000	0.999978
Sn 189.927	3	Lin Thru 0	0.0	1.953	0.00000	0.999934
Sr 421.552	3	Lin Thru 0	0.0	178.3	0.00000	0.999973
Ti 334.940	3	Lin Thru 0	0.0	441.3	0.00000	0.999966
Tl 190.801	3	Lin Thru 0	0.0	0.6507	0.00000	0.999980
U 409.014	3	Lin Thru 0	0.0	10.40	0.00000	0.999930
V 292.402	3	Lin Thru 0	0.0	86.36	0.00000	0.999983
Zn 213.857	3	Lin Thru 0	0.0	36.53	0.00000	0.999973

Sequence No.: 6
Sample ID: ICV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 9
Date Collected: 12/20/2009 05:35:18
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	116625.3	116625.3	103	%			05:35:52
1	Al 396.153Radial†	10587.8	10097.5	5072.7	µg/L	5072.7	ppb	05:35:52
1	Ca 317.933Radial†	13308.2	12515.5	4916.2	µg/L	4916.2	ppb	05:36:12
1	Fe 238.204 Radial†	957.7	923.2	5060.8	µg/L	5060.8	ppb	05:36:12
1	K 766.490 Radial†	5450.9	4503.2	2459.4	µg/L	2459.4	ppb	05:35:52
1	Mg 279.077 IEC†	969.8	926.1	5278.0	µg/L	5278.0	ppb	05:36:12
1	Na 589.592 Radial†	8904.0	9395.9	2501.6	µg/L	2501.6	ppb	05:35:52
1	Sr 421.552†	96671.9	93947.2	526.77	µg/L	526.77	ppb	05:35:52
1	Sc 361.383	2090973.0	2090973.0	100.30	%			05:37:16
1	Y 371.029	1279315.0	1279315.0	99.699	%			05:37:16
1	Ag 328.068†	29451.9	29289.6	272.56	µg/L	272.56	ppb	05:37:22
1	As 188.979†	256.9	255.6	498.08	µg/L	498.08	ppb	05:37:42
1	B 249.677†	12032.4	11879.6	533.24	µg/L	533.24	ppb	05:37:22
1	Ba 233.527†	20396.0	20415.9	530.28	µg/L	530.28	ppb	05:37:22
1	Be 313.107†	427218.6	422423.4	267.77	µg/L	267.77	ppb	05:37:16
1	Cd 226.502†	19444.6	19493.4	522.49	µg/L	522.49	ppb	05:37:22
1	Co 228.616†	10627.4	10680.8	530.61	µg/L	530.61	ppb	05:37:22
1	Cr 267.716†	23922.1	23976.8	516.28	µg/L	516.28	ppb	05:37:22
1	Cu 324.752†	75920.6	72112.1	512.80	µg/L	512.80	ppb	05:37:22
1	Mn 257.610†	161507.1	161247.5	525.76	µg/L	525.76	ppb	05:37:16
1	Mo 202.031†	4779.2	4765.4	552.59	µg/L	552.59	ppb	05:37:42
1	Ni 231.604†	9761.8	9404.9	526.71	µg/L	526.71	ppb	05:37:22
1	P 214.914†	1392.2	1176.3	2558.0	µg/L	2558.0	ppb	05:37:42
1	Pb 220.353†	2044.9	1986.4	523.13	µg/L	523.13	ppb	05:37:42
1	S 181.975 Axial†	530.3	501.6	2647.8	µg/L	2647.8	ppb	05:37:42
1	Sb 206.836†	538.6	514.5	524.35	µg/L	524.35	ppb	05:37:42
1	Se 196.026†	1901.1	1876.9	2614.4	µg/L	2614.4	ppb	05:37:42
1	SiO2†	57275.1	54832.6	10687	µg/L	10687	ppb	05:37:22
1	Si 251.611†	64136.6	63586.3	4932.8	µg/L	4932.8	ppb	05:37:22
1	Sn 189.927†	1145.2	1117.9	575.01	µg/L	575.01	ppb	05:37:42
1	Ti 334.940†	226036.4	224493.6	508.44	µg/L	508.44	ppb	05:37:16
1	Tl 190.801†	330.3	349.4	539.39	µg/L	539.39	ppb	05:37:42
1	U 409.014†	6077.4	5298.3	508.56	µg/L	508.56	ppb	05:37:22
1	V 292.402†	46129.4	46115.8	539.09	µg/L	539.09	ppb	05:37:22
1	Zn 213.857†	20232.6	19586.9	532.05	µg/L	532.05	ppb	05:37:22
2	Sc RADIAL	116528.4	116528.4	103	%			05:36:18
2	Al 396.153Radial†	10515.5	10035.8	5041.8	µg/L	5041.8	ppb	05:36:18
2	Ca 317.933Radial†	13343.1	12560.1	4933.7	µg/L	4933.7	ppb	05:36:38
2	Fe 238.204 Radial†	958.7	925.0	5070.0	µg/L	5070.0	ppb	05:36:38
2	K 766.490 Radial†	5392.1	4450.4	2430.6	µg/L	2430.6	ppb	05:36:18
2	Mg 279.077 IEC†	969.5	926.6	5280.6	µg/L	5280.6	ppb	05:36:38
2	Na 589.592 Radial†	8902.3	9401.5	2503.1	µg/L	2503.1	ppb	05:36:18
2	Sr 421.552†	96970.7	94315.5	528.83	µg/L	528.83	ppb	05:36:18
2	Sc 361.383	2132121.5	2132121.5	102.28	%			05:37:49
2	Y 371.029	1306663.9	1306663.9	101.83	%			05:37:49
2	Ag 328.068†	29412.1	28684.0	266.92	µg/L	266.92	ppb	05:37:55
2	As 188.979†	258.4	252.0	491.17	µg/L	491.17	ppb	05:38:15
2	B 249.677†	11923.1	11541.2	518.00	µg/L	518.00	ppb	05:37:55
2	Ba 233.527†	20304.6	19934.1	517.76	µg/L	517.76	ppb	05:37:55
2	Be 313.107†	418740.4	405913.8	257.30	µg/L	257.30	ppb	05:37:49
2	Cd 226.502†	19395.8	19071.5	511.17	µg/L	511.17	ppb	05:37:55
2	Co 228.616†	10636.1	10484.8	520.90	µg/L	520.90	ppb	05:37:55
2	Cr 267.716†	23856.8	23452.7	504.99	µg/L	504.99	ppb	05:37:55
2	Cu 324.752†	75846.9	70579.2	501.93	µg/L	501.93	ppb	05:37:55
2	Mn 257.610†	158601.1	155298.7	506.39	µg/L	506.39	ppb	05:37:49
2	Mo 202.031†	4807.5	4701.1	545.13	µg/L	545.13	ppb	05:38:15
2	Ni 231.604†	9745.8	9201.4	515.32	µg/L	515.32	ppb	05:37:55
2	P 214.914†	1402.8	1159.9	2522.7	µg/L	2522.7	ppb	05:38:15
2	Pb 220.353†	2055.3	1957.2	515.45	µg/L	515.45	ppb	05:38:15

2	S 181.975 Axial†	526.0	487.1	2571.4 µg/L	2571.4 ppb	05:38:15
2	Sb 206.836†	536.7	502.3	511.81 µg/L	511.81 ppb	05:38:15
2	Se 196.026†	1913.7	1852.7	2580.7 µg/L	2580.7 ppb	05:38:15
2	SiO2†	56974.5	53436.7	10415 µg/L	10415 ppb	05:37:55
2	Si 251.611†	63818.4	62041.1	4812.8 µg/L	4812.8 ppb	05:37:55
2	Sn 189.927†	1150.1	1100.6	566.19 µg/L	566.19 ppb	05:38:15
2	Ti 334.940†	222213.2	216406.2	490.11 µg/L	490.11 ppb	05:37:49
2	Tl 190.801†	333.9	346.7	534.95 µg/L	534.95 ppb	05:38:15
2	U 409.014†	6088.1	5191.8	498.32 µg/L	498.32 ppb	05:37:55
2	V 292.402†	45896.3	45000.4	526.11 µg/L	526.11 ppb	05:37:55
2	Zn 213.857†	20114.4	19082.0	518.31 µg/L	518.31 ppb	05:37:55
3	Sc RADIAL	116090.3	116090.3	103 %		05:36:44
3	Al 396.153Radial†	10516.9	10075.7	5064.5 µg/L	5064.5 ppb	05:36:44
3	Ca 317.933Radial†	13314.1	12580.8	4941.8 µg/L	4941.8 ppb	05:37:04
3	Fe 238.204 Radial†	966.6	936.1	5130.5 µg/L	5130.5 ppb	05:37:04
3	K 766.490 Radial†	5411.7	4489.3	2451.9 µg/L	2451.9 ppb	05:36:44
3	Mg 279.077 IEC†	966.0	926.7	5279.5 µg/L	5279.5 ppb	05:37:04
3	Na 589.592 Radial†	8871.6	9404.2	2503.8 µg/L	2503.8 ppb	05:36:44
3	Sr 421.552†	96673.0	94380.7	529.20 µg/L	529.20 ppb	05:36:44
3	Sc 361.383	2102783.4	2102783.4	100.87 %		05:38:22
3	Y 371.029	1286148.7	1286148.7	100.23 %		05:38:22
3	Ag 328.068†	28586.1	28266.4	262.96 µg/L	262.96 ppb	05:38:28
3	As 188.979†	229.6	227.1	442.48 µg/L	442.48 ppb	05:38:48
3	B 249.677†	11637.7	11420.9	512.56 µg/L	512.56 ppb	05:38:28
3	Ba 233.527†	19487.6	19401.1	503.90 µg/L	503.90 ppb	05:38:28
3	Be 313.107†	416054.5	408963.3	259.24 µg/L	259.24 ppb	05:38:22
3	Cd 226.502†	18539.5	18487.2	495.48 µg/L	495.48 ppb	05:38:28
3	Co 228.616†	10122.5	10120.7	502.66 µg/L	502.66 ppb	05:38:28
3	Cr 267.716†	22297.5	22232.2	478.72 µg/L	478.72 ppb	05:38:28
3	Cu 324.752†	72228.0	68026.2	483.82 µg/L	483.82 ppb	05:38:28
3	Mn 257.610†	157224.0	156097.0	508.99 µg/L	508.99 ppb	05:38:22
3	Mo 202.031†	4170.1	4134.8	479.49 µg/L	479.49 ppb	05:38:48
3	Ni 231.604†	9274.2	8866.8	496.58 µg/L	496.58 ppb	05:38:28
3	P 214.914†	1257.8	1035.2	2246.5 µg/L	2246.5 ppb	05:38:48
3	Pb 220.353†	1854.8	1786.4	470.41 µg/L	470.41 ppb	05:38:48
3	S 181.975 Axial†	477.4	446.2	2355.1 µg/L	2355.1 ppb	05:38:48
3	Sb 206.836†	490.5	463.8	472.65 µg/L	472.65 ppb	05:38:48
3	Se 196.026†	1741.6	1708.2	2379.6 µg/L	2379.6 ppb	05:38:48
3	SiO2†	55078.2	52334.0	10200 µg/L	10200 ppb	05:38:28
3	Si 251.611†	61638.9	60751.0	4715.5 µg/L	4715.5 ppb	05:38:28
3	Sn 189.927†	993.8	961.3	494.89 µg/L	494.89 ppb	05:38:48
3	Ti 334.940†	219657.3	216903.7	491.24 µg/L	491.24 ppb	05:38:22
3	Tl 190.801†	316.4	333.9	515.44 µg/L	515.44 ppb	05:38:48
3	U 409.014†	5725.0	4914.8	471.68 µg/L	471.68 ppb	05:38:28
3	V 292.402†	43489.6	43240.5	505.23 µg/L	505.23 ppb	05:38:28
3	Zn 213.857†	19205.4	18455.3	501.27 µg/L	501.27 ppb	05:38:28

Mean Data: ICV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	2108626.0	101.15	%	1.016				1.00%
Sc RADIAL	116414.6	103	%	0.3				0.24%
Y 371.029	1290709.2	100.59	%	1.109				1.10%
Ag 328.068†	28746.7	267.48	µg/L	4.826	267.48	ppb	4.826	1.80%
QC value within limits for Ag 328.068 Recovery = 106.99%								
Al 396.153Radial†	10069.7	5059.7	µg/L	15.98	5059.7	ppb	15.98	0.32%
QC value within limits for Al 396.153Radial Recovery = 101.19%								
As 188.979†	244.9	477.24	µg/L	30.301	477.24	ppb	30.301	6.35%
QC value within limits for As 188.979 Recovery = 95.45%								
B 249.677†	11613.9	521.27	µg/L	10.717	521.27	ppb	10.717	2.06%
QC value within limits for B 249.677 Recovery = 104.25%								
Ba 233.527†	19917.0	517.31	µg/L	13.192	517.31	ppb	13.192	2.55%
QC value within limits for Ba 233.527 Recovery = 103.46%								
Be 313.107†	412433.5	261.44	µg/L	5.569	261.44	ppb	5.569	2.13%
QC value within limits for Be 313.107 Recovery = 104.57%								
Ca 317.933Radial†	12552.2	4930.6	µg/L	13.11	4930.6	ppb	13.11	0.27%
QC value within limits for Ca 317.933Radial Recovery = 98.61%								
Cd 226.502†	19017.4	509.71	µg/L	13.562	509.71	ppb	13.562	2.66%
QC value within limits for Cd 226.502 Recovery = 101.94%								
Co 228.616†	10428.8	518.05	µg/L	14.188	518.05	ppb	14.188	2.74%

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   QC value within limits for Co 228.616  Recovery = 103.61%
Cr 267.716†            23220.6      500.00 µg/L        19.267      500.00 ppb        19.267   3.85%
   QC value within limits for Cr 267.716  Recovery = 100.00%
Cu 324.752†            70239.2      499.52 µg/L        14.639      499.52 ppb        14.639   2.93%
   QC value within limits for Cu 324.752  Recovery = 99.90%
Fe 238.204 Radial†       928.1      5087.1 µg/L         37.85      5087.1 ppb         37.85   0.74%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.74%
K 766.490 Radial†       4481.0      2447.3 µg/L         14.93      2447.3 ppb         14.93   0.61%
   QC value within limits for K 766.490 Radial  Recovery = 97.89%
Mg 279.077 IEC†          926.4      5279.4 µg/L          1.32      5279.4 ppb          1.32   0.02%
   QC value within limits for Mg 279.077 IEC  Recovery = 105.59%
Mn 257.610†           157547.8      513.71 µg/L        10.513      513.71 ppb        10.513   2.05%
   QC value within limits for Mn 257.610  Recovery = 102.74%
Mo 202.031†             4533.8      525.74 µg/L        40.225      525.74 ppb        40.225   7.65%
   QC value within limits for Mo 202.031  Recovery = 105.15%
Na 589.592 Radial†      9400.5      2502.8 µg/L          1.13      2502.8 ppb          1.13   0.05%
   QC value within limits for Na 589.592 Radial  Recovery = 100.11%
Ni 231.604†             9157.7      512.87 µg/L        15.215      512.87 ppb        15.215   2.97%
   QC value within limits for Ni 231.604  Recovery = 102.57%
P 214.914†              1123.8      2442.4 µg/L        170.61      2442.4 ppb        170.61   6.99%
   QC value within limits for P 214.914  Recovery = 97.70%
Pb 220.353†             1910.0      502.99 µg/L        28.482      502.99 ppb        28.482   5.66%
   QC value within limits for Pb 220.353  Recovery = 100.60%
S 181.975 Axial†         478.3      2524.8 µg/L        151.79      2524.8 ppb        151.79   6.01%
   QC value within limits for S 181.975 Axial  Recovery = 100.99%
Sb 206.836†              493.5      502.93 µg/L        26.968      502.93 ppb        26.968   5.36%
   QC value within limits for Sb 206.836  Recovery = 100.59%
Se 196.026†             1812.6      2524.9 µg/L        126.97      2524.9 ppb        126.97   5.03%
   QC value within limits for Se 196.026  Recovery = 101.00%
SiO2†                  53534.4       10434 µg/L         244.1       10434 ppb         244.1   2.34%
   QC value within limits for SiO2  Recovery = 97.56%
Si 251.611†            62126.1      4820.4 µg/L        108.82      4820.4 ppb        108.82   2.26%
   QC value within limits for Si 251.611  Recovery = 96.41%
Sn 189.927†             1059.9      545.36 µg/L        43.934      545.36 ppb        43.934   8.06%
   QC value within limits for Sn 189.927  Recovery = 109.07%
Sr 421.552†            94214.5      528.26 µg/L         1.311      528.26 ppb         1.311   0.25%
   QC value within limits for Sr 421.552  Recovery = 105.65%
Ti 334.940†           219267.8      496.59 µg/L        10.271      496.59 ppb        10.271   2.07%
   QC value within limits for Ti 334.940  Recovery = 99.32%
Tl 190.801†              343.3      529.93 µg/L        12.745      529.93 ppb        12.745   2.40%
   QC value within limits for Tl 190.801  Recovery = 105.99%
U 409.014†              5135.0      492.85 µg/L        19.037      492.85 ppb        19.037   3.86%
   QC value within limits for U 409.014  Recovery = 98.57%
V 292.402†             44785.5      523.48 µg/L        17.082      523.48 ppb        17.082   3.26%
   QC value within limits for V 292.402  Recovery = 104.70%
Zn 213.857†            19041.4      517.21 µg/L        15.423      517.21 ppb        15.423   2.98%
   QC value within limits for Zn 213.857  Recovery = 103.44%
All analyte(s) passed QC.
```

Sequence No.: 7
Sample ID: ICB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 10
Date Collected: 12/20/2009 05:38:57
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	114659.5	114659.5	101	%			05:39:30
1	Al 396.153Radial†	227.3	43.8	22.092	µg/L	22.092	ppb	05:39:30
1	Ca 317.933Radial†	417.3	8.7	3.4071	µg/L	3.4071	ppb	05:39:50
1	Fe 238.204 Radial†	9.8	3.2	17.467	µg/L	17.467	ppb	05:39:50
1	K 766.490 Radial†	718.3	-79.1	-43.176	µg/L	-43.176	ppb	05:39:30
1	Mg 279.077 IEC†	17.9	2.3	13.140	µg/L	13.140	ppb	05:39:50
1	Na 589.592 Radial†	-753.4	8.5	2.2605	µg/L	2.2605	ppb	05:39:30
1	Sr 421.552†	-59.4	44.4	0.2491	µg/L	0.2491	ppb	05:39:30
1	Sc 361.383	2078145.1	2078145.1	99.688	%			05:40:52
1	Y 371.029	1277609.5	1277609.5	99.566	%			05:40:52
1	Ag 328.068†	137.2	64.4	0.5914	µg/L	0.5914	ppb	05:40:58
1	As 188.979†	0.6	-0.0	-0.0347	µg/L	-0.0347	ppb	05:41:18
1	B 249.677†	147.7	31.7	1.4213	µg/L	1.4213	ppb	05:40:58
1	Ba 233.527†	-72.4	8.9	0.2296	µg/L	0.2296	ppb	05:41:18
1	Be 313.107†	3699.1	205.8	0.1305	µg/L	0.1305	ppb	05:40:58
1	Cd 226.502†	-102.9	4.2	0.1104	µg/L	0.1104	ppb	05:41:18
1	Co 228.616†	-78.1	7.2	0.3577	µg/L	0.3577	ppb	05:41:18
1	Cr 267.716†	-145.2	-18.7	-0.4007	µg/L	-0.4007	ppb	05:40:58
1	Cu 324.752†	3510.7	-57.5	-0.4041	µg/L	-0.4041	ppb	05:40:58
1	Mn 257.610†	-174.8	53.0	0.1746	µg/L	0.1746	ppb	05:41:18
1	Mo 202.031†	2.5	3.2	0.3680	µg/L	0.3680	ppb	05:41:18
1	Ni 231.604†	352.5	26.1	1.4632	µg/L	1.4632	ppb	05:41:18
1	P 214.914†	193.5	-17.6	-39.153	µg/L	-39.153	ppb	05:41:18
1	Pb 220.353†	52.6	0.4	0.1020	µg/L	0.1020	ppb	05:41:18
1	S 181.975 Axial†	26.2	-0.8	-4.4548	µg/L	-4.4548	ppb	05:41:18
1	Sb 206.836†	20.0	-2.4	-2.4057	µg/L	-2.4057	ppb	05:41:18
1	Se 196.026†	7.0	-11.4	-15.881	µg/L	-15.881	ppb	05:41:18
1	SiO2†	2262.0	-0.3	-0.0677	µg/L	-0.0677	ppb	05:40:58
1	Si 251.611†	414.2	58.9	4.6997	µg/L	4.6997	ppb	05:41:18
1	Sn 189.927†	20.0	-3.9	-1.9949	µg/L	-1.9949	ppb	05:41:18
1	Ti 334.940†	903.5	46.2	0.1044	µg/L	0.1044	ppb	05:40:58
1	Tl 190.801†	-16.9	3.2	4.8909	µg/L	4.8909	ppb	05:41:18
1	U 409.014†	713.7	-44.8	-4.3150	µg/L	-4.3150	ppb	05:40:58
1	V 292.402†	-124.1	1.3	0.0118	µg/L	0.0118	ppb	05:40:58
1	Zn 213.857†	596.7	14.0	0.3735	µg/L	0.3735	ppb	05:41:18
2	Sc RADIAL	113340.9	113340.9	100	%			05:39:56
2	Al 396.153Radial†	155.7	-25.0	-12.656	µg/L	-12.656	ppb	05:39:56
2	Ca 317.933Radial†	413.6	9.7	3.8251	µg/L	3.8251	ppb	05:40:16
2	Fe 238.204 Radial†	13.2	6.6	36.322	µg/L	36.322	ppb	05:40:16
2	K 766.490 Radial†	767.7	-21.5	-11.732	µg/L	-11.732	ppb	05:39:56
2	Mg 279.077 IEC†	16.6	1.3	7.2784	µg/L	7.2784	ppb	05:40:16
2	Na 589.592 Radial†	-765.9	-12.6	-3.3637	µg/L	-3.3637	ppb	05:39:56
2	Sr 421.552†	-91.8	11.4	0.0640	µg/L	0.0640	ppb	05:39:56
2	Sc 361.383	2097973.6	2097973.6	100.64	%			05:41:24
2	Y 371.029	1289984.8	1289984.8	100.53	%			05:41:24
2	Ag 328.068†	156.5	82.3	0.7529	µg/L	0.7529	ppb	05:41:30
2	As 188.979†	0.3	-0.2	-0.4815	µg/L	-0.4815	ppb	05:41:50
2	B 249.677†	174.7	57.1	2.5614	µg/L	2.5614	ppb	05:41:30
2	Ba 233.527†	-68.7	13.2	0.3415	µg/L	0.3415	ppb	05:41:50
2	Be 313.107†	3716.2	187.7	0.1190	µg/L	0.1190	ppb	05:41:30
2	Cd 226.502†	-101.9	6.2	0.1624	µg/L	0.1624	ppb	05:41:50
2	Co 228.616†	-87.1	-1.0	-0.0488	µg/L	-0.0488	ppb	05:41:50
2	Cr 267.716†	-125.2	2.6	0.0548	µg/L	0.0548	ppb	05:41:30
2	Cu 324.752†	3467.5	-133.7	-0.9409	µg/L	-0.9409	ppb	05:41:30
2	Mn 257.610†	-180.2	49.2	0.1648	µg/L	0.1648	ppb	05:41:50
2	Mo 202.031†	5.2	5.9	0.6808	µg/L	0.6808	ppb	05:41:50
2	Ni 231.604†	334.5	5.0	0.2787	µg/L	0.2787	ppb	05:41:50
2	P 214.914†	199.6	-13.4	-29.611	µg/L	-29.611	ppb	05:41:50
2	Pb 220.353†	45.0	-7.7	-2.0090	µg/L	-2.0090	ppb	05:41:50

2	S 181.975 Axial†	26.2	-1.2	-6.0954 µg/L	-6.0954 ppb	05:41:50
2	Sb 206.836†	22.1	-0.5	-0.5573 µg/L	-0.5573 ppb	05:41:50
2	Se 196.026†	14.6	-3.9	-5.4576 µg/L	-5.4576 ppb	05:41:50
2	SiO2†	2270.3	-13.5	-2.6360 µg/L	-2.6360 ppb	05:41:30
2	Si 251.611†	415.4	56.2	4.4377 µg/L	4.4377 ppb	05:41:50
2	Sn 189.927†	22.0	-2.1	-1.0653 µg/L	-1.0653 ppb	05:41:50
2	Ti 334.940†	924.1	58.1	0.1314 µg/L	0.1314 ppb	05:41:30
2	Tl 190.801†	-19.1	1.2	1.7807 µg/L	1.7807 ppb	05:41:50
2	U 409.014†	732.0	-33.5	-3.2256 µg/L	-3.2256 ppb	05:41:30
2	V 292.402†	-178.0	-51.2	-0.5899 µg/L	-0.5899 ppb	05:41:30
2	Zn 213.857†	596.9	8.5	0.2283 µg/L	0.2283 ppb	05:41:50
3	Sc RADIAL	113267.5	113267.5	100 %		05:40:22
3	Al 396.153Radial†	220.0	39.3	19.798 µg/L	19.798 ppb	05:40:22
3	Ca 317.933Radial†	413.0	9.4	3.6922 µg/L	3.6922 ppb	05:40:42
3	Fe 238.204 Radial†	12.2	5.7	31.025 µg/L	31.025 ppb	05:40:42
3	K 766.490 Radial†	758.6	-30.1	-16.424 µg/L	-16.424 ppb	05:40:22
3	Mg 279.077 IEC†	17.4	2.0	11.563 µg/L	11.563 ppb	05:40:42
3	Na 589.592 Radial†	-745.9	6.9	1.8290 µg/L	1.8290 ppb	05:40:22
3	Sr 421.552†	-47.1	56.1	0.3143 µg/L	0.3143 ppb	05:40:22
3	Sc 361.383	2078202.9	2078202.9	99.690 %		05:41:56
3	Y 371.029	1277524.0	1277524.0	99.560 %		05:41:56
3	Ag 328.068†	142.7	69.8	0.6426 µg/L	0.6426 ppb	05:42:02
3	As 188.979†	-2.4	-3.0	-5.8513 µg/L	-5.8513 ppb	05:42:22
3	B 249.677†	155.7	39.7	1.7782 µg/L	1.7782 ppb	05:42:02
3	Ba 233.527†	-67.5	13.8	0.3568 µg/L	0.3568 ppb	05:42:22
3	Be 313.107†	3885.3	392.5	0.2489 µg/L	0.2489 ppb	05:42:02
3	Cd 226.502†	-94.3	12.8	0.3428 µg/L	0.3428 ppb	05:42:22
3	Co 228.616†	-77.4	7.9	0.3898 µg/L	0.3898 ppb	05:42:22
3	Cr 267.716†	-126.6	0.0	0.0006 µg/L	0.0006 ppb	05:42:02
3	Cu 324.752†	3559.0	-9.2	-0.0585 µg/L	-0.0585 ppb	05:42:02
3	Mn 257.610†	-172.3	55.4	0.1844 µg/L	0.1844 ppb	05:42:22
3	Mo 202.031†	1.1	1.8	0.2048 µg/L	0.2048 ppb	05:42:22
3	Ni 231.604†	340.6	14.2	0.7951 µg/L	0.7951 ppb	05:42:22
3	P 214.914†	204.3	-6.8	-15.066 µg/L	-15.066 ppb	05:42:22
3	Pb 220.353†	55.4	3.2	0.8543 µg/L	0.8543 ppb	05:42:22
3	S 181.975 Axial†	30.5	3.5	18.391 µg/L	18.391 ppb	05:42:22
3	Sb 206.836†	23.3	0.9	0.9201 µg/L	0.9201 ppb	05:42:22
3	Se 196.026†	15.6	-2.7	-3.7712 µg/L	-3.7712 ppb	05:42:22
3	SiO2†	2252.6	-9.9	-1.9221 µg/L	-1.9221 ppb	05:42:02
3	Si 251.611†	410.0	54.7	4.3435 µg/L	4.3435 ppb	05:42:22
3	Sn 189.927†	20.5	-3.3	-1.6985 µg/L	-1.6985 ppb	05:42:22
3	Ti 334.940†	972.3	115.1	0.2607 µg/L	0.2607 ppb	05:42:02
3	Tl 190.801†	-19.5	0.6	0.8565 µg/L	0.8565 ppb	05:42:22
3	U 409.014†	767.4	9.0	0.8591 µg/L	0.8591 ppb	05:42:02
3	V 292.402†	-125.4	-0.0	0.0050 µg/L	0.0050 ppb	05:42:02
3	Zn 213.857†	609.8	27.1	0.7351 µg/L	0.7351 ppb	05:42:22

Mean Data: ICB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2084773.9	100.01	%	0.548				0.55%
Sc RADIAL	113756.0	100	%	0.7				0.69%
Y 371.029	1281706.1	99.886	%	0.5587				0.56%
Ag 328.068†	72.1	0.6623	µg/L	0.08254	0.6623	ppb	0.08254	12.46%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	19.3	9.7445	µg/L	19.43333	9.7445	ppb	19.43333	199.43%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-1.1	-2.1225	µg/L	3.23696	-2.1225	ppb	3.23696	152.51%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	42.9	1.9203	µg/L	0.58319	1.9203	ppb	0.58319	30.37%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	11.9	0.3093	µg/L	0.06946	0.3093	ppb	0.06946	22.46%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	262.0	0.1661	µg/L	0.07187	0.1661	ppb	0.07187	43.26%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	9.3	3.6414	µg/L	0.21358	3.6414	ppb	0.21358	5.87%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	7.8	0.2052	µg/L	0.12194	0.2052	ppb	0.12194	59.42%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	4.7	0.2329	µg/L	0.24449	0.2329	ppb	0.24449	104.97%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                -5.3     -0.1151 µg/L       0.24877     -0.1151 ppb        0.24877 216.12%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               -66.8     -0.4678 µg/L       0.44462     -0.4678 ppb        0.44462  95.04%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          5.2      28.272 µg/L        9.7244      28.272 ppb         9.7244  34.40%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         -43.5     -23.777 µg/L       16.9628     -23.777 ppb        16.9628  71.34%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             1.9      10.661 µg/L        3.0333      10.661 ppb         3.0333  28.45%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                52.5      0.1746 µg/L       0.00980      0.1746 ppb        0.00980   5.61%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 3.6      0.4178 µg/L       0.24188      0.4178 ppb        0.24188  57.89%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†          0.9      0.2419 µg/L       3.13004      0.2419 ppb        3.13004 >999.9%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                15.1      0.8457 µg/L       0.59384      0.8457 ppb        0.59384  70.22%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -12.6     -27.943 µg/L       12.1295     -27.943 ppb        12.1295  43.41%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -1.4     -0.3509 µg/L       1.48444     -0.3509 ppb        1.48444 423.04%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            0.5      2.6134 µg/L      13.68799      2.6134 ppb       13.68799 523.75%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                -0.7     -0.6810 µg/L       1.66636     -0.6810 ppb        1.66636 244.70%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -6.0     -8.3699 µg/L       6.55913     -8.3699 ppb        6.55913  78.37%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                      -7.9     -1.5419 µg/L       1.32569     -1.5419 ppb        1.32569  85.97%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†                56.6      4.4936 µg/L       0.18459      4.4936 ppb        0.18459   4.11%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                -3.1     -1.5862 µg/L       0.47486     -1.5862 ppb        0.47486  29.94%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                37.3      0.2091 µg/L       0.12986      0.2091 ppb        0.12986  62.10%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                73.1      0.1655 µg/L       0.08352      0.1655 ppb        0.08352  50.46%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 1.6      2.5094 µg/L       2.11357      2.5094 ppb        2.11357  84.23%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                -23.1     -2.2271 µg/L       2.72773     -2.2271 ppb        2.72773 122.48%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                -16.6     -0.1911 µg/L       0.34544     -0.1911 ppb        0.34544 180.81%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                16.5      0.4456 µg/L       0.26096      0.4456 ppb        0.26096  58.56%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 8
Sample ID: PQL
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 101
Date Collected: 12/20/2009 05:42:32
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: PQL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	114105.5	114105.5	101	%			05:43:04
1	Al 396.153Radial†	594.6	409.4	206.11	µg/L	206.11	ppb	05:43:04
1	Ca 317.933Radial†	928.0	517.4	203.24	µg/L	203.24	ppb	05:43:25
1	Fe 238.204 Radial†	29.6	22.9	125.18	µg/L	125.18	ppb	05:43:25
1	K 766.490 Radial†	1112.3	315.3	172.18	µg/L	172.18	ppb	05:43:04
1	Mg 279.077 IEC†	74.7	58.8	334.67	µg/L	334.67	ppb	05:43:25
1	Na 589.592 Radial†	363.0	1112.6	296.21	µg/L	296.21	ppb	05:43:04
1	Sr 421.552†	847.0	943.5	5.2900	µg/L	5.2900	ppb	05:43:04
1	Sc 361.383	2081564.0	2081564.0	99.852	%			05:44:27
1	Y 371.029	1280935.2	1280935.2	99.825	%			05:44:27
1	Ag 328.068†	670.9	598.6	5.5384	µg/L	5.5384	ppb	05:44:32
1	As 188.979†	17.9	17.3	33.779	µg/L	33.779	ppb	05:44:53
1	B 249.677†	1281.1	1166.5	52.477	µg/L	52.477	ppb	05:44:32
1	Ba 233.527†	130.7	212.4	5.5169	µg/L	5.5169	ppb	05:44:53
1	Be 313.107†	11482.5	7994.7	5.0694	µg/L	5.0694	ppb	05:44:32
1	Cd 226.502†	85.4	193.0	5.2035	µg/L	5.2035	ppb	05:44:53
1	Co 228.616†	24.9	110.4	5.4994	µg/L	5.4994	ppb	05:44:53
1	Cr 267.716†	117.8	244.9	5.2754	µg/L	5.2754	ppb	05:44:32
1	Cu 324.752†	4970.7	1398.9	9.9533	µg/L	9.9533	ppb	05:44:32
1	Mn 257.610†	3015.0	3247.8	10.592	µg/L	10.592	ppb	05:44:32
1	Mo 202.031†	94.2	95.0	11.018	µg/L	11.018	ppb	05:44:53
1	Ni 231.604†	436.1	109.3	6.1218	µg/L	6.1218	ppb	05:44:53
1	P 214.914†	275.1	63.8	140.59	µg/L	140.59	ppb	05:44:53
1	Pb 220.353†	88.3	36.1	9.4832	µg/L	9.4832	ppb	05:44:53
1	S 181.975 Axial†	45.1	18.0	95.092	µg/L	95.092	ppb	05:44:53
1	Sb 206.836†	30.5	8.1	8.2798	µg/L	8.2798	ppb	05:44:53
1	Se 196.026†	37.3	18.9	26.334	µg/L	26.334	ppb	05:44:53
1	SiO2†	3337.2	1072.7	209.07	µg/L	209.07	ppb	05:44:32
1	Si 251.611†	1671.6	1317.5	102.53	µg/L	102.53	ppb	05:44:53
1	Sn 189.927†	38.5	14.6	7.6144	µg/L	7.6144	ppb	05:44:53
1	Ti 334.940†	3105.5	2249.9	5.0870	µg/L	5.0870	ppb	05:44:32
1	Tl 190.801†	-9.6	10.6	16.291	µg/L	16.291	ppb	05:44:53
1	U 409.014†	1319.5	560.6	53.881	µg/L	53.881	ppb	05:44:32
1	V 292.402†	390.5	516.8	6.1589	µg/L	6.1589	ppb	05:44:32
1	Zn 213.857†	973.5	390.4	10.619	µg/L	10.619	ppb	05:44:53
2	Sc RADIAL	113645.1	113645.1	100	%			05:43:30
2	Al 396.153Radial†	588.2	405.4	204.09	µg/L	204.09	ppb	05:43:30
2	Ca 317.933Radial†	943.1	536.1	210.60	µg/L	210.60	ppb	05:43:51
2	Fe 238.204 Radial†	30.6	24.0	131.05	µg/L	131.05	ppb	05:43:51
2	K 766.490 Radial†	1030.2	238.0	129.97	µg/L	129.97	ppb	05:43:30
2	Mg 279.077 IEC†	75.0	59.4	338.05	µg/L	338.05	ppb	05:43:51
2	Na 589.592 Radial†	423.8	1174.6	312.72	µg/L	312.72	ppb	05:43:30
2	Sr 421.552†	820.8	920.7	5.1626	µg/L	5.1626	ppb	05:43:30
2	Sc 361.383	2096752.9	2096752.9	100.58	%			05:44:59
2	Y 371.029	1287744.6	1287744.6	100.36	%			05:44:59
2	Ag 328.068†	762.8	685.1	6.3267	µg/L	6.3267	ppb	05:45:05
2	As 188.979†	14.4	13.7	26.693	µg/L	26.693	ppb	05:45:25
2	B 249.677†	1276.5	1152.7	51.853	µg/L	51.853	ppb	05:45:05
2	Ba 233.527†	115.7	196.5	5.1033	µg/L	5.1033	ppb	05:45:25
2	Be 313.107†	11615.7	8043.7	5.1005	µg/L	5.1005	ppb	05:45:05
2	Cd 226.502†	81.7	188.7	5.0869	µg/L	5.0869	ppb	05:45:25
2	Co 228.616†	21.1	106.5	5.3031	µg/L	5.3031	ppb	05:45:25
2	Cr 267.716†	90.0	216.5	4.6627	µg/L	4.6627	ppb	05:45:05
2	Cu 324.752†	5040.3	1432.0	10.190	µg/L	10.190	ppb	05:45:05
2	Mn 257.610†	2967.2	3178.4	10.367	µg/L	10.367	ppb	05:45:05
2	Mo 202.031†	88.7	88.8	10.303	µg/L	10.303	ppb	05:45:25
2	Ni 231.604†	441.6	111.6	6.2524	µg/L	6.2524	ppb	05:45:25
2	P 214.914†	270.3	57.1	125.58	µg/L	125.58	ppb	05:45:25
2	Pb 220.353†	81.3	28.5	7.4834	µg/L	7.4834	ppb	05:45:25

2	S 181.975 Axial†	46.5	19.1	100.84 µg/L	100.84 ppb	05:45:25
2	Sb 206.836†	28.1	5.5	5.5699 µg/L	5.5699 ppb	05:45:25
2	Se 196.026†	36.7	18.0	25.088 µg/L	25.088 ppb	05:45:25
2	SiO2†	3361.9	1073.1	209.15 µg/L	209.15 ppb	05:45:05
2	Si 251.611†	1672.6	1306.4	101.63 µg/L	101.63 ppb	05:45:25
2	Sn 189.927†	41.6	17.5	9.0763 µg/L	9.0763 ppb	05:45:25
2	Ti 334.940†	3135.7	2257.5	5.1037 µg/L	5.1037 ppb	05:45:05
2	Tl 190.801†	-3.6	16.6	25.486 µg/L	25.486 ppb	05:45:25
2	U 409.014†	1329.5	561.0	53.917 µg/L	53.917 ppb	05:45:05
2	V 292.402†	330.7	454.6	5.4335 µg/L	5.4335 ppb	05:45:05
2	Zn 213.857†	976.4	386.2	10.502 µg/L	10.502 ppb	05:45:25
3	Sc RADIAL	114885.6	114885.6	101 %		05:43:56
3	Al 396.153Radial†	620.9	431.3	217.20 µg/L	217.20 ppb	05:43:56
3	Ca 317.933Radial†	924.0	507.1	199.21 µg/L	199.21 ppb	05:44:17
3	Fe 238.204 Radial†	32.6	25.6	139.99 µg/L	139.99 ppb	05:44:17
3	K 766.490 Radial†	1006.3	203.4	111.08 µg/L	111.08 ppb	05:43:56
3	Mg 279.077 IEC†	65.8	49.5	281.63 µg/L	281.63 ppb	05:44:17
3	Na 589.592 Radial†	424.2	1170.4	311.61 µg/L	311.61 ppb	05:43:56
3	Sr 421.552†	841.6	932.4	5.2281 µg/L	5.2281 ppb	05:43:56
3	Sc 361.383	2105762.9	2105762.9	101.01 %		05:45:31
3	Y 371.029	1294687.0	1294687.0	100.90 %		05:45:31
3	Ag 328.068†	669.8	589.8	5.4508 µg/L	5.4508 ppb	05:45:37
3	As 188.979†	20.5	19.7	38.440 µg/L	38.440 ppb	05:45:57
3	B 249.677†	1216.8	1088.2	48.945 µg/L	48.945 ppb	05:45:37
3	Ba 233.527†	101.0	181.5	4.7142 µg/L	4.7142 ppb	05:45:57
3	Be 313.107†	11057.1	7441.4	4.7185 µg/L	4.7185 ppb	05:45:37
3	Cd 226.502†	68.7	175.4	4.7272 µg/L	4.7272 ppb	05:45:57
3	Co 228.616†	20.5	105.9	5.2683 µg/L	5.2683 ppb	05:45:57
3	Cr 267.716†	89.5	215.6	4.6427 µg/L	4.6427 ppb	05:45:37
3	Cu 324.752†	4940.2	1311.5	9.3366 µg/L	9.3366 ppb	05:45:37
3	Mn 257.610†	2818.4	3018.5	9.8476 µg/L	9.8476 ppb	05:45:37
3	Mo 202.031†	79.6	79.5	9.2169 µg/L	9.2169 ppb	05:45:57
3	Ni 231.604†	419.2	87.5	4.9015 µg/L	4.9015 ppb	05:45:57
3	P 214.914†	273.3	58.8	129.55 µg/L	129.55 ppb	05:45:57
3	Pb 220.353†	83.6	30.4	7.9827 µg/L	7.9827 ppb	05:45:57
3	S 181.975 Axial†	42.4	14.8	78.138 µg/L	78.138 ppb	05:45:57
3	Sb 206.836†	31.6	8.8	9.0036 µg/L	9.0036 ppb	05:45:57
3	Se 196.026†	33.7	15.0	20.853 µg/L	20.853 ppb	05:45:57
3	SiO2†	3277.5	975.2	190.07 µg/L	190.07 ppb	05:45:37
3	Si 251.611†	1548.5	1176.4	91.508 µg/L	91.508 ppb	05:45:57
3	Sn 189.927†	40.7	16.3	8.4867 µg/L	8.4867 ppb	05:45:57
3	Ti 334.940†	2978.9	2088.9	4.7223 µg/L	4.7223 ppb	05:45:37
3	Tl 190.801†	-3.6	16.6	25.587 µg/L	25.587 ppb	05:45:57
3	U 409.014†	1286.8	513.1	49.305 µg/L	49.305 ppb	05:45:37
3	V 292.402†	292.8	415.6	4.9681 µg/L	4.9681 ppb	05:45:37
3	Zn 213.857†	938.6	344.6	9.3723 µg/L	9.3723 ppb	05:45:57

Mean Data: PQL

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2094693.3	100.48	%	0.587				0.58%
Sc RADIAL	114212.1	101	%	0.6				0.55%
Y 371.029	1287788.9	100.36	%	0.536				0.53%
Ag 328.068†	624.5	5.7720	µg/L	0.48241	5.7720	ppb	0.48241	8.36%
QC value within limits for Ag 328.068 Recovery = 115.44%								
Al 396.153Radial†	415.3	209.13	µg/L	7.061	209.13	ppb	7.061	3.38%
QC value within limits for Al 396.153Radial Recovery = 104.57%								
As 188.979†	16.9	32.971	µg/L	5.9151	32.971	ppb	5.9151	17.94%
QC value within limits for As 188.979 Recovery = 109.90%								
B 249.677†	1135.8	51.092	µg/L	1.8851	51.092	ppb	1.8851	3.69%
QC value within limits for B 249.677 Recovery = 102.18%								
Ba 233.527†	196.8	5.1115	µg/L	0.40142	5.1115	ppb	0.40142	7.85%
QC value within limits for Ba 233.527 Recovery = 102.23%								
Be 313.107†	7826.6	4.9628	µg/L	0.21211	4.9628	ppb	0.21211	4.27%
QC value within limits for Be 313.107 Recovery = 99.26%								
Ca 317.933Radial†	520.2	204.35	µg/L	5.773	204.35	ppb	5.773	2.83%
QC value within limits for Ca 317.933Radial Recovery = 102.17%								
Cd 226.502†	185.7	5.0058	µg/L	0.24823	5.0058	ppb	0.24823	4.96%
QC value within limits for Cd 226.502 Recovery = 100.12%								
Co 228.616†	107.6	5.3569	µg/L	0.12459	5.3569	ppb	0.12459	2.33%

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   QC value within limits for Co 228.616  Recovery = 107.14%
Cr 267.716†              225.7      4.8602 µg/L       0.35968      4.8602 ppb        0.35968   7.40%
   QC value within limits for Cr 267.716  Recovery = 97.20%
Cu 324.752†             1380.8      9.8266 µg/L       0.44057      9.8266 ppb        0.44057   4.48%
   QC value within limits for Cu 324.752  Recovery = 98.27%
Fe 238.204 Radial†        24.1      132.07 µg/L         7.458      132.07 ppb          7.458   5.65%
   QC value greater than the upper limit for Fe 238.204 Radial  Recovery = 132.07%
K 766.490 Radial†        252.2      137.74 µg/L        31.282      137.74 ppb         31.282  22.71%
   QC value within limits for K 766.490 Radial  Recovery = 91.83%
Mg 279.077 IEC†           55.9      318.12 µg/L        31.641      318.12 ppb         31.641   9.95%
   QC value within limits for Mg 279.077 IEC  Recovery = 106.04%
Mn 257.610†             3148.2      10.269 µg/L        0.3820      10.269 ppb         0.3820   3.72%
   QC value within limits for Mn 257.610  Recovery = 102.69%
Mo 202.031†               87.8      10.179 µg/L        0.9071      10.179 ppb         0.9071   8.91%
   QC value within limits for Mo 202.031  Recovery = 101.79%
Na 589.592 Radial†      1152.5      306.85 µg/L         9.227      306.85 ppb          9.227   3.01%
   QC value within limits for Na 589.592 Radial  Recovery = 102.28%
Ni 231.604†              102.8      5.7586 µg/L       0.74510      5.7586 ppb        0.74510  12.94%
   QC value within limits for Ni 231.604  Recovery = 115.17%
P 214.914†                59.9      131.91 µg/L         7.777      131.91 ppb          7.777   5.90%
   QC value within limits for P 214.914  Recovery = 87.94%
Pb 220.353†               31.7      8.3164 µg/L       1.04085      8.3164 ppb        1.04085  12.52%
   QC value within limits for Pb 220.353  Recovery = 83.16%
S 181.975 Axial†          17.3      91.357 µg/L       11.8033      91.357 ppb        11.8033  12.92%
   QC value within limits for S 181.975 Axial  Recovery = 91.36%
Sb 206.836†                7.5      7.6178 µg/L       1.81004      7.6178 ppb        1.81004  23.76%
   QC value within limits for Sb 206.836  Recovery = 76.18%
Se 196.026†               17.3      24.092 µg/L        2.8729      24.092 ppb         2.8729  11.92%
   QC value within limits for Se 196.026  Recovery = 80.31%
SiO2†                   1040.3      202.76 µg/L        10.990      202.76 ppb         10.990   5.42%
   QC value within limits for SiO2  Recovery = 95.19%
Si 251.611†             1266.8      98.558 µg/L        6.1218      98.558 ppb         6.1218   6.21%
   QC value within limits for Si 251.611  Recovery = 98.56%
Sn 189.927†               16.2      8.3925 µg/L       0.73547      8.3925 ppb        0.73547   8.76%
   QC value within limits for Sn 189.927  Recovery = 83.92%
Sr 421.552†              932.2      5.2269 µg/L       0.06371      5.2269 ppb        0.06371   1.22%
   QC value within limits for Sr 421.552  Recovery = 104.54%
Ti 334.940†             2198.8      4.9710 µg/L       0.21558      4.9710 ppb        0.21558   4.34%
   QC value within limits for Ti 334.940  Recovery = 99.42%
Tl 190.801†               14.6      22.455 µg/L        5.3380      22.455 ppb         5.3380  23.77%
   QC value within limits for Tl 190.801  Recovery = 112.27%
U 409.014†               544.9      52.368 µg/L        2.6524      52.368 ppb         2.6524   5.06%
   QC value within limits for U 409.014  Recovery = 104.74%
V 292.402†               462.3      5.5202 µg/L       0.60011      5.5202 ppb        0.60011  10.87%
   QC value within limits for V 292.402  Recovery = 110.40%
Zn 213.857†              373.7      10.165 µg/L        0.6886      10.165 ppb         0.6886   6.77%
   QC value within limits for Zn 213.857  Recovery = 101.65%
QC Failed.  Continue with analysis.
```

Sequence No.: 9
Sample ID: ICSA
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 103
Date Collected: 12/20/2009 05:46:07
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSA

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	111650.1	111650.1	98.6	%			05:46:48
1	Al 396.153Radial†	967319.5	980686.1	494710	µg/L	494710	ppb	05:46:42
1	Ca 317.933Radial†	1195146.4	1211480.9	475880	µg/L	475880	ppb	05:46:42
1	Fe 238.204 Radial†	33581.8	34045.7	185980	µg/L	185980	ppb	05:46:48
1	K 766.490 Radial†	598.9	-181.0	-98.842	µg/L	-98.842	ppb	05:46:48
1	Mg 279.077 IEC†	82975.9	84122.6	478580	µg/L	478580	ppb	05:46:48
1	Na 589.592 Radial†	-689.0	53.8	14.319	µg/L	14.319	ppb	05:46:48
1	Sr 421.552†	589.9	701.2	3.9318	µg/L	3.9318	ppb	05:46:48
1	Sc 361.383	1945522.0	1945522.0	93.326	%			05:47:21
1	Y 371.029	1175885.2	1175885.2	91.639	%			05:47:21
1	Ag 328.068†	-1870.5	-2077.6	-4.4891	µg/L	-4.4891	ppb	05:47:27
1	As 188.979†	29.0	30.4	-39.761	µg/L	-39.761	ppb	05:47:48
1	B 249.677†	1792.5	1804.2	22.741	µg/L	22.741	ppb	05:47:27
1	Ba 233.527†	125.1	215.5	5.5493	µg/L	5.5493	ppb	05:47:48
1	Be 313.107†	2549.4	-773.2	-0.4999	µg/L	-0.4999	ppb	05:47:27
1	Cd 226.502†	508.5	652.3	3.0486	µg/L	3.0486	ppb	05:47:48
1	Co 228.616†	-103.5	-25.3	-1.3389	µg/L	-1.3389	ppb	05:47:48
1	Cr 267.716†	-260.0	-151.6	-3.2968	µg/L	-3.2968	ppb	05:47:48
1	Cu 324.752†	-921.6	-4566.7	7.5428	µg/L	7.5428	ppb	05:47:27
1	Mn 257.610†	-2097.9	-2019.6	16.801	µg/L	16.801	ppb	05:47:27
1	Mo 202.031†	-97.0	-103.2	-4.6585	µg/L	-4.6585	ppb	05:47:48
1	Ni 231.604†	307.1	1.6	0.0897	µg/L	0.0897	ppb	05:47:48
1	P 214.914†	217.9	21.7	11.165	µg/L	11.165	ppb	05:47:48
1	Pb 220.353†	-72.4	-129.9	6.6454	µg/L	6.6454	ppb	05:47:48
1	S 181.975 Axial†	62.9	40.2	116.47	µg/L	116.47	ppb	05:47:48
1	Sb 206.836†	69.0	51.4	8.0020	µg/L	8.0020	ppb	05:47:48
1	Se 196.026†	29.9	13.7	18.614	µg/L	18.614	ppb	05:47:48
1	SiO2†	1988.6	-138.6	-27.019	µg/L	-27.019	ppb	05:47:48
1	Si 251.611†	429.2	103.3	16.192	µg/L	16.192	ppb	05:47:48
1	Sn 189.927†	-392.0	-443.9	-4.0944	µg/L	-4.0944	ppb	05:47:48
1	Ti 334.940†	11260.0	11205.1	-1.3674	µg/L	-1.3674	ppb	05:47:27
1	Tl 190.801†	8.9	29.7	-18.021	µg/L	-18.021	ppb	05:47:48
1	U 409.014†	622.7	-93.6	-32.444	µg/L	-32.444	ppb	05:47:27
1	V 292.402†	-1500.0	-1481.5	-2.0808	µg/L	-2.0808	ppb	05:47:27
1	Zn 213.857†	1807.6	1352.3	4.2055	µg/L	4.2055	ppb	05:47:48
2	Sc RADIAL	110924.1	110924.1	98.0	%			05:47:00
2	Al 396.153Radial†	960634.1	980282.4	494500	µg/L	494500	ppb	05:46:54
2	Ca 317.933Radial†	1186327.1	1210411.2	475460	µg/L	475460	ppb	05:46:54
2	Fe 238.204 Radial†	33369.3	34051.6	186010	µg/L	186010	ppb	05:47:00
2	K 766.490 Radial†	552.8	-224.1	-122.40	µg/L	-122.40	ppb	05:47:00
2	Mg 279.077 IEC†	82682.4	84373.7	480010	µg/L	480010	ppb	05:47:00
2	Na 589.592 Radial†	-696.1	41.9	11.161	µg/L	11.161	ppb	05:47:00
2	Sr 421.552†	597.2	712.6	3.9957	µg/L	3.9957	ppb	05:47:00
2	Sc 361.383	1939472.5	1939472.5	93.036	%			05:47:54
2	Y 371.029	1172792.5	1172792.5	91.398	%			05:47:54
2	Ag 328.068†	-1819.5	-2029.0	-4.0407	µg/L	-4.0407	ppb	05:48:00
2	As 188.979†	32.2	34.0	-32.665	µg/L	-32.665	ppb	05:48:20
2	B 249.677†	1829.7	1850.1	24.799	µg/L	24.799	ppb	05:48:00
2	Ba 233.527†	131.0	222.3	5.7268	µg/L	5.7268	ppb	05:48:20
2	Be 313.107†	2542.2	-772.5	-0.4995	µg/L	-0.4995	ppb	05:48:00
2	Cd 226.502†	519.4	665.8	3.4071	µg/L	3.4071	ppb	05:48:20
2	Co 228.616†	-101.3	-23.4	-1.2436	µg/L	-1.2436	ppb	05:48:20
2	Cr 267.716†	-246.1	-137.6	-2.9957	µg/L	-2.9957	ppb	05:48:20
2	Cu 324.752†	-1018.2	-4673.6	6.7915	µg/L	6.7915	ppb	05:48:00
2	Mn 257.610†	-2113.1	-2043.1	16.729	µg/L	16.729	ppb	05:48:00
2	Mo 202.031†	-101.7	-108.6	-5.2815	µg/L	-5.2815	ppb	05:48:20
2	Ni 231.604†	277.5	-29.2	-1.6348	µg/L	-1.6348	ppb	05:48:20
2	P 214.914†	204.2	7.7	-20.144	µg/L	-20.144	ppb	05:48:20
2	Pb 220.353†	-80.5	-138.9	4.2612	µg/L	4.2612	ppb	05:48:20

2	S 181.975 Axial†	56.6	33.7	82.073	µg/L	82.073 ppb	05:48:20
2	Sb 206.836†	69.4	52.1	8.7311	µg/L	8.7311 ppb	05:48:20
2	Se 196.026†	19.4	2.5	2.4183	µg/L	2.4183 ppb	05:48:20
2	SiO2†	1975.6	-146.0	-28.453	µg/L	-28.453 ppb	05:48:20
2	Si 251.611†	440.9	117.3	17.561	µg/L	17.561 ppb	05:48:20
2	Sn 189.927†	-403.2	-457.3	-10.734	µg/L	-10.734 ppb	05:48:20
2	Ti 334.940†	11353.1	11342.8	-1.0318	µg/L	-1.0318 ppb	05:48:00
2	Tl 190.801†	22.0	43.8	3.7643	µg/L	3.7643 ppb	05:48:20
2	U 409.014†	662.6	-48.6	-28.139	µg/L	-28.139 ppb	05:48:00
2	V 292.402†	-1490.9	-1476.7	-2.0202	µg/L	-2.0202 ppb	05:48:00
2	Zn 213.857†	1805.3	1355.8	4.2695	µg/L	4.2695 ppb	05:48:20
3	Sc RADIAL	111681.8	111681.8	98.6	%		05:47:11
3	Al 396.153Radial†	959315.5	972293.7	490470	µg/L	490470 ppb	05:47:06
3	Ca 317.933Radial†	1183013.3	1198837.1	470910	µg/L	470910 ppb	05:47:06
3	Fe 238.204 Radial†	33773.0	34229.8	186990	µg/L	186990 ppb	05:47:11
3	K 766.490 Radial†	712.4	-66.2	-36.144	µg/L	-36.144 ppb	05:47:11
3	Mg 279.077 IEC†	83464.4	84593.9	481270	µg/L	481270 ppb	05:47:11
3	Na 589.592 Radial†	-666.5	76.8	20.438	µg/L	20.438 ppb	05:47:11
3	Sr 421.552†	601.3	712.6	3.9957	µg/L	3.9957 ppb	05:47:11
3	Sc 361.383	1932798.3	1932798.3	92.715	%		05:48:26
3	Y 371.029	1168521.4	1168521.4	91.065	%		05:48:26
3	Ag 328.068†	-1820.5	-2036.9	-4.0428	µg/L	-4.0428 ppb	05:48:32
3	As 188.979†	40.6	43.2	-14.304	µg/L	-14.304 ppb	05:48:53
3	B 249.677†	1806.1	1831.5	23.655	µg/L	23.655 ppb	05:48:32
3	Ba 233.527†	138.0	230.3	5.9316	µg/L	5.9316 ppb	05:48:53
3	Be 313.107†	2493.8	-815.2	-0.5266	µg/L	-0.5266 ppb	05:48:32
3	Cd 226.502†	503.8	650.8	2.9236	µg/L	2.9236 ppb	05:48:53
3	Co 228.616†	-93.8	-15.7	-0.8624	µg/L	-0.8624 ppb	05:48:53
3	Cr 267.716†	-263.1	-156.8	-3.4098	µg/L	-3.4098 ppb	05:48:53
3	Cu 324.752†	-953.3	-4607.5	7.4698	µg/L	7.4698 ppb	05:48:32
3	Mn 257.610†	-2103.3	-2040.3	16.860	µg/L	16.860 ppb	05:48:32
3	Mo 202.031†	-108.2	-116.0	-6.0990	µg/L	-6.0990 ppb	05:48:53
3	Ni 231.604†	323.2	21.2	1.1882	µg/L	1.1882 ppb	05:48:53
3	P 214.914†	203.7	8.0	-22.336	µg/L	-22.336 ppb	05:48:53
3	Pb 220.353†	-79.0	-137.5	4.2712	µg/L	4.2712 ppb	05:48:53
3	S 181.975 Axial†	73.3	51.9	177.70	µg/L	177.70 ppb	05:48:53
3	Sb 206.836†	55.1	37.0	-6.3179	µg/L	-6.3179 ppb	05:48:53
3	Se 196.026†	28.7	12.5	15.880	µg/L	15.880 ppb	05:48:53
3	SiO2†	1970.3	-144.3	-28.131	µg/L	-28.131 ppb	05:48:53
3	Si 251.611†	424.9	101.7	16.475	µg/L	16.475 ppb	05:48:53
3	Sn 189.927†	-408.8	-464.9	-15.256	µg/L	-15.256 ppb	05:48:53
3	Ti 334.940†	11266.9	11292.0	-0.8911	µg/L	-0.8911 ppb	05:48:32
3	Tl 190.801†	18.8	40.4	-0.7506	µg/L	-0.7506 ppb	05:48:53
3	U 409.014†	521.0	-198.8	-42.871	µg/L	-42.871 ppb	05:48:32
3	V 292.402†	-1563.3	-1560.4	-2.9393	µg/L	-2.9393 ppb	05:48:32
3	Zn 213.857†	1798.9	1355.7	4.1121	µg/L	4.1121 ppb	05:48:53

Mean Data: ICSA

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1939264.2	93.026	%	0.3053				0.33%
Sc RADIAL	111418.7	98.4	%	0.38				0.38%
Y 371.029	1172399.7	91.367	%	0.2882				0.32%
Ag 328.068†	-2047.8	-4.1909	µg/L	0.25827	-4.1909	ppb	0.25827	6.16%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	977754.1	493230	µg/L	2387.6	493230	ppb	2387.6	0.48%
QC value within limits for Al 396.153Radial Recovery = 98.65%								
As 188.979†	35.9	-28.910	µg/L	13.1375	-28.910	ppb	13.1375	45.44%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	1828.6	23.732	µg/L	1.0315	23.732	ppb	1.0315	4.35%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	222.7	5.7359	µg/L	0.19133	5.7359	ppb	0.19133	3.34%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-786.9	-0.5086	µg/L	0.01552	-0.5086	ppb	0.01552	3.05%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	1206909.7	474080	µg/L	2754.2	474080	ppb	2754.2	0.58%
QC value within limits for Ca 317.933Radial Recovery = 94.82%								
Cd 226.502†	656.3	3.1264	µg/L	0.25097	3.1264	ppb	0.25097	8.03%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	-21.5	-1.1483	µg/L	0.25214	-1.1483	ppb	0.25214	21.96%

```
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†            -148.7     -3.2341 µg/L      0.21405     -3.2341 ppb       0.21405   6.62%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†           -4615.9      7.2680 µg/L      0.41432      7.2680 ppb       0.41432   5.70%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†    34109.0      186330 µg/L        571.5      186330 ppb         571.5   0.31%
   QC value within limits for Fe 238.204 Radial  Recovery = 93.16%
K 766.490 Radial†      -157.1     -85.795 µg/L      44.5829     -85.795 ppb       44.5829  51.96%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†       84363.4      479950 µg/L       1341.7      479950 ppb        1341.7   0.28%
   QC value within limits for Mg 279.077 IEC  Recovery = 95.99%
Mn 257.610†           -2034.3      16.796 µg/L       0.0658      16.796 ppb        0.0658   0.39%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†            -109.3     -5.3463 µg/L      0.72243     -5.3463 ppb       0.72243  13.51%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       57.5      15.306 µg/L       4.7168      15.306 ppb        4.7168  30.82%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              -2.1     -0.1190 µg/L      1.42304     -0.1190 ppb       1.42304 >999.9%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               12.5     -10.438 µg/L      18.7410     -10.438 ppb       18.7410 179.54%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†            -135.5      5.0593 µg/L      1.37366      5.0593 ppb       1.37366  27.15%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         41.9      125.41 µg/L       48.436      125.41 ppb        48.436  38.62%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              46.8      3.4717 µg/L      8.48591      3.4717 ppb       8.48591 244.43%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               9.5      12.304 µg/L       8.6700      12.304 ppb        8.6700  70.46%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                  -143.0     -27.868 µg/L      0.7525     -27.868 ppb        0.7525   2.70%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             107.4      16.743 µg/L      0.7225      16.743 ppb        0.7225   4.32%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†            -455.4     -10.028 µg/L      5.6142     -10.028 ppb        5.6142  55.98%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             708.8      3.9744 µg/L     0.03688      3.9744 ppb       0.03688   0.93%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†           11280.0     -1.0968 µg/L     0.24470     -1.0968 ppb       0.24470  22.31%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              38.0     -5.0025 µg/L    11.49835     -5.0025 ppb      11.49835 229.85%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†             -113.7     -34.485 µg/L      7.5753     -34.485 ppb        7.5753  21.97%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†            -1506.2     -2.3468 µg/L     0.51406     -2.3468 ppb       0.51406  21.91%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†            1354.6      4.1957 µg/L     0.07912      4.1957 ppb       0.07912   1.89%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 10
Sample ID: ICSAB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 104
Date Collected: 12/20/2009 05:49:01
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSAB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	110483.2	110483.2	97.6	%			05:49:41
1	Al 396.153Radial†	962159.7	985758.7	497250	µg/L	497250	ppb	05:49:35
1	Ca 317.933Radial†	1183477.0	1212323.0	476210	µg/L	476210	ppb	05:49:35
1	Fe 238.204 Radial†	33386.1	34204.7	186870	µg/L	186870	ppb	05:49:41
1	K 766.490 Radial†	9753.6	9206.3	5028.1	µg/L	5028.1	ppb	05:49:41
1	Mg 279.077 IEC†	82888.2	84921.5	483140	µg/L	483140	ppb	05:49:41
1	Na 589.592 Radial†	17741.5	18932.4	5040.6	µg/L	5040.6	ppb	05:49:41
1	Sr 421.552†	86282.0	88517.5	496.32	µg/L	496.32	ppb	05:49:41
1	Sc 361.383	1928684.1	1928684.1	92.518	%			05:50:15
1	Y 371.029	1168197.4	1168197.4	91.040	%			05:50:15
1	Ag 328.068†	24808.4	26741.4	263.31	µg/L	263.31	ppb	05:50:21
1	As 188.979†	277.2	299.0	485.09	µg/L	485.09	ppb	05:50:41
1	B 249.677†	12468.3	13360.1	542.72	µg/L	542.72	ppb	05:50:21
1	Ba 233.527†	17904.6	19434.1	504.76	µg/L	504.76	ppb	05:50:21
1	Be 313.107†	358565.8	384058.2	243.43	µg/L	243.43	ppb	05:50:15
1	Cd 226.502†	16797.8	18263.7	475.36	µg/L	475.36	ppb	05:50:21
1	Co 228.616†	8137.9	8881.5	441.07	µg/L	441.07	ppb	05:50:41
1	Cr 267.716†	20927.0	22746.4	489.77	µg/L	489.77	ppb	05:50:21
1	Cu 324.752†	69555.4	71601.2	548.23	µg/L	548.23	ppb	05:50:21
1	Mn 257.610†	131043.4	141869.2	485.50	µg/L	485.50	ppb	05:50:21
1	Mo 202.031†	3866.4	4179.7	491.84	µg/L	491.84	ppb	05:50:41
1	Ni 231.604†	7634.9	7924.9	443.83	µg/L	443.83	ppb	05:50:41
1	P 214.914†	1301.0	1194.4	2560.4	µg/L	2560.4	ppb	05:50:41
1	Pb 220.353†	1640.2	1720.4	493.66	µg/L	493.66	ppb	05:50:41
1	S 181.975 Axial†	529.8	545.5	2784.7	µg/L	2784.7	ppb	05:50:41
1	Sb 206.836†	520.9	540.6	506.97	µg/L	506.97	ppb	05:50:41
1	Se 196.026†	1596.0	1706.6	2373.7	µg/L	2373.7	ppb	05:50:41
1	SiO2†	54717.2	56872.7	11085	µg/L	11085	ppb	05:50:21
1	Si 251.611†	61657.4	66287.1	5155.2	µg/L	5155.2	ppb	05:50:21
1	Sn 189.927†	536.1	555.6	508.69	µg/L	508.69	ppb	05:50:41
1	Ti 334.940†	214553.1	231044.0	496.78	µg/L	496.78	ppb	05:50:21
1	Tl 190.801†	299.5	343.8	467.99	µg/L	467.99	ppb	05:50:41
1	U 409.014†	5286.7	4953.4	452.63	µg/L	452.63	ppb	05:50:21
1	V 292.402†	39804.0	43148.7	519.04	µg/L	519.04	ppb	05:50:21
1	Zn 213.857†	18110.8	18990.9	483.78	µg/L	483.78	ppb	05:50:21
2	Sc RADIAL	110876.0	110876.0	97.9	%			05:49:52
2	Al 396.153Radial†	972996.9	993330.9	501070	µg/L	501070	ppb	05:49:47
2	Ca 317.933Radial†	1201626.1	1226557.7	481800	µg/L	481800	ppb	05:49:47
2	Fe 238.204 Radial†	33625.7	34328.1	187540	µg/L	187540	ppb	05:49:52
2	K 766.490 Radial†	9947.0	9368.5	5116.7	µg/L	5116.7	ppb	05:49:52
2	Mg 279.077 IEC†	83550.7	85297.0	485280	µg/L	485280	ppb	05:49:52
2	Na 589.592 Radial†	17886.9	19016.4	5063.0	µg/L	5063.0	ppb	05:49:52
2	Sr 421.552†	86909.1	88844.6	498.15	µg/L	498.15	ppb	05:49:52
2	Sc 361.383	1914321.0	1914321.0	91.829	%			05:50:48
2	Y 371.029	1160807.7	1160807.7	90.464	%			05:50:48
2	Ag 328.068†	24916.8	27060.7	266.34	µg/L	266.34	ppb	05:50:54
2	As 188.979†	274.0	297.8	481.79	µg/L	481.79	ppb	05:51:14
2	B 249.677†	12542.2	13541.7	550.68	µg/L	550.68	ppb	05:50:54
2	Ba 233.527†	17968.8	19649.1	510.35	µg/L	510.35	ppb	05:50:54
2	Be 313.107†	356002.7	384174.9	243.50	µg/L	243.50	ppb	05:50:48
2	Cd 226.502†	16948.1	18563.6	483.35	µg/L	483.35	ppb	05:50:54
2	Co 228.616†	8173.0	8985.8	446.25	µg/L	446.25	ppb	05:51:14
2	Cr 267.716†	21051.8	23052.0	496.35	µg/L	496.35	ppb	05:50:54
2	Cu 324.752†	69889.7	72529.3	554.96	µg/L	554.96	ppb	05:50:54
2	Mn 257.610†	132096.6	144078.9	492.78	µg/L	492.78	ppb	05:50:54
2	Mo 202.031†	3885.4	4231.8	497.90	µg/L	497.90	ppb	05:51:14
2	Ni 231.604†	7666.6	8021.3	449.23	µg/L	449.23	ppb	05:51:14
2	P 214.914†	1315.8	1221.2	2619.8	µg/L	2619.8	ppb	05:51:14
2	Pb 220.353†	1635.0	1728.2	496.01	µg/L	496.01	ppb	05:51:14

2	S 181.975 Axial†	538.6	559.4	2857.5 µg/L	2857.5 ppb	05:51:14
2	Sb 206.836†	523.5	547.6	513.66 µg/L	513.66 ppb	05:51:14
2	Se 196.026†	1595.5	1719.1	2391.4 µg/L	2391.4 ppb	05:51:14
2	SiO2†	55103.0	57736.6	11253 µg/L	11253 ppb	05:50:54
2	Si 251.611†	62151.8	67325.5	5235.8 µg/L	5235.8 ppb	05:50:54
2	Sn 189.927†	552.9	578.2	522.00 µg/L	522.00 ppb	05:51:14
2	Ti 334.940†	215714.1	234048.2	503.27 µg/L	503.27 ppb	05:50:54
2	Tl 190.801†	297.9	344.5	468.33 µg/L	468.33 ppb	05:51:14
2	U 409.014†	5352.0	5067.4	463.60 µg/L	463.60 ppb	05:50:54
2	V 292.402†	40108.7	43803.3	526.73 µg/L	526.73 ppb	05:50:54
2	Zn 213.857†	18252.3	19291.8	491.85 µg/L	491.85 ppb	05:50:54
3	Sc RADIAL	110836.0	110836.0	97.9 %		05:50:04
3	Al 396.153Radial†	963770.7	984265.5	496490 µg/L	496490 ppb	05:49:58
3	Ca 317.933Radial†	1188872.9	1213973.9	476860 µg/L	476860 ppb	05:49:58
3	Fe 238.204 Radial†	33754.5	34472.2	188330 µg/L	188330 ppb	05:50:04
3	K 766.490 Radial†	9922.3	9346.9	5104.9 µg/L	5104.9 ppb	05:50:04
3	Mg 279.077 IEC†	83798.7	85581.1	486890 µg/L	486890 ppb	05:50:04
3	Na 589.592 Radial†	17917.1	19053.8	5073.0 µg/L	5073.0 ppb	05:50:04
3	Sr 421.552†	87044.0	89014.4	499.11 µg/L	499.11 ppb	05:50:04
3	Sc 361.383	1920134.8	1920134.8	92.108 %		05:51:20
3	Y 371.029	1163536.8	1163536.8	90.676 %		05:51:20
3	Ag 328.068†	24988.2	27056.0	266.36 µg/L	266.36 ppb	05:51:26
3	As 188.979†	273.8	296.6	480.19 µg/L	480.19 ppb	05:51:47
3	B 249.677†	12623.4	13588.5	552.54 µg/L	552.54 ppb	05:51:26
3	Ba 233.527†	18083.9	19714.9	512.05 µg/L	512.05 ppb	05:51:26
3	Be 313.107†	356294.7	383318.2	242.95 µg/L	242.95 ppb	05:51:20
3	Cd 226.502†	17058.9	18628.0	485.01 µg/L	485.01 ppb	05:51:26
3	Co 228.616†	8179.5	8965.8	445.26 µg/L	445.26 ppb	05:51:47
3	Cr 267.716†	21108.9	23044.5	496.19 µg/L	496.19 ppb	05:51:26
3	Cu 324.752†	70086.6	72512.6	555.01 µg/L	555.01 ppb	05:51:26
3	Mn 257.610†	132462.9	144041.0	492.76 µg/L	492.76 ppb	05:51:26
3	Mo 202.031†	3890.5	4224.5	497.08 µg/L	497.08 ppb	05:51:47
3	Ni 231.604†	7650.5	7978.6	446.84 µg/L	446.84 ppb	05:51:47
3	P 214.914†	1302.5	1202.4	2575.3 µg/L	2575.3 ppb	05:51:47
3	Pb 220.353†	1645.4	1734.0	497.13 µg/L	497.13 ppb	05:51:47
3	S 181.975 Axial†	535.4	554.2	2829.6 µg/L	2829.6 ppb	05:51:47
3	Sb 206.836†	527.4	550.1	516.64 µg/L	516.64 ppb	05:51:47
3	Se 196.026†	1603.6	1722.6	2395.4 µg/L	2395.4 ppb	05:51:47
3	SiO2†	55226.9	57689.4	11244 µg/L	11244 ppb	05:51:26
3	Si 251.611†	62247.2	67224.1	5228.0 µg/L	5228.0 ppb	05:51:26
3	Sn 189.927†	547.1	570.1	517.19 µg/L	517.19 ppb	05:51:47
3	Ti 334.940†	216331.8	234007.6	503.46 µg/L	503.46 ppb	05:51:26
3	Tl 190.801†	306.3	352.7	481.51 µg/L	481.51 ppb	05:51:47
3	U 409.014†	5427.8	5132.0	469.54 µg/L	469.54 ppb	05:51:26
3	V 292.402†	40202.5	43772.9	526.45 µg/L	526.45 ppb	05:51:26
3	Zn 213.857†	18276.6	19258.0	490.81 µg/L	490.81 ppb	05:51:26

Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1921046.6	92.152	%	0.3466				0.38%
Sc RADIAL	110731.8	97.8	%	0.19				0.20%
Y 371.029	1164180.6	90.727	%	0.2912				0.32%
Ag 328.068†	26952.7	265.34	µg/L	1.755	265.34	ppb	1.755	0.66%
QC value within limits for Ag 328.068 Recovery = 106.14%								
Al 396.153Radial†	987785.0	498270	µg/L	2451.8	498270	ppb	2451.8	0.49%
QC value within limits for Al 396.153Radial Recovery = 99.65%								
As 188.979†	297.8	482.36	µg/L	2.496	482.36	ppb	2.496	0.52%
QC value within limits for As 188.979 Recovery = 96.47%								
B 249.677†	13496.8	548.65	µg/L	5.217	548.65	ppb	5.217	0.95%
QC value within limits for B 249.677 Recovery = 109.73%								
Ba 233.527†	19599.4	509.05	µg/L	3.815	509.05	ppb	3.815	0.75%
QC value within limits for Ba 233.527 Recovery = 101.81%								
Be 313.107†	383850.4	243.29	µg/L	0.295	243.29	ppb	0.295	0.12%
QC value within limits for Be 313.107 Recovery = 97.32%								
Ca 317.933Radial†	1217618.2	478290	µg/L	3058.3	478290	ppb	3058.3	0.64%
QC value within limits for Ca 317.933Radial Recovery = 95.66%								
Cd 226.502†	18485.1	481.24	µg/L	5.161	481.24	ppb	5.161	1.07%
QC value within limits for Cd 226.502 Recovery = 96.25%								
Co 228.616†	8944.4	444.19	µg/L	2.747	444.19	ppb	2.747	0.62%

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   QC value within limits for Co 228.616  Recovery = 88.84%
Cr 267.716†            22947.6      494.10 µg/L        3.754      494.10 ppb          3.754   0.76%
   QC value within limits for Cr 267.716  Recovery = 98.82%
Cu 324.752†            72214.4      552.73 µg/L        3.901      552.73 ppb          3.901   0.71%
   QC value within limits for Cu 324.752  Recovery = 110.55%
Fe 238.204 Radial†     34335.0      187580 µg/L        731.2      187580 ppb          731.2   0.39%
   QC value within limits for Fe 238.204 Radial  Recovery = 93.79%
K 766.490 Radial†       9307.2      5083.2 µg/L        48.08      5083.2 ppb          48.08   0.95%
   QC value within limits for K 766.490 Radial  Recovery = 101.66%
Mg 279.077 IEC†        85266.5      485110 µg/L       1882.4      485110 ppb         1882.4   0.39%
   QC value within limits for Mg 279.077 IEC  Recovery = 97.02%
Mn 257.610†           143329.7      490.35 µg/L        4.197      490.35 ppb          4.197   0.86%
   QC value within limits for Mn 257.610  Recovery = 98.07%
Mo 202.031†             4212.0      495.61 µg/L        3.288      495.61 ppb          3.288   0.66%
   QC value within limits for Mo 202.031  Recovery = 99.12%
Na 589.592 Radial†     19000.9      5058.9 µg/L        16.55      5058.9 ppb          16.55   0.33%
   QC value within limits for Na 589.592 Radial  Recovery = 101.18%
Ni 231.604†             7974.9      446.63 µg/L        2.706      446.63 ppb          2.706   0.61%
   QC value within limits for Ni 231.604  Recovery = 89.33%
P 214.914†              1206.0      2585.2 µg/L        30.92      2585.2 ppb          30.92   1.20%
   QC value within limits for P 214.914  Recovery = 103.41%
Pb 220.353†             1727.5      495.60 µg/L        1.772      495.60 ppb          1.772   0.36%
   QC value within limits for Pb 220.353  Recovery = 99.12%
S 181.975 Axial†         553.0      2823.9 µg/L        36.72      2823.9 ppb          36.72   1.30%
   QC value within limits for S 181.975 Axial  Recovery = 112.96%
Sb 206.836†              546.1      512.42 µg/L        4.952      512.42 ppb          4.952   0.97%
   QC value within limits for Sb 206.836  Recovery = 102.48%
Se 196.026†             1716.1      2386.8 µg/L        11.59      2386.8 ppb          11.59   0.49%
   QC value within limits for Se 196.026  Recovery = 95.47%
SiO2†                  57432.9       11194 µg/L         94.7       11194 ppb           94.7   0.85%
   QC value within limits for SiO2  Recovery = 104.67%
Si 251.611†            66945.6      5206.3 µg/L        44.44      5206.3 ppb          44.44   0.85%
   QC value within limits for Si 251.611  Recovery = 104.13%
Sn 189.927†              568.0      515.96 µg/L        6.739      515.96 ppb          6.739   1.31%
   QC value within limits for Sn 189.927  Recovery = 103.19%
Sr 421.552†            88792.2      497.86 µg/L        1.416      497.86 ppb          1.416   0.28%
   QC value within limits for Sr 421.552  Recovery = 99.57%
Ti 334.940†           233033.3      501.17 µg/L        3.804      501.17 ppb          3.804   0.76%
   QC value within limits for Ti 334.940  Recovery = 100.23%
Tl 190.801†              347.0      472.61 µg/L        7.707      472.61 ppb          7.707   1.63%
   QC value within limits for Tl 190.801  Recovery = 94.52%
U 409.014†              5051.0      461.92 µg/L        8.583      461.92 ppb          8.583   1.86%
   QC value within limits for U 409.014  Recovery = 92.38%
V 292.402†             43575.0      524.07 µg/L        4.363      524.07 ppb          4.363   0.83%
   QC value within limits for V 292.402  Recovery = 104.81%
Zn 213.857†            19180.2      488.81 µg/L        4.390      488.81 ppb          4.390   0.90%
   QC value within limits for Zn 213.857  Recovery = 97.76%
All analyte(s) passed QC.
```

Sequence No.: 11
Sample ID: LR1
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 105
Date Collected: 12/20/2009 05:51:56
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	110481.2	110481.2	97.6	%			05:52:37
1	Al 396.153Radial†	960927.9	984514.0	496640	µg/L	496640	ppb	05:52:32
1	Ca 317.933Radial†	1195640.0	1224808.5	481110	µg/L	481110	ppb	05:52:32
1	Fe 238.204 Radial†	82443.7	84476.2	461470	µg/L	461470	ppb	05:52:37
1	K 766.490 Radial†	746.8	-23.0	-12.574	µg/L	-12.574	ppb	05:52:37
1	Mg 279.077 IEC†	83396.6	85444.0	485700	µg/L	485700	ppb	05:52:37
1	Na 589.592 Radial†	1764941.3	1809346.0	481730	µg/L	481730	ppb	05:52:32
1	Sr 421.552†	996.7	1124.4	6.3046	µg/L	6.3046	ppb	05:52:37
1	Sc 361.383	1902268.9	1902268.9	91.251	%			05:53:13
1	Y 371.029	1141103.3	1141103.3	88.928	%			05:53:13
1	Ag 328.068†	-3603.2	-4021.9	-0.8850	µg/L	-0.8850	ppb	05:53:19
1	As 188.979†	25.9	27.8	-85.717	µg/L	-85.717	ppb	05:53:39
1	B 249.677†	4257.7	4549.5	59.705	µg/L	59.705	ppb	05:53:19
1	Ba 233.527†	277.3	385.4	9.8578	µg/L	9.8578	ppb	05:53:39
1	Be 313.107†	-2027.0	-5726.3	-3.6492	µg/L	-3.6492	ppb	05:53:19
1	Cd 226.502†	1334.3	1569.6	16.765	µg/L	16.765	ppb	05:53:19
1	Co 228.616†	32.0	120.6	5.8343	µg/L	5.8343	ppb	05:53:39
1	Cr 267.716†	-262.6	-160.8	-3.6003	µg/L	-3.6003	ppb	05:53:39
1	Cu 324.752†	-8085.3	-12439.7	10.850	µg/L	10.850	ppb	05:53:19
1	Mn 257.610†	-13005.9	-14024.6	12.334	µg/L	12.334	ppb	05:53:19
1	Mo 202.031†	-195.1	-213.2	-6.5751	µg/L	-6.5751	ppb	05:53:39
1	Ni 231.604†	281.4	-19.0	-1.0665	µg/L	-1.0665	ppb	05:53:39
1	P 214.914†	374.3	198.4	85.875	µg/L	85.875	ppb	05:53:39
1	Pb 220.353†	11.2	-40.1	14.648	µg/L	14.648	ppb	05:53:39
1	S 181.975 Axial†	73.0	52.9	141.59	µg/L	141.59	ppb	05:53:39
1	Sb 206.836†	49.8	32.1	-3.8815	µg/L	-3.8815	ppb	05:53:39
1	Se 196.026†	-104.4	-132.8	5.4098	µg/L	5.4098	ppb	05:53:39
1	SiO2†	1730.3	-373.3	-72.750	µg/L	-72.750	ppb	05:53:39
1	Si 251.611†	-231.5	-610.2	-38.933	µg/L	-38.933	ppb	05:53:39
1	Sn 189.927†	-444.7	-511.3	-3.6261	µg/L	-3.6261	ppb	05:53:39
1	Ti 334.940†	19018.4	19981.7	18.226	µg/L	18.226	ppb	05:53:19
1	Tl 190.801†	2.0	22.3	-30.053	µg/L	-30.053	ppb	05:53:39
1	U 409.014†	140454.3	153160.1	14650	µg/L	14650	ppb	05:53:19
1	V 292.402†	-5006.3	-5360.6	-0.7781	µg/L	-0.7781	ppb	05:53:19
1	Zn 213.857†	3050.0	2757.9	13.232	µg/L	13.232	ppb	05:53:39
2	Sc RADIAL	110694.0	110694.0	97.8	%			05:52:50
2	Al 396.153Radial†	959280.6	980936.2	494830	µg/L	494830	ppb	05:52:45
2	Ca 317.933Radial†	1191963.1	1218692.4	478710	µg/L	478710	ppb	05:52:45
2	Fe 238.204 Radial†	82955.3	84837.1	463440	µg/L	463440	ppb	05:52:50
2	K 766.490 Radial†	726.4	-45.4	-24.778	µg/L	-24.778	ppb	05:52:50
2	Mg 279.077 IEC†	83784.3	85676.2	487020	µg/L	487020	ppb	05:52:50
2	Na 589.592 Radial†	1754938.7	1795638.9	478080	µg/L	478080	ppb	05:52:45
2	Sr 421.552†	982.3	1107.8	6.2113	µg/L	6.2113	ppb	05:52:50
2	Sc 361.383	1909027.4	1909027.4	91.575	%			05:53:45
2	Y 371.029	1145120.5	1145120.5	89.241	%			05:53:45
2	Ag 328.068†	-3643.5	-4052.0	-0.9916	µg/L	-0.9916	ppb	05:53:51
2	As 188.979†	21.5	22.8	-95.322	µg/L	-95.322	ppb	05:54:12
2	B 249.677†	4280.6	4557.9	59.465	µg/L	59.465	ppb	05:53:51
2	Ba 233.527†	304.8	414.3	10.612	µg/L	10.612	ppb	05:54:12
2	Be 313.107†	-1960.0	-5645.2	-3.5972	µg/L	-3.5972	ppb	05:53:51
2	Cd 226.502†	1359.7	1592.3	17.177	µg/L	17.177	ppb	05:53:51
2	Co 228.616†	40.1	129.3	6.2737	µg/L	6.2737	ppb	05:54:12
2	Cr 267.716†	-248.2	-144.1	-3.2359	µg/L	-3.2359	ppb	05:54:12
2	Cu 324.752†	-8113.6	-12439.2	11.277	µg/L	11.277	ppb	05:53:51
2	Mn 257.610†	-13154.3	-14136.2	12.218	µg/L	12.218	ppb	05:53:51
2	Mo 202.031†	-195.7	-213.0	-6.4806	µg/L	-6.4806	ppb	05:54:12
2	Ni 231.604†	298.0	-2.0	-0.1121	µg/L	-0.1121	ppb	05:54:12
2	P 214.914†	380.3	203.6	94.408	µg/L	94.408	ppb	05:54:12
2	Pb 220.353†	13.4	-37.7	15.126	µg/L	15.126	ppb	05:54:12

2	S 181.975 Axial†	62.5	41.1	78.810	µg/L	78.810 ppb	05:54:12
2	Sb 206.836†	50.1	32.2	-3.5788	µg/L	-3.5788 ppb	05:54:12
2	Se 196.026†	-103.5	-131.4	7.8109	µg/L	7.8109 ppb	05:54:12
2	SiO2†	1766.3	-340.7	-66.404	µg/L	-66.404 ppb	05:54:12
2	Si 251.611†	-251.3	-631.0	-40.572	µg/L	-40.572 ppb	05:54:12
2	Sn 189.927†	-443.5	-508.2	-2.0985	µg/L	-2.0985 ppb	05:54:12
2	Ti 334.940†	18565.0	19412.8	17.072	µg/L	17.072 ppb	05:53:51
2	Tl 190.801†	7.9	28.8	-19.776	µg/L	-19.776 ppb	05:54:12
2	U 409.014†	140394.7	152550.1	14591	µg/L	14591 ppb	05:53:51
2	V 292.402†	-4868.0	-5190.1	1.2615	µg/L	1.2615 ppb	05:53:51
2	Zn 213.857†	3050.6	2746.6	12.674	µg/L	12.674 ppb	05:54:12
3	Sc RADIAL	110863.7	110863.7	97.9	%		05:53:03
3	Al 396.153Radial†	963023.6	983257.2	496010	µg/L	496010 ppb	05:52:57
3	Ca 317.933Radial†	1197085.4	1222057.8	480030	µg/L	480030 ppb	05:52:57
3	Fe 238.204 Radial†	82856.6	84606.5	462180	µg/L	462180 ppb	05:53:03
3	K 766.490 Radial†	726.0	-46.9	-25.601	µg/L	-25.601 ppb	05:53:03
3	Mg 279.077 IEC†	83871.9	85634.4	486780	µg/L	486780 ppb	05:53:03
3	Na 589.592 Radial†	1762933.6	1801056.6	479520	µg/L	479520 ppb	05:52:57
3	Sr 421.552†	957.8	1081.2	6.0621	µg/L	6.0621 ppb	05:53:03
3	Sc 361.383	1912022.4	1912022.4	91.719	%		05:54:18
3	Y 371.029	1147499.5	1147499.5	89.427	%		05:54:18
3	Ag 328.068†	-3605.5	-4004.3	-0.6690	µg/L	-0.6690 ppb	05:54:23
3	As 188.979†	31.2	33.4	-74.689	µg/L	-74.689 ppb	05:54:44
3	B 249.677†	4333.4	4608.1	62.122	µg/L	62.122 ppb	05:54:23
3	Ba 233.527†	289.3	396.9	10.157	µg/L	10.157 ppb	05:54:44
3	Be 313.107†	-2061.9	-5752.9	-3.6659	µg/L	-3.6659 ppb	05:54:23
3	Cd 226.502†	1367.5	1598.4	17.475	µg/L	17.475 ppb	05:54:23
3	Co 228.616†	31.9	120.3	5.8208	µg/L	5.8208 ppb	05:54:44
3	Cr 267.716†	-258.0	-154.3	-3.4600	µg/L	-3.4600 ppb	05:54:44
3	Cu 324.752†	-8176.9	-12494.4	10.614	µg/L	10.614 ppb	05:54:23
3	Mn 257.610†	-13114.4	-14070.2	12.275	µg/L	12.275 ppb	05:54:23
3	Mo 202.031†	-207.8	-225.8	-8.0157	µg/L	-8.0157 ppb	05:54:44
3	Ni 231.604†	289.0	-12.3	-0.6910	µg/L	-0.6910 ppb	05:54:44
3	P 214.914†	387.2	210.4	111.38	µg/L	111.38 ppb	05:54:44
3	Pb 220.353†	-6.9	-59.9	9.3808	µg/L	9.3808 ppb	05:54:44
3	S 181.975 Axial†	69.4	48.5	117.99	µg/L	117.99 ppb	05:54:44
3	Sb 206.836†	50.9	33.0	-2.8449	µg/L	-2.8449 ppb	05:54:44
3	Se 196.026†	-130.6	-160.8	-33.628	µg/L	-33.628 ppb	05:54:44
3	SiO2†	1741.8	-370.4	-72.201	µg/L	-72.201 ppb	05:54:44
3	Si 251.611†	-248.0	-627.0	-40.096	µg/L	-40.096 ppb	05:54:44
3	Sn 189.927†	-451.7	-516.4	-6.1977	µg/L	-6.1977 ppb	05:54:44
3	Ti 334.940†	18933.0	19782.3	17.835	µg/L	17.835 ppb	05:54:23
3	Tl 190.801†	3.0	23.5	-28.171	µg/L	-28.171 ppb	05:54:44
3	U 409.014†	141093.9	153072.4	14642	µg/L	14642 ppb	05:54:23
3	V 292.402†	-5050.1	-5380.3	-0.9728	µg/L	-0.9728 ppb	05:54:23
3	Zn 213.857†	3045.3	2735.6	12.517	µg/L	12.517 ppb	05:54:44

Mean Data: LR1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1907772.9	91.515	%	0.2397				0.26%
Sc RADIAL	110679.6	97.8	%	0.17				0.17%
Y 371.029	1144574.4	89.199	%	0.2519				0.28%
Ag 328.068†	-4026.1	-0.8485	µg/L	0.16436	-0.8485	ppb	0.16436	19.37%
Al 396.153Radial†	982902.4	495830	µg/L	915.6	495830	ppb	915.6	0.18%
QC value within limits for Al 396.153Radial Recovery = 99.17%								
As 188.979†	28.0	-85.242	µg/L	10.3247	-85.242	ppb	10.3247	12.11%
B 249.677†	4571.8	60.431	µg/L	1.4695	60.431	ppb	1.4695	2.43%
Ba 233.527†	398.9	10.209	µg/L	0.3799	10.209	ppb	0.3799	3.72%
Be 313.107†	-5708.2	-3.6374	µg/L	0.03580	-3.6374	ppb	0.03580	0.98%
Ca 317.933Radial†	1221852.9	479950	µg/L	1203.2	479950	ppb	1203.2	0.25%
QC value within limits for Ca 317.933Radial Recovery = 95.99%								
Cd 226.502†	1586.8	17.139	µg/L	0.3567	17.139	ppb	0.3567	2.08%
Co 228.616†	123.4	5.9763	µg/L	0.25767	5.9763	ppb	0.25767	4.31%
Cr 267.716†	-153.1	-3.4321	µg/L	0.18382	-3.4321	ppb	0.18382	5.36%
Cu 324.752†	-12457.8	10.914	µg/L	0.3358	10.914	ppb	0.3358	3.08%
Fe 238.204 Radial†	84639.9	462370	µg/L	998.3	462370	ppb	998.3	0.22%
QC value within limits for Fe 238.204 Radial Recovery = 92.47%								
K 766.490 Radial†	-38.4	-20.985	µg/L	7.2953	-20.985	ppb	7.2953	34.77%
Mg 279.077 IEC†	85584.9	486500	µg/L	703.4	486500	ppb	703.4	0.14%

QC value within limits for Mg 279.077 IEC Recovery = 97.30%

Mn 257.610†	-14077.0	12.276 µg/L	0.0579	12.276 ppb	0.0579	0.47%
Mo 202.031†	-217.4	-7.0238 µg/L	0.86029	-7.0238 ppb	0.86029	12.25%
Na 589.592 Radial†	1802013.8	479780 µg/L	1838.0	479780 ppb	1838.0	0.38%

QC value within limits for Na 589.592 Radial Recovery = 95.96%

Ni 231.604†	-11.1	-0.6232 µg/L	0.48083	-0.6232 ppb	0.48083	77.16%
P 214.914†	204.2	97.219 µg/L	12.9807	97.219 ppb	12.9807	13.35%
Pb 220.353†	-45.9	13.052 µg/L	3.1881	13.052 ppb	3.1881	24.43%
S 181.975 Axial†	47.5	112.80 µg/L	31.709	112.80 ppb	31.709	28.11%
Sb 206.836†	32.5	-3.4351 µg/L	0.53305	-3.4351 ppb	0.53305	15.52%
Se 196.026†	-141.7	-6.8023 µg/L	23.26238	-6.8023 ppb	23.26238	341.98%
SiO2†	-361.5	-70.452 µg/L	3.5160	-70.452 ppb	3.5160	4.99%
Si 251.611†	-622.7	-39.867 µg/L	0.8434	-39.867 ppb	0.8434	2.12%
Sn 189.927†	-512.0	-3.9741 µg/L	2.07164	-3.9741 ppb	2.07164	52.13%
Sr 421.552†	1104.4	6.1926 µg/L	0.12233	6.1926 ppb	0.12233	1.98%
Ti 334.940†	19725.6	17.711 µg/L	0.5869	17.711 ppb	0.5869	3.31%
Tl 190.801†	24.9	-26.000 µg/L	5.4718	-26.000 ppb	5.4718	21.05%
U 409.014†	152927.5	14628 µg/L	31.9	14628 ppb	31.9	0.22%

QC value within limits for U 409.014 Recovery = 97.52%

V 292.402†	-5310.4	-0.1632 µg/L	1.23759	-0.1632 ppb	1.23759	758.50%
Zn 213.857†	2746.7	12.808 µg/L	0.3761	12.808 ppb	0.3761	2.94%

All analyte(s) passed QC.

Sequence No.: 12
Sample ID: LR2
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 108
Date Collected: 12/20/2009 05:54:53
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR2

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	115491.6	115491.6	102	%			05:55:36
1	Al 396.153Radial†	1005.4	805.0	25.298	µg/L	25.298	ppb	05:55:36
1	Ca 317.933Radial†	764.1	345.7	135.79	µg/L	135.79	ppb	05:55:56
1	Fe 238.204 Radial†	13.3	6.6	361.67	µg/L	361.67	ppb	05:55:56
1	K 766.490 Radial†	550584.6	538936.8	294350	µg/L	294350	ppb	05:55:30
1	Mg 279.077 IEC†	-24.1	-39.0	28.097	µg/L	28.097	ppb	05:55:56
1	Na 589.592 Radial†	78.4	829.2	220.78	µg/L	220.78	ppb	05:55:36
1	Sr 421.552†	1762234.6	1727580.4	9686.6	µg/L	9686.6	ppb	05:55:30
1	Sc 361.383	2050185.5	2050185.5	98.346	%			05:57:28
1	Y 371.029	1237955.8	1237955.8	96.476	%			05:57:28
1	Ag 328.068†	-6897.3	-7086.5	5.6242	µg/L	5.6242	ppb	05:57:28
1	As 188.979†	5182.5	5269.1	10301	µg/L	10301	ppb	05:57:33
1	B 249.677†	109318.6	111040.2	4999.1	µg/L	4999.1	ppb	05:57:28
1	Ba 233.527†	550806.0	560148.9	14540	µg/L	14540	ppb	05:57:28
1	Be 313.107†	4565135.8	4638389.9	2938.6	µg/L	2938.6	ppb	05:57:17
1	Cd 226.502†	366440.0	372708.8	9990.3	µg/L	9990.3	ppb	05:57:28
1	Co 228.616†	194862.3	198224.3	9845.9	µg/L	9845.9	ppb	05:57:28
1	Cr 267.716†	1145012.4	1164391.9	25035	µg/L	25035	ppb	05:57:28
1	Cu 324.752†	2840655.4	2884839.5	20471	µg/L	20471	ppb	05:57:28
1	Mn 257.610†	2874506.1	2923066.8	9519.4	µg/L	9519.4	ppb	05:57:28
1	Mo 202.031†	84950.8	86379.8	10013	µg/L	10013	ppb	05:57:28
1	Ni 231.604†	175897.7	178527.9	9998.3	µg/L	9998.3	ppb	05:57:28
1	P 214.914†	8236.4	8163.2	15856	µg/L	15856	ppb	05:57:33
1	Pb 220.353†	96777.0	98351.9	25859	µg/L	25859	ppb	05:57:28
1	S 181.975 Axial†	9912.1	10051.6	53091	µg/L	53091	ppb	05:57:33
1	Sb 206.836†	10062.6	10209.3	10338	µg/L	10338	ppb	05:57:33
1	Se 196.026†	6982.5	7081.5	9856.3	µg/L	9856.3	ppb	05:57:33
1	SiO2†	513055.7	519412.8	101240	µg/L	101240	ppb	05:57:28
1	Si 251.611†	591072.6	600654.4	46009	µg/L	46009	ppb	05:57:28
1	Sn 189.927†	21300.2	21634.5	11075	µg/L	11075	ppb	05:57:33
1	Ti 334.940†	4317569.2	4389305.4	9946.4	µg/L	9946.4	ppb	05:57:17
1	Tl 190.801†	6321.6	6448.0	9968.8	µg/L	9968.8	ppb	05:57:33
1	U 409.014†	1877.9	1148.6	110.43	µg/L	110.43	ppb	05:57:28
1	V 292.402†	874779.4	889613.8	10371	µg/L	10371	ppb	05:57:28
1	Zn 213.857†	545308.5	553892.8	15082	µg/L	15082	ppb	05:57:28
2	Sc RADIAL	114121.3	114121.3	101	%			05:56:07
2	Al 396.153Radial†	822.1	634.9	-58.745	µg/L	-58.745	ppb	05:56:07
2	Ca 317.933Radial†	635.4	226.9	89.138	µg/L	89.138	ppb	05:56:28
2	Fe 238.204 Radial†	4.5	-2.0	313.81	µg/L	313.81	ppb	05:56:28
2	K 766.490 Radial†	548452.3	543302.3	296730	µg/L	296730	ppb	05:56:02
2	Mg 279.077 IEC†	-38.2	-53.2	-53.906	µg/L	-53.906	ppb	05:56:28
2	Na 589.592 Radial†	-344.8	410.3	109.25	µg/L	109.25	ppb	05:56:07
2	Sr 421.552†	1754768.2	1740916.2	9761.4	µg/L	9761.4	ppb	05:56:02
2	Sc 361.383	2055121.3	2055121.3	98.583	%			05:57:53
2	Y 371.029	1241371.7	1241371.7	96.742	%			05:57:53
2	Ag 328.068†	-6924.8	-7097.6	5.1421	µg/L	5.1421	ppb	05:57:53
2	As 188.979†	5126.9	5200.0	10166	µg/L	10166	ppb	05:57:58
2	B 249.677†	109411.8	110867.8	4991.3	µg/L	4991.3	ppb	05:57:53
2	Ba 233.527†	550486.0	558479.1	14497	µg/L	14497	ppb	05:57:53
2	Be 313.107†	4578560.9	4640859.5	2940.2	µg/L	2940.2	ppb	05:57:42
2	Cd 226.502†	366600.7	371977.0	9970.7	µg/L	9970.7	ppb	05:57:53
2	Co 228.616†	194630.4	197513.1	9810.5	µg/L	9810.5	ppb	05:57:53
2	Cr 267.716†	1139883.7	1156393.2	24863	µg/L	24863	ppb	05:57:53
2	Cu 324.752†	2827240.7	2864294.8	20325	µg/L	20325	ppb	05:57:53
2	Mn 257.610†	2867494.0	2908934.2	9473.3	µg/L	9473.3	ppb	05:57:53
2	Mo 202.031†	84765.8	85984.8	9967.0	µg/L	9967.0	ppb	05:57:53
2	Ni 231.604†	175600.4	177796.8	9957.4	µg/L	9957.4	ppb	05:57:53
2	P 214.914†	8076.3	7980.6	15462	µg/L	15462	ppb	05:57:58
2	Pb 220.353†	96854.5	98194.1	25818	µg/L	25818	ppb	05:57:53

2	S 181.975 Axial†	9841.6	9955.9	52585 µg/L	52585 ppb	05:57:58
2	Sb 206.836†	9977.9	10098.8	10226 µg/L	10226 ppb	05:57:58
2	Se 196.026†	6940.8	7022.2	9773.7 µg/L	9773.7 ppb	05:57:58
2	SiO2†	512645.3	517743.7	100910 µg/L	100910 ppb	05:57:53
2	Si 251.611†	591156.2	599295.8	45913 µg/L	45913 ppb	05:57:53
2	Sn 189.927†	20859.8	21135.7	10820 µg/L	10820 ppb	05:57:58
2	Ti 334.940†	4325720.6	4387030.1	9941.2 µg/L	9941.2 ppb	05:57:42
2	Tl 190.801†	6285.9	6396.4	9889.5 µg/L	9889.5 ppb	05:57:58
2	U 409.014†	1846.1	1111.8	106.90 µg/L	106.90 ppb	05:57:53
2	V 292.402†	872207.8	884869.0	10316 µg/L	10316 ppb	05:57:53
2	Zn 213.857†	543836.1	551067.6	15005 µg/L	15005 ppb	05:57:53
3	Sc RADIAL	115286.3	115286.3	102 %		05:56:40
3	Al 396.153Radial†	1123.5	922.7	124.77 µg/L	124.77 ppb	05:56:40
3	Ca 317.933Radial†	779.0	361.6	142.03 µg/L	142.03 ppb	05:57:00
3	Fe 238.204 Radial†	8.6	2.0	301.51 µg/L	301.51 ppb	05:57:00
3	K 766.490 Radial†	544174.5	533603.2	291430 µg/L	291430 ppb	05:56:34
3	Mg 279.077 IEC†	-29.1	-43.9	-26.335 µg/L	-26.335 ppb	05:57:00
3	Na 589.592 Radial†	-27.0	725.9	193.26 µg/L	193.26 ppb	05:56:40
3	Sr 421.552†	1742136.5	1710920.1	9593.2 µg/L	9593.2 ppb	05:56:34
3	Sc 361.383	2060702.3	2060702.3	98.851 %		05:58:18
3	Y 371.029	1247014.9	1247014.9	97.182 %		05:58:18
3	Ag 328.068†	-6114.7	-6259.0	5.5987 µg/L	5.5987 ppb	05:58:18
3	As 188.979†	4587.6	4640.4	9073.2 µg/L	9073.2 ppb	05:58:23
3	B 249.677†	102625.9	103702.5	4668.7 µg/L	4668.7 ppb	05:58:18
3	Ba 233.527†	502215.1	508134.8	13189 µg/L	13189 ppb	05:58:18
3	Be 313.107†	4315894.7	4362561.6	2763.8 µg/L	2763.8 ppb	05:58:07
3	Cd 226.502†	332349.7	336320.7	9014.9 µg/L	9014.9 ppb	05:58:18
3	Co 228.616†	174751.2	176868.2	8784.2 µg/L	8784.2 ppb	05:58:18
3	Cr 267.716†	1002933.1	1014719.0	21818 µg/L	21818 ppb	05:58:18
3	Cu 324.752†	2557328.9	2583478.3	18333 µg/L	18333 ppb	05:58:18
3	Mn 257.610†	2585535.4	2615820.3	8518.8 µg/L	8518.8 ppb	05:58:18
3	Mo 202.031†	76395.1	77283.8	8958.4 µg/L	8958.4 ppb	05:58:18
3	Ni 231.604†	157848.2	159355.8	8924.6 µg/L	8924.6 ppb	05:58:18
3	P 214.914†	7124.5	6995.6	13486 µg/L	13486 ppb	05:58:23
3	Pb 220.353†	89215.8	90200.6	23716 µg/L	23716 ppb	05:58:18
3	S 181.975 Axial†	8811.0	8886.3	46936 µg/L	46936 ppb	05:58:23
3	Sb 206.836†	8857.2	8937.7	9053.0 µg/L	9053.0 ppb	05:58:23
3	Se 196.026†	6224.3	6278.3	8738.4 µg/L	8738.4 ppb	05:58:23
3	SiO2†	474243.0	477486.5	93066 µg/L	93066 ppb	05:58:18
3	Si 251.611†	546414.2	552409.6	42337 µg/L	42337 ppb	05:58:18
3	Sn 189.927†	17935.1	18119.7	9276.1 µg/L	9276.1 ppb	05:58:23
3	Ti 334.940†	4085837.6	4132474.8	9364.4 µg/L	9364.4 ppb	05:58:07
3	Tl 190.801†	5810.8	5898.5	9121.5 µg/L	9121.5 ppb	05:58:23
3	U 409.014†	1817.9	1078.2	103.66 µg/L	103.66 ppb	05:58:18
3	V 292.402†	784465.8	793710.9	9253.5 µg/L	9253.5 ppb	05:58:18
3	Zn 213.857†	492240.1	497377.7	13543 µg/L	13543 ppb	05:58:18

Mean Data: LR2

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2055336.3	98.593	%	0.2524				0.26%
Sc RADIAL	114966.4	102	%	0.7				0.64%
Y 371.029	1242114.2	96.800	%	0.3565				0.37%
Ag 328.068†	-6814.4	5.4550	µg/L	0.27128	5.4550	ppb	0.27128	4.97%
Al 396.153Radial†	787.5	30.439	µg/L	91.8632	30.439	ppb	91.8632	301.79%
As 188.979†	5036.5	9846.7	µg/L	673.30	9846.7	ppb	673.30	6.84%
QC value within limits for As 188.979 Recovery = 98.47%								
B 249.677†	108536.8	4886.4	µg/L	188.52	4886.4	ppb	188.52	3.86%
QC value within limits for B 249.677 Recovery = 97.73%								
Ba 233.527†	542254.3	14075	µg/L	767.5	14075	ppb	767.5	5.45%
QC value within limits for Ba 233.527 Recovery = 93.84%								
Be 313.107†	4547270.3	2880.9	µg/L	101.35	2880.9	ppb	101.35	3.52%
QC value within limits for Be 313.107 Recovery = 96.03%								
Ca 317.933Radial†	311.4	122.32	µg/L	28.903	122.32	ppb	28.903	23.63%
Cd 226.502†	360335.5	9658.6	µg/L	557.61	9658.6	ppb	557.61	5.77%
QC value within limits for Cd 226.502 Recovery = 96.59%								
Co 228.616†	190868.5	9480.2	µg/L	603.03	9480.2	ppb	603.03	6.36%
QC value within limits for Co 228.616 Recovery = 94.80%								
Cr 267.716†	1111834.7	23906	µg/L	1810.1	23906	ppb	1810.1	7.57%
QC value within limits for Cr 267.716 Recovery = 95.62%								

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Cu 324.752†          2777537.5       19710 µg/L        1194.8       19710 ppb        1194.8   6.06%
   QC value within limits for Cu 324.752  Recovery = 98.55%
Fe 238.204 Radial†         2.2      325.66 µg/L        31.787      325.66 ppb        31.787   9.76%
K 766.490 Radial†     538614.1      294170 µg/L        2653.0      294170 ppb        2653.0   0.90%
   QC value within limits for K 766.490 Radial  Recovery = 98.06%
Mg 279.077 IEC†          -45.4     -17.381 µg/L       41.7285     -17.381 ppb       41.7285 240.08%
Mn 257.610†          2815940.4      9170.5 µg/L        564.87      9170.5 ppb        564.87   6.16%
   QC value within limits for Mn 257.610  Recovery = 91.71%
Mo 202.031†            83216.1      9646.0 µg/L        595.96      9646.0 ppb        595.96   6.18%
   QC value within limits for Mo 202.031  Recovery = 96.46%
Na 589.592 Radial†       655.1      174.43 µg/L        58.102      174.43 ppb        58.102  33.31%
Ni 231.604†           171893.5      9626.8 µg/L        608.44      9626.8 ppb        608.44   6.32%
   QC value within limits for Ni 231.604  Recovery = 96.27%
P 214.914†              7713.1      14935 µg/L        1269.8       14935 ppb        1269.8   8.50%
   QC value within limits for P 214.914  Recovery = 99.56%
Pb 220.353†            95582.2      25131 µg/L        1225.6       25131 ppb        1225.6   4.88%
   QC value within limits for Pb 220.353  Recovery = 100.53%
S 181.975 Axial†        9631.3      50870 µg/L        3416.9       50870 ppb        3416.9   6.72%
   QC value within limits for S 181.975 Axial  Recovery = 101.74%
Sb 206.836†             9748.6      9872.2 µg/L        711.74      9872.2 ppb        711.74   7.21%
   QC value within limits for Sb 206.836  Recovery = 98.72%
Se 196.026†             6794.0      9456.1 µg/L        622.97      9456.1 ppb        622.97   6.59%
   QC value within limits for Se 196.026  Recovery = 94.56%
SiO2†                 504881.0       98406 µg/L        4626.9       98406 ppb        4626.9   4.70%
   QC value within limits for SiO2  Recovery = 91.97%
Si 251.611†           584119.9       44753 µg/L        2092.5       44753 ppb        2092.5   4.68%
   QC value less than the lower limit for Si 251.611  Recovery = 89.51%
Sn 189.927†            20296.6       10391 µg/L         973.5       10391 ppb         973.5   9.37%
   QC value within limits for Sn 189.927  Recovery = 103.91%
Sr 421.552†          1726472.2      9680.4 µg/L         84.27      9680.4 ppb         84.27   0.87%
   QC value within limits for Sr 421.552  Recovery = 96.80%
Ti 334.940†          4302936.8      9750.6 µg/L        334.53      9750.6 ppb        334.53   3.43%
   QC value within limits for Ti 334.940  Recovery = 97.51%
Tl 190.801†             6247.6      9659.9 µg/L        467.97      9659.9 ppb        467.97   4.84%
   QC value within limits for Tl 190.801  Recovery = 96.60%
U 409.014†              1112.9      107.00 µg/L         3.385      107.00 ppb         3.385   3.16%
V 292.402†            856064.6      9980.3 µg/L        630.06      9980.3 ppb        630.06   6.31%
   QC value within limits for V 292.402  Recovery = 99.80%
Zn 213.857†           534112.7       14543 µg/L         866.9       14543 ppb         866.9   5.96%
   QC value within limits for Zn 213.857  Recovery = 96.96%
QC Failed.  Continue with analysis.
```

Sequence No.: 13
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 12/20/2009 05:58:32
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	117437.1	117437.1	104	%			05:59:10
1	Al 396.153Radial†	10405.8	9851.0	4949.7	µg/L	4949.7	ppb	05:59:10
1	Ca 317.933Radial†	13482.4	12594.1	4947.1	µg/L	4947.1	ppb	05:59:30
1	Fe 238.204 Radial†	970.3	928.9	5091.6	µg/L	5091.6	ppb	05:59:30
1	K 766.490 Radial†	10423.7	9260.6	5057.7	µg/L	5057.7	ppb	05:59:10
1	Mg 279.077 IEC†	955.2	905.5	5159.8	µg/L	5159.8	ppb	05:59:30
1	Na 589.592 Radial†	37904.6	37293.9	9929.3	µg/L	9929.3	ppb	05:59:10
1	Sr 421.552†	91999.2	88793.7	497.87	µg/L	497.87	ppb	05:59:10
1	Sc 361.383	2108184.3	2108184.3	101.13	%			06:00:34
1	Y 371.029	1289674.2	1289674.2	100.51	%			06:00:34
1	Ag 328.068†	56249.0	55548.0	513.19	µg/L	513.19	ppb	06:00:40
1	As 188.979†	277.8	274.1	534.29	µg/L	534.29	ppb	06:01:00
1	B 249.677†	11756.2	11508.6	516.52	µg/L	516.52	ppb	06:00:40
1	Ba 233.527†	20261.9	20117.3	522.51	µg/L	522.51	ppb	06:00:40
1	Be 313.107†	815219.9	802617.4	508.94	µg/L	508.94	ppb	06:00:34
1	Cd 226.502†	19736.0	19623.2	525.96	µg/L	525.96	ppb	06:00:40
1	Co 228.616†	10590.0	10557.3	524.39	µg/L	524.39	ppb	06:00:40
1	Cr 267.716†	24684.8	24536.3	528.26	µg/L	528.26	ppb	06:00:40
1	Cu 324.752†	75532.5	71110.4	505.70	µg/L	505.70	ppb	06:00:40
1	Mn 257.610†	158018.6	156483.4	510.25	µg/L	510.25	ppb	06:00:34
1	Mo 202.031†	4502.9	4453.3	516.41	µg/L	516.41	ppb	06:01:00
1	Ni 231.604†	9818.3	9381.3	525.39	µg/L	525.39	ppb	06:00:40
1	P 214.914†	1398.8	1171.5	2547.3	µg/L	2547.3	ppb	06:01:00
1	Pb 220.353†	2100.8	2025.0	533.16	µg/L	533.16	ppb	06:01:00
1	S 181.975 Axial†	234.4	204.7	1079.6	µg/L	1079.6	ppb	06:01:00
1	Sb 206.836†	537.0	508.6	518.25	µg/L	518.25	ppb	06:01:00
1	Se 196.026†	392.7	370.0	517.03	µg/L	517.03	ppb	06:01:00
1	SiO2†	30951.6	28336.7	5523.1	µg/L	5523.1	ppb	06:00:40
1	Si 251.611†	33787.8	33054.2	2541.1	µg/L	2541.1	ppb	06:00:40
1	Sn 189.927†	1076.8	1040.8	535.57	µg/L	535.57	ppb	06:01:00
1	Ti 334.940†	227134.8	223739.9	506.73	µg/L	506.73	ppb	06:00:34
1	Tl 190.801†	326.3	342.8	529.19	µg/L	529.19	ppb	06:01:00
1	U 409.014†	6177.9	5348.1	513.35	µg/L	513.35	ppb	06:00:40
1	V 292.402†	45384.6	45003.8	525.97	µg/L	525.97	ppb	06:00:40
1	Zn 213.857†	20082.4	19273.7	523.50	µg/L	523.50	ppb	06:00:40
2	Sc RADIAL	117292.6	117292.6	104	%			05:59:36
2	Al 396.153Radial†	10420.9	9877.9	4963.5	µg/L	4963.5	ppb	05:59:36
2	Ca 317.933Radial†	13456.5	12585.1	4943.5	µg/L	4943.5	ppb	05:59:56
2	Fe 238.204 Radial†	962.4	922.4	5056.2	µg/L	5056.2	ppb	05:59:56
2	K 766.490 Radial†	10259.6	9114.6	4978.0	µg/L	4978.0	ppb	05:59:36
2	Mg 279.077 IEC†	946.8	898.6	5120.4	µg/L	5120.4	ppb	05:59:56
2	Na 589.592 Radial†	37876.7	37312.0	9934.1	µg/L	9934.1	ppb	05:59:36
2	Sr 421.552†	91759.7	88671.9	497.19	µg/L	497.19	ppb	05:59:36
2	Sc 361.383	2137881.9	2137881.9	102.55	%			06:01:07
2	Y 371.029	1306418.1	1306418.1	101.81	%			06:01:07
2	Ag 328.068†	56589.7	55107.6	509.12	µg/L	509.12	ppb	06:01:13
2	As 188.979†	277.7	270.2	526.64	µg/L	526.64	ppb	06:01:33
2	B 249.677†	11792.8	11382.7	510.87	µg/L	510.87	ppb	06:01:13
2	Ba 233.527†	20393.0	19966.8	518.60	µg/L	518.60	ppb	06:01:13
2	Be 313.107†	823380.4	799376.8	506.88	µg/L	506.88	ppb	06:01:07
2	Cd 226.502†	19933.3	19544.5	523.85	µg/L	523.85	ppb	06:01:13
2	Co 228.616†	10668.2	10488.1	520.95	µg/L	520.95	ppb	06:01:13
2	Cr 267.716†	24820.3	24329.4	523.81	µg/L	523.81	ppb	06:01:13
2	Cu 324.752†	75948.7	70478.7	501.21	µg/L	501.21	ppb	06:01:13
2	Mn 257.610†	159381.9	155642.2	507.50	µg/L	507.50	ppb	06:01:07
2	Mo 202.031†	4519.8	4407.9	511.14	µg/L	511.14	ppb	06:01:33
2	Ni 231.604†	9843.2	9270.8	519.20	µg/L	519.20	ppb	06:01:13
2	P 214.914†	1405.9	1159.2	2520.5	µg/L	2520.5	ppb	06:01:33
2	Pb 220.353†	2094.9	1990.4	524.07	µg/L	524.07	ppb	06:01:33

2	S 181.975 Axial†	232.8	199.8	1053.9 µg/L	1053.9 ppb	06:01:33
2	Sb 206.836†	541.1	505.2	514.77 µg/L	514.77 ppb	06:01:33
2	Se 196.026†	393.8	365.6	510.92 µg/L	510.92 ppb	06:01:33
2	SiO2†	31151.3	28106.3	5478.2 µg/L	5478.2 ppb	06:01:13
2	Si 251.611†	33959.3	32757.3	2518.3 µg/L	2518.3 ppb	06:01:13
2	Sn 189.927†	1080.2	1029.4	529.71 µg/L	529.71 ppb	06:01:33
2	Ti 334.940†	228832.6	222275.5	503.41 µg/L	503.41 ppb	06:01:07
2	Tl 190.801†	326.3	338.4	522.38 µg/L	522.38 ppb	06:01:33
2	U 409.014†	6234.0	5318.0	510.46 µg/L	510.46 ppb	06:01:13
2	V 292.402†	45613.5	44603.6	521.29 µg/L	521.29 ppb	06:01:13
2	Zn 213.857†	20165.9	19079.2	518.22 µg/L	518.22 ppb	06:01:13
3	Sc RADIAL	116300.5	116300.5	103 %		06:00:02
3	Al 396.153Radial†	10315.7	9861.3	4957.6 µg/L	4957.6 ppb	06:00:02
3	Ca 317.933Radial†	13472.3	12711.4	4993.1 µg/L	4993.1 ppb	06:00:22
3	Fe 238.204 Radial†	970.2	938.0	5140.1 µg/L	5140.1 ppb	06:00:22
3	K 766.490 Radial†	10184.9	9126.3	4984.4 µg/L	4984.4 ppb	06:00:02
3	Mg 279.077 IEC†	951.8	911.2	5190.6 µg/L	5190.6 ppb	06:00:22
3	Na 589.592 Radial†	37662.7	37415.5	9961.7 µg/L	9961.7 ppb	06:00:02
3	Sr 421.552†	90705.0	88400.7	495.67 µg/L	495.67 ppb	06:00:02
3	Sc 361.383	2117932.5	2117932.5	101.60 %		06:01:40
3	Y 371.029	1294966.6	1294966.6	100.92 %		06:01:40
3	Ag 328.068†	54053.0	53130.5	490.78 µg/L	490.78 ppb	06:01:46
3	As 188.979†	240.6	236.3	460.49 µg/L	460.49 ppb	06:02:07
3	B 249.677†	11191.8	10899.4	489.09 µg/L	489.09 ppb	06:01:46
3	Ba 233.527†	19131.2	18912.1	491.19 µg/L	491.19 ppb	06:01:46
3	Be 313.107†	793689.3	777714.8	493.15 µg/L	493.15 ppb	06:01:40
3	Cd 226.502†	18578.9	18394.4	492.99 µg/L	492.99 ppb	06:01:46
3	Co 228.616†	9882.5	9812.8	487.29 µg/L	487.29 ppb	06:01:46
3	Cr 267.716†	22706.2	22476.5	483.93 µg/L	483.93 ppb	06:01:46
3	Cu 324.752†	71082.9	66386.9	472.19 µg/L	472.19 ppb	06:01:46
3	Mn 257.610†	154136.7	151943.3	495.47 µg/L	495.47 ppb	06:01:40
3	Mo 202.031†	3900.0	3839.4	445.25 µg/L	445.25 ppb	06:02:07
3	Ni 231.604†	9174.3	8702.7	487.39 µg/L	487.39 ppb	06:01:46
3	P 214.914†	1260.2	1028.7	2232.5 µg/L	2232.5 ppb	06:02:07
3	Pb 220.353†	1881.2	1799.3	473.69 µg/L	473.69 ppb	06:02:07
3	S 181.975 Axial†	210.8	180.4	951.26 µg/L	951.26 ppb	06:02:07
3	Sb 206.836†	481.4	451.4	459.99 µg/L	459.99 ppb	06:02:07
3	Se 196.026†	362.4	338.3	472.94 µg/L	472.94 ppb	06:02:07
3	SiO2†	29462.7	26730.3	5210.0 µg/L	5210.0 ppb	06:01:46
3	Si 251.611†	31999.3	31140.0	2396.2 µg/L	2396.2 ppb	06:01:46
3	Sn 189.927†	915.2	876.9	451.67 µg/L	451.67 ppb	06:02:07
3	Ti 334.940†	220319.3	215997.7	489.18 µg/L	489.18 ppb	06:01:40
3	Tl 190.801†	296.9	312.4	482.42 µg/L	482.42 ppb	06:02:07
3	U 409.014†	5844.1	4991.4	479.05 µg/L	479.05 ppb	06:01:46
3	V 292.402†	42316.2	41777.1	488.06 µg/L	488.06 ppb	06:01:46
3	Zn 213.857†	18828.7	17948.3	487.45 µg/L	487.45 ppb	06:01:46

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2121332.9	101.76	%	0.726				0.71%
Sc RADIAL	117010.0	103	%	0.5				0.53%
Y 371.029	1297019.6	101.08	%	0.667				0.66%
Ag 328.068†	54595.4	504.36	µg/L	11.940	504.36	ppb	11.940	2.37%
QC value within limits for Ag 328.068 Recovery = 100.87%								
Al 396.153Radial†	9863.4	4956.9	µg/L	6.91	4956.9	ppb	6.91	0.14%
QC value within limits for Al 396.153Radial Recovery = 99.14%								
As 188.979†	260.2	507.14	µg/L	40.580	507.14	ppb	40.580	8.00%
QC value within limits for As 188.979 Recovery = 101.43%								
B 249.677†	11263.6	505.49	µg/L	14.488	505.49	ppb	14.488	2.87%
QC value within limits for B 249.677 Recovery = 101.10%								
Ba 233.527†	19665.4	510.77	µg/L	17.064	510.77	ppb	17.064	3.34%
QC value within limits for Ba 233.527 Recovery = 102.15%								
Be 313.107†	793236.3	502.99	µg/L	8.585	502.99	ppb	8.585	1.71%
QC value within limits for Be 313.107 Recovery = 100.60%								
Ca 317.933Radial†	12630.2	4961.2	µg/L	27.67	4961.2	ppb	27.67	0.56%
QC value within limits for Ca 317.933Radial Recovery = 99.22%								
Cd 226.502†	19187.4	514.27	µg/L	18.455	514.27	ppb	18.455	3.59%
QC value within limits for Cd 226.502 Recovery = 102.85%								
Co 228.616†	10286.1	510.88	µg/L	20.498	510.88	ppb	20.498	4.01%

```
   QC value within limits for Co 228.616  Recovery = 102.18%
Cr 267.716†            23780.7      512.00 µg/L        24.411      512.00 ppb        24.411   4.77%
   QC value within limits for Cr 267.716  Recovery = 102.40%
Cu 324.752†            69325.3      493.03 µg/L        18.189      493.03 ppb        18.189   3.69%
   QC value within limits for Cu 324.752  Recovery = 98.61%
Fe 238.204 Radial†       929.8      5096.0 µg/L         42.12      5096.0 ppb         42.12   0.83%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.92%
K 766.490 Radial†       9167.1      5006.7 µg/L         44.31      5006.7 ppb         44.31   0.88%
   QC value within limits for K 766.490 Radial  Recovery = 100.13%
Mg 279.077 IEC†          905.1      5156.9 µg/L         35.19      5156.9 ppb         35.19   0.68%
   QC value within limits for Mg 279.077 IEC  Recovery = 103.14%
Mn 257.610†           154689.7      504.41 µg/L         7.861      504.41 ppb         7.861   1.56%
   QC value within limits for Mn 257.610  Recovery = 100.88%
Mo 202.031†             4233.6      490.93 µg/L        39.653      490.93 ppb        39.653   8.08%
   QC value within limits for Mo 202.031  Recovery = 98.19%
Na 589.592 Radial†     37340.4      9941.7 µg/L         17.47      9941.7 ppb         17.47   0.18%
   QC value within limits for Na 589.592 Radial  Recovery = 99.42%
Ni 231.604†             9118.2      510.66 µg/L        20.390      510.66 ppb        20.390   3.99%
   QC value within limits for Ni 231.604  Recovery = 102.13%
P 214.914†              1119.8      2433.4 µg/L        174.54      2433.4 ppb        174.54   7.17%
   QC value within limits for P 214.914  Recovery = 97.34%
Pb 220.353†             1938.2      510.31 µg/L        32.036      510.31 ppb        32.036   6.28%
   QC value within limits for Pb 220.353  Recovery = 102.06%
S 181.975 Axial†         195.0      1028.3 µg/L         67.92      1028.3 ppb         67.92   6.60%
   QC value within limits for S 181.975 Axial  Recovery = 102.83%
Sb 206.836†              488.4      497.67 µg/L        32.682      497.67 ppb        32.682   6.57%
   QC value within limits for Sb 206.836  Recovery = 99.53%
Se 196.026†              357.9      500.30 µg/L        23.886      500.30 ppb        23.886   4.77%
   QC value within limits for Se 196.026  Recovery = 100.06%
SiO2†                  27724.5      5403.7 µg/L        169.30      5403.7 ppb        169.30   3.13%
   QC value within limits for SiO2  Recovery = 101.05%
Si 251.611†            32317.2      2485.2 µg/L         77.92      2485.2 ppb         77.92   3.14%
   QC value within limits for Si 251.611  Recovery = 99.41%
Sn 189.927†              982.4      505.65 µg/L        46.839      505.65 ppb        46.839   9.26%
   QC value within limits for Sn 189.927  Recovery = 101.13%
Sr 421.552†            88622.1      496.91 µg/L         1.128      496.91 ppb         1.128   0.23%
   QC value within limits for Sr 421.552  Recovery = 99.38%
Ti 334.940†           220671.0      499.77 µg/L         9.322      499.77 ppb         9.322   1.87%
   QC value within limits for Ti 334.940  Recovery = 99.95%
Tl 190.801†              331.2      511.33 µg/L        25.268      511.33 ppb        25.268   4.94%
   QC value within limits for Tl 190.801  Recovery = 102.27%
U 409.014†              5219.2      500.95 µg/L        19.026      500.95 ppb        19.026   3.80%
   QC value within limits for U 409.014  Recovery = 100.19%
V 292.402†             43794.9      511.77 µg/L        20.671      511.77 ppb        20.671   4.04%
   QC value within limits for V 292.402  Recovery = 102.35%
Zn 213.857†            18767.1      509.72 µg/L        19.466      509.72 ppb        19.466   3.82%
   QC value within limits for Zn 213.857  Recovery = 101.94%
All analyte(s) passed QC.
```

Sequence No.: 14
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 12/20/2009 06:02:16
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	115845.2	115845.2	102	%			06:02:49
1	Al 396.153Radial†	195.2	10.2	5.1257	µg/L	5.1257	ppb	06:02:49
1	Ca 317.933Radial†	507.6	92.7	36.417	µg/L	36.417	ppb	06:03:09
1	Fe 238.204 Radial†	18.2	11.3	61.657	µg/L	61.657	ppb	06:03:09
1	K 766.490 Radial†	878.3	70.0	38.238	µg/L	38.238	ppb	06:02:49
1	Mg 279.077 IEC†	27.3	11.3	64.322	µg/L	64.322	ppb	06:03:09
1	Na 589.592 Radial†	-674.8	93.0	24.748	µg/L	24.748	ppb	06:02:49
1	Sr 421.552†	-14.2	89.2	0.5001	µg/L	0.5001	ppb	06:02:49
1	Sc 361.383	2136628.0	2136628.0	102.49	%			06:04:11
1	Y 371.029	1313462.4	1313462.4	102.36	%			06:04:11
1	Ag 328.068†	168.7	91.3	0.8416	µg/L	0.8416	ppb	06:04:16
1	As 188.979†	0.7	0.1	0.1142	µg/L	0.1142	ppb	06:04:37
1	B 249.677†	204.3	82.9	3.7113	µg/L	3.7113	ppb	06:04:16
1	Ba 233.527†	-26.4	55.8	1.4449	µg/L	1.4449	ppb	06:04:37
1	Be 313.107†	3754.1	157.8	0.0998	µg/L	0.0998	ppb	06:04:16
1	Cd 226.502†	-65.2	43.8	1.1662	µg/L	1.1662	ppb	06:04:37
1	Co 228.616†	-65.8	21.3	1.0588	µg/L	1.0588	ppb	06:04:37
1	Cr 267.716†	-52.5	75.7	1.6265	µg/L	1.6265	ppb	06:04:16
1	Cu 324.752†	3580.5	-85.8	-0.5955	µg/L	-0.5955	ppb	06:04:16
1	Mn 257.610†	123.8	349.0	1.1445	µg/L	1.1445	ppb	06:04:37
1	Mo 202.031†	6.1	6.6	0.7725	µg/L	0.7725	ppb	06:04:37
1	Ni 231.604†	368.9	32.5	1.8220	µg/L	1.8220	ppb	06:04:37
1	P 214.914†	199.7	-16.8	-37.422	µg/L	-37.422	ppb	06:04:37
1	Pb 220.353†	59.0	5.2	1.3647	µg/L	1.3647	ppb	06:04:37
1	S 181.975 Axial†	33.0	5.0	26.518	µg/L	26.518	ppb	06:04:37
1	Sb 206.836†	22.0	-1.0	-1.0054	µg/L	-1.0054	ppb	06:04:37
1	Se 196.026†	13.8	-4.9	-6.8526	µg/L	-6.8526	ppb	06:04:37
1	SiO2†	2294.9	-30.3	-5.9119	µg/L	-5.9119	ppb	06:04:16
1	Si 251.611†	494.8	126.2	9.8353	µg/L	9.8353	ppb	06:04:37
1	Sn 189.927†	24.1	-0.4	-0.1985	µg/L	-0.1985	ppb	06:04:37
1	Ti 334.940†	1316.4	424.2	0.9593	µg/L	0.9593	ppb	06:04:16
1	Tl 190.801†	-24.7	-3.9	-6.0194	µg/L	-6.0194	ppb	06:04:37
1	U 409.014†	715.6	-62.6	-6.0334	µg/L	-6.0334	ppb	06:04:16
1	V 292.402†	-135.3	-6.3	-0.0721	µg/L	-0.0721	ppb	06:04:16
1	Zn 213.857†	690.9	89.5	2.4339	µg/L	2.4339	ppb	06:04:37
2	Sc RADIAL	115450.7	115450.7	102	%			06:03:15
2	Al 396.153Radial†	244.9	59.6	29.989	µg/L	29.989	ppb	06:03:15
2	Ca 317.933Radial†	478.3	65.6	25.783	µg/L	25.783	ppb	06:03:35
2	Fe 238.204 Radial†	13.9	7.2	39.272	µg/L	39.272	ppb	06:03:35
2	K 766.490 Radial†	857.5	52.6	28.731	µg/L	28.731	ppb	06:03:15
2	Mg 279.077 IEC†	17.7	2.0	11.257	µg/L	11.257	ppb	06:03:35
2	Na 589.592 Radial†	-639.2	125.6	33.442	µg/L	33.442	ppb	06:03:15
2	Sr 421.552†	74.0	175.7	0.9851	µg/L	0.9851	ppb	06:03:15
2	Sc 361.383	2122620.9	2122620.9	101.82	%			06:04:43
2	Y 371.029	1302241.6	1302241.6	101.49	%			06:04:43
2	Ag 328.068†	97.7	22.7	0.2200	µg/L	0.2200	ppb	06:04:48
2	As 188.979†	-1.9	-2.4	-4.7577	µg/L	-4.7577	ppb	06:05:09
2	B 249.677†	218.0	97.6	4.3808	µg/L	4.3808	ppb	06:04:48
2	Ba 233.527†	-2.6	79.0	2.0494	µg/L	2.0494	ppb	06:05:09
2	Be 313.107†	4071.5	493.7	0.3127	µg/L	0.3127	ppb	06:04:48
2	Cd 226.502†	-52.3	56.1	1.5083	µg/L	1.5083	ppb	06:05:09
2	Co 228.616†	-60.0	26.6	1.3201	µg/L	1.3201	ppb	06:05:09
2	Cr 267.716†	-34.7	92.9	1.9982	µg/L	1.9982	ppb	06:04:48
2	Cu 324.752†	3828.5	180.9	1.2919	µg/L	1.2919	ppb	06:04:48
2	Mn 257.610†	177.9	403.0	1.3173	µg/L	1.3173	ppb	06:05:09
2	Mo 202.031†	12.0	12.5	1.4447	µg/L	1.4447	ppb	06:05:09
2	Ni 231.604†	371.5	37.4	2.0962	µg/L	2.0962	ppb	06:05:09
2	P 214.914†	207.7	-7.7	-17.344	µg/L	-17.344	ppb	06:05:09
2	Pb 220.353†	61.5	8.0	2.1045	µg/L	2.1045	ppb	06:05:09

2	S 181.975 Axial†	29.9	2.2	11.488 µg/L	11.488 ppb	06:05:09
2	Sb 206.836†	20.8	-2.0	-2.0595 µg/L	-2.0595 ppb	06:05:09
2	Se 196.026†	18.6	-0.2	-0.1958 µg/L	-0.1958 ppb	06:05:09
2	SiO2†	2333.7	22.5	4.3806 µg/L	4.3806 ppb	06:04:48
2	Si 251.611†	488.8	123.5	9.6372 µg/L	9.6372 ppb	06:05:09
2	Sn 189.927†	22.5	-1.8	-0.9043 µg/L	-0.9043 ppb	06:05:09
2	Ti 334.940†	1429.8	544.1	1.2314 µg/L	1.2314 ppb	06:04:48
2	Tl 190.801†	-23.2	-2.6	-4.0401 µg/L	-4.0401 ppb	06:05:09
2	U 409.014†	862.6	86.3	8.2950 µg/L	8.2950 ppb	06:04:48
2	V 292.402†	-15.8	110.2	1.3027 µg/L	1.3027 ppb	06:04:48
2	Zn 213.857†	694.9	97.9	2.6635 µg/L	2.6635 ppb	06:05:09
3	Sc RADIAL	115472.4	115472.4	102 %		06:03:40
3	Al 396.153Radial†	271.1	85.2	42.957 µg/L	42.957 ppb	06:03:40
3	Ca 317.933Radial†	490.8	77.8	30.551 µg/L	30.551 ppb	06:04:01
3	Fe 238.204 Radial†	15.5	8.7	47.810 µg/L	47.810 ppb	06:04:01
3	K 766.490 Radial†	754.8	-48.3	-26.382 µg/L	-26.382 ppb	06:03:40
3	Mg 279.077 IEC†	23.7	7.9	44.733 µg/L	44.733 ppb	06:04:01
3	Na 589.592 Radial†	-558.5	204.9	54.543 µg/L	54.543 ppb	06:03:40
3	Sr 421.552†	116.6	217.4	1.2190 µg/L	1.2190 ppb	06:03:40
3	Sc 361.383	2117253.9	2117253.9	101.56 %		06:05:15
3	Y 371.029	1299882.2	1299882.2	101.30 %		06:05:15
3	Ag 328.068†	226.3	149.5	1.3806 µg/L	1.3806 ppb	06:05:21
3	As 188.979†	-0.9	-1.5	-2.9368 µg/L	-2.9368 ppb	06:05:41
3	B 249.677†	227.9	107.9	4.8430 µg/L	4.8430 ppb	06:05:21
3	Ba 233.527†	-10.8	70.9	1.8395 µg/L	1.8395 ppb	06:05:41
3	Be 313.107†	4011.7	445.0	0.2818 µg/L	0.2818 ppb	06:05:21
3	Cd 226.502†	-61.8	46.6	1.2414 µg/L	1.2414 ppb	06:05:41
3	Co 228.616†	-65.5	21.0	1.0439 µg/L	1.0439 ppb	06:05:41
3	Cr 267.716†	-32.2	95.3	2.0489 µg/L	2.0489 ppb	06:05:21
3	Cu 324.752†	3732.9	96.3	0.6934 µg/L	0.6934 ppb	06:05:21
3	Mn 257.610†	141.2	367.3	1.2023 µg/L	1.2023 ppb	06:05:41
3	Mo 202.031†	6.4	7.0	0.8100 µg/L	0.8100 ppb	06:05:41
3	Ni 231.604†	375.0	41.8	2.3413 µg/L	2.3413 ppb	06:05:41
3	P 214.914†	206.9	-8.0	-17.912 µg/L	-17.912 ppb	06:05:41
3	Pb 220.353†	76.1	22.6	5.9443 µg/L	5.9443 ppb	06:05:41
3	S 181.975 Axial†	27.8	0.2	1.2806 µg/L	1.2806 ppb	06:05:41
3	Sb 206.836†	25.1	2.3	2.2978 µg/L	2.2978 ppb	06:05:41
3	Se 196.026†	7.7	-10.8	-15.027 µg/L	-15.027 ppb	06:05:41
3	SiO2†	2361.9	56.1	10.933 µg/L	10.933 ppb	06:05:21
3	Si 251.611†	485.4	121.4	9.5489 µg/L	9.5489 ppb	06:05:41
3	Sn 189.927†	19.8	-4.4	-2.2558 µg/L	-2.2558 ppb	06:05:41
3	Ti 334.940†	1450.0	567.5	1.2842 µg/L	1.2842 ppb	06:05:21
3	Tl 190.801†	-19.7	0.8	1.2042 µg/L	1.2042 ppb	06:05:41
3	U 409.014†	709.3	-62.5	-6.0130 µg/L	-6.0130 ppb	06:05:21
3	V 292.402†	-48.2	78.2	0.9057 µg/L	0.9057 ppb	06:05:21
3	Zn 213.857†	693.8	98.6	2.6785 µg/L	2.6785 ppb	06:05:41

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2125500.9	101.96	%	0.480				0.47%
Sc RADIAL	115589.4	102	%	0.2				0.19%
Y 371.029	1305195.4	101.72	%	0.565				0.56%
Ag 328.068†	87.9	0.8141	µg/L	0.58082	0.8141	ppb	0.58082	71.35%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	51.7	26.024	µg/L	19.2247	26.024	ppb	19.2247	73.87%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-1.3	-2.5268	µg/L	2.46173	-2.5268	ppb	2.46173	97.43%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	96.1	4.3117	µg/L	0.56905	4.3117	ppb	0.56905	13.20%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	68.5	1.7779	µg/L	0.30688	1.7779	ppb	0.30688	17.26%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	365.5	0.2314	µg/L	0.11507	0.2314	ppb	0.11507	49.72%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	78.7	30.917	µg/L	5.3265	30.917	ppb	5.3265	17.23%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	48.8	1.3053	µg/L	0.17977	1.3053	ppb	0.17977	13.77%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	23.0	1.1409	µg/L	0.15534	1.1409	ppb	0.15534	13.62%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              88.0      1.8912 µg/L       0.23062      1.8912 ppb        0.23062  12.19%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              63.8      0.4633 µg/L       0.96450      0.4633 ppb        0.96450 208.20%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        9.1     49.580 µg/L       11.2972     49.580 ppb        11.2972  22.79%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        24.8     13.529 µg/L       34.8892     13.529 ppb        34.8892 257.88%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           7.1     40.104 µg/L       26.8336     40.104 ppb        26.8336  66.91%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†             373.1      1.2213 µg/L       0.08798      1.2213 ppb        0.08798   7.20%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               8.7      1.0091 µg/L       0.37776      1.0091 ppb        0.37776  37.44%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       141.1     37.578 µg/L       15.3223     37.578 ppb        15.3223  40.77%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              37.3      2.0865 µg/L       0.25979      2.0865 ppb        0.25979  12.45%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†              -10.8    -24.226 µg/L       11.4318    -24.226 ppb        11.4318  47.19%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              11.9      3.1378 µg/L       2.45850      3.1378 ppb        2.45850  78.35%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          2.5     13.096 µg/L       12.6950     13.096 ppb        12.6950  96.94%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -0.2     -0.2557 µg/L       2.27331    -0.2557 ppb        2.27331 889.14%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              -5.3     -7.3585 µg/L       7.42871    -7.3585 ppb        7.42871 100.95%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    16.1      3.1338 µg/L       8.49118      3.1338 ppb        8.49118 270.96%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             123.7      9.6738 µg/L       0.14669      9.6738 ppb        0.14669   1.52%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†              -2.2     -1.1195 µg/L       1.04540    -1.1195 ppb        1.04540  93.38%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             160.8      0.9014 µg/L       0.36669      0.9014 ppb        0.36669  40.68%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             511.9      1.1583 µg/L       0.17434      1.1583 ppb        0.17434  15.05%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -1.9     -2.9518 µg/L       3.73277    -2.9518 ppb        3.73277 126.46%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              -12.9     -1.2505 µg/L       8.26664    -1.2505 ppb        8.26664 661.09%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               60.7      0.7121 µg/L       0.70758      0.7121 ppb        0.70758  99.36%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              95.3      2.5920 µg/L       0.13710      2.5920 ppb        0.13710   5.29%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

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Analysis Begun

Start Time: 12/20/2009 06:20:25 **Plasma On Time: 12/19/2009 15:28:13**
Logged In Analyst: optima **Technique: ICP Continuous**
Spectrometer Model: Optima 4300 DV, S/N 077N1030502Autosampler Model: AS-93plus

Sample Information File: C:\pe\optima1\Sample Information\122009.sif
Batch ID:
Results Data Set: 122009
Results Library: c:\pe\optima1\Results\Results.mdb

==========

Method Loaded
Method Name: Gen Eng fast_new Si **Method Last Saved: 12/20/2009 05:22:56**
IEC File: 101509.iec **MSF File:**
Method Description:

Analyte	Calibration Equation	Processing	View	Internal Standard	IEC
Ag 328.068	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Al 396.153Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
As 188.979	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
B 249.677	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ba 233.527	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Be 313.107	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ca 317.933Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
Cd 226.502	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Co 228.616	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cr 267.716	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cu 324.752	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Fe 238.204 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
K 766.490 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
Mg 279.077 IEC	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
Mn 257.610	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Mo 202.031	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Na 589.592 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
Ni 231.604	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
P 214.914	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Pb 220.353	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
S 181.975 Axial	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sb 206.836	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sc 361.383	Lin Thru 0	Peak Area	Axial	n/a	n/a
Sc RADIAL	Lin, Calc Int	Peak Area	Radial	n/a	n/a
Se 196.026	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
SiO2	Lin Thru 0	Peak Area	Axial	Sc 361.383	No
Si 251.611	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sn 189.927	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sr 421.552	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
Ti 334.940	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Tl 190.801	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
U 409.014	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
V 292.402	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y 371.029	Lin, Calc Int	Peak Area	Axial	n/a	n/a
Zn 213.857	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes

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Sequence No.: 1 **Autosampler Location: 301**
Sample ID: 1201999355|934499|1 **Date Collected: 12/20/2009 06:20:28**
Analyst: HSC **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: 1201999355|934499|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	116898.5	116898.5	103	%			06:21:04
1	Al 396.153Radial†	212.6	25.3	12.768	µg/L	12.768	ppb	06:21:04
1	Ca 317.933Radial†	457.2	39.5	15.496	µg/L	15.496	ppb	06:21:24
1	Fe 238.204 Radial†	10.6	3.8	20.538	µg/L	20.538	ppb	06:21:24

1	K 766.490 Radial†	822.9	8.7	4.7273 µg/L	4.7273 ppb	06:21:04
1	Mg 279.077 IEC†	24.7	8.6	48.937 µg/L	48.937 ppb	06:21:24
1	Na 589.592 Radial†	-757.9	18.4	4.8904 µg/L	4.8904 ppb	06:21:04
1	Sr 421.552†	-55.9	49.0	0.2746 µg/L	0.2746 ppb	06:21:04
1	Sc 361.383	2152227.5	2152227.5	103.24 %		06:22:26
1	Y 371.029	1318111.8	1318111.8	102.72 %		06:22:26
1	Ag 328.068†	187.2	108.0	0.9956 µg/L	0.9956 ppb	06:22:32
1	As 188.979†	0.5	-0.1	-0.2734 µg/L	-0.2734 ppb	06:22:52
1	B 249.677†	150.7	29.5	1.3212 µg/L	1.3212 ppb	06:22:32
1	Ba 233.527†	-66.4	17.2	0.4474 µg/L	0.4474 ppb	06:22:52
1	Be 313.107†	3707.4	86.1	0.0545 µg/L	0.0545 ppb	06:22:32
1	Cd 226.502†	-103.1	7.6	0.2016 µg/L	0.2016 ppb	06:22:52
1	Co 228.616†	-80.9	7.1	0.3538 µg/L	0.3538 ppb	06:22:52
1	Cr 267.716†	-119.9	10.8	0.2336 µg/L	0.2336 ppb	06:22:32
1	Cu 324.752†	3674.9	-19.6	-0.1348 µg/L	-0.1348 ppb	06:22:32
1	Mn 257.610†	-158.0	75.3	0.2477 µg/L	0.2477 ppb	06:22:32
1	Mo 202.031†	1.5	2.1	0.2457 µg/L	0.2457 ppb	06:22:52
1	Ni 231.604†	355.3	16.8	0.9386 µg/L	0.9386 ppb	06:22:52
1	P 214.914†	201.4	-16.6	-36.974 µg/L	-36.974 ppb	06:22:52
1	Pb 220.353†	57.9	3.7	0.9752 µg/L	0.9752 ppb	06:22:52
1	S 181.975 Axial†	26.0	-2.0	-10.346 µg/L	-10.346 ppb	06:22:52
1	Sb 206.836†	27.5	4.2	4.2529 µg/L	4.2529 ppb	06:22:52
1	Se 196.026†	17.9	-1.0	-1.4578 µg/L	-1.4578 ppb	06:22:52
1	SiO2†	2444.2	98.0	19.106 µg/L	19.106 ppb	06:22:32
1	Si 251.611†	531.0	157.7	12.377 µg/L	12.377 ppb	06:22:52
1	Sn 189.927†	22.8	-1.8	-0.9261 µg/L	-0.9261 ppb	06:22:52
1	Ti 334.940†	1080.9	186.8	0.4224 µg/L	0.4224 ppb	06:22:32
1	Tl 190.801†	-19.8	1.0	1.4746 µg/L	1.4746 ppb	06:22:52
1	U 409.014†	756.8	-27.8	-2.6785 µg/L	-2.6785 ppb	06:22:32
1	V 292.402†	-81.9	46.4	0.5359 µg/L	0.5359 ppb	06:22:32
1	Zn 213.857†	675.6	69.8	1.9032 µg/L	1.9032 ppb	06:22:52
2	Sc RADIAL	117255.5	117255.5	104 %		06:21:30
2	Al 396.153Radial†	219.5	31.4	15.798 µg/L	15.798 ppb	06:21:30
2	Ca 317.933Radial†	462.8	43.5	17.071 µg/L	17.071 ppb	06:21:50
2	Fe 238.204 Radial†	13.4	6.5	35.319 µg/L	35.319 ppb	06:21:50
2	K 766.490 Radial†	774.4	-40.6	-22.177 µg/L	-22.177 ppb	06:21:30
2	Mg 279.077 IEC†	13.4	-2.4	-13.815 µg/L	-13.815 ppb	06:21:50
2	Na 589.592 Radial†	-670.4	105.1	27.980 µg/L	27.980 ppb	06:21:30
2	Sr 421.552†	-48.3	56.4	0.3165 µg/L	0.3165 ppb	06:21:30
2	Sc 361.383	2245895.0	2245895.0	107.73 %		06:22:58
2	Y 371.029	1365207.5	1365207.5	106.39 %		06:22:58
2	Ag 328.068†	149.7	65.6	0.6083 µg/L	0.6083 ppb	06:23:04
2	As 188.979†	0.0	-0.6	-1.0883 µg/L	-1.0883 ppb	06:23:24
2	B 249.677†	147.0	19.9	0.8857 µg/L	0.8857 ppb	06:23:04
2	Ba 233.527†	-52.6	32.6	0.8473 µg/L	0.8473 ppb	06:23:24
2	Be 313.107†	3778.7	2.5	0.0014 µg/L	0.0014 ppb	06:23:04
2	Cd 226.502†	-97.4	17.1	0.4505 µg/L	0.4505 ppb	06:23:24
2	Co 228.616†	-73.6	17.2	0.8545 µg/L	0.8545 ppb	06:23:24
2	Cr 267.716†	-84.1	48.9	1.0525 µg/L	1.0525 ppb	06:23:04
2	Cu 324.752†	3563.9	-271.1	-1.9164 µg/L	-1.9164 ppb	06:23:04
2	Mn 257.610†	-111.0	125.3	0.4124 µg/L	0.4124 ppb	06:23:04
2	Mo 202.031†	3.8	4.2	0.4873 µg/L	0.4873 ppb	06:23:24
2	Ni 231.604†	363.2	9.7	0.5449 µg/L	0.5449 ppb	06:23:24
2	P 214.914†	205.3	-21.2	-46.886 µg/L	-46.886 ppb	06:23:24
2	Pb 220.353†	58.1	1.6	0.4349 µg/L	0.4349 ppb	06:23:24
2	S 181.975 Axial†	27.4	-1.7	-9.0803 µg/L	-9.0803 ppb	06:23:24
2	Sb 206.836†	23.9	-0.2	-0.2529 µg/L	-0.2529 ppb	06:23:24
2	Se 196.026†	18.1	-1.6	-2.2300 µg/L	-2.2300 ppb	06:23:24
2	SiO2†	2431.2	-12.8	-2.4880 µg/L	-2.4880 ppb	06:23:04
2	Si 251.611†	551.1	155.0	12.218 µg/L	12.218 ppb	06:23:24
2	Sn 189.927†	20.5	-4.9	-2.4857 µg/L	-2.4857 ppb	06:23:24
2	Ti 334.940†	1231.5	283.0	0.6403 µg/L	0.6403 ppb	06:23:04
2	Tl 190.801†	-20.2	1.5	2.2426 µg/L	2.2426 ppb	06:23:24
2	U 409.014†	742.1	-72.0	-6.9251 µg/L	-6.9251 ppb	06:23:04
2	V 292.402†	-84.3	47.5	0.5451 µg/L	0.5451 ppb	06:23:04
2	Zn 213.857†	680.2	46.8	1.2783 µg/L	1.2783 ppb	06:23:24
3	Sc RADIAL	116974.2	116974.2	103 %		06:21:56
3	Al 396.153Radial†	206.3	19.1	9.6285 µg/L	9.6285 ppb	06:21:56
3	Ca 317.933Radial†	459.3	41.2	16.172 µg/L	16.172 ppb	06:22:16
3	Fe 238.204 Radial†	9.6	2.8	15.491 µg/L	15.491 ppb	06:22:16
3	K 766.490 Radial†	765.4	-47.5	-25.926 µg/L	-25.926 ppb	06:21:56

3	Mg 279.077 IEC†	21.5	5.5	31.222 µg/L	31.222 ppb	06:22:16
3	Na 589.592 Radial†	-765.0	12.0	3.2043 µg/L	3.2043 ppb	06:21:56
3	Sr 421.552†	-12.5	91.0	0.5100 µg/L	0.5100 ppb	06:21:56
3	Sc 361.383	2142061.3	2142061.3	102.75 %		06:23:30
3	Y 371.029	1312885.4	1312885.4	102.32 %		06:23:30
3	Ag 328.068†	159.0	81.5	0.7525 µg/L	0.7525 ppb	06:23:36
3	As 188.979†	0.3	-0.3	-0.6311 µg/L	-0.6311 ppb	06:23:56
3	B 249.677†	163.4	42.5	1.9093 µg/L	1.9093 ppb	06:23:36
3	Ba 233.527†	-57.6	25.5	0.6610 µg/L	0.6610 ppb	06:23:56
3	Be 313.107†	3749.4	144.0	0.0911 µg/L	0.0911 ppb	06:23:36
3	Cd 226.502†	-98.3	11.8	0.3164 µg/L	0.3164 ppb	06:23:56
3	Co 228.616†	-83.9	3.9	0.1930 µg/L	0.1930 ppb	06:23:56
3	Cr 267.716†	-90.9	38.5	0.8289 µg/L	0.8289 ppb	06:23:36
3	Cu 324.752†	3580.3	-94.9	-0.6698 µg/L	-0.6698 ppb	06:23:36
3	Mn 257.610†	-117.6	113.9	0.3727 µg/L	0.3727 ppb	06:23:36
3	Mo 202.031†	2.5	3.1	0.3637 µg/L	0.3637 ppb	06:23:56
3	Ni 231.604†	354.7	17.7	0.9940 µg/L	0.9940 ppb	06:23:56
3	P 214.914†	209.8	-7.5	-16.625 µg/L	-16.625 ppb	06:23:56
3	Pb 220.353†	48.3	-5.3	-1.3950 µg/L	-1.3950 ppb	06:23:56
3	S 181.975 Axial†	23.6	-4.2	-22.190 µg/L	-22.190 ppb	06:23:56
3	Sb 206.836†	29.3	6.1	6.1883 µg/L	6.1883 ppb	06:23:56
3	Se 196.026†	15.5	-3.3	-4.6234 µg/L	-4.6234 ppb	06:23:56
3	SiO2†	2392.1	58.5	11.401 µg/L	11.401 ppb	06:23:36
3	Si 251.611†	540.6	169.5	13.201 µg/L	13.201 ppb	06:23:56
3	Sn 189.927†	28.1	3.5	1.7880 µg/L	1.7880 ppb	06:23:56
3	Ti 334.940†	1136.6	246.0	0.5566 µg/L	0.5566 ppb	06:23:36
3	Tl 190.801†	-19.2	1.5	2.3390 µg/L	2.3390 ppb	06:23:56
3	U 409.014†	795.3	13.1	1.2584 µg/L	1.2584 ppb	06:23:36
3	V 292.402†	-73.1	54.6	0.6383 µg/L	0.6383 ppb	06:23:36
3	Zn 213.857†	668.3	65.9	1.7961 µg/L	1.7961 ppb	06:23:56

Mean Data: 1201999355|934499|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2180061.2	104.58	%	2.746				2.63%
Sc RADIAL	117042.7	103	%	0.2				0.16%
Y 371.029	1332068.3	103.81	%	2.246				2.16%
Ag 328.068†	85.0	0.7855	µg/L	0.19573	0.7855	ppb	0.19573	24.92%
Al 396.153Radial†	25.3	12.731	µg/L	3.0847	12.731	ppb	3.0847	24.23%
As 188.979†	-0.3	-0.6642	µg/L	0.40843	-0.6642	ppb	0.40843	61.49%
B 249.677†	30.6	1.3721	µg/L	0.51369	1.3721	ppb	0.51369	37.44%
Ba 233.527†	25.1	0.6519	µg/L	0.20013	0.6519	ppb	0.20013	30.70%
Be 313.107†	77.5	0.0490	µg/L	0.04513	0.0490	ppb	0.04513	92.14%
Ca 317.933Radial†	41.4	16.246	µg/L	0.7898	16.246	ppb	0.7898	4.86%
Cd 226.502†	12.2	0.3228	µg/L	0.12456	0.3228	ppb	0.12456	38.58%
Co 228.616†	9.4	0.4671	µg/L	0.34504	0.4671	ppb	0.34504	73.87%
Cr 267.716†	32.8	0.7050	µg/L	0.42332	0.7050	ppb	0.42332	60.04%
Cu 324.752†	-128.5	-0.9070	µg/L	0.91414	-0.9070	ppb	0.91414	100.79%
Fe 238.204 Radial†	4.4	23.783	µg/L	10.3048	23.783	ppb	10.3048	43.33%
K 766.490 Radial†	-26.5	-14.458	µg/L	16.7207	-14.458	ppb	16.7207	115.65%
Mg 279.077 IEC†	3.9	22.115	µg/L	32.3521	22.115	ppb	32.3521	146.29%
Mn 257.610†	104.8	0.3443	µg/L	0.08594	0.3443	ppb	0.08594	24.96%
Mo 202.031†	3.1	0.3655	µg/L	0.12078	0.3655	ppb	0.12078	33.04%
Na 589.592 Radial†	45.2	12.025	µg/L	13.8430	12.025	ppb	13.8430	115.12%
Ni 231.604†	14.7	0.8258	µg/L	0.24484	0.8258	ppb	0.24484	29.65%
P 214.914†	-15.1	-33.495	µg/L	15.4275	-33.495	ppb	15.4275	46.06%
Pb 220.353†	-0.0	0.0050	µg/L	1.24220	0.0050	ppb	1.24220	>999.9%
S 181.975 Axial†	-2.6	-13.872	µg/L	7.2311	-13.872	ppb	7.2311	52.13%
Sb 206.836†	3.3	3.3961	µg/L	3.30495	3.3961	ppb	3.30495	97.32%
Se 196.026†	-2.0	-2.7704	µg/L	1.65054	-2.7704	ppb	1.65054	59.58%
SiO2†	47.9	9.3396	µg/L	10.94355	9.3396	ppb	10.94355	117.17%
Si 251.611†	160.7	12.599	µg/L	0.5276	12.599	ppb	0.5276	4.19%
Sn 189.927†	-1.1	-0.5412	µg/L	2.16270	-0.5412	ppb	2.16270	399.58%
Sr 421.552†	65.5	0.3670	µg/L	0.12562	0.3670	ppb	0.12562	34.23%
Ti 334.940†	238.6	0.5397	µg/L	0.10991	0.5397	ppb	0.10991	20.36%
Tl 190.801†	1.3	2.0187	µg/L	0.47370	2.0187	ppb	0.47370	23.47%
U 409.014†	-28.9	-2.7817	µg/L	4.09271	-2.7817	ppb	4.09271	147.13%
V 292.402†	49.5	0.5731	µg/L	0.05664	0.5731	ppb	0.05664	9.88%
Zn 213.857†	60.8	1.6592	µg/L	0.33418	1.6592	ppb	0.33418	20.14%

Sequence No.: 2
Sample ID: 1201999356|934499|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 302
Date Collected: 12/20/2009 06:24:06
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1201999356|934499|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	120242.6	120242.6	106	%			06:24:39
1	Al 396.153Radial†	10834.3	10020.4	5035.3	µg/L	5035.3	ppb	06:24:39
1	Ca 317.933Radial†	14050.5	12825.8	5038.0	µg/L	5038.0	ppb	06:24:59
1	Fe 238.204 Radial†	1014.1	948.3	5198.0	µg/L	5198.0	ppb	06:24:59
1	K 766.490 Radial†	10561.1	9155.4	5000.3	µg/L	5000.3	ppb	06:24:39
1	Mg 279.077 IEC†	992.1	918.7	5235.0	µg/L	5235.0	ppb	06:24:59
1	Na 589.592 Radial†	19631.6	19236.5	5121.6	µg/L	5121.6	ppb	06:24:39
1	Sr 421.552†	95823.0	90324.7	506.45	µg/L	506.45	ppb	06:24:39
1	Sc 361.383	2135676.9	2135676.9	102.45	%			06:26:03
1	Y 371.029	1302797.0	1302797.0	101.53	%			06:26:03
1	Ag 328.068†	57973.3	56515.1	522.14	µg/L	522.14	ppb	06:26:08
1	As 188.979†	280.5	273.2	532.62	µg/L	532.62	ppb	06:26:29
1	B 249.677†	11970.9	11568.4	519.18	µg/L	519.18	ppb	06:26:08
1	Ba 233.527†	21276.3	20849.6	541.51	µg/L	541.51	ppb	06:26:08
1	Be 313.107†	849765.2	825960.2	523.74	µg/L	523.74	ppb	06:26:03
1	Cd 226.502†	20258.9	19882.4	532.93	µg/L	532.93	ppb	06:26:08
1	Co 228.616†	10836.0	10662.7	529.60	µg/L	529.60	ppb	06:26:08
1	Cr 267.716†	25283.0	24806.0	534.08	µg/L	534.08	ppb	06:26:08
1	Cu 324.752†	77772.4	72335.3	514.42	µg/L	514.42	ppb	06:26:08
1	Mn 257.610†	165267.9	161548.0	526.75	µg/L	526.75	ppb	06:26:03
1	Mo 202.031†	4543.9	4436.0	514.40	µg/L	514.40	ppb	06:26:29
1	Ni 231.604†	10192.2	9621.3	538.83	µg/L	538.83	ppb	06:26:08
1	P 214.914†	481.7	258.5	518.99	µg/L	518.99	ppb	06:26:29
1	Pb 220.353†	2128.5	2025.3	533.22	µg/L	533.22	ppb	06:26:29
1	S 181.975 Axial†	1055.2	1002.8	5295.2	µg/L	5295.2	ppb	06:26:29
1	Sb 206.836†	555.5	519.7	529.66	µg/L	529.66	ppb	06:26:29
1	Se 196.026†	381.3	353.8	494.60	µg/L	494.60	ppb	06:26:29
1	SiO2†	60458.1	56744.4	11060	µg/L	11060	ppb	06:26:08
1	Si 251.611†	67952.6	65972.7	5119.5	µg/L	5119.5	ppb	06:26:08
1	Sn 189.927†	1150.7	1099.3	565.53	µg/L	565.53	ppb	06:26:29
1	Ti 334.940†	235496.9	229011.0	518.67	µg/L	518.67	ppb	06:26:03
1	Tl 190.801†	325.7	338.1	522.08	µg/L	522.08	ppb	06:26:29
1	U 409.014†	6507.1	5590.8	536.66	µg/L	536.66	ppb	06:26:08
1	V 292.402†	46913.7	45918.7	536.60	µg/L	536.60	ppb	06:26:08
1	Zn 213.857†	20119.3	19054.1	517.39	µg/L	517.39	ppb	06:26:08
2	Sc RADIAL	118044.6	118044.6	104	%			06:25:05
2	Al 396.153Radial†	10716.2	10097.0	5073.8	µg/L	5073.8	ppb	06:25:05
2	Ca 317.933Radial†	14090.8	13110.7	5150.0	µg/L	5150.0	ppb	06:25:25
2	Fe 238.204 Radial†	1023.7	975.4	5345.6	µg/L	5345.6	ppb	06:25:25
2	K 766.490 Radial†	10491.5	9273.8	5065.0	µg/L	5065.0	ppb	06:25:05
2	Mg 279.077 IEC†	989.2	933.4	5318.0	µg/L	5318.0	ppb	06:25:25
2	Na 589.592 Radial†	19356.0	19316.3	5142.8	µg/L	5142.8	ppb	06:25:05
2	Sr 421.552†	94612.6	90843.8	509.36	µg/L	509.36	ppb	06:25:05
2	Sc 361.383	2144546.3	2144546.3	102.87	%			06:26:36
2	Y 371.029	1308083.5	1308083.5	101.94	%			06:26:36
2	Ag 328.068†	57940.5	56249.2	519.69	µg/L	519.69	ppb	06:26:42
2	As 188.979†	282.5	274.0	534.16	µg/L	534.16	ppb	06:27:02
2	B 249.677†	12008.7	11556.9	518.62	µg/L	518.62	ppb	06:26:42
2	Ba 233.527†	21351.6	20836.8	541.17	µg/L	541.17	ppb	06:26:42
2	Be 313.107†	853331.3	825996.2	523.76	µg/L	523.76	ppb	06:26:36
2	Cd 226.502†	20263.6	19805.2	530.85	µg/L	530.85	ppb	06:26:42
2	Co 228.616†	10808.1	10591.8	526.08	µg/L	526.08	ppb	06:26:42
2	Cr 267.716†	25291.6	24712.3	532.06	µg/L	532.06	ppb	06:26:42
2	Cu 324.752†	77862.6	72109.0	512.84	µg/L	512.84	ppb	06:26:42
2	Mn 257.610†	166085.6	161675.8	527.19	µg/L	527.19	ppb	06:26:36
2	Mo 202.031†	4587.0	4459.5	517.14	µg/L	517.14	ppb	06:27:02
2	Ni 231.604†	10207.0	9594.5	537.33	µg/L	537.33	ppb	06:26:42
2	P 214.914†	475.1	250.1	500.39	µg/L	500.39	ppb	06:27:02
2	Pb 220.353†	2167.0	2054.1	540.79	µg/L	540.79	ppb	06:27:02

2	S 181.975 Axial†	1071.0	1013.9	5353.7 µg/L	5353.7 ppb	06:27:02
2	Sb 206.836†	566.0	527.7	537.79 µg/L	537.79 ppb	06:27:02
2	Se 196.026†	394.0	364.6	509.68 µg/L	509.68 ppb	06:27:02
2	SiO2†	60372.9	56417.5	10996 µg/L	10996 ppb	06:26:42
2	Si 251.611†	67778.9	65529.5	5084.7 µg/L	5084.7 ppb	06:26:42
2	Sn 189.927†	1155.8	1099.6	565.77 µg/L	565.77 ppb	06:27:02
2	Ti 334.940†	236384.5	228923.1	518.46 µg/L	518.46 ppb	06:26:36
2	Tl 190.801†	333.0	343.9	530.92 µg/L	530.92 ppb	06:27:02
2	U 409.014†	6562.1	5618.0	539.26 µg/L	539.26 ppb	06:26:42
2	V 292.402†	46821.8	45639.9	533.41 µg/L	533.41 ppb	06:26:42
2	Zn 213.857†	20123.1	18976.6	515.26 µg/L	515.26 ppb	06:26:42
3	Sc RADIAL	118264.6	118264.6	104 %		06:25:31
3	Al 396.153Radial†	10774.2	10133.5	5093.1 µg/L	5093.1 ppb	06:25:31
3	Ca 317.933Radial†	13962.6	12962.9	5091.9 µg/L	5091.9 ppb	06:25:51
3	Fe 238.204 Radial†	1011.5	961.9	5271.4 µg/L	5271.4 ppb	06:25:51
3	K 766.490 Radial†	10533.7	9295.5	5076.8 µg/L	5076.8 ppb	06:25:31
3	Mg 279.077 IEC†	986.7	929.2	5294.0 µg/L	5294.0 ppb	06:25:51
3	Na 589.592 Radial†	19464.5	19385.6	5161.3 µg/L	5161.3 ppb	06:25:31
3	Sr 421.552†	95053.3	91096.8	510.78 µg/L	510.78 ppb	06:25:31
3	Sc 361.383	2131614.4	2131614.4	102.25 %		06:27:09
3	Y 371.029	1301005.0	1301005.0	101.39 %		06:27:09
3	Ag 328.068†	57258.5	55923.9	516.64 µg/L	516.64 ppb	06:27:15
3	As 188.979†	267.0	260.6	507.91 µg/L	507.91 ppb	06:27:35
3	B 249.677†	11792.4	11416.2	512.31 µg/L	512.31 ppb	06:27:15
3	Ba 233.527†	20772.5	20396.4	529.74 µg/L	529.74 ppb	06:27:15
3	Be 313.107†	838308.5	816336.8	517.64 µg/L	517.64 ppb	06:27:09
3	Cd 226.502†	19871.0	19540.7	523.75 µg/L	523.75 ppb	06:27:15
3	Co 228.616†	10518.7	10372.5	515.15 µg/L	515.15 ppb	06:27:15
3	Cr 267.716†	24384.6	23974.4	516.19 µg/L	516.19 ppb	06:27:15
3	Cu 324.752†	76045.8	70791.4	503.48 µg/L	503.48 ppb	06:27:15
3	Mn 257.610†	162867.5	159508.0	520.12 µg/L	520.12 ppb	06:27:09
3	Mo 202.031†	4339.6	4244.7	492.23 µg/L	492.23 ppb	06:27:35
3	Ni 231.604†	9914.8	9368.9	524.70 µg/L	524.70 ppb	06:27:15
3	P 214.914†	463.3	241.4	481.68 µg/L	481.68 ppb	06:27:35
3	Pb 220.353†	2091.3	1992.8	524.64 µg/L	524.64 ppb	06:27:35
3	S 181.975 Axial†	1036.2	986.2	5207.5 µg/L	5207.5 ppb	06:27:35
3	Sb 206.836†	541.0	506.7	516.40 µg/L	516.40 ppb	06:27:35
3	Se 196.026†	381.1	354.3	495.30 µg/L	495.30 ppb	06:27:35
3	SiO2†	59272.9	55697.8	10856 µg/L	10856 ppb	06:27:15
3	Si 251.611†	66455.2	64634.7	5016.3 µg/L	5016.3 ppb	06:27:15
3	Sn 189.927†	1090.6	1042.7	536.59 µg/L	536.59 ppb	06:27:35
3	Ti 334.940†	232237.8	226261.7	512.43 µg/L	512.43 ppb	06:27:09
3	Tl 190.801†	323.2	336.3	519.25 µg/L	519.25 ppb	06:27:35
3	U 409.014†	6443.9	5541.1	531.88 µg/L	531.88 ppb	06:27:15
3	V 292.402†	45715.9	44834.6	523.89 µg/L	523.89 ppb	06:27:15
3	Zn 213.857†	19604.2	18587.7	504.70 µg/L	504.70 ppb	06:27:15

Mean Data: 1201999356|934499|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2137279.2	102.52	%	0.317				0.31%
Sc RADIAL	118850.6	105	%	1.1				1.02%
Y 371.029	1303961.8	101.62	%	0.287				0.28%
Ag 328.068†	56229.4	519.49	µg/L	2.755	519.49	ppb	2.755	0.53%
Al 396.153Radial†	10083.6	5067.4	µg/L	29.46	5067.4	ppb	29.46	0.58%
As 188.979†	269.3	524.90	µg/L	14.730	524.90	ppb	14.730	2.81%
B 249.677†	11513.8	516.70	µg/L	3.817	516.70	ppb	3.817	0.74%
Ba 233.527†	20694.2	537.47	µg/L	6.701	537.47	ppb	6.701	1.25%
Be 313.107†	822764.4	521.71	µg/L	3.530	521.71	ppb	3.530	0.68%
Ca 317.933Radial†	12966.5	5093.3	µg/L	55.99	5093.3	ppb	55.99	1.10%
Cd 226.502†	19742.8	529.17	µg/L	4.810	529.17	ppb	4.810	0.91%
Co 228.616†	10542.3	523.61	µg/L	7.534	523.61	ppb	7.534	1.44%
Cr 267.716†	24497.6	527.44	µg/L	9.799	527.44	ppb	9.799	1.86%
Cu 324.752†	71745.2	510.24	µg/L	5.915	510.24	ppb	5.915	1.16%
Fe 238.204 Radial†	961.9	5271.7	µg/L	73.76	5271.7	ppb	73.76	1.40%
K 766.490 Radial†	9241.6	5047.4	µg/L	41.18	5047.4	ppb	41.18	0.82%
Mg 279.077 IEC†	927.1	5282.3	µg/L	42.74	5282.3	ppb	42.74	0.81%
Mn 257.610†	160910.6	524.69	µg/L	3.962	524.69	ppb	3.962	0.76%
Mo 202.031†	4380.1	507.92	µg/L	13.661	507.92	ppb	13.661	2.69%
Na 589.592 Radial†	19312.8	5141.9	µg/L	19.87	5141.9	ppb	19.87	0.39%

Ni 231.604†	9528.2	533.62 µg/L	7.764	533.62 ppb	7.764	1.45%
P 214.914†	250.0	500.35 µg/L	18.657	500.35 ppb	18.657	3.73%
Pb 220.353†	2024.1	532.88 µg/L	8.081	532.88 ppb	8.081	1.52%
S 181.975 Axial†	1001.0	5285.5 µg/L	73.62	5285.5 ppb	73.62	1.39%
Sb 206.836†	518.0	527.95 µg/L	10.798	527.95 ppb	10.798	2.05%
Se 196.026†	357.5	499.86 µg/L	8.509	499.86 ppb	8.509	1.70%
SiO2†	56286.5	10971 µg/L	104.4	10971 ppb	104.4	0.95%
Si 251.611†	65379.0	5073.5 µg/L	52.49	5073.5 ppb	52.49	1.03%
Sn 189.927†	1080.5	555.96 µg/L	16.775	555.96 ppb	16.775	3.02%
Sr 421.552†	90755.1	508.87 µg/L	2.207	508.87 ppb	2.207	0.43%
Ti 334.940†	228065.3	516.52 µg/L	3.541	516.52 ppb	3.541	0.69%
Tl 190.801†	339.4	524.08 µg/L	6.090	524.08 ppb	6.090	1.16%
U 409.014†	5583.3	535.93 µg/L	3.744	535.93 ppb	3.744	0.70%
V 292.402†	45464.4	531.30 µg/L	6.612	531.30 ppb	6.612	1.24%
Zn 213.857†	18872.8	512.45 µg/L	6.794	512.45 ppb	6.794	1.33%

Sequence No.: 3
Sample ID: 243043001|934499|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 303
Date Collected: 12/20/2009 06:27:44
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 243043001|934499|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	117304.7	117304.7	104	%			06:28:17
1	Al 396.153Radial†	452.4	256.1	129.16	µg/L	129.16	ppb	06:28:17
1	Ca 317.933Radial†	635.4	209.9	82.434	µg/L	82.434	ppb	06:28:37
1	Fe 238.204 Radial†	37.0	29.2	159.61	µg/L	159.61	ppb	06:28:37
1	K 766.490 Radial†	945.7	124.5	67.976	µg/L	67.976	ppb	06:28:17
1	Mg 279.077 IEC†	20.5	4.4	24.837	µg/L	24.837	ppb	06:28:37
1	Na 589.592 Radial†	219.8	964.6	256.81	µg/L	256.81	ppb	06:28:17
1	Sr 421.552†	162.2	259.6	1.4558	µg/L	1.4558	ppb	06:28:17
1	Sc 361.383	2147685.6	2147685.6	103.02	%			06:29:39
1	Y 371.029	1314729.7	1314729.7	102.46	%			06:29:39
1	Ag 328.068†	172.8	94.5	0.8803	µg/L	0.8803	ppb	06:29:45
1	As 188.979†	-0.8	-1.3	-2.6110	µg/L	-2.6110	ppb	06:30:06
1	B 249.677†	172.7	51.2	2.2544	µg/L	2.2544	ppb	06:29:45
1	Ba 233.527†	-1.5	80.0	2.0737	µg/L	2.0737	ppb	06:30:06
1	Be 313.107†	3641.0	29.2	0.0174	µg/L	0.0174	ppb	06:29:45
1	Cd 226.502†	-110.1	0.6	0.0120	µg/L	0.0120	ppb	06:30:06
1	Co 228.616†	-76.4	11.4	0.5592	µg/L	0.5592	ppb	06:30:06
1	Cr 267.716†	412.7	527.6	11.333	µg/L	11.333	ppb	06:29:45
1	Cu 324.752†	3686.1	-1.3	0.0251	µg/L	0.0251	ppb	06:29:45
1	Mn 257.610†	1351.6	1540.3	5.0361	µg/L	5.0361	ppb	06:29:45
1	Mo 202.031†	1.6	2.2	0.2604	µg/L	0.2604	ppb	06:30:06
1	Ni 231.604†	480.6	139.1	7.7897	µg/L	7.7897	ppb	06:30:06
1	P 214.914†	205.5	-12.2	-27.282	µg/L	-27.282	ppb	06:30:06
1	Pb 220.353†	46.2	-7.6	-1.9747	µg/L	-1.9747	ppb	06:30:06
1	S 181.975 Axial†	29.6	1.6	8.5955	µg/L	8.5955	ppb	06:30:06
1	Sb 206.836†	26.9	3.6	3.6330	µg/L	3.6330	ppb	06:30:06
1	Se 196.026†	9.2	-9.5	-13.101	µg/L	-13.101	ppb	06:30:06
1	SiO2†	6675.0	4209.6	820.49	µg/L	820.49	ppb	06:29:45
1	Si 251.611†	5495.7	4977.8	389.99	µg/L	389.99	ppb	06:29:45
1	Sn 189.927†	25.1	0.5	0.2858	µg/L	0.2858	ppb	06:30:06
1	Ti 334.940†	2199.2	1274.5	2.8834	µg/L	2.8834	ppb	06:29:45
1	Tl 190.801†	-22.2	-1.4	-2.1664	µg/L	-2.1664	ppb	06:30:06
1	U 409.014†	767.6	-15.7	-1.5421	µg/L	-1.5421	ppb	06:29:45
1	V 292.402†	-109.4	19.5	0.2387	µg/L	0.2387	ppb	06:29:45
1	Zn 213.857†	840.0	230.8	6.2591	µg/L	6.2591	ppb	06:30:06
2	Sc RADIAL	116832.6	116832.6	103	%			06:28:43
2	Al 396.153Radial†	420.2	226.6	114.29	µg/L	114.29	ppb	06:28:43
2	Ca 317.933Radial†	624.0	201.2	79.052	µg/L	79.052	ppb	06:29:03
2	Fe 238.204 Radial†	38.0	30.3	165.69	µg/L	165.69	ppb	06:29:03
2	K 766.490 Radial†	998.9	179.7	98.144	µg/L	98.144	ppb	06:28:43
2	Mg 279.077 IEC†	20.2	4.2	23.668	µg/L	23.668	ppb	06:29:03
2	Na 589.592 Radial†	190.8	937.3	249.56	µg/L	249.56	ppb	06:28:43
2	Sr 421.552†	87.0	187.4	1.0510	µg/L	1.0510	ppb	06:28:43
2	Sc 361.383	2164218.5	2164218.5	103.82	%			06:30:12
2	Y 371.029	1325275.4	1325275.4	103.28	%			06:30:12
2	Ag 328.068†	150.3	71.5	0.6696	µg/L	0.6696	ppb	06:30:17
2	As 188.979†	-4.2	-4.6	-9.0302	µg/L	-9.0302	ppb	06:30:38
2	B 249.677†	129.0	7.8	0.2970	µg/L	0.2970	ppb	06:30:17
2	Ba 233.527†	-11.5	70.4	1.8250	µg/L	1.8250	ppb	06:30:38
2	Be 313.107†	3675.2	35.1	0.0212	µg/L	0.0212	ppb	06:30:17
2	Cd 226.502†	-102.0	9.2	0.2438	µg/L	0.2438	ppb	06:30:38
2	Co 228.616†	-81.0	7.5	0.3666	µg/L	0.3666	ppb	06:30:38
2	Cr 267.716†	414.0	525.8	11.294	µg/L	11.294	ppb	06:30:17
2	Cu 324.752†	3718.6	2.7	0.0544	µg/L	0.0544	ppb	06:30:17
2	Mn 257.610†	1360.3	1538.6	5.0315	µg/L	5.0315	ppb	06:30:17
2	Mo 202.031†	5.5	6.0	0.7014	µg/L	0.7014	ppb	06:30:38
2	Ni 231.604†	479.4	134.3	7.5239	µg/L	7.5239	ppb	06:30:38
2	P 214.914†	214.1	-5.5	-12.468	µg/L	-12.468	ppb	06:30:38
2	Pb 220.353†	55.9	1.5	0.4022	µg/L	0.4022	ppb	06:30:38

2	S 181.975 Axial†	31.5	3.2	17.042 µg/L	17.042 ppb	06:30:38
2	Sb 206.836†	22.5	-0.8	-0.8992 µg/L	-0.8992 ppb	06:30:38
2	Se 196.026†	17.6	-1.4	-1.8790 µg/L	-1.8790 ppb	06:30:38
2	SiO2†	6816.6	4296.6	837.44 µg/L	837.44 ppb	06:30:17
2	Si 251.611†	5620.8	5057.6	396.29 µg/L	396.29 ppb	06:30:17
2	Sn 189.927†	22.5	-2.2	-1.0917 µg/L	-1.0917 ppb	06:30:38
2	Ti 334.940†	2183.3	1242.9	2.8120 µg/L	2.8120 ppb	06:30:17
2	Tl 190.801†	-22.0	-1.1	-1.6064 µg/L	-1.6064 ppb	06:30:38
2	U 409.014†	825.1	33.9	3.2305 µg/L	3.2305 ppb	06:30:17
2	V 292.402†	-119.2	11.0	0.1505 µg/L	0.1505 ppb	06:30:17
2	Zn 213.857†	823.0	208.2	5.6416 µg/L	5.6416 ppb	06:30:38
3	Sc RADIAL	117257.0	117257.0	104 %		06:29:09
3	Al 396.153Radial†	411.5	216.8	109.33 µg/L	109.33 ppb	06:29:09
3	Ca 317.933Radial†	628.5	203.5	79.926 µg/L	79.926 ppb	06:29:29
3	Fe 238.204 Radial†	35.9	28.1	153.69 µg/L	153.69 ppb	06:29:29
3	K 766.490 Radial†	998.3	175.6	95.880 µg/L	95.880 ppb	06:29:09
3	Mg 279.077 IEC†	19.0	3.0	17.121 µg/L	17.121 ppb	06:29:29
3	Na 589.592 Radial†	199.7	945.2	251.66 µg/L	251.66 ppb	06:29:09
3	Sr 421.552†	88.3	188.3	1.0560 µg/L	1.0560 ppb	06:29:09
3	Sc 361.383	2167889.8	2167889.8	103.99 %		06:30:44
3	Y 371.029	1328574.9	1328574.9	103.54 %		06:30:44
3	Ag 328.068†	159.3	79.9	0.7455 µg/L	0.7455 ppb	06:30:49
3	As 188.979†	-1.1	-1.6	-3.2124 µg/L	-3.2124 ppb	06:31:10
3	B 249.677†	182.5	59.0	2.6075 µg/L	2.6075 ppb	06:30:49
3	Ba 233.527†	4.6	85.9	2.2262 µg/L	2.2262 ppb	06:31:10
3	Be 313.107†	3666.3	20.6	0.0121 µg/L	0.0121 ppb	06:30:49
3	Cd 226.502†	-91.7	19.3	0.5115 µg/L	0.5115 ppb	06:31:10
3	Co 228.616†	-75.3	13.1	0.6469 µg/L	0.6469 ppb	06:31:10
3	Cr 267.716†	382.6	494.9	10.631 µg/L	10.631 ppb	06:30:49
3	Cu 324.752†	3673.2	-47.0	-0.3006 µg/L	-0.3006 ppb	06:30:49
3	Mn 257.610†	1300.0	1478.4	4.8338 µg/L	4.8338 ppb	06:30:49
3	Mo 202.031†	3.2	3.8	0.4420 µg/L	0.4420 ppb	06:31:10
3	Ni 231.604†	469.7	124.3	6.9606 µg/L	6.9606 ppb	06:31:10
3	P 214.914†	203.1	-16.4	-36.579 µg/L	-36.579 ppb	06:31:10
3	Pb 220.353†	51.9	-2.4	-0.6284 µg/L	-0.6284 ppb	06:31:10
3	S 181.975 Axial†	32.3	3.9	20.405 µg/L	20.405 ppb	06:31:10
3	Sb 206.836†	22.7	-0.6	-0.6488 µg/L	-0.6488 ppb	06:31:10
3	Se 196.026†	13.8	-5.1	-7.0493 µg/L	-7.0493 ppb	06:31:10
3	SiO2†	6594.2	4071.6	793.58 µg/L	793.58 ppb	06:30:49
3	Si 251.611†	5402.0	4838.1	379.10 µg/L	379.10 ppb	06:30:49
3	Sn 189.927†	21.5	-3.2	-1.6142 µg/L	-1.6142 ppb	06:31:10
3	Ti 334.940†	2185.6	1241.5	2.8088 µg/L	2.8088 ppb	06:30:49
3	Tl 190.801†	-20.5	0.5	0.7612 µg/L	0.7612 ppb	06:31:10
3	U 409.014†	789.1	-2.1	-0.2240 µg/L	-0.2240 ppb	06:30:49
3	V 292.402†	-118.1	12.1	0.1556 µg/L	0.1556 ppb	06:30:49
3	Zn 213.857†	826.5	210.2	5.7011 µg/L	5.7011 ppb	06:31:10

Mean Data: 243043001|934499|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2159931.3	103.61	%	0.516				0.50%
Sc RADIAL	117131.4	103	%	0.2				0.22%
Y 371.029	1322860.0	103.09	%	0.564				0.55%
Ag 328.068†	82.0	0.7651	µg/L	0.10672	0.7651	ppb	0.10672	13.95%
Al 396.153Radial†	233.1	117.59	µg/L	10.321	117.59	ppb	10.321	8.78%
As 188.979†	-2.5	-4.9512	µg/L	3.54529	-4.9512	ppb	3.54529	71.60%
B 249.677†	39.3	1.7196	µg/L	1.24461	1.7196	ppb	1.24461	72.38%
Ba 233.527†	78.8	2.0416	µg/L	0.20252	2.0416	ppb	0.20252	9.92%
Be 313.107†	28.3	0.0169	µg/L	0.00462	0.0169	ppb	0.00462	27.32%
Ca 317.933Radial†	204.9	80.470	µg/L	1.7556	80.470	ppb	1.7556	2.18%
Cd 226.502†	9.7	0.2558	µg/L	0.24999	0.2558	ppb	0.24999	97.73%
Co 228.616†	10.7	0.5242	µg/L	0.14342	0.5242	ppb	0.14342	27.36%
Cr 267.716†	516.1	11.086	µg/L	0.3949	11.086	ppb	0.3949	3.56%
Cu 324.752†	-15.2	-0.0737	µg/L	0.19704	-0.0737	ppb	0.19704	267.45%
Fe 238.204 Radial†	29.2	159.66	µg/L	5.996	159.66	ppb	5.996	3.76%
K 766.490 Radial†	159.9	87.333	µg/L	16.8023	87.333	ppb	16.8023	19.24%
Mg 279.077 IEC†	3.9	21.875	µg/L	4.1587	21.875	ppb	4.1587	19.01%
Mn 257.610†	1519.1	4.9671	µg/L	0.11550	4.9671	ppb	0.11550	2.33%
Mo 202.031†	4.0	0.4679	µg/L	0.22163	0.4679	ppb	0.22163	47.37%
Na 589.592 Radial†	949.0	252.67	µg/L	3.731	252.67	ppb	3.731	1.48%

Ni 231.604†	132.6	7.4247	µg/L	0.42333	7.4247	ppb	0.42333 5.70%
P 214.914†	-11.4	-25.443	µg/L	12.1602	-25.443	ppb	12.1602 47.79%
Pb 220.353†	-2.8	-0.7336	µg/L	1.19192	-0.7336	ppb	1.19192 162.46%
S 181.975 Axial†	2.9	15.348	µg/L	6.0845	15.348	ppb	6.0845 39.64%
Sb 206.836†	0.7	0.6950	µg/L	2.54747	0.6950	ppb	2.54747 366.55%
Se 196.026†	-5.4	-7.3432	µg/L	5.61689	-7.3432	ppb	5.61689 76.49%
SiO2†	4192.6	817.17	µg/L	22.117	817.17	ppb	22.117 2.71%
Si 251.611†	4957.8	388.46	µg/L	8.694	388.46	ppb	8.694 2.24%
Sn 189.927†	-1.7	-0.8067	µg/L	0.98153	-0.8067	ppb	0.98153 121.67%
Sr 421.552†	211.8	1.1876	µg/L	0.23229	1.1876	ppb	0.23229 19.56%
Ti 334.940†	1253.0	2.8347	µg/L	0.04219	2.8347	ppb	0.04219 1.49%
Tl 190.801†	-0.7	-1.0039	µg/L	1.55398	-1.0039	ppb	1.55398 154.80%
U 409.014†	5.4	0.4881	µg/L	2.46470	0.4881	ppb	2.46470 504.93%
V 292.402†	14.2	0.1816	µg/L	0.04949	0.1816	ppb	0.04949 27.25%
Zn 213.857†	216.4	5.8673	µg/L	0.34063	5.8673	ppb	0.34063 5.81%

Sequence No.: 4
Sample ID: 1201999357|934499|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 304
Date Collected: 12/20/2009 06:31:19
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1201999357|934499|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	115944.9	115944.9	102	%			06:31:52
1	Al 396.153Radial†	373.9	184.5	93.056	µg/L	93.056	ppb	06:31:52
1	Ca 317.933Radial†	626.7	208.6	81.927	µg/L	81.927	ppb	06:32:12
1	Fe 238.204 Radial†	38.5	31.1	169.94	µg/L	169.94	ppb	06:32:12
1	K 766.490 Radial†	1023.5	211.1	115.28	µg/L	115.28	ppb	06:31:52
1	Mg 279.077 IEC†	21.2	5.4	30.384	µg/L	30.384	ppb	06:32:12
1	Na 589.592 Radial†	209.5	957.0	254.80	µg/L	254.80	ppb	06:31:52
1	Sr 421.552†	80.0	181.2	1.0159	µg/L	1.0159	ppb	06:31:52
1	Sc 361.383	2159867.9	2159867.9	103.61	%			06:33:14
1	Y 371.029	1321518.3	1321518.3	102.99	%			06:33:14
1	Ag 328.068†	155.6	76.9	0.7196	µg/L	0.7196	ppb	06:33:20
1	As 188.979†	2.0	1.4	2.6256	µg/L	2.6256	ppb	06:33:40
1	B 249.677†	181.4	58.6	2.5868	µg/L	2.5868	ppb	06:33:20
1	Ba 233.527†	-9.9	71.9	1.8643	µg/L	1.8643	ppb	06:33:40
1	Be 313.107†	3606.0	-24.5	-0.0165	µg/L	-0.0165	ppb	06:33:20
1	Cd 226.502†	-100.0	10.9	0.2856	µg/L	0.2856	ppb	06:33:40
1	Co 228.616†	-70.8	17.2	0.8495	µg/L	0.8495	ppb	06:33:40
1	Cr 267.716†	424.7	536.8	11.532	µg/L	11.532	ppb	06:33:20
1	Cu 324.752†	3642.0	-64.0	-0.4177	µg/L	-0.4177	ppb	06:33:20
1	Mn 257.610†	1300.3	1483.3	4.8519	µg/L	4.8519	ppb	06:33:20
1	Mo 202.031†	-1.9	-1.2	-0.1308	µg/L	-0.1308	ppb	06:33:40
1	Ni 231.604†	486.5	142.1	7.9586	µg/L	7.9586	ppb	06:33:40
1	P 214.914†	207.4	-11.6	-25.793	µg/L	-25.793	ppb	06:33:40
1	Pb 220.353†	55.0	0.7	0.1970	µg/L	0.1970	ppb	06:33:40
1	S 181.975 Axial†	35.1	6.7	35.357	µg/L	35.357	ppb	06:33:40
1	Sb 206.836†	23.5	0.2	0.1532	µg/L	0.1532	ppb	06:33:40
1	Se 196.026†	10.6	-8.2	-11.329	µg/L	-11.329	ppb	06:33:40
1	SiO2†	6561.6	4063.7	792.05	µg/L	792.05	ppb	06:33:20
1	Si 251.611†	5372.3	4828.7	378.32	µg/L	378.32	ppb	06:33:20
1	Sn 189.927†	24.6	-0.2	-0.0590	µg/L	-0.0590	ppb	06:33:40
1	Ti 334.940†	2070.5	1138.3	2.5747	µg/L	2.5747	ppb	06:33:20
1	Tl 190.801†	-20.2	0.7	1.0791	µg/L	1.0791	ppb	06:33:40
1	U 409.014†	758.3	-28.9	-2.8108	µg/L	-2.8108	ppb	06:33:20
1	V 292.402†	-112.7	16.9	0.2047	µg/L	0.2047	ppb	06:33:20
1	Zn 213.857†	830.1	216.6	5.8694	µg/L	5.8694	ppb	06:33:40
2	Sc RADIAL	115668.6	115668.6	102	%			06:32:18
2	Al 396.153Radial†	413.1	223.7	112.84	µg/L	112.84	ppb	06:32:18
2	Ca 317.933Radial†	624.9	208.3	81.818	µg/L	81.818	ppb	06:32:38
2	Fe 238.204 Radial†	36.8	29.6	161.54	µg/L	161.54	ppb	06:32:38
2	K 766.490 Radial†	921.7	113.8	62.146	µg/L	62.146	ppb	06:32:18
2	Mg 279.077 IEC†	23.8	8.0	45.250	µg/L	45.250	ppb	06:32:38
2	Na 589.592 Radial†	172.5	921.2	245.27	µg/L	245.27	ppb	06:32:18
2	Sr 421.552†	62.9	164.7	0.9234	µg/L	0.9234	ppb	06:32:18
2	Sc 361.383	2137541.4	2137541.4	102.54	%			06:33:46
2	Y 371.029	1308583.9	1308583.9	101.98	%			06:33:46
2	Ag 328.068†	111.6	35.6	0.3402	µg/L	0.3402	ppb	06:33:52
2	As 188.979†	-2.1	-2.6	-5.1577	µg/L	-5.1577	ppb	06:34:13
2	B 249.677†	179.8	58.9	2.6012	µg/L	2.6012	ppb	06:33:52
2	Ba 233.527†	-12.7	69.1	1.7918	µg/L	1.7918	ppb	06:34:13
2	Be 313.107†	3607.8	13.7	0.0076	µg/L	0.0076	ppb	06:33:52
2	Cd 226.502†	-108.3	1.9	0.0457	µg/L	0.0457	ppb	06:34:13
2	Co 228.616†	-74.2	13.2	0.6491	µg/L	0.6491	ppb	06:34:13
2	Cr 267.716†	387.7	505.1	10.849	µg/L	10.849	ppb	06:33:52
2	Cu 324.752†	3673.9	3.8	0.0620	µg/L	0.0620	ppb	06:33:52
2	Mn 257.610†	1296.4	1492.6	4.8812	µg/L	4.8812	ppb	06:33:52
2	Mo 202.031†	1.5	2.1	0.2488	µg/L	0.2488	ppb	06:34:13
2	Ni 231.604†	478.8	139.5	7.8131	µg/L	7.8131	ppb	06:34:13
2	P 214.914†	204.8	-12.0	-26.726	µg/L	-26.726	ppb	06:34:13
2	Pb 220.353†	68.4	14.3	3.7742	µg/L	3.7742	ppb	06:34:13

2	S 181.975 Axial†	32.7	4.8	25.089 µg/L	25.089 ppb	06:34:13
2	Sb 206.836†	18.6	-4.3	-4.4256 µg/L	-4.4256 ppb	06:34:13
2	Se 196.026†	16.9	-2.0	-2.6420 µg/L	-2.6420 ppb	06:34:13
2	SiO2†	6550.0	4118.5	802.74 µg/L	802.74 ppb	06:33:52
2	Si 251.611†	5385.8	4896.0	383.57 µg/L	383.57 ppb	06:33:52
2	Sn 189.927†	25.7	1.1	0.6256 µg/L	0.6256 ppb	06:34:13
2	Ti 334.940†	2187.1	1272.9	2.8798 µg/L	2.8798 ppb	06:33:52
2	Tl 190.801†	-19.6	1.0	1.6110 µg/L	1.6110 ppb	06:34:13
2	U 409.014†	770.9	-9.0	-0.8936 µg/L	-0.8936 ppb	06:33:52
2	V 292.402†	-113.6	14.9	0.1862 µg/L	0.1862 ppb	06:33:52
2	Zn 213.857†	836.9	231.6	6.2807 µg/L	6.2807 ppb	06:34:13
3	Sc RADIAL	116379.6	116379.6	103 %		06:32:44
3	Al 396.153Radial†	437.8	245.3	123.78 µg/L	123.78 ppb	06:32:44
3	Ca 317.933Radial†	611.7	191.7	75.282 µg/L	75.282 ppb	06:33:04
3	Fe 238.204 Radial†	37.2	29.7	162.39 µg/L	162.39 ppb	06:33:04
3	K 766.490 Radial†	976.2	161.4	88.131 µg/L	88.131 ppb	06:32:44
3	Mg 279.077 IEC†	18.1	2.3	12.901 µg/L	12.901 ppb	06:33:04
3	Na 589.592 Radial†	195.0	942.1	250.83 µg/L	250.83 ppb	06:32:44
3	Sr 421.552†	121.9	221.7	1.2431 µg/L	1.2431 ppb	06:32:44
3	Sc 361.383	2136987.0	2136987.0	102.51 %		06:34:19
3	Y 371.029	1309581.6	1309581.6	102.06 %		06:34:19
3	Ag 328.068†	141.1	64.4	0.6083 µg/L	0.6083 ppb	06:34:24
3	As 188.979†	0.3	-0.3	-0.5403 µg/L	-0.5403 ppb	06:34:45
3	B 249.677†	181.2	60.3	2.6622 µg/L	2.6622 ppb	06:34:24
3	Ba 233.527†	-16.9	65.0	1.6874 µg/L	1.6874 ppb	06:34:45
3	Be 313.107†	3506.6	-84.2	-0.0545 µg/L	-0.0545 ppb	06:34:24
3	Cd 226.502†	-110.6	-0.4	-0.0161 µg/L	-0.0161 ppb	06:34:45
3	Co 228.616†	-74.8	12.5	0.6138 µg/L	0.6138 ppb	06:34:45
3	Cr 267.716†	404.3	521.4	11.201 µg/L	11.201 ppb	06:34:24
3	Cu 324.752†	3622.9	-45.0	-0.2846 µg/L	-0.2846 ppb	06:34:24
3	Mn 257.610†	1276.4	1473.4	4.8188 µg/L	4.8188 ppb	06:34:24
3	Mo 202.031†	-5.6	-4.8	-0.5525 µg/L	-0.5525 ppb	06:34:45
3	Ni 231.604†	471.7	132.7	7.4314 µg/L	7.4314 ppb	06:34:45
3	P 214.914†	204.0	-12.7	-28.383 µg/L	-28.383 ppb	06:34:45
3	Pb 220.353†	57.9	4.1	1.0831 µg/L	1.0831 ppb	06:34:45
3	S 181.975 Axial†	29.8	1.9	10.147 µg/L	10.147 ppb	06:34:45
3	Sb 206.836†	30.6	7.4	7.5266 µg/L	7.5266 ppb	06:34:45
3	Se 196.026†	14.0	-4.7	-6.4332 µg/L	-6.4332 ppb	06:34:45
3	SiO2†	6489.8	4061.4	791.60 µg/L	791.60 ppb	06:34:24
3	Si 251.611†	5282.6	4796.6	375.76 µg/L	375.76 ppb	06:34:24
3	Sn 189.927†	26.8	2.2	1.1591 µg/L	1.1591 ppb	06:34:45
3	Ti 334.940†	2268.0	1352.3	3.0602 µg/L	3.0602 ppb	06:34:24
3	Tl 190.801†	-19.4	1.2	1.9397 µg/L	1.9397 ppb	06:34:45
3	U 409.014†	762.6	-16.9	-1.6507 µg/L	-1.6507 ppb	06:34:24
3	V 292.402†	-64.0	63.3	0.7398 µg/L	0.7398 ppb	06:34:24
3	Zn 213.857†	822.9	218.1	5.9162 µg/L	5.9162 ppb	06:34:45

Mean Data: 1201999357|934499|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2144798.8	102.88	%	0.626				0.61%
Sc RADIAL	115997.7	102	%	0.3				0.31%
Y 371.029	1313227.9	102.34	%	0.561				0.55%
Ag 328.068†	59.0	0.5560	µg/L	0.19504	0.5560	ppb	0.19504	35.08%
Al 396.153Radial†	217.8	109.89	µg/L	15.571	109.89	ppb	15.571	14.17%
As 188.979†	-0.5	-1.0241	µg/L	3.91415	-1.0241	ppb	3.91415	382.18%
B 249.677†	59.3	2.6168	µg/L	0.04004	2.6168	ppb	0.04004	1.53%
Ba 233.527†	68.7	1.7811	µg/L	0.08890	1.7811	ppb	0.08890	4.99%
Be 313.107†	-31.7	-0.0211	µg/L	0.03133	-0.0211	ppb	0.03133	148.14%
Ca 317.933Radial†	202.8	79.676	µg/L	3.8057	79.676	ppb	3.8057	4.78%
Cd 226.502†	4.1	0.1051	µg/L	0.15933	0.1051	ppb	0.15933	151.63%
Co 228.616†	14.3	0.7041	µg/L	0.12715	0.7041	ppb	0.12715	18.06%
Cr 267.716†	521.1	11.194	µg/L	0.3414	11.194	ppb	0.3414	3.05%
Cu 324.752†	-35.1	-0.2134	µg/L	0.24764	-0.2134	ppb	0.24764	116.03%
Fe 238.204 Radial†	30.1	164.62	µg/L	4.626	164.62	ppb	4.626	2.81%
K 766.490 Radial†	162.1	88.519	µg/L	26.5694	88.519	ppb	26.5694	30.02%
Mg 279.077 IEC†	5.2	29.512	µg/L	16.1921	29.512	ppb	16.1921	54.87%
Mn 257.610†	1483.1	4.8507	µg/L	0.03122	4.8507	ppb	0.03122	0.64%
Mo 202.031†	-1.3	-0.1448	µg/L	0.40080	-0.1448	ppb	0.40080	276.73%
Na 589.592 Radial†	940.1	250.30	µg/L	4.785	250.30	ppb	4.785	1.91%

Ni 231.604†	138.1	7.7344	µg/L	0.27225	7.7344	ppb	0.27225	3.52%
P 214.914†	-12.1	-26.968	µg/L	1.3116	-26.968	ppb	1.3116	4.86%
Pb 220.353†	6.4	1.6847	µg/L	1.86293	1.6847	ppb	1.86293	110.58%
S 181.975 Axial†	4.5	23.531	µg/L	12.6772	23.531	ppb	12.6772	53.87%
Sb 206.836†	1.1	1.0847	µg/L	6.03026	1.0847	ppb	6.03026	555.92%
Se 196.026†	-5.0	-6.8015	µg/L	4.35538	-6.8015	ppb	4.35538	64.04%
SiO2†	4081.2	795.46	µg/L	6.304	795.46	ppb	6.304	0.79%
Si 251.611†	4840.4	379.22	µg/L	3.983	379.22	ppb	3.983	1.05%
Sn 189.927†	1.0	0.5752	µg/L	0.61057	0.5752	ppb	0.61057	106.14%
Sr 421.552†	189.2	1.0608	µg/L	0.16451	1.0608	ppb	0.16451	15.51%
Ti 334.940†	1254.5	2.8382	µg/L	0.24537	2.8382	ppb	0.24537	8.65%
Tl 190.801†	1.0	1.5433	µg/L	0.43430	1.5433	ppb	0.43430	28.14%
U 409.014†	-18.3	-1.7851	µg/L	0.96561	-1.7851	ppb	0.96561	54.09%
V 292.402†	31.7	0.3769	µg/L	0.31444	0.3769	ppb	0.31444	83.43%
Zn 213.857†	222.1	6.0221	µg/L	0.22518	6.0221	ppb	0.22518	3.74%

Sequence No.: 5
Sample ID: 1201999358|934499|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 305
Date Collected: 12/20/2009 06:34:55
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1201999358|934499|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	118089.7	118089.7	104	%			06:35:27
1	Al 396.153Radial†	10921.9	10290.3	5171.5	µg/L	5171.5	ppb	06:35:27
1	Ca 317.933Radial†	13991.0	13009.9	5110.4	µg/L	5110.4	ppb	06:35:48
1	Fe 238.204 Radial†	1023.0	974.2	5339.2	µg/L	5339.2	ppb	06:35:48
1	K 766.490 Radial†	10477.0	9256.1	5055.3	µg/L	5055.3	ppb	06:35:27
1	Mg 279.077 IEC†	975.0	919.4	5238.6	µg/L	5238.6	ppb	06:35:48
1	Na 589.592 Radial†	19969.0	19896.8	5297.4	µg/L	5297.4	ppb	06:35:27
1	Sr 421.552†	93191.4	89446.6	501.53	µg/L	501.53	ppb	06:35:27
1	Sc 361.383	2133537.1	2133537.1	102.34	%			06:36:51
1	Y 371.029	1301804.5	1301804.5	101.45	%			06:36:51
1	Ag 328.068†	56983.2	55604.4	513.77	µg/L	513.77	ppb	06:36:57
1	As 188.979†	274.2	267.3	521.01	µg/L	521.01	ppb	06:37:17
1	B 249.677†	11801.7	11414.8	512.22	µg/L	512.22	ppb	06:36:57
1	Ba 233.527†	21024.3	20624.1	535.66	µg/L	535.66	ppb	06:36:57
1	Be 313.107†	836667.4	813994.4	516.15	µg/L	516.15	ppb	06:36:51
1	Cd 226.502†	19851.6	19504.3	522.79	µg/L	522.79	ppb	06:36:57
1	Co 228.616†	10641.8	10483.6	520.70	µg/L	520.70	ppb	06:36:57
1	Cr 267.716†	25547.0	25088.7	540.14	µg/L	540.14	ppb	06:36:57
1	Cu 324.752†	77466.3	72112.4	512.86	µg/L	512.86	ppb	06:36:57
1	Mn 257.610†	165273.7	161715.5	527.32	µg/L	527.32	ppb	06:36:51
1	Mo 202.031†	4524.0	4421.0	512.67	µg/L	512.67	ppb	06:37:17
1	Ni 231.604†	10167.9	9607.6	538.07	µg/L	538.07	ppb	06:36:57
1	P 214.914†	472.2	249.7	499.38	µg/L	499.38	ppb	06:37:17
1	Pb 220.353†	2108.6	2008.0	528.67	µg/L	528.67	ppb	06:37:17
1	S 181.975 Axial†	1051.5	1000.3	5281.7	µg/L	5281.7	ppb	06:37:17
1	Sb 206.836†	546.0	511.1	520.78	µg/L	520.78	ppb	06:37:17
1	Se 196.026†	374.3	347.4	485.74	µg/L	485.74	ppb	06:37:17
1	SiO2†	64895.8	61139.6	11917	µg/L	11917	ppb	06:36:57
1	Si 251.611†	72887.1	70860.6	5503.0	µg/L	5503.0	ppb	06:36:57
1	Sn 189.927†	1131.6	1081.8	556.61	µg/L	556.61	ppb	06:37:17
1	Ti 334.940†	235005.6	228761.5	518.10	µg/L	518.10	ppb	06:36:51
1	Tl 190.801†	328.8	341.5	527.26	µg/L	527.26	ppb	06:37:17
1	U 409.014†	6517.5	5607.3	538.23	µg/L	538.23	ppb	06:36:57
1	V 292.402†	46512.2	45572.4	532.59	µg/L	532.59	ppb	06:36:57
1	Zn 213.857†	20021.1	18977.8	515.29	µg/L	515.29	ppb	06:36:57
2	Sc RADIAL	118393.7	118393.7	105	%			06:35:53
2	Al 396.153Radial†	10971.3	10310.7	5181.7	µg/L	5181.7	ppb	06:35:53
2	Ca 317.933Radial†	14012.5	12996.1	5105.0	µg/L	5105.0	ppb	06:36:14
2	Fe 238.204 Radial†	1031.8	980.2	5372.0	µg/L	5372.0	ppb	06:36:14
2	K 766.490 Radial†	10580.7	9329.4	5095.3	µg/L	5095.3	ppb	06:35:53
2	Mg 279.077 IEC†	974.3	916.3	5221.1	µg/L	5221.1	ppb	06:36:14
2	Na 589.592 Radial†	20141.5	20012.6	5328.3	µg/L	5328.3	ppb	06:35:53
2	Sr 421.552†	94125.7	90110.6	505.25	µg/L	505.25	ppb	06:35:53
2	Sc 361.383	2131257.0	2131257.0	102.24	%			06:37:25
2	Y 371.029	1299154.9	1299154.9	101.25	%			06:37:25
2	Ag 328.068†	57410.2	56081.7	518.18	µg/L	518.18	ppb	06:37:30
2	As 188.979†	272.9	266.3	519.15	µg/L	519.15	ppb	06:37:51
2	B 249.677†	11900.6	11524.0	517.13	µg/L	517.13	ppb	06:37:30
2	Ba 233.527†	21140.7	20760.0	539.19	µg/L	539.19	ppb	06:37:30
2	Be 313.107†	831820.7	810128.2	513.70	µg/L	513.70	ppb	06:37:25
2	Cd 226.502†	20003.9	19674.0	527.34	µg/L	527.34	ppb	06:37:30
2	Co 228.616†	10729.7	10580.6	525.53	µg/L	525.53	ppb	06:37:30
2	Cr 267.716†	25727.3	25291.7	544.51	µg/L	544.51	ppb	06:37:30
2	Cu 324.752†	77905.2	72622.6	516.49	µg/L	516.49	ppb	06:37:30
2	Mn 257.610†	164268.8	160905.4	524.68	µg/L	524.68	ppb	06:37:25
2	Mo 202.031†	4543.5	4444.8	515.44	µg/L	515.44	ppb	06:37:51
2	Ni 231.604†	10248.3	9696.8	543.06	µg/L	543.06	ppb	06:37:30
2	P 214.914†	477.8	255.6	512.20	µg/L	512.20	ppb	06:37:51
2	Pb 220.353†	2118.1	2019.4	531.68	µg/L	531.68	ppb	06:37:51

2	S 181.975 Axial†	1069.3	1018.8	5379.3 µg/L	5379.3 ppb	06:37:51
2	Sb 206.836†	557.4	522.8	532.73 µg/L	532.73 ppb	06:37:51
2	Se 196.026†	381.6	354.9	496.22 µg/L	496.22 ppb	06:37:51
2	SiO2†	65283.1	61586.2	12004 µg/L	12004 ppb	06:37:30
2	Si 251.611†	73566.9	71601.9	5561.0 µg/L	5561.0 ppb	06:37:30
2	Sn 189.927†	1135.6	1086.8	559.20 µg/L	559.20 ppb	06:37:51
2	Ti 334.940†	233873.9	227900.2	516.15 µg/L	516.15 ppb	06:37:25
2	Tl 190.801†	334.9	347.7	536.85 µg/L	536.85 ppb	06:37:51
2	U 409.014†	6517.0	5613.7	538.83 µg/L	538.83 ppb	06:37:30
2	V 292.402†	46776.9	45879.9	536.17 µg/L	536.17 ppb	06:37:30
2	Zn 213.857†	20173.8	19148.2	519.92 µg/L	519.92 ppb	06:37:30
3	Sc RADIAL	118675.7	118675.7	105 %		06:36:19
3	Al 396.153Radial†	10975.7	10290.0	5172.2 µg/L	5172.2 ppb	06:36:19
3	Ca 317.933Radial†	14051.6	13001.5	5107.1 µg/L	5107.1 ppb	06:36:40
3	Fe 238.204 Radial†	1032.5	978.5	5361.8 µg/L	5361.8 ppb	06:36:40
3	K 766.490 Radial†	10583.0	9307.6	5083.4 µg/L	5083.4 ppb	06:36:19
3	Mg 279.077 IEC†	988.1	927.3	5282.6 µg/L	5282.6 ppb	06:36:40
3	Na 589.592 Radial†	20143.3	19968.6	5316.5 µg/L	5316.5 ppb	06:36:19
3	Sr 421.552†	94315.0	90077.3	505.07 µg/L	505.07 ppb	06:36:19
3	Sc 361.383	2145136.9	2145136.9	102.90 %		06:37:58
3	Y 371.029	1308881.4	1308881.4	102.00 %		06:37:58
3	Ag 328.068†	56861.2	55184.8	509.84 µg/L	509.84 ppb	06:38:04
3	As 188.979†	266.6	258.5	503.83 µg/L	503.83 ppb	06:38:24
3	B 249.677†	11728.8	11281.7	506.22 µg/L	506.22 ppb	06:38:04
3	Ba 233.527†	20709.0	20206.6	524.81 µg/L	524.81 ppb	06:38:04
3	Be 313.107†	832350.9	805379.0	510.69 µg/L	510.69 ppb	06:37:58
3	Cd 226.502†	19634.7	19188.6	514.30 µg/L	514.30 ppb	06:38:04
3	Co 228.616†	10454.3	10245.1	508.81 µg/L	508.81 ppb	06:38:04
3	Cr 267.716†	24960.1	24383.4	524.96 µg/L	524.96 ppb	06:38:04
3	Cu 324.752†	76242.1	70513.3	501.52 µg/L	501.52 ppb	06:38:04
3	Mn 257.610†	164364.5	159958.7	521.60 µg/L	521.60 ppb	06:37:58
3	Mo 202.031†	4326.0	4204.7	487.60 µg/L	487.60 ppb	06:38:24
3	Ni 231.604†	10013.0	9403.3	526.62 µg/L	526.62 ppb	06:38:04
3	P 214.914†	464.6	239.7	478.10 µg/L	478.10 ppb	06:38:24
3	Pb 220.353†	2065.0	1954.4	514.54 µg/L	514.54 ppb	06:38:24
3	S 181.975 Axial†	1039.3	982.9	5189.9 µg/L	5189.9 ppb	06:38:24
3	Sb 206.836†	535.2	497.7	507.16 µg/L	507.16 ppb	06:38:24
3	Se 196.026†	367.0	338.2	473.01 µg/L	473.01 ppb	06:38:24
3	SiO2†	64250.6	60169.7	11728 µg/L	11728 ppb	06:38:04
3	Si 251.611†	72295.8	69901.0	5429.4 µg/L	5429.4 ppb	06:38:04
3	Sn 189.927†	1085.3	1030.8	530.50 µg/L	530.50 ppb	06:38:24
3	Ti 334.940†	233646.9	226199.4	512.29 µg/L	512.29 ppb	06:37:58
3	Tl 190.801†	320.1	331.3	511.61 µg/L	511.61 ppb	06:38:24
3	U 409.014†	6271.5	5333.9	511.93 µg/L	511.93 ppb	06:38:04
3	V 292.402†	45576.6	44417.4	519.00 µg/L	519.00 ppb	06:38:04
3	Zn 213.857†	19709.1	18568.8	504.17 µg/L	504.17 ppb	06:38:04

Mean Data: 1201999358|934499|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2136643.7	102.49	%	0.357				0.35%
Sc RADIAL	118386.4	105	%	0.3				0.25%
Y 371.029	1303280.3	101.57	%	0.392				0.39%
Ag 328.068†	55623.6	513.93	µg/L	4.172	513.93	ppb	4.172	0.81%
Al 396.153Radial†	10297.0	5175.1	µg/L	5.67	5175.1	ppb	5.67	0.11%
As 188.979†	264.0	514.67	µg/L	9.429	514.67	ppb	9.429	1.83%
B 249.677†	11406.8	511.86	µg/L	5.462	511.86	ppb	5.462	1.07%
Ba 233.527†	20530.2	533.22	µg/L	7.493	533.22	ppb	7.493	1.41%
Be 313.107†	809833.9	513.51	µg/L	2.736	513.51	ppb	2.736	0.53%
Ca 317.933Radial†	13002.5	5107.5	µg/L	2.73	5107.5	ppb	2.73	0.05%
Cd 226.502†	19455.6	521.48	µg/L	6.615	521.48	ppb	6.615	1.27%
Co 228.616†	10436.4	518.35	µg/L	8.604	518.35	ppb	8.604	1.66%
Cr 267.716†	24921.3	536.54	µg/L	10.262	536.54	ppb	10.262	1.91%
Cu 324.752†	71749.5	510.29	µg/L	7.809	510.29	ppb	7.809	1.53%
Fe 238.204 Radial†	977.6	5357.7	µg/L	16.79	5357.7	ppb	16.79	0.31%
K 766.490 Radial†	9297.7	5078.0	µg/L	20.57	5078.0	ppb	20.57	0.41%
Mg 279.077 IEC†	921.0	5247.4	µg/L	31.66	5247.4	ppb	31.66	0.60%
Mn 257.610†	160859.9	524.53	µg/L	2.862	524.53	ppb	2.862	0.55%
Mo 202.031†	4356.8	505.24	µg/L	15.336	505.24	ppb	15.336	3.04%
Na 589.592 Radial†	19959.4	5314.1	µg/L	15.56	5314.1	ppb	15.56	0.29%

Ni 231.604†	9569.2	535.92 µg/L	8.426	535.92 ppb	8.426	1.57%
P 214.914†	248.4	496.56 µg/L	17.222	496.56 ppb	17.222	3.47%
Pb 220.353†	1993.9	524.97 µg/L	9.150	524.97 ppb	9.150	1.74%
S 181.975 Axial†	1000.6	5283.7 µg/L	94.72	5283.7 ppb	94.72	1.79%
Sb 206.836†	510.5	520.22 µg/L	12.794	520.22 ppb	12.794	2.46%
Se 196.026†	346.8	484.99 µg/L	11.623	484.99 ppb	11.623	2.40%
SiO2†	60965.2	11883 µg/L	141.1	11883 ppb	141.1	1.19%
Si 251.611†	70787.8	5497.8 µg/L	65.94	5497.8 ppb	65.94	1.20%
Sn 189.927†	1066.5	548.77 µg/L	15.877	548.77 ppb	15.877	2.89%
Sr 421.552†	89878.2	503.95 µg/L	2.098	503.95 ppb	2.098	0.42%
Ti 334.940†	227620.4	515.51 µg/L	2.954	515.51 ppb	2.954	0.57%
Tl 190.801†	340.1	525.24 µg/L	12.740	525.24 ppb	12.740	2.43%
U 409.014†	5518.3	529.66 µg/L	15.358	529.66 ppb	15.358	2.90%
V 292.402†	45289.9	529.25 µg/L	9.059	529.25 ppb	9.059	1.71%
Zn 213.857†	18898.3	513.13 µg/L	8.097	513.13 ppb	8.097	1.58%

Sequence No.: 6
Sample ID: 1201999359|934499|5
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 306
Date Collected: 12/20/2009 06:38:33
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1201999359|934499|5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	116951.6	116951.6	103	%			06:39:06
1	Al 396.153Radial†	250.6	62.0	31.251	µg/L	31.251	ppb	06:39:06
1	Ca 317.933Radial†	490.1	71.0	27.904	µg/L	27.904	ppb	06:39:26
1	Fe 238.204 Radial†	19.8	12.6	69.024	µg/L	69.024	ppb	06:39:26
1	K 766.490 Radial†	790.1	-23.5	-12.831	µg/L	-12.831	ppb	06:39:06
1	Mg 279.077 IEC†	12.5	-3.2	-18.538	µg/L	-18.538	ppb	06:39:26
1	Na 589.592 Radial†	-517.0	252.0	67.084	µg/L	67.084	ppb	06:39:06
1	Sr 421.552†	-16.1	87.6	0.4909	µg/L	0.4909	ppb	06:39:06
1	Sc 361.383	2145886.3	2145886.3	102.94	%			06:40:28
1	Y 371.029	1317266.4	1317266.4	102.66	%			06:40:28
1	Ag 328.068†	192.1	113.4	1.0470	µg/L	1.0470	ppb	06:40:33
1	As 188.979†	1.4	0.7	1.4268	µg/L	1.4268	ppb	06:40:54
1	B 249.677†	150.3	29.5	1.3063	µg/L	1.3063	ppb	06:40:33
1	Ba 233.527†	-55.8	27.2	0.7064	µg/L	0.7064	ppb	06:40:54
1	Be 313.107†	3812.2	198.5	0.1256	µg/L	0.1256	ppb	06:40:33
1	Cd 226.502†	-94.3	15.8	0.4239	µg/L	0.4239	ppb	06:40:54
1	Co 228.616†	-76.0	11.7	0.5777	µg/L	0.5777	ppb	06:40:54
1	Cr 267.716†	-6.3	120.9	2.5968	µg/L	2.5968	ppb	06:40:33
1	Cu 324.752†	3634.5	-48.4	-0.3289	µg/L	-0.3289	ppb	06:40:33
1	Mn 257.610†	140.2	364.4	1.1955	µg/L	1.1955	ppb	06:40:33
1	Mo 202.031†	1.1	1.8	0.2058	µg/L	0.2058	ppb	06:40:54
1	Ni 231.604†	369.8	31.8	1.7794	µg/L	1.7794	ppb	06:40:54
1	P 214.914†	206.2	-11.4	-25.369	µg/L	-25.369	ppb	06:40:54
1	Pb 220.353†	51.8	-2.0	-0.5312	µg/L	-0.5312	ppb	06:40:54
1	S 181.975 Axial†	28.7	0.8	3.9945	µg/L	3.9945	ppb	06:40:54
1	Sb 206.836†	20.0	-3.0	-3.0835	µg/L	-3.0835	ppb	06:40:54
1	Se 196.026†	9.7	-9.0	-12.506	µg/L	-12.506	ppb	06:40:54
1	SiO2†	3580.0	1208.4	235.53	µg/L	235.53	ppb	06:40:33
1	Si 251.611†	1423.8	1026.6	80.529	µg/L	80.529	ppb	06:40:54
1	Sn 189.927†	19.2	-5.2	-2.6746	µg/L	-2.6746	ppb	06:40:54
1	Ti 334.940†	1336.6	438.3	0.9917	µg/L	0.9917	ppb	06:40:33
1	Tl 190.801†	-22.5	-1.7	-2.6482	µg/L	-2.6482	ppb	06:40:54
1	U 409.014†	837.9	53.1	5.0971	µg/L	5.0971	ppb	06:40:33
1	V 292.402†	-102.7	26.0	0.3162	µg/L	0.3162	ppb	06:40:33
1	Zn 213.857†	680.7	76.7	2.0847	µg/L	2.0847	ppb	06:40:54
2	Sc RADIAL	116074.6	116074.6	103	%			06:39:31
2	Al 396.153Radial†	235.3	48.9	24.696	µg/L	24.696	ppb	06:39:31
2	Ca 317.933Radial†	477.8	62.7	24.620	µg/L	24.620	ppb	06:39:52
2	Fe 238.204 Radial†	14.7	7.9	42.921	µg/L	42.921	ppb	06:39:52
2	K 766.490 Radial†	788.7	-19.0	-10.377	µg/L	-10.377	ppb	06:39:31
2	Mg 279.077 IEC†	22.9	7.0	40.001	µg/L	40.001	ppb	06:39:52
2	Na 589.592 Radial†	-534.7	230.9	61.465	µg/L	61.465	ppb	06:39:31
2	Sr 421.552†	-7.5	95.8	0.5371	µg/L	0.5371	ppb	06:39:31
2	Sc 361.383	2155304.9	2155304.9	103.39	%			06:41:00
2	Y 371.029	1321086.9	1321086.9	102.95	%			06:41:00
2	Ag 328.068†	188.9	109.4	1.0107	µg/L	1.0107	ppb	06:41:06
2	As 188.979†	-2.7	-3.2	-6.3101	µg/L	-6.3101	ppb	06:41:26
2	B 249.677†	160.8	39.0	1.7431	µg/L	1.7431	ppb	06:41:06
2	Ba 233.527†	-59.5	23.9	0.6212	µg/L	0.6212	ppb	06:41:26
2	Be 313.107†	3695.5	69.4	0.0437	µg/L	0.0437	ppb	06:41:06
2	Cd 226.502†	-103.9	6.9	0.1793	µg/L	0.1793	ppb	06:41:26
2	Co 228.616†	-79.8	8.3	0.4108	µg/L	0.4108	ppb	06:41:26
2	Cr 267.716†	-37.9	90.4	1.9423	µg/L	1.9423	ppb	06:41:06
2	Cu 324.752†	3660.9	-38.3	-0.2622	µg/L	-0.2622	ppb	06:41:06
2	Mn 257.610†	100.8	325.8	1.0664	µg/L	1.0664	ppb	06:41:06
2	Mo 202.031†	-6.5	-5.6	-0.6458	µg/L	-0.6458	ppb	06:41:26
2	Ni 231.604†	374.4	34.7	1.9427	µg/L	1.9427	ppb	06:41:26
2	P 214.914†	207.0	-11.5	-25.622	µg/L	-25.622	ppb	06:41:26
2	Pb 220.353†	59.2	4.9	1.3053	µg/L	1.3053	ppb	06:41:26

2	S 181.975 Axial†	28.4	0.3	1.6712 µg/L	1.6712 ppb	06:41:26
2	Sb 206.836†	23.7	0.5	0.4597 µg/L	0.4597 ppb	06:41:26
2	Se 196.026†	22.1	2.9	4.0860 µg/L	4.0860 ppb	06:41:26
2	SiO2†	3232.6	857.1	167.06 µg/L	167.06 ppb	06:41:06
2	Si 251.611†	1421.1	1018.0	79.776 µg/L	79.776 ppb	06:41:26
2	Sn 189.927†	24.3	-0.4	-0.1912 µg/L	-0.1912 ppb	06:41:26
2	Ti 334.940†	1274.6	372.7	0.8432 µg/L	0.8432 ppb	06:41:06
2	Tl 190.801†	-22.7	-1.8	-2.7072 µg/L	-2.7072 ppb	06:41:26
2	U 409.014†	708.7	-75.4	-7.2548 µg/L	-7.2548 ppb	06:41:06
2	V 292.402†	-71.9	56.2	0.6380 µg/L	0.6380 ppb	06:41:06
2	Zn 213.857†	685.0	77.9	2.1181 µg/L	2.1181 ppb	06:41:26
3	Sc RADIAL	116489.6	116489.6	103 %		06:39:57
3	Al 396.153Radial†	234.3	47.1	23.747 µg/L	23.747 ppb	06:39:57
3	Ca 317.933Radial†	488.3	71.2	27.957 µg/L	27.957 ppb	06:40:18
3	Fe 238.204 Radial†	15.3	8.4	46.048 µg/L	46.048 ppb	06:40:18
3	K 766.490 Radial†	819.0	7.7	4.2050 µg/L	4.2050 ppb	06:39:57
3	Mg 279.077 IEC†	20.3	4.4	24.984 µg/L	24.984 ppb	06:40:18
3	Na 589.592 Radial†	-550.8	217.1	57.804 µg/L	57.804 ppb	06:39:57
3	Sr 421.552†	-31.8	72.2	0.4046 µg/L	0.4046 ppb	06:39:57
3	Sc 361.383	2163256.8	2163256.8	103.77 %		06:41:32
3	Y 371.029	1326442.0	1326442.0	103.37 %		06:41:32
3	Ag 328.068†	189.0	108.8	1.0071 µg/L	1.0071 ppb	06:41:38
3	As 188.979†	1.3	0.6	1.2559 µg/L	1.2559 ppb	06:41:58
3	B 249.677†	168.8	46.2	2.0652 µg/L	2.0652 ppb	06:41:38
3	Ba 233.527†	-55.2	28.3	0.7351 µg/L	0.7351 ppb	06:41:58
3	Be 313.107†	3625.4	-11.2	-0.0074 µg/L	-0.0074 ppb	06:41:38
3	Cd 226.502†	-109.9	1.5	0.0356 µg/L	0.0356 ppb	06:41:58
3	Co 228.616†	-76.1	12.2	0.6049 µg/L	0.6049 ppb	06:41:58
3	Cr 267.716†	-15.6	111.9	2.4058 µg/L	2.4058 ppb	06:41:38
3	Cu 324.752†	3622.9	-87.9	-0.6140 µg/L	-0.6140 ppb	06:41:38
3	Mn 257.610†	104.7	329.2	1.0778 µg/L	1.0778 ppb	06:41:38
3	Mo 202.031†	1.1	1.8	0.2056 µg/L	0.2056 ppb	06:41:58
3	Ni 231.604†	365.9	25.2	1.4099 µg/L	1.4099 ppb	06:41:58
3	P 214.914†	207.9	-11.4	-25.405 µg/L	-25.405 ppb	06:41:58
3	Pb 220.353†	49.5	-4.7	-1.2224 µg/L	-1.2224 ppb	06:41:58
3	S 181.975 Axial†	28.2	0.1	0.3623 µg/L	0.3623 ppb	06:41:58
3	Sb 206.836†	22.1	-1.1	-1.1761 µg/L	-1.1761 ppb	06:41:58
3	Se 196.026†	11.8	-7.0	-9.7300 µg/L	-9.7300 ppb	06:41:58
3	SiO2†	3130.8	747.6	145.71 µg/L	145.71 ppb	06:41:38
3	Si 251.611†	1312.2	908.0	71.230 µg/L	71.230 ppb	06:41:58
3	Sn 189.927†	19.6	-5.0	-2.5568 µg/L	-2.5568 ppb	06:41:58
3	Ti 334.940†	1246.1	340.6	0.7703 µg/L	0.7703 ppb	06:41:38
3	Tl 190.801†	-23.9	-2.9	-4.3980 µg/L	-4.3980 ppb	06:41:58
3	U 409.014†	749.5	-38.6	-3.7152 µg/L	-3.7152 ppb	06:41:38
3	V 292.402†	-54.6	73.1	0.8459 µg/L	0.8459 ppb	06:41:38
3	Zn 213.857†	674.8	65.7	1.7866 µg/L	1.7866 ppb	06:41:58

Mean Data: 1201999359|934499|5

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2154816.0	103.37	%	0.417				0.40%
Sc RADIAL	116505.3	103	%	0.4				0.38%
Y 371.029	1321598.4	102.99	%	0.359				0.35%
Ag 328.068†	110.5	1.0216	µg/L	0.02206	1.0216	ppb	0.02206	2.16%
Al 396.153Radial†	52.7	26.565	µg/L	4.0861	26.565	ppb	4.0861	15.38%
As 188.979†	-0.6	-1.2091	µg/L	4.41840	-1.2091	ppb	4.41840	365.41%
B 249.677†	38.2	1.7049	µg/L	0.38086	1.7049	ppb	0.38086	22.34%
Ba 233.527†	26.5	0.6875	µg/L	0.05925	0.6875	ppb	0.05925	8.62%
Be 313.107†	85.6	0.0540	µg/L	0.06707	0.0540	ppb	0.06707	124.29%
Ca 317.933Radial†	68.3	26.827	µg/L	1.9118	26.827	ppb	1.9118	7.13%
Cd 226.502†	8.1	0.2129	µg/L	0.19635	0.2129	ppb	0.19635	92.20%
Co 228.616†	10.7	0.5311	µg/L	0.10511	0.5311	ppb	0.10511	19.79%
Cr 267.716†	107.7	2.3149	µg/L	0.33657	2.3149	ppb	0.33657	14.54%
Cu 324.752†	-58.2	-0.4017	µg/L	0.18687	-0.4017	ppb	0.18687	46.52%
Fe 238.204 Radial†	9.6	52.664	µg/L	14.2541	52.664	ppb	14.2541	27.07%
K 766.490 Radial†	-11.6	-6.3342	µg/L	9.20935	-6.3342	ppb	9.20935	145.39%
Mg 279.077 IEC†	2.7	15.482	µg/L	30.4041	15.482	ppb	30.4041	196.38%
Mn 257.610†	339.8	1.1132	µg/L	0.07150	1.1132	ppb	0.07150	6.42%
Mo 202.031†	-0.7	-0.0781	µg/L	0.49164	-0.0781	ppb	0.49164	629.28%
Na 589.592 Radial†	233.3	62.118	µg/L	4.6743	62.118	ppb	4.6743	7.52%

Ni 231.604†	30.5	1.7107	µg/L	0.27296	1.7107	ppb	0.27296 15.96%
P 214.914†	-11.4	-25.466	µg/L	0.1369	-25.466	ppb	0.1369 0.54%
Pb 220.353†	-0.6	-0.1494	µg/L	1.30637	-0.1494	ppb	1.30637 874.20%
S 181.975 Axial†	0.4	2.0093	µg/L	1.83957	2.0093	ppb	1.83957 91.55%
Sb 206.836†	-1.2	-1.2667	µg/L	1.77333	-1.2667	ppb	1.77333 140.00%
Se 196.026†	-4.4	-6.0501	µg/L	8.88722	-6.0501	ppb	8.88722 146.89%
SiO2†	937.7	182.77	µg/L	46.925	182.77	ppb	46.925 25.67%
Si 251.611†	984.2	77.178	µg/L	5.1652	77.178	ppb	5.1652 6.69%
Sn 189.927†	-3.6	-1.8075	µg/L	1.40103	-1.8075	ppb	1.40103 77.51%
Sr 421.552†	85.2	0.4775	µg/L	0.06727	0.4775	ppb	0.06727 14.09%
Ti 334.940†	383.9	0.8684	µg/L	0.11285	0.8684	ppb	0.11285 13.00%
Tl 190.801†	-2.1	-3.2511	µg/L	0.99361	-3.2511	ppb	0.99361 30.56%
U 409.014†	-20.3	-1.9576	µg/L	6.36071	-1.9576	ppb	6.36071 324.92%
V 292.402†	51.8	0.6000	µg/L	0.26691	0.6000	ppb	0.26691 44.48%
Zn 213.857†	73.4	1.9964	µg/L	0.18254	1.9964	ppb	0.18254 9.14%

Sequence No.: 7
Sample ID: 243043002|934499|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 307
Date Collected: 12/20/2009 06:42:07
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 243043002|934499|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	116649.3	116649.3	103	%			06:42:40
1	Al 396.153Radial†	172.8	-12.9	-6.4627	µg/L	-6.4627	ppb	06:42:40
1	Ca 317.933Radial†	438.5	22.2	8.7152	µg/L	8.7152	ppb	06:43:00
1	Fe 238.204 Radial†	10.2	3.4	18.397	µg/L	18.397	ppb	06:43:00
1	K 766.490 Radial†	770.3	-40.6	-22.199	µg/L	-22.199	ppb	06:42:40
1	Mg 279.077 IEC†	19.0	3.1	17.417	µg/L	17.417	ppb	06:43:00
1	Na 589.592 Radial†	-742.7	31.6	8.4030	µg/L	8.4030	ppb	06:42:40
1	Sr 421.552†	-100.8	5.2	0.0293	µg/L	0.0293	ppb	06:42:40
1	Sc 361.383	2138867.8	2138867.8	102.60	%			06:44:02
1	Y 371.029	1310572.2	1310572.2	102.14	%			06:44:02
1	Ag 328.068†	174.2	96.5	0.8869	µg/L	0.8869	ppb	06:44:08
1	As 188.979†	1.6	1.0	1.9581	µg/L	1.9581	ppb	06:44:29
1	B 249.677†	161.7	41.2	1.8468	µg/L	1.8468	ppb	06:44:08
1	Ba 233.527†	-73.6	9.8	0.2540	µg/L	0.2540	ppb	06:44:29
1	Be 313.107†	3562.0	-33.2	-0.0212	µg/L	-0.0212	ppb	06:44:08
1	Cd 226.502†	-105.1	5.0	0.1344	µg/L	0.1344	ppb	06:44:29
1	Co 228.616†	-87.7	0.0	-0.0010	µg/L	-0.0010	ppb	06:44:29
1	Cr 267.716†	-121.0	9.0	0.1940	µg/L	0.1940	ppb	06:44:08
1	Cu 324.752†	3547.3	-121.8	-0.8606	µg/L	-0.8606	ppb	06:44:08
1	Mn 257.610†	-191.3	41.8	0.1385	µg/L	0.1385	ppb	06:44:29
1	Mo 202.031†	-7.8	-6.9	-0.7994	µg/L	-0.7994	ppb	06:44:29
1	Ni 231.604†	357.5	21.0	1.1739	µg/L	1.1739	ppb	06:44:29
1	P 214.914†	200.0	-16.8	-37.300	µg/L	-37.300	ppb	06:44:29
1	Pb 220.353†	54.1	0.4	0.1035	µg/L	0.1035	ppb	06:44:29
1	S 181.975 Axial†	27.4	-0.4	-2.3609	µg/L	-2.3609	ppb	06:44:29
1	Sb 206.836†	21.1	-1.9	-1.9125	µg/L	-1.9125	ppb	06:44:29
1	Se 196.026†	6.4	-12.1	-16.880	µg/L	-16.880	ppb	06:44:29
1	SiO2†	4064.9	1692.4	329.87	µg/L	329.87	ppb	06:44:08
1	Si 251.611†	2413.8	1996.0	156.50	µg/L	156.50	ppb	06:44:08
1	Sn 189.927†	21.9	-2.6	-1.3242	µg/L	-1.3242	ppb	06:44:29
1	Ti 334.940†	1006.6	121.0	0.2736	µg/L	0.2736	ppb	06:44:08
1	Tl 190.801†	-19.5	1.2	1.8069	µg/L	1.8069	ppb	06:44:29
1	U 409.014†	774.1	-6.4	-0.6142	µg/L	-0.6142	ppb	06:44:08
1	V 292.402†	-115.1	13.5	0.1517	µg/L	0.1517	ppb	06:44:08
1	Zn 213.857†	655.3	54.1	1.4749	µg/L	1.4749	ppb	06:44:29
2	Sc RADIAL	116659.6	116659.6	103	%			06:43:06
2	Al 396.153Radial†	190.6	4.4	2.2198	µg/L	2.2198	ppb	06:43:06
2	Ca 317.933Radial†	444.6	28.1	11.024	µg/L	11.024	ppb	06:43:26
2	Fe 238.204 Radial†	9.5	2.8	15.072	µg/L	15.072	ppb	06:43:26
2	K 766.490 Radial†	835.5	22.5	12.306	µg/L	12.306	ppb	06:43:06
2	Mg 279.077 IEC†	18.4	2.6	14.562	µg/L	14.562	ppb	06:43:26
2	Na 589.592 Radial†	-713.0	60.5	16.107	µg/L	16.107	ppb	06:43:06
2	Sr 421.552†	-42.0	62.4	0.3497	µg/L	0.3497	ppb	06:43:06
2	Sc 361.383	2149641.8	2149641.8	103.12	%			06:44:35
2	Y 371.029	1316352.0	1316352.0	102.59	%			06:44:35
2	Ag 328.068†	171.7	93.3	0.8579	µg/L	0.8579	ppb	06:44:40
2	As 188.979†	0.6	-0.1	-0.1064	µg/L	-0.1064	ppb	06:45:01
2	B 249.677†	171.4	49.7	2.2332	µg/L	2.2332	ppb	06:44:40
2	Ba 233.527†	-77.4	6.5	0.1682	µg/L	0.1682	ppb	06:45:01
2	Be 313.107†	3650.9	35.7	0.0225	µg/L	0.0225	ppb	06:44:40
2	Cd 226.502†	-109.2	1.6	0.0443	µg/L	0.0443	ppb	06:45:01
2	Co 228.616†	-82.7	5.3	0.2621	µg/L	0.2621	ppb	06:45:01
2	Cr 267.716†	-128.8	2.1	0.0457	µg/L	0.0457	ppb	06:44:40
2	Cu 324.752†	3516.9	-168.6	-1.1932	µg/L	-1.1932	ppb	06:44:40
2	Mn 257.610†	-193.8	40.4	0.1334	µg/L	0.1334	ppb	06:45:01
2	Mo 202.031†	-0.7	-0.0	-0.0020	µg/L	-0.0020	ppb	06:45:01
2	Ni 231.604†	354.3	16.2	0.9046	µg/L	0.9046	ppb	06:45:01
2	P 214.914†	211.5	-6.6	-14.509	µg/L	-14.509	ppb	06:45:01
2	Pb 220.353†	42.6	-11.1	-2.9164	µg/L	-2.9164	ppb	06:45:01

2	S 181.975 Axial†	26.1	-1.8	-9.4591 µg/L	-9.4591 ppb	06:45:01
2	Sb 206.836†	27.5	4.2	4.2543 µg/L	4.2543 ppb	06:45:01
2	Se 196.026†	15.3	-3.6	-4.9426 µg/L	-4.9426 ppb	06:45:01
2	SiO2†	4092.0	1698.9	331.12 µg/L	331.12 ppb	06:44:40
2	Si 251.611†	2475.0	2043.6	160.18 µg/L	160.18 ppb	06:44:40
2	Sn 189.927†	23.1	-1.5	-0.7537 µg/L	-0.7537 ppb	06:45:01
2	Ti 334.940†	1028.9	137.7	0.3114 µg/L	0.3114 ppb	06:44:40
2	Tl 190.801†	-19.3	1.5	2.2308 µg/L	2.2308 ppb	06:45:01
2	U 409.014†	820.1	34.5	3.3096 µg/L	3.3096 ppb	06:44:40
2	V 292.402†	-106.6	22.4	0.2657 µg/L	0.2657 ppb	06:44:40
2	Zn 213.857†	662.8	58.1	1.5869 µg/L	1.5869 ppb	06:45:01
3	Sc RADIAL	116629.6	116629.6	103 %		06:43:32
3	Al 396.153Radial†	186.1	0.1	0.0259 µg/L	0.0259 ppb	06:43:32
3	Ca 317.933Radial†	445.9	29.5	11.572 µg/L	11.572 ppb	06:43:52
3	Fe 238.204 Radial†	8.9	2.2	11.982 µg/L	11.982 ppb	06:43:52
3	K 766.490 Radial†	753.8	-56.5	-30.884 µg/L	-30.884 ppb	06:43:32
3	Mg 279.077 IEC†	18.2	2.3	13.324 µg/L	13.324 ppb	06:43:52
3	Na 589.592 Radial†	-729.3	44.4	11.830 µg/L	11.830 ppb	06:43:32
3	Sr 421.552†	-66.8	38.2	0.2144 µg/L	0.2144 ppb	06:43:32
3	Sc 361.383	2147798.0	2147798.0	103.03 %		06:45:07
3	Y 371.029	1317113.8	1317113.8	102.64 %		06:45:07
3	Ag 328.068†	136.8	59.5	0.5460 µg/L	0.5460 ppb	06:45:12
3	As 188.979†	1.3	0.6	1.2353 µg/L	1.2353 ppb	06:45:33
3	B 249.677†	137.1	16.6	0.7436 µg/L	0.7436 ppb	06:45:12
3	Ba 233.527†	-74.1	9.5	0.2466 µg/L	0.2466 ppb	06:45:33
3	Be 313.107†	3618.6	7.3	0.0045 µg/L	0.0045 ppb	06:45:12
3	Cd 226.502†	-116.2	-5.3	-0.1442 µg/L	-0.1442 ppb	06:45:33
3	Co 228.616†	-78.4	9.4	0.4691 µg/L	0.4691 ppb	06:45:33
3	Cr 267.716†	-122.8	7.8	0.1671 µg/L	0.1671 ppb	06:45:12
3	Cu 324.752†	3578.7	-105.7	-0.7477 µg/L	-0.7477 ppb	06:45:12
3	Mn 257.610†	-179.6	54.0	0.1773 µg/L	0.1773 ppb	06:45:33
3	Mo 202.031†	2.4	3.0	0.3453 µg/L	0.3453 ppb	06:45:33
3	Ni 231.604†	354.7	16.9	0.9447 µg/L	0.9447 ppb	06:45:33
3	P 214.914†	208.7	-9.2	-20.319 µg/L	-20.319 ppb	06:45:33
3	Pb 220.353†	53.0	-0.9	-0.2321 µg/L	-0.2321 ppb	06:45:33
3	S 181.975 Axial†	28.7	0.7	3.9318 µg/L	3.9318 ppb	06:45:33
3	Sb 206.836†	24.9	1.7	1.7770 µg/L	1.7770 ppb	06:45:33
3	Se 196.026†	10.8	-7.9	-10.965 µg/L	-10.965 ppb	06:45:33
3	SiO2†	4026.1	1638.2	319.31 µg/L	319.31 ppb	06:45:12
3	Si 251.611†	2418.9	1991.2	156.14 µg/L	156.14 ppb	06:45:12
3	Sn 189.927†	20.5	-4.0	-2.0392 µg/L	-2.0392 ppb	06:45:33
3	Ti 334.940†	1000.5	111.0	0.2508 µg/L	0.2508 ppb	06:45:12
3	Tl 190.801†	-18.5	2.2	3.4452 µg/L	3.4452 ppb	06:45:33
3	U 409.014†	763.6	-19.7	-1.8963 µg/L	-1.8963 ppb	06:45:12
3	V 292.402†	-135.6	-5.9	-0.0680 µg/L	-0.0680 ppb	06:45:12
3	Zn 213.857†	666.6	62.4	1.7025 µg/L	1.7025 ppb	06:45:33

Mean Data: 243043002|934499|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	2145435.9	102.92	%	0.276				0.27%
Sc RADIAL	116646.2	103	%	0.0				0.01%
Y 371.029	1314679.3	102.46	%	0.279				0.27%
Ag 328.068†	83.1	0.7636	µg/L	0.18902	0.7636	ppb	0.18902	24.75%
Al 396.153Radial†	-2.8	-1.4057	µg/L	4.51477	-1.4057	ppb	4.51477	321.18%
As 188.979†	0.5	1.0290	µg/L	1.04758	1.0290	ppb	1.04758	101.81%
B 249.677†	35.8	1.6079	µg/L	0.77302	1.6079	ppb	0.77302	48.08%
Ba 233.527†	8.6	0.2229	µg/L	0.04755	0.2229	ppb	0.04755	21.33%
Be 313.107†	3.2	0.0019	µg/L	0.02195	0.0019	ppb	0.02195	>999.9%
Ca 317.933Radial†	26.6	10.437	µg/L	1.5163	10.437	ppb	1.5163	14.53%
Cd 226.502†	0.4	0.0115	µg/L	0.14213	0.0115	ppb	0.14213	>999.9%
Co 228.616†	4.9	0.2434	µg/L	0.23560	0.2434	ppb	0.23560	96.80%
Cr 267.716†	6.3	0.1356	µg/L	0.07900	0.1356	ppb	0.07900	58.25%
Cu 324.752†	-132.1	-0.9338	µg/L	0.23162	-0.9338	ppb	0.23162	24.80%
Fe 238.204 Radial†	2.8	15.150	µg/L	3.2081	15.150	ppb	3.2081	21.18%
K 766.490 Radial†	-24.9	-13.592	µg/L	22.8452	-13.592	ppb	22.8452	168.07%
Mg 279.077 IEC†	2.7	15.101	µg/L	2.0993	15.101	ppb	2.0993	13.90%
Mn 257.610†	45.4	0.1497	µg/L	0.02401	0.1497	ppb	0.02401	16.04%
Mo 202.031†	-1.3	-0.1521	µg/L	0.58690	-0.1521	ppb	0.58690	385.95%
Na 589.592 Radial†	45.5	12.113	µg/L	3.8600	12.113	ppb	3.8600	31.87%

Ni 231.604†	18.0	1.0077	µg/L	0.14528	1.0077	ppb	0.14528 14.42%
P 214.914†	-10.9	-24.042	µg/L	11.8429	-24.042	ppb	11.8429 49.26%
Pb 220.353†	-3.9	-1.0150	µg/L	1.65518	-1.0150	ppb	1.65518 163.08%
S 181.975 Axial†	-0.5	-2.6294	µg/L	6.69948	-2.6294	ppb	6.69948 254.79%
Sb 206.836†	1.3	1.3729	µg/L	3.10318	1.3729	ppb	3.10318 226.03%
Se 196.026†	-7.9	-10.929	µg/L	5.9688	-10.929	ppb	5.9688 54.61%
SiO2†	1676.5	326.76	µg/L	6.489	326.76	ppb	6.489 1.99%
Si 251.611†	2010.3	157.61	µg/L	2.237	157.61	ppb	2.237 1.42%
Sn 189.927†	-2.7	-1.3724	µg/L	0.64408	-1.3724	ppb	0.64408 46.93%
Sr 421.552†	35.3	0.1978	µg/L	0.16081	0.1978	ppb	0.16081 81.31%
Ti 334.940†	123.2	0.2786	µg/L	0.03061	0.2786	ppb	0.03061 10.99%
Tl 190.801†	1.6	2.4943	µg/L	0.85032	2.4943	ppb	0.85032 34.09%
U 409.014†	2.8	0.2663	µg/L	2.71236	0.2663	ppb	2.71236 >999.9%
V 292.402†	10.0	0.1165	µg/L	0.16958	0.1165	ppb	0.16958 145.60%
Zn 213.857†	58.2	1.5881	µg/L	0.11378	1.5881	ppb	0.11378 7.16%

Sequence No.: 8
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 12/20/2009 06:45:42
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	118438.2	118438.2	105	%			06:46:20
1	Al 396.153Radial†	10421.1	9780.8	4914.5	µg/L	4914.5	ppb	06:46:20
1	Ca 317.933Radial†	13523.0	12523.1	4919.1	µg/L	4919.1	ppb	06:46:41
1	Fe 238.204 Radial†	969.0	919.8	5041.6	µg/L	5041.6	ppb	06:46:41
1	K 766.490 Radial†	10225.8	8986.5	4908.0	µg/L	4908.0	ppb	06:46:20
1	Mg 279.077 IEC†	953.5	896.1	5106.5	µg/L	5106.5	ppb	06:46:41
1	Na 589.592 Radial†	38109.0	37180.4	9899.1	µg/L	9899.1	ppb	06:46:20
1	Sr 421.552†	91561.4	87625.6	491.32	µg/L	491.32	ppb	06:46:20
1	Sc 361.383	2130583.3	2130583.3	102.20	%			06:47:44
1	Y 371.029	1301185.9	1301185.9	101.40	%			06:47:44
1	Ag 328.068†	56293.9	55007.2	508.17	µg/L	508.17	ppb	06:47:50
1	As 188.979†	276.2	269.6	525.66	µg/L	525.66	ppb	06:48:10
1	B 249.677†	11565.7	11200.0	502.65	µg/L	502.65	ppb	06:47:50
1	Ba 233.527†	20213.2	19859.0	515.80	µg/L	515.80	ppb	06:47:50
1	Be 313.107†	819969.3	798789.6	506.51	µg/L	506.51	ppb	06:47:44
1	Cd 226.502†	19657.9	19341.6	518.40	µg/L	518.40	ppb	06:47:50
1	Co 228.616†	10522.2	10380.9	515.63	µg/L	515.63	ppb	06:47:50
1	Cr 267.716†	24374.4	23976.0	516.21	µg/L	516.21	ppb	06:47:50
1	Cu 324.752†	74966.5	69771.4	496.19	µg/L	496.19	ppb	06:47:50
1	Mn 257.610†	158384.9	155199.2	506.06	µg/L	506.06	ppb	06:47:44
1	Mo 202.031†	4501.0	4404.7	510.77	µg/L	510.77	ppb	06:48:10
1	Ni 231.604†	9749.0	9211.4	515.88	µg/L	515.88	ppb	06:47:50
1	P 214.914†	1415.6	1173.3	2552.6	µg/L	2552.6	ppb	06:48:10
1	Pb 220.353†	2086.1	1988.7	523.64	µg/L	523.64	ppb	06:48:10
1	S 181.975 Axial†	233.3	201.1	1060.6	µg/L	1060.6	ppb	06:48:10
1	Sb 206.836†	540.5	506.4	516.05	µg/L	516.05	ppb	06:48:10
1	Se 196.026†	398.9	371.9	519.71	µg/L	519.71	ppb	06:48:10
1	SiO2†	30768.3	27835.6	5425.4	µg/L	5425.4	ppb	06:47:50
1	Si 251.611†	33463.0	32385.1	2489.2	µg/L	2489.2	ppb	06:47:50
1	Sn 189.927†	1078.0	1030.8	530.42	µg/L	530.42	ppb	06:48:10
1	Ti 334.940†	226437.1	220696.0	499.83	µg/L	499.83	ppb	06:47:44
1	Tl 190.801†	322.4	335.6	518.17	µg/L	518.17	ppb	06:48:10
1	U 409.014†	6098.2	5205.9	499.69	µg/L	499.69	ppb	06:47:50
1	V 292.402†	45134.6	44287.4	517.61	µg/L	517.61	ppb	06:47:50
1	Zn 213.857†	19871.2	18858.2	512.19	µg/L	512.19	ppb	06:47:50
2	Sc RADIAL	118555.2	118555.2	105	%			06:46:46
2	Al 396.153Radial†	10461.7	9809.8	4929.1	µg/L	4929.1	ppb	06:46:46
2	Ca 317.933Radial†	13497.6	12486.1	4904.6	µg/L	4904.6	ppb	06:47:07
2	Fe 238.204 Radial†	972.7	922.3	5055.7	µg/L	5055.7	ppb	06:47:07
2	K 766.490 Radial†	10268.0	9017.1	4924.8	µg/L	4924.8	ppb	06:46:46
2	Mg 279.077 IEC†	954.2	895.9	5105.0	µg/L	5105.0	ppb	06:47:07
2	Na 589.592 Radial†	38048.3	37086.4	9874.0	µg/L	9874.0	ppb	06:46:46
2	Sr 421.552†	91894.7	87857.5	492.62	µg/L	492.62	ppb	06:46:46
2	Sc 361.383	2129749.9	2129749.9	102.16	%			06:48:18
2	Y 371.029	1301364.1	1301364.1	101.42	%			06:48:18
2	Ag 328.068†	56317.3	55051.7	508.60	µg/L	508.60	ppb	06:48:23
2	As 188.979†	276.2	269.7	525.83	µg/L	525.83	ppb	06:48:44
2	B 249.677†	11629.1	11266.4	505.63	µg/L	505.63	ppb	06:48:23
2	Ba 233.527†	20252.8	19905.5	517.00	µg/L	517.00	ppb	06:48:23
2	Be 313.107†	819858.7	798995.3	506.64	µg/L	506.64	ppb	06:48:18
2	Cd 226.502†	19750.2	19439.5	521.04	µg/L	521.04	ppb	06:48:23
2	Co 228.616†	10598.5	10459.7	519.54	µg/L	519.54	ppb	06:48:23
2	Cr 267.716†	24507.5	24115.6	519.21	µg/L	519.21	ppb	06:48:23
2	Cu 324.752†	75076.0	69907.3	497.16	µg/L	497.16	ppb	06:48:23
2	Mn 257.610†	158360.0	155235.4	506.18	µg/L	506.18	ppb	06:48:18
2	Mo 202.031†	4496.2	4401.7	510.42	µg/L	510.42	ppb	06:48:44
2	Ni 231.604†	9798.4	9263.5	518.79	µg/L	518.79	ppb	06:48:23
2	P 214.914†	1404.6	1163.2	2529.8	µg/L	2529.8	ppb	06:48:44
2	Pb 220.353†	2077.3	1981.0	521.58	µg/L	521.58	ppb	06:48:44

2	S 181.975 Axial†	228.7	196.7	1037.7 µg/L	1037.7 ppb	06:48:44
2	Sb 206.836†	535.5	501.7	511.22 µg/L	511.22 ppb	06:48:44
2	Se 196.026†	401.4	374.5	523.36 µg/L	523.36 ppb	06:48:44
2	SiO2†	30864.0	27941.1	5446.0 µg/L	5446.0 ppb	06:48:23
2	Si 251.611†	33679.1	32609.5	2506.9 µg/L	2506.9 ppb	06:48:23
2	Sn 189.927†	1074.5	1027.8	528.87 µg/L	528.87 ppb	06:48:44
2	Ti 334.940†	226524.1	220867.9	500.22 µg/L	500.22 ppb	06:48:18
2	Tl 190.801†	325.6	338.8	523.04 µg/L	523.04 ppb	06:48:44
2	U 409.014†	6291.1	5397.1	518.07 µg/L	518.07 ppb	06:48:23
2	V 292.402†	45284.8	44451.8	519.54 µg/L	519.54 ppb	06:48:23
2	Zn 213.857†	19965.1	18957.8	514.90 µg/L	514.90 ppb	06:48:23
3	Sc RADIAL	118770.8	118770.8	105 %		06:47:12
3	Al 396.153Radial†	10414.1	9746.2	4899.6 µg/L	4899.6 ppb	06:47:12
3	Ca 317.933Radial†	13501.4	12466.3	4896.8 µg/L	4896.8 ppb	06:47:33
3	Fe 238.204 Radial†	975.2	923.1	5058.6 µg/L	5058.6 ppb	06:47:33
3	K 766.490 Radial†	10301.1	9030.8	4932.3 µg/L	4932.3 ppb	06:47:12
3	Mg 279.077 IEC†	951.8	891.9	5080.7 µg/L	5080.7 ppb	06:47:33
3	Na 589.592 Radial†	38258.7	37221.0	9909.9 µg/L	9909.9 ppb	06:47:12
3	Sr 421.552†	91968.1	87768.1	492.12 µg/L	492.12 ppb	06:47:12
3	Sc 361.383	2129416.9	2129416.9	102.15 %		06:48:51
3	Y 371.029	1301366.4	1301366.4	101.42 %		06:48:51
3	Ag 328.068†	54188.4	52976.1	489.34 µg/L	489.34 ppb	06:48:57
3	As 188.979†	239.3	233.7	455.55 µg/L	455.55 ppb	06:49:17
3	B 249.677†	11156.3	10805.3	484.87 µg/L	484.87 ppb	06:48:57
3	Ba 233.527†	19072.6	18753.2	487.07 µg/L	487.07 ppb	06:48:57
3	Be 313.107†	794479.0	774274.6	490.97 µg/L	490.97 ppb	06:48:51
3	Cd 226.502†	18553.8	18271.2	489.70 µg/L	489.70 ppb	06:48:57
3	Co 228.616†	9893.9	9771.4	485.25 µg/L	485.25 ppb	06:48:57
3	Cr 267.716†	22536.7	22189.9	477.77 µg/L	477.77 ppb	06:48:57
3	Cu 324.752†	70895.0	65825.7	468.19 µg/L	468.19 ppb	06:48:57
3	Mn 257.610†	153598.4	150598.1	491.08 µg/L	491.08 ppb	06:48:51
3	Mo 202.031†	3916.2	3834.6	444.69 µg/L	444.69 ppb	06:49:17
3	Ni 231.604†	9222.8	8701.5	487.32 µg/L	487.32 ppb	06:48:57
3	P 214.914†	1271.2	1032.7	2242.0 µg/L	2242.0 ppb	06:49:17
3	Pb 220.353†	1879.7	1787.8	470.69 µg/L	470.69 ppb	06:49:17
3	S 181.975 Axial†	207.4	175.9	927.77 µg/L	927.77 ppb	06:49:17
3	Sb 206.836†	482.7	450.1	458.71 µg/L	458.71 ppb	06:49:17
3	Se 196.026†	361.1	335.1	468.59 µg/L	468.59 ppb	06:49:17
3	SiO2†	29415.5	26527.7	5170.5 µg/L	5170.5 ppb	06:48:57
3	Si 251.611†	31891.7	30864.8	2374.8 µg/L	2374.8 ppb	06:48:57
3	Sn 189.927†	924.4	881.0	453.73 µg/L	453.73 ppb	06:49:17
3	Ti 334.940†	218747.0	213288.9	483.05 µg/L	483.05 ppb	06:48:51
3	Tl 190.801†	295.5	309.5	477.95 µg/L	477.95 ppb	06:49:17
3	U 409.014†	5843.3	4959.7	476.01 µg/L	476.01 ppb	06:48:57
3	V 292.402†	42280.2	41517.2	485.03 µg/L	485.03 ppb	06:48:57
3	Zn 213.857†	18713.0	17735.1	481.63 µg/L	481.63 ppb	06:48:57

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	2129916.7	102.17	%	0.029				0.03%
Sc RADIAL	118588.1	105	%	0.1				0.14%
Y 371.029	1301305.5	101.41	%	0.008				0.01%
Ag 328.068†	54345.0	502.04	µg/L	11.000	502.04	ppb	11.000	2.19%
QC value within limits for Ag 328.068 Recovery = 100.41%								
Al 396.153Radial†	9778.9	4914.4	µg/L	14.77	4914.4	ppb	14.77	0.30%
QC value within limits for Al 396.153Radial Recovery = 98.29%								
As 188.979†	257.7	502.34	µg/L	40.526	502.34	ppb	40.526	8.07%
QC value within limits for As 188.979 Recovery = 100.47%								
B 249.677†	11090.6	497.72	µg/L	11.224	497.72	ppb	11.224	2.26%
QC value within limits for B 249.677 Recovery = 99.54%								
Ba 233.527†	19505.9	506.62	µg/L	16.945	506.62	ppb	16.945	3.34%
QC value within limits for Ba 233.527 Recovery = 101.32%								
Be 313.107†	790686.5	501.37	µg/L	9.012	501.37	ppb	9.012	1.80%
QC value within limits for Be 313.107 Recovery = 100.27%								
Ca 317.933Radial†	12491.8	4906.9	µg/L	11.32	4906.9	ppb	11.32	0.23%
QC value within limits for Ca 317.933Radial Recovery = 98.14%								
Cd 226.502†	19017.4	509.71	µg/L	17.386	509.71	ppb	17.386	3.41%
QC value within limits for Cd 226.502 Recovery = 101.94%								
Co 228.616†	10204.0	506.81	µg/L	18.773	506.81	ppb	18.773	3.70%

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   QC value within limits for Co 228.616  Recovery = 101.36%
Cr 267.716†            23427.2      504.40 µg/L        23.109      504.40 ppb        23.109   4.58%
   QC value within limits for Cr 267.716  Recovery = 100.88%
Cu 324.752†            68501.4      487.18 µg/L        16.450      487.18 ppb        16.450   3.38%
   QC value within limits for Cu 324.752  Recovery = 97.44%
Fe 238.204 Radial†       921.7      5052.0 µg/L         9.10      5052.0 ppb         9.10   0.18%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.04%
K 766.490 Radial†        9011.5      4921.7 µg/L        12.41      4921.7 ppb        12.41   0.25%
   QC value within limits for K 766.490 Radial  Recovery = 98.43%
Mg 279.077 IEC†          894.6      5097.4 µg/L        14.45      5097.4 ppb        14.45   0.28%
   QC value within limits for Mg 279.077 IEC  Recovery = 101.95%
Mn 257.610†           153677.5      501.11 µg/L         8.684      501.11 ppb         8.684   1.73%
   QC value within limits for Mn 257.610  Recovery = 100.22%
Mo 202.031†             4213.6      488.63 µg/L        38.053      488.63 ppb        38.053   7.79%
   QC value within limits for Mo 202.031  Recovery = 97.73%
Na 589.592 Radial†     37162.6      9894.3 µg/L        18.38      9894.3 ppb        18.38   0.19%
   QC value within limits for Na 589.592 Radial  Recovery = 98.94%
Ni 231.604†             9058.8      507.33 µg/L        17.391      507.33 ppb        17.391   3.43%
   QC value within limits for Ni 231.604  Recovery = 101.47%
P 214.914†              1123.1      2441.5 µg/L       173.12      2441.5 ppb       173.12   7.09%
   QC value within limits for P 214.914  Recovery = 97.66%
Pb 220.353†             1919.2      505.30 µg/L        29.995      505.30 ppb        29.995   5.94%
   QC value within limits for Pb 220.353  Recovery = 101.06%
S 181.975 Axial†         191.3      1008.7 µg/L        71.01      1008.7 ppb        71.01   7.04%
   QC value within limits for S 181.975 Axial  Recovery = 100.87%
Sb 206.836†              486.1      495.33 µg/L        31.806      495.33 ppb        31.806   6.42%
   QC value within limits for Sb 206.836  Recovery = 99.07%
Se 196.026†              360.5      503.89 µg/L        30.624      503.89 ppb        30.624   6.08%
   QC value within limits for Se 196.026  Recovery = 100.78%
SiO2†                  27434.8      5347.3 µg/L       153.46      5347.3 ppb       153.46   2.87%
   QC value within limits for SiO2  Recovery = 100.00%
Si 251.611†            31953.1      2456.9 µg/L        71.73      2456.9 ppb        71.73   2.92%
   QC value within limits for Si 251.611  Recovery = 98.28%
Sn 189.927†              979.9      504.34 µg/L        43.841      504.34 ppb        43.841   8.69%
   QC value within limits for Sn 189.927  Recovery = 100.87%
Sr 421.552†            87750.4      492.02 µg/L         0.656      492.02 ppb         0.656   0.13%
   QC value within limits for Sr 421.552  Recovery = 98.40%
Ti 334.940†           218284.3      494.37 µg/L         9.805      494.37 ppb         9.805   1.98%
   QC value within limits for Ti 334.940  Recovery = 98.87%
Tl 190.801†              328.0      506.39 µg/L        24.746      506.39 ppb        24.746   4.89%
   QC value within limits for Tl 190.801  Recovery = 101.28%
U 409.014†              5187.6      497.92 µg/L        21.084      497.92 ppb        21.084   4.23%
   QC value within limits for U 409.014  Recovery = 99.58%
V 292.402†             43418.8      507.40 µg/L        19.389      507.40 ppb        19.389   3.82%
   QC value within limits for V 292.402  Recovery = 101.48%
Zn 213.857†            18517.0      502.91 µg/L        18.475      502.91 ppb        18.475   3.67%
   QC value within limits for Zn 213.857  Recovery = 100.58%
All analyte(s) passed QC.
```

Sequence No.: 9
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 12/20/2009 06:49:26
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	116152.9	116152.9	103	%			06:49:59
1	Al 396.153Radial†	216.4	30.3	15.282	µg/L	15.282	ppb	06:49:59
1	Ca 317.933Radial†	413.3	-0.6	-0.2246	µg/L	-0.2246	ppb	06:50:19
1	Fe 238.204 Radial†	11.2	4.4	23.943	µg/L	23.943	ppb	06:50:19
1	K 766.490 Radial†	751.6	-55.7	-30.443	µg/L	-30.443	ppb	06:49:59
1	Mg 279.077 IEC†	19.6	3.8	21.471	µg/L	21.471	ppb	06:50:19
1	Na 589.592 Radial†	-773.2	-1.2	-0.3209	µg/L	-0.3209	ppb	06:49:59
1	Sr 421.552†	-57.7	46.9	0.2627	µg/L	0.2627	ppb	06:49:59
1	Sc 361.383	2120893.7	2120893.7	101.74	%			06:51:21
1	Y 371.029	1301997.5	1301997.5	101.47	%			06:51:21
1	Ag 328.068†	182.3	105.9	0.9763	µg/L	0.9763	ppb	06:51:27
1	As 188.979†	-0.8	-1.4	-2.7182	µg/L	-2.7182	ppb	06:51:48
1	B 249.677†	141.4	22.5	1.0071	µg/L	1.0071	ppb	06:51:27
1	Ba 233.527†	-70.5	12.2	0.3166	µg/L	0.3166	ppb	06:51:48
1	Be 313.107†	3828.2	257.8	0.1635	µg/L	0.1635	ppb	06:51:27
1	Cd 226.502†	-95.4	13.6	0.3660	µg/L	0.3660	ppb	06:51:48
1	Co 228.616†	-78.2	8.6	0.4298	µg/L	0.4298	ppb	06:51:48
1	Cr 267.716†	-108.7	20.2	0.4342	µg/L	0.4342	ppb	06:51:27
1	Cu 324.752†	3600.0	-40.7	-0.2838	µg/L	-0.2838	ppb	06:51:27
1	Mn 257.610†	-199.0	32.7	0.1094	µg/L	0.1094	ppb	06:51:48
1	Mo 202.031†	2.0	2.7	0.3109	µg/L	0.3109	ppb	06:51:48
1	Ni 231.604†	342.3	9.0	0.5062	µg/L	0.5062	ppb	06:51:48
1	P 214.914†	201.5	-13.7	-30.250	µg/L	-30.250	ppb	06:51:48
1	Pb 220.353†	48.1	-5.1	-1.3455	µg/L	-1.3455	ppb	06:51:48
1	S 181.975 Axial†	28.1	0.5	2.5544	µg/L	2.5544	ppb	06:51:48
1	Sb 206.836†	18.5	-4.3	-4.3980	µg/L	-4.3980	ppb	06:51:48
1	Se 196.026†	13.9	-4.8	-6.6244	µg/L	-6.6244	ppb	06:51:48
1	SiO2†	2290.1	-18.4	-3.5943	µg/L	-3.5943	ppb	06:51:27
1	Si 251.611†	398.7	35.3	2.6475	µg/L	2.6475	ppb	06:51:48
1	Sn 189.927†	30.7	6.2	3.2008	µg/L	3.2008	ppb	06:51:48
1	Ti 334.940†	931.6	55.5	0.1257	µg/L	0.1257	ppb	06:51:27
1	Tl 190.801†	-17.2	3.2	4.9439	µg/L	4.9439	ppb	06:51:48
1	U 409.014†	805.1	30.5	2.9301	µg/L	2.9301	ppb	06:51:27
1	V 292.402†	-78.6	48.5	0.5705	µg/L	0.5705	ppb	06:51:27
1	Zn 213.857†	606.9	12.0	0.3221	µg/L	0.3221	ppb	06:51:48
2	Sc RADIAL	116123.1	116123.1	103	%			06:50:25
2	Al 396.153Radial†	158.8	-25.8	-13.011	µg/L	-13.011	ppb	06:50:25
2	Ca 317.933Radial†	423.9	9.9	3.8956	µg/L	3.8956	ppb	06:50:45
2	Fe 238.204 Radial†	10.3	3.5	19.363	µg/L	19.363	ppb	06:50:45
2	K 766.490 Radial†	820.3	11.5	6.2711	µg/L	6.2711	ppb	06:50:25
2	Mg 279.077 IEC†	17.9	2.1	12.124	µg/L	12.124	ppb	06:50:45
2	Na 589.592 Radial†	-725.7	44.9	11.952	µg/L	11.952	ppb	06:50:25
2	Sr 421.552†	-60.5	44.2	0.2476	µg/L	0.2476	ppb	06:50:25
2	Sc 361.383	2126030.2	2126030.2	101.98	%			06:51:54
2	Y 371.029	1305210.2	1305210.2	101.72	%			06:51:54
2	Ag 328.068†	210.8	133.5	1.2252	µg/L	1.2252	ppb	06:51:59
2	As 188.979†	2.9	2.3	4.4855	µg/L	4.4855	ppb	06:52:20
2	B 249.677†	150.4	31.0	1.3886	µg/L	1.3886	ppb	06:51:59
2	Ba 233.527†	-66.7	16.1	0.4162	µg/L	0.4162	ppb	06:52:20
2	Be 313.107†	3731.0	153.5	0.0973	µg/L	0.0973	ppb	06:51:59
2	Cd 226.502†	-106.5	3.1	0.0783	µg/L	0.0783	ppb	06:52:20
2	Co 228.616†	-78.4	8.7	0.4311	µg/L	0.4311	ppb	06:52:20
2	Cr 267.716†	-129.3	0.2	0.0037	µg/L	0.0037	ppb	06:51:59
2	Cu 324.752†	3540.7	-107.4	-0.7579	µg/L	-0.7579	ppb	06:51:59
2	Mn 257.610†	-189.6	42.4	0.1405	µg/L	0.1405	ppb	06:52:20
2	Mo 202.031†	-1.0	-0.3	-0.0352	µg/L	-0.0352	ppb	06:52:20
2	Ni 231.604†	343.6	9.5	0.5313	µg/L	0.5313	ppb	06:52:20
2	P 214.914†	195.7	-19.9	-43.986	µg/L	-43.986	ppb	06:52:20
2	Pb 220.353†	57.2	3.7	0.9829	µg/L	0.9829	ppb	06:52:20

2	S 181.975 Axial†	21.5	-6.0	-31.933	µg/L	-31.933 ppb	06:52:20
2	Sb 206.836†	22.6	-0.3	-0.2639	µg/L	-0.2639 ppb	06:52:20
2	Se 196.026†	6.2	-12.3	-17.176	µg/L	-17.176 ppb	06:52:20
2	SiO2†	2248.8	-64.4	-12.547	µg/L	-12.547 ppb	06:51:59
2	Si 251.611†	421.6	56.8	4.3744	µg/L	4.3744 ppb	06:52:20
2	Sn 189.927†	28.1	3.6	1.8404	µg/L	1.8404 ppb	06:52:20
2	Ti 334.940†	948.4	69.8	0.1580	µg/L	0.1580 ppb	06:51:59
2	Tl 190.801†	-17.5	3.0	4.6733	µg/L	4.6733 ppb	06:52:20
2	U 409.014†	729.1	-45.9	-4.4203	µg/L	-4.4203 ppb	06:51:59
2	V 292.402†	-126.0	2.1	0.0190	µg/L	0.0190 ppb	06:51:59
2	Zn 213.857†	617.8	21.2	0.5767	µg/L	0.5767 ppb	06:52:20
3	Sc RADIAL	115948.9	115948.9	102	%		06:50:51
3	Al 396.153Radial†	155.3	-29.0	-14.629	µg/L	-14.629 ppb	06:50:51
3	Ca 317.933Radial†	428.1	14.6	5.7460	µg/L	5.7460 ppb	06:51:11
3	Fe 238.204 Radial†	11.8	5.1	27.707	µg/L	27.707 ppb	06:51:11
3	K 766.490 Radial†	847.8	39.5	21.567	µg/L	21.567 ppb	06:50:51
3	Mg 279.077 IEC†	12.9	-2.7	-15.351	µg/L	-15.351 ppb	06:51:11
3	Na 589.592 Radial†	-782.6	-11.7	-3.1282	µg/L	-3.1282 ppb	06:50:51
3	Sr 421.552†	-40.7	63.3	0.3550	µg/L	0.3550 ppb	06:50:51
3	Sc 361.383	2132668.3	2132668.3	102.30	%		06:52:26
3	Y 371.029	1309518.9	1309518.9	102.05	%		06:52:26
3	Ag 328.068†	139.4	63.0	0.5825	µg/L	0.5825 ppb	06:52:31
3	As 188.979†	0.8	0.2	0.4435	µg/L	0.4435 ppb	06:52:52
3	B 249.677†	154.1	34.2	1.5306	µg/L	1.5306 ppb	06:52:31
3	Ba 233.527†	-87.9	-4.4	-0.1139	µg/L	-0.1139 ppb	06:52:52
3	Be 313.107†	3694.7	106.6	0.0676	µg/L	0.0676 ppb	06:52:31
3	Cd 226.502†	-101.0	8.7	0.2268	µg/L	0.2268 ppb	06:52:52
3	Co 228.616†	-83.9	3.5	0.1727	µg/L	0.1727 ppb	06:52:52
3	Cr 267.716†	-118.2	11.4	0.2469	µg/L	0.2469 ppb	06:52:31
3	Cu 324.752†	3555.0	-104.2	-0.7335	µg/L	-0.7335 ppb	06:52:31
3	Mn 257.610†	-206.8	26.1	0.0884	µg/L	0.0884 ppb	06:52:52
3	Mo 202.031†	3.5	4.1	0.4771	µg/L	0.4771 ppb	06:52:52
3	Ni 231.604†	353.9	18.5	1.0387	µg/L	1.0387 ppb	06:52:52
3	P 214.914†	197.1	-19.1	-42.245	µg/L	-42.245 ppb	06:52:52
3	Pb 220.353†	37.2	-16.0	-4.1935	µg/L	-4.1935 ppb	06:52:52
3	S 181.975 Axial†	29.4	1.6	8.6362	µg/L	8.6362 ppb	06:52:52
3	Sb 206.836†	21.4	-1.6	-1.5985	µg/L	-1.5985 ppb	06:52:52
3	Se 196.026†	11.4	-7.2	-10.050	µg/L	-10.050 ppb	06:52:52
3	SiO2†	2281.1	-39.7	-7.7475	µg/L	-7.7475 ppb	06:52:31
3	Si 251.611†	418.2	52.2	4.0222	µg/L	4.0222 ppb	06:52:52
3	Sn 189.927†	27.0	2.5	1.2690	µg/L	1.2690 ppb	06:52:52
3	Ti 334.940†	943.9	62.5	0.1412	µg/L	0.1412 ppb	06:52:31
3	Tl 190.801†	-23.6	-2.9	-4.5245	µg/L	-4.5245 ppb	06:52:52
3	U 409.014†	691.5	-84.9	-8.1686	µg/L	-8.1686 ppb	06:52:31
3	V 292.402†	-91.2	36.6	0.4161	µg/L	0.4161 ppb	06:52:31
3	Zn 213.857†	630.8	32.0	0.8685	µg/L	0.8685 ppb	06:52:52

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2126530.7	102.01	%	0.283				0.28%
Sc RADIAL	116075.0	103	%	0.1				0.09%
Y 371.029	1305575.5	101.75	%	0.294				0.29%
Ag 328.068†	100.8	0.9280	µg/L	0.32404	0.9280	ppb	0.32404	34.92%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-8.1	-4.1196	µg/L	16.82132	-4.1196	ppb	16.82132	408.33%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	0.4	0.7370	µg/L	3.61081	0.7370	ppb	3.61081	489.96%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	29.2	1.3088	µg/L	0.27072	1.3088	ppb	0.27072	20.69%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	7.9	0.2063	µg/L	0.28175	0.2063	ppb	0.28175	136.59%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	172.7	0.1095	µg/L	0.04911	0.1095	ppb	0.04911	44.86%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	8.0	3.1390	µg/L	3.05641	3.1390	ppb	3.05641	97.37%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	8.5	0.2237	µg/L	0.14387	0.2237	ppb	0.14387	64.32%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	6.9	0.3445	µg/L	0.14883	0.3445	ppb	0.14883	43.20%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                10.6      0.2283 µg/L       0.21585      0.2283 ppb        0.21585  94.55%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               -84.1     -0.5918 µg/L       0.26695     -0.5918 ppb        0.26695  45.11%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          4.3      23.671 µg/L        4.1787      23.671 ppb         4.1787  17.65%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          -1.6     -0.8682 µg/L      26.73005     -0.8682 ppb       26.73005 >999.9%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             1.1      6.0813 µg/L      19.14022      6.0813 ppb       19.14022 314.74%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                33.7      0.1128 µg/L       0.02620      0.1128 ppb        0.02620  23.23%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 2.2      0.2509 µg/L       0.26136      0.2509 ppb        0.26136 104.16%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†         10.6      2.8342 µg/L       8.01981      2.8342 ppb        8.01981 282.97%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                12.4      0.6921 µg/L       0.30042      0.6921 ppb        0.30042  43.41%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -17.5     -38.827 µg/L        7.4787     -38.827 ppb         7.4787  19.26%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -5.8     -1.5187 µg/L       2.59255     -1.5187 ppb        2.59255 170.71%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -1.3     -6.9143 µg/L      21.87955     -6.9143 ppb       21.87955 316.44%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                -2.0     -2.0868 µg/L       2.10987     -2.0868 ppb        2.10987 101.10%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -8.1     -11.283 µg/L        5.3829     -11.283 ppb         5.3829  47.71%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     -40.9     -7.9628 µg/L       4.48002     -7.9628 ppb        4.48002  56.26%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†                48.1      3.6814 µg/L       0.91254      3.6814 ppb        0.91254  24.79%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 4.1      2.1034 µg/L       0.99239      2.1034 ppb        0.99239  47.18%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                51.4      0.2884 µg/L       0.05815      0.2884 ppb        0.05815  20.16%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                62.6      0.1417 µg/L       0.01615      0.1417 ppb        0.01615  11.40%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 1.1      1.6976 µg/L       5.39019      1.6976 ppb        5.39019 317.53%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                -33.4     -3.2196 µg/L       5.64588     -3.2196 ppb        5.64588 175.36%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 29.1      0.3352 µg/L       0.28454      0.3352 ppb        0.28454  84.89%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                21.7      0.5891 µg/L       0.27342      0.5891 ppb        0.27342  46.41%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Daily Performance Report

Sample ID: Sample
Sample Date/Time: Thursday, December 31, 2009 11:09:45
Sample Description:
Method File: c:\elandata\Method\daily2.mth
Dataset File: c:\elandata\Dataset\090811\Sample.341
Tuning File: c:\elandata\Tuning\default2.tun
Optimization File: c:\elandata\Optimize\default.dac
Dual Detector Mode: Pulse

Acq. Dead Time(ns): 35
Current Dead Time (ns): 35

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Be	9.0	787.2	787.222	23.521	3.0
	Mg	24.0	17954.7	17954.679	328.562	1.8
	Co	58.9	52662.5	52662.500	638.671	1.2
	Rh	102.9	85840.8	85840.751	876.424	1.0
	In	114.9	107225.9	107225.935	1057.281	1.0
	Pb	208.0	59486.6	59486.611	738.160	1.2
⌈>	Ba	137.9	92930.2	92930.213	918.587	1.0
⌊	Ba++	69.0	1974.5	0.021	0.000	1.1
⌈>	Ce	139.9	110614.8	110614.809	682.543	0.6
⌊	CeO	155.9	2629.3	0.024	0.001	2.3
	Bkgd	220.0	6.9	6.900	1.557	22.6

Current Optimization File Data

Current Value	Description
0.84	Nebulizer Gas Flow
6.00	Lens Voltage
1000.00	ICP RF Power
-1875.00	Analog Stage Voltage
1100.00	Pulse Stage Voltage
50.00	Discriminator Threshold
-2.00	AC Rod Offset

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	21	7.5	894.7
Co	59	21	8.5	32687.7
In	115	21	10.0	82053.3

ICPMS #4 TUNING REPORT

File Name: default2.tun
File Path: c:\elandata\Tuning

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas Peak W
He	3.0	3.0	607	2060	0.696
Be	9.0	9.1	2058	2055	0.648
Mg	24.0	24.0	5683	2065	0.642
Mg	25.0	25.1	5957	2070	0.630
Mg	26.0	26.0	6169	2085	0.633
Co	58.9	59.0	14186	2120	0.689
Rh	102.9	102.9	24869	2220	0.692
In	114.9	115.0	27784	2255	0.667
Ce	139.9	139.9	33855	2300	0.685
Pb	206.0	206.0	49932	2460	0.699
Pb	207.0	207.0	50125	2380	0.660
Pb	208.0	208.0	50436	2490	0.762
U	238.1	238.1	57706	2480	0.753

ICPMS#4 - Summary Report

Sample ID: Blank
Sample Date/Time: Friday, January 01, 2010 08:17:16
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only no Irs.mth
Dataset File: C:\elandata\Dataset\091231\Blank.303

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		74555	
	U	238		ug/L		312	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Lu	175					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Friday, January 01, 2010 08:18:58
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only no irs.mth
Dataset File: C:\elandata\Dataset\091231\Standard 1.304

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Lu	175		ug/L		72804	72804.109
U	238	10.000	ug/L	0.425	60469	0.826

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Lu	175					
U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Friday, January 01, 2010 08:20:37
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only no lrs.mth
Dataset File: C:\elandata\Dataset\091231\Standard 2.305

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Lu	175		ug/L		73294	73293.944
[	U	238	99.985	ug/L	1.126	597121	8.143

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
[>	Lu	175					
[	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Friday, January 01, 2010 08:22:16
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only no lrs.mth
Dataset File: C:\elandata\Dataset\091231\QC Std 1.306

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Lu	175		ug/L		75258	75258.151
U	238	52.819	ug/L	1.335	324035	4.302

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Lu	175		100.9			
U	238	105.638				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Friday, January 01, 2010 08:23:58
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only no lrs.mth
Dataset File: C:\elandata\Dataset\091231\QC Std 2.307

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		73759	73758.668
⌊	U	238	0.026	ug/L	6.751	467	0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈>	Lu	175		98.9			
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Friday, January 01, 2010 08:25:41
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only no lrs.mth
Dataset File: C:\elandata\Dataset\091231\QC Std 3.308

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		73725	73725.488
⌊	U	238	0.199	ug/L	4.023	1501	0.016

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈>	Lu	175		98.9			
⌊	U	238	99.284				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Friday, January 01, 2010 08:27:22
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only no Irs.mth
Dataset File: C:\elandata\Dataset\091231\QC Std 4.309

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		75034	75033.633
⌊	U	238	-0.041	ug/L	2.838	63	-0.003

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈>	Lu	175		100.6			
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Friday, January 01, 2010 08:29:03
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only no lrs.mth
Dataset File: C:\elandata\Dataset\091231\QC Std 5.310

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		75612	75611.995
⌊	U	238	**20.348**	ug/L	0.708	125619	1.657

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈>	Lu	175		101.4			
⌊	U	238	101.738				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Friday, January 01, 2010 08:30:45
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only no Irs.mth
Dataset File: C:\elandata\Dataset\091231\QC Std 6.311

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		76068	76068.077
	U	238	52.282	ug/L	0.675	324217	4.258

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Lu	175		102.0			
	U	238	104.563				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Friday, January 01, 2010 08:32:28
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only no Irs.mth
Dataset File: C:\elandata\Dataset\091231\QC Std 7.312

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Lu	175		ug/L		75872	75872.379
[	U	238	0.017	ug/L	16.739	424	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
[>	Lu	175		101.8			
[	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 1201999360
Sample Date/Time: Friday, January 01, 2010 08:34:11
Sample Type:
Sample Description: LANL 6020 MB
Number of Replicates: 3
Batch ID: 934501|1|baj
Method File: c:\elandata\Method\u only no lrs.mth
Dataset File: C:\elandata\Dataset\091231\1201999360.313

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		72733	72733.095
	U	238	-0.040	ug/L	3.983	66	-0.003

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Lu	175		97.6			
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 1201999361
Sample Date/Time: Friday, January 01, 2010 08:35:52
Sample Type:
Sample Description: LANL 6020 LCS
Number of Replicates: 3
Batch ID: 934501|1|ba|
Method File: c:\elandata\Method\u only no lrs.mth
Dataset File: C:\elandata\Dataset\091231\1201999361.314

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		73198	73198.125
⌊	U	238	57.431	ug/L	0.171	342683	4.677

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈>	Lu	175		98.2			
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 243043001
Sample Date/Time: Friday, January 01, 2010 08:37:34
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 934501|1|baj
Method File: c:\elandata\Method\u only no lrs.mth
Dataset File: C:\elandata\Dataset\091231\243043001.315

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		74156	74156.108
⌊	U	238	-0.020	ug/L	18.338	190	-0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈>	Lu	175		99.5			
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 1201999362
Sample Date/Time: Friday, January 01, 2010 08:39:16
Sample Type:
Sample Description: LANL 6020 DUP
Number of Replicates: 3
Batch ID: 934501|1|baj
Method File: c:\elandata\Method\u only no lrs.mth
Dataset File: C:\elandata\Dataset\091231\1201999362.316

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		74112	74112.174
⌊	U	238	-0.037	ug/L	3.604	87	-0.003

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈>	Lu	175		99.4			
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 1201999363
Sample Date/Time: Friday, January 01, 2010 08:40:59
Sample Type:
Sample Description: LANL 6020 MS
Number of Replicates: 3
Batch ID: 934501|1|baj
Method File: c:\elandata\Method\u only no lrs.mth
Dataset File: C:\elandata\Dataset\091231\1201999363.317

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		74268	74267.996
⌊	U	238	58.509	ug/L	0.550	354194	4.765

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈>	Lu	175		99.6			
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 1201999364
Sample Date/Time: Friday, January 01, 2010 08:42:42
Sample Type:
Sample Description: LANL 6020 SDILT
Number of Replicates: 3
Batch ID: 934501|5|baj
Method File: c:\elandata\Method\u only no lrs.mth
Dataset File: C:\elandata\Dataset\091231\1201999364.318

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		76568	76568.104
⌊	U	238	-0.019	ug/L	11.208	199	-0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈>	Lu	175		102.7			
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 243043002
Sample Date/Time: Friday, January 01, 2010 08:44:26
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 934501|1|baj
Method File: c:\elandata\Method\u only no lrs.mth
Dataset File: C:\elandata\Dataset\091231\243043002.319

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		73509	73509.392
⌊	U	238	-0.036	ug/L	3.435	91	-0.003

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈>	Lu	175		98.6			
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Friday, January 01, 2010 08:46:09
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only no irs.mth
Dataset File: C:\elandata\Dataset\091231\QC Std 6.320

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		76873	76873.106
⌊	U	238	52.504	ug/L	0.565	329026	4.276

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈>	Lu	175		103.1			
⌊	U	238	105.007				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Friday, January 01, 2010 08:47:53
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only no Irs.mth
Dataset File: C:\elandata\Dataset\091231\QC Std 7.321

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		76908	76907.580
⌊	U	238	0.016	ug/L	9.649	419	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈>	Lu	175		103.2			
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS #5 Daily Performance Report

Sample ID: Sample
Sample Date/Time: Wednesday, December 30, 2009 17:50:52
Sample Description:
Method File: c:\elandata\Method\Daily2.mth
Dataset File: c:\elandata\Dataset\default2\Sample.1620
Tuning File: c:\elandata\Tuning\default2.tun
Optimization File: c:\elandata\Optimize\default.dac
Dual Detector Mode: Pulse

Acq. Dead Time(ns): 35
Current Dead Time (ns): 35

Number of Replicates: 5

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Be	9.0	4934.1	4934.052	114.021	2.3
	Mg	24.0	48884.1	48884.101	478.806	1.0
	Co	58.9	90238.3	90238.324	797.506	0.9
	Rh	102.9	179130.5	179130.506	1094.772	0.6
	In	114.9	241659.5	241659.464	1083.019	0.4
	Pb	208.0	241473.4	241473.393	3132.325	1.3
⌈>	Ba	137.9	235876.0	235876.040	1606.305	0.7
⌊	Ba++	69.0	4770.7	0.020	0.000	2.1
⌈>	Ce	139.9	284771.0	284771.028	2183.988	0.8
⌊	CeO	155.9	6129.8	0.022	0.000	1.9
	Bkgd	220.0	18.4	18.400	2.485	13.5

Current Optimization File Data

Current Value	Description
0.88	Nebulizer Gas Flow
8.25	Lens Voltage
1450.00	ICP RF Power
-1687.50	Analog Stage Voltage
1200.00	Pulse Stage Voltage
275.00	Discriminator Threshold
-6.00	AC Rod Offset

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	17	7.5	5635.1
Co	59	17	8.0	97381.8
In	115	17	9.0	230303.2

ICPMS #5 Instrument Tuning Report

File Name: default2.tun
File Path: c:\elandata\Tuning

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Pk. Width
He	3.0	3.0	592	2065	0.591
Be	9.0	9.0	2056	2070	0.634
Mg	24.0	24.0	5687	2070	0.656
Mg	25.0	25.0	5951	2070	0.679
Mg	26.0	26.0	6160	2070	0.666
Co	58.9	58.9	14168	2105	0.640
Rh	102.9	102.9	24880	2165	0.629
In	114.9	114.9	27794	2185	0.626
Ce	139.9	139.9	33866	2200	0.644
Pb	206.0	206.0	49936	2270	0.671
Pb	207.0	207.0	50171	2235	0.679
Pb	208.0	208.0	50439	2260	0.722
U	238.1	238.1	57728	2275	0.726

ICPMS#5 - Summary Report

Sample ID: Blank
Sample Date/Time: Thursday, December 31, 2009 01:22:35
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\091230\Blank.236

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7		ug/L		58	
	Be	9		ug/L		17	
	B	11		ug/L		1234	
	Na	23		ug/L		34042	
	Mg	24		ug/L		4334	
	Al	27		ug/L		12005	
	P	31		ug/L		12239	
	K	39		ug/L		763643	
	Ca	43		ug/L		373	
>	Sc	45		ug/L		3930407	
	Ti	47		ug/L		452	
	V	51		ug/L		22510	
	Cr	52		ug/L		3063	
	Cr	53		ug/L		169891	
	Mn	55		ug/L		1250	
	Fe	57		ug/L		6821	
	Co	59		ug/L		114	
	Ni	60		ug/L		144	
	Cu	63		ug/L		1171	
	Cu	65		ug/L		47146	
	Zn	66		ug/L		450	
	Zn	67		ug/L		25010	
	Zn	68		ug/L		2413	
>	Ge	74		ug/L		662856	
	As	75		ug/L		372	
	Se	77		ug/L		9363	
	Se	82		ug/L		-2	
	Kr	83		ug/L		138	
	Sr	88		ug/L		302	
	Y	89		ug/L		77	
	Mo	98		ug/L		162	
	Ag	107		ug/L		80	
	Cd	111		ug/L		27	
	Cd	114		ug/L		46	
>	In	115		ug/L		395317	
	Sn	120		ug/L		503	
	Sb	121		ug/L		670	
	Sb	123		ug/L		550	
	Ba	135		ug/L		45	
	Ba	137		ug/L		58	
	Ho	165		ug/L		58	
>	Lu	175		ug/L		705578	
	Tl	205		ug/L		16675	
	Pb	208		ug/L		519	
	Bi	209		ug/L		71	
	Th	232		ug/L		1017	
	U	238		ug/L		518	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	0.9999
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	0.9999
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9998
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45					
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115					
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175					
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Thursday, December 31, 2009 01:28:42
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\091230\Standard 1.237

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	10.000	ug/L	1.531	22405	0.006
	Be	9	10.000	ug/L	1.593	7019	0.002
	B	11	20.000	ug/L	5.490	17536	0.004
	Na	23	1000.000	ug/L	6.078	7840434	1.948
	Mg	24	1000.000	ug/L	5.956	5791685	1.443
	Al	27	1000.000	ug/L	11.970	8613771	2.148
	P	31	1000.000	ug/L	2.514	493670	0.120
	K	39	1000.000	ug/L	4.799	10048681	2.313
	Ca	43	1000.000	ug/L	0.380	22241	0.005
>	Sc	45		ug/L		4008237	4008237.440
	Ti	47	10.000	ug/L	1.462	11877	0.003
	V	51	10.000	ug/L	4.177	147519	0.031
	Cr	52	10.000	ug/L	2.660	98425	0.024
	Cr	53		ug/L		175177	0.000
	Mn	55	10.000	ug/L	2.281	147229	0.036
	Fe	57	1000.000	ug/L	0.743	293983	0.072
	Co	59	10.000	ug/L	2.772	111027	0.028
	Ni	60	10.000	ug/L	1.401	23910	0.006
	Cu	63		ug/L		57411	0.014
	Cu	65	10.000	ug/L	2.011	28941	-0.005
	Zn	66	10.000	ug/L	1.316	19110	0.028
	Zn	67		ug/L		27809	0.005
	Zn	68		ug/L		16588	0.022
>	Ge	74		ug/L		657480	657480.030
	As	75	10.000	ug/L	4.751	19653	0.029
	Se	77		ug/L		10622	0.002
	Se	82	10.000	ug/L	3.246	1913	0.003
	Kr	83		ug/L		130	-0.000
	Sr	88	10.000	ug/L	1.366	231964	0.582
	Y	89		ug/L		96	0.000
	Mo	98	10.000	ug/L	1.952	54796	0.137
	Ag	107	10.000	ug/L	1.080	93584	0.235
	Cd	111	10.000	ug/L	1.777	21953	0.055
	Cd	114		ug/L		53232	0.134
>	In	115		ug/L		398357	398356.531
	Sn	120	10.000	ug/L	2.525	98543	0.246
	Sb	121	10.000	ug/L	3.813	76658	0.191
	Sb	123		ug/L		61349	0.153
	Ba	135		ug/L		25248	0.036
	Ba	137	10.000	ug/L	1.507	44585	0.063
	Ho	165		ug/L		59	0.000
>	Lu	175		ug/L		705716	705716.170
	Tl	205	10.000	ug/L	2.250	349326	0.471
	Pb	208	10.000	ug/L	1.072	504727	0.714
	Bi	209		ug/L		102	0.000
	Th	232	10.000	ug/L	1.896	642326	0.909
	U	238	10.000	ug/L	1.254	670237	0.949

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45					
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115					
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175					
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Thursday, December 31, 2009 01:34:46
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\091230\Standard 2.238

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**100.007**	ug/L	1.222	219403	0.056
	Be	9	**100.002**	ug/L	2.406	68425	0.018
	B	11	**199.982**	ug/L	0.764	158515	0.040
	Na	23	**10008.400**	ug/L	2.332	83206774	21.288
	Mg	24	**9997.439**	ug/L	2.486	54976730	14.069
	Al	27	**9994.046**	ug/L	1.764	79174431	20.260
	P	31	**10002.474**	ug/L	1.199	4823998	1.231
	K	39	**10003.481**	ug/L	5.419	94414843	23.968
	Ca	43	**9999.534**	ug/L	1.242	212486	0.054
>	Sc	45		ug/L		3907611	3907610.621
	Ti	47	**99.992**	ug/L	3.015	110845	0.028
	V	51	**99.920**	ug/L	1.866	1145568	0.287
	Cr	52	**99.934**	ug/L	1.789	874203	0.223
	Cr	53		ug/L		249618	0.021
	Mn	55	**99.896**	ug/L	2.437	1288897	0.330
	Fe	57	**9987.890**	ug/L	3.212	2499218	0.638
	Co	59	**99.923**	ug/L	2.104	1003197	0.257
	Ni	60	**99.977**	ug/L	1.566	226470	0.058
	Cu	63		ug/L		521537	0.133
	Cu	65	**101.871**	ug/L	3.423	264920	0.056
	Zn	66	**99.979**	ug/L	2.277	177881	0.278
	Zn	67		ug/L		53293	0.046
	Zn	68		ug/L		136785	0.211
>	Ge	74		ug/L		638088	638087.851
	As	75	**100.009**	ug/L	1.300	189186	0.296
	Se	77		ug/L		22112	0.021
	Se	82	**99.985**	ug/L	0.085	18290	0.029
	Kr	83		ug/L		148	0.000
	Sr	88	**99.859**	ug/L	2.388	1949124	5.091
	Y	89		ug/L		276	0.001
	Mo	98	**99.998**	ug/L	0.890	524195	1.369
	Ag	107	**99.935**	ug/L	2.717	842927	2.202
	Cd	111	**99.984**	ug/L	0.543	207430	0.542
	Cd	114		ug/L		491453	1.284
>	In	115		ug/L		382830	382830.486
	Sn	120	**99.941**	ug/L	0.751	889401	2.322
	Sb	121	**99.987**	ug/L	1.265	721561	1.883
	Sb	123		ug/L		577543	1.507
	Ba	135		ug/L		243454	0.359
	Ba	137	**99.985**	ug/L	2.624	421713	0.622
	Ho	165		ug/L		61	0.000
>	Lu	175		ug/L		678406	678406.264
	Tl	205	**99.837**	ug/L	1.121	2762356	4.048
	Pb	208	**99.856**	ug/L	1.135	4232447	6.238
	Bi	209		ug/L		438	0.001
	Th	232	**99.802**	ug/L	1.419	5138707	7.574
	U	238	**99.836**	ug/L	1.821	5521125	8.138

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	0.9829
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	0.9999
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9998
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45					
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115					
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175					
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Corr. Coef.	Cu	65	Correlation Coefficient not >0.995

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Thursday, December 31, 2009 01:40:50
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\091230\QC Std 1.239

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**52.913**	ug/L	2.000	116414	0.030
	Be	9	**52.034**	ug/L	0.458	35707	0.009
	B	11	**107.702**	ug/L	0.287	86156	0.022
	Na	23	**4459.121**	ug/L	1.693	37188334	9.484
	Mg	24	**5036.696**	ug/L	2.181	27771750	7.088
	Al	27	**5303.940**	ug/L	6.579	42134907	10.752
	P	31	**5035.990**	ug/L	0.966	2441113	0.620
	K	39	**4751.054**	ug/L	4.655	45350401	11.383
	Ca	43	**5016.499**	ug/L	1.280	107060	0.027
>	Sc	45		ug/L		3917558	3917558.460
	Ti	47	**50.486**	ug/L	1.062	56340	0.014
	V	51	**52.624**	ug/L	2.593	615504	0.151
	Cr	52	**53.752**	ug/L	2.369	472839	0.120
	Cr	53		ug/L		198662	0.007
	Mn	55	**55.376**	ug/L	0.470	716968	0.183
	Fe	57	**5248.880**	ug/L	0.551	1320189	0.335
	Co	59	**52.610**	ug/L	0.844	529636	0.135
	Ni	60	**53.041**	ug/L	2.830	120523	0.031
	Cu	63		ug/L		280388	0.071
	Cu	65	**49.977**	ug/L	21.376	154198	0.027
	Zn	66	**52.169**	ug/L	2.633	94276	0.145
	Zn	67		ug/L		39427	0.023
	Zn	68		ug/L		73845	0.111
>	Ge	74		ug/L		646723	646722.741
	As	75	**49.224**	ug/L	1.247	94559	0.146
	Se	77		ug/L		14813	0.009
	Se	82	**50.411**	ug/L	1.308	9345	0.014
	Kr	83		ug/L		158	0.000
	Sr	88	**55.262**	ug/L	0.698	1101870	2.818
	Y	89		ug/L		136	0.000
	Mo	98	**49.873**	ug/L	1.812	267094	0.683
	Ag	107	**53.055**	ug/L	1.334	457114	1.169
	Cd	111	**51.369**	ug/L	0.494	108853	0.278
	Cd	114		ug/L		258925	0.662
>	In	115		ug/L		390984	390984.050
	Sn	120	**52.430**	ug/L	0.843	476761	1.218
	Sb	121	**51.927**	ug/L	3.005	382995	0.978
	Sb	123		ug/L		303639	0.775
	Ba	135		ug/L		126981	0.186
	Ba	137	**51.756**	ug/L	0.232	220002	0.322
	Ho	165		ug/L		96	0.000
>	Lu	175		ug/L		683530	683530.105
	Tl	205	**51.669**	ug/L	0.660	1448240	2.095
	Pb	208	**54.787**	ug/L	0.782	2340070	3.423
	Bi	209		ug/L		685	0.001
	Th	232	**53.155**	ug/L	2.378	2758213	4.034
	U	238	**53.748**	ug/L	0.067	2995330	4.381

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	0.9829
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	0.9999
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9998
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7	105.825				
	Be	9	104.067				
	B	11	107.702				
	Na	23	89.182				
	Mg	24	100.734				
	Al	27	105.029				
	P	31	100.720				
	K	39	95.021				
	Ca	43	100.330				
>	Sc	45		99.7			
	Ti	47	100.973				
	V	51	105.247				
	Cr	52	107.505				
	Cr	53					
	Mn	55	110.752				
	Fe	57	104.978				
	Co	59	105.221				
	Ni	60	106.081				
	Cu	63					
	Cu	65	99.954				
	Zn	66	104.338				
	Zn	67					
	Zn	68					
>	Ge	74		97.6			
	As	75	98.448				
	Se	77					
	Se	82	100.821				
	Kr	83					
	Sr	88	110.524				
	Y	89					
	Mo	98	99.746				
	Ag	107	106.109				
	Cd	111	102.738				
	Cd	114					
>	In	115		98.9			
	Sn	120	104.859				
	Sb	121	103.853				
	Sb	123					
	Ba	135					
	Ba	137	103.512				
	Ho	165					
>	Lu	175		96.9			
	Tl	205	103.339				
	Pb	208	109.575				
	Bi	209					
	Th	232	106.311				
	U	238	107.495				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 1	Na	23	ICV is out of limits (+/- 10%)
QC Std 1	Mn	55	ICV is out of limits (+/- 10%)
QC Std 1	Sr	88	ICV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Thursday, December 31, 2009 01:46:58
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\091230\QC Std 2.240

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.008**	ug/L	37.385	76	0.000
	Be	9	**0.003**	ug/L	311.624	19	0.000
	B	11	**2.450**	ug/L	19.259	3219	0.000
	Na	23	**1.250**	ug/L	86.214	45073	0.003
	Mg	24	**0.052**	ug/L	885.036	4668	0.000
	Al	27	**0.270**	ug/L	111.998	14341	0.001
	P	31	**-0.174**	ug/L	155.100	12327	-0.000
	K	39	**-1.820**	ug/L	290.324	756920	-0.004
	Ca	43	**-1.223**	ug/L	94.223	351	-0.000
>	Sc	45		ug/L		3985691	3985691.299
	Ti	47	**-0.015**	ug/L	171.041	441	-0.000
	V	51	**-0.226**	ug/L	134.969	20248	-0.001
	Cr	52	**0.011**	ug/L	484.253	3201	0.000
	Cr	53		ug/L		148710	-0.006
	Mn	55	**-0.006**	ug/L	27.649	1193	-0.000
	Fe	57	**-1.175**	ug/L	14.755	6618	-0.000
	Co	59	**0.003**	ug/L	15.604	146	0.000
	Ni	60	**0.003**	ug/L	219.419	154	0.000
	Cu	63		ug/L		427	-0.000
	Cu	65	**-21.798**	ug/L	0.044	211	-0.012
	Zn	66	**0.001**	ug/L	892.266	449	0.000
	Zn	67		ug/L		22850	-0.003
	Zn	68		ug/L		2213	-0.000
>	Ge	74		ug/L		658745	658744.791
	As	75	**0.017**	ug/L	489.074	404	0.000
	Se	77		ug/L		7939	-0.002
	Se	82	**0.131**	ug/L	69.751	23	0.000
	Kr	83		ug/L		129	-0.000
	Sr	88	**0.002**	ug/L	57.659	355	0.000
	Y	89		ug/L		69	-0.000
	Mo	98	**0.058**	ug/L	30.983	484	0.001
	Ag	107	**0.004**	ug/L	51.621	117	0.000
	Cd	111	**0.006**	ug/L	83.624	40	0.000
	Cd	114		ug/L		55	0.000
>	In	115		ug/L		401911	401911.082
	Sn	120	**0.112**	ug/L	12.311	1553	0.003
	Sb	121	**0.503**	ug/L	18.186	4488	0.009
	Sb	123		ug/L		3596	0.008
	Ba	135		ug/L		45	0.000
	Ba	137	**0.005**	ug/L	43.256	78	0.000
	Ho	165		ug/L		53	-0.000
>	Lu	175		ug/L		696884	696883.879
	Tl	205	**0.346**	ug/L	29.028	26235	0.014
	Pb	208	**0.004**	ug/L	9.413	666	0.000
	Bi	209		ug/L		71	0.000
	Th	232	**0.062**	ug/L	20.499	4288	0.005
	U	238	**0.008**	ug/L	23.795	971	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	0.9829
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	0.9999
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9998
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		101.4			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		99.4			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		101.7			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		98.8			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 2	Cu	65	ICB is out of limits (+/-PQL)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Thursday, December 31, 2009 01:53:05
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\091230\QC Std 3.241

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**11.502**	**ug/L**	0.848	25718	0.006
	Be	9	**0.565**	**ug/L**	9.330	410	0.000
	B	11	**17.098**	**ug/L**	0.955	14925	0.003
	Na	23	**271.227**	**ug/L**	1.711	2326924	0.577
	Mg	24	**16.249**	**ug/L**	9.003	95319	0.023
	Al	27	**35.201**	**ug/L**	7.544	295706	0.071
	P	31	**54.370**	**ug/L**	5.194	38971	0.007
	K	39	**282.346**	**ug/L**	4.645	3460534	0.676
	Ca	43	**216.848**	**ug/L**	1.272	5056	0.001
>	Sc	45		**ug/L**		3974263	3974263.332
	Ti	47	**8.775**	**ug/L**	1.834	10311	0.002
	V	51	**11.695**	**ug/L**	3.474	156446	0.034
	Cr	52	**11.481**	**ug/L**	2.801	104883	0.026
	Cr	53		**ug/L**		164118	-0.002
	Mn	55	**6.217**	**ug/L**	2.622	82767	0.021
	Fe	57	**121.284**	**ug/L**	4.275	37676	0.008
	Co	59	**1.165**	**ug/L**	2.820	12004	0.003
	Ni	60	**2.238**	**ug/L**	0.561	5300	0.001
	Cu	63		**ug/L**		6877	0.001
	Cu	65	**-20.298**	**ug/L**	0.149	3475	-0.011
	Zn	66	**11.472**	**ug/L**	2.382	21208	0.032
	Zn	67		**ug/L**		27010	0.004
	Zn	68		**ug/L**		17552	0.023
>	Ge	74		**ug/L**		650795	650795.129
	As	75	**5.575**	**ug/L**	3.121	11102	0.016
	Se	77		**ug/L**		9026	-0.000
	Se	82	**5.745**	**ug/L**	1.773	1070	0.002
	Kr	83		**ug/L**		125	-0.000
	Sr	88	**12.488**	**ug/L**	1.603	256411	0.637
	Y	89		**ug/L**		70	-0.000
	Mo	98	**0.540**	**ug/L**	0.659	3138	0.007
	Ag	107	**1.115**	**ug/L**	2.065	9968	0.025
	Cd	111	**1.095**	**ug/L**	0.960	2415	0.006
	Cd	114		**ug/L**		5778	0.014
>	In	115		**ug/L**		402252	402251.917
	Sn	120	**5.671**	**ug/L**	1.679	53510	0.132
	Sb	121	**3.424**	**ug/L**	3.207	26619	0.064
	Sb	123		**ug/L**		21086	0.051
	Ba	135		**ug/L**		5514	0.008
	Ba	137	**2.179**	**ug/L**	1.373	9625	0.014
	Ho	165		**ug/L**		66	0.000
>	Lu	175		**ug/L**		706177	706176.533
	Tl	205	**1.123**	**ug/L**	1.533	48845	0.046
	Pb	208	**2.489**	**ug/L**	1.289	110303	0.155
	Bi	209		**ug/L**		97	0.000
	Th	232	**1.336**	**ug/L**	0.238	72628	0.101
	U	238	**0.275**	**ug/L**	3.133	16322	0.022

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	0.9829
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	0.9999
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9998
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7	115.023				
	Be	9	113.059				
	B	11	113.989				
	Na	23	108.491				
	Mg	24	108.324				
	Al	27	117.338				
	P	31	108.739				
	K	39	94.115				
	Ca	43	108.424				
>	Sc	45		101.1			
	Ti	47	87.751				
	V	51	116.947				
	Cr	52	114.815				
	Cr	53					
	Mn	55	124.342				
	Fe	57	121.284				
	Co	59	116.463				
	Ni	60	111.909				
	Cu	63					
	Cu	65	-2029.841				
	Zn	66	114.722				
	Zn	67					
	Zn	68					
>	Ge	74		98.2			
	As	75	111.506				
	Se	77					
	Se	82	114.908				
	Kr	83					
	Sr	88	124.878				
	Y	89					
	Mo	98	107.989				
	Ag	107	111.547				
	Cd	111	109.546				
	Cd	114					
>	In	115		101.8			
	Sn	120	113.423				
	Sb	121	114.141				
	Sb	123					
	Ba	135					
	Ba	137	108.956				
	Ho	165					
>	Lu	175		100.1			
	Tl	205	112.305				
	Pb	208	124.430				
	Bi	209					
	Th	232	133.625				
	U	238	137.272				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 3	Cu	65	CRDL is out of limits
QC Std 3	Th	232	CRDL is out of limits
QC Std 3	U	238	CRDL is out of limits

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Thursday, December 31, 2009 01:59:11
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\091230\QC Std 4.242

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.217**	**ug/L**	2.069	481	0.000
	Be	9	**0.060**	**ug/L**	14.455	52	0.000
	B	11	**1.335**	**ug/L**	8.948	2052	0.000
	Na	23	**95030.906**	**ug/L**	3.263	711842442	202.128
	Mg	24	**95192.035**	**ug/L**	0.866	471741909	133.963
	Al	27	**101624.357**	**ug/L**	4.619	725700290	206.017
	P	31	**95203.178**	**ug/L**	1.414	41289565	11.721
	K	39	**91644.645**	**ug/L**	6.203	774084423	219.577
	Ca	43	**88549.557**	**ug/L**	1.554	1692903	0.481
>	Sc	45		**ug/L**		3521429	3521428.569
	Ti	47	**1354.227**	**ug/L**	0.639	1347994	0.383
	V	51	**-0.071**	**ug/L**	258.890	19456	-0.000
	Cr	52	**2.519**	**ug/L**	4.934	22539	0.006
	Cr	53		**ug/L**		117757	-0.010
	Mn	55	**6.643**	**ug/L**	0.578	78298	0.022
	Fe	57	**101512.117**	**ug/L**	1.337	22836169	6.484
	Co	59	**0.375**	**ug/L**	5.617	3491	0.001
	Ni	60	**3.471**	**ug/L**	3.162	7210	0.002
	Cu	63		**ug/L**		10884	0.003
	Cu	65	**-17.958**	**ug/L**	0.088	7594	-0.010
	Zn	66	**3.961**	**ug/L**	2.468	6720	0.011
	Zn	67		**ug/L**		19693	-0.003
	Zn	68		**ug/L**		2932	0.001
>	Ge	74		**ug/L**		574666	574666.440
	As	75	**-0.284**	**ug/L**	85.116	-163	-0.001
	Se	77		**ug/L**		9866	0.003
	Se	82	**-1.119**	**ug/L**	18.948	-186	-0.000
	Kr	83		**ug/L**		470	0.001
	Sr	88	**1.348**	**ug/L**	0.560	23905	0.069
	Y	89		**ug/L**		714	0.002
	Mo	98	**2079.586**	**ug/L**	1.194	9792844	28.466
	Ag	107	**0.109**	**ug/L**	6.492	896	0.002
	Cd	111	**0.640**	**ug/L**	22.091	1216	0.003
	Cd	114		**ug/L**		17598	0.051
>	In	115		**ug/L**		343993	343992.591
	Sn	120	**0.173**	**ug/L**	8.717	1820	0.004
	Sb	121	**0.165**	**ug/L**	16.782	1654	0.003
	Sb	123		**ug/L**		1296	0.002
	Ba	135		**ug/L**		1549	0.003
	Ba	137	**0.728**	**ug/L**	2.348	2667	0.005
	Ho	165		**ug/L**		1523	0.003
>	Lu	175		**ug/L**		579014	579014.104
	Tl	205	**-0.152**	**ug/L**	5.764	10117	-0.006
	Pb	208	**0.196**	**ug/L**	1.078	7512	0.012
	Bi	209		**ug/L**		1423	0.002
	Th	232	**0.052**	**ug/L**	32.972	3133	0.004
	U	238	**-0.005**	**ug/L**	10.059	201	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	0.9829
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	0.9999
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9998
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23	95.031				
	Mg	24	95.192				
	Al	27	101.624				
	P	31	95.203				
	K	39	91.645				
	Ca	43	88.550				
>	Sc	45			89.6		
	Ti	47	67.711				
	V	51					
	Cr	52	68.071				
	Cr	53					
	Mn	55	114.534				
	Fe	57	101.512				
	Co	59	149.879				
	Ni	60	128.550				
	Cu	63					
	Cu	65	-619.252				
	Zn	66	110.016				
	Zn	67					
	Zn	68					
>	Ge	74			86.7		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88	112.331				
	Y	89					
	Mo	98	103.979				
	Ag	107					
	Cd	111	159.921				
	Cd	114					
>	In	115			87.0		
	Sn	120					
	Sb	121	165.394				
	Sb	123					
	Ba	135					
	Ba	137	108.621				
	Ho	165					
>	Lu	175			82.1		
	Tl	205					
	Pb	208	97.942				
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 4	Ti	47	ICSA is out of limits
QC Std 4	Cu	65	ICSA is out of limits

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Thursday, December 31, 2009 02:05:17
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\091230\QC Std 5.243

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**23.162**	**ug/L**	1.042	46151	0.013
	Be	9	**19.712**	**ug/L**	2.423	12251	0.003
	B	11	**19.973**	**ug/L**	1.525	15367	0.004
	Na	23	**94099.428**	**ug/L**	1.628	709634915	200.147
	Mg	24	**93860.845**	**ug/L**	2.159	468341286	132.090
	Al	27	**97957.091**	**ug/L**	4.023	704142895	198.583
	P	31	**94728.270**	**ug/L**	0.827	41362075	11.663
	K	39	**92886.050**	**ug/L**	2.766	789722492	222.552
	Ca	43	**87999.210**	**ug/L**	0.594	1694054	0.478
>	Sc	45		**ug/L**		3545517	3545517.422
	Ti	47	**1337.818**	**ug/L**	0.172	1340800	0.378
	V	51	**21.713**	**ug/L**	1.184	241790	0.062
	Cr	52	**24.175**	**ug/L**	0.296	193991	0.054
	Cr	53		**ug/L**		133717	-0.006
	Mn	55	**29.059**	**ug/L**	0.722	341035	0.096
	Fe	57	**101972.326**	**ug/L**	1.454	23098468	6.513
	Co	59	**21.476**	**ug/L**	1.269	195726	0.055
	Ni	60	**23.135**	**ug/L**	1.909	47656	0.013
	Cu	63		**ug/L**		102050	0.028
	Cu	65	**5.041**	**ug/L**	0.654	52322	0.003
	Zn	66	**21.646**	**ug/L**	0.449	35855	0.060
	Zn	67		**ug/L**		23764	0.003
	Zn	68		**ug/L**		25725	0.040
>	Ge	74		**ug/L**		588799	588798.708
	As	75	**20.609**	**ug/L**	3.356	36240	0.061
	Se	77		**ug/L**		12387	0.007
	Se	82	**18.355**	**ug/L**	1.845	3097	0.005
	Kr	83		**ug/L**		472	0.001
	Sr	88	**24.773**	**ug/L**	1.402	435587	1.263
	Y	89		**ug/L**		732	0.002
	Mo	98	**2100.611**	**ug/L**	0.976	9910781	28.754
	Ag	107	**20.054**	**ug/L**	1.025	152372	0.442
	Cd	111	**19.847**	**ug/L**	1.468	37090	0.108
	Cd	114		**ug/L**		103264	0.299
>	In	115		**ug/L**		344673	344672.759
	Sn	120	**21.164**	**ug/L**	0.850	169922	0.492
	Sb	121	**21.937**	**ug/L**	1.095	142971	0.413
	Sb	123		**ug/L**		113550	0.328
	Ba	135		**ug/L**		44764	0.077
	Ba	137	**21.980**	**ug/L**	1.223	78983	0.137
	Ho	165		**ug/L**		1511	0.003
>	Lu	175		**ug/L**		577652	577652.009
	Tl	205	**20.358**	**ug/L**	2.953	490474	0.826
	Pb	208	**21.750**	**ug/L**	1.071	785283	1.359
	Bi	209		**ug/L**		1988	0.003
	Th	232	**23.192**	**ug/L**	1.953	1017359	1.760
	U	238	**23.075**	**ug/L**	0.429	1086971	1.881

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	0.9829
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	0.9999
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9998
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7	115.811				
	Be	9	98.558				
	B	11	99.866				
	Na	23	94.099				
	Mg	24	93.861				
	Al	27	97.957				
	P	31	94.728				
	K	39	92.886				
	Ca	43	87.999				
>	Sc	45		90.2			
	Ti	47	66.891				
	V	51	108.567				
	Cr	52	102.003				
	Cr	53					
	Mn	55	112.631				
	Fe	57	101.972				
	Co	59	106.055				
	Ni	60	101.917				
	Cu	63					
	Cu	65	22.015				
	Zn	66	91.722				
	Zn	67					
	Zn	68					
>	Ge	74		88.8			
	As	75	103.045				
	Se	77					
	Se	82	91.777				
	Kr	83					
	Sr	88	116.852				
	Y	89					
	Mo	98	105.031				
	Ag	107	100.272				
	Cd	111	97.291				
	Cd	114					
>	In	115		87.2			
	Sn	120	105.820				
	Sb	121	109.138				
	Sb	123					
	Ba	135					
	Ba	137	106.336				
	Ho	165					
>	Lu	175		81.9			
	Tl	205	101.792				
	Pb	208	107.671				
	Bi	209					
	Th	232	115.958				
	U	238	115.374				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 5	Ti	47	ICSAB is out of limits
QC Std 5	Cu	65	ICSAB is out of limits

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Thursday, December 31, 2009 02:11:25
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\091230\QC Std 6.244

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**55.904**	ug/L	2.784	123828	0.031
	Be	9	**51.698**	ug/L	3.005	35711	0.009
	B	11	**101.495**	ug/L	3.356	81803	0.020
	Na	23	**4834.859**	ug/L	15.406	40584529	10.284
	Mg	24	**4693.033**	ug/L	3.754	26071439	6.604
	Al	27	**4952.518**	ug/L	6.165	39587215	10.040
	P	31	**4912.952**	ug/L	2.339	2397769	0.605
	K	39	**4574.491**	ug/L	10.135	43982069	10.960
	Ca	43	**4887.437**	ug/L	1.229	105031	0.027
>	Sc	45		ug/L		3944933	3944933.010
	Ti	47	**49.252**	ug/L	3.670	55341	0.014
	V	51	**51.320**	ug/L	3.289	604805	0.148
	Cr	52	**52.063**	ug/L	2.329	461172	0.116
	Cr	53		ug/L		192681	0.006
	Mn	55	**53.822**	ug/L	2.332	701533	0.178
	Fe	57	**5210.142**	ug/L	2.543	1319243	0.333
	Co	59	**51.904**	ug/L	2.403	526012	0.133
	Ni	60	**51.911**	ug/L	1.499	118770	0.030
	Cu	63		ug/L		277723	0.070
	Cu	65	**42.337**	ug/L	3.544	138784	0.023
	Zn	66	**51.594**	ug/L	1.288	94030	0.144
	Zn	67		ug/L		37129	0.019
	Zn	68		ug/L		72775	0.108
>	Ge	74		ug/L		652058	652058.079
	As	75	**49.440**	ug/L	1.836	95768	0.146
	Se	77		ug/L		14975	0.009
	Se	82	**49.688**	ug/L	1.920	9287	0.014
	Kr	83		ug/L		152	0.000
	Sr	88	**55.195**	ug/L	2.095	1099702	2.814
	Y	89		ug/L		281	0.001
	Mo	98	**50.241**	ug/L	0.762	268852	0.688
	Ag	107	**52.536**	ug/L	1.600	452327	1.158
	Cd	111	**50.875**	ug/L	0.064	107727	0.276
	Cd	114		ug/L		259720	0.665
>	In	115		ug/L		390690	390689.738
	Sn	120	**51.318**	ug/L	1.677	466336	1.192
	Sb	121	**50.651**	ug/L	3.025	373324	0.954
	Sb	123		ug/L		297447	0.760
	Ba	135		ug/L		124586	0.182
	Ba	137	**51.373**	ug/L	1.883	218794	0.319
	Ho	165		ug/L		111	0.000
>	Lu	175		ug/L		684947	684947.231
	Tl	205	**50.318**	ug/L	1.385	1413565	2.040
	Pb	208	**53.255**	ug/L	1.912	2279021	3.327
	Bi	209		ug/L		511	0.001
	Th	232	**50.889**	ug/L	0.133	2646126	3.862
	U	238	**51.864**	ug/L	1.566	2896133	4.228

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	0.9999
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	0.9829
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	0.9999
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9999
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9998
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7	111.807				
	Be	9	103.397				
	B	11	101.495				
	Na	23	96.697				
	Mg	24	93.861				
	Al	27	98.070				
	P	31	98.259				
	K	39	91.490				
	Ca	43	97.749				
>	Sc	45		100.4			
	Ti	47	98.504				
	V	51	102.639				
	Cr	52	104.125				
	Cr	53					
	Mn	55	107.644				
	Fe	57	104.203				
	Co	59	103.808				
	Ni	60	103.823				
	Cu	63					
	Cu	65	84.675				
	Zn	66	103.188				
	Zn	67					
	Zn	68					
>	Ge	74		98.4			
	As	75	98.880				
	Se	77					
	Se	82	99.376				
	Kr	83					
	Sr	88	110.389				
	Y	89					
	Mo	98	100.483				
	Ag	107	105.071				
	Cd	111	101.750				
	Cd	114					
>	In	115		98.8			
	Sn	120	102.636				
	Sb	121	101.302				
	Sb	123					
	Ba	135					
	Ba	137	102.746				
	Ho	165					
>	Lu	175		97.1			
	Tl	205	100.637				
	Pb	208	106.511				
	Bi	209					
	Th	232	101.777				
	U	238	103.729				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 6	Li	7	CCV is out of limits (+/- 10%)
QC Std 6	Cu	65	CCV is out of limits (+/- 10%)
QC Std 6	Sr	88	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Thursday, December 31, 2009 02:17:33
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\091230\QC Std 7.245

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.015**	ug/L	26.776	93	0.000
	Be	9	**-0.002**	ug/L	393.721	16	-0.000
	B	11	**1.365**	ug/L	30.695	2373	0.000
	Na	23	**1.977**	ug/L	85.823	51765	0.004
	Mg	24	**2.107**	ug/L	60.495	16344	0.003
	Al	27	**2.467**	ug/L	66.129	32374	0.005
	P	31	**-1.028**	ug/L	77.888	12033	-0.000
	K	39	**-1.749**	ug/L	263.276	765330	-0.004
	Ca	43	**1.727**	ug/L	165.840	419	0.000
>	Sc	45		ug/L		4027288	4027288.224
	Ti	47	**0.144**	ug/L	6.781	627	0.000
	V	51	**0.067**	ug/L	147.303	23844	0.000
	Cr	52	**0.088**	ug/L	97.618	3924	0.000
	Cr	53		ug/L		146534	-0.007
	Mn	55	**-0.001**	ug/L	501.773	1261	-0.000
	Fe	57	**2.371**	ug/L	43.019	7597	0.000
	Co	59	**0.006**	ug/L	23.790	180	0.000
	Ni	60	**0.002**	ug/L	268.504	153	0.000
	Cu	63		ug/L		496	-0.000
	Cu	65	**-21.759**	ug/L	0.033	299	-0.012
	Zn	66	**-0.002**	ug/L	262.863	454	-0.000
	Zn	67		ug/L		21656	-0.006
	Zn	68		ug/L		1938	-0.001
>	Ge	74		ug/L		673579	673579.137
	As	75	**0.025**	ug/L	386.666	427	0.000
	Se	77		ug/L		8019	-0.002
	Se	82	**-0.139**	ug/L	63.116	-29	-0.000
	Kr	83		ug/L		161	0.000
	Sr	88	**0.004**	ug/L	61.132	392	0.000
	Y	89		ug/L		72	-0.000
	Mo	98	**0.144**	ug/L	9.060	969	0.002
	Ag	107	**0.006**	ug/L	27.349	134	0.000
	Cd	111	**0.003**	ug/L	297.890	33	0.000
	Cd	114		ug/L		73	0.000
>	In	115		ug/L		405786	405786.361
	Sn	120	**0.097**	ug/L	13.016	1432	0.002
	Sb	121	**0.298**	ug/L	19.123	2966	0.006
	Sb	123		ug/L		2381	0.004
	Ba	135		ug/L		57	0.000
	Ba	137	**0.006**	ug/L	10.722	82	0.000
	Ho	165		ug/L		58	0.000
>	Lu	175		ug/L		691056	691056.078
	Tl	205	**0.279**	ug/L	37.710	24164	0.011
	Pb	208	**0.006**	ug/L	42.424	775	0.000
	Bi	209		ug/L		73	0.000
	Th	232	**0.072**	ug/L	16.617	4787	0.005
	U	238	**0.009**	ug/L	15.705	1020	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	0.9829
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	0.9999
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9998
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		102.5			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		101.6			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		102.6			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		97.9			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 7	Cu	65	CCB is out of limits (+-/ PQL)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 10
Sample Date/Time: Thursday, December 31, 2009 02:23:40
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\091230\QC Std 10.246

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**1046.955**	ug/L	8.417	2087979	0.588
	Be	9	**987.230**	ug/L	0.822	614029	0.173
	B	11	**0.809**	ug/L	6.266	1694	0.000
	Na	23	**48088.313**	ug/L	5.267	363392850	102.283
	Mg	24	**50261.099**	ug/L	3.369	251268217	70.732
	Al	27	**50589.452**	ug/L	4.137	364319967	102.557
	P	31	**24038.871**	ug/L	1.834	10524010	2.960
	K	39	**46290.513**	ug/L	1.921	394665770	110.910
	Ca	43	**46157.769**	ug/L	1.445	890401	0.251
>	Sc	45		ug/L		3552264	3552264.053
	Ti	47	**43.075**	ug/L	1.093	43649	0.012
	V	51	**980.867**	ug/L	2.298	10044362	2.822
	Cr	52	**958.691**	ug/L	0.830	7600584	2.139
	Cr	53		ug/L		1023549	0.245
	Mn	55	**985.859**	ug/L	0.812	11554672	3.253
	Fe	57	**49881.871**	ug/L	1.452	11324061	3.186
	Co	59	**901.059**	ug/L	0.886	8223600	2.315
	Ni	60	**834.155**	ug/L	1.431	1716856	0.483
	Cu	63		ug/L		4216401	1.187
	Cu	65	**967.939**	ug/L	1.047	1926371	0.530
	Zn	66	**2375.550**	ug/L	3.186	3843309	6.608
	Zn	67		ug/L		604772	1.002
	Zn	68		ug/L		2881356	4.951
>	Ge	74		ug/L		581753	581753.075
	As	75	**840.398**	ug/L	0.246	1447123	2.487
	Se	77		ug/L		69154	0.105
	Se	82	**466.476**	ug/L	2.070	77793	0.134
	Kr	83		ug/L		259	0.000
	Sr	88	**1089.552**	ug/L	2.591	18385442	55.551
	Y	89		ug/L		753	0.002
	Mo	98	**1113.436**	ug/L	3.651	5043567	15.241
	Ag	107	**234.208**	ug/L	2.222	1708180	5.161
	Cd	111	**892.779**	ug/L	2.750	1601025	4.838
	Cd	114		ug/L		4224232	12.766
>	In	115		ug/L		331105	331105.191
	Sn	120	**987.917**	ug/L	3.284	7596334	22.954
	Sb	121	**234.867**	ug/L	4.504	1464005	4.423
	Sb	123		ug/L		1184644	3.579
	Ba	135		ug/L		1845442	3.056
	Ba	137	**983.120**	ug/L	1.537	3690756	6.112
	Ho	165		ug/L		538	0.001
>	Lu	175		ug/L		603812	603812.460
	Tl	205	**498.656**	ug/L	1.105	12223434	20.220
	Pb	208	**4980.635**	ug/L	1.089	187883951	311.162
	Bi	209		ug/L		5348	0.009
	Th	232	**2571.953**	ug/L	1.147	117853695	195.180
	U	238	**5182.571**	ug/L	1.441	255097501	422.474

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	0.9829
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	0.9999
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9998
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7	104.695				
	Be	9	98.723				
	B	11					
	Na	23	96.177				
	Mg	24	100.522				
	Al	27	101.179				
	P	31	96.155				
	K	39	92.581				
	Ca	43	92.316				
>	Sc	45		90.4			
	Ti	47					
	V	51	98.087				
	Cr	52	95.869				
	Cr	53					
	Mn	55	98.586				
	Fe	57	99.764				
	Co	59	90.106				
	Ni	60	83.415				
	Cu	63					
	Cu	65	96.794				
	Zn	66	95.022				
	Zn	67					
	Zn	68					
>	Ge	74		87.8			
	As	75	84.040				
	Se	77					
	Se	82	93.295				
	Kr	83					
	Sr	88	108.955				
	Y	89					
	Mo	98	111.344				
	Ag	107	93.683				
	Cd	111	89.278				
	Cd	114					
>	In	115		83.8			
	Sn	120	98.792				
	Sb	121	93.947				
	Sb	123					
	Ba	135					
	Ba	137	98.312				
	Ho	165					
>	Lu	175		85.6			
	Tl	205	99.731				
	Pb	208	99.613				
	Bi	209					
	Th	232	102.878				
	U	238	103.651				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 10	Ni	60	LRS is out of limits (+/- 10%)
QC Std 10	As	75	LRS is out of limits (+/- 10%)
QC Std 10	Mo	98	LRS is out of limits (+/- 10%)
QC Std 10	Cd	111	LRS is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 11
Sample Date/Time: Thursday, December 31, 2009 02:29:44
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\091230\QC Std 11.247

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**54.238**	**ug/L**	3.270	119983	0.030
	Be	9	**52.347**	**ug/L**	2.653	36122	0.009
	B	11	**102.543**	**ug/L**	1.918	82577	0.021
	Na	23	**4960.744**	**ug/L**	4.481	41603387	10.551
	Mg	24	**4869.236**	**ug/L**	9.129	27016056	6.852
	Al	27	**5422.782**	**ug/L**	4.245	43310765	10.993
	P	31	**4991.921**	**ug/L**	0.749	2433792	0.615
	K	39	**4972.316**	**ug/L**	3.429	47696111	11.913
	Ca	43	**4914.079**	**ug/L**	1.790	105467	0.027
>	Sc	45		**ug/L**		3940214	3940214.124
	Ti	47	**48.411**	**ug/L**	1.806	54363	0.014
	V	51	**51.356**	**ug/L**	1.077	604729	0.148
	Cr	52	**52.215**	**ug/L**	0.416	462077	0.116
	Cr	53		**ug/L**		194217	0.006
	Mn	55	**54.292**	**ug/L**	1.697	707029	0.179
	Fe	57	**5205.254**	**ug/L**	0.705	1316754	0.332
	Co	59	**52.224**	**ug/L**	1.163	528779	0.134
	Ni	60	**52.175**	**ug/L**	2.599	119243	0.030
	Cu	63		**ug/L**		278595	0.070
	Cu	65	**42.611**	**ug/L**	2.498	139231	0.023
	Zn	66	**53.405**	**ug/L**	1.887	95026	0.149
	Zn	67		**ug/L**		38188	0.022
	Zn	68		**ug/L**		73076	0.111
>	Ge	74		**ug/L**		636785	636785.107
	As	75	**49.993**	**ug/L**	0.252	94562	0.148
	Se	77		**ug/L**		14564	0.009
	Se	82	**50.502**	**ug/L**	2.255	9219	0.014
	Kr	83		**ug/L**		141	0.000
	Sr	88	**55.967**	**ug/L**	1.149	1093595	2.853
	Y	89		**ug/L**		129	0.000
	Mo	98	**51.457**	**ug/L**	0.739	270039	0.704
	Ag	107	**53.538**	**ug/L**	0.961	452036	1.180
	Cd	111	**51.556**	**ug/L**	0.812	107057	0.279
	Cd	114		**ug/L**		259006	0.676
>	In	115		**ug/L**		383147	383147.180
	Sn	120	**53.909**	**ug/L**	1.436	480376	1.253
	Sb	121	**53.998**	**ug/L**	1.738	390270	1.017
	Sb	123		**ug/L**		310569	0.809
	Ba	135		**ug/L**		123732	0.182
	Ba	137	**50.608**	**ug/L**	0.918	213885	0.315
	Ho	165		**ug/L**		93	0.000
>	Lu	175		**ug/L**		679603	679603.125
	Tl	205	**51.566**	**ug/L**	0.879	1437000	2.091
	Pb	208	**54.450**	**ug/L**	0.421	2312334	3.402
	Bi	209		**ug/L**		669	0.001
	Th	232	**53.658**	**ug/L**	2.973	2767794	4.072
	U	238	**54.414**	**ug/L**	0.568	3014953	4.436

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	0.9999
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	0.9829
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	0.9999
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9999
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9998
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈	Li	7	108.475				
|	Be	9	104.694				
|	B	11	102.543				
|	Na	23	99.215				
|	Mg	24	97.385				
|	Al	27	107.382				
|	P	31	99.838				
|	K	39	99.446				
|	Ca	43	98.282				
|>	Sc	45		100.2			
|	Ti	47	96.822				
|	V	51	102.712				
|	Cr	52	104.430				
|	Cr	53					
|	Mn	55	108.584				
|	Fe	57	104.105				
|	Co	59	104.447				
|	Ni	60	104.350				
|	Cu	63					
⌊	Cu	65	85.221				
⌈	Zn	66	106.809				
|	Zn	67					
|	Zn	68					
|>	Ge	74		96.1			
|	As	75	99.986				
|	Se	77					
|	Se	82	101.005				
⌊	Kr	83					
⌈	Sr	88	111.934				
|	Y	89					
|	Mo	98	102.913				
|	Ag	107	107.075				
|	Cd	111	103.112				
|	Cd	114					
|>	In	115		96.9			
|	Sn	120	107.817				
|	Sb	121	107.997				
⌊	Sb	123					
⌈	Ba	135					
|	Ba	137	101.217				
|	Ho	165					
|>	Lu	175		96.3			
|	Tl	205	103.131				
|	Pb	208	108.901				
|	Bi	209					
|	Th	232	107.316				
⌊	U	238	108.829				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 11	Cu	65	CCV is out of limits (+/- 10%)
QC Std 11	Sr	88	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 12
Sample Date/Time: Thursday, December 31, 2009 02:35:52
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\091230\QC Std 12.248

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	0.072	ug/L	18.411	222	0.000
	Be	9	0.015	ug/L	113.008	27	0.000
	B	11	1.345	ug/L	33.361	2357	0.000
	Na	23	1.063	ug/L	112.710	44070	0.002
	Mg	24	0.742	ug/L	94.478	8670	0.001
	Al	27	1.105	ug/L	43.653	21350	0.002
	P	31	-2.154	ug/L	62.061	11479	-0.000
	K	39	-1.726	ug/L	208.721	766376	-0.004
	Ca	43	0.937	ug/L	27.840	403	0.000
>	Sc	45		ug/L		4030640	4030639.635
	Ti	47	0.016	ug/L	141.765	481	0.000
	V	51	-0.268	ug/L	132.039	19957	-0.001
	Cr	52	0.182	ug/L	59.369	4779	0.000
	Cr	53		ug/L		146607	-0.007
	Mn	55	0.013	ug/L	45.305	1458	0.000
	Fe	57	1.017	ug/L	45.533	7257	0.000
	Co	59	0.017	ug/L	16.361	294	0.000
	Ni	60	0.013	ug/L	25.632	179	0.000
	Cu	63		ug/L		684	-0.000
	Cu	65	-21.739	ug/L	0.019	343	-0.012
	Zn	66	0.014	ug/L	122.611	469	0.000
	Zn	67		ug/L		21885	-0.004
	Zn	68		ug/L		2083	-0.000
>	Ge	74		ug/L		653998	653998.440
	As	75	0.217	ug/L	41.487	786	0.001
	Se	77		ug/L		7810	-0.002
	Se	82	0.017	ug/L	402.235	1	0.000
	Kr	83		ug/L		154	0.000
	Sr	88	0.016	ug/L	7.036	635	0.001
	Y	89		ug/L		68	-0.000
	Mo	98	0.172	ug/L	10.141	1104	0.002
	Ag	107	0.014	ug/L	27.157	202	0.000
	Cd	111	0.019	ug/L	50.257	68	0.000
	Cd	114		ug/L		126	0.000
>	In	115		ug/L		400428	400428.357
	Sn	120	0.485	ug/L	6.922	5019	0.011
	Sb	121	0.886	ug/L	10.709	7360	0.017
	Sb	123		ug/L		5840	0.013
	Ba	135		ug/L		82	0.000
	Ba	137	0.020	ug/L	31.334	141	0.000
	Ho	165		ug/L		60	0.000
>	Lu	175		ug/L		685496	685495.910
	Tl	205	0.357	ug/L	31.382	26138	0.014
	Pb	208	0.079	ug/L	20.047	3867	0.005
	Bi	209		ug/L		76	0.000
	Th	232	0.144	ug/L	8.019	8475	0.011
	U	238	0.104	ug/L	11.302	6334	0.009

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	0.9829
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	0.9999
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9998
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		102.6			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		98.7			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		101.3			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		97.2			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 12	Cu	65	CCB is out of limits (+/- PQL)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: 1201999360
Sample Date/Time: Thursday, December 31, 2009 02:42:00
Sample Type:
Sample Description: LANL 6020 MB
Number of Replicates: 3
Batch ID: 934501|1|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\091230\1201999360.249

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	0.116	ug/L	10.182	317	0.000
	Be	9	-0.005	ug/L	58.765	13	-0.000
	B	11	0.571	ug/L	12.470	1702	0.000
	Na	23	2.459	ug/L	19.895	55106	0.005
	Mg	24	-0.246	ug/L	146.376	3000	-0.000
	Al	27	0.360	ug/L	92.930	15008	0.001
	P	31	-1.740	ug/L	29.351	11506	-0.000
	K	39	0.227	ug/L	2284.202	773089	0.001
	Ca	43	9.308	ug/L	9.847	577	0.000
>	Sc	45		ug/L		3967607	3967607.449
	Ti	47	0.322	ug/L	3.331	817	0.000
	V	51	-0.634	ug/L	327.904	15518	-0.002
	Cr	52	1.409	ug/L	11.120	15570	0.003
	Cr	53		ug/L		400374	0.058
	Mn	55	0.118	ug/L	6.579	2807	0.000
	Fe	57	2.658	ug/L	17.610	7559	0.000
	Co	59	-0.001	ug/L	20.624	101	-0.000
	Ni	60	0.014	ug/L	18.580	179	0.000
	Cu	63		ug/L		2078	0.000
	Cu	65	-21.677	ug/L	0.033	474	-0.012
	Zn	66	0.912	ug/L	6.110	2048	0.003
	Zn	67		ug/L		96438	0.114
	Zn	68		ug/L		5989	0.006
>	Ge	74		ug/L		636736	636736.100
	As	75	0.603	ug/L	67.805	1495	0.002
	Se	77		ug/L		26107	0.027
	Se	82	0.107	ug/L	134.256	18	0.000
	Kr	83		ug/L		138	0.000
	Sr	88	0.022	ug/L	3.380	726	0.001
	Y	89		ug/L		80	0.000
	Mo	98	0.070	ug/L	24.425	524	0.001
	Ag	107	0.001	ug/L	57.498	90	0.000
	Cd	111	-0.003	ug/L	121.139	21	-0.000
	Cd	114		ug/L		13	-0.000
>	In	115		ug/L		383684	383683.784
	Sn	120	1.092	ug/L	40.342	10253	0.025
	Sb	121	0.665	ug/L	18.149	5460	0.013
	Sb	123		ug/L		4279	0.010
	Ba	135		ug/L		54	0.000
	Ba	137	0.008	ug/L	35.376	89	0.000
	Ho	165		ug/L		54	-0.000
>	Lu	175		ug/L		675902	675901.916
	Tl	205	-0.120	ug/L	16.049	12692	-0.005
	Pb	208	0.008	ug/L	5.259	834	0.000
	Bi	209		ug/L		147	0.000
	Th	232	0.137	ug/L	20.093	8018	0.010
	U	238	0.020	ug/L	2.405	1604	0.002

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	0.9999
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	0.9829
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	0.9999
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9999
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9998
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		100.9			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		96.1			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		97.1			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		95.8			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
	Cu	65	Sample is out of limits (<-PQL)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: 1201999361
Sample Date/Time: Thursday, December 31, 2009 02:48:08
Sample Type:
Sample Description: LANL 6020 LCS
Number of Replicates: 3
Batch ID: 934501|1|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\091230\1201999361.250

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**52.532**	ug/L	2.700	118512	0.029
	Be	9	**53.721**	ug/L	0.645	37801	0.009
	B	11	**105.684**	ug/L	1.010	86713	0.021
	Na	23	**1815.917**	ug/L	1.735	15550858	3.862
	Mg	24	**1890.772**	ug/L	3.561	10694840	2.661
	Al	27	**2003.771**	ug/L	0.597	16330339	4.062
	P	31	**1833.814**	ug/L	1.461	919421	0.226
	K	39	**1866.238**	ug/L	2.930	18744303	4.471
	Ca	43	**1973.698**	ug/L	1.420	43423	0.011
>	Sc	45		ug/L		4017087	4017086.917
	Ti	47	**43.334**	ug/L	1.680	49652	0.012
	V	51	**45.430**	ug/L	1.563	548014	0.131
	Cr	52	**51.041**	ug/L	3.180	460536	0.114
	Cr	53		ug/L		448915	0.069
	Mn	55	**54.236**	ug/L	1.161	720033	0.179
	Fe	57	**2701.342**	ug/L	1.138	700056	0.173
	Co	59	**50.965**	ug/L	1.127	526091	0.131
	Ni	60	**51.048**	ug/L	0.710	118955	0.030
	Cu	63		ug/L		287391	0.071
	Cu	65	**43.709**	ug/L	1.505	144376	0.024
	Zn	66	**67.366**	ug/L	1.363	119798	0.187
	Zn	67		ug/L		123295	0.156
	Zn	68		ug/L		95519	0.146
>	Ge	74		ug/L		636990	636989.763
	As	75	**49.981**	ug/L	0.983	94573	0.148
	Se	77		ug/L		31342	0.035
	Se	82	**52.086**	ug/L	1.245	9511	0.015
	Kr	83		ug/L		176	0.000
	Sr	88	**55.542**	ug/L	1.623	1061365	2.832
	Y	89		ug/L		153	0.000
	Mo	98	**50.457**	ug/L	1.179	258976	0.691
	Ag	107	**53.478**	ug/L	0.485	441608	1.178
	Cd	111	**51.258**	ug/L	1.090	104096	0.278
	Cd	114		ug/L		249698	0.666
>	In	115		ug/L		374717	374717.478
	Sn	120	**52.245**	ug/L	0.749	455325	1.214
	Sb	121	**54.388**	ug/L	0.625	384422	1.024
	Sb	123		ug/L		306999	0.818
	Ba	135		ug/L		118397	0.177
	Ba	137	**49.007**	ug/L	2.020	204212	0.305
	Ho	165		ug/L		145	0.000
>	Lu	175		ug/L		670125	670124.659
	Tl	205	**47.522**	ug/L	3.376	1307119	1.927
	Pb	208	**54.221**	ug/L	1.112	2270360	3.387
	Bi	209		ug/L		1741407	2.599
	Th	232	**51.285**	ug/L	1.205	2609111	3.892
	U	238	**52.284**	ug/L	0.689	2856568	4.262

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	0.9999
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	0.9829
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	0.9999
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9999
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9998
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		102.2			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		96.1			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		94.8			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		95.0			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 243043001
Sample Date/Time: Thursday, December 31, 2009 02:54:17
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 934501|1|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\091230\243043001.251

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.166**	ug/L	14.024	436	0.000
	Be	9	**-0.001**	ug/L	668.437	17	-0.000
	B	11	**2.026**	ug/L	19.089	2923	0.000
	Na	23	**217.927**	ug/L	5.302	1910184	0.464
	Mg	24	**18.743**	ug/L	10.681	111099	0.026
	Al	27	**83.419**	ug/L	7.405	697004	0.169
	P	31	**0.317**	ug/L	291.398	12760	0.000
	K	39	**73.211**	ug/L	6.305	1495773	0.175
	Ca	43	**78.419**	ug/L	1.074	2106	0.000
>	Sc	45		ug/L		4046477	4046476.694
	Ti	47	**1.769**	ug/L	5.419	2488	0.000
	V	51	**0.209**	ug/L	509.885	25616	0.001
	Cr	52	**11.161**	ug/L	2.079	103897	0.025
	Cr	53		ug/L		419481	0.060
	Mn	55	**4.931**	ug/L	1.020	67120	0.016
	Fe	57	**126.325**	ug/L	2.000	39667	0.008
	Co	59	**0.178**	ug/L	3.492	1971	0.000
	Ni	60	**6.220**	ug/L	0.898	14730	0.004
	Cu	63		ug/L		4607	0.001
	Cu	65	**-20.837**	ug/L	0.054	2344	-0.011
	Zn	66	**5.456**	ug/L	2.773	10141	0.015
	Zn	67		ug/L		109351	0.133
	Zn	68		ug/L		12637	0.016
>	Ge	74		ug/L		639581	639580.558
	As	75	**-0.290**	ug/L	230.700	-186	-0.001
	Se	77		ug/L		25449	0.026
	Se	82	**0.100**	ug/L	192.293	16	0.000
	Kr	83		ug/L		143	0.000
	Sr	88	**1.015**	ug/L	1.942	19898	0.052
	Y	89		ug/L		3009	0.008
	Mo	98	**0.294**	ug/L	2.910	1681	0.004
	Ag	107	**0.003**	ug/L	60.487	106	0.000
	Cd	111	**0.035**	ug/L	12.221	98	0.000
	Cd	114		ug/L		189	0.000
>	In	115		ug/L		378831	378830.618
	Sn	120	**0.244**	ug/L	1.920	2631	0.006
	Sb	121	**0.201**	ug/L	15.889	2076	0.004
	Sb	123		ug/L		1730	0.003
	Ba	135		ug/L		3528	0.005
	Ba	137	**1.407**	ug/L	2.557	5991	0.009
	Ho	165		ug/L		242	0.000
>	Lu	175		ug/L		678401	678400.891
	Tl	205	**0.545**	ug/L	34.507	31022	0.022
	Pb	208	**0.261**	ug/L	0.439	11564	0.016
	Bi	209		ug/L		570	0.001
	Th	232	**0.099**	ug/L	22.699	6060	0.007
	U	238	**0.013**	ug/L	7.445	1218	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	0.9829
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	0.9999
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9998
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		103.0			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		96.5			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		95.8			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		96.1			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
	Cu	65	Sample is out of limits (<-PQL)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: 1201999362
Sample Date/Time: Thursday, December 31, 2009 03:00:26
Sample Type:
Sample Description: LANL 6020 DUP
Number of Replicates: 3
Batch ID: 934501|1|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\091230\1201999362.252

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.166**	ug/L	7.176	431	0.000
	Be	9	**0.001**	ug/L	1074.084	17	0.000
	B	11	**0.843**	ug/L	6.225	1930	0.000
	Na	23	**246.571**	ug/L	11.301	2126949	0.524
	Mg	24	**19.840**	ug/L	7.405	115802	0.028
	Al	27	**104.820**	ug/L	6.296	859845	0.212
	P	31	**0.946**	ug/L	22.261	12887	0.000
	K	39	**87.247**	ug/L	18.551	1609313	0.209
	Ca	43	**79.539**	ug/L	2.377	2101	0.000
>	Sc	45		ug/L		3989381	3989380.668
	Ti	47	**2.139**	ug/L	8.811	2870	0.001
	V	51	**0.446**	ug/L	314.581	27955	0.001
	Cr	52	**11.664**	ug/L	1.763	106928	0.026
	Cr	53		ug/L		430869	0.065
	Mn	55	**5.098**	ug/L	0.519	68367	0.017
	Fe	57	**138.428**	ug/L	0.656	42196	0.009
	Co	59	**0.179**	ug/L	1.069	1954	0.000
	Ni	60	**6.111**	ug/L	0.799	14271	0.004
	Cu	63		ug/L		4695	0.001
	Cu	65	**-20.855**	ug/L	0.025	2273	-0.011
	Zn	66	**5.584**	ug/L	1.132	10406	0.016
	Zn	67		ug/L		107817	0.130
	Zn	68		ug/L		12770	0.016
>	Ge	74		ug/L		641878	641878.353
	As	75	**-0.198**	ug/L	150.894	-14	-0.001
	Se	77		ug/L		27596	0.029
	Se	82	**0.052**	ug/L	75.238	8	0.000
	Kr	83		ug/L		147	0.000
	Sr	88	**1.027**	ug/L	2.181	20329	0.052
	Y	89		ug/L		3142	0.008
	Mo	98	**0.290**	ug/L	1.565	1675	0.004
	Ag	107	**0.002**	ug/L	63.173	93	0.000
	Cd	111	**0.034**	ug/L	33.639	97	0.000
	Cd	114		ug/L		178	0.000
>	In	115		ug/L		382633	382633.460
	Sn	120	**0.194**	ug/L	4.968	2211	0.005
	Sb	121	**0.071**	ug/L	18.951	1163	0.001
	Sb	123		ug/L		967	0.001
	Ba	135		ug/L		3573	0.005
	Ba	137	**1.471**	ug/L	1.446	6258	0.009
	Ho	165		ug/L		286	0.000
>	Lu	175		ug/L		678046	678046.217
	Tl	205	**-0.044**	ug/L	58.028	14805	-0.002
	Pb	208	**0.275**	ug/L	1.318	12154	0.017
	Bi	209		ug/L		515	0.001
	Th	232	**0.056**	ug/L	6.428	3858	0.004
	U	238	**0.008**	ug/L	6.434	922	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	0.9829
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	0.9999
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9998
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		101.5			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		96.8			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		96.8			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		96.1			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
	Cu	65	Sample is out of limits (<-PQL)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: 1201999363
Sample Date/Time: Thursday, December 31, 2009 03:06:35
Sample Type:
Sample Description: LANL 6020 MS
Number of Replicates: 3
Batch ID: 934501|1|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\091230\1201999363.253

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**53.785**	ug/L	1.832	120847	0.030
	Be	9	**55.018**	ug/L	0.998	38555	0.010
	B	11	**111.380**	ug/L	1.463	90945	0.022
	Na	23	**2084.275**	ug/L	3.527	17771651	4.433
	Mg	24	**1869.981**	ug/L	2.217	10532484	2.632
	Al	27	**2108.636**	ug/L	0.405	17114244	4.275
	P	31	**1832.410**	ug/L	1.796	915048	0.226
	K	39	**1950.711**	ug/L	2.870	19477337	4.674
	Ca	43	**2072.875**	ug/L	0.848	45398	0.011
>	Sc	45		ug/L		4000746	4000746.050
	Ti	47	**46.553**	ug/L	0.730	53090	0.013
	V	51	**48.103**	ug/L	2.941	576536	0.138
	Cr	52	**61.588**	ug/L	0.876	552859	0.137
	Cr	53		ug/L		457800	0.071
	Mn	55	**57.653**	ug/L	2.193	762248	0.190
	Fe	57	**2322.464**	ug/L	0.610	600423	0.148
	Co	59	**52.384**	ug/L	0.556	538562	0.135
	Ni	60	**57.286**	ug/L	1.086	132930	0.033
	Cu	63		ug/L		286544	0.071
	Cu	65	**43.766**	ug/L	2.986	143914	0.024
	Zn	66	**57.313**	ug/L	1.147	101746	0.159
	Zn	67		ug/L		122998	0.156
	Zn	68		ug/L		81075	0.124
>	Ge	74		ug/L		635465	635465.298
	As	75	**79.248**	ug/L	1.333	149387	0.235
	Se	77		ug/L		27695	0.029
	Se	82	**20.588**	ug/L	3.492	3749	0.006
	Kr	83		ug/L		170	0.000
	Sr	88	**57.548**	ug/L	1.646	1101347	2.934
	Y	89		ug/L		3669	0.010
	Mo	98	**50.757**	ug/L	1.124	260880	0.695
	Ag	107	**54.483**	ug/L	1.202	450576	1.200
	Cd	111	**11.045**	ug/L	0.488	22485	0.060
	Cd	114		ug/L		51424	0.137
>	In	115		ug/L		375268	375267.570
	Sn	120	**52.802**	ug/L	1.061	460856	1.227
	Sb	121	**201.582**	ug/L	0.721	1425216	3.796
	Sb	123		ug/L		1157048	3.082
	Ba	135		ug/L		124444	0.185
	Ba	137	**51.925**	ug/L	1.083	217006	0.323
	Ho	165		ug/L		679	0.001
>	Lu	175		ug/L		672034	672034.404
	Tl	205	**91.017**	ug/L	1.909	2496104	3.691
	Pb	208	**45.321**	ug/L	0.320	1903295	2.831
	Bi	209		ug/L		1112	0.002
	Th	232	**53.498**	ug/L	0.740	2729354	4.060
	U	238	**54.004**	ug/L	0.766	2958989	4.402

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	0.9999
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	0.9829
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	0.9999
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9999
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9998
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		101.8			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		95.9			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		94.9			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		95.2			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1201999364
Sample Date/Time: Thursday, December 31, 2009 03:12:45
Sample Type:
Sample Description: LANL 6020 SDILT
Number of Replicates: 3
Batch ID: 934501|5|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\091230\1201999364.254

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.036**	ug/L	11.468	142	0.000
	Be	9	**-0.010**	ug/L	15.462	10	-0.000
	B	11	**1.324**	ug/L	33.184	2357	0.000
	Na	23	**45.221**	ug/L	6.581	425592	0.096
	Mg	24	**3.650**	ug/L	22.788	25356	0.005
	Al	27	**16.986**	ug/L	8.230	152141	0.034
	P	31	**-0.639**	ug/L	191.934	12326	-0.000
	K	39	**11.547**	ug/L	15.285	901233	0.028
	Ca	43	**19.242**	ug/L	13.381	809	0.000
>	Sc	45		ug/L		4060468	4060467.505
	Ti	47	**0.386**	ug/L	12.178	910	0.000
	V	51	**0.657**	ug/L	14.040	30918	0.002
	Cr	52	**3.179**	ug/L	2.651	31965	0.007
	Cr	53		ug/L		244362	0.017
	Mn	55	**1.030**	ug/L	1.532	15090	0.003
	Fe	57	**24.637**	ug/L	1.071	13436	0.002
	Co	59	**0.050**	ug/L	1.782	635	0.000
	Ni	60	**1.277**	ug/L	2.953	3154	0.001
	Cu	63		ug/L		1299	0.000
	Cu	65	**-21.603**	ug/L	0.036	649	-0.012
	Zn	66	**1.117**	ug/L	3.431	2504	0.003
	Zn	67		ug/L		38796	0.021
	Zn	68		ug/L		4526	0.003
>	Ge	74		ug/L		661483	661483.442
	As	75	**0.105**	ug/L	593.592	582	0.000
	Se	77		ug/L		14679	0.008
	Se	82	**-0.122**	ug/L	27.127	-25	-0.000
	Kr	83		ug/L		155	0.000
	Sr	88	**0.203**	ug/L	2.194	4439	0.010
	Y	89		ug/L		693	0.002
	Mo	98	**0.068**	ug/L	8.221	535	0.001
	Ag	107	**-0.003**	ug/L	20.544	56	-0.000
	Cd	111	**-0.001**	ug/L	250.563	24	-0.000
	Cd	114		ug/L		59	0.000
>	In	115		ug/L		399746	399745.746
	Sn	120	**0.053**	ug/L	6.307	998	0.001
	Sb	121	**0.186**	ug/L	21.193	2081	0.004
	Sb	123		ug/L		1666	0.003
	Ba	135		ug/L		788	0.001
	Ba	137	**0.301**	ug/L	2.558	1345	0.002
	Ho	165		ug/L		93	0.000
>	Lu	175		ug/L		688251	688251.235
	Tl	205	**1.857**	ug/L	22.322	68064	0.075
	Pb	208	**0.048**	ug/L	2.202	2587	0.003
	Bi	209		ug/L		157	0.000
	Th	232	**0.031**	ug/L	26.623	2595	0.002
	U	238	**-0.001**	ug/L	51.562	432	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	0.9829
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	0.9999
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9998
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovi	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		103.3			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		99.8			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		101.1			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		97.5			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
	Cu	65	Sample is out of limits (<-PQL)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: 243043002
Sample Date/Time: Thursday, December 31, 2009 03:18:56
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 934501|1|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\091230\243043002.255

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.037**	ug/L	2.292	142	0.000
	Be	9	**-0.007**	ug/L	31.218	12	-0.000
	B	11	**0.745**	ug/L	19.562	1864	0.000
	Na	23	**5.542**	ug/L	33.962	82242	0.012
	Mg	24	**-0.372**	ug/L	109.478	2334	-0.001
	Al	27	**1.113**	ug/L	38.077	21350	0.002
	P	31	**0.048**	ug/L	2605.019	12539	0.000
	K	39	**3.289**	ug/L	212.227	812199	0.008
	Ca	43	**14.094**	ug/L	9.019	689	0.000
>	Sc	45		ug/L		4018874	4018873.710
	Ti	47	**0.426**	ug/L	6.123	946	0.000
	V	51	**-0.482**	ug/L	274.468	17514	-0.001
	Cr	52	**2.194**	ug/L	8.549	22798	0.005
	Cr	53		ug/L		459366	0.071
	Mn	55	**0.188**	ug/L	4.574	3770	0.001
	Fe	57	**1.491**	ug/L	38.571	7357	0.000
	Co	59	**-0.000**	ug/L	105.539	112	-0.000
	Ni	60	**0.048**	ug/L	18.197	259	0.000
	Cu	63		ug/L		1430	0.000
	Cu	65	**-21.549**	ug/L	0.050	760	-0.012
	Zn	66	**1.095**	ug/L	3.112	2386	0.003
	Zn	67		ug/L		104309	0.125
	Zn	68		ug/L		6609	0.007
>	Ge	74		ug/L		640359	640358.779
	As	75	**0.278**	ug/L	41.573	887	0.001
	Se	77		ug/L		31307	0.035
	Se	82	**0.092**	ug/L	120.873	15	0.000
	Kr	83		ug/L		149	0.000
	Sr	88	**0.047**	ug/L	3.164	1216	0.002
	Y	89		ug/L		115	0.000
	Mo	98	**0.005**	ug/L	13.335	182	0.000
	Ag	107	**0.001**	ug/L	258.373	85	0.000
	Cd	111	**0.001**	ug/L	468.470	27	0.000
	Cd	114		ug/L		32	-0.000
>	In	115		ug/L		383107	383107.383
	Sn	120	**0.167**	ug/L	3.374	1974	0.004
	Sb	121	**0.048**	ug/L	10.214	993	0.001
	Sb	123		ug/L		802	0.001
	Ba	135		ug/L		139	0.000
	Ba	137	**0.045**	ug/L	4.272	244	0.000
	Ho	165		ug/L		57	0.000
>	Lu	175		ug/L		680134	680133.879
	Tl	205	**0.421**	ug/L	20.881	27682	0.017
	Pb	208	**0.020**	ug/L	2.273	1345	0.001
	Bi	209		ug/L		85	0.000
	Th	232	**0.018**	ug/L	36.298	1915	0.001
	U	238	**-0.000**	ug/L	63.218	476	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	0.9829
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	0.9999
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9998
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		102.3			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		96.6			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		96.9			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		96.4			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
	Cu	65	Sample is out of limits (<-PQL)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 8
Sample Date/Time: Thursday, December 31, 2009 03:25:05
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\091230\QC Std 8.256

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**51.120**	**ug/L**	1.373	114739	0.029
	Be	9	**50.065**	**ug/L**	1.087	35049	0.009
	B	11	**99.671**	**ug/L**	0.861	81433	0.020
	Na	23	**4690.438**	**ug/L**	4.188	39905290	9.976
	Mg	24	**4903.768**	**ug/L**	1.923	27582827	6.901
	Al	27	**5365.830**	**ug/L**	12.389	43506742	10.878
	P	31	**4933.690**	**ug/L**	0.167	2440096	0.607
	K	39	**4899.651**	**ug/L**	4.569	47696111	11.739
	Ca	43	**4812.279**	**ug/L**	0.540	104789	0.026
>	Sc	45		**ug/L**		3996647	3996646.752
	Ti	47	**48.352**	**ug/L**	1.667	55067	0.014
	V	51	**49.926**	**ug/L**	1.518	596982	0.144
	Cr	52	**51.437**	**ug/L**	1.084	461790	0.115
	Cr	53		**ug/L**		219004	0.012
	Mn	55	**53.351**	**ug/L**	0.980	704740	0.176
	Fe	57	**5119.637**	**ug/L**	1.734	1313940	0.327
	Co	59	**50.987**	**ug/L**	0.608	523668	0.131
	Ni	60	**51.421**	**ug/L**	0.540	119212	0.030
	Cu	63		**ug/L**		273709	0.068
	Cu	65	**41.369**	**ug/L**	2.083	138519	0.023
	Zn	66	**51.077**	**ug/L**	1.051	93128	0.142
	Zn	67		**ug/L**		41625	0.026
	Zn	68		**ug/L**		72860	0.108
>	Ge	74		**ug/L**		652374	652374.347
	As	75	**48.257**	**ug/L**	3.202	93505	0.143
	Se	77		**ug/L**		15703	0.010
	Se	82	**49.064**	**ug/L**	2.008	9174	0.014
	Kr	83		**ug/L**		156	0.000
	Sr	88	**55.164**	**ug/L**	1.540	1090447	2.813
	Y	89		**ug/L**		284	0.001
	Mo	98	**49.444**	**ug/L**	1.870	262509	0.677
	Ag	107	**51.603**	**ug/L**	3.307	440755	1.137
	Cd	111	**50.506**	**ug/L**	0.611	106107	0.274
	Cd	114		**ug/L**		253128	0.653
>	In	115		**ug/L**		387635	387635.268
	Sn	120	**50.484**	**ug/L**	2.427	455118	1.173
	Sb	121	**49.793**	**ug/L**	1.214	364157	0.938
	Sb	123		**ug/L**		286210	0.737
	Ba	135		**ug/L**		122667	0.185
	Ba	137	**51.549**	**ug/L**	1.220	212901	0.320
	Ho	165		**ug/L**		111	0.000
>	Lu	175		**ug/L**		664107	664107.196
	Tl	205	**49.572**	**ug/L**	2.664	1350325	2.010
	Pb	208	**53.363**	**ug/L**	0.363	2214459	3.334
	Bi	209		**ug/L**		493	0.001
	Th	232	**51.836**	**ug/L**	2.465	2613100	3.934
	U	238	**51.373**	**ug/L**	0.939	2781466	4.188

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	0.9999
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	0.9829
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	0.9999
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9999
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9998
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
	Li	7	102.239				
	Be	9	100.130				
	B	11	99.671				
	Na	23	93.809				
	Mg	24	98.075				
	Al	27	106.254				
	P	31	98.674				
	K	39	97.993				
	Ca	43	96.246				
>	Sc	45		101.7			
	Ti	47	96.705				
	V	51	99.852				
	Cr	52	102.874				
	Cr	53					
	Mn	55	106.701				
	Fe	57	102.393				
	Co	59	101.973				
	Ni	60	102.842				
	Cu	63					
	Cu	65	82.739				
	Zn	66	102.154				
	Zn	67					
	Zn	68					
>	Ge	74		98.4			
	As	75	96.513				
	Se	77					
	Se	82	98.128				
	Kr	83					
	Sr	88	110.328				
	Y	89					
	Mo	98	98.888				
	Ag	107	103.206				
	Cd	111	101.012				
	Cd	114					
>	In	115		98.1			
	Sn	120	100.968				
	Sb	121	99.585				
	Sb	123					
	Ba	135					
	Ba	137	103.098				
	Ho	165					
>	Lu	175		94.1			
	Tl	205	99.143				
	Pb	208	106.727				
	Bi	209					
	Th	232	103.672				
	U	238	102.746				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 8	Cu	65	CCV is out of limits (+/- 10%)
QC Std 8	Sr	88	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 9
Sample Date/Time: Thursday, December 31, 2009 03:31:13
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\091230\QC Std 9.257

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.012**	ug/L	22.652	85	0.000
	Be	9	**-0.001**	ug/L	700.430	16	-0.000
	B	11	**1.281**	ug/L	31.020	2285	0.000
	Na	23	**0.284**	ug/L	463.712	37051	0.001
	Mg	24	**-0.011**	ug/L	3437.987	4334	-0.000
	Al	27	**0.512**	ug/L	53.438	16343	0.001
	P	31	**-1.131**	ug/L	89.229	11883	-0.000
	K	39	**-2.007**	ug/L	120.647	757235	-0.005
	Ca	43	**0.980**	ug/L	216.345	400	0.000
>	Sc	45		ug/L		3995849	3995848.797
	Ti	47	**0.001**	ug/L	2638.616	460	0.000
	V	51	**-0.043**	ug/L	906.102	22366	-0.000
	Cr	52	**0.178**	ug/L	10.148	4702	0.000
	Cr	53		ug/L		157310	-0.004
	Mn	55	**0.001**	ug/L	258.691	1289	0.000
	Fe	57	**0.157**	ug/L	511.131	6973	0.000
	Co	59	**0.003**	ug/L	66.441	150	0.000
	Ni	60	**-0.005**	ug/L	53.198	136	-0.000
	Cu	63		ug/L		461	-0.000
	Cu	65	**-21.782**	ug/L	0.031	245	-0.012
	Zn	66	**0.005**	ug/L	302.589	451	0.000
	Zn	67		ug/L		23088	-0.002
	Zn	68		ug/L		2216	-0.000
>	Ge	74		ug/L		651107	651107.104
	As	75	**0.059**	ug/L	247.507	480	0.000
	Se	77		ug/L		8405	-0.001
	Se	82	**-0.147**	ug/L	79.440	-29	-0.000
	Kr	83		ug/L		167	0.000
	Sr	88	**0.003**	ug/L	64.293	365	0.000
	Y	89		ug/L		63	-0.000
	Mo	98	**0.049**	ug/L	24.778	427	0.001
	Ag	107	**0.005**	ug/L	34.642	125	0.000
	Cd	111	**0.013**	ug/L	30.375	56	0.000
	Cd	114		ug/L		63	0.000
>	In	115		ug/L		397128	397128.354
	Sn	120	**0.094**	ug/L	8.194	1370	0.002
	Sb	121	**0.334**	ug/L	21.419	3173	0.006
	Sb	123		ug/L		2576	0.005
	Ba	135		ug/L		56	0.000
	Ba	137	**0.005**	ug/L	22.868	77	0.000
	Ho	165		ug/L		62	0.000
>	Lu	175		ug/L		674622	674621.600
	Tl	205	**0.534**	ug/L	26.691	30512	0.022
	Pb	208	**0.006**	ug/L	23.993	742	0.000
	Bi	209		ug/L		59	-0.000
	Th	232	**0.065**	ug/L	22.986	4299	0.005
	U	238	**0.009**	ug/L	24.919	996	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	0.9829
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	0.9999
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9998
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		101.7			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		98.2			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		100.5			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		95.6			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 9	Cu	65	CCB is out of limits (+/- PQL)

QC Action

QC Action Line: Continue

ICPMS #5 Daily Performance Report

Sample ID: Sample
Sample Date/Time: Thursday, December 31, 2009 09:55:21
Sample Description:
Method File: c:\elandata\Method\Daily2.mth
Dataset File: c:\elandata\Dataset\default2\Sample.1623
Tuning File: c:\elandata\Tuning\default2.tun
Optimization File: c:\elandata\Optimize\default.dac
Dual Detector Mode: Pulse

Acq. Dead Time(ns): 35
Current Dead Time (ns): 35

Number of Replicates: 5

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Be	9.0	5831.4	5831.390	68.058	1.2
	Mg	24.0	69020.1	69020.134	336.364	0.5
	Co	58.9	127657.7	127657.652	673.779	0.5
	Rh	102.9	222842.7	222842.684	1655.918	0.7
	In	114.9	290957.2	290957.205	2016.054	0.7
	Pb	208.0	346122.6	346122.645	4720.189	1.4
⌈>	Ba	137.9	293836.6	293836.571	2542.334	0.9
⌊	Ba++	69.0	6467.7	0.022	0.001	2.5
⌈>	Ce	139.9	357510.5	357510.518	4390.926	1.2
⌊	CeO	155.9	8300.9	0.023	0.001	3.2
	Bkgd	220.0	13.4	13.400	4.682	34.9

Current Optimization File Data

Current Value	Description
0.88	Nebulizer Gas Flow
8.25	Lens Voltage
1450.00	ICP RF Power
-1687.50	Analog Stage Voltage
1200.00	Pulse Stage Voltage
275.00	Discriminator Threshold
-6.00	AC Rod Offset

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	17	7.5	6656.2
Co	59	17	8.5	114490.6
In	115	17	9.8	288749.0

ICPMS #5 Instrument Tuning Report

File Name: default2.tun
File Path: c:\elandata\Tuning

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Pk. Width
He	3.0	3.0	586	2065	0.597
Be	9.0	9.0	2051	2070	0.637
Mg	24.0	24.0	5683	2070	0.653
Mg	25.0	25.0	5935	2070	0.665
Mg	26.0	26.0	6168	2070	0.663
Co	58.9	58.9	14188	2105	0.641
Rh	102.9	102.9	24878	2165	0.628
In	114.9	114.9	27792	2185	0.631
Ce	139.9	139.9	33864	2200	0.643
Pb	206.0	206.0	49948	2270	0.672
Pb	207.0	207.0	50171	2235	0.694
Pb	208.0	208.0	50439	2260	0.720
U	238.1	238.0	57726	2275	0.730

ICPMS#5 - Summary Report

Sample ID: Blank
Sample Date/Time: Thursday, December 31, 2009 13:17:59
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: c:\elandata\dataset\091230\Blank.345

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		770358	
	Tl	205		ug/L		925	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Simple Linear	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175					
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Thursday, December 31, 2009 13:22:28
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: c:\elandata\dataset\091230\Standard 1.346

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		769206	769206.188
⌊	Tl	205	10.000	ug/L	2.252	379988	0.493

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈>	Lu	175					
⌊	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Thursday, December 31, 2009 13:26:55
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: c:\elandata\dataset\091230\Standard 2.347

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		761909	761909.346
⌊	Tl	205	99.789	ug/L	1.588	3094967	4.061

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈>	Lu	175					
⌊	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Thursday, December 31, 2009 13:31:23
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: c:\elandata\dataset\091230\QC Std 1.348

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		759725	759724.616
⌊	Tl	205	51.759	ug/L	1.491	1601038	2.107

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈>	Lu	175		98.6			
⌊	Tl	205	103.517				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Thursday, December 31, 2009 13:35:52
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: c:\elandata\dataset\091230\QC Std 2.349

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		762541	762540.526
	Tl	205	0.036	ug/L	2.623	2035	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175		99.0			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Thursday, December 31, 2009 13:40:23
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: c:\elandata\dataset\091230\QC Std 3.350

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		764356	764355.930
	Tl	205	1.268	ug/L	1.467	40349	0.052

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175		99.2			
	Tl	205	126.759				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Thursday, December 31, 2009 13:44:51
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: c:\elandata\dataset\091230\QC Std 4.351

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		667320	667319.779
⌊	Tl	205	0.026	ug/L	6.571	1497	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈>	Lu	175		86.6			
⌊	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Thursday, December 31, 2009 13:49:20
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: c:\elandata\dataset\091230\QC Std 5.352

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		665414	665414.041
⌊	Tl	205	21.776	ug/L	0.879	590504	0.886

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈>	Lu	175		86.4			
⌊	Tl	205	108.879				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Thursday, December 31, 2009 13:53:50
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: c:\elandata\dataset\091230\QC Std 6.353

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		742240	742239.758
	Tl	205	51.535	ug/L	0.593	1557660	2.097

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175		96.3			
	Tl	205	103.070				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Thursday, December 31, 2009 13:58:21
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: c:\elandata\dataset\091230\QC Std 7.354

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		763252	763251.556
⌊	Tl	205	0.046	ug/L	2.437	2338	0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈>	Lu	175		99.1			
⌊	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 8
Sample Date/Time: Thursday, December 31, 2009 14:34:32
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: c:\elandata\dataset\091230\QC Std 8.362

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		714422	714421.582
	Tl	205	52.046	ug/L	1.229	1513948	2.118

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175		92.7			
	Tl	205	104.091				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 9
Sample Date/Time: Thursday, December 31, 2009 14:39:03
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: c:\elandata\dataset\091230\QC Std 9.363

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		742836	742836.068
	Tl	205	0.145	ug/L	2.588	5275	0.006

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175		96.4			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1201999360
Sample Date/Time: Thursday, December 31, 2009 14:43:35
Sample Type:
Sample Description: LANL 6020 MB
Number of Replicates: 3
Batch ID: 934501|1|baj
Method File: c:\elandata\Method\tl only.mth
Dataset File: c:\elandata\dataset\091230\1201999360.364

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		718677	718676.841
⌊	Tl	205	0.091	ug/L	3.421	3537	0.004

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈>	Lu	175		93.3			
⌊	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1201999361
Sample Date/Time: Thursday, December 31, 2009 14:48:06
Sample Type:
Sample Description: LANL 6020 LCS
Number of Replicates: 3
Batch ID: 934501|1|baj
Method File: c:\elandata\Method\tl only.mth
Dataset File: c:\elandata\dataset\091230\1201999361.365

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		713383	713382.927
⌊	Tl	205	46.010	ug/L	2.076	1336172	1.873

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈>	Lu	175		92.6			
⌊	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 243043001
Sample Date/Time: Thursday, December 31, 2009 14:52:37
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 934501|1|baj
Method File: c:\elandata\Method\tl only.mth
Dataset File: c:\elandata\dataset\091230\243043001.366

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		722721	722721.077
	Tl	205	0.355	ug/L	2.069	11323	0.014

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175		93.8			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1201999362
Sample Date/Time: Thursday, December 31, 2009 14:57:09
Sample Type:
Sample Description: LANL 6020 DUP
Number of Replicates: 3
Batch ID: 934501|1|baj
Method File: c:\elandata\Method\tl only.mth
Dataset File: c:\elandata\dataset\091230\1201999362.367

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		722192	722192.485
⌊	Tl	205	0.118	ug/L	0.963	4329	0.005

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈>	Lu	175		93.7			
⌊	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1201999363
Sample Date/Time: Thursday, December 31, 2009 15:01:41
Sample Type:
Sample Description: LANL 6020 MS
Number of Replicates: 3
Batch ID: 934501|1|baj
Method File: c:\elandata\Method\tl only.mth
Dataset File: c:\elandata\dataset\091230\1201999363.368

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		711890	711890.107
	Tl	205	83.956	ug/L	1.579	2433248	3.417

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175		92.4			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1201999364
Sample Date/Time: Thursday, December 31, 2009 15:06:14
Sample Type:
Sample Description: LANL 6020 SDILT
Number of Replicates: 3
Batch ID: 934501|5|ba|
Method File: c:\elandata\Method\tl only.mth
Dataset File: c:\elandata\dataset\091230\1201999364.369

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		726332	726331.569
⌊	Tl	205	0.603	ug/L	2.329	18689	0.025

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈>	Lu	175		94.3			
⌊	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 243043002
Sample Date/Time: Thursday, December 31, 2009 15:10:48
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 934501|1|baj
Method File: c:\elandata\Method\tl only.mth
Dataset File: c:\elandata\dataset\091230\243043002.370

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		720134	720133.807
⌊	Tl	205	0.241	ug/L	1.290	7917	0.010

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈>	Lu	175		93.5			
⌊	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Thursday, December 31, 2009 15:15:20
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: c:\elandata\dataset\091230\QC Std 6.371

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		724566	724565.877
	Tl	205	50.855	ug/L	1.630	1500432	2.070

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175		94.1			
	Tl	205	101.709				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Thursday, December 31, 2009 15:19:51
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: c:\elandata\dataset\091230\QC Std 7.372

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		732047	732046.650
	Tl	205	0.144	ug/L	2.208	5162	0.006

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175		95.0			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Blank
Sample Date/Time: Friday, January 01, 2010 06:49:00
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li mn and u.mth
Dataset File: c:\elandata\dataset\091230\Blank.581

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7		ug/L		102	
>	Sc	45		ug/L		3861289	
	Mn	55		ug/L		1403	
>	Lu	175		ug/L		744488	
	U	238		ug/L		2040	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Simple Linear	
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
U	238	Simple Linear	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
>	Sc	45					
	Mn	55					
>	Lu	175					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Friday, January 01, 2010 06:51:19
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li mn and u.mth
Dataset File: c:\elandata\dataset\091230\Standard 1.582

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**10.000**	**ug/L**	10.362	28963	0.007
>	Sc	45		**ug/L**		3912258	3912257.536
	Mn	55	**10.000**	**ug/L**	11.299	129845	0.033
>	Lu	175		**ug/L**		701743	701742.694
	U	238	**10.000**	**ug/L**	10.962	702611	1.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
>	Sc	45					
	Mn	55					
>	Lu	175					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Friday, January 01, 2010 06:53:35
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li mn and u.mth
Dataset File: c:\elandata\dataset\091230\Standard 2.583

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**99.950**	**ug/L**	14.495	271453	0.071
>	Sc	45		**ug/L**		3874090	3874090.253
	Mn	55	**99.916**	**ug/L**	7.982	1176093	0.305
>	Lu	175		**ug/L**		733535	733535.136
	U	238	**99.748**	**ug/L**	9.014	5827347	7.970

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9997

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
>	Sc	45					
	Mn	55					
>	Lu	175					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Friday, January 01, 2010 06:55:52
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li mn and u.mth
Dataset File: c:\elandata\dataset\091230\QC Std 1.584

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**54.114**	**ug/L**	7.810	145576	0.038
>	Sc	45		**ug/L**		3808167	3808166.654
	Mn	55	**53.168**	**ug/L**	10.364	616626	0.162
>	Lu	175		**ug/L**		714132	714131.784
	U	238	**55.493**	**ug/L**	7.128	3162054	4.434

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9997

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7	108.229				
>	Sc	45		98.6			
	Mn	55	106.337				
>	Lu	175		95.9			
	U	238	110.985				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 1	U	238	ICV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Friday, January 01, 2010 06:58:11
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li mn and u.mth
Dataset File: c:\elandata\dataset\091230\QC Std 2.585

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	0.002	ug/L	369.591	107	0.000
>	Sc	45		ug/L		3872717	3872716.519
	Mn	55	-0.002	ug/L	528.484	1373	-0.000
>	Lu	175		ug/L		732079	732078.534
	U	238	0.010	ug/L	49.018	2606	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9997

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
>	Sc	45		100.3			
	Mn	55					
>	Lu	175		98.3			
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Friday, January 01, 2010 07:00:30
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li mn and u.mth
Dataset File: c:\elandata\dataset\091230\QC Std 3.586

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**11.585**	**ug/L**	14.637	31260	0.008
>	Sc	45		**ug/L**		3822746	3822745.761
	Mn	55	**5.989**	**ug/L**	9.528	70975	0.018
>	Lu	175		**ug/L**		737336	737335.870
	U	238	**0.260**	**ug/L**	12.420	17214	0.021

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9997

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7	115.851				
>	Sc	45		99.0			
	Mn	55	119.773				
>	Lu	175		99.0			
	U	238	129.846				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Friday, January 01, 2010 07:02:48
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li mn and u.mth
Dataset File: c:\elandata\dataset\091230\QC Std 4.587

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Li	7	**0.107**	**ug/L**	14.265	345	0.000
|>	Sc	45		**ug/L**		3396506	3396506.369
⌊	Mn	55	**6.137**	**ug/L**	9.684	64588	0.019
⌈>	Lu	175		**ug/L**		644287	644287.154
⌊	U	238	**-0.029**	**ug/L**	1.550	299	-0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9997

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
>	Sc	45		88.0			
	Mn	55	105.812				
>	Lu	175		86.5			
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Friday, January 01, 2010 07:05:07
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li mn and u.mth
Dataset File: c:\elandata\dataset\091230\QC Std 5.588

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**21.616**	**ug/L**	10.061	51278	0.015
>	Sc	45		**ug/L**		3357069	3357068.617
	Mn	55	**27.105**	**ug/L**	7.921	278062	0.083
>	Lu	175		**ug/L**		646530	646529.758
	U	238	**24.004**	**ug/L**	10.257	1236221	1.918

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9997

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7	108.081				
>	Sc	45		86.9			
	Mn	55	105.057				
>	Lu	175		86.8			
	U	238	120.018				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 5	U	238	ICSAB is out of limits

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Friday, January 01, 2010 07:07:26
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li mn and u.mth
Dataset File: c:\elandata\dataset\091230\QC Std 6.589

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**53.643**	**ug/L**	8.518	142632	0.038
>	Sc	45		**ug/L**		3767058	3767057.891
	Mn	55	**50.304**	**ug/L**	10.141	576593	0.153
>	Lu	175		**ug/L**		713130	713129.533
	U	238	**52.239**	**ug/L**	7.266	2970422	4.174

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9997

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7	107.286				
>	Sc	45		97.6			
	Mn	55	100.607				
>	Lu	175		95.8			
	U	238	104.478				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Friday, January 01, 2010 07:09:46
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li mn and u.mth
Dataset File: c:\elandata\dataset\091230\QC Std 7.590

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.020**	**ug/L**	39.855	153	0.000
>	Sc	45		**ug/L**		3776039	3776038.796
	Mn	55	**-0.007**	**ug/L**	109.555	1293	-0.000
>	Lu	175		**ug/L**		717975	717974.624
	U	238	**0.008**	**ug/L**	43.366	2434	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9997

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
>	Sc	45		97.8			
	Mn	55					
>	Lu	175		96.4			
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1201999360
Sample Date/Time: Friday, January 01, 2010 07:12:08
Sample Type:
Sample Description: LANL 6020 MB
Number of Replicates: 3
Batch ID: 934501|1|baj
Method File: c:\elandata\Method\li mn and u.mth
Dataset File: c:\elandata\dataset\091230\1201999360.591

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	0.021	ug/L	20.435	164	0.000
>	Sc	45		ug/L		3973152	3973152.454
	Mn	55	0.093	ug/L	23.644	2560	0.000
>	Lu	175		ug/L		703233	703232.894
	U	238	-0.027	ug/L	2.846	416	-0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9997

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
>	Sc	45		102.9			
	Mn	55					
>	Lu	175		94.5			
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1201999361
Sample Date/Time: Friday, January 01, 2010 07:14:31
Sample Type:
Sample Description: LANL 6020 LCS
Number of Replicates: 3
Batch ID: 934501|1|baj
Method File: c:\elandata\Method\li mn and u.mth
Dataset File: c:\elandata\dataset\091230\1201999361.592

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Li	7	**53.164**	**ug/L**	10.660	148083	0.038
|>	Sc	45		**ug/L**		3955666	3955666.287
⌊	Mn	55	**53.034**	**ug/L**	7.995	638789	0.162
⌈>	Lu	175		**ug/L**		719962	719962.452
⌊	U	238	**51.664**	**ug/L**	9.713	2967809	4.128

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9997

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈	Li	7					
|>	Sc	45		102.4			
⌊	Mn	55					
⌈>	Lu	175		96.7			
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 243043001
Sample Date/Time: Friday, January 01, 2010 07:16:55
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 934501|1|baj
Method File: c:\elandata\Method\li mn and u.mth
Dataset File: c:\elandata\dataset\091230\243043001.593

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.129**	**ug/L**	10.334	474	0.000
>	Sc	45		**ug/L**		4048673	4048673.417
	Mn	55	**4.853**	**ug/L**	10.266	61175	0.015
>	Lu	175		**ug/L**		729740	729740.417
	U	238	**-0.014**	**ug/L**	13.557	1168	-0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9997

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
>	Sc	45		104.9			
	Mn	55					
>	Lu	175		98.0			
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1201999362
Sample Date/Time: Friday, January 01, 2010 07:19:19
Sample Type:
Sample Description: LANL 6020 DUP
Number of Replicates: 3
Batch ID: 934501|1|baj
Method File: c:\elandata\Method\li mn and u.mth
Dataset File: c:\elandata\dataset\091230\1201999362.594

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.144**	**ug/L**	10.012	506	0.000
>	Sc	45		**ug/L**		3965548	3965548.412
	Mn	55	**4.928**	**ug/L**	10.784	60792	0.015
>	Lu	175		**ug/L**		725036	725036.429
	U	238	**-0.021**	**ug/L**	5.900	760	-0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9997

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
>	Sc	45		102.7			
	Mn	55					
>	Lu	175		97.4			
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1201999363
Sample Date/Time: Friday, January 01, 2010 07:21:44
Sample Type:
Sample Description: LANL 6020 MS
Number of Replicates: 3
Batch ID: 934501|1|baj
Method File: c:\elandata\Method\li mn and u.mth
Dataset File: c:\elandata\dataset\091230\1201999363.595

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**56.376**	**ug/L**	14.079	149918	0.040
>	Sc	45		**ug/L**		3778652	3778651.707
	Mn	55	**60.420**	**ug/L**	6.753	695990	0.184
>	Lu	175		**ug/L**		710689	710689.202
	U	238	**52.958**	**ug/L**	8.645	2998019	4.231

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9997

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
>	Sc	45		97.9			
	Mn	55					
>	Lu	175		95.5			
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1201999364
Sample Date/Time: Friday, January 01, 2010 07:24:09
Sample Type:
Sample Description: LANL 6020 SDILT
Number of Replicates: 3
Batch ID: 934501|5|baj
Method File: c:\elandata\Method\li mn and u.mth
Dataset File: c:\elandata\dataset\091230\1201999364.596

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.020**	**ug/L**	15.232	156	0.000
>	Sc	45		**ug/L**		3842332	3842331.645
	Mn	55	**1.004**	**ug/L**	12.707	13129	0.003
>	Lu	175		**ug/L**		739965	739965.052
	U	238	**-0.019**	**ug/L**	11.609	885	-0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9997

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
>	Sc	45		99.5			
	Mn	55					
>	Lu	175		99.4			
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 243043002
Sample Date/Time: Friday, January 01, 2010 07:26:33
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 934501|1|baj
Method File: c:\elandata\Method\li mn and u.mth
Dataset File: c:\elandata\dataset\091230\243043002.597

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	0.015	ug/L	47.769	148	0.000
>	Sc	45		ug/L		3985087	3985087.357
	Mn	55	0.166	ug/L	15.053	3464	0.001
>	Lu	175		ug/L		727831	727830.607
	U	238	-0.027	ug/L	3.199	446	-0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9997

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
>	Sc	45		103.2			
	Mn	55					
>	Lu	175		97.8			
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Friday, January 01, 2010 07:28:54
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li mn and u.mth
Dataset File: c:\elandata\dataset\091230\QC Std 6.598

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**50.521**	**ug/L**	10.687	141091	0.036
>	Sc	45		**ug/L**		3960632	3960632.384
	Mn	55	**50.092**	**ug/L**	7.939	605219	0.153
>	Lu	175		**ug/L**		739382	739382.313
	U	238	**50.459**	**ug/L**	10.161	2970128	4.032

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9997

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7	101.042				
>	Sc	45		102.6			
	Mn	55	100.184				
>	Lu	175		99.3			
	U	238	100.918				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Friday, January 01, 2010 07:31:14
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li mn and u.mth
Dataset File: c:\elandata\dataset\091230\QC Std 7.599

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.004**	**ug/L**	165.647	114	0.000
>	Sc	45		**ug/L**		3927528	3927528.204
	Mn	55	**-0.004**	**ug/L**	246.771	1375	-0.000
>	Lu	175		**ug/L**		766043	766043.316
	U	238	**0.006**	**ug/L**	53.024	2443	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9997

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
>	Sc	45		101.7			
	Mn	55					
>	Lu	175		102.9			
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

==========

Analysis Begun

Logged In Analyst: Administrator **Technique: AA FIMS-MHS**
Spectrometer Model: FIMS-100, S/N B050-9550 **Autosampler Model: S10**

Sample Information File: C:\data-AA\Administrator\Sample Information\122409W1.sif
Batch ID:
Results Data Set: 122409W1
Results Library: C:\data-AA\Administrator\Results\Results.mdb

==========

Method Loaded
Method Name: WATER **Method Last Saved: 12/23/2009 07:13:05**
Method Description: 7470A, 245.2, ILM04 ANALYST ETL

==========

Sequence No.: 1 **Autosampler Location: 1**
Sample ID: Calib Blank **Date Collected: 12/24/2009 07:20:40**
Analyst: **Data Type: Original**

Replicate Data: Calib Blank

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.00]	0.0002	0.0004	0.0002	07:21:43	Yes
2		[0.00]	0.0002	0.0001	0.0002	07:22:18	Yes
Mean:		[0.00]	0.0002				
SD:		0.00	0.0000				
%RSD:		0.00	13.00				

Auto-zero performed.

==========

Sequence No.: 2 **Autosampler Location: 2**
Sample ID: S0.2 **Date Collected: 12/24/2009 07:22:36**
Analyst: **Data Type: Original**

Replicate Data: S0.2

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.2]	0.0020	0.0096	0.0022	07:23:37	Yes
2		[0.2]	0.0020	0.0097	0.0022	07:24:12	Yes
Mean:		[0.2]	0.0020				
SD:		0.0	0.0000				
%RSD:		0.0	0.48				

Standard number 1 applied. [0.2]
Correlation Coef.: 1.000000 Slope: 0.01011 Intercept: 0.00000

==========

Sequence No.: 3 **Autosampler Location: 3**
Sample ID: S0.5 **Date Collected: 12/24/2009 07:24:31**
Analyst: **Data Type: Original**

Replicate Data: S0.5

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.5]	0.0050	0.0236	0.0052	07:25:32	Yes
2		[0.5]	0.0050	0.0236	0.0052	07:26:07	Yes
Mean:		[0.5]	0.0050				
SD:		0.0	0.0000				
%RSD:		0.0	0.02				

Standard number 2 applied. [0.5]
Correlation Coef.: 0.999999 Slope: 0.01009 Intercept: 0.00000

==========

Sequence No.: 4 **Autosampler Location: 4**
Sample ID: S2.0 **Date Collected: 12/24/2009 07:26:26**
Analyst: **Data Type: Original**

Replicate Data: S2.0

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[2.0]	0.0203	0.0932	0.0205	07:27:28	Yes
2		[2.0]	0.0201	0.0916	0.0203	07:28:02	Yes
Mean:		[2.0]	0.0202				
SD:		0.0	0.0002				
%RSD:		0.0	0.84				

Standard number 3 applied. [2.0]
Correlation Coef.: 1.000000 Slope: 0.01011 Intercept: -0.00000

Sequence No.: 5 **Autosampler Location: 5**
Sample ID: S5.0 **Date Collected: 12/24/2009 07:28:22**
Analyst: **Data Type: Original**

Replicate Data: S5.0

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[5.0]	0.0503	0.2305	0.0505	07:29:24	Yes
2		[5.0]	0.0497	0.2274	0.0499	07:29:59	Yes
Mean:		[5.0]	0.0500				
SD:		0.0	0.0004				
%RSD:		0.0	0.76				

Standard number 4 applied. [5.0]
Correlation Coef.: 0.999991 Slope: 0.01000 Intercept: 0.00005

Sequence No.: 6 **Autosampler Location: 6**
Sample ID: S10.0 **Date Collected: 12/24/2009 07:30:19**
Analyst: **Data Type: Original**

Replicate Data: S10.0

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[10.0]	0.1009	0.4641	0.1011	07:31:19	Yes
2		[10.0]	0.1000	0.4602	0.1002	07:31:54	Yes
Mean:		[10.0]	0.1005				
SD:		0.0	0.0006				
%RSD:		0.0	0.59				

Standard number 5 applied. [10.0]
Correlation Coef.: 0.999996 Slope: 0.01004 Intercept: 0.00001

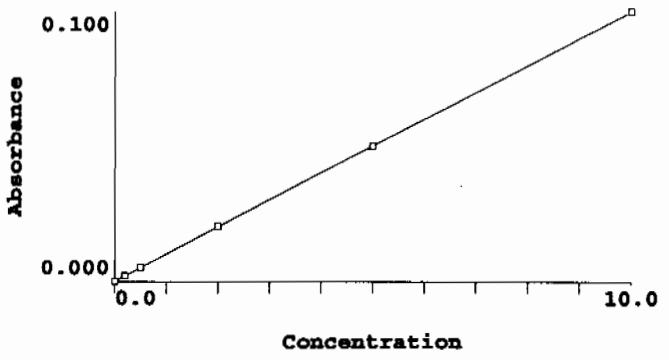

Calibration data for Hg 253.7 **Equation: Linear, Calculated Intercept**

ID	Mean Signal (Abs)	Entered Conc. ug/L	Calculated Conc. ug/L	Standard Deviation	%RSD
Calib Blank	0.0000	0	-0.001	0.00	13.0
S0.2	0.0020	0.2	0.200	0.00	0.5
S0.5	0.0050	0.5	0.501	0.00	0.0
S2.0	0.0202	2.0	2.012	0.00	0.8

S5.0	0.0500	5.0	4.981	0.00	0.8
S10.0	0.1005	10.0	10.007	0.00	0.6

Correlation Coef.: 0.999996 Slope: 0.01004 Intercept: 0.00001

Sequence No.: 7 **Autosampler Location: 9**
Sample ID: ICV **Date Collected: 12/24/2009 07:32:13**
Analyst: **Data Type: Original**

Replicate Data: ICV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.157	5.157	0.0518	0.2378	0.0520	07:33:14	Yes
2	5.143	5.143	0.0516	0.2375	0.0518	07:33:49	Yes
Mean:	5.150	5.150	0.0517				
SD:	0.010	0.010	0.0001				
%RSD:	0.192	0.192	0.19				

QC value within limits for Hg 253.7 Recovery = 103.01%
All analyte(s) passed QC.

Sequence No.: 8 **Autosampler Location: 10**
Sample ID: ICB **Date Collected: 12/24/2009 07:34:08**
Analyst: **Data Type: Original**

Replicate Data: ICB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.010	0.010	0.0001	0.0018	0.0003	07:35:10	Yes
2	0.009	0.009	0.0001	0.0020	0.0003	07:35:45	Yes
Mean:	0.010	0.010	0.0001				
SD:	0.000	0.000	0.0000				
%RSD:	2.313	2.313	2.00				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 9 **Autosampler Location: 11**
Sample ID: CRDL **Date Collected: 12/24/2009 07:36:04**
Analyst: **Data Type: Original**

Replicate Data: CRDL

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.217	0.217	0.0022	0.0122	0.0024	07:37:06	Yes
2	0.222	0.222	0.0022	0.0124	0.0024	07:37:41	Yes
Mean:	0.220	0.220	0.0022				
SD:	0.003	0.003	0.0000				
%RSD:	1.383	1.383	1.37				

QC value within limits for Hg 253.7 Recovery = 109.75%
All analyte(s) passed QC.

Sequence No.: 10 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 12/24/2009 07:38:01**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.057	5.057	0.0508	0.2320	0.0510	07:39:01	Yes
2	5.033	5.033	0.0505	0.2306	0.0507	07:39:36	Yes
Mean:	5.045	5.045	0.0507				
SD:	0.017	0.017	0.0002				
%RSD:	0.337	0.337	0.34				

QC value within limits for Hg 253.7 Recovery = 100.90%
All analyte(s) passed QC.

Sequence No.: 11
Sample ID: CCB
Analyst:
Autosampler Location: 8
Date Collected: 12/24/2009 07:39:55
Data Type: Original

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.002	-0.002	-0.0000	0.0004	0.0002	07:40:56	Yes
2	-0.001	-0.001	0.0000	0.0003	0.0002	07:41:30	Yes
Mean:	-0.002	-0.002	-0.0000				
SD:	0.000	0.000	0.0000				
%RSD:	20.83	20.83	185.80				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 12
Sample ID: 1202001626|936217|1
Analyst: ETL
Autosampler Location: 12
Date Collected: 12/24/2009 07:41:50
Data Type: Original

Replicate Data: 1202001626|936217|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.005	-0.005	-0.0000	-0.0000	0.0002	07:42:51	Yes
2	-0.007	-0.007	-0.0001	-0.0003	0.0001	07:43:26	Yes
Mean:	-0.006	-0.006	-0.0000				
SD:	0.002	0.002	0.0000				
%RSD:	28.85	28.85	38.22				

Sequence No.: 13
Sample ID: 1202003230|936217|1
Analyst: ETL
Autosampler Location: 13
Date Collected: 12/24/2009 07:43:46
Data Type: Original

Replicate Data: 1202003230|936217|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.006	-0.006	-0.0000	0.0001	0.0001	07:44:48	Yes
2	-0.005	-0.005	-0.0000	0.0002	0.0002	07:45:23	Yes
Mean:	-0.005	-0.005	-0.0000				
SD:	0.001	0.001	0.0000				
%RSD:	17.00	17.00	23.52				

Sequence No.: 14
Sample ID: 1202003231|936217|1
Analyst: ETL
Autosampler Location: 14
Date Collected: 12/24/2009 07:45:43
Data Type: Original

Replicate Data: 1202003231|936217|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.042	2.042	0.0205	0.0951	0.0207	07:46:44	Yes
2	2.055	2.055	0.0206	0.0956	0.0208	07:47:18	Yes
Mean:	2.049	2.049	0.0206				
SD:	0.009	0.009	0.0001				
%RSD:	0.449	0.449	0.45				

Sequence No.: 15
Sample ID: 243259001|936217|1
Analyst: ETL
Autosampler Location: 15
Date Collected: 12/24/2009 07:47:37
Data Type: Original

Replicate Data: 243259001|936217|1

Repl	SampleConc	StndConc	BlnkCorr	Peak	Peak	Time	Peak

Replicate Data: 243259003|936217|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.000	0.000	0.0000	0.0007	0.0002	07:58:11	Yes
2	0.000	0.000	0.0000	0.0008	0.0002	07:58:45	Yes
Mean:	0.000	0.000	0.0000				
SD:	0.000	0.000	0.0000				
%RSD:	149.8	149.8	26.02				

Sequence No.: 21 **Autosampler Location: 21**
Sample ID: 1202000254|934913|1 **Date Collected: 12/24/2009 07:59:05**
Analyst: ETL **Data Type: Original**

Replicate Data: 1202000254|934913|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.001	0.001	0.0000	0.0010	0.0002	08:00:06	Yes
2	-0.001	-0.001	0.0000	0.0010	0.0002	08:00:41	Yes
Mean:	0.000	0.000	0.0000				
SD:	0.001	0.001	0.0000				
%RSD:	>999.9%	>999.9%	73.42				

Sequence No.: 22 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 12/24/2009 08:01:00**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.088	5.088	0.0511	0.2353	0.0513	08:02:01	Yes
2	5.060	5.060	0.0508	0.2338	0.0510	08:02:35	Yes
Mean:	5.074	5.074	0.0509				
SD:	0.020	0.020	0.0002				
%RSD:	0.390	0.390	0.39				

QC value within limits for Hg 253.7 Recovery = 101.48%
All analyte(s) passed QC.

Sequence No.: 23 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 12/24/2009 08:02:54**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.002	0.002	0.0000	0.0010	0.0002	08:03:55	Yes
2	0.001	0.001	0.0000	0.0011	0.0002	08:04:30	Yes
Mean:	0.002	0.002	0.0000				
SD:	0.001	0.001	0.0000				
%RSD:	35.05	35.05	19.42				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 24 **Autosampler Location: 22**
Sample ID: 1202000256|934913|1 **Date Collected: 12/24/2009 08:04:50**
Analyst: ETL **Data Type: Original**

Replicate Data: 1202000256|934913|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.060	2.060	0.0207	0.0957	0.0209	08:05:51	Yes
2	2.046	2.046	0.0205	0.0946	0.0207	08:06:26	Yes

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.082	2.082	0.0209	0.0972	0.0211	08:15:31	Yes
2	2.067	2.067	0.0208	0.0963	0.0209	08:16:06	Yes
Mean:	2.075	2.075	0.0208				
SD:	0.011	0.011	0.0001				
%RSD:	0.527	0.527	0.53				

Sequence No.: 30 **Autosampler Location: 28**
Sample ID: 242789001|934892|1 **Date Collected: 12/24/2009 08:16:25**
Analyst: ETL **Data Type: Original**

Replicate Data: 242789001|934892|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.003	0.003	0.0000	0.0010	0.0002	08:17:26	Yes
2	0.003	0.003	0.0000	0.0009	0.0002	08:18:01	Yes
Mean:	0.003	0.003	0.0000				
SD:	0.000	0.000	0.0000				
%RSD:	11.19	11.19	7.40				

Sequence No.: 31 **Autosampler Location: 29**
Sample ID: 1202000221|934892|1 **Date Collected: 12/24/2009 08:18:20**
Analyst: ETL **Data Type: Original**

Replicate Data: 1202000221|934892|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.005	0.005	0.0001	0.0012	0.0002	08:19:21	Yes
2	0.006	0.006	0.0001	0.0012	0.0003	08:19:57	Yes
Mean:	0.005	0.005	0.0001				
SD:	0.001	0.001	0.0000				
%RSD:	17.45	17.45	13.55				

Sequence No.: 32 **Autosampler Location: 30**
Sample ID: 1202000222|934892|1 **Date Collected: 12/24/2009 08:20:16**
Analyst: ETL **Data Type: Original**

Replicate Data: 1202000222|934892|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.021	2.021	0.0203	0.0940	0.0205	08:21:16	Yes
2	2.016	2.016	0.0202	0.0936	0.0204	08:21:51	Yes
Mean:	2.018	2.018	0.0203				
SD:	0.004	0.004	0.0000				
%RSD:	0.196	0.196	0.20				

Sequence No.: 33 **Autosampler Location: 31**
Sample ID: 1202000223|934892|5 **Date Collected: 12/24/2009 08:22:10**
Analyst: ETL **Data Type: Original**

Replicate Data: 1202000223|934892|5

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.001	0.001	0.0000	0.0007	0.0002	08:23:11	Yes
2	-0.016	-0.016	-0.0001	-0.0001	0.0000	08:23:46	Yes
Mean:	-0.008	-0.008	-0.0001				
SD:	0.012	0.012	0.0001				
%RSD:	154.9	154.9	192.46				

Sequence No.: 34 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 12/24/2009 08:24:05**

Analyst: Data Type: Original

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.028	5.028	0.0505	0.2339	0.0507	08:25:05	Yes
2	5.033	5.033	0.0505	0.2337	0.0507	08:25:40	Yes
Mean:	5.031	5.031	0.0505				
SD:	0.003	0.003	0.0000				
%RSD:	0.060	0.060	0.06				

QC value within limits for Hg 253.7 Recovery = 100.61%
All analyte(s) passed QC.

Sequence No.: 35 Autosampler Location: 8
Sample ID: CCB Date Collected: 12/24/2009 08:25:59
Analyst: Data Type: Original

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.002	0.002	0.0000	0.0008	0.0002	08:27:00	Yes
2	0.001	0.001	0.0000	0.0007	0.0002	08:27:35	Yes
Mean:	0.001	0.001	0.0000				
SD:	0.001	0.001	0.0000				
%RSD:	43.47	43.47	19.13				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 36 Autosampler Location: 32
Sample ID: 242789002|934892|1 Date Collected: 12/24/2009 08:27:54
Analyst: ETL Data Type: Original

Replicate Data: 242789002|934892|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.001	0.001	0.0000	0.0009	0.0002	08:28:55	Yes
2	0.004	0.004	0.0001	0.0011	0.0002	08:29:30	Yes
Mean:	0.002	0.002	0.0000				
SD:	0.002	0.002	0.0000				
%RSD:	94.84	94.84	55.90				

Sequence No.: 37 Autosampler Location: 33
Sample ID: 242789003|934892|1 Date Collected: 12/24/2009 08:29:49
Analyst: ETL Data Type: Original

Replicate Data: 242789003|934892|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.001	0.001	0.0000	0.0011	0.0002	08:30:51	Yes
2	0.000	0.000	0.0000	0.0007	0.0002	08:31:25	Yes
Mean:	0.000	0.000	0.0000				
SD:	0.001	0.001	0.0000				
%RSD:	404.6	404.6	61.87				

Sequence No.: 38 Autosampler Location: 34
Sample ID: 1202000191|934876|1 Date Collected: 12/24/2009 08:31:45
Analyst: ETL Data Type: Original

Replicate Data: 1202000191|934876|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.005	0.005	0.0001	0.0013	0.0003	08:32:46	Yes

Replicate Data: 242653002|934876|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.000	0.000	0.0000	0.0009	0.0002	08:42:28	Yes
2	0.001	0.001	0.0000	0.0011	0.0002	08:43:02	Yes
Mean:	0.001	0.001	0.0000				
SD:	0.000	0.000	0.0000				
%RSD:	67.74	67.74	21.18				

==========

Sequence No.: 44 Autosampler Location: 40
Sample ID: 242667001|934876|1 Date Collected: 12/24/2009 08:43:22
Analyst: ETL Data Type: Original

Replicate Data: 242667001|934876|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.002	-0.002	-0.0000	0.0009	0.0002	08:44:23	Yes
2	-0.001	-0.001	0.0000	0.0008	0.0002	08:44:58	Yes
Mean:	-0.002	-0.002	-0.0000				
SD:	0.001	0.001	0.0000				
%RSD:	36.84	36.84	724.83				

==========

Sequence No.: 45 Autosampler Location: 41
Sample ID: 1202000193|934876|1 Date Collected: 12/24/2009 08:45:17
Analyst: ETL Data Type: Original

Replicate Data: 1202000193|934876|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.002	0.002	0.0000	0.0011	0.0002	08:46:18	Yes
2	0.000	0.000	0.0000	0.0009	0.0002	08:46:53	Yes
Mean:	0.001	0.001	0.0000				
SD:	0.001	0.001	0.0000				
%RSD:	129.3	129.3	54.02				

==========

Sequence No.: 46 Autosampler Location: 7
Sample ID: CCV Date Collected: 12/24/2009 08:47:12
Analyst: Data Type: Original

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	4.870	4.870	0.0489	0.2275	0.0491	08:48:13	Yes
2	4.883	4.883	0.0490	0.2274	0.0492	08:48:48	Yes
Mean:	4.877	4.877	0.0490				
SD:	0.010	0.010	0.0001				
%RSD:	0.196	0.196	0.20				

QC value within limits for Hg 253.7 Recovery = 97.53%
All analyte(s) passed QC.

==========

Sequence No.: 47 Autosampler Location: 8
Sample ID: CCB Date Collected: 12/24/2009 08:49:07
Analyst: Data Type: Original

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.002	-0.002	-0.0000	0.0007	0.0002	08:50:08	Yes
2	-0.003	-0.003	-0.0000	0.0006	0.0002	08:50:42	Yes
Mean:	-0.002	-0.002	-0.0000				
SD:	0.001	0.001	0.0000				
%RSD:	33.07	33.07	102.38				

QC value within limits for Hg 253.7 Recovery = Not calculated

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Replicate Data: 242753002|934884|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.001	-0.001	0.0000	0.0008	0.0002	09:09:25	Yes
2	-0.003	-0.003	-0.0000	0.0006	0.0002	09:10:00	Yes
Mean:	-0.002	-0.002	-0.0000				
SD:	0.002	0.002	0.0000				
%RSD:	71.93	71.93	235.96				

Sequence No.: 58 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 12/24/2009 09:10:19**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	4.967	4.967	0.0499	0.2311	0.0501	09:11:20	Yes
2	4.930	4.930	0.0495	0.2291	0.0497	09:11:55	Yes
Mean:	4.948	4.948	0.0497				
SD:	0.026	0.026	0.0003				
%RSD:	0.535	0.535	0.54				

QC value within limits for Hg 253.7 Recovery = 98.97%
All analyte(s) passed QC.

Sequence No.: 59 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 12/24/2009 09:12:13**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.003	-0.003	-0.0000	0.0006	0.0002	09:13:14	Yes
2	-0.002	-0.002	-0.0000	0.0008	0.0002	09:13:49	Yes
Mean:	-0.002	-0.002	-0.0000				
SD:	0.000	0.000	0.0000				
%RSD:	11.96	11.96	32.18				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 60 **Autosampler Location: 52**
Sample ID: 242753003|934884|1 **Date Collected: 12/24/2009 09:14:08**
Analyst: ETL **Data Type: Original**

Replicate Data: 242753003|934884|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.001	-0.001	0.0000	0.0008	0.0002	09:15:09	Yes
2	-0.001	-0.001	0.0000	0.0009	0.0002	09:15:45	Yes
Mean:	-0.001	-0.001	0.0000				
SD:	0.000	0.000	0.0000				
%RSD:	18.43	18.43	75.07				

Sequence No.: 61 **Autosampler Location: 53**
Sample ID: 242753004|934884|1 **Date Collected: 12/24/2009 09:16:04**
Analyst: ETL **Data Type: Original**

Replicate Data: 242753004|934884|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.002	-0.002	-0.0000	0.0008	0.0002	09:17:05	Yes
2	-0.002	-0.002	-0.0000	0.0007	0.0002	09:17:40	Yes
Mean:	-0.002	-0.002	-0.0000				

#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.004	0.004	0.0001	0.0009	0.0002	09:26:43	Yes
2	0.006	0.006	0.0001	0.0013	0.0003	09:27:18	Yes
Mean:	0.005	0.005	0.0001				
SD:	0.001	0.001	0.0000				
%RSD:	23.32	23.32	17.94				

Sequence No.: 67 **Autosampler Location: 59**
Sample ID: 1202000196|934879|1 **Date Collected: 12/24/2009 09:27:38**
Analyst: ETL **Data Type: Original**

Replicate Data: 1202000196|934879|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.001	-0.001	0.0000	0.0007	0.0002	09:28:40	Yes
2	0.001	0.001	0.0000	0.0011	0.0002	09:29:14	Yes
Mean:	0.000	0.000	0.0000				
SD:	0.001	0.001	0.0000				
%RSD:	598.5	598.5	75.83				

Sequence No.: 68 **Autosampler Location: 60**
Sample ID: 1202000197|934879|1 **Date Collected: 12/24/2009 09:29:34**
Analyst: ETL **Data Type: Original**

Replicate Data: 1202000197|934879|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	1.970	1.970	0.0198	0.0919	0.0200	09:30:36	Yes
2	1.967	1.967	0.0198	0.0918	0.0199	09:31:11	Yes
Mean:	1.968	1.968	0.0198				
SD:	0.002	0.002	0.0000				
%RSD:	0.096	0.096	0.10				

Sequence No.: 69 **Autosampler Location: 61**
Sample ID: 242734001|934879|1 **Date Collected: 12/24/2009 09:31:31**
Analyst: ETL **Data Type: Original**

Replicate Data: 242734001|934879|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.004	0.004	0.0001	0.0013	0.0002	09:32:33	Yes
2	0.000	0.000	0.0000	0.0009	0.0002	09:33:07	Yes
Mean:	0.002	0.002	0.0000				
SD:	0.003	0.003	0.0000				
%RSD:	154.9	154.9	84.22				

Sequence No.: 70 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 12/24/2009 09:33:28**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.042	5.042	0.0506	0.2301	0.0508	09:34:28	Yes
2	5.006	5.006	0.0503	0.2293	0.0504	09:35:03	Yes
Mean:	5.024	5.024	0.0504				
SD:	0.026	0.026	0.0003				
%RSD:	0.514	0.514	0.51				

QC value within limits for Hg 253.7 Recovery = 100.48%
All analyte(s) passed QC.

Sequence No.: 71 **Autosampler Location: 8**

Sample ID: CCB
Analyst:
Date Collected: 12/24/2009 09:35:22
Data Type: Original

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.001	-0.001	0.0000	0.0009	0.0002	09:36:23	Yes
2	-0.001	-0.001	0.0000	0.0007	0.0002	09:36:58	Yes
Mean:	-0.001	-0.001	0.0000				
SD:	0.000	0.000	0.0000				
%RSD:	41.28	41.28	54.04				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 72
Sample ID: 1202000198|934879|1
Analyst: ETL
Autosampler Location: 62
Date Collected: 12/24/2009 09:37:17
Data Type: Original

Replicate Data: 1202000198|934879|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.002	-0.002	-0.0000	0.0007	0.0002	09:38:18	Yes
2	0.000	0.000	0.0000	0.0008	0.0002	09:38:53	Yes
Mean:	-0.001	-0.001	0.0000				
SD:	0.002	0.002	0.0000				
%RSD:	114.5	114.5	>999.9%				

Sequence No.: 73
Sample ID: 1202000199|934879|1
Analyst: ETL
Autosampler Location: 63
Date Collected: 12/24/2009 09:39:13
Data Type: Original

Replicate Data: 1202000199|934879|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.022	2.022	0.0203	0.0931	0.0205	09:40:14	Yes
2	2.023	2.023	0.0203	0.0927	0.0205	09:40:49	Yes
Mean:	2.023	2.023	0.0203				
SD:	0.001	0.001	0.0000				
%RSD:	0.029	0.029	0.03				

Sequence No.: 74
Sample ID: 1202000200|934879|5
Analyst: ETL
Autosampler Location: 64
Date Collected: 12/24/2009 09:41:08
Data Type: Original

Replicate Data: 1202000200|934879|5

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.004	-0.004	-0.0000	0.0005	0.0002	09:42:10	Yes
2	-0.003	-0.003	-0.0000	0.0007	0.0002	09:42:44	Yes
Mean:	-0.003	-0.003	-0.0000				
SD:	0.000	0.000	0.0000				
%RSD:	14.97	14.97	27.16				

Sequence No.: 75
Sample ID: 242734002|934879|1
Analyst: ETL
Autosampler Location: 65
Date Collected: 12/24/2009 09:43:04
Data Type: Original

Replicate Data: 242734002|934879|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.005	-0.005	-0.0000	0.0005	0.0002	09:44:05	Yes
2	0.000	0.000	0.0000	0.0010	0.0002	09:44:40	Yes

Mean:	-0.002	-0.002	-0.0000
SD:	0.004	0.004	0.0000
%RSD:	162.4	162.4	437.69

==========

Sequence No.: 76 **Autosampler Location: 66**
Sample ID: 242734003|934879|1 **Date Collected: 12/24/2009 09:45:00**
Analyst: ETL **Data Type: Original**

Replicate Data: 242734003|934879|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.004	0.004	0.0001	0.0013	0.0002	09:46:02	Yes
2	0.004	0.004	0.0001	0.0011	0.0002	09:46:36	Yes
Mean:	0.004	0.004	0.0001				
SD:	0.000	0.000	0.0000				
%RSD:	3.475	3.475	2.58				

==========

Sequence No.: 77 **Autosampler Location: 67**
Sample ID: 242734004|934879|1 **Date Collected: 12/24/2009 09:46:56**
Analyst: ETL **Data Type: Original**

Replicate Data: 242734004|934879|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.001	-0.001	0.0000	0.0010	0.0002	09:47:58	Yes
2	-0.001	-0.001	0.0000	0.0008	0.0002	09:48:32	Yes
Mean:	-0.001	-0.001	0.0000				
SD:	0.000	0.000	0.0000				
%RSD:	19.15	19.15	104.40				

==========

Sequence No.: 78 **Autosampler Location: 68**
Sample ID: 1202000246|934909|1 **Date Collected: 12/24/2009 09:48:52**
Analyst: ETL **Data Type: Original**

Replicate Data: 1202000246|934909|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.003	-0.003	-0.0000	0.0007	0.0002	09:49:53	Yes
2	-0.003	-0.003	-0.0000	0.0007	0.0002	09:50:29	Yes
Mean:	-0.003	-0.003	-0.0000				
SD:	0.000	0.000	0.0000				
%RSD:	10.76	10.76	20.71				

==========

Sequence No.: 79 **Autosampler Location: 69**
Sample ID: 1202000247|934909|1 **Date Collected: 12/24/2009 09:50:48**
Analyst: ETL **Data Type: Original**

Replicate Data: 1202000247|934909|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.025	2.025	0.0203	0.0930	0.0205	09:51:50	Yes
2	2.022	2.022	0.0203	0.0933	0.0205	09:52:25	Yes
Mean:	2.023	2.023	0.0203				
SD:	0.002	0.002	0.0000				
%RSD:	0.089	0.089	0.09				

==========

Sequence No.: 80 **Autosampler Location: 70**
Sample ID: 243043001|934909|1 **Date Collected: 12/24/2009 09:52:45**
Analyst: ETL **Data Type: Original**

Replicate Data: 243043001|934909|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.002	-0.002	-0.0000	0.0008	0.0002	09:53:46	Yes
2	-0.003	-0.003	-0.0000	0.0008	0.0002	09:54:21	Yes
Mean:	-0.002	-0.002	-0.0000				
SD:	0.000	0.000	0.0000				
%RSD:	16.80	16.80	45.48				

==========

Sequence No.: 81 **Autosampler Location: 71**
Sample ID: 1202000248|934909|1 **Date Collected: 12/24/2009 09:54:41**
Analyst: ETL **Data Type: Original**

Replicate Data: 1202000248|934909|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.004	-0.004	-0.0000	0.0006	0.0002	09:55:42	Yes
2	-0.005	-0.005	-0.0000	0.0006	0.0001	09:56:17	Yes
Mean:	-0.005	-0.005	-0.0000				
SD:	0.001	0.001	0.0000				
%RSD:	24.55	24.55	36.34				

==========

Sequence No.: 82 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 12/24/2009 09:56:37**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.076	5.076	0.0510	0.2330	0.0511	09:57:37	Yes
2	5.078	5.078	0.0510	0.2319	0.0512	09:58:12	Yes
Mean:	5.077	5.077	0.0510				
SD:	0.002	0.002	0.0000				
%RSD:	0.038	0.038	0.04				

QC value within limits for Hg 253.7 Recovery = 101.54%
All analyte(s) passed QC.

==========

Sequence No.: 83 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 12/24/2009 09:58:31**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.003	-0.003	-0.0000	0.0004	0.0002	09:59:32	Yes
2	-0.003	-0.003	-0.0000	0.0006	0.0002	10:00:07	Yes
Mean:	-0.003	-0.003	-0.0000				
SD:	0.000	0.000	0.0000				
%RSD:	12.01	12.01	24.16				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

==========

Sequence No.: 84 **Autosampler Location: 72**
Sample ID: 1202000249|934909|1 **Date Collected: 12/24/2009 10:00:26**
Analyst: ETL **Data Type: Original**

Replicate Data: 1202000249|934909|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	1.978	1.978	0.0199	0.0919	0.0201	10:01:28	Yes
2	1.964	1.964	0.0197	0.0914	0.0199	10:02:02	Yes
Mean:	1.971	1.971	0.0198				
SD:	0.010	0.010	0.0001				
%RSD:	0.484	0.484	0.48				

Sequence No.: 85
Sample ID: 1202000250|934909|5
Analyst: ETL
Autosampler Location: 73
Date Collected: 12/24/2009 10:02:23
Data Type: Original

Replicate Data: 1202000250|934909|5

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.002	-0.002	-0.0000	0.0008	0.0002	10:03:24	Yes
2	-0.006	-0.006	-0.0000	0.0004	0.0001	10:03:59	Yes
Mean:	-0.004	-0.004	-0.0000				
SD:	0.003	0.003	0.0000				
%RSD:	65.48	65.48	106.02				

Sequence No.: 86
Sample ID: 243043002|934909|1
Analyst: ETL
Autosampler Location: 74
Date Collected: 12/24/2009 10:04:19
Data Type: Original

Replicate Data: 243043002|934909|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.001	-0.001	0.0000	0.0011	0.0002	10:05:21	Yes
2	0.000	0.000	0.0000	0.0010	0.0002	10:05:56	Yes
Mean:	-0.001	-0.001	0.0000				
SD:	0.001	0.001	0.0000				
%RSD:	66.72	66.72	99.94				

Sequence No.: 87
Sample ID: 1202002014|935641|1
Analyst: ETL
Autosampler Location: 75
Date Collected: 12/24/2009 10:06:15
Data Type: Original

Replicate Data: 1202002014|935641|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.004	-0.004	-0.0000	0.0006	0.0002	10:07:17	Yes
2	-0.003	-0.003	-0.0000	0.0008	0.0002	10:07:52	Yes
Mean:	-0.003	-0.003	-0.0000				
SD:	0.001	0.001	0.0000				
%RSD:	20.56	20.56	38.77				

Sequence No.: 88
Sample ID: 1202002015|935641|1
Analyst: ETL
Autosampler Location: 76
Date Collected: 12/24/2009 10:08:12
Data Type: Original

Replicate Data: 1202002015|935641|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	1.961	1.961	0.0197	0.0918	0.0199	10:09:13	Yes
2	1.954	1.954	0.0196	0.0905	0.0198	10:09:48	Yes
Mean:	1.958	1.958	0.0197				
SD:	0.005	0.005	0.0000				
%RSD:	0.236	0.236	0.24				

Sequence No.: 89
Sample ID: 243242001|935641|1
Analyst: ETL
Autosampler Location: 77
Date Collected: 12/24/2009 10:10:08
Data Type: Original

Replicate Data: 243242001|935641|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.003	-0.003	-0.0000	0.0005	0.0002	10:11:09	Yes

2	0.002	0.002	0.0000	0.0012	0.0002	10:11:44	Yes
Mean:	-0.001	-0.001	0.0000				
SD:	0.004	0.004	0.0000				
%RSD:	413.7	413.7	610.55				

Sequence No.: 90 **Autosampler Location: 78**
Sample ID: 243242002|935641|1 **Date Collected: 12/24/2009 10:12:04**
Analyst: ETL **Data Type: Original**

Replicate Data: 243242002|935641|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.000	0.000	0.0000	0.0010	0.0002	10:13:06	Yes
2	0.001	0.001	0.0000	0.0013	0.0002	10:13:41	Yes
Mean:	0.001	0.001	0.0000				
SD:	0.001	0.001	0.0000				
%RSD:	75.42	75.42	29.15				

Sequence No.: 91 **Autosampler Location: 79**
Sample ID: 243251001|935641|1 **Date Collected: 12/24/2009 10:14:01**
Analyst: ETL **Data Type: Original**

Replicate Data: 243251001|935641|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.002	-0.002	-0.0000	0.0008	0.0002	10:15:02	Yes
2	-0.002	-0.002	-0.0000	0.0008	0.0002	10:15:37	Yes
Mean:	-0.002	-0.002	-0.0000				
SD:	0.000	0.000	0.0000				
%RSD:	8.032	8.032	44.90				

Sequence No.: 92 **Autosampler Location: 80**
Sample ID: 1202002016|935641|1 **Date Collected: 12/24/2009 10:15:57**
Analyst: ETL **Data Type: Original**

Replicate Data: 1202002016|935641|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.001	-0.001	0.0000	0.0010	0.0002	10:16:58	Yes
2	-0.004	-0.004	-0.0000	0.0006	0.0002	10:17:33	Yes
Mean:	-0.002	-0.002	-0.0000				
SD:	0.002	0.002	0.0000				
%RSD:	93.69	93.69	231.60				

Sequence No.: 93 **Autosampler Location: 81**
Sample ID: 1202002017|935641|1 **Date Collected: 12/24/2009 10:17:53**
Analyst: ETL **Data Type: Original**

Replicate Data: 1202002017|935641|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.159	2.159	0.0217	0.0988	0.0219	10:18:54	Yes
2	2.136	2.136	0.0215	0.0978	0.0216	10:19:29	Yes
Mean:	2.147	2.147	0.0216				
SD:	0.016	0.016	0.0002				
%RSD:	0.749	0.749	0.75				

Sequence No.: 94 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 12/24/2009 10:19:49**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	4.935	4.935	0.0495	0.2274	0.0497	10:20:49	Yes
2	4.913	4.913	0.0493	0.2265	0.0495	10:21:24	Yes
Mean:	4.924	4.924	0.0494				
SD:	0.015	0.015	0.0002				
%RSD:	0.304	0.304	0.30				

QC value within limits for Hg 253.7 Recovery = 98.48%
All analyte(s) passed QC.

Sequence No.: 95 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 12/24/2009 10:21:43**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.002	0.002	0.0000	0.0011	0.0002	10:22:44	Yes
2	0.000	0.000	0.0000	0.0011	0.0002	10:23:19	Yes
Mean:	0.001	0.001	0.0000				
SD:	0.002	0.002	0.0000				
%RSD:	129.7	129.7	58.70				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.
User canceled analysis.

Miscellaneous

Prep LogBook

Analyst: TXB3 Verified by:_____

Batch: 934908

Lab SOP: GL-MA-E-010 REV# 23

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1202000247	WHG091223-13	.2	mL
MS	1202000249	WHG091223-13	.2	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Ph	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1202000246		SW846 7470A Prep	23-DEC-2009 11:20	<2	20 mL	20 mL	1	WATER
LCS	1202000247		SW846 7470A Prep	23-DEC-2009 11:20	<2	20 mL	20 mL	1	WATER
SAMPLE	243043001		SW846 7470A Prep	23-DEC-2009 11:20	<2	20 mL	20 mL	1	WATER
DUP	1202000248	243043001	SW846 7470A Prep	23-DEC-2009 11:20	<2	20 mL	20 mL	1	WATER
MS	1202000249	243043001	SW846 7470A Prep	23-DEC-2009 11:20	<2	20 mL	20 mL	1	WATER
SDILT	1202000250	243043001	SW846 7470A Prep	23-DEC-2009 11:20	<2	20 mL	20 mL	1	WATER
SAMPLE	243043002		SW846 7470A Prep	23-DEC-2009 11:20	<2	20 mL	20 mL	1	WATER

Reagent/Solvent Lot ID	Amount	Description
1176183	1 mL	Sulfuric Acid, Concentrated
1240182-1	.5 mL	NITRIC ACID
1234385-C	1.5 mL	5% Potassium Persulfate
1244904-C	3 mL	5% KMnO4 solution
1206350-C	1 mL	Hg reducing agent
WHG091223-06	500 uL	Mercury Working 2nd Source 5.0/ICV
WHG091223-01	20 uL	Mercury Working 1st Source CAL 0.2/CRA
WHG091223-02	50 uL	Mercury Working 1st Source CAL 0.5
WHG091223-05	1 mL	Mercury Working 1st Source CAL 10.0
WHG091223-03	200 uL	Mercury Working 1st Source CAL 2.0
WHG091223-04	500 uL	Mercury Working 1st Source CAL 5.0/CCV

Comments Digestion Start Date: 23-DEC-09 11:20
Digestion End Date: 23-DEC-09 13:20

Prep LogBook

Analyst: BCD1 Verified by:_____

Batch: 934498

Lab SOP: GL-MA-E-006 REV# 9

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1201999356	U1091216-01	.25	mL
LCS	1201999356	U1091216-06	.25	mL
MS	1201999358	U1091216-01	.25	mL
MS	1201999358	U1091216-06	.25	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Ph	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1201999355		SW846 3005A	19-DEC-2009 12:35	<2	50 mL	50 mL	1	WATER
LCS	1201999356		SW846 3005A	19-DEC-2009 12:35	<2	50 mL	50 mL	1	WATER
SAMPLE	243043001		SW846 3005A	19-DEC-2009 12:35	<2	50 mL	50 mL	1	WATER
DUP	1201999357	243043001	SW846 3005A	19-DEC-2009 12:35	<2	50 mL	50 mL	1	WATER
MS	1201999358	243043001	SW846 3005A	19-DEC-2009 12:35	<2	50 mL	50 mL	1	WATER
SDILT	1201999359	243043001	SW846 3005A	19-DEC-2009 12:35	<2	50 mL	50 mL	1	WATER
SAMPLE	243043002		SW846 3005A	19-DEC-2009 12:35	<2	50 mL	50 mL	1	WATER

Reagent/Solvent Lot ID	Amount	Description
1244970	2.5 mL	HYDROCHLORIC ACID
1238345	1 mL	Nitric Acid CONC.

Comments:

Prep LogBook

Analyst: BCD1 Verified by:_____

Batch: 934500

Lab SOP: GL-MA-E-006 REV# 9

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1201999361	UI091124-A00	.5	mL
LCS	1201999361	UI091124-B	.5	mL
MS	1201999363	UI090930-A	.5	mL
MS	1201999363	UI090930-B	.5	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Ph	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1201999360		SW846 3005A	19-DEC-2009 12:43	<2	50 mL	50 mL	1	WATER
LCS	1201999361		SW846 3005A	19-DEC-2009 12:43	<2	50 mL	50 mL	1	WATER
SAMPLE	243043001		SW846 3005A	19-DEC-2009 12:43	<2	50 mL	50 mL	1	WATER
DUP	1201999362	243043001	SW846 3005A	19-DEC-2009 12:43	<2	50 mL	50 mL	1	WATER
MS	1201999363	243043001	SW846 3005A	19-DEC-2009 12:43	<2	50 mL	50 mL	1	WATER
SDILT	1201999364	243043001	SW846 3005A	19-DEC-2009 12:43	<2	50 mL	50 mL	1	WATER
SAMPLE	243043002		SW846 3005A	19-DEC-2009 12:43	<2	50 mL	50 mL	1	WATER

Reagent/Solvent Lot ID	Amount	Description
1244970	2.5 mL	HYDROCHLORIC ACID
1238345	1 mL	Nitric Acid CONC.

Comments

Standard Logbook

Serial ID: UHG1167639-01 **Opened:** 13-AUG-09 **Amount :** 125 mL
Name: MHGSTOCK1 **Received:** 13-AUG-09 **Catalog Number :** PLHG4-2Y
Type: Source Material **Expires:** 13-AUG-10 **Lot Number :** 15-37HG
Employee: Bryan Davis **Solvent :** 10% HNO3
Supplier: Spex
Description: Mercury Source Standard #1 1,000 mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Mercury	1000 mg/L		

Serial ID: UHG1167641-02 **Opened:** 13-AUG-09 **Amount :** 100 mL
Name: MHGSTOCK2 **Received:** 13-AUG-09 **Catalog Number :** AHG1KN-100
Type: Source Material **Expires:** 13-AUG-10 **Lot Number :** 4905530
Employee: Bryan Davis **Solvent :** 3% HNO3
Supplier: Ricca Chemical Company
Description: Mercury Source Standard #2 1,000 mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Mercury	999.7 mg/L		

Serial ID: UI090610-03 **Opened:** 10-JUN-09 **Catalog Number :** 060074-06-01
Name: ICPMS Tungsten - 10mg/L S **Received:** 10-JUN-09 **Lot Number :** 1016338
Type: Source Material **Expires:** 10-JUN-10 **Solvent :** 2% HNO3
Employee: Paul Boyd
Supplier: O2SI
Description: ICPMS Tungsten standard SPIKE - 10mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Tungsten	10 mg/L		

Serial ID: UI090701-09 **Opened:** 01-JUL-09 **Amount :** 250 mL
Name: ICP-MS CRDL Master #1 **Received:** 01-JUL-09 **Catalog Number :** 160044-09-02
Type: Source Material **Expires:** 01-JUL-10 **Lot Number :** 1016477
Employee: Paul Boyd **Solvent :** +/- 0.5% IN 2% HNO3
Supplier: 02SI
Description: ICPMS CRDL Master Soln #1
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	15 mg/L	Arsenic	5 mg/L
Barium	2 mg/L	Beryllium	.5 mg/L
Boron	15 mg/L	Cadmium	1 mg/L
Calcium	100 mg/L	Chromium	3 mg/L

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Cobalt	1 mg/L	Copper	1 mg/L
Iron	25 mg/L	Lead	2 mg/L
Lithium	10 mg/L	Magnesium	15 mg/L
Manganese	5 mg/L	Nickel	2 mg/L
Phosphorous	50 mg/L	Potassium	300 mg/L
Selenium	5 mg/L	Sodium	250 mg/L
Strontium	10 mg/L	Thallium	1 mg/L
Thorium	1 mg/L	Uranium	.2 mg/L
Vanadium	10 mg/L	Zinc	10 mg/L

Serial ID: UI090701-10 **Opened:** 01-JUL-09 **Amount :** 250 mL
Name: ICP-MS CRDL Master #2 **Received:** 01-JUL-09 **Catalog Number :** 160044-08-02
Type: Source Material **Expires:** 01-JUL-10 **Lot Number :** 1016476
Employee: Paul Boyd **Solvent :** +/- 0.5% IN 2% HNO3
Supplier: 02SI
Description: ICPMS CRDL Soln #2
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	2 mg/L	Molybdenum	.5 mg/L
Silver	1 mg/L	Tin	2 mg/L
Titanium	10 mg/L	Tungsten	5 mg/L
Zirconium	2 mg/L		

Serial ID: UI090828-42 **Opened:** 16-SEP-09 **Amount :** 500 mL
Name: TRACE ICP Na-1000SOUR **Received:** 27-AUG-09 **Catalog Number :** 060011-02-03
Type: Source Material **Expires:** 16-SEP-10 **Lot Number :** 1017098
Employee: Helen Camello **Solvent :** 1%HNO3
Supplier: 02SI
Description: Sodium 1000 +/- 3 ug/mL in 1% HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Sodium	1000 ug/mL		

Serial ID: UI090930-A **Opened:** 30-SEP-09 **Catalog Number :** 160067-02
Name: ICP-MS DOE Liquid SPIKE **Received:** 28-SEP-09 **Lot Number :** 1017141
Type: Source Material **Expires:** 30-SEP-10
Employee: Francena Armstrong **Verified:** 21-NOV-08
Supplier: O2Si
Description: ICP-MS DOE liquid Spike Solution A
Comments: None

Analyte	Concentration	Analyte	Concentration

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Aluminum	200 mg/L	Arsenic	8 mg/L
Barium	5 mg/L	Beryllium	5 mg/L
Boron	10 mg/L	Cadmium	1 mg/L
Calcium	200 mg/L	Chromium	5 mg/L
Cobalt	5 mg/L	Copper	5 mg/L
Iron	200 mg/L	Lead	4 mg/L
Lithium	5 mg/L	Magnesium	200 mg/L
Manganese	5 mg/L	Nickel	5 mg/L
Phosphorus, Total as P	200 mg/L	Potassium	200 mg/L
Selenium	2 mg/L	Silicon	200 mg/L
Sodium	200 mg/L	Strontium	5 mg/L
Thallium	10 mg/L	Thorium	5 mg/L
Total Uranium	5 mg/L	Uranium	5 mg/L
Uranium-235	.0364 mg/L	Uranium-238	4.96 mg/L
Vanadium	5 mg/L	Zinc	5 mg/L

Serial ID: UI090930-B **Opened:** 30-SEP-09 **Catalog Number :** 160067-02
Name: ICP-MS DOE Liquid SPIKE **Received:** 28-SEP-09 **Lot Number :** 1017141
Type: Source Material **Expires:** 30-SEP-10
Employee: Francena Armstrong **Verified:** 21-NOV-08
Supplier: O2Si
Description: ICP-MS DOE Liquid Spike Solution B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	20 mg/L	Molybdenum	5 mg/L
Silver	5 mg/L	Tin	5 mg/L
Titanium	5 mg/L	Zirconium	5 mg/L

Serial ID: UI091015-42 **Opened:** 28-OCT-09 **Amount :** 500 mL
Name: SI 1000mg/L **Received:** 15-OCT-09 **Catalog Number :** 060014-02-03
Type: Source Material **Expires:** 28-OCT-10 **Lot Number :** 1017581
Employee: Helen Camello **Solvent :** 0.3%H2O(NH4)2SiF6
Supplier: o2si
Description: Silicon 1000mg/L+/-0.3%in H2O(NH4)2SiF6
Comments: None

Analyte	Concentration	Analyte	Concentration
Silica	2139 mg/L	Silicon	1000 mg/L

Standard Logbook

Serial ID: UI091102-40 **Opened:** 16-NOV-09 **Amount :** 500 mL
Name: TRACE CALSTD#1A SOUF **Received:** 02-NOV-09 **Catalog Number :** HP2270-1-500
Type: Source Material **Expires:** 31-OCT-10 **Lot Number :** 0930215
Employee: Helen Camello **Solvent :** HNO3
Supplier: Environmental Express
Description: Trace Calibration Std #1A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	2000 mg/L	Arsenic	200 mg/L
Barium	200 mg/L	Beryllium	200 mg/L
Boron	200 mg/L	Cadmium	200 mg/L
Calcium	2000 mg/L	Chromium	200 mg/L
Cobalt	200 mg/L	Copper	200 mg/L
Iron	2000 mg/L	Lead	200 mg/L
Magnesium	2000 mg/L	Manganese	200 mg/L
Nickel	200 mg/L	Phosphorous	1000 mg/L
Potassium	2000 mg/L	Selenium	200 mg/L
Sodium	2000 mg/L	Strontium	200 mg/L
Thallium	200 mg/L	Uranium	200 mg/L
Vanadium	200 mg/L	Zinc	200 mg/L

Serial ID: UI091102-41 **Opened:** 16-NOV-09 **Amount :** 500 mL
Name: TRACE CALSTD#1B SOUF **Received:** 02-NOV-09 **Catalog Number :** HP2270-2-500
Type: Source Material **Expires:** 31-OCT-10 **Lot Number :** 0930216
Employee: Helen Camello **Solvent :** HNO3
Supplier: Environmental Express
Description: Trace Calibration Standard #1B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	200 mg/L	Molybdenum	200 mg/L
Silver	200 mg/L	Sulfur	400 mg/L
Tin	200 mg/L	Titanium	200 mg/L

Serial ID: UI091124-A00 **Opened:** 24-NOV-09 **Catalog Number :** 160067-05
Name: ICP-MS ALL OTHER SPIKE **Received:** 24-NOV-09 **Lot Number :** 1017644
Type: Source Material **Expires:** 24-NOV-10
Employee: Francena Armstrong
Supplier: O2si
Description: ICP-MS SPIKE FOR ALL CLIENTS EXCEPT DOE CLIENTS (Solution A).
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	200 mg/L	Arsenic	5 mg/L
Barium	5 mg/L	Beryllium	5 mg/L

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Bismuth	5 mg/L	Boron	10 mg/L
Cadmium	5 mg/L	Calcium	200 mg/L
Cesium	5 mg/L	Chromium	5 mg/L
Cobalt	5 mg/L	Copper	5 mg/L
Iron	200 mg/L	Lead	5 mg/L
Lithium	5 mg/L	Magnesium	200 mg/L
Manganese	5 mg/L	Nickel	5 mg/L
Phosphorous	200 mg/L	Potassium	200 mg/L
Selenium	5 mg/L	Sodium	200 mg/L
Strontium	5 mg/L	Thallium	5 mg/L
Thorium	5 mg/L	Uranium	5 mg/L
Uranium-235	.036 mg/L	Uranium-238	4.964 mg/L
Vanadium	5 mg/L	Zinc	5 mg/L

Serial ID: UI091124-B **Opened:** 24-NOV-09 **Catalog Number :** 160067-05
Name: ICP-MS ALL OTHER SPIKE **Received:** 24-NOV-09 **Lot Number :** 1017644
Type: Source Material **Expires:** 24-NOV-10
Employee: Francena Armstrong
Supplier: O2si
Description: MS SPIKE FOR ALL CLIENTS EXCEPT DOE CLIENTS (Solution B).
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	5 mg/L	Molybdenum	5 mg/L
Silver	5 mg/L	Tin	5 mg/L
Titanium	5 mg/L	Zirconium	5 mg/L

Serial ID: UI091130-48 **Opened:** 11-DEC-09 **Amount :** 1000 mL
Name: Trace ICP ICSA **Received:** 01-DEC-09 **Catalog Number :** 160005-02
Type: Source Material **Expires:** 01-JAN-10 **Lot Number :** 1018045
Employee: Helen Camello **Solvent :** 3% HCl + 1% HNO3
Supplier: o2si
Description: Trace ICP Interferent Check Standard A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 UG/L	Calcium	500000 UG/L
Iron	200000 UG/L	Magnesium	500000 UG/L

Serial ID: UI091211-40 **Opened:** 11-DEC-09 **Amount :** 500 mL
Name: ICP HIGH RANGE STD-A **Received:** 09-DEC-09 **Catalog Number :** 160211-05-03
Type: Source Material **Expires:** 11-DEC-10 **Lot Number :** 1017958
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3
Supplier: 02SI

Standard Logbook

Description: ICP HIGH RANGE STD SOLUTION A
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	10000 ug/L	Arsenic	10000 ug/L
Barium	15000 ug/L	Beryllium	3000 ug/L
Boron	5000 ug/L	Cadmium	10000 ug/L
Chromium	25000 ug/L	Cobalt	10000 ug/L
Copper	20000 ug/L	Lead	25000 ug/L
Manganese	10000 ug/L	Molybdenum	10000 ug/L
Nickel	10000 ug/L	Phosphorous	15000 ug/L
Potassium	300000 ug/L	Selenium	10000 ug/L
Silica	107000 ug/L	Silicon	50000 ug/L
Silver	1000 ug/L	Strontium	10000 ug/L
Sulfur	50000 ug/L	Thallium	10000 ug/L
Tin	10000 ug/L	Titanium	10000 ug/L
Vanadium	10000 ug/L	Zinc	15000 ug/L

Serial ID: UI091211-41 **Opened:** 11-DEC-09 **Amount :** 500 mL
Name: ICP HIGH RANGE STD B **Received:** 09-DEC-09 **Catalog Number :** 160211-05-03
Type: Source Material **Expires:** 11-DEC-10 **Lot Number :** 1017958
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3
Supplier: 02SI
Description: ICP HIGH RANGE STD SOLUTION B
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 ug/L	Calcium	500000 ug/L
Iron	500000 ug/L	Magnesium	500000 ug/L
Sodium	500000 ug/L	Uranium	15000 ug/L

Serial ID: UI091212-11 **Opened:** 12-DEC-09 **Amount :** 1000 mL
Name: ICP-MS ICSA Master A **Received:** 12-DEC-09 **Catalog Number :** 160013-01-01L
Type: Source Material **Expires:** 12-DEC-10 **Lot Number :** 1015303
Employee: Paul Boyd **Solvent :** 2% HNO3
Supplier: 02SI
Description: ICP-MS ICSA Master A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Calcium	1000 mg/L
Carbon	2000 mg/L	Chloride	10000 mg/L
Iron	1000 mg/L	Magnesium	1000 mg/L
Molybdenum	20 mg/L	Phosphorous	1000 mg/L
Potassium	1000 mg/L	Sodium	1000 mg/L
Sulfur	1000 mg/L	Titanium	20 mg/L

Standard Logbook

Serial ID: UI091212-60 **Opened:** 12-DEC-09 **Amount :** .5 mL
Name: ICPMS High Range Standa **Received:** 12-DEC-09 **Catalog Number :** 160212-02-01
Type: Source Material **Expires:** 12-DEC-10 **Lot Number :** 1018064
Employee: Paul Boyd **Solvent :** 2%HNO3 + Tr HF
Supplier: O2SI
Description: Linear Range Standard A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	5000 mg/L	Arsenic	100 mg/L
Barium	250 mg/L	Beryllium	100 mg/L
Cadmium	100 mg/L	Calcium	5000 mg/L
Chromium	100 mg/L	Cobalt	100 mg/L
Copper	100 mg/L	Iron	5000 mg/L
Lead	500 mg/L	Lithium	100 mg/L
Magnesium	5000 mg/L	Manganese	100 mg/L
Nickel	100 mg/L	Phosphorous	2500 mg/L
Potassium	5000 mg/L	Selenium	50 mg/L
Sodium	5000 mg/L	Strontium	100 mg/L
Thallium	50 mg/L	Thorium	250 mg/L
Uranium	500 mg/L	Vanadium	100 mg/L
Zinc	250 mg/L		

Serial ID: UI091212-61 **Opened:** 12-DEC-09 **Amount :** .5 mL
Name: ICPMS High Range Standa **Received:** 12-DEC-09 **Catalog Number :** 160212-02-01
Type: Source Material **Expires:** 12-DEC-10 **Lot Number :** 1018064
Employee: Paul Boyd **Solvent :** 2%HNO3 + Tr HF
Supplier: O2SI
Description: Linear Range Standard B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	25 mg/L	Molybdenum	100 mg/L
Silver	25 mg/L	Tin	100 mg/L
Tungsten	100 mg/L	Zirconium	50 mg/L

Serial ID: UI091216-01 **Opened:** 16-DEC-09 **Lot Number :** 1018095
Name: METALSPIKE-1 **Received:** 16-DEC-09
Type: Source Material **Expires:** 16-DEC-10
Employee: Francena Armstrong
Supplier: OS2I
Description: Metals Spike Mix I
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 ug/mL	Arsenic	100 ug/mL

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Barium	100 ug/mL	Beryllium	100 ug/mL
Boron	100 ug/mL	Cadmium	100 ug/mL
Calcium	1000 ug/mL	Cobalt	100 ug/mL
Iron	1000 ug/mL	Lead	100 ug/mL
Magnesium	1000 ug/mL	Phosphorous	100 ug/mL
Potassium	1000 ug/mL	Silver	100 ug/mL
Sodium	1000 ug/mL	Strontium	100 ug/mL

Serial ID: UI091216-06 **Opened:** 16-DEC-09 **Lot Number :** 1018096
Name: METALSPIKE-2 **Received:** 16-DEC-09
Type: Source Material **Expires:** 16-DEC-10
Employee: Francena Armstrong
Supplier: OS2I
Description: Metals Spike Mix II
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	100 ug/mL	Chromium	100 ug/mL
Copper	100 ug/mL	Manganese	100 ug/mL
Molybdenum	100 ug/mL	Nickel	100 ug/mL
Selenium	100 ug/mL	Silica	2141 ug/mL
Silicon	1000 ug/mL	Sulfur	1000 ug/mL
Thallium	100 ug/mL	Tin	100 ug/mL
Titanium	100 ug/mL	Uranium	100 ug/mL
Vanadium	100 ug/mL	Zinc	100 ug/mL

Serial ID: UI091217-06 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master A **Received:** 17-DEC-09 **Catalog Number :** 160055-01
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018209
Employee: Paul Boyd **Solvent :** +/- 0.5% in 5% HNO3 100 cm2
Supplier: 02SI
Description: ICPMS ICV/CCV SOLN A - 10ppm
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	2020 mg/L	Calcium	2000 mg/L
Iron	2000 mg/L	Magnesium	2000 mg/L
Phosphorous	2000 mg/L	Potassium	2000 mg/L
Sodium	2000 mg/L		

Standard Logbook

Serial ID: UI091217-07 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master B **Received:** 17-DEC-09 **Catalog Number :** 160054-02
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018210
Employee: Paul Boyd **Solvent :** +/- 0.5% in 5% HNO3 100 cm2
Supplier: 02SI
Description: ICPMS ICV/CCV Soln B - 10ppm
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	20 mg/L	Barium	20 mg/L
Beryllium	20 mg/L	Boron	40 mg/L
Cadmium	20 mg/L	Chromium	20 mg/L
Cobalt	20 mg/L	Copper	20 mg/L
Lead	20 mg/L	Lithium	20 mg/L
Manganese	20 mg/L	Nickel	20 mg/L
Selenium	20 mg/L	Strontium	20 mg/L
Thallium	20 mg/L	Thorium	20 mg/L
Uranium	20 mg/L	Vanadium	20 mg/L
Zinc	20 mg/L		

Serial ID: UI091217-08 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master C **Received:** 17-DEC-09 **Catalog Number :** 160054-03
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018211
Employee: Paul Boyd **Solvent :** +/- 0.5% in 5% HNO3 100 cm2
Supplier: 02SI
Description: ICPMS ICV/CCV Soln C - 10ppm
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	20 mg/L	Molybdenum	20 mg/L
Silver	20 mg/L	Tin	20 mg/L
Titanium	20 mg/L	Tungsten	20 mg/L
Zirconium	20 mg/L		

Serial ID: UI091217-12 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICSAB Master B **Received:** 17-DEC-09 **Catalog Number :** 160033-02
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018212
Employee: Paul Boyd **Solvent :** +/- 0.5% in 2% HNO3
Supplier: 02SI
Description: ICPMS ICSAB Master B
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	2 mg/L	Barium	2 mg/L
Beryllium	2 mg/L	Boron	2 mg/L
Cadmium	2 mg/L	Chromium	2 mg/L

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Cobalt	2 mg/L	Copper	2 mg/L
Lead	2 mg/L	Lithium	2 mg/L
Manganese	2 mg/L	Nickel	2 mg/L
Selenium	2 mg/L	Strontium	2 mg/L
Thallium	2 mg/L	Thorium	2 mg/L
Uranium	2 mg/L	Vanadium	2 mg/L
Zinc	2 mg/L		

Serial ID: UI091217-13 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICSAB Master C **Received:** 17-DEC-09 **Catalog Number :** 160033-03
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1016926
Employee: Paul Boyd **Solvent :** +/- 0.5% in 2% HNO3
Supplier: 02SI
Description: ICPMS ICSAB Master C
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	2 mg/L	Silver	2 mg/L
Tin	2 mg/L	Tungsten	2 mg/L
Zirconium	2 mg/L		

Serial ID: UMS090303-01 **Opened:** 03-MAR-09 **Amount :** 250 mL
Name: ICPMSCalSPIKEB **Received:** 03-MAR-09 **Catalog Number :** ZGEL-100-250
Type: Source Material **Expires:** 28-FEB-10 **Lot Number :** 14-81JB
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution B
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	10 mg/L	Barium	10 mg/L
Beryllium	10 mg/L	Boron	20 mg/L
Cadmium	10 mg/L	Chromium	10 mg/L
Cobalt	10 mg/L	Copper	10 mg/L
Lead	10 mg/L	Lithium	10 mg/L
Manganese	10 mg/L	Nickel	10 mg/L
Selenium	10 mg/L	Silver	10 mg/L
Strontium	10 mg/L	Thallium	10 mg/L
Thorium	10 mg/L	Uranium	10 mg/L
Vanadium	10 mg/L	Zinc	10 mg/L

Standard Logbook

Serial ID: UMS090303-02 **Opened:** 03-MAR-09 **Catalog Number :** ZGEL-102-250
Name: ICPMSCalSPIKEA **Received:** 03-MAR-09 **Lot Number :** 14-83JB
Type: Source Material **Expires:** 28-FEB-10
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Calcium	1000 mg/L
Iron	1000 mg/L	Magnesium	1000 mg/L
Phosphorous	1000 mg/L	Potassium	1000 mg/L
Sodium	1000 mg/L		

Serial ID: UMS090303-03 **Opened:** 03-MAR-09 **Amount :** 250 ml
Name: ICPMSCalSPIKEC **Received:** 03-MAR-09 **Catalog Number :** ZGEL-101-250
Type: Source Material **Expires:** 28-FEB-10 **Lot Number :** 15-199JB
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution C
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	10 mg/L	Molybdenum	10 mg/L
Tin	10 mg/L	Titanium	10 mg/L
Zirconium	10 mg/L		

Serial ID: IHG091222-01 **Opened:** 22-DEC-09 **Instrument Id :** Mercury
Name: MHGINTER1 **Received:** 22-DEC-09 **Pipet Id :** Minou1
Type: Intermediate **Expires:** 23-DEC-09 **Solvent :** 1mL HNO3 + Typel H2O
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Intermediate 1st Source 200 ug/L
Comments: Prepare fresh daily

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167639-01	Mercury	1000 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: IHG091222-02 **Opened:** 22-DEC-09 **Pipet Id :** Minou1
Name: MHGINTER2 **Received:** 22-DEC-09 **Solvent :** 2% HNO3-1240182
Type: Intermediate **Expires:** 23-DEC-09
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Intermediate 2nd Source 200 ug/L
Comments: None

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167641-02	Mercury	999.7 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: IHG091223-01 **Opened:** 23-DEC-09 **Instrument Id :** Mercury
Name: MHGINTER1 **Received:** 23-DEC-09 **Pipet Id :** Minou1
Type: Intermediate **Expires:** 24-DEC-09 **Solvent :** 1mL HNO3 + Typel H2O
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Intermediate 1st Source 200 ug/L
Comments: Prepare fresh daily

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167639-01	Mercury	1000 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: IHG091223-02 **Opened:** 23-DEC-09 **Pipet Id :** Minou1
Name: MHGINTER2 **Received:** 23-DEC-09 **Solvent :** 2% HNO3-1240182
Type: Intermediate **Expires:** 24-DEC-09
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Intermediate 2nd Source 200 ug/L
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167641-02	Mercury	999.7 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: WHG091222-07 **Opened:** 22-DEC-09 **Pipet Id :** Hg1289245
Name: MHGWORKCALS0.2CRA **Received:** 22-DEC-09 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 28-DEC-09
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working Standard 1st Source CAL S 0.2/CRA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG091222-01	Mercury	200 ug/L	30 uL	30 mL	.2 ug/L

Serial ID: WHG091222-08 **Opened:** 22-DEC-09 **Pipet Id :** Hg1289245
Name: MHGWORKCALS0.5 **Received:** 22-DEC-09 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 28-DEC-09
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working Standard 1st Source CAL S 0.5
Comments: None

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG091222-01	Mercury	200 ug/L	75 uL	30 mL	.5 ug/L

Serial ID: WHG091222-09 **Opened:** 22-DEC-09 **Pipet Id :** Hg1289245
Name: MHGWORKCALS2.0 **Received:** 22-DEC-09 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 28-DEC-09
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL S 2.0
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG091222-01	Mercury	200 ug/L	300 uL	30 mL	2 ug/L

Serial ID: WHG091222-10 **Opened:** 22-DEC-09 **Pipet Id :** Hg1289245
Name: MHGWORKCALS5.0CCV **Received:** 22-DEC-09 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 28-DEC-09
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL S 5.0/CCV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG091222-01	Mercury	200 ug/L	750 uL	30 mL	5 ug/L

Serial ID: WHG091222-11 **Opened:** 22-DEC-09 **Pipet Id :** Hg1289245
Name: MHGWORKCALS10.0 **Received:** 22-DEC-09 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 28-DEC-09
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working 1st Source CAL S 10.0
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG091222-01	Mercury	200 ug/L	1500 uL	30 mL	10 ug/L

Serial ID: WHG091222-12 **Opened:** 22-DEC-09 **Pipet Id :** Hg1289245
Name: MHGWORKS5.0ICV **Received:** 22-DEC-09 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 28-DEC-09
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 2nd Source S 5.0/ICV
Comments: None

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG091222-02	Mercury	200 ug/L	750 uL	30 mL	5 ug/L

Serial ID: WHG091223-01 **Opened:** 23-DEC-09 **Pipet Id :** Hg1289245
Name: MHGWORKCAL0.2CRA **Received:** 23-DEC-09 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 29-DEC-09
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working 1st Source CAL 0.2/CRA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG091223-01	Mercury	200 ug/L	20 uL	20 mL	.2 ug/L

Serial ID: WHG091223-02 **Opened:** 23-DEC-09 **Pipet Id :** Hg1289245
Name: MHGWORKCAL0.5 **Received:** 23-DEC-09 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 29-DEC-09
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working 1st Source CAL 0.5
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG091223-01	Mercury	200 ug/L	50 uL	20 mL	.5 ug/L

Serial ID: WHG091223-03 **Opened:** 23-DEC-09 **Pipet Id :** Hg1289245
Name: MHGWORKCAL2.0 **Received:** 23-DEC-09 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 29-DEC-09
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL 2.0
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG091223-01	Mercury	200 ug/L	200 uL	20 mL	2 ug/L

Serial ID: WHG091223-04 **Opened:** 23-DEC-09 **Pipet Id :** Hg1289245
Name: MHGWORKCAL5.0CCV **Received:** 23-DEC-09 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 29-DEC-09
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL 5.0/CCV
Comments: None

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG091223-01	Mercury	200 ug/L	500 uL	20 mL	5 ug/L

Serial ID: WHG091223-05 **Opened:** 23-DEC-09 **Pipet Id :** Hg1289245
Name: MHGWORKCAL10.0 **Received:** 23-DEC-09 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 29-DEC-09
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL 10.0
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG091223-01	Mercury	200 ug/L	1 mL	20 mL	10 ug/L

Serial ID: WHG091223-06 **Opened:** 23-DEC-09 **Pipet Id :** Hg1289245
Name: MHGWORK5.0ICV **Received:** 23-DEC-09 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 29-DEC-09
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working 2nd Source 5.0/ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG091223-02	Mercury	200 ug/L	500 uL	20 mL	5 ug/L

Serial ID: WHG091223-07 **Opened:** 23-DEC-09 **Pipet Id :** Hg1289245
Name: MHGWORKCALS0.2CRA **Received:** 23-DEC-09 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 29-DEC-09
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working Standard 1st Source CAL S 0.2/CRA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG091223-01	Mercury	200 ug/L	30 uL	30 mL	.2 ug/L

Serial ID: WHG091223-08 **Opened:** 23-DEC-09 **Pipet Id :** Hg1289245
Name: MHGWORKCALS0.5 **Received:** 23-DEC-09 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 29-DEC-09
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working Standard 1st Source CAL S 0.5
Comments: None

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG091223-01	Mercury	200 ug/L	75 uL	30 mL	.5 ug/L

Serial ID: WHG091223-09 **Opened:** 23-DEC-09 **Pipet Id :** Hg1289245
Name: MHGWORKCALS2.0 **Received:** 23-DEC-09 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 29-DEC-09
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL S 2.0
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG091223-01	Mercury	200 ug/L	300 uL	30 mL	2 ug/L

Serial ID: WHG091223-10 **Opened:** 23-DEC-09 **Pipet Id :** Hg1289245
Name: MHGWORKCALS5.0CCV **Received:** 23-DEC-09 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 29-DEC-09
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL S 5.0/CCV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG091223-01	Mercury	200 ug/L	750 uL	30 mL	5 ug/L

Serial ID: WHG091223-11 **Opened:** 23-DEC-09 **Pipet Id :** Hg1289245
Name: MHGWORKCALS10.0 **Received:** 23-DEC-09 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 29-DEC-09
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working 1st Source CAL S 10.0
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG091223-01	Mercury	200 ug/L	1500 uL	30 mL	10 ug/L

Serial ID: WHG091223-12 **Opened:** 23-DEC-09 **Pipet Id :** Hg1289245
Name: MHGWORKS5.0ICV **Received:** 23-DEC-09 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 29-DEC-09
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 2nd Source S 5.0/ICV
Comments: None

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG091223-02	Mercury	200 ug/L	750 uL	30 mL	5 ug/L

Serial ID: WHG091223-13 **Opened:** 23-DEC-09 **Pipet Id :** Hg1289245
Name: MHGLIQLCSMSSPIKE **Received:** 23-DEC-09 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 29-DEC-09
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury working intermediate standard for LCS/MS
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167639-01	Mercury	1000 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: WI091220-43 **Opened:** 20-DEC-09 **Balance Id :** 216
Name: TRACE ICP 0.5/CCV STD. **Received:** 02-NOV-09 **Pipet Id :** 1099667
Type: Working **Expires:** 21-DEC-09 **Solvent :** 3%HCL and 1%HNO3 -1242318
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP O.5/CCV CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090828-42	Sodium	1000 ug/mL	5 mL	1000 mL	5000 UG/L
UI091015-42	Silica	2139 mg/L	2.5 mL	1000 mL	5348.25 UG/L
UI091015-42	Silicon	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI091102-40	Aluminum	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Arsenic	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Barium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Beryllium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Boron	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Cadmium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Calcium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Chromium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Cobalt	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Copper	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Iron	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Lead	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Magnesium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Manganese	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Nickel	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Phosphorous	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI091102-40	Potassium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Selenium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Sodium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Strontium	200 mg/L	2.5 mL	1000 mL	500 UG/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091102-40	Thallium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Uranium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Vanadium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Zinc	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Antimony	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Molybdenum	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Silver	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Sulfur	400 mg/L	2.5 mL	1000 mL	1000 UG/L
UI091102-41	Tin	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Titanium	200 mg/L	2.5 mL	1000 mL	500 UG/L

Serial ID: WMS091230-04 **Opened:** 30-DEC-09 **Amount :** 50 mL
Name: ICPMS Cal Standard 100 **Received:** 30-DEC-09 **Balance Id :** 4025216
Type: Working **Expires:** 31-DEC-09 **Pipet Id :** 3541598
Employee: Elizabeth Janssen **Solvent :** 2%HNO3/1%HCl-1247304
Supplier: GEL
Description: ICPMS Calibration Standard (100 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090610-03	Tungsten	10 mg/L	.5 mL	50 mL	100 ug/L
UMS090303-01	Arsenic	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Barium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Beryllium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Boron	20 mg/L	.5 mL	50 mL	200 ug/l
UMS090303-01	Cadmium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Chromium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Cobalt	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Copper	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Lead	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Lithium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Manganese	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Nickel	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Selenium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Silver	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Strontium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Thallium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Thorium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Uranium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Vanadium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Zinc	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-02	Aluminum	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Calcium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Iron	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Magnesium	1000 mg/L	.5 mL	50 mL	10000 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UMS090303-02	Phosphorous	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Potassium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Sodium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-03	Antimony	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Molybdenum	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Tin	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Titanium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Zirconium	10 mg/L	.5 mL	50 mL	100 ug/l

Serial ID: WMS091230-04A **Opened:** 30-DEC-09 **Balance Id :** 4025216
Name: ICPMS Cal Standard 10 **Received:** 30-DEC-09 **Pipet Id :** 3541598
Type: Working **Expires:** 31-DEC-09 **Solvent :** 2%HNO3/1%HCl - 1247304
Employee: Elizabeth Janssen
Supplier: GEL
Description: ICPMS Calibration Standard (10 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS091230-04	Aluminum	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS091230-04	Antimony	100 ug/l	5 mL	50 mL	10 ug/l
WMS091230-04	Arsenic	100 ug/l	5 mL	50 mL	10 ug/l
WMS091230-04	Barium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091230-04	Beryllium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091230-04	Boron	200 ug/l	5 mL	50 mL	20 ug/l
WMS091230-04	Cadmium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091230-04	Calcium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS091230-04	Chromium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091230-04	Cobalt	100 ug/l	5 mL	50 mL	10 ug/l
WMS091230-04	Copper	100 ug/l	5 mL	50 mL	10 ug/l
WMS091230-04	Iron	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS091230-04	Lead	100 ug/l	5 mL	50 mL	10 ug/l
WMS091230-04	Lithium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091230-04	Magnesium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS091230-04	Manganese	100 ug/l	5 mL	50 mL	10 ug/l
WMS091230-04	Molybdenum	100 ug/l	5 mL	50 mL	10 ug/l
WMS091230-04	Nickel	100 ug/l	5 mL	50 mL	10 ug/l
WMS091230-04	Phosphorous	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS091230-04	Potassium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS091230-04	Selenium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091230-04	Silver	100 ug/l	5 mL	50 mL	10 ug/l
WMS091230-04	Sodium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS091230-04	Strontium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091230-04	Thallium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091230-04	Thorium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091230-04	Tin	100 ug/l	5 mL	50 mL	10 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS091230-04	Titanium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091230-04	Tungsten	100 ug/L	5 mL	50 mL	10 ug/L
WMS091230-04	Uranium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091230-04	Vanadium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091230-04	Zinc	100 ug/l	5 mL	50 mL	10 ug/l
WMS091230-04	Zirconium	100 ug/l	5 mL	50 mL	10 ug/l

Serial ID: WMS091230-05 **Opened:** 30-DEC-09 **Balance Id :** 40245216
Name: ICPMS ICV **Received:** 30-DEC-09 **Pipet Id :** 3541598
Type: Working **Expires:** 31-DEC-09 **Solvent :** 2%HNO3/1%HCl - 1247304
Employee: Elizabeth Janssen
Supplier: GEL
Description: ICPMS ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-06	Aluminum	2020 mg/L	.125 mL	50 mL	5050 ug/L
UI091217-06	Calcium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Iron	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Magnesium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Phosphorous	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Potassium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Sodium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-07	Arsenic	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Barium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Beryllium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Boron	40 mg/L	.125 mL	50 mL	100 ug/L
UI091217-07	Cadmium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Chromium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Cobalt	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Copper	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lead	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lithium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Manganese	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Nickel	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Selenium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Strontium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thallium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thorium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Uranium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Vanadium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Zinc	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Antimony	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Molybdenum	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Silver	20 mg/L	.125 mL	50 mL	50 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-08	Tin	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Titanium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tungsten	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Zirconium	20 mg/L	.125 mL	50 mL	50 ug/L

Serial ID: WMS091230-06 **Opened:** 30-DEC-09 **Balance Id :** 40245216
Name: ICPMS CRDL **Received:** 30-DEC-09 **Pipet Id :** 3820544
Type: Working **Expires:** 31-DEC-09 **Solvent :** 2%HNO3/1%HCl - 1247304
Employee: Elizabeth Janssen
Supplier: GEL
Description: ICPMS CRDL
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Aluminum	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Arsenic	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Barium	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Beryllium	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-09	Boron	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Cadmium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Calcium	100 mg/L	.05 mL	50 mL	100 ug/L
UI090701-09	Chromium	3 mg/L	.05 mL	50 mL	3 ug/L
UI090701-09	Cobalt	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Copper	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Iron	25 mg/L	.05 mL	50 mL	25 ug/L
UI090701-09	Lead	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Lithium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Magnesium	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Manganese	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Nickel	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Phosphorous	50 mg/L	.05 mL	50 mL	50 ug/L
UI090701-09	Potassium	300 mg/L	.05 mL	50 mL	300 ug/L
UI090701-09	Selenium	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Sodium	250 mg/L	.05 mL	50 mL	250 ug/L
UI090701-09	Strontium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Thallium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Thorium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Uranium	.2 mg/L	.05 mL	50 mL	.2 ug/L
UI090701-09	Vanadium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Zinc	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Antimony	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-10	Molybdenum	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-10	Silver	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-10	Tin	2 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Titanium	10 mg/L	.05 mL	50 mL	10 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-10	Tungsten	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Zirconium	2 mg/L	.05 mL	50 mL	2 ug/L

Serial ID: WMS091230-07 **Opened:** 30-DEC-09 **Balance Id :** 40245216
Name: ICPMS ICSA **Received:** 30-DEC-09 **Lot Number :** 1010773
Type: Working **Expires:** 31-DEC-09 **Pipet Id :** 3541598
Employee: Elizabeth Janssen **Solvent :** 2%HNO3/1%HCl - 1247304
Supplier: GEL
Description: ICPMS ICSA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI091212-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI091212-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: WMS091230-08 **Opened:** 30-DEC-09 **Balance Id :** 40245216
Name: ICPMS ICSAB **Received:** 30-DEC-09 **Pipet Id :** 1758088
Type: Working **Expires:** 31-DEC-09 **Solvent :** 2%HNO3/1%HCl - 1247304
Employee: Elizabeth Janssen
Supplier: GEL
Description: ICPMS ICSAB
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI091212-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI091212-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L
UI091217-12	Arsenic	2 mg/L	.5 mL	50 mL	20 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-12	Barium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Beryllium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Boron	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Cadmium	2 mg/L	.5 mL	50 mL	20.2 ug/L
UI091217-12	Chromium	2 mg/L	.5 mL	50 mL	22.2 ug/L
UI091217-12	Cobalt	2 mg/L	.5 mL	50 mL	20.4 ug/L
UI091217-12	Copper	2 mg/L	.5 mL	50 mL	23.4 ug/L
UI091217-12	Lead	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Lithium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Manganese	2 mg/L	.5 mL	50 mL	22.7 ug/L
UI091217-12	Nickel	2 mg/L	.5 mL	50 mL	22.4 ug/L
UI091217-12	Selenium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Strontium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thallium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thorium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Uranium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Vanadium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Zinc	2 mg/L	.5 mL	50 mL	27 ug/L
UI091217-13	Antimony	2 mg/L	.5 mL	50 mL	20.5 ug/L
UI091217-13	Silver	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tin	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tungsten	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Zirconium	2 mg/L	.5 mL	50 mL	20 ug/L

Serial ID: WMS091230-70 **Opened:** 30-DEC-09 **Balance Id :** 40245216
Name: ICPMS LINEAR RANGE ST **Received:** 30-DEC-09 **Pipet Id :** 1758088
Type: Working **Expires:** 31-DEC-09 **Solvent :** 2%HNO3/1%HCl - 1247304
Employee: Elizabeth Janssen
Supplier: 02SI
Description: ICPMS LINEAR RANGE STANDARD
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-60	Aluminum	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Arsenic	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Barium	250 mg/L	.5 mL	50 mL	2500 ug/L
UI091212-60	Beryllium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Cadmium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Calcium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Chromium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Cobalt	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Copper	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Iron	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Lead	500 mg/L	.5 mL	50 mL	5000 ug/L
UI091212-60	Lithium	100 mg/L	.5 mL	50 mL	1000 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-60	Magnesium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Manganese	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Nickel	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Phosphorous	2500 mg/L	.5 mL	50 mL	25000 ug/L
UI091212-60	Potassium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Selenium	50 mg/L	.5 mL	50 mL	500 ug/L
UI091212-60	Sodium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Strontium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Thallium	50 mg/L	.5 mL	50 mL	500 ug/L
UI091212-60	Thorium	250 mg/L	.5 mL	50 mL	2500 ug/L
UI091212-60	Uranium	500 mg/L	.5 mL	50 mL	5000 ug/L
UI091212-60	Vanadium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Zinc	250 mg/L	.5 mL	50 mL	2500 ug/L
UI091212-61	Antimony	25 mg/L	.5 mL	50 mL	250 ug/L
UI091212-61	Molybdenum	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-61	Silver	25 mg/L	.5 mL	50 mL	250 ug/L
UI091212-61	Tin	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-61	Tungsten	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-61	Zirconium	50 mg/L	.5 mL	50 mL	500 ug/L

Serial ID: WMS091231-04 **Opened:** 31-DEC-09 **Amount :** 50 mL
Name: ICPMS Cal Standard 100 **Received:** 31-DEC-09 **Balance Id :** 4025216
Type: Working **Expires:** 01-JAN-10 **Pipet Id :** 3541598
Employee: Elizabeth Janssen **Solvent :** 2%HNO3/1%HCl-1247304
Supplier: GEL
Description: ICPMS Calibration Standard (100 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090610-03	Tungsten	10 mg/L	.5 mL	50 mL	100 ug/L
UMS090303-01	Arsenic	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Barium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Beryllium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Boron	20 mg/L	.5 mL	50 mL	200 ug/l
UMS090303-01	Cadmium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Chromium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Cobalt	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Copper	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Lead	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Lithium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Manganese	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Nickel	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Selenium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Silver	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Strontium	10 mg/L	.5 mL	50 mL	100 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UMS090303-01	Thallium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Thorium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Uranium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Vanadium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Zinc	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-02	Aluminum	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Calcium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Iron	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Magnesium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Phosphorous	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Potassium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Sodium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-03	Antimony	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Molybdenum	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Tin	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Titanium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Zirconium	10 mg/L	.5 mL	50 mL	100 ug/l

Serial ID: WMS091231-04A **Opened:** 31-DEC-09 **Balance Id :** 4025216
Name: ICPMS Cal Standard 10 **Received:** 31-DEC-09 **Pipet Id :** 3541598
Type: Working **Expires:** 01-JAN-10 **Solvent :** 2%HNO3/1%HCl - 1247304
Employee: Elizabeth Janssen
Supplier: GEL
Description: ICPMS Calibration Standard (10 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS091231-04	Aluminum	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS091231-04	Antimony	100 ug/l	5 mL	50 mL	10 ug/l
WMS091231-04	Arsenic	100 ug/l	5 mL	50 mL	10 ug/l
WMS091231-04	Barium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091231-04	Beryllium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091231-04	Boron	200 ug/l	5 mL	50 mL	20 ug/l
WMS091231-04	Cadmium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091231-04	Calcium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS091231-04	Chromium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091231-04	Cobalt	100 ug/l	5 mL	50 mL	10 ug/l
WMS091231-04	Copper	100 ug/l	5 mL	50 mL	10 ug/l
WMS091231-04	Iron	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS091231-04	Lead	100 ug/l	5 mL	50 mL	10 ug/l
WMS091231-04	Lithium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091231-04	Magnesium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS091231-04	Manganese	100 ug/l	5 mL	50 mL	10 ug/l
WMS091231-04	Molybdenum	100 ug/l	5 mL	50 mL	10 ug/l
WMS091231-04	Nickel	100 ug/l	5 mL	50 mL	10 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS091231-04	Phosphorous	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS091231-04	Potassium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS091231-04	Selenium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091231-04	Silver	100 ug/l	5 mL	50 mL	10 ug/l
WMS091231-04	Sodium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS091231-04	Strontium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091231-04	Thallium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091231-04	Thorium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091231-04	Tin	100 ug/l	5 mL	50 mL	10 ug/l
WMS091231-04	Titanium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091231-04	Tungsten	100 ug/L	5 mL	50 mL	10 ug/L
WMS091231-04	Uranium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091231-04	Vanadium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091231-04	Zinc	100 ug/l	5 mL	50 mL	10 ug/l
WMS091231-04	Zirconium	100 ug/l	5 mL	50 mL	10 ug/l

Serial ID: WMS091231-05 **Opened:** 31-DEC-09 **Balance Id :** 40245216
Name: ICPMS ICV **Received:** 31-DEC-09 **Pipet Id :** 3541598
Type: Working **Expires:** 01-JAN-10 **Solvent :** 2%HNO3/1%HCl - 1247304
Employee: Elizabeth Janssen
Supplier: GEL
Description: ICPMS ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-06	Aluminum	2020 mg/L	.125 mL	50 mL	5050 ug/L
UI091217-06	Calcium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Iron	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Magnesium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Phosphorous	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Potassium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Sodium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-07	Arsenic	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Barium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Beryllium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Boron	40 mg/L	.125 mL	50 mL	100 ug/L
UI091217-07	Cadmium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Chromium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Cobalt	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Copper	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lead	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lithium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Manganese	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Nickel	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Selenium	20 mg/L	.125 mL	50 mL	50 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-07	Strontium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thallium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thorium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Uranium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Vanadium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Zinc	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Antimony	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Molybdenum	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Silver	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tin	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Titanium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tungsten	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Zirconium	20 mg/L	.125 mL	50 mL	50 ug/L

Serial ID: WMS091231-06 **Opened:** 31-DEC-09 **Balance Id :** 40245216
Name: ICPMS CRDL **Received:** 31-DEC-09 **Pipet Id :** 3820544
Type: Working **Expires:** 01-JAN-10 **Solvent :** 2%HNO3/1%HCl - 1247304
Employee: Elizabeth Janssen
Supplier: GEL
Description: ICPMS CRDL
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Aluminum	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Arsenic	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Barium	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Beryllium	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-09	Boron	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Cadmium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Calcium	100 mg/L	.05 mL	50 mL	100 ug/L
UI090701-09	Chromium	3 mg/L	.05 mL	50 mL	3 ug/L
UI090701-09	Cobalt	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Copper	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Iron	25 mg/L	.05 mL	50 mL	25 ug/L
UI090701-09	Lead	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Lithium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Magnesium	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Manganese	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Nickel	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Phosphorous	50 mg/L	.05 mL	50 mL	50 ug/L
UI090701-09	Potassium	300 mg/L	.05 mL	50 mL	300 ug/L
UI090701-09	Selenium	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Sodium	250 mg/L	.05 mL	50 mL	250 ug/L
UI090701-09	Strontium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Thallium	1 mg/L	.05 mL	50 mL	1 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Thorium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Uranium	.2 mg/L	.05 mL	50 mL	.2 ug/L
UI090701-09	Vanadium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Zinc	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Antimony	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-10	Molybdenum	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-10	Silver	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-10	Tin	2 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Titanium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Tungsten	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Zirconium	2 mg/L	.05 mL	50 mL	2 ug/L

Serial ID: WMS091231-07 **Opened:** 31-DEC-09 **Balance Id :** 40245216
Name: ICPMS ICSA **Received:** 31-DEC-09 **Lot Number :** 1010773
Type: Working **Expires:** 01-JAN-10 **Pipet Id :** 3541598
Employee: Elizabeth Janssen **Solvent :** 2%HNO3/1%HCl - 1247304
Supplier: GEL
Description: ICPMS ICSA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI091212-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI091212-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: WMS091231-08 **Opened:** 31-DEC-09 **Balance Id :** 40245216
Name: ICPMS ICSAB **Received:** 31-DEC-09 **Pipet Id :** 1758088
Type: Working **Expires:** 01-JAN-10 **Solvent :** 2%HNO3/1%HCl - 1247304
Employee: Elizabeth Janssen
Supplier: GEL
Description: ICPMS ICSAB
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI091212-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L
UI091217-12	Arsenic	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Barium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Beryllium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Boron	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Cadmium	2 mg/L	.5 mL	50 mL	20.2 ug/L
UI091217-12	Chromium	2 mg/L	.5 mL	50 mL	22.2 ug/L
UI091217-12	Cobalt	2 mg/L	.5 mL	50 mL	20.4 ug/L
UI091217-12	Copper	2 mg/L	.5 mL	50 mL	23.4 ug/L
UI091217-12	Lead	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Lithium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Manganese	2 mg/L	.5 mL	50 mL	22.7 ug/L
UI091217-12	Nickel	2 mg/L	.5 mL	50 mL	22.4 ug/L
UI091217-12	Selenium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Strontium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thallium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thorium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Uranium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Vanadium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Zinc	2 mg/L	.5 mL	50 mL	27 ug/L
UI091217-13	Antimony	2 mg/L	.5 mL	50 mL	20.5 ug/L
UI091217-13	Silver	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tin	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tungsten	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Zirconium	2 mg/L	.5 mL	50 mL	20 ug/L

Serial ID: 1156689-A
Name: B-KMnO4(VWR)-MER
Type: Reagent/Solvent
Employee: Tara Griffin
Supplier: VWR
Description: Potassium Permanganate
Comments: None

Opened: 20-JUL-09
Received: 20-JUL-09
Expires: 20-JUL-10
Verified: 07-AUG-07

Lot Number : 41226920

Standard Logbook

Serial ID: 1164796-A **Opened:** 06-AUG-09 **Lot Number :** 49149927
Name: B-NH2OH.HCl-MER **Received:** 06-AUG-09
Type: Reagent/Solvent **Expires:** 06-AUG-10
Employee: Tara Griffin
Supplier: Fisher Scientific
Description: Hydroxlyamine Hydrochloride
Comments: None

Serial ID: 1176183 **Opened:** 24-AUG-09 **Lot Number :** H20001
Name: B-H2SO4-MER **Received:** 24-AUG-09
Type: Reagent/Solvent **Expires:** 24-AUG-10
Employee: Tara Griffin
Supplier: Mallinckrodt
Description: Sulfuric Acid, Concentrated
Comments: None

Serial ID: 1206350-C **Opened:** 22-OCT-09 **Balance Id :** BAL-002
Name: B-NaCl.NH2OH.HCl-MER **Received:** 22-OCT-09
Type: Reagent/Solvent **Expires:** 06-AUG-10
Employee: Tara Griffin
Supplier: GEL
Description: Hg reducing agent
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1164796-A	B-NH2OH.HCl-MER	N/A	120 g	1000 mL	N/A

Serial ID: 1215906 **Opened:** 06-NOV-09 **Lot Number :** H44465
Name: B-K2S2O8S-MER **Received:** 06-NOV-09
Type: Reagent/Solvent **Expires:** 06-NOV-10
Employee: Tara Griffin
Supplier: J.T BAKER
Description: Potassium Persulfate Concentrate.
Comments: None

Serial ID: 1234385-C **Opened:** 25-NOV-09 **Balance Id :** BAL-002
Name: B-K2S2O8-MER **Received:** 25-NOV-09
Type: Reagent/Solvent **Expires:** 25-MAY-10
Employee: Tara Griffin
Supplier: GEL
Description: 5% Potassium Persulfate
Comments: None

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1215906	B-K2S2O8S-MER	N/A	50 g	1000 mL	N/A

Serial ID: 1238345 **Opened:** 04-DEC-09 **Lot Number :** H20053 L
Name: I-HNO3 **Received:** 04-DEC-09
Type: Reagent/Solvent **Expires:** 04-DEC-10
Employee: Francena Armstrong
Supplier: BAKER
Description: Nitric Acid CONC.
Comments: None

Serial ID: 1240182-1 **Opened:** 09-DEC-09 **Instrument Id :** MERCURY
Name: B-HNO3-MER **Received:** 09-DEC-09 **Lot Number :** H34040
Type: Reagent/Solvent **Expires:** 09-DEC-10
Employee: Tara Griffin
Supplier: Mallinckrodt Chemicals
Description: NITRIC ACID
Comments: None

Serial ID: 1242318 **Opened:** 14-DEC-09 **Amount :** 20 L
Name: B-ICP-RINSE SOLN **Received:** 01-DEC-09 **Lot Number :** H04040+G34050
Type: Reagent/Solvent **Expires:** 20-DEC-09 **Solvent :** 3%HCL+1%HNO3
Employee: Helen Camello
Supplier: GEL
Description: 3%HCL+1%HNO3 RINSE SOLN.
Comments: None

Serial ID: 1244904-C **Opened:** 18-DEC-09 **Balance Id :** BAL-002
Name: B-KMnO4-MER **Received:** 18-DEC-09
Type: Reagent/Solvent **Expires:** 18-JUN-10
Employee: Tara Griffin
Supplier: GEL
Description: 5% KMnO4 solution
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1156689-A	B-KMnO4(VWR)-MER	Crystals	50 g	1000 mL	3%

Serial ID: 1244970 **Opened:** 18-DEC-09 **Lot Number :** H41032
Name: I-HCL **Received:** 18-DEC-09 **Preservative_Id :** 5 none
Type: Reagent/Solvent **Expires:** 18-DEC-10
Employee: Francena Armstrong
Supplier: J.T. BAKER

Standard Logbook

Description: HYDROCHLORIC ACID
Comments: None

Serial ID: 1247304 **Opened:** 28-DEC-09 **Solvent :** Type I Water
Name: B-2%HNO3/1%HCl-ICPMS **Received:** 28-DEC-09
Type: Reagent/Solvent **Expires:** 04-JAN-10
Employee: Elizabeth Janssen
Supplier: GEL
Description: 2%HNO3/1%HCl Solution (Type I Water)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1238345	I-HNO3	69.0-70.0	180 mL	9 l	N/A
1244970	I-HCL	36.5-38.0	90 mL	9 l	N/A

General Chemistry Analysis

Case Narrative

General Chemistry Narrative
Los Alamos National Laboratory (LANL)
SDG 10-941

Method/Analysis Information

Product:	**Cyanide, Total**		
Analytical Batch:	934285 and 934598	**Method:**	SW846 9012A
Prep Batch :	934282 and 934597	**Method:**	SW846 9010B Prep

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 9012A:

Sample ID	Client ID
243042001	RE03-09-14221
243042002	RE03-09-14211
243042003	RE03-09-14210
243042004	RE03-09-14209
243042005	RE03-09-14208
243042006	RE03-09-14222
243042007	RE03-09-14223
243042008	RE03-09-14220
243042009	RE03-10-2734
1201998913	Method Blank (MB)
1201998914	243030001(RE16-10-200) Sample Duplicate (DUP)
1201998915	243030002(RE16-10-186) Sample Duplicate (DUP)
1201998916	243030001(RE16-10-200) Matrix Spike (MS)
1201998917	243030002(RE16-10-186) Matrix Spike (MS)
1201998918	243030001(RE16-10-200) Matrix Spike Duplicate (MSD)
1201998919	243030002(RE16-10-186) Matrix Spike Duplicate (MSD)
1201998920	Laboratory Control Sample (LCS)
1201999556	Method Blank (MB)
1201999557	243042001(RE03-09-14221) Sample Duplicate (DUP)
1201999558	243042001(RE03-09-14221) Matrix Spike (MS)
1201999559	243042001(RE03-09-14221) Matrix Spike Duplicate (MSD)
1201999560	Laboratory Control Sample (LCS)
1202000923	243092001(RE16-10-2881) Sample Duplicate (DUP)
1202000924	243092001(RE16-10-2881) Matrix Spike (MS)
1202000925	243092001(RE16-10-2881) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on a "dry weight" basis.

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories

LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-095 REV# 12.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

The Flow Injection analysis was performed on a Lachat QuickChem FIA+ 8000 Series.

Initial Calibration

All initial calibration requirements have been met for this SDG.

Continuing Calibration Blanks

All continuing calibration blanks (CCBs) associated with reported data from this batch were within acceptance limits.

Calibration Verification Information (CCV)

All continuing calibration verification standards (CCVs) associated with reported data from this batch were within acceptance limits.

Y Intercept Rule

The absolute value of the intercept is less than 3 times the MDL.

Quality Control (QC) Information

Method Blank (MB) Statement

The MBs analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery

The LCS spike recoveries met the acceptance limits.

Quality Control (QC) Designation

The following samples were selected for QC analysis: 243030001 (RE16-10-200), 243030002 (RE16-10-186)- Batch 934285, 243042001 (RE03-09-14221) and 243092001 (RE16-10-2881)- Batch 934598.

Matrix Spike (MS)/Post Spike (PS) Recovery Statement

The spike recovery falls outside of the established acceptance limits. Since both the spike duplicate recovery and the RPD between the spike and spike duplicate fall within acceptance limits, the data is reported. 1201998917 (RE16-10-186)- Batch 934285. The spike recovery falls outside of the client specified acceptance limits. Since both the spike duplicate recovery and the RPD between the spike and spike duplicate fall within acceptance limits, the data is reported. 1201998916 (RE16-10-200)- Batch 934285.

Matrix Spike Duplicate (MSD) Recovery Statement

The MSD recoveries for this sample set were within the required acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement

The RPDs between the spike and spike duplicate met the acceptance limits.

Duplicate Relative Percent Difference (RPD) Statement
The values for the sample and duplicate are less than the Practical Quantitation Limit (PQL); therefore, the RPD is not applicable. 1201998915 (RE16-10-186)- Batch 934285, 1201999557 (RE03-09-14221), 1202000923 (RE16-10-2881) and 243042001 (RE03-09-14221)- Batch 934598.

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times
All samples in this SDG met the specified holding time.

Sample Preservation/Integrity
All the samples from this sample group met the preservation and integrity requirements of the method.

Sample Dilutions
The following samples in this sample group were diluted due to high concentration: 1201998920 (LCS)- Batch 934285 and 1201999560 (LCS)- Batch 934598.

Sample Re-analysis
The following samples were re-analyzed due to instrument failure: 1201998917 (RE16-10-186) and 1201998919 (RE16-10-186)- Batch 934285.

Miscellaneous Information

Nonconformance (NCR) Documentation
The following NCR was generated for this SDG: 774403 1201998916 (RE16-10-200) and 1201998917 (RE16-10-186)- Batch 934285.

Additional Comments
Additional comments were not required for this SDG.

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:
Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Tom Lewis, Jr. **Date:** 11Jan10

Sample Data Summary

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis Report
for

LANL010 Los Alamos National Laboratory (72733-001-09)

Client SDG: 10-941 GEL Work Order: 243042

The Qualifiers in this report are defined as follows:

* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.

** Indicates the analyte is a surrogate compound.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the detection limit.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Valerie Davis.

Reviewed by Tom Lewis, Jr.

GEL LABORATORIES LLC

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: January 2, 2010

Client SDG: 10-941

Client Sample ID:	RE03-09-14221	Project:	LANL01004
Sample ID:	243042001	Client ID:	LANL010
Matrix:	S		
Collect Date:	14-DEC-09 12:00		
Receive Date:	16-DEC-09		
Collector:	Client		
Moisture:	14.8%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total Federal "Dry Weight Corrected"										
Cyanide, Total	U	ND	78.2	288	ug/kg	1	AXH3 12/23/09	1419	934598	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	12/23/09	1309	934597

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: January 2, 2010

Client SDG: 10-941

Client Sample ID:	RE03-09-14211	Project:	LANL01004
Sample ID:	243042002	Client ID:	LANL010
Matrix:	S		
Collect Date:	14-DEC-09 12:00		
Receive Date:	16-DEC-09		
Collector:	Client		
Moisture:	14.3%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total Federal "Dry Weight Corrected"										
Cyanide, Total	U	ND	77.8	286	ug/kg	1	AXH3 12/23/09	1422	934598	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	12/23/09	1309	934597

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: January 2, 2010

Client SDG: 10-941

Client Sample ID:	RE03-09-14210	Project:	LANL01004
Sample ID:	243042003	Client ID:	LANL010
Matrix:	S		
Collect Date:	14-DEC-09 12:00		
Receive Date:	16-DEC-09		
Collector:	Client		
Moisture:	13.6%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total Federal "Dry Weight Corrected"										
Cyanide, Total	U	ND	70.3	258	ug/kg	1	AXH3 12/23/09	1423	934598	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	12/23/09	1309	934597

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: January 2, 2010

Client SDG: 10-941

Client Sample ID:	RE03-09-14209	Project:	LANL01004
Sample ID:	243042004	Client ID:	LANL010
Matrix:	S		
Collect Date:	14-DEC-09 12:00		
Receive Date:	16-DEC-09		
Collector:	Client		
Moisture:	11.6%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total Federal "Dry Weight Corrected"										
Cyanide, Total	U	ND	76.9	283	ug/kg	1	AXH3 12/23/09	1424	934598	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	12/23/09	1309	934597

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: January 2, 2010

Client SDG: 10-941

Client Sample ID:	RE03-09-14208	Project:	LANL01004
Sample ID:	243042005	Client ID:	LANL010
Matrix:	S		
Collect Date:	14-DEC-09 12:00		
Receive Date:	16-DEC-09		
Collector:	Client		
Moisture:	12.8%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total Federal "Dry Weight Corrected"										
Cyanide, Total	U	ND	72.2	265	ug/kg	1	AXH3 12/23/09	1425	934598	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	12/23/09	1309	934597

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Project: **LANL ER Project**

Report Date: January 2, 2010

Client SDG: 10-941

Client Sample ID:	RE03-09-14222	Project:	LANL01004
Sample ID:	243042006	Client ID:	LANL010
Matrix:	S		
Collect Date:	14-DEC-09 12:00		
Receive Date:	16-DEC-09		
Collector:	Client		
Moisture:	19.5%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total Federal "Dry Weight Corrected"										
Cyanide, Total	U	ND	79.7	293	ug/kg	1	AXH3 12/23/09	1426	934598	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	12/23/09	1309	934597

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Project: **LANL ER Project**

Report Date: January 2, 2010

Client SDG: 10-941

Client Sample ID:	RE03-09-14223	Project:	LANL01004
Sample ID:	243042007	Client ID:	LANL010
Matrix:	S		
Collect Date:	14-DEC-09 12:00		
Receive Date:	16-DEC-09		
Collector:	Client		
Moisture:	10.8%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total Federal "Dry Weight Corrected"										
Cyanide, Total	U	ND	69.3	255	ug/kg	1	AXH3 12/23/09	1427	934598	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	12/23/09	1309	934597

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: January 2, 2010

Client SDG: 10-941

Client Sample ID:	RE03-09-14220	Project:	LANL01004
Sample ID:	243042008	Client ID:	LANL010
Matrix:	S		
Collect Date:	14-DEC-09 12:00		
Receive Date:	16-DEC-09		
Collector:	Client		
Moisture:	15.6%		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Flow Injection Analysis											
SW9012A Cyanide, Total Federal "Dry Weight Corrected"											
Cyanide, Total	U	ND	76.0	279	ug/kg	1	AXC2	12/22/09	1545	934285	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	12/21/09	1327	934282

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Certificate of Analysis

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: January 2, 2010

Client SDG: 10-941

Client Sample ID: RE03-10-2734
Sample ID: 243042009
Matrix: S
Collect Date: 14-DEC-09 12:00
Receive Date: 16-DEC-09
Collector: Client
Moisture: 19.3%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total Federal "Dry Weight Corrected"										
Cyanide, Total	U	ND	81.1	298	ug/kg	1	AXC2 12/22/09	1550	934285	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	12/21/09	1327	934282

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

Quality Control Summary

GEL LABORATORIES LLC

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QC Summary

Report Date: January 2, 2010
Page 1 of 2

Los Alamos National Laboratory
PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico

Contact: Ms. Joylene Valdez

Workorder: 243042

Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Flow Injection Analysis											
Batch 934285											
QC1201998914 243030001 DUP											
Cyanide, Total			989		1010	ug/kg	1.65 ^		(+/-275)	AXC2	12/22/09 15:16
QC1201998915 243030002 DUP											
Cyanide, Total		U	ND	J	298	ug/kg	200		(+/-375)		12/22/09 15:20
QC1201998920 LCS											
Cyanide, Total	67900				65800	ug/kg		96.8	(46%-145%)		12/22/09 15:14
QC1201998913 MB											
Cyanide, Total				U	250	ug/kg					12/22/09 15:13
QC1201998916 243030001 MS											
Cyanide, Total	5390		989		5000	ug/kg		74.4	(50%-130%)		12/22/09 15:17
QC1201998917 243030002 MS											
Cyanide, Total	6720	U	ND		9010	ug/kg		134*	(50%-130%)		12/22/09 15:32
QC1201998918 243030001 MSD											
Cyanide, Total	5490		989		6210	ug/kg	21.6	95	(0%-30%)		12/22/09 15:18
QC1201998919 243030002 MSD											
Cyanide, Total	7640	U	ND		7800	ug/kg	14.4	102	(0%-30%)		12/22/09 15:31
Batch 934598											
QC1201999557 243042001 DUP											
Cyanide, Total		U	ND	U	ND	ug/kg	N/A			AXH3	12/23/09 14:19
QC1202000923 243092001 DUP											
Cyanide, Total		U	ND	U	ND	ug/kg	N/A				12/23/09 14:35
QC1201999560 LCS											
Cyanide, Total	67900				81800	ug/kg		120	(46%-145%)		12/23/09 14:14
QC1201999556 MB											
Cyanide, Total				U	250	ug/kg					12/23/09 14:13
QC1201999558 243042001 MS											
Cyanide, Total	5640	U	ND		5350	ug/kg		94.3	(50%-130%)		12/23/09 14:20
QC1202000924 243092001 MS											
Cyanide, Total	5590	U	ND		5980	ug/kg		107	(50%-130%)		12/23/09 14:36
QC1201999559 243042001 MSD											
Cyanide, Total	5530	U	ND		5470	ug/kg	2.12	98.2	(0%-30%)		12/23/09 14:21
QC1202000925 243092001 MSD											
Cyanide, Total	5370	U	ND		4610	ug/kg	25.7	85.9	(0%-30%)		12/23/09 14:37

Notes:
RER is calculated at the 95% confidence level (2-sigma).
The Qualifiers in this report are defined as follows:

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product

QC Summary

Workorder: 243042

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time

B	For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD	Results are either below the MDC or tracer recovery is low
C	Analyte has been confirmed by GC/MS analysis
D	Results are reported from a diluted aliquot of the sample
E	Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
F	Estimated Value
H	Analytical holding time was exceeded
J	Value is estimated
M	M if above MDC and less than LLD
M	Matrix Related Failure
N/A	RPD or %Recovery limits do not apply.
ND	Analyte concentration is not detected above the detection limit
NJ	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R	Sample results are rejected
U	Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI	Gamma Spectroscopy--Uncertain identification
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
Z	Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d	5-day BOD--The 2:1 depletion requirement was not met for this sample
h	Preparation or preservation holding time was exceeded

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more.
^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.
* Indicates that a Quality Control parameter was not within specifications.
For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

Instrument QC Data Summary

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Report Run On: 02-JAN-2010 14:36

GEL Laboratories LLC

Contract: **LANL01004**

SDG #: **10-941**

Flow Injection Analysis

Method: SW846 9012A Concentration Units:ug/L

Instrument: Lachat QuickChem FIA+ 8000 Series

Parmname: Cyanide, Total

Sample Type	Run Date	Data File	Result	Nominal	Recovery	Limits	Within Limits
ICV	**22-DEC-2009 15:07:41**	**OM_12-22-2009_14-59-47**	**144**	**150**	**96**	**(90%-110%)**	**Yes**
CCV	22-DEC-2009 15:21:57	OM_12-22-2009_14-59-47	95.1	100	95	(90%-110%)	Yes
CCV	22-DEC-2009 15:34:19	OM_12-22-2009_14-59-47	95.6	100	96	(90%-110%)	Yes
CCV	22-DEC-2009 15:46:46	OM_12-22-2009_14-59-47	95.5	100	96	(90%-110%)	Yes
CCV	22-DEC-2009 15:59:14	OM_12-22-2009_14-59-47	95.3	100	95	(90%-110%)	Yes
ICV	**23-DEC-2009 13:36:16**	**OM_12-23-2009_13-25-43**	**143**	**150**	**95**	**(90%-110%)**	**Yes**
CCV	23-DEC-2009 14:02:59	OM_12-23-2009_13-25-43	94.8	100	95	(90%-110%)	Yes
CCV	23-DEC-2009 14:15:23	OM_12-23-2009_13-25-43	94.9	100	95	(90%-110%)	Yes
CCV	23-DEC-2009 14:27:55	OM_12-23-2009_13-25-43	103	100	103	(90%-110%)	Yes
CCV	23-DEC-2009 14:40:24	OM_12-23-2009_13-25-43	102	100	102	(90%-110%)	Yes

Sample Type	Run Date	Data File	Result	Limits	Within Limits
ICB	**22-DEC-2009 15:09:31**	**OM_12-22-2009_14-59-47**	**-1.08**	**5**	**Yes**
CCB	22-DEC-2009 15:23:48	OM_12-22-2009_14-59-47	-1.51	5	Yes
CCB	22-DEC-2009 15:36:09	OM_12-22-2009_14-59-47	-1.49	5	Yes
CCB	22-DEC-2009 15:48:36	OM_12-22-2009_14-59-47	-0.654	5	Yes
CCB	22-DEC-2009 16:01:03	OM_12-22-2009_14-59-47	-1.4	5	Yes
ICB	**23-DEC-2009 13:38:06**	**OM_12-23-2009_13-25-43**	**-1.45**	**5**	**Yes**
CCB	23-DEC-2009 14:04:50	OM_12-23-2009_13-25-43	-0.823	5	Yes
CCB	23-DEC-2009 14:17:13	OM_12-23-2009_13-25-43	-1.55	5	Yes
CCB	23-DEC-2009 14:29:45	OM_12-23-2009_13-25-43	-1.44	5	Yes
CCB	23-DEC-2009 14:42:14	OM_12-23-2009_13-25-43	-1.44	5	Yes

Cyanide, Total

Prep LogBook

Analyst: AXS5 Verified by:_____

Batch: 934597

Lab SOP: GL-GC-E-067 REV# 13

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1201999560	URF1200957-01	.2507	g
MS	1201999558	URF1184831-02	.025	mL
MS	1202000924	URF1184831-02	.025	mL
MSD	1201999559	URF1184831-02	.025	mL
MSD	1202000925	URF1184831-02	.025	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Ph	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1201999556		SW846 9010B Prep	23-DEC-2009 13:09	>12	0.5 g	25 mL	50	SOIL
LCS	1201999560		SW846 9010B Prep	23-DEC-2009 13:09	>12	0.2507 g	25 mL	99.72078	SOIL
SAMPLE	243042001		SW846 9010B Prep	23-DEC-2009 13:09	>12	0.51 g	25 mL	49.01961	SOIL
DUP	1201999557	243042001	SW846 9010B Prep	23-DEC-2009 13:09	>12	0.55 g	25 mL	45.45455	SOIL
MS	1201999558	243042001	SW846 9010B Prep	23-DEC-2009 13:09	>12	0.52 g	25 mL	48.07692	SOIL
MSD	1201999559	243042001	SW846 9010B Prep	23-DEC-2009 13:09	>12	0.53 g	25 mL	47.16981	SOIL
SAMPLE	243042002		SW846 9010B Prep	23-DEC-2009 13:09	>12	0.51 g	25 mL	49.01961	SOIL
SAMPLE	243042003		SW846 9010B Prep	23-DEC-2009 13:09	>12	0.56 g	25 mL	44.64286	SOIL
SAMPLE	243042004		SW846 9010B Prep	23-DEC-2009 13:09	>12	0.5 g	25 mL	50	SOIL
SAMPLE	243042005		SW846 9010B Prep	23-DEC-2009 13:09	>12	0.54 g	25 mL	46.2963	SOIL
SAMPLE	243042006		SW846 9010B Prep	23-DEC-2009 13:09	>12	0.53 g	25 mL	47.16981	SOIL
SAMPLE	243042007		SW846 9010B Prep	23-DEC-2009 13:09	>12	0.55 g	25 mL	45.45455	SOIL
SAMPLE	243088001		SW846 9010B Prep	23-DEC-2009 13:09	>12	0.54 g	25 mL	46.2963	SOIL
SAMPLE	243088002		SW846 9010B Prep	23-DEC-2009 13:09	>12	0.52 g	25 mL	48.07692	SOIL
SAMPLE	243088003		SW846 9010B Prep	23-DEC-2009 13:09	>12	0.51 g	25 mL	49.01961	SOIL
SAMPLE	243088004		SW846 9010B Prep	23-DEC-2009 13:09	>12	0.55 g	25 mL	45.45455	SOIL
SAMPLE	243092001		SW846 9010B Prep	23-DEC-2009 13:09	>12	0.5 g	25 mL	50	SOIL
DUP	1202000923	243092001	SW846 9010B Prep	23-DEC-2009 13:09	>12	0.55 g	25 mL	45.45455	SOIL
MS	1202000924	243092001	SW846 9010B Prep	23-DEC-2009 13:09	>12	0.5 g	25 mL	50	SOIL
MSD	1202000925	243092001	SW846 9010B Prep	23-DEC-2009 13:09	>12	0.52 g	25 mL	48.07692	SOIL
SAMPLE	243113001		SW846 9010B Prep	23-DEC-2009 13:09	>12	0.56 g	25 mL	44.64286	SOIL
SAMPLE	243113002		SW846 9010B Prep	23-DEC-2009 13:09	>12	0.59 g	25 mL	42.37288	SOIL
SAMPLE	243113003		SW846 9010B Prep	23-DEC-2009 13:09	>12	0.53 g	25 mL	47.16981	SOIL
SAMPLE	243113004		SW846 9010B Prep	23-DEC-2009 13:09	>12	0.5 g	25 mL	50	SOIL
SAMPLE	243113005		SW846 9010B Prep	23-DEC-2009 13:09	>12	0.53 g	25 mL	47.16981	SOIL
SAMPLE	243113006		SW846 9010B Prep	23-DEC-2009 13:09	>12	0.54 g	25 mL	46.2963	SOIL
SAMPLE	243113007		SW846 9010B Prep	23-DEC-2009 13:09	>12	0.56 g	25 mL	44.64286	SOIL
SAMPLE	243113008		SW846 9010B Prep	23-DEC-2009 13:09	>12	0.52 g	25 mL	48.07692	SOIL

Prep LogBook

Reagent/Solvent Lot ID	Amount	Description
091211-C	25 mL	0.25N Sodium Hydroxide Solution
WCN091223-07	.0375 mL	150 ppb CN Distilled ICV Standard
1176724-C	1.25 mL	0.8N H3NO3S
1238146-C	2.5 mL	50% H2SO4 CN Prep
1176778-C	1 mL	51% MgCl2 Soln
1238142-C	1.25 mL	Bismuth Nitrate Solution

Comments

Prep LogBook

Analyst: AXS5 Verified by:_____

Batch: 934282

Lab SOP: GL-GC-E-067 REV# 13

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1201998920	URF1200957-01	.25	g
MS	1201998916	URF1184831-02	.025	mL
MS	1201998917	URF1184831-02	.025	mL
MSD	1201998918	URF1184831-02	.025	mL
MSD	1201998919	URF1184831-02	.025	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Ph	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1201998913		SW846 9010B Prep	21-DEC-2009 13:27	>12	0.5 g	25 mL	50	SOIL
LCS	1201998920		SW846 9010B Prep	21-DEC-2009 13:27	>12	0.25 g	25 mL	100	SOIL
SAMPLE	243007002		SW846 9010B Prep	21-DEC-2009 13:27	>12	0.53 g	25 mL	47.16981	SOIL
SAMPLE	243030001		SW846 9010B Prep	21-DEC-2009 13:27	>12	0.5 g	25 mL	50	SOIL
DUP	1201998914	243030001	SW846 9010B Prep	21-DEC-2009 13:27	>12	0.5 g	25 mL	50	SOIL
MS	1201998916	243030001	SW846 9010B Prep	21-DEC-2009 13:27	>12	0.51 g	25 mL	49.01961	SOIL
MSD	1201998918	243030001	SW846 9010B Prep	21-DEC-2009 13:27	>12	0.5 g	25 mL	50	SOIL
SAMPLE	243030002		SW846 9010B Prep	21-DEC-2009 13:27	>12	0.56 g	25 mL	44.64286	SOIL
DUP	1201998915	243030002	SW846 9010B Prep	21-DEC-2009 13:27	>12	0.52 g	25 mL	48.07692	SOIL
MS	1201998917	243030002	SW846 9010B Prep	21-DEC-2009 13:27	>12	0.58 g	25 mL	43.10345	SOIL
MSD	1201998919	243030002	SW846 9010B Prep	21-DEC-2009 13:27	>12	0.51 g	25 mL	49.01961	SOIL
SAMPLE	243030003		SW846 9010B Prep	21-DEC-2009 13:27	>12	0.53 g	25 mL	47.16981	SOIL
SAMPLE	243030004		SW846 9010B Prep	21-DEC-2009 13:27	>12	0.56 g	25 mL	44.64286	SOIL
SAMPLE	243030005		SW846 9010B Prep	21-DEC-2009 13:27	>12	0.52 g	25 mL	48.07692	SOIL
SAMPLE	243030006		SW846 9010B Prep	21-DEC-2009 13:27	>12	0.53 g	25 mL	47.16981	SOIL
SAMPLE	243030007		SW846 9010B Prep	21-DEC-2009 13:27	>12	0.56 g	25 mL	44.64286	SOIL
SAMPLE	243030008		SW846 9010B Prep	21-DEC-2009 13:27	>12	0.5 g	25 mL	50	SOIL
SAMPLE	243030009		SW846 9010B Prep	21-DEC-2009 13:27	>12	0.5 g	25 mL	50	SOIL
SAMPLE	243030010		SW846 9010B Prep	21-DEC-2009 13:27	>12	0.54 g	25 mL	46.2963	SOIL
SAMPLE	243030011		SW846 9010B Prep	21-DEC-2009 13:27	>12	0.5 g	25 mL	50	SOIL
SAMPLE	243030012		SW846 9010B Prep	21-DEC-2009 13:27	>12	0.58 g	25 mL	43.10345	SOIL
SAMPLE	243030013		SW846 9010B Prep	21-DEC-2009 13:27	>12	0.5 g	25 mL	50	SOIL
SAMPLE	243030014		SW846 9010B Prep	21-DEC-2009 13:27	>12	0.52 g	25 mL	48.07692	SOIL
SAMPLE	243030015		SW846 9010B Prep	21-DEC-2009 13:27	>12	0.55 g	25 mL	45.45455	SOIL
SAMPLE	243030016		SW846 9010B Prep	21-DEC-2009 13:27	>12	0.5 g	25 mL	50	SOIL
SAMPLE	243030017		SW846 9010B Prep	21-DEC-2009 13:27	>12	0.52 g	25 mL	48.07692	SOIL
SAMPLE	243042008		SW846 9010B Prep	21-DEC-2009 13:27	>12	0.53 g	25 mL	47.16981	SOIL
SAMPLE	243042009		SW846 9010B Prep	21-DEC-2009 13:27	>12	0.52 g	25 mL	48.07692	SOIL

Prep LogBook

Reagent/Solvent Lot ID	Amount	Description
091211-C	25 mL	0.25N Sodium Hydroxide Solution
WCN091221-07	.0375 mL	150 ppb CN Distilled ICV Standard
1176724-C	1.25 mL	0.8N H3NO3S
1238146-C	2.5 mL	50% H2SO4 CN Prep
1176778-C	1 mL	51% MgCl2 Soln
1238142-C	1.25 mL	Bismuth Nitrate Solution

Comments:

This is runlog Lachat1

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
200 ppb		1	axc2	12/22/2009 15:00:33	OM_12-22-2009_14-59-47
150 ppb		1	axc2	12/22/2009 15:01:24	OM_12-22-2009_14-59-47
100 ppb		1	axc2	12/22/2009 15:02:17	OM_12-22-2009_14-59-47
50 ppb		1	axc2	12/22/2009 15:03:10	OM_12-22-2009_14-59-47
10 ppb		1	axc2	12/22/2009 15:04:03	OM_12-22-2009_14-59-47
CRDL 5.0 ppb		1	axc2	12/22/2009 15:04:57	OM_12-22-2009_14-59-47
ICAL-00		1	axc2	12/22/2009 15:05:51	OM_12-22-2009_14-59-47
ICV		1	axc2	12/22/2009 15:07:41	OM_12-22-2009_14-59-47
ICB		1	axc2	12/22/2009 15:09:31	OM_12-22-2009_14-59-47
CRDL		1	axc2	12/22/2009 15:11:21	OM_12-22-2009_14-59-47
1201998913	934285	1	axc2	12/22/2009 15:13:10	OM_12-22-2009_14-59-47
1201998920	934285	25	axc2	12/22/2009 15:14:04	OM_12-22-2009_14-59-47
243007002	934285	1	axc2	12/22/2009 15:14:57	OM_12-22-2009_14-59-47
243030001	934285	1	axc2	12/22/2009 15:15:50	OM_12-22-2009_14-59-47
1201998914	934285	1	axc2	12/22/2009 15:16:43	OM_12-22-2009_14-59-47
1201998916	934285	1	axc2	12/22/2009 15:17:36	OM_12-22-2009_14-59-47
1201998918	934285	1	axc2	12/22/2009 15:18:28	OM_12-22-2009_14-59-47
243030002*	934285	1	axc2	12/22/2009 15:19:20	OM_12-22-2009_14-59-47
1201998915	934285	1	axc2	12/22/2009 15:20:13	OM_12-22-2009_14-59-47
1201998917*	934285	1	axc2	12/22/2009 15:21:05	OM_12-22-2009_14-59-47
CCV		1	axc2	12/22/2009 15:21:57	OM_12-22-2009_14-59-47
CCB		1	axc2	12/22/2009 15:23:48	OM_12-22-2009_14-59-47
1201998919*	934285	1	axc2	12/22/2009 15:25:36	OM_12-22-2009_14-59-47
243030003	934285	1	axc2	12/22/2009 15:26:27	OM_12-22-2009_14-59-47
243030004	934285	1	axc2	12/22/2009 15:27:20	OM_12-22-2009_14-59-47
243030005	934285	1	axc2	12/22/2009 15:28:11	OM_12-22-2009_14-59-47
243030006	934285	1	axc2	12/22/2009 15:29:03	OM_12-22-2009_14-59-47
243030007	934285	1	axc2	12/22/2009 15:29:56	OM_12-22-2009_14-59-47
243030002	934285	1	axc2	12/22/2009 15:30:49	OM_12-22-2009_14-59-47
1201998919	934285	1	axc2	12/22/2009 15:31:41	OM_12-22-2009_14-59-47
1201998917	934285	1	axc2	12/22/2009 15:32:33	OM_12-22-2009_14-59-47
243030008	934285	1	axc2	12/22/2009 15:33:27	OM_12-22-2009_14-59-47
CCV		1	axc2	12/22/2009 15:34:19	OM_12-22-2009_14-59-47
CCB		1	axc2	12/22/2009 15:36:09	OM_12-22-2009_14-59-47
243030009	934285	1	axc2	12/22/2009 15:37:59	OM_12-22-2009_14-59-47
243030010	934285	1	axc2	12/22/2009 15:38:52	OM_12-22-2009_14-59-47
243030011	934285	1	axc2	12/22/2009 15:39:45	OM_12-22-2009_14-59-47
243030012	934285	1	axc2	12/22/2009 15:40:38	OM_12-22-2009_14-59-47
243030013	934285	1	axc2	12/22/2009 15:41:31	OM_12-22-2009_14-59-47
243030014	934285	1	axc2	12/22/2009 15:42:24	OM_12-22-2009_14-59-47
243030015	934285	1	axc2	12/22/2009 15:43:17	OM_12-22-2009_14-59-47
243030016	934285	1	axc2	12/22/2009 15:44:09	OM_12-22-2009_14-59-47
243030017*	934285	1	axc2	12/22/2009 15:45:01	OM_12-22-2009_14-59-47
243042008	934285	1	axc2	12/22/2009 15:45:54	OM_12-22-2009_14-59-47
CCV		1	axc2	12/22/2009 15:46:46	OM_12-22-2009_14-59-47
CCB		1	axc2	12/22/2009 15:48:36	OM_12-22-2009_14-59-47
243042009	934285	1	axc2	12/22/2009 15:50:24	OM_12-22-2009_14-59-47
1201997980	933837	1	axc2	12/22/2009 15:51:16	OM_12-22-2009_14-59-47
1201997984	933837	25	axc2	12/22/2009 15:52:08	OM_12-22-2009_14-59-47
243030016	934285	5	axc2	12/22/2009 15:53:00	OM_12-22-2009_14-59-47
243030017	934285	1	axc2	12/22/2009 15:53:52	OM_12-22-2009_14-59-47
242938001	933837	1	axc2	12/22/2009 15:54:48	OM_12-22-2009_14-59-47
1201997981	933837	1	axc2	12/22/2009 15:55:41	OM_12-22-2009_14-59-47
1201997982	933837	1	axc2	12/22/2009 15:56:35	OM_12-22-2009_14-59-47
1201997983	933837	1	axc2	12/22/2009 15:57:28	OM_12-22-2009_14-59-47
242938002	933837	1	axc2	12/22/2009 15:58:21	OM_12-22-2009_14-59-47
CCV		1	axc2	12/22/2009 15:59:14	OM_12-22-2009_14-59-47
CCB		1	axc2	12/22/2009 16:01:03	OM_12-22-2009_14-59-47

242938003	933837	1	axc2	12/22/2009	16:02:53	OM_12-22-2009_14-59-47
242938004	933837	1	axc2	12/22/2009	16:03:46	OM_12-22-2009_14-59-47
242938005	933837	1	axc2	12/22/2009	16:04:39	OM_12-22-2009_14-59-47
242938006	933837	1	axc2	12/22/2009	16:05:31	OM_12-22-2009_14-59-47
242938007	933837	1	axc2	12/22/2009	16:06:24	OM_12-22-2009_14-59-47
242938008	933837	1	axc2	12/22/2009	16:07:16	OM_12-22-2009_14-59-47
242938009	933837	1	axc2	12/22/2009	16:08:09	OM_12-22-2009_14-59-47
1201993024	931722	1	axc2	12/22/2009	16:09:01	OM_12-22-2009_14-59-47
1201993028	931722	1	axc2	12/22/2009	16:09:53	OM_12-22-2009_14-59-47
242691002	931722	1	axc2	12/22/2009	16:10:45	OM_12-22-2009_14-59-47
CCV		1	axc2	12/22/2009	16:11:37	OM_12-22-2009_14-59-47
CCB		1	axc2	12/22/2009	16:13:27	OM_12-22-2009_14-59-47
1201993025	931722	1	axc2	12/22/2009	16:15:19	OM_12-22-2009_14-59-47
1201993026	931722	1	axc2	12/22/2009	16:16:12	OM_12-22-2009_14-59-47
1201993027	931722	1	axc2	12/22/2009	16:17:06	OM_12-22-2009_14-59-47
1201998306	933989	1	axc2	12/22/2009	16:18:00	OM_12-22-2009_14-59-47
1201998310	933989	1	axc2	12/22/2009	16:18:53	OM_12-22-2009_14-59-47
242984001	933989	1	axc2	12/22/2009	16:19:47	OM_12-22-2009_14-59-47
1201998307	933989	1	axc2	12/22/2009	16:20:40	OM_12-22-2009_14-59-47
1202001846	933989	1	axc2	12/22/2009	16:21:33	OM_12-22-2009_14-59-47
1202001847	933989	1	axc2	12/22/2009	16:22:26	OM_12-22-2009_14-59-47
242984003	933989	1	axc2	12/22/2009	16:23:18	OM_12-22-2009_14-59-47
CCV		1	axc2	12/22/2009	16:24:11	OM_12-22-2009_14-59-47
CCB		1	axc2	12/22/2009	16:26:01	OM_12-22-2009_14-59-47
1202000926	935209	1	axc2	12/22/2009	16:27:50	OM_12-22-2009_14-59-47
1202000939	935209	1	axc2	12/22/2009	16:28:43	OM_12-22-2009_14-59-47
243104002	935209	1	axc2	12/22/2009	16:29:36	OM_12-22-2009_14-59-47
1202000928	935209	1	axc2	12/22/2009	16:30:28	OM_12-22-2009_14-59-47
1202000932	935209	1	axc2	12/22/2009	16:31:19	OM_12-22-2009_14-59-47
1202000936	935209	1	axc2	12/22/2009	16:32:13	OM_12-22-2009_14-59-47
243108001	935209	1	axc2	12/22/2009	16:33:08	OM_12-22-2009_14-59-47
1202000927	935209	1	axc2	12/22/2009	16:34:02	OM_12-22-2009_14-59-47
1202000931	935209	1	axc2	12/22/2009	16:34:55	OM_12-22-2009_14-59-47
1202000935	935209	1	axc2	12/22/2009	16:35:50	OM_12-22-2009_14-59-47
CCV		1	axc2	12/22/2009	16:36:41	OM_12-22-2009_14-59-47
CCB		1	axc2	12/22/2009	16:38:31	OM_12-22-2009_14-59-47
243108002	935209	1	axc2	12/22/2009	16:40:21	OM_12-22-2009_14-59-47
243223014	935209	1	axc2	12/22/2009	16:41:14	OM_12-22-2009_14-59-47
243242001	935209	1	axc2	12/22/2009	16:42:08	OM_12-22-2009_14-59-47
243242002	935209	1	axc2	12/22/2009	16:43:01	OM_12-22-2009_14-59-47
243251001	935209	1	axc2	12/22/2009	16:43:54	OM_12-22-2009_14-59-47
243252001	935209	1	axc2	12/22/2009	16:44:46	OM_12-22-2009_14-59-47
1202000929	935209	1	axc2	12/22/2009	16:45:40	OM_12-22-2009_14-59-47
1202000933	935209	1	axc2	12/22/2009	16:46:32	OM_12-22-2009_14-59-47
1202000937	935209	1	axc2	12/22/2009	16:47:24	OM_12-22-2009_14-59-47
243255001	935209	1	axc2	12/22/2009	16:48:16	OM_12-22-2009_14-59-47
CCV		1	axc2	12/22/2009	16:49:08	OM_12-22-2009_14-59-47
CCB		1	axc2	12/22/2009	16:50:59	OM_12-22-2009_14-59-47
243255004	935209	1	axc2	12/22/2009	16:52:49	OM_12-22-2009_14-59-47
243255006	935209	1	axc2	12/22/2009	16:53:43	OM_12-22-2009_14-59-47
243257003	935209	1	axc2	12/22/2009	16:54:37	OM_12-22-2009_14-59-47
243257005	935209	1	axc2	12/22/2009	16:55:32	OM_12-22-2009_14-59-47
243272001	935209	1	axc2	12/22/2009	16:56:25	OM_12-22-2009_14-59-47
243281002	935209	1	axc2	12/22/2009	16:57:19	OM_12-22-2009_14-59-47
243281003	935209	1	axc2	12/22/2009	16:58:13	OM_12-22-2009_14-59-47
243281004	935209	1	axc2	12/22/2009	16:59:06	OM_12-22-2009_14-59-47
243281005	935209	1	axc2	12/22/2009	16:59:59	OM_12-22-2009_14-59-47
1202000930	935209	1	axc2	12/22/2009	17:00:52	OM_12-22-2009_14-59-47
CCV		1	axc2	12/22/2009	17:01:45	OM_12-22-2009_14-59-47
CCB		1	axc2	12/22/2009	17:03:34	OM_12-22-2009_14-59-47

1202000934	935209	1	axc2	12/22/2009	17:05:24 OM_12-22-2009_14-59-47
1202000938	935209	1	axc2	12/22/2009	17:06:16 OM_12-22-2009_14-59-47
243281006	935209	1	axc2	12/22/2009	17:07:09 OM_12-22-2009_14-59-47
243285001	935209	1	axc2	12/22/2009	17:08:02 OM_12-22-2009_14-59-47
1202002259	935758	1	axc2	12/22/2009	17:08:54 OM_12-22-2009_14-59-47
1202002261	935758	250	axc2	12/22/2009	17:09:49 OM_12-22-2009_14-59-47
243330001	935758	1	axc2	12/22/2009	17:10:43 OM_12-22-2009_14-59-47
1202002260	935758	1	axc2	12/22/2009	17:11:37 OM_12-22-2009_14-59-47
CCV		1	axc2	12/22/2009	17:12:30 OM_12-22-2009_14-59-47
CCB		1	axc2	12/22/2009	17:14:20 OM_12-22-2009_14-59-47

Author: axc2 Date : 12/22/2009

Original Run Filename: OM_12-22-2009_14-59-47.OMN created 12/22/2009 14:59:47
Original Run Author's Signature: [axc2]
Current Run Filename: OM_12-22-2009_14-59-47.OMN last modified 12/22/2009 17:15:25
Current Run Author's Signature: [axc2]
Description: GL-GC-E-095 EPA 335.1, 335.3, 335.4, 9012A, CLP335.2-M.
Liquid LCS nominal 50 ug/L

Sample	Rep.	Cup No.	Channel 1 TCYANIDE Conc. (ug/L)	Area (Vs)	Detection Time	ADF	MDF	Description
WCN091222-01	1	S1	200	8.25	12/22/2009@15:00:33			200 ppb
WCN091222-02	1	S2	150	6.18	12/22/2009@15:01:24			150 ppb
WCN091222-03	1	S3	100	3.90	12/22/2009@15:02:17			100 ppb
WCN091222-04	1	S4	50.0	2.21	12/22/2009@15:03:10			50 ppb
WCN091222-05	1	S5	10.0	0.487	12/22/2009@15:04:03			10 ppb
WCN091222-06	1	S6	5.00	0.293	12/22/2009@15:04:57			CRDL 5.0 ppb
WCN091222-08	1	S7	0.00	0.0149	12/22/2009@15:05:51			0.0 ppb
DQM Test: Minimum Correlation Coefficient								
		Result:	0.99941 > 0.99500					
		Message	Pass					
		Action	Continue					
WCN091222-07	1	S8	144	5.91	12/22/2009@15:07:41			ICV
		Known Conc:	150					
DQM Test: > + Percent Relative Difference								
		Result:	-4.1 < 10.0					
		Message	ICV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	-4.1 < 10.0					
		Message	ICV Passed					
		Action	Continue					
		Calibration:	Table/Fig. 1					
WCN091222-08	1	S7	-1.08	0.00902	12/22/2009@15:09:31			ICB/CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.08 < 5.01					
		Message	ICB/CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.08 > -5.01					
		Message	ICB/CCB Passed					
		Action	Continue					
WCN091222-06	1	S6	6.03	0.298	12/22/2009@15:11:21			CRDL
		Known Conc:	5.00					
DQM Test: > + Concentration Limit								
		Result:	6.03 < 7.50					
		Message	CRDL Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	6.03 > 2.50					
		Message	Pass					
		Action	None					
1201998913|934285|MB	1	1	-1.36	-0.00257	12/22/2009@15:13:10			
1201998920||LCS	1	2	26.3	1.12	12/22/2009@15:14:04		25.00	
243007002	1	3	2.45	0.152	12/22/2009@15:14:57			
243030001	1	4	18.0	0.785	12/22/2009@15:15:50			
1201998914||DUP	1	5	18.3	0.796	12/22/2009@15:16:43			
1201998916||MS	1	6	92.8	3.83	12/22/2009@15:17:36			
1201998918||MSD	1	7	113	4.67	12/22/2009@15:18:28			
243030002	1	8	102	4.21	12/22/2009@15:19:20			
1201998915||DUP	1	9	3.98	0.215	12/22/2009@15:20:13			
1201998917||MS	1	10	136	5.61	12/22/2009@15:21:05			
WCN091222-03	1	S3	95.1	3.93	12/22/2009@15:21:57			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	-4.9 < 10.0					

		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Percent Relative Difference					
		Result:	-4.9 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN091222-08	1	S7	-1.51	-0.00852	12/22/2009@15:23:48			CCB
		Known Conc:	0.00					
			DQM Test: > + Concentration Limit					
		Result:	-1.51 < 5.00					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	-1.51 > -5.00					
		Message	CCB Passed					
		Action	Continue					
1201998919||MSD	1	11	66.5	2.76	12/22/2009@15:25:36			
243030003	1	12	9.08	0.422	12/22/2009@15:26:27			
243030004	1	13	0.915	0.0900	12/22/2009@15:27:20			
243030005	1	14	2.66	0.161	12/22/2009@15:28:11			
243030006	1	15	11.8	0.534	12/22/2009@15:29:03			
243030007	1	16	3.89	0.211	12/22/2009@15:29:56			
243030002	1	8	-1.87	-0.0232	12/22/2009@15:30:49			
1201998919||MSD	1	11	102	4.20	12/22/2009@15:31:41			
1201998917||MS	1	10	134	5.50	12/22/2009@15:32:33			
243030008	1	17	0.219	0.0617	12/22/2009@15:33:27			
WCN091222-03	1	S3	95.6	3.95	12/22/2009@15:34:19			CCV
		Known Conc:	100					
			DQM Test: > + Percent Relative Difference					
		Result:	-4.4 < 10.0					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Percent Relative Difference					
		Result:	-4.4 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN091222-08	1	S7	-1.49	-0.00787	12/22/2009@15:36:09			CCB
		Known Conc:	0.00					
			DQM Test: > + Concentration Limit					
		Result:	-1.49 < 5.00					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	-1.49 > -5.00					
		Message	CCB Passed					
		Action	Continue					
243030009	1	18	6.82	0.330	12/22/2009@15:37:59			
243030010	1	19	3.52	0.196	12/22/2009@15:38:52			
243030011	1	20	1.76	0.125	12/22/2009@15:39:45			
243030012	1	21	9.74	0.449	12/22/2009@15:40:38			
243030013	1	22	0.594	0.0770	12/22/2009@15:41:31			
243030014	1	23	2.05	0.136	12/22/2009@15:42:24			
243030015	1	24	9.27	0.430	12/22/2009@15:43:17			
243030016	1	25	271	11.1	12/22/2009@15:44:09			
243030017	1	26	10.7	0.487	12/22/2009@15:45:01			
243042008	1	27	1.24	0.103	12/22/2009@15:45:54			
WCN091222-03	1	S3	95.5	3.94	12/22/2009@15:46:46			CCV
		Known Conc:	100					
			DQM Test: > + Percent Relative Difference					
		Result:	-4.5 < 10.0					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Percent Relative Difference					
		Result:	-4.5 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN091222-08	1	S7	-0.654	0.0262	12/22/2009@15:48:36			CCB
		Known Conc:	0.00					

DQM Test: > + Concentration Limit								
		Result:	-0.654 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-0.654 > -5.00					
		Message	CCB Passed					
		Action	Continue					
243042009	1	28	-0.570	0.0296	12/22/2009@15:50:24			
1201997980|933837|MB	1	29	-0.506	0.0322	12/22/2009@15:51:16			
1201997984||LCS	1	30	26.2	1.12	12/22/2009@15:52:08		25.00	
243030016|934285|	1	25	56.2	2.34	12/22/2009@15:53:00		5.00	
243030017	1	26	10.6	0.484	12/22/2009@15:53:52			
242938001|933837|	1	31	0.942	0.0912	12/22/2009@15:54:48			
1201997981||DUP	1	32	1.57	0.117	12/22/2009@15:55:41			
1201997982||MS	1	33	83.1	3.44	12/22/2009@15:56:35			
1201997983||MSD	1	34	94.1	3.88	12/22/2009@15:57:28			
242938002	1	35	0.558	0.0755	12/22/2009@15:58:21			
WCN091222-03	1	S3	95.3	3.93	12/22/2009@15:59:14			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	-4.7 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	-4.7 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN091222-08	1	S7	-1.40	-0.00431	12/22/2009@16:01:03			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.40 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.40 > -5.00					
		Message	CCB Passed					
		Action	Continue					
242938003	1	36	1.73	0.123	12/22/2009@16:02:53			
242938004	1	37	0.0245	0.0538	12/22/2009@16:03:46			
242938005	1	38	0.227	0.0621	12/22/2009@16:04:39			
242938006	1	39	0.527	0.0743	12/22/2009@16:05:31			
242938007	1	40	-0.310	0.0402	12/22/2009@16:06:24			
242938008	1	41	2.90	0.171	12/22/2009@16:07:16			
242938009	1	42	-0.658	0.0260	12/22/2009@16:08:09			
1201993024|931722|MB	1	43	0.178	0.0601	12/22/2009@16:09:01			
1201993028||LCS	1	44	46.2	1.93	12/22/2009@16:09:53			
242691002	1	45	-0.488	0.0330	12/22/2009@16:10:45			
WCN091222-03	1	S3	95.6	3.94	12/22/2009@16:11:37			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	-4.4 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	-4.4 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN091222-08	1	S7	-1.29	2.32e-4	12/22/2009@16:13:27			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.29 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.29 > -5.00					
		Message	CCB Passed					
		Action	Continue					

1201993025|DUP	1	46	-0.576	0.0293	12/22/2009@16:15:19			
1201993026|MS	1	47	97.7	4.03	12/22/2009@16:16:12			
1201993027|MSD	1	48	99.3	4.09	12/22/2009@16:17:06			
1201998306|933989|MB	1	49	-0.762	0.0218	12/22/2009@16:18:00			
1201998310|LCS	1	50	47.0	1.97	12/22/2009@16:18:53			
242984001	1	51	0.125	0.0579	12/22/2009@16:19:47			
1201998307|DUP	1	52	-0.380	0.0373	12/22/2009@16:20:40			
1202001846|MS	1	53	104	4.28	12/22/2009@16:21:33			
1202001847|MSD	1	54	104	4.31	12/22/2009@16:22:26			
242984003	1	55	0.219	0.0617	12/22/2009@16:23:18			
WCN091222-03	1	S3	96.3	3.97	12/22/2009@16:24:11			CCV
		Known Conc:	100					
			DQM Test: > + Percent Relative Difference					
		Result:	-3.7 < 10.0					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Percent Relative Difference					
		Result:	-3.7 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN091222-08	1	S7	-1.39	-0.00392	12/22/2009@16:26:01			CCB
		Known Conc:	0.00					
			DQM Test: > + Concentration Limit					
		Result:	-1.39 < 5.00					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	-1.39 > -5.00					
		Message	CCB Passed					
		Action	Continue					
1202000926|935209|MB	1	56	-1.11	0.00754	12/22/2009@16:27:50			
1202000939|LCS	1	57	49.9	2.09	12/22/2009@16:28:43			
243104002	1	58	-0.813	0.0197	12/22/2009@16:29:36			
1202000928|DUP	1	59	-1.97	-0.0273	12/22/2009@16:30:28			
1202000932|MS	1	60	94.4	3.89	12/22/2009@16:31:19			
1202000936|MSD	1	61	96.3	3.97	12/22/2009@16:32:13			
243108001	1	62	-0.642	0.0267	12/22/2009@16:33:08			
1202000927|DUP	1	63	-0.764	0.0217	12/22/2009@16:34:02			
1202000931|MS	1	64	96.6	3.99	12/22/2009@16:34:55			
1202000935|MSD	1	65	102	4.20	12/22/2009@16:35:50			
WCN091222-03	1	S3	95.9	3.96	12/22/2009@16:36:41			CCV
		Known Conc:	100					
			DQM Test: > + Percent Relative Difference					
		Result:	-4.1 < 10.0					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Percent Relative Difference					
		Result:	-4.1 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN091222-08	1	S7	-0.314	0.0400	12/22/2009@16:38:31			CCB
		Known Conc:	0.00					
			DQM Test: > + Concentration Limit					
		Result:	-0.314 < 5.00					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	-0.314 > -5.00					
		Message	CCB Passed					
		Action	Continue					
243108002	1	66	-1.08	0.00876	12/22/2009@16:40:21			
243223014	1	67	3.38	0.190	12/22/2009@16:41:14			
243242001	1	68	-0.593	0.0287	12/22/2009@16:42:08			
243242002	1	69	-1.31	-3.65e-4	12/22/2009@16:43:01			
243251001	1	70	-0.958	0.0138	12/22/2009@16:43:54			
243252001	1	71	0.738	0.0829	12/22/2009@16:44:46			
1202000929|DUP	1	72	0.460	0.0715	12/22/2009@16:45:40			
1202000933|MS	1	73	88.9	3.67	12/22/2009@16:46:32			

1202000937||MSD	1	74	91.5	3.78	12/22/2009@16:47:24			
243255001	1	75	-0.788	0.0207	12/22/2009@16:48:16			
WCN091222-03	1	S3	95.7	3.95	12/22/2009@16:49:08			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	-4.3 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	-4.3 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN091222-08	1	S7	-0.589	0.0288	12/22/2009@16:50:59			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-0.589 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-0.589 > -5.00					
		Message	CCB Passed					
		Action	Continue					
243255004	1	76	-0.456	0.0342	12/22/2009@16:52:49			
243255006	1	77	-1.35	-0.00197	12/22/2009@16:53:43			
243257003	1	78	-1.26	0.00140	12/22/2009@16:54:37			
243257005	1	79	-1.64	-0.0142	12/22/2009@16:55:32			
243272001	1	80	-0.653	0.0262	12/22/2009@16:56:25			
243281002	1	81	-1.10	0.00789	12/22/2009@16:57:19			
243281003	1	82	-1.28	5.33e-4	12/22/2009@16:58:13			
243281004	1	83	-0.514	0.0319	12/22/2009@16:59:06			
243281005	1	84	-0.685	0.0249	12/22/2009@16:59:59			
1202000930||DUP	1	85	-1.09	0.00856	12/22/2009@17:00:52			
WCN091222-03	1	S3	96.0	3.96	12/22/2009@17:01:45			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	-4.0 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	-4.0 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN091222-08	1	S7	-0.817	0.0195	12/22/2009@17:03:34			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-0.817 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-0.817 > -5.00					
		Message	CCB Passed					
		Action	Continue					
1202000934||MS	1	86	102	4.22	12/22/2009@17:05:24			
1202000938||MSD	1	87	99.3	4.10	12/22/2009@17:06:16			
243281006	1	88	-0.651	0.0263	12/22/2009@17:07:09			
243285001	1	89	-2.29	-0.0403	12/22/2009@17:08:02			
1202002259|935758|MB	1	90	-1.06	0.00979	12/22/2009@17:08:54			
1202002261||LCS	1	91	96.7	3.99	12/22/2009@17:09:49		250.00	
243330001	1	92	-0.968	0.0134	12/22/2009@17:10:43			
1202002260||DUP	1	93	5.00	0.257	12/22/2009@17:11:37			
WCN091222-03	1	S3	95.6	3.94	12/22/2009@17:12:30			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	-4.4 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	-4.4 < 10.0					

		Message	CCV Passed					
		Action	Continue					
WCN091222-08	1	S7	-1.20	0.00380	12/22/2009@17:14:20			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.20 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.20 > -5.00					
		Message	CCB Passed					
		Action	Continue					

Analyte Properties Table for OM_12-22-2009_14-59-47.OMN

Property	Channel 1
	TCYANIDE
Concentration Units	ug/L
Callibration Fit Type	First Order
Clear Calibration	True
Force Through Zero	False
Calibration Weighting	None
Auto Dilution Trigger	True
% of High Standard	100
Quik Chem Method	10-204-00-1-A
Chemistry	Direct/Bipolar
Calibration by Height	False
Inject to Peak Start	22
Peak Base Width	39

Channel 1: Current View

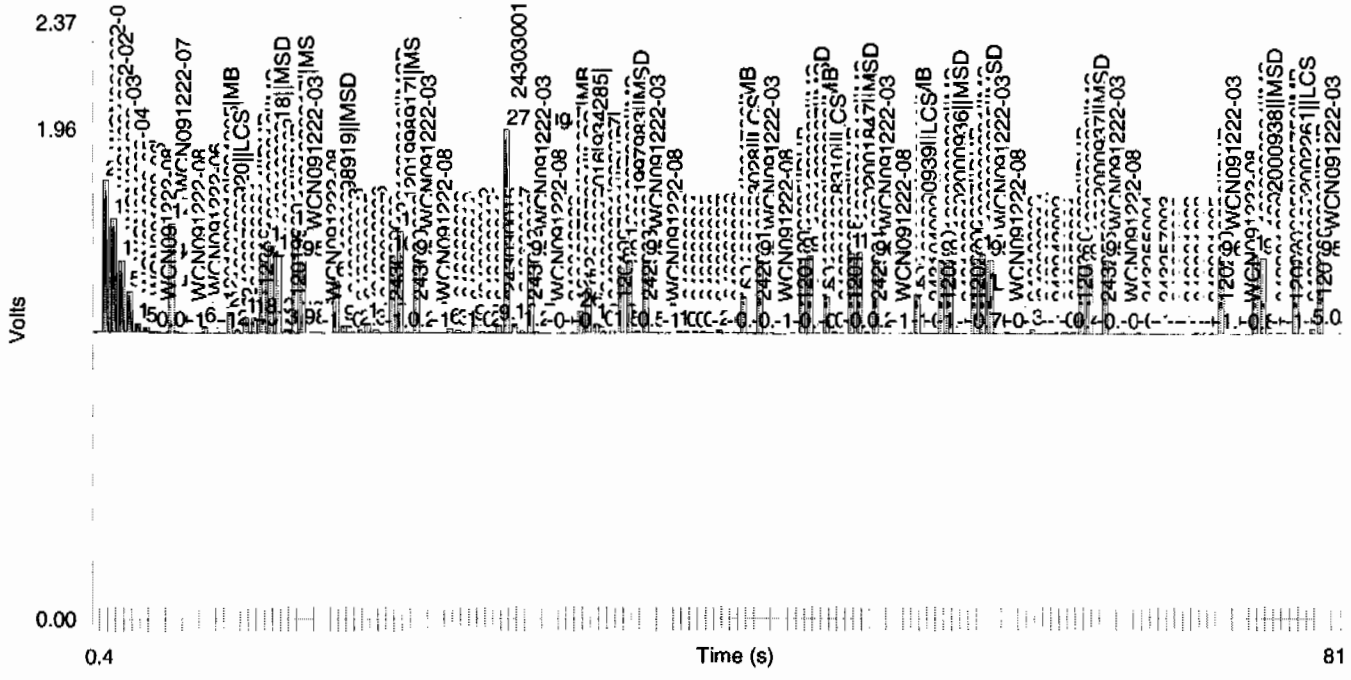

Author: axc2

Date : 12/22/2009

Table 1: TCYANIDE

	Conc. (ug/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	200	1	8.25	0.610	-0.7	12/22/2009	15:01:35
2	150	1	6.18	0.454	-0.4	12/22/2009	15:02:27
3	100	1	3.90	0.286	5.4	12/22/2009	15:03:20
4	50.0	1	2.21	0.162	-5.9	12/22/2009	15:04:12
5	10.0	1	0.487	0.0341	-5.1	12/22/2009	15:05:06
6	5.00	1	0.293	0.0212	-12.8	12/22/2009	15:05:59
7	0.00	1	0.0149	0.00280		12/22/2009	15:06:54

Figure 1: TCYANIDE

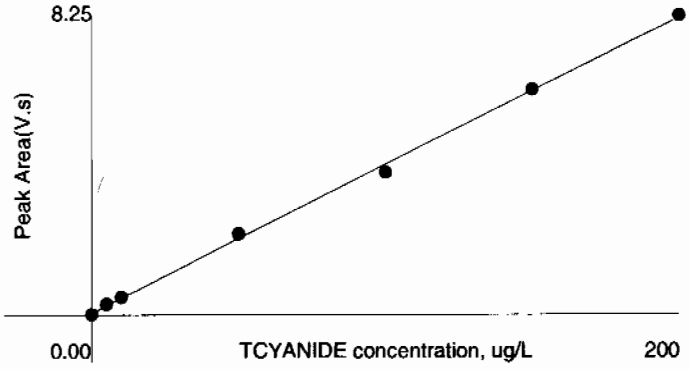

Area = 0.0407 * Conc + 0.0564
Conc = 24.6 * Area - 1.30
Correlation Coefficient (r) = 0.99941

No Weighting

This is runlog Lachat1

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
200 ppb		1	axh3	12/23/2009 13:29:06	OM_12-23-2009_13-25-43
150 ppb		1	axh3	12/23/2009 13:29:58	OM_12-23-2009_13-25-43
100 ppb		1	axh3	12/23/2009 13:30:50	OM_12-23-2009_13-25-43
50 ppb		1	axh3	12/23/2009 13:31:44	OM_12-23-2009_13-25-43
10 ppb		1	axh3	12/23/2009 13:32:37	OM_12-23-2009_13-25-43
CRDL 5.0 ppb		1	axh3	12/23/2009 13:33:30	OM_12-23-2009_13-25-43
ICAL-00		1	axh3	12/23/2009 13:34:25	OM_12-23-2009_13-25-43
ICV		1	axh3	12/23/2009 13:36:16	OM_12-23-2009_13-25-43
ICB		1	axh3	12/23/2009 13:38:06	OM_12-23-2009_13-25-43
CRDL		1	axh3	12/23/2009 13:39:56	OM_12-23-2009_13-25-43
1202000948	935215	1	axh3	12/23/2009 13:41:46	OM_12-23-2009_13-25-43
1202000955	935215	25	axh3	12/23/2009 13:42:39	OM_12-23-2009_13-25-43
243144001	935215	1	axh3	12/23/2009 13:43:32	OM_12-23-2009_13-25-43
1202000949	935215	1	axh3	12/23/2009 13:44:25	OM_12-23-2009_13-25-43
1202000951	935215	1	axh3	12/23/2009 13:45:18	OM_12-23-2009_13-25-43
1202000953	935215	1	axh3	12/23/2009 13:46:12	OM_12-23-2009_13-25-43
243144002	935215	1	axh3	12/23/2009 13:47:04	OM_12-23-2009_13-25-43
1202000950	935215	1	axh3	12/23/2009 13:47:56	OM_12-23-2009_13-25-43
1202000952	935215	1	axh3	12/23/2009 13:48:49	OM_12-23-2009_13-25-43
1202000954	935215	1	axh3	12/23/2009 13:49:41	OM_12-23-2009_13-25-43
CCV		1	axh3	12/23/2009 13:50:34	OM_12-23-2009_13-25-43
CCB		1	axh3	12/23/2009 13:52:24	OM_12-23-2009_13-25-43
243243001	935215	1	axh3	12/23/2009 13:54:12	OM_12-23-2009_13-25-43
243243002	935215	1	axh3	12/23/2009 13:55:04	OM_12-23-2009_13-25-43
243243003	935215	1	axh3	12/23/2009 13:55:56	OM_12-23-2009_13-25-43
243243004	935215	1	axh3	12/23/2009 13:56:48	OM_12-23-2009_13-25-43
243243005	935215	1	axh3	12/23/2009 13:57:40	OM_12-23-2009_13-25-43
243243006	935215	1	axh3	12/23/2009 13:58:33	OM_12-23-2009_13-25-43
243243007	935215	1	axh3	12/23/2009 13:59:27	OM_12-23-2009_13-25-43
243243008	935215	1	axh3	12/23/2009 14:00:20	OM_12-23-2009_13-25-43
243243009	935215	1	axh3	12/23/2009 14:01:14	OM_12-23-2009_13-25-43
243243010	935215	1	axh3	12/23/2009 14:02:07	OM_12-23-2009_13-25-43
CCV		1	axh3	12/23/2009 14:02:59	OM_12-23-2009_13-25-43
CCB		1	axh3	12/23/2009 14:04:50	OM_12-23-2009_13-25-43
243243011	935215	1	axh3	12/23/2009 14:06:39	OM_12-23-2009_13-25-43
243243012	935215	1	axh3	12/23/2009 14:07:32	OM_12-23-2009_13-25-43
243243013	935215	1	axh3	12/23/2009 14:08:25	OM_12-23-2009_13-25-43
243243014	935215	1	axh3	12/23/2009 14:09:18	OM_12-23-2009_13-25-43
243243015	935215	1	axh3	12/23/2009 14:10:10	OM_12-23-2009_13-25-43
243243016	935215	1	axh3	12/23/2009 14:11:02	OM_12-23-2009_13-25-43
243243017	935215	1	axh3	12/23/2009 14:11:54	OM_12-23-2009_13-25-43
243243018	935215	1	axh3	12/23/2009 14:12:47	OM_12-23-2009_13-25-43
1201999556	934598	1	axh3	12/23/2009 14:13:38	OM_12-23-2009_13-25-43
1201999560	934598	25	axh3	12/23/2009 14:14:30	OM_12-23-2009_13-25-43
CCV		1	axh3	12/23/2009 14:15:23	OM_12-23-2009_13-25-43
CCB		1	axh3	12/23/2009 14:17:13	OM_12-23-2009_13-25-43
243042001	934598	1	axh3	12/23/2009 14:19:03	OM_12-23-2009_13-25-43
1201999557	934598	1	axh3	12/23/2009 14:19:57	OM_12-23-2009_13-25-43
1201999558	934598	1	axh3	12/23/2009 14:20:51	OM_12-23-2009_13-25-43
1201999559	934598	1	axh3	12/23/2009 14:21:44	OM_12-23-2009_13-25-43
243042002	934598	1	axh3	12/23/2009 14:22:38	OM_12-23-2009_13-25-43
243042003	934598	1	axh3	12/23/2009 14:23:31	OM_12-23-2009_13-25-43
243042004	934598	1	axh3	12/23/2009 14:24:23	OM_12-23-2009_13-25-43
243042005	934598	1	axh3	12/23/2009 14:25:16	OM_12-23-2009_13-25-43
243042006	934598	1	axh3	12/23/2009 14:26:09	OM_12-23-2009_13-25-43
243042007	934598	1	axh3	12/23/2009 14:27:02	OM_12-23-2009_13-25-43
CCV		1	axh3	12/23/2009 14:27:55	OM_12-23-2009_13-25-43
CCB		1	axh3	12/23/2009 14:29:45	OM_12-23-2009_13-25-43

243088001	934598	1	axh3	12/23/2009	14:31:34	OM_12-23-2009_13-25-43
243088002	934598	1	axh3	12/23/2009	14:32:26	OM_12-23-2009_13-25-43
243088003	934598	1	axh3	12/23/2009	14:33:18	OM_12-23-2009_13-25-43
243088004	934598	1	axh3	12/23/2009	14:34:10	OM_12-23-2009_13-25-43
243092001	934598	1	axh3	12/23/2009	14:35:02	OM_12-23-2009_13-25-43
1202000923	934598	1	axh3	12/23/2009	14:35:57	OM_12-23-2009_13-25-43
1202000924	934598	1	axh3	12/23/2009	14:36:51	OM_12-23-2009_13-25-43
1202000925	934598	1	axh3	12/23/2009	14:37:45	OM_12-23-2009_13-25-43
243113001	934598	1	axh3	12/23/2009	14:38:38	OM_12-23-2009_13-25-43
243113002	934598	1	axh3	12/23/2009	14:39:31	OM_12-23-2009_13-25-43
CCV		1	axh3	12/23/2009	14:40:24	OM_12-23-2009_13-25-43
CCB		1	axh3	12/23/2009	14:42:14	OM_12-23-2009_13-25-43
243113003	934598	1	axh3	12/23/2009	14:44:04	OM_12-23-2009_13-25-43
243113004	934598	1	axh3	12/23/2009	14:44:57	OM_12-23-2009_13-25-43
243113005	934598	1	axh3	12/23/2009	14:45:50	OM_12-23-2009_13-25-43
243113006	934598	1	axh3	12/23/2009	14:46:43	OM_12-23-2009_13-25-43
243113007	934598	1	axh3	12/23/2009	14:47:36	OM_12-23-2009_13-25-43
243113008	934598	1	axh3	12/23/2009	14:48:29	OM_12-23-2009_13-25-43
243088002	934598	5	axh3	12/23/2009	14:49:22	OM_12-23-2009_13-25-43
1202001118	935275	1	axh3	12/23/2009	14:50:14	OM_12-23-2009_13-25-43
1202001120	935275	250	axh3	12/23/2009	14:51:06	OM_12-23-2009_13-25-43
243278003	935275	1	axh3	12/23/2009	14:51:59	OM_12-23-2009_13-25-43
CCV		1	axh3	12/23/2009	14:52:51	OM_12-23-2009_13-25-43
CCB		1	axh3	12/23/2009	14:54:41	OM_12-23-2009_13-25-43
1202001119	935275	1	axh3	12/23/2009	14:56:30	OM_12-23-2009_13-25-43
243361001	935275	1	axh3	12/23/2009	14:57:24	OM_12-23-2009_13-25-43
1202001108	935271	1	axh3	12/23/2009	14:58:19	OM_12-23-2009_13-25-43
1202001112	935271	1	axh3	12/23/2009	14:59:13	OM_12-23-2009_13-25-43
243286002	935271	1	axh3	12/23/2009	15:00:07	OM_12-23-2009_13-25-43
1202001109	935271	1	axh3	12/23/2009	15:01:00	OM_12-23-2009_13-25-43
1202001110	935271	1	axh3	12/23/2009	15:01:54	OM_12-23-2009_13-25-43
1202001111	935271	1	axh3	12/23/2009	15:02:48	OM_12-23-2009_13-25-43
243286003	935271	1	axh3	12/23/2009	15:03:41	OM_12-23-2009_13-25-43
243369001	935271	1	axh3	12/23/2009	15:04:34	OM_12-23-2009_13-25-43
CCV		1	axh3	12/23/2009	15:05:26	OM_12-23-2009_13-25-43
CCB		1	axh3	12/23/2009	15:07:17	OM_12-23-2009_13-25-43
1202003131	936167	1	axh3	12/23/2009	15:09:06	OM_12-23-2009_13-25-43
1202003132	936167	1	axh3	12/23/2009	15:09:59	OM_12-23-2009_13-25-43
1202003133	936167	1	axh3	12/23/2009	15:10:52	OM_12-23-2009_13-25-43
243369001	936167	1	axh3	12/23/2009	15:11:45	OM_12-23-2009_13-25-43
CCV		1	axh3	12/23/2009	15:12:37	OM_12-23-2009_13-25-43
CCB		1	axh3	12/23/2009	15:14:27	OM_12-23-2009_13-25-43

Author: axc2

Date : 12/23/2009

Original Run Filename: OM_12-23-2009_13-25-43.OMN created 12/23/2009 13:25:43
Original Run Author's Signature: [axc2]
Current Run Filename: OM_12-23-2009_13-25-43.OMN last modified 12/23/2009 15:15:33
Current Run Author's Signature: [axc2]
Description: GL-GC-E-095 EPA 335.1, 335.3, 335.4, 9012A, CLP335.2-M
Liquid LCS nominal 50 ug/L

Sample	Rep.	Cup No.	Channel 1 TCYANIDE Conc. (ug/L)	Area (Vs)	Detection Time	ADF	MDF	Description
WCN091223-01	1	S1	200	7.75	12/23/2009@13:29:06			200 ppb
WCN091223-02	1	S2	150	5.85	12/23/2009@13:29:58			150 ppb
WCN091223-03	1	S3	100	3.64	12/23/2009@13:30:50			100 ppb
WCN091223-04	1	S4	50.0	2.05	12/23/2009@13:31:44			50 ppb
WCN091223-05	1	S5	10.0	0.471	12/23/2009@13:32:37			10 ppb
WCN091223-06	1	S6	5.00	0.301	12/23/2009@13:33:30			CRDL 5.0 ppb
WCN091223-08	1	S7	0.00	0.0270	12/23/2009@13:34:25			0.0 ppb
DQM Test: Minimum Correlation Coefficient								
		Result:	0.99931 > 0.99500					
		Message	Pass					
		Action	Continue					
WCN091223-07	1	S8	143	5.54	12/23/2009@13:36:16			ICV
		Known Conc:	150					
DQM Test: > + Percent Relative Difference								
		Result:	-4.3 < 10.0					
		Message	ICV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	-4.3 < 10.0					
		Message	ICV Passed					
		Action	Continue					
		Calibration:	Table/Fig. 1					
WCN091223-08	1	S7	-1.45	-6.11e-4	12/23/2009@13:38:06			ICB/CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.45 < 5.01					
		Message	ICB/CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.45 > -5.01					
		Message	ICB/CCB Passed					
		Action	Continue					
WCN091223-06	1	S6	6.04	0.286	12/23/2009@13:39:56			CRDL
		Known Conc:	5.00					
DQM Test: > + Concentration Limit								
		Result:	6.04 < 7.50					
		Message	CRDL Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	6.04 > 2.50					
		Message	Pass					
		Action	None					
1202000948|935215|MB	1	1	-1.65	-0.00825	12/23/2009@13:41:46			
1202000955||LCS	1	2	29.1	1.17	12/23/2009@13:42:39		25.00	
243144001	1	3	-0.303	0.0433	12/23/2009@13:43:32			
1202000949||DUP	1	4	-0.618	0.0312	12/23/2009@13:44:25			
1202000951||MS	1	5	107	4.14	12/23/2009@13:45:18			
1202000953||MSD	1	6	103	3.99	12/23/2009@13:46:12			
243144002	1	7	-0.214	0.0467	12/23/2009@13:47:04			
1202000950||DUP	1	8	-0.591	0.0322	12/23/2009@13:47:56			
1202000952||MS	1	9	93.8	3.64	12/23/2009@13:48:49			
1202000954||MSD	1	10	101	3.92	12/23/2009@13:49:41			
WCN091223-03	1	S3	94.7	3.68	12/23/2009@13:50:34			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	-5.3 < 10.0					

		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Percent Relative Difference					
		Result:	-5.3 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN091223-08	1	S7	-1.56	-0.00468	12/23/2009@13:52:24			CCB
		Known Conc:	0.00					
			DQM Test: > + Concentration Limit					
		Result:	-1.56 < 5.00					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	-1.56 > -5.00					
		Message	CCB Passed					
		Action	Continue					
243243001	1	11	3.76	0.199	12/23/2009@13:54:12			
243243002	1	12	3.28	0.180	12/23/2009@13:55:04			
243243003	1	13	3.94	0.206	12/23/2009@13:55:56			
243243004	1	14	1.74	0.121	12/23/2009@13:56:48			
243243005	1	15	10.5	0.456	12/23/2009@13:57:40			
243243006	1	16	1.38	0.108	12/23/2009@13:58:33			
243243007	1	17	6.60	0.307	12/23/2009@13:59:27			
243243008	1	18	8.25	0.370	12/23/2009@14:00:20			
243243009	1	19	0.0344	0.0562	12/23/2009@14:01:14			
243243010	1	20	1.24	0.102	12/23/2009@14:02:07			
WCN091223-03	1	S3	94.8	3.68	12/23/2009@14:02:59			CCV
		Known Conc:	100					
			DQM Test: > + Percent Relative Difference					
		Result:	-5.2 < 10.0					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Percent Relative Difference					
		Result:	-5.2 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN091223-08	1	S7	-0.823	0.0234	12/23/2009@14:04:50			CCB
		Known Conc:	0.00					
			DQM Test: > + Concentration Limit					
		Result:	-0.823 < 5.00					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	-0.823 > -5.00					
		Message	CCB Passed					
		Action	Continue					
243243011	1	21	6.32	0.297	12/23/2009@14:06:39			
243243012	1	22	0.704	0.0818	12/23/2009@14:07:32			
243243013	1	23	2.06	0.134	12/23/2009@14:08:25			
243243014	1	24	2.00	0.131	12/23/2009@14:09:18			
243243015	1	25	1.91	0.128	12/23/2009@14:10:10			
243243016	1	26	5.17	0.253	12/23/2009@14:11:02			
243243017	1	27	2.86	0.164	12/23/2009@14:11:54			
243243018	1	28	2.48	0.150	12/23/2009@14:12:47			
1201999556|934598|MB	1	29	-1.44	-1.39e-4	12/23/2009@14:13:38			
1201999560||LCS	1	30	32.8	1.31	12/23/2009@14:14:30		25.00	
WCN091223-03	1	S3	94.9	3.68	12/23/2009@14:15:23			CCV
		Known Conc:	100					
			DQM Test: > + Percent Relative Difference					
		Result:	-5.1 < 10.0					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Percent Relative Difference					
		Result:	-5.1 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN091223-08	1	S7	-1.55	-0.00438	12/23/2009@14:17:13			CCB
		Known Conc:	0.00					

DQM Test: > + Concentration Limit								
		Result:	-1.55 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.55 > -5.00					
		Message	CCB Passed					
		Action	Continue					
243042001	1	31	0.549	0.0759	12/23/2009@14:19:03			
1201999557||DUP	1	32	1.20	0.101	12/23/2009@14:19:57			
1201999558||MS	1	33	94.9	3.69	12/23/2009@14:20:51			
1201999559||MSD	1	34	98.8	3.84	12/23/2009@14:21:44			
243042002	1	35	0.0784	0.0578	12/23/2009@14:22:38			
243042003	1	36	-0.194	0.0474	12/23/2009@14:23:31			
243042004	1	37	-0.133	0.0497	12/23/2009@14:24:23			
243042005	1	38	0.897	0.0892	12/23/2009@14:25:16			
243042006	1	39	-0.366	0.0408	12/23/2009@14:26:09			
243042007	1	40	-0.547	0.0339	12/23/2009@14:27:02			
WCN091223-03	1	S3	103	3.98	12/23/2009@14:27:55			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	2.7 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	2.7 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN091223-08	1	S7	-1.44	-3.48e-4	12/23/2009@14:29:45			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.44 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.44 > -5.00					
		Message	CCB Passed					
		Action	Continue					
243088001	1	41	-0.345	0.0417	12/23/2009@14:31:34			
243088002	1	42	277	10.6	12/23/2009@14:32:26			
243088003	1	43	0.452	0.0721	12/23/2009@14:33:18			
243088004	1	44	0.0745	0.0577	12/23/2009@14:34:10			
243092001	1	45	-0.0425	0.0532	12/23/2009@14:35:02			
1202000923||DUP	1	46	-0.0128	0.0544	12/23/2009@14:35:57			
1202000924||MS	1	47	107	4.14	12/23/2009@14:36:51			
1202000925||MSD	1	48	85.9	3.34	12/23/2009@14:37:45			
243113001	1	49	1.63	0.117	12/23/2009@14:38:38			
243113002	1	50	16.4	0.683	12/23/2009@14:39:31			
WCN091223-03	1	S3	102	3.97	12/23/2009@14:40:24			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	2.5 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	2.5 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN091223-08	1	S7	-1.44	-1.37e-4	12/23/2009@14:42:14			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.44 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.44 > -5.00					
		Message	CCB Passed					
		Action	Continue					

243113003	1	51	3.67	0.195	12/23/2009@14:44:04			
243113004	1	52	3.71	0.197	12/23/2009@14:44:57			
243113005	1	53	1.24	0.102	12/23/2009@14:45:50			
243113006	1	54	3.50	0.189	12/23/2009@14:46:43			
243113007	1	55	-0.137	0.0496	12/23/2009@14:47:36			
243113008	1	56	6.91	0.319	12/23/2009@14:48:29			
243088002	1	42	53.3	2.09	12/23/2009@14:49:22		5.00	
1202001118|935275|MB	1	57	0.533	0.0752	12/23/2009@14:50:14			
1202001120||LCS	1	58	105	4.06	12/23/2009@14:51:06		250.00	
243278003	1	59	-0.175	0.0481	12/23/2009@14:51:59			
WCN091223-03	1	S3	103	3.98	12/23/2009@14:52:51			CCV
		Known Conc:	100					
			DQM Test: > + Percent Relative Difference					
		Result:	2.7 < 10.0					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Percent Relative Difference					
		Result:	2.7 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN091223-08	1	S7	-1.43	0.00	12/23/2009@14:54:41			CCB
		Known Conc:	0.00					
			DQM Test: > + Concentration Limit					
		Result:	-1.43 < 5.00					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	-1.43 > -5.00					
		Message	CCB Passed					
		Action	Continue					
1202001119||DUP	1	60	1.32	0.105	12/23/2009@14:56:30			
243361001	1	61	-1.46	-8.56e-4	12/23/2009@14:57:24			
1202001108|935271|MB	1	62	-0.507	0.0354	12/23/2009@14:58:19			
1202001112||LCS	1	63	50.3	1.98	12/23/2009@14:59:13			
243286002	1	64	1.52	0.113	12/23/2009@15:00:07			
1202001109||DUP	1	65	0.937	0.0907	12/23/2009@15:01:00			
1202001110||MS	1	66	104	4.03	12/23/2009@15:01:54			
1202001111||MSD	1	67	104	4.02	12/23/2009@15:02:48			
243286003	1	68	1.32	0.105	12/23/2009@15:03:41			
243369001	1	69	0.222	0.0633	12/23/2009@15:04:34			
WCN091223-03	1	S3	103	4.00	12/23/2009@15:05:26			CCV
		Known Conc:	100					
			DQM Test: > + Percent Relative Difference					
		Result:	3.1 < 10.0					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Percent Relative Difference					
		Result:	3.1 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN091223-08	1	S7	-0.672	0.0291	12/23/2009@15:07:17			CCB
		Known Conc:	0.00					
			DQM Test: > + Concentration Limit					
		Result:	-0.672 < 5.00					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	-0.672 > -5.00					
		Message	CCB Passed					
		Action	Continue					
1202003131|936167|MB	1	70	-1.56	-0.00483	12/23/2009@15:09:06			
1202003132||LCS	1	71	-0.228	0.0461	12/23/2009@15:09:59			
1202003133||LCSD	1	72	-0.454	0.0375	12/23/2009@15:10:52			
243369001	1	73	-0.405	0.0394	12/23/2009@15:11:45			
WCN091223-03	1	S3	103	3.98	12/23/2009@15:12:37			CCV
		Known Conc:	100					
			DQM Test: > + Percent Relative Difference					
		Result:	2.6 < 10.0					

Author: axc2 Date : 12/23/2009

		Message	CCV Passed					
		Action	Continue					
		DQM Test: < - Percent Relative Difference						
		Result:	2.6 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN091223-08	1	S7	-1.44	-9.57e-5	12/23/2009@15:14:27			CCB
		Known Conc:	0.00					
		DQM Test: > + Concentration Limit						
		Result:	-1.44 < 5.00					
		Message	CCB Passed					
		Action	Continue					
		DQM Test: < - Concentration Limit						
		Result:	-1.44 > -5.00					
		Message	CCB Passed					
		Action	Continue					

Analyte Properties Table for OM_12-23-2009_13-25-43.OMN

Property	Channel 1
	TCYANIDE
Concentration Units	ug/L
Callibration Fit Type	First Order
Clear Calibration	True
Force Through Zero	False
Calibration Weighting	None
Auto Dilution Trigger	True
% of High Standard	100
Quik Chem Method	10-204-00-1-A
Chemistry	Direct/Bipolar
Calibration by Height	False
Inject to Peak Start	22
Peak Base Width	39

Channel 1: Current View

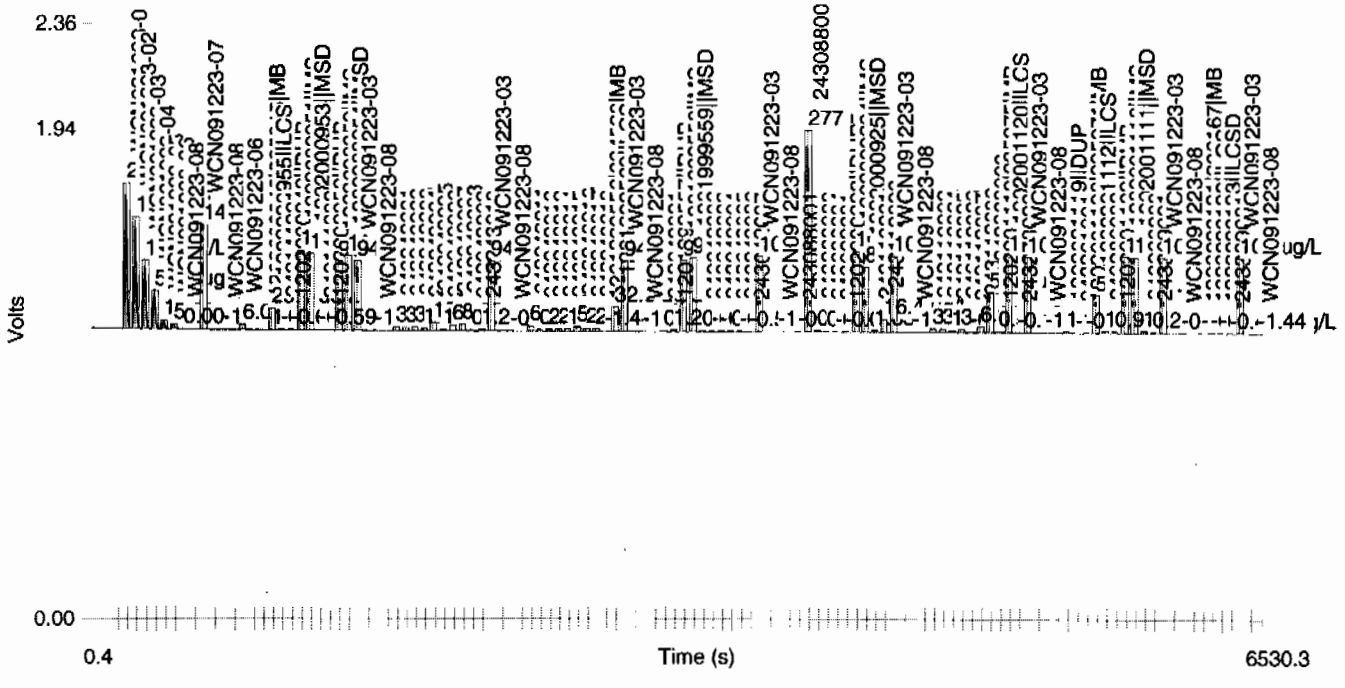

Author: axc2 Date : 12/23/2009

Table 1: TCYANIDE

	Conc. (ug/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	200	1	7.75	0.576	-0.7	12/23/2009	13:30:09
2	150	1	5.85	0.440	-1.0	12/23/2009	13:31:01
3	100	1	3.64	0.270	6.2	12/23/2009	13:31:54
4	50.0	1	2.05	0.150	-4.0	12/23/2009	13:32:47
5	10.0	1	0.471	0.0348	-6.9	12/23/2009	13:33:40
6	5.00	1	0.301	0.0208	-20.5	12/23/2009	13:34:34
7	0.00	1	0.0270	8.62e-4		12/23/2009	13:35:28

Figure 1: TCYANIDE

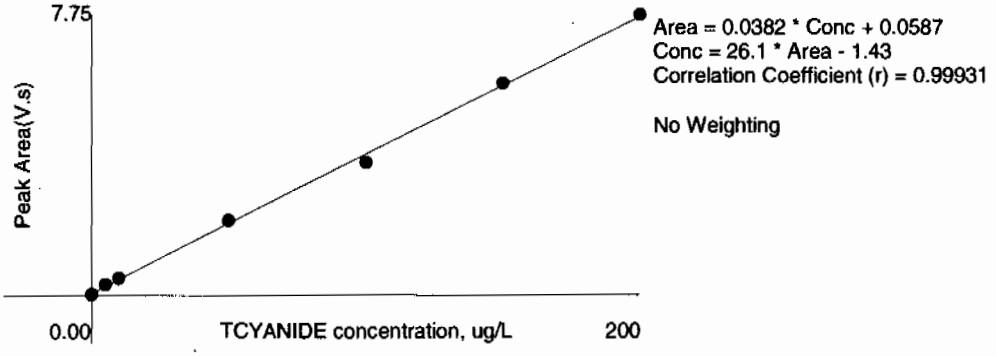

Miscellaneous

COMPANY - WIDE NONCONFORMANCE REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
28-DEC-09	Industrial	Specifications	Process
Instrument Type: LACHAT Flow Injection Analyzer	**Test / Method:** SW846 9012A	**Matrix Type:** Solid	**Client Code:** LANL
Batch ID: 934285	**Sample Numbers:** See Below		

Potentially affected work order(s)(SDG): 243007(10-939),243030(10-929-1),243042(10-941)

Application Issues:

Failed Recovery for MS/PS

Failed RPD for DUP

Specification and Requirements Nonconformance Description:	NRG Disposition:
1. Failed Recovery for MS: QC 1201998917MS 2. Failed Recvoery for MS: QC 1201998916MS	1. The spike recovery falls outside of the established acceptance limits. Since both the spike duplicate recovery and the RPD between the spike and spike duplicate fall within acceptance limits, the data is reported. 2. The spike recovery falls outside of the client specified acceptance limits. Since both the spike duplicate recovery and the RPD between the spike and spike duplicate fall within acceptance limits, the data is reported.

Originator's Name:

Ashley Earl 28-DEC-09

Data Validator/Group Leader:

Julia Hamilton 28-DEC-09

General Chemistry Analysis

Case Narrative

General Chemistry Narrative
Los Alamos National Laboratory (LANL)
SDG 10-941-1

Method/Analysis Information

Product:	**Cyanide, Total**		
Analytical Batch:	934596	**Method:**	SW846 9012A
Prep Batch :	934595	**Method:**	SW846 9010B Prep

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 9012A:

Sample ID	Client ID
243043001	RE03-10-2760
243043002	RE03-10-2748
1201999548	Method Blank (MB)
1201999549	243029001(RE16-10-223) Sample Duplicate (DUP)
1201999550	243009002(CAPA-10-6101) Sample Duplicate (DUP)
1201999551	243029001(RE16-10-223) Matrix Spike (MS)
1201999552	243009002(CAPA-10-6101) Matrix Spike (MS)
1201999553	243029001(RE16-10-223) Matrix Spike Duplicate (MSD)
1201999554	243009002(CAPA-10-6101) Matrix Spike Duplicate (MSD)
1201999555	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-095 REV# 12.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

The Flow Injection analysis was performed on a Lachat QuickChem FIA+ 8000 Series.

Initial Calibration

All initial calibration requirements have been met for this SDG.

Continuing Calibration Blanks

All continuing calibration blanks (CCBs) associated with reported data from this batch were within acceptance limits.

Calibration Verification Information (CCV)
All continuing calibration verification standards (CCVs) associated with reported data from this batch were within acceptance limits.

Y Intercept Rule
The absolute value of the intercept is less than 3 times the MDL.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recovery met the acceptance limits.

Quality Control (QC) Designation
The following samples were selected for QC analysis: 243009002 (CAPA-10-6101) and 243029001 (RE16-10-223).

Matrix Spike (MS)/Post Spike (PS) Recovery Statement
The MS/PS recoveries for this sample set were within the required acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recoveries for this sample set were within the required acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPDs between the spike and spike duplicate met the acceptance limits.

Duplicate Relative Percent Difference (RPD) Statement
The RPD between the sample and its duplicate met the acceptance limits.

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times
All samples in this SDG met the specified holding time.

Sample Preservation/Integrity
All the samples from this sample group met the preservation and integrity requirements of the method.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-analysis

The following sample was re-analyzed due to instrument failure: 1201999554 (CAPA-10-6101).

Miscellaneous Information

Nonconformance (NCR) Documentation
An NCR was not required for this SDG.

Additional Comments
Additional comments were not required for this SDG.

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:
Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Tom Lewis, Jr. **Date:** 11Jan10

Sample Data Summary

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis Report
for

LANL010 Los Alamos National Laboratory (72733-001-09)

Client SDG: 10-941-1 GEL Work Order: 243043

The Qualifiers in this report are defined as follows:

* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.

** Indicates the analyte is a surrogate compound.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the detection limit.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Valerie Davis.

Reviewed by Tom Lewis, Jr.

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: December 24, 2009

Client SDG: 10-941-1

Client Sample ID: RE03-10-2760
Sample ID: 243043001
Matrix: W
Collect Date: 14-DEC-09 12:00
Receive Date: 16-DEC-09
Collector: Client

Proiect: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "As Received"										
Cyanide, Total	U	ND	1.66	5.00	ug/L	1	AXC2 12/21/09	1211	934596	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	SXJ1	12/18/09	1400	934595

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: December 24, 2009

Client SDG: 10-941-1

Client Sample ID:	RE03-10-2748	Project:	LANL01004
Sample ID:	243043002	Client ID:	LANL010
Matrix:	W		
Collect Date:	14-DEC-09 12:00		
Receive Date:	16-DEC-09		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Flow Injection Analysis											
SW9012A Cyanide, Total "As Received"											
Cyanide, Total	U	ND	1.66	5.00	ug/L	1	AXC2	12/21/09	1212	934596	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	SXJ1	12/18/09	1400	934595

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

Quality Control Summary

GEL LABORATORIES LLC

2040 Savage Road Charleston, SC 29407 - (843) 556-8171 - www.gel.com

QC Summary

Report Date: December 24, 2009
Page 1 of 2

Los Alamos National Laboratory
PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico

Contact: Ms. Joylene Valdez

Workorder: 243043

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Flow Injection Analysis										
Batch 934596										
QC1201999549 243029001 DUP										
Cyanide, Total	U	ND	U	ND	ug/L	N/A			AXC2	12/21/09 12:04
QC1201999550 243009002 DUP										
Cyanide, Total	U	ND	U	ND	ug/L	N/A				12/21/09 11:59
QC1201999555 LCS										
Cyanide, Total	50.0			46.6	ug/L		93.2	(90%-110%)		12/21/09 11:57
QC1201999548 MB										
Cyanide, Total			U	5.00	ug/L					12/21/09 11:52
QC1201999551 243029001 MS										
Cyanide, Total	100 U	ND		97.7	ug/L		97.7	(60%-127%)		12/21/09 12:05
QC1201999552 243009002 MS										
Cyanide, Total	100 U	ND		95.9	ug/L		95.9	(60%-127%)		12/21/09 11:59
QC1201999553 243029001 MSD										
Cyanide, Total	100 U	ND		96.0	ug/L	1.76	96	(0%-20%)		12/21/09 12:09
QC1201999554 243009002 MSD										
Cyanide, Total	100 U	ND		84.4	ug/L	12.8	84.4	(0%-20%)		12/21/09 12:16

Notes:
RER is calculated at the 95% confidence level (2-sigma).
The Qualifiers in this report are defined as follows:

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
- F Estimated Value
- H Analytical holding time was exceeded
- J Value is estimated
- M Matrix Related Failure
- N/A RPD or %Recovery limits do not apply.
- ND Analyte concentration is not detected above the detection limit
- NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- R Sample results are rejected
- U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

QC Summary

Workorder: 243043

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time

X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier

Y QC Samples were not spiked with this compound

Z Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.

^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.

d 5-day BOD--The 2:1 depletion requirement was not met for this sample

h Preparation or preservation holding time was exceeded

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more.
^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.
* Indicates that a Quality Control parameter was not within specifications.
For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

Instrument QC Data Summary

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Report Run On: 24-DEC-2009 08:56

GEL Laboratories LLC
Contract: LANL01004
SDG #: 10-941-1

Flow Injection Analysis
Method: SW846 9012A Concentration Units:ug/L
Instrument: Lachat QuickChem FIA+ 8000 Series

Parmname: Cyanide, Total

Sample Type	Run Date	Data File	Result	Nominal	Recovery	Limits	Within Limits
ICV	**21-DEC-2009 11:14:29**	**OM_12-21-2009_11-06-34**	**140**	**150**	**93**	**(90%-110%)**	**Yes**
CCV	21-DEC-2009 11:41:12	OM_12-21-2009_11-06-34	107	100	107	(90%-110%)	Yes
CCV	21-DEC-2009 11:53:36	OM_12-21-2009_11-06-34	106	100	106	(90%-110%)	Yes
CCV	21-DEC-2009 12:06:06	OM_12-21-2009_11-06-34	107	100	107	(90%-110%)	Yes
CCV	21-DEC-2009 12:17:41	OM_12-21-2009_11-06-34	106	100	106	(90%-110%)	Yes

Sample Type	Run Date	Data File	Result	Limits	Within Limits
ICB	**21-DEC-2009 11:16:19**	**OM_12-21-2009_11-06-34**	**-2.37**	**5**	**Yes**
CCB	21-DEC-2009 11:43:02	OM_12-21-2009_11-06-34	-2.33	5	Yes
CCB	21-DEC-2009 11:55:26	OM_12-21-2009_11-06-34	-3	5	Yes
CCB	21-DEC-2009 12:07:56	OM_12-21-2009_11-06-34	-2.62	5	Yes
CCB	21-DEC-2009 12:19:31	OM_12-21-2009_11-06-34	-2.57	5	Yes

Cyanide, Total

Prep LogBook

Analyst: SXJ1 Verified by:_____

Batch: 934595

Lab SOP: GL-GC-E-067 REV# 13

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1201999555	URF1184831-02	.0125	mL
MS	1201999551	URF1184831-02	.025	mL
MS	1201999552	URF1184831-02	.025	mL
MSD	1201999553	URF1184831-02	.025	mL
MSD	1201999554	URF1184831-02	.025	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Ph	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1201999548		SW846 9010B Prep	18-DEC-2009 14:00	>12	25 mL	25 mL	1	WATER
LCS	1201999555		SW846 9010B Prep	18-DEC-2009 14:00	>12	25 mL	25 mL	1	WATER
SAMPLE	243009002		EPA 335.4	18-DEC-2009 14:00	>12	25 mL	25 mL	1	GROUND WATER
DUP	1201999550	243009002	EPA 335.4	18-DEC-2009 14:00	>12	25 mL	25 mL	1	GROUND WATER
MS	1201999552	243009002	EPA 335.4	18-DEC-2009 14:00	>12	25 mL	25 mL	1	GROUND WATER
MSD	1201999554	243009002	EPA 335.4	18-DEC-2009 14:00	>12	25 mL	25 mL	1	GROUND WATER
SAMPLE	243009004		EPA 335.4	18-DEC-2009 14:00	>12	25 mL	25 mL	1	GROUND WATER
SAMPLE	243014001		EPA 335.4	18-DEC-2009 14:00	>12	25 mL	25 mL	1	GROUND WATER
SAMPLE	243029001		SW846 9010B Prep	18-DEC-2009 14:00	>12	25 mL	25 mL	1	WATER
DUP	1201999549	243029001	SW846 9010B Prep	18-DEC-2009 14:00	>12	25 mL	25 mL	1	WATER
MS	1201999551	243029001	SW846 9010B Prep	18-DEC-2009 14:00	>12	25 mL	25 mL	1	WATER
MSD	1201999553	243029001	SW846 9010B Prep	18-DEC-2009 14:00	>12	25 mL	25 mL	1	WATER
SAMPLE	243029002		SW846 9010B Prep	18-DEC-2009 14:00	>12	25 mL	25 mL	1	WATER
SAMPLE	243043001		SW846 9010B Prep	18-DEC-2009 14:00	>12	25 mL	25 mL	1	WATER
SAMPLE	243043002		SW846 9010B Prep	18-DEC-2009 14:00	>12	25 mL	25 mL	1	WATER
SAMPLE	243089002		EPA 335.4	18-DEC-2009 14:00	>12	25 mL	25 mL	1	WASTE WATER
SAMPLE	243102001		EPA 335.4	18-DEC-2009 14:00	>12	25 mL	25 mL	1	WASTE WATER
SAMPLE	243130001		EPA 335.4	18-DEC-2009 14:00	>12	25 mL	25 mL	1	SURFACE WATER
SAMPLE	243130002		EPA 335.4	18-DEC-2009 14:00	>12	25 mL	25 mL	1	SURFACE WATER

Reagent/Solvent Lot ID	Amount	Description
091211-C	25 mL	0.25N Sodium Hydroxide Solution
1176724-C	1.25 mL	0.8N H3NO3S
1238146-C	2.5 mL	50% H2SO4 CN Prep
1176778-C	1 mL	51% MgCl2 Soln
1238142-C	1.25 mL	Bismuth Nitrate Solution

Comments

This is runlog Lachat1

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
200 ppb		1	axc2	12/21/2009 11:07:20	OM_12-21-2009_11-06-34
150 ppb		1	axc2	12/21/2009 11:08:12	OM_12-21-2009_11-06-34
100 ppb		1	axc2	12/21/2009 11:09:04	OM_12-21-2009_11-06-34
50 ppb		1	axc2	12/21/2009 11:09:57	OM_12-21-2009_11-06-34
10 ppb		1	axc2	12/21/2009 11:10:50	OM_12-21-2009_11-06-34
CRDL 5.0 ppb		1	axc2	12/21/2009 11:11:44	OM_12-21-2009_11-06-34
ICAL-00		1	axc2	12/21/2009 11:12:38	OM_12-21-2009_11-06-34
ICV		1	axc2	12/21/2009 11:14:29	OM_12-21-2009_11-06-34
ICB		1	axc2	12/21/2009 11:16:19	OM_12-21-2009_11-06-34
CRDL		1	axc2	12/21/2009 11:18:09	OM_12-21-2009_11-06-34
1201998905	934280	1	axc2	12/21/2009 11:19:59	OM_12-21-2009_11-06-34
1201998912	934280	25	axc2	12/21/2009 11:20:52	OM_12-21-2009_11-06-34
243031001	934280	1	axc2	12/21/2009 11:21:46	OM_12-21-2009_11-06-34
1201998906	934280	1	axc2	12/21/2009 11:22:39	OM_12-21-2009_11-06-34
1201998908*	934280	1	axc2	12/21/2009 11:23:32	OM_12-21-2009_11-06-34
1201998910	934280	1	axc2	12/21/2009 11:24:24	OM_12-21-2009_11-06-34
243031002	934280	1	axc2	12/21/2009 11:25:17	OM_12-21-2009_11-06-34
1201998907	934280	1	axc2	12/21/2009 11:26:10	OM_12-21-2009_11-06-34
1201998909	934280	1	axc2	12/21/2009 11:27:02	OM_12-21-2009_11-06-34
1201998911	934280	1	axc2	12/21/2009 11:27:54	OM_12-21-2009_11-06-34
CCV		1	axc2	12/21/2009 11:28:47	OM_12-21-2009_11-06-34
CCB		1	axc2	12/21/2009 11:30:37	OM_12-21-2009_11-06-34
1201998908	934280	1	axc2	12/21/2009 11:32:26	OM_12-21-2009_11-06-34
243031003	934280	1	axc2	12/21/2009 11:33:18	OM_12-21-2009_11-06-34
243031004	934280	1	axc2	12/21/2009 11:34:11	OM_12-21-2009_11-06-34
243031005	934280	1	axc2	12/21/2009 11:35:02	OM_12-21-2009_11-06-34
243031006	934280	1	axc2	12/21/2009 11:35:54	OM_12-21-2009_11-06-34
243031007	934280	1	axc2	12/21/2009 11:36:45	OM_12-21-2009_11-06-34
243031008	934280	1	axc2	12/21/2009 11:37:39	OM_12-21-2009_11-06-34
243031009	934280	1	axc2	12/21/2009 11:38:33	OM_12-21-2009_11-06-34
243031010	934280	1	axc2	12/21/2009 11:39:27	OM_12-21-2009_11-06-34
243031011	934280	1	axc2	12/21/2009 11:40:19	OM_12-21-2009_11-06-34
CCV		1	axc2	12/21/2009 11:41:12	OM_12-21-2009_11-06-34
CCB		1	axc2	12/21/2009 11:43:02	OM_12-21-2009_11-06-34
243031012	934280	1	axc2	12/21/2009 11:44:51	OM_12-21-2009_11-06-34
243031013	934280	1	axc2	12/21/2009 11:45:44	OM_12-21-2009_11-06-34
243031014	934280	1	axc2	12/21/2009 11:46:37	OM_12-21-2009_11-06-34
243031015	934280	1	axc2	12/21/2009 11:47:29	OM_12-21-2009_11-06-34
243031016	934280	1	axc2	12/21/2009 11:48:22	OM_12-21-2009_11-06-34
243031017	934280	1	axc2	12/21/2009 11:49:15	OM_12-21-2009_11-06-34
243031018	934280	1	axc2	12/21/2009 11:50:07	OM_12-21-2009_11-06-34
243031019	934280	1	axc2	12/21/2009 11:50:59	OM_12-21-2009_11-06-34
243031020	934280	1	axc2	12/21/2009 11:51:52	OM_12-21-2009_11-06-34
1201999548	934596	1	axc2	12/21/2009 11:52:44	OM_12-21-2009_11-06-34
CCV		1	axc2	12/21/2009 11:53:36	OM_12-21-2009_11-06-34
CCB		1	axc2	12/21/2009 11:55:26	OM_12-21-2009_11-06-34
1201999555	934596	1	axc2	12/21/2009 11:57:14	OM_12-21-2009_11-06-34
243009002	934596	1	axc2	12/21/2009 11:58:08	OM_12-21-2009_11-06-34
1201999550	934596	1	axc2	12/21/2009 11:59:02	OM_12-21-2009_11-06-34
1201999552	934596	1	axc2	12/21/2009 11:59:55	OM_12-21-2009_11-06-34
1201999554*	934596	1	axc2	12/21/2009 12:00:49	OM_12-21-2009_11-06-34
243009004	934596	1	axc2	12/21/2009 12:01:42	OM_12-21-2009_11-06-34
243014001	934596	1	axc2	12/21/2009 12:02:36	OM_12-21-2009_11-06-34
243029001	934596	1	axc2	12/21/2009 12:03:28	OM_12-21-2009_11-06-34
1201999549	934596	1	axc2	12/21/2009 12:04:21	OM_12-21-2009_11-06-34
1201999551	934596	1	axc2	12/21/2009 12:05:14	OM_12-21-2009_11-06-34
CCV		1	axc2	12/21/2009 12:06:06	OM_12-21-2009_11-06-34
CCB		1	axc2	12/21/2009 12:07:56	OM_12-21-2009_11-06-34

1201999553	934596	1	axc2	12/21/2009	12:09:45	OM_12-21-2009_11-06-34
243029002	934596	1	axc2	12/21/2009	12:10:37	OM_12-21-2009_11-06-34
243043001	934596	1	axc2	12/21/2009	12:11:30	OM_12-21-2009_11-06-34
243043002	934596	1	axc2	12/21/2009	12:12:23	OM_12-21-2009_11-06-34
243089002	934596	1	axc2	12/21/2009	12:13:14	OM_12-21-2009_11-06-34
243102001	934596	1	axc2	12/21/2009	12:14:06	OM_12-21-2009_11-06-34
243130001	934596	1	axc2	12/21/2009	12:15:01	OM_12-21-2009_11-06-34
243130002	934596	1	axc2	12/21/2009	12:15:55	OM_12-21-2009_11-06-34
1201999554	934596	1	axc2	12/21/2009	12:16:49	OM_12-21-2009_11-06-34
CCV		1	axc2	12/21/2009	12:17:41	OM_12-21-2009_11-06-34
CCB		1	axc2	12/21/2009	12:19:31	OM_12-21-2009_11-06-34

Author: axc2 Date : 12/21/2009

Original Run Filename: OM_12-21-2009_11-06-34.OMN created 12/21/2009 11:06:34
Original Run Author's Signature: [axc2]
Current Run Filename: OM_12-21-2009_11-06-34.OMN last modified 12/21/2009 12:20:36
Current Run Author's Signature: [axc2]
Description: GL-GC-E-095 EPA 335.1, 335.3, 335.4, 9012A, CLP335.2-M
Liquid LCS nominal 50 ug/L

Sample	Rep.	Cup No.	Channel 1 TCYANIDE Conc. (ug/L)	Area (Vs)	Detection Time	ADF	MDF	Description
WCN091221-01	1	S1	200	8.34	12/21/2009@11:07:20			200 ppb
WCN091221-02	1	S2	150	6.36	12/21/2009@11:08:12			150 ppb
WCN091221-03	1	S3	100	4.39	12/21/2009@11:09:04			100 ppb
WCN091221-04	1	S4	50.0	2.29	12/21/2009@11:09:57			50 ppb
WCN091221-05	1	S5	10.0	0.496	12/21/2009@11:10:50			10 ppb
WCN091221-06	1	S6	5.00	0.303	12/21/2009@11:11:44			CRDL 5.0 ppb
WCN091221-08	1	S7	0.00	0.00821	12/21/2009@11:12:38			0.0 ppb
DQM Test: Minimum Correlation Coefficient								
		Result:	0.99965 > 0.99500					
		Message	Pass					
		Action	Continue					
WCN09122107	1	S8	140	5.95	12/21/2009@11:14:29			ICV
		Known Conc:	150					
DQM Test: > + Percent Relative Difference								
		Result:	-6.4 < 10.0					
		Message	ICV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	-6.4 < 10.0					
		Message	ICV Passed					
		Action	Continue					
		Calibration:	Table/Fig. 1					
WCN091221-08	1	S7	-2.37	0.00798	12/21/2009@11:16:19			ICB/CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-2.37 < 5.01					
		Message	ICB/CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-2.37 > -5.01					
		Message	ICB/CCB Passed					
		Action	Continue					
WCN091221-06	1	S6	4.60	0.298	12/21/2009@11:18:09			CRDL
		Known Conc:	5.00					
DQM Test: > + Concentration Limit								
		Result:	4.60 < 7.50					
		Message	CRDL Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	4.60 > 2.50					
		Message	Pass					
		Action	None					
1201998905|934280|MB	1	1	-1.82	0.0310	12/21/2009@11:19:59			
1201998912||LCS	1	2	24.2	1.12	12/21/2009@11:20:52		25.00	
243031001	1	3	19.7	0.928	12/21/2009@11:21:46			
1201998906||DUP	1	4	26.3	1.20	12/21/2009@11:22:39			
1201998908||MS	1	5	53.9	2.35	12/21/2009@11:23:32			
1201998910||MSD	1	6	91.2	3.90	12/21/2009@11:24:24			
243031002	1	7	-0.924	0.0683	12/21/2009@11:25:17			
1201998907||DUP	1	8	-1.11	0.0606	12/21/2009@11:26:10			
1201998909||MS	1	9	88.9	3.81	12/21/2009@11:27:02			
1201998911||MSD	1	10	79.2	3.40	12/21/2009@11:27:54			
WCN09122103	1	S3	106	4.53	12/21/2009@11:28:47			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	6.3 < 10.0					

		Message	CCV Passed					
		Action	Continue					
		DQM Test: < - Percent Relative Difference						
		Result:	6.3 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN091221-08	1	S7	-2.57	-1.11e-4	12/21/2009@11:30:37			CCB
		Known Conc:	0.00					
		DQM Test: > + Concentration Limit						
		Result:	-2.57 < 5.00					
		Message	CCB Passed					
		Action	Continue					
		DQM Test: < - Concentration Limit						
		Result:	-2.57 > -5.00					
		Message	CCB Passed					
		Action	Continue					
1201998908||MS	1	5	82.2	3.53	12/21/2009@11:32:26			
243031003	1	11	-0.904	0.0691	12/21/2009@11:33:18			
243031004	1	12	-0.0505	0.105	12/21/2009@11:34:11			
243031005	1	13	0.282	0.119	12/21/2009@11:35:02			
243031006	1	14	-0.0596	0.104	12/21/2009@11:35:54			
243031007	1	15	7.89	0.435	12/21/2009@11:36:45			
243031008	1	16	1.85	0.184	12/21/2009@11:37:39			
243031009	1	17	-1.22	0.0561	12/21/2009@11:38:33			
243031010	1	18	8.89	0.477	12/21/2009@11:39:27			
243031011	1	19	5.12	0.320	12/21/2009@11:40:19			
WCN09122103	1	S3	107	4.55	12/21/2009@11:41:12			CCV
		Known Conc:	100					
		DQM Test: > + Percent Relative Difference						
		Result:	6.8 < 10.0					
		Message	CCV Passed					
		Action	Continue					
		DQM Test: < - Percent Relative Difference						
		Result:	6.8 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN091221-08	1	S7	-2.33	0.00989	12/21/2009@11:43:02			CCB
		Known Conc:	0.00					
		DQM Test: > + Concentration Limit						
		Result:	-2.33 < 5.00					
		Message	CCB Passed					
		Action	Continue					
		DQM Test: < - Concentration Limit						
		Result:	-2.33 > -5.00					
		Message	CCB Passed					
		Action	Continue					
243031012	1	20	-0.941	0.0676	12/21/2009@11:44:51			
243031013	1	21	0.0925	0.111	12/21/2009@11:45:44			
243031014	1	22	-0.638	0.0802	12/21/2009@11:46:37			
243031015	1	23	-1.67	0.0373	12/21/2009@11:47:29			
243031016	1	24	6.09	0.360	12/21/2009@11:48:22			
243031017	1	25	13.8	0.680	12/21/2009@11:49:15			
243031018	1	26	4.96	0.313	12/21/2009@11:50:07			
243031019	1	27	3.68	0.260	12/21/2009@11:50:59			
243031020	1	28	-1.46	0.0460	12/21/2009@11:51:52			
1201999548|934596|MB	1	29	-4.96	-0.0997	12/21/2009@11:52:44			
WCN091221-03	1	S3	106	4.53	12/21/2009@11:53:36			CCV
		Known Conc:	100					
		DQM Test: > + Percent Relative Difference						
		Result:	6.3 < 10.0					
		Message	CCV Passed					
		Action	Continue					
		DQM Test: < - Percent Relative Difference						
		Result:	6.3 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN091221-08	1	S7	-3.00	-0.0181	12/21/2009@11:55:26			CCB
		Known Conc:	0.00					

DQM Test: > + Concentration Limit								
		Result:	-3.00 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-3.00 > -5.00					
		Message	CCB Passed					
		Action	Continue					
1201999555||LCS	1	30	46.6	2.05	12/21/2009@11:57:14			
243009002	1	31	-0.904	0.0691	12/21/2009@11:58:08			
1201999550||DUP	1	32	-1.01	0.0648	12/21/2009@11:59:02			
1201999552||MS	1	33	95.9	4.10	12/21/2009@11:59:55			
1201999554||MSD	1	34	70.3	3.03	12/21/2009@12:00:49			
243009004	1	35	-0.846	0.0715	12/21/2009@12:01:42			
243014001	1	36	-2.00	0.0234	12/21/2009@12:02:36			
243029001	1	37	-1.79	0.0324	12/21/2009@12:03:28			
1201999549||DUP	1	38	-1.82	0.0312	12/21/2009@12:04:21			
1201999551||MS	1	39	97.7	4.17	12/21/2009@12:05:14			
WCN091221-03	1	S3	107	4.55	12/21/2009@12:06:06			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	6.8 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	6.8 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN091221-08	1	S7	-2.62	-0.00227	12/21/2009@12:07:56			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-2.62 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-2.62 > -5.00					
		Message	CCB Passed					
		Action	Continue					
1201999553||MSD	1	40	96.0	4.10	12/21/2009@12:09:45			
243029002	1	41	-1.96	0.0252	12/21/2009@12:10:37			
243043001	1	42	-2.44	0.00503	12/21/2009@12:11:30			
243043002	1	43	-2.01	0.0229	12/21/2009@12:12:23			
243089002	1	44	3.23	0.241	12/21/2009@12:13:14			
243102001	1	45	-1.05	0.0632	12/21/2009@12:14:06			
243130001	1	46	-1.12	0.0603	12/21/2009@12:15:01			
243130002	1	47	-0.974	0.0662	12/21/2009@12:15:55			
1201999554||MSD	1	34	84.4	3.62	12/21/2009@12:16:49			
WCN091221-03	1	S3	106	4.53	12/21/2009@12:17:41			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	6.3 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	6.3 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN091221-08	1	S7	-2.57	-1.05e-4	12/21/2009@12:19:31			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-2.57 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-2.57 > -5.00					
		Message	CCB Passed					
		Action	Continue					

Author: axc2 Date : 12/21/2009

Analyte Properties Table for OM_12-21-2009_11-06-34.OMN

Property	Channel 1
	TCYANIDE
Concentration Units	ug/L
Callibration Fit Type	First Order
Clear Calibration	True
Force Through Zero	False
Calibration Weighting	None
Auto Dilution Trigger	True
% of High Standard	100
Quik Chem Method	10-204-00-1-A
Chemistry	Direct/Bipolar
Calibration by Height	False
Inject to Peak Start	22
Peak Base Width	39

Channel 1: Current View

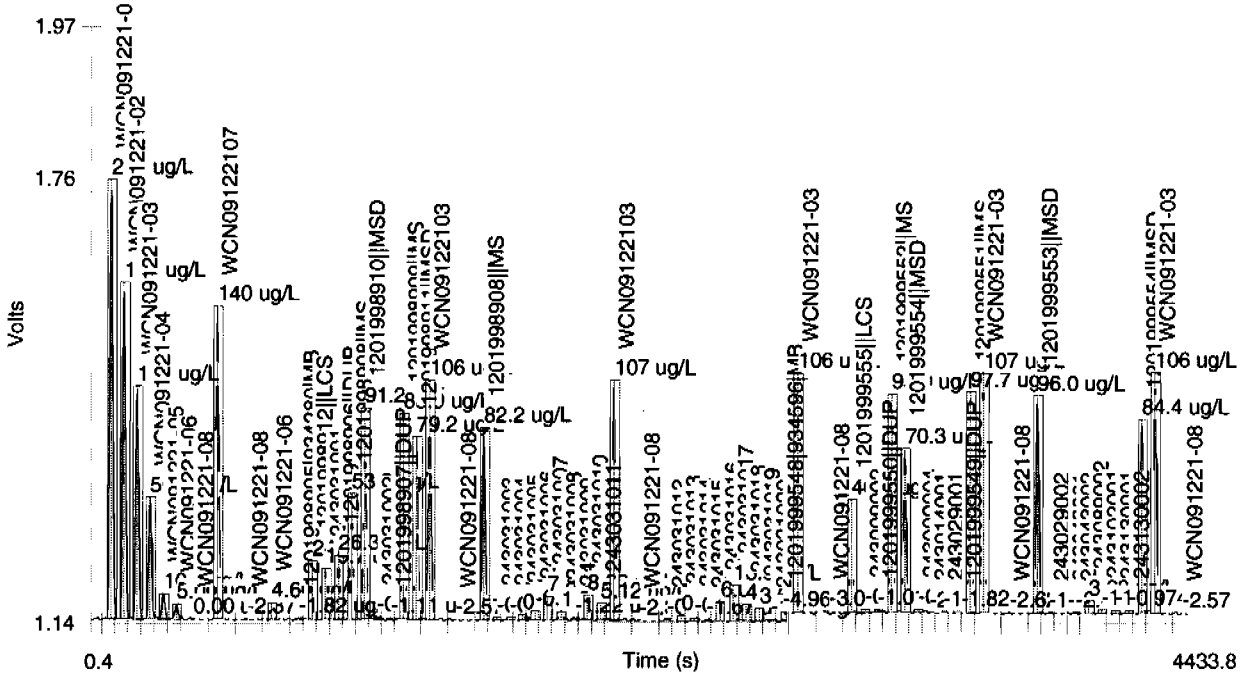

Table 1: TCYANIDE

	Conc. (ug/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	200	1	8.34	0.607	1.1	12/21/2009	11:08:23
2	150	1	6.36	0.465	-0.2	12/21/2009	11:09:15
3	100	1	4.39	0.320	-2.8	12/21/2009	11:10:07
4	50.0	1	2.29	0.166	-4.8	12/21/2009	11:11:00
5	10.0	1	0.496	0.0353	5.6	12/21/2009	11:11:53
6	5.00	1	0.303	0.0216	4.3	12/21/2009	11:12:47
7	0.00	1	0.00821	0.00104		12/21/2009	11:13:41

Author: axc2

Date : 12/21/2009

Figure 1: TCYANIDE

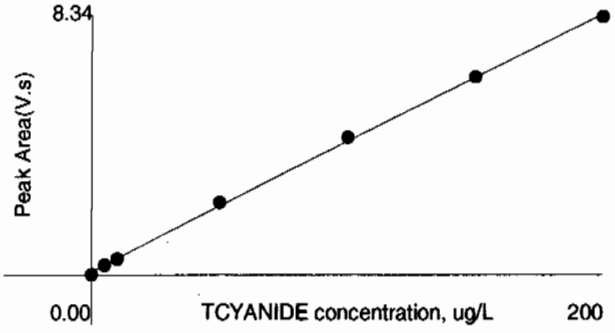

Area = 0.0416 * Conc + 0.109
Conc = 24.0 * Area - 2.56
Correlation Coefficient (r) = 0.99965

No Weighting

RADIOLOGICAL ANALYSIS

Radiochemistry Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-941

Method/Analysis Information

Procedure: **Dry Weight-Percent Moisture**

Analytical Method:

Analytical Batch Number: 934297

Sample ID	Client ID
243042001	RE03-09-14221
243042002	RE03-09-14211
243042003	RE03-09-14210
243042004	RE03-09-14209
243042005	RE03-09-14208
243042006	RE03-09-14222
243042007	RE03-09-14223
243042008	RE03-09-14220
243042009	RE03-10-2734
1201998942	243042001(RE03-09-14221) Sample Duplicate (DUP)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-020 REV# 9.

Calibration Information:

Quality Control (QC) Information:

Designated QC
The following sample was used for QC: 243042001 (RE03-09-14221). The QC was from LANL work order 243042.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The blank result is less than 1.65 times the CSU. Not Applicable.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A nonconformance report (NCR) was not generated for this SDG.

Additional Comments
Additional comments were not required for this sample set.

Blank Decision Level
Not Applicable. The blank result is less than the decision level.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**H3**
Analytical Method:	GL-RAD-A-002
Analytical Batch Number:	935212

Sample ID	Client ID
243042001	RE03-09-14221
243042002	RE03-09-14211
243042003	RE03-09-14210
243042004	RE03-09-14209
243042005	RE03-09-14208
243042006	RE03-09-14222
243042007	RE03-09-14223
243042008	RE03-09-14220
243042009	RE03-10-2734
1202000958	Method Blank (MB)
1202000959	243042001(RE03-09-14221) Sample Duplicate (DUP)
1202000960	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-002 REV# 18.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. The initial Calibration was performed in August 2009.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
The blank volume is representative of the sample volume in this batch.

Designated QC
The following sample was used for QC: 243042001 (RE03-09-14221). The QC was from LANL work order 243042.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The blank result is less than 1.65 times the CSU.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A nonconformance report (NCR) was not generated for this SDG.

Additional Comments

Additional comments were not required for this sample set.

Blank Decision Level
The blank result is less than the decision level.

Qualifier information

Manual qualifiers were not required.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer/Date: 1/5/10

SAMPLE DATA SUMMARY

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis Report
for

LANL010 Los Alamos National Laboratory (72733-001-09)

Client SDG: 10-941 GEL Work Order: 243042

The Qualifiers in this report are defined as follows:

* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.

** Indicates the analyte is a surrogate compound.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the detection limit.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Valerie Davis.

Reviewed by _____ 1/5/10

GEL LABORATORIES LLC

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: January 5, 2010

Client Sample ID:	RE03-09-14221	Project:	LANL01004
Sample ID:	243042001	Client ID:	LANL010
Matrix:	S		
Collect Date:	14-DEC-09		
Receive Date:	16-DEC-09		
Collector:	Client		
Moisture:	14.8%		

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids												
"As Received"												
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		658	198	+/-81.7	250	pCi/L		KXK2	01/05/10	0105	935212	2

The following Analytical Methods were performed

Method	Description
1	ASTM D 2216 (Modified)
2	GL-RAD-A-002

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
- F Estimated Value
- H Analytical holding time was exceeded
- J Value is estimated
- M M if above MDC and less than LLD
- M Matrix Related Failure
- N/A RPD or %Recovery limits do not apply.
- ND Analyte concentration is not detected above the detection limit
- NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- R Sample results are rejected
- U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

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Address : PO Box 1663
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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: January 5, 2010

Client Sample ID: RE03-09-14221
Sample ID: 243042001
Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

UI Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
Z Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d 5-day BOD--The 2:1 depletion requirement was not met for this sample
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: January 5, 2010

Client Sample ID:	RE03-09-14211	Project:	LANL01004
Sample ID:	243042002	Client ID:	LANL010
Matrix:	S		
Collect Date:	14-DEC-09		
Receive Date:	16-DEC-09		
Collector:	Client		
Moisture:	14.3%		

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids												
"As Received"												
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		917	204	+/-96.8	250	pCi/L		KXK2	01/05/10	0243	935212	2

The following Analytical Methods were performed

Method	Description
1	ASTM D 2216 (Modified)
2	GL-RAD-A-002

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

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- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
- F Estimated Value
- H Analytical holding time was exceeded
- J Value is estimated
- M M if above MDC and less than LLD
- M Matrix Related Failure
- N/A RPD or %Recovery limits do not apply.
- ND Analyte concentration is not detected above the detection limit
- NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- R Sample results are rejected
- U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
- UI Gamma Spectroscopy--Uncertain identification

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: January 5, 2010

Client Sample ID: RE03-09-14211
Sample ID: 243042002
Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
Z Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d 5-day BOD--The 2:1 depletion requirement was not met for this sample
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: January 5, 2010

Client Sample ID:	RE03-09-14210	Project:	LANL01004
Sample ID:	243042003	Client ID:	LANL010
Matrix:	S		
Collect Date:	14-DEC-09		
Receive Date:	16-DEC-09		
Collector:	Client		
Moisture:	13.6%		

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids												
"As Received"												
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		452	206	+/-76.1	250	pCi/L		KXK2	01/04/10	0952	935212	2

The following Analytical Methods were performed

Method	Description
1	ASTM D 2216 (Modified)
2	GL-RAD-A-002

Notes:
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- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
- F Estimated Value
- H Analytical holding time was exceeded
- J Value is estimated
- M M if above MDC and less than LLD
- M Matrix Related Failure
- N/A RPD or %Recovery limits do not apply.
- ND Analyte concentration is not detected above the detection limit
- NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- R Sample results are rejected
- U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
- UI Gamma Spectroscopy--Uncertain identification

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: January 5, 2010

Client Sample ID: RE03-09-14210
Sample ID: 243042003
Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
Z Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d 5-day BOD--The 2:1 depletion requirement was not met for this sample
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: January 5, 2010

Client Sample ID:	RE03-09-14209	Project:	LANL01004
Sample ID:	243042004	Client ID:	LANL010
Matrix:	S		
Collect Date:	14-DEC-09		
Receive Date:	16-DEC-09		
Collector:	Client		
Moisture:	11.6%		

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids												
"As Received"												
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		240	205	+/-67.1	250	pCi/L		KXK2	01/04/10	1130	935212	2

The following Analytical Methods were performed

Method	Description
1	ASTM D 2216 (Modified)
2	GL-RAD-A-002

Notes:
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The Qualifiers in this report are defined as follows :

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- BD Results are either below the MDC or tracer recovery is low
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- D Results are reported from a diluted aliquot of the sample
- E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
- F Estimated Value
- H Analytical holding time was exceeded
- J Value is estimated
- M M if above MDC and less than LLD
- M Matrix Related Failure
- N/A RPD or %Recovery limits do not apply.
- ND Analyte concentration is not detected above the detection limit
- NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- R Sample results are rejected
- U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
- UI Gamma Spectroscopy--Uncertain identification

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: January 5, 2010

Client Sample ID: RE03-09-14209 Project: LANL01004
Sample ID: 243042004 Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
Z Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d 5-day BOD--The 2:1 depletion requirement was not met for this sample
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: January 5, 2010

Client Sample ID:	RE03-09-14208	Project:	LANL01004
Sample ID:	243042005	Client ID:	LANL010
Matrix:	S		
Collect Date:	14-DEC-09		
Receive Date:	16-DEC-09		
Collector:	Client		
Moisture:	12.8%		

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids												
"As Received"												
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		268	203	+/-67.6	250	pCi/L		KXK2	01/04/10	1308	935212	2

The following Analytical Methods were performed

Method	Description
1	ASTM D 2216 (Modified)
2	GL-RAD-A-002

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
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- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
- F Estimated Value
- H Analytical holding time was exceeded
- J Value is estimated
- M M if above MDC and less than LLD
- M Matrix Related Failure
- N/A RPD or %Recovery limits do not apply.
- ND Analyte concentration is not detected above the detection limit
- NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- R Sample results are rejected
- U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
- UI Gamma Spectroscopy--Uncertain identification

GEL LABORATORIES LLC

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: January 5, 2010

Client Sample ID: RE03-09-14208
Sample ID: 243042005
Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
Z Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d 5-day BOD--The 2:1 depletion requirement was not met for this sample
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: January 5, 2010

Client Sample ID:	RE03-09-14222	Project:	LANL01004
Sample ID:	243042006	Client ID:	LANL010
Matrix:	S		
Collect Date:	14-DEC-09		
Receive Date:	16-DEC-09		
Collector:	Client		
Moisture:	19.5%		

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids												
"As Received"												
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		1230	205	+/-119	250	pCi/L		KXK2	01/04/10	1446	935212	2

The following Analytical Methods were performed

Method	Description
1	ASTM D 2216 (Modified)
2	GL-RAD-A-002

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
- F Estimated Value
- H Analytical holding time was exceeded
- J Value is estimated
- M M if above MDC and less than LLD
- M Matrix Related Failure
- N/A RPD or %Recovery limits do not apply.
- ND Analyte concentration is not detected above the detection limit
- NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- R Sample results are rejected
- U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
- UI Gamma Spectroscopy--Uncertain identification

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: January 5, 2010

Client Sample ID: RE03-09-14222
Sample ID: 243042006

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
Z Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d 5-day BOD--The 2:1 depletion requirement was not met for this sample
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: January 5, 2010

Client Sample ID: RE03-09-14223
Sample ID: 243042007
Matrix: S
Collect Date: 14-DEC-09
Receive Date: 16-DEC-09
Collector: Client
Moisture: 10.8%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids												
"As Received"												
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		1060	205	+/-109	250	pCi/L		KXK2	01/04/10	1624	935212	2

The following Analytical Methods were performed

Method	Description
1	ASTM D 2216 (Modified)
2	GL-RAD-A-002

Notes:
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The Qualifiers in this report are defined as follows :

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- > Result is greater than value reported
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- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
- F Estimated Value
- H Analytical holding time was exceeded
- J Value is estimated
- M M if above MDC and less than LLD
- M Matrix Related Failure
- N/A RPD or %Recovery limits do not apply.
- ND Analyte concentration is not detected above the detection limit
- NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- R Sample results are rejected
- U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
- UI Gamma Spectroscopy--Uncertain identification

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: January 5, 2010

Client Sample ID: RE03-09-14223
Sample ID: 243042007

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
Z Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d 5-day BOD--The 2:1 depletion requirement was not met for this sample
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: January 5, 2010

Client Sample ID: RE03-09-14220
Sample ID: 243042008
Matrix: S
Collect Date: 14-DEC-09
Receive Date: 16-DEC-09
Collector: Client
Moisture: 15.6%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids												
"As Received"												
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		474	206	+/-77.1	250	pCi/L		KXK2	01/04/10	1802	935212	2

The following Analytical Methods were performed

Method	Description
1	ASTM D 2216 (Modified)
2	GL-RAD-A-002

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
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- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
- F Estimated Value
- H Analytical holding time was exceeded
- J Value is estimated
- M M if above MDC and less than LLD
- M Matrix Related Failure
- N/A RPD or %Recovery limits do not apply.
- ND Analyte concentration is not detected above the detection limit
- NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- R Sample results are rejected
- U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
- UI Gamma Spectroscopy--Uncertain identification

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: January 5, 2010

Client Sample ID: RE03-09-14220
Sample ID: 243042008
Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
Z Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d 5-day BOD--The 2:1 depletion requirement was not met for this sample
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: January 5, 2010

Client Sample ID:	RE03-10-2734	Project:	LANL01004
Sample ID:	243042009	Client ID:	LANL010
Matrix:	S		
Collect Date:	14-DEC-09		
Receive Date:	16-DEC-09		
Collector:	Client		
Moisture:	19.3%		

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids												
"As Received"												
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		1100	205	+/-111	250	pCi/L		KXK2	01/04/10	1940	935212	2

The following Analytical Methods were performed

Method	Description
1	ASTM D 2216 (Modified)
2	GL-RAD-A-002

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

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- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
- F Estimated Value
- H Analytical holding time was exceeded
- J Value is estimated
- M M if above MDC and less than LLD
- M Matrix Related Failure
- N/A RPD or %Recovery limits do not apply.
- ND Analyte concentration is not detected above the detection limit
- NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- R Sample results are rejected
- U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: January 5, 2010

Client Sample ID: RE03-10-2734
Sample ID: 243042009
Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
Z Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d 5-day BOD--The 2:1 depletion requirement was not met for this sample
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

QUALITY CONTROL DATA

GEL LABORATORIES LLC

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QC Summary

Report Date: January 5, 2010
Page 1 of 2

Client : Los Alamos National Laboratory
PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico

Contact: Ms. Joylene Valdez

Workorder: 243042

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Liquid Scintillation										
Batch 935212										
QC1202000959 243042001 DUP										
Tritium		658		785	pCi/L	0.363		(0-1)	KXK2	01/04/1022:56
TPU:		+/-81.7		+/-93.0						
QC1202000960 LCS										
Tritium	5600			5650	pCi/L		101	(75%-125%)		01/05/1000:33
TPU:				+/-512						
QC1202000958 MB										
Tritium			U	-52.5	pCi/L					01/04/1021:18
TPU:				+/-58.8						

Notes:
The Qualifiers in this report are defined as follows:

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<	Result is less than value reported
>	Result is greater than value reported
A	The TIC is a suspected aldol-condensation product
B	For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD	Results are either below the MDC or tracer recovery is low
C	Analyte has been confirmed by GC/MS analysis
D	Results are reported from a diluted aliquot of the sample
E	Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
F	Estimated Value
H	Analytical holding time was exceeded
J	Value is estimated
M	M if above MDC and less than LLD
M	Matrix Related Failure
N/A	RPD or %Recovery limits do not apply.
ND	Analyte concentration is not detected above the detection limit
NJ	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R	Sample results are rejected
U	Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI	Gamma Spectroscopy--Uncertain identification
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
Z	Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d	5-day BOD--The 2:1 depletion requirement was not met for this sample
h	Preparation or preservation holding time was exceeded

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QC Summary

Workorder: 243042

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more.
** Indicates analyte is a surrogate compound.
^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptence criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.
For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

RAW DATA

Radiochemistry Batch Checklist, Rev 9

Batch# 935212 Product: Tritium Date: 1/5/10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			NA
Samples have been blank corrected (if required)			NA
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.			NA
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	✓		
Sample was run within hold time.	✓		
Sample was correctly preserved if required.	✓		
Smears Taken for Radioactive batches.			NA
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	✓		
Aux data is correct.			NA
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)			NA
Batch entered into Case Narrative.	✓		
Batch non-conformances completed, if applicable.			NA
Batch non-conformances second reviewed and disposition verified to be completed.			NA
Aliquot Correction completed if required.			NA
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

GEL Laboratories, LLC

revised 8/1/08

Primary Review Performed By: Lindsey Pare LANL 1/12/10

Secondary Review Performed By: [illegible] 1/5/10

Tritium Que Sheet

21-DEC-09

Batch #: 935212 **Analyst:** KXK2 **First Client Due Date** 12-JAN-10 **Internal Due Date:** 01-JAN-10

Spike Isotope: Hydrogen-3 **Spike Code:** ——— **Expiration Date:** ——— **Vol:** ——

LCS Isotope: Hydrogen-3 **LCS Code:** 0134-K **Expiration Date:** 3/27/10 **Vol:** 0.1

Prep Date: 12/23/09 **Initials:** KKJ **Pipet ID:** 29709168 **Witness:** AW 12/29/09

Sample ID	Client Samp ID	Type	Hazard Code	Min CRDL	Matrix	Client	Sample Date	Aliquot in vial (g/mL)	LSC Rack #	Dist Rig #	Vol added for Dist (mL)	Initial Sample Aliquot (g/mL)	Final Wt (g)	Total moisture Dist Vol (mL) KKJ 12/24/09
242938001-1	RE03-09-14213	SAMPLE		.25 pCi/mL	SOIL	LANL010	11-DEC-09	10	15-2	1		500.91	436.79	64.12
242938002-1	RE03-09-14215	SAMPLE		.25 pCi/mL	SOIL	LANL010	11-DEC-09	10	15-3	2		563.03	505.60	57.43
242938003-1	RE03-09-14212	SAMPLE		.25 pCi/mL	SOIL	LANL010	11-DEC-09	10	15-4	3		508.26	443.20	65.06
242938004-1	RE03-09-14219	SAMPLE		.25 pCi/mL	SOIL	LANL010	11-DEC-09	10	15-5	4		525.83	435.91	89.92
242938005-1	RE03-09-14218	SAMPLE		.25 pCi/mL	SOIL	LANL010	11-DEC-09	10	15-6	5		508.10	418.67	89.43
242938006-1	RE03-09-14216	SAMPLE		.25 pCi/mL	SOIL	LANL010	11-DEC-09	10	15-7	6		477.68	402.21	75.47
242938007-1	RE03-09-14214	SAMPLE		.25 pCi/mL	SOIL	LANL010	11-DEC-09	10	15-8	7		498.04	429.81	68.23
242938008-1	RE03-09-14217	SAMPLE		.25 pCi/mL	SOIL	LANL010	11-DEC-09	10	15-9	8		562.06	476.63	85.43
242938009-1	RE03-10-2735	SAMPLE		.25 pCi/mL	SOIL	LANL010	11-DEC-09	10	15-10	9		502.58	431.72	70.86
243042001-1	RE03-09-14221	SAMPLE		.25 pCi/mL	SOIL	LANL010	14-DEC-09	10	15-11	10		667.24	569.16	98.08
243042002-1	RE03-09-14211	SAMPLE		.25 pCi/mL	SOIL	LANL010	14-DEC-09	10	15-12	11		446.89	382.98	63.91
243042003-1	RE03-09-14210	SAMPLE		.25 pCi/mL	SOIL	LANL010	14-DEC-09	10	30-2	12		400.12	345.70	54.42
243042004-1	RE03-09-14209	SAMPLE		.25 pCi/mL	SOIL	LANL010	14-DEC-09	10	30-3	13		492.16	435.56	56.60
243042005-1	RE03-09-14208	SAMPLE		.25 pCi/mL	SOIL	LANL010	14-DEC-09	10	30-4	14		434.61	379.41	55.20
243042006-1	RE03-09-14222	SAMPLE		.25 pCi/mL	SOIL	LANL010	14-DEC-09	10	30-5	15		494.46	398.53	95.93
243042007-1	RE03-09-14223	SAMPLE		.25 pCi/mL	SOIL	LANL010	14-DEC-09	10	30-6	16		588.16	524.64	63.52
243042008-1	RE03-09-14220	SAMPLE		.25 pCi/mL	SOIL	LANL010	14-DEC-09	10	30-7	17		481.52	406.88	74.64
243042009-1	RE03-10-2734	SAMPLE		.25 pCi/mL	SOIL	LANL010	14-DEC-09	10	30-8	18		475.20	383.49	91.71
1202000958-1	MB for batch 935212	MB		.25 pCi/mL	SOIL	QC ACCOUNT		10	30-9	19		20.00	0	20.00
1202000959-1	RE03-09-14221(243042001DUP)	DUP		.25 pCi/mL	SOIL	QC ACCOUNT	14-DEC-09	10	30-10	10		667.24	569.16	98.08
1202000960-1	LCS for batch 935212	LCS		.25 pCi/mL	SOIL	QC ACCOUNT		10	29-1	20		20.00	0	20.00

21

KKJ 12/24/09

Bkg Rack #: 15-1/30-1

Dailies ✓

Comments:

Instrument Used (circle as appropriate): *LS6000 (Red) 7065155, LS6500 (Blue) 7067083, LS6500 (Gold) 7070506, LS6500 (Green) 7067404, Wallac (Yellow) 4040127, LS6000 (Brown) 7060655, Wallac (Pink) 2200082, Wallac (White) 4140299, Purple 7069123, Silver 7060656*

Bkg prepared with dead water? Yes/No

Calibration Used : *Ultima Gold LLT (10 mL sample/13 mL LLT) poly vial; Ecoscint Ultra (10 mL sample/13 mL Ecoscint Ultra)*

Data Reviewed By: [signature]

GEL Laboratories LLC, Radiochemistry Division

DATE	12/23/2009	INITIALS	KXK2		BATCH NUMBER	935212

Sample #	Sample Wet (g)	% Moisture of Sample (Balance Interface using % Moisture Batch)	Total Moisture in Sample (mL)	Sample Dry (g)	mLs aliquoted into LSC vial	Collection Tube Number
242938001	500.91	0.128	64.12	436.79	10	11
242938002	563.03	0.102	57.43	505.60	10	610
242938003	508.26	0.128	65.06	443.20	10	106
242938004	525.83	0.171	89.92	435.91	10	706
242938005	508.10	0.176	89.43	418.67	10	55
242938006	477.68	0.158	75.47	402.21	10	151
242938007	498.04	0.137	68.23	429.81	10	32
242938008	562.06	0.152	85.43	476.63	10	62
242938009	502.58	0.141	70.86	431.72	10	136
243042001	667.24	0.147	98.08	569.16	10	49
243042002	446.89	0.143	63.91	382.98	10	8
243042003	400.12	0.136	54.42	345.70	10	203
243042004	492.16	0.115	56.60	435.56	10	722
243042005	434.61	0.127	55.20	379.41	10	10
243042006	494.46	0.194	95.93	398.53	10	603
243042007	588.16	0.108	63.52	524.64	10	761
243042008	481.52	0.155	74.64	406.88	10	732
243042009	475.20	0.193	91.71	383.49	10	73
MB	20.00	1	20.00	0.00	10	1
LCS	20.00	1	20.00	0.00	10	2

Tritium Solid

Filename : H3VAC.XLS
File type : Excel
Version # : 1.2.5

Batch : 935212
Analyst : KXK2
Prep Date : 12/23/2009

H-3 Abundance : 1
Method Uncertainty : 0.0691
Geometry: 10mL DW/13mL Ecoscint Ultra

Spike S/N : N/A
Spike Exp Date : N/A
Spike Activity (dpm/ml): N/A
Spike Volume Added: N/A

Pipet, 0.1 ml Stdev : +/- 0.000701 ml
Pipet, 0.5 ml Stdev : +/- 0.002564 ml
Pipet, 1.0 ml Stdev : +/- 0.005480 ml
Pipet, 5.0 ml Stdev : +/- 0.025729 ml

LCS S/N : 0134-K
LCS Exp Date : 3/27/2010
LCS Activity (dpm/ml): 2487.28
LCS Volume Added: 0.10

Procedure Code : LSC_VH3S
Parmname : Tritium
Required MDC : 250 pCi/L
Halflife of Tritium : 12.28 years

Sample Characteristics

Pos.	Sample ID	Wet Sample Weight (g)	Total Moisture L	Sample Aliquot in Vial L	Sample Aliquot Stdev. L	Dry Sample Weight (g)	% Moisture of Sample	Rig number	Sample Date/Time
1	242938001.1	500.91	0.0641	0.0100	2.5729E-05	436.79	12.80%	1	12/11/2009 12:00
2	242938002.1	563.03	0.0574	0.0100	2.5729E-05	505.60	10.20%	2	12/11/2009 12:00
3	242938003.1	508.26	0.0651	0.0100	2.5729E-05	443.20	12.80%	3	12/11/2009 12:00
4	242938004.1	525.83	0.0899	0.0100	2.5729E-05	435.91	17.10%	4	12/11/2009 12:00
5	242938005.1	508.10	0.0894	0.0100	2.5729E-05	418.67	17.60%	5	12/11/2009 12:00
6	242938006.1	477.68	0.0755	0.0100	2.5729E-05	402.21	15.80%	6	12/11/2009 12:00
7	242938007.1	498.04	0.0682	0.0100	2.5729E-05	429.81	13.70%	7	12/11/2009 12:00
8	242938008.1	562.06	0.0854	0.0100	2.5729E-05	476.63	15.20%	8	12/11/2009 12:00
9	242938009.1	502.58	0.0709	0.0100	2.5729E-05	431.72	14.10%	9	12/11/2009 12:00
10	243042001.1	667.24	0.0981	0.0100	2.5729E-05	569.16	14.70%	10	12/14/2009 12:00
11	243042002.1	446.89	0.0639	0.0100	2.5729E-05	382.98	14.30%	11	12/14/2009 12:00
12	243042003.1	400.12	0.0544	0.0100	2.5729E-05	345.70	13.60%	12	12/14/2009 12:00
13	243042004.1	492.16	0.0566	0.0100	2.5729E-05	435.56	11.50%	13	12/14/2009 12:00
14	243042005.1	434.61	0.0552	0.0100	2.5729E-05	379.41	12.70%	14	12/14/2009 12:00
15	243042006.1	494.46	0.0959	0.0100	2.5729E-05	398.53	19.40%	15	12/14/2009 12:00
16	243042007.1	588.16	0.0635	0.0100	2.5729E-05	524.64	10.80%	16	12/14/2009 12:00
17	243042008.1	481.52	0.0746	0.0100	2.5729E-05	406.88	15.50%	17	12/14/2009 12:00
18	243042009.1	475.20	0.0917	0.0100	2.5729E-05	383.49	19.30%	18	12/14/2009 12:00
19	1202000958.1	20.00	0.0200	0.0100	2.5729E-05	0.00	100.00%	19	12/23/2009 0:00
20	1202000959.1	667.24	0.0981	0.0100	2.5729E-05	569.16	14.70%	10	12/14/2009 12:00
21	1202000960.1	20.00	0.0200	0.0100	2.5729E-05	0.00	100.00%	20	12/23/2009 0:00

T935212

Count raw Data					Background				Calibration Data					Backgrounds	
Pos.	Rack Position #	Counting Time (min.)	Quench#	Gross cpm	cpm	Count Time (min.)	Count Start Date/Time	Sample Decay	Counted on	Calibration Date	Calibration Due Date	Detector Efficiency (cpm/dpm)	Detector Efficiency Error (cpm/dpm)	Rack Position #	Count Start Date/Time
1	15-2	95	126	16.47	6.05	95	1/4/2010 10:22	0.996	LSCSILVER	8/21/2009	8/31/2010	0.2739	0.00792	15-1	1/4/2010 8:44
2	15-3	95	126.1	15.8	6.05	95	1/4/2010 12:00	0.996	LSCSILVER	8/21/2009	8/31/2010	0.2738	0.00792	15-1	1/4/2010 8:44
3	15-4	95	126.5	15.56	6.05	95	1/4/2010 13:38	0.996	LSCSILVER	8/21/2009	8/31/2010	0.2730	0.00792	15-1	1/4/2010 8:44
4	15-5	95	127.4	9.03	6.05	95	1/4/2010 15:16	0.996	LSCSILVER	8/21/2009	8/31/2010	0.2714	0.00792	15-1	1/4/2010 8:44
5	15-6	95	127.3	7.17	6.05	95	1/4/2010 16:54	0.996	LSCSILVER	8/21/2009	8/31/2010	0.2716	0.00792	15-1	1/4/2010 8:44
6	15-7	95	126.7	7.12	6.05	95	1/4/2010 18:32	0.996	LSCSILVER	8/21/2009	8/31/2010	0.2727	0.00792	15-1	1/4/2010 8:44
7	15-8	95	126.6	17.21	6.05	95	1/4/2010 20:10	0.996	LSCSILVER	8/21/2009	8/31/2010	0.2729	0.00792	15-1	1/4/2010 8:44
8	15-9	95	124.7	7.6	6.05	95	1/4/2010 21:48	0.996	LSCSILVER	8/21/2009	8/31/2010	0.2763	0.00792	15-1	1/4/2010 8:44
9	15-10	95	128.8	16.27	6.05	95	1/4/2010 23:26	0.996	LSCSILVER	8/21/2009	8/31/2010	0.2688	0.00792	15-1	1/4/2010 8:44
10	15-11	95	125.2	10.06	6.05	95	1/5/2010 1:05	0.997	LSCSILVER	8/21/2009	8/31/2010	0.2754	0.00792	15-1	1/4/2010 8:44
11	15-12	95	130	11.46	6.05	95	1/5/2010 2:43	0.997	LSCSILVER	8/21/2009	8/31/2010	0.2666	0.00792	15-1	1/4/2010 8:44
12	30-2	95	118.8	4.53	2.73	95	1/4/2010 9:52	0.997	LSCGOLD	8/20/2009	8/31/2010	0.1801	0.00792	30-1	1/4/2010 8:14
13	30-3	95	117.9	3.69	2.73	95	1/4/2010 11:30	0.997	LSCGOLD	8/20/2009	8/31/2010	0.1807	0.00792	30-1	1/4/2010 8:14
14	30-4	95	115.2	3.81	2.73	95	1/4/2010 13:08	0.997	LSCGOLD	8/20/2009	8/31/2010	0.1824	0.00792	30-1	1/4/2010 8:14
15	30-5	95	117.3	7.66	2.73	95	1/4/2010 14:46	0.997	LSCGOLD	8/20/2009	8/31/2010	0.1811	0.00792	30-1	1/4/2010 8:14
16	30-6	95	118.2	6.98	2.73	95	1/4/2010 16:24	0.997	LSCGOLD	8/20/2009	8/31/2010	0.1805	0.00792	30-1	1/4/2010 8:14
17	30-7	95	118.5	4.62	2.73	95	1/4/2010 18:02	0.997	LSCGOLD	8/20/2009	8/31/2010	0.1803	0.00792	30-1	1/4/2010 8:14
18	30-8	95	117.6	7.13	2.73	95	1/4/2010 19:40	0.997	LSCGOLD	8/20/2009	8/31/2010	0.1809	0.00792	30-1	1/4/2010 8:14
19	30-9	95	118.3	2.52	2.73	95	1/4/2010 21:18	0.998	LSCGOLD	8/20/2009	8/31/2010	0.1805	0.00792	30-1	1/4/2010 8:14
20	30-10	95	117.8	5.87	2.73	95	1/4/2010 22:56	0.997	LSCGOLD	8/20/2009	8/31/2010	0.1808	0.00792	30-1	1/4/2010 8:14
21	29-1	15	119.6	25.2	2.73	95	1/5/2010 0:33	0.998	LSCGOLD	8/20/2009	8/31/2010	0.1796	0.00792	30-1	1/4/2010 8:14

Notes:
1 - Results are decay corrected to Sample Date/Time
2 - Reference date for Spike Activity (dpm/ml) is the batch Prep Date
3 - Spike Nominals are decay corrected to Sample Date/Time

Results

Pos.	Decision Level pCi/L	Critical Level pCi/L	Required MDC pCi/L	MDC pCi/L	Sample Act. Conc. pCi/L	Sample Act. Error pCi/L	Net Count Rate CPM	Net Count Rate Error CPM	1 SIGMA Counting Uncertainty pCi/L	1 SIGMA Total Prop. Uncertainty pCi/L	Sample QC	Sample Type	RPD	RER	Nominal pCi/L	Recovery
1	137.2392	96.8920	250	198.9959	**1719.7252**	0.048	10.420	0.487	80.3552	144.2321		SAMPLE				
2	137.3315	96.9572	250	199.1297	**1610.2299**	0.050	9.750	0.480	79.2040	137.2974		SAMPLE				
3	137.6984	97.2162	250	199.6617	**1574.7895**	0.051	9.510	0.477	78.9783	135.1566		SAMPLE				
4	138.5343	97.8064	250	200.8737	**496.4627**	0.134	2.980	0.398	66.3757	74.8420		SAMPLE				
5	138.4422	97.7414	250	200.7402	**186.4660**	0.333	1.120	0.373	62.1063	63.4496		SAMPLE				
6	137.8867	97.3492	250	199.9348	**177.4268**	0.348	1.070	0.372	61.7400	62.9645		SAMPLE				
7	137.7960	97.2852	250	199.8034	**1849.3289**	0.045	11.160	0.495	81.9961	152.6863		SAMPLE				
8	136.0870	96.0786	250	197.3253	**253.6656**	0.245	1.550	0.379	62.0347	64.5014		SAMPLE				
9	139.8734	98.7518	250	202.8155	**1719.0924**	0.048	10.220	0.485	81.5330	144.8552		SAMPLE				
10	136.4695	96.3487	250	197.8799	**658.1021**	0.103	4.010	0.412	67.5826	81.6595		SAMPLE				
11	140.9857	99.5371	250	204.4283	**917.2452**	0.080	5.410	0.429	72.7896	96.8477		SAMPLE				
12	140.1296	98.9327	250	205.7875	**451.5564**	0.154	1.800	0.276	69.3499	76.1479		SAMPLE				
13	139.6667	98.6059	250	205.1077	**240.0346**	0.271	0.960	0.260	64.9992	67.1147		SAMPLE				
14	138.4028	97.7136	250	203.2516	**267.5952**	0.243	1.080	0.262	65.0102	67.6290		SAMPLE				
15	139.3719	98.3977	250	204.6747	**1230.0750**	0.068	4.930	0.331	82.5146	118.9466		SAMPLE				
16	139.8236	98.7166	250	205.3380	**1063.8464**	0.076	4.250	0.320	80.0272	109.0611		SAMPLE				
17	139.9799	98.8270	250	205.5675	**473.6275**	0.147	1.890	0.278	69.7039	77.1153		SAMPLE				
18	139.5240	98.5051	250	204.8981	**1099.0340**	0.074	4.400	0.322	80.4702	111.0612		SAMPLE				
19	139.6957	98.6264	250	205.1502	**-52.5185**	1.119	-0.210	0.235	58.7909	58.7912		MB				
20	139.6267	98.5777	250	205.0489	**784.8881**	0.096	3.140	0.301	75.2083	92.9763	243042001.1	DUP	17.6%	0.3630		
21	268.8231	189.7914	250	429.8483	**5647.3334**	0.059	22.470	1.307	328.5322	512.4804		LCS			5601.9921	100.8%

ID:TRITIUM 4 JAN 2010 08:40

USER: 4 COMMENT:SILVER

PRESET TIME : 95.00

DATA CALC : CPM H# :YES SAMPLE REPEATS: 1 PRINTER : STD

COUNT BLANK : NO IC# : NO REPLICATES : 1 RS232 :EDIT

TWO PHASE : NO AQC : NO CYCLE REPEATS : 1 DISK : OFF

SCINTILLATOR: LIQUID LUMEX:YES LOW SAMPLE REJ: 0

LOW LEVEL : NO HALF LIFE CORRECTION DATE: none

CHAN: 20.0 - 280.0 %ERROR: 0.00 FACTOR: 1.000000 BKG. SUB: 0

CHAN: 0.0 - 1000.0 %ERROR: 0.00 FACTOR: 1.000000 BKG. SUB: 0

SAM NO	POS	TIME MIN	H#	WIND1 CPM	WIND1 %ERROR	WIND2 CPM	WIND2 %ERROR	LUMEX %	ELAPSED TIME
1	15-1	95.00	126.4	6.05	8.43	45.56	3.04	0.38	97.53
2	15-2	95.00	126.0	16.47	5.08	56.04	2.75	0.34	195.60
3	15-3	95.00	126.1	15.80	5.19	54.61	2.78	0.40	293.69
4	15-4	95.00	126.5	15.56	5.23	54.58	2.78	0.40	391.79
5	15-5	95.00	127.4	9.03	6.90	48.85	2.94	0.43	489.86
6	15-6	95.00	127.3	7.17	7.76	46.74	3.01	0.45	587.94
7	15-7	95.00	126.7	7.12	7.79	46.13	3.03	0.44	686.03
8	15-8	95.00	126.6	17.21	4.97	56.81	2.73	0.33	784.10
9	15-9	95.00	124.7	7.60	7.53	47.56	2.98	0.41	882.17
10	15-10	95.00	128.8	16.27	5.11	55.43	2.76	0.29	980.24
11	15-11	95.00	125.2	10.06	6.52	49.80	2.91	0.35	1078.30
12	15-12	95.00	130.0	11.46	6.09	49.86	2.91	0.28	1176.34

QP

INSTRUMENT CALIBRATION: Maxi 5 JAN 2010 04:19
Calibration successful

QP

Calibrating Auto DPM
Counting Standard for 14C
Calibration Complete: 14C
Counting Standard for 3H
Calibration Complete: 3H
Calibration Successful

Sample Count Start Time:	4 Jan 2010 08:44:16		
Data Capture Date	04 Jan 2010 10:19:42		
User Filename	S04010415-1A.XLS		
	U04010415-1A.XLS		
Spectrum Type	Log Counts		
User Number	04		
User Id	TRITIUM		
User Comment	SILVER		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	1	15-1	95.00
H#, Total Counts:	126.4	4328	
Win1: Tritium - Start, End, Counts:	20	280	575
Win2: - Start, End, Counts:	0	990	3990

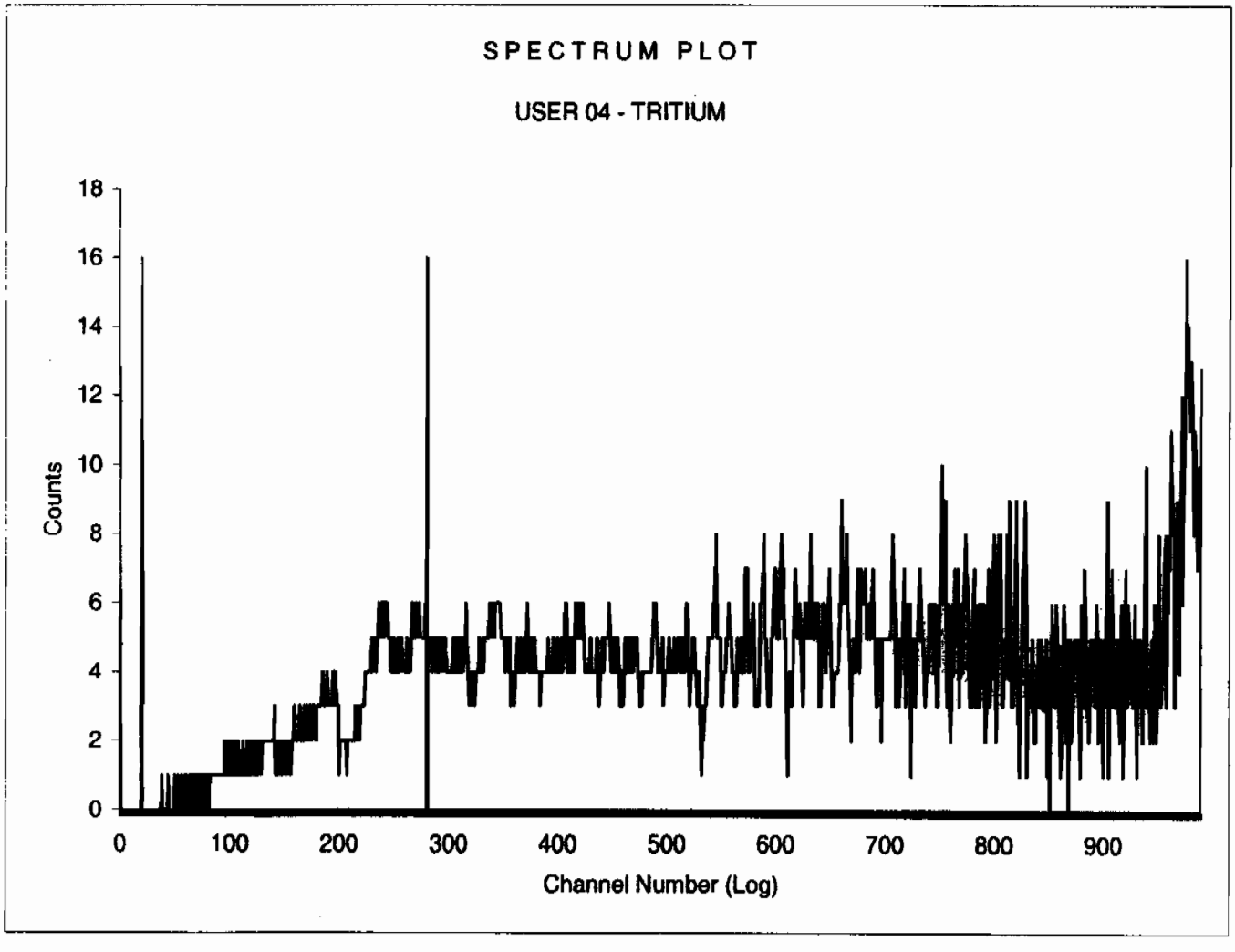

Sample Count Start Time:	4 Jan 2010 10:22:20		
Data Capture Date	04 Jan 2010 11:57:46		
User Filename	S04010415-2A.XLS		
	U04010415-1A.XLS		
Spectrum Type	Log Counts		
User Number	04		
User Id	TRITIUM		
User Comment	SILVER		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	2	15-2	95.00
H#, Total Counts:	126.0	5324	
Win1: Tritium - Start, End, Counts:	20	280	1565
Win2: - Start, End, Counts:	0	990	4972

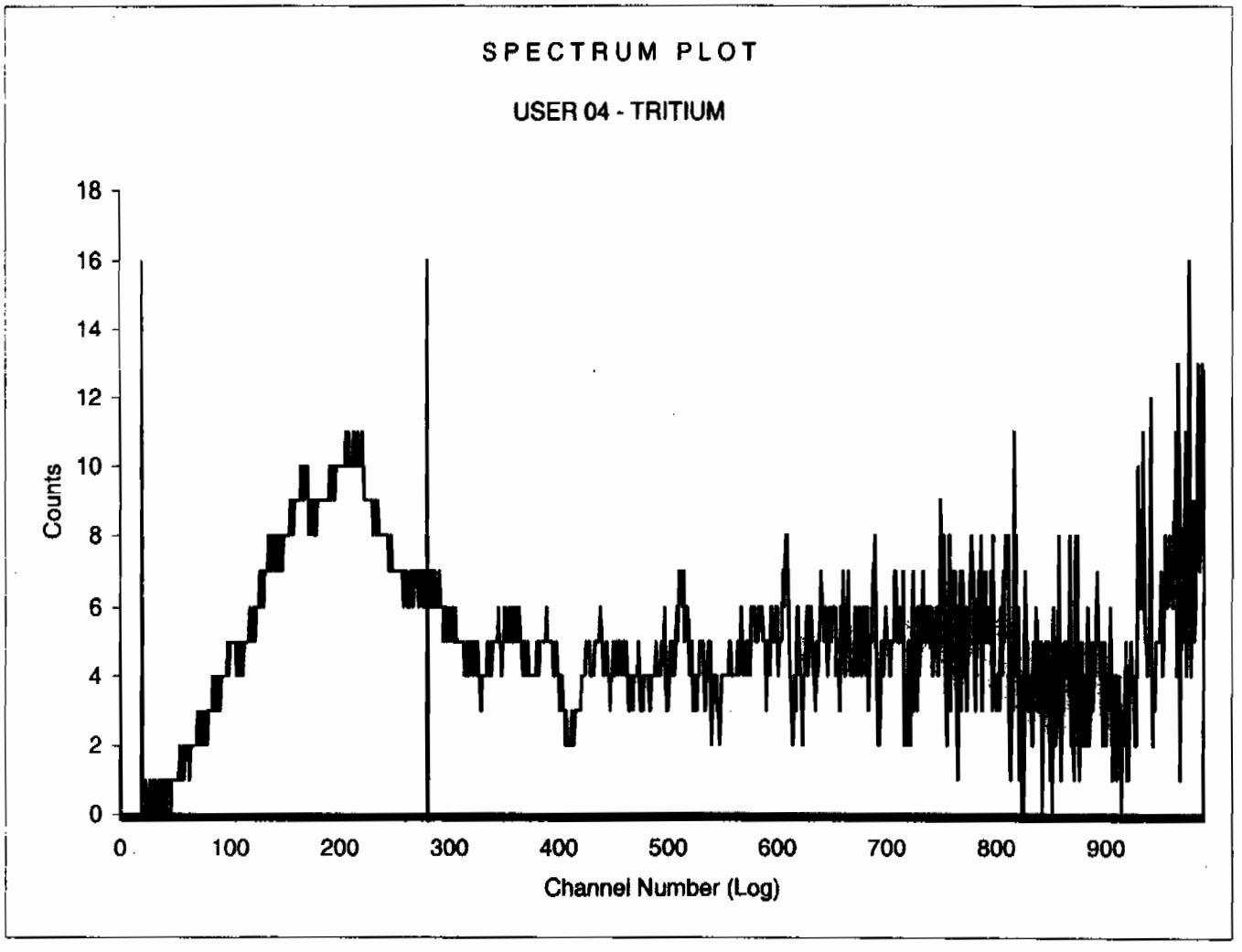

Sample Count Start Time:	4 Jan 2010 12:00:25		
Data Capture Date	04 Jan 2010 13:35:51		
User Filename	S04010415-3A.XLS		
	U04010415-1A.XLS		
Spectrum Type	Log Counts		
User Number	04		
User Id	TRITIUM		
User Comment	SILVER		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	3	15-3	95.00
H#, Total Counts:	126.1	5188	
Win1: Tritium - Start, End, Counts:	20	280	1501
Win2: - Start, End, Counts:	0	990	4820

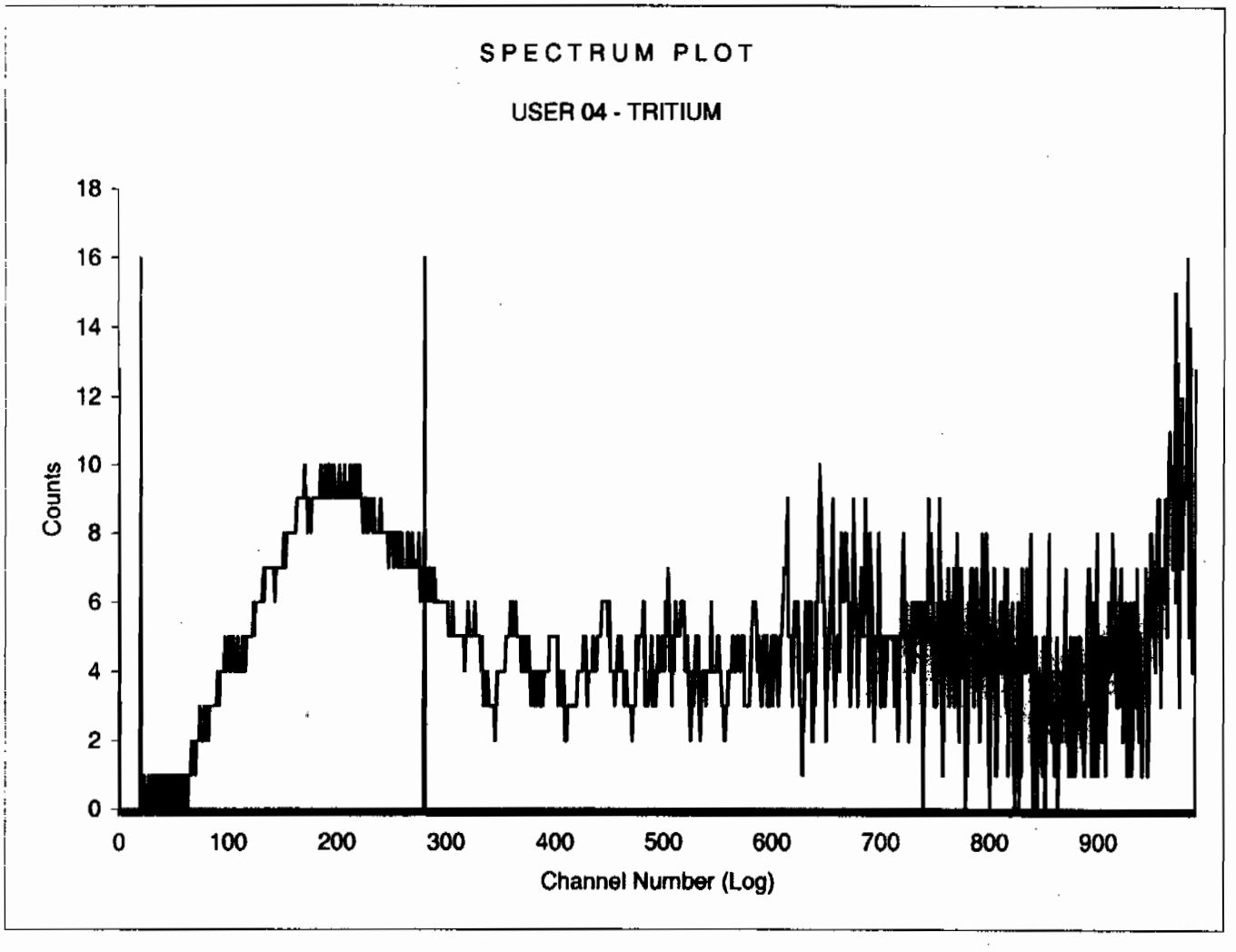

Sample Count Start Time:	4 Jan 2010 13:38:31		
Data Capture Date	04 Jan 2010 15:13:58		
User Filename	S04010415-4A.XLS		
	U04010415-1A.XLS		
Spectrum Type	Log Counts		
User Number	04		
User Id	TRITIUM		
User Comment	SILVER		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	4	15-4	95.00
H#, Total Counts:	126.5	5185	
Win1: Tritium - Start, End, Counts:	20	280	1478
Win2: - Start, End, Counts:	0	990	4841

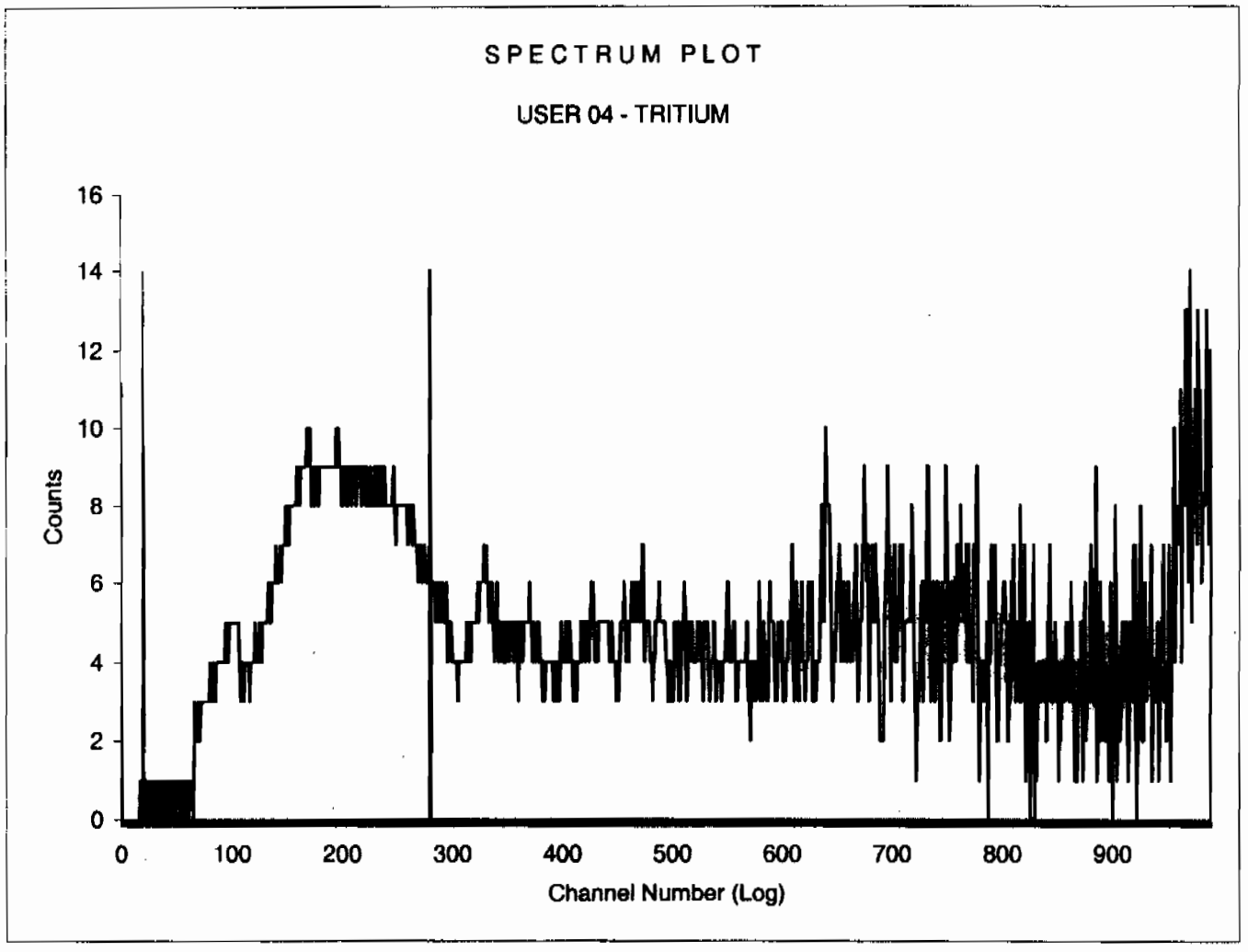

Sample Count Start Time:	4 Jan 2010 15:16:36		
Data Capture Date	04 Jan 2010 16:52:03		
User Filename	S04010415-5A.XLS		
	U04010415-1A.XLS		
Spectrum Type	Log Counts		
User Number	04		
User Id	TRITIUM		
User Comment	SILVER		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	5	15-5	95.00
H#, Total Counts:	127.4	4641	
Win1: Tritium - Start, End, Counts:	20	280	858
Win2: - Start, End, Counts:	0	990	4295

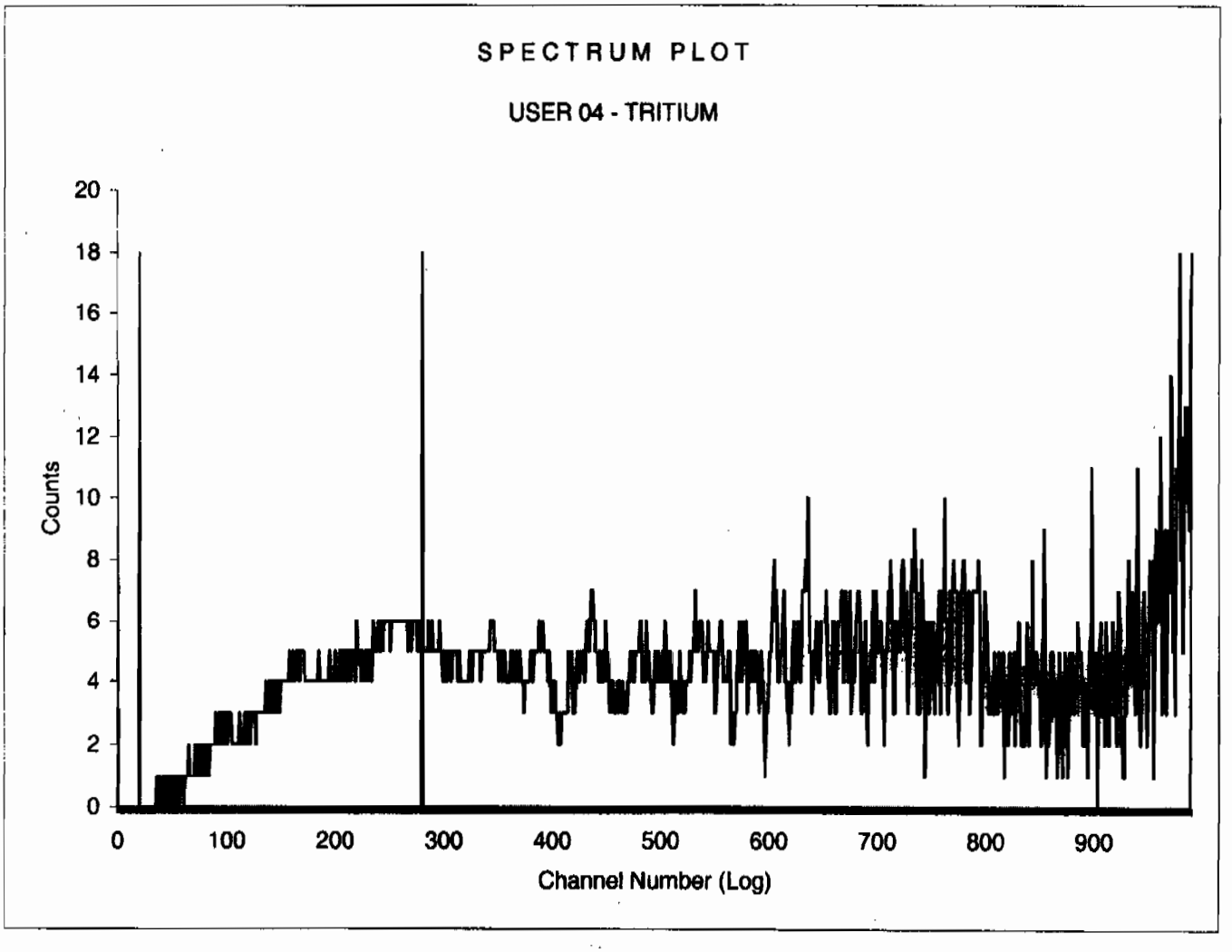

Sample Count Start Time:	4 Jan 2010 16:54:40		
Data Capture Date	04 Jan 2010 18:30:07		
User Filename	S04010415-6A.XLS		
	U04010415-1A.XLS		
Spectrum Type	Log Counts		
User Number	04		
User Id	TRITIUM		
User Comment	SILVER		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	6	15-6	95.00
H#, Total Counts:	127.3	4440	
Win1: Tritium - Start, End, Counts:	20	280	681
Win2: - Start, End, Counts:	0	990	4081

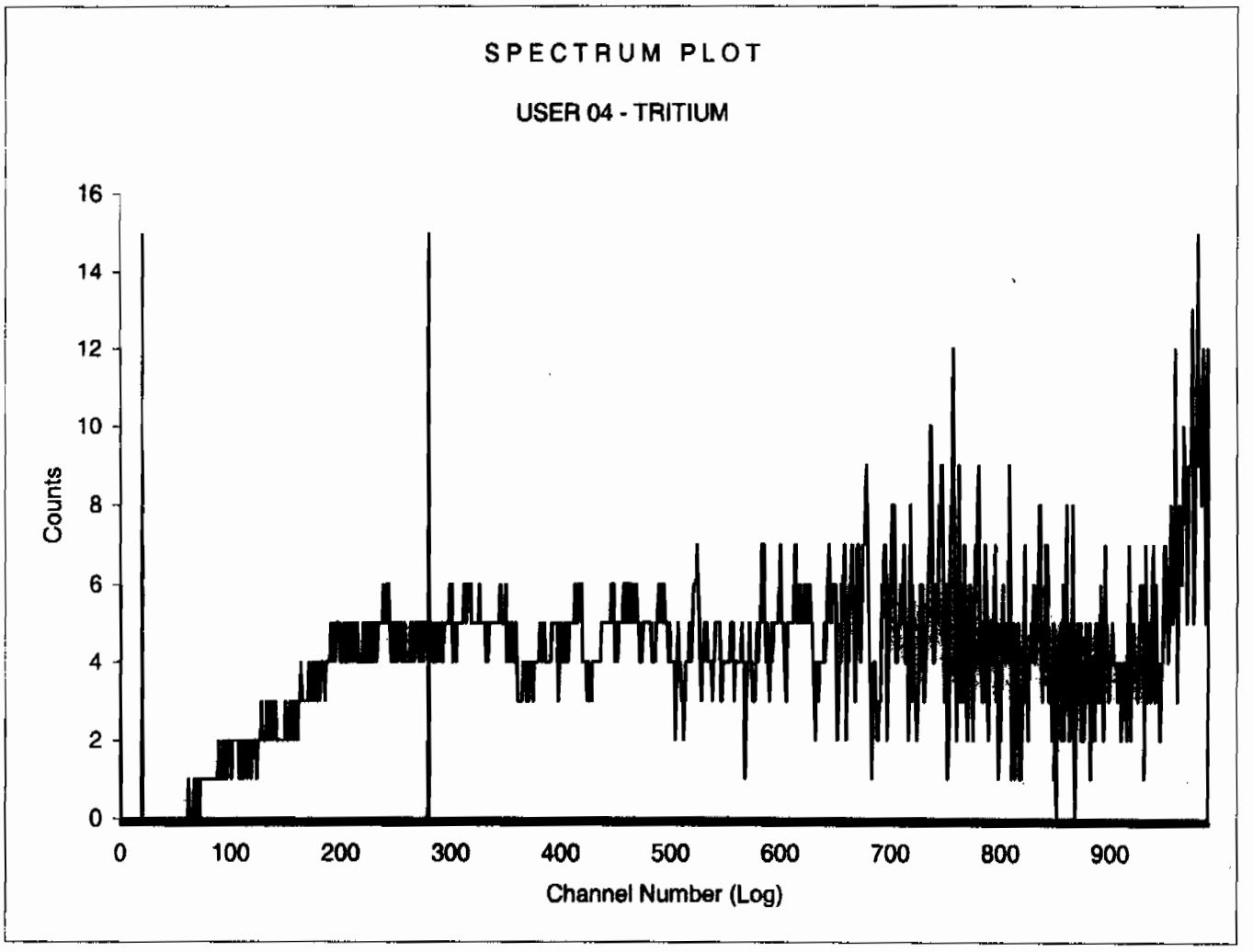

Sample Count Start Time:	4 Jan 2010 18:32:46		
Data Capture Date	04 Jan 2010 20:08:13		
User Filename	S04010415-7A.XLS		
	U04010415-1A.XLS		
Spectrum Type	Log Counts		
User Number	04		
User Id	TRITIUM		
User Comment	SILVER		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	7	15-7	95.00
H#, Total Counts:	126.7	4382	
Win1: Tritium - Start, End, Counts:	20	280	676
Win2: - Start, End, Counts:	0	990	4017

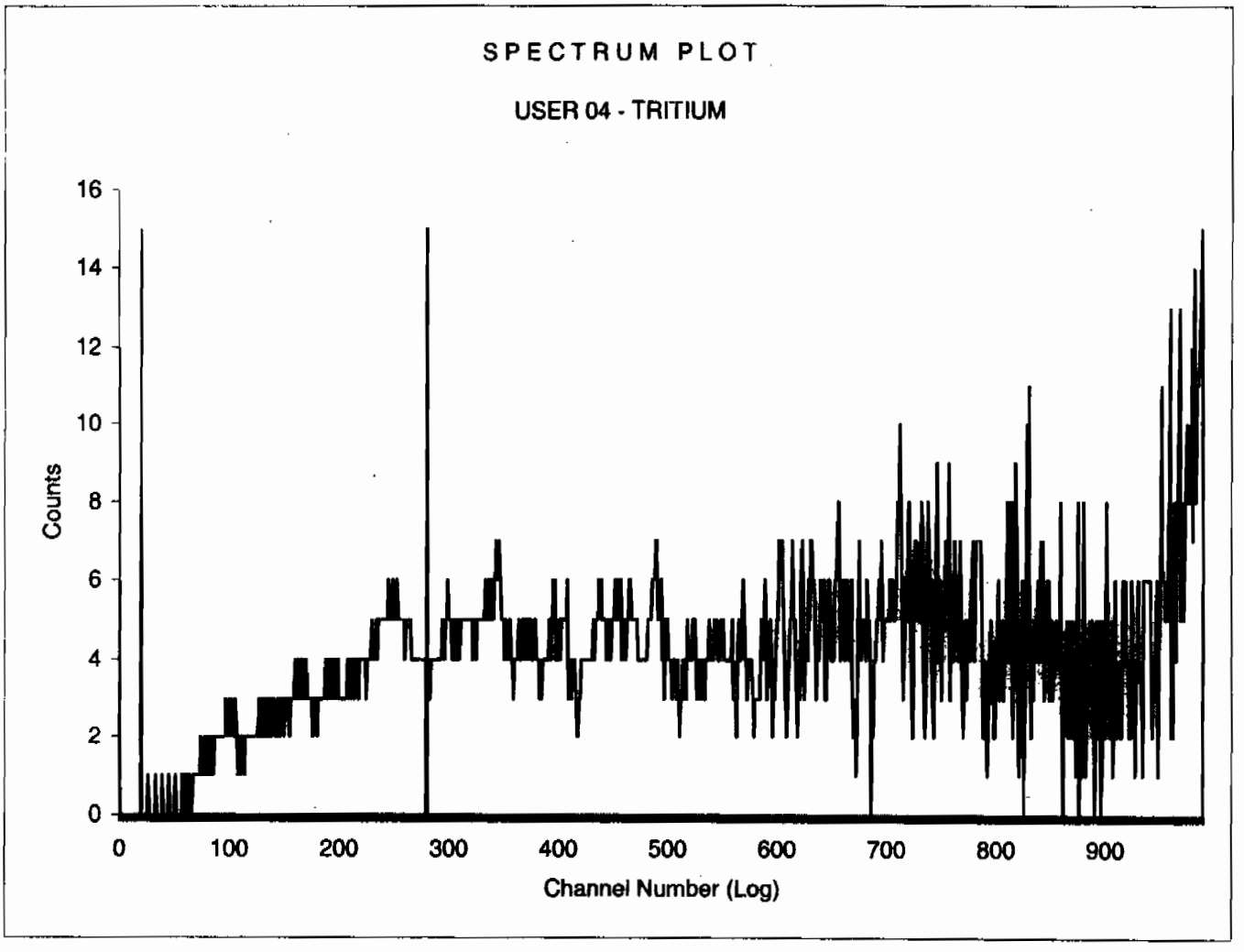

Sample Count Start Time:	4 Jan 2010 20:10:50		
Data Capture Date	04 Jan 2010 21:46:17		
User Filename	S04010415-8A.XLS		
	U04010415-1A.XLS		
Spectrum Type	Log Counts		
User Number	04		
User Id	TRITIUM		
User Comment	SILVER		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	8	15-8	95.00
H#, Total Counts:	126.6	5397	
Win1: Tritium - Start, End, Counts:	20	280	1635
Win2: - Start, End, Counts:	0	990	5028

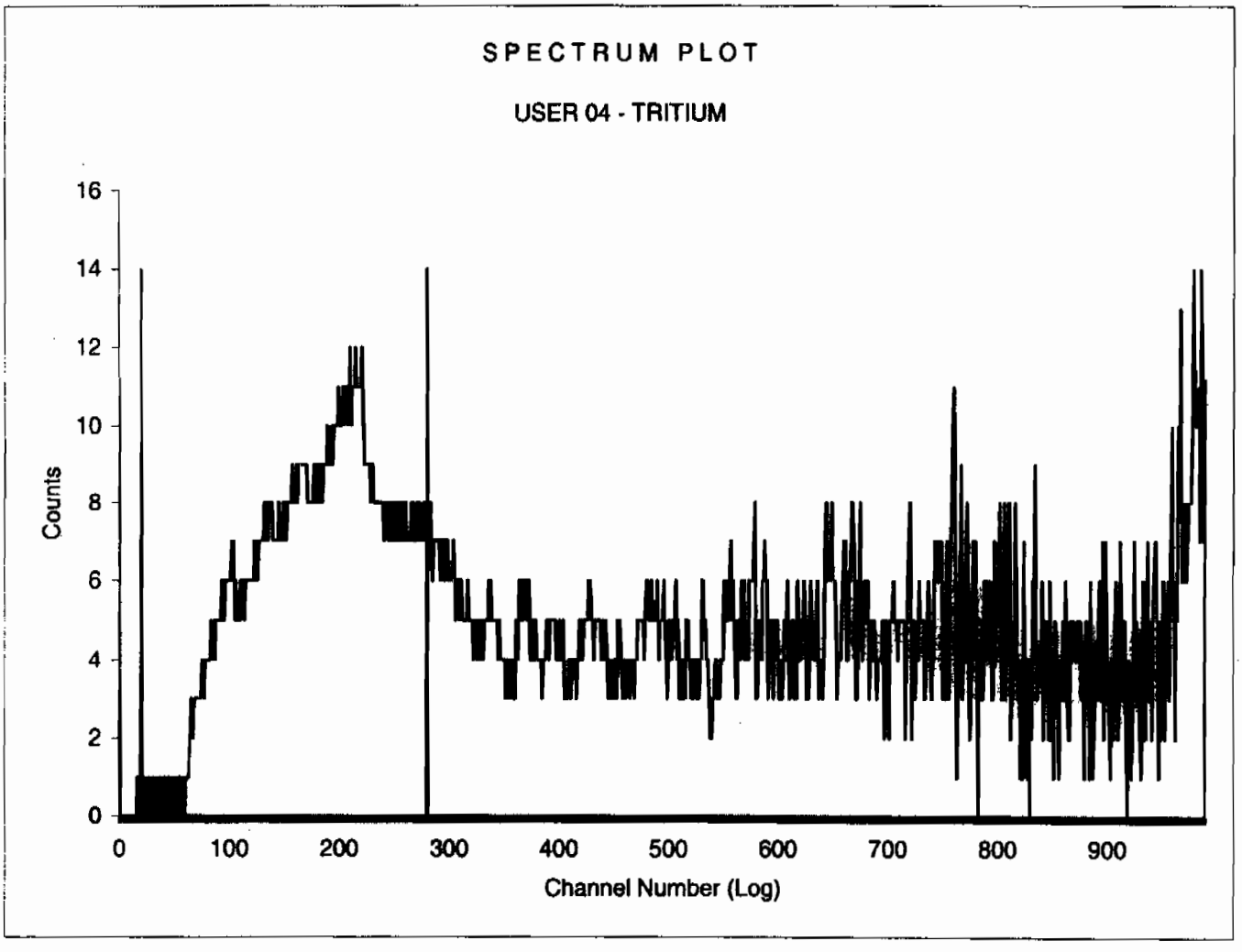

Sample Count Start Time:	4 Jan 2010 21:48:54		
Data Capture Date	04 Jan 2010 23:24:22		
User Filename	S04010415-9A.XLS		
	U04010415-1A.XLS		
Spectrum Type	Log Counts		
User Number	04		
User Id	TRITIUM		
User Comment	SILVER		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	9	15-9	95.00
H#, Total Counts:	124.7	4518	
Win1: Tritium - Start, End, Counts:	20	280	722
Win2: - Start, End, Counts:	0	990	4148

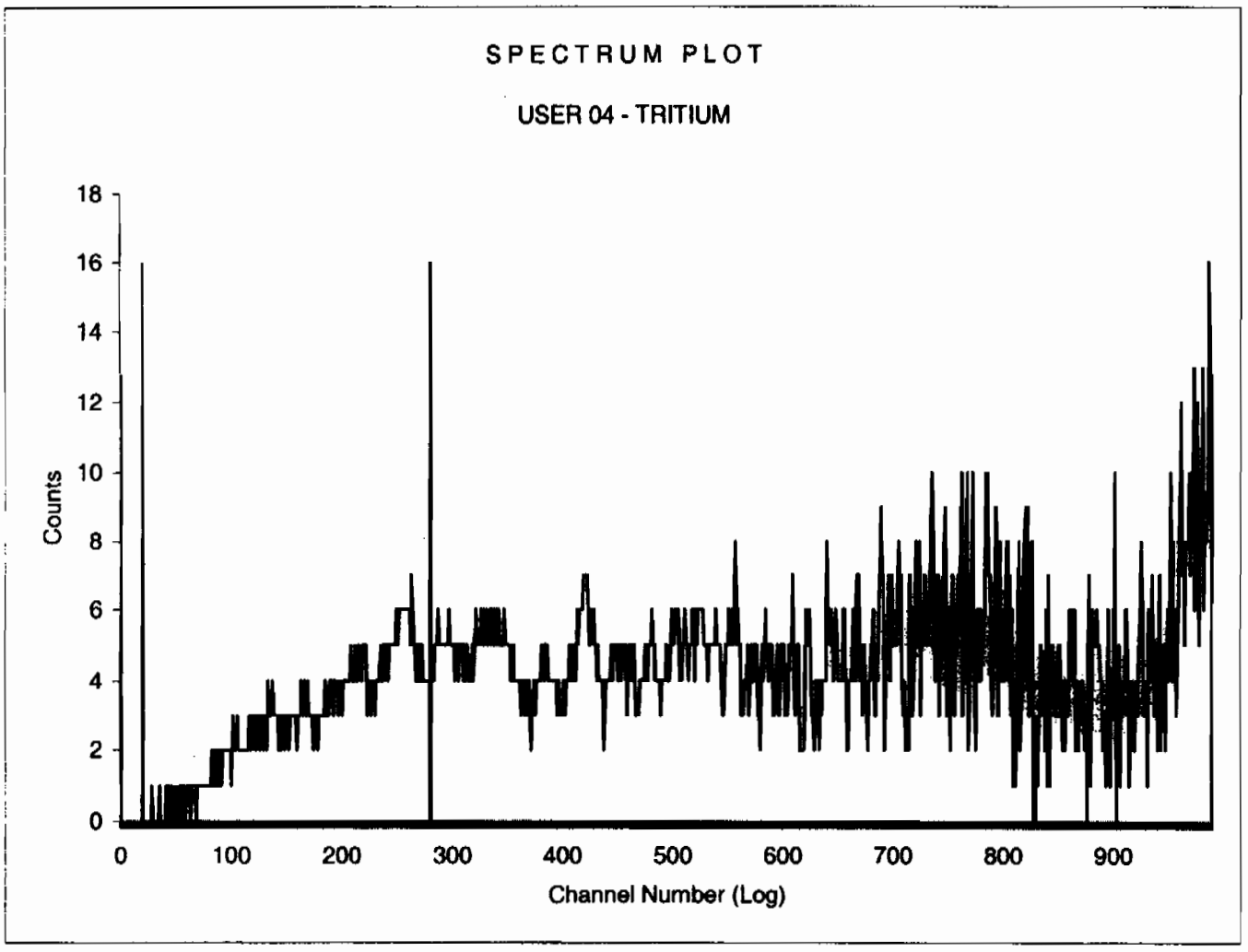

Sample Count Start Time:	4 Jan 2010 23:26:58		
Data Capture Date	05 Jan 2010 01:02:25		
User Filename	S04010515-10A.XLS		
	U04010415-1A.XLS		
Spectrum Type	Log Counts		
User Number	04		
User Id	TRITIUM		
User Comment	SILVER		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	10	15-10	95.00
H#, Total Counts:	128.8	5266	
Win1: Tritium - Start, End, Counts:	20	280	1546
Win2: - Start, End, Counts:	0	990	4891

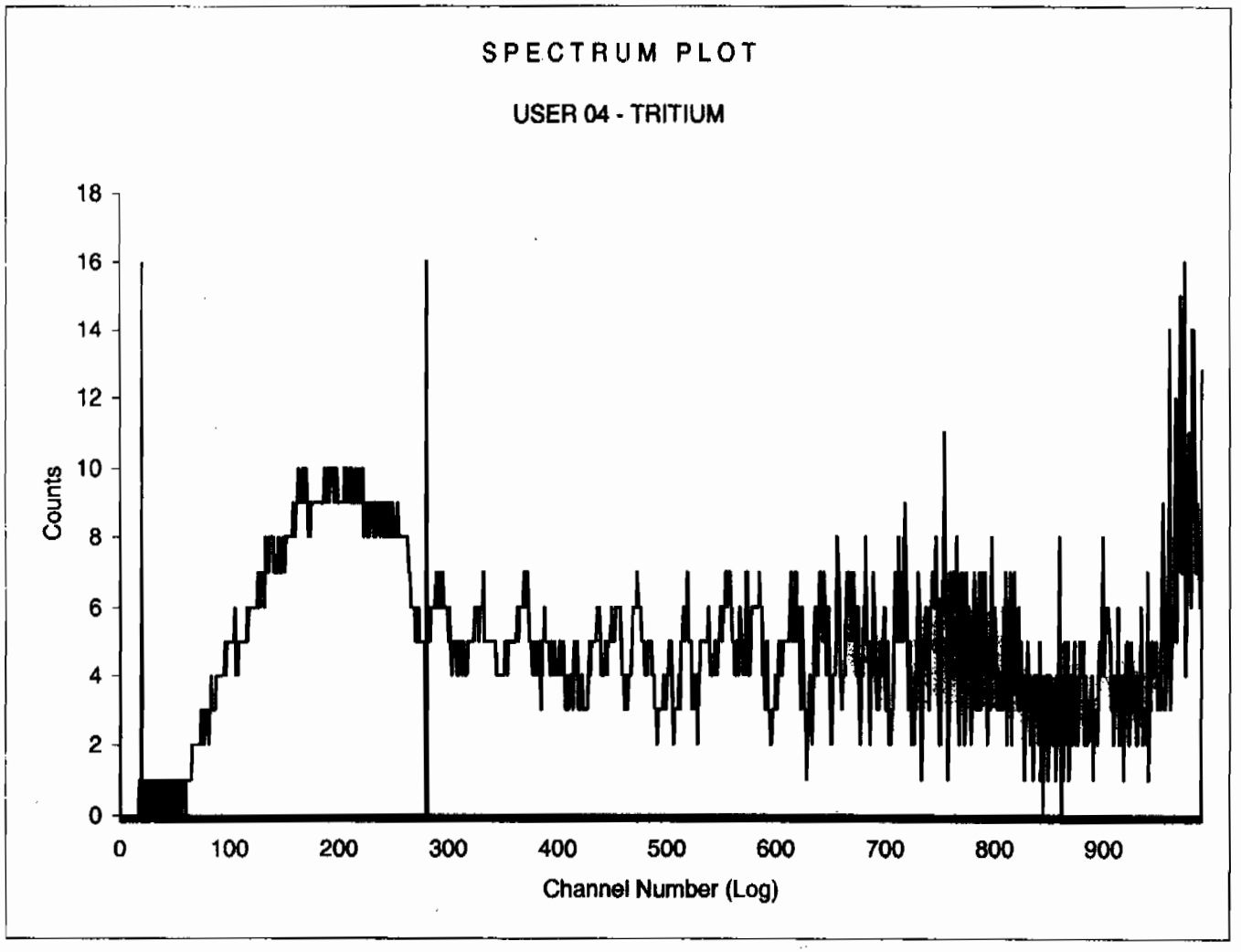

Sample Count Start Time:	5 Jan 2010 01:05:02		
Data Capture Date	05 Jan 2010 02:40:28		
User Filename	S04010515-11A.XLS		
	U04010415-1A.XLS		
Spectrum Type	Log Counts		
User Number	04		
User Id	TRITIUM		
User Comment	SILVER		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	11	15-11	95.00
H#, Total Counts:	125.2	4731	
Win1: Tritium - Start, End, Counts:	20	280	956
Win2: - Start, End, Counts:	0	990	4367

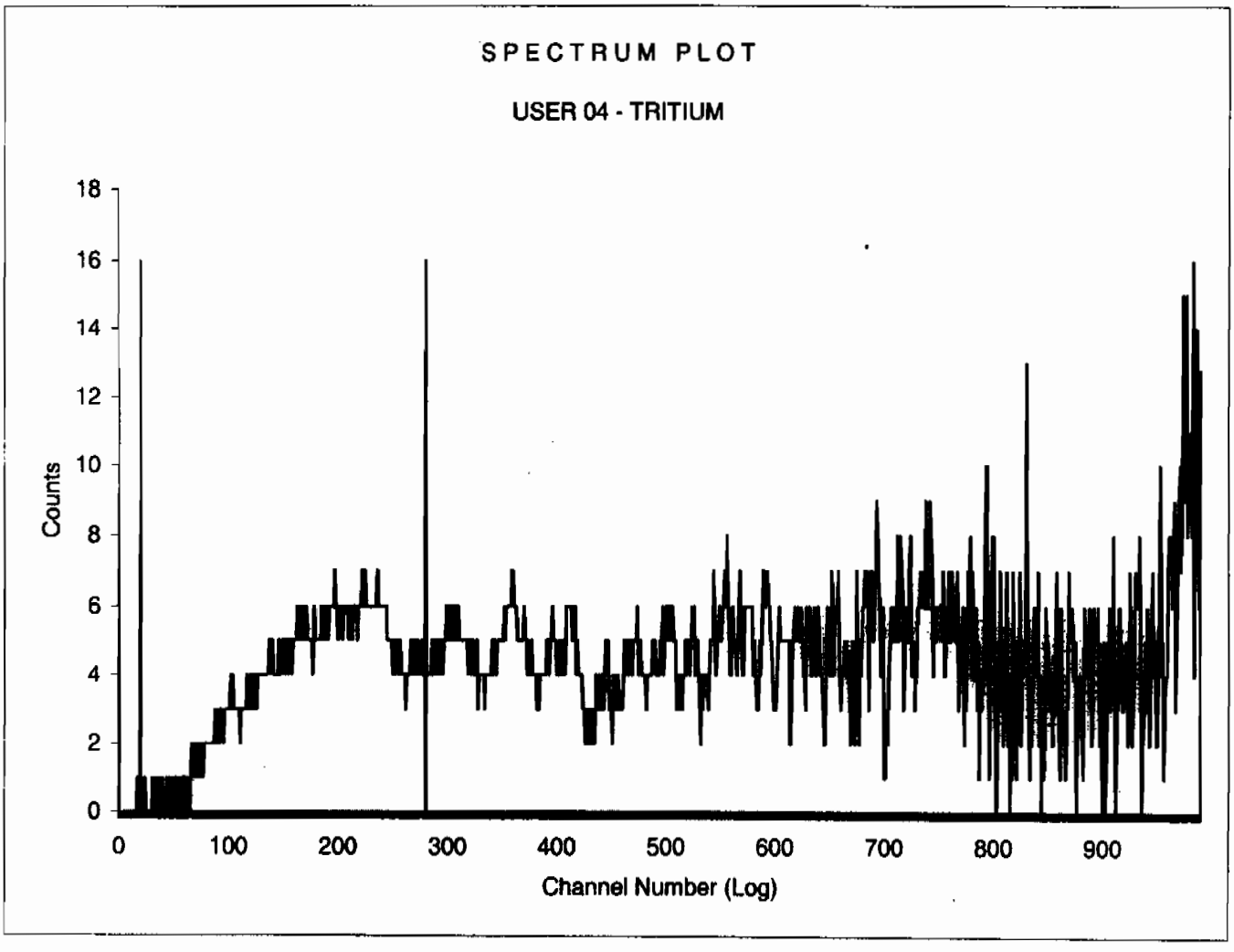

Sample Count Start Time:	5 Jan 2010 02:43:04		
Data Capture Date	05 Jan 2010 04:18:31		
User Filename	S04010515-12A.XLS		
	U04010415-1A.XLS		
Spectrum Type	Log Counts		
User Number	04		
User Id	TRITIUM		
User Comment	SILVER		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	12	15-12	95.00
H#, Total Counts:	130.0	4737	
Win1: Tritium - Start, End, Counts:	20	280	1089
Win2: - Start, End, Counts:	0	990	4428

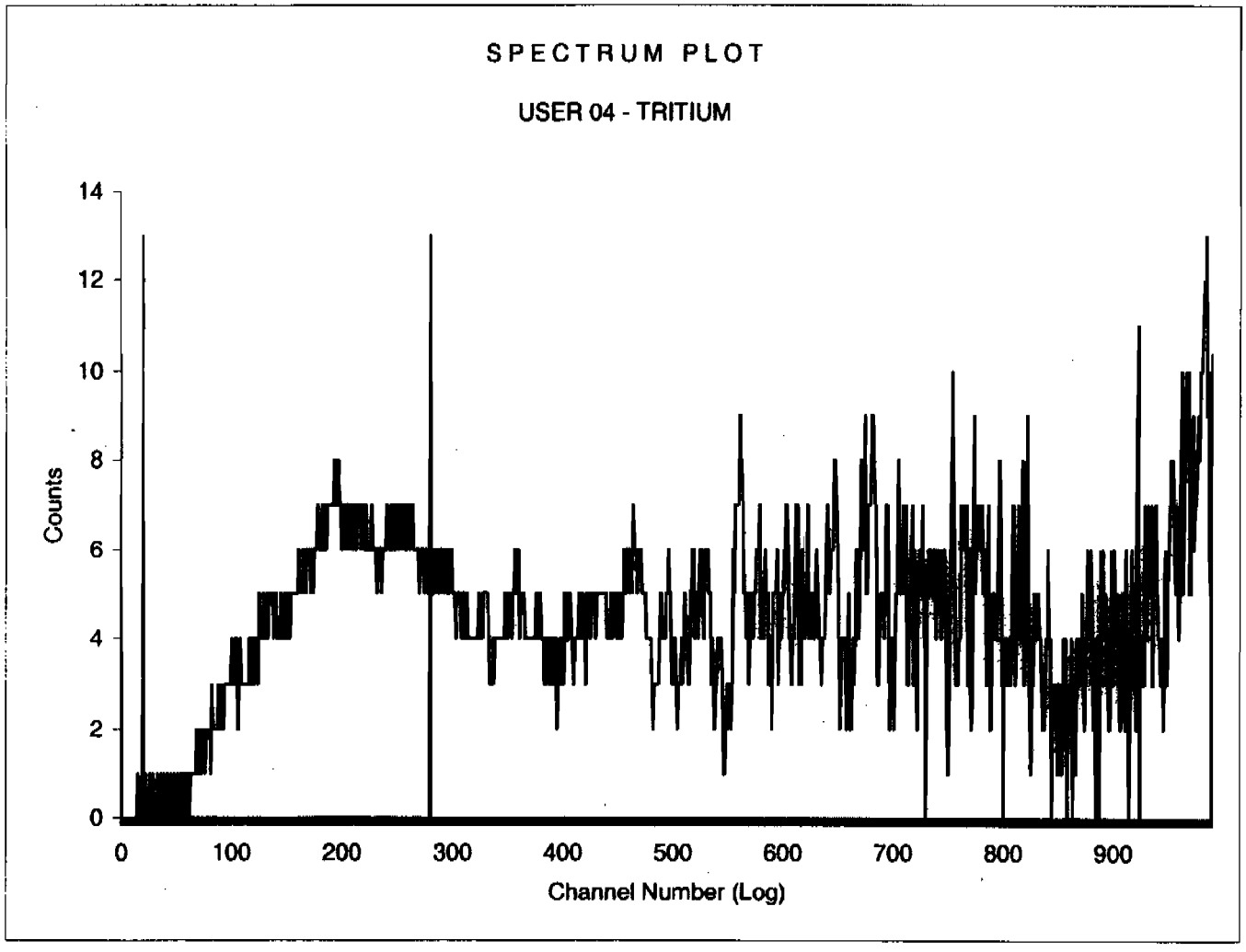

Filename: 12:34 PMab

Instrument Type	LS 6000
Data Capture Date	04 Jan 2010 08:12:02
User Filename	C:\LSCCAPTURE\GOLD\USER03\UN010401.BSF
User Number	3
User Id	TRITIUM
User Comments	GOLD
Scintillator Choice:	LIQUID

Sam	Rack	Time	H#	Raw CPM1	Raw CPM2	CPM Iso1	%Err1	CPM Iso2	%Err2	LumEx	ElTime
1	30-1	95.00	118.2	2.77	43.23	2.73	12.52	43.19	3.12	0.17	97.41
2	30-2	95.00	118.8	4.57	46.40	4.53	9.69	46.36	3.02	0.14	195.36
3	30-3	95.00	117.9	3.76	44.44	3.69	10.77	44.38	3.08	0.21	293.35
4	30-4	95.00	115.2	3.89	45.96	3.81	10.63	45.87	3.03	0.25	391.31
5	30-5	95.00	117.3	7.73	49.95	7.66	7.44	49.88	2.91	0.18	489.26
6	30-6	95.00	118.2	7.03	49.41	6.98	7.80	49.36	2.92	0.17	587.23
7	30-7	95.00	118.5	4.67	45.29	4.62	9.60	45.24	3.05	0.18	685.21
8	30-8	95.00	117.6	7.22	49.84	7.13	7.74	49.75	2.91	0.24	783.20
9	30-9	95.00	118.3	2.55	42.92	2.52	13.02	42.88	3.13	0.15	881.16
10	30-10	95.00	117.8	5.92	49.00	5.87	8.50	48.96	2.93	0.14	979.10

Sample Count Start Time:	4 Jan 2010 08:14:28		
Data Capture Date	04 Jan 2010 09:49:52		
User Filename	s03010430-1a.xls		
Spectrum Type	Log Counts		
User Number	03		
User Id	TRITIUM		
User Comment	GOLD		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	1	30-1	95.00
H#, Total Counts:	118.2	4383	
Win1: Tritium - Start, End, Counts:	0	235	259
Win2: - Start, End, Counts:	0	990	3676

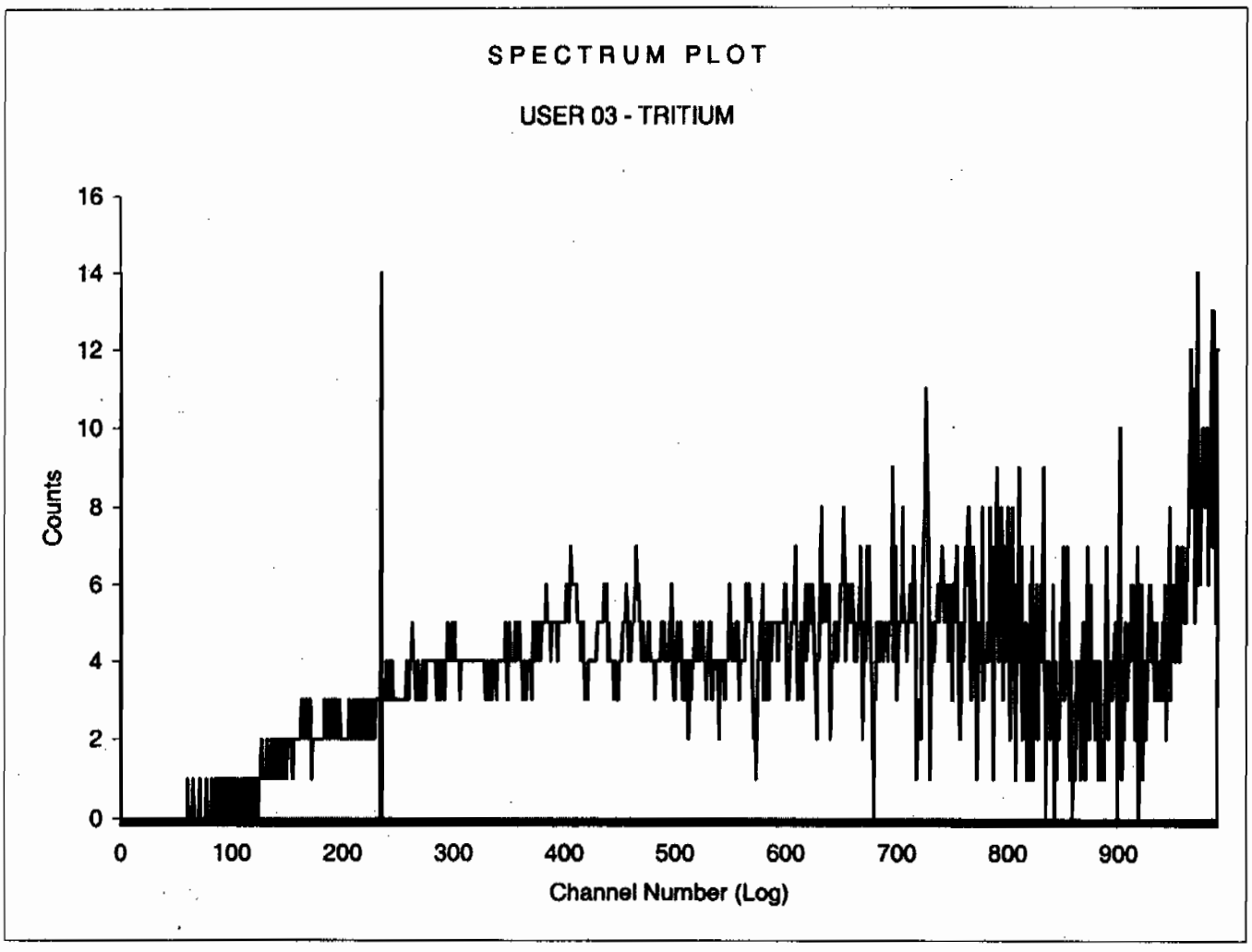

Sample Count Start Time:	4 Jan 2010 09:52:24		
Data Capture Date	04 Jan 2010 11:27:49		
User Filename	S03010430-2A.XLS		
	U03010430-1A.XLS		
Spectrum Type	Log Counts		
User Number	03		
User Id	TRITIUM		
User Comment	GOLD		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	2	30-2	95.00
H#, Total Counts:	118.8	4716	
Win1: Tritium - Start, End, Counts:	0	235	430
Win2: - Start, End, Counts:	0	990	3986

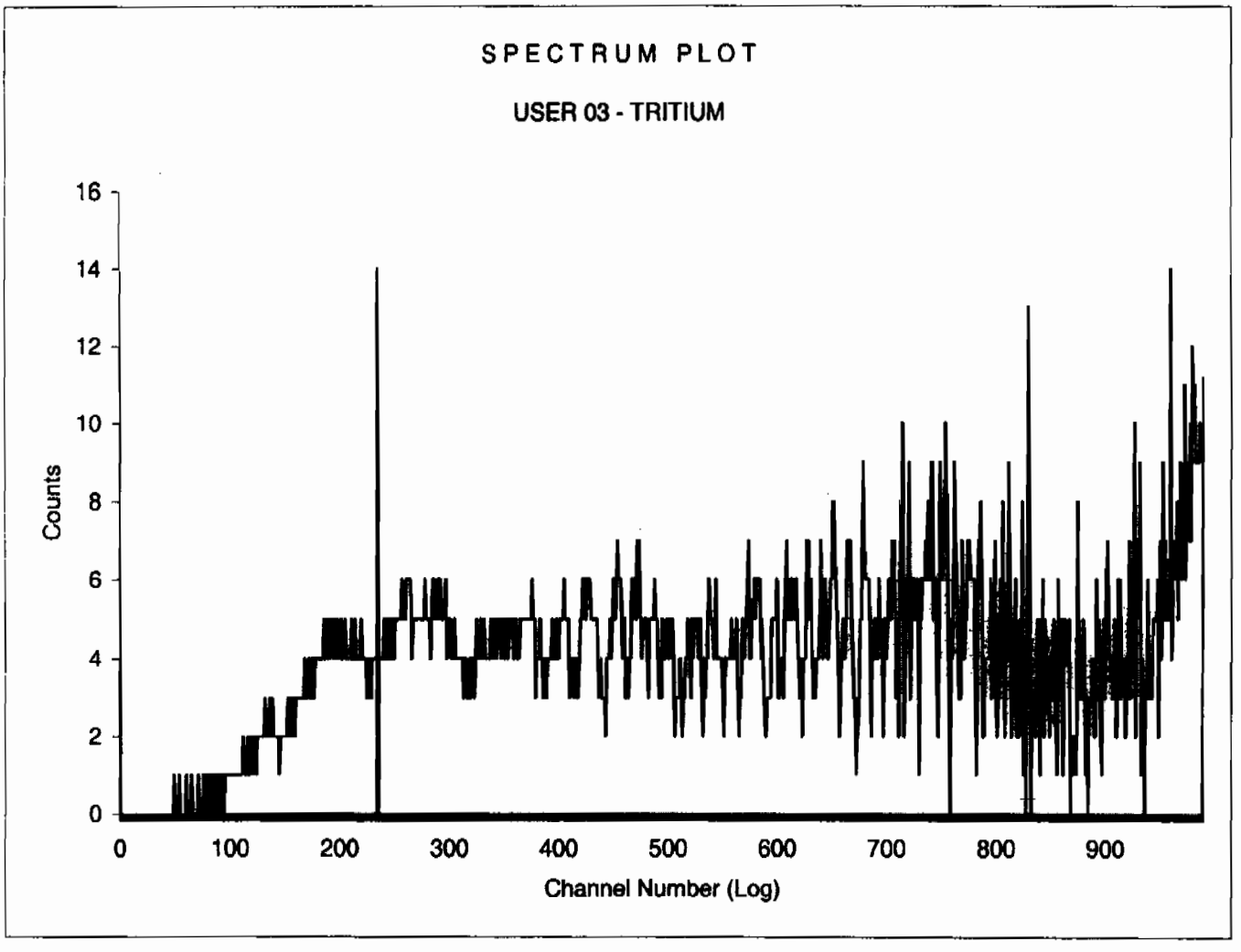

Sample Count Start Time:	4 Jan 2010 11:30:23		
Data Capture Date	04 Jan 2010 13:05:48		
User Filename	S03010430-3A.XLS		
	U03010430-1A.XLS		
Spectrum Type	Log Counts		
User Number	03		
User Id	TRITIUM		
User Comment	GOLD		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	3	30-3	95.00
H#, Total Counts:	117.9	4632	
Win1: Tritium - Start, End, Counts:	0	235	351
Win2: - Start, End, Counts:	0	990	3828

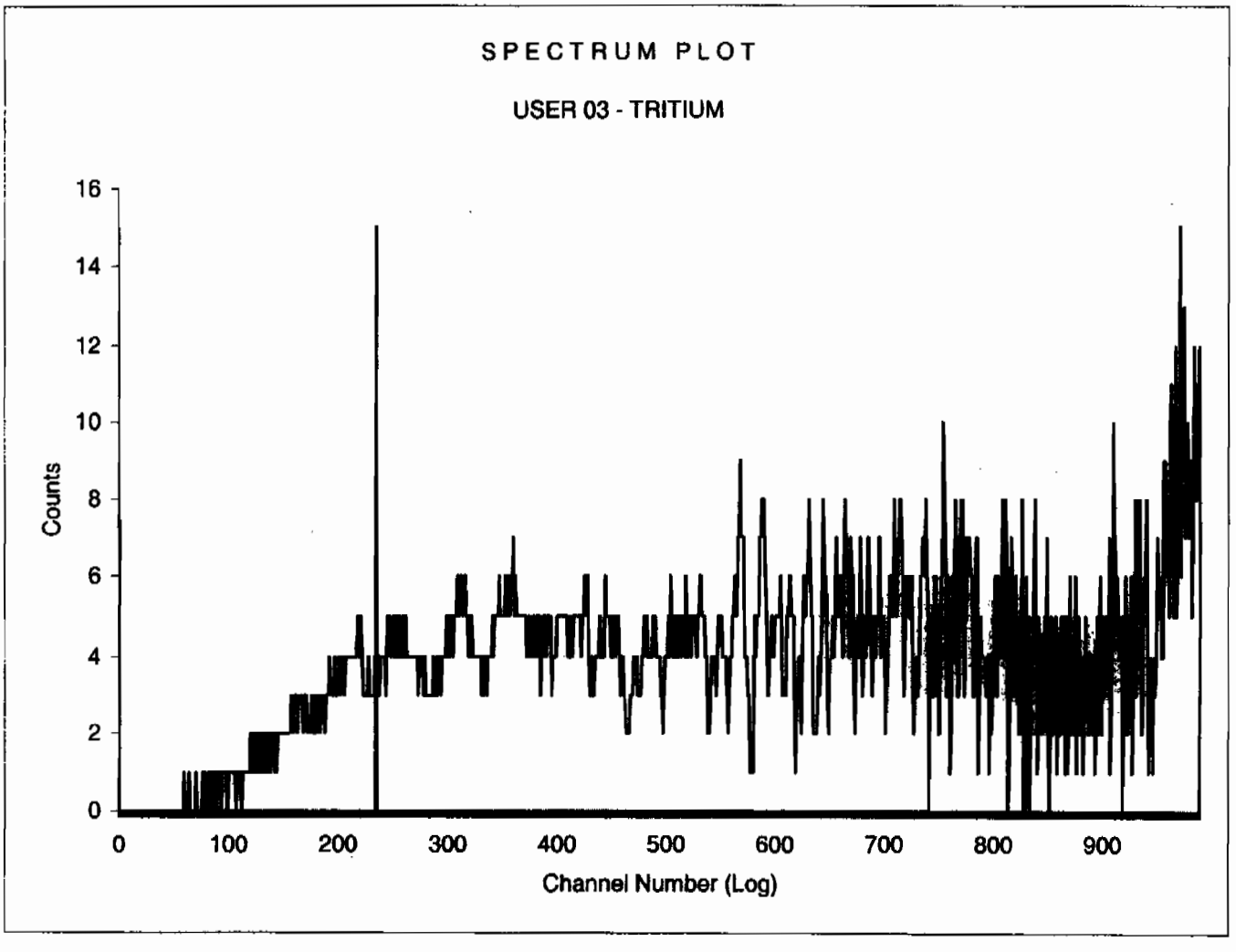

Sample Count Start Time:	4 Jan 2010 13:08:21		
Data Capture Date	04 Jan 2010 14:43:47		
User Filename	S03010430-4A.XLS		
	U03010430-1A.XLS		
Spectrum Type	Log Counts		
User Number	03		
User Id	TRITIUM		
User Comment	GOLD		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	4	30-4	95.00
H#, Total Counts:	115.2	4734	
Win1: Tritium - Start, End, Counts:	0	235	362
Win2: - Start, End, Counts:	0	990	3962

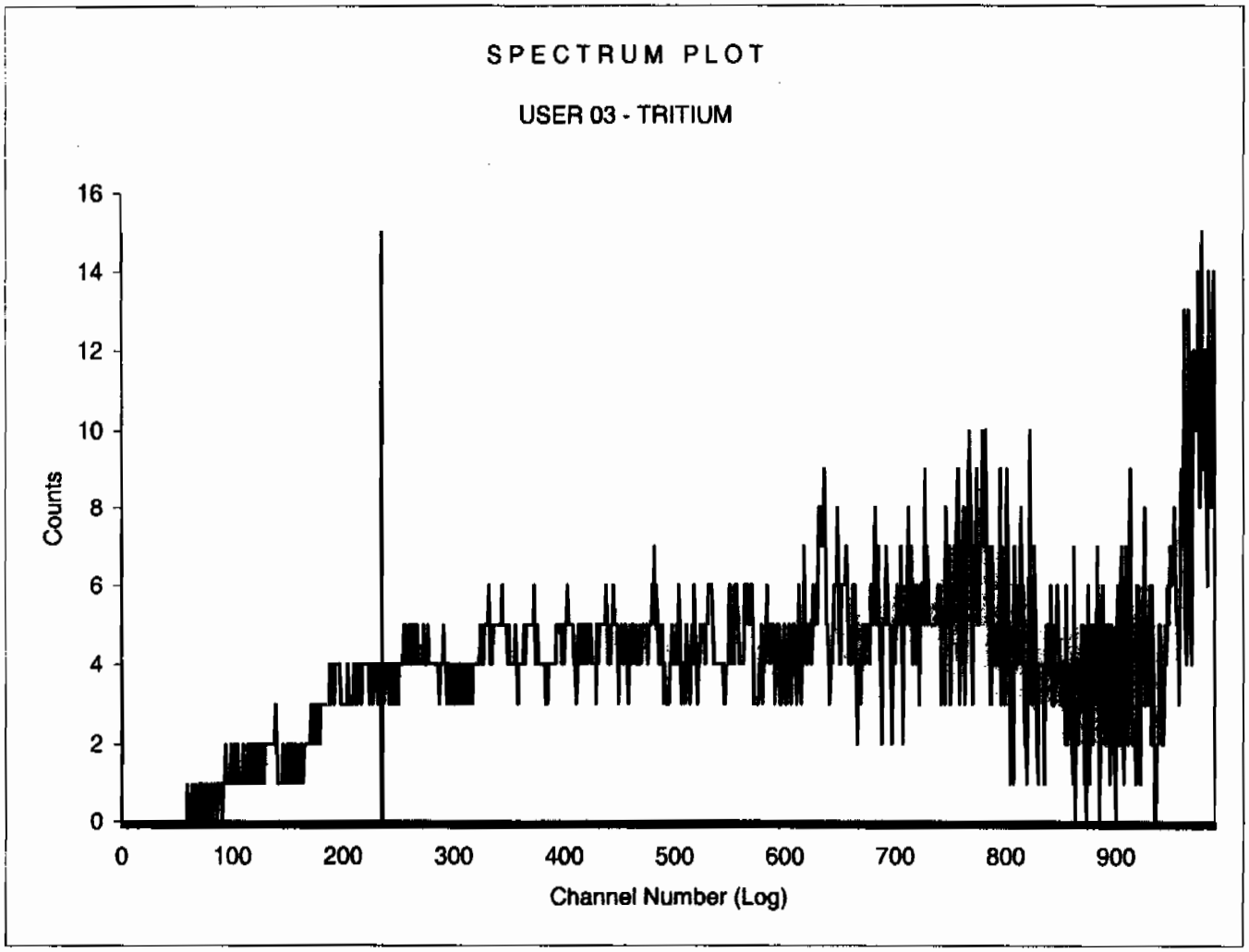

Sample Count Start Time:	4 Jan 2010 14:46:18		
Data Capture Date	04 Jan 2010 16:21:44		
User Filename	S03010430-5A.XLS		
	U03010430-1A.XLS		
Spectrum Type	Log Counts		
User Number	03		
User Id	TRITIUM		
User Comment	GOLD		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	5	30-5	95.00
H#, Total Counts:	117.3	4987	
Win1: Tritium - Start, End, Counts:	0	235	728
Win2: - Start, End, Counts:	0	990	4345

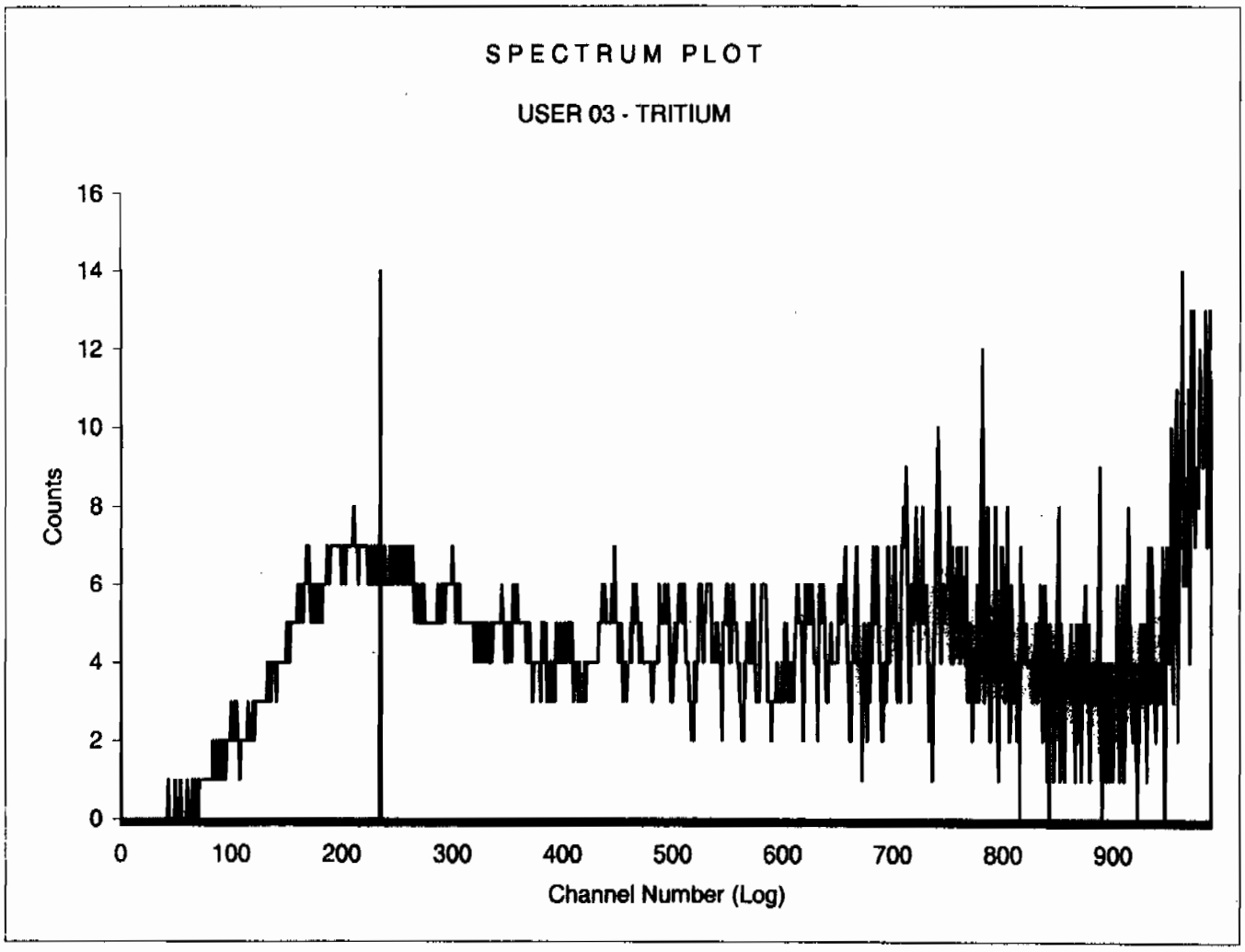

Sample Count Start Time:	4 Jan 2010 16:24:16		
Data Capture Date	04 Jan 2010 17:59:42		
User Filename	S03010430-6A.XLS		
	U03010430-1A.XLS		
Spectrum Type	Log Counts		
User Number	03		
User Id	TRITIUM		
User Comment	GOLD		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	6	30-6	95.00
H#, Total Counts:	118.2	5137	
Win1: Tritium - Start, End, Counts:	0	235	663
Win2: - Start, End, Counts:	0	990	4293

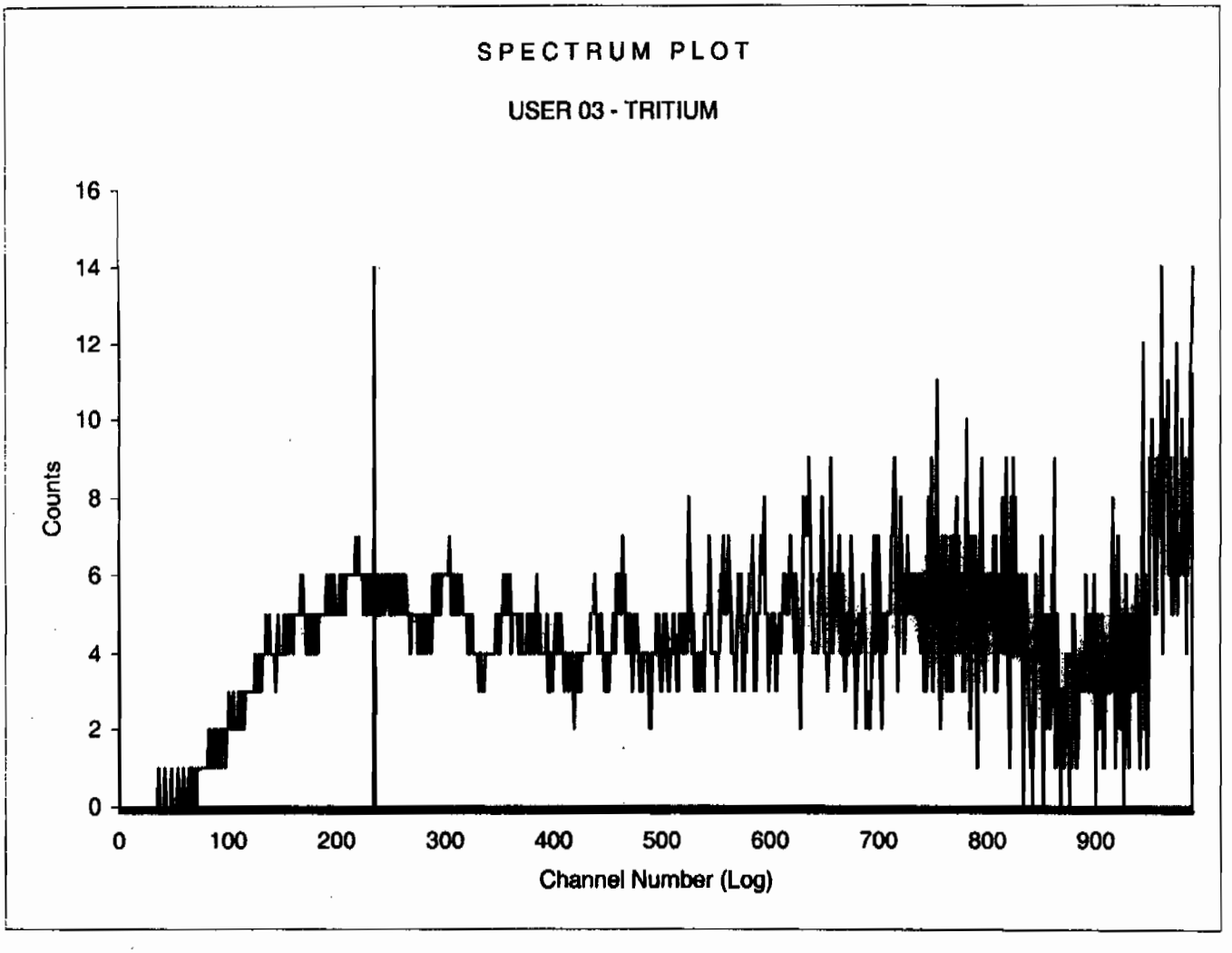

Sample Count Start Time:	4 Jan 2010 18:02:15		
Data Capture Date	04 Jan 2010 19:37:40		
User Filename	S03010430-7A.XLS		
	U03010430-1A.XLS		
Spectrum Type	Log Counts		
User Number	03		
User Id	TRITIUM		
User Comment	GOLD		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	7	30-7	95.00
H#, Total Counts:	118.5	4586	
Win1: Tritium - Start, End, Counts:	0	235	439
Win2: - Start, End, Counts:	0	990	3899

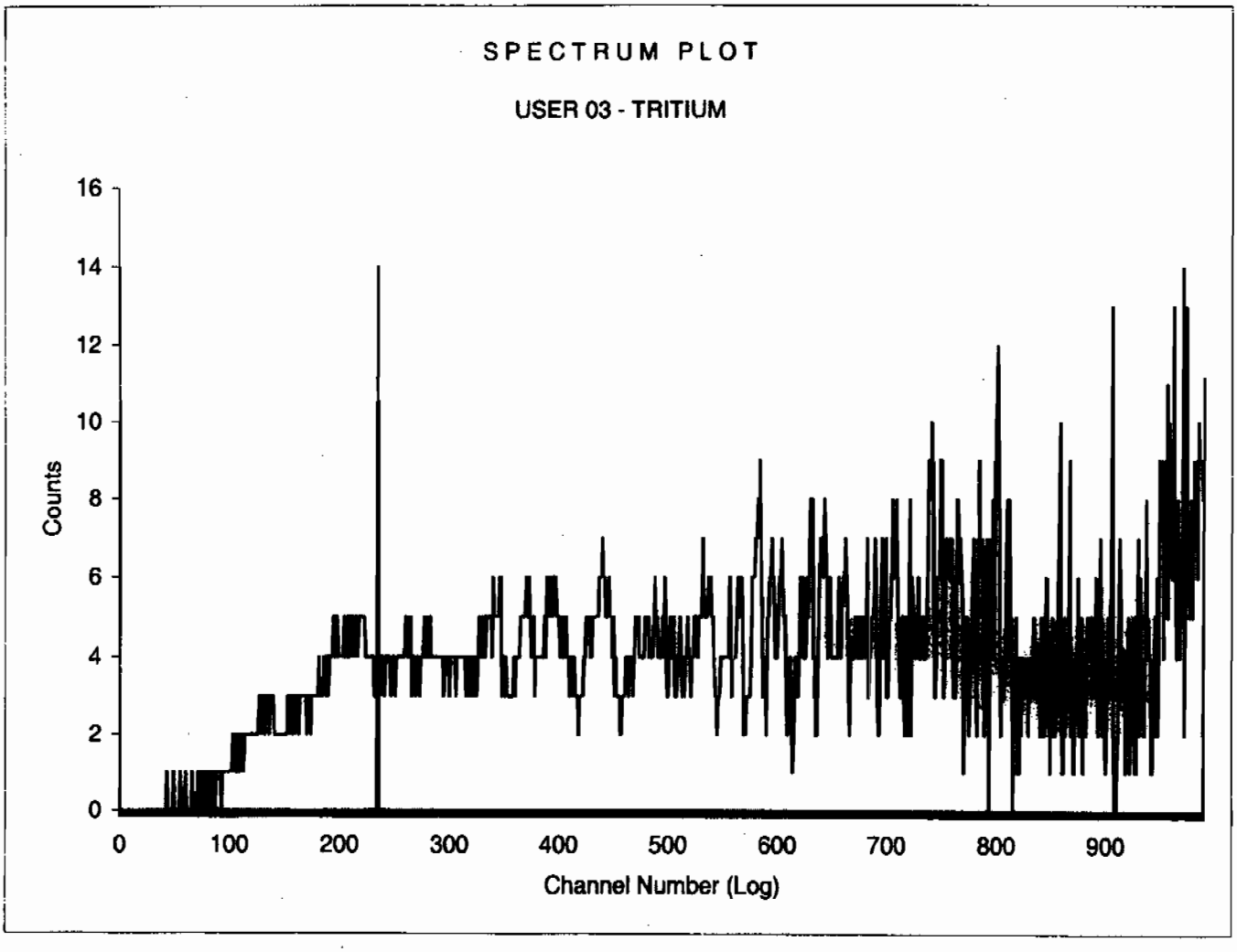

Sample Count Start Time:	4 Jan 2010 19:40:14		
Data Capture Date	04 Jan 2010 21:15:40		
User Filename	S03010430-8A.XLS		
	U03010430-1A.XLS		
Spectrum Type	Log Counts		
User Number	03		
User Id	TRITIUM		
User Comment	GOLD		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	8	30-8	95.00
H#, Total Counts:	117.6	5110	
Win1: Tritium - Start, End, Counts:	0	235	677
Win2: - Start, End, Counts:	0	990	4329

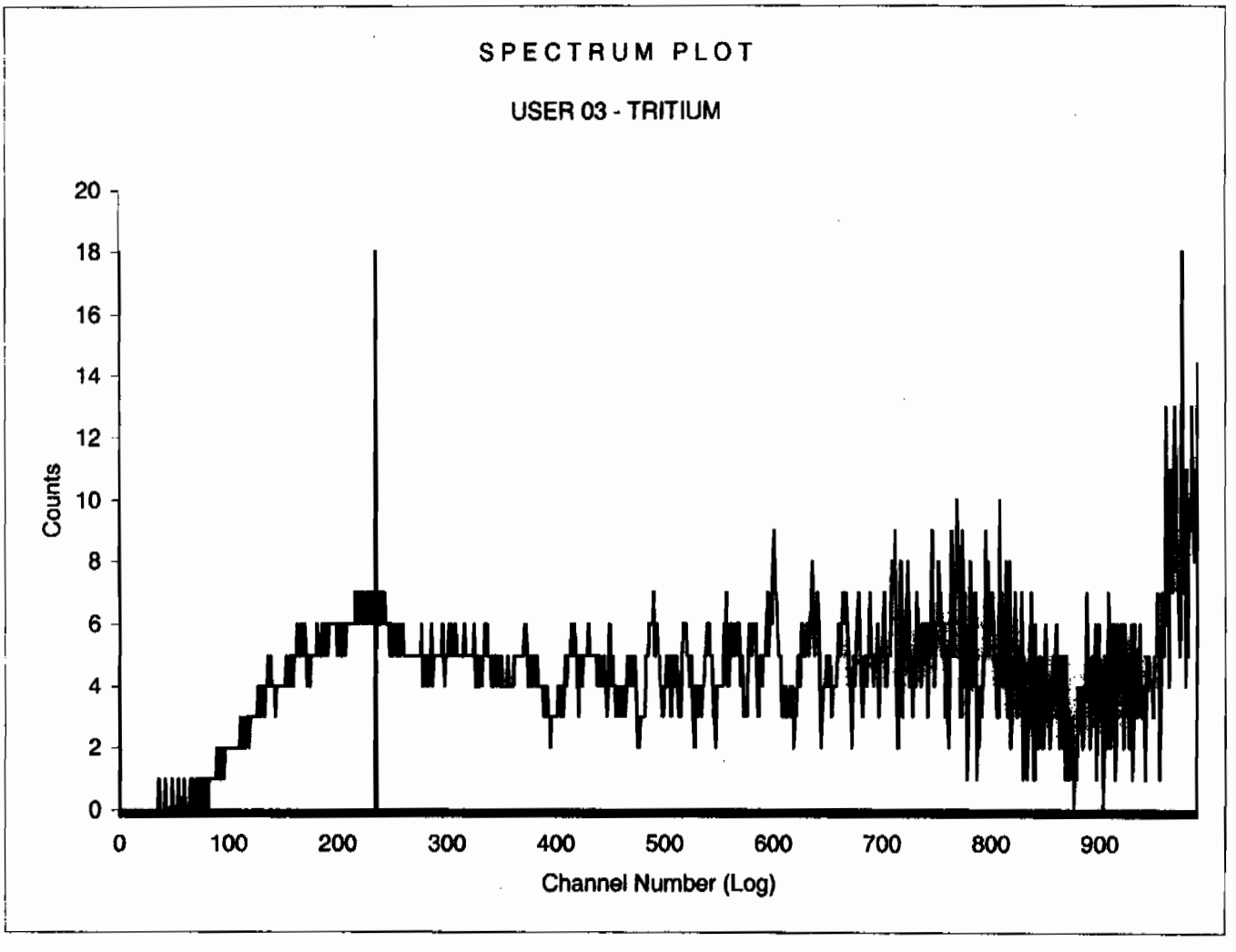

Sample Count Start Time:	4 Jan 2010 21:18:12		
Data Capture Date	04 Jan 2010 22:53:37		
User Filename	S03010430-9A.XLS		
	U03010430-1A.XLS		
Spectrum Type	Log Counts		
User Number	03		
User Id	TRITIUM		
User Comment	GOLD		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	9	30-9	95.00
H#, Total Counts:	118.3	4426	
Win1: Tritium - Start, End, Counts:	0	235	239
Win2: - Start, End, Counts:	0	990	3676

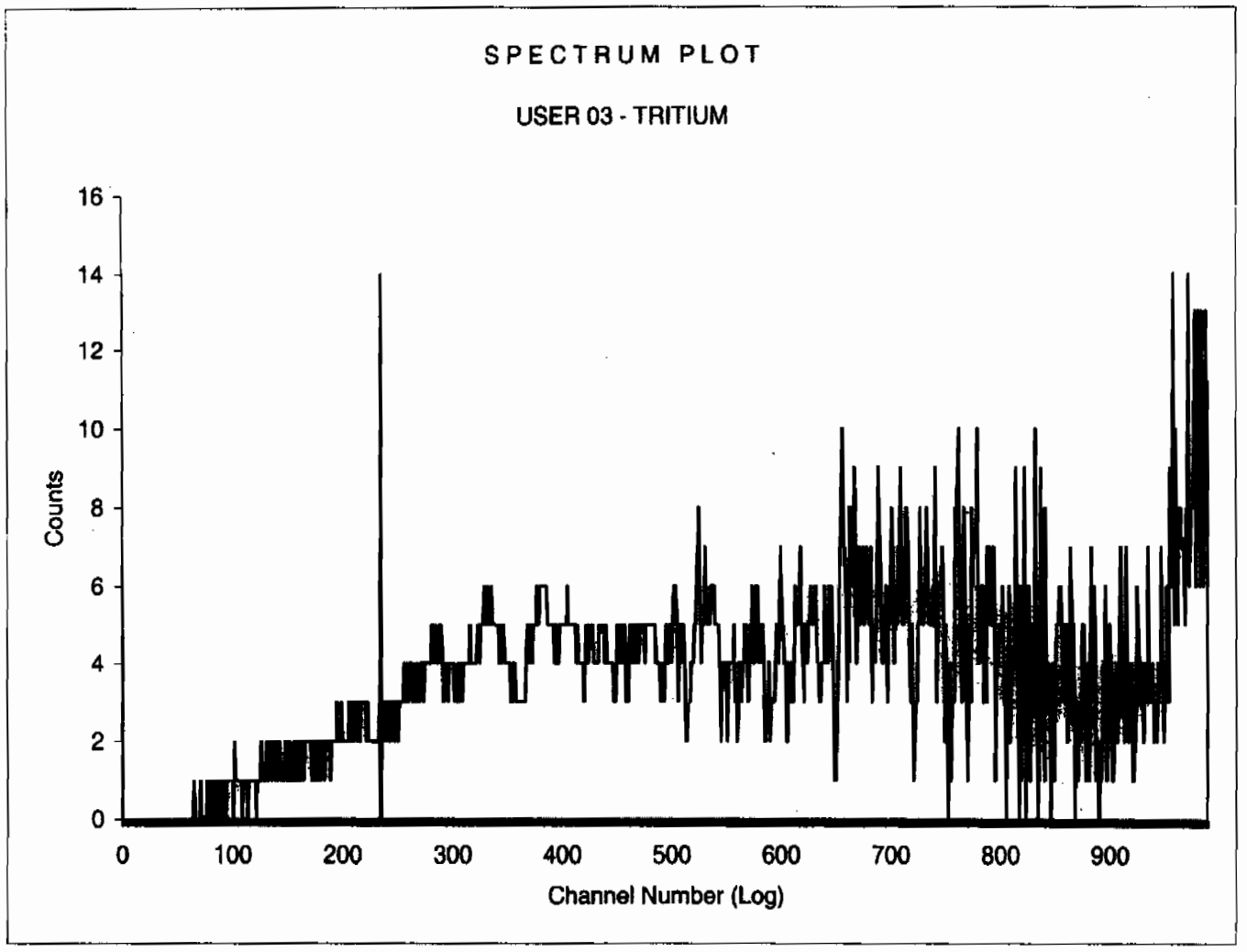

Sample Count Start Time:	4 Jan 2010 22:56:08		
Data Capture Date	05 Jan 2010 00:31:34		
User Filename	S03010530-10A.XLS		
	U03010430-1A.XLS		
Spectrum Type	Log Counts		
User Number	03		
User Id	TRITIUM		
User Comment	GOLD		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	10	30-10	95.00
H#, Total Counts:	117.8	4971	
Win1: Tritium - Start, End, Counts:	0	235	558
Win2: - Start, End, Counts:	0	990	4245

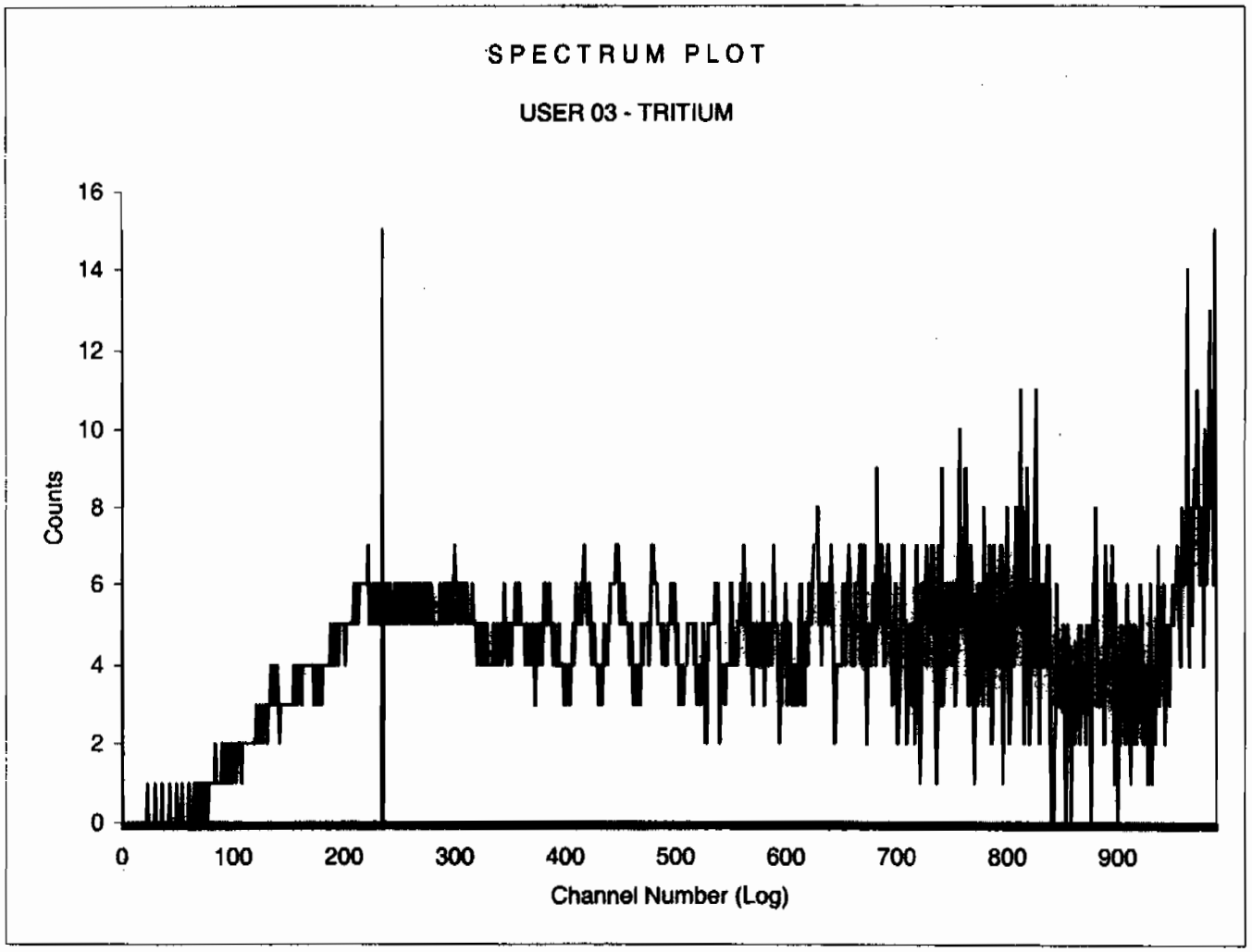

Filename: 12:35 PMab

Instrument Type	LS 6000
Data Capture Date	05 Jan 2010 00:32:24
User Filename	C:\LSCCAPTURE\GOLD\USER04\UN010501.BSF
User Number	4
User Id	TRITIUM
User Comments	GOLD
Scintillator Choice:	LIQUID

Sam	Rack	Time	H#	Raw CPM1	Raw CPM2	CPM Iso1	%Err1	CPM Iso2	%Err2	LumEx	ElTime
1	29-1	15.00	119.6	25.20	74.00	25.20	10.29	74.00	6.00	0.08	15.79

Sample Count Start Time:	5 Jan 2010 00:33:11		
Data Capture Date	05 Jan 2010 00:48:03		
User Filename	S04010529-1A.XLS		
	U04010529-1A.XLS		
Spectrum Type	Log Counts		
User Number	04		
User Id	TRITIUM		
User Comment	GOLD		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	1	29-1	15.00
H#, Total Counts:	119.6	1110	
Win1: Tritium - Start, End, Counts:	0	235	378
Win2: - Start, End, Counts:	0	990	1039

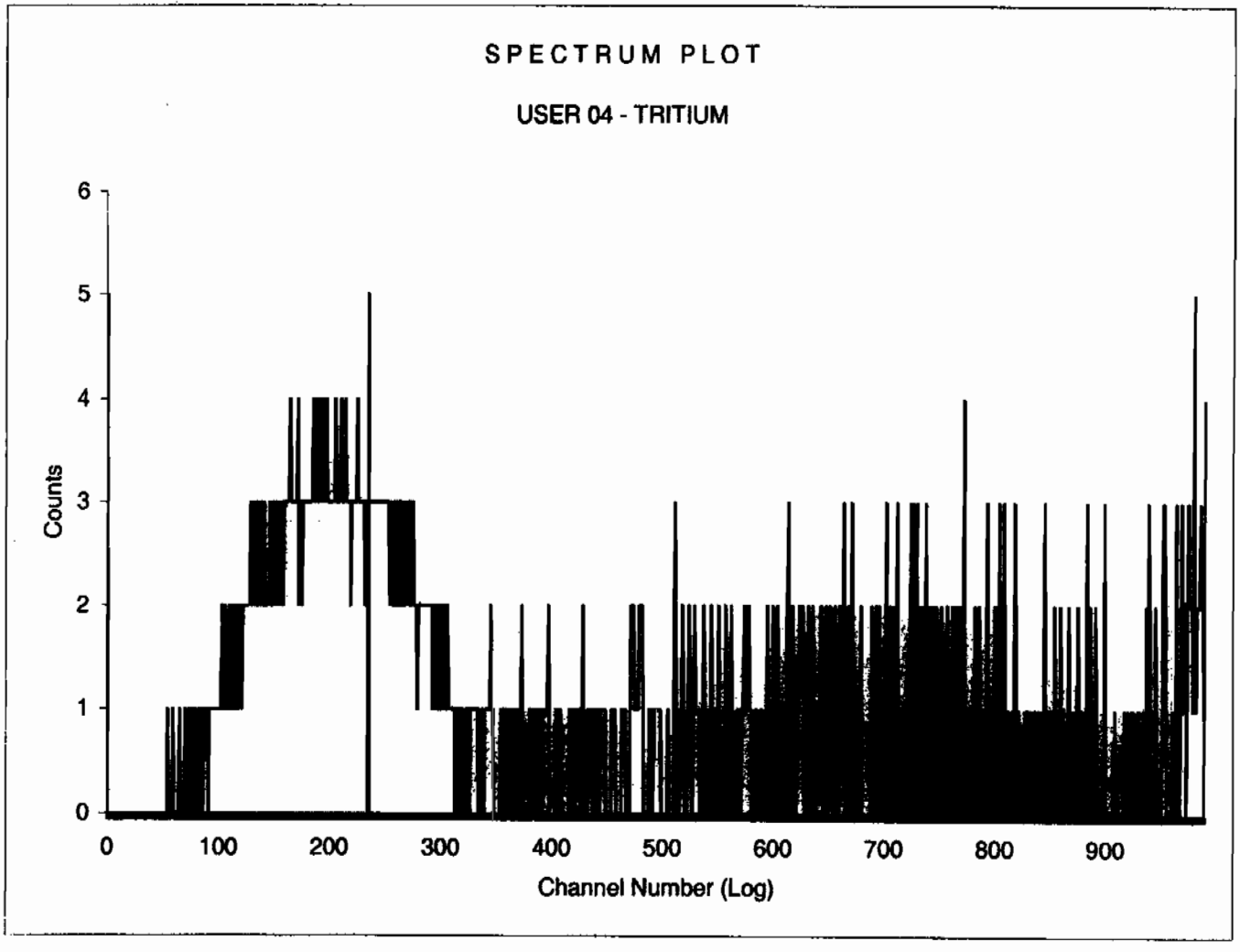

BACKGROUND AND EFFICIENCY DATA

LSCGOLD BKG

Generated 01/05/2010

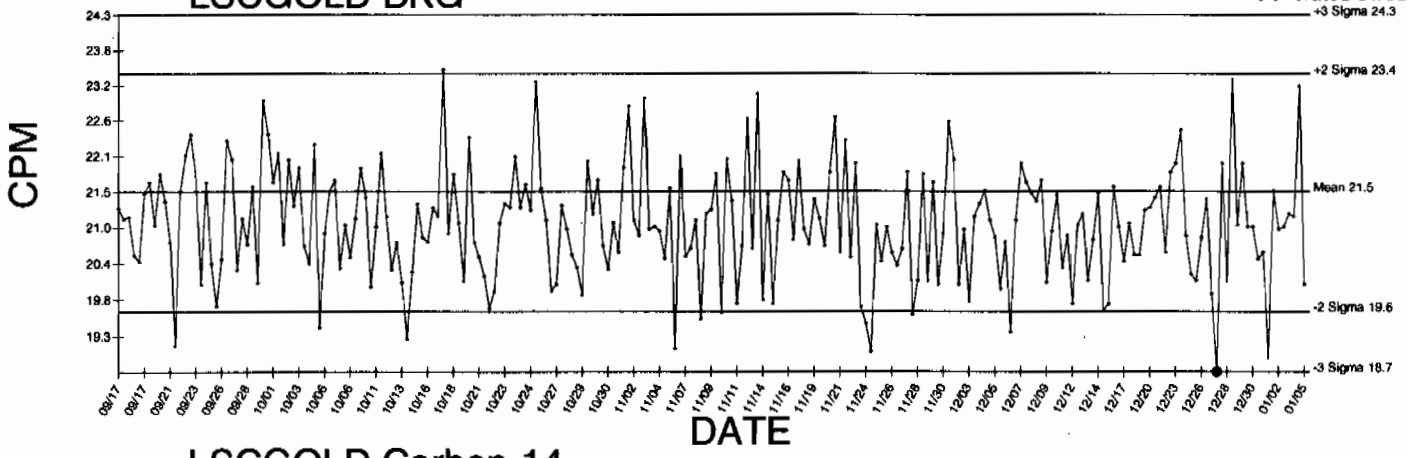

LSCGOLD Carbon-14

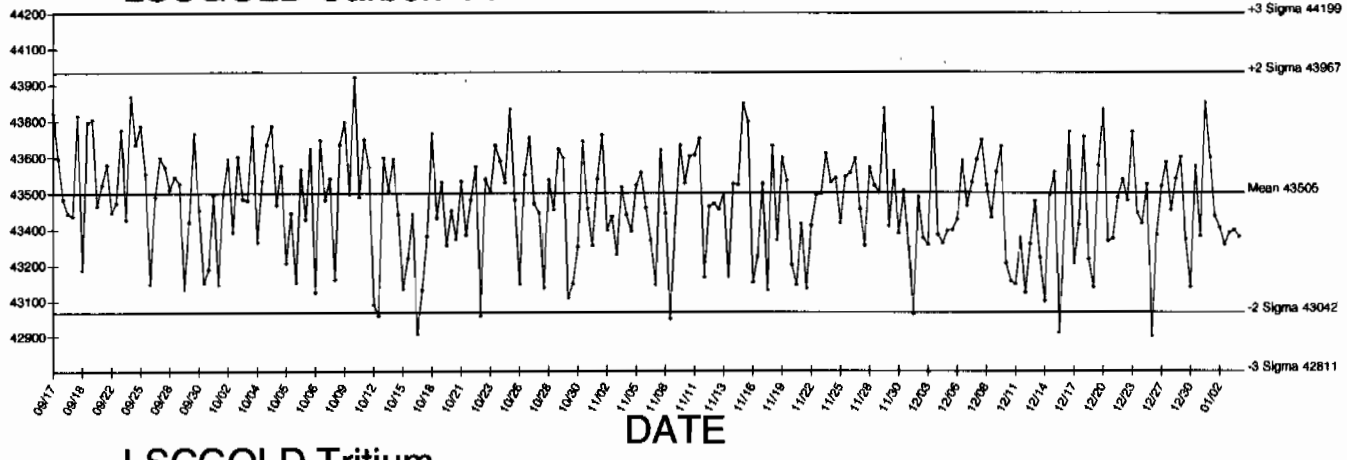

LSCGOLD Tritium

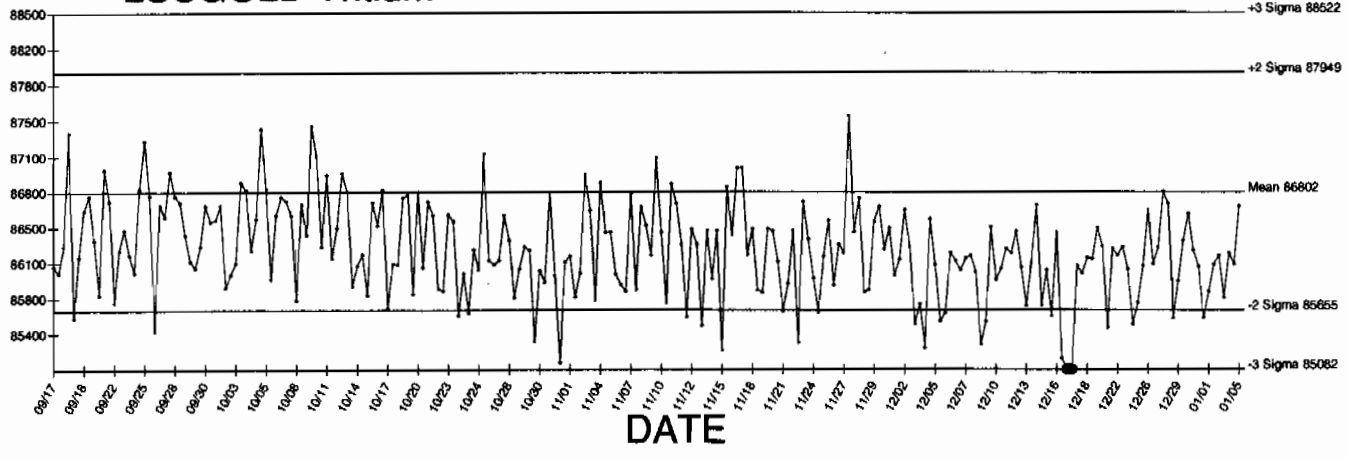

● Denotes Outlier

LSCSILVER BKG

Generated 01/05/2010

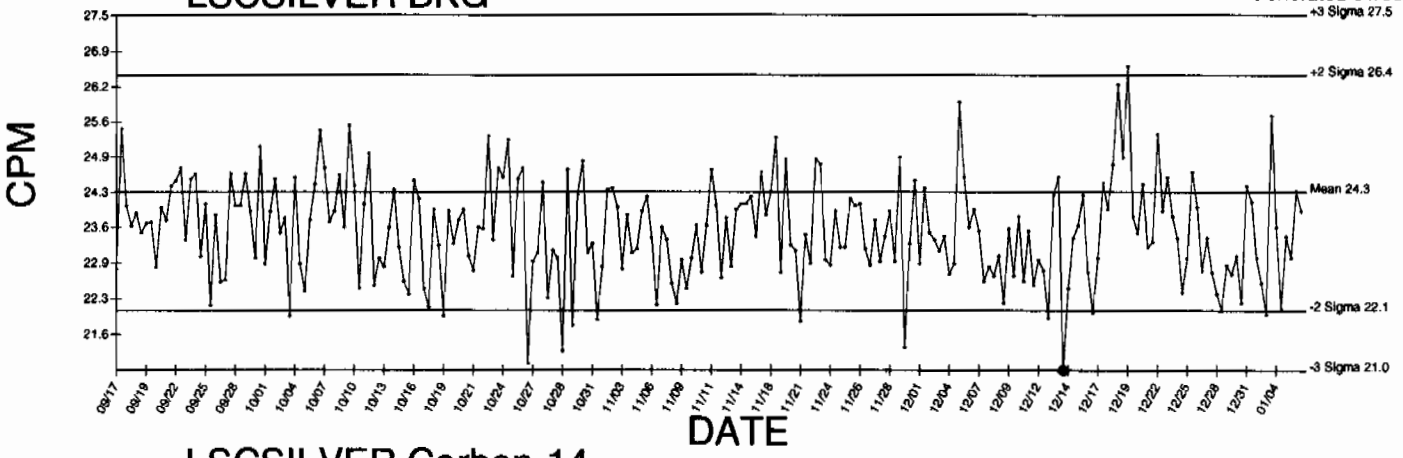

LSCSILVER Carbon-14

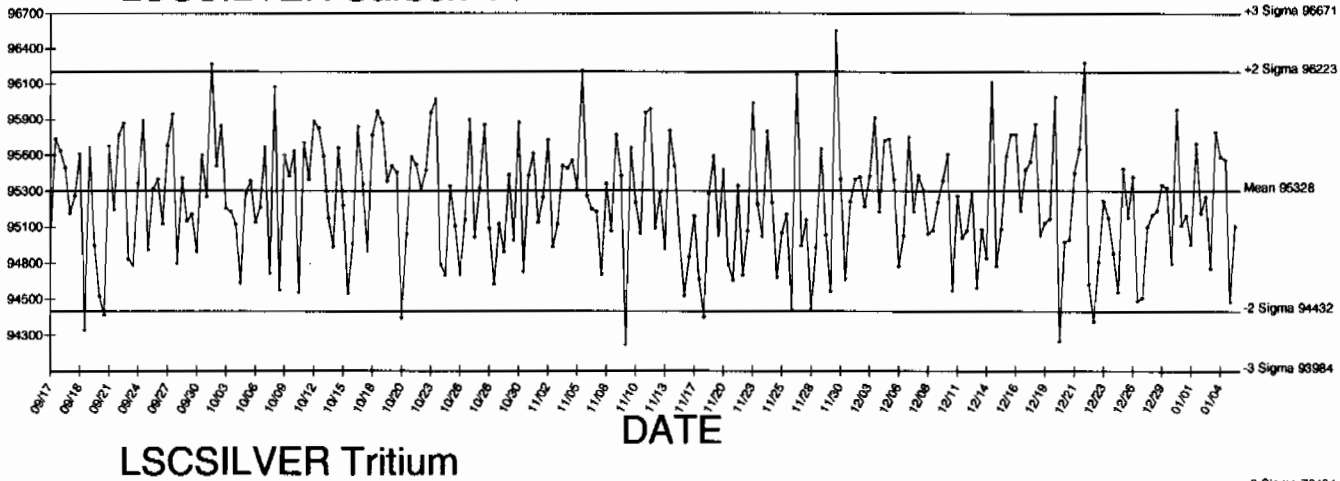

LSCSILVER Tritium

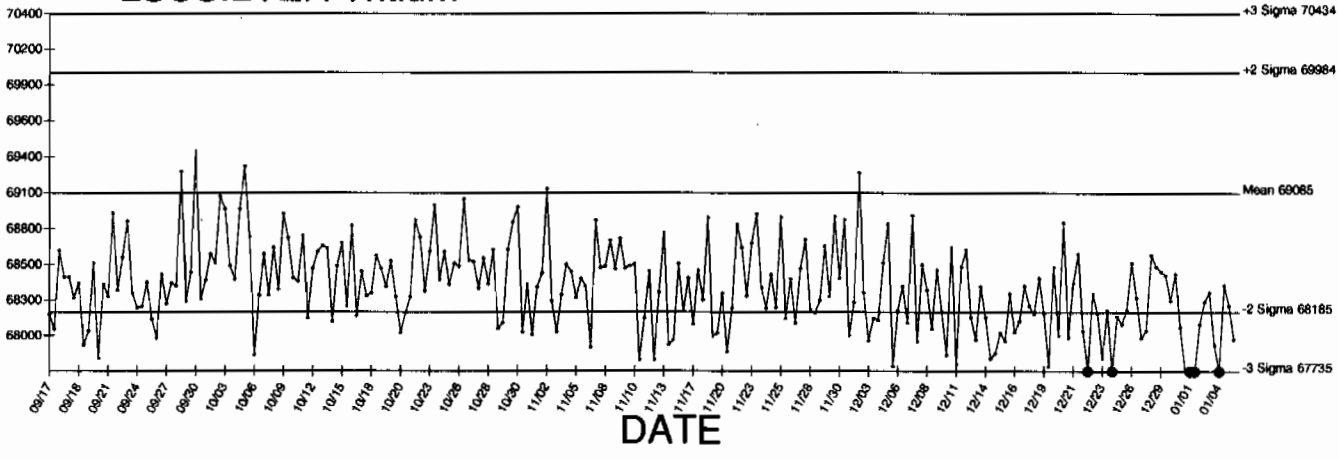

● Denotes Outlier

STANDARDS DATA

Amersham International plc
Amersham Laboratories

0134

NAMAS
CALIBRATION
No. 0146

[redacted]

Description	Radionuclide: TRITIUM (HYDROGEN-3)		Product code: TRY·64
	Chemical form: water		Batch: 111
Measurement	Reference time:	1200 GMT on 1 March 1996	
	Radioactive concentration of tritium:	488.0	kilobecquerels per gram of water
	which is equivalent to:	13.19	microcuries per gram of water
	or:	2.93×10^7	disintegrations per minute per gram of water

Method of Measurement
This reference material was calibrated by direct comparison with a standard of tritium-labelled water obtained from the National Institute of Standards and Technology, USA.

Accuracy

The OVERALL UNCERTAINTY of the result quoted above is estimated to be less than ±2.5%

This estimate of uncertainty was calculated in accordance with the recommendations of the International Commission on Radiation Units and Measurements (ICRU Report 12). The limits of uncertainty were taken as the arithmetic sum of the uncertainty due to random variations, calculated at the 99·7% confidence level, and the estimated systematic uncertainties.

Purity

No radioactive impurities were detected. (Impurities with total activity greater than 0.001% of the activity of the tritium would have been detected).

Physical Data

Half-life of tritium: 12·43 ± 0·11 years

Maximum beta energy of tritium: 18·6 keV

Remarks:

The S.I. unit of radioactivity is the becquerel.

1 becquerel (Bq) = 1 nuclear transformation per second, therefore
1 curie (Ci) = $3{\cdot}7 \times 10^{10}$ becquerels exactly.

Useful conversion factors are:

1 microcurie (μCi) = $3{\cdot}7 \times 10^4$ Bq = 37 kilobecquerels (kBq)

1 kilobecquerel (kBq) = 27·027 nanocuries (nCi)

This product meets the quality assurance requirements of NRC Regulatory Guide 4.15 for achieving implicit NIST (NBS) traceability as defined in NCRP58 (1985).

Approved signatory

W. F. Case

RC-5-024-061

W.F. Case

Amersham
The Health Science Group

Standard Traceability Log Rad

Source Material Info	
Parent Code:	0134
Prepared By:	Angela Johnson
Carrier Conc:	DI WATER
Reference Date:	03/01/1996
Ampoule Mass (g):	5 g
Uncertainty:	+/- 2.5 %
LogBook No:	RC S 023 061

A Solution Material Info	
Isotope:	Tritium
Prepared By:	Angela Johnson
Prep Date:	02/21/2001
Verification Date:	09/10/2008
Expiration Date:	03/27/2010
Primary Code:	0134-A
Dilution(mL):	100 mL
Mass of Parent(g):	3.3659 g
Density(g/mL):	1.0004
Balance ID:	38080204

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (kBq/g)) * (conversion dpm to kBq) / (Dilution Vol) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (kBq/g)) * (conversion dpm to kBq) / Density (g/mL)/ (Dilution Vol) = Parent Activity (dpm/g)
(3.3659 g) * (488 kBq/g) * (60000 dpm/kBq) / (100 mL) = 985535.5200 dpm/mL
(3.3659 g) * (488 kBq/g) * (60000 dpm/kBq) / (1.0004 g/mL) / (100 mL) = 985180.3116 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date
07/20/2004	Amanda Fehr	5.86	1000	0134-H	5773.1566 dpm/mL	07/25/2006	07/25/2007
12/20/2005	Amanda Fehr	5.5451	1000	0134-I	5462.92 dpm/mL	12/20/2006	12/20/2007
07/11/2007	Daniel Roy	5.5863	1000	0134-J	5503.5128 dpm/ml	07/29/2008	07/29/2009
03/25/2009	Mary Aders	5.4917	1000	0134-K	5410.3147 dpm/ml	03/27/2009	03/27/2010

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for H-3 Standard 0134-K

M. Aders	Isotope	Detector CPM	BKG CPM	NET CPM	Detector Eff	Standard Mass. Used (mL)	Source DPM/mL
4/9/2009	0134-K N1	1097.2000	54.0000	1043.2000	0.380548	1.0000	2741.3099
	0134-K N2	1073.2000	54.0000	1019.2000	0.380548	1.0000	2678.242955
	0134-K N3	1085.2000	54.0000	1031.2000	0.380548	1.0000	2709.776428
						Average =	2709.776428
Mean Value (Counting) =	2709.776428		**104.954429**	**Pass**			
Stdev =	31.53347278		0.01163693	**Rule 3 (Pass/Fail)**			

Certificate Value =	2581.86	dpm/mL
Lower Limit =	2646.709482	dpm/mL
Upper Limit =	2772.843373	dpm/mL
Rule 1 Pass/Fail	**Fail**	***exception taken due to full recovery of standard**
Two sigma =	63.06694556	dpm/mL
10 % of Mean =	270.9776428	dpm/mL
Rule 2 (Pass/Fail)	**Pass**	

Verification Rules

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 10% of the certificate value.

The analyst prepared three standard verification sources for H-3 source 0134-K by transferring 0.1 mL portions of the standard into glass liquid scintillation vials. Ten mL of Ecoscint Ultra liquid scintillation cocktail was added to each vial and the vials were shaken to mix. A Blank vial was prepared in a similar fashion using 1 mL of DI water and 10 mL of Ecoscint Ultra liquid scintillation cocktail. The standard verification vials and Background source were dark adapted for two hours and counted on Silver for H-3 source standard verification. The H-3 efficiency calibration which was used for verification calculations was performed on 4/9/09 using 0020-A (H-3). Calibration data is recorded in this logbook under H-3 0020. Each verification source calculation was performed as follows:

Source dpm/g = (A - B)/(C)(D)
where:
A = Ver. source cpm,
B = BKG cpm,
C = System efficiency, (cpm/dpm), and
D = mass used for standard verification.

Reference RAD SOP M-001

Mary Fr. Adams 4/9/09
Amanda L. Tech 4/9/09

RUNLOGS

Instrument Run Log

Instrument Type: LSC **Batch ID: 935212**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
243042003	SAMPLE	KXK2	LSCGOLD	04-JAN-10 09:52	DONE	10mL DW/13mL Ecoscint Ultra	20-AUG-09 00:00
242938001	SAMPLE	KXK2	LSCSILVER	04-JAN-10 10:22	DONE	10mL DW/13mL Ecoscint Ultra	21-AUG-09 00:00
243042004	SAMPLE	KXK2	LSCGOLD	04-JAN-10 11:30	DONE	10mL DW/13mL Ecoscint Ultra	20-AUG-09 00:00
242938002	SAMPLE	KXK2	LSCSILVER	04-JAN-10 12:00	DONE	10mL DW/13mL Ecoscint Ultra	21-AUG-09 00:00
243042005	SAMPLE	KXK2	LSCGOLD	04-JAN-10 13:08	DONE	10mL DW/13mL Ecoscint Ultra	20-AUG-09 00:00
242938003	SAMPLE	KXK2	LSCSILVER	04-JAN-10 13:38	DONE	10mL DW/13mL Ecoscint Ultra	21-AUG-09 00:00
243042006	SAMPLE	KXK2	LSCGOLD	04-JAN-10 14:46	DONE	10mL DW/13mL Ecoscint Ultra	20-AUG-09 00:00
242938004	SAMPLE	KXK2	LSCSILVER	04-JAN-10 15:16	DONE	10mL DW/13mL Ecoscint Ultra	21-AUG-09 00:00
243042007	SAMPLE	KXK2	LSCGOLD	04-JAN-10 16:24	DONE	10mL DW/13mL Ecoscint Ultra	20-AUG-09 00:00
242938005	SAMPLE	KXK2	LSCSILVER	04-JAN-10 16:54	DONE	10mL DW/13mL Ecoscint Ultra	21-AUG-09 00:00
243042008	SAMPLE	KXK2	LSCGOLD	04-JAN-10 18:02	DONE	10mL DW/13mL Ecoscint Ultra	20-AUG-09 00:00
242938006	SAMPLE	KXK2	LSCSILVER	04-JAN-10 18:32	DONE	10mL DW/13mL Ecoscint Ultra	21-AUG-09 00:00
243042009	SAMPLE	KXK2	LSCGOLD	04-JAN-10 19:40	DONE	10mL DW/13mL Ecoscint Ultra	20-AUG-09 00:00
242938007	SAMPLE	KXK2	LSCSILVER	04-JAN-10 20:10	DONE	10mL DW/13mL Ecoscint Ultra	21-AUG-09 00:00
1202000958	MB	KXK2	LSCGOLD	04-JAN-10 21:18	DONE	10mL DW/13mL Ecoscint Ultra	20-AUG-09 00:00
242938008	SAMPLE	KXK2	LSCSILVER	04-JAN-10 21:48	DONE	10mL DW/13mL Ecoscint Ultra	21-AUG-09 00:00
1202000959	DUP	KXK2	LSCGOLD	04-JAN-10 22:56	DONE	10mL DW/13mL Ecoscint Ultra	20-AUG-09 00:00
242938009	SAMPLE	KXK2	LSCSILVER	04-JAN-10 23:26	DONE	10mL DW/13mL Ecoscint Ultra	21-AUG-09 00:00
1202000960	LCS	KXK2	LSCGOLD	05-JAN-10 00:33	DONE	10mL DW/13mL Ecoscint Ultra	20-AUG-09 00:00
243042001	SAMPLE	KXK2	LSCSILVER	05-JAN-10 01:05	DONE	10mL DW/13mL Ecoscint Ultra	21-AUG-09 00:00
243042002	SAMPLE	KXK2	LSCSILVER	05-JAN-10 02:43	DONE	10mL DW/13mL Ecoscint Ultra	21-AUG-09 00:00

Tuesday, December 15, 2009

REQUEST NUMBER: 10-940

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

These Samples are on:

LANL Request Number:10-940

Per Agreement Number:126310011

Project Cost Code: MR2A054196D0

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 12/15/2009

TURNAROUND/REPORT DUE: 1/14/2010

TURNAROUND REQ'D: 30 Days

RAD SCREENING: Not Required

LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:

Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8015M_EXTRACTABLE	1	RE03-09-14208	S	12/14/2009	
		1	RE03-09-14209	S	12/14/2009	
		1	RE03-09-14210	S	12/14/2009	
		1	RE03-09-14211	S	12/14/2009	

Tuesday, December 15, 2009

REQUEST NUMBER: 10-940

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8015M_EXTRACTABLE	1	RE03-09-14220	S	12/14/2009	
		1	RE03-09-14221	S	12/14/2009	
		1	RE03-09-14222	S	12/14/2009	
		1	RE03-09-14223	S	12/14/2009	
		1	RE03-10-2734	S	12/14/2009	
	SW-846:8082	1	RE03-09-14220	S	12/14/2009	
		1	RE03-09-14221	S	12/14/2009	
		1	RE03-10-2734	S	12/14/2009	
	SW-846:8260B	1	RE03-09-14208	S	12/14/2009	
		1	RE03-09-14209	S	12/14/2009	
		1	RE03-09-14210	S	12/14/2009	
		1	RE03-09-14211	S	12/14/2009	
		1	RE03-09-14220	S	12/14/2009	
		1	RE03-09-14221	S	12/14/2009	
		1	RE03-09-14222	S	12/14/2009	
		1	RE03-09-14223	S	12/14/2009	
		1	RE03-10-2734	S	12/14/2009	
		1	RE03-10-8963	S	12/14/2009	
	SW-846:8270C	1	RE03-09-14208	S	12/14/2009	
		1	RE03-09-14209	S	12/14/2009	
		1	RE03-09-14210	S	12/14/2009	
		1	RE03-09-14211	S	12/14/2009	
		1	RE03-09-14220	S	12/14/2009	

Tuesday, December 15, 2009

REQUEST NUMBER: 10-940

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8270C	1	RE03-09-14221	S	12/14/2009	
		1	RE03-09-14222	S	12/14/2009	
		1	RE03-09-14223	S	12/14/2009	
		1	RE03-10-2734	S	12/14/2009	

Final Page of REQUEST NUMBER 10-940

Tuesday, December 15, 2009

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-940

REQUEST NUMBER: 10-940

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 1/14/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS:

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE03-09-14221	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-09-14221	1	GLASS	8270C+8082+TPH-DRO	Ice	S
RE03-09-14211	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-09-14211	1	GLASS	8270C+8082+TPH-DRO	Ice	S
RE03-09-14210	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-09-14210	1	GLASS	8270C+8082+TPH-DRO	Ice	S
RE03-09-14209	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-09-14209	1	GLASS	8270C+8082+TPH-DRO	Ice	S
RE03-09-14208	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-09-14208	1	GLASS	8270C+8082+TPH-DRO	Ice	S
RE03-09-14222	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-09-14222	1	GLASS	8270C+8082+TPH-DRO	Ice	S
RE03-09-14223	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-09-14223	1	GLASS	8270C+8082+TPH-DRO	Ice	S
RE03-09-14220	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-09-14220	1	GLASS	8270C+8082+TPH-DRO	Ice	S
RE03-10-2734	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-10-2734	1	GLASS	8270C+8082+TPH-DRO	Ice	S
RE03-10-8963	1	SEPTUM AMBER GLASS	8260B Trip Blank	Ice	S

Relinquished By:		Date	Time	Received By:		Date	Time
Printed Name	Signature	12/15/09	1400	Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

Received for DISPOSAL By:		Date	Time	Remarks:
Printed Name	Signature			

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

ıT ID: 2276 **EVENT NAME:** Soil Sampling at TA-60

SAMPLE ID: RE03-09-14208 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12-14-09	MEDIA:	NA	all H
TIME COLLECTED (HH:MM)		1210	SUB-MEDIA:	OTHER	NA
PRS ID:	60-004(f)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	03-608404	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	BH	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	1'	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	2'	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	S		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B ma 12/7/09	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C ~~+8082~~ TP H-DRO	500 ML GLASS	Ice	Y	
1		H3	500 ML POLY	Ice	Y	
1		Metals+CN - GEL	125 ML POLY	Ice	Y	

SAMPLE DESC: dk reddish brown sandy clay (5YR 3/4)

SAMPLE COMMENTS: NA

LOCATION DESC: 4(f)-1

FIELD SCREENING/MEASUREMENT RESULTS: PID = 2.8 ppm samples: < MDA
BACKGROUND
α: 17 DPM
β: 1461

COLLECTED BY (PRINT) L. Horne **REVIEWED BY (PRINT)** M. Rains

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) M. Rains (Signature) [signature]	12/14/09 1510	(Printed Name) Sherri Sherwood (Signature) Sherri Sherwood	12/14/09 1510
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name) (Signature)		(Printed Name) (Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2276 **EVENT NAME:** Soil Sampling at TA-60

SAMPLE ID: RE03-09-14209 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12-14-09	MEDIA:	NA	me 12/14/09 ~~QBT~~ H-QBT3
TIME COLLECTED (HH:MM)		1220	SUB-MEDIA:	OTHER	NA
PRS ID:	60-004(f)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	03-608404	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	BH	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	2'	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	3'	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	me 12/14/09 ~~SR~~		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B me 12/7/09	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C~~+8082~~+TPH-DRO	500 ML GLASS	Ice	Y	
1		H3	500 ML POLY	Ice	Y	
1		Metals+CN - GEL	125 ML POLY	Ice	Y	

SAMPLE DESC: reddish brown tuff (5 YR 5/4)

SAMPLE COMMENTS: Hit tuff @ 2.5'

LOCATION DESC: 4(f)-1

FIELD SCREENING/MEASUREMENT RESULTS: PID = 0.0 ppm Samples: < MDA
BACKGROUND
α: 17
β: 1461 DPM

COLLECTED BY (PRINT) M. Nauck **REVIEWED BY (PRINT)** M. Rains

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) M. Rains (Signature) [signature]	12/14/09 1510	(Printed Name) Sherri Sherwood (Signature) [signature]	12/10/09 1510
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name) (Signature)		(Printed Name) (Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2276 **EVENT NAME:** Soil Sampling at TA-60

SAMPLE ID: RE03-09-14210 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12-14-09	MEDIA:	NA	QBT3
TIME COLLECTED (HH:MM)		1227	SUB-MEDIA:	OTHER	NA
PRS ID:	60-004(f)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	03-608404	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	BH	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	~~3~~ 4'	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	12/11/09 ~~4~~ 5'	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	12/14/09 SR		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B ME 12/7/09	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C~~+8082~~+TPH-DRO	500 ML GLASS	Ice	Y	
1		H3	500 ML POLY	Ice	Y	
1		Metals+CN - GEL	125 ML POLY	Ice	Y	

SAMPLE DESC: Brown tuff (7.5 YR 5/4)

SAMPLE COMMENTS: NA

LOCATION DESC: 4(f)-1

FIELD SCREENING/MEASUREMENT RESULTS: PID = 0.0 ppm samples: < MDA
BACKGROUND
α: 17
β: 1461 DPM

COLLECTED BY (PRINT) L. Horne REVIEWED BY (PRINT) M. Rains

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) M. Rains (Signature) [signature]	12/14/09 1510	(Printed Name) Sherri Sherwood (Signature) Sherri Sherwood	12/14/09 1510
RELINQUISHED BY (Printed Name) (Signature)	Date/Time	RECEIVED BY (Printed Name) (Signature)	Date/Time

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2276 **EVENT NAME:** Soil Sampling at TA-60

SAMPLE ID: RE03-09-14211 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12-14-09	MEDIA:	NA	QBT3
TIME COLLECTED (HH:MM)		1255	SUB-MEDIA:	OTHER	NA
PRS ID:	60-004(f)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	03-608404	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	BH	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	9'	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0 ma 12/14/09	10'	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	~~S~~ R		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B ma 12/7/09	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+~~8082~~+TP H-DRO	500 ML GLASS	Ice	Y	
1		H3	500 ML POLY	Ice	Y	
1		Metals+CN - GEL	125 ML POLY	Ice	Y	

SAMPLE DESC: Brown tuff (7.5 YR 4/3)

SAMPLE COMMENTS: NA

LOCATION DESC: 04(f)-1

FIELD SCREENING/MEASUREMENT RESULTS: PID = 0.5 ppm samples: < MDA
BACKGROUND
α: 17
β: ~~1461~~ ma 12/14/09 1461 DPM

COLLECTED BY (PRINT) M. Nauck **REVIEWED BY (PRINT)** M. Rains

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) M. Rains (Signature) [signature]	12/14/09 1510	(Printed Name) Sherri Sherwood (Signature) Sherri Sherwood	12/14/09 1510
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name) (Signature)		(Printed Name) (Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2276 **EVENT NAME:** Soil Sampling at TA-60

SAMPLE ID: RE03-09-14220 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12-14-09	MEDIA:	NA	mp 12/14/09 ~~ok~~ all H
TIME COLLECTED (HH:MM)		0927	SUB-MEDIA:	OTHER	ok
PRS ID:	60-004(f)	ok	SAMPLE TECH CODE:	HA	
LOCATION ID:	03-608407		FIELD QC TYPE:	NA	
LOCATION TYPE:	BH		FIELD PREP:	NA	
TOP DEPTH:	0	1'	SAMPLE USAGE:	INV	
BOTTOM DEPTH:	0	2'	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	S		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+8082+TPH-DRO	500 ML GLASS	Ice	Y	
1		H3	500 ML POLY	Ice	Y	
1		Metals+CN - GEL	125 ML POLY	Ice	Y	

SAMPLE DESC: very dark brown clayey sand. (7.5 YR 2.5/2)

SAMPLE COMMENTS: sample interval began 3" beneath asphalt surface layer

LOCATION DESC: 4(f)-4

FIELD SCREENING/MEASUREMENT RESULTS: PID = 1.3 ppm samples: < MDA
BACKGROUND
α: 17
β: 1461 DPM

COLLECTED BY (PRINT) L. Horne REVIEWED BY (PRINT) M. Rains

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) M. Rains (Signature) [signature]	12/14/09 1510	(Printed Name) Sherri Sherwood (Signature) Sherri Sherwood	12/14/09 1510
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name) (Signature)		(Printed Name) (Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2276 **EVENT NAME:** Soil Sampling at TA-60

SAMPLE ID: RE03-09-14221 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12-14-09	MEDIA:	NA	all H
TIME COLLECTED (HH:MM)		0934	SUB-MEDIA:	OTHER	ok
PRS ID:	60-004(f)	ok	SAMPLE TECH CODE:	HA	
LOCATION ID:	03-608407		FIELD QC TYPE:	NA	
LOCATION TYPE:	BH		FIELD PREP:	NA	
TOP DEPTH:	0	2'	SAMPLE USAGE:	INV	
BOTTOM DEPTH:	0	3'	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	S		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+8082+TPH-DRO	500 ML GLASS	Ice	Y	
1		H3	500 ML POLY	Ice	Y	
1		Metals+CN - GEL	125 ML POLY	Ice	Y	

SAMPLE DESC: Brown clay (7.5 YR 4/4)

SAMPLE COMMENTS: NA

LOCATION DESC: 4(f)-4

FIELD SCREENING/MEASUREMENT RESULTS: PID = 0.0 ppm samples: < MDA
BACKGROUND
α: 17 DPM
β: 1461

COLLECTED BY (PRINT) L. Horne **REVIEWED BY (PRINT)** M. Rains

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) M. Rains (Signature) [signature]	12/14/09 1510	(Printed Name) Sherri Sherwood (Signature) Sherri Sherwood	12/14/09 1510
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name) (Signature)		(Printed Name) (Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2276 **EVENT NAME:** Soil Sampling at TA-60

SAMPLE ID: RE03-09-14222 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12-14-09	MEDIA:	NA	ale H
TIME COLLECTED (HH:MM)		1010	SUB-MEDIA:	OTHER	NA
PRS ID:	60-004(f)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	03-608407	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	BH		FIELD PREP:	NA	
TOP DEPTH:	0	4'	SAMPLE USAGE:	INV	
BOTTOM DEPTH:	0	5'	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	S		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B me 12/17/09	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+~~8082~~+TP H-DRO	500 ML GLASS	Ice	Y	
1		H3	500 ML POLY	Ice	Y	
1		Metals+CN - GEL	125 ML POLY	Ice	Y	

SAMPLE DESC: sandy clay. reddish brown (5YR 4/4)

SAMPLE COMMENTS:

LOCATION DESC: 4 (f)-4

FIELD SCREENING/MEASUREMENT RESULTS: PID = 0.0 ppm Samples: < MDA
BACKGROUND
α: 17
β: 1461 DPM

COLLECTED BY (PRINT) L. Horne **REVIEWED BY (PRINT)** M. Rains

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) M. Rains (Signature) [signature]	12/14/09 1510	(Printed Name) Sherri Sherwood (Signature) Sherri Sherwood	12/14/09 1510
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name) (Signature)		(Printed Name) (Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2276 **EVENT NAME:** Soil Sampling at TA-60

SAMPLE ID: RE03-09-14223 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12-14-09	MEDIA:	NA	QBT3
TIME COLLECTED (HH:MM)		1040	SUB-MEDIA:	OTHER	NA
PRS ID:	60-004(f)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	03-608407	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	BH	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	9'	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	10'	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	mR 12/14/09 & R		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B mR 12/7/09	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+~~8082~~+TPH-DRO	500 ML GLASS	Ice	Y	
1		H3	500 ML POLY	Ice	Y	
1		Metals+CN - GEL	125 ML POLY	Ice	Y	

SAMPLE DESC: dusky red tuff (10 R 3/4)

SAMPLE COMMENTS: Hit tuff @ 8'

LOCATION DESC: 4 (f) - 4

FIELD SCREENING/MEASUREMENT RESULTS: PID = 0.0 ppm Samples: LMDA
BACKGROUND
α: 17
β: 1461 DPM

COLLECTED BY (PRINT) M. Rains

REVIEWED BY (PRINT) ~~M. Rains~~ M. Nauck MN 12-14-09

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) M. Nauck	12-14-09	(Printed Name) Sherri Sherwood	12-14-09
(Signature)	1510	(Signature) Sherri Sherwood	1510
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2276 **EVENT NAME:** Soil Sampling at TA-60

SAMPLE ID: RE03-10-2734 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12-14-09	MEDIA:	ALLH	ok
TIME COLLECTED (HH:MM)		1010	SUB-MEDIA:	SOIL	
PRS ID:	60-004(f)	ok	SAMPLE TECH CODE:	HA	
LOCATION ID:	UNK	03-608407	FIELD QC TYPE:	FD	
LOCATION TYPE:	GENERIC	ok	FIELD PREP:	NA	
TOP DEPTH:	0	4'	SAMPLE USAGE:	QC	
BOTTOM DEPTH:	0	5'	SCREEN/PORT DESC:		NA
FIELD MATRIX:	S		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+8082+TPH-DRO	500 ML GLASS	Ice	Y	
1		H3	500 ML POLY	Ice	Y	
1		Metals+CN - GEL	125 ML POLY	Ice	Y	

SAMPLE DESC: QC Sample of RE03-09-14222

SAMPLE COMMENTS: NA

LOCATION DESC: NA

FIELD SCREENING/MEASUREMENT RESULTS: PID = 0.0 ppm
BACKGROUND
α: 17 DPM
β: 1461

COLLECTED BY (PRINT) M. Rains

REVIEWED BY (PRINT) ~~M. Rains~~ 12-14-09 M. Nauck M. Nauck

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) M. Nauck	12-14-09	(Printed Name) Sherri Sherwood	12-14-09
(Signature)	1510	(Signature) Sherri Sherwood	1510
RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2276 **EVENT NAME:** Soil Sampling at TA-60

SAMPLE ID: RE03-10-2748 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12-14-09	MEDIA:	NA	ok
TIME COLLECTED (HH:MM)		1126	SUB-MEDIA:	OTHER	
PRS ID:	60-004(f)	ok	SAMPLE TECH CODE:	DC	
LOCATION ID:	UNK	03-608407	FIELD QC TYPE:	FB	
LOCATION TYPE:	GENERIC	ok	FIELD PREP:	UF	
TOP DEPTH:	0		SAMPLE USAGE:	QC	
BOTTOM DEPTH:	0		SCREEN/PORT DESC:	NA	
FIELD MATRIX:	W		EXCAVATED: YES / NO (NA)		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO (NA)

BOREHOLE: YES / NO / (NA) BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		METALS-GEL	1 LITER POLY	Nitric Acid	Y	
1		TCN	500 ML POLY	Sodium Hydroxide	Y	

SAMPLE DESC: QC Sample of RE03-09-14223

SAMPLE COMMENTS: NA

LOCATION DESC: NA

FIELD SCREENING/MEASUREMENT RESULTS: NA

COLLECTED BY (PRINT) M. Nauck **REVIEWED BY (PRINT)** M. Rains

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) M. Rains (Signature) [signature]	12/14/09 1510	(Printed Name) Sherri Sherwood (Signature) Sherri Sherwood	12/14/09 1510
RELINQUISHED BY (Printed Name) (Signature)	**Date/Time**	**RECEIVED BY** (Printed Name) (Signature)	**Date/Time**

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2276 **EVENT NAME:** Soil Sampling at TA-60

SAMPLE ID: RE03-10-2760 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12-14-09	MEDIA:	NA	ok
TIME COLLECTED (HH:MM)		1128	SUB-MEDIA:	OTHER	
PRS ID:	60-004(f)	ok	SAMPLE TECH CODE:	DC	
LOCATION ID:	UNK	03-608407	FIELD QC TYPE:	FR	
LOCATION TYPE:	GENERIC	ok	FIELD PREP:	UF	
TOP DEPTH:	0		SAMPLE USAGE:	QC	
BOTTOM DEPTH:	0		SCREEN/PORT DESC:		NA
FIELD MATRIX:	W		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		METALS-GEL	1 LITER POLY	Nitric Acid	Y	
1		TCN	500 ML POLY	Sodium Hydroxide	Y	

SAMPLE DESC: QC Sample of RE08-09-14223

SAMPLE COMMENTS: NA

LOCATION DESC: NA

FIELD SCREENING/MEASUREMENT RESULTS: NA

COLLECTED BY (PRINT) M. Nauck **REVIEWED BY (PRINT)** M. Rains

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) M. Rains (Signature) [signature]	12/14/09 1510	(Printed Name) Sherri Sherwood (Signature) Sherri Sherwood	12/14/09 1510
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name) (Signature)		(Printed Name) (Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2276 **EVENT NAME:** Soil Sampling at TA-60

SAMPLE ID: RE03-10-8963 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12-14-09	MEDIA:	NA	Ok
TIME COLLECTED (HH:MM)		1400	SUB-MEDIA:	OTHER	
PRS ID:	60-004(f)	Ok	SAMPLE TECH CODE:	DC	
LOCATION ID:	UNK		FIELD QC TYPE:	FTB	
LOCATION TYPE:	GENERIC		FIELD PREP:	NA	
TOP DEPTH:	0		SAMPLE USAGE:	QC	
BOTTOM DEPTH:	0		SCREEN/PORT DESC:	NA	
FIELD MATRIX:	S		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
~~2~~ 1	MN 12-14-09	8260B Trip Blank	40 ML SEPTUM AMBER GLASS	Ice	Y	

SAMPLE DESC: QC Sample of ~~WS70~~ MN 12-14-09 RE03-09-14215

SAMPLE COMMENTS: NA

LOCATION DESC: NA

FIELD SCREENING/MEASUREMENT RESULTS: NA

COLLECTED BY (PRINT) M. Rains

REVIEWED BY (PRINT) M. Nauck

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) M. Nauck	12-14-09	(Printed Name) Sherri Sherwood	12-14-09
(Signature)	1510	(Signature) Sherri Sherwood	1510
RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

DATA VALIDATION COVER SHEET

5114-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-940 VALIDATION DATE: 02/09/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Peter Steves ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☒ OTHER (DESCRIBE): VOCs

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☒	☐	☐	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☒	☐	☐	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. In the FTB, sample RE03-10-8963, associated with all samples, acetone was detected. The associated result for sample -09-14223 was an ND and, thus, was not qualified. All other associated sample results were detects ≤10X the FTB concentration and, thus, were qualified U,V4d.
2. The ICV %Ds were >20% for acetone, 2-butanone and 2-hexanone. All associated sample results except the acetone result for sample -10-8963 were NDs or were qualified NDs and, thus, were qualified UJ,V7c. The acetone result for sample -10-8963 was a detect and, thus, was qualified J,V7c.
3. The surrogate %R was > the laboratory UAL for 4-bromofluorobenzene in sample -09-14220. The cis-1,2-dichloroethylene; benzene; trichloroethylene; toluene; m,p-xylenes; 1,3,5-trimethylbenzene and 1,2,4-trimethylbenzene were detects and, thus, were qualified J+,V3b. All other associated sample results were either NDs or were qualified ND and, thus, were not qualified.

Reviewed by: Mary Donivan Level: I Date: 02/09/10

VALIDATOR'S SIGNATURE: Mr. Peter Steves DATE: 02/09/10

DATA VALIDATION COVER SHEET	
5114-1 **Data Validation Cover Sheet**	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943
Form 5114-1, Revision 0.0	LOS ALAMOS Environmental Restoration Project

VOLATILE ORGANIC COMPOUND (VOC) ANALYTICAL DATA VALIDATION CHECKLIST

5114-2

Volatile Organic Compound (VOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, V9	J-, V9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, V9a	J-, V9a
☐	☐	☒	3. The instrument performance sample did not pass method acceptance criteria.	R, V16	R, V16
☐	☐	☒	4. Samples were analyzed outside specific method tune time criteria.	N/A	J, V16b
☐	☐	☒	5. The required instrument performance sample information is missing. Contact the SMO or external laboratory for information.	R, V16c	R, V16c
☐	☒	☐	6. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ or R, V7	J, V7
☐	☒	☐	7. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, V7a	J, V7a
☐	☒	☐	8. The affected analytes were analyzed with an RRF of <0.05 in the initial calibration and/or CCV.	R, V7b	J, V7b
☒	☐	☐	9. The Initial Calibration Verification (ICV) and/or Continuing Calibration Verification (CCV) were recovered outside the method-specific limits.	UJ, V7c	J, V7c
☐	☒	☐	10. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, V7d	J, V7d
☐	☒	☐	11. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, V7f	R, V7f

VOLATILE ORGANIC COMPOUND (VOC) ANALYTICAL DATA VALIDATION CHECKLIST

5114-2

Volatile Organic Compound (VOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	12. The sample result is ≤5X (10X for common organic laboratory contaminants) the concentration of the related analyte in the method blank.	U, V4	N/A
☐	☒	☐	13. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X (10X for common laboratory contaminants).	N/A	J, V4a
☒	☐	☐	14. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, and/or equipment blank.	U, V4d	N/A
☐	☒	☐	15. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V4e	R, V4e
☐	☒	☐	16. The IS retention time has shifted by more than 30 seconds.	UJ, V0	J, V0
☐	☐	☒	17. Analyte is positively confirmed but outside the IS retention time window; however, spectral matches must be provided.	N/A	J, V0a
☐	☒	☐	18. Required IS retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V0b	R, V0b
☐	☐	☒	19. The quantitating IS are count is <10% of the expected value, which indicates increased potential for false negative results and other possible problems with sample quantitation. Follow method-specific windows.	R, V1a	J, V1a
☐	☐	☒	20. The IS area count for the quantitating IS is <50% but >10% for organics window relation to the previous continuing calibration. Follow the method-specific windows.	UJ, V1b	J, V1b

VOLATILE ORGANIC COMPOUND (VOC) ANALYTICAL DATA VALIDATION CHECKLIST

5114-2

Volatile Organic Compound (VOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	21. The IS area count for the quantitating IS is >200% of the area count for the previous organic continuing calibration. Follow the method-specific windows.	UJ, V1c	J, V1c
☐	☐	☒	22. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V1d	R, V1d
☐	☒	☐	23. The surrogate is <10%R. Follow the external laboratory limits located within the associated data package.	R, V3	J-, V3
☐	☒	☐	24. The surrogate is < the Lower Acceptance Limit (LAL) but ≥10%R. Follow the external laboratory limits located within the associated data package.	UJ, V3a	J-, V3a
☒	☐	☐	25. The surrogate %R is > the Upper Acceptance Limit (UAL) Follow the external laboratory limits located within the associated data package.	N/A	J+, V3b
☐	☒	☐	26. At least one surrogate is > the UAL and one surrogate is < the LAL. Follow the external laboratory limits located within the associated data package.	UJ, V3c	J, V3c
☐	☒	☐	27. Required surrogate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V3d	R, V3d
☐	☒	☐	28. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, V12	J-, V12
☐	☒	☐	29. The LCS percent recovery was < the LAL but > 10%. Follow the external laboratory limits located within the associated data package.	UV, V12a	J-, V12a
☐	☒	☐	30. The LCS percent recover was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, V12b

VOLATILE ORGANIC COMPOUND (VOC) ANALYTICAL DATA VALIDATION CHECKLIST

5114-2 Volatile Organic Compound (VOC) Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	31. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V12c	R, V12c
☐	☒	☐	32. The affected analyte is considered not detected because mass spectrum did not meet specifications.	N/A	U, V8
☐	☒	☐	33. The mass spectrum column documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V8a	R, V8a
☐	☒	☐	34. Duplicate, dilution, or reanalysis.	UJ, V88	J, V88
☐	☐	☒	35. The affected analytes have elevated detection limits and may not meet project DQOs because the sample was diluted without any target analytees identified due to matrix interference. Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.	UJ, R, V15	R, V15
☒	☐	☐	36. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB, NQ, NQ
☐	☒	☐	37. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.	UJ, R, V19	J, R, V19

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-940	**Date Collected:**	12/14/2009 12:00	**Matrix:**	S
Lab Sample ID:	243033005	**Date Received:**	12/16/2009 09:10	**%Moisture:**	12.8
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14208	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	936119	**Inst:**	VOA4.I	**Dilution:**	1
Run Date:	12/23/2009 03:21	**Analyst:**	ACJ	**Purge Vol:**	5 mL
Prep Date:	12/22/2009 22:46	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	4q217.d	**Column:**	RTX-VOLATILES	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
75-71-8	Dichlorodifluoromethane	U	1.15	ug/kg	0.390	1.15	
74-87-3	Chloromethane	U	1.15	ug/kg	0.344	1.15	
75-01-4	Vinyl chloride	U	1.15	ug/kg	0.344	1.15	
74-83-9	Bromomethane	U	1.15	ug/kg	0.344	1.15	
75-00-3	Chloroethane	U	1.15	ug/kg	0.344	1.15	
75-69-4	Trichlorofluoromethane	U	1.15	ug/kg	0.344	1.15	
67-64-1	Acetone	J	4.60	ug/kg	1.90	5.73	U,V4d
75-35-4	1,1-Dichloroethylene	U	1.15	ug/kg	0.344	1.15	
74-88-4	Iodomethane	U	5.73	ug/kg	1.83	5.73	
75-09-2	Methylene chloride	U	5.73	ug/kg	2.29	5.73	
75-15-0	Carbon disulfide	U	5.73	ug/kg	1.43	5.73	
156-60-5	trans-1,2-Dichloroethylene	U	1.15	ug/kg	0.344	1.15	
75-34-3	1,1-Dichloroethane	U	1.15	ug/kg	0.344	1.15	
78-93-3	2-Butanone	U	5.73	ug/kg	1.72	5.73	UJ,V7c
156-59-2	cis-1,2-Dichloroethylene	U	1.15	ug/kg	0.344	1.15	
594-20-7	2,2-Dichloropropane	U	1.15	ug/kg	0.344	1.15	
67-66-3	Chloroform	U	1.15	ug/kg	0.344	1.15	
74-97-5	Bromochloromethane	U	1.15	ug/kg	0.378	1.15	
71-55-6	1,1,1-Trichloroethane	U	1.15	ug/kg	0.344	1.15	
563-58-6	1,1-Dichloropropene	U	1.15	ug/kg	0.344	1.15	
56-23-5	Carbon tetrachloride	U	1.15	ug/kg	0.344	1.15	
107-06-2	1,2-Dichloroethane	U	1.15	ug/kg	0.344	1.15	
71-43-2	Benzene	U	1.15	ug/kg	0.344	1.15	
79-01-6	Trichloroethylene	U	1.15	ug/kg	0.378	1.15	
78-87-5	1,2-Dichloropropane	U	1.15	ug/kg	0.344	1.15	
75-27-4	Bromodichloromethane	U	1.15	ug/kg	0.344	1.15	
74-95-3	Dibromomethane	U	1.15	ug/kg	0.344	1.15	
108-10-1	4-Methyl-2-pentanone	U	5.73	ug/kg	1.43	5.73	
10061-01-5	cis-1,3-Dichloropropylene	U	1.15	ug/kg	0.344	1.15	
108-88-3	Toluene	U	1.15	ug/kg	0.344	1.15	
10061-02-6	trans-1,3-Dichloropropylene	U	1.15	ug/kg	0.344	1.15	
79-00-5	1,1,2-Trichloroethane	U	1.15	ug/kg	0.344	1.15	
591-78-6	2-Hexanone	U	5.73	ug/kg	1.72	5.73	UJ,V7c
142-28-9	1,3-Dichloropropane	U	1.15	ug/kg	0.344	1.15	
127-18-4	Tetrachloroethylene	U	1.15	ug/kg	0.344	1.15	
124-48-1	Dibromochloromethane	U	1.15	ug/kg	0.344	1.15	
106-93-4	1,2-Dibromoethane	U	1.15	ug/kg	0.344	1.15	
108-90-7	Chlorobenzene	U	1.15	ug/kg	0.344	1.15	

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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-940**	**Date Collected:**	**12/14/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243033005**	**Date Received:**	**12/16/2009 09:10**	**%Moisture:**	**12.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14208**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**936119**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**12/23/2009 03:21**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**12/22/2009 22:46**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**4q217.d**	**Column:**	**RTX-VOLATILES**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.15	ug/kg	0.344	1.15
179601-23-1	m,p-Xylenes	U	2.29	ug/kg	0.344	2.29
95-47-6	o-Xylene	U	1.15	ug/kg	0.344	1.15
100-42-5	Styrene	U	1.15	ug/kg	0.344	1.15
75-25-2	Bromoform	U	1.15	ug/kg	0.344	1.15
79-34-5	1,1,2,2-Tetrachloroethane	U	1.15	ug/kg	0.344	1.15
96-18-4	1,2,3-Trichloropropane	U	1.15	ug/kg	0.344	1.15
108-86-1	Bromobenzene	U	1.15	ug/kg	0.344	1.15
103-65-1	n-Propylbenzene	U	1.15	ug/kg	0.344	1.15
95-49-8	2-Chlorotoluene	U	1.15	ug/kg	0.344	1.15
98-82-8	Isopropylbenzene	U	1.15	ug/kg	0.344	1.15
108-67-8	1,3,5-Trimethylbenzene	U	1.15	ug/kg	0.344	1.15
106-43-4	4-Chlorotoluene	U	1.15	ug/kg	0.344	1.15
98-06-6	tert-Butylbenzene	U	1.15	ug/kg	0.344	1.15
95-63-6	1,2,4-Trimethylbenzene	U	1.15	ug/kg	0.344	1.15
135-98-8	sec-Butylbenzene	U	1.15	ug/kg	0.344	1.15
99-87-6	4-Isopropyltoluene	U	1.15	ug/kg	0.344	1.15
541-73-1	1,3-Dichlorobenzene	U	1.15	ug/kg	0.344	1.15
106-46-7	1,4-Dichlorobenzene	U	1.15	ug/kg	0.344	1.15
104-51-8	n-Butylbenzene	U	1.15	ug/kg	0.344	1.15
96-12-8	1,2-Dibromo-3-chloropropane	U	1.15	ug/kg	0.344	1.15
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.73	ug/kg	1.83	5.73
630-20-6	1,1,1,2-Tetrachloroethane	U	1.15	ug/kg	0.344	1.15
95-50-1	1,2-Dichlorobenzene	U	1.15	ug/kg	0.344	1.15

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Siloxane	14.83	55.5	ug/kg		J

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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-940	**Date Collected:**	12/14/2009 12:00	**Matrix:**	S
Lab Sample ID:	243033004	**Date Received:**	12/16/2009 09:10	**%Moisture:**	11.6
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14209	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	936119	**Inst:**	VOA4.I	**Dilution:**	1
Run Date:	12/23/2009 02:54	**Analyst:**	ACJ	**Purge Vol:**	5 mL
Prep Date:	12/22/2009 22:45	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	4q216.d	**Column:**	RTX-VOLATILES	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
75-71-8	Dichlorodifluoromethane	U	1.13	ug/kg	0.384	1.13	
74-87-3	Chloromethane	U	1.13	ug/kg	0.339	1.13	
75-01-4	Vinyl chloride	U	1.13	ug/kg	0.339	1.13	
74-83-9	Bromomethane	U	1.13	ug/kg	0.339	1.13	
75-00-3	Chloroethane	U	1.13	ug/kg	0.339	1.13	
75-69-4	Trichlorofluoromethane	U	1.13	ug/kg	0.339	1.13	
67-64-1	Acetone	J	4.20	ug/kg	1.88	5.65	U,V4d
75-35-4	1,1-Dichloroethylene	U	1.13	ug/kg	0.339	1.13	
74-88-4	Iodomethane	U	5.65	ug/kg	1.81	5.65	
75-09-2	Methylene chloride	U	5.65	ug/kg	2.26	5.65	
75-15-0	Carbon disulfide	U	5.65	ug/kg	1.41	5.65	
156-60-5	trans-1,2-Dichloroethylene	U	1.13	ug/kg	0.339	1.13	
75-34-3	1,1-Dichloroethane	U	1.13	ug/kg	0.339	1.13	
78-93-3	2-Butanone	U	5.65	ug/kg	1.70	5.65	UJ,V7c
156-59-2	cis-1,2-Dichloroethylene	U	1.13	ug/kg	0.339	1.13	
594-20-7	2,2-Dichloropropane	U	1.13	ug/kg	0.339	1.13	
67-66-3	Chloroform	U	1.13	ug/kg	0.339	1.13	
74-97-5	Bromochloromethane	U	1.13	ug/kg	0.373	1.13	
71-55-6	1,1,1-Trichloroethane	U	1.13	ug/kg	0.339	1.13	
563-58-6	1,1-Dichloropropene	U	1.13	ug/kg	0.339	1.13	
56-23-5	Carbon tetrachloride	U	1.13	ug/kg	0.339	1.13	
107-06-2	1,2-Dichloroethane	U	1.13	ug/kg	0.339	1.13	
71-43-2	Benzene	U	1.13	ug/kg	0.339	1.13	
79-01-6	Trichloroethylene	U	1.13	ug/kg	0.373	1.13	
78-87-5	1,2-Dichloropropane	U	1.13	ug/kg	0.339	1.13	
75-27-4	Bromodichloromethane	U	1.13	ug/kg	0.339	1.13	
74-95-3	Dibromomethane	U	1.13	ug/kg	0.339	1.13	
108-10-1	4-Methyl-2-pentanone	U	5.65	ug/kg	1.41	5.65	
10061-01-5	cis-1,3-Dichloropropylene	U	1.13	ug/kg	0.339	1.13	
108-88-3	Toluene	U	1.13	ug/kg	0.339	1.13	
10061-02-6	trans-1,3-Dichloropropylene	U	1.13	ug/kg	0.339	1.13	
79-00-5	1,1,2-Trichloroethane	U	1.13	ug/kg	0.339	1.13	
591-78-6	2-Hexanone	U	5.65	ug/kg	1.70	5.65	UJ,V7c
142-28-9	1,3-Dichloropropane	U	1.13	ug/kg	0.339	1.13	
127-18-4	Tetrachloroethylene	U	1.13	ug/kg	0.339	1.13	
124-48-1	Dibromochloromethane	U	1.13	ug/kg	0.339	1.13	
106-93-4	1,2-Dibromoethane	U	1.13	ug/kg	0.339	1.13	
108-90-7	Chlorobenzene	U	1.13	ug/kg	0.339	1.13	

P.S. 2/9/10

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-940**	**Date Collected:**	**12/14/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243033004**	**Date Received:**	**12/16/2009 09:10**	**%Moisture:**	**11.6**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14209**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**936119**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**12/23/2009 02:54**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**12/22/2009 22:45**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**4q216.d**	**Column:**	**RTX-VOLATILES**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.13	ug/kg	0.339	1.13
179601-23-1	m,p-Xylenes	U	2.26	ug/kg	0.339	2.26
95-47-6	o-Xylene	U	1.13	ug/kg	0.339	1.13
100-42-5	Styrene	U	1.13	ug/kg	0.339	1.13
75-25-2	Bromoform	U	1.13	ug/kg	0.339	1.13
79-34-5	1,1,2,2-Tetrachloroethane	U	1.13	ug/kg	0.339	1.13
96-18-4	1,2,3-Trichloropropane	U	1.13	ug/kg	0.339	1.13
108-86-1	Bromobenzene	U	1.13	ug/kg	0.339	1.13
103-65-1	n-Propylbenzene	U	1.13	ug/kg	0.339	1.13
95-49-8	2-Chlorotoluene	U	1.13	ug/kg	0.339	1.13
98-82-8	Isopropylbenzene	U	1.13	ug/kg	0.339	1.13
108-67-8	1,3,5-Trimethylbenzene	U	1.13	ug/kg	0.339	1.13
106-43-4	4-Chlorotoluene	U	1.13	ug/kg	0.339	1.13
98-06-6	tert-Butylbenzene	U	1.13	ug/kg	0.339	1.13
95-63-6	1,2,4-Trimethylbenzene	U	1.13	ug/kg	0.339	1.13
135-98-8	sec-Butylbenzene	U	1.13	ug/kg	0.339	1.13
99-87-6	4-Isopropyltoluene	U	1.13	ug/kg	0.339	1.13
541-73-1	1,3-Dichlorobenzene	U	1.13	ug/kg	0.339	1.13
106-46-7	1,4-Dichlorobenzene	U	1.13	ug/kg	0.339	1.13
104-51-8	n-Butylbenzene	U	1.13	ug/kg	0.339	1.13
96-12-8	1,2-Dibromo-3-chloropropane	U	1.13	ug/kg	0.339	1.13
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.65	ug/kg	1.81	5.65
630-20-6	1,1,1,2-Tetrachloroethane	U	1.13	ug/kg	0.339	1.13
95-50-1	1,2-Dichlorobenzene	U	1.13	ug/kg	0.339	1.13

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Siloxane	14.83	22.7	ug/kg		J

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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-940	**Date Collected:**	12/14/2009 12:00	**Matrix:**	S
Lab Sample ID:	243033003	**Date Received:**	12/16/2009 09:10	**%Moisture:**	13.6
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14210	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	936119	**Inst:**	VOA4.I	**Dilution:**	1
Run Date:	12/23/2009 02:27	**Analyst:**	ACJ	**Purge Vol:**	5 mL
Prep Date:	12/22/2009 22:44	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	4q215.d	**Column:**	RTX-VOLATILES	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
75-71-8	Dichlorodifluoromethane	U	1.16	ug/kg	0.394	1.16	
74-87-3	Chloromethane	U	1.16	ug/kg	0.347	1.16	
75-01-4	Vinyl chloride	U	1.16	ug/kg	0.347	1.16	
74-83-9	Bromomethane	U	1.16	ug/kg	0.347	1.16	
75-00-3	Chloroethane	U	1.16	ug/kg	0.347	1.16	
75-69-4	Trichlorofluoromethane	U	1.16	ug/kg	0.347	1.16	
67-64-1	Acetone	J	3.65	ug/kg	1.92	5.79	U,V4d
75-35-4	1,1-Dichloroethylene	U	1.16	ug/kg	0.347	1.16	
74-88-4	Iodomethane	U	5.79	ug/kg	1.85	5.79	
75-09-2	Methylene chloride	U	5.79	ug/kg	2.32	5.79	
75-15-0	Carbon disulfide	U	5.79	ug/kg	1.45	5.79	
156-60-5	trans-1,2-Dichloroethylene	U	1.16	ug/kg	0.347	1.16	
75-34-3	1,1-Dichloroethane	U	1.16	ug/kg	0.347	1.16	
78-93-3	2-Butanone	U	5.79	ug/kg	1.74	5.79	UJ,V7c
156-59-2	cis-1,2-Dichloroethylene	U	1.16	ug/kg	0.347	1.16	
594-20-7	2,2-Dichloropropane	U	1.16	ug/kg	0.347	1.16	
67-66-3	Chloroform	U	1.16	ug/kg	0.347	1.16	
74-97-5	Bromochloromethane	U	1.16	ug/kg	0.382	1.16	
71-55-6	1,1,1-Trichloroethane	U	1.16	ug/kg	0.347	1.16	
563-58-6	1,1-Dichloropropene	U	1.16	ug/kg	0.347	1.16	
56-23-5	Carbon tetrachloride	U	1.16	ug/kg	0.347	1.16	
107-06-2	1,2-Dichloroethane	U	1.16	ug/kg	0.347	1.16	
71-43-2	Benzene	U	1.16	ug/kg	0.347	1.16	
79-01-6	Trichloroethylene	U	1.16	ug/kg	0.382	1.16	
78-87-5	1,2-Dichloropropane	U	1.16	ug/kg	0.347	1.16	
75-27-4	Bromodichloromethane	U	1.16	ug/kg	0.347	1.16	
74-95-3	Dibromomethane	U	1.16	ug/kg	0.347	1.16	
108-10-1	4-Methyl-2-pentanone	U	5.79	ug/kg	1.45	5.79	
10061-01-5	cis-1,3-Dichloropropylene	U	1.16	ug/kg	0.347	1.16	
108-88-3	Toluene	U	1.16	ug/kg	0.347	1.16	
10061-02-6	trans-1,3-Dichloropropylene	U	1.16	ug/kg	0.347	1.16	
79-00-5	1,1,2-Trichloroethane	U	1.16	ug/kg	0.347	1.16	
591-78-6	2-Hexanone	U	5.79	ug/kg	1.74	5.79	UJ,V7c
142-28-9	1,3-Dichloropropane	U	1.16	ug/kg	0.347	1.16	
127-18-4	Tetrachloroethylene	U	1.16	ug/kg	0.347	1.16	
124-48-1	Dibromochloromethane	U	1.16	ug/kg	0.347	1.16	
106-93-4	1,2-Dibromoethane	U	1.16	ug/kg	0.347	1.16	
108-90-7	Chlorobenzene	U	1.16	ug/kg	0.347	1.16	

P.S. 2/9/10

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-940	Date Collected:	12/14/2009 12:00	Matrix:	S
Lab Sample ID:	243033003	Date Received:	12/16/2009 09:10	%Moisture:	13.6
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14210	Method:	SW846 8260B	SOP Ref:	GL-OA-E-038
Batch ID:	936119	Inst:	VOA4.I	Dilution:	1
Run Date:	12/23/2009 02:27	Analyst:	ACJ	Purge Vol:	5 mL
Prep Date:	12/22/2009 22:44	Aliquot:	5 g	Final Volume:	5 mL
Data File:	4q215.d	Column:	RTX-VOLATILES	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.16	ug/kg	0.347	1.16
179601-23-1	m,p-Xylenes	U	2.32	ug/kg	0.347	2.32
95-47-6	o-Xylene	U	1.16	ug/kg	0.347	1.16
100-42-5	Styrene	U	1.16	ug/kg	0.347	1.16
75-25-2	Bromoform	U	1.16	ug/kg	0.347	1.16
79-34-5	1,1,2,2-Tetrachloroethane	U	1.16	ug/kg	0.347	1.16
96-18-4	1,2,3-Trichloropropane	U	1.16	ug/kg	0.347	1.16
108-86-1	Bromobenzene	U	1.16	ug/kg	0.347	1.16
103-65-1	n-Propylbenzene	U	1.16	ug/kg	0.347	1.16
95-49-8	2-Chlorotoluene	U	1.16	ug/kg	0.347	1.16
98-82-8	Isopropylbenzene	U	1.16	ug/kg	0.347	1.16
108-67-8	1,3,5-Trimethylbenzene	U	1.16	ug/kg	0.347	1.16
106-43-4	4-Chlorotoluene	U	1.16	ug/kg	0.347	1.16
98-06-6	tert-Butylbenzene	U	1.16	ug/kg	0.347	1.16
95-63-6	1,2,4-Trimethylbenzene	U	1.16	ug/kg	0.347	1.16
135-98-8	sec-Butylbenzene	U	1.16	ug/kg	0.347	1.16
99-87-6	4-Isopropyltoluene	U	1.16	ug/kg	0.347	1.16
541-73-1	1,3-Dichlorobenzene	U	1.16	ug/kg	0.347	1.16
106-46-7	1,4-Dichlorobenzene	U	1.16	ug/kg	0.347	1.16
104-51-8	n-Butylbenzene	U	1.16	ug/kg	0.347	1.16
96-12-8	1,2-Dibromo-3-chloropropane	U	1.16	ug/kg	0.347	1.16
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.79	ug/kg	1.85	5.79
630-20-6	1,1,1,2-Tetrachloroethane	U	1.16	ug/kg	0.347	1.16
95-50-1	1,2-Dichlorobenzene	U	1.16	ug/kg	0.347	1.16

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Siloxane	14.83	122	ug/kg		J
	Unknown Siloxane	16.79	15.1	ug/kg		J

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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-940	**Date Collected:**	12/14/2009 12:00	**Matrix:**	S
Lab Sample ID:	243033002	**Date Received:**	12/16/2009 09:10	**%Moisture:**	14.3
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14211	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	936119	**Inst:**	VOA4.I	**Dilution:**	1
Run Date:	12/23/2009 01:59	**Analyst:**	ACJ	**Purge Vol:**	5 mL
Prep Date:	12/22/2009 22:43	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	4q214.d	**Column:**	RTX-VOLATILES	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
75-71-8	Dichlorodifluoromethane	U	1.17	ug/kg	0.397	1.17	
74-87-3	Chloromethane	U	1.17	ug/kg	0.350	1.17	
75-01-4	Vinyl chloride	U	1.17	ug/kg	0.350	1.17	
74-83-9	Bromomethane	U	1.17	ug/kg	0.350	1.17	
75-00-3	Chloroethane	U	1.17	ug/kg	0.350	1.17	
75-69-4	Trichlorofluoromethane	U	1.17	ug/kg	0.350	1.17	
67-64-1	Acetone	J	3.09	ug/kg	1.94	5.84	U,V4d
75-35-4	1,1-Dichloroethylene	U	1.17	ug/kg	0.350	1.17	
74-88-4	Iodomethane	U	5.84	ug/kg	1.87	5.84	
75-09-2	Methylene chloride	U	5.84	ug/kg	2.33	5.84	
75-15-0	Carbon disulfide	U	5.84	ug/kg	1.46	5.84	
156-60-5	trans-1,2-Dichloroethylene	U	1.17	ug/kg	0.350	1.17	
75-34-3	1,1-Dichloroethane	U	1.17	ug/kg	0.350	1.17	
78-93-3	2-Butanone	U	5.84	ug/kg	1.75	5.84	UJ,V7c
156-59-2	cis-1,2-Dichloroethylene	U	1.17	ug/kg	0.350	1.17	
594-20-7	2,2-Dichloropropane	U	1.17	ug/kg	0.350	1.17	
67-66-3	Chloroform	U	1.17	ug/kg	0.350	1.17	
74-97-5	Bromochloromethane	U	1.17	ug/kg	0.385	1.17	
71-55-6	1,1,1-Trichloroethane	U	1.17	ug/kg	0.350	1.17	
563-58-6	1,1-Dichloropropene	U	1.17	ug/kg	0.350	1.17	
56-23-5	Carbon tetrachloride	U	1.17	ug/kg	0.350	1.17	
107-06-2	1,2-Dichloroethane	U	1.17	ug/kg	0.350	1.17	
71-43-2	Benzene	U	1.17	ug/kg	0.350	1.17	
79-01-6	Trichloroethylene	U	1.17	ug/kg	0.385	1.17	
78-87-5	1,2-Dichloropropane	U	1.17	ug/kg	0.350	1.17	
75-27-4	Bromodichloromethane	U	1.17	ug/kg	0.350	1.17	
74-95-3	Dibromomethane	U	1.17	ug/kg	0.350	1.17	
108-10-1	4-Methyl-2-pentanone	U	5.84	ug/kg	1.46	5.84	
10061-01-5	cis-1,3-Dichloropropylene	U	1.17	ug/kg	0.350	1.17	
108-88-3	Toluene	U	1.17	ug/kg	0.350	1.17	
10061-02-6	trans-1,3-Dichloropropylene	U	1.17	ug/kg	0.350	1.17	
79-00-5	1,1,2-Trichloroethane	U	1.17	ug/kg	0.350	1.17	
591-78-6	2-Hexanone	U	5.84	ug/kg	1.75	5.84	UJ,V7c
142-28-9	1,3-Dichloropropane	U	1.17	ug/kg	0.350	1.17	
127-18-4	Tetrachloroethylene	U	1.17	ug/kg	0.350	1.17	
124-48-1	Dibromochloromethane	U	1.17	ug/kg	0.350	1.17	
106-93-4	1,2-Dibromoethane	U	1.17	ug/kg	0.350	1.17	
108-90-7	Chlorobenzene	U	1.17	ug/kg	0.350	1.17	

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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-940**	**Date Collected:**	**12/14/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243033002**	**Date Received:**	**12/16/2009 09:10**	**%Moisture:**	**14.3**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14211**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**936119**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**12/23/2009 01:59**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**12/22/2009 22:43**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**4q214.d**	**Column:**	**RTX-VOLATILES**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.17	ug/kg	0.350	1.17
179601-23-1	m,p-Xylenes	U	2.33	ug/kg	0.350	2.33
95-47-6	o-Xylene	U	1.17	ug/kg	0.350	1.17
100-42-5	Styrene	U	1.17	ug/kg	0.350	1.17
75-25-2	Bromoform	U	1.17	ug/kg	0.350	1.17
79-34-5	1,1,2,2-Tetrachloroethane	U	1.17	ug/kg	0.350	1.17
96-18-4	1,2,3-Trichloropropane	U	1.17	ug/kg	0.350	1.17
108-86-1	Bromobenzene	U	1.17	ug/kg	0.350	1.17
103-65-1	n-Propylbenzene	U	1.17	ug/kg	0.350	1.17
95-49-8	2-Chlorotoluene	U	1.17	ug/kg	0.350	1.17
98-82-8	Isopropylbenzene	U	1.17	ug/kg	0.350	1.17
108-67-8	1,3,5-Trimethylbenzene	U	1.17	ug/kg	0.350	1.17
106-43-4	4-Chlorotoluene	U	1.17	ug/kg	0.350	1.17
98-06-6	tert-Butylbenzene	U	1.17	ug/kg	0.350	1.17
95-63-6	1,2,4-Trimethylbenzene	U	1.17	ug/kg	0.350	1.17
135-98-8	sec-Butylbenzene	U	1.17	ug/kg	0.350	1.17
99-87-6	4-Isopropyltoluene	U	1.17	ug/kg	0.350	1.17
541-73-1	1,3-Dichlorobenzene	U	1.17	ug/kg	0.350	1.17
106-46-7	1,4-Dichlorobenzene	U	1.17	ug/kg	0.350	1.17
104-51-8	n-Butylbenzene	U	1.17	ug/kg	0.350	1.17
96-12-8	1,2-Dibromo-3-chloropropane	U	1.17	ug/kg	0.350	1.17
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.84	ug/kg	1.87	5.84
630-20-6	1,1,1,2-Tetrachloroethane	U	1.17	ug/kg	0.350	1.17
95-50-1	1,2-Dichlorobenzene	U	1.17	ug/kg	0.350	1.17

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Siloxane	14.83	19.6	ug/kg		J

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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-940	**Date Collected:**	12/14/2009 12:00	**Matrix:**	S
Lab Sample ID:	243033008	**Date Received:**	12/16/2009 09:10	**%Moisture:**	15.6
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14220	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	936119	**Inst:**	VOA4.I	**Dilution:**	1
Run Date:	12/23/2009 04:42	**Analyst:**	ACJ	**Purge Vol:**	5 mL
Prep Date:	12/22/2009 22:49	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	4q220.d	**Column:**	RTX-VOLATILES	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
75-71-8	Dichlorodifluoromethane	U	1.18	ug/kg	0.403	1.18	
74-87-3	Chloromethane	U	1.18	ug/kg	0.355	1.18	
75-01-4	Vinyl chloride	U	1.18	ug/kg	0.355	1.18	
74-83-9	Bromomethane	U	1.18	ug/kg	0.355	1.18	
75-00-3	Chloroethane	U	1.18	ug/kg	0.355	1.18	
75-69-4	Trichlorofluoromethane	U	1.18	ug/kg	0.355	1.18	
67-64-1	Acetone	J	2.03	ug/kg	1.97	5.92	U,V4d
75-35-4	1,1-Dichloroethylene	U	1.18	ug/kg	0.355	1.18	
74-88-4	Iodomethane	U	5.92	ug/kg	1.89	5.92	
75-09-2	Methylene chloride	U	5.92	ug/kg	2.37	5.92	
75-15-0	Carbon disulfide	U	5.92	ug/kg	1.48	5.92	
156-60-5	trans-1,2-Dichloroethylene	U	1.18	ug/kg	0.355	1.18	
75-34-3	1,1-Dichloroethane	U	1.18	ug/kg	0.355	1.18	
78-93-3	2-Butanone	U	5.92	ug/kg	1.78	5.92	UJ,V7c
156-59-2	cis-1,2-Dichloroethylene	J	0.926	ug/kg	0.355	1.18	J+,V3b
594-20-7	2,2-Dichloropropane	U	1.18	ug/kg	0.355	1.18	
67-66-3	Chloroform	U	1.18	ug/kg	0.355	1.18	
74-97-5	Bromochloromethane	U	1.18	ug/kg	0.391	1.18	
71-55-6	1,1,1-Trichloroethane	U	1.18	ug/kg	0.355	1.18	
563-58-6	1,1-Dichloropropene	U	1.18	ug/kg	0.355	1.18	
56-23-5	Carbon tetrachloride	U	1.18	ug/kg	0.355	1.18	
107-06-2	1,2-Dichloroethane	U	1.18	ug/kg	0.355	1.18	
71-43-2	Benzene	J	0.707	ug/kg	0.355	1.18	J+,V3b
79-01-6	Trichloroethylene	J	0.446	ug/kg	0.391	1.18	J+,V3b
78-87-5	1,2-Dichloropropane	U	1.18	ug/kg	0.355	1.18	
75-27-4	Bromodichloromethane	U	1.18	ug/kg	0.355	1.18	
74-95-3	Dibromomethane	U	1.18	ug/kg	0.355	1.18	
108-10-1	4-Methyl-2-pentanone	U	5.92	ug/kg	1.48	5.92	
10061-01-5	cis-1,3-Dichloropropylene	U	1.18	ug/kg	0.355	1.18	
108-88-3	Toluene	J	0.767	ug/kg	0.355	1.18	J+,V3b
10061-02-6	trans-1,3-Dichloropropylene	U	1.18	ug/kg	0.355	1.18	
79-00-5	1,1,2-Trichloroethane	U	1.18	ug/kg	0.355	1.18	
591-78-6	2-Hexanone	U	5.92	ug/kg	1.78	5.92	UJ,V7c
142-28-9	1,3-Dichloropropane	U	1.18	ug/kg	0.355	1.18	
127-18-4	Tetrachloroethylene	U	1.18	ug/kg	0.355	1.18	
124-48-1	Dibromochloromethane	U	1.18	ug/kg	0.355	1.18	
106-93-4	1,2-Dibromoethane	U	1.18	ug/kg	0.355	1.18	
108-90-7	Chlorobenzene	U	1.18	ug/kg	0.355	1.18	

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-940	**Date Collected:**	12/14/2009 12:00	**Matrix:**	S
Lab Sample ID:	243033008	**Date Received:**	12/16/2009 09:10	**%Moisture:**	15.6
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14220	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	936119	**Inst:**	VOA4.I	**Dilution:**	1
Run Date:	12/23/2009 04:42	**Analyst:**	ACJ	**Purge Vol:**	5 mL
Prep Date:	12/22/2009 22:49	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	4q220.d	**Column:**	RTX-VOLATILES	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
100-41-4	Ethylbenzene	U	1.18	ug/kg	0.355	1.18	
179601-23-1	m,p-Xylenes	J	0.565	ug/kg	0.355	2.37	J+,V3b
95-47-6	o-Xylene	U	1.18	ug/kg	0.355	1.18	
100-42-5	Styrene	U	1.18	ug/kg	0.355	1.18	
75-25-2	Bromoform	U	1.18	ug/kg	0.355	1.18	
79-34-5	1,1,2,2-Tetrachloroethane	U	1.18	ug/kg	0.355	1.18	
96-18-4	1,2,3-Trichloropropane	U	1.18	ug/kg	0.355	1.18	
108-86-1	Bromobenzene	U	1.18	ug/kg	0.355	1.18	
103-65-1	n-Propylbenzene	U	1.18	ug/kg	0.355	1.18	
95-49-8	2-Chlorotoluene	U	1.18	ug/kg	0.355	1.18	
98-82-8	Isopropylbenzene	U	1.18	ug/kg	0.355	1.18	
108-67-8	1,3,5-Trimethylbenzene	J	0.396	ug/kg	0.355	1.18	J+,V3b
106-43-4	4-Chlorotoluene	U	1.18	ug/kg	0.355	1.18	
98-06-6	tert-Butylbenzene	U	1.18	ug/kg	0.355	1.18	
95-63-6	1,2,4-Trimethylbenzene	J	0.662	ug/kg	0.355	1.18	J+,V3b
135-98-8	sec-Butylbenzene	U	1.18	ug/kg	0.355	1.18	
99-87-6	4-Isopropyltoluene	U	1.18	ug/kg	0.355	1.18	
541-73-1	1,3-Dichlorobenzene	U	1.18	ug/kg	0.355	1.18	
106-46-7	1,4-Dichlorobenzene	U	1.18	ug/kg	0.355	1.18	
104-51-8	n-Butylbenzene	U	1.18	ug/kg	0.355	1.18	
96-12-8	1,2-Dibromo-3-chloropropane	U	1.18	ug/kg	0.355	1.18	
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.92	ug/kg	1.89	5.92	
630-20-6	1,1,1,2-Tetrachloroethane	U	1.18	ug/kg	0.355	1.18	
95-50-1	1,2-Dichlorobenzene	U	1.18	ug/kg	0.355	1.18	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Siloxane	14.83	49.1	ug/kg		J
	Unknown Siloxane	16.79	132	ug/kg		J

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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-940**	**Date Collected:**	**12/14/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243033001**	**Date Received:**	**12/16/2009 09:10**	**%Moisture:**	**14.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14221**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**936119**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**12/23/2009 01:33**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**12/22/2009 22:40**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**4q213.d**	**Column:**	**RTX-VOLATILES**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
75-71-8	Dichlorodifluoromethane	U	1.17	ug/kg	0.399	1.17	
74-87-3	Chloromethane	U	1.17	ug/kg	0.352	1.17	
75-01-4	Vinyl chloride	U	1.17	ug/kg	0.352	1.17	
74-83-9	Bromomethane	U	1.17	ug/kg	0.352	1.17	
75-00-3	Chloroethane	U	1.17	ug/kg	0.352	1.17	
75-69-4	Trichlorofluoromethane	U	1.17	ug/kg	0.352	1.17	
67-64-1	Acetone	J	3.66	ug/kg	1.95	5.87	U,V4d
75-35-4	1,1-Dichloroethylene	U	1.17	ug/kg	0.352	1.17	
74-88-4	Iodomethane	U	5.87	ug/kg	1.88	5.87	
75-09-2	Methylene chloride	U	5.87	ug/kg	2.35	5.87	
75-15-0	Carbon disulfide	U	5.87	ug/kg	1.47	5.87	
156-60-5	trans-1,2-Dichloroethylene	U	1.17	ug/kg	0.352	1.17	
75-34-3	1,1-Dichloroethane	U	1.17	ug/kg	0.352	1.17	
78-93-3	2-Butanone	U	5.87	ug/kg	1.76	5.87	UJ,V7c
156-59-2	cis-1,2-Dichloroethylene	U	1.17	ug/kg	0.352	1.17	
594-20-7	2,2-Dichloropropane	U	1.17	ug/kg	0.352	1.17	
67-66-3	Chloroform	U	1.17	ug/kg	0.352	1.17	
74-97-5	Bromochloromethane	U	1.17	ug/kg	0.387	1.17	
71-55-6	1,1,1-Trichloroethane	U	1.17	ug/kg	0.352	1.17	
563-58-6	1,1-Dichloropropene	U	1.17	ug/kg	0.352	1.17	
56-23-5	Carbon tetrachloride	U	1.17	ug/kg	0.352	1.17	
107-06-2	1,2-Dichloroethane	U	1.17	ug/kg	0.352	1.17	
71-43-2	Benzene	U	1.17	ug/kg	0.352	1.17	
79-01-6	Trichloroethylene	U	1.17	ug/kg	0.387	1.17	
78-87-5	1,2-Dichloropropane	U	1.17	ug/kg	0.352	1.17	
75-27-4	Bromodichloromethane	U	1.17	ug/kg	0.352	1.17	
74-95-3	Dibromomethane	U	1.17	ug/kg	0.352	1.17	
108-10-1	4-Methyl-2-pentanone	U	5.87	ug/kg	1.47	5.87	
10061-01-5	cis-1,3-Dichloropropylene	U	1.17	ug/kg	0.352	1.17	
108-88-3	Toluene	U	1.17	ug/kg	0.352	1.17	
10061-02-6	trans-1,3-Dichloropropylene	U	1.17	ug/kg	0.352	1.17	
79-00-5	1,1,2-Trichloroethane	U	1.17	ug/kg	0.352	1.17	
591-78-6	2-Hexanone	U	5.87	ug/kg	1.76	5.87	UJ,V7c
142-28-9	1,3-Dichloropropane	U	1.17	ug/kg	0.352	1.17	
127-18-4	Tetrachloroethylene	U	1.17	ug/kg	0.352	1.17	
124-48-1	Dibromochloromethane	U	1.17	ug/kg	0.352	1.17	
106-93-4	1,2-Dibromoethane	U	1.17	ug/kg	0.352	1.17	
108-90-7	Chlorobenzene	U	1.17	ug/kg	0.352	1.17	

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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-940**	**Date Collected:**	**12/14/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243033001**	**Date Received:**	**12/16/2009 09:10**	**%Moisture:**	**14.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14221**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**936119**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**12/23/2009 01:33**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**12/22/2009 22:40**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**4q213.d**	**Column:**	**RTX-VOLATILES**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.17	ug/kg	0.352	1.17
179601-23-1	m,p-Xylenes	U	2.35	ug/kg	0.352	2.35
95-47-6	o-Xylene	U	1.17	ug/kg	0.352	1.17
100-42-5	Styrene	U	1.17	ug/kg	0.352	1.17
75-25-2	Bromoform	U	1.17	ug/kg	0.352	1.17
79-34-5	1,1,2,2-Tetrachloroethane	U	1.17	ug/kg	0.352	1.17
96-18-4	1,2,3-Trichloropropane	U	1.17	ug/kg	0.352	1.17
108-86-1	Bromobenzene	U	1.17	ug/kg	0.352	1.17
103-65-1	n-Propylbenzene	U	1.17	ug/kg	0.352	1.17
95-49-8	2-Chlorotoluene	U	1.17	ug/kg	0.352	1.17
98-82-8	Isopropylbenzene	U	1.17	ug/kg	0.352	1.17
108-67-8	1,3,5-Trimethylbenzene	U	1.17	ug/kg	0.352	1.17
106-43-4	4-Chlorotoluene	U	1.17	ug/kg	0.352	1.17
98-06-6	tert-Butylbenzene	U	1.17	ug/kg	0.352	1.17
95-63-6	1,2,4-Trimethylbenzene	U	1.17	ug/kg	0.352	1.17
135-98-8	sec-Butylbenzene	U	1.17	ug/kg	0.352	1.17
99-87-6	4-Isopropyltoluene	U	1.17	ug/kg	0.352	1.17
541-73-1	1,3-Dichlorobenzene	U	1.17	ug/kg	0.352	1.17
106-46-7	1,4-Dichlorobenzene	U	1.17	ug/kg	0.352	1.17
104-51-8	n-Butylbenzene	U	1.17	ug/kg	0.352	1.17
96-12-8	1,2-Dibromo-3-chloropropane	U	1.17	ug/kg	0.352	1.17
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.87	ug/kg	1.88	5.87
630-20-6	1,1,1,2-Tetrachloroethane	U	1.17	ug/kg	0.352	1.17
95-50-1	1,2-Dichlorobenzene	U	1.17	ug/kg	0.352	1.17

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Flt	Qual
	Unknown Siloxane	14.83	7.42	ug/kg		J
1758-88-9	Benzene, 2-ethyl-1,4-dimethyl-	18.01	76.5	ug/kg	87	J

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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-940**	**Date Collected:**	**12/14/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243033006**	**Date Received:**	**12/16/2009 09:10**	**%Moisture:**	**19.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14222**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**936119**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**12/23/2009 03:48**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**12/22/2009 22:47**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**4q218.d**	**Column:**	**RTX-VOLATILES**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
75-71-8	Dichlorodifluoromethane	U	1.24	ug/kg	0.422	1.24	
74-87-3	Chloromethane	U	1.24	ug/kg	0.373	1.24	
75-01-4	Vinyl chloride	U	1.24	ug/kg	0.373	1.24	
74-83-9	Bromomethane	U	1.24	ug/kg	0.373	1.24	
75-00-3	Chloroethane	U	1.24	ug/kg	0.373	1.24	
75-69-4	Trichlorofluoromethane	U	1.24	ug/kg	0.373	1.24	
67-64-1	Acetone	J	2.21	ug/kg	2.06	6.21	U,V4d
75-35-4	1,1-Dichloroethylene	U	1.24	ug/kg	0.373	1.24	
74-88-4	Iodomethane	U	6.21	ug/kg	1.99	6.21	
75-09-2	Methylene chloride	U	6.21	ug/kg	2.48	6.21	
75-15-0	Carbon disulfide	U	6.21	ug/kg	1.55	6.21	
156-60-5	trans-1,2-Dichloroethylene	U	1.24	ug/kg	0.373	1.24	
75-34-3	1,1-Dichloroethane	U	1.24	ug/kg	0.373	1.24	
78-93-3	2-Butanone	U	6.21	ug/kg	1.86	6.21	UJ,V7c
156-59-2	cis-1,2-Dichloroethylene	U	1.24	ug/kg	0.373	1.24	
594-20-7	2,2-Dichloropropane	U	1.24	ug/kg	0.373	1.24	
67-66-3	Chloroform	U	1.24	ug/kg	0.373	1.24	
74-97-5	Bromochloromethane	U	1.24	ug/kg	0.410	1.24	
71-55-6	1,1,1-Trichloroethane	U	1.24	ug/kg	0.373	1.24	
563-58-6	1,1-Dichloropropene	U	1.24	ug/kg	0.373	1.24	
56-23-5	Carbon tetrachloride	U	1.24	ug/kg	0.373	1.24	
107-06-2	1,2-Dichloroethane	U	1.24	ug/kg	0.373	1.24	
71-43-2	Benzene	U	1.24	ug/kg	0.373	1.24	
79-01-6	Trichloroethylene	U	1.24	ug/kg	0.410	1.24	
78-87-5	1,2-Dichloropropane	U	1.24	ug/kg	0.373	1.24	
75-27-4	Bromodichloromethane	U	1.24	ug/kg	0.373	1.24	
74-95-3	Dibromomethane	U	1.24	ug/kg	0.373	1.24	
108-10-1	4-Methyl-2-pentanone	U	6.21	ug/kg	1.55	6.21	
10061-01-5	cis-1,3-Dichloropropylene	U	1.24	ug/kg	0.373	1.24	
108-88-3	Toluene	U	1.24	ug/kg	0.373	1.24	
10061-02-6	trans-1,3-Dichloropropylene	U	1.24	ug/kg	0.373	1.24	
79-00-5	1,1,2-Trichloroethane	U	1.24	ug/kg	0.373	1.24	
591-78-6	2-Hexanone	U	6.21	ug/kg	1.86	6.21	UJ,V7c
142-28-9	1,3-Dichloropropane	U	1.24	ug/kg	0.373	1.24	
127-18-4	Tetrachloroethylene	U	1.24	ug/kg	0.373	1.24	
124-48-1	Dibromochloromethane	U	1.24	ug/kg	0.373	1.24	
106-93-4	1,2-Dibromoethane	U	1.24	ug/kg	0.373	1.24	
108-90-7	Chlorobenzene	U	1.24	ug/kg	0.373	1.24	

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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-940	**Date Collected:**	12/14/2009 12:00	**Matrix:**	S
Lab Sample ID:	243033006	**Date Received:**	12/16/2009 09:10	**%Moisture:**	19.5
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14222	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	936119	**Inst:**	VOA4.I	**Dilution:**	1
Run Date:	12/23/2009 03:48	**Analyst:**	ACJ	**Purge Vol:**	5 mL
Prep Date:	12/22/2009 22:47	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	4q218.d	**Column:**	RTX-VOLATILES	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.24	ug/kg	0.373	1.24
179601-23-1	m,p-Xylenes	U	2.48	ug/kg	0.373	2.48
95-47-6	o-Xylene	U	1.24	ug/kg	0.373	1.24
100-42-5	Styrene	U	1.24	ug/kg	0.373	1.24
75-25-2	Bromoform	U	1.24	ug/kg	0.373	1.24
79-34-5	1,1,2,2-Tetrachloroethane	U	1.24	ug/kg	0.373	1.24
96-18-4	1,2,3-Trichloropropane	U	1.24	ug/kg	0.373	1.24
108-86-1	Bromobenzene	U	1.24	ug/kg	0.373	1.24
103-65-1	n-Propylbenzene	U	1.24	ug/kg	0.373	1.24
95-49-8	2-Chlorotoluene	U	1.24	ug/kg	0.373	1.24
98-82-8	Isopropylbenzene	U	1.24	ug/kg	0.373	1.24
108-67-8	1,3,5-Trimethylbenzene	U	1.24	ug/kg	0.373	1.24
106-43-4	4-Chlorotoluene	U	1.24	ug/kg	0.373	1.24
98-06-6	tert-Butylbenzene	U	1.24	ug/kg	0.373	1.24
95-63-6	1,2,4-Trimethylbenzene	U	1.24	ug/kg	0.373	1.24
135-98-8	sec-Butylbenzene	U	1.24	ug/kg	0.373	1.24
99-87-6	4-Isopropyltoluene	U	1.24	ug/kg	0.373	1.24
541-73-1	1,3-Dichlorobenzene	U	1.24	ug/kg	0.373	1.24
106-46-7	1,4-Dichlorobenzene	U	1.24	ug/kg	0.373	1.24
104-51-8	n-Butylbenzene	U	1.24	ug/kg	0.373	1.24
96-12-8	1,2-Dibromo-3-chloropropane	U	1.24	ug/kg	0.373	1.24
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	6.21	ug/kg	1.99	6.21
630-20-6	1,1,1,2-Tetrachloroethane	U	1.24	ug/kg	0.373	1.24
95-50-1	1,2-Dichlorobenzene	U	1.24	ug/kg	0.373	1.24

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Siloxane	14.83	28.7	ug/kg		J
	Unknown Siloxane	16.79	18.1	ug/kg		J

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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-940**	**Date Collected:**	**12/14/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243033007**	**Date Received:**	**12/16/2009 09:10**	**%Moisture:**	**10.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14223**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**936119**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**12/23/2009 04:15**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**12/22/2009 22:48**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**4q219.d**	**Column:**	**RTX-VOLATILES**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
75-71-8	Dichlorodifluoromethane	U	1.12	ug/kg	0.381	1.12	
74-87-3	Chloromethane	U	1.12	ug/kg	0.336	1.12	
75-01-4	Vinyl chloride	U	1.12	ug/kg	0.336	1.12	
74-83-9	Bromomethane	U	1.12	ug/kg	0.336	1.12	
75-00-3	Chloroethane	U	1.12	ug/kg	0.336	1.12	
75-69-4	Trichlorofluoromethane	U	1.12	ug/kg	0.336	1.12	
67-64-1	Acetone	U	5.61	ug/kg	1.86	5.61	UJ,V7c
75-35-4	1,1-Dichloroethylene	U	1.12	ug/kg	0.336	1.12	
74-88-4	Iodomethane	U	5.61	ug/kg	1.79	5.61	
75-09-2	Methylene chloride	U	5.61	ug/kg	2.24	5.61	
75-15-0	Carbon disulfide	U	5.61	ug/kg	1.40	5.61	
156-60-5	trans-1,2-Dichloroethylene	U	1.12	ug/kg	0.336	1.12	
75-34-3	1,1-Dichloroethane	U	1.12	ug/kg	0.336	1.12	
78-93-3	2-Butanone	U	5.61	ug/kg	1.68	5.61	UJ,V7c
156-59-2	cis-1,2-Dichloroethylene	U	1.12	ug/kg	0.336	1.12	
594-20-7	2,2-Dichloropropane	U	1.12	ug/kg	0.336	1.12	
67-66-3	Chloroform	U	1.12	ug/kg	0.336	1.12	
74-97-5	Bromochloromethane	U	1.12	ug/kg	0.370	1.12	
71-55-6	1,1,1-Trichloroethane	U	1.12	ug/kg	0.336	1.12	
563-58-6	1,1-Dichloropropene	U	1.12	ug/kg	0.336	1.12	
56-23-5	Carbon tetrachloride	U	1.12	ug/kg	0.336	1.12	
107-06-2	1,2-Dichloroethane	U	1.12	ug/kg	0.336	1.12	
71-43-2	Benzene	U	1.12	ug/kg	0.336	1.12	
79-01-6	Trichloroethylene	U	1.12	ug/kg	0.370	1.12	
78-87-5	1,2-Dichloropropane	U	1.12	ug/kg	0.336	1.12	
75-27-4	Bromodichloromethane	U	1.12	ug/kg	0.336	1.12	
74-95-3	Dibromomethane	U	1.12	ug/kg	0.336	1.12	
108-10-1	4-Methyl-2-pentanone	U	5.61	ug/kg	1.40	5.61	
10061-01-5	cis-1,3-Dichloropropylene	U	1.12	ug/kg	0.336	1.12	
108-88-3	Toluene	U	1.12	ug/kg	0.336	1.12	
10061-02-6	trans-1,3-Dichloropropylene	U	1.12	ug/kg	0.336	1.12	
79-00-5	1,1,2-Trichloroethane	U	1.12	ug/kg	0.336	1.12	
591-78-6	2-Hexanone	U	5.61	ug/kg	1.68	5.61	UJ,V7c
142-28-9	1,3-Dichloropropane	U	1.12	ug/kg	0.336	1.12	
127-18-4	Tetrachloroethylene	U	1.12	ug/kg	0.336	1.12	
124-48-1	Dibromochloromethane	U	1.12	ug/kg	0.336	1.12	
106-93-4	1,2-Dibromoethane	U	1.12	ug/kg	0.336	1.12	
108-90-7	Chlorobenzene	U	1.12	ug/kg	0.336	1.12	

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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-940**	**Date Collected:**	**12/14/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243033007**	**Date Received:**	**12/16/2009 09:10**	**%Moisture:**	**10.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14223**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**936119**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**12/23/2009 04:15**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**12/22/2009 22:48**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**4q219.d**	**Column:**	**RTX-VOLATILES**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.12	ug/kg	0.336	1.12
179601-23-1	m,p-Xylenes	U	2.24	ug/kg	0.336	2.24
95-47-6	o-Xylene	U	1.12	ug/kg	0.336	1.12
100-42-5	Styrene	U	1.12	ug/kg	0.336	1.12
75-25-2	Bromoform	U	1.12	ug/kg	0.336	1.12
79-34-5	1,1,2,2-Tetrachloroethane	U	1.12	ug/kg	0.336	1.12
96-18-4	1,2,3-Trichloropropane	U	1.12	ug/kg	0.336	1.12
108-86-1	Bromobenzene	U	1.12	ug/kg	0.336	1.12
103-65-1	n-Propylbenzene	U	1.12	ug/kg	0.336	1.12
95-49-8	2-Chlorotoluene	U	1.12	ug/kg	0.336	1.12
98-82-8	Isopropylbenzene	U	1.12	ug/kg	0.336	1.12
108-67-8	1,3,5-Trimethylbenzene	U	1.12	ug/kg	0.336	1.12
106-43-4	4-Chlorotoluene	U	1.12	ug/kg	0.336	1.12
98-06-6	tert-Butylbenzene	U	1.12	ug/kg	0.336	1.12
95-63-6	1,2,4-Trimethylbenzene	U	1.12	ug/kg	0.336	1.12
135-98-8	sec-Butylbenzene	U	1.12	ug/kg	0.336	1.12
99-87-6	4-Isopropyltoluene	U	1.12	ug/kg	0.336	1.12
541-73-1	1,3-Dichlorobenzene	U	1.12	ug/kg	0.336	1.12
106-46-7	1,4-Dichlorobenzene	U	1.12	ug/kg	0.336	1.12
104-51-8	n-Butylbenzene	U	1.12	ug/kg	0.336	1.12
96-12-8	1,2-Dibromo-3-chloropropane	U	1.12	ug/kg	0.336	1.12
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.61	ug/kg	1.79	5.61
630-20-6	1,1,1,2-Tetrachloroethane	U	1.12	ug/kg	0.336	1.12
95-50-1	1,2-Dichlorobenzene	U	1.12	ug/kg	0.336	1.12

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Flt	Qual
	Unknown Siloxane	14.83	21.6	ug/kg		J
	Unknown Siloxane	16.79	20.3	ug/kg		J

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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-940**	**Date Collected:**	**12/14/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243033009**	**Date Received:**	**12/16/2009 09:10**	**%Moisture:**	**19.3**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-10-2734**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**936119**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**12/23/2009 05:10**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**12/22/2009 22:50**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**4q221.d**	**Column:**	**RTX-VOLATILES**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
75-71-8	Dichlorodifluoromethane	U	1.24	ug/kg	0.421	1.24	
74-87-3	Chloromethane	U	1.24	ug/kg	0.372	1.24	
75-01-4	Vinyl chloride	U	1.24	ug/kg	0.372	1.24	
74-83-9	Bromomethane	U	1.24	ug/kg	0.372	1.24	
75-00-3	Chloroethane	U	1.24	ug/kg	0.372	1.24	
75-69-4	Trichlorofluoromethane	U	1.24	ug/kg	0.372	1.24	
67-64-1	Acetone	J	2.26	ug/kg	2.06	6.20	U,V4d
75-35-4	1,1-Dichloroethylene	U	1.24	ug/kg	0.372	1.24	
74-88-4	Iodomethane	U	6.20	ug/kg	1.98	6.20	
75-09-2	Methylene chloride	U	6.20	ug/kg	2.48	6.20	
75-15-0	Carbon disulfide	U	6.20	ug/kg	1.55	6.20	
156-60-5	trans-1,2-Dichloroethylene	U	1.24	ug/kg	0.372	1.24	
75-34-3	1,1-Dichloroethane	U	1.24	ug/kg	0.372	1.24	
78-93-3	2-Butanone	U	6.20	ug/kg	1.86	6.20	UJ,V7c
156-59-2	cis-1,2-Dichloroethylene	U	1.24	ug/kg	0.372	1.24	
594-20-7	2,2-Dichloropropane	U	1.24	ug/kg	0.372	1.24	
67-66-3	Chloroform	U	1.24	ug/kg	0.372	1.24	
74-97-5	Bromochloromethane	U	1.24	ug/kg	0.409	1.24	
71-55-6	1,1,1-Trichloroethane	U	1.24	ug/kg	0.372	1.24	
563-58-6	1,1-Dichloropropene	U	1.24	ug/kg	0.372	1.24	
56-23-5	Carbon tetrachloride	U	1.24	ug/kg	0.372	1.24	
107-06-2	1,2-Dichloroethane	U	1.24	ug/kg	0.372	1.24	
71-43-2	Benzene	U	1.24	ug/kg	0.372	1.24	
79-01-6	Trichloroethylene	U	1.24	ug/kg	0.409	1.24	
78-87-5	1,2-Dichloropropane	U	1.24	ug/kg	0.372	1.24	
75-27-4	Bromodichloromethane	U	1.24	ug/kg	0.372	1.24	
74-95-3	Dibromomethane	U	1.24	ug/kg	0.372	1.24	
108-10-1	4-Methyl-2-pentanone	U	6.20	ug/kg	1.55	6.20	
10061-01-5	cis-1,3-Dichloropropylene	U	1.24	ug/kg	0.372	1.24	
108-88-3	Toluene	U	1.24	ug/kg	0.372	1.24	
10061-02-6	trans-1,3-Dichloropropylene	U	1.24	ug/kg	0.372	1.24	
79-00-5	1,1,2-Trichloroethane	U	1.24	ug/kg	0.372	1.24	
591-78-6	2-Hexanone	U	6.20	ug/kg	1.86	6.20	UJ,V7c
142-28-9	1,3-Dichloropropane	U	1.24	ug/kg	0.372	1.24	
127-18-4	Tetrachloroethylene	U	1.24	ug/kg	0.372	1.24	
124-48-1	Dibromochloromethane	U	1.24	ug/kg	0.372	1.24	
106-93-4	1,2-Dibromoethane	U	1.24	ug/kg	0.372	1.24	
108-90-7	Chlorobenzene	U	1.24	ug/kg	0.372	1.24	

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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-940	**Date Collected:**	12/14/2009 12:00	**Matrix:**	S
Lab Sample ID:	243033009	**Date Received:**	12/16/2009 09:10	**%Moisture:**	19.3
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-10-2734	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	936119	**Inst:**	VOA4.I	**Dilution:**	1
Run Date:	12/23/2009 05:10	**Analyst:**	ACJ	**Purge Vol:**	5 mL
Prep Date:	12/22/2009 22:50	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	4q221.d	**Column:**	RTX-VOLATILES	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.24	ug/kg	0.372	1.24
179601-23-1	m,p-Xylenes	U	2.48	ug/kg	0.372	2.48
95-47-6	o-Xylene	U	1.24	ug/kg	0.372	1.24
100-42-5	Styrene	U	1.24	ug/kg	0.372	1.24
75-25-2	Bromoform	U	1.24	ug/kg	0.372	1.24
79-34-5	1,1,2,2-Tetrachloroethane	U	1.24	ug/kg	0.372	1.24
96-18-4	1,2,3-Trichloropropane	U	1.24	ug/kg	0.372	1.24
108-86-1	Bromobenzene	U	1.24	ug/kg	0.372	1.24
103-65-1	n-Propylbenzene	U	1.24	ug/kg	0.372	1.24
95-49-8	2-Chlorotoluene	U	1.24	ug/kg	0.372	1.24
98-82-8	Isopropylbenzene	U	1.24	ug/kg	0.372	1.24
108-67-8	1,3,5-Trimethylbenzene	U	1.24	ug/kg	0.372	1.24
106-43-4	4-Chlorotoluene	U	1.24	ug/kg	0.372	1.24
98-06-6	tert-Butylbenzene	U	1.24	ug/kg	0.372	1.24
95-63-6	1,2,4-Trimethylbenzene	U	1.24	ug/kg	0.372	1.24
135-98-8	sec-Butylbenzene	U	1.24	ug/kg	0.372	1.24
99-87-6	4-Isopropyltoluene	U	1.24	ug/kg	0.372	1.24
541-73-1	1,3-Dichlorobenzene	U	1.24	ug/kg	0.372	1.24
106-46-7	1,4-Dichlorobenzene	U	1.24	ug/kg	0.372	1.24
104-51-8	n-Butylbenzene	U	1.24	ug/kg	0.372	1.24
96-12-8	1,2-Dibromo-3-chloropropane	U	1.24	ug/kg	0.372	1.24
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	6.20	ug/kg	1.98	6.20
630-20-6	1,1,1,2-Tetrachloroethane	U	1.24	ug/kg	0.372	1.24
95-50-1	1,2-Dichlorobenzene	U	1.24	ug/kg	0.372	1.24

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Siloxane	14.83	9.97	ug/kg		J
	Unknown Siloxane	16.79	29.2	ug/kg		J

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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-940**	**Date Collected:**	**12/14/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243033010**	**Date Received:**	**12/16/2009 09:10**		
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-10-8963**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**936119**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**12/23/2009 01:05**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**12/22/2009 22:51**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**4q212.d**	**Column:**	**RTX-VOLATILES**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
75-71-8	Dichlorodifluoromethane	U	1.00	ug/kg	0.340	1.00	
74-87-3	Chloromethane	U	1.00	ug/kg	0.300	1.00	
75-01-4	Vinyl chloride	U	1.00	ug/kg	0.300	1.00	
74-83-9	Bromomethane	U	1.00	ug/kg	0.300	1.00	
75-00-3	Chloroethane	U	1.00	ug/kg	0.300	1.00	
75-69-4	Trichlorofluoromethane	U	1.00	ug/kg	0.300	1.00	
67-64-1	Acetone	J	2.28	ug/kg	1.66	5.00	J,V7c
75-35-4	1,1-Dichloroethylene	U	1.00	ug/kg	0.300	1.00	
74-88-4	Iodomethane	U	5.00	ug/kg	1.60	5.00	
75-09-2	Methylene chloride	U	5.00	ug/kg	2.00	5.00	
75-15-0	Carbon disulfide	U	5.00	ug/kg	1.25	5.00	
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00	
75-34-3	1,1-Dichloroethane	U	1.00	ug/kg	0.300	1.00	
78-93-3	2-Butanone	U	5.00	ug/kg	1.50	5.00	UJ,V7c
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00	
594-20-7	2,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00	
67-66-3	Chloroform	U	1.00	ug/kg	0.300	1.00	
74-97-5	Bromochloromethane	U	1.00	ug/kg	0.330	1.00	
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/kg	0.300	1.00	
563-58-6	1,1-Dichloropropene	U	1.00	ug/kg	0.300	1.00	
56-23-5	Carbon tetrachloride	U	1.00	ug/kg	0.300	1.00	
107-06-2	1,2-Dichloroethane	U	1.00	ug/kg	0.300	1.00	
71-43-2	Benzene	U	1.00	ug/kg	0.300	1.00	
79-01-6	Trichloroethylene	U	1.00	ug/kg	0.330	1.00	
78-87-5	1,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00	
75-27-4	Bromodichloromethane	U	1.00	ug/kg	0.300	1.00	
74-95-3	Dibromomethane	U	1.00	ug/kg	0.300	1.00	
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/kg	1.25	5.00	
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00	
108-88-3	Toluene	U	1.00	ug/kg	0.300	1.00	
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00	
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/kg	0.300	1.00	
591-78-6	2-Hexanone	U	5.00	ug/kg	1.50	5.00	UJ,V7c
142-28-9	1,3-Dichloropropane	U	1.00	ug/kg	0.300	1.00	
127-18-4	Tetrachloroethylene	U	1.00	ug/kg	0.300	1.00	
124-48-1	Dibromochloromethane	U	1.00	ug/kg	0.300	1.00	
106-93-4	1,2-Dibromoethane	U	1.00	ug/kg	0.300	1.00	
108-90-7	Chlorobenzene	U	1.00	ug/kg	0.300	1.00	

P.S. 2/9/10

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-940**	**Date Collected:**	**12/14/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243033010**	**Date Received:**	**12/16/2009 09:10**		
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-10-8963**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**936119**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**12/23/2009 01:05**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**12/22/2009 22:51**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**4q212.d**	**Column:**	**RTX-VOLATILES**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.00	ug/kg	0.300	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/kg	0.300	2.00
95-47-6	o-Xylene	U	1.00	ug/kg	0.300	1.00
100-42-5	Styrene	U	1.00	ug/kg	0.300	1.00
75-25-2	Bromoform	U	1.00	ug/kg	0.300	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/kg	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/kg	0.300	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/kg	0.300	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/kg	0.300	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/kg	0.300	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/kg	0.300	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/kg	0.300	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/kg	0.300	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/kg	0.300	1.00
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.00	ug/kg	1.60	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated Units	Flt	Qual
	No Tentatively Identified Compounds Found		ug/kg		

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DATA VALIDATION COVER SHEET

5115-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-940 VALIDATION DATE: 02/09/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Peter Steves ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☒ OTHER (DESCRIBE): SVOCs

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☒	☐	☐	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☒	☐	☐	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. For the ICV/CCVs associated with all samples except RE03-09-14222, the %Ds were > 20% for pyridine, hexachlorocyclopentadiene, benzoic acid and hexachlorocyclopentadiene. For the ICV/CCVs associated with sample -09-14222 the %Ds were >20% for pyridine; 3-nitroaniline; 2,4-dinitrophenol and 4-nitroaniline. All associated sample results were NDs and, thus, were qualified UJ,SV7c.
2. The MS/MSD %Rs and/or RPDs for several compounds did not meet laboratory acceptance criteria. Since the analysis of an MS or MSD was not required for SVOCs, no sample data were qualified as a result. It should be noted that the parent sample for the QC analyses associated with sample -09-14222 was from another LANL RN. No sample data were qualified as a result.

Reviewed by: Mary Donivan Level: I Date: 02/09/10

VALIDATOR'S SIGNATURE: Mr. Peter Steves DATE: 02/09/10

SEMIVOLATILE ORGANIC COMPOUND (SVOC) ANALYTICAL DATA VALIDATION CHECKLIST

5115-2

Semivolatile Organic Compound (SVOC) Analytical Data Validation Checklist

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Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, SV9	J-, SV9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, SV9a	J-, SV9a
☐	☒	☐	3. The affected analytes are regarded as rejected because the analytical holding time was exceeded.	R, SV9b	R, SV9b
☐	☐	☒	4. The instrument performance sample did not pass method acceptance criteria.	R, SV16	R, SV16
☐	☐	☒	5. Samples were analyzed outside specific method tune time criteria.	N/A	J, SV16b
☐	☐	☒	6. The required instrument performance sample information is missing. Contact the SMO or external laboratory for information.	R, SV16c	R, SV16c
☐	☒	☐	7. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, SV7	J, SV7
☐	☒	☐	8. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, SV7a	J, SV7a
☐	☒	☐	9. The affected analytes were analyzed with an RRF of <0.05 in the initial calibration and/or Continuing Calibration Verification (CCV).	R, SV7b	J, SV7b
☒	☐	☐	10. The Initial Calibration Verification (ICV) and/or CCV were recovered outside the method-specific limits.	UJ, SV7c	J, SV7c
☐	☒	☐	11. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, SV7d	J, SV7d

SEMIVOLATILE ORGANIC COMPOUND (SVOC) ANALYTICAL DATA VALIDATION CHECKLIST

5115-2 Semivolatile Organic Compound (SVOC) Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	12. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, SV7f	R, SV7f
☐	☒	☐	13. The sample result is ≤5X (10X for common organic laboratory contaminates) the concentration of the related analyte in the method blank.	U, SV4	J, V4a
☐	☒	☐	14. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was greater than 5X (10X for common laboratory contaminates).	N/A	J, SV4a
☐	☐	☒	15. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	UJ, SV4d	N/A
☐	☒	☐	16. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV4e	R, SV4e
☐	☒	☐	17. The IS retention time has shifted by more than 30 seconds.	UJ, SV0	J, SV0
☐	☐	☒	18. Analyte is positively confirmed but outside the IS retention time window; however, spectral matches must be provided.	N/A	J, SV0a
☐	☒	☐	19. Required IS retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV0b	R, SV0b
☐	☐	☒	20. The quantitating IS area count is <10% of the expected value, which indicates increased potential for false negative results and other possible problems with sample quantitation. Follow method-specific windows.	R, SV1a	J, SV1a

SEMIVOLATILE ORGANIC COMPOUND (SVOC) ANALYTICAL DATA VALIDATION CHECKLIST

5115-2

Semivolatile Organic Compound (SVOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	21. The IS area count for the quantitating IS is <50% but >10% for organics window relation to the previous continuing calibration. Follow method-specific windows.	UJ, SV1b	J, SV1b
☐	☐	☒	22. The IS area count for the quantitating IS is >200% of the area count for the previous continuing calibration. Follow method-specific windows.	UJ, SV1c	J, SV1c
☐	☐	☒	23. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV1d	R, SV1d
☐	☒	☐	24. The surrogate is <10%R. Follow the external laboratory limits located within the associated data package.	R, SV3	J-, SV3
☐	☒	☐	25. The surrogate is < the Lower Acceptance Level (LAL) but ≥10%R. Follow the external laboratory limits located within the associated data package.	UJ, SV3a	J-, SV3a
☐	☒	☐	26. The surrogate %R value is > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, SV3b
☐	☒	☐	27. At least one surrogate is > the Upper Acceptance Limit (UAL) and one surrogate is < the LAL. Follow the external laboratory limits located within the associated data package.	UJ, SV3c	J, SV3c
☐	☒	☐	28. Required surrogate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV3d	R, SV3d
☐	☒	☐	29. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, SV12	J-, SV12

SEMIVOLATILE ORGANIC COMPOUND (SVOC) ANALYTICAL DATA VALIDATION CHECKLIST

5115-2

Semivolatile Organic Compound (SVOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	30. The LCS percent recovery was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, SV12a	J-, SV12a
☐	☒	☐	31. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, SV12b
☐	☒	☐	32. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV12c	R, SV12c
☐	☒	☐	33. The affected analyte is considered not detected because mass spectrum did not meet specifications.	N/A	U, SV8
☐	☒	☐	34. The mass spectrum column documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV8a	R, SV8a
☐	☒	☐	35. Duplicate, dilution, or reanalysis.	UJ, SV88	J, SV88
☐	☐	☒	36. The affected analytes have elevated detection limits and may not meet project DQOs because the sample was diluted without any target analytees identified due to matrix interference. Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.	UJ, R, SV15	R, SV15
☒	☐	☐	37. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB, NQ, NQ
☐	☒	☐	38. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.	UJ, R, SV19	J, R, SV19

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-940	Date Collected:	12/14/2009 12:00	Matrix:	S
Lab Sample ID:	243033005	Date Received:	12/16/2009 09:10	%Moisture:	12.8
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14208	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	934979	Inst:	MSD6.I	Dilution:	1
Run Date:	12/22/2009 20:39	Analyst:	NAG1	Inj. Vol:	.5 uL
Prep Date:	12/21/2009 11:03	Aliquot:	30.02 g	Final Volume:	1 mL
Data File:		Column:			

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
62-75-9	N-Methyl-N-nitrosomethylamine	U	382	ug/kg	76.4	382	
108-95-2	Phenol	U	382	ug/kg	76.4	382	
95-57-8	2-Chlorophenol	U	382	ug/kg	76.4	382	
106-46-7	1,4-Dichlorobenzene	U	382	ug/kg	76.4	382	
621-64-7	N-Nitrosodipropylamine	U	382	ug/kg	76.4	382	
59-50-7	4-Chloro-3-methylphenol	U	382	ug/kg	76.4	382	
83-32-9	Acenaphthene	U	38.2	ug/kg	12.6	38.2	
121-14-2	2,4-Dinitrotoluene	U	382	ug/kg	38.2	382	
100-02-7	4-Nitrophenol	U	382	ug/kg	126	382	
87-86-5	Pentachlorophenol	U	382	ug/kg	95.5	382	
129-00-0	Pyrene	U	38.2	ug/kg	11.5	38.2	
110-86-1	Pyridine	U	382	ug/kg	76.4	382	UJ,SV7c
62-53-3	Aniline	U	382	ug/kg	115	382	
111-44-4	bis(2-Chloroethyl) ether	U	382	ug/kg	76.4	382	
541-73-1	1,3-Dichlorobenzene	U	382	ug/kg	76.4	382	
100-51-6	Benzyl alcohol	U	382	ug/kg	115	382	
95-50-1	1,2-Dichlorobenzene	U	382	ug/kg	76.4	382	
108-60-1	bis(2-Chloroisopropyl)ether	U	382	ug/kg	76.4	382	
95-48-7	o-Cresol	U	382	ug/kg	76.4	382	
65794-96-9	m,p-Cresols	U	382	ug/kg	115	382	
67-72-1	Hexachloroethane	U	382	ug/kg	76.4	382	
98-95-3	Nitrobenzene	U	382	ug/kg	76.4	382	
78-59-1	Isophorone	U	382	ug/kg	76.4	382	
88-75-5	2-Nitrophenol	U	382	ug/kg	76.4	382	
105-67-9	2,4-Dimethylphenol	U	382	ug/kg	134	382	
111-91-1	bis(2-Chloroethoxy)methane	U	382	ug/kg	76.4	382	
120-83-2	2,4-Dichlorophenol	U	382	ug/kg	76.4	382	
65-85-0	Benzoic acid	U	764	ug/kg	191	764	UJ,SV7c
91-20-3	Naphthalene	U	38.2	ug/kg	11.5	38.2	
106-47-8	4-Chloroaniline	U	382	ug/kg	76.4	382	
87-68-3	Hexachlorobutadiene	U	382	ug/kg	76.4	382	
91-57-6	2-Methylnaphthalene	U	38.2	ug/kg	7.64	38.2	
77-47-4	Hexachlorocyclopentadiene	U	382	ug/kg	76.4	382	UJ,SV7c
88-06-2	2,4,6-Trichlorophenol	U	382	ug/kg	76.4	382	
95-95-4	2,4,5-Trichlorophenol	U	382	ug/kg	76.4	382	
91-58-7	2-Chloronaphthalene	U	38.2	ug/kg	12.6	38.2	
88-74-4	2-Nitroaniline	U	382	ug/kg	76.4	382	
	o-Nitroaniline						
99-09-2	3-Nitroaniline	U	382	ug/kg	76.4	382	

P.S. 2/9/10

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-940	**Date Collected:**	12/14/2009 12:00	**Matrix:**	S
Lab Sample ID:	243033005	**Date Received:**	12/16/2009 09:10	**%Moisture:**	12.8
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14208	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	934979	**Inst:**	MSD6.I	**Dilution:**	1
Run Date:	12/22/2009 20:39	**Analyst:**	NAG1	**Inj. Vol:**	.5 uL
Prep Date:	12/21/2009 11:03	**Aliquot:**	30.02 g	**Final Volume:**	1 mL
Data File:		**Column:**			

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	382	ug/kg	76.4	382
606-20-2	2,6-Dinitrotoluene	U	382	ug/kg	38.2	382
208-96-8	Acenaphthylene	U	38.2	ug/kg	11.5	38.2
51-28-5	2,4-Dinitrophenol	U	764	ug/kg	145	764
132-64-9	Dibenzofuran	U	382	ug/kg	76.4	382
84-66-2	Diethylphthalate	U	382	ug/kg	76.4	382
86-73-7	Fluorene	U	38.2	ug/kg	11.5	38.2
7005-72-3	4-Chlorophenylphenylether	U	382	ug/kg	76.4	382
534-52-1	2-Methyl-4,6-dinitrophenol	U	382	ug/kg	76.4	382
100-01-6	4-Nitroaniline	U	382	ug/kg	115	382
	p-Nitroaniline					
122-39-4	Diphenylamine	U	382	ug/kg	76.4	382
122-66-7	Azobenzene	U	382	ug/kg	76.4	382
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	382	ug/kg	76.4	382
118-74-1	Hexachlorobenzene	U	382	ug/kg	76.4	382
85-01-8	Phenanthrene	U	38.2	ug/kg	11.5	38.2
120-12-7	Anthracene	U	38.2	ug/kg	7.64	38.2
84-74-2	Di-n-butylphthalate	U	382	ug/kg	76.4	382
206-44-0	Fluoranthene	U	38.2	ug/kg	11.5	38.2
85-68-7	Butylbenzylphthalate	U	382	ug/kg	76.4	382
56-55-3	Benzo(a)anthracene	U	38.2	ug/kg	11.5	38.2
91-94-1	3,3'-Dichlorobenzidine	U	382	ug/kg	115	382
218-01-9	Chrysene	U	38.2	ug/kg	11.5	38.2
117-81-7	bis(2-Ethylhexyl)phthalate	U	382	ug/kg	76.4	382
117-84-0	Di-n-octylphthalate	U	382	ug/kg	76.4	382
205-99-2	Benzo(b)fluoranthene	U	38.2	ug/kg	11.5	38.2
207-08-9	Benzo(k)fluoranthene	U	38.2	ug/kg	11.5	38.2
50-32-8	Benzo(a)pyrene	U	38.2	ug/kg	11.5	38.2
193-39-5	Indeno(1,2,3-cd)pyrene	U	38.2	ug/kg	11.5	38.2
53-70-3	Dibenzo(a,h)anthracene	U	38.2	ug/kg	11.5	38.2
191-24-2	Benzo(ghi)perylene	U	38.2	ug/kg	11.5	38.2
120-82-1	1,2,4-Trichlorobenzene	U	382	ug/kg	76.4	382

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	No Tentatively Identified Compounds Found			ug/kg		

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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-940**	**Date Collected:**	**12/14/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243033004**	**Date Received:**	**12/16/2009 09:10**	**%Moisture:**	**11.6**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14209**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**934979**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**12/22/2009 20:11**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/21/2009 11:03**	**Aliquot:**	**30.05 g**	**Final Volume:**	**1 mL**
Data File:	**s612217.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
62-75-9	N-Methyl-N-nitrosomethylamine	U	376	ug/kg	75.2	376	
108-95-2	Phenol	U	376	ug/kg	75.2	376	
95-57-8	2-Chlorophenol	U	376	ug/kg	75.2	376	
106-46-7	1,4-Dichlorobenzene	U	376	ug/kg	75.2	376	
621-64-7	N-Nitrosodipropylamine	U	376	ug/kg	75.2	376	
59-50-7	4-Chloro-3-methylphenol	U	376	ug/kg	75.2	376	
83-32-9	Acenaphthene	U	37.6	ug/kg	12.4	37.6	
121-14-2	2,4-Dinitrotoluene	U	376	ug/kg	37.6	376	
100-02-7	4-Nitrophenol	U	376	ug/kg	124	376	
87-86-5	Pentachlorophenol	U	376	ug/kg	94.1	376	
129-00-0	Pyrene	U	37.6	ug/kg	11.3	37.6	
110-86-1	Pyridine	U	376	ug/kg	75.2	376	UJ,SV7c
62-53-3	Aniline	U	376	ug/kg	113	376	
111-44-4	bis(2-Chloroethyl) ether	U	376	ug/kg	75.2	376	
541-73-1	1,3-Dichlorobenzene	U	376	ug/kg	75.2	376	
100-51-6	Benzyl alcohol	U	376	ug/kg	113	376	
95-50-1	1,2-Dichlorobenzene	U	376	ug/kg	75.2	376	
108-60-1	bis(2-Chloroisopropyl)ether	U	376	ug/kg	75.2	376	
95-48-7	o-Cresol	U	376	ug/kg	75.2	376	
65794-96-9	m,p-Cresols	U	376	ug/kg	113	376	
67-72-1	Hexachloroethane	U	376	ug/kg	75.2	376	
98-95-3	Nitrobenzene	U	376	ug/kg	75.2	376	
78-59-1	Isophorone	U	376	ug/kg	75.2	376	
88-75-5	2-Nitrophenol	U	376	ug/kg	75.2	376	
105-67-9	2,4-Dimethylphenol	U	376	ug/kg	132	376	
111-91-1	bis(2-Chloroethoxy)methane	U	376	ug/kg	75.2	376	
120-83-2	2,4-Dichlorophenol	U	376	ug/kg	75.2	376	
65-85-0	Benzoic acid	U	752	ug/kg	188	752	UJ,SV7c
91-20-3	Naphthalene	U	37.6	ug/kg	11.3	37.6	
106-47-8	4-Chloroaniline	U	376	ug/kg	75.2	376	
87-68-3	Hexachlorobutadiene	U	376	ug/kg	75.2	376	
91-57-6	2-Methylnaphthalene	U	37.6	ug/kg	7.52	37.6	
77-47-4	Hexachlorocyclopentadiene	U	376	ug/kg	75.2	376	UJ,SV7c
88-06-2	2,4,6-Trichlorophenol	U	376	ug/kg	75.2	376	
95-95-4	2,4,5-Trichlorophenol	U	376	ug/kg	75.2	376	
91-58-7	2-Chloronaphthalene	U	37.6	ug/kg	12.4	37.6	
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	376	ug/kg	75.2	376	
99-09-2	3-Nitroaniline	U	376	ug/kg	75.2	376	

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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-940	**Date Collected:**	12/14/2009 12:00	**Matrix:**	S
Lab Sample ID:	243033004	**Date Received:**	12/16/2009 09:10	**%Moisture:**	11.6
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14209	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	934979	**Inst:**	MSD6.I	**Dilution:**	1
Run Date:	12/22/2009 20:11	**Analyst:**	NAG1	**Inj. Vol:**	.5 uL
Prep Date:	12/21/2009 11:03	**Aliquot:**	30.05 g	**Final Volume:**	1 mL
Data File:	s6l2217.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	376	ug/kg	75.2	376
606-20-2	2,6-Dinitrotoluene	U	376	ug/kg	37.6	376
208-96-8	Acenaphthylene	U	37.6	ug/kg	11.3	37.6
51-28-5	2,4-Dinitrophenol	U	752	ug/kg	143	752
132-64-9	Dibenzofuran	U	376	ug/kg	75.2	376
84-66-2	Diethylphthalate	U	376	ug/kg	75.2	376
86-73-7	Fluorene	U	37.6	ug/kg	11.3	37.6
7005-72-3	4-Chlorophenylphenylether	U	376	ug/kg	75.2	376
534-52-1	2-Methyl-4,6-dinitrophenol	U	376	ug/kg	75.2	376
100-01-6	4-Nitroaniline	U	376	ug/kg	113	376
	p-Nitroaniline					
122-39-4	Diphenylamine	U	376	ug/kg	75.2	376
122-66-7	Azobenzene	U	376	ug/kg	75.2	376
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	376	ug/kg	75.2	376
118-74-1	Hexachlorobenzene	U	376	ug/kg	75.2	376
85-01-8	Phenanthrene	U	37.6	ug/kg	11.3	37.6
120-12-7	Anthracene	U	37.6	ug/kg	7.52	37.6
84-74-2	Di-n-butylphthalate	U	376	ug/kg	75.2	376
206-44-0	Fluoranthene	U	37.6	ug/kg	11.3	37.6
85-68-7	Butylbenzylphthalate	U	376	ug/kg	75.2	376
56-55-3	Benzo(a)anthracene	U	37.6	ug/kg	11.3	37.6
91-94-1	3,3'-Dichlorobenzidine	U	376	ug/kg	113	376
218-01-9	Chrysene	U	37.6	ug/kg	11.3	37.6
117-81-7	bis(2-Ethylhexyl)phthalate	U	376	ug/kg	75.2	376
117-84-0	Di-n-octylphthalate	U	376	ug/kg	75.2	376
205-99-2	Benzo(b)fluoranthene	U	37.6	ug/kg	11.3	37.6
207-08-9	Benzo(k)fluoranthene	U	37.6	ug/kg	11.3	37.6
50-32-8	Benzo(a)pyrene	U	37.6	ug/kg	11.3	37.6
193-39-5	Indeno(1,2,3-cd)pyrene	U	37.6	ug/kg	11.3	37.6
53-70-3	Dibenzo(a,h)anthracene	U	37.6	ug/kg	11.3	37.6
191-24-2	Benzo(ghi)perylene	U	37.6	ug/kg	11.3	37.6
120-82-1	1,2,4-Trichlorobenzene	U	376	ug/kg	75.2	376

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	3.58	656	ug/kg		JA
	Unknown	17.47	202	ug/kg		J

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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-940	**Date Collected:**	12/14/2009 12:00	**Matrix:**	S
Lab Sample ID:	243033003	**Date Received:**	12/16/2009 09:10	**%Moisture:**	13.6
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14210	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	934979	**Inst:**	MSD6.I	**Dilution:**	1
Run Date:	12/22/2009 19:43	**Analyst:**	NAG1	**Inj. Vol:**	.5 uL
Prep Date:	12/21/2009 11:03	**Aliquot:**	30.09 g	**Final Volume:**	1 mL
Data File:	s612216.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
62-75-9	N-Methyl-N-nitrosomethylamine	U	385	ug/kg	76.9	385	
108-95-2	Phenol	U	385	ug/kg	76.9	385	
95-57-8	2-Chlorophenol	U	385	ug/kg	76.9	385	
106-46-7	1,4-Dichlorobenzene	U	385	ug/kg	76.9	385	
621-64-7	N-Nitrosodipropylamine	U	385	ug/kg	76.9	385	
59-50-7	4-Chloro-3-methylphenol	U	385	ug/kg	76.9	385	
83-32-9	Acenaphthene	U	38.5	ug/kg	12.7	38.5	
121-14-2	2,4-Dinitrotoluene	U	385	ug/kg	38.5	385	
100-02-7	4-Nitrophenol	U	385	ug/kg	127	385	
87-86-5	Pentachlorophenol	U	385	ug/kg	96.2	385	
129-00-0	Pyrene	U	38.5	ug/kg	11.5	38.5	
110-86-1	Pyridine	U	385	ug/kg	76.9	385	UJ,SV7c
62-53-3	Aniline	U	385	ug/kg	115	385	
111-44-4	bis(2-Chloroethyl) ether	U	385	ug/kg	76.9	385	
541-73-1	1,3-Dichlorobenzene	U	385	ug/kg	76.9	385	
100-51-6	Benzyl alcohol	U	385	ug/kg	115	385	
95-50-1	1,2-Dichlorobenzene	U	385	ug/kg	76.9	385	
108-60-1	bis(2-Chloroisopropyl)ether	U	385	ug/kg	76.9	385	
95-48-7	o-Cresol	U	385	ug/kg	76.9	385	
65794-96-9	m,p-Cresols	U	385	ug/kg	115	385	
67-72-1	Hexachloroethane	U	385	ug/kg	76.9	385	
98-95-3	Nitrobenzene	U	385	ug/kg	76.9	385	
78-59-1	Isophorone	U	385	ug/kg	76.9	385	
88-75-5	2-Nitrophenol	U	385	ug/kg	76.9	385	
105-67-9	2,4-Dimethylphenol	U	385	ug/kg	135	385	
111-91-1	bis(2-Chloroethoxy)methane	U	385	ug/kg	76.9	385	
120-83-2	2,4-Dichlorophenol	U	385	ug/kg	76.9	385	
65-85-0	Benzoic acid	U	769	ug/kg	192	769	UJ,SV7c
91-20-3	Naphthalene	U	38.5	ug/kg	11.5	38.5	
106-47-8	4-Chloroaniline	U	385	ug/kg	76.9	385	
87-68-3	Hexachlorobutadiene	U	385	ug/kg	76.9	385	
91-57-6	2-Methylnaphthalene	U	38.5	ug/kg	7.69	38.5	
77-47-4	Hexachlorocyclopentadiene	U	385	ug/kg	76.9	385	UJ,SV7c
88-06-2	2,4,6-Trichlorophenol	U	385	ug/kg	76.9	385	
95-95-4	2,4,5-Trichlorophenol	U	385	ug/kg	76.9	385	
91-58-7	2-Chloronaphthalene	U	38.5	ug/kg	12.7	38.5	
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	385	ug/kg	76.9	385	
99-09-2	3-Nitroaniline	U	385	ug/kg	76.9	385	

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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-940	**Date Collected:**	12/14/2009 12:00	**Matrix:**	S
Lab Sample ID:	243033003	**Date Received:**	12/16/2009 09:10	**%Moisture:**	13.6
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14210	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	934979	**Inst:**	MSD6.I	**Dilution:**	1
Run Date:	12/22/2009 19:43	**Analyst:**	NAG1	**Inj. Vol:**	.5 uL
Prep Date:	12/21/2009 11:03	**Aliquot:**	30.09 g	**Final Volume:**	1 mL
Data File:	s612216.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	385	ug/kg	76.9	385
606-20-2	2,6-Dinitrotoluene	U	385	ug/kg	38.5	385
208-96-8	Acenaphthylene	U	38.5	ug/kg	11.5	38.5
51-28-5	2,4-Dinitrophenol	U	769	ug/kg	146	769
132-64-9	Dibenzofuran	U	385	ug/kg	76.9	385
84-66-2	Diethylphthalate	U	385	ug/kg	76.9	385
86-73-7	Fluorene	U	38.5	ug/kg	11.5	38.5
7005-72-3	4-Chlorophenylphenylether	U	385	ug/kg	76.9	385
534-52-1	2-Methyl-4,6-dinitrophenol	U	385	ug/kg	76.9	385
100-01-6	4-Nitroaniline	U	385	ug/kg	115	385
	p-Nitroaniline					
122-39-4	Diphenylamine	U	385	ug/kg	76.9	385
122-66-7	Azobenzene	U	385	ug/kg	76.9	385
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	385	ug/kg	76.9	385
118-74-1	Hexachlorobenzene	U	385	ug/kg	76.9	385
85-01-8	Phenanthrene	U	38.5	ug/kg	11.5	38.5
120-12-7	Anthracene	U	38.5	ug/kg	7.69	38.5
84-74-2	Di-n-butylphthalate	U	385	ug/kg	76.9	385
206-44-0	Fluoranthene	U	38.5	ug/kg	11.5	38.5
85-68-7	Butylbenzylphthalate	U	385	ug/kg	76.9	385
56-55-3	Benzo(a)anthracene	U	38.5	ug/kg	11.5	38.5
91-94-1	3,3'-Dichlorobenzidine	U	385	ug/kg	115	385
218-01-9	Chrysene	U	38.5	ug/kg	11.5	38.5
117-81-7	bis(2-Ethylhexyl)phthalate	U	385	ug/kg	76.9	385
117-84-0	Di-n-octylphthalate	U	385	ug/kg	76.9	385
205-99-2	Benzo(b)fluoranthene	U	38.5	ug/kg	11.5	38.5
207-08-9	Benzo(k)fluoranthene	U	38.5	ug/kg	11.5	38.5
50-32-8	Benzo(a)pyrene	U	38.5	ug/kg	11.5	38.5
193-39-5	Indeno(1,2,3-cd)pyrene	U	38.5	ug/kg	11.5	38.5
53-70-3	Dibenzo(a,h)anthracene	U	38.5	ug/kg	11.5	38.5
191-24-2	Benzo(ghi)perylene	U	38.5	ug/kg	11.5	38.5
120-82-1	1,2,4-Trichlorobenzene	U	385	ug/kg	76.9	385

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	3.56	608	ug/kg		JA

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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-940	Date Collected:	12/14/2009 12:00	Matrix:	S
Lab Sample ID:	243033002	Date Received:	12/16/2009 09:10	%Moisture:	14.3
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14211	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	934979	Inst:	MSD6.I	Dilution:	1
Run Date:	12/22/2009 19:15	Analyst:	NAG1	Inj. Vol:	.5 uL
Prep Date:	12/21/2009 11:03	Aliquot:	30 g	Final Volume:	1 mL
Data File:	s612215.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
62-75-9	N-Methyl-N-nitrosomethylamine	U	389	ug/kg	77.8	389	
108-95-2	Phenol	U	389	ug/kg	77.8	389	
95-57-8	2-Chlorophenol	U	389	ug/kg	77.8	389	
106-46-7	1,4-Dichlorobenzene	U	389	ug/kg	77.8	389	
621-64-7	N-Nitrosodipropylamine	U	389	ug/kg	77.8	389	
59-50-7	4-Chloro-3-methylphenol	U	389	ug/kg	77.8	389	
83-32-9	Acenaphthene	U	38.9	ug/kg	12.8	38.9	
121-14-2	2,4-Dinitrotoluene	U	389	ug/kg	38.9	389	
100-02-7	4-Nitrophenol	U	389	ug/kg	128	389	
87-86-5	Pentachlorophenol	U	389	ug/kg	97.3	389	
129-00-0	Pyrene	U	38.9	ug/kg	11.7	38.9	
110-86-1	Pyridine	U	389	ug/kg	77.8	389	UJ,SV7c
62-53-3	Aniline	U	389	ug/kg	117	389	
111-44-4	bis(2-Chloroethyl) ether	U	389	ug/kg	77.8	389	
541-73-1	1,3-Dichlorobenzene	U	389	ug/kg	77.8	389	
100-51-6	Benzyl alcohol	U	389	ug/kg	117	389	
95-50-1	1,2-Dichlorobenzene	U	389	ug/kg	77.8	389	
108-60-1	bis(2-Chloroisopropyl)ether	U	389	ug/kg	77.8	389	
95-48-7	o-Cresol	U	389	ug/kg	77.8	389	
65794-96-9	m,p-Cresols	U	389	ug/kg	117	389	
67-72-1	Hexachloroethane	U	389	ug/kg	77.8	389	
98-95-3	Nitrobenzene	U	389	ug/kg	77.8	389	
78-59-1	Isophorone	U	389	ug/kg	77.8	389	
88-75-5	2-Nitrophenol	U	389	ug/kg	77.8	389	
105-67-9	2,4-Dimethylphenol	U	389	ug/kg	136	389	
111-91-1	bis(2-Chloroethoxy)methane	U	389	ug/kg	77.8	389	
120-83-2	2,4-Dichlorophenol	U	389	ug/kg	77.8	389	
65-85-0	Benzoic acid	U	778	ug/kg	195	778	UJ,SV7c
91-20-3	Naphthalene	U	38.9	ug/kg	11.7	38.9	
106-47-8	4-Chloroaniline	U	389	ug/kg	77.8	389	
87-68-3	Hexachlorobutadiene	U	389	ug/kg	77.8	389	
91-57-6	2-Methylnaphthalene	U	38.9	ug/kg	7.78	38.9	
77-47-4	Hexachlorocyclopentadiene	U	389	ug/kg	77.8	389	UJ,SV7c
88-06-2	2,4,6-Trichlorophenol	U	389	ug/kg	77.8	389	
95-95-4	2,4,5-Trichlorophenol	U	389	ug/kg	77.8	389	
91-58-7	2-Chloronaphthalene	U	38.9	ug/kg	12.8	38.9	
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	389	ug/kg	77.8	389	
99-09-2	3-Nitroaniline	U	389	ug/kg	77.8	389	

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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-940	Date Collected:	12/14/2009 12:00	Matrix:	S
Lab Sample ID:	243033002	Date Received:	12/16/2009 09:10	%Moisture:	14.3
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14211	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	934979	Inst:	MSD6.I	Dilution:	1
Run Date:	12/22/2009 19:15	Analyst:	NAG1	Inj. Vol:	.5 uL
Prep Date:	12/21/2009 11:03	Aliquot:	30 g	Final Volume:	1 mL
Data File:	s612215.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	389	ug/kg	77.8	389
606-20-2	2,6-Dinitrotoluene	U	389	ug/kg	38.9	389
208-96-8	Acenaphthylene	U	38.9	ug/kg	11.7	38.9
51-28-5	2,4-Dinitrophenol	U	778	ug/kg	148	778
132-64-9	Dibenzofuran	U	389	ug/kg	77.8	389
84-66-2	Diethylphthalate	U	389	ug/kg	77.8	389
86-73-7	Fluorene	U	38.9	ug/kg	11.7	38.9
7005-72-3	4-Chlorophenylphenylether	U	389	ug/kg	77.8	389
534-52-1	2-Methyl-4,6-dinitrophenol	U	389	ug/kg	77.8	389
100-01-6	4-Nitroaniline	U	389	ug/kg	117	389
	p-Nitroaniline					
122-39-4	Diphenylamine	U	389	ug/kg	77.8	389
122-66-7	Azobenzene	U	389	ug/kg	77.8	389
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	389	ug/kg	77.8	389
118-74-1	Hexachlorobenzene	U	389	ug/kg	77.8	389
85-01-8	Phenanthrene	U	38.9	ug/kg	11.7	38.9
120-12-7	Anthracene	U	38.9	ug/kg	7.78	38.9
84-74-2	Di-n-butylphthalate	U	389	ug/kg	77.8	389
206-44-0	Fluoranthene	U	38.9	ug/kg	11.7	38.9
85-68-7	Butylbenzylphthalate	U	389	ug/kg	77.8	389
56-55-3	Benzo(a)anthracene	U	38.9	ug/kg	11.7	38.9
91-94-1	3,3'-Dichlorobenzidine	U	389	ug/kg	117	389
218-01-9	Chrysene	U	38.9	ug/kg	11.7	38.9
117-81-7	bis(2-Ethylhexyl)phthalate	U	389	ug/kg	77.8	389
117-84-0	Di-n-octylphthalate	U	389	ug/kg	77.8	389
205-99-2	Benzo(b)fluoranthene	U	38.9	ug/kg	11.7	38.9
207-08-9	Benzo(k)fluoranthene	U	38.9	ug/kg	11.7	38.9
50-32-8	Benzo(a)pyrene	U	38.9	ug/kg	11.7	38.9
193-39-5	Indeno(1,2,3-cd)pyrene	U	38.9	ug/kg	11.7	38.9
53-70-3	Dibenzo(a,h)anthracene	U	38.9	ug/kg	11.7	38.9
191-24-2	Benzo(ghi)perylene	U	38.9	ug/kg	11.7	38.9
120-82-1	1,2,4-Trichlorobenzene	U	389	ug/kg	77.8	389

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	3.57	657	ug/kg		JA

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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-940	**Date Collected:**	12/14/2009 12:00	**Matrix:**	S
Lab Sample ID:	243033008	**Date Received:**	12/16/2009 09:10	**%Moisture:**	15.6
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14220	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	934979	**Inst:**	MSD6.I	**Dilution:**	1
Run Date:	12/22/2009 22:01	**Analyst:**	NAG1	**Inj. Vol:**	.5 uL
Prep Date:	12/21/2009 11:03	**Aliquot:**	30.02 g	**Final Volume:**	1 mL
Data File:	s612221.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
62-75-9	N-Methyl-N-nitrosomethylamine	U	395	ug/kg	78.9	395	
108-95-2	Phenol	U	395	ug/kg	78.9	395	
95-57-8	2-Chlorophenol	U	395	ug/kg	78.9	395	
106-46-7	1,4-Dichlorobenzene	U	395	ug/kg	78.9	395	
621-64-7	N-Nitrosodipropylamine	U	395	ug/kg	78.9	395	
59-50-7	4-Chloro-3-methylphenol	U	395	ug/kg	78.9	395	
83-32-9	Acenaphthene		217	ug/kg	13.0	39.5	
121-14-2	2,4-Dinitrotoluene	U	395	ug/kg	39.5	395	
100-02-7	4-Nitrophenol	U	395	ug/kg	130	395	
87-86-5	Pentachlorophenol	U	395	ug/kg	98.6	395	
129-00-0	Pyrene		2990	ug/kg	11.8	39.5	
110-86-1	Pyridine	U	395	ug/kg	78.9	395	UJ,SV7c
62-53-3	Aniline	U	395	ug/kg	118	395	
111-44-4	bis(2-Chloroethyl) ether	U	395	ug/kg	78.9	395	
541-73-1	1,3-Dichlorobenzene	U	395	ug/kg	78.9	395	
100-51-6	Benzyl alcohol	U	395	ug/kg	118	395	
95-50-1	1,2-Dichlorobenzene	U	395	ug/kg	78.9	395	
108-60-1	bis(2-Chloroisopropyl)ether	U	395	ug/kg	78.9	395	
95-48-7	o-Cresol	U	395	ug/kg	78.9	395	
65794-96-9	m,p-Cresols	U	395	ug/kg	118	395	
67-72-1	Hexachloroethane	U	395	ug/kg	78.9	395	
98-95-3	Nitrobenzene	U	395	ug/kg	78.9	395	
78-59-1	Isophorone	U	395	ug/kg	78.9	395	
88-75-5	2-Nitrophenol	U	395	ug/kg	78.9	395	
105-67-9	2,4-Dimethylphenol	U	395	ug/kg	138	395	
111-91-1	bis(2-Chloroethoxy)methane	U	395	ug/kg	78.9	395	
120-83-2	2,4-Dichlorophenol	U	395	ug/kg	78.9	395	
65-85-0	Benzoic acid	U	789	ug/kg	197	789	UJ,SV7c
91-20-3	Naphthalene		106	ug/kg	11.8	39.5	
106-47-8	4-Chloroaniline	U	395	ug/kg	78.9	395	
87-68-3	Hexachlorobutadiene	U	395	ug/kg	78.9	395	
91-57-6	2-Methylnaphthalene	J	37.2	ug/kg	7.89	39.5	
77-47-4	Hexachlorocyclopentadiene	U	395	ug/kg	78.9	395	UJ,SV7c
88-06-2	2,4,6-Trichlorophenol	U	395	ug/kg	78.9	395	
95-95-4	2,4,5-Trichlorophenol	U	395	ug/kg	78.9	395	
91-58-7	2-Chloronaphthalene	U	39.5	ug/kg	13.0	39.5	
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	395	ug/kg	78.9	395	
99-09-2	3-Nitroaniline	U	395	ug/kg	78.9	395	

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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-940**	**Date Collected:**	**12/14/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243033008**	**Date Received:**	**12/16/2009 09:10**	**%Moisture:**	**15.6**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14220**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**934979**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**12/22/2009 22:01**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/21/2009 11:03**	**Aliquot:**	**30.02 g**	**Final Volume:**	**1 mL**
Data File:	**s612221.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	395	ug/kg	78.9	395
606-20-2	2,6-Dinitrotoluene	U	395	ug/kg	39.5	395
208-96-8	Acenaphthylene	U	39.5	ug/kg	11.8	39.5
51-28-5	2,4-Dinitrophenol	U	789	ug/kg	150	789
132-64-9	Dibenzofuran	J	150	ug/kg	78.9	395
84-66-2	Diethylphthalate	U	395	ug/kg	78.9	395
86-73-7	Fluorene		252	ug/kg	11.8	39.5
7005-72-3	4-Chlorophenylphenylether	U	395	ug/kg	78.9	395
534-52-1	2-Methyl-4,6-dinitrophenol	U	395	ug/kg	78.9	395
100-01-6	4-Nitroaniline	U	395	ug/kg	118	395
	p-Nitroaniline					
122-39-4	Diphenylamine	U	395	ug/kg	78.9	395
122-66-7	Azobenzene	U	395	ug/kg	78.9	395
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	395	ug/kg	78.9	395
118-74-1	Hexachlorobenzene	U	395	ug/kg	78.9	395
85-01-8	Phenanthrene		2350	ug/kg	11.8	39.5
120-12-7	Anthracene		690	ug/kg	7.89	39.5
84-74-2	Di-n-butylphthalate	J	118	ug/kg	78.9	395
206-44-0	Fluoranthene		3990	ug/kg	11.8	39.5
85-68-7	Butylbenzylphthalate	U	395	ug/kg	78.9	395
56-55-3	Benzo(a)anthracene		2330	ug/kg	11.8	39.5
91-94-1	3,3'-Dichlorobenzidine	U	395	ug/kg	118	395
218-01-9	Chrysene		2290	ug/kg	11.8	39.5
117-81-7	bis(2-Ethylhexyl)phthalate	J	91.0	ug/kg	78.9	395
117-84-0	Di-n-octylphthalate	U	395	ug/kg	78.9	395
205-99-2	Benzo(b)fluoranthene		3060	ug/kg	11.8	39.5
207-08-9	Benzo(k)fluoranthene		975	ug/kg	11.8	39.5
50-32-8	Benzo(a)pyrene		2180	ug/kg	11.8	39.5
193-39-5	Indeno(1,2,3-cd)pyrene		1050	ug/kg	11.8	39.5
53-70-3	Dibenzo(a,h)anthracene		401	ug/kg	11.8	39.5
191-24-2	Benzo(ghi)perylene		973	ug/kg	11.8	39.5
120-82-1	1,2,4-Trichlorobenzene	U	395	ug/kg	78.9	395

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	3.57	619	ug/kg		JA
86-74-8	Carbazole	9.99	281	ug/kg	93	NJ

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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-940**	**Date Collected:**	**12/14/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243033008**	**Date Received:**	**12/16/2009 09:10**	**%Moisture:**	**15.6**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14220**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**934979**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**12/22/2009 22:01**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/21/2009 11:03**	**Aliquot:**	**30.02 g**	**Final Volume:**	**1 mL**
Data File:	**s6l2221.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
2531-84-2	Phenanthrene, 2-methyl-	10.28	186	ug/kg	98	NJ
203-64-5	4H-Cyclopenta[def]phenanthrene	10.41	318	ug/kg	96	NJ
243-17-4	11H-Benzo[b]fluorene	11.68	204	ug/kg	95	NJ
112-84-5	13-Docosenamide, (Z)-	14.05	290	ug/kg	93	NJ
198-55-0	Perylene	15.28	548	ug/kg	99	NJ
112-95-8	Eicosane	16	227	ug/kg	98	NJ
214-17-5	Benzo[b]chrysene	17.47	405	ug/kg	97	NJ

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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-940	**Date Collected:**	12/14/2009 12:00	**Matrix:**	S
Lab Sample ID:	243033001	**Date Received:**	12/16/2009 09:10	**%Moisture:**	14.8
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14221	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	934979	**Inst:**	MSD6.I	**Dilution:**	1
Run Date:	12/22/2009 17:52	**Analyst:**	NAG1	**Inj. Vol:**	.5 uL
Prep Date:	12/21/2009 11:03	**Aliquot:**	30.07 g	**Final Volume:**	1 mL
Data File:	s612212.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
62-75-9	N-Methyl-N-nitrosomethylamine	U	390	ug/kg	78.0	390	
108-95-2	Phenol	U	390	ug/kg	78.0	390	
95-57-8	2-Chlorophenol	U	390	ug/kg	78.0	390	
106-46-7	1,4-Dichlorobenzene	U	390	ug/kg	78.0	390	
621-64-7	N-Nitrosodipropylamine	U	390	ug/kg	78.0	390	
59-50-7	4-Chloro-3-methylphenol	U	390	ug/kg	78.0	390	
83-32-9	Acenaphthene	U	39.0	ug/kg	12.9	39.0	
121-14-2	2,4-Dinitrotoluene	U	390	ug/kg	39.0	390	
100-02-7	4-Nitrophenol	U	390	ug/kg	129	390	
87-86-5	Pentachlorophenol	U	390	ug/kg	97.5	390	
129-00-0	Pyrene	U	39.0	ug/kg	11.7	39.0	
110-86-1	Pyridine	U	390	ug/kg	78.0	390	UJ,SV7c
62-53-3	Aniline	U	390	ug/kg	117	390	
111-44-4	bis(2-Chloroethyl) ether	U	390	ug/kg	78.0	390	
541-73-1	1,3-Dichlorobenzene	U	390	ug/kg	78.0	390	
100-51-6	Benzyl alcohol	U	390	ug/kg	117	390	
95-50-1	1,2-Dichlorobenzene	U	390	ug/kg	78.0	390	
108-60-1	bis(2-Chloroisopropyl)ether	U	390	ug/kg	78.0	390	
95-48-7	o-Cresol	U	390	ug/kg	78.0	390	
65794-96-9	m,p-Cresols	U	390	ug/kg	117	390	
67-72-1	Hexachloroethane	U	390	ug/kg	78.0	390	
98-95-3	Nitrobenzene	U	390	ug/kg	78.0	390	
78-59-1	Isophorone	U	390	ug/kg	78.0	390	
88-75-5	2-Nitrophenol	U	390	ug/kg	78.0	390	
105-67-9	2,4-Dimethylphenol	U	390	ug/kg	137	390	
111-91-1	bis(2-Chloroethoxy)methane	U	390	ug/kg	78.0	390	
120-83-2	2,4-Dichlorophenol	U	390	ug/kg	78.0	390	
65-85-0	Benzoic acid	U	780	ug/kg	195	780	UJ,SV7c
91-20-3	Naphthalene	U	39.0	ug/kg	11.7	39.0	
106-47-8	4-Chloroaniline	U	390	ug/kg	78.0	390	
87-68-3	Hexachlorobutadiene	U	390	ug/kg	78.0	390	
91-57-6	2-Methylnaphthalene	U	39.0	ug/kg	7.80	39.0	
77-47-4	Hexachlorocyclopentadiene	U	390	ug/kg	78.0	390	UJ,SV7c
88-06-2	2,4,6-Trichlorophenol	U	390	ug/kg	78.0	390	
95-95-4	2,4,5-Trichlorophenol	U	390	ug/kg	78.0	390	
91-58-7	2-Chloronaphthalene	U	39.0	ug/kg	12.9	39.0	
88-74-4	2-Nitroaniline	U	390	ug/kg	78.0	390	
	o-Nitroaniline						
99-09-2	3-Nitroaniline	U	390	ug/kg	78.0	390	

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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-940**	**Date Collected:**	**12/14/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243033001**	**Date Received:**	**12/16/2009 09:10**	**%Moisture:**	**14.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14221**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**934979**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**12/22/2009 17:52**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/21/2009 11:03**	**Aliquot:**	**30.07 g**	**Final Volume:**	**1 mL**
Data File:	**s612212.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	390	ug/kg	78.0	390
606-20-2	2,6-Dinitrotoluene	U	390	ug/kg	39.0	390
208-96-8	Acenaphthylene	U	39.0	ug/kg	11.7	39.0
51-28-5	2,4-Dinitrophenol	U	780	ug/kg	148	780
132-64-9	Dibenzofuran	U	390	ug/kg	78.0	390
84-66-2	Diethylphthalate	U	390	ug/kg	78.0	390
86-73-7	Fluorene	U	39.0	ug/kg	11.7	39.0
7005-72-3	4-Chlorophenylphenylether	U	390	ug/kg	78.0	390
534-52-1	2-Methyl-4,6-dinitrophenol	U	390	ug/kg	78.0	390
100-01-6	4-Nitroaniline	U	390	ug/kg	117	390
	p-Nitroaniline					
122-39-4	Diphenylamine	U	390	ug/kg	78.0	390
122-66-7	Azobenzene	U	390	ug/kg	78.0	390
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	390	ug/kg	78.0	390
118-74-1	Hexachlorobenzene	U	390	ug/kg	78.0	390
85-01-8	Phenanthrene	U	39.0	ug/kg	11.7	39.0
120-12-7	Anthracene	U	39.0	ug/kg	7.80	39.0
84-74-2	Di-n-butylphthalate	U	390	ug/kg	78.0	390
206-44-0	Fluoranthene	U	39.0	ug/kg	11.7	39.0
85-68-7	Butylbenzylphthalate	U	390	ug/kg	78.0	390
56-55-3	Benzo(a)anthracene	U	39.0	ug/kg	11.7	39.0
91-94-1	3,3'-Dichlorobenzidine	U	390	ug/kg	117	390
218-01-9	Chrysene	U	39.0	ug/kg	11.7	39.0
117-81-7	bis(2-Ethylhexyl)phthalate	U	390	ug/kg	78.0	390
117-84-0	Di-n-octylphthalate	U	390	ug/kg	78.0	390
205-99-2	Benzo(b)fluoranthene	U	39.0	ug/kg	11.7	39.0
207-08-9	Benzo(k)fluoranthene	U	39.0	ug/kg	11.7	39.0
50-32-8	Benzo(a)pyrene	U	39.0	ug/kg	11.7	39.0
193-39-5	Indeno(1,2,3-cd)pyrene	U	39.0	ug/kg	11.7	39.0
53-70-3	Dibenzo(a,h)anthracene	U	39.0	ug/kg	11.7	39.0
191-24-2	Benzo(ghi)perylene	U	39.0	ug/kg	11.7	39.0
120-82-1	1,2,4-Trichlorobenzene	U	390	ug/kg	78.0	390

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Flt	Qual
	Unknown Aldol Condensate	3.57	483	ug/kg		JA

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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-940	Date Collected:	12/14/2009 12:00	Matrix:	S
Lab Sample ID:	243033006	Date Received:	12/16/2009 09:10	%Moisture:	19.5
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14222	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	936371	Inst:	MSD1.I	Dilution:	1
Run Date:	12/30/2009 14:57	Analyst:	AMY	Inj. Vol:	.5 uL
Prep Date:	12/24/2009 08:22	Aliquot:	30.06 g	Final Volume:	1 mL
Data File:	s113013.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
62-75-9	N-Methyl-N-nitrosomethylamine	U	413	ug/kg	82.6	413	
108-95-2	Phenol	U	413	ug/kg	82.6	413	
95-57-8	2-Chlorophenol	U	413	ug/kg	82.6	413	
106-46-7	1,4-Dichlorobenzene	U	413	ug/kg	82.6	413	
621-64-7	N-Nitrosodipropylamine	U	413	ug/kg	82.6	413	
59-50-7	4-Chloro-3-methylphenol	U	413	ug/kg	82.6	413	
83-32-9	Acenaphthene	U	41.3	ug/kg	13.6	41.3	
121-14-2	2,4-Dinitrotoluene	U	413	ug/kg	41.3	413	
100-02-7	4-Nitrophenol	U	413	ug/kg	136	413	
87-86-5	Pentachlorophenol	U	413	ug/kg	103	413	
129-00-0	Pyrene	U	41.3	ug/kg	12.4	41.3	
110-86-1	Pyridine	U	413	ug/kg	82.6	413	UJ,SV7c
62-53-3	Aniline	U	413	ug/kg	124	413	
111-44-4	bis(2-Chloroethyl) ether	U	413	ug/kg	82.6	413	
541-73-1	1,3-Dichlorobenzene	U	413	ug/kg	82.6	413	
100-51-6	Benzyl alcohol	U	413	ug/kg	124	413	
95-50-1	1,2-Dichlorobenzene	U	413	ug/kg	82.6	413	
108-60-1	bis(2-Chloroisopropyl)ether	U	413	ug/kg	82.6	413	
95-48-7	o-Cresol	U	413	ug/kg	82.6	413	
65794-96-9	m,p-Cresols	U	413	ug/kg	124	413	
67-72-1	Hexachloroethane	U	413	ug/kg	82.6	413	
98-95-3	Nitrobenzene	U	413	ug/kg	82.6	413	
78-59-1	Isophorone	U	413	ug/kg	82.6	413	
88-75-5	2-Nitrophenol	U	413	ug/kg	82.6	413	
105-67-9	2,4-Dimethylphenol	U	413	ug/kg	145	413	
111-91-1	bis(2-Chloroethoxy)methane	U	413	ug/kg	82.6	413	
120-83-2	2,4-Dichlorophenol	U	413	ug/kg	82.6	413	
65-85-0	Benzoic acid	U	826	ug/kg	207	826	
91-20-3	Naphthalene	U	41.3	ug/kg	12.4	41.3	
106-47-8	4-Chloroaniline	U	413	ug/kg	82.6	413	
87-68-3	Hexachlorobutadiene	U	413	ug/kg	82.6	413	
91-57-6	2-Methylnaphthalene	J	10.5	ug/kg	8.26	41.3	
77-47-4	Hexachlorocyclopentadiene	U	413	ug/kg	82.6	413	
88-06-2	2,4,6-Trichlorophenol	U	413	ug/kg	82.6	413	
95-95-4	2,4,5-Trichlorophenol	U	413	ug/kg	82.6	413	
91-58-7	2-Chloronaphthalene	U	41.3	ug/kg	13.6	41.3	
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	413	ug/kg	82.6	413	
99-09-2	3-Nitroaniline	U	413	ug/kg	82.6	413	UJ,SV7c

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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-940	Date Collected:	12/14/2009 12:00	Matrix:	S
Lab Sample ID:	243033006	Date Received:	12/16/2009 09:10	%Moisture:	19.5
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14222	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	936371	Inst:	MSD1.I	Dilution:	1
Run Date:	12/30/2009 14:57	Analyst:	AMY	Inj. Vol:	.5 uL
Prep Date:	12/24/2009 08:22	Aliquot:	30.06 g	Final Volume:	1 mL
Data File:	s113013.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
	m-Nitroaniline						
131-11-3	Dimethylphthalate	U	413	ug/kg	82.6	413	
606-20-2	2,6-Dinitrotoluene	U	413	ug/kg	41.3	413	
208-96-8	Acenaphthylene	U	41.3	ug/kg	12.4	41.3	
51-28-5	2,4-Dinitrophenol	U	826	ug/kg	157	826	UJ,SV7c
132-64-9	Dibenzofuran	U	413	ug/kg	82.6	413	
84-66-2	Diethylphthalate	U	413	ug/kg	82.6	413	
86-73-7	Fluorene	U	41.3	ug/kg	12.4	41.3	
7005-72-3	4-Chlorophenylphenylether	U	413	ug/kg	82.6	413	
534-52-1	2-Methyl-4,6-dinitrophenol	U	413	ug/kg	82.6	413	
100-01-6	4-Nitroaniline	U	413	ug/kg	124	413	UJ,SV7c
	p-Nitroaniline						
122-39-4	Diphenylamine	U	413	ug/kg	82.6	413	
122-66-7	Azobenzene	U	413	ug/kg	82.6	413	
	1,2-Diphenylhydrazine						
101-55-3	4-Bromophenylphenylether	U	413	ug/kg	82.6	413	
118-74-1	Hexachlorobenzene	U	413	ug/kg	82.6	413	
85-01-8	Phenanthrene	U	41.3	ug/kg	12.4	41.3	
120-12-7	Anthracene	U	41.3	ug/kg	8.26	41.3	
84-74-2	Di-n-butylphthalate	U	413	ug/kg	82.6	413	
206-44-0	Fluoranthene	U	41.3	ug/kg	12.4	41.3	
85-68-7	Butylbenzylphthalate	U	413	ug/kg	82.6	413	
56-55-3	Benzo(a)anthracene	U	41.3	ug/kg	12.4	41.3	
91-94-1	3,3'-Dichlorobenzidine	U	413	ug/kg	124	413	
218-01-9	Chrysene	U	41.3	ug/kg	12.4	41.3	
117-81-7	bis(2-Ethylhexyl)phthalate	U	413	ug/kg	82.6	413	
117-84-0	Di-n-octylphthalate	U	413	ug/kg	82.6	413	
205-99-2	Benzo(b)fluoranthene	U	41.3	ug/kg	12.4	41.3	
207-08-9	Benzo(k)fluoranthene	U	41.3	ug/kg	12.4	41.3	
50-32-8	Benzo(a)pyrene	U	41.3	ug/kg	12.4	41.3	
193-39-5	Indeno(1,2,3-cd)pyrene	U	41.3	ug/kg	12.4	41.3	
53-70-3	Dibenzo(a,h)anthracene	U	41.3	ug/kg	12.4	41.3	
191-24-2	Benzo(ghi)perylene	U	41.3	ug/kg	12.4	41.3	
120-82-1	1,2,4-Trichlorobenzene	U	413	ug/kg	82.6	413	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.81	544	ug/kg		JA
629-59-4	Tetradecane	5.38	178	ug/kg	95	NJ

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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-940**	**Date Collected:**	**12/14/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243033007**	**Date Received:**	**12/16/2009 09:10**	**%Moisture:**	**10.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14223**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**934979**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**12/22/2009 21:34**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/21/2009 11:03**	**Aliquot:**	**30.04 g**	**Final Volume:**	**1 mL**
Data File:	**s6l2220.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
62-75-9	N-Methyl-N-nitrosomethylamine	U	373	ug/kg	74.6	373	
108-95-2	Phenol	U	373	ug/kg	74.6	373	
95-57-8	2-Chlorophenol	U	373	ug/kg	74.6	373	
106-46-7	1,4-Dichlorobenzene	U	373	ug/kg	74.6	373	
621-64-7	N-Nitrosodipropylamine	U	373	ug/kg	74.6	373	
59-50-7	4-Chloro-3-methylphenol	U	373	ug/kg	74.6	373	
83-32-9	Acenaphthene	U	37.3	ug/kg	12.3	37.3	
121-14-2	2,4-Dinitrotoluene	U	373	ug/kg	37.3	373	
100-02-7	4-Nitrophenol	U	373	ug/kg	123	373	
87-86-5	Pentachlorophenol	U	373	ug/kg	93.3	373	
129-00-0	Pyrene	U	37.3	ug/kg	11.2	37.3	
110-86-1	Pyridine	U	373	ug/kg	74.6	373	UJ,SV7c
62-53-3	Aniline	U	373	ug/kg	112	373	
111-44-4	bis(2-Chloroethyl) ether	U	373	ug/kg	74.6	373	
541-73-1	1,3-Dichlorobenzene	U	373	ug/kg	74.6	373	
100-51-6	Benzyl alcohol	U	373	ug/kg	112	373	
95-50-1	1,2-Dichlorobenzene	U	373	ug/kg	74.6	373	
108-60-1	bis(2-Chloroisopropyl)ether	U	373	ug/kg	74.6	373	
95-48-7	o-Cresol	U	373	ug/kg	74.6	373	
65794-96-9	m,p-Cresols	U	373	ug/kg	112	373	
67-72-1	Hexachloroethane	U	373	ug/kg	74.6	373	
98-95-3	Nitrobenzene	U	373	ug/kg	74.6	373	
78-59-1	Isophorone	U	373	ug/kg	74.6	373	
88-75-5	2-Nitrophenol	U	373	ug/kg	74.6	373	
105-67-9	2,4-Dimethylphenol	U	373	ug/kg	131	373	
111-91-1	bis(2-Chloroethoxy)methane	U	373	ug/kg	74.6	373	
120-83-2	2,4-Dichlorophenol	U	373	ug/kg	74.6	373	
65-85-0	Benzoic acid	U	746	ug/kg	187	746	UJ,SV7c
91-20-3	Naphthalene	U	37.3	ug/kg	11.2	37.3	
106-47-8	4-Chloroaniline	U	373	ug/kg	74.6	373	
87-68-3	Hexachlorobutadiene	U	373	ug/kg	74.6	373	
91-57-6	2-Methylnaphthalene	U	37.3	ug/kg	7.46	37.3	
77-47-4	Hexachlorocyclopentadiene	U	373	ug/kg	74.6	373	UJ,SV7c
88-06-2	2,4,6-Trichlorophenol	U	373	ug/kg	74.6	373	
95-95-4	2,4,5-Trichlorophenol	U	373	ug/kg	74.6	373	
91-58-7	2-Chloronaphthalene	U	37.3	ug/kg	12.3	37.3	
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	373	ug/kg	74.6	373	
99-09-2	3-Nitroaniline	U	373	ug/kg	74.6	373	

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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-940**	**Date Collected:**	**12/14/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243033007**	**Date Received:**	**12/16/2009 09:10**	**%Moisture:**	**10.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14223**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**934979**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**12/22/2009 21:34**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/21/2009 11:03**	**Aliquot:**	**30.04 g**	**Final Volume:**	**1 mL**
Data File:	**s6l2220.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	373	ug/kg	74.6	373
606-20-2	2,6-Dinitrotoluene	U	373	ug/kg	37.3	373
208-96-8	Acenaphthylene	U	37.3	ug/kg	11.2	37.3
51-28-5	2,4-Dinitrophenol	U	746	ug/kg	142	746
132-64-9	Dibenzofuran	U	373	ug/kg	74.6	373
84-66-2	Diethylphthalate	U	373	ug/kg	74.6	373
86-73-7	Fluorene	U	37.3	ug/kg	11.2	37.3
7005-72-3	4-Chlorophenylphenylether	U	373	ug/kg	74.6	373
534-52-1	2-Methyl-4,6-dinitrophenol	U	373	ug/kg	74.6	373
100-01-6	4-Nitroaniline	U	373	ug/kg	112	373
	p-Nitroaniline					
122-39-4	Diphenylamine	U	373	ug/kg	74.6	373
122-66-7	Azobenzene	U	373	ug/kg	74.6	373
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	373	ug/kg	74.6	373
118-74-1	Hexachlorobenzene	U	373	ug/kg	74.6	373
85-01-8	Phenanthrene	U	37.3	ug/kg	11.2	37.3
120-12-7	Anthracene	U	37.3	ug/kg	7.46	37.3
84-74-2	Di-n-butylphthalate	U	373	ug/kg	74.6	373
206-44-0	Fluoranthene	U	37.3	ug/kg	11.2	37.3
85-68-7	Butylbenzylphthalate	U	373	ug/kg	74.6	373
56-55-3	Benzo(a)anthracene	U	37.3	ug/kg	11.2	37.3
91-94-1	3,3'-Dichlorobenzidine	U	373	ug/kg	112	373
218-01-9	Chrysene	U	37.3	ug/kg	11.2	37.3
117-81-7	bis(2-Ethylhexyl)phthalate	J	94.9	ug/kg	74.6	373
117-84-0	Di-n-octylphthalate	U	373	ug/kg	74.6	373
205-99-2	Benzo(b)fluoranthene	U	37.3	ug/kg	11.2	37.3
207-08-9	Benzo(k)fluoranthene	U	37.3	ug/kg	11.2	37.3
50-32-8	Benzo(a)pyrene	U	37.3	ug/kg	11.2	37.3
193-39-5	Indeno(1,2,3-cd)pyrene	U	37.3	ug/kg	11.2	37.3
53-70-3	Dibenzo(a,h)anthracene	U	37.3	ug/kg	11.2	37.3
191-24-2	Benzo(ghi)perylene	U	37.3	ug/kg	11.2	37.3
120-82-1	1,2,4-Trichlorobenzene	U	373	ug/kg	74.6	373

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Flt	Qual
	Unknown Aldol Condensate	3.57	531	ug/kg		JA

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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-940**	**Date Collected:**	**12/14/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243033009**	**Date Received:**	**12/16/2009 09:10**	**%Moisture:**	**19.3**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-10-2734**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**934979**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**12/22/2009 22:28**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/21/2009 11:03**	**Aliquot:**	**30.04 g**	**Final Volume:**	**1 mL**
Data File:	**s612222.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
62-75-9	N-Methyl-N-nitrosomethylamine	U	413	ug/kg	82.5	413	
108-95-2	Phenol	U	413	ug/kg	82.5	413	
95-57-8	2-Chlorophenol	U	413	ug/kg	82.5	413	
106-46-7	1,4-Dichlorobenzene	U	413	ug/kg	82.5	413	
621-64-7	N-Nitrosodipropylamine	U	413	ug/kg	82.5	413	
59-50-7	4-Chloro-3-methylphenol	U	413	ug/kg	82.5	413	
83-32-9	Acenaphthene	U	41.3	ug/kg	13.6	41.3	
121-14-2	2,4-Dinitrotoluene	U	413	ug/kg	41.3	413	
100-02-7	4-Nitrophenol	U	413	ug/kg	136	413	
87-86-5	Pentachlorophenol	U	413	ug/kg	103	413	
129-00-0	Pyrene	U	41.3	ug/kg	12.4	41.3	
110-86-1	Pyridine	U	413	ug/kg	82.5	413	UJ,SV7c
62-53-3	Aniline	U	413	ug/kg	124	413	
111-44-4	bis(2-Chloroethyl) ether	U	413	ug/kg	82.5	413	
541-73-1	1,3-Dichlorobenzene	U	413	ug/kg	82.5	413	
100-51-6	Benzyl alcohol	U	413	ug/kg	124	413	
95-50-1	1,2-Dichlorobenzene	U	413	ug/kg	82.5	413	
108-60-1	bis(2-Chloroisopropyl)ether	U	413	ug/kg	82.5	413	
95-48-7	o-Cresol	U	413	ug/kg	82.5	413	
65794-96-9	m,p-Cresols	U	413	ug/kg	124	413	
67-72-1	Hexachloroethane	U	413	ug/kg	82.5	413	
98-95-3	Nitrobenzene	U	413	ug/kg	82.5	413	
78-59-1	Isophorone	U	413	ug/kg	82.5	413	
88-75-5	2-Nitrophenol	U	413	ug/kg	82.5	413	
105-67-9	2,4-Dimethylphenol	U	413	ug/kg	144	413	
111-91-1	bis(2-Chloroethoxy)methane	U	413	ug/kg	82.5	413	
120-83-2	2,4-Dichlorophenol	U	413	ug/kg	82.5	413	
65-85-0	Benzoic acid	U	825	ug/kg	206	825	UJ,SV7c
91-20-3	Naphthalene	U	41.3	ug/kg	12.4	41.3	
106-47-8	4-Chloroaniline	U	413	ug/kg	82.5	413	
87-68-3	Hexachlorobutadiene	U	413	ug/kg	82.5	413	
91-57-6	2-Methylnaphthalene	U	41.3	ug/kg	8.25	41.3	
77-47-4	Hexachlorocyclopentadiene	U	413	ug/kg	82.5	413	UJ,SV7c
88-06-2	2,4,6-Trichlorophenol	U	413	ug/kg	82.5	413	
95-95-4	2,4,5-Trichlorophenol	U	413	ug/kg	82.5	413	
91-58-7	2-Chloronaphthalene	U	41.3	ug/kg	13.6	41.3	
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	413	ug/kg	82.5	413	
99-09-2	3-Nitroaniline	U	413	ug/kg	82.5	413	

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-940**	**Date Collected:**	**12/14/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243033009**	**Date Received:**	**12/16/2009 09:10**	**%Moisture:**	**19.3**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-10-2734**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**934979**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**12/22/2009 22:28**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/21/2009 11:03**	**Aliquot:**	**30.04 g**	**Final Volume:**	**1 mL**
Data File:	**s612222.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	413	ug/kg	82.5	413
606-20-2	2,6-Dinitrotoluene	U	413	ug/kg	41.3	413
208-96-8	Acenaphthylene	U	41.3	ug/kg	12.4	41.3
51-28-5	2,4-Dinitrophenol	U	825	ug/kg	157	825
132-64-9	Dibenzofuran	U	413	ug/kg	82.5	413
84-66-2	Diethylphthalate	U	413	ug/kg	82.5	413
86-73-7	Fluorene	U	41.3	ug/kg	12.4	41.3
7005-72-3	4-Chlorophenylphenylether	U	413	ug/kg	82.5	413
534-52-1	2-Methyl-4,6-dinitrophenol	U	413	ug/kg	82.5	413
100-01-6	4-Nitroaniline	U	413	ug/kg	124	413
	p-Nitroaniline					
122-39-4	Diphenylamine	U	413	ug/kg	82.5	413
122-66-7	Azobenzene	U	413	ug/kg	82.5	413
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	413	ug/kg	82.5	413
118-74-1	Hexachlorobenzene	U	413	ug/kg	82.5	413
85-01-8	Phenanthrene	U	41.3	ug/kg	12.4	41.3
120-12-7	Anthracene	U	41.3	ug/kg	8.25	41.3
84-74-2	Di-n-butylphthalate	U	413	ug/kg	82.5	413
206-44-0	Fluoranthene	U	41.3	ug/kg	12.4	41.3
85-68-7	Butylbenzylphthalate	U	413	ug/kg	82.5	413
56-55-3	Benzo(a)anthracene	U	41.3	ug/kg	12.4	41.3
91-94-1	3,3'-Dichlorobenzidine	U	413	ug/kg	124	413
218-01-9	Chrysene	U	41.3	ug/kg	12.4	41.3
117-81-7	bis(2-Ethylhexyl)phthalate	U	413	ug/kg	82.5	413
117-84-0	Di-n-octylphthalate	U	413	ug/kg	82.5	413
205-99-2	Benzo(b)fluoranthene	U	41.3	ug/kg	12.4	41.3
207-08-9	Benzo(k)fluoranthene	U	41.3	ug/kg	12.4	41.3
50-32-8	Benzo(a)pyrene	U	41.3	ug/kg	12.4	41.3
193-39-5	Indeno(1,2,3-cd)pyrene	U	41.3	ug/kg	12.4	41.3
53-70-3	Dibenzo(a,h)anthracene	U	41.3	ug/kg	12.4	41.3
191-24-2	Benzo(ghi)perylene	U	41.3	ug/kg	12.4	41.3
120-82-1	1,2,4-Trichlorobenzene	U	413	ug/kg	82.5	413

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	3.57	458	ug/kg		JA
	Unknown	11.99	238	ug/kg		J

P.S. 2/9/10

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-940**	**Date Collected:**	**12/14/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243033009**	**Date Received:**	**12/16/2009 09:10**	**%Moisture:**	**19.3**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-10-2734**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**934979**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**12/22/2009 22:28**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/21/2009 11:03**	**Aliquot:**	**30.04 g**	**Final Volume:**	**1 mL**
Data File:	**s612222.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
301-02-0	9-Octadecenamide, (Z)-	14.05	417	ug/kg	95	NJ

DATA VALIDATION COVER SHEET

5130-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-940 VALIDATION DATE: 02/09/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Peter Steves ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☒ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE):

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

None

Reviewed by: Mary Donivan Level: I Date: 02/09/10

VALIDATOR'S SIGNATURE: Mr. Peter Steves DATE: 02/09/10

TPH GRO AND DRO ANALYTICAL DATA VALIDATION CHECKLIST

5130-2

TPH GRO and DRO Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The retention time criteria were not met.	R, DR0 or GR0	R, DR0 or GR0
☐	☒	☐	2. Required retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, DR0b	R, GR0b
☐	☒	☐	3. The surrogate is less than 10%R. Follow external laboratory limits.	R, DR3 or GR3	J-, DR3 or GR3
☐	☒	☐	4. The surrogate is less than the Lower Acceptance Limit, but greater than or equal to 10%R. Follow external laboratory limits.	UJ, DR3a or GR3a	J-, DR3a or GR3a
☐	☒	☐	5. The surrogate %R value is greater than the Upper Acceptance Limit. Follow external laboratory limits.	N/A	J+, DR3b or GR3b
☐	☒	☐	6. Required surrogate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, DR3d or GR3d	R, DR3d or GR3d
☐	☒	☐	7. The sample result is less than or equal to 5 times the concentration of the related analyte in the method blank.	U, DR4 or GR4	N/A
☐	☒	☐	8. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank, but was greater than 5x.	N/A	J+, DR4a or GR4a
☐	☐	☒	9. The sample result is less than or equal to 5 times the concentration of the related analyte in the trip blank, rinsate blank or equipment blank.	U, DR4d or GR4d	N/A
☐	☒	☐	10. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, DR4e or GR4e	R, DR4e or GR4e
☐	☒	☐	11. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ or R, DR7 or GR7	J, DR7 or GR7

TPH GRO AND DRO ANALYTICAL DATA VALIDATION CHECKLIST

5130-2

TPH GRO and DRO Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	12. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is less than 0.995.	UJ, DR7a or GR7a	J, DR7a or GR7a
☐	☒	☐	13. The ICV and/or CCV were recovered outside the method specific limits.	UJ, DR7c or GR7c	J, DR7c or GR7c
☐	☒	☐	14. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, DR7d or GR7d	J, DR7d or GR7d
☐	☒	☐	15. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, DR7f or GR7f	R, DR7f or GR7f
☐	☒	☐	16. The holding time was greater than 1 and less than or equal to 2 times the applicable holding time requirement.	UJ, DR9 or GR9	J-, DR9 or GR9
☐	☒	☐	17. The holding time was greater than 2 times the applicable holding time requirement.	R, DR9a or GR9a	J-, DR9a or GR9a
☐	☒	☐	18. The LCS percent recovery was less than 10%. Follow the external laboratory limits.	R, DR12 or GR12	J-, DR12 or GR12
☐	☒	☐	19. The LCS percent recovery was less than the Lower Acceptance Limit, but greater than 10%. Follow the external laboratory limits.	UJ, DR12a or GR12a	J-, DR12a or GR12a
☐	☒	☐	20. The LCS percent recovery was greater than the Upper Acceptance Limit. Follow the external laboratory limits.	N/A	J+, DR12b or GR12b
☐	☒	☐	21. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or the external laboratory for information.	R, DR12c or GR12c	R, DR12c or GR12c
☐	☒	☐	22. The MS/MSD percent recovery was less than 10%.	R, DR12d or GR12d	R, DR12d or Gr12d
☐	☒	☐	23. The MS/MSD percent recovery was greater than 10%, but less than 70%.	UJ, DR12e or GR12e	J, DR12e or GR12e

TPH GRO AND DRO ANALYTICAL DATA VALIDATION CHECKLIST	
5130-2 TPH GRO and DRO Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	24. The MS/MSD percent recovery was greater than 70%.	N/A	J+, DR12f or GR12f
☐	☒	☐	25. The MS/MSD relative percent difference was greater than 30%.	UJ, DR12g or GR12g	J, DR12g or GR12g
☐	☐	☒	26. The affected analytes have elevated detection limits and may not meet project DQOs because the sample was diluted without any target analytes identified due to matrix interference. (Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.)	UJ, R, DR15 or GR15	R, DR15 or GR15
☐	☒	☐	27. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.	UJ, R, DR19 or GR19	J, R, DR19 or GR19
☐	☒	☐	28. Duplicate, dilution, or reanalysis.	UJ, DR88 or GR88	J, DR88 or GR88

Flame Ionization Detector
Certificate of Analysis
Sample Summary

SDG Number:	10-940	Date Collected:	12/14/2009 12:00	Matrix:	S
Lab Sample ID:	243033001	Date Received:	12/16/2009 09:10	%Moisture:	14.8
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14221	Method:	SW846 8015A/B SVOC	SOP Ref:	GL-OA-E-003
Batch ID:	934477	Inst:	FID7.I	Dilution:	1
Run Date:	12/21/2009 15:37	Analyst:	KXR2	Inj. Vol:	1 uL
Prep Date:	12/18/2009 19:50	Aliquot:	30.09 g	Final Volume:	1 mL
Data File:	008f0801.d	Column:	DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics	J	6.01	mg/kg	2.53	7.80

P.S. 2/9/10

Flame Ionization Detector
Certificate of Analysis
Sample Summary

SDG Number:	10–940	Date Collected:	12/14/2009 12:00	Matrix:	S
Lab Sample ID:	243033002	Date Received:	12/16/2009 09:10	%Moisture:	14.3 -
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03–09–14211	Method:	SW846 8015A/B SVOC	SOP Ref:	GL–OA–E–003
Batch ID:	934477	Inst:	FID7.I	Dilution:	1
Run Date:	12/21/2009 17:27	Analyst:	KXR2	Inj. Vol:	1 uL
Prep Date:	12/18/2009 19:50	Aliquot:	30.02 g	Final Volume:	1 mL
Data File:	011f1101.d	Column:	DB–5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics	U	7.78	mg/kg	2.53	7.78

P.S. 2/9/10

Flame Ionization Detector
Certificate of Analysis
Sample Summary

SDG Number:	10-940	Date Collected:	12/14/2009 12:00	Matrix:	S
Lab Sample ID:	243033003	Date Received:	12/16/2009 09:10	%Moisture:	13.6
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14210	Method:	SW846 8015A/B SVOC	SOP Ref:	GL-OA-E-003
Batch ID:	934477	Inst:	FID7.I	Dilution:	1
Run Date:	12/21/2009 19:17	Analyst:	KXR2	Inj. Vol:	1 uL
Prep Date:	12/18/2009 19:50	Aliquot:	30.08 g	Final Volume:	1 mL
Data File:	014f1401.d	Column:	DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics	U	7.70	mg/kg	2.50	7.70

P.S. 2/9/10

Flame Ionization Detector
Certificate of Analysis
Sample Summary

SDG Number:	10-940	Date Collected:	12/14/2009 12:00	Matrix:	S
Lab Sample ID:	243033004	Date Received:	12/16/2009 09:10	%Moisture:	11.6
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14209	Method:	SW846 8015A/B SVOC	SOP Ref:	GL-OA-E-003
Batch ID:	934477	Inst:	FID7.I	Dilution:	1
Run Date:	12/21/2009 19:54	Analyst:	KXR2	Inj. Vol:	1 uL
Prep Date:	12/18/2009 19:50	Aliquot:	30.18 g	Final Volume:	1 mL
Data File:	015f1501.d	Column:	DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics	U	7.49	mg/kg	2.44	7.49

P.S. 2/9/10

Flame Ionization Detector
Certificate of Analysis
Sample Summary

SDG Number:	10–940	Date Collected:	12/14/2009 12:00	Matrix:	S
Lab Sample ID:	243033005	Date Received:	12/16/2009 09:10	%Moisture:	12.8
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03–09–14208	Method:	SW846 8015A/B SVOC	SOP Ref:	GL–OA–E–003
Batch ID:	934477	Inst:	FID7.I	Dilution:	1
Run Date:	12/21/2009 20:30	Analyst:	KXR2	Inj. Vol:	1 uL
Prep Date:	12/18/2009 19:50	Aliquot:	30.15 g	Final Volume:	1 mL
Data File:	016f1601.d	Column:	DB–5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics	U	7.61	mg/kg	2.47	7.61

P.S. 2/9/10

Flame Ionization Detector
Certificate of Analysis
Sample Summary

SDG Number:	10–940	Date Collected:	12/14/2009 12:00	Matrix:	S
Lab Sample ID:	243033006	Date Received:	12/16/2009 09:10	%Moisture:	19.5
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03–09–14222	Method:	SW846 8015A/B SVOC	SOP Ref:	GL–OA–E–003
Batch ID:	934477	Inst:	FID7.I	Dilution:	1
Run Date:	12/21/2009 21:07	Analyst:	KXR2	Inj. Vol:	1 uL
Prep Date:	12/18/2009 19:50	Aliquot:	30.18 g	Final Volume:	1 mL
Data File:	017f1701.d	Column:	DB–5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics	J	3.54	mg/kg	2.67	8.23

P.S. 2/9/10

Flame Ionization Detector
Certificate of Analysis
Sample Summary

SDG Number:	10–940	Date Collected:	12/14/2009 12:00	Matrix:	S
Lab Sample ID:	243033007	Date Received:	12/16/2009 09:10	%Moisture:	10.8
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03–09–14223	Method:	SW846 8015A/B SVOC	SOP Ref:	GL–OA–E–003
Batch ID:	934477	Inst:	FID7.I	Dilution:	1
Run Date:	12/21/2009 21:43	Analyst:	KXR2	Inj. Vol:	1 uL
Prep Date:	12/18/2009 19:50	Aliquot:	30.19 g	Final Volume:	1 mL
Data File:	018f1801.d	Column:	DB–5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics	J	3.31	mg/kg	2.41	7.43

P.S. 2/9/10

Flame Ionization Detector
Certificate of Analysis
Sample Summary

SDG Number:	10–940	Date Collected:	12/14/2009 12:00	Matrix:	S
Lab Sample ID:	243033008	Date Received:	12/16/2009 09:10	%Moisture:	15.6
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03–09–14220	Method:	SW846 8015A/B SVOC	SOP Ref:	GL–OA–E–003
Batch ID:	934477	Inst:	FID7.I	Dilution:	1
Run Date:	12/21/2009 22:20	Analyst:	KXR2	Inj. Vol:	1 uL
Prep Date:	12/18/2009 19:50	Aliquot:	30.17 g	Final Volume:	1 mL
Data File:	019f1901.d	Column:	DB–5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics		20.1	mg/kg	2.55	7.85

P.S. 2/9/10

Flame Ionization Detector
Certificate of Analysis
Sample Summary

SDG Number:	10-940	Date Collected:	12/14/2009 12:00	Matrix:	S
Lab Sample ID:	243033009.	Date Received:	12/16/2009 09:10	%Moisture:	19.3
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-10-2734	Method:	SW846 8015A/B SVOC	SOP Ref:	GL-OA-E-003
Batch ID:	934477	Inst:	FID7.I	Dilution:	1
Run Date:	12/21/2009 22:57	Analyst:	KXR2	Inj. Vol:	1 uL
Prep Date:	12/18/2009 19:50	Aliquot:	30.01 g	Final Volume:	1 mL
Data File:	020f2001.d	Column:	DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics	U	8.26	mg/kg	2.69	8.26

P.S. 2/9/10

DATA VALIDATION COVER SHEET

5116-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-940 VALIDATION DATE: 02/09/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Peter Steves ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☒ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE): PCBs

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. It should be noted that the MS/MSD analyses were performed on a LANL parent sample from another RN. No sample data were qualified as a result.

Reviewed by: Mary Donivan Level: I Date: 02/09/10

VALIDATOR'S SIGNATURE: Mr. Peter Steves DATE: 02/09/10

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2

Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, P9	J-, P9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, P9	J-, P9a
☐	☒	☐	3. The affected analytes are regarded as rejected because the analytical holding time was exceeded.	R, P9b	R, P9b
☐	☒	☐	4. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, P7	J, P7
☐	☒	☐	5. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, P7a	J, P7a
☐	☒	☐	6. The Initial Calibration Verification (ICV) and/or Continuing Calibration Verification (CCV) were recovered outside the method-specific limits.	UJ, P7c	J, P7c
☐	☒	☐	7. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, P7d	J, P7d
☐	☒	☐	8. The multicomponent standard was not analyzed within 72 hours of the initial analysis.	R, P7e	J, P7e
☐	☒	☐	9. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, P7f	R, P7f
☐	☐	☒	10. The breakdown criteria have been exceeded. This can cause low bias in reported results. If compound is detected, qualify J-. If compound is not present, but breakdown products are present, qualify R. If no compounds or breakdown products are present, qualify UJ (4,4' DDT and Endrin).	UJ, R, P13	J-, P13

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2

Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below if Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	11. The breakdown criteria have been exceeded. This can cause high bias in the reported results and potential false positive results for the breakdown products Endrin ketone, Endrin aldehyde, DDD, and DDE.	UJ, P13a	J+, P13a
☐	☐	☒	12. The breakdown documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P13b	R, P13b
☐	☒	☐	13. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, P4	N/A
☐	☒	☐	14. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was greater than 5X.	N/A	J, P4a
☐	☐	☒	15. The sample result is ≤5X the concentration of the related analyte in the instrument blank and continuing calibration blank.	UJ, P4b	N/A
☐	☐	☒	16. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	UJ, P4d	N/A
☐	☒	☐	17. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P4e	R, P4e
☐	☒	☐	18. The analyte RT shifted by more than 0.05 minutes from the mid-level standard of the initial calibration.	R, P0	J, P0
☐	☒	☐	19. Required retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P0b	R, P0b
☐	☒	☐	20. The surrogate is <10%R. Follow the external laboratory limits located within the associated data package.	R, P3	J-, P3

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2

Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	21. The surrogate is < the Lower Acceptance Level (LAL) but ≥10%R. Follow the external laboratory limits located within the associated data package.	UJ, P3a	J-, P3a
☐	☒	☐	22. The surrogate %R value is > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, P3b
☐	☒	☐	23. At least one surrogate is > the Upper Acceptance Limit (UAL) and one surrogate is < the LAL. Follow the external laboratory limits located within the associated data package.	UJ, P3c	J, P3c
☐	☒	☐	24. Required surrogate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P3d	R, P3d
☐	☒	☐	25. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, P12	J-, P12
☐	☒	☐	26. The LCS percent recovery was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, P12a	J-, P12a
☐	☒	☐	27. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, P12b
☐	☒	☐	28. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P12c	R, P12c
☐	☒	☐	29. The analyte was not confirmed on a second dissimilar column.	N/A	R, P8
☐	☒	☐	30. The second dissimilar column documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P8a	R, P8a
☐	☒	☐	31. Duplicate, Dilution, or reanalysis.	UJ, P88	J, P88

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2

Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	32. The affected analytes have elevated detection limits and may not meet project DQOs because the sample was diluted without any target analytees identified due to matrix interference. Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.	UJ, R, P15	R, P15
☒	☐	☐	33. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB, NQ, NQ
☐	☒	☐	34. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.	UJ, R, P19	J, R, P19

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10–940	**Date Collected:**	12/14/2009 12:00	**Matrix:**	S
Lab Sample ID:	243033005	**Date Received:**	12/16/2009 09:10	**%Moisture:**	12.8
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03–09–14208	**Method:**	SW846 8082	**SOP Ref:**	GL–OA–E–040
Batch ID:	935393	**Inst:**	ECD1A.I	**Dilution:**	1
Run Date:	12/22/2009 13:21	**Analyst:**	JAOC	**Inj. Vol:**	1 uL
Prep Date:	12/21/2009 20:06	**Aliquot:**	30.04 g	**Final Volume:**	1 mL
Data File:	032f3201.d	**Column:**	1 CLP1	**Level:**	LOW
	032b3201.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	3.82	ug/kg	1.27	3.82	1
11104–28–2	Aroclor–1221	U	3.82	ug/kg	1.27	3.82	1
11141–16–5	Aroclor–1232	U	3.82	ug/kg	1.27	3.82	1
53469–21–9	Aroclor–1242	U	3.82	ug/kg	1.27	3.82	1
12672–29–6	Aroclor–1248	U	3.82	ug/kg	1.27	3.82	1
11097–69–1	Aroclor–1254	U	3.82	ug/kg	1.27	3.82	1
11096–82–5	Aroclor–1260	U	3.82	ug/kg	1.27	3.82	1

P.S. 2/9/10

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10-940	**Date Collected:**	12/14/2009 12:00	**Matrix:**	S
Lab Sample ID:	243033004	**Date Received:**	12/16/2009 09:10	**%Moisture:**	11.6
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14209	**Method:**	SW846 8082	**SOP Ref:**	GL-OA-E-040
Batch ID:	935393	**Inst:**	ECD1A.I	**Dilution:**	1
Run Date:	12/22/2009 13:10	**Analyst:**	JAOC	**Inj. Vol:**	1 uL
Prep Date:	12/21/2009 20:06	**Aliquot:**	30.03 g	**Final Volume:**	1 mL
Data File:	031f3101.d	**Column:**	1 CLP1	**Level:**	LOW
	031b3101.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.76	ug/kg	1.25	3.76	1
11104-28-2	Aroclor-1221	U	3.76	ug/kg	1.25	3.76	1
11141-16-5	Aroclor-1232	U	3.76	ug/kg	1.25	3.76	1
53469-21-9	Aroclor-1242	U	3.76	ug/kg	1.25	3.76	1
12672-29-6	Aroclor-1248	U	3.76	ug/kg	1.25	3.76	1
11097-69-1	Aroclor-1254	U	3.76	ug/kg	1.25	3.76	1
11096-82-5	Aroclor-1260	U	3.76	ug/kg	1.25	3.76	1

P.S. 2/9/10

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10-940	**Date Collected:**	12/14/2009 12:00	**Matrix:**	S
Lab Sample ID:	243033003	**Date Received:**	12/16/2009 09:10	**%Moisture:**	13.6
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14210	**Method:**	SW846 8082	**SOP Ref:**	GL-OA-E-040
Batch ID:	935393	**Inst:**	ECD1A.I	**Dilution:**	1
Run Date:	12/22/2009 13:00	**Analyst:**	JAOC	**Inj. Vol:**	1 uL
Prep Date:	12/21/2009 20:06	**Aliquot:**	30.02 g	**Final Volume:**	1 mL
Data File:	030f3001.d	**Column:**	1 CLP1	**Level:**	LOW
	030b3001.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.86	ug/kg	1.28	3.86	1
11104-28-2	Aroclor-1221	U	3.86	ug/kg	1.28	3.86	1
11141-16-5	Aroclor-1232	U	3.86	ug/kg	1.28	3.86	1
53469-21-9	Aroclor-1242	U	3.86	ug/kg	1.28	3.86	1
12672-29-6	Aroclor-1248	U	3.86	ug/kg	1.28	3.86	1
11097-69-1	Aroclor-1254	U	3.86	ug/kg	1.28	3.86	1
11096-82-5	Aroclor-1260	U	3.86	ug/kg	1.28	3.86	1

P.S. 2/9/10

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10–940	**Date Collected:**	12/14/2009 12:00	**Matrix:**	S
Lab Sample ID:	243033002	**Date Received:**	12/16/2009 09:10	**%Moisture:**	14.3
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03–09–14211	**Method:**	SW846 8082	**SOP Ref:**	GL–OA–E–040
Batch ID:	935393	**Inst:**	ECD1A.I	**Dilution:**	1
Run Date:	12/22/2009 12:49	**Analyst:**	JAOC	**Inj. Vol:**	1 uL
Prep Date:	12/21/2009 20:06	**Aliquot:**	30.01 g	**Final Volume:**	1 mL
Data File:	029f2901.d	**Column:**	1 CLP1	**Level:**	LOW
	029b2901.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	3.89	ug/kg	1.30	3.89	1
11104–28–2	Aroclor–1221	U	3.89	ug/kg	1.30	3.89	1
11141–16–5	Aroclor–1232	U	3.89	ug/kg	1.30	3.89	1
53469–21–9	Aroclor–1242	U	3.89	ug/kg	1.30	3.89	1
12672–29–6	Aroclor–1248	U	3.89	ug/kg	1.30	3.89	1
11097–69–1	Aroclor–1254	U	3.89	ug/kg	1.30	3.89	1
11096–82–5	Aroclor–1260	U	3.89	ug/kg	1.30	3.89	1

P.S. 2/9/10

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10-940**	**Date Collected:**	**12/14/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243033008**	**Date Received:**	**12/16/2009 09:10**	**%Moisture:**	**15.6**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14220**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**935393**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**12/22/2009 14:14**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**12/21/2009 20:06**	**Aliquot:**	**30.02 g**	**Final Volume:**	**1 mL**
Data File:	**037f3701.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	037b3701.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.95	ug/kg	1.31	3.95	1
11104-28-2	Aroclor-1221	U	3.95	ug/kg	1.31	3.95	1
11141-16-5	Aroclor-1232	U	3.95	ug/kg	1.31	3.95	1
53469-21-9	Aroclor-1242	U	3.95	ug/kg	1.31	3.95	1
12672-29-6	Aroclor-1248	U	3.95	ug/kg	1.31	3.95	1
11097-69-1	Aroclor-1254	P	116	ug/kg	1.31	3.95	1
11096-82-5	Aroclor-1260		153	ug/kg	1.31	3.95	1

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10–940	**Date Collected:**	12/14/2009 12:00	**Matrix:**	S
Lab Sample ID:	243033001	**Date Received:**	12/16/2009 09:10	**%Moisture:**	14.8
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03–09–14221	**Method:**	SW846 8082	**SOP Ref:**	GL–OA–E–040
Batch ID:	935393	**Inst:**	ECD1AJ	**Dilution:**	1
Run Date:	12/22/2009 12:39	**Analyst:**	JAOC	**Inj. Vol:**	1 uL
Prep Date:	12/21/2009 20:06	**Aliquot:**	30.09 g	**Final Volume:**	1 mL
Data File:	028f2801.d	**Column:**	1 CLP1	**Level:**	LOW
	028b2801.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	3.90	ug/kg	1.30	3.90	1
11104–28–2	Aroclor–1221	U	3.90	ug/kg	1.30	3.90	1
11141–16–5	Aroclor–1232	U	3.90	ug/kg	1.30	3.90	1
53469–21–9	Aroclor–1242	U	3.90	ug/kg	1.30	3.90	1
12672–29–6	Aroclor–1248	U	3.90	ug/kg	1.30	3.90	1
11097–69–1	Aroclor–1254	U	3.90	ug/kg	1.30	3.90	1
11096–82–5	Aroclor–1260	J	2.80	ug/kg	1.30	3.90	2

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10-940	**Date Collected:**	12/14/2009 12:00	**Matrix:**	S
Lab Sample ID:	243033006	**Date Received:**	12/16/2009 09:10	**%Moisture:**	19.5
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14222	**Method:**	SW846 8082	**SOP Ref:**	GL-OA-E-040
Batch ID:	935393	**Inst:**	ECD1A.I	**Dilution:**	1
Run Date:	12/22/2009 13:31	**Analyst:**	JAOC	**Inj. Vol:**	1 uL
Prep Date:	12/21/2009 20:06	**Aliquot:**	30.18 g	**Final Volume:**	1 mL
Data File:	033f3301.d	**Column:**	1 CLP1	**Level:**	LOW
	033b3301.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	4.11	ug/kg	1.37	4.11	1
11104-28-2	Aroclor-1221	U	4.11	ug/kg	1.37	4.11	1
11141-16-5	Aroclor-1232	U	4.11	ug/kg	1.37	4.11	1
53469-21-9	Aroclor-1242	U	4.11	ug/kg	1.37	4.11	1
12672-29-6	Aroclor-1248	U	4.11	ug/kg	1.37	4.11	1
11097-69-1	Aroclor-1254	U	4.11	ug/kg	1.37	4.11	1
11096-82-5	Aroclor-1260	U	4.11	ug/kg	1.37	4.11	1

P.S. 2/9/10

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10-940**	**Date Collected:**	**12/14/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243033007**	**Date Received:**	**12/16/2009 09:10**	**%Moisture:**	**10.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14223**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**935393**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**12/22/2009 14:03**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**12/21/2009 20:06**	**Aliquot:**	**30.05 g**	**Final Volume:**	**1 mL**
Data File:	**036f3601.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	036b3601.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.73	ug/kg	1.24	3.73	1
11104-28-2	Aroclor-1221	U	3.73	ug/kg	1.24	3.73	1
11141-16-5	Aroclor-1232	U	3.73	ug/kg	1.24	3.73	1
53469-21-9	Aroclor-1242	U	3.73	ug/kg	1.24	3.73	1
12672-29-6	Aroclor-1248	U	3.73	ug/kg	1.24	3.73	1
11097-69-1	Aroclor-1254	U	3.73	ug/kg	1.24	3.73	1
11096-82-5	Aroclor-1260	U	3.73	ug/kg	1.24	3.73	1

P.S. 2/9/10

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10-940	**Date Collected:**	12/14/2009 12:00	**Matrix:**	S
Lab Sample ID:	243033009	**Date Received:**	12/16/2009 09:10	**%Moisture:**	19.3
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-10-2734	**Method:**	SW846 8082	**SOP Ref:**	GL-OA-E-040
Batch ID:	935393	**Inst:**	ECD1A.I	**Dilution:**	1
Run Date:	12/22/2009 14:24	**Analyst:**	JAOC	**Inj. Vol:**	1 uL
Prep Date:	12/21/2009 20:06	**Aliquot:**	30.02 g	**Final Volume:**	1 mL
Data File:	038f3801.d	**Column:**	1 CLP1	**Level:**	LOW
	038b3801.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	4.13	ug/kg	1.38	4.13	1
11104-28-2	Aroclor-1221	U	4.13	ug/kg	1.38	4.13	1
11141-16-5	Aroclor-1232	U	4.13	ug/kg	1.38	4.13	1
53469-21-9	Aroclor-1242	U	4.13	ug/kg	1.38	4.13	1
12672-29-6	Aroclor-1248	U	4.13	ug/kg	1.38	4.13	1
11097-69-1	Aroclor-1254	U	4.13	ug/kg	1.38	4.13	1
11096-82-5	Aroclor-1260	U	4.13	ug/kg	1.38	4.13	1

P.S. 2/9/10

Tuesday, December 15, 2009

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-940

REQUEST NUMBER: 10-940

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 1/14/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS: 243033'/.

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE03-09-14221	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-09-14221	1	GLASS	8270C+8082+TPH-DRO	Ice	S
RE03-09-14211	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-09-14211	1	GLASS	8270C+8082+TPH-DRO	Ice	S
RE03-09-14210	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-09-14210	1	GLASS	8270C+8082+TPH-DRO	Ice	S
RE03-09-14209	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-09-14209	1	GLASS	8270C+8082+TPH-DRO	Ice	S
RE03-09-14208	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-09-14208	1	GLASS	8270C+8082+TPH-DRO	Ice	S
RE03-09-14222	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-09-14222	1	GLASS	8270C+8082+TPH-DRO	Ice	S
RE03-09-14223	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-09-14223	1	GLASS	8270C+8082+TPH-DRO	Ice	S
RE03-09-14220	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-09-14220	1	GLASS	8270C+8082+TPH-DRO	Ice	S
RE03-10-2734	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-10-2734	1	GLASS	8270C+8082+TPH-DRO	Ice	S
RE03-10-8963	1	SEPTUM AMBER GLASS	8260B Trip Blank	Ice	S

Relinquished By:	Date	Time	Received By:	Date	Time
Printed Name / Signature	12/15/09	1400	Patricia Dover-Dent / P.N. Dent	12-16-09	09:10
Printed Name / Signature			Printed Name / Signature		
Printed Name / Signature			Printed Name / Signature		

Received for DISPOSAL By:	Date	Time	Remarks:
Printed Name / Signature			

Tuesday, December 15, 2009

REQUEST NUMBER: 10-940

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis
General Engineering Laboratories, Inc., Charleston, SC.
2040 Savage Rd
Charleston, SC 29407

These Samples are on:
LANL Request Number:10-940
Per Agreement Number:126310011
Project Cost Code: MR2A054196D0

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 12/15/2009
TURNAROUND/REPORT DUE: 1/14/2010
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Not Required
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8015M_EXTRACTABLE	1	RE03-09-14208	S	12/14/2009	
		1	RE03-09-14209	S	12/14/2009	
		1	RE03-09-14210	S	12/14/2009	
		1	RE03-09-14211	S	12/14/2009	

Tuesday, December 15, 2009

REQUEST NUMBER: 10-940

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8015M_EXTRACTABLE	1	RE03-09-14220	S	12/14/2009	
		1	RE03-09-14221	S	12/14/2009	
		1	RE03-09-14222	S	12/14/2009	
		1	RE03-09-14223	S	12/14/2009	
		1	RE03-10-2734	S	12/14/2009	
	SW-846:8082	1	RE03-09-14220	S	12/14/2009	
		1	RE03-09-14221	S	12/14/2009	
		1	RE03-10-2734	S	12/14/2009	
	SW-846:8260B	1	RE03-09-14208	S	12/14/2009	
		1	RE03-09-14209	S	12/14/2009	
		1	RE03-09-14210	S	12/14/2009	
		1	RE03-09-14211	S	12/14/2009	
		1	RE03-09-14220	S	12/14/2009	
		1	RE03-09-14221	S	12/14/2009	
		1	RE03-09-14222	S	12/14/2009	
		1	RE03-09-14223	S	12/14/2009	
		1	RE03-10-2734	S	12/14/2009	
		1	RE03-10-8963	S	12/14/2009	
	SW-846:8270C	1	RE03-09-14208	S	12/14/2009	
		1	RE03-09-14209	S	12/14/2009	
		1	RE03-09-14210	S	12/14/2009	
		1	RE03-09-14211	S	12/14/2009	
		1	RE03-09-14220	S	12/14/2009	

Tuesday, December 15, 2009

REQUEST NUMBER: 10-940

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8270C	1	RE03-09-14221	S	12/14/2009	
		1	RE03-09-14222	S	12/14/2009	
		1	RE03-09-14223	S	12/14/2009	
		1	RE03-10-2734	S	12/14/2009	

Final Page of REQUEST NUMBER 10-940

GEL Laboratories LLC

a member of The GEL Group INC

PO Box 30712 Charleston, SC 29417
2040 Savage Road Charleston, SC 29407

P 843.556.8171 F 843.766.1178

www.gel.com

December 19, 2009

Ms. Joylene Valdez
Los Alamos National Laboratory
PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545

Re: LANL ER Project
Work Order: 243033
SDG: 10-940

Dear Ms. Valdez:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the following analytical results for the sample(s) we received on December 16, 2009, and analyzed for FID Flame Ionization Detector, GC Semivolatile PCB, GC/MS Semivolatile and GC/MS Volatile. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 4485.

Sincerely,

for

Valerie Davis
Project Manager

Purchase Order: 72733-001-09
Chain of Custody: 10-940
Enclosures

Los Alamos National Laboratory (72733-001-09)
LANL ER Project
Work Order #: 243033
SDG: 10-940

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Case Narrative

Case Narrative for
Los Alamos National Laboratory (72733-001-09)
LANL ER Project
Workorder #: 243033
SDG # : 10-940

December 19, 2009

Laboratory Identification:

GEL Laboratories LLC
2040 Savage Road
Charleston, South Carolina 29407
(843) 556-8171

Summary

Sample receipt The samples arrived at GEL Laboratories LLC, Charleston, South Carolina on December 16, 2009 for analysis. The samples were prepared/analyzed within the required holding time. Shipping container temperatures were checked, documented, and within specifications. The samples were screened according to GEL Standard Operating Procedure. The samples were delivered with proper chain of custody documentation and signatures. All sample containers arrived without any visible signs of tampering or breakage. Containers were checked for pH, where appropriate, and matched the preservative as documented on the accompanying chain of custody. Shipping container temperature was within specification (0 - 6C).

Sample Identification The laboratory received the following samples:

Laboratory ID	Client ID
243033001	RE03-09-14221
243033002	RE03-09-14211
243033003	RE03-09-14210
243033004	RE03-09-14209
243033005	RE03-09-14208
243033006	RE03-09-14222
243033007	RE03-09-14223
243033008	RE03-09-14220
243033009	RE03-10-2734
243033010	RE03-10-8963

Case Narrative

Sample analyses were conducted using methodology as outlined in GEL Laboratories, LLC (GEL) Standard Operating Procedures. Any technical or administrative problems during analysis, data review, and reduction are contained in the analytical case narratives in the enclosed data package.

Data Package The enclosed data package contains the following sections: Case Narrative, Chain of Custody, Cooler Receipt Checklist, Data Package Qualifier Definitions and data from the following fractions: FID Flame Ionization Detector, GC Semivolatile PCB, GC/MS Semivolatile and GC/MS Volatile.

I certify that this data report is in compliance with the terms and conditions of the subcontract and task order, both technically and for completeness, for other than the conditions detailed in the attached case narrative.

for

Valerie Davis
Project Manager

List of current GEL Certifications as of 19 December 2009

State	Certification
Arizona	AZ0668
Arkansas	88–0651
CLIA	42D0904046
California – NELAP	01151CA
Colorado	GEL
Connecticut	PH–0169
Dept. of Navy	NFESC 413
EPA Region 5	WG–15J
Florida – NELAP	E87156
Georgia	E87156 (FL/NELAP)
Georgia DW	967
Hawaii	N/A
ISO 17025	2567.01
Idaho	SC00012
Illinois – NELAP	200029
Indiana	C–SC–01
Kansas – NELAP	E–10332
Kentucky	90129
Louisiana – NELAP	03046
Maryland	270
Massachusetts	M–SC012
Nevada	SC00012
New Jersey – NELAP	SC002
New Mexico	FL NELAP E87156
New York – NELAP	11501
North Carolina	233
North Carolina DW	45709
Oklahoma	9904
Pennsylvania – NELAP	68–00485
South Carolina	10120001/10120002
Tennessee	TN 02934
Texas – NELAP	T104704235–07B–TX
U.S. Dept. of Agriculture	S–52597
Utah – NELAP	GEL
Vermont	VT87156
Virginia	00151
Washington	C1641

Chain of Custody and Supporting Documentation

Tuesday, December 15, 2009

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-940

REQUEST NUMBER: 10-940

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 1/14/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS: 243033'/.

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE03-09-14221	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-09-14221	1	GLASS	8270C+8082+TPH-DRO	Ice	S
RE03-09-14211	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-09-14211	1	GLASS	8270C+8082+TPH-DRO	Ice	S
RE03-09-14210	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-09-14210	1	GLASS	8270C+8082+TPH-DRO	Ice	S
RE03-09-14209	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-09-14209	1	GLASS	8270C+8082+TPH-DRO	Ice	S
RE03-09-14208	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-09-14208	1	GLASS	8270C+8082+TPH-DRO	Ice	S
RE03-09-14222	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-09-14222	1	GLASS	8270C+8082+TPH-DRO	Ice	S
RE03-09-14223	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-09-14223	1	GLASS	8270C+8082+TPH-DRO	Ice	S
RE03-09-14220	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-09-14220	1	GLASS	8270C+8082+TPH-DRO	Ice	S
RE03-10-2734	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-10-2734	1	GLASS	8270C+8082+TPH-DRO	Ice	S
RE03-10-8963	1	SEPTUM AMBER GLASS	8260B Trip Blank	Ice	S

Relinquished By:		Date	Time	Received By:		Date	Time
[illegible]	[illegible]	12/15/09	1400	Patricia Dover-Dent	P.N. Dent	12-16-09	09:10
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

Received for DISPOSAL By: Date Time **Remarks:**

Printed Name Signature

Tuesday, December 15, 2009

REQUEST NUMBER: 10-940

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

These Samples are on:

LANL Request Number:10-940

Per Agreement Number:126310011

Project Cost Code: MR2A054196D0

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 12/15/2009

TURNAROUND/REPORT DUE: 1/14/2010

TURNAROUND REQ'D: 30 Days

RAD SCREENING: Not Required

LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:

Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8015M_EXTRACTABLE	1	RE03-09-14208	S	12/14/2009	
		1	RE03-09-14209	S	12/14/2009	
		1	RE03-09-14210	S	12/14/2009	
		1	RE03-09-14211	S	12/14/2009	

Tuesday, December 15, 2009

REQUEST NUMBER: 10-940

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8015M_EXTRACTABLE	1	RE03-09-14220	S	12/14/2009	
		1	RE03-09-14221	S	12/14/2009	
		1	RE03-09-14222	S	12/14/2009	
		1	RE03-09-14223	S	12/14/2009	
		1	RE03-10-2734	S	12/14/2009	
	SW-846:8082	1	RE03-09-14220	S	12/14/2009	
		1	RE03-09-14221	S	12/14/2009	
		1	RE03-10-2734	S	12/14/2009	
	SW-846:8260B	1	RE03-09-14208	S	12/14/2009	
		1	RE03-09-14209	S	12/14/2009	
		1	RE03-09-14210	S	12/14/2009	
		1	RE03-09-14211	S	12/14/2009	
		1	RE03-09-14220	S	12/14/2009	
		1	RE03-09-14221	S	12/14/2009	
		1	RE03-09-14222	S	12/14/2009	
		1	RE03-09-14223	S	12/14/2009	
		1	RE03-10-2734	S	12/14/2009	
		1	RE03-10-8963	S	12/14/2009	
	SW-846:8270C	1	RE03-09-14208	S	12/14/2009	
		1	RE03-09-14209	S	12/14/2009	
		1	RE03-09-14210	S	12/14/2009	
		1	RE03-09-14211	S	12/14/2009	
		1	RE03-09-14220	S	12/14/2009	

Tuesday, December 15, 2009

REQUEST NUMBER: 10-940

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8270C	1	RE03-09-14221	S	12/14/2009	
		1	RE03-09-14222	S	12/14/2009	
		1	RE03-09-14223	S	12/14/2009	
		1	RE03-10-2734	S	12/14/2009	

Final Page of REQUEST NUMBER 10-940

GEL Laboratories LLC

SAMPLE RECEIPT & REVIEW FORM

Client:LANL	**SDG/ARCOC/Work Order:10-940**
Received By:Patricia Dover-Dent	**Date Received:December 16, 2009**

Suspected Hazard Information	**Yes**	**No**	*If Counts > x2 area background on samples not marked "radioactive", contact the Radiation Safety Group of further
COC/Samples marked as radioactive?		X	Maximum Counts Observed*:40 CPM
Classified Radioactive II by RSO?		X	
COC/Samples marked containing PCBs?		X	
Shipped as a DOT Hazardous?		X	Hazard Class Shipped: UN#:
Samples identified as Foreign Soil?		X	

	Sample Receipt Criteria	**Yes**	**NA**	**No**	**Comments/Qualifiers (Required for Non-Conforming Items)**
1	Shipping containers received intact and sealed?	X			Circle Applicable: seals broken damaged container leaking container other (describe
2	Samples requiring cold preservation within (0 < 6 deg. C?	X			Preservation Method: ice bags **BLUE ICE** dry ice **NONE** other (describe) **1,3,14C**
3	Chain of custody documents included with shipment?	X			
4	Sample containers intact and sealed?	X			Circle Applicable: seals broken damaged container leaking container other (describe)
5	Samples requiring chemical preservation at proper pH?		X		Sample ID's, containers affected and observed pH. If Preservative added, Lot#
6	VOA vials free of headspace (defined as < 6mm bubble)?		X		Sample ID's and containers affected:
7	Are Encore containers present?			X	(If yes, immediately deliver to Volatiles laboratory)
8	Samples received within holding time?	X			Id's and tests affected:
9	Sample ID's on COC match ID's on bottles?	X			Sample ID's and containers affected:
10	Date & time on COC match date & time on bottles?		X		Sample ID's affected: **No Time on Chain of Custody**
11	Number of containers received match number indicated on COC?	X			Sample ID's affected:
12	COC form is properly signed in relinquished/received sections?	X			

Comments:FED EX #'S

7209 7849 2417 1C
7209 7849 2440 1C
7209 7849 2369 2C
7209 7849 2370 2C
7209 7849 2406 2C
7209 7849 2439 2C
7209 7849 2353 3C
7209 7849 2428 3C
7209 7849 2450 3C
7209 7849 2461 3C
7209 7849 2347 14C

PM (or PMA) review: Initials _____ Date 12/17/09

ORIGIN ID: SAFA (505)665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 15DEC09
ACTWGT: 61.0 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843)556-8171
REF: 6B010AMR2A0541900

1c

FedEx Express

1 of 2
MPS# 0263 7209 7849 2417
Mstr# 7209 7849 2417 0201

WED - 16DEC A1
PRIORITY OVERNIGHT

29407
SC-US

ORIGIN ID: SAFA (505)665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

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UNITED STATES US

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BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843)556-8171
REF: 6B010AMR3A0352VA00

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TRK# 0201 7209 7849 2440
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PRIORITY OVERNIGHT

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Part # 158148-434 NRIT V9.05-09

7209 7849 2417

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GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843)556-8171
REF: 6B010AMR1A015AGWM0

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1 of 2
TRK# 0201 7209 7849 2369
MM MASTER MM

WED - 16DEC A1
PRIORITY OVERNIGHT

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SC-US
CHS

XX CHSA

ORIGIN ID: SAFA (505)665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 15DEC09
ACTWGT: 54.0 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843)556-8171
REF: 6B010AMR1A015AGWM0

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FedEx Express

2 of 2
MPS# 0263 7209 7849 2370
Mstr# 7209 7849 2369 0201

WED - 16DEC A1
PRIORITY OVERNIGHT

29407
SC-US
CHS

XX CHSA

ORIGIN ID: SAFA (505)665-9960
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 15DEC09
ACTWGT: 54.0 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843)556-8171
REF: 68010AMR2A05419600

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1 of 2
TRK# 0201 7209 7849 2406
WED - 16DEC A1
PRIORITY OVERNIGHT
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SC-US
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Part # 156148-434 NRIT V3 09-09

ORIGIN ID: SAFA (505)665-9960
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 15DEC09
ACTWGT: 52.0 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843)556-8171
REF: 68010AMR3A0352VA00

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FedEx Express

2 of 2
MPS# 0263 7209 7849 2439
Mstr# 7209 7849 2428 0201
WED - 16DEC A1
PRIORITY OVERNIGHT

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Part # 156148-434 NRIT V3 09-09

ORIGIN ID: SAFA (505)665-9960
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 15DEC09
ACTWGT: 52.0 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843)556-8171
REF: 68010AMR1A015AGMM0

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3 of 3
MPS# 0263 7209 7849 2358
Mstr# 7209 7849 2336 0201
WED - 16DEC A1
PRIORITY OVERNIGHT

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SC-US
CHS

XX CHSA

ORIGIN ID: SAFA (505)665-9960
JOYLENE VALDEZ
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TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 15DEC09
ACTWGT: 48.0 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843)556-8171
REF: 68010AMR3A0352VA00

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FedEx Express

1 of 2
TRK# 0201 7209 7849 2428
WED - 16DEC A1
PRIORITY OVERNIGHT
MASTER

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SC-US
CHS

XX CHSA

ORIGIN ID: SAFA (505)665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 15DEC09
ACTWGT: 48.0 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843)556-8171
REF: 6B010AMR3A0352VA00

3

FedEx Express

2 of 3
MPS# 0263 7209 7849 2450
Matr# 7209 7849 2440 0201

WED - 16DEC A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

Part # 156148-434 NRIT V3 06-09

ORIGIN ID: SAFA (505)665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 15DEC09
ACTWGT: 48.0 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843)556-8171
REF: 6B010AMR3A0352VA00

3c

FedEx Express

3 of 3
MPS# 0263 7209 7849 2461
Matr# 7209 7849 2440 0201

WED - 16DEC A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

Part # 156148-434 NRIT V3 06-09

ORIGIN ID: SAFA (505)665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 15DEC09
ACTWGT: 46.0 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843)556-8171
REF: 6B010AMR1A015AGWM0

14c

FedEx Express

2 of 3
MPS# 0263 7209 7849 2347
Matr# 7209 7849 2336 0201

WED - 16DEC A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

Data Review Qualifier Flag Definition Sheet

Data Review Qualifier Definitions

Qualifier	Explanation
*	A quality control analyte recovery is outside of specified acceptance criteria
**	Analyte is a surrogate compound
<	Result is less than value reported
>	Result is greater than value reported
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL
A	The TIC is a suspected aldol-condensation product
B	Target analyte was detected in the associated blank
B	Metals-Either presence of analyte detected in the associated blank, or MDL/IDL < sample value < PQL
BD	Results are either below the MDC or tracer recovery is low
C	Analyte has been confirmed by GC/MS analysis
D	Results are reported from a diluted aliquot of the sample
d	5-day BOD-The 2:1 depletion requirement was not met for this sample
E	Organics-Concentration of the target analyte exceeds the instrument calibration range
E	Metals-%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
H	Analytical holding time was exceeded
h	Preparation or preservation holding time was exceeded
J	Value is estimated
N	Metals-The Matrix spike sample recovery is not within specified control limits
N	Organics-Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A	Spike recovery limits do not apply. Sample concentration exceeds spike concentration by 4X or more
ND	Analyte concentration is not detected above the reporting limit
UI	Gamma Spectroscopy-Uncertain identification
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
Z	Paint Filter Test-Particulates passed through the filter, however no free liquids were observed.

GC/MS Volatile Analysis

GC/MS Volatile Organics
Los Alamos National Laboratory (LANL)
SDG 10-940

Method/Analysis Information

Procedure:	Volatile Organic Compounds (VOC) by Gas Chromatograph/Mass Spectrometer
Analytical Method:	SW846 8260B
Prep Method:	SW846 5030
Analytical Batch Number:	936119
Prep Batch Number:	936118

Sample Analysis

The following client and quality control samples were analyzed to complete this SDG using the methods referenced in the Analysis Information section:

Sample ID	Client ID
243033001	RE03-09-14221
243033002	RE03-09-14211
243033003	RE03-09-14210
243033004	RE03-09-14209
243033005	RE03-09-14208
243033006	RE03-09-14222
243033007	RE03-09-14223
243033008	RE03-09-14220
243033009	RE03-10-2734
243033010	RE03-10-8963
1202003038	Method Blank (MB)
1202003041	Laboratory Control Sample (LCS)
1202003042	Laboratory Control Sample (LCS)
1202003039	243033001(RE03-09-14221) Post Spike (PS)
1202003040	243033001(RE03-09-14221) Post Spike Duplicate (PSD)

NOTE: For volatile organic analyses the matrix spike designations may be indicated as "PS" or "PSD". The "PS" designation (post spike) indicates that the matrix was fortified prior to analysis but after applying any prep factors, such as a dilution. The laboratory considers the MS/MSD and PS/PSD designations interchangeable.
Samples 243033 001, 002, 003, 004, 005, 006, 007, 008 and 009 in this SDG were analyzed on an "dry weight" basis. Samples 243033 010 in this SDG were analyzed on a "as received" basis.

Preparation/Analytical Method Verification

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-038 REV# 13.

Raw data reports are processed and reviewed by the analyst using the Target software package. False positives have been removed from the Target quantitation reports per standard operating procedures (SOP) section 19.1.2.

Calibration Information

Please note that the 'Cal Date' indicated on each quantitation report reflects the date and time of the most recent calibrated analyte(s) in the Target processing method. Since the laboratory may calibrate with multiple solutions on different days using the same processing method, the Target software will update the 'Cal Date' to the last calibration file, date and time. The correct dates and times for all calibration files are located on the Calibration History report in the Standard Data section in the data package.

The surrogate compounds were calibrated using a minimum five-point calibration curve. The surrogates were added by the auto sampler at a concentration of 50 ug/L. GEL Laboratories LLC will not have surrogate recoveries reported for Dibromofluoromethane. This is due to increased regulations for this analyte and an industry shortage.

Due to software limitations, the Calibration Summary Form 6 may not indicate all the calibration files comprising the initial calibration. A complete list of the initial calibration data files are shown in the Calibration History report located in the Standard Data section of the data package.

The linear equation used in Target and indicated on the initial calibration summary form is not a conventional linear equation (slope intercept formula) and does not match the equation found in SW-846 method 8000B. The x and y axes are inversed in Target, so that the instrument response is treated as the independent variable (x) and the concentration ratio is treated as the dependent variable (y). The equation used in Target to calculate sample results is adjusted to account for the linear equation inversion and reciprocal slope. The adjusted calculation has been independently verified to produce valid results.

Initial Calibration
All initial calibration requirements have been met for this sample delivery groups (SDG). A second source initial calibration verification (ICV) was included in the standard section directly behind the initial calibration.

Continuing Calibration Verification Requirements
All associated calibration verification standard(s) (ICV or CCV) met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Surrogate Recoveries
In sample 243033008 (RE03-09-14220), surrogate recoveries were outside the required acceptance criteria. Sample re-analysis confirmed matrix interference. See NCR 776701.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

QC Sample Designation
Sample 243033001 (RE03-09-14221) was designated for spike analysis in this SDG.

Matrix Spike (PS) Recovery Statement
The spike recoveries for this SDG were within the required acceptance limits.

Matrix Spike Duplicate (PSD) Recovery Statement
The spike duplicate recoveries for this SDG were within the required acceptance limits.

Relative Percent Difference (RPD) Statement
The RPD(s) between the matrix spike pair met the acceptance limits.

Internal Standard (ISTD) Acceptance
In sample 243033008 (RE03-09-14220), internal standard responses were outside the required acceptance criteria. Sample re-analysis confirmed matrix interference. See NCR 776701.

Technical Information

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection or sample receipt. Those holding times expressed in hours are calculated in the

ALPHALIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Sample Preservation and Integrity
All samples met the sample preservation and integrity requirements.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-extraction/Re-analysis
Sample 243033008 (RE03-09-14220) was re-analyzed due to unacceptable recoveries in the initial analysis.

Miscellaneous Information

Electronic Package Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. An electronic signature page inserted after the case narrative of each electronic package will indicate the analyst, reviewer, and report specialist names associated with the generation of the data and package. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Nonconformance (NCR) Documentation
NCR # 776701 was generated for this SDG.

Manual Integrations
Some initial calibration standards, continuing calibration standards, and/or samples may have required manual integrations due to software limitations.

TIC Comment
Tentatively identified compounds (TIC) were required for this SDG.

Additional Comments
Additional comments were not required for this SDG.

Residual Chlorine
Residual Chlorine was not detected in any of the samples in this SDG.

System Configuration
The Volatile-GC/MS analysis was performed on the following instrument configuration:

Instrument ID	Instrument	System Configuration	Column ID	Column Description	P & T Trap
VOA4.I	Gas Chromatograph/Mass Spectrometer	HP6890/HP5973	DB-624	J&W, 60m x 0.25mm x 1.4um	Trap 10

Certification Statement
Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis Report
for

LANL010 Los Alamos National Laboratory (72733-001-09)

Client SDG: 10-940 GEL Work Order: 243033

The Qualifiers in this report are defined as follows:

* A quality control analyte recovery is outside of specified acceptance criteria

** Analyte is a surrogate compound

J Value is estimated

U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

Review/Validation

GEL requires all analytical data to be verified by a qualified data reviewer. In addition, all CLP-like deliverables receive a third level review of the fractional data package.

The following data validator verified the information presented in this case narrative:

Signature: Erin Haubert **Name: Erin Haubert**

Date: 12 JAN 2010 **Title: Data Validator**

Roadmap for LANL 10-940 VOA

This roadmap was analyzed by ACJ on 01-04-2010, 22:09.
This roadmap was reviewed by kel00587 on 01-05-2010, 18:00.

Sample

exclude	manual	datafile	smpid	clientid	injdate	injtime	sublist	dilution	batchid	comment
☐	N	/chem/VOA4.i/122209v4/4q212.d	243033010	RE03-10-8963	23-DEC-2009	01:05	10-940.sub	1	936119	
☐	N	/chem/VOA4.i/122209v4/4q213.d	243033001	RE03-09-14221	23-DEC-2009	01:33	10-940.sub	1	936119	
☐	N	/chem/VOA4.i/122209v4/4q214.d	243033002	RE03-09-14211	23-DEC-2009	01:59	10-940.sub	1	936119	
☐	N	/chem/VOA4.i/122209v4/4q215.d	243033003	RE03-09-14210	23-DEC-2009	02:27	10-940.sub	1	936119	
☐	N	/chem/VOA4.i/122209v4/4q216.d	243033004	RE03-09-14209	23-DEC-2009	02:54	10-940.sub	1	936119	
☐	N	/chem/VOA4.i/122209v4/4q217.d	243033005	RE03-09-14208	23-DEC-2009	03:21	10-940.sub	1	936119	
☐	N	/chem/VOA4.i/122209v4/4q218.d	243033006	RE03-09-14222	23-DEC-2009	03:48	10-940.sub	1	936119	
☐	N	/chem/VOA4.i/122209v4/4q219.d	243033007	RE03-09-14223	23-DEC-2009	04:15	10-940.sub	1	936119	
☐	N	/chem/VOA4.i/122209v4/4q220.d	243033008	RE03-09-14220	23-DEC-2009	04:42	10-940.sub	1	936119	
☐	N	/chem/VOA4.i/122209v4/4q221.d	243033009	RE03-10-2734	23-DEC-2009	05:10	10-940.sub	1	936119	
■	N	/chem/VOA4.i/122309v4/4q308.d	243033008	RE03-09-14220	23-DEC-2009	21:43	10-940.sub	1	936119	

QC Sample

exclude	manual	datafile	smpid	clientid	sampletype	injdate	injtime	sublist	dilution	batchid	comment
☐	N	/chem/VOA4.i/122209v4/4q203LL.d	1202003041	LCS	lcs	22-DEC-2009	21:00	all.sub	1	936119	
☐	N	/chem/VOA4.i/122209v4/4q205SL.d	1202003042	LCS	lcs	22-DEC-2009	21:55	all.sub	1	936119	
☐	N	/chem/VOA4.i/122209v4/4q206BL.d	1202003038	BLANK	mb	22-DEC-2009	22:22	all.sub	1	936119	
☐	N	/chem/VOA4.i/122209v4/4q223.d	1202003039	RE03-09-14221MS	ms	23-DEC-2009	06:05	10-940.sub	1	936119	
☐	N	/chem/VOA4.i/122209v4/4q224.d	1202003040	RE03-09-14221MSD	msd	23-DEC-2009	06:32	10-940.sub	1	936119	

Sample Data Summary

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-940**	**Date Collected:**	**12/14/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243033005**	**Date Received:**	**12/16/2009 09:10**	**%Moisture:**	**12.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14208**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**936119**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**12/23/2009 03:21**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**12/22/2009 22:46**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**4q217.d**	**Column:**	**RTX-VOLATILES**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.15	ug/kg	0.390	1.15
74-87-3	Chloromethane	U	1.15	ug/kg	0.344	1.15
75-01-4	Vinyl chloride	U	1.15	ug/kg	0.344	1.15
74-83-9	Bromomethane	U	1.15	ug/kg	0.344	1.15
75-00-3	Chloroethane	U	1.15	ug/kg	0.344	1.15
75-69-4	Trichlorofluoromethane	U	1.15	ug/kg	0.344	1.15
67-64-1	Acetone	J	4.60	ug/kg	1.90	5.73
75-35-4	1,1-Dichloroethylene	U	1.15	ug/kg	0.344	1.15
74-88-4	Iodomethane	U	5.73	ug/kg	1.83	5.73
75-09-2	Methylene chloride	U	5.73	ug/kg	2.29	5.73
75-15-0	Carbon disulfide	U	5.73	ug/kg	1.43	5.73
156-60-5	trans-1,2-Dichloroethylene	U	1.15	ug/kg	0.344	1.15
75-34-3	1,1-Dichloroethane	U	1.15	ug/kg	0.344	1.15
78-93-3	2-Butanone	U	5.73	ug/kg	1.72	5.73
156-59-2	cis-1,2-Dichloroethylene	U	1.15	ug/kg	0.344	1.15
594-20-7	2,2-Dichloropropane	U	1.15	ug/kg	0.344	1.15
67-66-3	Chloroform	U	1.15	ug/kg	0.344	1.15
74-97-5	Bromochloromethane	U	1.15	ug/kg	0.378	1.15
71-55-6	1,1,1-Trichloroethane	U	1.15	ug/kg	0.344	1.15
563-58-6	1,1-Dichloropropene	U	1.15	ug/kg	0.344	1.15
56-23-5	Carbon tetrachloride	U	1.15	ug/kg	0.344	1.15
107-06-2	1,2-Dichloroethane	U	1.15	ug/kg	0.344	1.15
71-43-2	Benzene	U	1.15	ug/kg	0.344	1.15
79-01-6	Trichloroethylene	U	1.15	ug/kg	0.378	1.15
78-87-5	1,2-Dichloropropane	U	1.15	ug/kg	0.344	1.15
75-27-4	Bromodichloromethane	U	1.15	ug/kg	0.344	1.15
74-95-3	Dibromomethane	U	1.15	ug/kg	0.344	1.15
108-10-1	4-Methyl-2-pentanone	U	5.73	ug/kg	1.43	5.73
10061-01-5	cis-1,3-Dichloropropylene	U	1.15	ug/kg	0.344	1.15
108-88-3	Toluene	U	1.15	ug/kg	0.344	1.15
10061-02-6	trans-1,3-Dichloropropylene	U	1.15	ug/kg	0.344	1.15
79-00-5	1,1,2-Trichloroethane	U	1.15	ug/kg	0.344	1.15
591-78-6	2-Hexanone	U	5.73	ug/kg	1.72	5.73
142-28-9	1,3-Dichloropropane	U	1.15	ug/kg	0.344	1.15
127-18-4	Tetrachloroethylene	U	1.15	ug/kg	0.344	1.15
124-48-1	Dibromochloromethane	U	1.15	ug/kg	0.344	1.15
106-93-4	1,2-Dibromoethane	U	1.15	ug/kg	0.344	1.15
108-90-7	Chlorobenzene	U	1.15	ug/kg	0.344	1.15

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-940**	**Date Collected:**	**12/14/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243033005**	**Date Received:**	**12/16/2009 09:10**	**%Moisture:**	**12.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14208**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**936119**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**12/23/2009 03:21**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**12/22/2009 22:46**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**4q217.d**	**Column:**	**RTX-VOLATILES**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.15	ug/kg	0.344	1.15
179601-23-1	m,p-Xylenes	U	2.29	ug/kg	0.344	2.29
95-47-6	o-Xylene	U	1.15	ug/kg	0.344	1.15
100-42-5	Styrene	U	1.15	ug/kg	0.344	1.15
75-25-2	Bromoform	U	1.15	ug/kg	0.344	1.15
79-34-5	1,1,2,2-Tetrachloroethane	U	1.15	ug/kg	0.344	1.15
96-18-4	1,2,3-Trichloropropane	U	1.15	ug/kg	0.344	1.15
108-86-1	Bromobenzene	U	1.15	ug/kg	0.344	1.15
103-65-1	n-Propylbenzene	U	1.15	ug/kg	0.344	1.15
95-49-8	2-Chlorotoluene	U	1.15	ug/kg	0.344	1.15
98-82-8	Isopropylbenzene	U	1.15	ug/kg	0.344	1.15
108-67-8	1,3,5-Trimethylbenzene	U	1.15	ug/kg	0.344	1.15
106-43-4	4-Chlorotoluene	U	1.15	ug/kg	0.344	1.15
98-06-6	tert-Butylbenzene	U	1.15	ug/kg	0.344	1.15
95-63-6	1,2,4-Trimethylbenzene	U	1.15	ug/kg	0.344	1.15
135-98-8	sec-Butylbenzene	U	1.15	ug/kg	0.344	1.15
99-87-6	4-Isopropyltoluene	U	1.15	ug/kg	0.344	1.15
541-73-1	1,3-Dichlorobenzene	U	1.15	ug/kg	0.344	1.15
106-46-7	1,4-Dichlorobenzene	U	1.15	ug/kg	0.344	1.15
104-51-8	n-Butylbenzene	U	1.15	ug/kg	0.344	1.15
96-12-8	1,2-Dibromo-3-chloropropane	U	1.15	ug/kg	0.344	1.15
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.73	ug/kg	1.83	5.73
630-20-6	1,1,1,2-Tetrachloroethane	U	1.15	ug/kg	0.344	1.15
95-50-1	1,2-Dichlorobenzene	U	1.15	ug/kg	0.344	1.15

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Siloxane	14.83	55.5	ug/kg		J

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-940	**Date Collected:**	12/14/2009 12:00	**Matrix:**	S
Lab Sample ID:	243033004	**Date Received:**	12/16/2009 09:10	**%Moisture:**	11.6
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14209	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	936119	**Inst:**	VOA4.I	**Dilution:**	1
Run Date:	12/23/2009 02:54	**Analyst:**	ACJ	**Purge Vol:**	5 mL
Prep Date:	12/22/2009 22:45	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	4q216.d	**Column:**	RTX-VOLATILES	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.13	ug/kg	0.384	1.13
74-87-3	Chloromethane	U	1.13	ug/kg	0.339	1.13
75-01-4	Vinyl chloride	U	1.13	ug/kg	0.339	1.13
74-83-9	Bromomethane	U	1.13	ug/kg	0.339	1.13
75-00-3	Chloroethane	U	1.13	ug/kg	0.339	1.13
75-69-4	Trichlorofluoromethane	U	1.13	ug/kg	0.339	1.13
67-64-1	Acetone	J	4.20	ug/kg	1.88	5.65
75-35-4	1,1-Dichloroethylene	U	1.13	ug/kg	0.339	1.13
74-88-4	Iodomethane	U	5.65	ug/kg	1.81	5.65
75-09-2	Methylene chloride	U	5.65	ug/kg	2.26	5.65
75-15-0	Carbon disulfide	U	5.65	ug/kg	1.41	5.65
156-60-5	trans-1,2-Dichloroethylene	U	1.13	ug/kg	0.339	1.13
75-34-3	1,1-Dichloroethane	U	1.13	ug/kg	0.339	1.13
78-93-3	2-Butanone	U	5.65	ug/kg	1.70	5.65
156-59-2	cis-1,2-Dichloroethylene	U	1.13	ug/kg	0.339	1.13
594-20-7	2,2-Dichloropropane	U	1.13	ug/kg	0.339	1.13
67-66-3	Chloroform	U	1.13	ug/kg	0.339	1.13
74-97-5	Bromochloromethane	U	1.13	ug/kg	0.373	1.13
71-55-6	1,1,1-Trichloroethane	U	1.13	ug/kg	0.339	1.13
563-58-6	1,1-Dichloropropene	U	1.13	ug/kg	0.339	1.13
56-23-5	Carbon tetrachloride	U	1.13	ug/kg	0.339	1.13
107-06-2	1,2-Dichloroethane	U	1.13	ug/kg	0.339	1.13
71-43-2	Benzene	U	1.13	ug/kg	0.339	1.13
79-01-6	Trichloroethylene	U	1.13	ug/kg	0.373	1.13
78-87-5	1,2-Dichloropropane	U	1.13	ug/kg	0.339	1.13
75-27-4	Bromodichloromethane	U	1.13	ug/kg	0.339	1.13
74-95-3	Dibromomethane	U	1.13	ug/kg	0.339	1.13
108-10-1	4-Methyl-2-pentanone	U	5.65	ug/kg	1.41	5.65
10061-01-5	cis-1,3-Dichloropropylene	U	1.13	ug/kg	0.339	1.13
108-88-3	Toluene	U	1.13	ug/kg	0.339	1.13
10061-02-6	trans-1,3-Dichloropropylene	U	1.13	ug/kg	0.339	1.13
79-00-5	1,1,2-Trichloroethane	U	1.13	ug/kg	0.339	1.13
591-78-6	2-Hexanone	U	5.65	ug/kg	1.70	5.65
142-28-9	1,3-Dichloropropane	U	1.13	ug/kg	0.339	1.13
127-18-4	Tetrachloroethylene	U	1.13	ug/kg	0.339	1.13
124-48-1	Dibromochloromethane	U	1.13	ug/kg	0.339	1.13
106-93-4	1,2-Dibromoethane	U	1.13	ug/kg	0.339	1.13
108-90-7	Chlorobenzene	U	1.13	ug/kg	0.339	1.13

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-940**	**Date Collected:**	**12/14/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243033004**	**Date Received:**	**12/16/2009 09:10**	**%Moisture:**	**11.6**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14209**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**936119**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**12/23/2009 02:54**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**12/22/2009 22:45**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**4q216.d**	**Column:**	**RTX-VOLATILES**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.13	ug/kg	0.339	1.13
179601-23-1	m,p-Xylenes	U	2.26	ug/kg	0.339	2.26
95-47-6	o-Xylene	U	1.13	ug/kg	0.339	1.13
100-42-5	Styrene	U	1.13	ug/kg	0.339	1.13
75-25-2	Bromoform	U	1.13	ug/kg	0.339	1.13
79-34-5	1,1,2,2-Tetrachloroethane	U	1.13	ug/kg	0.339	1.13
96-18-4	1,2,3-Trichloropropane	U	1.13	ug/kg	0.339	1.13
108-86-1	Bromobenzene	U	1.13	ug/kg	0.339	1.13
103-65-1	n-Propylbenzene	U	1.13	ug/kg	0.339	1.13
95-49-8	2-Chlorotoluene	U	1.13	ug/kg	0.339	1.13
98-82-8	Isopropylbenzene	U	1.13	ug/kg	0.339	1.13
108-67-8	1,3,5-Trimethylbenzene	U	1.13	ug/kg	0.339	1.13
106-43-4	4-Chlorotoluene	U	1.13	ug/kg	0.339	1.13
98-06-6	tert-Butylbenzene	U	1.13	ug/kg	0.339	1.13
95-63-6	1,2,4-Trimethylbenzene	U	1.13	ug/kg	0.339	1.13
135-98-8	sec-Butylbenzene	U	1.13	ug/kg	0.339	1.13
99-87-6	4-Isopropyltoluene	U	1.13	ug/kg	0.339	1.13
541-73-1	1,3-Dichlorobenzene	U	1.13	ug/kg	0.339	1.13
106-46-7	1,4-Dichlorobenzene	U	1.13	ug/kg	0.339	1.13
104-51-8	n-Butylbenzene	U	1.13	ug/kg	0.339	1.13
96-12-8	1,2-Dibromo-3-chloropropane	U	1.13	ug/kg	0.339	1.13
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.65	ug/kg	1.81	5.65
630-20-6	1,1,1,2-Tetrachloroethane	U	1.13	ug/kg	0.339	1.13
95-50-1	1,2-Dichlorobenzene	U	1.13	ug/kg	0.339	1.13

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Siloxane	14.83	22.7	ug/kg		J

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-940	**Date Collected:**	12/14/2009 12:00	**Matrix:**	S
Lab Sample ID:	243033003	**Date Received:**	12/16/2009 09:10	**%Moisture:**	13.6
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14210	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	936119	**Inst:**	VOA4.I	**Dilution:**	1
Run Date:	12/23/2009 02:27	**Analyst:**	ACJ	**Purge Vol:**	5 mL
Prep Date:	12/22/2009 22:44	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	4q215.d	**Column:**	RTX-VOLATILES	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.16	ug/kg	0.394	1.16
74-87-3	Chloromethane	U	1.16	ug/kg	0.347	1.16
75-01-4	Vinyl chloride	U	1.16	ug/kg	0.347	1.16
74-83-9	Bromomethane	U	1.16	ug/kg	0.347	1.16
75-00-3	Chloroethane	U	1.16	ug/kg	0.347	1.16
75-69-4	Trichlorofluoromethane	U	1.16	ug/kg	0.347	1.16
67-64-1	Acetone	J	3.65	ug/kg	1.92	5.79
75-35-4	1,1-Dichloroethylene	U	1.16	ug/kg	0.347	1.16
74-88-4	Iodomethane	U	5.79	ug/kg	1.85	5.79
75-09-2	Methylene chloride	U	5.79	ug/kg	2.32	5.79
75-15-0	Carbon disulfide	U	5.79	ug/kg	1.45	5.79
156-60-5	trans-1,2-Dichloroethylene	U	1.16	ug/kg	0.347	1.16
75-34-3	1,1-Dichloroethane	U	1.16	ug/kg	0.347	1.16
78-93-3	2-Butanone	U	5.79	ug/kg	1.74	5.79
156-59-2	cis-1,2-Dichloroethylene	U	1.16	ug/kg	0.347	1.16
594-20-7	2,2-Dichloropropane	U	1.16	ug/kg	0.347	1.16
67-66-3	Chloroform	U	1.16	ug/kg	0.347	1.16
74-97-5	Bromochloromethane	U	1.16	ug/kg	0.382	1.16
71-55-6	1,1,1-Trichloroethane	U	1.16	ug/kg	0.347	1.16
563-58-6	1,1-Dichloropropene	U	1.16	ug/kg	0.347	1.16
56-23-5	Carbon tetrachloride	U	1.16	ug/kg	0.347	1.16
107-06-2	1,2-Dichloroethane	U	1.16	ug/kg	0.347	1.16
71-43-2	Benzene	U	1.16	ug/kg	0.347	1.16
79-01-6	Trichloroethylene	U	1.16	ug/kg	0.382	1.16
78-87-5	1,2-Dichloropropane	U	1.16	ug/kg	0.347	1.16
75-27-4	Bromodichloromethane	U	1.16	ug/kg	0.347	1.16
74-95-3	Dibromomethane	U	1.16	ug/kg	0.347	1.16
108-10-1	4-Methyl-2-pentanone	U	5.79	ug/kg	1.45	5.79
10061-01-5	cis-1,3-Dichloropropylene	U	1.16	ug/kg	0.347	1.16
108-88-3	Toluene	U	1.16	ug/kg	0.347	1.16
10061-02-6	trans-1,3-Dichloropropylene	U	1.16	ug/kg	0.347	1.16
79-00-5	1,1,2-Trichloroethane	U	1.16	ug/kg	0.347	1.16
591-78-6	2-Hexanone	U	5.79	ug/kg	1.74	5.79
142-28-9	1,3-Dichloropropane	U	1.16	ug/kg	0.347	1.16
127-18-4	Tetrachloroethylene	U	1.16	ug/kg	0.347	1.16
124-48-1	Dibromochloromethane	U	1.16	ug/kg	0.347	1.16
106-93-4	1,2-Dibromoethane	U	1.16	ug/kg	0.347	1.16
108-90-7	Chlorobenzene	U	1.16	ug/kg	0.347	1.16

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-940	**Date Collected:**	12/14/2009 12:00	**Matrix:**	S
Lab Sample ID:	243033003	**Date Received:**	12/16/2009 09:10	**%Moisture:**	13.6
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14210	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	936119	**Inst:**	VOA4.I	**Dilution:**	1
Run Date:	12/23/2009 02:27	**Analyst:**	ACJ	**Purge Vol:**	5 mL
Prep Date:	12/22/2009 22:44	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	4q215.d	**Column:**	RTX-VOLATILES	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.16	ug/kg	0.347	1.16
179601-23-1	m,p-Xylenes	U	2.32	ug/kg	0.347	2.32
95-47-6	o-Xylene	U	1.16	ug/kg	0.347	1.16
100-42-5	Styrene	U	1.16	ug/kg	0.347	1.16
75-25-2	Bromoform	U	1.16	ug/kg	0.347	1.16
79-34-5	1,1,2,2-Tetrachloroethane	U	1.16	ug/kg	0.347	1.16
96-18-4	1,2,3-Trichloropropane	U	1.16	ug/kg	0.347	1.16
108-86-1	Bromobenzene	U	1.16	ug/kg	0.347	1.16
103-65-1	n-Propylbenzene	U	1.16	ug/kg	0.347	1.16
95-49-8	2-Chlorotoluene	U	1.16	ug/kg	0.347	1.16
98-82-8	Isopropylbenzene	U	1.16	ug/kg	0.347	1.16
108-67-8	1,3,5-Trimethylbenzene	U	1.16	ug/kg	0.347	1.16
106-43-4	4-Chlorotoluene	U	1.16	ug/kg	0.347	1.16
98-06-6	tert-Butylbenzene	U	1.16	ug/kg	0.347	1.16
95-63-6	1,2,4-Trimethylbenzene	U	1.16	ug/kg	0.347	1.16
135-98-8	sec-Butylbenzene	U	1.16	ug/kg	0.347	1.16
99-87-6	4-Isopropyltoluene	U	1.16	ug/kg	0.347	1.16
541-73-1	1,3-Dichlorobenzene	U	1.16	ug/kg	0.347	1.16
106-46-7	1,4-Dichlorobenzene	U	1.16	ug/kg	0.347	1.16
104-51-8	n-Butylbenzene	U	1.16	ug/kg	0.347	1.16
96-12-8	1,2-Dibromo-3-chloropropane	U	1.16	ug/kg	0.347	1.16
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.79	ug/kg	1.85	5.79
630-20-6	1,1,1,2-Tetrachloroethane	U	1.16	ug/kg	0.347	1.16
95-50-1	1,2-Dichlorobenzene	U	1.16	ug/kg	0.347	1.16

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Siloxane	14.83	122	ug/kg		J
	Unknown Siloxane	16.79	15.1	ug/kg		J

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-940	**Date Collected:**	12/14/2009 12:00	**Matrix:**	S
Lab Sample ID:	243033002	**Date Received:**	12/16/2009 09:10	**%Moisture:**	14.3
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14211	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	936119	**Inst:**	VOA4.I	**Dilution:**	1
Run Date:	12/23/2009 01:59	**Analyst:**	ACJ	**Purge Vol:**	5 mL
Prep Date:	12/22/2009 22:43	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	4q214.d	**Column:**	RTX-VOLATILES	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.17	ug/kg	0.397	1.17
74-87-3	Chloromethane	U	1.17	ug/kg	0.350	1.17
75-01-4	Vinyl chloride	U	1.17	ug/kg	0.350	1.17
74-83-9	Bromomethane	U	1.17	ug/kg	0.350	1.17
75-00-3	Chloroethane	U	1.17	ug/kg	0.350	1.17
75-69-4	Trichlorofluoromethane	U	1.17	ug/kg	0.350	1.17
67-64-1	Acetone	J	3.09	ug/kg	1.94	5.84
75-35-4	1,1-Dichloroethylene	U	1.17	ug/kg	0.350	1.17
74-88-4	Iodomethane	U	5.84	ug/kg	1.87	5.84
75-09-2	Methylene chloride	U	5.84	ug/kg	2.33	5.84
75-15-0	Carbon disulfide	U	5.84	ug/kg	1.46	5.84
156-60-5	trans-1,2-Dichloroethylene	U	1.17	ug/kg	0.350	1.17
75-34-3	1,1-Dichloroethane	U	1.17	ug/kg	0.350	1.17
78-93-3	2-Butanone	U	5.84	ug/kg	1.75	5.84
156-59-2	cis-1,2-Dichloroethylene	U	1.17	ug/kg	0.350	1.17
594-20-7	2,2-Dichloropropane	U	1.17	ug/kg	0.350	1.17
67-66-3	Chloroform	U	1.17	ug/kg	0.350	1.17
74-97-5	Bromochloromethane	U	1.17	ug/kg	0.385	1.17
71-55-6	1,1,1-Trichloroethane	U	1.17	ug/kg	0.350	1.17
563-58-6	1,1-Dichloropropene	U	1.17	ug/kg	0.350	1.17
56-23-5	Carbon tetrachloride	U	1.17	ug/kg	0.350	1.17
107-06-2	1,2-Dichloroethane	U	1.17	ug/kg	0.350	1.17
71-43-2	Benzene	U	1.17	ug/kg	0.350	1.17
79-01-6	Trichloroethylene	U	1.17	ug/kg	0.385	1.17
78-87-5	1,2-Dichloropropane	U	1.17	ug/kg	0.350	1.17
75-27-4	Bromodichloromethane	U	1.17	ug/kg	0.350	1.17
74-95-3	Dibromomethane	U	1.17	ug/kg	0.350	1.17
108-10-1	4-Methyl-2-pentanone	U	5.84	ug/kg	1.46	5.84
10061-01-5	cis-1,3-Dichloropropylene	U	1.17	ug/kg	0.350	1.17
108-88-3	Toluene	U	1.17	ug/kg	0.350	1.17
10061-02-6	trans-1,3-Dichloropropylene	U	1.17	ug/kg	0.350	1.17
79-00-5	1,1,2-Trichloroethane	U	1.17	ug/kg	0.350	1.17
591-78-6	2-Hexanone	U	5.84	ug/kg	1.75	5.84
142-28-9	1,3-Dichloropropane	U	1.17	ug/kg	0.350	1.17
127-18-4	Tetrachloroethylene	U	1.17	ug/kg	0.350	1.17
124-48-1	Dibromochloromethane	U	1.17	ug/kg	0.350	1.17
106-93-4	1,2-Dibromoethane	U	1.17	ug/kg	0.350	1.17
108-90-7	Chlorobenzene	U	1.17	ug/kg	0.350	1.17

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-940	**Date Collected:**	12/14/2009 12:00	**Matrix:**	S
Lab Sample ID:	243033002	**Date Received:**	12/16/2009 09:10	**%Moisture:**	14.3
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14211	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	936119	**Inst:**	VOA4.I	**Dilution:**	1
Run Date:	12/23/2009 01:59	**Analyst:**	ACJ	**Purge Vol:**	5 mL
Prep Date:	12/22/2009 22:43	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	4q214.d	**Column:**	RTX-VOLATILES	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.17	ug/kg	0.350	1.17
179601-23-1	m,p-Xylenes	U	2.33	ug/kg	0.350	2.33
95-47-6	o-Xylene	U	1.17	ug/kg	0.350	1.17
100-42-5	Styrene	U	1.17	ug/kg	0.350	1.17
75-25-2	Bromoform	U	1.17	ug/kg	0.350	1.17
79-34-5	1,1,2,2-Tetrachloroethane	U	1.17	ug/kg	0.350	1.17
96-18-4	1,2,3-Trichloropropane	U	1.17	ug/kg	0.350	1.17
108-86-1	Bromobenzene	U	1.17	ug/kg	0.350	1.17
103-65-1	n-Propylbenzene	U	1.17	ug/kg	0.350	1.17
95-49-8	2-Chlorotoluene	U	1.17	ug/kg	0.350	1.17
98-82-8	Isopropylbenzene	U	1.17	ug/kg	0.350	1.17
108-67-8	1,3,5-Trimethylbenzene	U	1.17	ug/kg	0.350	1.17
106-43-4	4-Chlorotoluene	U	1.17	ug/kg	0.350	1.17
98-06-6	tert-Butylbenzene	U	1.17	ug/kg	0.350	1.17
95-63-6	1,2,4-Trimethylbenzene	U	1.17	ug/kg	0.350	1.17
135-98-8	sec-Butylbenzene	U	1.17	ug/kg	0.350	1.17
99-87-6	4-Isopropyltoluene	U	1.17	ug/kg	0.350	1.17
541-73-1	1,3-Dichlorobenzene	U	1.17	ug/kg	0.350	1.17
106-46-7	1,4-Dichlorobenzene	U	1.17	ug/kg	0.350	1.17
104-51-8	n-Butylbenzene	U	1.17	ug/kg	0.350	1.17
96-12-8	1,2-Dibromo-3-chloropropane	U	1.17	ug/kg	0.350	1.17
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.84	ug/kg	1.87	5.84
630-20-6	1,1,1,2-Tetrachloroethane	U	1.17	ug/kg	0.350	1.17
95-50-1	1,2-Dichlorobenzene	U	1.17	ug/kg	0.350	1.17

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Siloxane	14.83	19.6	ug/kg		J

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-940	**Date Collected:**	12/14/2009 12:00	**Matrix:**	S
Lab Sample ID:	243033008	**Date Received:**	12/16/2009 09:10	**%Moisture:**	15.6
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14220	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	936119	**Inst:**	VOA4.I	**Dilution:**	1
Run Date:	12/23/2009 04:42	**Analyst:**	ACJ	**Purge Vol:**	5 mL
Prep Date:	12/22/2009 22:49	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	4q220.d	**Column:**	RTX-VOLATILES	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.18	ug/kg	0.403	1.18
74-87-3	Chloromethane	U	1.18	ug/kg	0.355	1.18
75-01-4	Vinyl chloride	U	1.18	ug/kg	0.355	1.18
74-83-9	Bromomethane	U	1.18	ug/kg	0.355	1.18
75-00-3	Chloroethane	U	1.18	ug/kg	0.355	1.18
75-69-4	Trichlorofluoromethane	U	1.18	ug/kg	0.355	1.18
67-64-1	Acetone	J	2.03	ug/kg	1.97	5.92
75-35-4	1,1-Dichloroethylene	U	1.18	ug/kg	0.355	1.18
74-88-4	Iodomethane	U	5.92	ug/kg	1.89	5.92
75-09-2	Methylene chloride	U	5.92	ug/kg	2.37	5.92
75-15-0	Carbon disulfide	U	5.92	ug/kg	1.48	5.92
156-60-5	trans-1,2-Dichloroethylene	U	1.18	ug/kg	0.355	1.18
75-34-3	1,1-Dichloroethane	U	1.18	ug/kg	0.355	1.18
78-93-3	2-Butanone	U	5.92	ug/kg	1.78	5.92
156-59-2	cis-1,2-Dichloroethylene	J	0.926	ug/kg	0.355	1.18
594-20-7	2,2-Dichloropropane	U	1.18	ug/kg	0.355	1.18
67-66-3	Chloroform	U	1.18	ug/kg	0.355	1.18
74-97-5	Bromochloromethane	U	1.18	ug/kg	0.391	1.18
71-55-6	1,1,1-Trichloroethane	U	1.18	ug/kg	0.355	1.18
563-58-6	1,1-Dichloropropene	U	1.18	ug/kg	0.355	1.18
56-23-5	Carbon tetrachloride	U	1.18	ug/kg	0.355	1.18
107-06-2	1,2-Dichloroethane	U	1.18	ug/kg	0.355	1.18
71-43-2	Benzene	J	0.707	ug/kg	0.355	1.18
79-01-6	Trichloroethylene	J	0.446	ug/kg	0.391	1.18
78-87-5	1,2-Dichloropropane	U	1.18	ug/kg	0.355	1.18
75-27-4	Bromodichloromethane	U	1.18	ug/kg	0.355	1.18
74-95-3	Dibromomethane	U	1.18	ug/kg	0.355	1.18
108-10-1	4-Methyl-2-pentanone	U	5.92	ug/kg	1.48	5.92
10061-01-5	cis-1,3-Dichloropropylene	U	1.18	ug/kg	0.355	1.18
108-88-3	Toluene	J	0.767	ug/kg	0.355	1.18
10061-02-6	trans-1,3-Dichloropropylene	U	1.18	ug/kg	0.355	1.18
79-00-5	1,1,2-Trichloroethane	U	1.18	ug/kg	0.355	1.18
591-78-6	2-Hexanone	U	5.92	ug/kg	1.78	5.92
142-28-9	1,3-Dichloropropane	U	1.18	ug/kg	0.355	1.18
127-18-4	Tetrachloroethylene	U	1.18	ug/kg	0.355	1.18
124-48-1	Dibromochloromethane	U	1.18	ug/kg	0.355	1.18
106-93-4	1,2-Dibromoethane	U	1.18	ug/kg	0.355	1.18
108-90-7	Chlorobenzene	U	1.18	ug/kg	0.355	1.18

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-940**	**Date Collected:**	**12/14/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243033008**	**Date Received:**	**12/16/2009 09:10**	**%Moisture:**	**15.6**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14220**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**936119**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**12/23/2009 04:42**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**12/22/2009 22:49**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**4q220.d**	**Column:**	**RTX-VOLATILES**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.18	ug/kg	0.355	1.18
179601-23-1	m,p-Xylenes	J	0.565	ug/kg	0.355	2.37
95-47-6	o-Xylene	U	1.18	ug/kg	0.355	1.18
100-42-5	Styrene	U	1.18	ug/kg	0.355	1.18
75-25-2	Bromoform	U	1.18	ug/kg	0.355	1.18
79-34-5	1,1,2,2-Tetrachloroethane	U	1.18	ug/kg	0.355	1.18
96-18-4	1,2,3-Trichloropropane	U	1.18	ug/kg	0.355	1.18
108-86-1	Bromobenzene	U	1.18	ug/kg	0.355	1.18
103-65-1	n-Propylbenzene	U	1.18	ug/kg	0.355	1.18
95-49-8	2-Chlorotoluene	U	1.18	ug/kg	0.355	1.18
98-82-8	Isopropylbenzene	U	1.18	ug/kg	0.355	1.18
108-67-8	1,3,5-Trimethylbenzene	J	0.396	ug/kg	0.355	1.18
106-43-4	4-Chlorotoluene	U	1.18	ug/kg	0.355	1.18
98-06-6	tert-Butylbenzene	U	1.18	ug/kg	0.355	1.18
95-63-6	1,2,4-Trimethylbenzene	J	0.662	ug/kg	0.355	1.18
135-98-8	sec-Butylbenzene	U	1.18	ug/kg	0.355	1.18
99-87-6	4-Isopropyltoluene	U	1.18	ug/kg	0.355	1.18
541-73-1	1,3-Dichlorobenzene	U	1.18	ug/kg	0.355	1.18
106-46-7	1,4-Dichlorobenzene	U	1.18	ug/kg	0.355	1.18
104-51-8	n-Butylbenzene	U	1.18	ug/kg	0.355	1.18
96-12-8	1,2-Dibromo-3-chloropropane	U	1.18	ug/kg	0.355	1.18
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.92	ug/kg	1.89	5.92
630-20-6	1,1,1,2-Tetrachloroethane	U	1.18	ug/kg	0.355	1.18
95-50-1	1,2-Dichlorobenzene	U	1.18	ug/kg	0.355	1.18

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Siloxane	14.83	49.1	ug/kg		J
	Unknown Siloxane	16.79	132	ug/kg		J

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-940**	**Date Collected:**	**12/14/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243033001**	**Date Received:**	**12/16/2009 09:10**	**%Moisture:**	**14.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14221**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**936119**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**12/23/2009 01:33**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**12/22/2009 22:40**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**4q213.d**	**Column:**	**RTX-VOLATILES**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.17	ug/kg	0.399	1.17
74-87-3	Chloromethane	U	1.17	ug/kg	0.352	1.17
75-01-4	Vinyl chloride	U	1.17	ug/kg	0.352	1.17
74-83-9	Bromomethane	U	1.17	ug/kg	0.352	1.17
75-00-3	Chloroethane	U	1.17	ug/kg	0.352	1.17
75-69-4	Trichlorofluoromethane	U	1.17	ug/kg	0.352	1.17
67-64-1	Acetone	J	3.66	ug/kg	1.95	5.87
75-35-4	1,1-Dichloroethylene	U	1.17	ug/kg	0.352	1.17
74-88-4	Iodomethane	U	5.87	ug/kg	1.88	5.87
75-09-2	Methylene chloride	U	5.87	ug/kg	2.35	5.87
75-15-0	Carbon disulfide	U	5.87	ug/kg	1.47	5.87
156-60-5	trans-1,2-Dichloroethylene	U	1.17	ug/kg	0.352	1.17
75-34-3	1,1-Dichloroethane	U	1.17	ug/kg	0.352	1.17
78-93-3	2-Butanone	U	5.87	ug/kg	1.76	5.87
156-59-2	cis-1,2-Dichloroethylene	U	1.17	ug/kg	0.352	1.17
594-20-7	2,2-Dichloropropane	U	1.17	ug/kg	0.352	1.17
67-66-3	Chloroform	U	1.17	ug/kg	0.352	1.17
74-97-5	Bromochloromethane	U	1.17	ug/kg	0.387	1.17
71-55-6	1,1,1-Trichloroethane	U	1.17	ug/kg	0.352	1.17
563-58-6	1,1-Dichloropropene	U	1.17	ug/kg	0.352	1.17
56-23-5	Carbon tetrachloride	U	1.17	ug/kg	0.352	1.17
107-06-2	1,2-Dichloroethane	U	1.17	ug/kg	0.352	1.17
71-43-2	Benzene	U	1.17	ug/kg	0.352	1.17
79-01-6	Trichloroethylene	U	1.17	ug/kg	0.387	1.17
78-87-5	1,2-Dichloropropane	U	1.17	ug/kg	0.352	1.17
75-27-4	Bromodichloromethane	U	1.17	ug/kg	0.352	1.17
74-95-3	Dibromomethane	U	1.17	ug/kg	0.352	1.17
108-10-1	4-Methyl-2-pentanone	U	5.87	ug/kg	1.47	5.87
10061-01-5	cis-1,3-Dichloropropylene	U	1.17	ug/kg	0.352	1.17
108-88-3	Toluene	U	1.17	ug/kg	0.352	1.17
10061-02-6	trans-1,3-Dichloropropylene	U	1.17	ug/kg	0.352	1.17
79-00-5	1,1,2-Trichloroethane	U	1.17	ug/kg	0.352	1.17
591-78-6	2-Hexanone	U	5.87	ug/kg	1.76	5.87
142-28-9	1,3-Dichloropropane	U	1.17	ug/kg	0.352	1.17
127-18-4	Tetrachloroethylene	U	1.17	ug/kg	0.352	1.17
124-48-1	Dibromochloromethane	U	1.17	ug/kg	0.352	1.17
106-93-4	1,2-Dibromoethane	U	1.17	ug/kg	0.352	1.17
108-90-7	Chlorobenzene	U	1.17	ug/kg	0.352	1.17

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-940**	**Date Collected:**	**12/14/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243033001**	**Date Received:**	**12/16/2009 09:10**	**%Moisture:**	**14.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14221**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**936119**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**12/23/2009 01:33**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**12/22/2009 22:40**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**4q213.d**	**Column:**	**RTX-VOLATILES**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.17	ug/kg	0.352	1.17
179601-23-1	m,p-Xylenes	U	2.35	ug/kg	0.352	2.35
95-47-6	o-Xylene	U	1.17	ug/kg	0.352	1.17
100-42-5	Styrene	U	1.17	ug/kg	0.352	1.17
75-25-2	Bromoform	U	1.17	ug/kg	0.352	1.17
79-34-5	1,1,2,2-Tetrachloroethane	U	1.17	ug/kg	0.352	1.17
96-18-4	1,2,3-Trichloropropane	U	1.17	ug/kg	0.352	1.17
108-86-1	Bromobenzene	U	1.17	ug/kg	0.352	1.17
103-65-1	n-Propylbenzene	U	1.17	ug/kg	0.352	1.17
95-49-8	2-Chlorotoluene	U	1.17	ug/kg	0.352	1.17
98-82-8	Isopropylbenzene	U	1.17	ug/kg	0.352	1.17
108-67-8	1,3,5-Trimethylbenzene	U	1.17	ug/kg	0.352	1.17
106-43-4	4-Chlorotoluene	U	1.17	ug/kg	0.352	1.17
98-06-6	tert-Butylbenzene	U	1.17	ug/kg	0.352	1.17
95-63-6	1,2,4-Trimethylbenzene	U	1.17	ug/kg	0.352	1.17
135-98-8	sec-Butylbenzene	U	1.17	ug/kg	0.352	1.17
99-87-6	4-Isopropyltoluene	U	1.17	ug/kg	0.352	1.17
541-73-1	1,3-Dichlorobenzene	U	1.17	ug/kg	0.352	1.17
106-46-7	1,4-Dichlorobenzene	U	1.17	ug/kg	0.352	1.17
104-51-8	n-Butylbenzene	U	1.17	ug/kg	0.352	1.17
96-12-8	1,2-Dibromo-3-chloropropane	U	1.17	ug/kg	0.352	1.17
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.87	ug/kg	1.88	5.87
630-20-6	1,1,1,2-Tetrachloroethane	U	1.17	ug/kg	0.352	1.17
95-50-1	1,2-Dichlorobenzene	U	1.17	ug/kg	0.352	1.17

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Siloxane	14.83	7.42	ug/kg		J
1758-88-9	Benzene, 2-ethyl-1,4-dimethyl-	18.01	76.5	ug/kg	87	J

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-940	**Date Collected:**	12/14/2009 12:00	**Matrix:**	S
Lab Sample ID:	243033006	**Date Received:**	12/16/2009 09:10	**%Moisture:**	19.5
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14222	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	936119	**Inst:**	VOA4.I	**Dilution:**	1
Run Date:	12/23/2009 03:48	**Analyst:**	ACJ	**Purge Vol:**	5 mL
Prep Date:	12/22/2009 22:47	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	4q218.d	**Column:**	RTX-VOLATILES	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.24	ug/kg	0.422	1.24
74-87-3	Chloromethane	U	1.24	ug/kg	0.373	1.24
75-01-4	Vinyl chloride	U	1.24	ug/kg	0.373	1.24
74-83-9	Bromomethane	U	1.24	ug/kg	0.373	1.24
75-00-3	Chloroethane	U	1.24	ug/kg	0.373	1.24
75-69-4	Trichlorofluoromethane	U	1.24	ug/kg	0.373	1.24
67-64-1	Acetone	J	2.21	ug/kg	2.06	6.21
75-35-4	1,1-Dichloroethylene	U	1.24	ug/kg	0.373	1.24
74-88-4	Iodomethane	U	6.21	ug/kg	1.99	6.21
75-09-2	Methylene chloride	U	6.21	ug/kg	2.48	6.21
75-15-0	Carbon disulfide	U	6.21	ug/kg	1.55	6.21
156-60-5	trans-1,2-Dichloroethylene	U	1.24	ug/kg	0.373	1.24
75-34-3	1,1-Dichloroethane	U	1.24	ug/kg	0.373	1.24
78-93-3	2-Butanone	U	6.21	ug/kg	1.86	6.21
156-59-2	cis-1,2-Dichloroethylene	U	1.24	ug/kg	0.373	1.24
594-20-7	2,2-Dichloropropane	U	1.24	ug/kg	0.373	1.24
67-66-3	Chloroform	U	1.24	ug/kg	0.373	1.24
74-97-5	Bromochloromethane	U	1.24	ug/kg	0.410	1.24
71-55-6	1,1,1-Trichloroethane	U	1.24	ug/kg	0.373	1.24
563-58-6	1,1-Dichloropropene	U	1.24	ug/kg	0.373	1.24
56-23-5	Carbon tetrachloride	U	1.24	ug/kg	0.373	1.24
107-06-2	1,2-Dichloroethane	U	1.24	ug/kg	0.373	1.24
71-43-2	Benzene	U	1.24	ug/kg	0.373	1.24
79-01-6	Trichloroethylene	U	1.24	ug/kg	0.410	1.24
78-87-5	1,2-Dichloropropane	U	1.24	ug/kg	0.373	1.24
75-27-4	Bromodichloromethane	U	1.24	ug/kg	0.373	1.24
74-95-3	Dibromomethane	U	1.24	ug/kg	0.373	1.24
108-10-1	4-Methyl-2-pentanone	U	6.21	ug/kg	1.55	6.21
10061-01-5	cis-1,3-Dichloropropylene	U	1.24	ug/kg	0.373	1.24
108-88-3	Toluene	U	1.24	ug/kg	0.373	1.24
10061-02-6	trans-1,3-Dichloropropylene	U	1.24	ug/kg	0.373	1.24
79-00-5	1,1,2-Trichloroethane	U	1.24	ug/kg	0.373	1.24
591-78-6	2-Hexanone	U	6.21	ug/kg	1.86	6.21
142-28-9	1,3-Dichloropropane	U	1.24	ug/kg	0.373	1.24
127-18-4	Tetrachloroethylene	U	1.24	ug/kg	0.373	1.24
124-48-1	Dibromochloromethane	U	1.24	ug/kg	0.373	1.24
106-93-4	1,2-Dibromoethane	U	1.24	ug/kg	0.373	1.24
108-90-7	Chlorobenzene	U	1.24	ug/kg	0.373	1.24

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-940**	**Date Collected:**	**12/14/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243033006**	**Date Received:**	**12/16/2009 09:10**	**%Moisture:**	**19.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14222**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**936119**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**12/23/2009 03:48**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**12/22/2009 22:47**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**4q218.d**	**Column:**	**RTX-VOLATILES**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.24	ug/kg	0.373	1.24
179601-23-1	m,p-Xylenes	U	2.48	ug/kg	0.373	2.48
95-47-6	o-Xylene	U	1.24	ug/kg	0.373	1.24
100-42-5	Styrene	U	1.24	ug/kg	0.373	1.24
75-25-2	Bromoform	U	1.24	ug/kg	0.373	1.24
79-34-5	1,1,2,2-Tetrachloroethane	U	1.24	ug/kg	0.373	1.24
96-18-4	1,2,3-Trichloropropane	U	1.24	ug/kg	0.373	1.24
108-86-1	Bromobenzene	U	1.24	ug/kg	0.373	1.24
103-65-1	n-Propylbenzene	U	1.24	ug/kg	0.373	1.24
95-49-8	2-Chlorotoluene	U	1.24	ug/kg	0.373	1.24
98-82-8	Isopropylbenzene	U	1.24	ug/kg	0.373	1.24
108-67-8	1,3,5-Trimethylbenzene	U	1.24	ug/kg	0.373	1.24
106-43-4	4-Chlorotoluene	U	1.24	ug/kg	0.373	1.24
98-06-6	tert-Butylbenzene	U	1.24	ug/kg	0.373	1.24
95-63-6	1,2,4-Trimethylbenzene	U	1.24	ug/kg	0.373	1.24
135-98-8	sec-Butylbenzene	U	1.24	ug/kg	0.373	1.24
99-87-6	4-Isopropyltoluene	U	1.24	ug/kg	0.373	1.24
541-73-1	1,3-Dichlorobenzene	U	1.24	ug/kg	0.373	1.24
106-46-7	1,4-Dichlorobenzene	U	1.24	ug/kg	0.373	1.24
104-51-8	n-Butylbenzene	U	1.24	ug/kg	0.373	1.24
96-12-8	1,2-Dibromo-3-chloropropane	U	1.24	ug/kg	0.373	1.24
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	6.21	ug/kg	1.99	6.21
630-20-6	1,1,1,2-Tetrachloroethane	U	1.24	ug/kg	0.373	1.24
95-50-1	1,2-Dichlorobenzene	U	1.24	ug/kg	0.373	1.24

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Siloxane	14.83	28.7	ug/kg		J
	Unknown Siloxane	16.79	18.1	ug/kg		J

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-940**	**Date Collected:**	**12/14/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243033007**	**Date Received:**	**12/16/2009 09:10**	**%Moisture:**	**10.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14223**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**936119**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**12/23/2009 04:15**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**12/22/2009 22:48**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**4q219.d**	**Column:**	**RTX-VOLATILES**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.12	ug/kg	0.381	1.12
74-87-3	Chloromethane	U	1.12	ug/kg	0.336	1.12
75-01-4	Vinyl chloride	U	1.12	ug/kg	0.336	1.12
74-83-9	Bromomethane	U	1.12	ug/kg	0.336	1.12
75-00-3	Chloroethane	U	1.12	ug/kg	0.336	1.12
75-69-4	Trichlorofluoromethane	U	1.12	ug/kg	0.336	1.12
67-64-1	Acetone	U	5.61	ug/kg	1.86	5.61
75-35-4	1,1-Dichloroethylene	U	1.12	ug/kg	0.336	1.12
74-88-4	Iodomethane	U	5.61	ug/kg	1.79	5.61
75-09-2	Methylene chloride	U	5.61	ug/kg	2.24	5.61
75-15-0	Carbon disulfide	U	5.61	ug/kg	1.40	5.61
156-60-5	trans-1,2-Dichloroethylene	U	1.12	ug/kg	0.336	1.12
75-34-3	1,1-Dichloroethane	U	1.12	ug/kg	0.336	1.12
78-93-3	2-Butanone	U	5.61	ug/kg	1.68	5.61
156-59-2	cis-1,2-Dichloroethylene	U	1.12	ug/kg	0.336	1.12
594-20-7	2,2-Dichloropropane	U	1.12	ug/kg	0.336	1.12
67-66-3	Chloroform	U	1.12	ug/kg	0.336	1.12
74-97-5	Bromochloromethane	U	1.12	ug/kg	0.370	1.12
71-55-6	1,1,1-Trichloroethane	U	1.12	ug/kg	0.336	1.12
563-58-6	1,1-Dichloropropene	U	1.12	ug/kg	0.336	1.12
56-23-5	Carbon tetrachloride	U	1.12	ug/kg	0.336	1.12
107-06-2	1,2-Dichloroethane	U	1.12	ug/kg	0.336	1.12
71-43-2	Benzene	U	1.12	ug/kg	0.336	1.12
79-01-6	Trichloroethylene	U	1.12	ug/kg	0.370	1.12
78-87-5	1,2-Dichloropropane	U	1.12	ug/kg	0.336	1.12
75-27-4	Bromodichloromethane	U	1.12	ug/kg	0.336	1.12
74-95-3	Dibromomethane	U	1.12	ug/kg	0.336	1.12
108-10-1	4-Methyl-2-pentanone	U	5.61	ug/kg	1.40	5.61
10061-01-5	cis-1,3-Dichloropropylene	U	1.12	ug/kg	0.336	1.12
108-88-3	Toluene	U	1.12	ug/kg	0.336	1.12
10061-02-6	trans-1,3-Dichloropropylene	U	1.12	ug/kg	0.336	1.12
79-00-5	1,1,2-Trichloroethane	U	1.12	ug/kg	0.336	1.12
591-78-6	2-Hexanone	U	5.61	ug/kg	1.68	5.61
142-28-9	1,3-Dichloropropane	U	1.12	ug/kg	0.336	1.12
127-18-4	Tetrachloroethylene	U	1.12	ug/kg	0.336	1.12
124-48-1	Dibromochloromethane	U	1.12	ug/kg	0.336	1.12
106-93-4	1,2-Dibromoethane	U	1.12	ug/kg	0.336	1.12
108-90-7	Chlorobenzene	U	1.12	ug/kg	0.336	1.12

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-940	**Date Collected:**	12/14/2009 12:00	**Matrix:**	S
Lab Sample ID:	243033007	**Date Received:**	12/16/2009 09:10	**%Moisture:**	10.8
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14223	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	936119	**Inst:**	VOA4J	**Dilution:**	1
Run Date:	12/23/2009 04:15	**Analyst:**	ACJ	**Purge Vol:**	5 mL
Prep Date:	12/22/2009 22:48	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	4q219.d	**Column:**	RTX-VOLATILES	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.12	ug/kg	0.336	1.12
179601-23-1	m,p-Xylenes	U	2.24	ug/kg	0.336	2.24
95-47-6	o-Xylene	U	1.12	ug/kg	0.336	1.12
100-42-5	Styrene	U	1.12	ug/kg	0.336	1.12
75-25-2	Bromoform	U	1.12	ug/kg	0.336	1.12
79-34-5	1,1,2,2-Tetrachloroethane	U	1.12	ug/kg	0.336	1.12
96-18-4	1,2,3-Trichloropropane	U	1.12	ug/kg	0.336	1.12
108-86-1	Bromobenzene	U	1.12	ug/kg	0.336	1.12
103-65-1	n-Propylbenzene	U	1.12	ug/kg	0.336	1.12
95-49-8	2-Chlorotoluene	U	1.12	ug/kg	0.336	1.12
98-82-8	Isopropylbenzene	U	1.12	ug/kg	0.336	1.12
108-67-8	1,3,5-Trimethylbenzene	U	1.12	ug/kg	0.336	1.12
106-43-4	4-Chlorotoluene	U	1.12	ug/kg	0.336	1.12
98-06-6	tert-Butylbenzene	U	1.12	ug/kg	0.336	1.12
95-63-6	1,2,4-Trimethylbenzene	U	1.12	ug/kg	0.336	1.12
135-98-8	sec-Butylbenzene	U	1.12	ug/kg	0.336	1.12
99-87-6	4-Isopropyltoluene	U	1.12	ug/kg	0.336	1.12
541-73-1	1,3-Dichlorobenzene	U	1.12	ug/kg	0.336	1.12
106-46-7	1,4-Dichlorobenzene	U	1.12	ug/kg	0.336	1.12
104-51-8	n-Butylbenzene	U	1.12	ug/kg	0.336	1.12
96-12-8	1,2-Dibromo-3-chloropropane	U	1.12	ug/kg	0.336	1.12
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.61	ug/kg	1.79	5.61
630-20-6	1,1,1,2-Tetrachloroethane	U	1.12	ug/kg	0.336	1.12
95-50-1	1,2-Dichlorobenzene	U	1.12	ug/kg	0.336	1.12

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Siloxane	14.83	21.6	ug/kg		J
	Unknown Siloxane	16.79	20.3	ug/kg		J

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-940**	**Date Collected:**	**12/14/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243033009**	**Date Received:**	**12/16/2009 09:10**	**%Moisture:**	**19.3**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-10-2734**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**936119**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**12/23/2009 05:10**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**12/22/2009 22:50**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**4q221.d**	**Column:**	**RTX-VOLATILES**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.24	ug/kg	0.421	1.24
74-87-3	Chloromethane	U	1.24	ug/kg	0.372	1.24
75-01-4	Vinyl chloride	U	1.24	ug/kg	0.372	1.24
74-83-9	Bromomethane	U	1.24	ug/kg	0.372	1.24
75-00-3	Chloroethane	U	1.24	ug/kg	0.372	1.24
75-69-4	Trichlorofluoromethane	U	1.24	ug/kg	0.372	1.24
67-64-1	Acetone	J	2.26	ug/kg	2.06	6.20
75-35-4	1,1-Dichloroethylene	U	1.24	ug/kg	0.372	1.24
74-88-4	Iodomethane	U	6.20	ug/kg	1.98	6.20
75-09-2	Methylene chloride	U	6.20	ug/kg	2.48	6.20
75-15-0	Carbon disulfide	U	6.20	ug/kg	1.55	6.20
156-60-5	trans-1,2-Dichloroethylene	U	1.24	ug/kg	0.372	1.24
75-34-3	1,1-Dichloroethane	U	1.24	ug/kg	0.372	1.24
78-93-3	2-Butanone	U	6.20	ug/kg	1.86	6.20
156-59-2	cis-1,2-Dichloroethylene	U	1.24	ug/kg	0.372	1.24
594-20-7	2,2-Dichloropropane	U	1.24	ug/kg	0.372	1.24
67-66-3	Chloroform	U	1.24	ug/kg	0.372	1.24
74-97-5	Bromochloromethane	U	1.24	ug/kg	0.409	1.24
71-55-6	1,1,1-Trichloroethane	U	1.24	ug/kg	0.372	1.24
563-58-6	1,1-Dichloropropene	U	1.24	ug/kg	0.372	1.24
56-23-5	Carbon tetrachloride	U	1.24	ug/kg	0.372	1.24
107-06-2	1,2-Dichloroethane	U	1.24	ug/kg	0.372	1.24
71-43-2	Benzene	U	1.24	ug/kg	0.372	1.24
79-01-6	Trichloroethylene	U	1.24	ug/kg	0.409	1.24
78-87-5	1,2-Dichloropropane	U	1.24	ug/kg	0.372	1.24
75-27-4	Bromodichloromethane	U	1.24	ug/kg	0.372	1.24
74-95-3	Dibromomethane	U	1.24	ug/kg	0.372	1.24
108-10-1	4-Methyl-2-pentanone	U	6.20	ug/kg	1.55	6.20
10061-01-5	cis-1,3-Dichloropropylene	U	1.24	ug/kg	0.372	1.24
108-88-3	Toluene	U	1.24	ug/kg	0.372	1.24
10061-02-6	trans-1,3-Dichloropropylene	U	1.24	ug/kg	0.372	1.24
79-00-5	1,1,2-Trichloroethane	U	1.24	ug/kg	0.372	1.24
591-78-6	2-Hexanone	U	6.20	ug/kg	1.86	6.20
142-28-9	1,3-Dichloropropane	U	1.24	ug/kg	0.372	1.24
127-18-4	Tetrachloroethylene	U	1.24	ug/kg	0.372	1.24
124-48-1	Dibromochloromethane	U	1.24	ug/kg	0.372	1.24
106-93-4	1,2-Dibromoethane	U	1.24	ug/kg	0.372	1.24
108-90-7	Chlorobenzene	U	1.24	ug/kg	0.372	1.24

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-940**	**Date Collected:**	**12/14/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243033009**	**Date Received:**	**12/16/2009 09:10**	**%Moisture:**	**19.3**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-10-2734**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**936119**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**12/23/2009 05:10**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**12/22/2009 22:50**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**4q221.d**	**Column:**	**RTX-VOLATILES**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.24	ug/kg	0.372	1.24
179601-23-1	m,p-Xylenes	U	2.48	ug/kg	0.372	2.48
95-47-6	o-Xylene	U	1.24	ug/kg	0.372	1.24
100-42-5	Styrene	U	1.24	ug/kg	0.372	1.24
75-25-2	Bromoform	U	1.24	ug/kg	0.372	1.24
79-34-5	1,1,2,2-Tetrachloroethane	U	1.24	ug/kg	0.372	1.24
96-18-4	1,2,3-Trichloropropane	U	1.24	ug/kg	0.372	1.24
108-86-1	Bromobenzene	U	1.24	ug/kg	0.372	1.24
103-65-1	n-Propylbenzene	U	1.24	ug/kg	0.372	1.24
95-49-8	2-Chlorotoluene	U	1.24	ug/kg	0.372	1.24
98-82-8	Isopropylbenzene	U	1.24	ug/kg	0.372	1.24
108-67-8	1,3,5-Trimethylbenzene	U	1.24	ug/kg	0.372	1.24
106-43-4	4-Chlorotoluene	U	1.24	ug/kg	0.372	1.24
98-06-6	tert-Butylbenzene	U	1.24	ug/kg	0.372	1.24
95-63-6	1,2,4-Trimethylbenzene	U	1.24	ug/kg	0.372	1.24
135-98-8	sec-Butylbenzene	U	1.24	ug/kg	0.372	1.24
99-87-6	4-Isopropyltoluene	U	1.24	ug/kg	0.372	1.24
541-73-1	1,3-Dichlorobenzene	U	1.24	ug/kg	0.372	1.24
106-46-7	1,4-Dichlorobenzene	U	1.24	ug/kg	0.372	1.24
104-51-8	n-Butylbenzene	U	1.24	ug/kg	0.372	1.24
96-12-8	1,2-Dibromo-3-chloropropane	U	1.24	ug/kg	0.372	1.24
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	6.20	ug/kg	1.98	6.20
630-20-6	1,1,1,2-Tetrachloroethane	U	1.24	ug/kg	0.372	1.24
95-50-1	1,2-Dichlorobenzene	U	1.24	ug/kg	0.372	1.24

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Siloxane	14.83	9.97	ug/kg		J
	Unknown Siloxane	16.79	29.2	ug/kg		J

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-940	Date Collected:	12/14/2009 12:00	Matrix:	S
Lab Sample ID:	243033010	Date Received:	12/16/2009 09:10		
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-10-8963	Method:	SW846 8260B	SOP Ref:	GL-OA-E-038
Batch ID:	936119	Inst:	VOA4.I	Dilution:	1
Run Date:	12/23/2009 01:05	Analyst:	ACJ	Purge Vol:	5 mL
Prep Date:	12/22/2009 22:51	Aliquot:	5 g	Final Volume:	5 mL
Data File:	4q212.d	Column:	RTX-VOLATILES	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/kg	0.340	1.00
74-87-3	Chloromethane	U	1.00	ug/kg	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/kg	0.300	1.00
74-83-9	Bromomethane	U	1.00	ug/kg	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/kg	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/kg	0.300	1.00
67-64-1	Acetone	J	2.28	ug/kg	1.66	5.00
75-35-4	1,1-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/kg	1.60	5.00
75-09-2	Methylene chloride	U	5.00	ug/kg	2.00	5.00
75-15-0	Carbon disulfide	U	5.00	ug/kg	1.25	5.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/kg	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/kg	1.50	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/kg	0.300	1.00
74-97-5	Bromochloromethane	U	1.00	ug/kg	0.330	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/kg	0.300	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/kg	0.300	1.00
56-23-5	Carbon tetrachloride	U	1.00	ug/kg	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/kg	0.300	1.00
71-43-2	Benzene	U	1.00	ug/kg	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/kg	0.330	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/kg	0.300	1.00
74-95-3	Dibromomethane	U	1.00	ug/kg	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/kg	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
108-88-3	Toluene	U	1.00	ug/kg	0.300	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/kg	0.300	1.00
591-78-6	2-Hexanone	U	5.00	ug/kg	1.50	5.00
142-28-9	1,3-Dichloropropane	U	1.00	ug/kg	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/kg	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/kg	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/kg	0.300	1.00
108-90-7	Chlorobenzene	U	1.00	ug/kg	0.300	1.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-940**	**Date Collected:**	**12/14/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243033010**	**Date Received:**	**12/16/2009 09:10**		
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-10-8963**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**936119**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**12/23/2009 01:05**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**12/22/2009 22:51**	**Aliqnot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**4q212.d**	**Column:**	**RTX-VOLATILES**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.00	ug/kg	0.300	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/kg	0.300	2.00
95-47-6	o-Xylene	U	1.00	ug/kg	0.300	1.00
100-42-5	Styrene	U	1.00	ug/kg	0.300	1.00
75-25-2	Bromoform	U	1.00	ug/kg	0.300	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/kg	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/kg	0.300	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/kg	0.300	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/kg	0.300	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/kg	0.300	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/kg	0.300	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/kg	0.300	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/kg	0.300	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/kg	0.300	1.00
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.00	ug/kg	1.60	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated Units	Fit	Qual
	No Tentatively Identified Compounds Found		ug/kg		

QC Summary

Volatile

Surrogate Recovery Report

SDG Number: 10-940

Matrix Type: SOLID

CAP Column (1) : RTX-VOLATILES

Sample ID	Client ID	DCED4 %REC	TOL %REC	BFB %REC
1202003041	LCS for batch 936118	90	95	106
1202003042	LCS for batch 936118	91	95	107
1202003038	MB for batch 936118	89	95	110
243033010	RE03-10-8963	88	96	111
243033001	RE03-09-14221	85	97	108
243033002	RE03-09-14211	87	98	112
243033003	RE03-09-14210	86	96	116
243033004	RE03-09-14209	88	100	116
243033005	RE03-09-14208	83	98	117
243033006	RE03-09-14222	84	97	110
243033007	RE03-09-14223	84	97	112
243033008	RE03-09-14220	85	106	134 *
243033009	RE03-10-2734	86	96	112
1202003039	RE03-09-14221PS	90	95	110
1202003040	RE03-09-14221PSD	89	95	113

Surrogate		Acceptance Limits
DCED4	= 1,2-Dichloroethane-d4	(68%-131%)
TOL	= Toluene-d8	(75%-129%)
BFB	= Bromofluorobenzene	(68%-133%)

* Recovery outside Acceptance Limits

\# Column to be used to flag recovery values

D Sample Diluted

Quality Control Summary
Spike Recovery Report

SDG Number: 10-940
Client ID: RE03-09-14221PS
Lab Sample ID: 1202003039
Instrument: VOA4.I
Analyst: ACJ
Purge Vol: 5 mL

Sample Type: Post Spike
Matrix: S
%Moisture: 14.8
Analysis Date: 12/23/2009 06:05
Dilution: 1
Prep Batch ID: 936118
Batch ID: 936119

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
75-71-8	PS	Dichlorodifluoromethane	50.0	0.00	U	46.0	92	25-149
74-87-3	PS	Chloromethane	50.0	0.00	U	47.2	94	39-140
75-01-4	PS	Vinyl chloride	50.0	0.00	U	52.8	106	47-129
74-83-9	PS	Bromomethane	50.0	0.00	U	46.5	93	31-135
75-00-3	PS	Chloroethane	50.0	0.00	U	47.0	94	53-128
75-69-4	PS	Trichlorofluoromethane	50.0	0.00	U	49.9	100	51-151
67-64-1	PS	Acetone	250	3.12	J	115	45	21-153
75-35-4	PS	1,1-Dichloroethylene	50.0	0.00	U	44.1	88	61-125
74-88-4	PS	Iodomethane	250	0.00	U	218	87	53-142
75-09-2	PS	Methylene chloride	50.0	0.00	U	46.9	94	59-136
75-15-0	PS	Carbon disulfide	250	0.00	U	227	91	46-129
156-60-5	PS	trans-1,2-Dichloroethylene	50.0	0.00	U	44.8	90	56-126
75-34-3	PS	1,1-Dichloroethane	50.0	0.00	U	44.3	89	62-125
78-93-3	PS	2-Butanone	250	0.00	U	139	56	26-152
156-59-2	PS	cis-1,2-Dichloroethylene	50.0	0.00	U	44.0	88	60-130
594-20-7	PS	2,2-Dichloropropane	50.0	0.00	U	43.3	87	55-135
67-66-3	PS	Chloroform	50.0	0.00	U	44.0	88	60-127
74-97-5	PS	Bromochloromethane	50.0	0.00	U	43.0	86	61-131
71-55-6	PS	1,1,1-Trichloroethane	50.0	0.00	U	46.1	92	59-131
563-58-6	PS	1,1-Dichloropropene	50.0	0.00	U	45.3	91	57-128
56-23-5	PS	Carbon tetrachloride	50.0	0.00	U	46.5	93	58-136
107-06-2	PS	1,2-Dichloroethane	50.0	0.00	U	43.1	86	58-126

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-940
Client ID: RE03-09-14221PS
Lab Sample ID: 1202003039
Instrument: VOA4.I
Analyst: ACJ
Purge Vol: 5 mL

Sample Type: Post Spike
Matrix: S
%Moisture: 14.8
Analysis Date: 12/23/2009 06:05
Prep Batch ID: 936118
Batch ID: 936119
Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
71-43-2	PS	Benzene	50.0	0.00	U	43.1	86	56-123
79-01-6	PS	Trichloroethylene	50.0	0.00	U	43.2	86	51-137
78-87-5	PS	1,2-Dichloropropane	50.0	0.00	U	44.1	88	60-126
75-27-4	PS	Bromodichloromethane	50.0	0.00	U	45.0	90	55-138
74-95-3	PS	Dibromomethane	50.0	0.00	U	43.3	87	60-132
108-10-1	PS	4-Methyl-2-pentanone	250	0.00	U	215	86	58-136
10061-01-5	PS	cis-1,3-Dichloropropylene	50.0	0.00	U	43.4	87	54-133
108-88-3	PS	Toluene	50.0	0.00	U	43.8	88	52-128
10061-02-6	PS	trans-1,3-Dichloropropylene	50.0	0.00	U	45.0	90	53-137
79-00-5	PS	1,1,2-Trichloroethane	50.0	0.00	U	43.4	87	59-130
591-78-6	PS	2-Hexanone	250	0.00	U	153	61	31-148
142-28-9	PS	1,3-Dichloropropane	50.0	0.00	U	43.9	88	57-127
127-18-4	PS	Tetrachloroethylene	50.0	0.00	U	41.4	83	51-128
124-48-1	PS	Dibromochloromethane	50.0	0.00	U	46.2	92	59-139
106-93-4	PS	1,2-Dibromoethane	50.0	0.00	U	45.5	91	57-133
108-90-7	PS	Chlorobenzene	50.0	0.00	U	43.1	86	53-122
100-41-4	PS	Ethylbenzene	50.0	0.00	U	43.8	88	51-125
179601-23-1	PS	m,p-Xylenes	100	0.00	U	88.3	88	50-126
95-47-6	PS	o-Xylene	50.0	0.00	U	44.1	88	52-127
100-42-5	PS	Styrene	50.0	0.00	U	45.6	91	49-135
75-25-2	PS	Bromoform	50.0	0.00	U	50.5	101	57-149
79-34-5	PS	1,1,2,2-Tetrachloroethane	50.0	0.00	U	47.6	95	63-127

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number:	**10-940**	**Sample Type:**	**Post Spike**
Client ID:	**RE03-09-14221PS**	**Matrix:**	**S**
Lab Sample ID:	**1202003039**	**%Moisture:**	**14.8**
Instrument:	**VOA4.I**	**Analysis Date:**	**12/23/2009 06:05**
Analyst:	**ACJ**	**Prep Batch ID:**	**936118**
Purge Vol:	**5 mL**	**Batch ID:**	**936119**

Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
96-18-4	PS	1,2,3-Trichloropropane	50.0	0.00	U	46.9	94	57-149
108-86-1	PS	Bromobenzene	50.0	0.00	U	44.4	89	49-131
103-65-1	PS	n-Propylbenzene	50.0	0.00	U	44.2	88	40-136
95-49-8	PS	2-Chlorotoluene	50.0	0.00	U	43.9	88	44-135
98-82-8	PS	Isopropylbenzene	50.0	0.00	U	45.7	91	44-140
108-67-8	PS	1,3,5-Trimethylbenzene	50.0	0.00	U	43.5	87	42-140
106-43-4	PS	4-Chlorotoluene	50.0	0.00	U	43.5	87	44-132
98-06-6	PS	tert-Butylbenzene	50.0	0.00	U	43.9	88	42-142
95-63-6	PS	1,2,4-Trimethylbenzene	50.0	0.00	U	43.3	87	43-137
135-98-8	PS	sec-Butylbenzene	50.0	0.00	U	41.6	83	39-139
99-87-6	PS	4-Isopropyltoluene	50.0	0.00	U	41.0	82	38-145
541-73-1	PS	1,3-Dichlorobenzene	50.0	0.00	U	40.7	81	43-129
106-46-7	PS	1,4-Dichlorobenzene	50.0	0.00	U	40.5	81	44-125
104-51-8	PS	n-Butylbenzene	50.0	0.00	U	39.6	79	36-141
96-12-8	PS	1,2-Dibromo-3-chloropropane	50.0	0.00	U	50.7	101	47-151
630-20-6	PS	1,1,1,2-Tetrachloroethane	50.0	0.00	U	45.6	91	59-131
95-50-1	PS	1,2-Dichlorobenzene	50.0	0.00	U	40.5	81	43-129

Quality Control Summary
Spike Recovery Report

SDG Number: 10-940
Client ID: RE03-09-14221PSD
Lab Sample ID: 1202003040
Instrument: VOA4.I
Analyst: ACJ
Purge Vol: 5 mL

Sample Type: Post Spike Duplicate
Matrix: S
%Moisture: 14.8
Analysis Date: 12/23/2009 06:32
Dilution: 1
Prep Batch ID: 936118
Batch ID: 936119

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
75-71-8	PSD	Dichlorodifluoromethane	50.0	0.00	U	44.7	89	25-149	3	0-25
74-87-3	PSD	Chloromethane	50.0	0.00	U	44.1	88	39-140	7	0-25
75-01-4	PSD	Vinyl chloride	50.0	0.00	U	48.5	97	47-129	9	0-25
74-83-9	PSD	Bromomethane	50.0	0.00	U	44.5	89	31-135	4	0-25
75-00-3	PSD	Chloroethane	50.0	0.00	U	44.2	88	53-128	6	0-25
75-69-4	PSD	Trichlorofluoromethane	50.0	0.00	U	47.8	96	51-151	4	0-25
67-64-1	PSD	Acetone	250	3.12	J	106	41	21-153	8	0-25
75-35-4	PSD	1,1-Dichloroethylene	50.0	0.00	U	42.0	84	61-125	5	0-25
74-88-4	PSD	Iodomethane	250	0.00	U	215	86	53-142	1	0-25
75-09-2	PSD	Methylene chloride	50.0	0.00	U	45.2	90	59-136	4	0-25
75-15-0	PSD	Carbon disulfide	250	0.00	U	217	87	46-129	5	0-25
156-60-5	PSD	trans-1,2-Dichloroethylene	50.0	0.00	U	42.3	85	56-126	6	0-25
75-34-3	PSD	1,1-Dichloroethane	50.0	0.00	U	42.2	84	62-125	5	0-25
78-93-3	PSD	2-Butanone	250	0.00	U	126	51	26-152	10	0-25
156-59-2	PSD	cis-1,2-Dichloroethylene	50.0	0.00	U	42.8	86	60-130	3	0-25
594-20-7	PSD	2,2-Dichloropropane	50.0	0.00	U	43.1	86	55-135	0	0-25
67-66-3	PSD	Chloroform	50.0	0.00	U	42.6	85	60-127	3	0-25
74-97-5	PSD	Bromochloromethane	50.0	0.00	U	42.3	85	61-131	2	0-25
71-55-6	PSD	1,1,1-Trichloroethane	50.0	0.00	U	44.4	89	59-131	4	0-25
563-58-6	PSD	1,1-Dichloropropene	50.0	0.00	U	43.1	86	57-128	5	0-25
56-23-5	PSD	Carbon tetrachloride	50.0	0.00	U	43.4	87	58-136	7	0-25
107-06-2	PSD	1,2-Dichloroethane	50.0	0.00	U	42.5	85	58-126	1	0-25

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number:	**10-940**	**Sample Type:**	**Post Spike Duplicate**
Client ID:	**RE03-09-14221PSD**	**Matrix:**	**S**
Lab Sample ID:	**1202003040**	**%Moisture:**	**14.8**
Instrument:	**VOA4.I**	**Analysis Date:**	**12/23/2009 06:32**
Analyst:	**ACJ**	**Prep Batch ID:**	**936118**
Purge Vol:	**5 mL**	**Batch ID:**	**936119**

Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
71-43-2	PSD	Benzene	50.0	0.00	U	41.4	83	56-123	4	0-25
79-01-6	PSD	Trichloroethylene	50.0	0.00	U	41.4	83	51-137	4	0-25
78-87-5	PSD	1,2-Dichloropropane	50.0	0.00	U	41.8	84	60-126	5	0-25
75-27-4	PSD	Bromodichloromethane	50.0	0.00	U	43.9	88	55-138	2	0-25
74-95-3	PSD	Dibromomethane	50.0	0.00	U	42.8	86	60-132	1	0-25
108-10-1	PSD	4-Methyl-2-pentanone	250	0.00	U	196	79	58-136	9	0-25
10061-01-5	PSD	cis-1,3-Dichloropropylene	50.0	0.00	U	42.9	86	54-133	1	0-25
108-88-3	PSD	Toluene	50.0	0.00	U	41.0	82	52-128	7	0-25
10061-02-6	PSD	trans-1,3-Dichloropropylene	50.0	0.00	U	44.1	88	53-137	2	0-25
79-00-5	PSD	1,1,2-Trichloroethane	50.0	0.00	U	41.6	83	59-130	4	0-25
591-78-6	PSD	2-Hexanone	250	0.00	U	138	55	31-148	10	0-25
142-28-9	PSD	1,3-Dichloropropane	50.0	0.00	U	41.7	83	57-127	5	0-25
127-18-4	PSD	Tetrachloroethylene	50.0	0.00	U	40.7	81	51-128	2	0-25
124-48-1	PSD	Dibromochloromethane	50.0	0.00	U	44.7	89	59-139	3	0-25
106-93-4	PSD	1,2-Dibromoethane	50.0	0.00	U	43.6	87	57-133	4	0-25
108-90-7	PSD	Chlorobenzene	50.0	0.00	U	41.4	83	53-122	4	0-25
100-41-4	PSD	Ethylbenzene	50.0	0.00	U	41.1	82	51-125	6	0-25
179601-23-1	PSD	m,p-Xylenes	100	0.00	U	84.0	84	50-126	5	0-25
95-47-6	PSD	o-Xylene	50.0	0.00	U	41.8	84	52-127	5	0-25
100-42-5	PSD	Styrene	50.0	0.00	U	43.5	87	49-135	5	0-25
75-25-2	PSD	Bromoform	50.0	0.00	U	50.3	101	57-149	0	0-25
79-34-5	PSD	1,1,2,2-Tetrachloroethane	50.0	0.00	U	45.5	91	63-127	5	0-25

Quality Control Summary
Spike Recovery Report

SDG Number:	10-940	**Sample Type:**	Post Spike Duplicate
Client ID:	RE03-09-14221PSD	**Matrix:**	S
Lab Sample ID:	1202003040	**%Moisture:**	14.8
Instrument:	VOA4.I	**Analysis Date:**	12/23/2009 06:32
Analyst:	ACJ	**Prep Batch ID**	936118
Purge Vol:	5 mL	**Batch ID:**	936119

Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
96-18-4	PSD	1,2,3-Trichloropropane	50.0	0.00	U	44.8	90	57-149	5	0-25
108-86-1	PSD	Bromobenzene	50.0	0.00	U	44.8	90	49-131	1	0-25
103-65-1	PSD	n-Propylbenzene	50.0	0.00	U	43.9	88	40-136	1	0-25
95-49-8	PSD	2-Chlorotoluene	50.0	0.00	U	43.5	87	44-135	1	0-25
98-82-8	PSD	Isopropylbenzene	50.0	0.00	U	45.2	90	44-140	1	0-25
108-67-8	PSD	1,3,5-Trimethylbenzene	50.0	0.00	U	44.0	88	42-140	1	0-25
106-43-4	PSD	4-Chlorotoluene	50.0	0.00	U	43.1	86	44-132	1	0-25
98-06-6	PSD	tert-Butylbenzene	50.0	0.00	U	44.1	88	42-142	1	0-25
95-63-6	PSD	1,2,4-Trimethylbenzene	50.0	0.00	U	43.4	87	43-137	0	0-25
135-98-8	PSD	sec-Butylbenzene	50.0	0.00	U	42.7	85	39-139	3	0-25
99-87-6	PSD	4-Isopropyltoluene	50.0	0.00	U	42.3	85	38-145	3	0-25
541-73-1	PSD	1,3-Dichlorobenzene	50.0	0.00	U	39.7	79	43-129	2	0-25
106-46-7	PSD	1,4-Dichlorobenzene	50.0	0.00	U	39.9	80	44-125	1	0-25
104-51-8	PSD	n-Butylbenzene	50.0	0.00	U	41.2	82	36-141	4	0-25
96-12-8	PSD	1,2-Dibromo-3-chloropropane	50.0	0.00	U	48.5	97	47-151	4	0-25
630-20-6	PSD	1,1,1,2-Tetrachloroethane	50.0	0.00	U	44.3	89	59-131	3	0-25
95-50-1	PSD	1,2-Dichlorobenzene	50.0	0.00	U	40.4	81	43-129	0	0-25

Quality Control Summary
Spike Recovery Report

SDG Number: 10-940 **Sample Type:** Laboratory Control Sample
Client ID: LCS for batch 936118 **Matrix:** SOIL
Lab Sample ID: 1202003041
Instrument: VOA4.I **Analysis Date:** 12/22/2009 21:00 **Dilution:** 1
Analyst: ACJ **Prep Batch ID** 936118
Purge Vol: 5 mL **Batch ID:** 936119

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
75-71-8	LCS	Dichlorodifluoromethane	50.0	0.0	57.1	114	33-155
74-87-3	LCS	Chloromethane	50.0	0.0	50.4	101	53-132
75-01-4	LCS	Vinyl chloride	50.0	0.0	55.8	112	61-128
74-83-9	LCS	Bromomethane	50.0	0.0	51.4	103	63-126
75-00-3	LCS	Chloroethane	50.0	0.0	53.0	106	67-124
75-69-4	LCS	Trichlorofluoromethane	50.0	0.0	60.9	122	67-151
67-64-1	LCS	Acetone	250	0.0	188	75	29-160
75-35-4	LCS	1,1-Dichloroethylene	50.0	0.0	51.3	103	70-125
74-88-4	LCS	Iodomethane	250	0.0	251	100	74-131
75-09-2	LCS	Methylene chloride	50.0	0.0	50.8	102	72-127
75-15-0	LCS	Carbon disulfide	250	0.0	264	106	64-127
156-60-5	LCS	trans-1,2-Dichloroethylene	50.0	0.0	51.8	104	71-122
75-34-3	LCS	1,1-Dichloroethane	50.0	0.0	49.5	99	75-120
78-93-3	LCS	2-Butanone	250	0.0	198	79	35-162
156-59-2	LCS	cis-1,2-Dichloroethylene	50.0	0.0	50.3	101	76-122
594-20-7	LCS	2,2-Dichloropropane	50.0	0.0	55.5	111	74-135
67-66-3	LCS	Chloroform	50.0	0.0	49.8	100	77-120
74-97-5	LCS	Bromochloromethane	50.0	0.0	48.9	98	76-122
71-55-6	LCS	1,1,1-Trichloroethane	50.0	0.0	55.2	110	75-128
563-58-6	LCS	1,1-Dichloropropene	50.0	0.0	54.9	110	77-125
56-23-5	LCS	Carbon tetrachloride	50.0	0.0	56.0	112	77-134
107-06-2	LCS	1,2-Dichloroethane	50.0	0.0	48.5	97	72-120

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-940 **Sample Type:** Laboratory Control Sample

Client ID: LCS for batch 936118 **Matrix:** SOIL

Lab Sample ID: 1202003041

Instrument: VOA4.I **Analysis Date:** 12/22/2009 21:00 **Dilution:** 1

Analyst: ACJ **Prep Batch ID:** 936118

Purge Vol: 5 mL **Batch ID:** 936119

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
71-43-2	LCS	Benzene	50.0	0.0	49.5	99	72-120
79-01-6	LCS	Trichloroethylene	50.0	0.0	51.7	103	78-121
78-87-5	LCS	1,2-Dichloropropane	50.0	0.0	48.5	97	74-120
75-27-4	LCS	Bromodichloromethane	50.0	0.0	51.3	103	79-125
74-95-3	LCS	Dibromomethane	50.0	0.0	48.8	98	78-122
108-10-1	LCS	4-Methyl-2-pentanone	250	0.0	243	97	71-134
10061-01-5	LCS	cis-1,3-Dichloropropylene	50.0	0.0	52.0	104	80-125
108-88-3	LCS	Toluene	50.0	0.0	49.3	99	65-124
10061-02-6	LCS	trans-1,3-Dichloropropylene	50.0	0.0	52.3	105	71-134
79-00-5	LCS	1,1,2-Trichloroethane	50.0	0.0	47.3	95	76-120
591-78-6	LCS	2-Hexanone	250	0.0	206	83	42-159
142-28-9	LCS	1,3-Dichloropropane	50.0	0.0	47.3	95	72-120
127-18-4	LCS	Tetrachloroethylene	50.0	0.0	52.5	105	74-123
124-48-1	LCS	Dibromochloromethane	50.0	0.0	52.3	105	83-128
106-93-4	LCS	1,2-Dibromoethane	50.0	0.0	50.9	102	79-121
108-90-7	LCS	Chlorobenzene	50.0	0.0	49.3	99	75-120
100-41-4	LCS	Ethylbenzene	50.0	0.0	50.0	100	74-120
179601-23-1	LCS	m,p-Xylenes	100	0.0	104	104	74-120
95-47-6	LCS	o-Xylene	50.0	0.0	50.5	101	74-120
100-42-5	LCS	Styrene	50.0	0.0	52.9	106	76-125
75-25-2	LCS	Bromoform	50.0	0.0	54.7	109	77-138
79-34-5	LCS	1,1,2,2-Tetrachloroethane	50.0	0.0	48.5	97	72-122

Quality Control Summary
Spike Recovery Report

SDG Number: 10-940 **Sample Type:** Laboratory Control Sample
Client ID: LCS for batch 936118 **Matrix:** SOIL
Lab Sample ID: 1202003041
Instrument: VOA4.I **Analysis Date:** 12/22/2009 21:00 **Dilution:** 1
Analyst: ACJ **Prep Batch ID** 936118
Purge Vol: 5 mL **Batch ID:** 936119

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
96-18-4	LCS	1,2,3-Trichloropropane	50.0	0.0	49.6	99	75-135
108-86-1	LCS	Bromobenzene	50.0	0.0	49.3	99	73-120
103-65-1	LCS	n-Propylbenzene	50.0	0.0	51.3	103	68-121
95-49-8	LCS	2-Chlorotoluene	50.0	0.0	48.7	97	69-120
98-82-8	LCS	Isopropylbenzene	50.0	0.0	51.6	103	66-127
108-67-8	LCS	1,3,5-Trimethylbenzene	50.0	0.0	50.4	101	67-126
106-43-4	LCS	4-Chlorotoluene	50.0	0.0	50.5	101	72-120
98-06-6	LCS	tert-Butylbenzene	50.0	0.0	51.6	103	72-124
95-63-6	LCS	1,2,4-Trimethylbenzene	50.0	0.0	50.2	100	72-122
135-98-8	LCS	sec-Butylbenzene	50.0	0.0	51.1	102	71-124
99-87-6	LCS	4-Isopropyltoluene	50.0	0.0	52.0	104	72-130
541-73-1	LCS	1,3-Dichlorobenzene	50.0	0.0	48.7	97	73-120
106-46-7	LCS	1,4-Dichlorobenzene	50.0	0.0	49.6	99	73-120
104-51-8	LCS	n-Butylbenzene	50.0	0.0	52.7	105	72-128
96-12-8	LCS	1,2-Dibromo-3-chloropropane	50.0	0.0	55.2	110	68-145
630-20-6	LCS	1,1,1,2-Tetrachloroethane	50.0	0.0	50.0	100	78-121
95-50-1	LCS	1,2-Dichlorobenzene	50.0	0.0	48.5	97	74-120

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-940
Client ID: LCS for batch 936118
Lab Sample ID: 1202003042
Instrument: VOA4.I
Analyst: ACJ
Purge Vol: 5 mL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 12/22/2009 21:55
Dilution: 1
Prep Batch ID: 936118
Batch ID: 936119

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
76-13-1	LCS	1,1,2-Trichloro-1,2,2-Trifluor *Trichlorotrifluoroethane*	250	0.0	273	109	52-139

Method Blank Summary

SDG Number:	10-940	Client:	LANL010	Matrix:	SOIL
Client ID:	MB for batch 936118	Instrument ID:	VOA4.I	Data File:	4q206BL.d
Lab Sample ID:	1202003038	Prep Date:	12/22/2009 20:30	Analyzed:	12/22/09 22:22
Column:	RTX-VOLATILES	Heated Purge:	Yes		

This method blank applies to the following samples and quality control samples:

	Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01	LCS for batch 936118	1202003041	4q203LL.d	12/22/09	2100
02	LCS for batch 936118	1202003042	4q205SL.d	12/22/09	2155
03	RE03-10-8963	243033010	4q212.d	12/23/09	0105
04	RE03-09-14221	243033001	4q213.d	12/23/09	0133
05	RE03-09-14211	243033002	4q214.d	12/23/09	0159
06	RE03-09-14210	243033003	4q215.d	12/23/09	0227
07	RE03-09-14209	243033004	4q216.d	12/23/09	0254
08	RE03-09-14208	243033005	4q217.d	12/23/09	0321
09	RE03-09-14222	243033006	4q218.d	12/23/09	0348
10	RE03-09-14223	243033007	4q219.d	12/23/09	0415
11	RE03-09-14220	243033008	4q220.d	12/23/09	0442
12	RE03-10-2734	243033009	4q221.d	12/23/09	0510
13	RE03-09-14221PS	1202003039	4q223.d	12/23/09	0605
14	RE03-09-14221PSD	1202003040	4q224.d	12/23/09	0632

Instrument Performance Check

BFB

Lab Name GEL Laboratories LLC **Client SDG:** 10-940

Instrument ID: VOA4.I **Injection Date/Time:** 19-DEC-09 18:50

Column Description: DB-624 **Lab File ID** /121909v4/4p601.d

m/e	Ion Abundance Criteria	% Relative Abundance
95	Base Peak, 100% Relative Abundance	100
50	15.0 - 40.0% of mass 95	22.4
75	30.0 - 60.0% of mass 95	46.5
96	5.0 - 9.0% of mass 95	7
173	Less than 2.0% of mass 174	0.6
174	50.0 - 100.0% of mass 95	91.9
175	5.0 -9.0% of mass 174	7.8
176	95.0 - 101.0% of mass 174	100.7
177	5.0 - 9.0% of mass 176	6.4

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
VSTD0005	W4VM091219-01	/121909v4/4p603.d	19-DEC-09 19:44
VSTD001	W4VM091219-03	/121909v4/4p605.d	19-DEC-09 20:39
VSTD002	W4VM091219-04	/121909v4/4p606.d	19-DEC-09 21:07
VSTD005	W4VM091219-05	/121909v4/4p607.d	19-DEC-09 21:34
VSTD010	W4VM091219-06	/121909v4/4p608.d	19-DEC-09 22:01
VSTD020	W4VM091219-07	/121909v4/4p609.d	19-DEC-09 22:28
VSTD050	W4VM091219-08	/121909v4/4p610.d	19-DEC-09 22:55
VSTD100	W4VM091219-09	/121909v4/4p611.d	19-DEC-09 23:22
VSTD005S	W4VM091219-10	/121909v4/4p613.d	20-DEC-09 00:17
VSTD010S	W4VM091219-11	/121909v4/4p614.d	20-DEC-09 00:44
VSTD025S	W4VM091219-12	/121909v4/4p615.d	20-DEC-09 01:12
VSTD050S	W4VM091219-13	/121909v4/4p616.d	20-DEC-09 01:39
VSTD100S	W4VM091219-14	/121909v4/4p617.d	20-DEC-09 02:06
VSTD250S	W4VM091219-15	/121909v4/4p618.d	20-DEC-09 02:33
VSTD500S	W4VM091219-16	/121909v4/4p619.d	20-DEC-09 03:01
SECOND SOURCE	W4VM091219-17	/121909v4/4p621.d	20-DEC-09 03:55
SHORT SECOND SOURCE	W4VM091219-18	/121909v4/4p622.d	20-DEC-09 04:22

Instrument Performance Check

BFB

Lab Name GEL Laboratories LLC **Client SDG:** 10-940

Instrument ID: VOA4.I **Injection Date/Time:** 22-DEC-09 20:06

Column Description: DB-624 **Lab File ID** /122209v4/4q201.d

m/e	Ion Abundance Criteria	% Relative Abundance
95	Base Peak, 100% Relative Abundance	100
50	15.0 - 40.0% of mass 95	22.8
75	30.0 - 60.0% of mass 95	47.6
96	5.0 - 9.0% of mass 95	7.3
173	Less than 2.0% of mass 174	0.6
174	50.0 - 100.0% of mass 95	89.9
175	5.0 -9.0% of mass 174	7.5
176	95.0 - 101.0% of mass 174	100
177	5.0 - 9.0% of mass 176	6.7

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
VSTD050	W4VM091222-01	/122209v4/4q202.d	22-DEC-09 20:33
LCS	1202003041	/122209v4/4q203LL.d	22-DEC-09 21:00
VSTD250S	UVM091118-08C	/122209v4/4q204.d	22-DEC-09 21:28
LCS	1202003042	/122209v4/4q205SL.d	22-DEC-09 21:55
BLANK	1202003038	/122209v4/4q206BL.d	22-DEC-09 22:22
RE03-10-8963	243033010	/122209v4/4q212.d	23-DEC-09 01:05
RE03-09-14221	243033001	/122209v4/4q213.d	23-DEC-09 01:33
RE03-09-14211	243033002	/122209v4/4q214.d	23-DEC-09 01:59
RE03-09-14210	243033003	/122209v4/4q215.d	23-DEC-09 02:27
RE03-09-14209	243033004	/122209v4/4q216.d	23-DEC-09 02:54
RE03-09-14208	243033005	/122209v4/4q217.d	23-DEC-09 03:21
RE03-09-14222	243033006	/122209v4/4q218.d	23-DEC-09 03:48
RE03-09-14223	243033007	/122209v4/4q219.d	23-DEC-09 04:15
RE03-09-14220	243033008	/122209v4/4q220.d	23-DEC-09 04:42
RE03-10-2734	243033009	/122209v4/4q221.d	23-DEC-09 05:10
RE03-09-14221MS	1202003039	/122209v4/4q223.d	23-DEC-09 06:05
RE03-09-14221MSD	1202003040	/122209v4/4q224.d	23-DEC-09 06:32

Internal Standard
Area and RT Summary

Lab Name : GEL Laboratories LLC

Instrument: VOA4.I

GC Column: RTX-VOLATILES

Client SDG: 10-940

STD Analysis Time: 22-DEC-09 20:33

Data File: 4q202.d

	Fluorobenzene				Chlorobenzene-d5				1,4-Dichlorobenzene-d4			
	Area	#	RT	#	Area	#	RT	#	Area	#	RT	#
12 Hour STD	1150089		10.6		881455		13.8		561822		16.2	
Upper Limit	2300178		11.1		1762910		14.3		1123644		16.7	
Lower Limit	575045		10.1		440728		13.3		280911		15.7	
Sample ID												
BLK01LCS	1203464		10.6		905014		13.8		585285		16.2	
BLK01SLCS	1193928		10.6		887436		13.8		558298		16.2	
BLK01	1182411		10.6		854992		13.8		496440		16.2	
RE03-10-8963	1083362		10.6		778573		13.8		442135		16.2	
RE03-09-14221	1049781		10.6		741859		13.8		422342		16.2	
RE03-09-14211	1068077		10.6		759986		13.8		430179		16.2	
RE03-09-14210	1073268		10.6		764514		13.8		423991		16.2	
RE03-09-14209	957952		10.6		678466		13.8		374923		16.2	
RE03-09-14208	1044350		10.6		714312		13.8		368548		16.2	
RE03-09-14222	1035610		10.6		734928		13.8		409525		16.2	
RE03-09-14223	1033101		10.6		745717		13.8		422423		16.2	
RE03-09-14220	1002922		10.6		632663		13.8		252100	*	16.2	
RE03-10-2734	1034007		10.6		746688		13.8		416974		16.2	
RE03-09-14221MS	1128186		10.6		827517		13.8		506985		16.2	
RE03-09-14221MSD	1134075		10.6		828930		13.8		487901		16.2	

Area Upper Limit = +100% of internal standard area
Area Lower Limit = - 50% of internal standard area

RT Upper Limit = + 0.50 minutes of internal standard RT
RT Lower Limit = - 0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Value outside of QC Limits

Sample Data

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-940	**Date Collected:**	12/14/2009 12:00	**Matrix:**	S
Lab Sample ID:	243033005	**Date Received:**	12/16/2009 09:10	**%Moisture:**	12.8
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14208	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	936119	**Inst:**	VOA4.I	**Dilution:**	1
Run Date:	12/23/2009 03:21	**Analyst:**	ACJ	**Purge Vol:**	5 mL
Prep Date:	12/22/2009 22:46	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	4q217.d	**Column:**	RTX-VOLATILES	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.15	ug/kg	0.390	1.15
74-87-3	Chloromethane	U	1.15	ug/kg	0.344	1.15
75-01-4	Vinyl chloride	U	1.15	ug/kg	0.344	1.15
74-83-9	Bromomethane	U	1.15	ug/kg	0.344	1.15
75-00-3	Chloroethane	U	1.15	ug/kg	0.344	1.15
75-69-4	Trichlorofluoromethane	U	1.15	ug/kg	0.344	1.15
67-64-1	Acetone	J	4.60	ug/kg	1.90	5.73
75-35-4	1,1-Dichloroethylene	U	1.15	ug/kg	0.344	1.15
74-88-4	Iodomethane	U	5.73	ug/kg	1.83	5.73
75-09-2	Methylene chloride	U	5.73	ug/kg	2.29	5.73
75-15-0	Carbon disulfide	U	5.73	ug/kg	1.43	5.73
156-60-5	trans-1,2-Dichloroethylene	U	1.15	ug/kg	0.344	1.15
75-34-3	1,1-Dichloroethane	U	1.15	ug/kg	0.344	1.15
78-93-3	2-Butanone	U	5.73	ug/kg	1.72	5.73
156-59-2	cis-1,2-Dichloroethylene	U	1.15	ug/kg	0.344	1.15
594-20-7	2,2-Dichloropropane	U	1.15	ug/kg	0.344	1.15
67-66-3	Chloroform	U	1.15	ug/kg	0.344	1.15
74-97-5	Bromochloromethane	U	1.15	ug/kg	0.378	1.15
71-55-6	1,1,1-Trichloroethane	U	1.15	ug/kg	0.344	1.15
563-58-6	1,1-Dichloropropene	U	1.15	ug/kg	0.344	1.15
56-23-5	Carbon tetrachloride	U	1.15	ug/kg	0.344	1.15
107-06-2	1,2-Dichloroethane	U	1.15	ug/kg	0.344	1.15
71-43-2	Benzene	U	1.15	ug/kg	0.344	1.15
79-01-6	Trichloroethylene	U	1.15	ug/kg	0.378	1.15
78-87-5	1,2-Dichloropropane	U	1.15	ug/kg	0.344	1.15
75-27-4	Bromodichloromethane	U	1.15	ug/kg	0.344	1.15
74-95-3	Dibromomethane	U	1.15	ug/kg	0.344	1.15
108-10-1	4-Methyl-2-pentanone	U	5.73	ug/kg	1.43	5.73
10061-01-5	cis-1,3-Dichloropropylene	U	1.15	ug/kg	0.344	1.15
108-88-3	Toluene	U	1.15	ug/kg	0.344	1.15
10061-02-6	trans-1,3-Dichloropropylene	U	1.15	ug/kg	0.344	1.15
79-00-5	1,1,2-Trichloroethane	U	1.15	ug/kg	0.344	1.15
591-78-6	2-Hexanone	U	5.73	ug/kg	1.72	5.73
142-28-9	1,3-Dichloropropane	U	1.15	ug/kg	0.344	1.15
127-18-4	Tetrachloroethylene	U	1.15	ug/kg	0.344	1.15
124-48-1	Dibromochloromethane	U	1.15	ug/kg	0.344	1.15
106-93-4	1,2-Dibromoethane	U	1.15	ug/kg	0.344	1.15
108-90-7	Chlorobenzene	U	1.15	ug/kg	0.344	1.15

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-940	**Date Collected:**	12/14/2009 12:00	**Matrix:**	S
Lab Sample ID:	243033005	**Date Received:**	12/16/2009 09:10	**%Moisture:**	12.8
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14208	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	936119	**Inst:**	VOA4.I	**Dilution:**	1
Run Date:	12/23/2009 03:21	**Analyst:**	ACJ	**Purge Vol:**	5 mL
Prep Date:	12/22/2009 22:46	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	4q217.d	**Column:**	RTX-VOLATILES	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.15	ug/kg	0.344	1.15
179601-23-1	m,p-Xylenes	U	2.29	ug/kg	0.344	2.29
95-47-6	o-Xylene	U	1.15	ug/kg	0.344	1.15
100-42-5	Styrene	U	1.15	ug/kg	0.344	1.15
75-25-2	Bromoform	U	1.15	ug/kg	0.344	1.15
79-34-5	1,1,2,2-Tetrachloroethane	U	1.15	ug/kg	0.344	1.15
96-18-4	1,2,3-Trichloropropane	U	1.15	ug/kg	0.344	1.15
108-86-1	Bromobenzene	U	1.15	ug/kg	0.344	1.15
103-65-1	n-Propylbenzene	U	1.15	ug/kg	0.344	1.15
95-49-8	2-Chlorotoluene	U	1.15	ug/kg	0.344	1.15
98-82-8	Isopropylbenzene	U	1.15	ug/kg	0.344	1.15
108-67-8	1,3,5-Trimethylbenzene	U	1.15	ug/kg	0.344	1.15
106-43-4	4-Chlorotoluene	U	1.15	ug/kg	0.344	1.15
98-06-6	tert-Butylbenzene	U	1.15	ug/kg	0.344	1.15
95-63-6	1,2,4-Trimethylbenzene	U	1.15	ug/kg	0.344	1.15
135-98-8	sec-Butylbenzene	U	1.15	ug/kg	0.344	1.15
99-87-6	4-Isopropyltoluene	U	1.15	ug/kg	0.344	1.15
541-73-1	1,3-Dichlorobenzene	U	1.15	ug/kg	0.344	1.15
106-46-7	1,4-Dichlorobenzene	U	1.15	ug/kg	0.344	1.15
104-51-8	n-Butylbenzene	U	1.15	ug/kg	0.344	1.15
96-12-8	1,2-Dibromo-3-chloropropane	U	1.15	ug/kg	0.344	1.15
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.73	ug/kg	1.83	5.73
630-20-6	1,1,1,2-Tetrachloroethane	U	1.15	ug/kg	0.344	1.15
95-50-1	1,2-Dichlorobenzene	U	1.15	ug/kg	0.344	1.15

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Siloxane	14.83	55.5	ug/kg		J

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA4.i/122209v4/4q217.d
Lab Smp Id: 243033005 Client Smp ID: RE03-09-14208
Inj Date : 23-DEC-2009 03:21
Operator : ACJ Inst ID: VOA4.i
Smp Info : |243033005|936119|1|VOAF|1|
Misc Info : LANL 5G N/A
Comment :
Method : /chem/VOA4.i/122209v4/VOA4-8260-121909.m
Meth Date : 24-Dec-2009 16:25 amj Quant Type: ISTD
Cal Date : 20-DEC-2009 02:33 Cal File: 4p618.d
Als bottle: 17
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-940.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	12.79410	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
* 40 Fluorobenzene	96	10.619	10.613	(1.000)	1044350	50.0000	
* 61 Chlorobenzene-d5	117	13.771	13.771	(1.000)	714312	50.0000	
* 86 1,4-Dichlorobenzene-d4	152	16.179	16.173	(1.000)	368548	50.0000	
$ 138 1,2-Dichloroethane-d4	65	10.259	10.259	(0.966)	227052	41.7281	47.8
$ 47 Toluene-d8	98	12.253	12.246	(0.890)	831173	49.1326	56.3
$ 71 Bromofluorobenzene	95	14.953	14.947	(0.924)	351189	58.6831	67.3
10 Acetone	43	7.369	7.357	(0.694)	26313	4.01063	4.6(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

ION RATIO REPORT

VOA REPORT

Data file: 4q217.d
Report Date: 12/23/2009 16:11
Lab. ID: 243033005 SampleType: SAMPLE
Injection Date: 23-DEC-2009 03:21
Operator: ACJ Instrument: VOA4.i
Sample Info: |243033005|936119|1|VOAF|1|
Miscellaneous Info: LANL 5G N/A
Comment:
Method used: /chem/VOA4.i/122209v4/VOA4-8260-121909.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-940
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
10 Acetone			CAS#: 67-64-1			
43	26313	7.37	7.36	80-120	100	( )
58	7030	7.36	7.36	0- 59	27	( )
37 1,2-Dichloroethane			CAS#: 107-06-2			
62	14589	10.62	10.34	80-120	100	(T)
64	2316	10.62	10.34	3- 63	16	(T)
39 Trichloroethylene			CAS#: 79-01-6			
95	85933	10.62	11.00	80-120	100	(T)
97	67075	10.62	11.00	38- 98	78	(T)
130	245	11.00	11.00	72-132	0	(Q)
49 4-Methyl-2-pentanone			CAS#: 108-10-1			
58	7813	12.25	12.01	80-120	100	(T)
43	5473	12.25	12.01	254-314	70	(QT)
100	549952	12.25	12.01	0- 60	7038	(QT)
66 Bromoform			CAS#: 75-25-2			
173	1588	14.95	14.65	80-120	100	(T)
175	23652	14.95	14.65	19- 79	1489	(QT)
74 1,2,3-Trichloropropane			CAS#: 96-18-4			
110	3464	14.83	15.11	80-120	100	(T)
75	9370	14.82	15.11	257-317	271	(T)
77	819	14.81	15.11	61-121	24	(QT)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA4.i/122209v4/4q217.d
Lab Smp Id: 243033005 Client Smp ID: RE03-09-14208
Inj Date : 23-DEC-2009 03:21
Operator : ACJ Inst ID: VOA4.i
Smp Info : |243033005|936119|1|VOAF|1|
Misc Info : LANL 5G N/A
Comment :
Method : /chem/VOA4.i/122209v4/VOA4-8260-121909.m
Meth Date : 24-Dec-2009 16:25 amj Quant Type: ISTD
Cal Date : 20-DEC-2009 02:33 Cal File: 4p618.d
Als bottle: 17
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-940.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	12.79410	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 61 Chlorobenzene-d5	13.771	2278753	50.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ug/l)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown Siloxane				CAS #:			
14.825	2207271	48.4315353	55.5	0		0	61

Data File: /chem/VOA4.i/122209v4/4q217.d
Date : 23-DEC-2009 03:21
Client ID: RE03-09-14208
Sample Info: |2430330051936119|1|VOAF|1|

Column phase: RTX-VOLATILES

Instrument: VOA4.i

Operator: ACJ
Column diameter: 0.25

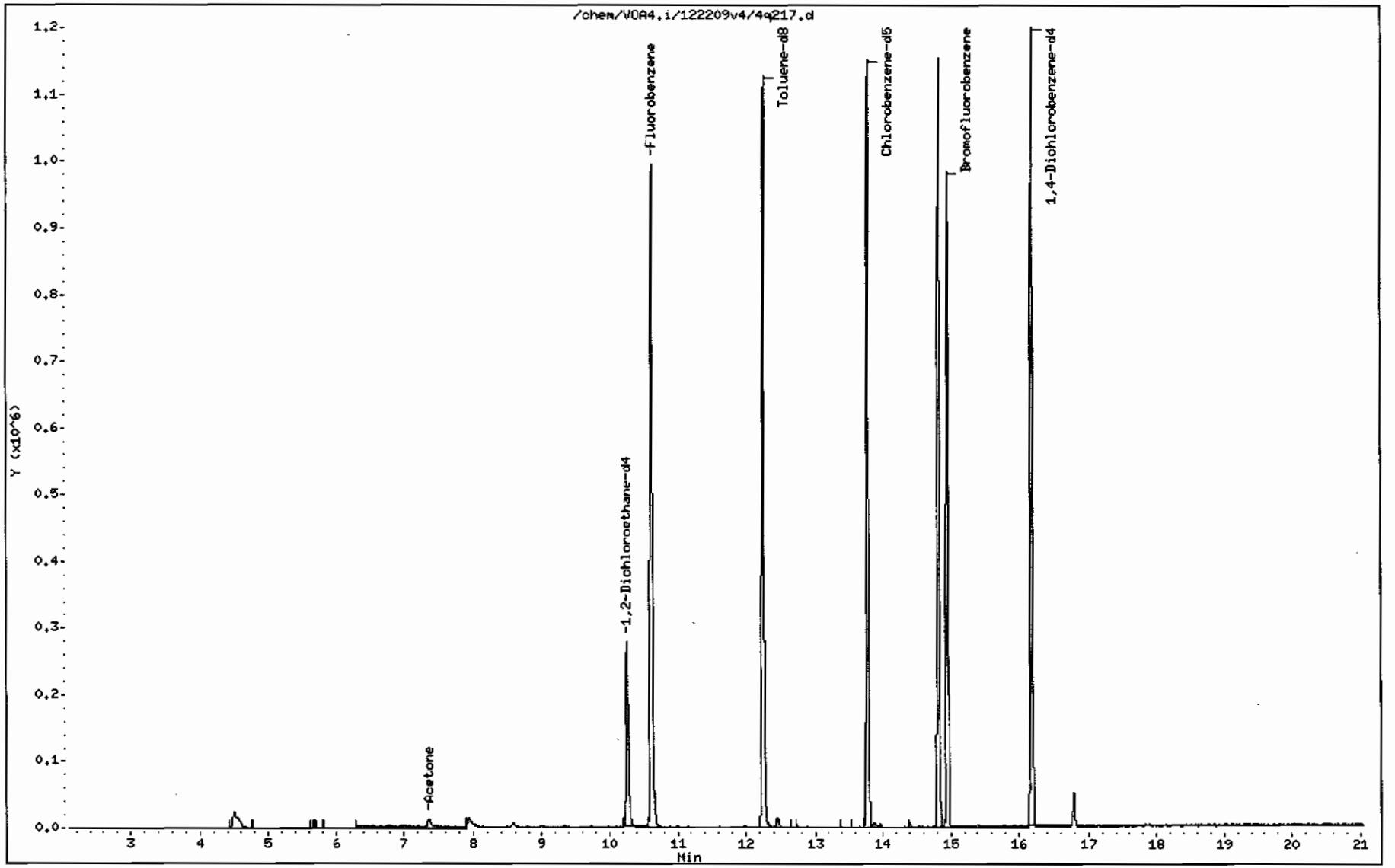

Data File: /chem/VOA4.i/122209v4/4q217.d

Date : 23-DEC-2009 03:21

Client ID: RE03-09-14208

Sample Info: |2430330051936119|1|VOAF|1|

Instrument: VOA4.i

Operator: ACJ

Column phase: RTX-VOLATILES

Column diameter: 0.25

10 Acetone

Concentration: 4.6 ug/Kg

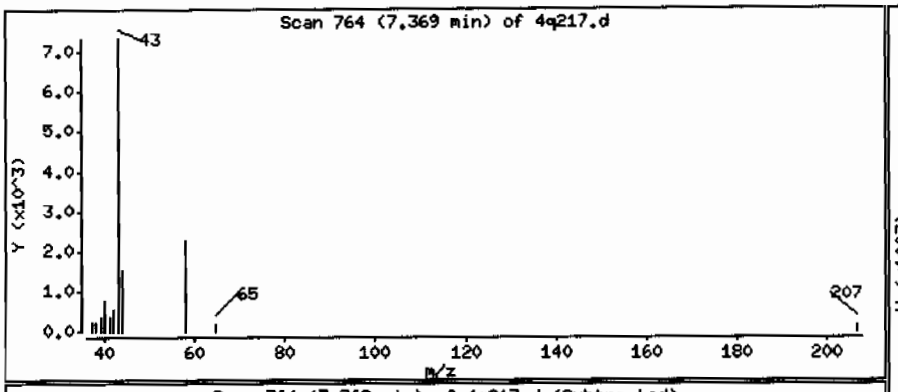

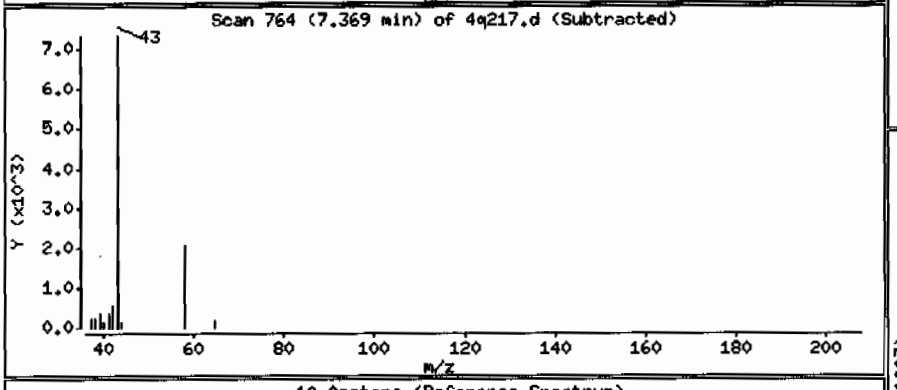

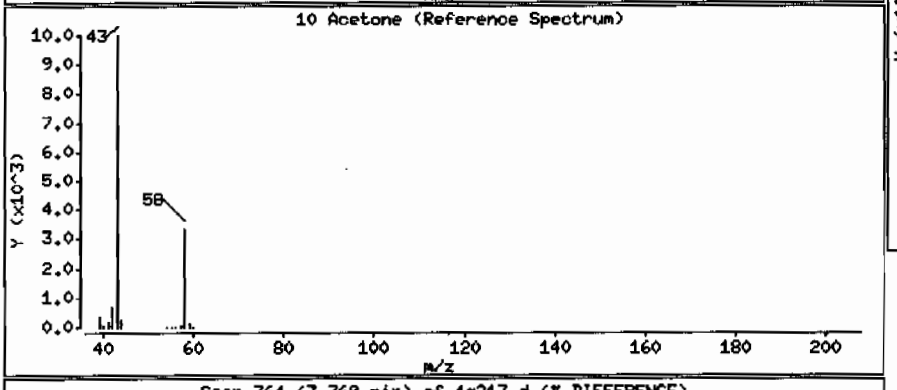

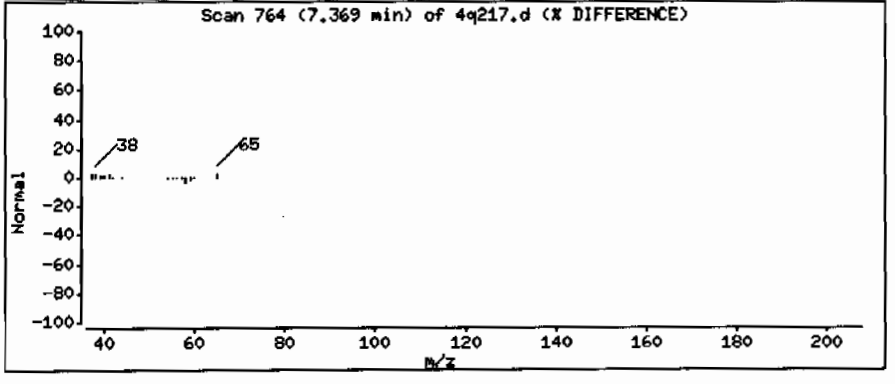

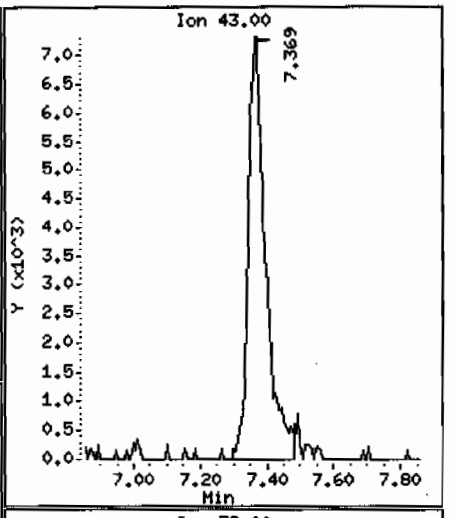

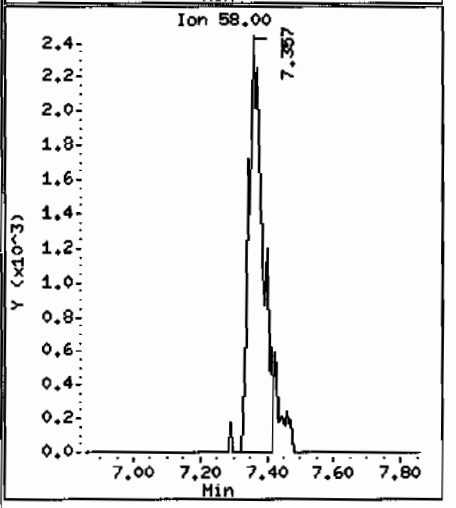

Data File: /chem/VOA4.i/122209v4/4q217.d

Date : 23-DEC-2009 03:21

Client ID: RE03-09-14208

Instrument: VOA4.i

Sample Info: |2430330051936119|1|VOAF|1|

Operator: ACJ

Column phase: RTX-VOLATILES

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Siloxane						
Cyclotetrasiloxane, octamethyl-	556-67-2	NIST05.L	122481	78	C8H24O4Si4	296
7H-Dibenzo[b,g]carbazole, 7-methyl-	3557-49-1	NIST05.L	112705	59	C21H15N	281
4H-1,2,4-Triazole-3-thiol, 4-allyl-5-(1-	31803-13-1	NIST05.L	112550	53	C16H15N3S	281

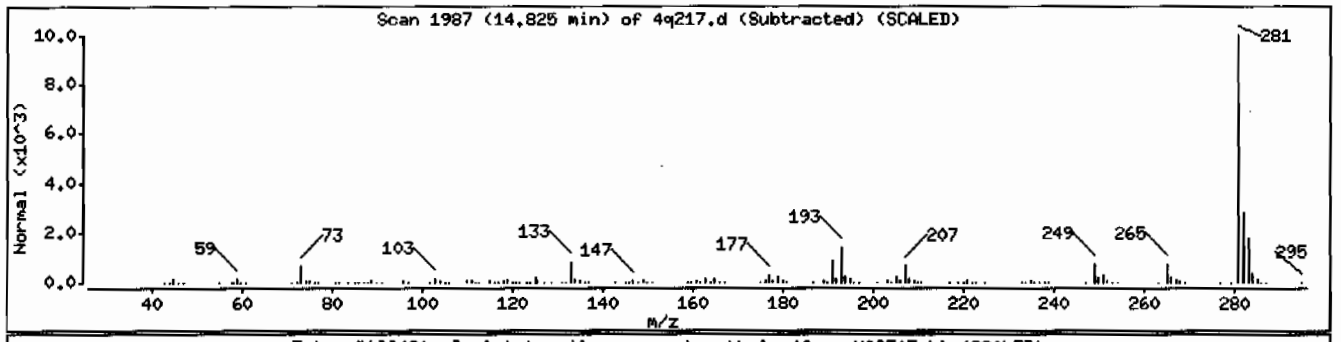

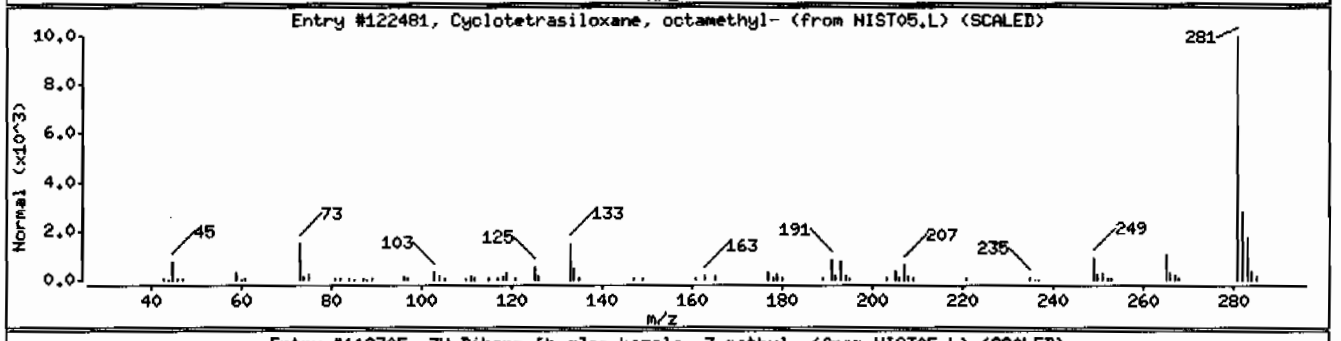

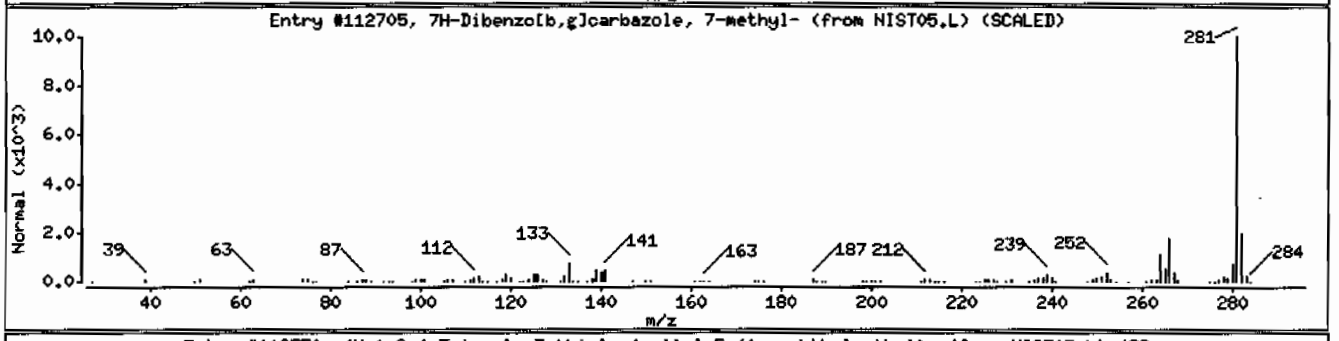

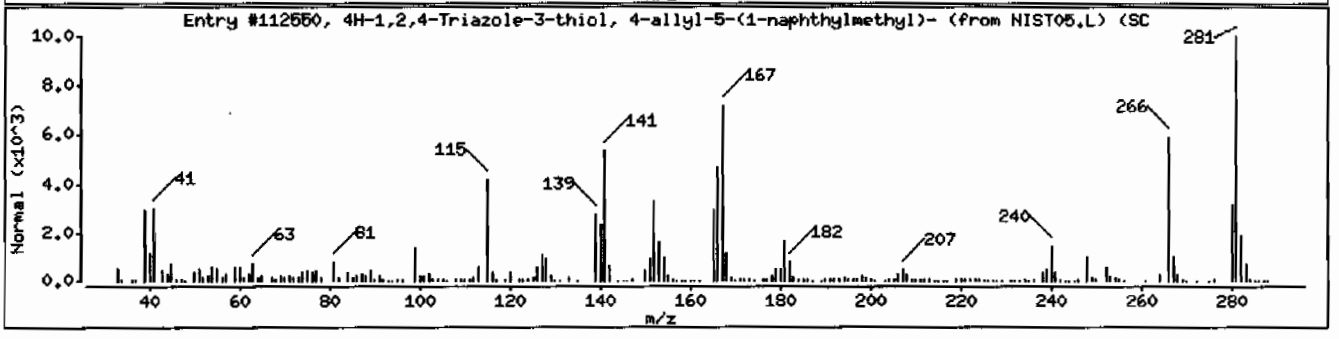

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-940	**Date Collected:**	12/14/2009 12:00	**Matrix:**	S
Lab Sample ID:	243033004	**Date Received:**	12/16/2009 09:10	**%Moisture:**	11.6
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14209	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	936119	**Inst:**	VOA4.I	**Dilution:**	1
Run Date:	12/23/2009 02:54	**Analyst:**	ACJ	**Purge Vol:**	5 mL
Prep Date:	12/22/2009 22:45	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	4q216.d	**Column:**	RTX-VOLATILES	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.13	ug/kg	0.384	1.13
74-87-3	Chloromethane	U	1.13	ug/kg	0.339	1.13
75-01-4	Vinyl chloride	U	1.13	ug/kg	0.339	1.13
74-83-9	Bromomethane	U	1.13	ug/kg	0.339	1.13
75-00-3	Chloroethane	U	1.13	ug/kg	0.339	1.13
75-69-4	Trichlorofluoromethane	U	1.13	ug/kg	0.339	1.13
67-64-1	Acetone	J	4.20	ug/kg	1.88	5.65
75-35-4	1,1-Dichloroethylene	U	1.13	ug/kg	0.339	1.13
74-88-4	Iodomethane	U	5.65	ug/kg	1.81	5.65
75-09-2	Methylene chloride	U	5.65	ug/kg	2.26	5.65
75-15-0	Carbon disulfide	U	5.65	ug/kg	1.41	5.65
156-60-5	trans-1,2-Dichloroethylene	U	1.13	ug/kg	0.339	1.13
75-34-3	1,1-Dichloroethane	U	1.13	ug/kg	0.339	1.13
78-93-3	2-Butanone	U	5.65	ug/kg	1.70	5.65
156-59-2	cis-1,2-Dichloroethylene	U	1.13	ug/kg	0.339	1.13
594-20-7	2,2-Dichloropropane	U	1.13	ug/kg	0.339	1.13
67-66-3	Chloroform	U	1.13	ug/kg	0.339	1.13
74-97-5	Bromochloromethane	U	1.13	ug/kg	0.373	1.13
71-55-6	1,1,1-Trichloroethane	U	1.13	ug/kg	0.339	1.13
563-58-6	1,1-Dichloropropene	U	1.13	ug/kg	0.339	1.13
56-23-5	Carbon tetrachloride	U	1.13	ug/kg	0.339	1.13
107-06-2	1,2-Dichloroethane	U	1.13	ug/kg	0.339	1.13
71-43-2	Benzene	U	1.13	ug/kg	0.339	1.13
79-01-6	Trichloroethylene	U	1.13	ug/kg	0.373	1.13
78-87-5	1,2-Dichloropropane	U	1.13	ug/kg	0.339	1.13
75-27-4	Bromodichloromethane	U	1.13	ug/kg	0.339	1.13
74-95-3	Dibromomethane	U	1.13	ug/kg	0.339	1.13
108-10-1	4-Methyl-2-pentanone	U	5.65	ug/kg	1.41	5.65
10061-01-5	cis-1,3-Dichloropropylene	U	1.13	ug/kg	0.339	1.13
108-88-3	Toluene	U	1.13	ug/kg	0.339	1.13
10061-02-6	trans-1,3-Dichloropropylene	U	1.13	ug/kg	0.339	1.13
79-00-5	1,1,2-Trichloroethane	U	1.13	ug/kg	0.339	1.13
591-78-6	2-Hexanone	U	5.65	ug/kg	1.70	5.65
142-28-9	1,3-Dichloropropane	U	1.13	ug/kg	0.339	1.13
127-18-4	Tetrachloroethylene	U	1.13	ug/kg	0.339	1.13
124-48-1	Dibromochloromethane	U	1.13	ug/kg	0.339	1.13
106-93-4	1,2-Dibromoethane	U	1.13	ug/kg	0.339	1.13
108-90-7	Chlorobenzene	U	1.13	ug/kg	0.339	1.13

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-940	**Date Collected:**	12/14/2009 12:00	**Matrix:**	S
Lab Sample ID:	243033004	**Date Received:**	12/16/2009 09:10	**%Moisture:**	11.6
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14209	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	936119	**Inst:**	VOA4.I	**Dilution:**	1
Run Date:	12/23/2009 02:54	**Analyst:**	ACJ	**Purge Vol:**	5 mL
Prep Date:	12/22/2009 22:45	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	4q216.d	**Column:**	RTX-VOLATILES	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.13	ug/kg	0.339	1.13
179601-23-1	m,p-Xylenes	U	2.26	ug/kg	0.339	2.26
95-47-6	o-Xylene	U	1.13	ug/kg	0.339	1.13
100-42-5	Styrene	U	1.13	ug/kg	0.339	1.13
75-25-2	Bromoform	U	1.13	ug/kg	0.339	1.13
79-34-5	1,1,2,2-Tetrachloroethane	U	1.13	ug/kg	0.339	1.13
96-18-4	1,2,3-Trichloropropane	U	1.13	ug/kg	0.339	1.13
108-86-1	Bromobenzene	U	1.13	ug/kg	0.339	1.13
103-65-1	n-Propylbenzene	U	1.13	ug/kg	0.339	1.13
95-49-8	2-Chlorotoluene	U	1.13	ug/kg	0.339	1.13
98-82-8	Isopropylbenzene	U	1.13	ug/kg	0.339	1.13
108-67-8	1,3,5-Trimethylbenzene	U	1.13	ug/kg	0.339	1.13
106-43-4	4-Chlorotoluene	U	1.13	ug/kg	0.339	1.13
98-06-6	tert-Butylbenzene	U	1.13	ug/kg	0.339	1.13
95-63-6	1,2,4-Trimethylbenzene	U	1.13	ug/kg	0.339	1.13
135-98-8	sec-Butylbenzene	U	1.13	ug/kg	0.339	1.13
99-87-6	4-Isopropyltoluene	U	1.13	ug/kg	0.339	1.13
541-73-1	1,3-Dichlorobenzene	U	1.13	ug/kg	0.339	1.13
106-46-7	1,4-Dichlorobenzene	U	1.13	ug/kg	0.339	1.13
104-51-8	n-Butylbenzene	U	1.13	ug/kg	0.339	1.13
96-12-8	1,2-Dibromo-3-chloropropane	U	1.13	ug/kg	0.339	1.13
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.65	ug/kg	1.81	5.65
630-20-6	1,1,1,2-Tetrachloroethane	U	1.13	ug/kg	0.339	1.13
95-50-1	1,2-Dichlorobenzene	U	1.13	ug/kg	0.339	1.13

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Siloxane	14.83	22.7	ug/kg		J

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA4.i/122209v4/4q216.d
Lab Smp Id: 243033004 Client Smp ID: RE03-09-14209
Inj Date : 23-DEC-2009 02:54
Operator : ACJ Inst ID: VOA4.i
Smp Info : |243033004|936119|1|VOAF|1|
Misc Info : LANL 5G N/A
Comment :
Method : /chem/VOA4.i/122209v4/VOA4-8260-121909.m
Meth Date : 24-Dec-2009 16:25 amj Quant Type: ISTD
Cal Date : 20-DEC-2009 02:33 Cal File: 4p618.d
Als bottle: 16
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-940.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	11.55070	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
* 40 Fluorobenzene	96	10.619	10.613	(1.000)	957952	50.0000	
* 61 Chlorobenzene-d5	117	13.771	13.771	(1.000)	678466	50.0000	
* 86 1,4-Dichlorobenzene-d4	152	16.179	16.173	(1.000)	374923	50.0000	
$ 138 1,2-Dichloroethane-d4	65	10.259	10.259	(0.966)	219257	43.9298	49.7
$ 47 Toluene-d8	98	12.253	12.246	(0.890)	803497	50.0061	56.5
$ 71 Bromofluorobenzene	95	14.953	14.947	(0.924)	352892	57.9651	65.5
10 Acetone	43	7.357	7.357	(0.693)	22369	3.71699	4.2(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

ION RATIO REPORT

VOA REPORT

Data file: 4q216.d
Report Date: 12/23/2009 16:11
Lab. ID: 243033004 SampleType: SAMPLE
Injection Date: 23-DEC-2009 02:54
Operator: ACJ Instrument: VOA4.i
Sample Info: |243033004|936119|1|VOAF|1|
Miscellaneous Info: LANL 5G N/A
Comment:
Method used: /chem/VOA4.i/122209v4/VOA4-8260-121909.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-940
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
10 Acetone			CAS#: 67-64-1			
43	22369	7.36	7.36	80-120	100	( )
58	6048	7.36	7.36	0- 59	27	( )
37 1,2-Dichloroethane			CAS#: 107-06-2			
62	13614	10.61	10.34	80-120	100	(T)
64	2227	10.62	10.34	3- 63	16	(T)
49 4-Methyl-2-pentanone			CAS#: 108-10-1			
58	7761	12.25	12.01	80-120	100	(T)
43	5075	12.24	12.01	254-314	65	(QT)
100	525267	12.25	12.01	0- 60	6767	(QT)
66 Bromoform			CAS#: 75-25-2			
173	1319	14.95	14.65	80-120	100	(T)
175	23473	14.95	14.65	19- 79	1778	(QT)
74 1,2,3-Trichloropropane			CAS#: 96-18-4			
110	1685	14.81	15.11	80-120	100	(T)
75	3460	14.82	15.11	257-317	205	(QT)
77	3117	14.79	15.11	61-121	185	(QT)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA4.i/122209v4/4q216.d
Lab Smp Id: 243033004 Client Smp ID: RE03-09-14209
Inj Date : 23-DEC-2009 02:54
Operator : ACJ Inst ID: VOA4.i
Smp Info : |243033004|936119|1|VOAF|1|
Misc Info : LANL 5G N/A
Comment :
Method : /chem/VOA4.i/122209v4/VOA4-8260-121909.m
Meth Date : 24-Dec-2009 16:25 amj Quant Type: ISTD
Cal Date : 20-DEC-2009 02:33 Cal File: 4p618.d
Als bottle: 16
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-940.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	11.55070	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 61 Chlorobenzene-d5	13.771	2175877	50.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ug/l)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown Siloxane				CAS #:			
14.825	873126	20.0637748	22.7	0		0	61

Data File: /chem/VOA4.i/122209v4/4q216.d
Date : 23-DEC-2009 02:54
Client ID: RE03-09-14209
Sample Info: |2430330041936119|1|VOAF|1|

Column phase: RTX-VOLATILES

Instrument: VOA4.i

Operator: ACJ
Column diameter: 0.25

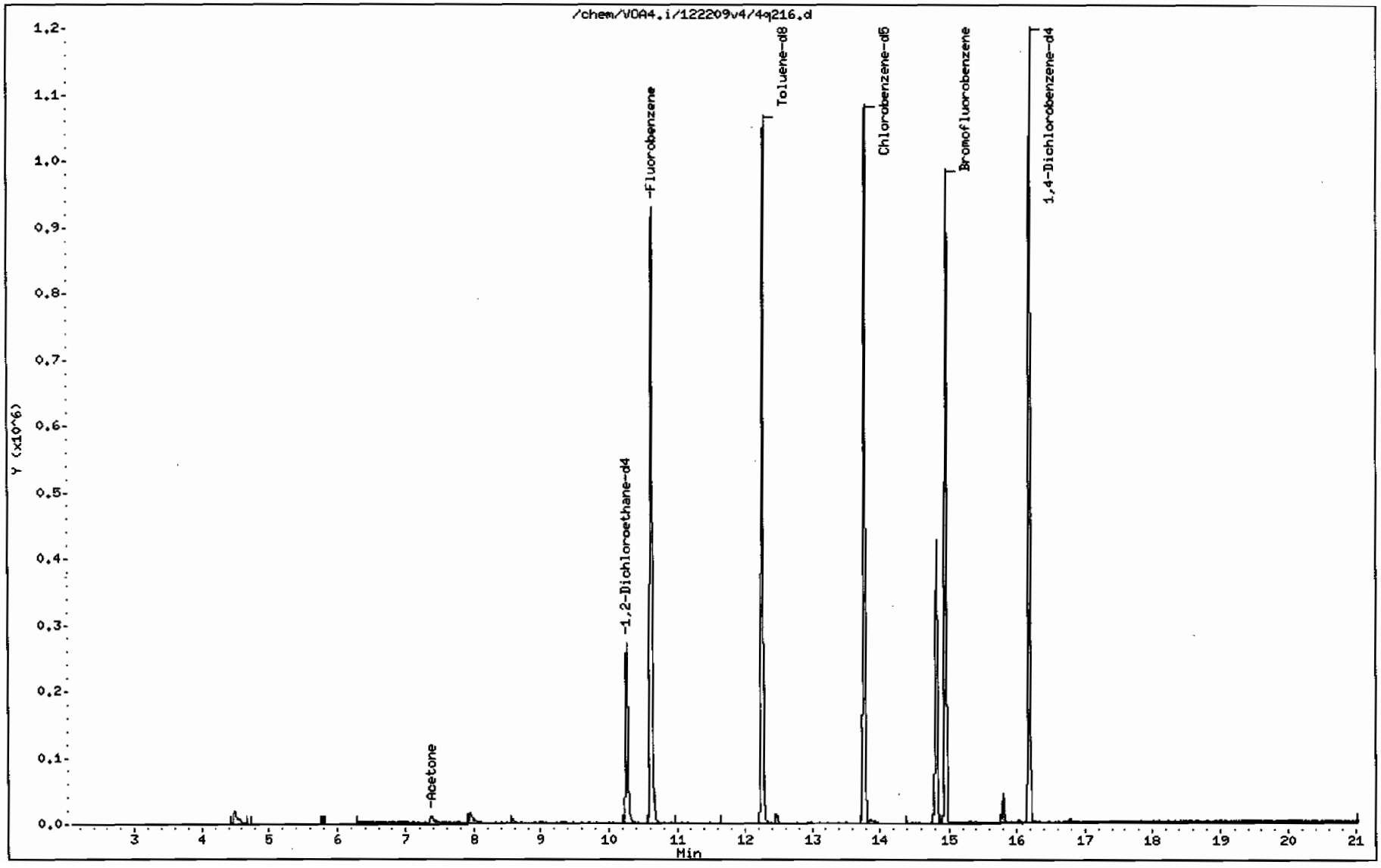

Data File: /chem/VOA4.i/122209v4/4q216.d

Date : 23-DEC-2009 02:54

Client ID: RE03-09-14209

Instrument: VOA4.i

Sample Info: |2430330041936119|1|VOAF|1|

Operator: ACJ

Column phase: RTX-VOLATILES

Column diameter: 0.25

10 Acetone

Concentration: 4.2 ug/Kg

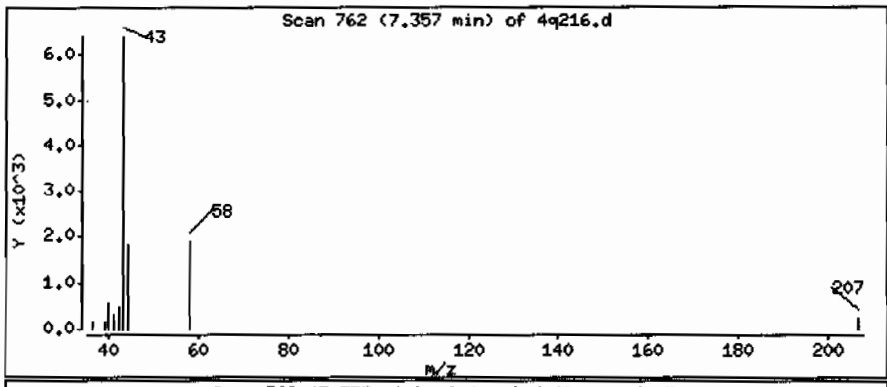

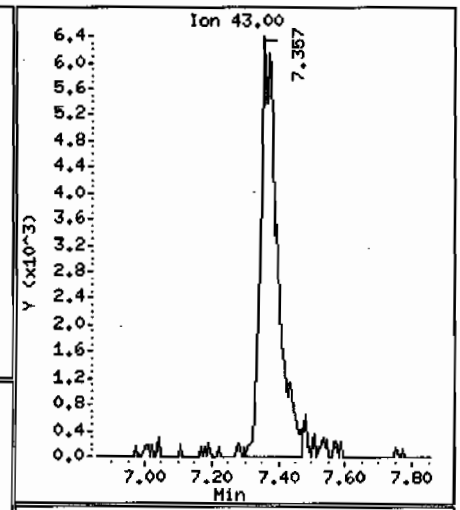

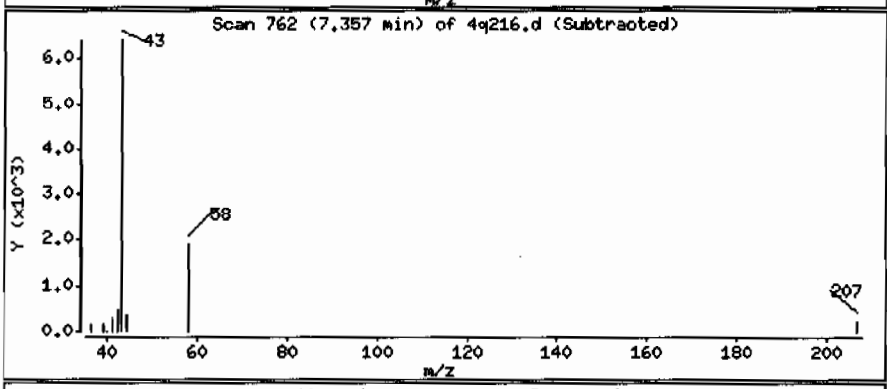

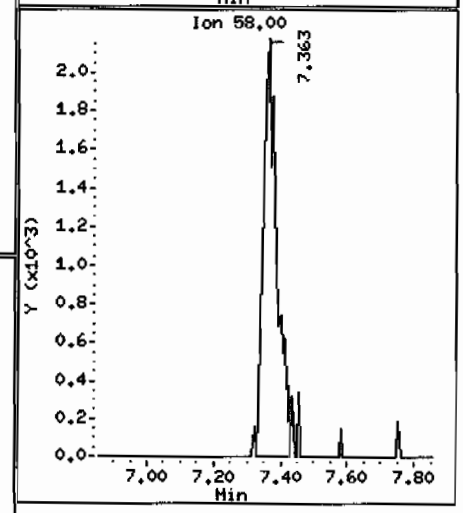

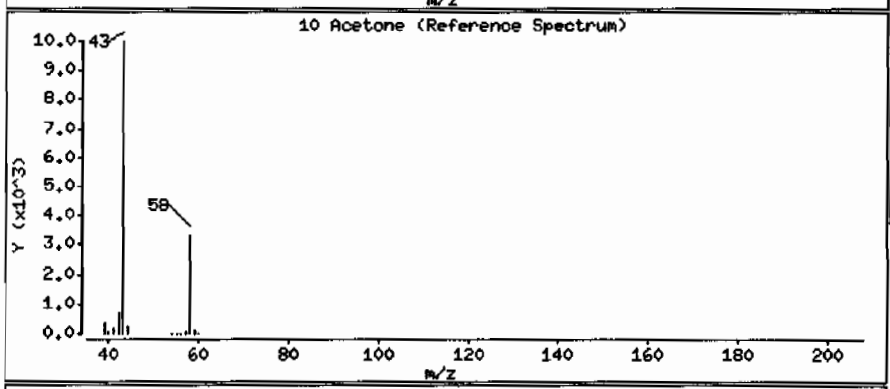

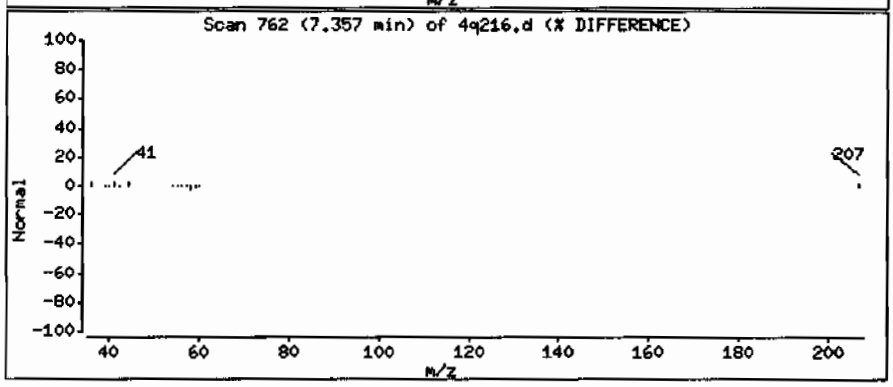

Data File: /chem/VOA4.i/122209v4/4q216.d

Date : 23-DEC-2009 02:54

Client ID: RE03-09-14209

Instrument: VOA4.i

Sample Info: |2430330041936119|1|VOAF|1|

Operator: ACJ

Column phase: RTX-VOLATILES

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Siloxane						
Cyclotetrasiloxane, octamethyl-	556-67-2	NIST05.L	122479	78	C8H24O4Si4	296
Benzoic acid, 4-methyl-2-trimethylsilylo	1000153-59-3	NIST05.L	121893	59	C14H24O3Si2	296
7H-Dibenzo[b,g]carbazole, 7-methyl-	3557-49-1	NIST05.L	112705	53	C21H15N	281

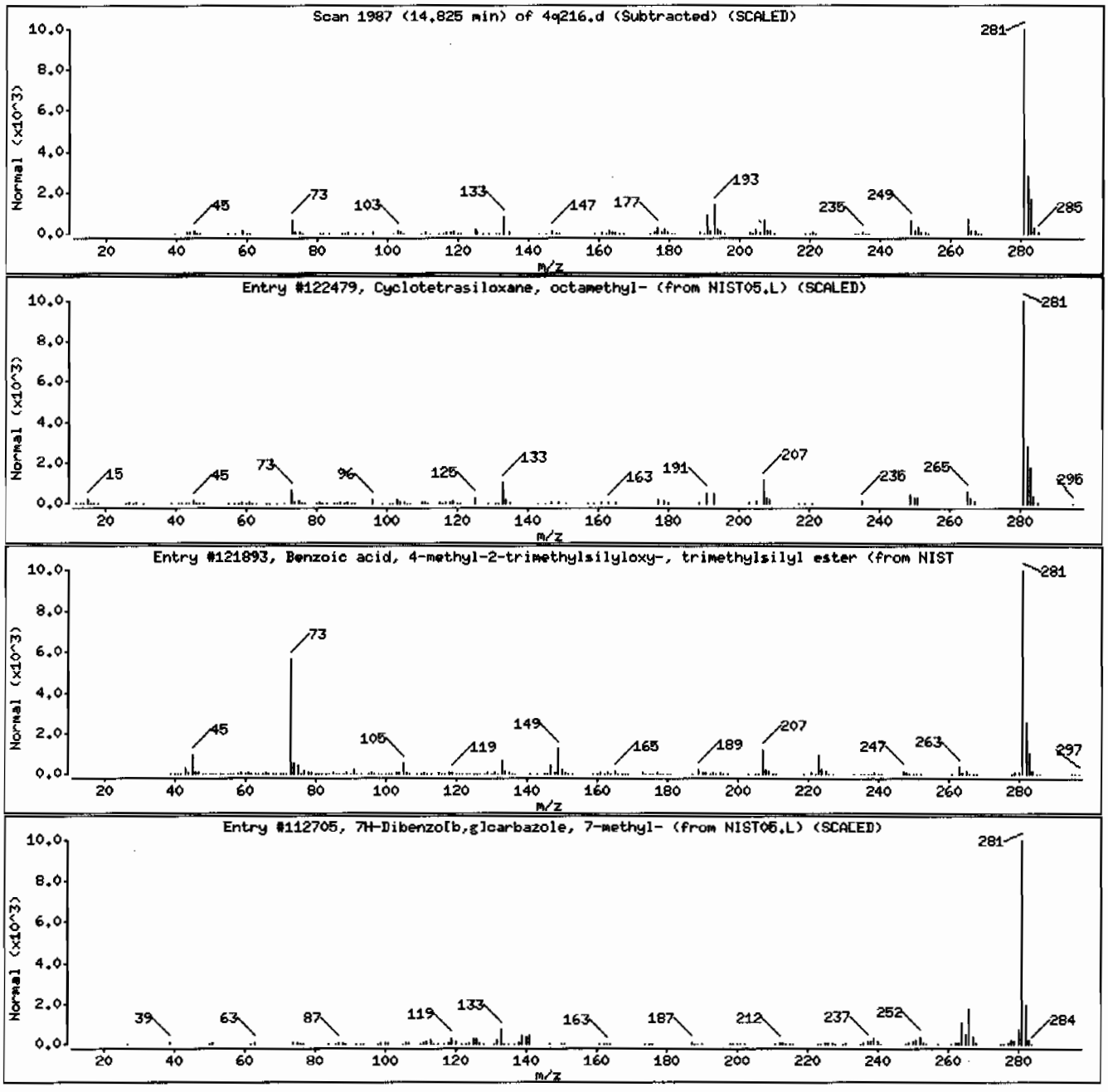

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-940	**Date Collected:**	12/14/2009 12:00	**Matrix:**	S
Lab Sample ID:	243033003	**Date Received:**	12/16/2009 09:10	**%Moisture:**	13.6
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14210	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	936119	**Inst:**	VOA4.I	**Dilution:**	1
Run Date:	12/23/2009 02:27	**Analyst:**	ACJ	**Purge Vol:**	5 mL
Prep Date:	12/22/2009 22:44	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	4q215.d	**Column:**	RTX-VOLATILES	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.16	ug/kg	0.394	1.16
74-87-3	Chloromethane	U	1.16	ug/kg	0.347	1.16
75-01-4	Vinyl chloride	U	1.16	ug/kg	0.347	1.16
74-83-9	Bromomethane	U	1.16	ug/kg	0.347	1.16
75-00-3	Chloroethane	U	1.16	ug/kg	0.347	1.16
75-69-4	Trichlorofluoromethane	U	1.16	ug/kg	0.347	1.16
67-64-1	Acetone	J	3.65	ug/kg	1.92	5.79
75-35-4	1,1-Dichloroethylene	U	1.16	ug/kg	0.347	1.16
74-88-4	Iodomethane	U	5.79	ug/kg	1.85	5.79
75-09-2	Methylene chloride	U	5.79	ug/kg	2.32	5.79
75-15-0	Carbon disulfide	U	5.79	ug/kg	1.45	5.79
156-60-5	trans-1,2-Dichloroethylene	U	1.16	ug/kg	0.347	1.16
75-34-3	1,1-Dichloroethane	U	1.16	ug/kg	0.347	1.16
78-93-3	2-Butanone	U	5.79	ug/kg	1.74	5.79
156-59-2	cis-1,2-Dichloroethylene	U	1.16	ug/kg	0.347	1.16
594-20-7	2,2-Dichloropropane	U	1.16	ug/kg	0.347	1.16
67-66-3	Chloroform	U	1.16	ug/kg	0.347	1.16
74-97-5	Bromochloromethane	U	1.16	ug/kg	0.382	1.16
71-55-6	1,1,1-Trichloroethane	U	1.16	ug/kg	0.347	1.16
563-58-6	1,1-Dichloropropene	U	1.16	ug/kg	0.347	1.16
56-23-5	Carbon tetrachloride	U	1.16	ug/kg	0.347	1.16
107-06-2	1,2-Dichloroethane	U	1.16	ug/kg	0.347	1.16
71-43-2	Benzene	U	1.16	ug/kg	0.347	1.16
79-01-6	Trichloroethylene	U	1.16	ug/kg	0.382	1.16
78-87-5	1,2-Dichloropropane	U	1.16	ug/kg	0.347	1.16
75-27-4	Bromodichloromethane	U	1.16	ug/kg	0.347	1.16
74-95-3	Dibromomethane	U	1.16	ug/kg	0.347	1.16
108-10-1	4-Methyl-2-pentanone	U	5.79	ug/kg	1.45	5.79
10061-01-5	cis-1,3-Dichloropropylene	U	1.16	ug/kg	0.347	1.16
108-88-3	Toluene	U	1.16	ug/kg	0.347	1.16
10061-02-6	trans-1,3-Dichloropropylene	U	1.16	ug/kg	0.347	1.16
79-00-5	1,1,2-Trichloroethane	U	1.16	ug/kg	0.347	1.16
591-78-6	2-Hexanone	U	5.79	ug/kg	1.74	5.79
142-28-9	1,3-Dichloropropane	U	1.16	ug/kg	0.347	1.16
127-18-4	Tetrachloroethylene	U	1.16	ug/kg	0.347	1.16
124-48-1	Dibromochloromethane	U	1.16	ug/kg	0.347	1.16
106-93-4	1,2-Dibromoethane	U	1.16	ug/kg	0.347	1.16
108-90-7	Chlorobenzene	U	1.16	ug/kg	0.347	1.16

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-940**	**Date Collected:**	**12/14/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243033003**	**Date Received:**	**12/16/2009 09:10**	**%Moisture:**	**13.6**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14210**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**936119**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**12/23/2009 02:27**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**12/22/2009 22:44**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**4q215.d**	**Column:**	**RTX-VOLATILES**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.16	ug/kg	0.347	1.16
179601-23-1	m,p-Xylenes	U	2.32	ug/kg	0.347	2.32
95-47-6	o-Xylene	U	1.16	ug/kg	0.347	1.16
100-42-5	Styrene	U	1.16	ug/kg	0.347	1.16
75-25-2	Bromoform	U	1.16	ug/kg	0.347	1.16
79-34-5	1,1,2,2-Tetrachloroethane	U	1.16	ug/kg	0.347	1.16
96-18-4	1,2,3-Trichloropropane	U	1.16	ug/kg	0.347	1.16
108-86-1	Bromobenzene	U	1.16	ug/kg	0.347	1.16
103-65-1	n-Propylbenzene	U	1.16	ug/kg	0.347	1.16
95-49-8	2-Chlorotoluene	U	1.16	ug/kg	0.347	1.16
98-82-8	Isopropylbenzene	U	1.16	ug/kg	0.347	1.16
108-67-8	1,3,5-Trimethylbenzene	U	1.16	ug/kg	0.347	1.16
106-43-4	4-Chlorotoluene	U	1.16	ug/kg	0.347	1.16
98-06-6	tert-Butylbenzene	U	1.16	ug/kg	0.347	1.16
95-63-6	1,2,4-Trimethylbenzene	U	1.16	ug/kg	0.347	1.16
135-98-8	sec-Butylbenzene	U	1.16	ug/kg	0.347	1.16
99-87-6	4-Isopropyltoluene	U	1.16	ug/kg	0.347	1.16
541-73-1	1,3-Dichlorobenzene	U	1.16	ug/kg	0.347	1.16
106-46-7	1,4-Dichlorobenzene	U	1.16	ug/kg	0.347	1.16
104-51-8	n-Butylbenzene	U	1.16	ug/kg	0.347	1.16
96-12-8	1,2-Dibromo-3-chloropropane	U	1.16	ug/kg	0.347	1.16
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.79	ug/kg	1.85	5.79
630-20-6	1,1,1,2-Tetrachloroethane	U	1.16	ug/kg	0.347	1.16
95-50-1	1,2-Dichlorobenzene	U	1.16	ug/kg	0.347	1.16

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Siloxane	14.83	122	ug/kg		J
	Unknown Siloxane	16.79	15.1	ug/kg		J

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA4.i/122209v4/4q215.d
Lab Smp Id: 243033003 Client Smp ID: RE03-09-14210
Inj Date : 23-DEC-2009 02:27
Operator : ACJ Inst ID: VOA4.i
Smp Info : |243033003|936119|1|VOAF|1|
Misc Info : LANL 5G N/A
Comment :
Method : /chem/VOA4.i/122209v4/VOA4-8260-121909.m
Meth Date : 24-Dec-2009 16:25 amj Quant Type: ISTD
Cal Date : 20-DEC-2009 02:33 Cal File: 4p618.d
Als bottle: 15
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-940.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	13.60700	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
* 40 Fluorobenzene	96	10.620	10.613	(1.000)	1073268	50.0000	
* 61 Chlorobenzene-d5	117	13.771	13.771	(1.000)	764514	50.0000	
* 86 1,4-Dichlorobenzene-d4	152	16.180	16.173	(1.000)	423991	50.0000	
$ 138 1,2-Dichloroethane-d4	65	10.260	10.259	(0.966)	241153	43.1255	49.9
$ 47 Toluene-d8	98	12.247	12.246	(0.889)	869760	48.0375	55.6
$ 71 Bromofluorobenzene	95	14.954	14.947	(0.924)	401002	58.2447	67.4
10 Acetone	43	7.370	7.357	(0.694)	21289	3.15744	3.6(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

ION RATIO REPORT

VOA REPORT

Data file: 4q215.d
Report Date: 12/23/2009 16:11
Lab. ID: 243033003 SampleType: SAMPLE
Injection Date: 23-DEC-2009 02:27
Operator: ACJ Instrument: VOA4.i
Sample Info: |243033003|936119|1|VOAF|1|
Miscellaneous Info: LANL 5G N/A
Comment:
Method used: /chem/VOA4.i/122209v4/VOA4-8260-121909.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-940
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
10 Acetone			CAS#: 67-64-1			
43	21289	7.37	7.36	80-120	100	( )
58	5150	7.37	7.36	0- 59	24	( )
37 1,2-Dichloroethane			CAS#: 107-06-2			
62	14783	10.61	10.34	80-120	100	(T)
64	2508	10.61	10.34	3- 63	17	(T)
49 4-Methyl-2-pentanone			CAS#: 108-10-1			
58	8414	12.25	12.01	80-120	100	(T)
43	5867	12.25	12.01	254-314	70	(QT)
100	572780	12.25	12.01	0- 60	6807	(QT)
65 Styrene			CAS#: 100-42-5			
104	8199	14.82	14.40	80-120	100	(T)
78	486	14.78	14.40	24- 84	6	(QT)
66 Bromoform			CAS#: 75-25-2			
173	1633	14.96	14.65	80-120	100	(T)
175	26558	14.95	14.65	19- 79	1626	(QT)
74 1,2,3-Trichloropropane			CAS#: 96-18-4			
110	7430	14.82	15.11	80-120	100	(T)
75	18765	14.82	15.11	257-317	253	(QT)
77	1382	14.82	15.11	61-121	19	(QT)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA4.i/122209v4/4q215.d
Lab Smp Id: 243033003 Client Smp ID: RE03-09-14210
Inj Date : 23-DEC-2009 02:27
Operator : ACJ Inst ID: VOA4.i
Smp Info : |243033003|936119|1|VOAF|1|
Misc Info : LANL 5G N/A
Comment :
Method : /chem/VOA4.i/122209v4/VOA4-8260-121909.m
Meth Date : 24-Dec-2009 16:25 amj Quant Type: ISTD
Cal Date : 20-DEC-2009 02:33 Cal File: 4p618.d
Als bottle: 15
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-940.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	13.60700	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 61 Chlorobenzene-d5	13.771	2407370	50.000
* 86 1,4-Dichlorobenzene-d4	16.180	2584210	50.000

	CONCENTRATIONS				QUANT		
RT	AREA	ON-COL(ug/l)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown Siloxane					CAS #:		
14.826	5068879	105.278305	122	0		0	61

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ug/l)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
====	====	==========	==========	====	========	==========	======
Unknown Siloxane				CAS #:			
16.789	675979	13.0790310	15.1	0		0	86

Data File: /chem/VOA4.i/122209v4/4q215.d
Date : 23-DEC-2009 02:27
Client ID: RE03-09-14210
Sample Info: |2430330031936119|1|VOAF|1|

Column phase: RTX-VOLATILES

Instrument: VOA4.i

Operator: ACJ
Column diameter: 0.25

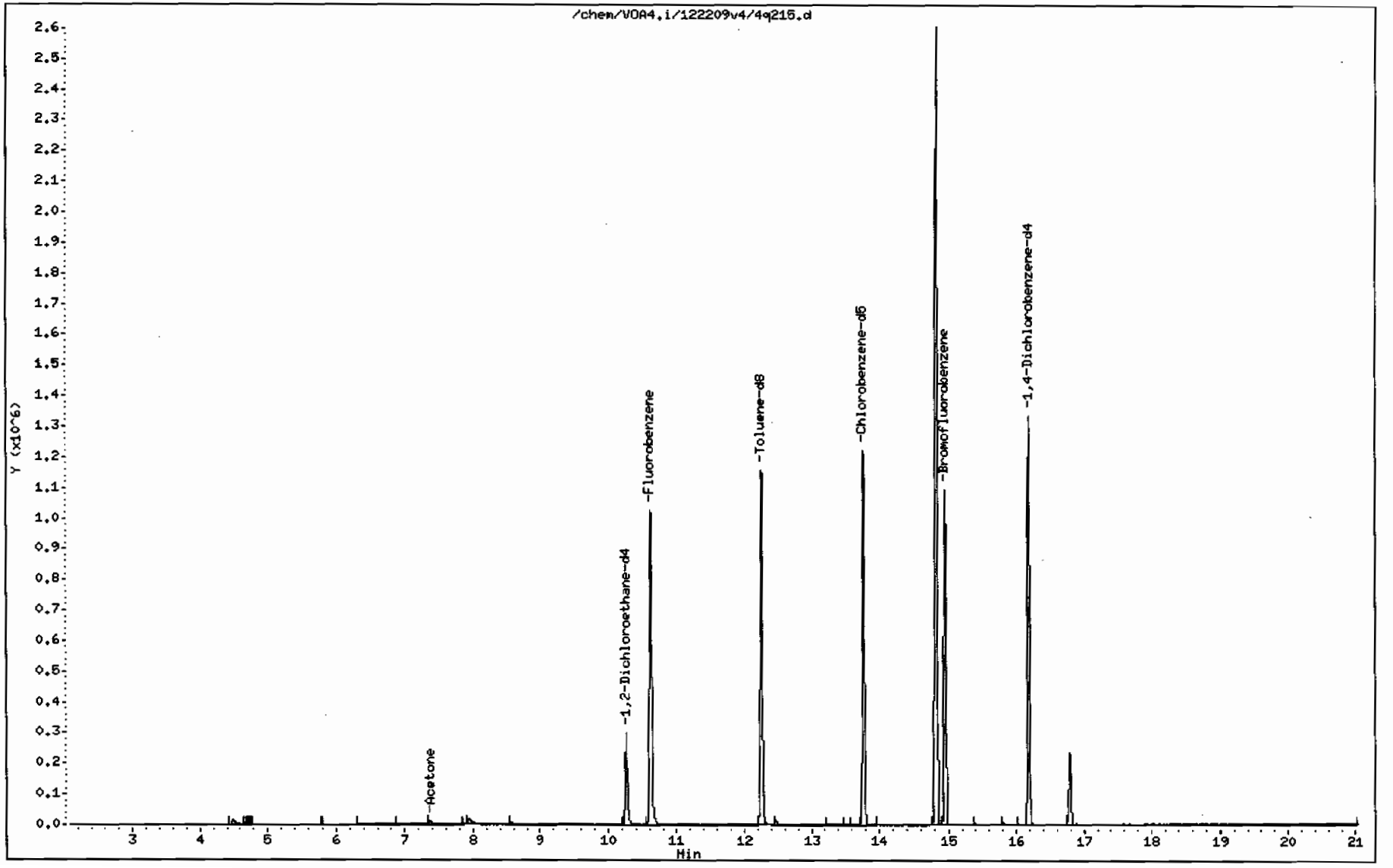

Data File: /chem/VOA4.i/122209v4/4q215.d

Page 2

Date : 23-DEC-2009 02:27

Client ID: RE03-09-14210

Instrument: VOA4.i

Sample Info: |2430330031936119|1|VOAF|1|

Operator: ACJ

Column phase: RTX-VOLATILES

Column diameter: 0.25

10 Acetone

Concentration: 3.6 ug/Kg

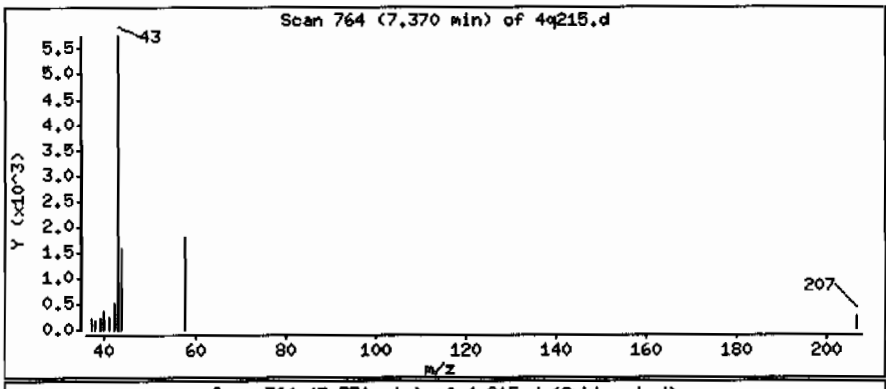

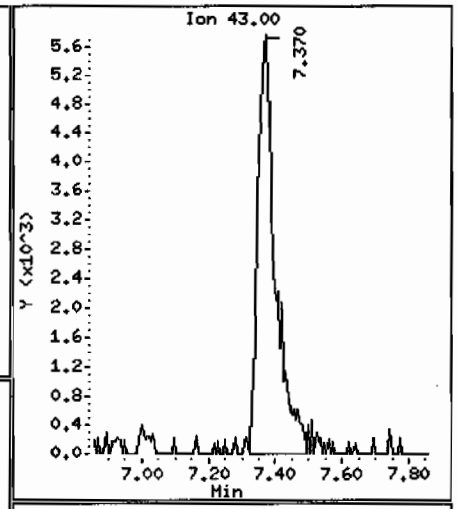

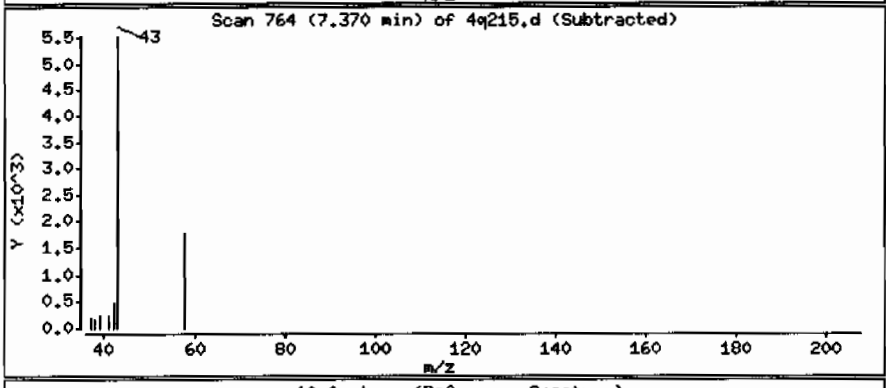

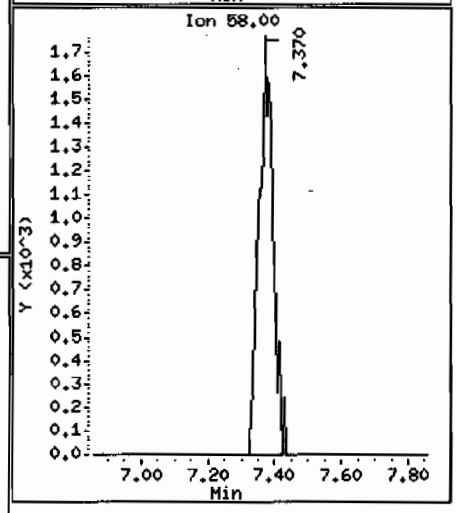

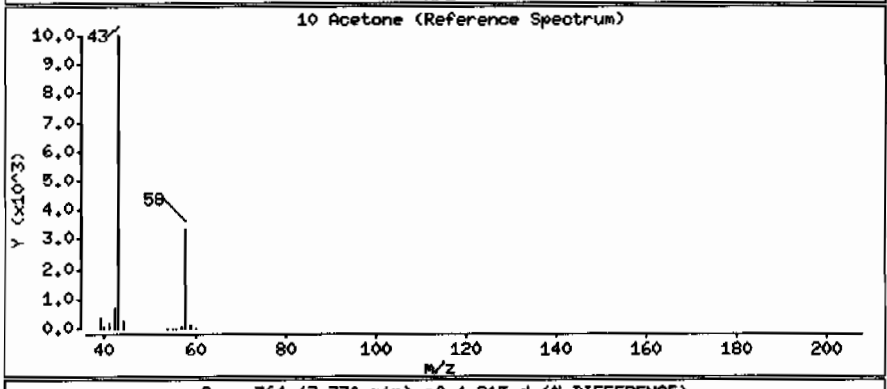

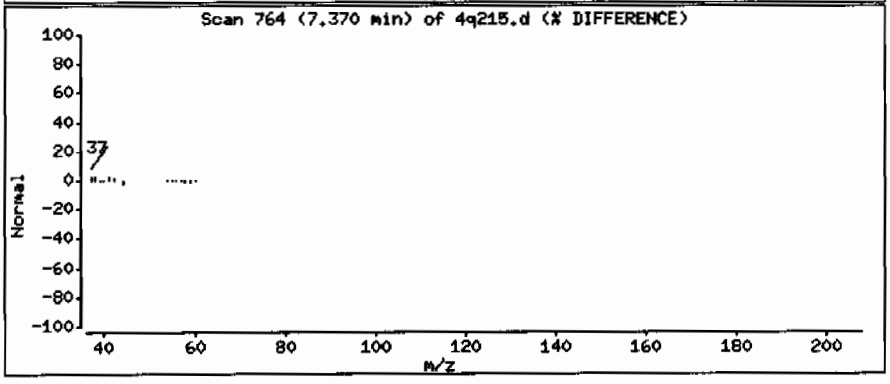

Data File: /chem/VOA4.i/122209v4/4q215.d

Date : 23-DEC-2009 02:27

Client ID: RE03-09-14210

Instrument: VOA4.i

Sample Info: |2430330031936119|1|VOAF|1|

Operator: ACJ

Column phase: RTX-VOLATILES

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Siloxane						
Cyclotetrasiloxane, octamethyl-	556-67-2	NIST05.L	122480	90	C8H24O4Si4	296
Cyclotetrasiloxane, octamethyl-	556-67-2	NIST05.L	122481	86	C8H24O4Si4	296
7H-Dibenzo[b,g]carbazole, 7-methyl-	3557-49-1	NIST05.L	112705	59	C21H15N	281

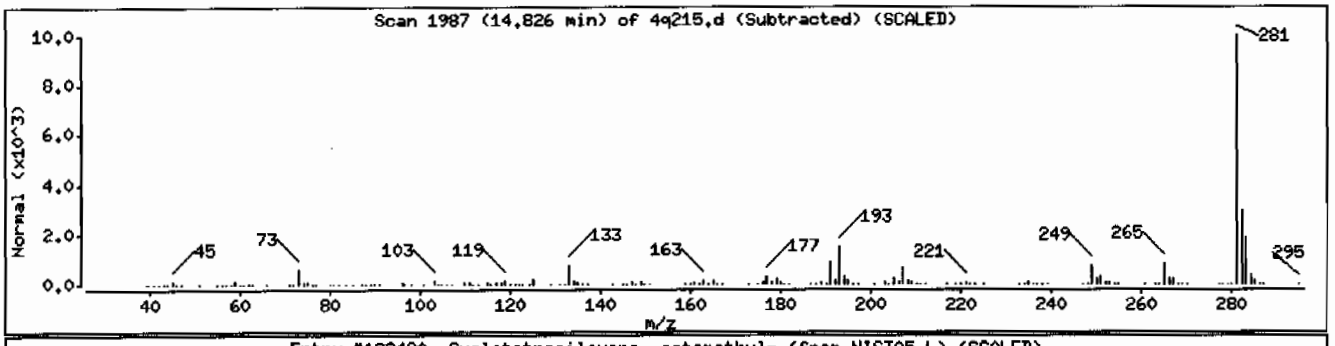

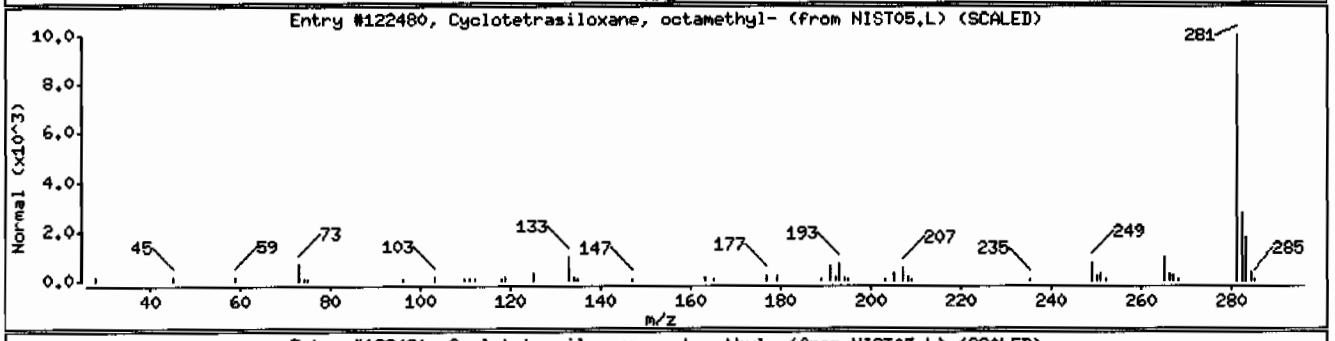

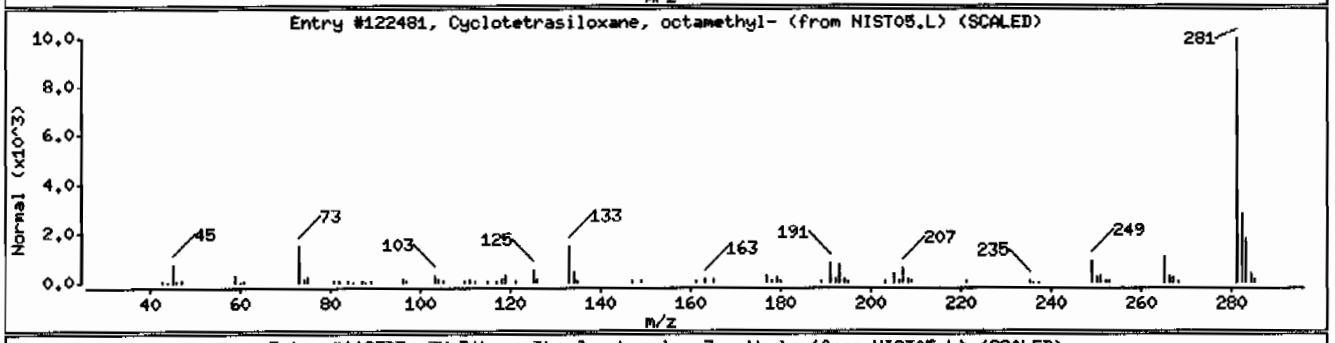

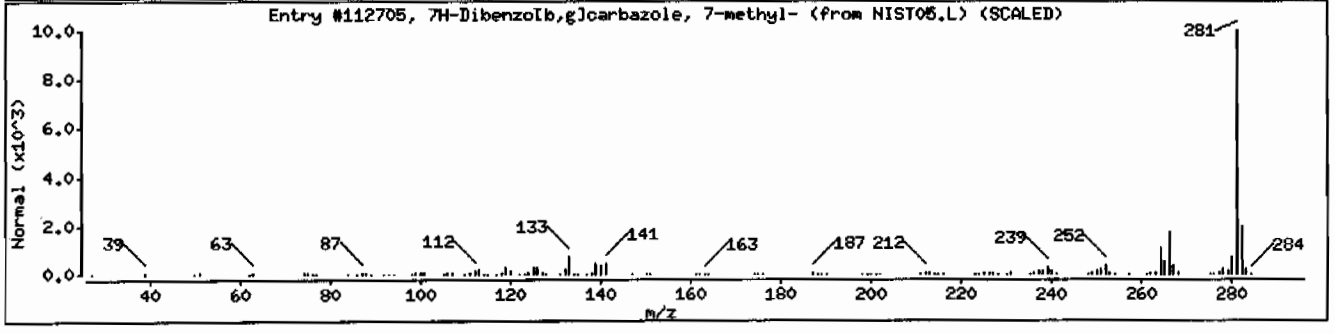

Data File: /chem/VOA4.i/122209v4/4q215.d

Date : 23-DEC-2009 02:27

Client ID: RE03-09-14210 Instrument: VOA4.i

Sample Info: |2430330031936119|1|VOAF|1|

Operator: ACJ

Column phase: RTX-VOLATILES Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Siloxane						
Benzoic acid, 2-[(trimethylsilyl)oxy]-,	3789-85-3	NIST05.L	112909	72	C13H22O3Si2	282
Benzeneethanamine, N-[(pentafluorophenyl	55429-86-1	NIST05.L	182554	43	C21H26F5N02Si	475
11H-Dibenzo[b,e][1,4]diazepin-11-one, 5-	13450-73-2	NIST05.L	103364	43	C16H17N30	267

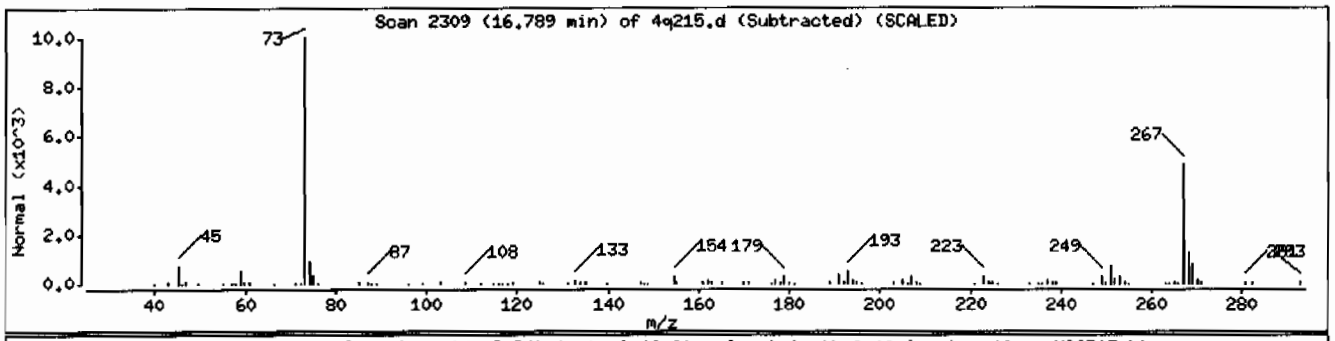

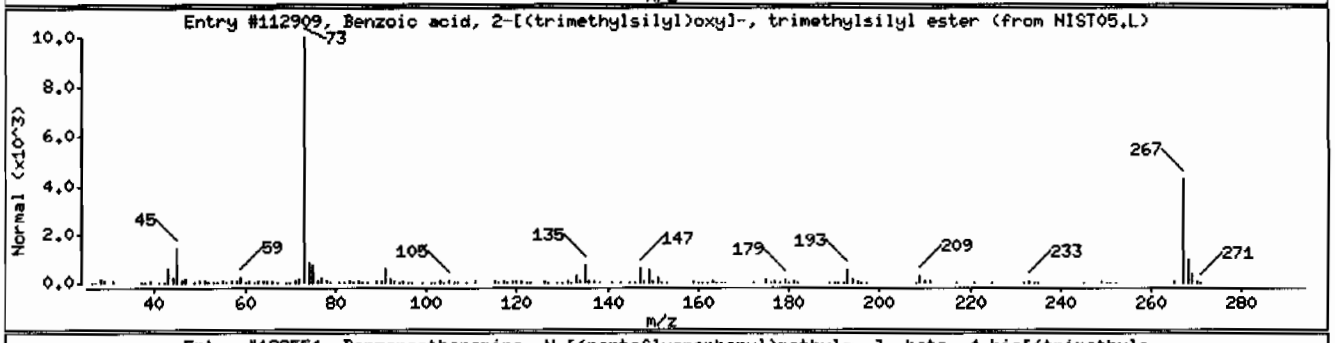

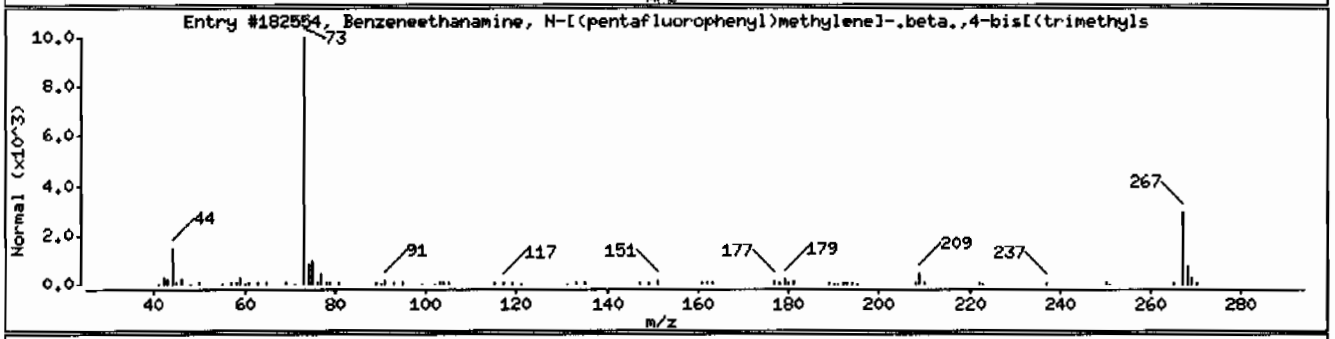

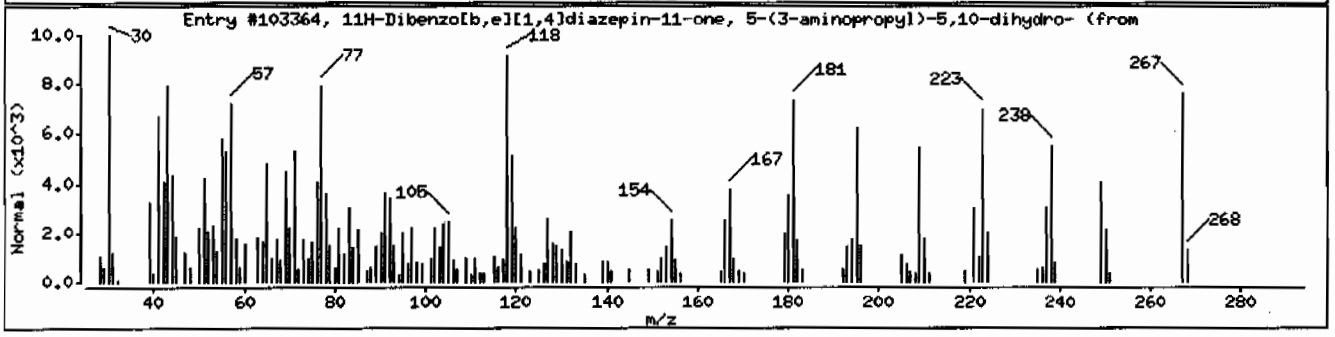

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-940	**Date Collected:**	12/14/2009 12:00	**Matrix:**	S
Lab Sample ID:	243033002	**Date Received:**	12/16/2009 09:10	**%Moisture:**	14.3
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14211	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	936119	**Inst:**	VOA4.I	**Dilution:**	1
Run Date:	12/23/2009 01:59	**Analyst:**	ACJ	**Purge Vol:**	5 mL
Prep Date:	12/22/2009 22:43	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	4q214.d	**Column:**	RTX-VOLATILES	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.17	ug/kg	0.397	1.17
74-87-3	Chloromethane	U	1.17	ug/kg	0.350	1.17
75-01-4	Vinyl chloride	U	1.17	ug/kg	0.350	1.17
74-83-9	Bromomethane	U	1.17	ug/kg	0.350	1.17
75-00-3	Chloroethane	U	1.17	ug/kg	0.350	1.17
75-69-4	Trichlorofluoromethane	U	1.17	ug/kg	0.350	1.17
67-64-1	Acetone	J	3.09	ug/kg	1.94	5.84
75-35-4	1,1-Dichloroethylene	U	1.17	ug/kg	0.350	1.17
74-88-4	Iodomethane	U	5.84	ug/kg	1.87	5.84
75-09-2	Methylene chloride	U	5.84	ug/kg	2.33	5.84
75-15-0	Carbon disulfide	U	5.84	ug/kg	1.46	5.84
156-60-5	trans-1,2-Dichloroethylene	U	1.17	ug/kg	0.350	1.17
75-34-3	1,1-Dichloroethane	U	1.17	ug/kg	0.350	1.17
78-93-3	2-Butanone	U	5.84	ug/kg	1.75	5.84
156-59-2	cis-1,2-Dichloroethylene	U	1.17	ug/kg	0.350	1.17
594-20-7	2,2-Dichloropropane	U	1.17	ug/kg	0.350	1.17
67-66-3	Chloroform	U	1.17	ug/kg	0.350	1.17
74-97-5	Bromochloromethane	U	1.17	ug/kg	0.385	1.17
71-55-6	1,1,1-Trichloroethane	U	1.17	ug/kg	0.350	1.17
563-58-6	1,1-Dichloropropene	U	1.17	ug/kg	0.350	1.17
56-23-5	Carbon tetrachloride	U	1.17	ug/kg	0.350	1.17
107-06-2	1,2-Dichloroethane	U	1.17	ug/kg	0.350	1.17
71-43-2	Benzene	U	1.17	ug/kg	0.350	1.17
79-01-6	Trichloroethylene	U	1.17	ug/kg	0.385	1.17
78-87-5	1,2-Dichloropropane	U	1.17	ug/kg	0.350	1.17
75-27-4	Bromodichloromethane	U	1.17	ug/kg	0.350	1.17
74-95-3	Dibromomethane	U	1.17	ug/kg	0.350	1.17
108-10-1	4-Methyl-2-pentanone	U	5.84	ug/kg	1.46	5.84
10061-01-5	cis-1,3-Dichloropropylene	U	1.17	ug/kg	0.350	1.17
108-88-3	Toluene	U	1.17	ug/kg	0.350	1.17
10061-02-6	trans-1,3-Dichloropropylene	U	1.17	ug/kg	0.350	1.17
79-00-5	1,1,2-Trichloroethane	U	1.17	ug/kg	0.350	1.17
591-78-6	2-Hexanone	U	5.84	ug/kg	1.75	5.84
142-28-9	1,3-Dichloropropane	U	1.17	ug/kg	0.350	1.17
127-18-4	Tetrachloroethylene	U	1.17	ug/kg	0.350	1.17
124-48-1	Dibromochloromethane	U	1.17	ug/kg	0.350	1.17
106-93-4	1,2-Dibromoethane	U	1.17	ug/kg	0.350	1.17
108-90-7	Chlorobenzene	U	1.17	ug/kg	0.350	1.17

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-940	**Date Collected:**	12/14/2009 12:00	**Matrix:**	S
Lab Sample ID:	243033002	**Date Received:**	12/16/2009 09:10	**%Moisture:**	14.3
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14211	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	936119	**Inst:**	VOA4.I	**Dilution:**	1
Run Date:	12/23/2009 01:59	**Analyst:**	ACJ	**Purge Vol:**	5 mL
Prep Date:	12/22/2009 22:43	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	4q214.d	**Column:**	RTX-VOLATILES	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.17	ug/kg	0.350	1.17
179601-23-1	m,p-Xylenes	U	2.33	ug/kg	0.350	2.33
95-47-6	o-Xylene	U	1.17	ug/kg	0.350	1.17
100-42-5	Styrene	U	1.17	ug/kg	0.350	1.17
75-25-2	Bromoform	U	1.17	ug/kg	0.350	1.17
79-34-5	1,1,2,2-Tetrachloroethane	U	1.17	ug/kg	0.350	1.17
96-18-4	1,2,3-Trichloropropane	U	1.17	ug/kg	0.350	1.17
108-86-1	Bromobenzene	U	1.17	ug/kg	0.350	1.17
103-65-1	n-Propylbenzene	U	1.17	ug/kg	0.350	1.17
95-49-8	2-Chlorotoluene	U	1.17	ug/kg	0.350	1.17
98-82-8	Isopropylbenzene	U	1.17	ug/kg	0.350	1.17
108-67-8	1,3,5-Trimethylbenzene	U	1.17	ug/kg	0.350	1.17
106-43-4	4-Chlorotoluene	U	1.17	ug/kg	0.350	1.17
98-06-6	tert-Butylbenzene	U	1.17	ug/kg	0.350	1.17
95-63-6	1,2,4-Trimethylbenzene	U	1.17	ug/kg	0.350	1.17
135-98-8	sec-Butylbenzene	U	1.17	ug/kg	0.350	1.17
99-87-6	4-Isopropyltoluene	U	1.17	ug/kg	0.350	1.17
541-73-1	1,3-Dichlorobenzene	U	1.17	ug/kg	0.350	1.17
106-46-7	1,4-Dichlorobenzene	U	1.17	ug/kg	0.350	1.17
104-51-8	n-Butylbenzene	U	1.17	ug/kg	0.350	1.17
96-12-8	1,2-Dibromo-3-chloropropane	U	1.17	ug/kg	0.350	1.17
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.84	ug/kg	1.87	5.84
630-20-6	1,1,1,2-Tetrachloroethane	U	1.17	ug/kg	0.350	1.17
95-50-1	1,2-Dichlorobenzene	U	1.17	ug/kg	0.350	1.17

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Siloxane	14.83	I9.6	ug/kg		J

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA4.i/122209v4/4q214.d
Lab Smp Id: 243033002 Client Smp ID: RE03-09-14211
Inj Date : 23-DEC-2009 01:59
Operator : ACJ Inst ID: VOA4.i
Smp Info : |243033002|936119|1|VOAF|1|
Misc Info : LANL 5G N/A
Comment :
Method : /chem/VOA4.i/122209v4/VOA4-8260-121909.m
Meth Date : 24-Dec-2009 16:25 amj Quant Type: ISTD
Cal Date : 20-DEC-2009 02:33 Cal File: 4p618.d
Als bottle: 14
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-940.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	14.32160	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
* 40 Fluorobenzene	96	10.619	10.613	(1.000)	1068077	50.0000	
* 61 Chlorobenzene-d5	117	13.771	13.771	(1.000)	759986	50.0000	
* 86 1,4-Dichlorobenzene-d4	152	16.179	16.173	(1.000)	430179	50.0000	
$ 138 1,2-Dichloroethane-d4	65	10.259	10.259	(0.966)	242898	43.6486	50.9
$ 47 Toluene-d8	98	12.253	12.246	(0.890)	878530	48.8110	57.0
$ 71 Bromofluorobenzene	95	14.953	14.947	(0.924)	392806	56.2335	65.6
10 Acetone	43	7.375	7.357	(0.695)	17738	2.64357	3.1(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

ION RATIO REPORT

VOA REPORT

Data file: 4q214.d
Report Date: 12/23/2009 16:10
Lab. ID: 243033002 SampleType: SAMPLE
Injection Date: 23-DEC-2009 01:59
Operator: ACJ Instrument: VOA4.i
Sample Info: |243033002|936119|1|VOAF|1|
Miscellaneous Info: LANL 5G N/A
Comment:
Method used: /chem/VOA4.i/122209v4/VOA4-8260-121909.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-940
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
10 Acetone			CAS#: 67-64-1			
43	17738	7.38	7.36	80-120	100	( )
58	3450	7.37	7.36	0- 59	19	( )
37 1,2-Dichloroethane			CAS#: 107-06-2			
62	15131	10.62	10.34	80-120	100	(T)
64	2692	10.61	10.34	3- 63	18	(T)
49 4-Methyl-2-pentanone			CAS#: 108-10-1			
58	8579	12.25	12.01	80-120	100	(T)
43	5674	12.25	12.01	254-314	66	(QT)
100	575444	12.25	12.01	0- 60	6707	(QT)
66 Bromoform			CAS#: 75-25-2			
173	1970	14.95	14.65	80-120	100	(T)
175	26206	14.95	14.65	19- 79	1330	(QT)
74 1,2,3-Trichloropropane			CAS#: 96-18-4			
110	1751	14.83	15.11	80-120	100	(T)
75	3401	14.82	15.11	257-317	194	(QT)
77	174	14.78	15.11	61-121	10	(QT)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA4.i/122209v4/4q214.d
Lab Smp Id: 243033002 Client Smp ID: RE03-09-14211
Inj Date : 23-DEC-2009 01:59
Operator : ACJ Inst ID: VOA4.i
Smp Info : |243033002|936119|1|VOAF|1|
Misc Info : LANL 5G N/A
Comment :
Method : /chem/VOA4.i/122209v4/VOA4-8260-121909.m
Meth Date : 24-Dec-2009 16:25 amj Quant Type: ISTD
Cal Date : 20-DEC-2009 02:33 Cal File: 4p618.d
Als bottle: 14
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-940.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	14.32160	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 61 Chlorobenzene-d5	13.771	2438592	50.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ug/l)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown Siloxane				CAS #:			
14.825	818451	16.7812127	19.6	0		0	61(L)

QC Flag Legend

L - Operator selected an alternate library search match.

Data File: /chem/VOA4.i/122209v4/4q214.d
Date : 23-DEC-2009 01:59
Client ID: RE03-09-14211
Sample Info: |2430330021936119|1|VOAF|1|

Column phase: RTX-VOLATILES

Instrument: VOA4.i

Operator: ACJ
Column diameter: 0.25

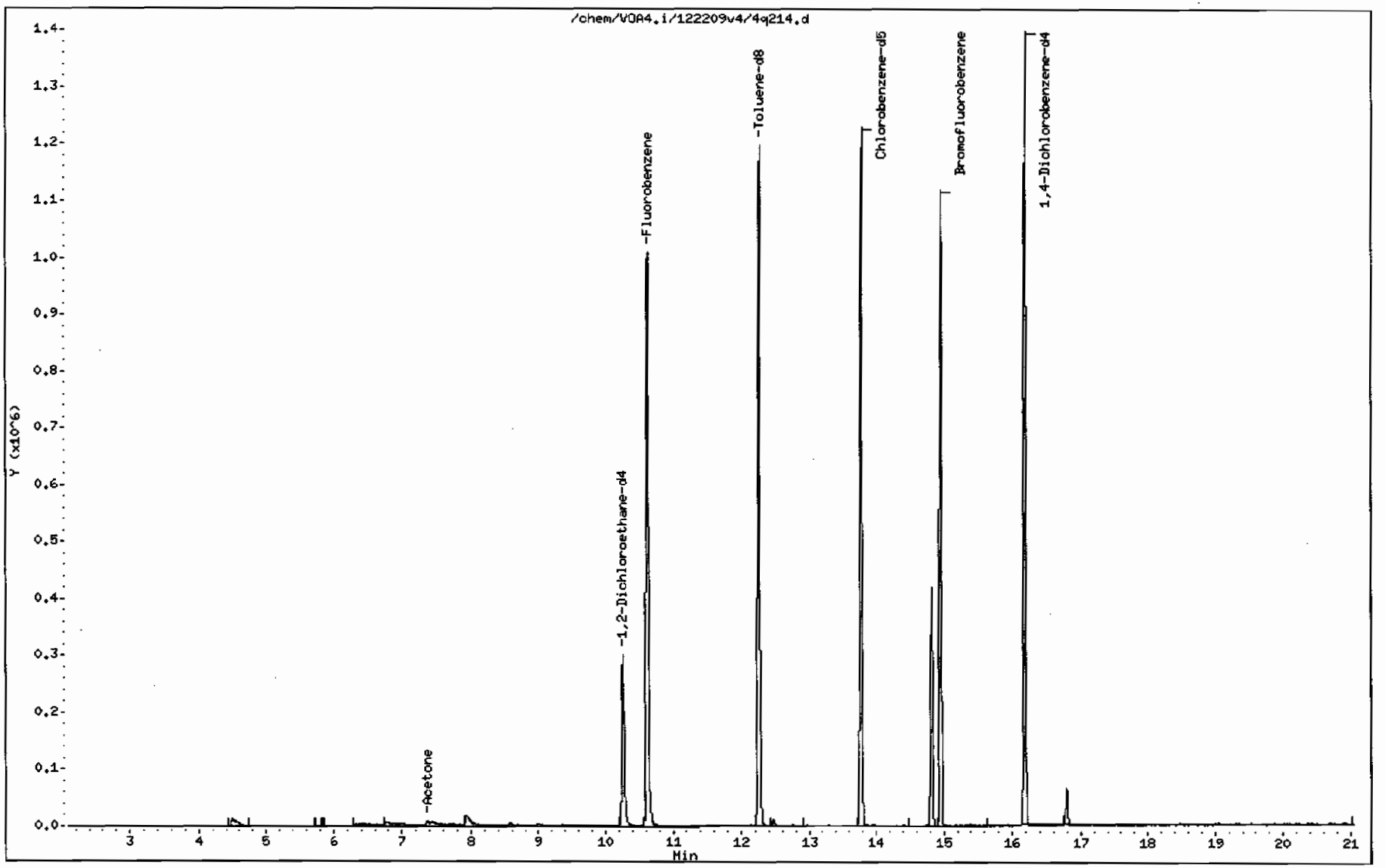

Data File: /chem/VOA4.i/122209v4/4q214.d

Date : 23-DEC-2009 01:59

Client ID: RE03-09-14211

Instrument: VOA4.i

Sample Info: |2430330021936119|1|VOAF|1|

Operator: ACJ

Column phase: RTX-VOLATILES

Column diameter: 0.25

10 Acetone

Concentration: 3.1 ug/Kg

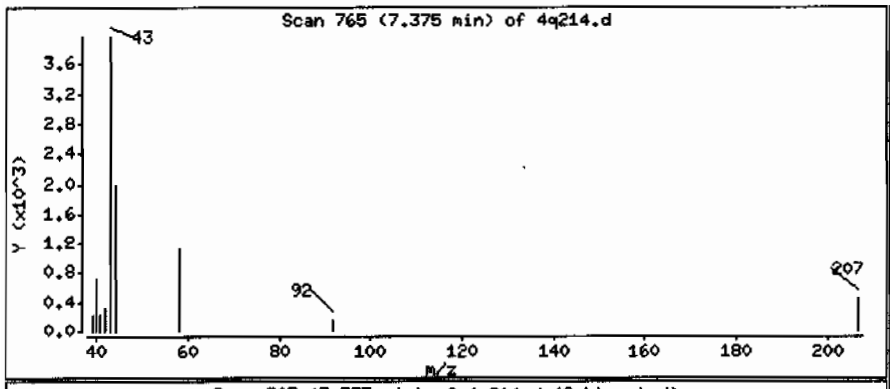

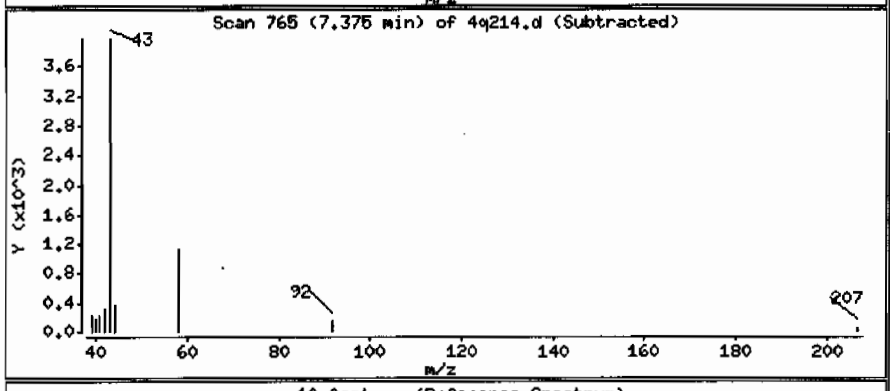

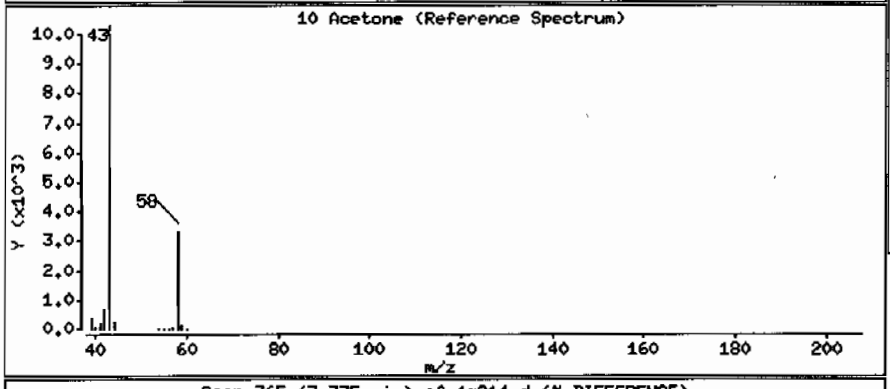

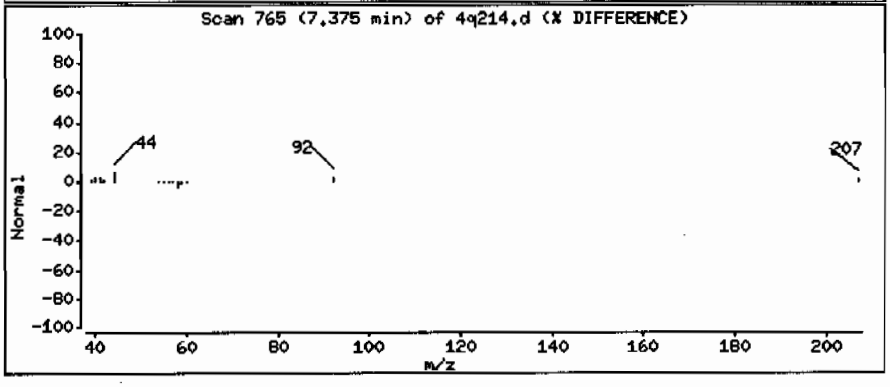

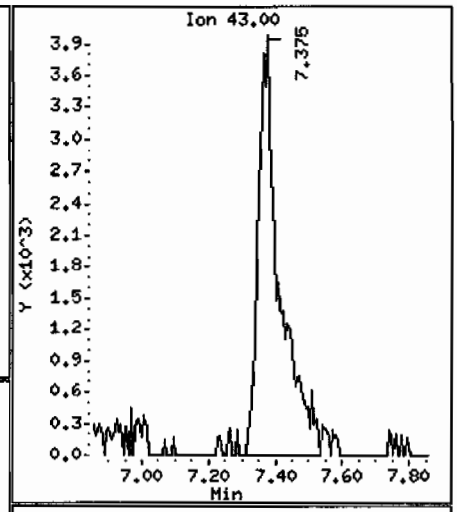

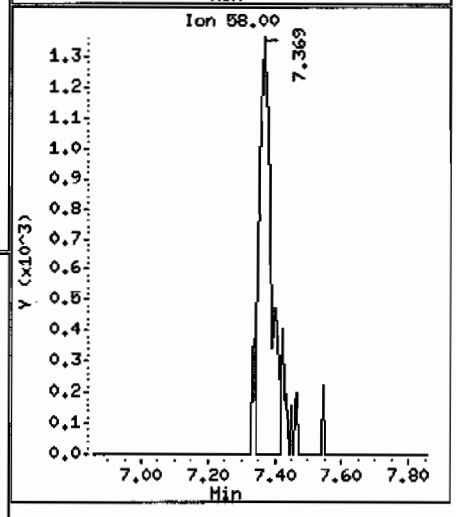

Data File: /chem/VOA4.i/122209v4/4q214.d

Date : 23-DEC-2009 01:59

Client ID: RE03-09-14211

Instrument: VOA4.i

Sample Info: |2430330021936119111VOAF|1|

Operator: ACJ

Column phase: RTX-VOLATILES

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Siloxane						
Cyclotetrasiloxane, octamethyl-	556-67-2	NIST05.L	122481	37	C8H24O4Si4	296
7H-Dibenzo[b,g]carbazole, 7-methyl-	3557-49-1	NIST05.L	112705	59	C21H15N	281
4H-1,2,4-Triazole-3-thiol, 4-allyl-5-(1-	31803-13-1	NIST05.L	112550	53	C16H15N3S	281

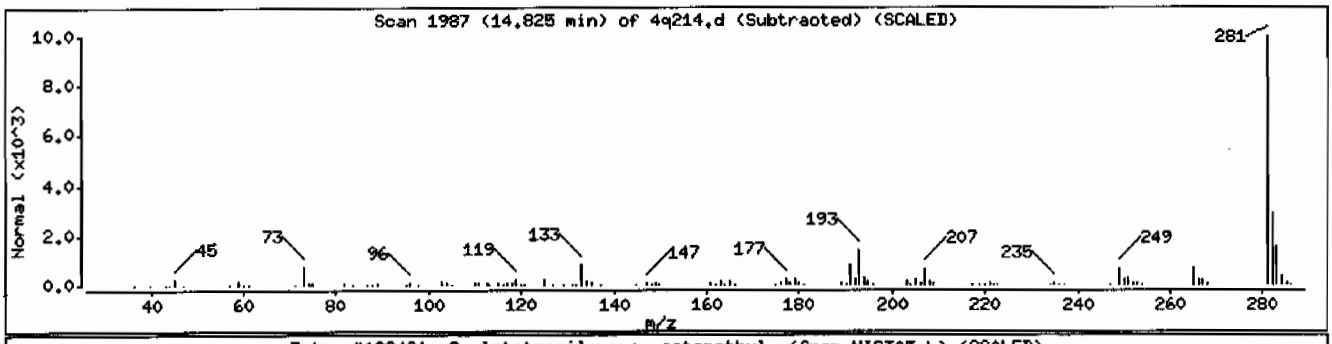

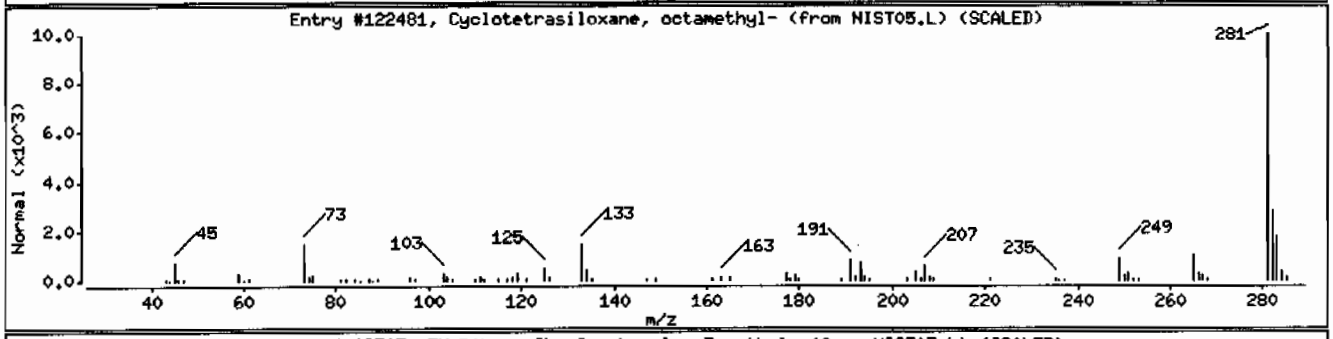

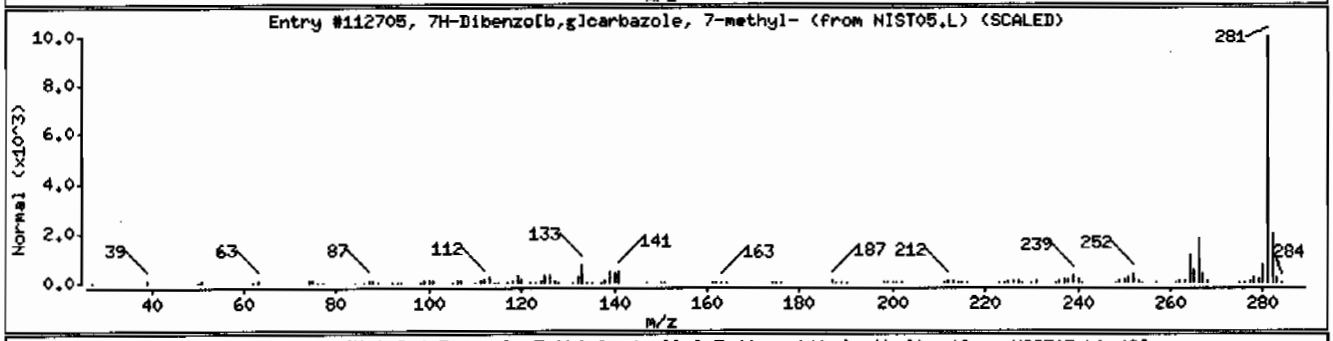

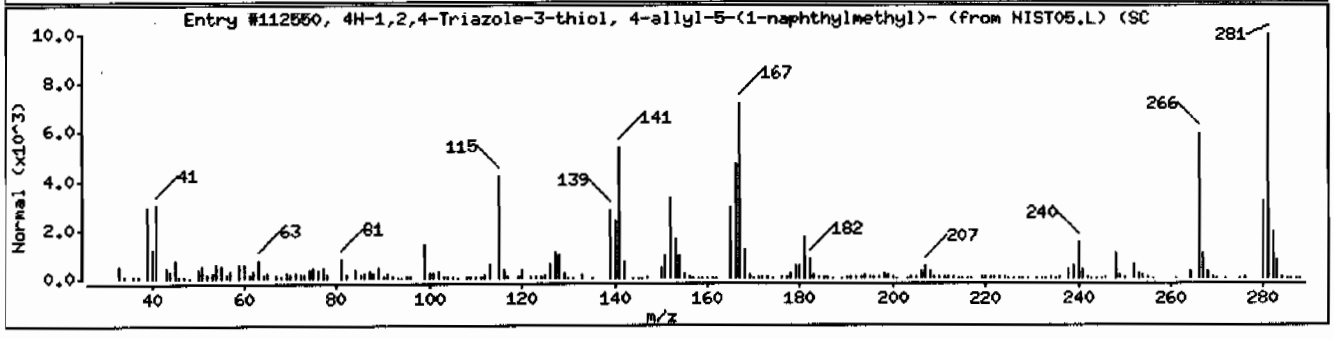

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-940	**Date Collected:**	12/14/2009 12:00	**Matrix:**	S
Lab Sample ID:	243033008	**Date Received:**	12/16/2009 09:10	**%Moisture:**	15.6
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14220	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	936119	**Inst:**	VOA4.I	**Dilution:**	1
Run Date:	12/23/2009 04:42	**Analyst:**	ACJ	**Purge Vol:**	5 mL
Prep Date:	12/22/2009 22:49	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	4q220.d	**Column:**	RTX-VOLATILES	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.18	ug/kg	0.403	1.18
74-87-3	Chloromethane	U	1.18	ug/kg	0.355	1.18
75-01-4	Vinyl chloride	U	1.18	ug/kg	0.355	1.18
74-83-9	Bromomethane	U	1.18	ug/kg	0.355	1.18
75-00-3	Chloroethane	U	1.18	ug/kg	0.355	1.18
75-69-4	Trichlorofluoromethane	U	1.18	ug/kg	0.355	1.18
67-64-1	Acetone	J	2.03	ug/kg	1.97	5.92
75-35-4	1,1-Dichloroethylene	U	1.18	ug/kg	0.355	1.18
74-88-4	Iodomethane	U	5.92	ug/kg	1.89	5.92
75-09-2	Methylene chloride	U	5.92	ug/kg	2.37	5.92
75-15-0	Carbon disulfide	U	5.92	ug/kg	1.48	5.92
156-60-5	trans-1,2-Dichloroethylene	U	1.18	ug/kg	0.355	1.18
75-34-3	1,1-Dichloroethane	U	1.18	ug/kg	0.355	1.18
78-93-3	2-Butanone	U	5.92	ug/kg	1.78	5.92
156-59-2	cis-1,2-Dichloroethylene	J	0.926	ug/kg	0.355	1.18
594-20-7	2,2-Dichloropropane	U	1.18	ug/kg	0.355	1.18
67-66-3	Chloroform	U	1.18	ug/kg	0.355	1.18
74-97-5	Bromochloromethane	U	1.18	ug/kg	0.391	1.18
71-55-6	1,1,1-Trichloroethane	U	1.18	ug/kg	0.355	1.18
563-58-6	1,1-Dichloropropene	U	1.18	ug/kg	0.355	1.18
56-23-5	Carbon tetrachloride	U	1.18	ug/kg	0.355	1.18
107-06-2	1,2-Dichloroethane	U	1.18	ug/kg	0.355	1.18
71-43-2	Benzene	J	0.707	ug/kg	0.355	1.18
79-01-6	Trichloroethylene	J	0.446	ug/kg	0.391	1.18
78-87-5	1,2-Dichloropropane	U	1.18	ug/kg	0.355	1.18
75-27-4	Bromodichloromethane	U	1.18	ug/kg	0.355	1.18
74-95-3	Dibromomethane	U	1.18	ug/kg	0.355	1.18
108-10-1	4-Methyl-2-pentanone	U	5.92	ug/kg	1.48	5.92
10061-01-5	cis-1,3-Dichloropropylene	U	1.18	ug/kg	0.355	1.18
108-88-3	Toluene	J	0.767	ug/kg	0.355	1.18
10061-02-6	trans-1,3-Dichloropropylene	U	1.18	ug/kg	0.355	1.18
79-00-5	1,1,2-Trichloroethane	U	1.18	ug/kg	0.355	1.18
591-78-6	2-Hexanone	U	5.92	ug/kg	1.78	5.92
142-28-9	1,3-Dichloropropane	U	1.18	ug/kg	0.355	1.18
127-18-4	Tetrachloroethylene	U	1.18	ug/kg	0.355	1.18
124-48-1	Dibromochloromethane	U	1.18	ug/kg	0.355	1.18
106-93-4	1,2-Dibromoethane	U	1.18	ug/kg	0.355	1.18
108-90-7	Chlorobenzene	U	1.18	ug/kg	0.355	1.18

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-940	**Date Collected:**	12/14/2009 12:00	**Matrix:**	S
Lab Sample ID:	243033008	**Date Received:**	12/16/2009 09:10	**%Moisture:**	15.6
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14220	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	936119	**Inst:**	VOA4.I	**Dilution:**	1
Run Date:	12/23/2009 04:42	**Analyst:**	ACJ	**Purge Vol:**	5 mL
Prep Date:	12/22/2009 22:49	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	4q220.d	**Column:**	RTX-VOLATILES	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.18	ug/kg	0.355	1.18
179601-23-1	m,p-Xylenes	J	0.565	ug/kg	0.355	2.37
95-47-6	o-Xylene	U	1.18	ug/kg	0.355	1.18
100-42-5	Styrene	U	1.18	ug/kg	0.355	1.18
75-25-2	Bromoform	U	1.18	ug/kg	0.355	1.18
79-34-5	1,1,2,2-Tetrachloroethane	U	1.18	ug/kg	0.355	1.18
96-18-4	1,2,3-Trichloropropane	U	1.18	ug/kg	0.355	1.18
108-86-1	Bromobenzene	U	1.18	ug/kg	0.355	1.18
103-65-1	n-Propylbenzene	U	1.18	ug/kg	0.355	1.18
95-49-8	2-Chlorotoluene	U	1.18	ug/kg	0.355	1.18
98-82-8	Isopropylbenzene	U	1.18	ug/kg	0.355	1.18
108-67-8	1,3,5-Trimethylbenzene	J	0.396	ug/kg	0.355	1.18
106-43-4	4-Chlorotoluene	U	1.18	ug/kg	0.355	1.18
98-06-6	tert-Butylbenzene	U	1.18	ug/kg	0.355	1.18
95-63-6	1,2,4-Trimethylbenzene	J	0.662	ug/kg	0.355	1.18
135-98-8	sec-Butylbenzene	U	1.18	ug/kg	0.355	1.18
99-87-6	4-Isopropyltoluene	U	1.18	ug/kg	0.355	1.18
541-73-1	1,3-Dichlorobenzene	U	1.18	ug/kg	0.355	1.18
106-46-7	1,4-Dichlorobenzene	U	1.18	ug/kg	0.355	1.18
104-51-8	n-Butylbenzene	U	1.18	ug/kg	0.355	1.18
96-12-8	1,2-Dibromo-3-chloropropane	U	1.18	ug/kg	0.355	1.18
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.92	ug/kg	1.89	5.92
630-20-6	1,1,1,2-Tetrachloroethane	U	1.18	ug/kg	0.355	1.18
95-50-1	1,2-Dichlorobenzene	U	1.18	ug/kg	0.355	1.18

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Siloxane	14.83	49.1	ug/kg		J
	Unknown Siloxane	16.79	132	ug/kg		J

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA4.i/122209v4/4q220.d
Lab Smp Id: 243033008 Client Smp ID: RE03-09-14220
Inj Date : 23-DEC-2009 04:42
Operator : ACJ Inst ID: VOA4.i
Smp Info : |243033008|936119|1|VOAF|1|
Misc Info : LANL 5G N/A
Comment :
Method : /chem/VOA4.i/122209v4/VOA4-8260-121909.m
Meth Date : 24-Dec-2009 16:25 amj Quant Type: ISTD
Cal Date : 20-DEC-2009 02:33 Cal File: 4p618.d
Als bottle: 20
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-940.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	15.56720	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
* 40 Fluorobenzene	96	10.614	10.613	(1.000)	1002922	50.0000	
* 61 Chlorobenzene-d5	117	13.771	13.771	(1.000)	632663	50.0000	
* 86 1,4-Dichlorobenzene-d4	152	16.180	16.173	(1.000)	252100	50.0000	
$ 138 1,2-Dichloroethane-d4	65	10.260	10.259	(0.967)	223198	42.7142	50.6
$ 47 Toluene-d8	98	12.247	12.246	(0.889)	794102	52.9993	62.8
$ 71 Bromofluorobenzene	95	14.954	14.947	(0.924)	273429	66.7941	79.1(R)
10 Acetone	43	7.370	7.357	(0.694)	10784	1.71160	2.0(a)
31 cis-1,2-Dichloroethylene	61	9.388	9.381	(0.885)	8261	0.78149	0.92(a)
38 Benzene	78	10.370	10.369	(0.977)	14858	0.59720	0.71(a)
39 Trichloroethylene	95	10.998	11.003	(1.036)	2314	0.37643	0.44(a)
50 Toluene	92	12.327	12.320	(0.895)	8127	0.64774	0.77(a)
63 m,p-Xylenes	106	13.967	13.972	(1.014)	4552	0.47670	0.56(a)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
78 1,3,5-Trimethylbenzene	105	15.326	15.331	(0.947)	4928	0.33446	0.40(a)
79 1,2,4-Trimethylbenzene	105	15.741	15.740	(0.973)	8662	0.55923	0.66(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
R - Spike/Surrogate failed recovery limits.

ION RATIO REPORT

VOA REPORT

Data file: 4q220.d
Report Date: 12/23/2009 16:11
Lab. ID: 243033008 SampleType: SAMPLE
Injection Date: 23-DEC-2009 04:42
Operator: ACJ Instrument: VOA4.i
Sample Info: |243033008|936119|1|VOAF|1|
Miscellaneous Info: LANL 5G N/A
Comment:
Method used: /chem/VOA4.i/122209v4/VOA4-8260-121909.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-940
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
10 Acetone		CAS#: 67-64-1				
43	10784	7.37	7.36	80-120	100	( )
58	2501	7.38	7.36	0- 59	23	( )
31 cis-1,2-Dichloroethylene				CAS#: 156-59-2		
61	8261	9.39	9.38	80-120	100	( )
96	5627	9.39	9.39	33- 93	68	( )
98	3980	9.38	9.39	11- 71	48	( )
37 1,2-Dichloroethane				CAS#: 107-06-2		
62	14235	10.62	10.34	80-120	100	(T)
64	2407	10.62	10.34	3- 63	17	(T)
38 Benzene		CAS#: 71-43-2				
78	14858	10.37	10.37	80-120	100	( )
77	3022	10.37	10.37	0- 52	20	( )
51	3406	10.37	10.37	0- 54	23	( )
39 Trichloroethylene				CAS#: 79-01-6		
95	2314	11.00	11.00	80-120	100	( )
97	1186	11.00	11.00	38- 98	51	( )
130	2065	11.00	11.00	72-132	89	( )
49 4-Methyl-2-pentanone				CAS#: 108-10-1		
58	7908	12.25	12.01	80-120	100	(T)
43	4752	12.25	12.01	254-314	60	(QT)
100	522268	12.25	12.01	0- 60	6604	(QT)

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
50 Toluene			CAS#: 108-88-3			
92	8127	12.33	12.32	80-120	100	( )
91	14029	12.33	12.32	139-199	173	( )
58 Ethylbenzene			CAS#: 100-41-4			
91	8997	13.97	13.86	80-120	100	(T)
106	4552	13.97	13.86	2- 62	51	(T)
64 o-Xylene			CAS#: 95-47-6			
106	4552	13.97	14.40	80-120	100	(T)
91	8997	13.97	14.40	178-238	198	(T)
63 m,p-Xylenes			CAS#: 179601-23-1			
106	4552	13.97	13.97	80-120	100	( )
91	8997	13.97	13.97	166-226	198	( )
66 Bromoform			CAS#: 75-25-2			
173	1347	14.96	14.65	80-120	100	(T)
175	17820	14.95	14.65	19- 79	1322	(QT)
74 1,2,3-Trichloropropane			CAS#: 96-18-4			
110	2549	14.82	15.11	80-120	100	(T)
75	6376	14.82	15.11	257-317	250	(QT)
77	547	14.79	15.11	61-121	21	(QT)
78 1,3,5-Trimethylbenzene			CAS#: 108-67-8			
105	4928	15.33	15.33	80-120	100	( )
120	1982	15.33	15.33	19- 79	40	( )
79 1,2,4-Trimethylbenzene			CAS#: 95-63-6			
105	8662	15.74	15.74	80-120	100	( )
120	4036	15.75	15.74	17- 77	47	( )
81 tert-Butylbenzene			CAS#: 98-06-6			
119	6236	15.98	15.70	80-120	100	(T)
91	4389	15.99	15.70	42-102	70	(T)
134	1402	15.98	15.70	0- 53	22	(T)
83 sec-Butylbenzene			CAS#: 135-98-8			
105	8662	15.74	15.93	80-120	100	(T)
134	1124	15.94	15.93	0- 51	13	( )

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
84 4-Isopropyltoluene			CAS#: 99-87-6			
119	5363	16.05	16.05	80-120	100	( )
134	1481	16.06	16.05	0- 59	28	( )
91	4389	15.99	16.05	0- 55	82	(QT)
89 n-Butylbenzene			CAS#: 104-51-8			
91	5049	16.90	16.50	80-120	100	(T)
92	332	16.90	16.50	26- 86	7	(QT)
134	3515	16.90	16.50	0- 58	70	(QT)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA4.i/122209v4/4q220.d
Lab Smp Id: 243033008 Client Smp ID: RE03-09-14220
Inj Date : 23-DEC-2009 04:42
Operator : ACJ Inst ID: VOA4.i
Smp Info : |243033008|936119|1|VOAF|1|
Misc Info : LANL 5G N/A
Comment :
Method : /chem/VOA4.i/122209v4/VOA4-8260-121909.m
Meth Date : 24-Dec-2009 16:25 amj Quant Type: ISTD
Cal Date : 20-DEC-2009 02:33 Cal File: 4p618.d
Als bottle: 20
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-940.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	15.56720	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 61 Chlorobenzene-d5	13.771	2008414	50.000
* 86 1,4-Dichlorobenzene-d4	16.180	2159853	50.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ug/l)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown Siloxane				CAS #:			
14.826	1664085	41.4278199	49.1	0		0	61

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ug/l)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
====	====	==========	==========	====	=======	========	======
Unknown Siloxane				CAS #:			
16.789	4823150	111.654576	132	0		0	86

Data File: /chem/VOA4.i/122209v4/4q220.d
Date : 23-DEC-2009 04:42
Client ID: RE03-09-14220
Sample Info: |2430330081936119|1|VOAF|1|

Column phase: RTX-VOLATILES

Instrument: VOA4.i

Operator: ACJ
Column diameter: 0.25

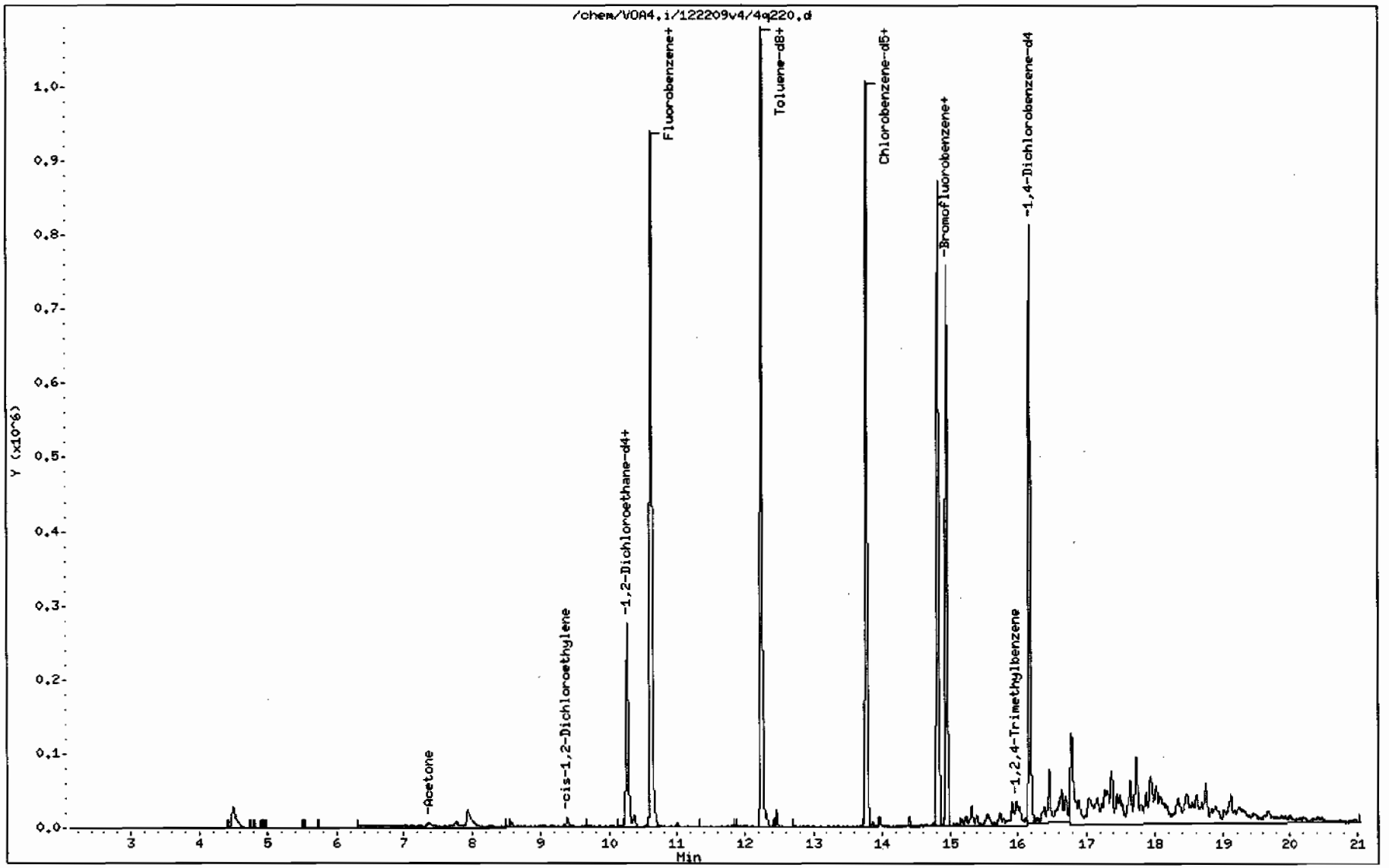

Data File: /chem/VOA4.i/122209v4/4q220.d

Page 2

Date : 23-DEC-2009 04:42

Client ID: RE03-09-14220

Instrument: VOA4.i

Sample Info: |2430330081936119111VOAF|1|

Operator: ACJ

Column phase: RTX-VOLATILES

Column diameter: 0.25

10 Acetone

Concentration: 2.0 ug/Kg

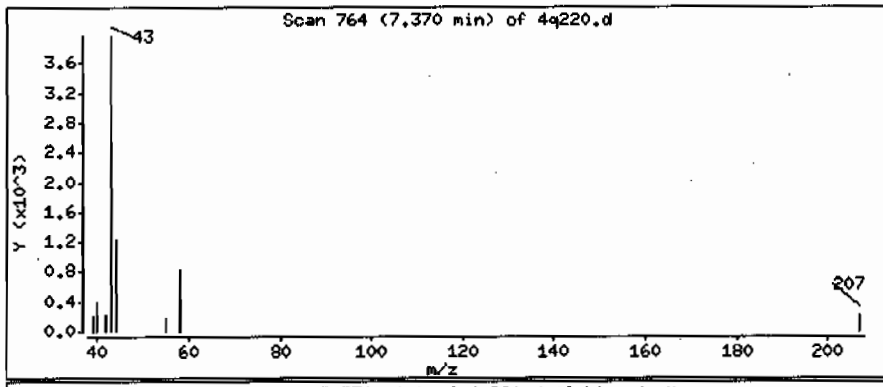

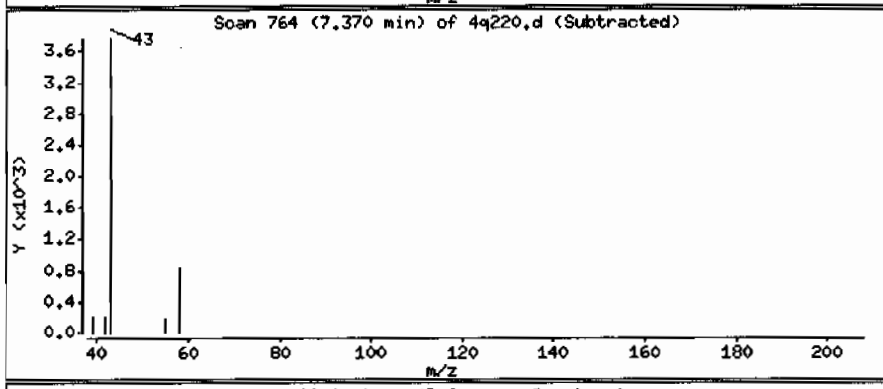

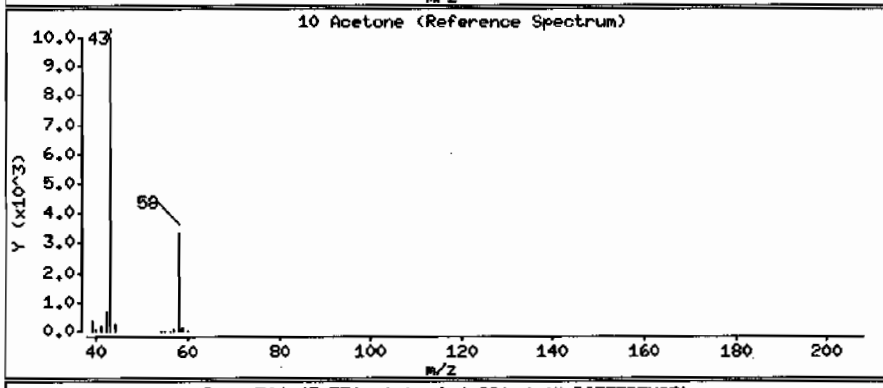

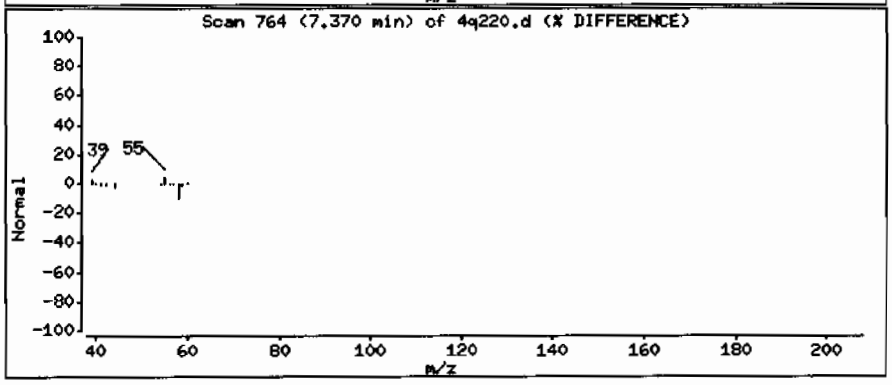

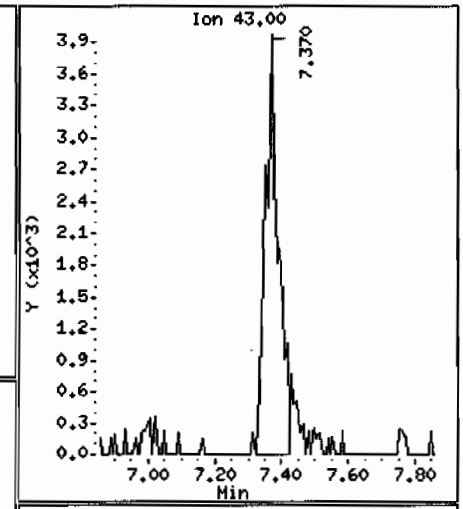

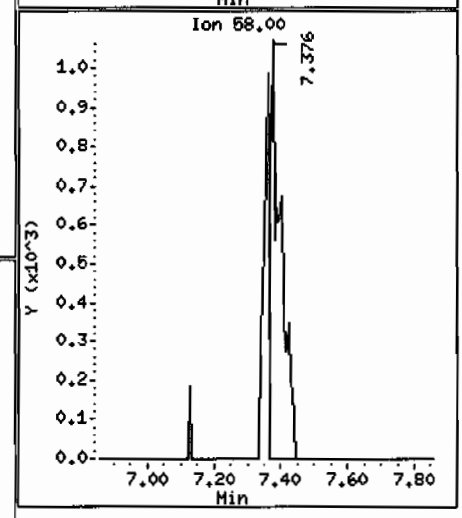

Data File: /chem/VOA4.i/122209v4/4q220.d

Date : 23-DEC-2009 04:42

Client ID: RE03-09-14220

Instrument: VOA4.i

Sample Info: 1243033008|936119|1|VOAF|1|

Operator: ACJ

Column phase: RTX-VOLATILES

Column diameter: 0.25

31 cis-1,2-Dichloroethylene

Concentration: 0.92 ug/Kg

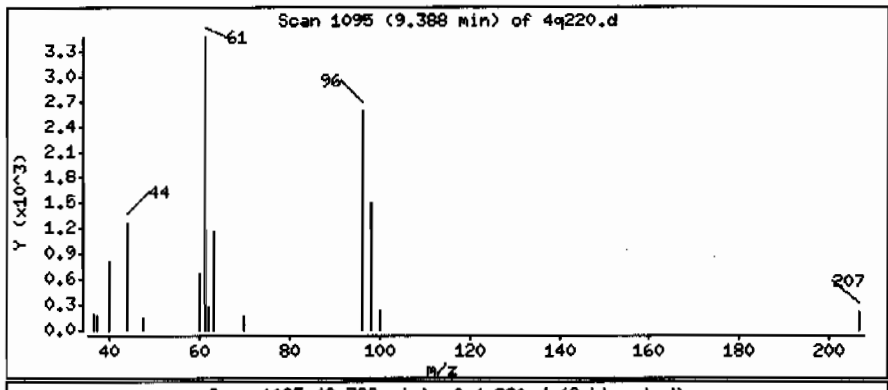

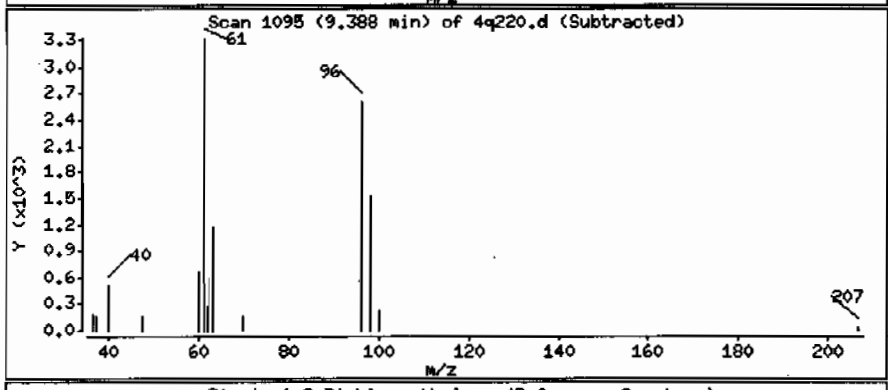

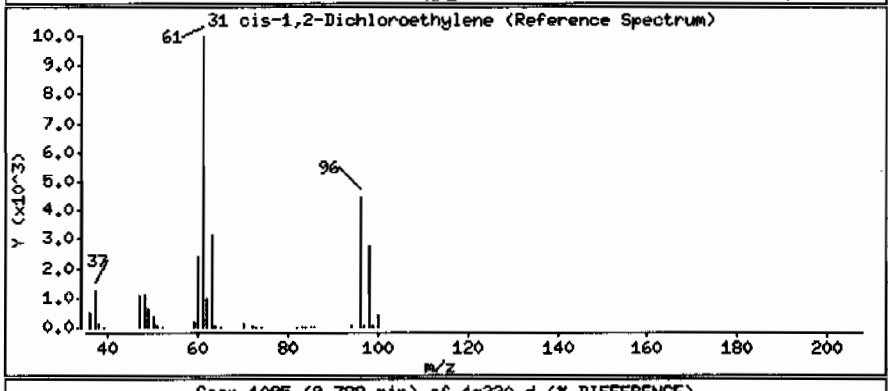

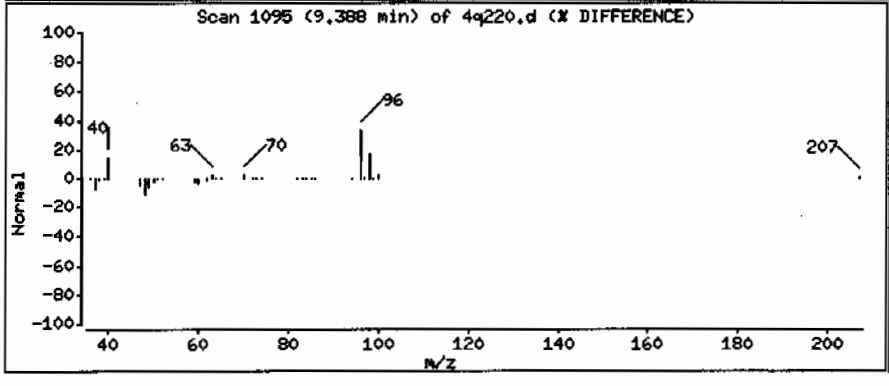

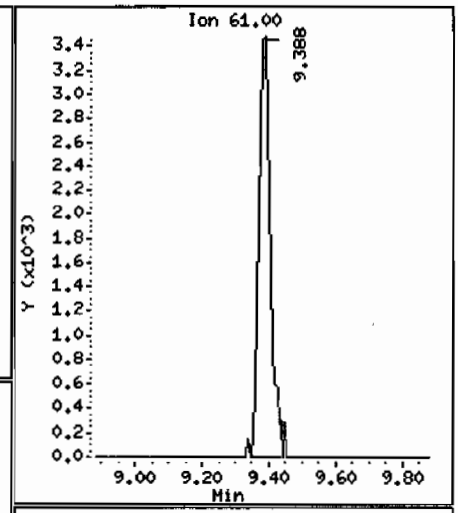

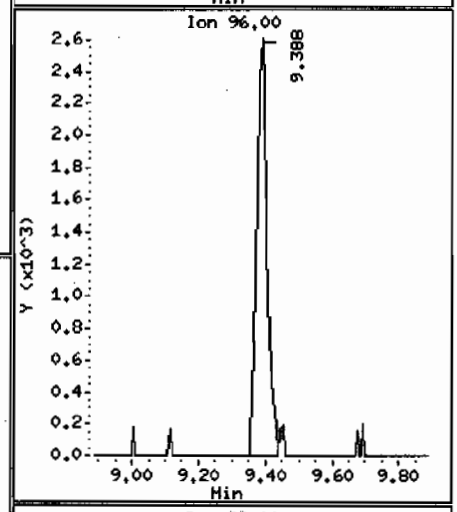

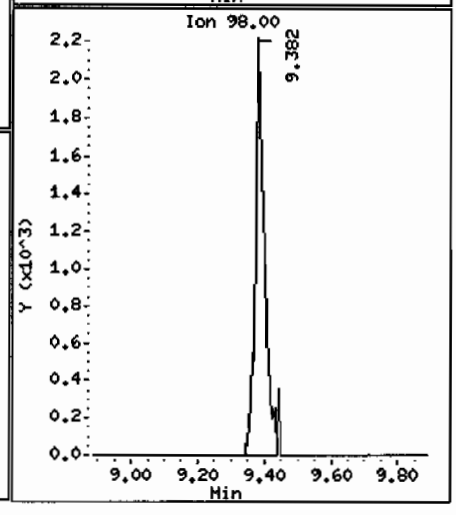

Data File: /chem/VOA4.i/122209v4/4q220.d

Date : 23-DEC-2009 04:42

Client ID: RE03-09-14220

Instrument: VOA4.i

Sample Info: |2430330081936119|1|VOAF|1|

Operator: ACJ

Column phase: RTX-VOLATILES

Column diameter: 0.25

38 Benzene

Concentration: 0.71 ug/Kg

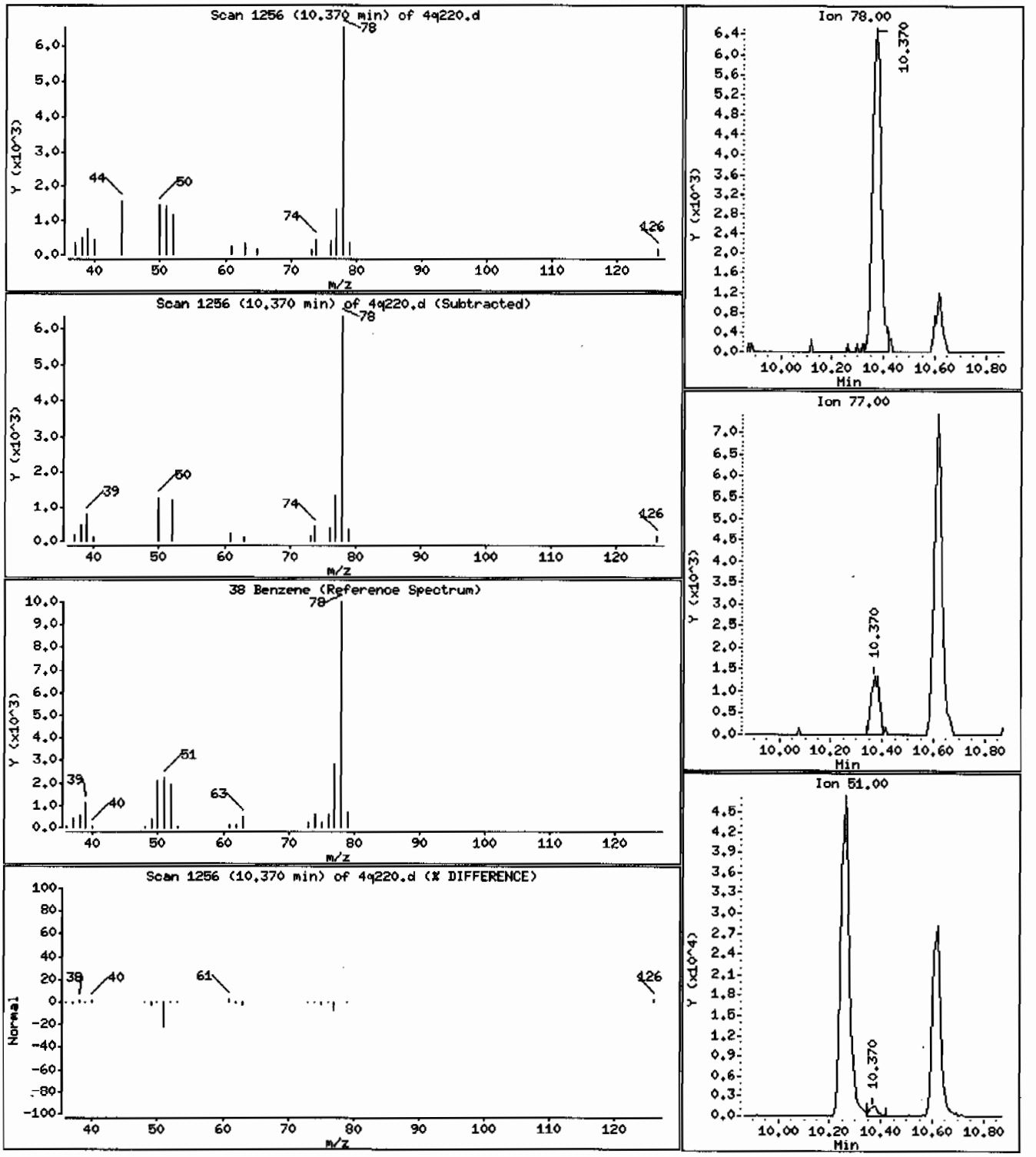

Data File: /chem/VOA4.i/122209v4/4q220.d

Page 5

Date : 23-DEC-2009 04:42

Client ID: RE03-09-14220

Instrument: VOA4.i

Sample Info: |2430330081936119|1|VOAF|1|

Operator: ACJ

Column phase: RTX-VOLATILES

Column diameter: 0.25

39 Trichloroethylene

Concentration: 0.44 ug/Kg

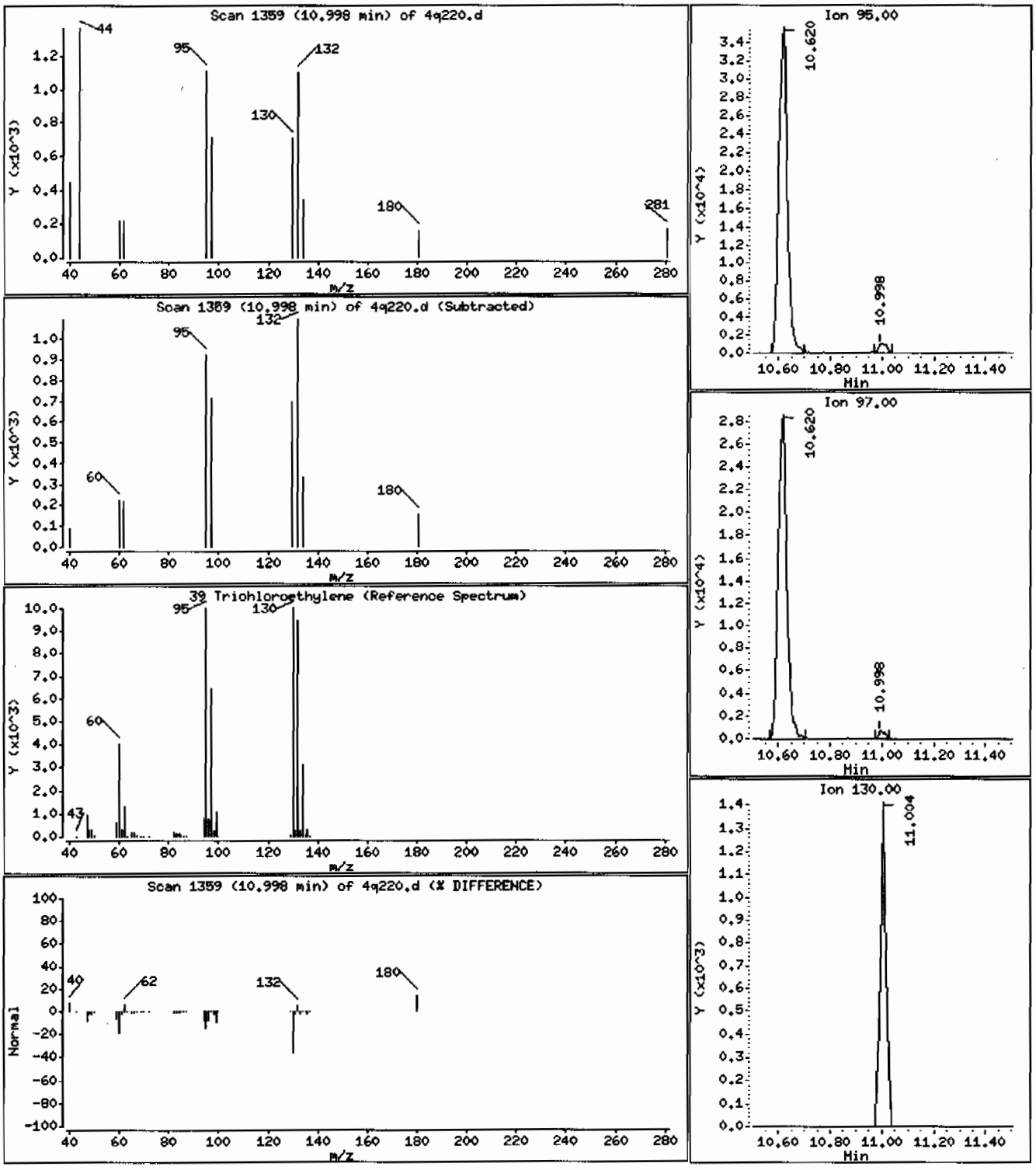

Data File: /chem/VOA4.i/122209v4/4q220.d

Date : 23-DEC-2009 04:42

Client ID: RE03-09-14220

Instrument: VOA4.i

Sample Info: |2430330081936119|1|VOAF|1|

Operator: ACJ

Column phase: RTX-VOLATILES

Column diameter: 0.25

50 Toluene

Concentration: 0.77 ug/Kg

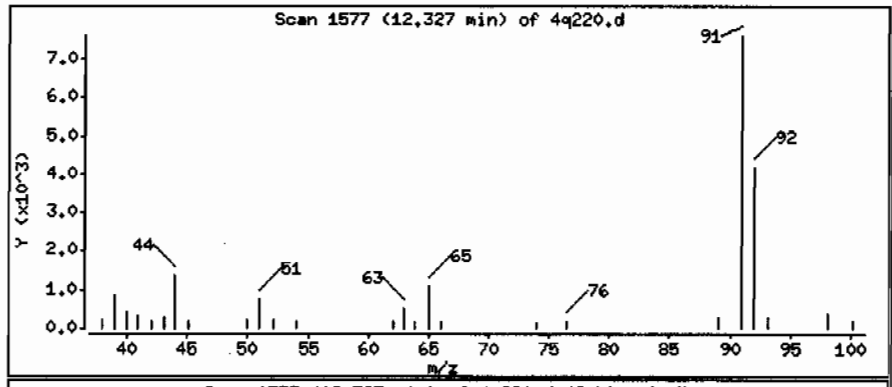

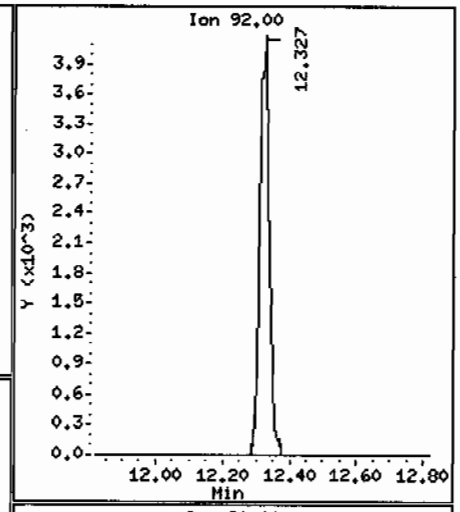

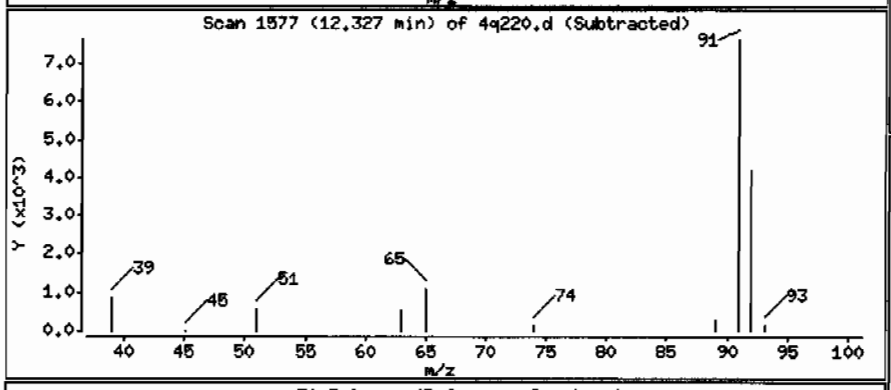

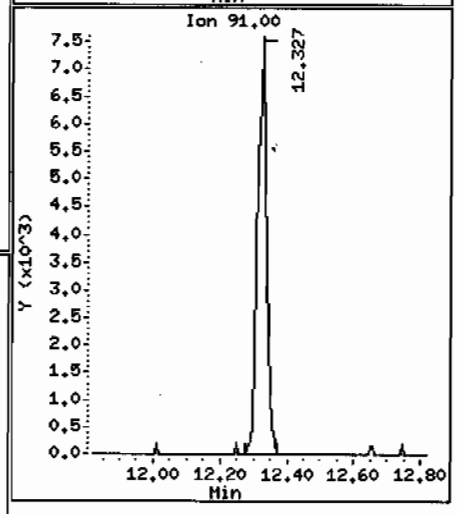

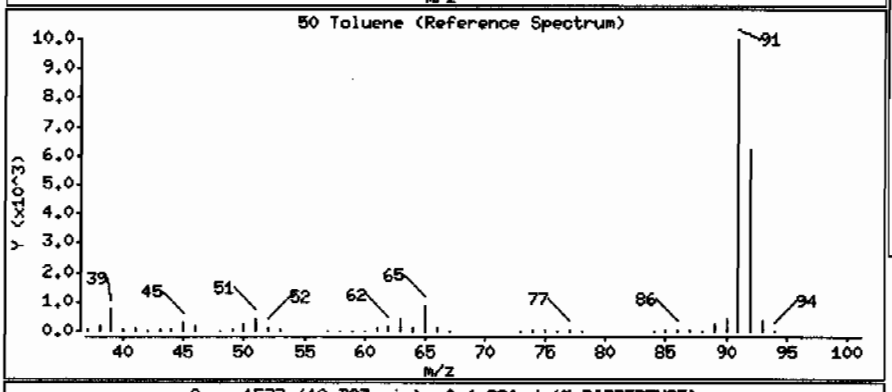

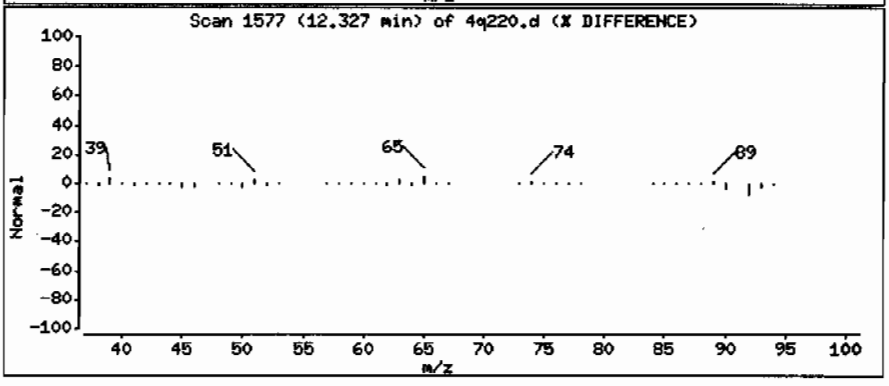

Data File: /chem/VOA4.i/122209v4/4q220.d

Date : 23-DEC-2009 04:42

Client ID: RE03-09-14220

Instrument: VOA4.i

Sample Info: |2430330081936119|1|VOAF|1|

Operator: ACJ

Column phase: RTX-VOLATILES

Column diameter: 0.25

63 m,p-Xylenes

Concentration: 0.56 ug/Kg

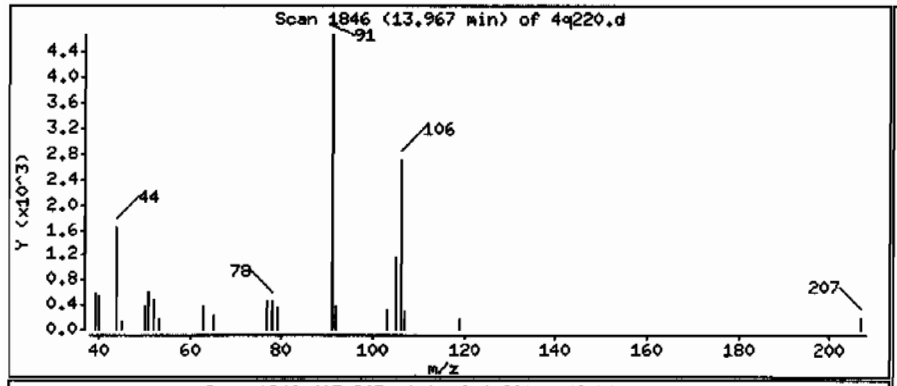

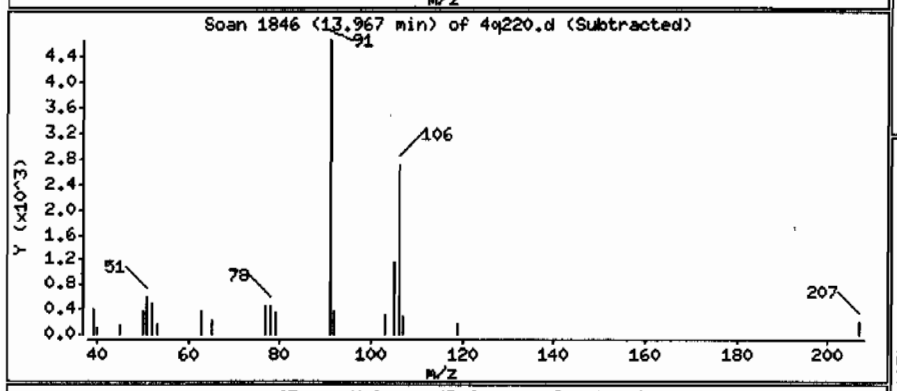

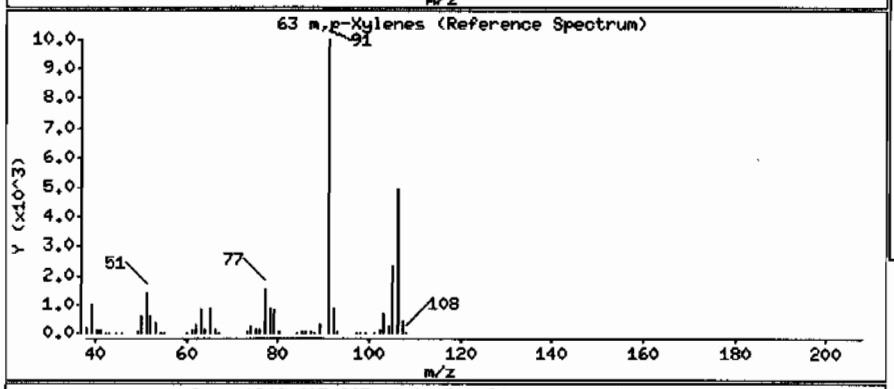

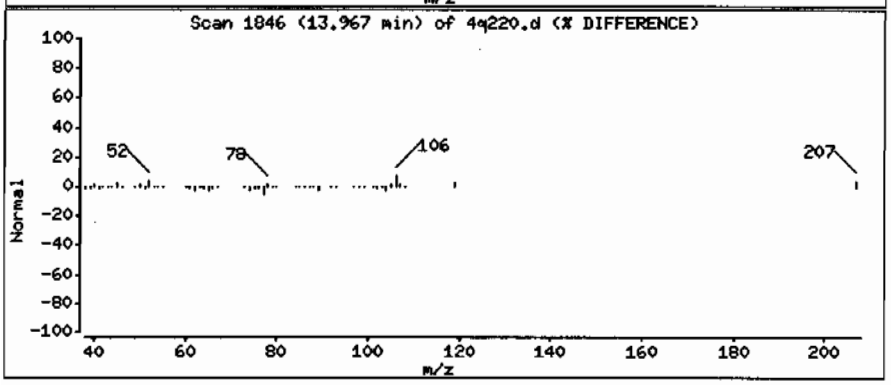

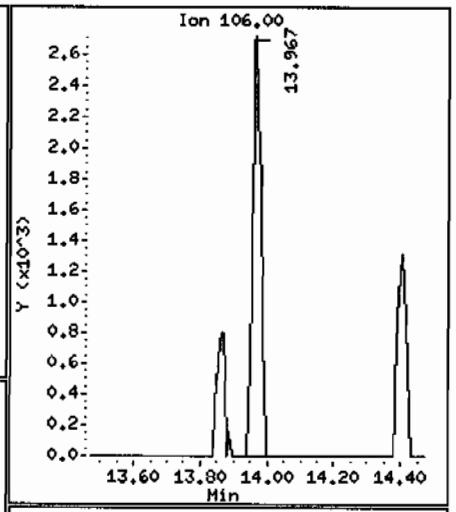

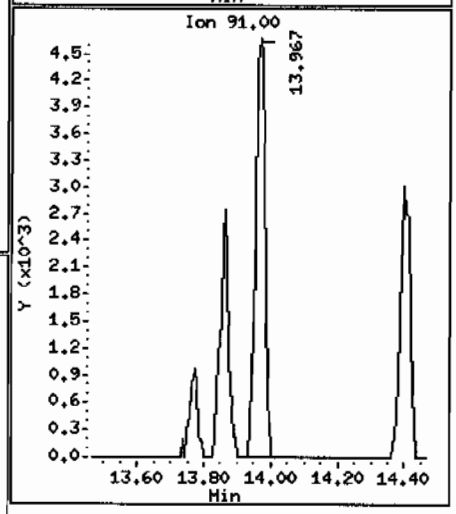

Data File: /chem/VOA4.i/122209v4/4q220.d

Date : 23-DEC-2009 04:42

Client ID: RE03-09-14220

Instrument: VOA4.i

Sample Info: |2430330008|936119|1|VOAF|1|

Operator: ACJ

Column phase: RTX-VOLATILES

Column diameter: 0.25

78 1,3,5-Trimethylbenzene

Concentration: 0.40 ug/Kg

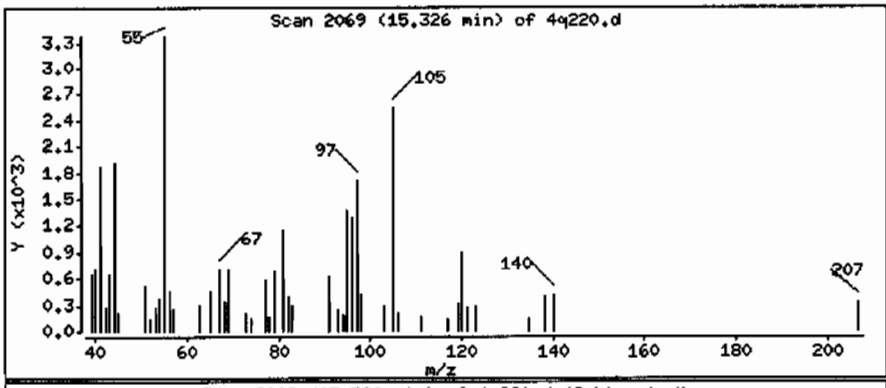

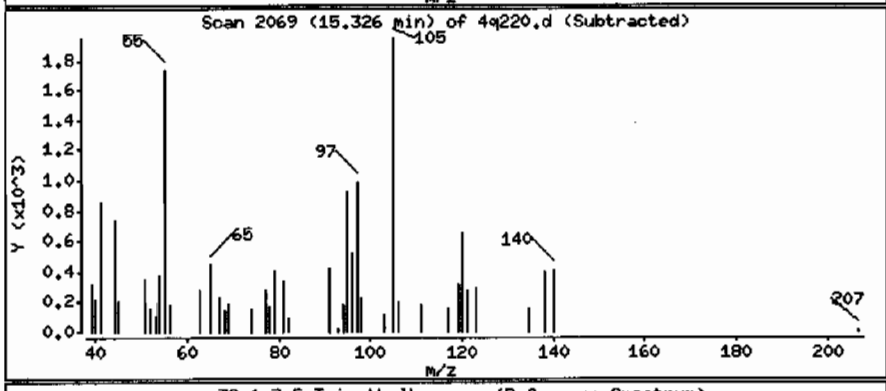

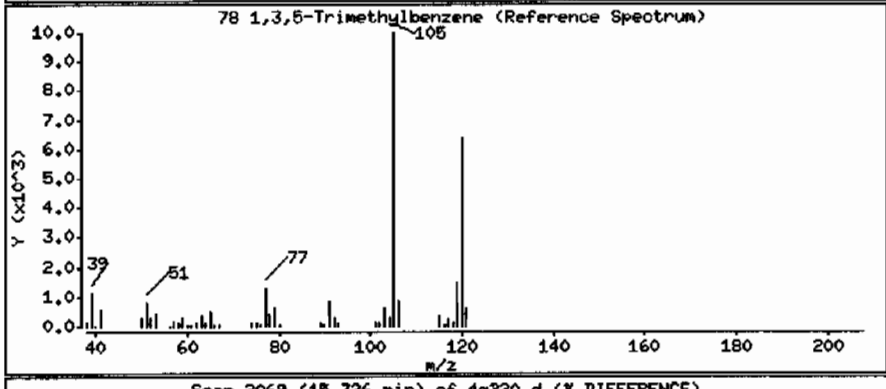

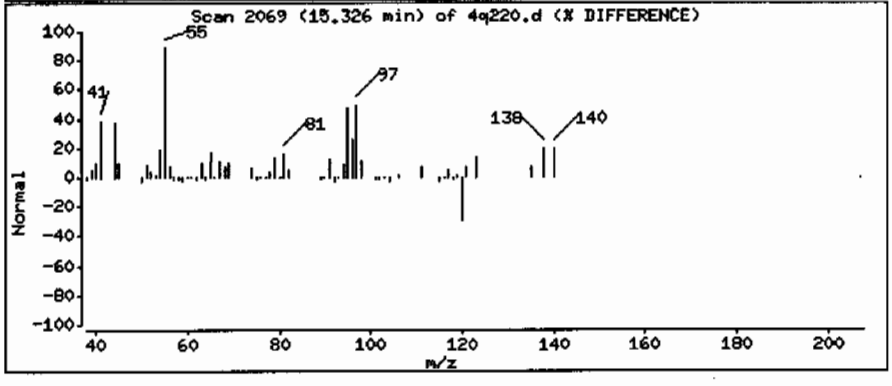

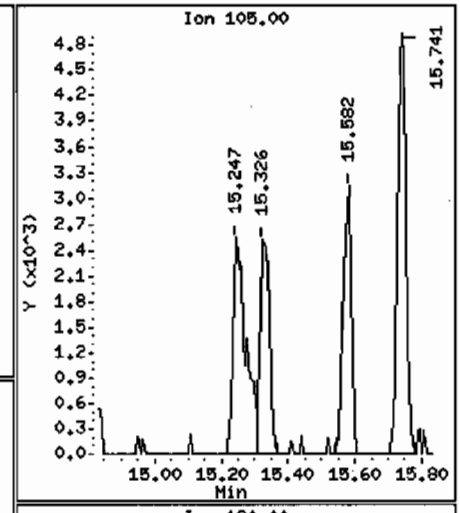

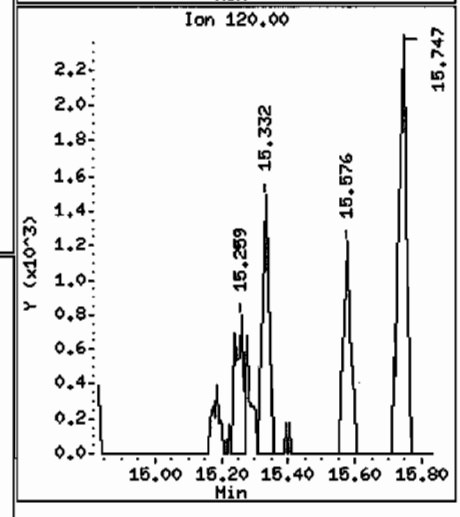

Data File: /chem/VOA4.i/122209v4/4q220.d

Date : 23-DEC-2009 04:42

Client ID: RE03-09-14220

Instrument: VOA4.i

Sample Info: |2430330081936119|1|VOAF|1|

Operator: ACJ

Column phase: RTX-VOLATILES

Column diameter: 0.25

79 1,2,4-Trimethylbenzene

Concentration: 0.66 ug/Kg

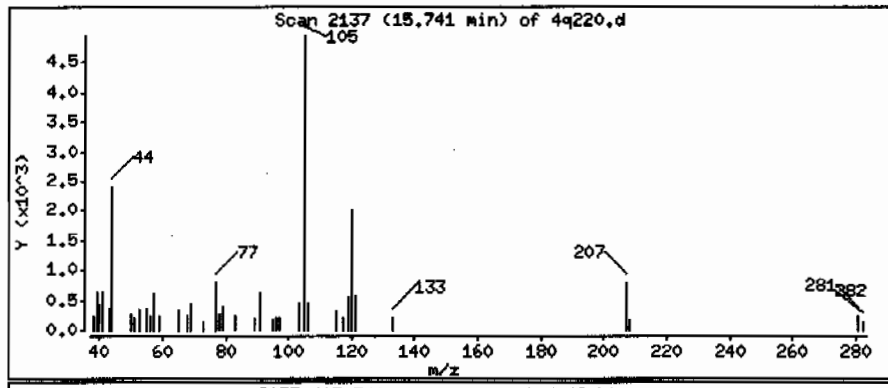

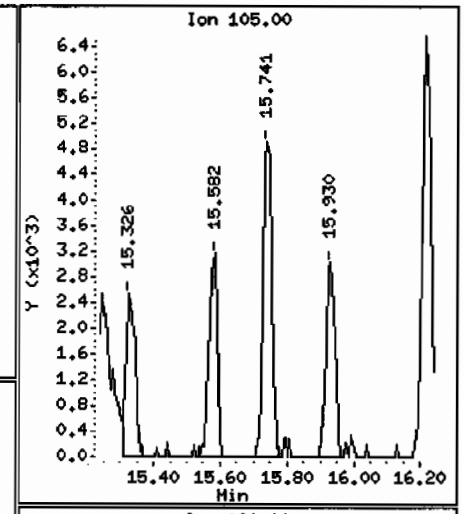

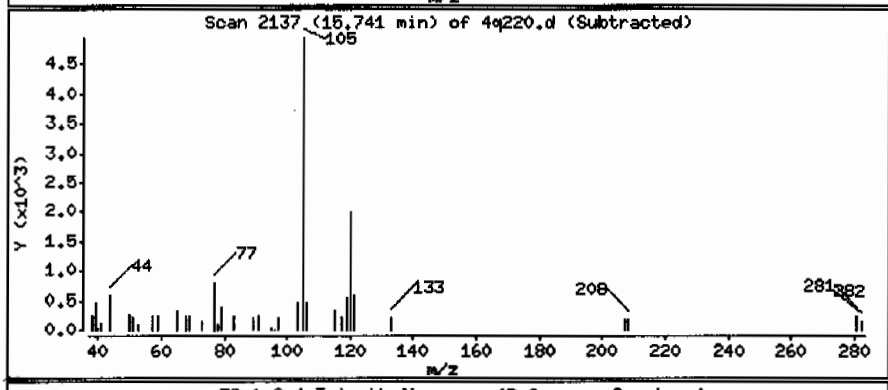

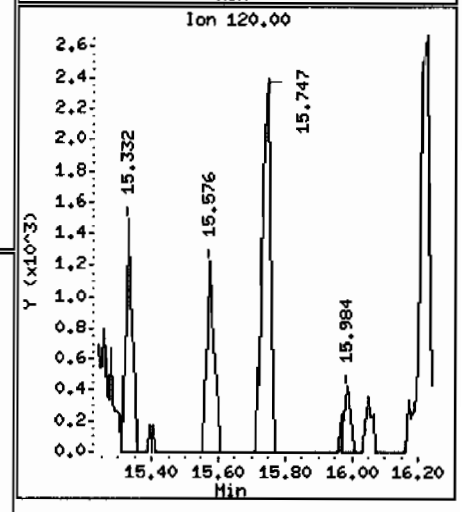

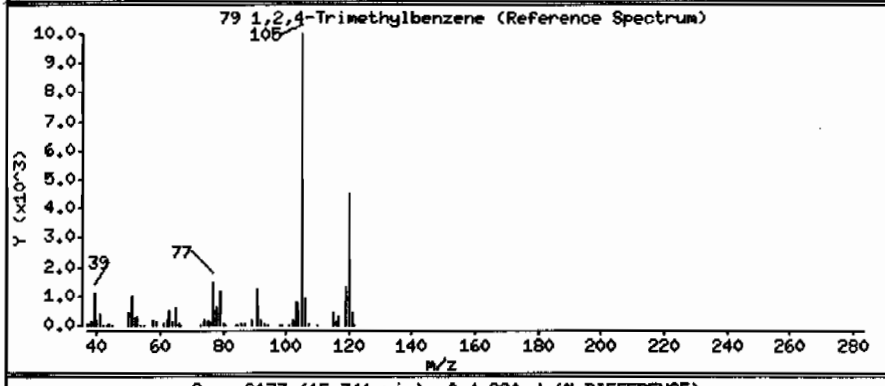

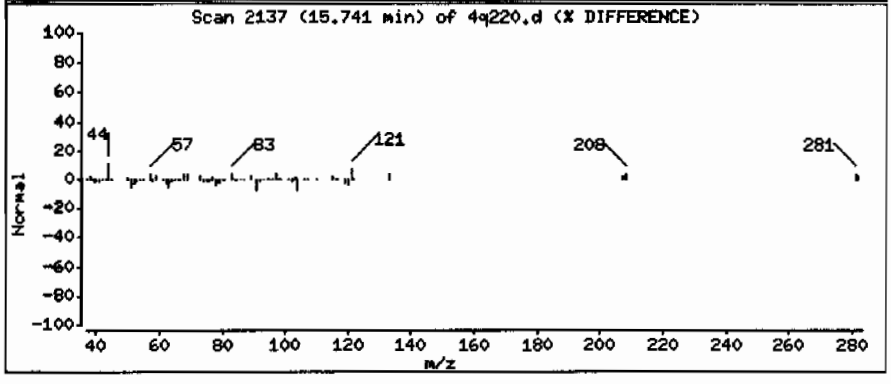

Data File: /chem/VOA4.i/122209v4/4q220.d

Date : 23-DEC-2009 04:42

Client ID: RE03-09-14220

Instrument: VOA4.i

Sample Info: |2430330081936119|1|VOAF|1|

Operator: ACJ

Column phase: RTX-VOLATILES

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Siloxane						
Cyclotetrasiloxane, octamethyl-	556-67-2	NIST05.L	122480	90	C8H24O4Si4	296
Cyclotetrasiloxane, octamethyl-	556-67-2	NIST05.L	122479	78	C8H24O4Si4	296
Benzoic acid, 3-methyl-2-trimethylsilylo	1000153-57-1	NIST05.L	121892	59	C14H24O3Si2	296

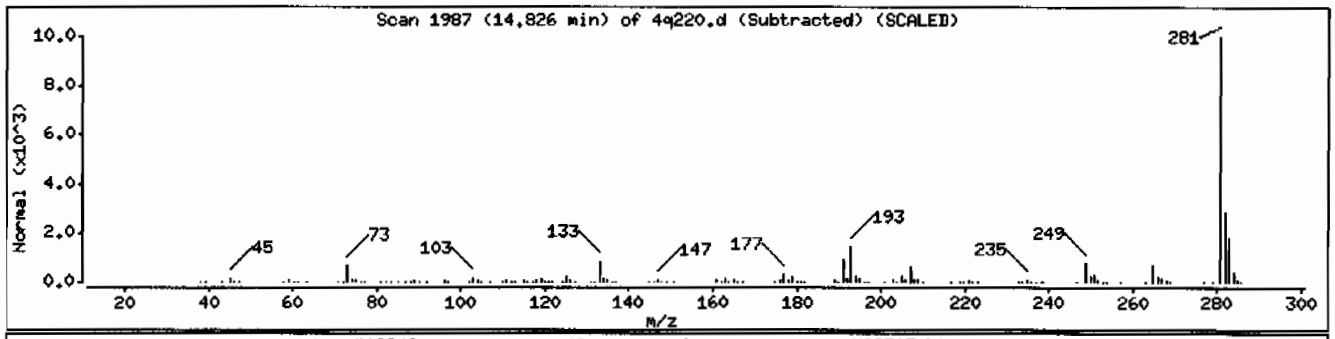

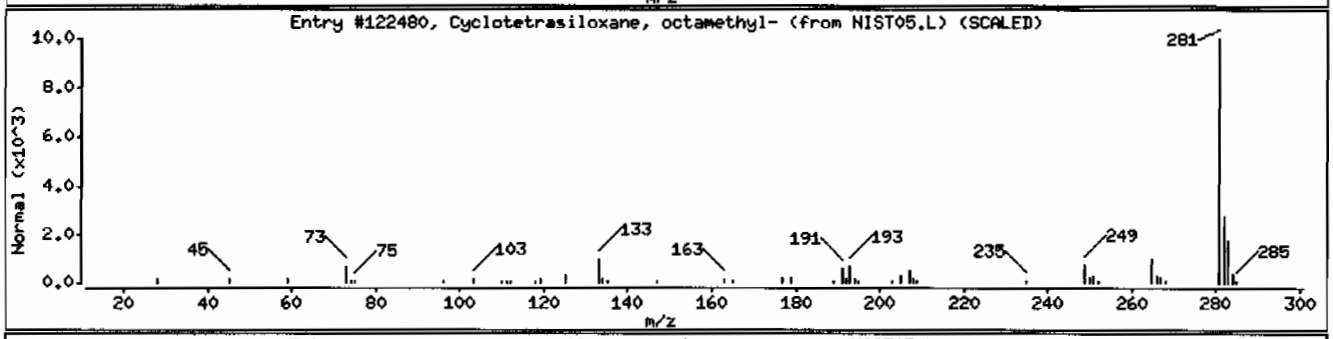

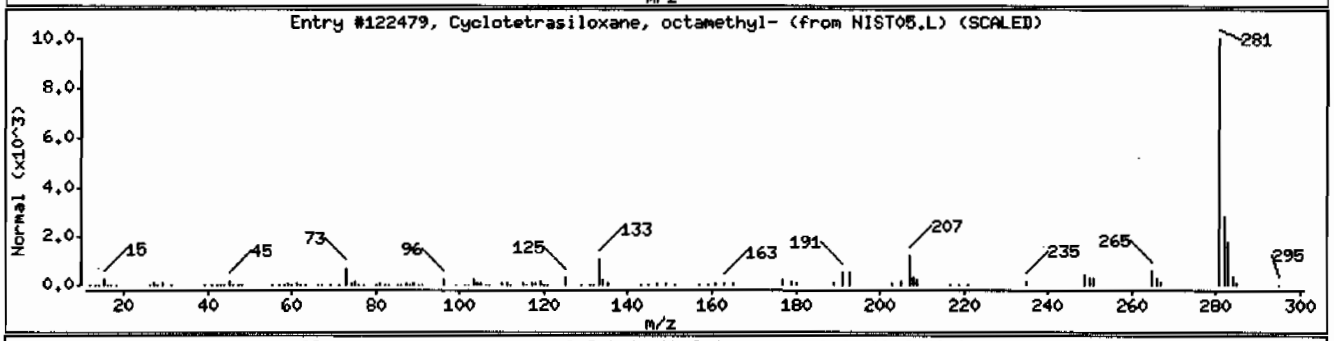

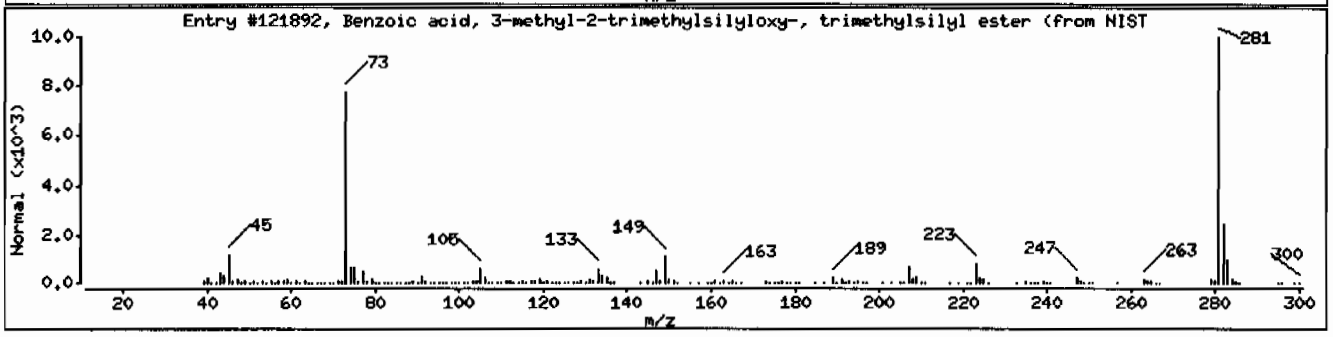

Data File: /chem/VOA4.i/122209v4/4q220.d

Date : 23-DEC-2009 04:42

Client ID: RE03-09-14220

Instrument: VOA4.i

Sample Info: |2430330081936119|1|VOAF|1|

Operator: ACJ

Column phase: RTX-VOLATILES

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Siloxane						
4-Hydroxymandelic acid, ethyl ester, di-	1000071-53-3	NIST05.L	147514	72	C16H2804Si2	340
3-Hydroxymandelic acid, ethyl ester, di-	1000071-88-9	NIST05.L	147513	56	C16H2804Si2	340
Benzaldehyde, 2,5-bis[(trimethylsilyl)ox	56114-69-3	NIST05.L	112903	56	C13H2203Si2	282

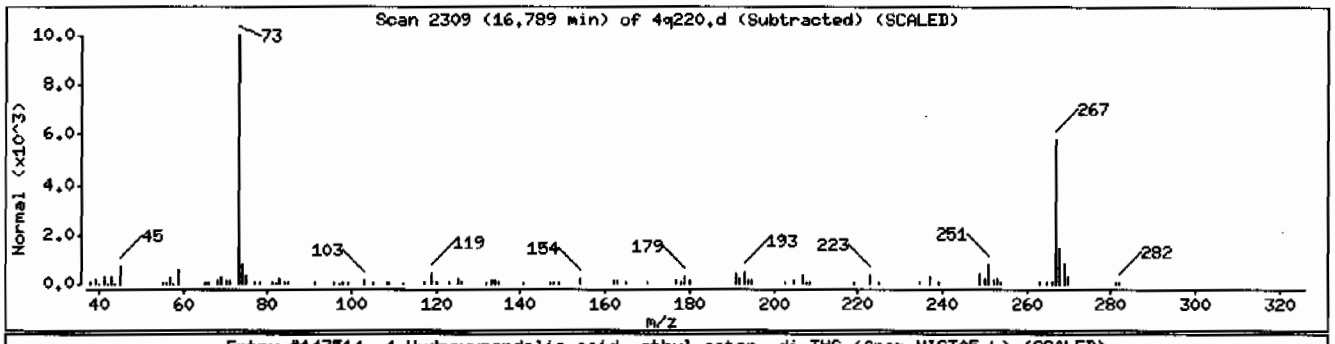

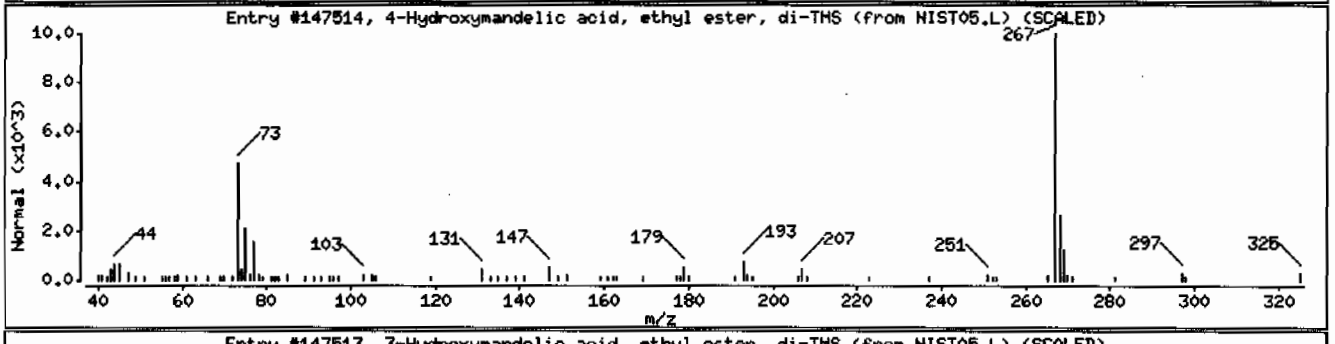

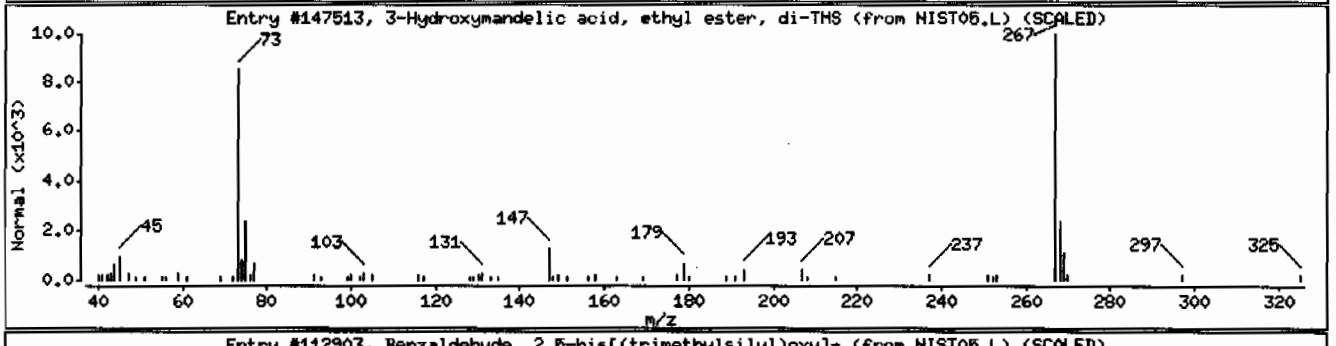

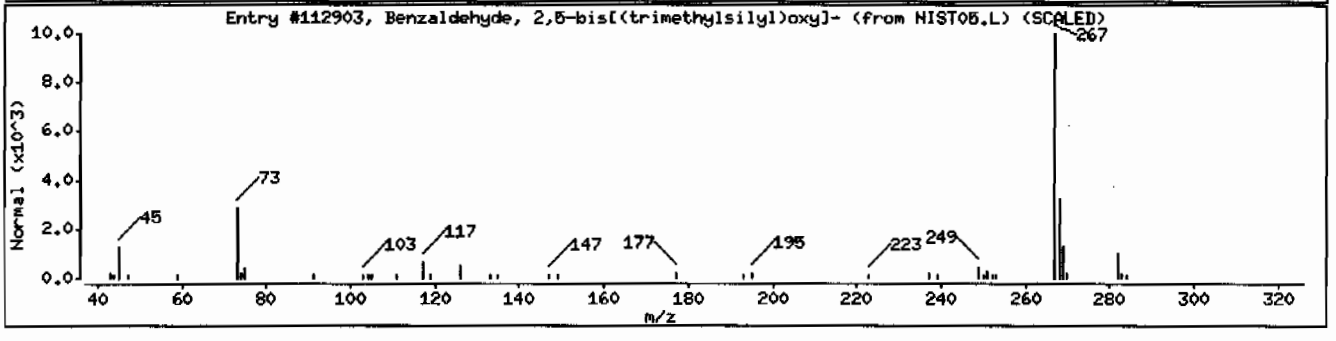

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-940**	**Date Collected:**	**12/14/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243033001**	**Date Received:**	**12/16/2009 09:10**	**%Moisture:**	**14.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14221**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**936119**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**12/23/2009 01:33**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**12/22/2009 22:40**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**4q213.d**	**Column:**	**RTX-VOLATILES**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.17	ug/kg	0.399	1.17
74-87-3	Chloromethane	U	1.17	ug/kg	0.352	1.17
75-01-4	Vinyl chloride	U	1.17	ug/kg	0.352	1.17
74-83-9	Bromomethane	U	1.17	ug/kg	0.352	1.17
75-00-3	Chloroethane	U	1.17	ug/kg	0.352	1.17
75-69-4	Trichlorofluoromethane	U	1.17	ug/kg	0.352	1.17
67-64-1	Acetone	J	3.66	ug/kg	1.95	5.87
75-35-4	1,1-Dichloroethylene	U	1.17	ug/kg	0.352	1.17
74-88-4	Iodomethane	U	5.87	ug/kg	1.88	5.87
75-09-2	Methylene chloride	U	5.87	ug/kg	2.35	5.87
75-15-0	Carbon disulfide	U	5.87	ug/kg	1.47	5.87
156-60-5	trans-1,2-Dichloroethylene	U	1.17	ug/kg	0.352	1.17
75-34-3	1,1-Dichloroethane	U	1.17	ug/kg	0.352	1.17
78-93-3	2-Butanone	U	5.87	ug/kg	1.76	5.87
156-59-2	cis-1,2-Dichloroethylene	U	1.17	ug/kg	0.352	1.17
594-20-7	2,2-Dichloropropane	U	1.17	ug/kg	0.352	1.17
67-66-3	Chloroform	U	1.17	ug/kg	0.352	1.17
74-97-5	Bromochloromethane	U	1.17	ug/kg	0.387	1.17
71-55-6	1,1,1-Trichloroethane	U	1.17	ug/kg	0.352	1.17
563-58-6	1,1-Dichloropropene	U	1.17	ug/kg	0.352	1.17
56-23-5	Carbon tetrachloride	U	1.17	ug/kg	0.352	1.17
107-06-2	1,2-Dichloroethane	U	1.17	ug/kg	0.352	1.17
71-43-2	Benzene	U	1.17	ug/kg	0.352	1.17
79-01-6	Trichloroethylene	U	1.17	ug/kg	0.387	1.17
78-87-5	1,2-Dichloropropane	U	1.17	ug/kg	0.352	1.17
75-27-4	Bromodichloromethane	U	1.17	ug/kg	0.352	1.17
74-95-3	Dibromomethane	U	1.17	ug/kg	0.352	1.17
108-10-1	4-Methyl-2-pentanone	U	5.87	ug/kg	1.47	5.87
10061-01-5	cis-1,3-Dichloropropylene	U	1.17	ug/kg	0.352	1.17
108-88-3	Toluene	U	1.17	ug/kg	0.352	1.17
10061-02-6	trans-1,3-Dichloropropylene	U	1.17	ug/kg	0.352	1.17
79-00-5	1,1,2-Trichloroethane	U	1.17	ug/kg	0.352	1.17
591-78-6	2-Hexanone	U	5.87	ug/kg	1.76	5.87
142-28-9	1,3-Dichloropropane	U	1.17	ug/kg	0.352	1.17
127-18-4	Tetrachloroethylene	U	1.17	ug/kg	0.352	1.17
124-48-1	Dibromochloromethane	U	1.17	ug/kg	0.352	1.17
106-93-4	1,2-Dibromoethane	U	1.17	ug/kg	0.352	1.17
108-90-7	Chlorobenzene	U	1.17	ug/kg	0.352	1.17

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-940**	**Date Collected:**	**12/14/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243033001**	**Date Received:**	**12/16/2009 09:10**	**%Moisture:**	**14.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14221**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**936119**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**12/23/2009 01:33**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**12/22/2009 22:40**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**4q213.d**	**Column:**	**RTX-VOLATILES**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.17	ug/kg	0.352	1.17
179601-23-1	m,p-Xylenes	U	2.35	ug/kg	0.352	2.35
95-47-6	o-Xylene	U	1.17	ug/kg	0.352	1.17
100-42-5	Styrene	U	1.17	ug/kg	0.352	1.17
75-25-2	Bromoform	U	1.17	ug/kg	0.352	1.17
79-34-5	1,1,2,2-Tetrachloroethane	U	1.17	ug/kg	0.352	1.17
96-18-4	1,2,3-Trichloropropane	U	1.17	ug/kg	0.352	1.17
108-86-1	Bromobenzene	U	1.17	ug/kg	0.352	1.17
103-65-1	n-Propylbenzene	U	1.17	ug/kg	0.352	1.17
95-49-8	2-Chlorotoluene	U	1.17	ug/kg	0.352	1.17
98-82-8	Isopropylbenzene	U	1.17	ug/kg	0.352	1.17
108-67-8	1,3,5-Trimethylbenzene	U	1.17	ug/kg	0.352	1.17
106-43-4	4-Chlorotoluene	U	1.17	ug/kg	0.352	1.17
98-06-6	tert-Butylbenzene	U	1.17	ug/kg	0.352	1.17
95-63-6	1,2,4-Trimethylbenzene	U	1.17	ug/kg	0.352	1.17
135-98-8	sec-Butylbenzene	U	1.17	ug/kg	0.352	1.17
99-87-6	4-Isopropyltoluene	U	1.17	ug/kg	0.352	1.17
541-73-1	1,3-Dichlorobenzene	U	1.17	ug/kg	0.352	1.17
106-46-7	1,4-Dichlorobenzene	U	1.17	ug/kg	0.352	1.17
104-51-8	n-Butylbenzene	U	1.17	ug/kg	0.352	1.17
96-12-8	1,2-Dibromo-3-chloropropane	U	1.17	ug/kg	0.352	1.17
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.87	ug/kg	1.88	5.87
630-20-6	1,1,1,2-Tetrachloroethane	U	1.17	ug/kg	0.352	1.17
95-50-1	1,2-Dichlorobenzene	U	1.17	ug/kg	0.352	1.17

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Siloxane	14.83	7.42	ug/kg		J
1758-88-9	Benzene, 2-ethyl-1,4-dimethyl-	18.01	76.5	ug/kg	87	J

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA4.i/122209v4/4q213.d
Lab Smp Id: 243033001 Client Smp ID: RE03-09-14221
Inj Date : 23-DEC-2009 01:33
Operator : ACJ Inst ID: VOA4.i
Smp Info : |243033001|936119|1|VOAF|1|
Misc Info : LANL 5G N/A
Comment :
Method : /chem/VOA4.i/122209v4/VOA4-8260-121909.m
Meth Date : 24-Dec-2009 16:25 amj Quant Type: ISTD
Cal Date : 20-DEC-2009 02:33 Cal File: 4p618.d
Als bottle: 13
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-940.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	14.77230	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
* 40 Fluorobenzene	96	10.619	10.613	(1.000)	1049781	50.0000	
* 61 Chlorobenzene-d5	117	13.771	13.771	(1.000)	741859	50.0000	
* 86 1,4-Dichlorobenzene-d4	152	16.179	16.173	(1.000)	422342	50.0000	
$ 138 1,2-Dichloroethane-d4	65	10.259	10.259	(0.966)	231892	42.3971	49.7
$ 47 Toluene-d8	98	12.253	12.246	(0.890)	851143	48.4448	56.8
$ 71 Bromofluorobenzene	95	14.953	14.947	(0.924)	370290	53.9938	63.4
10 Acetone	43	7.363	7.357	(0.693)	20587	3.12164	3.7(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

ION RATIO REPORT

VOA REPORT

Data file: 4q213.d
Report Date: 12/23/2009 16:10
Lab. ID: 243033001 SampleType: SAMPLE
Injection Date: 23-DEC-2009 01:33
Operator: ACJ Instrument: VOA4.i
Sample Info: |243033001|936119|1|VOAF|1|
Miscellaneous Info: LANL 5G N/A
Comment:
Method used: /chem/VOA4.i/122209v4/VOA4-8260-121909.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-940
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
10 Acetone		CAS#: 67-64-1				
43	20587	7.36	7.36	80-120	100	( )
58	5032	7.36	7.36	0- 59	24	( )
37 1,2-Dichloroethane			CAS#: 107-06-2			
62	14758	10.61	10.34	80-120	100	(T)
64	2763	10.61	10.34	3- 63	19	(T)
49 4-Methyl-2-pentanone			CAS#: 108-10-1			
58	7995	12.25	12.01	80-120	100	(T)
43	4899	12.25	12.01	254-314	61	(QT)
100	564338	12.25	12.01	0- 60	7058	(QT)
66 Bromoform			CAS#: 75-25-2			
173	1832	14.96	14.65	80-120	100	(T)
175	23817	14.95	14.65	19- 79	1299	(QT)
83 sec-Butylbenzene			CAS#: 135-98-8			
105	11428	16.22	15.93	80-120	100	(T)
134	1911	16.37	15.93	0- 51	17	(T)
84 4-Isopropyltoluene			CAS#: 99-87-6			
119	14023	16.43	16.05	80-120	100	(T)
134	6171	16.45	16.05	0- 59	44	(T)
91	2070	16.46	16.05	0- 55	15	(T)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA4.i/122209v4/4q213.d
Lab Smp Id: 243033001 Client Smp ID: RE03-09-14221
Inj Date : 23-DEC-2009 01:33
Operator : ACJ Inst ID: VOA4.i
Smp Info : |243033001|936119|1|VOAF|1|
Misc Info : LANL 5G N/A
Comment :
Method : /chem/VOA4.i/122209v4/VOA4-8260-121909.m
Meth Date : 24-Dec-2009 16:25 amj Quant Type: ISTD
Cal Date : 20-DEC-2009 02:33 Cal File: 4p618.d
Als bottle: 13
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-940.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	14.77230	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 61 Chlorobenzene-d5	13.771	2334945	50.000
* 86 1,4-Dichlorobenzene-d4	16.179	3779968	50.000

	CONCENTRATIONS			QUANT			
RT	AREA	ON-COL(ug/l)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown Siloxane				CAS #:			
14.825	295404	6.32572028	7.4	0		0	61

RT	AREA	CONCENTRATIONS ON-COL(ug/l)	FINAL(ug/Kg)	QUAL	QUANT LIBRARY	LIB ENTRY	CPND #
Benzene, 2-ethyl-1,4-dimethyl-					CAS #: 1758-88-9		
18.014	4931729	65.2350490	76.5	87	NIST05.L	14405	86(L)

QC Flag Legend

L - Operator selected an alternate library search match.

Data File: /chem/VOA4.i/122209v4/4q213.d
Date : 23-DEC-2009 01:33
Client ID: RE03-09-14221
Sample Info: |2430330011936119|1|VOAF|1|

Column phase: RTX-VOLATILES

Instrument: VOA4.i

Operator: ACJ
Column diameter: 0.25

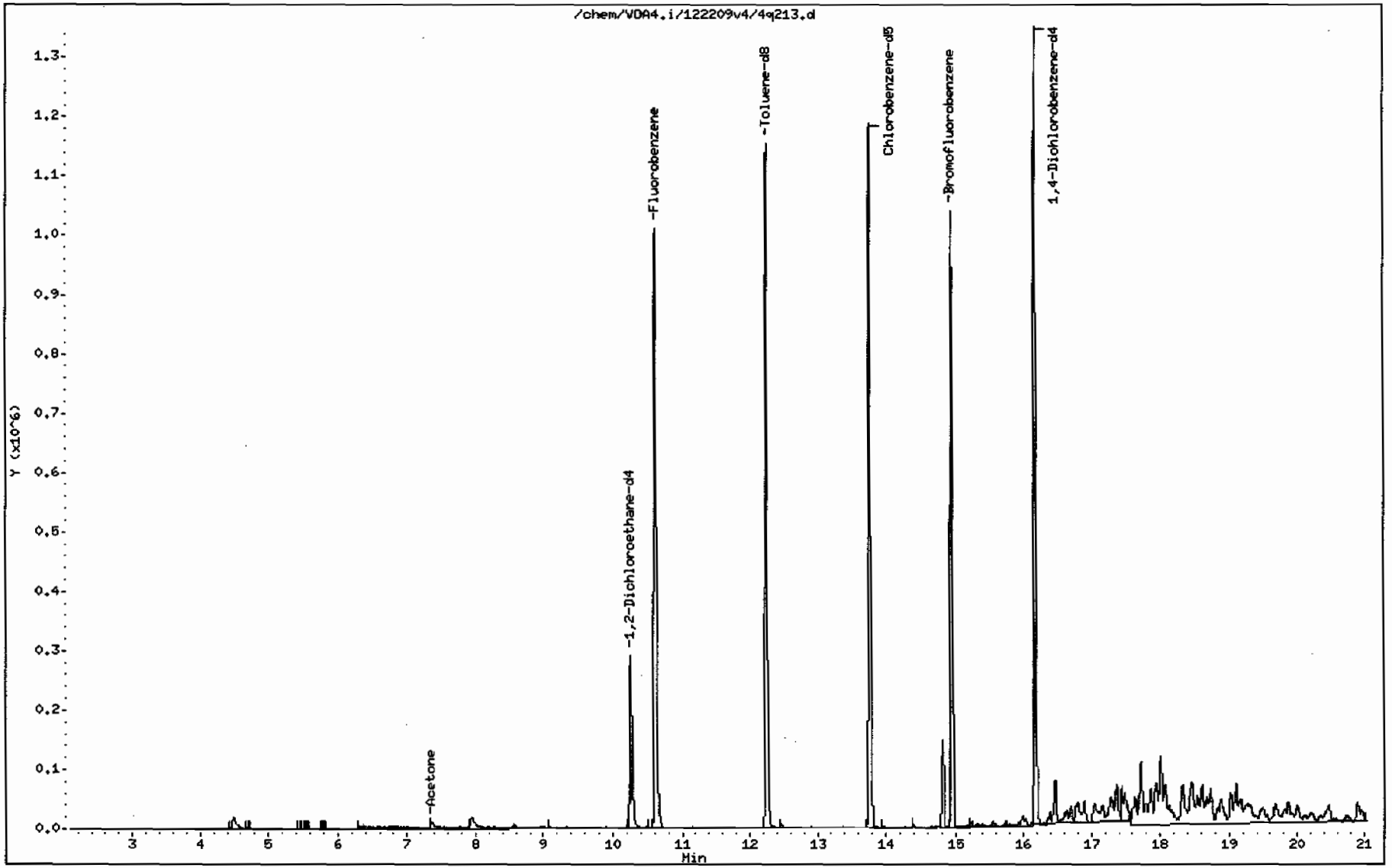

Data File: /chem/VOA4.i/122209v4/4q213.d

Date : 23-DEC-2009 01:33

Client ID: RE03-09-14221

Instrument: VOA4.i

Sample Info: |2430330001|936119|1|VOAF|1|

Operator: ACJ

Column phase: RTX-VOLATILES

Column diameter: 0.25

10 Acetone

Concentration: 3.7 ug/Kg

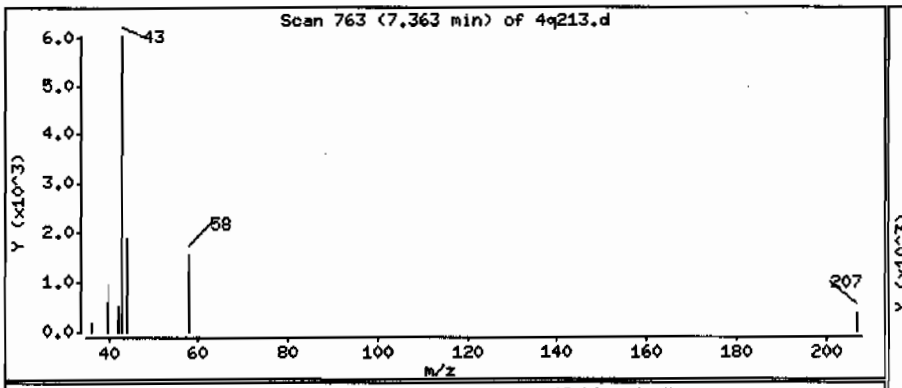

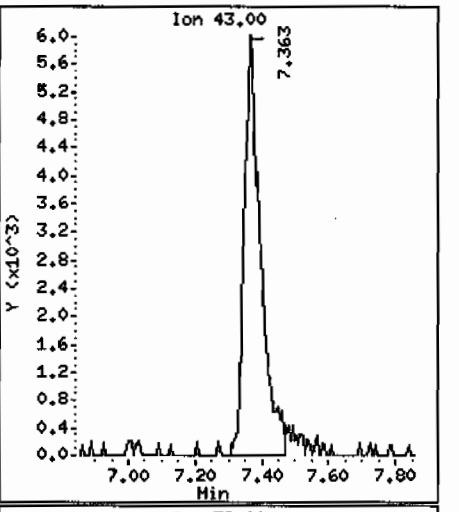

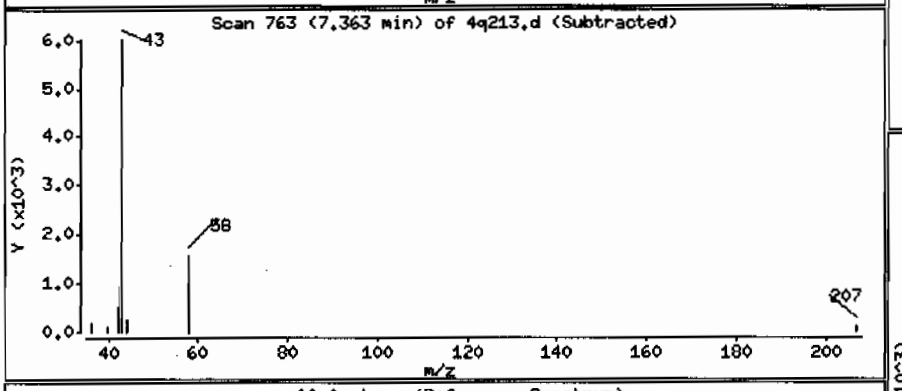

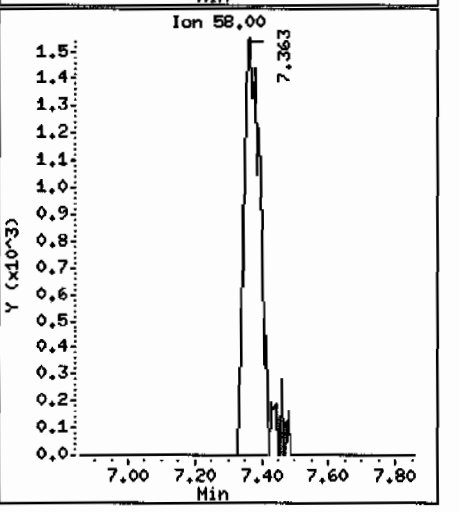

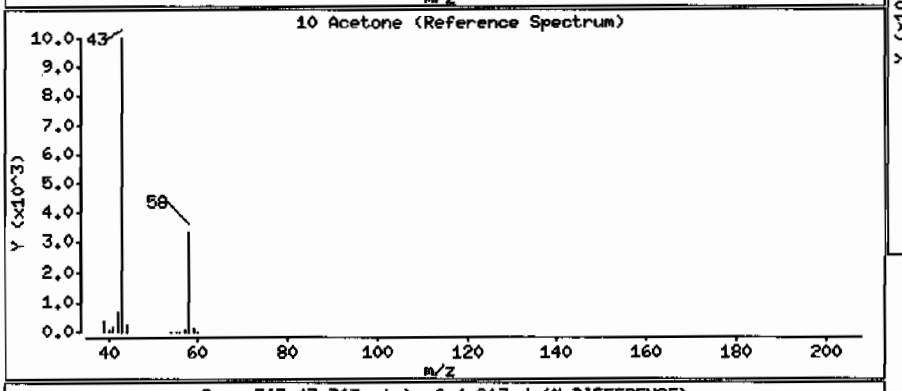

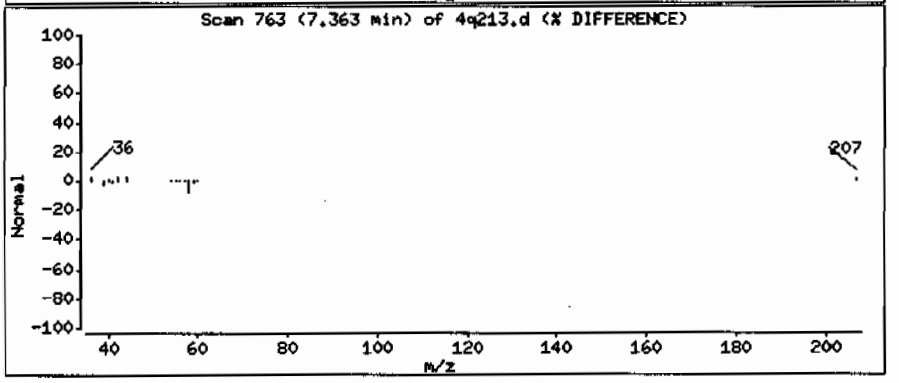

Data File: /chem/VOA4.i/122209v4/4q213.d

Date : 23-DEC-2009 01:33

Client ID: RE03-09-14221

Instrument: VOA4.i

Sample Info: |2430330001|936119|1|VOAF|1|

Operator: ACJ

Column phase: RTX-VOLATILES

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Siloxane						
Cyclotetrasiloxane, octamethyl-	556-67-2	NIST05.L	122480	87	C8H24O4Si4	296
Cyclotetrasiloxane, octamethyl-	556-67-2	NIST05.L	122479	64	C8H24O4Si4	296
trans-4-Dimethylamino-4'-methoxychalcone	52119-37-6	NIST05.L	112627	40	C18H19NO2	281

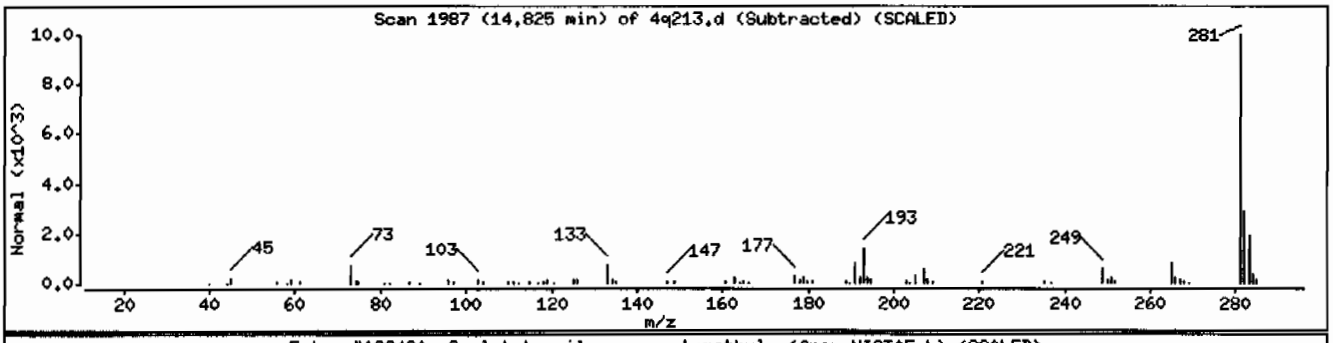

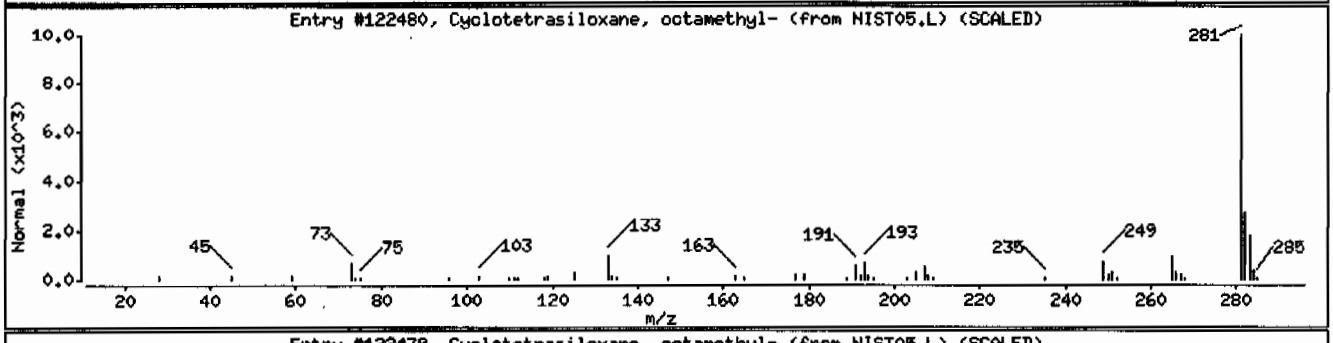

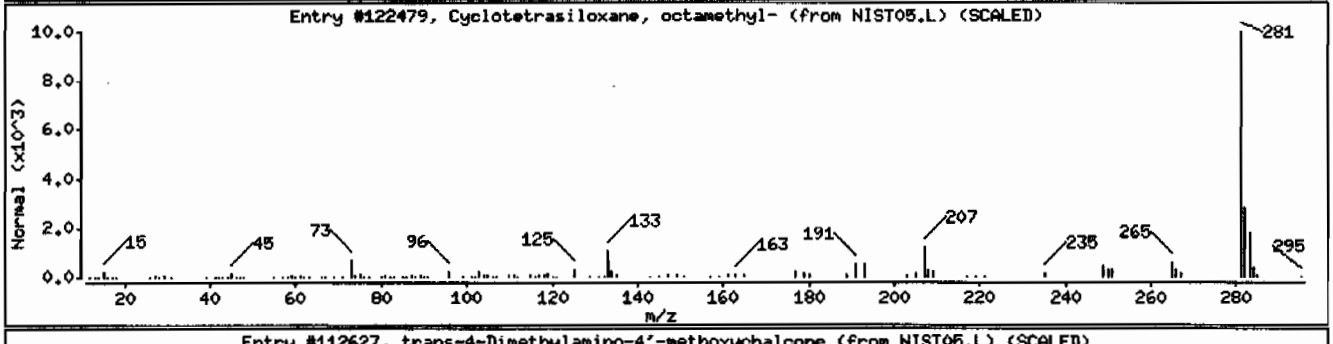

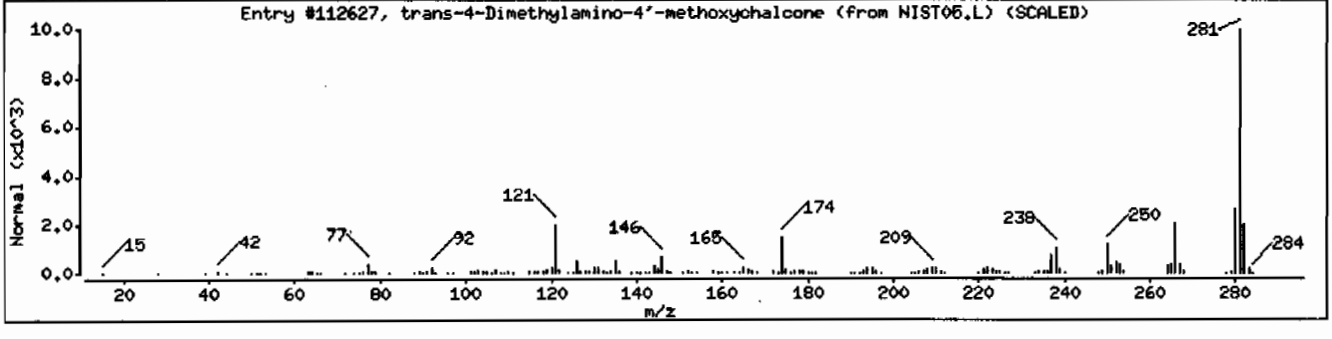

Data File: /chem/VOA4.i/122209v4/4q213.d

Date : 23-DEC-2009 01:33

Client ID: RE03-09-14221

Instrument: VOA4.i

Sample Info: |2430330001|936119|1|VOAF|1|

Operator: ACJ

Column phase: RTX-VOLATILES

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Benzene, 2-ethyl-1,4-dimethyl-	1758-88-9	NIST05.L	14405	87	C10H14	134
Benzene, 1-ethyl-3,5-dimethyl-	934-74-7	NIST05.L	14396	87	C10H14	134
Benzene, 1,2,3,4-tetramethyl-	488-23-3	NIST05.L	14381	87	C10H14	134

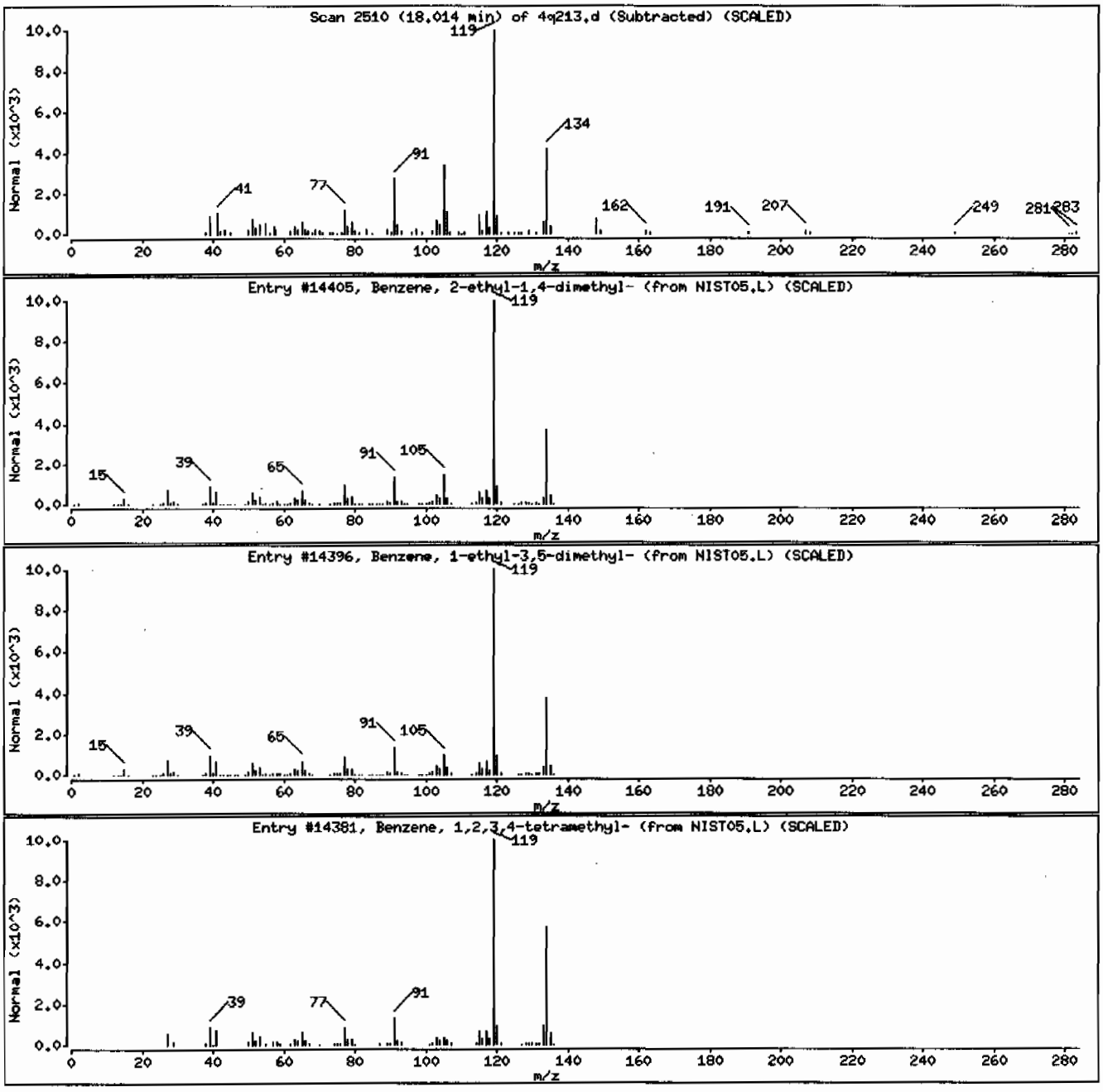

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-940**	**Date Collected:**	**12/14/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243033006**	**Date Received:**	**12/16/2009 09:10**	**%Moisture:**	**19.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14222**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**936119**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**12/23/2009 03:48**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**12/22/2009 22:47**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**4q218.d**	**Column:**	**RTX-VOLATILES**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.24	ug/kg	0.422	1.24
74-87-3	Chloromethane	U	1.24	ug/kg	0.373	1.24
75-01-4	Vinyl chloride	U	1.24	ug/kg	0.373	1.24
74-83-9	Bromomethane	U	1.24	ug/kg	0.373	1.24
75-00-3	Chloroethane	U	1.24	ug/kg	0.373	1.24
75-69-4	Trichlorofluoromethane	U	1.24	ug/kg	0.373	1.24
67-64-1	Acetone	J	2.21	ug/kg	2.06	6.21
75-35-4	1,1-Dichloroethylene	U	1.24	ug/kg	0.373	1.24
74-88-4	Iodomethane	U	6.21	ug/kg	1.99	6.21
75-09-2	Methylene chloride	U	6.21	ug/kg	2.48	6.21
75-15-0	Carbon disulfide	U	6.21	ug/kg	1.55	6.21
156-60-5	trans-1,2-Dichloroethylene	U	1.24	ug/kg	0.373	1.24
75-34-3	1,1-Dichloroethane	U	1.24	ug/kg	0.373	1.24
78-93-3	2-Butanone	U	6.21	ug/kg	1.86	6.21
156-59-2	cis-1,2-Dichloroethylene	U	1.24	ug/kg	0.373	1.24
594-20-7	2,2-Dichloropropane	U	1.24	ug/kg	0.373	1.24
67-66-3	Chloroform	U	1.24	ug/kg	0.373	1.24
74-97-5	Bromochloromethane	U	1.24	ug/kg	0.410	1.24
71-55-6	1,1,1-Trichloroethane	U	1.24	ug/kg	0.373	1.24
563-58-6	1,1-Dichloropropene	U	1.24	ug/kg	0.373	1.24
56-23-5	Carbon tetrachloride	U	1.24	ug/kg	0.373	1.24
107-06-2	1,2-Dichloroethane	U	1.24	ug/kg	0.373	1.24
71-43-2	Benzene	U	1.24	ug/kg	0.373	1.24
79-01-6	Trichloroethylene	U	1.24	ug/kg	0.410	1.24
78-87-5	1,2-Dichloropropane	U	1.24	ug/kg	0.373	1.24
75-27-4	Bromodichloromethane	U	1.24	ug/kg	0.373	1.24
74-95-3	Dibromomethane	U	1.24	ug/kg	0.373	1.24
108-10-1	4-Methyl-2-pentanone	U	6.21	ug/kg	1.55	6.21
10061-01-5	cis-1,3-Dichloropropylene	U	1.24	ug/kg	0.373	1.24
108-88-3	Toluene	U	1.24	ug/kg	0.373	1.24
10061-02-6	trans-1,3-Dichloropropylene	U	1.24	ug/kg	0.373	1.24
79-00-5	1,1,2-Trichloroethane	U	1.24	ug/kg	0.373	1.24
591-78-6	2-Hexanone	U	6.21	ug/kg	1.86	6.21
142-28-9	1,3-Dichloropropane	U	1.24	ug/kg	0.373	1.24
127-18-4	Tetrachloroethylene	U	1.24	ug/kg	0.373	1.24
124-48-1	Dibromochloromethane	U	1.24	ug/kg	0.373	1.24
106-93-4	1,2-Dibromoethane	U	1.24	ug/kg	0.373	1.24
108-90-7	Chlorobenzene	U	1.24	ug/kg	0.373	1.24

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-940**	**Date Collected:**	**12/14/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243033006**	**Date Received:**	**12/16/2009 09:10**	**%Moisture:**	**19.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14222**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**936119**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**12/23/2009 03:48**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**12/22/2009 22:47**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**4q218.d**	**Column:**	**RTX-VOLATILES**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.24	ug/kg	0.373	1.24
179601-23-1	m,p-Xylenes	U	2.48	ug/kg	0.373	2.48
95-47-6	o-Xylene	U	1.24	ug/kg	0.373	1.24
100-42-5	Styrene	U	1.24	ug/kg	0.373	1.24
75-25-2	Bromoform	U	1.24	ug/kg	0.373	1.24
79-34-5	1,1,2,2-Tetrachloroethane	U	1.24	ug/kg	0.373	1.24
96-18-4	1,2,3-Trichloropropane	U	1.24	ug/kg	0.373	1.24
108-86-1	Bromobenzene	U	1.24	ug/kg	0.373	1.24
103-65-1	n-Propylbenzene	U	1.24	ug/kg	0.373	1.24
95-49-8	2-Chlorotoluene	U	1.24	ug/kg	0.373	1.24
98-82-8	Isopropylbenzene	U	1.24	ug/kg	0.373	1.24
108-67-8	1,3,5-Trimethylbenzene	U	1.24	ug/kg	0.373	1.24
106-43-4	4-Chlorotoluene	U	1.24	ug/kg	0.373	1.24
98-06-6	tert-Butylbenzene	U	1.24	ug/kg	0.373	1.24
95-63-6	1,2,4-Trimethylbenzene	U	1.24	ug/kg	0.373	1.24
135-98-8	sec-Butylbenzene	U	1.24	ug/kg	0.373	1.24
99-87-6	4-Isopropyltoluene	U	1.24	ug/kg	0.373	1.24
541-73-1	1,3-Dichlorobenzene	U	1.24	ug/kg	0.373	1.24
106-46-7	1,4-Dichlorobenzene	U	1.24	ug/kg	0.373	1.24
104-51-8	n-Butylbenzene	U	1.24	ug/kg	0.373	1.24
96-12-8	1,2-Dibromo-3-chloropropane	U	1.24	ug/kg	0.373	1.24
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	6.21	ug/kg	1.99	6.21
630-20-6	1,1,1,2-Tetrachloroethane	U	1.24	ug/kg	0.373	1.24
95-50-1	1,2-Dichlorobenzene	U	1.24	ug/kg	0.373	1.24

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Siloxane	14.83	28.7	ug/kg		J
	Unknown Siloxane	16.79	18.1	ug/kg		J

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA4.i/122209v4/4q218.d
Lab Smp Id: 243033006 Client Smp ID: RE03-09-14222
Inj Date : 23-DEC-2009 03:48
Operator : ACJ Inst ID: VOA4.i
Smp Info : |243033006|936119|1|VOAF|1|
Misc Info : LANL 5G N/A
Comment :
Method : /chem/VOA4.i/122209v4/VOA4-8260-121909.m
Meth Date : 24-Dec-2009 16:25 amj Quant Type: ISTD
Cal Date : 20-DEC-2009 02:33 Cal File: 4p618.d
Als bottle: 18
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-940.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	19.46360	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
* 40 Fluorobenzene	96	10.619	10.613	(1.000)	1035610	50.0000	
* 61 Chlorobenzene-d5	117	13.771	13.771	(1.000)	734928	50.0000	
* 86 1,4-Dichlorobenzene-d4	152	16.179	16.173	(1.000)	409525	50.0000	
$ 138 1,2-Dichloroethane-d4	65	10.259	10.259	(0.966)	225307	41.7569	51.8
$ 47 Toluene-d8	98	12.253	12.246	(0.890)	843800	48.4798	60.2
$ 71 Bromofluorobenzene	95	14.953	14.947	(0.924)	367170	55.2145	68.6
10 Acetone	43	7.363	7.357	(0.693)	11563	1.77731	2.2(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

ION RATIO REPORT

VOA REPORT

Data file: 4q218.d
Report Date: 12/23/2009 16:11
Lab. ID: 243033006 SampleType: SAMPLE
Injection Date: 23-DEC-2009 03:48
Operator: ACJ Instrument: VOA4.i
Sample Info: |243033006|936119|1|VOAF|1|
Miscellaneous Info: LANL 5G N/A
Comment:
Method used: /chem/VOA4.i/122209v4/VOA4-8260-121909.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-940
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
10 Acetone		CAS#: 67-64-1				
43	11563	7.36	7.36	80-120	100	( )
58	3084	7.36	7.36	0- 59	27	( )
37 1,2-Dichloroethane			CAS#: 107-06-2			
62	13687	10.62	10.34	80-120	100	(T)
64	2515	10.62	10.34	3- 63	18	(T)
49 4-Methyl-2-pentanone			CAS#: 108-10-1			
58	8035	12.25	12.01	80-120	100	(T)
43	5224	12.25	12.01	254-314	65	(QT)
100	550204	12.25	12.01	0- 60	6847	(QT)
66 Bromoform			CAS#: 75-25-2			
173	1958	14.96	14.65	80-120	100	(T)
175	25525	14.95	14.65	19- 79	1304	(QT)
74 1,2,3-Trichloropropane			CAS#: 96-18-4			
110	1809	14.82	15.11	80-120	100	(T)
75	4822	14.83	15.11	257-317	267	(T)
77	165	14.81	15.11	61-121	9	(QT)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA4.i/122209v4/4q218.d
Lab Smp Id: 243033006 Client Smp ID: RE03-09-14222
Inj Date : 23-DEC-2009 03:48
Operator : ACJ Inst ID: VOA4.i
Smp Info : |243033006|936119|1|VOAF|1|
Misc Info : LANL 5G N/A
Comment :
Method : /chem/VOA4.i/122209v4/VOA4-8260-121909.m
Meth Date : 24-Dec-2009 16:25 amj Quant Type: ISTD
Cal Date : 20-DEC-2009 02:33 Cal File: 4p618.d
Als bottle: 18
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-940.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	19.46360	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 61 Chlorobenzene-d5	13.771	2343507	50.000
* 86 1,4-Dichlorobenzene-d4	16.179	2469135	50.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ug/l)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown Siloxane				CAS #:			
14.825	1084932	23.1476028	28.7	0		0	61(L)

RT	AREA	CONCENTRATIONS ON-COL(ug/l)	FINAL(ug/Kg)	QUAL	QUANT LIBRARY	LIB ENTRY	CPND #
Unknown Siloxane					CAS #:		
16.788	719290	14.5656182	18.1	0		0	86

QC Flag Legend

L - Operator selected an alternate library search match.

Data File: /chem/VOA4.i/122209v4/4q218.d
Date : 23-DEC-2009 03:48
Client ID: RE03-09-14222
Sample Info: |2430330061936119|1|VOAF|1|

Column phase: RTX-VOLATILES

Instrument: VOA4.i

Operator: ACJ
Column diameter: 0.25

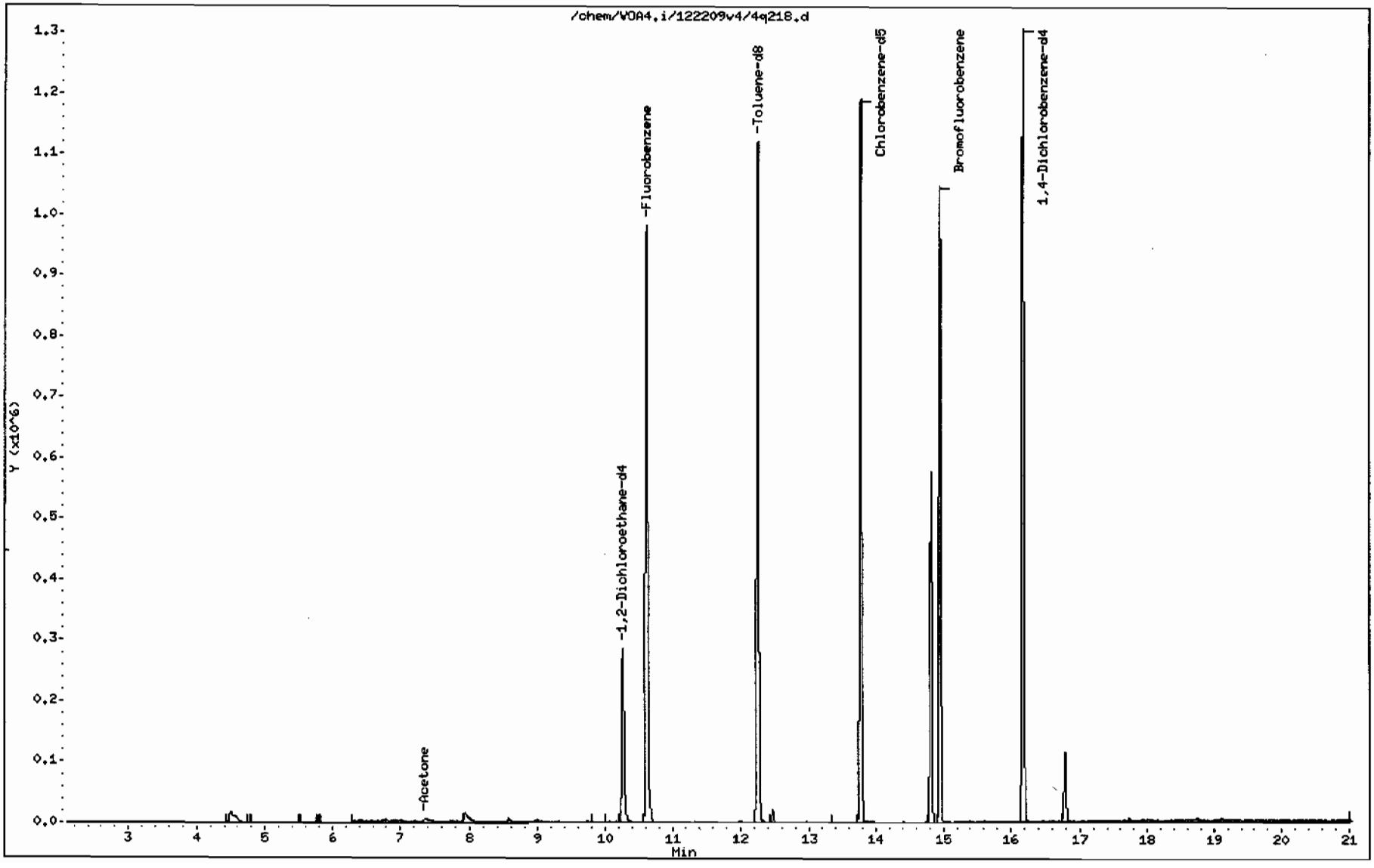

Data File: /chem/VOA4.i/122209v4/4q218.d

Date : 23-DEC-2009 03:48

Client ID: RE03-09-14222

Instrument: VOA4.i

Sample Info: |2430330061936119|1|VOAF|1|

Operator: ACJ

Column phase: RTX-VOLATILES

Column diameter: 0.25

10 Acetone

Concentration: 2.2 ug/Kg

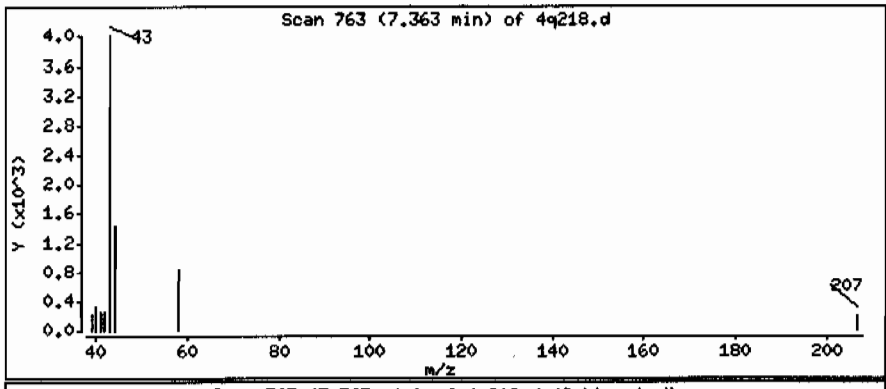

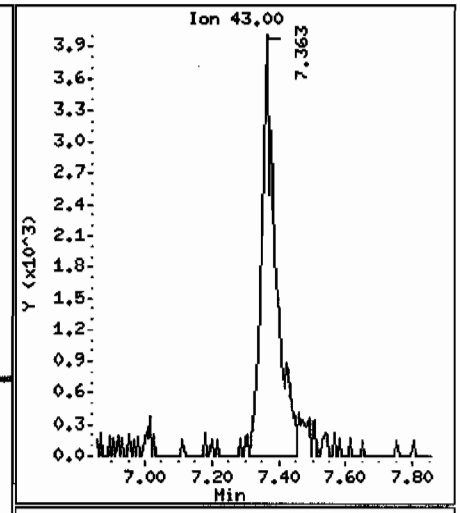

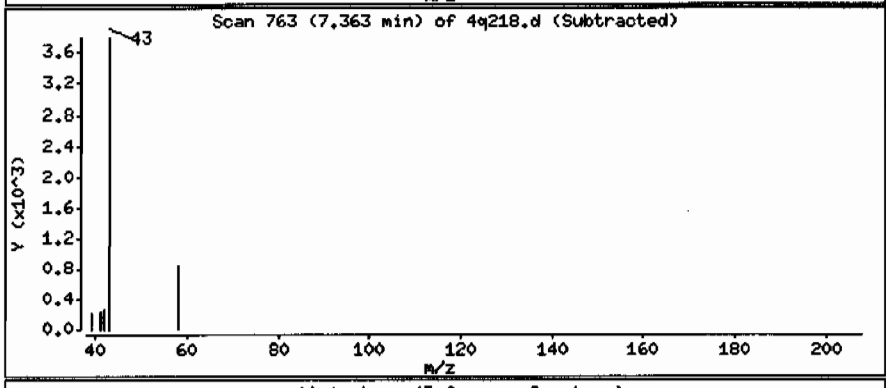

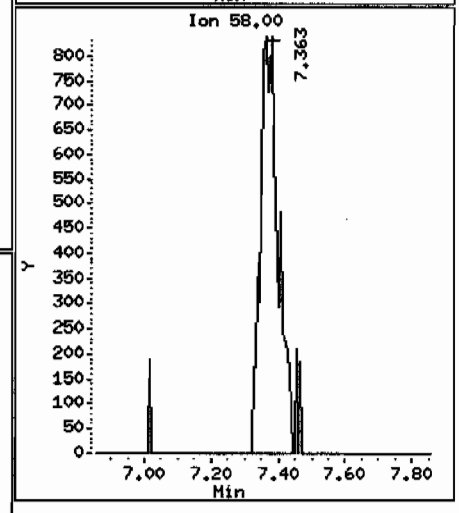

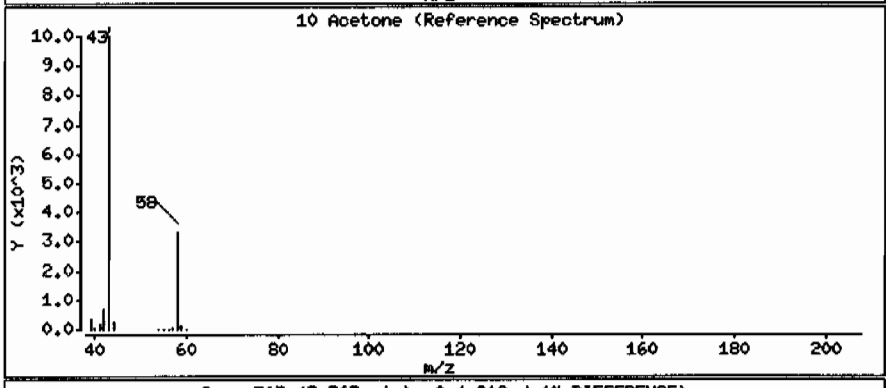

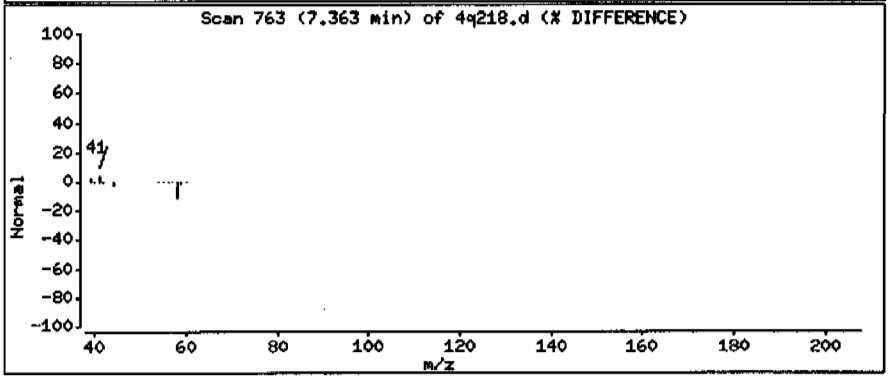

Data File: /chem/VOA4.i/122209v4/4q218.d

Date : 23-DEC-2009 03:48

Client ID: RE03-09-14222

Instrument: VOA4.i

Sample Info: |2430330061936119|1|VOAF|1|

Operator: ACJ

Column phase: RTX-VOLATILES

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Siloxane						
Cyclotetrasiloxane, octamethyl-	556-67-2	NIST05.L	122480	46	C8H24O4Si4	296
7H-Dibenzo[b,g]carbazole, 7-methyl-	3557-49-1	NIST05.L	112705	64	C21H15N	281
Benzoic acid, 3-methyl-2-trimethylsilylo	1000153-57-1	NIST05.L	121892	59	C14H24O3Si2	296

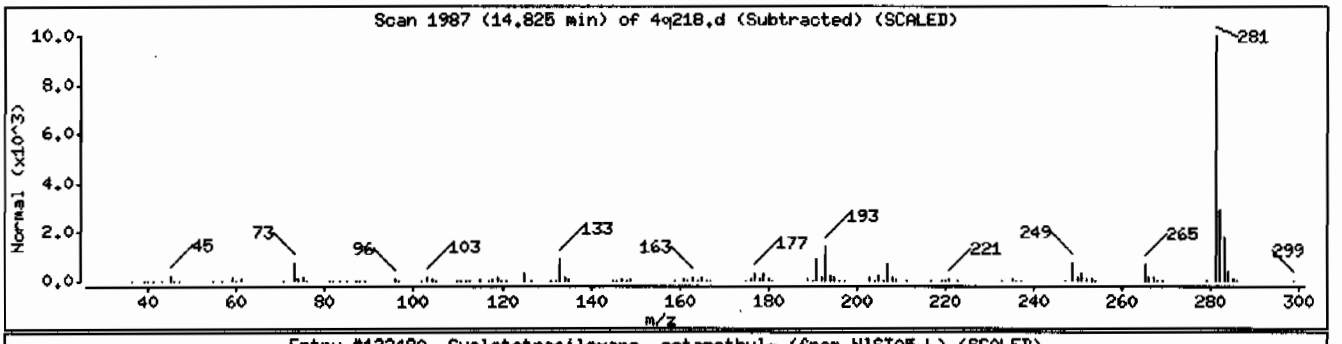

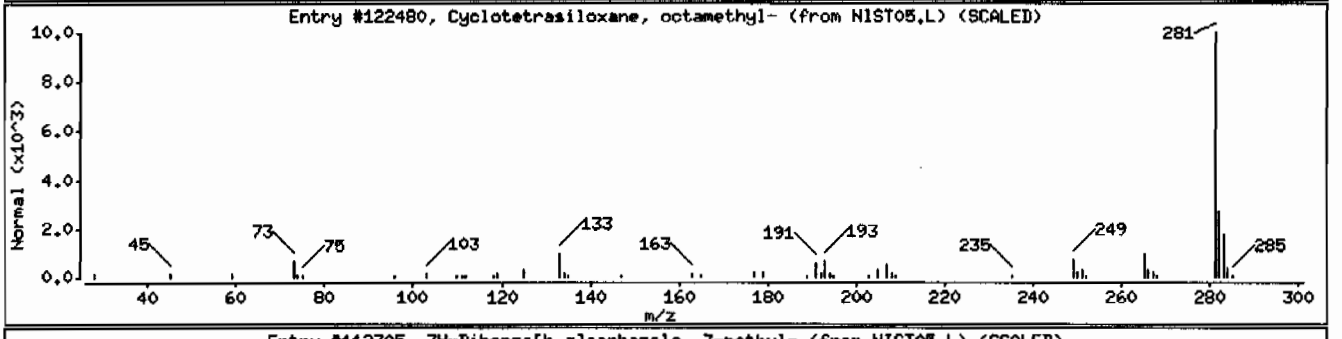

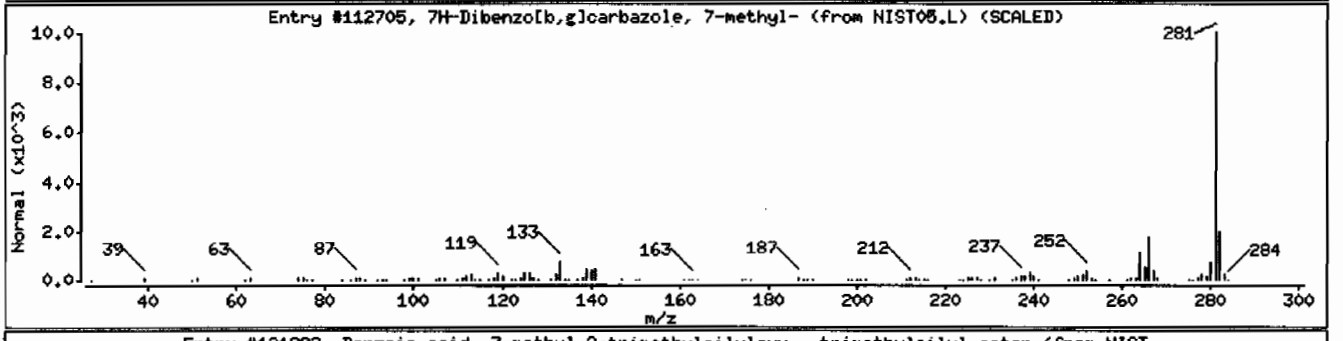

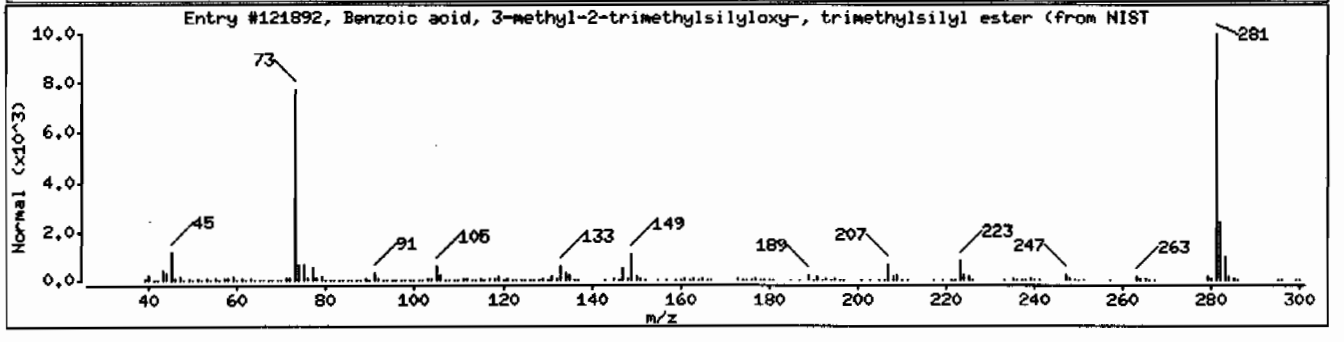

Data File: /chem/VOA4.i/122209v4/4q218.d

Date : 23-DEC-2009 03:48

Client ID: RE03-09-14222

Instrument: VOA4.i

Sample Info: |2430330061936119|1|VOAF|1|

Operator: ACJ

Column phase: RTX-VOLATILES

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Siloxane						
Benzoic acid, 2-[(trimethylsilyl)oxy]-,	3789-85-3	NIST05.L	112909	45	C13H22O3Si2	282
11H-Dibenzo[b,e][1,4]diazepin-11-one, 5-	13450-73-2	NIST05.L	103364	43	C16H17N3O	267
Benzeneethanamine, N-[(pentafluorophenyl	55429-85-1	NIST05.L	182554	43	C21H26F5NO2Si	475

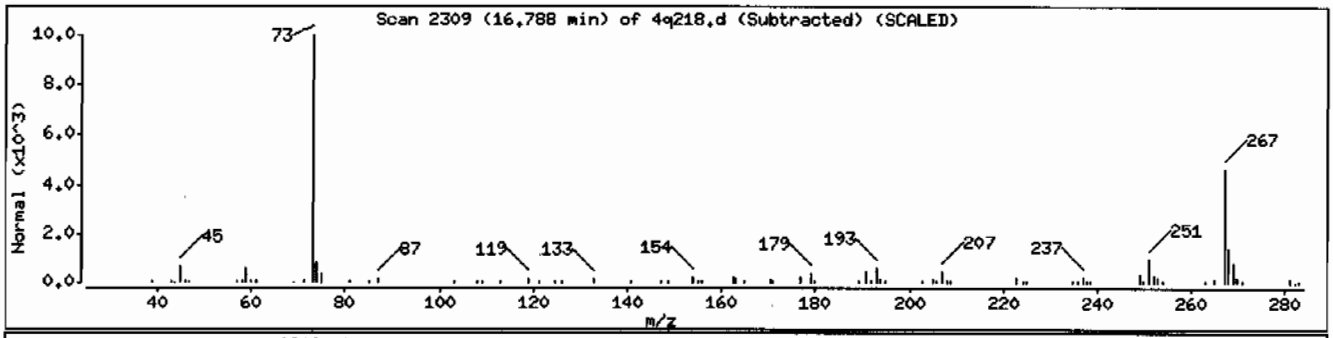

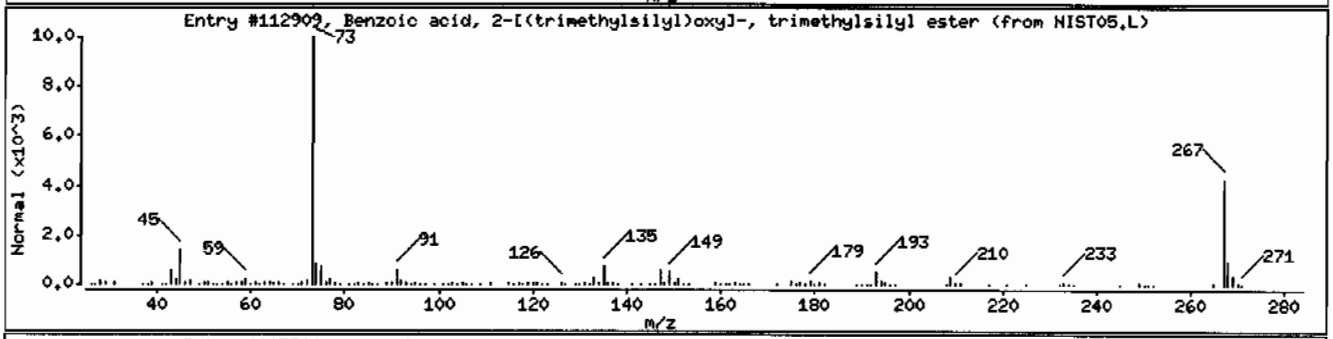

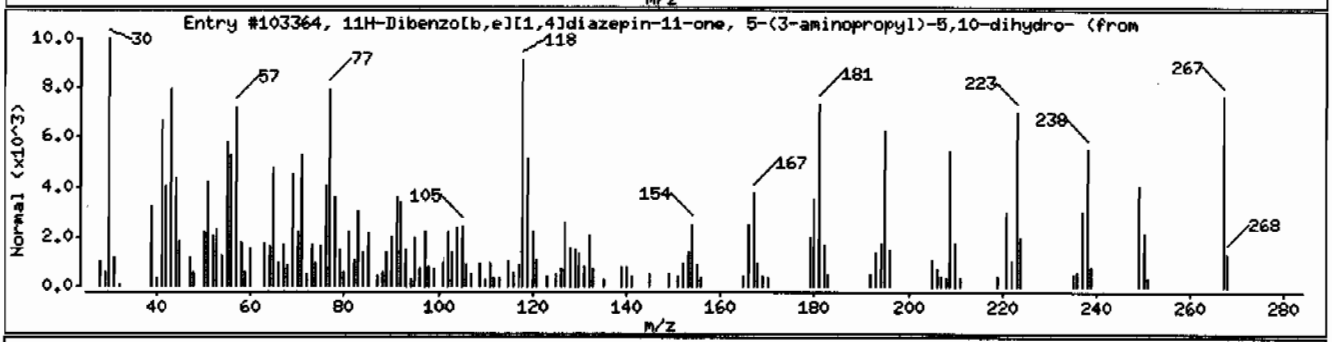

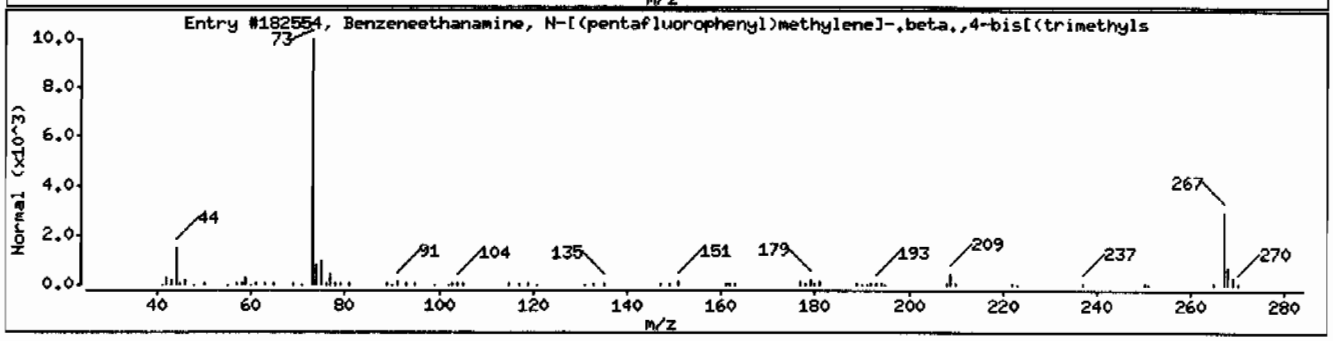

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-940	**Date Collected:**	12/14/2009 12:00	**Matrix:**	S
Lab Sample ID:	243033007	**Date Received:**	12/16/2009 09:10	**%Moisture:**	10.8
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14223	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	936119	**Inst:**	VOA4.I	**Dilution:**	1
Run Date:	12/23/2009 04:15	**Analyst:**	ACJ	**Purge Vol:**	5 mL
Prep Date:	12/22/2009 22:48	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	4q219.d	**Column:**	RTX-VOLATILES	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.12	ug/kg	0.381	1.12
74-87-3	Chloromethane	U	1.12	ug/kg	0.336	1.12
75-01-4	Vinyl chloride	U	1.12	ug/kg	0.336	1.12
74-83-9	Bromomethane	U	1.12	ug/kg	0.336	1.12
75-00-3	Chloroethane	U	1.12	ug/kg	0.336	1.12
75-69-4	Trichlorofluoromethane	U	1.12	ug/kg	0.336	1.12
67-64-1	Acetone	U	5.61	ug/kg	1.86	5.61
75-35-4	1,1-Dichloroethylene	U	1.12	ug/kg	0.336	1.12
74-88-4	Iodomethane	U	5.61	ug/kg	1.79	5.61
75-09-2	Methylene chloride	U	5.61	ug/kg	2.24	5.61
75-15-0	Carbon disulfide	U	5.61	ug/kg	1.40	5.61
156-60-5	trans-1,2-Dichloroethylene	U	1.12	ug/kg	0.336	1.12
75-34-3	1,1-Dichloroethane	U	1.12	ug/kg	0.336	1.12
78-93-3	2-Butanone	U	5.61	ug/kg	1.68	5.61
156-59-2	cis-1,2-Dichloroethylene	U	1.12	ug/kg	0.336	1.12
594-20-7	2,2-Dichloropropane	U	1.12	ug/kg	0.336	1.12
67-66-3	Chloroform	U	1.12	ug/kg	0.336	1.12
74-97-5	Bromochloromethane	U	1.12	ug/kg	0.370	1.12
71-55-6	1,1,1-Trichloroethane	U	1.12	ug/kg	0.336	1.12
563-58-6	1,1-Dichloropropene	U	1.12	ug/kg	0.336	1.12
56-23-5	Carbon tetrachloride	U	1.12	ug/kg	0.336	1.12
107-06-2	1,2-Dichloroethane	U	1.12	ug/kg	0.336	1.12
71-43-2	Benzene	U	1.12	ug/kg	0.336	1.12
79-01-6	Trichloroethylene	U	1.12	ug/kg	0.370	1.12
78-87-5	1,2-Dichloropropane	U	1.12	ug/kg	0.336	1.12
75-27-4	Bromodichloromethane	U	1.12	ug/kg	0.336	1.12
74-95-3	Dibromomethane	U	1.12	ug/kg	0.336	1.12
108-10-1	4-Methyl-2-pentanone	U	5.61	ug/kg	1.40	5.61
10061-01-5	cis-1,3-Dichloropropylene	U	1.12	ug/kg	0.336	1.12
108-88-3	Toluene	U	1.12	ug/kg	0.336	1.12
10061-02-6	trans-1,3-Dichloropropylene	U	1.12	ug/kg	0.336	1.12
79-00-5	1,1,2-Trichloroethane	U	1.12	ug/kg	0.336	1.12
591-78-6	2-Hexanone	U	5.61	ug/kg	1.68	5.61
142-28-9	1,3-Dichloropropane	U	1.12	ug/kg	0.336	1.12
127-18-4	Tetrachloroethylene	U	1.12	ug/kg	0.336	1.12
124-48-1	Dibromochloromethane	U	1.12	ug/kg	0.336	1.12
106-93-4	1,2-Dibromoethane	U	1.12	ug/kg	0.336	1.12
108-90-7	Chlorobenzene	U	1.12	ug/kg	0.336	1.12

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-940	**Date Collected:**	12/14/2009 12:00	**Matrix:**	S
Lab Sample ID:	243033007	**Date Received:**	12/16/2009 09:10	**%Moisture:**	10.8
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14223	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	936119	**Inst:**	VOA4.I	**Dilution:**	1
Run Date:	12/23/2009 04:15	**Analyst:**	ACJ	**Purge Vol:**	5 mL
Prep Date:	12/22/2009 22:48	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	4q219.d	**Column:**	RTX-VOLATILES	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.12	ug/kg	0.336	1.12
179601-23-1	m,p-Xylenes	U	2.24	ug/kg	0.336	2.24
95-47-6	o-Xylene	U	1.12	ug/kg	0.336	1.12
100-42-5	Styrene	U	1.12	ug/kg	0.336	1.12
75-25-2	Bromoform	U	1.12	ug/kg	0.336	1.12
79-34-5	1,1,2,2-Tetrachloroethane	U	1.12	ug/kg	0.336	1.12
96-18-4	1,2,3-Trichloropropane	U	1.12	ug/kg	0.336	1.12
108-86-1	Bromobenzene	U	1.12	ug/kg	0.336	1.12
103-65-1	n-Propylbenzene	U	1.12	ug/kg	0.336	1.12
95-49-8	2-Chlorotoluene	U	1.12	ug/kg	0.336	1.12
98-82-8	Isopropylbenzene	U	1.12	ug/kg	0.336	1.12
108-67-8	1,3,5-Trimethylbenzene	U	1.12	ug/kg	0.336	1.12
106-43-4	4-Chlorotoluene	U	1.12	ug/kg	0.336	1.12
98-06-6	tert-Butylbenzene	U	1.12	ug/kg	0.336	1.12
95-63-6	1,2,4-Trimethylbenzene	U	1.12	ug/kg	0.336	1.12
135-98-8	sec-Butylbenzene	U	1.12	ug/kg	0.336	1.12
99-87-6	4-Isopropyltoluene	U	1.12	ug/kg	0.336	1.12
541-73-1	1,3-Dichlorobenzene	U	1.12	ug/kg	0.336	1.12
106-46-7	1,4-Dichlorobenzene	U	1.12	ug/kg	0.336	1.12
104-51-8	n-Butylbenzene	U	1.12	ug/kg	0.336	1.12
96-12-8	1,2-Dibromo-3-chloropropane	U	1.12	ug/kg	0.336	1.12
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.61	ug/kg	1.79	5.61
630-20-6	1,1,1,2-Tetrachloroethane	U	1.12	ug/kg	0.336	1.12
95-50-1	1,2-Dichlorobenzene	U	1.12	ug/kg	0.336	1.12

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Siloxane	14.83	21.6	ug/kg		J
	Unknown Siloxane	16.79	20.3	ug/kg		J

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA4.i/122209v4/4q219.d
Lab Smp Id: 243033007 Client Smp ID: RE03-09-14223
Inj Date : 23-DEC-2009 04:15
Operator : ACJ Inst ID: VOA4.i
Smp Info : |243033007|936119|1|VOAF|1|
Misc Info : LANL 5G N/A
Comment :
Method : /chem/VOA4.i/122209v4/VOA4-8260-121909.m
Meth Date : 24-Dec-2009 16:25 amj Quant Type: ISTD
Cal Date : 20-DEC-2009 02:33 Cal File: 4p618.d
Als bottle: 19
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-940.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	10.81230	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
* 40 Fluorobenzene	96	10.619	10.613	(1.000)	1033101	50.0000	
* 61 Chlorobenzene-d5	117	13.771	13.771	(1.000)	745717	50.0000	
* 86 1,4-Dichlorobenzene-d4	152	16.179	16.173	(1.000)	422423	50.0000	
$ 138 1,2-Dichloroethane-d4	65	10.259	10.259	(0.966)	226842	42.1435	47.2
$ 47 Toluene-d8	98	12.253	12.246	(0.890)	857717	48.5665	54.4
$ 71 Bromofluorobenzene	95	14.953	14.947	(0.924)	383496	55.9087	62.7

ION RATIO REPORT

VOA REPORT

Data file: 4q219.d
Report Date: 12/23/2009 16:11
Lab. ID: 243033007 SampleType: SAMPLE
Injection Date: 23-DEC-2009 04:15
Operator: ACJ Instrument: VOA4.i
Sample Info: |243033007|936119|1|VOAF|1|
Miscellaneous Info: LANL 5G N/A
Comment:
Method used: /chem/VOA4.i/122209v4/VOA4-8260-121909.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-940
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
37 1,2-Dichloroethane			CAS#: 107-06-2			
62	14386	10.62	10.34	80-120	100	(T)
64	2577	10.62	10.34	3- 63	18	(T)
49 4-Methyl-2-pentanone			CAS#: 108-10-1			
58	8012	12.25	12.01	80-120	100	(T)
43	4891	12.25	12.01	254-314	61	(QT)
100	556100	12.25	12.01	0- 60	6940	(QT)
66 Bromoform			CAS#: 75-25-2			
173	1885	14.95	14.65	80-120	100	(T)
175	24255	14.95	14.65	19- 79	1286	(QT)
74 1,2,3-Trichloropropane			CAS#: 96-18-4			
110	1619	14.83	15.11	80-120	100	(T)
75	3939	14.81	15.11	257-317	243	(QT)
77	185	14.83	15.11	61-121	11	(QT)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA4.i/122209v4/4q219.d
Lab Smp Id: 243033007 Client Smp ID: RE03-09-14223
Inj Date : 23-DEC-2009 04:15
Operator : ACJ Inst ID: VOA4.i
Smp Info : |243033007|936119|1|VOAF|1|
Misc Info : LANL 5G N/A
Comment :
Method : /chem/VOA4.i/122209v4/VOA4-8260-121909.m
Meth Date : 24-Dec-2009 16:25 amj Quant Type: ISTD
Cal Date : 20-DEC-2009 02:33 Cal File: 4p618.d
Als bottle: 19
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-940.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	10.81230	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 61 Chlorobenzene-d5	13.771	2347189	50.000
* 86 1,4-Dichlorobenzene-d4	16.179	2539438	50.000

	CONCENTRATIONS				QUANT		
RT	AREA	ON-COL(ug/l)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown Siloxane					CAS #:		
14.825	904633	19.2705663	21.6	0		0	61

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ug/l)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
====	====	==========	==========	====	=======	=========	======
Unknown Siloxane					CAS #:		
16.794	919692	18.1081776	20.3	0		0	86

Data File: /chem/VOA4.i/122209v4/4q219.d
Date : 23-DEC-2009 04:15
Client ID: RE03-09-14223
Sample Info: |2430330071936119|1|VOAF|1|

Column phase: RTX-VOLATILES

Instrument: VOA4.i

Operator: ACJ
Column diameter: 0.25

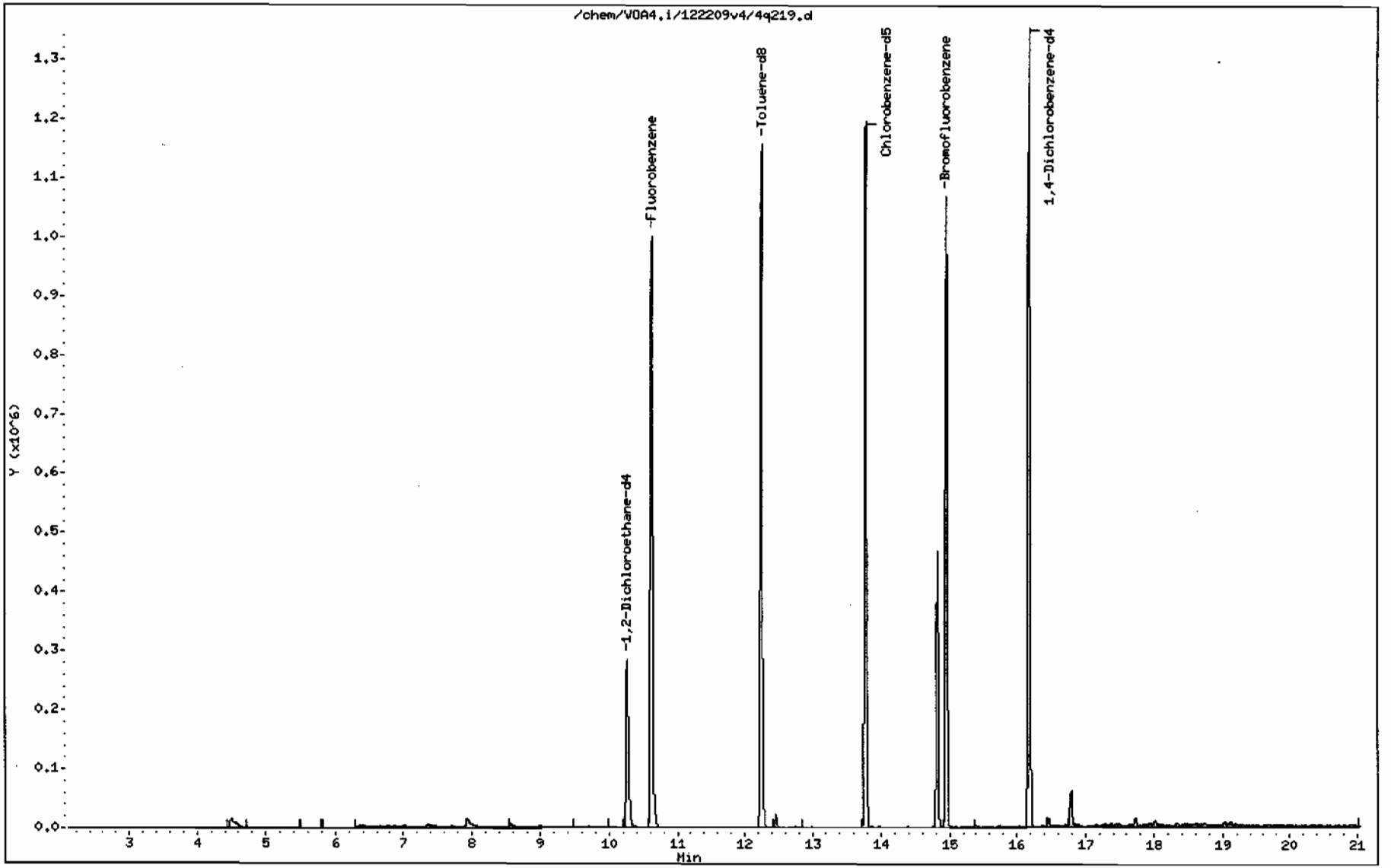

Data File: /chem/VOA4.i/122209v4/4q219.d

Date : 23-DEC-2009 04:15

Client ID: RE03-09-14223

Instrument: VOA4.i

Sample Info: |2430330071936119|1|VOAF|1|

Operator: ACJ

Column phase: RTX-VOLATILES

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Siloxane						
Cyclotetrasiloxane, octamethyl-	556-67-2	NIST05.L	122480	90	C8H24O4Si4	296
Benzene, 1-phenyl-4-(2-cyano-2-phenyleth	27869-56-3	NIST05.L	112707	59	C21H15N	281
7H-Dibenzo[b,g]carbazole, 7-methyl-	3557-49-1	NIST05.L	112705	59	C21H15N	281

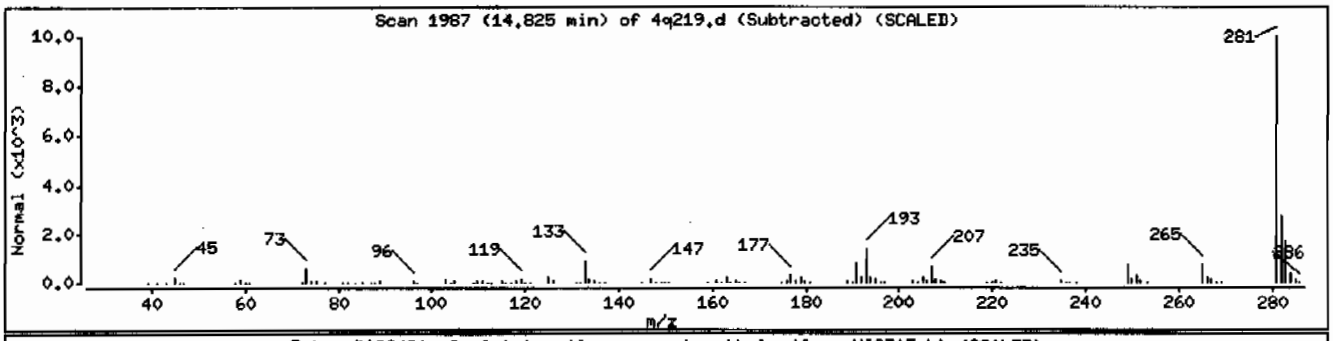

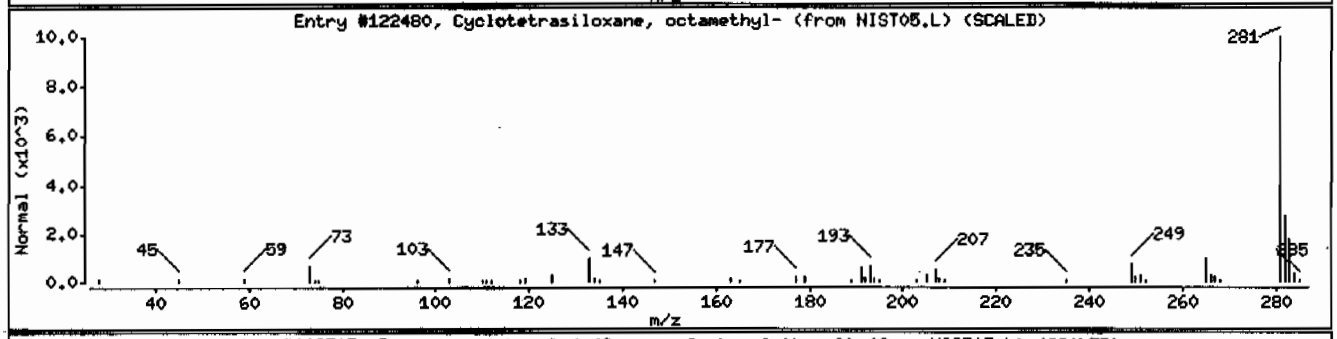

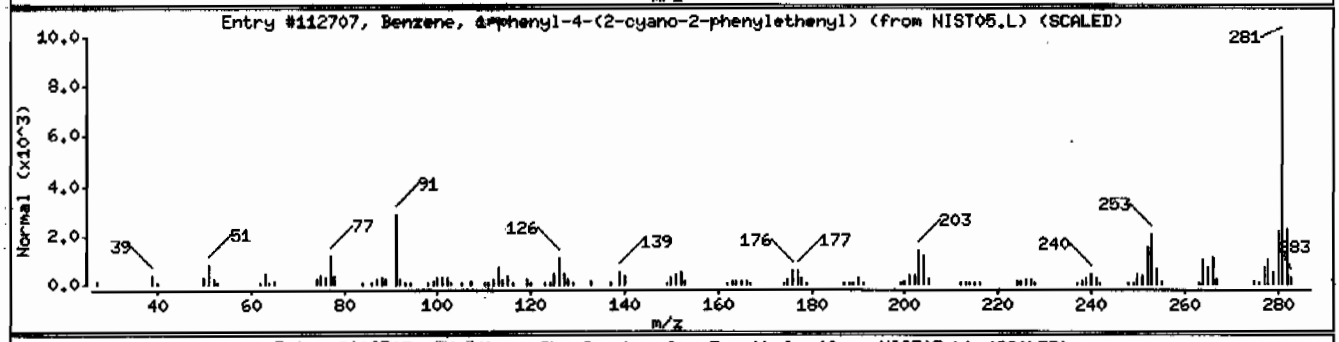

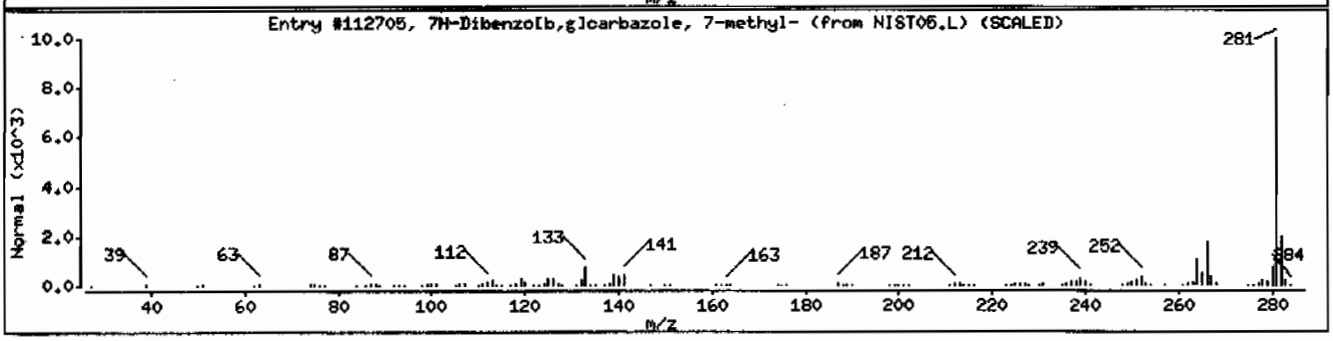

Data File: /chem/VOA4.i/122209v4/4q219.d

Date : 23-DEC-2009 04:15

Client ID: RE03-09-14223

Instrument: VOA4.i

Sample Info: |2430330071936119|1|VOAF|1|

Operator: ACJ

Column phase: RTX-VOLATILES

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Siloxane						
Butanamide, 2,2,3,3,4,4,4-heptafluoro-N-	55471-01-7	NIST05.L	184036	64	C18H26F7N03Si2	493
p-Trimethylsilyloxyphenyl-(trimethylsily	1000079-05-1	NIST05.L	170606	50	C18H3404Si3	398
p-Trimethylsilyloxyphenyl-bis(trimethyls	1000079-08-1	NIST05.L	161171	50	C17H3403Si3	370

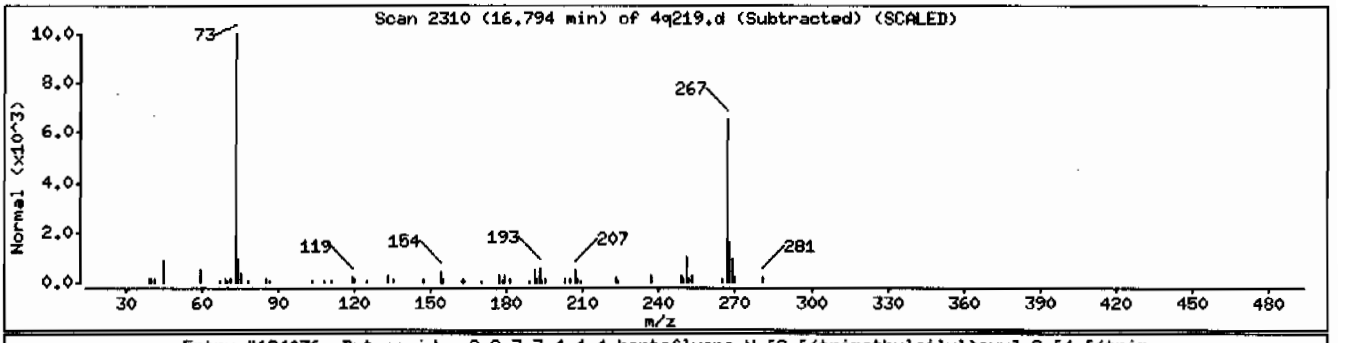

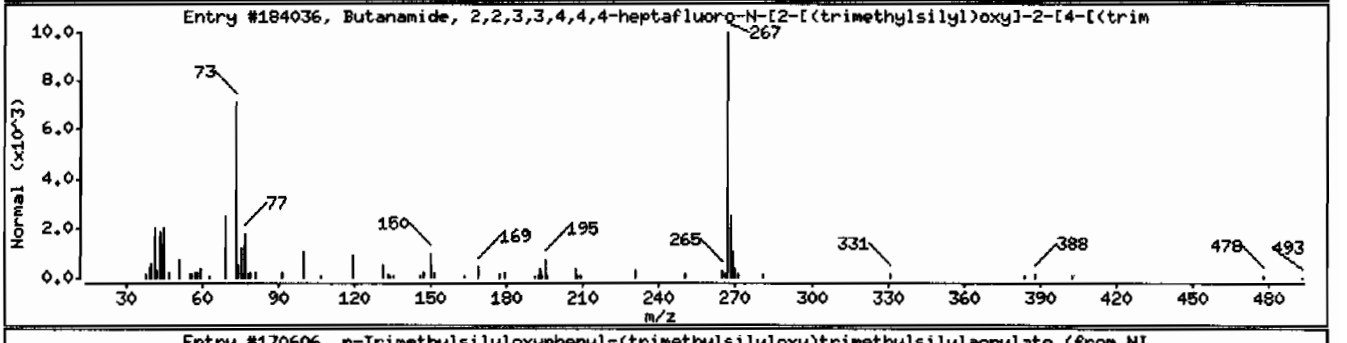

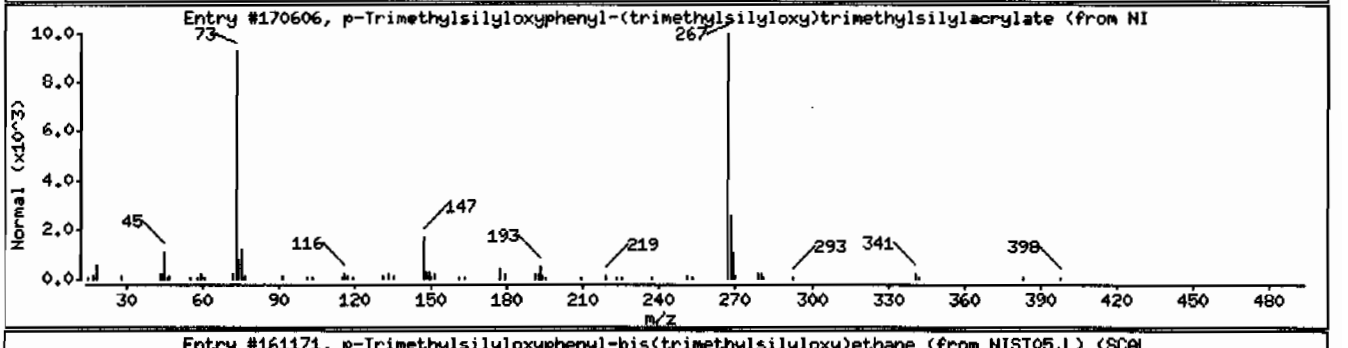

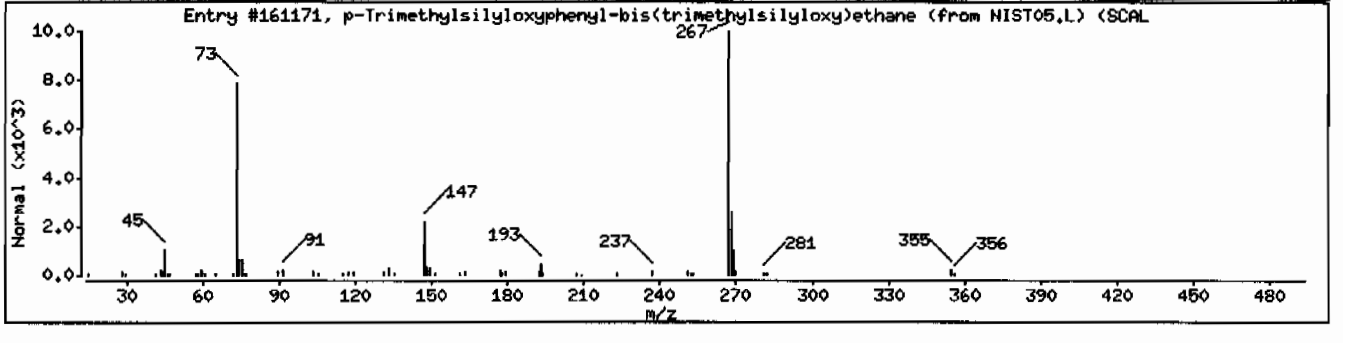

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-940	**Date Collected:**	12/14/2009 12:00	**Matrix:**	S
Lab Sample ID:	243033009	**Date Received:**	12/16/2009 09:10	**%Moisture:**	19.3
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-10-2734	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	936119	**Inst:**	VOA4.I	**Dilution:**	1
Run Date:	12/23/2009 05:10	**Analyst:**	ACJ	**Purge Vol:**	5 mL
Prep Date:	12/22/2009 22:50	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	4q221.d	**Column:**	RTX-VOLATILES	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.24	ug/kg	0.421	1.24
74-87-3	Chloromethane	U	1.24	ug/kg	0.372	1.24
75-01-4	Vinyl chloride	U	1.24	ug/kg	0.372	1.24
74-83-9	Bromomethane	U	1.24	ug/kg	0.372	1.24
75-00-3	Chloroethane	U	1.24	ug/kg	0.372	1.24
75-69-4	Trichlorofluoromethane	U	1.24	ug/kg	0.372	1.24
67-64-1	Acetone	J	2.26	ug/kg	2.06	6.20
75-35-4	1,1-Dichloroethylene	U	1.24	ug/kg	0.372	1.24
74-88-4	Iodomethane	U	6.20	ug/kg	1.98	6.20
75-09-2	Methylene chloride	U	6.20	ug/kg	2.48	6.20
75-15-0	Carbon disulfide	U	6.20	ug/kg	1.55	6.20
156-60-5	trans-1,2-Dichloroethylene	U	1.24	ug/kg	0.372	1.24
75-34-3	1,1-Dichloroethane	U	1.24	ug/kg	0.372	1.24
78-93-3	2-Butanone	U	6.20	ug/kg	1.86	6.20
156-59-2	cis-1,2-Dichloroethylene	U	1.24	ug/kg	0.372	1.24
594-20-7	2,2-Dichloropropane	U	1.24	ug/kg	0.372	1.24
67-66-3	Chloroform	U	1.24	ug/kg	0.372	1.24
74-97-5	Bromochloromethane	U	1.24	ug/kg	0.409	1.24
71-55-6	1,1,1-Trichloroethane	U	1.24	ug/kg	0.372	1.24
563-58-6	1,1-Dichloropropene	U	1.24	ug/kg	0.372	1.24
56-23-5	Carbon tetrachloride	U	1.24	ug/kg	0.372	1.24
107-06-2	1,2-Dichloroethane	U	1.24	ug/kg	0.372	1.24
71-43-2	Benzene	U	1.24	ug/kg	0.372	1.24
79-01-6	Trichloroethylene	U	1.24	ug/kg	0.409	1.24
78-87-5	1,2-Dichloropropane	U	1.24	ug/kg	0.372	1.24
75-27-4	Bromodichloromethane	U	1.24	ug/kg	0.372	1.24
74-95-3	Dibromomethane	U	1.24	ug/kg	0.372	1.24
108-10-1	4-Methyl-2-pentanone	U	6.20	ug/kg	1.55	6.20
10061-01-5	cis-1,3-Dichloropropylene	U	1.24	ug/kg	0.372	1.24
108-88-3	Toluene	U	1.24	ug/kg	0.372	1.24
10061-02-6	trans-1,3-Dichloropropylene	U	1.24	ug/kg	0.372	1.24
79-00-5	1,1,2-Trichloroethane	U	1.24	ug/kg	0.372	1.24
591-78-6	2-Hexanone	U	6.20	ug/kg	1.86	6.20
142-28-9	1,3-Dichloropropane	U	1.24	ug/kg	0.372	1.24
127-18-4	Tetrachloroethylene	U	1.24	ug/kg	0.372	1.24
124-48-1	Dibromochloromethane	U	1.24	ug/kg	0.372	1.24
106-93-4	1,2-Dibromoethane	U	1.24	ug/kg	0.372	1.24
108-90-7	Chlorobenzene	U	1.24	ug/kg	0.372	1.24

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-940**	**Date Collected:**	**12/14/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243033009**	**Date Received:**	**12/16/2009 09:10**	**%Moisture:**	**19.3**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-10-2734**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**936119**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**12/23/2009 05:10**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**12/22/2009 22:50**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**4q221.d**	**Column:**	**RTX-VOLATILES**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.24	ug/kg	0.372	1.24
179601-23-1	m,p-Xylenes	U	2.48	ug/kg	0.372	2.48
95-47-6	o-Xylene	U	1.24	ug/kg	0.372	1.24
100-42-5	Styrene	U	1.24	ug/kg	0.372	1.24
75-25-2	Bromoform	U	1.24	ug/kg	0.372	1.24
79-34-5	1,1,2,2-Tetrachloroethane	U	1.24	ug/kg	0.372	1.24
96-18-4	1,2,3-Trichloropropane	U	1.24	ug/kg	0.372	1.24
108-86-1	Bromobenzene	U	1.24	ug/kg	0.372	1.24
103-65-1	n-Propylbenzene	U	1.24	ug/kg	0.372	1.24
95-49-8	2-Chlorotoluene	U	1.24	ug/kg	0.372	1.24
98-82-8	Isopropylbenzene	U	1.24	ug/kg	0.372	1.24
108-67-8	1,3,5-Trimethylbenzene	U	1.24	ug/kg	0.372	1.24
106-43-4	4-Chlorotoluene	U	1.24	ug/kg	0.372	1.24
98-06-6	tert-Butylbenzene	U	1.24	ug/kg	0.372	1.24
95-63-6	1,2,4-Trimethylbenzene	U	1.24	ug/kg	0.372	1.24
135-98-8	sec-Butylbenzene	U	1.24	ug/kg	0.372	1.24
99-87-6	4-Isopropyltoluene	U	1.24	ug/kg	0.372	1.24
541-73-1	1,3-Dichlorobenzene	U	1.24	ug/kg	0.372	1.24
106-46-7	1,4-Dichlorobenzene	U	1.24	ug/kg	0.372	1.24
104-51-8	n-Butylbenzene	U	1.24	ug/kg	0.372	1.24
96-12-8	1,2-Dibromo-3-chloropropane	U	1.24	ug/kg	0.372	1.24
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	6.20	ug/kg	1.98	6.20
630-20-6	1,1,1,2-Tetrachloroethane	U	1.24	ug/kg	0.372	1.24
95-50-1	1,2-Dichlorobenzene	U	1.24	ug/kg	0.372	1.24

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Siloxane	14.83	9.97	ug/kg		J
	Unknown Siloxane	16.79	29.2	ug/kg		J

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA4.i/122209v4/4q221.d
Lab Smp Id: 243033009 Client Smp ID: RE03-10-2734
Inj Date : 23-DEC-2009 05:10
Operator : ACJ Inst ID: VOA4.i
Smp Info : |243033009|936119|1|VOAF|1|
Misc Info : LANL 5G N/A
Comment :
Method : /chem/VOA4.i/122209v4/VOA4-8260-121909.m
Meth Date : 24-Dec-2009 16:25 amj Quant Type: ISTD
Cal Date : 20-DEC-2009 02:33 Cal File: 4p618.d
Als bottle: 21
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-940.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	19.33350	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
* 40 Fluorobenzene	96	10.619	10.613	(1.000)	1034007	50.0000	
* 61 Chlorobenzene-d5	117	13.770	13.771	(1.000)	746688	50.0000	
* 86 1,4-Dichlorobenzene-d4	152	16.179	16.173	(1.000)	416974	50.0000	
$ 138 1,2-Dichloroethane-d4	65	10.259	10.259	(0.966)	230444	42.7751	53.0
$ 47 Toluene-d8	98	12.252	12.246	(0.890)	849515	48.0395	59.6
$ 71 Bromofluorobenzene	95	14.953	14.947	(0.924)	380494	56.1960	69.7
10 Acetone	43	7.363	7.357	(0.693)	11864	1.82640	2.3(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

ION RATIO REPORT

VOA REPORT

Data file: 4q221.d
Report Date: 12/23/2009 16:11
Lab. ID: 243033009 SampleType: SAMPLE
Injection Date: 23-DEC-2009 05:10
Operator: ACJ Instrument: VOA4.i
Sample Info: |243033009|936119|1|VOAF|1|
Miscellaneous Info: LANL 5G N/A
Comment:
Method used: /chem/VOA4.i/122209v4/VOA4-8260-121909.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-940
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
10 Acetone			CAS#: 67-64-1			
43	11864	7.36	7.36	80-120	100	( )
58	2854	7.38	7.36	0- 59	24	( )
37 1,2-Dichloroethane			CAS#: 107-06-2			
62	14260	10.62	10.34	80-120	100	(T)
64	2785	10.61	10.34	3- 63	20	(T)
49 4-Methyl-2-pentanone			CAS#: 108-10-1			
58	7975	12.25	12.01	80-120	100	(T)
43	5115	12.25	12.01	254-314	64	(QT)
100	556979	12.25	12.01	0- 60	6983	(QT)
66 Bromoform			CAS#: 75-25-2			
173	1764	14.95	14.65	80-120	100	(T)
175	25880	14.95	14.65	19- 79	1467	(QT)
74 1,2,3-Trichloropropane			CAS#: 96-18-4			
110	717	14.81	15.11	80-120	100	(T)
75	1794	14.83	15.11	257-317	250	(QT)
77	2166	14.95	15.11	61-121	302	(QT)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA4.i/122209v4/4q221.d
Lab Smp Id: 243033009 Client Smp ID: RE03-10-2734
Inj Date : 23-DEC-2009 05:10
Operator : ACJ Inst ID: VOA4.i
Smp Info : |243033009|936119|1|VOAF|1|
Misc Info : LANL 5G N/A
Comment :
Method : /chem/VOA4.i/122209v4/VOA4-8260-121909.m
Meth Date : 24-Dec-2009 16:25 amj Quant Type: ISTD
Cal Date : 20-DEC-2009 02:33 Cal File: 4p618.d
Als bottle: 21
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-940.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	19.33350	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 61 Chlorobenzene-d5	13.770	2431426	50.000
* 86 1,4-Dichlorobenzene-d4	16.179	2495505	50.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ug/l)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown Siloxane				CAS #:			
14.825	390943	8.03936701	10	0		0	61

RT	AREA	CONCENTRATIONS ON-COL(ug/l)	FINAL(ug/Kg)	QUAL	QUANT LIBRARY	LIB ENTRY	CPND #
Unknown Siloxane					CAS #:		
16.788	1173997	23.5222384	29.2	0		0	86

Data File: /chem/VOA4.i/122209v4/4q221.d
Date : 23-DEC-2009 05:10
Client ID: RE03-10-2734
Sample Info: |2430330091936119|1|VOAF|1|

Column phase: RTX-VOLATILES

Instrument: VOA4.i

Operator: ACJ
Column diameter: 0.25

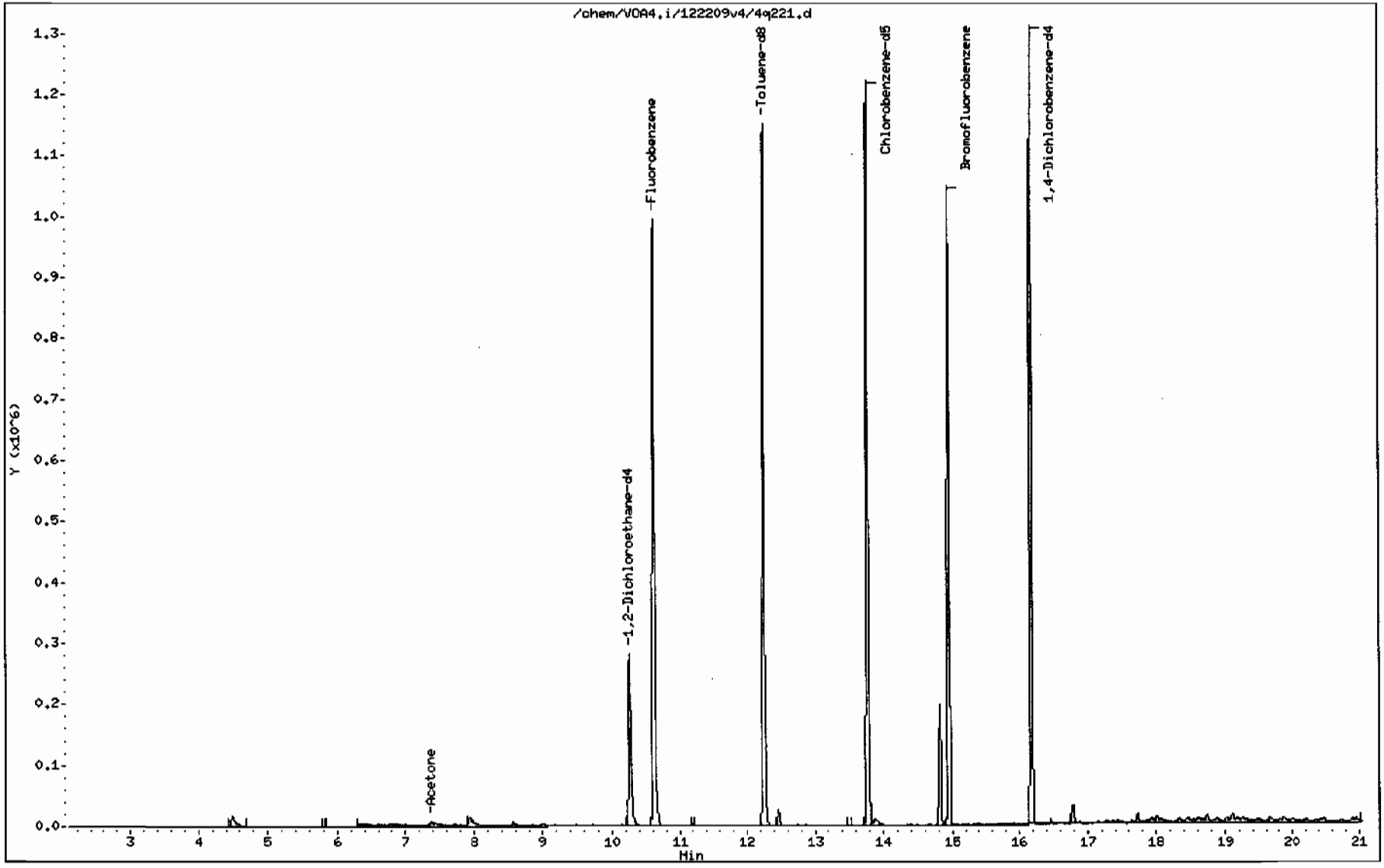

Data File: /chem/VOA4.i/122209v4/4q221.d

Date : 23-DEC-2009 05:10

Client ID: RE03-10-2734

Instrument: VOA4.i

Sample Info: |2430330009|936119|1|VOAF|1|

Operator: ACJ

Column phase: RTX-VOLATILES

Column diameter: 0.25

10 Acetone

Concentration: 2.3 ug/Kg

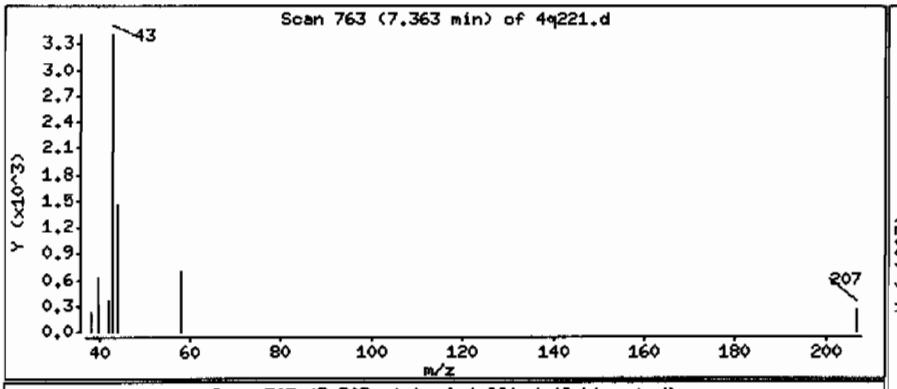

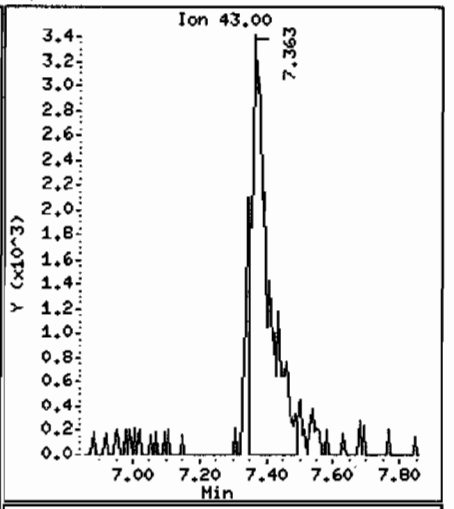

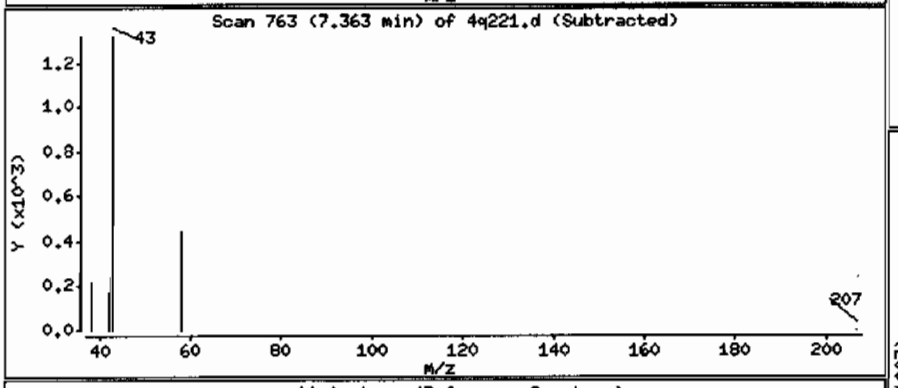

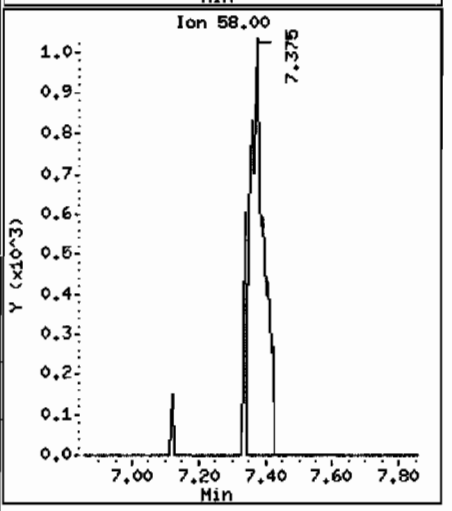

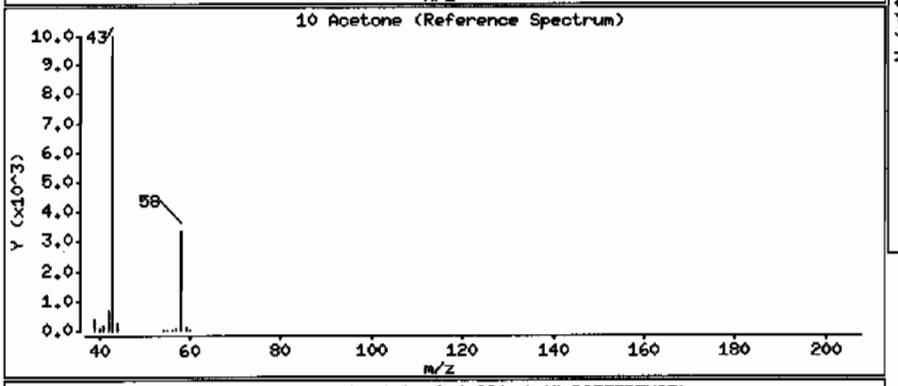

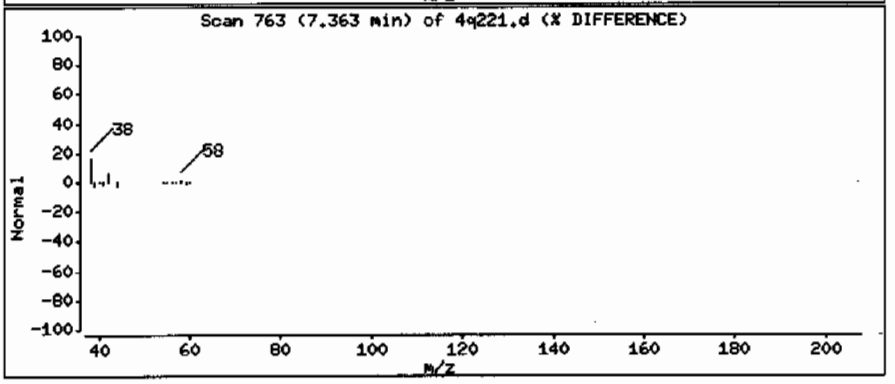

Data File: /chem/VOA4.i/122209v4/4q221.d

Date : 23-DEC-2009 05:10

Client ID: RE03-10-2734

Instrument: VOA4.i

Sample Info: 1243033009193611911|VOAF|1|

Operator: ACJ

Column phase: RTX-VOLATILES

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Siloxane						
Cyclotetrasiloxane, octamethyl-	556-67-2	NIST05.L	122480	83	C8H24O4Si4	296
Benzoic acid, 3-methyl-2-trimethylsilylo	1000153-57-1	NIST05.L	121892	64	C14H24O3Si2	296
7H-Dibenzo[b,g]carbazole, 7-methyl-	3557-49-1	NIST05.L	112705	64	C21H15N	281

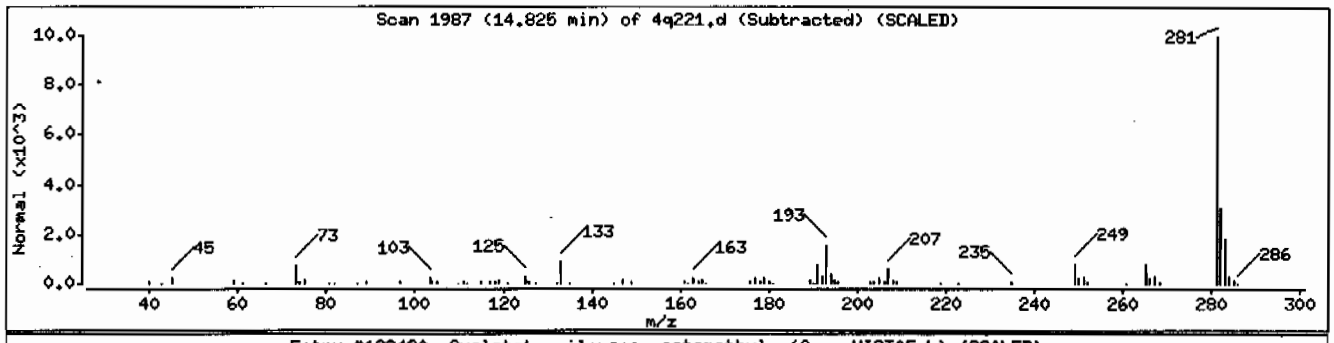

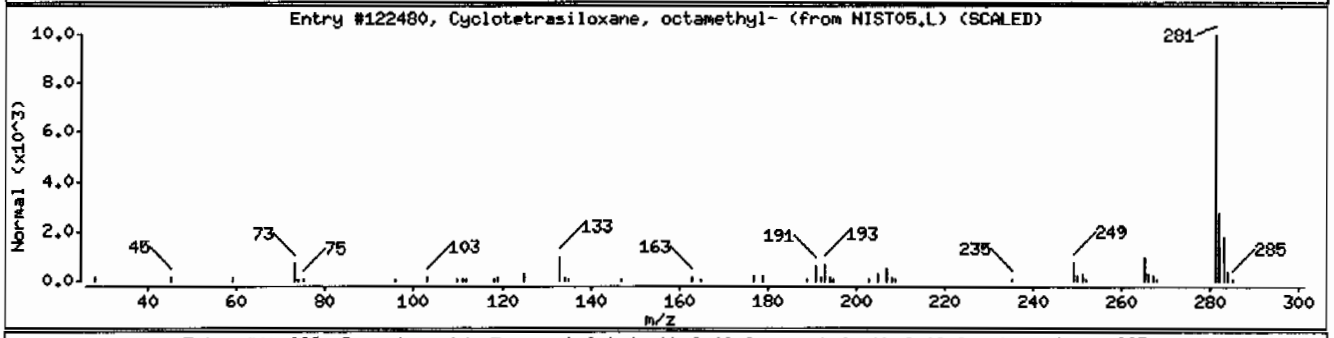

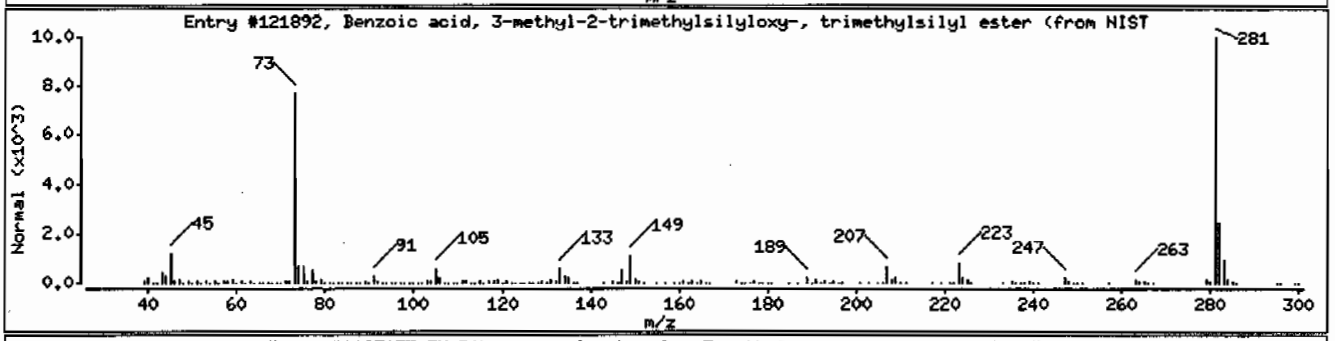

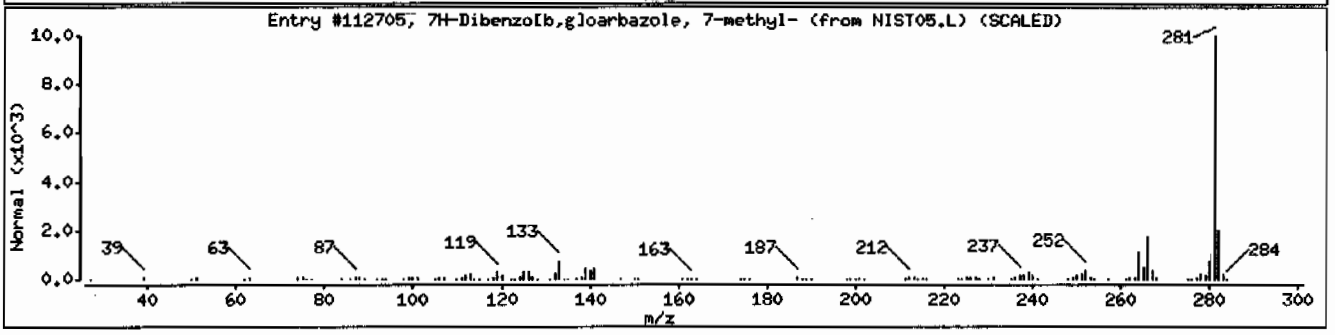

Data File: /chem/VOA4.i/122209v4/4q221.d

Date : 23-DEC-2009 05:10

Client ID: RE03-10-2734

Instrument: VOA4.i

Sample Info: |2430330091936119|1|VOAF|1|

Operator: ACJ

Column phase: RTX-VOLATILES

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Siloxane						
p-Trimethylsilyloxyphenyl-bis(trimethyls	1000079-08-1	NIST05.L	161171	53	C17H3403Si3	370
Benzoic acid, 2-[(trimethylsilyl)oxy]-,	3789-85-3	NIST05.L	112909	50	C13H2203Si2	282
2-Hydroxymandelic acid, ethyl ester, di-	1000071-88-8	NIST05.L	147515	50	C16H2804Si2	340

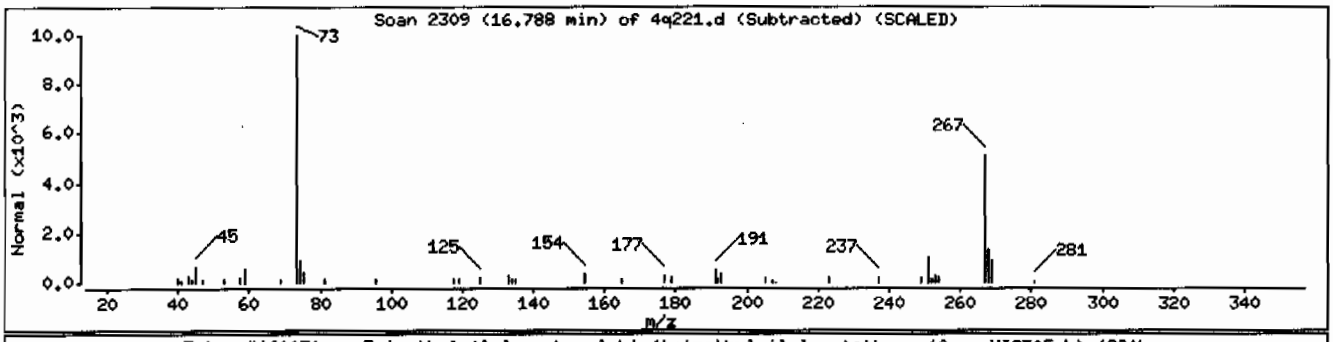

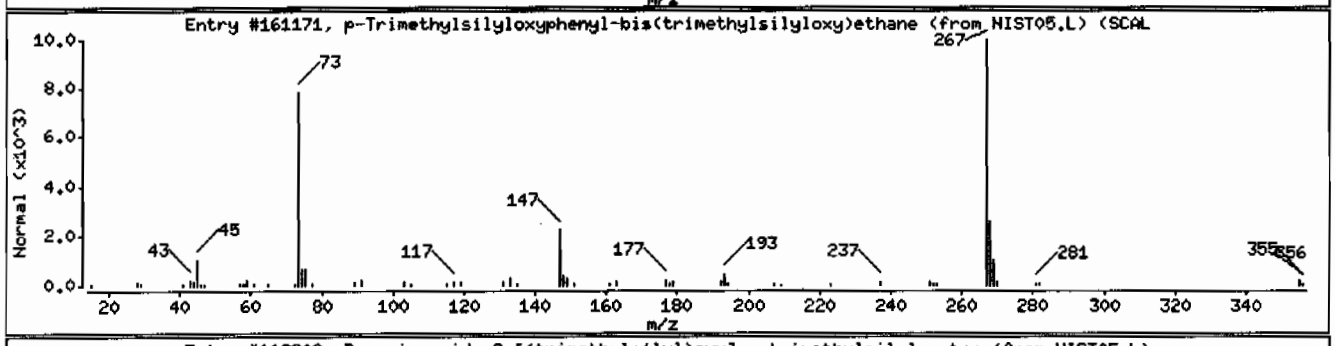

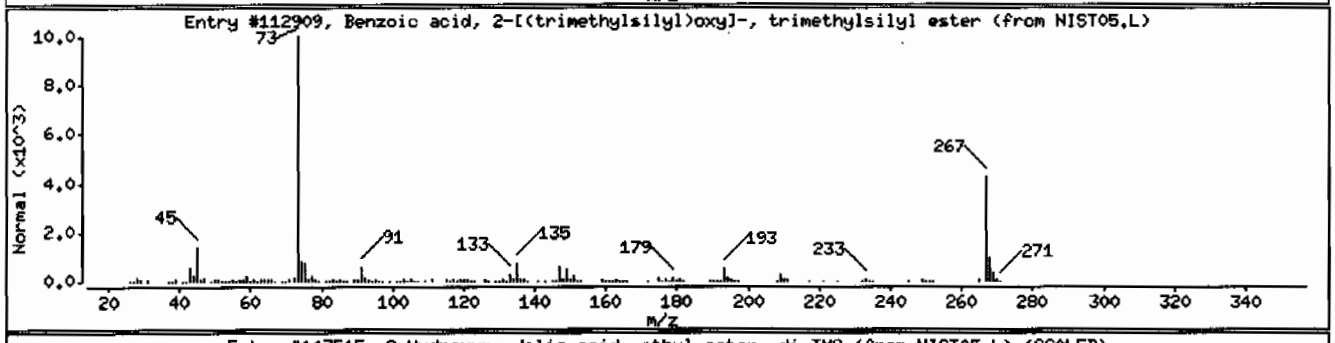

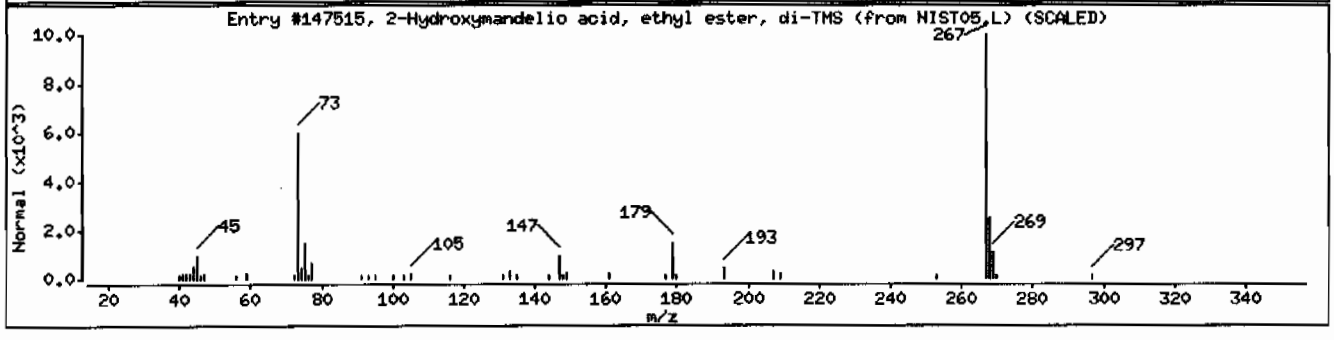

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-940**	**Date Collected:**	**12/14/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243033010**	**Date Received:**	**12/16/2009 09:10**		
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-10-8963**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**936119**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**12/23/2009 01:05**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**12/22/2009 22:51**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**4q212.d**	**Column:**	**RTX-VOLATILES**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/kg	0.340	1.00
74-87-3	Chloromethane	U	1.00	ug/kg	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/kg	0.300	1.00
74-83-9	Bromomethane	U	1.00	ug/kg	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/kg	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/kg	0.300	1.00
67-64-1	Acetone	J	2.28	ug/kg	1.66	5.00
75-35-4	1,1-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/kg	1.60	5.00
75-09-2	Methylene chloride	U	5.00	ug/kg	2.00	5.00
75-15-0	Carbon disulfide	U	5.00	ug/kg	1.25	5.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/kg	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/kg	1.50	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/kg	0.300	1.00
74-97-5	Bromochloromethane	U	1.00	ug/kg	0.330	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/kg	0.300	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/kg	0.300	1.00
56-23-5	Carbon tetrachloride	U	1.00	ug/kg	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/kg	0.300	1.00
71-43-2	Benzene	U	1.00	ug/kg	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/kg	0.330	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/kg	0.300	1.00
74-95-3	Dibromomethane	U	1.00	ug/kg	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/kg	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
108-88-3	Toluene	U	1.00	ug/kg	0.300	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/kg	0.300	1.00
591-78-6	2-Hexanone	U	5.00	ug/kg	1.50	5.00
142-28-9	1,3-Dichloropropane	U	1.00	ug/kg	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/kg	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/kg	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/kg	0.300	1.00
108-90-7	Chlorobenzene	U	1.00	ug/kg	0.300	1.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-940**	**Date Collected:**	**12/14/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243033010**	**Date Received:**	**12/16/2009 09:10**		
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-10-8963**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**936119**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**12/23/2009 01:05**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**12/22/2009 22:51**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**4q212.d**	**Column:**	**RTX-VOLATILES**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.00	ug/kg	0.300	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/kg	0.300	2.00
95-47-6	o-Xylene	U	1.00	ug/kg	0.300	1.00
100-42-5	Styrene	U	1.00	ug/kg	0.300	1.00
75-25-2	Bromoform	U	1.00	ug/kg	0.300	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/kg	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/kg	0.300	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/kg	0.300	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/kg	0.300	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/kg	0.300	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/kg	0.300	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/kg	0.300	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/kg	0.300	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/kg	0.300	1.00
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.00	ug/kg	1.60	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	No Tentatively Identified Compounds Found			ug/kg		

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA4.i/122209v4/4q212.d
Lab Smp Id: 243033010 Client Smp ID: RE03-10-8963
Inj Date : 23-DEC-2009 01:05
Operator : ACJ Inst ID: VOA4.i
Smp Info : |243033010|936119|1|VOAF|1|
Misc Info : LANL 5G N/A
Comment :
Method : /chem/VOA4.i/122209v4/VOA4-8260-121909.m
Meth Date : 24-Dec-2009 16:25 amj Quant Type: ISTD
Cal Date : 20-DEC-2009 02:33 Cal File: 4p618.d
Als bottle: 12
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-940.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	0.00000	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
* 40 Fluorobenzene	96	10.619	10.613	(1.000)	1083362	50.0000	
* 61 Chlorobenzene-d5	117	13.771	13.771	(1.000)	778573	50.0000	
* 86 1,4-Dichlorobenzene-d4	152	16.179	16.173	(1.000)	442135	50.0000	
$ 138 1,2-Dichloroethane-d4	65	10.259	10.259	(0.966)	249673	44.2331	44.2
$ 47 Toluene-d8	98	12.252	12.246	(0.890)	889530	48.2423	48.2
$ 71 Bromofluorobenzene	95	14.953	14.947	(0.924)	397320	55.3416	55.3
10 Acetone	43	7.363	7.357	(0.693)	15507	2.27847	2.3(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

ION RATIO REPORT

VOA REPORT

Data file: 4q212.d
Report Date: 12/23/2009 16:10
Lab. ID: 243033010 SampleType: SAMPLE
Injection Date: 23-DEC-2009 01:05
Operator: ACJ Instrument: VOA4.i
Sample Info: |243033010|936119|1|VOAF|1|
Miscellaneous Info: LANL 5G N/A
Comment:
Method used: /chem/VOA4.i/122209v4/VOA4-8260-121909.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-940
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
10 Acetone			CAS#: 67-64-1			
43	15507	7.36	7.36	80-120	100	( )
58	3896	7.36	7.36	0- 59	25	( )
37 1,2-Dichloroethane			CAS#: 107-06-2			
62	15078	10.62	10.34	80-120	100	(T)
64	2668	10.62	10.34	3- 63	18	(T)
49 4-Methyl-2-pentanone			CAS#: 108-10-1			
58	8565	12.25	12.01	80-120	100	(T)
43	5311	12.25	12.01	254-314	62	(QT)
100	581485	12.25	12.01	0- 60	6789	(QT)
66 Bromoform			CAS#: 75-25-2			
173	1808	14.95	14.65	80-120	100	(T)
175	26575	14.95	14.65	19- 79	1470	(QT)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA4.i/122209v4/4q212.d
Lab Smp Id: 243033010 Client Smp ID: RE03-10-8963
Inj Date : 23-DEC-2009 01:05
Operator : ACJ Inst ID: VOA4.i
Smp Info : |243033010|936119|1|VOAF|1|
Misc Info : LANL 5G N/A
Comment :
Method : /chem/VOA4.i/122209v4/VOA4-8260-121909.m
Meth Date : 24-Dec-2009 16:25 amj Quant Type: ISTD
Cal Date : 20-DEC-2009 02:33 Cal File: 4p618.d
Als bottle: 12
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-940.sub
Target Version: 3.50
Processing Host: prdsvr07

- NO TENTATIVELY IDENTIFIED COMPOUNDS -

Data File: /chem/VOA4.i/122209v4/4q212.d
Date : 23-DEC-2009 01:05
Client ID: RE03-10-8963
Sample Info: |2430330101936119|1|VOAF|1|

Column phase: RTX-VOLATILES

Instrument: VOA4.i

Operator: ACJ
Column diameter: 0.25

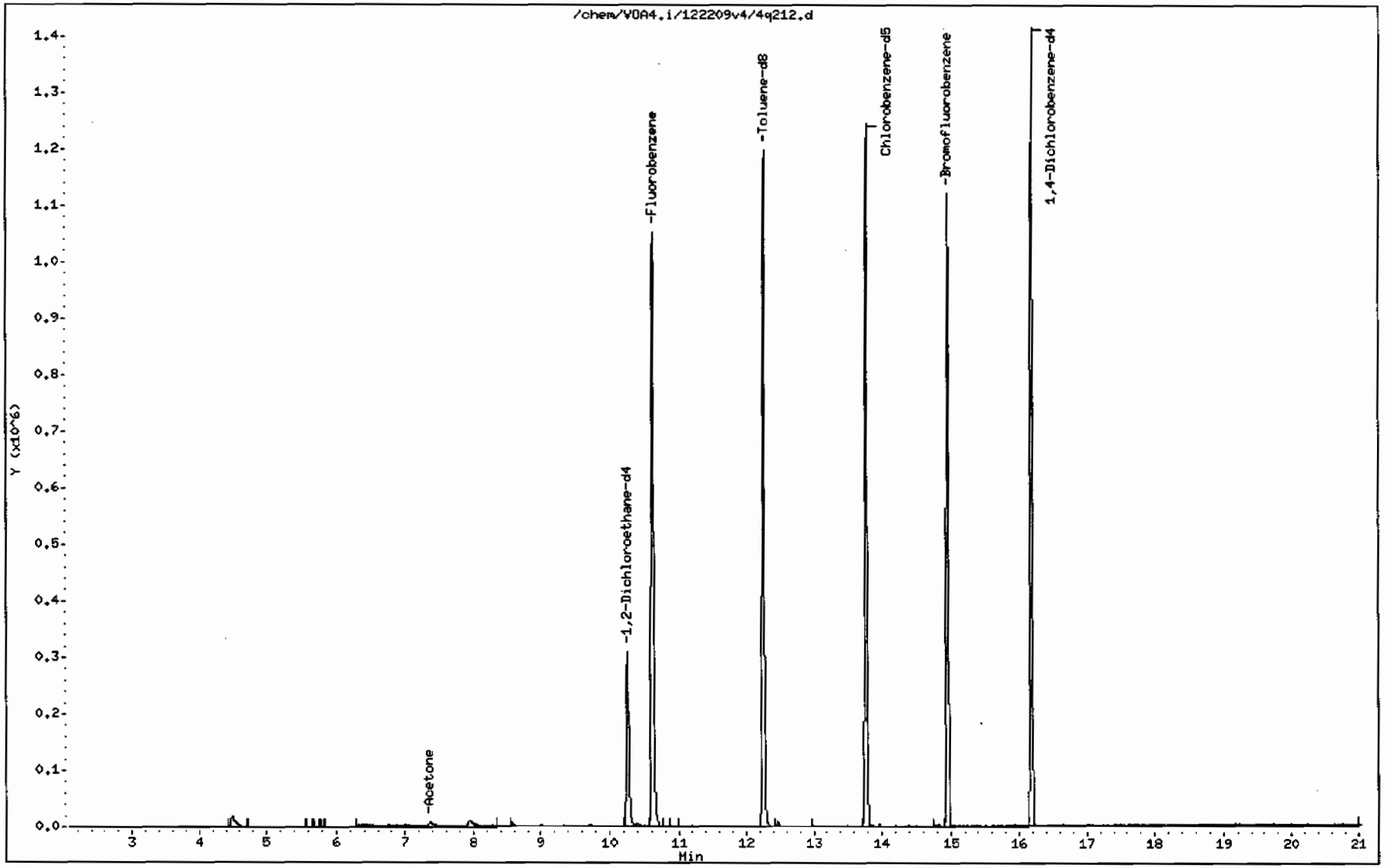

Data File: /chem/VOA4.i/122209v4/4q212.d

Date : 23-DEC-2009 01:05

Client ID: RE03-10-8963

Instrument: VOA4.i

Sample Info: |2430330101936119|1|VOAF|1|

Operator: ACJ

Column phase: RTX-VOLATILES

Column diameter: 0.25

10 Acetone

Concentration: 2.3 ug/Kg

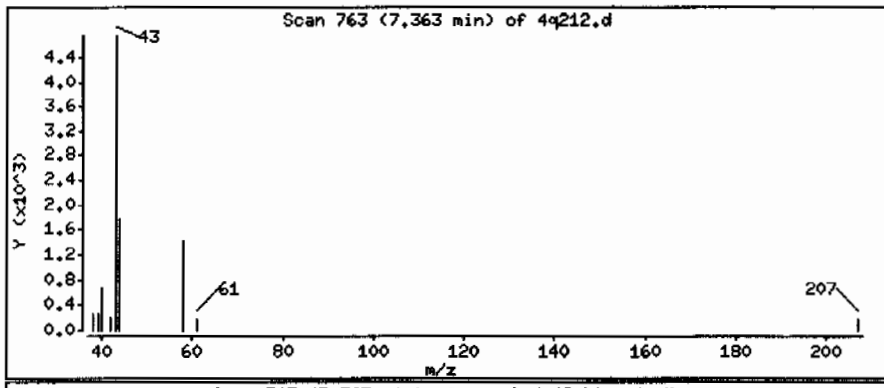

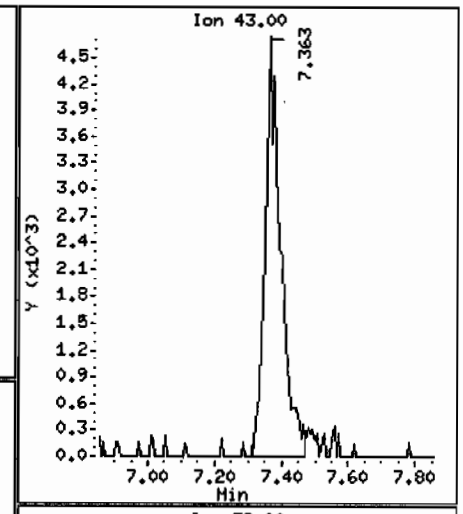

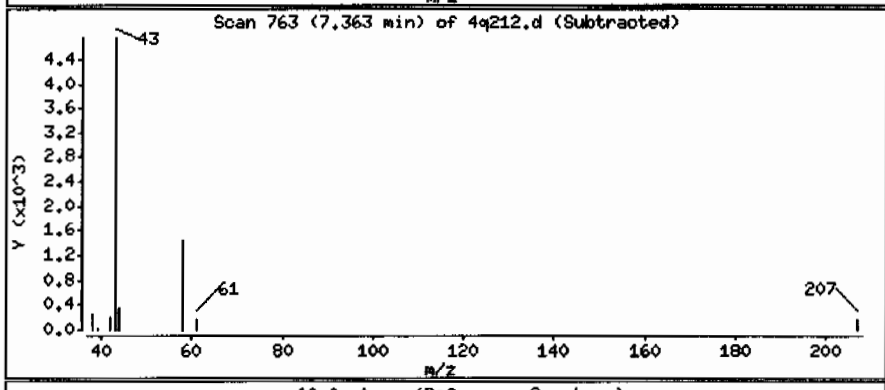

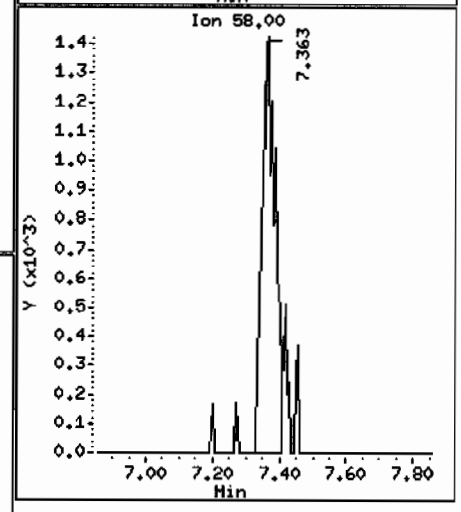

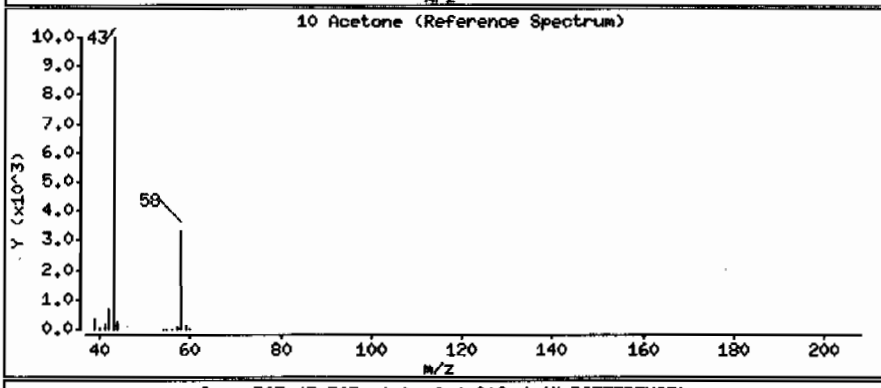

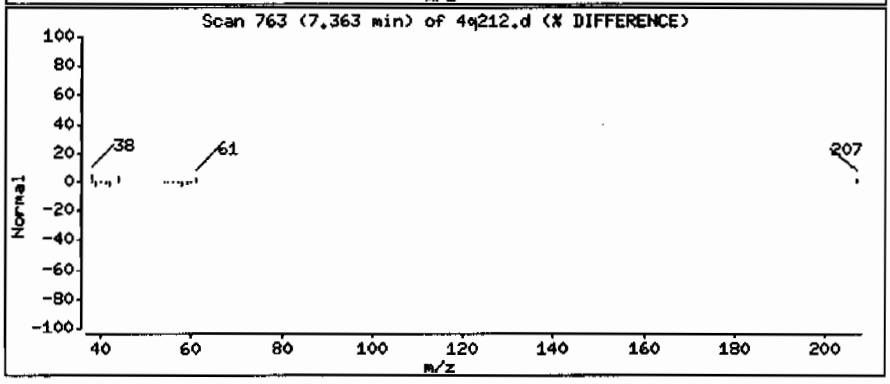

Standard Data

EPA 524.2/Low level SW846 8260B and Regular level 8260B and EPA 624
Calibration Standard Concentration Levels

	Level 1	Level 1a	Level 2	Level 3	Level 4 #	Level 5	Level 6	Level 7 !	Level 7a
Fluorobenzene (IS)									
1,2-Dichloroethane-d4(surr)		0.5	1	2	5	10	20	50	100
Dichlorodifluoromethane		0.5	1	2	5	10	20	50	100
Chloromethane		0.5	1	2	5	10	20	50	100
Vinyl chloride		0.5	1	2	5	10	20	50	100
Bromomethane		0.5	1	2	5	10	20	50	100
Chloroethane		0.5	1	2	5	10	20	50	100
Trichlorofluoromethane		0.5	1	2	5	10	20	50	100
1,1-Dichloroethene		0.5	1	2	5	10	20	50	100
Acetone	1	2.5	5	10	25	50	100	250	500
Iodomethane	1	2.5	5	10	25	50	100	250	500
Carbon disulfide	1	2.5	5	10	25	50	100	250	500
Methylene chloride		0.5	1	2	5	10	20	50	100
trans-1,2-Dichloroethene		0.5	1	2	5	10	20	50	100
1,1-Dichloroethane		0.5	1	2	5	10	20	50	100
Ethyl ether		0.5	1	2	5	10	20	50	100
Vinyl acetate	1	2.5	5	10	25	50	100	250	500
cis-1,2-Dichloroethene		0.5	1	2	5	10	20	50	100
1,2-Dichloroethene (total)		1	2	4	10	20	40	100	200
Cyclohexene		0.5	1	2	5	10	20	50	100
2-Chloroethylvinyl ether			5	10	25	50	100	250	500
2,2-Dichloropropane		0.5	1	2	5	10	20	50	100
2-Butanone	1	2.5	5	10	25	50	100	250	500
Bromochloromethane		0.5	1	2	5	10	20	50	100
Chloroform		0.5	1	2	5	10	20	50	100
1,1,1-Trichloroethane		0.5	1	2	5	10	20	50	100
1,1-Dichloropropene		0.5	1	2	5	10	20	50	100
Carbon tetrachloride		0.5	1	2	5	10	20	50	100
Benzene		0.5	1	2	5	10	20	50	100
1,2-Dichloroethane		0.5	1	2	5	10	20	50	100
Trichloroethene		0.5	1	2	5	10	20	50	100
1,2-Dichloropropane		0.5	1	2	5	10	20	50	100
Dibromomethane		0.5	1	2	5	10	20	50	100
Bromodichloromethane		0.5	1	2	5	10	20	50	100
cis-1,3-Dichloropropene		0.5	1	2	5	10	20	50	100
tert-Butylmethylether		0.5	1	2	5	10	20	50	100
Ethyl Ether			1	2	5	10	20	50	100
Acetonitrile			25	50	125	250	500	1250	2500
Methyl acetate			5	10	25	50	100	250	500
Cyclohexane			1	2	5	10	20	50	100
Methylcyclohexane			1	2	5	10	20	50	100
n-Butyl alcohol			50	100	250	500	1000	2500	5000
2-Nitropropane			5	10	25	50	100	250	500
Ethyl acetate			5	10	25	50	100	250	500
Acrolein			5	10	25	50	100	250	500
Trichlorotrifluoroethane			5	10	25	50	100	250	500
Allyl chloride			5	10	25	50	100	250	500
Acrylonitrile			5	10	25	50	100	250	500
1,4-Dioxane			50	100	250	500	1000	2500	5000
Isobutyl alcohol			50	100	250	500	1000	2500	5000
Methacrylonitrile			5	10	25	50	100	250	500
Propionitrile			5	10	25	50	100	250	500
Methyl methacrylate			5	10	25	50	100	250	500
Chlorotrifluoroethylene			5	10	25	50	100	250	500
2-Chloro-1,1,1-trifluoroethane			5	10	25	50	100	250	500

tert-Butyl alcohol			50	100	250	500	1000	2500	5000
Isopropyl ether			1	2	5	10	20	50	100
Ethyl tert-butyl ether			1	2	5	10	20	50	100
Isopropyl alcohol			50	100	250	500	1000	2500	5000
Methyl tert-amyl ether			1	2	5	10	20	50	100
1-Chlorohexane			1	2	5	10	20	50	100
2-Chloro-1,3-butadiene(chloroprene)			1	2	5	10	20	50	100
Chlorobenzene-d5 (IS)									
Toluene-d8 (surr)		0.5	1	2	5	10	20	50	100
4-Methyl-2-pentanone	1	2.5	5	10	25	50	100	250	500
Toluene		0.5	1	2	5	10	20	50	100
trans-1,3-Dichloropropene		0.5	1	2	5	10	20	50	100
1,1,2-Trichloroethane		0.5	1	2	5	10	20	50	100
Tetrachloroethene		0.5	1	2	5	10	20	50	100
1,3-Dichloropropane		0.5	1	2	5	10	20	50	100
2-Hexanone	1	2.5	5	10	25	50	20	250	500
Dibromochloromethane		0.5	1	2	5	10	20	50	100
1,2-Dibromoethane		0.5	1	2	5	10	20	50	100
Chlorobenzene		0.5	1	2	5	10	20	50	100
1,1,1,2-Tetrachloroethane		0.5	1	2	5	10	20	50	100
Ethylbenzene		0.5	1	2	5	10	20	50	100
m,p-Xylene		1	2	4	10	20	20	100	200
o-Xylene		0.5	1	2	5	10	20	50	100
Xylenes (total)		1.5	3	6	15	30	60	150	300
Stryene		0.5	1	2	5	10	20	50	100
Cyclohexanone			50	100	250	500	1000	2500	5000
Ethyl methacrylate			5	10	25	50	100	250	500
1,4-Dichlorobenzene-d4 (IS)									
Bromofluorobenzene (surr)		0.5	1	2	5	10	20	50	100
Bromoform		0.5	1	2	5	10	20	50	100
Isopropylbenzene		0.5	1	2	5	10	20	50	100
1,1,2,2-Tetrachloroethane		0.5	1	2	5	10	20	50	100
Bromobenzene		0.5	1	2	5	10	20	50	100
1,2,3-Trichloropropane		0.5	1	2	5	10	20	50	100
n-Propylbenzene		0.5	1	2	5	10	20	50	100
2-Chlorotoluene		0.5	1	2	5	10	20	50	100
1,3,5-Trimethylbenzene		0.5	1	2	5	10	20	50	100
4-Chlorotoluene		0.5	1	2	5	10	20	50	100
1,2,4-Trimethylbenzene		0.5	1	2	5	10	20	50	100
sec-Butylbenzene		0.5	1	2	5	10	20	50	100
1,3-Dichlorobenzene		0.5	1	2	5	10	20	50	100
tert-Butylbenzene		0.5	1	2	5	10	20	50	100
Isopropyltoluene		0.5	1	2	5	10	20	50	100
1,4-Dichlorobenzene		0.5	1	2	5	10	20	50	100
n-Butylbenzene		0.5	1	2	5	10	20	50	100
1,2-Dichlorobenzene		0.5	1	2	5	10	20	50	100
1,2-Dibromo-3-chloropropa		0.5	1	2	5	10	20	50	100
1,2,4-Trichlorobenzene		0.5	1	2	5	10	20	50	100
Hexachlorobutadiene		0.5	1	2	5	10	20	50	100
Naphthalene		0.5	1	2	5	10	20	50	100
1,2,3-Trichlorobenzene		0.5	1	2	5	10	20	50	100
cis-1,4-Dichloro-2-butene			5	10	25	50	100	250	500
trans-1,4-Dichloro-2-butene			5	10	25	50	100	250	500
Tetrahydrofuran			5	10	25	50	100	250	500
Pentachloroethane			5	10	25	50	100	250	500
Benzyl chloride			5	10	25	50	100	250	500
bis(2-Chloro-isopropyl)ether			5	10	25	50	100	250	500

Report Date: 22-Dec-2009 23:05

Calibration History

Method : /chem/VOA4.i/122209v4/VOA4-8260-121909.m
Start Cal Date: 19-DEC-2009 19:44
End Cal Date : 20-DEC-2009 03:01

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 1.00000		
20-DEC-2009 00:17	ICALsubS	/chem/VOA4.i/121909v4/4p613.d
19-DEC-2009 20:39	CALsubL+	/chem/VOA4.i/121909v4/4p605.d
Cal Level: 2 , Cal Amount: 2.00000		
20-DEC-2009 00:44	ICALsubS	/chem/VOA4.i/121909v4/4p614.d
19-DEC-2009 21:07	CALsubL+	/chem/VOA4.i/121909v4/4p606.d
Cal Level: 3 , Cal Amount: 5.00000		
20-DEC-2009 01:12	ICALsubS	/chem/VOA4.i/121909v4/4p615.d
19-DEC-2009 21:34	CALsubL+	/chem/VOA4.i/121909v4/4p607.d
Cal Level: 4 , Cal Amount: 10.00000		
20-DEC-2009 01:39	ICALsubS	/chem/VOA4.i/121909v4/4p616.d
19-DEC-2009 22:01	CALsubL+	/chem/VOA4.i/121909v4/4p608.d
Cal Level: 5 , Cal Amount: 20.00000		
20-DEC-2009 02:06	ICALsubS	/chem/VOA4.i/121909v4/4p617.d
19-DEC-2009 22:28	CALsubL+	/chem/VOA4.i/121909v4/4p609.d
Cal Level: 6 , Cal Amount: 50.00000		
20-DEC-2009 02:33	ICALsubS	/chem/VOA4.i/121909v4/4p618.d
19-DEC-2009 22:55	CALsubL+	/chem/VOA4.i/121909v4/4p610.d
Cal Level: 7 , Cal Amount: 100.00000		
20-DEC-2009 03:01	ICALsubS	/chem/VOA4.i/121909v4/4p619.d
19-DEC-2009 23:22	CALsubL+	/chem/VOA4.i/121909v4/4p611.d
Cal Level: 8 , Cal Amount: 200.00000		
19-DEC-2009 19:44	BENZENE+	/chem/VOA4.i/121909v4/4p603.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 6

Ccal Level: 6 , Ccal Amount: 50.0		
22-DEC-2009 20:33	CALsubL+	/chem/VOA4.i/122209v4/4q202.d
Ccal Level: 6 , Ccal Amount: 50.0		
22-DEC-2009 21:28	CALsubS+SS	/chem/VOA4.i/122209v4/4q204.d

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 19-DEC-2009 19:44
End Cal Date : 20-DEC-2009 03:01
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/VOA4.i/122209v4/VOA4-8260-121909.m
Cal Date : 22-Dec-2009 21:44 amj

Calibration File Names:
Level 1: /chem/VOA4.i/121909v4/4p613.d
Level 2: /chem/VOA4.i/121909v4/4p614.d
Level 3: /chem/VOA4.i/121909v4/4p615.d
Level 4: /chem/VOA4.i/121909v4/4p616.d
Level 5: /chem/VOA4.i/121909v4/4p617.d
Level 6: /chem/VOA4.i/121909v4/4p618.d
Level 7: /chem/VOA4.i/121909v4/4p619.d
Level 8: /chem/VOA4.i/121909v4/4p603.d

Compound	1 Level 1	2 Level 2	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	200 Level 8									
M 1 Xylenes (total)	0.81265	0.76052	0.75475	0.81069	0.80456	0.73562					
	0.68132	+++++					AVRG		0.76573		6.28815
M 2 1,2-Dichloroethylene (total)	0.53928	0.49527	0.49546	0.53959	0.51860	0.48300					
	0.46174	+++++					AVRG		0.50471		5.77473
M 135 1,3-Dichloropropylene	0.46128	0.39697	0.41012	0.46856	0.47648	0.45675					
	0.44107	+++++					AVRG		0.44446		6.80371
153 Chlorotrifluoroethylene	0.18967	0.20469	0.17505	0.20787	0.20225	0.21225					
	0.17205	+++++					AVRG		0.19483		8.28265
154 2-Chloro-1,1,1-trifluoroethan	0.29705	0.28271	0.27958	0.28616	0.28338	0.30900					
	0.28029	+++++					AVRG		0.28831		3.76021

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 19-DEC-2009 19:44
End Cal Date : 20-DEC-2009 03:01
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/VOA4.i/122209v4/VOA4-8260-121909.m
Cal Date : 22-Dec-2009 21:44 amj

Compound	1 Level 1	2 Level 2	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	200 Level 8									
3 Dichlorodifluoromethane	0.20022	0.24864	0.29673	0.23326	0.23185	0.22776					
	0.23348	+++++					AVRG		0.23885		12.28991
4 Chloromethane	0.43086	0.49694	0.49936	0.48678	0.46938	0.45681					
	0.46588	+++++					AVRG		0.47229		5.15523
5 Vinyl chloride	0.31504	0.37014	0.36700	0.36174	0.35296	0.34032					
	0.34418	+++++					AVRG		0.35020		5.45562
6 Bromomethane	0.27599	0.30046	0.28529	0.28438	0.27289	0.27180					
	0.27436	+++++					AVRG		0.28074		3.64314
7 Chloroethane	0.28640	0.29309	0.28798	0.29840	0.29164	0.28667					
	0.28706	+++++					AVRG		0.29018		1.53685
8 Trichlorofluoromethane	0.37009	0.43688	0.40536	0.39929	0.41782	0.40577					
	0.43053	+++++					AVRG		0.40939		5.41586
134 Ethyl Ether	0.28284	0.29163	0.27679	0.27112	0.28658	0.28382					
	0.28705	+++++					AVRG		0.28283		2.43119
9 Acrolein	0.06218	0.05508	0.06113	0.05911	0.05998	0.06073					
	0.05918	+++++					AVRG		0.05963		3.82891
12 Trichlorotrifluoroethane	0.11632	0.10087	0.10107	0.09368	0.09372	0.09050					
	0.08673	+++++					AVRG		0.09755		10.01105

GEL Laboratories LLC

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Integrator : HP RTE
Method file : /chem/VOA4.i/122209v4/VOA4-8260-121909.m
Cal Date : 22-Dec-2009 21:44 amj

Compound	1 Level 1	2 Level 2	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	200 Level 8									
10 Acetone	0.38640	0.29421	0.30966	0.31991	0.32328	0.30512					
	0.26019	+++++					AVRG		0.31411		12.15646
11 1,1-Dichloroethylene	0.58004	0.57529	0.51561	0.55608	0.56496	0.52345					
	0.51009	+++++					AVRG		0.54650		5.38569
147 Isopropyl Alcohol	0.03224	0.02635	0.03159	0.03038	0.02970	0.03229					
	0.02992	+++++					AVRG		0.03035		6.79301
13 Iodomethane	0.55315	0.54711	0.53747	0.59050	0.58874	0.55481					
	0.53896	+++++					AVRG		0.55868		3.95828
15 Acetonitrile	0.06894	0.05763	0.05858	0.06419	0.06080	0.05460					
	0.04661	+++++					AVRG		0.05876		12.10208
128 Methyl acetate	0.33599	0.29032	0.28560	0.30925	0.29940	0.27583					
	0.23532	+++++					AVRG		0.29024		10.69740
14 Carbon disulfide	1.00626	1.07738	1.01276	1.09958	1.06356	0.94908					
	0.86347	+++++					AVRG		1.01030		8.14573
16 Allyl chloride	0.63863	0.58032	0.57638	0.57267	0.57845	0.54540					
	0.49341	+++++					AVRG		0.56932		7.65781
148 tert-Butyl Alcohol	0.04284	0.03790	0.04443	0.04221	0.04110	0.04394					
	0.04056	+++++					AVRG		0.04186		5.34493

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Method file : /chem/VOA4.i/122209v4/VOA4-8260-121909.m
Cal Date : 22-Dec-2009 21:44 amj

Compound	1 Level 1	2 Level 2	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	200 Level 8									
17 Methylene chloride	+++++	33556	62205	113655	217762	482921					
	964039	+++++					LINR	-0.05167	0.33737		0.99941
18 Acrylonitrile	0.14772	0.12206	0.13849	0.12844	0.12772	0.12951					
	0.12449	+++++					AVRG		0.13121		6.79602
20 tert-Butyl methyl ether	0.87766	0.86281	0.78394	0.87572	0.83092	0.78935					
	0.74945	+++++					AVRG		0.82427		6.16025
21 trans-1,2-Dichloroethylene	0.50602	0.47495	0.47543	0.51041	0.49777	0.46601					
	0.44626	+++++					AVRG		0.48241		4.83014
23 Vinyl acetate	0.74532	0.71527	0.75245	0.78195	0.76766	0.67564					
	0.61492	+++++					AVRG		0.72189		8.15825
149 Isopropyl ether	1.32814	1.24839	1.25311	1.30296	1.28917	1.33442					
	1.22662	+++++					AVRG		1.28326		3.24225
22 1,1-Dichloroethane	0.68601	0.63314	0.60461	0.63576	0.62873	0.57341					
	0.55089	+++++					AVRG		0.61608		7.23794
24 2-Chloro-1,3-butadiene	0.48162	0.44462	0.47696	0.45812	0.47769	0.47065					
	0.47061	+++++					AVRG		0.46861		2.77614
150 Ethyl tert-butyl ether	1.06568	0.99230	1.03725	1.06738	1.05694	1.09357					
	1.01587	+++++					AVRG		1.04700		3.28284

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Method file : /chem/VOA4.i/122209v4/VOA4-8260-121909.m
Cal Date : 22-Dec-2009 21:44 amj

Compound	1 Level 1 100 Level 7	2 Level 2 200 Level 8	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
30 2-Butanone	0.40347	0.31600	0.34281	0.36355	0.37846	0.37488					
	0.31192	+++++					AVRG		0.35587		9.52131
26 Ethyl acetate	0.48355	0.37255	0.40155	0.37758	0.36243	0.35318					
	0.32114	+++++					AVRG		0.38171		13.40984
31 cis-1,2-Dichloroethylene	0.57254	0.51556	0.51549	0.56877	0.53943	0.50000					
	0.47723	+++++					AVRG		0.52700		6.68317
25 2,2-Dichloropropane	0.30228	0.29068	0.28722	0.29769	0.29186	0.27444					
	0.26364	+++++					AVRG		0.28683		4.69488
28 Propionitrile	0.06081	0.05254	0.05395	0.05298	0.05102	0.05146					
	0.05081	+++++					AVRG		0.05337		6.50459
27 Methacrylonitrile	0.27359	0.21455	0.23787	0.22892	0.22451	0.21902					
	0.19895	+++++					AVRG		0.22820		10.26764
29 Bromochloromethane	0.17010	0.15729	0.15722	0.17212	0.17130	0.16049					
	0.15704	+++++					AVRG		0.16365		4.37461
32 Chloroform	0.57004	0.53031	0.51810	0.56467	0.55240	0.50997					
	0.48954	+++++					AVRG		0.53358		5.62086
72 Tetrahydrofuran	0.34036	0.26314	0.28402	0.26089	0.25362	0.24409					
	0.23071	+++++					AVRG		0.26812		13.39211

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Method file : /chem/VOA4.i/122209v4/VOA4-8260-121909.m
Cal Date : 22-Dec-2009 21:44 amj

Compound	1 Level 1	2 Level 2	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	200 Level 8									
36 1,1,1-Trichloroethane	0.43840	0.38202	0.40215	0.41069	0.42401	0.40471					
	0.39285	+++++					AVRG		0.40783		4.62741
19 Isobutyl alcohol	0.02008	0.01519	0.01747	0.01640	0.01622	0.01607					
	0.01482	+++++					AVRG		0.01661		10.55902
129 Cyclohexane	0.59857	0.56742	0.54266	0.56712	0.56519	0.52631					
	0.50124	+++++					AVRG		0.55264		5.78349
34 1,1-Dichloropropene	0.40638	0.38401	0.38305	0.41207	0.40861	0.37707					
	0.36138	+++++					AVRG		0.39037		4.87266
33 Carbon tetrachloride	0.40729	0.37302	0.37786	0.39826	0.39632	0.38152					
	0.37561	+++++					AVRG		0.38712		3.44042
37 1,2-Dichloroethane	0.45283	0.43086	0.42719	0.45922	0.44859	0.41905					
	0.40127	+++++					AVRG		0.43414		4.75246
38 Benzene	1.34087	1.27789	1.22229	1.28891	1.26243	1.16314					
	1.09141	1.27584					AVRG		1.24035		6.39855
151 Methyl tert-amyl ether	0.84985	0.77813	0.84429	0.85200	0.83272	0.87480					
	0.81348	+++++					AVRG		0.83504		3.74951
139 Cyclohexene	0.62066	0.60285	0.58314	0.61749	0.61525	0.57775					
	0.54806	+++++					AVRG		0.59503		4.48722

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INITIAL CALIBRATION DATA

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Integrator : HP RTE
Method file : /chem/VOA4.i/122209v4/VOA4-8260-121909.m
Cal Date : 22-Dec-2009 21:44 amj

Compound	1 Level 1	2 Level 2	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	200 Level 8									
131 n-Butyl alcohol	0.01241	0.01014	0.01086	0.01262	0.01008	0.01213					
	0.01057	0.01107					AVRG		0.01124		9.07688
39 Trichloroethylene	0.32936	0.30509	0.29943	0.31939	0.30825	0.29845					
	0.28531	+++++					AVRG		0.30647		4.72414
42 Methyl methacrylate	0.20611	0.17968	0.20203	0.19437	0.19683	0.19342					
	0.17092	+++++					AVRG		0.19191		6.47670
130 Methylcyclohexane	0.50950	0.46490	0.48075	0.50687	0.49723	0.46418					
	0.43959	+++++					AVRG		0.48043		5.37414
41 1,2-Dichloropropane	0.37983	0.34581	0.34869	0.38401	0.37072	0.34121					
	0.31310	+++++					AVRG		0.35477		7.06945
97 1,4-Dioxane	0.00425	0.00314	0.00338	0.00339	0.00321	0.00337					
	0.00325	+++++					AVRG		0.00343		10.92294
43 Dibromomethane	0.19150	0.17715	0.17960	0.19890	0.19065	0.18349					
	0.17626	+++++					AVRG		0.18537		4.59720
45 Bromodichloromethane	0.41449	0.36230	0.35661	0.40276	0.40242	0.39879					
	0.38461	+++++					AVRG		0.38885		5.64973
48 2-Nitropropane	0.10489	0.08130	0.09477	0.09750	0.09977	0.10490					
	0.10359	+++++					AVRG		0.09810		8.52029

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Method file : /chem/VOA4.i/122209v4/VOA4-8260-121909.m
Cal Date : 22-Dec-2009 21:44 amj

Compound	1 Level 1 100 Level 7	2 Level 2 200 Level 8	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
44 2-Chloroethylvinyl ether	0.15830	0.15243	0.16120	0.16830	0.17417	0.16931					
	0.15403	+++++					AVRG		0.16253		5.07872
46 cis-1,3-Dichloropropylene	0.48454	0.42681	0.43584	0.49215	0.49903	0.47608					
	0.45863	+++++					AVRG		0.46758		5.98701
49 4-Methyl-2-pentanone	0.21196	0.18428	0.18853	0.20882	0.21262	0.20864					
	0.16991	+++++					AVRG		0.19782		8.52290
50 Toluene	1.14606	0.99250	0.99332	1.02553	1.00872	0.92100					
	0.85394	+++++					AVRG		0.99158		9.13621
51 Ethyl methacrylate	0.52578	0.47433	0.53132	0.52233	0.50770	0.45962					
	0.39174	+++++					AVRG		0.48755		10.29859
53 trans-1,3-Dichloropropylene	0.60806	0.51429	0.53356	0.60161	0.61422	0.57102					
	0.54733	+++++					AVRG		0.57001		6.92506
54 1,1,2-Trichloroethane	0.36661	0.30877	0.29991	0.32506	0.32454	0.29272					
	0.27476	+++++					AVRG		0.31320		9.41364
55 2-Hexanone	0.66669	0.56305	0.58842	0.63454	0.66404	0.64005					
	0.50273	+++++					AVRG		0.60850		9.90607
52 1,3-Dichloropropane	0.73470	0.60962	0.63121	0.64923	0.64095	0.56042					
	0.49003	+++++					AVRG		0.61659		12.39429

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Method file : /chem/VOA4.i/122209v4/VOA4-8260-121909.m
Cal Date : 22-Dec-2009 21:44 amj

Compound	1 Level 1	2 Level 2	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	200 Level 8									
56 Tetrachloroethylene	0.40926	0.39742	0.36216	0.38829	0.37728	0.34872					
	0.34015	+++++					AVRG		0.37476		6.82738
57 Dibromochloromethane	0.39948	0.37877	0.39034	0.42156	0.44733	0.42361					
	0.42501	+++++					AVRG		0.41230		5.75126
59 1,2-Dibromoethane	0.38444	0.33398	0.36077	0.39025	0.39908	0.37539					
	0.36601	+++++					AVRG		0.37285		5.83018
152 1-Chlorohexane	0.30988	0.27910	0.30923	0.32183	0.32017	0.33216					
	0.31178	+++++					AVRG		0.31202		5.33777
62 Chlorobenzene	1.28974	1.17144	1.13488	1.17962	1.17805	1.07796					
	1.02830	+++++					AVRG		1.15143		7.25464
60 1,1,1,2-Tetrachloroethane	0.44150	0.40715	0.41093	0.44113	0.45626	0.42300					
	0.40958	+++++					AVRG		0.42708		4.52208
58 Ethylbenzene	2.17028	2.01581	1.95872	2.07832	2.02954	1.80660					
	1.62077	+++++					AVRG		1.95429		9.44788
63 m,p-Xylenes	0.79954	0.75917	0.74134	0.79920	0.78958	0.72261					
	0.67119	+++++					AVRG		0.75466		6.26443
64 o-Xylene	0.83888	0.76321	0.78156	0.83368	0.83452	0.76165					
	0.70158	+++++					AVRG		0.78787		6.48405

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Method file : /chem/VOA4.i/122209v4/VOA4-8260-121909.m
Cal Date : 22-Dec-2009 21:44 amj

Compound	1 Level 1 100 Level 7	2 Level 2 200 Level 8	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
65 Styrene	1.16063	1.08519	1.14154	1.27402	1.28147	1.21813					
	1.10780	+++++					AVRG		1.18125		6.61483
66 Bromoform	0.49552	0.43575	0.47336	0.53633	0.55668	0.56770					
	0.57305	+++++					AVRG		0.51977		10.11178
67 Isopropylbenzene	3.51495	3.38362	3.35463	3.45020	3.36294	3.05236					
	2.82692	+++++					AVRG		3.27794		7.51842
68 cis-1,4-Dichloro-2-butene	0.30887	0.25441	0.28794	0.28936	0.28031	0.28031					
	0.26406	+++++					AVRG		0.28075		6.32075
70 Cyclohexanone	0.04600	0.03466	0.04477	0.04588	0.04838	0.04998					
	+++++	+++++					AVRG		0.04494		11.98252
73 1,1,2,2-Tetrachloroethane	0.99266	0.89407	0.91571	0.95496	0.92349	0.83794					
	0.78165	+++++					AVRG		0.90007		7.89514
69 trans-1,4-Dichloro-2-butene	0.29258	0.24147	0.27255	0.27207	0.27075	0.26153					
	0.24777	+++++					AVRG		0.26553		6.45206
74 1,2,3-Trichloropropane	0.26522	0.23015	0.22433	0.23733	0.23343	0.21830					
	0.20778	+++++					AVRG		0.23093		7.83148
75 Bromobenzene	1.05770	1.00503	0.94543	1.02581	0.98121	0.92065					
	0.89518	+++++					AVRG		0.97586		5.99789

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 19-DEC-2009 19:44
End Cal Date : 20-DEC-2009 03:01
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/VOA4.i/122209v4/VOA4-8260-121909.m
Cal Date : 22-Dec-2009 21:44 amj

Compound	1 Level 1	2 Level 2	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	200 Level 8									
76 n-Propylbenzene	4.35110	4.12289	4.06016	4.27328	4.06219	3.61246					
	3.21473	+++++					AVRG		3.95669		10.18420
78 1,3,5-Trimethylbenzene	3.13552	3.05519	3.02341	3.14462	2.96616	2.69990					
	2.43119	+++++					AVRG		2.92228		9.00348
77 2-Chlorotoluene	3.11733	2.96580	2.89258	3.00691	2.80894	2.48431					
	2.17073	+++++					AVRG		2.77809		12.04597
80 4-Chlorotoluene	2.93131	2.57999	2.54019	2.65417	2.58773	2.39848					
	2.21061	+++++					AVRG		2.55750		8.69082
81 tert-Butylbenzene	3.09476	2.87771	2.84763	3.03704	2.92107	2.71430					
	2.56320	+++++					AVRG		2.86510		6.36899
79 1,2,4-Trimethylbenzene	3.34291	3.08638	3.12390	3.27142	3.15763	2.88116					
	2.64073	+++++					AVRG		3.07202		7.81473
82 Pentachloroethane	0.42564	0.28316	0.39310	0.35972	0.35493	0.36348					
	0.32885	+++++					AVRG		0.35841		12.63224
83 sec-Butylbenzene	4.43184	4.15066	4.04671	4.22651	4.08737	3.70131					
	3.37028	+++++					AVRG		4.00210		8.86968
84 4-Isopropyltoluene	3.26672	3.12237	3.13891	3.35557	3.25046	2.98093					
	2.76172	+++++					AVRG		3.12524		6.42496

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 19-DEC-2009 19:44
End Cal Date : 20-DEC-2009 03:01
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/VOA4.i/122209v4/VOA4-8260-121909.m
Cal Date : 22-Dec-2009 21:44 amj

Compound	1 Level 1 100 Level 7	2 Level 2 200 Level 8	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
85 1,3-Dichlorobenzene	2.14603	1.97368	1.91523	1.96795	1.93959	1.81210					
	1.72778	+++++					AVRG		1.92605		6.86879
87 1,4-Dichlorobenzene	2.08855	1.93310	1.85380	1.96302	1.93996	1.80779					
	1.71123	+++++					AVRG		1.89963		6.39272
88 Benzyl chloride	1.31613	1.15327	1.33623	1.31144	1.30449	1.20691					
	1.03649	+++++					AVRG		1.23785		8.99101
89 n-Butylbenzene	3.17293	3.01362	3.09058	3.29169	3.12758	2.86431					
	2.54350	+++++					AVRG		3.01489		8.17986
90 1,2-Dichlorobenzene	2.00841	1.83634	1.80803	1.88655	1.85356	1.73582					
	1.62843	+++++					AVRG		1.82245		6.53889
91 bis(2-Chloroisopropyl)ether	0.51710	0.42660	0.48782	0.47472	0.47577	0.46739					
	0.42595	+++++					AVRG		0.46791		6.97559
92 1,2-Dibromo-3-chloropropane	0.12819	0.12707	0.14343	0.15859	0.16936	0.16562					
	0.16290	+++++					AVRG		0.15074		11.80344
93 1,2,4-Trichlorobenzene	0.98949	0.89168	0.94262	1.06001	1.06704	1.00943					
	0.96288	+++++					AVRG		0.98902		6.37522
94 Hexachlorobutadiene	0.84602	0.71792	0.72907	0.78136	0.75883	0.71017					
	0.69952	+++++					AVRG		0.74898		6.86788

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 19-DEC-2009 19:44
End Cal Date : 20-DEC-2009 03:01
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/VOA4.i/122209v4/VOA4-8260-121909.m
Cal Date : 22-Dec-2009 21:44 amj

Compound	1 Level 1	2 Level 2	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	200 Level 8									
95 Naphthalene	1.56334	1.34017	1.51534	1.73644	1.83286	1.73715					
	1.62241	+++++					AVRG		1.62110		10.23140
96 1,2,3-Trichlorobenzene	0.78862	0.68210	0.75784	0.84790	0.87740	0.80969					
	0.76898	+++++					AVRG		0.79036		8.08469
$ 138 1,2-Dichloroethane-d4	0.25296	0.24705	0.25223	0.25949	0.25673	0.27306					
	0.28203	+++++					AVRG		0.26051		4.81054
$ 47 Toluene-d8	1.19321	1.21540	1.20097	1.18409	1.18246	1.16177					
	1.15107	+++++					AVRG		1.18414		1.86917
$ 71 Bromofluorobenzene	0.80893	0.82727	0.82209	0.80764	0.80231	0.81299					
	0.80209	+++++					AVRG		0.81190		1.18610

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 19-DEC-2009 19:44
End Cal Date : 20-DEC-2009 03:01
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/VOA4.i/122209v4/VOA4-8260-121909.m
Cal Date : 22-Dec-2009 21:44 amj

Curve	Formula	Units
Averaged	Amt = Rsp/ml	Response
Linear	Amt = b + Rsp/ml	Response

Data File: /chem/VOA4.i/121909v4/4p621.d
Report Date: 21-Dec-2009 17:10

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA4.i Injection Date: 20-DEC-2009 03:55
Lab File ID: 4p621.d Init. Cal. Date(s): 19-DEC-2009 20-DEC-2009
Analysis Type: WATER Init. Cal. Times: 19:44 03:01
Lab Sample ID: W4VM091219-17 Quant Type: ISTD
Method: /chem/VOA4.i/121909v4/VOA4-8260-121909.m

COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
M 1 Xylenes (total)	0.76573	0.68758	0.68758	0.050	-10.20563	30.00000	Averaged	
M 2 1,2-Dichloroethylene (total	0.50471	0.45264	0.45264	0.050	-10.31622	30.00000	Averaged	
M 135 1,3-Dichloropropylene	0.44446	0.43190	0.43190	0.050	-2.82734	30.00000	Averaged	
3 Dichlorodifluoromethane	0.23885	0.20784	0.20784	0.050	-12.98240	30.00000	Averaged	
4 Chloromethane	0.47229	0.41188	0.41188	0.100	-12.79055	30.00000	Averaged	spcc
5 Vinyl chloride	0.35020	0.32641	0.32641	0.050	-6.79369	20.00000	Averaged	ccc
6 Bromomethane	0.28074	0.25357	0.25357	0.050	-9.67634	30.00000	Averaged	
7 Chloroethane	0.29018	0.26921	0.26921	0.050	-7.22655	30.00000	Averaged	
8 Trichlorofluoromethane	0.40939	0.39162	0.39162	0.050	-4.34087	30.00000	Averaged	
134 Ethyl Ether	0.28283	0.26280	0.26280	0.001	-7.08282	30.00000	Averaged	
10 Acetone	0.31411	0.20629	0.20629	0.050	-34.32404	40.00000	Averaged	
15 Acetonitrile	0.05876	0.05062	0.05062	0.010	-13.85146	30.00000	Averaged	
11 1,1-Dichloroethylene	0.54650	0.46348	0.46348	0.050	-15.19163	20.00000	Averaged	ccc
128 Methyl acetate	0.29024	0.25571	0.25571	0.010	-11.89842	40.00000	Averaged	
13 Iodomethane	0.55868	0.51398	0.51398	0.050	-8.00095	30.00000	Averaged	
17 Methylene chloride	47.66089	50.00000	0.33902	0.050	-4.67822	30.00000	Linear	
14 Carbon disulfide	1.01030	0.89561	0.89561	0.050	-11.35179	30.00000	Averaged	
20 tert-Butyl methyl ether	0.82427	0.75543	0.75543	0.050	-8.35123	30.00000	Averaged	
21 trans-1,2-Dichloroethylene	0.48241	0.42742	0.42742	0.050	-11.39744	30.00000	Averaged	
23 Vinyl acetate	0.72189	0.58860	0.58860	0.010	-18.46425	40.00000	Averaged	
22 1,1-Dichloroethane	0.61608	0.53887	0.53887	0.100	-12.53213	30.00000	Averaged	spcc
30 2-Butanone	0.35587	0.24574	0.24574	0.030	-30.94721	40.00000	Averaged	
31 cis-1,2-Dichloroethylene	0.52700	0.47786	0.47786	0.050	-9.32576	30.00000	Averaged	
25 2,2-Dichloropropane	0.28683	0.25760	0.25760	0.050	-10.19161	30.00000	Averaged	
32 Chloroform	0.53358	0.48986	0.48986	0.010	-8.19333	20.00000	Averaged	ccc
29 Bromochloromethane	0.16365	0.15405	0.15405	0.010	-5.86597	30.00000	Averaged	
36 1,1,1-Trichloroethane	0.40783	0.38050	0.38050	0.010	-6.70119	30.00000	Averaged	
129 Cyclohexane	0.55264	0.48600	0.48600	0.010	-12.05953	30.00000	Averaged	
34 1,1-Dichloropropene	0.39037	0.35236	0.35236	0.010	-9.73796	30.00000	Averaged	
131 n-Butyl alcohol	0.01124	0.01131	0.01131	0.001	0.61492	40.00000	Averaged	
33 Carbon tetrachloride	0.38712	0.35709	0.35709	0.010	-7.75868	30.00000	Averaged	
$ 138 1,2-Dichloroethane-d4	0.26051	0.26938	0.26938	0.001	3.40566	30.00000	Averaged	
37 1,2-Dichloroethane	0.43414	0.39825	0.39825	0.010	-8.26694	30.00000	Averaged	
38 Benzene	1.24035	1.09965	1.09965	0.010	-11.34293	30.00000	Averaged	
139 Cyclohexene	0.59503	0.51686	0.51686	0.001	-13.13707	30.00000	Averaged	

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA4.i
Lab File ID: 4p621.d
Analysis Type: WATER
Lab Sample ID: W4VM091219-17
Method: /chem/VOA4.i/121909v4/VOA4-8260-121909.m

Injection Date: 20-DEC-2009 03:55
Init. Cal. Date(s): 19-DEC-2009 20-DEC-2009
Init. Cal. Times: 19:44 03:01
Quant Type: ISTD

	COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
	39 Trichloroethylene	0.30647	0.28336	0.28336	0.010	-7.53918	30.00000	Averaged	
	41 1,2-Dichloropropane	0.35477	0.31711	0.31711	0.010	-10.61528	20.00000	Averaged	ccc
	130 Methylcyclohexane	0.48043	0.43333	0.43333	0.010	-9.80389	30.00000	Averaged	
	45 Bromodichloromethane	0.38885	0.37390	0.37390	0.010	-3.84439	30.00000	Averaged	
	43 Dibromomethane	0.18537	0.17080	0.17080	0.010	-7.85991	30.00000	Averaged	
	44 2-Chloroethylvinyl ether	0.16253	0.15357	0.15357	0.005	-5.51265	30.00000	Averaged	
	49 4-Methyl-2-pentanone	0.19782	0.16772	0.16772	0.010	-15.21550	40.00000	Averaged	
	46 cis-1,3-Dichloropropylene	0.46758	0.45089	0.45089	0.010	-3.56995	30.00000	Averaged	
$	47 Toluene-d8	1.18414	1.14917	1.14917	0.010	-2.95342	30.00000	Averaged	
	50 Toluene	0.99158	0.85287	0.85287	0.010	-13.98874	20.00000	Averaged	ccc
	53 trans-1,3-Dichloropropylene	0.57001	0.53396	0.53396	0.010	-6.32479	30.00000	Averaged	
	54 1,1,2-Trichloroethane	0.31320	0.27416	0.27416	0.010	-12.46471	30.00000	Averaged	
	55 2-Hexanone	0.60850	0.41913	0.41913	0.010	-31.12078	40.00000	Averaged	
	52 1,3-Dichloropropane	0.61659	0.53490	0.53490	0.010	-13.24869	30.00000	Averaged	
	56 Tetrachloroethylene	0.37476	0.33007	0.33007	0.010	-11.92298	30.00000	Averaged	
	57 Dibromochloromethane	0.41230	0.40234	0.40234	0.010	-2.41536	30.00000	Averaged	
	59 1,2-Dibromoethane	0.37285	0.35467	0.35467	0.010	-4.87461	30.00000	Averaged	
	62 Chlorobenzene	1.15143	1.03259	1.03259	0.300	-10.32116	30.00000	Averaged	spcc
	60 1,1,1,2-Tetrachloroethane	0.42708	0.40885	0.40885	0.010	-4.26818	30.00000	Averaged	
	58 Ethylbenzene	1.95429	1.67701	1.67701	0.010	-14.18846	20.00000	Averaged	ccc
	63 m,p-Xylenes	0.75466	0.67392	0.67392	0.010	-10.69904	30.00000	Averaged	
	64 o-Xylene	0.78787	0.71491	0.71491	0.010	-9.26014	30.00000	Averaged	
	65 Styrene	1.18125	1.13110	1.13110	0.010	-4.24603	30.00000	Averaged	
	66 Bromoform	0.51977	0.54682	0.54682	0.100	5.20481	30.00000	Averaged	spcc
	67 Isopropylbenzene	3.27794	2.88972	2.88972	0.010	-11.84366	30.00000	Averaged	
	73 1,1,2,2-Tetrachloroethane	0.90007	0.79353	0.79353	0.300	-11.83713	30.00000	Averaged	spcc
$	71 Bromofluorobenzene	0.81190	0.82268	0.82268	0.010	1.32697	30.00000	Averaged	
	74 1,2,3-Trichloropropane	0.23093	0.21190	0.21190	0.010	-8.24181	30.00000	Averaged	
	75 Bromobenzene	0.97586	0.90705	0.90705	0.010	-7.05100	30.00000	Averaged	
	76 n-Propylbenzene	3.95669	3.37943	3.37943	0.010	-14.58946	30.00000	Averaged	
	77 2-Chlorotoluene	2.77809	2.39331	2.39331	0.010	-13.85038	30.00000	Averaged	
	78 1,3,5-Trimethylbenzene	2.92228	2.53397	2.53397	0.010	-13.28793	30.00000	Averaged	
	80 4-Chlorotoluene	2.55750	2.25535	2.25535	0.010	-11.81412	30.00000	Averaged	
	81 tert-Butylbenzene	2.86510	2.53962	2.53962	0.010	-11.36029	30.00000	Averaged	
	79 1,2,4-Trimethylbenzene	3.07202	2.68305	2.68305	0.010	-12.66176	30.00000	Averaged	
	83 sec-Butylbenzene	4.00210	3.42102	3.42102	0.010	-14.51925	30.00000	Averaged	

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA4.i
Lab File ID: 4p621.d
Analysis Type: WATER
Lab Sample ID: W4VM091219-17
Method: /chem/VOA4.i/121909v4/VOA4-8260-121909.m

Injection Date: 20-DEC-2009 03:55
Init. Cal. Date(s): 19-DEC-2009 20-DEC-2009
Init. Cal. Times: 19:44 03:01
Quant Type: ISTD

COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
84 4-Isopropyltoluene	3.12524	2.70544	2.70544	0.010	-13.43270	30.00000	Averaged
85 1,3-Dichlorobenzene	1.92605	1.69424	1.69424	0.010	-12.03578	30.00000	Averaged
87 1,4-Dichlorobenzene	1.89963	1.69916	1.69916	0.010	-10.55333	30.00000	Averaged
89 n-Butylbenzene	3.01489	2.52049	2.52049	0.010	-16.39848	30.00000	Averaged
90 1,2-Dichlorobenzene	1.82245	1.63120	1.63120	0.010	-10.49383	30.00000	Averaged
92 1,2-Dibromo-3-chloropropane	0.15074	0.15187	0.15187	0.010	0.75081	30.00000	Averaged
93 1,2,4-Trichlorobenzene	0.98902	0.93471	0.93471	0.010	-5.49186	30.00000	Averaged
94 Hexachlorobutadiene	0.74898	0.64331	0.64331	0.010	-14.10922	30.00000	Averaged
95 Naphthalene	1.62110	1.58914	1.58914	0.010	-1.97170	30.00000	Averaged
96 1,2,3-Trichlorobenzene	0.79036	0.76577	0.76577	0.010	-3.11097	30.00000	Averaged

Average %D / Drift Results.

Calculated Average %D/Drift = 10.04973
Maximun Average %D/Drift = 20.00000
* Passed Average %D/Drift Test.

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA4.i/121909v4/4p621.d
Lab Smp Id: W4VM091219-17 Client Smp ID: SECOND SOURCE
Inj Date : 20-DEC-2009 03:55
Operator : ACJ Inst ID: VOA4.i
Smp Info : |W4VM091219-17|CCV/LCS|1|VOAF|1|
Misc Info : GEL 5ML N/A UVM091214-01A/IVM091217-01
Comment :
Method : /chem/VOA4.i/121909v4/VOA4-8260-121909.m
Meth Date : 21-Dec-2009 17:10 amj Quant Type: ISTD
Cal Date : 20-DEC-2009 02:33 Cal File: 4p618.d
Als bottle: 21 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: CALsubL+.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (Uf/Vo) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	sample purged

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
M 1 Xylenes (total)	106				2199670	150.000	135
M 2 1,2-Dichloroethylene (total)	96				1248409	100.000	89.6
M 135 1,3-Dichloropropylene	75				1191196	100.000	97.2
3 Dichlorodifluoromethane	85	4.912	4.912	(0.463)	286617	50.0000	43.5
4 Chloromethane	50	5.299	5.299	(0.499)	567995	50.0000	43.6
5 Vinyl chloride	62	5.528	5.528	(0.521)	450123	50.0000	46.6
6 Bromomethane	94	6.138	6.138	(0.578)	349682	50.0000	45.2
7 Chloroethane	64	6.295	6.295	(0.593)	371247	50.0000	46.4
8 Trichlorofluoromethane	101	6.662	6.662	(0.627)	540056	50.0000	47.8
134 Ethyl Ether	59	6.997	6.997	(0.659)	362410	50.0000	46.4
10 Acetone	43	7.357	7.357	(0.693)	1422434	250.000	164
15 Acetonitrile	41	7.705	7.705	(0.726)	1745314	1250.00	1080
11 1,1-Dichloroethylene	61	7.394	7.394	(0.696)	639153	50.0000	42.4
128 Methyl acetate	43	7.747	7.747	(0.730)	1763154	250.000	220
13 Iodomethane	142	7.631	7.631	(0.719)	3543953	250.000	230

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
17 Methylene chloride	84	7.942	7.942	(0.748)	467516	50.0000	47.7
14 Carbon disulfide	76	7.778	7.778	(0.732)	6175388	250.000	222
20 tert-Butyl methyl ether	73	8.241	8.241	(0.776)	1041760	50.0000	45.8
21 trans-1,2-Dichloroethylene	61	8.284	8.284	(0.780)	589432	50.0000	44.3
23 Vinyl acetate	43	8.710	8.710	(0.820)	4058456	250.000	204
22 1,1-Dichloroethane	63	8.759	8.759	(0.825)	743119	50.0000	43.7
30 2-Butanone	43	9.326	9.326	(0.878)	1694403	250.000	173
31 cis-1,2-Dichloroethylene	61	9.387	9.387	(0.884)	658977	50.0000	45.3
25 2,2-Dichloropropane	77	9.424	9.424	(0.887)	355236	50.0000	44.9
32 Chloroform	83	9.692	9.692	(0.913)	675530	50.0000	45.9
29 Bromochloromethane	128	9.661	9.661	(0.910)	212441	50.0000	47.1
36 1,1,1-Trichloroethane	97	9.979	9.979	(0.940)	524725	50.0000	46.6
129 Cyclohexane	56	10.082	10.082	(0.949)	670205	50.0000	44.0
34 1,1-Dichloropropene	75	10.137	10.137	(0.955)	485909	50.0000	45.1
131 n-Butyl alcohol	56	10.692	10.692	(1.007)	1559013	5000.00	5030
33 Carbon tetrachloride	117	10.174	10.174	(0.958)	492437	50.0000	46.1
$ 138 1,2-Dichloroethane-d4	65	10.259	10.259	(0.966)	371483	50.0000	51.7
37 1,2-Dichloroethane	62	10.338	10.338	(0.974)	549205	50.0000	45.9
38 Benzene	78	10.375	10.375	(0.977)	1516458	50.0000	44.3
139 Cyclohexene	67	10.497	10.497	(0.989)	712763	50.0000	43.4
* 40 Fluorobenzene	96	10.619	10.619	(1.000)	1379031	50.0000	
39 Trichloroethylene	95	11.003	11.003	(1.036)	390767	50.0000	46.2
41 1,2-Dichloropropane	63	11.240	11.240	(1.059)	437301	50.0000	44.7
130 Methylcyclohexane	83	11.265	11.265	(1.061)	597575	50.0000	45.1
45 Bromodichloromethane	83	11.484	11.484	(1.082)	515626	50.0000	48.1
43 Dibromomethane	93	11.375	11.375	(1.071)	235534	50.0000	46.1
44 2-Chloroethylvinyl ether	63	11.698	11.698	(1.102)	1058913	250.000	236
49 4-Methyl-2-pentanone	58	12.021	12.021	(0.873)	894280	250.000	212
46 cis-1,3-Dichloropropylene	75	11.929	11.929	(1.123)	621792	50.0000	48.2
$ 47 Toluene-d8	98	12.252	12.252	(0.890)	1225446	50.0000	48.5
50 Toluene	92	12.326	12.326	(0.895)	909483	50.0000	43.0
53 trans-1,3-Dichloropropylene	75	12.466	12.466	(0.905)	569404	50.0000	46.8
54 1,1,2-Trichloroethane	83	12.685	12.685	(0.921)	292354	50.0000	43.8
55 2-Hexanone	43	12.856	12.856	(0.934)	2234761	250.000	172
52 1,3-Dichloropropane	76	12.880	12.880	(0.935)	570408	50.0000	43.4
56 Tetrachloroethylene	164	12.923	12.923	(0.938)	351982	50.0000	44.0
57 Dibromochloromethane	129	13.149	13.149	(0.955)	429048	50.0000	48.8
59 1,2-Dibromoethane	107	13.319	13.319	(0.967)	378212	50.0000	47.6
* 61 Chlorobenzene-d5	117	13.770	13.770	(1.000)	1066376	50.0000	
62 Chlorobenzene	112	13.801	13.801	(1.002)	1101127	50.0000	44.8
60 1,1,1,2-Tetrachloroethane	131	13.850	13.850	(1.006)	435987	50.0000	47.9
58 Ethylbenzene	91	13.862	13.862	(1.007)	1788320	50.0000	42.9
63 m,p-Xylenes	106	13.972	13.972	(1.015)	1437307	100.000	89.3
64 o-Xylene	106	14.404	14.404	(1.046)	762363	50.0000	45.4
65 Styrene	104	14.404	14.404	(1.046)	1206176	50.0000	47.9
66 Bromoform	173	14.661	14.661	(0.906)	374884	50.0000	52.6
67 Isopropylbenzene	105	14.758	14.758	(0.912)	1981097	50.0000	44.1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
73 1,1,2,2-Tetrachloroethane	83	15.020	15.020	(0.928)	544016	50.0000	44.1
$ 71 Bromofluorobenzene	95	14.953	14.953	(0.924)	564000	50.0000	50.7
74 1,2,3-Trichloropropane	110	15.112	15.112	(0.934)	145273	50.0000	45.9
75 Bromobenzene	156	15.167	15.167	(0.937)	621845	50.0000	46.5
76 n-Propylbenzene	91	15.185	15.185	(0.939)	2316829	50.0000	42.7
77 2-Chlorotoluene	91	15.331	15.331	(0.948)	1640777	50.0000	43.1
78 1,3,5-Trimethylbenzene	105	15.331	15.331	(0.948)	1737211	50.0000	43.4
80 4-Chlorotoluene	91	15.429	15.429	(0.954)	1546197	50.0000	44.1
81 tert-Butylbenzene	119	15.703	15.703	(0.971)	1741081	50.0000	44.3
79 1,2,4-Trimethylbenzene	105	15.746	15.746	(0.973)	1839412	50.0000	43.7
83 sec-Butylbenzene	105	15.929	15.929	(0.985)	2345344	50.0000	42.7
84 4-Isopropyltoluene	119	16.050	16.050	(0.992)	1854760	50.0000	43.3
85 1,3-Dichlorobenzene	146	16.124	16.124	(0.997)	1161514	50.0000	44.0
* 86 1,4-Dichlorobenzene-d4	152	16.179	16.179	(1.000)	685568	50.0000	
87 1,4-Dichlorobenzene	146	16.209	16.209	(1.002)	1164889	50.0000	44.7
89 n-Butylbenzene	91	16.502	16.502	(1.020)	1727968	50.0000	41.8
90 1,2-Dichlorobenzene	146	16.642	16.642	(1.029)	1118300	50.0000	44.8
92 1,2-Dibromo-3-chloropropane	157	17.532	17.532	(1.084)	104117	50.0000	50.4
93 1,2,4-Trichlorobenzene	180	18.629	18.629	(1.151)	640805	50.0000	47.2
94 Hexachlorobutadiene	225	18.818	18.818	(1.163)	441032	50.0000	42.9
95 Naphthalene	128	19.032	19.032	(1.176)	1089462	50.0000	49.0
96 1,2,3-Trichlorobenzene	180	19.391	19.391	(1.199)	524990	50.0000	48.4

Data File: /chem/VOA4.i/121909v4/4p621.d
Date : 20-DEC-2009 03:55
Client ID: SECOND SOURCE
Sample Info: W4VH091219-17ICV/LCS111VOAF111
Purge Volume: 5.0
Column phase: RTX-VOLATILES

Instrument: VOA4.i
Operator: ACJ
Column diameter: 0.25

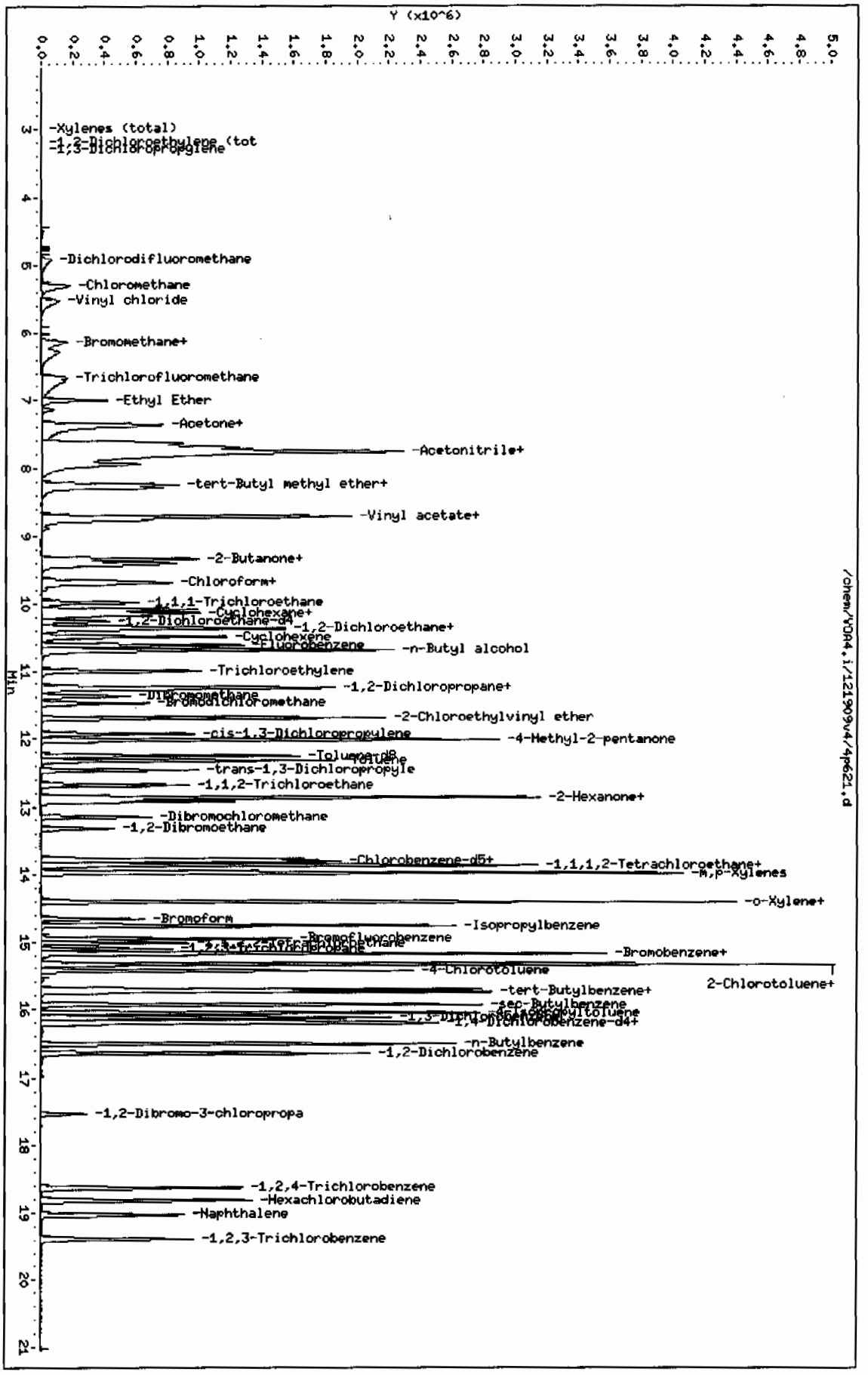

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GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA4.i
Lab File ID: 4p622.d
Analysis Type: WATER
Lab Sample ID: W4VM091219-18
Method: /chem/VOA4.i/121909v4/VOA4-8260-121909.m

Injection Date: 20-DEC-2009 04:22
Init. Cal. Date(s): 19-DEC-2009 20-DEC-2009
Init. Cal. Times: 19:44 03:01
Quant Type: ISTD

COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
153 Chlorotrifluoroethylene	0.19483	0.16841	0.16841	0.010	-13.56223	30.00000	Averaged
154 2-Chloro-1,1,1-trifluoroeth	0.28831	0.28177	0.28177	0.010	-2.26873	30.00000	Averaged
9 Acrolein	0.05963	0.06061	0.06061	0.001	1.64746	30.00000	Averaged
12 Trichlorotrifluoroethane	0.09755	0.10414	0.10414	0.050	6.75197	30.00000	Averaged
147 Isopropyl Alcohol	0.03035	0.02892	0.02892	0.010	-4.73081	40.00000	Averaged
16 Allyl chloride	0.56932	0.57211	0.57211	0.010	0.48999	30.00000	Averaged
148 tert-Butyl Alcohol	0.04186	0.03911	0.03911	0.010	-6.55569	40.00000	Averaged
18 Acrylonitrile	0.13121	0.13258	0.13258	0.010	1.04725	30.00000	Averaged
149 Isopropyl ether	1.28326	1.18626	1.18626	0.010	-7.55866	30.00000	Averaged
24 2-Chloro-1,3-butadiene	0.46861	0.52053	0.52053	0.010	11.07867	30.00000	Averaged
150 Ethyl tert-butyl ether	1.04700	0.97581	0.97581	0.010	-6.79953	30.00000	Averaged
28 Propionitrile	0.05337	0.05217	0.05217	0.010	-2.23649	30.00000	Averaged
26 Ethyl acetate	0.38171	0.34334	0.34334	0.010	-10.05319	40.00000	Averaged
27 Methacrylonitrile	0.22820	0.21903	0.21903	0.010	-4.01701	30.00000	Averaged
72 Tetrahydrofuran	0.26812	0.24794	0.24794	0.010	-7.52592	30.00000	Averaged
19 Isobutyl alcohol	0.01661	0.01527	0.01527	0.005	-8.03748	40.00000	Averaged
151 Methyl tert-amyl ether	0.83504	0.79501	0.79501	0.010	-4.79416	30.00000	Averaged
42 Methyl methacrylate	0.19191	0.19307	0.19307	0.010	0.60442	30.00000	Averaged
51 Ethyl methacrylate	0.48755	0.47045	0.47045	0.010	-3.50750	30.00000	Averaged
152 1-Chlorohexane	0.31202	0.30054	0.30054	0.010	-3.67915	30.00000	Averaged
97 1,4-Dioxane	0.00343	0.00346	0.00346	0.001	0.84849	40.00000	Averaged
48 2-Nitropropane	0.09810	0.10846	0.10846	0.010	10.55949	30.00000	Averaged
68 cis-1,4-Dichloro-2-butene	0.28075	0.29305	0.29305	0.010	4.37912	30.00000	Averaged
70 Cyclohexanone	0.04494	0.02722	0.02722	0.005	-39.43779	40.00000	Averaged
69 trans-1,4-Dichloro-2-butene	0.26553	0.27643	0.27643	0.010	4.10399	30.00000	Averaged
82 Pentachloroethane	0.35841	0.33208	0.33208	0.010	-7.34588	30.00000	Averaged
88 Benzyl chloride	1.23785	1.12721	1.12721	0.010	-8.93828	30.00000	Averaged
91 bis(2-Chloroisopropyl)ether	0.46791	0.46575	0.46575	0.010	-0.46112	30.00000	Averaged
$ 138 1,2-Dichloroethane-d4	0.26051	0.25071	0.25071	0.001	-3.76205	30.00000	Averaged
$ 47 Toluene-d8	1.18414	1.17160	1.17160	0.010	-1.05939	30.00000	Averaged
$ 71 Bromofluorobenzene	0.81190	0.82120	0.82120	0.010	1.14536	30.00000	Averaged

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA4.i
Lab File ID: 4p622.d
Analysis Type: WATER
Lab Sample ID: W4VM091219-18
Method: /chem/VOA4.i/121909v4/VOA4-8260-121909.m

Injection Date: 20-DEC-2009 04:22
Init. Cal. Date(s): 19-DEC-2009 20-DEC-2009
Init. Cal. Times: 19:44 03:01
Quant Type: ISTD

Average %D / Drift Results.	
Calculated Average %D/Drift =	6.09636
Maximun Average %D/Drift =	20.00000
* Passed Average %D/Drift Test.	

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VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA4.i/121909v4/4p622.d
Lab Smp Id: W4VM091219-18 Client Smp ID: SHORT SECOND SOURCE
Inj Date : 20-DEC-2009 04:22
Operator : ACJ Inst ID: VOA4.i
Smp Info : |W4VM091219-18|SHORT|1|VOAF|1|
Misc Info : GEL 5ML N/A UVM091118-08C/UVM091105-02E
Comment :
Method : /chem/VOA4.i/121909v4/VOA4-8260-121909.m
Meth Date : 20-Dec-2009 11:14 amj Quant Type: ISTD
Cal Date : 20-DEC-2009 02:33 Cal File: 4p618.d
Als bottle: 22 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: CALsubS+SS.sub
Target Version: 3.50

Concentration Formula: Amt * DF * (Uf/Vo) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	sample purged

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
153 Chlorotrifluoroethylene	116	4.833	4.833	(0.455)	695531	150.000	130
154 2-Chloro-1,1,1-trifluoroethane	118	5.657	5.657	(0.533)	1163717	150.000	146
9 Acrolein	56	7.180	7.180	(0.676)	417196	250.000	254
12 Trichlorotrifluoroethane	85	7.363	7.363	(0.693)	716849	250.000	267
147 Isopropyl Alcohol	45	7.436	7.436	(0.700)	1990411	2500.00	2380
16 Allyl chloride	41	7.802	7.802	(0.735)	3938074	250.000	251
148 tert-Butyl Alcohol	59	7.930	7.930	(0.747)	2692212	2500.00	2340
18 Acrylonitrile	53	8.174	8.174	(0.770)	912599	250.000	253
149 Isopropyl ether	45	8.741	8.741	(0.823)	1633101	50.0000	46.2
24 2-Chloro-1,3-butadiene	53	8.869	8.869	(0.835)	716599	50.0000	55.5
150 Ethyl tert-butyl ether	59	9.143	9.143	(0.861)	1343372	50.0000	46.6
28 Propionitrile	54	9.393	9.393	(0.885)	359126	250.000	244
26 Ethyl acetate	43	9.338	9.338	(0.879)	2363318	250.000	225
27 Methacrylonitrile	41	9.576	9.576	(0.902)	1507697	250.000	240
72 Tetrahydrofuran	42	9.716	9.716	(0.601)	820538	250.000	231
19 Isobutyl alcohol	41	10.009	10.009	(0.943)	1051237	2500.00	2300

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
151 Methyl tert-amyl ether	73	10.387	10.387	(0.978)	1094471	50.0000	47.6
42 Methyl methacrylate	69	11.210	11.210	(1.056)	1328976	250.000	252
51 Ethyl methacrylate	69	12.466	12.466	(0.905)	2454780	250.000	241
152 1-Chlorohexane	55	13.661	13.661	(1.286)	413752	50.0000	48.2
97 1,4-Dioxane	88	11.332	11.332	(1.067)	237913	2500.00	2520
48 2-Nitropropane	43	11.673	11.673	(1.099)	746587	250.000	276
68 cis-1,4-Dichloro-2-butene	53	14.782	14.782	(0.914)	969811	250.000	261
70 Cyclohexanone	42	14.904	14.904	(1.082)	710151	1250.00	757
69 trans-1,4-Dichloro-2-butene	53	15.063	15.063	(0.931)	914819	250.000	260
82 Pentachloroethane	167	15.770	15.770	(0.975)	1099000	250.000	232
88 Benzyl chloride	91	16.319	16.319	(1.009)	3730395	250.000	228
91 bis(2-Chloroisopropyl)ether	45	16.721	16.721	(1.034)	1541359	250.000	249
* 40 Fluorobenzene	96	10.619	10.619	(1.000)	1376679	50.0000	
* 61 Chlorobenzene-d5	117	13.770	13.770	(1.000)	1043598	50.0000	
* 86 1,4-Dichlorobenzene-d4	152	16.178	16.178	(1.000)	661882	50.0000	
$ 138 1,2-Dichloroethane-d4	65	10.259	10.259	(0.966)	345143	50.0000	48.1
$ 47 Toluene-d8	98	12.252	12.252	(0.890)	1222676	50.0000	49.5
$ 71 Bromofluorobenzene	95	14.953	14.953	(0.924)	543538	50.0000	50.6

Data File: /chem/VOA4.i/121909v4/4p622.d
Date : 20-DEC-2009 04:22
Client ID: SHORT SECOND SOURCE
Sample Info: IW4VH091219-18|SHORT|1|VOAF|1|
Purge Volume: 5.0
Column phase: RTX-VOLATILES

Instrument: VOA4.i
Operator: ACJ
Column diameter: 0.25

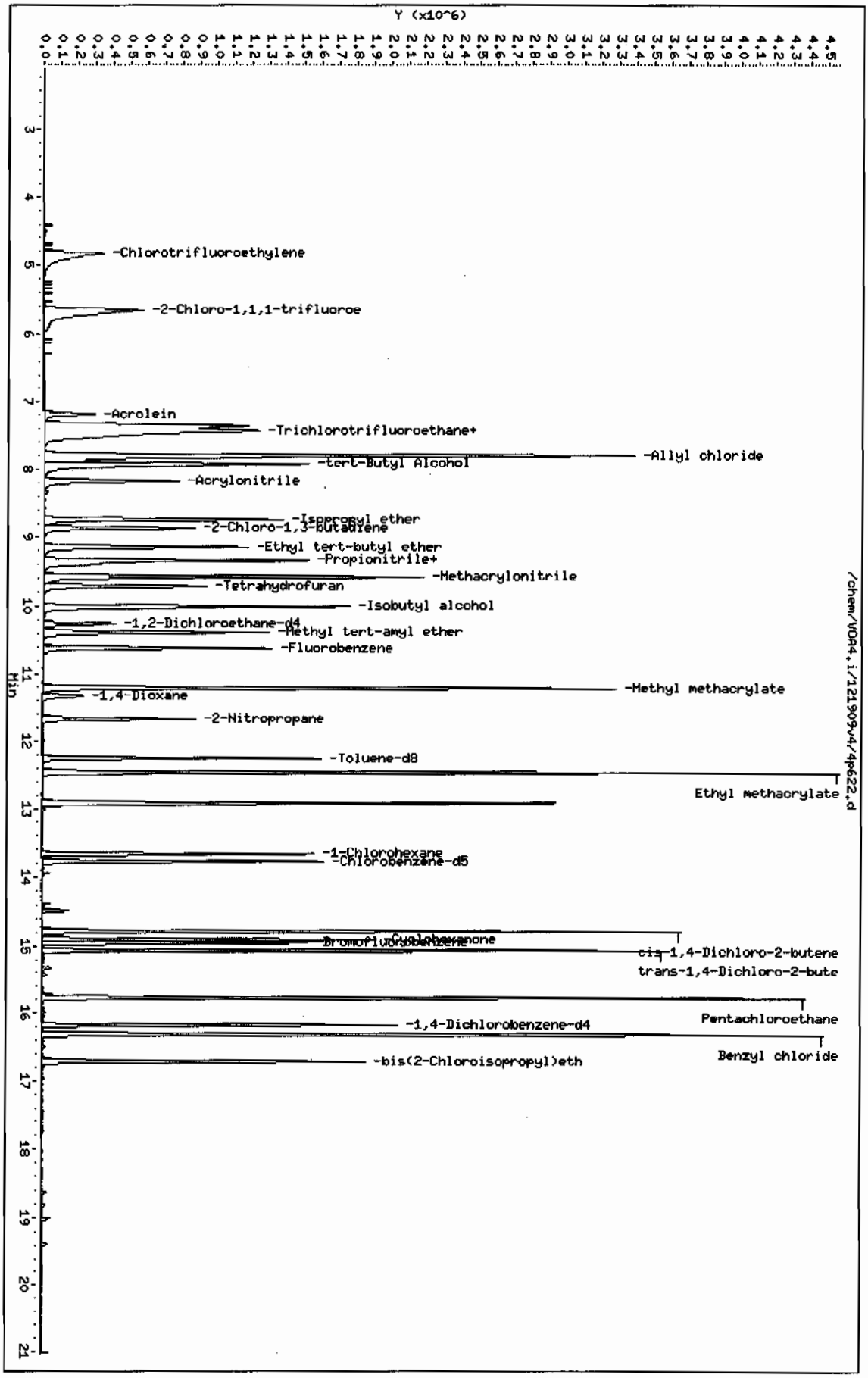

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GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA4.i Injection Date: 22-DEC-2009 20:33
Lab File ID: 4q202.d Init. Cal. Date(s): 19-DEC-2009 20-DEC-2009
Analysis Type: WATER Init. Cal. Times: 19:44 03:01
Lab Sample ID: W4VM091222-01 Quant Type: ISTD
Method: /chem/VOA4.i/122209v4/VOA4-8260-121909.m

COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
M 1 Xylenes (total)	0.76573	0.78709	0.78709	0.050	2.78901	30.00000	Averaged	
M 2 1,2-Dichloroethylene (total	0.50471	0.51343	0.51343	0.050	1.72778	30.00000	Averaged	
M 135 1,3-Dichloropropylene	0.44446	0.47811	0.47811	0.050	7.56979	30.00000	Averaged	
3 Dichlorodifluoromethane	0.23885	0.26217	0.26217	0.050	9.76391	30.00000	Averaged	
4 Chloromethane	0.47229	0.49890	0.49890	0.100	5.63425	30.00000	Averaged	spcc
5 Vinyl chloride	0.35020	0.39902	0.39902	0.050	13.94036	20.00000	Averaged	ccc
6 Bromomethane	0.28074	0.29243	0.29243	0.050	4.16417	30.00000	Averaged	
7 Chloroethane	0.29018	0.31323	0.31323	0.050	7.94439	30.00000	Averaged	
8 Trichlorofluoromethane	0.40939	0.47185	0.47185	0.050	15.25602	30.00000	Averaged	
134 Ethyl Ether	0.28283	0.27617	0.27617	0.001	-2.35738	30.00000	Averaged	
10 Acetone	0.31411	0.25069	0.25069	0.050	-20.19097	40.00000	Averaged	
15 Acetonitrile	0.05876	0.05912	0.05912	0.010	0.59897	30.00000	Averaged	
11 1,1-Dichloroethylene	0.54650	0.55062	0.55062	0.050	0.75344	20.00000	Averaged	ccc
128 Methyl acetate	0.29024	0.28801	0.28801	0.010	-0.76909	40.00000	Averaged	
13 Iodomethane	0.55868	0.55806	0.55806	0.050	-0.11043	30.00000	Averaged	
17 Methylene chloride	52.31037	50.00000	0.37039	0.050	4.62074	30.00000	Linear	
14 Carbon disulfide	1.01030	1.07098	1.07098	0.050	6.00654	30.00000	Averaged	
20 tert-Butyl methyl ether	0.82427	0.80202	0.80202	0.050	-2.69937	30.00000	Averaged	
21 trans-1,2-Dichloroethylene	0.48241	0.49605	0.49605	0.050	2.82840	30.00000	Averaged	
23 Vinyl acetate	0.72189	0.81855	0.81855	0.010	13.38980	40.00000	Averaged	
22 1,1-Dichloroethane	0.61608	0.61543	0.61543	0.100	-0.10468	30.00000	Averaged	spcc
30 2-Butanone	0.35587	0.29653	0.29653	0.030	-16.67349	40.00000	Averaged	
31 cis-1,2-Dichloroethylene	0.52700	0.53080	0.53080	0.050	0.72113	30.00000	Averaged	
25 2,2-Dichloropropane	0.28683	0.30531	0.30531	0.050	6.44198	30.00000	Averaged	
32 Chloroform	0.53358	0.53397	0.53397	0.010	0.07349	20.00000	Averaged	ccc
29 Bromochloromethane	0.16365	0.15777	0.15777	0.010	-3.59316	30.00000	Averaged	
36 1,1,1-Trichloroethane	0.40783	0.43790	0.43790	0.010	7.37214	30.00000	Averaged	
129 Cyclohexane	0.55264	0.60213	0.60213	0.010	8.95517	30.00000	Averaged	
34 1,1-Dichloropropene	0.39037	0.41568	0.41568	0.010	6.48487	30.00000	Averaged	
131 n-Butyl alcohol	0.01124	0.01311	0.01311	0.001	16.69949	40.00000	Averaged	
33 Carbon tetrachloride	0.38712	0.41774	0.41774	0.010	7.90828	30.00000	Averaged	
$ 138 1,2-Dichloroethane-d4	0.26051	0.23349	0.23349	0.001	-10.37094	30.00000	Averaged	
37 1,2-Dichloroethane	0.43414	0.43131	0.43131	0.010	-0.65213	30.00000	Averaged	
38 Benzene	1.24035	1.22930	1.22930	0.010	-0.89075	30.00000	Averaged	
139 Cyclohexene	0.59503	0.62320	0.62320	0.001	4.73454	30.00000	Averaged	

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA4.i Injection Date: 22-DEC-2009 20:33
Lab File ID: 4q202.d Init. Cal. Date(s): 19-DEC-2009 20-DEC-2009
Analysis Type: WATER Init. Cal. Times: 19:44 03:01
Lab Sample ID: W4VM091222-01 Quant Type: ISTD
Method: /chem/VOA4.i/122209v4/VOA4-8260-121909.m

	COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
	39 Trichloroethylene	0.30647	0.31173	0.31173	0.010	1.71697	30.00000	Averaged	
	41 1,2-Dichloropropane	0.35477	0.35481	0.35481	0.010	0.01309	20.00000	Averaged	ccc
	130 Methylcyclohexane	0.48043	0.52875	0.52875	0.010	10.05853	30.00000	Averaged	
	45 Bromodichloromethane	0.38885	0.40259	0.40259	0.010	3.53358	30.00000	Averaged	
	43 Dibromomethane	0.18537	0.18460	0.18460	0.010	-0.41504	30.00000	Averaged	
	44 2-Chloroethylvinyl ether	0.16253	0.17604	0.17604	0.005	8.31035	30.00000	Averaged	
	49 4-Methyl-2-pentanone	0.19782	0.19540	0.19540	0.010	-1.22453	40.00000	Averaged	
	46 cis-1,3-Dichloropropylene	0.46758	0.50089	0.50089	0.010	7.12414	30.00000	Averaged	
$	47 Toluene-d8	1.18414	1.13762	1.13762	0.010	-3.92888	30.00000	Averaged	
	50 Toluene	0.99158	0.96827	0.96827	0.010	-2.35087	20.00000	Averaged	ccc
	53 trans-1,3-Dichloropropylene	0.57001	0.59408	0.59408	0.010	4.22285	30.00000	Averaged	
	54 1,1,2-Trichloroethane	0.31320	0.30068	0.30068	0.010	-3.99530	30.00000	Averaged	
	55 2-Hexanone	0.60850	0.51766	0.51766	0.010	-14.92963	40.00000	Averaged	
	52 1,3-Dichloropropane	0.61659	0.59014	0.59014	0.010	-4.29085	30.00000	Averaged	
	56 Tetrachloroethylene	0.37476	0.36904	0.36904	0.010	-1.52627	30.00000	Averaged	
	57 Dibromochloromethane	0.41230	0.43283	0.43283	0.010	4.97944	30.00000	Averaged	
	59 1,2-Dibromoethane	0.37285	0.38332	0.38332	0.010	2.81025	30.00000	Averaged	
	62 Chlorobenzene	1.15143	1.13905	1.13905	0.300	-1.07471	30.00000	Averaged	spcc
	60 1,1,1,2-Tetrachloroethane	0.42708	0.43969	0.43969	0.010	2.95398	30.00000	Averaged	
	58 Ethylbenzene	1.95429	1.96354	1.96354	0.010	0.47344	20.00000	Averaged	ccc
	63 m,p-Xylenes	0.75466	0.78107	0.78107	0.010	3.49977	30.00000	Averaged	
	64 o-Xylene	0.78787	0.79912	0.79912	0.010	1.42771	30.00000	Averaged	
	65 Styrene	1.18125	1.26840	1.26840	0.010	7.37730	30.00000	Averaged	
	66 Bromoform	0.51977	0.58015	0.58015	0.100	11.61712	30.00000	Averaged	spcc
	67 Isopropylbenzene	3.27794	3.41761	3.41761	0.010	4.26089	30.00000	Averaged	
	73 1,1,2,2-Tetrachloroethane	0.90007	0.90238	0.90238	0.300	0.25666	30.00000	Averaged	spcc
$	71 Bromofluorobenzene	0.81190	0.88506	0.88506	0.010	9.01112	30.00000	Averaged	
	74 1,2,3-Trichloropropane	0.23093	0.23033	0.23033	0.010	-0.26306	30.00000	Averaged	
	75 Bromobenzene	0.97586	0.98991	0.98991	0.010	1.43987	30.00000	Averaged	
	76 n-Propylbenzene	3.95669	4.11514	4.11514	0.010	4.00453	30.00000	Averaged	
	77 2-Chlorotoluene	2.77809	2.78897	2.78897	0.010	0.39168	30.00000	Averaged	
	78 1,3,5-Trimethylbenzene	2.92228	2.98510	2.98510	0.010	2.14966	30.00000	Averaged	
	80 4-Chlorotoluene	2.55750	2.64173	2.64173	0.010	3.29341	30.00000	Averaged	
	81 tert-Butylbenzene	2.86510	2.94475	2.94475	0.010	2.77991	30.00000	Averaged	
	79 1,2,4-Trimethylbenzene	3.07202	3.13371	3.13371	0.010	2.00811	30.00000	Averaged	
	83 sec-Butylbenzene	4.00210	4.14588	4.14588	0.010	3.59274	30.00000	Averaged	

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA4.i
Lab File ID: 4q202.d
Analysis Type: WATER
Lab Sample ID: W4VM091222-01
Method: /chem/VOA4.i/122209v4/VOA4-8260-121909.m

Injection Date: 22-DEC-2009 20:33
Init. Cal. Date(s): 19-DEC-2009 20-DEC-2009
Init. Cal. Times: 19:44 03:01
Quant Type: ISTD

COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
84 4-Isopropyltoluene	3.12524	3.23536	3.23536	0.010	3.52362	30.00000	Averaged
85 1,3-Dichlorobenzene	1.92605	1.91116	1.91116	0.010	-0.77295	30.00000	Averaged
87 1,4-Dichlorobenzene	1.89963	1.90705	1.90705	0.010	0.39036	30.00000	Averaged
89 n-Butylbenzene	3.01489	3.20782	3.20782	0.010	6.39943	30.00000	Averaged
90 1,2-Dichlorobenzene	1.82245	1.79902	1.79902	0.010	-1.28564	30.00000	Averaged
92 1,2-Dibromo-3-chloropropane	0.15074	0.16461	0.16461	0.010	9.20216	30.00000	Averaged
93 1,2,4-Trichlorobenzene	0.98902	1.04374	1.04374	0.010	5.53248	30.00000	Averaged
94 Hexachlorobutadiene	0.74898	0.76113	0.76113	0.010	1.62118	30.00000	Averaged
95 Naphthalene	1.62110	1.73193	1.73193	0.010	6.83649	30.00000	Averaged
96 1,2,3-Trichlorobenzene	0.79036	0.83588	0.83588	0.010	5.75900	30.00000	Averaged

Average %D / Drift Results.

Calculated Average %D/Drift = 4.85704
Maximun Average %D/Drift = 20.00000
* Passed Average %D/Drift Test.

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VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA4.i/122209v4/4q202.d
Lab Smp Id: W4VM091222-01 Client Smp ID: VSTD050
Inj Date : 22-DEC-2009 20:33
Operator : ACJ Inst ID: VOA4.i
Smp Info : |W4VM091222-01|CCV/LCS|1|VOAF|1|
Misc Info : GEL 5ML N/A UVM091214-01A/IVM091222-01
Comment :
Method : /chem/VOA4.i/122209v4/VOA4-8260-121909.m
Meth Date : 24-Dec-2009 16:25 amj Quant Type: ISTD
Cal Date : 20-DEC-2009 02:33 Cal File: 4p618.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: CALsubL+.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (Uf/Vo) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	sample purged

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
M 1 Xylenes (total)	106				2081349	150.000	154
M 2 1,2-Dichloroethylene (total)	96				1180973	100.000	102
M 135 1,3-Dichloropropylene	75				1099732	100.000	108
3 Dichlorodifluoromethane	85	4.912	4.912	(0.463)	301517	50.0000	54.9
4 Chloromethane	50	5.299	5.299	(0.499)	573777	50.0000	52.8
5 Vinyl chloride	62	5.521	5.521	(0.520)	458903	50.0000	57.0
6 Bromomethane	94	6.138	6.138	(0.578)	336316	50.0000	52.1
7 Chloroethane	64	6.281	6.281	(0.592)	360244	50.0000	54.0
8 Trichlorofluoromethane	101	6.662	6.662	(0.628)	542667	50.0000	57.6
134 Ethyl Ether	59	6.997	6.997	(0.659)	317615	50.0000	48.8
10 Acetone	43	7.357	7.357	(0.693)	1441568	250.000	200
15 Acetonitrile	41	7.699	7.699	(0.725)	1699717	1250.00	1260
11 1,1-Dichloroethylene	61	7.388	7.388	(0.696)	633262	50.0000	50.4
128 Methyl acetate	43	7.747	7.747	(0.730)	1656193	250.000	248
13 Iodomethane	142	7.625	7.625	(0.719)	3209092	250.000	250

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
17 Methylene chloride	84	7.936	7.936	(0.748)	425981	50.0000	52.3
14 Carbon disulfide	76	7.772	7.772	(0.732)	6158634	250.000	265
20 tert-Butyl methyl ether	73	8.241	8.241	(0.777)	922389	50.0000	48.6
21 trans-1,2-Dichloroethylene	61	8.284	8.284	(0.781)	570503	50.0000	51.4
23 Vinyl acetate	43	8.704	8.704	(0.820)	4707000	250.000	283
22 1,1-Dichloroethane	63	8.759	8.759	(0.825)	707803	50.0000	49.9
30 2-Butanone	43	9.326	9.326	(0.879)	1705203	250.000	208
31 cis-1,2-Dichloroethylene	61	9.381	9.381	(0.884)	610470	50.0000	50.4
25 2,2-Dichloropropane	77	9.418	9.418	(0.887)	351132	50.0000	53.2
32 Chloroform	83	9.692	9.692	(0.913)	614111	50.0000	50.0
29 Bromochloromethane	128	9.656	9.656	(0.910)	181450	50.0000	48.2
36 1,1,1-Trichloroethane	97	9.979	9.979	(0.940)	503622	50.0000	53.7
129 Cyclohexane	56	10.082	10.082	(0.950)	692507	50.0000	54.5
34 1,1-Dichloropropene	75	10.131	10.131	(0.955)	478074	50.0000	53.2
131 n-Butyl alcohol	56	10.686	10.686	(1.007)	1508043	5000.00	5830
33 Carbon tetrachloride	117	10.174	10.174	(0.959)	480438	50.0000	54.0
$ 138 1,2-Dichloroethane-d4	65	10.259	10.259	(0.967)	268535	50.0000	44.8
37 1,2-Dichloroethane	62	10.338	10.338	(0.974)	496049	50.0000	49.7
38 Benzene	78	10.369	10.369	(0.977)	1413802	50.0000	49.6
139 Cyclohexene	67	10.491	10.491	(0.988)	716734	50.0000	52.4
* 40 Fluorobenzene	96	10.613	10.613	(1.000)	1150089	50.0000	
39 Trichloroethylene	95	11.003	11.003	(1.037)	358518	50.0000	50.8
41 1,2-Dichloropropane	63	11.241	11.241	(1.059)	408067	50.0000	50.0
130 Methylcyclohexane	83	11.259	11.259	(1.061)	608115	50.0000	55.0
45 Bromodichloromethane	83	11.478	11.478	(1.082)	463019	50.0000	51.8
43 Dibromomethane	93	11.375	11.375	(1.072)	212303	50.0000	49.8
44 2-Chloroethylvinyl ether	63	11.698	11.698	(1.102)	1012311	250.000	271
49 4-Methyl-2-pentanone	58	12.015	12.015	(0.872)	861184	250.000	247
46 cis-1,3-Dichloropropylene	75	11.929	11.929	(1.124)	576073	50.0000	53.6
$ 47 Toluene-d8	98	12.246	12.246	(0.889)	1002759	50.0000	48.0
50 Toluene	92	12.320	12.320	(0.895)	853488	50.0000	48.8
53 trans-1,3-Dichloropropylene	75	12.460	12.460	(0.905)	523659	50.0000	52.1
54 1,1,2-Trichloroethane	83	12.679	12.679	(0.921)	265038	50.0000	48.0
55 2-Hexanone	43	12.856	12.856	(0.934)	2281450	250.000	213
52 1,3-Dichloropropane	76	12.874	12.874	(0.935)	520179	50.0000	47.8
56 Tetrachloroethylene	164	12.917	12.917	(0.938)	325288	50.0000	49.2
57 Dibromochloromethane	129	13.143	13.143	(0.954)	381521	50.0000	52.5
59 1,2-Dibromoethane	107	13.319	13.319	(0.967)	337882	50.0000	51.4
* 61 Chlorobenzene-d5	117	13.771	13.771	(1.000)	881455	50.0000	
62 Chlorobenzene	112	13.801	13.801	(1.002)	1004025	50.0000	49.5
60 1,1,1,2-Tetrachloroethane	131	13.850	13.850	(1.006)	387570	50.0000	51.5
58 Ethylbenzene	91	13.862	13.862	(1.007)	1730775	50.0000	50.2
63 m,p-Xylenes	106	13.972	13.972	(1.015)	1376964	100.000	103
64 o-Xylene	106	14.405	14.405	(1.046)	704385	50.0000	50.7
65 Styrene	104	14.399	14.399	(1.046)	1118037	50.0000	53.7
66 Bromoform	173	14.655	14.655	(0.906)	325942	50.0000	55.8
67 Isopropylbenzene	105	14.758	14.758	(0.913)	1920091	50.0000	52.1

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
	73 1,1,2,2-Tetrachloroethane	83	15.014	15.014	(0.928)	506976	50.0000	50.1
$	71 Bromofluorobenzene	95	14.947	14.947	(0.924)	497248	50.0000	54.5
	74 1,2,3-Trichloropropane	110	15.106	15.106	(0.934)	129403	50.0000	49.9
	75 Bromobenzene	156	15.167	15.167	(0.938)	556153	50.0000	50.7
	76 n-Propylbenzene	91	15.179	15.179	(0.939)	2311974	50.0000	52.0
	77 2-Chlorotoluene	91	15.331	15.331	(0.948)	1566903	50.0000	50.2
	78 1,3,5-Trimethylbenzene	105	15.331	15.331	(0.948)	1677097	50.0000	51.1
	80 4-Chlorotoluene	91	15.429	15.429	(0.954)	1484180	50.0000	51.6
	81 tert-Butylbenzene	119	15.703	15.703	(0.971)	1654425	50.0000	51.4
	79 1,2,4-Trimethylbenzene	105	15.740	15.740	(0.973)	1760587	50.0000	51.0
	83 sec-Butylbenzene	105	15.929	15.929	(0.985)	2329248	50.0000	51.8
	84 4-Isopropyltoluene	119	16.051	16.051	(0.992)	1817697	50.0000	51.8
	85 1,3-Dichlorobenzene	146	16.118	16.118	(0.997)	1073734	50.0000	49.6
*	86 1,4-Dichlorobenzene-d4	152	16.173	16.173	(1.000)	561822	50.0000	
	87 1,4-Dichlorobenzene	146	16.203	16.203	(1.002)	1071422	50.0000	50.2
	89 n-Butylbenzene	91	16.502	16.502	(1.020)	1802225	50.0000	53.2
	90 1,2-Dichlorobenzene	146	16.642	16.642	(1.029)	1010727	50.0000	49.4
	92 1,2-Dibromo-3-chloropropane	157	17.526	17.526	(1.084)	92481	50.0000	54.6
	93 1,2,4-Trichlorobenzene	180	18.629	18.629	(1.152)	586396	50.0000	52.8
	94 Hexachlorobutadiene	225	18.818	18.818	(1.164)	427618	50.0000	50.8
	95 Naphthalene	128	19.026	19.026	(1.176)	973035	50.0000	53.4
	96 1,2,3-Trichlorobenzene	180	19.385	19.385	(1.199)	469615	50.0000	52.9

Data File: /chem/VOA4.i/122209v4/4q202.d
Date : 22-DEC-2009 20:33
Client ID: VSTD050
Sample Info: IW4VH091222-01ICV/LCS1ILVOAF11f
Purge Volume: 5.0
Column phase: RTX-VOLATILES

Instrument: VOA4.i
Operator: ACJ
Column diameter: 0.25

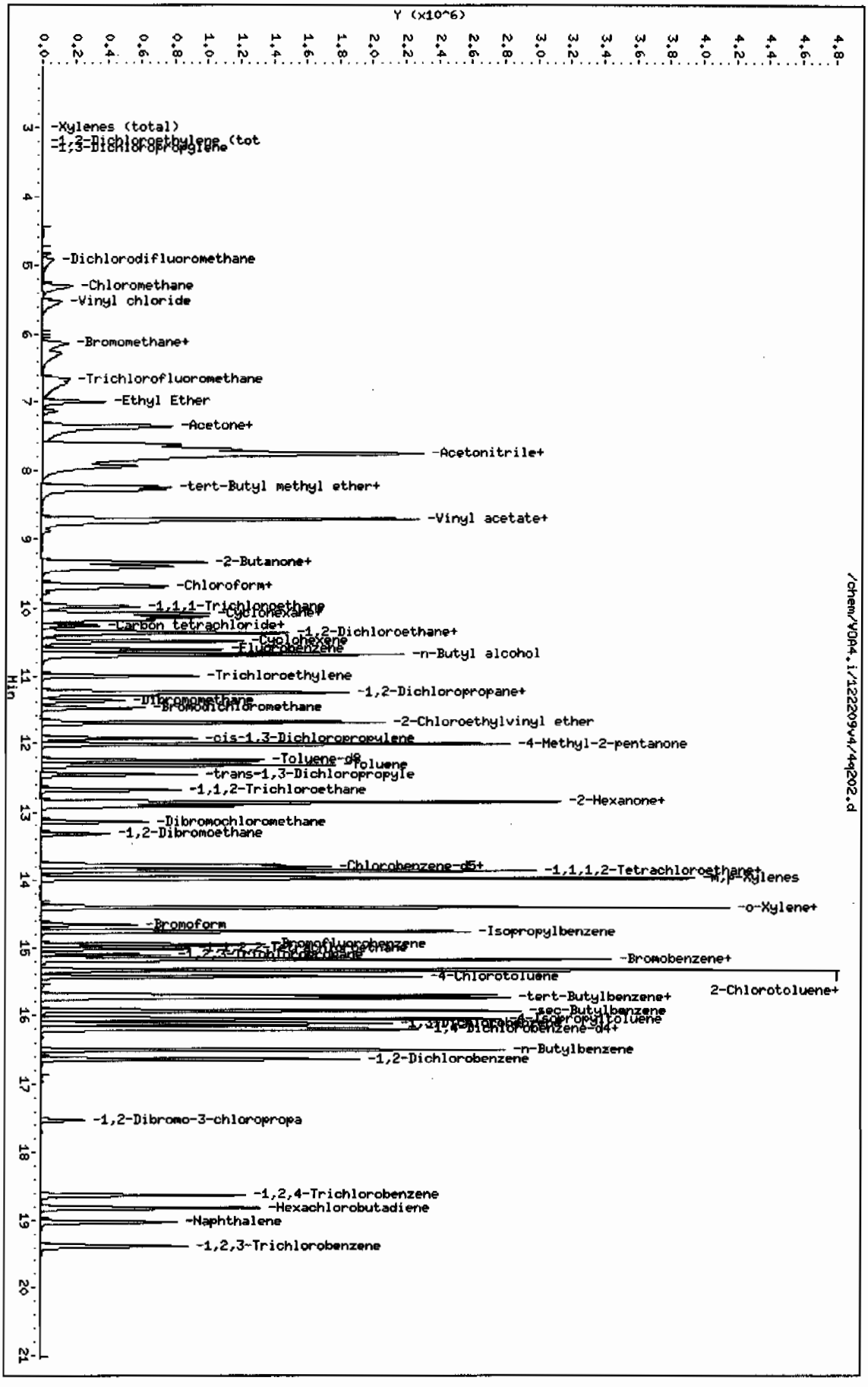

Page 1

Data File: /chem/VOA4.i/122209v4/4q204.d
Report Date: 24-Dec-2009 16:25

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA4.i Injection Date: 22-DEC-2009 21:28
Lab File ID: 4q204.d Init. Cal. Date(s): 19-DEC-2009 20-DEC-2009
Analysis Type: WATER Init. Cal. Times: 19:44 03:01
Lab Sample ID: UVM091118-08C Quant Type: ISTD
Method: /chem/VOA4.i/122209v4/VOA4-8260-121909.m

COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
9 Acrolein	0.05963	0.06203	0.06203	0.001	4.03676	30.00000	Averaged
12 Trichlorotrifluoroethane	0.09755	0.10715	0.10715	0.050	9.83281	30.00000	Averaged
16 Allyl chloride	0.56932	0.58078	0.58078	0.010	2.01289	30.00000	Averaged
18 Acrylonitrile	0.13121	0.12431	0.12431	0.010	-5.25766	30.00000	Averaged
24 2-Chloro-1,3-butadiene	0.46861	0.53586	0.53586	0.010	14.35138	30.00000	Averaged
28 Propionitrile	0.05337	0.04935	0.04935	0.010	-7.52657	30.00000	Averaged
26 Ethyl acetate	0.38171	0.33011	0.33011	0.010	-13.51763	40.00000	Averaged
27 Methacrylonitrile	0.22820	0.20599	0.20599	0.010	-9.73271	30.00000	Averaged
72 Tetrahydrofuran	0.26812	0.25346	0.25346	0.010	-5.46639	30.00000	Averaged
19 Isobutyl alcohol	0.01661	0.01493	0.01493	0.005	-10.10904	40.00000	Averaged
42 Methyl methacrylate	0.19191	0.18034	0.18034	0.010	-6.02647	30.00000	Averaged
51 Ethyl methacrylate	0.48755	0.45729	0.45729	0.010	-6.20577	30.00000	Averaged
97 1,4-Dioxane	0.00343	0.00323	0.00323	0.001	-5.77013	40.00000	Averaged
48 2-Nitropropane	0.09810	0.10293	0.10293	0.010	4.92538	30.00000	Averaged
68 cis-1,4-Dichloro-2-butene	0.28075	0.30400	0.30400	0.010	8.27921	30.00000	Averaged
70 Cyclohexanone	0.04494	0.02750	0.02750	0.005	-38.80668	40.00000	Averaged
69 trans-1,4-Dichloro-2-butene	0.26553	0.29094	0.29094	0.010	9.56771	30.00000	Averaged
82 Pentachloroethane	0.35841	0.49840	0.49840	0.010	39.05697	30.00000	Averaged <-
88 Benzyl chloride	1.23785	1.40338	1.40338	0.010	13.37228	30.00000	Averaged
91 bis(2-Chloroisopropyl)ether	0.46791	0.45765	0.45765	0.010	-2.19175	30.00000	Averaged
$ 138 1,2-Dichloroethane-d4	0.26051	0.22632	0.22632	0.001	-13.12187	30.00000	Averaged
$ 47 Toluene-d8	1.18414	1.10960	1.10960	0.010	-6.29535	30.00000	Averaged
$ 71 Bromofluorobenzene	0.81190	0.88253	0.88253	0.010	8.69914	30.00000	Averaged

Average %D / Drift Results.

Calculated Average %D/Drift = 29.05025
Maximun Average %D/Drift = 20.00000
* Failed Average %D/Drift Test.

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA4.i/122209v4/4q204.d
Lab Smp Id: UVM091118-08C Client Smp ID: VSTD250S
Inj Date : 22-DEC-2009 21:28
Operator : ACJ Inst ID: VOA4.i
Smp Info : |UVM091118-08C|SHORT|1|VOAF|1|
Misc Info : GEL 5ML N/A
Comment :
Method : /chem/VOA4.i/122209v4/VOA4-8260-121909.m
Meth Date : 24-Dec-2009 16:25 amj Quant Type: ISTD
Cal Date : 20-DEC-2009 02:33 Cal File: 4p618.d
Als bottle: 4 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: CALsubS+SS.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (Uf/Vo) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	sample purged

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
9 Acrolein	56	7.180	7.180	(0.676)	364972	250.000	260
12 Trichlorotrifluoroethane	85	7.357	7.357	(0.693)	630395	250.000	274
16 Allyl chloride	41	7.802	7.802	(0.735)	3416998	250.000	255
18 Acrylonitrile	53	8.174	8.174	(0.770)	731355	250.000	237
24 2-Chloro-1,3-butadiene	53	8.869	8.869	(0.835)	630545	50.0000	57.2
28 Propionitrile	54	9.393	9.393	(0.885)	290346	250.000	231
26 Ethyl acetate	43	9.339	9.339	(0.879)	1942194	250.000	216
27 Methacrylonitrile	41	9.576	9.576	(0.902)	1211934	250.000	226
72 Tetrahydrofuran	42	9.716	9.716	(0.601)	678549	250.000	236
19 Isobutyl alcohol	41	10.003	10.003	(0.942)	878283	2500.00	2250
42 Methyl methacrylate	69	11.204	11.204	(1.055)	1061046	250.000	235
51 Ethyl methacrylate	69	12.466	12.466	(0.905)	1983596	250.000	234
97 1,4-Dioxane	88	11.332	11.332	(1.067)	190006	2500.00	2360
48 2-Nitropropane	43	11.673	11.673	(1.099)	605611	250.000	262
68 cis-1,4-Dichloro-2-butene	53	14.783	14.783	(0.914)	813832	250.000	271

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
70 Cyclohexanone	42	14.905	14.905	(1.082)	596501	1250.00	765
69 trans-1,4-Dichloro-2-butene	53	15.063	15.063	(0.931)	778873	250.000	274
82 Pentachloroethane	167	15.770	15.770	(0.975)	1334265	250.000	348(A)
88 Benzyl chloride	91	16.319	16.319	(1.009)	3757007	250.000	283
91 bis(2-Chloroisopropyl)ether	45	16.715	16.715	(1.033)	1225188	250.000	244
* 40 Fluorobenzene	96	10.619	10.619	(1.000)	1176688	50.0000	
* 61 Chlorobenzene-d5	117	13.771	13.771	(1.000)	867544	50.0000	
* 86 1,4-Dichlorobenzene-d4	152	16.179	16.179	(1.000)	535423	50.0000	
$ 138 1,2-Dichloroethane-d4	65	10.259	10.259	(0.966)	266313	50.0000	43.4
$ 47 Toluene-d8	98	12.253	12.253	(0.890)	962623	50.0000	46.8
$ 71 Bromofluorobenzene	95	14.953	14.953	(0.924)	472527	50.0000	54.3

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.

Data File: /chem/VOA4.i/122209v4/4q204.d
Date : 22-DEC-2009 21:28
Client ID: VSTD250S
Sample Info: |UVM091118-08C|SHORT|1|VOAF|1|
Purge Volume: 5.0
Column phase: RTX-VOLATILES

Instrument: VOA4.i

Operator: ACJ
Column diameter: 0.25

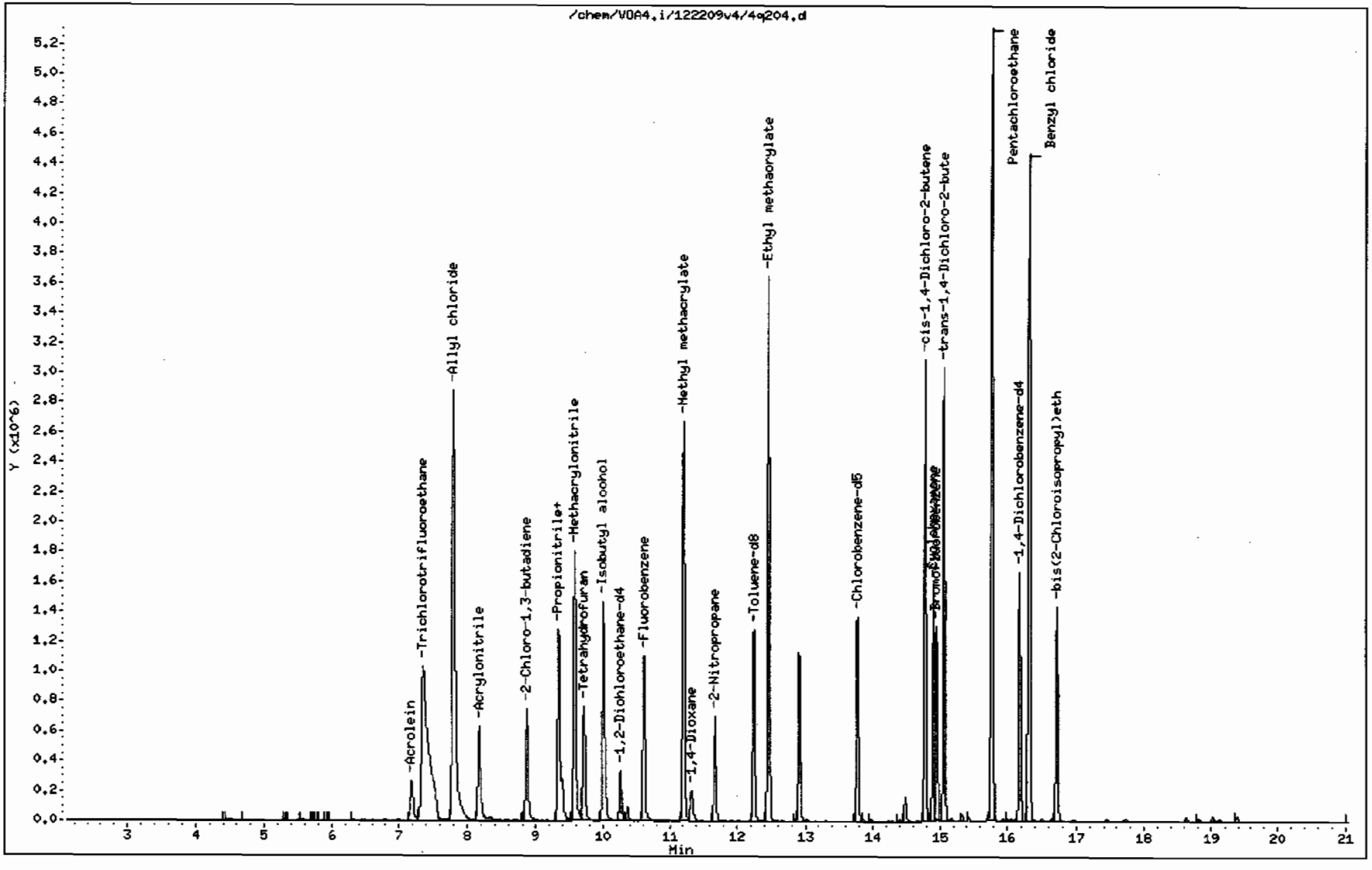

QC Data

Data File: /chem/VOA4.i/121909v4/4p601.d

Date : 19-DEC-2009 18:50

Client ID: BFB01

Instrument: VOA4.i

Sample Info: |UVH090910-02|BFB|1|VOAF|1|

Operator: ACJ

Column phase: DB-624

Column diameter: 0.25

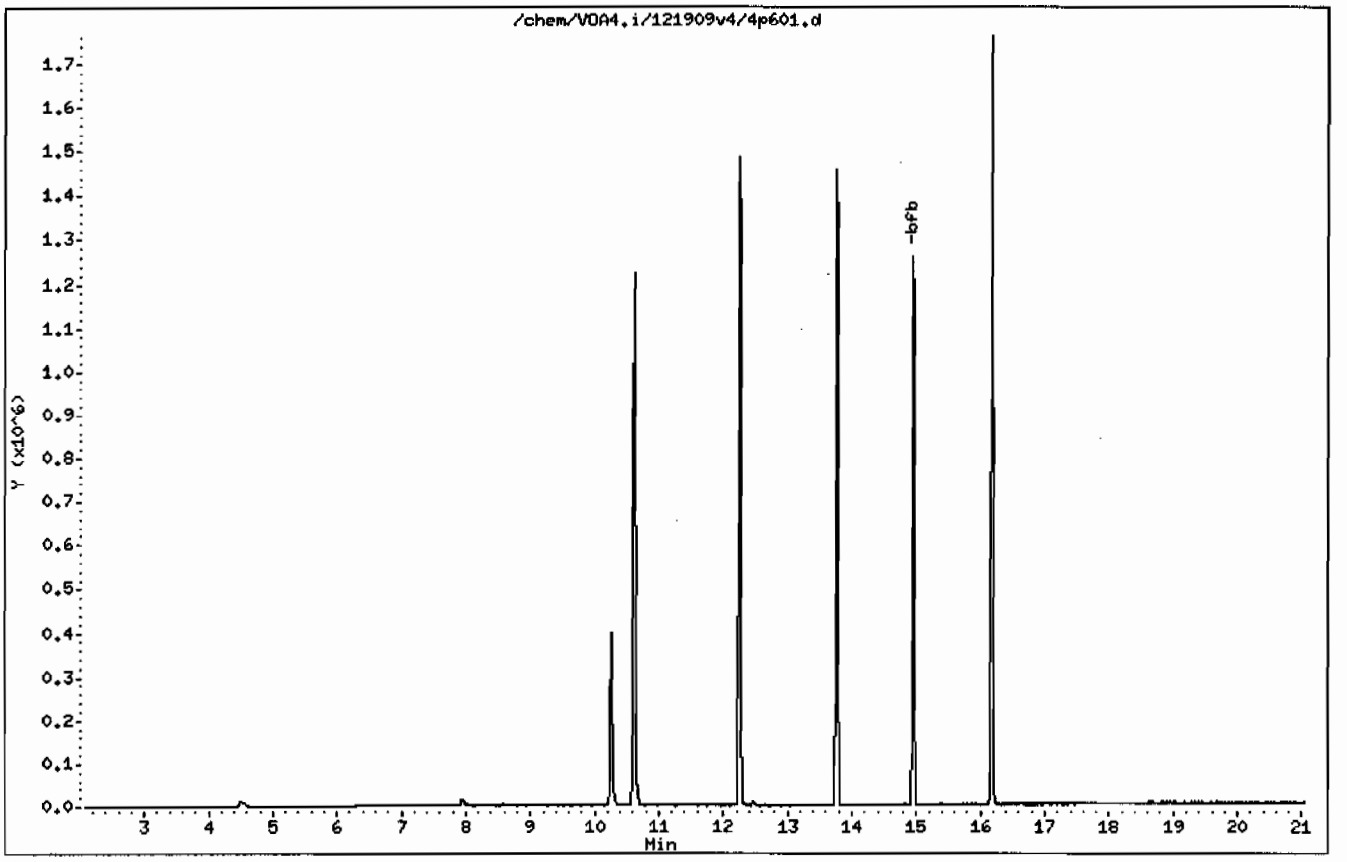

Data File: /chem/VOA4.i/121909v4/4p601.d

Date : 19-DEC-2009 18:50

Client ID: BFB01

Instrument: VOA4.i

Sample Info: |UVM090910-02|BFB|1|VOAF|1|

Operator: ACJ

Column phase: DB-624

Column diameter: 0.25

1 bfb

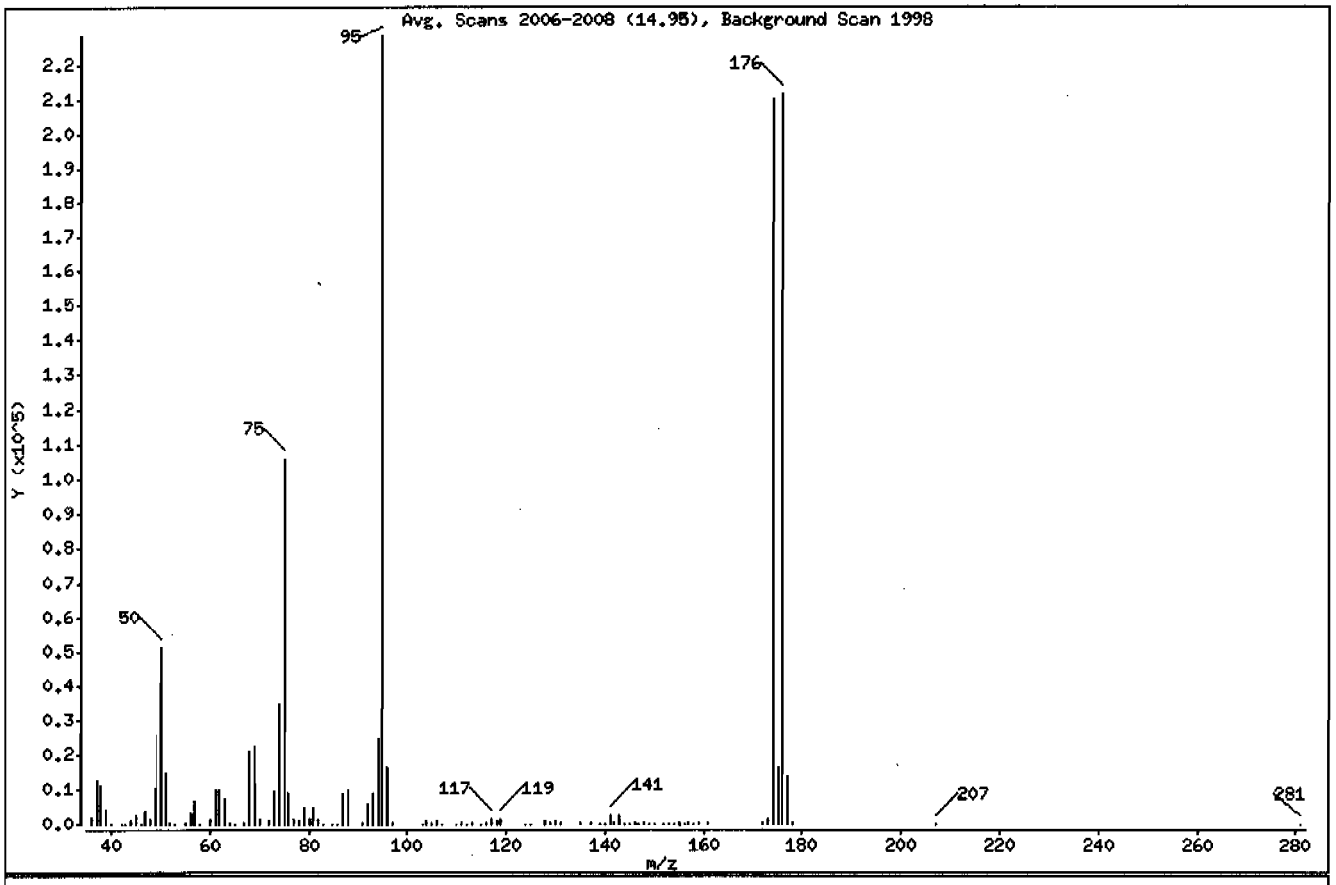

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	22.45
75	30.00 - 60.00% of mass 95	46.50
96	5.00 - 9.00% of mass 95	7.03
173	Less than 2.00% of mass 174	0.58 (0.63)
174	50.00 - 100.00% of mass 95	91.87
175	5.00 - 9.00% of mass 174	7.13 (7.76)
176	95.00 - 101.00% of mass 174	92.54 (100.73)
177	5.00 - 9.00% of mass 176	5.96 (6.45)

Data File: /chem/VOA4.i/121909v4/4p601.d

Date : 19-DEC-2009 18:50

Client ID: BFB01 Instrument: VOA4.i

Sample Info: |UVM090910-02|BFB|1|VOAF|1|

Operator: ACJ

Column phase: DB-624 Column diameter: 0.25

Data File: 4p601.d
Spectrum: Avg. Scans 2006-2008 (14.95), Background Scan 1998
Location of Maximum: 95.00
Number of points: 106

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	2242	67.00	435	103.00	57	144.00	133
37.00	12564	68.00	20800	104.00	883	145.00	215
38.00	10797	69.00	22696	105.00	293	146.00	382
39.00	4231	70.00	1542	106.00	900	147.00	202
40.00	70	72.00	1072	107.00	228	148.00	663
42.00	60	73.00	9341	110.00	69	149.00	202
43.00	139	74.00	34408	111.00	273	150.00	245
44.00	1103	75.00	106096	112.00	51	152.00	70
45.00	2370	76.00	8670	113.00	263	153.00	178
46.00	231	77.00	1566	115.00	148	154.00	82
47.00	3852	78.00	928	116.00	679	155.00	456
48.00	1328	79.00	4928	117.00	1443	156.00	211
49.00	10482	80.00	1511	118.00	1031	157.00	442
50.00	61216	81.00	4981	119.00	1358	158.00	66
51.00	14626	82.00	1330	124.00	75	159.00	342
52.00	684	83.00	217	125.00	126	161.00	316
53.00	59	85.00	88	128.00	894	172.00	362
55.00	458	86.00	72	129.00	312	173.00	1324
56.00	3260	87.00	9157	130.00	879	174.00	209600
57.00	6611	88.00	10177	131.00	348	175.00	16265
58.00	168	91.00	728	135.00	490	176.00	211136
60.00	1706	92.00	5937	137.00	447	177.00	13608
61.00	10079	93.00	8667	139.00	69	178.00	396
62.00	10138	94.00	24488	140.00	254	207.00	67
63.00	7367	95.00	228160	141.00	2855	281.00	20
64.00	632	96.00	16036	142.00	311		
65.00	182	97.00	575	143.00	2742		

Data File: /chem/VOA4.i/122209v4/4q201.d

Date : 22-DEC-2009 20:06

Client ID: BFB01

Instrument: VOA4.i

Sample Info: |UVH090910-02|BFB|1|VOAF|1|

Operator: ACJ

Column phase: DB-624

Column diameter: 0.25

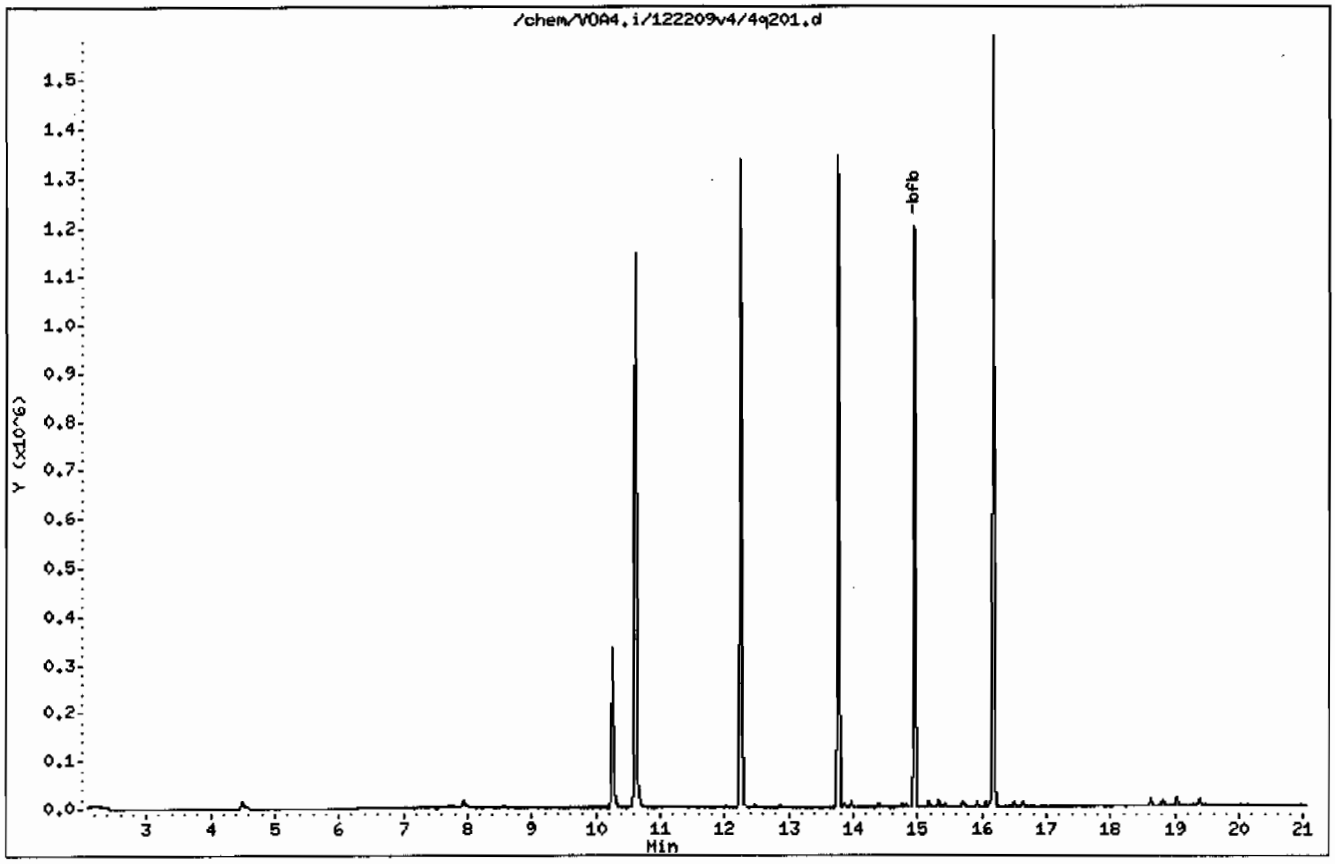

Data File: /chem/VOA4.i/122209v4/4q201.d

Date : 22-DEC-2009 20:06

Client ID: BFB01

Instrument: VOA4.i

Sample Info: |UVM090910-02|BFB|1|VOAF|1|

Operator: ACJ

Column phase: DB-624

Column diameter: 0.25

1 bfb

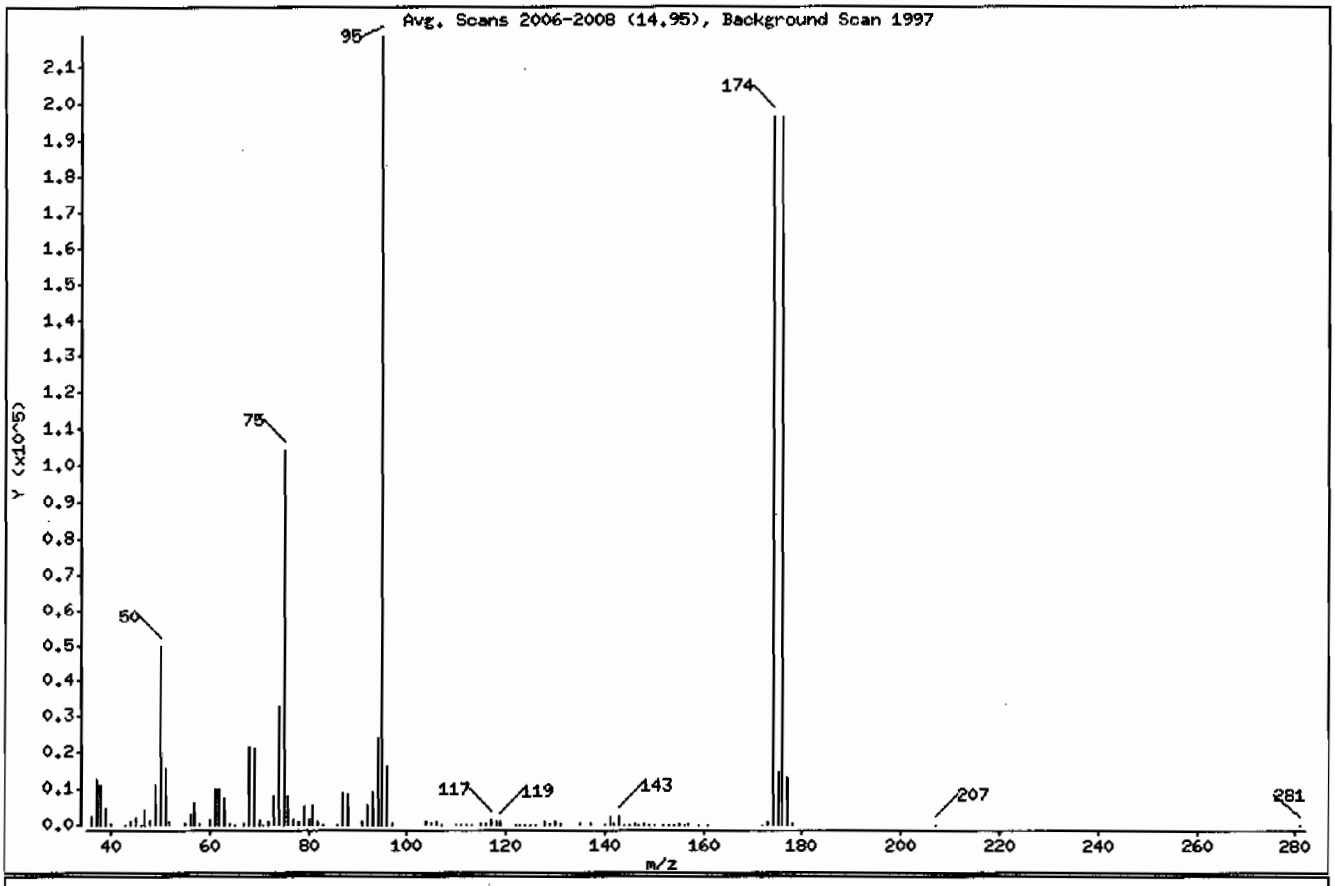

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	22.85
75	30.00 - 60.00% of mass 95	47.59
96	5.00 - 9.00% of mass 95	7.34
173	Less than 2.00% of mass 174	0.53 (0.59)
174	50.00 - 100.00% of mass 95	89.93
175	5.00 - 9.00% of mass 174	6.70 (7.46)
176	95.00 - 101.00% of mass 174	89.90 (99.97)
177	5.00 - 9.00% of mass 176	6.04 (6.72)

Data File: /chem/VOA4.i/122209v4/4q201.d

Date : 22-DEC-2009 20:06

Client ID: BFB01

Instrument: VOA4.i

Sample Info: |UVM090910-02|BFB|1|VOAF|1|

Operator: ACJ

Column phase: DB-624

Column diameter: 0.25

Data File: 4q201.d

Spectrum: Avg. Scans 2006-2008 (14.95), Background Scan 1997

Location of Maximum: 95.00

Number of points: 104

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	2456	69.00	20992	106.00	1055	145.00	117
37.00	12640	70.00	1683	107.00	170	146.00	478
38.00	10873	71.00	115	110.00	69	147.00	172
39.00	4379	72.00	982	111.00	155	148.00	560
40.00	430	73.00	8167	112.00	184	149.00	237
43.00	54	74.00	32560	113.00	85	150.00	182
44.00	1187	75.00	104072	115.00	260	152.00	87
45.00	2204	76.00	8115	116.00	744	153.00	65
46.00	118	77.00	1331	117.00	1513	154.00	93
47.00	3789	78.00	938	118.00	789	155.00	542
48.00	1504	79.00	5081	119.00	1083	156.00	193
49.00	11013	80.00	1605	122.00	53	157.00	523
50.00	49960	81.00	5361	123.00	70	159.00	225
51.00	15412	82.00	1199	124.00	121	161.00	175
52.00	792	83.00	210	125.00	60	172.00	241
55.00	575	86.00	201	126.00	66	173.00	1165
56.00	3165	87.00	8954	128.00	862	174.00	196672
57.00	6077	88.00	8364	129.00	477	175.00	14663
58.00	334	91.00	825	130.00	920	176.00	196608
60.00	1609	92.00	5562	131.00	287	177.00	13210
61.00	9906	93.00	9013	135.00	570	178.00	379
62.00	10055	94.00	23888	137.00	440	207.00	131
63.00	7701	95.00	218688	140.00	212	281.00	73
64.00	726	96.00	16059	141.00	2269		
65.00	201	97.00	525	142.00	287		
67.00	481	104.00	875	143.00	2684		
68.00	21664	105.00	298	144.00	168		

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-940**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202003038**				
Client Sample:	**QC for batch 936118**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 936118**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**936119**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**12/22/2009 22:22**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**12/22/2009 20:30**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**4q206BL.d**	**Column:**	**RTX-VOLATILES**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/kg	0.340	1.00
74-87-3	Chloromethane	U	1.00	ug/kg	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/kg	0.300	1.00
74-83-9	Bromomethane	U	1.00	ug/kg	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/kg	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/kg	0.300	1.00
67-64-1	Acetone	U	5.00	ug/kg	1.66	5.00
75-35-4	1,1-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/kg	1.60	5.00
75-09-2	Methylene chloride	U	5.00	ug/kg	2.00	5.00
75-15-0	Carbon disulfide	U	5.00	ug/kg	1.25	5.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/kg	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/kg	1.50	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/kg	0.300	1.00
74-97-5	Bromochloromethane	U	1.00	ug/kg	0.330	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/kg	0.300	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/kg	0.300	1.00
56-23-5	Carbon tetrachloride	U	1.00	ug/kg	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/kg	0.300	1.00
71-43-2	Benzene	U	1.00	ug/kg	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/kg	0.330	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/kg	0.300	1.00
74-95-3	Dibromomethane	U	1.00	ug/kg	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/kg	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
108-88-3	Toluene	U	1.00	ug/kg	0.300	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/kg	0.300	1.00
591-78-6	2-Hexanone	U	5.00	ug/kg	1.50	5.00
142-28-9	1,3-Dichloropropane	U	1.00	ug/kg	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/kg	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/kg	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/kg	0.300	1.00
108-90-7	Chlorobenzene	U	1.00	ug/kg	0.300	1.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-940**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202003038**				
Client Sample:	**QC for batch 936118**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 936118**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**936119**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**12/22/2009 22:22**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**12/22/2009 20:30**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**4q206BL.d**	**Column:**	**RTX-VOLATILES**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.00	ug/kg	0.300	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/kg	0.300	2.00
95-47-6	o-Xylene	U	1.00	ug/kg	0.300	1.00
100-42-5	Styrene	U	1.00	ug/kg	0.300	1.00
75-25-2	Bromoform	U	1.00	ug/kg	0.300	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/kg	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/kg	0.300	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/kg	0.300	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/kg	0.300	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/kg	0.300	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/kg	0.300	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/kg	0.300	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/kg	0.300	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/kg	0.300	1.00
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.00	ug/kg	1.60	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	No Tentatively Identified Compounds Found			ug/kg		

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA4.i/122209v4/4q206BL.d
Lab Smp Id: 1202003038 Client Smp ID: BLANK
Inj Date : 22-DEC-2009 22:22
Operator : ACJ Inst ID: VOA4.i
Smp Info : |1202003038|936119|1|VOAF|1|
Misc Info : GEL 5G N/A
Comment :
Method : /chem/VOA4.i/122209v4/VOA4-8260-121909.m
Meth Date : 24-Dec-2009 16:25 amj Quant Type: ISTD
Cal Date : 20-DEC-2009 02:33 Cal File: 4p618.d
Als bottle: 6 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	0.00000	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
$ 138 1,2-Dichloroethane-d4	65	10.260	10.259	(0.966)	273342	44.3698	44.4
* 40 Fluorobenzene	96	10.620	10.613	(1.000)	1182411	50.0000	
48 2-Nitropropane	43	11.674	11.673	(1.099)	3218	1.38709	1.4(a)
$ 47 Toluene-d8	98	12.253	12.246	(0.890)	963662	47.5915	47.6
* 61 Chlorobenzene-d5	117	13.771	13.771	(1.000)	854992	50.0000	
$ 71 Bromofluorobenzene	95	14.954	14.947	(0.924)	445014	55.2044	55.2
69 trans-1,4-Dichloro-2-butene	53	15.064	15.063	(0.931)	1951	0.74002	0.74(a)
* 86 1,4-Dichlorobenzene-d4	152	16.179	16.173	(1.000)	496440	50.0000	
88 Benzyl chloride	91	16.320	16.319	(1.009)	14869	1.20981	1.2(a)
91 bis(2-Chloroisopropyl)ether	45	16.716	16.715	(1.033)	9703	2.08857	2.1(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA4.i/122209v4/4q206BL.d
Lab Smp Id: 1202003038 Client Smp ID: BLANK
Inj Date : 22-DEC-2009 22:22
Operator : ACJ Inst ID: VOA4.i
Smp Info : |1202003038|936119|1|VOAF|1|
Misc Info : GEL 5G N/A
Comment :
Method : /chem/VOA4.i/122209v4/VOA4-8260-121909.m
Meth Date : 24-Dec-2009 16:25 amj Quant Type: ISTD
Cal Date : 20-DEC-2009 02:33 Cal File: 4p618.d
Als bottle: 6 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50
Processing Host: prdsvr07

- NO TENTATIVELY IDENTIFIED COMPOUNDS -

Data File: /chem/VOA4.i/122209v4/4q2063L.d
Date : 22-DEC-2009 22:22
Client ID: BLANK
Sample Info: |120200303381936119|1|VOAF|1|

Column phase: RTX-VOLATILES

Instrument: VOA4.i
Operator: ACJ
Column diameter: 0.25

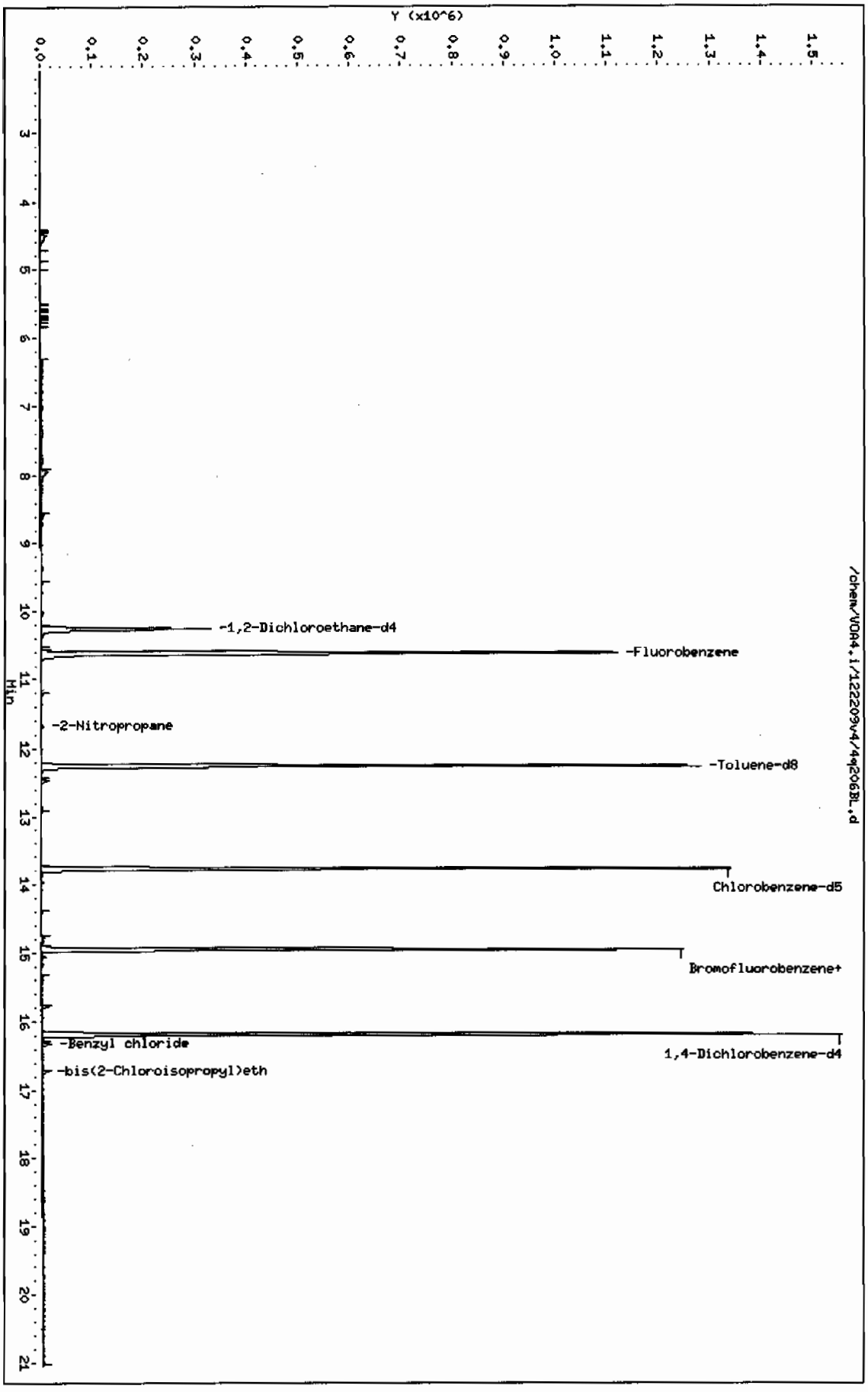

Data File: /chem/VOA4.i/122209v4/4q206BL.d

Date : 22-DEC-2009 22:22

Client ID: BLANK

Instrument: VOA4.i

Sample Info: |12020030381936119|1|VOAF|1|

Operator: ACJ

Column phase: RTX-VOLATILES

Column diameter: 0.25

48 2-Nitropropane

Concentration: 1.4 ug/Kg

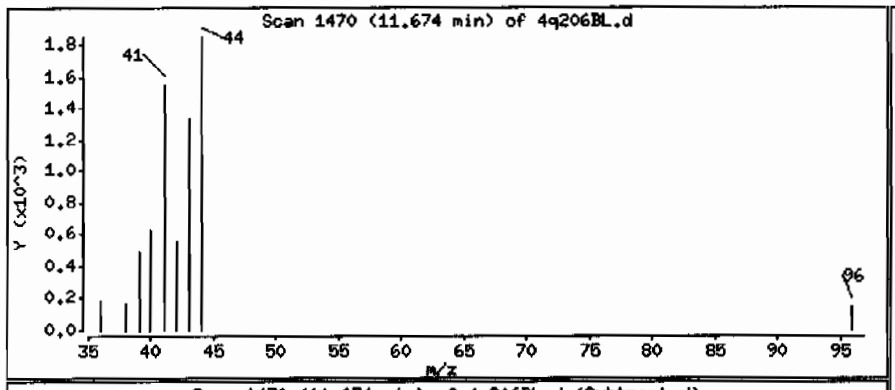

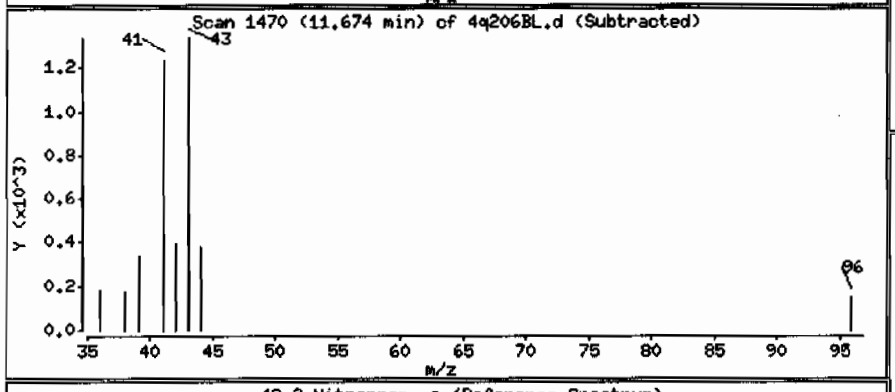

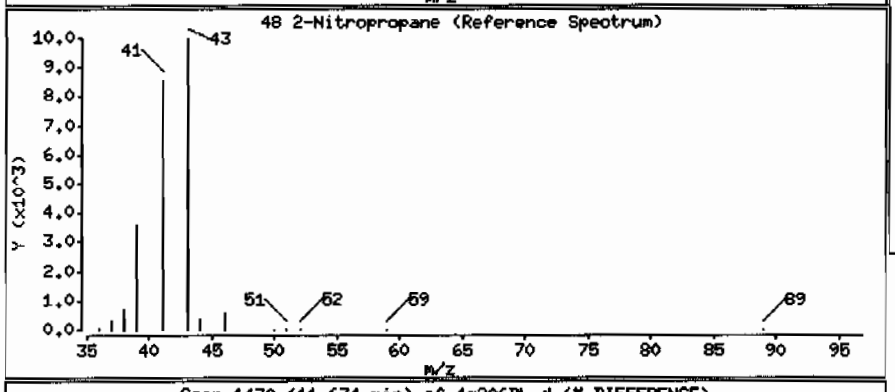

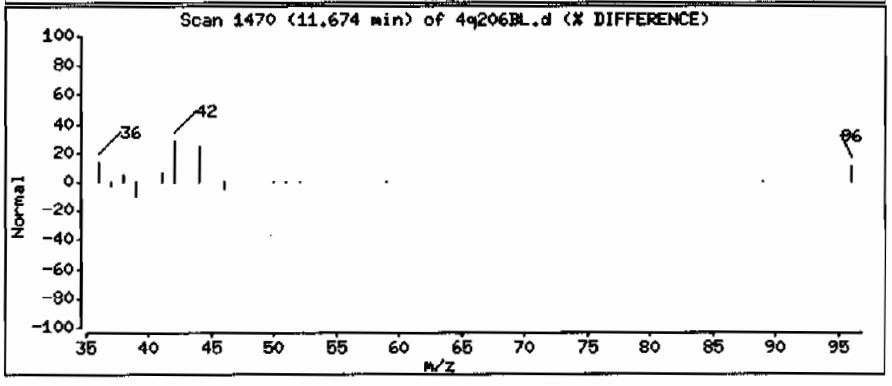

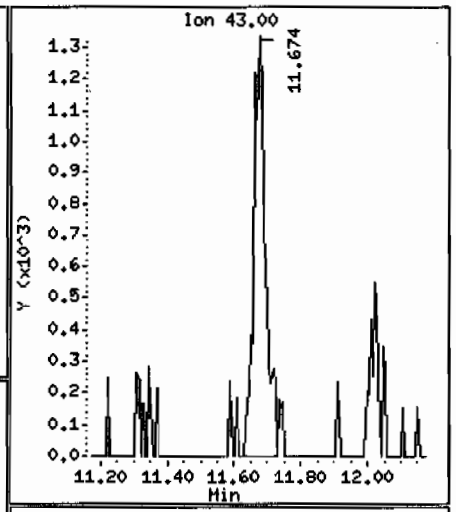

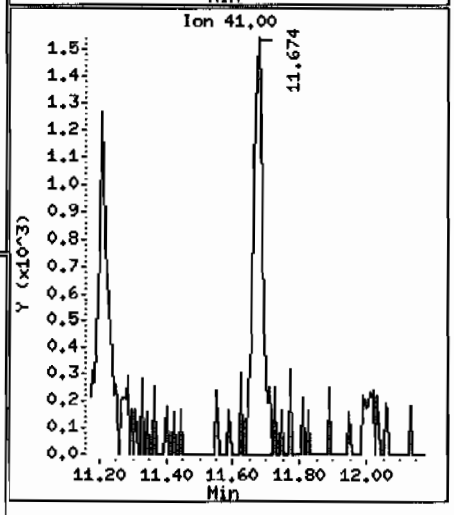

Data File: /chem/VOA4.i/122209v4/4q206BL.d

Date : 22-DEC-2009 22:22

Client ID: BLANK

Instrument: VOA4.i

Sample Info: |1202003038|936119|1|VOAF|1|

Operator: ACJ

Column phase: RTX-VOLATILES

Column diameter: 0.25

69 trans-1,4-Dichloro-2-butene

Concentration: 0.74 ug/Kg

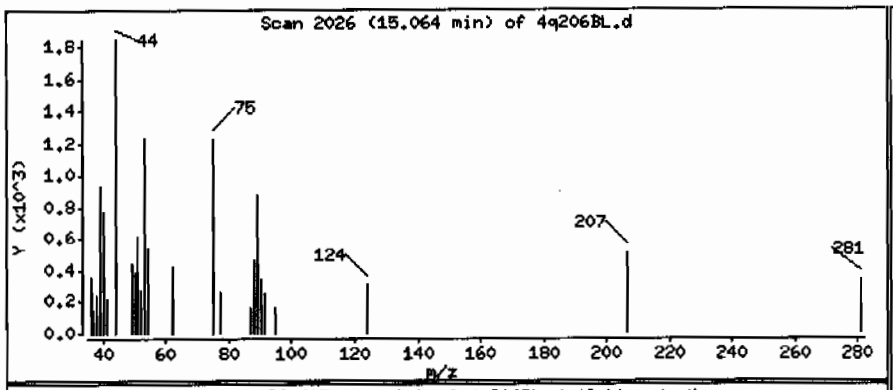

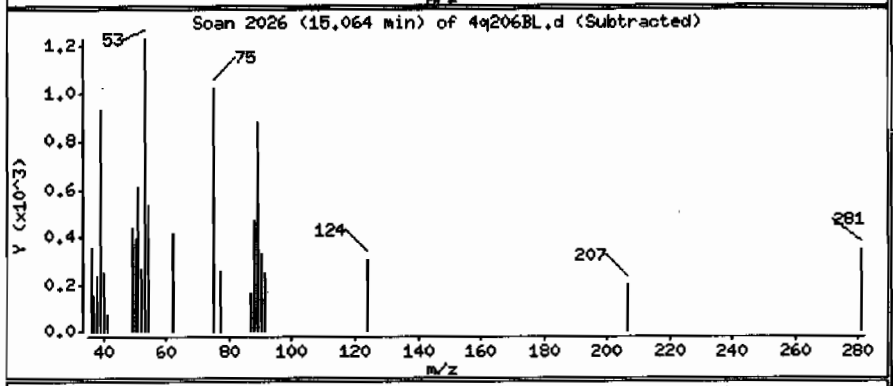

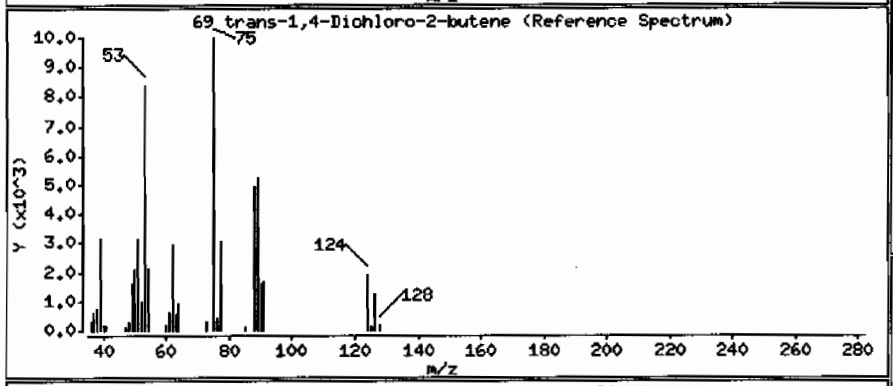

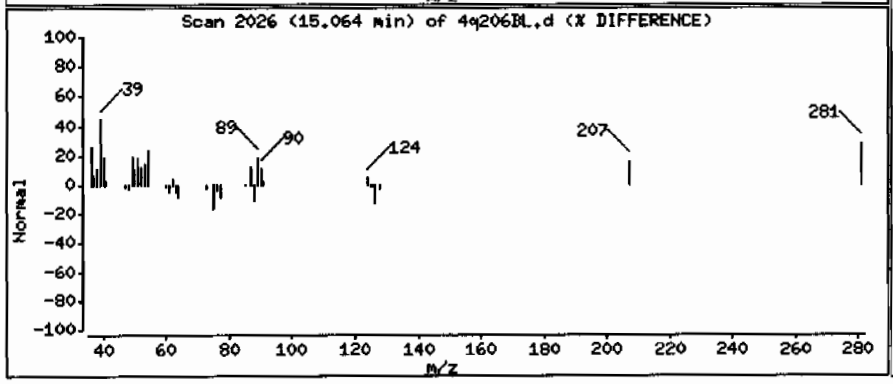

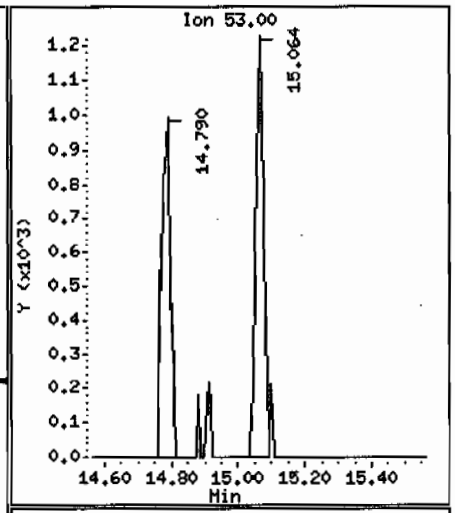

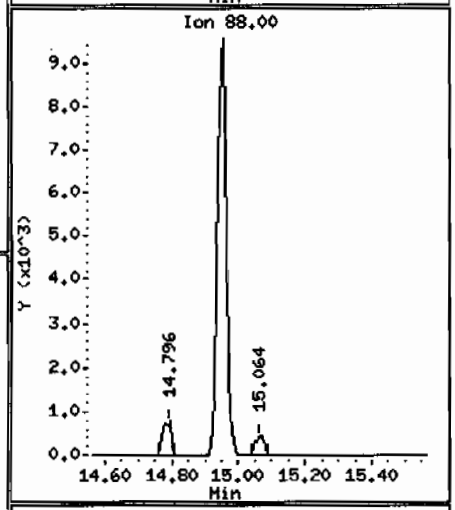

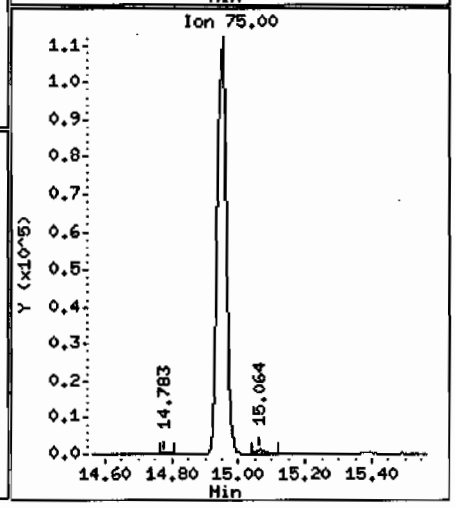

Data File: /chem/VOA4.i/122209v4/4q206BL.d

Date : 22-DEC-2009 22:22

Client ID: BLANK

Instrument: VOA4.i

Sample Info: |1202003038|936119|1|VOAF|1|

Operator: ACJ

Column phase: RTX-VOLATILES

Column diameter: 0.25

88 Benzyl chloride

Concentration: 1.2 ug/Kg

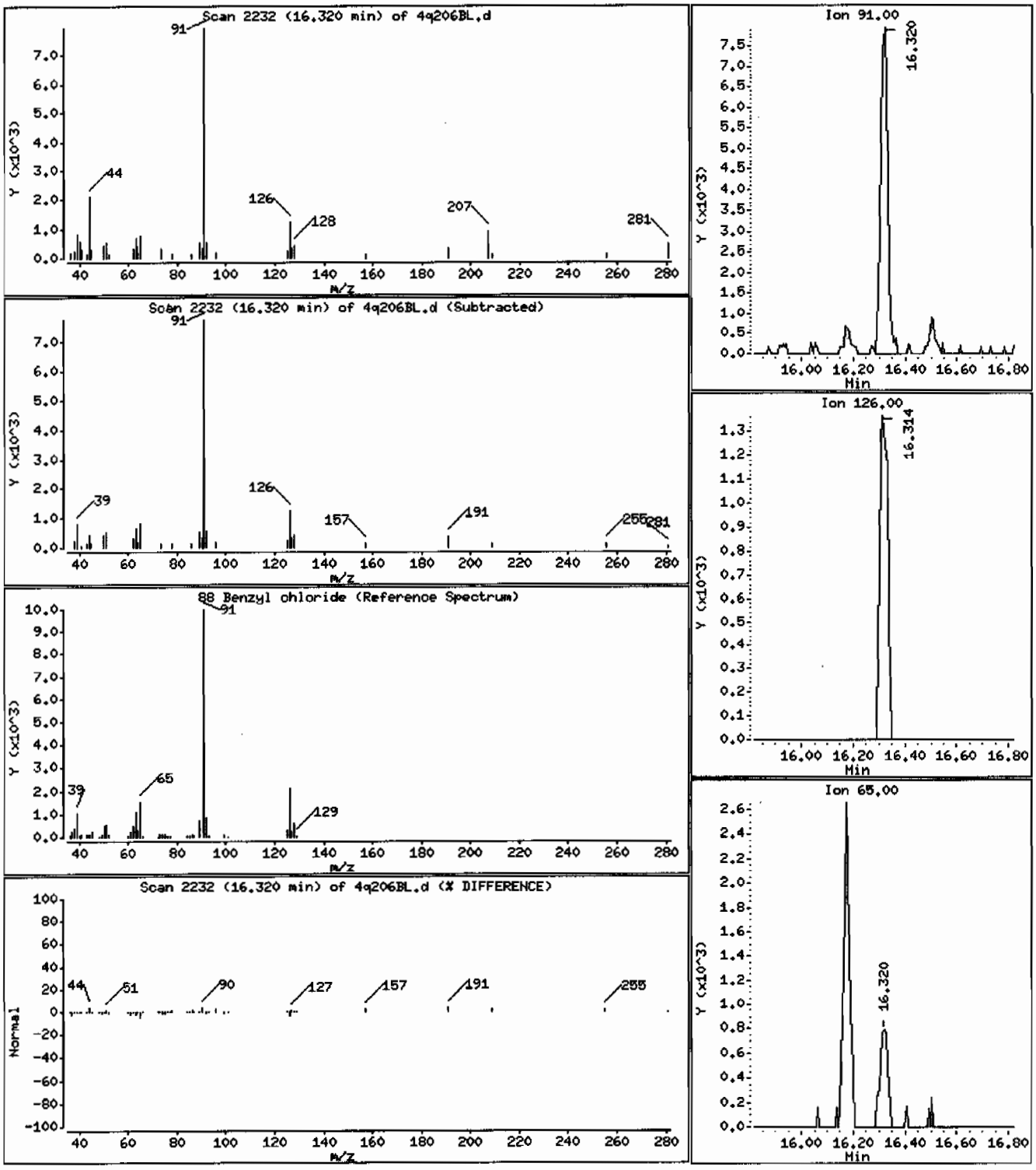

Data File: /chem/VOA4.i/122209v4/4q206BL.d

Page 5

Date : 22-DEC-2009 22:22

Client ID: BLANK

Instrument: VOA4.i

Sample Info: |1202003038|936119|1|VOAF|1|

Operator: ACJ

Column phase: RTX-VOLATILES

Column diameter: 0.25

91 bis(2-Chloroisopropyl)ether

Concentration: 2.1 ug/Kg

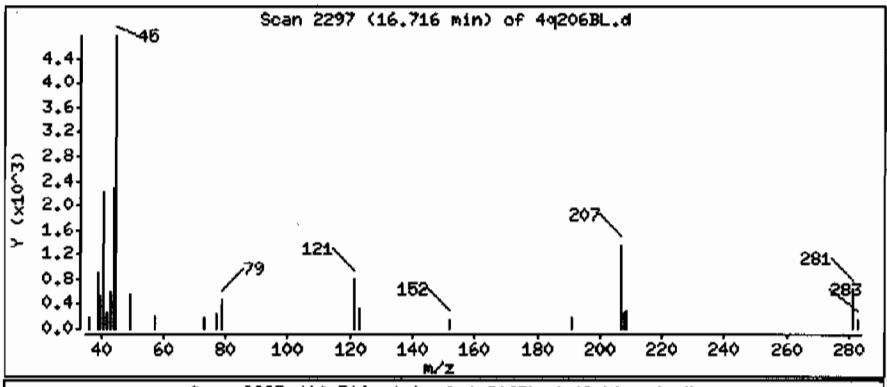

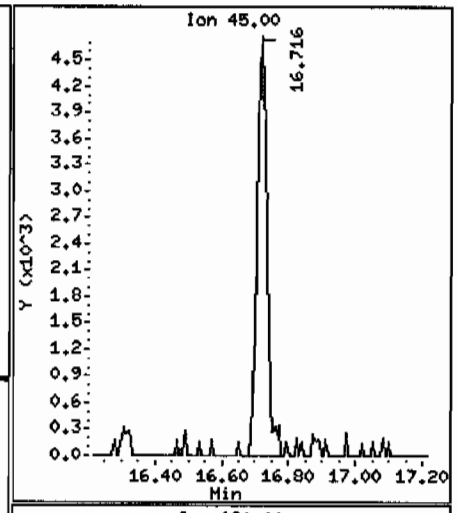

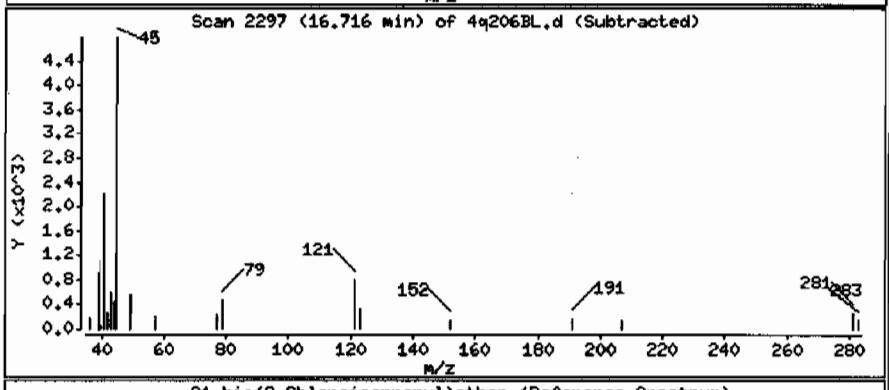

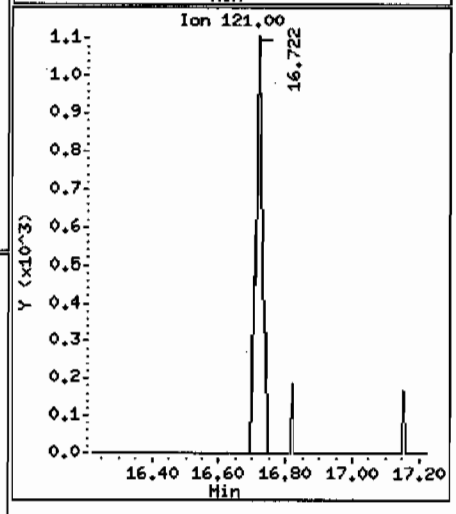

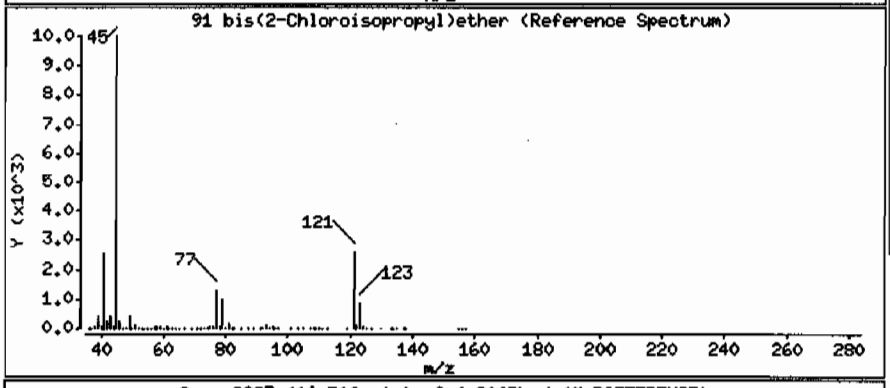

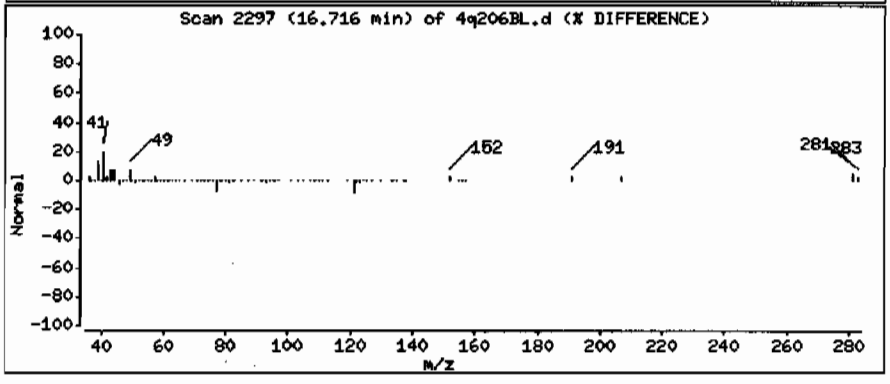

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-940**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202003041**				
Client Sample:	**QC for batch 936118**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 936118**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**936119**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**12/22/2009 21:00**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**12/22/2009 20:00**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**4q203LL.d**	**Column:**	**RTX-VOLATILES**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane		57.1	ug/kg	0.340	1.00
74-87-3	Chloromethane		50.4	ug/kg	0.300	1.00
75-01-4	Vinyl chloride		55.8	ug/kg	0.300	1.00
74-83-9	Bromomethane		51.4	ug/kg	0.300	1.00
75-00-3	Chloroethane		53.0	ug/kg	0.300	1.00
75-69-4	Trichlorofluoromethane		60.9	ug/kg	0.300	1.00
67-64-1	Acetone		188	ug/kg	1.66	5.00
75-35-4	1,1-Dichloroethylene		51.3	ug/kg	0.300	1.00
74-88-4	Iodomethane		251	ug/kg	1.60	5.00
75-09-2	Methylene chloride		50.8	ug/kg	2.00	5.00
75-15-0	Carbon disulfide		264	ug/kg	1.25	5.00
156-60-5	trans-1,2-Dichloroethylene		51.8	ug/kg	0.300	1.00
75-34-3	1,1-Dichloroethane		49.5	ug/kg	0.300	1.00
78-93-3	2-Butanone		198	ug/kg	1.50	5.00
156-59-2	cis-1,2-Dichloroethylene		50.3	ug/kg	0.300	1.00
594-20-7	2,2-Dichloropropane		55.5	ug/kg	0.300	1.00
67-66-3	Chloroform		49.8	ug/kg	0.300	1.00
74-97-5	Bromochloromethane		48.9	ug/kg	0.330	1.00
71-55-6	1,1,1-Trichloroethane		55.2	ug/kg	0.300	1.00
563-58-6	1,1-Dichloropropene		54.9	ug/kg	0.300	1.00
56-23-5	Carbon tetrachloride		56.0	ug/kg	0.300	1.00
107-06-2	1,2-Dichloroethane		48.5	ug/kg	0.300	1.00
71-43-2	Benzene		49.5	ug/kg	0.300	1.00
79-01-6	Trichloroethylene		51.7	ug/kg	0.330	1.00
78-87-5	1,2-Dichloropropane		48.5	ug/kg	0.300	1.00
75-27-4	Bromodichloromethane		51.3	ug/kg	0.300	1.00
74-95-3	Dibromomethane		48.8	ug/kg	0.300	1.00
108-10-1	4-Methyl-2-pentanone		243	ug/kg	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene		52.0	ug/kg	0.300	1.00
108-88-3	Toluene		49.3	ug/kg	0.300	1.00
10061-02-6	trans-1,3-Dichloropropylene		52.3	ug/kg	0.300	1.00
79-00-5	1,1,2-Trichloroethane		47.3	ug/kg	0.300	1.00
591-78-6	2-Hexanone		206	ug/kg	1.50	5.00
142-28-9	1,3-Dichloropropane		47.3	ug/kg	0.300	1.00
127-18-4	Tetrachloroethylene		52.5	ug/kg	0.300	1.00
124-48-1	Dibromochloromethane		52.3	ug/kg	0.300	1.00
106-93-4	1,2-Dibromoethane		50.9	ug/kg	0.300	1.00
108-90-7	Chlorobenzene		49.3	ug/kg	0.300	1.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-940**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202003041**				
Client Sample:	**QC for batch 936118**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 936118**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**936119**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**12/22/2009 21:00**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**12/22/2009 20:00**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**4q203LL.d**	**Column:**	**RTX-VOLATILES**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene		50.0	ug/kg	0.300	1.00
179601-23-1	m,p-Xylenes		104	ug/kg	0.300	2.00
95-47-6	o-Xylene		50.5	ug/kg	0.300	1.00
100-42-5	Styrene		52.9	ug/kg	0.300	1.00
75-25-2	Bromoform		54.7	ug/kg	0.300	1.00
79-34-5	1,1,2,2-Tetrachloroethane		48.5	ug/kg	0.300	1.00
96-18-4	1,2,3-Trichloropropane		49.6	ug/kg	0.300	1.00
108-86-1	Bromobenzene		49.3	ug/kg	0.300	1.00
103-65-1	n-Propylbenzene		51.3	ug/kg	0.300	1.00
95-49-8	2-Chlorotoluene		48.7	ug/kg	0.300	1.00
98-82-8	Isopropylbenzene		51.6	ug/kg	0.300	1.00
108-67-8	1,3,5-Trimethylbenzene		50.4	ug/kg	0.300	1.00
106-43-4	4-Chlorotoluene		50.5	ug/kg	0.300	1.00
98-06-6	tert-Butylbenzene		51.6	ug/kg	0.300	1.00
95-63-6	1,2,4-Trimethylbenzene		50.2	ug/kg	0.300	1.00
135-98-8	sec-Butylbenzene		51.1	ug/kg	0.300	1.00
99-87-6	4-Isopropyltoluene		52.0	ug/kg	0.300	1.00
541-73-1	1,3-Dichlorobenzene		48.7	ug/kg	0.300	1.00
106-46-7	1,4-Dichlorobenzene		49.6	ug/kg	0.300	1.00
104-51-8	n-Butylbenzene		52.7	ug/kg	0.300	1.00
96-12-8	1,2-Dibromo-3-chloropropane		55.2	ug/kg	0.300	1.00
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.00	ug/kg	1.60	5.00
630-20-6	1,1,1,2-Tetrachloroethane		50.0	ug/kg	0.300	1.00
95-50-1	1,2-Dichlorobenzene		48.5	ug/kg	0.300	1.00

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA4.i/122209v4/4q203LL.d
Lab Smp Id: 1202003041 Client Smp ID: LCS
Inj Date : 22-DEC-2009 21:00
Operator : ACJ Inst ID: VOA4.i
Smp Info : |1202003041|936119|1|VOAF|1|
Misc Info : GEL 5G N/A UVM091214-01A/IVM091222-01
Comment :
Method : /chem/VOA4.i/122209v4/VOA4-8260-121909.m
Meth Date : 24-Dec-2009 16:25 amj Quant Type: ISTD
Cal Date : 20-DEC-2009 02:33 Cal File: 4p618.d
Als bottle: 3 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	0.00000	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
M 1 Xylenes (total)	106				2138979	154.371	154
M 2 1,2-Dichloroethylene (total)	96				1239609	102.109	102
M 135 1,3-Dichloropropylene	75				1125395	105.198	105
3 Dichlorodifluoromethane	85	4.904	4.912	(0.462)	328110	57.0736	57.1
4 Chloromethane	50	5.299	5.299	(0.499)	573126	50.4174	50.4
5 Vinyl chloride	62	5.521	5.521	(0.520)	470727	55.8463	55.8
6 Bromomethane	94	6.130	6.138	(0.578)	347188	51.3812	51.4
7 Chloroethane	64	6.281	6.281	(0.592)	369933	52.9657	53.0
8 Trichlorofluoromethane	101	6.668	6.662	(0.628)	599879	60.8783	60.9
134 Ethyl Ether	59	6.997	6.997	(0.659)	331843	48.7461	48.7
10 Acetone	43	7.357	7.357	(0.693)	1423787	188.322	188
11 1,1-Dichloroethylene	61	7.382	7.388	(0.696)	674523	51.2792	51.3

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
13 Iodomethane	142	7.625	7.625	(0.719)	3375089	250.993	251
15 Acetonitrile	41	7.699	7.699	(0.725)	1688917	1194.08	1190
128 Methyl acetate	43	7.747	7.747	(0.730)	1658447	237.397	237
14 Carbon disulfide	76	7.772	7.772	(0.732)	6416873	263.882	264
17 Methylene chloride	84	7.942	7.936	(0.748)	433810	50.8399	50.8
20 tert-Butyl methyl ether	73	8.241	8.241	(0.777)	950781	47.9237	47.9
21 trans-1,2-Dichloroethylene	61	8.284	8.284	(0.781)	601435	51.7979	51.8
23 Vinyl acetate	43	8.711	8.704	(0.821)	4746895	273.198	273
22 1,1-Dichloroethane	63	8.759	8.759	(0.825)	734379	49.5246	49.5
30 2-Butanone	43	9.326	9.326	(0.879)	1693745	197.740	198
31 cis-1,2-Dichloroethylene	61	9.387	9.381	(0.885)	638174	50.3111	50.3
25 2,2-Dichloropropane	77	9.418	9.418	(0.887)	383068	55.4864	55.5
29 Bromochloromethane	128	9.656	9.656	(0.910)	192473	48.8640	48.9
32 Chloroform	83	9.692	9.692	(0.913)	639780	49.8163	49.8
36 1,1,1-Trichloroethane	97	9.979	9.979	(0.940)	542110	55.2259	55.2
129 Cyclohexane	56	10.082	10.082	(0.950)	741258	55.7265	55.7
34 1,1-Dichloropropene	75	10.131	10.131	(0.955)	515846	54.9011	54.9
33 Carbon tetrachloride	117	10.174	10.174	(0.959)	521552	55.9736	56.0
$ 138 1,2-Dichloroethane-d4	65	10.259	10.259	(0.967)	280714	44.7693	44.8
37 1,2-Dichloroethane	62	10.338	10.338	(0.974)	506533	48.4741	48.5
38 Benzene	78	10.375	10.369	(0.978)	1476665	49.4625	49.5
139 Cyclohexene	67	10.497	10.491	(0.989)	760962	53.1329	53.1
* 40 Fluorobenzene	96	10.613	10.613	(1.000)	1203464	50.0000	
131 n-Butyl alcohol	56	10.692	10.686	(1.007)	1535886	5679.14	5680
39 Trichloroethylene	95	11.003	11.003	(1.037)	381044	51.6566	51.6
130 Methylcyclohexane	83	11.265	11.259	(1.061)	653283	56.4947	56.5
41 1,2-Dichloropropane	63	11.241	11.241	(1.059)	414150	48.5011	48.5
43 Dibromomethane	93	11.375	11.375	(1.072)	217580	48.7669	48.8
45 Bromodichloromethane	83	11.484	11.478	(1.082)	479877	51.2721	51.3
44 2-Chloroethylvinyl ether	63	11.698	11.698	(1.102)	992178	253.620	254
46 cis-1,3-Dichloropropylene	75	11.929	11.929	(1.124)	585387	52.0141	52.0
49 4-Methyl-2-pentanone	58	12.015	12.015	(0.872)	868694	242.608	243
$ 47 Toluene-d8	98	12.253	12.246	(0.890)	1016805	47.4405	47.4
50 Toluene	92	12.326	12.320	(0.895)	884925	49.3051	49.3
53 trans-1,3-Dichloropropylene	75	12.460	12.460	(0.905)	540008	52.3395	52.3
54 1,1,2-Trichloroethane	83	12.685	12.679	(0.921)	268058	47.2855	47.3
55 2-Hexanone	43	12.856	12.856	(0.934)	2271999	206.282	206
52 1,3-Dichloropropane	76	12.874	12.874	(0.935)	527932	47.3035	47.3
56 Tetrachloroethylene	164	12.917	12.917	(0.938)	355807	52.4544	52.4
57 Dibromochloromethane	129	13.143	13.143	(0.954)	390049	52.2661	52.3
59 1,2-Dibromoethane	107	13.319	13.319	(0.967)	343204	50.8556	50.8
* 61 Chlorobenzene-d5	117	13.771	13.771	(1.000)	905014	50.0000	
62 Chlorobenzene	112	13.801	13.801	(1.002)	1028063	49.3284	49.3
60 1,1,1,2-Tetrachloroethane	131	13.850	13.850	(1.006)	386538	50.0035	50.0
58 Ethylbenzene	91	13.862	13.862	(1.007)	1769369	50.0200	50.0
63 m,p-Xylenes	106	13.972	13.972	(1.015)	1419258	103.902	104
64 o-Xylene	106	14.405	14.405	(1.046)	719721	50.4691	50.5

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
	65 Styrene	104	14.399	14.399	(1.046)	1131974	52.9429	52.9
	66 Bromoform	173	14.655	14.655	(0.906)	332541	54.6559	54.6
	67 Isopropylbenzene	105	14.758	14.758	(0.912)	1979863	51.5984	51.6
$	71 Bromofluorobenzene	95	14.953	14.947	(0.924)	503846	53.0148	53.0
	73 1,1,2,2-Tetrachloroethane	83	15.014	15.014	(0.928)	510529	48.4560	48.4
	74 1,2,3-Trichloropropane	110	15.106	15.106	(0.934)	134159	49.6287	49.6
	75 Bromobenzene	156	15.167	15.167	(0.937)	563186	49.3023	49.3
	76 n-Propylbenzene	91	15.185	15.179	(0.939)	2378297	51.3496	51.3
	78 1,3,5-Trimethylbenzene	105	15.331	15.331	(0.948)	1725569	50.4443	50.4
	77 2-Chlorotoluene	91	15.331	15.331	(0.948)	1583151	48.6832	48.7
	80 4-Chlorotoluene	91	15.429	15.429	(0.954)	1510596	50.4587	50.4
	81 tert-Butylbenzene	119	15.703	15.703	(0.971)	1730270	51.5913	51.6
	79 1,2,4-Trimethylbenzene	105	15.740	15.740	(0.973)	1805105	50.1974	50.2
	83 sec-Butylbenzene	105	15.929	15.929	(0.985)	2393321	51.0876	51.1
	84 4-Isopropyltoluene	119	16.051	16.051	(0.992)	1900645	51.9542	52.0
	85 1,3-Dichlorobenzene	146	16.124	16.118	(0.997)	1097637	48.6848	48.7
*	86 1,4-Dichlorobenzene-d4	152	16.179	16.173	(1.000)	585285	50.0000	
	87 1,4-Dichlorobenzene	146	16.203	16.203	(1.002)	1103940	49.6453	49.6
	89 n-Butylbenzene	91	16.502	16.502	(1.020)	1858709	52.6675	52.7
	90 1,2-Dichlorobenzene	146	16.642	16.642	(1.029)	1033945	48.4669	48.5
	92 1,2-Dibromo-3-chloropropane	157	17.526	17.526	(1.083)	97451	55.2289	55.2
	93 1,2,4-Trichlorobenzene	180	18.629	18.629	(1.151)	620577	53.6034	53.6
	94 Hexachlorobutadiene	225	18.818	18.818	(1.163)	443587	50.5951	50.6
	95 Naphthalene	128	19.032	19.026	(1.176)	1032397	54.4051	54.4
	96 1,2,3-Trichlorobenzene	180	19.385	19.385	(1.198)	497010	53.7207	53.7

Data File: /chem/VOA4.i/122209v4/4q203LL.d
Date : 22-DEC-2009 21:00
Client ID: LCS
Sample Info: 1120200304119361191 1 1VOAF1 1 1
Column phase: RTX-VOLATILES

Instrument: VOA4.i
Operator: ACJ
Column diameter: 0.25

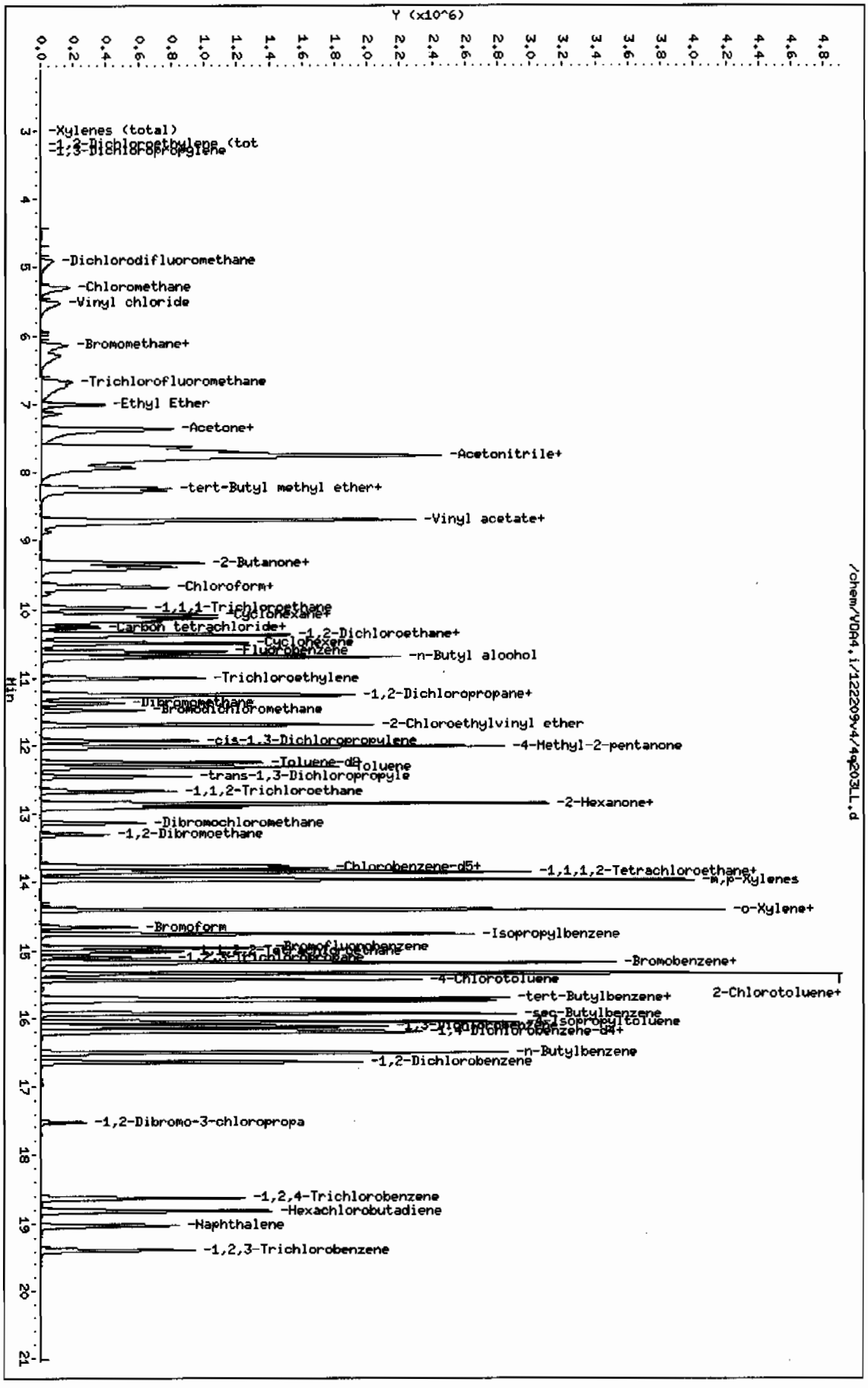

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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-940			**Matrix:**	SOIL
Lab Sample ID:	1202003042				
Client Sample:	QC for batch 936118	**Client:**	LANL010	**Project:**	QC
Client ID:	LCS for batch 936118	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	936119	**Inst:**	VOA4.I	**Dilution:**	1
Run Date:	12/22/2009 21:55	**Analyst:**	ACJ	**Purge Vol:**	5 mL
Prep Date:	12/22/2009 20:15	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	4q205SL.d	**Column:**	RTX-VOLATILES	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/kg	0.340	1.00
74-87-3	Chloromethane	U	1.00	ug/kg	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/kg	0.300	1.00
74-83-9	Bromomethane	U	1.00	ug/kg	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/kg	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/kg	0.300	1.00
67-64-1	Acetone	U	5.00	ug/kg	1.66	5.00
75-35-4	1,1-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/kg	1.60	5.00
75-09-2	Methylene chloride	U	5.00	ug/kg	2.00	5.00
75-15-0	Carbon disulfide	U	5.00	ug/kg	1.25	5.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/kg	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/kg	1.50	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/kg	0.300	1.00
74-97-5	Bromochloromethane	U	1.00	ug/kg	0.330	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/kg	0.300	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/kg	0.300	1.00
56-23-5	Carbon tetrachloride	U	1.00	ug/kg	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/kg	0.300	1.00
71-43-2	Benzene	U	1.00	ug/kg	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/kg	0.330	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/kg	0.300	1.00
74-95-3	Dibromomethane	U	1.00	ug/kg	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/kg	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
108-88-3	Toluene	U	1.00	ug/kg	0.300	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/kg	0.300	1.00
591-78-6	2-Hexanone	U	5.00	ug/kg	1.50	5.00
142-28-9	1,3-Dichloropropane	U	1.00	ug/kg	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/kg	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/kg	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/kg	0.300	1.00
108-90-7	Chlorobenzene	U	1.00	ug/kg	0.300	1.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-940**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202003042**				
Client Sample:	**QC for batch 936118**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 936118**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**936119**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**12/22/2009 21:55**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**12/22/2009 20:15**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**4q205SL.d**	**Column:**	**RTX-VOLATILES**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.00	ug/kg	0.300	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/kg	0.300	2.00
95-47-6	o-Xylene	U	1.00	ug/kg	0.300	1.00
100-42-5	Styrene	U	1.00	ug/kg	0.300	1.00
75-25-2	Bromoform	U	1.00	ug/kg	0.300	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/kg	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/kg	0.300	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/kg	0.300	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/kg	0.300	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/kg	0.300	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/kg	0.300	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/kg	0.300	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/kg	0.300	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/kg	0.300	1.00
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*		273	ug/kg	1.60	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA4.i/122209v4/4q205SL.d
Lab Smp Id: 1202003042 Client Smp ID: LCS
Inj Date : 22-DEC-2009 21:55
Operator : ACJ Inst ID: VOA4.i
Smp Info : |1202003042|936119|1|VOAF|1|
Misc Info : GEL 5G N/A
Comment :
Method : /chem/VOA4.i/122209v4/VOA4-8260-121909.m
Meth Date : 24-Dec-2009 16:25 amj Quant Type: ISTD
Cal Date : 20-DEC-2009 02:33 Cal File: 4p618.d
Als bottle: 5 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	0.00000	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
9 Acrolein	56	7.181	7.180	(0.676)	395644	277.879	278
12 Trichlorotrifluoroethane	85	7.358	7.357	(0.693)	635617	272.859	273
16 Allyl chloride	41	7.803	7.802	(0.735)	3512177	258.351	258
18 Acrylonitrile	53	8.175	8.174	(0.770)	801971	255.975	256
24 2-Chloro-1,3-butadiene	53	8.870	8.869	(0.835)	648871	57.9878	58.0
26 Ethyl acetate	43	9.339	9.339	(0.879)	2148702	235.741	236
28 Propionitrile	54	9.394	9.393	(0.885)	322294	252.916	253
27 Methacrylonitrile	41	9.577	9.576	(0.902)	1347203	247.234	247
72 Tetrahydrofuran	42	9.717	9.716	(0.601)	755699	252.421	252
19 Isobutyl alcohol	41	10.010	10.003	(0.943)	994105	2506.90	2510
$ 138 1,2-Dichloroethane-d4	65	10.260	10.259	(0.966)	281553	45.2618	45.3
* 40 Fluorobenzene	96	10.620	10.613	(1.000)	1193928	50.0000	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
	42 Methyl methacrylate	69	11.205	11.204	(1.055)	1171445	255.633	256
	97 1,4-Dioxane	88	11.327	11.332	(1.067)	212847	2600.83	2600
	48 2-Nitropropane	43	11.674	11.673	(1.099)	674530	287.946	288
$	47 Toluene-d8	98	12.254	12.246	(0.890)	995209	47.3526	47.4
	51 Ethyl methacrylate	69	12.461	12.466	(0.905)	2148401	248.275	248
*	61 Chlorobenzene-d5	117	13.772	13.771	(1.000)	887436	50.0000	
	68 cis-1,4-Dichloro-2-butene	53	14.784	14.783	(0.914)	881179	281.090	281
	70 Cyclohexanone	42	14.905	14.905	(1.082)	678503	850.568	850
$	71 Bromofluorobenzene	95	14.954	14.947	(0.924)	485733	53.5794	53.6
	69 trans-1,4-Dichloro-2-butene	53	15.064	15.063	(0.931)	843630	284.537	284
	82 Pentachloroethane	167	15.771	15.770	(0.975)	1167781	291.798	292
*	86 1,4-Dichlorobenzene-d4	152	16.180	16.173	(1.000)	558298	50.0000	
	88 Benzyl chloride	91	16.320	16.319	(1.009)	4015664	290.531	290
	91 bis(2-Chloroisopropyl)ether	45	16.722	16.715	(1.034)	1418572	271.516	272

Data File: /chem/VOA4.i/122209v4/4q205SL.d
Date : 22-DEC-2009 21:55
Client ID: LCS
Sample Info: i120200304219361191!1!VOAF!4!
Column phase: RTX-VOLATILES

Instrument: VOA4.i
Operator: ACJ
Column diameter: 0.25

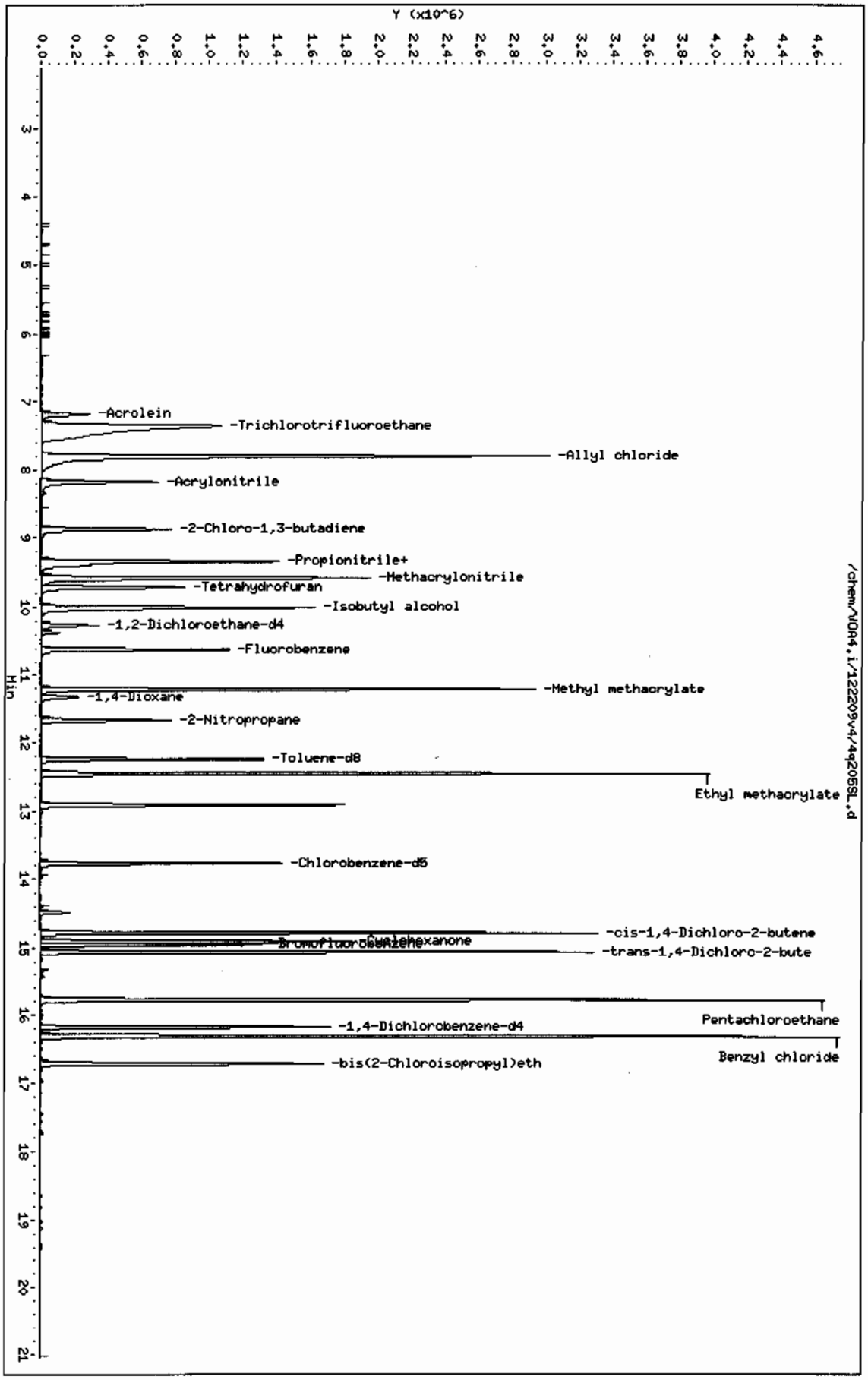

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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-940**	**Date Collected:**	**12/14/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**1202003039**	**Date Received:**	**12/16/2009 09:10**	**%Moisture:**	**14.8**
Client Sample:	**QC for batch 936118**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**RE03-09-14221PS**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**936119**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**12/23/2009 06:05**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**12/22/2009 22:41**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**4q223.d**	**Column:**	**RTX-VOLATILES**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane		54.0	ug/kg	0.399	1.17
74-87-3	Chloromethane		55.4	ug/kg	0.352	1.17
75-01-4	Vinyl chloride		62.0	ug/kg	0.352	1.17
74-83-9	Bromomethane		54.6	ug/kg	0.352	1.17
75-00-3	Chloroethane		55.2	ug/kg	0.352	1.17
75-69-4	Trichlorofluoromethane		58.6	ug/kg	0.352	1.17
67-64-1	Acetone		135	ug/kg	1.95	5.87
75-35-4	1,1-Dichloroethylene		51.8	ug/kg	0.352	1.17
74-88-4	Iodomethane		256	ug/kg	1.88	5.87
75-09-2	Methylene chloride		55.0	ug/kg	2.35	5.87
75-15-0	Carbon disulfide		267	ug/kg	1.47	5.87
156-60-5	trans-1,2-Dichloroethylene		52.5	ug/kg	0.352	1.17
75-34-3	1,1-Dichloroethane		51.9	ug/kg	0.352	1.17
78-93-3	2-Butanone		164	ug/kg	1.76	5.87
156-59-2	cis-1,2-Dichloroethylene		51.7	ug/kg	0.352	1.17
594-20-7	2,2-Dichloropropane		50.8	ug/kg	0.352	1.17
67-66-3	Chloroform		51.7	ug/kg	0.352	1.17
74-97-5	Bromochloromethane		50.4	ug/kg	0.387	1.17
71-55-6	1,1,1-Trichloroethane		54.1	ug/kg	0.352	1.17
563-58-6	1,1-Dichloropropene		53.2	ug/kg	0.352	1.17
56-23-5	Carbon tetrachloride		54.6	ug/kg	0.352	1.17
107-06-2	1,2-Dichloroethane		50.5	ug/kg	0.352	1.17
71-43-2	Benzene		50.6	ug/kg	0.352	1.17
79-01-6	Trichloroethylene		50.7	ug/kg	0.387	1.17
78-87-5	1,2-Dichloropropane		51.8	ug/kg	0.352	1.17
75-27-4	Bromodichloromethane		52.8	ug/kg	0.352	1.17
74-95-3	Dibromomethane		50.8	ug/kg	0.352	1.17
108-10-1	4-Methyl-2-pentanone		252	ug/kg	1.47	5.87
10061-01-5	cis-1,3-Dichloropropylene		51.0	ug/kg	0.352	1.17
108-88-3	Toluene		51.4	ug/kg	0.352	1.17
10061-02-6	trans-1,3-Dichloropropylene		52.8	ug/kg	0.352	1.17
79-00-5	1,1,2-Trichloroethane		50.9	ug/kg	0.352	1.17
591-78-6	2-Hexanone		179	ug/kg	1.76	5.87
142-28-9	1,3-Dichloropropane		51.5	ug/kg	0.352	1.17
127-18-4	Tetrachloroethylene		48.6	ug/kg	0.352	1.17
124-48-1	Dibromochloromethane		54.2	ug/kg	0.352	1.17
106-93-4	1,2-Dibromoethane		53.4	ug/kg	0.352	1.17
108-90-7	Chlorobenzene		50.5	ug/kg	0.352	1.17

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-940**	**Date Collected:**	**12/14/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**1202003039**	**Date Received:**	**12/16/2009 09:10**	**%Moisture:**	**14.8**
Client Sample:	**QC for batch 936118**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**RE03-09-14221PS**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**936119**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**12/23/2009 06:05**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**12/22/2009 22:41**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**4q223.d**	**Column:**	**RTX-VOLATILES**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene		51.3	ug/kg	0.352	1.17
179601-23-1	m,p-Xylenes		104	ug/kg	0.352	2.35
95-47-6	o-Xylene		51.7	ug/kg	0.352	1.17
100-42-5	Styrene		53.5	ug/kg	0.352	1.17
75-25-2	Bromoform		59.3	ug/kg	0.352	1.17
79-34-5	1,1,2,2-Tetrachloroethane		55.9	ug/kg	0.352	1.17
96-18-4	1,2,3-Trichloropropane		55.1	ug/kg	0.352	1.17
108-86-1	Bromobenzene		52.0	ug/kg	0.352	1.17
103-65-1	n-Propylbenzene		51.8	ug/kg	0.352	1.17
95-49-8	2-Chlorotoluene		51.5	ug/kg	0.352	1.17
98-82-8	Isopropylbenzene		53.6	ug/kg	0.352	1.17
108-67-8	1,3,5-Trimethylbenzene		51.1	ug/kg	0.352	1.17
106-43-4	4-Chlorotoluene		51.0	ug/kg	0.352	1.17
98-06-6	tert-Butylbenzene		51.5	ug/kg	0.352	1.17
95-63-6	1,2,4-Trimethylbenzene		50.8	ug/kg	0.352	1.17
135-98-8	sec-Butylbenzene		48.8	ug/kg	0.352	1.17
99-87-6	4-Isopropyltoluene		48.1	ug/kg	0.352	1.17
541-73-1	1,3-Dichlorobenzene		47.8	ug/kg	0.352	1.17
106-46-7	1,4-Dichlorobenzene		47.5	ug/kg	0.352	1.17
104-51-8	n-Butylbenzene		46.5	ug/kg	0.352	1.17
96-12-8	1,2-Dibromo-3-chloropropane		59.4	ug/kg	0.352	1.17
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.87	ug/kg	1.88	5.87
630-20-6	1,1,1,2-Tetrachloroethane		53.4	ug/kg	0.352	1.17
95-50-1	1,2-Dichlorobenzene		47.6	ug/kg	0.352	1.17

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VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA4.i/122209v4/4q223.d
Lab Smp Id: 1202003039 Client Smp ID: RE03-09-14221MS
Inj Date : 23-DEC-2009 06:05
Operator : ACJ Inst ID: VOA4.i
Smp Info : |1202003039|936119|1|VOAF|1|
Misc Info : LANL 5G N/A MS 243033001
Comment :
Method : /chem/VOA4.i/122209v4/VOA4-8260-121909.m
Meth Date : 24-Dec-2009 16:25 amj Quant Type: ISTD
Cal Date : 20-DEC-2009 02:33 Cal File: 4p618.d
Als bottle: 23 QC Sample: MS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-940.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	14.77230	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
* 40 Fluorobenzene	96	10.619	10.613	(1.000)	1128186	50.0000	
* 61 Chlorobenzene-d5	117	13.771	13.771	(1.000)	827517	50.0000	
* 86 1,4-Dichlorobenzene-d4	152	16.179	16.173	(1.000)	506985	50.0000	
$ 138 1,2-Dichloroethane-d4	65	10.259	10.259	(0.966)	263065	44.7540	52.5
$ 47 Toluene-d8	98	12.247	12.246	(0.889)	927154	47.3087	55.5
$ 71 Bromofluorobenzene	95	14.953	14.947	(0.924)	452350	54.9473	64.5
3 Dichlorodifluoromethane	85	4.912	4.912	(0.463)	247873	45.9936	54.0
4 Chloromethane	50	5.299	5.299	(0.499)	503512	47.2490	55.4
5 Vinyl chloride	62	5.528	5.521	(0.521)	417238	52.8033	62.0
6 Bromomethane	94	6.138	6.138	(0.578)	294547	46.4993	54.6
7 Chloroethane	64	6.288	6.281	(0.592)	307847	47.0174	55.2
8 Trichlorofluoromethane	101	6.668	6.662	(0.628)	461399	49.9491	58.6

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
10 Acetone	43	7.357	7.357	(0.693)	813364	114.761	135
11 1,1-Dichloroethylene	61	7.388	7.388	(0.696)	544193	44.1316	51.8
87 1,4-Dichlorobenzene	146	16.203	16.203	(1.002)	779453	40.4664	47.5
13 Iodomethane	142	7.632	7.625	(0.719)	2754071	218.476	256
17 Methylene chloride	84	7.942	7.936	(0.748)	376396	46.8623	55.0
14 Carbon disulfide	76	7.772	7.772	(0.732)	5184172	227.415	267
21 trans-1,2-Dichloroethylene	61	8.284	8.284	(0.780)	487415	44.7790	52.5
22 1,1-Dichloroethane	63	8.759	8.759	(0.825)	615294	44.2625	51.9
30 2-Butanone	43	9.326	9.326	(0.878)	1119701	139.444	164
31 cis-1,2-Dichloroethylene	61	9.387	9.381	(0.884)	523471	44.0220	51.6
85 1,3-Dichlorobenzene	146	16.118	16.118	(0.996)	795176	40.7165	47.8
25 2,2-Dichloropropane	77	9.418	9.418	(0.887)	279994	43.2625	50.8
32 Chloroform	83	9.692	9.692	(0.913)	530088	44.0292	51.7
90 1,2-Dichlorobenzene	146	16.642	16.642	(1.029)	749170	40.5416	47.6
29 Bromochloromethane	128	9.656	9.656	(0.909)	158614	42.9549	50.4
36 1,1,1-Trichloroethane	97	9.979	9.979	(0.940)	424488	46.1289	54.1
34 1,1-Dichloropropene	75	10.131	10.131	(0.954)	399326	45.3358	53.2
33 Carbon tetrachloride	117	10.174	10.174	(0.958)	406507	46.5378	54.6
37 1,2-Dichloroethane	62	10.338	10.338	(0.974)	421876	43.0665	50.5
38 Benzene	78	10.369	10.369	(0.976)	1207210	43.1349	50.6
39 Trichloroethylene	95	11.003	11.003	(1.036)	298844	43.2163	50.7
41 1,2-Dichloropropane	63	11.241	11.241	(1.059)	353134	44.1149	51.8
45 Bromodichloromethane	83	11.484	11.478	(1.082)	394693	44.9845	52.8
43 Dibromomethane	93	11.375	11.375	(1.071)	180981	43.2704	50.8
49 4-Methyl-2-pentanone	58	12.015	12.015	(0.872)	702652	214.613	252
46 cis-1,3-Dichloropropylene	75	11.930	11.929	(1.123)	458392	43.4478	51.0
50 Toluene	92	12.326	12.320	(0.895)	719321	43.8316	51.4
53 trans-1,3-Dichloropropylene	75	12.460	12.460	(0.905)	424433	44.9901	52.8
54 1,1,2-Trichloroethane	83	12.679	12.679	(0.921)	224735	43.3559	50.9
55 2-Hexanone	43	12.856	12.856	(0.934)	1537483	152.666	179
52 1,3-Dichloropropane	76	12.874	12.874	(0.935)	447653	43.8667	51.5
56 Tetrachloroethylene	164	12.917	12.917	(0.938)	256734	41.3932	48.6
57 Dibromochloromethane	129	13.143	13.143	(0.954)	315393	46.2201	54.2
59 1,2-Dibromoethane	107	13.319	13.319	(0.967)	280669	45.4840	53.4
62 Chlorobenzene	112	13.801	13.801	(1.002)	820606	43.0617	50.5
60 1,1,1,2-Tetrachloroethane	131	13.850	13.850	(1.006)	321963	45.5504	53.4
58 Ethylbenzene	91	13.862	13.862	(1.007)	1415310	43.7578	51.3
63 m,p-Xylenes	106	13.972	13.972	(1.015)	1102999	88.3111	104
64 o-Xylene	106	14.399	14.405	(1.046)	574725	44.0758	51.7
65 Styrene	104	14.399	14.399	(1.046)	891732	45.6125	53.5
66 Bromoform	173	14.655	14.655	(0.906)	266313	50.5308	59.3
73 1,1,2,2-Tetrachloroethane	83	15.014	15.014	(0.928)	434707	47.6317	55.9
74 1,2,3-Trichloropropane	110	15.106	15.106	(0.934)	109865	46.9186	55.0
75 Bromobenzene	156	15.167	15.167	(0.937)	438906	44.3567	52.0
76 n-Propylbenzene	91	15.179	15.179	(0.938)	1772378	44.1773	51.8
77 2-Chlorotoluene	91	15.331	15.331	(0.948)	1235686	43.8669	51.5
67 Isopropylbenzene	105	14.758	14.758	(0.912)	1518920	45.6992	53.6

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
78 1,3,5-Trimethylbenzene	105	15.331	15.331	(0.948)	1290422	43.5496	51.1
80 4-Chlorotoluene	91	15.429	15.429	(0.954)	1127869	43.4929	51.0
81 tert-Butylbenzene	119	15.703	15.703	(0.971)	1274614	43.8746	51.5
79 1,2,4-Trimethylbenzene	105	15.740	15.740	(0.973)	1348474	43.2906	50.8
83 sec-Butylbenzene	105	15.929	15.929	(0.985)	1688569	41.6108	48.8
84 4-Isopropyltoluene	119	16.051	16.051	(0.992)	1298939	40.9902	48.1
89 n-Butylbenzene	91	16.502	16.502	(1.020)	1211475	39.6295	46.5
92 1,2-Dibromo-3-chloropropane	157	17.526	17.526	(1.083)	77439	50.6655	59.4

Data File: /chem/VOA4.i/122209v4/4q223.d
Date : 23-DEC-2009 06:05
Client ID: RE03-09-1422INS
Sample Info: 1120200303919361191|1|VOAF|1|
Column phase: RTX-VOLATILES

Instrument: VOA4.i
Operator: ACJ
Column diameter: 0.25

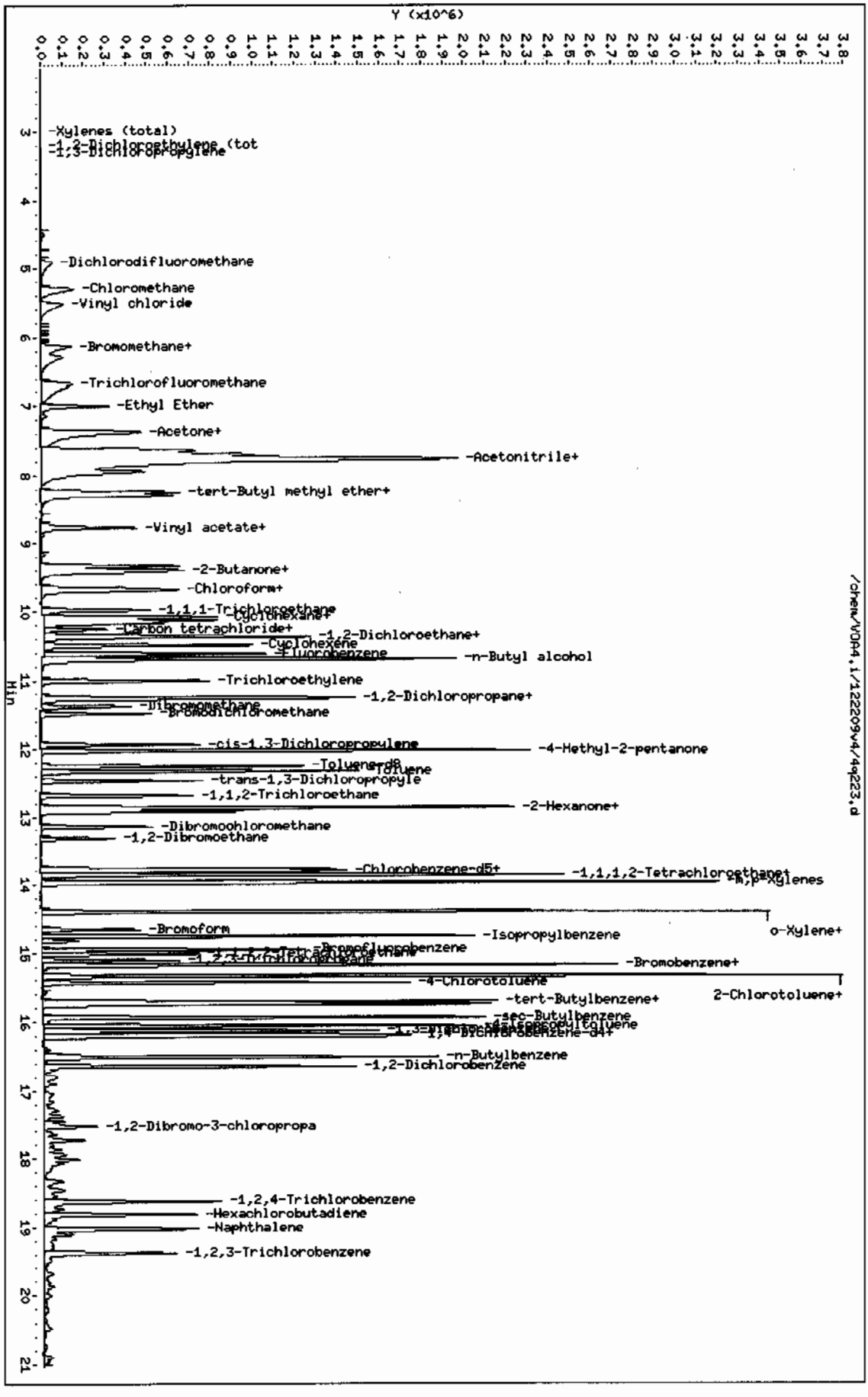

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-940**	**Date Collected:**	**12/14/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**1202003040**	**Date Received:**	**12/16/2009 09:10**	**%Moisture:**	**14.8**
Client Sample:	**QC for batch 936118**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**RE03-09-14221PSD**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**936119**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**12/23/2009 06:32**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**12/22/2009 22:42**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**4q224.d**	**Column:**	**RTX-VOLATILES**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane		52.5	ug/kg	0.399	1.17
74-87-3	Chloromethane		51.8	ug/kg	0.352	1.17
75-01-4	Vinyl chloride		56.9	ug/kg	0.352	1.17
74-83-9	Bromomethane		52.3	ug/kg	0.352	1.17
75-00-3	Chloroethane		51.9	ug/kg	0.352	1.17
75-69-4	Trichlorofluoromethane		56.1	ug/kg	0.352	1.17
67-64-1	Acetone		124	ug/kg	1.95	5.87
75-35-4	1,1-Dichloroethylene		49.3	ug/kg	0.352	1.17
74-88-4	Iodomethane		253	ug/kg	1.88	5.87
75-09-2	Methylene chloride		53.1	ug/kg	2.35	5.87
75-15-0	Carbon disulfide		255	ug/kg	1.47	5.87
156-60-5	trans-1,2-Dichloroethylene		49.7	ug/kg	0.352	1.17
75-34-3	1,1-Dichloroethane		49.6	ug/kg	0.352	1.17
78-93-3	2-Butanone		148	ug/kg	1.76	5.87
156-59-2	cis-1,2-Dichloroethylene		50.2	ug/kg	0.352	1.17
594-20-7	2,2-Dichloropropane		50.5	ug/kg	0.352	1.17
67-66-3	Chloroform		49.9	ug/kg	0.352	1.17
74-97-5	Bromochloromethane		49.6	ug/kg	0.387	1.17
71-55-6	1,1,1-Trichloroethane		52.2	ug/kg	0.352	1.17
563-58-6	1,1-Dichloropropene		50.5	ug/kg	0.352	1.17
56-23-5	Carbon tetrachloride		50.9	ug/kg	0.352	1.17
107-06-2	1,2-Dichloroethane		49.9	ug/kg	0.352	1.17
71-43-2	Benzene		48.6	ug/kg	0.352	1.17
79-01-6	Trichloroethylene		48.6	ug/kg	0.387	1.17
78-87-5	1,2-Dichloropropane		49.1	ug/kg	0.352	1.17
75-27-4	Bromodichloromethane		51.5	ug/kg	0.352	1.17
74-95-3	Dibromomethane		50.2	ug/kg	0.352	1.17
108-10-1	4-Methyl-2-pentanone		230	ug/kg	1.47	5.87
10061-01-5	cis-1,3-Dichloropropylene		50.3	ug/kg	0.352	1.17
108-88-3	Toluene		48.1	ug/kg	0.352	1.17
10061-02-6	trans-1,3-Dichloropropylene		51.7	ug/kg	0.352	1.17
79-00-5	1,1,2-Trichloroethane		48.8	ug/kg	0.352	1.17
591-78-6	2-Hexanone		162	ug/kg	1.76	5.87
142-28-9	1,3-Dichloropropane		48.9	ug/kg	0.352	1.17
127-18-4	Tetrachloroethylene		47.7	ug/kg	0.352	1.17
124-48-1	Dibromochloromethane		52.4	ug/kg	0.352	1.17
106-93-4	1,2-Dibromoethane		51.2	ug/kg	0.352	1.17
108-90-7	Chlorobenzene		48.6	ug/kg	0.352	1.17

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-940	**Date Collected:**	12/14/2009 12:00	**Matrix:**	S
Lab Sample ID:	1202003040	**Date Received:**	12/16/2009 09:10	**%Moisture:**	14.8
Client Sample:	QC for batch 936118	**Client:**	LANL010	**Project:**	QC
Client ID:	RE03-09-14221PSD	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	936119	**Inst:**	VOA4.I	**Dilution:**	1
Run Date:	12/23/2009 06:32	**Analyst:**	ACJ	**Purge Vol:**	5 mL
Prep Date:	12/22/2009 22:42	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	4q224.d	**Column:**	RTX-VOLATILES	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene		48.2	ug/kg	0.352	1.17
179601-23-1	m,p-Xylenes		98.6	ug/kg	0.352	2.35
95-47-6	o-Xylene		49.1	ug/kg	0.352	1.17
100-42-5	Styrene		51.1	ug/kg	0.352	1.17
75-25-2	Bromoform		59.0	ug/kg	0.352	1.17
79-34-5	1,1,2,2-Tetrachloroethane		53.3	ug/kg	0.352	1.17
96-18-4	1,2,3-Trichloropropane		52.6	ug/kg	0.352	1.17
108-86-1	Bromobenzene		52.6	ug/kg	0.352	1.17
103-65-1	n-Propylbenzene		51.5	ug/kg	0.352	1.17
95-49-8	2-Chlorotoluene		51.0	ug/kg	0.352	1.17
98-82-8	Isopropylbenzene		53.0	ug/kg	0.352	1.17
108-67-8	1,3,5-Trimethylbenzene		51.6	ug/kg	0.352	1.17
106-43-4	4-Chlorotoluene		50.6	ug/kg	0.352	1.17
98-06-6	tert-Butylbenzene		51.7	ug/kg	0.352	1.17
95-63-6	1,2,4-Trimethylbenzene		50.9	ug/kg	0.352	1.17
135-98-8	sec-Butylbenzene		50.1	ug/kg	0.352	1.17
99-87-6	4-Isopropyltoluene		49.6	ug/kg	0.352	1.17
541-73-1	1,3-Dichlorobenzene		46.6	ug/kg	0.352	1.17
106-46-7	1,4-Dichlorobenzene		46.8	ug/kg	0.352	1.17
104-51-8	n-Butylbenzene		48.3	ug/kg	0.352	1.17
96-12-8	1,2-Dibromo-3-chloropropane		56.9	ug/kg	0.352	1.17
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.87	ug/kg	1.88	5.87
630-20-6	1,1,1,2-Tetrachloroethane		51.9	ug/kg	0.352	1.17
95-50-1	1,2-Dichlorobenzene		47.4	ug/kg	0.352	1.17

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA4.i/122209v4/4q224.d
Lab Smp Id: 1202003040 Client Smp ID: RE03-09-14221MSD
Inj Date : 23-DEC-2009 06:32
Operator : ACJ Inst ID: VOA4.i
Smp Info : |1202003040|936119|1|VOAF|1|
Misc Info : LANL 5G N/A MSD 243033001
Comment :
Method : /chem/VOA4.i/122209v4/VOA4-8260-121909.m
Meth Date : 24-Dec-2009 16:25 amj Quant Type: ISTD
Cal Date : 20-DEC-2009 02:33 Cal File: 4p618.d
Als bottle: 24 QC Sample: MSD
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-940.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	14.77230	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
* 40 Fluorobenzene	96	10.619	10.613	(1.000)	1134075	50.0000	
* 61 Chlorobenzene-d5	117	13.770	13.771	(1.000)	828930	50.0000	
* 86 1,4-Dichlorobenzene-d4	152	16.179	16.173	(1.000)	487901	50.0000	
$ 138 1,2-Dichloroethane-d4	65	10.259	10.259	(0.966)	263601	44.6123	52.3
$ 47 Toluene-d8	98	12.252	12.246	(0.890)	931542	47.4516	55.7
$ 71 Bromofluorobenzene	95	14.953	14.947	(0.924)	445681	56.2547	66.0
3 Dichlorodifluoromethane	85	4.912	4.912	(0.463)	242356	44.7364	52.5
4 Chloromethane	50	5.299	5.299	(0.499)	472856	44.1418	51.8
5 Vinyl chloride	62	5.521	5.521	(0.520)	385200	48.4956	56.9
6 Bromomethane	94	6.130	6.138	(0.577)	283575	44.5347	52.2
7 Chloroethane	64	6.281	6.281	(0.591)	290937	44.2040	51.9
8 Trichlorofluoromethane	101	6.668	6.662	(0.628)	443595	47.7723	56.0

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
10 Acetone	43	7.357	7.357	(0.693)	752638	105.641	124
11 1,1-Dichloroethylene	61	7.394	7.388	(0.696)	520582	41.9977	49.3
87 1,4-Dichlorobenzene	146	16.203	16.203	(1.002)	740015	39.9217	46.8
13 Iodomethane	142	7.631	7.625	(0.719)	2729848	215.430	253
17 Methylene chloride	84	7.942	7.936	(0.748)	365851	45.2275	53.1
14 Carbon disulfide	76	7.772	7.772	(0.732)	4977815	217.228	255
21 trans-1,2-Dichloroethylene	61	8.284	8.284	(0.780)	463273	42.3401	49.7
22 1,1-Dichloroethane	63	8.759	8.759	(0.825)	590176	42.2351	49.6
30 2-Butanone	43	9.326	9.326	(0.878)	1019792	126.342	148
31 cis-1,2-Dichloroethylene	61	9.387	9.381	(0.884)	511307	42.7758	50.2
85 1,3-Dichlorobenzene	146	16.118	16.118	(0.996)	746900	39.7405	46.6
25 2,2-Dichloropropane	77	9.418	9.418	(0.887)	280185	43.0672	50.5
32 Chloroform	83	9.692	9.692	(0.913)	515193	42.5698	49.9
90 1,2-Dichlorobenzene	146	16.642	16.642	(1.029)	717669	40.3560	47.4
29 Bromochloromethane	128	9.655	9.656	(0.909)	156916	42.2744	49.6
36 1,1,1-Trichloroethane	97	9.979	9.979	(0.940)	411159	44.4484	52.2
34 1,1-Dichloropropene	75	10.131	10.131	(0.954)	381363	43.0716	50.5
33 Carbon tetrachloride	117	10.174	10.174	(0.958)	381058	43.3978	50.9
37 1,2-Dichloroethane	62	10.338	10.338	(0.974)	418568	42.5069	49.9
38 Benzene	78	10.369	10.369	(0.976)	1164920	41.4077	48.6
39 Trichloroethylene	95	11.003	11.003	(1.036)	288112	41.4480	48.6
41 1,2-Dichloropropane	63	11.240	11.241	(1.059)	336665	41.8392	49.1
45 Bromodichloromethane	83	11.484	11.478	(1.082)	386998	43.8784	51.5
43 Dibromomethane	93	11.368	11.375	(1.071)	179790	42.7625	50.2
49 4-Methyl-2-pentanone	58	12.015	12.015	(0.872)	643716	196.277	230
46 cis-1,3-Dichloropropylene	75	11.929	11.929	(1.123)	454702	42.8742	50.3
50 Toluene	92	12.326	12.320	(0.895)	674100	41.0060	48.1
53 trans-1,3-Dichloropropylene	75	12.460	12.460	(0.905)	416765	44.1020	51.7
54 1,1,2-Trichloroethane	83	12.685	12.679	(0.921)	215773	41.5560	48.8
55 2-Hexanone	43	12.856	12.856	(0.934)	1390450	137.830	162
52 1,3-Dichloropropane	76	12.874	12.874	(0.935)	426185	41.6918	48.9
56 Tetrachloroethylene	164	12.917	12.917	(0.938)	252556	40.6502	47.7
57 Dibromochloromethane	129	13.143	13.143	(0.954)	305440	44.6852	52.4
59 1,2-Dibromoethane	107	13.319	13.319	(0.967)	269517	43.6023	51.2
62 Chlorobenzene	112	13.801	13.801	(1.002)	790269	41.3990	48.6
60 1,1,1,2-Tetrachloroethane	131	13.850	13.850	(1.006)	313356	44.2571	51.9
58 Ethylbenzene	91	13.862	13.862	(1.007)	1331796	41.1056	48.2
63 m,p-Xylenes	106	13.972	13.972	(1.015)	1051463	84.0414	98.6
64 o-Xylene	106	14.405	14.405	(1.046)	546420	41.8336	49.1
65 Styrene	104	14.398	14.399	(1.046)	852304	43.5214	51.1
66 Bromoform	173	14.654	14.655	(0.906)	255111	50.2987	59.0
73 1,1,2,2-Tetrachloroethane	83	15.014	15.014	(0.928)	399291	45.4624	53.3
74 1,2,3-Trichloropropane	110	15.106	15.106	(0.934)	100937	44.7919	52.6
75 Bromobenzene	156	15.167	15.167	(0.937)	426791	44.8195	52.6
76 n-Propylbenzene	91	15.179	15.179	(0.938)	1694073	43.8772	51.5
77 2-Chlorotoluene	91	15.331	15.331	(0.948)	1179149	43.4972	51.0
67 Isopropylbenzene	105	14.758	14.758	(0.912)	1445474	45.1905	53.0

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
78 1,3,5-Trimethylbenzene	105	15.331	15.331	(0.948)	1253993	43.9755	51.6
80 4-Chlorotoluene	91	15.429	15.429	(0.954)	1076260	43.1261	50.6
81 tert-Butylbenzene	119	15.703	15.703	(0.971)	1232877	44.0979	51.7
79 1,2,4-Trimethylbenzene	105	15.740	15.740	(0.973)	1299536	43.3513	50.9
83 sec-Butylbenzene	105	15.929	15.929	(0.985)	1668277	42.7188	50.1
84 4-Isopropyltoluene	119	16.051	16.051	(0.992)	1289928	42.2981	49.6
89 n-Butylbenzene	91	16.502	16.502	(1.020)	1212294	41.2074	48.3
92 1,2-Dibromo-3-chloropropane	157	17.526	17.526	(1.083)	71288	48.4654	56.9

Data File: /chem/VOA4.i/122209v4/4q224.d
Date : 23-DEC-2009 06:32
Client ID: RE03-09-14221MSD
Sample Info: 1120200304019361191|1|VOAF|1|
Column phase: RTX-VOLATILES

Instrument: VOA4.i
Operator: ACJ
Column diameter: 0.25

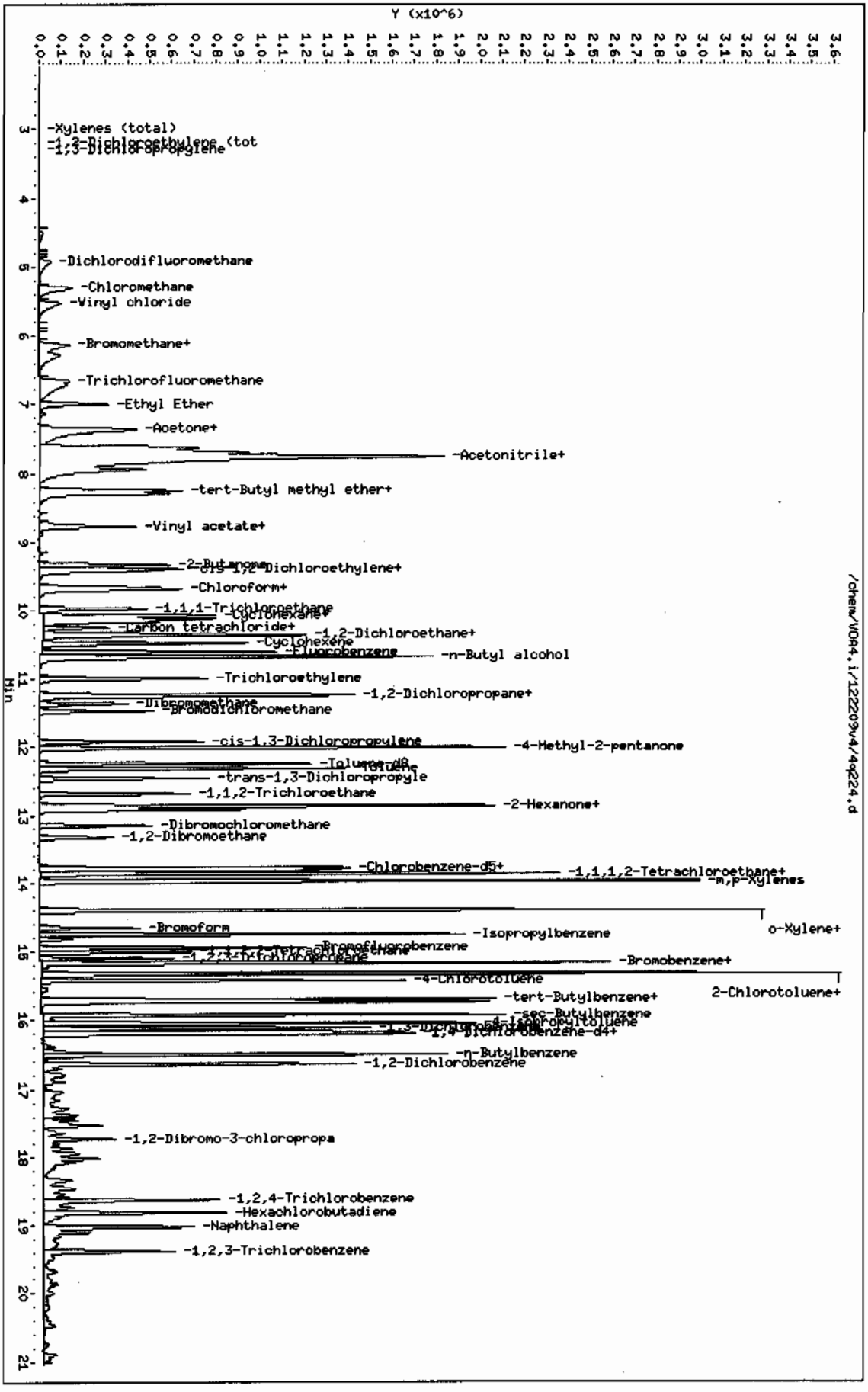

Page 1

Miscellaneous Data

Prep Logbook

Volatile Organic Compounds (VOC) by Gas Chromatograph/Mass Spectrometer

Batch ID: **936118** Verified by: _____

Analyst: Amy Jamison
Method: SW846 5030
Lab SOP: GL-OA-E-038 REV# 13
Instrument: Sartorius Balance B-001

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units

Sample ID	Run Date	Matrix	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check 1
1202003041 LCS	22-DEC-2009 20:00:00	Soil	5	5	1	
1202003042 LCS	22-DEC-2009 20:15:00	Soil	5	5	1	
1202003038 MB	22-DEC-2009 20:30:00	Soil	5	5	1	
243033001	22-DEC-2009 22:40:00	Soil	5	5	1	
1202003039 PS (243033001)	22-DEC-2009 22:41:00	Soil	5	5	1	
1202003040 PSD (243033001)	22-DEC-2009 22:42:00	Soil	5	5	1	
243033002	22-DEC-2009 22:43:00	Soil	5	5	1	
243033003	22-DEC-2009 22:44:00	Soil	5	5	1	
243033004	22-DEC-2009 22:45:00	Soil	5	5	1	
243033005	22-DEC-2009 22:46:00	Soil	5	5	1	
243033006	22-DEC-2009 22:47:00	Soil	5	5	1	
243033007	22-DEC-2009 22:48:00	Soil	5	5	1	
243033008	22-DEC-2009 22:49:00	Soil	5	5	1	
243033009	22-DEC-2009 22:50:00	Soil	5	5	1	
243033010	22-DEC-2009 22:51:00	Soil	5	5	1	
1202003731 LCS	23-DEC-2009 18:15:00	Soil	5	5	1	
1202003732 LCS	23-DEC-2009 18:30:00	Soil	5	5	1	
1202003730 MB	23-DEC-2009 18:45:00	Soil	5	5	1	
243092001	23-DEC-2009 21:16:00	Soil	5	5	1	
243092002	23-DEC-2009 21:17:00	Soil	5	5	1	
243092003	23-DEC-2009 21:18:00	Soil	5	5	1	

Reagent/Solvent Lot ID	Description	Amount

Comments:

GEL Laboratories, LLC
Revision:11/22/04

ORGANIC RUN LOG - INSTRUMENT ID#VOA4

Date: 12/19/2009 Method 8260B/624 Operator: ACJ

REVIEWED BY: _____
DATE: _____

HARDWARE CONFIGURATION & METHOD CONDITIONS SUMMARY No# 1

Daily Instrument Readings:
Multiplier Voltage: 1624

CALIBRATION & CC INFORMATION:

Initial Calibration Date: 12/19/2009

(See pg. 197 for ICAL Std. Sci. Ids)

NaHSO4 lot # N/A

Cl test lot # 81710

Sequence Number: 121908V4

Daily Standard Solution ID#		Volume Added for Purge (ul) Blk/ Smpl	CCV	MS/ LCS	BFB
CCV					
IS	UVM091203-01	1	1	1	
SS	UVM090910-02	1	1	1	
LCS/MS					
BFB	UVM090910-02				1
SHORT					
DHEC					

Purge Amount	
5	Water Purge Vol:
	Soil Purge Wt.
	Mid level ext. MeOH Vol:
	ul
	Methanol Lot #
x	Heated Purge

Analysis Date Time	Data File	Lab Sample ID	Client	Batch #	Wt.(g) or Vol(ml/ul)	Dil. Factor	pH	AS Slot #	Matrix w or s	Analyst	Cl test (Y/N)	Acceptable (O/X)	Comments
12/19/2009 18:50	4P601.D	UVM090910-02	GEL	BFB	5ML	1	N/A	1	W	ACJ	N/A	O	
12/19/2009 19:17	4P602.D	12019----	GEL	BLANK	5ML	1	N/A	2	w	ACJ	N/A	X	
12/19/2009 19:44	4P603.D	W4VM091219-01	GEL	VSTD0005	5ML	1	N/A	3	w	ACJ	N/A	X	UVM090911-01D/UVM091130-01C; DICHLORODIFLUOROMETHANE
12/19/2009 20:12	4P604.D	W4VM091219-02	GEL	VSTD001	5ML	1	N/A	4	w	ACJ	N/A	O	UVM090911-02D/UVM091130-02C
12/19/2009 20:39	4P605.D	W4VM091219-03	GEL	VSTD001	5ML	1	N/A	5	w	ACJ	N/A	O	UVM090911-02D/UVM091130-02C
12/19/2009 21:07	4P606.D	W4VM091219-04	GEL	VSTD002	5ML	1	N/A	6	w	ACJ	N/A	O	UVM090911-03D/UVM091130-03C
12/19/2009 21:34	4P607.D	W4VM091219-05	GEL	VSTD005	5ML	1	N/A	7	w	ACJ	N/A	O	UVM090911-04D/UVM091130-04C
12/19/2009 22:01	4P608.D	W4VM091219-06	GEL	VSTD010	5ML	1	N/A	8	w	ACJ	N/A	O	UVM090911-05D/UVM091130-05C
12/19/2009 22:28	4P609.D	W4VM091219-07	GEL	VSTD020	5ML	1	N/A	9	w	ACJ	N/A	O	UVM090911-06D/UVM091130-06C
12/19/2009 22:55	4P610.D	W4VM091219-08	GEL	VSTD050	5ML	1	N/A	10	w	ACJ	N/A	O	UVM090911-07D/UVM091130-07C
12/19/2009 23:22	4P611.D	W4VM091219-09	GEL	VSTD100	5ML	1	N/A	11	w	ACJ	N/A	O	UVM090911-08D/UVM091130-08C
12/19/2009 23:50	4P612.D	12019----	GEL	BLANK	5ML	1	N/A	12	w	ACJ	N/A	X	
12/20/2009 0:17	4P613.D	W4VM091219-10	GEL	VSTD005S	5ML	1	N/A	13	w	ACJ	N/A	O	UVM091216-01/UVM091110-01D
12/20/2009 0:44	4P614.D	W4VM091219-11	GEL	VSTD010S	5ML	1	N/A	14	w	ACJ	N/A	O	UVM091216-02/UVM091110-02D
12/20/2009 1:12	4P615.D	W4VM091219-12	GEL	VSTD025S	5ML	1	N/A	15	w	ACJ	N/A	O	UVM091216-03/UVM091110-03D
12/20/2009 1:39	4P616.D	W4VM091219-13	GEL	VSTD050S	5ML	1	N/A	16	w	ACJ	N/A	O	UVM091216-04/UVM091110-04D
12/20/2009 2:06	4P617.D	W4VM091219-14	GEL	VSTD100S	5ML	1	N/A	17	w	ACJ	N/A	O	UVM091216-05/UVM091110-05D
12/20/2009 2:33	4P618.D	W4VM091219-15	GEL	VSTD250S	5ML	1	N/A	18	w	ACJ	N/A	O	UVM091216-06/UVM091110-06D
12/20/2009 3:01	4P619.D	W4VM091219-16	GEL	VSTD500S	5ML	1	N/A	19	w	ACJ	N/A	O	UVM091216-07/UVM091110-07D
12/20/2009 3:28	4P620.D	12019----	GEL	BLANK	5ML	1	N/A	20	w	ACJ	N/A	X	
12/20/2009 3:55	4P621.D	W4VM091219-17	GEL	ICV	5ML	1	N/A	21	w	ACJ	N/A	O	UVM091214-01A/IVM091217-01
12/20/2009 4:22	4P622.D	W4VM091219-18	GEL	SHORTICV	5ML	1	N/A	22	w	ACJ	N/A	O	UVM091118-08C/UVM091105-02E

GEL Laboratories, LLC
Revision:11/22/04

ORGANIC RUN LOG - INSTRUMENT ID#VOA4

Date: 12/22/2009 Method 8260B/624 Operator: ACJ

REVIEWED BY: _____
DATE: _____

HARDWARE CONFIGURATION & METHOD CONDITIONS SUMMARY No# 1

Daily Instrument Readings:
Multiplier Voltage: 1624

CALIBRATION & CC INFORMATION:

Initial Calibration Date: 12/19/2009

(See pg. 197 for ICAL Std. Sci. Ids)

NaHSO4 lot # N/A

Cl test lot # 81710

Sequence Number: 122209V4

Daily Standard — Volume Added for Purge (ul)

Solution ID#		Blk/ Smpl	CCV	MS/ LCS	BFB
CCV	W4VM091222-01		5+5		
IS	UVM091203-01	1	1	1	
SS	UVM090910-02	1	1	1	
LCS/MS	W4VM091222-01/02			5+5	
BFB	UVM090910-02				1
SHORT	UVM091118-08C		5	5	
DHEC	N/A			5	

Purge Amount

5	Water Purge Vol:
5G	Soil Purge Wt.
N/A	Mid level ext. MeOH Vol:
N/A	ul
N/A	Methanol Lot #
x	Heated Purge

Date	Time	Data File	Lab Sample ID	Client	Batch #	Wt.(g) or Vol(ml/ul)	Dil. Factor	pH	AS Slot #	Matrix w or s	Analyst	Cl test (Y/N)	Acceptable (O/X)	Comments
12/22/2009	20:06	4Q201.D	UVM090910-02	GEL	BFB	5ML	1	N/A	1	W	ACJ	N/A	O	
12/22/2009	20:33	4Q202.D	W4VM091222-01	GEL	CCV/LCS	5ML	1	N/A	2	W	ACJ	N/A	O	UVM091214-01A/IVM091222-01
12/22/2009	21:00	4Q203.D	W4VM091222-02	GEL	LCS	5G	1	N/A	3	S	ACJ	N/A	O	UVM091214-01A/IVM091222-01
12/22/2009	21:28	4Q204.D	UVM091118-08C	GEL	SHORT	5ML	1	N/A	4	W	ACJ	N/A	O	
12/22/2009	21:55	4Q205.D	UVM091118-08C	GEL	SHORT	5G	1	N/A	5	S	ACJ	N/A	O	
12/22/2009	22:22	4Q206.D	12020----	GEL	BLANK	5G	1	N/A	6	S	ACJ	N/A	O	
12/22/2009	22:49	4Q207.D	12020----	GEL	BLANK	5ML	1	N/A	7	W	ACJ	N/A	O	
12/22/2009	23:16	4Q208.D	243081001	LLNL	936117	5ML	1	PH7	8	W	ACJ	N	O	
12/22/2009	23:43	4Q209.D	243380001	BJCO	936116	5ML	1	PH2	9	W	ACJ	N	O	
12/23/2009	0:10	4Q210.D	243380002	BJCO	936116	5ML	1	PH2	10	W	ACJ	N	O	
12/23/2009	0:38	4Q211.D	1202003034	BJCO	936116	5ML	1	PH2	11	W	ACJ	N	O	DUP 243380002
12/23/2009	1:05	4Q212.D	243033010	LANL	936119	5G	1	N/A	12	S	ACJ	N/A	O	
12/23/2009	1:33	4Q213.D	243033001	LANL	936119	5G	1	N/A	13	S	ACJ	N/A	O	
12/23/2009	1:59	4Q214.D	243033002	LANL	936119	5G	1	N/A	14	S	ACJ	N/A	O	
12/23/2009	2:27	4Q215.D	243033003	LANL	936119	5G	1	N/A	15	S	ACJ	N/A	O	
12/23/2009	2:54	4Q216.D	243033004	LANL	936119	5G	1	N/A	16	S	ACJ	N/A	O	
12/23/2009	3:21	4Q217.D	243033005	LANL	936119	5G	1	N/A	17	S	ACJ	N/A	O	
12/23/2009	3:48	4Q218.D	243033006	LANL	936119	5G	1	N/A	18	S	ACJ	N/A	O	
12/23/2009	4:15	4Q219.D	243033007	LANL	936119	5G	1	N/A	19	S	ACJ	N/A	O	
12/23/2009	4:42	4Q220.D	243033008	LANL	936119	5G	1	N/A	20	S	ACJ	N/A	O	CONFIRMED BY 4Q308
12/23/2009	5:10	4Q221.D	243033009	LANL	936119	5G	1	N/A	21	S	ACJ	N/A	O	
12/23/2009	5:37	4Q222.D	1202003035	BJCO	936116	5ML	1	PH2	22	W	ACJ	N	O	MS 243380002
12/23/2009	6:05	4Q223.D	1202003039	LANL	936119	5G	1	N/A	23	S	ACJ	N/A	O	MS 243033001
12/23/2009	6:32	4Q224.D	1202003040	LANL	936119	5G	1	N/A	24	S	ACJ	N/A	O	MSD 243033001
12/23/2009	6:59	4Q225.D	12020----	GEL	BLANK	5ML	1	N/A	25	W	ACJ	N/A	X	

NCR Report No.: 776701
Revision No.:

COMPANY - WIDE NONCONFORMANCE REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
04-JAN-10	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
VOA GC/MS	SW846 8260B	Solid	LANL
Batch ID:	**Sample Numbers:**		
936119	See Below		

Potentially affected work order(s)(SDG): 243033(10-940),243092(10-947)

Application Issues:

Failed Yield for Surrogates

Specification and Requirements Nonconformance Description:	NRG Disposition:
1. Sample 243033008 was above the surrogate recovery acceptance limits for Bromofluorobenzene. Bromofluorobenzene recovered at 134%. The limits are 68%-133%. 2. Sample 243033008 was outside the internal standard response recovery acceptance criteria for 1,4-Dichlorobenzene-d4. 1,4-Dichlorobenzene-d4 recovered at -55.13%. The limits are +100% to -50%.	1. Narrate and report data. The sample was analyzed twice with similar results. It is believed matrix interference has been demonstrated. 2. Narrate and report data. The sample was analyzed twice with similar results. It is believed matrix interference has been demonstrated.

Originator's Name:

Amy Jamison 04-JAN-10

Data Validator/Group Leader:

Kelle Bellamy 05-JAN-10

GC/MS Semivolatile Analysis

Semi-Volatile Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-940

Method/Analysis Information

Procedure:	**Analysis of Semivolatile Organic Compounds by Gas Chromatography/Mass Spectrometry**
Analytical Method:	SW846 8270C
Prep Method:	SW846 3550B
Analytical Batch Number:	934979
Prep Batch Number:	934978

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 8270C:

Sample ID	Client ID
243033001	RE03-09-14221
243033002	RE03-09-14211
243033003	RE03-09-14210
243033004	RE03-09-14209
243033005	RE03-09-14208
243033007	RE03-09-14223
243033008	RE03-09-14220
243033009	RE03-10-2734
1202000424	Method Blank (MB)
1202000425	Laboratory Control Sample (LCS)
1202000956	243033001(RE03-09-14221) Matrix Spike (MS)
1202000957	243033001(RE03-09-14221) Matrix Spike Duplicate (MSD)

The samples in this batch were analyzed on a "dry weight" basis.

Preparation/Analytical Method Verification

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-009 REV# 23.

Raw data reports are processed and reviewed by the analyst using the Target software package. False positives have been removed from the Target quantitation reports per standard operating procedures (SOP) section 18.2.

Calibration Information

Please note that the 'Cal Date' indicated on each quantitation report reflects the date and time of the most recent calibrated analyte(s) in the Target processing method. Since the laboratory may calibrate with multiple solutions on different days using the same processing method, the Target software will update the 'Cal Date' to the last calibration file, date and time. The correct dates and times for all calibration files are located on the Calibration History report in the Standard Data section in the data package.

Due to software limitations, the Calibration Summary Form 6 may not indicate all the calibration files comprising the initial calibration. A complete list of the initial calibration data files are shown in the Calibration History report located in the Standard Data section of the data package. Please note that the second level of the initial calibration (5 mg/L) is only used for n-Nitrosodipropylamine. The various calibration mixes may not be calibrated using all of the calibration levels. In addition, not all of the mixes are calibrated using the same levels.

Diphenylamine has now superseded N-Nitroso-diphenylamine as a CCC on Quantitation Reports, Initial Calibration Reports, Calibration Check Standard Reports, etc. Previous versions of EPA Method 8270 (prior to 8270C) listed N-Nitroso-diphenylamine as a CCC. However, as stated in EPA Method 8270C, Revision 3, December, 1996, Section 1.4.5, "N-Nitroso-diphenylamine decomposes in the gas chromatographic inlet and cannot be separated from Diphenylamine." Studies of these two compounds at GEL, both independent of each other and together, show that they not only co-elute, but also have similar mass spectra. N-Nitroso-diphenylamine and Diphenylamine will be reported as Diphenylamine on all reports and forms.

The linear equation used in Target and indicated on the initial calibration summary form is not a conventional linear equation (slope intercept formula) and does not match the equation found in SW-846 method 8000B. The x and y axes are inversed in Target, so that the instrument response is treated as the independent variable (x) and the concentration ratio is treated as the dependent variable (y). The equation used in Target to calculate sample results is adjusted to account for the linear equation inversion and reciprocal slope. The adjusted calculation has been independently verified to produce valid results.

Initial Calibration
All initial calibration requirements have been met for this batch. A second source initial calibration verification (ICV) was included in the standard section directly behind the initial calibration.

CCV Requirements
All associated calibration verification standard(s) (ICV or CCV) met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this batch met the acceptance criteria.

Surrogate Recoveries
The following sample failed surrogate recovery in this batch and was re-extracted and analyzed: 243033006 (RE03-09-14222). The re-extracted sample passed all surrogate recoveries. Because the re-extraction was within holding, only the re-analysis data for that sample were reported.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

QC Sample Designation
Sample 243033001 (RE03-09-14221) was selected for analysis as the matrix spike and matrix spike duplicate.

Matrix Spike (MS) Recovery Statement
The MS(1202000956) and MSD(1202000957) recovered Hexachloroethane at 28% and 29%, respectively. The limits are 30%-100%. As the MS and MSD displayed similar recoveries, the failures were attributed to sample matrix interference and the data have been reported.

Matrix Spike Duplicate (MSD) Recovery Statement
The MS(1202000956) and MSD(1202000957) recovered Hexachloroethane at 28% and 29%, respectively.

The limits are 30%-100%. As the MS and MSD displayed similar recoveries, the failures were attributed to sample matrix interference and the data have been reported.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD(s) between the MS and MSD met the acceptance limits.

Internal Standard (ISTD) Acceptance
The internal standard responses were within the required acceptance criteria for all samples and QC.

Technical Information

Holding Time Specifications
All samples in this batch met the specified holding time. GEL assigns holding times based on the associated methodology that assigns the date and time from sample collection or sample receipt. Those holding times expressed in hours are calculated in the ALPHALIMS system. Those holding times expressed as days expire at midnight on the day of expiration.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

Sample Dilutions
The samples in this batch did not require dilutions.

Sample Re-extraction/Re-analysis
Re-extractions or re-analyses were not required in this batch except for confirmations and/or dilutions.

Miscellaneous Information

Nonconformance (NCR) Documentation
The following NCR was generated for this batch: 776943. It is located in the Miscellaneous Section of the data report.

Manual Integrations
Some initial calibration standards, continuing calibration standards, and/or samples may require manual integrations due to software limitations. Please see the raw data in the Miscellaneous Section.

Additional Comments
Additional comments were not required for this batch.

Electronic Package Comment
The following package was generated using an electronic data processing program referred to as "virtual packaging". In an effort to increase quality and efficiency, the laboratory is developing systems to eventually generate all data packages electronically. The following change from "traditional" packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. An electronic signature page inserted after the case narrative of each electronic package will indicate the analyst, reviewer, and report specialist names associated with the generation of the data and package. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

System Configuration
The samples reported in this batch were analyzed on one or more of the following instrument systems. Instrument systems are referenced in the raw data and individual form headers by the Instrument ID designations listed below:

Instrument ID	Instrument	System Configuration	Column ID	Column Description
MSD6.I	HP Mass Spectrometer	HP6890/HP5973	DB-5MS	25m x 0.20mm x 0.33 um (5% Phenylmethylpolysiloxane)

Method/Analysis Information

Procedure:	**Analysis of Semivolatile Organic Compounds by Gas Chromatography/Mass Spectrometry**
Analytical Method:	SW846 8270C
Prep Method:	SW846 3550B
Analytical Batch Number:	936371
Prep Batch Number:	936369

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 8270C:

Sample ID	Client ID
243033006	RE03-09-14222
1202003528	Method Blank (MB)
1202003529	Laboratory Control Sample (LCS)
1202003530	243393002(WST12-10-8879) Matrix Spike (MS)
1202003531	243393002(WST12-10-8879) Matrix Spike Duplicate (MSD)

The samples in this batch were analyzed on a "dry weight" basis.

Preparation/Analytical Method Verification

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-009 REV# 23.

Raw data reports are processed and reviewed by the analyst using the Target software package. False positives have been removed from the Target quantitation reports per standard operating procedures (SOP) section 18.2.

Calibration Information
Please note that the 'Cal Date' indicated on each quantitation report reflects the date and time of the most recent calibrated analyte(s) in the Target processing method. Since the laboratory may calibrate with multiple solutions on different days using the same processing method, the Target software will update the 'Cal Date' to the last calibration file, date and time. The correct dates and times for all calibration files are located on the Calibration History report in the Standard Data section in the data package.

Due to software limitations, the Calibration Summary Form 6 may not indicate all the calibration files comprising the initial calibration. A complete list of the initial calibration data files are shown in the Calibration History report located in the Standard Data section of the data package. Please note that the second level of the initial calibration (5 mg/L) is only used for n-Nitrosodipropylamine. The various calibration mixes may not be calibrated using all of the calibration levels. In addition, not all of the mixes are calibrated using the same levels.

Diphenylamine has now superseded N-Nitroso-diphenylamine as a CCC on Quantitation Reports, Initial Calibration Reports, Calibration Check Standard Reports, etc. Previous versions of EPA Method 8270 (prior to 8270C) listed N-Nitroso-diphenylamine as a CCC. However, as stated in EPA Method 8270C, Revision 3, December, 1996, Section 1.4.5, "N-Nitroso-diphenylamine decomposes in the gas chromatographic inlet and cannot be separated from Diphenylamine." Studies of these two compounds at GEL, both independent of each other and together, show that they not only co-elute, but also have similar mass spectra. N-Nitroso-diphenylamine and Diphenylamine will be reported as Diphenylamine on all reports and forms.

The linear equation used in Target and indicated on the initial calibration summary form is not a conventional linear equation (slope intercept formula) and does not match the equation found in SW-846 method 8000B. The x and y axes are inversed in Target, so that the instrument response is treated as the independent variable (x) and the concentration ratio is treated as the dependent variable (y). The equation used in Target to calculate sample results is adjusted to account for the linear equation inversion and reciprocal slope. The adjusted calculation has been independently verified to produce valid results.

Initial Calibration
All initial calibration requirements have been met for this batch. A second source initial calibration verification (ICV) was included in the standard section directly behind the initial calibration.

CCV Requirements
All associated calibration verification standard(s) (ICV or CCV) met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this batch met the acceptance criteria.

Surrogate Recoveries
The following sample failed surrogate recovery and was re-extracted (with-in holding) and analyzed in this batch: 243033006. The re-extracted sample passed all surrogate recoveries. The re-extract data were reported.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

QC Sample Designation
The non-SDG sample 243393002 (WST12-10-8879) was selected for analysis as the matrix spike and matrix spike duplicate. Please see the associated raw data files locetd in the Miscellaneous Section of the data report.

Matrix Spike (MS) Recovery Statement
The MS(1202003530) and MSD(1202003531) recovered 3,3'-Dichlorobenzene at 14% and 12%, respectively. The limits are 35%-106%. Since the MS recovery was confirmed by the MSD, the failures were attributed to matrix interference and the data results have been reported.

Matrix Spike Duplicate (MSD) Recovery Statement
The MS(1202003530) and MSD(1202003531) recovered 3,3'-Dichlorobenzene at 14% and 12%,

respectively. The limits are 35%-106%. Since the MS recovery was confirmed by the MSD, the failures were attributed to matrix interference and the data results have been reported.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD(s) between the MS and MSD met the acceptance limits.

Internal Standard (ISTD) Acceptance
The internal standard responses were within the required acceptance criteria for all samples and QC.

Technical Information

Holding Time Specifications
All samples in this batch met the specified holding time. GEL assigns holding times based on the associated methodology that assigns the date and time from sample collection or sample receipt. Those holding times expressed in hours are calculated in the ALPHALIMS system. Those holding times expressed as days expire at midnight on the day of expiration.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

Sample Dilutions
The samples in this batch did not require dilutions.

Sample Re-extraction/Re-analysis
Sample 243033006 (RE03-09-14222) was re-extracted in this batch due to surrogate failure in the original extraction.

Miscellaneous Information

Nonconformance (NCR) Documentation
The following NCR was generated for this batch: 776940. It is located in the Miscellaneous Section of the data report.

Manual Integrations
Some initial calibration standards, continuing calibration standards, and/or samples may require manual integrations due to software limitations. Please see the raw data in the Miscellaneous Section.

Additional Comments
Additional comments were not required for this SDG.

Electronic Package Comment
The following package was generated using an electronic data processing program referred to as "virtual packaging". In an effort to increase quality and efficiency, the laboratory is developing systems to eventually generate all data packages electronically. The following change from "traditional" packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. An electronic signature page inserted after the case narrative of each electronic package will indicate the analyst, reviewer, and report specialist names associated with the generation of the data and package. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

System Configuration

The samples reported in this SDG were analyzed on one or more of the following instrument systems. Instrument systems are referenced in the raw data and individual form headers by the Instrument ID designations listed below:

Instrument ID	Instrument	System Configuration	Column ID	Column Description
MSD1.I	HP 5973 Mass Spectrometer	HP6890/HP5973	ZB-5ms	25m x 0.2mm, 0.33um (5% Polysilarylene-95% Polydimethylsiloxane)

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

Reviewer: Dan Bowling **Date:** 1-11-10

Roadmap for LANL 10-940 SVOA

This roadmap was analyzed by nat00999 on 01-05-2010, 11:16.
This roadmap was analyzed by amy01291 on 01-05-2010, 11:37.
This roadmap was reviewed by bar00895 on 01-06-2010, 09:34.

Sample

exclude	manual	datafile	smpid	injdate	injtime	sublist	clientid	dilution	batchid	comment
☐	N	/chem/MSD6.i/s122209.b/s6l2212.d	243033001	22-DEC-2009	17:52	10-940.sub	RE03-09-14221	1	934979	
☐	N	/chem/MSD6.i/s122209.b/s6l2215.d	243033002	22-DEC-2009	19:15	10-940.sub	RE03-09-14211	1	934979	
☐	N	/chem/MSD6.i/s122209.b/s6l2216.d	243033003	22-DEC-2009	19:43	10-940.sub	RE03-09-14210	1	934979	
☐	N	/chem/MSD6.i/s122209.b/s6l2217.d	243033004	22-DEC-2009	20:11	10-940.sub	RE03-09-14209	1	934979	
☐	N	/chem/MSD6.i/s122209.b/s6l2218.d	243033005	22-DEC-2009	20:39	10-940.sub	RE03-09-14208	1	934979	
■	N	/chem/MSD6.i/s122209.b/s6l2219.d	243033006	22-DEC-2009	21:06	10-940.sub	RE03-09-14222	1	934979	DUSE. Report s113013
☐	N	/chem/MSD6.i/s122209.b/s6l2220.d	243033007	22-DEC-2009	21:34	10-940.sub	RE03-09-14223	1	934979	
☐	N	/chem/MSD6.i/s122209.b/s6l2221.d	243033008	22-DEC-2009	22:01	10-940.sub	RE03-09-14220	1	934979	
☐	N	/chem/MSD6.i/s122209.b/s6l2222.d	243033009	22-DEC-2009	22:28	10-940.sub	RE03-10-2734	1	934979	
■	N	/chem/MSD6.i/s122309.b/s6l2314.d	243033006	23-DEC-2009	18:28	10-940.sub	RE03-09-14222	1	934979	DUSE - rr of s612219
☐	N	/chem/MSD1.i/s123009.b/s113013.d	243033006	30-DEC-2009	14:57	all.sub	RE03-09-14222	1	936371	REPORT-RE of s612219

QC Sample

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	batchid	comment
☐	N	/chem/MSD6.i/s122209.b/s6l2210.d	1202000424	mb	22-DEC-2009	16:55	10-940.sub	SBLK01	1	934979	
☐	N	/chem/MSD6.i/s122209.b/s6l2211.d	1202000425	lcs	22-DEC-2009	17:23	10-940.sub	SBLK01LCS	1	934979	
☐	N	/chem/MSD6.i/s122209.b/s6l2213.d	1202000956	ms	22-DEC-2009	18:20	10-940.sub	RE03-09-14221MS	1	934979	failed C19
☐	N	/chem/MSD6.i/s122209.b/s6l2214.d	1202000957	msd	22-DEC-2009	18:48	10-940.sub	RE03-09-14221MSD	1	934979	failed C19
☐	N	/chem/MSD1.i/s123009.b/s113006.d	1202003528	mb	30-DEC-2009	12:10	10-940.sub	SBLK02	1	936371	REPORT
☐	N	/chem/MSD1.i/s123009.b/s113007.d	1202003529	lcs	30-DEC-2009	12:33	10-940.sub	SBLK02LCS	1	936371	REPORT

Sample Data Summary

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-940	Date Collected:	12/14/2009 12:00	Matrix:	S
Lab Sample ID:	243033005	Date Received:	12/16/2009 09:10	%Moisture:	12.8
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14208	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	934979	Inst:	MSD6.I	Dilution:	1
Run Date:	12/22/2009 20:39	Analyst:	NAG1	Inj. Vol:	.5 uL
Prep Date:	12/21/2009 11:03	Aliquot:	30.02 g	Final Volume:	1 mL
Data File:		Column:			

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	382	ug/kg	76.4	382
108-95-2	Phenol	U	382	ug/kg	76.4	382
95-57-8	2-Chlorophenol	U	382	ug/kg	76.4	382
106-46-7	1,4-Dichlorobenzene	U	382	ug/kg	76.4	382
621-64-7	N-Nitrosodipropylamine	U	382	ug/kg	76.4	382
59-50-7	4-Chloro-3-methylphenol	U	382	ug/kg	76.4	382
83-32-9	Acenaphthene	U	38.2	ug/kg	12.6	38.2
121-14-2	2,4-Dinitrotoluene	U	382	ug/kg	38.2	382
100-02-7	4-Nitrophenol	U	382	ug/kg	126	382
87-86-5	Pentachlorophenol	U	382	ug/kg	95.5	382
129-00-0	Pyrene	U	38.2	ug/kg	11.5	38.2
110-86-1	Pyridine	U	382	ug/kg	76.4	382
62-53-3	Aniline	U	382	ug/kg	115	382
111-44-4	bis(2-Chloroethyl) ether	U	382	ug/kg	76.4	382
541-73-1	1,3-Dichlorobenzene	U	382	ug/kg	76.4	382
100-51-6	Benzyl alcohol	U	382	ug/kg	115	382
95-50-1	1,2-Dichlorobenzene	U	382	ug/kg	76.4	382
108-60-1	bis(2-Chloroisopropyl)ether	U	382	ug/kg	76.4	382
95-48-7	o-Cresol	U	382	ug/kg	76.4	382
65794-96-9	m,p-Cresols	U	382	ug/kg	115	382
67-72-1	Hexachloroethane	U	382	ug/kg	76.4	382
98-95-3	Nitrobenzene	U	382	ug/kg	76.4	382
78-59-1	Isophorone	U	382	ug/kg	76.4	382
88-75-5	2-Nitrophenol	U	382	ug/kg	76.4	382
105-67-9	2,4-Dimethylphenol	U	382	ug/kg	134	382
111-91-1	bis(2-Chloroethoxy)methane	U	382	ug/kg	76.4	382
120-83-2	2,4-Dichlorophenol	U	382	ug/kg	76.4	382
65-85-0	Benzoic acid	U	764	ug/kg	191	764
91-20-3	Naphthalene	U	38.2	ug/kg	11.5	38.2
106-47-8	4-Chloroaniline	U	382	ug/kg	76.4	382
87-68-3	Hexachlorobutadiene	U	382	ug/kg	76.4	382
91-57-6	2-Methylnaphthalene	U	38.2	ug/kg	7.64	38.2
77-47-4	Hexachlorocyclopentadiene	U	382	ug/kg	76.4	382
88-06-2	2,4,6-Trichlorophenol	U	382	ug/kg	76.4	382
95-95-4	2,4,5-Trichlorophenol	U	382	ug/kg	76.4	382
91-58-7	2-Chloronaphthalene	U	38.2	ug/kg	12.6	38.2
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	382	ug/kg	76.4	382
99-09-2	3-Nitroaniline	U	382	ug/kg	76.4	382

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-940**	**Date Collected:**	**12/14/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243033005**	**Date Received:**	**12/16/2009 09:10**	**%Moisture:**	**12.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14208**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**934979**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**12/22/2009 20:39**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/21/2009 11:03**	**Aliquot:**	**30.02 g**	**Final Volume:**	**1 mL**
Data File:		**Column:**			

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	382	ug/kg	76.4	382
606-20-2	2,6-Dinitrotoluene	U	382	ug/kg	38.2	382
208-96-8	Acenaphthylene	U	38.2	ug/kg	11.5	38.2
51-28-5	2,4-Dinitrophenol	U	764	ug/kg	145	764
132-64-9	Dibenzofuran	U	382	ug/kg	76.4	382
84-66-2	Diethylphthalate	U	382	ug/kg	76.4	382
86-73-7	Fluorene	U	38.2	ug/kg	11.5	38.2
7005-72-3	4-Chlorophenylphenylether	U	382	ug/kg	76.4	382
534-52-1	2-Methyl-4,6-dinitrophenol	U	382	ug/kg	76.4	382
100-01-6	4-Nitroaniline	U	382	ug/kg	115	382
	p-Nitroaniline					
122-39-4	Diphenylamine	U	382	ug/kg	76.4	382
122-66-7	Azobenzene	U	382	ug/kg	76.4	382
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	382	ug/kg	76.4	382
118-74-1	Hexachlorobenzene	U	382	ug/kg	76.4	382
85-01-8	Phenanthrene	U	38.2	ug/kg	11.5	38.2
120-12-7	Anthracene	U	38.2	ug/kg	7.64	38.2
84-74-2	Di-n-butylphthalate	U	382	ug/kg	76.4	382
206-44-0	Fluoranthene	U	38.2	ug/kg	11.5	38.2
85-68-7	Butylbenzylphthalate	U	382	ug/kg	76.4	382
56-55-3	Benzo(a)anthracene	U	38.2	ug/kg	11.5	38.2
91-94-1	3,3'-Dichlorobenzidine	U	382	ug/kg	115	382
218-01-9	Chrysene	U	38.2	ug/kg	11.5	38.2
117-81-7	bis(2-Ethylhexyl)phthalate	U	382	ug/kg	76.4	382
117-84-0	Di-n-octylphthalate	U	382	ug/kg	76.4	382
205-99-2	Benzo(b)fluoranthene	U	38.2	ug/kg	11.5	38.2
207-08-9	Benzo(k)fluoranthene	U	38.2	ug/kg	11.5	38.2
50-32-8	Benzo(a)pyrene	U	38.2	ug/kg	11.5	38.2
193-39-5	Indeno(1,2,3-cd)pyrene	U	38.2	ug/kg	11.5	38.2
53-70-3	Dibenzo(a,h)anthracene	U	38.2	ug/kg	11.5	38.2
191-24-2	Benzo(ghi)perylene	U	38.2	ug/kg	11.5	38.2
120-82-1	1,2,4-Trichlorobenzene	U	382	ug/kg	76.4	382

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	No Tentatively Identified Compounds Found			ug/kg		

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-940**	**Date Collected:**	**12/14/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243033004**	**Date Received:**	**12/16/2009 09:10**	**%Moisture:**	**11.6**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14209**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**934979**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**12/22/2009 20:11**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/21/2009 11:03**	**Aliquot:**	**30.05 g**	**Final Volume:**	**1 mL**
Data File:	**s612217.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	376	ug/kg	75.2	376
108-95-2	Phenol	U	376	ug/kg	75.2	376
95-57-8	2-Chlorophenol	U	376	ug/kg	75.2	376
106-46-7	1,4-Dichlorobenzene	U	376	ug/kg	75.2	376
621-64-7	N-Nitrosodipropylamine	U	376	ug/kg	75.2	376
59-50-7	4-Chloro-3-methylphenol	U	376	ug/kg	75.2	376
83-32-9	Acenaphthene	U	37.6	ug/kg	12.4	37.6
121-14-2	2,4-Dinitrotoluene	U	376	ug/kg	37.6	376
100-02-7	4-Nitrophenol	U	376	ug/kg	124	376
87-86-5	Pentachlorophenol	U	376	ug/kg	94.1	376
129-00-0	Pyrene	U	37.6	ug/kg	11.3	37.6
110-86-1	Pyridine	U	376	ug/kg	75.2	376
62-53-3	Aniline	U	376	ug/kg	113	376
111-44-4	bis(2-Chloroethyl) ether	U	376	ug/kg	75.2	376
541-73-1	1,3-Dichlorobenzene	U	376	ug/kg	75.2	376
100-51-6	Benzyl alcohol	U	376	ug/kg	113	376
95-50-1	1,2-Dichlorobenzene	U	376	ug/kg	75.2	376
108-60-1	bis(2-Chloroisopropyl)ether	U	376	ug/kg	75.2	376
95-48-7	o-Cresol	U	376	ug/kg	75.2	376
65794-96-9	m,p-Cresols	U	376	ug/kg	113	376
67-72-1	Hexachloroethane	U	376	ug/kg	75.2	376
98-95-3	Nitrobenzene	U	376	ug/kg	75.2	376
78-59-1	Isophorone	U	376	ug/kg	75.2	376
88-75-5	2-Nitrophenol	U	376	ug/kg	75.2	376
105-67-9	2,4-Dimethylphenol	U	376	ug/kg	132	376
111-91-1	bis(2-Chloroethoxy)methane	U	376	ug/kg	75.2	376
120-83-2	2,4-Dichlorophenol	U	376	ug/kg	75.2	376
65-85-0	Benzoic acid	U	752	ug/kg	188	752
91-20-3	Naphthalene	U	37.6	ug/kg	11.3	37.6
106-47-8	4-Chloroaniline	U	376	ug/kg	75.2	376
87-68-3	Hexachlorobutadiene	U	376	ug/kg	75.2	376
91-57-6	2-Methylnaphthalene	U	37.6	ug/kg	7.52	37.6
77-47-4	Hexachlorocyclopentadiene	U	376	ug/kg	75.2	376
88-06-2	2,4,6-Trichlorophenol	U	376	ug/kg	75.2	376
95-95-4	2,4,5-Trichlorophenol	U	376	ug/kg	75.2	376
91-58-7	2-Chloronaphthalene	U	37.6	ug/kg	12.4	37.6
88-74-4	2-Nitroaniline	U	376	ug/kg	75.2	376
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	376	ug/kg	75.2	376

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-940**	**Date Collected:**	**12/14/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243033004**	**Date Received:**	**12/16/2009 09:10**	**%Moisture:**	**11.6**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14209**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**934979**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**12/22/2009 20:11**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/21/2009 11:03**	**Aliquot:**	**30.05 g**	**Final Volume:**	**1 mL**
Data File:	**s612217.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	376	ug/kg	75.2	376
606-20-2	2,6-Dinitrotoluene	U	376	ug/kg	37.6	376
208-96-8	Acenaphthylene	U	37.6	ug/kg	11.3	37.6
51-28-5	2,4-Dinitrophenol	U	752	ug/kg	143	752
132-64-9	Dibenzofuran	U	376	ug/kg	75.2	376
84-66-2	Diethylphthalate	U	376	ug/kg	75.2	376
86-73-7	Fluorene	U	37.6	ug/kg	11.3	37.6
7005-72-3	4-Chlorophenylphenylether	U	376	ug/kg	75.2	376
534-52-1	2-Methyl-4,6-dinitrophenol	U	376	ug/kg	75.2	376
100-01-6	4-Nitroaniline	U	376	ug/kg	113	376
	p-Nitroaniline					
122-39-4	Diphenylamine	U	376	ug/kg	75.2	376
122-66-7	Azobenzene	U	376	ug/kg	75.2	376
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	376	ug/kg	75.2	376
118-74-1	Hexachlorobenzene	U	376	ug/kg	75.2	376
85-01-8	Phenanthrene	U	37.6	ug/kg	11.3	37.6
120-12-7	Anthracene	U	37.6	ug/kg	7.52	37.6
84-74-2	Di-n-butylphthalate	U	376	ug/kg	75.2	376
206-44-0	Fluoranthene	U	37.6	ug/kg	11.3	37.6
85-68-7	Butylbenzylphthalate	U	376	ug/kg	75.2	376
56-55-3	Benzo(a)anthracene	U	37.6	ug/kg	11.3	37.6
91-94-1	3,3'-Dichlorobenzidine	U	376	ug/kg	113	376
218-01-9	Chrysene	U	37.6	ug/kg	11.3	37.6
117-81-7	bis(2-Ethylhexyl)phthalate	U	376	ug/kg	75.2	376
117-84-0	Di-n-octylphthalate	U	376	ug/kg	75.2	376
205-99-2	Benzo(b)fluoranthene	U	37.6	ug/kg	11.3	37.6
207-08-9	Benzo(k)fluoranthene	U	37.6	ug/kg	11.3	37.6
50-32-8	Benzo(a)pyrene	U	37.6	ug/kg	11.3	37.6
193-39-5	Indeno(1,2,3-cd)pyrene	U	37.6	ug/kg	11.3	37.6
53-70-3	Dibenzo(a,h)anthracene	U	37.6	ug/kg	11.3	37.6
191-24-2	Benzo(ghi)perylene	U	37.6	ug/kg	11.3	37.6
120-82-1	1,2,4-Trichlorobenzene	U	376	ug/kg	75.2	376

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	3.58	656	ug/kg		JA
	Unknown	17.47	202	ug/kg		J

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-940	**Date Collected:**	12/14/2009 12:00	**Matrix:**	S
Lab Sample ID:	243033003	**Date Received:**	12/16/2009 09:10	**%Moisture:**	13.6
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14210	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	934979	**Inst:**	MSD6.I	**Dilution:**	1
Run Date:	12/22/2009 19:43	**Analyst:**	NAG1	**Inj. Vol:**	.5 uL
Prep Date:	12/21/2009 11:03	**Aliquot:**	30.09 g	**Final Volume:**	1 mL
Data File:	s6l2216.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	385	ug/kg	76.9	385
108-95-2	Phenol	U	385	ug/kg	76.9	385
95-57-8	2-Chlorophenol	U	385	ug/kg	76.9	385
106-46-7	1,4-Dichlorobenzene	U	385	ug/kg	76.9	385
621-64-7	N-Nitrosodipropylamine	U	385	ug/kg	76.9	385
59-50-7	4-Chloro-3-methylphenol	U	385	ug/kg	76.9	385
83-32-9	Acenaphthene	U	38.5	ug/kg	12.7	38.5
121-14-2	2,4-Dinitrotoluene	U	385	ug/kg	38.5	385
100-02-7	4-Nitrophenol	U	385	ug/kg	127	385
87-86-5	Pentachlorophenol	U	385	ug/kg	96.2	385
129-00-0	Pyrene	U	38.5	ug/kg	11.5	38.5
110-86-1	Pyridine	U	385	ug/kg	76.9	385
62-53-3	Aniline	U	385	ug/kg	115	385
111-44-4	bis(2-Chloroethyl) ether	U	385	ug/kg	76.9	385
541-73-1	1,3-Dichlorobenzene	U	385	ug/kg	76.9	385
100-51-6	Benzyl alcohol	U	385	ug/kg	115	385
95-50-1	1,2-Dichlorobenzene	U	385	ug/kg	76.9	385
108-60-1	bis(2-Chloroisopropyl)ether	U	385	ug/kg	76.9	385
95-48-7	o-Cresol	U	385	ug/kg	76.9	385
65794-96-9	m,p-Cresols	U	385	ug/kg	115	385
67-72-1	Hexachloroethane	U	385	ug/kg	76.9	385
98-95-3	Nitrobenzene	U	385	ug/kg	76.9	385
78-59-1	Isophorone	U	385	ug/kg	76.9	385
88-75-5	2-Nitrophenol	U	385	ug/kg	76.9	385
105-67-9	2,4-Dimethylphenol	U	385	ug/kg	135	385
111-91-1	bis(2-Chloroethoxy)methane	U	385	ug/kg	76.9	385
120-83-2	2,4-Dichlorophenol	U	385	ug/kg	76.9	385
65-85-0	Benzoic acid	U	769	ug/kg	192	769
91-20-3	Naphthalene	U	38.5	ug/kg	11.5	38.5
106-47-8	4-Chloroaniline	U	385	ug/kg	76.9	385
87-68-3	Hexachlorobutadiene	U	385	ug/kg	76.9	385
91-57-6	2-Methylnaphthalene	U	38.5	ug/kg	7.69	38.5
77-47-4	Hexachlorocyclopentadiene	U	385	ug/kg	76.9	385
88-06-2	2,4,6-Trichlorophenol	U	385	ug/kg	76.9	385
95-95-4	2,4,5-Trichlorophenol	U	385	ug/kg	76.9	385
91-58-7	2-Chloronaphthalene	U	38.5	ug/kg	12.7	38.5
88-74-4	2-Nitroaniline	U	385	ug/kg	76.9	385
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	385	ug/kg	76.9	385

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-940**	**Date Collected:**	**12/14/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243033003**	**Date Received:**	**12/16/2009 09:10**	**%Moisture:**	**13.6**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14210**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**934979**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**12/22/2009 19:43**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/21/2009 11:03**	**Aliquot:**	**30.09 g**	**Final Volume:**	**1 mL**
Data File:	**s6l2216.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	385	ug/kg	76.9	385
606-20-2	2,6-Dinitrotoluene	U	385	ug/kg	38.5	385
208-96-8	Acenaphthylene	U	38.5	ug/kg	11.5	38.5
51-28-5	2,4-Dinitrophenol	U	769	ug/kg	146	769
132-64-9	Dibenzofuran	U	385	ug/kg	76.9	385
84-66-2	Diethylphthalate	U	385	ug/kg	76.9	385
86-73-7	Fluorene	U	38.5	ug/kg	11.5	38.5
7005-72-3	4-Chlorophenylphenylether	U	385	ug/kg	76.9	385
534-52-1	2-Methyl-4,6-dinitrophenol	U	385	ug/kg	76.9	385
100-01-6	4-Nitroaniline	U	385	ug/kg	115	385
	p-Nitroaniline					
122-39-4	Diphenylamine	U	385	ug/kg	76.9	385
122-66-7	Azobenzene	U	385	ug/kg	76.9	385
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	385	ug/kg	76.9	385
118-74-1	Hexachlorobenzene	U	385	ug/kg	76.9	385
85-01-8	Phenanthrene	U	38.5	ug/kg	11.5	38.5
120-12-7	Anthracene	U	38.5	ug/kg	7.69	38.5
84-74-2	Di-n-butylphthalate	U	385	ug/kg	76.9	385
206-44-0	Fluoranthene	U	38.5	ug/kg	11.5	38.5
85-68-7	Butylbenzylphthalate	U	385	ug/kg	76.9	385
56-55-3	Benzo(a)anthracene	U	38.5	ug/kg	11.5	38.5
91-94-1	3,3'-Dichlorobenzidine	U	385	ug/kg	115	385
218-01-9	Chrysene	U	38.5	ug/kg	11.5	38.5
117-81-7	bis(2-Ethylhexyl)phthalate	U	385	ug/kg	76.9	385
117-84-0	Di-n-octylphthalate	U	385	ug/kg	76.9	385
205-99-2	Benzo(b)fluoranthene	U	38.5	ug/kg	11.5	38.5
207-08-9	Benzo(k)fluoranthene	U	38.5	ug/kg	11.5	38.5
50-32-8	Benzo(a)pyrene	U	38.5	ug/kg	11.5	38.5
193-39-5	Indeno(1,2,3-cd)pyrene	U	38.5	ug/kg	11.5	38.5
53-70-3	Dibenzo(a,h)anthracene	U	38.5	ug/kg	11.5	38.5
191-24-2	Benzo(ghi)perylene	U	38.5	ug/kg	11.5	38.5
120-82-1	1,2,4-Trichlorobenzene	U	385	ug/kg	76.9	385

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	3.56	608	ug/kg		JA

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-940	**Date Collected:**	12/14/2009 12:00	**Matrix:**	S
Lab Sample ID:	243033002	**Date Received:**	12/16/2009 09:10	**%Moisture:**	14.3
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14211	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	934979	**Inst:**	MSD6.I	**Dilution:**	1
Run Date:	12/22/2009 19:15	**Analyst:**	NAG1	**Inj. Vol:**	.5 uL
Prep Date:	12/21/2009 11:03	**Aliquot:**	30 g	**Final Volume:**	1 mL
Data File:	s6l2215.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	389	ug/kg	77.8	389
108-95-2	Phenol	U	389	ug/kg	77.8	389
95-57-8	2-Chlorophenol	U	389	ug/kg	77.8	389
106-46-7	1,4-Dichlorobenzene	U	389	ug/kg	77.8	389
621-64-7	N-Nitrosodipropylamine	U	389	ug/kg	77.8	389
59-50-7	4-Chloro-3-methylphenol	U	389	ug/kg	77.8	389
83-32-9	Acenaphthene	U	38.9	ug/kg	12.8	38.9
121-14-2	2,4-Dinitrotoluene	U	389	ug/kg	38.9	389
100-02-7	4-Nitrophenol	U	389	ug/kg	128	389
87-86-5	Pentachlorophenol	U	389	ug/kg	97.3	389
129-00-0	Pyrene	U	38.9	ug/kg	11.7	38.9
110-86-1	Pyridine	U	389	ug/kg	77.8	389
62-53-3	Aniline	U	389	ug/kg	117	389
111-44-4	bis(2-Chloroethyl) ether	U	389	ug/kg	77.8	389
541-73-1	1,3-Dichlorobenzene	U	389	ug/kg	77.8	389
100-51-6	Benzyl alcohol	U	389	ug/kg	117	389
95-50-1	1,2-Dichlorobenzene	U	389	ug/kg	77.8	389
108-60-1	bis(2-Chloroisopropyl)ether	U	389	ug/kg	77.8	389
95-48-7	o-Cresol	U	389	ug/kg	77.8	389
65794-96-9	m,p-Cresols	U	389	ug/kg	117	389
67-72-1	Hexachloroethane	U	389	ug/kg	77.8	389
98-95-3	Nitrobenzene	U	389	ug/kg	77.8	389
78-59-1	Isophorone	U	389	ug/kg	77.8	389
88-75-5	2-Nitrophenol	U	389	ug/kg	77.8	389
105-67-9	2,4-Dimethylphenol	U	389	ug/kg	136	389
111-91-1	bis(2-Chloroethoxy)methane	U	389	ug/kg	77.8	389
120-83-2	2,4-Dichlorophenol	U	389	ug/kg	77.8	389
65-85-0	Benzoic acid	U	778	ug/kg	195	778
91-20-3	Naphthalene	U	38.9	ug/kg	11.7	38.9
106-47-8	4-Chloroaniline	U	389	ug/kg	77.8	389
87-68-3	Hexachlorobutadiene	U	389	ug/kg	77.8	389
91-57-6	2-Methylnaphthalene	U	38.9	ug/kg	7.78	38.9
77-47-4	Hexachlorocyclopentadiene	U	389	ug/kg	77.8	389
88-06-2	2,4,6-Trichlorophenol	U	389	ug/kg	77.8	389
95-95-4	2,4,5-Trichlorophenol	U	389	ug/kg	77.8	389
91-58-7	2-Chloronaphthalene	U	38.9	ug/kg	12.8	38.9
88-74-4	2-Nitroaniline	U	389	ug/kg	77.8	389
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	389	ug/kg	77.8	389

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-940**	**Date Collected:**	**12/14/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243033002**	**Date Received:**	**12/16/2009 09:10**	**%Moisture:**	**14.3**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14211**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**934979**	**Inst:**	**MSD6.1**	**Dilution:**	**1**
Run Date:	**12/22/2009 19:15**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/21/2009 11:03**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**s6l2215.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	389	ug/kg	77.8	389
606-20-2	2,6-Dinitrotoluene	U	389	ug/kg	38.9	389
208-96-8	Acenaphthylene	U	38.9	ug/kg	11.7	38.9
51-28-5	2,4-Dinitrophenol	U	778	ug/kg	148	778
132-64-9	Dibenzofuran	U	389	ug/kg	77.8	389
84-66-2	Diethylphthalate	U	389	ug/kg	77.8	389
86-73-7	Fluorene	U	38.9	ug/kg	11.7	38.9
7005-72-3	4-Chlorophenylphenylether	U	389	ug/kg	77.8	389
534-52-1	2-Methyl-4,6-dinitrophenol	U	389	ug/kg	77.8	389
100-01-6	4-Nitroaniline	U	389	ug/kg	117	389
	p-Nitroaniline					
122-39-4	Diphenylamine	U	389	ug/kg	77.8	389
122-66-7	Azobenzene	U	389	ug/kg	77.8	389
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	389	ug/kg	77.8	389
118-74-1	Hexachlorobenzene	U	389	ug/kg	77.8	389
85-01-8	Phenanthrene	U	38.9	ug/kg	11.7	38.9
120-12-7	Anthracene	U	38.9	ug/kg	7.78	38.9
84-74-2	Di-n-butylphthalate	U	389	ug/kg	77.8	389
206-44-0	Fluoranthene	U	38.9	ug/kg	11.7	38.9
85-68-7	Butylbenzylphthalate	U	389	ug/kg	77.8	389
56-55-3	Benzo(a)anthracene	U	38.9	ug/kg	11.7	38.9
91-94-1	3,3'-Dichlorobenzidine	U	389	ug/kg	117	389
218-01-9	Chrysene	U	38.9	ug/kg	11.7	38.9
117-81-7	bis(2-Ethylhexyl)phthalate	U	389	ug/kg	77.8	389
117-84-0	Di-n-octylphthalate	U	389	ug/kg	77.8	389
205-99-2	Benzo(b)fluoranthene	U	38.9	ug/kg	11.7	38.9
207-08-9	Benzo(k)fluoranthene	U	38.9	ug/kg	11.7	38.9
50-32-8	Benzo(a)pyrene	U	38.9	ug/kg	11.7	38.9
193-39-5	Indeno(1,2,3-cd)pyrene	U	38.9	ug/kg	11.7	38.9
53-70-3	Dibenzo(a,h)anthracene	U	38.9	ug/kg	11.7	38.9
191-24-2	Benzo(ghi)perylene	U	38.9	ug/kg	11.7	38.9
120-82-1	1,2,4-Trichlorobenzene	U	389	ug/kg	77.8	389

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	3.57	657	ug/kg		JA

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-940	**Date Collected:**	12/14/2009 12:00	**Matrix:**	S
Lab Sample ID:	243033008	**Date Received:**	12/16/2009 09:10	**%Moisture:**	15.6
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14220	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	934979	**Inst:**	MSD6.I	**Dilution:**	1
Run Date:	12/22/2009 22:01	**Analyst:**	NAG1	**Inj. Vol:**	.5 uL
Prep Date:	12/21/2009 11:03	**Aliquot:**	30.02 g	**Final Volume:**	1 mL
Data File:	s6l2221.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	395	ug/kg	78.9	395
108-95-2	Phenol	U	395	ug/kg	78.9	395
95-57-8	2-Chlorophenol	U	395	ug/kg	78.9	395
106-46-7	1,4-Dichlorobenzene	U	395	ug/kg	78.9	395
621-64-7	N-Nitrosodipropylamine	U	395	ug/kg	78.9	395
59-50-7	4-Chloro-3-methylphenol	U	395	ug/kg	78.9	395
83-32-9	Acenaphthene		217	ug/kg	13.0	39.5
121-14-2	2,4-Dinitrotoluene	U	395	ug/kg	39.5	395
100-02-7	4-Nitrophenol	U	395	ug/kg	130	395
87-86-5	Pentachlorophenol	U	395	ug/kg	98.6	395
129-00-0	Pyrene		2990	ug/kg	11.8	39.5
110-86-1	Pyridine	U	395	ug/kg	78.9	395
62-53-3	Aniline	U	395	ug/kg	118	395
111-44-4	bis(2-Chloroethyl) ether	U	395	ug/kg	78.9	395
541-73-1	1,3-Dichlorobenzene	U	395	ug/kg	78.9	395
100-51-6	Benzyl alcohol	U	395	ug/kg	118	395
95-50-1	1,2-Dichlorobenzene	U	395	ug/kg	78.9	395
108-60-1	bis(2-Chloroisopropyl)ether	U	395	ug/kg	78.9	395
95-48-7	o-Cresol	U	395	ug/kg	78.9	395
65794-96-9	m,p-Cresols	U	395	ug/kg	118	395
67-72-1	Hexachloroethane	U	395	ug/kg	78.9	395
98-95-3	Nitrobenzene	U	395	ug/kg	78.9	395
78-59-1	Isophorone	U	395	ug/kg	78.9	395
88-75-5	2-Nitrophenol	U	395	ug/kg	78.9	395
105-67-9	2,4-Dimethylphenol	U	395	ug/kg	138	395
111-91-1	bis(2-Chloroethoxy)methane	U	395	ug/kg	78.9	395
120-83-2	2,4-Dichlorophenol	U	395	ug/kg	78.9	395
65-85-0	Benzoic acid	U	789	ug/kg	197	789
91-20-3	Naphthalene		106	ug/kg	11.8	39.5
106-47-8	4-Chloroaniline	U	395	ug/kg	78.9	395
87-68-3	Hexachlorobutadiene	U	395	ug/kg	78.9	395
91-57-6	2-Methylnaphthalene	J	37.2	ug/kg	7.89	39.5
77-47-4	Hexachlorocyclopentadiene	U	395	ug/kg	78.9	395
88-06-2	2,4,6-Trichlorophenol	U	395	ug/kg	78.9	395
95-95-4	2,4,5-Trichlorophenol	U	395	ug/kg	78.9	395
91-58-7	2-Chloronaphthalene	U	39.5	ug/kg	13.0	39.5
88-74-4	2-Nitroaniline	U	395	ug/kg	78.9	395
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	395	ug/kg	78.9	395

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-940**	**Date Collected:**	**12/14/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243033008**	**Date Received:**	**12/16/2009 09:10**	**%Moisture:**	**15.6**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14220**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**934979**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**12/22/2009 22:01**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/21/2009 11:03**	**Aliquot:**	**30.02 g**	**Final Volume:**	**1 mL**
Data File:	**s6l2221.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	395	ug/kg	78.9	395
606-20-2	2,6-Dinitrotoluene	U	395	ug/kg	39.5	395
208-96-8	Acenaphthylene	U	39.5	ug/kg	11.8	39.5
51-28-5	2,4-Dinitrophenol	U	789	ug/kg	150	789
132-64-9	Dibenzofuran	J	150	ug/kg	78.9	395
84-66-2	Diethylphthalate	U	395	ug/kg	78.9	395
86-73-7	Fluorene		252	ug/kg	11.8	39.5
7005-72-3	4-Chlorophenylphenylether	U	395	ug/kg	78.9	395
534-52-1	2-Methyl-4,6-dinitrophenol	U	395	ug/kg	78.9	395
100-01-6	4-Nitroaniline	U	395	ug/kg	118	395
	p-Nitroaniline					
122-39-4	Diphenylamine	U	395	ug/kg	78.9	395
122-66-7	Azobenzene	U	395	ug/kg	78.9	395
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	395	ug/kg	78.9	395
118-74-1	Hexachlorobenzene	U	395	ug/kg	78.9	395
85-01-8	Phenanthrene		2350	ug/kg	11.8	39.5
120-12-7	Anthracene		690	ug/kg	7.89	39.5
84-74-2	Di-n-butylphthalate	J	118	ug/kg	78.9	395
206-44-0	Fluoranthene		3990	ug/kg	11.8	39.5
85-68-7	Butylbenzylphthalate	U	395	ug/kg	78.9	395
56-55-3	Benzo(a)anthracene		2330	ug/kg	11.8	39.5
91-94-1	3,3'-Dichlorobenzidine	U	395	ug/kg	118	395
218-01-9	Chrysene		2290	ug/kg	11.8	39.5
117-81-7	bis(2-Ethylhexyl)phthalate	J	91.0	ug/kg	78.9	395
117-84-0	Di-n-octylphthalate	U	395	ug/kg	78.9	395
205-99-2	Benzo(b)fluoranthene		3060	ug/kg	11.8	39.5
207-08-9	Benzo(k)fluoranthene		975	ug/kg	11.8	39.5
50-32-8	Benzo(a)pyrene		2180	ug/kg	11.8	39.5
193-39-5	Indeno(1,2,3-cd)pyrene		1050	ug/kg	11.8	39.5
53-70-3	Dibenzo(a,h)anthracene		401	ug/kg	11.8	39.5
191-24-2	Benzo(ghi)perylene		973	ug/kg	11.8	39.5
120-82-1	1,2,4-Trichlorobenzene	U	395	ug/kg	78.9	395

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	3.57	619	ug/kg		JA
86-74-8	Carbazole	9.99	281	ug/kg	93	NJ

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-940**	**Date Collected:**	**12/14/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243033008**	**Date Received:**	**12/16/2009 09:10**	**%Moisture:**	**15.6**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14220**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**934979**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**12/22/2009 22:01**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/21/2009 11:03**	**Aliquot:**	**30.02 g**	**Final Volume:**	**1 mL**
Data File:	**s6l2221.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
2531-84-2	Phenanthrene, 2-methyl-	10.28	186	ug/kg	98	NJ
203-64-5	4H-Cyclopenta[def]phenanthrene	10.41	318	ug/kg	96	NJ
243-17-4	11H-Benzo[b]fluorene	11.68	204	ug/kg	95	NJ
112-84-5	13-Docosenamide, (Z)-	14.05	290	ug/kg	93	NJ
198-55-0	Perylene	15.28	548	ug/kg	99	NJ
112-95-8	Eicosane	16	227	ug/kg	98	NJ
214-17-5	Benzo[b]chrysene	17.47	405	ug/kg	97	NJ

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-940	**Date Collected:**	12/14/2009 12:00	**Matrix:**	S
Lab Sample ID:	243033001	**Date Received:**	12/16/2009 09:10	**%Moisture:**	14.8
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14221	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	934979	**Inst:**	MSD6.I	**Dilution:**	1
Run Date:	12/22/2009 17:52	**Analyst:**	NAG1	**Inj. Vol:**	.5 uL
Prep Date:	12/21/2009 11:03	**Aliquot:**	30.07 g	**Final Volume:**	1 mL
Data File:	s612212.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	390	ug/kg	78.0	390
108-95-2	Phenol	U	390	ug/kg	78.0	390
95-57-8	2-Chlorophenol	U	390	ug/kg	78.0	390
106-46-7	1,4-Dichlorobenzene	U	390	ug/kg	78.0	390
621-64-7	N-Nitrosodipropylamine	U	390	ug/kg	78.0	390
59-50-7	4-Chloro-3-methylphenol	U	390	ug/kg	78.0	390
83-32-9	Acenaphthene	U	39.0	ug/kg	12.9	39.0
121-14-2	2,4-Dinitrotoluene	U	390	ug/kg	39.0	390
100-02-7	4-Nitrophenol	U	390	ug/kg	129	390
87-86-5	Pentachlorophenol	U	390	ug/kg	97.5	390
129-00-0	Pyrene	U	39.0	ug/kg	11.7	39.0
110-86-1	Pyridine	U	390	ug/kg	78.0	390
62-53-3	Aniline	U	390	ug/kg	117	390
111-44-4	bis(2-Chloroethyl) ether	U	390	ug/kg	78.0	390
541-73-1	1,3-Dichlorobenzene	U	390	ug/kg	78.0	390
100-51-6	Benzyl alcohol	U	390	ug/kg	117	390
95-50-1	1,2-Dichlorobenzene	U	390	ug/kg	78.0	390
108-60-1	bis(2-Chloroisopropyl)ether	U	390	ug/kg	78.0	390
95-48-7	o-Cresol	U	390	ug/kg	78.0	390
65794-96-9	m,p-Cresols	U	390	ug/kg	117	390
67-72-1	Hexachloroethane	U	390	ug/kg	78.0	390
98-95-3	Nitrobenzene	U	390	ug/kg	78.0	390
78-59-1	Isophorone	U	390	ug/kg	78.0	390
88-75-5	2-Nitrophenol	U	390	ug/kg	78.0	390
105-67-9	2,4-Dimethylphenol	U	390	ug/kg	137	390
111-91-1	bis(2-Chloroethoxy)methane	U	390	ug/kg	78.0	390
120-83-2	2,4-Dichlorophenol	U	390	ug/kg	78.0	390
65-85-0	Benzoic acid	U	780	ug/kg	195	780
91-20-3	Naphthalene	U	39.0	ug/kg	11.7	39.0
106-47-8	4-Chloroaniline	U	390	ug/kg	78.0	390
87-68-3	Hexachlorobutadiene	U	390	ug/kg	78.0	390
91-57-6	2-Methylnaphthalene	U	39.0	ug/kg	7.80	39.0
77-47-4	Hexachlorocyclopentadiene	U	390	ug/kg	78.0	390
88-06-2	2,4,6-Trichlorophenol	U	390	ug/kg	78.0	390
95-95-4	2,4,5-Trichlorophenol	U	390	ug/kg	78.0	390
91-58-7	2-Chloronaphthalene	U	39.0	ug/kg	12.9	39.0
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	390	ug/kg	78.0	390
99-09-2	3-Nitroaniline	U	390	ug/kg	78.0	390

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-940	**Date Collected:**	12/14/2009 12:00	**Matrix:**	S
Lab Sample ID:	243033001	**Date Received:**	12/16/2009 09:10	**%Moisture:**	14.8
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14221	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	934979	**Inst:**	MSD6.I	**Dilution:**	1
Run Date:	12/22/2009 17:52	**Analyst:**	NAG1	**Inj. Vol:**	.5 uL
Prep Date:	12/21/2009 11:03	**Aliquot:**	30.07 g	**Final Volume:**	1 mL
Data File:	s612212.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	390	ug/kg	78.0	390
606-20-2	2,6-Dinitrotoluene	U	390	ug/kg	39.0	390
208-96-8	Acenaphthylene	U	39.0	ug/kg	11.7	39.0
51-28-5	2,4-Dinitrophenol	U	780	ug/kg	148	780
132-64-9	Dibenzofuran	U	390	ug/kg	78.0	390
84-66-2	Diethylphthalate	U	390	ug/kg	78.0	390
86-73-7	Fluorene	U	39.0	ug/kg	11.7	39.0
7005-72-3	4-Chlorophenylphenylether	U	390	ug/kg	78.0	390
534-52-1	2-Methyl-4,6-dinitrophenol	U	390	ug/kg	78.0	390
100-01-6	4-Nitroaniline	U	390	ug/kg	117	390
	p-Nitroaniline					
122-39-4	Diphenylamine	U	390	ug/kg	78.0	390
122-66-7	Azobenzene	U	390	ug/kg	78.0	390
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	390	ug/kg	78.0	390
118-74-1	Hexachlorobenzene	U	390	ug/kg	78.0	390
85-01-8	Phenanthrene	U	39.0	ug/kg	11.7	39.0
120-12-7	Anthracene	U	39.0	ug/kg	7.80	39.0
84-74-2	Di-n-butylphthalate	U	390	ug/kg	78.0	390
206-44-0	Fluoranthene	U	39.0	ug/kg	11.7	39.0
85-68-7	Butylbenzylphthalate	U	390	ug/kg	78.0	390
56-55-3	Benzo(a)anthracene	U	39.0	ug/kg	11.7	39.0
91-94-1	3,3'-Dichlorobenzidine	U	390	ug/kg	117	390
218-01-9	Chrysene	U	39.0	ug/kg	11.7	39.0
117-81-7	bis(2-Ethylhexyl)phthalate	U	390	ug/kg	78.0	390
117-84-0	Di-n-octylphthalate	U	390	ug/kg	78.0	390
205-99-2	Benzo(b)fluoranthene	U	39.0	ug/kg	11.7	39.0
207-08-9	Benzo(k)fluoranthene	U	39.0	ug/kg	11.7	39.0
50-32-8	Benzo(a)pyrene	U	39.0	ug/kg	11.7	39.0
193-39-5	Indeno(1,2,3-cd)pyrene	U	39.0	ug/kg	11.7	39.0
53-70-3	Dibenzo(a,h)anthracene	U	39.0	ug/kg	11.7	39.0
191-24-2	Benzo(ghi)perylene	U	39.0	ug/kg	11.7	39.0
120-82-1	1,2,4-Trichlorobenzene	U	390	ug/kg	78.0	390

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	3.57	483	ug/kg		JA

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-940	Date Collected:	12/14/2009 12:00	Matrix:	S
Lab Sample ID:	243033006	Date Received:	12/16/2009 09:10	%Moisture:	19.5
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14222	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	936371	Inst:	MSD1.I	Dilution:	1
Run Date:	12/30/2009 14:57	Analyst:	AMY	Inj. Vol:	.5 uL
Prep Date:	12/24/2009 08:22	Aliquot:	30.06 g	Final Volume:	1 mL
Data File:	s113013.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	413	ug/kg	82.6	413
108-95-2	Phenol	U	413	ug/kg	82.6	413
95-57-8	2-Chlorophenol	U	413	ug/kg	82.6	413
106-46-7	1,4-Dichlorobenzene	U	413	ug/kg	82.6	413
621-64-7	N-Nitrosodipropylamine	U	413	ug/kg	82.6	413
59-50-7	4-Chloro-3-methylphenol	U	413	ug/kg	82.6	413
83-32-9	Acenaphthene	U	41.3	ug/kg	13.6	41.3
121-14-2	2,4-Dinitrotoluene	U	413	ug/kg	41.3	413
100-02-7	4-Nitrophenol	U	413	ug/kg	136	413
87-86-5	Pentachlorophenol	U	413	ug/kg	103	413
129-00-0	Pyrene	U	41.3	ug/kg	12.4	41.3
110-86-1	Pyridine	U	413	ug/kg	82.6	413
62-53-3	Aniline	U	413	ug/kg	124	413
111-44-4	bis(2-Chloroethyl) ether	U	413	ug/kg	82.6	413
541-73-1	1,3-Dichlorobenzene	U	413	ug/kg	82.6	413
100-51-6	Benzyl alcohol	U	413	ug/kg	124	413
95-50-1	1,2-Dichlorobenzene	U	413	ug/kg	82.6	413
108-60-1	bis(2-Chloroisopropyl)ether	U	413	ug/kg	82.6	413
95-48-7	o-Cresol	U	413	ug/kg	82.6	413
65794-96-9	m,p-Cresols	U	413	ug/kg	124	413
67-72-1	Hexachloroethane	U	413	ug/kg	82.6	413
98-95-3	Nitrobenzene	U	413	ug/kg	82.6	413
78-59-1	Isophorone	U	413	ug/kg	82.6	413
88-75-5	2-Nitrophenol	U	413	ug/kg	82.6	413
105-67-9	2,4-Dimethylphenol	U	413	ug/kg	145	413
111-91-1	bis(2-Chloroethoxy)methane	U	413	ug/kg	82.6	413
120-83-2	2,4-Dichlorophenol	U	413	ug/kg	82.6	413
65-85-0	Benzoic acid	U	826	ug/kg	207	826
91-20-3	Naphthalene	U	41.3	ug/kg	12.4	41.3
106-47-8	4-Chloroaniline	U	413	ug/kg	82.6	413
87-68-3	Hexachlorobutadiene	U	413	ug/kg	82.6	413
91-57-6	2-Methylnaphthalene	J	10.5	ug/kg	8.26	41.3
77-47-4	Hexachlorocyclopentadiene	U	413	ug/kg	82.6	413
88-06-2	2,4,6-Trichlorophenol	U	413	ug/kg	82.6	413
95-95-4	2,4,5-Trichlorophenol	U	413	ug/kg	82.6	413
91-58-7	2-Chloronaphthalene	U	41.3	ug/kg	13.6	41.3
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	413	ug/kg	82.6	413
99-09-2	3-Nitroaniline	U	413	ug/kg	82.6	413

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-940	**Date Collected:**	12/14/2009 12:00	**Matrix:**	S
Lab Sample ID:	243033006	**Date Received:**	12/16/2009 09:10	**%Moisture:**	19.5
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14222	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	936371	**Inst:**	MSD1.I	**Dilution:**	1
Run Date:	12/30/2009 14:57	**Analyst:**	AMY	**Inj. Vol:**	.5 uL
Prep Date:	12/24/2009 08:22	**Aliquot:**	30.06 g	**Final Volume:**	1 mL
Data File:	s1l3013.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	413	ug/kg	82.6	413
606-20-2	2,6-Dinitrotoluene	U	413	ug/kg	41.3	413
208-96-8	Acenaphthylene	U	41.3	ug/kg	12.4	41.3
51-28-5	2,4-Dinitrophenol	U	826	ug/kg	157	826
132-64-9	Dibenzofuran	U	413	ug/kg	82.6	413
84-66-2	Diethylphthalate	U	413	ug/kg	82.6	413
86-73-7	Fluorene	U	41.3	ug/kg	12.4	41.3
7005-72-3	4-Chlorophenylphenylether	U	413	ug/kg	82.6	413
534-52-1	2-Methyl-4,6-dinitrophenol	U	413	ug/kg	82.6	413
100-01-6	4-Nitroaniline	U	413	ug/kg	124	413
	p-Nitroaniline					
122-39-4	Diphenylamine	U	413	ug/kg	82.6	413
122-66-7	Azobenzene	U	413	ug/kg	82.6	413
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	413	ug/kg	82.6	413
118-74-1	Hexachlorobenzene	U	413	ug/kg	82.6	413
85-01-8	Phenanthrene	U	41.3	ug/kg	12.4	41.3
120-12-7	Anthracene	U	41.3	ug/kg	8.26	41.3
84-74-2	Di-n-butylphthalate	U	413	ug/kg	82.6	413
206-44-0	Fluoranthene	U	41.3	ug/kg	12.4	41.3
85-68-7	Butylbenzylphthalate	U	413	ug/kg	82.6	413
56-55-3	Benzo(a)anthracene	U	41.3	ug/kg	12.4	41.3
91-94-1	3,3'-Dichlorobenzidine	U	413	ug/kg	124	413
218-01-9	Chrysene	U	41.3	ug/kg	12.4	41.3
117-81-7	bis(2-Ethylhexyl)phthalate	U	413	ug/kg	82.6	413
117-84-0	Di-n-octylphthalate	U	413	ug/kg	82.6	413
205-99-2	Benzo(b)fluoranthene	U	41.3	ug/kg	12.4	41.3
207-08-9	Benzo(k)fluoranthene	U	41.3	ug/kg	12.4	41.3
50-32-8	Benzo(a)pyrene	U	41.3	ug/kg	12.4	41.3
193-39-5	Indeno(1,2,3-cd)pyrene	U	41.3	ug/kg	12.4	41.3
53-70-3	Dibenzo(a,h)anthracene	U	41.3	ug/kg	12.4	41.3
191-24-2	Benzo(ghi)perylene	U	41.3	ug/kg	12.4	41.3
120-82-1	1,2,4-Trichlorobenzene	U	413	ug/kg	82.6	413

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.81	544	ug/kg		JA
629-59-4	Tetradecane	5.38	178	ug/kg	95	NJ

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-940	Date Collected:	12/14/2009 12:00	Matrix:	S
Lab Sample ID:	243033007	Date Received:	12/16/2009 09:10	%Moisture:	10.8
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14223	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	934979	Inst:	MSD6.I	Dilution:	1
Run Date:	12/22/2009 21:34	Analyst:	NAG1	Inj. Vol:	.5 uL
Prep Date:	12/21/2009 11:03	Aliquot:	30.04 g	Final Volume:	1 mL
Data File:	s612220.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	373	ug/kg	74.6	373
108-95-2	Phenol	U	373	ug/kg	74.6	373
95-57-8	2-Chlorophenol	U	373	ug/kg	74.6	373
106-46-7	1,4-Dichlorobenzene	U	373	ug/kg	74.6	373
621-64-7	N-Nitrosodipropylamine	U	373	ug/kg	74.6	373
59-50-7	4-Chloro-3-methylphenol	U	373	ug/kg	74.6	373
83-32-9	Acenaphthene	U	37.3	ug/kg	12.3	37.3
121-14-2	2,4-Dinitrotoluene	U	373	ug/kg	37.3	373
100-02-7	4-Nitrophenol	U	373	ug/kg	123	373
87-86-5	Pentachlorophenol	U	373	ug/kg	93.3	373
129-00-0	Pyrene	U	37.3	ug/kg	11.2	37.3
110-86-1	Pyridine	U	373	ug/kg	74.6	373
62-53-3	Aniline	U	373	ug/kg	112	373
111-44-4	bis(2-Chloroethyl) ether	U	373	ug/kg	74.6	373
541-73-1	1,3-Dichlorobenzene	U	373	ug/kg	74.6	373
100-51-6	Benzyl alcohol	U	373	ug/kg	112	373
95-50-1	1,2-Dichlorobenzene	U	373	ug/kg	74.6	373
108-60-1	bis(2-Chloroisopropyl)ether	U	373	ug/kg	74.6	373
95-48-7	o-Cresol	U	373	ug/kg	74.6	373
65794-96-9	m,p-Cresols	U	373	ug/kg	112	373
67-72-1	Hexachloroethane	U	373	ug/kg	74.6	373
98-95-3	Nitrobenzene	U	373	ug/kg	74.6	373
78-59-1	Isophorone	U	373	ug/kg	74.6	373
88-75-5	2-Nitrophenol	U	373	ug/kg	74.6	373
105-67-9	2,4-Dimethylphenol	U	373	ug/kg	131	373
111-91-1	bis(2-Chloroethoxy)methane	U	373	ug/kg	74.6	373
120-83-2	2,4-Dichlorophenol	U	373	ug/kg	74.6	373
65-85-0	Benzoic acid	U	746	ug/kg	187	746
91-20-3	Naphthalene	U	37.3	ug/kg	11.2	37.3
106-47-8	4-Chloroaniline	U	373	ug/kg	74.6	373
87-68-3	Hexachlorobutadiene	U	373	ug/kg	74.6	373
91-57-6	2-Methylnaphthalene	U	37.3	ug/kg	7.46	37.3
77-47-4	Hexachlorocyclopentadiene	U	373	ug/kg	74.6	373
88-06-2	2,4,6-Trichlorophenol	U	373	ug/kg	74.6	373
95-95-4	2,4,5-Trichlorophenol	U	373	ug/kg	74.6	373
91-58-7	2-Chloronaphthalene	U	37.3	ug/kg	12.3	37.3
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	373	ug/kg	74.6	373
99-09-2	3-Nitroaniline	U	373	ug/kg	74.6	373

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-940**	**Date Collected:**	**12/14/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243033007**	**Date Received:**	**12/16/2009 09:10**	**%Moisture:**	**10.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14223**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**934979**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**12/22/2009 21:34**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/21/2009 11:03**	**Aliquot:**	**30.04 g**	**Final Volume:**	**1 mL**
Data File:	**s612220.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	373	ug/kg	74.6	373
606-20-2	2,6-Dinitrotoluene	U	373	ug/kg	37.3	373
208-96-8	Acenaphthylene	U	37.3	ug/kg	11.2	37.3
51-28-5	2,4-Dinitrophenol	U	746	ug/kg	142	746
132-64-9	Dibenzofuran	U	373	ug/kg	74.6	373
84-66-2	Diethylphthalate	U	373	ug/kg	74.6	373
86-73-7	Fluorene	U	37.3	ug/kg	11.2	37.3
7005-72-3	4-Chlorophenylphenylether	U	373	ug/kg	74.6	373
534-52-1	2-Methyl-4,6-dinitrophenol	U	373	ug/kg	74.6	373
100-01-6	4-Nitroaniline	U	373	ug/kg	112	373
	p-Nitroaniline					
122-39-4	Diphenylamine	U	373	ug/kg	74.6	373
122-66-7	Azobenzene	U	373	ug/kg	74.6	373
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	373	ug/kg	74.6	373
118-74-1	Hexachlorobenzene	U	373	ug/kg	74.6	373
85-01-8	Phenanthrene	U	37.3	ug/kg	11.2	37.3
120-12-7	Anthracene	U	37.3	ug/kg	7.46	37.3
84-74-2	Di-n-butylphthalate	U	373	ug/kg	74.6	373
206-44-0	Fluoranthene	U	37.3	ug/kg	11.2	37.3
85-68-7	Butylbenzylphthalate	U	373	ug/kg	74.6	373
56-55-3	Benzo(a)anthracene	U	37.3	ug/kg	11.2	37.3
91-94-1	3,3'-Dichlorobenzidine	U	373	ug/kg	112	373
218-01-9	Chrysene	U	37.3	ug/kg	11.2	37.3
117-81-7	bis(2-Ethylhexyl)phthalate	J	94.9	ug/kg	74.6	373
117-84-0	Di-n-octylphthalate	U	373	ug/kg	74.6	373
205-99-2	Benzo(b)fluoranthene	U	37.3	ug/kg	11.2	37.3
207-08-9	Benzo(k)fluoranthene	U	37.3	ug/kg	11.2	37.3
50-32-8	Benzo(a)pyrene	U	37.3	ug/kg	11.2	37.3
193-39-5	Indeno(1,2,3-cd)pyrene	U	37.3	ug/kg	11.2	37.3
53-70-3	Dibenzo(a,h)anthracene	U	37.3	ug/kg	11.2	37.3
191-24-2	Benzo(ghi)perylene	U	37.3	ug/kg	11.2	37.3
120-82-1	1,2,4-Trichlorobenzene	U	373	ug/kg	74.6	373

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	3.57	531	ug/kg		JA

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-940**	**Date Collected:**	**12/14/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243033009**	**Date Received:**	**12/16/2009 09:10**	**%Moisture:**	**19.3**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-10-2734**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**934979**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**12/22/2009 22:28**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/21/2009 11:03**	**Aliquot:**	**30.04 g**	**Final Volume:**	**1 mL**
Data File:	**s6l2222.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	413	ug/kg	82.5	413
108-95-2	Phenol	U	413	ug/kg	82.5	413
95-57-8	2-Chlorophenol	U	413	ug/kg	82.5	413
106-46-7	1,4-Dichlorobenzene	U	413	ug/kg	82.5	413
621-64-7	N-Nitrosodipropylamine	U	413	ug/kg	82.5	413
59-50-7	4-Chloro-3-methylphenol	U	413	ug/kg	82.5	413
83-32-9	Acenaphthene	U	41.3	ug/kg	13.6	41.3
121-14-2	2,4-Dinitrotoluene	U	413	ug/kg	41.3	413
100-02-7	4-Nitrophenol	U	413	ug/kg	136	413
87-86-5	Pentachlorophenol	U	413	ug/kg	103	413
129-00-0	Pyrene	U	41.3	ug/kg	12.4	41.3
110-86-1	Pyridine	U	413	ug/kg	82.5	413
62-53-3	Aniline	U	413	ug/kg	124	413
111-44-4	bis(2-Chloroethyl) ether	U	413	ug/kg	82.5	413
541-73-1	1,3-Dichlorobenzene	U	413	ug/kg	82.5	413
100-51-6	Benzyl alcohol	U	413	ug/kg	124	413
95-50-1	1,2-Dichlorobenzene	U	413	ug/kg	82.5	413
108-60-1	bis(2-Chloroisopropyl)ether	U	413	ug/kg	82.5	413
95-48-7	o-Cresol	U	413	ug/kg	82.5	413
65794-96-9	m,p-Cresols	U	413	ug/kg	124	413
67-72-1	Hexachloroethane	U	413	ug/kg	82.5	413
98-95-3	Nitrobenzene	U	413	ug/kg	82.5	413
78-59-1	Isophorone	U	413	ug/kg	82.5	413
88-75-5	2-Nitrophenol	U	413	ug/kg	82.5	413
105-67-9	2,4-Dimethylphenol	U	413	ug/kg	144	413
111-91-1	bis(2-Chloroethoxy)methane	U	413	ug/kg	82.5	413
120-83-2	2,4-Dichlorophenol	U	413	ug/kg	82.5	413
65-85-0	Benzoic acid	U	825	ug/kg	206	825
91-20-3	Naphthalene	U	41.3	ug/kg	12.4	41.3
106-47-8	4-Chloroaniline	U	413	ug/kg	82.5	413
87-68-3	Hexachlorobutadiene	U	413	ug/kg	82.5	413
91-57-6	2-Methylnaphthalene	U	41.3	ug/kg	8.25	41.3
77-47-4	Hexachlorocyclopentadiene	U	413	ug/kg	82.5	413
88-06-2	2,4,6-Trichlorophenol	U	413	ug/kg	82.5	413
95-95-4	2,4,5-Trichlorophenol	U	413	ug/kg	82.5	413
91-58-7	2-Chloronaphthalene	U	41.3	ug/kg	13.6	41.3
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	413	ug/kg	82.5	413
99-09-2	3-Nitroaniline	U	413	ug/kg	82.5	413

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-940**	**Date Collected:**	**12/14/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243033009**	**Date Received:**	**12/16/2009 09:10**	**%Moisture:**	**19.3**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-10-2734**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**934979**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**12/22/2009 22:28**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/21/2009 11:03**	**Aliquot:**	**30.04 g**	**Final Volume:**	**1 mL**
Data File:	**s612222.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	413	ug/kg	82.5	413
606-20-2	2,6-Dinitrotoluene	U	413	ug/kg	41.3	413
208-96-8	Acenaphthylene	U	41.3	ug/kg	12.4	41.3
51-28-5	2,4-Dinitrophenol	U	825	ug/kg	157	825
132-64-9	Dibenzofuran	U	413	ug/kg	82.5	413
84-66-2	Diethylphthalate	U	413	ug/kg	82.5	413
86-73-7	Fluorene	U	41.3	ug/kg	12.4	41.3
7005-72-3	4-Chlorophenylphenylether	U	413	ug/kg	82.5	413
534-52-1	2-Methyl-4,6-dinitrophenol	U	413	ug/kg	82.5	413
100-01-6	4-Nitroaniline	U	413	ug/kg	124	413
	p-Nitroaniline					
122-39-4	Diphenylamine	U	413	ug/kg	82.5	413
122-66-7	Azobenzene	U	413	ug/kg	82.5	413
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	413	ug/kg	82.5	413
118-74-1	Hexachlorobenzene	U	413	ug/kg	82.5	413
85-01-8	Phenanthrene	U	41.3	ug/kg	12.4	41.3
120-12-7	Anthracene	U	41.3	ug/kg	8.25	41.3
84-74-2	Di-n-butylphthalate	U	413	ug/kg	82.5	413
206-44-0	Fluoranthene	U	41.3	ug/kg	12.4	41.3
85-68-7	Butylbenzylphthalate	U	413	ug/kg	82.5	413
56-55-3	Benzo(a)anthracene	U	41.3	ug/kg	12.4	41.3
91-94-1	3,3'-Dichlorobenzidine	U	413	ug/kg	124	413
218-01-9	Chrysene	U	41.3	ug/kg	12.4	41.3
117-81-7	bis(2-Ethylhexyl)phthalate	U	413	ug/kg	82.5	413
117-84-0	Di-n-octylphthalate	U	413	ug/kg	82.5	413
205-99-2	Benzo(b)fluoranthene	U	41.3	ug/kg	12.4	41.3
207-08-9	Benzo(k)fluoranthene	U	41.3	ug/kg	12.4	41.3
50-32-8	Benzo(a)pyrene	U	41.3	ug/kg	12.4	41.3
193-39-5	Indeno(1,2,3-cd)pyrene	U	41.3	ug/kg	12.4	41.3
53-70-3	Dibenzo(a,h)anthracene	U	41.3	ug/kg	12.4	41.3
191-24-2	Benzo(ghi)perylene	U	41.3	ug/kg	12.4	41.3
120-82-1	1,2,4-Trichlorobenzene	U	413	ug/kg	82.5	413

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	3.57	458	ug/kg		JA
	Unknown	11.99	238	ug/kg		J

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-940**	**Date Collected:**	**12/14/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243033009**	**Date Received:**	**12/16/2009 09:10**	**%Moisture:**	**19.3**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-10-2734**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**934979**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**12/22/2009 22:28**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/21/2009 11:03**	**Aliquot:**	**30.04 g**	**Final Volume:**	**1 mL**
Data File:	**s6l2222.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
301-02-0	9-Octadecenamide, (Z)-	14.05	417	ug/kg	95	NJ

QC Summary

Semi-Volatile

Surrogate Recovery Report

SDG Number: 10-940

Matrix Type: SOLID

CAP Column (1) : J&W DB-5MS

Sample ID	Client ID	2FP %REC	PHL %REC	NBZ %REC	FBP %REC	TBP %REC	TPH %REC
1202000424	MB for batch 934978	70	75	65	72	90	97
1202000425	LCS for batch 934978	82	81	79	84	98	103
243033001	RE03-09-14221	57	60	55	51	62	72
1202000956	RE03-09-14221MS	55	56	53	52	57	59
1202000957	RE03-09-14221MSD	61	64	59	60	68	71
243033002	RE03-09-14211	64	62	64	49	65	76
243033003	RE03-09-14210	68	65	69	62	59	85
243033004	RE03-09-14209	59	67	55	47	66	90
243033005	RE03-09-14208	56	56	57	54	54	81
243033007	RE03-09-14223	58	60	52	42	53	76
243033008	RE03-09-14220	59	63	61	62	65	81
243033009	RE03-10-2734	57	63	55	43	68	80
1202003528	MB for batch 936369	69	71	75	78	88	101
1202003529	LCS for batch 936369	73	72	80	86	98	95
243033006	RE03-09-14222	60	63	66	56	82	81

Surrogate		Acceptance Limits
2FP	= 2-Fluorophenol	(35%-96%)
PHL	= Phenol-d5	(36%-96%)
NBZ	= Nitrobenzene-d5	(34%-104%)
FBP	= 2-Fluorobiphenyl	(36%-100%)
TBP	= 2,4,6-Tribromophenol	(37%-106%)
TPH	= p-Terphenyl-d14	(40%-124%)

* Recovery outside Acceptance Limits

\# Column to be used to flag recovery values

.D Sample Diluted

Semi-Volatile

Quality Control Summary

Spike Recovery Report

SDG Number: **10-940**

Client ID: **LCS for batch 934978**

Lab Sample ID: **1202000425**

Instrument: **MSD6.I**

Analyst: **NAG1**

Inj. Vol: **.5 uL**

Sample Type: **Laboratory Control Sample**

Matrix: **SOIL**

Analysis Date: **12/22/2009 17:23**

Dilution: **1**

Prep Batch ID **934978**

Batch ID: **934979**

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
62-75-9	LCS	N-Methyl-N-nitrosomethylam	1670	0.0	1070	64	31-95
108-95-2	LCS	Phenol	1670	0.0	1460	88	37-104
95-57-8	LCS	2-Chlorophenol	1670	0.0	1470	88	40-105
106-46-7	LCS	1,4-Dichlorobenzene	1670	0.0	1260	76	34-103
621-64-7	LCS	N-Nitrosodipropylamine	1670	0.0	1430	86	36-110
59-50-7	LCS	4-Chloro-3-methylphenol	1670	0.0	1600	96	46-114
83-32-9	LCS	Acenaphthene	1670	0.0	1450	87	40-105
121-14-2	LCS	2,4-Dinitrotoluene	1670	0.0	1530	92	49-107
100-02-7	LCS	4-Nitrophenol	1670	0.0	1190	72	33-110
87-86-5	LCS	Pentachlorophenol	1670	0.0	1330	80	38-116
129-00-0	LCS	Pyrene	1670	0.0	1520	91	43-108
110-86-1	LCS	Pyridine	1670	0.0	1190	71	13-129
62-53-3	LCS	Aniline	1670	0.0	1350	81	30-121
111-44-4	LCS	bis(2-Chloroethyl) ether	1670	0.0	1220	73	37-106
541-73-1	LCS	1,3-Dichlorobenzene	1670	0.0	1240	74	33-103
100-51-6	LCS	Benzyl alcohol	1670	0.0	1250	75	31-100
95-50-1	LCS	1,2-Dichlorobenzene	1670	0.0	1300	78	34-108
108-60-1	LCS	bis(2-Chloroisopropyl)ether	1670	0.0	1330	80	34-120
95-48-7	LCS	o-Cresol	1670	0.0	1440	87	39-111
65794-96-9	LCS	m,p-Cresols	1670	0.0	1590	96	43-118
67-72-1	LCS	Hexachloroethane	1670	0.0	1210	72	34-105
98-95-3	LCS	Nitrobenzene	1670	0.0	1360	82	37-110

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-940
Client ID: LCS for batch 934978
Lab Sample ID: 1202000425
Instrument: MSD6.I
Analyst: NAG1
Inj. Vol: .5 uL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 12/22/2009 17:23
Dilution: 1
Prep Batch ID: 934978
Batch ID: 934979

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
78-59-1	LCS	Isophorone	1670	0.0	1420	85	41-108
88-75-5	LCS	2-Nitrophenol	1670	0.0	1480	89	35-112
105-67-9	LCS	2,4-Dimethylphenol	1670	0.0	1530	92	35-114
111-91-1	LCS	bis(2-Chloroethoxy)methane	1670	0.0	1380	83	40-109
120-83-2	LCS	2,4-Dichlorophenol	1670	0.0	1550	93	45-109
65-85-0	LCS	Benzoic acid	3330	0.0	3430	103	27-137
91-20-3	LCS	Naphthalene	1670	0.0	1280	77	35-105
106-47-8	LCS	4-Chloroaniline	1670	0.0	1270	76	30-122
87-68-3	LCS	Hexachlorobutadiene	1670	0.0	1410	85	37-111
91-57-6	LCS	2-Methylnaphthalene	1670	0.0	1520	91	40-106
77-47-4	LCS	Hexachlorocyclopentadiene	1670	0.0	868	52	24-135
88-06-2	LCS	2,4,6-Trichlorophenol	1670	0.0	1490	89	46-107
95-95-4	LCS	2,4,5-Trichlorophenol	1670	0.0	1550	93	44-110
91-58-7	LCS	2-Chloronaphthalene	1670	0.0	1480	89	44-104
88-74-4	LCS	2-Nitroaniline *o-Nitroaniline*	1670	0.0	1370	82	44-113
99-09-2	LCS	3-Nitroaniline *m-Nitroaniline*	1670	0.0	1470	88	48-113
131-11-3	LCS	Dimethylphthalate	1670	0.0	1530	92	47-104
606-20-2	LCS	2,6-Dinitrotoluene	1670	0.0	1460	87	47-103
208-96-8	LCS	Acenaphthylene	1670	0.0	1490	90	43-104
51-28-5	LCS	2,4-Dinitrophenol	1670	0.0	1240	74	32-114
132-64-9	LCS	Dibenzofuran	1670	0.0	1810	109	47-112
84-66-2	LCS	Diethylphthalate	1670	0.0	1600	96	50-108

Semi-Volatile
Quality Control Summary
Spike Recovery Report

SDG Number: 10-940
Client ID: LCS for batch 934978
Lab Sample ID: 1202000425
Instrument: MSD6.I
Analyst: NAG1
Inj. Vol: .5 uL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 12/22/2009 17:23
Dilution: 1
Prep Batch ID: 934978
Batch ID: 934979

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
86-73-7	LCS	Fluorene	1670	0.0	1520	91	49-102
7005-72-3	LCS	4-Chlorophenylphenylether	1670	0.0	1570	94	50-109
534-52-1	LCS	2-Methyl-4,6-dinitrophenol	1670	0.0	1280	77	35-114
100-01-6	LCS	4-Nitroaniline *p-Nitroaniline*	1670	0.0	1590	95	44-139
122-39-4	LCS	Diphenylamine	1670	0.0	1570	94	46-111
122-66-7	LCS	Azobenzene *1,2-Diphenylhydrazine*	1670	0.0	1490	90	40-119
101-55-3	LCS	4-Bromophenylphenylether	1670	0.0	1550	93	45-112
118-74-1	LCS	Hexachlorobenzene	1670	0.0	1650	99	44-115
85-01-8	LCS	Phenanthrene	1670	0.0	1520	91	45-107
120-12-7	LCS	Anthracene	1670	0.0	1550	93	46-106
84-74-2	LCS	Di-n-butylphthalate	1670	0.0	1680	101	52-115
206-44-0	LCS	Fluoranthene	1670	0.0	1640	98	50-115
85-68-7	LCS	Butylbenzylphthalate	1670	0.0	1700	102	49-115
56-55-3	LCS	Benzo(a)anthracene	1670	0.0	1540	93	48-105
91-94-1	LCS	3,3'-Dichlorobenzidine	1670	0.0	1200	72	45-98
218-01-9	LCS	Chrysene	1670	0.0	1540	92	48-105
117-81-7	LCS	bis(2-Ethylhexyl)phthalate	1670	0.0	1720	103	50-117
117-84-0	LCS	Di-n-octylphthalate	1670	0.0	1760	106	39-123
205-99-2	LCS	Benzo(b)fluoranthene	1670	0.0	1630	98	46-111
207-08-9	LCS	Benzo(k)fluoranthene	1670	0.0	1660	100	46-114
50-32-8	LCS	Benzo(a)pyrene	1670	0.0	1680	101	49-112
193-39-5	LCS	Indeno(1,2,3-cd)pyrene	1670	0.0	1540	92	45-128

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-940
Client ID: LCS for batch 934978
Lab Sample ID: 1202000425
Instrument: MSD6.I
Analyst: NAG1
Inj. Vol: .5 uL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 12/22/2009 17:23
Dilution: 1
Prep Batch ID 934978
Batch ID: 934979

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
53-70-3	LCS	Dibenzo(a,h)anthracene	1670	0.0	1530	92	44-131
191-24-2	LCS	Benzo(ghi)perylene	1670	0.0	1580	95	42-128
120-82-1	LCS	1,2,4-Trichlorobenzene	1670	0.0	1390	84	36-109

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-940
Client ID: RE03-09-14221MS
Lab Sample ID: 1202000956
Instrument: MSD6.I
Analyst: NAG1
Inj. Vol: .5 uL

Sample Type: Matrix Spike
Matrix: S
%Moisture: 14.8
Analysis Date: 12/22/2009 18:20
Prep Batch ID: 934978
Batch ID: 934979
Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
62-75-9	MS	N-Methyl-N-nitrosomethylam	1950	0.00	U	929	48	32-90
108-95-2	MS	Phenol	1950	0.00	U	1180	61	32-105
95-57-8	MS	2-Chlorophenol	1950	0.00	U	1180	61	33-106
106-46-7	MS	1,4-Dichlorobenzene	1950	0.00	U	654	34	33-95
621-64-7	MS	N-Nitrosodipropylamine	1950	0.00	U	1200	61	31-109
59-50-7	MS	4-Chloro-3-methylphenol	1950	0.00	U	1220	63	38-119
83-32-9	MS	Acenaphthene	1950	0.00	U	1110	57	39-100
121-14-2	MS	2,4-Dinitrotoluene	1950	0.00	U	1160	59	42-107
100-02-7	MS	4-Nitrophenol	1950	0.00	U	974	50	24-120
87-86-5	MS	Pentachlorophenol	1950	0.00	U	959	49	26-121
129-00-0	MS	Pyrene	1950	0.00	U	1120	58	34-120
110-86-1	MS	Pyridine	1950	0.00	U	983	50	30-95
62-53-3	MS	Aniline	1950	0.00	U	1010	52	34-111
111-44-4	MS	bis(2-Chloroethyl) ether	1950	0.00	U	1000	51	34-101
541-73-1	MS	1,3-Dichlorobenzene	1950	0.00	U	625	32	31-97
100-51-6	MS	Benzyl alcohol	1950	0.00	U	568	29	17-120
95-50-1	MS	1,2-Dichlorobenzene	1950	0.00	U	741	38	32-102
108-60-1	MS	bis(2-Chloroisopropyl)ether	1950	0.00	U	1000	51	32-113
95-48-7	MS	o-Cresol	1950	0.00	U	1210	62	31-119
65794-96-9	MS	m,p-Cresols	1950	0.00	U	1280	66	35-125
67-72-1	MS	Hexachloroethane	1950	0.00	U	547	28 *	30-100
98-95-3	MS	Nitrobenzene	1950	0.00	U	1100	56	33-108

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-940
Client ID: RE03-09-14221MS
Lab Sample ID: 1202000956
Instrument: MSD6.I
Analyst: NAG1
Inj. Vol: .5 uL

Sample Type: Matrix Spike
Matrix: S
%Moisture: 14.8
Analysis Date: 12/22/2009 18:20
Prep Batch ID: 934978
Batch ID: 934979
Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
78-59-1	MS	Isophorone	1950	0.00	U	1190	61	34-110
88-75-5	MS	2-Nitrophenol	1950	0.00	U	1220	63	32-108
105-67-9	MS	2,4-Dimethylphenol	1950	0.00	U	1110	57	32-115
111-91-1	MS	bis(2-Chloroethoxy)methane	1950	0.00	U	1140	58	35-108
120-83-2	MS	2,4-Dichlorophenol	1950	0.00	U	1240	64	38-110
65-85-0	MS	Benzoic acid	3900	0.00	U	1950	50	18-134
91-20-3	MS	Naphthalene	1950	0.00	U	952	49	31-105
106-47-8	MS	4-Chloroaniline	1950	0.00	U	1120	57	29-123
87-68-3	MS	Hexachlorobutadiene	1950	0.00	U	782	40	31-109
91-57-6	MS	2-Methylnaphthalene	1950	0.00	U	1160	59	32-110
77-47-4	MS	Hexachlorocyclopentadiene	1950	0.00	U	511	26	21-122
88-06-2	MS	2,4,6-Trichlorophenol	1950	0.00	U	1160	59	37-108
95-95-4	MS	2,4,5-Trichlorophenol	1950	0.00	U	1170	60	37-116
91-58-7	MS	2-Chloronaphthalene	1950	0.00	U	1130	58	37-103
88-74-4	MS	2-Nitroaniline *o-Nitroaniline*	1950	0.00	U	1070	55	36-115
99-09-2	MS	3-Nitroaniline *m-Nitroaniline*	1950	0.00	U	1140	58	39-117
131-11-3	MS	Dimethylphthalate	1950	0.00	U	1180	60	41-105
606-20-2	MS	2,6-Dinitrotoluene	1950	0.00	U	1140	58	41-103
208-96-8	MS	Acenaphthylene	1950	0.00	U	1180	61	41-103
51-28-5	MS	2,4-Dinitrophenol	1950	0.00	U	999	51	25-104
132-64-9	MS	Dibenzofuran	1950	0.00	U	1430	73	40-114
84-66-2	MS	Diethylphthalate	1950	0.00	U	1190	61	43-110

Semi-Volatile
Quality Control Summary
Spike Recovery Report

SDG Number:	**10-940**	**Sample Type:**	**Matrix Spike**
Client ID:	**RE03-09-14221MS**	**Matrix:**	**S**
Lab Sample ID:	**1202000956**	**%Moisture:**	**14.8**
Instrument:	**MSD6.I**	**Analysis Date:**	**12/22/2009 18:20**
Analyst:	**NAG1**	**Prep Batch II**	**934978**
Inj. Vol:	**.5 uL**	**Batch ID:**	**934979**

Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
86-73-7	MS	Fluorene	1950	0.00	U	1190	61	48-99
7005-72-3	MS	4-Chlorophenylphenylether	1950	0.00	U	1220	63	42-111
534-52-1	MS	2-Methyl-4,6-dinitrophenol	1950	0.00	U	1020	52	19-118
100-01-6	MS	4-Nitroaniline *p-Nitroaniline*	1950	0.00	U	1200	62	35-139
122-39-4	MS	Diphenylamine	1950	0.00	U	1110	57	41-112
122-66-7	MS	Azobenzene *1,2-Diphenylhydrazine*	1950	0.00	U	1160	60	37-118
101-55-3	MS	4-Bromophenylphenylether	1950	0.00	U	1150	59	39-112
118-74-1	MS	Hexachlorobenzene	1950	0.00	U	1190	61	38-113
85-01-8	MS	Phenanthrene	1950	0.00	U	1170	60	38-110
120-12-7	MS	Anthracene	1950	0.00	U	1180	60	38-112
84-74-2	MS	Di-n-butylphthalate	1950	0.00	U	1240	63	42-119
206-44-0	MS	Fluoranthene	1950	0.00	U	1210	62	38-119
85-68-7	MS	Butylbenzylphthalate	1950	0.00	U	1250	64	39-126
56-55-3	MS	Benzo(a)anthracene	1950	0.00	U	1120	58	39-110
91-94-1	MS	3,3'-Dichlorobenzidine	1950	0.00	U	798	41	35-106
218-01-9	MS	Chrysene	1950	0.00	U	1130	58	39-109
117-81-7	MS	bis(2-Ethylhexyl)phthalate	1950	0.00	U	1290	66	40-125
117-84-0	MS	Di-n-octylphthalate	1950	0.00	U	1270	65	30-147
205-99-2	MS	Benzo(b)fluoranthene	1950	0.00	U	1180	60	38-117
207-08-9	MS	Benzo(k)fluoranthene	1950	0.00	U	1150	59	39-120
50-32-8	MS	Benzo(a)pyrene	1950	0.00	U	1220	62	40-115
193-39-5	MS	Indeno(1,2,3-cd)pyrene	1950	0.00	U	1190	61	32-120

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number:	**10-940**	**Sample Type:**	**Matrix Spike**
Client ID:	**RE03-09-14221MS**	**Matrix:**	**S**
Lab Sample ID:	**1202000956**	**%Moisture:**	**14.8**
Instrument:	**MSD6.I**	**Analysis Date:**	**12/22/2009 18:20**
Analyst:	**NAG1**	**Prep Batch ID:**	**934978**
Inj. Vol:	**.5 uL**	**Batch ID:**	**934979**

Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
53-70-3	MS	Dibenzo(a,h)anthracene	1950	0.00	U	1200	62	32-124
191-24-2	MS	Benzo(ghi)perylene	1950	0.00	U	1190	61	28-119
120-82-1	MS	1,2,4-Trichlorobenzene	1950	0.00	U	910	47	31-105

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number:	10-940	**Sample Type:**	Matrix Spike Duplicate
Client ID:	RE03-09-14221MSD	**Matrix:**	S
Lab Sample ID:	1202000957	**%Moisture:**	14.8
Instrument:	MSD6.I	**Analysis Date:**	12/22/2009 18:48
Analyst:	NAG1	**Prep Batch ID**	934978
Inj. Vol:	.5 uL	**Batch ID:**	934979

Dilution: 1

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
62-75-9	MSD N-Methyl-N-nitrosomethylam	1950	0.00	U	1000	51	32-90		0-30
108-95-2	MSD Phenol	1950	0.00	U	1270	65	32-105		0-30
95-57-8	MSD 2-Chlorophenol	1950	0.00	U	1240	64	33-106		0-30
106-46-7	MSD 1,4-Dichlorobenzene	1950	0.00	U	649	33	33-95		0-30
621-64-7	MSD N-Nitrosodipropylamine	1950	0.00	U	1280	66	31-109		0-30
59-50-7	MSD 4-Chloro-3-methylphenol	1950	0.00	U	1390	71	38-119		0-30
83-32-9	MSD Acenaphthene	1950	0.00	U	1220	62	39-100		0-30
121-14-2	MSD 2,4-Dinitrotoluene	1950	0.00	U	1350	69	42-107		0-30
100-02-7	MSD 4-Nitrophenol	1950	0.00	U	1130	58	24-120		0-30
87-86-5	MSD Pentachlorophenol	1950	0.00	U	1050	54	26-121		0-30
129-00-0	MSD Pyrene	1950	0.00	U	1240	63	34-120		0-30
110-86-1	MSD Pyridine	1950	0.00	U	1000	51	30-95		0-30
62-53-3	MSD Aniline	1950	0.00	U	1130	58	34-111		0-30
111-44-4	MSD bis(2-Chloroethyl) ether	1950	0.00	U	1070	55	34-101		0-30
541-73-1	MSD 1,3-Dichlorobenzene	1950	0.00	U	614	31	31-97		0-30
100-51-6	MSD Benzyl alcohol	1950	0.00	U	671	34	17-120		0-30
95-50-1	MSD 1,2-Dichlorobenzene	1950	0.00	U	759	39	32-102		0-30
108-60-1	MSD bis(2-Chloroisopropyl)ether	1950	0.00	U	1060	54	32-113		0-30
95-48-7	MSD o-Cresol	1950	0.00	U	1290	66	31-119		0-30
65794-96-9	MSD m,p-Cresols	1950	0.00	U	1330	68	35-125		0-30
67-72-1	MSD Hexachloroethane	1950	0.00	U	561	29 *	30-100		0-30
98-95-3	MSD Nitrobenzene	1950	0.00	U	1170	60	33-108		0-30

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number:	**10-940**	**Sample Type:**	**Matrix Spike Duplicate**
Client ID:	**RE03-09-14221MSD**	**Matrix:**	**S**
Lab Sample ID:	**1202000957**	**%Moisture:**	**14.8**
Instrument:	**MSD6.I**	**Analysis Date:**	**12/22/2009 18:48**
Analyst:	**NAG1**	**Prep Batch ID**	**934978**
Inj. Vol:	**.5 uL**	**Batch ID:**	**934979**

Dilution: 1

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
78-59-1	MSD Isophorone	1950	0.00	U	1250	64	34-110		0-30
88-75-5	MSD 2-Nitrophenol	1950	0.00	U	1310	67	32-108		0-30
105-67-9	MSD 2,4-Dimethylphenol	1950	0.00	U	1190	61	32-115		0-30
111-91-1	MSD bis(2-Chloroethoxy)methane	1950	0.00	U	1210	62	35-108		0-30
120-83-2	MSD 2,4-Dichlorophenol	1950	0.00	U	1330	68	38-110		0-30
65-85-0	MSD Benzoic acid	3900	0.00	U	2110	54	18-134		0-30
91-20-3	MSD Naphthalene	1950	0.00	U	975	50	31-105		0-30
106-47-8	MSD 4-Chloroaniline	1950	0.00	U	1170	60	29-123		0-30
87-68-3	MSD Hexachlorobutadiene	1950	0.00	U	833	43	31-109		0-30
91-57-6	MSD 2-Methylnaphthalene	1950	0.00	U	1220	63	32-110		0-30
77-47-4	MSD Hexachlorocyclopentadiene	1950	0.00	U	588	30	21-122		0-30
88-06-2	MSD 2,4,6-Trichlorophenol	1950	0.00	U	1270	65	37-108		0-30
95-95-4	MSD 2,4,5-Trichlorophenol	1950	0.00	U	1340	69	37-116		0-30
91-58-7	MSD 2-Chloronaphthalene	1950	0.00	U	1220	62	37-103		0-30
88-74-4	MSD 2-Nitroaniline *o-Nitroaniline*	1950	0.00	U	1210	62	36-115		0-30
99-09-2	MSD 3-Nitroaniline *m-Nitroaniline*	1950	0.00	U	1330	68	39-117		0-30
131-11-3	MSD Dimethylphthalate	1950	0.00	U	1320	67	41-105		0-30
606-20-2	MSD 2,6-Dinitrotoluene	1950	0.00	U	1260	65	41-103		0-30
208-96-8	MSD Acenaphthylene	1950	0.00	U	1290	66	41-103		0-30
51-28-5	MSD 2,4-Dinitrophenol	1950	0.00	U	1110	57	25-104		0-30
132-64-9	MSD Dibenzofuran	1950	0.00	U	1580	81	40-114		0-30
84-66-2	MSD Diethylphthalate	1950	0.00	U	1350	69	43-110		0-30

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-940
Client ID: RE03-09-14221MSD
Lab Sample ID: 1202000957
Instrument: MSD6.I
Analyst: NAG1
Inj. Vol: .5 uL

Sample Type: Matrix Spike Duplicate
Matrix: S
%Moisture: 14.8
Analysis Date: 12/22/2009 18:48 **Dilution:** 1
Prep Batch ID: 934978
Batch ID: 934979

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
86-73-7	MSD	Fluorene	1950	0.00	U	1340	68	48-99		0-30
7005-72-3	MSD	4-Chlorophenylphenylether	1950	0.00	U	1340	68	42-111		0-30
534-52-1	MSD	2-Methyl-4,6-dinitrophenol	1950	0.00	U	1170	60	19-118		0-30
100-01-6	MSD	4-Nitroaniline *p-Nitroaniline*	1950	0.00	U	1440	74	35-139		0-30
122-39-4	MSD	Diphenylamine	1950	0.00	U	1230	63	41-112		0-30
122-66-7	MSD	Azobenzene *1,2-Diphenylhydrazine*	1950	0.00	U	1250	64	37-118		0-30
101-55-3	MSD	4-Bromophenylphenylether	1950	0.00	U	1280	65	39-112		0-30
118-74-1	MSD	Hexachlorobenzene	1950	0.00	U	1340	69	38-113		0-30
85-01-8	MSD	Phenanthrene	1950	0.00	U	1310	67	38-110		0-30
120-12-7	MSD	Anthracene	1950	0.00	U	1340	69	38-112		0-30
84-74-2	MSD	Di-n-butylphthalate	1950	0.00	U	1380	71	42-119		0-30
206-44-0	MSD	Fluoranthene	1950	0.00	U	1400	72	38-119		0-30
85-68-7	MSD	Butylbenzylphthalate	1950	0.00	U	1340	69	39-126		0-30
56-55-3	MSD	Benzo(a)anthracene	1950	0.00	U	1300	67	39-110		0-30
91-94-1	MSD	3,3'-Dichlorobenzidine	1950	0.00	U	848	43	35-106		0-30
218-01-9	MSD	Chrysene	1950	0.00	U	1320	67	39-109		0-30
117-81-7	MSD	bis(2-Ethylhexyl)phthalate	1950	0.00	U	1360	70	40-125		0-30
117-84-0	MSD	Di-n-octylphthalate	1950	0.00	U	1350	69	30-147		0-30
205-99-2	MSD	Benzo(b)fluoranthene	1950	0.00	U	1310	67	38-117		0-30
207-08-9	MSD	Benzo(k)fluoranthene	1950	0.00	U	1350	69	39-120		0-30
50-32-8	MSD	Benzo(a)pyrene	1950	0.00	U	1410	72	40-115		0-30
193-39-5	MSD	Indeno(1,2,3-cd)pyrene	1950	0.00	U	1420	73	32-120		0-30

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number:	**10-940**	**Sample Type:**	**Matrix Spike Duplicate**
Client ID:	**RE03-09-14221MSD**	**Matrix:**	**S**
Lab Sample ID:	**1202000957**	**%Moisture:**	**14.8**
Instrument:	**MSD6.I**	**Analysis Date:**	**12/22/2009 18:48**
Analyst:	**NAG1**	**Prep Batch ID**	**934978**
Inj. Vol:	**.5 uL**	**Batch ID:**	**934979**

Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
53-70-3	MSD	Dibenzo(a,h)anthracene	1950	0.00	U	1440	74	32-124		0-30
191-24-2	MSD	Benzo(ghi)perylene	1950	0.00	U	1430	73	28-119		0-30
120-82-1	MSD	1,2,4-Trichlorobenzene	1950	0.00	U	942	48	31-105		0-30

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-940
Client ID: LCS for batch 936369
Lab Sample ID: 1202003529
Instrument: MSD1.I
Analyst: AMY
Inj. Vol: .5 uL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 12/30/2009 12:33
Dilution: 1
Prep Batch ID: 936369
Batch ID: 936371

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
62-75-9	LCS	N-Methyl-N-nitrosomethylam	1670	0.0	1260	76	31-95
108-95-2	LCS	Phenol	1670	0.0	1250	75	37-104
95-57-8	LCS	2-Chlorophenol	1670	0.0	1260	76	40-105
106-46-7	LCS	1,4-Dichlorobenzene	1670	0.0	998	60	34-103
621-64-7	LCS	N-Nitrosodipropylamine	1670	0.0	1170	70	36-110
59-50-7	LCS	4-Chloro-3-methylphenol	1670	0.0	1400	84	46-114
83-32-9	LCS	Acenaphthene	1670	0.0	1330	80	40-105
121-14-2	LCS	2,4-Dinitrotoluene	1670	0.0	1200	72	49-107
100-02-7	LCS	4-Nitrophenol	1670	0.0	1270	76	33-110
87-86-5	LCS	Pentachlorophenol	1670	0.0	1520	91	38-116
129-00-0	LCS	Pyrene	1670	0.0	1400	84	43-108
110-86-1	LCS	Pyridine	1670	0.0	1100	66	13-129
62-53-3	LCS	Aniline	1670	0.0	1060	63	30-121
111-44-4	LCS	bis(2-Chloroethyl) ether	1670	0.0	1150	69	37-106
541-73-1	LCS	1,3-Dichlorobenzene	1670	0.0	984	59	33-103
100-51-6	LCS	Benzyl alcohol	1670	0.0	1520	91	31-100
95-50-1	LCS	1,2-Dichlorobenzene	1670	0.0	1070	64	34-108
108-60-1	LCS	bis(2-Chloroisopropyl)ether	1670	0.0	1100	66	34-120
95-48-7	LCS	o-Cresol	1670	0.0	1290	78	39-111
65794-96-9	LCS	m,p-Cresols	1670	0.0	1330	80	43-118
67-72-1	LCS	Hexachloroethane	1670	0.0	1000	60	34-105
98-95-3	LCS	Nitrobenzene	1670	0.0	1290	77	37-110

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-940
Client ID: LCS for batch 936369
Lab Sample ID: 1202003529
Instrument: MSD1.I
Analyst: AMY
Inj. Vol: .5 uL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 12/30/2009 12:33
Dilution: 1
Prep Batch ID: 936369
Batch ID: 936371

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
78-59-1	LCS	Isophorone	1670	0.0	1440	86	41-108
88-75-5	LCS	2-Nitrophenol	1670	0.0	1180	71	35-112
105-67-9	LCS	2,4-Dimethylphenol	1670	0.0	1310	78	35-114
111-91-1	LCS	bis(2-Chloroethoxy)methane	1670	0.0	1240	74	40-109
120-83-2	LCS	2,4-Dichlorophenol	1670	0.0	1270	76	45-109
65-85-0	LCS	Benzoic acid	3330	0.0	3040	91	27-137
91-20-3	LCS	Naphthalene	1670	0.0	1140	68	35-105
106-47-8	LCS	4-Chloroaniline	1670	0.0	1080	65	30-122
87-68-3	LCS	Hexachlorobutadiene	1670	0.0	1310	79	37-111
91-57-6	LCS	2-Methylnaphthalene	1670	0.0	1250	75	40-106
77-47-4	LCS	Hexachlorocyclopentadiene	1670	0.0	1600	96	24-135
88-06-2	LCS	2,4,6-Trichlorophenol	1670	0.0	1470	88	46-107
95-95-4	LCS	2,4,5-Trichlorophenol	1670	0.0	1550	93	44-110
91-58-7	LCS	2-Chloronaphthalene	1670	0.0	1260	76	44-104
88-74-4	LCS	2-Nitroaniline *o-Nitroaniline*	1670	0.0	1270	76	44-113
99-09-2	LCS	3-Nitroaniline *m-Nitroaniline*	1670	0.0	1110	66	48-113
131-11-3	LCS	Dimethylphthalate	1670	0.0	1350	81	47-104
606-20-2	LCS	2,6-Dinitrotoluene	1670	0.0	1210	73	47-103
208-96-8	LCS	Acenaphthylene	1670	0.0	1320	79	43-104
51-28-5	LCS	2,4-Dinitrophenol	1670	0.0	1380	83	32-114
132-64-9	LCS	Dibenzofuran	1670	0.0	1560	94	47-112
84-66-2	LCS	Diethylphthalate	1670	0.0	1470	88	50-108

Semi-Volatile
Quality Control Summary
Spike Recovery Report

SDG Number: 10-940
Client ID: LCS for batch 936369
Lab Sample ID: 1202003529
Instrument: MSD1.I
Analyst: AMY
Inj. Vol: .5 uL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 12/30/2009 12:33
Dilution: 1
Prep Batch ID: 936369
Batch ID: 936371

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
86-73-7	LCS	Fluorene	1670	0.0	1330	80	49-102
7005-72-3	LCS	4-Chlorophenylphenylether	1670	0.0	1490	89	50-109
534-52-1	LCS	2-Methyl-4,6-dinitrophenol	1670	0.0	1260	76	35-114
100-01-6	LCS	4-Nitroaniline *p-Nitroaniline*	1670	0.0	1010	61	44-139
122-39-4	LCS	Diphenylamine	1670	0.0	1350	81	46-111
122-66-7	LCS	Azobenzene *1,2-Diphenylhydrazine*	1670	0.0	1330	80	40-119
101-55-3	LCS	4-Bromophenylphenylether	1670	0.0	1630	98	45-112
118-74-1	LCS	Hexachlorobenzene	1670	0.0	1550	93	44-115
85-01-8	LCS	Phenanthrene	1670	0.0	1330	80	45-107
120-12-7	LCS	Anthracene	1670	0.0	1310	79	46-106
84-74-2	LCS	Di-n-butylphthalate	1670	0.0	1550	93	52-115
206-44-0	LCS	Fluoranthene	1670	0.0	1450	87	50-115
85-68-7	LCS	Butylbenzylphthalate	1670	0.0	1550	93	49-115
56-55-3	LCS	Benzo(a)anthracene	1670	0.0	1390	83	48-105
91-94-1	LCS	3,3'-Dichlorobenzidine	1670	0.0	1380	83	45-98
218-01-9	LCS	Chrysene	1670	0.0	1390	84	48-105
117-81-7	LCS	bis(2-Ethylhexyl)phthalate	1670	0.0	1480	89	50-117
117-84-0	LCS	Di-n-octylphthalate	1670	0.0	1470	88	39-123
205-99-2	LCS	Benzo(b)fluoranthene	1670	0.0	1420	85	46-111
207-08-9	LCS	Benzo(k)fluoranthene	1670	0.0	1380	83	46-114
50-32-8	LCS	Benzo(a)pyrene	1670	0.0	1440	86	49-112
193-39-5	LCS	Indeno(1,2,3-cd)pyrene	1670	0.0	1370	82	45-128

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-940
Client ID: LCS for batch 936369
Lab Sample ID: 1202003529
Instrument: MSD1.I
Analyst: AMY
Inj. Vol: .5 uL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 12/30/2009 12:33
Dilution: 1
Prep Batch ID: 936369
Batch ID: 936371

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
53-70-3	LCS	Dibenzo(a,h)anthracene	1670	0.0	1340	80	44-131
191-24-2	LCS	Benzo(ghi)perylene	1670	0.0	1370	82	42-128
120-82-1	LCS	1,2,4-Trichlorobenzene	1670	0.0	1240	74	36-109

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number:	10-940	**Sample Type:**	Matrix Spike
Client ID:	WST12-10-8879MS	**Matrix:**	R
Lab Sample ID:	1202003530	**%Moisture:**	12.1
Instrument:	MSD1.I	**Analysis Date:**	12/30/2009 15:46
Analyst:	AMY	**Prep Batch ID:**	936369
Inj. Vol:	.5 uL	**Batch ID:**	936371

Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
62-75-9	MS	N-Methyl-N-nitrosomethylam	1890	0.00	U	1420	75	32-90
108-95-2	MS	Phenol	1890	0.00	U	1330	70	32-105
95-57-8	MS	2-Chlorophenol	1890	0.00	U	1350	71	33-106
106-46-7	MS	1,4-Dichlorobenzene	1890	0.00	U	937	49	33-95
621-64-7	MS	N-Nitrosodipropylamine	1890	0.00	U	1310	69	31-109
59-50-7	MS	4-Chloro-3-methylphenol	1890	0.00	U	1560	82	38-119
83-32-9	MS	Acenaphthene	1890	0.00	U	1410	74	39-100
121-14-2	MS	2,4-Dinitrotoluene	1890	0.00	U	1240	65	42-107
100-02-7	MS	4-Nitrophenol	1890	0.00	U	1350	71	24-120
87-86-5	MS	Pentachlorophenol	1890	0.00	U	1690	89	26-121
129-00-0	MS	Pyrene	1890	0.00	U	1540	81	34-120
110-86-1	MS	Pyridine	1890	0.00	U	1100	58	30-95
62-53-3	MS	Aniline	1890	0.00	U	1010	54	34-111
111-44-4	MS	bis(2-Chloroethyl) ether	1890	0.00	U	1220	64	34-101
541-73-1	MS	1,3-Dichlorobenzene	1890	0.00	U	920	49	31-97
100-51-6	MS	Benzyl alcohol	1890	0.00	U	1580	83	17-120
95-50-1	MS	1,2-Dichlorobenzene	1890	0.00	U	1060	56	32-102
108-60-1	MS	bis(2-Chloroisopropyl)ether	1890	0.00	U	1130	60	32-113
95-48-7	MS	o-Cresol	1890	0.00	U	1450	76	31-119
65794-96-9	MS	m,p-Cresols	1890	0.00	U	1470	78	35-125
67-72-1	MS	Hexachloroethane	1890	0.00	U	954	50	30-100
98-95-3	MS	Nitrobenzene	1890	0.00	U	1400	74	33-108

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number:	**10-940**	**Sample Type:**	**Matrix Spike**
Client ID:	**WST12-10-8879MS**	**Matrix:**	**R**
Lab Sample ID:	**1202003530**	**%Moisture:**	**12.1**
Instrument:	**MSD1.I**	**Analysis Date:**	**12/30/2009 15:46**
Analyst:	**AMY**	**Prep Batch ID**	**936369**
Inj. Vol:	**.5 uL**	**Batch ID:**	**936371**

Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
78-59-1	MS	Isophorone	1890	0.00	U	1580	84	34-110
88-75-5	MS	2-Nitrophenol	1890	0.00	U	1320	69	32-108
105-67-9	MS	2,4-Dimethylphenol	1890	0.00	U	1450	76	32-115
111-91-1	MS	bis(2-Chloroethoxy)methane	1890	0.00	U	1350	71	35-108
120-83-2	MS	2,4-Dichlorophenol	1890	0.00	U	1450	77	38-110
65-85-0	MS	Benzoic acid	3790	0.00	U	3420	90	18-134
91-20-3	MS	Naphthalene	1890	0.00	U	1200	63	31-105
106-47-8	MS	4-Chloroaniline	1890	0.00	U	1030	54	29-123
87-68-3	MS	Hexachlorobutadiene	1890	0.00	U	1290	68	31-109
91-57-6	MS	2-Methylnaphthalene	1890	0.00	U	1340	71	32-110
77-47-4	MS	Hexachlorocyclopentadiene	1890	0.00	U	1410	74	21-122
88-06-2	MS	2,4,6-Trichlorophenol	1890	0.00	U	1680	89	37-108
95-95-4	MS	2,4,5-Trichlorophenol	1890	0.00	U	1670	88	37-116
91-58-7	MS	2-Chloronaphthalene	1890	0.00	U	1330	70	37-103
88-74-4	MS	2-Nitroaniline *o-Nitroaniline*	1890	0.00	U	1380	73	36-115
99-09-2	MS	3-Nitroaniline *m-Nitroaniline*	1890	0.00	U	1070	56	39-117
131-11-3	MS	Dimethylphthalate	1890	0.00	U	1420	75	41-105
606-20-2	MS	2,6-Dinitrotoluene	1890	0.00	U	1290	68	41-103
208-96-8	MS	Acenaphthylene	1890	0.00	U	1420	75	41-103
51-28-5	MS	2,4-Dinitrophenol	1890	0.00	U	1140	60	25-104
132-64-9	MS	Dibenzofuran	1890	0.00	U	1670	88	40-114
84-66-2	MS	Diethylphthalate	1890	0.00	U	1530	81	43-110

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-940
Client ID: WST12-10-8879MS
Lab Sample ID: 1202003530
Instrument: MSD1.I
Analyst: AMY
Inj. Vol: .5 uL

Sample Type: Matrix Spike
Matrix: R
%Moisture: 12.1
Analysis Date: 12/30/2009 15:46
Prep Batch ID: 936369
Batch ID: 936371
Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
86-73-7	MS	Fluorene	1890	0.00	U	1400	74	48-99
7005-72-3	MS	4-Chlorophenylphenylether	1890	0.00	U	1560	82	42-111
534-52-1	MS	2-Methyl-4,6-dinitrophenol	1890	0.00	U	1050	55	19-118
100-01-6	MS	4-Nitroaniline *p-Nitroaniline*	1890	0.00	U	1050	56	35-139
122-39-4	MS	Diphenylamine	1890	0.00	U	1400	74	41-112
122-66-7	MS	Azobenzene *1,2-Diphenylhydrazine*	1890	0.00	U	1430	75	37-118
101-55-3	MS	4-Bromophenylphenylether	1890	0.00	U	1760	93	39-112
118-74-1	MS	Hexachlorobenzene	1890	0.00	U	1570	83	38-113
85-01-8	MS	Phenanthrene	1890	0.00	U	1390	73	38-110
120-12-7	MS	Anthracene	1890	0.00	U	1320	70	38-112
84-74-2	MS	Di-n-butylphthalate	1890	0.00	U	1580	83	42-119
206-44-0	MS	Fluoranthene	1890	0.00	U	1380	73	38-119
85-68-7	MS	Butylbenzylphthalate	1890	0.00	U	1740	92	39-126
56-55-3	MS	Benzo(a)anthracene	1890	0.00	U	1390	74	39-110
91-94-1	MS	3,3'-Dichlorobenzidine	1890	0.00	U	259	14 *	35-106
218-01-9	MS	Chrysene	1890	0.00	U	1290	68	39-109
117-81-7	MS	bis(2-Ethylhexyl)phthalate	1890	0.00	U	1640	86	40-125
117-84-0	MS	Di-n-octylphthalate	1890	0.00	U	2160	114	30-147
205-99-2	MS	Benzo(b)fluoranthene	1890	0.00	U	1490	79	38-117
207-08-9	MS	Benzo(k)fluoranthene	1890	0.00	U	1580	83	39-120
50-32-8	MS	Benzo(a)pyrene	1890	0.00	U	1430	75	40-115
193-39-5	MS	Indeno(1,2,3-cd)pyrene	1890	0.00	U	941	50	32-120

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-940
Client ID: WST12-10-8879MS
Lab Sample ID: 1202003530
Instrument: MSD1.I
Analyst: AMY
Inj. Vol: .5 uL

Sample Type: Matrix Spike
Matrix: R
%Moisture: 12.1
Analysis Date: 12/30/2009 15:46
Prep Batch ID: 936369
Batch ID: 936371
Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
53-70-3	MS	Dibenzo(a,h)anthracene	1890	0.00	U	997	53	32-124
191-24-2	MS	Benzo(ghi)perylene	1890	0.00	U	880	46	28-119
120-82-1	MS	1,2,4-Trichlorobenzene	1890	0.00	U	1300	69	31-105

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-940
Client ID: WST12-10-8879MSD
Lab Sample ID: 1202003531
Instrument: MSD1.I
Analyst: AMY
Inj. Vol: .5 uL

Sample Type: Matrix Spike Duplicate
Matrix: R
%Moisture: 12.1
Analysis Date: 12/30/2009 16:10 **Dilution:** 1
Prep Batch ID: 936369
Batch ID: 936371

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
62-75-9	MSD N-Methyl-N-nitrosomethylam	1900	0.00	U	1350	71	32-90	4	0-30
108-95-2	MSD Phenol	1900	0.00	U	1350	71	32-105	1	0-30
95-57-8	MSD 2-Chlorophenol	1900	0.00	U	1360	72	33-106	1	0-30
106-46-7	MSD 1,4-Dichlorobenzene	1900	0.00	U	991	52	33-95	6	0-30
621-64-7	MSD N-Nitrosodipropylamine	1900	0.00	U	1300	69	31-109	1	0-30
59-50-7	MSD 4-Chloro-3-methylphenol	1900	0.00	U	1510	80	38-119	3	0-30
83-32-9	MSD Acenaphthene	1900	0.00	U	1400	74	39-100	1	0-30
121-14-2	MSD 2,4-Dinitrotoluene	1900	0.00	U	1230	65	42-107	1	0-30
100-02-7	MSD 4-Nitrophenol	1900	0.00	U	1320	69	24-120	2	0-30
87-86-5	MSD Pentachlorophenol	1900	0.00	U	1700	90	26-121	1	0-30
129-00-0	MSD Pyrene	1900	0.00	U	1510	80	34-120	2	0-30
110-86-1	MSD Pyridine	1900	0.00	U	1060	56	30-95	4	0-30
62-53-3	MSD Aniline	1900	0.00	U	990	52	34-111	2	0-30
111-44-4	MSD bis(2-Chloroethyl) ether	1900	0.00	U	1240	65	34-101	2	0-30
541-73-1	MSD 1,3-Dichlorobenzene	1900	0.00	U	970	51	31-97	5	0-30
100-51-6	MSD Benzyl alcohol	1900	0.00	U	1590	84	17-120	1	0-30
95-50-1	MSD 1,2-Dichlorobenzene	1900	0.00	U	1090	58	32-102	3	0-30
108-60-1	MSD bis(2-Chloroisopropyl)ether	1900	0.00	U	1170	62	32-113	4	0-30
95-48-7	MSD o-Cresol	1900	0.00	U	1420	75	31-119	2	0-30
65794-96-9	MSD m,p-Cresols	1900	0.00	U	1470	77	35-125	1	0-30
67-72-1	MSD Hexachloroethane	1900	0.00	U	982	52	30-100	3	0-30
98-95-3	MSD Nitrobenzene	1900	0.00	U	1410	74	33-108	1	0-30

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-940
Client ID: WST12-10-8879MSD
Lab Sample ID: 1202003531
Instrument: MSD1.I
Analyst: AMY
Inj. Vol: .5 uL

Sample Type: Matrix Spike Duplicate
Matrix: R
%Moisture: 12.1
Analysis Date: 12/30/2009 16:10
Dilution: 1
Prep Batch ID: 936369
Batch ID: 936371

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
78-59-1	MSD Isophorone	1900	0.00	U	1550	82	34-110	2	0-30
88-75-5	MSD 2-Nitrophenol	1900	0.00	U	1340	71	32-108	2	0-30
105-67-9	MSD 2,4-Dimethylphenol	1900	0.00	U	1400	74	32-115	3	0-30
111-91-1	MSD bis(2-Chloroethoxy)methane	1900	0.00	U	1340	70	35-108	1	0-30
120-83-2	MSD 2,4-Dichlorophenol	1900	0.00	U	1390	74	38-110	4	0-30
65-85-0	MSD Benzoic acid	3790	0.00	U	3210	85	18-134	6	0-30
91-20-3	MSD Naphthalene	1900	0.00	U	1220	64	31-105	2	0-30
106-47-8	MSD 4-Chloroaniline	1900	0.00	U	1010	53	29-123	2	0-30
87-68-3	MSD Hexachlorobutadiene	1900	0.00	U	1330	70	31-109	3	0-30
91-57-6	MSD 2-Methylnaphthalene	1900	0.00	U	1320	70	32-110	2	0-30
77-47-4	MSD Hexachlorocyclopentadiene	1900	0.00	U	1410	75	21-122	0	0-30
88-06-2	MSD 2,4,6-Trichlorophenol	1900	0.00	U	1590	84	37-108	6	0-30
95-95-4	MSD 2,4,5-Trichlorophenol	1900	0.00	U	1700	90	37-116	2	0-30
91-58-7	MSD 2-Chloronaphthalene	1900	0.00	U	1340	70	37-103	0	0-30
88-74-4	MSD 2-Nitroaniline *o-Nitroaniline*	1900	0.00	U	1370	72	36-115	1	0-30
99-09-2	MSD 3-Nitroaniline *m-Nitroaniline*	1900	0.00	U	1020	54	39-117	5	0-30
131-11-3	MSD Dimethylphthalate	1900	0.00	U	1410	74	41-105	0	0-30
606-20-2	MSD 2,6-Dinitrotoluene	1900	0.00	U	1270	67	41-103	2	0-30
208-96-8	MSD Acenaphthylene	1900	0.00	U	1420	75	41-103	0	0-30
51-28-5	MSD 2,4-Dinitrophenol	1900	0.00	U	1080	57	25-104	6	0-30
132-64-9	MSD Dibenzofuran	1900	0.00	U	1650	87	40-114	1	0-30
84-66-2	MSD Diethylphthalate	1900	0.00	U	1520	80	43-110	1	0-30

Semi-Volatile
Quality Control Summary
Spike Recovery Report

SDG Number: 10-940
Client ID: WST12-10-8879MSD
Lab Sample ID: 1202003531
Instrument: MSD1.I
Analyst: AMY
Inj. Vol: .5 uL

Sample Type: Matrix Spike Duplicate
Matrix: R
%Moisture: 12.1
Analysis Date: 12/30/2009 16:10
Dilution: 1
Prep Batch ID: 936369
Batch ID: 936371

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
86-73-7	MSD	Fluorene	1900	0.00	U	1410	74	48-99	0	0-30
7005-72-3	MSD	4-Chlorophenylphenylether	1900	0.00	U	1550	82	42-111	1	0-30
534-52-1	MSD	2-Methyl-4,6-dinitrophenol	1900	0.00	U	1040	55	19-118	1	0-30
100-01-6	MSD	4-Nitroaniline *p-Nitroaniline*	1900	0.00	U	985	52	35-139	7	0-30
122-39-4	MSD	Diphenylamine	1900	0.00	U	1410	74	41-112	1	0-30
122-66-7	MSD	Azobenzene *1,2-Diphenylhydrazine*	1900	0.00	U	1440	76	37-118	1	0-30
101-55-3	MSD	4-Bromophenylphenylether	1900	0.00	U	1770	93	39-112	0	0-30
118-74-1	MSD	Hexachlorobenzene	1900	0.00	U	1590	84	38-113	1	0-30
85-01-8	MSD	Phenanthrene	1900	0.00	U	1390	73	38-110	0	0-30
120-12-7	MSD	Anthracene	1900	0.00	U	1330	70	38-112	1	0-30
84-74-2	MSD	Di-n-butylphthalate	1900	0.00	U	1570	83	42-119	1	0-30
206-44-0	MSD	Fluoranthene	1900	0.00	U	1410	74	38-119	2	0-30
85-68-7	MSD	Butylbenzylphthalate	1900	0.00	U	1700	90	39-126	2	0-30
56-55-3	MSD	Benzo(a)anthracene	1900	0.00	U	1340	71	39-110	4	0-30
91-94-1	MSD	3,3'-Dichlorobenzidine	1900	0.00	U	236	12 *	35-106	9	0-30
218-01-9	MSD	Chrysene	1900	0.00	U	1340	71	39-109	4	0-30
117-81-7	MSD	bis(2-Ethylhexyl)phthalate	1900	0.00	U	1620	85	40-125	1	0-30
117-84-0	MSD	Di-n-octylphthalate	1900	0.00	U	2040	108	30-147	6	0-30
205-99-2	MSD	Benzo(b)fluoranthene	1900	0.00	U	1510	80	38-117	1	0-30
207-08-9	MSD	Benzo(k)fluoranthene	1900	0.00	U	1540	81	39-120	2	0-30
50-32-8	MSD	Benzo(a)pyrene	1900	0.00	U	1400	74	40-115	2	0-30
193-39-5	MSD	Indeno(1,2,3-cd)pyrene	1900	0.00	U	1000	53	32-120	6	0-30

Semi-Volatile
Quality Control Summary
Spike Recovery Report

SDG Number:	**10-940**	**Sample Type:**	**Matrix Spike Duplicate**
Client ID:	**WST12-10-8879MSD**	**Matrix:**	**R**
Lab Sample ID:	**1202003531**	**%Moisture:**	**12.1**
Instrument:	**MSD1.I**	**Analysis Date:**	**12/30/2009 16:10**
Analyst:	**AMY**	**Prep Batch ID**	**936369**
Inj. Vol:	**.5 uL**	**Batch ID:**	**936371**

Dilution: 1

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
53-70-3	MSD Dibenzo(a,h)anthracene	1900	0.00	U	1050	55	32-124	5	0-30
191-24-2	MSD Benzo(ghi)perylene	1900	0.00	U	929	49	28-119	5	0-30
120-82-1	MSD 1,2,4-Trichlorobenzene	1900	0.00	U	1320	70	31-105	1	0-30

Method Blank Summary

SDG Number:	10-940	Client:	LANL010	Matrix:	SOIL
Client ID:	MB for batch 934978	Instrument ID:	MSD6.I	Data File:	s6l2210-1.d
Lab Sample ID:	1202000424	Prep Date:	12/21/2009 11:03	Analyzed:	12/22/09 16:55
Column:	J&W DB-5MS	Level:	LOW		

This method blank applies to the following samples and quality control samples:

Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01 LCS for batch 934978	1202000425	s6l2211-1.d	12/22/09	1723
02 RE03-09-14221	243033001	s6l2212.d	12/22/09	1752
03 RE03-09-14221MS	1202000956	s6l2213.d	12/22/09	1820
04 RE03-09-14221MSD	1202000957	s6l2214.d	12/22/09	1848
05 RE03-09-14211	243033002	s6l2215.d	12/22/09	1915
06 RE03-09-14210	243033003	s6l2216.d	12/22/09	1943
07 RE03-09-14209	243033004	s6l2217.d	12/22/09	2011
08 RE03-09-14208	243033005	s6l2218.d	12/22/09	2039
09 RE03-09-14223	243033007	s6l2220.d	12/22/09	2134
10 RE03-09-14220	243033008	s6l2221.d	12/22/09	2201
11 RE03-10-2734	243033009	s6l2222.d	12/22/09	2228

Method Blank Summary

SDG Number:	10-940	Client:	LANL010	Matrix:	SOIL
Client ID:	MB for batch 936369	Instrument ID:	MSD1.I	Data File:	s113006-1.d
Lab Sample ID:	1202003528	Prep Date:	12/24/2009 08:22	Analyzed:	12/30/09 12:10
Column:	J&W DB-5MS	Level:	LOW		

This method blank applies to the following samples and quality control samples:

	Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01	LCS for batch 936369	1202003529	s113007-2.d	12/30/09	1233
02	RE03-09-14222	243033006	s113013.d	12/30/09	1457

Instrument Performance Check

DFTPP

Lab Name GEL Laboratories LLC **Client SDG:** 10-940

Instrument ID: MSD1.I **Injection Date/Time:** 14-NOV-09 17:38

Column Description: J&W DB-5MS **Lab File ID** /chem/MSD1.i/s111409.b/s1k1201.d

m/e	Ion Abundance Criteria	% Relative Abundance
198	Base Peak, 100% Relative Abundance	100
51	30 - 60% of mass 198	41.3
68	Less than 2% of mass 69	1.8
69	Mass 69 Relative Abundance	36.7
70	Less than 2% of mass 69	0.6
127	40 - 60% of mass 198	48.3
197	0 - 1% of mass 198	0.7
199	5 - 9% of mass 198	6.6
275	10 - 30% of mass 198	23.3
365	Greater than 1% of mass 198	2.2
441	Present, but less than mass 443	74.2
442	Greater than 40% of mass 198	77.4
443	17 - 23% of mass 442	19.2

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
MEGA001	WBN091111-16	/chem/MSD1.i/s111409.b/s1k120	14-NOV-09 18:22
MEGA010	WBN091111-15	/chem/MSD1.i/s111409.b/s1k120	14-NOV-09 18:51
MEGA020	WBN091111-14	/chem/MSD1.i/s111409.b/s1k120	14-NOV-09 19:21
MEGA040	WBN091111-13.1	/chem/MSD1.i/s111409.b/s1k120	14-NOV-09 19:50
MEGA050	WBN091111-12	/chem/MSD1.i/s111409.b/s1k120	14-NOV-09 20:19
MEGA080	WBN091111-11	/chem/MSD1.i/s111409.b/s1k120	14-NOV-09 20:47
MEGA100	WBN091111-10	/chem/MSD1.i/s111409.b/s1k120	14-NOV-09 21:16
MEGA120	WBN091111-09	/chem/MSD1.i/s111409.b/s1k121	14-NOV-09 21:45

Instrument Performance Check

DFTPP

Lab Name GEL Laboratories LLC **Client SDG:** 10-940

Instrument ID: MSD1.I **Injection Date/Time:** 15-NOV-09 14:50

Column Description: J&W DB-5MS **Lab File ID** /chem/MSD1.i/s111409.b/s1k1213.d

m/e	Ion Abundance Criteria	% Relative Abundance
198	Base Peak, 100% Relative Abundance	100
51	30 - 60% of mass 198	45.1
68	Less than 2% of mass 69	1.8
69	Mass 69 Relative Abundance	39.1
70	Less than 2% of mass 69	0.5
127	40 - 60% of mass 198	50.2
197	0 - 1% of mass 198	0.9
199	5 - 9% of mass 198	6.6
275	10 - 30% of mass 198	22.4
365	Greater than 1% of mass 198	2.3
441	Present, but less than mass 443	72.7
442	Greater than 40% of mass 198	70.7
443	17 - 23% of mass 442	19.3

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
AP010	WBN091111-01	/chem/MSD1.i/s111409.b/s1k121	15-NOV-09 15:28
AP020	WBN091111-02	/chem/MSD1.i/s111409.b/s1k121	15-NOV-09 15:51
AP040	WBN091111-03.1	/chem/MSD1.i/s111409.b/s1k121	15-NOV-09 16:14
AP050	WBN091111-04	/chem/MSD1.i/s111409.b/s1k121	15-NOV-09 16:38
AP080	WBN091111-05	/chem/MSD1.i/s111409.b/s1k121	15-NOV-09 17:01
AP100	WBN091111-06	/chem/MSD1.i/s111409.b/s1k122	15-NOV-09 17:24
AP120	WBN091111-07	/chem/MSD1.i/s111409.b/s1k122	15-NOV-09 17:47
APICV	WBN091111-08.1	/chem/MSD1.i/s111409.b/s1k123	15-NOV-09 23:17

Instrument Performance Check

DFTPP

Lab Name GEL Laboratories LLC **Client SDG:** 10-940

Instrument ID: MSD1.I **Injection Date/Time:** 17-NOV-09 15:48

Column Description: J&W DB-5MS **Lab File ID** /chem/MSD1.i/s111409.b/s1k1259.d

m/e	Ion Abundance Criteria	% Relative Abundance
198	Base Peak, 100% Relative Abundance	100
51	30 - 60% of mass 198	44.2
68	Less than 2% of mass 69	1.8
69	Mass 69 Relative Abundance	38.5
70	Less than 2% of mass 69	0.6
127	40 - 60% of mass 198	49.6
197	0 - 1% of mass 198	0.7
199	5 - 9% of mass 198	6.7
275	10 - 30% of mass 198	23.8
365	Greater than 1% of mass 198	2.4
441	Present, but less than mass 443	72.4
442	Greater than 40% of mass 198	78.9
443	17 - 23% of mass 442	19.2

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
MEGAICV	WBN091027-09.3	/chem/MSD1.i/s111409.b/s1k126	17-NOV-09 16:27

Instrument Performance Check

DFTPP

Lab Name GEL Laboratories LLC **Client SDG:** 10-940

Instrument ID: MSD1.I **Injection Date/Time:** 30-DEC-09 10:24

Column Description: J&W DB-5MS **Lab File ID** /chem/MSD1.i/s123009.b/s113002.d

m/e	Ion Abundance Criteria	% Relative Abundance
198	Base Peak, 100% Relative Abundance	100
51	30 - 60% of mass 198	41.7
68	Less than 2% of mass 69	1.5
69	Mass 69 Relative Abundance	37.9
70	Less than 2% of mass 69	0.5
127	40 - 60% of mass 198	47.3
197	0 - 1% of mass 198	0.7
199	5 - 9% of mass 198	6.6
275	10 - 30% of mass 198	23.4
365	Greater than 1% of mass 198	2.2
441	Present, but less than mass 443	75.7
442	Greater than 40% of mass 198	62.7
443	17 - 23% of mass 442	18.9

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
MEGACVS	WBN091111-17.2	/chem/MSD1.i/s123009.b/s113003	30-DEC-09 10:40
APCVS	WBN091201-03.5	/chem/MSD1.i/s123009.b/s113004	30-DEC-09 11:22
SBLK02	1202003528	/chem/MSD1.i/s123009.b/s113006	30-DEC-09 12:10
SBLK02LCS	1202003529	/chem/MSD1.i/s123009.b/s113007	30-DEC-09 12:33
RE03-09-14222	243033006	/chem/MSD1.i/s123009.b/s113013	30-DEC-09 14:57

Instrument Performance Check

DFTPP

Lab Name GEL Laboratories LLC **Client SDG:** 10-940

Instrument ID: MSD6.I **Injection Date/Time:** 09-NOV-09 18:00

Column Description: Phenomenex ZB-5MS **Lab File ID** /chem/MSD6.i/s110909.b/s6k0911.d

m/e	Ion Abundance Criteria	% Relative Abundance
198	Base Peak, 100% Relative Abundance	100
51	30 - 60% of mass 198	45.4
68	Less than 2% of mass 69	1.6
69	Mass 69 Relative Abundance	43
70	Less than 2% of mass 69	0.5
127	40 - 60% of mass 198	51.4
197	0 - 1% of mass 198	0.6
199	5 - 9% of mass 198	6.9
275	10 - 30% of mass 198	23.7
365	Greater than 1% of mass 198	2.4
441	Present, but less than mass 443	73.9
442	Greater than 40% of mass 198	77.9
443	17 - 23% of mass 442	19.2

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
MEGAICAL	WBN091106-08	/chem/MSD6.i/s110909.b/s6k091	09-NOV-09 18:53
MEGAICAL	WBN091106-07	/chem/MSD6.i/s110909.b/s6k091	09-NOV-09 19:31
MEGAICAL	WBN091106-06	/chem/MSD6.i/s110909.b/s6k091	09-NOV-09 20:09
MEGAICAL	WBN091106-05.1	/chem/MSD6.i/s110909.b/s6k091	09-NOV-09 20:46
MEGAICAL	WBN091106-04	/chem/MSD6.i/s110909.b/s6k091	09-NOV-09 21:25
MEGAICAL	WBN091106-03	/chem/MSD6.i/s110909.b/s6k091	09-NOV-09 22:01
MEGAICAL	WBN091106-02	/chem/MSD6.i/s110909.b/s6k091	09-NOV-09 22:39
MEGAICAL	WBN091106-01	/chem/MSD6.i/s110909.b/s6k092	09-NOV-09 23:16

Instrument Performance Check

DFTPP

Lab Name GEL Laboratories LLC **Client SDG:** 10-940

Instrument ID: MSD6.I **Injection Date/Time:** 10-NOV-09 11:07

Column Description: Phenomenex ZB-5MS **Lab File ID** /chem/MSD6.i/s110909.b/s6k0921.d

m/e	Ion Abundance Criteria	% Relative Abundance
198	Base Peak, 100% Relative Abundance	100
51	30 - 60% of mass 198	45.1
68	Less than 2% of mass 69	1.6
69	Mass 69 Relative Abundance	43.1
70	Less than 2% of mass 69	0.5
127	40 - 60% of mass 198	50.9
197	0 - 1% of mass 198	0.4
199	5 - 9% of mass 198	7
275	10 - 30% of mass 198	23.3
365	Greater than 1% of mass 198	2.6
441	Present, but less than mass 443	72.6
442	Greater than 40% of mass 198	76
443	17 - 23% of mass 442	19.9

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
AP12ICAL	WBN091016-01	/chem/MSD6.i/s110909.b/s6k092	10-NOV-09 11:59
AP12ICAL	WBN091016-02	/chem/MSD6.i/s110909.b/s6k092	10-NOV-09 12:36
AP12ICAL	WBN091016-03	/chem/MSD6.i/s110909.b/s6k092	10-NOV-09 13:13
AP12ICAL	WBN091016-04	/chem/MSD6.i/s110909.b/s6k092	10-NOV-09 13:51
AP12ICAL	WBN091016-05	/chem/MSD6.i/s110909.b/s6k092	10-NOV-09 14:30
AP12ICAL	WBN091016-06	/chem/MSD6.i/s110909.b/s6k092	10-NOV-09 15:06
AP12ICAL	WBN091016-07	/chem/MSD6.i/s110909.b/s6k092	10-NOV-09 15:43
MEGAICV	WBN091106-09.1	/chem/MSD6.i/s110909.b/s6k093	10-NOV-09 20:29
AP12ICV	WBN091016-08.1	/chem/MSD6.i/s110909.b/s6k093	10-NOV-09 21:07

Instrument Performance Check

DFTPP

Lab Name GEL Laboratories LLC **Client SDG:** 10-940

Instrument ID: MSD6.I **Injection Date/Time:** 12-DEC-09 15:10

Column Description: Phenomenex ZB-5MS **Lab File ID** /chem/MSD6.i/s121209.b/s6l1201.d

m/e	Ion Abundance Criteria	% Relative Abundance
198	Base Peak, 100% Relative Abundance	100
51	30 - 60% of mass 198	37.3
68	Less than 2% of mass 69	1.6
69	Mass 69 Relative Abundance	38.1
70	Less than 2% of mass 69	0.5
127	40 - 60% of mass 198	49.1
197	0 - 1% of mass 198	0.5
199	5 - 9% of mass 198	6.8
275	10 - 30% of mass 198	24.3
365	Greater than 1% of mass 198	2.6
441	Present, but less than mass 443	74.9
442	Greater than 40% of mass 198	86
443	17 - 23% of mass 442	19.1

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
MEGA001	WBN091201-16	/chem/MSD6.i/s121209.b/s6l1207	12-DEC-09 20:07
MEGA010	WBN091201-15	/chem/MSD6.i/s121209.b/s6l1208	12-DEC-09 20:44
MEGA020	WBN091201-14	/chem/MSD6.i/s121209.b/s6l1209	12-DEC-09 21:20
MEGA040	WBN091201-13.1	/chem/MSD6.i/s121209.b/s6l1210	12-DEC-09 21:56
MEGA080	WBN091201-11	/chem/MSD6.i/s121209.b/s6l1212	12-DEC-09 23:09
MEGA100	WBN091201-10	/chem/MSD6.i/s121209.b/s6l1213	12-DEC-09 23:45
MEGA120	WBN091201-09	/chem/MSD6.i/s121209.b/s6l1214	13-DEC-09 00:22
AP010	WBN091201-01	/chem/MSD6.i/s121209.b/s6l1215	13-DEC-09 00:58
AP020	WBN091201-02	/chem/MSD6.i/s121209.b/s6l1216	13-DEC-09 01:25
AP040	WBN091201-03.1	/chem/MSD6.i/s121209.b/s6l1217	13-DEC-09 01:52
AP050	WBN091201-04	/chem/MSD6.i/s121209.b/s6l1218	13-DEC-09 02:19
AP080	WBN091201-05	/chem/MSD6.i/s121209.b/s6l1219	13-DEC-09 02:46
AP100	WBN091201-06	/chem/MSD6.i/s121209.b/s6l1220	13-DEC-09 03:13
AP120	WBN091201-07	/chem/MSD6.i/s121209.b/s6l1221	13-DEC-09 03:41
MEGAICV	WBN091201-17.1	/chem/MSD6.i/s121209.b/s6l1222	13-DEC-09 04:08

Instrument Performance Check

DFTPP

Lab Name GEL Laboratories LLC **Client SDG:** 10-940

Instrument ID: MSD6.I **Injection Date/Time:** 22-DEC-09 15:13

Column Description: Phenomenex ZB-5MS **Lab File ID** /chem/MSD6.i/s122209.b/s6I2206.d

m/e	Ion Abundance Criteria	% Relative Abundance
198	Base Peak, 100% Relative Abundance	100
51	30 - 60% of mass 198	41.4
68	Less than 2% of mass 69	1.5
69	Mass 69 Relative Abundance	40.3
70	Less than 2% of mass 69	0.5
127	40 - 60% of mass 198	50.7
197	0 - 1% of mass 198	0.5
199	5 - 9% of mass 198	6.8
275	10 - 30% of mass 198	23.4
365	Greater than 1% of mass 198	2.5
441	Present, but less than mass 443	73.9
442	Greater than 40% of mass 198	75.6
443	17 - 23% of mass 442	19.4

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
MEGACVS	WBN091111-17.4	/chem/MSD6.i/s122209.b/s6I2207	22-DEC-09 15:28
AP12CVS	WBN091201-03.5	/chem/MSD6.i/s122209.b/s6I2208	22-DEC-09 15:58
SBLK01	1202000424	/chem/MSD6.i/s122209.b/s6I2210	22-DEC-09 16:55
SBLK01LCS	1202000425	/chem/MSD6.i/s122209.b/s6I2211	22-DEC-09 17:23
RE03-09-14221	243033001	/chem/MSD6.i/s122209.b/s6I2212	22-DEC-09 17:52
RE03-09-14221MS	1202000956	/chem/MSD6.i/s122209.b/s6I2213	22-DEC-09 18:20
RE03-09-14221MSD	1202000957	/chem/MSD6.i/s122209.b/s6I2214	22-DEC-09 18:48
RE03-09-14211	243033002	/chem/MSD6.i/s122209.b/s6I2215	22-DEC-09 19:15
RE03-09-14210	243033003	/chem/MSD6.i/s122209.b/s6I2216	22-DEC-09 19:43
RE03-09-14209	243033004	/chem/MSD6.i/s122209.b/s6I2217	22-DEC-09 20:11
RE03-09-14208	243033005	/chem/MSD6.i/s122209.b/s6I2218	22-DEC-09 20:39
RE03-09-14223	243033007	/chem/MSD6.i/s122209.b/s6I2220	22-DEC-09 21:34
RE03-09-14220	243033008	/chem/MSD6.i/s122209.b/s6I2221	22-DEC-09 22:01
RE03-10-2734	243033009	/chem/MSD6.i/s122209.b/s6I2222	22-DEC-09 22:28

Internal Standard
Area and RT Summary

Lab Name : GEL Laboratories LLC

Instrument: MSD1.I

GC Column: J&W DB-5MS

Client SDG: 10-940

STD Analysis Time: 30-DEC-09 10:40

Data File: s113003.d

	1,4-Dichlorobenzene-d4			Naphthalene-d8			Acenaphthene-d10			Phenanthrene-d10			Chrysene-d12			Perylene-d12		
	Area	#	RT #	Area	#	RT #	Area	#	RT #	Area	#	RT #	Area	#	RT #	Area	#	RT #
12 Hour STD	687374		3.76	2750224		4.62	1443314		5.87	2352888		6.86	1958666		8.49	1612518		9.83
Upper Limit	1374748		4.26	5500448		5.12	2886628		6.37	4705776		7.36	3917332		8.99	3225036		10.3
Lower Limit	343687		3.26	1375112		4.12	721657		5.37	1176444		6.36	979333		7.99	806259		9.33
Sample ID																		
BLK02	764048		3.76	2905715		4.62	1572357		5.86	2537751		6.86	2035039		8.47	1647770		9.82
BLK02LCS	703382		3.76	2785904		4.62	1453777		5.87	2480305		6.86	2191348		8.48	1936592		9.82
RE03-09-14222	742288		3.76	2847243		4.62	1535260		5.87	2669034		6.86	2256477		8.48	1791036		9.83

Area Upper Limit = +100% of internal standard area
Area Lower Limit = - 50% of internal standard area

RT Upper Limit = + 0.50 minutes of internal standard RT
RT Lower Limit = - 0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Value outside of QC Limits

Internal Standard
Area and RT Summary

Lab Name : GEL Laboratories LLC

Instrument: MSD6.I

GC Column: J&W DB-5MS

Client SDG: 10-940

STD Analysis Time: 22-DEC-09 15:28

Data File: s6l2207.d

	1,4-Dichlorobenzene-d4			Naphthalene-d8			Acenaphthene-d10			Phenanthrene-d10			Chrysene-d12			Perylene-d12		
	Area	#	RT #	Area	#	RT #	Area	#	RT #	Area	#	RT #	Area	#	RT #	Area	#	RT #
12 Hour STD	214678		4.98	850778		6.26	452179		8.14	795225		9.75	655834		12.8	574835		15.2
Upper Limit	429356		5.48	1701556		6.76	904358		8.64	1590450		10.3	1311668		13.3	1149670		15.7
Lower Limit	107339		4.48	425389		5.76	226090		7.64	397613		9.25	327917		12.3	287418		14.7
Sample ID																		
BLK01	228409		4.98	873239		6.26	482923		8.13	856951		9.75	742869		12.8	646177		15.2
BLK01LCS	199379		4.98	812988		6.26	425296		8.13	742185		9.75	591651		12.8	488851		15.2
RE03-09-14221	247455		4.98	929721		6.26	508331		8.13	864091		9.75	686083		12.8	579542		15.2
RE03-09-14221MS	201494		4.98	803485		6.26	424433		8.13	740469		9.75	583921		12.8	492387		15.2
RE03-09-14221MSD	217820		4.98	882166		6.26	463399		8.13	845602		9.75	712961		12.8	622765		15.2
RE03-09-14211	217985		4.98	827339		6.26	458096		8.13	811798		9.75	696469		12.8	621486		15.2
RE03-09-14210	192032		4.98	736422		6.26	406271		8.13	708912		9.75	557337		12.8	475420		15.2
RE03-09-14209	260408		4.98	997245		6.26	548473		8.13	958179		9.75	788286		12.8	635485		15.2
RE03-09-14208	190336		4.98	738861		6.26	409339		8.13	705346		9.75	587663		12.8	485695		15.2
RE03-09-14223	240570		4.98	914975		6.26	506436		8.13	892502		9.75	745753		12.8	638516		15.2
RE03-09-14220	262433		4.98	1008546		6.26	558416		8.13	997008		9.75	831404		12.8	695796		15.2
RE03-10-2734	261027		4.98	986515		6.26	540893		8.13	943340		9.75	755043		12.8	598775		15.2

Area Upper Limit = +100% of internal standard area
Area Lower Limit = - 50% of internal standard area

RT Upper Limit = + 0.50 minutes of internal standard RT
RT Lower Limit = - 0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Value outside of QC Limits

Sample Data

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-940**	**Date Collected:**	**12/14/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243033005**	**Date Received:**	**12/16/2009 09:10**	**%Moisture:**	**12.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14208**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**934979**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**12/22/2009 20:39**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/21/2009 11:03**	**Aliquot:**	**30.02 g**	**Final Volume:**	**1 mL**
Data File:		**Column:**			

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	382	ug/kg	76.4	382
108-95-2	Phenol	U	382	ug/kg	76.4	382
95-57-8	2-Chlorophenol	U	382	ug/kg	76.4	382
106-46-7	1,4-Dichlorobenzene	U	382	ug/kg	76.4	382
621-64-7	N-Nitrosodipropylamine	U	382	ug/kg	76.4	382
59-50-7	4-Chloro-3-methylphenol	U	382	ug/kg	76.4	382
83-32-9	Acenaphthene	U	38.2	ug/kg	12.6	38.2
121-14-2	2,4-Dinitrotoluene	U	382	ug/kg	38.2	382
100-02-7	4-Nitrophenol	U	382	ug/kg	126	382
87-86-5	Pentachlorophenol	U	382	ug/kg	95.5	382
129-00-0	Pyrene	U	38.2	ug/kg	11.5	38.2
110-86-1	Pyridine	U	382	ug/kg	76.4	382
62-53-3	Aniline	U	382	ug/kg	115	382
111-44-4	bis(2-Chloroethyl) ether	U	382	ug/kg	76.4	382
541-73-1	1,3-Dichlorobenzene	U	382	ug/kg	76.4	382
100-51-6	Benzyl alcohol	U	382	ug/kg	115	382
95-50-1	1,2-Dichlorobenzene	U	382	ug/kg	76.4	382
108-60-1	bis(2-Chloroisopropyl)ether	U	382	ug/kg	76.4	382
95-48-7	o-Cresol	U	382	ug/kg	76.4	382
65794-96-9	m,p-Cresols	U	382	ug/kg	115	382
67-72-1	Hexachloroethane	U	382	ug/kg	76.4	382
98-95-3	Nitrobenzene	U	382	ug/kg	76.4	382
78-59-1	Isophorone	U	382	ug/kg	76.4	382
88-75-5	2-Nitrophenol	U	382	ug/kg	76.4	382
105-67-9	2,4-Dimethylphenol	U	382	ug/kg	134	382
111-91-1	bis(2-Chloroethoxy)methane	U	382	ug/kg	76.4	382
120-83-2	2,4-Dichlorophenol	U	382	ug/kg	76.4	382
65-85-0	Benzoic acid	U	764	ug/kg	191	764
91-20-3	Naphthalene	U	38.2	ug/kg	11.5	38.2
106-47-8	4-Chloroaniline	U	382	ug/kg	76.4	382
87-68-3	Hexachlorobutadiene	U	382	ug/kg	76.4	382
91-57-6	2-Methylnaphthalene	U	38.2	ug/kg	7.64	38.2
77-47-4	Hexachlorocyclopentadiene	U	382	ug/kg	76.4	382
88-06-2	2,4,6-Trichlorophenol	U	382	ug/kg	76.4	382
95-95-4	2,4,5-Trichlorophenol	U	382	ug/kg	76.4	382
91-58-7	2-Chloronaphthalene	U	38.2	ug/kg	12.6	38.2
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	382	ug/kg	76.4	382
99-09-2	3-Nitroaniline	U	382	ug/kg	76.4	382

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-940**	**Date Collected:**	**12/14/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243033005**	**Date Received:**	**12/16/2009 09:10**	**%Moisture:**	**12.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14208**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**934979**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**12/22/2009 20:39**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/21/2009 11:03**	**Aliquot:**	**30.02 g**	**Final Volume:**	**1 mL**
Data File:		**Column:**			

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	382	ug/kg	76.4	382
606-20-2	2,6-Dinitrotoluene	U	382	ug/kg	38.2	382
208-96-8	Acenaphthylene	U	38.2	ug/kg	11.5	38.2
51-28-5	2,4-Dinitrophenol	U	764	ug/kg	145	764
132-64-9	Dibenzofuran	U	382	ug/kg	76.4	382
84-66-2	Diethylphthalate	U	382	ug/kg	76.4	382
86-73-7	Fluorene	U	38.2	ug/kg	11.5	38.2
7005-72-3	4-Chlorophenylphenylether	U	382	ug/kg	76.4	382
534-52-1	2-Methyl-4,6-dinitrophenol	U	382	ug/kg	76.4	382
100-01-6	4-Nitroaniline	U	382	ug/kg	115	382
	p-Nitroaniline					
122-39-4	Diphenylamine	U	382	ug/kg	76.4	382
122-66-7	Azobenzene	U	382	ug/kg	76.4	382
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	382	ug/kg	76.4	382
118-74-1	Hexachlorobenzene	U	382	ug/kg	76.4	382
85-01-8	Phenanthrene	U	38.2	ug/kg	11.5	38.2
120-12-7	Anthracene	U	38.2	ug/kg	7.64	38.2
84-74-2	Di-n-butylphthalate	U	382	ug/kg	76.4	382
206-44-0	Fluoranthene	U	38.2	ug/kg	11.5	38.2
85-68-7	Butylbenzylphthalate	U	382	ug/kg	76.4	382
56-55-3	Benzo(a)anthracene	U	38.2	ug/kg	11.5	38.2
91-94-1	3,3'-Dichlorobenzidine	U	382	ug/kg	115	382
218-01-9	Chrysene	U	38.2	ug/kg	11.5	38.2
117-81-7	bis(2-Ethylhexyl)phthalate	U	382	ug/kg	76.4	382
117-84-0	Di-n-octylphthalate	U	382	ug/kg	76.4	382
205-99-2	Benzo(b)fluoranthene	U	38.2	ug/kg	11.5	38.2
207-08-9	Benzo(k)fluoranthene	U	38.2	ug/kg	11.5	38.2
50-32-8	Benzo(a)pyrene	U	38.2	ug/kg	11.5	38.2
193-39-5	Indeno(1,2,3-cd)pyrene	U	38.2	ug/kg	11.5	38.2
53-70-3	Dibenzo(a,h)anthracene	U	38.2	ug/kg	11.5	38.2
191-24-2	Benzo(ghi)perylene	U	38.2	ug/kg	11.5	38.2
120-82-1	1,2,4-Trichlorobenzene	U	382	ug/kg	76.4	382

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	No Tentatively Identified Compounds Found			ug/kg		

GEL Laboratories LLC

Data file : /chem/MSD6.i/s122209.b/s612218.d
Lab Smp Id: 243033005 Client Smp ID: RE03-09-14208
Inj Date : 22-DEC-2009 20:39
Operator : nagl Inst ID: MSD6.i
Smp Info : |243033005|934979|1|SVM|1|LANL
Misc Info : |MSD8270_S|WBN091208-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s122209.b/MSD6-M8270C-AQA-110909.m
Meth Date : 23-Dec-2009 12:48 hnm Quant Type: ISTD
Cal Date : 11-NOV-2009 04:38 Cal File: s6k0954.d
Als bottle: 13
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-940.sub
Target Version: 3.50
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.02000	weight of sample
M	12.79410	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	4.976	4.979	(1.000)	190336	40.0000	
* 29 Naphthalene-d8	136	6.258	6.261	(1.000)	738861	40.0000	
* 46 Acenaphthene-d10	164	8.131	8.136	(1.000)	409339	40.0000	
* 67 Phenanthrene-d10	188	9.746	9.749	(1.000)	705346	40.0000	
* 91 Chrysene-d12	240	12.804	12.809	(1.000)	587663	40.0000	
* 98 Perylene-d12	264	15.215	15.220	(1.000)	485695	40.0000	
$ 3 2-Fluorophenol	112	3.822	3.812	(0.768)	265031	55.6035	2120
$ 5 Phenol-d5	99	4.594	4.597	(0.923)	336890	55.9999	2140
$ 20 Nitrobenzene-d5	82	5.511	5.519	(0.881)	148186	28.3519	1080
$ 39 2-Fluorobiphenyl	172	7.382	7.387	(0.908)	287132	27.2189	1040
$ 60 2,4,6-Tribromophenol	329	8.982	8.985	(1.105)	64175	53.7142	2050
$ 81 p-Terphenyl-d14	244	11.449	11.449	(0.894)	384696	40.5924	1550

ION RATIO REPORT

SV REPORT

Data file: s612218.d
Report Date: 12/22/2009 21:19
Lab. ID: 243033005 SampleType: SAMPLE
Injection Date: 22-DEC-2009 20:39
Operator: nagl Instrument: MSD6.i
Sample Info: |243033005|934979|1|SVM|1|LANL
Miscellaneous Info: |MSD8270_S|WBN091208-01
Comment:
Method used: /chem/MSD6.i/s122209.b/MSD6-M8270C-AQA-110909.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-940
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
4 Aniline		CAS#: 62-53-3				
66	14627	4.60	4.66	80-120	100	(T)
93	644	4.64	4.67	227-287	4	(Q)
17 N-Nitrosodipropylamine				CAS#: 621-64-7		
70	20126	5.51	5.35	80-120	100	(T)
42	12117	5.51	5.35	39- 99	60	(T)
22 Isophorone		CAS#: 78-59-1				
82	148186	5.51	5.77	80-120	100	(T)
138	3454	6.26	5.77	0- 49	2	(T)
43 Dimethylphthalate			CAS#: 131-11-3			
163	72470	8.13	7.82	80-120	100	(T)
164	409339	8.13	7.82	0- 40	565	(QT)
50 2,4-Dinitrotoluene			CAS#: 121-14-2			
165	53605	8.13	8.32	80-120	100	(T)
89	542	8.13	8.32	40-100	1	(QT)
63	356	8.13	8.32	16- 76	1	(QT)
53 Fluorene		CAS#: 86-73-7				
166	3620	8.98	8.73	80-120	100	(T)
165	3998	8.98	8.73	62-122	110	(T)
167	1262	8.98	8.72	0- 44	35	(T)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

Data file : /chem/MSD6.i/s122209.b/s612218.d
Lab Smp Id: 243033005 Client Smp ID: RE03-09-14208
Inj Date : 22-DEC-2009 20:39
Operator : nagl Inst ID: MSD6.i
Smp Info : |243033005|934979|1|SVM|1|LANL
Misc Info : |MSD8270_S|WBN091208-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s122209.b/MSD6-M8270C-AQA-110909.m
Meth Date : 23-Dec-2009 12:48 hnm Quant Type: ISTD
Cal Date : 11-NOV-2009 04:38 Cal File: s6k0954.d
Als bottle: 13
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-940.sub
Target Version: 3.50
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.02000	weight of sample
M	12.79410	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	4.976	1121231	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown Aldol Condensate				CAS #:			
3.565	528677	18.8605940	720	0		0	10

Data File: /chem/MSD6.i/s122209.b/s612218.d
Date : 22-DEC-2009 20:39
Client ID: RE03-09-14208
Sample Info: 1243033005193497911|SVMI1|LANL
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Page 1

Instrument: MSD6.i

Operator: nag1
Column diameter: 0.20

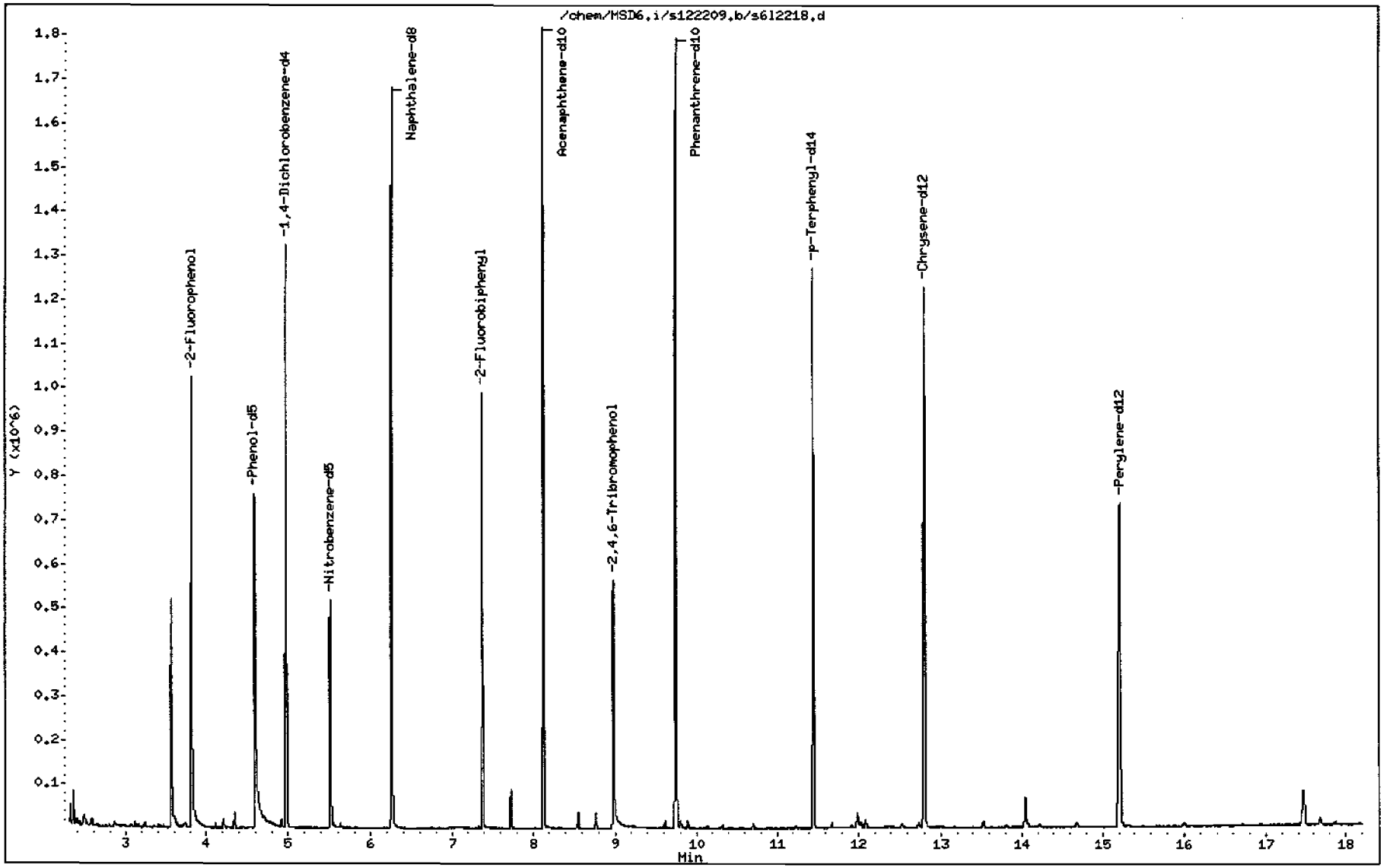

Data File: /chem/HSD6.i/s122209.b/s612218.d

Date : 22-DEC-2009 20:39

Client ID: RE03-09-14208

Instrument: HSD6.i

Sample Info: 1243033005193497911ISVH11LANL

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5HS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7945	59	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	56	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	36	C6H12O2	116

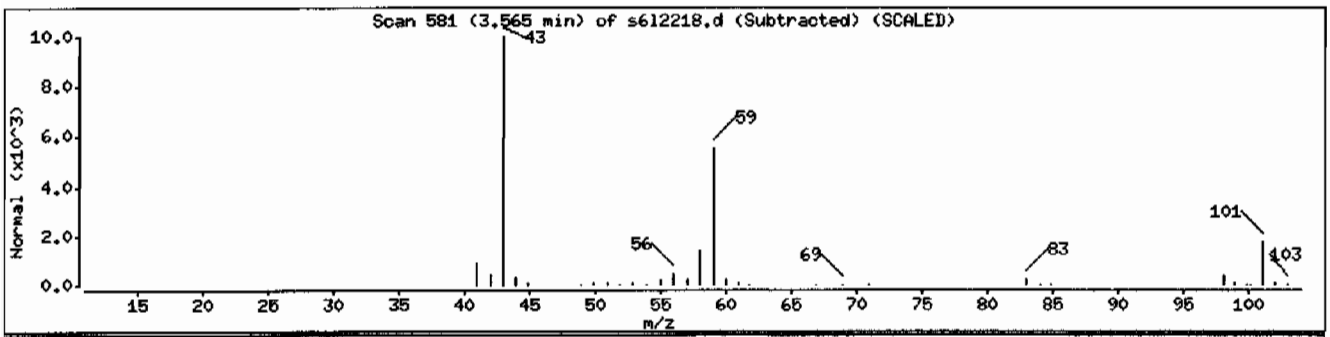

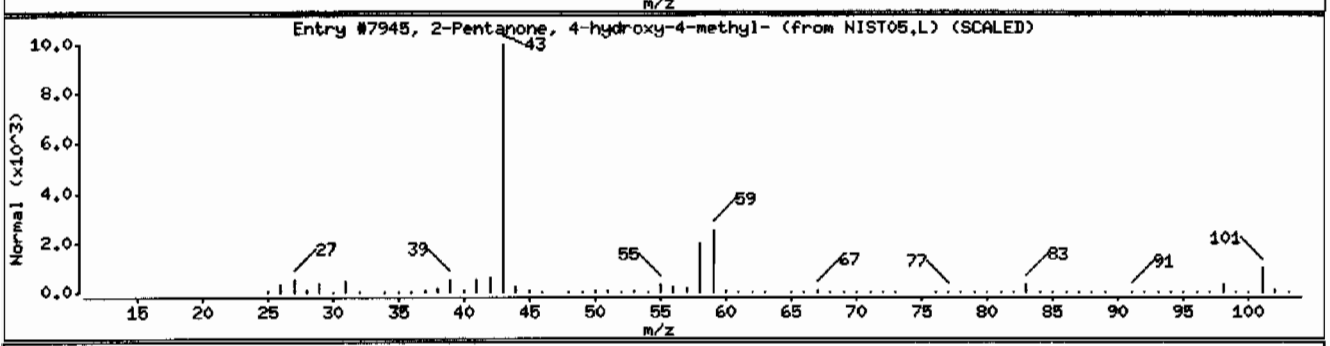

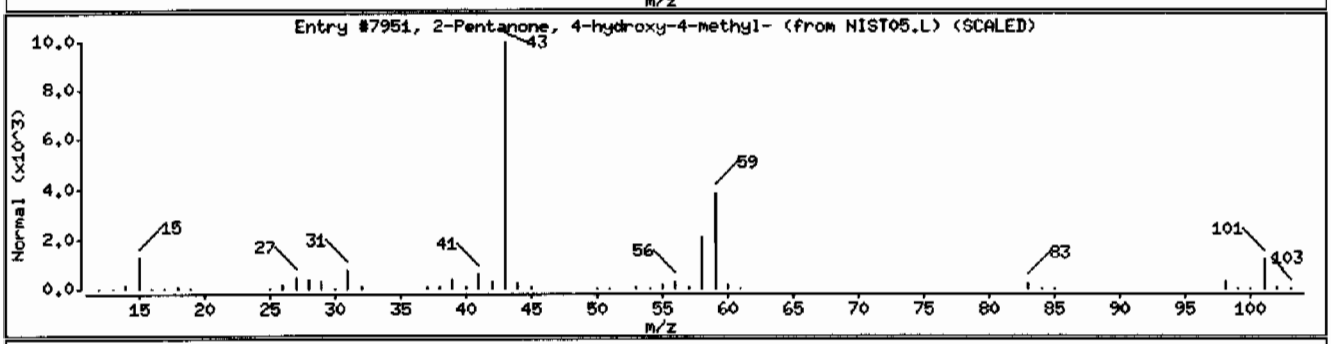

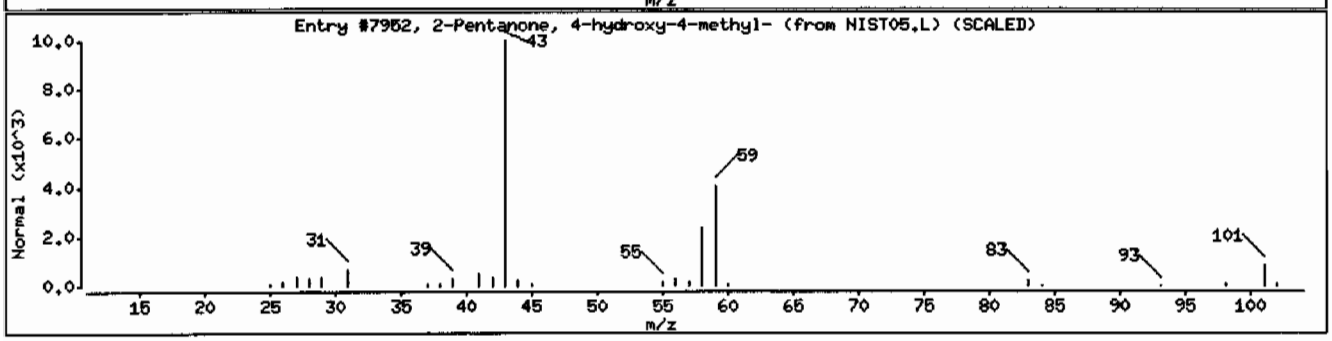

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-940	Date Collected:	12/14/2009 12:00	Matrix:	S
Lab Sample ID:	243033004	Date Received:	12/16/2009 09:10	%Moisture:	11.6
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14209	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	934979	Inst:	MSD6.I	Dilution:	1
Run Date:	12/22/2009 20:11	Analyst:	NAG1	Inj. Vol:	.5 uL
Prep Date:	12/21/2009 11:03	Aliquot:	30.05 g	Final Volume:	1 mL
Data File:	s6l2217.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	376	ug/kg	75.2	376
108-95-2	Phenol	U	376	ug/kg	75.2	376
95-57-8	2-Chlorophenol	U	376	ug/kg	75.2	376
106-46-7	1,4-Dichlorobenzene	U	376	ug/kg	75.2	376
621-64-7	N-Nitrosodipropylamine	U	376	ug/kg	75.2	376
59-50-7	4-Chloro-3-methylphenol	U	376	ug/kg	75.2	376
83-32-9	Acenaphthene	U	37.6	ug/kg	12.4	37.6
121-14-2	2,4-Dinitrotoluene	U	376	ug/kg	37.6	376
100-02-7	4-Nitrophenol	U	376	ug/kg	124	376
87-86-5	Pentachlorophenol	U	376	ug/kg	94.1	376
129-00-0	Pyrene	U	37.6	ug/kg	11.3	37.6
110-86-1	Pyridine	U	376	ug/kg	75.2	376
62-53-3	Aniline	U	376	ug/kg	113	376
111-44-4	bis(2-Chloroethyl) ether	U	376	ug/kg	75.2	376
541-73-1	1,3-Dichlorobenzene	U	376	ug/kg	75.2	376
100-51-6	Benzyl alcohol	U	376	ug/kg	113	376
95-50-1	1,2-Dichlorobenzene	U	376	ug/kg	75.2	376
108-60-1	bis(2-Chloroisopropyl)ether	U	376	ug/kg	75.2	376
95-48-7	o-Cresol	U	376	ug/kg	75.2	376
65794-96-9	m,p-Cresols	U	376	ug/kg	113	376
67-72-1	Hexachloroethane	U	376	ug/kg	75.2	376
98-95-3	Nitrobenzene	U	376	ug/kg	75.2	376
78-59-1	Isophorone	U	376	ug/kg	75.2	376
88-75-5	2-Nitrophenol	U	376	ug/kg	75.2	376
105-67-9	2,4-Dimethylphenol	U	376	ug/kg	132	376
111-91-1	bis(2-Chloroethoxy)methane	U	376	ug/kg	75.2	376
120-83-2	2,4-Dichlorophenol	U	376	ug/kg	75.2	376
65-85-0	Benzoic acid	U	752	ug/kg	188	752
91-20-3	Naphthalene	U	37.6	ug/kg	11.3	37.6
106-47-8	4-Chloroaniline	U	376	ug/kg	75.2	376
87-68-3	Hexachlorobutadiene	U	376	ug/kg	75.2	376
91-57-6	2-Methylnaphthalene	U	37.6	ug/kg	7.52	37.6
77-47-4	Hexachlorocyclopentadiene	U	376	ug/kg	75.2	376
88-06-2	2,4,6-Trichlorophenol	U	376	ug/kg	75.2	376
95-95-4	2,4,5-Trichlorophenol	U	376	ug/kg	75.2	376
91-58-7	2-Chloronaphthalene	U	37.6	ug/kg	12.4	37.6
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	376	ug/kg	75.2	376
99-09-2	3-Nitroaniline	U	376	ug/kg	75.2	376

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-940	**Date Collected:**	12/14/2009 12:00	**Matrix:**	S
Lab Sample ID:	243033004	**Date Received:**	12/16/2009 09:10	**%Moisture:**	11.6
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14209	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	934979	**Inst:**	MSD6.I	**Dilution:**	1
Run Date:	12/22/2009 20:11	**Analyst:**	NAG1	**Inj. Vol:**	.5 uL
Prep Date:	12/21/2009 11:03	**Aliquot:**	30.05 g	**Final Volume:**	1 mL
Data File:	s612217.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	376	ug/kg	75.2	376
606-20-2	2,6-Dinitrotoluene	U	376	ug/kg	37.6	376
208-96-8	Acenaphthylene	U	37.6	ug/kg	11.3	37.6
51-28-5	2,4-Dinitrophenol	U	752	ug/kg	143	752
132-64-9	Dibenzofuran	U	376	ug/kg	75.2	376
84-66-2	Diethylphthalate	U	376	ug/kg	75.2	376
86-73-7	Fluorene	U	37.6	ug/kg	11.3	37.6
7005-72-3	4-Chlorophenylphenylether	U	376	ug/kg	75.2	376
534-52-1	2-Methyl-4,6-dinitrophenol	U	376	ug/kg	75.2	376
100-01-6	4-Nitroaniline	U	376	ug/kg	113	376
	p-Nitroaniline					
122-39-4	Diphenylamine	U	376	ug/kg	75.2	376
122-66-7	Azobenzene	U	376	ug/kg	75.2	376
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	376	ug/kg	75.2	376
118-74-1	Hexachlorobenzene	U	376	ug/kg	75.2	376
85-01-8	Phenanthrene	U	37.6	ug/kg	11.3	37.6
120-12-7	Anthracene	U	37.6	ug/kg	7.52	37.6
84-74-2	Di-n-butylphthalate	U	376	ug/kg	75.2	376
206-44-0	Fluoranthene	U	37.6	ug/kg	11.3	37.6
85-68-7	Butylbenzylphthalate	U	376	ug/kg	75.2	376
56-55-3	Benzo(a)anthracene	U	37.6	ug/kg	11.3	37.6
91-94-1	3,3'-Dichlorobenzidine	U	376	ug/kg	113	376
218-01-9	Chrysene	U	37.6	ug/kg	11.3	37.6
117-81-7	bis(2-Ethylhexyl)phthalate	U	376	ug/kg	75.2	376
117-84-0	Di-n-octylphthalate	U	376	ug/kg	75.2	376
205-99-2	Benzo(b)fluoranthene	U	37.6	ug/kg	11.3	37.6
207-08-9	Benzo(k)fluoranthene	U	37.6	ug/kg	11.3	37.6
50-32-8	Benzo(a)pyrene	U	37.6	ug/kg	11.3	37.6
193-39-5	Indeno(1,2,3-cd)pyrene	U	37.6	ug/kg	11.3	37.6
53-70-3	Dibenzo(a,h)anthracene	U	37.6	ug/kg	11.3	37.6
191-24-2	Benzo(ghi)perylene	U	37.6	ug/kg	11.3	37.6
120-82-1	1,2,4-Trichlorobenzene	U	376	ug/kg	75.2	376

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	3.58	656	ug/kg		JA
	Unknown	17.47	202	ug/kg		J

GEL Laboratories LLC

Data file : /chem/MSD6.i/s122209.b/s612217.d
Lab Smp Id: 243033004 Client Smp ID: RE03-09-14209
Inj Date : 22-DEC-2009 20:11
Operator : nag1 Inst ID: MSD6.i
Smp Info : |243033004|934979|1|SVM|1|LANL
Misc Info : |MSD8270_S|WBN091208-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s122209.b/MSD6-M8270C-AQA-110909.m
Meth Date : 22-Dec-2009 17:52 ann00964 Quant Type: ISTD
Cal Date : 11-NOV-2009 04:38 Cal File: s6k0954.d
Als bottle: 12
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-940.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.05000	weight of sample
M	11.55070	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	4.976	4.979	(1.000)	260408	40.0000	
* 29 Naphthalene-d8	136	6.258	6.261	(1.000)	997245	40.0000	
* 46 Acenaphthene-d10	164	8.131	8.136	(1.000)	548473	40.0000	
* 67 Phenanthrene-d10	188	9.746	9.749	(1.000)	958179	40.0000	
* 91 Chrysene-d12	240	12.804	12.809	(1.000)	788286	40.0000	
* 98 Perylene-d12	264	15.217	15.220	(1.000)	635485	40.0000	
$ 3 2-Fluorophenol	112	3.825	3.812	(0.769)	386798	59.3139	2230
$ 5 Phenol-d5	99	4.594	4.597	(0.923)	547444	66.5129	2500
$ 20 Nitrobenzene-d5	82	5.511	5.519	(0.881)	194235	27.5336	1040
$ 39 2-Fluorobiphenyl	172	7.382	7.387	(0.908)	335321	23.7234	892
$ 60 2,4,6-Tribromophenol	329	8.984	8.985	(1.105)	105030	65.6091	2470
$ 81 p-Terphenyl-d14	244	11.451	11.449	(0.894)	570692	44.8924	1690

ION RATIO REPORT

SV REPORT

Data file: s612217.d
Report Date: 12/22/2009 20:34
Lab. ID: 243033004 SampleType: SAMPLE
Injection Date: 22-DEC-2009 20:11
Operator: nagl Instrument: MSD6.i
Sample Info: |243033004|934979|1|SVM|1|LANL
Miscellaneous Info: |MSD8270_S|WBN091208-01
Comment:
Method used: /chem/MSD6.i/s122209.b/MSD6-M8270C-AQA-110909.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-940
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
4 Aniline		CAS#: 62-53-3				
66	24137	4.59	4.66	80-120	100	(T)
93	339	4.64	4.67	227-287	1	(Q)
17 N-Nitrosodipropylamine				CAS#: 621-64-7		
70	26461	5.51	5.35	80-120	100	(T)
42	14822	5.51	5.35	39- 99	56	(T)
22 Isophorone		CAS#: 78-59-1				
82	194235	5.51	5.77	80-120	100	(T)
138	4482	6.26	5.77	0- 49	2	(T)
43 Dimethylphthalate			CAS#: 131-11-3			
163	97078	8.13	7.82	80-120	100	(T)
164	548473	8.13	7.82	0- 40	565	(QT)
50 2,4-Dinitrotoluene			CAS#: 121-14-2			
165	71232	8.13	8.32	80-120	100	(T)
89	555	8.13	8.32	40-100	1	(QT)
63	722	8.13	8.32	16- 76	1	(QT)
53 Fluorene		CAS#: 86-73-7				
166	6629	8.98	8.73	80-120	100	(T)
165	6650	8.98	8.73	62-122	100	(T)
167	2035	8.98	8.72	0- 44	31	(T)

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
55 2-Methyl-4,6-dinitrophenol				CAS#: 534-52-1		
198	133	8.98	8.77	80-120	100	(T)
105	379	8.98	8.77	9- 69	284	(QT)
51	547	8.98	8.77	23- 83	409	(QT)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

Data file : /chem/MSD6.i/s122209.b/s612217.d
Lab Smp Id: 243033004 Client Smp ID: RE03-09-14209
Inj Date : 22-DEC-2009 20:11
Operator : nagl Inst ID: MSD6.i
Smp Info : |243033004|934979|1|SVM|1|LANL
Misc Info : |MSD8270_S|WBN091208-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s122209.b/MSD6-M8270C-AQA-110909.m
Meth Date : 22-Dec-2009 17:52 ann00964 Quant Type: ISTD
Cal Date : 11-NOV-2009 04:38 Cal File: s6k0954.d
Als bottle: 12
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-940.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.05000	weight of sample
M	11.55070	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	4.976	1525702	40.000
* 98 Perylene-d12	15.217	1738983	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown Aldol Condensate					CAS #:		
3.577	665469	17.4468903	656	0		0	10

RT	AREA	CONCENTRATIONS ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	QUANT LIBRARY	LIB ENTRY	CPND #
Unknown				CAS #:			
17.472	233931	5.38087471	202	0		0	98

Data File: /chem/MSD6.i/s122209.b/s612217.d
Date : 22-DEC-2009 20:11
Client ID: RE03-09-14209
Sample Info: 1243033004193497911SVMI1LANL
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Page 1

Instrument: MSD6.i

Operator: nag1
Column diameter: 0.20

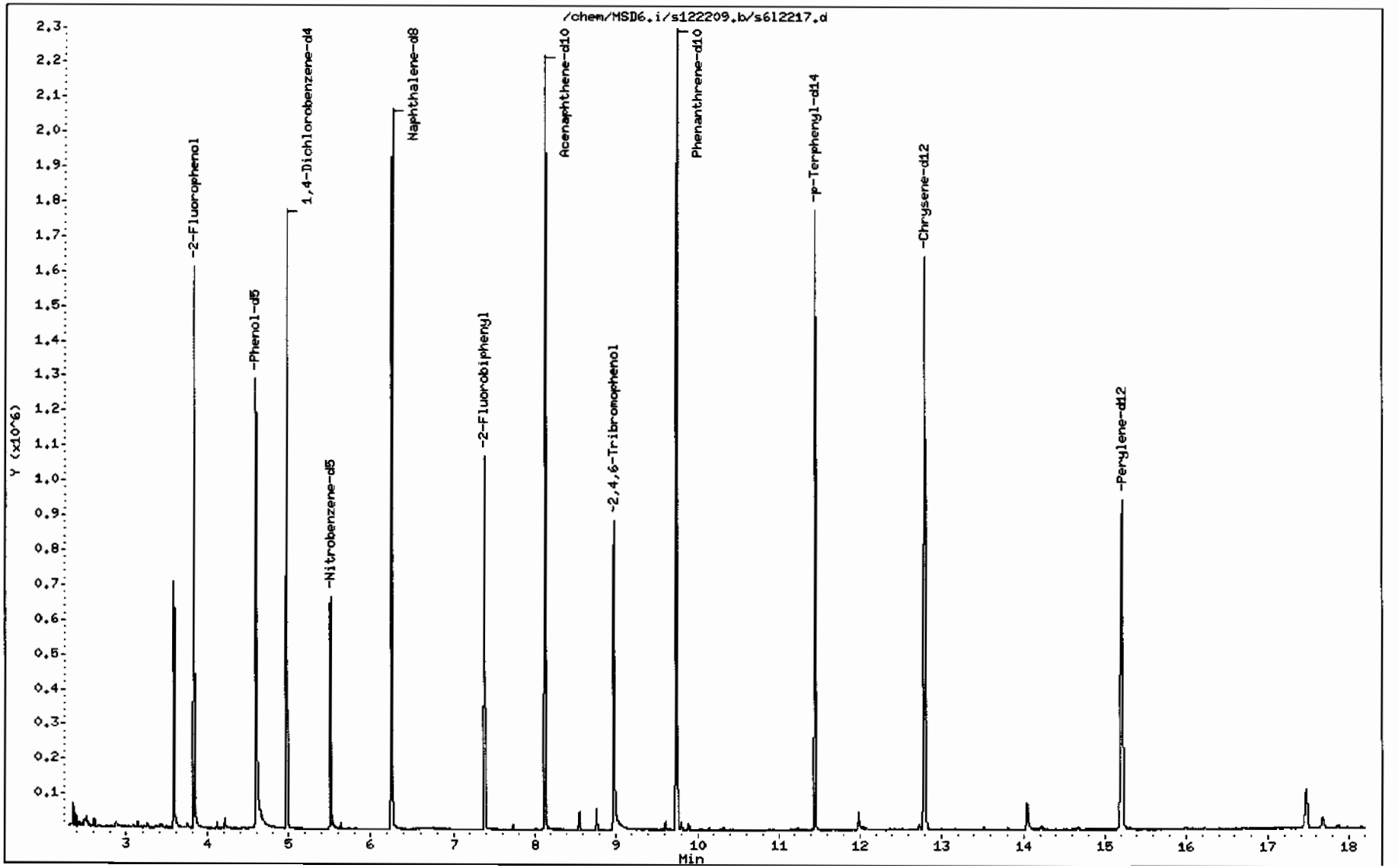

Data File: /chem/MSD6.i/s122209.b/s612217.d

Date : 22-DEC-2009 20:11

Client ID: RE03-09-14209 Instrument: MSD6.i

Sample Info: |2430330041934979|1|SVM|1|LANL

Volume Injected (uL): 0.5 Operator: nagi

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7945	50	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	47	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	33	C6H12O2	116

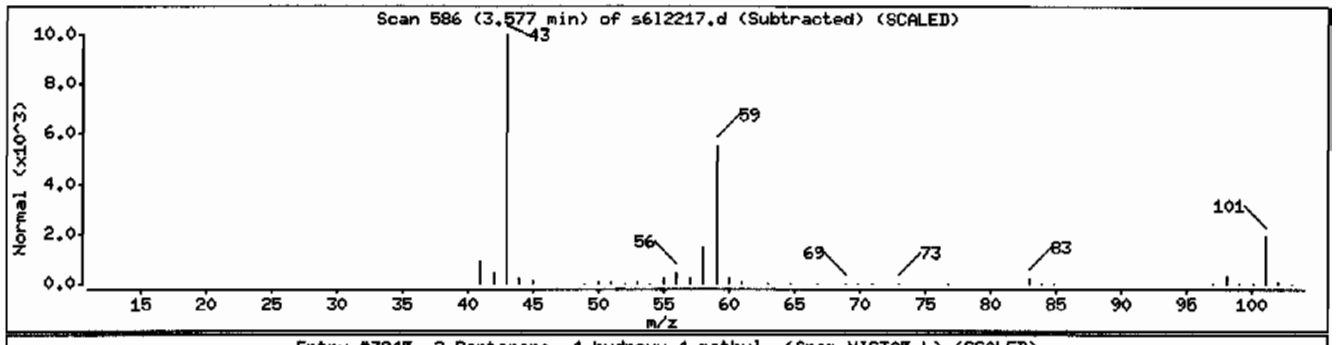

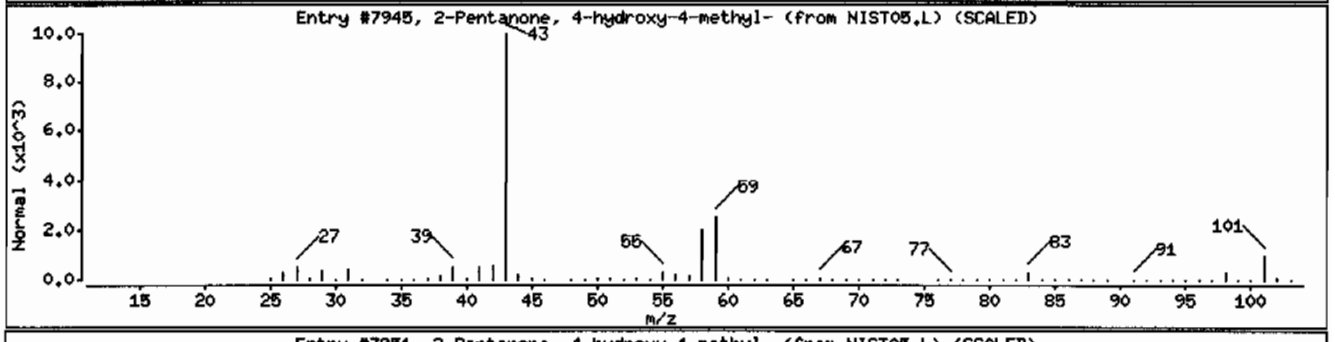

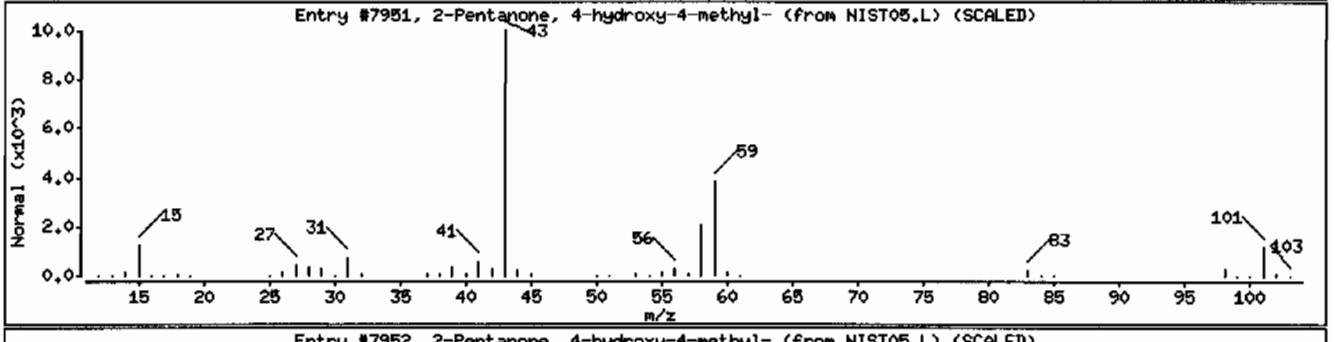

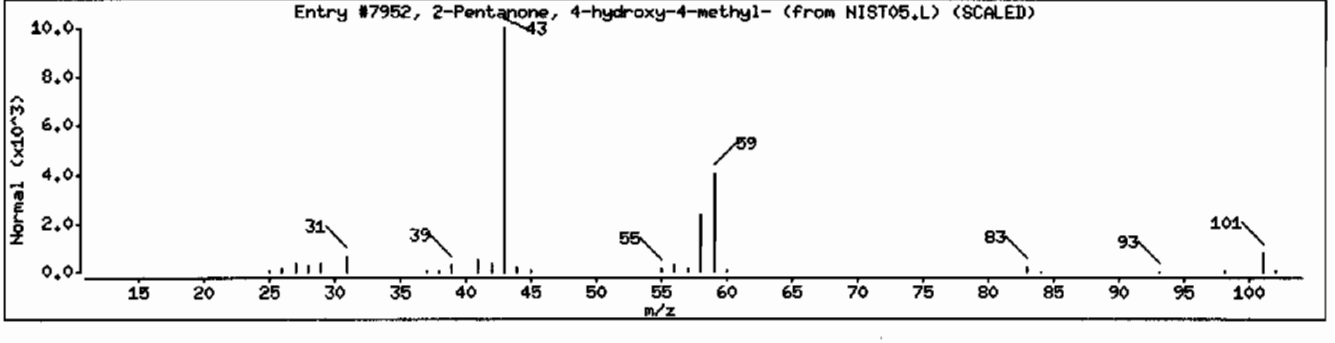

Data File: /chem/MSD6.i/s122209.b/s612217.d

Date : 22-DEC-2009 20:11

Client ID: RE03-09-14209

Instrument: MSD6.i

Sample Info: 1243033004193497911SVMI1ILANL

Volume Injected (uL): 0.5

Operator: nagi

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
1,4-Methanoazulene, decahydro-4,8,8-trim	475-20-7	NIST05.L	60020	52	C15H24	204
Naphthalene, 1,2,3,5,6,7,8,8a-octahydro-	4630-07-3	NIST05.L	60049	49	C15H24	204
1,2,4,8-Tetramethylbicyclo[6.3.0]undeca-	137235-51-9	NIST05.L	59888	46	C15H24	204

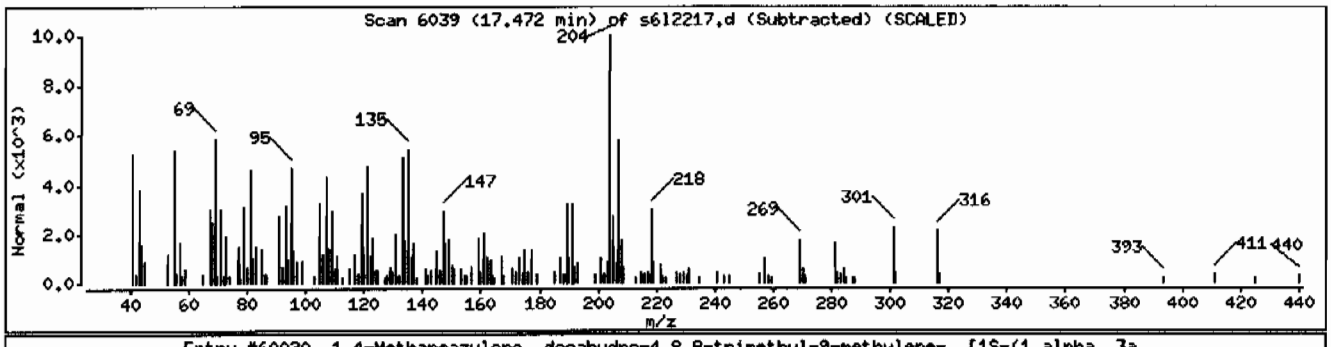

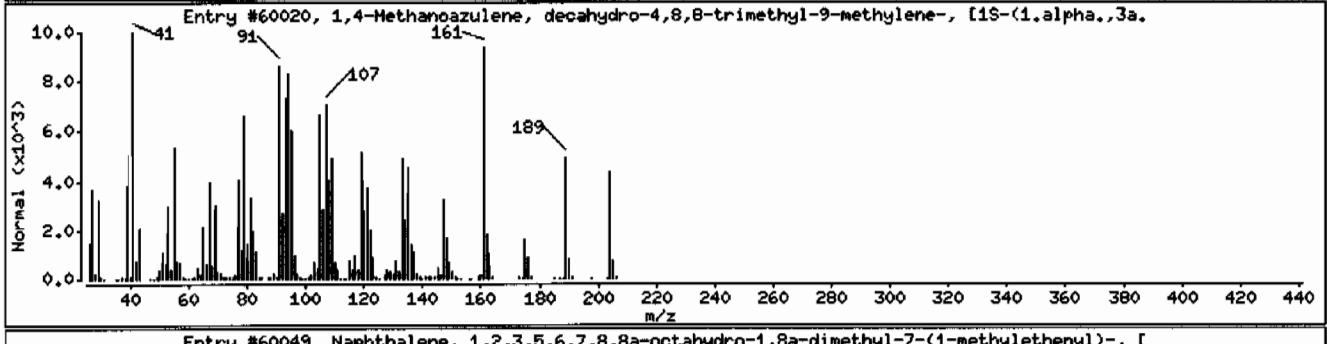

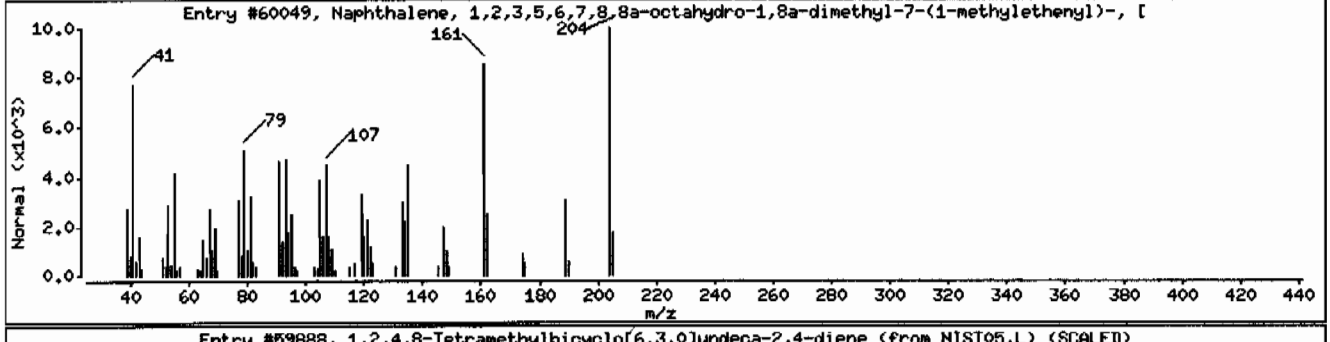

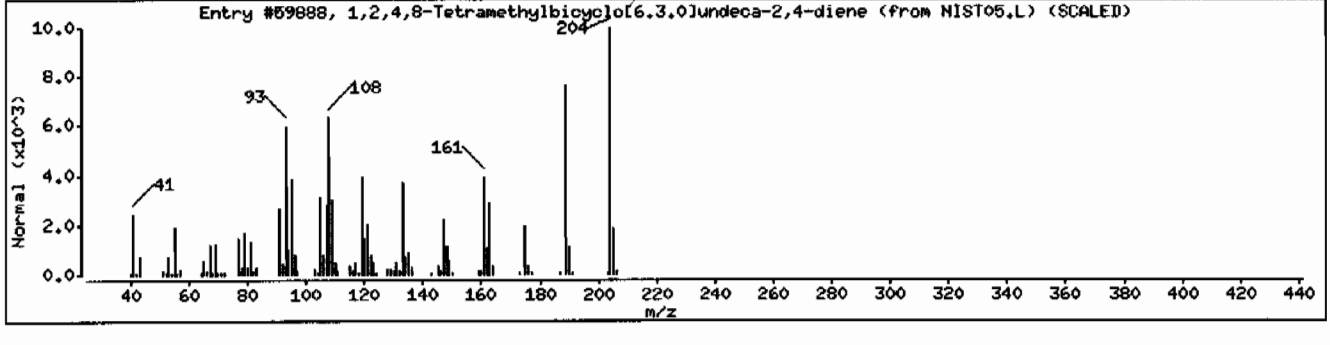

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-940	**Date Collected:**	12/14/2009 12:00	**Matrix:**	S
Lab Sample ID:	243033003	**Date Received:**	12/16/2009 09:10	**%Moisture:**	13.6
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14210	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	934979	**Inst:**	MSD6.I	**Dilution:**	1
Run Date:	12/22/2009 19:43	**Analyst:**	NAG1	**Inj. Vol:**	.5 uL
Prep Date:	12/21/2009 11:03	**Aliquot:**	30.09 g	**Final Volume:**	1 mL
Data File:	s6l2216.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	385	ug/kg	76.9	385
108-95-2	Phenol	U	385	ug/kg	76.9	385
95-57-8	2-Chlorophenol	U	385	ug/kg	76.9	385
106-46-7	1,4-Dichlorobenzene	U	385	ug/kg	76.9	385
621-64-7	N-Nitrosodipropylamine	U	385	ug/kg	76.9	385
59-50-7	4-Chloro-3-methylphenol	U	385	ug/kg	76.9	385
83-32-9	Acenaphthene	U	38.5	ug/kg	12.7	38.5
121-14-2	2,4-Dinitrotoluene	U	385	ug/kg	38.5	385
100-02-7	4-Nitrophenol	U	385	ug/kg	127	385
87-86-5	Pentachlorophenol	U	385	ug/kg	96.2	385
129-00-0	Pyrene	U	38.5	ug/kg	11.5	38.5
110-86-1	Pyridine	U	385	ug/kg	76.9	385
62-53-3	Aniline	U	385	ug/kg	115	385
111-44-4	bis(2-Chloroethyl) ether	U	385	ug/kg	76.9	385
541-73-1	1,3-Dichlorobenzene	U	385	ug/kg	76.9	385
100-51-6	Benzyl alcohol	U	385	ug/kg	115	385
95-50-1	1,2-Dichlorobenzene	U	385	ug/kg	76.9	385
108-60-1	bis(2-Chloroisopropyl)ether	U	385	ug/kg	76.9	385
95-48-7	o-Cresol	U	385	ug/kg	76.9	385
65794-96-9	m,p-Cresols	U	385	ug/kg	115	385
67-72-1	Hexachloroethane	U	385	ug/kg	76.9	385
98-95-3	Nitrobenzene	U	385	ug/kg	76.9	385
78-59-1	Isophorone	U	385	ug/kg	76.9	385
88-75-5	2-Nitrophenol	U	385	ug/kg	76.9	385
105-67-9	2,4-Dimethylphenol	U	385	ug/kg	135	385
111-91-1	bis(2-Chloroethoxy)methane	U	385	ug/kg	76.9	385
120-83-2	2,4-Dichlorophenol	U	385	ug/kg	76.9	385
65-85-0	Benzoic acid	U	769	ug/kg	192	769
91-20-3	Naphthalene	U	38.5	ug/kg	11.5	38.5
106-47-8	4-Chloroaniline	U	385	ug/kg	76.9	385
87-68-3	Hexachlorobutadiene	U	385	ug/kg	76.9	385
91-57-6	2-Methylnaphthalene	U	38.5	ug/kg	7.69	38.5
77-47-4	Hexachlorocyclopentadiene	U	385	ug/kg	76.9	385
88-06-2	2,4,6-Trichlorophenol	U	385	ug/kg	76.9	385
95-95-4	2,4,5-Trichlorophenol	U	385	ug/kg	76.9	385
91-58-7	2-Chloronaphthalene	U	38.5	ug/kg	12.7	38.5
88-74-4	2-Nitroaniline	U	385	ug/kg	76.9	385
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	385	ug/kg	76.9	385

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-940**	**Date Collected:**	**12/14/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243033003**	**Date Received:**	**12/16/2009 09:10**	**%Moisture:**	**13.6**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14210**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**934979**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**12/22/2009 19:43**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/21/2009 11:03**	**Aliquot:**	**30.09 g**	**Final Volume:**	**1 mL**
Data File:	**s6l2216.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	385	ug/kg	76.9	385
606-20-2	2,6-Dinitrotoluene	U	385	ug/kg	38.5	385
208-96-8	Acenaphthylene	U	38.5	ug/kg	11.5	38.5
51-28-5	2,4-Dinitrophenol	U	769	ug/kg	146	769
132-64-9	Dibenzofuran	U	385	ug/kg	76.9	385
84-66-2	Diethylphthalate	U	385	ug/kg	76.9	385
86-73-7	Fluorene	U	38.5	ug/kg	11.5	38.5
7005-72-3	4-Chlorophenylphenylether	U	385	ug/kg	76.9	385
534-52-1	2-Methyl-4,6-dinitrophenol	U	385	ug/kg	76.9	385
100-01-6	4-Nitroaniline	U	385	ug/kg	115	385
	p-Nitroaniline					
122-39-4	Diphenylamine	U	385	ug/kg	76.9	385
122-66-7	Azobenzene	U	385	ug/kg	76.9	385
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	385	ug/kg	76.9	385
118-74-1	Hexachlorobenzene	U	385	ug/kg	76.9	385
85-01-8	Phenanthrene	U	38.5	ug/kg	11.5	38.5
120-12-7	Anthracene	U	38.5	ug/kg	7.69	38.5
84-74-2	Di-n-butylphthalate	U	385	ug/kg	76.9	385
206-44-0	Fluoranthene	U	38.5	ug/kg	11.5	38.5
85-68-7	Butylbenzylphthalate	U	385	ug/kg	76.9	385
56-55-3	Benzo(a)anthracene	U	38.5	ug/kg	11.5	38.5
91-94-1	3,3'-Dichlorobenzidine	U	385	ug/kg	115	385
218-01-9	Chrysene	U	38.5	ug/kg	11.5	38.5
117-81-7	bis(2-Ethylhexyl)phthalate	U	385	ug/kg	76.9	385
117-84-0	Di-n-octylphthalate	U	385	ug/kg	76.9	385
205-99-2	Benzo(b)fluoranthene	U	38.5	ug/kg	11.5	38.5
207-08-9	Benzo(k)fluoranthene	U	38.5	ug/kg	11.5	38.5
50-32-8	Benzo(a)pyrene	U	38.5	ug/kg	11.5	38.5
193-39-5	Indeno(1,2,3-cd)pyrene	U	38.5	ug/kg	11.5	38.5
53-70-3	Dibenzo(a,h)anthracene	U	38.5	ug/kg	11.5	38.5
191-24-2	Benzo(ghi)perylene	U	38.5	ug/kg	11.5	38.5
120-82-1	1,2,4-Trichlorobenzene	U	385	ug/kg	76.9	385

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	3.56	608	ug/kg		JA

GEL Laboratories LLC

Data file : /chem/MSD6.i/s122209.b/s612216.d
Lab Smp Id: 243033003 Client Smp ID: RE03-09-14210
Inj Date : 22-DEC-2009 19:43
Operator : nagl Inst ID: MSD6.i
Smp Info : |243033003|934979|1|SVM|1|LANL
Misc Info : |MSD8270_S|WBN091208-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s122209.b/MSD6-M8270C-AQA-110909.m
Meth Date : 22-Dec-2009 17:52 ann00964 Quant Type: ISTD
Cal Date : 11-NOV-2009 04:38 Cal File: s6k0954.d
Als bottle: 11
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-940.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.09000	weight of sample
M	13.60700	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	4.977	4.979	(1.000)	192032	40.0000	
* 29 Naphthalene-d8	136	6.258	6.261	(1.000)	736422	40.0000	
* 46 Acenaphthene-d10	164	8.131	8.136	(1.000)	406271	40.0000	
* 67 Phenanthrene-d10	188	9.747	9.749	(1.000)	708912	40.0000	
* 91 Chrysene-d12	240	12.802	12.809	(1.000)	557337	40.0000	
* 98 Perylene-d12	264	15.215	15.220	(1.000)	475420	40.0000	
$ 3 2-Fluorophenol	112	3.820	3.812	(0.768)	324956	67.5737	2600
$ 5 Phenol-d5	99	4.594	4.597	(0.923)	394195	64.9468	2500
$ 20 Nitrobenzene-d5	82	5.512	5.519	(0.881)	179211	34.4014	1320
$ 39 2-Fluorobiphenyl	172	7.382	7.387	(0.908)	326679	31.2017	1200
$ 60 2,4,6-Tribromophenol	329	8.982	8.985	(1.105)	70289	59.2758	2280
$ 81 p-Terphenyl-d14	244	11.451	11.449	(0.894)	380329	42.3152	1630

ION RATIO REPORT

SV REPORT

Data file: s612216.d
Report Date: 12/22/2009 20:34
Lab. ID: 243033003 SampleType: SAMPLE
Injection Date: 22-DEC-2009 19:43
Operator: nag1 Instrument: MSD6.i
Sample Info: |243033003|934979|1|SVM|1|LANL
Miscellaneous Info: |MSD8270_S|WBN091208-01
Comment:
Method used: /chem/MSD6.i/s122209.b/MSD6-M8270C-AQA-110909.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-940
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
4 Aniline		CAS#: 62-53-3				
66	18045	4.59	4.66	80-120	100	(T)
93	164	4.50	4.67	227-287	1	(QT)
17 N-Nitrosodipropylamine				CAS#: 621-64-7		
70	24905	5.51	5.35	80-120	100	(T)
42	14210	5.51	5.35	39- 99	57	(T)
22 Isophorone		CAS#: 78-59-1				
82	179211	5.51	5.77	80-120	100	(T)
138	3266	6.26	5.77	0- 49	2	(T)
43 Dimethylphthalate				CAS#: 131-11-3		
163	72798	8.13	7.82	80-120	100	(T)
164	406271	8.13	7.82	0- 40	558	(QT)
50 2,4-Dinitrotoluene				CAS#: 121-14-2		
165	53158	8.13	8.32	80-120	100	(T)
89	556	8.13	8.32	40-100	1	(QT)
63	440	8.13	8.32	16- 76	1	(QT)
53 Fluorene		CAS#: 86-73-7				
166	4468	8.98	8.73	80-120	100	(T)
165	4230	8.98	8.73	62-122	95	(T)
167	1424	8.98	8.72	0- 44	32	(T)

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
99	Indeno(1,2,3-cd)pyrene			CAS#: 193-39-5		
276	167	17.25	17.26	80-120	100	( )
138	334	17.45	17.25	5- 65	200	(QT)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

Data file : /chem/MSD6.i/s122209.b/s612216.d
Lab Smp Id: 243033003 Client Smp ID: RE03-09-14210
Inj Date : 22-DEC-2009 19:43
Operator : nag1 Inst ID: MSD6.i
Smp Info : |243033003|934979|1|SVM|1|LANL
Misc Info : |MSD8270_S|WBN091208-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s122209.b/MSD6-M8270C-AQA-110909.m
Meth Date : 22-Dec-2009 17:52 ann00964 Quant Type: ISTD
Cal Date : 11-NOV-2009 04:38 Cal File: s6k0954.d
Als bottle: 11
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-940.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariabl

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.09000	weight of sample
M	13.60700	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	4.977	1129069	40.000

RT	AREA	CONCENTRATIONS ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	QUANT LIBRARY	LIB ENTRY	CPND #
Unknown Aldol Condensate					CAS #:		
3.565	446231	15.8088234	608	0		0	10

Data File: /chem/MSD6.i/s122209.b/s612216.d
Date : 22-DEC-2009 19:43
Client ID: RE03-09-14210
Sample Info: 1243033003193497911ISVMI11LANL
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD6.i
Operator: nag1
Column diameter: 0.20

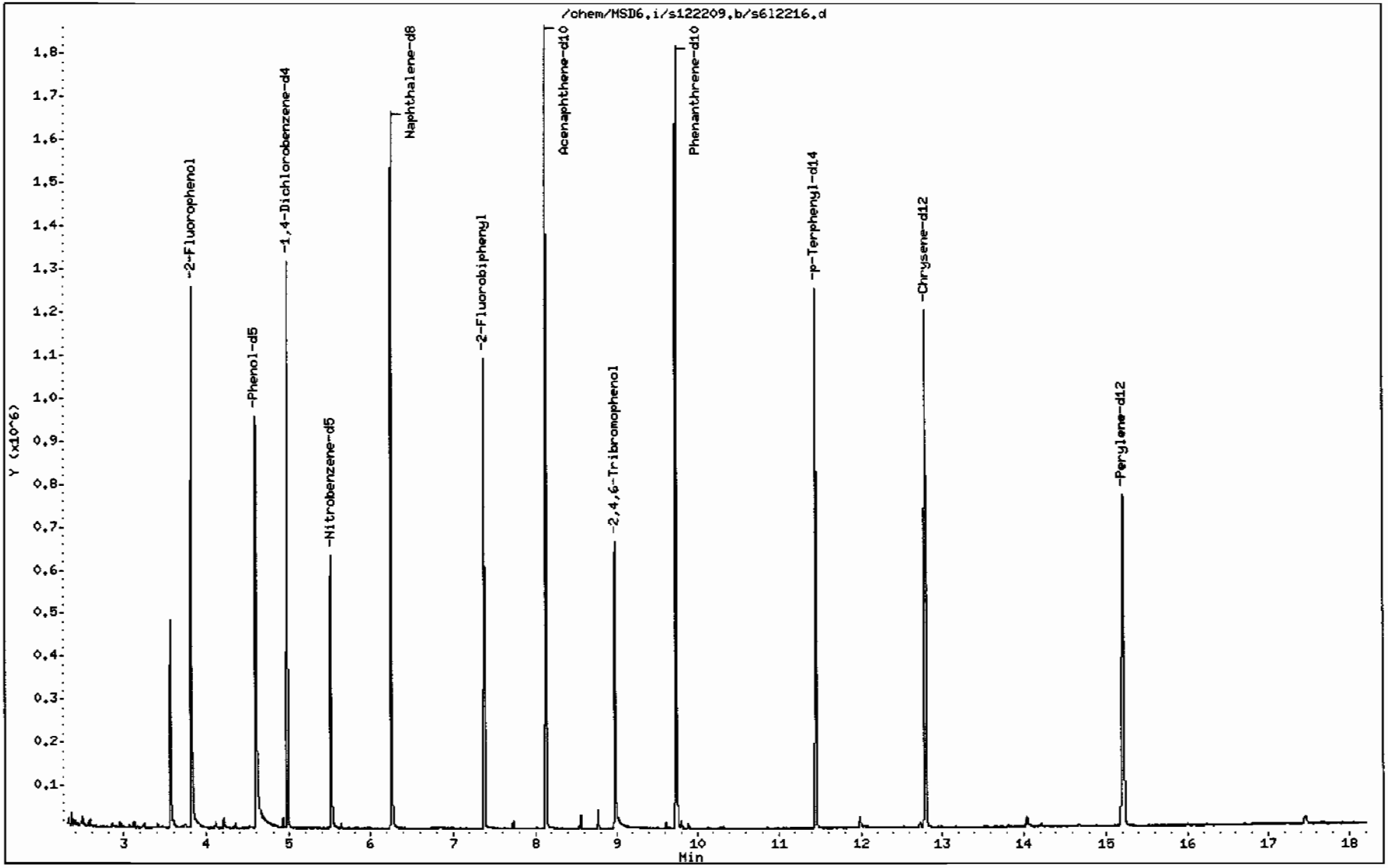

Data File: /chem/MSD6.i/s122209.b/s612216.d

Date : 22-DEC-2009 19:43

Client ID: RE03-09-14210

Instrument: MSD6.i

Sample Info: 1243033003|934979|1|SVH|1|LANL

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7945	59	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	56	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	45	C6H12O2	116

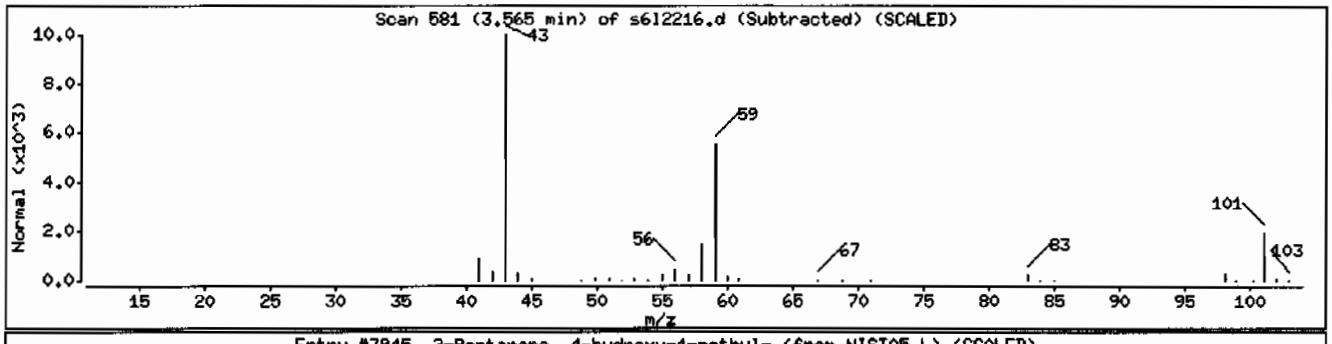

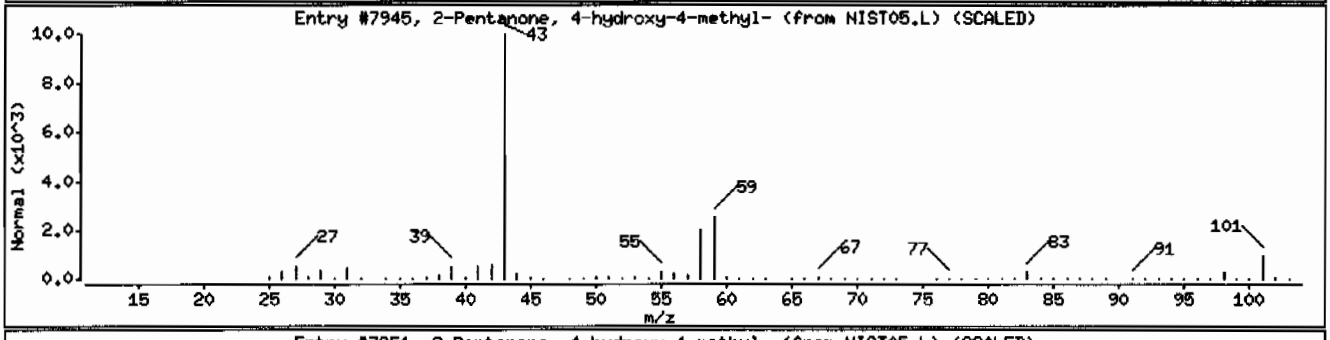

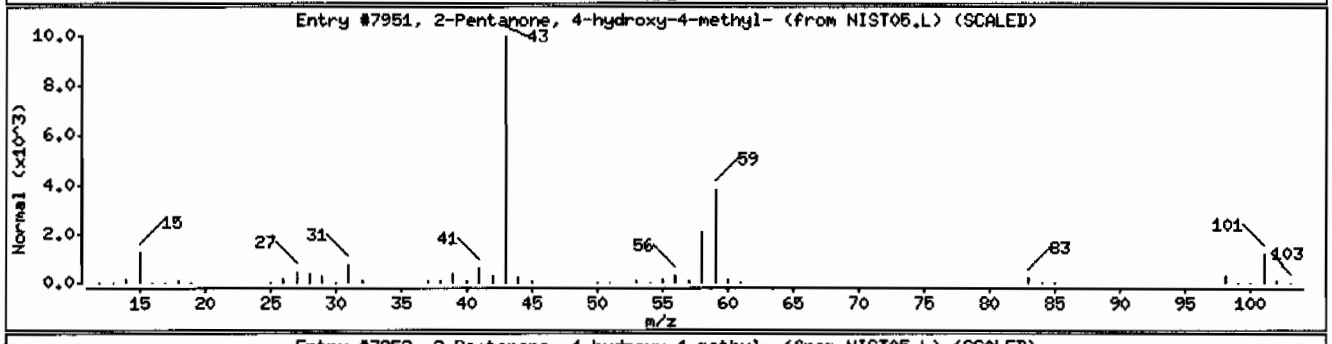

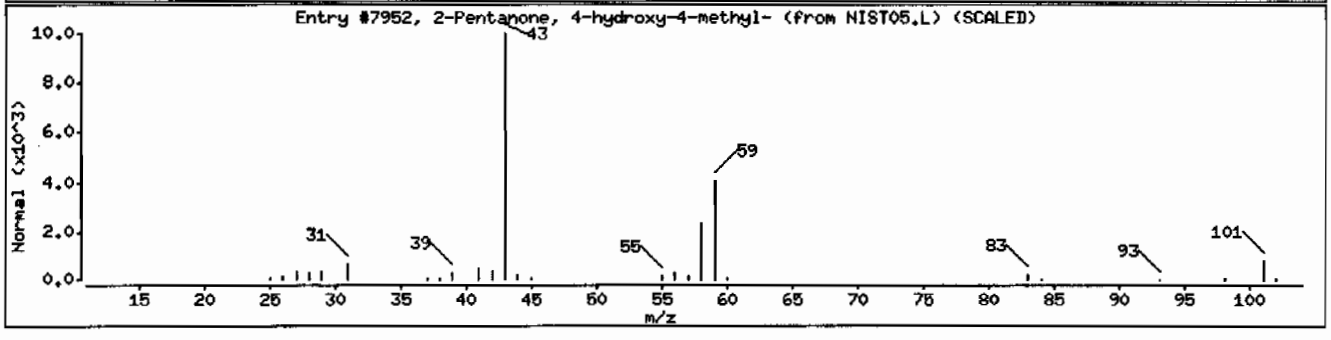

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-940**	**Date Collected:**	**12/14/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243033002**	**Date Received:**	**12/16/2009 09:10**	**%Moisture:**	**14.3**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14211**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**934979**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**12/22/2009 19:15**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/21/2009 11:03**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**s6l2215.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	389	ug/kg	77.8	389
108-95-2	Phenol	U	389	ug/kg	77.8	389
95-57-8	2-Chlorophenol	U	389	ug/kg	77.8	389
106-46-7	1,4-Dichlorobenzene	U	389	ug/kg	77.8	389
621-64-7	N-Nitrosodipropylamine	U	389	ug/kg	77.8	389
59-50-7	4-Chloro-3-methylphenol	U	389	ug/kg	77.8	389
83-32-9	Acenaphthene	U	38.9	ug/kg	12.8	38.9
121-14-2	2,4-Dinitrotoluene	U	389	ug/kg	38.9	389
100-02-7	4-Nitrophenol	U	389	ug/kg	128	389
87-86-5	Pentachlorophenol	U	389	ug/kg	97.3	389
129-00-0	Pyrene	U	38.9	ug/kg	11.7	38.9
110-86-1	Pyridine	U	389	ug/kg	77.8	389
62-53-3	Aniline	U	389	ug/kg	117	389
111-44-4	bis(2-Chloroethyl) ether	U	389	ug/kg	77.8	389
541-73-1	1,3-Dichlorobenzene	U	389	ug/kg	77.8	389
100-51-6	Benzyl alcohol	U	389	ug/kg	117	389
95-50-1	1,2-Dichlorobenzene	U	389	ug/kg	77.8	389
108-60-1	bis(2-Chloroisopropyl)ether	U	389	ug/kg	77.8	389
95-48-7	o-Cresol	U	389	ug/kg	77.8	389
65794-96-9	m,p-Cresols	U	389	ug/kg	117	389
67-72-1	Hexachloroethane	U	389	ug/kg	77.8	389
98-95-3	Nitrobenzene	U	389	ug/kg	77.8	389
78-59-1	Isophorone	U	389	ug/kg	77.8	389
88-75-5	2-Nitrophenol	U	389	ug/kg	77.8	389
105-67-9	2,4-Dimethylphenol	U	389	ug/kg	136	389
111-91-1	bis(2-Chloroethoxy)methane	U	389	ug/kg	77.8	389
120-83-2	2,4-Dichlorophenol	U	389	ug/kg	77.8	389
65-85-0	Benzoic acid	U	778	ug/kg	195	778
91-20-3	Naphthalene	U	38.9	ug/kg	11.7	38.9
106-47-8	4-Chloroaniline	U	389	ug/kg	77.8	389
87-68-3	Hexachlorobutadiene	U	389	ug/kg	77.8	389
91-57-6	2-Methylnaphthalene	U	38.9	ug/kg	7.78	38.9
77-47-4	Hexachlorocyclopentadiene	U	389	ug/kg	77.8	389
88-06-2	2,4,6-Trichlorophenol	U	389	ug/kg	77.8	389
95-95-4	2,4,5-Trichlorophenol	U	389	ug/kg	77.8	389
91-58-7	2-Chloronaphthalene	U	38.9	ug/kg	12.8	38.9
88-74-4	2-Nitroaniline	U	389	ug/kg	77.8	389
	o-Nitroaniline					
99-09-2	3-Nitroaniline	U	389	ug/kg	77.8	389

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-940	**Date Collected:**	12/14/2009 12:00	**Matrix:**	S
Lab Sample ID:	243033002	**Date Received:**	12/16/2009 09:10	**%Moisture:**	14.3
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14211	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	934979	**Inst:**	MSD6.I	**Dilution:**	1
Run Date:	12/22/2009 19:15	**Analyst:**	NAG1	**Inj. Vol:**	.5 uL
Prep Date:	12/21/2009 11:03	**Aliquot:**	30 g	**Final Volume:**	1 mL
Data File:	s612215.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	389	ug/kg	77.8	389
606-20-2	2,6-Dinitrotoluene	U	389	ug/kg	38.9	389
208-96-8	Acenaphthylene	U	38.9	ug/kg	11.7	38.9
51-28-5	2,4-Dinitrophenol	U	778	ug/kg	148	778
132-64-9	Dibenzofuran	U	389	ug/kg	77.8	389
84-66-2	Diethylphthalate	U	389	ug/kg	77.8	389
86-73-7	Fluorene	U	38.9	ug/kg	11.7	38.9
7005-72-3	4-Chlorophenylphenylether	U	389	ug/kg	77.8	389
534-52-1	2-Methyl-4,6-dinitrophenol	U	389	ug/kg	77.8	389
100-01-6	4-Nitroaniline	U	389	ug/kg	117	389
	p-Nitroaniline					
122-39-4	Diphenylamine	U	389	ug/kg	77.8	389
122-66-7	Azobenzene	U	389	ug/kg	77.8	389
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	389	ug/kg	77.8	389
118-74-1	Hexachlorobenzene	U	389	ug/kg	77.8	389
85-01-8	Phenanthrene	U	38.9	ug/kg	11.7	38.9
120-12-7	Anthracene	U	38.9	ug/kg	7.78	38.9
84-74-2	Di-n-butylphthalate	U	389	ug/kg	77.8	389
206-44-0	Fluoranthene	U	38.9	ug/kg	11.7	38.9
85-68-7	Butylbenzylphthalate	U	389	ug/kg	77.8	389
56-55-3	Benzo(a)anthracene	U	38.9	ug/kg	11.7	38.9
91-94-1	3,3'-Dichlorobenzidine	U	389	ug/kg	117	389
218-01-9	Chrysene	U	38.9	ug/kg	11.7	38.9
117-81-7	bis(2-Ethylhexyl)phthalate	U	389	ug/kg	77.8	389
117-84-0	Di-n-octylphthalate	U	389	ug/kg	77.8	389
205-99-2	Benzo(b)fluoranthene	U	38.9	ug/kg	11.7	38.9
207-08-9	Benzo(k)fluoranthene	U	38.9	ug/kg	11.7	38.9
50-32-8	Benzo(a)pyrene	U	38.9	ug/kg	11.7	38.9
193-39-5	Indeno(1,2,3-cd)pyrene	U	38.9	ug/kg	11.7	38.9
53-70-3	Dibenzo(a,h)anthracene	U	38.9	ug/kg	11.7	38.9
191-24-2	Benzo(ghi)perylene	U	38.9	ug/kg	11.7	38.9
120-82-1	1,2,4-Trichlorobenzene	U	389	ug/kg	77.8	389

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	3.57	657	ug/kg		JA

GEL Laboratories LLC

Data file : /chem/MSD6.i/s122209.b/s612215.d
Lab Smp Id: 243033002 Client Smp ID: RE03-09-14211
Inj Date : 22-DEC-2009 19:15
Operator : nagl Inst ID: MSD6.i
Smp Info : |243033002|934979|1|SVM|1|LANL
Misc Info : |MSD8270_S|WBN091208-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s122209.b/MSD6-M8270C-AQA-110909.m
Meth Date : 22-Dec-2009 17:52 ann00964 Quant Type: ISTD
Cal Date : 11-NOV-2009 04:38 Cal File: s6k0954.d
Als bottle: 10
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-940.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	14.32160	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	4.976	4.979	(1.000)	217985	40.0000	
* 29 Naphthalene-d8	136	6.255	6.261	(1.000)	827339	40.0000	
* 46 Acenaphthene-d10	164	8.131	8.136	(1.000)	458096	40.0000	
* 67 Phenanthrene-d10	188	9.746	9.749	(1.000)	811798	40.0000	
* 91 Chrysene-d12	240	12.804	12.809	(1.000)	696469	40.0000	
* 98 Perylene-d12	264	15.217	15.220	(1.000)	621486	40.0000	
$ 3 2-Fluorophenol	112	3.822	3.812	(0.768)	347634	63.6828	2480
$ 5 Phenol-d5	99	4.594	4.597	(0.923)	428242	62.1560	2420
$ 20 Nitrobenzene-d5	82	5.511	5.519	(0.881)	186520	31.8698	1240
$ 39 2-Fluorobiphenyl	172	7.382	7.387	(0.908)	288339	24.4241	950
$ 60 2,4,6-Tribromophenol	329	8.985	8.985	(1.105)	86508	64.7003	2520
$ 81 p-Terphenyl-d14	244	11.451	11.449	(0.894)	427556	38.0668	1480

ION RATIO REPORT

SV REPORT

Data file: s612215.d
Report Date: 12/22/2009 20:34
Lab. ID: 243033002 SampleType: SAMPLE
Injection Date: 22-DEC-2009 19:15
Operator: nag1 Instrument: MSD6.i
Sample Info: |243033002|934979|1|SVM|1|LANL
Miscellaneous Info: |MSD8270_S|WBN091208-01
Comment:
Method used: /chem/MSD6.i/s122209.b/MSD6-M8270C-AQA-110909.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-940
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
4 Aniline		CAS#: 62-53-3				
66	20066	4.59	4.66	80-120	100	(T)
93	827	4.50	4.67	227-287	4	(QT)
17 N-Nitrosodipropylamine				CAS#: 621-64-7		
70	24864	5.51	5.35	80-120	100	(T)
42	14402	5.51	5.35	39- 99	58	(T)
22 Isophorone		CAS#: 78-59-1				
82	186520	5.51	5.77	80-120	100	(T)
138	3870	6.26	5.77	0- 49	2	(T)
43 Dimethylphthalate			CAS#: 131-11-3			
163	81413	8.13	7.82	80-120	100	(T)
164	458096	8.13	7.82	0- 40	563	(QT)
50 2,4-Dinitrotoluene			CAS#: 121-14-2			
165	60008	8.13	8.32	80-120	100	(T)
89	767	8.13	8.32	40-100	1	(QT)
63	685	8.13	8.32	16- 76	1	(QT)
53 Fluorene		CAS#: 86-73-7				
166	5276	8.98	8.73	80-120	100	(T)
165	5542	8.98	8.73	62-122	105	(T)
167	1779	8.98	8.72	0- 44	34	(T)

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
100	Dibenzo(a,h)anthracene			CAS#: 53-70-3		
278	150	17.27	17.28	80-120	100	( )
139	0	0.00	17.28	0- 30	0	(T)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

Data file : /chem/MSD6.i/s122209.b/s612215.d
Lab Smp Id: 243033002 Client Smp ID: RE03-09-14211
Inj Date : 22-DEC-2009 19:15
Operator : nag1 Inst ID: MSD6.i
Smp Info : |243033002|934979|1|SVM|1|LANL
Misc Info : |MSD8270_S|WBN091208-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s122209.b/MSD6-M8270C-AQA-110909.m
Meth Date : 22-Dec-2009 17:52 ann00964 Quant Type: ISTD
Cal Date : 11-NOV-2009 04:38 Cal File: s6k0954.d
Als bottle: 10
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-940.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariabl

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	14.32160	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	4.976	1263253	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown Aldol Condensate					CAS #:		
3.570	533370	16.8887732	657	0		0	10

Data File: /chem/MSD6.i/s122209.b/s612215.d
Date : 22-DEC-2009 19:15
Client ID: RE03-09-14211
Sample Info: 1243033002193497911SVMI1ILANL
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Page 1

Instrument: MSD6.i

Operator: nag1
Column diameter: 0.20

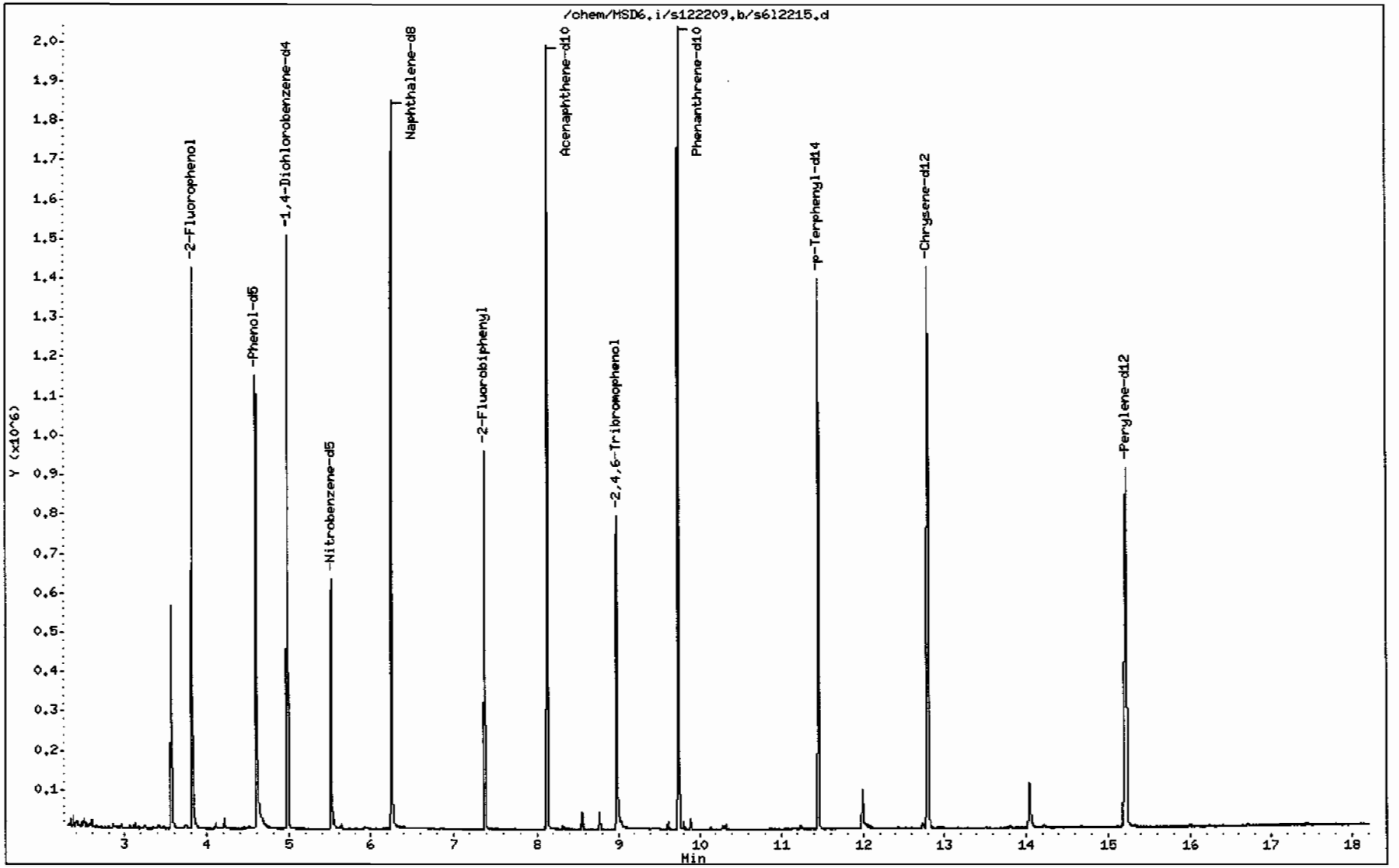

Data File: /chem/MSD6.i/s122209.b/s612215.d

Date : 22-DEC-2009 19:15

Client ID: RE03-09-14211

Instrument: MSD6.i

Sample Info: 1243033002|934979|1|SVH|1|LANL

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	59	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7945	59	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	45	C6H12O2	116

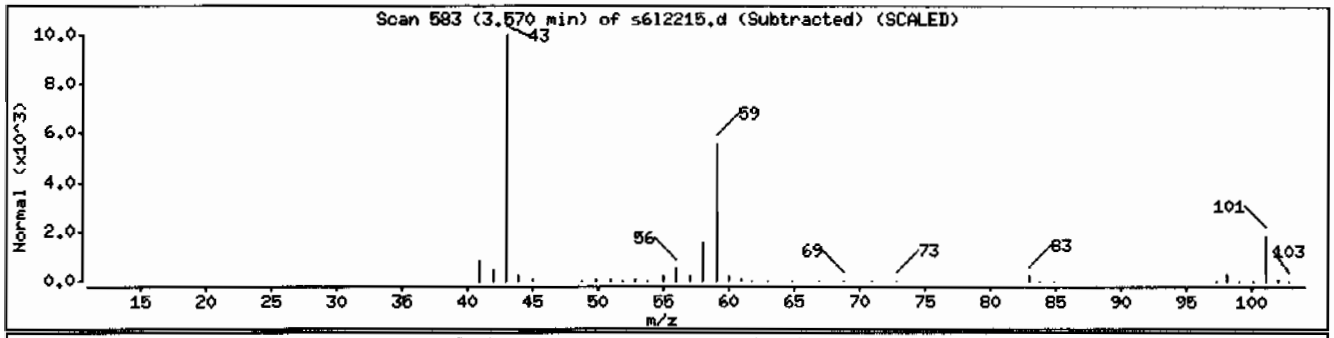

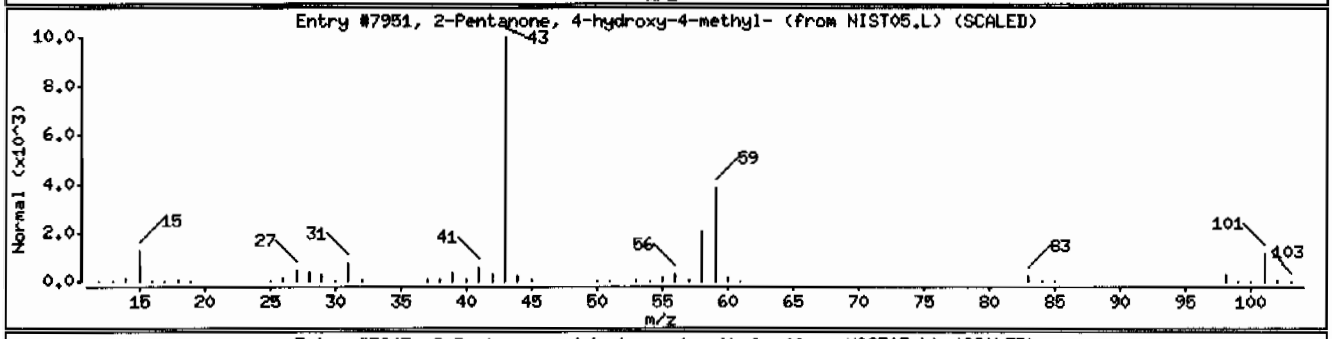

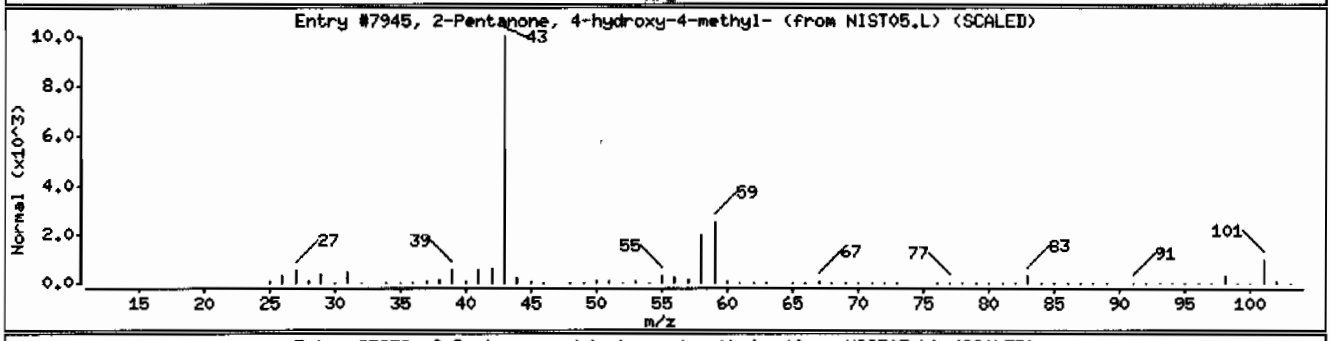

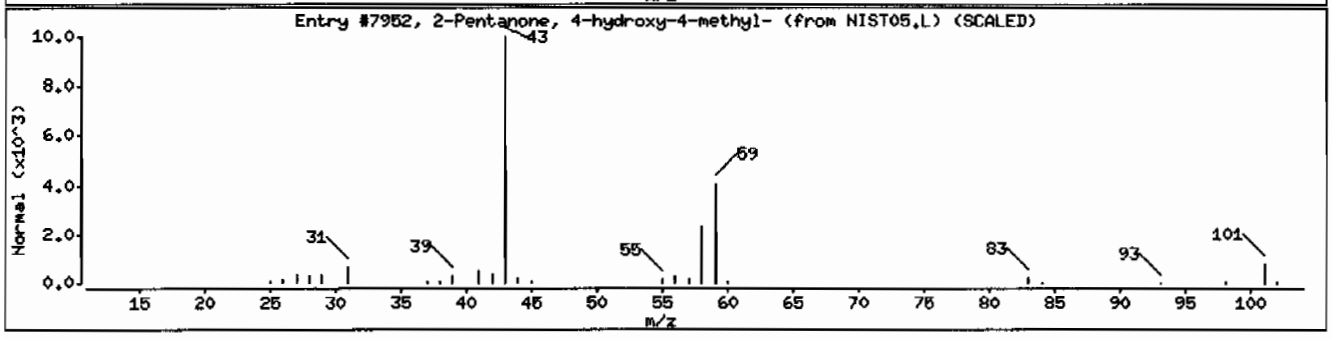

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-940**	**Date Collected:**	**12/14/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243033008**	**Date Received:**	**12/16/2009 09:10**	**%Moisture:**	**15.6**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14220**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**934979**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**12/22/2009 22:01**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/21/2009 11:03**	**Aliquot:**	**30.02 g**	**Final Volume:**	**1 mL**
Data File:	**s6l2221.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	395	ug/kg	78.9	395
108-95-2	Phenol	U	395	ug/kg	78.9	395
95-57-8	2-Chlorophenol	U	395	ug/kg	78.9	395
106-46-7	1,4-Dichlorobenzene	U	395	ug/kg	78.9	395
621-64-7	N-Nitrosodipropylamine	U	395	ug/kg	78.9	395
59-50-7	4-Chloro-3-methylphenol	U	395	ug/kg	78.9	395
83-32-9	Acenaphthene		217	ug/kg	13.0	39.5
121-14-2	2,4-Dinitrotoluene	U	395	ug/kg	39.5	395
100-02-7	4-Nitrophenol	U	395	ug/kg	130	395
87-86-5	Pentachlorophenol	U	395	ug/kg	98.6	395
129-00-0	Pyrene		2990	ug/kg	11.8	39.5
110-86-1	Pyridine	U	395	ug/kg	78.9	395
62-53-3	Aniline	U	395	ug/kg	118	395
111-44-4	bis(2-Chloroethyl) ether	U	395	ug/kg	78.9	395
541-73-1	1,3-Dichlorobenzene	U	395	ug/kg	78.9	395
100-51-6	Benzyl alcohol	U	395	ug/kg	118	395
95-50-1	1,2-Dichlorobenzene	U	395	ug/kg	78.9	395
108-60-1	bis(2-Chloroisopropyl)ether	U	395	ug/kg	78.9	395
95-48-7	o-Cresol	U	395	ug/kg	78.9	395
65794-96-9	m,p-Cresols	U	395	ug/kg	118	395
67-72-1	Hexachloroethane	U	395	ug/kg	78.9	395
98-95-3	Nitrobenzene	U	395	ug/kg	78.9	395
78-59-1	Isophorone	U	395	ug/kg	78.9	395
88-75-5	2-Nitrophenol	U	395	ug/kg	78.9	395
105-67-9	2,4-Dimethylphenol	U	395	ug/kg	138	395
111-91-1	bis(2-Chloroethoxy)methane	U	395	ug/kg	78.9	395
120-83-2	2,4-Dichlorophenol	U	395	ug/kg	78.9	395
65-85-0	Benzoic acid	U	789	ug/kg	197	789
91-20-3	Naphthalene		106	ug/kg	11.8	39.5
106-47-8	4-Chloroaniline	U	395	ug/kg	78.9	395
87-68-3	Hexachlorobutadiene	U	395	ug/kg	78.9	395
91-57-6	2-Methylnaphthalene	J	37.2	ug/kg	7.89	39.5
77-47-4	Hexachlorocyclopentadiene	U	395	ug/kg	78.9	395
88-06-2	2,4,6-Trichlorophenol	U	395	ug/kg	78.9	395
95-95-4	2,4,5-Trichlorophenol	U	395	ug/kg	78.9	395
91-58-7	2-Chloronaphthalene	U	39.5	ug/kg	13.0	39.5
88-74-4	2-Nitroaniline	U	395	ug/kg	78.9	395
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	395	ug/kg	78.9	395

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-940	**Date Collected:**	12/14/2009 12:00	**Matrix:**	S
Lab Sample ID:	243033008	**Date Received:**	12/16/2009 09:10	**%Moisture:**	15.6
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14220	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	934979	**Inst:**	MSD6.I	**Dilution:**	1
Run Date:	12/22/2009 22:01	**Analyst:**	NAG1	**Inj. Vol:**	.5 uL
Prep Date:	12/21/2009 11:03	**Aliquot:**	30.02 g	**Final Volume:**	1 mL
Data File:	s6l2221.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	395	ug/kg	78.9	395
606-20-2	2,6-Dinitrotoluene	U	395	ug/kg	39.5	395
208-96-8	Acenaphthylene	U	39.5	ug/kg	11.8	39.5
51-28-5	2,4-Dinitrophenol	U	789	ug/kg	150	789
132-64-9	Dibenzofuran	J	150	ug/kg	78.9	395
84-66-2	Diethylphthalate	U	395	ug/kg	78.9	395
86-73-7	Fluorene		252	ug/kg	11.8	39.5
7005-72-3	4-Chlorophenylphenylether	U	395	ug/kg	78.9	395
534-52-1	2-Methyl-4,6-dinitrophenol	U	395	ug/kg	78.9	395
100-01-6	4-Nitroaniline	U	395	ug/kg	118	395
	p-Nitroaniline					
122-39-4	Diphenylamine	U	395	ug/kg	78.9	395
122-66-7	Azobenzene	U	395	ug/kg	78.9	395
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	395	ug/kg	78.9	395
118-74-1	Hexachlorobenzene	U	395	ug/kg	78.9	395
85-01-8	Phenanthrene		2350	ug/kg	11.8	39.5
120-12-7	Anthracene		690	ug/kg	7.89	39.5
84-74-2	Di-n-butylphthalate	J	118	ug/kg	78.9	395
206-44-0	Fluoranthene		3990	ug/kg	11.8	39.5
85-68-7	Butylbenzylphthalate	U	395	ug/kg	78.9	395
56-55-3	Benzo(a)anthracene		2330	ug/kg	11.8	39.5
91-94-1	3,3'-Dichlorobenzidine	U	395	ug/kg	118	395
218-01-9	Chrysene		2290	ug/kg	11.8	39.5
117-81-7	bis(2-Ethylhexyl)phthalate	J	91.0	ug/kg	78.9	395
117-84-0	Di-n-octylphthalate	U	395	ug/kg	78.9	395
205-99-2	Benzo(b)fluoranthene		3060	ug/kg	11.8	39.5
207-08-9	Benzo(k)fluoranthene		975	ug/kg	11.8	39.5
50-32-8	Benzo(a)pyrene		2180	ug/kg	11.8	39.5
193-39-5	Indeno(1,2,3-cd)pyrene		1050	ug/kg	11.8	39.5
53-70-3	Dibenzo(a,h)anthracene		401	ug/kg	11.8	39.5
191-24-2	Benzo(ghi)perylene		973	ug/kg	11.8	39.5
120-82-1	1,2,4-Trichlorobenzene	U	395	ug/kg	78.9	395

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	3.57	619	ug/kg		JA
86-74-8	Carbazole	9.99	281	ug/kg	93	NJ

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-940**	**Date Collected:**	**12/14/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243033008**	**Date Received:**	**12/16/2009 09:10**	**%Moisture:**	**15.6**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14220**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**934979**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**12/22/2009 22:01**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/21/2009 11:03**	**Aliquot:**	**30.02 g**	**Final Volume:**	**1 mL**
Data File:	**s612221.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
2531-84-2	Phenanthrene, 2-methyl-	10.28	186	ug/kg	98	NJ
203-64-5	4H-Cyclopenta[def]phenanthrene	10.41	318	ug/kg	96	NJ
243-17-4	11H-Benzo[b]fluorene	11.68	204	ug/kg	95	NJ
112-84-5	13-Docosenamide, (Z)-	14.05	290	ug/kg	93	NJ
198-55-0	Perylene	15.28	548	ug/kg	99	NJ
112-95-8	Eicosane	16	227	ug/kg	98	NJ
214-17-5	Benzo[b]chrysene	17.47	405	ug/kg	97	NJ

GEL Laboratories LLC

Data file : /chem/MSD6.i/s122209.b/s612221.d
Lab Smp Id: 243033008 Client Smp ID: RE03-09-14220
Inj Date : 22-DEC-2009 22:01
Operator : nag1 Inst ID: MSD6.i
Smp Info : |243033008|934979|1|SVM|1|LANL
Misc Info : |MSD8270_S|WBN091208-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s122209.b/MSD6-M8270C-AQA-110909.m
Meth Date : 23-Dec-2009 11:48 nat00999 Quant Type: ISTD
Cal Date : 11-NOV-2009 04:38 Cal File: s6k0954.d
Als bottle: 16
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-940.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.02000	weight of sample
M	15.56720	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	4.976	4.979	(1.000)	262433	40.0000	
* 29 Naphthalene-d8	136	6.258	6.261	(1.000)	1008546	40.0000	
* 46 Acenaphthene-d10	164	8.131	8.136	(1.000)	558416	40.0000	
* 67 Phenanthrene-d10	188	9.749	9.749	(1.000)	997008	40.0000	
* 91 Chrysene-d12	240	12.819	12.809	(1.000)	831404	40.0000	
* 98 Perylene-d12	264	15.235	15.220	(1.000)	695796	40.0000	
$ 3 2-Fluorophenol	112	3.822	3.812	(0.768)	390704	59.4506	2340
$ 5 Phenol-d5	99	4.594	4.597	(0.923)	522228	62.9596	2480
$ 20 Nitrobenzene-d5	82	5.511	5.519	(0.881)	216016	30.2781	1190
$ 39 2-Fluorobiphenyl	172	7.382	7.387	(0.908)	442973	30.7816	1210
$ 60 2,4,6-Tribromophenol	329	8.984	8.985	(1.105)	106244	65.1858	2570
$ 81 p-Terphenyl-d14	244	11.454	11.449	(0.893)	540800	40.3348	1590

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
47 Acenaphthene	154	8.164	8.172	(1.004)	69270	5.50398	217
79 Pyrene	202	11.329	11.316	(0.884)	1731604	75.7221	2990
30 Naphthalene	128	6.278	6.284	(1.003)	53893	2.67879	106
34 2-Methylnaphthalene	142	7.002	7.007	(1.119)	11453	0.94338	37.2(a)
49 Dibenzofuran	168	8.347	8.353	(1.027)	64471	3.79503	150(a)
53 Fluorene	166	8.719	8.727	(1.072)	88945	6.37893	252
68 Phenanthrene	178	9.780	9.775	(1.003)	1227760	59.5466	2350
69 Anthracene	178	9.828	9.831	(1.008)	360437	17.4895	690
72 Di-n-butylphthalate	149	10.322	10.325	(1.059)	70959	2.99818	118(a)
76 Fluoranthene	202	11.076	11.064	(1.136)	1999580	101.238	3990
89 Benzo(a)anthracene	228	12.799	12.791	(0.998)	1060891	59.1432	2330
92 Chrysene	228	12.858	12.845	(1.003)	997035	58.0104	2290
93 bis(2-Ethylhexyl)phthalate	149	12.738	12.735	(0.994)	27657	2.30601	91.0(a)
95 Benzo(b)fluoranthene	252	14.539	14.519	(0.954)	1193511	77.5220	3060
96 Benzo(k)fluoranthene	252	14.578	14.568	(0.957)	378494	24.7230	975
97 Benzo(a)pyrene	252	15.133	15.115	(0.993)	734248	55.2157	2180
99 Indeno(1,2,3-cd)pyrene	276	17.263	17.256	(1.133)	322699	26.5886	1050
100 Dibenzo(a,h)anthracene	278	17.276	17.284	(1.134)	82583	10.1641	401
101 Benzo(ghi)perylene	276	17.801	17.796	(1.168)	250432	24.6510	972

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

ION RATIO REPORT

SV REPORT

Data file: s612221.d
Report Date: 12/23/2009 11:19
Lab. ID: 243033008 SampleType: SAMPLE
Injection Date: 22-DEC-2009 22:01
Operator: nagl Instrument: MSD6.i
Sample Info: |243033008|934979|1|SVM|1|LANL
Miscellaneous Info: |MSD8270_S|WBN091208-01
Comment:
Method used: /chem/MSD6.i/s122209.b/MSD6-M8270C-AQA-110909.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-940
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
4 Aniline		CAS#: 62-53-3				
66	23367	4.59	4.66	80-120	100	(T)
93	484	4.64	4.66	227-287	2	(Q)
17 N-Nitrosodipropylamine				CAS#: 621-64-7		
70	29791	5.51	5.35	80-120	100	(T)
42	18220	5.51	5.35	39- 99	61	(T)
22 Isophorone		CAS#: 78-59-1				
82	216016	5.51	5.77	80-120	100	(T)
138	174	5.36	5.77	0- 49	0	(T)
30 Naphthalene		CAS#: 91-20-3				
128	53893	6.28	6.28	80-120	100	( )
129	6082	6.28	6.28	0- 41	11	( )
127	6660	6.28	6.28	0- 30	12	( )
34 2-Methylnaphthalene		CAS#: 91-57-6				
142	11453	7.00	7.01	80-120	100	( )
141	9554	7.00	7.01	55-115	83	( )
43 Dimethylphthalate		CAS#: 131-11-3				
163	99099	8.13	7.82	80-120	100	(T)
164	558416	8.13	7.82	0- 40	563	(QT)

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
45 Acenaphthylene			CAS#: 208-96-8			
152	35002	8.16	7.99	80-120	100	(T)
151	13151	8.17	7.99	0- 50	38	(T)
153	73064	8.16	7.99	0- 43	209	(QT)
47 Acenaphthene			CAS#: 83-32-9			
154	69270	8.16	8.17	80-120	100	( )
153	73064	8.16	8.17	73-133	105	( )
152	35002	8.16	8.17	19- 79	51	( )
49 Dibenzofuran			CAS#: 132-64-9			
168	64471	8.35	8.35	80-120	100	( )
139	23627	8.35	8.35	7- 67	37	( )
50 2,4-Dinitrotoluene			CAS#: 121-14-2			
165	74374	8.13	8.32	80-120	100	(T)
89	405	8.13	8.32	40-100	1	(QT)
63	894	8.13	8.32	16- 76	1	(QT)
52 4-Nitrophenol			CAS#: 100-02-7			
139	23710	8.35	8.27	80-120	100	(T)
109	522	8.34	8.27	31- 91	2	(QT)
65	724	8.35	8.27	59-119	3	(QT)
53 Fluorene			CAS#: 86-73-7			
166	88945	8.72	8.73	80-120	100	( )
165	81282	8.72	8.73	62-122	91	( )
167	13318	8.72	8.73	0- 44	15	( )
55 2-Methyl-4,6-dinitrophenol			CAS#: 534-52-1			
198	190	8.98	8.77	80-120	100	(T)
105	528	8.98	8.77	9- 69	278	(QT)
51	1033	8.98	8.77	23- 83	544	(QT)
68 Phenanthrene			CAS#: 85-01-8			
178	1227760	9.78	9.77	80-120	100	( )
179	197469	9.78	9.77	0- 46	16	( )
176	239095	9.78	9.77	0- 49	19	( )
69 Anthracene			CAS#: 120-12-7			
178	360437	9.83	9.83	80-120	100	( )
179	59064	9.83	9.83	0- 46	16	( )
176	65631	9.83	9.83	0- 49	18	( )
72 Di-n-butylphthalate			CAS#: 84-74-2			
149	70959	10.32	10.32	80-120	100	( )
150	8269	10.32	10.32	0- 39	12	( )
104	3436	10.32	10.32	0- 35	5	( )

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
76 Fluoranthene			CAS#: 206-44-0			
202	1999580	11.08	11.06	80-120	100	( )
203	360812	11.08	11.06	0- 48	18	( )
101	265281	11.08	11.06	0- 43	13	( )
79 Pyrene			CAS#: 129-00-0			
202	1731604	11.33	11.32	80-120	100	( )
200	368897	11.33	11.32	0- 51	21	( )
101	286593	11.33	11.32	0- 46	17	( )
89 Benzo(a)anthracene			CAS#: 56-55-3			
228	1060891	12.80	12.79	80-120	100	( )
226	280905	12.80	12.79	0- 56	26	( )
229	273807	12.80	12.79	0- 50	26	( )
92 Chrysene			CAS#: 218-01-9			
228	997035	12.86	12.84	80-120	100	( )
229	222928	12.86	12.84	0- 49	22	( )
226	294202	12.86	12.84	0- 59	30	( )
93 bis(2-Ethylhexyl)phthalate			CAS#: 117-81-7			
149	27657	12.74	12.74	80-120	100	( )
167	6877	12.73	12.74	2- 62	25	( )
95 Benzo(b)fluoranthene			CAS#: 205-99-2			
252	1193511	14.54	14.52	80-120	100	( )
253	255218	14.54	14.52	0- 52	21	( )
125	97313	14.54	14.52	0- 43	8	( )
96 Benzo(k)fluoranthene			CAS#: 207-08-9			
252	378494	14.58	14.57	80-120	100	( )
253	92960	14.58	14.57	0- 52	25	( )
125	53710	14.58	14.57	0- 43	14	( )
97 Benzo(a)pyrene			CAS#: 50-32-8			
252	734248	15.13	15.12	80-120	100	( )
253	166034	15.13	15.12	0- 52	23	( )
125	102309	15.13	15.12	0- 30	14	( )
99 Indeno(1,2,3-cd)pyrene			CAS#: 193-39-5			
276	322699	17.26	17.26	80-120	100	( )
138	94599	17.26	17.26	5- 65	29	( )
100 Dibenzo(a,h)anthracene			CAS#: 53-70-3			
278	82583	17.28	17.28	80-120	100	( )
139	5890	17.27	17.28	0- 30	7	( )

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
101	Benzo(ghi)perylene			CAS#: 191-24-2		
276	250432	17.80	17.80	80-120	100	( )
138	72623	17.80	17.80	0- 30	29	( )

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

Data file : /chem/MSD6.i/s122209.b/s612221.d
Lab Smp Id: 243033008 Client Smp ID: RE03-09-14220
Inj Date : 22-DEC-2009 22:01
Operator : nag1 Inst ID: MSD6.i
Smp Info : |243033008|934979|1|SVM|1|LANL
Misc Info : |MSD8270_S|WBN091208-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s122209.b/MSD6-M8270C-AQA-110909.m
Meth Date : 23-Dec-2009 11:48 nat00999 Quant Type: ISTD
Cal Date : 11-NOV-2009 04:38 Cal File: s6k0954.d
Als bottle: 16
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-940.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.02000	weight of sample
M	15.56720	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	4.976	1538484	40.000
* 67 Phenanthrene-d10	9.749	2616837	40.000
* 91 Chrysene-d12	12.819	5729052	40.000
* 98 Perylene-d12	15.235	1908725	40.000

CONCENTRATIONS					QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #

RT	AREA	CONCENTRATIONS ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	QUANT LIBRARY	LIB ENTRY	CPND #
Unknown Aldol Condensate					CAS #:		
3.572	603736	15.6969142	619	0		0	10
Carbazole					CAS #: 86-74-8		
9.991	465655	7.11783203	281	93	NIST05.L	34223	67(L)
Phenanthrene, 2-methyl-					CAS #: 2531-84-2		
10.284	307701	4.70340341	186	98	NIST05.L	51412	67
4H-Cyclopenta[def]phenanthrene					CAS #: 203-64-5		
10.414	527021	8.05584556	318	96	NIST05.L	50048	67
11H-Benzo[b]fluorene					CAS #: 243-17-4		
11.675	738825	5.15844838	204	95	NIST05.L	68695	91
13-Docosenamide, (Z)-					CAS #: 112-84-5		
14.053	350243	7.33983458	290	93	NIST05.L	146307	98
Perylene					CAS #: 198-55-0		
15.276	662982	13.8937103	548	99	NIST05.L	93575	98
Eicosane					CAS #: 112-95-8		
16.005	274700	5.75671888	227	98	NIST05.L	113492	98
Benzo[b]chrysene					CAS #: 214-17-5		
17.475	490002	10.2686665	405	97	NIST05.L	110870	98

QC Flag Legend

L - Operator selected an alternate library search match.

Data File: /chem/MSD6.i/s122209.b/s612221.d
Date : 22-DEC-2009 22:01
Client ID: RE03-09-14220
Sample Info: 1243033008193497911ISVMI1ILANL
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD6.i
Operator: nagl
Column diameter: 0.20

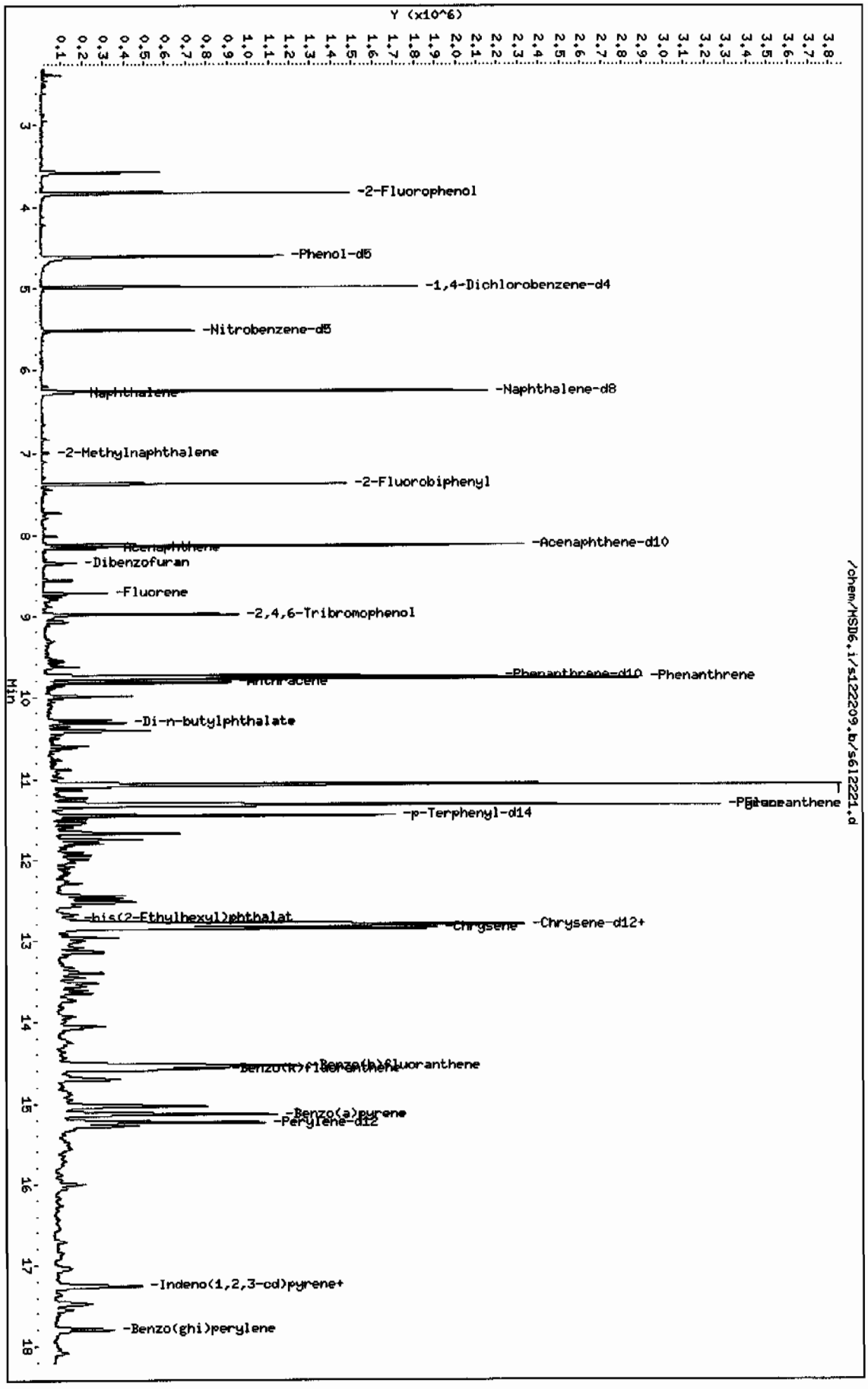

Page 1

Data File: /chem/MSD6.i/s122209.b/s612221.d

Date : 22-DEC-2009 22:01

Client ID: RE03-09-14220

Instrument: MSD6.i

Sample Info: 1243033008193497911ISVMI1ILANL

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

47 Acenaphthene

Concentration: 217 ug/Kg

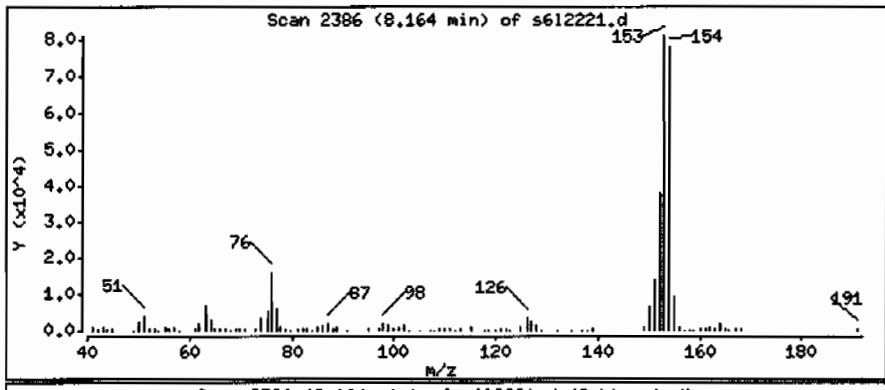

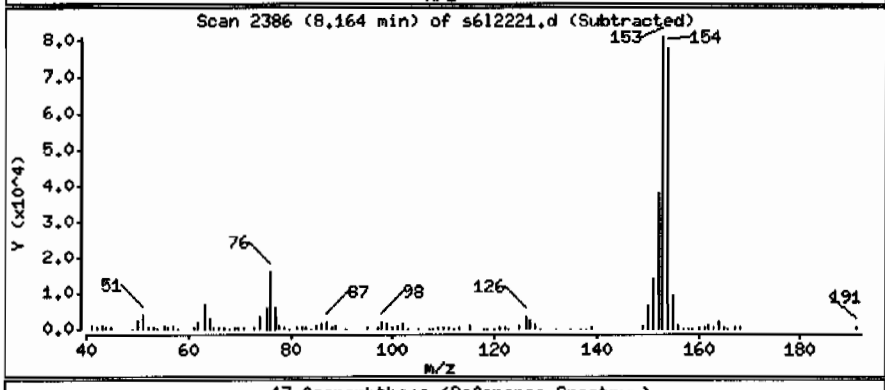

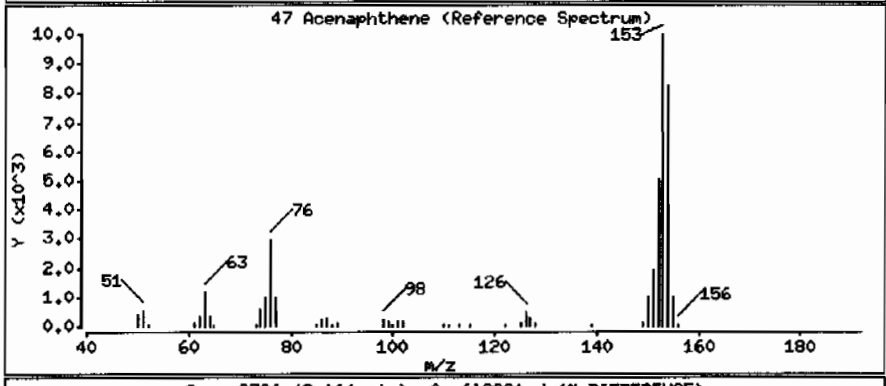

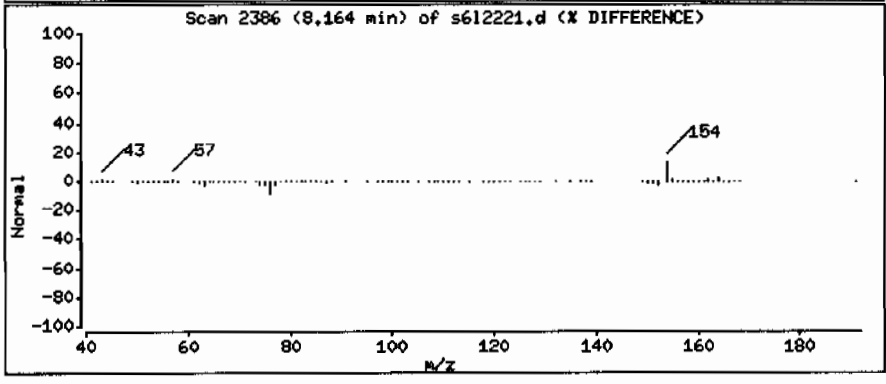

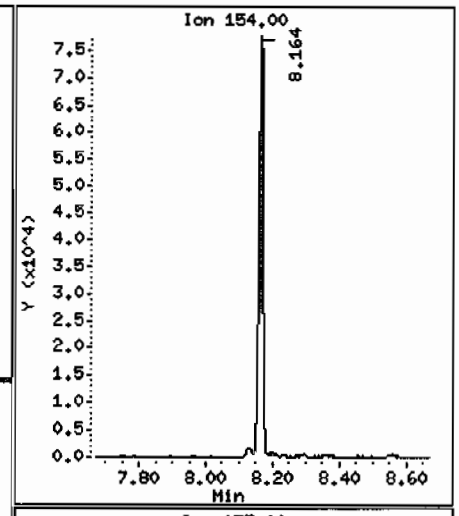

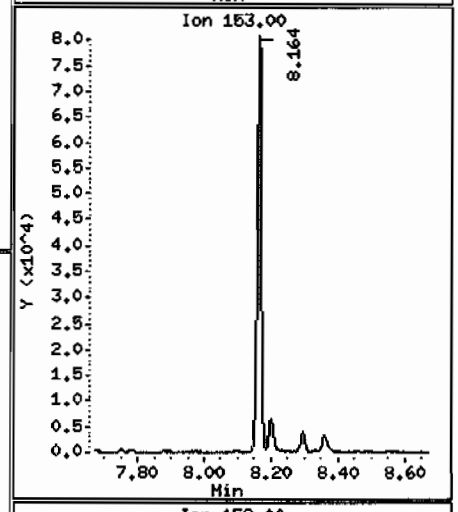

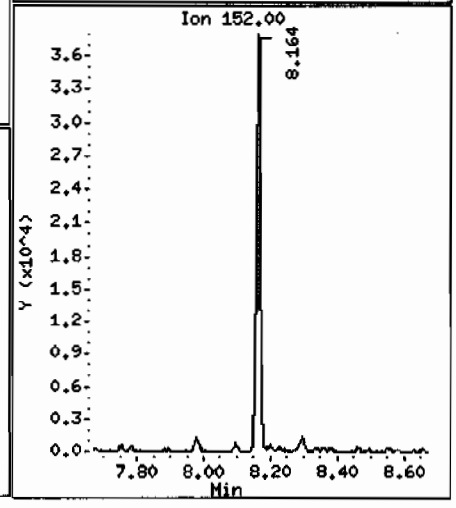

Data File: /chem/MSD6.i/s122209.b/s612221.d

Date : 22-DEC-2009 22:01

Client ID: RE03-09-14220

Instrument: MSD6.i

Sample Info: 1243033008193497911ISVH11ILANL

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

79 Pyrene

Concentration: 2990 ug/Kg

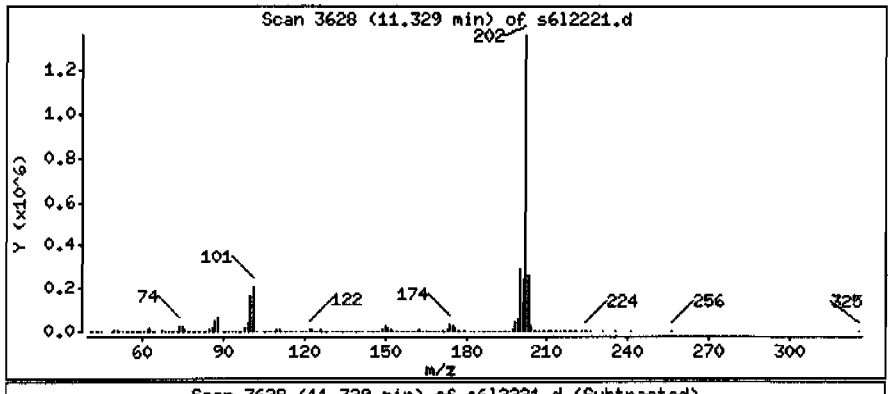

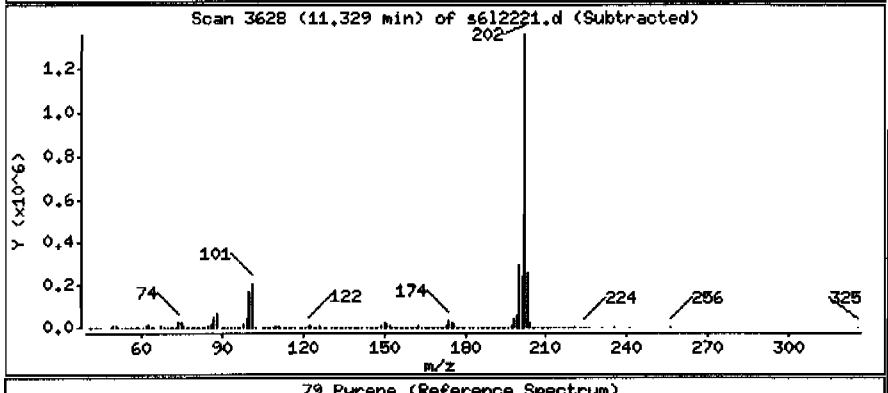

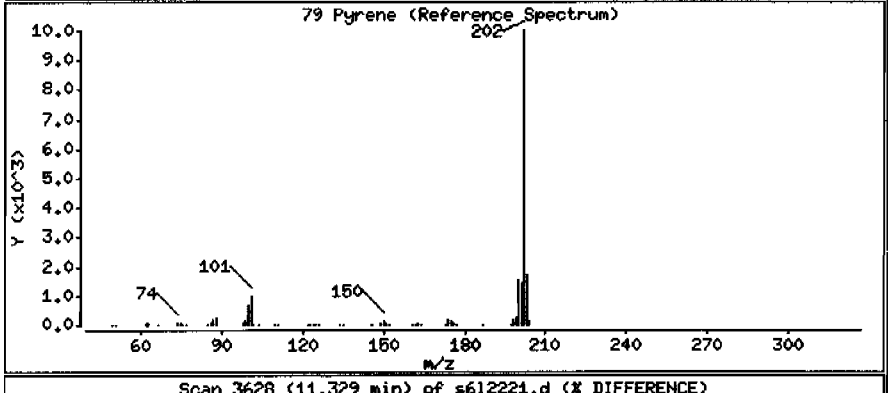

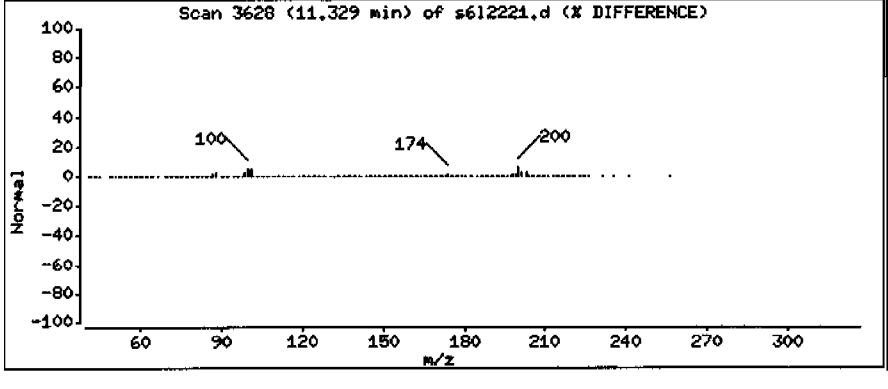

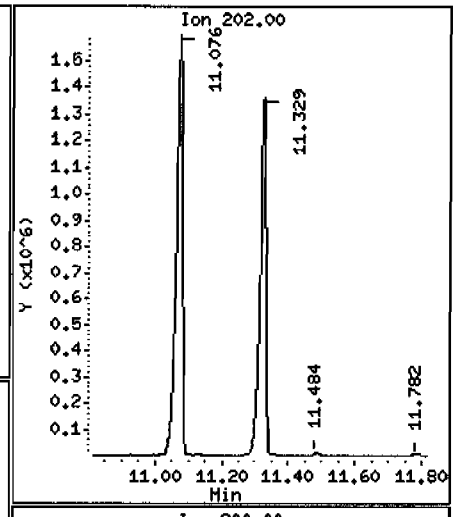

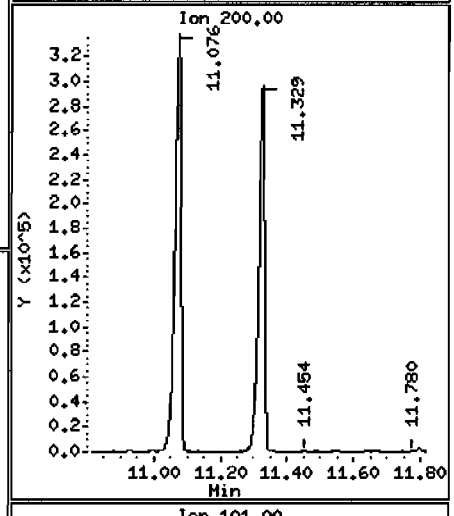

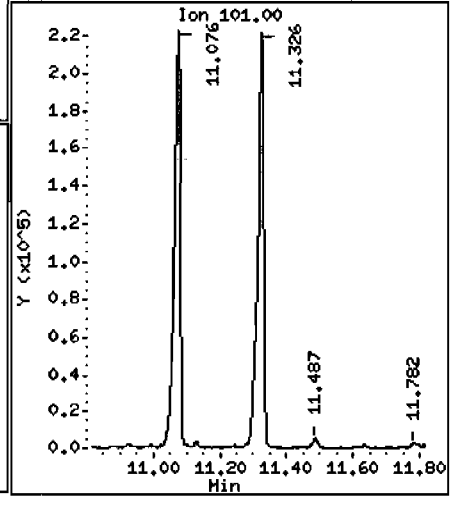

Data File: /chem/MSD6.i/s122209.b/s612221.d

Date : 22-DEC-2009 22:01

Client ID: RE03-09-14220

Instrument: MSD6.i

Sample Info: |2430330008|934979|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: nagl

Column phase: J&W DB-5MS

Column diameter: 0.20

30 Naphthalene

Concentration: 106 ug/Kg

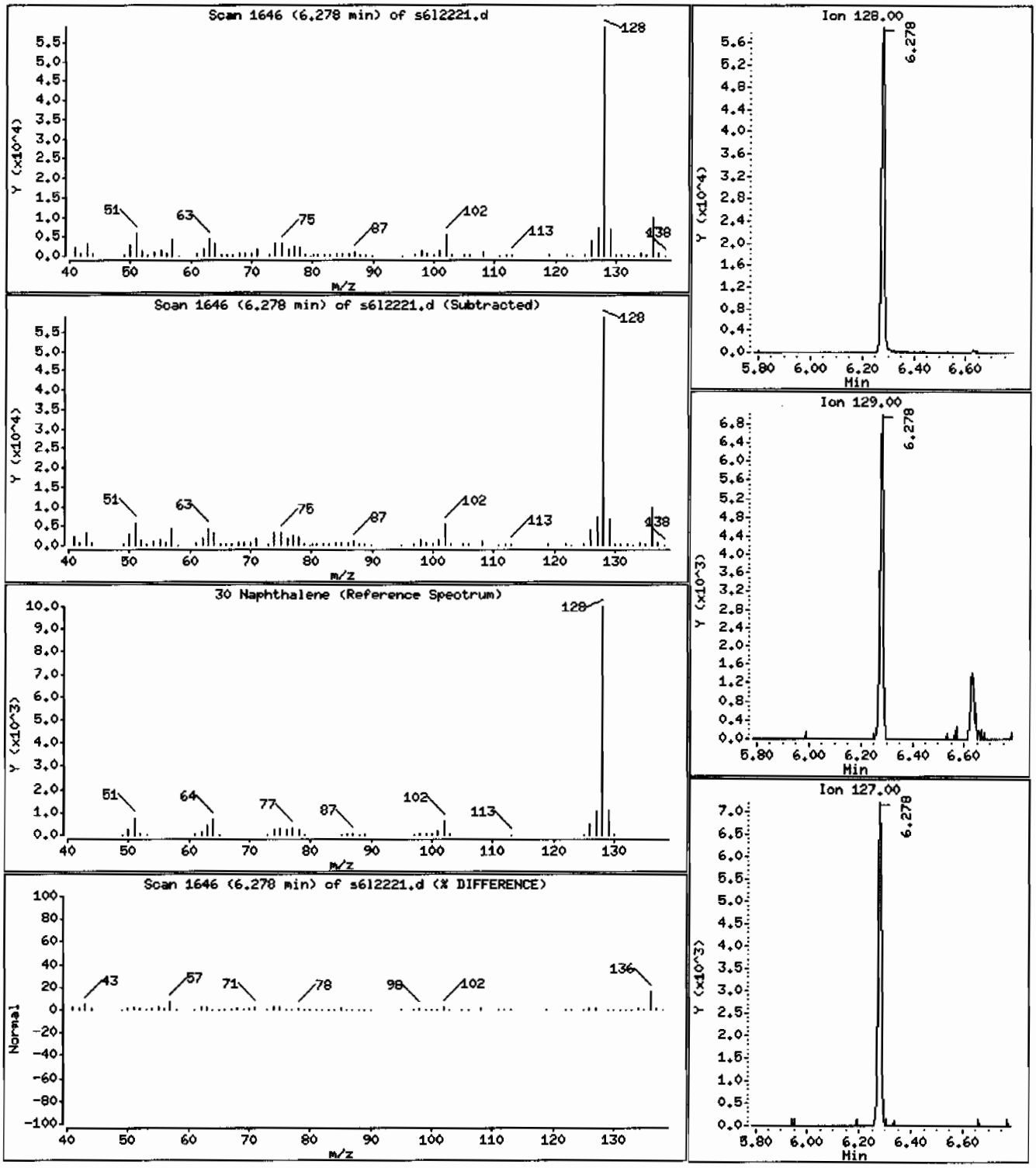

Data File: /chem/MSD6.i/s122209.b/s612221.d

Date : 22-DEC-2009 22:01

Client ID: RE03-09-14220

Instrument: MSD6.i

Sample Info: 1243033008|934979|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: nagi

Column phase: J&W DB-5MS

Column diameter: 0.20

34 2-Methylnaphthalene

Concentration: 37.2 ug/Kg

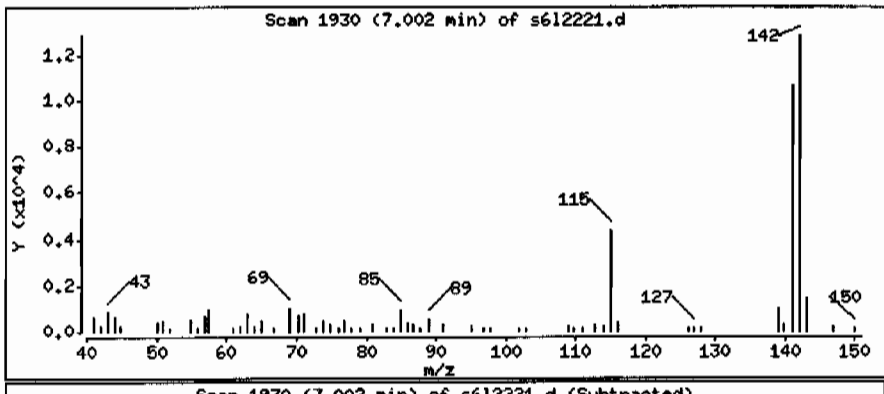

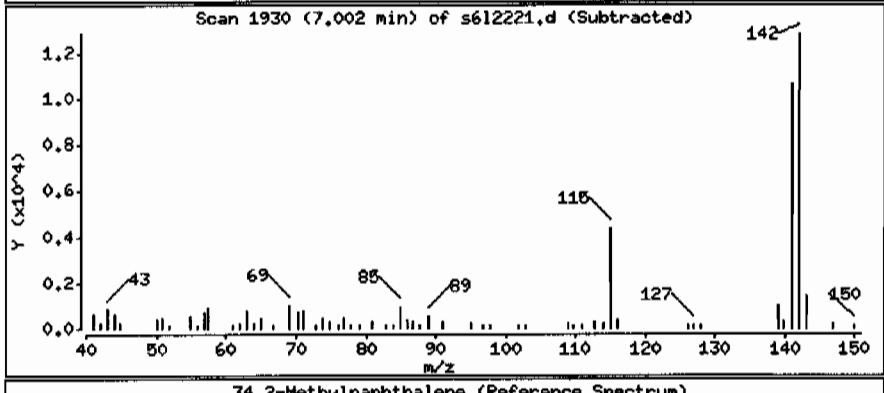

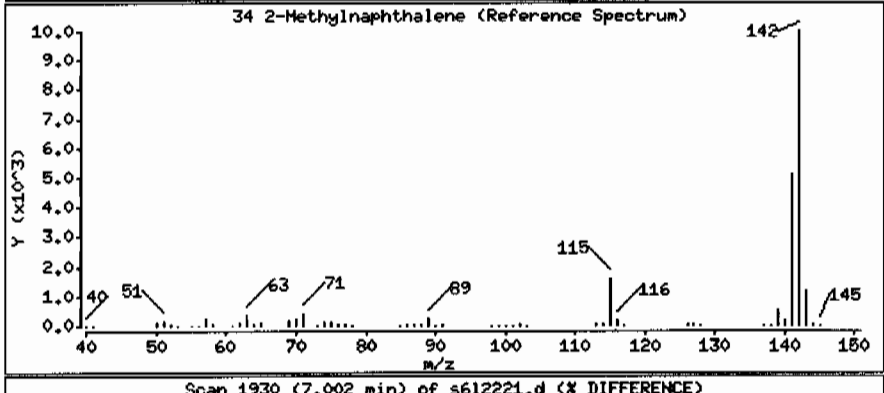

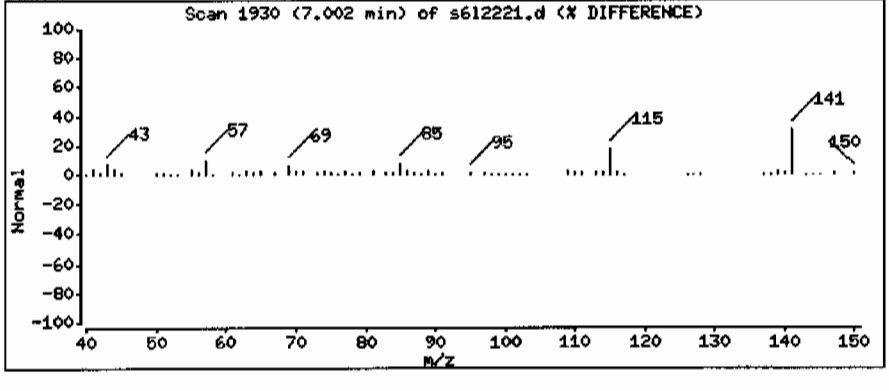

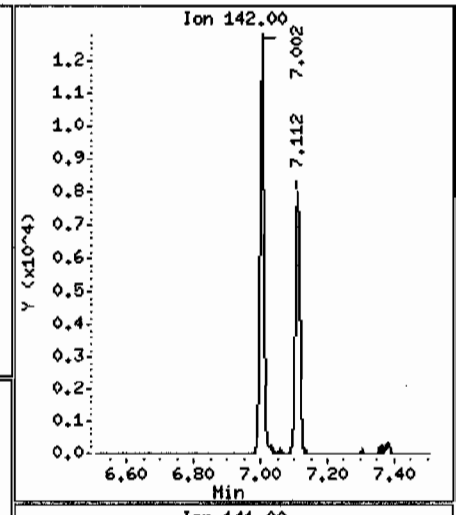

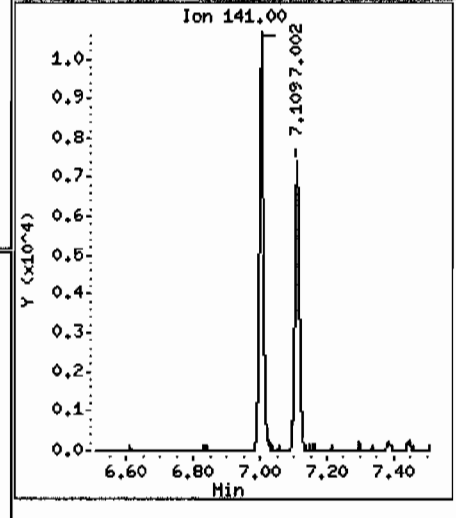

Data File: /chem/MSD6.i/s122209.b/s612221.d

Date : 22-DEC-2009 22:01

Client ID: RE03-09-14220

Instrument: MSD6.i

Sample Info: |2430330081934979|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: nagl

Column phase: J&W DB-5MS

Column diameter: 0.20

49 Dibenzofuran

Concentration: 150 ug/Kg

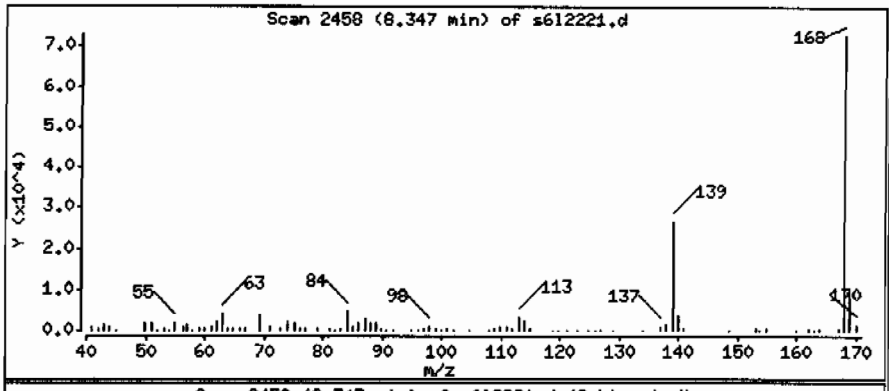

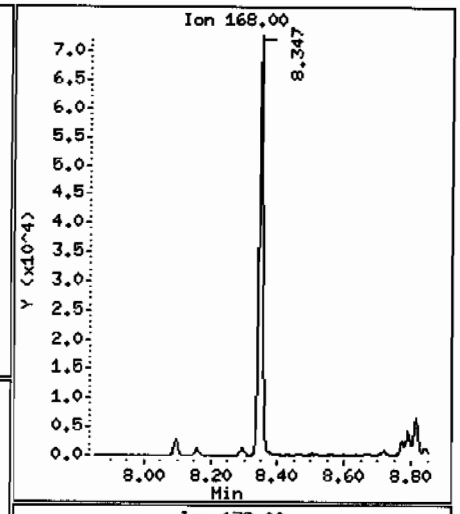

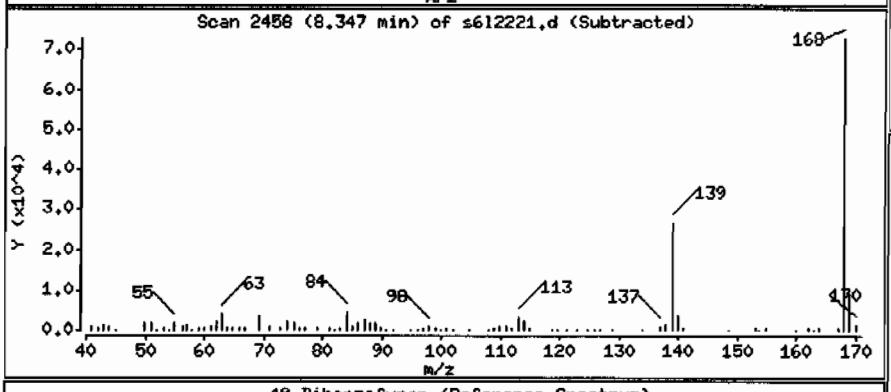

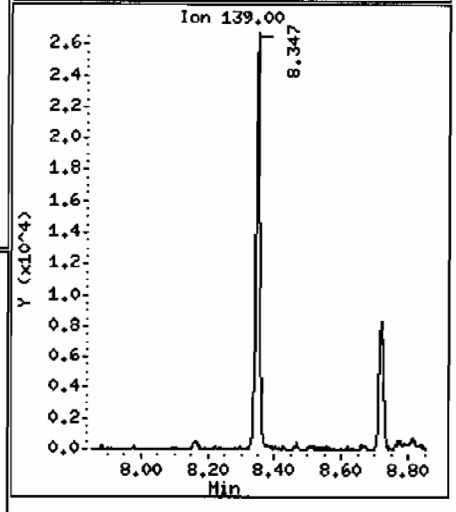

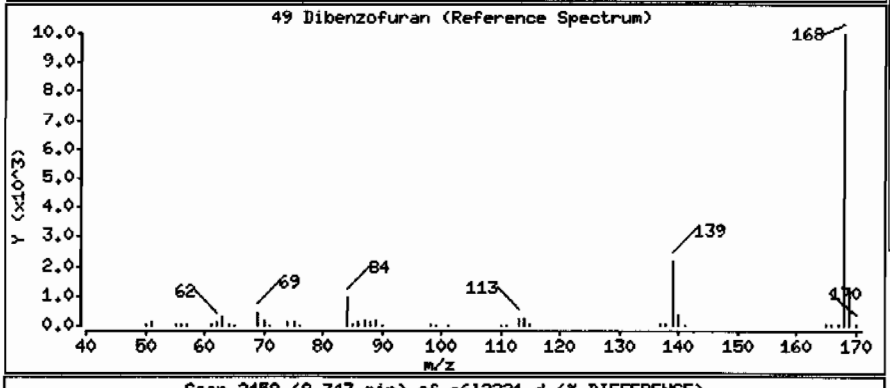

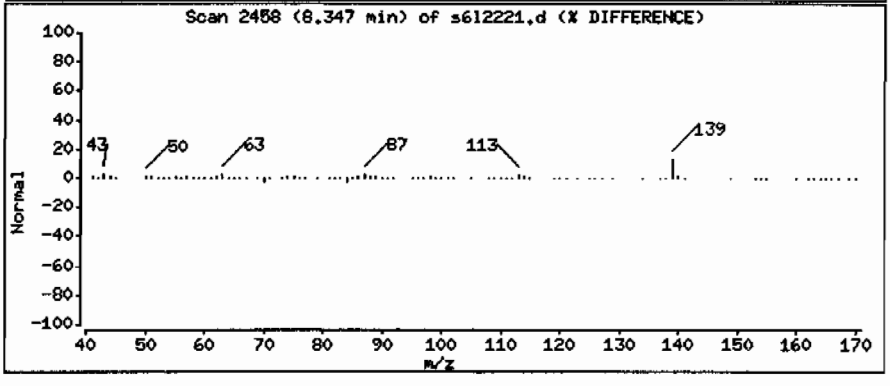

Data File: /chem/MSD6.i/s122209.b/s612221.d

Date : 22-DEC-2009 22:01

Client ID: RE03-09-14220

Instrument: MSD6.i

Sample Info: 1243033008|934979|1|SVH|1|LANL

Volume Injected (uL): 0.5

Operator: nagl

Column phase: J&W DB-5MS

Column diameter: 0.20

53 Fluorene

Concentration: 252 ug/Kg

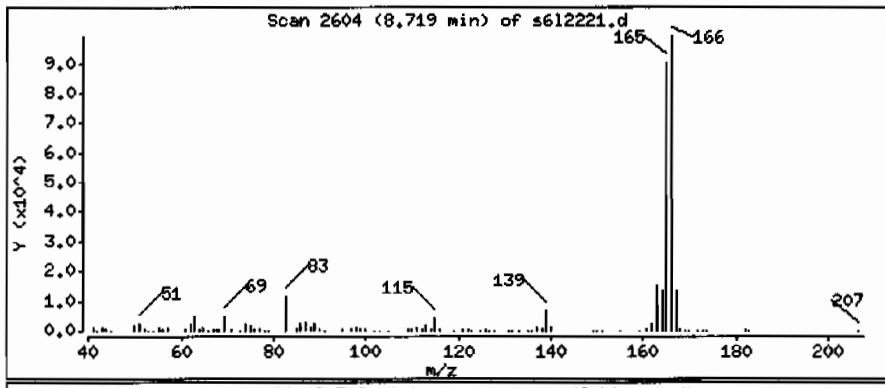

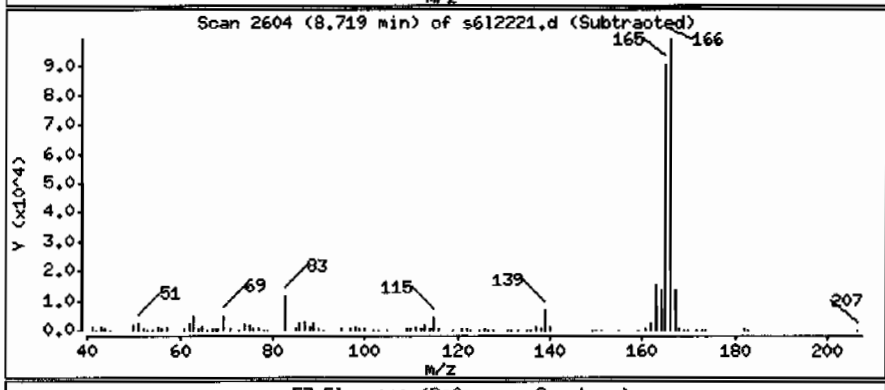

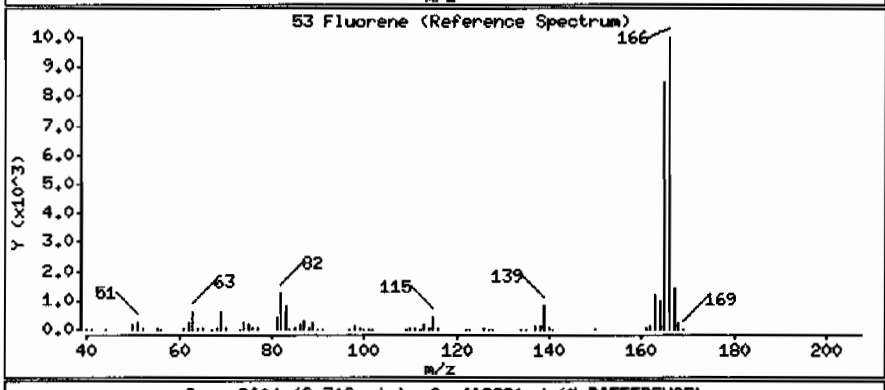

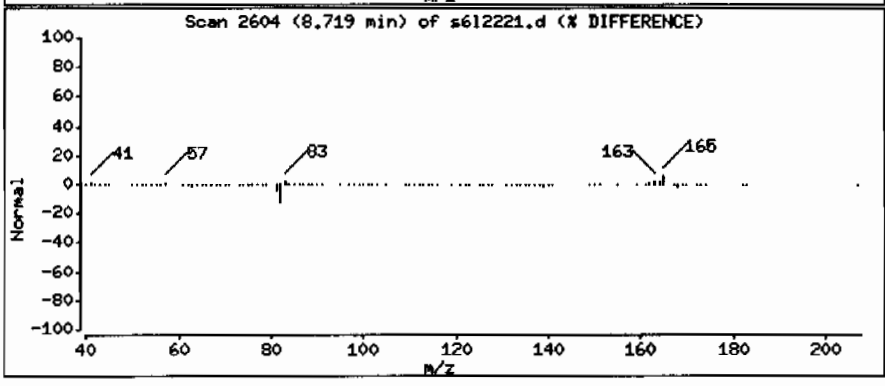

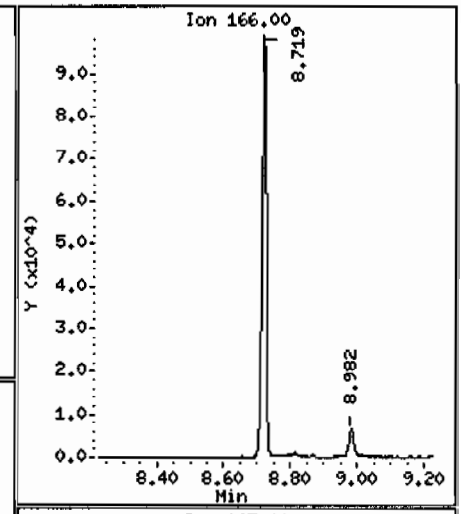

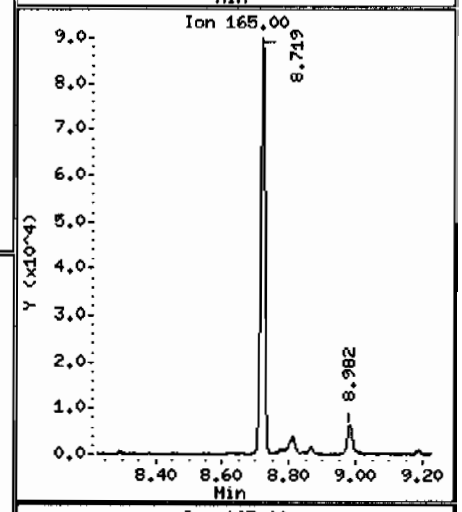

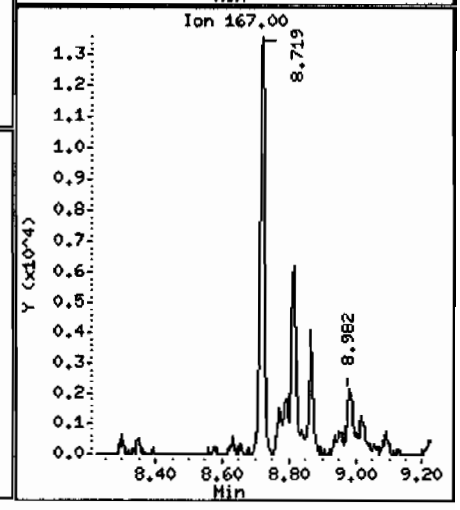

Data File: /chem/MSD6.i/s122209.b/s612221.d

Page 8

Date : 22-DEC-2009 22:01

Client ID: RE03-09-14220

Instrument: MSD6.i

Sample Info: |2430330081934979|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: nagl

Column phase: J&W DB-5MS

Column diameter: 0.20

68 Phenanthrene

Concentration: 2350 ug/Kg

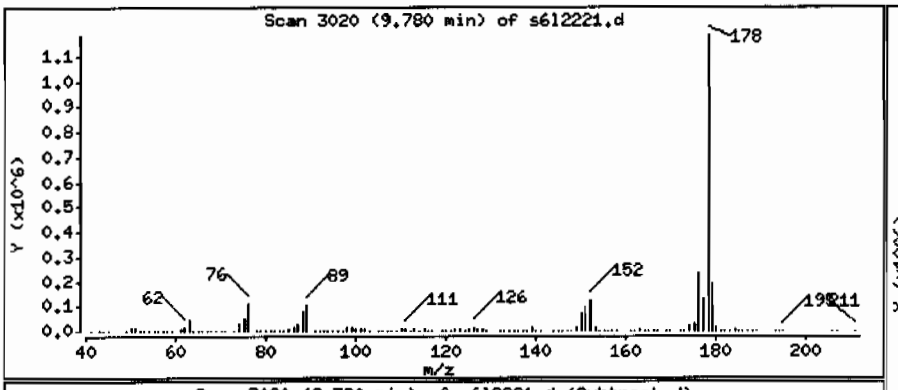

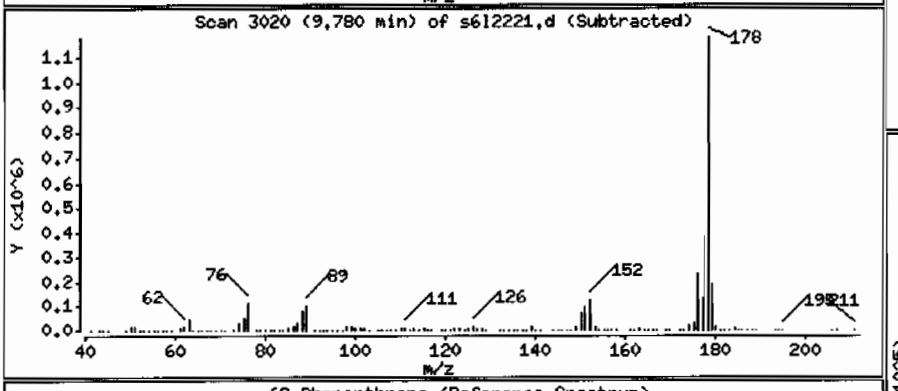

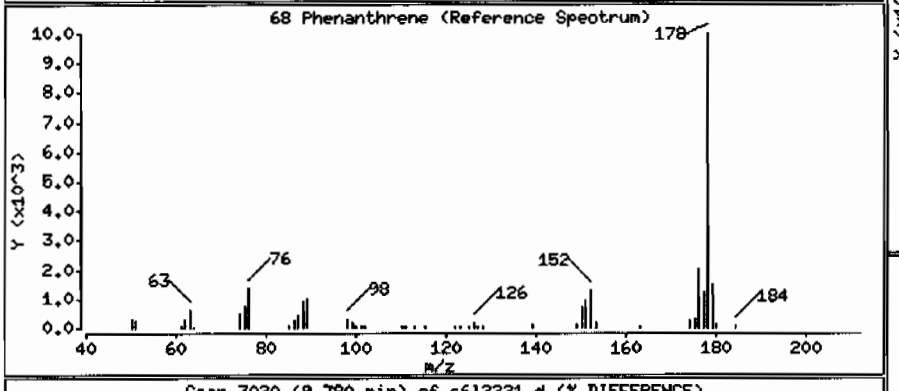

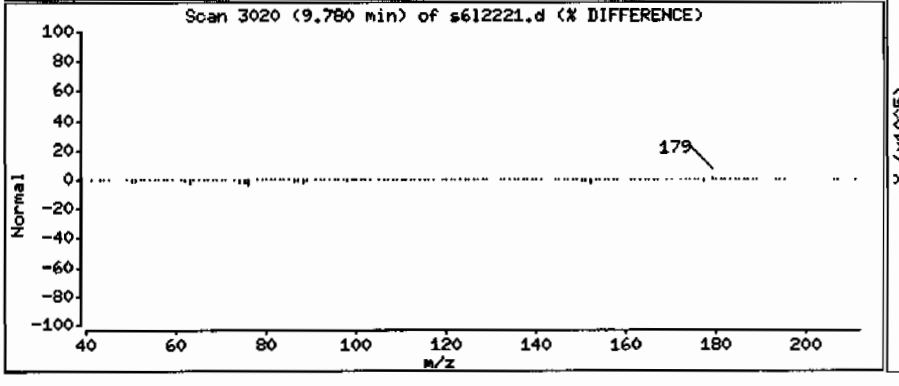

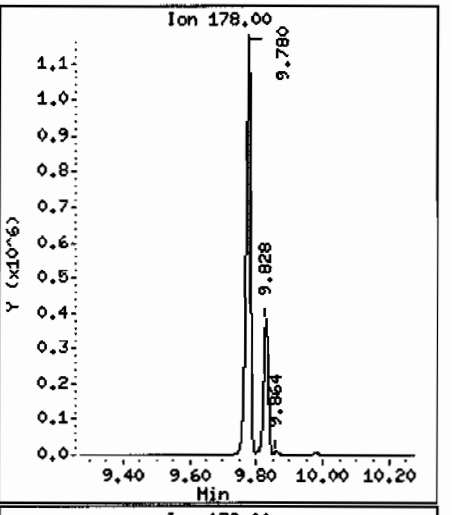

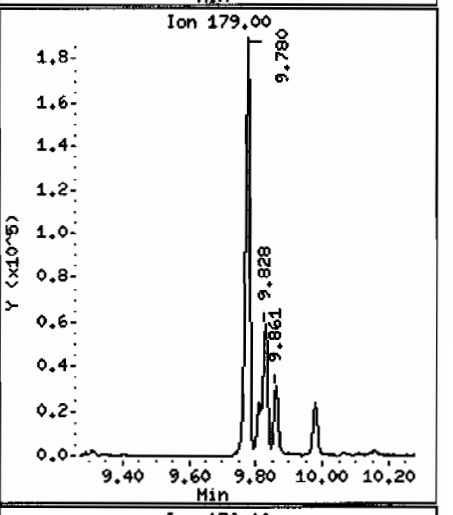

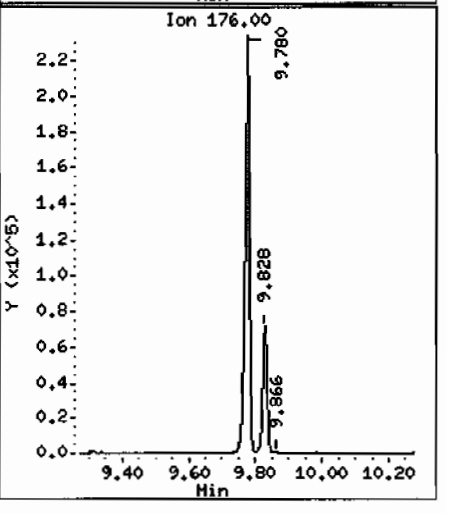

Data File: /chem/MSD6.i/s122209.b/s612221.d

Date : 22-DEC-2009 22:01

Client ID: RE03-09-14220

Instrument: MSD6.i

Sample Info: 1243033008|934979|1|SVHI1|LANL

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

69 Anthracene

Concentration: 690 ug/Kg

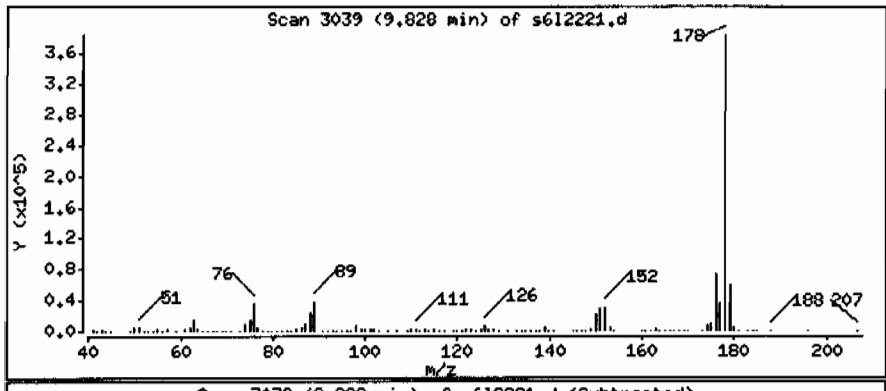

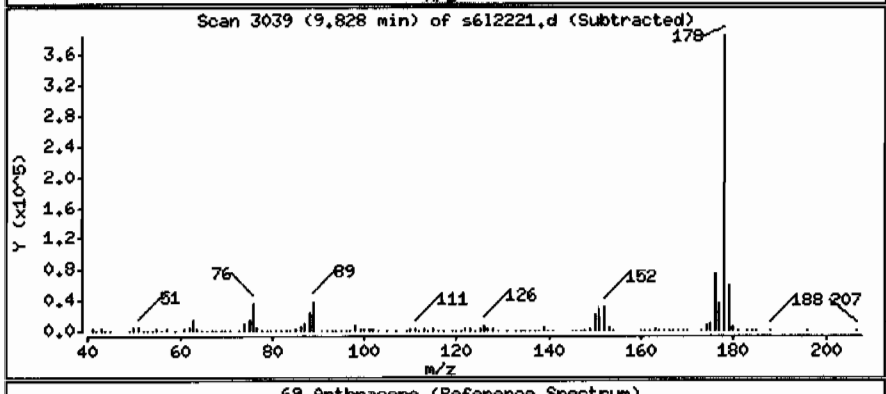

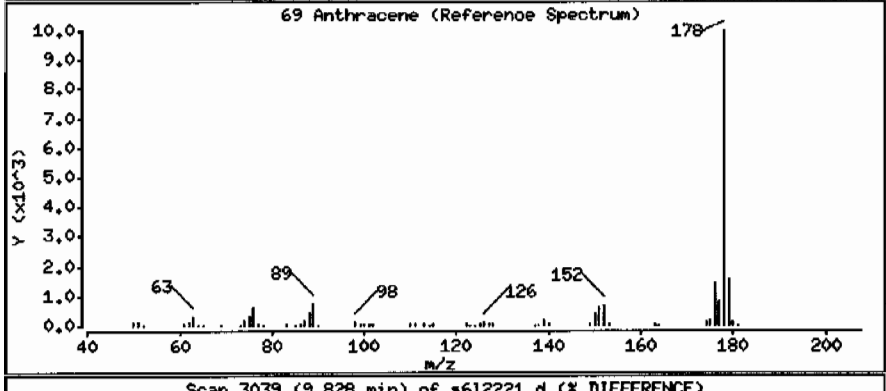

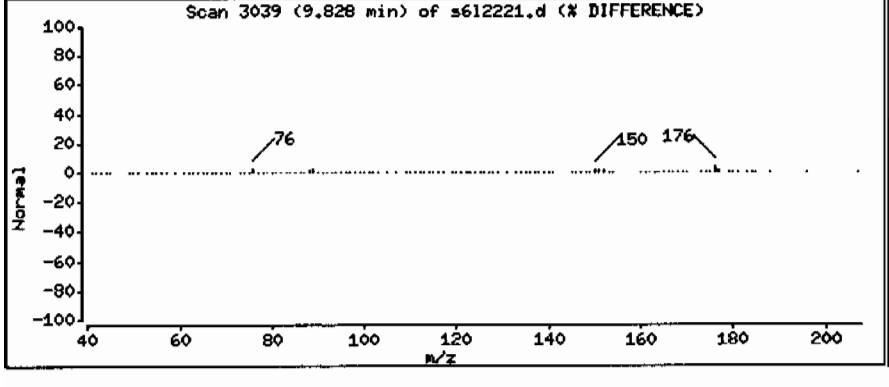

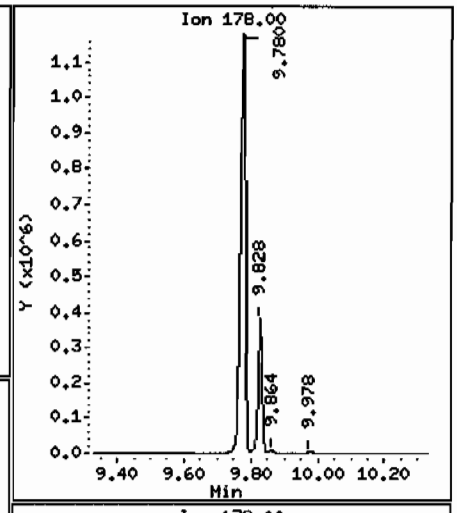

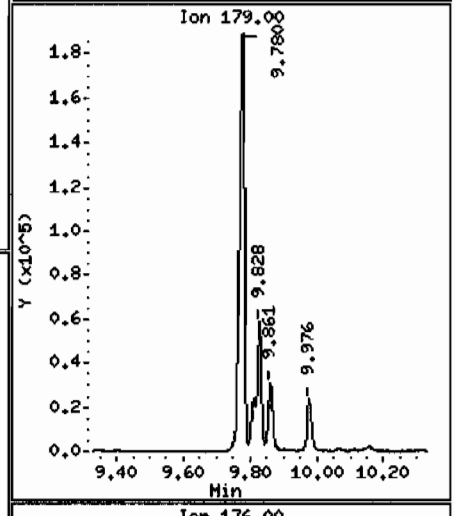

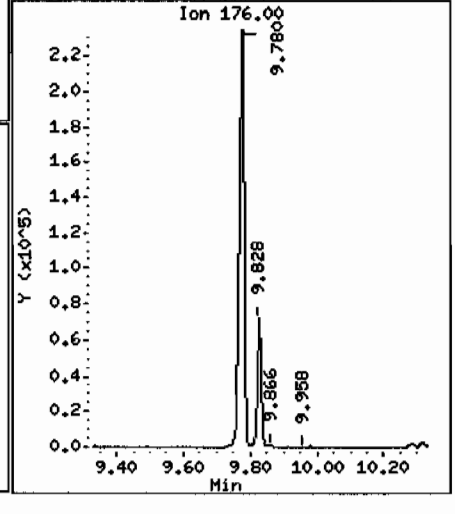

Data File: /chem/MSD6.i/s122209.b/s612221.d

Date : 22-DEC-2009 22:01

Client ID: RE03-09-14220

Instrument: MSD6.i

Sample Info: |2430330081934979|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

72 Di-n-butylphthalate

Concentration: 118 ug/Kg

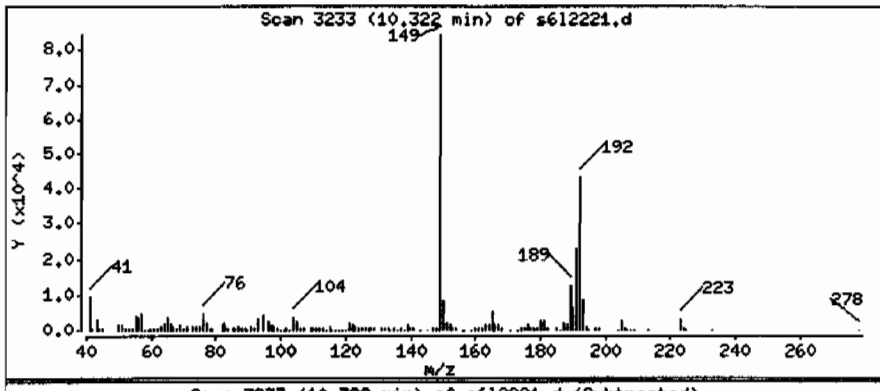

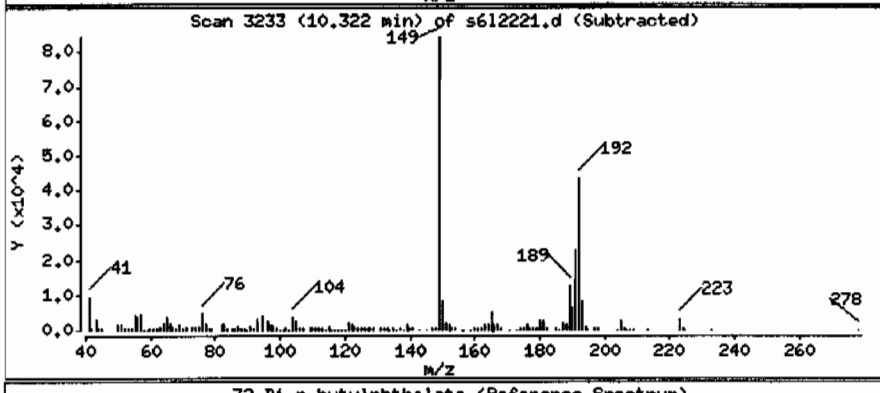

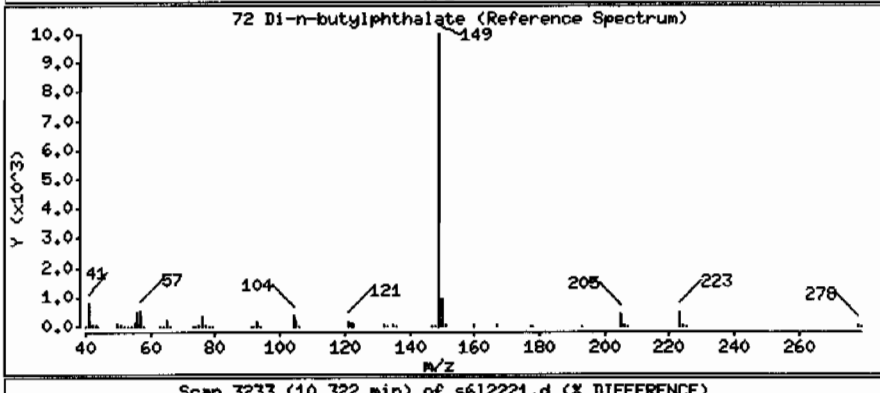

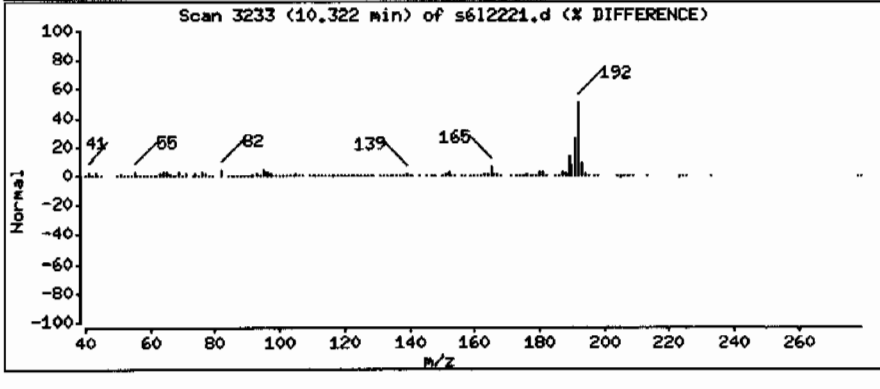

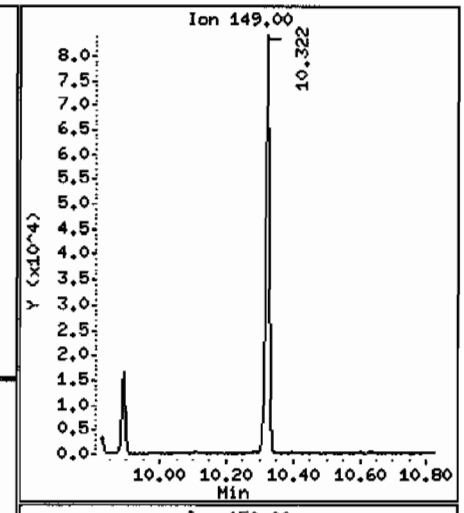

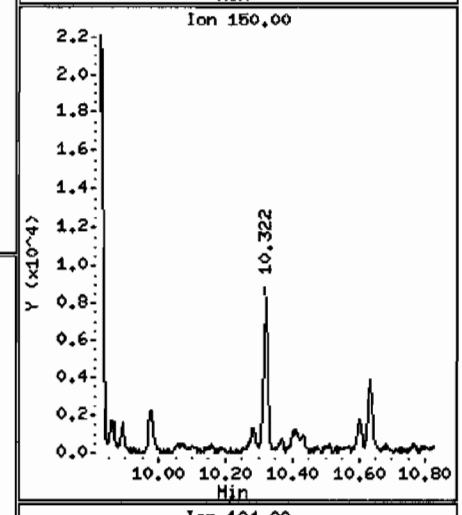

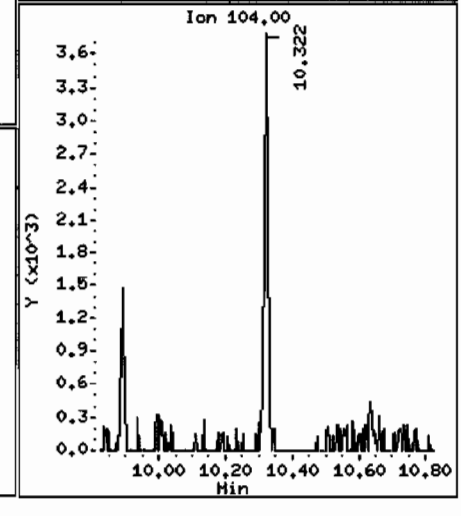

Data File: /chem/MSD6.i/s122209.b/s612221.d

Date : 22-DEC-2009 22:01

Client ID: RE03-09-14220

Instrument: MSD6.i

Sample Info: 1243033008193497911ISVHI1ILANL

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

76 Fluoranthene

Concentration: 3990 ug/Kg

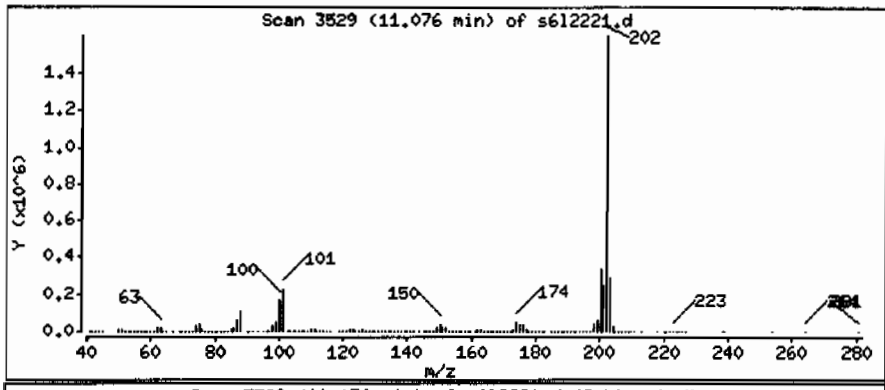

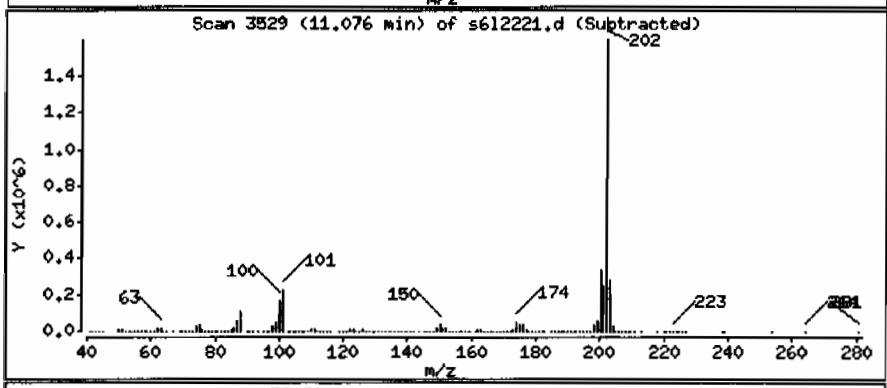

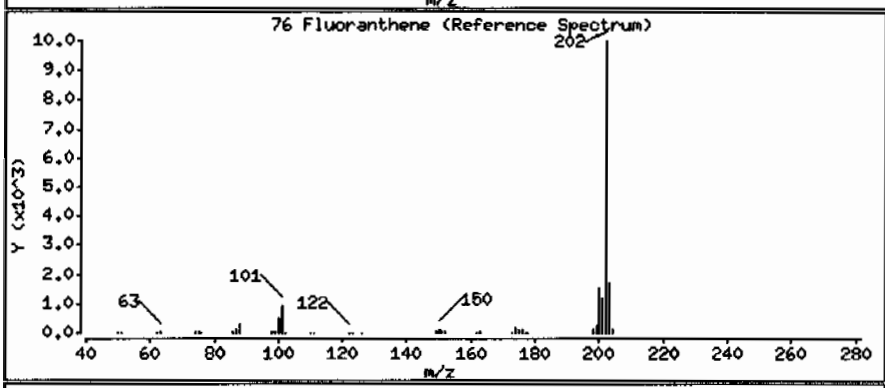

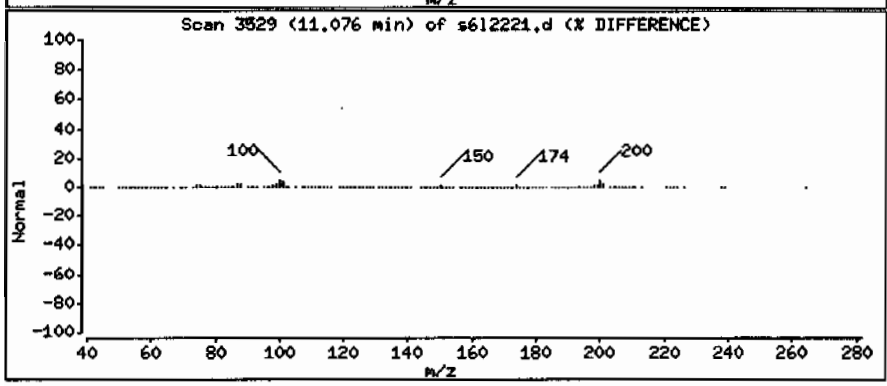

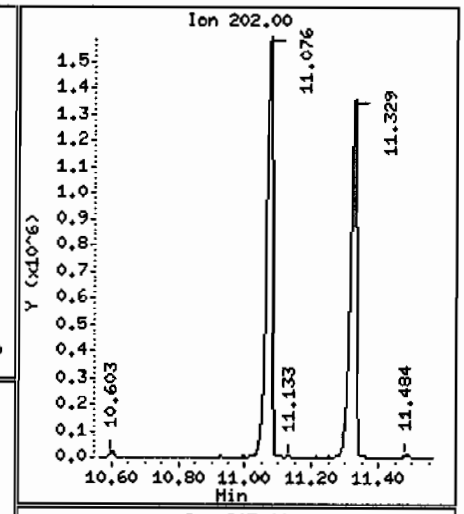

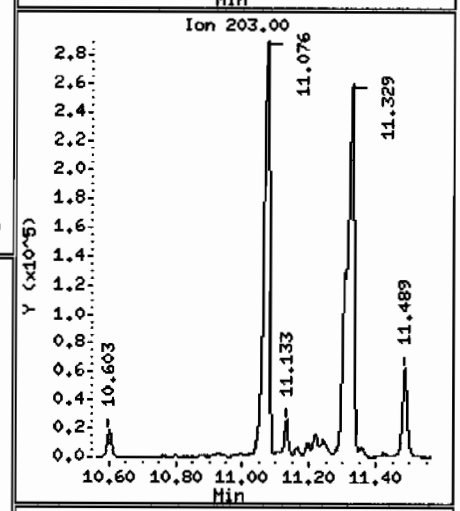

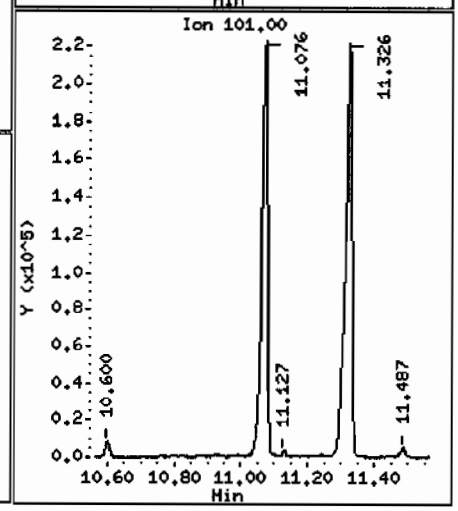

Data File: /chem/MSD6.i/s122209.b/s612221.d

Date : 22-DEC-2009 22:01

Client ID: RE03-09-14220

Instrument: MSD6.i

Sample Info: 1243033008193497911|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: nagi

Column phase: J&W DB-5MS

Column diameter: 0.20

89 Benzo(a)anthracene

Concentration: 2330 ug/Kg

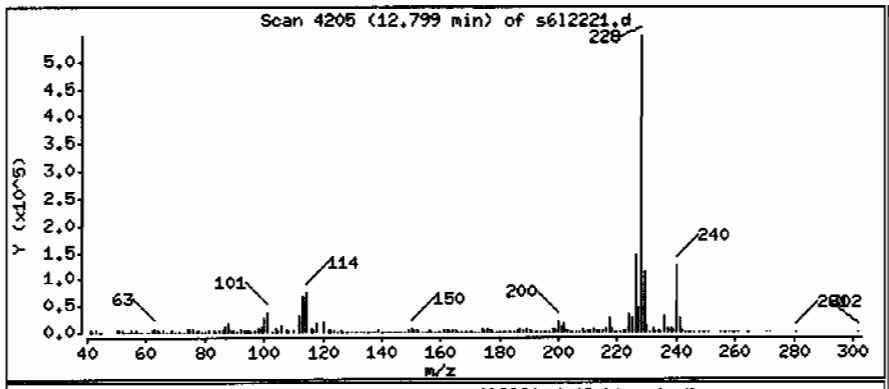

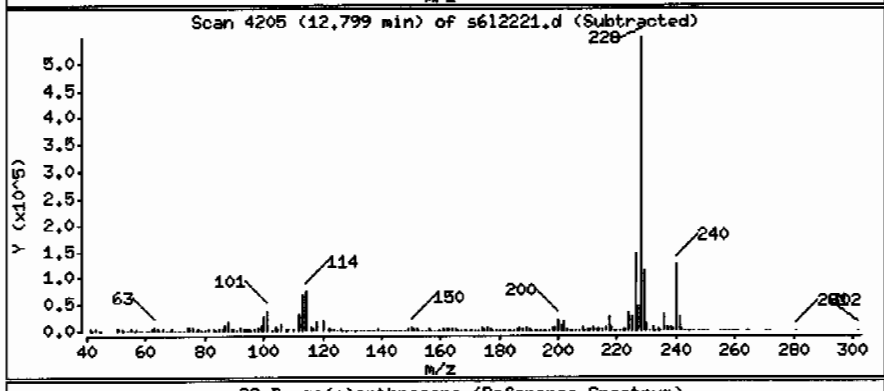

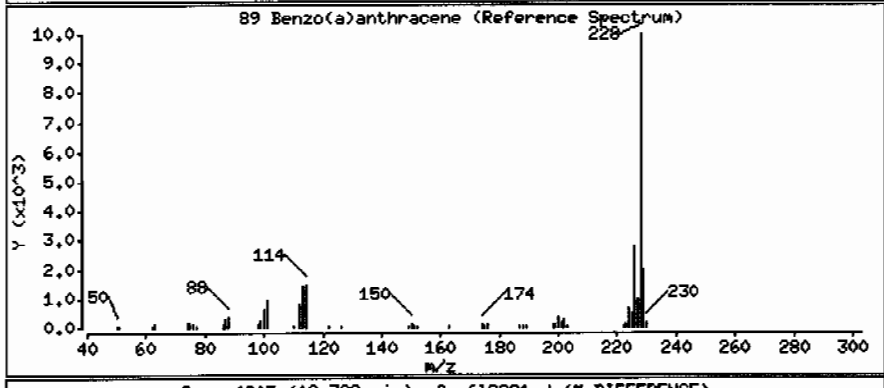

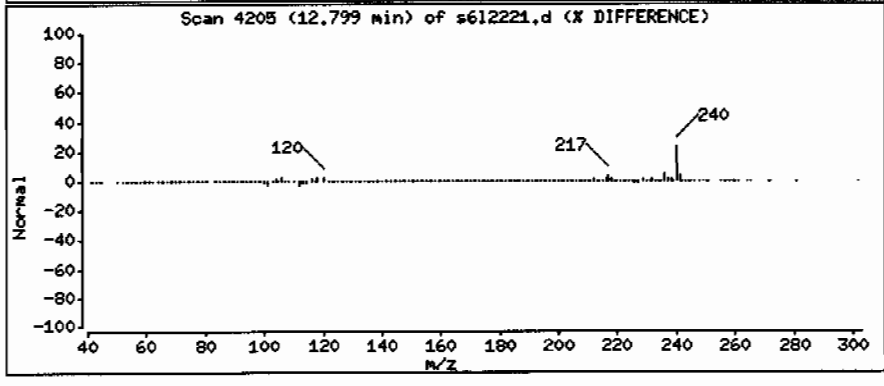

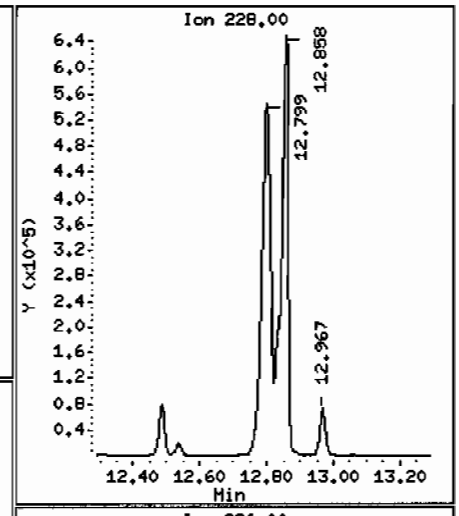

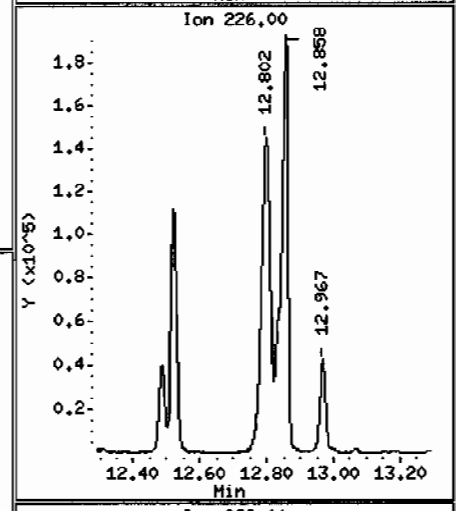

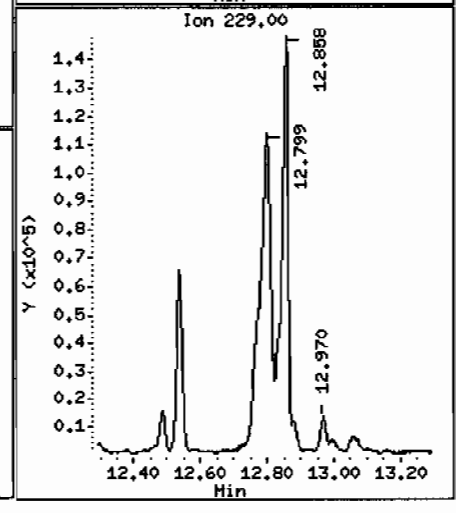

Data File: /chem/MSD6.i/s122209.b/s612221.d

Date : 22-DEC-2009 22:01

Client ID: RE03-09-14220

Instrument: MSD6.i

Sample Info: 1243033008193497911|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

92 Chrysene

Concentration: 2290 ug/Kg

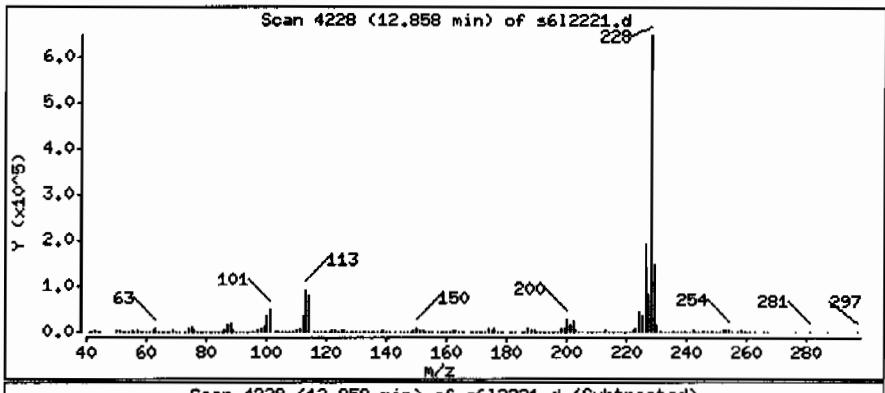

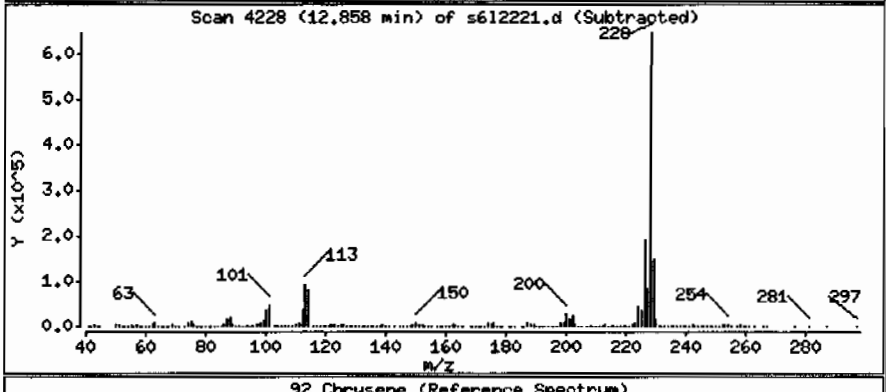

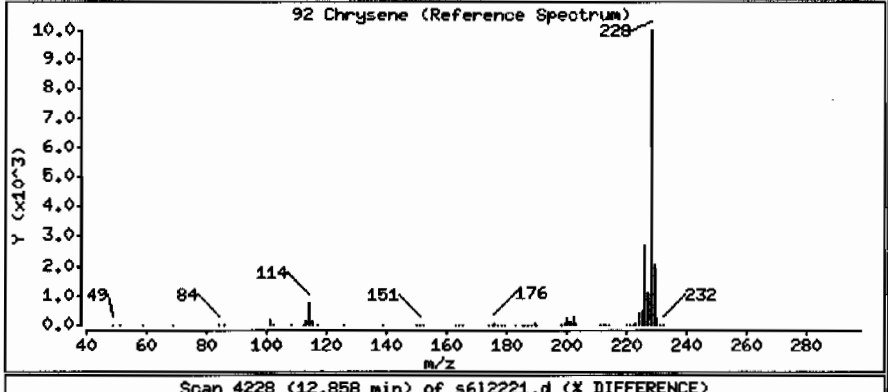

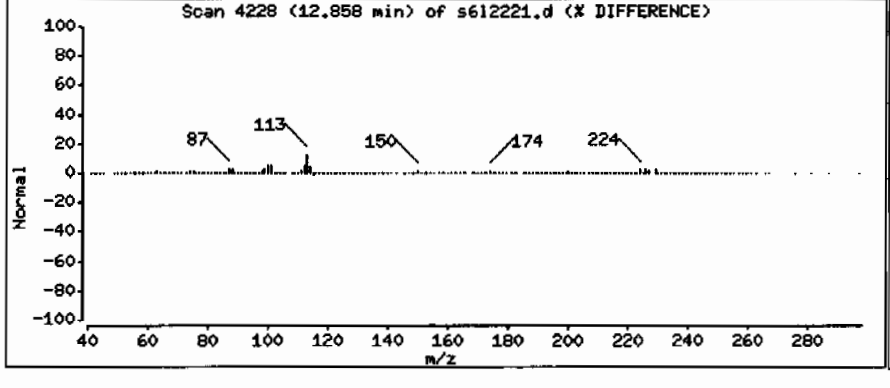

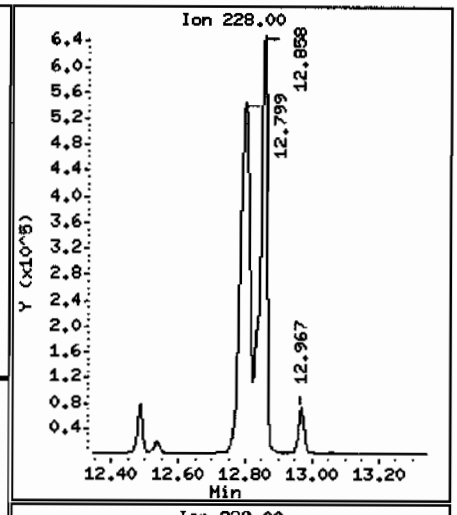

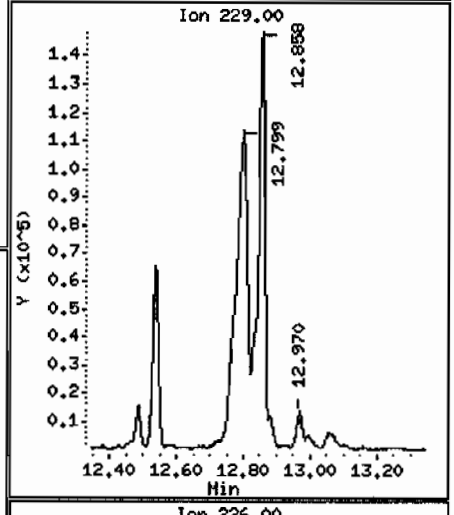

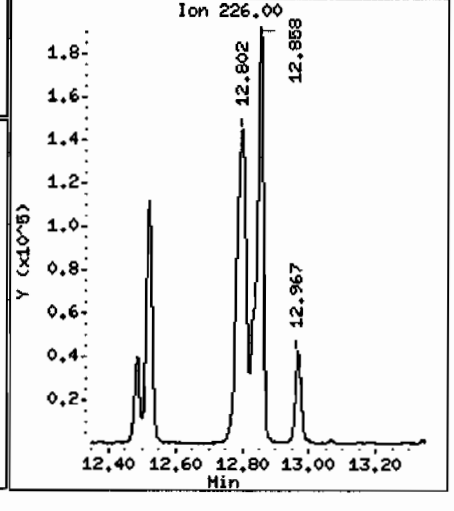

Data File: /chem/MSD6.i/s122209.b/s612221.d

Date : 22-DEC-2009 22:01

Client ID: RE03-09-14220

Instrument: MSD6.i

Sample Info: 1243033008|934979|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

93 bis(2-Ethylhexyl)phthalate

Concentration: 91.0 ug/Kg

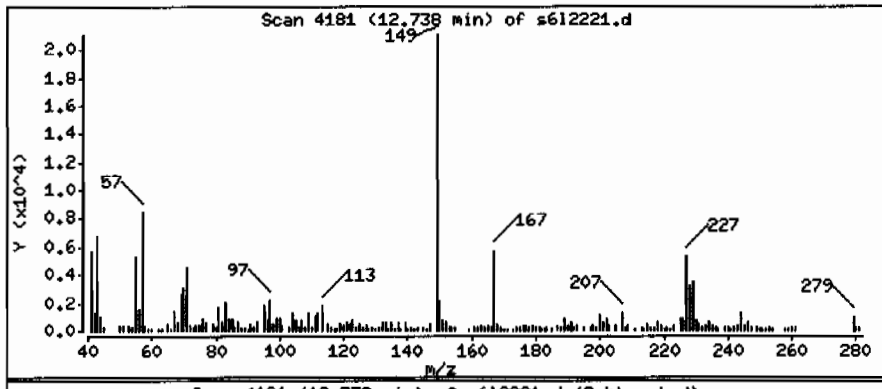

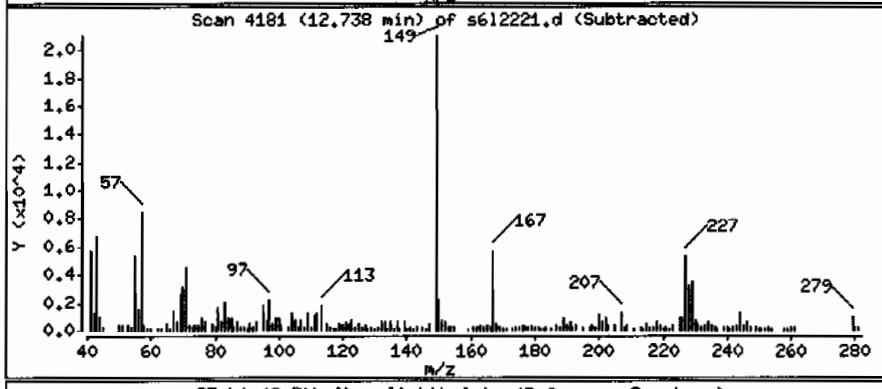

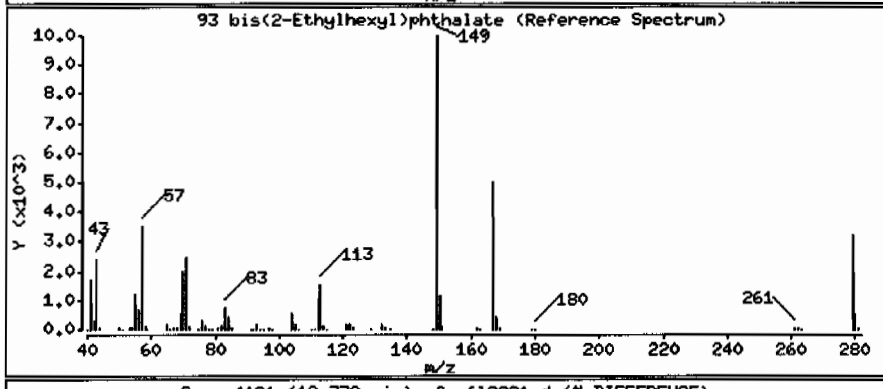

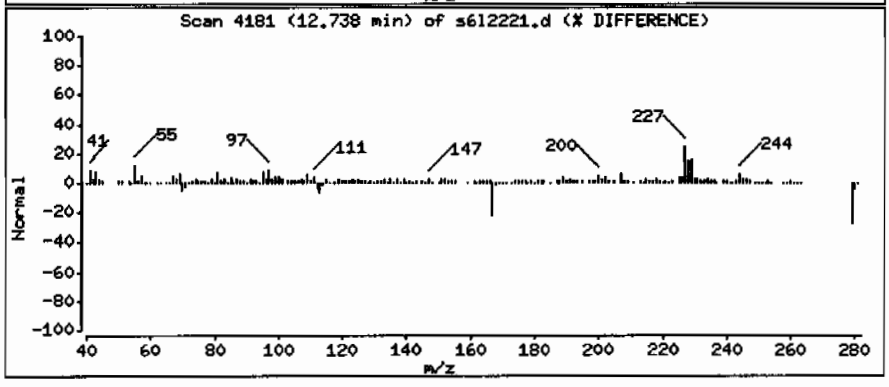

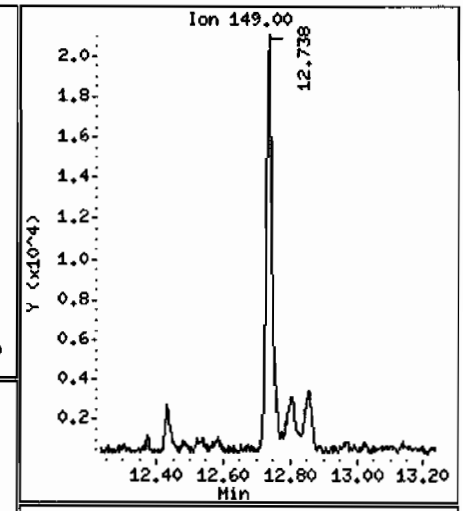

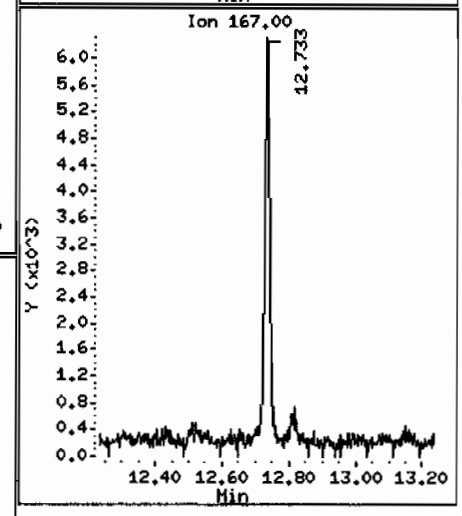

Data File: /chem/MSD6.i/s122209.b/s612221.d

Date : 22-DEC-2009 22:01

Client ID: RE03-09-14220 Instrument: MSD6.i

Sample Info: 1243033008|934979|1|SVM|1|LANL

Volume Injected (uL): 0.5 Operator: nag1

Column phase: J&W DB-5MS Column diameter: 0.20

95 Benzo(b)fluoranthene Concentration: 3060 ug/Kg

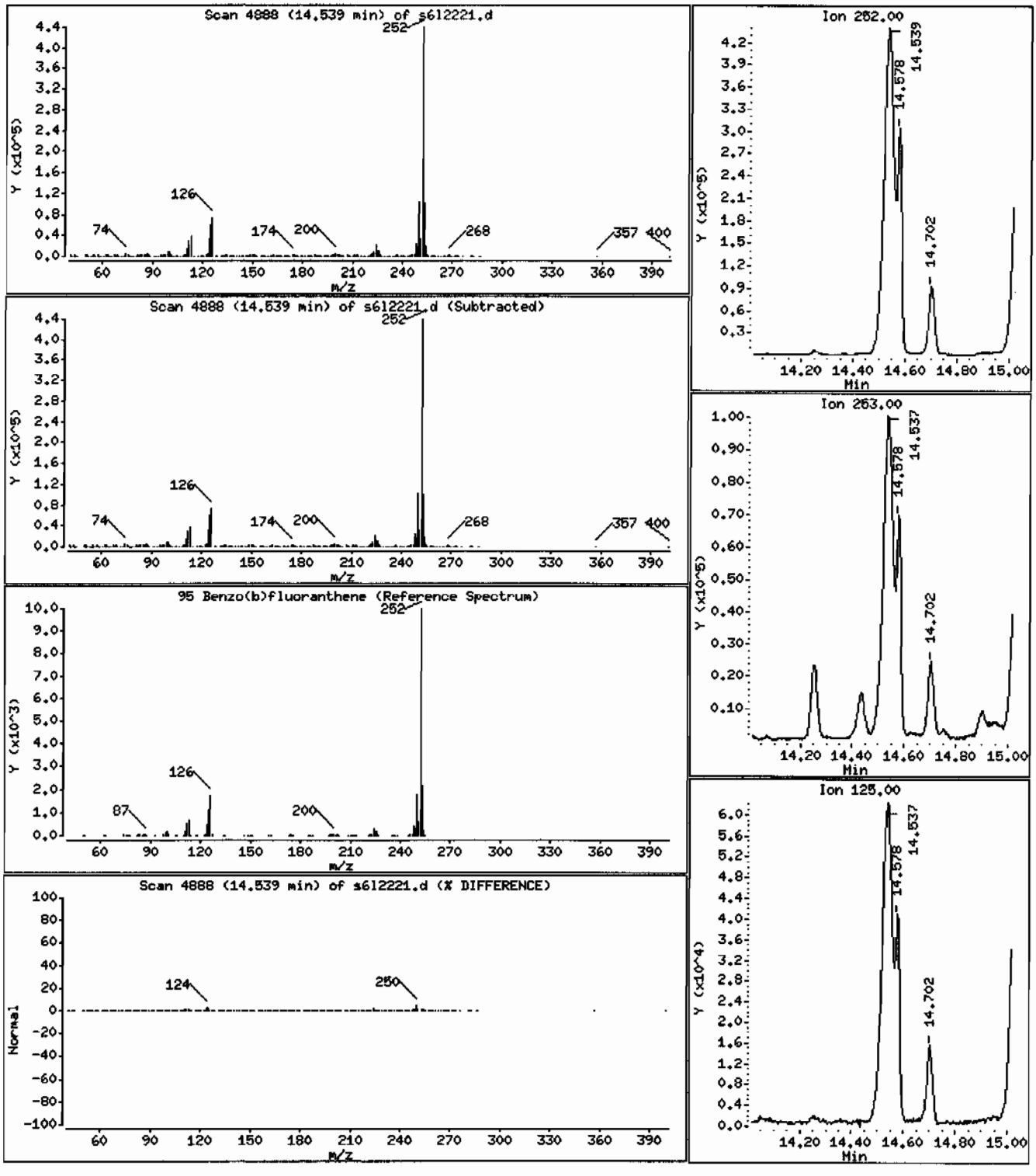

Data File: /chem/MSD6.i/s122209.b/s612221.d

Date : 22-DEC-2009 22:01

Client ID: RE03-09-14220 | Instrument: MSD6.i

Sample Info: |2430330008|934979|1|SVM|1|LANL

Volume Injected (uL): 0.5 | Operator: nag1

Column phase: J&W DB-5MS | Column diameter: 0.20

96 Benzo(k)fluoranthene | Concentration: 975 ug/Kg

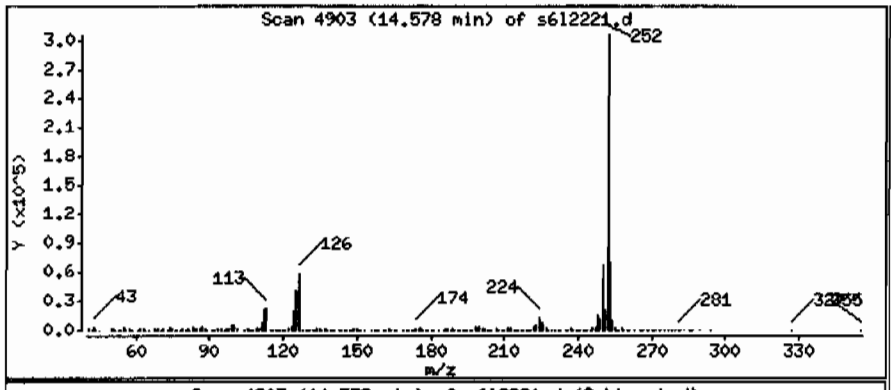

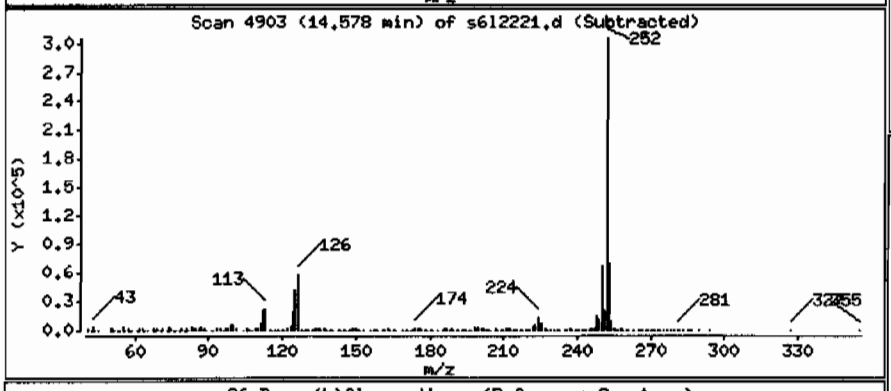

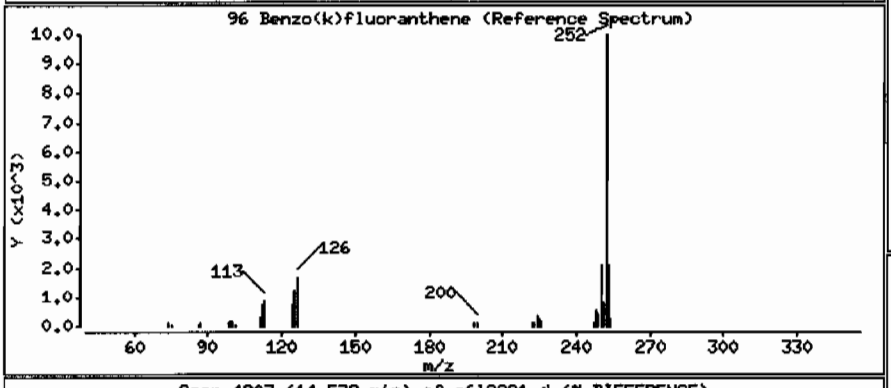

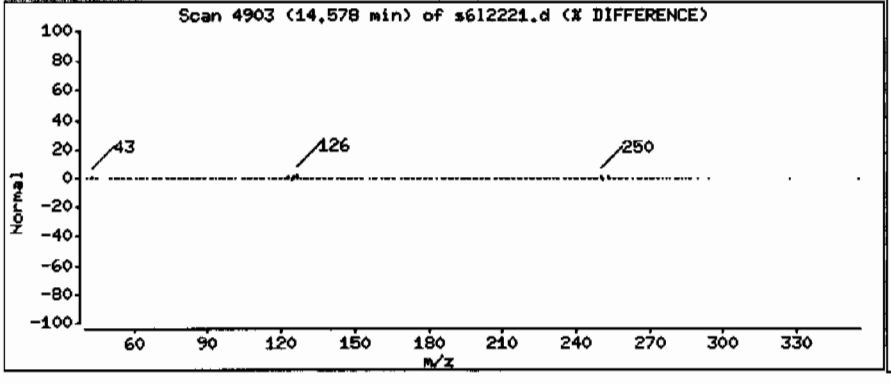

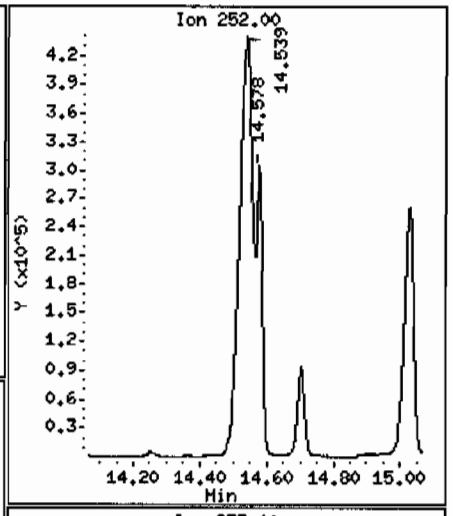

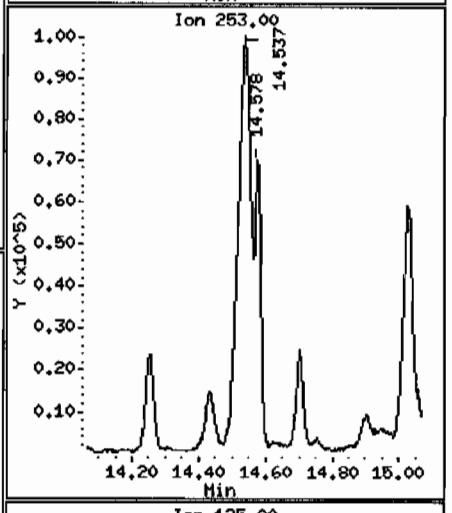

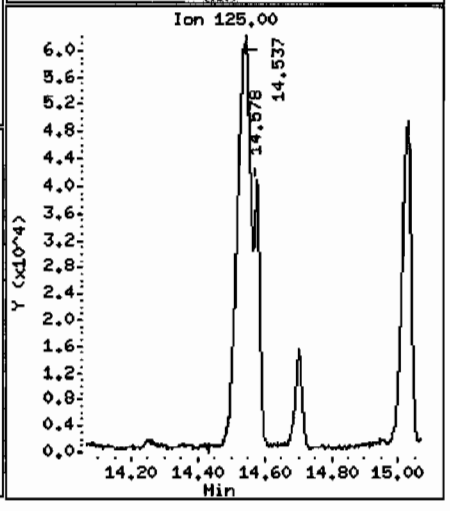

Data File: /chem/MSD6.i/s122209.b/s612221.d

Date : 22-DEC-2009 22:01

Client ID: RE03-09-14220

Instrument: MSD6.i

Sample Info: 1243033008193497911ISVHI1ILANL

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5HS

Column diameter: 0.20

97 Benzo(a)pyrene

Concentration: 2180 ug/Kg

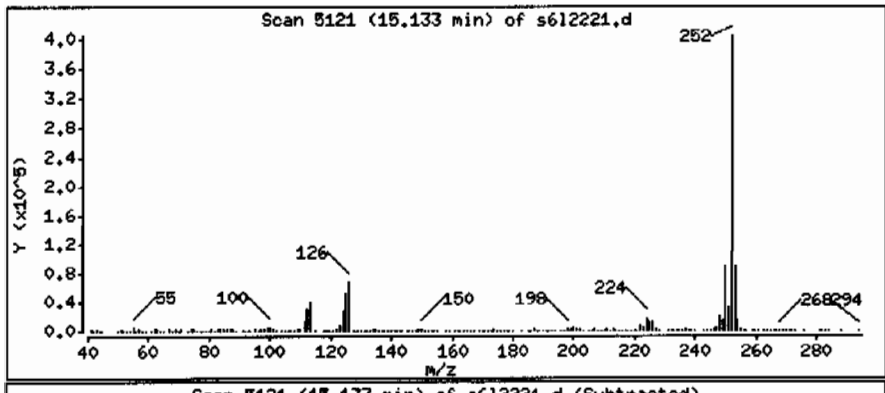

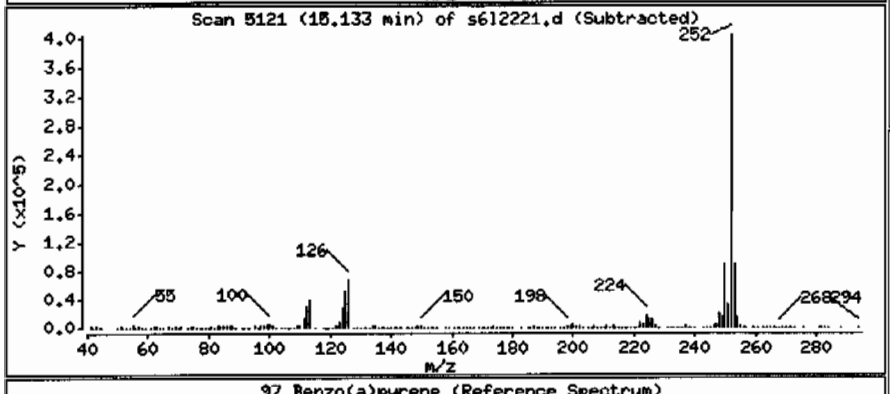

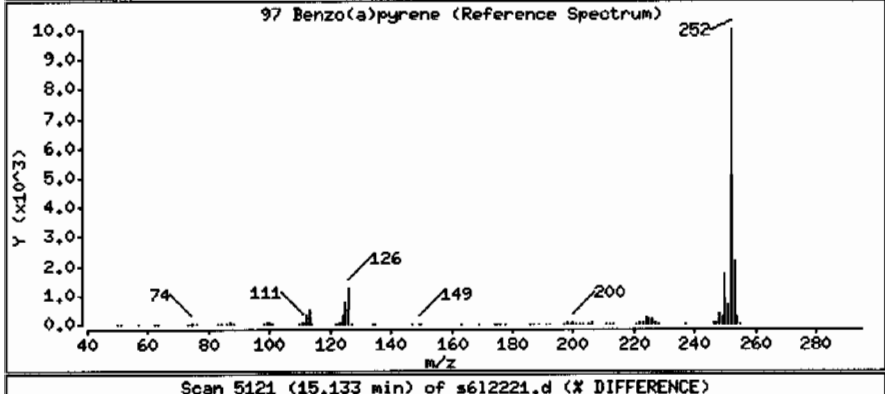

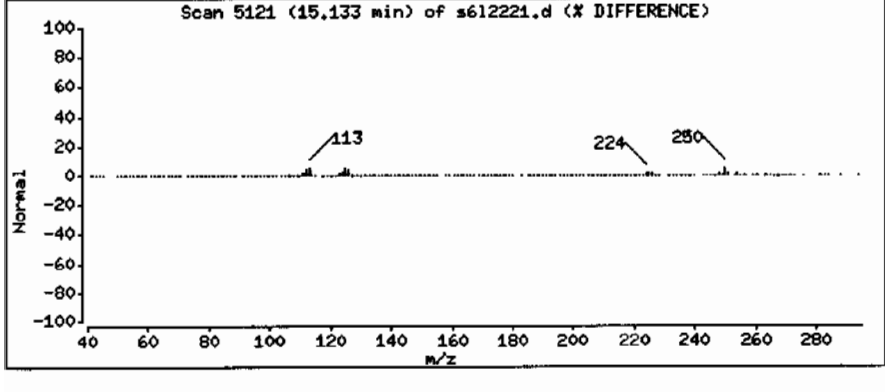

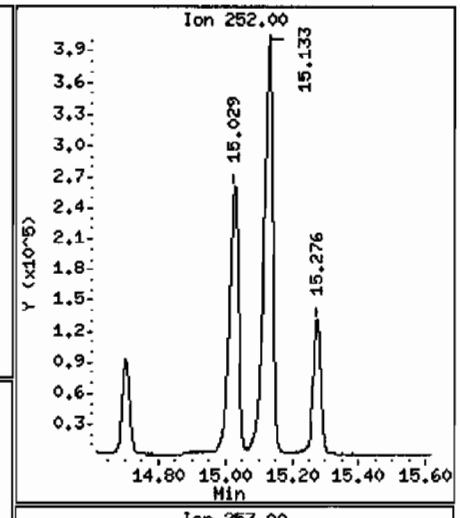

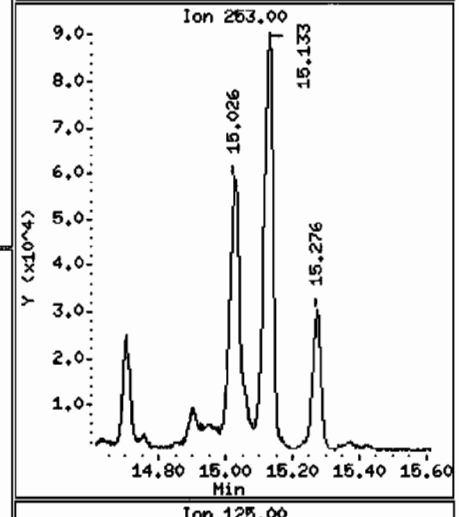

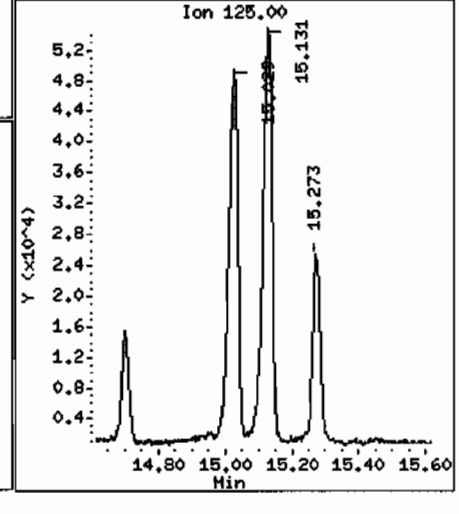

Data File: /chem/MSD6.i/s122209.b/s612221.d

Date : 22-DEC-2009 22:01

Client ID: RE03-09-14220

Instrument: MSD6.i

Sample Info: 1243033008|934979|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: nagl

Column phase: J&W DB-5MS

Column diameter: 0.20

99 Indeno(1,2,3-cd)pyrene

Concentration: 1050 ug/Kg

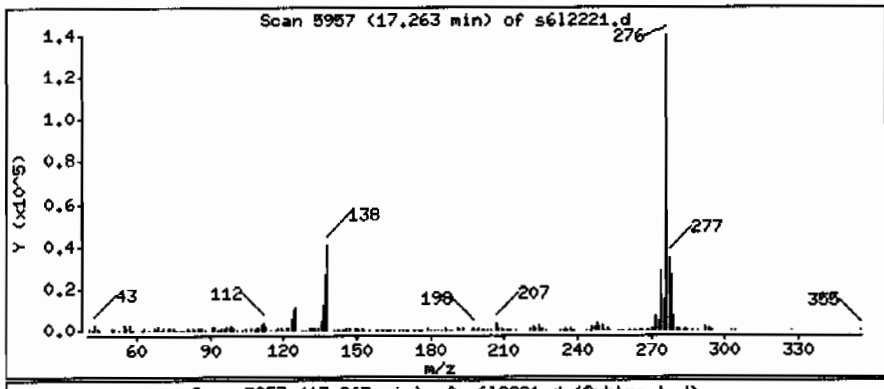

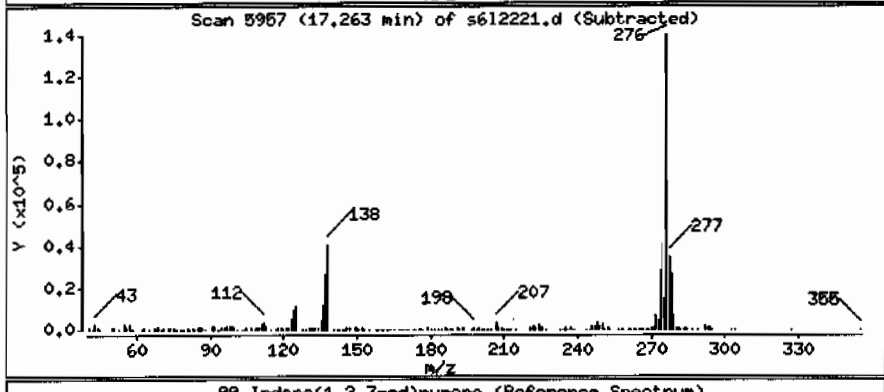

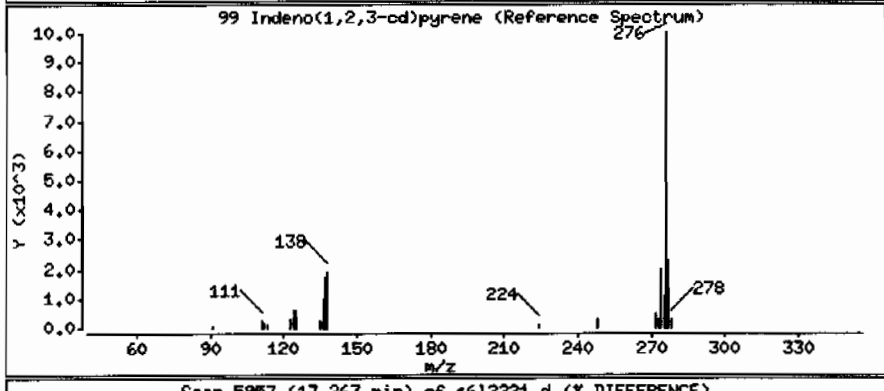

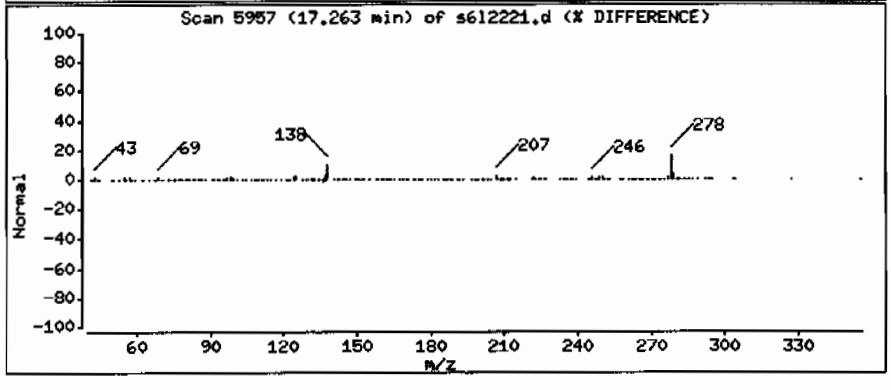

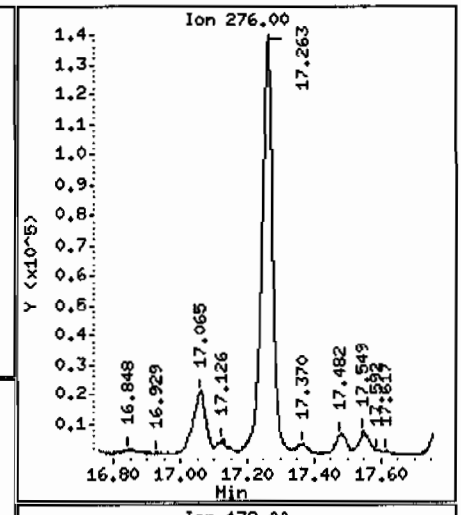

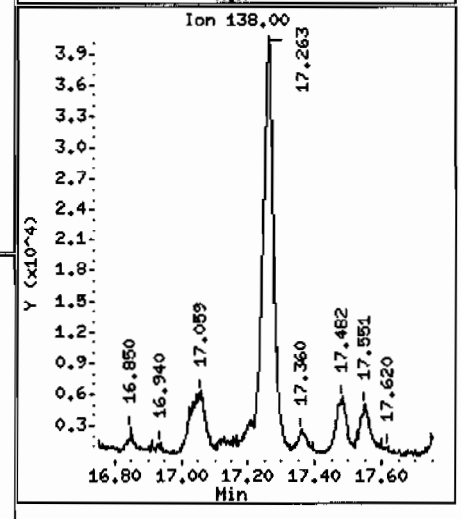

Data File: /chem/HSD6.i/s122209.b/s612221.d

Date : 22-DEC-2009 22:01

Client ID: RE03-09-14220 Instrument: HSD6.i

Sample Info: |2430330081934979|1|SVM|1|LANL

Volume Injected (uL): 0.5 Operator: nagl

Column phase: J&W DB-5MS Column diameter: 0.20

100 Dibenzo(a,h)anthracene Concentration: 401 ug/Kg

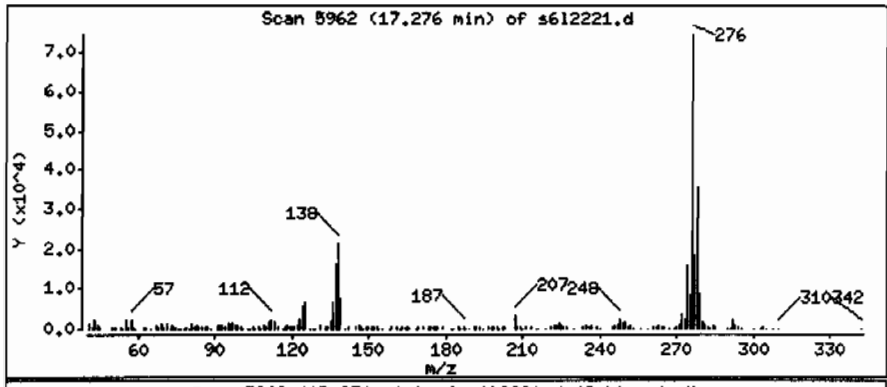

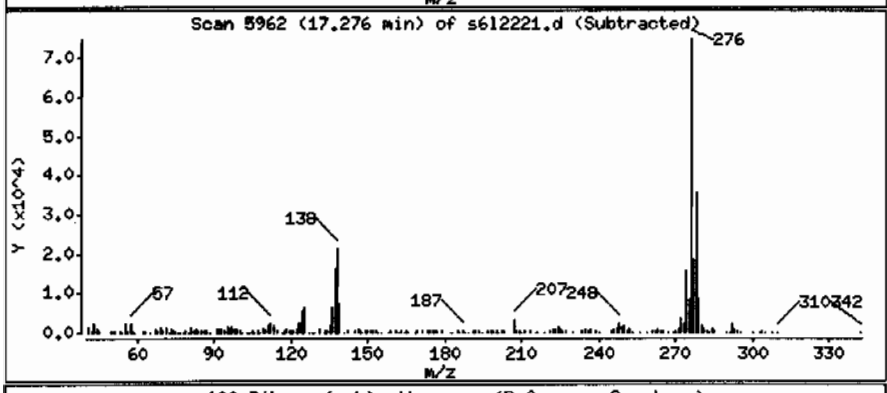

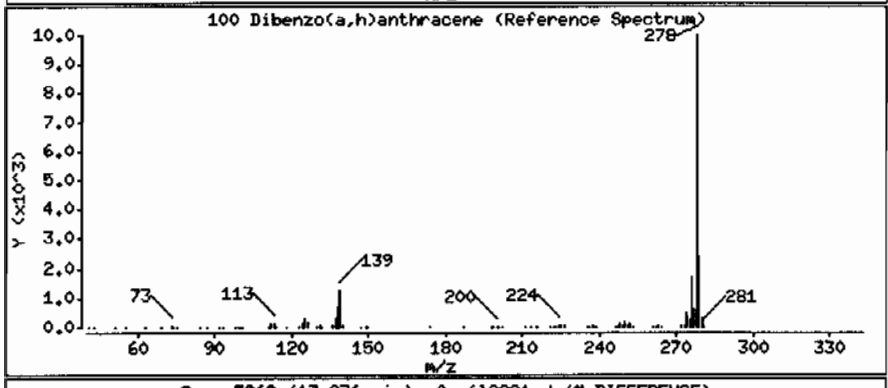

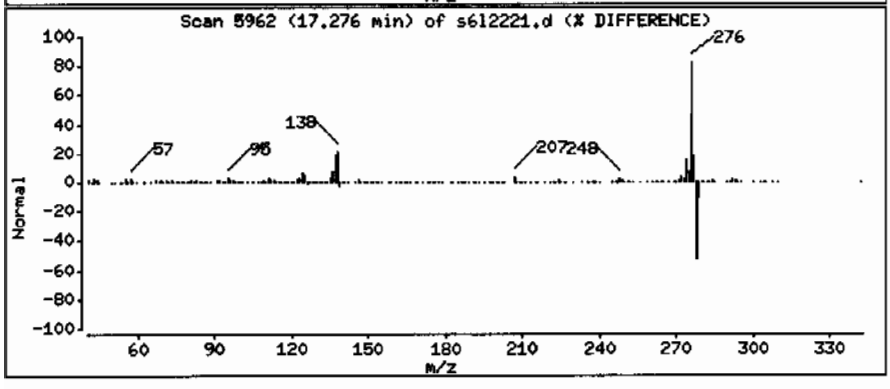

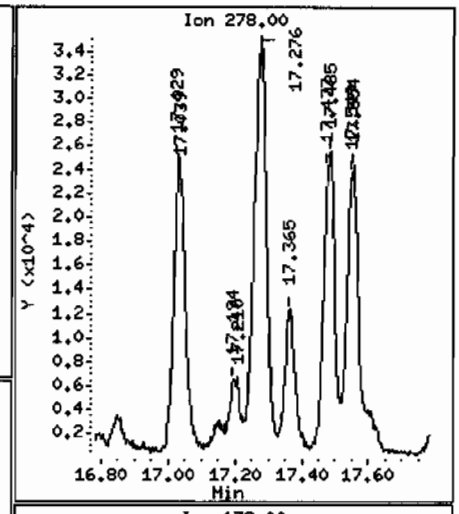

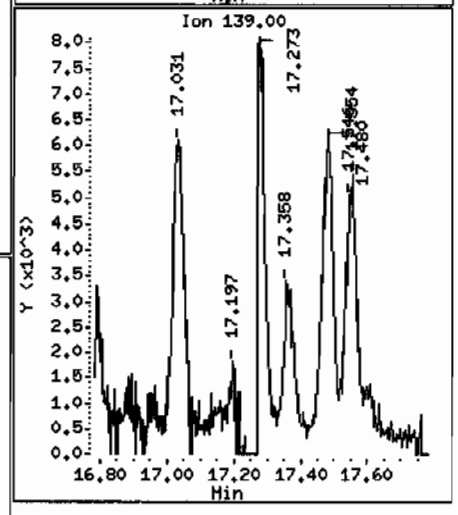

Data File: /chem/MSD6.i/s122209.b/s612221.d

Date : 22-DEC-2009 22:01

Client ID: RE03-09-14220

Instrument: MSD6.i

Sample Info: |2430330081934979|1|SVH|1|LANL

Volume Injected (uL): 0.5

Operator: nagl

Column phase: J&W DB-5MS

Column diameter: 0.20

101 Benzo(ghi)perylene

Concentration: 972 ug/Kg

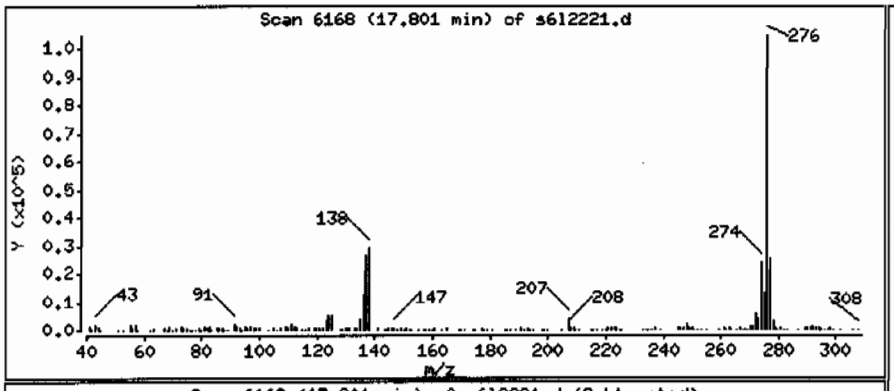

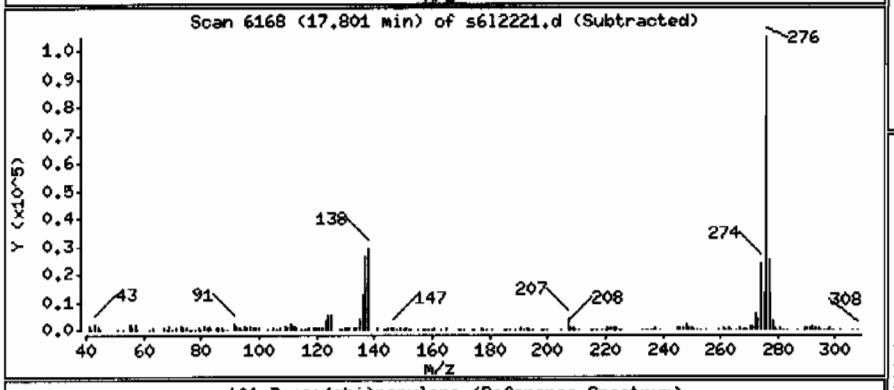

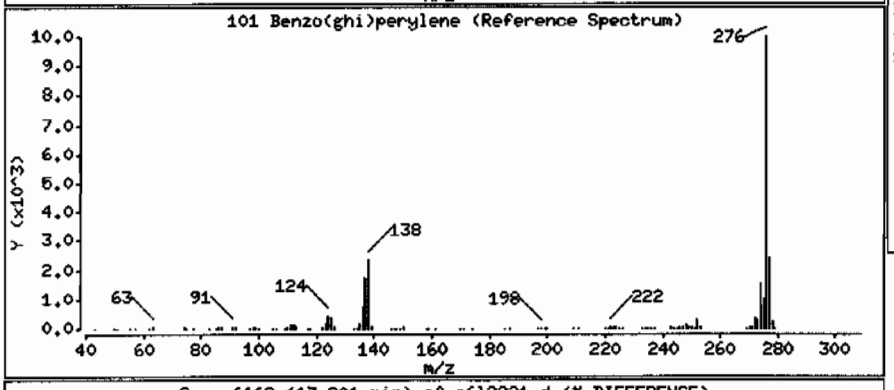

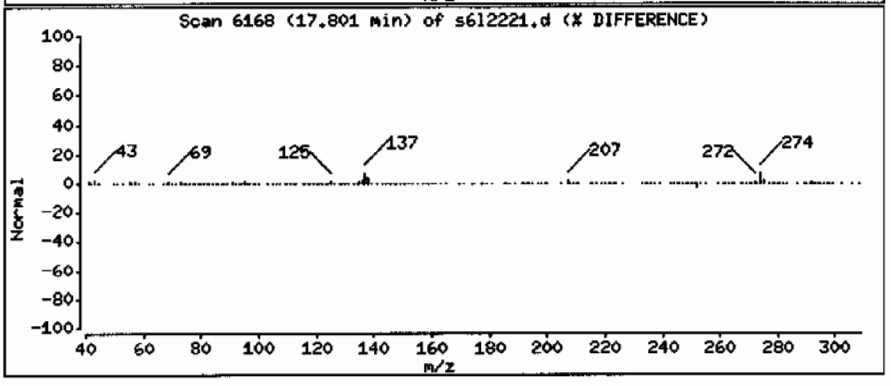

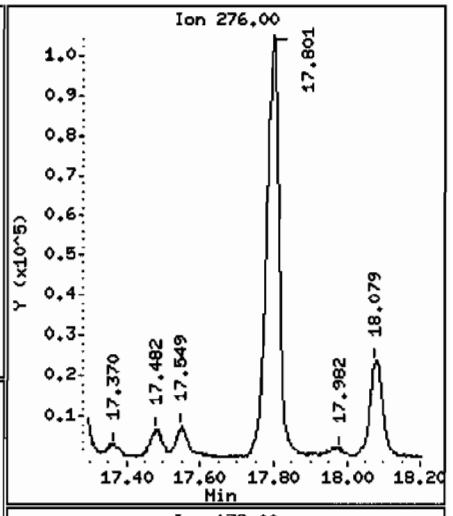

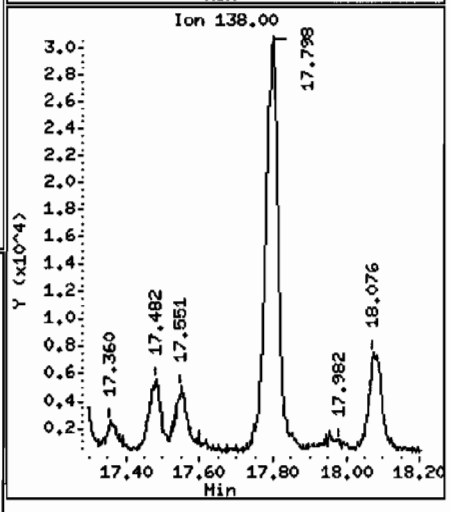

Data File: /chem/MSD6.i/s122209.b/s612221.d

Date : 22-DEC-2009 22:01

Client ID: RE03-09-14220

Instrument: MSD6.i

Sample Info: 1243033008193497911SVH11LANL

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	40	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	36	C6H12O2	116
5-Hexen-2-one	109-49-9	NIST05.L	3091	9	C6H10O	98

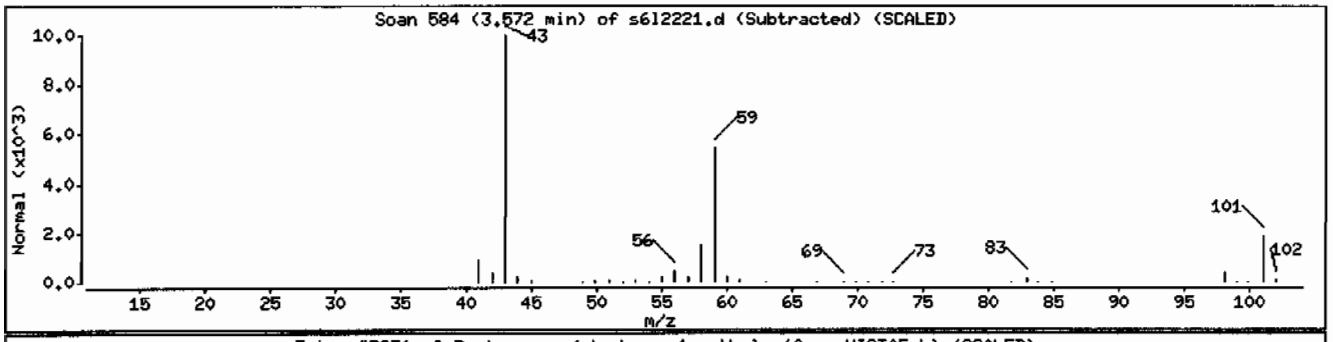

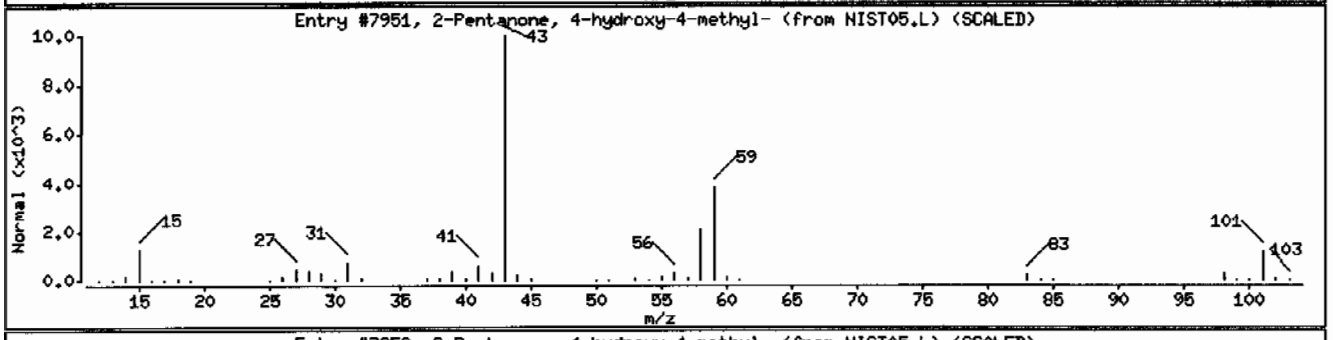

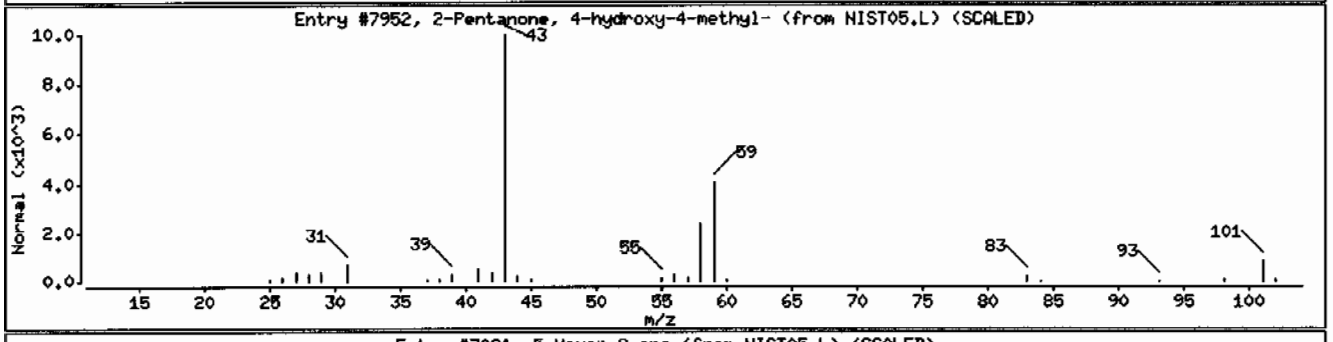

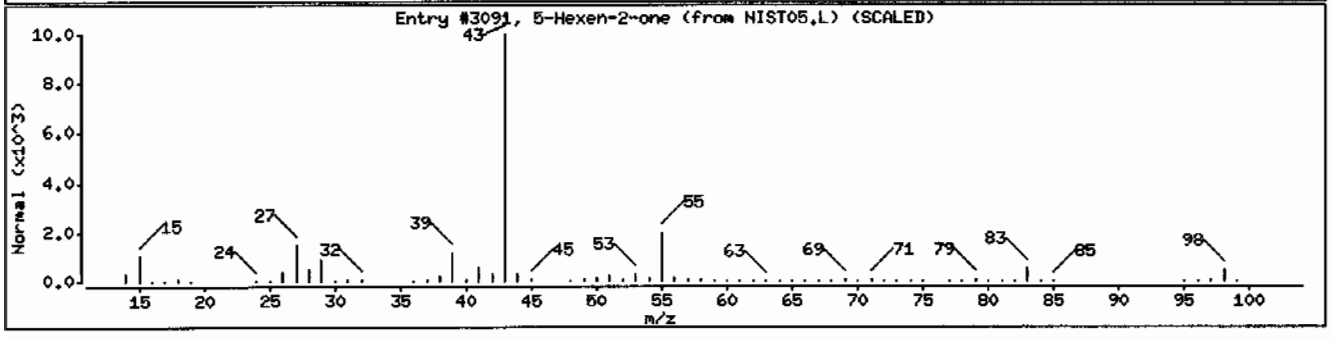

Data File: /chem/MSD6.i/s122209.b/s612221.d

Date : 22-DEC-2009 22:01

Client ID: RE03-09-14220 Instrument: MSD6.i

Sample Info: 1243033008193497911SVHI1LANL

Volume Injected (uL): 0.5 Operator: nagl

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Carbazole	86-74-8	NIST05.L	34223	93	C12H9N	167
5H-Indeno[1,2-b]pyridine	244-99-5	NIST05.L	34225	96	C12H9N	167
D-Galactitol, 2-(acetylmethylamino)-2-de	74410-42-7	NIST05.L	158321	91	C16H29NO8	363

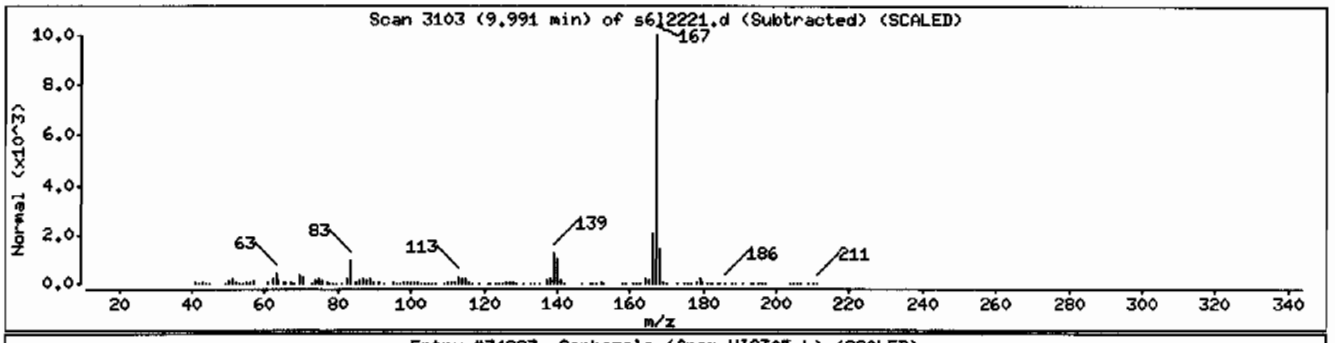

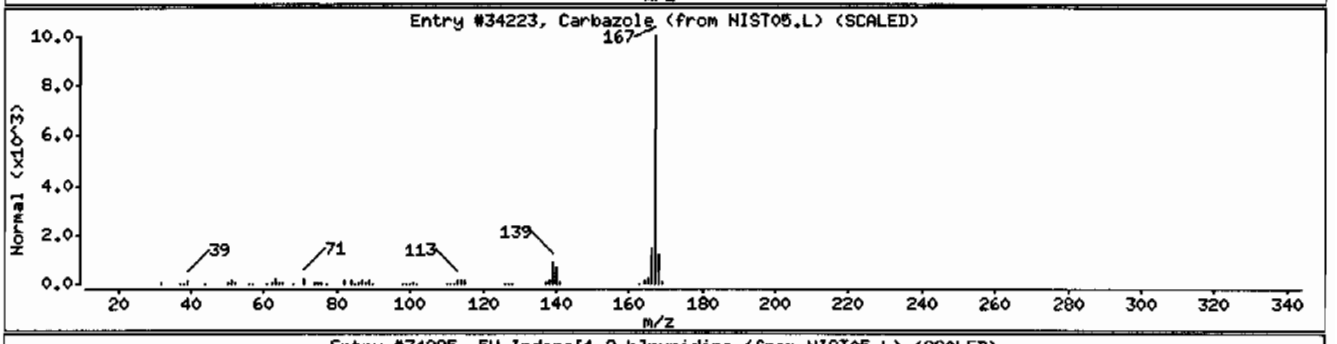

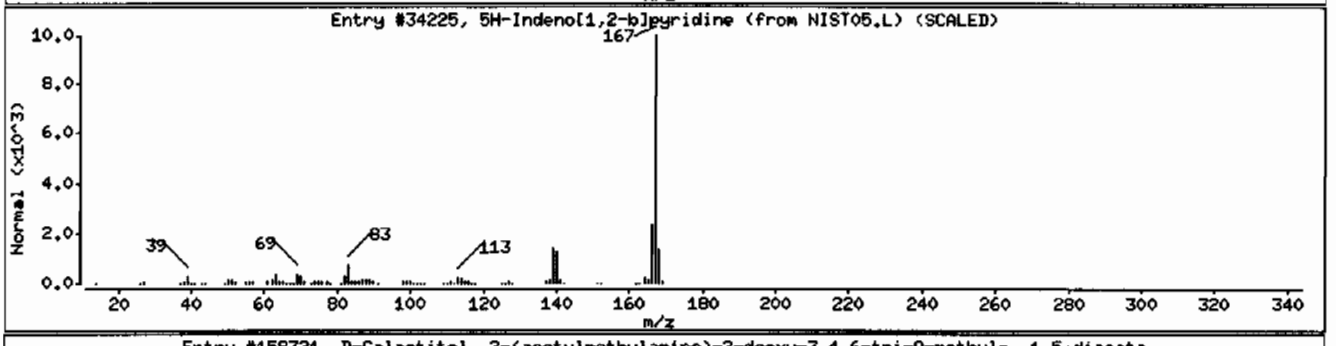

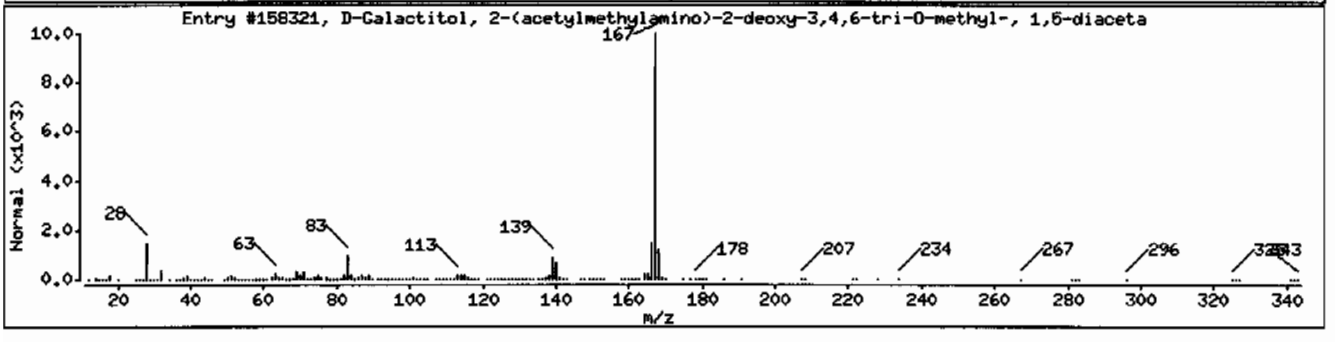

Data File: /chem/MSD6.i/s122209.b/s612221.d

Date : 22-DEC-2009 22:01

Client ID: RE03-09-14220 Instrument: MSD6.i

Sample Info: |2430330081934979|1|SVM|1|LANL

Volume Injected (uL): 0.5 Operator: nag1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Phenanthrene, 2-methyl-	2531-84-2	NIST05.L	51412	98	C15H12	192
Phenanthrene, 1-methyl-	832-69-9	NIST05.L	51408	97	C15H12	192
Phenanthrene, 2-methyl-	2531-84-2	NIST05.L	51411	97	C15H12	192

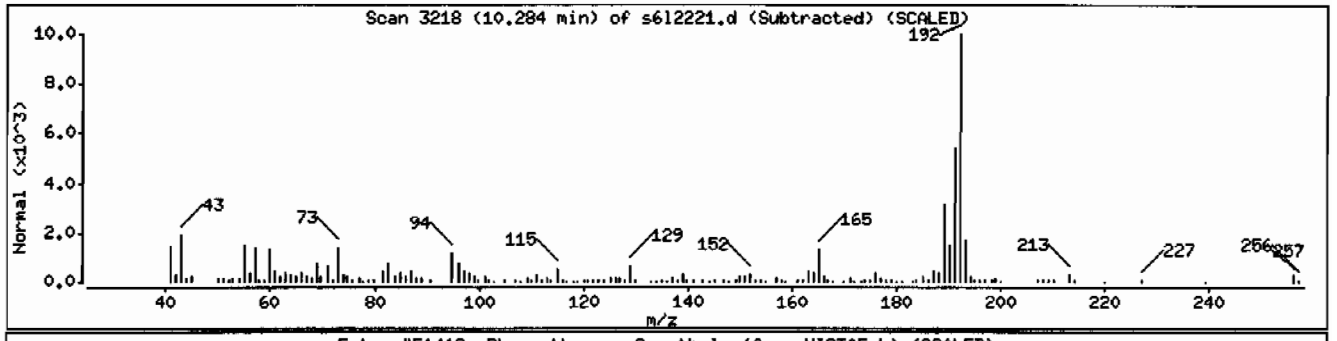

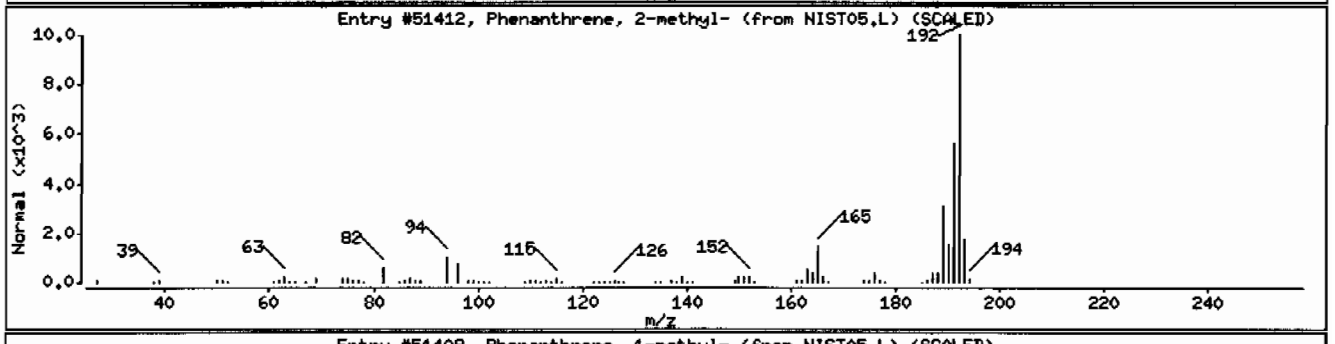

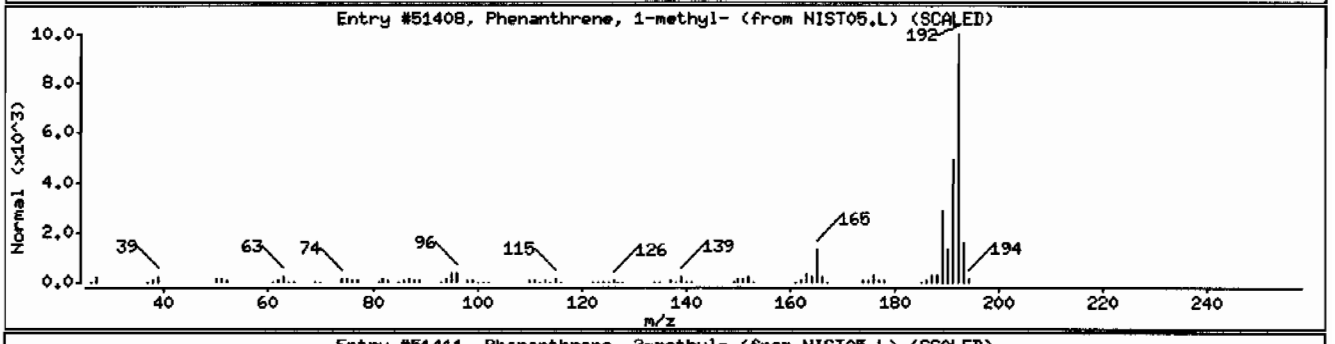

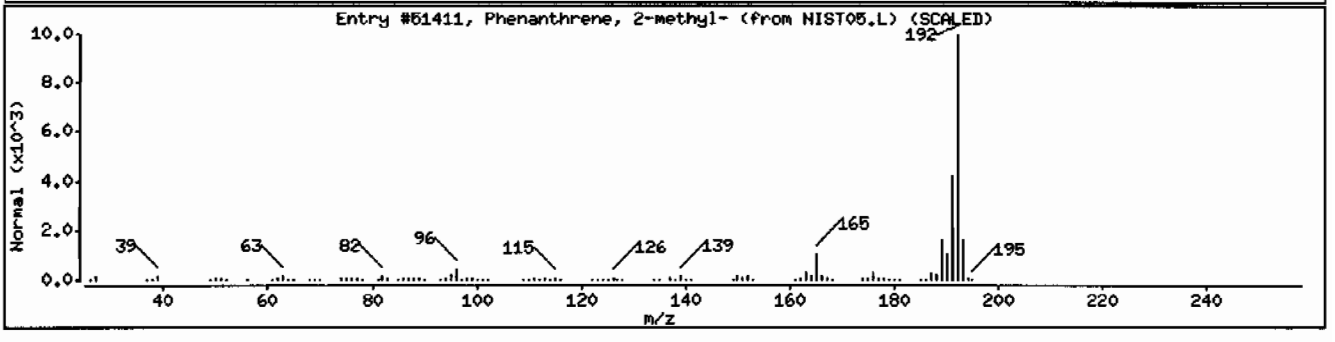

Data File: /chem/MSD6.i/s122209.b/s612221.d

Date : 22-DEC-2009 22:01

Client ID: RE03-09-14220

Instrument: MSD6.i

Sample Info: |2430330081934979|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: nagl

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
4H-Cyclopenta[def]phenanthrene	203-64-5	NIST05.L	50048	96	C15H10	190
4H-Cyclopenta[def]phenanthrene	203-64-5	NIST05.L	50050	87	C15H10	190
4H-Cyclopenta[def]phenanthrene	203-64-5	NIST05.L	50049	81	C15H10	190

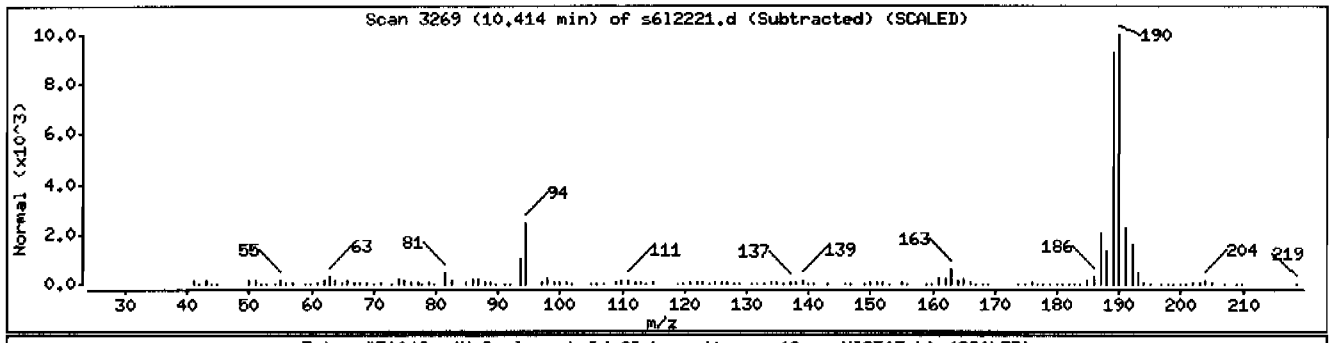

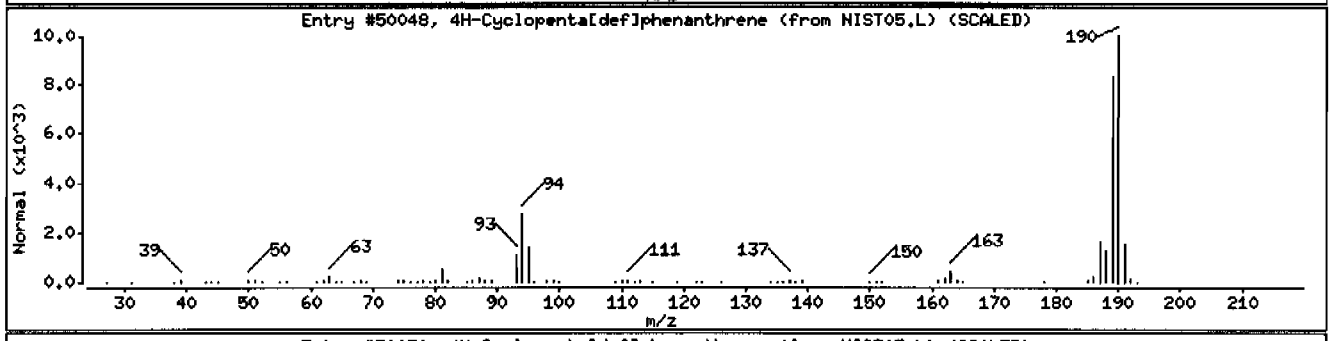

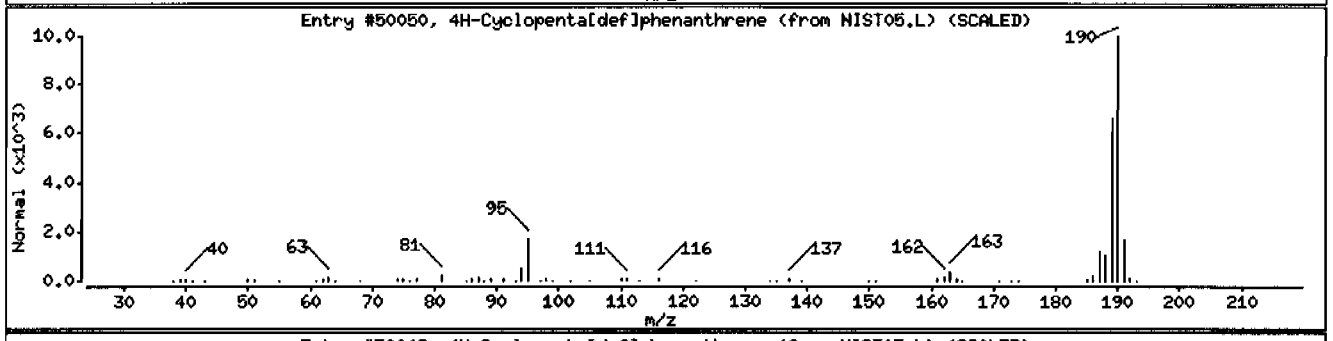

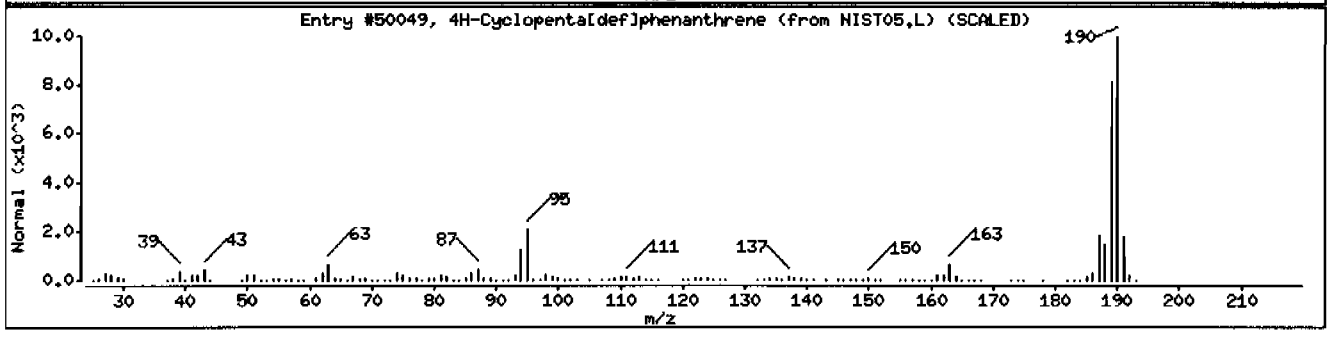

Data File: /chem/MSD6.i/s122209.b/s612221.d

Date : 22-DEC-2009 22:01

Client ID: RE03-09-14220

Instrument: MSD6.i

Sample Info: 1243033008193497911SVM11LANL

Volume Injected (uL): 0.5

Operator: nagl

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
11H-Benzo[b]fluorene	243-17-4	NIST05.L	68695	95	C17H12	216
Pyrene, 2-methyl-	3442-78-2	NIST05.L	68690	95	C17H12	216
Fluoranthene, 2-methyl-	33543-31-6	NIST05.L	68702	95	C17H12	216

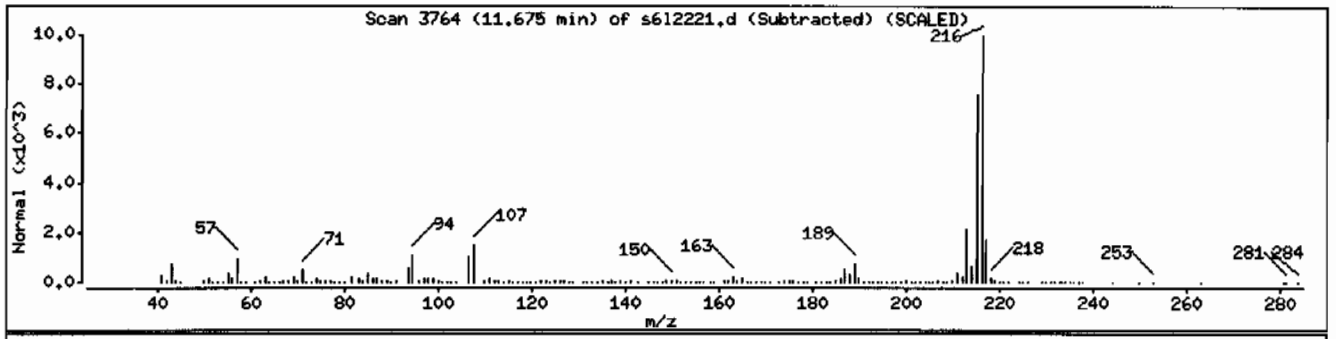

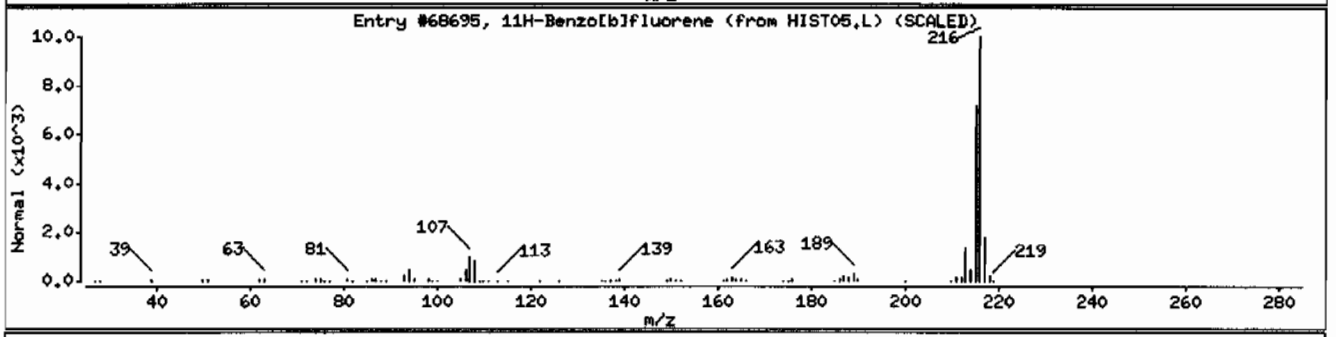

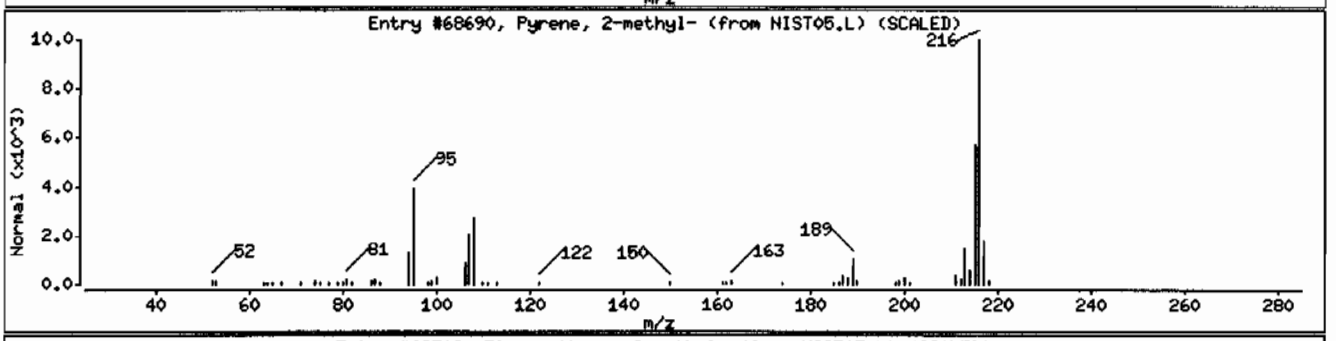

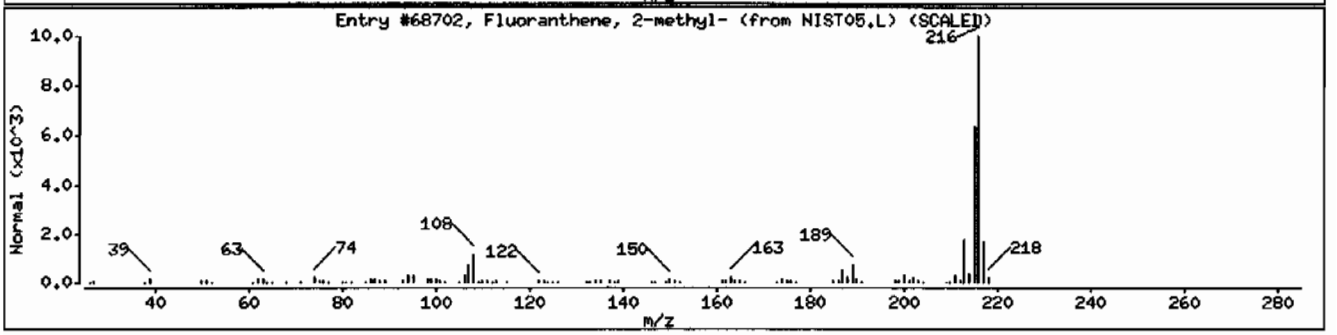

Data File: /chem/MSD6.i/s122209.b/s612221.d

Date : 22-DEC-2009 22:01

Client ID: RE03-09-14220

Instrument: MSD6.i

Sample Info: 1243033008|934979|1|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5HS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
13-Docosenamide, (Z)-	112-84-5	NIST05.L	146307	93	C22H43NO	337
9-Octadecenamide, (Z)-	301-02-0	NIST05.L	112655	93	C18H35NO	281
13-Docosenamide, (Z)-	112-84-5	NIST05.L	146308	91	C22H43NO	337

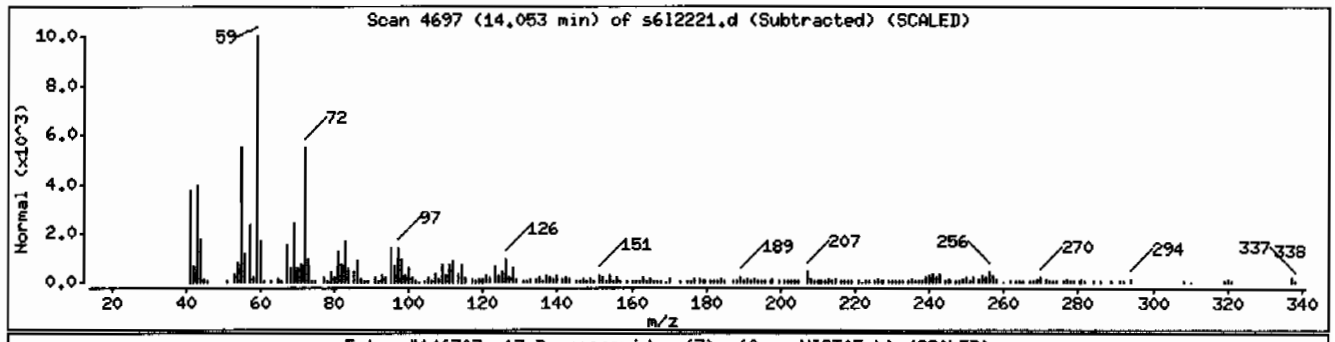

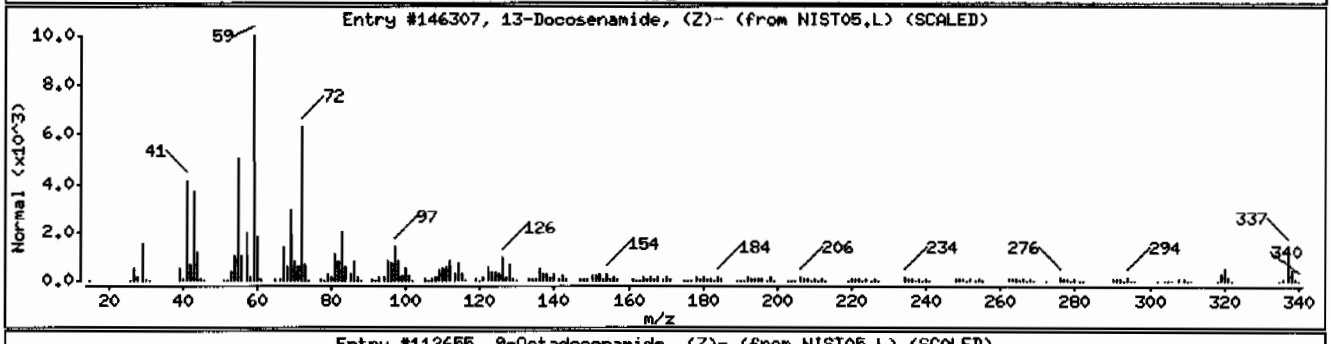

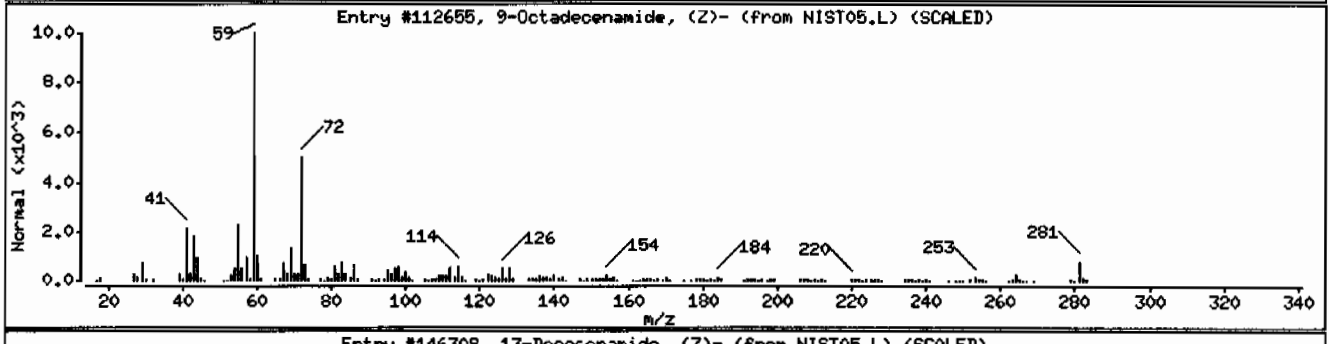

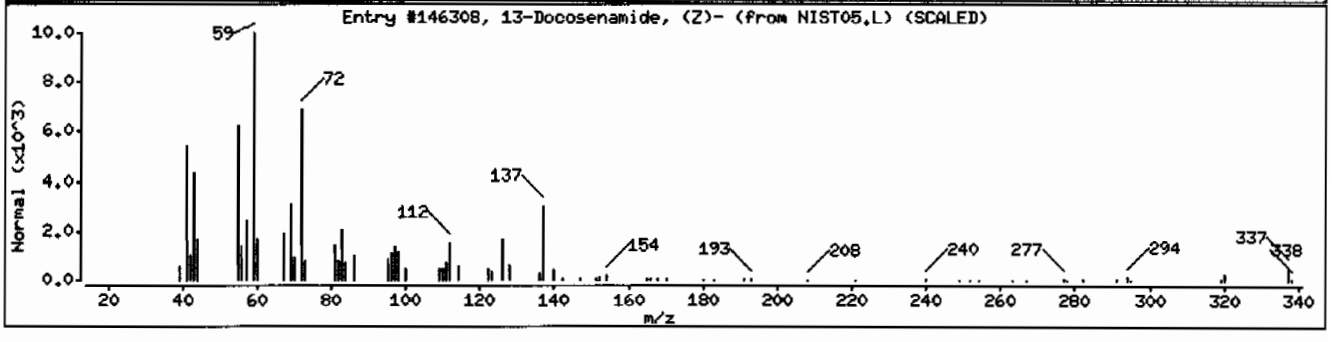

Data File: /chem/MSD6.i/s122209.b/s612221.d

Date : 22-DEC-2009 22:01

Client ID: RE03-09-14220 Instrument: MSD6.i

Sample Info: 1243033008|934979|1|SVH|1|LANL

Volume Injected (uL): 0.5 Operator: nag1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Perylene	198-55-0	NIST05.L	93575	99	C20H12	252
Perylene	198-55-0	NIST05.L	93574	99	C20H12	252
Perylene	198-55-0	NIST05.L	93573	98	C20H12	252

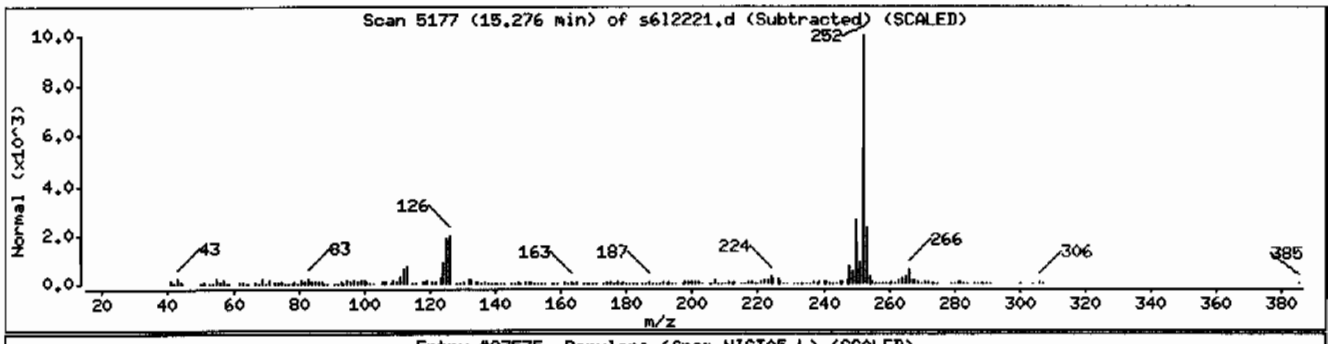

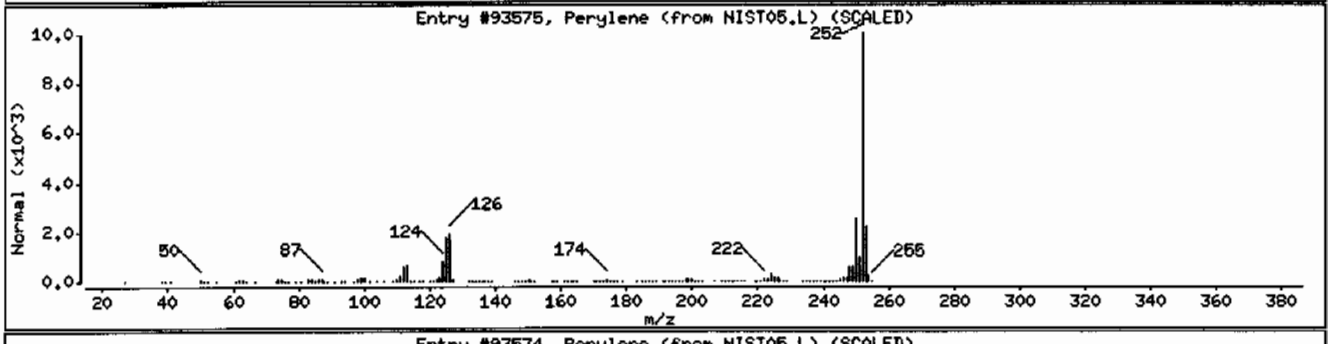

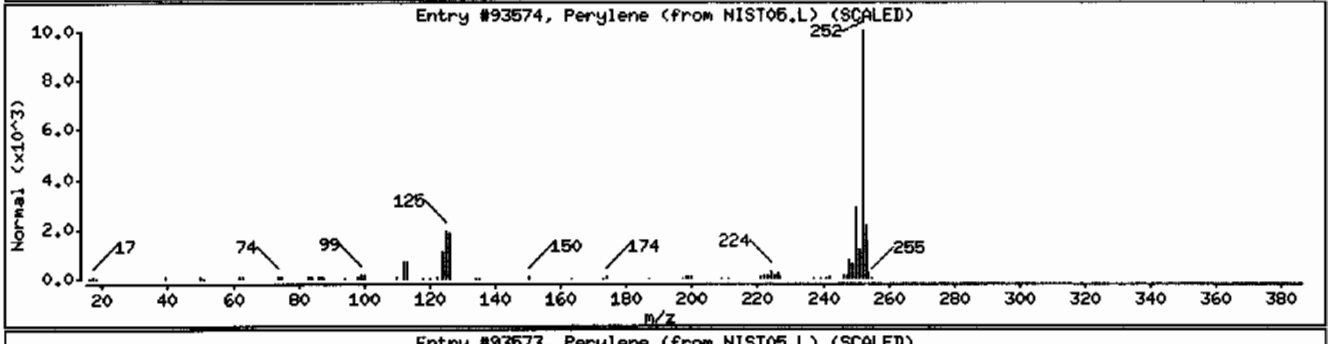

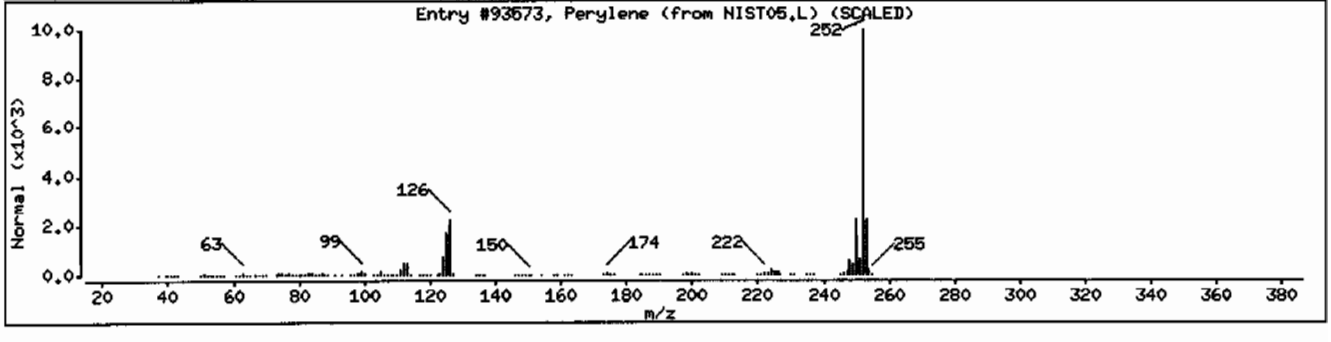

Data File: /chem/MSD6.i/s122209.b/s612221.d

Date : 22-DEC-2009 22:01

Client ID: RE03-09-14220

Instrument: MSD6.i

Sample Info: |2430330081934979|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: nagl

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Eicosane	112-95-8	NIST05.L	113492	98	C20H42	282
Eicosane	112-95-8	NIST05.L	113490	97	C20H42	282
Heptadecane, 2,6,10,15-tetramethyl-	54833-48-6	NIST05.L	122447	96	C21H44	296

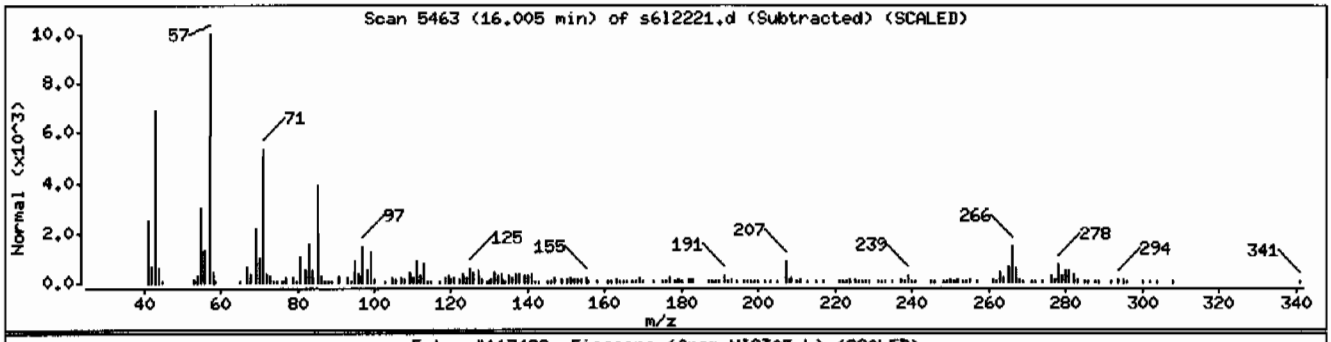

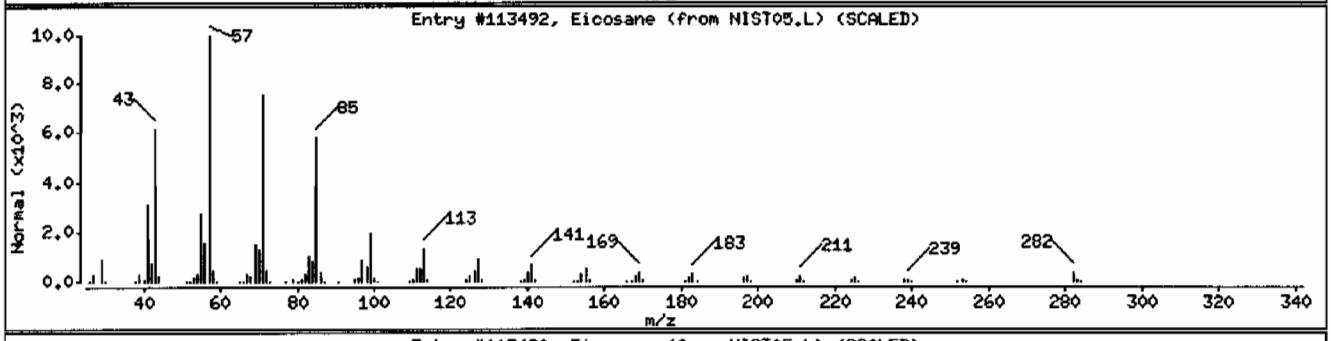

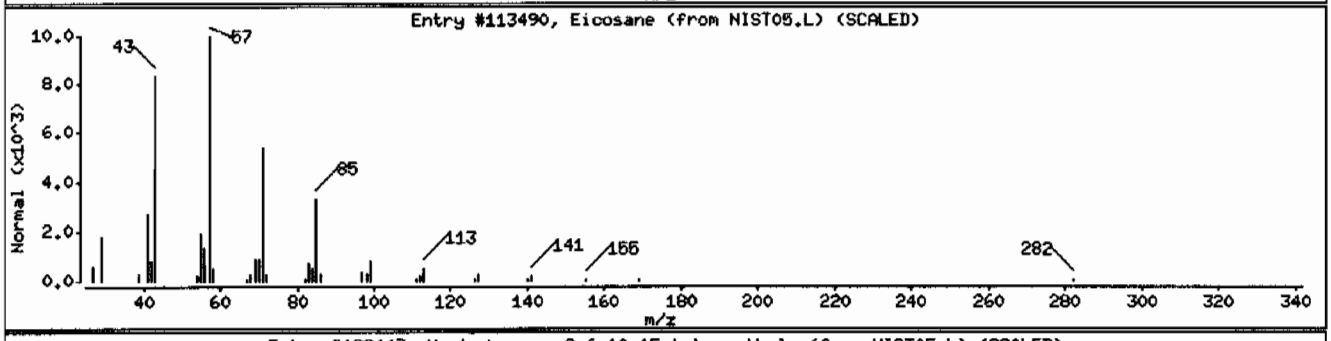

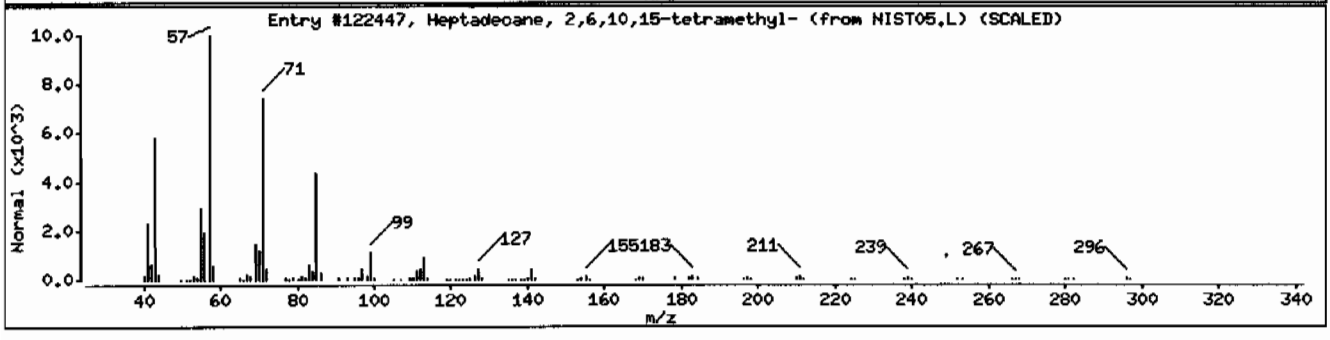

Data File: /chem/MSD6.i/s122209.b/s612221.d

Date : 22-DEC-2009 22:01

Client ID: RE03-09-14220 Instrument: MSD6.i

Sample Info: 1243033008|934979|1|SVH|1|LANL

Volume Injected (uL): 0.5 Operator: nag1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Benzo[b]chrysene	214-17-5	NIST05.L	110870	97	C22H14	278
Pentaphene	222-93-5	NIST05.L	110869	96	C22H14	278
Benzo[b]triphenylene	215-58-7	NIST05.L	110875	95	C22H14	278

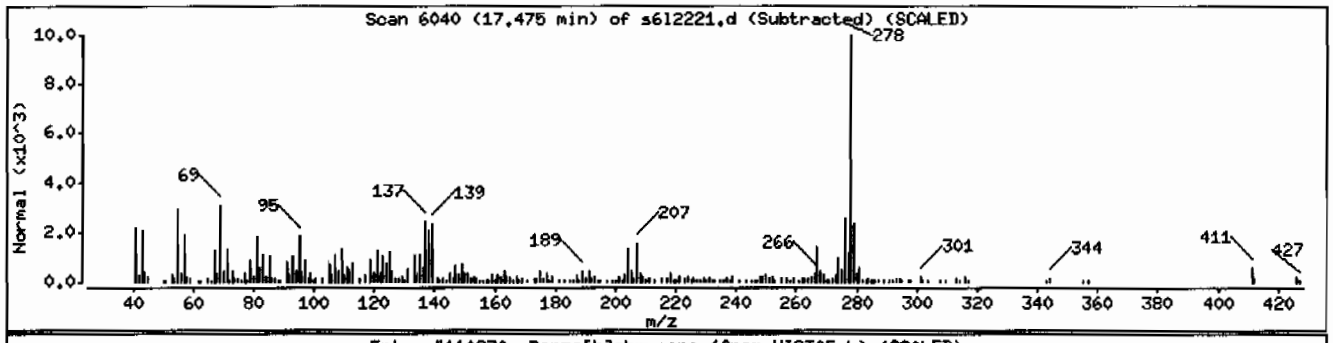

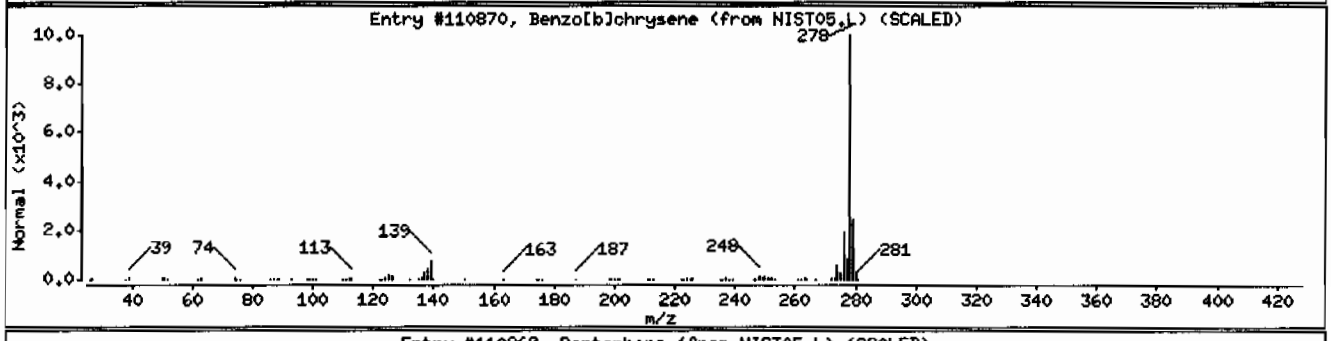

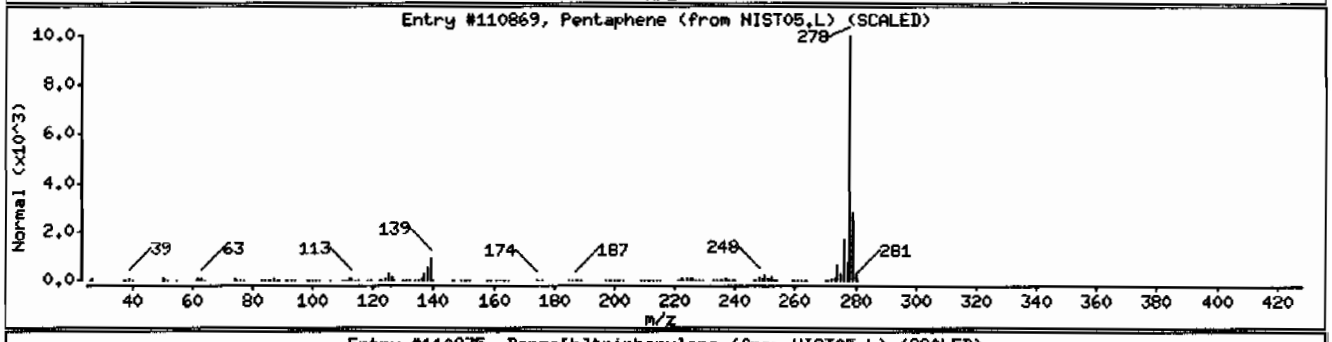

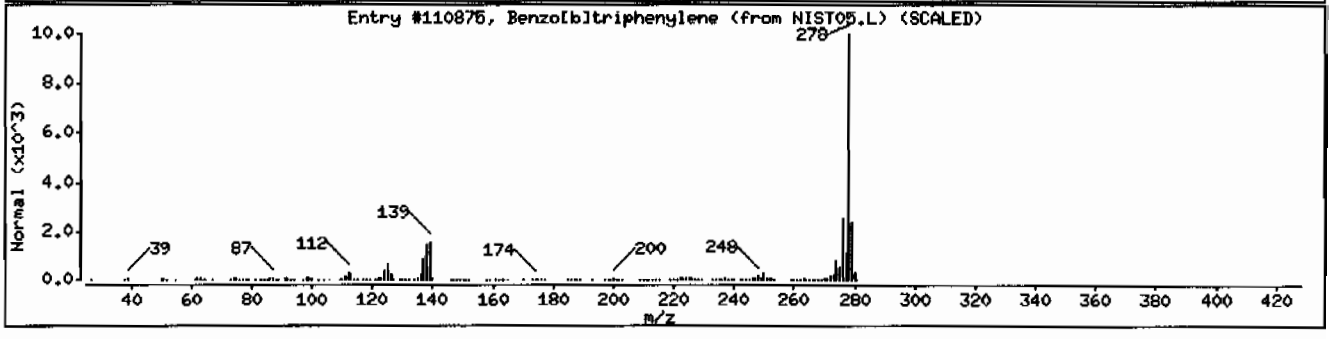

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-940**	**Date Collected:**	**12/14/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243033001**	**Date Received:**	**12/16/2009 09:10**	**%Moisture:**	**14.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14221**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**934979**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**12/22/2009 17:52**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/21/2009 11:03**	**Aliquot:**	**30.07 g**	**Final Volume:**	**1 mL**
Data File:	**s6l2212.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	390	ug/kg	78.0	390
108-95-2	Phenol	U	390	ug/kg	78.0	390
95-57-8	2-Chlorophenol	U	390	ug/kg	78.0	390
106-46-7	1,4-Dichlorobenzene	U	390	ug/kg	78.0	390
621-64-7	N-Nitrosodipropylamine	U	390	ug/kg	78.0	390
59-50-7	4-Chloro-3-methylphenol	U	390	ug/kg	78.0	390
83-32-9	Acenaphthene	U	39.0	ug/kg	12.9	39.0
121-14-2	2,4-Dinitrotoluene	U	390	ug/kg	39.0	390
100-02-7	4-Nitrophenol	U	390	ug/kg	129	390
87-86-5	Pentachlorophenol	U	390	ug/kg	97.5	390
129-00-0	Pyrene	U	39.0	ug/kg	11.7	39.0
110-86-1	Pyridine	U	390	ug/kg	78.0	390
62-53-3	Aniline	U	390	ug/kg	117	390
111-44-4	bis(2-Chloroethyl) ether	U	390	ug/kg	78.0	390
541-73-1	1,3-Dichlorobenzene	U	390	ug/kg	78.0	390
100-51-6	Benzyl alcohol	U	390	ug/kg	117	390
95-50-1	1,2-Dichlorobenzene	U	390	ug/kg	78.0	390
108-60-1	bis(2-Chloroisopropyl)ether	U	390	ug/kg	78.0	390
95-48-7	o-Cresol	U	390	ug/kg	78.0	390
65794-96-9	m,p-Cresols	U	390	ug/kg	117	390
67-72-1	Hexachloroethane	U	390	ug/kg	78.0	390
98-95-3	Nitrobenzene	U	390	ug/kg	78.0	390
78-59-1	Isophorone	U	390	ug/kg	78.0	390
88-75-5	2-Nitrophenol	U	390	ug/kg	78.0	390
105-67-9	2,4-Dimethylphenol	U	390	ug/kg	137	390
111-91-1	bis(2-Chloroethoxy)methane	U	390	ug/kg	78.0	390
120-83-2	2,4-Dichlorophenol	U	390	ug/kg	78.0	390
65-85-0	Benzoic acid	U	780	ug/kg	195	780
91-20-3	Naphthalene	U	39.0	ug/kg	11.7	39.0
106-47-8	4-Chloroaniline	U	390	ug/kg	78.0	390
87-68-3	Hexachlorobutadiene	U	390	ug/kg	78.0	390
91-57-6	2-Methylnaphthalene	U	39.0	ug/kg	7.80	39.0
77-47-4	Hexachlorocyclopentadiene	U	390	ug/kg	78.0	390
88-06-2	2,4,6-Trichlorophenol	U	390	ug/kg	78.0	390
95-95-4	2,4,5-Trichlorophenol	U	390	ug/kg	78.0	390
91-58-7	2-Chloronaphthalene	U	39.0	ug/kg	12.9	39.0
88-74-4	2-Nitroaniline	U	390	ug/kg	78.0	390
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	390	ug/kg	78.0	390

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-940	**Date Collected:**	12/14/2009 12:00	**Matrix:**	S
Lab Sample ID:	243033001	**Date Received:**	12/16/2009 09:10	**%Moisture:**	14.8
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14221	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	934979	**Inst:**	MSD6.I	**Dilution:**	1
Run Date:	12/22/2009 17:52	**Analyst:**	NAG1	**Inj. Vol:**	.5 uL
Prep Date:	12/21/2009 11:03	**Aliquot:**	30.07 g	**Final Volume:**	1 mL
Data File:	s6l2212.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	390	ug/kg	78.0	390
606-20-2	2,6-Dinitrotoluene	U	390	ug/kg	39.0	390
208-96-8	Acenaphthylene	U	39.0	ug/kg	11.7	39.0
51-28-5	2,4-Dinitrophenol	U	780	ug/kg	148	780
132-64-9	Dibenzofuran	U	390	ug/kg	78.0	390
84-66-2	Diethylphthalate	U	390	ug/kg	78.0	390
86-73-7	Fluorene	U	39.0	ug/kg	11.7	39.0
7005-72-3	4-Chlorophenylphenylether	U	390	ug/kg	78.0	390
534-52-1	2-Methyl-4,6-dinitrophenol	U	390	ug/kg	78.0	390
100-01-6	4-Nitroaniline	U	390	ug/kg	117	390
	p-Nitroaniline					
122-39-4	Diphenylamine	U	390	ug/kg	78.0	390
122-66-7	Azobenzene	U	390	ug/kg	78.0	390
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	390	ug/kg	78.0	390
118-74-1	Hexachlorobenzene	U	390	ug/kg	78.0	390
85-01-8	Phenanthrene	U	39.0	ug/kg	11.7	39.0
120-12-7	Anthracene	U	39.0	ug/kg	7.80	39.0
84-74-2	Di-n-butylphthalate	U	390	ug/kg	78.0	390
206-44-0	Fluoranthene	U	39.0	ug/kg	11.7	39.0
85-68-7	Butylbenzylphthalate	U	390	ug/kg	78.0	390
56-55-3	Benzo(a)anthracene	U	39.0	ug/kg	11.7	39.0
91-94-1	3,3'-Dichlorobenzidine	U	390	ug/kg	117	390
218-01-9	Chrysene	U	39.0	ug/kg	11.7	39.0
117-81-7	bis(2-Ethylhexyl)phthalate	U	390	ug/kg	78.0	390
117-84-0	Di-n-octylphthalate	U	390	ug/kg	78.0	390
205-99-2	Benzo(b)fluoranthene	U	39.0	ug/kg	11.7	39.0
207-08-9	Benzo(k)fluoranthene	U	39.0	ug/kg	11.7	39.0
50-32-8	Benzo(a)pyrene	U	39.0	ug/kg	11.7	39.0
193-39-5	Indeno(1,2,3-cd)pyrene	U	39.0	ug/kg	11.7	39.0
53-70-3	Dibenzo(a,h)anthracene	U	39.0	ug/kg	11.7	39.0
191-24-2	Benzo(ghi)perylene	U	39.0	ug/kg	11.7	39.0
120-82-1	1,2,4-Trichlorobenzene	U	390	ug/kg	78.0	390

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	3.57	483	ug/kg		JA

GEL Laboratories LLC

Data file : /chem/MSD6.i/s122209.b/s612212.d
Lab Smp Id: 243033001 Client Smp ID: RE03-09-14221
Inj Date : 22-DEC-2009 17:52
Operator : nagl Inst ID: MSD6.i
Smp Info : |243033001|934979|1|SVM|1|LANL
Misc Info : |MSD8270_S|WBN091208-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s122209.b/MSD6-M8270C-AQA-110909.m
Meth Date : 22-Dec-2009 17:52 ann00964 Quant Type: ISTD
Cal Date : 11-NOV-2009 04:38 Cal File: s6k0954.d
Als bottle: 7
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-940.sub
Target Version: 3.50
Processing Host: hpclpl

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.07000	weight of sample
M	14.77230	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	4.976	4.979	(1.000)	247455	40.0000	
* 29 Naphthalene-d8	136	6.255	6.261	(1.000)	929721	40.0000	
* 46 Acenaphthene-d10	164	8.131	8.136	(1.000)	508331	40.0000	
* 67 Phenanthrene-d10	188	9.746	9.749	(1.000)	864091	40.0000	
* 91 Chrysene-d12	240	12.804	12.809	(1.000)	686083	40.0000	
* 98 Perylene-d12	264	15.215	15.220	(1.000)	579542	40.0000	
$ 3 2-Fluorophenol	112	3.825	3.812	(0.769)	351395	56.7056	2210
$ 5 Phenol-d5	99	4.594	4.597	(0.923)	467379	59.7576	2330
$ 20 Nitrobenzene-d5	82	5.511	5.519	(0.881)	182365	27.7285	1080
$ 39 2-Fluorobiphenyl	172	7.382	7.387	(0.908)	330974	25.2650	986
$ 60 2,4,6-Tribromophenol	329	8.982	8.985	(1.105)	91456	61.6413	2400
$ 81 p-Terphenyl-d14	244	11.448	11.449	(0.894)	395924	35.7841	1400

ION RATIO REPORT

SV REPORT

Data file: s612212.d
Report Date: 12/22/2009 18:12
Lab. ID: 243033001 SampleType: SAMPLE
Injection Date: 22-DEC-2009 17:52
Operator: nagl Instrument: MSD6.i
Sample Info: |243033001|934979|1|SVM|1|LANL
Miscellaneous Info: |MSD8270_S|WBN091208-01
Comment:
Method used: /chem/MSD6.i/s122209.b/MSD6-M8270C-AQA-110909.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-940
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
4 Aniline		CAS#: 62-53-3				
66	21682	4.59	4.66	80-120	100	(T)
93	499	4.50	4.67	227-287	2	(QT)
17 N-Nitrosodipropylamine				CAS#: 621-64-7		
70	25848	5.51	5.35	80-120	100	(T)
42	14931	5.51	5.35	39- 99	58	(T)
22 Isophorone		CAS#: 78-59-1				
82	182365	5.51	5.77	80-120	100	(T)
138	105	5.36	5.77	0- 49	0	(T)
43 Dimethylphthalate			CAS#: 131-11-3			
163	90656	8.13	7.82	80-120	100	(T)
164	508331	8.13	7.82	0- 40	561	(QT)
50 2,4-Dinitrotoluene			CAS#: 121-14-2			
165	66635	8.13	8.32	80-120	100	(T)
89	753	8.13	8.32	40-100	1	(QT)
63	801	8.13	8.32	16- 76	1	(QT)
52 4-Nitrophenol			CAS#: 100-02-7			
139	205	8.35	8.27	80-120	100	(T)
109	112	8.32	8.27	31- 91	55	( )
65	131	8.55	8.27	59-119	64	(T)

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
53 Fluorene			CAS#: 86-73-7			
166	5735	8.98	8.73	80-120	100	(T)
165	6226	8.98	8.73	62-122	109	(T)
167	1868	8.98	8.72	0- 44	33	(T)
99 Indeno(1,2,3-cd)pyrene				CAS#: 193-39-5		
276	765	17.25	17.26	80-120	100	( )
138	117	17.26	17.25	5- 65	15	( )
100 Dibenzo(a,h)anthracene				CAS#: 53-70-3		
278	175	17.28	17.28	80-120	100	( )
139	0	0.00	17.28	0- 30	0	(T)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

Data file : /chem/MSD6.i/s122209.b/s612212.d
Lab Smp Id: 243033001 Client Smp ID: RE03-09-14221
Inj Date : 22-DEC-2009 17:52
Operator : nag1 Inst ID: MSD6.i
Smp Info : |243033001|934979|1|SVM|1|LANL
Misc Info : |MSD8270_S|WBN091208-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s122209.b/MSD6-M8270C-AQA-110909.m
Meth Date : 22-Dec-2009 17:52 ann00964 Quant Type: ISTD
Cal Date : 11-NOV-2009 04:38 Cal File: s6k0954.d
Als bottle: 7
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-940.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.07000	weight of sample
M	14.77230	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	4.976	1444812	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown Aldol Condensate				CAS #:			
3.572	447486	12.3887503	483	0		0	10

Data File: /chem/MSD6.i/s122209.b/s612212.d
Date : 22-DEC-2009 17:52
Client ID: RE03-09-14221
Sample Info: 1243033001|934979|1|SVMI1|LANL
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Page 1

Instrument: MSD6.i

Operator: nag1
Column diameter: 0.20

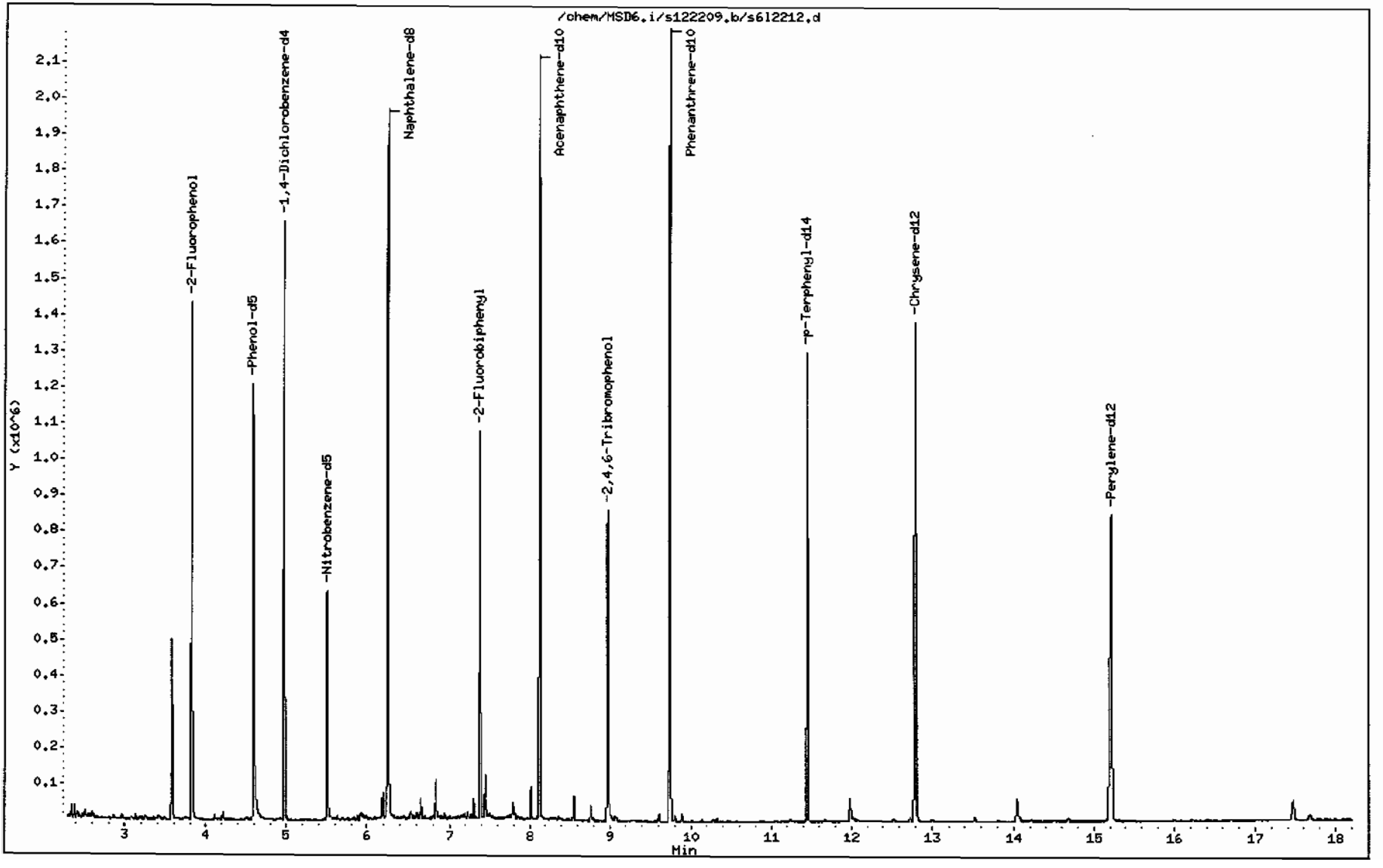

Data File: /chem/MSD6.i/s122209.b/s612212.d

Date : 22-DEC-2009 17:52

Client ID: RE03-09-14221

Instrument: MSD6.i

Sample Info: |2430330001|934979|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7945	59	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	53	C6H12O2	116
Acetic acid, 1,1-dimethylethyl ester	540-88-5	NIST05.L	7977	39	C6H12O2	116

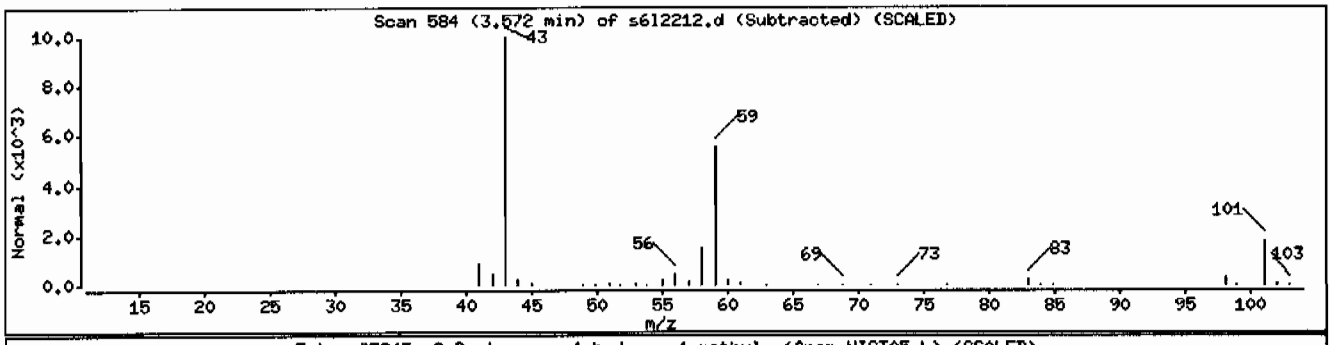

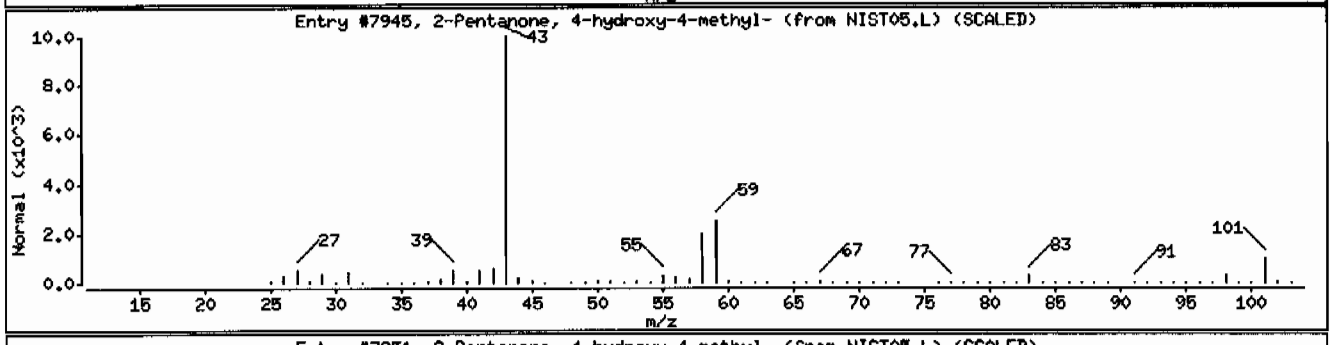

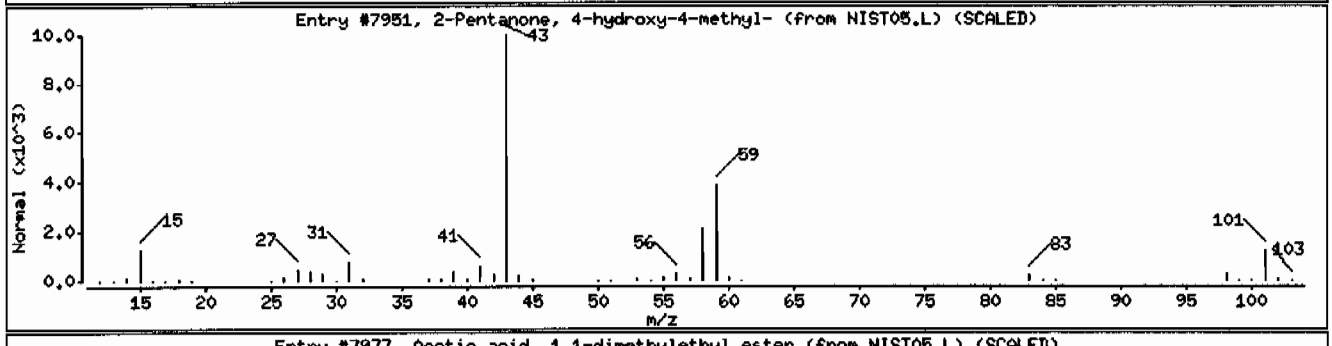

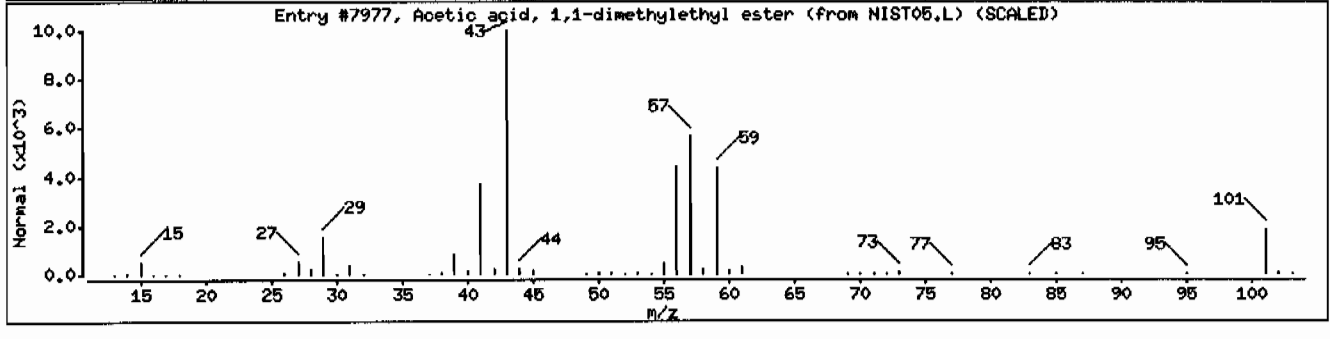

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-940**	**Date Collected:**	**12/14/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243033006**	**Date Received:**	**12/16/2009 09:10**	**%Moisture:**	**19.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14222**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**936371**	**Inst:**	**MSD1.I**	**Dilution:**	**1**
Run Date:	**12/30/2009 14:57**	**Analyst:**	**AMY**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/24/2009 08:22**	**Aliquot:**	**30.06 g**	**Final Volume:**	**1 mL**
Data File:	**s113013.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	413	ug/kg	82.6	413
108-95-2	Phenol	U	413	ug/kg	82.6	413
95-57-8	2-Chlorophenol	U	413	ug/kg	82.6	413
106-46-7	1,4-Dichlorobenzene	U	413	ug/kg	82.6	413
621-64-7	N-Nitrosodipropylamine	U	413	ug/kg	82.6	413
59-50-7	4-Chloro-3-methylphenol	U	413	ug/kg	82.6	413
83-32-9	Acenaphthene	U	41.3	ug/kg	13.6	41.3
121-14-2	2,4-Dinitrotoluene	U	413	ug/kg	41.3	413
100-02-7	4-Nitrophenol	U	413	ug/kg	136	413
87-86-5	Pentachlorophenol	U	413	ug/kg	103	413
129-00-0	Pyrene	U	41.3	ug/kg	12.4	41.3
110-86-1	Pyridine	U	413	ug/kg	82.6	413
62-53-3	Aniline	U	413	ug/kg	124	413
111-44-4	bis(2-Chloroethyl) ether	U	413	ug/kg	82.6	413
541-73-1	1,3-Dichlorobenzene	U	413	ug/kg	82.6	413
100-51-6	Benzyl alcohol	U	413	ug/kg	124	413
95-50-1	1,2-Dichlorobenzene	U	413	ug/kg	82.6	413
108-60-1	bis(2-Chloroisopropyl)ether	U	413	ug/kg	82.6	413
95-48-7	o-Cresol	U	413	ug/kg	82.6	413
65794-96-9	m,p-Cresols	U	413	ug/kg	124	413
67-72-1	Hexachloroethane	U	413	ug/kg	82.6	413
98-95-3	Nitrobenzene	U	413	ug/kg	82.6	413
78-59-1	Isophorone	U	413	ug/kg	82.6	413
88-75-5	2-Nitrophenol	U	413	ug/kg	82.6	413
105-67-9	2,4-Dimethylphenol	U	413	ug/kg	145	413
111-91-1	bis(2-Chloroethoxy)methane	U	413	ug/kg	82.6	413
120-83-2	2,4-Dichlorophenol	U	413	ug/kg	82.6	413
65-85-0	Benzoic acid	U	826	ug/kg	207	826
91-20-3	Naphthalene	U	41.3	ug/kg	12.4	41.3
106-47-8	4-Chloroaniline	U	413	ug/kg	82.6	413
87-68-3	Hexachlorobutadiene	U	413	ug/kg	82.6	413
91-57-6	2-Methylnaphthalene	J	10.5	ug/kg	8.26	41.3
77-47-4	Hexachlorocyclopentadiene	U	413	ug/kg	82.6	413
88-06-2	2,4,6-Trichlorophenol	U	413	ug/kg	82.6	413
95-95-4	2,4,5-Trichlorophenol	U	413	ug/kg	82.6	413
91-58-7	2-Chloronaphthalene	U	41.3	ug/kg	13.6	41.3
88-74-4	2-Nitroaniline	U	413	ug/kg	82.6	413
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	413	ug/kg	82.6	413

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-940	**Date Collected:**	12/14/2009 12:00	**Matrix:**	S
Lab Sample ID:	243033006	**Date Received:**	12/16/2009 09:10	**%Moisture:**	19.5
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14222	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	936371	**Inst:**	MSD1.I	**Dilution:**	1
Run Date:	12/30/2009 14:57	**Analyst:**	AMY	**Inj. Vol:**	.5 uL
Prep Date:	12/24/2009 08:22	**Aliquot:**	30.06 g	**Final Volume:**	1 mL
Data File:	s113013.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	413	ug/kg	82.6	413
606-20-2	2,6-Dinitrotoluene	U	413	ug/kg	41.3	413
208-96-8	Acenaphthylene	U	41.3	ug/kg	12.4	41.3
51-28-5	2,4-Dinitrophenol	U	826	ug/kg	157	826
132-64-9	Dibenzofuran	U	413	ug/kg	82.6	413
84-66-2	Diethylphthalate	U	413	ug/kg	82.6	413
86-73-7	Fluorene	U	41.3	ug/kg	12.4	41.3
7005-72-3	4-Chlorophenylphenylether	U	413	ug/kg	82.6	413
534-52-1	2-Methyl-4,6-dinitrophenol	U	413	ug/kg	82.6	413
100-01-6	4-Nitroaniline	U	413	ug/kg	124	413
	p-Nitroaniline					
122-39-4	Diphenylamine	U	413	ug/kg	82.6	413
122-66-7	Azobenzene	U	413	ug/kg	82.6	413
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	413	ug/kg	82.6	413
118-74-1	Hexachlorobenzene	U	413	ug/kg	82.6	413
85-01-8	Phenanthrene	U	41.3	ug/kg	12.4	41.3
120-12-7	Anthracene	U	41.3	ug/kg	8.26	41.3
84-74-2	Di-n-butylphthalate	U	413	ug/kg	82.6	413
206-44-0	Fluoranthene	U	41.3	ug/kg	12.4	41.3
85-68-7	Butylbenzylphthalate	U	413	ug/kg	82.6	413
56-55-3	Benzo(a)anthracene	U	41.3	ug/kg	12.4	41.3
91-94-1	3,3'-Dichlorobenzidine	U	413	ug/kg	124	413
218-01-9	Chrysene	U	41.3	ug/kg	12.4	41.3
117-81-7	bis(2-Ethylhexyl)phthalate	U	413	ug/kg	82.6	413
117-84-0	Di-n-octylphthalate	U	413	ug/kg	82.6	413
205-99-2	Benzo(b)fluoranthene	U	41.3	ug/kg	12.4	41.3
207-08-9	Benzo(k)fluoranthene	U	41.3	ug/kg	12.4	41.3
50-32-8	Benzo(a)pyrene	U	41.3	ug/kg	12.4	41.3
193-39-5	Indeno(1,2,3-cd)pyrene	U	41.3	ug/kg	12.4	41.3
53-70-3	Dibenzo(a,h)anthracene	U	41.3	ug/kg	12.4	41.3
191-24-2	Benzo(ghi)perylene	U	41.3	ug/kg	12.4	41.3
120-82-1	1,2,4-Trichlorobenzene	U	413	ug/kg	82.6	413

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.81	544	ug/kg		JA
629-59-4	Tetradecane	5.38	178	ug/kg	95	NJ

GEL Laboratories LLC

Data file : /chem/MSD1.i/s123009.b/s113013.d
Lab Smp Id: 243033006 Client Smp ID: RE03-09-14222
Inj Date : 30-DEC-2009 14:57
Operator : AMY Inst ID: MSD1.i
Smp Info : |243033006|936371|1|SVM|2|LANL
Misc Info : |MSD8270_S|WBN091223-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD1.i/s010210.b/MSD1-M8270AQA-111409.m
Meth Date : 04-Jan-2010 08:35 amy01291 Quant Type: ISTD
Cal Date : 17-NOV-2009 17:42 Cal File: s1k1264.d
Als bottle: 12
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.06000	weight of sample
M	19.46360	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.763	3.740	(1.000)	742288	40.0000	
* 29 Naphthalene-d8	136	4.622	4.598	(1.000)	2847243	40.0000	
* 46 Acenaphthene-d10	164	5.869	5.845	(1.000)	1535260	40.0000	
* 67 Phenanthrene-d10	188	6.863	6.839	(1.000)	2669034	40.0000	
* 91 Chrysene-d12	240	8.481	8.451	(1.000)	2256477	40.0000	
* 98 Perylene-d12	264	9.833	9.780	(1.000)	1791036	40.0000	
$ 3 2-Fluorophenol	112	2.975	2.946	(0.791)	1171960	60.4469	2500
$ 5 Phenol-d5	99	3.499	3.475	(0.930)	1478475	62.7414	2590
$ 20 Nitrobenzene-d5	82	4.122	4.104	(0.892)	615196	32.7867	1350
$ 39 2-Fluorobiphenyl	172	5.363	5.340	(0.914)	1029013	27.9856	1160
$ 60 2,4,6-Tribromophenol	329	6.410	6.386	(1.092)	353444	82.4457	3400
$ 81 p-Terphenyl-d14	244	7.775	7.751	(0.917)	1426964	40.2874	1660

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
34 2-Methylnaphthalene	142	5.116	5.092	(1.107)	9932	0.25425	10.5(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

ION RATIO REPORT

SV REPORT

Data file: s113013.d
Report Date: 12/31/2009 09:47
Lab. ID: 243033006 SampleType: SAMPLE
Injection Date: 30-DEC-2009 14:57
Operator: AMY Instrument: MSD1.i
Sample Info: |243033006|936371|1|SVM|2|LANLRE
Miscellaneous Info: |MSD8270_S|WBN091223-01|
Comment:
Method used: /chem/MSD1.i/s123009.b/MSD1-M8270AQA-111409.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-940
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
4 Aniline		CAS#: 62-53-3				
66	73659	3.50	3.56	80-120	100	( )
93	244	3.49	3.56	239-299	0	(QT)
17 N-Nitrosodipropylamine				CAS#: 621-64-7		
70	80897	4.12	4.01	80-120	100	(T)
42	46217	4.12	4.00	43-103	57	(T)
34 2-Methylnaphthalene				CAS#: 91-57-6		
142	9932	5.12	5.12	80-120	100	( )
141	9037	5.12	5.12	54-114	91	( )
43 Dimethylphthalate				CAS#: 131-11-3		
163	270311	5.87	5.65	80-120	100	(T)
164	1535260	5.87	5.65	0- 40	568	(QT)
44 2,6-Dinitrotoluene				CAS#: 606-20-2		
165	198531	5.87	5.70	80-120	100	(T)
63	2440	5.87	5.70	47-107	1	(QT)
50 2,4-Dinitrotoluene				CAS#: 121-14-2		
165	198305	5.87	5.99	80-120	100	(T)
89	2234	5.87	5.99	41-101	1	(QT)
63	2061	5.87	5.99	18- 78	1	(QT)

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
53 Fluorene			CAS#: 86-73-7			
166	23179	6.41	6.25	80-120	100	(T)
165	23640	6.41	6.25	61-121	102	(T)
167	8070	6.41	6.25	0- 43	35	(T)
61 4-Bromophenylphenylether				CAS#: 101-55-3		
248	23381	6.41	6.55	80-120	100	(T)
141	152163	6.41	6.55	44-104	651	(QT)
250	46611	6.41	6.55	68-128	199	(QT)
95 Benzo(b)fluoranthene				CAS#: 205-99-2		
252	827	9.40	9.40	80-120	100	( )
253	551	9.40	9.40	0- 52	67	(Q)
125	168	9.40	9.40	0- 42	20	( )

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

Data file : /chem/MSD1.i/s123009.b/s113013.d
Lab Smp Id: 243033006 Client Smp ID: RE03-09-14222
Inj Date : 30-DEC-2009 14:57
Operator : AMY Inst ID: MSD1.i
Smp Info : |243033006|936371|1|SVM|2|LANL
Misc Info : |MSD8270_S|WBN091223-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD1.i/s010210.b/MSD1-M8270AQA-111409.m
Meth Date : 04-Jan-2010 08:35 amy01291 Quant Type: ISTD
Cal Date : 17-NOV-2009 17:42 Cal File: s1k1264.d
Als bottle: 12
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.06000	weight of sample
M	19.46360	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	3.763	4411725	40.000
* 46 Acenaphthene-d10	5.869	6370323	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown Aldol Condensate					CAS #:		
2.810	1452278	13.1674377	544	0		0	10

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
====	====	==========	==========	====	=======	=========	======
Tetradecane					CAS #: 629-59-4		
5.381	685177	4.30230751	178	95	NIST05.L	55975	46

Data File: /chem/MSD1.i/s123009.b/s113013.d
Date : 30-DEC-2009 14:57
Client ID: RE03-09-14222
Sample Info: 1243033006193637111SVMI2LANL
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD1.i
Operator: AMY
Column diameter: 0.20

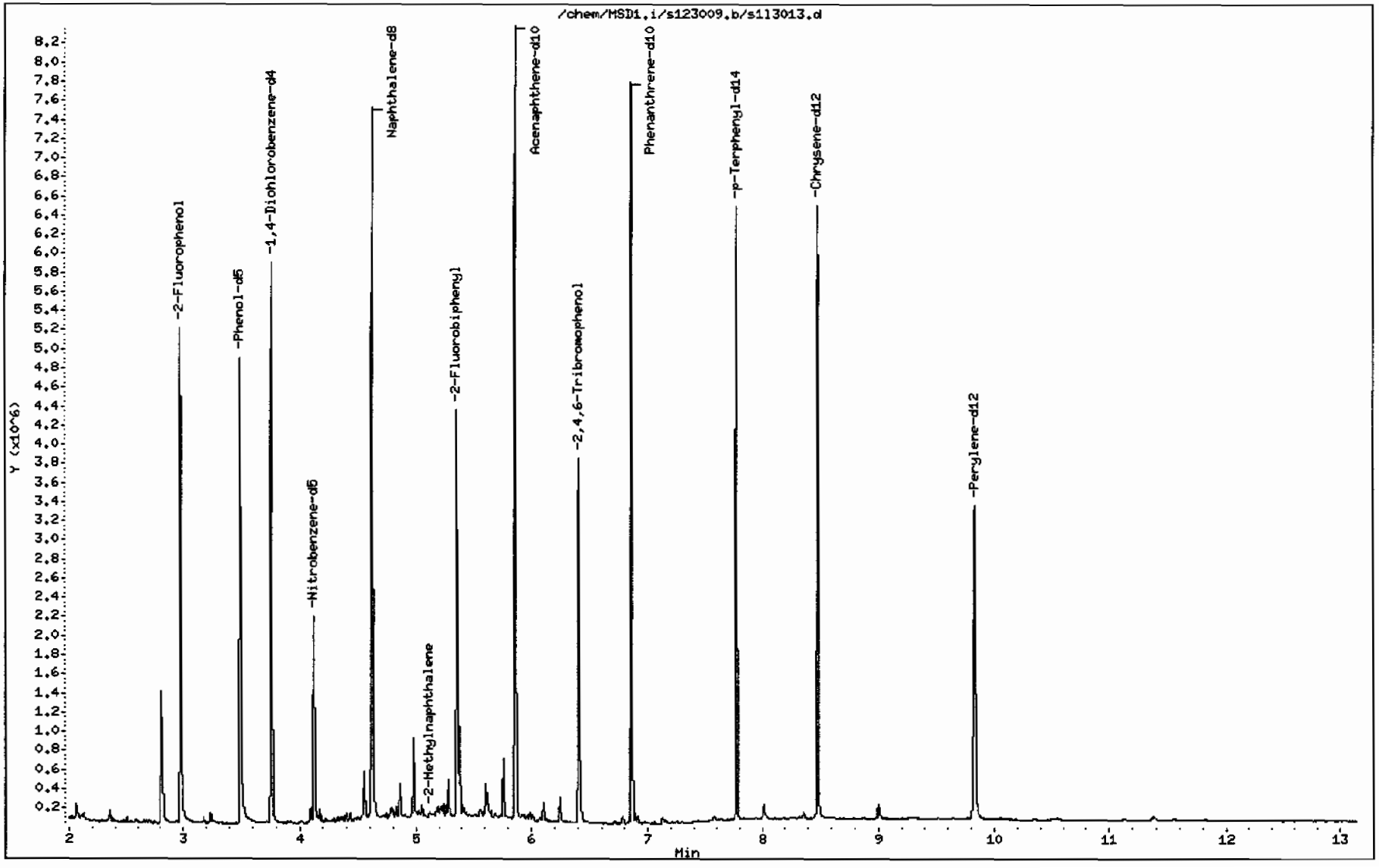

Data File: /chem/MSD1.i/s123009.b/s113013.d

Page 2

Date : 30-DEC-2009 14:57

Client ID: RE03-09-14222

Instrument: MSD1.i

Sample Info: |2430330061936371|1|SVM|2|LANL

Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

34 2-Methylnaphthalene

Concentration: 10.5 ug/Kg

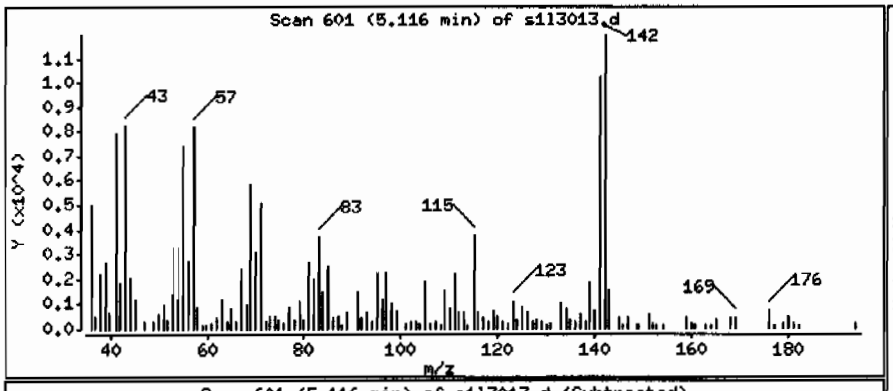

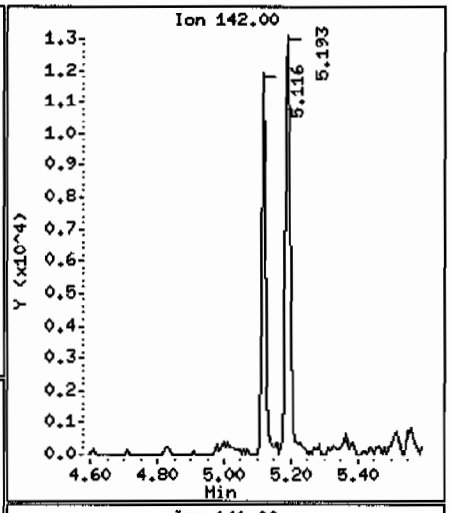

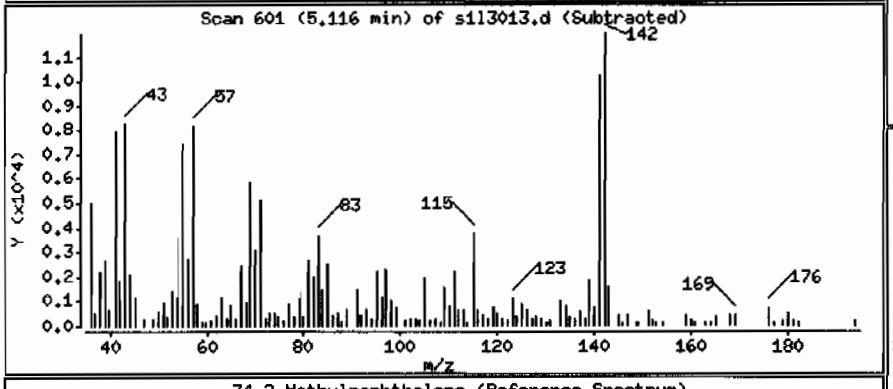

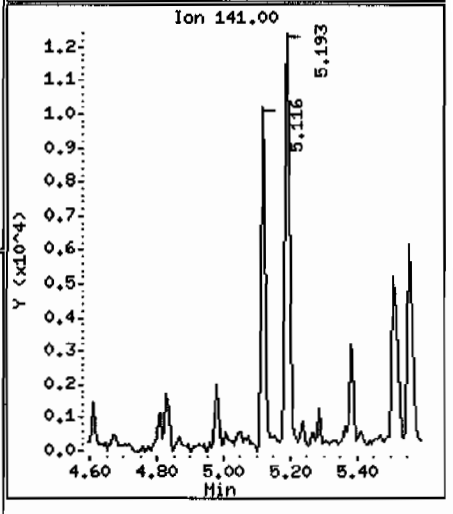

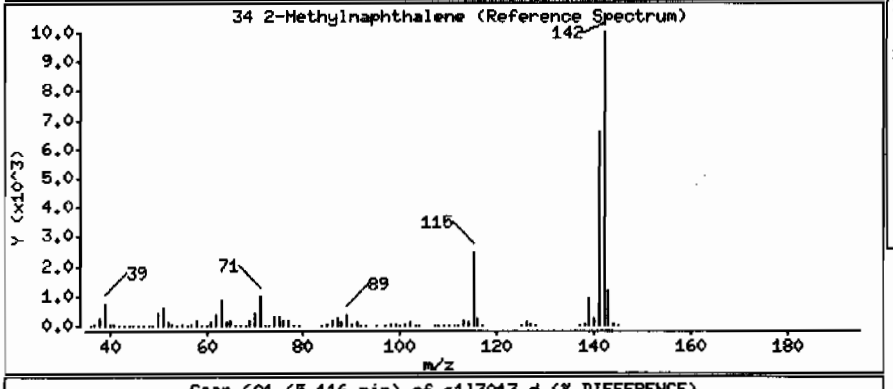

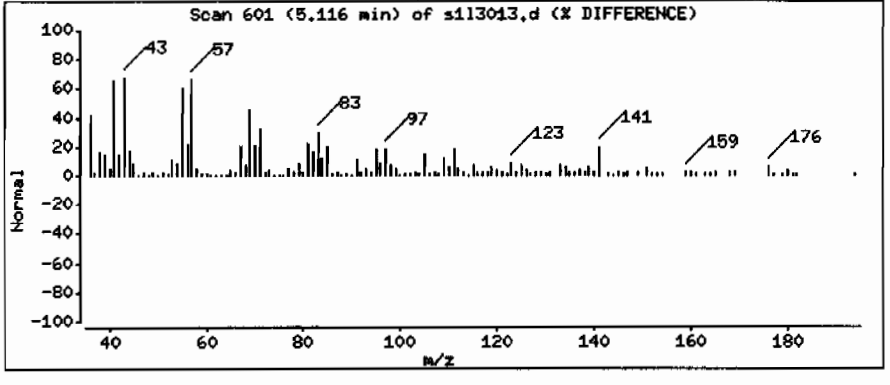

Data File: /chem/MSD1.i/s123009.b/s113013.d

Date : 30-DEC-2009 14:57

Client ID: RE03-09-14222

Instrument: MSD1.i

Sample Info: 1243033006193637111ISVMI21LANL

Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	59	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	50	C6H12O2	116
2,3-Butanedione, monooxime	57-71-6	NIST05.L	3949	16	C4H7NO2	101

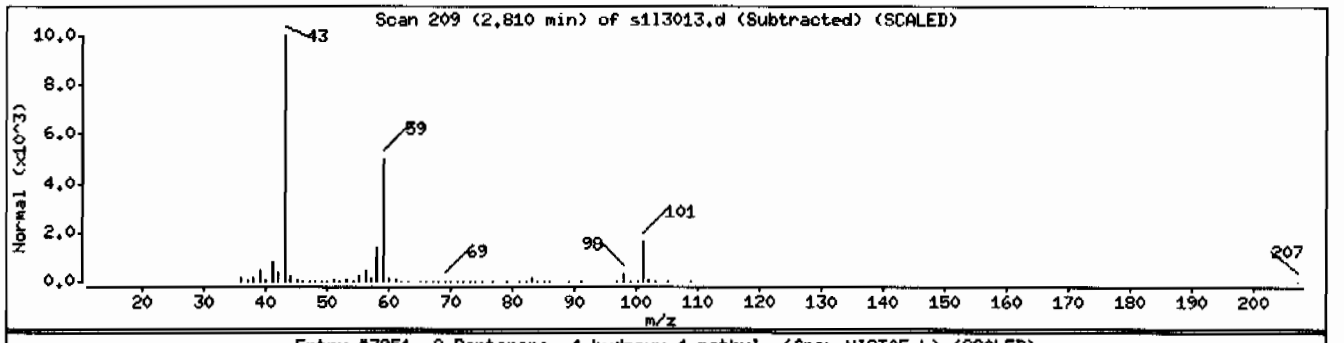

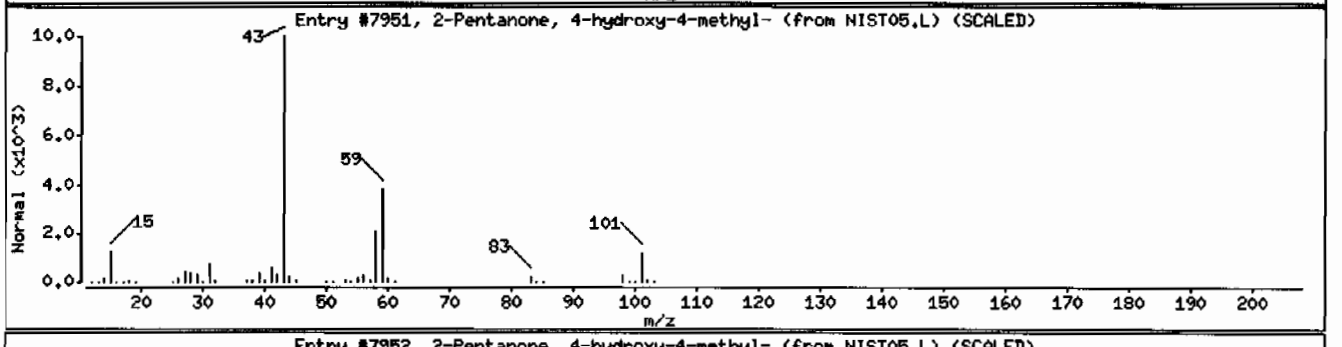

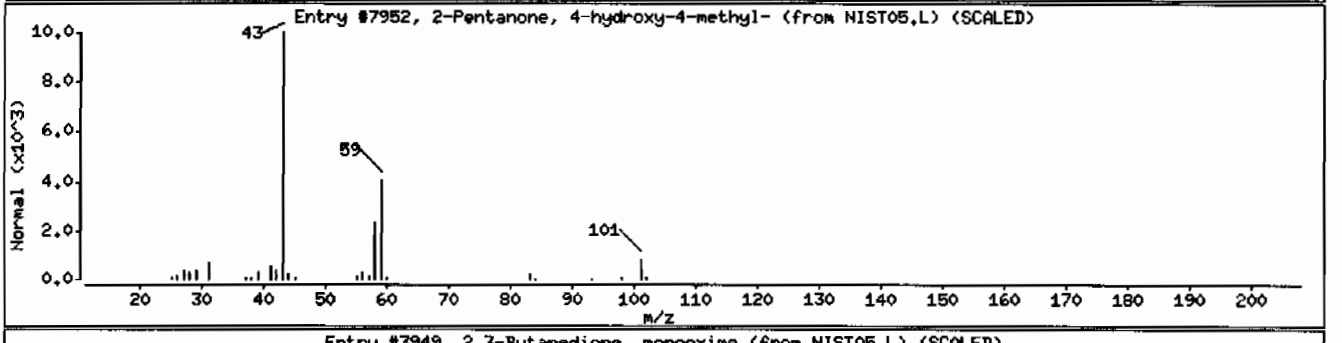

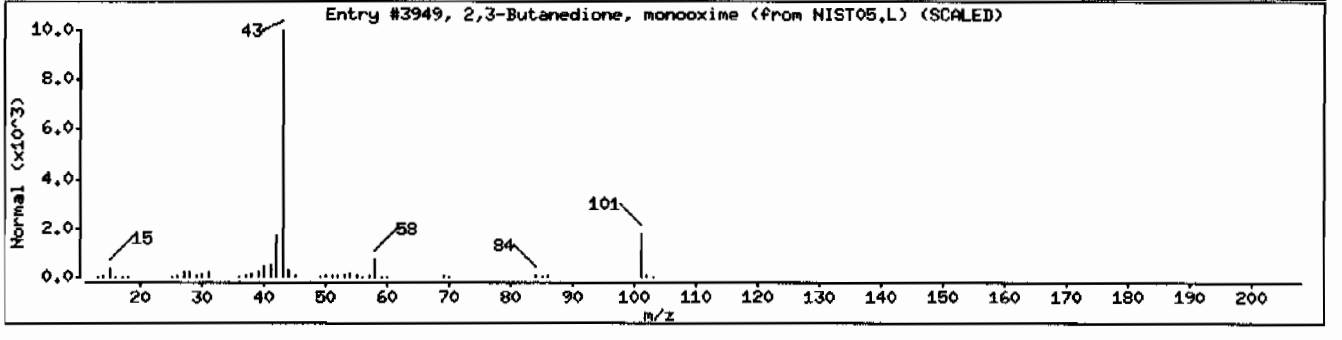

Data File: /chem/MSD1.i/s123009.b/s113013.d

Date : 30-DEC-2009 14:57

Client ID: RE03-09-14222

Instrument: MSD1.i

Sample Info: 1243033006193637111SVM121LANL

Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Tetradecane	629-59-4	NIST05.L	55975	95	C14H30	198
Tetradecane	629-59-4	NIST05.L	55973	95	C14H30	198
Dodecane	112-40-3	NIST05.L	36431	95	C12H26	170

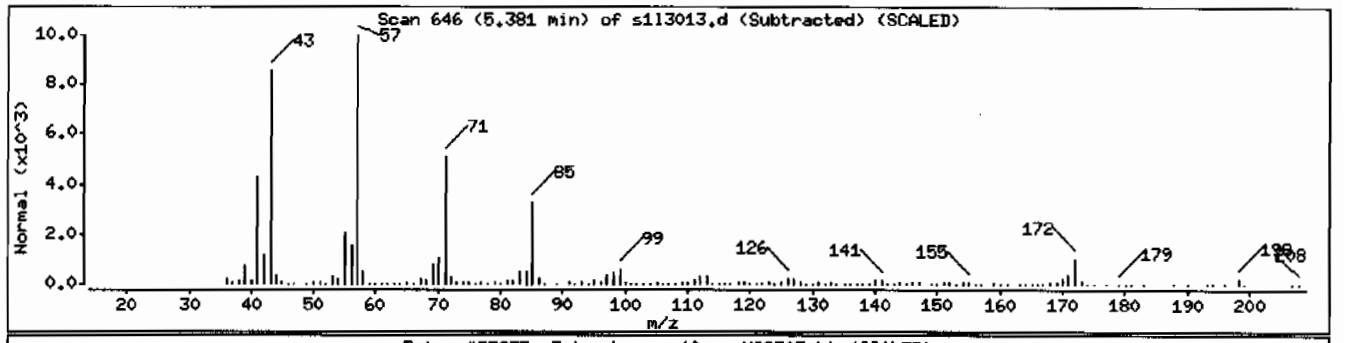

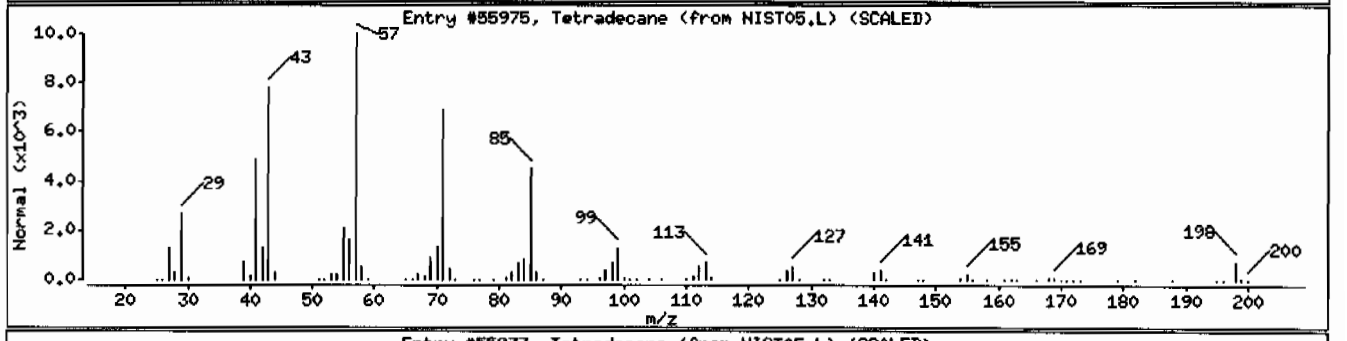

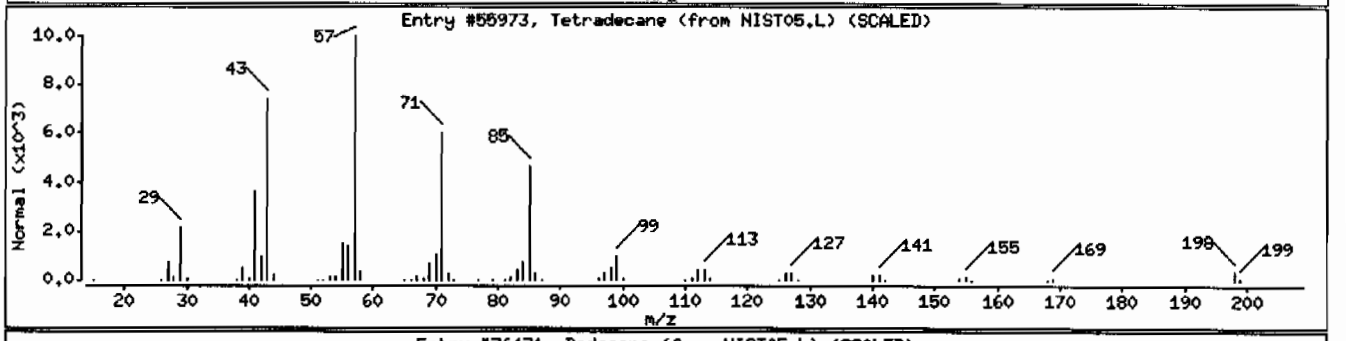

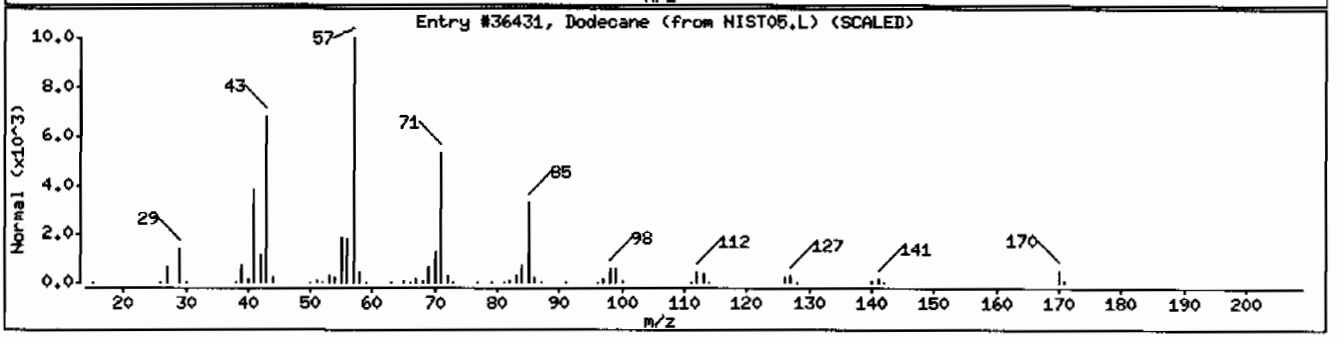

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-940**	**Date Collected:**	**12/14/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243033007**	**Date Received:**	**12/16/2009 09:10**	**%Moisture:**	**10.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14223**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**934979**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**12/22/2009 21:34**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/21/2009 11:03**	**Aliquot:**	**30.04 g**	**Final Volume:**	**1 mL**
Data File:	**s612220.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	373	ug/kg	74.6	373
108-95-2	Phenol	U	373	ug/kg	74.6	373
95-57-8	2-Chlorophenol	U	373	ug/kg	74.6	373
106-46-7	1,4-Dichlorobenzene	U	373	ug/kg	74.6	373
621-64-7	N-Nitrosodipropylamine	U	373	ug/kg	74.6	373
59-50-7	4-Chloro-3-methylphenol	U	373	ug/kg	74.6	373
83-32-9	Acenaphthene	U	37.3	ug/kg	12.3	37.3
121-14-2	2,4-Dinitrotoluene	U	373	ug/kg	37.3	373
100-02-7	4-Nitrophenol	U	373	ug/kg	123	373
87-86-5	Pentachlorophenol	U	373	ug/kg	93.3	373
129-00-0	Pyrene	U	37.3	ug/kg	11.2	37.3
110-86-1	Pyridine	U	373	ug/kg	74.6	373
62-53-3	Aniline	U	373	ug/kg	112	373
111-44-4	bis(2-Chloroethyl) ether	U	373	ug/kg	74.6	373
541-73-1	1,3-Dichlorobenzene	U	373	ug/kg	74.6	373
100-51-6	Benzyl alcohol	U	373	ug/kg	112	373
95-50-1	1,2-Dichlorobenzene	U	373	ug/kg	74.6	373
108-60-1	bis(2-Chloroisopropyl)ether	U	373	ug/kg	74.6	373
95-48-7	o-Cresol	U	373	ug/kg	74.6	373
65794-96-9	m,p-Cresols	U	373	ug/kg	112	373
67-72-1	Hexachloroethane	U	373	ug/kg	74.6	373
98-95-3	Nitrobenzene	U	373	ug/kg	74.6	373
78-59-1	Isophorone	U	373	ug/kg	74.6	373
88-75-5	2-Nitrophenol	U	373	ug/kg	74.6	373
105-67-9	2,4-Dimethylphenol	U	373	ug/kg	131	373
111-91-1	bis(2-Chloroethoxy)methane	U	373	ug/kg	74.6	373
120-83-2	2,4-Dichlorophenol	U	373	ug/kg	74.6	373
65-85-0	Benzoic acid	U	746	ug/kg	187	746
91-20-3	Naphthalene	U	37.3	ug/kg	11.2	37.3
106-47-8	4-Chloroaniline	U	373	ug/kg	74.6	373
87-68-3	Hexachlorobutadiene	U	373	ug/kg	74.6	373
91-57-6	2-Methylnaphthalene	U	37.3	ug/kg	7.46	37.3
77-47-4	Hexachlorocyclopentadiene	U	373	ug/kg	74.6	373
88-06-2	2,4,6-Trichlorophenol	U	373	ug/kg	74.6	373
95-95-4	2,4,5-Trichlorophenol	U	373	ug/kg	74.6	373
91-58-7	2-Chloronaphthalene	U	37.3	ug/kg	12.3	37.3
88-74-4	2-Nitroaniline	U	373	ug/kg	74.6	373
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	373	ug/kg	74.6	373

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-940	Date Collected:	12/14/2009 12:00	Matrix:	S
Lab Sample ID:	243033007	Date Received:	12/16/2009 09:10	%Moisture:	10.8
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14223	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	934979	Inst:	MSD6.I	Dilution:	1
Run Date:	12/22/2009 21:34	Analyst:	NAG1	Inj. Vol:	.5 uL
Prep Date:	12/21/2009 11:03	Aliquot:	30.04 g	Final Volume:	1 mL
Data File:	s6l2220.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	373	ug/kg	74.6	373
606-20-2	2,6-Dinitrotoluene	U	373	ug/kg	37.3	373
208-96-8	Acenaphthylene	U	37.3	ug/kg	11.2	37.3
51-28-5	2,4-Dinitrophenol	U	746	ug/kg	142	746
132-64-9	Dibenzofuran	U	373	ug/kg	74.6	373
84-66-2	Diethylphthalate	U	373	ug/kg	74.6	373
86-73-7	Fluorene	U	37.3	ug/kg	11.2	37.3
7005-72-3	4-Chlorophenylphenylether	U	373	ug/kg	74.6	373
534-52-1	2-Methyl-4,6-dinitrophenol	U	373	ug/kg	74.6	373
100-01-6	4-Nitroaniline	U	373	ug/kg	112	373
	p-Nitroaniline					
122-39-4	Diphenylamine	U	373	ug/kg	74.6	373
122-66-7	Azobenzene	U	373	ug/kg	74.6	373
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	373	ug/kg	74.6	373
118-74-1	Hexachlorobenzene	U	373	ug/kg	74.6	373
85-01-8	Phenanthrene	U	37.3	ug/kg	11.2	37.3
120-12-7	Anthracene	U	37.3	ug/kg	7.46	37.3
84-74-2	Di-n-butylphthalate	U	373	ug/kg	74.6	373
206-44-0	Fluoranthene	U	37.3	ug/kg	11.2	37.3
85-68-7	Butylbenzylphthalate	U	373	ug/kg	74.6	373
56-55-3	Benzo(a)anthracene	U	37.3	ug/kg	11.2	37.3
91-94-1	3,3'-Dichlorobenzidine	U	373	ug/kg	112	373
218-01-9	Chrysene	U	37.3	ug/kg	11.2	37.3
117-81-7	bis(2-Ethylhexyl)phthalate	J	94.9	ug/kg	74.6	373
117-84-0	Di-n-octylphthalate	U	373	ug/kg	74.6	373
205-99-2	Benzo(b)fluoranthene	U	37.3	ug/kg	11.2	37.3
207-08-9	Benzo(k)fluoranthene	U	37.3	ug/kg	11.2	37.3
50-32-8	Benzo(a)pyrene	U	37.3	ug/kg	11.2	37.3
193-39-5	Indeno(1,2,3-cd)pyrene	U	37.3	ug/kg	11.2	37.3
53-70-3	Dibenzo(a,h)anthracene	U	37.3	ug/kg	11.2	37.3
191-24-2	Benzo(ghi)perylene	U	37.3	ug/kg	11.2	37.3
120-82-1	1,2,4-Trichlorobenzene	U	373	ug/kg	74.6	373

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	3.57	531	ug/kg		JA

GEL Laboratories LLC

Data file : /chem/MSD6.i/s122209.b/s612220.d
Lab Smp Id: 243033007 Client Smp ID: RE03-09-14223
Inj Date : 22-DEC-2009 21:34
Operator : nagl Inst ID: MSD6.i
Smp Info : |243033007|934979|1|SVM|1|LANL
Misc Info : |MSD8270_S|WBN091208-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s122209.b/MSD6-M8270C-AQA-110909.m
Meth Date : 23-Dec-2009 11:48 nat00999 Quant Type: ISTD
Cal Date : 11-NOV-2009 04:38 Cal File: s6k0954.d
Als bottle: 15
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-940.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.04000	weight of sample
M	10.81230	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	4.976	4.979	(1.000)	240570	40.0000	
* 29 Naphthalene-d8	136	6.256	6.261	(1.000)	914975	40.0000	
* 46 Acenaphthene-d10	164	8.131	8.136	(1.000)	506436	40.0000	
* 67 Phenanthrene-d10	188	9.746	9.749	(1.000)	892502	40.0000	
* 91 Chrysene-d12	240	12.804	12.809	(1.000)	745753	40.0000	
* 98 Perylene-d12	264	15.220	15.220	(1.000)	638516	40.0000	
$ 3 2-Fluorophenol	112	3.822	3.812	(0.768)	349847	58.0715	2170
$ 5 Phenol-d5	99	4.594	4.597	(0.923)	453806	59.6828	2230
$ 20 Nitrobenzene-d5	82	5.509	5.519	(0.881)	168788	26.0778	973
$ 39 2-Fluorobiphenyl	172	7.382	7.387	(0.908)	272297	20.8637	779
$ 60 2,4,6-Tribromophenol	329	8.982	8.985	(1.105)	78335	52.9953	1980
$ 81 p-Terphenyl-d14	244	11.451	11.449	(0.894)	455949	37.9120	1420

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
93 bis(2-Ethylhexyl)phthalate	149	12.733	12.735	(0.994)	27905	2.54302	94.9(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

ION RATIO REPORT

SV REPORT

Data file: s612220.d
Report Date: 12/23/2009 11:18
Lab. ID: 243033007 SampleType: SAMPLE
Injection Date: 22-DEC-2009 21:34
Operator: nagl Instrument: MSD6.i
Sample Info: |243033007|934979|1|SVM|1|LANL
Miscellaneous Info: |MSD8270_S|WBN091208-01
Comment:
Method used: /chem/MSD6.i/s122209.b/MSD6-M8270C-AQA-110909.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-940
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
4 Aniline		CAS#: 62-53-3				
66	20490	4.59	4.66	80-120	100	(T)
93	301	4.49	4.66	227-287	1	(QT)
17 N-Nitrosodipropylamine				CAS#: 621-64-7		
70	24317	5.51	5.35	80-120	100	(T)
42	14060	5.51	5.35	39- 99	58	(T)
22 Isophorone		CAS#: 78-59-1				
82	168788	5.51	5.77	80-120	100	(T)
138	161	5.36	5.77	0- 49	0	(T)
34 2-Methylnaphthalene				CAS#: 91-57-6		
142	2266	7.11	7.01	80-120	100	(T)
141	2082	7.11	7.01	55-115	92	(T)
43 Dimethylphthalate				CAS#: 131-11-3		
163	90614	8.13	7.82	80-120	100	(T)
164	506436	8.13	7.82	0- 40	559	(QT)
50 2,4-Dinitrotoluene				CAS#: 121-14-2		
165	65284	8.13	8.32	80-120	100	(T)
89	771	8.13	8.32	40-100	1	(QT)
63	809	8.13	8.32	16- 76	1	(QT)

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
52 4-Nitrophenol			CAS#: 100-02-7			
139	134	8.35	8.27	80-120	100	(T)
109	186	8.30	8.27	31- 91	138	(Q)
65	1110	8.56	8.27	59-119	823	(QT)
53 Fluorene			CAS#: 86-73-7			
166	4920	8.98	8.73	80-120	100	(T)
165	4518	8.98	8.73	62-122	92	(T)
167	1377	8.98	8.73	0- 44	28	(T)
93 bis(2-Ethylhexyl)phthalate			CAS#: 117-81-7			
149	27905	12.73	12.74	80-120	100	( )
167	7647	12.73	12.74	2- 62	27	( )

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

Data file : /chem/MSD6.i/s122209.b/s612220.d
Lab Smp Id: 243033007 Client Smp ID: RE03-09-14223
Inj Date : 22-DEC-2009 21:34
Operator : nag1 Inst ID: MSD6.i
Smp Info : |243033007|934979|1|SVM|1|LANL
Misc Info : |MSD8270_S|WBN091208-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s122209.b/MSD6-M8270C-AQA-110909.m
Meth Date : 23-Dec-2009 11:48 nat00999 Quant Type: ISTD
Cal Date : 11-NOV-2009 04:38 Cal File: s6k0954.d
Als bottle: 15
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-940.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.04000	weight of sample
M	10.81230	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	4.976	1407613	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown Aldol Condensate				CAS #:			
3.572	500166	14.2131765	530	0		0	10

Data File: /chem/MSD6.i/s122209.b/s612220.d
Date : 22-DEC-2009 21:34
Client ID: RE03-09-14223
Sample Info: 1243033007!93497911!SVM!1!LANL
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD6.i
Operator: nagl
Column diameter: 0.20

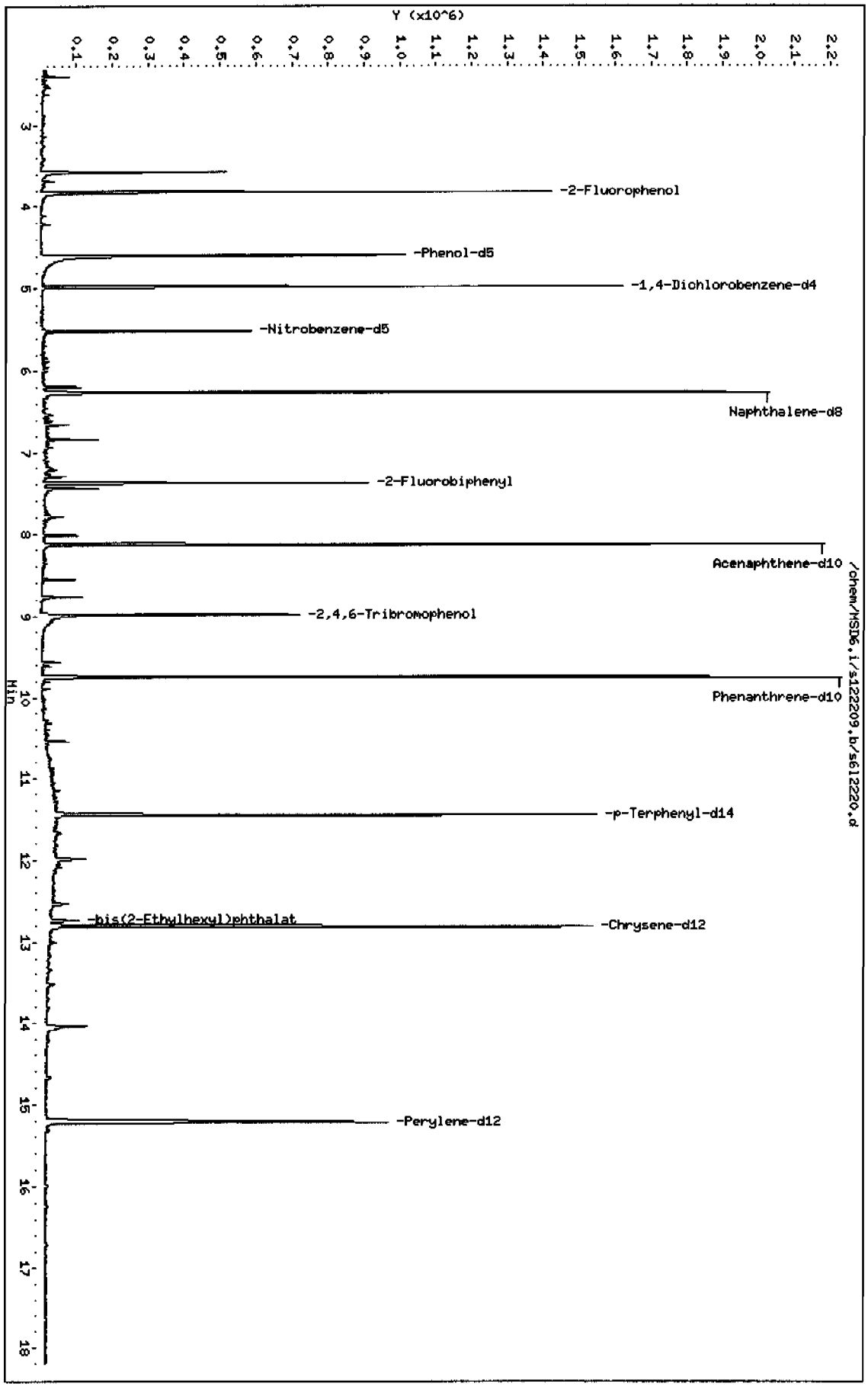

Page 1

Data File: /chem/MSD6.i/s122209.b/s612220.d

Date : 22-DEC-2009 21:34

Client ID: RE03-09-14223

Instrument: MSD6.i

Sample Info: 1243033007|934979|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

93 bis(2-Ethylhexyl)phthalate

Concentration: 94.9 ug/Kg

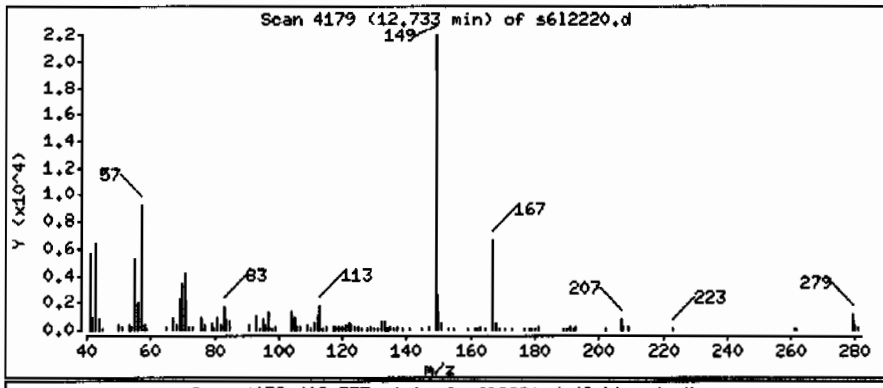

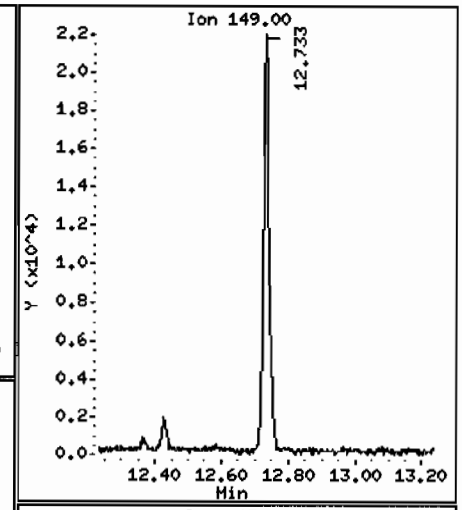

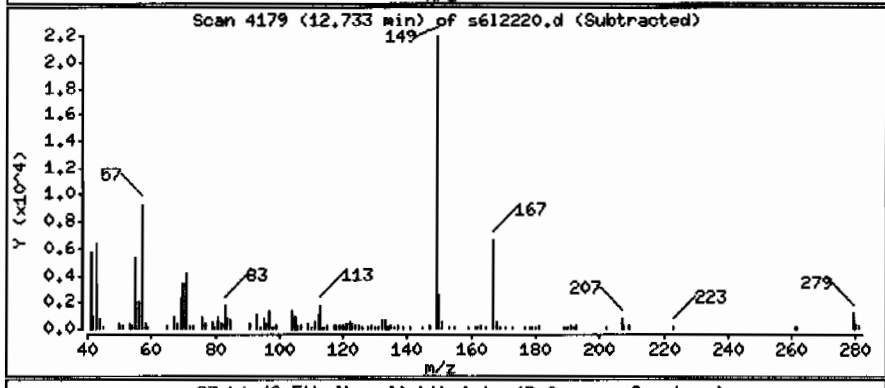

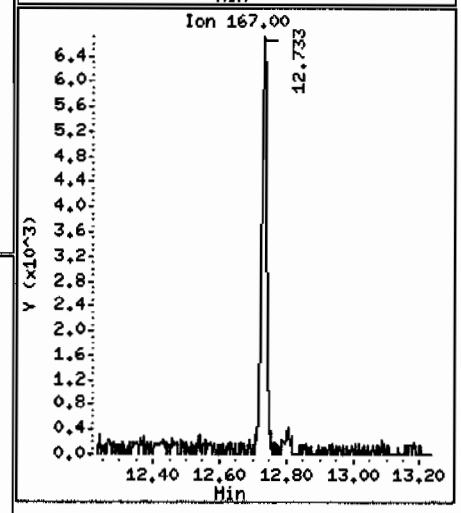

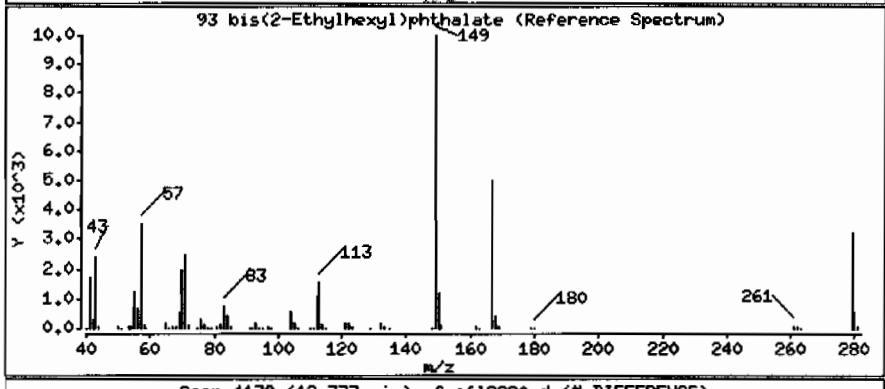

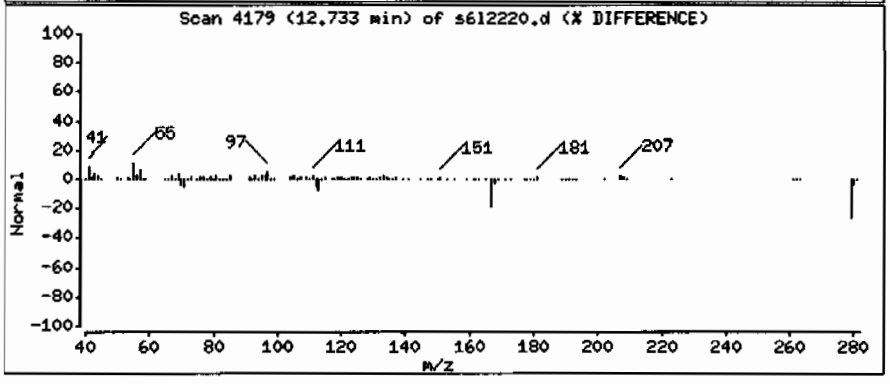

Data File: /chem/MSD6.i/s122209.b/s612220.d

Date : 22-DEC-2009 21:34

Client ID: RE03-09-14223 Instrument: MSD6.i

Sample Info: 1243033007193497911SVMI1LANL

Volume Injected (uL): 0.5 Operator: nag1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	46	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	45	C6H12O2	116
Formamide, N,N-diethyl-	617-84-5	NIST05.L	4002	9	C5H11NO	101

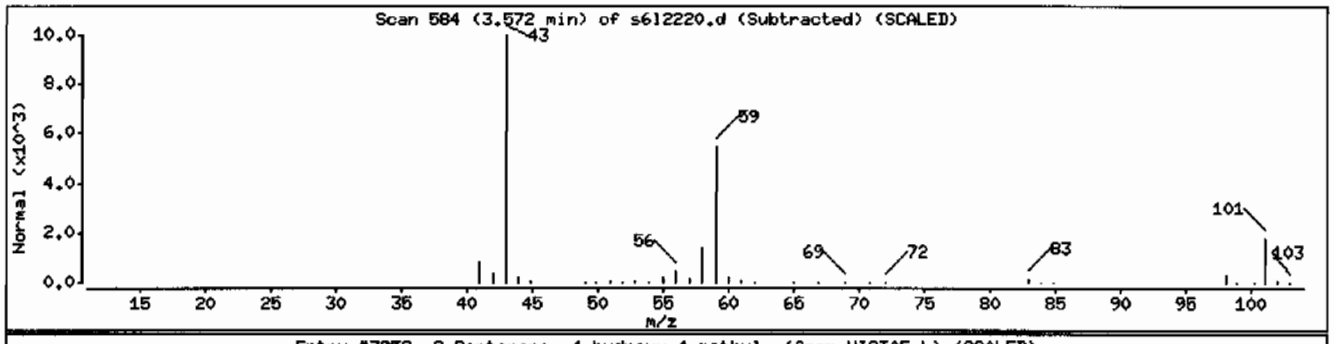

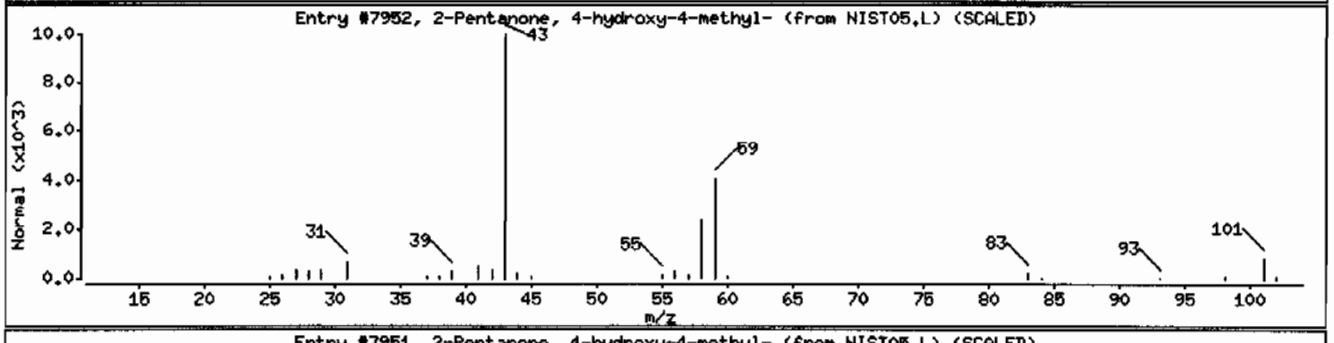

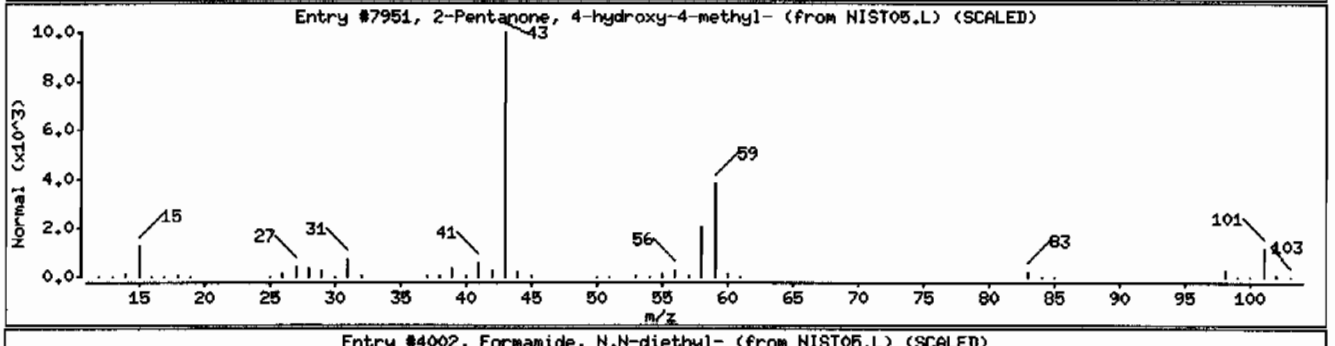

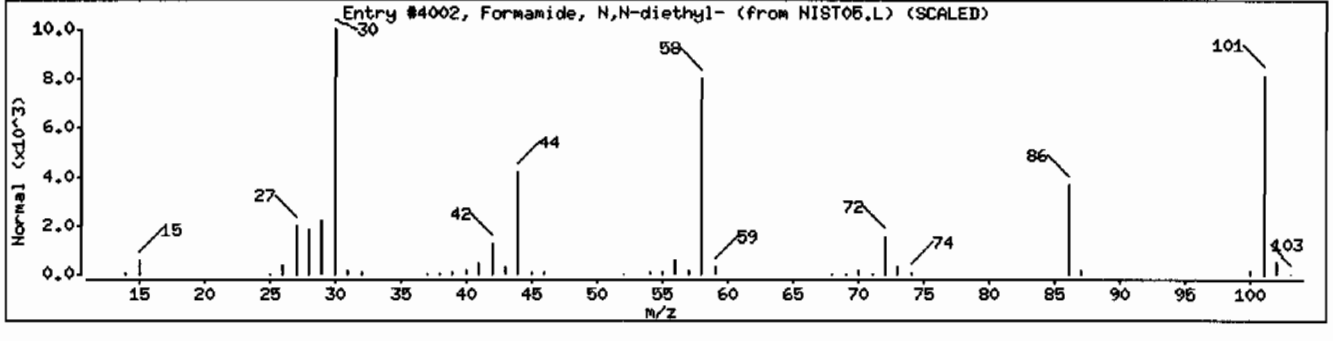

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-940**	**Date Collected:**	**12/14/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243033009**	**Date Received:**	**12/16/2009 09:10**	**%Moisture:**	**19.3**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-10-2734**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**934979**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**12/22/2009 22:28**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/21/2009 11:03**	**Aliquot:**	**30.04 g**	**Final Volume:**	**1 mL**
Data File:	**s612222.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	413	ug/kg	82.5	413
108-95-2	Phenol	U	413	ug/kg	82.5	413
95-57-8	2-Chlorophenol	U	413	ug/kg	82.5	413
106-46-7	1,4-Dichlorobenzene	U	413	ug/kg	82.5	413
621-64-7	N-Nitrosodipropylamine	U	413	ug/kg	82.5	413
59-50-7	4-Chloro-3-methylphenol	U	413	ug/kg	82.5	413
83-32-9	Acenaphthene	U	41.3	ug/kg	13.6	41.3
121-14-2	2,4-Dinitrotoluene	U	413	ug/kg	41.3	413
100-02-7	4-Nitrophenol	U	413	ug/kg	136	413
87-86-5	Pentachlorophenol	U	413	ug/kg	103	413
129-00-0	Pyrene	U	41.3	ug/kg	12.4	41.3
110-86-1	Pyridine	U	413	ug/kg	82.5	413
62-53-3	Aniline	U	413	ug/kg	124	413
111-44-4	bis(2-Chloroethyl) ether	U	413	ug/kg	82.5	413
541-73-1	1,3-Dichlorobenzene	U	413	ug/kg	82.5	413
100-51-6	Benzyl alcohol	U	413	ug/kg	124	413
95-50-1	1,2-Dichlorobenzene	U	413	ug/kg	82.5	413
108-60-1	bis(2-Chloroisopropyl)ether	U	413	ug/kg	82.5	413
95-48-7	o-Cresol	U	413	ug/kg	82.5	413
65794-96-9	m,p-Cresols	U	413	ug/kg	124	413
67-72-1	Hexachloroethane	U	413	ug/kg	82.5	413
98-95-3	Nitrobenzene	U	413	ug/kg	82.5	413
78-59-1	Isophorone	U	413	ug/kg	82.5	413
88-75-5	2-Nitrophenol	U	413	ug/kg	82.5	413
105-67-9	2,4-Dimethylphenol	U	413	ug/kg	144	413
111-91-1	bis(2-Chloroethoxy)methane	U	413	ug/kg	82.5	413
120-83-2	2,4-Dichlorophenol	U	413	ug/kg	82.5	413
65-85-0	Benzoic acid	U	825	ug/kg	206	825
91-20-3	Naphthalene	U	41.3	ug/kg	12.4	41.3
106-47-8	4-Chloroaniline	U	413	ug/kg	82.5	413
87-68-3	Hexachlorobutadiene	U	413	ug/kg	82.5	413
91-57-6	2-Methylnaphthalene	U	41.3	ug/kg	8.25	41.3
77-47-4	Hexachlorocyclopentadiene	U	413	ug/kg	82.5	413
88-06-2	2,4,6-Trichlorophenol	U	413	ug/kg	82.5	413
95-95-4	2,4,5-Trichlorophenol	U	413	ug/kg	82.5	413
91-58-7	2-Chloronaphthalene	U	41.3	ug/kg	13.6	41.3
88-74-4	2-Nitroaniline	U	413	ug/kg	82.5	413
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	413	ug/kg	82.5	413

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-940	**Date Collected:**	12/14/2009 12:00	**Matrix:**	S
Lab Sample ID:	243033009	**Date Received:**	12/16/2009 09:10	**%Moisture:**	19.3
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-10-2734	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	934979	**Inst:**	MSD6.I	**Dilution:**	1
Run Date:	12/22/2009 22:28	**Analyst:**	NAG1	**Inj. Vol:**	.5 uL
Prep Date:	12/21/2009 11:03	**Aliquot:**	30.04 g	**Final Volume:**	1 mL
Data File:	s6l2222.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	413	ug/kg	82.5	413
606-20-2	2,6-Dinitrotoluene	U	413	ug/kg	41.3	413
208-96-8	Acenaphthylene	U	41.3	ug/kg	12.4	41.3
51-28-5	2,4-Dinitrophenol	U	825	ug/kg	157	825
132-64-9	Dibenzofuran	U	413	ug/kg	82.5	413
84-66-2	Diethylphthalate	U	413	ug/kg	82.5	413
86-73-7	Fluorene	U	41.3	ug/kg	12.4	41.3
7005-72-3	4-Chlorophenylphenylether	U	413	ug/kg	82.5	413
534-52-1	2-Methyl-4,6-dinitrophenol	U	413	ug/kg	82.5	413
100-01-6	4-Nitroaniline	U	413	ug/kg	124	413
	p-Nitroaniline					
122-39-4	Diphenylamine	U	413	ug/kg	82.5	413
122-66-7	Azobenzene	U	413	ug/kg	82.5	413
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	413	ug/kg	82.5	413
118-74-1	Hexachlorobenzene	U	413	ug/kg	82.5	413
85-01-8	Phenanthrene	U	41.3	ug/kg	12.4	41.3
120-12-7	Anthracene	U	41.3	ug/kg	8.25	41.3
84-74-2	Di-n-butylphthalate	U	413	ug/kg	82.5	413
206-44-0	Fluoranthene	U	41.3	ug/kg	12.4	41.3
85-68-7	Butylbenzylphthalate	U	413	ug/kg	82.5	413
56-55-3	Benzo(a)anthracene	U	41.3	ug/kg	12.4	41.3
91-94-1	3,3'-Dichlorobenzidine	U	413	ug/kg	124	413
218-01-9	Chrysene	U	41.3	ug/kg	12.4	41.3
117-81-7	bis(2-Ethylhexyl)phthalate	U	413	ug/kg	82.5	413
117-84-0	Di-n-octylphthalate	U	413	ug/kg	82.5	413
205-99-2	Benzo(b)fluoranthene	U	41.3	ug/kg	12.4	41.3
207-08-9	Benzo(k)fluoranthene	U	41.3	ug/kg	12.4	41.3
50-32-8	Benzo(a)pyrene	U	41.3	ug/kg	12.4	41.3
193-39-5	Indeno(1,2,3-cd)pyrene	U	41.3	ug/kg	12.4	41.3
53-70-3	Dibenzo(a,h)anthracene	U	41.3	ug/kg	12.4	41.3
191-24-2	Benzo(ghi)perylene	U	41.3	ug/kg	12.4	41.3
120-82-1	1,2,4-Trichlorobenzene	U	413	ug/kg	82.5	413

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	3.57	458	ug/kg		JA
	Unknown	11.99	238	ug/kg		J

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-940	**Date Collected:**	12/14/2009 12:00	**Matrix:**	S
Lab Sample ID:	243033009	**Date Received:**	12/16/2009 09:10	**%Moisture:**	19.3
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-10-2734	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	934979	**Inst:**	MSD6.I	**Dilution:**	1
Run Date:	12/22/2009 22:28	**Analyst:**	NAG1	**Inj. Vol:**	.5 uL
Prep Date:	12/21/2009 11:03	**Aliquot:**	30.04 g	**Final Volume:**	1 mL
Data File:	s612222.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
301-02-0	9-Octadecenamide, (Z)-	14.05	417	ug/kg	95	NJ

GEL Laboratories LLC

Data file : /chem/MSD6.i/s122209.b/s612222.d
Lab Smp Id: 243033009 Client Smp ID: RE03-10-2734
Inj Date : 22-DEC-2009 22:28
Operator : nag1 Inst ID: MSD6.i
Smp Info : |243033009|934979|1|SVM|1|LANL
Misc Info : |MSD8270_S|WBN091208-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s122209.b/MSD6-M8270C-AQA-110909.m
Meth Date : 23-Dec-2009 11:48 nat00999 Quant Type: ISTD
Cal Date : 11-NOV-2009 04:38 Cal File: s6k0954.d
Als bottle: 17
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-940.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.04000	weight of sample
M	19.33350	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	4.976	4.979	(1.000)	261027	40.0000	
* 29 Naphthalene-d8	136	6.258	6.261	(1.000)	986515	40.0000	
* 46 Acenaphthene-d10	164	8.133	8.136	(1.000)	540893	40.0000	
* 67 Phenanthrene-d10	188	9.749	9.749	(1.000)	943340	40.0000	
* 91 Chrysene-d12	240	12.807	12.809	(1.000)	755043	40.0000	
* 98 Perylene-d12	264	15.217	15.220	(1.000)	598775	40.0000	
$ 3 2-Fluorophenol	112	3.822	3.812	(0.768)	371797	56.8784	2350
$ 5 Phenol-d5	99	4.594	4.597	(0.923)	521055	63.1565	2610
$ 20 Nitrobenzene-d5	82	5.511	5.519	(0.881)	191509	27.4425	1130
$ 39 2-Fluorobiphenyl	172	7.382	7.387	(0.908)	298992	21.4497	885
$ 60 2,4,6-Tribromophenol	329	8.985	8.985	(1.105)	106927	67.7302	2800
$ 81 p-Terphenyl-d14	244	11.451	11.449	(0.894)	487625	40.0470	1650

ION RATIO REPORT

SV REPORT

Data file: s612222.d
Report Date: 12/23/2009 11:19
Lab. ID: 243033009 SampleType: SAMPLE
Injection Date: 22-DEC-2009 22:28
Operator: nagl Instrument: MSD6.i
Sample Info: |243033009|934979|1|SVM|1|LANL
Miscellaneous Info: |MSD8270_S|WBN091208-01
Comment:
Method used: /chem/MSD6.i/s122209.b/MSD6-M8270C-AQA-110909.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-940
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
4 Aniline		CAS#: 62-53-3				
66	20650	4.59	4.66	80-120	100	(T)
93	897	4.50	4.66	227-287	4	(QT)
17 N-Nitrosodipropylamine				CAS#: 621-64-7		
70	26856	5.51	5.35	80-120	100	(T)
42	15692	5.51	5.35	39- 99	58	(T)
22 Isophorone		CAS#: 78-59-1				
82	191509	5.51	5.77	80-120	100	(T)
138	4142	6.26	5.77	0- 49	2	(T)
43 Dimethylphthalate			CAS#: 131-11-3			
163	96526	8.13	7.82	80-120	100	(T)
164	540893	8.13	7.82	0- 40	560	(QT)
50 2,4-Dinitrotoluene			CAS#: 121-14-2			
165	70088	8.13	8.32	80-120	100	(T)
89	829	8.13	8.32	40-100	1	(QT)
63	710	8.13	8.32	16- 76	1	(QT)
53 Fluorene		CAS#: 86-73-7				
166	6185	8.98	8.73	80-120	100	(T)
165	6232	8.98	8.73	62-122	101	(T)
167	2038	8.98	8.73	0- 44	33	(T)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

Data file : /chem/MSD6.i/s122209.b/s612222.d
Lab Smp Id: 243033009 Client Smp ID: RE03-10-2734
Inj Date : 22-DEC-2009 22:28
Operator : nag1 Inst ID: MSD6.i
Smp Info : |243033009|934979|1|SVM|1|LANL
Misc Info : |MSD8270_S|WBN091208-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s122209.b/MSD6-M8270C-AQA-110909.m
Meth Date : 23-Dec-2009 11:48 nat00999 Quant Type: ISTD
Cal Date : 11-NOV-2009 04:38 Cal File: s6k0954.d
Als bottle: 17
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-940.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.04000	weight of sample
M	19.33350	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	4.976	1522821	40.000
* 91 Chrysene-d12	12.807	2026991	40.000
* 98 Perylene-d12	15.217	1642777	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #

RT	AREA	CONCENTRATIONS ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	QUANT LIBRARY	LIB ENTRY	CPND #
Unknown Aldol Condensate				CAS #:			
3.575	422464	11.0968616	458	0		0	10
Unknown				CAS #:			
11.989	292466	5.77142484	238	0		0	91
9-Octadecenamide, (Z)-				CAS #: 301-02-0			
14.045	414686	10.0971948	417	95	NIST05.L	112656	98

Data File: /chem/MSD6.i/s122209.b/s612222.d
Date : 22-DEC-2009 22:28
Client ID: REO3-10-2734
Sample Info: 1243033009193497911ISVMI11LANL
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD6.i
Operator: nagl
Column diameter: 0.20

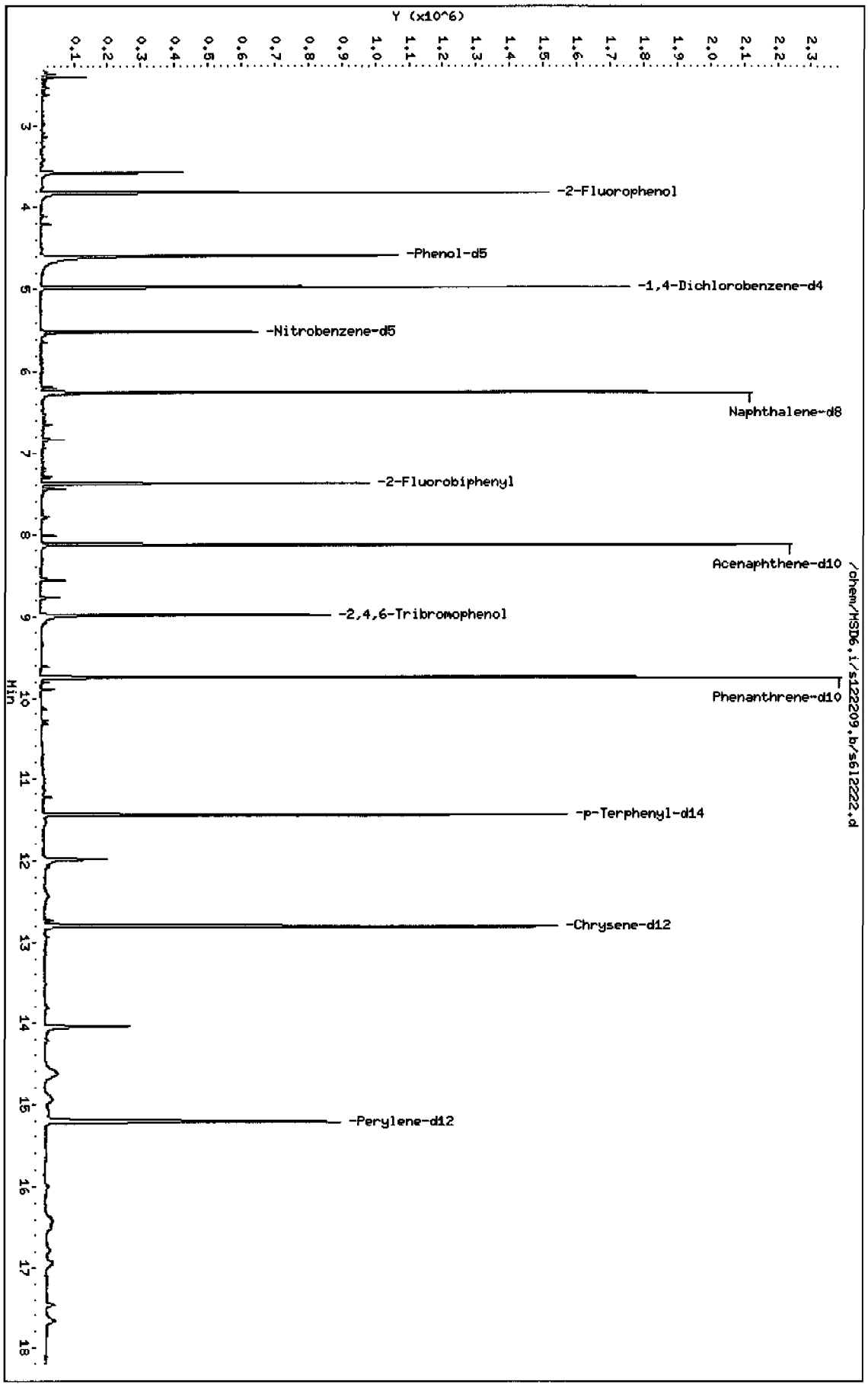

Page 1

Data File: /chem/MSD6.i/s122209.b/s612222.d

Date : 22-DEC-2009 22:28

Client ID: RE03-10-2734

Instrument: MSD6.i

Sample Info: 1243033009193497911|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	56	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	38	C6H12O2	116
2,3-Butanedione, monooxime	57-71-6	NIST05.L	3949	9	C4H7NO2	101

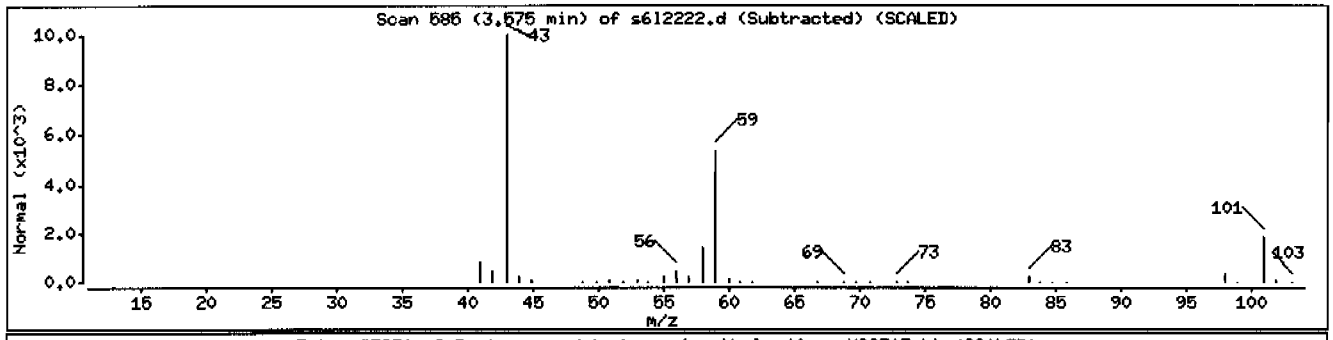

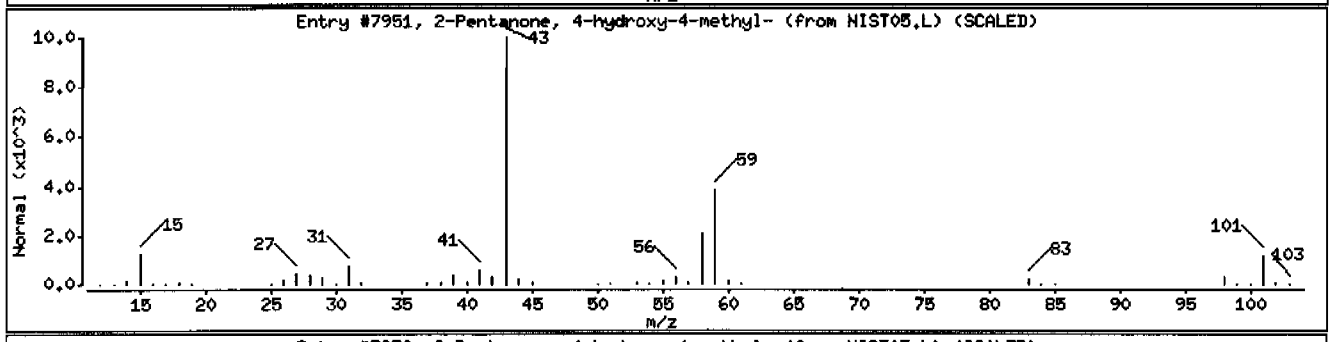

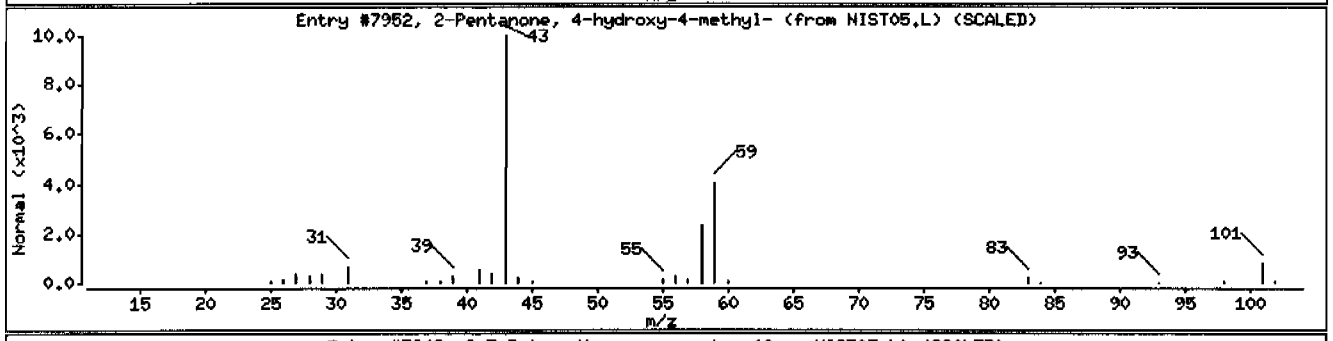

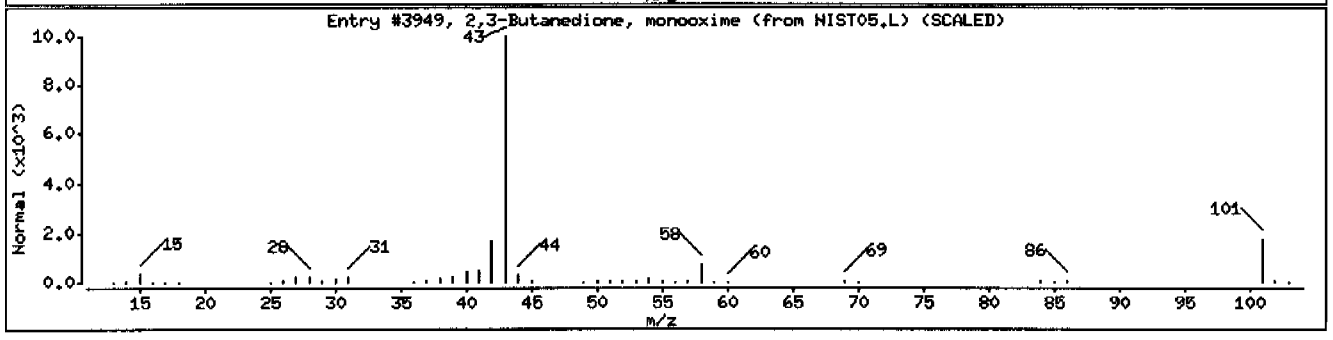

Data File: /chem/MSD6.i/s122209.b/s612222.d

Date : 22-DEC-2009 22:28

Client ID: RE03-10-2734

Instrument: MSD6.i

Sample Info: |2430330091934979|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: nagi

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
9-Octadecenamide, (Z)-	301-02-0	NIST05.L	112657	91	C18H35NO	281
9-Octadecenamide, (Z)-	301-02-0	NIST05.L	112656	91	C18H35NO	281
9-Octadecenamide, (Z)-	301-02-0	NIST05.L	112655	64	C18H35NO	281

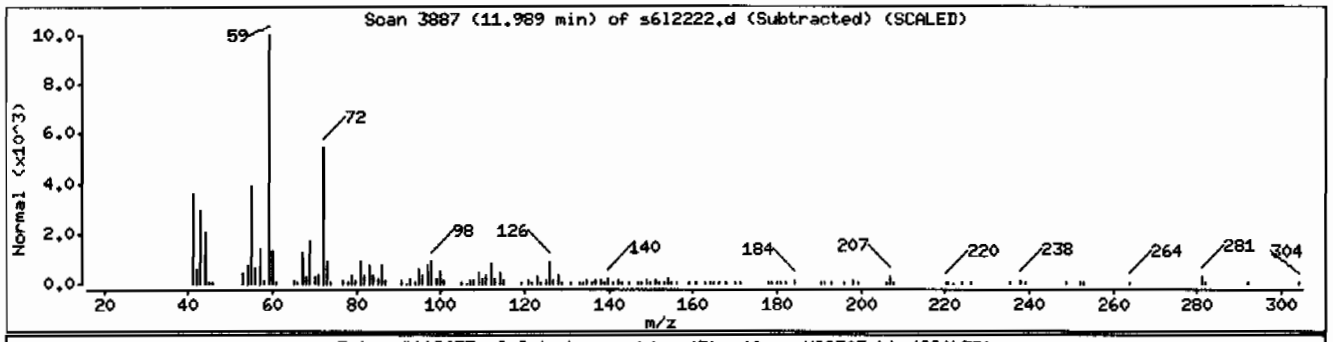

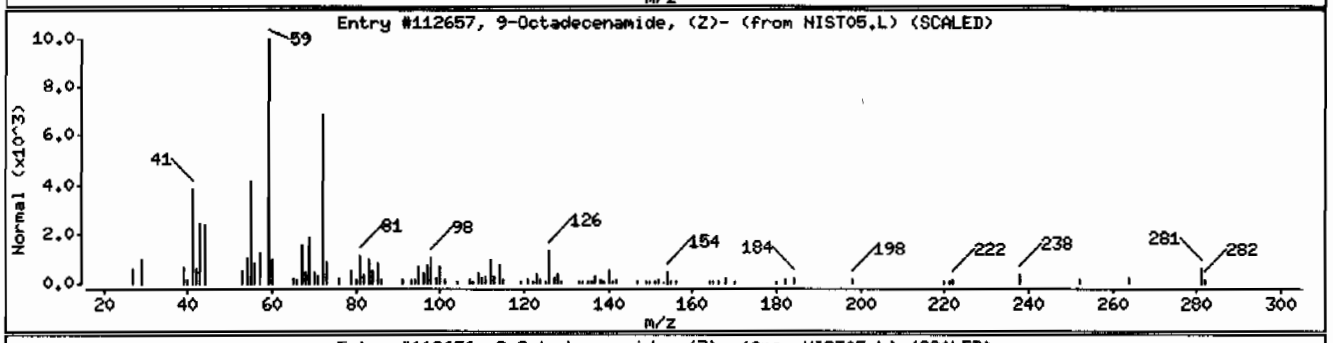

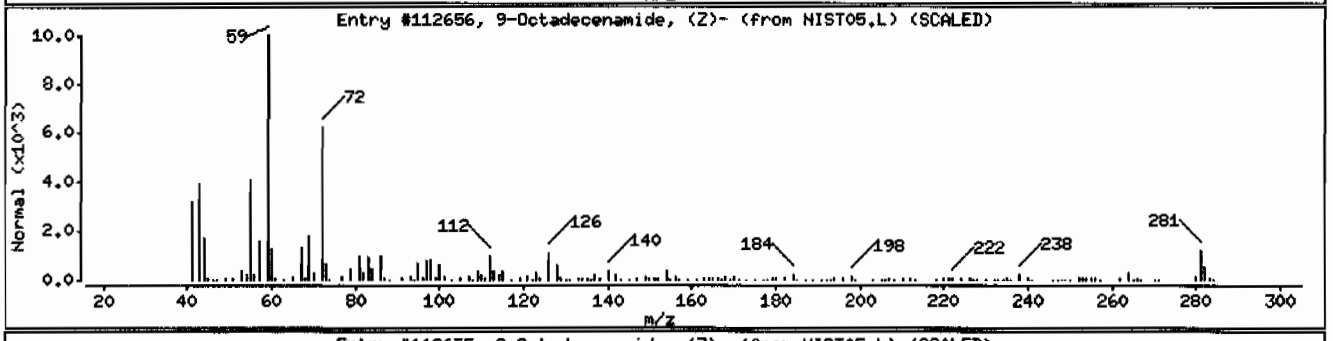

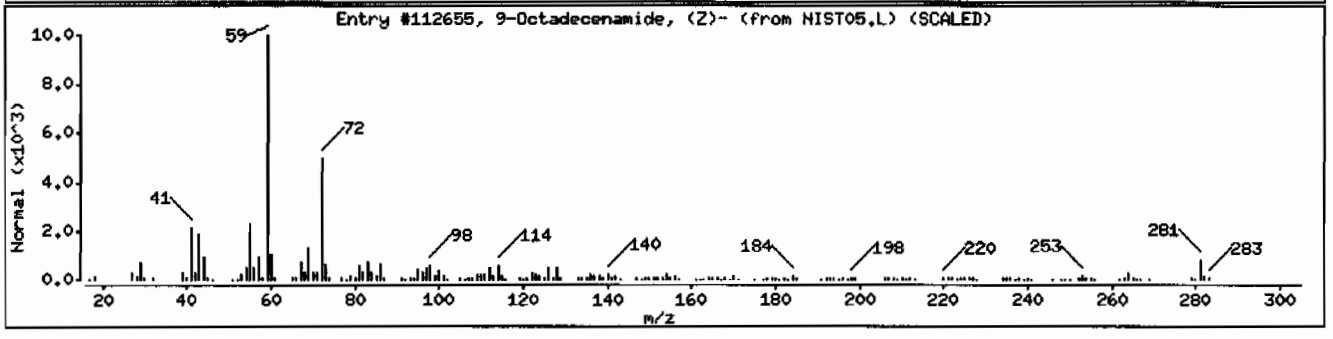

Data File: /chem/MSD6.i/s122209.b/s612222.d

Date : 22-DEC-2009 22:28

Client ID: RE03-10-2734

Instrument: MSD6.i

Sample Info: 1243033009193497911SVMI1LANL

Volume Injected (uL): 0.5

Operator: nagi

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
9-Octadecenamide, (Z)-	301-02-0	NIST05.L	112656	96	C18H35NO	281
13-Docosenamide, (Z)-	112-84-5	NIST05.L	146307	93	C22H43NO	337
13-Docosenamide, (Z)-	112-84-5	NIST05.L	146308	91	C22H43NO	337

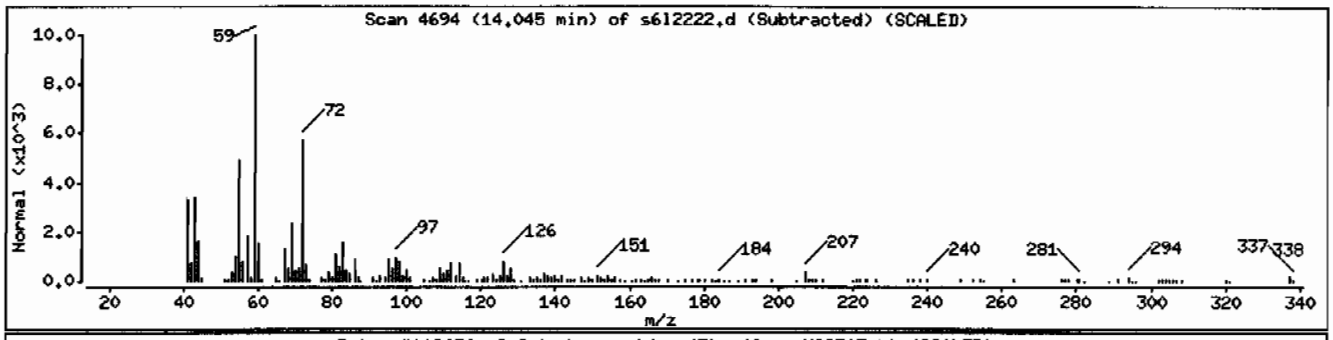

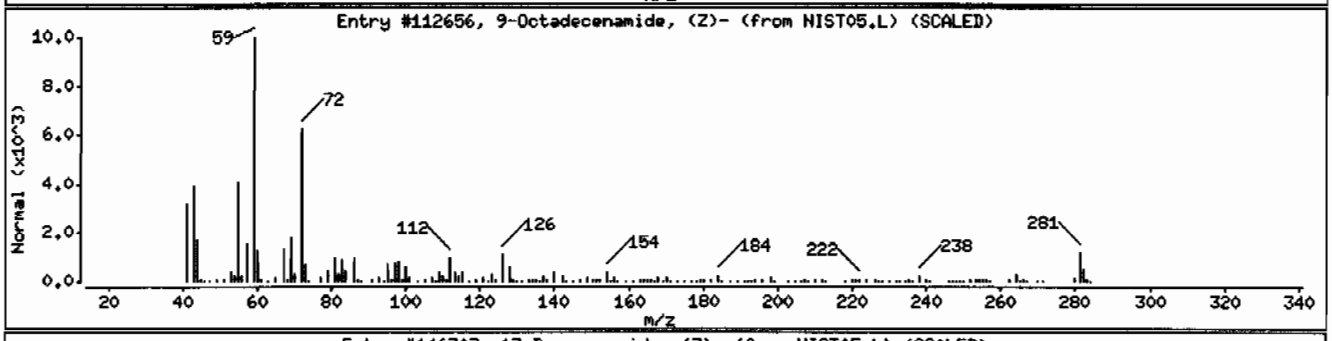

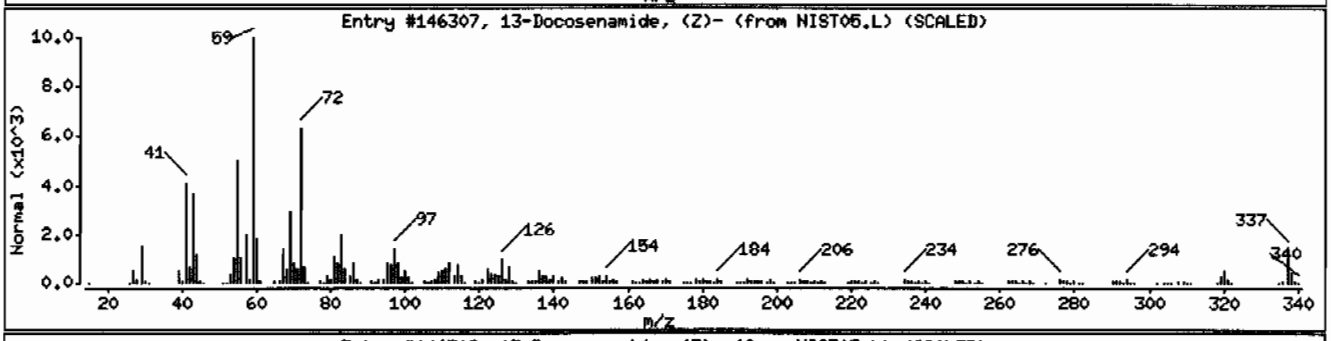

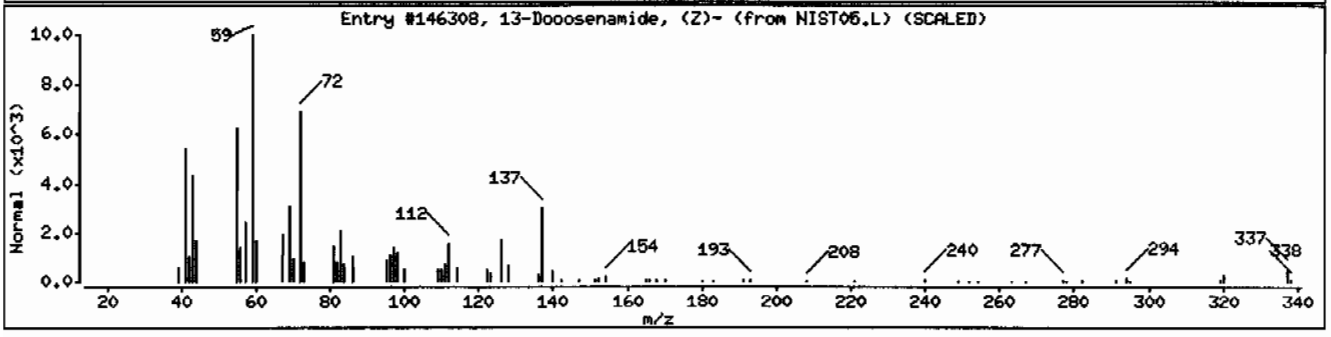

Standard Data

SW846 8270C//8270D/EPA 625								
Calibration Standard Concentration Levels*								
	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
1,4-Dichlorobenzene-d4 (INTERNAL STANDARD)								
Naphthalene-d8 (INTERNAL STANDARD)								
Acenaphthene-d10 (INTERNAL STANDARD)								
Phenanthrene-d10 (INTERNAL STANDARD)								
Chrysene-d12 (INTERNAL STANDARD)								
Perylene-d12 (INTERNAL STANDARD)								
2-Fluorophenol (SURROGATE)		10	20	40	50	80	100	120
Phenol-d5 (SURROGATE)		10	20	40	50	80	100	120
2-Chlorophenol-d4 (CLP SURROGATE)		10	20	40	50	80	100	120
1,2-Dichlorobenzene-d4 (CLP SURROGATE)		10	20	40	50	80	100	120
Nitrobenzene-d5 (SURROGATE)		10	20	40	50	80	100	120
2-Fluorobiphenyl (SURROGATE)		10	20	40	50	80	100	120
2,4,6-Tribromophenol (SURROGATE)		10	20	40	50	80	100	120
p-Terphenyl-d14 (SURROGATE)		10	20	40	50	80	100	120
N-Nitrosodimethylamine		10	20	40	50	80	100	120
Pyridine		10	20	40	50	80	100	120
Aniline		10	20	40	50	80	100	120
Benzaldehyde		10	20	40	50	80	100	120
Phenol		10	20	40	50	80	100	120
bis(2-Chloroethyl)ether	1	10	20	40	50	80	100	120
2-Chlorophenol		10	20	40	50	80	100	120
n-Decane		10	20	40	50	80	100	120
1,3-Dichlorobenzene		10	20	40	50	80	100	120
1,4-Dichlorobenzene		10	20	40	50	80	100	120
Benzyl Alcohol		10	20	40	50	80	100	120
1,2-Dichlorobenzene		10	20	40	50	80	100	120
bis(2-Chloroisopropyl)ether		10	20	40	50	80	100	120
o-Cresol (2-Methylphenol)		10	20	40	50	80	100	120
Acetophenone		10	20	40	50	80	100	120
N-Nitrosodipropylamine	1	10	20	40	50	80	100	120
m,p-Cresols (3-Methylphenol & 4-Methylphenol)		10	20	40	50	80	100	120
Hexachloroethane		10	20	40	50	80	100	120
Nitrobenzene		10	20	40	50	80	100	120
Isophorone		10	20	40	50	80	100	120
2-Nitrophenol		10	20	40	50	80	100	120
2,4-Dimethylphenol		10	20	40	50	80	100	120
bis(2-Chloroethoxy)methane		10	20	40	50	80	100	120
2,4-Dichlorophenol		10	20	40	50	80	100	120
Benzoic Acid			20	40	50	80	100	120
1,2,4-Trichlorobenzene		10	20	40	50	80	100	120
Naphthalene	1	10	20	40	50	80	100	120
alpha-Terpineol		10	20	40	50	80	100	120
4-Chloroaniline		10	20	40	50	80	100	120
Caprolactam		10	20	40	50	80	100	120

SW846 8270C//8270D/EPA 625								
Calibration Standard Concentration Levels*								
	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Hexachlorobutadiene		10	20	40	50	80	100	120
4-Chloro-3-methylphenol		10	20	40	50	80	100	120

2-Methylnaphthalene	1	10	20	40	50	80	100	120
1-Methylnaphthalene	1	10	20	40	50	80	100	120
Hexachlorocyclopentadiene		10	20	40	50	80	100	120
1,1'-Biphenyl		10	20	40	50	80	100	120
2,3-Dichloroaniline		10	20	40	50	80	100	120
2,4,6-Trichlorophenol		10	20	40	50	80	100	120
2,4,5-Trichlorophenol		10	20	40	50	80	100	120
2-Chloronaphthalene	1	10	20	40	50	80	100	120
o-Nitroaniline		10	20	40	50	80	100	120
m-Nitroaniline		10	20	40	50	80	100	120
Dimethylphthalate	1	10	20	40	50	80	100	120
2,6-Dinitrotoluene		10	20	40	50	80	100	120
Acenaphthylene	1	10	20	40	50	80	100	120
Acenaphthene	1	10	20	40	50	80	100	120
2,4-Dinitrophenol			20	40	50	80	100	120
Dibenzofuran		10	20	40	50	80	100	120
2,4-Dinitrotoluene		10	20	40	50	80	100	120
Diethylphthalate	1	10	20	40	50	80	100	120
4-Nitrophenol		10	20	40	50	80	100	120
Fluorene	1	10	20	40	50	80	100	120
4-Chlorophenyl phenyl ether		10	20	40	50	80	100	120
2-Methyl-4,6-dinitrophenol		10	20	40	50	80	100	120
p-Nitroaniline		10	20	40	50	80	100	120
Diphenylamine		10	20	40	50	80	100	120
1,2-Diphenylhydrazine		10	20	40	50	80	100	120
Tributylphosphate		10	20	40	50	80	100	120
4-Bromophenyl phenyether		10	20	40	50	80	100	120
Hexachlorobenzene		10	20	40	50	80	100	120
Atrazine		10	20	40	50	80	100	120
Pentachlorophenol		10	20	40	50	80	100	120
n-Octadecane		10	20	40	50	80	100	120
Phenanthrene	1	10	20	40	50	80	100	120
Anthracene	1	10	20	40	50	80	100	120
Di-n-butylphthalate	1	10	20	40	50	80	100	120
Fluoranthene	1	10	20	40	50	80	100	120
Benzidine		10	20	40	50	80	100	120
Pyrene	1	10	20	40	50	80	100	120
Butylbenzylphthalate	1	10	20	40	50	80	100	120
Benzo(a)anthracene	1	10	20	40	50	80	100	120
3,3'-Dichlorobenzidene		10	20	40	50	80	100	120
Chrysene	1	10	20	40	50	80	100	120
bis (2-Ethylhexyl) phthalate	1	10	20	40	50	80	100	120
Di-n-octylphthalate	1	10	20	40	50	80	100	120

SW846 8270C//8270D/EPA 625								
Calibration Standard Concentration Levels*								
	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Benzo(b)fluoranthene	1	10	20	40	50	80	100	120
Benzo(k)fluoranthene	1	10	20	40	50	80	100	120
Benzo(a)pyrene	1	10	20	40	50	80	100	120
Indeno-(1,2,3-cd)pyrene	1	10	20	40	50	80	100	120
Dibenzo(a,h)anthracene	1	10	20	40	50	80	100	120
Benzo(ghi)perylene	1	10	20	40	50	80	100	120
Carbazole	1	10	20	40	50	80	100	120

APPENDIX IX

1,4-Dioxane		10	20	40	50	80	100	120
Methyl methacrylate		10	20	40	50	80	100	120
Ethyl methacrylate		10	20	40	50	80	100	120
2-Picoline		10	20	40	50	80	100	120
N-Nitrosomethylethylamine		10	20	40	50	80	100	120
Methyl methanesulfonate		10	20	40	50	80	100	120
N-Nitrosodiethylamine		10	20	40	50	80	100	120
Ethyl methanesulfonate		10	20	40	50	80	100	120
Pentachloroethane		10	20	40	50	80	100	120
N-Nitrosopyrrolidine		10	20	40	50	80	100	120
N-Nitrosomorpholine		10	20	40	50	80	100	120
o-Toluidine		10	20	40	50	80	100	120
N-Nitrosopiperidine		10	20	40	50	80	100	120
a,a-Dimethhylphenethylamine		10	20	40	50	80	100	120
Triethylphosphorothioate		10	20	40	50	80	100	120
2,6-Dichlorophenol		10	20	40	50	80	100	120
Hexachloropropene		10	20	40	50	80	100	120
p-Phenylenediamine		10	20	40	50	80	100	120
N-Nitrosodi-n-butylamine		10	20	40	50	80	100	120
Safrole		10	20	40	50	80	100	120
1,2,4,5-Tetrachlorobenzene		10	20	40	50	80	100	120
Isosafrole		10	20	40	50	80	100	120
1,4-Naphthoquinone		10	20	40	50	80	100	120
m-Dinitrobenzene		10	20	40	50	80	100	120
Pentachlorobenzene		10	20	40	50	80	100	120
1-Naphthylamine		10	20	40	50	80	100	120
2-Naphthylamine		10	20	40	50	80	100	120
2,3,4,6-Tetrachlorophenol		10	20	40	50	80	100	120
5-Nitro-o-toluidine		10	20	40	50	80	100	120
Thionazin		10	20	40	50	80	100	120
Sulfotepp		10	20	40	50	80	100	120
Phorate		10	20	40	50	80	100	120
1,3,5-Trinitrobenzene		10	20	40	50	80	100	120
Phenacetin		10	20	40	50	80	100	120
Diallate (cis and trans)		10	20	40	50	80	100	120

SW846 8270C//8270D/EPA 625

Calibration Standard Concentration Levels*

	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Dimethoate		10	20	40	50	80	100	120
4-Aminobiphenyl		10	20	40	50	80	100	120
Pentachloronitrobenzene		10	20	40	50	80	100	120
Pronamide		10	20	40	50	80	100	120
Dinoseb		10	20	40	50	80	100	120
Disulfoton		10	20	40	50	80	100	120
Methyl parathion		10	20	40	50	80	100	120
4-Nitroquinoline oxide		10	20	40	50	80	100	120
Methapyrilene		10	20	40	50	80	100	120
Isodrin		10	20	40	50	80	100	120
Aramite		10	20	40	50	80	100	120
Kepone		10	20	40	50	80	100	120
p-(Dimethylamino)azobenzene		10	20	40	50	80	100	120

Chlorobenzilate		10	20	40	50	80	100	120
3,3'-Dimethylbenzidine		10	20	40	50	80	100	120
Famphur		10	20	40	50	80	100	120
2-Acetylaminofluorene		10	20	40	50	80	100	120
7,12-Dimethylbenz(a)anthracene		10	20	40	50	80	100	120
3-Methylcholanthrene		10	20	40	50	80	100	120
Hexachlorophene		500	1000	1250	1500	1750	2000	
p-Benzoquinone		10	20	40	50	80	100	120
Parathion		10	20	40	50	80	100	120
Methoxychlor		10	20	40	50	80	100	120
2-Ethoxyethanol		50	75	100	125	150	200	250
cis-Diallate		1.5	3	6	7.5	12	15	18
trans-Diallate		8.5	17	34	42	68	85	102
Dibenzo(a,e)pyrene		50	75	100	125	150	200	250
Phthalic anhydride		50	75	100	125	150	200	250
1,4-Dinitrobenzene		50	75	100	125	150	200	250
(2,3-Dibromopropyl)phosphate		50	75	100	125	150	200	250
Methylenebis(2-chloroaniline)		50	75	100	125	150	200	250
p-Toluidine		10	20	40	50	80	100	120
m-Toluidine		10	20	40	50	80	10	120

SW846 8270C//8270D/EPA 625								
Calibration Standard Concentration Levels*								
	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
bis(Chloromethyl)ether		10	20	40	50	80	100	120
Thiophenol		10	20	40	50	80	100	120
4-Chlorothiophenol		10	20	40	50	80	100	120
4-Chlorothio anisole		10	20	40	50	80	100	120
Phthalic acid		10	20	40	50	80	100	120
Hydroxymethyl phthalamide		10	20	40	50	80	100	120
Diphenyl sulfide		10	20	40	50	80	100	120
Diphenyl disulfide		10	20	40	50	80	100	120
Phenyl sulfone		10	20	40	50	80	100	120
Octachlorostyrene		10	20	40	50	80	100	120
2,2'-Dichlorobenzil		10	20	40	50	80	100	120
bis(p-Chlorophenyl)disulfide		10	20	40	50	80	100	120
bis(p-Chlorophenyl)sulfone		10	20	40	50	80	10	120

All values are mg/L without the prep factor.
# Indicates the calibration verification concentration level used
* Usual calibration levels using SCAN methodology
Level 1 may be included at request of client
(06/08)

Report Date: 02-Jan-2010 17:20

Calibration History

Method : /chem/MSD1.i/s010210.b/MSD1-M8270AQA-111409.m
Start Cal Date: 14-NOV-2009 18:22
End Cal Date : 17-NOV-2009 19:15

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 1.00000		
14-NOV-2009 18:22	MEGAIICARE	/chem/MSD1.i/s111409.b/s1k1203.d
Cal Level: 2 , Cal Amount: 10.00000		
17-NOV-2009 16:56	nev	/chem/MSD1.i/s111409.b/s1k1262.d
15-NOV-2009 20:55	hex	/chem/MSD1.i/s111409.b/s1k1229.d
15-NOV-2009 18:11	pest	/chem/MSD1.i/s111409.b/s1k1222.d
15-NOV-2009 15:28	ap12	/chem/MSD1.i/s111409.b/s1k1215.d
14-NOV-2009 18:51	MEGAIICARE	/chem/MSD1.i/s111409.b/s1k1204.d
Cal Level: 3 , Cal Amount: 20.00000		
17-NOV-2009 17:19	nev	/chem/MSD1.i/s111409.b/s1k1263.d
15-NOV-2009 21:18	hex	/chem/MSD1.i/s111409.b/s1k1230.d
15-NOV-2009 18:35	pest	/chem/MSD1.i/s111409.b/s1k1223.d
15-NOV-2009 15:51	ap12	/chem/MSD1.i/s111409.b/s1k1216.d
14-NOV-2009 19:21	MEGAIICARE	/chem/MSD1.i/s111409.b/s1k1205.d
Cal Level: 4 , Cal Amount: 40.00000		
17-NOV-2009 17:42	nev	/chem/MSD1.i/s111409.b/s1k1264.d
15-NOV-2009 21:42	hex	/chem/MSD1.i/s111409.b/s1k1231.d
15-NOV-2009 18:58	pest	/chem/MSD1.i/s111409.b/s1k1224.d
15-NOV-2009 16:14	ap12	/chem/MSD1.i/s111409.b/s1k1217.d
14-NOV-2009 19:50	MEGAIICARE	/chem/MSD1.i/s111409.b/s1k1206.d
Cal Level: 5 , Cal Amount: 50.00000		
17-NOV-2009 18:05	nev	/chem/MSD1.i/s111409.b/s1k1265.d
15-NOV-2009 22:06	hex	/chem/MSD1.i/s111409.b/s1k1232.d
15-NOV-2009 19:21	pest	/chem/MSD1.i/s111409.b/s1k1225.d
15-NOV-2009 16:38	ap12	/chem/MSD1.i/s111409.b/s1k1218.d
14-NOV-2009 20:19	MEGAIICARE	/chem/MSD1.i/s111409.b/s1k1207.d
Cal Level: 6 , Cal Amount: 80.00000		
17-NOV-2009 18:28	nev	/chem/MSD1.i/s111409.b/s1k1266.d
15-NOV-2009 22:30	hex	/chem/MSD1.i/s111409.b/s1k1233.d
15-NOV-2009 19:45	pest	/chem/MSD1.i/s111409.b/s1k1226.d
15-NOV-2009 17:01	ap12	/chem/MSD1.i/s111409.b/s1k1219.d
14-NOV-2009 20:47	MEGAIICARE	/chem/MSD1.i/s111409.b/s1k1208.d
Cal Level: 7 , Cal Amount: 100.00000		

17-NOV-2009 18:52	nev	/chem/MSD1.i/s111409.b/s1k1267.d
15-NOV-2009 22:53	hex	/chem/MSD1.i/s111409.b/s1k1234.d
15-NOV-2009 20:09	pest	/chem/MSD1.i/s111409.b/s1k1227.d
15-NOV-2009 17:24	ap12	/chem/MSD1.i/s111409.b/s1k1220.d
14-NOV-2009 21:16	MEGAIICARE	/chem/MSD1.i/s111409.b/s1k1209.d

Cal Level: 8 , Cal Amount: 120.00000

17-NOV-2009 19:15	nev	/chem/MSD1.i/s111409.b/s1k1268.d
15-NOV-2009 20:31	pest	/chem/MSD1.i/s111409.b/s1k1228.d
15-NOV-2009 17:47	ap12	/chem/MSD1.i/s111409.b/s1k1221.d
14-NOV-2009 21:45	MEGAIICARE	/chem/MSD1.i/s111409.b/s1k1210.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 40.0

02-JAN-2010 17:07	ap12	/chem/MSD1.i/s010210.b/s1a0203.d

Ccal Level: 4 , Ccal Amount: 40.0

02-JAN-2010 16:38	MEGAIICARE	/chem/MSD1.i/s010210.b/s1a0202.d

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 14-NOV-2009 18:22
End Cal Date : 17-NOV-2009 19:15
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD1.i/s010210.b/MSD1-M8270AQA-111409.m
Cal Date : 02-Jan-2010 17:19 llo00884

Calibration File Names:
Level 1: /chem/MSD1.i/s111409.b/s1k1203.d
Level 2: /chem/MSD1.i/s111409.b/s1k1262.d
Level 3: /chem/MSD1.i/s111409.b/s1k1263.d
Level 4: /chem/MSD1.i/s111409.b/s1k1264.d
Level 5: /chem/MSD1.i/s111409.b/s1k1265.d
Level 6: /chem/MSD1.i/s111409.b/s1k1266.d
Level 7: /chem/MSD1.i/s111409.b/s1k1267.d
Level 8: /chem/MSD1.i/s111409.b/s1k1268.d

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
1 N-Methyl-N-nitrosomethylamine	+++++	0.54039	0.59425	0.56483	0.56773	0.57115					
	0.58358	0.54985					AVRG		0.56740		3.25055
2 Pyridine	+++++	0.93895	1.06231	1.03607	0.88870	0.86312					
	1.01434	0.86615					AVRG		0.95281		8.83991
4 Aniline	+++++	0.52437	0.56877	0.55954	0.56752	0.56439					
	0.57920	0.54312					AVRG		0.55813		3.31324
209 Benzaldehyde	+++++	0.85863	0.89515	0.82459	0.84178	+++++					
	0.78498	0.73887					AVRG		0.82400		6.72378
6 Phenol	+++++	1.30044	1.37922	1.37450	1.34330	1.33206					
	1.36293	1.27353					AVRG		1.33800		2.93989

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
7 bis(2-Chloroethyl) ether	0.97066	0.92013	0.97374	0.95071	0.94120	0.92474					
	0.92138	0.84393					AVRG		0.93081		4.39644
8 2-Chlorophenol	+++++	1.10018	1.18374	1.15316	1.14675	1.13425					
	1.15576	1.08633					AVRG		1.13717		2.96542
203 n-Decane	+++++	1.60577	1.68138	1.52755	1.45137	1.35767					
	1.27260	1.12485					AVRG		1.43160		13.59167
9 1,3-Dichlorobenzene	+++++	1.34153	1.44138	1.36782	1.35778	1.32788					
	1.29449	1.20929					AVRG		1.33431		5.33878
11 1,4-Dichlorobenzene	+++++	1.33212	1.41388	1.35420	1.32607	1.29299					
	1.26993	1.16675					AVRG		1.30799		5.91221
12 Benzyl alcohol	+++++	0.65002	0.69243	0.70051	0.67929	0.68651					
	0.73179	0.69932					AVRG		0.69141		3.57264
13 1,2-Dichlorobenzene	+++++	1.29605	1.34639	1.26381	1.21944	1.15866					
	1.13607	1.03545					AVRG		1.20798		8.78247
14 bis(2-Chloroisopropyl)ether	+++++	2.32509	2.42028	2.31148	2.26329	2.15456					
	2.11135	1.93355					AVRG		2.21709		7.35350
15 o-Cresol	+++++	0.90774	0.91911	0.87727	0.85502	0.81471					
	0.80779	0.74384					AVRG		0.84650		7.32849

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
16 Acetophenone	+++++	1.16435	1.20208	1.12556	1.15316	+++++					
	1.08411	1.04352					AVRG		1.12880		5.09017
17 N-Nitrosodipropylamine	0.81293	0.75653	0.80116	0.77693	0.78822	0.71050					
	0.77452	0.67823					AVRG		0.76238		6.05014
18 m,p-Cresols	+++++	1.13181	1.16963	1.17353	1.13669	1.14618					
	1.18516	1.11948					AVRG		1.15179		2.12873
19 Hexachloroethane	+++++	0.47556	0.50281	0.48245	0.48088	0.46955					
	0.46206	0.42193					AVRG		0.47075		5.31168
21 Nitrobenzene	+++++	0.28437	0.30442	0.28298	0.28351	0.27052					
	0.25822	0.23858					AVRG		0.27466		7.74785
22 Isophorone	+++++	0.49709	0.51707	0.49540	0.49196	0.47802					
	0.46730	0.41658					AVRG		0.48049		6.70733
23 2-Nitrophenol	+++++	0.14839	0.15989	0.15609	0.15578	0.14421					
	0.13558	0.12065					AVRG		0.14580		9.49803
24 2,4-Dimethylphenol	+++++	0.25377	0.24260	0.23030	0.24361	0.23323					
	0.21824	0.21248					AVRG		0.23346		6.25831
25 bis(2-Chloroethoxy)methane	+++++	0.32659	0.33857	0.32017	0.31630	0.30271					
	0.29085	0.27012					AVRG		0.30933		7.51487

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
26 2,4-Dichlorophenol	+++++	0.21991	0.23451	0.22671	0.22578	0.22138					
	0.21025	0.19507					AVRG		0.21909		5.89795
27 Benzoic acid	+++++	+++++	0.12652	0.15647	0.17043	0.17939					
	0.17420	0.15820					AVRG		0.16087		11.85426
28 1,2,4-Trichlorobenzene	+++++	0.25324	0.26639	0.25283	0.25336	0.23817					
	0.22476	0.20597					AVRG		0.24210		8.56147
30 Naphthalene	1.00192	0.89427	0.93446	0.86563	0.83102	0.76369					
	0.73215	0.65539					AVRG		0.83482		13.59329
204 alpha-Terpineol	+++++	0.21791	0.22387	0.20802	0.18690	0.18694					
	0.18377	0.16707					AVRG		0.19635		10.50339
31 4-Chloroaniline	+++++	0.39677	0.40757	0.39487	0.39324	0.37614					
	0.36195	0.33806					AVRG		0.38123		6.35973
189 Caprolactam	+++++	0.06846	0.07656	0.07363	0.07653	+++++					
	0.06782	0.06711					AVRG		0.07169		6.15581
32 Hexachlorobutadiene	+++++	0.13511	0.14100	0.13045	0.12864	0.12021					
	0.11205	0.10277					AVRG		0.12432		10.80535
33 4-Chloro-3-methylphenol	+++++	0.21530	0.22699	0.22627	0.22610	0.21202					
	0.21204	0.17967					AVRG		0.21406		7.75567

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Cal Date : 02-Jan-2010 17:19 11o00884

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
34 2-Methylnaphthalene	0.63189	0.59091	0.61031	0.56805	0.55492	0.51261					
	0.47801	0.44368					AVRG		0.54880		11.97650
35 1-Methylnaphthalene	0.57039	0.52594	0.54774	0.50754	0.49716	0.46294					
	0.43668	0.39804					AVRG		0.49330		11.71827
36 Hexachlorocyclopentadiene	+++++	0.10604	0.13033	0.13014	0.13942	0.12687					
	0.11688	0.10523					AVRG		0.12213		10.70285
208 1,1'-Biphenyl	+++++	1.17951	1.24377	1.14549	1.13585	+++++					
	1.04839	0.97002					AVRG		1.12050		8.68804
205 2,3-Dichloroaniline	+++++	0.46645	0.48933	0.47427	0.46997	0.44649					
	0.43405	0.39749					AVRG		0.45401		6.79831
37 2,4,6-Trichlorophenol	+++++	0.26977	0.29094	0.27785	0.27904	0.25743					
	0.25024	0.23713					AVRG		0.26606		7.03474
38 2,4,5-Trichlorophenol	+++++	0.26905	0.31036	0.32159	0.23043	0.31171					
	0.26900	0.26816					AVRG		0.28290		11.57703
40 2-Chloronaphthalene	1.06866	1.01017	1.06218	1.02382	1.00740	0.95458					
	0.92971	0.84336					AVRG		0.98748		7.61587
42 o-Nitroaniline	+++++	0.29397	0.31274	0.31408	0.31185	0.30784					
	0.31350	0.28932					AVRG		0.30619		3.33957

GEL Laboratories LLC

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Compound	1 Level 1 100 Level 7	10 Level 2 120 Level 8	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
41 m-Nitroaniline	+++++	0.27156	0.28234	0.28082	0.27143	0.25979					
	0.28219	0.24573					AVRG		0.27055		5.03620
43 Dimethylphthalate	+++++	1.09522	1.14427	1.12702	1.11254	1.08188					
	1.07235	0.99634					AVRG		1.08995		4.43176
44 2,6-Dinitrotoluene	+++++	0.26660	0.28518	0.28098	0.27933	0.27123					
	0.26992	0.24768					AVRG		0.27156		4.59036
45 Acenaphthylene	1.62784	1.60004	1.67564	1.59865	1.57380	1.47905					
	1.44269	1.32968					AVRG		1.54092		7.42836
47 Acenaphthene	1.00456	0.99034	1.02942	0.97302	0.94853	0.86787					
	0.82882	0.73816					AVRG		0.92259		10.97291
48 2,4-Dinitrophenol	+++++	+++++	0.08843	0.11349	0.11534	0.11082					
	0.11305	0.10198					AVRG		0.10718		9.63049
49 Dibenzofuran	+++++	1.40383	1.45777	1.40759	1.36431	1.30285					
	1.24923	1.15395					AVRG		1.33422		7.92638
50 2,4-Dinitrotoluene	+++++	0.34056	0.36497	0.37079	0.37131	0.36633					
	0.36565	0.33990					AVRG		0.35993		3.80091
51 Diethylphthalate	+++++	1.04278	1.09197	1.06193	1.04018	0.99480					
	0.99307	0.88837					AVRG		1.01616		6.53371

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
52 4-Nitrophenol	+++++	0.13809	0.17287	0.18777	0.19477	0.20369					
	0.21665	0.20716					AVRG		0.18871		14.01343
53 Fluorene	1.22796	1.15355	1.19493	1.10753	1.06188	0.99894					
	0.97721	0.88428					AVRG		1.07578		10.93658
54 4-Chlorophenylphenylether	+++++	0.47537	0.49720	0.47503	0.46785	0.44264					
	0.43218	0.38915					AVRG		0.45420		7.92169
55 2-Methyl-4,6-dinitrophenol	+++++	0.08375	0.09608	0.10582	0.10320	0.10771					
	0.10908	0.10272					AVRG		0.10120		8.67983
56 p-Nitroaniline	+++++	0.24392	0.26348	0.26430	0.28144	0.26774					
	0.27465	0.25651					AVRG		0.26458		4.60021
133 Diphenylamine	+++++	0.55588	0.57977	0.55886	0.54789	0.52659					
	0.50269	0.46310					AVRG		0.53354		7.43632
58 1,2-Diphenylhydrazine	+++++	0.69850	0.71486	0.68099	0.66427	0.63670					
	0.61324	0.54832					AVRG		0.65098		8.77582
59 Tributylphosphate	+++++	1.22698	1.16066	1.10479	1.12684	1.06119					
	1.01440	0.96114					AVRG		1.09371		8.21068
61 4-Bromophenylphenylether	+++++	0.13960	0.14381	0.14105	0.13893	0.13903					
	0.13474	0.12486					AVRG		0.13743		4.49074

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End Cal Date : 17-NOV-2009 19:15
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Method file : /chem/MSD1.i/s010210.b/MSD1-M8270AQA-111409.m
Cal Date : 02-Jan-2010 17:19 llo00884

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
63 Hexachlorobenzene	+++++	0.18056	0.18610	0.17775	0.16888	0.16686					
	0.15868	0.14199					AVRG		0.16869		8.86819
207 Atrazine	+++++	0.04275	0.04402	0.04191	0.04036	+++++					
	0.03698	0.03447					AVRG		0.04008		9.14364
65 Pentachlorophenol	+++++	0.08713	0.10123	0.10564	0.10198	0.10716					
	0.10688	0.09814					AVRG		0.10117		6.93558
206 n-Octadecane	+++++	0.49445	0.50531	0.45683	0.42873	0.36788					
	0.34975	+++++					AVRG		0.43383		14.85243
68 Phenanthrene	1.08140	0.97577	0.96718	0.91676	0.90684	0.85016					
	0.82329	0.75087					AVRG		0.90903		11.26824
69 Anthracene	1.05572	0.98071	1.00934	0.97561	0.92329	0.88140					
	0.83261	0.73707					AVRG		0.92447		11.24280
72 Di-n-butylphthalate	+++++	1.06714	1.12314	1.06117	1.02135	0.94081					
	0.88726	0.80148					AVRG		0.98605		11.57265
76 Fluoranthene	0.94603	0.94387	0.96313	0.92832	0.88364	0.83514					
	0.79976	0.71979					AVRG		0.87746		9.80038
77 Benzidine	+++++	0.28582	0.36970	0.35152	0.36897	+++++					
	0.43187	0.36504					AVRG		0.36215		12.90005

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	100 Level 7	120 Level 8									
79 Pyrene	1.12921	1.08043	1.13184	1.09423	1.03887	1.05677					
	1.02924	0.94284					AVRG		1.06293		5.79953
85 Butylbenzylphthalate	+++++	0.53253	0.56219	0.50335	0.46569	0.43331					
	0.40529	+++++					AVRG		0.48372		12.38419
89 Benzo(a)anthracene	1.00602	0.91134	0.98073	0.96992	0.98002	0.96903					
	0.95763	0.89850					AVRG		0.95915		3.79585
90 3,3'-Dichlorobenzidine	+++++	0.24634	0.28908	0.28847	0.28710	+++++					
	0.28231	0.25909					AVRG		0.27540		6.60230
92 Chrysene	0.98731	0.93210	0.94599	0.88032	0.86729	0.85456					
	0.87955	0.82465					AVRG		0.89647		6.00506
93 bis(2-Ethylhexyl)phthalate	0.57061	0.72394	0.78180	0.75934	0.74451	0.72196					
	0.68855	0.63132					AVRG		0.70275		10.02985
94 Di-n-octylphthalate	+++++	1.17035	1.39716	1.40560	1.36840	1.34274					
	1.30766	1.16752					AVRG		1.30849		7.70640
95 Benzo(b)fluoranthene	21625	340509	730849	1739197	2305837	3304287					
	3978698	5127789					LINR	0.06661	1.08695		0.99870
96 Benzo(k)fluoranthene	1.03711	1.06722	1.12263	1.01575	1.02623	1.00211					
	0.97020	0.78256					AVRG		1.00298		9.96839

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
97 Benzo(a)pyrene	20918	319721	688146	1504125	2094282	2912657					
	3398226	3934490					LINR	-0.00385	0.87033		0.99612
99 Indeno(1,2,3-cd)pyrene	21578	336515	700258	1580353	2201480	3025334					
	3523403	4020592					LINR	-0.01092	0.89653		0.99431
100 Dibenzo(a,h)anthracene	16162	268427	581631	1325626	1846286	2532762					
	2946699	3397425					LINR	-0.00445	0.75511		0.99519
101 Benzo(ghi)perylene	0.56462	0.70452	0.77602	0.81299	0.83023	0.80394					
	0.79303	0.72783					AVRG		0.75165		11.54879
102 1,4-Dioxane	+++++	0.32550	0.33716	0.30934	0.31455	+++++					
	0.30805	0.28861					AVRG		0.31387		5.27573
103 Methyl methacrylate	+++++	0.17774	0.19107	0.17805	0.17495	+++++					
	0.17326	0.16336					AVRG		0.17640		5.08144
104 Ethyl methacrylate	+++++	0.73346	0.76622	0.70794	0.70643	+++++					
	0.69714	0.66675					AVRG		0.71299		4.73943
105 2-Picoline	+++++	1.18802	1.23130	1.15065	1.15312	+++++					
	1.12223	1.07774					AVRG		1.15384		4.58113
106 N-Nitrosomethylethylamine	+++++	0.42951	0.48460	0.44623	0.45222	+++++					
	0.46395	0.44906					AVRG		0.45426		4.08577

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Compound	1 Level 1 100 Level 7	10 Level 2 120 Level 8	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
107 Methyl methanesulfonate	+++++	0.43204	0.45674	0.42468	0.43227	+++++					
	0.41648	0.39202					AVRG		0.42570		5.00242
108 N-Nitrosodiethylamine	+++++	0.47915	0.50719	0.47065	0.48068	+++++					
	0.47830	0.46128					AVRG		0.47954		3.20356
109 Ethyl Methanesulfonate	+++++	0.59343	0.63202	0.58286	0.59990	+++++					
	0.59568	0.57362					AVRG		0.59625		3.34808
110 Pentachloroethane	+++++	0.30094	0.30775	0.28811	0.28717	+++++					
	0.28774	0.27522					AVRG		0.29115		3.95122
111 N-Nitrosopyrrolidine	+++++	0.47773	0.52978	0.49561	0.51566	+++++					
	0.41369	0.41806					AVRG		0.47509		10.34926
113 N-Nitrosomorpholine	+++++	0.63587	0.69755	0.63481	0.65791	+++++					
	0.54487	0.53392					AVRG		0.61749		10.47980
114 o-Toluidine	+++++	1.64551	1.76888	1.61850	1.65178	+++++					
	1.65679	1.57817					AVRG		1.65327		3.85302
115 N-Nitrosopiperidine	+++++	0.12931	0.13922	0.12850	0.13280	+++++					
	0.13244	0.12709					AVRG		0.13156		3.32124
116 a,a-Dimethylphenethylamine	+++++	0.70597	0.78545	0.76293	0.79408	+++++					
	0.79335	0.76628					AVRG		0.76801		4.32000

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
117 Triethylphosphorothioate	+++++	0.12812	0.12428	0.12751	0.12901	0.12488					
	0.12021	0.11633					AVRG		0.12433		3.70966
118 2,6-Dichlorophenol	+++++	0.18796	0.20530	0.19528	0.20193	+++++					
	0.20014	0.19147					AVRG		0.19701		3.35416
119 Hexachloropropene	+++++	0.07891	0.09539	0.09133	0.09091	+++++					
	0.09225	0.08492					AVRG		0.08895		6.72708
120 p-Phenylenediamine	+++++	0.17417	0.23091	0.21919	0.22009	+++++					
	0.19257	0.17231					AVRG		0.20154		12.55674
121 N-Nitrosodi-n-butylamine	+++++	0.16926	0.19309	0.16843	0.17454	+++++					
	0.16640	0.15862					AVRG		0.17172		6.79719
122 Safrole	+++++	0.18021	0.18852	0.17847	0.18253	+++++					
	0.17443	0.16766					AVRG		0.17864		3.98501
123 1,2,4,5-Tetrachlorobenzene	+++++	0.38048	0.40351	0.37295	0.37017	+++++					
	0.35065	0.32500					AVRG		0.36713		7.29953
124 Isosafrole	+++++	0.32136	0.34935	0.32718	0.32927	+++++					
	0.32898	0.30952					AVRG		0.32761		3.96520
125 1,4-Naphthoquinone	+++++	0.37346	0.38046	0.31457	0.30180	+++++					
	0.18844	0.22186					AVRG		0.29676		26.34996 <-

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
126 m-Dinitrobenzene	+++++	0.17349	0.18721	0.19120	0.19440	0.19057					
	0.19238	0.17644					AVRG		0.18653		4.41251
127 Pentachlorobenzene	+++++	0.32992	0.34557	0.31675	0.31835	+++++					
	0.29677	0.27972					AVRG		0.31451		7.45207
128 1-Naphthylamine	+++++	0.82636	0.98891	0.93384	0.93443	+++++					
	0.87178	0.80990					AVRG		0.89420		7.80762
129 2-Naphthylamine	+++++	0.96588	1.05556	1.00159	1.00599	+++++					
	0.94403	0.87535					AVRG		0.97473		6.34557
130 2,3,4,6-Tetrachlorophenol	+++++	0.20567	0.22518	0.22987	0.20102	0.22712					
	0.21818	0.20523					AVRG		0.21604		5.51582
131 5-Nitro-o-toluidine	+++++	0.25535	0.29363	0.28574	0.29496	+++++					
	0.29982	0.28219					AVRG		0.28528		5.60973
132 Thionazin	+++++	0.16358	0.16364	0.16630	0.16880	0.16339					
	0.15554	0.14821					AVRG		0.16135		4.38820
134 Sulfotepp	+++++	0.08562	0.08304	0.08303	0.08467	0.07953					
	0.07427	0.07214					AVRG		0.08033		6.54838
135 Phorate	+++++	0.36567	0.35586	0.35721	0.36683	0.34385					
	0.32742	0.31541					AVRG		0.34747		5.65187

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
136 1,3,5-Trinitrobenzene	+++++	0.10196	0.12348	0.12395	0.12006	+++++					
	0.11894	0.10898					AVRG		0.11623		7.60291
137 Phenacetin	+++++	0.22684	0.26317	0.26291	0.26441	+++++					
	0.26599	0.25918					AVRG		0.25708		5.83046
138 Diallate	+++++	0.24760	0.24927	0.23322	0.23010	+++++					
	0.21802	0.20853					AVRG		0.23112		6.94549
139 Dimethoate	+++++	0.21461	0.21994	0.23007	0.23724	0.23858					
	0.23513	0.22967					AVRG		0.22932		3.92960
140 4-Aminobiphenyl	+++++	0.53696	0.55369	0.57677	0.59426	+++++					
	0.49840	0.45674					AVRG		0.53614		9.53476
141 Pentachloronitrobenzene	+++++	0.05720	0.06067	0.05490	0.05533	+++++					
	0.04673	0.04463					AVRG		0.05324		11.71339
142 Pronamide	+++++	0.24822	0.26125	0.24154	0.23765	+++++					
	0.17973	+++++					AVRG		0.23368		13.46482
143 Dinoseb	+++++	0.10297	0.12216	0.13126	0.12950	0.13024					
	0.13017	0.12500					AVRG		0.12447		8.06727
144 Disulfoton	+++++	0.32280	0.31415	0.31231	0.32231	0.30214					
	0.27306	0.26345					AVRG		0.30146		7.92046

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	100 Level 7	120 Level 8									
145 Methyl parathion	+++++	0.18413	0.18908	0.19611	0.20206	0.20472					
	0.19613	0.19053					AVRG		0.19468		3.74715
146 4-Nitroquinoline-1-oxide	+++++	0.00831	0.00998	0.00800	0.01074	+++++					
	0.01133	0.01046					AVRG		0.00980		13.77700
147 Methapyrilene	+++++	0.36466	0.38869	0.39386	0.38311	+++++					
	0.36077	0.31821					AVRG		0.36822		7.55340
148 Isodrin	+++++	0.09085	0.09372	0.08925	0.08743	+++++					
	0.07960	0.07570					AVRG		0.08609		8.09255
149 Aramite	+++++	0.04141	0.04570	0.04371	0.04272	+++++					
	0.04204	0.03972					AVRG		0.04255		4.79399
150 Kepone	+++++	0.06055	0.06732	0.06349	0.06380	+++++					
	0.06458	0.05876					AVRG		0.06308		4.80408
151 p-(Dimethylamino)azobenzene	+++++	0.28782	0.31583	0.29702	0.29097	+++++					
	0.26535	0.24656					AVRG		0.28392		8.62091
152 Chlorobenzilate	+++++	0.21991	0.23787	0.22800	0.23044	+++++					
	0.20814	0.19524					AVRG		0.21994		7.17760
153 3,3'-Dimethylbenzidine	+++++	0.45675	0.51768	0.48413	0.48879	+++++					
	0.49372	0.43564					AVRG		0.47945		6.05117

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154 Famphur	+++++	0.29819	0.30032	0.31780	0.33430	0.32440					
	0.30595	0.30061					AVRG		0.31165		4.49495
155 2-Acetylaminofluorene	+++++	0.23107	0.30345	0.31881	0.32045	+++++					
	0.34822	0.32608					AVRG		0.30801		13.11206
157 7,12Dimethylbenz(a)anthracene	+++++	0.41118	0.44192	0.42666	0.43253	+++++					
	0.40970	0.40537					AVRG		0.42123		3.47443
158 3-Methylcholanthrene	+++++	0.29680	0.36865	0.37932	0.38459	+++++					
	0.39125	0.38204					AVRG		0.36711		9.59696
26 Phthalic anhydride	+++++	30283	90214	245905	320454	497228					
	555160	687649					LINR	0.08413	0.10332		0.99692
173 Carbazole	0.90246	0.82255	0.80875	0.81414	0.83946	0.78812					
	0.78058	0.70109					AVRG		0.80714		7.06036
174 Hexachlorophene	+++++	0.03640	0.04820	0.05180	0.05353	0.05136					
	0.04905	+++++					AVRG		0.04839		12.77621
179 Dibenzo(a,e)pyrene	+++++	117900	312429	817402	1225621	1557621					
	1812574	+++++					LINR	0.07449	0.50549		0.99368
185 (2,3-Dibromopropyl)phosphate	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+00		0.000e+00 <-

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184 p-Benzoquinone	+++++	2462	14132	46568	48315	83536					
	96111	113764					LINR	0.17192	0.08067		0.99223
191 Parathion	+++++	0.06169	0.06089	0.06449	0.06621	0.06308					
	0.06173	0.06112					AVRG		0.06274		3.14637
192 Methoxychlor	+++++	0.32535	0.36631	0.33959	0.33867	0.27894					
	0.25594	+++++					AVRG		0.31747		13.10686
210 m-Toluidine	+++++	0.77272	0.88703	0.90355	0.94226	1.01524					
	0.94351	+++++					AVRG		0.91072		8.87324
211 p-Toluidine	+++++	0.69169	0.70617	0.72166	0.71562	0.68688					
	+++++	+++++					AVRG		0.70440		2.12367
212 Cis Diallate	+++++	0.23437	0.24880	0.23465	0.23944	+++++					
	0.24434	0.23833					AVRG		0.23999		2.35508
213 Trans Diallate	+++++	0.29129	0.29326	0.27438	0.27070	+++++					
	0.25649	0.24533					AVRG		0.27191		6.94549
214 1,4-Dinitrobenzene	+++++	0.16000	0.17119	0.17754	0.17866	0.17639					
	0.17966	0.16860					AVRG		0.17315		4.08379
215 2-Ethoxyethanol	+++++	0.57555	0.62918	0.65385	0.56961	0.58718					
	0.62071	0.58595					AVRG		0.60315		5.24047

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INITIAL CALIBRATION DATA

Start Cal Date : 14-NOV-2009 18:22
End Cal Date : 17-NOV-2009 19:15
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD1.i/s010210.b/MSD1-M8270AQA-111409.m
Cal Date : 02-Jan-2010 17:19 llo00884

Compound	1 Level 1 / 100 Level 7	10 Level 2 / 120 Level 8	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
216 Methylenebis(2-chloroaniline)	+++++	0.11447	0.12909	0.13171	0.13536	0.13420					
	0.13376	0.12587					AVRG		0.12921		5.63660
229 2,2'-Dichlorobenzil	+++++	0.67948	0.77608	0.71487	+++++	0.73565					
	+++++	0.63422					AVRG		0.70806		7.63914
230 4-Chlorothioanisole	+++++	0.23155	0.23520	0.23685	+++++	0.23140					
	+++++	0.22159					AVRG		0.23132		2.56050
231 4-Chlorothiophenol	+++++	0.15409	0.17482	0.19368	+++++	0.19893					
	+++++	0.19703					AVRG		0.18371		10.41669
232 bis(p-Chlorophenyl)sulfone	+++++	0.39430	0.43698	0.38579	+++++	0.39600					
	+++++	0.34721					AVRG		0.39206		8.15529
233 bis(p-Chlorophenyl)disulfide	+++++	0.10045	0.11150	0.11707	+++++	0.12020					
	+++++	0.10635					AVRG		0.11111		7.18003
234 Diphenyl disulfide	+++++	0.17804	0.18209	0.18631	+++++	0.17491					
	+++++	0.16341					AVRG		0.17695		4.91531
235 Diphenyl sulfide	+++++	0.71955	0.73103	0.70874	+++++	0.65333					
	+++++	0.61709					AVRG		0.68595		7.09988
236 Phenyl sulfone	+++++	0.43275	0.44078	0.42799	+++++	0.41905					
	+++++	0.39177					AVRG		0.42247		4.46830

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Cal Date : 02-Jan-2010 17:19 11o00884

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
237 Hydroxymethyl phthalimide	+++++	0.12384	0.15720	0.10384	+++++	0.13032					
	+++++	0.12669					AVRG		0.12838		14.88299
238 Phthalic acid	+++++	24604	70600	163991	+++++	411903					
	+++++	634014					LINR	0.25540	0.11087		0.99102
239 Thiophenol	+++++	0.94048	1.03561	1.08365	+++++	1.12900					
	+++++	1.09332					AVRG		1.05641		6.89893
240 bis(Chloromethyl)ether	+++++	0.78790	0.79417	0.76917	+++++	0.75455					
	+++++	0.73576					AVRG		0.76831		3.12263
241 Octachlorostyrene	+++++	0.06103	0.06315	0.05827	+++++	0.05420					
	+++++	0.04861					AVRG		0.05705		10.14342
M 225 Trichlorophenols	+++++	0.26941	0.30065	0.29972	0.25473	0.28457					
	0.25962	0.25265					AVRG		0.27448		7.49129
M 226 Tetrachlorophenols	+++++	0.20567	0.22518	0.22987	0.20102	0.22712					
	0.21818	0.20523					AVRG		0.21604		5.51582
M 227 Benzo(b,k)fluoranthene	0.78278	0.93887	1.02131	1.01324	1.00976	1.01479					
	1.00963	0.93381					AVRG		0.96552		8.47131
M 228 TTO Sum Semivolatiles	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+00		0.000e+00 <-

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Cal Date : 02-Jan-2010 17:19 llo00884

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	100 Level 7	120 Level 8										
$ 3 2-Fluorophenol	+++++	0.97776	1.06271	1.06423	1.06306	1.07281						
	1.07136	1.00157					AVRG		1.04478		3.68308	
$ 5 Phenol-d5	+++++	1.21974	1.33050	1.28249	1.27680	1.26954						
	1.29216	1.21764					AVRG		1.26984		3.15351	
$ 187 2-Chlorophenol-d4	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
$ 188 1,2-Dichlorobenzene-d4	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
$ 20 Nitrobenzene-d5	+++++	0.27426	0.28571	0.27066	0.27231	0.25884						
	0.24945	0.23400					AVRG		0.26360		6.62019	
$ 39 2-Fluorobiphenyl	+++++	0.99823	1.04801	1.00239	0.98618	0.93991						
	0.91199	0.81928					AVRG		0.95800		7.87748	
$ 60 2,4,6-Tribromophenol	+++++	0.10924	0.11530	0.11503	0.10898	0.11186						
	0.11271	0.10874					AVRG		0.11169		2.51418	
$ 81 p-Terphenyl-d14	+++++	0.64452	0.67675	0.65301	0.63863	0.61256						
	0.60853	0.56112					AVRG		0.62787		5.98666	

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Cal Date : 02-Jan-2010 17:19 llo00884

Curve	Formula	Units
Averaged	Amt = Rsp/ml	Response
Linear	Amt = b + Rsp/ml	Response

Report Date: 23-Dec-2009 06:57

Calibration History

Method : /chem/MSD6.i/s122209.b/MSD6-M8270C-AQA-110909.m
Start Cal Date: 09-NOV-2009 18:53
End Cal Date : 11-NOV-2009 04:38

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 1.00000		
09-NOV-2009 18:53	MEGA	/chem/MSD6.i/s110909.b/s6k0913.d
Cal Level: 2 , Cal Amount: 10.00000		
11-NOV-2009 01:47	NEV	/chem/MSD6.i/s110909.b/s6k0948.d
10-NOV-2009 22:55	HEX	/chem/MSD6.i/s110909.b/s6k0942.d
10-NOV-2009 16:20	PEST	/chem/MSD6.i/s110909.b/s6k0930.d
10-NOV-2009 11:59	AP12	/chem/MSD6.i/s110909.b/s6k0923.d
09-NOV-2009 19:31	MEGA	/chem/MSD6.i/s110909.b/s6k0914.d
Cal Level: 3 , Cal Amount: 20.00000		
11-NOV-2009 02:16	NEV	/chem/MSD6.i/s110909.b/s6k0949.d
10-NOV-2009 23:24	HEX	/chem/MSD6.i/s110909.b/s6k0943.d
10-NOV-2009 16:56	PEST	/chem/MSD6.i/s110909.b/s6k0931.d
10-NOV-2009 12:36	AP12	/chem/MSD6.i/s110909.b/s6k0924.d
09-NOV-2009 20:09	MEGA	/chem/MSD6.i/s110909.b/s6k0915.d
Cal Level: 4 , Cal Amount: 40.00000		
11-NOV-2009 02:44	NEV	/chem/MSD6.i/s110909.b/s6k0950.d
10-NOV-2009 23:53	HEX	/chem/MSD6.i/s110909.b/s6k0944.d
10-NOV-2009 17:33	PEST	/chem/MSD6.i/s110909.b/s6k0932.d
10-NOV-2009 13:13	AP12	/chem/MSD6.i/s110909.b/s6k0925.d
09-NOV-2009 20:46	MEGA	/chem/MSD6.i/s110909.b/s6k0916.d
Cal Level: 5 , Cal Amount: 50.00000		
11-NOV-2009 03:12	NEV	/chem/MSD6.i/s110909.b/s6k0951.d
11-NOV-2009 00:21	HEX	/chem/MSD6.i/s110909.b/s6k0945.d
10-NOV-2009 18:09	PEST	/chem/MSD6.i/s110909.b/s6k0933.d
10-NOV-2009 13:51	AP12	/chem/MSD6.i/s110909.b/s6k0926.d
09-NOV-2009 21:25	MEGA	/chem/MSD6.i/s110909.b/s6k0917.d
Cal Level: 6 , Cal Amount: 80.00000		
11-NOV-2009 03:41	NEV	/chem/MSD6.i/s110909.b/s6k0952.d
11-NOV-2009 00:50	HEX	/chem/MSD6.i/s110909.b/s6k0946.d
10-NOV-2009 18:45	PEST	/chem/MSD6.i/s110909.b/s6k0934.d
10-NOV-2009 14:30	AP12	/chem/MSD6.i/s110909.b/s6k0927.d
09-NOV-2009 22:01	MEGA	/chem/MSD6.i/s110909.b/s6k0918.d
Cal Level: 7 , Cal Amount: 100.00000		

11-NOV-2009 04:10	NEV	/chem/MSD6.i/s110909.b/s6k0953.d
11-NOV-2009 01:18	HEX	/chem/MSD6.i/s110909.b/s6k0947.d
10-NOV-2009 19:21	PEST	/chem/MSD6.i/s110909.b/s6k0935.d
10-NOV-2009 15:06	AP12	/chem/MSD6.i/s110909.b/s6k0928.d
09-NOV-2009 22:39	MEGA	/chem/MSD6.i/s110909.b/s6k0919.d

Cal Level: 8 , Cal Amount: 120.00000		
11-NOV-2009 04:38	NEV	/chem/MSD6.i/s110909.b/s6k0954.d
10-NOV-2009 19:58	PEST	/chem/MSD6.i/s110909.b/s6k0936.d
10-NOV-2009 15:43	AP12	/chem/MSD6.i/s110909.b/s6k0929.d
09-NOV-2009 23:16	MEGA	/chem/MSD6.i/s110909.b/s6k0920.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 40.0		
22-DEC-2009 15:28	MEGA	/chem/MSD6.i/s122209.b/s612207.d
Ccal Level: 4 , Ccal Amount: 40.0		
22-DEC-2009 16:27	PEST	/chem/MSD6.i/s122209.b/s612209.d
Ccal Level: 4 , Ccal Amount: 40.0		
22-DEC-2009 15:58	AP12	/chem/MSD6.i/s122209.b/s612208.d
Ccal Level: 4 , Ccal Amount: 40.0		
22-DEC-2009 14:42	PEST	/chem/MSD6.i/s122209.b/s612205.d
Ccal Level: 4 , Ccal Amount: 40.0		
22-DEC-2009 14:13	AP12	/chem/MSD6.i/s122209.b/s612204.d
Ccal Level: 4 , Ccal Amount: 40.0		
22-DEC-2009 13:44	MEGA	/chem/MSD6.i/s122209.b/s612203.d

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Start Cal Date : 09-NOV-2009 18:53
End Cal Date : 11-NOV-2009 04:38
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD6.i/s122209.b/MSD6-M8270C-AQA-110909.m
Cal Date : 22-Dec-2009 17:52 ann00964

Calibration File Names:
Level 1: /chem/MSD6.i/s110909.b/s6k0913.d
Level 2: /chem/MSD6.i/s110909.b/s6k0948.d
Level 3: /chem/MSD6.i/s110909.b/s6k0949.d
Level 4: /chem/MSD6.i/s110909.b/s6k0950.d
Level 5: /chem/MSD6.i/s110909.b/s6k0951.d
Level 6: /chem/MSD6.i/s110909.b/s6k0952.d
Level 7: /chem/MSD6.i/s110909.b/s6k0953.d
Level 8: /chem/MSD6.i/s110909.b/s6k0954.d

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
1 N-Methyl-N-nitrosomethylamine	+++++	0.62711	0.72014	0.69994	0.71294	0.67761					
	0.66245	0.66663					AVRG		0.68098		4.78734
2 Pyridine	+++++	0.78506	0.84345	0.94451	0.94132	0.77430					
	0.82190	0.82246					AVRG		0.84757		8.16958
4 Aniline	+++++	0.51792	0.56281	0.52949	0.53182	0.51964					
	0.51849	0.51247					AVRG		0.52752		3.21865
209 Benzaldehyde	+++++	0.94297	0.91161	0.92064	0.86617	0.84259					
	0.79828	0.74667					AVRG		0.86127		8.23824
6 Phenol	+++++	1.29580	1.38609	1.27955	1.27629	1.24279					
	1.20107	1.21677					AVRG		1.27120		4.82676

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Method file : /chem/MSD6.i/s122209.b/MSD6-M8270C-AQA-110909.m
Cal Date : 22-Dec-2009 17:52 ann00964

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
7 bis(2-Chloroethyl) ether	0.93365	0.90056	0.92748	0.85273	0.86174	0.82247					
	0.79075	0.79709					AVRG		0.86081		6.48811
8 2-Chlorophenol	+++++	1.05270	1.10343	1.04994	1.05384	0.99340					
	0.95375	0.94058					AVRG		1.02109		5.85808
203 n-Decane	+++++	1.57696	1.59018	1.40648	1.36249	1.17658					
	+++++	+++++					AVRG		1.42254		11.98709
9 1,3-Dichlorobenzene	+++++	1.22415	1.27608	1.20806	1.21136	1.14335					
	1.08668	1.07881					AVRG		1.17550		6.31837
11 1,4-Dichlorobenzene	+++++	1.27202	1.32037	1.21925	1.20743	1.15141					
	1.09639	1.07447					AVRG		1.19162		7.54222
12 Benzyl alcohol	+++++	0.60900	0.65716	0.63043	0.62465	0.64143					
	0.63021	0.64767					AVRG		0.63436		2.50657
13 1,2-Dichlorobenzene	+++++	1.16666	1.21707	1.13327	1.12016	1.08966					
	1.03460	1.02472					AVRG		1.11231		6.21300
14 bis(2-Chloroisopropyl)ether	+++++	2.07635	2.13325	1.99088	1.97675	1.86028					
	1.72252	1.69272					AVRG		1.92182		8.81925
15 o-Cresol	+++++	0.82992	0.88629	0.84024	0.85639	0.80893					
	0.80386	0.79407					AVRG		0.83139		3.92027

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
16 Acetophenone	+++++	1.20921	1.17591	1.21168	1.15285	1.16925					
	1.13524	1.12939					AVRG		1.16908		2.80572
17 N-Nitrosodipropylamine	0.65638	0.74117	0.78851	0.72893	0.73002	0.72328					
	0.70725	0.59369					AVRG		0.70865		8.34285
18 m,p-Cresols	+++++	1.03591	1.12590	1.04958	1.05532	1.04720					
	1.02399	1.03632					AVRG		1.05346		3.18987
19 Hexachloroethane	+++++	0.45806	0.49524	0.47390	0.46960	0.45628					
	0.43995	0.43396					AVRG		0.46100		4.53111
21 Nitrobenzene	+++++	0.31691	0.32516	0.29885	0.29715	0.27038					
	0.24823	0.23966					AVRG		0.28519		11.62250
22 Isophorone	+++++	0.55891	0.57824	0.53268	0.53266	0.49425					
	0.45829	0.38358					AVRG		0.50552		13.23015
23 2-Nitrophenol	+++++	0.13453	0.14214	0.13601	0.13806	0.12888					
	0.12072	0.12047					AVRG		0.13154		6.43934
24 2,4-Dimethylphenol	+++++	0.23987	0.22536	0.21067	0.20421	0.21065					
	0.21868	0.21622					AVRG		0.21795		5.40955
25 bis(2-Chloroethoxy)methane	+++++	0.33208	0.34147	0.30906	0.30442	0.28195					
	0.26036	0.25310					AVRG		0.29749		11.40063

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	100 Level 7	120 Level 8									
26 2,4-Dichlorophenol	+++++	0.19875	0.21444	0.20921	0.20622	0.19391					
	0.18142	0.17985					AVRG		0.19769		6.80078
27 Benzoic acid	+++++	+++++	0.10585	0.12338	0.14032	0.14157					
	0.15049	0.14556					AVRG		0.13453		12.46641
28 1,2,4-Trichlorobenzene	+++++	0.27809	0.27557	0.25214	0.25046	0.22876					
	0.21050	0.20278					AVRG		0.24261		12.25857
30 Naphthalene	0.93577	0.85146	0.85267	0.76017	0.74029	0.64713					
	+++++	+++++					AVRG		0.79792		12.82401
204 alpha-Terpineol	+++++	0.23577	0.25490	0.22003	0.21987	0.20427					
	0.17723	+++++					AVRG		0.21868		12.15593
31 4-Chloroaniline	+++++	0.26389	0.28196	0.26991	0.26064	0.24995					
	0.23771	0.23114					AVRG		0.25646		7.00922
189 Caprolactam	+++++	0.06766	0.07272	0.08214	0.08102	0.07115					
	0.07075	0.07172					AVRG		0.07388		7.43636
32 Hexachlorobutadiene	+++++	0.14265	0.14557	0.13182	0.13097	0.11864					
	0.10931	0.10542					AVRG		0.12634		12.40746
33 4-Chloro-3-methylphenol	+++++	0.20824	0.22585	0.20971	0.20633	0.19424					
	0.17957	0.17303					AVRG		0.19957		9.25582

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
34 2-Methylnaphthalene	0.56779	0.53746	0.54769	0.49857	0.47476	0.43707					
	0.39981	0.38884					AVRG		0.48150		14.15789
35 1-Methylnaphthalene	0.55872	0.52838	0.53208	0.48366	0.46920	0.42612					
	0.38935	0.38051					AVRG		0.47100		14.29869
36 Hexachlorocyclopentadiene	+++++	0.13520	0.17775	0.15114	0.16219	0.15378					
	0.18308	0.16783					AVRG		0.16157		10.19735
208 1,1'-Biphenyl	+++++	1.32152	1.23439	1.25731	1.19710	1.16580					
	1.12776	1.10528					AVRG		1.20131		6.32036
205 2,3-Dichloroaniline	+++++	0.51880	0.53286	0.48272	0.49159	0.46096					
	0.42997	0.43664					AVRG		0.47908		8.16477
37 2,4,6-Trichlorophenol	+++++	0.27570	0.29634	0.28058	0.28008	0.26989					
	0.25242	0.25556					AVRG		0.27294		5.58990
38 2,4,5-Trichlorophenol	+++++	0.28031	0.30282	0.29443	0.29832	0.29160					
	0.28523	0.28197					AVRG		0.29067		2.92500
40 2-Chloronaphthalene	0.91208	0.94921	0.97975	0.90835	0.91949	0.87198					
	0.81926	0.82647					AVRG		0.89832		6.24992
42 o-Nitroaniline	+++++	0.28653	0.32807	0.30812	0.31848	0.31056					
	0.29539	0.30412					AVRG		0.30732		4.50651

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Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD6.i/s122209.b/MSD6-M8270C-AQA-110909.m
Cal Date : 22-Dec-2009 17:52 ann00964

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
41 m-Nitroaniline	+++++	0.19029	0.23187	0.23025	0.23197	0.23511					
	0.22216	0.23314					AVRG		0.22497		7.03906
43 Dimethylphthalate	+++++	1.10253	1.11895	1.05121	1.05401	1.01311					
	0.95493	0.88796					AVRG		1.02610		7.97599
44 2,6-Dinitrotoluene	+++++	0.24859	0.25869	0.24751	0.24771	0.24514					
	0.22903	0.23656					AVRG		0.24475		3.87474
45 Acenaphthylene	1.45077	1.53234	1.59736	1.47314	1.47686	1.41153					
	1.30118	1.31187					AVRG		1.44438		7.03164
47 Acenaphthene	0.97754	0.93463	0.97051	0.90906	0.90733	0.85875					
	0.82122	0.83304					AVRG		0.90151		6.58830
48 2,4-Dinitrophenol	+++++	+++++	15920	45695	60199	121040					
	185455	+++++					LINR	0.36255	0.13077		0.99262
49 Dibenzofuran	+++++	1.31036	1.35172	1.24091	1.23630	1.17505					
	1.09035	1.11352					AVRG		1.21689		7.96140
50 2,4-Dinitrotoluene	+++++	0.28688	0.32526	0.31392	0.31582	0.31468					
	0.30077	0.30301					AVRG		0.30862		4.09740
51 Diethylphthalate	+++++	1.08427	1.13193	1.06273	1.05585	1.00787					
	0.93441	0.95637					AVRG		1.03335		6.84784

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INITIAL CALIBRATION DATA

Start Cal Date : 09-NOV-2009 18:53
End Cal Date : 11-NOV-2009 04:38
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD6.i/s122209.b/MSD6-M8270C-AQA-110909.m
Cal Date : 22-Dec-2009 17:52 ann00964

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
52 4-Nitrophenol	+++++	12277	40572	90802	114423	208122					
	294363	379687					LINR	0.18209	0.20146		0.99664
53 Fluorene	1.06940	1.05468	1.10259	1.00777	1.00699	0.94775					
	0.89677	0.90440					AVRG		0.99879		7.65829
54 4-Chlorophenylphenylether	+++++	0.49941	0.52344	0.48539	0.48490	0.45443					
	0.43029	0.42560					AVRG		0.47192		7.71070
55 2-Methyl-4,6-dinitrophenol	+++++	9251	34357	85168	107219	199515					
	279188	346834					LINR	0.17722	0.10780		0.99957
56 p-Nitroaniline	+++++	18297	49968	114446	144020	267165					
	377942	477974					LINR	0.17663	0.25514		0.99741
133 Diphenylamine	+++++	0.51235	0.51279	0.48995	0.49110	0.46341					
	0.45142	0.45392					AVRG		0.48213		5.41113
58 1,2-Diphenylhydrazine	+++++	0.65288	0.67935	0.62730	0.62752	0.58724					
	0.56393	0.55466					AVRG		0.61327		7.55575
59 Tributylphosphate	+++++	1.19922	1.25332	1.24022	1.27997	1.24188					
	1.19433	1.14050					AVRG		1.22135		3.81011
61 4-Bromophenylphenylether	+++++	0.16321	0.16758	0.15949	0.16092	0.15366					
	0.14977	0.15022					AVRG		0.15784		4.30183

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Integrator : HP RTE
Method file : /chem/MSD6.i/s122209.b/MSD6-M8270C-AQA-110909.m
Cal Date : 22-Dec-2009 17:52 ann00964

Compound	1 Level 1 100 Level 7	10 Level 2 120 Level 8	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
63 Hexachlorobenzene	+++++	0.17072	0.17525	0.16702	0.16690	0.16190					
	0.15730	0.15822					AVRG		0.16533		3.97990
207 Atrazine	+++++	0.04466	0.04316	0.04336	0.04050	0.04104					
	0.03746	0.03425					AVRG		0.04063		9.04410
65 Pentachlorophenol	+++++	12427	38945	80211	100581	192628					
	259470	326879					LINR	0.13427	0.09964		0.99838
206 n-Octadecane	+++++	0.51627	0.51598	0.45832	0.46068	0.40718					
	0.37377	0.35992					AVRG		0.44173		14.37986
68 Phenanthrene	0.95060	0.88603	0.89746	0.83221	0.81673	0.77346					
	0.73349	0.72773					AVRG		0.82721		9.72714
69 Anthracene	0.87683	0.86194	0.90534	0.83970	0.83829	0.78921					
	0.75133	0.75196					AVRG		0.82682		6.91971
72 Di-n-butylphthalate	+++++	1.00113	1.04654	0.99105	0.98676	0.92173					
	0.85606	0.84350					AVRG		0.94954		8.15043
76 Fluoranthene	0.78392	0.79487	0.87026	0.82674	0.81613	0.77420					
	0.73596	0.73727					AVRG		0.79242		5.73137
77 Benzidine	+++++	0.35813	0.40641	0.39242	0.37729	0.37701					
	0.39765	0.44234					AVRG		0.39304		6.85454

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Cal Date : 22-Dec-2009 17:52 ann00964

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
79 Pyrene	1.12114	1.31021	1.22539	1.10007	1.11660	1.02083					
	0.96007	0.94734					AVRG		1.10021		11.38295
85 Butylbenzylphthalate	+++++	0.52543	0.54028	0.51608	0.52406	0.49119					
	0.46906	0.45845					AVRG		0.50351		6.16544
89 Benzo(a)anthracene	0.94221	0.85505	0.89830	0.85692	0.85716	0.83423					
	0.82127	0.83891					AVRG		0.86301		4.55256
90 3,3'-Dichlorobenzidine	+++++	0.23529	0.28074	0.29290	0.29384	0.28532					
	0.28779	0.30173					AVRG		0.28252		7.74710
92 Chrysene	0.87195	0.83557	0.87346	0.82487	0.82639	0.80729					
	0.78155	0.79409					AVRG		0.82690		4.03552
93 bis(2-Ethylhexyl)phthalate	7340	107837	270739	551016	645048	1078889					
	1389660	1700943					WLINR	0.01019	0.70092		0.99014
94 Di-n-octylphthalate	+++++	1.19610	1.35485	1.31605	1.35770	1.25055					
	1.27306	1.15060					AVRG		1.27127		6.18607
95 Benzo(b)fluoranthene	0.74161	0.85750	0.94279	0.90432	0.93361	0.89239					
	0.89332	0.91506					AVRG		0.88507		7.19928
96 Benzo(k)fluoranthene	0.73172	0.86857	0.95518	0.92430	0.92244	0.89945					
	0.88010	0.85909					AVRG		0.88011		7.72381

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
97 Benzo(a)pyrene	0.54179	0.70605	0.81133	0.81358	0.82559	0.80913					
	0.80179	0.80647					AVRG		0.76447		12.74919
99 Indeno(1,2,3-cd)pyrene	5888	60939	200863	402882	510813	1012558					
	1348903	1889688					LINR	0.07592	0.78768		0.99752
100 Dibenzo(a,h)anthracene	3385	46770	157194	361792	411532	815285					
	1094612	1529825					LINR	0.06768	0.63666		0.99908
101 Benzo(ghi)perylene	0.41694	0.53228	0.60870	0.60962	0.60436	0.63133					
	0.62968	0.63931					AVRG		0.58403		12.88683
102 1,4-Dioxane	+++++	0.37671	0.37043	0.39061	0.37803	0.36375					
	0.35237	0.33052					AVRG		0.36606		5.38827
103 Methyl methacrylate	+++++	0.19626	0.19646	0.20436	0.20625	0.18540					
	0.18964	0.17876					AVRG		0.19388		5.13081
104 Ethyl methacrylate	+++++	0.79650	0.81191	0.84398	0.82898	0.80568					
	0.79571	0.75648					AVRG		0.80561		3.45659
105 2-Picoline	+++++	1.39124	1.31746	1.36987	1.31904	1.28927					
	1.27506	1.19912					AVRG		1.30872		4.85814
106 N-Nitrosomethylethylamine	+++++	0.50512	0.48970	0.52453	0.49928	0.51969					
	0.51463	0.52429					AVRG		0.51104		2.61826

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Cal Date : 22-Dec-2009 17:52 ann00964

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
107 Methyl methanesulfonate	+++++	0.56429	0.53321	0.56316	0.50377	0.53102					
	0.50923	0.49498					AVRG		0.52852		5.24900
108 N-Nitrosodiethylamine	+++++	0.50310	0.47987	0.51154	0.48534	0.49862					
	0.49304	0.49722					AVRG		0.49553		2.15019
109 Ethyl Methanesulfonate	+++++	0.65808	0.64977	0.67344	0.62747	0.66045					
	0.64399	0.64860					AVRG		0.65169		2.21442
110 Pentachloroethane	+++++	0.32209	0.31386	0.33094	0.32010	0.31614					
	0.31148	0.30303					AVRG		0.31681		2.78134
111 N-Nitrosopyrrolidine	+++++	0.44182	0.46376	0.50830	0.47779	0.50143					
	0.49385	0.44600					AVRG		0.47614		5.57640
113 N-Nitrosomorpholine	+++++	0.71032	0.67134	0.71256	0.65887	0.68726					
	0.65974	0.65547					AVRG		0.67936		3.58698
114 o-Toluidine	+++++	1.74797	1.65530	1.71709	1.64005	1.64679					
	1.58070	1.58178					AVRG		1.65281		3.79762
115 N-Nitrosopiperidine	+++++	0.13834	0.13623	0.14736	0.13885	0.14290					
	0.13997	0.14373					AVRG		0.14105		2.69891
116 a,a-Dimethylphenethylamine	+++++	0.78770	0.81587	0.88476	0.87463	0.88336					
	0.86623	0.87565					AVRG		0.85546		4.44785

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
117 Triethylphosphorothioate	+++++	0.14741	0.14492	0.13783	0.14116	0.13439					
	0.12857	0.12370					AVRG		0.13685		6.28357
118 2,6-Dichlorophenol	+++++	0.19682	0.19992	0.21240	0.20960	0.21251					
	0.20568	0.21118					AVRG		0.20687		3.05257
119 Hexachloropropene	+++++	0.08644	0.09499	0.10791	0.10350	0.10830					
	0.10654	0.11112					AVRG		0.10269		8.60612
120 p-Phenylenediamine	+++++	0.19714	0.24091	0.25567	0.24421	0.23168					
	0.22043	0.21678					AVRG		0.22955		8.57933
121 N-Nitrosodi-n-butylamine	+++++	0.22447	0.22501	0.22216	0.21154	0.19839					
	0.19348	0.19524					AVRG		0.21004		6.76180
122 Safrole	+++++	0.18675	0.18585	0.19677	0.19040	0.18675					
	0.17956	0.17958					AVRG		0.18653		3.22597
123 1,2,4,5-Tetrachlorobenzene	+++++	0.45393	0.42422	0.44255	0.41650	0.41676					
	0.40609	0.40229					AVRG		0.42319		4.45863
124 Isosafrole	+++++	0.34011	0.33198	0.35164	0.33779	0.34233					
	0.33627	0.33702					AVRG		0.33959		1.83025
125 1,4-Naphthoquinone	+++++	0.30018	0.32824	0.34894	0.32634	0.29745					
	0.28366	0.26235					AVRG		0.30674		9.65282

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
126 m-Dinitrobenzene	+++++	0.15441	0.17500	0.17160	0.17355	0.17392					
	0.16754	0.16904					AVRG		0.16929		4.19006
127 Pentachlorobenzene	+++++	0.38426	0.36575	0.37736	0.36552	0.35674					
	0.35182	0.35035					AVRG		0.36454		3.50537
128 1-Naphthylamine	+++++	0.90674	0.92102	0.95184	0.91692	0.90718					
	0.86367	0.88454					AVRG		0.90742		3.07978
129 2-Naphthylamine	+++++	0.96578	1.00999	1.02440	0.99125	0.97953					
	0.93471	0.95520					AVRG		0.98012		3.19024
130 2,3,4,6-Tetrachlorophenol	+++++	0.20640	0.23481	0.21862	0.21374	0.22201					
	0.21460	0.22254					AVRG		0.21896		4.07356
131 5-Nitro-o-toluidine	+++++	0.22084	0.26615	0.28994	0.29013	0.29251					
	0.28841	0.30508					AVRG		0.27901		10.07623
132 Thionazin	+++++	0.16760	0.17396	0.17237	0.17849	0.17822					
	0.16987	0.16398					AVRG		0.17207		3.11896
134 Sulfotepp	+++++	0.08934	0.08802	0.08507	0.08886	0.08655					
	0.08265	0.08005					AVRG		0.08579		4.00843
135 Phorate	+++++	0.38230	0.38968	0.37391	0.38904	0.37359					
	0.35020	0.32660					AVRG		0.36933		6.25438

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	100 Level 7	120 Level 8									
136 1,3,5-Trinitrobenzene	+++++	14861	45341	104071	130665	222134					
	265730	408609					LINR	0.09141	0.12978		0.99734
137 Phenacetin	+++++	0.21732	0.25812	0.27209	0.26902	0.27044					
	0.26738	0.28241					AVRG		0.26240		8.05167
138 Diallate	+++++	0.26191	0.24374	0.25182	0.23998	0.23522					
	0.22716	0.22410					AVRG		0.24056		5.55643
139 Dimethoate	+++++	0.18955	0.19806	0.21061	0.22946	0.23158					
	0.22398	0.21950					AVRG		0.21468		7.45885
140 4-Aminobiphenyl	+++++	0.50489	0.50584	0.54599	0.56556	0.56494					
	0.53276	0.52934					AVRG		0.53562		4.66298
141 Pentachloronitrobenzene	+++++	0.06195	0.06081	0.06546	0.06329	0.06151					
	0.06084	0.05959					AVRG		0.06192		3.12402
142 Pronamide	+++++	0.26962	0.26582	0.27431	0.26759	0.26151					
	0.25173	0.25174					AVRG		0.26319		3.31411
143 Dinoseb	+++++	11996	47856	123552	154632	280906					
	375481	479562					LINR	0.15482	0.14736		0.99949
144 Disulfoton	+++++	0.31933	0.32969	0.31920	0.32975	0.31125					
	0.29624	0.27823					AVRG		0.31196		6.02930

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	100 Level 7	120 Level 8										
145 Methyl parathion	+++++	0.14493	0.15978	0.17270	0.18140	0.18775						
	0.18141	0.17864					AVRG		0.17237		8.70434	
146 4-Nitroquinoline-1-oxide	+++++	0.02012	0.03296	0.02700	0.02533	0.02224						
	0.01930	0.01750					AVRG		0.02349		22.76469	<-
147 Methapyrilene	+++++	0.40623	0.42209	0.41103	0.39768	0.37937						
	0.35132	0.33430					AVRG		0.38600		8.45747	
148 Isodrin	+++++	0.10136	0.09753	0.10130	0.09757	0.09481						
	0.09122	0.09037					AVRG		0.09631		4.58453	
149 Aramite	+++++	0.03841	0.04251	0.04600	0.04566	0.04690						
	0.04564	0.04428					AVRG		0.04420		6.60357	
150 Kepone	+++++	0.05674	0.06191	0.06311	0.06098	0.06085						
	0.06194	0.06656					AVRG		0.06173		4.75009	
151 p-(Dimethylamino)azobenzene	+++++	0.31224	0.31378	0.33288	0.32474	0.31931						
	0.31446	0.30396					AVRG		0.31734		2.95033	
152 Chlorobenzilate	+++++	0.30009	0.27506	0.30295	0.29512	0.29377						
	0.29203	0.28006					AVRG		0.29130		3.50189	
153 3,3'-Dimethylbenzidine	+++++	0.49489	0.52397	0.53487	0.52482	0.53397						
	0.53619	0.54473					AVRG		0.52763		3.04743	

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	100 Level 7	120 Level 8									
154 Famphur	+++++	0.28850	0.33742	0.33640	0.36516	0.37704					
	0.35655	0.33317					AVRG		0.34203		8.41381
155 2-Acetylaminofluorene	+++++	23996	98558	217618	290992	478700					
	598627	953419					LINR	0.12414	0.37309		0.99874
157 7,12Dimethylbenz(a)anthracene	+++++	0.45745	0.44941	0.48919	0.48420	0.49542					
	0.49422	0.48353					AVRG		0.47906		3.80416
158 3-Methylcholanthrene	+++++	0.29343	0.35502	0.37871	0.37695	0.38953					
	0.38995	0.40328					AVRG		0.36955		9.94080
26 Phthalic anhydride	+++++	10939	40864	83487	108159	203846					
	306459	+++++					LINR	0.14938	0.09004		0.99590
173 Carbazole	0.68572	0.63216	0.65059	0.65023	0.64669	0.65901					
	0.65208	0.65947					AVRG		0.65449		2.32370
174 Hexachlorophene	+++++	0.04700	0.06194	0.06687	0.06701	0.06606					
	+++++	+++++					AVRG		0.06178		13.78238
179 Dibenzo(a,e)pyrene	+++++	21397	67635	183254	214017	467062					
	+++++	+++++					LINR	0.16800	0.36891		0.99459
185 (2,3-Dibromopropyl)phosphate	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+00		0.000e+00 <-

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 09-NOV-2009 18:53
End Cal Date : 11-NOV-2009 04:38
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD6.i/s122209.b/MSD6-M8270C-AQA-110909.m
Cal Date : 22-Dec-2009 17:52 ann00964

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
184 p-Benzoquinone	+++++	0.09983	0.11502	0.14598	0.13665	0.14571					
	0.12211	0.12583					AVRG		0.12730		13.25929
191 Parathion	+++++	0.05089	0.05709	0.06102	0.06360	0.06315					
	0.06253	0.06173					AVRG		0.06000		7.60183
192 Methoxychlor	+++++	0.54663	0.59527	0.57022	0.57190	0.55995					
	0.49223	0.53082					AVRG		0.55243		6.05482
210 m-Toluidine	+++++	1.07152	1.09862	1.08267	1.09477	1.19760					
	1.39731	0.92523					AVRG		1.12396		12.87193
211 p-Toluidine	+++++	0.98878	1.01175	0.93629	0.93823	0.84629					
	0.67790	+++++					AVRG		0.89987		13.64283
212 Cis Diallate	+++++	0.25680	0.24216	0.25774	0.25015	0.25647					
	0.24871	0.25860					AVRG		0.25295		2.41779
213 Trans Diallate	+++++	0.30813	0.28675	0.29626	0.28232	0.27673					
	0.26725	0.26364					AVRG		0.28301		5.55643
214 1,4-Dinitrobenzene	+++++	0.15465	0.18602	0.18671	0.19154	0.19074					
	0.18381	0.19324					AVRG		0.18382		7.23195
215 2-Ethoxyethanol	+++++	0.69474	0.75708	0.72314	0.72734	0.69576					
	0.68979	0.68463					AVRG		0.71035		3.71426

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 09-NOV-2009 18:53
End Cal Date : 11-NOV-2009 04:38
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD6.i/s122209.b/MSD6-M8270C-AQA-110909.m
Cal Date : 22-Dec-2009 17:52 ann00964

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
216 Methylenebis(2-chloroaniline)	+++++	11622	37526	94270	117296	226774					
	306702	394688					LINR	0.14094	0.14618		0.99920
229 2,2'-Dichlorobenzil	+++++	0.65548	0.70788	0.67278	+++++	0.85557					
	0.79635	+++++					AVRG		0.73761		11.58274
230 4-Chlorothioanisole	+++++	65505	120100	275307	+++++	727615					
	828249	+++++					LINR	0.13623	0.30665		0.99347
231 4-Chlorothiophenol	+++++	14955	49890	195788	+++++	593706					
	683100	+++++					LINR	0.29380	0.27176		0.99219
232 bis(p-Chlorophenyl)sulfone	+++++	0.41911	0.42098	0.38909	+++++	0.48605					
	0.44832	+++++					AVRG		0.43271		8.42306
233 bis(p-Chlorophenyl)disulfide	+++++	0.19644	0.20913	0.18244	+++++	0.22594					
	0.20806	+++++					AVRG		0.20440		7.90920
234 Diphenyl disulfide	+++++	0.20078	0.21401	0.19911	+++++	0.24759					
	0.23595	+++++					AVRG		0.21949		9.81334
235 Diphenyl sulfide	+++++	0.77537	0.76082	0.73538	+++++	0.86393					
	0.82035	+++++					AVRG		0.79117		6.45415
236 Phenyl sulfone	+++++	0.43220	0.43102	0.40994	+++++	0.50304					
	0.47114	+++++					AVRG		0.44947		8.28032

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 09-NOV-2009 18:53
End Cal Date : 11-NOV-2009 04:38
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD6.i/s122209.b/MSD6-M8270C-AQA-110909.m
Cal Date : 22-Dec-2009 17:52 ann00964

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	100 Level 7	120 Level 8										
237 Hydroxymethyl phthalimide	+++++	0.14671	0.15531	0.12673	+++++	0.19818						
	0.17963	+++++					AVRG		0.16131		17.36813	<-
238 Phthalic acid	+++++	13646	40994	115933	+++++	343308						
	402020	+++++					LINR	0.25337	0.15547		0.99358	
239 Thiophenol	+++++	41092	104698	327879	+++++	922601						
	1046955	+++++					LINR	0.23456	1.46946		0.99364	
240 bis(Chloromethyl)ether	+++++	1.01755	1.00429	0.94829	+++++	1.10480						
	1.05711	+++++					AVRG		1.02641		5.71407	
241 Octachlorostyrene	+++++	0.06097	0.06109	0.05953	+++++	0.07399						
	0.07072	+++++					AVRG		0.06526		10.12747	
M 225 Trichlorophenols	+++++	0.27800	0.29958	0.28751	0.28920	0.28074						
	0.26883	0.26877					AVRG		0.28180		3.98593	
M 226 Tetrachlorophenols	+++++	0.20640	0.23481	0.21862	0.21374	0.22201						
	0.21460	0.22254					AVRG		0.21896		4.07356	
M 227 Benzo(b,k)fluoranthene	0.73667	0.86303	0.94898	0.91431	0.92802	0.89592						
	0.88671	0.88707					AVRG		0.88259		7.33906	
M 228 TTO Sum Semivolatiles	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 09-NOV-2009 18:53
End Cal Date : 11-NOV-2009 04:38
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD6.i/s122209.b/MSD6-M8270C-AQA-110909.m
Cal Date : 22-Dec-2009 17:52 ann00964

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
$ 3 2-Fluorophenol	+++++	0.98202	1.07204	1.02934	1.03017	0.98830					
	0.95348	0.95648					AVRG		1.00169		4.36295
$ 5 Phenol-d5	+++++	1.23734	1.34586	1.27212	1.28456	1.26316					
	1.22407	1.22277					AVRG		1.26427		3.41674
$ 187 2-Chlorophenol-d4	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+00		0.000e+00 <-
$ 188 1,2-Dichlorobenzene-d4	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+00		0.000e+00 <-
$ 20 Nitrobenzene-d5	+++++	0.30745	0.31426	0.29453	0.29315	0.27101					
	0.25359	0.24671					AVRG		0.28296		9.27927
$ 39 2-Fluorobiphenyl	+++++	1.11512	1.14628	1.04977	1.05601	0.99136					
	0.92488	0.93239					AVRG		1.03083		8.29816
$ 60 2,4,6-Tribromophenol	+++++	0.10485	0.11685	0.11180	0.11267	0.12310					
	0.12190	0.12607					AVRG		0.11675		6.41378
$ 81 p-Terphenyl-d14	+++++	0.71309	0.69797	0.64349	0.66522	0.61764					
	0.59401	0.58404					AVRG		0.64507		7.73004

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 09-NOV-2009 18:53
End Cal Date : 11-NOV-2009 04:38
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD6.i/s122209.b/MSD6-M8270C-AQA-110909.m
Cal Date : 22-Dec-2009 17:52 ann00964

Curve	Formula	Units
Averaged	Amt = Rsp/ml	Response
Linear	Amt = b + Rsp/ml	Response
Wt Linear	Amt = b + Rsp/ml	Response

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD1.i Injection Date: 15-NOV-2009 23:17
Lab File ID: s1k1235.d Init. Cal. Date(s): 14-NOV-2009 15-NOV-2009
Analysis Type: Init. Cal. Times: 18:22 22:53
Lab Sample ID: WBN091111-08.1 Quant Type: ISTD
Method: /chem/MSD1.i/s111409.b/MSD1-M8270AQA-111409.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
209 Benzaldehyde	0.82400	0.71239	0.71239	0.000	-13.54468	60.00000	Averaged
16 Acetophenone	1.12880	1.15012	1.15012	0.000	1.88924	60.00000	Averaged
189 Caprolactam	0.07169	0.08295	0.08295	0.000	15.71078	60.00000	Averaged
208 1,1'-Biphenyl	1.12050	1.24126	1.24126	0.000	10.77724	60.00000	Averaged
207 Atrazine	0.04008	0.04737	0.04737	0.000	18.18184	60.00000	Averaged
77 Benzidine	0.36215	0.33951	0.33951	0.000	-6.25196	60.00000	Averaged
90 3,3'-Dichlorobenzidine	0.27540	0.29917	0.29917	0.000	8.63115	60.00000	Averaged
102 1,4-Dioxane	0.31387	0.37981	0.37981	0.000	21.00923	60.00000	Averaged
103 Methyl methacrylate	0.17640	0.20821	0.20821	0.000	18.03005	60.00000	Averaged
104 Ethyl methacrylate	0.71299	0.86659	0.86659	0.000	21.54329	60.00000	Averaged
105 2-Picoline	1.15384	1.13306	1.13306	0.000	-1.80140	60.00000	Averaged
106 N-Nitrosomethylethylamine	0.45426	0.46463	0.46463	0.000	2.28123	60.00000	Averaged
107 Methyl methanesulfonate	0.42570	0.48978	0.48978	0.000	15.05276	60.00000	Averaged
108 N-Nitrosodiethylamine	0.47954	0.49102	0.49102	0.000	2.39384	60.00000	Averaged
109 Ethyl Methanesulfonate	0.59625	0.74183	0.74183	0.000	24.41607	60.00000	Averaged
110 Pentachloroethane	0.29115	0.40985	0.40985	0.000	40.76840	60.00000	Averaged
111 N-Nitrosopyrrolidine	0.47509	0.50932	0.50932	0.000	7.20593	60.00000	Averaged
113 N-Nitrosomorpholine	0.61749	0.67896	0.67896	0.000	9.95518	60.00000	Averaged
114 o-Toluidine	1.65327	1.64031	1.64031	0.000	-0.78415	60.00000	Averaged
115 N-Nitrosopiperidine	0.13156	0.13273	0.13273	0.000	0.88789	60.00000	Averaged
116 a,a-Dimethylphenethylamine	0.76801	0.79273	0.79273	0.000	3.21891	60.00000	Averaged
118 2,6-Dichlorophenol	0.19701	0.21797	0.21797	0.000	10.63653	60.00000	Averaged
119 Hexachloropropene	0.08895	0.13367	0.13367	0.000	50.27176	60.00000	Averaged
120 p-Phenylenediamine	0.20154	0.18980	0.18980	0.000	-5.82557	60.00000	Averaged
121 N-Nitrosodi-n-butylamine	0.17172	0.17829	0.17829	0.000	3.82057	60.00000	Averaged
122 Safrole	0.17864	0.21665	0.21665	0.000	21.27785	60.00000	Averaged
123 1,2,4,5-Tetrachlorobenzene	0.36713	0.42376	0.42376	0.000	15.42574	60.00000	Averaged
124 Isosafrole	0.32761	0.46202	0.46202	0.000	41.02664	60.00000	Averaged
125 1,4-Naphthoquinone	0.29676	0.32067	0.32067	0.000	8.05637	60.00000	Averaged
127 Pentachlorobenzene	0.31451	0.35074	0.35074	0.000	11.51805	60.00000	Averaged
128 1-Naphthylamine	0.89420	0.98926	0.98926	0.000	10.62991	60.00000	Averaged
129 2-Naphthylamine	0.97473	1.09077	1.09077	0.000	11.90459	60.00000	Averaged
131 5-Nitro-o-toluidine	0.28528	0.30775	0.30775	0.000	7.87638	60.00000	Averaged
136 1,3,5-Trinitrobenzene	0.11623	0.15168	0.15168	0.000	30.50015	60.00000	Averaged
137 Phenacetin	0.25708	0.29576	0.29576	0.000	15.04579	60.00000	Averaged
138 Diallate	0.23112	0.23284	0.23284	0.000	0.74457	60.00000	Averaged

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD1.i
Lab File ID: s1k1235.d
Analysis Type:
Lab Sample ID: WBN091111-08.1 Quant Type: ISTD
Method: /chem/MSD1.i/s111409.b/MSD1-M8270AQA-111409.m

Injection Date: 15-NOV-2009 23:17
Init. Cal. Date(s): 14-NOV-2009 15-NOV-2009
Init. Cal. Times: 18:22 22:53

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
212 Cis Diallate	0.23999	0.31739	0.31739	0.000	32.25095	60.00000	Averaged
213 Trans Diallate	0.27191	0.27393	0.27393	0.000	0.74457	60.00000	Averaged
140 4-Aminobiphenyl	0.53614	0.62569	0.62569	0.000	16.70322	60.00000	Averaged
141 Pentachloronitrobenzene	0.05324	0.06215	0.06215	0.000	16.73283	60.00000	Averaged
142 Pronamide	0.23368	0.26726	0.26726	0.000	14.37225	60.00000	Averaged
146 4-Nitroquinoline-1-oxide	0.00980	0.00923	0.00923	0.000	-5.86960	60.00000	Averaged
147 Methapyrilene	0.36822	0.29090	0.29090	0.000	-20.99905	60.00000	Averaged
148 Isodrin	0.08609	0.08812	0.08812	0.000	2.35297	60.00000	Averaged
149 Aramite	0.04255	0.04327	0.04327	0.000	1.67534	60.00000	Averaged
150 Kepone	0.06308	0.07178	0.07178	0.000	13.77677	60.00000	Averaged
151 p-(Dimethylamino)azobenzene	0.28392	0.29411	0.29411	0.000	3.58893	60.00000	Averaged
152 Chlorobenzilate	0.21994	0.24578	0.24578	0.000	11.75217	60.00000	Averaged
153 3,3'-Dimethylbenzidine	0.47945	0.47257	0.47257	0.000	-1.43591	60.00000	Averaged
155 2-Acetylaminofluorene	0.30801	0.33042	0.33042	0.000	7.27461	60.00000	Averaged
157 7,12Dimethylbenz(a)anthrace	0.42123	0.42978	0.42978	0.000	2.03140	60.00000	Averaged
158 3-Methylcholanthrene	0.36711	0.40048	0.40048	0.000	9.08958	60.00000	Averaged

GEL Laboratories LLC

Data file : /chem/MSD1.i/s111409.b/s1k1235.d
Lab Smp Id: WBN091111-08.1 Client Smp ID: APICV
Inj Date : 15-NOV-2009 23:17
Operator : amy Inst ID: MSD1.i
Smp Info : |WBN091111-08.1|40 PPM|1|SVMF|1|APICV
Misc Info : |MSD8270|WBN091106-10|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD1.i/s111409.b/MSD1-M8270AQA-111409.m
Meth Date : 17-Nov-2009 10:44 nat00999 Quant Type: ISTD
Cal Date : 15-NOV-2009 21:42 Cal File: s1k1231.d
Als bottle: 23 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ap12.sub
Target Version: 3.50

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)	
* 10 1,4-Dichlorobenzene-d4	152	3.957	3.940	(1.000)	601939	40.0000		
* 29 Naphthalene-d8	136	4.828	4.810	(1.000)	2374945	40.0000		
* 46 Acenaphthene-d10	164	6.075	6.057	(1.000)	1270499	40.0000		
* 67 Phenanthrene-d10	188	7.057	7.040	(1.000)	2114263	40.0000		
* 91 Chrysene-d12	240	8.739	8.722	(1.000)	1927170	40.0000		
* 98 Perylene-d12	264	10.251	10.222	(1.000)	1696025	40.0000		(H)
209 Benzaldehyde	77	3.681	3.681	(0.930)	428816	40.0000	34.6	
16 Acetophenone	105	4.210	4.210	(1.064)	692304	40.0000	40.8	
189 Caprolactam	113	5.104	5.122	(1.057)	197001	40.0000	46.3	
208 1,1'-Biphenyl	154	5.646	5.651	(0.929)	1577025	40.0000	44.3	
207 Atrazine	173	6.822	6.834	(0.967)	100151	40.0000	47.3	
77 Benzidine	184	7.828	7.834	(0.896)	654298	40.0000	37.5	
90 3,3'-Dichlorobenzidine	252	8.663	8.669	(0.991)	576557	40.0000	43.4	
102 1,4-Dioxane	88	2.281	2.287	(0.576)	228622	40.0000	48.4	
103 Methyl methacrylate	100	2.275	2.275	(0.575)	125330	40.0000	47.2	
104 Ethyl methacrylate	69	2.652	2.652	(0.670)	521635	40.0000	48.6	
105 2-Picoline	93	2.846	2.846	(0.719)	682032	40.0000	39.3	
106 N-Nitrosomethylethylamine	88	2.887	2.893	(0.729)	279676	40.0000	40.9	
107 Methyl methanesulfonate	80	3.046	3.052	(0.770)	294820	40.0000	46.0	
108 N-Nitrosodiethylamine	102	3.281	3.287	(0.829)	295564	40.0000	41.0	
109 Ethyl Methanesulfonate	79	3.440	3.446	(0.869)	446538	40.0000	49.8	
110 Pentachloroethane	167	3.781	3.781	(0.955)	246707	40.0000	56.3	
111 N-Nitrosopyrrolidine	100	4.199	4.216	(1.061)	306582	40.0000	42.9	
113 N-Nitrosomorpholine	56	4.216	4.228	(1.065)	408692	40.0000	44.0	
114 o-Toluidine	106	4.234	4.246	(1.070)	987365	40.0000	39.7	
115 N-Nitrosopiperidine	114	4.434	4.446	(0.918)	315224	40.0000	40.4	
116 a,a-Dimethylphenethylamine	58	4.681	4.681	(0.970)	1882697	40.0000	41.3	

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
118 2,6-Dichlorophenol	162	4.869	4.875	(1.009)	517655	40.0000	44.2
119 Hexachloropropene	213	4.899	4.898	(1.015)	317465	40.0000	60.1
120 p-Phenylenediamine	108	5.104	5.116	(1.057)	450756	40.0000	37.7
121 N-Nitrosodi-n-butylamine	84	5.069	5.075	(1.050)	423419	40.0000	41.5(T)
122 Safrole	162	5.234	5.240	(1.084)	514526	40.0000	48.5
123 1,2,4,5-Tetrachlorobenzene	216	5.440	5.446	(0.895)	538386	40.0000	46.2
124 Isosafrole	162	5.604	5.610	(0.923)	586994	40.0000	56.4
125 1,4-Naphthoquinone	158	5.793	5.793	(0.954)	407413	40.0000	43.2
127 Pentachlorobenzene	250	6.181	6.187	(1.017)	445615	40.0000	44.6
128 1-Naphthylamine	143	6.263	6.269	(1.031)	1256848	40.0000	44.2
129 2-Naphthylamine	143	6.316	6.322	(1.040)	1385825	40.0000	44.8
131 5-Nitro-o-toluidine	152	6.434	6.445	(1.059)	390998	40.0000	43.2
136 1,3,5-Trinitrobenzene	75	6.645	6.651	(0.942)	320686	40.0000	52.2
137 Phenacetin	108	6.687	6.698	(0.947)	625324	40.0000	46.0
138 Diallate	86	6.669	6.675	(0.945)	492291	40.0000	40.3
212 Cis Diallate	86	6.734	6.734	(0.954)	100656	6.00000	7.9
213 Trans Diallate	86	6.669	6.675	(0.945)	492291	34.0000	34.2
140 4-Aminobiphenyl	169	6.910	6.916	(0.979)	1322873	40.0000	46.7
141 Pentachloronitrobenzene	237	6.934	6.940	(0.982)	131405	40.0000	46.7
142 Pronamide	173	6.922	6.928	(0.981)	565063	40.0000	45.7
146 4-Nitroquinoline-1-oxide	101	7.516	7.522	(1.065)	19512	40.0000	37.6
147 Methapyrilene	58	7.534	7.539	(1.067)	615031	40.0000	31.6
148 Isodrin	193	7.692	7.692	(1.090)	186303	40.0000	40.9
149 Aramite	185	7.916	7.916	(1.122)	91474	40.0000	40.7
150 Kepone	272	8.351	8.363	(1.183)	151752	40.0000	45.5
151 p-(Dimethylamino)azobenzene	120	8.045	8.051	(0.921)	566806	40.0000	41.4
152 Chlorobenzilate	251	8.057	8.063	(0.922)	473667	40.0000	44.7
153 3,3'-Dimethylbenzidine	212	8.257	8.263	(0.945)	910722	40.0000	39.4
155 2-Acetylaminofluorene	181	8.445	8.457	(0.966)	636774	40.0000	42.9
157 7,12Dimethylbenz(a)anthracene	256	9.733	9.745	(0.945)	728922	40.0000	40.8
158 3-Methylcholanthrene	268	10.622	10.639	(1.031)	679223	40.0000	43.6

QC Flag Legend

T - Target compound detected outside RT window.
H - Operator selected an alternate compound hit.

Data File: /chem/MSD1.i/s111409.b/s1k1235.d
Date : 15-NOV-2009 23:17
Client ID: APICV
Sample Info: IWBN091111-08.1140 PPM1ISVMF11/APICV
Column phase: J&W DB-5MS

Instrument: MSD1.i
Operator: amy
Column diameter: 0.20

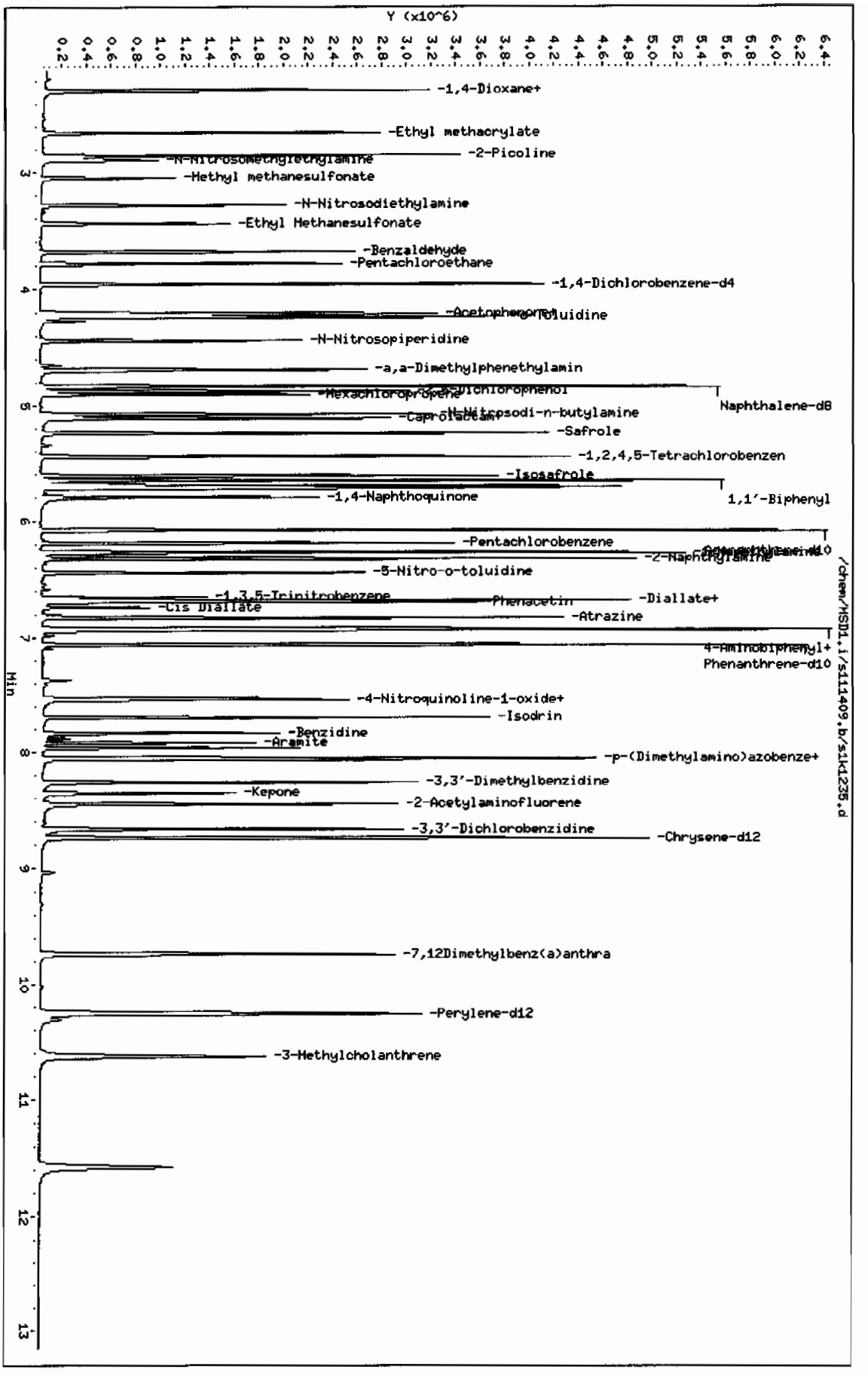

Page 1

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD1.i Injection Date: 17-NOV-2009 16:27
Lab File ID: s1k1261.d Init. Cal. Date(s): 14-NOV-2009 17-NOV-2009
Analysis Type: Init. Cal. Times: 18:22 12:38
Lab Sample ID: WBN091027-09.3 Quant Type: ISTD
Method: /chem/MSD1.i/s111409.b/MSD1-M8270AQA-111409.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
$ 3 2-Fluorophenol	1.04478	0.92701	0.92701	0.000	-11.27306	60.00000	Averaged
$ 5 Phenol-d5	1.26984	1.11829	1.11829	0.000	-11.93416	60.00000	Averaged
$ 20 Nitrobenzene-d5	0.26360	0.25882	0.25882	0.000	-1.81289	60.00000	Averaged
$ 39 2-Fluorobiphenyl	0.95800	0.95545	0.95545	0.000	-0.26619	60.00000	Averaged
$ 60 2,4,6-Tribromophenol	0.11169	0.11397	0.11397	0.000	2.04032	60.00000	Averaged
$ 81 p-Terphenyl-d14	0.62787	0.61091	0.61091	0.000	-2.70233	60.00000	Averaged
1 N-Methyl-N-nitrosomethylami	0.56740	0.52259	0.52259	0.000	-7.89719	60.00000	Averaged
2 Pyridine	0.95281	0.72054	0.72054	0.000	-24.37721	60.00000	Averaged
4 Aniline	0.55813	0.46069	0.46069	0.000	-17.45935	60.00000	Averaged
6 Phenol	1.33800	1.13102	1.13102	0.001	-15.46941	20.00000	Averaged ccc
7 bis(2-Chloroethyl) ether	0.93081	0.78725	0.78725	0.000	-15.42323	60.00000	Averaged
8 2-Chlorophenol	1.13717	0.96631	0.96631	0.000	-15.02517	60.00000	Averaged
203 n-Decane	1.43160	1.33489	1.33489	0.000	-6.75532	60.00000	Averaged
9 1,3-Dichlorobenzene	1.33431	1.14485	1.14485	0.000	-14.19930	60.00000	Averaged
11 1,4-Dichlorobenzene	1.30799	1.12905	1.12905	0.001	-13.68038	20.00000	Averaged ccc
13 1,2-Dichlorobenzene	1.20798	1.02631	1.02631	0.000	-15.03923	60.00000	Averaged
14 bis(2-Chloroisopropyl)ether	2.21709	1.93928	1.93928	0.000	-12.53006	60.00000	Averaged
12 Benzyl alcohol	0.69141	0.59629	0.59629	0.000	-13.75808	60.00000	Averaged
15 o-Cresol	0.84650	0.72216	0.72216	0.000	-14.68816	60.00000	Averaged
18 m,p-Cresols	1.15179	1.00178	1.00178	0.000	-13.02332	60.00000	Averaged
17 N-Nitrosodipropylamine	0.76238	0.61385	0.61385	0.050	-19.48192	60.00000	Averaged spcc
19 Hexachloroethane	0.47075	0.38923	0.38923	0.000	-17.31682	60.00000	Averaged
21 Nitrobenzene	0.27466	0.23975	0.23975	0.000	-12.70858	60.00000	Averaged
22 Isophorone	0.48049	0.42824	0.42824	0.000	-10.87384	60.00000	Averaged
23 2-Nitrophenol	0.14580	0.12443	0.12443	0.001	-14.65471	20.00000	Averaged ccc
24 2,4-Dimethylphenol	0.23346	0.23407	0.23407	0.000	0.25935	60.00000	Averaged
25 bis(2-Chloroethoxy)methane	0.30933	0.25445	0.25445	0.000	-17.74126	60.00000	Averaged
26 2,4-Dichlorophenol	0.21909	0.18847	0.18847	0.001	-13.97781	20.00000	Averaged ccc
27 Benzoic acid	0.16087	0.16553	0.16553	0.000	2.89975	60.00000	Averaged
28 1,2,4-Trichlorobenzene	0.24210	0.21218	0.21218	0.000	-12.36169	60.00000	Averaged
30 Naphthalene	0.83482	0.76679	0.76679	0.000	-8.14910	60.00000	Averaged
204 alpha-Terpineol	0.19635	0.19249	0.19249	0.000	-1.96852	60.00000	Averaged
31 4-Chloroaniline	0.38123	0.34324	0.34324	0.000	-9.96471	60.00000	Averaged
32 Hexachlorobutadiene	0.12432	0.10582	0.10582	0.001	-14.87841	20.00000	Averaged ccc
33 4-Chloro-3-methylphenol	0.21406	0.17276	0.17276	0.001	-19.29025	20.00000	Averaged ccc
34 2-Methylnaphthalene	0.54880	0.51972	0.51972	0.000	-5.29812	60.00000	Averaged

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD1.i Injection Date: 17-NOV-2009 16:27
Lab File ID: s1k1261.d Init. Cal. Date(s): 14-NOV-2009 17-NOV-2009
Analysis Type: Init. Cal. Times: 18:22 12:38
Lab Sample ID: WBN091027-09.3 Quant Type: ISTD
Method: /chem/MSD1.i/s111409.b/MSD1-M8270AQA-111409.m

	COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
35	1-Methylnaphthalene	0.49330	0.47920	0.47920	0.000	-2.85884	60.00000	Averaged	
36	Hexachlorocyclopentadiene	0.12213	0.12462	0.12462	0.050	2.03810	60.00000	Averaged	spcc
205	2,3-Dichloroaniline	0.45401	0.44519	0.44519	0.000	-1.94238	60.00000	Averaged	
37	2,4,6-Trichlorophenol	0.26606	0.24935	0.24935	0.001	-6.28041	20.00000	Averaged	ccc
38	2,4,5-Trichlorophenol	0.28290	0.25595	0.25595	0.000	-9.52679	60.00000	Averaged	
40	2-Chloronaphthalene	0.98748	0.82050	0.82050	0.000	-16.91018	60.00000	Averaged	
42	o-Nitroaniline	0.30619	0.24946	0.24946	0.000	-18.52571	60.00000	Averaged	
41	m-Nitroaniline	0.27055	0.22438	0.22438	0.000	-17.06469	60.00000	Averaged	
43	Dimethylphthalate	1.08995	0.95932	0.95932	0.000	-11.98438	60.00000	Averaged	
44	2,6-Dinitrotoluene	0.27156	0.22271	0.22271	0.000	-17.99006	60.00000	Averaged	
50	2,4-Dinitrotoluene	0.35993	0.29440	0.29440	0.000	-18.20706	60.00000	Averaged	
45	Acenaphthylene	1.54092	1.46812	1.46812	0.000	-4.72441	60.00000	Averaged	
47	Acenaphthene	0.92259	0.85781	0.85781	0.001	-7.02192	20.00000	Averaged	ccc
48	2,4-Dinitrophenol	0.10718	0.09229	0.09229	0.050	-13.89853	60.00000	Averaged	spcc
49	Dibenzofuran	1.33422	1.12564	1.12564	0.000	-15.63294	60.00000	Averaged	
51	Diethylphthalate	1.01616	0.93320	0.93320	0.000	-8.16403	60.00000	Averaged	
52	4-Nitrophenol	0.18871	0.18660	0.18660	0.050	-1.12202	60.00000	Averaged	spcc
53	Fluorene	1.07578	0.99783	0.99783	0.000	-7.24582	60.00000	Averaged	
54	4-Chlorophenylphenylether	0.45420	0.42578	0.42578	0.000	-6.25867	60.00000	Averaged	
55	2-Methyl-4,6-dinitrophenol	0.10120	0.09844	0.09844	0.000	-2.71965	60.00000	Averaged	
56	p-Nitroaniline	0.26458	0.21819	0.21819	0.000	-17.53206	60.00000	Averaged	
133	Diphenylamine	0.53354	0.46493	0.46493	0.001	-12.85961	20.00000	Averaged	ccc
58	1,2-Diphenylhydrazine	0.65098	0.55777	0.55777	0.000	-14.31896	60.00000	Averaged	
61	4-Bromophenylphenylether	0.13743	0.14126	0.14126	0.000	2.79050	60.00000	Averaged	
63	Hexachlorobenzene	0.16869	0.14433	0.14433	0.000	-14.43782	60.00000	Averaged	
65	Pentachlorophenol	0.10117	0.09042	0.09042	0.001	-10.61921	20.00000	Averaged	ccc
206	n-Octadecane	0.43383	0.42570	0.42570	0.000	-1.87309	60.00000	Averaged	
68	Phenanthrene	0.90903	0.83581	0.83581	0.000	-8.05558	60.00000	Averaged	
69	Anthracene	0.92447	0.85110	0.85110	0.000	-7.93592	60.00000	Averaged	
72	Di-n-butylphthalate	0.98605	0.95396	0.95396	0.000	-3.25457	60.00000	Averaged	
76	Fluoranthene	0.87746	0.81704	0.81704	0.001	-6.88555	20.00000	Averaged	ccc
79	Pyrene	1.06293	0.98267	0.98267	0.000	-7.55079	60.00000	Averaged	
85	Butylbenzylphthalate	0.48372	0.46739	0.46739	0.000	-3.37649	60.00000	Averaged	
89	Benzo(a)anthracene	0.95915	0.87571	0.87571	0.000	-8.69930	60.00000	Averaged	
92	Chrysene	0.89647	0.82199	0.82199	0.000	-8.30767	60.00000	Averaged	
93	bis(2-Ethylhexyl)phthalate	0.70275	0.65271	0.65271	0.000	-7.12169	60.00000	Averaged	

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD1.i
Lab File ID: s1k1261.d
Analysis Type:
Lab Sample ID: WBN091027-09.3
Method: /chem/MSD1.i/s111409.b/MSD1-M8270AQA-111409.m

Injection Date: 17-NOV-2009 16:27
Init. Cal. Date(s): 14-NOV-2009 17-NOV-2009
Init. Cal. Times: 18:22 12:38
Quant Type: ISTD

	COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
	94 Di-n-octylphthalate	1.30849	1.19375	1.19375	0.001	-8.76858	20.00000	Averaged	ccc
	95 Benzo(b)fluoranthene	34.69168	40.00000	0.87030	0.000	-13.27080	60.00000	Linear	
	96 Benzo(k)fluoranthene	1.00298	0.95633	0.95633	0.000	-4.65112	60.00000	Averaged	
	97 Benzo(a)pyrene	37.92700	40.00000	0.82858	0.001	-5.18249	20.00000	Linear	ccc
	99 Indeno(1,2,3-cd)pyrene	35.83759	40.00000	0.81303	0.000	-10.40601	60.00000	Linear	
	100 Dibenzo(a,h)anthracene	35.09981	40.00000	0.66597	0.000	-12.25048	60.00000	Linear	
	101 Benzo(ghi)perylene	0.75165	0.69836	0.69836	0.000	-7.08991	60.00000	Averaged	
	126 m-Dinitrobenzene	0.18653	0.15696	0.15696	0.000	-15.84920	60.00000	Averaged	
	130 2,3,4,6-Tetrachlorophenol	0.21604	0.19708	0.19708	0.000	-8.77777	60.00000	Averaged	
	143 Dinoseb	0.12447	0.10965	0.10965	0.000	-11.90708	60.00000	Averaged	
	173 Carbazole	0.80714	0.69773	0.69773	0.000	-13.55506	60.00000	Averaged	
	184 p-Benzoquinone	40.49777	40.00000	0.06781	0.000	1.24442	60.00000	Linear	
	192 Methoxychlor	0.31747	0.36177	0.36177	0.000	13.95477	60.00000	Averaged	
	211 p-Toluidine	0.70440	0.95402	0.95402	0.000	35.43664	60.00000	Averaged	
	210 m-Toluidine	0.91072	0.95200	0.95200	0.000	4.53333	60.00000	Averaged	
	26 Phthalic anhydride	42.71723	40.00000	0.10164	0.000	6.79306	60.00000	Linear	
	179 Dibenzo(a,e)pyrene	24.88814	40.00000	0.27687	0.000	-37.77964	60.00000	Linear	
	214 1,4-Dinitrobenzene	0.17315	0.14504	0.14504	0.000	-16.23762	60.00000	Averaged	
	215 2-Ethoxyethanol	0.60315	0.59707	0.59707	0.000	-1.00765	60.00000	Averaged	
	216 Methylenebis(2-chloroanilin	0.12921	0.12373	0.12373	0.000	-4.23543	60.00000	Averaged	
M	225 Trichlorophenols	0.27448	0.25265	0.25265	0.000	-7.95340	60.00000	Averaged	
M	226 Tetrachlorophenols	0.21604	0.19708	0.19708	0.000	-8.77777	60.00000	Averaged	
M	227 Benzo(b,k)fluoranthene	0.96552	0.91331	0.91331	0.000	-5.40733	60.00000	Averaged	

GEL Laboratories LLC

Data file : /chem/MSD1.i/s111409.b/s1k1261.d
Lab Smp Id: WBN091027-09.3 Client Smp ID: MEGAICV
Inj Date : 17-NOV-2009 16:27
Operator : amy Inst ID: MSD1.i
Smp Info : |WBN091027-09.3|40 PPM|1|SVMF|1|MEGAICV
Misc Info : |MSD8270|WBN091106-10|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD1.i/s111409.b/MSD1-M8270AQA-111409.m
Meth Date : 17-Nov-2009 16:47 llo00884 Quant Type: ISTD
Cal Date : 17-NOV-2009 12:38 Cal File: s1k1256.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: MEGAIICARE.sub
Target Version: 3.50
Processing Host: kilroy

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)	
* 10 1,4-Dichlorobenzene-d4	152	3.928	3.928	(1.000)	530038	40.0000		
* 29 Naphthalene-d8	136	4.793	4.793	(1.000)	2205306	40.0000		
* 46 Acenaphthene-d10	164	6.040	6.040	(1.000)	1135267	40.0000		
* 67 Phenanthrene-d10	188	7.022	7.022	(1.000)	1874551	40.0000		(H)
* 91 Chrysene-d12	240	8.704	8.704	(1.000)	1621760	40.0000		
* 98 Perylene-d12	264	10.198	10.198	(1.000)	1481649	40.0000		
$ 3 2-Fluorophenol	112	3.104	3.104	(0.790)	491348	40.0000	35.5	
$ 5 Phenol-d5	99	3.640	3.640	(0.927)	592737	40.0000	35.2	
$ 20 Nitrobenzene-d5	82	4.287	4.287	(0.894)	570788	40.0000	39.3	
$ 39 2-Fluorobiphenyl	172	5.534	5.534	(0.916)	1084689	40.0000	39.9	
$ 60 2,4,6-Tribromophenol	329	6.575	6.575	(1.089)	129390	40.0000	40.8	
$ 81 p-Terphenyl-d14	244	7.939	7.939	(0.912)	990744	40.0000	38.9	
1 N-Methyl-N-nitrosomethylamine	74	2.410	2.410	(0.614)	276992	40.0000	36.8	
2 Pyridine	79	2.446	2.446	(0.623)	381913	40.0000	30.2	
4 Aniline	66	3.710	3.710	(0.945)	244181	40.0000	33.0	
6 Phenol	94	3.646	3.646	(0.928)	599483	40.0000	33.8	
7 bis(2-Chloroethyl) ether	63	3.722	3.722	(0.948)	417273	40.0000	33.8	
8 2-Chlorophenol	128	3.787	3.787	(0.964)	512179	40.0000	34.0	
203 n-Decane	43	3.775	3.775	(0.961)	707542	40.0000	37.3	
9 1,3-Dichlorobenzene	146	3.893	3.893	(0.991)	606813	40.0000	34.3	
11 1,4-Dichlorobenzene	146	3.934	3.934	(1.001)	598440	40.0000	34.5	
13 1,2-Dichlorobenzene	146	4.040	4.040	(1.028)	543984	40.0000	34.0	
14 bis(2-Chloroisopropyl)ether	45	4.069	4.069	(1.036)	1027894	40.0000	35.0	
12 Benzyl alcohol	108	3.993	3.993	(1.016)	316054	40.0000	34.5	
15 o-Cresol	107	4.040	4.040	(1.028)	382773	40.0000	34.1	
18 m,p-Cresols	107	4.146	4.146	(1.055)	530984	40.0000	34.8	

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
17 N-Nitrosodipropylamine	70	4.163	4.163	(1.060)	325364	40.0000	32.2
19 Hexachloroethane	117	4.269	4.269	(1.087)	206306	40.0000	33.1
21 Nitrobenzene	77	4.304	4.304	(0.898)	528723	40.0000	34.9
22 Isophorone	82	4.457	4.457	(0.930)	944401	40.0000	35.6
23 2-Nitrophenol	139	4.516	4.516	(0.942)	274410	40.0000	34.1
24 2,4-Dimethylphenol	122	4.504	4.504	(0.940)	516190	40.0000	40.1
25 bis(2-Chloroethoxy)methane	93	4.575	4.575	(0.955)	561140	40.0000	32.9
26 2,4-Dichlorophenol	162	4.681	4.681	(0.977)	415624	40.0000	34.4
27 Benzoic acid	105	4.575	4.575	(0.955)	365053	40.0000	41.2
28 1,2,4-Trichlorobenzene	180	4.745	4.745	(0.990)	467914	40.0000	35.0
30 Naphthalene	128	4.810	4.810	(1.004)	1690998	40.0000	36.7
204 alpha-Terpineol	59	4.787	4.787	(0.999)	424496	40.0000	39.2
31 4-Chloroaniline	127	4.822	4.822	(1.006)	756952	40.0000	36.0
32 Hexachlorobutadiene	225	4.875	4.875	(1.017)	233369	40.0000	34.0
33 4-Chloro-3-methylphenol	107	5.134	5.134	(1.071)	380998	40.0000	32.3
34 2-Methylnaphthalene	142	5.293	5.293	(1.104)	1146146	40.0000	37.9
35 1-Methylnaphthalene	142	5.363	5.363	(1.119)	1056787	40.0000	38.8
36 Hexachlorocyclopentadiene	237	5.393	5.393	(0.893)	141475	40.0000	40.8
205 2,3-Dichloroaniline	161	5.487	5.487	(0.908)	505408	40.0000	39.2
37 2,4,6-Trichlorophenol	196	5.475	5.475	(0.906)	283075	40.0000	37.5(H)
38 2,4,5-Trichlorophenol	196	5.504	5.504	(0.911)	290570	40.0000	36.2
40 2-Chloronaphthalene	162	5.645	5.645	(0.935)	931485	40.0000	33.2
42 o-Nitroaniline	65	5.698	5.698	(0.944)	283207	40.0000	32.6
41 m-Nitroaniline	138	5.992	5.992	(0.992)	254734	40.0000	33.2
43 Dimethylphthalate	163	5.810	5.810	(0.962)	1089088	40.0000	35.2
44 2,6-Dinitrotoluene	165	5.863	5.863	(0.971)	252831	40.0000	32.8
50 2,4-Dinitrotoluene	165	6.145	6.145	(1.018)	334220	40.0000	32.7
45 Acenaphthylene	152	5.945	5.945	(0.984)	1666713	40.0000	38.1
47 Acenaphthene	154	6.063	6.063	(1.004)	973838	40.0000	37.2
48 2,4-Dinitrophenol	184	6.057	6.057	(1.003)	104771	40.0000	34.4(Q)
49 Dibenzofuran	168	6.181	6.181	(1.023)	1277902	40.0000	33.7
51 Diethylphthalate	149	6.287	6.287	(1.041)	1059428	40.0000	36.7
52 4-Nitrophenol	139	6.075	6.075	(1.006)	211838	40.0000	39.6
53 Fluorene	166	6.416	6.416	(1.062)	1132809	40.0000	37.1
54 4-Chlorophenylphenylether	204	6.392	6.392	(1.058)	483371	40.0000	37.5
55 2-Methyl-4,6-dinitrophenol	198	6.428	6.428	(0.911)	184539	40.0000	38.9
56 p-Nitroaniline	138	6.410	6.410	(1.061)	247705	40.0000	33.0
133 Diphenylamine	169	6.469	6.469	(0.917)	871532	40.0000	34.8
58 1,2-Diphenylhydrazine	77	6.498	6.498	(0.921)	1045567	40.0000	34.3
61 4-Bromophenylphenylether	248	6.716	6.716	(0.952)	264808	40.0000	41.1(H)
63 Hexachlorobenzene	284	6.775	6.775	(0.960)	270561	40.0000	34.2
65 Pentachlorophenol	266	6.892	6.892	(0.977)	169503	40.0000	35.8
206 n-Octadecane	57	6.869	6.869	(0.973)	797995	40.0000	39.2
68 Phenanthrene	178	7.039	7.039	(0.997)	1566761	40.0000	36.8
69 Anthracene	178	7.069	7.069	(1.002)	1595437	40.0000	36.8
72 Di-n-butylphthalate	149	7.310	7.310	(1.036)	1788243	40.0000	38.7
76 Fluoranthene	202	7.751	7.751	(1.098)	1531590	40.0000	37.2

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
79 Pyrene	202	7.892	7.892	(0.907)	1593654	40.0000	37.0
85 Butylbenzylphthalate	149	8.204	8.204	(0.943)	757996	40.0000	38.6
89 Benzo(a)anthracene	228	8.692	8.692	(0.999)	1420191	40.0000	36.5(H)
92 Chrysene	228	8.728	8.728	(1.003)	1333078	40.0000	36.7
93 bis(2-Ethylhexyl)phthalate	149	8.569	8.569	(0.984)	1058534	40.0000	37.2(H)
94 Di-n-octylphthalate	149	9.110	9.110	(0.893)	1768724	40.0000	36.5
95 Benzo(b)fluoranthene	252	9.716	9.716	(0.953)	1289484	40.0000	34.7(H)
96 Benzo(k)fluoranthene	252	9.745	9.745	(0.956)	1416940	40.0000	38.1
97 Benzo(a)pyrene	252	10.122	10.122	(0.992)	1227658	40.0000	37.9
99 Indeno(1,2,3-cd)pyrene	276	11.863	11.863	(1.163)	1204623	40.0000	35.8(H)
100 Dibenzo(a,h)anthracene	278	11.863	11.863	(1.163)	986733	40.0000	35.1
101 Benzo(ghi)perylene	276	12.380	12.380	(1.214)	1034720	40.0000	37.2
126 m-Dinitrobenzene	168	5.845	5.845	(0.968)	178196	40.0000	33.7
130 2,3,4,6-Tetrachlorophenol	232	6.251	6.251	(1.035)	223733	40.0000	36.5
143 Dinoseb	211	6.981	6.981	(0.989)	205546	40.0000	35.2
173 Carbazole	167	7.151	7.151	(1.013)	1307938	40.0000	34.6
184 p-Benzoquinone	54	3.404	3.404	(0.867)	35940	40.0000	40.5
192 Methoxychlor	227	8.557	8.557	(0.983)	586700	40.0000	45.6
211 p-Toluidine	106	4.204	4.204	(1.070)	505668	40.0000	54.2(H)
210 m-Toluidine	106	4.228	4.228	(1.076)	504598	40.0000	41.8
26 Phthalic anhydride	104	5.322	5.322	(1.110)	224154	40.0000	42.7
179 Dibenzo(a,e)pyrene	302	16.327	16.327	(1.601)	410219	40.0000	24.9(H)
214 1,4-Dinitrobenzene	168	5.787	5.787	(0.958)	164654	40.0000	33.5
215 2-Ethoxyethanol	59	2.257	2.257	(0.575)	316469	40.0000	39.6
216 Methylenebis(2-chloroaniline)	231	8.622	8.622	(0.991)	200666	40.0000	38.3
M 225 Trichlorophenols	196				573645	80.0000	73.6
M 226 Tetrachlorophenols	232				223733	40.0000	36.5
M 227 Benzo(b,k)fluoranthene	252				2706424	80.0000	75.7

QC Flag Legend

Q - Qualifier signal failed the ratio test.
H - Operator selected an alternate compound hit.

Data File: /chem/MSD1.i/s111409.b/s1k1261.d
Date : 17-NOV-2009 16:27
Client ID: MECAICV
Sample Info: IWBN091027-09.3140 PPM11ISVMFI1IMECAICV
Column phase: J&W DB-5MS

Instrument: MSD1.i
Operator: amy
Column diameter: 0.20

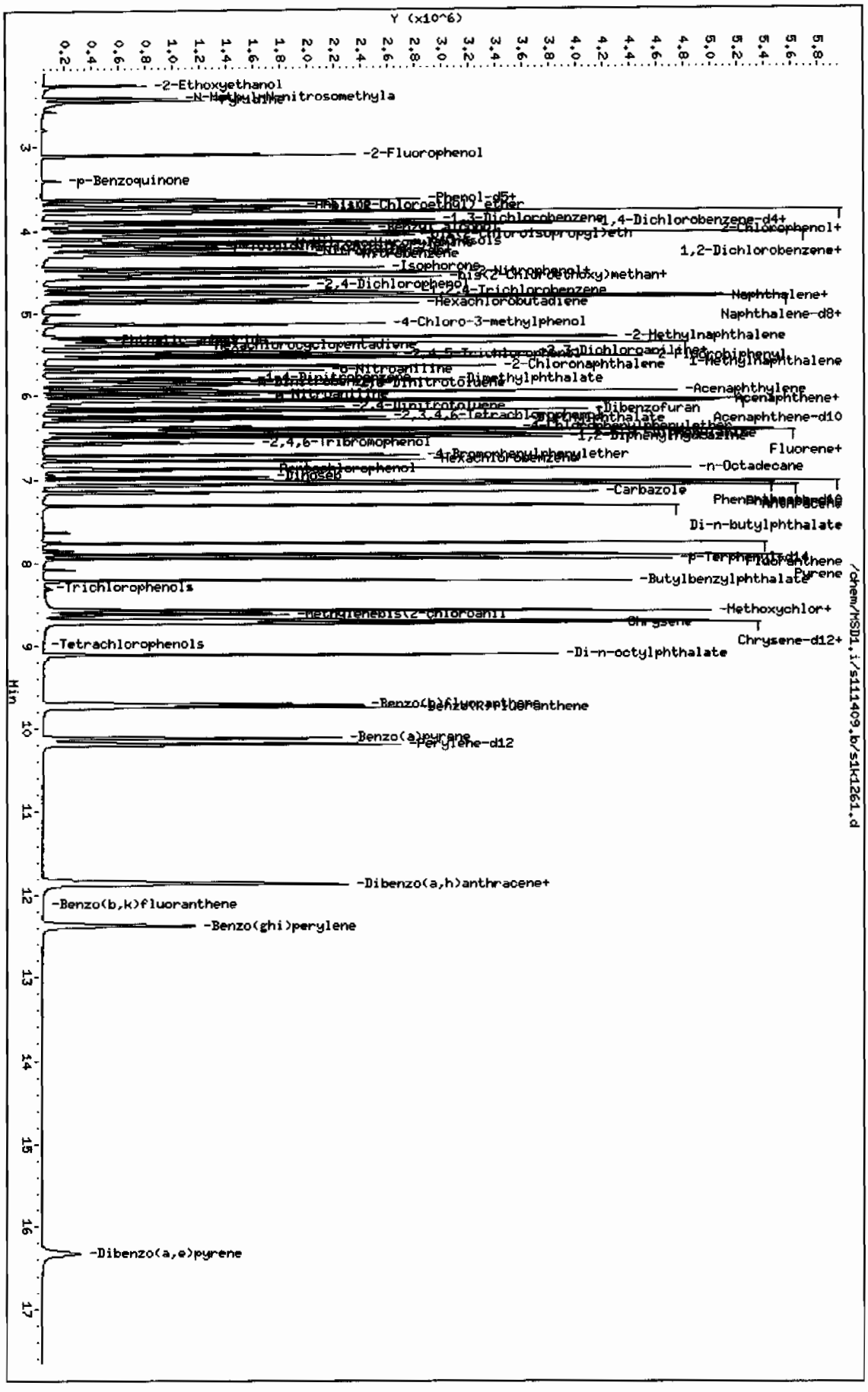

Data File: /chem/MSD6.i/s110909.b/s6k0937.d
Report Date: 11-Nov-2009 10:50

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD6.i
Lab File ID: s6k0937.d
Analysis Type:
Lab Sample ID: WBN091106-09.1 Quant Type: ISTD
Method: /chem/MSD6.i/s110909.b/MSD6-M8270C-AQA-110909.m

Injection Date: 10-NOV-2009 20:29
Init. Cal. Date(s): 09-NOV-2009 11-NOV-2009
Init. Cal. Times: 18:53 04:38

	COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
$	3 2-Fluorophenol	1.00169	1.03466	1.03466	0.000	3.29147	60.00000	Averaged	
$	5 Phenol-d5	1.26427	1.24245	1.24245	0.000	-1.72556	60.00000	Averaged	
$	20 Nitrobenzene-d5	0.28296	0.29902	0.29902	0.000	5.67523	60.00000	Averaged	
$	39 2-Fluorobiphenyl	1.03083	1.08174	1.08174	0.000	4.93820	60.00000	Averaged	
$	60 2,4,6-Tribromophenol	0.11675	0.12945	0.12945	0.000	10.88297	60.00000	Averaged	
$	81 p-Terphenyl-d14	0.64507	0.72359	0.72359	0.000	12.17316	60.00000	Averaged	
	1 N-Methyl-N-nitrosomethylami	0.68098	0.64081	0.64081	0.000	-5.89855	60.00000	Averaged	
	2 Pyridine	0.84757	0.77144	0.77144	0.000	-8.98267	60.00000	Averaged	
	4 Aniline	0.52752	0.51930	0.51930	0.000	-1.55765	60.00000	Averaged	
	6 Phenol	1.27120	1.23489	1.23489	0.001	-2.85632	20.00000	Averaged	ccc
	7 bis(2-Chloroethyl) ether	0.86081	0.80936	0.80936	0.000	-5.97614	60.00000	Averaged	
	8 2-Chlorophenol	1.02109	1.01772	1.01772	0.000	-0.32996	60.00000	Averaged	
	203 n-Decane	1.42254	1.44155	1.44155	0.000	1.33631	60.00000	Averaged	
	9 1,3-Dichlorobenzene	1.17550	1.19665	1.19665	0.000	1.79939	60.00000	Averaged	
	11 1,4-Dichlorobenzene	1.19162	1.18877	1.18877	0.001	-0.23932	20.00000	Averaged	ccc
	13 1,2-Dichlorobenzene	1.11231	1.12583	1.12583	0.000	1.21558	60.00000	Averaged	
	14 bis(2-Chloroisopropyl)ether	1.92182	1.94108	1.94108	0.000	1.00230	60.00000	Averaged	
	12 Benzyl alcohol	0.63436	0.65075	0.65075	0.000	2.58272	60.00000	Averaged	
	15 o-Cresol	0.83139	0.83798	0.83798	0.000	0.79318	60.00000	Averaged	
	18 m,p-Cresols	1.05346	1.05662	1.05662	0.000	0.29972	60.00000	Averaged	
	17 N-Nitrosodipropylamine	0.70865	0.69204	0.69204	0.050	-2.34415	60.00000	Averaged	spcc
	19 Hexachloroethane	0.46100	0.44650	0.44650	0.000	-3.14409	60.00000	Averaged	
	21 Nitrobenzene	0.28519	0.29957	0.29957	0.000	5.04113	60.00000	Averaged	
	22 Isophorone	0.50552	0.52435	0.52435	0.000	3.72478	60.00000	Averaged	
	23 2-Nitrophenol	0.13154	0.13639	0.13639	0.001	3.68222	20.00000	Averaged	ccc
	24 2,4-Dimethylphenol	0.21795	0.23088	0.23088	0.000	5.93159	60.00000	Averaged	
	25 bis(2-Chloroethoxy)methane	0.29749	0.30276	0.30276	0.000	1.77222	60.00000	Averaged	
	26 2,4-Dichlorophenol	0.19769	0.20590	0.20590	0.001	4.15386	20.00000	Averaged	ccc
	27 Benzoic acid	0.13453	0.14567	0.14567	0.000	8.28081	60.00000	Averaged	
	28 1,2,4-Trichlorobenzene	0.24261	0.24953	0.24953	0.000	2.85087	60.00000	Averaged	
	30 Naphthalene	0.79792	0.83170	0.83170	0.000	4.23406	60.00000	Averaged	
	204 alpha-Terpineol	0.21868	0.21801	0.21801	0.000	-0.30655	60.00000	Averaged	
	31 4-Chloroaniline	0.25646	0.26546	0.26546	0.000	3.51176	60.00000	Averaged	
	32 Hexachlorobutadiene	0.12634	0.13489	0.13489	0.001	6.77038	20.00000	Averaged	ccc
	33 4-Chloro-3-methylphenol	0.19957	0.20148	0.20148	0.001	0.96147	20.00000	Averaged	ccc
	34 2-Methylnaphthalene	0.48150	0.55976	0.55976	0.000	16.25394	60.00000	Averaged	

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD6.i
Lab File ID: s6k0937.d
Analysis Type:
Lab Sample ID: WBN091106-09.1
Method: /chem/MSD6.i/s110909.b/MSD6-M8270C-AQA-110909.m

Injection Date: 10-NOV-2009 20:29
Init. Cal. Date(s): 09-NOV-2009 11-NOV-2009
Init. Cal. Times: 18:53 04:38
Quant Type: ISTD

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
35 1-Methylnaphthalene	0.47100	0.53047	0.53047	0.000	12.62514	60.00000	Averaged
36 Hexachlorocyclopentadiene	0.16157	0.12441	0.12441	0.050	-22.99690	60.00000	Averaged spcc
205 2,3-Dichloroaniline	0.47908	0.48878	0.48878	0.000	2.02564	60.00000	Averaged
37 2,4,6-Trichlorophenol	0.27294	0.27425	0.27425	0.001	0.48093	20.00000	Averaged ccc
38 2,4,5-Trichlorophenol	0.29067	0.30912	0.30912	0.000	6.34737	60.00000	Averaged
40 2-Chloronaphthalene	0.89832	0.89821	0.89821	0.000	-0.01212	60.00000	Averaged
42 o-Nitroaniline	0.30732	0.29883	0.29883	0.000	-2.76487	60.00000	Averaged
41 m-Nitroaniline	0.22497	0.22544	0.22544	0.000	0.20968	60.00000	Averaged
43 Dimethylphthalate	1.02610	1.07233	1.07233	0.000	4.50566	60.00000	Averaged
44 2,6-Dinitrotoluene	0.24475	0.24571	0.24571	0.000	0.39287	60.00000	Averaged
50 2,4-Dinitrotoluene	0.30862	0.32387	0.32387	0.000	4.94261	60.00000	Averaged
45 Acenaphthylene	1.44438	1.60997	1.60997	0.000	11.46448	60.00000	Averaged
47 Acenaphthene	0.90151	0.96315	0.96315	0.001	6.83729	20.00000	Averaged ccc
48 2,4-Dinitrophenol	35.88405	40.00000	0.06990	0.050	-10.28987	60.00000	Linear spcc
49 Dibenzofuran	1.21689	1.24464	1.24464	0.000	2.28092	60.00000	Averaged
51 Diethylphthalate	1.03335	1.08103	1.08103	0.000	4.61479	60.00000	Averaged
52 4-Nitrophenol	37.16907	40.00000	0.15052	0.050	-7.07733	60.00000	Linear spcc
53 Fluorene	0.99879	1.09503	1.09503	0.000	9.63571	60.00000	Averaged
54 4-Chlorophenylphenylether	0.47192	0.49481	0.49481	0.000	4.84948	60.00000	Averaged
55 2-Methyl-4,6-dinitrophenol	44.79678	40.00000	0.10162	0.000	11.99194	60.00000	Linear
56 p-Nitroaniline	37.18126	40.00000	0.19210	0.000	-7.04684	60.00000	Linear
133 Diphenylamine	0.48213	0.48382	0.48382	0.001	0.34977	20.00000	Averaged ccc
58 1,2-Diphenylhydrazine	0.61327	0.61966	0.61966	0.000	1.04277	60.00000	Averaged
61 4-Bromophenylphenylether	0.15784	0.15705	0.15705	0.000	-0.50023	60.00000	Averaged
63 Hexachlorobenzene	0.16533	0.16268	0.16268	0.000	-1.60406	60.00000	Averaged
65 Pentachlorophenol	41.23337	40.00000	0.08933	0.001	3.08343	20.00000	Linear ccc
206 n-Octadecane	0.44173	0.45929	0.45929	0.000	3.97491	60.00000	Averaged
68 Phenanthrene	0.82721	0.88585	0.88585	0.000	7.08867	60.00000	Averaged
69 Anthracene	0.82682	0.90991	0.90991	0.000	10.04830	60.00000	Averaged
72 Di-n-butylphthalate	0.94954	1.02135	1.02135	0.000	7.56331	60.00000	Averaged
76 Fluoranthene	0.79242	0.90654	0.90654	0.001	14.40110	20.00000	Averaged ccc
79 Pyrene	1.10021	1.20816	1.20816	0.000	9.81213	60.00000	Averaged
85 Butylbenzylphthalate	0.50351	0.54090	0.54090	0.000	7.42706	60.00000	Averaged
89 Benzo(a)anthracene	0.86301	0.92157	0.92157	0.000	6.78546	60.00000	Averaged
92 Chrysene	0.82690	0.90169	0.90169	0.000	9.04505	60.00000	Averaged
93 bis(2-Ethylhexyl)phthalate	41.60196	40.00000	0.72185	0.000	4.00491	60.00000	Wt Linear

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD6.i Injection Date: 10-NOV-2009 20:29
Lab File ID: s6k0937.d Init. Cal. Date(s): 09-NOV-2009 11-NOV-2009
Analysis Type: Init. Cal. Times: 18:53 04:38
Lab Sample ID: WBN091106-09.1 Quant Type: ISTD
Method: /chem/MSD6.i/s110909.b/MSD6-M8270C-AQA-110909.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
94 Di-n-octylphthalate	1.27127	1.35676	1.35676	0.001	6.72426	20.00000	Averaged	ccc
95 Benzo(b)fluoranthene	0.88507	0.99154	0.99154	0.000	12.02912	60.00000	Averaged	
96 Benzo(k)fluoranthene	0.88011	1.01364	1.01364	0.000	15.17242	60.00000	Averaged	
97 Benzo(a)pyrene	0.76447	0.88080	0.88080	0.001	15.21790	20.00000	Averaged	ccc
99 Indeno(1,2,3-cd)pyrene	40.05227	40.00000	0.72891	0.000	0.13069	60.00000	Linear	
100 Dibenzo(a,h)anthracene	37.95723	40.00000	0.56106	0.000	-5.10692	60.00000	Linear	
101 Benzo(ghi)perylene	0.58403	0.61594	0.61594	0.000	5.46367	60.00000	Averaged	
126 m-Dinitrobenzene	0.16929	0.17081	0.17081	0.000	0.89311	60.00000	Averaged	
130 2,3,4,6-Tetrachlorophenol	0.21896	0.23318	0.23318	0.000	6.49309	60.00000	Averaged	
143 Dinoseb	37.88463	40.00000	0.11675	0.000	-5.28842	60.00000	Linear	
173 Carbazole	0.65449	0.70032	0.70032	0.000	7.00193	60.00000	Averaged	
184 p-Benzoquinone	0.12730	0.14364	0.14364	0.000	12.83157	60.00000	Averaged	
192 Methoxychlor	0.55243	0.57593	0.57593	0.000	4.25434	60.00000	Averaged	
211 p-Toluidine	0.89987	0.90823	0.90823	0.000	0.92871	60.00000	Averaged	
210 m-Toluidine	1.12396	1.11262	1.11262	0.000	-1.00903	60.00000	Averaged	
26 Phthalic anhydride	71.32284	40.00000	0.14710	0.000	78.30709	60.00000	Linear	<-
179 Dibenzo(a,e)pyrene	23.04060	40.00000	0.15052	0.000	-42.39851	60.00000	Linear	
214 1,4-Dinitrobenzene	0.18382	0.17485	0.17485	0.000	-4.87689	60.00000	Averaged	
215 2-Ethoxyethanol	0.71035	0.75383	0.75383	0.000	6.12038	60.00000	Averaged	
216 Methylenebis(2-chloroanilin	38.25405	40.00000	0.11920	0.000	-4.36487	60.00000	Linear	
M 225 Trichlorophenols	0.28180	0.29168	0.29168	0.000	3.50642	60.00000	Averaged	
M 226 Tetrachlorophenols	0.21896	0.23318	0.23318	0.000	6.49309	60.00000	Averaged	
M 227 Benzo(b,k)fluoranthene	0.88259	1.00259	1.00259	0.000	13.59635	60.00000	Averaged	

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Data file : /chem/MSD6.i/s110909.b/s6k0937.d
Lab Smp Id: WBN091106-09.1 Client Smp ID: MEGAICV
Inj Date : 10-NOV-2009 20:29
Operator : JMB3 Inst ID: MSD6.i
Smp Info : |WBN091106-09.1|40 PPM|1|SVMF|1|MEGAICV
Misc Info : |MSD8270|WBN091106-10
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s110909.b/MSD6-M8270C-AQA-110909.m
Meth Date : 11-Nov-2009 10:50 nat00999 Quant Type: ISTD
Cal Date : 11-NOV-2009 02:44 Cal File: s6k0950.d
Als bottle: 17 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: MEGA.sub
Target Version: 3.50
Processing Host: hpclp1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	4.834	4.834	(1.000)	267857	40.0000	
* 29 Naphthalene-d8	136	6.116	6.116	(1.000)	1007489	40.0000	
* 46 Acenaphthene-d10	164	7.986	7.986	(1.000)	511035	40.0000	
* 67 Phenanthrene-d10	188	9.599	9.599	(1.000)	891521	40.0000	
* 91 Chrysene-d12	240	12.618	12.618	(1.000)	688764	40.0000	
* 98 Perylene-d12	264	14.955	14.955	(1.000)	524055	40.0000	
$ 3 2-Fluorophenol	112	3.646	3.646	(0.754)	277141	40.0000	41.3
$ 5 Phenol-d5	99	4.431	4.431	(0.917)	332800	40.0000	39.3
$ 20 Nitrobenzene-d5	82	5.371	5.371	(0.878)	301256	40.0000	42.3
$ 39 2-Fluorobiphenyl	172	7.242	7.242	(0.907)	552805	40.0000	42.0
$ 60 2,4,6-Tribromophenol	329	8.834	8.834	(1.106)	66156	40.0000	44.4
$ 81 p-Terphenyl-d14	244	11.306	11.306	(0.896)	498384	40.0000	44.9
1 N-Methyl-N-nitrosomethylamine	74	2.663	2.663	(0.551)	171645	40.0000	37.6
2 Pyridine	79	2.701	2.701	(0.559)	206635	40.0000	36.4
4 Aniline	66	4.518	4.518	(0.935)	139099	40.0000	39.4
6 Phenol	94	4.444	4.444	(0.919)	330773	40.0000	38.8
7 bis(2-Chloroethyl) ether	63	4.559	4.559	(0.943)	216794	40.0000	37.6
8 2-Chlorophenol	128	4.633	4.633	(0.958)	272604	40.0000	39.9
203 n-Decane	43	4.643	4.643	(0.960)	386128	40.0000	40.5
9 1,3-Dichlorobenzene	146	4.783	4.783	(0.989)	320531	40.0000	40.7
11 1,4-Dichlorobenzene	146	4.852	4.852	(1.004)	318420	40.0000	39.9
13 1,2-Dichlorobenzene	146	5.002	5.002	(1.035)	301561	40.0000	40.5
14 bis(2-Chloroisopropyl)ether	45	5.068	5.068	(1.048)	519933	40.0000	40.4
12 Benzyl alcohol	108	4.941	4.941	(1.022)	174307	40.0000	41.0
15 o-Cresol	107	5.025	5.025	(1.040)	224459	40.0000	40.3
18 m,p-Cresols	107	5.180	5.180	(1.072)	283022	40.0000	40.1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
17 N-Nitrosodipropylamine	70	5.206	5.206	(1.077)	185368	40.0000	39.1
19 Hexachloroethane	117	5.338	5.338	(1.104)	119599	40.0000	38.7
21 Nitrobenzene	77	5.392	5.392	(0.882)	301811	40.0000	42.0
22 Isophorone	82	5.626	5.626	(0.920)	528272	40.0000	41.5
23 2-Nitrophenol	139	5.708	5.708	(0.933)	137410	40.0000	41.5
24 2,4-Dimethylphenol	122	5.718	5.718	(0.935)	232609	40.0000	42.4
25 bis(2-Chloroethoxy)methane	93	5.825	5.825	(0.952)	305032	40.0000	40.7
26 2,4-Dichlorophenol	162	5.950	5.950	(0.973)	207439	40.0000	41.7
27 Benzoic acid	105	5.812	5.812	(0.950)	146760	40.0000	43.3(H)
28 1,2,4-Trichlorobenzene	180	6.047	6.047	(0.989)	251400	40.0000	41.1
30 Naphthalene	128	6.138	6.138	(1.004)	837929	40.0000	41.7
204 alpha-Terpineol	59	6.123	6.123	(1.001)	219641	40.0000	39.9
31 4-Chloroaniline	127	6.172	6.172	(1.009)	267452	40.0000	41.4
32 Hexachlorobutadiene	225	6.251	6.251	(1.022)	135904	40.0000	42.7
33 4-Chloro-3-methylphenol	107	6.653	6.653	(1.088)	202993	40.0000	40.4
34 2-Methylnaphthalene	142	6.862	6.862	(1.122)	563953	40.0000	46.5
35 1-Methylnaphthalene	142	6.969	6.969	(1.140)	534441	40.0000	45.0
36 Hexachlorocyclopentadiene	237	7.020	7.020	(0.879)	63579	40.0000	30.8
205 2,3-Dichloroaniline	161	7.155	7.155	(0.896)	249785	40.0000	40.8
37 2,4,6-Trichlorophenol	196	7.147	7.147	(0.895)	140152	40.0000	40.2
38 2,4,5-Trichlorophenol	196	7.183	7.183	(0.899)	157970	40.0000	42.5
40 2-Chloronaphthalene	162	7.384	7.384	(0.925)	459019	40.0000	40.0
42 o-Nitroaniline	65	7.479	7.479	(0.936)	152711	40.0000	38.9
41 m-Nitroaniline	138	7.922	7.922	(0.992)	115209	40.0000	40.1
43 Dimethylphthalate	163	7.670	7.670	(0.960)	548000	40.0000	41.8
44 2,6-Dinitrotoluene	165	7.739	7.739	(0.969)	125566	40.0000	40.2
50 2,4-Dinitrotoluene	165	8.172	8.172	(1.023)	165511	40.0000	42.0
45 Acenaphthylene	152	7.835	7.835	(0.981)	822752	40.0000	44.6
47 Acenaphthene	154	8.024	8.024	(1.005)	492203	40.0000	42.7
48 2,4-Dinitrophenol	184	8.029	8.029	(1.005)	35722	40.0000	35.9
49 Dibenzofuran	168	8.205	8.205	(1.027)	636057	40.0000	40.9
51 Diethylphthalate	149	8.424	8.424	(1.055)	552446	40.0000	41.8
52 4-Nitrophenol	139	8.070	8.070	(1.011)	76920	40.0000	37.2
53 Fluorene	166	8.577	8.577	(1.074)	559601	40.0000	43.8
54 4-Chlorophenylphenylether	204	8.564	8.564	(1.072)	252864	40.0000	41.9
55 2-Methyl-4,6-dinitrophenol	198	8.613	8.613	(0.897)	90597	40.0000	44.8
56 p-Nitroaniline	138	8.582	8.582	(1.075)	98168	40.0000	37.2
133 Diphenylamine	169	8.689	8.689	(0.905)	431336	40.0000	40.1
58 1,2-Diphenylhydrazine	77	8.738	8.738	(0.910)	552443	40.0000	40.4
61 4-Bromophenylphenylether	248	9.094	9.094	(0.947)	140012	40.0000	39.8
63 Hexachlorobenzene	284	9.173	9.173	(0.956)	145031	40.0000	39.4
65 Pentachlorophenol	266	9.375	9.375	(0.977)	79644	40.0000	41.2
206 n-Octadecane	57	9.431	9.431	(0.982)	409467	40.0000	41.6
68 Phenanthrene	178	9.624	9.624	(1.003)	789756	40.0000	42.8
69 Anthracene	178	9.680	9.680	(1.008)	811200	40.0000	44.0
72 Di-n-butylphthalate	149	10.190	10.190	(1.062)	910557	40.0000	43.0
76 Fluoranthene	202	10.914	10.914	(1.137)	808196	40.0000	45.8

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
79 Pyrene	202	11.166	11.166	(0.885)	832137	40.0000	43.9
85 Butylbenzylphthalate	149	11.841	11.841	(0.938)	372553	40.0000	43.0
89 Benzo(a)anthracene	228	12.598	12.598	(0.998)	634741	40.0000	42.7
92 Chrysene	228	12.654	12.654	(1.003)	621053	40.0000	43.6
93 bis(2-Ethylhexyl)phthalate	149	12.570	12.570	(0.996)	497186	40.0000	41.6
94 Di-n-octylphthalate	149	13.561	13.561	(0.907)	711015	40.0000	42.7
95 Benzo(b)fluoranthene	252	14.275	14.275	(0.954)	519622	40.0000	44.8
96 Benzo(k)fluoranthene	252	14.326	14.326	(0.958)	531203	40.0000	46.1
97 Benzo(a)pyrene	252	14.853	14.853	(0.993)	461589	40.0000	46.1
99 Indeno(1,2,3-cd)pyrene	276	16.945	16.945	(1.133)	381990	40.0000	40.0
100 Dibenzo(a,h)anthracene	278	16.978	16.978	(1.135)	294025	40.0000	38.0
101 Benzo(ghi)perylene	276	17.460	17.460	(1.167)	322785	40.0000	42.2
126 m-Dinitrobenzene	168	7.708	7.708	(0.965)	87288	40.0000	40.4
130 2,3,4,6-Tetrachlorophenol	232	8.325	8.325	(1.042)	119161	40.0000	42.6
143 Dinoseb	211	9.561	9.561	(0.996)	104085	40.0000	37.9
173 Carbazole	167	9.841	9.841	(1.025)	624352	40.0000	42.8
184 p-Benzoquinone	54	4.085	4.085	(0.845)	38475	40.0000	45.1
192 Methoxychlor	227	12.468	12.468	(0.988)	396683	40.0000	41.7
211 p-Toluidine	106	5.252	5.252	(1.086)	243276	40.0000	40.4
210 m-Toluidine	106	5.285	5.285	(1.093)	298023	40.0000	39.6
26 Phthalic anhydride	104	6.911	6.911	(1.130)	148201	40.0000	71.3
179 Dibenzo(a,e)pyrene	302	21.182	21.182	(1.416)	78881	40.0000	23.0
214 1,4-Dinitrobenzene	75	7.624	7.624	(0.955)	89355	40.0000	38.0
215 2-Ethoxyethanol	59	2.454	2.454	(0.508)	201919	40.0000	42.4
216 Methylenebis(2-chloroaniline)	231	12.539	12.539	(0.994)	82098	40.0000	38.2
M 225 Trichlorophenols	196				298122	80.0000	82.8
M 226 Tetrachlorophenols	232				119161	40.0000	42.6
M 227 Benzo(b,k)fluoranthene	252				1050825	80.0000	90.9

QC Flag Legend

H - Operator selected an alternate compound hit.

Data File: /chem/MSD6.i/s110909.b/s6k0937.d
Date : 10-NOV-2009 20:29
Client ID: MEGAICV
Sample Info: IWBN091106-09.1|40 PPM||1|SVHF|1|MEGAICV
Column phase: J&W DB-5MS

Instrument: MSD6.i
Operator: JMB3
Column diameter: 0.20

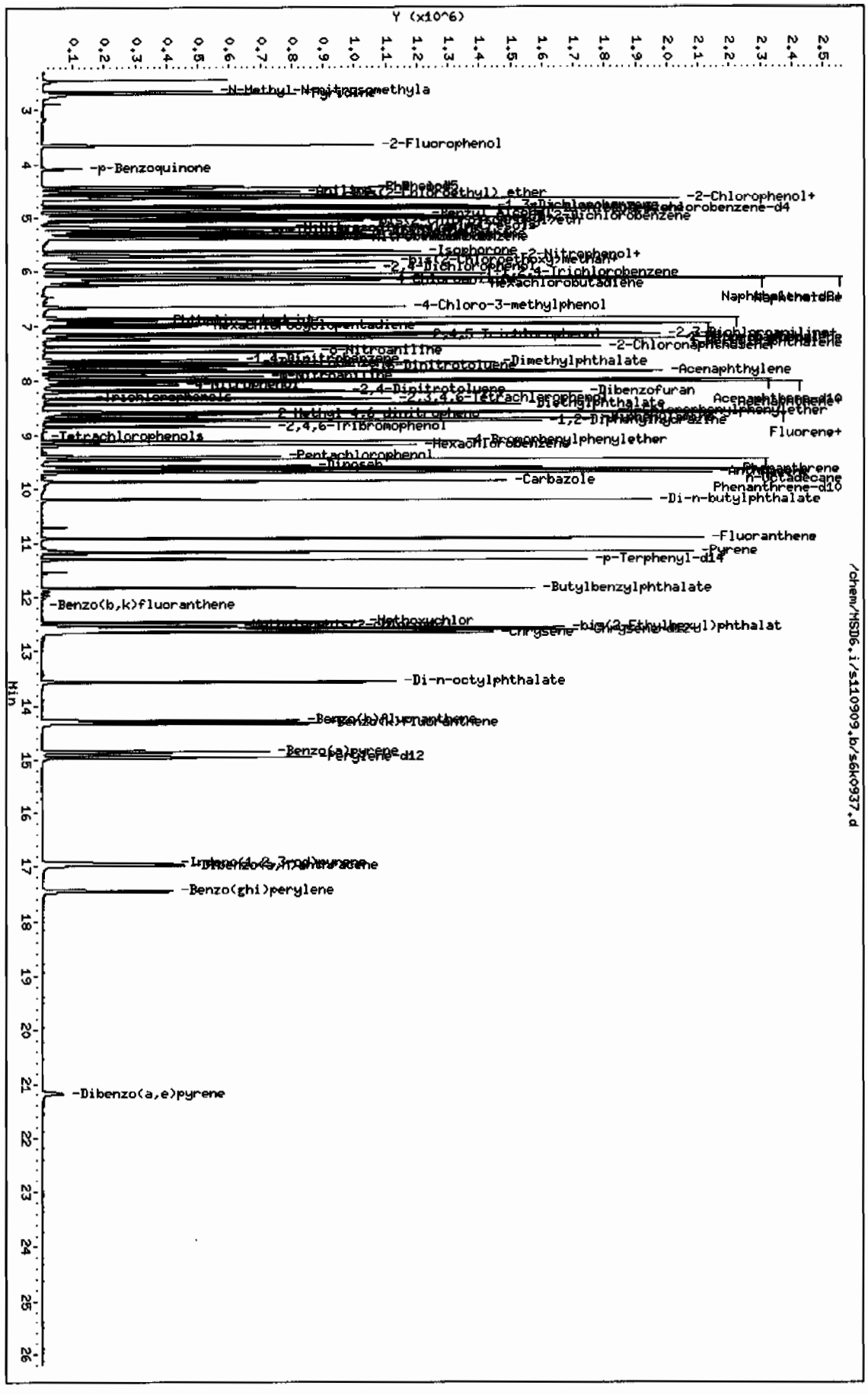

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD6.i
Lab File ID: s6k0938.d
Analysis Type:
Lab Sample ID: WBN091016-08.1 Quant Type: ISTD
Method: /chem/MSD6.i/s110909.b/MSD6-M8270C-AQA-110909.m

Injection Date: 10-NOV-2009 21:07
Init. Cal. Date(s): 09-NOV-2009 11-NOV-2009
Init. Cal. Times: 18:53 04:38

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
209 Benzaldehyde	0.86127	0.67526	0.67526	0.000	-21.59733	60.00000	Averaged
16 Acetophenone	1.16908	1.08481	1.08481	0.000	-7.20809	60.00000	Averaged
189 Caprolactam	0.07388	0.08118	0.08118	0.000	9.87786	60.00000	Averaged
208 1,1'-Biphenyl	1.20131	1.15865	1.15865	0.000	-3.55099	60.00000	Averaged
207 Atrazine	0.04063	0.03738	0.03738	0.000	-8.01727	60.00000	Averaged
77 Benzidine	0.39304	0.35886	0.35886	0.000	-8.69608	60.00000	Averaged
90 3,3'-Dichlorobenzidine	0.28252	0.30132	0.30132	0.000	6.65684	60.00000	Averaged
102 1,4-Dioxane	0.36606	0.45837	0.45837	0.000	25.21672	60.00000	Averaged
103 Methyl methacrylate	0.19388	0.26059	0.26059	0.000	34.40927	60.00000	Averaged
104 Ethyl methacrylate	0.80561	0.97594	0.97594	0.000	21.14390	60.00000	Averaged
105 2-Picoline	1.30872	1.36092	1.36092	0.000	3.98846	60.00000	Averaged
106 N-Nitrosomethylethylamine	0.51104	0.53755	0.53755	0.000	5.18772	60.00000	Averaged
107 Methyl methanesulfonate	0.52852	0.52223	0.52223	0.000	-1.19058	60.00000	Averaged
108 N-Nitrosodiethylamine	0.49553	0.51026	0.51026	0.000	2.97098	60.00000	Averaged
109 Ethyl Methanesulfonate	0.65169	0.73760	0.73760	0.000	13.18337	60.00000	Averaged
110 Pentachloroethane	0.31681	0.42390	0.42390	0.000	33.80401	60.00000	Averaged
111 N-Nitrosopyrrolidine	0.47614	0.46325	0.46325	0.000	-2.70540	60.00000	Averaged
113 N-Nitrosomorpholine	0.67936	0.65676	0.65676	0.000	-3.32751	60.00000	Averaged
114 o-Toluidine	1.65281	1.64899	1.64899	0.000	-0.23102	60.00000	Averaged
115 N-Nitrosopiperidine	0.14105	0.14180	0.14180	0.000	0.52679	60.00000	Averaged
116 a,a-Dimethylphenethylamine	0.85546	0.87204	0.87204	0.000	1.93819	60.00000	Averaged
118 2,6-Dichlorophenol	0.20687	0.20008	0.20008	0.000	-3.28259	60.00000	Averaged
119 Hexachloropropene	0.10269	0.14537	0.14537	0.000	41.57055	60.00000	Averaged
120 p-Phenylenediamine	0.22955	0.23182	0.23182	0.000	0.99155	60.00000	Averaged
121 N-Nitrosodi-n-butylamine	0.21004	0.21749	0.21749	0.000	3.54470	60.00000	Averaged
122 Safrole	0.18653	0.20933	0.20933	0.000	12.22661	60.00000	Averaged
123 1,2,4,5-Tetrachlorobenzene	0.42319	0.42512	0.42512	0.000	0.45545	60.00000	Averaged
124 Isosafrole	0.33959	0.43257	0.43257	0.000	27.38086	60.00000	Averaged
125 1,4-Naphthoquinone	0.30674	0.30375	0.30375	0.000	-0.97466	60.00000	Averaged
127 Pentachlorobenzene	0.36454	0.36394	0.36394	0.000	-0.16566	60.00000	Averaged
128 1-Naphthylamine	0.90742	0.91190	0.91190	0.000	0.49410	60.00000	Averaged
129 2-Naphthylamine	0.98012	0.91865	0.91865	0.000	-6.27177	60.00000	Averaged
131 5-Nitro-o-toluidine	0.27901	0.28996	0.28996	0.000	3.92480	60.00000	Averaged
136 1,3,5-Trinitrobenzene	46.05690	40.00000	0.13757	0.000	15.14226	60.00000	Linear
137 Phenacetin	0.26240	0.25991	0.25991	0.000	-0.94903	60.00000	Averaged
138 Diallate	0.24056	0.23148	0.23148	0.000	-3.77545	60.00000	Averaged

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD6.i Injection Date: 10-NOV-2009 21:07
Lab File ID: s6k0938.d Init. Cal. Date(s): 09-NOV-2009 11-NOV-2009
Analysis Type: Init. Cal. Times: 18:53 04:38
Lab Sample ID: WBN091016-08.1 Quant Type: ISTD
Method: /chem/MSD6.i/s110909.b/MSD6-M8270C-AQA-110909.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
140 4-Aminobiphenyl	0.53562	0.58994	0.58994	0.000	10.14239	60.00000	Averaged
141 Pentachloronitrobenzene	0.06192	0.06213	0.06213	0.000	0.34079	60.00000	Averaged
142 Pronamide	0.26319	0.26234	0.26234	0.000	-0.32101	60.00000	Averaged
146 4-Nitroquinoline-1-oxide	0.02349	0.02580	0.02580	0.000	9.82299	60.00000	Averaged
147 Methapyrilene	0.38600	0.39422	0.39422	0.000	2.12820	60.00000	Averaged
148 Isodrin	0.09631	0.08838	0.08838	0.000	-8.22821	60.00000	Averaged
149 Aramite	0.04420	0.04155	0.04155	0.000	-5.99495	60.00000	Averaged
150 Kepone	0.06173	0.05889	0.05889	0.000	-4.59530	60.00000	Averaged
151 p-(Dimethylamino)azobenzene	0.31734	0.33079	0.33079	0.000	4.23929	60.00000	Averaged
152 Chlorobenzilate	0.29130	0.29321	0.29321	0.000	0.65640	60.00000	Averaged
153 3,3'-Dimethylbenzidine	0.52763	0.57778	0.57778	0.000	9.50435	60.00000	Averaged
155 2-Acetylaminofluorene	41.44131	40.00000	0.34022	0.000	3.60328	60.00000	Linear
157 7,12Dimethylbenz(a)anthrace	0.47906	0.41447	0.41447	0.000	-13.48259	60.00000	Averaged
158 3-Methylcholanthrene	0.36955	0.35869	0.35869	0.000	-2.93887	60.00000	Averaged
212 Cis Diallate	0.25295	0.25705	0.25705	0.000	1.62146	60.00000	Averaged
213 Trans Diallate	0.28301	0.27233	0.27233	0.000	-3.77545	60.00000	Averaged

GEL Laboratories LLC

Data file : /chem/MSD6.i/s110909.b/s6k0938.d
Lab Smp Id: WBN091016-08.1 Client Smp ID: AP12ICV
Inj Date : 10-NOV-2009 21:07
Operator : JMB3 Inst ID: MSD6.i
Smp Info : |WBN091016-08.1|40 PPM|1|SVMF|1|AP12ICV
Misc Info : |MSD8270|WBN091106-10
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s110909.b/MSD6-M8270C-AQA-110909.m
Meth Date : 11-Nov-2009 09:25 nat00999 Quant Type: ISTD
Cal Date : 11-NOV-2009 02:44 Cal File: s6k0950.d
Als bottle: 18 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AP12.sub
Target Version: 3.50
Processing Host: hpclp1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	4.834	4.834	(1.000)	282437	40.0000	
* 29 Naphthalene-d8	136	6.113	6.113	(1.000)	974498	40.0000	
* 46 Acenaphthene-d10	164	7.983	7.983	(1.000)	519475	40.0000	
* 67 Phenanthrene-d10	188	9.599	9.599	(1.000)	914999	40.0000	
* 91 Chrysene-d12	240	12.613	12.613	(1.000)	718441	40.0000	
* 98 Perylene-d12	264	14.950	14.950	(1.000)	524113	40.0000	
209 Benzaldehyde	77	4.428	4.428	(0.916)	190719	40.0000	31.4
16 Acetophenone	105	5.211	5.211	(1.078)	306390	40.0000	37.1
189 Caprolactam	113	6.531	6.531	(1.068)	79108	40.0000	44.0
208 1,1'-Biphenyl	154	7.354	7.354	(0.921)	601890	40.0000	38.6
207 Atrazine	173	9.249	9.249	(0.964)	34200	40.0000	36.8
77 Benzidine	184	11.038	11.038	(0.875)	257818	40.0000	36.5
90 3,3'-Dichlorobenzidine	252	12.539	12.539	(0.994)	216482	40.0000	42.7
102 1,4-Dioxane	88	2.456	2.456	(0.508)	129460	40.0000	50.1
103 Methyl methacrylate	100	2.454	2.454	(0.508)	73600	40.0000	53.8
104 Ethyl methacrylate	69	2.971	2.971	(0.615)	275642	40.0000	48.4
105 2-Picoline	93	3.228	3.228	(0.668)	384374	40.0000	41.6
106 N-Nitrosomethylethylamine	88	3.297	3.297	(0.682)	151823	40.0000	42.1
107 Methyl methanesulfonate	80	3.521	3.521	(0.728)	147497	40.0000	39.5
108 N-Nitrosodiethylamine	102	3.858	3.858	(0.798)	144115	40.0000	41.2
109 Ethyl Methanesulfonate	79	4.097	4.097	(0.848)	208326	40.0000	45.3
110 Pentachloroethane	167	4.574	4.574	(0.946)	119725	40.0000	53.5
111 N-Nitrosopyrrolidine	100	5.190	5.190	(1.074)	130840	40.0000	38.9(Q)
113 N-Nitrosomorpholine	56	5.223	5.223	(1.081)	185493	40.0000	38.7
114 o-Toluidine	106	5.249	5.249	(1.086)	465737	40.0000	39.9
115 N-Nitrosopiperidine	114	5.539	5.539	(0.906)	138180	40.0000	40.2

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
116 a,a-Dimethylphenethylamine	58	5.962	5.962	(0.975)	849798	40.0000	40.8
118 2,6-Dichlorophenol	162	6.184	6.184	(1.012)	194979	40.0000	38.7
119 Hexachloropropene	213	6.222	6.222	(1.018)	141665	40.0000	56.6
120 p-Phenylenediamine	108	6.541	6.541	(1.070)	225910	40.0000	40.4
121 N-Nitrosodi-n-butylamine	84	6.515	6.515	(1.066)	211942	40.0000	41.4(T)
122 Safrole	162	6.750	6.750	(1.104)	203993	40.0000	44.9
123 1,2,4,5-Tetrachlorobenzene	216	7.035	7.035	(0.881)	220840	40.0000	40.2
124 Isosafrole	162	7.305	7.305	(0.915)	224711	40.0000	51.0
125 1,4-Naphthoquinone	158	7.565	7.565	(0.948)	157789	40.0000	39.6
127 Pentachlorobenzene	250	8.156	8.156	(1.022)	189057	40.0000	39.9
128 1-Naphthylamine	143	8.284	8.284	(1.038)	473709	40.0000	40.2
129 2-Naphthylamine	143	8.368	8.368	(1.048)	477216	40.0000	37.5
131 5-Nitro-o-toluidine	152	8.574	8.574	(1.074)	150626	40.0000	41.6
136 1,3,5-Trinitrobenzene	75	8.946	8.946	(0.932)	125876	40.0000	46.0
137 Phenacetin	108	9.010	9.010	(0.939)	237813	40.0000	39.6(Q)
138 Diallate	86	8.990	8.990	(0.937)	211803	40.0000	38.5
140 4-Aminobiphenyl	169	9.374	9.374	(0.977)	539794	40.0000	44.0
141 Pentachloronitrobenzene	237	9.392	9.392	(0.978)	56852	40.0000	40.1(Q)
142 Pronamide	173	9.423	9.423	(0.982)	240044	40.0000	39.9
146 4-Nitroquinoline-1-oxide	101	10.445	10.445	(1.088)	23608	40.0000	43.9
147 Methapyrilene	58	10.518	10.518	(1.096)	360709	40.0000	40.8
148 Isodrin	193	10.750	10.750	(1.120)	80870	40.0000	36.7
149 Aramite	185	11.265	11.265	(1.174)	38019	40.0000	37.6
150 Kepone	272	11.933	11.933	(1.243)	53886	40.0000	38.2
151 p-(Dimethylamino)azobenzene	120	11.456	11.456	(0.908)	237654	40.0000	41.7
152 Chlorobenzilate	251	11.499	11.499	(0.912)	210653	40.0000	40.3
153 3,3'-Dimethylbenzidine	212	11.838	11.838	(0.939)	415103	40.0000	43.8
155 2-Acetylaminofluorene	181	12.154	12.154	(0.964)	244425	40.0000	41.4
157 7,12Dimethylbenz(a)anthracene	256	14.251	14.251	(0.953)	217229	40.0000	34.6
158 3-Methylcholanthrene	268	15.477	15.477	(1.035)	187994	40.0000	38.8(Q)
212 Cis Diallate	86	9.092	9.092	(0.947)	35280	6.00000	6.1
213 Trans Diallate	86	8.990	8.990	(0.937)	211803	34.0000	32.7

QC Flag Legend

T - Target compound detected outside RT window.
Q - Qualifier signal failed the ratio test.

Data File: /chem/MSD6.i/s110909.b/s6k0938.d
Date : 10-NOV-2009 21:07
Client ID: AP12ICV
Sample Info: IWBN091016-08,1|40 PPM|1|SVMF1|1|AP12ICV
Column phase: J&W DB-5MS

Instrument: MSD6.i
Operator: JMB3
Column diameter: 0.20

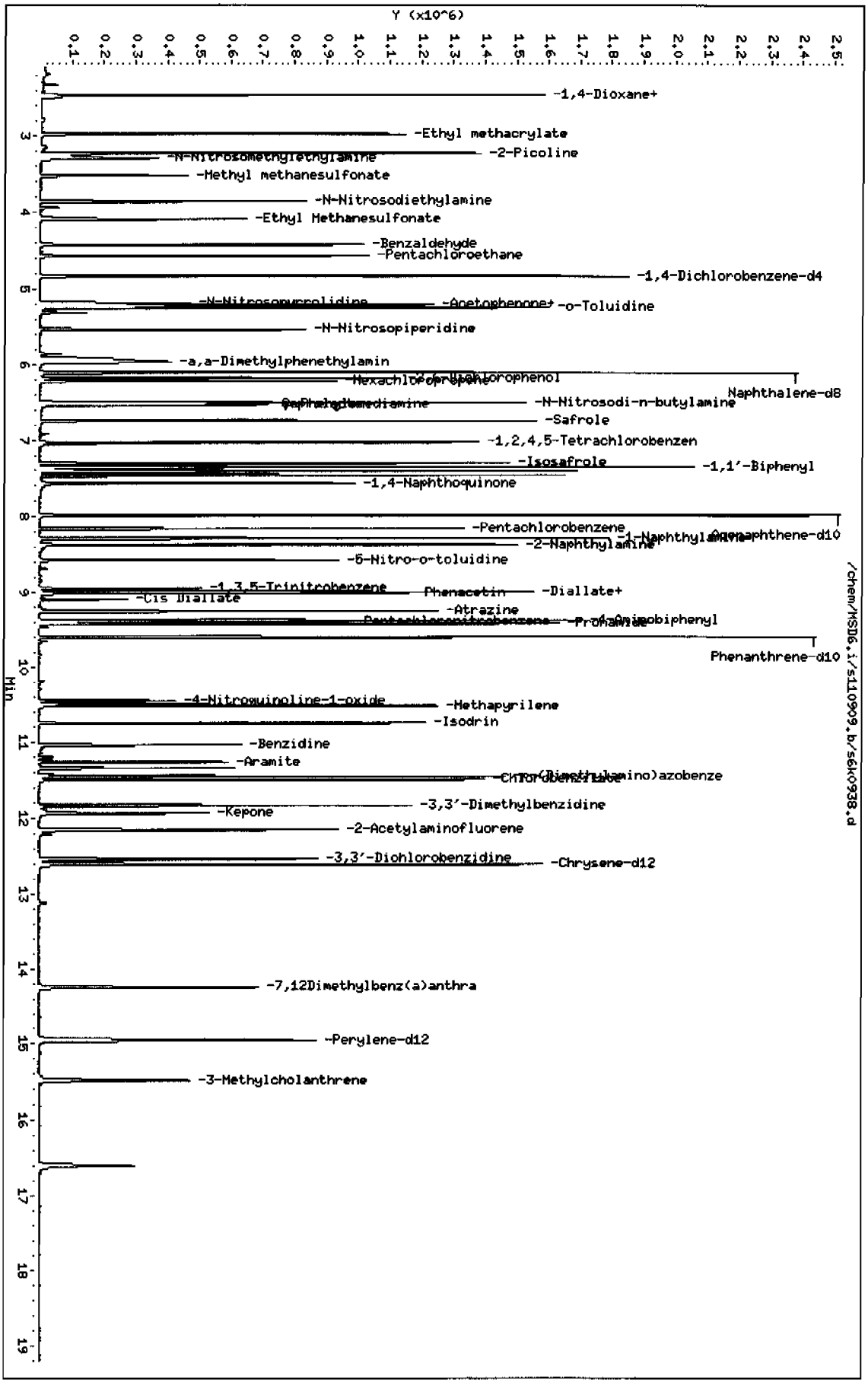

Page 1

Data File: /chem/MSD1.i/s123009.b/s113003.d
Report Date: 05-Jan-2010 10:56

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD1.i
Lab File ID: s113003.d
Analysis Type: WATER
Lab Sample ID: WBN091111-17.2 Quant Type: ISTD
Method: /chem/MSD1.i/s123009.b/MSD1-M8270AQA-111409.m

Injection Date: 30-DEC-2009 10:40
Init. Cal. Date(s): 14-NOV-2009 17-NOV-2009
Init. Cal. Times: 18:22 19:15

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
$ 3 2-Fluorophenol	1.04478	1.05696	1.05696	0.000	1.16512	60.00000	Averaged
$ 5 Phenol-d5	1.26984	1.25880	1.25880	0.000	-0.86876	60.00000	Averaged
$ 20 Nitrobenzene-d5	0.26360	0.27906	0.27906	0.000	5.86311	60.00000	Averaged
$ 39 2-Fluorobiphenyl	0.95800	1.09147	1.09147	0.000	13.93255	60.00000	Averaged
$ 60 2,4,6-Tribromophenol	0.11169	0.13266	0.13266	0.000	18.77496	60.00000	Averaged
$ 81 p-Terphenyl-d14	0.62787	0.70643	0.70643	0.000	12.51182	60.00000	Averaged
1 N-Methyl-N-nitrosomethylami	0.56740	0.64870	0.64870	0.000	14.32865	60.00000	Averaged
2 Pyridine	0.95281	0.85449	0.85449	0.000	-10.31866	60.00000	Averaged
4 Aniline	0.55813	0.50536	0.50536	0.000	-9.45521	60.00000	Averaged
6 Phenol	1.33800	1.29033	1.29033	0.001	-3.56300	20.00000	Averaged ccc
7 bis(2-Chloroethyl) ether	0.93081	0.88977	0.88977	0.000	-4.40881	60.00000	Averaged
8 2-Chlorophenol	1.13717	1.08452	1.08452	0.000	-4.62930	60.00000	Averaged
203 n-Decane	1.43160	1.52027	1.52027	0.000	6.19368	60.00000	Averaged
9 1,3-Dichlorobenzene	1.33431	1.23821	1.23821	0.000	-7.20266	60.00000	Averaged
11 1,4-Dichlorobenzene	1.30799	1.20507	1.20507	0.001	-7.86847	20.00000	Averaged ccc
13 1,2-Dichlorobenzene	1.20798	1.15057	1.15057	0.000	-4.75240	60.00000	Averaged
14 bis(2-Chloroisopropyl)ether	2.21709	2.01676	2.01676	0.000	-9.03544	60.00000	Averaged
12 Benzyl alcohol	0.69141	0.70948	0.70948	0.000	2.61301	60.00000	Averaged
15 o-Cresol	0.84650	0.81766	0.81766	0.000	-3.40605	60.00000	Averaged
18 m,p-Cresols	1.15179	1.10788	1.10788	0.000	-3.81206	60.00000	Averaged
17 N-Nitrosodipropylamine	0.76238	0.70103	0.70103	0.050	-8.04643	60.00000	Averaged spcc
19 Hexachloroethane	0.47075	0.44769	0.44769	0.000	-4.89783	60.00000	Averaged
21 Nitrobenzene	0.27466	0.28578	0.28578	0.000	4.04927	60.00000	Averaged
22 Isophorone	0.48049	0.51528	0.51528	0.000	7.23999	60.00000	Averaged
23 2-Nitrophenol	0.14580	0.13239	0.13239	0.001	-9.19481	20.00000	Averaged ccc
24 2,4-Dimethylphenol	0.23346	0.23000	0.23000	0.000	-1.48119	60.00000	Averaged
25 bis(2-Chloroethoxy)methane	0.30933	0.29953	0.29953	0.000	-3.16689	60.00000	Averaged
26 2,4-Dichlorophenol	0.21909	0.20995	0.20995	0.001	-4.17111	20.00000	Averaged ccc
27 Benzoic acid	0.16087	0.15618	0.15618	0.000	-2.91262	60.00000	Averaged
28 1,2,4-Trichlorobenzene	0.24210	0.24189	0.24189	0.000	-0.09013	60.00000	Averaged
30 Naphthalene	0.83482	0.83265	0.83265	0.000	-0.25925	60.00000	Averaged
204 alpha-Terpineol	0.19635	0.20960	0.20960	0.000	6.74742	60.00000	Averaged
31 4-Chloroaniline	0.38123	0.36468	0.36468	0.000	-4.34100	60.00000	Averaged
32 Hexachlorobutadiene	0.12432	0.13343	0.13343	0.001	7.32904	20.00000	Averaged ccc
33 4-Chloro-3-methylphenol	0.21406	0.21039	0.21039	0.001	-1.71216	20.00000	Averaged ccc
34 2-Methylnaphthalene	0.54880	0.57272	0.57272	0.000	4.35851	60.00000	Averaged

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD1.i
Lab File ID: s113003.d
Analysis Type: WATER
Lab Sample ID: WBN091111-17.2
Method: /chem/MSD1.i/s123009.b/MSD1-M8270AQA-111409.m

Injection Date: 30-DEC-2009 10:40
Init. Cal. Date(s): 14-NOV-2009 17-NOV-2009
Init. Cal. Times: 18:22 19:15
Quant Type: ISTD

	COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
35	1-Methylnaphthalene	0.49330	0.54099	0.54099	0.000	9.66717	60.00000	Averaged	
36	Hexachlorocyclopentadiene	0.12213	0.10846	0.10846	0.050	-11.19454	60.00000	Averaged	spcc
205	2,3-Dichloroaniline	0.45401	0.48003	0.48003	0.000	5.73179	60.00000	Averaged	
37	2,4,6-Trichlorophenol	0.26606	0.27611	0.27611	0.001	3.77982	20.00000	Averaged	ccc
38	2,4,5-Trichlorophenol	0.28290	0.31002	0.31002	0.000	9.58789	60.00000	Averaged	
40	2-Chloronaphthalene	0.98748	0.88169	0.88169	0.000	-10.71387	60.00000	Averaged	
42	o-Nitroaniline	0.30619	0.27448	0.27448	0.000	-10.35511	60.00000	Averaged	
41	m-Nitroaniline	0.27055	0.17490	0.17490	0.000	-35.35384	60.00000	Averaged	
43	Dimethylphthalate	1.08995	1.06391	1.06391	0.000	-2.38899	60.00000	Averaged	
44	2,6-Dinitrotoluene	0.27156	0.23693	0.23693	0.000	-12.75056	60.00000	Averaged	
50	2,4-Dinitrotoluene	0.35993	0.29973	0.29973	0.000	-16.72606	60.00000	Averaged	
45	Acenaphthylene	1.54092	1.60387	1.60387	0.000	4.08510	60.00000	Averaged	
47	Acenaphthene	0.92259	0.94978	0.94978	0.001	2.94723	20.00000	Averaged	ccc
48	2,4-Dinitrophenol	0.10718	0.08368	0.08368	0.050	-21.93009	60.00000	Averaged	spcc
49	Dibenzofuran	1.33422	1.21660	1.21660	0.000	-8.81582	60.00000	Averaged	
51	Diethylphthalate	1.01616	1.06181	1.06181	0.000	4.49322	60.00000	Averaged	
52	4-Nitrophenol	0.18871	0.16233	0.16233	0.050	-13.97923	60.00000	Averaged	spcc
53	Fluorene	1.07578	1.12588	1.12588	0.000	4.65704	60.00000	Averaged	
54	4-Chlorophenylphenylether	0.45420	0.48291	0.48291	0.000	6.32059	60.00000	Averaged	
55	2-Methyl-4,6-dinitrophenol	0.10120	0.10270	0.10270	0.000	1.49045	60.00000	Averaged	
56	p-Nitroaniline	0.26458	0.14292	0.14292	0.000	-45.98306	60.00000	Averaged	
133	Diphenylamine	0.53354	0.48179	0.48179	0.001	-9.69895	20.00000	Averaged	ccc
58	1,2-Diphenylhydrazine	0.65098	0.62605	0.62605	0.000	-3.83040	60.00000	Averaged	
61	4-Bromophenylphenylether	0.13743	0.16528	0.16528	0.000	20.26154	60.00000	Averaged	
63	Hexachlorobenzene	0.16869	0.18202	0.18202	0.000	7.90422	60.00000	Averaged	
65	Pentachlorophenol	0.10117	0.10394	0.10394	0.001	2.74457	20.00000	Averaged	ccc
206	n-Octadecane	0.43383	0.46736	0.46736	0.000	7.73034	60.00000	Averaged	
68	Phenanthrene	0.90903	0.91023	0.91023	0.000	0.13146	60.00000	Averaged	
69	Anthracene	0.92447	0.91798	0.91798	0.000	-0.70179	60.00000	Averaged	
72	Di-n-butylphthalate	0.98605	1.11143	1.11143	0.000	12.71492	60.00000	Averaged	
76	Fluoranthene	0.87746	0.93737	0.93737	0.001	6.82761	20.00000	Averaged	ccc
79	Pyrene	1.06293	1.17873	1.17873	0.000	10.89431	60.00000	Averaged	
85	Butylbenzylphthalate	0.48372	0.53932	0.53932	0.000	11.49381	60.00000	Averaged	
89	Benzo(a)anthracene	0.95915	0.93770	0.93770	0.000	-2.23594	60.00000	Averaged	
92	Chrysene	0.89647	0.94997	0.94997	0.000	5.96809	60.00000	Averaged	
93	bis(2-Ethylhexyl)phthalate	0.70275	0.76378	0.76378	0.000	8.68362	60.00000	Averaged	

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD1.i Injection Date: 30-DEC-2009 10:40
Lab File ID: s113003.d Init. Cal. Date(s): 14-NOV-2009 17-NOV-2009
Analysis Type: WATER Init. Cal. Times: 18:22 19:15
Lab Sample ID: WBN091111-17.2 Quant Type: ISTD
Method: /chem/MSD1.i/s123009.b/MSD1-M8270AQA-111409.m

	COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
	94 Di-n-octylphthalate	1.30849	1.48829	1.48829	0.001	13.74118	20.00000	Averaged	ccc
	95 Benzo(b)fluoranthene	43.56166	40.00000	1.11133	0.000	8.90416	60.00000	Linear	
	96 Benzo(k)fluoranthene	1.00298	1.07042	1.07042	0.000	6.72460	60.00000	Averaged	
	97 Benzo(a)pyrene	42.51191	40.00000	0.92834	0.001	6.27977	20.00000	Linear	ccc
	99 Indeno(1,2,3-cd)pyrene	36.71455	40.00000	0.83268	0.000	-8.21363	60.00000	Linear	
	100 Dibenzo(a,h)anthracene	36.31453	40.00000	0.68890	0.000	-9.21367	60.00000	Linear	
	101 Benzo(ghi)perylene	0.75165	0.70906	0.70906	0.000	-5.66540	60.00000	Averaged	
	126 m-Dinitrobenzene	0.18653	0.16086	0.16086	0.000	-13.75805	60.00000	Averaged	
	130 2,3,4,6-Tetrachlorophenol	0.21604	0.23832	0.23832	0.000	10.31247	60.00000	Averaged	
	143 Dinoseb	0.12447	0.12322	0.12322	0.000	-1.00492	60.00000	Averaged	
	173 Carbazole	0.80714	0.56306	0.56306	0.000	-30.24045	60.00000	Averaged	
	184 p-Benzoquinone	37.03719	40.00000	0.06083	0.000	-7.40704	60.00000	Linear	
	192 Methoxychlor	0.31747	0.49198	0.49198	0.000	54.97141	60.00000	Averaged	
	211 p-Toluidine	0.70440	0.92215	0.92215	0.000	30.91175	60.00000	Averaged	
	210 m-Toluidine	0.91072	1.21104	1.21104	0.000	32.97687	60.00000	Averaged	
	26 Phthalic anhydride	36.19379	40.00000	0.08479	0.000	-9.51553	60.00000	Linear	
	179 Dibenzo(a,e)pyrene	20.30516	40.00000	0.21895	0.000	-49.23710	60.00000	Linear	
	214 1,4-Dinitrobenzene	0.17315	0.14322	0.14322	0.000	-17.28749	60.00000	Averaged	
	215 2-Ethoxyethanol	0.60315	0.68348	0.68348	0.000	13.31856	60.00000	Averaged	
	216 Methylenebis(2-chloroanilin	0.12921	0.06257	0.06257	0.000	-51.57450	60.00000	Averaged	
M	225 Trichlorophenols	0.27448	0.29307	0.29307	0.000	6.77296	60.00000	Averaged	
M	226 Tetrachlorophenols	0.21604	0.23832	0.23832	0.000	10.31247	60.00000	Averaged	
M	227 Benzo(b,k)fluoranthene	0.96552	1.09088	1.09088	0.000	12.98299	60.00000	Averaged	

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Data file : /chem/MSD1.i/s123009.b/s113003.d
Lab Smp Id: WBN091111-17.2 Client Smp ID: MEGACVS
Inj Date : 30-DEC-2009 10:40
Operator : AMY Inst ID: MSD1.i
Smp Info : |WBN091111-17.2|40 PPM|1|SVMF|1|MEGACVS
Misc Info : |MSD8270|WBN091208-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD1.i/s123009.b/MSD1-M8270AQA-111409.m
Meth Date : 05-Jan-2010 10:56 amy01291 Quant Type: ISTD
Cal Date : 17-NOV-2009 17:42 Cal File: s1k1264.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: MEGAIICARE.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vo *Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vo	1000.00000	volume of sample ext
Vi	0.50000	volume injected

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	3.763	3.763	(1.000)	687374	40.0000	
* 29 Naphthalene-d8	136	4.622	4.622	(1.000)	2750224	40.0000	
* 46 Acenaphthene-d10	164	5.869	5.869	(1.000)	1443314	40.0000	
* 67 Phenanthrene-d10	188	6.857	6.857	(1.000)	2352888	40.0000	
* 91 Chrysene-d12	240	8.486	8.486	(1.000)	1958666	40.0000	
* 98 Perylene-d12	264	9.828	9.828	(1.000)	1612518	40.0000	
$ 3 2-Fluorophenol	112	2.969	2.969	(0.789)	726525	40.0000	40.5
$ 5 Phenol-d5	99	3.499	3.499	(0.930)	865269	40.0000	39.6
$ 20 Nitrobenzene-d5	82	4.128	4.128	(0.893)	767475	40.0000	42.3
$ 39 2-Fluorobiphenyl	172	5.363	5.363	(0.914)	1575337	40.0000	45.6
$ 60 2,4,6-Tribromophenol	329	6.410	6.410	(1.092)	191477	40.0000	47.5
$ 81 p-Terphenyl-d14	244	7.775	7.775	(0.916)	1383665	40.0000	45.0
1 N-Methyl-N-nitrosomethylamine	74	2.281	2.281	(0.606)	445898	40.0000	45.7

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
2 Pyridine	79	2.316	2.316	(0.616)	587354	40.0000	35.9
4 Aniline	66	3.557	3.557	(0.945)	347371	40.0000	36.2
6 Phenol	94	3.504	3.504	(0.931)	886937	40.0000	38.6
7 bis(2-Chloroethyl) ether	63	3.569	3.569	(0.948)	611608	40.0000	38.2
8 2-Chlorophenol	128	3.634	3.634	(0.966)	745474	40.0000	38.1
203 n-Decane	43	3.610	3.610	(0.959)	1044992	40.0000	42.5
9 1,3-Dichlorobenzene	146	3.728	3.728	(0.991)	851110	40.0000	37.1
11 1,4-Dichlorobenzene	146	3.775	3.775	(1.003)	828334	40.0000	36.8
13 1,2-Dichlorobenzene	146	3.881	3.881	(1.031)	790875	40.0000	38.1
14 bis(2-Chloroisopropyl)ether	45	3.910	3.910	(1.039)	1386270	40.0000	36.4
12 Benzyl alcohol	108	3.840	3.840	(1.020)	487676	40.0000	41.0
15 o-Cresol	107	3.893	3.893	(1.034)	562041	40.0000	38.6
18 m,p-Cresols	107	3.999	3.999	(1.063)	761527	40.0000	38.5
17 N-Nitrosodipropylamine	70	4.010	4.010	(1.066)	481871	40.0000	36.8
19 Hexachloroethane	117	4.104	4.104	(1.091)	307731	40.0000	38.0
21 Nitrobenzene	77	4.140	4.140	(0.896)	785950	40.0000	41.6
22 Isophorone	82	4.293	4.293	(0.929)	1417122	40.0000	42.9
23 2-Nitrophenol	139	4.351	4.351	(0.941)	364108	40.0000	36.3
24 2,4-Dimethylphenol	122	4.351	4.351	(0.941)	632562	40.0000	39.4
25 bis(2-Chloroethoxy)methane	93	4.416	4.416	(0.955)	823782	40.0000	38.7
26 2,4-Dichlorophenol	162	4.516	4.516	(0.977)	577412	40.0000	38.3
27 Benzoic acid	105	4.428	4.428	(0.958)	429540	40.0000	38.8
28 1,2,4-Trichlorobenzene	180	4.575	4.575	(0.990)	665242	40.0000	40.0
30 Naphthalene	128	4.640	4.640	(1.004)	2289979	40.0000	39.9(Q)
204 alpha-Terpineol	59	4.616	4.616	(0.999)	576454	40.0000	42.7
31 4-Chloroaniline	127	4.663	4.663	(1.009)	1002953	40.0000	38.3
32 Hexachlorobutadiene	225	4.704	4.704	(1.018)	366961	40.0000	42.9
33 4-Chloro-3-methylphenol	107	4.981	4.981	(1.078)	578623	40.0000	39.3
34 2-Methylnaphthalene	142	5.116	5.116	(1.107)	1575101	40.0000	41.7
35 1-Methylnaphthalene	142	5.193	5.193	(1.123)	1487853	40.0000	43.9
36 Hexachlorocyclopentadiene	237	5.222	5.222	(0.890)	156538	40.0000	35.5
205 2,3-Dichloroaniline	161	5.322	5.322	(0.907)	692834	40.0000	42.3
37 2,4,6-Trichlorophenol	196	5.310	5.310	(0.905)	398517	40.0000	41.5
38 2,4,5-Trichlorophenol	196	5.340	5.340	(0.910)	447462	40.0000	43.8
40 2-Chloronaphthalene	162	5.469	5.469	(0.932)	1272550	40.0000	35.7
42 o-Nitroaniline	65	5.534	5.534	(0.943)	396161	40.0000	35.8
41 m-Nitroaniline	138	5.834	5.834	(0.994)	252437	40.0000	25.8
43 Dimethylphthalate	163	5.646	5.646	(0.962)	1535553	40.0000	39.0
44 2,6-Dinitrotoluene	165	5.698	5.698	(0.971)	341971	40.0000	34.9
50 2,4-Dinitrotoluene	165	5.987	5.987	(1.020)	432602	40.0000	33.3
45 Acenaphthylene	152	5.769	5.769	(0.983)	2314891	40.0000	41.6
47 Acenaphthene	154	5.893	5.893	(1.004)	1370830	40.0000	41.2
48 2,4-Dinitrophenol	184	5.898	5.898	(1.005)	120775	40.0000	31.2(Q)
49 Dibenzofuran	168	6.010	6.010	(1.024)	1755929	40.0000	36.5
51 Diethylphthalate	149	6.128	6.128	(1.044)	1532532	40.0000	41.8
52 4-Nitrophenol	139	5.934	5.934	(1.011)	234299	40.0000	34.4
53 Fluorene	166	6.245	6.245	(1.064)	1625004	40.0000	41.9

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
54 4-Chlorophenylphenylether	204	6.228	6.228	(1.061)	696995	40.0000	42.5
55 2-Methyl-4,6-dinitrophenol	198	6.269	6.269	(0.914)	241653	40.0000	40.6
56 p-Nitroaniline	138	6.257	6.257	(1.066)	206273	40.0000	21.6
133 Diphenylamine	169	6.304	6.304	(0.919)	1133602	40.0000	36.1
58 1,2-Diphenylhydrazine	77	6.334	6.334	(0.924)	1473021	40.0000	38.5
61 4-Bromophenylphenylether	248	6.551	6.551	(0.955)	388874	40.0000	48.1
63 Hexachlorobenzene	284	6.610	6.610	(0.964)	428278	40.0000	43.2
65 Pentachlorophenol	266	6.734	6.734	(0.982)	244566	40.0000	41.1
206 n-Octadecane	57	6.710	6.710	(0.979)	1099649	40.0000	43.1
68 Phenanthrene	178	6.875	6.875	(1.003)	2141667	40.0000	40.0
69 Anthracene	178	6.904	6.904	(1.007)	2159906	40.0000	39.7
72 Di-n-butylphthalate	149	7.151	7.151	(1.043)	2615059	40.0000	45.1
76 Fluoranthene	202	7.587	7.587	(1.106)	2205530	40.0000	42.7
79 Pyrene	202	7.728	7.728	(0.911)	2308734	40.0000	44.4
85 Butylbenzylphthalate	149	8.028	8.028	(0.946)	1056352	40.0000	44.6
89 Benzo(a)anthracene	228	8.475	8.475	(0.999)	1836647	40.0000	39.1
92 Chrysene	228	8.504	8.504	(1.002)	1860679	40.0000	42.4
93 bis(2-Ethylhexyl)phthalate	149	8.363	8.363	(0.985)	1495989	40.0000	43.5
94 Di-n-octylphthalate	149	8.851	8.851	(0.901)	2399897	40.0000	45.5
95 Benzo(b)fluoranthene	252	9.398	9.398	(0.956)	1792045	40.0000	43.6
96 Benzo(k)fluoranthene	252	9.428	9.428	(0.959)	1726075	40.0000	42.7
97 Benzo(a)pyrene	252	9.763	9.763	(0.993)	1496957	40.0000	42.5
99 Indeno(1,2,3-cd)pyrene	276	11.310	11.310	(1.151)	1342718	40.0000	36.7
100 Dibenzo(a,h)anthracene	278	11.310	11.310	(1.151)	1110865	40.0000	36.3
101 Benzo(ghi)perylene	276	11.775	11.775	(1.198)	1143379	40.0000	37.7
126 m-Dinitrobenzene	168	5.687	5.687	(0.969)	232178	40.0000	34.5
130 2,3,4,6-Tetrachlorophenol	232	6.087	6.087	(1.037)	343967	40.0000	44.1
143 Dinoseb	211	6.822	6.822	(0.995)	289925	40.0000	39.6
173 Carbazole	167	6.998	6.998	(1.021)	1324815	40.0000	27.9
184 p-Benzoquinone	54	3.263	3.263	(0.867)	41811	40.0000	37.0
192 Methoxychlor	227	8.351	8.351	(0.984)	963627	40.0000	62.0
211 p-Toluidine	106	4.046	4.046	(1.075)	633861	40.0000	52.4
210 m-Toluidine	106	4.069	4.069	(1.081)	832440	40.0000	53.2
26 Phthalic anhydride	104	5.163	5.163	(1.117)	233201	40.0000	36.2
179 Dibenzo(a,e)pyrene	302	15.286	15.286	(1.555)	353061	40.0000	20.3
214 1,4-Dinitrobenzene	168	5.628	5.628	(0.959)	206708	40.0000	33.1
215 2-Ethoxyethanol	59	2.128	2.128	(0.565)	469804	40.0000	45.3
216 Methylenebis(2-chloroaniline)	231	8.416	8.416	(0.992)	122551	40.0000	19.4
M 225 Trichlorophenols	196				845979	80.0000	85.4
M 226 Tetrachlorophenols	232				343967	40.0000	44.1
M 227 Benzo(b,k)fluoranthene	252				3518120	80.0000	90.4

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: /chem/MSD1.i/s123009.b/s113003.d

Date : 30-DEC-2009 10:40

Client ID: MEGACVS

Sample Info: |WBN091111-17.2|40 PPM|1|SVMF|1|MEGACVS

Volume Injected (uL): 0.5

Column phase: J&W DB-5MS

Instrument: MSD1.i

Operator: AMY

Column diameter: 0.20

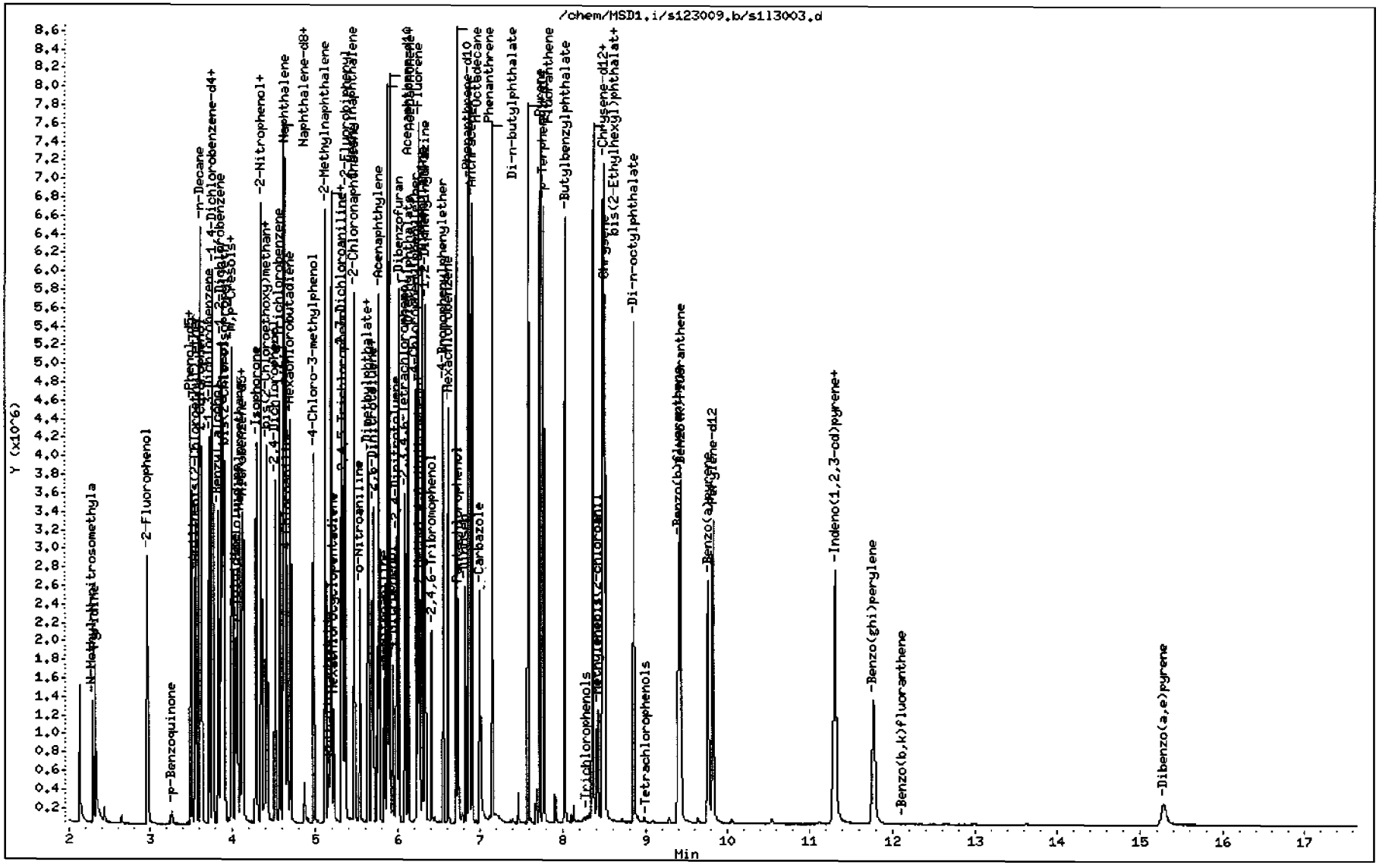

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD1.i
Lab File ID: s113004.d
Analysis Type: WATER
Lab Sample ID: WBN091201-03.5 Quant Type: ISTD
Method: /chem/MSD1.i/s123009.b/MSD1-M8270AQA-111409.m

Injection Date: 30-DEC-2009 11:22
Init. Cal. Date(s): 14-NOV-2009 17-NOV-2009
Init. Cal. Times: 18:22 19:15

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
209 Benzaldehyde	0.82400	0.85273	0.85273	0.000	3.48734	60.00000	Averaged
16 Acetophenone	1.12880	1.13624	1.13624	0.000	0.65902	60.00000	Averaged
189 Caprolactam	0.07169	0.07651	0.07651	0.000	6.72511	60.00000	Averaged
208 1,1'-Biphenyl	1.12050	1.18443	1.18443	0.000	5.70517	60.00000	Averaged
207 Atrazine	0.04008	0.04173	0.04173	0.000	4.10588	60.00000	Averaged
77 Benzidine	0.36215	0.11324	0.11324	0.000	-68.73173	60.00000	Averaged <-
90 3,3'-Dichlorobenzidine	0.27540	0.27454	0.27454	0.000	-0.31144	60.00000	Averaged
102 1,4-Dioxane	0.31387	0.33676	0.33676	0.000	7.29427	60.00000	Averaged
103 Methyl methacrylate	0.17640	0.17182	0.17182	0.000	-2.60008	60.00000	Averaged
104 Ethyl methacrylate	0.71299	0.75717	0.75717	0.000	6.19677	60.00000	Averaged
105 2-Picoline	1.15384	1.18857	1.18857	0.000	3.00982	60.00000	Averaged
106 N-Nitrosomethylethylamine	0.45426	0.46231	0.46231	0.000	1.77256	60.00000	Averaged
107 Methyl methanesulfonate	0.42570	0.44570	0.44570	0.000	4.69756	60.00000	Averaged
108 N-Nitrosodiethylamine	0.47954	0.47175	0.47175	0.000	-1.62445	60.00000	Averaged
109 Ethyl Methanesulfonate	0.59625	0.60335	0.60335	0.000	1.19054	60.00000	Averaged
110 Pentachloroethane	0.29115	0.30009	0.30009	0.000	3.06923	60.00000	Averaged
111 N-Nitrosopyrrolidine	0.47509	0.48605	0.48605	0.000	2.30659	60.00000	Averaged
113 N-Nitrosomorpholine	0.61749	0.61844	0.61844	0.000	0.15479	60.00000	Averaged
114 o-Toluidine	1.65327	1.59782	1.59782	0.000	-3.35390	60.00000	Averaged
115 N-Nitrosopiperidine	0.13156	0.13075	0.13075	0.000	-0.61300	60.00000	Averaged
116 a,a-Dimethylphenethylamine	0.76801	0.76745	0.76745	0.000	-0.07298	60.00000	Averaged
118 2,6-Dichlorophenol	0.19701	0.20538	0.20538	0.000	4.24634	60.00000	Averaged
119 Hexachloropropene	0.08895	0.09272	0.09272	0.000	4.23201	60.00000	Averaged
120 p-Phenylenediamine	0.20154	0.08985	0.08985	0.000	-55.41931	60.00000	Averaged
121 N-Nitrosodi-n-butylamine	0.17172	0.17530	0.17530	0.000	2.08376	60.00000	Averaged
122 Safrole	0.17864	0.17753	0.17753	0.000	-0.61864	60.00000	Averaged
123 1,2,4,5-Tetrachlorobenzene	0.36713	0.42248	0.42248	0.000	15.07722	60.00000	Averaged
124 Isosafrole	0.32761	0.32996	0.32996	0.000	0.71724	60.00000	Averaged
125 1,4-Naphthoquinone	0.29676	0.33177	0.33177	0.000	11.79610	60.00000	Averaged
127 Pentachlorobenzene	0.31451	0.37406	0.37406	0.000	18.93206	60.00000	Averaged
128 1-Naphthylamine	0.89420	0.84909	0.84909	0.000	-5.04482	60.00000	Averaged
129 2-Naphthylamine	0.97473	0.85993	0.85993	0.000	-11.77809	60.00000	Averaged
131 5-Nitro-o-toluidine	0.28528	0.26025	0.26025	0.000	-8.77458	60.00000	Averaged
136 1,3,5-Trinitrobenzene	0.11623	0.11698	0.11698	0.000	0.65127	60.00000	Averaged
137 Phenacetin	0.25708	0.24827	0.24827	0.000	-3.42862	60.00000	Averaged
138 Diallate	0.23112	0.24498	0.24498	0.000	5.99676	60.00000	Averaged

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD1.i Injection Date: 30-DEC-2009 11:22
Lab File ID: s113004.d Init. Cal. Date(s): 14-NOV-2009 17-NOV-2009
Analysis Type: WATER Init. Cal. Times: 18:22 19:15
Lab Sample ID: WBN091201-03.5 Quant Type: ISTD
Method: /chem/MSD1.i/s123009.b/MSD1-M8270AQA-111409.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
212 Cis Diallate	0.23999	0.25444	0.25444	0.000	6.02044	60.00000	Averaged
213 Trans Diallate	0.27191	0.28821	0.28821	0.000	5.99676	60.00000	Averaged
140 4-Aminobiphenyl	0.53614	0.44691	0.44691	0.000	-16.64266	60.00000	Averaged
141 Pentachloronitrobenzene	0.05324	0.06407	0.06407	0.000	20.33908	60.00000	Averaged
142 Pronamide	0.23368	0.24482	0.24482	0.000	4.76704	60.00000	Averaged
146 4-Nitroquinoline-1-oxide	0.00980	0.01188	0.01188	0.000	21.15025	60.00000	Averaged
147 Methapyrilene	0.36822	0.39703	0.39703	0.000	7.82481	60.00000	Averaged
148 Isodrin	0.08609	0.09807	0.09807	0.000	13.91592	60.00000	Averaged
149 Aramite	0.04255	0.04477	0.04477	0.000	5.21060	60.00000	Averaged
150 Kepone	0.06308	0.07256	0.07256	0.000	15.01541	60.00000	Averaged
151 p-(Dimethylamino)azobenzene	0.28392	0.28228	0.28228	0.000	-0.58046	60.00000	Averaged
152 Chlorobenzilate	0.21994	0.30046	0.30046	0.000	36.61420	60.00000	Averaged
153 3,3'-Dimethylbenzidine	0.47945	0.35931	0.35931	0.000	-25.05922	60.00000	Averaged
155 2-Acetylaminofluorene	0.30801	0.30093	0.30093	0.000	-2.29881	60.00000	Averaged
157 7,12Dimethylbenz(a)anthrace	0.42123	0.46960	0.46960	0.000	11.48309	60.00000	Averaged
158 3-Methylcholanthrene	0.36711	0.37868	0.37868	0.000	3.15260	60.00000	Averaged

GEL Laboratories LLC

Data file : /chem/MSD1.i/s123009.b/s113004.d
Lab Smp Id: WBN091201-03.5 Client Smp ID: APCVS
Inj Date : 30-DEC-2009 11:22
Operator : AMY Inst ID: MSD1.i
Smp Info : |WBN091201-03.5|40 PPM|1|SVMF|1|APCVS
Misc Info : |MSD8270|WBN091223-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD1.i/s123009.b/MSD1-M8270AQA-111409.m
Meth Date : 30-Dec-2009 13:47 amy01291 Quant Type: ISTD
Cal Date : 17-NOV-2009 17:42 Cal File: s1k1264.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ap12.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vo *Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vo	1000.00000	volume of sample ext
Vi	0.50000	volume injected

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	3.763	3.763	(1.000)	757837	40.0000	
* 29 Naphthalene-d8	136	4.622	4.622	(1.000)	2869969	40.0000	
* 46 Acenaphthene-d10	164	5.869	5.869	(1.000)	1549264	40.0000	
* 67 Phenanthrene-d10	188	6.863	6.863	(1.000)	2526808	40.0000	
* 91 Chrysene-d12	240	8.481	8.481	(1.000)	2066235	40.0000	
* 98 Perylene-d12	264	9.828	9.828	(1.000)	1680229	40.0000	
209 Benzaldehyde	77	3.493	3.493	(0.928)	646234	40.0000	41.4
16 Acetophenone	105	4.016	4.016	(1.067)	861082	40.0000	40.3
189 Caprolactam	113	4.910	4.910	(1.062)	219576	40.0000	42.7
208 1,1'-Biphenyl	154	5.440	5.440	(0.927)	1834997	40.0000	42.3
207 Atrazine	173	6.634	6.634	(0.967)	105437	40.0000	41.6
77 Benzidine	184	7.645	7.645	(0.902)	233979	40.0000	12.5
90 3,3'-Dichlorobenzidine	252	8.422	8.422	(0.993)	567274	40.0000	39.9

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
102 1,4-Dioxane	88	2.128	2.128	(0.565)	255211	40.0000	42.9
103 Methyl methacrylate	100	2.122	2.122	(0.564)	130210	40.0000	39.0
104 Ethyl methacrylate	69	2.481	2.481	(0.659)	573813	40.0000	42.5
105 2-Picoline	93	2.675	2.675	(0.711)	900744	40.0000	41.2
106 N-Nitrosomethylethylamine	88	2.722	2.722	(0.723)	350359	40.0000	40.7
107 Methyl methanesulfonate	80	2.881	2.881	(0.766)	337769	40.0000	41.9
108 N-Nitrosodiethylamine	102	3.104	3.104	(0.825)	357510	40.0000	39.4
109 Ethyl Methanesulfonate	79	3.263	3.263	(0.867)	457241	40.0000	40.5
110 Pentachloroethane	167	3.587	3.587	(0.953)	227420	40.0000	41.2
111 N-Nitrosopyrrolidine	100	4.010	4.010	(1.066)	368345	40.0000	40.9
113 N-Nitrosomorpholine	56	4.028	4.028	(1.070)	468679	40.0000	40.1
114 o-Toluidine	106	4.046	4.046	(1.075)	1210889	40.0000	38.6
115 N-Nitrosopiperidine	114	4.240	4.240	(0.917)	375261	40.0000	39.8
116 a,a-Dimethylphenethylamine	58	4.481	4.481	(0.969)	2202560	40.0000	40.0
118 2,6-Dichlorophenol	162	4.669	4.669	(1.010)	589422	40.0000	41.7
119 Hexachloropropene	213	4.693	4.693	(1.015)	266099	40.0000	41.7
120 p-Phenylenediamine	108	4.622	4.622	(1.000)	257857	40.0000	17.8
121 N-Nitrosodi-n-butylamine	84	4.869	4.869	(1.053)	503115	40.0000	40.8(Q)
122 Safrole	162	5.034	5.034	(1.089)	509512	40.0000	39.8
123 1,2,4,5-Tetrachlorobenzene	216	5.234	5.234	(0.892)	654533	40.0000	46.0
124 Isosafrole	162	5.404	5.404	(0.921)	511196	40.0000	40.3
125 1,4-Naphthoquinone	158	5.593	5.593	(0.953)	513999	40.0000	44.7
127 Pentachlorobenzene	250	5.981	5.981	(1.019)	579515	40.0000	47.6
128 1-Naphthylamine	143	6.063	6.063	(1.033)	1315467	40.0000	38.0
129 2-Naphthylamine	143	6.116	6.116	(1.042)	1332257	40.0000	35.3
131 5-Nitro-o-toluidine	152	6.245	6.245	(1.064)	403195	40.0000	36.5
136 1,3,5-Trinitrobenzene	75	6.475	6.475	(0.943)	295598	40.0000	40.3
137 Phenacetin	108	6.498	6.498	(0.947)	627330	40.0000	38.6
138 Diallate	86	6.475	6.475	(0.943)	619022	40.0000	42.4
212 Cis Diallate	86	6.540	6.540	(0.953)	96437	6.00000	6.4
213 Trans Diallate	86	6.475	6.475	(0.943)	619022	34.0000	36.0
140 4-Aminobiphenyl	169	6.728	6.728	(0.980)	1129256	40.0000	33.3
141 Pentachloronitrobenzene	237	6.740	6.740	(0.982)	161897	40.0000	48.1
142 Pronamide	173	6.734	6.734	(0.981)	618606	40.0000	41.9
146 4-Nitroquinoline-1-oxide	101	7.334	7.334	(1.069)	30013	40.0000	48.5
147 Methapyrilene	58	7.345	7.345	(1.070)	1003221	40.0000	43.1
148 Isodrin	193	7.498	7.498	(1.093)	247809	40.0000	45.6
149 Aramite	185	7.728	7.728	(1.126)	113124	40.0000	42.1
150 Kepone	272	8.122	8.122	(1.183)	183337	40.0000	46.0
151 p-(Dimethylamino)azobenzene	120	7.851	7.851	(0.926)	583247	40.0000	39.8
152 Chlorobenzilate	251	7.863	7.863	(0.927)	620830	40.0000	54.6
153 3,3'-Dimethylbenzidine	212	8.051	8.051	(0.949)	742412	40.0000	30.0
155 2-Acetylaminofluorene	181	8.222	8.222	(0.969)	621796	40.0000	39.1
157 7,12Dimethylbenz(a)anthracene	256	9.369	9.369	(0.953)	789028	40.0000	44.6
158 3-Methylcholanthrene	268	10.145	10.145	(1.032)	636276	40.0000	41.3

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: /chem/MSD1.i/s123009.b/s113004.d
Date : 30-DEC-2009 11:22
Client ID: APCVS
Sample Info: IWBN091201-03,5140 PPM11ISVHF11IAPCVS
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD1.i
Operator: AMY
Column diameter: 0.20

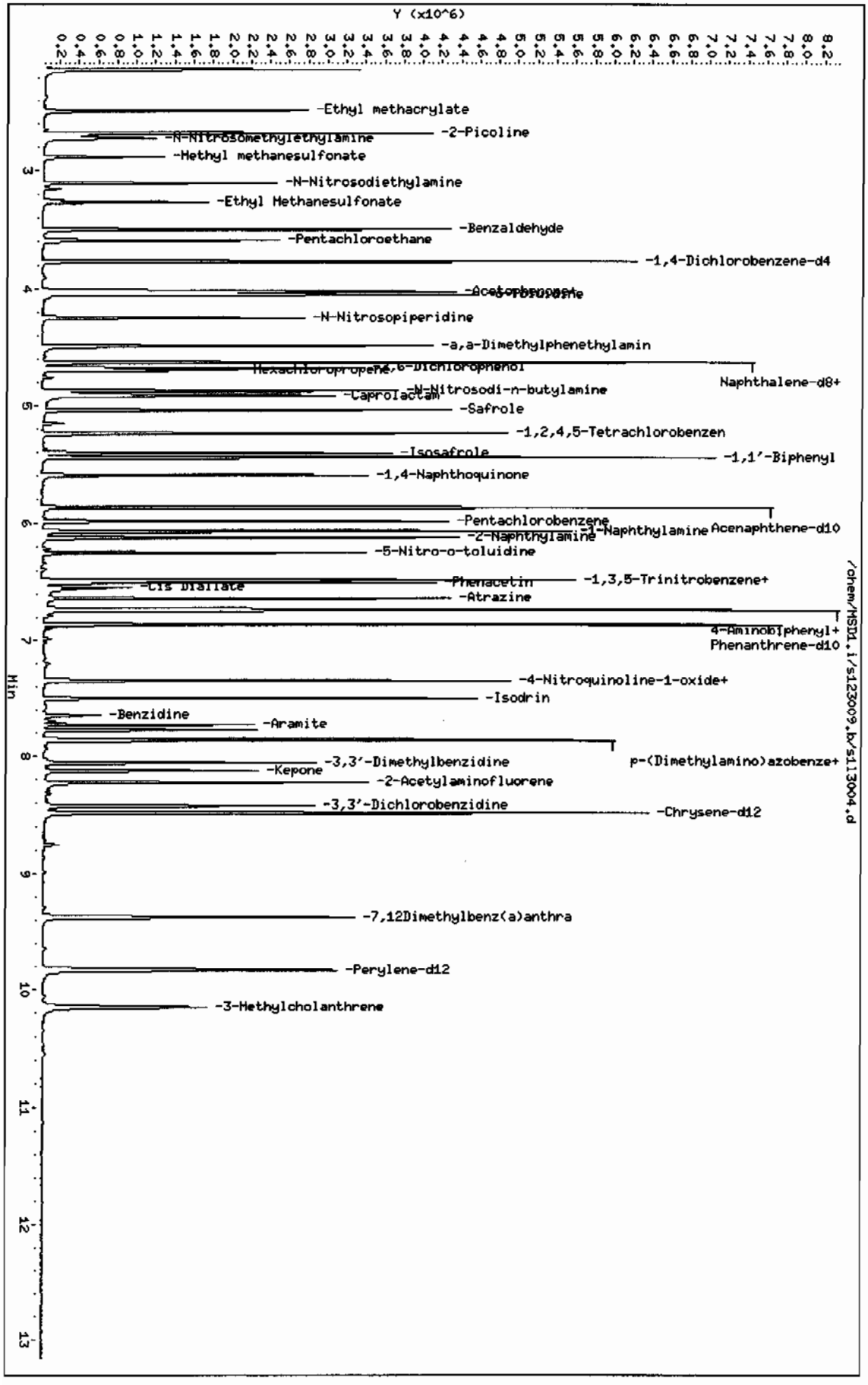

Page 1

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD6.i Injection Date: 22-DEC-2009 15:28
Lab File ID: s612207.d Init. Cal. Date(s): 09-NOV-2009 11-NOV-2009
Analysis Type: WATER Init. Cal. Times: 18:53 04:38
Lab Sample ID: WBN091111-17.4 Quant Type: ISTD
Method: /chem/MSD6.i/s122209.b/MSD6-M8270C-AQA-110909.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
$ 3 2-Fluorophenol	1.00169	0.93541	0.93541	0.000	-6.61633	60.00000	Averaged
$ 5 Phenol-d5	1.26427	1.20769	1.20769	0.000	-4.47546	60.00000	Averaged
$ 20 Nitrobenzene-d5	0.28296	0.27272	0.27272	0.000	-3.61874	60.00000	Averaged
$ 39 2-Fluorobiphenyl	1.03083	1.03433	1.03433	0.000	0.33932	60.00000	Averaged
$ 60 2,4,6-Tribromophenol	0.11675	0.13073	0.13073	0.000	11.97633	60.00000	Averaged
$ 81 p-Terphenyl-d14	0.64507	0.68932	0.68932	0.000	6.86084	60.00000	Averaged
1 N-Methyl-N-nitrosomethylami	0.68098	0.57615	0.57615	0.000	-15.39400	60.00000	Averaged
2 Pyridine	0.84757	0.63525	0.63525	0.000	-25.05076	60.00000	Averaged
4 Aniline	0.52752	0.47602	0.47602	0.000	-9.76270	60.00000	Averaged
6 Phenol	1.27120	1.20077	1.20077	0.001	-5.54046	20.00000	Averaged ccc
7 bis(2-Chloroethyl) ether	0.86081	0.74896	0.74896	0.000	-12.99348	60.00000	Averaged
8 2-Chlorophenol	1.02109	0.97734	0.97734	0.000	-4.28448	60.00000	Averaged
203 n-Decane	1.42254	1.17612	1.17612	0.000	-17.32200	60.00000	Averaged
9 1,3-Dichlorobenzene	1.17550	1.15554	1.15554	0.000	-1.69744	60.00000	Averaged
11 1,4-Dichlorobenzene	1.19162	1.14748	1.14748	0.001	-3.70412	20.00000	Averaged ccc
13 1,2-Dichlorobenzene	1.11231	1.09444	1.09444	0.000	-1.60599	60.00000	Averaged
14 bis(2-Chloroisopropyl)ether	1.92182	1.80146	1.80146	0.000	-6.26286	60.00000	Averaged
12 Benzyl alcohol	0.63436	0.54156	0.54156	0.000	-14.62929	60.00000	Averaged
15 o-Cresol	0.83139	0.79556	0.79556	0.000	-4.30936	60.00000	Averaged
18 m,p-Cresols	1.05346	1.04304	1.04304	0.000	-0.98932	60.00000	Averaged
17 N-Nitrosodipropylamine	0.70865	0.70163	0.70163	0.050	-0.99135	60.00000	Averaged spcc
19 Hexachloroethane	0.46100	0.41604	0.41604	0.000	-9.75283	60.00000	Averaged
21 Nitrobenzene	0.28519	0.27403	0.27403	0.000	-3.91288	60.00000	Averaged
22 Isophorone	0.50552	0.49376	0.49376	0.000	-2.32461	60.00000	Averaged
23 2-Nitrophenol	0.13154	0.13443	0.13443	0.001	2.19144	20.00000	Averaged ccc
24 2,4-Dimethylphenol	0.21795	0.23041	0.23041	0.000	5.71826	60.00000	Averaged
25 bis(2-Chloroethoxy)methane	0.29749	0.28931	0.28931	0.000	-2.74989	60.00000	Averaged
26 2,4-Dichlorophenol	0.19769	0.20689	0.20689	0.001	4.65588	20.00000	Averaged ccc
27 Benzoic acid	0.13453	0.16433	0.16433	0.000	22.15355	60.00000	Averaged
28 1,2,4-Trichlorobenzene	0.24261	0.23794	0.23794	0.000	-1.92828	60.00000	Averaged
30 Naphthalene	0.79792	0.80941	0.80941	0.000	1.44104	60.00000	Averaged
204 alpha-Terpineol	0.21868	0.20002	0.20002	0.000	-8.53280	60.00000	Averaged
31 4-Chloroaniline	0.25646	0.25923	0.25923	0.000	1.08181	60.00000	Averaged
32 Hexachlorobutadiene	0.12634	0.12845	0.12845	0.001	1.67335	20.00000	Averaged ccc
33 4-Chloro-3-methylphenol	0.19957	0.21112	0.21112	0.001	5.78978	20.00000	Averaged ccc
34 2-Methylnaphthalene	0.48150	0.56207	0.56207	0.000	16.73282	60.00000	Averaged

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD6.i Injection Date: 22-DEC-2009 15:28
Lab File ID: s612207.d Init. Cal. Date(s): 09-NOV-2009 11-NOV-2009
Analysis Type: WATER Init. Cal. Times: 18:53 04:38
Lab Sample ID: WBN091111-17.4 Quant Type: ISTD
Method: /chem/MSD6.i/s122209.b/MSD6-M8270C-AQA-110909.m

	COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
35	1-Methylnaphthalene	0.47100	0.52712	0.52712	0.000	11.91373	60.00000	Averaged	
36	Hexachlorocyclopentadiene	0.16157	0.08811	0.08811	0.050	-45.46630	60.00000	Averaged	spcc
205	2,3-Dichloroaniline	0.47908	0.47330	0.47330	0.000	-1.20578	60.00000	Averaged	
37	2,4,6-Trichlorophenol	0.27294	0.26929	0.26929	0.001	-1.33784	20.00000	Averaged	ccc
38	2,4,5-Trichlorophenol	0.29067	0.29457	0.29457	0.000	1.34138	60.00000	Averaged	
40	2-Chloronaphthalene	0.89832	0.87110	0.87110	0.000	-3.03048	60.00000	Averaged	
42	o-Nitroaniline	0.30732	0.27560	0.27560	0.000	-10.32160	60.00000	Averaged	
41	m-Nitroaniline	0.22497	0.23389	0.23389	0.000	3.96251	60.00000	Averaged	
43	Dimethylphthalate	1.02610	1.05349	1.05349	0.000	2.66901	60.00000	Averaged	
44	2,6-Dinitrotoluene	0.24475	0.24494	0.24494	0.000	0.07703	60.00000	Averaged	
50	2,4-Dinitrotoluene	0.30862	0.31884	0.31884	0.000	3.31163	60.00000	Averaged	
45	Acenaphthylene	1.44438	1.60207	1.60207	0.000	10.91749	60.00000	Averaged	
47	Acenaphthene	0.90151	0.95270	0.95270	0.001	5.67822	20.00000	Averaged	ccc
48	2,4-Dinitrophenol	39.60270	40.00000	0.08206	0.050	-0.99325	60.00000	Linear	spcc
49	Dibenzofuran	1.21689	1.22952	1.22952	0.000	1.03782	60.00000	Averaged	
51	Diethylphthalate	1.03335	1.06411	1.06411	0.000	2.97700	60.00000	Averaged	
52	4-Nitrophenol	39.39875	40.00000	0.16175	0.050	-1.50311	60.00000	Linear	spcc
53	Fluorene	0.99879	1.09223	1.09223	0.000	9.35525	60.00000	Averaged	
54	4-Chlorophenylphenylether	0.47192	0.49613	0.49613	0.000	5.13037	60.00000	Averaged	
55	2-Methyl-4,6-dinitrophenol	46.48392	40.00000	0.10617	0.000	16.20979	60.00000	Linear	
56	p-Nitroaniline	39.76149	40.00000	0.20855	0.000	-0.59628	60.00000	Linear	
133	Diphenylamine	0.48213	0.48441	0.48441	0.001	0.47261	20.00000	Averaged	ccc
58	1,2-Diphenylhydrazine	0.61327	0.58105	0.58105	0.000	-5.25367	60.00000	Averaged	
61	4-Bromophenylphenylether	0.15784	0.15876	0.15876	0.000	0.58340	60.00000	Averaged	
63	Hexachlorobenzene	0.16533	0.16493	0.16493	0.000	-0.24390	60.00000	Averaged	
65	Pentachlorophenol	37.48749	40.00000	0.08000	0.001	-6.28129	20.00000	Linear	ccc
206	n-Octadecane	0.44173	0.42256	0.42256	0.000	-4.34110	60.00000	Averaged	
68	Phenanthrene	0.82721	0.87873	0.87873	0.000	6.22735	60.00000	Averaged	
69	Anthracene	0.82682	0.90380	0.90380	0.000	9.30965	60.00000	Averaged	
72	Di-n-butylphthalate	0.94954	1.00821	1.00821	0.000	6.17966	60.00000	Averaged	
76	Fluoranthene	0.79242	0.89185	0.89185	0.001	12.54754	20.00000	Averaged	ccc
79	Pyrene	1.10021	1.12856	1.12856	0.000	2.57713	60.00000	Averaged	
85	Butylbenzylphthalate	0.50351	0.51526	0.51526	0.000	2.33459	60.00000	Averaged	
89	Benzo(a)anthracene	0.86301	0.92737	0.92737	0.000	7.45758	60.00000	Averaged	
92	Chrysene	0.82690	0.88448	0.88448	0.000	6.96298	60.00000	Averaged	
93	bis(2-Ethylhexyl)phthalate	41.87803	40.00000	0.72669	0.000	4.69507	60.00000	Wt Linear	

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD6.i Injection Date: 22-DEC-2009 15:28
Lab File ID: s612207.d Init. Cal. Date(s): 09-NOV-2009 11-NOV-2009
Analysis Type: WATER Init. Cal. Times: 18:53 04:38
Lab Sample ID: WBN091111-17.4 Quant Type: ISTD
Method: /chem/MSD6.i/s122209.b/MSD6-M8270C-AQA-110909.m

	COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
	94 Di-n-octylphthalate	1.27127	1.30874	1.30874	0.001	2.94742	20.00000	Averaged	ccc
	95 Benzo(b)fluoranthene	0.88507	0.99048	0.99048	0.000	11.90953	60.00000	Averaged	
	96 Benzo(k)fluoranthene	0.88011	0.96855	0.96855	0.000	10.04912	60.00000	Averaged	
	97 Benzo(a)pyrene	0.76447	0.89535	0.89535	0.001	17.12119	20.00000	Averaged	ccc
	99 Indeno(1,2,3-cd)pyrene	44.09805	40.00000	0.80858	0.000	10.24512	60.00000	Linear	
	100 Dibenzo(a,h)anthracene	44.51415	40.00000	0.66542	0.000	11.28537	60.00000	Linear	
	101 Benzo(ghi)perylene	0.58403	0.67589	0.67589	0.000	15.72870	60.00000	Averaged	
	126 m-Dinitrobenzene	0.16929	0.17111	0.17111	0.000	1.07466	60.00000	Averaged	
	130 2,3,4,6-Tetrachlorophenol	0.21896	0.22315	0.22315	0.000	1.91348	60.00000	Averaged	
	143 Dinoseb	38.84641	40.00000	0.12029	0.000	-2.88398	60.00000	Linear	
	173 Carbazole	0.65449	0.67765	0.67765	0.000	3.53857	60.00000	Averaged	
	184 p-Benzoquinone	0.12730	0.06725	0.06725	0.000	-47.17074	60.00000	Averaged	
	192 Methoxychlor	0.55243	0.49910	0.49910	0.000	-9.65456	60.00000	Averaged	
	211 p-Toluidine	0.89987	0.90051	0.90051	0.000	0.07088	60.00000	Averaged	
	210 m-Toluidine	1.12396	1.12129	1.12129	0.000	-0.23734	60.00000	Averaged	
	26 Phthalic anhydride	54.61221	40.00000	0.10948	0.000	36.53052	60.00000	Linear	
	214 1,4-Dinitrobenzene	0.18382	0.17607	0.17607	0.000	-4.21634	60.00000	Averaged	
	215 2-Ethoxyethanol	0.71035	0.52923	0.52923	0.000	-25.49717	60.00000	Averaged	
	216 Methylenebis(2-chloroanilin	39.36144	40.00000	0.12324	0.000	-1.59639	60.00000	Linear	
M	225 Trichlorophenols	0.28180	0.28193	0.28193	0.000	0.04391	60.00000	Averaged	
M	226 Tetrachlorophenols	0.21896	0.22315	0.22315	0.000	1.91348	60.00000	Averaged	
M	227 Benzo(b,k)fluoranthene	0.88259	0.97952	0.97952	0.000	10.98194	60.00000	Averaged	

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Data file : /chem/MSD6.i/s122209.b/s612207.d
Lab Smp Id: WBN091111-17.4 Client Smp ID: MEGACVS
Inj Date : 22-DEC-2009 15:28
Operator : nagl Inst ID: MSD6.i
Smp Info : |WBN091111-17.4|CVS|1|SVMF|1|MEGACVS
Misc Info : |MSD8270|WBN091208-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s122209.b/MSD6-M8270C-AQA-110909.m
Meth Date : 23-Dec-2009 12:48 hnm Quant Type: ISTD
Cal Date : 11-NOV-2009 04:38 Cal File: s6k0954.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: MEGA.sub
Target Version: 3.50
Processing Host: hpclpl

Concentration Formula: Amt * DF * Uf * Vt/(Vo *Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vo	1000.00000	volume of sample ext
Vi	0.50000	volume injected

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	4.979	4.979	(1.000)	214678	40.0000	
* 29 Naphthalene-d8	136	6.261	6.261	(1.000)	850778	40.0000	
* 46 Acenaphthene-d10	164	8.136	8.136	(1.000)	452179	40.0000	
* 67 Phenanthrene-d10	188	9.749	9.749	(1.000)	795225	40.0000	
* 91 Chrysene-d12	240	12.809	12.809	(1.000)	655834	40.0000	
* 98 Perylene-d12	264	15.220	15.220	(1.000)	574835	40.0000	
$ 3 2-Fluorophenol	112	3.812	3.812	(0.766)	200813	40.0000	37.4
$ 5 Phenol-d5	99	4.597	4.597	(0.923)	259264	40.0000	38.2
$ 20 Nitrobenzene-d5	82	5.519	5.519	(0.882)	232023	40.0000	38.6
$ 39 2-Fluorobiphenyl	172	7.387	7.387	(0.908)	467702	40.0000	40.1
$ 60 2,4,6-Tribromophenol	329	8.985	8.985	(1.104)	59114	40.0000	44.8
$ 81 p-Terphenyl-d14	244	11.449	11.449	(0.894)	452082	40.0000	42.7
1 N-Methyl-N-nitrosomethylamine	74	2.821	2.821	(0.567)	123686	40.0000	33.8

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
2 Pyridine	79	2.859	2.859	(0.574)	136374	40.0000	30.0
4 Aniline	66	4.663	4.663	(0.937)	102191	40.0000	36.1
6 Phenol	94	4.610	4.610	(0.926)	257778	40.0000	37.8(Q)
7 bis(2-Chloroethyl) ether	63	4.701	4.701	(0.944)	160785	40.0000	34.8
8 2-Chlorophenol	128	4.785	4.785	(0.961)	209814	40.0000	38.3
203 n-Decane	43	4.775	4.775	(0.959)	252488	40.0000	33.1
9 1,3-Dichlorobenzene	146	4.928	4.928	(0.990)	248070	40.0000	39.3
11 1,4-Dichlorobenzene	146	4.994	4.994	(1.003)	246339	40.0000	38.5
13 1,2-Dichlorobenzene	146	5.145	5.145	(1.033)	234953	40.0000	39.4
14 bis(2-Chloroisopropyl)ether	45	5.208	5.208	(1.046)	386734	40.0000	37.5
12 Benzyl alcohol	108	5.091	5.091	(1.023)	116261	40.0000	34.1
15 o-Cresol	107	5.183	5.183	(1.041)	170789	40.0000	38.3
18 m,p-Cresols	107	5.336	5.336	(1.072)	223917	40.0000	39.6
17 N-Nitrosodipropylamine	70	5.346	5.346	(1.074)	150624	40.0000	39.6
19 Hexachloroethane	117	5.481	5.481	(1.101)	89314	40.0000	36.1
21 Nitrobenzene	77	5.540	5.540	(0.885)	233140	40.0000	38.4
22 Isophorone	82	5.771	5.771	(0.922)	420084	40.0000	39.1
23 2-Nitrophenol	139	5.856	5.856	(0.935)	114368	40.0000	40.9
24 2,4-Dimethylphenol	122	5.871	5.871	(0.938)	196032	40.0000	42.3
25 bis(2-Chloroethoxy)methane	93	5.968	5.968	(0.953)	246140	40.0000	38.9
26 2,4-Dichlorophenol	162	6.110	6.110	(0.976)	176017	40.0000	41.9
27 Benzoic acid	105	5.980	5.980	(0.955)	139810	40.0000	48.9
28 1,2,4-Trichlorobenzene	180	6.192	6.192	(0.989)	202431	40.0000	39.2
30 Naphthalene	128	6.284	6.284	(1.004)	688632	40.0000	40.6
204 alpha-Terpineol	59	6.268	6.268	(1.001)	170172	40.0000	36.6
31 4-Chloroaniline	127	6.322	6.322	(1.010)	220549	40.0000	40.4
32 Hexachlorobutadiene	225	6.391	6.391	(1.021)	109286	40.0000	40.7
33 4-Chloro-3-methylphenol	107	6.819	6.819	(1.089)	179616	40.0000	42.3
34 2-Methylnaphthalene	142	7.007	7.007	(1.119)	478194	40.0000	46.7
35 1-Methylnaphthalene	142	7.117	7.117	(1.137)	448460	40.0000	44.8
36 Hexachlorocyclopentadiene	237	7.163	7.163	(0.880)	39841	40.0000	21.8
205 2,3-Dichloroaniline	161	7.305	7.305	(0.898)	214017	40.0000	39.5
37 2,4,6-Trichlorophenol	196	7.300	7.300	(0.897)	121766	40.0000	39.5
38 2,4,5-Trichlorophenol	196	7.351	7.351	(0.904)	133197	40.0000	40.5
40 2-Chloronaphthalene	162	7.535	7.535	(0.926)	393893	40.0000	38.8
42 o-Nitroaniline	65	7.634	7.634	(0.938)	124622	40.0000	35.9
41 m-Nitroaniline	138	8.077	8.077	(0.993)	105758	40.0000	41.6
43 Dimethylphthalate	163	7.815	7.815	(0.961)	476365	40.0000	41.1
44 2,6-Dinitrotoluene	165	7.889	7.889	(0.970)	110755	40.0000	40.0
50 2,4-Dinitrotoluene	165	8.322	8.322	(1.023)	144173	40.0000	41.3
45 Acenaphthylene	152	7.986	7.986	(0.982)	724423	40.0000	44.4
47 Acenaphthene	154	8.172	8.172	(1.004)	430791	40.0000	42.3
48 2,4-Dinitrophenol	184	8.187	8.187	(1.006)	37105	40.0000	39.6
49 Dibenzofuran	168	8.353	8.353	(1.027)	555962	40.0000	40.4
51 Diethylphthalate	149	8.567	8.567	(1.053)	481168	40.0000	41.2
52 4-Nitrophenol	139	8.266	8.266	(1.016)	73139	40.0000	39.4
53 Fluorene	166	8.727	8.727	(1.073)	493885	40.0000	43.7

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
54 4-Chlorophenylphenylether	204	8.707	8.707	(1.070)	224341	40.0000	42.0
55 2-Methyl-4,6-dinitrophenol	198	8.765	8.765	(0.899)	84427	40.0000	46.5
56 p-Nitroaniline	138	8.740	8.740	(1.074)	94304	40.0000	39.8
133 Diphenylamine	169	8.834	8.834	(0.906)	385217	40.0000	40.2
58 1,2-Diphenylhydrazine	77	8.883	8.883	(0.911)	462065	40.0000	37.9
61 4-Bromophenylphenylether	248	9.239	9.239	(0.948)	126249	40.0000	40.2
63 Hexachlorobenzene	284	9.318	9.318	(0.956)	131154	40.0000	39.9
65 Pentachlorophenol	266	9.532	9.532	(0.978)	63621	40.0000	37.5
206 n-Octadecane	57	9.560	9.560	(0.981)	336027	40.0000	38.3
68 Phenanthrene	178	9.775	9.775	(1.003)	698786	40.0000	42.5
69 Anthracene	178	9.831	9.831	(1.008)	718723	40.0000	43.7
72 Di-n-butylphthalate	149	10.325	10.325	(1.059)	801757	40.0000	42.5
76 Fluoranthene	202	11.064	11.064	(1.135)	709220	40.0000	45.0
79 Pyrene	202	11.316	11.316	(0.883)	740148	40.0000	41.0
85 Butylbenzylphthalate	149	11.994	11.994	(0.936)	337925	40.0000	40.9
89 Benzo(a)anthracene	228	12.791	12.791	(0.999)	608198	40.0000	43.0
92 Chrysene	228	12.845	12.845	(1.003)	580069	40.0000	42.8
93 bis(2-Ethylhexyl)phthalate	149	12.735	12.735	(0.994)	476588	40.0000	41.9
94 Di-n-octylphthalate	149	13.755	13.755	(0.904)	752311	40.0000	41.2
95 Benzo(b)fluoranthene	252	14.519	14.519	(0.954)	569364	40.0000	44.8
96 Benzo(k)fluoranthene	252	14.568	14.568	(0.957)	556756	40.0000	44.0
97 Benzo(a)pyrene	252	15.115	15.115	(0.993)	514680	40.0000	46.8
99 Indeno(1,2,3-cd)pyrene	276	17.256	17.256	(1.134)	464801	40.0000	44.1
100 Dibenzo(a,h)anthracene	278	17.284	17.284	(1.136)	382507	40.0000	44.5
101 Benzo(ghi)perylene	276	17.796	17.796	(1.169)	388524	40.0000	46.3(Q)
126 m-Dinitrobenzene	168	7.863	7.863	(0.966)	77374	40.0000	40.4
130 2,3,4,6-Tetrachlorophenol	232	8.478	8.478	(1.042)	100903	40.0000	40.8
143 Dinoseb	211	9.706	9.706	(0.996)	95660	40.0000	38.8
173 Carbazole	167	9.994	9.994	(1.025)	538888	40.0000	41.4
184 p-Benzoquinone	54	4.235	4.235	(0.851)	14438	40.0000	21.1
192 Methoxychlor	227	12.641	12.641	(0.987)	327325	40.0000	36.1
211 p-Toluidine	106	5.397	5.397	(1.084)	193320	40.0000	40.0
210 m-Toluidine	106	5.433	5.433	(1.091)	240717	40.0000	39.9
26 Phthalic anhydride	104	7.068	7.068	(1.129)	93146	40.0000	54.6
214 1,4-Dinitrobenzene	75	7.779	7.779	(0.956)	79613	40.0000	38.3
215 2-Ethoxyethanol	59	2.609	2.609	(0.524)	113615	40.0000	29.8
216 Methylenebis(2-chloroaniline)	231	12.723	12.723	(0.993)	80827	40.0000	39.4(Q)
M 225 Trichlorophenols	196				254963	80.0000	80.0
M 226 Tetrachlorophenols	232				100903	40.0000	40.8
M 227 Benzo(b,k)fluoranthene	252				1126120	80.0000	88.8

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: /chem/MSD6.i/s122209.b/s612207.d
Date : 22-DEC-2009 15:28
Client ID: MECACVS
Sample Info: IWBN091111-17,4ICVSI1ISVMFI1IMECACVS
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD6.i
Operator: nagl
Column diameter: 0.20

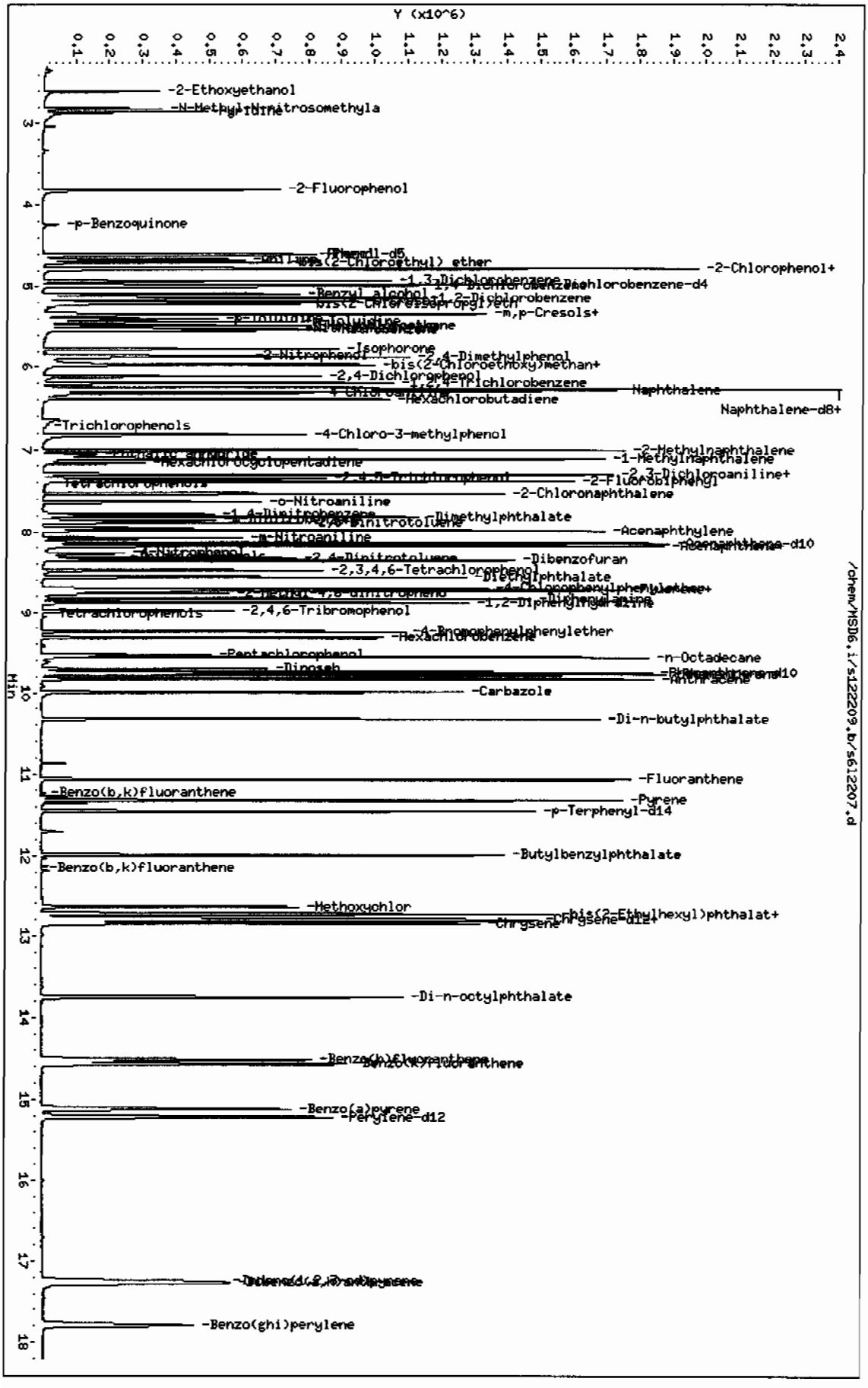

Page 1

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD6.i Injection Date: 22-DEC-2009 15:58
Lab File ID: s612208.d Init. Cal. Date(s): 09-NOV-2009 11-NOV-2009
Analysis Type: WATER Init. Cal. Times: 18:53 04:38
Lab Sample ID: WBN091201-03.5 Quant Type: ISTD
Method: /chem/MSD6.i/s122209.b/MSD6-M8270C-AQA-110909.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
209 Benzaldehyde	0.86127	0.88308	0.88308	0.000	2.53179	60.00000	Averaged
16 Acetophenone	1.16908	1.16191	1.16191	0.000	-0.61264	60.00000	Averaged
189 Caprolactam	0.07388	0.08414	0.08414	0.000	13.89047	60.00000	Averaged
208 1,1'-Biphenyl	1.20131	1.18628	1.18628	0.000	-1.25111	60.00000	Averaged
207 Atrazine	0.04063	0.04305	0.04305	0.000	5.95566	60.00000	Averaged
77 Benzidine	0.39304	0.43712	0.43712	0.000	11.21673	60.00000	Averaged
90 3,3'-Dichlorobenzidine	0.28252	0.28257	0.28257	0.000	0.02042	60.00000	Averaged
102 1,4-Dioxane	0.36606	0.34579	0.34579	0.000	-5.53624	60.00000	Averaged
103 Methyl methacrylate	0.19388	0.19174	0.19174	0.000	-1.10149	60.00000	Averaged
104 Ethyl methacrylate	0.80561	0.76039	0.76039	0.000	-5.61249	60.00000	Averaged
105 2-Picoline	1.30872	1.26387	1.26387	0.000	-3.42675	60.00000	Averaged
106 N-Nitrosomethylethylamine	0.51104	0.49713	0.49713	0.000	-2.72094	60.00000	Averaged
107 Methyl methanesulfonate	0.52852	0.48145	0.48145	0.000	-8.90547	60.00000	Averaged
108 N-Nitrosodiethylamine	0.49553	0.50332	0.50332	0.000	1.57184	60.00000	Averaged
109 Ethyl Methanesulfonate	0.65169	0.61940	0.61940	0.000	-4.95424	60.00000	Averaged
110 Pentachloroethane	0.31681	0.31634	0.31634	0.000	-0.14869	60.00000	Averaged
111 N-Nitrosopyrrolidine	0.47614	0.53512	0.53512	0.000	12.38789	60.00000	Averaged
113 N-Nitrosomorpholine	0.67936	0.66863	0.66863	0.000	-1.58012	60.00000	Averaged
114 o-Toluidine	1.65281	1.67386	1.67386	0.000	1.27345	60.00000	Averaged
115 N-Nitrosopiperidine	0.14105	0.14326	0.14326	0.000	1.56345	60.00000	Averaged
116 a,a-Dimethylphenethylamine	0.85546	0.81337	0.81337	0.000	-4.91998	60.00000	Averaged
118 2,6-Dichlorophenol	0.20687	0.20963	0.20963	0.000	1.33481	60.00000	Averaged
119 Hexachloropropene	0.10269	0.09251	0.09251	0.000	-9.90928	60.00000	Averaged
120 p-Phenylenediamine	0.22955	0.25404	0.25404	0.000	10.66944	60.00000	Averaged
121 N-Nitrosodi-n-butylamine	0.21004	0.20329	0.20329	0.000	-3.21322	60.00000	Averaged
122 Safrole	0.18653	0.19187	0.19187	0.000	2.86695	60.00000	Averaged
123 1,2,4,5-Tetrachlorobenzene	0.42319	0.42546	0.42546	0.000	0.53596	60.00000	Averaged
124 Isosafrole	0.33959	0.34137	0.34137	0.000	0.52464	60.00000	Averaged
125 1,4-Naphthoquinone	0.30674	0.33779	0.33779	0.000	10.12436	60.00000	Averaged
127 Pentachlorobenzene	0.36454	0.38030	0.38030	0.000	4.32224	60.00000	Averaged
128 1-Naphthylamine	0.90742	0.94187	0.94187	0.000	3.79722	60.00000	Averaged
129 2-Naphthylamine	0.98012	1.02812	1.02812	0.000	4.89689	60.00000	Averaged
131 5-Nitro-o-toluidine	0.27901	0.29009	0.29009	0.000	3.97337	60.00000	Averaged
136 1,3,5-Trinitrobenzene	41.71033	40.00000	0.12347	0.000	4.27582	60.00000	Linear
137 Phenacetin	0.26240	0.26706	0.26706	0.000	1.77648	60.00000	Averaged
138 Diallate	0.24056	0.24753	0.24753	0.000	2.89807	60.00000	Averaged

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD6.i Injection Date: 22-DEC-2009 15:58
Lab File ID: s612208.d Init. Cal. Date(s): 09-NOV-2009 11-NOV-2009
Analysis Type: WATER Init. Cal. Times: 18:53 04:38
Lab Sample ID: WBN091201-03.5 Quant Type: ISTD
Method: /chem/MSD6.i/s122209.b/MSD6-M8270C-AQA-110909.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
140 4-Aminobiphenyl	0.53562	0.56918	0.56918	0.000	6.26695	60.00000	Averaged
141 Pentachloronitrobenzene	0.06192	0.06386	0.06386	0.000	3.13091	60.00000	Averaged
142 Pronamide	0.26319	0.27120	0.27120	0.000	3.04492	60.00000	Averaged
146 4-Nitroquinoline-1-oxide	0.02349	0.01545	0.01545	0.000	-34.25752	60.00000	Averaged
147 Methapyrilene	0.38600	0.40064	0.40064	0.000	3.79238	60.00000	Averaged
148 Isodrin	0.09631	0.10588	0.10588	0.000	9.93796	60.00000	Averaged
149 Aramite	0.04420	0.04980	0.04980	0.000	12.66454	60.00000	Averaged
150 Kepone	0.06173	0.07536	0.07536	0.000	22.08378	60.00000	Averaged
151 p-(Dimethylamino)azobenzene	0.31734	0.30803	0.30803	0.000	-2.93303	60.00000	Averaged
152 Chlorobenzilate	0.29130	0.29875	0.29875	0.000	2.55861	60.00000	Averaged
153 3,3'-Dimethylbenzidine	0.52763	0.55887	0.55887	0.000	5.92065	60.00000	Averaged
155 2-Acetylaminofluorene	39.67617	40.00000	0.32375	0.000	-0.80958	60.00000	Linear
157 7,12Dimethylbenz(a)anthrace	0.47906	0.48720	0.48720	0.000	1.69956	60.00000	Averaged
158 3-Methylcholanthrene	0.36955	0.39785	0.39785	0.000	7.65714	60.00000	Averaged
212 Cis Diallate	0.25295	0.25516	0.25516	0.000	0.87392	60.00000	Averaged
213 Trans Diallate	0.28301	0.29122	0.29122	0.000	2.89807	60.00000	Averaged

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Data file : /chem/MSD6.i/s122209.b/s612208.d
Lab Smp Id: WBN091201-03.5 Client Smp ID: AP12CVS
Inj Date : 22-DEC-2009 15:58
Operator : nagl Inst ID: MSD6.i
Smp Info : |WBN091201-03.5|CVS|1|SVMF|1|AP12CVS
Misc Info : |MSD8270|WBN091208-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s122209.b/MSD6-M8270C-AQA-110909.m
Meth Date : 23-Dec-2009 12:48 hnm Quant Type: ISTD
Cal Date : 11-NOV-2009 04:38 Cal File: s6k0954.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AP12.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vo *Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vo	1000.00000	volume of sample ext
Vi	0.50000	volume injected

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	4.976	4.976	(1.000)	265190	40.0000	
* 29 Naphthalene-d8	136	6.261	6.261	(1.000)	991363	40.0000	
* 46 Acenaphthene-d10	164	8.133	8.133	(1.000)	551908	40.0000	
* 67 Phenanthrene-d10	188	9.752	9.752	(1.000)	946836	40.0000	
* 91 Chrysene-d12	240	12.807	12.807	(1.000)	790525	40.0000	
* 98 Perylene-d12	264	15.217	15.217	(1.000)	647135	40.0000	
209 Benzaldehyde	77	4.574	4.574	(0.919)	234184	40.0000	41.0
16 Acetophenone	105	5.356	5.356	(1.076)	308128	40.0000	39.8
189 Caprolactam	113	6.691	6.691	(1.069)	83416	40.0000	45.6
208 1,1'-Biphenyl	154	7.499	7.499	(0.922)	654717	40.0000	39.5
207 Atrazine	173	9.400	9.400	(0.964)	40766	40.0000	42.4
77 Benzidine	184	11.189	11.189	(0.874)	345556	40.0000	44.5
90 3,3'-Dichlorobenzidine	252	12.725	12.725	(0.994)	223381	40.0000	40.0

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
102 1,4-Dioxane	88	2.619	2.619	(0.526)	91701	40.0000	37.8
103 Methyl methacrylate	100	2.614	2.614	(0.525)	50848	40.0000	39.6
104 Ethyl methacrylate	69	3.119	3.119	(0.627)	201648	40.0000	37.8
105 2-Picoline	93	3.381	3.381	(0.679)	335167	40.0000	38.6
106 N-Nitrosomethylethylamine	88	3.447	3.447	(0.693)	131834	40.0000	38.9
107 Methyl methanesulfonate	80	3.674	3.674	(0.738)	127677	40.0000	36.4
108 N-Nitrosodiethylamine	102	4.006	4.006	(0.805)	133476	40.0000	40.6
109 Ethyl Methanesulfonate	79	4.242	4.242	(0.853)	164259	40.0000	38.0
110 Pentachloroethane	167	4.716	4.716	(0.948)	83889	40.0000	39.9
111 N-Nitrosopyrrolidine	100	5.343	5.343	(1.074)	141908	40.0000	45.0(Q)
113 N-Nitrosomorpholine	56	5.376	5.376	(1.080)	177314	40.0000	39.4
114 o-Toluidine	106	5.394	5.394	(1.084)	443891	40.0000	40.5
115 N-Nitrosopiperidine	114	5.687	5.687	(0.908)	142021	40.0000	40.6
116 a,a-Dimethylphenethylamine	58	6.057	6.057	(0.967)	806343	40.0000	38.0
118 2,6-Dichlorophenol	162	6.337	6.337	(1.012)	207823	40.0000	40.5
119 Hexachloropropene	213	6.365	6.365	(1.017)	91711	40.0000	36.0
120 p-Phenylenediamine	108	6.696	6.696	(1.070)	251843	40.0000	44.3
121 N-Nitrosodi-n-butylamine	84	6.658	6.658	(1.063)	201538	40.0000	38.7(T)
122 Safrole	162	6.895	6.895	(1.101)	190216	40.0000	41.1
123 1,2,4,5-Tetrachlorobenzene	216	7.180	7.180	(0.883)	234816	40.0000	40.2
124 Isosafrole	162	7.451	7.451	(0.916)	188406	40.0000	40.2
125 1,4-Naphthoquinone	158	7.718	7.718	(0.949)	186430	40.0000	44.0
127 Pentachlorobenzene	250	8.307	8.307	(1.021)	209890	40.0000	41.7
128 1-Naphthylamine	143	8.437	8.437	(1.037)	519827	40.0000	41.5
129 2-Naphthylamine	143	8.521	8.521	(1.048)	567426	40.0000	42.0
131 5-Nitro-o-toluidine	152	8.727	8.727	(1.073)	160105	40.0000	41.6
136 1,3,5-Trinitrobenzene	75	9.109	9.109	(0.934)	116903	40.0000	41.7
137 Phenacetin	108	9.160	9.160	(0.939)	252859	40.0000	40.7(Q)
138 Diallate	86	9.132	9.132	(0.936)	234373	40.0000	41.2
140 4-Aminobiphenyl	169	9.527	9.527	(0.977)	538922	40.0000	42.5
141 Pentachloronitrobenzene	237	9.540	9.540	(0.978)	60466	40.0000	41.2(Q)
142 Pronamide	173	9.566	9.566	(0.981)	256784	40.0000	41.2
146 4-Nitroquinoline-1-oxide	101	10.603	10.603	(1.087)	14624	40.0000	26.3
147 Methapyrilene	58	10.656	10.656	(1.093)	379342	40.0000	41.5
148 Isodrin	193	10.898	10.898	(1.118)	100249	40.0000	44.0
149 Aramite	185	11.403	11.403	(1.169)	47151	40.0000	45.1
150 Kepone	272	12.098	12.098	(1.241)	71354	40.0000	48.8
151 p-(Dimethylamino)azobenzene	120	11.607	11.607	(0.906)	243506	40.0000	38.8
152 Chlorobenzilate	251	11.647	11.647	(0.909)	236169	40.0000	41.0
153 3,3'-Dimethylbenzidine	212	12.004	12.004	(0.937)	441804	40.0000	42.4
155 2-Acetylaminofluorene	181	12.330	12.330	(0.963)	255934	40.0000	39.7
157 7,12Dimethylbenz(a)anthracene	256	14.494	14.494	(0.952)	315285	40.0000	40.7
158 3-Methylcholanthrene	268	15.750	15.750	(1.035)	257461	40.0000	43.1(Q)
212 Cis Diallate	86	9.234	9.234	(0.947)	36239	6.00000	6.0
213 Trans Diallate	86	9.132	9.132	(0.936)	234373	34.0000	35.0

QC Flag Legend

T - Target compound detected outside RT window.
Q - Qualifier signal failed the ratio test.

Data File: /chem/MSD6.i/s122209.b/s612208.d
Date : 22-DEC-2009 15:58
Client ID: AP12CVS
Sample Info: IWBN091201-03.5ICVSI1|SVMFI1|AP12CVS
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD6.i
Operator: nagl
Column diameter: 0.20

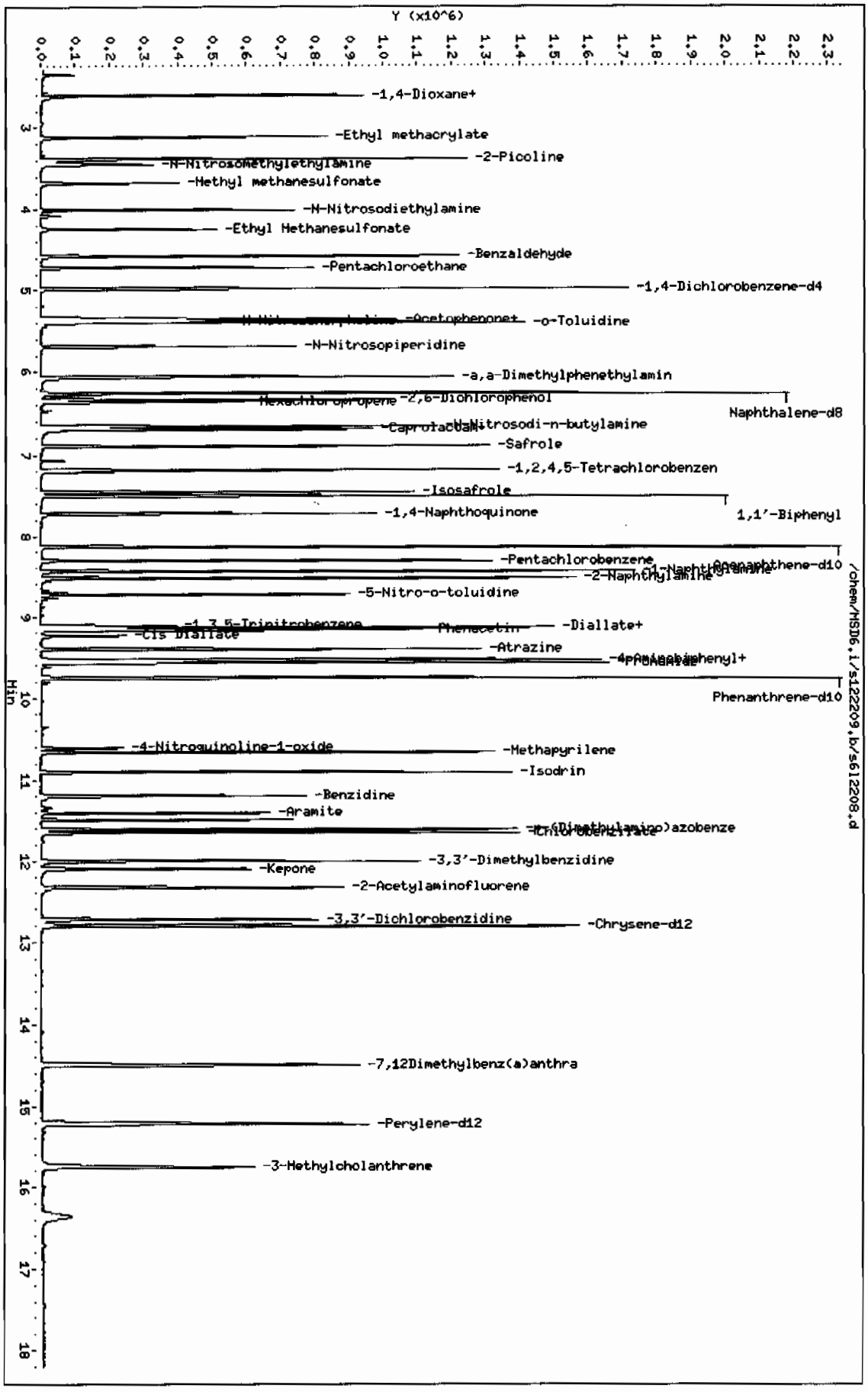

QC Data

Data File: /chem/MSD1.i/s111409.b/s1k1201.d

Page 1

Date : 14-NOV-2009 17:38

Client ID: DFTPP

Instrument: MSD1.i

Sample Info: |WBN091101-01|50 PPM|1|SVMF|1|DFTPP

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

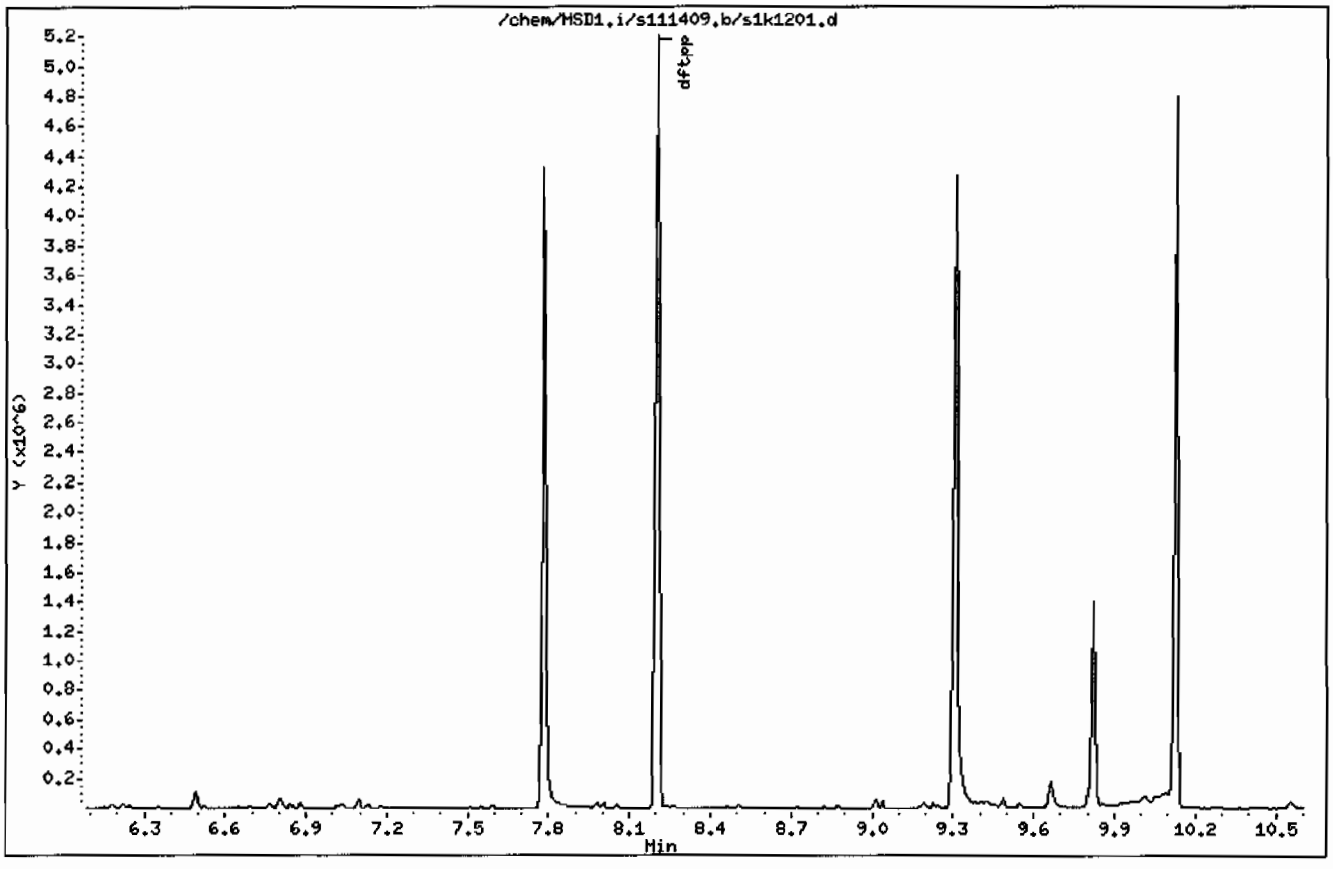

Data File: /chem/MSD1.i/s111409.b/s1k1201.d

Date : 14-NOV-2009 17:38

Client ID: DFTPP

Instrument: MSD1.i

Sample Info: IWBN091101-01|50 PPM|1|SVMF|1|DFTPP

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

1 dftpp

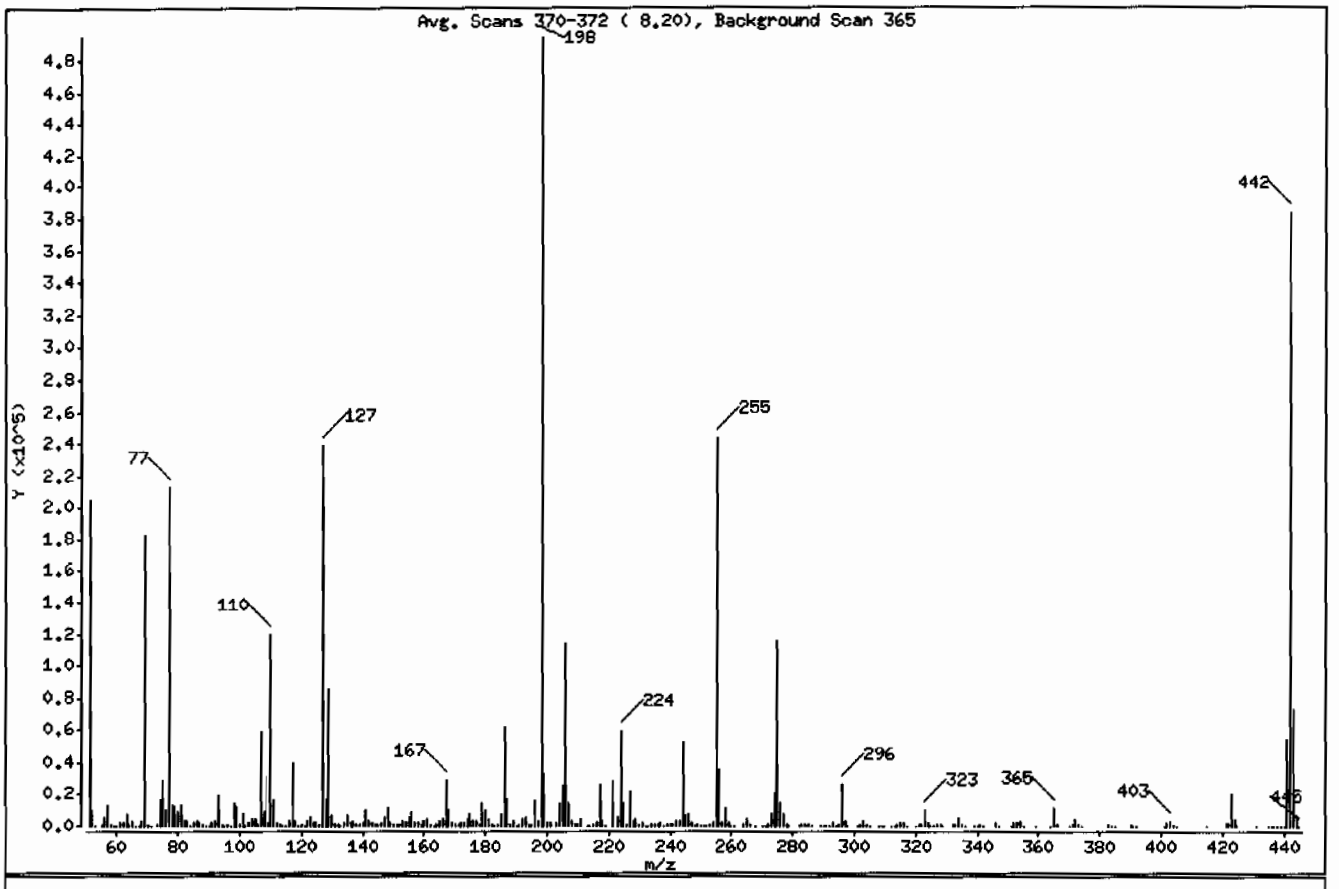

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	41.33
68	Less than 2.00% of mass 69	0.66 (1.81)
69	Mass 69 relative abundance	36.68
70	Less than 2.00% of mass 69	0.20 (0.55)
127	40.00 - 60.00% of mass 198	48.32
197	Less than 1.00% of mass 198	0.69
199	5.00 - 9.00% of mass 198	6.57
275	10.00 - 30.00% of mass 198	23.31
365	Greater than 1.00% of mass 198	2.23
441	Present, but less than mass 443	11.00
442	Greater than 40.00% of mass 198	77.37
443	17.00 - 23.00% of mass 442	14.83 (19.16)

Data File: /chem/MSD1.i/s111409.b/s1k1201.d

Date : 14-NOV-2009 17:38

Client ID: DFTPP

Instrument: MSD1.i

Sample Info: IWBN091101-01|50 PPM|1|SVMF|1|DFTPP

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

Data File: s1k1201.d
Spectrum: Avg. Scans 370-372 (8.20), Background Scan 365
Location of Maximum: 198.00
Number of points: 312

m/z	Y	m/z	Y	m/z	Y	m/z	Y
51.00	204544	132.00	849	213.00	322	304.00	857
52.00	10058	133.00	398	214.00	81	305.00	126
53.00	476	134.00	2213	215.00	1065	308.00	339
55.00	808	135.00	6445	216.00	2209	309.00	249
56.00	5675	136.00	2682	217.00	25976	310.00	361
57.00	13163	137.00	3409	218.00	3600	312.00	52
58.00	676	138.00	864	219.00	390	313.00	288
59.00	142	139.00	1285	221.00	28416	314.00	1372
60.00	58	140.00	1711	223.00	5970	315.00	2833
61.00	2414	141.00	10495	224.00	59288	316.00	1731
62.00	2627	142.00	3783	225.00	15318	317.00	279
63.00	7561	143.00	2378	226.00	1533	320.00	54
64.00	1048	144.00	706	227.00	21184	321.00	903
65.00	3902	145.00	666	228.00	3165	322.00	596
66.00	253	146.00	1908	229.00	4804	323.00	9908
67.00	264	147.00	5356	230.00	759	324.00	1942
68.00	3280	148.00	10849	231.00	2133	325.00	119
69.00	181568	149.00	2326	232.00	408	326.00	93
70.00	999	150.00	640	233.00	450	327.00	1701
71.00	119	151.00	1554	234.00	1483	328.00	891
73.00	1219	152.00	808	235.00	1658	329.00	88
74.00	17536	153.00	3187	236.00	1183	332.00	578
75.00	28056	154.00	2701	237.00	1728	333.00	855
76.00	9746	155.00	5991	238.00	324	334.00	5817
77.00	212736	156.00	9066	239.00	813	335.00	1475
78.00	13840	157.00	1942	240.00	775	336.00	75
79.00	12099	158.00	1971	241.00	1214	339.00	62
80.00	9416	159.00	1574	242.00	3186	340.00	77
81.00	13432	160.00	3233	243.00	3508	341.00	1027
82.00	3448	161.00	4832	244.00	51832	342.00	243
83.00	3440	162.00	1519	245.00	6691	346.00	2015
84.00	276	163.00	414	246.00	8221	347.00	283
85.00	2469	164.00	763	247.00	1725	351.00	182
86.00	3499	165.00	3823	248.00	403	352.00	2745
87.00	1914	166.00	4542	249.00	1698	353.00	2043

Data File: /chem/MSD1.i/s111409.b/s1k1201.d

Date : 14-NOV-2009 17:38

Client ID: DFTPP

Instrument: MSD1.i

Sample Info: |WBN091101-01|50 PPM|1|SVMF|1|DFTPP

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

Data File: s1k1201.d
Spectrum: Avg. Scans 370-372 (8,20), Background Scan 365
Location of Maximum: 198.00
Number of points: 312

m/z	Y	m/z	Y	m/z	Y	m/z	Y
88.00	945	167.00	28056	250.00	338	354.00	3347
89.00	408	168.00	9882	251.00	378	355.00	568
90.00	81	169.00	1949	252.00	461	359.00	68
91.00	2811	170.00	666	253.00	965	364.00	82
92.00	3305	171.00	868	254.00	2194	365.00	11049
93.00	19392	172.00	1736	255.00	243712	366.00	1525
94.00	1530	173.00	2151	256.00	34792	370.00	312
95.00	401	174.00	4365	257.00	2654	371.00	749
96.00	1021	175.00	8331	258.00	11699	372.00	5103
97.00	481	176.00	2950	259.00	1976	373.00	1317
98.00	14829	177.00	3734	260.00	354	374.00	211
99.00	12143	178.00	1429	261.00	488	383.00	1475
100.00	1081	179.00	14903	264.00	588	384.00	413
101.00	7582	180.00	10676	265.00	4651	385.00	112
102.00	501	181.00	5074	266.00	630	390.00	664
103.00	2806	182.00	848	268.00	97	391.00	481
104.00	4764	183.00	484	270.00	316	392.00	349
105.00	4470	184.00	1118	271.00	565	401.00	323
106.00	1531	185.00	7578	272.00	574	402.00	2059
107.00	58720	186.00	61632	273.00	7763	403.00	3027
108.00	9198	187.00	16824	274.00	20360	404.00	981
109.00	1983	188.00	1678	275.00	115400	405.00	157
110.00	119360	189.00	3368	276.00	14998	415.00	61
111.00	17336	190.00	542	277.00	8371	421.00	2728
112.00	2224	191.00	1652	278.00	1328	422.00	2498
113.00	793	192.00	4637	279.00	337	423.00	19928
114.00	277	193.00	5425	282.00	172	424.00	3991
115.00	405	194.00	1196	283.00	908	425.00	403
116.00	3276	195.00	960	284.00	671	431.00	50
117.00	39312	196.00	15938	285.00	1513	435.00	182
118.00	2868	197.00	3428	286.00	245	436.00	64
119.00	376	198.00	494976	289.00	275	437.00	123
120.00	724	199.00	32528	290.00	365	438.00	300
121.00	279	200.00	2387	291.00	237	439.00	370
122.00	3763	201.00	2747	292.00	481	440.00	354

Data File: /chem/MSD1.i/s111409.b/s1k1201.d

Date : 14-NOV-2009 17:38

Client ID: DFTPP

Instrument: MSD1.i

Sample Info: |WBN091101-01|50 PPM|1|SVMF|1|DFTPP

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

Data File: s1k1201.d
Spectrum: Avg. Scans 370-372 (8.20), Background Scan 365
Location of Maximum: 198.00
Number of points: 312

m/z	Y	m/z	Y	m/z	Y	m/z	Y
123.00	6008	203.00	2693	293.00	2054	441.00	54440
124.00	2602	204.00	14604	294.00	532	442.00	382976
125.00	2647	205.00	25208	295.00	657	443.00	73384
126.00	904	206.00	113680	296.00	26240	444.00	6543
127.00	239168	207.00	14454	297.00	3789	445.00	363
128.00	17576	208.00	3160	298.00	253		
129.00	85072	209.00	1021	301.00	417		
130.00	7156	210.00	801	302.00	580		
131.00	1445	211.00	4362	303.00	3041		

Data File: /chem/MSD1.i/s111409.b/s1k1213.d

Date : 15-NOV-2009 14:50

Client ID: DFTPP

Instrument: MSD1.i

Sample Info: IWBN091101-01|50 PPM|1|SVMF|1|DFTPP

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

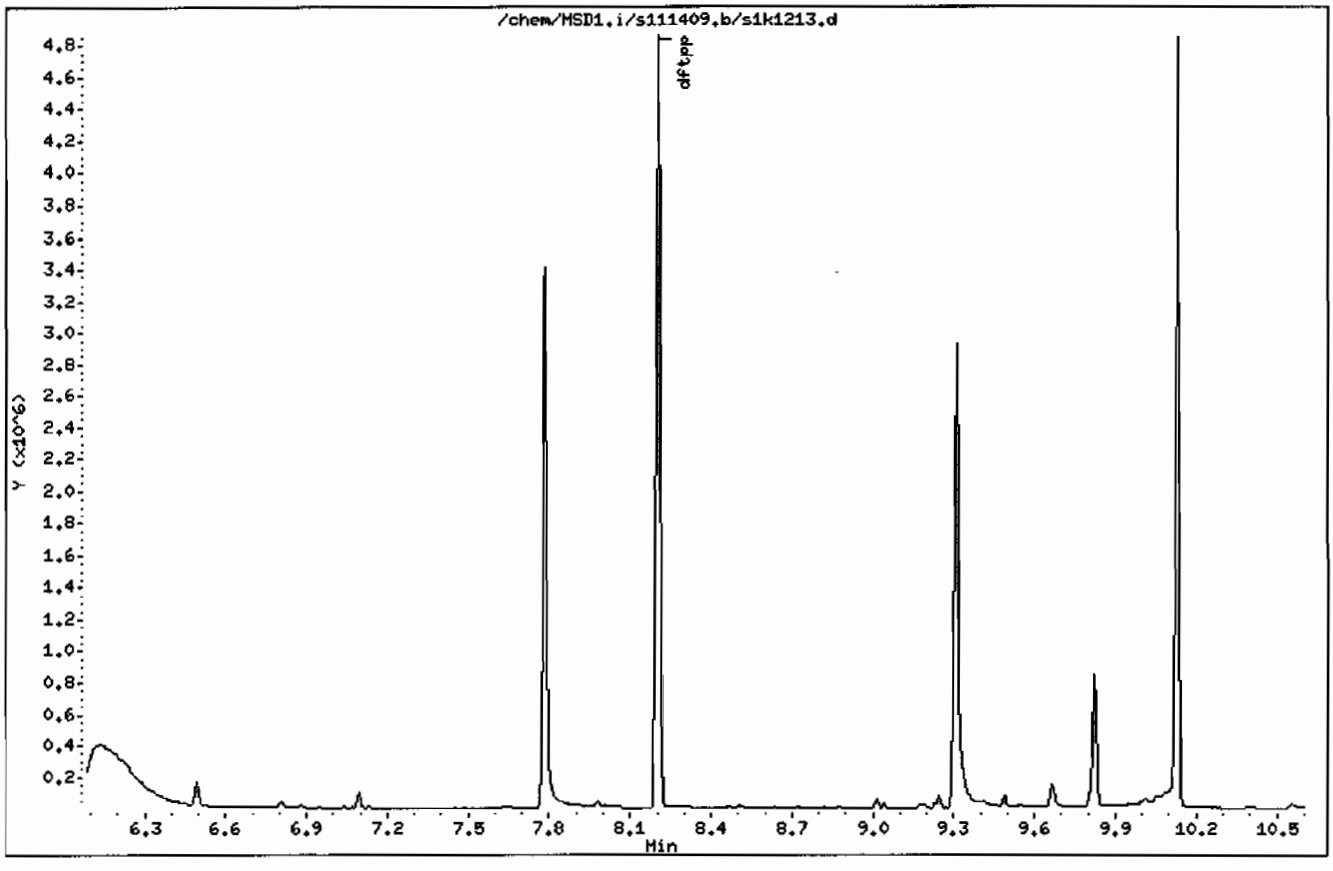

Data File: /chem/MSD1.i/s111409.b/s1k1213.d

Date : 15-NOV-2009 14:50

Client ID: DFTPP

Instrument: MSD1.i

Sample Info: IWBN091101-01|50 PPM|1|SVMF|1|DFTPP

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

1 dftpp

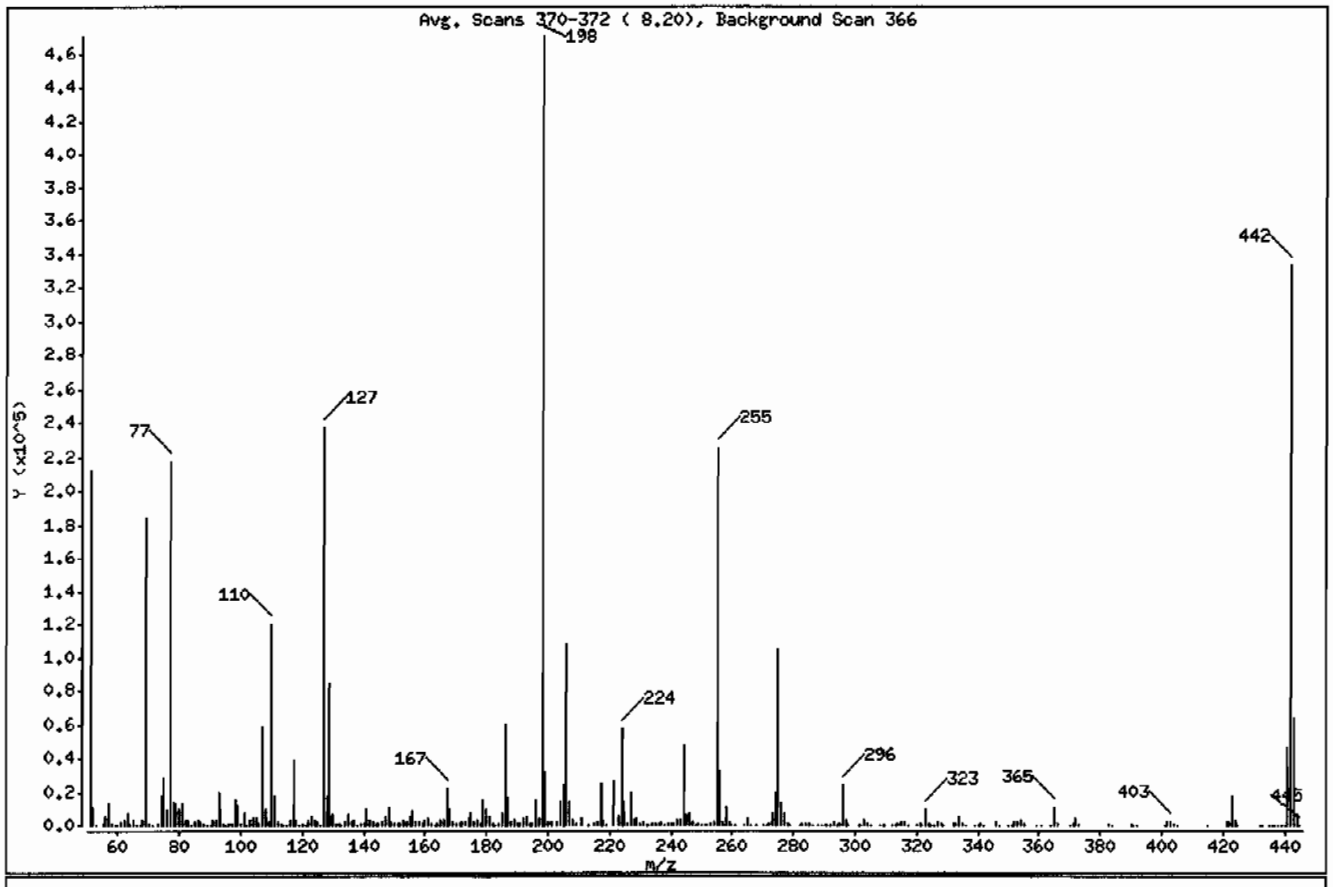

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	45.07
68	Less than 2.00% of mass 69	0.69 (1.77)
69	Mass 69 relative abundance	39.06
70	Less than 2.00% of mass 69	0.20 (0.51)
127	40.00 - 60.00% of mass 198	50.24
197	Less than 1.00% of mass 198	0.94
199	5.00 - 9.00% of mass 198	6.64
275	10.00 - 30.00% of mass 198	22.36
365	Greater than 1.00% of mass 198	2.27
441	Present, but less than mass 443	9.91
442	Greater than 40.00% of mass 198	70.70
443	17.00 - 23.00% of mass 442	13.63 (19.28)

Data File: /chem/MSD1.i/s111409.b/s1k1213.d

Date : 15-NOV-2009 14:50

Client ID: DFTPP

Instrument: MSD1.i

Sample Info: |WBN091101-01|50 PPM|1|SVMF|1|DFTPP

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

Data File: s1k1213.d
Spectrum: Avg. Scans 370-372 (8.20), Background Scan 366
Location of Maximum: 198.00
Number of points: 312

m/z	Y	m/z	Y	m/z	Y	m/z	Y
51.00	212096	132.00	898	215.00	1069	305.00	54
52.00	10563	133.00	158	216.00	2175	308.00	369
53.00	539	134.00	2246	217.00	25096	309.00	234
55.00	827	135.00	6673	218.00	3427	310.00	330
56.00	5710	136.00	2589	219.00	310	312.00	53
57.00	13040	137.00	3388	221.00	26264	313.00	225
58.00	622	138.00	481	223.00	5732	314.00	1148
59.00	197	139.00	738	224.00	57128	315.00	2673
60.00	264	140.00	1183	225.00	14268	316.00	1636
61.00	2458	141.00	10022	226.00	1583	317.00	257
62.00	2719	142.00	3500	227.00	19912	320.00	120
63.00	7568	143.00	2527	228.00	3016	321.00	868
64.00	1100	144.00	604	229.00	4436	322.00	443
65.00	3684	145.00	642	230.00	645	323.00	9345
66.00	306	146.00	1966	231.00	2162	324.00	1574
67.00	172	147.00	5499	232.00	373	325.00	117
68.00	3245	148.00	10590	233.00	410	326.00	63
69.00	183808	149.00	2267	234.00	1277	327.00	1667
70.00	937	150.00	711	235.00	1617	328.00	859
71.00	201	151.00	1389	236.00	1067	329.00	66
73.00	1312	152.00	1009	237.00	1713	332.00	666
74.00	16976	153.00	3123	238.00	252	333.00	761
75.00	27896	154.00	2582	239.00	815	334.00	5270
76.00	9904	155.00	5732	240.00	635	335.00	1342
77.00	217344	156.00	8806	241.00	1337	336.00	127
78.00	14484	157.00	1860	242.00	2922	339.00	65
79.00	12543	158.00	1872	243.00	3255	340.00	61
80.00	9582	159.00	1459	244.00	47840	341.00	1023
81.00	13483	160.00	3146	245.00	6361	342.00	289
82.00	3494	161.00	4861	246.00	7662	346.00	1844
83.00	3404	162.00	1440	247.00	1632	347.00	399
84.00	268	163.00	441	248.00	425	350.00	54
85.00	2429	164.00	756	249.00	1557	351.00	146
86.00	3717	165.00	3644	250.00	323	352.00	2683
87.00	1777	166.00	3330	251.00	376	353.00	1903

Data File: /chem/MSD1.i/s111409.b/s1k1213.d

Date : 15-NOV-2009 14:50

Client ID: DFTPP

Instrument: MSD1.i

Sample Info: IWBN091101-01|50 PPM|1|SVMF|1|DFTPP

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

Data File: s1k1213.d
Spectrum: Avg. Scans 370-372 (8.20), Background Scan 366
Location of Maximum: 198.00
Number of points: 312

m/z	Y	m/z	Y	m/z	Y	m/z	Y
88.00	858	167.00	21384	252.00	497	354.00	2848
89.00	353	168.00	9329	253.00	1026	355.00	645
90.00	52	169.00	1925	254.00	2307	359.00	128
91.00	2960	170.00	698	255.00	224896	361.00	54
92.00	3280	171.00	771	256.00	32856	364.00	139
93.00	19472	172.00	1741	257.00	2457	365.00	10703
94.00	1413	173.00	2444	258.00	11321	366.00	1552
95.00	284	174.00	4219	259.00	1877	370.00	274
96.00	1152	175.00	8099	260.00	305	371.00	720
97.00	591	176.00	2630	261.00	356	372.00	4645
98.00	14679	177.00	3711	264.00	230	373.00	1151
99.00	12313	178.00	1199	265.00	4470	383.00	1268
100.00	1108	179.00	14622	266.00	429	384.00	380
101.00	7679	180.00	10168	268.00	129	390.00	651
102.00	505	181.00	5015	270.00	325	391.00	487
103.00	2879	182.00	784	271.00	443	392.00	279
104.00	4625	183.00	540	272.00	688	401.00	276
105.00	4311	184.00	1176	273.00	7045	402.00	1862
106.00	1512	185.00	7084	274.00	19240	403.00	2656
107.00	58544	186.00	59904	275.00	105256	404.00	848
108.00	9265	187.00	16158	276.00	13094	405.00	140
109.00	1897	188.00	1716	277.00	7627	415.00	133
110.00	119952	189.00	3108	278.00	1312	421.00	2323
111.00	16904	190.00	572	279.00	308	422.00	2190
112.00	2240	191.00	1592	282.00	136	423.00	16944
113.00	758	192.00	4599	283.00	867	424.00	3191
114.00	126	193.00	5084	284.00	734	425.00	414
115.00	267	194.00	1198	285.00	1299	432.00	51
116.00	3229	195.00	880	286.00	172	433.00	63
117.00	38800	196.00	15085	288.00	53	435.00	138
118.00	2837	197.00	4415	289.00	263	436.00	193
119.00	448	198.00	470656	290.00	271	437.00	144
120.00	769	199.00	31248	291.00	161	438.00	208
121.00	319	200.00	2323	292.00	403	439.00	422
122.00	3761	201.00	2603	293.00	1958	440.00	420

Date : 15-NOV-2009 14:50

Client ID: DFTPP Instrument: MSD1.i

Sample Info: |WBN091101-01|50 PPM|1|SVMF|1|DFTPP

Operator: AMY

Column phase: J&W DB-5MS Column diameter: 0.20

Data File: s1k1213.d
Spectrum: Avg. Scans 370-372 (8.20), Background Scan 366
Location of Maximum: 198.00
Number of points: 312

m/z	Y	m/z	Y	m/z	Y	m/z	Y
123.00	5880	203.00	2606	294.00	491	441.00	46632
124.00	2783	204.00	13871	295.00	593	442.00	332736
125.00	2563	205.00	24136	296.00	24248	443.00	64136
126.00	365	206.00	107936	297.00	3568	444.00	5493
127.00	236480	207.00	13718	298.00	201	445.00	305
128.00	17448	208.00	3264	301.00	372		
129.00	84656	209.00	932	302.00	462		
130.00	6942	211.00	4014	303.00	2821		
131.00	1354	213.00	308	304.00	785		

Data File: /chem/MSD1.i/s111409.b/s1k1259.d

Date : 17-NOV-2009 15:48

Client ID: DFTPP

Instrument: MSD1.i

Sample Info: IWBN091101-01|50 PPM|1|SVMF|1|DFTPP

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

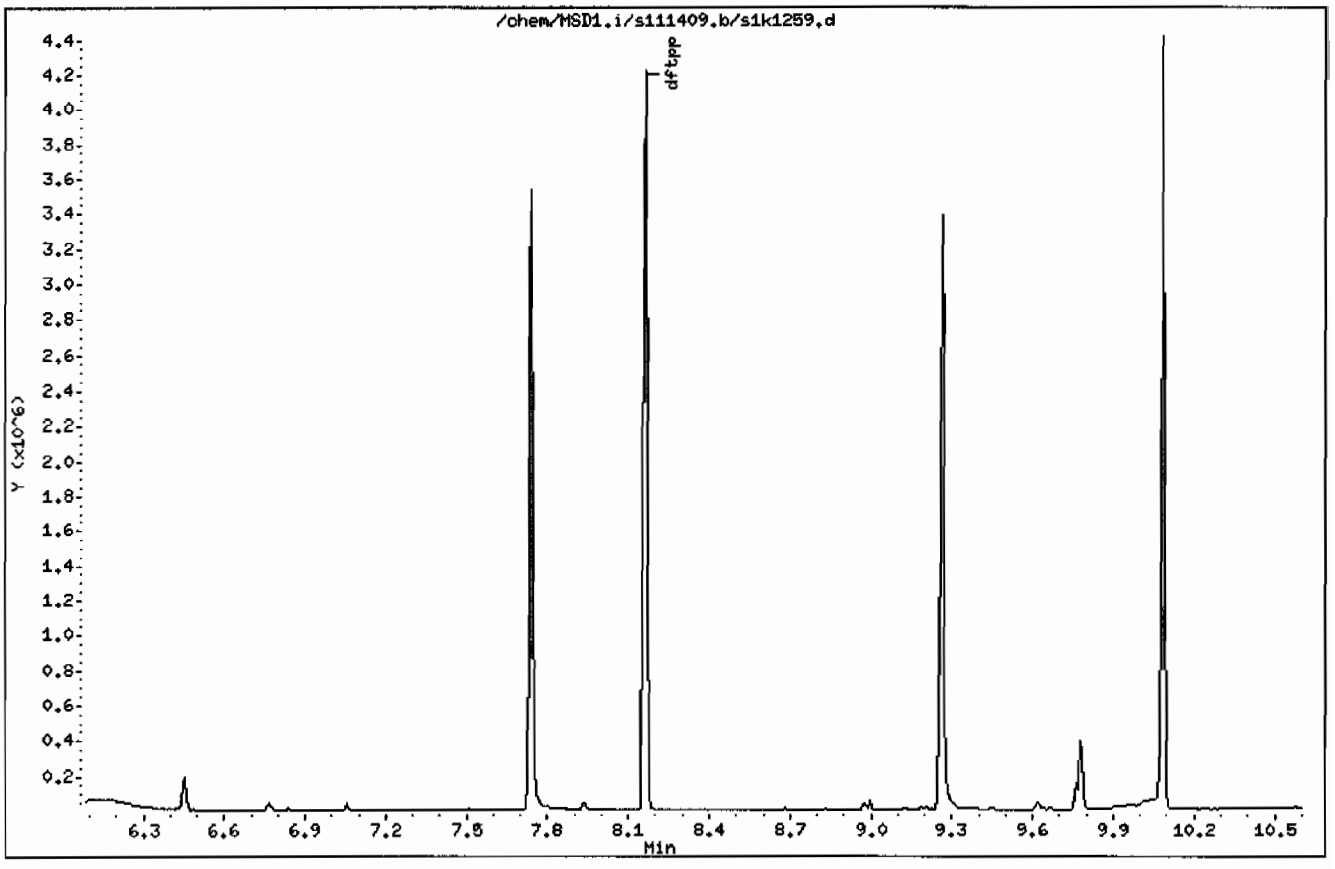

Data File: /chem/MSD1.i/s111409.b/s1k1259.d

Date : 17-NOV-2009 15:48

Client ID: DFTPP

Instrument: MSD1.i

Sample Info: |WBN091101-01|50 PPM|1|SVMF|1|DFTPP

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

1 dftpp

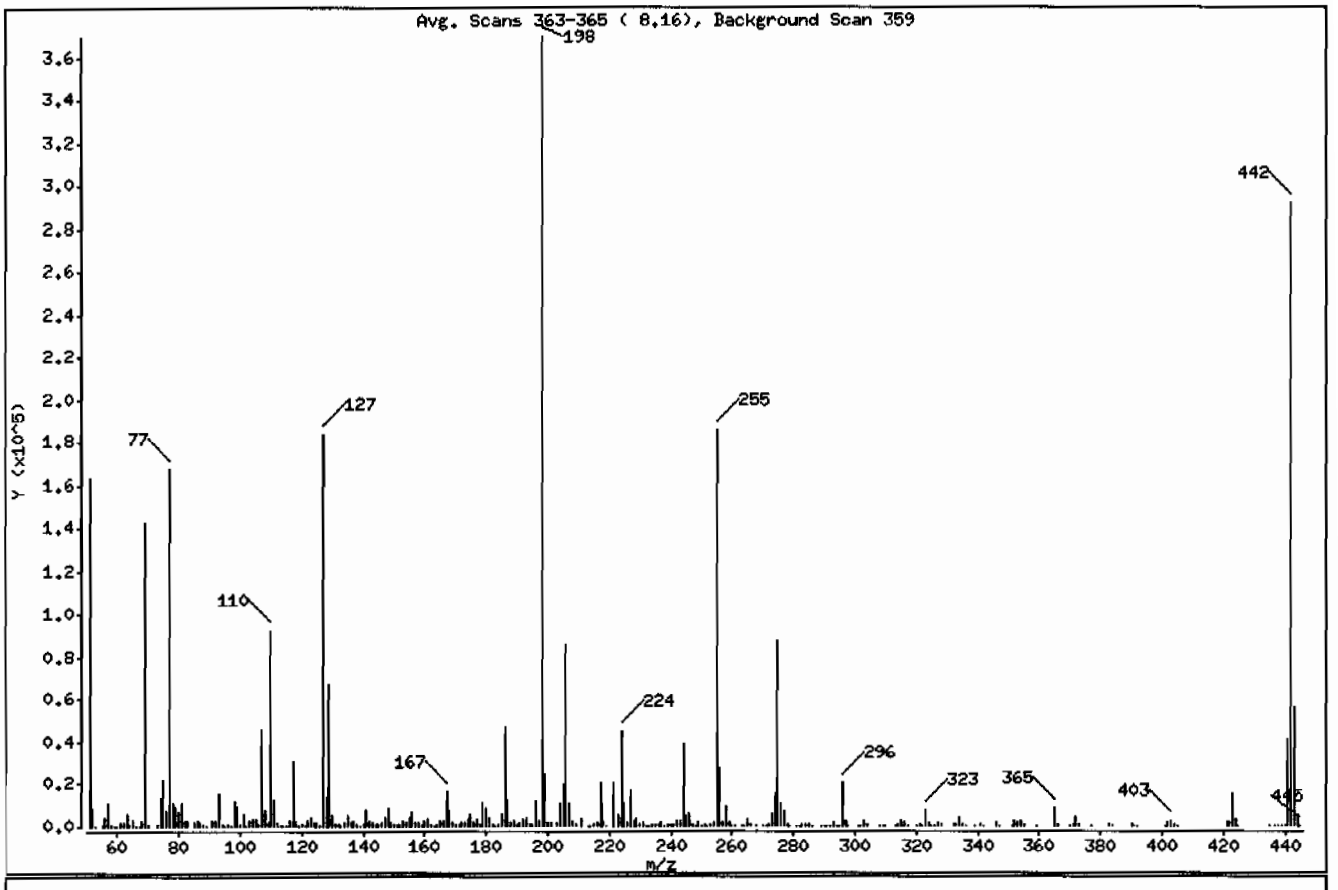

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	44.19
68	Less than 2.00% of mass 69	0.70 (1.82)
69	Mass 69 relative abundance	38.52
70	Less than 2.00% of mass 69	0.22 (0.58)
127	40.00 - 60.00% of mass 198	49.61
197	Less than 1.00% of mass 198	0.73
199	5.00 - 9.00% of mass 198	6.68
275	10.00 - 30.00% of mass 198	23.76
365	Greater than 1.00% of mass 198	2.39
441	Present, but less than mass 443	10.94
442	Greater than 40.00% of mass 198	78.91
443	17.00 - 23.00% of mass 442	15.11 (19.15)

Data File: /chem/MSD1.i/s111409.b/s1k1259.d

Date : 17-NOV-2009 15:48

Client ID: DFTPP

Instrument: MSD1.i

Sample Info: |WBN091101-01|50 PPM|1|SVMF|1|DFTPP

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

Data File: s1k1259.d
Spectrum: Avg. Scans 363-365 (8,16), Background Scan 359
Location of Maximum: 198.00
Number of points: 301

m/z	Y	m/z	Y	m/z	Y	m/z	Y
51.00	163520	132.00	696	209.00	894	295.00	409
52.00	8218	133.00	165	211.00	3176	296.00	20504
53.00	278	134.00	1736	213.00	157	297.00	2961
55.00	768	135.00	5284	214.00	60	298.00	242
56.00	4517	136.00	1990	215.00	896	301.00	228
57.00	10646	137.00	2882	216.00	1633	302.00	377
58.00	485	138.00	608	217.00	20280	303.00	2440
59.00	173	139.00	322	218.00	2791	304.00	779
60.00	130	140.00	728	219.00	287	308.00	333
61.00	1880	141.00	8017	221.00	20640	309.00	180
62.00	1926	142.00	2864	223.00	4752	310.00	288
63.00	5930	143.00	1765	224.00	45496	313.00	172
64.00	771	144.00	446	225.00	11459	314.00	1000
65.00	3009	145.00	462	226.00	1320	315.00	2189
66.00	190	146.00	1638	227.00	16640	316.00	1304
67.00	147	147.00	4131	228.00	2433	317.00	255
68.00	2590	148.00	8419	229.00	3596	320.00	58
69.00	142592	149.00	1752	230.00	541	321.00	701
70.00	823	150.00	512	231.00	1631	322.00	395
73.00	1236	151.00	1272	232.00	323	323.00	7827
74.00	13875	152.00	886	233.00	236	324.00	1465
75.00	21824	153.00	2474	234.00	1059	325.00	55
76.00	7905	154.00	2034	235.00	1215	326.00	117
77.00	167296	155.00	4599	236.00	846	327.00	1319
78.00	11034	156.00	6876	237.00	1279	328.00	683
79.00	9492	157.00	1450	238.00	168	332.00	545
80.00	7131	158.00	1509	239.00	670	333.00	652
81.00	10804	159.00	1113	240.00	518	334.00	4627
82.00	2610	160.00	2655	241.00	1019	335.00	1148
83.00	2719	161.00	3658	242.00	2369	336.00	50
85.00	1896	162.00	1109	243.00	2744	339.00	57
86.00	2616	163.00	339	244.00	39256	341.00	855
87.00	1519	164.00	493	245.00	4982	342.00	192
88.00	684	165.00	2904	246.00	6349	346.00	1554
89.00	219	166.00	2427	247.00	1255	347.00	356

Data File: /chem/MSD1.i/s111409.b/s1k1259.d

Date : 17-NOV-2009 15:48

Client ID: DFTPP

Instrument: MSD1.i

Sample Info: |WBN091101-01|50 PPM|1|SVMF|1|DFTPP

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

Data File: s1k1259.d
Spectrum: Avg. Scans 363-365 (8.16), Background Scan 359
Location of Maximum: 198.00
Number of points: 301

m/z	Y	m/z	Y	m/z	Y	m/z	Y
91.00	2379	167.00	16175	248.00	341	351.00	56
92.00	2447	168.00	7387	249.00	1305	352.00	2339
93.00	14969	169.00	1311	250.00	210	353.00	1624
94.00	1153	170.00	539	251.00	450	354.00	2500
95.00	287	171.00	706	252.00	278	355.00	434
96.00	810	172.00	1473	253.00	769	359.00	83
97.00	388	173.00	1748	254.00	1972	365.00	8863
98.00	11810	174.00	3414	255.00	185216	366.00	1195
99.00	9686	175.00	6350	256.00	27176	370.00	215
100.00	914	176.00	2063	257.00	2039	371.00	581
101.00	5933	177.00	3047	258.00	9022	372.00	4002
102.00	375	178.00	995	259.00	1444	373.00	996
103.00	2163	179.00	11274	260.00	214	377.00	51
104.00	3736	180.00	8159	261.00	279	383.00	974
105.00	3394	181.00	4009	263.00	55	384.00	323
106.00	1190	182.00	670	264.00	157	390.00	592
107.00	46232	183.00	413	265.00	3712	391.00	375
108.00	7538	184.00	909	266.00	481	392.00	323
109.00	1503	185.00	5852	268.00	53	401.00	231
110.00	92872	186.00	47008	270.00	282	402.00	1478
111.00	12963	187.00	12615	271.00	380	403.00	2390
112.00	1503	188.00	1316	272.00	540	404.00	821
113.00	406	189.00	2602	273.00	5676	405.00	134
114.00	121	190.00	427	274.00	15599	421.00	2054
115.00	133	191.00	1281	275.00	87936	422.00	1867
116.00	2637	192.00	3712	276.00	11240	423.00	15373
117.00	30336	193.00	4225	277.00	6439	424.00	3047
118.00	2397	194.00	901	278.00	950	425.00	291
119.00	332	195.00	603	279.00	182	435.00	71
120.00	620	196.00	12028	281.00	60	437.00	71
121.00	175	197.00	2717	282.00	68	438.00	134
122.00	2801	198.00	370176	283.00	713	439.00	238
123.00	4622	199.00	24728	284.00	493	440.00	191
124.00	2083	200.00	1826	285.00	1250	441.00	40480
125.00	1949	201.00	2072	286.00	254	442.00	292096

Data File: /chem/MSD1.i/s111409.b/s1k1259.d

Date : 17-NOV-2009 15:48

Client ID: DFTPP

Instrument: MSD1.i

Sample Info: IWBN091101-01|50 PPM|1|SVMF|1|DFTPP

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

Data File: s1k1259.d
Spectrum: Avg. Scans 363-365 (8.16), Background Scan 359
Location of Maximum: 198.00
Number of points: 301

m/z	Y	m/z	Y	m/z	Y	m/z	Y
126.00	135	203.00	2082	289.00	243	443.00	55944
127.00	183616	204.00	10956	290.00	235	444.00	5034
128.00	13544	205.00	19552	291.00	131	445.00	311
129.00	66872	206.00	85904	292.00	339		
130.00	5516	207.00	10725	293.00	1482		
131.00	1048	208.00	2576	294.00	389		

Data File: /chem/MSD6.i/s110909.b/s6k0911.d

Date : 09-NOV-2009 18:00

Client ID: DFTPP

Instrument: MSD6.i

Sample Info: |WBN091101-01|50 PPM|1|SVMF|1|DFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

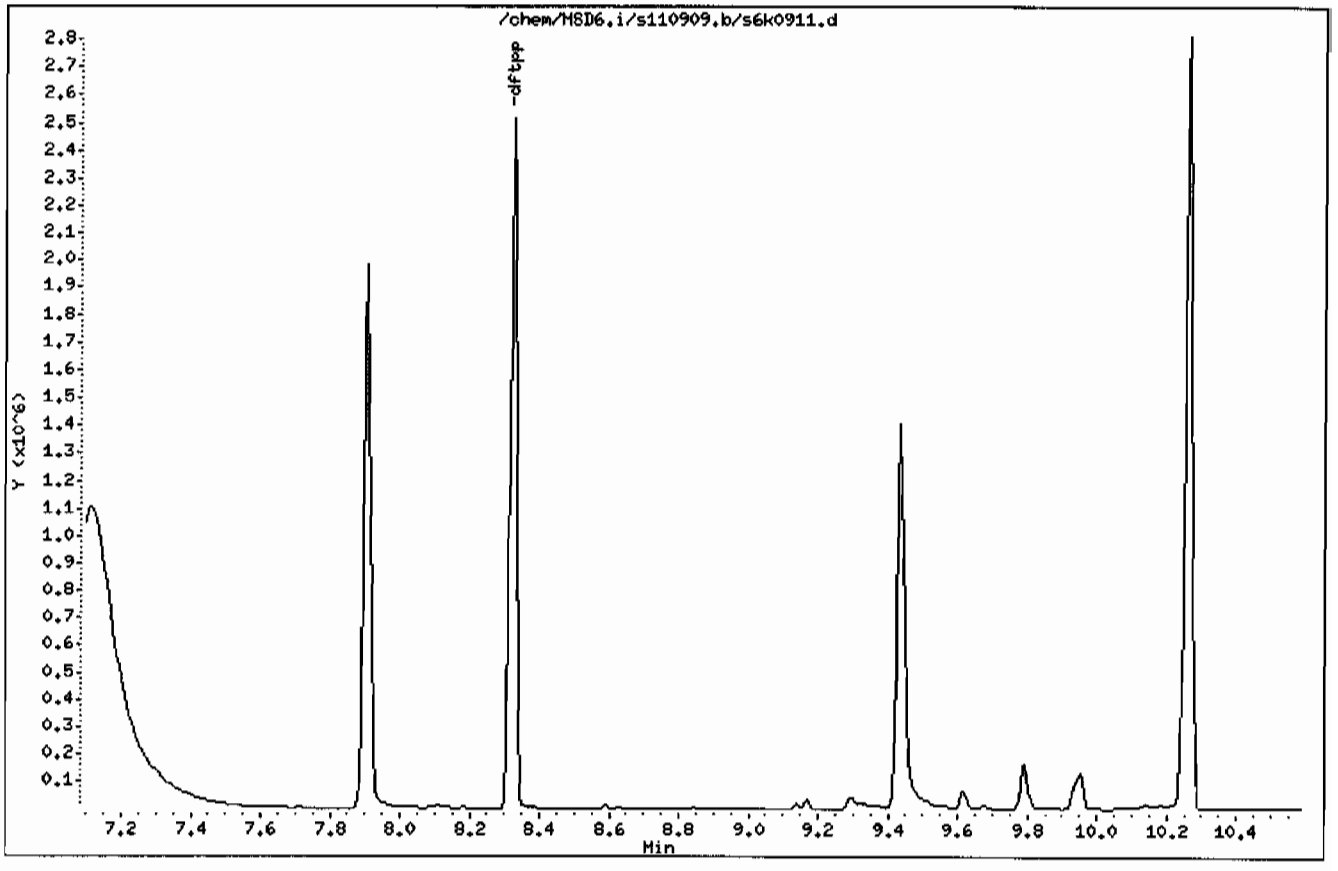

Data File: /chem/MSD6.i/s110909.b/s6k0911.d

Date : 09-NOV-2009 18:00

Client ID: DFTPP

Instrument: MSD6.i

Sample Info: |WBN091101-01|50 PPM|1|SVMF|1|DFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

1 dftpp

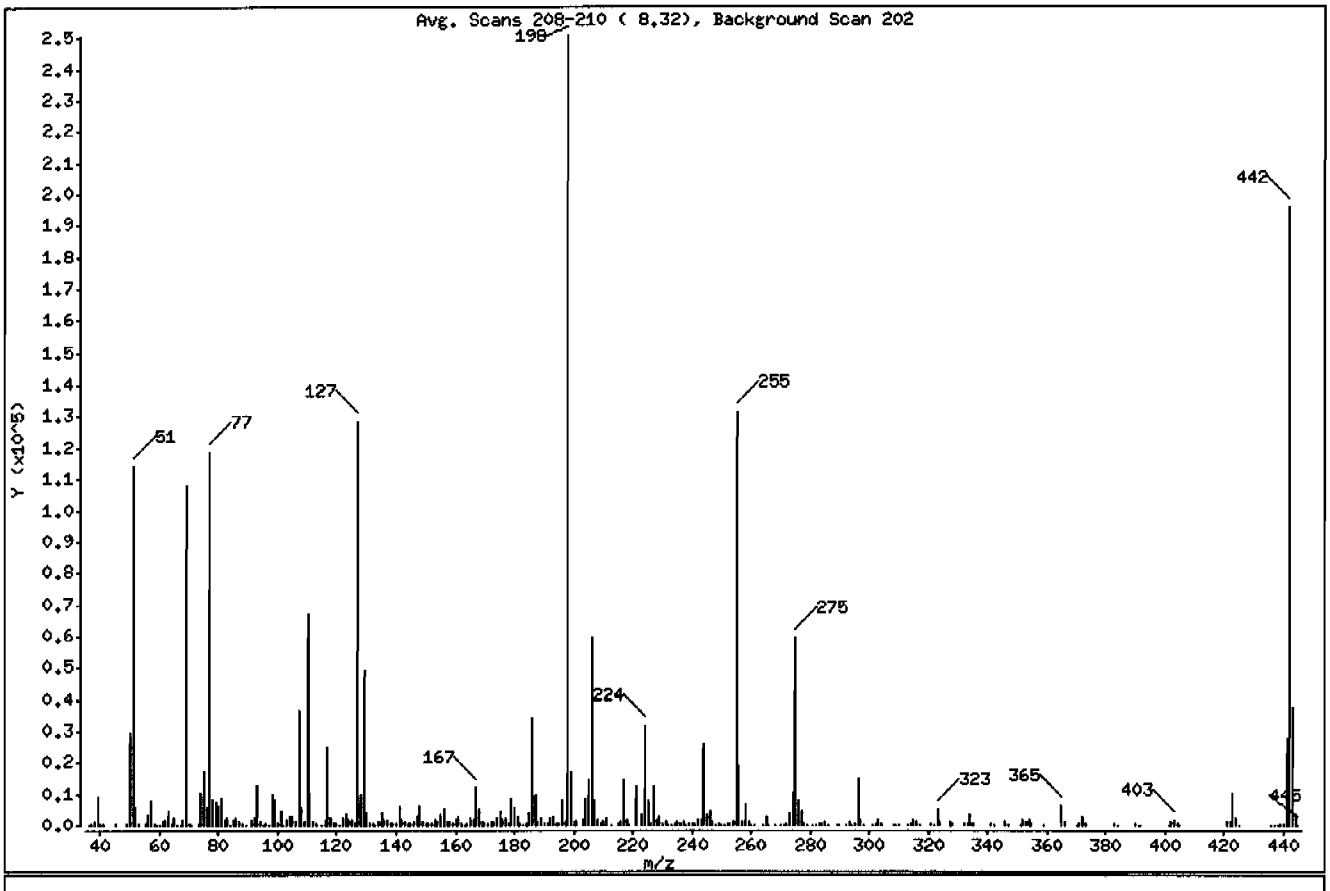

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	45.40
68	Less than 2.00% of mass 69	0.67 (1.56)
69	Mass 69 relative abundance	42.98
70	Less than 2.00% of mass 69	0.23 (0.53)
127	40.00 - 60.00% of mass 198	51.37
197	Less than 1.00% of mass 198	0.57
199	5.00 - 9.00% of mass 198	6.92
275	10.00 - 30.00% of mass 198	23.67
365	Greater than 1.00% of mass 198	2.45
441	Present, but less than mass 443	11.05
442	Greater than 40.00% of mass 198	77.94
443	17.00 - 23.00% of mass 442	14.94 (19.17)

Data File: /chem/MSD6.i/s110909.b/s6k0911.d

Date : 09-NOV-2009 18:00

Client ID: DFTPP

Instrument: MSD6.i

Sample Info: |WBN091101-01|50 PPM|1|SVMF|1|DFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

Data File: s6k0911.d
Spectrum: Avg. Scans 208-210 (8.32), Background Scan 202
Location of Maximum: 198.00
Number of points: 303

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	8	122.00	2302	198.00	250752	284.00	336
37.00	393	123.00	3695	199.00	17344	285.00	937
38.00	1200	124.00	1621	200.00	1195	286.00	170
39.00	9016	125.00	1448	201.00	1207	289.00	255
40.00	406	126.00	632	203.00	1659	290.00	159
41.00	292	127.00	128832	204.00	8363	292.00	259
45.00	305	128.00	9787	205.00	14289	293.00	1083
49.00	640	129.00	49280	206.00	59576	294.00	255
50.00	29544	130.00	4085	207.00	7878	295.00	324
51.00	113864	131.00	795	208.00	1898	296.00	14712
52.00	5719	132.00	464	209.00	609	297.00	1998
53.00	291	133.00	153	210.00	1016	298.00	48
55.00	556	134.00	1412	211.00	2089	301.00	220
56.00	3212	135.00	3908	213.00	96	302.00	374
57.00	7977	136.00	1509	215.00	674	303.00	1716
58.00	306	137.00	2002	216.00	1188	304.00	518
59.00	43	138.00	459	217.00	14324	308.00	142
60.00	144	139.00	392	218.00	1841	309.00	104
61.00	1384	140.00	751	219.00	194	310.00	127
62.00	1579	141.00	6116	221.00	12869	313.00	98
63.00	4522	142.00	1931	223.00	3368	314.00	758
64.00	592	143.00	1380	224.00	31752	315.00	1571
65.00	2251	144.00	329	225.00	7987	316.00	915
66.00	47	145.00	339	226.00	839	317.00	119
67.00	98	146.00	1032	227.00	12952	321.00	481
68.00	1681	147.00	3100	228.00	1848	322.00	229
69.00	107792	148.00	6347	229.00	2774	323.00	5178
70.00	566	149.00	1410	230.00	478	324.00	998
71.00	154	150.00	411	231.00	1257	327.00	960
73.00	818	151.00	692	232.00	280	328.00	487
74.00	10556	152.00	489	233.00	226	332.00	397
75.00	17208	153.00	1814	234.00	759	333.00	430
76.00	5735	154.00	1411	235.00	1001	334.00	3299
77.00	118792	155.00	3187	236.00	589	335.00	849
78.00	8119	156.00	5061	237.00	1093	341.00	644

Data File: /chem/MSD6.i/s110909.b/s6k0911.d

Date : 09-NOV-2009 18:00

Client ID: DFTPP

Instrument: MSD6.i

Sample Info: |WBN091101-01|50 PPM|1|SVMF|1|DFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

Data File: s6k0911.d

Spectrum: Avg. Scans 208-210 (8.32), Background Scan 202

Location of Maximum: 198.00

Number of points: 303

m/z	Y	m/z	Y	m/z	Y	m/z	Y
79.00	7616	157.00	1047	238.00	176	342.00	184
80.00	6053	158.00	1005	239.00	483	346.00	1112
81.00	8741	159.00	819	240.00	449	347.00	197
82.00	1932	160.00	1690	241.00	776	351.00	99
83.00	2188	161.00	2737	242.00	1684	352.00	1491
84.00	232	162.00	809	243.00	1819	353.00	1169
85.00	1461	163.00	190	244.00	25832	354.00	1725
86.00	2130	164.00	335	245.00	3598	355.00	318
87.00	1162	165.00	2034	246.00	4786	359.00	103
88.00	449	166.00	1979	247.00	980	365.00	6134
89.00	268	167.00	12360	248.00	210	366.00	872
91.00	1835	168.00	5121	249.00	829	370.00	96
92.00	2163	169.00	1038	250.00	174	371.00	434
93.00	12786	170.00	446	251.00	238	372.00	2651
94.00	908	171.00	470	252.00	289	373.00	754
95.00	251	172.00	1064	253.00	569	383.00	711
96.00	626	173.00	1291	254.00	1047	384.00	258
97.00	236	174.00	2515	255.00	131328	390.00	402
98.00	9808	175.00	4789	256.00	18784	391.00	259
99.00	8032	176.00	1446	257.00	1424	392.00	153
100.00	745	177.00	2269	258.00	6873	401.00	116
101.00	4358	178.00	802	259.00	1148	402.00	1140
102.00	258	179.00	8475	260.00	228	403.00	1594
103.00	1616	180.00	5994	261.00	261	404.00	514
104.00	3096	181.00	2983	264.00	141	405.00	98
105.00	2795	182.00	429	265.00	2620	421.00	1430
106.00	910	183.00	259	266.00	251	422.00	1234
107.00	36184	184.00	679	268.00	180	423.00	10131
108.00	5604	185.00	3929	270.00	163	424.00	2144
109.00	997	186.00	34256	271.00	257	425.00	193
110.00	66656	187.00	9747	272.00	290	436.00	45
111.00	10177	188.00	1146	273.00	3906	437.00	191
112.00	1133	189.00	2105	274.00	10561	438.00	232
113.00	472	190.00	292	275.00	59368	439.00	301
115.00	217	191.00	815	276.00	7957	440.00	309

Date : 09-NOV-2009 18:00

Client ID: DFTPP Instrument: MSD6.i

Sample Info: IWBN091101-01|50 PPH|1|SVMF|1|DFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5MS Column diameter: 0.20

Data File: s6k0911.d
Spectrum: Avg. Scans 208-210 (8.32), Background Scan 202
Location of Maximum: 198.00
Number of points: 303

m/z	Y	m/z	Y	m/z	Y	m/z	Y
116.00	1841	192.00	2423	277.00	4641	441.00	27712
117.00	26072	193.00	3008	278.00	676	442.00	195456
118.00	2060	194.00	699	279.00	175	443.00	37472
119.00	346	195.00	448	281.00	87	444.00	3400
120.00	476	196.00	7876	282.00	46	445.00	197
121.00	166	197.00	1433	283.00	505		

Data File: /chem/MSD6.i/s110909.b/s6k0921.d

Date : 10-NOV-2009 11:07

Client ID: DFTPP

Instrument: MSD6.i

Sample Info: |WBN091101-01|50 PPM|1|SVMF|1|DFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

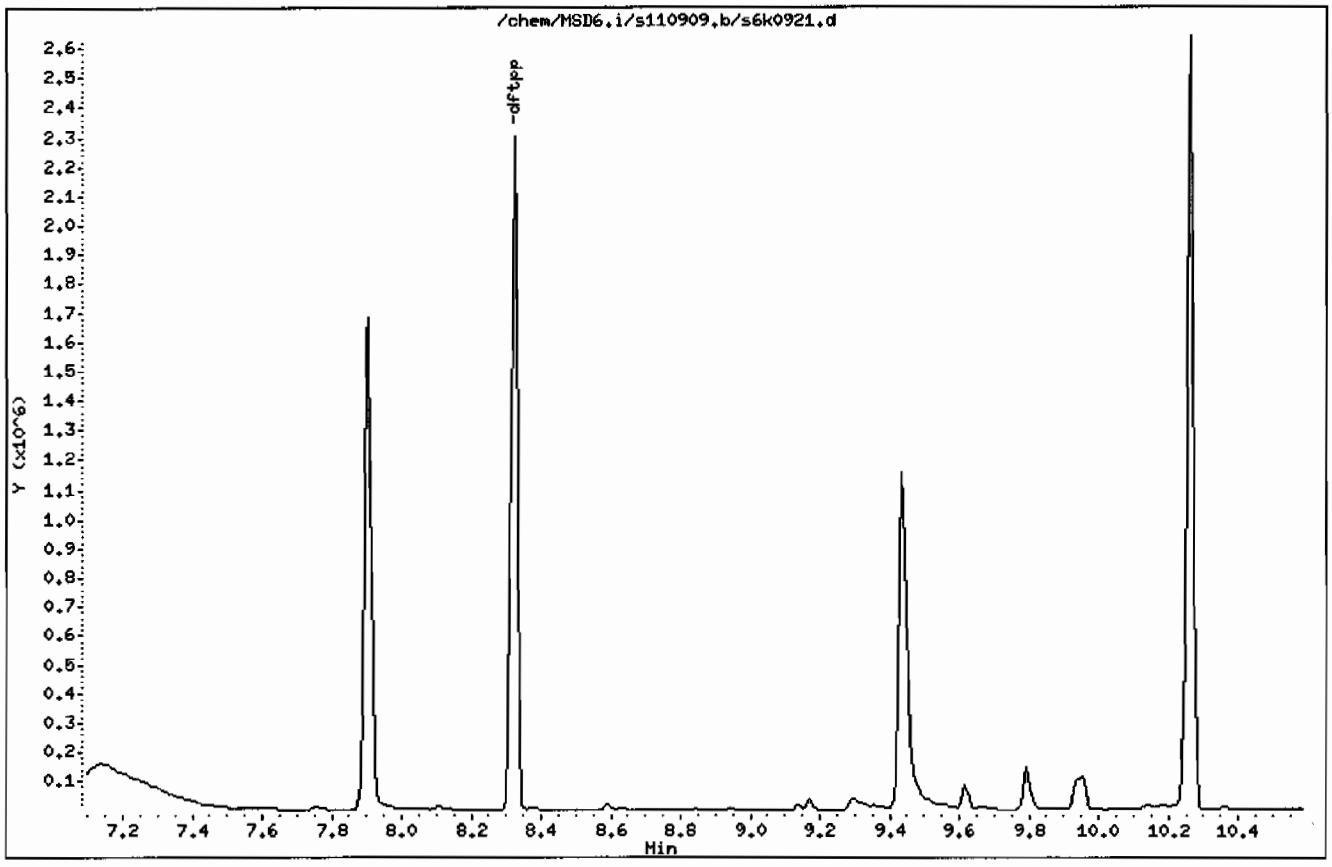

Data File: /chem/MSD6.i/s110909.b/s6k0921.d

Date : 10-NOV-2009 11:07

Client ID: DFTPP

Instrument: MSD6.i

Sample Info: |WBN091101-01|50 PPM|1|SVMF|1|DFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

1 dftpp

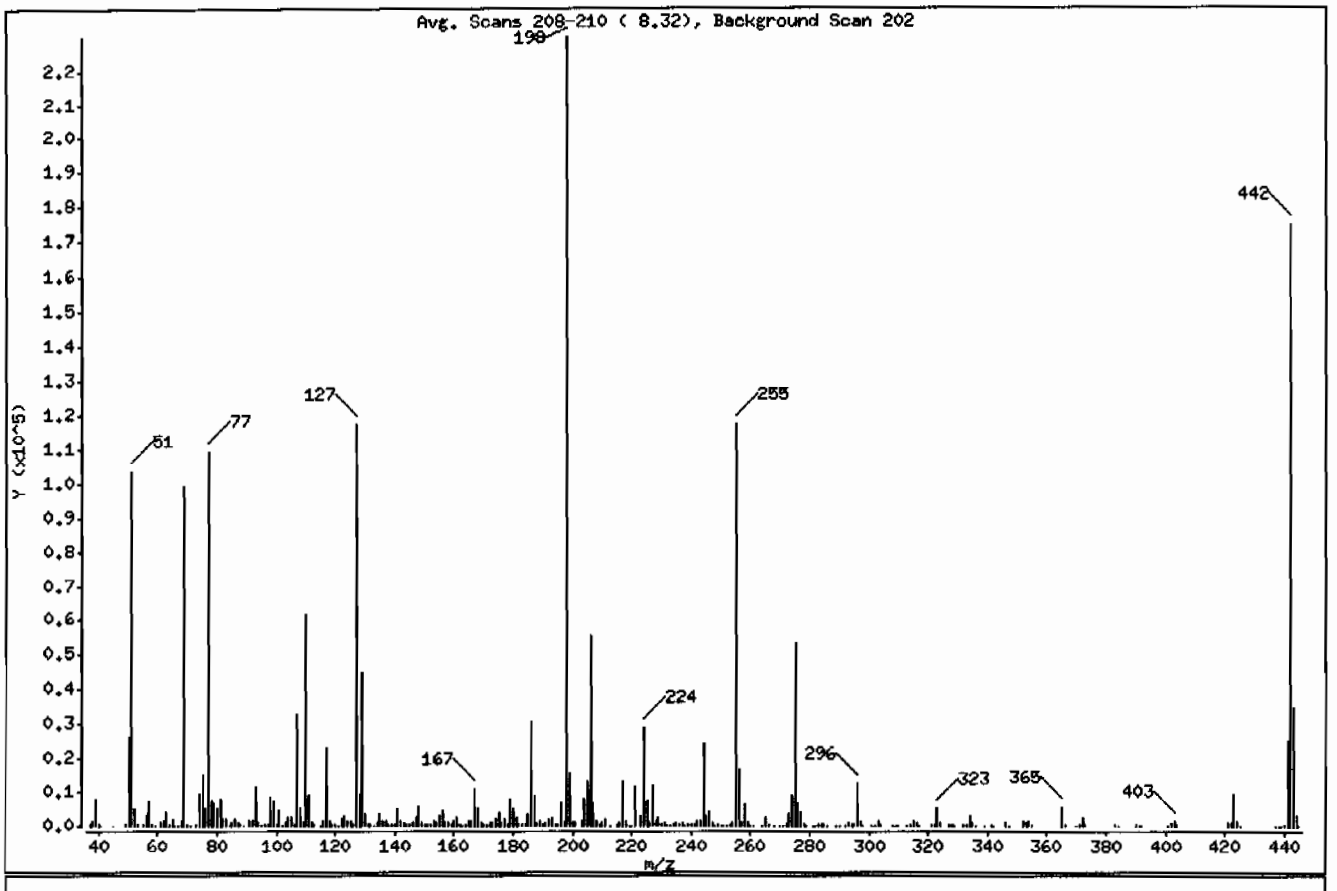

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	46.09
68	Less than 2.00% of mass 69	0.69 (1.59)
69	Mass 69 relative abundance	43.13
70	Less than 2.00% of mass 69	0.21 (0.50)
127	40.00 - 60.00% of mass 198	50.95
197	Less than 1.00% of mass 198	0.38
199	5.00 - 9.00% of mass 198	7.01
275	10.00 - 30.00% of mass 198	23.31
365	Greater than 1.00% of mass 198	2.61
441	Present, but less than mass 443	11.00
442	Greater than 40.00% of mass 198	76.04
443	17.00 - 23.00% of mass 442	15.14 (19.92)

Data File: /chem/MSD6.i/s110909.b/s6k0921.d

Date : 10-NOV-2009 11:07

Client ID: DFTPP

Instrument: MSD6.i

Sample Info: |WBN091101-01|50 PPM|1|SVMF|1|DFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

Data File: s6k0921.d
Spectrum: Avg. Scans 208-210 (8.32), Background Scan 202
Location of Maximum: 198.00
Number of points: 301

m/z	Y	m/z	Y	m/z	Y	m/z	Y
37.00	446	124.00	1597	200.00	1296	285.00	727
38.00	1364	125.00	1527	201.00	1130	286.00	93
39.00	8081	126.00	500	203.00	1398	289.00	109
40.00	429	127.00	117112	204.00	7870	290.00	48
41.00	123	128.00	9305	205.00	12990	292.00	179
45.00	232	129.00	44864	206.00	65704	293.00	996
49.00	676	130.00	3877	207.00	6919	294.00	284
50.00	26328	131.00	762	208.00	1589	295.00	295
51.00	103656	132.00	413	209.00	492	296.00	12743
52.00	5217	133.00	83	210.00	869	297.00	1758
53.00	281	134.00	1179	211.00	2059	298.00	106
55.00	508	135.00	3584	213.00	155	301.00	200
56.00	3141	136.00	1380	215.00	501	302.00	236
57.00	7300	137.00	1770	216.00	1098	303.00	1828
58.00	351	138.00	422	217.00	13179	304.00	578
59.00	89	139.00	313	218.00	1725	308.00	164
61.00	1282	140.00	577	219.00	178	309.00	120
62.00	1522	141.00	5319	220.00	48	310.00	179
63.00	4035	142.00	1826	221.00	11795	313.00	116
64.00	709	143.00	1268	223.00	3181	314.00	633
65.00	2010	144.00	322	224.00	29056	315.00	1462
66.00	201	145.00	315	225.00	7532	316.00	903
67.00	136	146.00	853	226.00	796	317.00	97
68.00	1576	147.00	2856	227.00	12169	321.00	535
69.00	99128	148.00	5895	228.00	1834	322.00	301
70.00	492	149.00	1137	229.00	2389	323.00	5031
71.00	87	150.00	371	230.00	448	324.00	932
73.00	640	151.00	713	231.00	1077	327.00	782
74.00	9704	152.00	430	232.00	217	328.00	460
75.00	15458	153.00	1634	233.00	234	329.00	92
76.00	5031	154.00	1294	234.00	764	332.00	329
77.00	109208	155.00	2977	235.00	895	333.00	541
78.00	7381	156.00	4520	236.00	588	334.00	3026
79.00	6803	157.00	931	237.00	934	335.00	912
80.00	5387	158.00	937	238.00	52	336.00	92

Data File: /chem/MSD6.i/s110909.b/s6k0921.d

Date : 10-NOV-2009 11:07

Client ID: DFTPP

Instrument: MSD6.i

Sample Info: IWBN091101-01|50 PPM|1|SVMF|1|DFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

Data File: s6k0921.d
Spectrum: Avg. Scans 208-210 (8.32), Background Scan 202
Location of Maximum: 198.00
Number of points: 301

m/z	Y	m/z	Y	m/z	Y	m/z	Y
81.00	7979	159.00	792	239.00	457	339.00	88
82.00	2000	160.00	1501	240.00	364	341.00	550
83.00	1851	161.00	2637	241.00	638	342.00	176
84.00	203	162.00	756	242.00	1412	346.00	1020
85.00	1319	163.00	204	243.00	1572	347.00	119
86.00	1985	164.00	328	244.00	24152	352.00	1335
87.00	1000	165.00	1810	245.00	3200	353.00	950
88.00	412	166.00	1695	246.00	4314	354.00	1475
89.00	260	167.00	10891	247.00	844	355.00	296
91.00	1676	168.00	5136	248.00	166	365.00	5995
92.00	1806	169.00	973	249.00	748	366.00	747
93.00	11677	170.00	306	250.00	170	370.00	103
94.00	892	171.00	442	251.00	190	371.00	323
95.00	199	172.00	897	252.00	210	372.00	2543
96.00	636	173.00	1105	253.00	472	373.00	611
97.00	286	174.00	2178	254.00	899	383.00	675
98.00	8556	175.00	4297	255.00	117320	384.00	186
99.00	7312	176.00	1290	256.00	16728	390.00	314
100.00	595	177.00	2105	257.00	1320	391.00	189
101.00	4548	178.00	636	258.00	6484	392.00	157
102.00	251	179.00	8002	259.00	1064	401.00	199
103.00	1289	180.00	5191	260.00	200	402.00	1090
104.00	2626	181.00	2701	261.00	212	403.00	1396
105.00	2533	182.00	448	264.00	192	404.00	427
106.00	724	183.00	312	265.00	2469	421.00	1265
107.00	33008	184.00	599	266.00	401	422.00	1145
108.00	5264	185.00	3797	268.00	43	423.00	9473
109.00	994	186.00	30448	270.00	167	424.00	1846
110.00	61616	187.00	8914	271.00	186	425.00	183
111.00	9026	188.00	970	272.00	329	437.00	54
112.00	1057	189.00	1726	273.00	3492	438.00	170
113.00	367	190.00	298	274.00	9124	439.00	228
115.00	227	191.00	976	275.00	53876	440.00	294
116.00	1610	192.00	2282	276.00	7126	441.00	25272
117.00	23152	193.00	2535	277.00	3970	442.00	174784

Data File: /chem/MSD6.i/s110909.b/s6k0921.d

Date : 10-NOV-2009 11:07

Client ID: DFTPP

Instrument: MSD6.i

Sample Info: |WBN091101-01|50 PPM|1|SVMF|1|DFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

Data File: s6k0921.d
Spectrum: Avg. Scans 208-210 (8.32), Background Scan 202
Location of Maximum: 198.00
Number of points: 301

m/z	Y	m/z	Y	m/z	Y	m/z	Y
118.00	1681	194.00	518	278.00	653	443.00	34808
119.00	280	195.00	333	279.00	140	444.00	3177
120.00	427	196.00	6863	281.00	140	445.00	129
121.00	176	197.00	878	282.00	42		
122.00	2199	198.00	229824	283.00	507		
123.00	3315	199.00	16104	284.00	294		

Data File: /chem/MSD1.i/s123009.b/s113002.d

Date : 30-DEC-2009 10:24

Client ID: DFTPP

Instrument: MSD1.i

Sample Info: IWBN091213-01|50 PPM|1|SVMF|1|DFTPP

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

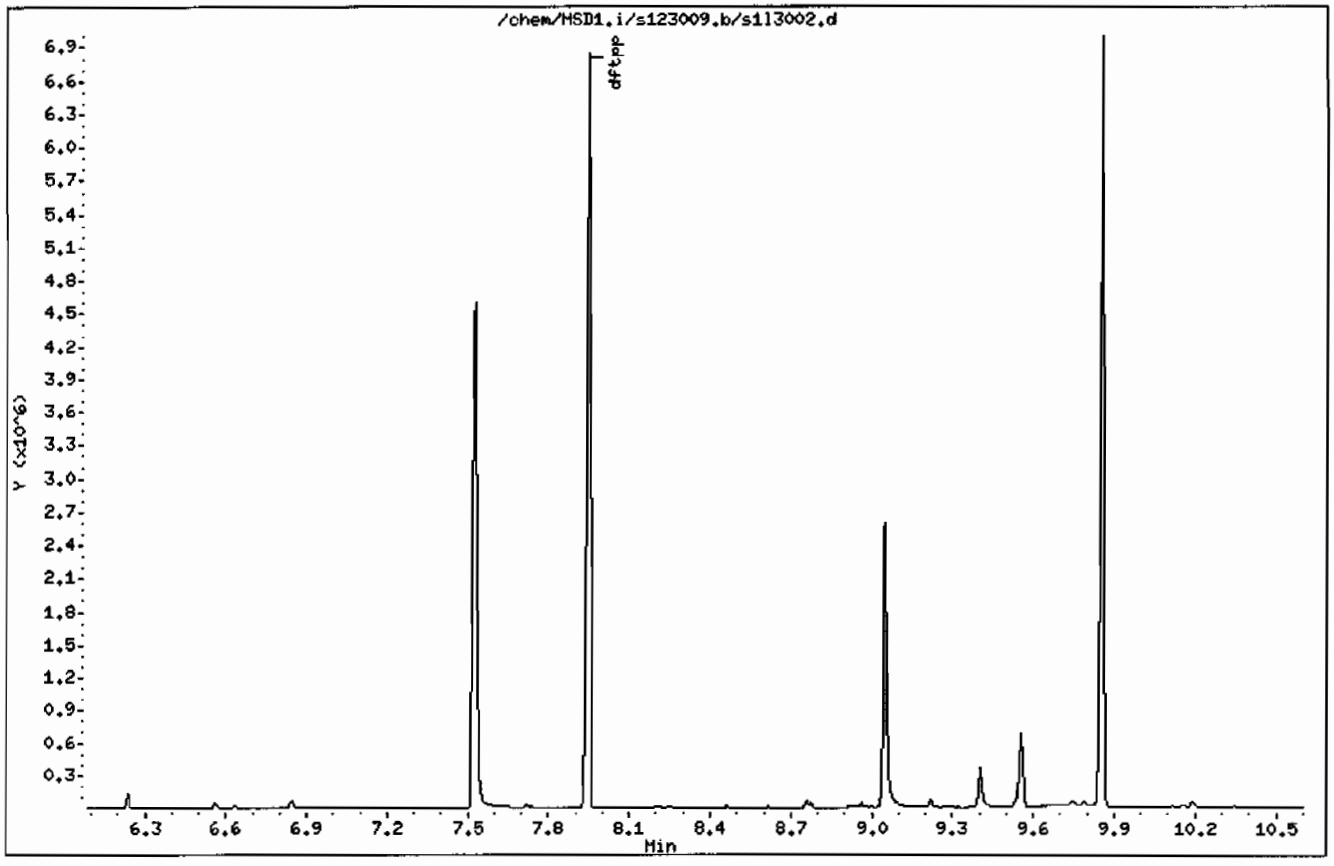

Data File: /chem/MSD1.i/s123009.b/s113002.d

Date : 30-DEC-2009 10:24

Client ID: DFTPP

Instrument: MSD1.i

Sample Info: |WBN091213-01|50 PPM|1|SVMF|1|DFTPP

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

1 dftpp

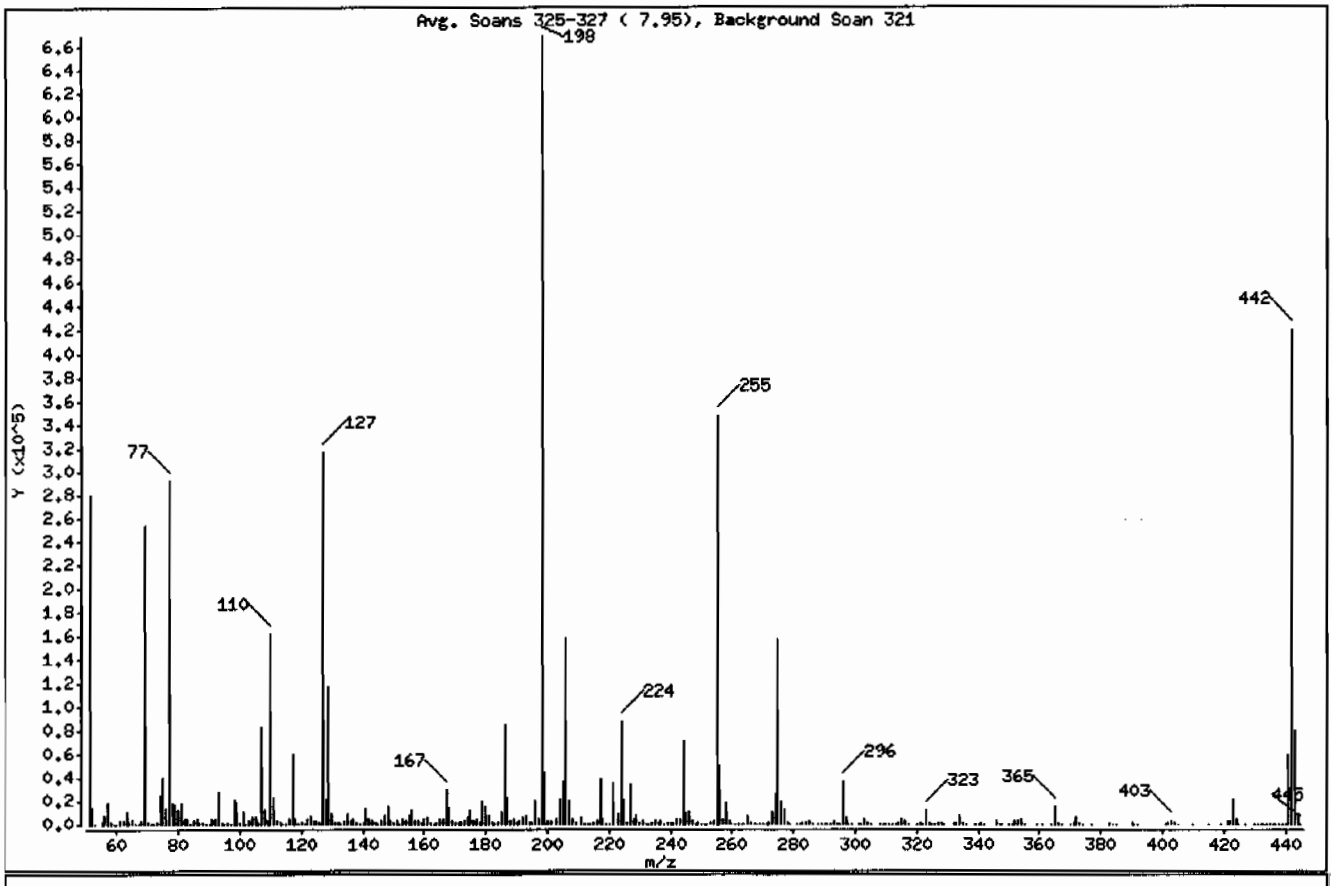

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	41.75
68	Less than 2.00% of mass 69	0.56 (1.48)
69	Mass 69 relative abundance	37.93
70	Less than 2.00% of mass 69	0.20 (0.53)
127	40.00 - 60.00% of mass 198	47.33
197	Less than 1.00% of mass 198	0.72
199	5.00 - 9.00% of mass 198	6.65
275	10.00 - 30.00% of mass 198	23.38
365	Greater than 1.00% of mass 198	2.19
441	Present, but less than mass 443	8.98
442	Greater than 40.00% of mass 198	62.69
443	17.00 - 23.00% of mass 442	11.86 (18.93)

Data File: /chem/MSD1.i/s123009.b/s113002.d

Date : 30-DEC-2009 10:24

Client ID: DFTPP

Instrument: MSD1.i

Sample Info: |WBN091213-01|50 PPM|1|SVMF|1|DFTPP

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

Data File: s113002.d
Spectrum: Avg. Scans 325-327 (7.95), Background Scan 321
Location of Maximum: 198.00
Number of points: 334

m/z	Y	m/z	Y	m/z	Y	m/z	Y
51.00	279040	136.00	3486	223.00	9113	312.00	105
52.00	13769	137.00	4293	224.00	87288	313.00	315
53.00	543	138.00	999	225.00	21672	314.00	1885
55.00	980	139.00	607	226.00	2149	315.00	4025
56.00	7538	140.00	1432	227.00	33696	316.00	2487
57.00	18368	141.00	13918	228.00	4797	317.00	420
58.00	776	142.00	5011	229.00	7163	320.00	57
59.00	243	143.00	3282	230.00	883	321.00	1157
60.00	303	144.00	914	231.00	3024	322.00	585
61.00	3397	145.00	679	232.00	535	323.00	11785
62.00	3449	146.00	2462	233.00	623	324.00	2283
63.00	10195	147.00	7503	234.00	1931	325.00	205
64.00	1415	148.00	15377	235.00	2460	326.00	246
65.00	4789	149.00	3462	236.00	1694	327.00	2270
66.00	296	150.00	992	237.00	2656	328.00	1387
67.00	328	151.00	2408	238.00	411	329.00	223
68.00	3742	152.00	758	239.00	1239	332.00	951
69.00	253504	153.00	4412	240.00	1009	333.00	1078
70.00	1345	154.00	3367	241.00	1885	334.00	7740
71.00	78	155.00	7979	242.00	4761	335.00	2127
72.00	56	156.00	12447	243.00	5099	336.00	258
73.00	1827	157.00	2398	244.00	70720	339.00	188
74.00	24032	158.00	2737	245.00	9383	340.00	160
75.00	39672	159.00	2034	246.00	11473	341.00	1245
76.00	13076	160.00	4159	247.00	2481	342.00	316
77.00	291456	161.00	6679	248.00	583	346.00	2668
78.00	19144	162.00	2046	249.00	2300	347.00	449
79.00	16177	163.00	588	250.00	470	348.00	51
80.00	13010	164.00	922	251.00	635	350.00	53
81.00	18816	165.00	4829	252.00	762	351.00	241
82.00	4776	166.00	4100	253.00	1606	352.00	3529
83.00	4764	167.00	29776	254.00	2535	353.00	2604
84.00	382	168.00	14419	255.00	346752	354.00	4012
85.00	3343	169.00	2733	256.00	50056	355.00	655
86.00	5029	170.00	968	257.00	4047	359.00	230

Data File: /chem/MSD1.i/s123009.b/s113002.d

Date : 30-DEC-2009 10:24

Client ID: DFTPP

Instrument: MSD1.i

Sample Info: |WBN091213-01|50 PPM|1|SVMF|1|DFTPP

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

Data File: s113002.d
Spectrum: Avg. Scans 325-327 (7.95), Background Scan 321
Location of Maximum: 198.00
Number of points: 334

m/z	Y	m/z	Y	m/z	Y	m/z	Y
87.00	2273	171.00	1352	258.00	17760	361.00	55
88.00	1228	172.00	2296	259.00	2927	364.00	141
89.00	482	173.00	3336	260.00	482	365.00	14665
90.00	87	174.00	6542	261.00	546	366.00	2147
91.00	3928	175.00	11622	262.00	64	367.00	188
92.00	4391	176.00	3463	263.00	148	370.00	316
93.00	28064	177.00	5341	264.00	163	371.00	885
94.00	2120	178.00	1663	265.00	7319	372.00	6077
95.00	320	179.00	20720	266.00	868	373.00	1356
96.00	1331	180.00	14963	267.00	195	374.00	90
97.00	669	181.00	7209	268.00	145	377.00	74
98.00	21448	182.00	1200	269.00	76	383.00	1635
99.00	17824	183.00	604	270.00	586	384.00	387
100.00	1750	184.00	1732	271.00	764	385.00	71
101.00	10808	185.00	10756	272.00	1004	390.00	908
102.00	674	186.00	85056	273.00	10061	391.00	572
103.00	3552	187.00	23360	274.00	26848	392.00	343
104.00	6427	188.00	2473	275.00	156288	401.00	438
105.00	6069	189.00	4580	276.00	19488	402.00	2226
106.00	1921	190.00	786	277.00	11542	403.00	3396
107.00	83208	191.00	2407	278.00	1940	404.00	1102
108.00	12773	192.00	6889	279.00	351	405.00	154
109.00	2368	193.00	7458	281.00	63	410.00	54
110.00	160896	194.00	1725	282.00	278	415.00	220
111.00	22680	195.00	1056	283.00	1248	419.00	112
112.00	2794	196.00	19824	284.00	875	421.00	2837
113.00	877	197.00	4846	285.00	2342	422.00	2897
114.00	186	198.00	668544	286.00	450	423.00	21896
115.00	306	199.00	44448	288.00	175	424.00	4751
116.00	4177	200.00	3451	289.00	461	425.00	589
117.00	59544	201.00	3411	290.00	456	427.00	128
118.00	4462	203.00	4058	291.00	277	430.00	70
119.00	662	204.00	21152	292.00	693	431.00	51
120.00	1159	205.00	37168	293.00	2578	432.00	230
121.00	395	206.00	157952	294.00	686	433.00	191

Data File: /chem/MSD1.i/s123009.b/s113002.d

Date : 30-DEC-2009 10:24

Client ID: DFTPP

Instrument: MSD1.i

Sample Info: |WBN091213-01|50 PPM|1|SVMF|1|DFTPP

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

Data File: s113002.d
Spectrum: Avg. Scans 325-327 (7.95), Background Scan 321
Location of Maximum: 198.00
Number of points: 334

m/z	Y	m/z	Y	m/z	Y	m/z	Y
122.00	4946	207.00	19800	295.00	757	434.00	123
123.00	7786	208.00	4950	296.00	37368	435.00	161
124.00	3722	209.00	1520	297.00	5774	436.00	164
125.00	3517	211.00	6084	298.00	333	437.00	189
126.00	1345	212.00	329	299.00	51	438.00	240
127.00	316416	213.00	532	301.00	460	439.00	97
128.00	22032	214.00	110	302.00	677	440.00	261
129.00	116912	215.00	1568	303.00	4075	441.00	60048
130.00	9972	216.00	3124	304.00	1311	442.00	419072
131.00	1945	217.00	38944	305.00	63	443.00	79312
132.00	1085	218.00	5198	308.00	580	444.00	7372
133.00	230	219.00	470	309.00	385	445.00	326
134.00	3120	220.00	198	310.00	429		
135.00	8821	221.00	36048	311.00	188		

Data File: /chem/MSD6.i/s122209.b/s612206.d

Date : 22-DEC-2009 15:13

Client ID: DFTPP

Instrument: MSD6.i

Sample Info: |WBN091213-01|50 PPM|1|SVMF|1|DFTPP

Operator: nag1

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

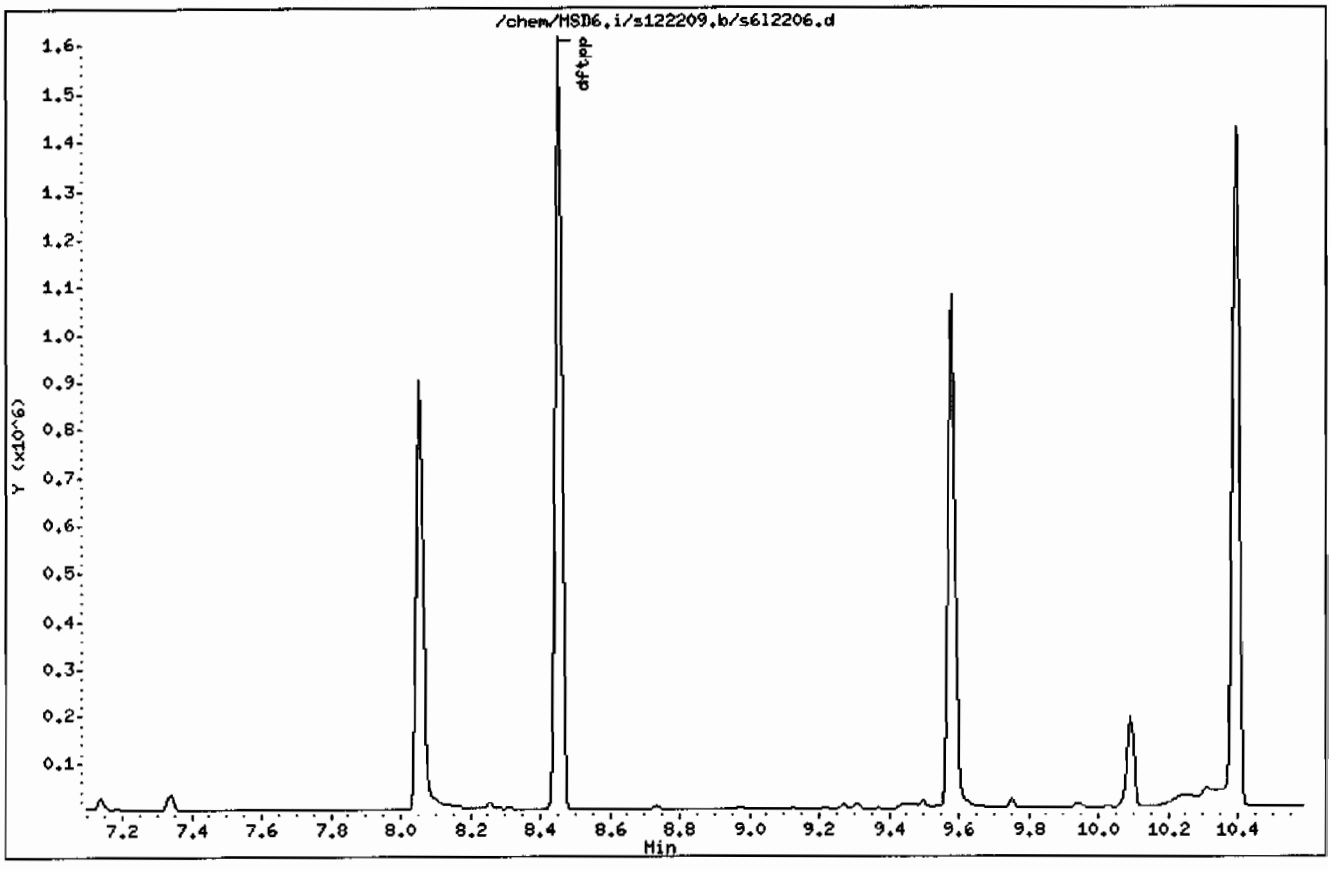

Data File: /chem/MSD6.i/s122209.b/s612206.d

Date : 22-DEC-2009 15:13

Client ID: DFTPP

Instrument: MSD6.i

Sample Info: |WBN091213-01|50 PPM|1|SVMF|1|DFTPP

Operator: nagi

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

1 dftpp

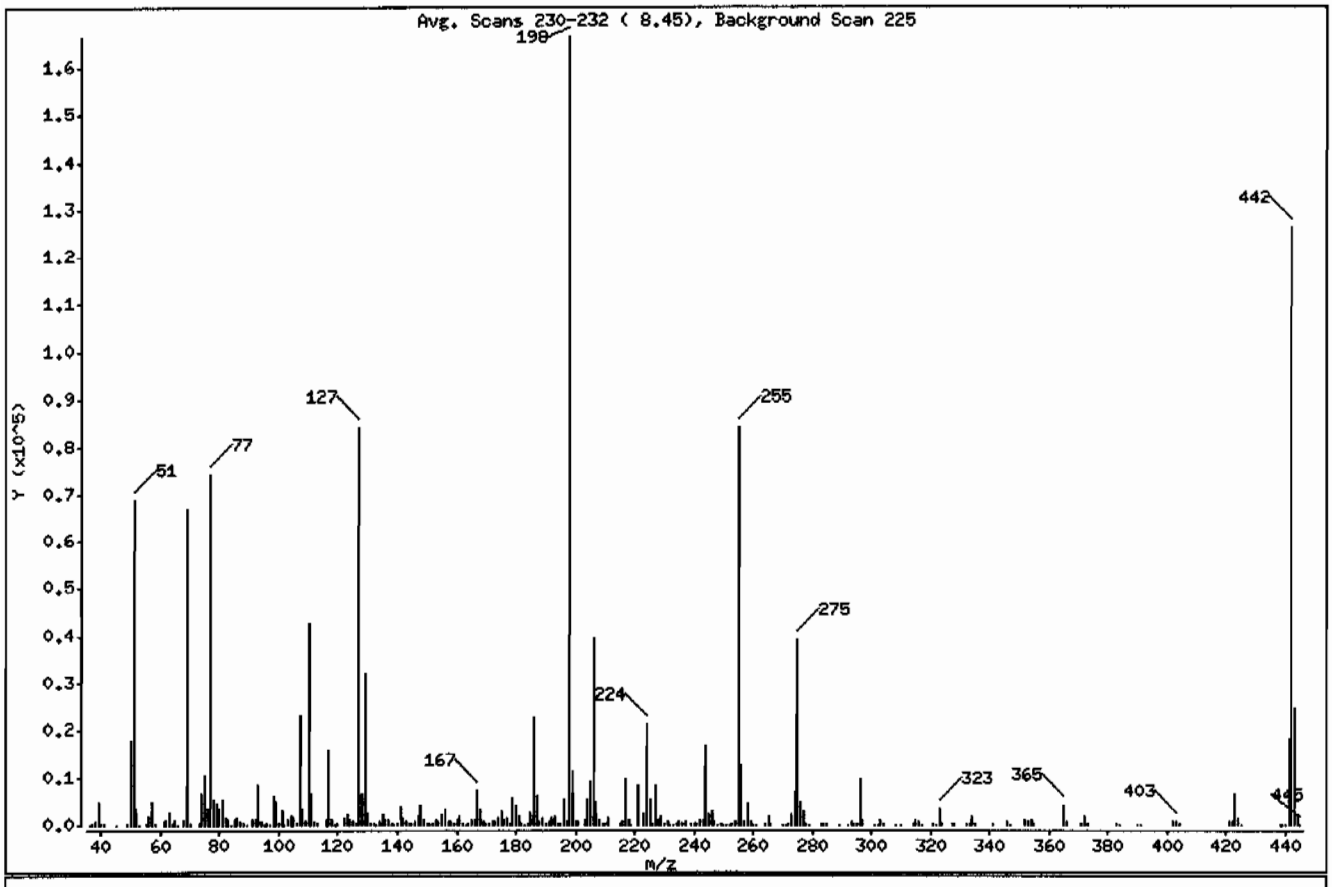

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	41.43
68	Less than 2.00% of mass 69	0.60 (1.50)
69	Mass 69 relative abundance	40.26
70	Less than 2.00% of mass 69	0.20 (0.49)
127	40.00 - 60.00% of mass 198	50.67
197	Less than 1.00% of mass 198	0.53
199	5.00 - 9.00% of mass 198	6.81
275	10.00 - 30.00% of mass 198	23.43
365	Greater than 1.00% of mass 198	2.48
441	Present, but less than mass 443	10.83
442	Greater than 40.00% of mass 198	75.59
443	17.00 - 23.00% of mass 442	14.65 (19.38)

Data File: /chem/MSD6.i/s122209.b/s612206.d

Date : 22-DEC-2009 15:13

Client ID: DFTPP

Instrument: MSD6.i

Sample Info: |WBN091213-01|50 PPM|1|SVMF|1|DFTPP

Operator: nagl

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

Data File: s612206.d
Spectrum: Avg. Scans 230-232 (8.45), Background Scan 225
Location of Maximum: 198.00
Number of points: 278

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	61	122.00	1513	192.00	1701	274.00	7020
37.00	297	123.00	2436	193.00	2036	275.00	39048
38.00	864	124.00	1090	194.00	494	276.00	5159
39.00	5152	125.00	875	195.00	274	277.00	2935
40.00	242	126.00	323	196.00	5300	278.00	456
41.00	202	127.00	84456	197.00	891	279.00	84
45.00	92	128.00	6431	198.00	166656	283.00	348
49.00	484	129.00	31848	199.00	11352	284.00	204
50.00	17496	130.00	2721	200.00	819	285.00	533
51.00	69048	131.00	462	201.00	880	289.00	43
52.00	3605	132.00	288	203.00	1016	292.00	148
53.00	139	133.00	98	204.00	5236	293.00	637
55.00	324	134.00	885	205.00	9005	294.00	214
56.00	1945	135.00	2487	206.00	39576	295.00	236
57.00	4895	136.00	977	207.00	5052	296.00	9434
58.00	225	137.00	1272	208.00	1284	297.00	1289
61.00	897	138.00	330	209.00	468	301.00	90
62.00	1054	139.00	144	210.00	431	302.00	165
63.00	2668	140.00	298	211.00	1620	303.00	1230
64.00	367	141.00	3842	215.00	465	304.00	333
65.00	1300	142.00	1431	216.00	860	308.00	109
66.00	46	143.00	947	217.00	9561	310.00	105
68.00	1007	144.00	250	218.00	1140	314.00	477
69.00	67104	145.00	255	219.00	45	315.00	999
70.00	330	146.00	695	221.00	8619	316.00	622
73.00	547	147.00	2047	223.00	2191	317.00	42
74.00	6541	148.00	4169	224.00	21008	321.00	407
75.00	10254	149.00	1000	225.00	5398	322.00	118
76.00	3522	150.00	244	226.00	515	323.00	3492
77.00	74232	151.00	480	227.00	8409	324.00	569
78.00	5198	152.00	266	228.00	1246	327.00	571
79.00	4684	153.00	1203	229.00	1844	328.00	298
80.00	3639	154.00	844	230.00	306	332.00	237
81.00	5512	155.00	2136	231.00	794	333.00	311
82.00	1388	156.00	3443	232.00	102	334.00	2050

Data File: /chem/MSD6.i/s122209.b/s612206.d

Date : 22-DEC-2009 15:13

Client ID: DFTPP

Instrument: MSD6.i

Sample Info: |WBN091213-01|50 PPM|1|SVMF|1|DFTPP

Operator: nag1

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

Data File: s612206.d

Spectrum: Avg. Scans 230-232 (8.45), Background Scan 225

Location of Maximum: 198.00

Number of points: 278

m/z	Y	m/z	Y	m/z	Y	m/z	Y
83.00	1251	157.00	681	233.00	156	335.00	515
84.00	191	158.00	708	234.00	565	341.00	349
85.00	977	159.00	507	235.00	646	346.00	743
86.00	1342	160.00	1068	236.00	381	347.00	94
87.00	661	161.00	1793	237.00	697	352.00	1028
88.00	328	162.00	442	239.00	320	353.00	695
89.00	48	163.00	171	240.00	276	354.00	1109
91.00	1086	164.00	227	241.00	481	355.00	204
92.00	1333	165.00	1335	242.00	1156	365.00	4133
93.00	8247	166.00	1157	243.00	1175	366.00	599
94.00	624	167.00	7400	244.00	16664	371.00	267
95.00	171	168.00	3498	245.00	2290	372.00	1826
96.00	342	169.00	699	246.00	2953	373.00	392
97.00	45	170.00	257	247.00	677	383.00	476
98.00	5962	171.00	316	248.00	127	384.00	103
99.00	5010	172.00	671	249.00	563	390.00	159
100.00	455	173.00	840	250.00	113	391.00	127
101.00	2965	174.00	1598	251.00	105	402.00	703
102.00	154	175.00	3105	252.00	165	403.00	899
103.00	1087	176.00	1013	253.00	354	404.00	332
104.00	1869	177.00	1471	254.00	653	421.00	853
105.00	1701	178.00	437	255.00	84408	422.00	798
106.00	568	179.00	5761	256.00	12460	423.00	6435
107.00	22832	180.00	4034	257.00	921	424.00	1451
108.00	3602	181.00	1822	258.00	4576	425.00	137
109.00	661	182.00	271	259.00	636	438.00	89
110.00	42424	183.00	188	260.00	109	439.00	86
111.00	6485	184.00	463	261.00	95	440.00	104
112.00	744	185.00	2660	264.00	229	441.00	18048
113.00	213	186.00	22456	265.00	1839	442.00	125984
116.00	1246	187.00	6305	266.00	195	443.00	24416
117.00	15839	188.00	619	270.00	86	444.00	2194
118.00	1131	189.00	1432	271.00	164	445.00	92
119.00	167	190.00	193	272.00	244		
120.00	250	191.00	612	273.00	2421		

Data File: /chem/MSD6.i/s122209.b/s612206.d

Date : 22-DEC-2009 15:13

Client ID: DFTPP

Instrument: MSD6.i

Sample Info: IWBN091213-01|50 PPM|1|SVMF|1|DFTPP

Operator: nag1

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

Data File: s612206.d
Spectrum: Avg. Scans 230-232 (8.45), Background Scan 225
Location of Maximum: 198.00
Number of points: 278

m/z	Y	m/z	Y	m/z	Y	m/z	Y

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-940**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202000424**				
Client Sample:	**QC for batch 934978**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 934978**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**934979**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**12/22/2009 16:55**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/21/2009 11:03**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**s612210-1.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	333	ug/kg	66.7	333
108-95-2	Phenol	U	333	ug/kg	66.7	333
95-57-8	2-Chlorophenol	U	333	ug/kg	66.7	333
106-46-7	1,4-Dichlorobenzene	U	333	ug/kg	66.7	333
621-64-7	N-Nitrosodipropylamine	U	333	ug/kg	66.7	333
59-50-7	4-Chloro-3-methylphenol	U	333	ug/kg	66.7	333
83-32-9	Acenaphthene	U	33.3	ug/kg	11.0	33.3
121-14-2	2,4-Dinitrotoluene	U	333	ug/kg	33.3	333
100-02-7	4-Nitrophenol	U	333	ug/kg	110	333
87-86-5	Pentachlorophenol	U	333	ug/kg	83.3	333
129-00-0	Pyrene	U	33.3	ug/kg	10.0	33.3
110-86-1	Pyridine	U	333	ug/kg	66.7	333
62-53-3	Aniline	U	333	ug/kg	100	333
111-44-4	bis(2-Chloroethyl) ether	U	333	ug/kg	66.7	333
541-73-1	1,3-Dichlorobenzene	U	333	ug/kg	66.7	333
100-51-6	Benzyl alcohol	U	333	ug/kg	100	333
95-50-1	1,2-Dichlorobenzene	U	333	ug/kg	66.7	333
108-60-1	bis(2-Chloroisopropyl)ether	U	333	ug/kg	66.7	333
95-48-7	o-Cresol	U	333	ug/kg	66.7	333
65794-96-9	m,p-Cresols	U	333	ug/kg	100	333
67-72-1	Hexachloroethane	U	333	ug/kg	66.7	333
98-95-3	Nitrobenzene	U	333	ug/kg	66.7	333
78-59-1	Isophorone	U	333	ug/kg	66.7	333
88-75-5	2-Nitrophenol	U	333	ug/kg	66.7	333
105-67-9	2,4-Dimethylphenol	U	333	ug/kg	117	333
111-91-1	bis(2-Chloroethoxy)methane	U	333	ug/kg	66.7	333
120-83-2	2,4-Dichlorophenol	U	333	ug/kg	66.7	333
65-85-0	Benzoic acid	U	667	ug/kg	167	667
91-20-3	Naphthalene	U	33.3	ug/kg	10.0	33.3
106-47-8	4-Chloroaniline	U	333	ug/kg	66.7	333
87-68-3	Hexachlorobutadiene	U	333	ug/kg	66.7	333
91-57-6	2-Methylnaphthalene	U	33.3	ug/kg	6.67	33.3
77-47-4	Hexachlorocyclopentadiene	U	333	ug/kg	66.7	333
88-06-2	2,4,6-Trichlorophenol	U	333	ug/kg	66.7	333
95-95-4	2,4,5-Trichlorophenol	U	333	ug/kg	66.7	333
91-58-7	2-Chloronaphthalene	U	33.3	ug/kg	11.0	33.3
88-74-4	2-Nitroaniline	U	333	ug/kg	66.7	333
	o-Nitroaniline					
99-09-2	3-Nitroaniline	U	333	ug/kg	66.7	333

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-940**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202000424**				
Client Sample:	**QC for batch 934978**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 934978**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**934979**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**12/22/2009 16:55**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/21/2009 11:03**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**s612210-1.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	333	ug/kg	66.7	333
606-20-2	2,6-Dinitrotoluene	U	333	ug/kg	33.3	333
208-96-8	Acenaphthylene	U	33.3	ug/kg	10.0	33.3
51-28-5	2,4-Dinitrophenol	U	667	ug/kg	127	667
132-64-9	Dibenzofuran	U	333	ug/kg	66.7	333
84-66-2	Diethylphthalate	U	333	ug/kg	66.7	333
86-73-7	Fluorene	U	33.3	ug/kg	10.0	33.3
7005-72-3	4-Chlorophenylphenylether	U	333	ug/kg	66.7	333
534-52-1	2-Methyl-4,6-dinitrophenol	U	333	ug/kg	66.7	333
100-01-6	4-Nitroaniline	U	333	ug/kg	100	333
	p-Nitroaniline					
122-39-4	Diphenylamine	U	333	ug/kg	66.7	333
122-66-7	Azobenzene	U	333	ug/kg	66.7	333
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	333	ug/kg	66.7	333
118-74-1	Hexachlorobenzene	U	333	ug/kg	66.7	333
85-01-8	Phenanthrene	U	33.3	ug/kg	10.0	33.3
120-12-7	Anthracene	U	33.3	ug/kg	6.67	33.3
84-74-2	Di-n-butylphthalate	U	333	ug/kg	66.7	333
206-44-0	Fluoranthene	U	33.3	ug/kg	10.0	33.3
85-68-7	Butylbenzylphthalate	U	333	ug/kg	66.7	333
56-55-3	Benzo(a)anthracene	U	33.3	ug/kg	10.0	33.3
91-94-1	3,3'-Dichlorobenzidine	U	333	ug/kg	100	333
218-01-9	Chrysene	U	33.3	ug/kg	10.0	33.3
117-81-7	bis(2-Ethylhexyl)phthalate	U	333	ug/kg	66.7	333
117-84-0	Di-n-octylphthalate	U	333	ug/kg	66.7	333
205-99-2	Benzo(b)fluoranthene	U	33.3	ug/kg	10.0	33.3
207-08-9	Benzo(k)fluoranthene	U	33.3	ug/kg	10.0	33.3
50-32-8	Benzo(a)pyrene	U	33.3	ug/kg	10.0	33.3
193-39-5	Indeno(1,2,3-cd)pyrene	U	33.3	ug/kg	10.0	33.3
53-70-3	Dibenzo(a,h)anthracene	U	33.3	ug/kg	10.0	33.3
191-24-2	Benzo(ghi)perylene	U	33.3	ug/kg	10.0	33.3
120-82-1	1,2,4-Trichlorobenzene	U	333	ug/kg	66.7	333

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	2.35	841	ug/kg		J
	Unknown Aldol Condensate	3.57	854	ug/kg		JA

GEL Laboratories LLC

Data file : /chem/MSD6.i/s122209.b/s612210.d
Lab Smp Id: 1202000424 Client Smp ID: SBLK01
Inj Date : 22-DEC-2009 16:55
Operator : nagl Inst ID: MSD6.i
Smp Info : |1202000424|934979|1|SVM|1|SBLK01
Misc Info : |MSD8270_S|WBN091208-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s122209.b/MSD6-M8270C-AQA-110909.m
Meth Date : 22-Dec-2009 17:52 ann00964 Quant Type: ISTD
Cal Date : 11-NOV-2009 04:38 Cal File: s6k0954.d
Als bottle: 5 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-940.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	0.00000	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	4.976	4.979	(1.000)	228409	40.0000	
* 29 Naphthalene-d8	136	6.255	6.261	(1.000)	873239	40.0000	
* 46 Acenaphthene-d10	164	8.131	8.136	(1.000)	482923	40.0000	
* 67 Phenanthrene-d10	188	9.746	9.749	(1.000)	856951	40.0000	
* 91 Chrysene-d12	240	12.804	12.809	(1.000)	742869	40.0000	
* 98 Perylene-d12	264	15.215	15.220	(1.000)	646177	40.0000	
$ 3 2-Fluorophenol	112	3.825	3.812	(0.769)	403144	70.4813	2350
$ 5 Phenol-d5	99	4.594	4.597	(0.923)	544067	75.3632	2510
$ 20 Nitrobenzene-d5	82	5.511	5.519	(0.881)	200546	32.4652	1080
$ 39 2-Fluorobiphenyl	172	7.382	7.387	(0.908)	445721	35.8144	1190
$ 60 2,4,6-Tribromophenol	329	8.984	8.985	(1.105)	126906	90.0348	3000
$ 81 p-Terphenyl-d14	244	11.451	11.449	(0.894)	579552	48.3766	1610

GEL Laboratories LLC

Data file : /chem/MSD6.i/s122209.b/s612210.d
Lab Smp Id: 1202000424 Client Smp ID: SBLK01
Inj Date : 22-DEC-2009 16:55
Operator : nagl Inst ID: MSD6.i
Smp Info : |1202000424|934979|1|SVM|1|SBLK01
Misc Info : |MSD8270_S|WBN091208-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s122209.b/MSD6-M8270C-AQA-110909.m
Meth Date : 22-Dec-2009 17:52 ann00964 Quant Type: ISTD
Cal Date : 11-NOV-2009 04:38 Cal File: s6k0954.d
Als bottle: 5 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-940.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	0.00000	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	4.976	1338638	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown				CAS #:			
2.347	843999	25.2196353	841	0		0	10
Unknown Aldol Condensate				CAS #:			
3.575	857081	25.6105420	854	0		0	10

Data File: /chem/MSD6.i/s122209.b/s612210.d

Page 1

Date : 22-DEC-2009 16:55

Client ID: SBLK01

Instrument: MSD6.i

Sample Info: |1202000424|93497911|SVM11|SBLK01

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

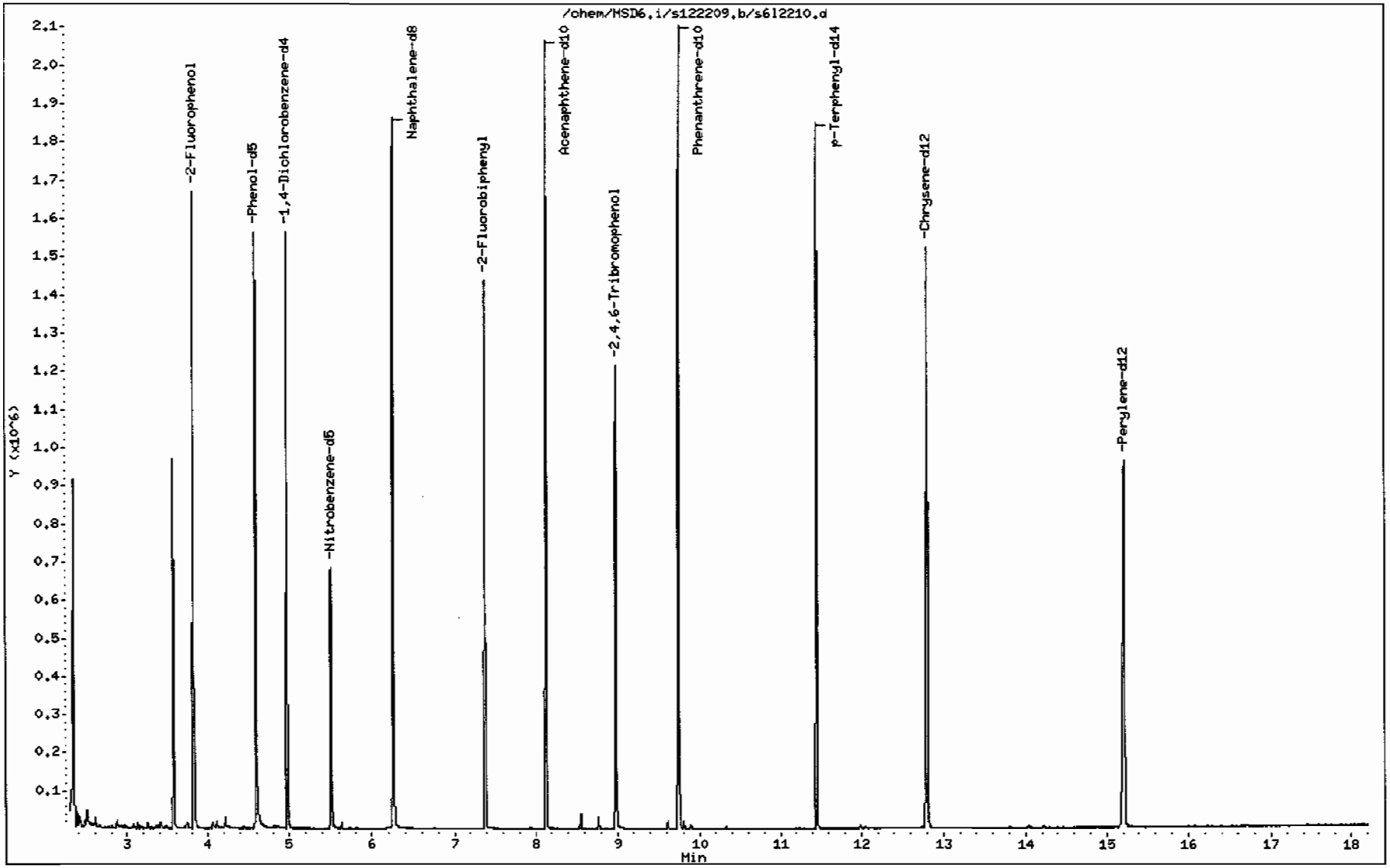

Data File: /chem/MSD6.i/s122209.b/s612210.d

Date : 22-DEC-2009 16:55

Client ID: SBLK01 Instrument: MSD6.i

Sample Info: |1202000424|934979|1|SVH|1|SBLK01

Volume Injected (uL): 0.5 Operator: nag1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Propane, 2,2-dimethoxy-	77-76-9	NIST05.L	4663	78	C5H12O2	104
Propane, 2,2-dimethoxy-	77-76-9	NIST05.L	4662	50	C5H12O2	104
Propane, 2,2-dimethoxy-	77-76-9	NIST05.L	4658	39	C5H12O2	104

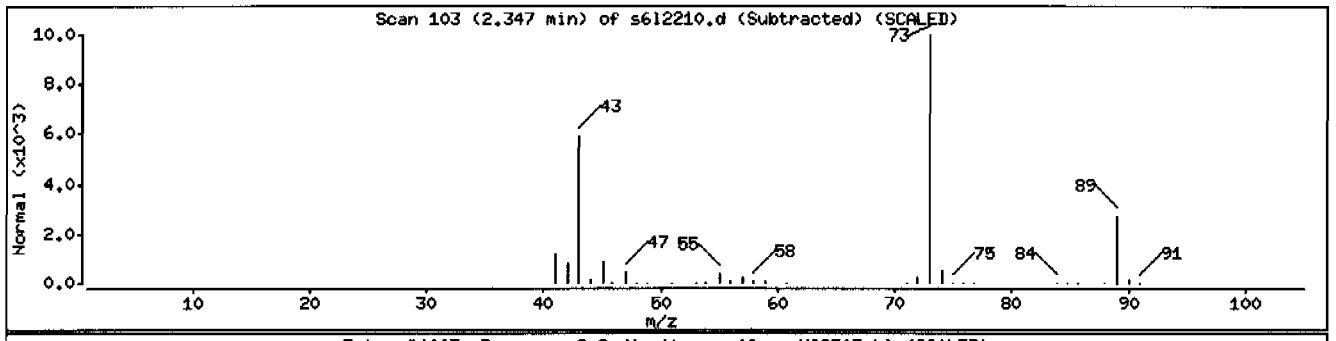

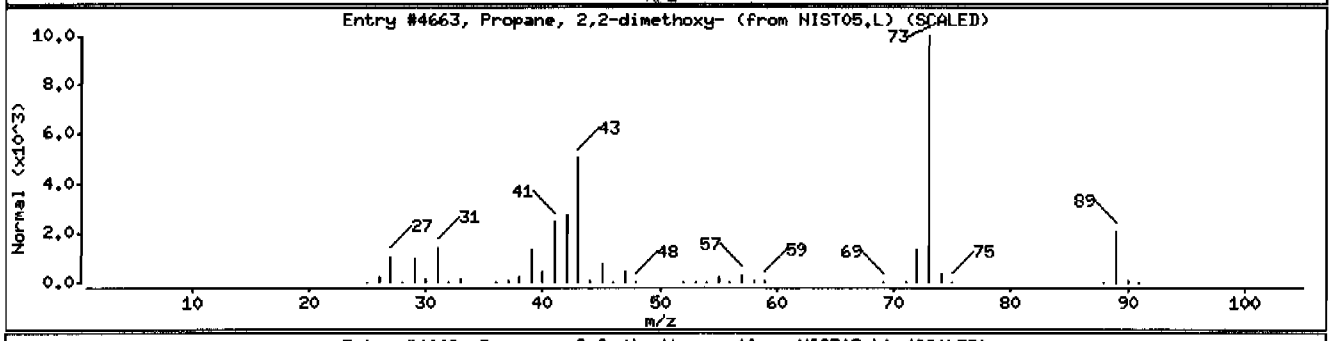

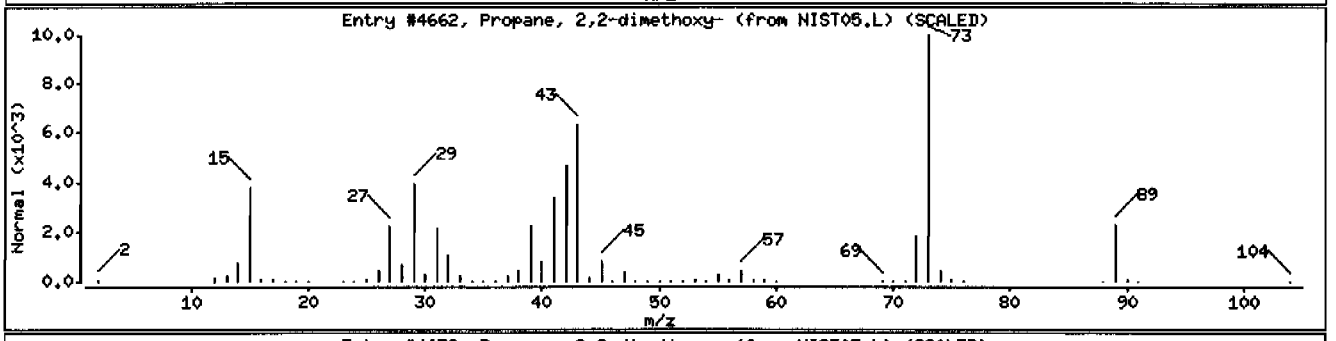

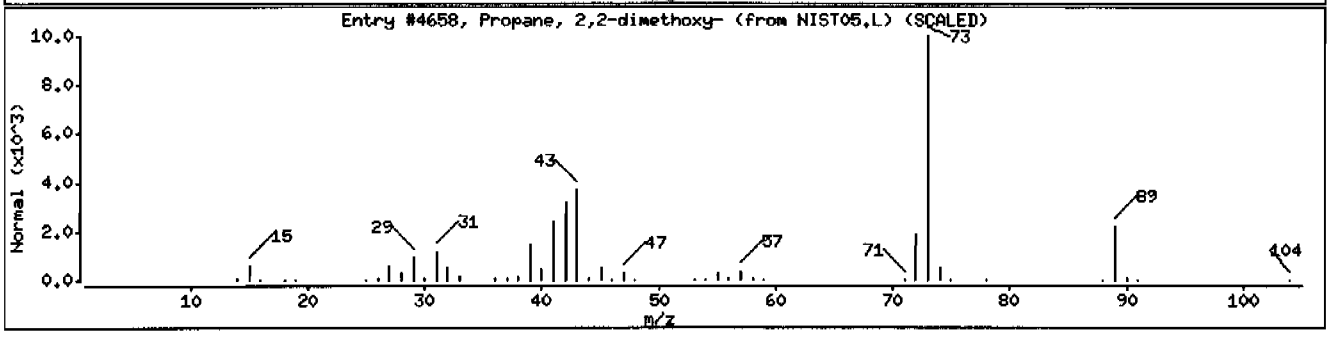

Data File: /chem/MSD6.i/s122209.b/s612210.d

Date : 22-DEC-2009 16:55

Client ID: SBLK01 Instrument: MSD6.i

Sample Info: |1202000424|9349791|1|SVM|1|SBLK01

Volume Injected (uL): 0.5 Operator: nagl

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	56	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7945	45	C6H12O2	116
Acetic acid, 1,1-dimethylethyl ester	540-88-5	NIST05.L	7977	39	C6H12O2	116

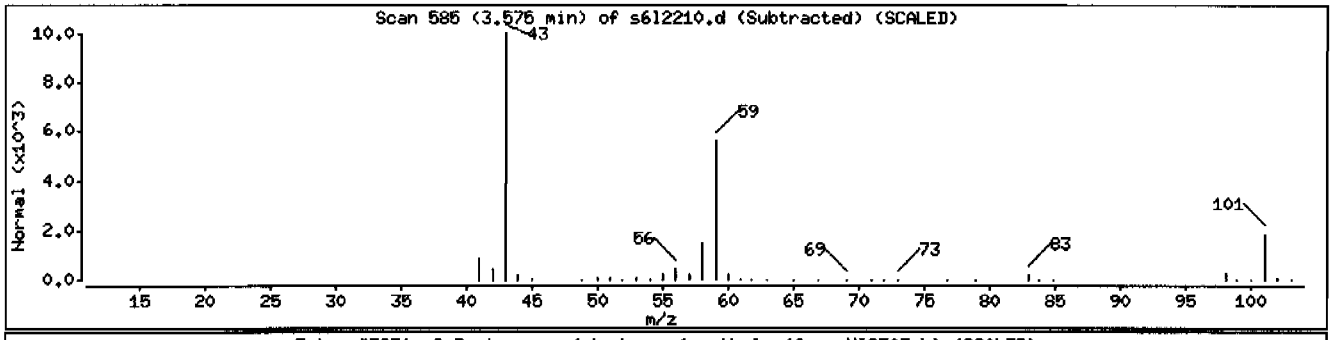

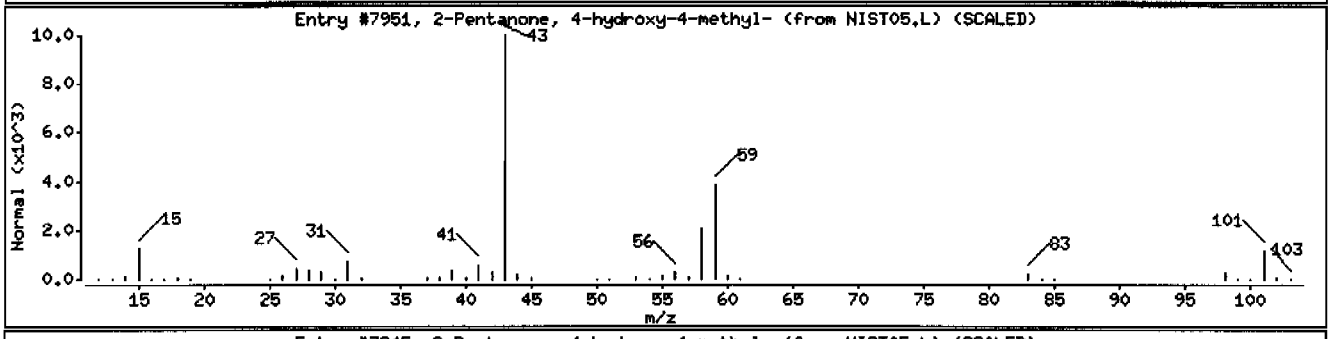

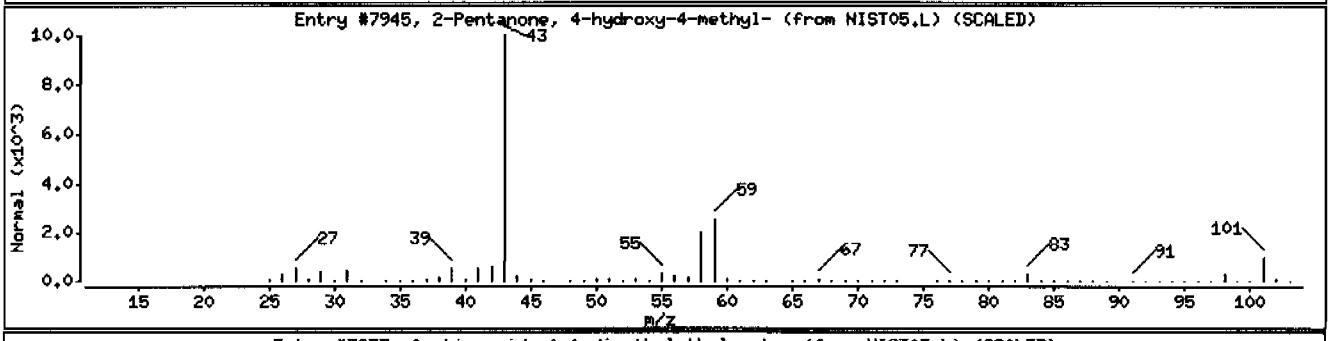

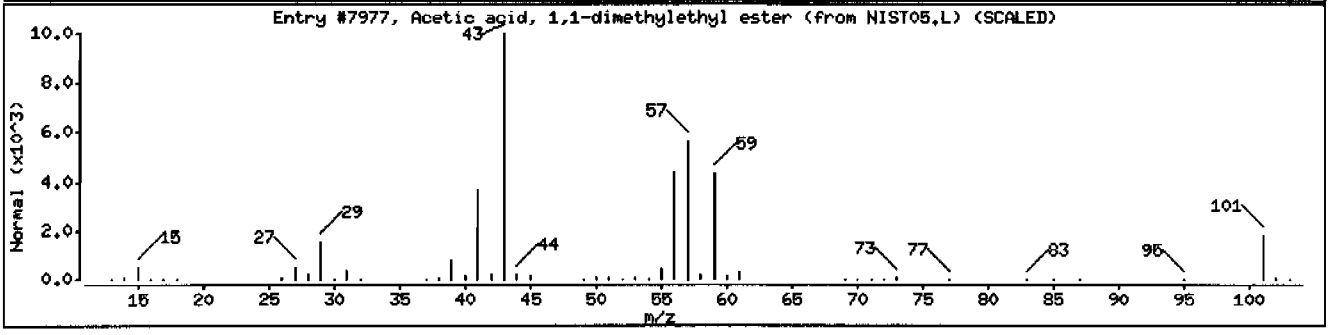

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-940**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202003528**				
Client Sample:	**QC for batch 936369**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 936369**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**936371**	**Inst:**	**MSD1.I**	**Dilution:**	**1**
Run Date:	**12/30/2009 12:10**	**Analyst:**	**AMY**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/24/2009 08:22**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**s113006-1.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	333	ug/kg	66.7	333
108-95-2	Phenol	U	333	ug/kg	66.7	333
95-57-8	2-Chlorophenol	U	333	ug/kg	66.7	333
106-46-7	1,4-Dichlorobenzene	U	333	ug/kg	66.7	333
621-64-7	N-Nitrosodipropylamine	U	333	ug/kg	66.7	333
59-50-7	4-Chloro-3-methylphenol	U	333	ug/kg	66.7	333
83-32-9	Acenaphthene	U	33.3	ug/kg	11.0	33.3
121-14-2	2,4-Dinitrotoluene	U	333	ug/kg	33.3	333
100-02-7	4-Nitrophenol	U	333	ug/kg	110	333
87-86-5	Pentachlorophenol	U	333	ug/kg	83.3	333
129-00-0	Pyrene	U	33.3	ug/kg	10.0	33.3
110-86-1	Pyridine	U	333	ug/kg	66.7	333
62-53-3	Aniline	U	333	ug/kg	100	333
111-44-4	bis(2-Chloroethyl) ether	U	333	ug/kg	66.7	333
541-73-1	1,3-Dichlorobenzene	U	333	ug/kg	66.7	333
100-51-6	Benzyl alcohol	U	333	ug/kg	100	333
95-50-1	1,2-Dichlorobenzene	U	333	ug/kg	66.7	333
108-60-1	bis(2-Chloroisopropyl)ether	U	333	ug/kg	66.7	333
95-48-7	o-Cresol	U	333	ug/kg	66.7	333
65794-96-9	m,p-Cresols	U	333	ug/kg	100	333
67-72-1	Hexachloroethane	U	333	ug/kg	66.7	333
98-95-3	Nitrobenzene	U	333	ug/kg	66.7	333
78-59-1	Isophorone	U	333	ug/kg	66.7	333
88-75-5	2-Nitrophenol	U	333	ug/kg	66.7	333
105-67-9	2,4-Dimethylphenol	U	333	ug/kg	117	333
111-91-1	bis(2-Chloroethoxy)methane	U	333	ug/kg	66.7	333
120-83-2	2,4-Dichlorophenol	U	333	ug/kg	66.7	333
65-85-0	Benzoic acid	U	667	ug/kg	167	667
91-20-3	Naphthalene	U	33.3	ug/kg	10.0	33.3
106-47-8	4-Chloroaniline	U	333	ug/kg	66.7	333
87-68-3	Hexachlorobutadiene	U	333	ug/kg	66.7	333
91-57-6	2-Methylnaphthalene	U	33.3	ug/kg	6.67	33.3
77-47-4	Hexachlorocyclopentadiene	U	333	ug/kg	66.7	333
88-06-2	2,4,6-Trichlorophenol	U	333	ug/kg	66.7	333
95-95-4	2,4,5-Trichlorophenol	U	333	ug/kg	66.7	333
91-58-7	2-Chloronaphthalene	U	33.3	ug/kg	11.0	33.3
88-74-4	2-Nitroaniline	U	333	ug/kg	66.7	333
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	333	ug/kg	66.7	333

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-940**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202003528**				
Client Sample:	**QC for batch 936369**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 936369**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**936371**	**Inst:**	**MSD1.I**	**Dilution:**	**1**
Run Date:	**12/30/2009 12:10**	**Analyst:**	**AMY**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/24/2009 08:22**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**s1l3006-1.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	333	ug/kg	66.7	333
606-20-2	2,6-Dinitrotoluene	U	333	ug/kg	33.3	333
208-96-8	Acenaphthylene	U	33.3	ug/kg	10.0	33.3
51-28-5	2,4-Dinitrophenol	U	667	ug/kg	127	667
132-64-9	Dibenzofuran	U	333	ug/kg	66.7	333
84-66-2	Diethylphthalate	U	333	ug/kg	66.7	333
86-73-7	Fluorene	U	33.3	ug/kg	10.0	33.3
7005-72-3	4-Chlorophenylphenylether	U	333	ug/kg	66.7	333
534-52-1	2-Methyl-4,6-dinitrophenol	U	333	ug/kg	66.7	333
100-01-6	4-Nitroaniline	U	333	ug/kg	100	333
	p-Nitroaniline					
122-39-4	Diphenylamine	U	333	ug/kg	66.7	333
122-66-7	Azobenzene	U	333	ug/kg	66.7	333
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	333	ug/kg	66.7	333
118-74-1	Hexachlorobenzene	U	333	ug/kg	66.7	333
85-01-8	Phenanthrene	U	33.3	ug/kg	10.0	33.3
120-12-7	Anthracene	U	33.3	ug/kg	6.67	33.3
84-74-2	Di-n-butylphthalate	U	333	ug/kg	66.7	333
206-44-0	Fluoranthene	U	33.3	ug/kg	10.0	33.3
85-68-7	Butylbenzylphthalate	U	333	ug/kg	66.7	333
56-55-3	Benzo(a)anthracene	U	33.3	ug/kg	10.0	33.3
91-94-1	3,3'-Dichlorobenzidine	U	333	ug/kg	100	333
218-01-9	Chrysene	U	33.3	ug/kg	10.0	33.3
117-81-7	bis(2-Ethylhexyl)phthalate	U	333	ug/kg	66.7	333
117-84-0	Di-n-octylphthalate	U	333	ug/kg	66.7	333
205-99-2	Benzo(b)fluoranthene	U	33.3	ug/kg	10.0	33.3
207-08-9	Benzo(k)fluoranthene	U	33.3	ug/kg	10.0	33.3
50-32-8	Benzo(a)pyrene	U	33.3	ug/kg	10.0	33.3
193-39-5	Indeno(1,2,3-cd)pyrene	U	33.3	ug/kg	10.0	33.3
53-70-3	Dibenzo(a,h)anthracene	U	33.3	ug/kg	10.0	33.3
191-24-2	Benzo(ghi)perylene	U	33.3	ug/kg	10.0	33.3
120-82-1	1,2,4-Trichlorobenzene	U	333	ug/kg	66.7	333

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	1.72	160	ug/kg		J
	Unknown	1.94	4170	ug/kg		J

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-940			**Matrix:**	SOIL
Lab Sample ID:	1202003528				
Client Sample:	QC for batch 936369	**Client:**	LANL010	**Project:**	QC
Client ID:	MB for batch 936369	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	936371	**Inst:**	MSD1.I	**Dilution:**	1
Run Date:	12/30/2009 12:10	**Analyst:**	AMY	**Inj. Vol:**	.5 uL
Prep Date:	12/24/2009 08:22	**Aliquot:**	30 g	**Final Volume:**	1 mL
Data File:	s113006-1.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	1.97	134	ug/kg		J
	Unknown Aldol Condensate	2.81	507	ug/kg		JA

GEL Laboratories LLC

Data file : /chem/MSD1.i/s123009.b/s113006.d
Lab Smp Id: 1202003528 Client Smp ID: SBLK02
Inj Date : 30-DEC-2009 12:10
Operator : AMY Inst ID: MSD1.i
Smp Info : |1202003528|936371|1|SVM|1|SBLK02
Misc Info : |MSD8270_S|WBN091223-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD1.i/s123009.b/MSD1-M8270AQA-111409.m
Meth Date : 05-Jan-2010 10:56 amy01291 Quant Type: ISTD
Cal Date : 17-NOV-2009 17:42 Cal File: s1k1264.d
Als bottle: 5 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-940.sub
Target Version: 3.50
Processing Host: hpclpl

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	0.00000	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.757	3.763	(1.000)	764048	40.0000	
* 29 Naphthalene-d8	136	4.622	4.622	(1.000)	2905715	40.0000	
* 46 Acenaphthene-d10	164	5.863	5.869	(1.000)	1572357	40.0000	
* 67 Phenanthrene-d10	188	6.857	6.857	(1.000)	2537751	40.0000	
* 91 Chrysene-d12	240	8.475	8.486	(1.000)	2035039	40.0000	
* 98 Perylene-d12	264	9.816	9.828	(1.000)	1647770	40.0000	
$ 3 2-Fluorophenol	112	2.975	2.969	(0.792)	1374922	68.8955	2300
$ 5 Phenol-d5	99	3.493	3.499	(0.930)	1724516	71.0983	2370
$ 20 Nitrobenzene-d5	82	4.122	4.128	(0.892)	714267	37.3006	1240
$ 39 2-Fluorobiphenyl	172	5.363	5.363	(0.915)	1471536	39.0764	1300
$ 60 2,4,6-Tribromophenol	329	6.404	6.410	(1.092)	385626	87.8303	2930
$ 81 p-Terphenyl-d14	244	7.775	7.775	(0.917)	1609597	50.3886	1680

GEL Laboratories LLC

Data file : /chem/MSD1.i/s123009.b/s113006.d
Lab Smp Id: 1202003528 Client Smp ID: SBLK02
Inj Date : 30-DEC-2009 12:10
Operator : AMY Inst ID: MSD1.i
Smp Info : |1202003528|936371|1|SVM|1|SBLK02
Misc Info : |MSD8270_S|WBN091223-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD1.i/s123009.b/MSD1-M8270AQA-111409.m
Meth Date : 05-Jan-2010 10:56 amy01291 Quant Type: ISTD
Cal Date : 17-NOV-2009 17:42 Cal File: s1k1264.d
Als bottle: 5 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-940.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	0.00000	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	3.757	4520720	40.000

		CONCENTRATIONS		QUANT			
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown				CAS #:			
1.716	541337	4.78982658	160	0		0	10
Unknown				CAS #:			
1.940	14144625	125.153730	4170	0		0	10

RT	AREA	CONCENTRATIONS ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	QUANT LIBRARY	LIB ENTRY	CPND #
Unknown				CAS #:			
1.969	456019	4.03492483	134	0		0	10
Unknown Aldol Condensate				CAS #:			
2.810	1719303	15.2126447	507	0		0	10

Data File: /chem/MSD1.i/s123009.b/s113006.d

Page 1

Date : 30-DEC-2009 12:10

Client ID: SBLK02

Instrument: MSD1.i

Sample Info: |120200352819363711|1|SVMI1|SBLK02

Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

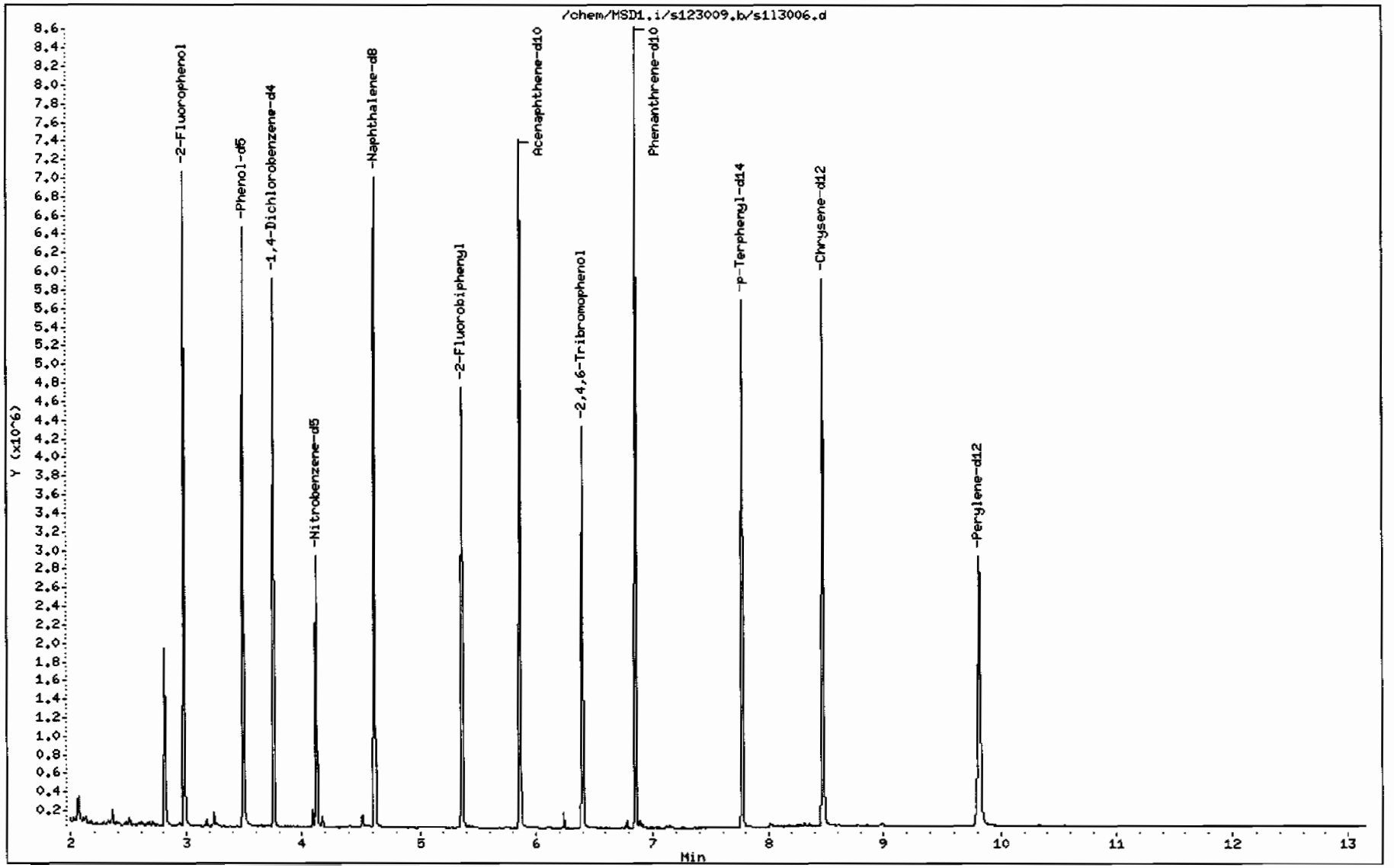

Data File: /chem/MSD1.i/s123009.b/s113006.d

Date : 30-DEC-2009 12:10

Client ID: SBLK02 Instrument: MSD1.i

Sample Info: |1202003528|936371|1|SVM|1|SBLK02

Volume Injected (uL): 0.5 Operator: AMY

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
5,9-Dodecadien-2-one, 6,10-dimethyl-, (E	1000132-10-9	NIST05.L	62957	72	C14H240	208
Propanal, 2-methyl-	78-84-2	NIST05.L	669	49	C4H80	72
Propanal, 2-methyl-	78-84-2	NIST05.L	672	38	C4H80	72

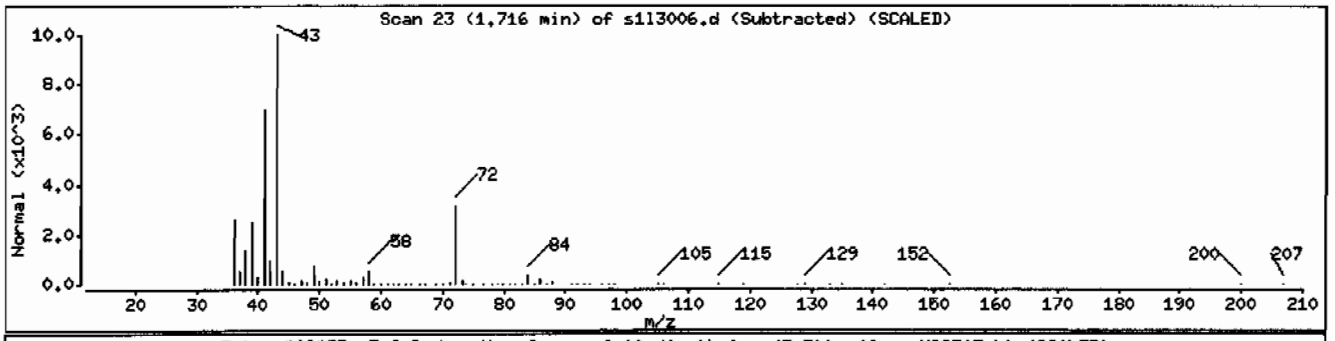

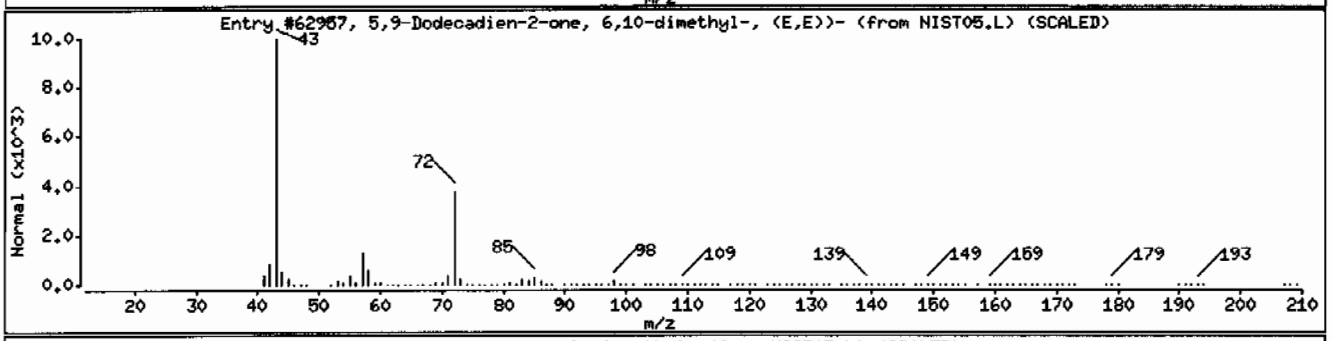

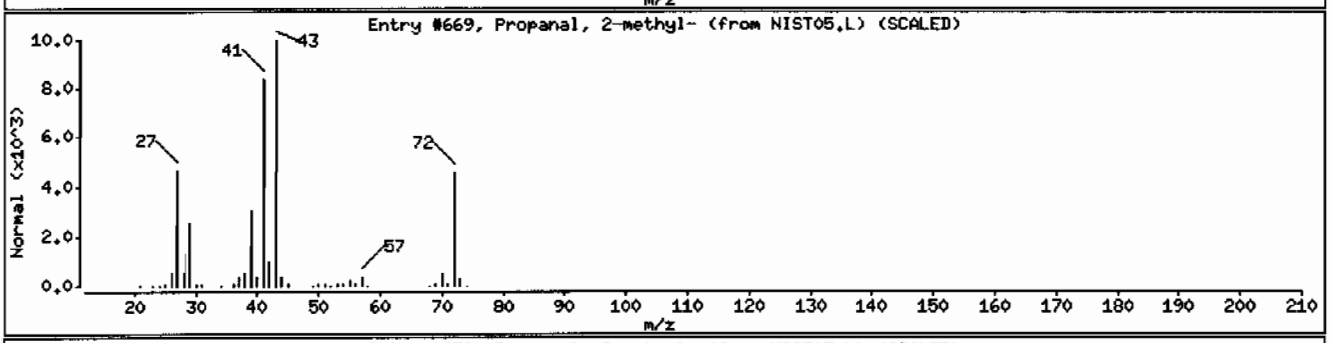

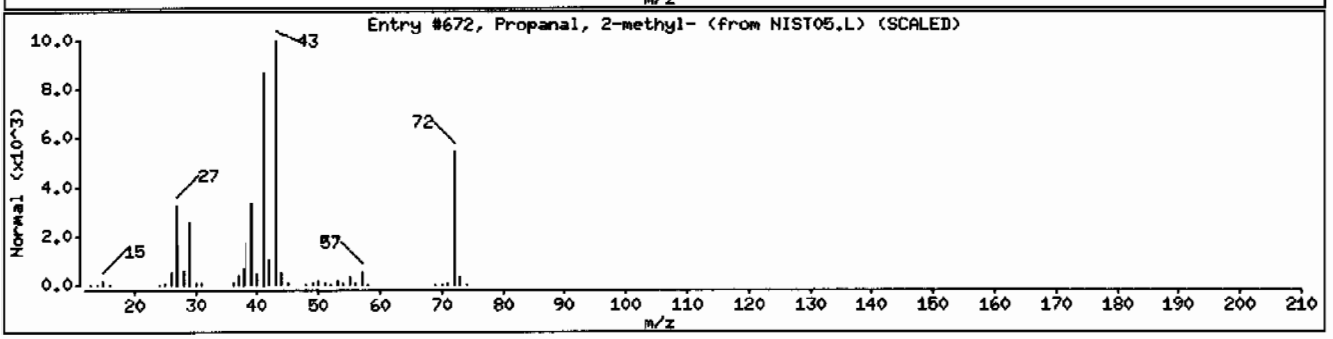

Data File: /chem/MSD1.i/s123009.b/s113006.d

Date : 30-DEC-2009 12:10

Client ID: SBLK02

Instrument: MSD1.i

Sample Info: |1202003528|936371|1|SVM|1|SBLK02

Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Propane, 2,2-dimethoxy-	77-76-9	NIST05.L	4663	56	C5H12O2	104
Propane, 2-methoxy-2-methyl-	1634-04-4	NIST05.L	2096	9	C5H12O	88
Propane, 2-methoxy-2-methyl-	1634-04-4	NIST05.L	2097	9	C5H12O	88

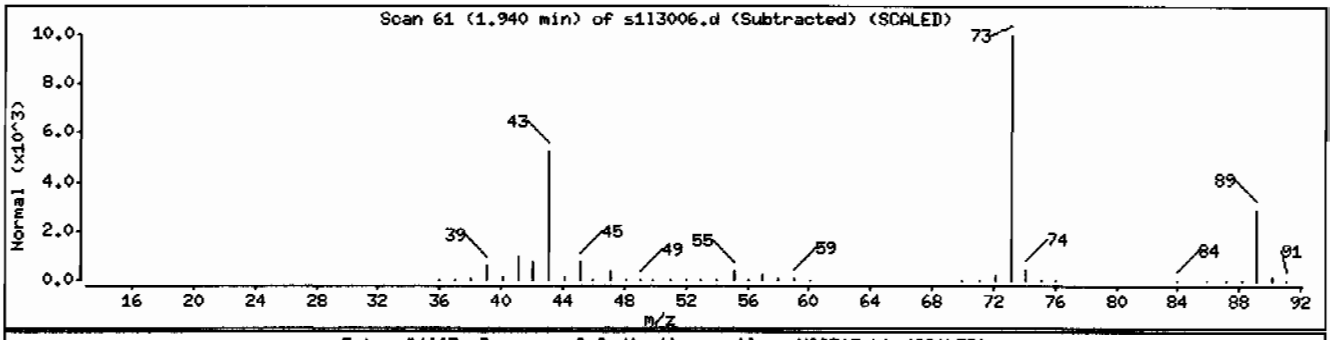

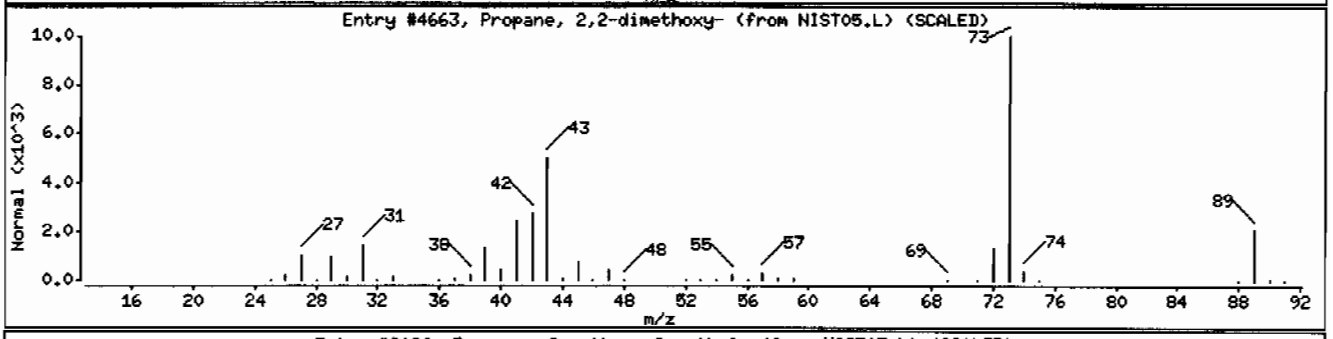

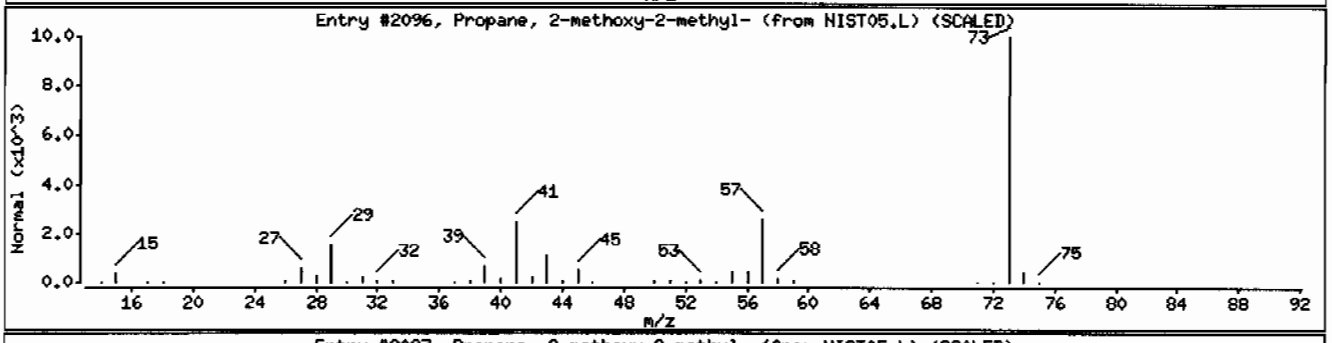

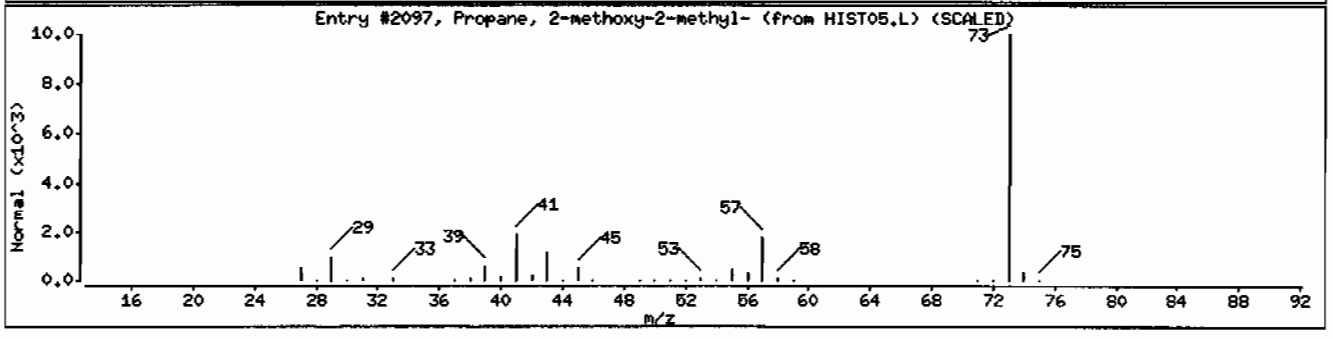

Data File: /chem/MSD1.i/s123009.b/s113006.d

Date : 30-DEC-2009 12:10

Client ID: SBLK02 Instrument: MSD1.i

Sample Info: |1202003528|936371|1|SVM|1|SBLK02

Volume Injected (uL): 0.5 Operator: AMY

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
3-Aminopyrrolidine	79286-79-6	NIST05.L	1590	53	C4H10N2	86
2-Pentanone	107-87-9	NIST05.L	1684	52	C5H10O	86
2-Butanone, 3-methyl-	563-80-4	NIST05.L	1740	47	C5H10O	86

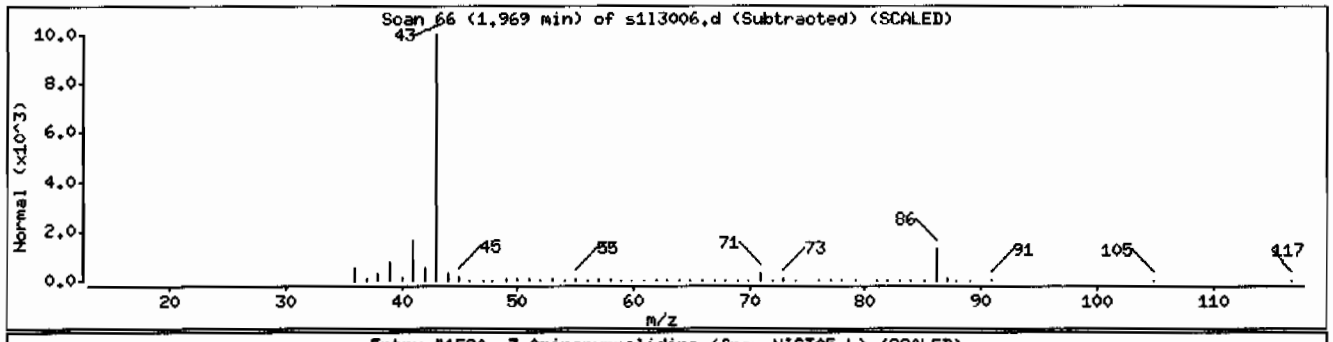

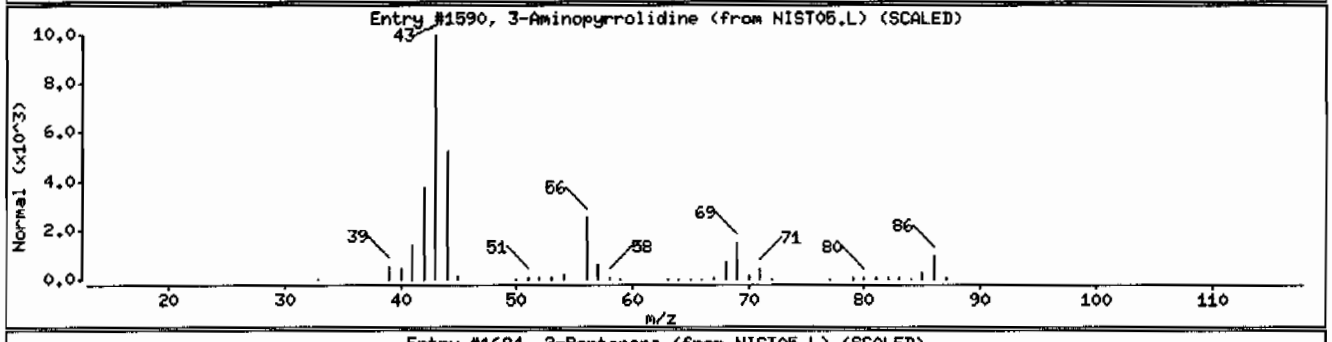

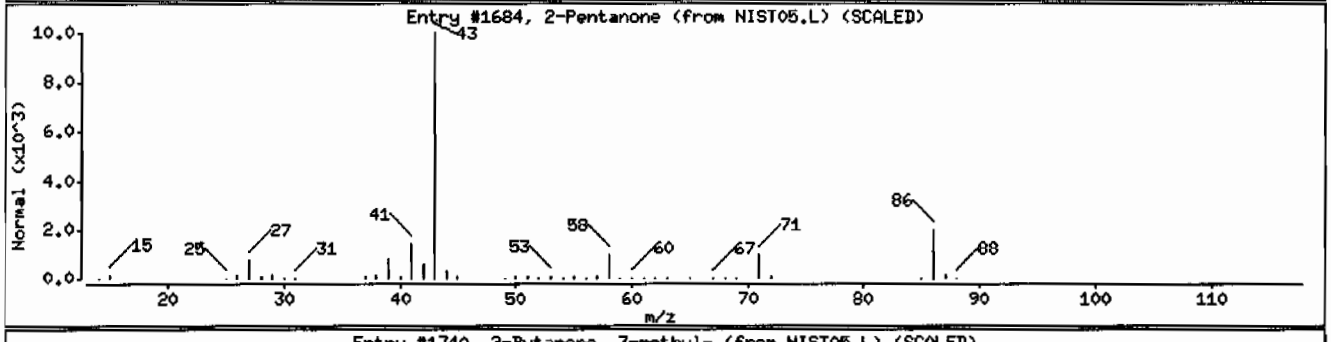

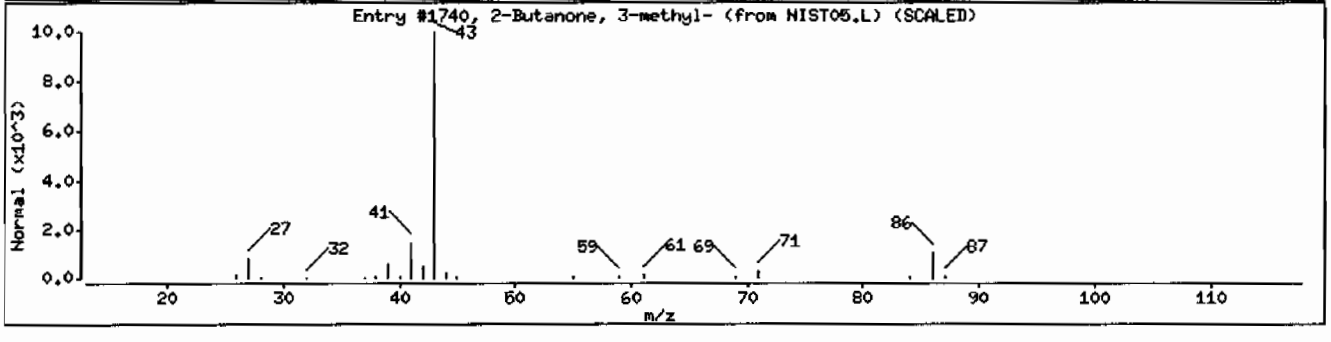

Data File: /chem/MSD1.i/s123009.b/s113006.d

Date : 30-DEC-2009 12:10

Client ID: SBLK02 Instrument: MSD1.i

Sample Info: |1202003528|936371|1|SVMI1|SBLK02

Volume Injected (uL): 0.5 Operator: AMY

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	56	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	38	C6H12O2	116
2,3-Butanedione, monooxime	57-71-6	NIST05.L	3949	27	C4H7NO2	101

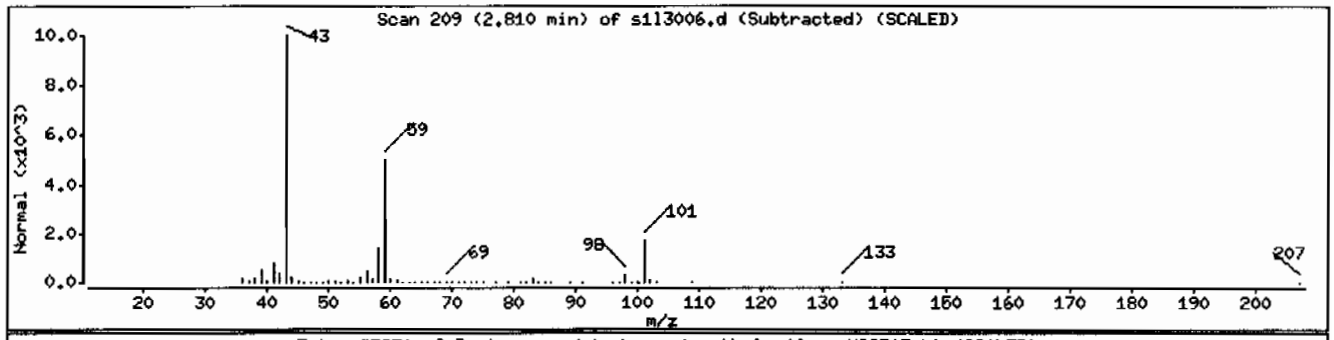

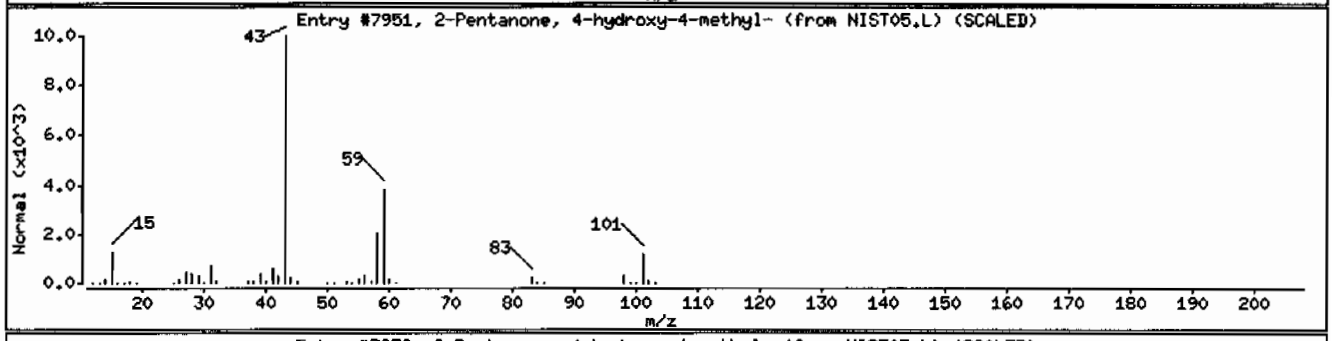

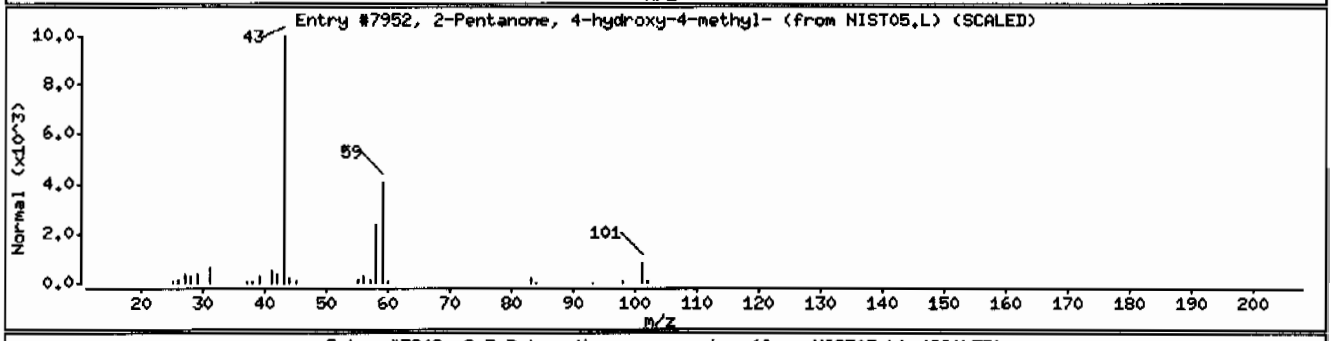

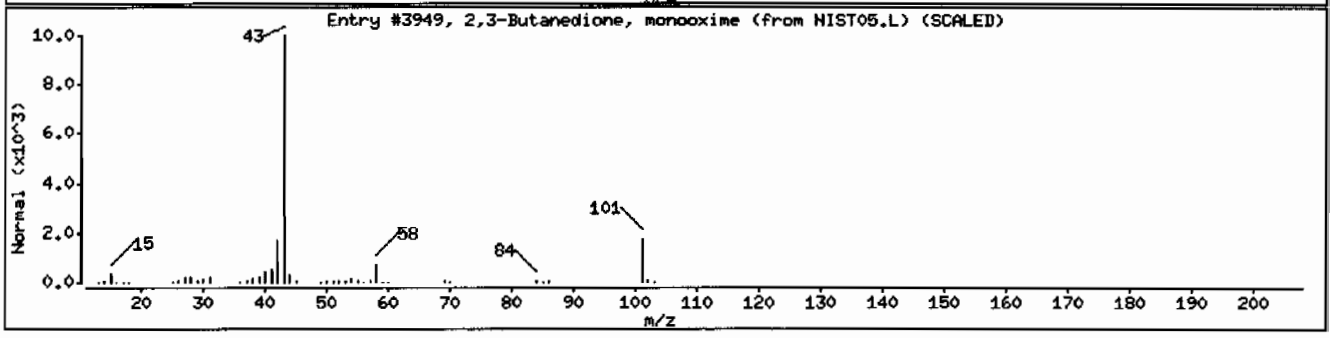

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-940**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202000425**				
Client Sample:	**QC for batch 934978**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 934978**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**934979**	**Inst:**	**MSD6.1**	**Dilution:**	**1**
Run Date:	**12/22/2009 17:23**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/21/2009 11:03**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**s6l2211-1.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine		1070	ug/kg	66.7	333
108-95-2	Phenol		1460	ug/kg	66.7	333
95-57-8	2-Chlorophenol		1470	ug/kg	66.7	333
106-46-7	1,4-Dichlorobenzene		1260	ug/kg	66.7	333
621-64-7	N-Nitrosodipropylamine		1430	ug/kg	66.7	333
59-50-7	4-Chloro-3-methylphenol		1600	ug/kg	66.7	333
83-32-9	Acenaphthene		1450	ug/kg	11.0	33.3
121-14-2	2,4-Dinitrotoluene		1530	ug/kg	33.3	333
100-02-7	4-Nitrophenol		1190	ug/kg	110	333
87-86-5	Pentachlorophenol		1330	ug/kg	83.3	333
129-00-0	Pyrene		1520	ug/kg	10.0	33.3
110-86-1	Pyridine		1190	ug/kg	66.7	333
62-53-3	Aniline		1350	ug/kg	100	333
111-44-4	bis(2-Chloroethyl) ether		1220	ug/kg	66.7	333
541-73-1	1,3-Dichlorobenzene		1240	ug/kg	66.7	333
100-51-6	Benzyl alcohol		1250	ug/kg	100	333
95-50-1	1,2-Dichlorobenzene		1300	ug/kg	66.7	333
108-60-1	bis(2-Chloroisopropyl)ether		1330	ug/kg	66.7	333
95-48-7	o-Cresol		1440	ug/kg	66.7	333
65794-96-9	m,p-Cresols		1590	ug/kg	100	333
67-72-1	Hexachloroethane		1210	ug/kg	66.7	333
98-95-3	Nitrobenzene		1360	ug/kg	66.7	333
78-59-1	Isophorone		1420	ug/kg	66.7	333
88-75-5	2-Nitrophenol		1480	ug/kg	66.7	333
105-67-9	2,4-Dimethylphenol		1530	ug/kg	117	333
111-91-1	bis(2-Chloroethoxy)methane		1380	ug/kg	66.7	333
120-83-2	2,4-Dichlorophenol		1550	ug/kg	66.7	333
65-85-0	Benzoic acid		3430	ug/kg	167	667
91-20-3	Naphthalene		1280	ug/kg	10.0	33.3
106-47-8	4-Chloroaniline		1270	ug/kg	66.7	333
87-68-3	Hexachlorobutadiene		1410	ug/kg	66.7	333
91-57-6	2-Methylnaphthalene		1520	ug/kg	6.67	33.3
77-47-4	Hexachlorocyclopentadiene		868	ug/kg	66.7	333
88-06-2	2,4,6-Trichlorophenol		1490	ug/kg	66.7	333
95-95-4	2,4,5-Trichlorophenol		1550	ug/kg	66.7	333
91-58-7	2-Chloronaphthalene		1480	ug/kg	11.0	33.3
88-74-4	2-Nitroaniline		1370	ug/kg	66.7	333
99-09-2	*o-Nitroaniline* 3-Nitroaniline		1470	ug/kg	66.7	333

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-940			**Matrix:**	SOIL
Lab Sample ID:	1202000425				
Client Sample:	QC for batch 934978	**Client:**	LANL010	**Project:**	QC
Client ID:	LCS for batch 934978	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	934979	**Inst:**	MSD6.I	**Dilution:**	1
Run Date:	12/22/2009 17:23	**Analyst:**	NAG1	**Inj. Vol:**	.5 uL
Prep Date:	12/21/2009 11:03	**Aliquot:**	30 g	**Final Volume:**	1 mL
Data File:	s6l2211-1.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate		1530	ug/kg	66.7	333
606-20-2	2,6-Dinitrotoluene		1460	ug/kg	33.3	333
208-96-8	Acenaphthylene		1490	ug/kg	10.0	33.3
51-28-5	2,4-Dinitrophenol		1240	ug/kg	127	667
132-64-9	Dibenzofuran		1810	ug/kg	66.7	333
84-66-2	Diethylphthalate		1600	ug/kg	66.7	333
86-73-7	Fluorene		1520	ug/kg	10.0	33.3
7005-72-3	4-Chlorophenylphenylether		1570	ug/kg	66.7	333
534-52-1	2-Methyl-4,6-dinitrophenol		1280	ug/kg	66.7	333
100-01-6	4-Nitroaniline		1590	ug/kg	100	333
	p-Nitroaniline					
122-39-4	Diphenylamine		1570	ug/kg	66.7	333
122-66-7	Azobenzene		1490	ug/kg	66.7	333
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether		1550	ug/kg	66.7	333
118-74-1	Hexachlorobenzene		1650	ug/kg	66.7	333
85-01-8	Phenanthrene		1520	ug/kg	10.0	33.3
120-12-7	Anthracene		1550	ug/kg	6.67	33.3
84-74-2	Di-n-butylphthalate		1680	ug/kg	66.7	333
206-44-0	Fluoranthene		1640	ug/kg	10.0	33.3
85-68-7	Butylbenzylphthalate		1700	ug/kg	66.7	333
56-55-3	Benzo(a)anthracene		1540	ug/kg	10.0	33.3
91-94-1	3,3'-Dichlorobenzidine		1200	ug/kg	100	333
218-01-9	Chrysene		1540	ug/kg	10.0	33.3
117-81-7	bis(2-Ethylhexyl)phthalate		1720	ug/kg	66.7	333
117-84-0	Di-n-octylphthalate		1760	ug/kg	66.7	333
205-99-2	Benzo(b)fluoranthene		1630	ug/kg	10.0	33.3
207-08-9	Benzo(k)fluoranthene		1660	ug/kg	10.0	33.3
50-32-8	Benzo(a)pyrene		1680	ug/kg	10.0	33.3
193-39-5	Indeno(1,2,3-cd)pyrene		1540	ug/kg	10.0	33.3
53-70-3	Dibenzo(a,h)anthracene		1530	ug/kg	10.0	33.3
191-24-2	Benzo(ghi)perylene		1580	ug/kg	10.0	33.3
120-82-1	1,2,4-Trichlorobenzene		1390	ug/kg	66.7	333

GEL Laboratories LLC

Data file : /chem/MSD6.i/s122209.b/s612211.d
Lab Smp Id: 1202000425 Client Smp ID: SBLK01LCS
Inj Date : 22-DEC-2009 17:23
Operator : nagl Inst ID: MSD6.i
Smp Info : |1202000425|934979|1|SVM|1|SBLK01LCS
Misc Info : |MSD8270_S|WBN091208-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s122209.b/MSD6-M8270C-AQA-110909.m
Meth Date : 22-Dec-2009 17:52 ann00964 Quant Type: ISTD
Cal Date : 11-NOV-2009 04:38 Cal File: s6k0954.d
Als bottle: 6 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-940.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	0.00000	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	4.976	4.979	(1.000)	199379	40.0000	
* 29 Naphthalene-d8	136	6.261	6.261	(1.000)	812988	40.0000	
* 46 Acenaphthene-d10	164	8.134	8.136	(1.000)	425296	40.0000	
* 67 Phenanthrene-d10	188	9.749	9.749	(1.000)	742185	40.0000	
* 91 Chrysene-d12	240	12.807	12.809	(1.000)	591651	40.0000	
* 98 Perylene-d12	264	15.215	15.220	(1.000)	488851	40.0000	
$ 3 2-Fluorophenol	112	3.822	3.812	(0.768)	406949	81.5056	2720
$ 5 Phenol-d5	99	4.599	4.597	(0.924)	507980	80.6097	2690
$ 20 Nitrobenzene-d5	82	5.517	5.519	(0.881)	226076	39.3105	1310
$ 39 2-Fluorobiphenyl	172	7.387	7.387	(0.908)	461207	42.0801	1400
$ 60 2,4,6-Tribromophenol	329	8.990	8.985	(1.105)	121724	98.0598	3270
$ 81 p-Terphenyl-d14	244	11.451	11.449	(0.894)	490675	51.4261	1710

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
6 Phenol	94	4.612	4.610	(0.927)	278131	43.8952	1460(Q)
8 2-Chlorophenol	128	4.788	4.785	(0.962)	224041	44.0193	1470
11 1,4-Dichlorobenzene	146	4.994	4.994	(1.004)	224466	37.7914	1260
17 N-Nitrosodipropylamine	70	5.346	5.346	(1.074)	151876	42.9968	1430(Q)
28 1,2,4-Trichlorobenzene	180	6.189	6.192	(0.989)	206319	41.8406	1390
33 4-Chloro-3-methylphenol	107	6.832	6.819	(1.091)	194267	47.8950	1600
47 Acenaphthene	154	8.169	8.172	(1.004)	415728	43.3718	1440
50 2,4-Dinitrotoluene	165	8.322	8.322	(1.023)	150890	45.9838	1530
52 4-Nitrophenol	139	8.279	8.266	(1.018)	61131	35.8228	1190
65 Pentachlorophenol	266	9.535	9.532	(0.978)	63708	39.8297	1330
79 Pyrene	202	11.316	11.316	(0.884)	739706	45.4548	1520
2 Pyridine	79	2.887	2.859	(0.580)	150734	35.6792	1190
4 Aniline	66	4.663	4.663	(0.937)	106312	40.4319	1350
7 bis(2-Chloroethyl) ether	63	4.699	4.701	(0.944)	157349	36.6723	1220
9 1,3-Dichlorobenzene	146	4.926	4.928	(0.990)	217119	37.0558	1240
12 Benzyl alcohol	108	5.091	5.091	(1.023)	118811	37.5751	1250
13 1,2-Dichlorobenzene	146	5.142	5.145	(1.033)	217024	39.1439	1300
14 bis(2-Chloroisopropyl)ether	45	5.206	5.208	(1.046)	382359	39.9152	1330
15 o-Cresol	107	5.188	5.183	(1.042)	179615	43.3431	1440
18 m,p-Cresols	107	5.333	5.336	(1.072)	250859	47.7741	1590
19 Hexachloroethane	117	5.478	5.481	(1.101)	83154	36.1881	1210
21 Nitrobenzene	77	5.537	5.540	(0.884)	237077	40.9006	1360
22 Isophorone	82	5.769	5.771	(0.921)	438297	42.6589	1420
23 2-Nitrophenol	139	5.856	5.856	(0.935)	119005	44.5110	1480
24 2,4-Dimethylphenol	122	5.873	5.871	(0.938)	203166	45.8634	1530
25 bis(2-Chloroethoxy)methane	93	5.965	5.968	(0.953)	249699	41.2968	1380
26 2,4-Dichlorophenol	162	6.110	6.110	(0.976)	186849	46.5042	1550
27 Benzoic acid	105	6.006	5.980	(0.959)	281445	102.933	3430
30 Naphthalene	128	6.284	6.284	(1.004)	624171	38.4877	1280
31 4-Chloroaniline	127	6.324	6.322	(1.010)	198981	38.1743	1270
32 Hexachlorobutadiene	225	6.388	6.391	(1.020)	108950	42.4289	1410
34 2-Methylnaphthalene	142	7.007	7.007	(1.119)	445516	45.5244	1520
36 Hexachlorocyclopentadiene	237	7.163	7.163	(0.881)	44711	26.0272	868
37 2,4,6-Trichlorophenol	196	7.303	7.300	(0.898)	129344	44.5708	1480
38 2,4,5-Trichlorophenol	196	7.359	7.351	(0.905)	143404	46.4016	1550
40 2-Chloronaphthalene	162	7.535	7.535	(0.926)	423555	44.3451	1480
42 o-Nitroaniline	65	7.634	7.634	(0.939)	133956	40.9953	1370
41 m-Nitroaniline	138	8.078	8.077	(0.993)	105411	44.0685	1470
43 Dimethylphthalate	163	7.810	7.815	(0.960)	499392	45.7741	1520
44 2,6-Dinitrotoluene	165	7.886	7.889	(0.970)	113693	43.6902	1460
45 Acenaphthylene	152	7.983	7.986	(0.982)	688092	44.8057	1490
48 2,4-Dinitrophenol	184	8.187	8.187	(1.007)	31529	37.1789	1240(Q)
49 Dibenzofuran	168	8.355	8.353	(1.027)	702531	54.2979	1810
51 Diethylphthalate	149	8.564	8.567	(1.053)	526433	47.9144	1600
53 Fluorene	166	8.725	8.727	(1.073)	484265	45.6012	1520
54 4-Chlorophenylphenylether	204	8.707	8.707	(1.070)	236661	47.1656	1570
55 2-Methyl-4,6-dinitrophenol	198	8.766	8.765	(0.899)	62507	38.3400	1280

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
56 p-Nitroaniline	138	8.743	8.740	(1.075)	110053	47.6337	1590
133 Diphenylamine	169	8.837	8.834	(0.906)	421326	47.0976	1570
58 1,2-Diphenylhydrazine	77	8.883	8.883	(0.911)	510076	44.8262	1490
61 4-Bromophenylphenylether	248	9.239	9.239	(0.948)	135764	46.3576	1540
63 Hexachlorobenzene	284	9.321	9.318	(0.956)	152168	49.6043	1650
68 Phenanthrene	178	9.775	9.775	(1.003)	700337	45.6286	1520
69 Anthracene	178	9.831	9.831	(1.008)	714492	46.5728	1550
72 Di-n-butylphthalate	149	10.325	10.325	(1.059)	888425	50.4263	1680
76 Fluoranthene	202	11.064	11.064	(1.135)	721221	49.0525	1640
85 Butylbenzylphthalate	149	11.994	11.994	(0.937)	379655	50.9776	1700
89 Benzo(a)anthracene	228	12.789	12.791	(0.999)	591626	46.3476	1540
90 3,3'-Dichlorobenzidine	252	12.725	12.725	(0.994)	150394	35.9901	1200
92 Chrysene	228	12.845	12.845	(1.003)	564473	46.1514	1540
93 bis(2-Ethylhexyl)phthalate	149	12.735	12.735	(0.994)	531450	51.6685	1720
94 Di-n-octylphthalate	149	13.755	13.755	(0.904)	821181	52.8547	1760
95 Benzo(b)fluoranthene	252	14.519	14.519	(0.954)	528081	48.8207	1630
96 Benzo(k)fluoranthene	252	14.570	14.568	(0.958)	535654	49.8004	1660
97 Benzo(a)pyrene	252	15.113	15.115	(0.993)	471817	50.5008	1680
99 Indeno(1,2,3-cd)pyrene	276	17.253	17.256	(1.134)	414206	46.0645	1540
100 Dibenzo(a,h)anthracene	278	17.276	17.284	(1.135)	336788	45.9917	1530
101 Benzo(ghi)perylene	276	17.793	17.796	(1.169)	338505	47.4258	1580
1 N-Methyl-N-nitrosomethylamine	74	2.839	2.821	(0.570)	108951	32.0981	1070

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: /chem/MSD6.i/s122209.b/s612211.d
Date : 22-DEC-2009 17:23
Client ID: SBLK01LCS
Sample Info: 1120200042519349791|SVMI1|SBLK01LCS
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD6.i
Operator: nagl
Column diameter: 0.20

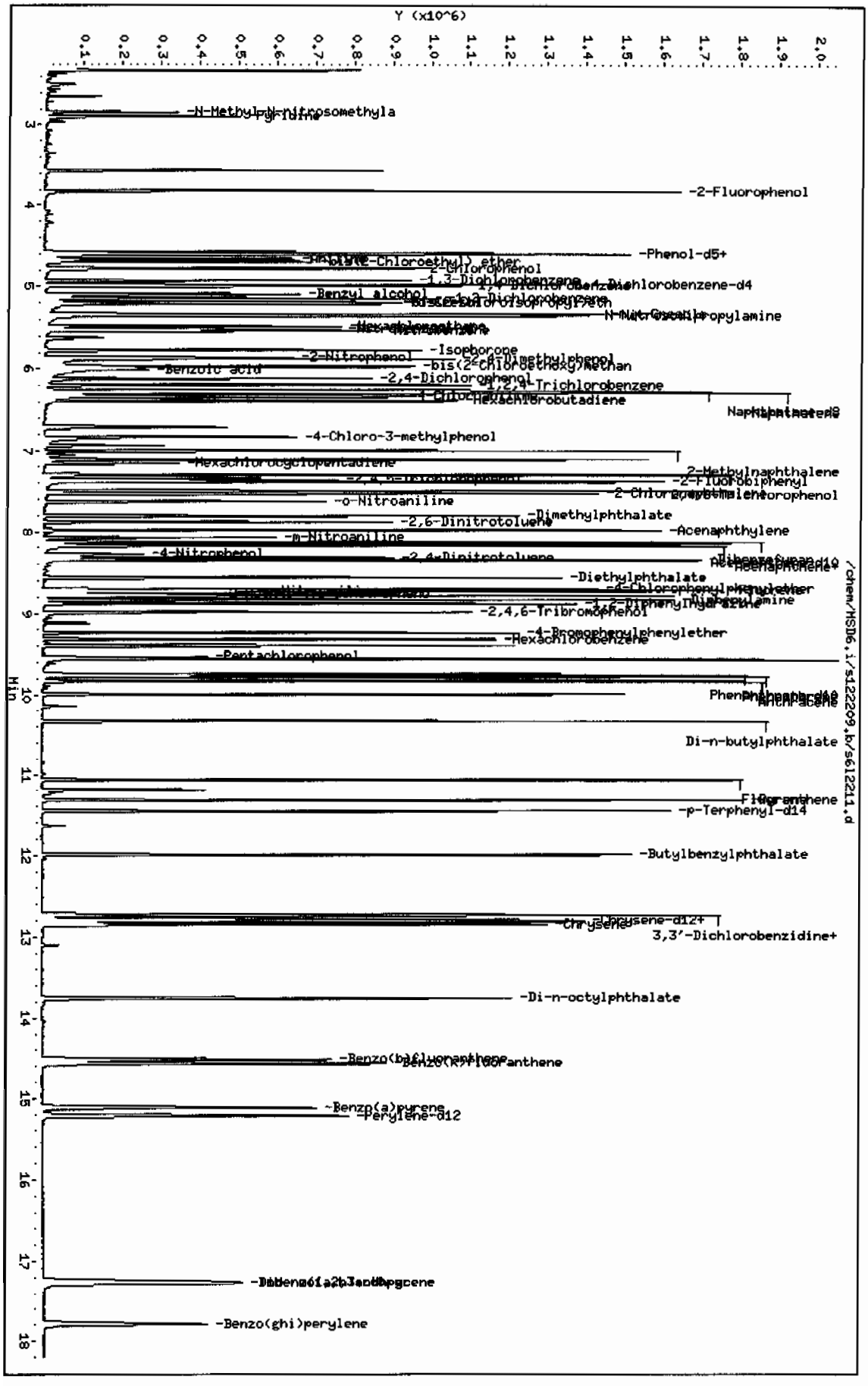

Page 1

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-940**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202003529**				
Client Sample:	**QC for batch 936369**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 936369**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**936371**	**Inst:**	**MSD1.I**	**Dilution:**	**1**
Run Date:	**12/30/2009 12:33**	**Analyst:**	**AMY**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/24/2009 08:22**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**s113007-2.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine		1260	ug/kg	66.7	333
108-95-2	Phenol		1250	ug/kg	66.7	333
95-57-8	2-Chlorophenol		1260	ug/kg	66.7	333
106-46-7	1,4-Dichlorobenzene		998	ug/kg	66.7	333
621-64-7	N-Nitrosodipropylamine		1170	ug/kg	66.7	333
59-50-7	4-Chloro-3-methylphenol		1400	ug/kg	66.7	333
83-32-9	Acenaphthene		1330	ug/kg	11.0	33.3
121-14-2	2,4-Dinitrotoluene		1200	ug/kg	33.3	333
100-02-7	4-Nitrophenol		1270	ug/kg	110	333
87-86-5	Pentachlorophenol		1520	ug/kg	83.3	333
129-00-0	Pyrene		1400	ug/kg	10.0	33.3
110-86-1	Pyridine		1100	ug/kg	66.7	333
62-53-3	Aniline		1060	ug/kg	100	333
111-44-4	bis(2-Chloroethyl) ether		1150	ug/kg	66.7	333
541-73-1	1,3-Dichlorobenzene		984	ug/kg	66.7	333
100-51-6	Benzyl alcohol		1520	ug/kg	100	333
95-50-1	1,2-Dichlorobenzene		1070	ug/kg	66.7	333
108-60-1	bis(2-Chloroisopropyl)ether		1100	ug/kg	66.7	333
95-48-7	o-Cresol		1290	ug/kg	66.7	333
65794-96-9	m,p-Cresols		1330	ug/kg	100	333
67-72-1	Hexachloroethane		1000	ug/kg	66.7	333
98-95-3	Nitrobenzene		1290	ug/kg	66.7	333
78-59-1	Isophorone		1440	ug/kg	66.7	333
88-75-5	2-Nitrophenol		1180	ug/kg	66.7	333
105-67-9	2,4-Dimethylphenol		1310	ug/kg	117	333
111-91-1	bis(2-Chloroethoxy)methane		1240	ug/kg	66.7	333
120-83-2	2,4-Dichlorophenol		1270	ug/kg	66.7	333
65-85-0	Benzoic acid		3040	ug/kg	167	667
91-20-3	Naphthalene		1140	ug/kg	10.0	33.3
106-47-8	4-Chloroaniline		1080	ug/kg	66.7	333
87-68-3	Hexachlorobutadiene		1310	ug/kg	66.7	333
91-57-6	2-Methylnaphthalene		1250	ug/kg	6.67	33.3
77-47-4	Hexachlorocyclopentadiene		1600	ug/kg	66.7	333
88-06-2	2,4,6-Trichlorophenol		1470	ug/kg	66.7	333
95-95-4	2,4,5-Trichlorophenol		1550	ug/kg	66.7	333
91-58-7	2-Chloronaphthalene		1260	ug/kg	11.0	33.3
88-74-4	2-Nitroaniline		1270	ug/kg	66.7	333
99-09-2	*o-Nitroaniline* 3-Nitroaniline		1110	ug/kg	66.7	333

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-940**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202003529**				
Client Sample:	**QC for batch 936369**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 936369**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**936371**	**Inst:**	**MSD1.I**	**Dilution:**	**1**
Run Date:	**12/30/2009 12:33**	**Analyst:**	**AMY**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/24/2009 08:22**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**s113007-2.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate		1350	ug/kg	66.7	333
606-20-2	2,6-Dinitrotoluene		1210	ug/kg	33.3	333
208-96-8	Acenaphthylene		1320	ug/kg	10.0	33.3
51-28-5	2,4-Dinitrophenol		1380	ug/kg	127	667
132-64-9	Dibenzofuran		1560	ug/kg	66.7	333
84-66-2	Diethylphthalate		1470	ug/kg	66.7	333
86-73-7	Fluorene		1330	ug/kg	10.0	33.3
7005-72-3	4-Chlorophenylphenylether		1490	ug/kg	66.7	333
534-52-1	2-Methyl-4,6-dinitrophenol		1260	ug/kg	66.7	333
100-01-6	4-Nitroaniline		1010	ug/kg	100	333
	p-Nitroaniline					
122-39-4	Diphenylamine		1350	ug/kg	66.7	333
122-66-7	Azobenzene		1330	ug/kg	66.7	333
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether		1630	ug/kg	66.7	333
118-74-1	Hexachlorobenzene		1550	ug/kg	66.7	333
85-01-8	Phenanthrene		1330	ug/kg	10.0	33.3
120-12-7	Anthracene		1310	ug/kg	6.67	33.3
84-74-2	Di-n-butylphthalate		1550	ug/kg	66.7	333
206-44-0	Fluoranthene		1450	ug/kg	10.0	33.3
85-68-7	Butylbenzylphthalate		1550	ug/kg	66.7	333
56-55-3	Benzo(a)anthracene		1390	ug/kg	10.0	33.3
91-94-1	3,3'-Dichlorobenzidine		1380	ug/kg	100	333
218-01-9	Chrysene		1390	ug/kg	10.0	33.3
117-81-7	bis(2-Ethylhexyl)phthalate		1480	ug/kg	66.7	333
117-84-0	Di-n-octylphthalate		1470	ug/kg	66.7	333
205-99-2	Benzo(b)fluoranthene		1420	ug/kg	10.0	33.3
207-08-9	Benzo(k)fluoranthene		1380	ug/kg	10.0	33.3
50-32-8	Benzo(a)pyrene		1440	ug/kg	10.0	33.3
193-39-5	Indeno(1,2,3-cd)pyrene		1370	ug/kg	10.0	33.3
53-70-3	Dibenzo(a,h)anthracene		1340	ug/kg	10.0	33.3
191-24-2	Benzo(ghi)perylene		1370	ug/kg	10.0	33.3
120-82-1	1,2,4-Trichlorobenzene		1240	ug/kg	66.7	333

GEL Laboratories LLC

Data file : /chem/MSD1.i/s123009.b/s113007.d
Lab Smp Id: 1202003529 Client Smp ID: SBLK02LCS
Inj Date : 30-DEC-2009 12:33
Operator : AMY Inst ID: MSD1.i
Smp Info : |1202003529|936371|1|SVM|1|SBLK02LCS
Misc Info : |MSD8270_S|WBN091223-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD1.i/s123009.b/MSD1-M8270AQA-111409.m
Meth Date : 05-Jan-2010 10:56 amy01291 Quant Type: ISTD
Cal Date : 17-NOV-2009 17:42 Cal File: s1k1264.d
Als bottle: 6 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-940.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	0.00000	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.763	3.763	(1.000)	703382	40.0000	
* 29 Naphthalene-d8	136	4.622	4.622	(1.000)	2785904	40.0000	
* 46 Acenaphthene-d10	164	5.869	5.869	(1.000)	1453777	40.0000	
* 67 Phenanthrene-d10	188	6.863	6.857	(1.000)	2480305	40.0000	
* 91 Chrysene-d12	240	8.481	8.486	(1.000)	2191348	40.0000	
* 98 Perylene-d12	264	9.822	9.828	(1.000)	1936592	40.0000	
$ 3 2-Fluorophenol	112	2.975	2.969	(0.791)	1333344	72.5745	2420
$ 5 Phenol-d5	99	3.499	3.499	(0.930)	1603600	71.8153	2390
$ 20 Nitrobenzene-d5	82	4.128	4.128	(0.893)	732013	39.8714	1330
$ 39 2-Fluorobiphenyl	172	5.363	5.363	(0.914)	1493209	42.8862	1430
$ 60 2,4,6-Tribromophenol	329	6.410	6.410	(1.092)	397426	97.9011	3260
$ 81 p-Terphenyl-d14	244	7.775	7.775	(0.917)	1631411	47.4285	1580

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
6 Phenol	94	3.510	3.504	(0.933)	882410	37.5045	1250
8 2-Chlorophenol	128	3.634	3.634	(0.966)	755903	37.8016	1260
11 1,4-Dichlorobenzene	146	3.775	3.775	(1.003)	688868	29.9503	998
17 N-Nitrosodipropylamine	70	4.004	4.010	(1.064)	470374	35.0867	1170(Q)
28 1,2,4-Trichlorobenzene	180	4.575	4.575	(0.990)	624914	37.0605	1240
33 4-Chloro-3-methylphenol	107	4.987	4.981	(1.079)	624998	41.9223	1400
47 Acenaphthene	154	5.893	5.893	(1.004)	1342366	40.0336	1330
50 2,4-Dinitrotoluene	165	5.987	5.987	(1.020)	472020	36.0831	1200
52 4-Nitrophenol	139	5.940	5.934	(1.012)	261571	38.1369	1270
65 Pentachlorophenol	266	6.734	6.734	(0.981)	286567	45.6820	1520
79 Pyrene	202	7.722	7.728	(0.911)	2444399	41.9775	1400
2 Pyridine	79	2.352	2.316	(0.625)	551634	32.9242	1100
4 Aniline	66	3.551	3.557	(0.944)	310825	31.6700	1060(Q)
7 bis(2-Chloroethyl) ether	63	3.569	3.569	(0.948)	564477	34.4868	1150(Q)
9 1,3-Dichlorobenzene	146	3.728	3.728	(0.991)	692923	29.5323	984
12 Benzyl alcohol	108	3.840	3.840	(1.020)	555275	45.6711	1520
13 1,2-Dichlorobenzene	146	3.875	3.881	(1.030)	678711	31.9516	1060
14 bis(2-Chloroisopropyl)ether	45	3.904	3.910	(1.038)	1284742	32.9535	1100
15 o-Cresol	107	3.899	3.893	(1.036)	576966	38.7609	1290
18 m,p-Cresols	107	3.993	3.999	(1.061)	805934	39.7921	1330
19 Hexachloroethane	117	4.099	4.104	(1.089)	249051	30.0863	1000
21 Nitrobenzene	77	4.140	4.140	(0.896)	740022	38.6857	1290
22 Isophorone	82	4.287	4.293	(0.927)	1440704	43.0513	1440
23 2-Nitrophenol	139	4.351	4.351	(0.941)	358269	35.2819	1180
24 2,4-Dimethylphenol	122	4.351	4.351	(0.941)	638062	39.2411	1310
25 bis(2-Chloroethoxy)methane	93	4.416	4.416	(0.955)	798394	37.0588	1240
26 2,4-Dichlorophenol	162	4.516	4.516	(0.977)	582367	38.1654	1270
27 Benzoic acid	105	4.446	4.428	(0.962)	1021572	91.1780	3040
30 Naphthalene	128	4.640	4.640	(1.004)	1987427	34.1817	1140(Q)
31 4-Chloroaniline	127	4.663	4.663	(1.009)	860718	32.4166	1080
32 Hexachlorobutadiene	225	4.704	4.704	(1.018)	341358	39.4248	1310
34 2-Methylnaphthalene	142	5.116	5.116	(1.107)	1432593	37.4804	1250
36 Hexachlorocyclopentadiene	237	5.222	5.222	(0.890)	212791	47.9398	1600
37 2,4,6-Trichlorophenol	196	5.310	5.310	(0.905)	427232	44.1828	1470
38 2,4,5-Trichlorophenol	196	5.346	5.340	(0.911)	476671	46.3605	1540
40 2-Chloronaphthalene	162	5.469	5.469	(0.932)	1360266	37.9015	1260
42 o-Nitroaniline	65	5.534	5.534	(0.943)	423598	38.0654	1270
41 m-Nitroaniline	138	5.828	5.834	(0.993)	326792	33.2341	1110
43 Dimethylphthalate	163	5.640	5.646	(0.961)	1609845	40.6388	1350
44 2,6-Dinitrotoluene	165	5.698	5.698	(0.971)	359377	36.4122	1210
45 Acenaphthylene	152	5.769	5.769	(0.983)	2224426	39.7191	1320
48 2,4-Dinitrophenol	184	5.898	5.898	(1.005)	161032	41.3373	1380
49 Dibenzofuran	168	6.010	6.010	(1.024)	2269059	46.7930	1560
51 Diethylphthalate	149	6.128	6.128	(1.044)	1632284	44.1975	1470
53 Fluorene	166	6.245	6.245	(1.064)	1555206	39.7764	1320
54 4-Chlorophenylphenylether	204	6.228	6.228	(1.061)	735978	44.5836	1490
55 2-Methyl-4,6-dinitrophenol	198	6.269	6.269	(0.913)	236912	37.7551	1260

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
56 p-Nitroaniline	138	6.257	6.257	(1.066)	292572	30.4259	1010
133 Diphenylamine	169	6.304	6.304	(0.919)	1341889	40.5607	1350
58 1,2-Diphenylhydrazine	77	6.334	6.334	(0.923)	1615168	40.0131	1330
61 4-Bromophenylphenylether	248	6.551	6.551	(0.955)	416329	48.8552	1630
63 Hexachlorobenzene	284	6.610	6.610	(0.963)	486804	46.5396	1550
68 Phenanthrene	178	6.875	6.875	(1.002)	2248698	39.8938	1330
69 Anthracene	178	6.904	6.904	(1.006)	2252383	39.2921	1310
72 Di-n-butylphthalate	149	7.151	7.151	(1.042)	2834509	46.3590	1540
76 Fluoranthene	202	7.587	7.587	(1.105)	2362972	43.4295	1450
85 Butylbenzylphthalate	149	8.022	8.028	(0.946)	1229416	46.3927	1550
89 Benzo(a)anthracene	228	8.469	8.475	(0.999)	2188903	41.6571	1390
90 3,3'-Dichlorobenzidine	252	8.416	8.422	(0.992)	624143	41.3680	1380
92 Chrysene	228	8.498	8.504	(1.002)	2054052	41.8239	1390
93 bis(2-Ethylhexyl)phthalate	149	8.357	8.363	(0.985)	1715011	44.5463	1480
94 Di-n-octylphthalate	149	8.845	8.851	(0.901)	2801062	44.2155	1470
95 Benzo(b)fluoranthene	252	9.392	9.398	(0.956)	2103590	42.6380	1420
96 Benzo(k)fluoranthene	252	9.422	9.428	(0.959)	2014397	41.4836	1380
97 Benzo(a)pyrene	252	9.763	9.763	(0.994)	1823438	43.1202	1440
99 Indeno(1,2,3-cd)pyrene	276	11.316	11.310	(1.152)	1797609	40.9776	1360
100 Dibenzo(a,h)anthracene	278	11.310	11.310	(1.152)	1476005	40.1956	1340
101 Benzo(ghi)perylene	276	11.774	11.775	(1.199)	1496702	41.1285	1370
1 N-Methyl-N-nitrosomethylamine	74	2.310	2.281	(0.614)	377847	37.8702	1260

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: /chem/MSD1.i/s123009.b/s113007.d
Date : 30-DEC-2009 12:33
Client ID: SBLK02LCS
Sample Info: 1120200352919363711|1|SVM11|SBLK02LCS
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD1.i
Operator: AMY
Column diameter: 0.20

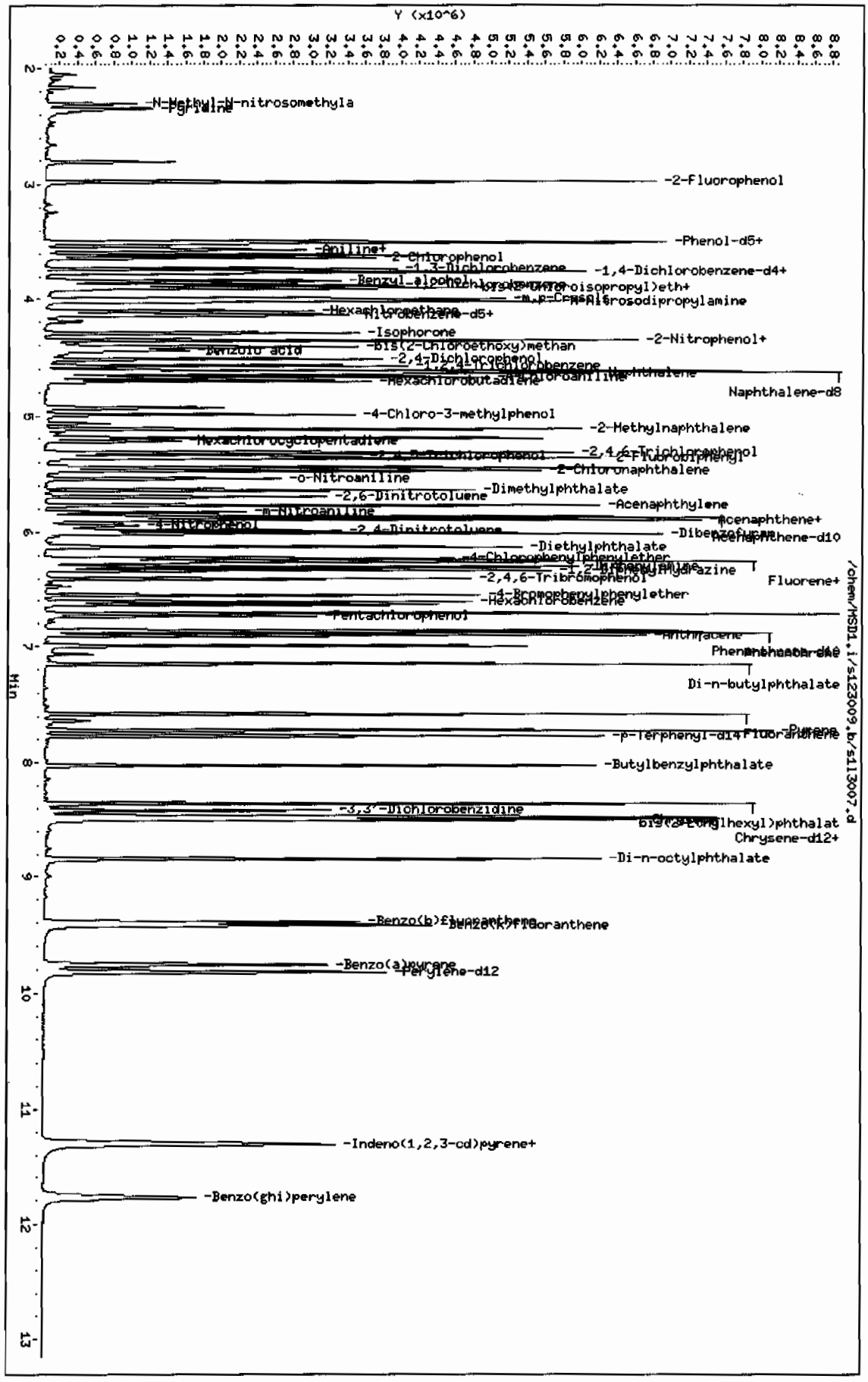

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-940	**Date Collected:**	12/14/2009 12:00	**Matrix:**	S
Lab Sample ID:	1202000956	**Date Received:**	12/16/2009 09:10	**%Moisture:**	14.8
Client Sample:	QC for batch 934978	**Client:**	LANL010	**Project:**	QC
Client ID:	RE03-09-14221MS	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	934979	**Inst:**	MSD6.I	**Dilution:**	1
Run Date:	12/22/2009 18:20	**Analyst:**	NAG1	**Inj. Vol:**	.5 uL
Prep Date:	12/21/2009 11:03	**Aliquot:**	30.06 g	**Final Volume:**	1 mL
Data File:	s6l2213.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine		929	ug/kg	78.1	390
108-95-2	Phenol		1180	ug/kg	78.1	390
95-57-8	2-Chlorophenol		1180	ug/kg	78.1	390
106-46-7	1,4-Dichlorobenzene		654	ug/kg	78.1	390
621-64-7	N-Nitrosodipropylamine		1200	ug/kg	78.1	390
59-50-7	4-Chloro-3-methylphenol		1220	ug/kg	78.1	390
83-32-9	Acenaphthene		1110	ug/kg	12.9	39.0
121-14-2	2,4-Dinitrotoluene		1160	ug/kg	39.0	390
100-02-7	4-Nitrophenol		974	ug/kg	129	390
87-86-5	Pentachlorophenol		959	ug/kg	97.6	390
129-00-0	Pyrene		1120	ug/kg	11.7	39.0
110-86-1	Pyridine		983	ug/kg	78.1	390
62-53-3	Aniline		1010	ug/kg	117	390
111-44-4	bis(2-Chloroethyl) ether		1000	ug/kg	78.1	390
541-73-1	1,3-Dichlorobenzene		625	ug/kg	78.1	390
100-51-6	Benzyl alcohol		568	ug/kg	117	390
95-50-1	1,2-Dichlorobenzene		741	ug/kg	78.1	390
108-60-1	bis(2-Chloroisopropyl)ether		1000	ug/kg	78.1	390
95-48-7	o-Cresol		1210	ug/kg	78.1	390
65794-96-9	m,p-Cresols		1280	ug/kg	117	390
67-72-1	Hexachloroethane		547	ug/kg	78.1	390
98-95-3	Nitrobenzene		1100	ug/kg	78.1	390
78-59-1	Isophorone		1190	ug/kg	78.1	390
88-75-5	2-Nitrophenol		1220	ug/kg	78.1	390
105-67-9	2,4-Dimethylphenol		1110	ug/kg	137	390
111-91-1	bis(2-Chloroethoxy)methane		1140	ug/kg	78.1	390
120-83-2	2,4-Dichlorophenol		1240	ug/kg	78.1	390
65-85-0	Benzoic acid		1950	ug/kg	195	781
91-20-3	Naphthalene		952	ug/kg	11.7	39.0
106-47-8	4-Chloroaniline		1120	ug/kg	78.1	390
87-68-3	Hexachlorobutadiene		782	ug/kg	78.1	390
91-57-6	2-Methylnaphthalene		1160	ug/kg	7.81	39.0
77-47-4	Hexachlorocyclopentadiene		511	ug/kg	78.1	390
88-06-2	2,4,6-Trichlorophenol		1160	ug/kg	78.1	390
95-95-4	2,4,5-Trichlorophenol		1170	ug/kg	78.1	390
91-58-7	2-Chloronaphthalene		1130	ug/kg	12.9	39.0
88-74-4	2-Nitroaniline		1070	ug/kg	78.1	390
99-09-2	*o-Nitroaniline* 3-Nitroaniline		1140	ug/kg	78.1	390

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-940**	**Date Collected:**	**12/14/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**1202000956**	**Date Received:**	**12/16/2009 09:10**	**%Moisture:**	**14.8**
Client Sample:	**QC for batch 934978**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**RE03-09-14221MS**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**934979**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**12/22/2009 18:20**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/21/2009 11:03**	**Aliquot:**	**30.06 g**	**Final Volume:**	**1 mL**
Data File:	**s6l2213.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate		1180	ug/kg	78.1	390
606-20-2	2,6-Dinitrotoluene		1140	ug/kg	39.0	390
208-96-8	Acenaphthylene		1180	ug/kg	11.7	39.0
51-28-5	2,4-Dinitrophenol		999	ug/kg	148	781
132-64-9	Dibenzofuran		1430	ug/kg	78.1	390
84-66-2	Diethylphthalate		1190	ug/kg	78.1	390
86-73-7	Fluorene		1190	ug/kg	11.7	39.0
7005-72-3	4-Chlorophenylphenylether		1220	ug/kg	78.1	390
534-52-1	2-Methyl-4,6-dinitrophenol		1020	ug/kg	78.1	390
100-01-6	4-Nitroaniline		1200	ug/kg	117	390
	p-Nitroaniline					
122-39-4	Diphenylamine		1110	ug/kg	78.1	390
122-66-7	Azobenzene		1160	ug/kg	78.1	390
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether		1150	ug/kg	78.1	390
118-74-1	Hexachlorobenzene		1190	ug/kg	78.1	390
85-01-8	Phenanthrene		1170	ug/kg	11.7	39.0
120-12-7	Anthracene		1180	ug/kg	7.81	39.0
84-74-2	Di-n-butylphthalate		1240	ug/kg	78.1	390
206-44-0	Fluoranthene		1210	ug/kg	11.7	39.0
85-68-7	Butylbenzylphthalate		1250	ug/kg	78.1	390
56-55-3	Benzo(a)anthracene		1120	ug/kg	11.7	39.0
91-94-1	3,3'-Dichlorobenzidine		798	ug/kg	117	390
218-01-9	Chrysene		1130	ug/kg	11.7	39.0
117-81-7	bis(2-Ethylhexyl)phthalate		1290	ug/kg	78.1	390
117-84-0	Di-n-octylphthalate		1270	ug/kg	78.1	390
205-99-2	Benzo(b)fluoranthene		1180	ug/kg	11.7	39.0
207-08-9	Benzo(k)fluoranthene		1150	ug/kg	11.7	39.0
50-32-8	Benzo(a)pyrene		1220	ug/kg	11.7	39.0
193-39-5	Indeno(1,2,3-cd)pyrene		1190	ug/kg	11.7	39.0
53-70-3	Dibenzo(a,h)anthracene		1200	ug/kg	11.7	39.0
191-24-2	Benzo(ghi)perylene		1190	ug/kg	11.7	39.0
120-82-1	1,2,4-Trichlorobenzene		910	ug/kg	78.1	390

GEL Laboratories LLC

Data file : /chem/MSD6.i/s122209.b/s612213.d
Lab Smp Id: 1202000956 Client Smp ID: RE03-09-14221MS
Inj Date : 22-DEC-2009 18:20
Operator : nagl Inst ID: MSD6.i
Smp Info : |1202000956|934979|1|SVM|1|LANL_MS
Misc Info : |MSD8270_S|WBN091208-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s122209.b/MSD6-M8270C-AQA-110909.m
Meth Date : 22-Dec-2009 17:52 ann00964 Quant Type: ISTD
Cal Date : 11-NOV-2009 04:38 Cal File: s6k0954.d
Als bottle: 8 QC Sample: MS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-940.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.06000	weight of sample
M	14.77230	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	4.976	4.979	(1.000)	201494	40.0000	
* 29 Naphthalene-d8	136	6.258	6.261	(1.000)	803485	40.0000	
* 46 Acenaphthene-d10	164	8.134	8.136	(1.000)	424433	40.0000	
* 67 Phenanthrene-d10	188	9.749	9.749	(1.000)	740469	40.0000	
* 91 Chrysene-d12	240	12.807	12.809	(1.000)	583921	40.0000	
* 98 Perylene-d12	264	15.217	15.220	(1.000)	492387	40.0000	
$ 3 2-Fluorophenol	112	3.822	3.812	(0.768)	279088	55.3103	2160
$ 5 Phenol-d5	99	4.599	4.597	(0.924)	358075	56.2253	2190
$ 20 Nitrobenzene-d5	82	5.514	5.519	(0.881)	149533	26.3086	1030
$ 39 2-Fluorobiphenyl	172	7.384	7.387	(0.908)	283949	25.9599	1010
$ 60 2,4,6-Tribromophenol	329	8.985	8.985	(1.105)	71211	57.4836	2240
$ 81 p-Terphenyl-d14	244	11.449	11.449	(0.894)	278716	29.5981	1160

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
6 Phenol	94	4.612	4.610	(0.927)	194382	30.3558	1180(Q)
8 2-Chlorophenol	128	4.785	4.785	(0.962)	156004	30.3298	1180
11 1,4-Dichlorobenzene	146	4.992	4.994	(1.003)	100574	16.7550	654
17 N-Nitrosodipropylamine	70	5.338	5.346	(1.073)	109489	30.6715	1200(Q)
28 1,2,4-Trichlorobenzene	180	6.189	6.192	(0.989)	113659	23.3222	910
33 4-Chloro-3-methylphenol	107	6.829	6.819	(1.091)	125461	31.2972	1220
47 Acenaphthene	154	8.169	8.172	(1.004)	273144	28.5543	1110
50 2,4-Dinitrotoluene	165	8.320	8.322	(1.023)	97056	29.6380	1160
52 4-Nitrophenol	139	8.284	8.266	(1.018)	37790	24.9619	974
65 Pentachlorophenol	266	9.532	9.532	(0.978)	35403	24.5643	959
79 Pyrene	202	11.314	11.316	(0.883)	462019	28.7668	1120
2 Pyridine	79	2.892	2.859	(0.581)	107571	25.1951	983
4 Aniline	66	4.660	4.663	(0.936)	68568	25.8036	1010
7 bis(2-Chloroethyl) ether	63	4.696	4.701	(0.944)	111338	25.6765	1000
9 1,3-Dichlorobenzene	146	4.923	4.928	(0.989)	94852	16.0185	625
12 Benzyl alcohol	108	5.091	5.091	(1.023)	46520	14.5579	568
13 1,2-Dichlorobenzene	146	5.142	5.145	(1.033)	106353	18.9812	741
14 bis(2-Chloroisopropyl)ether	45	5.203	5.208	(1.046)	248237	25.6420	1000
15 o-Cresol	107	5.188	5.183	(1.042)	130121	31.0701	1210
18 m,p-Cresols	107	5.331	5.336	(1.071)	174128	32.8132	1280
19 Hexachloroethane	117	5.476	5.481	(1.100)	32536	14.0108	547(R)
21 Nitrobenzene	77	5.535	5.540	(0.884)	161053	28.1135	1100
22 Isophorone	82	5.764	5.771	(0.921)	309173	30.4473	1190
23 2-Nitrophenol	139	5.853	5.856	(0.935)	82790	31.3319	1220
24 2,4-Dimethylphenol	122	5.871	5.871	(0.938)	124800	28.5060	1110
25 bis(2-Chloroethoxy)methane	93	5.963	5.968	(0.953)	174418	29.1876	1140
26 2,4-Dichlorophenol	162	6.110	6.110	(0.976)	126222	31.7865	1240
27 Benzoic acid	105	5.975	5.980	(0.955)	135119	50.0015	1950
30 Naphthalene	128	6.281	6.284	(1.004)	390925	24.3904	952
31 4-Chloroaniline	127	6.322	6.322	(1.010)	148006	28.7307	1120
32 Hexachlorobutadiene	225	6.388	6.391	(1.021)	50817	20.0240	782
34 2-Methylnaphthalene	142	7.005	7.007	(1.119)	287527	29.7280	1160
36 Hexachlorocyclopentadiene	237	7.163	7.163	(0.881)	22449	13.0946	511
37 2,4,6-Trichlorophenol	196	7.300	7.300	(0.898)	86001	29.6954	1160
38 2,4,5-Trichlorophenol	196	7.359	7.351	(0.905)	92383	29.9534	1170
40 2-Chloronaphthalene	162	7.532	7.535	(0.926)	275486	28.9013	1130
42 o-Nitroaniline	65	7.632	7.634	(0.938)	89019	27.2984	1060
41 m-Nitroaniline	138	8.072	8.077	(0.992)	69447	29.0923	1140
43 Dimethylphthalate	163	7.805	7.815	(0.960)	329302	30.2451	1180
44 2,6-Dinitrotoluene	165	7.884	7.889	(0.969)	75573	29.1004	1140
45 Acenaphthylene	152	7.983	7.986	(0.982)	465000	30.3404	1180
48 2,4-Dinitrophenol	184	8.187	8.187	(1.007)	15397	25.5987	999(Q)
49 Dibenzofuran	168	8.353	8.353	(1.027)	473794	36.6935	1430
51 Diethylphthalate	149	8.562	8.567	(1.053)	335307	30.5807	1190
53 Fluorene	166	8.725	8.727	(1.073)	323224	30.4985	1190
54 4-Chlorophenylphenylether	204	8.707	8.707	(1.070)	156831	31.3193	1220
55 2-Methyl-4,6-dinitrophenol	198	8.763	8.765	(0.899)	37988	26.1254	1020

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
56 p-Nitroaniline	138	8.737	8.740	(1.074)	64415	30.8586	1200
133 Diphenylamine	169	8.832	8.834	(0.906)	252998	28.3467	1110
58 1,2-Diphenylhydrazine	77	8.880	8.883	(0.911)	338568	29.8228	1160
61 4-Bromophenylphenylether	248	9.239	9.239	(0.948)	86170	29.4915	1150
63 Hexachlorobenzene	284	9.318	9.318	(0.956)	92944	30.3684	1180
68 Phenanthrene	178	9.772	9.775	(1.002)	460388	30.0649	1170
69 Anthracene	178	9.828	9.831	(1.008)	462747	30.2332	1180
72 Di-n-butylphthalate	149	10.325	10.325	(1.059)	556785	31.6759	1240
76 Fluoranthene	202	11.064	11.064	(1.135)	454229	30.9651	1210
85 Butylbenzylphthalate	149	11.994	11.994	(0.937)	235788	32.0792	1250
89 Benzo(a)anthracene	228	12.786	12.791	(0.998)	362528	28.7762	1120
90 3,3'-Dichlorobenzidine	252	12.723	12.725	(0.993)	84367	20.4567	798
92 Chrysene	228	12.845	12.845	(1.003)	350326	29.0219	1130
93 bis(2-Ethylhexyl)phthalate	149	12.735	12.735	(0.994)	334048	33.0547	1290
94 Di-n-octylphthalate	149	13.752	13.755	(0.904)	508984	32.5251	1270
95 Benzo(b)fluoranthene	252	14.514	14.519	(0.954)	328008	30.1064	1180
96 Benzo(k)fluoranthene	252	14.565	14.568	(0.957)	320366	29.5709	1150
97 Benzo(a)pyrene	252	15.108	15.115	(0.993)	293845	31.2258	1220
99 Indeno(1,2,3-cd)pyrene	276	17.248	17.256	(1.133)	265990	30.4694	1190
100 Dibenzo(a,h)anthracene	278	17.276	17.284	(1.135)	220642	30.8608	1200
101 Benzo(ghi)perylene	276	17.786	17.796	(1.169)	219485	30.5298	1190
1 N-Methyl-N-nitrosomethylamine	74	2.841	2.821	(0.571)	81643	23.8004	929

QC Flag Legend

Q - Qualifier signal failed the ratio test.
R - Spike/Surrogate failed recovery limits.

Data File: /chem/MSD6.i/s122209.b/s612213.d
Date : 22-DEC-2009 18:20
Client ID: RE03-09-14221MS
Sample Info: 1120200095619349791111SVMI11LAN_MS
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD6.i
Operator: nagl
Column diameter: 0.20

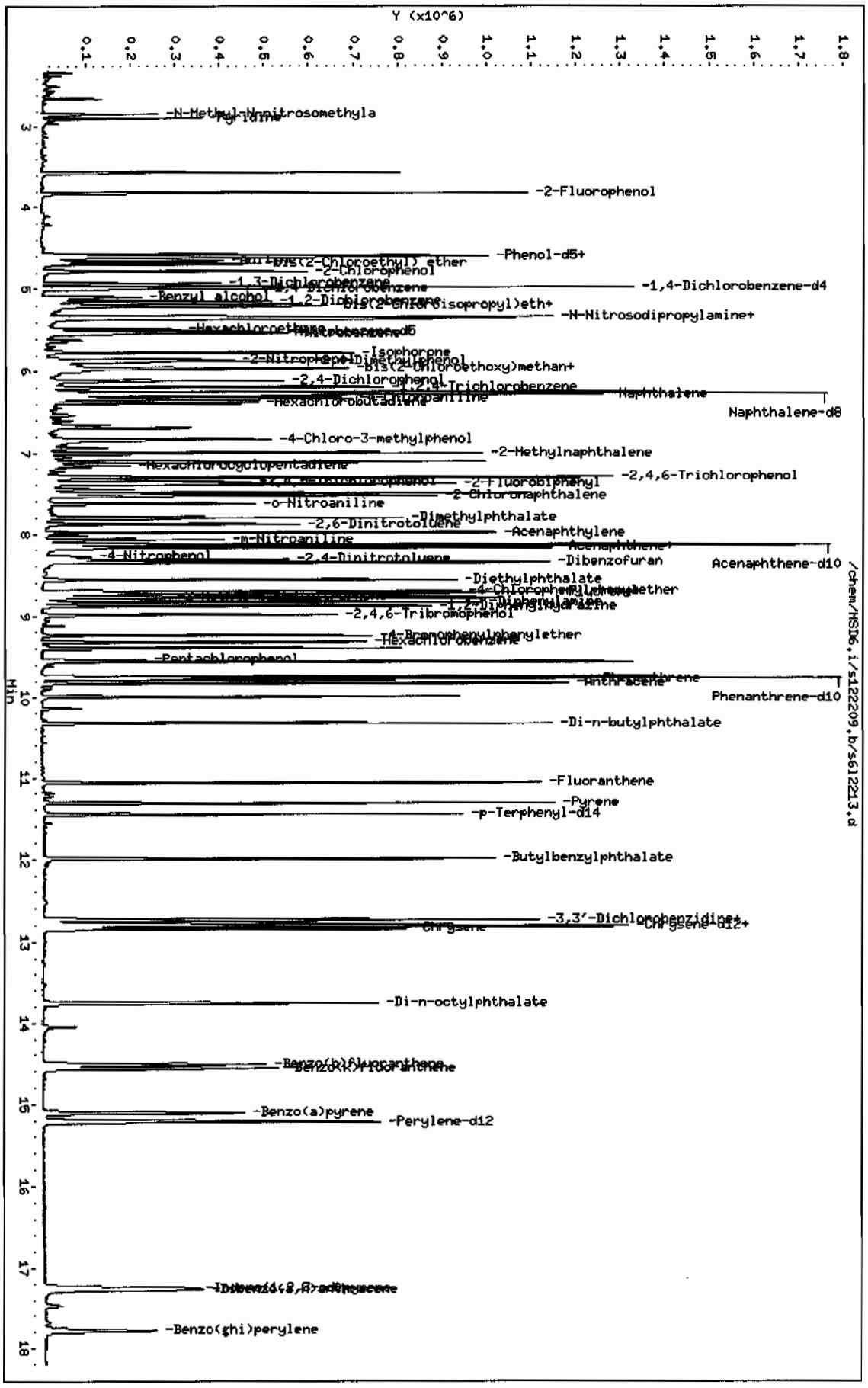

Page 1

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-940	**Date Collected:**	12/14/2009 12:00	**Matrix:**	S
Lab Sample ID:	1202000957	**Date Received:**	12/16/2009 09:10	**%Moisture:**	14.8
Client Sample:	QC for batch 934978	**Client:**	LANL010	**Project:**	QC
Client ID:	RE03-09-14221MSD	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	934979	**Inst:**	MSD6.I	**Dilution:**	1
Run Date:	12/22/2009 18:48	**Analyst:**	NAG1	**Inj. Vol:**	.5 uL
Prep Date:	12/21/2009 11:03	**Aliquot:**	30.05 g	**Final Volume:**	1 mL
Data File:	s6l2214.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine		1000	ug/kg	78.1	390
108-95-2	Phenol		1270	ug/kg	78.1	390
95-57-8	2-Chlorophenol		1240	ug/kg	78.1	390
106-46-7	1,4-Dichlorobenzene		649	ug/kg	78.1	390
621-64-7	N-Nitrosodipropylamine		1280	ug/kg	78.1	390
59-50-7	4-Chloro-3-methylphenol		1390	ug/kg	78.1	390
83-32-9	Acenaphthene		1220	ug/kg	12.9	39.0
121-14-2	2,4-Dinitrotoluene		1350	ug/kg	39.0	390
100-02-7	4-Nitrophenol		1130	ug/kg	129	390
87-86-5	Pentachlorophenol		1050	ug/kg	97.6	390
129-00-0	Pyrene		1240	ug/kg	11.7	39.0
110-86-1	Pyridine		1000	ug/kg	78.1	390
62-53-3	Aniline		1130	ug/kg	117	390
111-44-4	bis(2-Chloroethyl) ether		1070	ug/kg	78.1	390
541-73-1	1,3-Dichlorobenzene		614	ug/kg	78.1	390
100-51-6	Benzyl alcohol		671	ug/kg	117	390
95-50-1	1,2-Dichlorobenzene		759	ug/kg	78.1	390
108-60-1	bis(2-Chloroisopropyl)ether		1060	ug/kg	78.1	390
95-48-7	o-Cresol		1290	ug/kg	78.1	390
65794-96-9	m,p-Cresols		1330	ug/kg	117	390
67-72-1	Hexachloroethane		561	ug/kg	78.1	390
98-95-3	Nitrobenzene		1170	ug/kg	78.1	390
78-59-1	Isophorone		1250	ug/kg	78.1	390
88-75-5	2-Nitrophenol		1310	ug/kg	78.1	390
105-67-9	2,4-Dimethylphenol		1190	ug/kg	137	390
111-91-1	bis(2-Chloroethoxy)methane		1210	ug/kg	78.1	390
120-83-2	2,4-Dichlorophenol		1330	ug/kg	78.1	390
65-85-0	Benzoic acid		2110	ug/kg	195	781
91-20-3	Naphthalene		975	ug/kg	11.7	39.0
106-47-8	4-Chloroaniline		1170	ug/kg	78.1	390
87-68-3	Hexachlorobutadiene		833	ug/kg	78.1	390
91-57-6	2-Methylnaphthalene		1220	ug/kg	7.81	39.0
77-47-4	Hexachlorocyclopentadiene		588	ug/kg	78.1	390
88-06-2	2,4,6-Trichlorophenol		1270	ug/kg	78.1	390
95-95-4	2,4,5-Trichlorophenol		1340	ug/kg	78.1	390
91-58-7	2-Chloronaphthalene		1220	ug/kg	12.9	39.0
88-74-4	2-Nitroaniline		1210	ug/kg	78.1	390
99-09-2	*o-Nitroaniline* 3-Nitroaniline		1330	ug/kg	78.1	390

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-940**	**Date Collected:**	**12/14/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**1202000957**	**Date Received:**	**12/16/2009 09:10**	**%Moisture:**	**14.8**
Client Sample:	**QC for batch 934978**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**RE03-09-14221MSD**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**934979**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**12/22/2009 18:48**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/21/2009 11:03**	**Aliquot:**	**30.05 g**	**Final Volume:**	**1 mL**
Data File:	**s612214.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate		1320	ug/kg	78.1	390
606-20-2	2,6-Dinitrotoluene		1260	ug/kg	39.0	390
208-96-8	Acenaphthylene		1290	ug/kg	11.7	39.0
51-28-5	2,4-Dinitrophenol		1110	ug/kg	148	781
132-64-9	Dibenzofuran		1580	ug/kg	78.1	390
84-66-2	Diethylphthalate		1350	ug/kg	78.1	390
86-73-7	Fluorene		1340	ug/kg	11.7	39.0
7005-72-3	4-Chlorophenylphenylether		1340	ug/kg	78.1	390
534-52-1	2-Methyl-4,6-dinitrophenol		1170	ug/kg	78.1	390
100-01-6	4-Nitroaniline		1440	ug/kg	117	390
	p-Nitroaniline					
122-39-4	Diphenylamine		1230	ug/kg	78.1	390
122-66-7	Azobenzene		1250	ug/kg	78.1	390
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether		1280	ug/kg	78.1	390
118-74-1	Hexachlorobenzene		1340	ug/kg	78.1	390
85-01-8	Phenanthrene		1310	ug/kg	11.7	39.0
120-12-7	Anthracene		1340	ug/kg	7.81	39.0
84-74-2	Di-n-butylphthalate		1380	ug/kg	78.1	390
206-44-0	Fluoranthene		1400	ug/kg	11.7	39.0
85-68-7	Butylbenzylphthalate		1340	ug/kg	78.1	390
56-55-3	Benzo(a)anthracene		1300	ug/kg	11.7	39.0
91-94-1	3,3'-Dichlorobenzidine		848	ug/kg	117	390
218-01-9	Chrysene		1320	ug/kg	11.7	39.0
117-81-7	bis(2-Ethylhexyl)phthalate		1360	ug/kg	78.1	390
117-84-0	Di-n-octylphthalate		1350	ug/kg	78.1	390
205-99-2	Benzo(b)fluoranthene		1310	ug/kg	11.7	39.0
207-08-9	Benzo(k)fluoranthene		1350	ug/kg	11.7	39.0
50-32-8	Benzo(a)pyrene		1410	ug/kg	11.7	39.0
193-39-5	Indeno(1,2,3-cd)pyrene		1420	ug/kg	11.7	39.0
53-70-3	Dibenzo(a,h)anthracene		1440	ug/kg	11.7	39.0
191-24-2	Benzo(ghi)perylene		1430	ug/kg	11.7	39.0
120-82-1	1,2,4-Trichlorobenzene		942	ug/kg	78.1	390

GEL Laboratories LLC

Data file : /chem/MSD6.i/s122209.b/s612214.d
Lab Smp Id: 1202000957 Client Smp ID: RE03-09-14221MSD
Inj Date : 22-DEC-2009 18:48
Operator : nag1 Inst ID: MSD6.i
Smp Info : |1202000957|934979|1|SVM|1|LANL_MSD
Misc Info : |MSD8270_S|WBN091208-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s122209.b/MSD6-M8270C-AQA-110909.m
Meth Date : 22-Dec-2009 17:52 ann00964 Quant Type: ISTD
Cal Date : 11-NOV-2009 04:38 Cal File: s6k0954.d
Als bottle: 9 QC Sample: MSD
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-940.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.05000	weight of sample
M	14.77230	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	4.979	4.979	(1.000)	217820	40.0000	
* 29 Naphthalene-d8	136	6.258	6.261	(1.000)	882166	40.0000	
* 46 Acenaphthene-d10	164	8.133	8.136	(1.000)	463399	40.0000	
* 67 Phenanthrene-d10	188	9.749	9.749	(1.000)	845602	40.0000	
* 91 Chrysene-d12	240	12.809	12.809	(1.000)	712961	40.0000	
* 98 Perylene-d12	264	15.222	15.220	(1.000)	622765	40.0000	
$ 3 2-Fluorophenol	112	3.822	3.812	(0.768)	335068	61.4274	2400
$ 5 Phenol-d5	99	4.599	4.597	(0.924)	439600	63.8528	2490
$ 20 Nitrobenzene-d5	82	5.517	5.519	(0.882)	182830	29.2978	1140
$ 39 2-Fluorobiphenyl	172	7.384	7.387	(0.908)	355773	29.7914	1160
$ 60 2,4,6-Tribromophenol	329	8.987	8.985	(1.105)	92164	68.1416	2660
$ 81 p-Terphenyl-d14	244	11.451	11.449	(0.894)	406053	35.3161	1380

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
6 Phenol	94	4.612	4.610	(0.926)	225886	32.6317	1270(Q)
8 2-Chlorophenol	128	4.785	4.785	(0.961)	176549	31.7514	1240
11 1,4-Dichlorobenzene	146	4.994	4.994	(1.003)	107790	16.6113	649
17 N-Nitrosodipropylamine	70	5.341	5.346	(1.073)	126844	32.8699	1280(Q)
28 1,2,4-Trichlorobenzene	180	6.189	6.192	(0.989)	129054	24.1193	942
33 4-Chloro-3-methylphenol	107	6.831	6.819	(1.092)	157222	35.7222	1390
47 Acenaphthene	154	8.167	8.172	(1.004)	325736	31.1889	1220
50 2,4-Dinitrotoluene	165	8.319	8.322	(1.023)	123237	34.4684	1340
52 4-Nitrophenol	139	8.289	8.266	(1.019)	50663	28.9910	1130
65 Pentachlorophenol	266	9.537	9.532	(0.978)	45273	26.8637	1050
79 Pyrene	202	11.316	11.316	(0.883)	621164	31.6757	1240
2 Pyridine	79	2.889	2.859	(0.580)	118531	25.6813	1000
4 Aniline	66	4.663	4.663	(0.937)	83347	29.0144	1130
7 bis(2-Chloroethyl) ether	63	4.699	4.701	(0.944)	128304	27.3714	1070
9 1,3-Dichlorobenzene	146	4.925	4.928	(0.989)	100739	15.7376	614
12 Benzyl alcohol	108	5.094	5.091	(1.023)	59320	17.1722	670
13 1,2-Dichlorobenzene	146	5.142	5.145	(1.033)	117667	19.4264	758
14 bis(2-Chloroisopropyl)ether	45	5.206	5.208	(1.046)	284871	27.2206	1060
15 o-Cresol	107	5.190	5.183	(1.042)	149370	32.9931	1290
18 m,p-Cresols	107	5.333	5.336	(1.071)	195064	34.0034	1330
19 Hexachloroethane	117	5.478	5.481	(1.100)	36066	14.3669	561(R)
21 Nitrobenzene	77	5.534	5.540	(0.884)	187940	29.8809	1170
22 Isophorone	82	5.766	5.771	(0.921)	356707	31.9953	1250
23 2-Nitrophenol	139	5.853	5.856	(0.935)	97623	33.6502	1310
24 2,4-Dimethylphenol	122	5.871	5.871	(0.938)	146088	30.3923	1190
25 bis(2-Chloroethoxy)methane	93	5.962	5.968	(0.953)	203968	31.0882	1210
26 2,4-Dichlorophenol	162	6.110	6.110	(0.976)	148598	34.0838	1330
27 Benzoic acid	105	5.975	5.980	(0.955)	160060	53.9482	2110
30 Naphthalene	128	6.281	6.284	(1.004)	439311	24.9646	975
31 4-Chloroaniline	127	6.322	6.322	(1.010)	169844	30.0292	1170
32 Hexachlorobutadiene	225	6.388	6.391	(1.021)	59417	21.3245	833
34 2-Methylnaphthalene	142	7.007	7.007	(1.120)	332045	31.2688	1220
36 Hexachlorocyclopentadiene	237	7.163	7.163	(0.881)	28192	15.0618	588
37 2,4,6-Trichlorophenol	196	7.303	7.300	(0.898)	103178	32.6307	1270
38 2,4,5-Trichlorophenol	196	7.359	7.351	(0.905)	115741	34.3712	1340
40 2-Chloronaphthalene	162	7.532	7.535	(0.926)	324598	31.1902	1220
42 o-Nitroaniline	65	7.631	7.634	(0.938)	110349	30.9939	1210
41 m-Nitroaniline	138	8.075	8.077	(0.993)	88818	34.0784	1330
43 Dimethylphthalate	163	7.807	7.815	(0.960)	401147	33.7457	1320
44 2,6-Dinitrotoluene	165	7.884	7.889	(0.969)	91481	32.2639	1260
45 Acenaphthylene	152	7.983	7.986	(0.982)	552929	33.0440	1290
48 2,4-Dinitrophenol	184	8.187	8.187	(1.007)	21192	28.4909	1110(Q)
49 Dibenzofuran	168	8.353	8.353	(1.027)	572012	40.5751	1580
51 Diethylphthalate	149	8.564	8.567	(1.053)	414210	34.6003	1350
53 Fluorene	166	8.725	8.727	(1.073)	395759	34.2027	1340
54 4-Chlorophenylphenylether	204	8.707	8.707	(1.070)	187176	34.2362	1340
55 2-Methyl-4,6-dinitrophenol	198	8.763	8.765	(0.899)	51846	29.8397	1160

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
56 p-Nitroaniline	138	8.740	8.740	(1.075)	88089	36.8672	1440
133 Diphenylamine	169	8.834	8.834	(0.906)	320246	31.4203	1230
58 1,2-Diphenylhydrazine	77	8.880	8.883	(0.911)	414673	31.9852	1250
61 4-Bromophenylphenylether	248	9.239	9.239	(0.948)	109251	32.7422	1280
63 Hexachlorobenzene	284	9.318	9.318	(0.956)	119770	34.2681	1340
68 Phenanthrene	178	9.774	9.775	(1.003)	588373	33.6456	1310
69 Anthracene	178	9.830	9.831	(1.008)	599567	34.3019	1340
72 Di-n-butylphthalate	149	10.325	10.325	(1.059)	708465	35.2940	1380
76 Fluoranthene	202	11.064	11.064	(1.135)	601479	35.9054	1400
85 Butylbenzylphthalate	149	11.994	11.994	(0.936)	308550	34.3808	1340
89 Benzo(a)anthracene	228	12.789	12.791	(0.998)	512936	33.3460	1300
90 3,3'-Dichlorobenzidine	252	12.725	12.725	(0.993)	109367	21.7189	848
92 Chrysene	228	12.847	12.845	(1.003)	497065	33.7252	1320
93 bis(2-Ethylhexyl)phthalate	149	12.735	12.735	(0.994)	429988	34.8252	1360
94 Di-n-octylphthalate	149	13.755	13.755	(0.904)	684492	34.5832	1350
95 Benzo(b)fluoranthene	252	14.516	14.519	(0.954)	462320	33.5505	1310
96 Benzo(k)fluoranthene	252	14.570	14.568	(0.957)	472781	34.5033	1350
97 Benzo(a)pyrene	252	15.113	15.115	(0.993)	428476	36.0001	1400
99 Indeno(1,2,3-cd)pyrene	276	17.253	17.256	(1.133)	408965	36.3848	1420
100 Dibenzo(a,h)anthracene	278	17.284	17.284	(1.135)	338473	36.8541	1440
101 Benzo(ghi)perylene	276	17.793	17.796	(1.169)	333633	36.6920	1430
1 N-Methyl-N-nitrosomethylamine	74	2.844	2.821	(0.571)	94978	25.6126	1000

QC Flag Legend

Q - Qualifier signal failed the ratio test.
R - Spike/Surrogate failed recovery limits.

Data File: /chem/MSD6.i/s122209.b/s612214.d
Date : 22-DEC-2009 18:48
Client ID: RE03-09-14221MSD
Sample Info: 1120200095719349791|SVMI1|LANL_MSD
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD6.i
Operator: nagl
Column diameter: 0.20

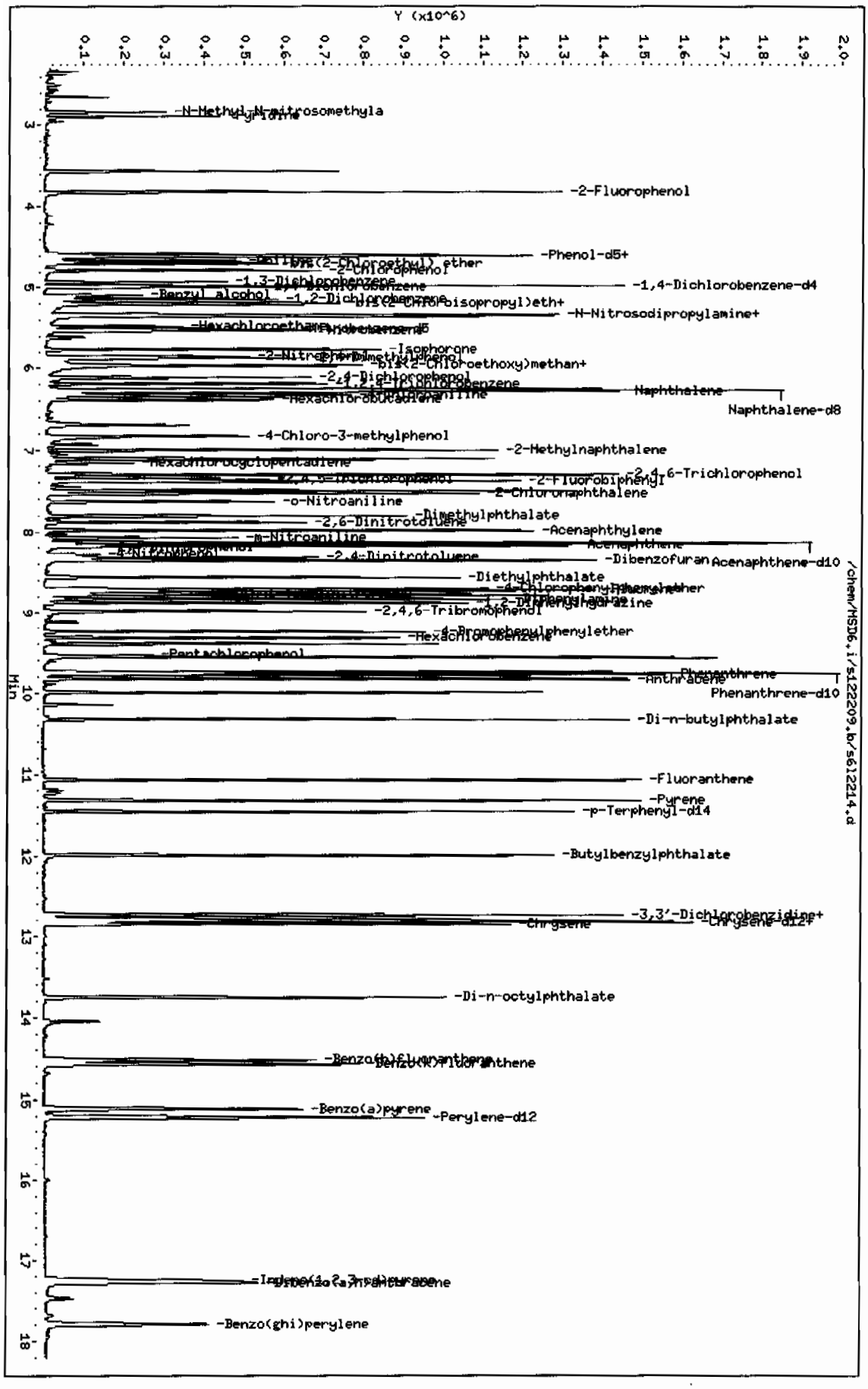

Page 1

Miscellaneous Data

Prep Logbook

Extraction of Semivolatile and Nonvolatile Organic Compounds from Soil, Sludge, and Other Miscellaneous Solid Samples

Batch ID: 934978 **Verified by:** _____

Analyst: Robin Hunt

Method: SW846 3550B

Lab SOP: GL-OA-E-010 REV# 18

Instrument: Semi-Volatiles Manual

Sample ID	Run Date	Aliquot (g)	Prepped Aliquot (mL)	Prepped Factor (mL/g)
1202000424 MB	21-DEC-2009 11:03:35	30	1	0.03333
1202000425 LCS	21-DEC-2009 11:03:35	30	1	0.03333
243033001	21-DEC-2009 11:03:35	30.07	1	0.03326
1202000956 MS (243033001)	21-DEC-2009 11:03:35	30.06	1	0.03327
1202000957 MSD (243033001)	21-DEC-2009 11:03:35	30.05	1	0.03328
243033002	21-DEC-2009 11:03:35	30	1	0.03333
243033003	21-DEC-2009 11:03:35	30.09	1	0.03323
243033004	21-DEC-2009 11:03:35	30.05	1	0.03328
243033005	21-DEC-2009 11:03:35	30.02	1	0.03331
243033006	21-DEC-2009 11:03:35	30.02	1	0.03331
243033007	21-DEC-2009 11:03:35	30.04	1	0.03329
243033008	21-DEC-2009 11:03:35	30.02	1	0.03331
243033009	21-DEC-2009 11:03:35	30.04	1	0.03329
243083002	21-DEC-2009 11:03:35	30.06	1	0.03327
243083003	21-DEC-2009 11:03:35	30.07	1	0.03326
243083004	21-DEC-2009 11:03:35	30.03	1	0.0333
243083005	21-DEC-2009 11:03:35	30	1	0.03333
243083006	21-DEC-2009 11:03:35	30.09	1	0.03323
243088003	21-DEC-2009 11:03:35	30.01	1	0.03332
243088004	21-DEC-2009 11:03:35	30	1	0.03333

Type	Sample Id	Description	Serial Number	Spike Amt	Units
LCS	1202000425	BNA LCS w/o Benzidine 50ppm	UE091217-12	1	mL
LCS	1202000425	BENZIDINE LCS	UE091217-22	1	mL
MS	1202000956	BNA LCS w/o Benzidine 50ppm	UE091217-12	1	mL
MS	1202000956	BENZIDINE LCS	UE091217-22	1	mL
MSD	1202000957	BNA LCS w/o Benzidine 50ppm	UE091217-12	1	mL
MSD	1202000957	BENZIDINE LCS	UE091217-22	1	mL
SURR	All	BNA for all Surrogate	UE091215-10	1	mL
REGNT	All	Acetone	1233927	150	mL
REGNT	All	Methylene Chloride	1242565-D	150	mL
SOURC	All	SODIUM SULFATE	1242582	30	g

Comments:

Verified By: JAM

Final Solvent: CH2Cl2

Prep Logbook

Extraction of Semivolatile and Nonvolatile Organic Compounds from Soil, Sludge, and Other Miscellaneous Solid Samples

Batch ID: 936369 **Verified by:** _____

Analyst: Joshua McCartney

Method: SW846 3550B

Lab SOP: GL-OA-E-010 REV# 18

Instrument: Semi-Volatiles Manual

Sample ID	Run Date	Aliquot (g)	Prepped Aliquot (mL)	Prepped Factor (mL/g)
1202003528 MB	24-DEC-2009 08:22:38	30	1	0.03333
1202003529 LCS	24-DEC-2009 08:22:38	30	1	0.03333
243033006 - 2	24-DEC-2009 08:22:38	30.06	1	0.03327
243393002	24-DEC-2009 08:22:38	30.05	1	0.03328
1202003530 MS (243393002)	24-DEC-2009 08:22:38	30.04	1	0.03329
1202003531 MSD (243393002)	24-DEC-2009 08:22:38	30.01	1	0.03332

Type	Sample Id	Description	Serial Number	Spike Amt	Units
LCS	1202003529	BNA LCS w/o Benzidine 50ppm	UE091217-12	1	mL
LCS	1202003529	BENZIDINE LCS	UE091223-21	1	mL
MS	1202003530	BNA LCS w/o Benzidine 50ppm	UE091217-12	1	mL
MS	1202003530	BENZIDINE LCS	UE091223-21	1	mL
MSD	1202003531	BNA LCS w/o Benzidine 50ppm	UE091217-12	1	mL
MSD	1202003531	BENZIDINE LCS	UE091223-21	1	mL
SURR	All	BNA for all Surrogate	UE091217-10	1	mL
REGNT	All	Acetone	1233927	150	mL
REGNT	All	Methylene Chloride	1242565-D	150	mL
SOURC	All	SODIUM SULFATE	1242582	30	g

Comments:

Verified By: RWH

Final Solvent: CH2Cl2

GEL ORGANIC RUN LOG INSTRUMENT ID: MSD6

DATE: 11/09/2009 METHOD: See raw data OPERATOR: JMB3 REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT:1198658-D
Multiplier Voltage: 1565 Emv Extr. Injection Volume: 0.5, 1.0 ul
DFTPP Solution ID: WBN091101-01 Internal Std ID: WBN091106-10
CALIBRATION & QC INFORMATION:
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.

SOP: GL-OA-E-009 Rev. 22 Sequence Number: /chem/MSD6.i/s110909.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
s6k0901.d	WBN091101-01	JMB3	09-NOV-2009 11:20	50 PPM	s110909	1.0	DFTPP	DUSE
s6k0902.d	inst blk	JMB3	09-NOV-2009 11:35	--------	s110909	1.0	INST BLK	DUSE
s6k0903.d	WBN091106-08	JMB3	09-NOV-2009 12:23	1 PPM	s110909	1.0	MEGAICAL	DUSE
s6k0904.d	WBN091106-07	JMB3	09-NOV-2009 13:00	10 PPM	s110909	1.0	MEGAICAL	DUSE
s6k0905.d	WBN091106-06	JMB3	09-NOV-2009 13:36	20 PPM	s110909	1.0	MEGAICAL	DUSE
s6k0906.d	WBN091106-05.1	JMB3	09-NOV-2009 14:14	40 PPM	s110909	1.0	MEGAICAL	DUSE
s6k0907.d	WBN091106-04	JMB3	09-NOV-2009 14:52	50 PPM	s110909	1.0	MEGAICAL	DUSE
s6k0908.d	WBN091106-03	JMB3	09-NOV-2009 15:30	80 PPM	s110909	1.0	MEGAICAL	DUSE
s6k0909.d	WBN091106-02	JMB3	09-NOV-2009 16:06	100 PPM	s110909	1.0	MEGAICAL	DUSE
s6k0910.d	WBN091106-01	JMB3	09-NOV-2009 16:43	120 PPM	s110909	1.0	MEGAICAL	DUSE
s6k0911-D.d	WBN091101-01	JMB3	09-NOV-2009 18:00	50 PPM	s110909	1.0	DFTPP	
s6k0911.d	WBN091101-01	JMB3	09-NOV-2009 18:00	50 PPM	s110909	1.0	DFTPP	
s6k0912.d	inst blk	JMB3	09-NOV-2009 18:15	--------	s110909	1.0	INST BLK	
s6k0913.d	WBN091106-08	JMB3	09-NOV-2009 18:53	1 PPM	s110909	1.0	MEGAICAL	
s6k0914.d	WBN091106-07	JMB3	09-NOV-2009 19:31	10 PPM	s110909	1.0	MEGAICAL	
s6k0915.d	WBN091106-06	JMB3	09-NOV-2009 20:09	20 PPM	s110909	1.0	MEGAICAL	
s6k0916.d	WBN091106-05.1	JMB3	09-NOV-2009 20:46	40 PPM	s110909	1.0	MEGAICAL	
s6k0917.d	WBN091106-04	JMB3	09-NOV-2009 21:25	50 PPM	s110909	1.0	MEGAICAL	
s6k0918.d	WBN091106-03	JMB3	09-NOV-2009 22:01	80 PPM	s110909	1.0	MEGAICAL	

s6k0919.d	WBN091106-02	JMB3	09-NOV-2009 22:39	100 PPM	s110909	1.0	MEGAICAL	
s6k0920.d	WBN091106-01	JMB3	09-NOV-2009 23:16	120 PPM	s110909	1.0	MEGAICAL	
s6k0921-D.d	WBN091101-01	JMB3	10-NOV-2009 11:07	50 PPM	s110909	1.0	DFTPP	
s6k0921.d	WBN091101-01	JMB3	10-NOV-2009 11:07	50 PPM	s110909	1.0	DFTPP	
s6k0922.d	inst blk	JMB3	10-NOV-2009 11:21	--------	s110909	1.0	INST BLK	
s6k0923.d	WBN091016-01	JMB3	10-NOV-2009 11:59	10 PPM	s110909	1.0	AP12ICAL	
s6k0924.d	WBN091016-02	JMB3	10-NOV-2009 12:36	20 PPM	s110909	1.0	AP12ICAL	
s6k0925.d	WBN091016-03	JMB3	10-NOV-2009 13:13	40 PPM	s110909	1.0	AP12ICAL	
s6k0926.d	WBN091016-04	JMB3	10-NOV-2009 13:51	50 PPM	s110909	1.0	AP12ICAL	
s6k0927.d	WBN091016-05	JMB3	10-NOV-2009 14:30	80 PPM	s110909	1.0	AP12ICAL	
s6k0928.d	WBN091016-06	JMB3	10-NOV-2009 15:06	100 PPM	s110909	1.0	AP12ICAL	
s6k0929.d	WBN091016-07	JMB3	10-NOV-2009 15:43	120 PPM	s110909	1.0	AP12ICAL	
s6k0930.d	WBN091029-25	JMB3	10-NOV-2009 16:20	10 PPM	s110909	1.0	PESTICAL	
s6k0931.d	WBN091029-24	JMB3	10-NOV-2009 16:56	20 PPM	s110909	1.0	PESTICAL	
s6k0932.d	WBN091029-23.1	JMB3	10-NOV-2009 17:33	40 PPM	s110909	1.0	PESTICAL	
s6k0933.d	WBN091029-22	JMB3	10-NOV-2009 18:09	50 PPM	s110909	1.0	PESTICAL	
s6k0934.d	WBN091029-21	JMB3	10-NOV-2009 18:45	80 PPM	s110909	1.0	PESTICAL	
s6k0935.d	WBN091029-20	JMB3	10-NOV-2009 19:21	100 PPM	s110909	1.0	PESTICAL	
s6k0936.d	WBN091029-19	JMB3	10-NOV-2009 19:58	120 PPM	s110909	1.0	PESTICAL	
s6k0937-D.d	WBN091106-09.1	JMB3	10-NOV-2009 20:29	40 PPM	s110909	1.0	MEGAICV	FAILED SC 8270D
s6k0937.d	WBN091106-09.1	JMB3	10-NOV-2009 20:29	40 PPM	s110909	1.0	MEGAICV	
s6k0938-D.d	WBN091016-08.1	JMB3	10-NOV-2009 21:07	40 PPM	s110909	1.0	AP12ICV	
s6k0938.d	WBN091016-08.1	JMB3	10-NOV-2009 21:07	40 PPM	s110909	1.0	AP12ICV	
s6k0939-D.d	WBN091029-26.1	JMB3	10-NOV-2009 21:35	40 PPM	s110909	1.0	PESTICV	
s6k0939.d	WBN091029-26.1	JMB3	10-NOV-2009 21:35	40 PPM	s110909	1.0	PESTICV	
s6k0940-D.d	WBN091101-01	JMB3	10-NOV-2009 22:12	50 PPM	s110909	1.0	DFTPP	
s6k0940.d	WBN091101-01	JMB3	10-NOV-2009 22:12	50 PPM	s110909	1.0	DFTPP	

s6k0941.d	inst blk	JMB3	10-NOV-2009 22:26	--------	s110909		1.0	INST BLK	
s6k0942.d	WBN091016-16	JMB3	10-NOV-2009 22:55	500 PPM	s110909		1.0	HEXICAL	
s6k0943.d	WBN091016-15	JMB3	10-NOV-2009 23:24	1000 PPM	s110909		1.0	HEXICAL	
s6k0944.d	WBN091016-14	JMB3	10-NOV-2009 23:53	1250 PPM	s110909		1.0	HEXICAL	
s6k0945.d	WBN091016-13	JMB3	11-NOV-2009 00:21	1500 PPM	s110909		1.0	HEXICAL	
s6k0946.d	WBN091016-12	JMB3	11-NOV-2009 00:50	1750 PPM	s110909		1.0	HEXICAL	
s6k0947.d	UBN090828-02.4-16	JMB3	11-NOV-2009 01:18	500 PPM	s110909		1.0	HEXICAL	
s6k0948.d	UBN090924-01	JMB3	11-NOV-2009 01:47	10 PPM	s110909		1.0	NEVICAL	
s6k0949.d	UBN090924-02	JMB3	11-NOV-2009 02:16	20 PPM	s110909		1.0	NEVICAL	
s6k0950.d	UBN090924-03	JMB3	11-NOV-2009 02:44	40 PPM	s110909		1.0	NEVICAL	
s6k0951.d	UBN090924-04	JMB3	11-NOV-2009 03:12	50 PPM	s110909		1.0	NEVICAL	DUSE - disabled
s6k0952.d	UBN090924-05	JMB3	11-NOV-2009 03:41	80 PPM	s110909		1.0	NEVICAL	
s6k0953.d	UBN090924-06	JMB3	11-NOV-2009 04:10	100 PPM	s110909		1.0	NEVICAL	
s6k0954.d	UBN090924-07	JMB3	11-NOV-2009 04:38	120 PPM	s110909		1.0	NEVICAL	DUSE - disabled
s6k0955-D.d	WBN091016-10.1	JMB3	11-NOV-2009 05:07	1250 PPM	s110909		1.0	HEXICV	DUSE - failed >70%-130%
s6k0955.d	WBN091016-10.1	JMB3	11-NOV-2009 05:07	1250 PPM	s110909		1.0	HEXICV	

GEL ORGANIC RUN LOG INSTRUMENT ID: MSD1

DATE: 11/14/2009 METHOD: See raw data OPERATOR: AMY REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT:116462-D
Multiplier Voltage: 1400 Emv Extr. Injection Volume: 0.5, 1.0 ul
DFTPP Solution ID: WBN091101-01 Internal Std ID: WBN091024-01
CALIBRATION & QC INFORMATION:
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.

SOP: GL-OA-E-009 Rev. 22 Sequence Number: /chem/MSD1.i/s111409.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
s1k1201-D.d	WBN091101-01	AMY	14-NOV-2009 17:38	50 PPM	s111409	1.0	DFTPP	TUNE-MEGA ICAL
s1k1201.d	WBN091101-01	AMY	14-NOV-2009 17:38	50 PPM	s111409	1.0	DFTPP	TUNE-MEGA ICAL
s1k1202.d	INST BLK	amy	14-NOV-2009 17:53	-----	s111409	1.0	INST BLK	
s1k1203.d	WBN091111-16	amy	14-NOV-2009 18:22	1 PPM	s111409	1.0	MEGA001	
s1k1204.d	WBN091111-15	amy	14-NOV-2009 18:51	10 PPM	s111409	1.0	MEGA010	
s1k1204MRQ.d	WBN091111-15	amy	14-NOV-2009 18:51	10 PPM	s111409	1.0	MEGA010	pass linearity for c26 and c184
s1k1205.d	WBN091111-14	amy	14-NOV-2009 19:21	20 PPM	s111409	1.0	MEGA020	
s1k1206.d	WBN091111-13.1	amy	14-NOV-2009 19:50	40 PPM	s111409	1.0	MEGA040	
s1k1207.d	WBN091111-12	amy	14-NOV-2009 20:19	50 PPM	s111409	1.0	MEGA050	
s1k1208.d	WBN091111-11	amy	14-NOV-2009 20:47	80 PPM	s111409	1.0	MEGA080	
s1k1209.d	WBN091111-10	amy	14-NOV-2009 21:16	100 PPM	s111409	1.0	MEGA100	
s1k1210.d	WBN091111-09	amy	14-NOV-2009 21:45	120 PPM	s111409	1.0	MEGA120	
s1k1211.d	INST BLK	amy	14-NOV-2009 22:14	-----	s111409	1.0	INST BLK	
s1k1212-BOE.d	WBN091111-17.1	amy	14-NOV-2009 22:43	40 PPM	s111409	1.0	MEGAICV	DUSE-fail c65
s1k1212-D.d	WBN091111-17.1	amy	14-NOV-2009 22:43	40 PPM	s111409	1.0	MEGAICV	DUSE-fail c65
s1k1212.d	WBN091111-17.1	amy	14-NOV-2009 22:43	40 PPM	s111409	1.0	MEGAICV	DUSE: fails c65
s1k1213-D.d	WBN091101-01	AMY	15-NOV-2009 14:50	50 PPM	s111409	1.0	DFTPP	TUNE-AP/PEST/HEX ICALS
s1k1213.d	WBN091101-01	AMY	15-NOV-2009 14:50	50 PPM	s111409	1.0	DFTPP	TUNE-AP/PEST/HEX ICALS
s1k1214.d	INST BLK	amy	15-NOV-2009 15:05	-----	s111409	1.0	INST BLK	

s1k1215.d	WBN091111-01	amy	15-NOV-2009 15:28	10 PPM	s111409	1.0	AP010	
s1k1216.d	WBN091111-02	amy	15-NOV-2009 15:51	20 PPM	s111409	1.0	AP020	
s1k1217.d	WBN091111-03.1	amy	15-NOV-2009 16:14	40 PPM	s111409	1.0	AP040	
s1k1218.d	WBN091111-04	amy	15-NOV-2009 16:38	50 PPM	s111409	1.0	AP050	
s1k1219.d	WBN091111-05	amy	15-NOV-2009 17:01	80 PPM	s111409	1.0	AP080	
s1k1220.d	WBN091111-06	amy	15-NOV-2009 17:24	100 PPM	s111409	1.0	AP100	
s1k1221.d	WBN091111-07	amy	15-NOV-2009 17:47	120 PPM	s111409	1.0	AP120	
s1k1222.d	WBN091029-25	amy	15-NOV-2009 18:11	10 PPM	s111409	1.0	PEST010	
s1k1223.d	WBN091029-24	amy	15-NOV-2009 18:35	20 PPM	s111409	1.0	PEST020	
s1k1224.d	WBN091029-23.1	amy	15-NOV-2009 18:58	40 PPM	s111409	1.0	PEST040	
s1k1225.d	WBN091029-22	amy	15-NOV-2009 19:21	50 PPM	s111409	1.0	PEST050	
s1k1226.d	WBN091029-21	amy	15-NOV-2009 19:45	80 PPM	s111409	1.0	PEST080	
s1k1227.d	WBN091029-20	amy	15-NOV-2009 20:09	100 PPM	s111409	1.0	PEST100	
s1k1228.d	WBN091029-19	amy	15-NOV-2009 20:31	120 PPM	s111409	1.0	PEST120	
s1k1229.d	WBN091016-16	amy	15-NOV-2009 20:55	500 PPM	s111409	1.0	HEX500	
s1k1230.d	WBN091016-15	amy	15-NOV-2009 21:18	1000 PPM	s111409	1.0	HEX1000	
s1k1231.d	WBN091016-14	amy	15-NOV-2009 21:42	1250 PPM	s111409	1.0	HEX1250	
s1k1232.d	WBN091016-13	amy	15-NOV-2009 22:06	1500 PPM	s111409	1.0	HEX503	
s1k1233.d	WBN091016-12	amy	15-NOV-2009 22:30	1750 PPM	s111409	1.0	HEX504	
s1k1234.d	UBN090825-02.4	amy	15-NOV-2009 22:53	2000 PPM	s111409	1.0	HEX2000	
s1k1235-D.d	WBN091111-08.1	amy	15-NOV-2009 23:17	40 PPM	s111409	1.0	APICV	
s1k1235.d	WBN091111-08.1	amy	15-NOV-2009 23:17	40 PPM	s111409	1.0	APICV	
s1k1236-D.d	WBN091029-26.1	amy	15-NOV-2009 23:40	40 PPM	s111409	1.0	PESTICV	
s1k1236.d	WBN091029-26.1	amy	15-NOV-2009 23:40	40 PPM	s111409	1.0	PESTICV	
s1k1237-D.d	WBN091016-10.2	amy	16-NOV-2009 00:03	1250 PPM	s111409	1.0	HEXICV	
s1k1237.d	WBN091016-10.2	amy	16-NOV-2009 00:03	1250 PPM	s111409	1.0	HEXICV	
s1k1238-D.d	WBN091101-01	AMY	16-NOV-2009 00:27	50 PPM	s111409	1.0	DFTPP	DUSE: fails breakdown

s1k1238.d	WBN091101-01	AMY	16-NOV-2009 00:27	50 PPM	s111409	1.0	DFTPP	DUSE: fails breakdown
s1k1239.d	INST BLK	amy	16-NOV-2009 00:43	-----	s111409	1.0	INST BLK	
s1k1240.d	UBN090924-01	amy	16-NOV-2009 01:05	10 PPM	s111409	1.0	NEV010	DUSE
s1k1241.d	UBN090924-02	amy	16-NOV-2009 01:28	20 PPM	s111409	1.0	NEV020	DUSE
s1k1242.d	UBN090924-03	amy	16-NOV-2009 01:51	40 PPM	s111409	1.0	NEV040	DUSE
s1k1243.d	UBN090924-04	amy	16-NOV-2009 02:14	50 PPM	s111409	1.0	NEV050	DUSE
s1k1244.d	UBN090924-05	amy	16-NOV-2009 02:38	80 PPM	s111409	1.0	NEV080	DUSE
s1k1245.d	UBN090924-06	amy	16-NOV-2009 03:01	100 PPM	s111409	1.0	NEV100	DUSE
s1k1246.d	UBN090924-07	amy	16-NOV-2009 03:23	120 PPM	s111409	1.0	NEV120	DUSE
s1k1247-D.d	WBN091101-01	AMY	17-NOV-2009 09:05	50 PPM	s111409	1.0	DFTPP	DUSE
s1k1247.d	WBN091101-01	AMY	17-NOV-2009 09:05	50 PPM	s111409	1.0	DFTPP	DUSE
s1k1248.d	INST BLK	amy	17-NOV-2009 09:20	-----	s111409	1.0	INST BLK	
s1k1249.d	WBN091027-09.2	amy	17-NOV-2009 09:48	40 PPM	s111409	1.0	MEGAICV	DUSE: c65 fails
s1k1250.d	UBN090924-01	amy	17-NOV-2009 10:17	10 PPM	s111409	1.0	NEV010	DUSE
s1k1251.d	UBN090924-02	amy	17-NOV-2009 10:41	20 PPM	s111409	1.0	NEV020	DUSE
s1k1252.d	UBN090924-03	amy	17-NOV-2009 11:04	40 PPM	s111409	1.0	NEV040	DUSE
s1k1253.d	UBN090924-04	amy	17-NOV-2009 11:27	50 PPM	s111409	1.0	NEV050	DUSE
s1k1254.d	UBN090924-05	amy	17-NOV-2009 11:50	80 PPM	s111409	1.0	NEV080	DUSE
s1k1255.d	UBN090924-06	amy	17-NOV-2009 12:14	100 PPM	s111409	1.0	NEV100	DUSE
s1k1256.d	UBN090924-07	amy	17-NOV-2009 12:38	120 PPM	s111409	1.0	NEV120	DUSE
s1k1257.d	WBN091027-09.1	amy	17-NOV-2009 13:02	40 PPM	s111409	1.0	MEGAICV	DUSE: c65 fails /clean inj port
s1k1259-D.d	WBN091101-01	AMY	17-NOV-2009 15:48	50 PPM	s111409	1.0	DFTPP	TUNE-MEGAICV/NEV ICAL
s1k1259.d	WBN091101-01	AMY	17-NOV-2009 15:48	50 PPM	s111409	1.0	DFTPP	TUNE-MEGAICV/NEV ICAL
s1k1260.d	INST BLK	amy	17-NOV-2009 16:04	-----	s111409	1.0	INST BLK	
s1k1261-BOE.d	WBN091027-09.3	amy	17-NOV-2009 16:27	40 PPM	s111409	1.0	MEGAICV	
s1k1261-D.d	WBN091027-09.3	amy	17-NOV-2009 16:27	40 PPM	s111409	1.0	MEGAICV	
s1k1261.d	WBN091027-09.3	amy	17-NOV-2009 16:27	40 PPM	s111409	1.0	MEGAICV	pass 530038

s1k1262.d	UBN091117-01	amy	17-NOV-2009 16:56	10 PPM	s111409	1.0	NEV010	
s1k1263.d	UBN091117-02	amy	17-NOV-2009 17:19	20 PPM	s111409	1.0	NEV020	
s1k1264.d	UBN091117-03	amy	17-NOV-2009 17:42	40 PPM	s111409	1.0	NEV040	
s1k1265.d	UBN091117-04	amy	17-NOV-2009 18:05	50 PPM	s111409	1.0	NEV050	DUSE
s1k1266.d	UBN091117-05	amy	17-NOV-2009 18:28	80 PPM	s111409	1.0	NEV080	
s1k1267.d	UBN091117-06	amy	17-NOV-2009 18:52	100 PPM	s111409	1.0	NEV100	DUSE
s1k1268.d	UBN091117-07	amy	17-NOV-2009 19:15	120 PPM	s111409	1.0	NEV120	

GEL ORGANIC RUN LOG INSTRUMENT ID: MSD6

DATE: 12/22/2009 METHOD: See raw data OPERATOR: nagl REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT:1239699-D
Multiplier Voltage: 1494 Emv Extr. Injection Volume: 0.5, 1.0 ul
DFTPP Solution ID: WBN091213-01 Internal Std ID: WBN091208-01
CALIBRATION & QC INFORMATION:
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.

SOP: GL-OA-E-009 Rev. 23 Sequence Number: /chem/MSD6.i/s122209.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
s612201.d	WBN091213-01	nagl	22-DEC-2009 11:05	50 PPM	s122209	1.0	DFTPP	DUSE failed
s612202.d	WBN091213-01	nagl	22-DEC-2009 13:29	50 PPM	s122209	1.0	DFTPP	DUSE failed
s612203.d	WBN091111-17.4	nagl	22-DEC-2009 13:44	CVS	s122209	1.0	MEGACVS	DUSE
s612204.d	WBN091201-03.5	nagl	22-DEC-2009 14:13	CVS	s122209	1.0	AP12CVS	DUSE
s612205.d	WBN091202-23.5	nagl	22-DEC-2009 14:42	CVS	s122209	1.0	PESTCVS	DUSE
s612206.d	WBN091213-01	nagl	22-DEC-2009 15:13	50 PPM	s122209	1.0	DFTPP	TUNE passes 8270C
s612207.d	WBN091111-17.4	nagl	22-DEC-2009 15:28	CVS	CVS	1.0	MEGACVS	passes 8270C 214678
s612208.d	WBN091201-03.5	nagl	22-DEC-2009 15:58	CVS	CVS	1.0	AP12CVS	passes 8270C
s612209.d	WBN091202-23.5	nagl	22-DEC-2009 16:27	CVS	CVS	1.0	PESTCVS	passes 8270C
s612210-1.d	1202000424	nagl	22-DEC-2009 16:55	934979	10-944	1.0	SBLK01	
s612210-2.d	1202000424	nagl	22-DEC-2009 16:55	934979	10-946	1.0	SBLK01	
s612210.d	1202000424	nagl	22-DEC-2009 16:55	934979	10-940	1.0	SBLK01	
s612211-1.d	1202000425	nagl	22-DEC-2009 17:23	934979	10-944	1.0	SBLK01LCS	
s612211-2.d	1202000425	nagl	22-DEC-2009 17:23	934979	10-946	1.0	SBLK01LCS	
s612211.d	1202000425	nagl	22-DEC-2009 17:23	934979	10-940	1.0	SBLK01LCS	
s612212.d	243033001	nagl	22-DEC-2009 17:52	934979	10-940	1.0	LANL	
s612213.d	1202000956	nagl	22-DEC-2009 18:20	934979	10-940	1.0	LANL_MS	failed C19
s612214.d	1202000957	nagl	22-DEC-2009 18:48	934979	10-940	1.0	LANL_MSD	failed C19
s612215.d	243033002	nagl	22-DEC-2009 19:15	934979	10-940	1.0	LANL	

s612216.d	243033003	nagl	22-DEC-2009 19:43	934979	10-940	1.0	LANL	
s612217.d	243033004	nagl	22-DEC-2009 20:11	934979	10-940	1.0	LANL	
s612218.d	243033005	nagl	22-DEC-2009 20:39	934979	10-940	1.0	LANL	
s612219.d	243033006	nagl	22-DEC-2009 21:06	934979	10-940	1.0	LANL	DUSE. Report s113013
s612220.d	243033007	nagl	22-DEC-2009 21:34	934979	10-940	1.0	LANL	
s612221.d	243033008	nagl	22-DEC-2009 22:01	934979	10-940	1.0	LANL	
s612222.d	243033009	nagl	22-DEC-2009 22:28	934979	10-940	1.0	LANL	
s612223.d	243083002	nagl	22-DEC-2009 22:55	934979	10-944	1.0	LANL	
s612224.d	243083003	nagl	22-DEC-2009 23:23	934979	10-944	1.0	LANL	
s612225.d	243083004	nagl	22-DEC-2009 23:50	934979	10-944	1.0	LANL	
s612226.d	243083005	nagl	23-DEC-2009 00:17	934979	10-944	1.0	LANL	
s612227.d	243083006	nagl	23-DEC-2009 00:45	934979	10-944	1.0	LANL	
s612228.d	243088003	nagl	23-DEC-2009 01:12	934979	10-946	1.0	LANL	
s612229.d	243088004	nagl	23-DEC-2009 01:39	934979	10-946	1.0	LANL	

Instrument Batch: /chem/MSD6.i/s122209.b Page: 1

GEL ORGANIC RUN LOG INSTRUMENT ID: MSD1

DATE: 12/30/2009 METHOD: See raw data OPERATOR: AMY REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT:1202440-D
Multiplier Voltage: 1318 Emv Extr. Injection Volume: 0.5, 1.0 ul
DFTPP Solution ID: WBN091101-01 Internal Std ID: WBN091106-10
CALIBRATION & QC INFORMATION:
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.

SOP: GL-OA-E-009 Rev. 23 Sequence Number: /chem/MSD1.i/s123009.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
s113001.d	INSTBLK	AMY	30-DEC-2009 10:00		all	1.0		DUSE
s113002-D.d	WBN091213-01	AMY	30-DEC-2009 10:24	50 PPM	s123009	1.0	DFTPP	PASSING
s113002.d	WBN091213-01	AMY	30-DEC-2009 10:24	50 PPM	s123009	1.0	DFTPP	PASSING
s113003-D.d	WBN091111-17.2	AMY	30-DEC-2009 10:40	40 PPM	MEGAIICARE	1.0	MEGACVS	PASSING
s113003.d	WBN091111-17.2	AMY	30-DEC-2009 10:40	40 PPM	MEGAIICARE	1.0	MEGACVS	PASSING
s113004.d	WBN091201-03.5	AMY	30-DEC-2009 11:22	40 PPM	ap12	1.0	APCVS	Failing c.77
s113005.d	WBN091202-23.3	AMY	30-DEC-2009 11:46	40 PPM	pest	1.0	PESTCVS	PASSING-not needed
s113006-1.d	1202003528	AMY	30-DEC-2009 12:10	936371	10-1005	1.0	SBLK01	REPORT
s113006.d	1202003528	AMY	30-DEC-2009 12:10	936371	10-940	1.0	SBLK01	REPORT
s113007-2.d	1202003529	AMY	30-DEC-2009 12:33	936371	10-1005	1.0	SBLK01LCS	REPORT
s113007.d	1202003529	AMY	30-DEC-2009 12:33	936371	10-940	1.0	SBLK01LCS	REPORT
s113008.d	1202002434	AMY	30-DEC-2009 12:57	935486	s123009	1.0	SBLK01	DUSE-batch looking for c.77
s113009.d	1202002435	AMY	30-DEC-2009 13:21	935486		1.0	SBLK01LCS	DUSE-batch looking for c.77
s113010.d	243406009	AMY	30-DEC-2009 13:44	935855	10-1011	10.0	LANL	REPORT-rr of s112826
s113011.d	243406008	AMY	30-DEC-2009 14:08	935855	10-1011	4.0	LANL	REPORT-rr of s112825
s113012.d	243406003	AMY	30-DEC-2009 14:33	935855	10-1011	2.0	LANL	REPORT-rr of s112819
s113013.d	243033006	AMY	30-DEC-2009 14:57	936371	10-940	1.0	LANLRE	REPORT-RE of s612219
s113014.d	243393002	AMY	30-DEC-2009 15:21	936371	10-1005	1.0	LANL	REPORT
s113015.d	1202003530	AMY	30-DEC-2009 15:46	936371	10-1005	1.0	LANLMS	REPORT-c90 low, confirmed in MSD

s113016.d	1202003531	AMY	30-DEC-2009 16:10	936371	10-1005	1.0	LANLMSD	REPORT-c90 low, confirmed in MS
s113017.d	1202005808	AMY	30-DEC-2009 16:34	937367	10-1086	1.0	SBLK01	REPORT
s113018.d	1202005809	AMY	30-DEC-2009 16:59	937367	10-1086	1.0	SBLK01LCS	REPORT-c53 low, c94 high
s113019.d	243552016	AMY	30-DEC-2009 17:23	937367	10-1086	1.0	LANL	REPORT
s113020.d	1202005810	AMY	30-DEC-2009 17:47	937367	10-1086	1.0	LANLMS	REPORT-c2 low, confirmed by MSD
s113021.d	1202005811	AMY	30-DEC-2009 18:12	937367	10-1086	1.0	LANLMSD	REPORT-c2 low, confirmed by MS. c48 low, matrix.
s113022.d	243552017	AMY	30-DEC-2009 18:36	937367	10-1086	1.0	LANL	REPORT
s113023.d	1202003597	AMY	30-DEC-2009 19:00	937379	EUI-7448	1.0	TBLK01	PASS
s113024.d	1202005833	AMY	30-DEC-2009 19:24	937379	EUI-7448	1.0	MB	PASS
s113025.d	1202005834	AMY	30-DEC-2009 19:48	937379	EUI-7448	1.0	LCS	RR for c65 failure
s113026.d	UE091230-16	AMY	30-DEC-2009 20:12	SCREEN	all	1.0	TCLPLCS	PASS
s113027.d	243361001	AMY	30-DEC-2009 20:36	937379	EUI-7448	1.0	CARE	PASS
s113028.d	1202005835	AMY	30-DEC-2009 21:00	937379	EUI-7448	1.0	MS	PASS
s113029.d	1202005836	AMY	30-DEC-2009 21:24	937379	EUI-7448	1.0	MSD	PASS

COMPANY - WIDE NONCONFORMANCE REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
05-JAN-10	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
SEMIVOA GC/MS	SW846 8270C	Solid	LANL
Batch ID:	**Sample Numbers:**		
936371	See Below		

Potentially affected work order(s)(SDG): 243033(10-940),243393(10-1005)

Application Issues:

Failed Recovery for MS/PS

Failed Recovery for MSD/PSD

Specification and Requirements Nonconformance Description:	NRG Disposition:
1. The MS(1202003530) and MSD(1202003531) recovered 3,3'-Dichlorobenzene at 14% and 12%, respectively. The limits are 35%-106%.	1. Since the MS recovery was confirmed by the MSD, the failures were attributed to matrix interference and the data results have been reported.

Originator's Name:

Amy Carroll 05-JAN-10

Data Validator/Group Leader:

Barbara Bailey 05-JAN-10

COMPANY - WIDE NONCONFORMANCE REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
05-JAN-10	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
SEMIVOA GC/MS	SW846 8270C	Solid	LANL
Batch ID:	**Sample Numbers:**		
934979	See Below		

Potentially affected work order(s)(SDG): 243033(10-940),243083(10-944),243088(10-946)

Application Issues:

Failed Recovery for MS/PS

Failed Yield for Surrogates

Failed Recovery for MSD/PSD

Specification and Requirements Nonconformance Description:	NRG Disposition:
1. Sample 243033006 recovered 2-Fluorobiphenyl at 32%. The limits are 36%-100%.	1. The sample was re-extracted within holding in batch 936371. Since the re-extraction was within the acceptance limits for all surrogates, the re-extraction data results have been reported.
2. The MS(1202000956) and MSD(1202000957) recovered Hexachloroethane at 28% and 29%, respectively. The limits are 30%-100%.	2. As the MS and MSD displayed similar recoveries, the failures were attributed to sample matrix interference and the data have been reported.

Originator's Name:

Nathan Greene 05-JAN-10

Data Validator/Group Leader:

Barbara Bailey 05-JAN-10

GEL Laboratories LLC

Data file : /chem/MSD1.i/s123009.b/s113015.d
Lab Smp Id: 1202003530 Client Smp ID: WST12-10-8879MS
Inj Date : 30-DEC-2009 15:46
Operator : AMY Inst ID: MSD1.i
Smp Info : |1202003530|936371|1|SVM|1|LANLMS
Misc Info : |MSD8270_S|WBN091223-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD1.i/s123009.b/MSD1-M8270AQA-111409.m
Meth Date : 05-Jan-2010 10:56 amy01291 Quant Type: ISTD
Cal Date : 17-NOV-2009 17:42 Cal File: s1k1264.d
Als bottle: 14 QC Sample: MS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-1005.sub
Target Version: 3.50
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.04000	weight of sample
M	12.14330	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.763	3.763	(1.000)	859024	40.0000	
* 29 Naphthalene-d8	136	4.622	4.622	(1.000)	3382638	40.0000	
* 46 Acenaphthene-d10	164	5.869	5.869	(1.000)	1821112	40.0000	
* 67 Phenanthrene-d10	188	6.863	6.857	(1.000)	3078188	40.0000	
* 91 Chrysene-d12	240	8.492	8.486	(1.000)	2280916	40.0000	
* 98 Perylene-d12	264	9.839	9.828	(1.000)	1501613	40.0000	
$ 3 2-Fluorophenol	112	2.981	2.969	(0.792)	1494541	66.6095	2520
$ 5 Phenol-d5	99	3.504	3.499	(0.931)	1841003	67.5090	2560
$ 20 Nitrobenzene-d5	82	4.128	4.128	(0.893)	824237	36.9747	1400
$ 39 2-Fluorobiphenyl	172	5.369	5.363	(0.915)	1713155	39.2785	1490
$ 60 2,4,6-Tribromophenol	329	6.416	6.410	(1.093)	463779	91.2018	3460
$ 81 p-Terphenyl-d14	244	7.775	7.775	(0.915)	1641355	45.8438	1740

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
6 Phenol	94	3.510	3.504	(0.933)	1008688	35.1039	1330
8 2-Chlorophenol	128	3.634	3.634	(0.966)	867704	35.5305	1350
11 1,4-Dichlorobenzene	146	3.769	3.775	(1.002)	694674	24.7304	937
17 N-Nitrosodipropylamine	70	4.004	4.010	(1.064)	567590	34.6673	1310(Q)
28 1,2,4-Trichlorobenzene	180	4.575	4.575	(0.990)	704637	34.4165	1300
33 4-Chloro-3-methylphenol	107	4.992	4.981	(1.080)	744592	41.1334	1560
47 Acenaphthene	154	5.892	5.893	(1.004)	1560124	37.1428	1410
50 2,4-Dinitrotoluene	165	5.992	5.987	(1.021)	535919	32.7042	1240
52 4-Nitrophenol	139	5.951	5.934	(1.014)	305052	35.5051	1340
65 Pentachlorophenol	266	6.739	6.734	(0.982)	348009	44.7012	1690
79 Pyrene	202	7.728	7.728	(0.910)	2465716	40.6808	1540
2 Pyridine	79	2.369	2.316	(0.630)	595953	29.1247	1100
4 Aniline	66	3.551	3.557	(0.944)	321036	26.7838	1010(Q)
7 bis(2-Chloroethyl) ether	63	3.563	3.569	(0.947)	644025	32.2178	1220(Q)
9 1,3-Dichlorobenzene	146	3.728	3.728	(0.991)	695692	24.2781	920
12 Benzyl alcohol	108	3.840	3.840	(1.020)	619243	41.7042	1580
13 1,2-Dichlorobenzene	146	3.875	3.881	(1.030)	722430	27.8477	1060
14 bis(2-Chloroisopropyl)ether	45	3.904	3.910	(1.038)	1418182	29.7854	1130
15 o-Cresol	107	3.898	3.893	(1.036)	693882	38.1694	1450
18 m,p-Cresols	107	3.998	3.999	(1.063)	961640	38.8773	1470(Q)
19 Hexachloroethane	117	4.098	4.104	(1.089)	254625	25.1865	954
21 Nitrobenzene	77	4.140	4.140	(0.896)	856834	36.8904	1400
22 Isophorone	82	4.292	4.293	(0.929)	1698323	41.7967	1580
23 2-Nitrophenol	139	4.351	4.351	(0.941)	427911	34.7061	1320
24 2,4-Dimethylphenol	122	4.357	4.351	(0.943)	753700	38.1757	1450
25 bis(2-Chloroethoxy)methane	93	4.416	4.416	(0.955)	934035	35.7065	1350
26 2,4-Dichlorophenol	162	4.522	4.516	(0.978)	711333	38.3934	1450
27 Benzoic acid	105	4.463	4.428	(0.966)	1228491	90.3033	3420
30 Naphthalene	128	4.640	4.640	(1.004)	2229021	31.5739	1200(Q)
31 4-Chloroaniline	127	4.669	4.663	(1.010)	875898	27.1689	1030
32 Hexachlorobutadiene	225	4.704	4.704	(1.018)	357248	33.9813	1290
34 2-Methylnaphthalene	142	5.122	5.116	(1.108)	1645119	35.4478	1340
36 Hexachlorocyclopentadiene	237	5.222	5.222	(0.890)	207088	37.2442	1410
37 2,4,6-Trichlorophenol	196	5.316	5.310	(0.906)	536242	44.2702	1680
38 2,4,5-Trichlorophenol	196	5.351	5.340	(0.912)	567732	44.0792	1670
40 2-Chloronaphthalene	162	5.475	5.469	(0.933)	1578958	35.1208	1330
42 o-Nitroaniline	65	5.539	5.534	(0.944)	506137	36.3083	1380
41 m-Nitroaniline	138	5.834	5.834	(0.994)	347448	28.2074	1070
43 Dimethylphthalate	163	5.639	5.646	(0.961)	1853187	37.3454	1420
44 2,6-Dinitrotoluene	165	5.698	5.698	(0.971)	421966	34.1299	1290
45 Acenaphthylene	152	5.775	5.769	(0.984)	2621398	37.3659	1420
48 2,4-Dinitrophenol	184	5.904	5.898	(1.006)	146612	30.0442	1140(Q)
49 Dibenzofuran	168	6.010	6.010	(1.024)	2679005	44.1032	1670
51 Diethylphthalate	149	6.128	6.128	(1.044)	1866709	40.3496	1530
53 Fluorene	166	6.251	6.245	(1.065)	1809277	36.9405	1400
54 4-Chlorophenylphenylether	204	6.228	6.228	(1.061)	852114	41.2069	1560
55 2-Methyl-4,6-dinitrophenol	198	6.275	6.269	(0.914)	215735	27.7025	1050

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
56	p-Nitroaniline	138	6.263	6.257	(1.067)	335056	27.8156	1050
133	Diphenylamine	169	6.310	6.304	(0.919)	1513105	36.8525	1400
58	1,2-Diphenylhydrazine	77	6.339	6.334	(0.924)	1889855	37.7245	1430
61	4-Bromophenylphenylether	248	6.557	6.551	(0.955)	490899	46.4169	1760
63	Hexachlorobenzene	284	6.616	6.610	(0.964)	538944	41.5167	1570
68	Phenanthrene	178	6.881	6.875	(1.003)	2567103	36.6968	1390
69	Anthracene	178	6.910	6.904	(1.007)	2479886	34.8582	1320
72	Di-n-butylphthalate	149	7.157	7.151	(1.043)	3162768	41.6805	1580
76	Fluoranthene	202	7.592	7.587	(1.106)	2451523	36.3055	1380
85	Butylbenzylphthalate	149	8.033	8.028	(0.946)	1265498	45.8791	1740
89	Benzo(a)anthracene	228	8.480	8.475	(0.999)	2012567	36.7972	1390
90	3,3'-Dichlorobenzidine	252	8.433	8.422	(0.993)	107293	6.83210	259(aR)
92	Chrysene	228	8.510	8.504	(1.002)	1736324	33.9661	1290
93	bis(2-Ethylhexyl)phthalate	149	8.369	8.363	(0.985)	1732729	43.2392	1640
94	Di-n-octylphthalate	149	8.857	8.851	(0.900)	2806404	57.1323	2160
95	Benzo(b)fluoranthene	252	9.410	9.398	(0.956)	1500436	39.4357	1490
96	Benzo(k)fluoranthene	252	9.433	9.428	(0.959)	1566455	41.6035	1580
97	Benzo(a)pyrene	252	9.774	9.763	(0.993)	1235883	37.6725	1430
99	Indeno(1,2,3-cd)pyrene	276	11.321	11.310	(1.151)	850846	24.8438	941
100	Dibenzo(a,h)anthracene	278	11.321	11.310	(1.151)	750756	26.3063	997
101	Benzo(ghi)perylene	276	11.786	11.775	(1.198)	655267	23.2223	880
1	N-Methyl-N-nitrosomethylamine	74	2.328	2.281	(0.619)	455693	37.3973	1420

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
R - Spike/Surrogate failed recovery limits.

Data File: /chem/MSD1.i/s123009.b/s13015.d
Date : 30-DEC-2009 15:46
Client ID: WST12-10-8879MS
Sample Info: 1120200353019363711115VH111LANLMS
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD1.i
Operator: AHY
Column diameter: 0.20

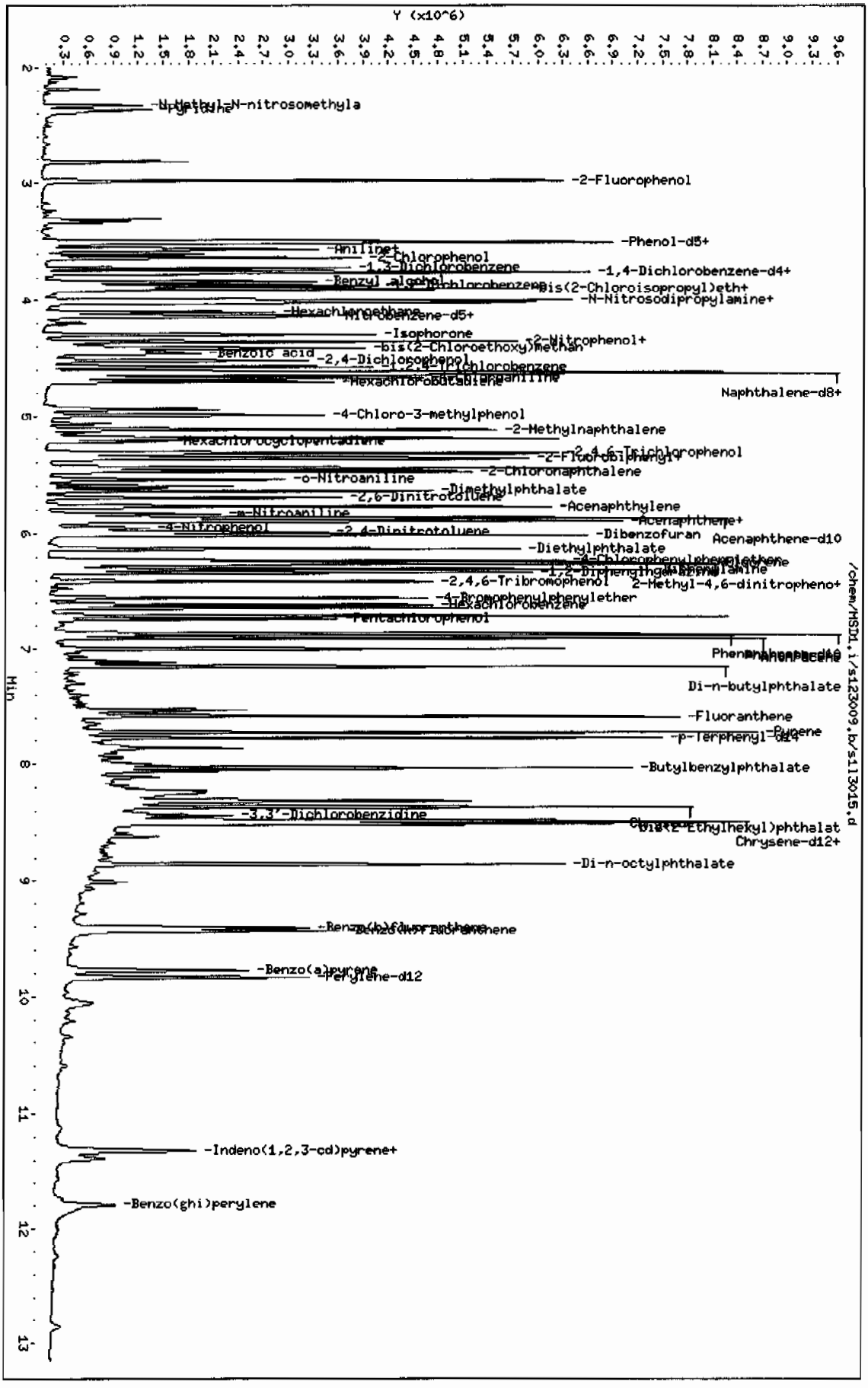

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GEL Laboratories LLC

Data file : /chem/MSD1.i/s123009.b/s113016.d
Lab Smp Id: 1202003531 Client Smp ID: WST12-10-8879MSD
Inj Date : 30-DEC-2009 16:10
Operator : AMY Inst ID: MSD1.i
Smp Info : |1202003531|936371|1|SVM|1|LANLMSD
Misc Info : |MSD8270_S|WBN091223-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD1.i/s123009.b/MSD1-M8270AQA-111409.m
Meth Date : 05-Jan-2010 10:56 amy01291 Quant Type: ISTD
Cal Date : 17-NOV-2009 17:42 Cal File: s1k1264.d
Als bottle: 15 QC Sample: MSD
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-1005.sub
Target Version: 3.50
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.01000	weight of sample
M	12.14330	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.763	3.763	(1.000)	742301	40.0000	
* 29 Naphthalene-d8	136	4.628	4.622	(1.000)	2943063	40.0000	
* 46 Acenaphthene-d10	164	5.869	5.869	(1.000)	1537840	40.0000	
* 67 Phenanthrene-d10	188	6.863	6.857	(1.000)	2581107	40.0000	
* 91 Chrysene-d12	240	8.486	8.486	(1.000)	2028626	40.0000	
* 98 Perylene-d12	264	9.839	9.828	(1.000)	1417722	40.0000	
$ 3 2-Fluorophenol	112	2.975	2.969	(0.791)	1294834	66.7832	2530
$ 5 Phenol-d5	99	3.504	3.499	(0.931)	1591143	67.5214	2560
$ 20 Nitrobenzene-d5	82	4.128	4.128	(0.892)	710906	36.6540	1390
$ 39 2-Fluorobiphenyl	172	5.363	5.363	(0.914)	1433246	38.9139	1480
$ 60 2,4,6-Tribromophenol	329	6.416	6.410	(1.093)	387439	90.2238	3420
$ 81 p-Terphenyl-d14	244	7.775	7.775	(0.916)	1417736	44.5226	1690

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
6 Phenol	94	3.510	3.504	(0.933)	882796	35.5537	1350
8 2-Chlorophenol	128	3.634	3.634	(0.966)	756236	35.8354	1360
11 1,4-Dichlorobenzene	146	3.775	3.775	(1.003)	634411	26.1364	991
17 N-Nitrosodipropylamine	70	4.004	4.010	(1.064)	485949	34.3480	1300(Q)
28 1,2,4-Trichlorobenzene	180	4.575	4.575	(0.989)	621058	34.8650	1320
33 4-Chloro-3-methylphenol	107	4.992	4.981	(1.079)	627390	39.8355	1510
47 Acenaphthene	154	5.892	5.893	(1.004)	1306742	36.8409	1400
50 2,4-Dinitrotoluene	165	5.992	5.987	(1.021)	449005	32.4475	1230
52 4-Nitrophenol	139	5.957	5.934	(1.015)	251575	34.6745	1320
65 Pentachlorophenol	266	6.739	6.734	(0.982)	293090	44.8972	1700
79 Pyrene	202	7.728	7.728	(0.911)	2149217	39.8689	1510
2 Pyridine	79	2.351	2.316	(0.625)	495822	28.0415	1060
4 Aniline	66	3.557	3.557	(0.945)	270309	26.0978	990(Q)
7 bis(2-Chloroethyl) ether	63	3.569	3.569	(0.948)	564599	32.6857	1240(Q)
9 1,3-Dichlorobenzene	146	3.728	3.728	(0.991)	633404	25.5802	970
12 Benzyl alcohol	108	3.840	3.840	(1.020)	539568	42.0524	1590
13 1,2-Dichlorobenzene	146	3.875	3.881	(1.030)	644876	28.7671	1090
14 bis(2-Chloroisopropyl)ether	45	3.910	3.910	(1.039)	1269721	30.8607	1170
15 o-Cresol	107	3.904	3.893	(1.038)	588036	37.4334	1420
18 m,p-Cresols	107	3.998	3.999	(1.063)	825658	38.6286	1460
19 Hexachloroethane	117	4.098	4.104	(1.089)	226161	25.8887	982
21 Nitrobenzene	77	4.140	4.140	(0.894)	749619	37.0948	1410
22 Isophorone	82	4.292	4.293	(0.928)	1442515	40.8036	1550
23 2-Nitrophenol	139	4.351	4.351	(0.940)	379855	35.4101	1340
24 2,4-Dimethylphenol	122	4.357	4.351	(0.942)	636124	37.0328	1400
25 bis(2-Chloroethoxy)methane	93	4.416	4.416	(0.954)	801247	35.2052	1340
26 2,4-Dichlorophenol	162	4.522	4.516	(0.977)	592760	36.7721	1390
27 Benzoic acid	105	4.457	4.428	(0.963)	1001968	84.6528	3210
30 Naphthalene	128	4.640	4.640	(1.003)	1979076	32.2205	1220(Q)
31 4-Chloroaniline	127	4.669	4.663	(1.009)	749946	26.7364	1010
32 Hexachlorobutadiene	225	4.704	4.704	(1.017)	319887	34.9722	1330
34 2-Methylnaphthalene	142	5.122	5.116	(1.107)	1407508	34.8577	1320
36 Hexachlorocyclopentadiene	237	5.222	5.222	(0.890)	174911	37.2517	1410
37 2,4,6-Trichlorophenol	196	5.316	5.310	(0.906)	428022	41.8448	1590
38 2,4,5-Trichlorophenol	196	5.351	5.340	(0.912)	487716	44.8418	1700
40 2-Chloronaphthalene	162	5.475	5.469	(0.933)	1337418	35.2278	1340
42 o-Nitroaniline	65	5.539	5.534	(0.944)	424207	36.0364	1370
41 m-Nitroaniline	138	5.834	5.834	(0.994)	279343	26.8557	1020
43 Dimethylphthalate	163	5.639	5.646	(0.961)	1556286	37.1392	1410
44 2,6-Dinitrotoluene	165	5.698	5.698	(0.971)	349275	33.4542	1270
45 Acenaphthylene	152	5.775	5.769	(0.984)	2213209	37.3586	1420
48 2,4-Dinitrophenol	184	5.904	5.898	(1.006)	116971	28.3854	1080(Q)
49 Dibenzofuran	168	6.010	6.010	(1.024)	2232999	43.5322	1650
51 Diethylphthalate	149	6.128	6.128	(1.044)	1566477	40.0970	1520
53 Fluorene	166	6.251	6.245	(1.065)	1533684	37.0817	1410
54 4-Chlorophenylphenylether	204	6.228	6.228	(1.061)	713572	40.8635	1550
55 2-Methyl-4,6-dinitrophenol	198	6.275	6.269	(0.914)	178512	27.3373	1040

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
56 p-Nitroaniline	138	6.263	6.257	(1.067)	264268	25.9802	985
133 Diphenylamine	169	6.310	6.304	(0.919)	1275425	37.0461	1400
58 1,2-Diphenylhydrazine	77	6.339	6.334	(0.924)	1592169	37.9030	1440
61 4-Bromophenylphenylether	248	6.557	6.551	(0.955)	413111	46.5843	1770
63 Hexachlorobenzene	284	6.616	6.610	(0.964)	457403	42.0211	1590
68 Phenanthrene	178	6.881	6.875	(1.003)	2147180	36.6052	1390
69 Anthracene	178	6.910	6.904	(1.007)	2098950	35.1855	1330
72 Di-n-butylphthalate	149	7.157	7.151	(1.043)	2634270	41.4014	1570
76 Fluoranthene	202	7.592	7.587	(1.106)	2103137	37.1444	1410
85 Butylbenzylphthalate	149	8.033	8.028	(0.947)	1102315	44.9331	1700
89 Benzo(a)anthracene	228	8.480	8.475	(0.999)	1716992	35.2972	1340
90 3,3'-Dichlorobenzidine	252	8.433	8.422	(0.994)	86832	6.21684	236(aR)
92 Chrysene	228	8.510	8.504	(1.003)	1607498	35.3568	1340
93 bis(2-Ethylhexyl)phthalate	149	8.369	8.363	(0.986)	1519580	42.6361	1620
94 Di-n-octylphthalate	149	8.857	8.851	(0.900)	2496641	53.8338	2040
95 Benzo(b)fluoranthene	252	9.410	9.398	(0.956)	1429312	39.7654	1510
96 Benzo(k)fluoranthene	252	9.433	9.428	(0.959)	1445438	40.6610	1540
97 Benzo(a)pyrene	252	9.774	9.763	(0.993)	1144805	36.9582	1400
99 Indeno(1,2,3-cd)pyrene	276	11.327	11.310	(1.151)	852321	26.3861	1000
100 Dibenzo(a,h)anthracene	278	11.321	11.310	(1.151)	747021	27.7339	1050
101 Benzo(ghi)perylene	276	11.792	11.775	(1.198)	652221	24.4821	928
1 N-Methyl-N-nitrosomethylamine	74	2.310	2.281	(0.614)	376137	35.7222	1350

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
R - Spike/Surrogate failed recovery limits.

Data File: /chem/MSD1.i/s123009.b/s113016.d
Date : 30-DEC-2009 16:10
Client ID: WST12-10-8879MSD
Sample Info: 1120200353119363711|SVM11|LANLMSD
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD1.i
Operator: AMY
Column diameter: 0.20

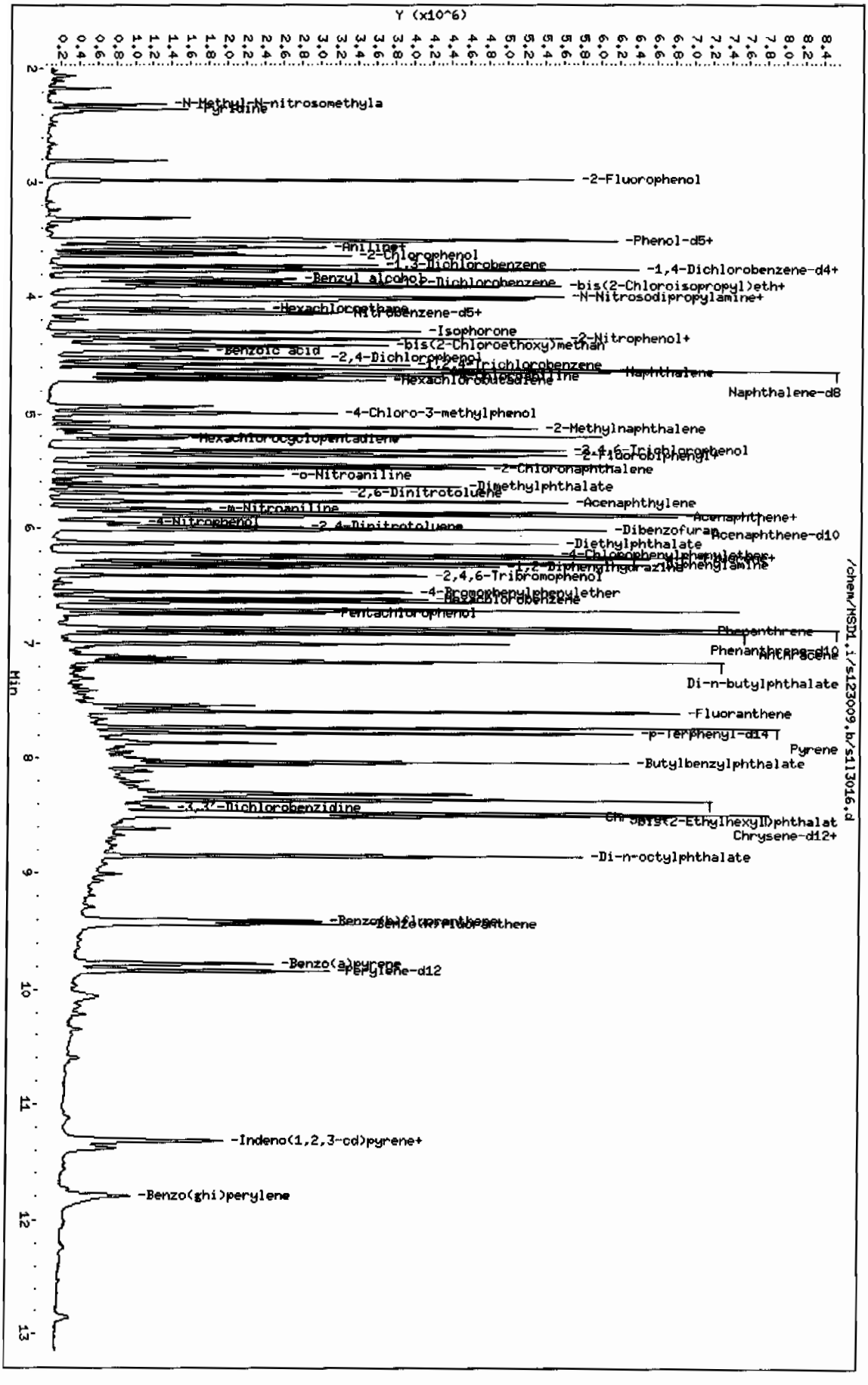

Page 1

GC SEMIVOLATILE DRO ANALYSIS

DRO Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-940

Method/Analysis Information

Procedure:	**Analysis of Diesel Range Organics by Flame Ionization Detector**
Analytical Method:	SW846 8015A/B SVOC
Prep Method:	SW846 3550B
Analytical Batch Number:	934477
Prep Batch Number:	934475

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 8015A/B SVOC:

Sample ID	Client ID
243033001	RE03-09-14221
243033002	RE03-09-14211
243033003	RE03-09-14210
243033004	RE03-09-14209
243033005	RE03-09-14208
243033006	RE03-09-14222
243033007	RE03-09-14223
243033008	RE03-09-14220
243033009	RE03-10-2734
1201999297	Method Blank (MB)
1201999298	Laboratory Control Sample (LCS)
1201999299	243033001(RE03-09-14221) Matrix Spike (MS)
1201999300	243033001(RE03-09-14221) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on a "dry weight" basis.

Preparation/Analytical Method Verification

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-003 REV# 18.

Raw data reports are processed and reviewed by the analyst using the Target software package. False positives have

been removed from the Target quantitation reports per standard operating procedures (SOP) section 23.0.

Calibration Information

Initial Calibration
All initial calibration requirements have been met for this sample delivery group (SDG).

The linear equation used in Target and indicated on the initial calibration summary form is not a conventional linear equation (slope intercept formula) and does not match the equation found in SW-846 method 8000B. The x and y axes are inversed in Target, so that the instrument response is treated as the independent variable (x) and the concentration ratio is treated as the dependent variable (y). The equation used in Target to calculate sample results is adjusted to account for the linear equation inversion and reciprocal slope. The adjusted calculation has been independently verified to produce valid results.

Continuing Calibration Verification (CCV) Requirements
All associated calibration verification standard(s) (ICV or CCV) met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Surrogate Recoveries
All surrogate recoveries were within the established acceptance criteria for this SDG.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

QC Sample Designation
Sample 243033001 (RE03-09-14221) was selected for the matrix spike and matrix spike duplicate analysis.

Matrix Spike (MS) Recovery Statement
The MS recovery was within the established acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recovery was within the established acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD between the MS and MSD met the acceptance limits.

Technical Information

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-extraction/Re-analysis
Re-extractions or re-analyses were not required in this SDG.

Miscellaneous Information

Electronic Package Comment

The following package was generated using an electronic data processing program referred to as "virtual packaging". In an effort to increase quality and efficiency, the laboratory is developing systems to eventually generate all data packages electronically. The following change from "traditional" packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. An electronic signature page inserted after the case narrative of each electronic package will indicate the analyst, reviewer, and report specialist names associated with the generation of the data and package. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Nonconformance (NCR) Documentation

Nonconformance report (NCR) is for documentation of any procedural anomalies that may deviate from referenced SOP or contractual document. A NCR was not required for this SDG.

Manual Integration

Certain standards and QC samples may have required manual integration to correctly position the baseline as set in the calibration standard injections. If manual integration was performed, copies of all manual integration peak profiles are included in the raw data section of this fraction.

Additional Comments

The additional comments field is used to address special issues associated with each analysis, clarify method/contractual issues pertaining to the analysis, and to list any report documents generated as a result of sample analysis or review. The following additional comments were required:

Due to software limitation, the Form VIIs will display the results either in the % difference or % drift depending on the type of the calibration curve. If the curve of all analytes is generated using an average response factor (RF), the Form VII will display results using the difference calculation (RF). If the curve of one or more analytes is generated using a linear curve, the Form VII will display results using the % drift calculation (by concentration) for all analytes.

System Configuration

The GC-FID analysis was performed on the following instrument configuration:

Instrument ID	Instrument	System Configuration	Column ID	Column Description
FID7.I	Agilent GC FID	Agilent 6890N GC/FID	DB-5MS	30m x 0.25mm, 0.25um(J&W)

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Jimmi Cao **Date:** 1/11/10

Roadmap for LANL 10-940 DRO

This roadmap was analyzed by kev01577 on 12-22-2009, 00:42.
This roadmap was reviewed by jcb on 12-28-2009, 10:40.
This roadmap was packaged by yml on 01-08-2010, 10:54.

Sample

exclude	manual	datafile	smpid	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/fid7.i/122109dr/008f0801.d	243033001	21-DEC-2009	15:37	10-940.sub	RE03-09-14221	1.00000	934477	
☐	N	/chem/fid7.i/122109dr/011f1101.d	243033002	21-DEC-2009	17:27	10-940.sub	RE03-09-14211	1.00000	934477	
☐	N	/chem/fid7.i/122109dr/014f1401.d	243033003	21-DEC-2009	19:17	10-940.sub	RE03-09-14210	1.00000	934477	
☐	N	/chem/fid7.i/122109dr/015f1501.d	243033004	21-DEC-2009	19:54	10-940.sub	RE03-09-14209	1.00000	934477	
☐	N	/chem/fid7.i/122109dr/016f1601.d	243033005	21-DEC-2009	20:30	10-940.sub	RE03-09-14208	1.00000	934477	
☐	N	/chem/fid7.i/122109dr/017f1701.d	243033006	21-DEC-2009	21:07	10-940.sub	RE03-09-14222	1.00000	934477	
☐	N	/chem/fid7.i/122109dr/018f1801.d	243033007	21-DEC-2009	21:43	10-940.sub	RE03-09-14223	1.00000	934477	
☐	N	/chem/fid7.i/122109dr/019f1901.d	243033008	21-DEC-2009	22:20	10-940.sub	RE03-09-14220	1.00000	934477	
☐	N	/chem/fid7.i/122109dr/020f2001.d	243033009	21-DEC-2009	22:57	10-940.sub	RE03-10-2734	1.00000	934477	

QC Sample

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/fid7.i/122109dr/005f0501a.d	1201999297	mb	21-DEC-2009	13:46	10-940.sub	DBLK01	1.00000	934477	
☐	N	/chem/fid7.i/122109dr/006f0601a.d	1201999298	lcs	21-DEC-2009	14:23	10-940.sub	DBLK01LCS	1.00000	934477	
☐	N	/chem/fid7.i/122109dr/009f0901.d	1201999299	ms	21-DEC-2009	16:14	10-940.sub	RE03-09-14221MS	1.00000	934477	
☐	N	/chem/fid7.i/122109dr/010f1001.d	1201999300	msd	21-DEC-2009	16:51	10-940.sub	RE03-09-14221MSD	1.00000	934477	

SAMPLE DATA SUMMARY

Flame Ionization Detector
Certificate of Analysis
Sample Summary

SDG Number:	10-940	Date Collected:	12/14/2009 12:00	Matrix:	S
Lab Sample ID:	243033001	Date Received:	12/16/2009 09:10	%Moisture:	14.8
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14221	Method:	SW846 8015A/B SVOC	SOP Ref:	GL-OA-E-003
Batch ID:	934477	Inst:	FID7.I	Dilution:	1
Run Date:	12/21/2009 15:37	Analyst:	KXR2	Inj. Vol:	1 uL
Prep Date:	12/18/2009 19:50	Aliquot:	30.09 g	Final Volume:	1 mL
Data File:	008f0801.d	Column:	DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics	J	6.01	mg/kg	2.53	7.80

Flame Ionization Detector
Certificate of Analysis
Sample Summary

SDG Number:	10-940	Date Collected:	12/14/2009 12:00	Matrix:	S
Lab Sample ID:	243033002	Date Received:	12/16/2009 09:10	%Moisture:	14.3
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14211	Method:	SW846 8015A/B SVOC	SOP Ref:	GL-OA-E-003
Batch ID:	934477	Inst:	FID7.I	Dilution:	1
Run Date:	12/21/2009 17:27	Analyst:	KXR2	Inj. Vol:	1 uL
Prep Date:	12/18/2009 19:50	Aliquot:	30.02 g	Final Volume:	1 mL
Data File:	011f1101.d	Column:	DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics	U	7.78	mg/kg	2.53	7.78

Flame Ionization Detector
Certificate of Analysis
Sample Summary

SDG Number:	10-940	Date Collected:	12/14/2009 12:00	Matrix:	S
Lab Sample ID:	243033003	Date Received:	12/16/2009 09:10	%Moisture:	13.6
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14210	Method:	SW846 8015A/B SVOC	SOP Ref:	GL-OA-E-003
Batch ID:	934477	Inst:	FID7.I	Dilution:	1
Run Date:	12/21/2009 19:17	Analyst:	KXR2	Inj. Vol:	1 uL
Prep Date:	12/18/2009 19:50	Aliquot:	30.08 g	Final Volume:	1 mL
Data File:	014f1401.d	Column:	DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics	U	7.70	mg/kg	2.50	7.70

Flame Ionization Detector
Certificate of Analysis
Sample Summary

SDG Number:	10-940	Date Collected:	12/14/2009 12:00	Matrix:	S
Lab Sample ID:	243033004	Date Received:	12/16/2009 09:10	%Moisture:	11.6
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14209	Method:	SW846 8015A/B SVOC	SOP Ref:	GL-OA-E-003
Batch ID:	934477	Inst:	FID7.I	Dilution:	1
Run Date:	12/21/2009 19:54	Analyst:	KXR2	Inj. Vol:	1 uL
Prep Date:	12/18/2009 19:50	Aliquot:	30.18 g	Final Volume:	1 mL
Data File:	015f1501.d	Column:	DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics	U	7.49	mg/kg	2.44	7.49

Flame Ionization Detector
Certificate of Analysis
Sample Summary

SDG Number:	10-940	Date Collected:	12/14/2009 12:00	Matrix:	S
Lab Sample ID:	243033005	Date Received:	12/16/2009 09:10	%Moisture:	12.8
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14208	Method:	SW846 8015A/B SVOC	SOP Ref:	GL-OA-E-003
Batch ID:	934477	Inst:	FID7.I	Dilution:	1
Run Date:	12/21/2009 20:30	Analyst:	KXR2	Inj. Vol:	1 uL
Prep Date:	12/18/2009 19:50	Aliquot:	30.15 g	Final Volume:	1 mL
Data File:	016f1601.d	Column:	DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics	U	7.61	mg/kg	2.47	7.61

Flame Ionization Detector
Certificate of Analysis
Sample Summary

SDG Number:	**10-940**	**Date Collected:**	**12/14/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243033006**	**Date Received:**	**12/16/2009 09:10**	**%Moisture:**	**19.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14222**	**Method:**	**SW846 8015A/B SVOC**	**SOP Ref:**	**GL-OA-E-003**
Batch ID:	**934477**	**Inst:**	**FID7.I**	**Dilution:**	**1**
Run Date:	**12/21/2009 21:07**	**Analyst:**	**KXR2**	**Inj. Vol:**	**1 uL**
Prep Date:	**12/18/2009 19:50**	**Aliquot:**	**30.18 g**	**Final Volume:**	**1 mL**
Data File:	**017f1701.d**	**Column:**	**DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics	J	3.54	mg/kg	2.67	8.23

Flame Ionization Detector
Certificate of Analysis
Sample Summary

SDG Number:	10–940	Date Collected:	12/14/2009 12:00	Matrix:	S
Lab Sample ID:	243033007	Date Received:	12/16/2009 09:10	%Moisture:	10.8
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03–09–14223	Method:	SW846 8015A/B SVOC	SOP Ref:	GL–OA–E–003
Batch ID:	934477	Inst:	FID7.I	Dilution:	1
Run Date:	12/21/2009 21:43	Analyst:	KXR2	Inj. Vol:	1 uL
Prep Date:	12/18/2009 19:50	Aliquot:	30.19 g	Final Volume:	1 mL
Data File:	018f1801.d	Column:	DB–5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics	J	3.31	mg/kg	2.41	7.43

Flame Ionization Detector
Certificate of Analysis
Sample Summary

SDG Number:	10–940	Date Collected:	12/14/2009 12:00	Matrix:	S
Lab Sample ID:	243033008	Date Received:	12/16/2009 09:10	%Moisture:	15.6
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03–09–14220	Method:	SW846 8015A/B SVOC	SOP Ref:	GL–OA–E–003
Batch ID:	934477	Inst:	FID7.I	Dilution:	1
Run Date:	12/21/2009 22:20	Analyst:	KXR2	Inj. Vol:	1 uL
Prep Date:	12/18/2009 19:50	Aliquot:	30.17 g	Final Volume:	1 mL
Data File:	019f1901.d	Column:	DB–5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics		20.1	mg/kg	2.55	7.85

Flame Ionization Detector
Certificate of Analysis
Sample Summary

SDG Number:	10-940	Date Collected:	12/14/2009 12:00	Matrix:	S
Lab Sample ID:	243033009	Date Received:	12/16/2009 09:10	%Moisture:	19.3
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-10-2734	Method:	SW846 8015A/B SVOC	SOP Ref:	GL-OA-E-003
Batch ID:	934477	Inst:	FID7.I	Dilution:	1
Run Date:	12/21/2009 22:57	Analyst:	KXR2	Inj. Vol:	1 uL
Prep Date:	12/18/2009 19:50	Aliquot:	30.01 g	Final Volume:	1 mL
Data File:	020f2001.d	Column:	DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics	U	8.26	mg/kg	2.69	8.26

QUALITY CONTROL SUMMARY

Flame Ionization Detector

Surrogate Recovery Report

SDG Number: 10–940

Matrix Type: SOLID

CAP Column (1) : DB–5MS

Sample ID	Client ID	OTP %REC
1201999297	MB for batch 934475	51
1201999298	LCS for batch 934475	84
243033001	RE03–09–14221	58
1201999299	RE03–09–14221MS	81
1201999300	RE03–09–14221MSD	84
243033002	RE03–09–14211	48
243033003	RE03–09–14210	43
243033004	RE03–09–14209	52
243033005	RE03–09–14208	50
243033006	RE03–09–14222	53
243033007	RE03–09–14223	58
243033008	RE03–09–14220	64
243033009	RE03–10–2734	49

Surrogate	Acceptance Limits
OTP = o–Terphenyl	(24%–124%)

* Recovery outside Acceptance Limits

\# Column to be used to flag recovery values

D Sample Diluted

Flame Ionization Detector

Quality Control Summary

Spike Recovery Report

SDG Number: 10–940 **Sample Type:** Laboratory Control Sample

Client ID: LCS for batch 934475 **Matrix:** SOIL

Lab Sample ID: 1201999298

Instrument: FID7.I **Analysis Date:** 12/21/2009 14:23 **Dilution:** 1

Analyst: KXR2 **Prep Batch ID** 934475

Inj. Vol: 1 uL **Batch ID:** 934477

CAS No		Parmname	Amount Added mg/kg	Sample Conc. mg/kg	Spike Conc. mg/kg	Recovery %	Acceptance Limits
DRO	LCS	Diesel Range Organics	33.3	0.0	26.4	79	53–114

Flame Ionization Detector
Quality Control Summary
Spike Recovery Report

SDG Number:	**10-940**	**Sample Type:**	**Matrix Spike**
Client ID:	**RE03-09-14221MS**	**Matrix:**	**S**
Lab Sample ID:	**1201999299**	**%Moisture:**	**14.8**
Instrument:	**FID7.I**	**Analysis Date:**	**12/21/2009 16:14**
Analyst:	**KXR2**	**Prep Batch ID:**	**934475**
Inj. Vol:	**1 uL**	**Batch ID:**	**934477**

Dilution: 1

CAS No		Parmname	Amount Added mg/kg	Sample Conc. mg/kg		Spike Conc. mg/kg	Recovery %	Acceptance Limits
DRO	MS	Diesel Range Organics	39.1	6.01	J	36.2	77	21-122

Flame Ionization Detector

Quality Control Summary

Spike Recovery Report

SDG Number:	**10-940**	**Sample Type:**	**Matrix Spike Duplicate**
Client ID:	**RE03-09-14221MSD**	**Matrix:**	**S**
Lab Sample ID:	**1201999300**	**%Moisture:**	**14.8**
Instrument:	**FID7.I**	**Analysis Date:**	**12/21/2009 16:51**
Analyst:	**KXR2**	**Prep Batch ID**	**934475**
Inj. Vol:	**1 uL**	**Batch ID:**	**934477**

Dilution: 1

CAS No	Parmname	Amount Added mg/kg	Sample Conc. mg/kg		Spike Conc. mg/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
DRO	MSD Diesel Range Organics	38.9	6.01	J	46.4	104	21-122	25	0-30

Method Blank Summary

SDG Number:	10-940	Client:	LANL010	Matrix:	SOIL
Client ID:	MB for batch 934475	Instrument ID:	FID7.I	Data File:	005f0501.d
Lab Sample ID:	1201999297	Prep Date:	12/18/2009 19:50	Analyzed:	12/21/09 13:46
Column:	DB-5MS	Level:	LOW		

This method blank applies to the following samples and quality control samples:

	Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01	LCS for batch 934475	1201999298	006f0601.d	12/21/09	1423
02	RE03-09-14221	243033001	008f0801.d	12/21/09	1537
03	RE03-09-14221MS	1201999299	009f0901.d	12/21/09	1614
04	RE03-09-14221MSD	1201999300	010f1001.d	12/21/09	1651
05	RE03-09-14211	243033002	011f1101.d	12/21/09	1727
06	RE03-09-14210	243033003	014f1401.d	12/21/09	1917
07	RE03-09-14209	243033004	015f1501.d	12/21/09	1954
08	RE03-09-14208	243033005	016f1601.d	12/21/09	2030
09	RE03-09-14222	243033006	017f1701.d	12/21/09	2107
10	RE03-09-14223	243033007	018f1801.d	12/21/09	2143
11	RE03-09-14220	243033008	019f1901.d	12/21/09	2220
12	RE03-10-2734	243033009	020f2001.d	12/21/09	2257

SAMPLE
DATA

Flame Ionization Detector
Certificate of Analysis
Sample Summary

SDG Number:	10–940	Date Collected:	12/14/2009 12:00	Matrix:	S
Lab Sample ID:	243033001	Date Received:	12/16/2009 09:10	%Moisture:	14.8
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03–09–14221	Method:	SW846 8015A/B SVOC	SOP Ref:	GL–OA–E–003
Batch ID:	934477	Inst:	FID7.I	Dilution:	1
Run Date:	12/21/2009 15:37	Analyst:	KXR2	Inj. Vol:	1 uL
Prep Date:	12/18/2009 19:50	Aliquot:	30.09 g	Final Volume:	1 mL
Data File:	008f0801.d	Column:	DB–5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics	J	6.01	mg/kg	2.53	7.80

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DB-5MS .25mm

Data file : /chem/fid7.i/122109dr/008f0801.d
Lab Smp Id: 243033001 Client Smp ID: RE03-09-14221
Inj Date : 21-DEC-2009 15:37
Operator : KXR2 Inst ID: fid7.i
Smp Info : |243033001|1|
Misc Info : |FIDDRO_S|934477|FIDF|LANL|
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fid7.i/122109dr/FID7a.i_b_DRO_121309.m
Meth Date : 22-Dec-2009 00:16 kev01577 Quant Type: ESTD
Cal Date : 13-DEC-2009 18:58 Cal File: 007f0701.d
Als bottle: 8
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-940.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.09000	Weigth of sample extracted (g)
M	14.77230	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (mg/L)	FINAL (mg/Kg)	
S 1 Diesel Range Organics					CAS #:	
7.480- 17.855			2066849	154.045	6.0	(a)
$ 2 o-Terphenyl					CAS #: 84-15-1	
13.592	13.595	-0.003	304747	11.5590	0.45	(M)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

Data File: /chem/fid7.i/122109dr/008f0801.d
Date : 21-DEC-2009 16:37
Client ID: RE03-09-14221
Sample Info: 1243033001|1|
Volume Injected (uL): 1.0
Column phase: DB-5MS

Instrument: fid7.i
Operator: KXR2
Column diameter: 0.25

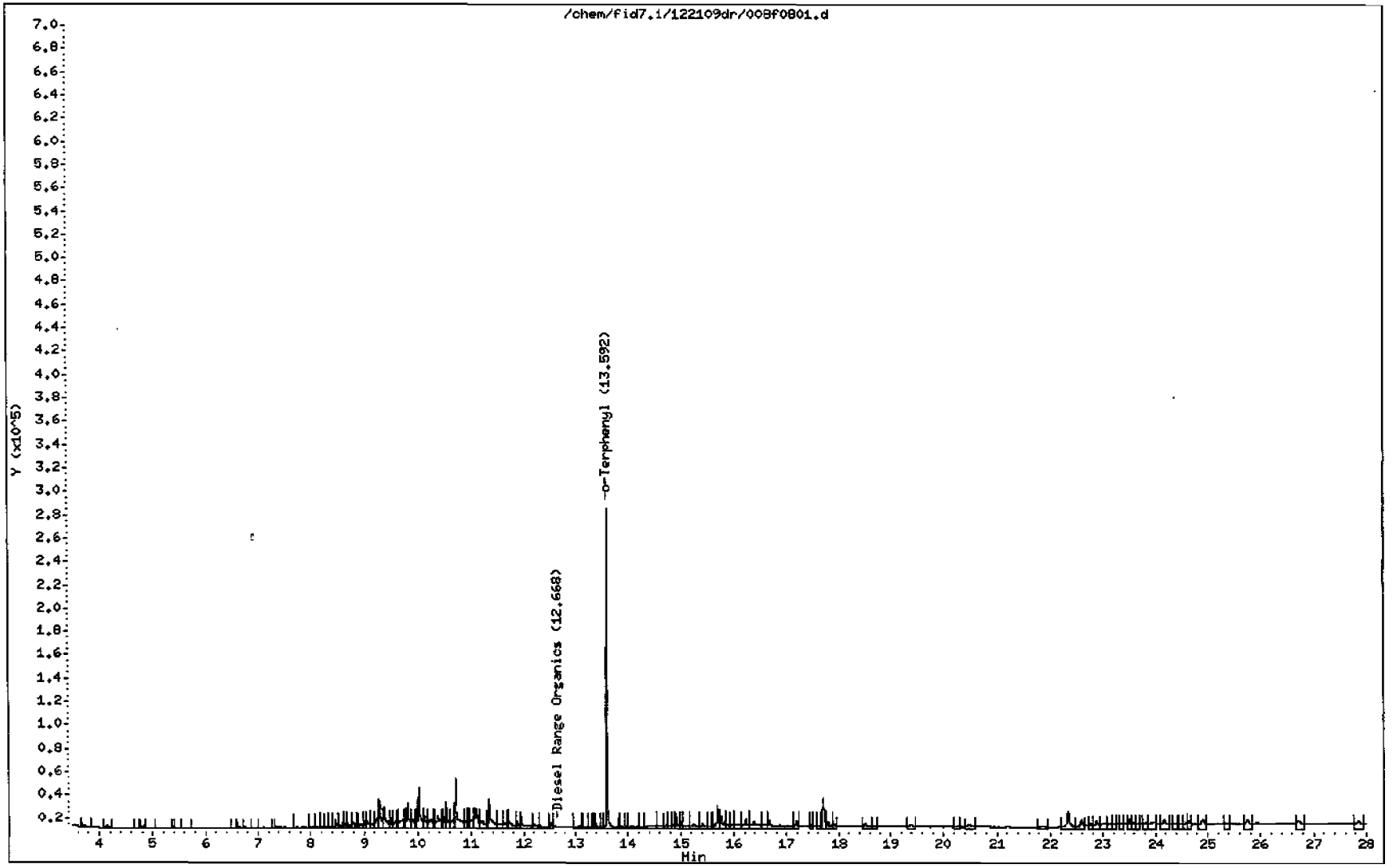

Data File: /chem/fid7.i/122109dr/008f0801.d
Injection Date: 21-DEC-2009 15:37
Instrument: fid7.i
Client Sample ID: RE03-09-14221

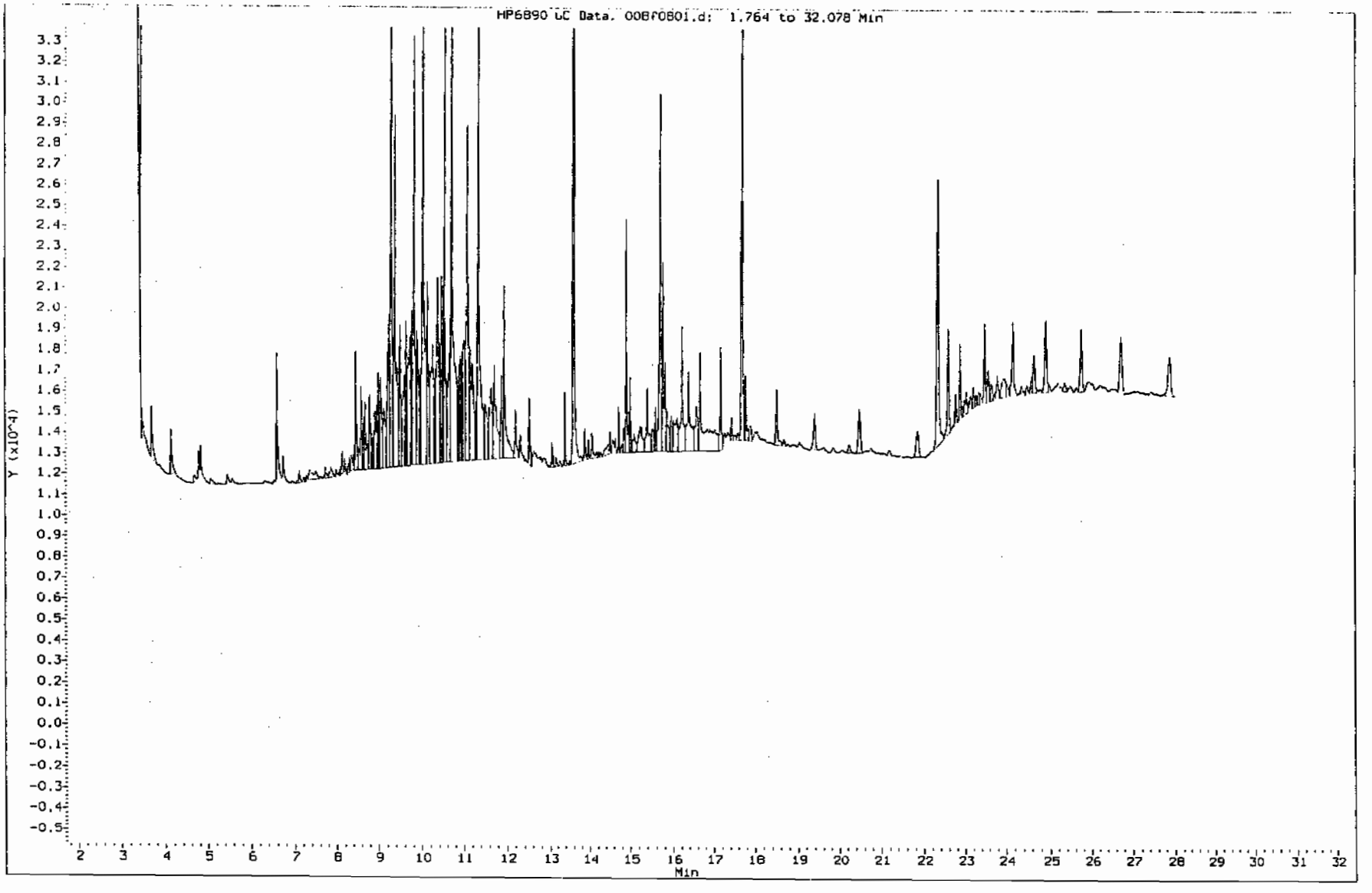

Data File: /chem/fid7.i/122109dr/008f0801.d
Injection Date: 21-DEC-2009 15:37
Instrument: fid7.i
Client Sample ID: RE03-09-14221

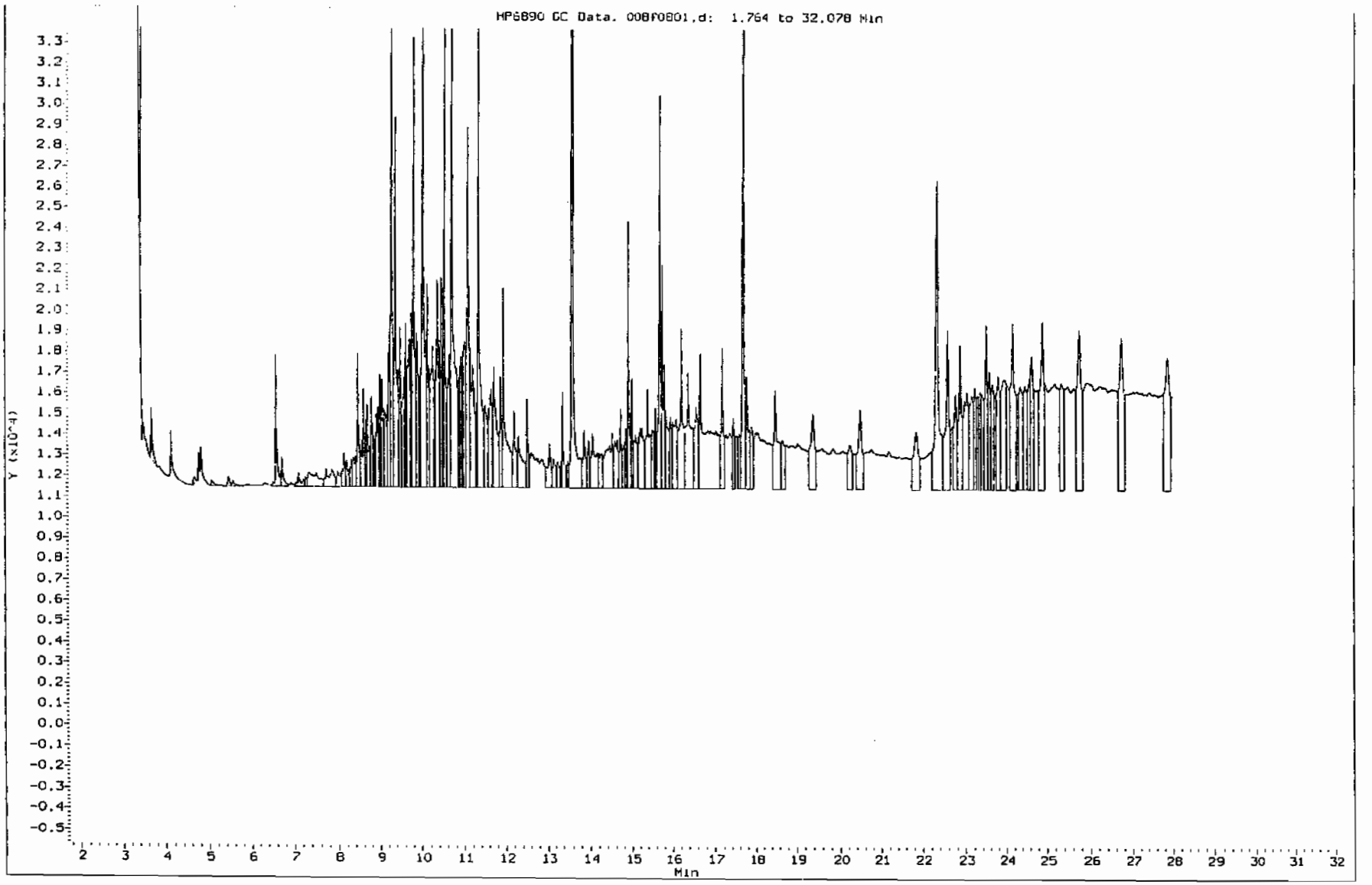

Flame Ionization Detector
Certificate of Analysis
Sample Summary

SDG Number:	10-940	Date Collected:	12/14/2009 12:00	Matrix:	S
Lab Sample ID:	243033002	Date Received:	12/16/2009 09:10	%Moisture:	14.3
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14211	Method:	SW846 8015A/B SVOC	SOP Ref:	GL-OA-E-003
Batch ID:	934477	Inst:	FID7.I	Dilution:	1
Run Date:	12/21/2009 17:27	Analyst:	KXR2	Inj. Vol:	1 uL
Prep Date:	12/18/2009 19:50	Aliquot:	30.02 g	Final Volume:	1 mL
Data File:	011f1101.d	Column:	DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics	U	7.78	mg/kg	2.53	7.78

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DB-5MS .25mm

Data file : /chem/fid7.i/122109dr/011f1101.d
Lab Smp Id: 243033002 Client Smp ID: RE03-09-14211
Inj Date : 21-DEC-2009 17:27
Operator : KXR2 Inst ID: fid7.i
Smp Info : |243033002|1|
Misc Info : |FIDDRO_S|934477|FIDF|LANL|
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fid7.i/122109dr/FID7a.i_b_DRO_121309.m
Meth Date : 22-Dec-2009 00:16 kev01577 Quant Type: ESTD
Cal Date : 13-DEC-2009 18:58 Cal File: 007f0701.d
Als bottle: 11
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-940.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.02000	Weigth of sample extracted (g)
M	14.32160	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (mg/L)	FINAL (mg/Kg)
$ 2 o-Terphenyl					CAS #: 84-15-1
13.591	13.595	-0.004	254001	9.63421	0.37

Data File: /chem/fid7.i/122109dr/011f1101.d
Date : 21-DEC-2009 17:27
Client ID: RE03-09-14211
Sample Info: |243033002|1|
Volume Injected (uL): 1.0
Column phase: DB-5MS

Instrument: fid7.i

Operator: KXR2
Column diameter: 0.25

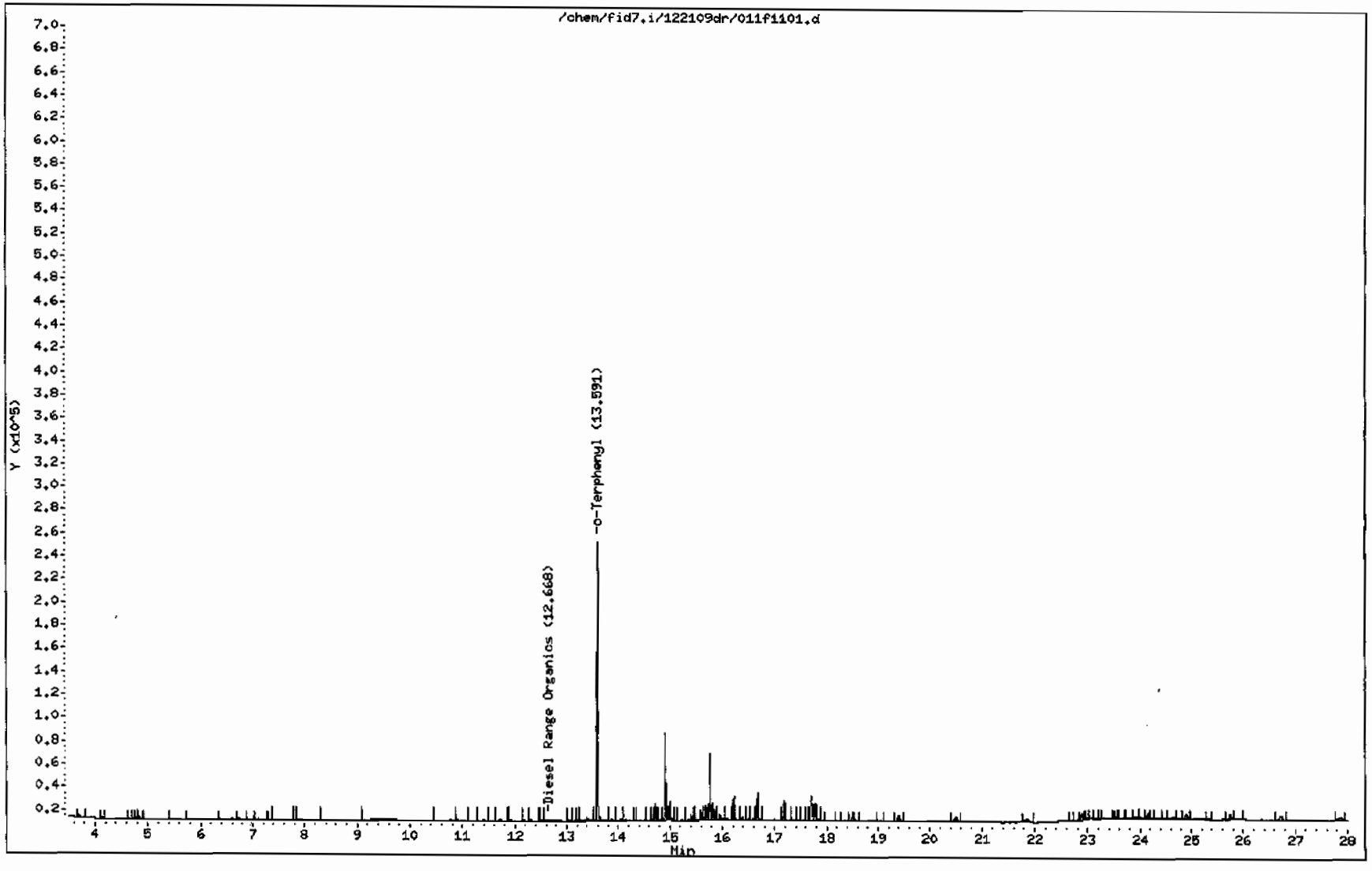

Flame Ionization Detector
Certificate of Analysis
Sample Summary

SDG Number:	10-940	Date Collected:	12/14/2009 12:00	Matrix:	S
Lab Sample ID:	243033003	Date Received:	12/16/2009 09:10	%Moisture:	13.6
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14210	Method:	SW846 8015A/B SVOC	SOP Ref:	GL-OA-E-003
Batch ID:	934477	Inst:	FID7.I	Dilution:	1
Run Date:	12/21/2009 19:17	Analyst:	KXR2	Inj. Vol:	1 uL
Prep Date:	12/18/2009 19:50	Aliquot:	30.08 g	Final Volume:	1 mL
Data File:	014f1401.d	Column:	DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics	U	7.70	mg/kg	2.50	7.70

GEL Laboratories LLC

DB-5MS .25mm

Data file : /chem/fid7.i/122109dr/014f1401.d
Lab Smp Id: 243033003 Client Smp ID: RE03-09-14210
Inj Date : 21-DEC-2009 19:17
Operator : KXR2 Inst ID: fid7.i
Smp Info : |243033003|1|
Misc Info : |FIDDRO_S|934477|FIDF|LANL|
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fid7.i/122109dr/FID7a.i_b_DRO_121309.m
Meth Date : 22-Dec-2009 00:16 kev01577 Quant Type: ESTD
Cal Date : 13-DEC-2009 18:58 Cal File: 007f0701.d
Als bottle: 14
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-940.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.08000	Weigth of sample extracted (g)
M	13.60700	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (mg/L)	FINAL (mg/Kg)
$ 2 o-Terphenyl					CAS #: 84-15-1
13.590	13.595	-0.005	225123	8.53889	0.33

Data File: /chem/fid7.i/122109dr/014f1401.d
Date : 21-DEC-2009 19:17
Client ID: RE03-09-14210
Sample Info: 1243033003|1|
Volume Injected (uL): 1.0
Column phase: DB-5MS

Instrument: fid7.i
Operator: KXR2
Column diameter: 0.25

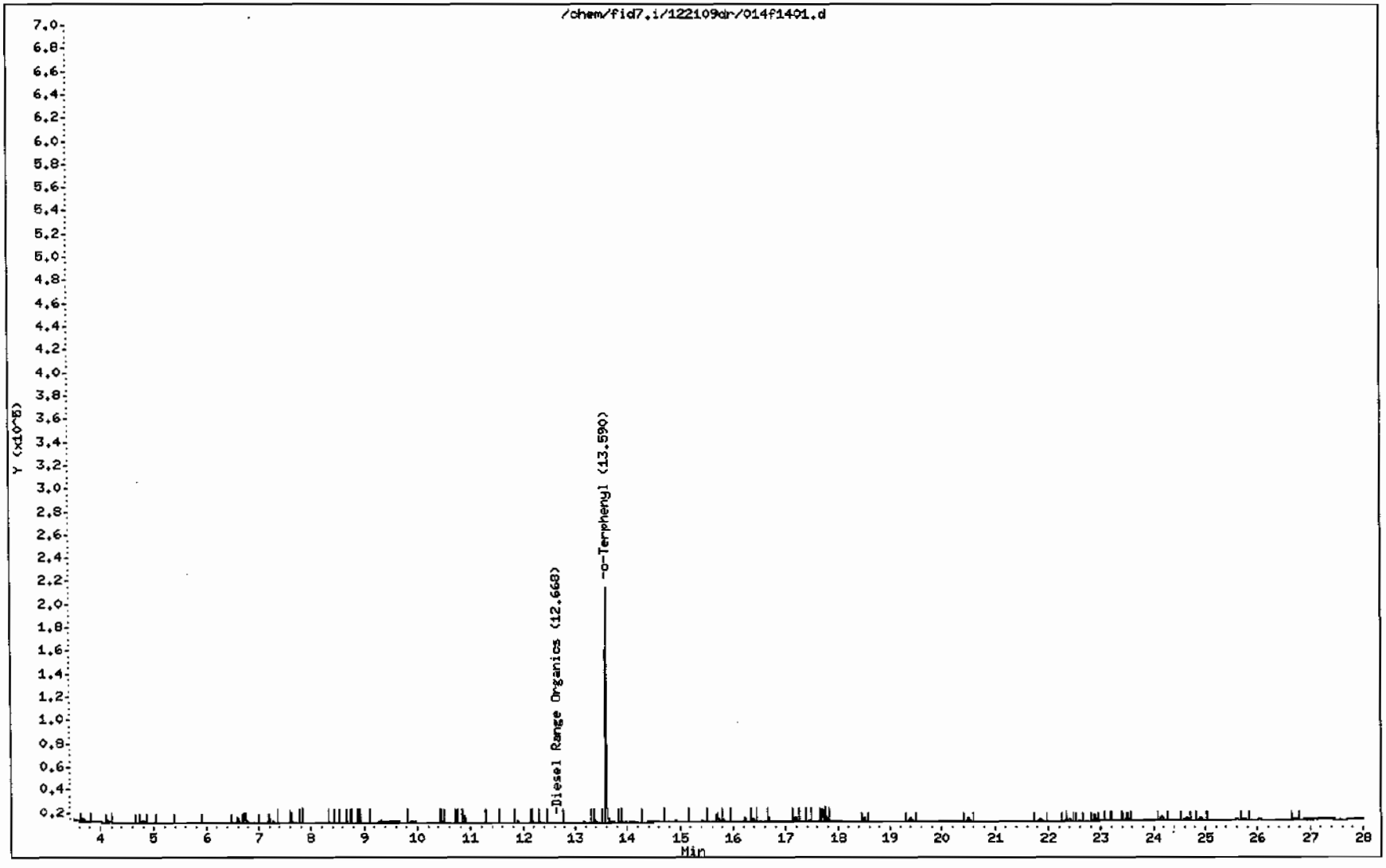

Flame Ionization Detector
Certificate of Analysis
Sample Summary

SDG Number:	10-940	**Date Collected:**	12/14/2009 12:00	**Matrix:**	S
Lab Sample ID:	243033004	**Date Received:**	12/16/2009 09:10	**%Moisture:**	11.6
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14209	**Method:**	SW846 8015A/B SVOC	**SOP Ref:**	GL-OA-E-003
Batch ID:	934477	**Inst:**	FID7.I	**Dilution:**	1
Run Date:	12/21/2009 19:54	**Analyst:**	KXR2	**Inj. Vol:**	1 uL
Prep Date:	12/18/2009 19:50	**Aliquot:**	30.18 g	**Final Volume:**	1 mL
Data File:	015f1501.d	**Column:**	DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics	U	7.49	mg/kg	2.44	7.49

GEL Laboratories LLC

DB-5MS .25mm

Data file : /chem/fid7.i/122109dr/015f1501.d
Lab Smp Id: 243033004 Client Smp ID: RE03-09-14209
Inj Date : 21-DEC-2009 19:54
Operator : KXR2 Inst ID: fid7.i
Smp Info : |243033004|1|
Misc Info : |FIDDRO_S|934477|FIDF|LANL|
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fid7.i/122109dr/FID7a.i_b_DRO_121309.m
Meth Date : 22-Dec-2009 00:16 kev01577 Quant Type: ESTD
Cal Date : 13-DEC-2009 18:58 Cal File: 007f0701.d
Als bottle: 15
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-940.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.18000	Weigth of sample extracted (g)
M	11.55070	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (mg/L)	FINAL (mg/Kg)
$ 2 o-Terphenyl					CAS #: 84-15-1
13.591	13.595	-0.004	273063	10.3572	0.39

Data File: /chem/fid7.i/122109dr/015f1501.d
Date : 21-DEC-2009 19:54
Client ID: RE03-09-14209
Sample Info: |2430330041|1|
Volume Injected (uL): 1.0
Column phase: DB-5MS

Instrument: fid7.i
Operator: KXR2
Column diameter: 0.25

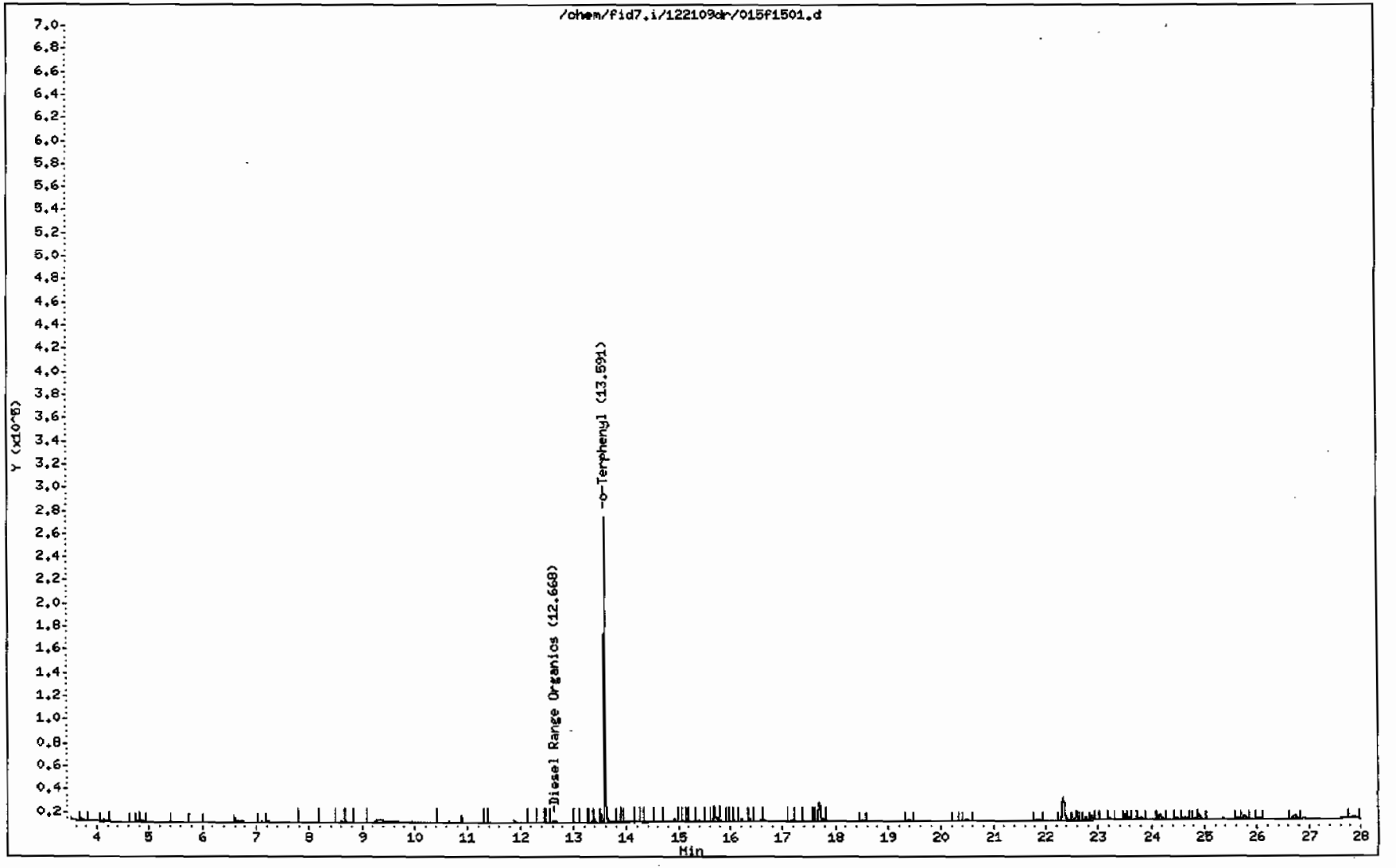

Flame Ionization Detector
Certificate of Analysis
Sample Summary

SDG Number:	10–940	Date Collected:	12/14/2009 12:00	Matrix:	S
Lab Sample ID:	243033005	Date Received:	12/16/2009 09:10	%Moisture:	12.8
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03–09–14208	Method:	SW846 8015A/B SVOC	SOP Ref:	GL–OA–E–003
Batch ID:	934477	Inst:	FID7.I	Dilution:	1
Run Date:	12/21/2009 20:30	Analyst:	KXR2	Inj. Vol:	1 uL
Prep Date:	12/18/2009 19:50	Aliquot:	30.15 g	Final Volume:	1 mL
Data File:	016f1601.d	Column:	DB–5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics	U	7.61	mg/kg	2.47	7.61

GEL Laboratories LLC

DB-5MS .25mm

Data file : /chem/fid7.i/122109dr/016f1601.d
Lab Smp Id: 243033005 Client Smp ID: RE03-09-14208
Inj Date : 21-DEC-2009 20:30
Operator : KXR2 Inst ID: fid7.i
Smp Info : |243033005|1|
Misc Info : |FIDDRO_S|934477|FIDF|LANL|
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fid7.i/122109dr/FID7a.i_b_DRO_121309.m
Meth Date : 22-Dec-2009 00:16 kev01577 Quant Type: ESTD
Cal Date : 13-DEC-2009 18:58 Cal File: 007f0701.d
Als bottle: 16
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-940.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.15000	Weigth of sample extracted (g)
M	12.79410	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (mg/L)	FINAL (mg/Kg)
$ 2 o-Terphenyl					CAS #: 84-15-1
13.590	13.595	-0.005	262315	9.94958	0.38

Data File: /chem/fid7.i/122109dr/016f1601.d
Date : 21-DEC-2009 20:30
Client ID: RE03-09-14208
Sample Info: |243033005|1|
Volume Injected (uL): 1.0
Column phase: DB-5MS

Instrument: fid7.i

Operator: KXR2
Column diameter: 0.25

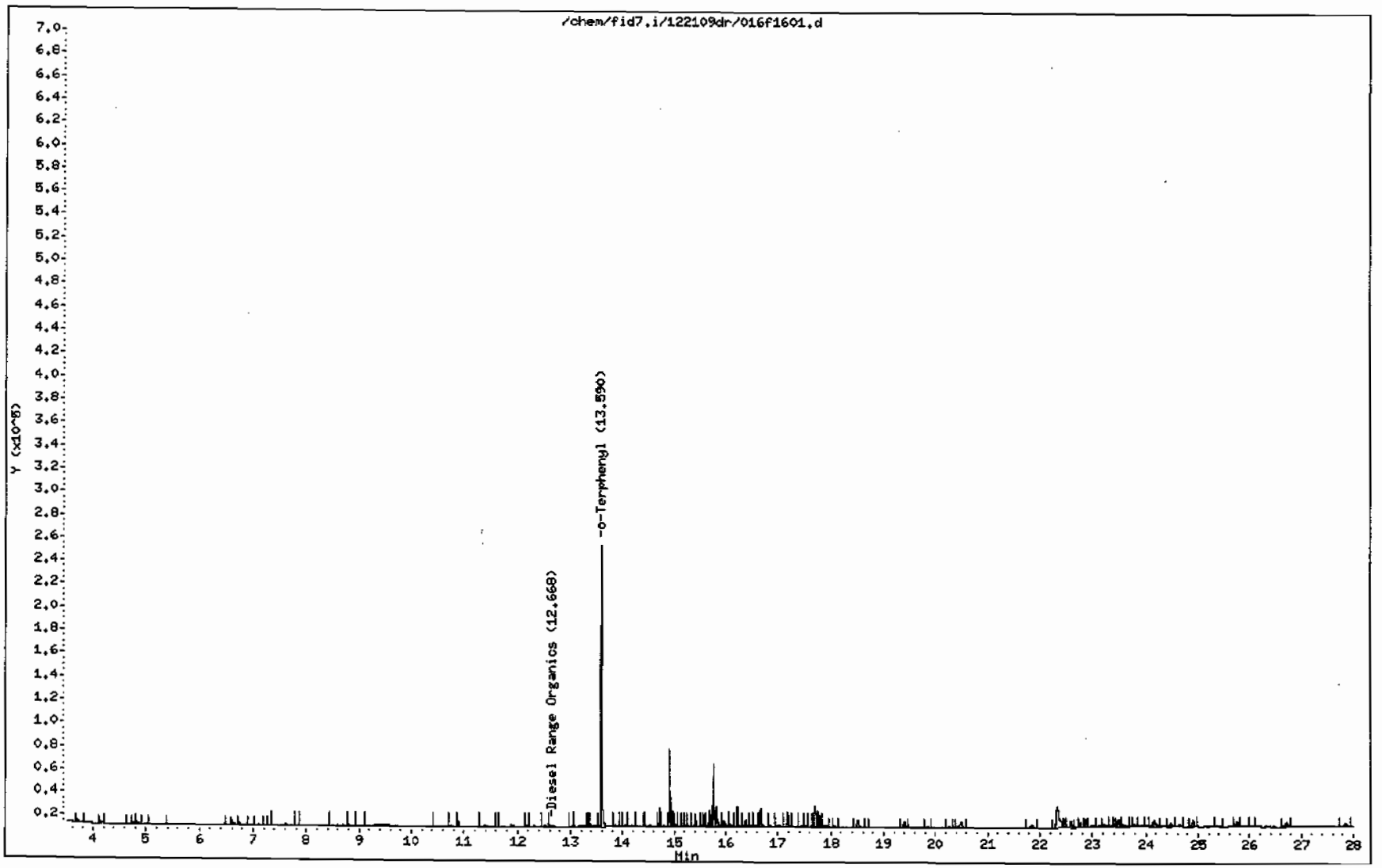

Flame Ionization Detector
Certificate of Analysis
Sample Summary

SDG Number:	10-940	Date Collected:	12/14/2009 12:00	Matrix:	S
Lab Sample ID:	243033006	Date Received:	12/16/2009 09:10	%Moisture:	19.5
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14222	Method:	SW846 8015A/B SVOC	SOP Ref:	GL-OA-E-003
Batch ID:	934477	Inst:	FID7.I	Dilution:	1
Run Date:	12/21/2009 21:07	Analyst:	KXR2	Inj. Vol:	1 uL
Prep Date:	12/18/2009 19:50	Aliquot:	30.18 g	Final Volume:	1 mL
Data File:	017f1701.d	Column:	DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics	J	3.54	mg/kg	2.67	8.23

GEL Laboratories LLC

DB-5MS .25mm

Data file : /chem/fid7.i/122109dr/017f1701.d
Lab Smp Id: 243033006 Client Smp ID: RE03-09-14222
Inj Date : 21-DEC-2009 21:07
Operator : KXR2 Inst ID: fid7.i
Smp Info : |243033006|1|
Misc Info : |FIDDRO_S|934477|FIDF|LANL|
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fid7.i/122109dr/FID7a.i_b_DRO_121309.m
Meth Date : 22-Dec-2009 00:16 kev01577 Quant Type: ESTD
Cal Date : 13-DEC-2009 18:58 Cal File: 007f0701.d
Als bottle: 17
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-940.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.18000	Weigth of sample extracted (g)
M	19.46360	% Moisture

Cpnd Variable Local Compound Variable

	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (mg/L)	FINAL (mg/Kg)	
S	1 Diesel Range Organics					CAS #:	
	7.480- 17.855			1153474	85.9698	3.5	(a)
$	2 o-Terphenyl					CAS #: 84-15-1	
	13.590	13.595	-0.005	277308	10.5183	0.43	(M)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

Data File: /chem/fid7.i/122109dr/017f1701.d
Date : 21-DEC-2009 21:07
Client ID: RE03-09-14222
Sample Info: 1243033006|1|
Volume Injected (uL): 1.0
Column phase: DB-5MS

Instrument: fid7.i
Operator: KXR2
Column diameter: 0.25

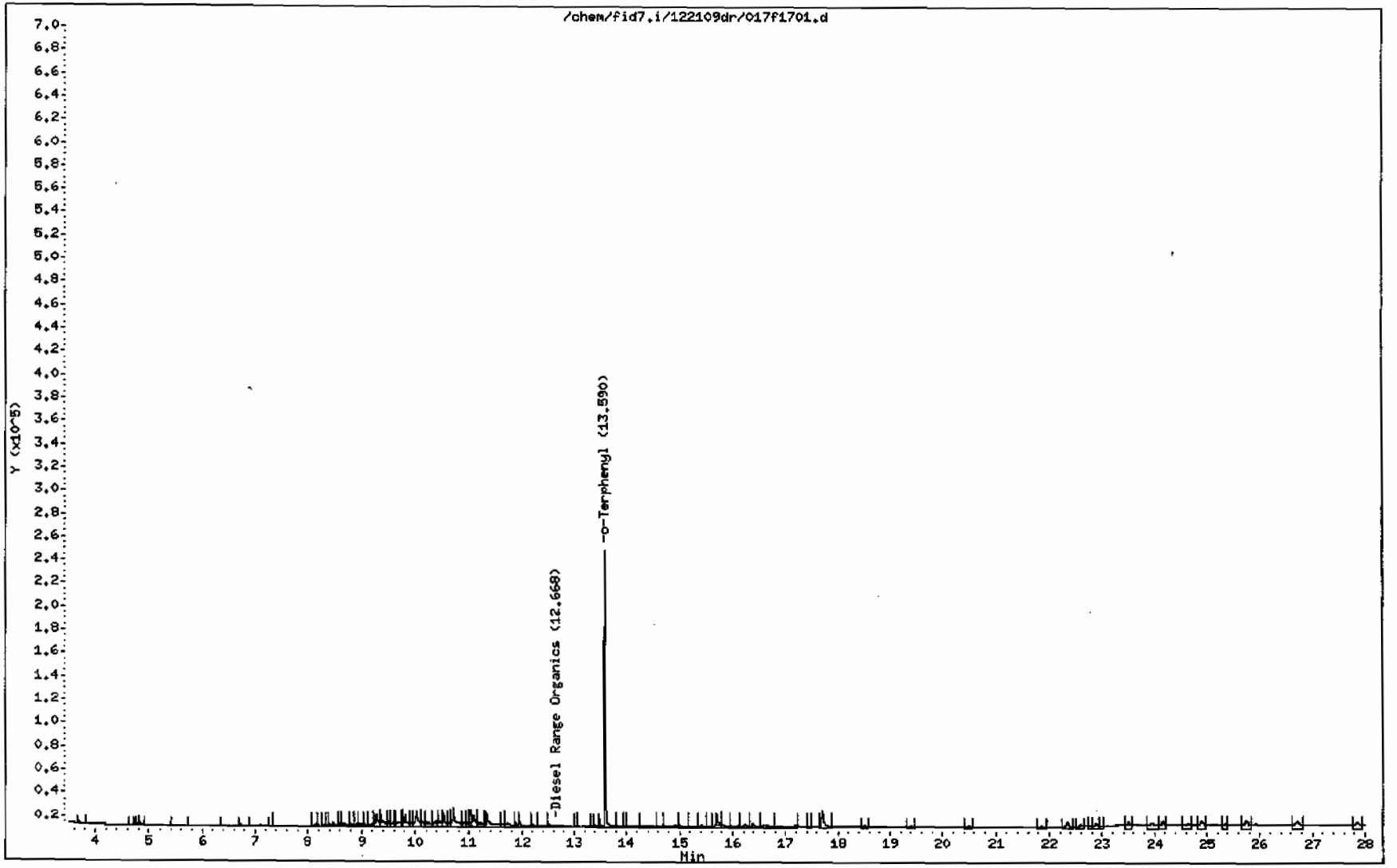

Data File: /chem/fid7.i/122109dr/017f1701.d
Injection Date: 21-DEC-2009 21:07
Instrument: fid7.i
Client Sample ID: RE03-09-14222

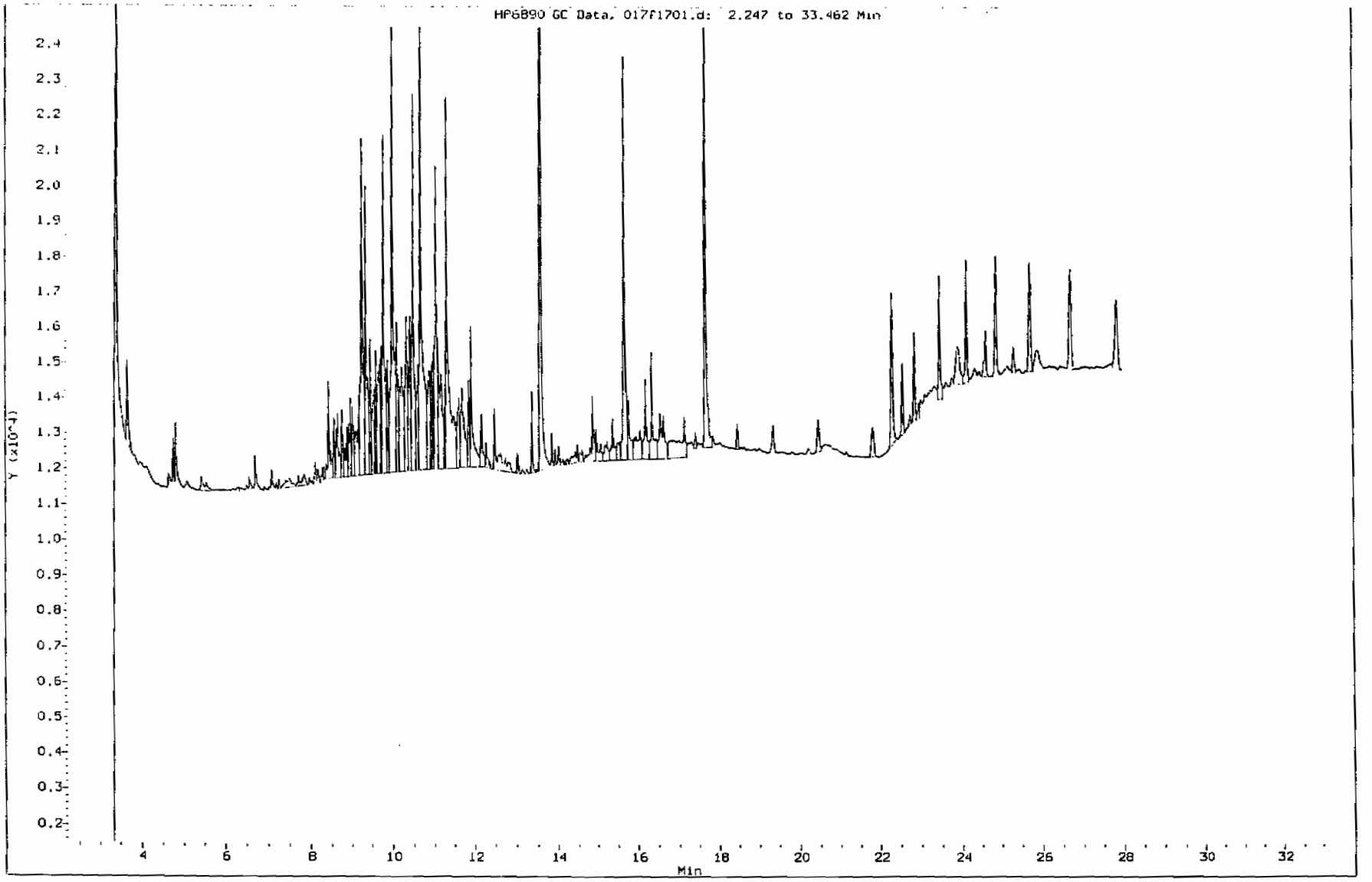

Data File: /chem/fid7.i/122109dr/017f1701.d
Injection Date: 21-DEC-2009 21:07
Instrument: fid7.i
Client Sample ID: RE03-09-14222

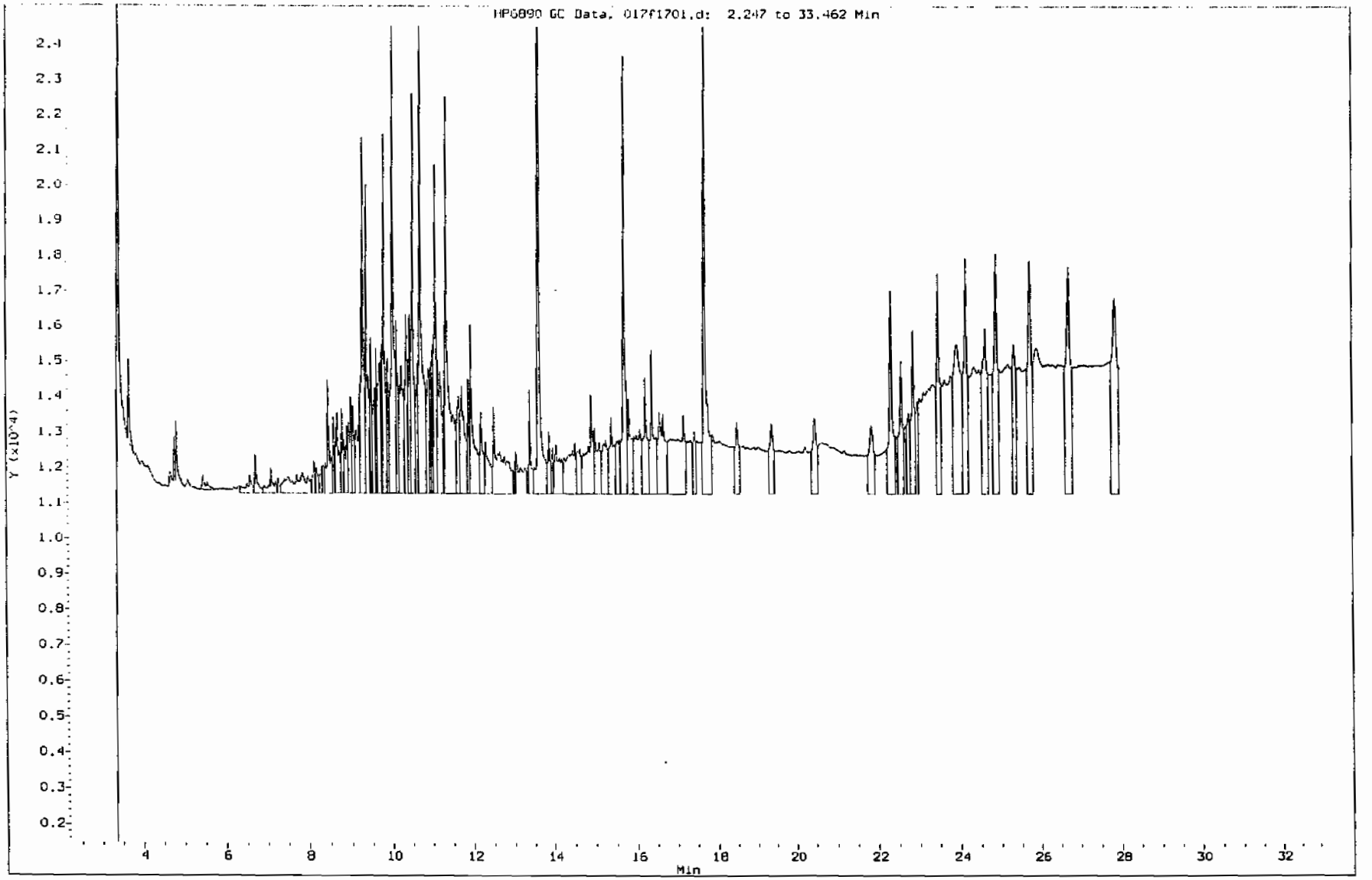

Flame Ionization Detector
Certificate of Analysis
Sample Summary

SDG Number:	10-940	**Date Collected:**	12/14/2009 12:00	**Matrix:**	S
Lab Sample ID:	243033007	**Date Received:**	12/16/2009 09:10	**%Moisture:**	10.8
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14223	**Method:**	SW846 8015A/B SVOC	**SOP Ref:**	GL-OA-E-003
Batch ID:	934477	**Inst:**	FID7.I	**Dilution:**	1
Run Date:	12/21/2009 21:43	**Analyst:**	KXR2	**Inj. Vol:**	1 uL
Prep Date:	12/18/2009 19:50	**Aliquot:**	30.19 g	**Final Volume:**	1 mL
Data File:	018f1801.d	**Column:**	DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics	J	3.31	mg/kg	2.41	7.43

GEL Laboratories LLC

DB-5MS .25mm

Data file : /chem/fid7.i/122109dr/018f1801.d
Lab Smp Id: 243033007 Client Smp ID: RE03-09-14223
Inj Date : 21-DEC-2009 21:43
Operator : KXR2 Inst ID: fid7.i
Smp Info : |243033007|1|
Misc Info : |FIDDRO_S|934477|FIDF|LANL|
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fid7.i/122109dr/FID7a.i_b_DRO_121309.m
Meth Date : 22-Dec-2009 00:16 kev01577 Quant Type: ESTD
Cal Date : 13-DEC-2009 18:58 Cal File: 007f0701.d
Als bottle: 18
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-940.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.19000	Weigth of sample extracted (g)
M	10.81230	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (mg/L)	FINAL (mg/Kg)	
S 1 Diesel Range Organics					CAS #:	
7.480- 17.855			1196543	89.1798	3.3	(a)
$ 2 o-Terphenyl					CAS #: 84-15-1	
13.592	13.595	-0.003	307182	11.6513	0.43	(M)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

Data File: /chem/fid7.i/122109dr/018f1801.d
Date : 21-DEC-2009 21:43
Client ID: RE03-09-14223
Sample Info: 1243033007111
Volume Injected (uL): 1.0
Column phase: DB-5MS

Instrument: fid7.i

Operator: KXR2
Column diameter: 0.25

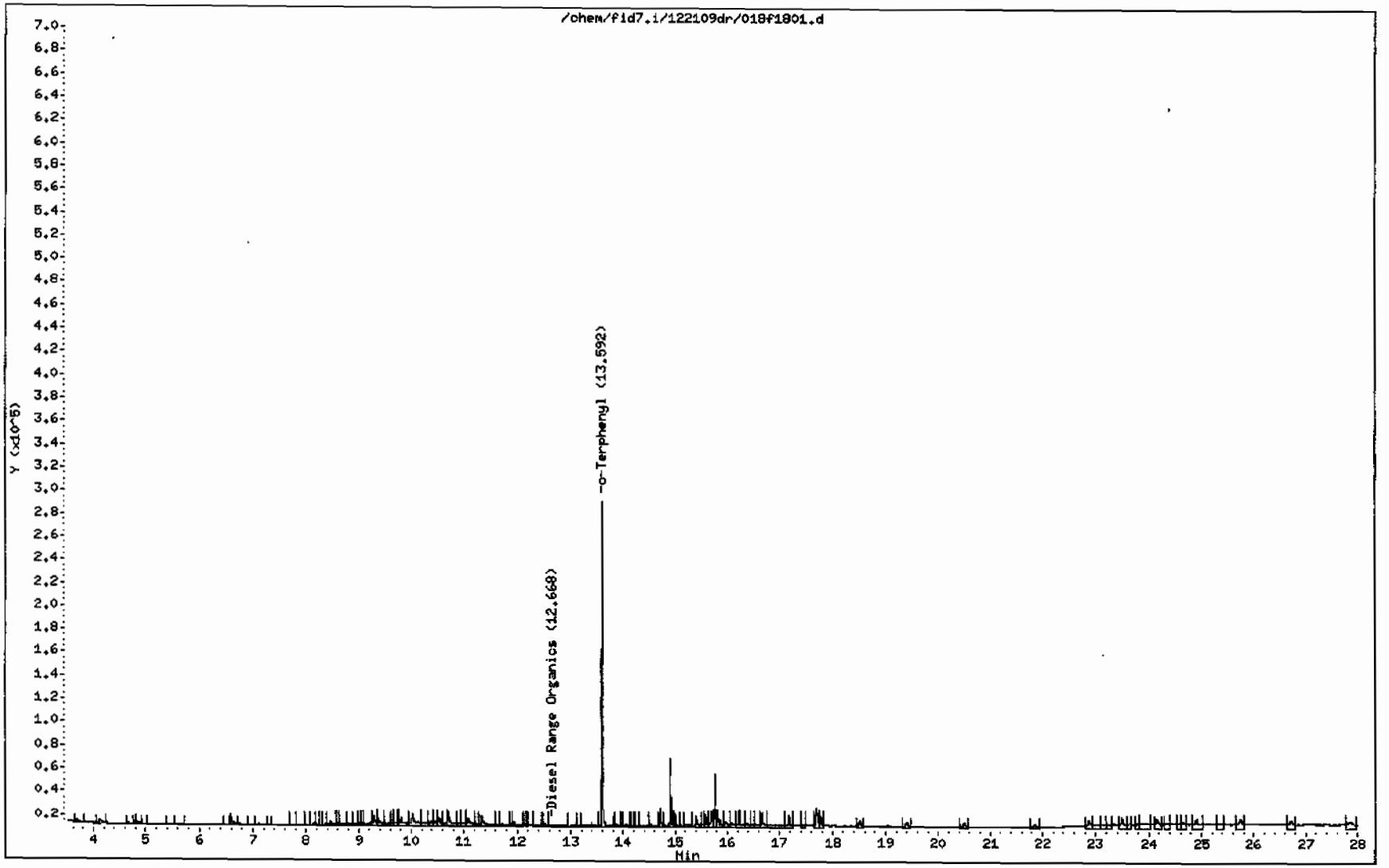

Data File: /chem/fid7.i/122109dr/018f1801.d
Injection Date: 21-DEC-2009 21:43
Instrument: fid7.i
Client Sample ID: RE03-09-14223

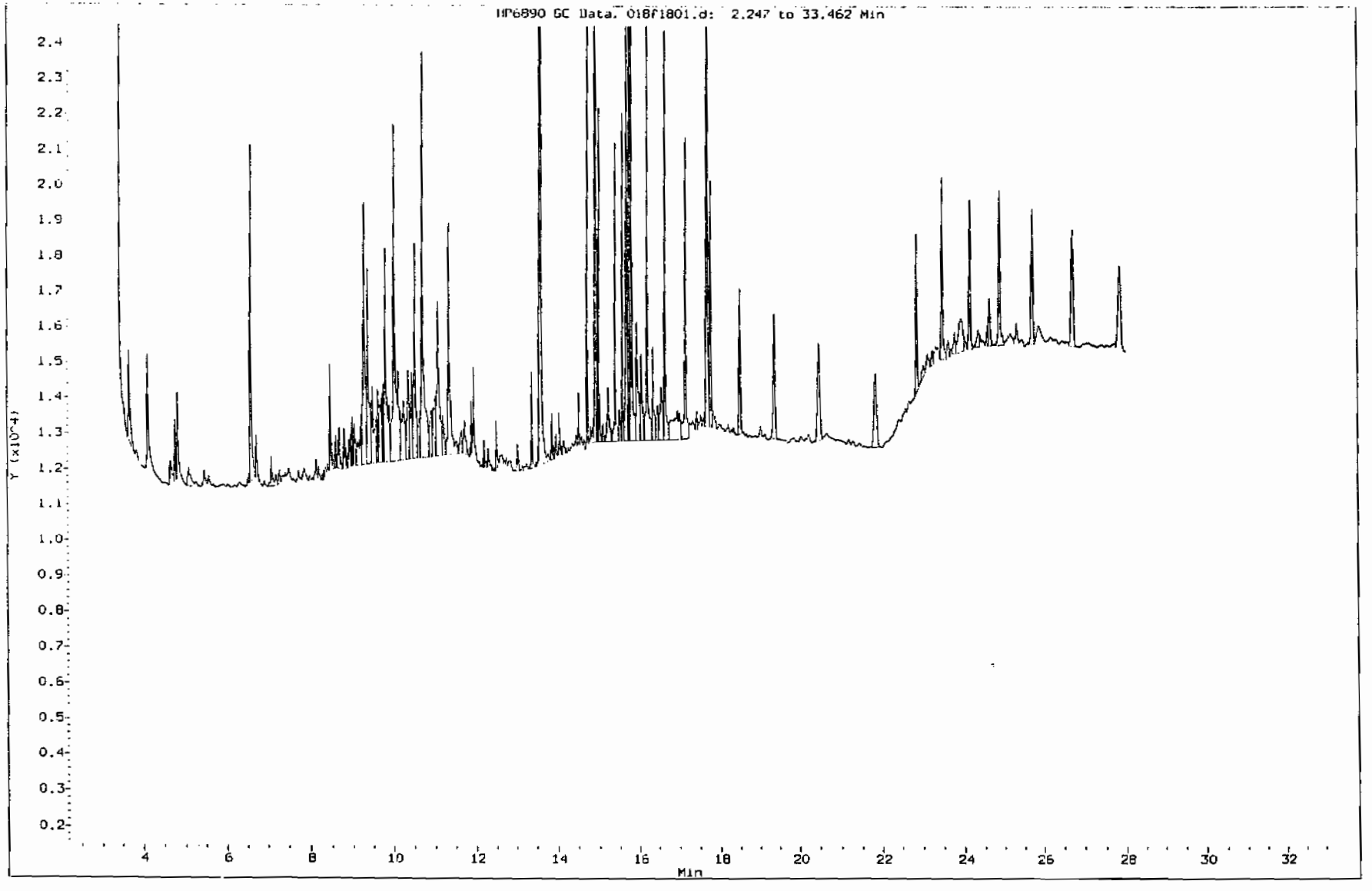

Data File: /chem/fid7.i/122109dr/018f1801.d
Injection Date: 21-DEC-2009 21:43
Instrument: fid7.i
Client Sample ID: RE03-09-14223

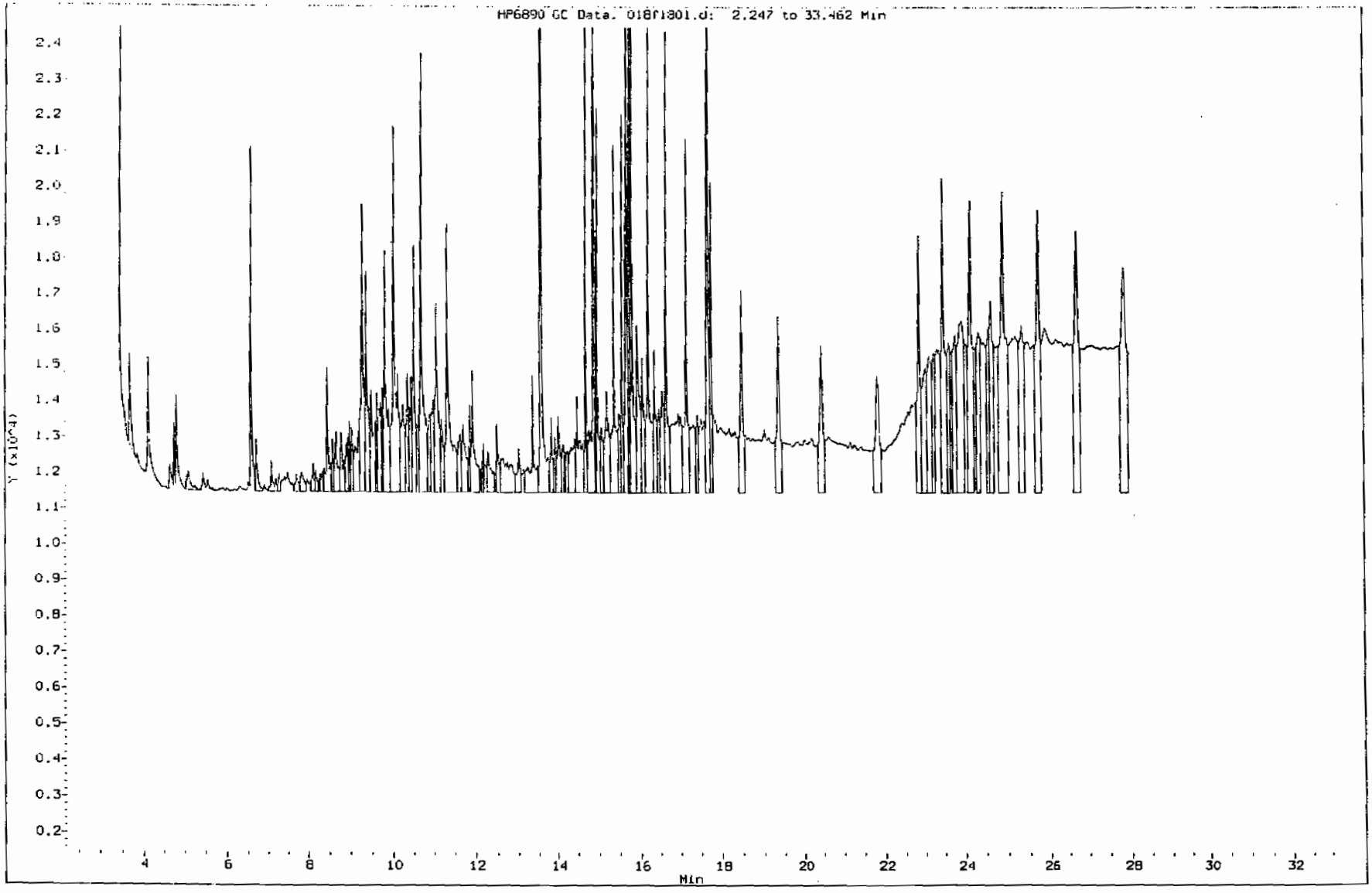

Flame Ionization Detector
Certificate of Analysis
Sample Summary

SDG Number:	10–940	Date Collected:	12/14/2009 12:00	Matrix:	S
Lab Sample ID:	243033008	Date Received:	12/16/2009 09:10	%Moisture:	15.6
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03–09–14220	Method:	SW846 8015A/B SVOC	SOP Ref:	GL–OA–E–003
Batch ID:	934477	Inst:	FID7.I	Dilution:	1
Run Date:	12/21/2009 22:20	Analyst:	KXR2	Inj. Vol:	1 uL
Prep Date:	12/18/2009 19:50	Aliquot:	30.17 g	Final Volume:	1 mL
Data File:	019f1901.d	Column:	DB–5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics		20.1	mg/kg	2.55	7.85

GEL Laboratories LLC

DB-5MS .25mm

Data file : /chem/fid7.i/122109dr/019f1901.d
Lab Smp Id: 243033008 Client Smp ID: RE03-09-14220
Inj Date : 21-DEC-2009 22:20
Operator : KXR2 Inst ID: fid7.i
Smp Info : |243033008|1|
Misc Info : |FIDDRO_S|934477|FIDF|LANL|
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fid7.i/122109dr/FID7a.i_b_DRO_121309.m
Meth Date : 22-Dec-2009 00:16 kev01577 Quant Type: ESTD
Cal Date : 13-DEC-2009 18:58 Cal File: 007f0701.d
Als bottle: 19
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-940.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.17000	Weigth of sample extracted (g)
M	15.56720	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (mg/L)	FINAL (mg/Kg)	
S 1 Diesel Range Organics					CAS #:	
7.480- 17.855			6872956	512.250	20.1	
$ 2 o-Terphenyl					CAS #: 84-15-1	
13.592	13.595	-0.003	335128	12.7113	0.50	(M)

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/fid7.i/122109dr/019f1901.d
Date : 21-DEC-2009 22:20
Client ID: RE03-09-14220
Sample Info: 1243033008111
Volume Injected (uL): 1.0
Column phase: DB-5MS

Instrument: fid7.i

Operator: KXR2
Column diameter: 0.25

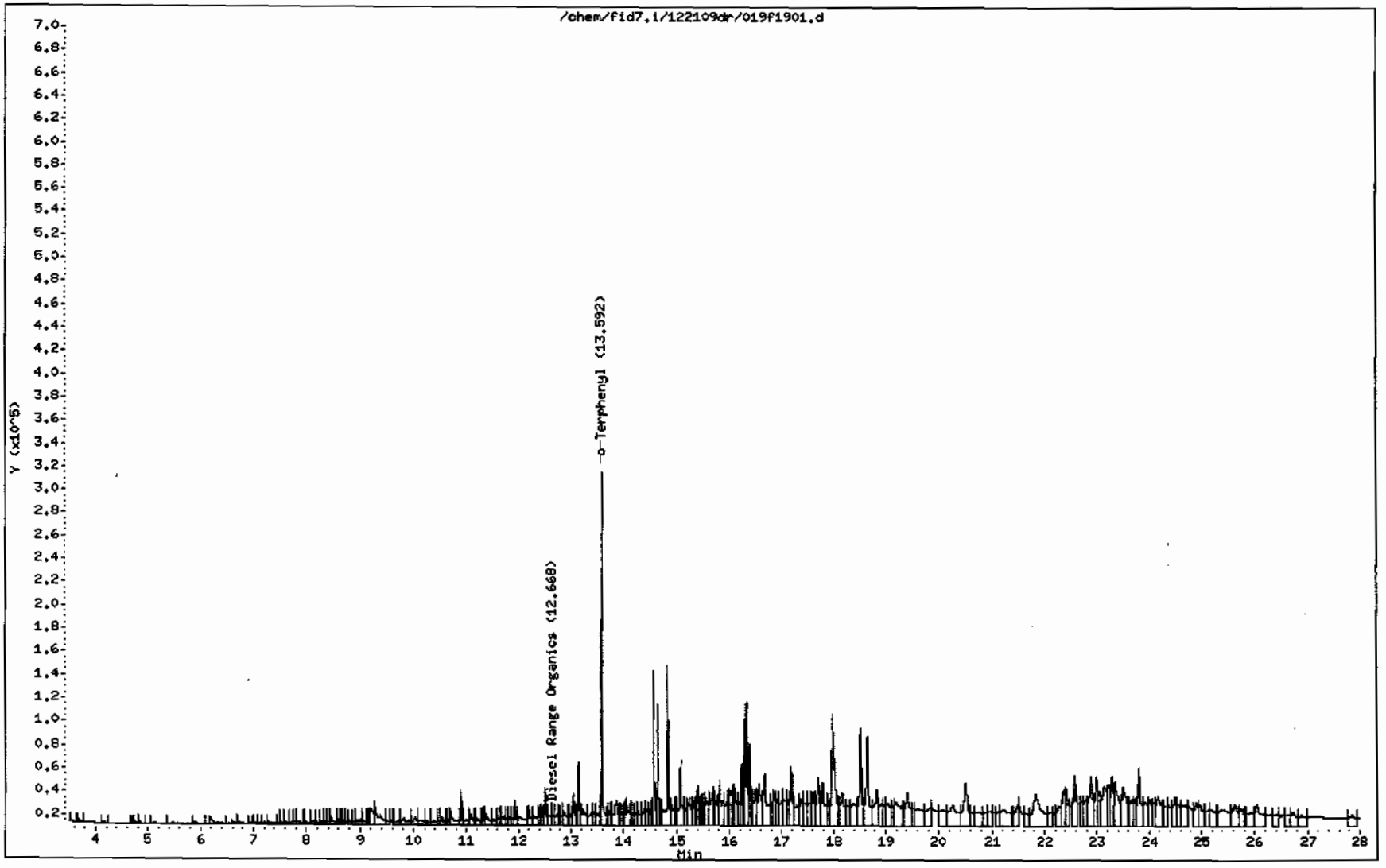

Data File: /chem/fid7.i/122109dc/019f1901.d
Injection Date: 21-DEC-2009 22:20
Instrument: fid7.i
Client Sample ID: RE03-09-14220

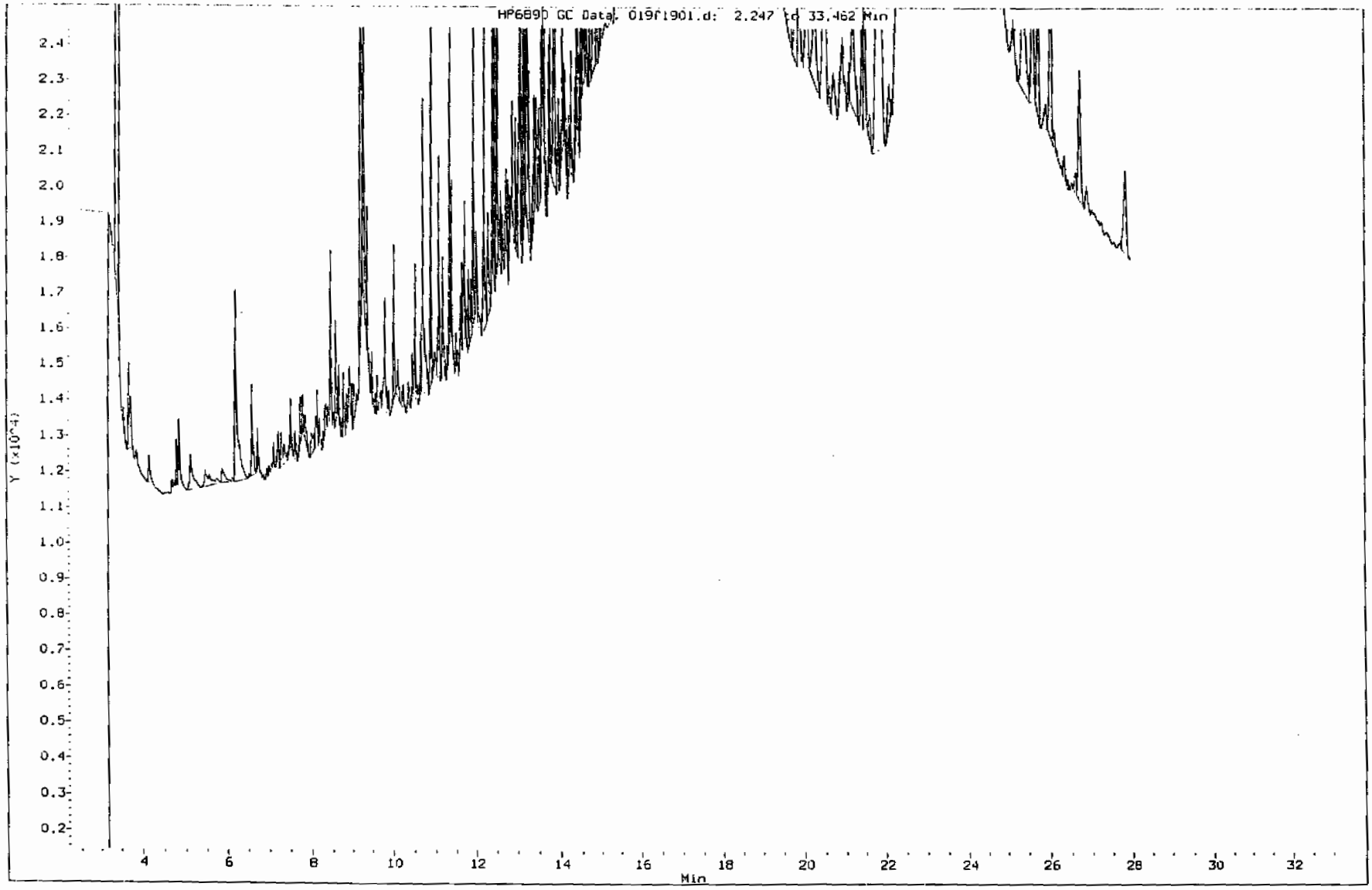

Data File: /chem/fid7.i/122109dr/019f1901.d
Injection Date: 21-DEC-2009 22:20
Instrument: fid7.i
Client Sample ID: RE03-09-14220

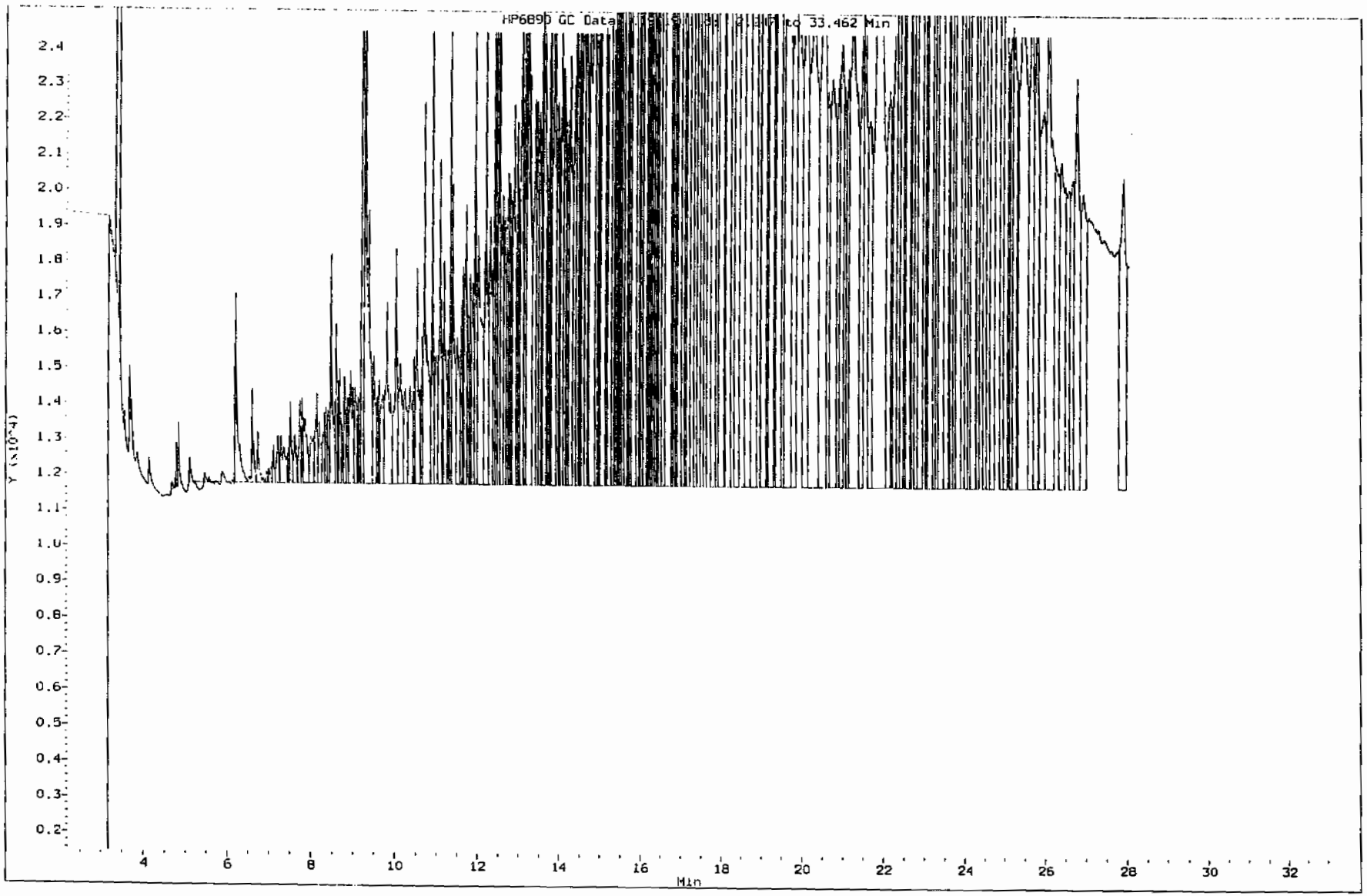

Flame Ionization Detector
Certificate of Analysis
Sample Summary

SDG Number:	10-940	**Date Collected:**	12/14/2009 12:00	**Matrix:**	S
Lab Sample ID:	243033009	**Date Received:**	12/16/2009 09:10	**%Moisture:**	19.3
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-10-2734	**Method:**	SW846 8015A/B SVOC	**SOP Ref:**	GL-OA-E-003
Batch ID:	934477	**Inst:**	FID7.I	**Dilution:**	1
Run Date:	12/21/2009 22:57	**Analyst:**	KXR2	**Inj. Vol:**	1 uL
Prep Date:	12/18/2009 19:50	**Aliquot:**	30.01 g	**Final Volume:**	1 mL
Data File:	020f2001.d	**Column:**	DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics	U	8.26	mg/kg	2.69	8.26

GEL Laboratories LLC

DB-5MS .25mm

Data file : /chem/fid7.i/122109dr/020f2001.d
Lab Smp Id: 243033009 Client Smp ID: RE03-10-2734
Inj Date : 21-DEC-2009 22:57
Operator : KXR2 Inst ID: fid7.i
Smp Info : |243033009|1|
Misc Info : |FIDDRO_S|934477|FIDF|LANL|
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fid7.i/122109dr/FID7a.i_b_DRO_121309.m
Meth Date : 22-Dec-2009 00:16 kev01577 Quant Type: ESTD
Cal Date : 13-DEC-2009 18:58 Cal File: 007f0701.d
Als bottle: 20
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-940.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.01000	Weigth of sample extracted (g)
M	19.33350	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (mg/L)	FINAL (mg/Kg)
$ 2 o-Terphenyl					CAS #: 84-15-1
13.592	13.595	-0.003	257468	9.76570	0.40

Data File: /chem/fid7.i/122109dr/020f2001.d
Date : 21-DEC-2009 22:57
Client ID: RE03-10-2734
Sample Info: |2430330091|1|
Volume Injected (uL): 1.0
Column phase: DB-5MS

Instrument: fid7.i

Operator: KXR2
Column diameter: 0.25

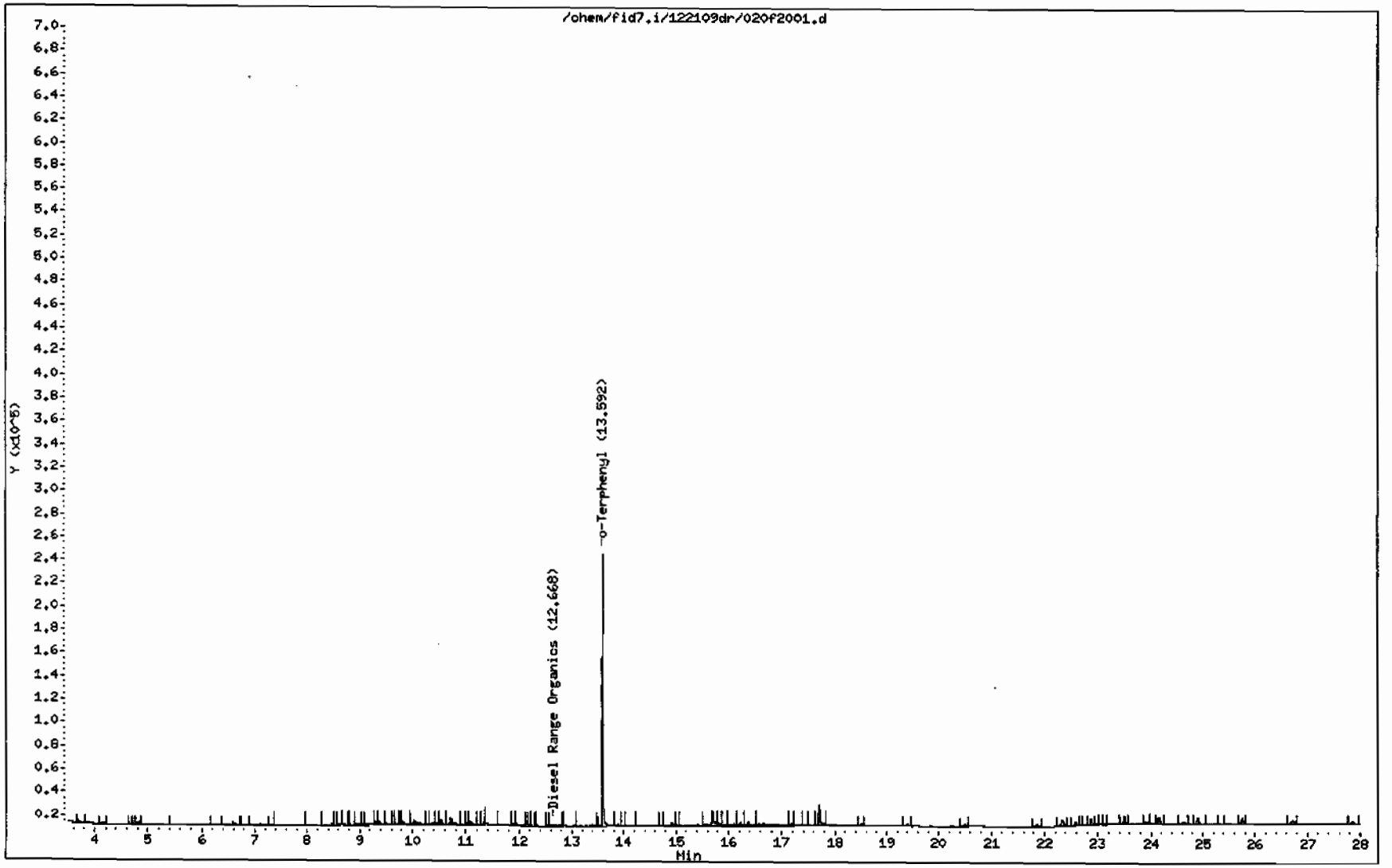

STANDARDS DATA

Report Date: 28-Dec-2009 13:11

Calibration History

Method : /chem/fid7.i/122109dr/FID7a.i_b_DRO_121309.m
Start Cal Date: 13-DEC-2009 16:31
End Cal Date : 13-DEC-2009 18:58

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 3 , Cal Amount: 200.00000		
13-DEC-2009 16:31	dro	/chem/fid7.i/121309dr/003f0301.d
Cal Level: 4 , Cal Amount: 500.00000		
13-DEC-2009 17:07	dro	/chem/fid7.i/121309dr/004f0401.d
Cal Level: 5 , Cal Amount: 1000.00000		
13-DEC-2009 17:45	dro	/chem/fid7.i/121309dr/005f0501.d
Cal Level: 6 , Cal Amount: 2000.00000		
13-DEC-2009 18:22	dro	/chem/fid7.i/121309dr/006f0601.d
Cal Level: 7 , Cal Amount: 5000.00000		
13-DEC-2009 18:58	dro	/chem/fid7.i/121309dr/007f0701.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 5

Ccal Level: 5 , Ccal Amount: 1000		
22-DEC-2009 05:07	dro	/chem/fid7.i/122109dr/030f3001.d
Ccal Level: 5 , Ccal Amount: 1000		
22-DEC-2009 14:12	dro	/chem/fid7.i/122109dr/039f3901.d
Ccal Level: 5 , Ccal Amount: 1000		
22-DEC-2009 09:52	dro	/chem/fid7.i/122109dr/032f3201.d
Ccal Level: 5 , Ccal Amount: 1000		
21-DEC-2009 23:38	dro	/chem/fid7.i/122109dr/021f2101.d
Ccal Level: 5 , Ccal Amount: 1000		
21-DEC-2009 18:04	dro	/chem/fid7.i/122109dr/012f1201.d

Ccal Level: 5 , Ccal Amount: 1000

```
|21-DEC-2009 12:32 |dro                |/chem/fid7.i/122109dr/003f0301.d        |
+-----------------+-----------------+-----------------------------------------+
```

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/fid7.i/122109dr/FID7a.i_b_DRO_121309.m
Quant Method : ESTD Target Version : 3.50
Last Update : 28-Dec-2009 09:06 Number of Cpnds : 6
Data Type : GC DATA

Global Integrator : Falcon

Chromat Events	Values
Initial:Start Threshold	100.000000
Initial:End Threshold	50.000000
Initial:Area Threshold	100.000000
Initial:P-P Resolution	1.000000
Initial:Bunch Factor	11.000000
Initial:Negative Peaks	OFF
Initial:Tension	7.000000
5.000:Force Cluster ON	n/a
17.000:Force Cluster OFF	n/a
17.371:Tension	1.000000

		Compound	RT	RT Window	RF
	3	Decane (C10)	7.508	7.478-7.538	
S	1	Diesel Range Organics	12.668	7.480-17.855	1.342e+04
$	2	o-Terphenyl	13.595	13.565-13.625	2.636e+04
	4	Octacosane (C28)	17.821	17.791-17.851	
S	75	JP-4	6.750	3.500-10.000	
S	76	Motor oil	17.000	14.000-20.000	

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 13-DEC-2009 16:31
End Cal Date : 13-DEC-2009 18:58
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/fid7.i/122109dr/FID7a.i_b_DRO_121309.m
Cal Date : 28-Dec-2009 09:06 kev01577
Curve Type : Average

Calibration File Names:
Level 3: /chem/fid7.i/121309dr/003f0301.d
Level 4: /chem/fid7.i/121309dr/004f0401.d
Level 5: /chem/fid7.i/121309dr/005f0501.d
Level 6: /chem/fid7.i/121309dr/006f0601.d
Level 7: /chem/fid7.i/121309dr/007f0701.d

	Compound	200.000 Level 3	500.000 Level 4	1000.000 Level 5	2000.000 Level 6	5000.000 Level 7	___ RRF	% RSD
	3 Decane (C10)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
S	1 Diesel Range Organics	12370	13330	13518	14106	13763	13417	4.871
	4 Octacosane (C28)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
S	75 JP-4	+++++	+++++	+++++	+++++	+++++	+++++	+++++
S	76 Motor oil	+++++	+++++	+++++	+++++	+++++	+++++	+++++
$	2 o-Terphenyl	24795	27259	25475	26481	27813	26365	4.710

FORM 7
SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-940

Instrument ID: FID7 Calibration Date: 12/21/09 Time: 1232

Lab File ID: 003F0301 Init. Calib. Date(s): 12/13/09 12/13/09

Init. Calib. Times: 1631 1858

GC Column: DB-5MS ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Diesel Range Organics	13417.204	12925.965	0.01	-3.7	15.0
o-Terphenyl	26364.536	23166.916	0.01	-12.1	15.0

FORM VII SV

FORM 7
SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-940

Instrument ID: FID7 Calibration Date: 12/21/09 Time: 1804

Lab File ID: 012F1201 Init. Calib. Date(s): 12/13/09 12/13/09

Init. Calib. Times: 1631 1858

GC Column: DB-5MS ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Diesel Range Organics	13417.204	13484.654	0.01	0.5	15.0
o-Terphenyl	26364.536	24135.120	0.01	-8.4	15.0

FORM VII SV

FORM 7
SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-940

Instrument ID: FID7 Calibration Date: 12/21/09 Time: 2338

Lab File ID: 021F2101 Init. Calib. Date(s): 12/13/09 12/13/09

Init. Calib. Times: 1631 1858

GC Column: DB-5MS ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Diesel Range Organics	13417.204	13259.441	0.01	-1.2	15.0
o-Terphenyl	26364.536	23595.338	0.01	-10.5	15.0

FORM VII SV

GEL Laboratories LLC

DB-5MS .25mm

Data file : /chem/fid7.i/122109dr/003f0301.d
Lab Smp Id: UFI091203-02 D1 Client Smp ID: DSTD01
Inj Date : 21-DEC-2009 12:32
Operator : KXR2 Inst ID: fid7.i
Smp Info : |UFI091203-02 D1
Misc Info :
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fid7.i/122109dr/FID7a.i_b_DRO_121309.m
Meth Date : 22-Dec-2009 00:16 kev01577 Quant Type: ESTD
Cal Date : 13-DEC-2009 18:58 Cal File: 007f0701.d
Als bottle: 3 Continuing Calibration Sample.
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: dro.sub
Target Version: 3.50 Sample Matrix: None

	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (mg/L)	AMOUNTS ON-COL (mg/L)
S	1 Diesel Range Organics					CAS #:
	7.480- 17.855			12925965	1000.00	963
$	2 o-Terphenyl					CAS #: 84-15-1
	13.595	13.595	0.000	579172	25.0000	22.0

Data File: /chem/fid7.i/122109dr/003f0301.d
Date : 21-DEC-2009 12:32
Client ID: DSTD01
Sample Info: IUFI091203-02 D1

Column phase: DB-5MS

Instrument: fid7.i

Operator: KXR2
Column diameter: 0.25

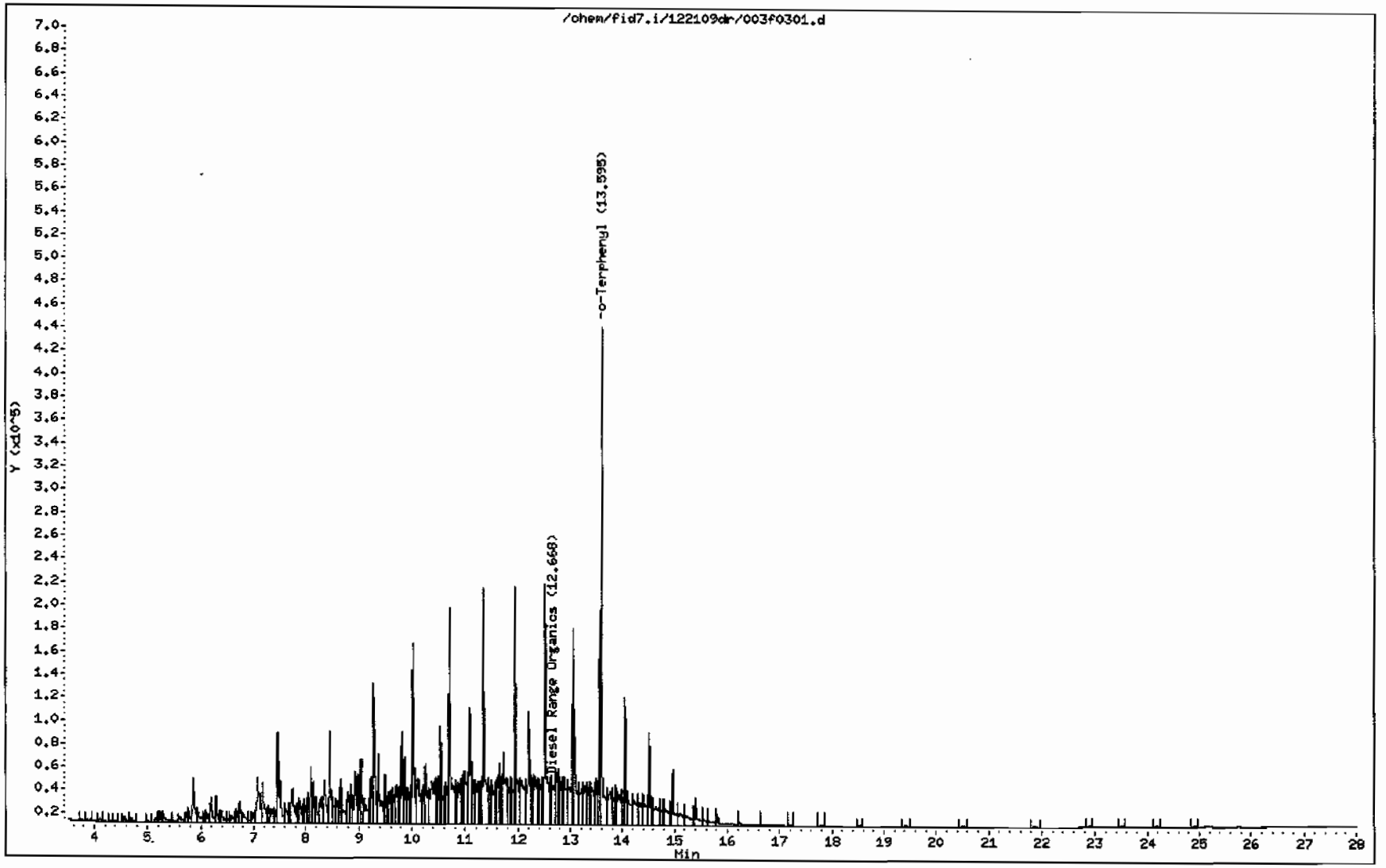

GEL Laboratories LLC

DB-5MS .25mm

Data file : /chem/fid7.i/122109dr/012f1201.d
Lab Smp Id: UFI091203-02 D2 Client Smp ID: DSTD02
Inj Date : 21-DEC-2009 18:04
Operator : KXR2 Inst ID: fid7.i
Smp Info : |UFI091203-02 D2
Misc Info :
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fid7.i/122109dr/FID7a.i_b_DRO_121309.m
Meth Date : 22-Dec-2009 00:16 kev01577 Quant Type: ESTD
Cal Date : 13-DEC-2009 18:58 Cal File: 007f0701.d
Als bottle: 12 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: dro.sub
Target Version: 3.50 Sample Matrix: None

	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (mg/L)	AMOUNTS ON-COL (mg/L)		
S	1 Diesel Range Organics					CAS #:		
	7.480- 17.855			13484654	1000.00	1000		(M)
$	2 o-Terphenyl					CAS #: 84-15-1		
	13.595	13.595	0.000	603378	25.0000	22.9		(M)

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/fid7.i/122109dr/012f1201.d
Date : 21-DEC-2009 18:04
Client ID: DSTD02
Sample Info: !UFI091203-02 D2

Column phase: DB-5MS

Instrument: fid7.i

Operator: KXR2
Column diameter: 0.25

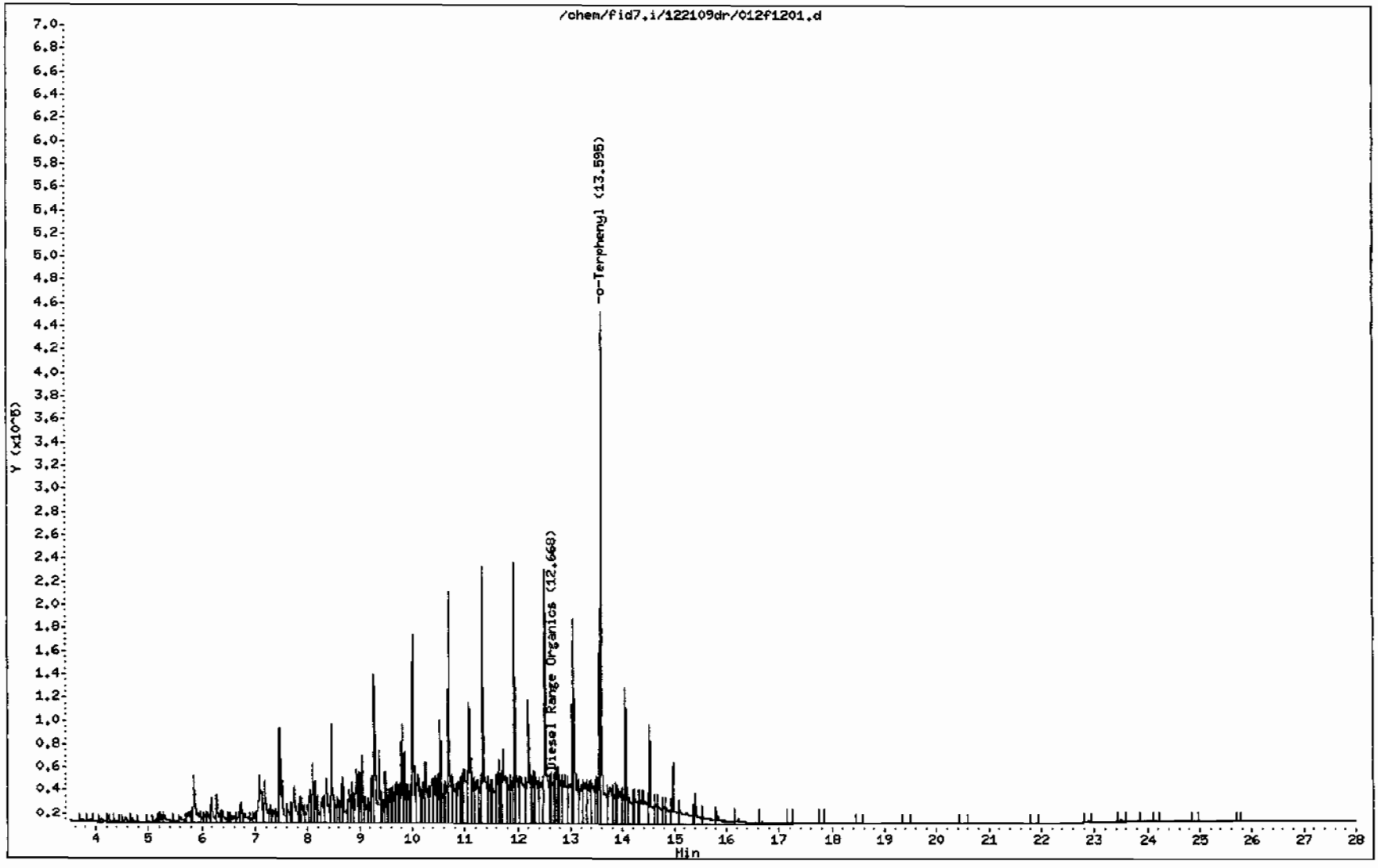

Data File: /chem/fid7.i/122109dr/012f1201.d
Injection Date: 21-DEC-2009 18:04
Instrument: fid7.i
Client Sample ID: DSTD02

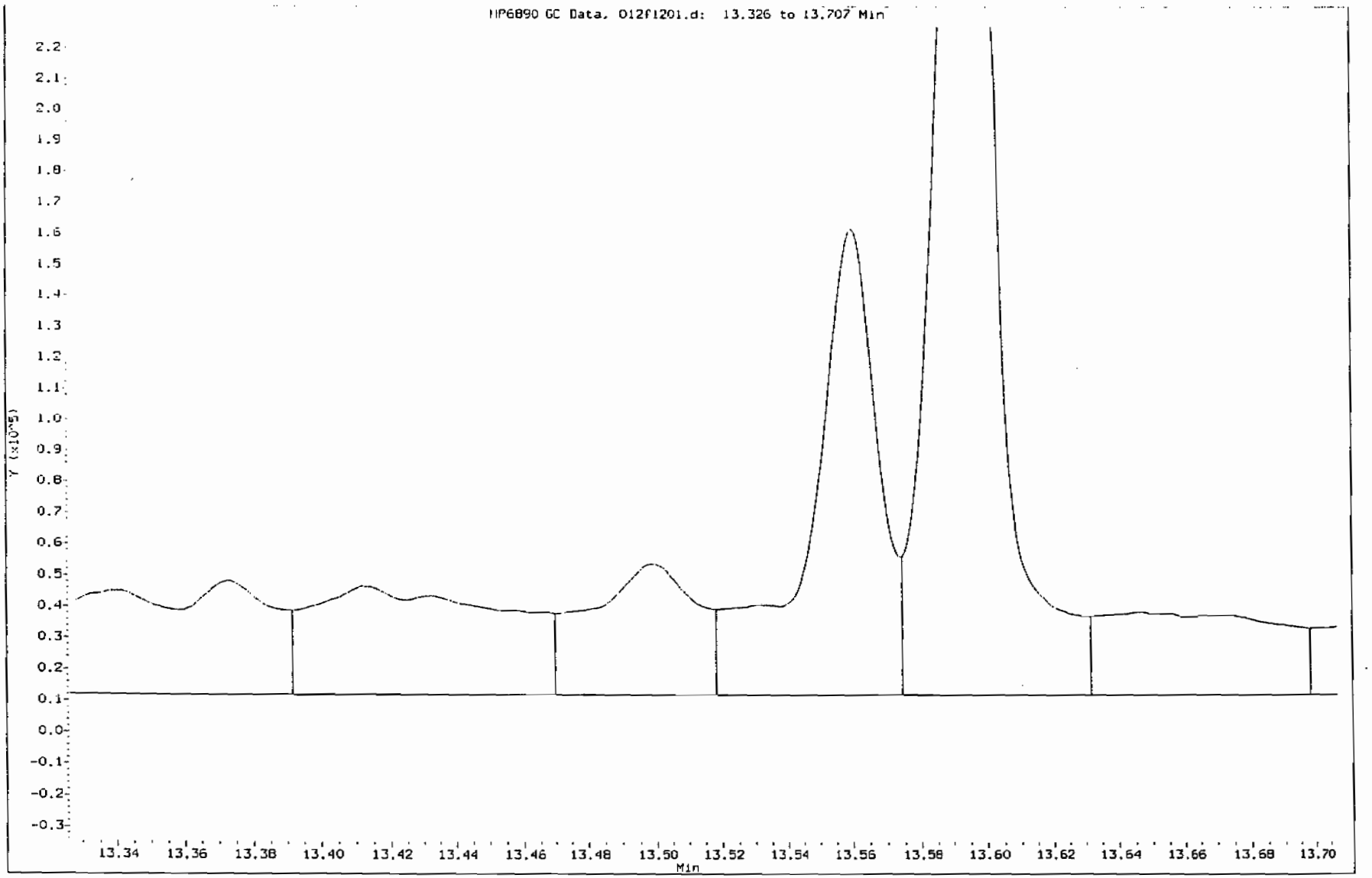

Data File: /chem/fid7.i/122109dr/012f1201.d
Injection Date: 21-DEC-2009 10:04
Instrument: fid7.i
Client Sample ID: OSTD02

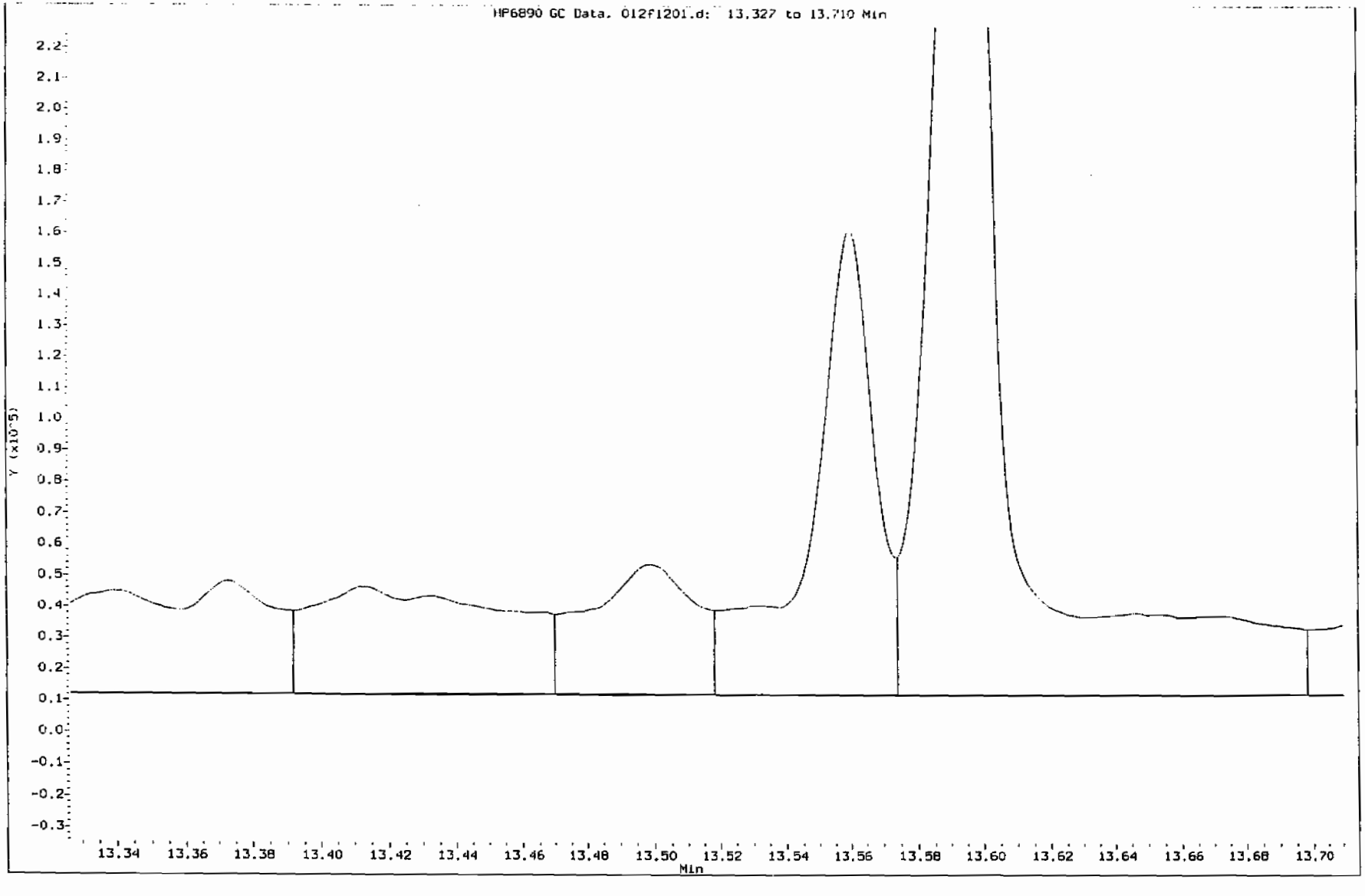

GEL Laboratories LLC

DB-5MS .25mm

Data file : /chem/fid7.i/122109dr/021f2101.d
Lab Smp Id: UFI091203-02 D3 Client Smp ID: DSTD03
Inj Date : 21-DEC-2009 23:38
Operator : KXR2 Inst ID: fid7.i
Smp Info : |UFI091203-02 D3
Misc Info :
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fid7.i/122109dr/FID7a.i_b_DRO_121309.m
Meth Date : 22-Dec-2009 00:16 kev01577 Quant Type: ESTD
Cal Date : 13-DEC-2009 18:58 Cal File: 007f0701.d
Als bottle: 21 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: dro.sub
Target Version: 3.50 Sample Matrix: None

	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (mg/L)	ON-COL (mg/L)
S	1 Diesel Range Organics					CAS #:
	7.480- 17.855			13259440	1000.00	988
$	2 o-Terphenyl					CAS #: 84-15-1
	13.596	13.595	0.001	589883	25.0000	22.4

Data File: /chem/fid7.i/122109dr/021f2101.d
Date : 21-DEC-2009 23:38
Client ID: DSTD03
Sample Info: IUFI091203-02 D3

Column phase: DB-5MS

Instrument: fid7.i

Operator: KXR2
Column diameter: 0.25

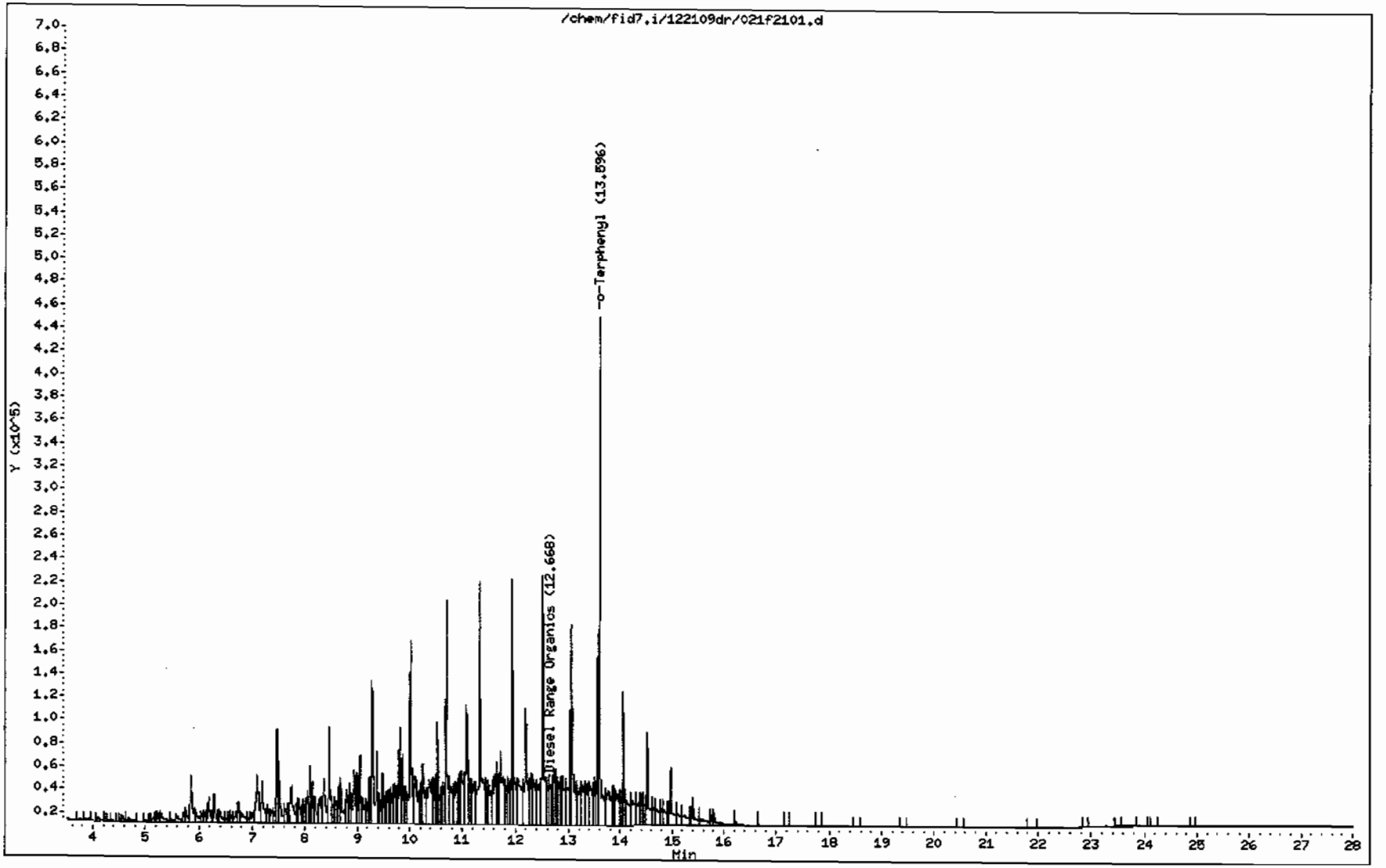

8D
DRO ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-940

GC Column: DB-5MS ID: 0.25 (mm) Init. Calib. Date(s): 12/13/09 12/13/09

Instrument ID: FID7

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 13.60

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	RT
01	DIBLK01	WFI091130-06	12/13/09	1516	13.59	
02	RTMARKER	UFI091013-03	12/13/09	1553		
03	CSTD01	UFI090827-10	12/13/09	1631	13.59	
04	CSTD02	UFI090827-11	12/13/09	1707	13.59	
05	CSTD03	UFI090827-12	12/13/09	1745	13.60	
06	CSTD04	UFI090827-13	12/13/09	1822	13.61	
07	CSTD05	UFI090827-14	12/13/09	1858	13.62	
08	DSTD01	WFI090928-01	12/13/09	1936	13.60	
09	DIBLK02	WFI091130-06	12/13/09	2012	13.59	
10	ZZZZZ	ZZZZZ	12/13/09	2049	13.59	
11	ZZZZZ	ZZZZZ	12/13/09	2126	13.59	
12	ZZZZZ	ZZZZZ	12/13/09	2203	13.59	
13	ZZZZZ	ZZZZZ	12/13/09	2240	13.59	
14	ZZZZZ	ZZZZZ	12/13/09	2318	13.60	
15	ZZZZZ	ZZZZZ	12/13/09	2354	13.59	
16	ZZZZZ	ZZZZZ	12/14/09	0032	13.59	
17	ZZZZZ	ZZZZZ	12/14/09	0109	13.59	
18	ZZZZZ	ZZZZZ	12/14/09	0146	13.59	
19	ZZZZZ	ZZZZZ	12/14/09	0223	13.59	
20	DSTD02	UFI091118-02	12/14/09	0300	13.60	
21	DIBLK03	WFI091130-06	12/14/09	0337	13.60	
22	ZZZZZ	ZZZZZ	12/14/09	0413	13.59	
23	ZZZZZ	ZZZZZ	12/14/09	0450	13.59	
24	ZZZZZ	ZZZZZ	12/14/09	0527	13.59	
25	ZZZZZ	ZZZZZ	12/14/09	0604	13.59	
26	ZZZZZ	ZZZZZ	12/14/09	0641	13.59	
27	ZZZZZ	ZZZZZ	12/14/09	0718	13.59	
28	ZZZZZ	ZZZZZ	12/14/09	0755	13.59	
29	ZZZZZ	ZZZZZ	12/14/09	0832	13.59	
30	ZZZZZ	ZZZZZ	12/14/09	0909	13.59	
31	DSTD03	UFI091118-02	12/14/09	0946	13.60	
32	DIBLK04	WFI091130-06	12/14/09	1023	13.60	

S1 = o-Terphenyl QC LIMITS (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

8D
DRO ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-940

GC Column: DB-5MS ID: 0.25 (mm) Init. Calib. Date(s): 12/13/09 12/13/09

Instrument ID: FID7

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 13.60

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	RT
01	DIBLK01	WFI091130-06	12/21/09	1118	13.59	
02	RTMARKER	UFI091013-03	12/21/09	1155		
03	DSTD01	UFI091203-02	12/21/09	1232	13.60	
04	DIBLK02	WFI091130-06	12/21/09	1309	13.59	
05	DBLK01	1201999297	12/21/09	1346	13.59	
06	DBLK01LCS	1201999298	12/21/09	1423	13.59	
07	ZZZZZ	ZZZZZ	12/21/09	1500	13.59	
08	RE03-09-14221	243033001	12/21/09	1537	13.59	
09	RE03-09-14221MS	1201999299	12/21/09	1614	13.59	
10	RE03-09-14221MSD	1201999300	12/21/09	1651	13.59	
11	RE03-09-14211	243033002	12/21/09	1727	13.59	
12	DSTD02	UFI091203-02	12/21/09	1804	13.60	
13	DIBLK03	WFI091130-06	12/21/09	1841	13.59	
14	RE03-09-14210	243033003	12/21/09	1917	13.59	
15	RE03-09-14209	243033004	12/21/09	1954	13.59	
16	RE03-09-14208	243033005	12/21/09	2030	13.59	
17	RE03-09-14222	243033006	12/21/09	2107	13.59	
18	RE03-09-14223	243033007	12/21/09	2143	13.59	
19	RE03-09-14220	243033008	12/21/09	2220	13.59	
20	RE03-10-2734	243033009	12/21/09	2257	13.59	
21	DSTD03	UFI091203-02	12/21/09	2338	13.60	
22	DIBLK04	WFI091130-06	12/22/09	0014	13.59	
23	ZZZZZ	ZZZZZ	12/22/09	0051	13.59	
24	ZZZZZ	ZZZZZ	12/22/09	0128	13.59	
25	ZZZZZ	ZZZZZ	12/22/09	0204	13.59	
26	ZZZZZ	ZZZZZ	12/22/09	0241	13.59	
27	ZZZZZ	ZZZZZ	12/22/09	0318	13.60	
28	ZZZZZ	ZZZZZ	12/22/09	0354	13.61	
29	ZZZZZ	ZZZZZ	12/22/09	0431		
30	DSTD04	UFI091203-02	12/22/09	0507	13.60	
31	DIBLK05	WFI091130-06	12/22/09	0544	13.59	
32	DSTD05	UFI091203-02	12/22/09	0952	13.60	

S1 = o-Terphenyl QC LIMITS (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

QUALITY CONTROL DATA

Flame Ionization Detector
Certificate of Analysis
Sample Summary

SDG Number:	10-940			Matrix:	SOIL
Lab Sample ID:	1201999297				
Client Sample:	QC for batch 934475	Client:	LANL010	Project:	QC
Client ID:	MB for batch 934475	Method:	SW846 8015A/B SVOC	SOP Ref:	GL-OA-E-003
Batch ID:	934477	Inst:	FID7.I	Dilution:	1
Run Date:	12/21/2009 13:46	Analyst:	KXR2	Inj. Vol:	1 uL
Prep Date:	12/18/2009 19:50	Aliquot:	30 g	Final Volume:	1 mL
Data File:	005f0501.d	Column:	DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics	U	6.67	mg/kg	2.17	6.67

GEL Laboratories LLC

DB-5MS .25mm

Data file : /chem/fid7.i/122109dr/005f0501a.d
Lab Smp Id: 1201999297 Client Smp ID: DBLK01
Inj Date : 21-DEC-2009 13:46
Operator : KXR2 Inst ID: fid7.i
Smp Info : |1201999297|1|
Misc Info : |FIDDRO_S|934477|FIDF|MB|
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fid7.i/122109dr/FID7a.i_b_DRO_121309.m
Meth Date : 22-Dec-2009 00:16 kev01577 Quant Type: ESTD
Cal Date : 13-DEC-2009 18:58 Cal File: 007f0701.d
Als bottle: 5 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-940.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weigth of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (mg/L)	FINAL (mg/Kg)
$ 2 o-Terphenyl					CAS #: 84-15-1
13.592	13.595	-0.003	268508	10.1844	0.34

Data File: /chem/fid7.i/122109dr/005f0501a.d
Date : 21-DEC-2009 13:46
Client ID: DBLK01
Sample Info: |120199929711|
Volume Injected (uL): 1.0
Column phase: DB-5MS

Page 1

Instrument: fid7.i

Operator: KXR2
Column diameter: 0.25

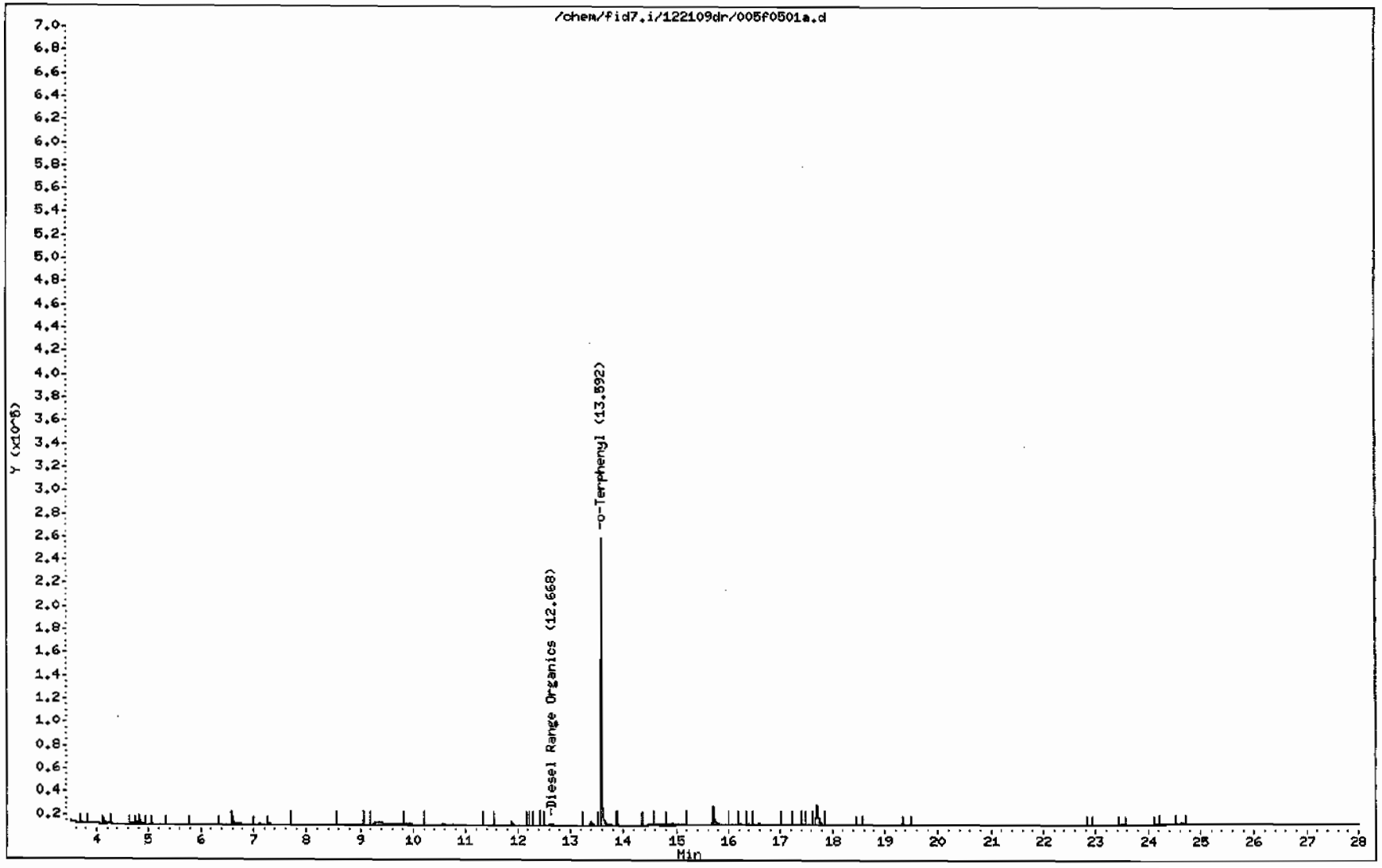

Flame Ionization Detector
Certificate of Analysis
Sample Summary

SDG Number:	10-940			**Matrix:**	SOIL
Lab Sample ID:	1201999298				
Client Sample:	QC for batch 934475	**Client:**	LANL010	**Project:**	QC
Client ID:	LCS for batch 934475	**Method:**	SW846 8015A/B SVOC	**SOP Ref:**	GL-OA-E-003
Batch ID:	934477	**Inst:**	FID7.I	**Dilution:**	1
Run Date:	12/21/2009 14:23	**Analyst:**	KXR2	**Inj. Vol:**	1 uL
Prep Date:	12/18/2009 19:50	**Aliquot:**	30 g	**Final Volume:**	1 mL
Data File:	006f0601.d	**Column:**	DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics		26.4	mg/kg	2.17	6.67

GEL Laboratories LLC

DB-5MS .25mm

Data file : /chem/fid7.i/122109dr/006f0601a.d
Lab Smp Id: 1201999298 Client Smp ID: DBLK01LCS
Inj Date : 21-DEC-2009 14:23
Operator : KXR2 Inst ID: fid7.i
Smp Info : |1201999298|1|
Misc Info : |FIDDRO_S|934477|FIDF|LCS|
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fid7.i/122109dr/FID7a.i_b_DRO_121309.m
Meth Date : 22-Dec-2009 00:16 kev01577 Quant Type: ESTD
Cal Date : 13-DEC-2009 18:58 Cal File: 007f0701.d
Als bottle: 6 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-940.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weigth of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (mg/L)	FINAL (mg/Kg)
S 1 Diesel Range Organics					CAS #:
7.480- 17.855			10645874	793.450	26.4
$ 2 o-Terphenyl					CAS #: 84-15-1
13.593	13.595	-0.002	440908	16.7235	0.56

Data File: /chem/fid7.i/122109dr/006f0601a.d
Date : 21-DEC-2009 14:23
Client ID: DBLK01LCS
Sample Info: |120199929811|
Volume Injected (uL): 1.0
Column phase: DB-5MS

Page 1

Instrument: fid7.i

Operator: KXR2
Column diameter: 0.25

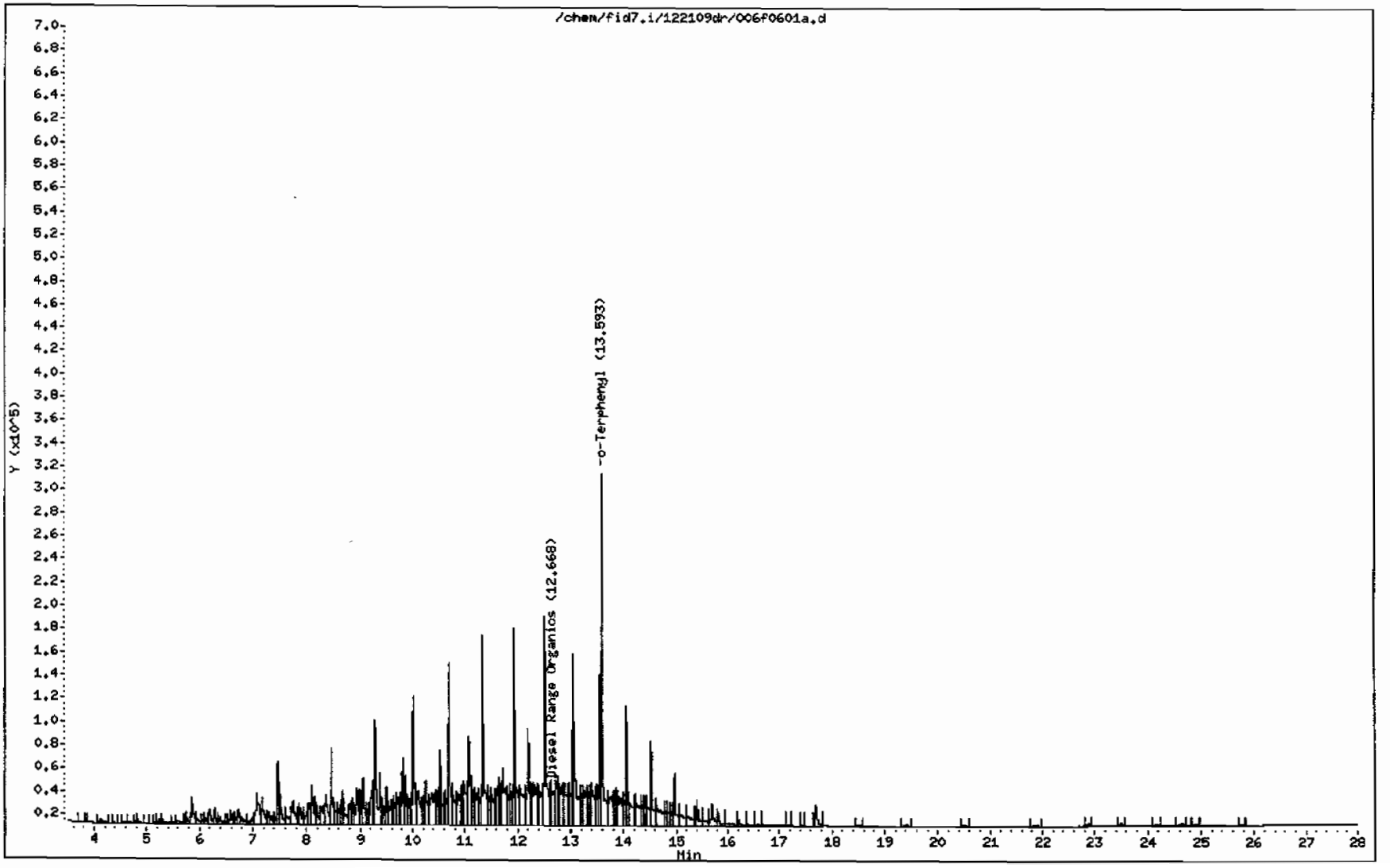

Flame Ionization Detector
Certificate of Analysis
Sample Summary

SDG Number:	10–940	Date Collected:	12/14/2009 12:00	Matrix:	S
Lab Sample ID:	1201999299	Date Received:	12/16/2009 09:10	%Moisture:	14.8
Client Sample:	QC for batch 934475	Client:	LANL010	Project:	QC
Client ID:	RE03–09–14221MS	Method:	SW846 8015A/B SVOC	SOP Ref:	GL–OA–E–003
Batch ID:	934477	Inst:	FID7.I	Dilution:	1
Run Date:	12/21/2009 16:14	Analyst:	KXR2	Inj. Vol:	1 uL
Prep Date:	12/18/2009 19:50	Aliquot:	30.01 g	Final Volume:	1 mL
Data File:	009f0901.d	Column:	DB–5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics		36.2	mg/kg	2.54	7.82

GEL Laboratories LLC

DB-5MS .25mm

Data file : /chem/fid7.i/122109dr/009f0901.d
Lab Smp Id: 1201999299 Client Smp ID: RE03-09-14221MS
Inj Date : 21-DEC-2009 16:14
Operator : KXR2 Inst ID: fid7.i
Smp Info : |1201999299|1|
Misc Info : |FIDDRO_S|934477|FIDF|MS|
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fid7.i/122109dr/FID7a.i_b_DRO_121309.m
Meth Date : 22-Dec-2009 00:16 kev01577 Quant Type: ESTD
Cal Date : 13-DEC-2009 18:58 Cal File: 007f0701.d
Als bottle: 9 QC Sample: MS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-940.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.01000	Weigth of sample extracted (g)
M	14.77230	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (mg/L)	FINAL (mg/Kg)
S 1 Diesel Range Organics					CAS #:
7.480- 17.855			12439185	927.107	36.2
$ 2 o-Terphenyl					CAS #: 84-15-1
13.593	13.595	-0.002	428100	16.2377	0.63

Data File: /chem/fid7.i/122109dr/009f0901.d
Date : 21-DEC-2009 16:14
Client ID: RE03-09-14221MS
Sample Info: |120199929911|
Volume Injected (uL): 1.0
Column phase: DB-5MS

Instrument: fid7.i

Operator: KXR2
Column diameter: 0.25

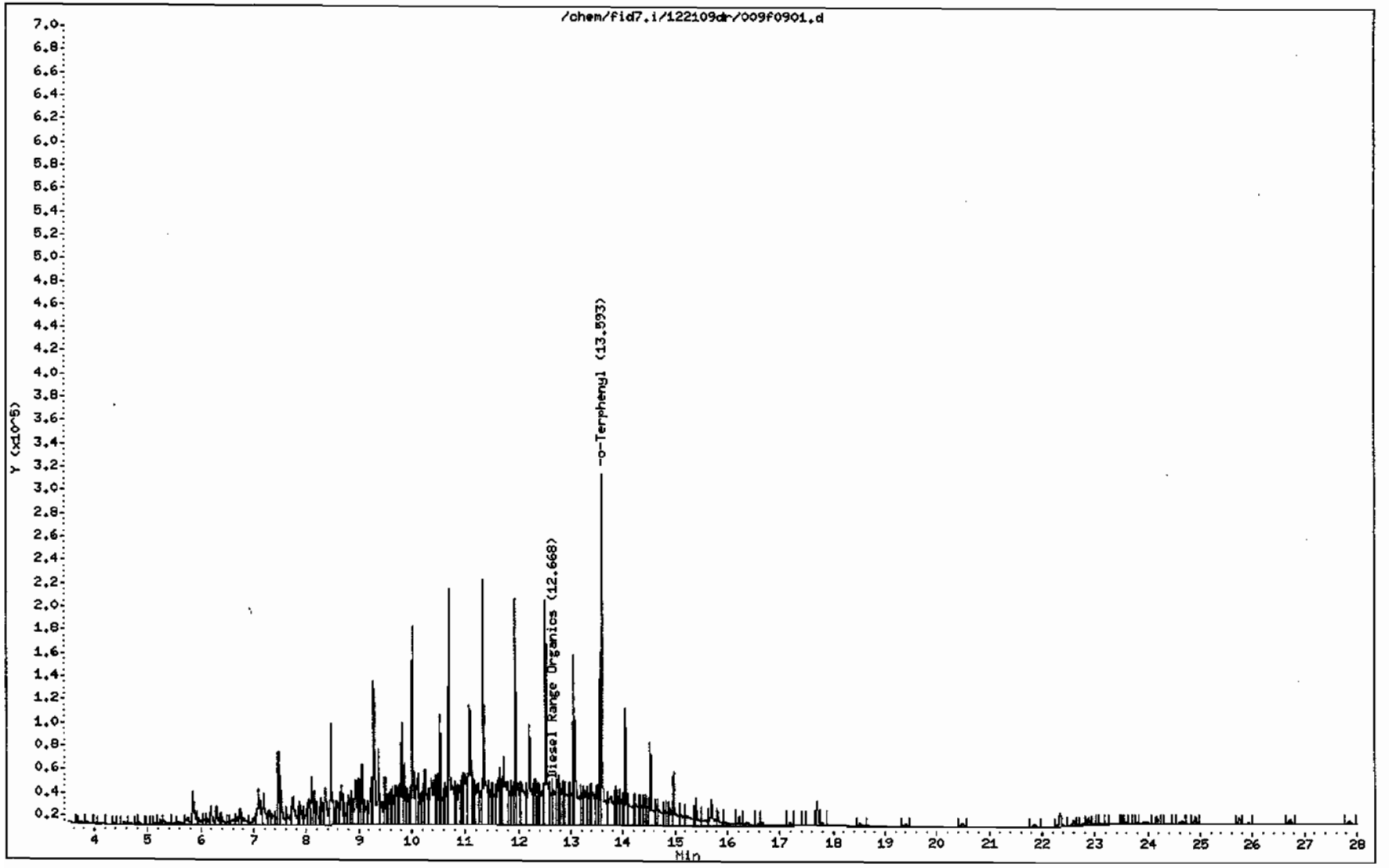

Flame Ionization Detector
Certificate of Analysis
Sample Summary

SDG Number:	10–940	**Date Collected:**	12/14/2009 12:00	**Matrix:**	S
Lab Sample ID:	1201999300	**Date Received:**	12/16/2009 09:10	**%Moisture:**	14.8
Client Sample:	QC for batch 934475	**Client:**	LANL010	**Project:**	QC
Client ID:	RE03–09–14221MSD	**Method:**	SW846 8015A/B SVOC	**SOP Ref:**	GL–OA–E–003
Batch ID:	934477	**Inst:**	FID7.I	**Dilution:**	1
Run Date:	12/21/2009 16:51	**Analyst:**	KXR2	**Inj. Vol:**	1 uL
Prep Date:	12/18/2009 19:50	**Aliquot:**	30.17 g	**Final Volume:**	1 mL
Data File:	010f1001.d	**Column:**	DB–5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics		46.4	mg/kg	2.53	7.78

GEL Laboratories LLC

DB-5MS .25mm

Data file : /chem/fid7.i/122109dr/010f1001.d
Lab Smp Id: 1201999300 Client Smp ID: RE03-09-14221MSD
Inj Date : 21-DEC-2009 16:51
Operator : KXR2 Inst ID: fid7.i
Smp Info : |1201999300|1|
Misc Info : |FIDDRO_S|934477|FIDF|MSD|
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fid7.i/122109dr/FID7a.i_b_DRO_121309.m
Meth Date : 22-Dec-2009 00:16 kev01577 Quant Type: ESTD
Cal Date : 13-DEC-2009 18:58 Cal File: 007f0701.d
Als bottle: 10 QC Sample: MSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-940.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.17000	Weigth of sample extracted (g)
M	14.77230	% Moisture

Cpnd Variable Local Compound Variable

	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (mg/L)	FINAL (mg/Kg)
S	1 Diesel Range Organics					CAS #:
	7.480- 17.855			16016324	1193.72	46.4
S	2 o-Terphenyl					CAS #: 84-15-1
	13.593	13.595	-0.002	442451	16.7821	0.65

Data File: /chem/fid7.i/122109dr/010f1001.d
Date : 21-DEC-2009 16:51
Client ID: RE03-09-14221HSD
Sample Info: |120199930|1|
Volume Injected (uL): 1.0
Column phase: DB-5MS

Instrument: fid7.i

Operator: KXR2
Column diameter: 0.25

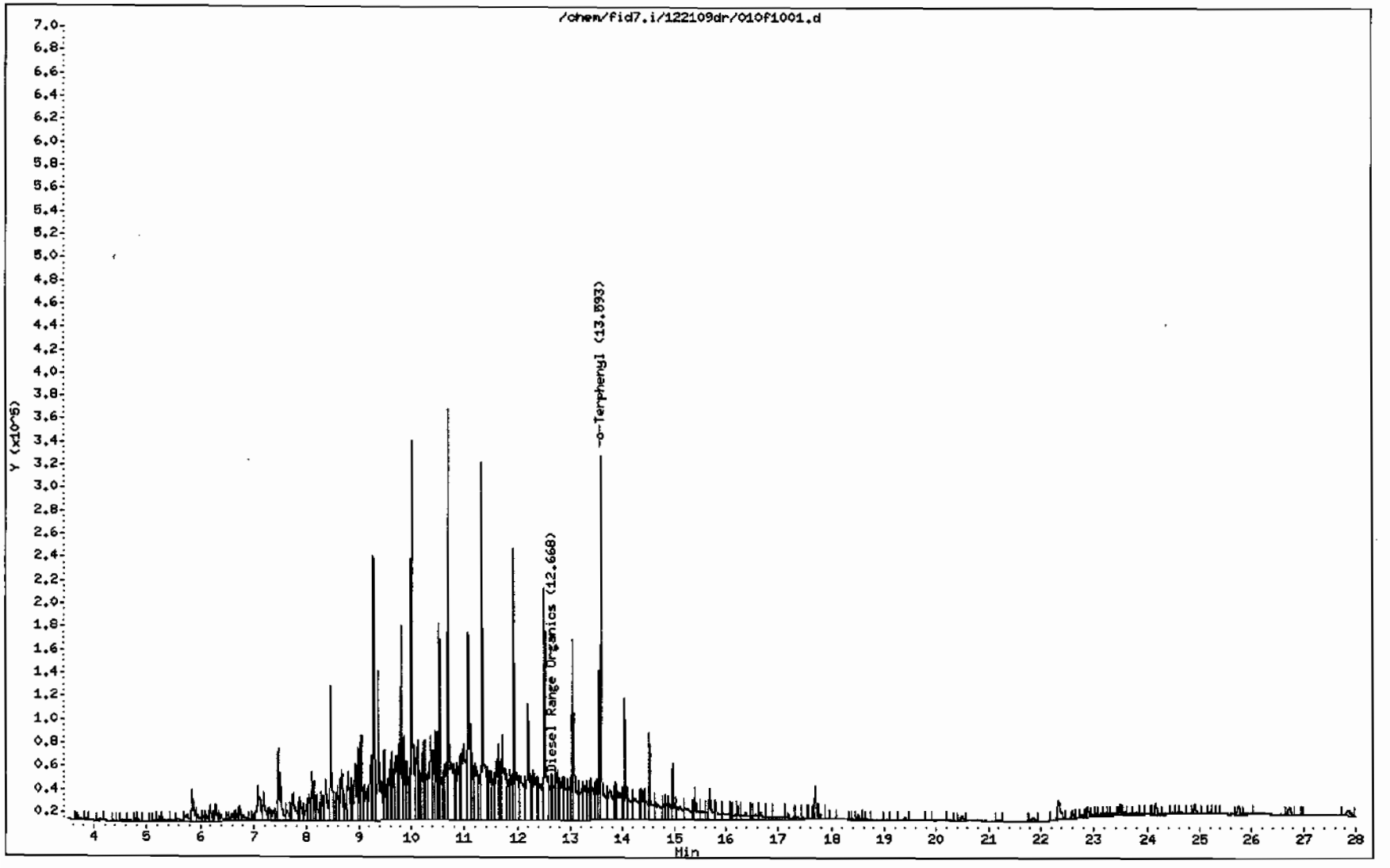

MISCELLANEOUS DATA

GEL ORGANIC RUN LOG INSTRUMENT ID: FID7.i

DATE: 12/14/2009 METHOD: FID7a.i_b_DRO_121309.m OPERATOR:KXR2 REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 16 on pg. 16 Solvent REMAT ID:CH2CL2

Calibration & QC Information
GC Column: DB-5MS 30m x 0.25mm x 0.25um
Initial Calibration Dates: See Calibration History and Standards Log
Initial Calibration Std ID's: See Calibration History and Standards Log
FID analysis of GEL SOP:GL-OA-E-003

Sequence Number:121309DR Injection Volume: 1.0 ul

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001f0101.d	WFI091130-06 B1	KXR2	13-DEC-2009 15:16		SDGa20942	1.0		CLEAN
002f0201.d	UFI091013-03 RT	KXR2	13-DEC-2009 15:53		SDGa20942	1.0		RTMARKER
003f0301.d	UFI090827-10 200	KXR2	13-DEC-2009 16:31		SDGa20942	1.0		CAL. LEVEL 1
004f0401.d	UFI090827-11 500	KXR2	13-DEC-2009 17:07		SDGa20942	1.0		CAL. LEVEL 2
005f0501.d	UFI090827-12 1000	KXR2	13-DEC-2009 17:45		SDGa20942	1.0		CAL. LEVEL 3
006f0601.d	UFI090827-13 2000	KXR2	13-DEC-2009 18:22		SDGa20942	1.0		CAL. LEVEL 4
007f0701.d	UFI090827-14 5000	KXR2	13-DEC-2009 18:58		SDGa20942	1.0		CAL. LEVEL 5
008f0801.d	WFI090928-01 D1	KXR2	13-DEC-2009 19:36		SDGa20942	1.0		PASSES
009f0901.d	WFI091130-06 B2	KXR2	13-DEC-2009 20:12		SDGa20942	1.0		CLEAN
010f1001.d	1201993826	KXR2	13-DEC-2009 20:49	932074	10-830	1.0	MB	USE
011f1101.d	1201993827	KXR2	13-DEC-2009 21:26	932074	10-830	1.0	LCS	USE
012f1201.d	242439002	KXR2	13-DEC-2009 22:03	932074	10-830	1.0	LANL	USE
013f1301.d	1201993828	KXR2	13-DEC-2009 22:40	932074	10-830	1.0	MS	USE
014f1401.d	1201993829	KXR2	13-DEC-2009 23:18	932074	10-830	1.0	MSD	USE
015f1501.d	242439003	KXR2	13-DEC-2009 23:54	932074	10-830	1.0	LANL	USE

Instrument Batch: /chem/fid7.i/121309dr Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
016f1601.d	242439004	KXR2	14-DEC-2009 00:32	932074	10-830	1.0	LANL	USE

017f1701.d	242439005	KXR2	14-DEC-2009 01:09	932074	10-830		5.0	LANL	USE
018f1801.d	242439006	KXR2	14-DEC-2009 01:46	932074	10-830		1.0	LANL	USE
019f1901.d	242439007	KXR2	14-DEC-2009 02:23	932074	10-830		1.0	LANL	USE
020f2001.d	UFI091118-02 D2	KXR2	14-DEC-2009 03:00		SDGa20942		1.0		PASSES
021f2101.d	WFI091130-06 B3	KXR2	14-DEC-2009 03:37		SDGa20942		1.0		CLEAN
022f2201.d	242439008	KXR2	14-DEC-2009 04:13	932074	10-830		1.0	LANL	USE
023f2301.d	242439009	KXR2	14-DEC-2009 04:50	932074	10-830		1.0	LANL	USE
024f2401.d	242439010	KXR2	14-DEC-2009 05:27	932074	10-830		1.0	LANL	USE
025f2501.d	242439011	KXR2	14-DEC-2009 06:04	932074	10-830		1.0	LANL	USE
026f2601.d	242439012	KXR2	14-DEC-2009 06:41	932074	10-830		1.0	LANL	USE
027f2701.d	242439013	KXR2	14-DEC-2009 07:18	932074	10-830		20.0	LANL	USE
028f2801.d	242439014	KXR2	14-DEC-2009 07:55	932074	10-830		1.0	LANL	USE
029f2901.d	242439015	KXR2	14-DEC-2009 08:32	932074	10-830		10.0	LANL	USE
030f3001.d	242439016	KXR2	14-DEC-2009 09:09	932074	10-830		1.0	LANL	USE
031f3101.d	UFI091118-02 D3	KXR2	14-DEC-2009 09:46		SDGa20942		1.0		PASSES
032f3201.d	WFI091130-06 B4	KXR2	14-DEC-2009 10:23		SDGa20942		1.0		CLEAN

GEL ORGANIC RUN LOG INSTRUMENT ID: FID7.i

DATE: 12/28/2009 METHOD: FID7a.i_b_DRO_121309.m OPERATOR:KXR2 REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 16 on pg. 16 Solvent REMAT ID:CH2CL2

Calibration & QC Information
GC Column: DB-5MS 30m x 0.25mm x 0.25um
Initial Calibration Dates: See Calibration History and Standards Log
Initial Calibration Std ID's: See Calibration History and Standards Log
FID analysis of GEL SOP:GL-OA-E-003

Sequence Number:122109DR Injection Volume: 1.0 ul

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001f0101.d	WFI091130-06 B1	KXR2	21-DEC-2009 11:18		SDGa21099	1.0		CLEAN
002f0201.d	UFI091013-03 RT	KXR2	21-DEC-2009 11:55		SDGa21099	1.0		RTMARKER
003f0301.d	UFI091203-02 D1	KXR2	21-DEC-2009 12:32		SDGa21099	1.0		PASSES
004f0401.d	WFI091130-06 B2	KXR2	21-DEC-2009 13:09		SDGa21099	1.0		CLEAN
005f0501.d	1201999297	KXR2	21-DEC-2009 13:46	934477	10-939	1.0	MB	USE
006f0601.d	1201999298	KXR2	21-DEC-2009 14:23	934477	10-939	1.0	LCS	USE
007f0701.d	243007002	KXR2	21-DEC-2009 15:00	934477	10-939	1.0	LANL	USE
008f0801.d	243033001	KXR2	21-DEC-2009 15:37	934477	10-940	1.0	LANL	USE
009f0901.d	1201999299	KXR2	21-DEC-2009 16:14	934477	10-940	1.0	MS	USE
010f1001.d	1201999300	KXR2	21-DEC-2009 16:51	934477	10-940	1.0	MSD	USE
011f1101.d	243033002	KXR2	21-DEC-2009 17:27	934477	10-940	1.0	LANL	USE
012f1201.d	UFI091203-02 D2	KXR2	21-DEC-2009 18:04		SDGa21099	1.0		PASSES
013f1301.d	WFI091130-06 B3	KXR2	21-DEC-2009 18:41		SDGa21099	1.0		CLEAN
014f1401.d	243033003	KXR2	21-DEC-2009 19:17	934477	10-940	1.0	LANL	USE
015f1501.d	243033004	KXR2	21-DEC-2009 19:54	934477	10-940	1.0	LANL	USE

Instrument Batch: /chem/fid7.i/122109dr Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
016f1601.d	243033005	KXR2	21-DEC-2009 20:30	934477	10-940	1.0	LANL	USE

017f1701.d	243033006	KXR2	21-DEC-2009 21:07	934477	10-940	1.0	LANL	USE
018f1801.d	243033007	KXR2	21-DEC-2009 21:43	934477	10-940	1.0	LANL	USE
019f1901.d	243033008	KXR2	21-DEC-2009 22:20	934477	10-940	1.0	LANL	USE
020f2001.d	243033009	KXR2	21-DEC-2009 22:57	934477	10-940	1.0	LANL	USE
021f2101.d	UFI091203-02 D3	KXR2	21-DEC-2009 23:38		SDGa21099	1.0		PASSES
022f2201.d	WFI091130-06 B4	KXR2	22-DEC-2009 00:14		SDGa21099	1.0		CLEAN
023f2301.d	1202001581	KXR2	22-DEC-2009 00:51	935422	10-987	1.0	MB	USE
024f2401.d	1202001582	KXR2	22-DEC-2009 01:28	935422	10-987	1.0	LCS	USE
025f2501.d	243275004	KXR2	22-DEC-2009 02:04	935422	10-987	1.0	LANL	DUSE,OVERRANGE RERUN @5X
026f2601.d	1202001583	KXR2	22-DEC-2009 02:41	935422	10-987	1.0	MS	DUSE,OVERRANGE RERUN @5X
027f2701.d	1202001584	KXR2	22-DEC-2009 03:18	935422	10-987	1.0	MSD	DUSE,OVERRANGE RERUN @5X
028f2801.d	243275005	KXR2	22-DEC-2009 03:54	935422	10-987	100.0	LANL	DUSE,OVERRANGE PRIOR
029f2901.d	243275006	KXR2	22-DEC-2009 04:31	935422	10-987	20.0	LANL	DUSE,OVERRANGE RERUN @100X
030f3001.d	UFI091203-02 D4	KXR2	22-DEC-2009 05:07		SDGa21099	1.0		PASSES
031f3101.d	WFI091130-06 B5	KXR2	22-DEC-2009 05:44		SDGa21099	1.0		CLEAN
032f3201.d	UFI091203-02 D5	KXR2	22-DEC-2009 09:52		SDGa21099	1.0		PASSES
033f3301.d	WFI091130-06 B6	KXR2	22-DEC-2009 10:29		SDGa21099	1.0		CLEAN
034f3401.d	243275004	KXR2	22-DEC-2009 11:06	935422	10-987	5.0	LANL	USE
035f3501.d	1202001583	KXR2	22-DEC-2009 11:43	935422	10-987	5.0	MS	USE

Instrument Batch: /chem/fid7.i/122109dr

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
036f3601.d	1202001584	KXR2	22-DEC-2009 12:20	935422	10-987	5.0	MSD	USE
037f3701.d	243275005	KXR2	22-DEC-2009 12:57	935422	10-987	100.0	LANL	USE
038f3801.d	243275006	KXR2	22-DEC-2009 13:34	935422	10-987	100.0	LANL	USE
039f3901.d	UFI091203-02 D6	KXR2	22-DEC-2009 14:12		SDGa21099	1.0		PASSES
040f4001.d	WFI091130-06 B7	KXR2	22-DEC-2009 14:49		SDGa21099	1.0		CLEAN

Prep Logbook

Extraction of Semivolatile and Nonvolatile Organic Compounds from Soil, Sludge, and Other Miscellaneous Solid Samples

Batch ID: 934475 **Verified by:** _____

Analyst: Alberto Velasco

Method: SW846 3550B

Lab SOP: GL-OA-E-010 REV# 18

Instrument: Semi-Volatiles Manual

Sample ID	Run Date	Aliquot (g)	Prepped Aliquot (mL)	Prepped Factor (mL/g)
1201999297 MB	18-DEC-2009 19:50:00	30	1	0.03333
1201999298 LCS	18-DEC-2009 19:50:00	30	1	0.03333
243007002	18-DEC-2009 19:50:00	30.17	1	0.03315
243033001	18-DEC-2009 19:50:00	30.09	1	0.03323
1201999299 MS (243033001)	18-DEC-2009 19:50:00	30.01	1	0.03332
1201999300 MSD (243033001)	18-DEC-2009 19:50:00	30.17	1	0.03315
243033002	18-DEC-2009 19:50:00	30.02	1	0.03331
243033003	18-DEC-2009 19:50:00	30.08	1	0.03324
243033004	18-DEC-2009 19:50:00	30.18	1	0.03313
243033005	18-DEC-2009 19:50:00	30.15	1	0.03317
243033006	18-DEC-2009 19:50:00	30.18	1	0.03313
243033007	18-DEC-2009 19:50:00	30.19	1	0.03312
243033008	18-DEC-2009 19:50:00	30.17	1	0.03315
243033009	18-DEC-2009 19:50:00	30.01	1	0.03332

Type	Sample Id	Description	Serial Number	Spike Amt	Units
LCS	1201999298	TPH DRO LCS	UE091030-08	1	mL
MS	1201999299	TPH DRO LCS	UE091030-08	1	mL
MSD	1201999300	TPH DRO LCS	UE091030-08	1	mL
SURR	All	20 ppm surrogate	WE091210-04	1	mL
REGNT	All	Methylene Chloride	1242565-D	300	mL
SOURC	All	SODIUM SULFATE	1242582	30	g

Comments:

Verified By: AJS

Final Solvent: CH2Cl2

GC SEMIVOLATILE PCB ANALYSIS

PCB Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-940

Method/Analysis Information

Procedure:	**Analysis of Polychlorinated Biphenyls by ECD**
Analytical Method:	SW846 8082
Prep Method:	SW846 3550B
Analytical Batch Number:	935393
Prep Batch Number:	935357

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 8082:

Sample ID	Client ID
243033001	RE03-09-14221
243033002	RE03-09-14211
243033003	RE03-09-14210
243033004	RE03-09-14209
243033005	RE03-09-14208
243033006	RE03-09-14222
243033007	RE03-09-14223
243033008	RE03-09-14220
243033009	RE03-10-2734
1202001507	Method Blank (MB)
1202001508	Laboratory Control Sample (LCS)
1202001509	243274001(RE12-10-7352) Matrix Spike (MS)
1202001510	243274001(RE12-10-7352) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on a "dry weight" basis.

Preparation/Analytical Method Verification

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-040 REV# 14.

Raw data reports are processed and reviewed by the analyst using the Target software package. False positives have

been removed from the Target quantitation reports per standard operating procedures (SOP) section 23.0.

Calibration Information

Please note that the 'Cal Date' indicated on each quantitation report reflects the date and time of the most recent calibrated analyte(s) in the Target processing method. Since the laboratory may calibrate with multiple solutions on different days using the same processing method, the Target software will update the 'Cal Date' to the last calibration file, date and time. The correct dates and times for all calibration files are located on the Calibration History report in the Standard Data section in the data package.

Due to software limitations, the Calibration Summary Form 6 may not indicate all the calibration files comprising the initial calibration. A complete list of the initial calibration data files are shown in the Calibration History report located in the Standard Data section of the data package.

Initial Calibration
All initial calibration requirements have been met for this sample delivery group (SDG).

The linear equation used in Target and indicated on the initial calibration summary form is not a conventional linear equation (slope intercept formula) and does not match the equation found in SW-846 method 8000B. The x and y axes are inversed in Target, so that the instrument response is treated as the independent variable (x) and the concentration ratio is treated as the dependent variable (y). The equation used in Target to calculate sample results is adjusted to account for the linear equation inversion and reciprocal slope. The adjusted calculation has been independently verified to produce valid results.

Continuing Calibration Verification (CCV) Requirements
All associated calibration verification standard(s) (ICV or CCV) met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Surrogate Recoveries
All surrogate recoveries were within the established acceptance criteria for this SDG.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

QC Sample Designation
A LANL sample of similar matrix associated with another SDG (#10-989) was selected for the matrix spike and matrix spike duplicate analysis. A Form III and QC raw data are included in the package summarizing the results.

Matrix Spike (MS) Recovery Statement
The MS recoveries were within the established acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD were within the established acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD between the MS and MSD met the acceptance limits.

Technical Information

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the

specified holding time.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP. All sample extracts were cleaned using alumina. Additionally, copper was added to all sample extracts to remove sulfur.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-extraction/Re-analysis
Re-extractions or re-analyses were not required in this SDG.

Miscellaneous Information

Electronic Package Comment

The following package was generated using an electronic data processing program referred to as "virtual packaging". In an effort to increase quality and efficiency, the laboratory is developing systems to eventually generate all data packages electronically. The following change from "traditional" packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. An electronic signature page inserted after the case narrative of each electronic package will indicate the analyst, reviewer, and report specialist names associated with the generation of the data and package. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Nonconformance (NCR) Documentation
Nonconformance report (NCR) is for documentation of any procedural anomalies that may deviate from referenced SOP or contractual document. A NCR was not required for this SDG.

Manual Integration
Certain standards and samples may have required manual integration to correctly position the baseline as set in the calibration standard injections. If manual integration was performed, copies of all manual integration peak profiles are included in the raw data section of this PCB fraction.

Additional Comments
The additional comments field is used to address special issues associated with each analysis, clarify method/contractual issues pertaining to the analysis, and to list any report documents generated as a result of sample analysis or review. The following additional comments were required:

The higher results from either column have been chosen and reported in the data package for the client samples, MB and LCS.

The data reported on the form I and III may differ slightly from the data reported on the form X. This is due to software limitations in rounding differences between the forms.

Aroclors quantitated on the raw data report by the Target data system do not necessarily represent positive Aroclor identification. In order for positive identification to be made, the Aroclor must match in pattern and retention time; as well as quantitate relatively close between the primary and confirmation columns, as specified in SW846 method 8000. When these conditions are not met, the Aroclor is reported as a non-detect on the data report. These situations will be noted on the raw data as DMP, representing does not match pattern, or DNC does not confirm.

Due to software limitation, the Form VIIs will display the results either in the % difference or % drift depending on the type of the calibration curve. If the curve of all analytes is generated using an average response factor (RF), the Form VII will display results using the %difference calculation (RF). If the curve of one or more analytes is generated using a linear curve, the Form VII will display results using the % drift calculation (by concentration) for

all analytes.

System Configuration

The Semi-Volatiles-PCB analysis was performed on the following instrument configuration:

Instrument ID	Instrument	System Configuration	Column ID	Column Description
ECD1A.I_1	HP Gas Chromatograph	HP6890 Series ECD	Rtx-CLP I	30m x 0.25mm, 0.25um (Rtx-CLPesticide)
ECD1A.I_2	HP Gas Chromatograph	HP6890 Series ECD	Rtx-CLP II	30m x 0.25mm, 0.20um (Rtx-CLPesticideII)

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Jimmi Cao Date: 1/12/10

Roadmap for LANL 10-940 PCB

This roadmap was analyzed by jen01212 on 12-23-2009, 12:58.
This roadmap was reviewed by hca01125 on 12-24-2009, 14:09.
This roadmap was packaged by yml on 01-11-2010, 14:19.
This roadmap was validated by jim01140 on 01-12-2010, 09:44.

Front Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd1a.i/122209.b/028f2801.d	243033001	sample	22-DEC-2009	12:39	10-940.sub	RE03-09-14221	1.00000	935393	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd1a.i/122209.b/029f2901.d	243033002	sample	22-DEC-2009	12:49	10-940.sub	RE03-09-14211	1.00000	935393	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd1a.i/122209.b/030f3001.d	243033003	sample	22-DEC-2009	13:00	10-940.sub	RE03-09-14210	1.00000	935393	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd1a.i/122209.b/031f3101.d	243033004	sample	22-DEC-2009	13:10	10-940.sub	RE03-09-14209	1.00000	935393	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd1a.i/122209.b/032f3201.d	243033005	sample	22-DEC-2009	13:21	10-940.sub	RE03-09-14208	1.00000	935393	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd1a.i/122209.b/033f3301.d	243033006	sample	22-DEC-2009	13:31	10-940.sub	RE03-09-14222	1.00000	935393	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd1a.i/122209.b/036f3601.d	243033007	sample	22-DEC-2009	14:03	10-940.sub	RE03-09-14223	1.00000	935393	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd1a.i/122209.b/037f3701.d	243033008	sample	22-DEC-2009	14:14	10-940.sub	RE03-09-14220	1.00000	935393	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd1a.i/122209.b/038f3801.d	243033009	sample	22-DEC-2009	14:24	10-940.sub	RE03-10-2734	1.00000	935393	UPLOAD BOTH, USE HIGHER

Back Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd1a.i/122209.b/028b2801.d	243033001	sample	22-DEC-2009	12:39	10-940.sub	RE03-09-14221	1.00000	935393	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd1a.i/122209.b/029b2901.d	243033002	sample	22-DEC-2009	12:49	10-940.sub	RE03-09-14211	1.00000	935393	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd1a.i/122209.b/030b3001.d	243033003	sample	22-DEC-2009	13:00	10-940.sub	RE03-09-14210	1.00000	935393	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd1a.i/122209.b/031b3101.d	243033004	sample	22-DEC-2009	13:10	10-940.sub	RE03-09-14209	1.00000	935393	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd1a.i/122209.b/032b3201.d	243033005	sample	22-DEC-2009	13:21	10-940.sub	RE03-09-14208	1.00000	935393	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd1a.i/122209.b/033b3301.d	243033006	sample	22-DEC-2009	13:31	10-940.sub	RE03-09-14222	1.00000	935393	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd1a.i/122209.b/036b3601.d	243033007	sample	22-DEC-2009	14:03	10-940.sub	RE03-09-14223	1.00000	935393	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd1a.i/122209.b/037b3701.d	243033008	sample	22-DEC-2009	14:14	10-940.sub	RE03-09-14220	1.00000	935393	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd1a.i/122209.b/038b3801.d	243033009	sample	22-DEC-2009	14:24	10-940.sub	RE03-10-2734	1.00000	935393	UPLOAD BOTH, USE HIGHER

Front QC Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd1a.i/122209.b/024f2401-1.d	1202001507	mb	22-DEC-2009	11:57	10-940.sub	PBLK01	1.00000	935393	

☐	N	/chem/ecd1a.i/122209.b/025f2501-1.d	1202001508	lcs	22-DEC-2009	12:07	10-940.sub	PBLK01LCS	1.00000	935393	

Back QC Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd1a.i/122209.b/024b2401-1.d	1202001507	mb	22-DEC-2009	11:57	10-940.sub	PBLK01	1.00000	935393	
☐	N	/chem/ecd1a.i/122209.b/025b2501-1.d	1202001508	lcs	22-DEC-2009	12:07	10-940.sub	PBLK01LCS	1.00000	935393	

SAMPLE DATA SUMMARY

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10-940**	**Date Collected:**	**12/14/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243033005**	**Date Received:**	**12/16/2009 09:10**	**%Moisture:**	**12.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14208**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**935393**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**12/22/2009 13:21**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**12/21/2009 20:06**	**Aliquot:**	**30.04 g**	**Final Volume:**	**1 mL**
Data File:	**032f3201.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	032b3201.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.82	ug/kg	1.27	3.82	1
11104-28-2	Aroclor-1221	U	3.82	ug/kg	1.27	3.82	1
11141-16-5	Aroclor-1232	U	3.82	ug/kg	1.27	3.82	1
53469-21-9	Aroclor-1242	U	3.82	ug/kg	1.27	3.82	1
12672-29-6	Aroclor-1248	U	3.82	ug/kg	1.27	3.82	1
11097-69-1	Aroclor-1254	U	3.82	ug/kg	1.27	3.82	1
11096-82-5	Aroclor-1260	U	3.82	ug/kg	1.27	3.82	1

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10–940	**Date Collected:**	12/14/2009 12:00	**Matrix:**	S
Lab Sample ID:	243033004	**Date Received:**	12/16/2009 09:10	**%Moisture:**	11.6
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03–09–14209	**Method:**	SW846 8082	**SOP Ref:**	GL–OA–E–040
Batch ID:	935393	**Inst:**	ECD1A.I	**Dilution:**	1
Run Date:	12/22/2009 13:10	**Analyst:**	JAOC	**Inj. Vol:**	1 uL
Prep Date:	12/21/2009 20:06	**Aliquot:**	30.03 g	**Final Volume:**	1 mL
Data File:	031f3101.d	**Column:**	1 CLP1	**Level:**	LOW
	031b3101.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	3.76	ug/kg	1.25	3.76	1
11104–28–2	Aroclor–1221	U	3.76	ug/kg	1.25	3.76	1
11141–16–5	Aroclor–1232	U	3.76	ug/kg	1.25	3.76	1
53469–21–9	Aroclor–1242	U	3.76	ug/kg	1.25	3.76	1
12672–29–6	Aroclor–1248	U	3.76	ug/kg	1.25	3.76	1
11097–69–1	Aroclor–1254	U	3.76	ug/kg	1.25	3.76	1
11096–82–5	Aroclor–1260	U	3.76	ug/kg	1.25	3.76	1

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10-940	**Date Collected:**	12/14/2009 12:00	**Matrix:**	S
Lab Sample ID:	243033003	**Date Received:**	12/16/2009 09:10	**%Moisture:**	13.6
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14210	**Method:**	SW846 8082	**SOP Ref:**	GL-OA-E-040
Batch ID:	935393	**Inst:**	ECD1A.I	**Dilution:**	1
Run Date:	12/22/2009 13:00	**Analyst:**	JAOC	**Inj. Vol:**	1 uL
Prep Date:	12/21/2009 20:06	**Aliquot:**	30.02 g	**Final Volume:**	1 mL
Data File:	030f3001.d	**Column:**	1 CLP1	**Level:**	LOW
	030b3001.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.86	ug/kg	1.28	3.86	1
11104-28-2	Aroclor-1221	U	3.86	ug/kg	1.28	3.86	1
11141-16-5	Aroclor-1232	U	3.86	ug/kg	1.28	3.86	1
53469-21-9	Aroclor-1242	U	3.86	ug/kg	1.28	3.86	1
12672-29-6	Aroclor-1248	U	3.86	ug/kg	1.28	3.86	1
11097-69-1	Aroclor-1254	U	3.86	ug/kg	1.28	3.86	1
11096-82-5	Aroclor-1260	U	3.86	ug/kg	1.28	3.86	1

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10-940	**Date Collected:**	12/14/2009 12:00	**Matrix:**	S
Lab Sample ID:	243033002	**Date Received:**	12/16/2009 09:10	**%Moisture:**	14.3
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14211	**Method:**	SW846 8082	**SOP Ref:**	GL-OA-E-040
Batch ID:	935393	**Inst:**	ECD1A.I	**Dilution:**	1
Run Date:	12/22/2009 12:49	**Analyst:**	JAOC	**Inj. Vol:**	1 uL
Prep Date:	12/21/2009 20:06	**Aliquot:**	30.01 g	**Final Volume:**	1 mL
Data File:	029f2901.d	**Column:**	1 CLP1	**Level:**	LOW
	029b2901.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.89	ug/kg	1.30	3.89	1
11104-28-2	Aroclor-1221	U	3.89	ug/kg	1.30	3.89	1
11141-16-5	Aroclor-1232	U	3.89	ug/kg	1.30	3.89	1
53469-21-9	Aroclor-1242	U	3.89	ug/kg	1.30	3.89	1
12672-29-6	Aroclor-1248	U	3.89	ug/kg	1.30	3.89	1
11097-69-1	Aroclor-1254	U	3.89	ug/kg	1.30	3.89	1
11096-82-5	Aroclor-1260	U	3.89	ug/kg	1.30	3.89	1

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10-940	**Date Collected:**	12/14/2009 12:00	**Matrix:**	S
Lab Sample ID:	243033008	**Date Received:**	12/16/2009 09:10	**%Moisture:**	15.6
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14220	**Method:**	SW846 8082	**SOP Ref:**	GL-OA-E-040
Batch ID:	935393	**Inst:**	ECD1A.1	**Dilution:**	1
Run Date:	12/22/2009 14:14	**Analyst:**	JAOC	**Inj. Vol:**	1 uL
Prep Date:	12/21/2009 20:06	**Aliquot:**	30.02 g	**Final Volume:**	1 mL
Data File:	037f3701.d	**Column:**	1 CLP1	**Level:**	LOW
	037b3701.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.95	ug/kg	1.31	3.95	1
11104-28-2	Aroclor-1221	U	3.95	ug/kg	1.31	3.95	1
11141-16-5	Aroclor-1232	U	3.95	ug/kg	1.31	3.95	1
53469-21-9	Aroclor-1242	U	3.95	ug/kg	1.31	3.95	1
12672-29-6	Aroclor-1248	U	3.95	ug/kg	1.31	3.95	1
11097-69-1	Aroclor-1254	P	116	ug/kg	1.31	3.95	1
11096-82-5	Aroclor-1260		153	ug/kg	1.31	3.95	1

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10-940**	**Date Collected:**	**12/14/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243033001**	**Date Received:**	**12/16/2009 09:10**	**%Moisture:**	**14.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14221**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**935393**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**12/22/2009 12:39**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**12/21/2009 20:06**	**Aliquot:**	**30.09 g**	**Final Volume:**	**1 mL**
Data File:	**028f2801.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	028b2801.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.90	ug/kg	1.30	3.90	1
11104-28-2	Aroclor-1221	U	3.90	ug/kg	1.30	3.90	1
11141-16-5	Aroclor-1232	U	3.90	ug/kg	1.30	3.90	1
53469-21-9	Aroclor-1242	U	3.90	ug/kg	1.30	3.90	1
12672-29-6	Aroclor-1248	U	3.90	ug/kg	1.30	3.90	1
11097-69-1	Aroclor-1254	U	3.90	ug/kg	1.30	3.90	1
11096-82-5	Aroclor-1260	J	2.80	ug/kg	1.30	3.90	2

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–940**	**Date Collected:**	**12/14/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243033006**	**Date Received:**	**12/16/2009 09:10**	**%Moisture:**	**19.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03–09–14222**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**935393**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**12/22/2009 13:31**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**12/21/2009 20:06**	**Aliquot:**	**30.18 g**	**Final Volume:**	**1 mL**
Data File:	**033f3301.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	033b3301.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	4.11	ug/kg	1.37	4.11	1
11104–28–2	Aroclor–1221	U	4.11	ug/kg	1.37	4.11	1
11141–16–5	Aroclor–1232	U	4.11	ug/kg	1.37	4.11	1
53469–21–9	Aroclor–1242	U	4.11	ug/kg	1.37	4.11	1
12672–29–6	Aroclor–1248	U	4.11	ug/kg	1.37	4.11	1
11097–69–1	Aroclor–1254	U	4.11	ug/kg	1.37	4.11	1
11096–82–5	Aroclor–1260	U	4.11	ug/kg	1.37	4.11	1

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10-940	**Date Collected:**	12/14/2009 12:00	**Matrix:**	S
Lab Sample ID:	243033007	**Date Received:**	12/16/2009 09:10	**%Moisture:**	10.8
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14223	**Method:**	SW846 8082	**SOP Ref:**	GL-OA-E-040
Batch ID:	935393	**Inst:**	ECD1A.I	**Dilution:**	1
Run Date:	12/22/2009 14:03	**Analyst:**	JAOC	**Inj. Vol:**	1 uL
Prep Date:	12/21/2009 20:06	**Aliquot:**	30.05 g	**Final Volume:**	1 mL
Data File:	036f3601.d	**Column:**	1 CLP1	**Level:**	LOW
	036b3601.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.73	ug/kg	1.24	3.73	1
11104-28-2	Aroclor-1221	U	3.73	ug/kg	1.24	3.73	1
11141-16-5	Aroclor-1232	U	3.73	ug/kg	1.24	3.73	1
53469-21-9	Aroclor-1242	U	3.73	ug/kg	1.24	3.73	1
12672-29-6	Aroclor-1248	U	3.73	ug/kg	1.24	3.73	1
11097-69-1	Aroclor-1254	U	3.73	ug/kg	1.24	3.73	1
11096-82-5	Aroclor-1260	U	3.73	ug/kg	1.24	3.73	1

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10–940	**Date Collected:**	12/14/2009 12:00	**Matrix:**	S
Lab Sample ID:	243033009	**Date Received:**	12/16/2009 09:10	**%Moisture:**	19.3
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03–10–2734	**Method:**	SW846 8082	**SOP Ref:**	GL–OA–E–040
Batch ID:	935393	**Inst:**	ECD1A.I	**Dilution:**	1
Run Date:	12/22/2009 14:24	**Analyst:**	JAOC	**Inj. Vol:**	1 uL
Prep Date:	12/21/2009 20:06	**Aliquot:**	30.02 g	**Final Volume:**	1 mL
Data File:	038f3801.d	**Column:**	1 CLP1	**Level:**	LOW
	038b3801.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	4.13	ug/kg	1.38	4.13	1
11104–28–2	Aroclor–1221	U	4.13	ug/kg	1.38	4.13	1
11141–16–5	Aroclor–1232	U	4.13	ug/kg	1.38	4.13	1
53469–21–9	Aroclor–1242	U	4.13	ug/kg	1.38	4.13	1
12672–29–6	Aroclor–1248	U	4.13	ug/kg	1.38	4.13	1
11097–69–1	Aroclor–1254	U	4.13	ug/kg	1.38	4.13	1
11096–82–5	Aroclor–1260	U	4.13	ug/kg	1.38	4.13	1

QUALITY CONTROL SUMMARY

PCB

Surrogate Recovery Report

SDG Number: 10-940

Matrix Type: SOLID

CAP Column (1) : CLP1 **CAP Column (2) : CLP2**

Sample ID	Client ID	4CMX 1 %REC #	4CMX 2 %REC #	DCB 1 %REC #	DCB 2 %REC #
1202001507	MB for batch 935357	63	60	74	73
1202001508	LCS for batch 935357	62	60	73	71
243033001	RE03-09-14221	59	56	69	68
243033002	RE03-09-14211	63	60	71	70
243033003	RE03-09-14210	61	59	72	70
243033004	RE03-09-14209	62	59	69	68
243033005	RE03-09-14208	63	61	72	70
243033006	RE03-09-14222	61	59	73	71
243033007	RE03-09-14223	60	58	69	69
243033008	RE03-09-14220	56	53	59	62
243033009	RE03-10-2734	61	59	67	64

Surrogate	Acceptance Limits
4CMX = 4cmx	(34%-105%)
DCB = Decachlorobiphenyl	(33%-115%)

* Recovery outside Acceptance Limits

\# Column to be used to flag recovery values

D Sample Diluted

PCB

Quality Control Summary
Spike Recovery Report

SDG Number: 10-940
Client ID: LCS for batch 935357
Lab Sample ID: 1202001508
Instrument: ECD1A.I
Analyst: JAOC
Inj. Vol: 1 uL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 12/22/2009 12:07
Dilution: 1
Prep Batch ID: 935357
Batch ID: 935393

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
12674-11-2	LCS	Aroclor-1016	33.3	0.0	21.9	66	41-110
11096-82-5	LCS	Aroclor-1260	33.3	0.0	27.1	81	48-110

Quality Control Summary
Spike Recovery Report

SDG Number:	**10–989**	**Sample Type:**	**Matrix Spike**	
Client ID:	**RE12–10–7352MS**	**Matrix:**	**R**	
Lab Sample ID:	**1202001509**	**%Moisture:**	**9.8**	
Instrument:	**ECD1A.I**	**Analysis Date:**	**12/22/2009 14:56**	**Dilution: 1**
Analyst:	**JAOC**	**Prep Batch ID:**	**935357**	
Inj. Vol:	**1 uL**	**Batch ID:**	**935393**	

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
12674–11–2	MS	Aroclor–1016	36.9	0.00	U	24.1	65	23–117
11096–82–5	MS	Aroclor–1260	36.9	0.00	U	30.5	83	27–116

PCB

Quality Control Summary
Spike Recovery Report

SDG Number: 10-989
Client ID: RE12-10-7352MSD
Lab Sample ID: 1202001510
Instrument: ECD1A.I
Analyst: JAOC
Inj. Vol: 1 uL

Sample Type: Matrix Spike Duplicate
Matrix: R
%Moisture: 9.8
Analysis Date: 12/22/2009 15:06
Prep Batch ID: 935357
Batch ID: 935393
Dilution: 1

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
12674-11-2	MSD Aroclor-1016	36.9	0.00	U	24.9	67	23-117	3	0-30
11096-82-5	MSD Aroclor-1260	36.9	0.00	U	30.5	83	27-116	0	0-30

Method Blank Summary

SDG Number:	10-940	Client:	LANL010	Matrix:	SOIL
Client ID:	MB for batch 935357	Instrument ID:	ECD1A.I_2 ECD1A.I_1	Data File:	024b2401-1.d 024f2401-1.d
Lab Sample ID:	1202001507				
Column:	CLP2 CLP1	Prep Date:	12/21/2009 20:06	Analyzed:	12/22/09 11:57
		Level:	LOW		

This method blank applies to the following samples and quality control samples:

Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01 LCS for batch 935357	1202001508	025f2501-1.d 025b2501-1.d	12/22/09	1207
02 RE03-09-14221	243033001	028f2801.d 028b2801.d	12/22/09	1239
03 RE03-09-14211	243033002	029f2901.d 029b2901.d	12/22/09	1249
04 RE03-09-14210	243033003	030f3001.d 030b3001.d	12/22/09	1300
05 RE03-09-14209	243033004	031f3101.d 031b3101.d	12/22/09	1310
06 RE03-09-14208	243033005	032f3201.d 032b3201.d	12/22/09	1321
07 RE03-09-14222	243033006	033f3301.d 033b3301.d	12/22/09	1331
08 RE03-09-14223	243033007	036f3601.d 036b3601.d	12/22/09	1403
09 RE03-09-14220	243033008	037f3701.d 037b3701.d	12/22/09	1414
10 RE03-10-2734	243033009	038f3801.d 038b3801.d	12/22/09	1424

SAMPLE DATA

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10-940	**Date Collected:**	12/14/2009 12:00	**Matrix:**	S
Lab Sample ID:	243033005	**Date Received:**	12/16/2009 09:10	**%Moisture:**	12.8
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14208	**Method:**	SW846 8082	**SOP Ref:**	GL-OA-E-040
Batch ID:	935393	**Inst:**	ECD1A.I	**Dilution:**	1
Run Date:	12/22/2009 13:21	**Analyst:**	JAOC	**Inj. Vol:**	1 uL
Prep Date:	12/21/2009 20:06	**Aliquot:**	30.04 g	**Final Volume:**	1 mL
Data File:	032f3201.d	**Column:**	1 CLP1	**Level:**	LOW
	032b3201.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.82	ug/kg	1.27	3.82	1
11104-28-2	Aroclor-1221	U	3.82	ug/kg	1.27	3.82	1
11141-16-5	Aroclor-1232	U	3.82	ug/kg	1.27	3.82	1
53469-21-9	Aroclor-1242	U	3.82	ug/kg	1.27	3.82	1
12672-29-6	Aroclor-1248	U	3.82	ug/kg	1.27	3.82	1
11097-69-1	Aroclor-1254	U	3.82	ug/kg	1.27	3.82	1
11096-82-5	Aroclor-1260	U	3.82	ug/kg	1.27	3.82	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/122209.b/032f3201.d
Lab Smp Id: 243033005 Client Smp ID: RE03-09-14208
Inj Date : 22-DEC-2009 13:21
Operator : JAOC Inst ID: ecd1a.i
Smp Info : |243033005|1|
Misc Info : |ECD82P_1S|935393|SVA|LANL|SOIL|RE03-09-14208|||
Comment :
Method : /chem/ecd1a.i/122209.b/ECD1-F-8082-121409.m
Meth Date : 23-Dec-2009 06:42 jen01212 Quant Type: ESTD
Cal Date : 14-DEC-2009 11:34 Cal File: 040f4001.d
Als bottle: 32
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-940.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.04000	Weight of sample extracted (g)
M	12.79410	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.971	1.971	0.000	47475464	126.376	4.8	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.287	5.286	0.001	45514383	143.334	5.5	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/122209.b/032f3201.d

Date : 22-DEC-2009 13:21

Client ID: RE03-09-14208

Sample Info: |243033005111

Volume Injected (uL): 1.0

Column phase: CLP1

Instrument: ecd1a.i

Operator: JAOC

Column diameter: 0.25

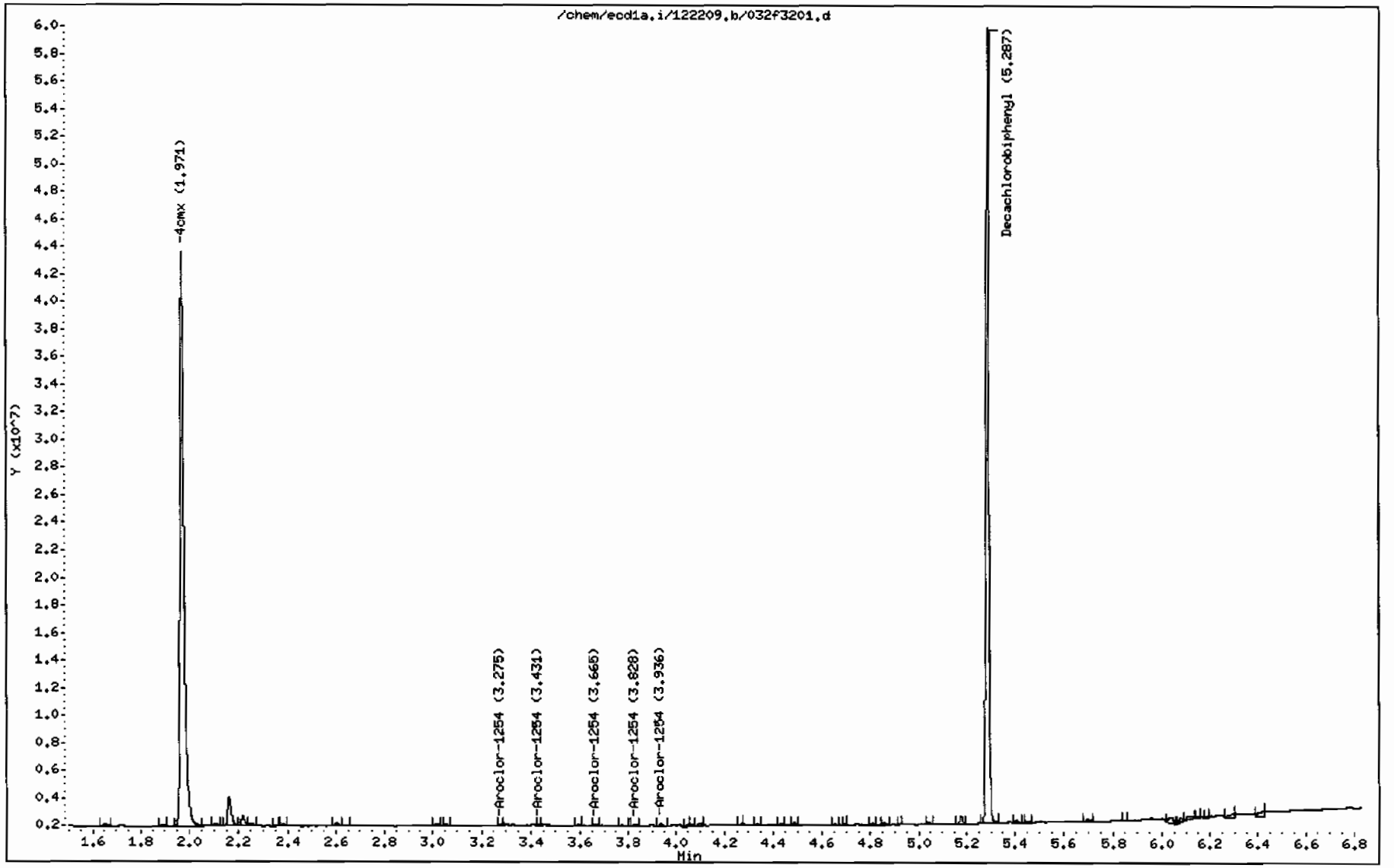

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/122209.b/032b3201.d
Lab Smp Id: 243033005 Client Smp ID: RE03-09-14208
Inj Date : 22-DEC-2009 13:21
Operator : JAOC Inst ID: ecd1a.i
Smp Info : |243033005|1|
Misc Info : |ECD82P_1S|935393|SVA|LANL|SOIL|RE03-09-14208|||
Comment :
Method : /chem/ecd1a.i/122209.b/ECD1-B-8082-121409.m
Meth Date : 22-Dec-2009 13:59 jen01212 Quant Type: ESTD
Cal Date : 14-DEC-2009 12:16 Cal File: 044b4401.d
Als bottle: 32
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-940.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.04000	Weight of sample extracted (g)
M	12.79410	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.302	2.302	0.000	36349288	121.154	4.6	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.949	5.948	0.001	32480581	139.266	5.3	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/122209.b/032b3201.d

Date : 22-DEC-2009 13:21

Client ID: RE03-09-14208

Sample Info: 1243033005111

Volume Injected (uL): 1.0

Column phase: CLP2

Instrument: ecd1a.i

Operator: JAOC

Column diameter: 0.25

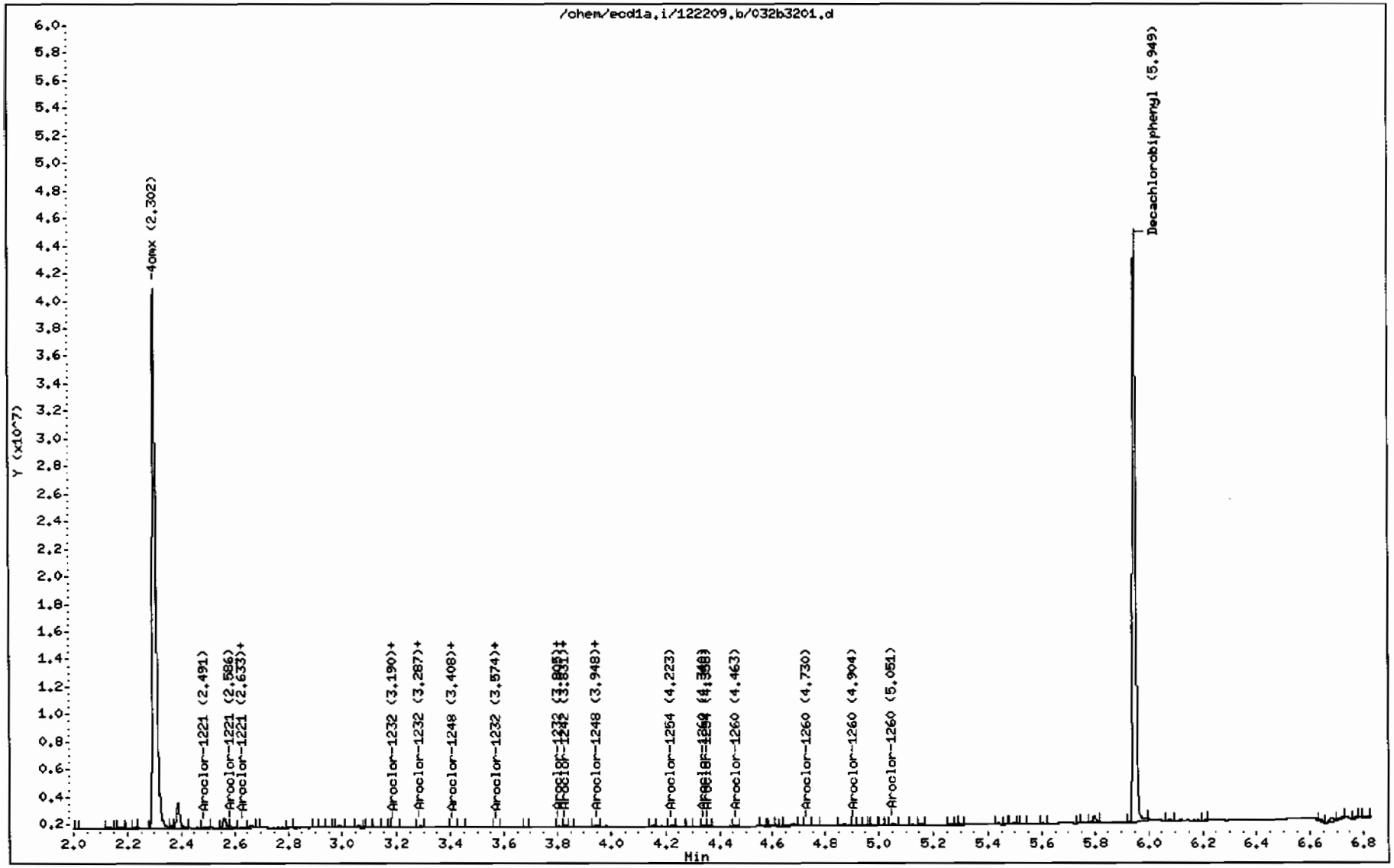

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10–940	**Date Collected:**	12/14/2009 12:00	**Matrix:**	S
Lab Sample ID:	243033004	**Date Received:**	12/16/2009 09:10	**%Moisture:**	11.6
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03–09–14209	**Method:**	SW846 8082	**SOP Ref:**	GL–OA–E–040
Batch ID:	935393	**Inst:**	ECD1A.I	**Dilution:**	1
Run Date:	12/22/2009 13:10	**Analyst:**	JAOC	**Inj. Vol:**	1 uL
Prep Date:	12/21/2009 20:06	**Aliquot:**	30.03 g	**Final Volume:**	1 mL
Data File:	031f3101.d	**Column:**	1 CLP1	**Level:**	LOW
	031b3101.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	3.76	ug/kg	1.25	3.76	1
11104–28–2	Aroclor–1221	U	3.76	ug/kg	1.25	3.76	1
11141–16–5	Aroclor–1232	U	3.76	ug/kg	1.25	3.76	1
53469–21–9	Aroclor–1242	U	3.76	ug/kg	1.25	3.76	1
12672–29–6	Aroclor–1248	U	3.76	ug/kg	1.25	3.76	1
11097–69–1	Aroclor–1254	U	3.76	ug/kg	1.25	3.76	1
11096–82–5	Aroclor–1260	U	3.76	ug/kg	1.25	3.76	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/122209.b/031f3101.d
Lab Smp Id: 243033004 Client Smp ID: RE03-09-14209
Inj Date : 22-DEC-2009 13:10
Operator : JAOC Inst ID: ecd1a.i
Smp Info : |243033004|1|
Misc Info : |ECD82P_1S|935393|SVA|LANL|SOIL|RE03-09-14209|||
Comment :
Method : /chem/ecd1a.i/122209.b/ECD1-F-8082-121409.m
Meth Date : 22-Dec-2009 14:00 jen01212 Quant Type: ESTD
Cal Date : 14-DEC-2009 11:34 Cal File: 040f4001.d
Als bottle: 31
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-940.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.03000	Weight of sample extracted (g)
M	11.55070	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.970	1.971	-0.001	46290183	123.221	4.6	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.287	5.286	0.001	43767954	137.834	5.2	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/122209.b/031f3101.d

Date : 22-DEC-2009 13:10

Client ID: RE03-09-14209

Sample Info: |243033004|1|

Volume Injected (uL): 1.0

Column phase: CLP1

Instrument: ecd1a.i

Operator: JAOC

Column diameter: 0.25

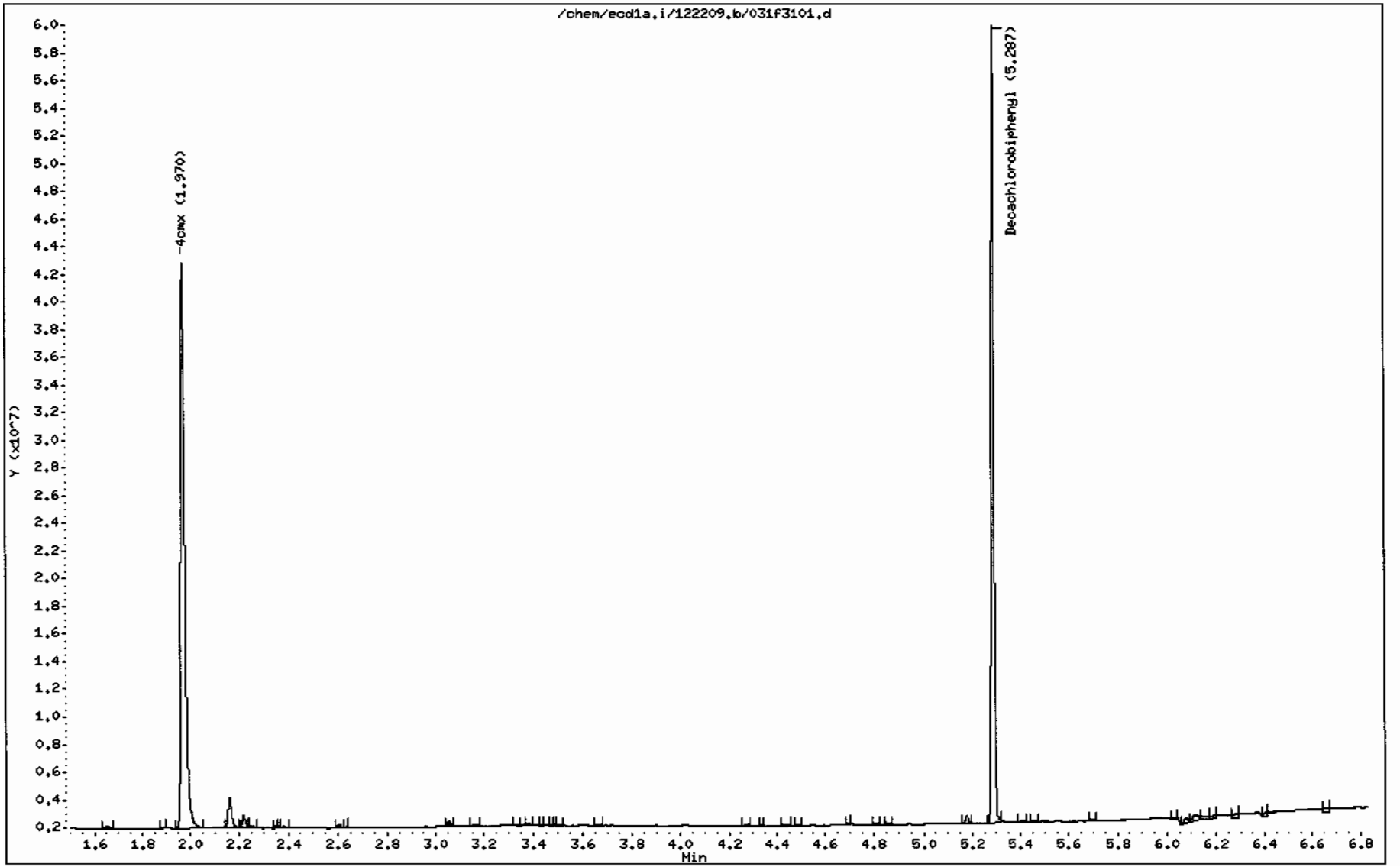

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/122209.b/031b3101.d
Lab Smp Id: 243033004 Client Smp ID: RE03-09-14209
Inj Date : 22-DEC-2009 13:10
Operator : JAOC Inst ID: ecd1a.i
Smp Info : |243033004|1|
Misc Info : |ECD82P_1S|935393|SVA|LANL|SOIL|RE03-09-14209|||
Comment :
Method : /chem/ecd1a.i/122209.b/ECD1-B-8082-121409.m
Meth Date : 22-Dec-2009 13:59 jen01212 Quant Type: ESTD
Cal Date : 14-DEC-2009 12:16 Cal File: 044b4401.d
Als bottle: 31
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-940.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.03000	Weight of sample extracted (g)
M	11.55070	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.301	2.302	-0.001	35655765	118.842	4.5	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.949	5.948	0.001	31603310	135.504	5.1	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/122209.b/031b3101.d

Date : 22-DEC-2009 13:10

Client ID: RE03-09-14209

Sample Info: |243033004|1|

Volume Injected (uL): 1.0

Column phase: CLP2

Instrument: ecd1a.i

Operator: JAOC

Column diameter: 0.25

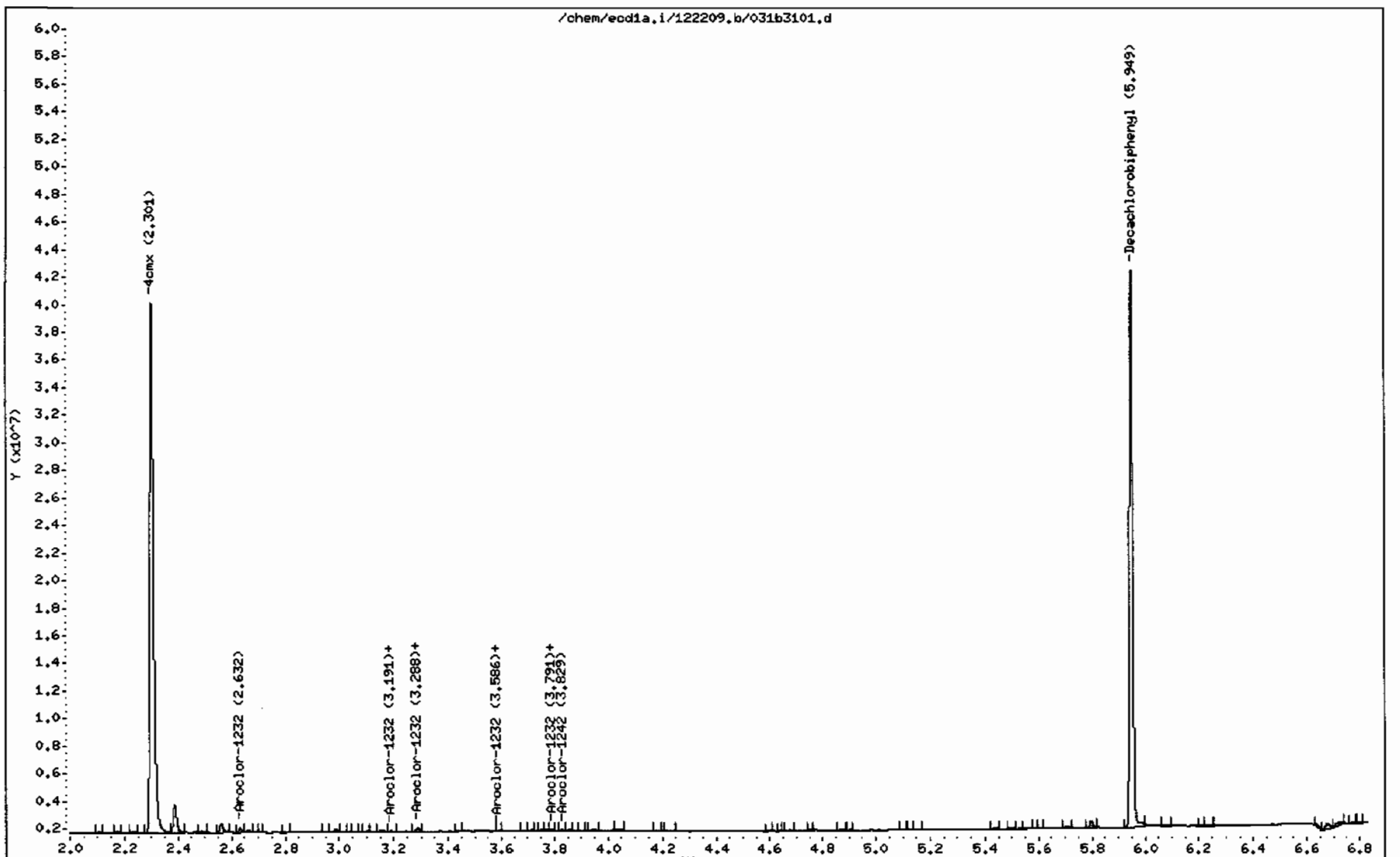

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10-940**	**Date Collected:**	**12/14/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243033003**	**Date Received:**	**12/16/2009 09:10**	**%Moisture:**	**13.6**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14210**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**935393**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**12/22/2009 13:00**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**12/21/2009 20:06**	**Aliquot:**	**30.02 g**	**Final Volume:**	**1 mL**
Data File:	**030f3001.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	030b3001.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.86	ug/kg	1.28	3.86	1
11104-28-2	Aroclor-1221	U	3.86	ug/kg	1.28	3.86	1
11141-16-5	Aroclor-1232	U	3.86	ug/kg	1.28	3.86	1
53469-21-9	Aroclor-1242	U	3.86	ug/kg	1.28	3.86	1
12672-29-6	Aroclor-1248	U	3.86	ug/kg	1.28	3.86	1
11097-69-1	Aroclor-1254	U	3.86	ug/kg	1.28	3.86	1
11096-82-5	Aroclor-1260	U	3.86	ug/kg	1.28	3.86	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/122209.b/030f3001.d
Lab Smp Id: 243033003 Client Smp ID: RE03-09-14210
Inj Date : 22-DEC-2009 13:00
Operator : JAOC Inst ID: ecd1a.i
Smp Info : |243033003|1|
Misc Info : |ECD82P_1S|935393|SVA|LANL|SOIL|RE03-09-14210|||
Comment :
Method : /chem/ecd1a.i/122209.b/ECD1-F-8082-121409.m
Meth Date : 22-Dec-2009 14:00 jen01212 Quant Type: ESTD
Cal Date : 14-DEC-2009 11:34 Cal File: 040f4001.d
Als bottle: 30
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-940.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.02000	Weight of sample extracted (g)
M	13.60700	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.972	1.971	0.001	45867385	I22.095	4.7	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.287	5.286	0.001	45414095	143.018	5.5	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/122209.b/030f3001.d

Page 1

Date : 22-DEC-2009 13:00

Client ID: RE03-09-14210

Instrument: ecd1a.i

Sample Info: 1243033003111

Volume Injected (uL): 1.0

Operator: JAOC

Column phase: CLP1

Column diameter: 0.25

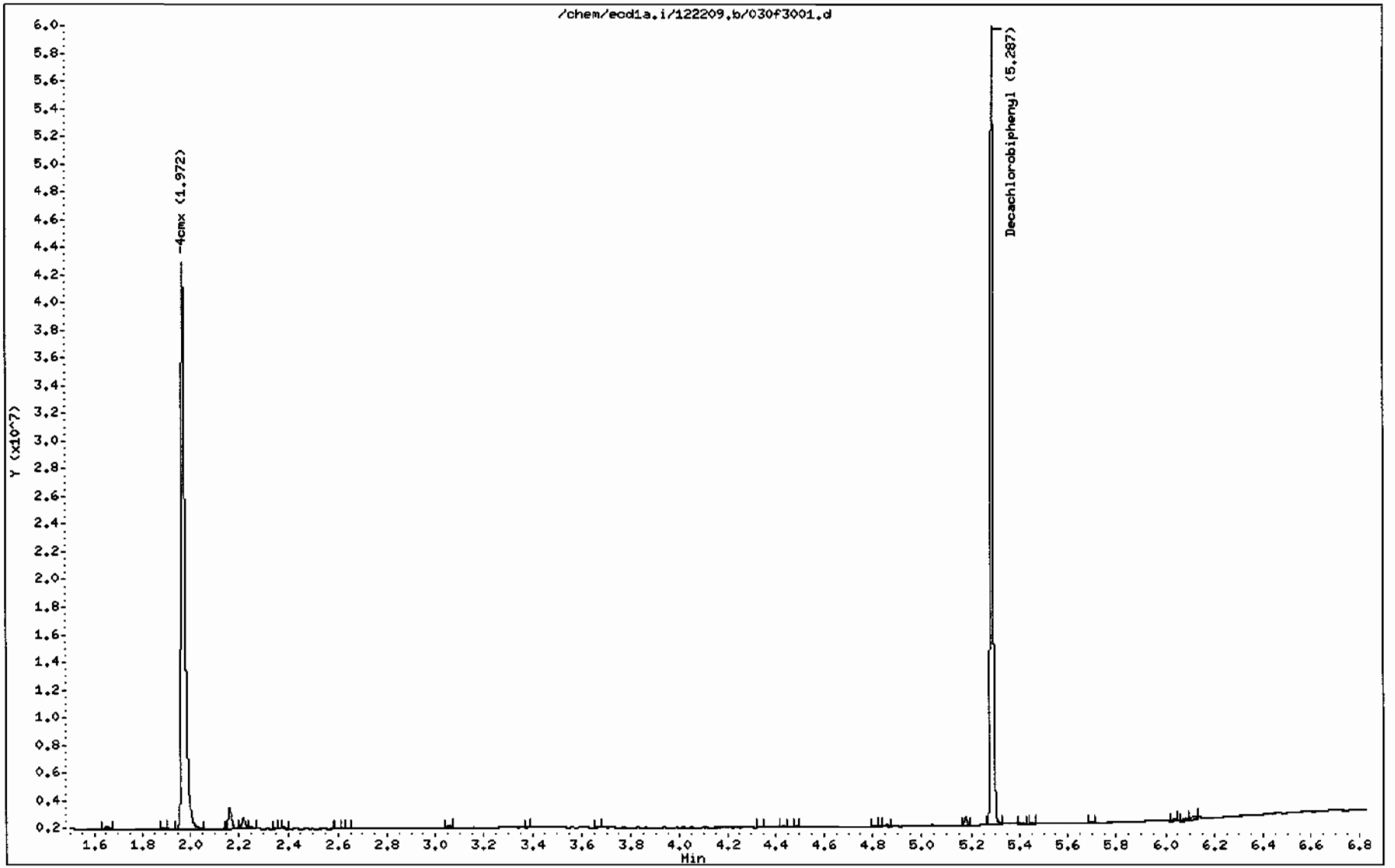

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/122209.b/030b3001.d
Lab Smp Id: 243033003 Client Smp ID: RE03-09-14210
Inj Date : 22-DEC-2009 13:00
Operator : JAOC Inst ID: ecd1a.i
Smp Info : |243033003|1|
Misc Info : |ECD82P_1S|935393|SVA|LANL|SOIL|RE03-09-14210|||
Comment :
Method : /chem/ecd1a.i/122209.b/ECD1-B-8082-121409.m
Meth Date : 22-Dec-2009 13:59 jen01212 Quant Type: ESTD
Cal Date : 14-DEC-2009 12:16 Cal File: 044b4401.d
Als bottle: 30
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-940.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.02000	Weight of sample extracted (g)
M	13.60700	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.303	2.302	0.001	35157909	117.183	4.5	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.949	5.948	0.001	32601244	139.783	5.4	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/122209.b/030b3001.d
Date : 22-DEC-2009 13:00
Client ID: RE03-09-14210
Sample Info: 1243033003|1|
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd1a.i
Operator: JAOC
Column diameter: 0.25

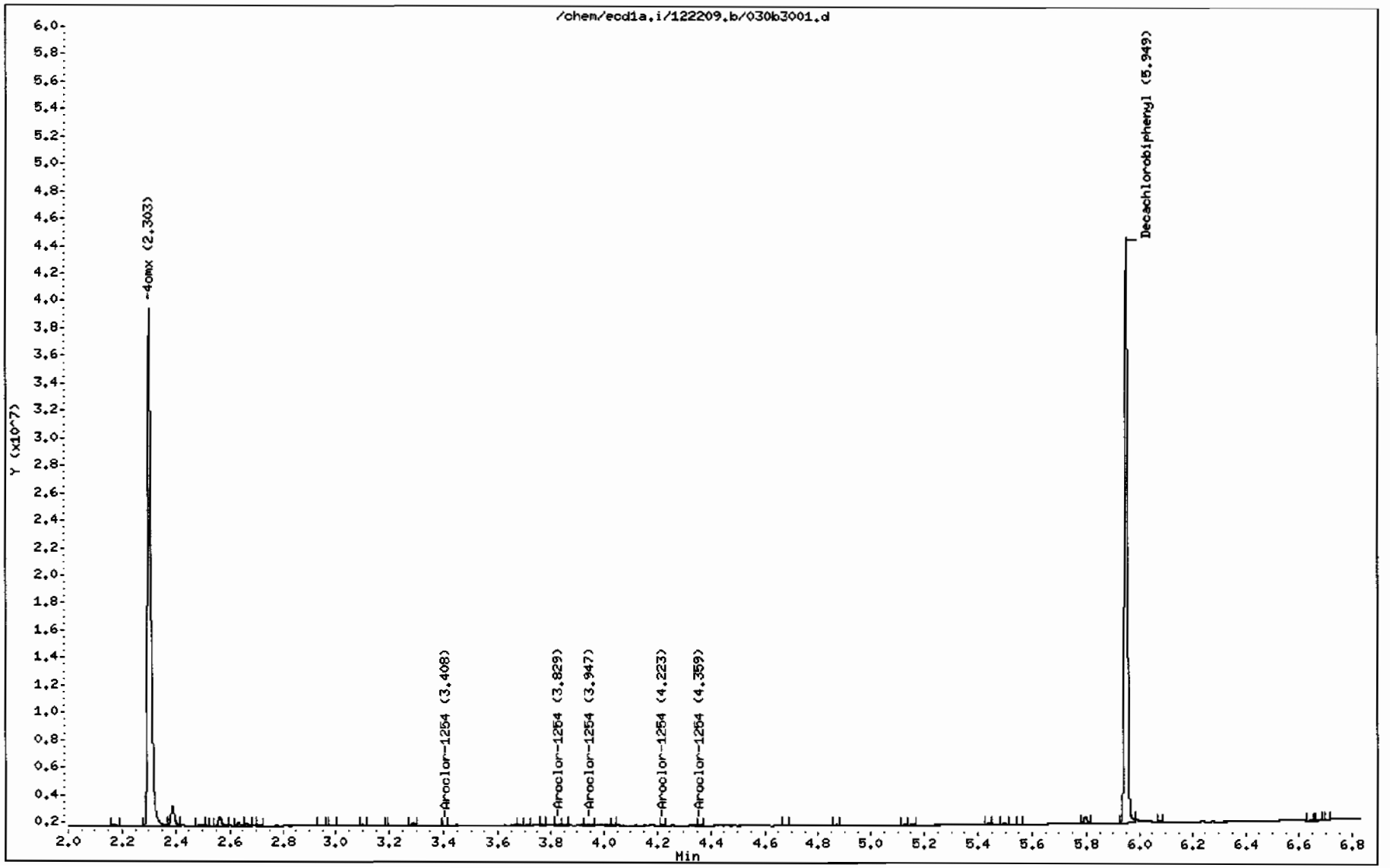

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10-940**	**Date Collected:**	**12/14/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243033002**	**Date Received:**	**12/16/2009 09:10**	**%Moisture:**	**14.3**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14211**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**935393**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**12/22/2009 12:49**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**12/21/2009 20:06**	**Aliquot:**	**30.01 g**	**Final Volume:**	**1 mL**
Data File:	**029f2901.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	029b2901.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.89	ug/kg	1.30	3.89	1
11104-28-2	Aroclor-1221	U	3.89	ug/kg	1.30	3.89	1
11141-16-5	Aroclor-1232	U	3.89	ug/kg	1.30	3.89	1
53469-21-9	Aroclor-1242	U	3.89	ug/kg	1.30	3.89	1
12672-29-6	Aroclor-1248	U	3.89	ug/kg	1.30	3.89	1
11097-69-1	Aroclor-1254	U	3.89	ug/kg	1.30	3.89	1
11096-82-5	Aroclor-1260	U	3.89	ug/kg	1.30	3.89	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/122209.b/029f2901.d
Lab Smp Id: 243033002 Client Smp ID: RE03-09-14211
Inj Date : 22-DEC-2009 12:49
Operator : JAOC Inst ID: ecd1a.i
Smp Info : |243033002|1|
Misc Info : |ECD82P_1S|935393|SVA|LANL|SOIL|RE03-09-14211|||
Comment :
Method : /chem/ecd1a.i/122209.b/ECD1-F-8082-121409.m
Meth Date : 22-Dec-2009 14:00 jen01212 Quant Type: ESTD
Cal Date : 14-DEC-2009 11:34 Cal File: 040f4001.d
Als bottle: 29
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-940.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.01000	Weight of sample extracted (g)
M	14.32160	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.971	1.971	0.000	46974648	125.043	4.9	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.287	5.286	0.001	45401270	142.978	5.6	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/122209.b/029f2901.d

Page 1

Date : 22-DEC-2009 12:49

Client ID: RE03-09-14211

Instrument: ecd1a.i

Sample Info: |243033002|1|

Volume Injected (uL): 1.0

Operator: JAOC

Column phase: CLP1

Column diameter: 0.25

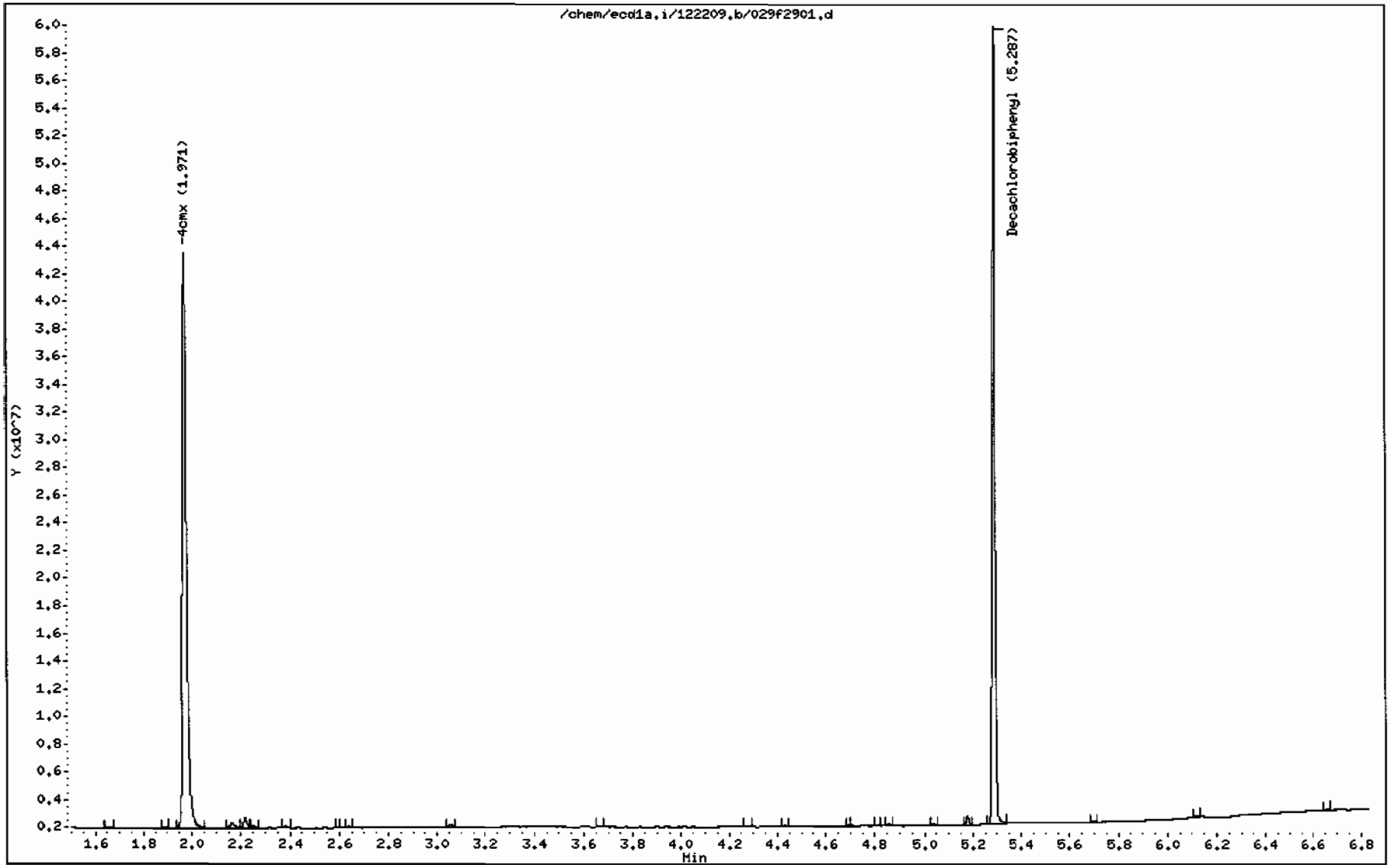

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/122209.b/029b2901.d
Lab Smp Id: 243033002 Client Smp ID: RE03-09-14211
Inj Date : 22-DEC-2009 12:49
Operator : JAOC Inst ID: ecd1a.i
Smp Info : |243033002|1|
Misc Info : |ECD82P_1S|935393|SVA|LANL|SOIL|RE03-09-14211|||
Comment :
Method : /chem/ecd1a.i/122209.b/ECD1-B-8082-121409.m
Meth Date : 22-Dec-2009 13:59 jen01212 Quant Type: ESTD
Cal Date : 14-DEC-2009 12:16 Cal File: 044b4401.d
Als bottle: 29
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-940.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.01000	Weight of sample extracted (g)
M	14.32160	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.302	2.302	0.000	36011758	120.029	4.7	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.949	5.948	0.001	32782723	140.561	5.5	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/122209.b/029b2901.d

Date : 22-DEC-2009 12:49

Client ID: RE03-09-14211

Sample Info: |243033002|1|

Volume Injected (uL): 1.0

Column phase: CLP2

Instrument: ecd1a.i

Operator: JAOC

Column diameter: 0.25

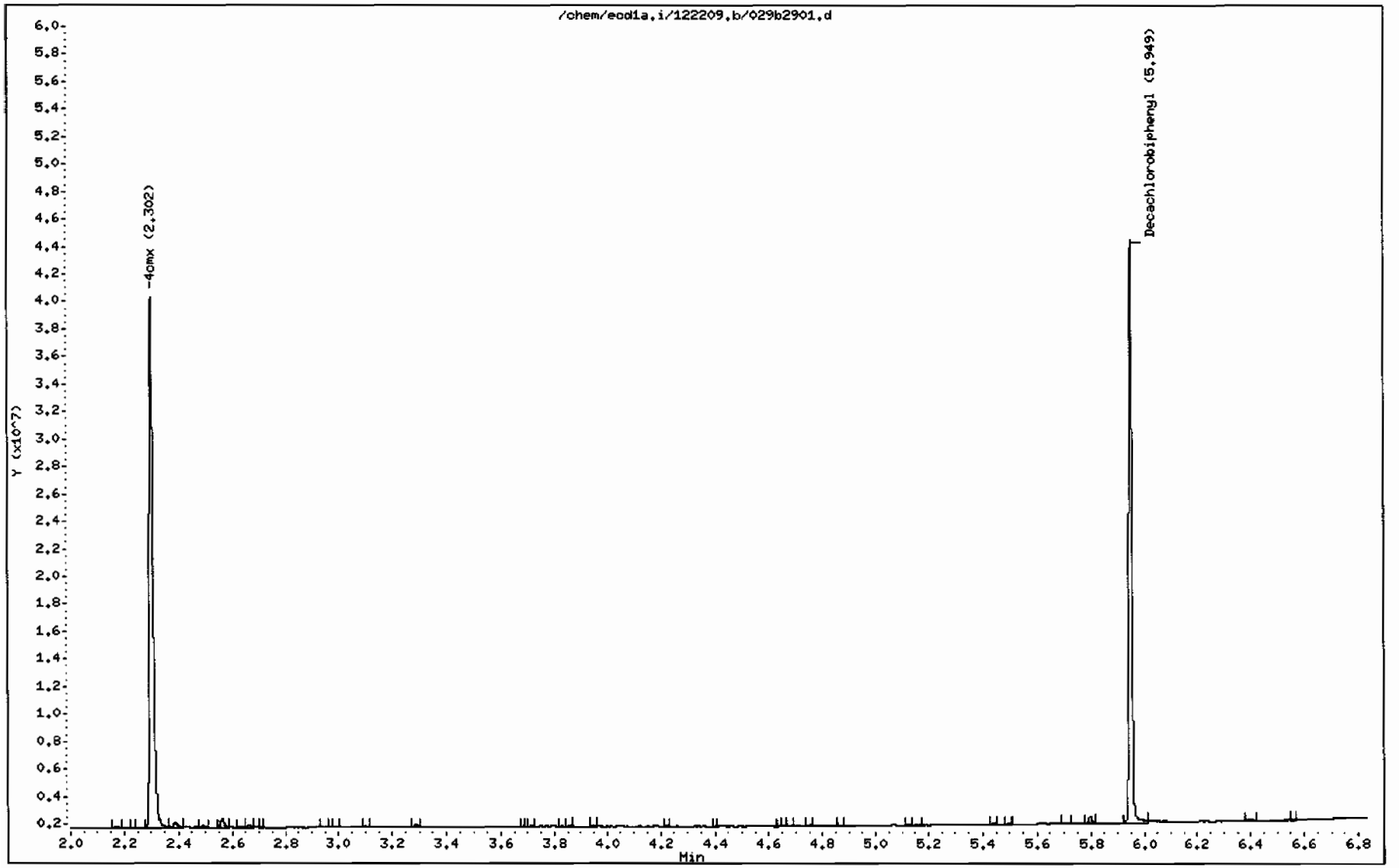

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10-940**	**Date Collected:**	**12/14/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243033008**	**Date Received:**	**12/16/2009 09:10**	**%Moisture:**	**15.6**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14220**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**935393**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**12/22/2009 14:14**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**12/21/2009 20:06**	**Aliquot:**	**30.02 g**	**Final Volume:**	**1 mL**
Data File:	**037f3701.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	037b3701.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.95	ug/kg	1.31	3.95	1
11104-28-2	Aroclor-1221	U	3.95	ug/kg	1.31	3.95	1
11141-16-5	Aroclor-1232	U	3.95	ug/kg	1.31	3.95	1
53469-21-9	Aroclor-1242	U	3.95	ug/kg	1.31	3.95	1
12672-29-6	Aroclor-1248	U	3.95	ug/kg	1.31	3.95	1
11097-69-1	Aroclor-1254	P	116	ug/kg	1.31	3.95	1
11096-82-5	Aroclor-1260		153	ug/kg	1.31	3.95	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/122209.b/037f3701.d
Lab Smp Id: 243033008 Client Smp ID: RE03-09-14220
Inj Date : 22-DEC-2009 14:14
Operator : JAOC Inst ID: ecd1a.i
Smp Info : |243033008|1|
Misc Info : |ECD82P_1S|935393|SVA|LANL|SOIL|RE03-09-14220|||
Comment :
Method : /chem/ecd1a.i/122209.b/ECD1-F-8082-121409.m
Meth Date : 23-Dec-2009 06:42 jen01212 Quant Type: ESTD
Cal Date : 14-DEC-2009 11:34 Cal File: 040f4001.d
Als bottle: 37
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-940.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.02000	Weight of sample extracted (g)
M	15.56720	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.971	1.971	0.000	42445177	112.985	4.4	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.286	5.286	0.000	37171013	117.059	4.6	80.00- 120.00	100.00
6 Aroclor-1254					CAS #: 11097-69-1		
3.274	3.275	-0.001	25177361	2016.53	79.6	80.00- 120.00	100.00
3.429	3.430	-0.001	28801068	1722.35	68.0	117.60- 157.60	114.39
3.663	3.664	-0.001	36934790	1783.09	70.3	161.34- 201.34	146.70
3.827	3.827	0.000	25839787	1646.45	65.0	119.92- 159.92	102.63
3.934	3.936	-0.002	115232625	7594.84	300	112.24- 152.24	457.68

Average of Peak Concentrations = 116

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
7 Aroclor-1260					CAS #: 11096-82-5		
3.772	3.771	0.001	73341751	4378.05	173	80.00- 120.00	100.00
3.934	3.934	0.000	115232625	4657.26	184	134.26- 174.26	157.12
4.165	4.165	0.000	50252896	3421.51	135	72.25- 112.25	68.52
4.308	4.307	0.001	49912904	3287.09	130	76.57- 116.57	68.06
4.488	4.486	0.002	123854578	3605.62	142	202.51- 242.51	168.87
Average of Peak Concentrations =					153		

Data File: /chem/ecd1a.i/122209.b/037f3701.d
Date : 22-DEC-2009 14:14
Client ID: RE03-09-14220
Sample Info: 1243033008111
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecd1a.i
Operator: JAOC
Column diameter: 0.25

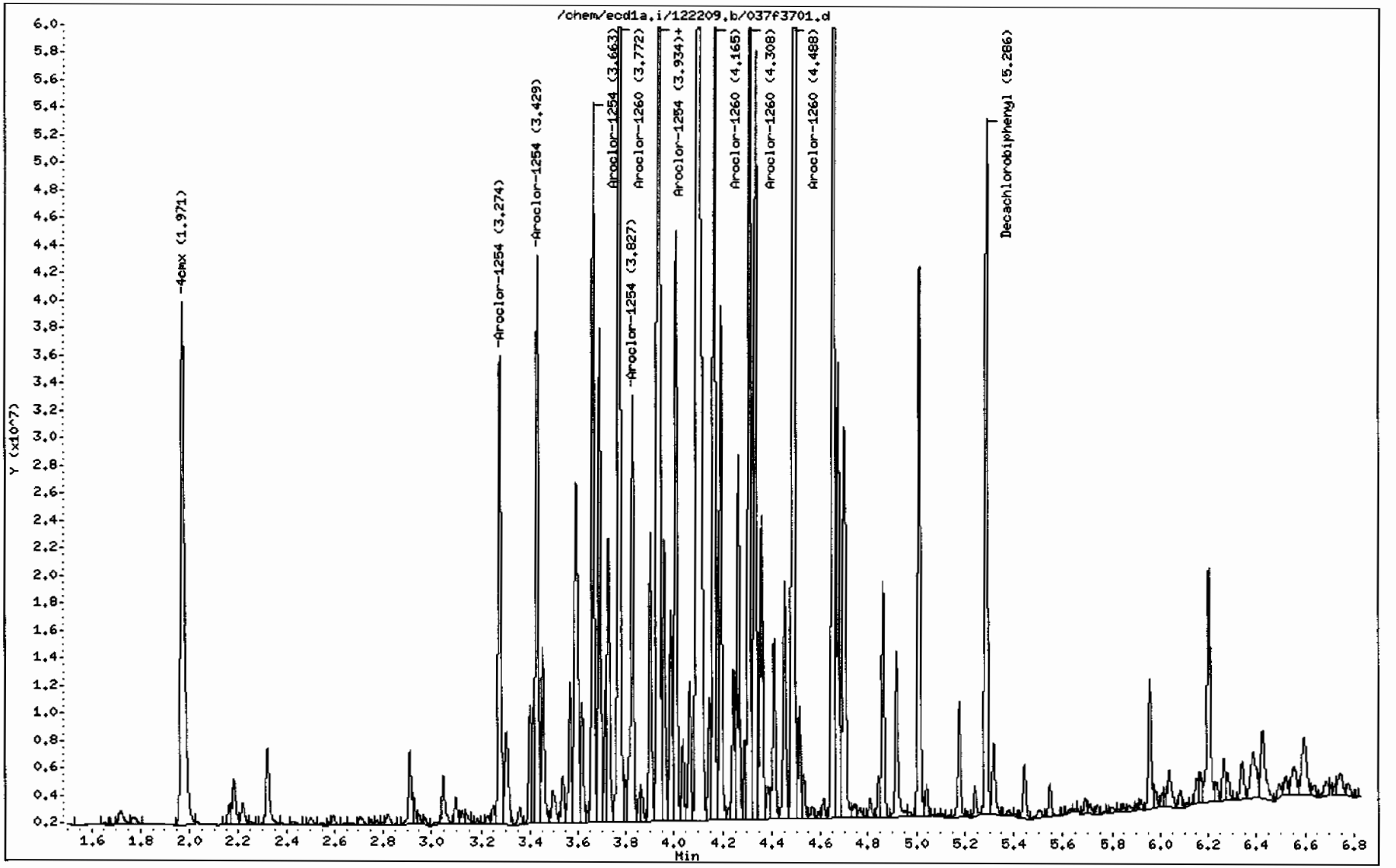

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/122209.b/037b3701.d
Lab Smp Id: 243033008 Client Smp ID: RE03-09-14220
Inj Date : 22-DEC-2009 14:14
Operator : JAOC Inst ID: ecd1a.i
Smp Info : |243033008|1|
Misc Info : |ECD82P_1S|935393|SVA|LANL|SOIL|RE03-09-14220|||
Comment :
Method : /chem/ecd1a.i/122209.b/ECD1-B-8082-121409.m
Meth Date : 23-Dec-2009 06:44 jen01212 Quant Type: ESTD
Cal Date : 14-DEC-2009 12:16 Cal File: 044b4401.d
Als bottle: 37
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-940.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.02000	Weight of sample extracted (g)
M	15.56720	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.302	2.302	0.000	32030400	106.759	4.2	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.948	5.948	0.000	28907480	123.946	4.9	80.00- 120.00	100.00
6 Aroclor-1254					CAS #: 11097-69-1		
3.408	3.407	0.001	3267194	507.702	20.0	80.00- 120.00	100.00
3.829	3.830	-0.001	13888709	1201.52	47.4	161.44- 201.44	425.10
3.947	3.947	0.000	21115229	1698.56	67.0	181.64- 221.64	646.28
4.223	4.223	0.000	27265104	1615.23	63.7	264.09- 304.09	834.51
4.358	4.359	-0.001	12482548	1003.79	39.6	190.57- 230.57	382.06

Average of Peak Concentrations = 47.5

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
7 Aroclor-1260					CAS #: 11096-82-5		
4.338	4.338	0.000	56616117	4138.60	163	80.00- 120.00	100.00
4.463	4.463	0.000	61435834	3832.79	151	98.94- 138.94	108.51
4.729	4.729	0.000	40975223	3261.34	129	76.23- 116.23	72.37
4.903	4.903	0.000	38749212	3024.90	119	79.35- 119.35	68.44
5.050	5.050	0.000	95169104	3411.36	134	205.17- 245.17	168.10
			Average of Peak Concentrations =		139		

Data File: /chem/ecd1a.i/122209.b/037b3701.d
Date : 22-DEC-2009 14:14
Client ID: RE03-09-14220
Sample Info: 1243033008111
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd1a.i
Operator: JAOC
Column diameter: 0.25

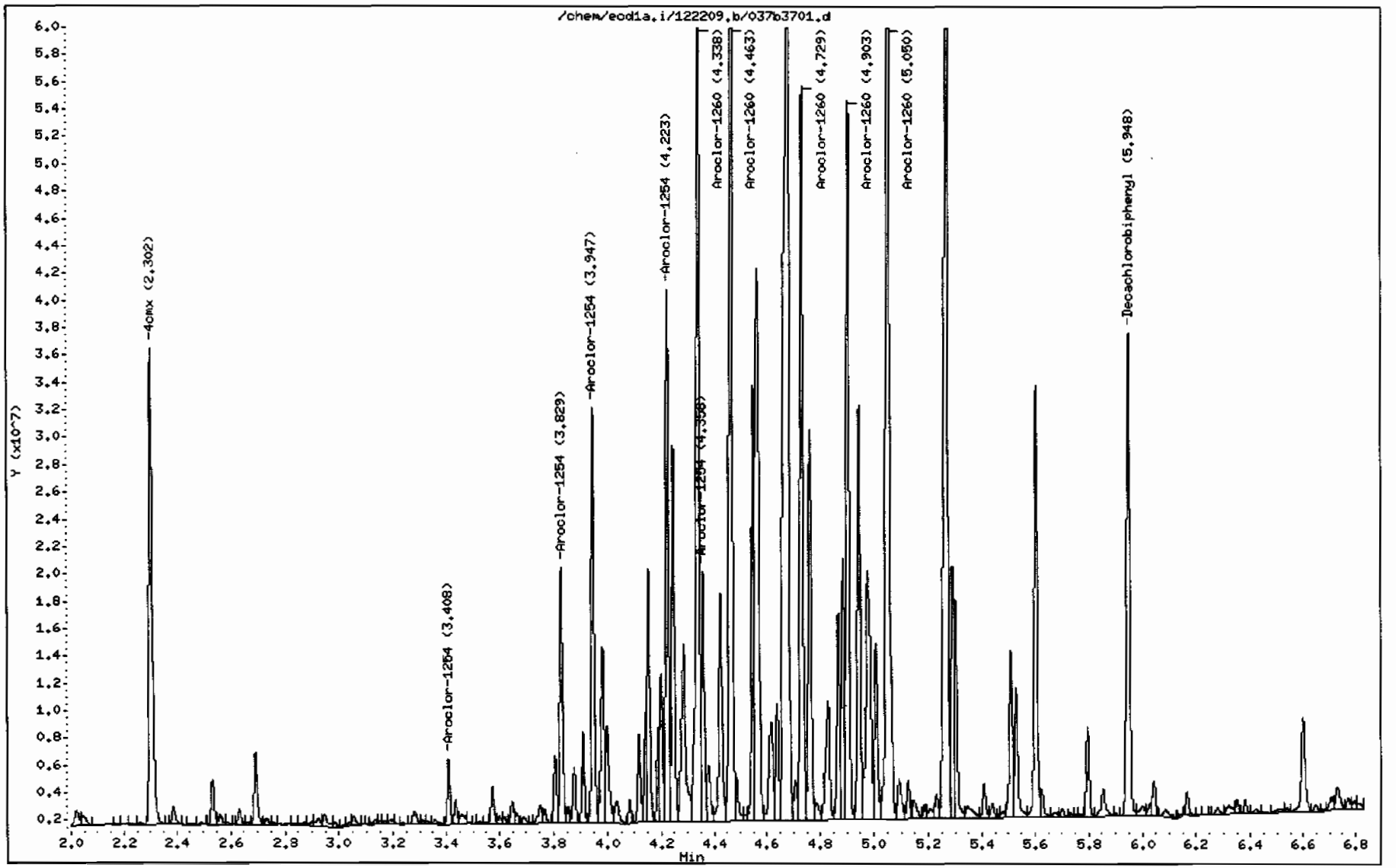

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10-940**	**Date Collected:**	**12/14/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243033001**	**Date Received:**	**12/16/2009 09:10**	**%Moisture:**	**14.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14221**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**935393**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**12/22/2009 12:39**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**12/21/2009 20:06**	**Aliquot:**	**30.09 g**	**Final Volume:**	**1 mL**
Data File:	**028f2801.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	028b2801.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.90	ug/kg	1.30	3.90	1
11104-28-2	Aroclor-1221	U	3.90	ug/kg	1.30	3.90	1
11141-16-5	Aroclor-1232	U	3.90	ug/kg	1.30	3.90	1
53469-21-9	Aroclor-1242	U	3.90	ug/kg	1.30	3.90	1
12672-29-6	Aroclor-1248	U	3.90	ug/kg	1.30	3.90	1
11097-69-1	Aroclor-1254	U	3.90	ug/kg	1.30	3.90	1
11096-82-5	Aroclor-1260	J	2.80	ug/kg	1.30	3.90	2

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/122209.b/028f2801.d
Lab Smp Id: 243033001 Client Smp ID: RE03-09-14221
Inj Date : 22-DEC-2009 12:39
Operator : JAOC Inst ID: ecd1a.i
Smp Info : |243033001|1|
Misc Info : |ECD82P_1S|935393|SVA|LANL|SOIL|RE03-09-14221|||
Comment :
Method : /chem/ecd1a.i/122209.b/ECD1-F-8082-121409.m
Meth Date : 23-Dec-2009 06:42 jen01212 Quant Type: ESTD
Cal Date : 14-DEC-2009 11:34 Cal File: 040f4001.d
Als bottle: 28
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-940.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.09000	Weight of sample extracted (g)
M	14.77230	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.971	1.971	0.000	44093077	117.372	4.6	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.287	5.286	0.001	43790504	137.905	5.4	80.00- 120.00	100.00
7 Aroclor-1260					CAS #: 11096-82-5		
3.773	3.771	0.002	1228050	73.3070	2.8	80.00- 120.00	100.00(a)
3.936	3.934	0.002	1970806	79.6523	3.1	134.26- 174.26	160.48
4.166	4.165	0.001	932143	63.4657	2.5	72.25- 112.25	75.90
4.309	4.307	0.002	875269	57.6422	2.2	76.57- 116.57	71.27
4.488	4.486	0.002	2267666	66.0156	2.6	202.51- 242.51	184.66

Average of Peak Concentrations = 2.6

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

Data File: /chem/eod1a.i/122209.b/028f2801.d
Date : 22-DEC-2009 12:39
Client ID: RE03-09-14221
Sample Info: |243033001|1|
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: eod1a.i
Operator: JAOC
Column diameter: 0.25

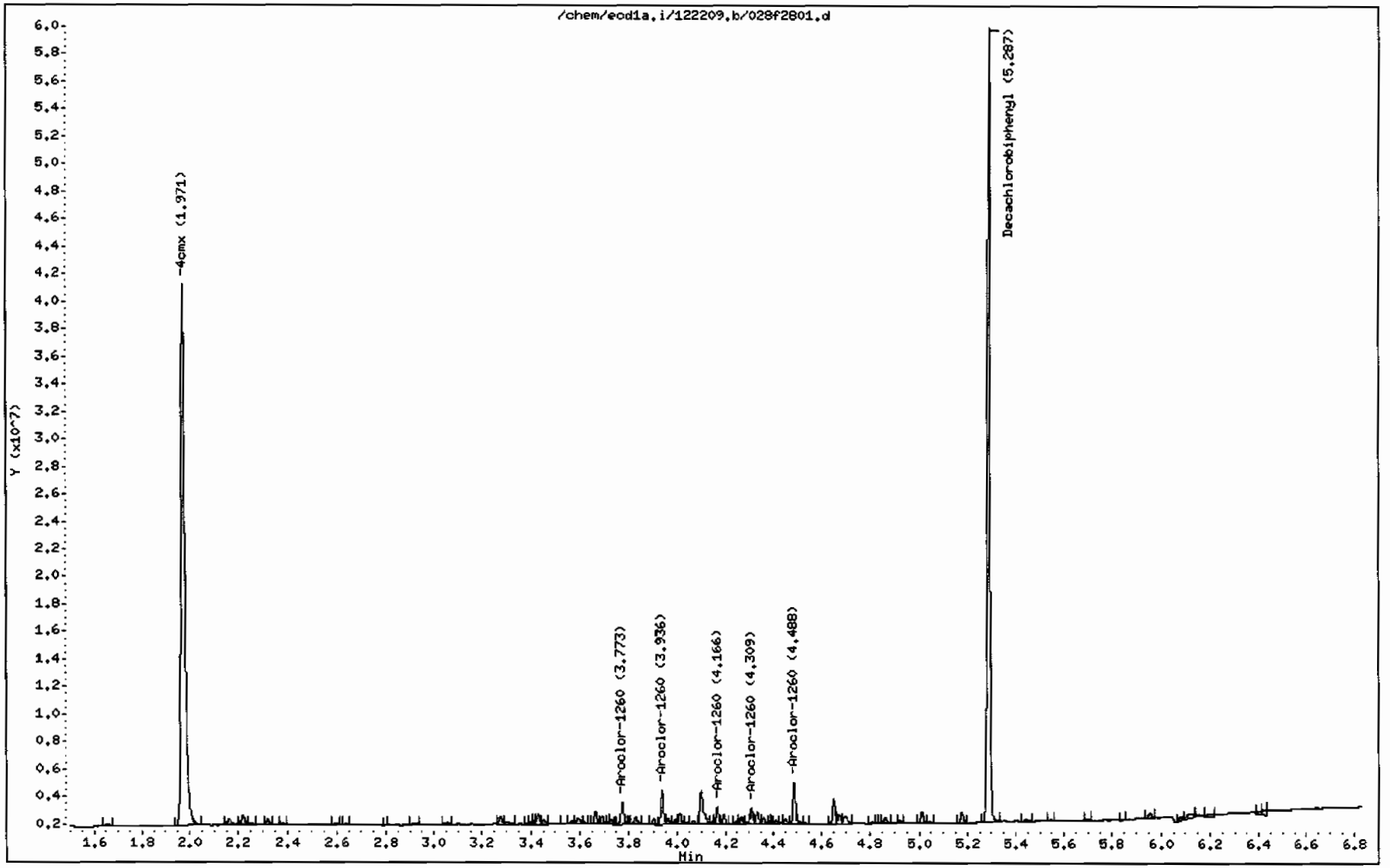

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/122209.b/028b2801.d
Lab Smp Id: 243033001 Client Smp ID: RE03-09-14221
Inj Date : 22-DEC-2009 12:39
Operator : JAOC Inst ID: ecd1a.i
Smp Info : |243033001|1|
Misc Info : |ECD82P_1S|935393|SVA|LANL|SOIL|RE03-09-14221|||
Comment :
Method : /chem/ecd1a.i/122209.b/ECD1-B-8082-121409.m
Meth Date : 22-Dec-2009 13:59 jen01212 Quant Type: ESTD
Cal Date : 14-DEC-2009 12:16 Cal File: 044b4401.d
Als bottle: 28
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-940.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.09000	Weight of sample extracted (g)
M	14.77230	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.302	2.302	0.000	33475212	111.574	4.4	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.950	5.948	0.002	31495373	135.042	5.3	80.00- 120.00	100.00
7 Aroclor-1260					CAS #: 11096-82-5		
4.340	4.338	0.002	1062435	77.6633	3.0	80.00- 120.00	100.00(a)
4.464	4.463	0.001	1239169	77.3079	3.0	103.50- 143.50	116.63
4.730	4.729	0.001	861562	68.5743	2.7	75.02- 115.02	81.09
4.904	4.903	0.001	800967	62.5264	2.4	77.89- 117.89	75.39
5.050	5.050	0.000	1931773	69.2450	2.7	203.88- 243.88	181.82

Average of Peak Concentrations = 2.8

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

Data File: /chem/ecd1a.i/122209.b/028b2801.d

Date : 22-DEC-2009 12:39

Client ID: RE03-09-14221

Sample Info: |2430330011|1|

Volume Injected (uL): 1.0

Column phase: CLP2

Instrument: ecd1a.i

Operator: JAOC

Column diameter: 0.25

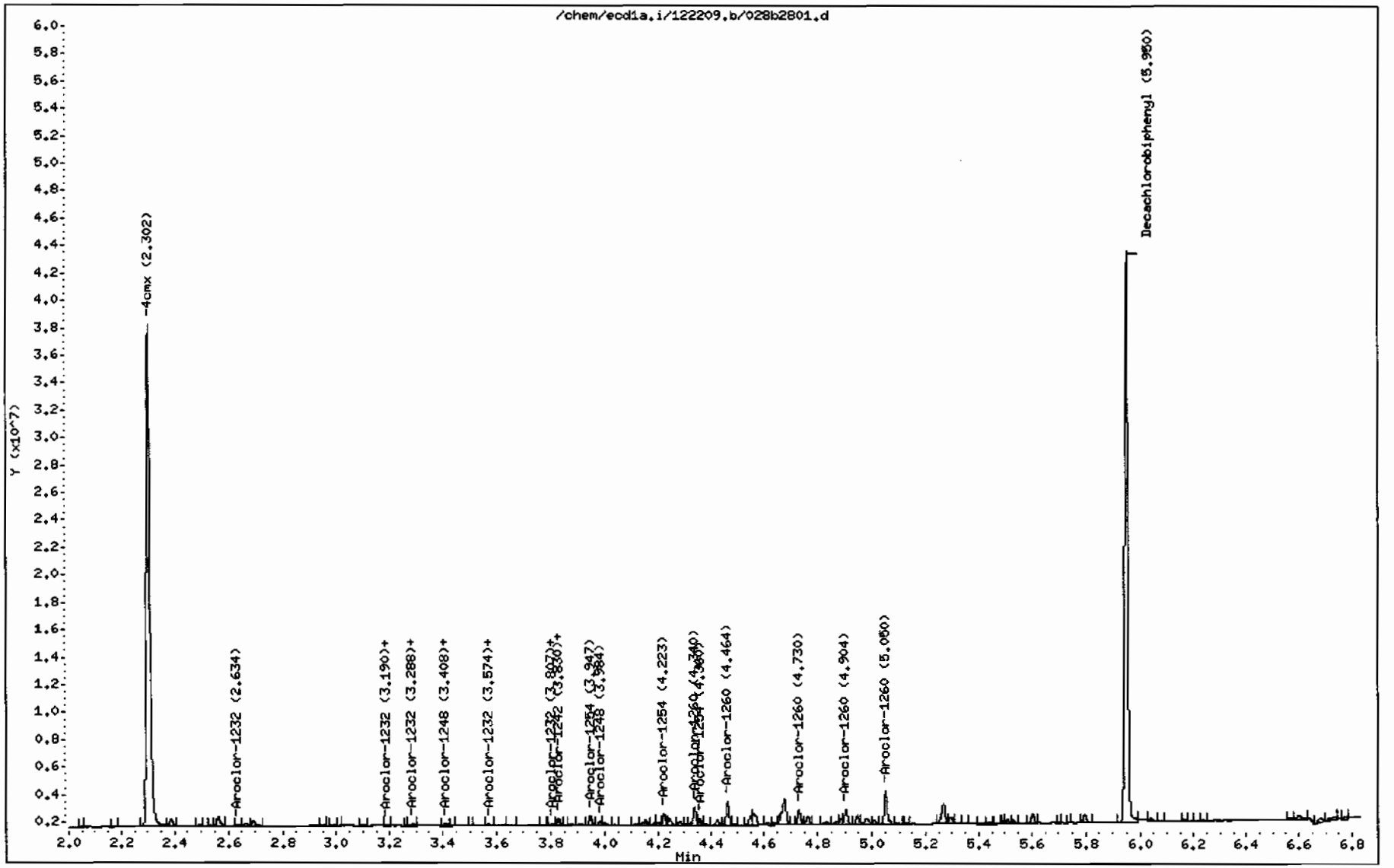

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–940**	**Date Collected:**	**12/14/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243033006**	**Date Received:**	**12/16/2009 09:10**	**%Moisture:**	**19.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03–09–14222**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**935393**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**12/22/2009 13:31**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**12/21/2009 20:06**	**Aliquot:**	**30.18 g**	**Final Volume:**	**1 mL**
Data File:	**033f3301.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	033b3301.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	4.11	ug/kg	1.37	4.11	1
11104–28–2	Aroclor–1221	U	4.11	ug/kg	1.37	4.11	1
11141–16–5	Aroclor–1232	U	4.11	ug/kg	1.37	4.11	1
53469–21–9	Aroclor–1242	U	4.11	ug/kg	1.37	4.11	1
12672–29–6	Aroclor–1248	U	4.11	ug/kg	1.37	4.11	1
11097–69–1	Aroclor–1254	U	4.11	ug/kg	1.37	4.11	1
11096–82–5	Aroclor–1260	U	4.11	ug/kg	1.37	4.11	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/122209.b/033f3301.d
Lab Smp Id: 243033006 Client Smp ID: RE03-09-14222
Inj Date : 22-DEC-2009 13:31
Operator : JAOC Inst ID: ecd1a.i
Smp Info : |243033006|1|
Misc Info : |ECD82P_1S|935393|SVA|LANL|SOIL|RE03-09-14222|||
Comment :
Method : /chem/ecd1a.i/122209.b/ECD1-F-8082-121409.m
Meth Date : 22-Dec-2009 14:00 jen01212 Quant Type: ESTD
Cal Date : 14-DEC-2009 11:34 Cal File: 040f4001.d
Als bottle: 33
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-940.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.18000	Weight of sample extracted (g)
M	19.46360	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.972	1.971	0.001	46180877	122.930	5.0	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.287	5.286	0.001	46173658	145.410	6.0	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/122209.b/033f3301.d
Date : 22-DEC-2009 13:31
Client ID: RE03-09-14222
Sample Info: |243033006|1|
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecd1a.i
Operator: JAOC
Column diameter: 0.25

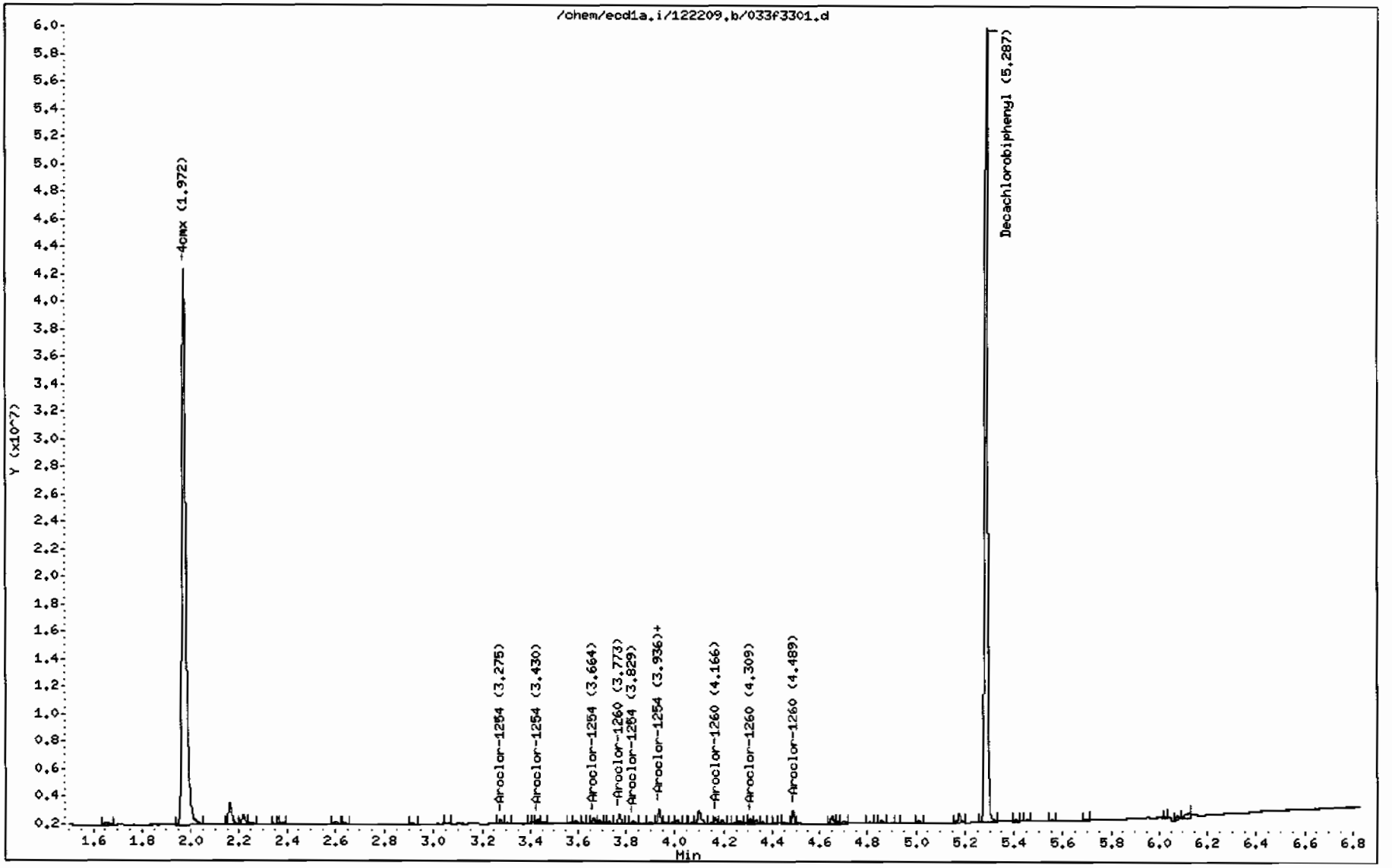

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/122209.b/033b3301.d
Lab Smp Id: 243033006 Client Smp ID: RE03-09-14222
Inj Date : 22-DEC-2009 13:31
Operator : JAOC Inst ID: ecd1a.i
Smp Info : |243033006|1|
Misc Info : |ECD82P_1S|935393|SVA|LANL|SOIL|RE03-09-14222|||
Comment :
Method : /chem/ecd1a.i/122209.b/ECD1-B-8082-121409.m
Meth Date : 22-Dec-2009 13:59 jen01212 Quant Type: ESTD
Cal Date : 14-DEC-2009 12:16 Cal File: 044b4401.d
Als bottle: 33
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-940.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.18000	Weight of sample extracted (g)
M	19.46360	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.302	2.302	0.000	35404246	118.004	4.8	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.949	5.948	0.001	33214556	142.413	5.8	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/122209.b/033b3301.d
Date : 22-DEC-2009 13:31
Client ID: RE03-09-14222
Sample Info: 1243033006!1!
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd1a.i
Operator: JAOC
Column diameter: 0.25

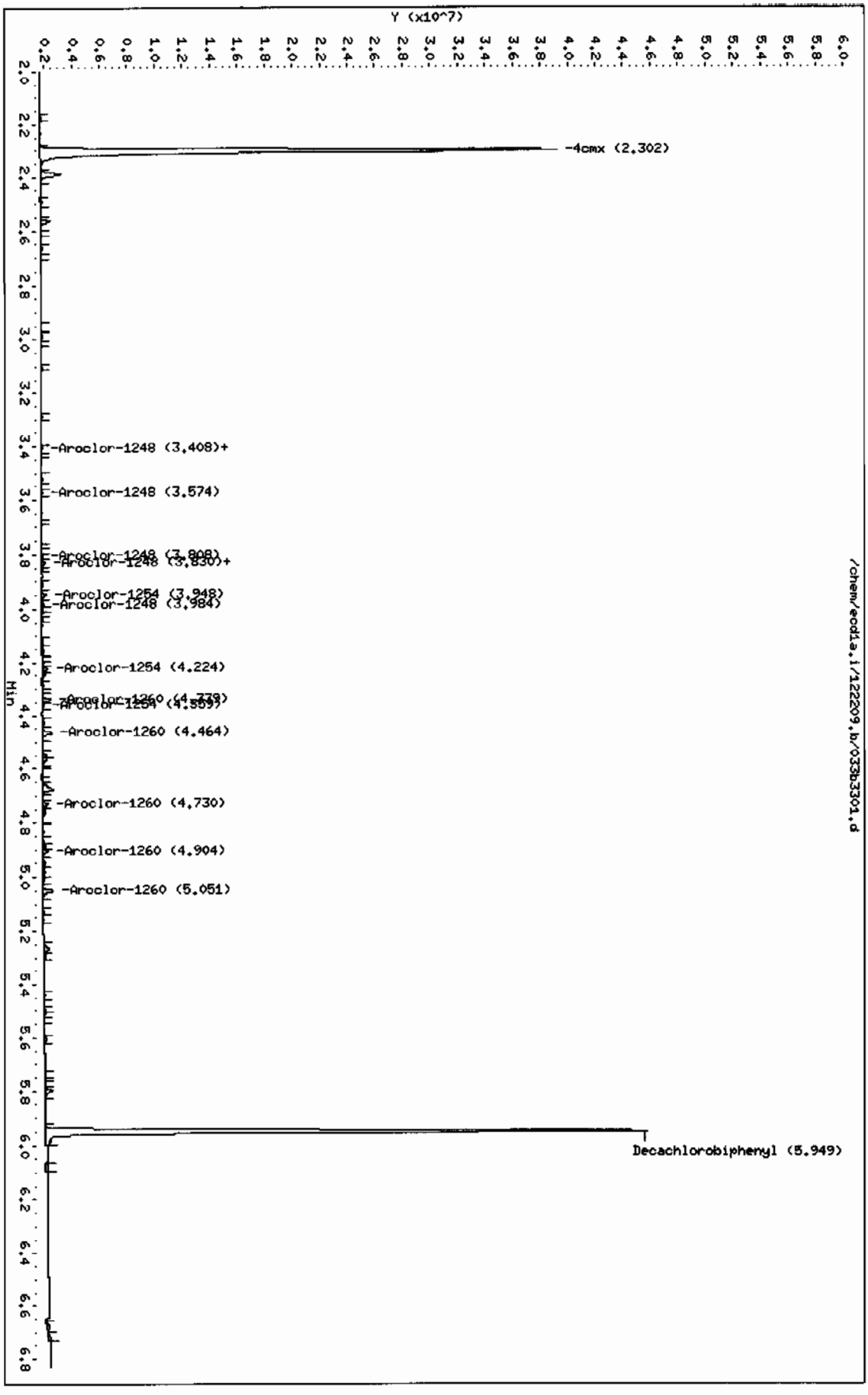

Page 1

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–940**	**Date Collected:**	**12/14/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243033007**	**Date Received:**	**12/16/2009 09:10**	**%Moisture:**	**10.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03–09–14223**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**935393**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**12/22/2009 14:03**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**12/21/2009 20:06**	**Aliquot:**	**30.05 g**	**Final Volume:**	**1 mL**
Data File:	**036f3601.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	036b3601.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	3.73	ug/kg	1.24	3.73	1
11104–28–2	Aroclor–1221	U	3.73	ug/kg	1.24	3.73	1
11141–16–5	Aroclor–1232	U	3.73	ug/kg	1.24	3.73	1
53469–21–9	Aroclor–1242	U	3.73	ug/kg	1.24	3.73	1
12672–29–6	Aroclor–1248	U	3.73	ug/kg	1.24	3.73	1
11097–69–1	Aroclor–1254	U	3.73	ug/kg	1.24	3.73	1
11096–82–5	Aroclor–1260	U	3.73	ug/kg	1.24	3.73	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/122209.b/036f3601.d
Lab Smp Id: 243033007 Client Smp ID: RE03-09-14223
Inj Date : 22-DEC-2009 14:03
Operator : JAOC Inst ID: ecd1a.i
Smp Info : |243033007|1|
Misc Info : |ECD82P_1S|935393|SVA|LANL|SOIL|RE03-09-14223|||
Comment :
Method : /chem/ecd1a.i/122209.b/ECD1-F-8082-121409.m
Meth Date : 23-Dec-2009 06:42 jen01212 Quant Type: ESTD
Cal Date : 14-DEC-2009 11:34 Cal File: 040f4001.d
Als bottle: 36
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-940.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.05000	Weight of sample extracted (g)
M	10.81230	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.973	1.971	0.002	45164786	120.225	4.5	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.287	5.286	0.001	44023672	138.640	5.2	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/122209.b/036f3601.d
Date : 22-DEC-2009 14:03
Client ID: RE03-09-14223
Sample Info: 1243033007|1|
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecd1a.i
Operator: JAOC
Column diameter: 0.25

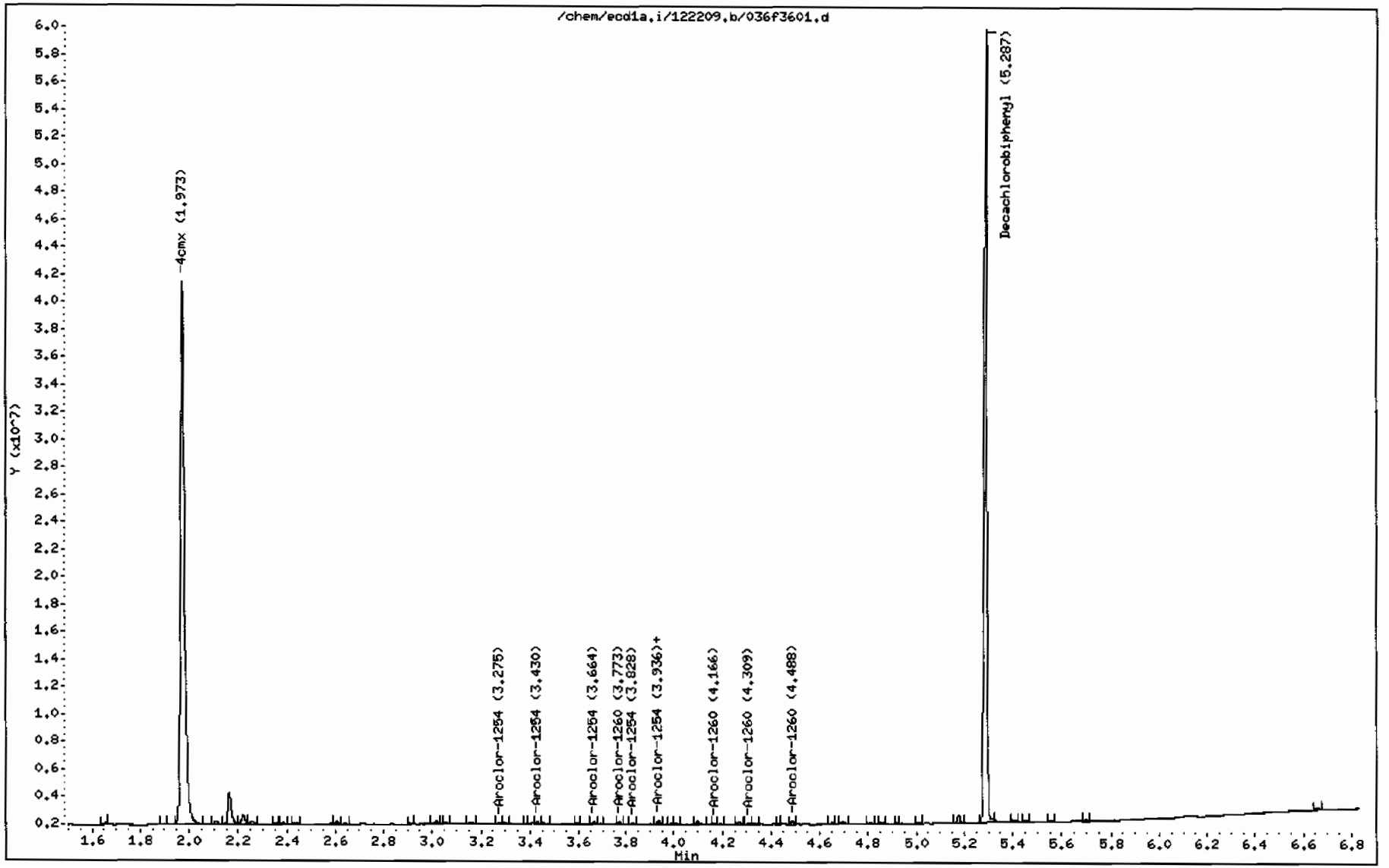

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/122209.b/036b3601.d
Lab Smp Id: 243033007 Client Smp ID: RE03-09-14223
Inj Date : 22-DEC-2009 14:03
Operator : JAOC Inst ID: ecd1a.i
Smp Info : |243033007|1|
Misc Info : |ECD82P_1S|935393|SVA|LANL|SOIL|RE03-09-14223|||
Comment :
Method : /chem/ecd1a.i/122209.b/ECD1-B-8082-121409.m
Meth Date : 22-Dec-2009 13:59 jen01212 Quant Type: ESTD
Cal Date : 14-DEC-2009 12:16 Cal File: 044b4401.d
Als bottle: 36
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-940.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.05000	Weight of sample extracted (g)
M	10.81230	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.303	2.302	0.001	34739120	115.787	4.3	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.949	5.948	0.001	32383797	138.851	5.2	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/122209.b/036b3601.d
Date : 22-DEC-2009 14:03
Client ID: RE03-09-14223
Sample Info: 1243033007111
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd1a.i
Operator: JAOC
Column diameter: 0.25

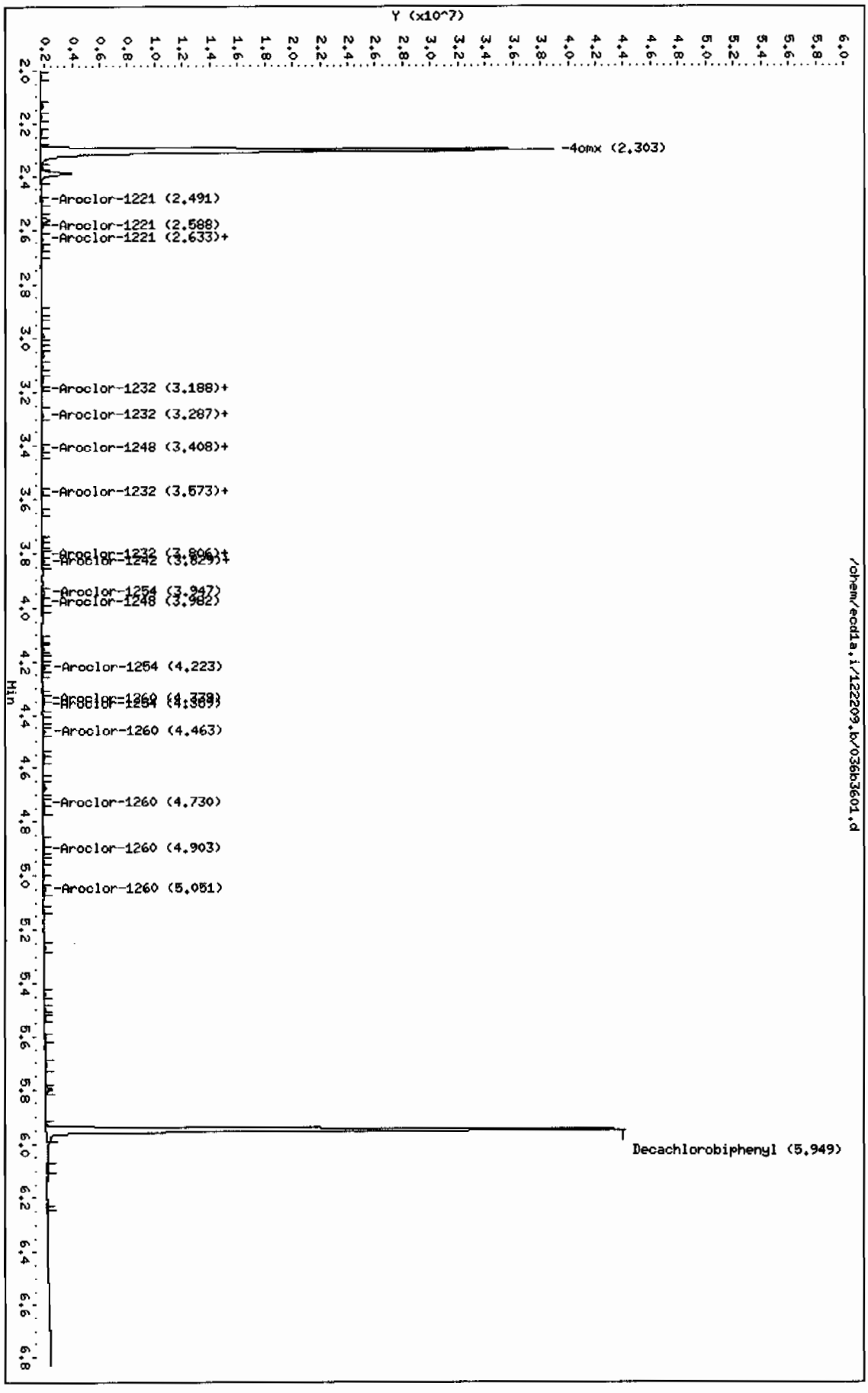

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10-940	**Date Collected:**	12/14/2009 12:00	**Matrix:**	S
Lab Sample ID:	243033009	**Date Received:**	12/16/2009 09:10	**%Moisture:**	19.3
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-10-2734	**Method:**	SW846 8082	**SOP Ref:**	GL-OA-E-040
Batch ID:	935393	**Inst:**	ECD1A.I	**Dilution:**	1
Run Date:	12/22/2009 14:24	**Analyst:**	JAOC	**Inj. Vol:**	1 uL
Prep Date:	12/21/2009 20:06	**Aliquot:**	30.02 g	**Final Volume:**	1 mL
Data File:	038f3801.d	**Column:**	1 CLP1	**Level:**	LOW
	038b3801.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	4.13	ug/kg	1.38	4.13	1
11104-28-2	Aroclor-1221	U	4.13	ug/kg	1.38	4.13	1
11141-16-5	Aroclor-1232	U	4.13	ug/kg	1.38	4.13	1
53469-21-9	Aroclor-1242	U	4.13	ug/kg	1.38	4.13	1
12672-29-6	Aroclor-1248	U	4.13	ug/kg	1.38	4.13	1
11097-69-1	Aroclor-1254	U	4.13	ug/kg	1.38	4.13	1
11096-82-5	Aroclor-1260	U	4.13	ug/kg	1.38	4.13	1

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RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/122209.b/038f3801.d
Lab Smp Id: 243033009 Client Smp ID: RE03-10-2734
Inj Date : 22-DEC-2009 14:24
Operator : JAOC Inst ID: ecd1a.i
Smp Info : |243033009|1|
Misc Info : |ECD82P_1S|935393|SVA|LANL|SOIL|RE03-10-2734|||
Comment :
Method : /chem/ecd1a.i/122209.b/ECD1-F-8082-121409.m
Meth Date : 22-Dec-2009 14:00 jen01212 Quant Type: ESTD
Cal Date : 14-DEC-2009 11:34 Cal File: 040f4001.d
Als bottle: 38
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-940.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.02000	Weight of sample extracted (g)
M	19.33350	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.972	1.971	0.001	46084456	122.673	5.1	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.287	5.286	0.001	42333173	133.316	5.5	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/122209.b/038f3801.d

Date : 22-DEC-2009 14:24

Client ID: RE03-10-2734

Sample Info: 1243033009111

Volume Injected (uL): 1.0

Column phase: CLP1

Instrument: ecd1a.i

Operator: JADC

Column diameter: 0.25

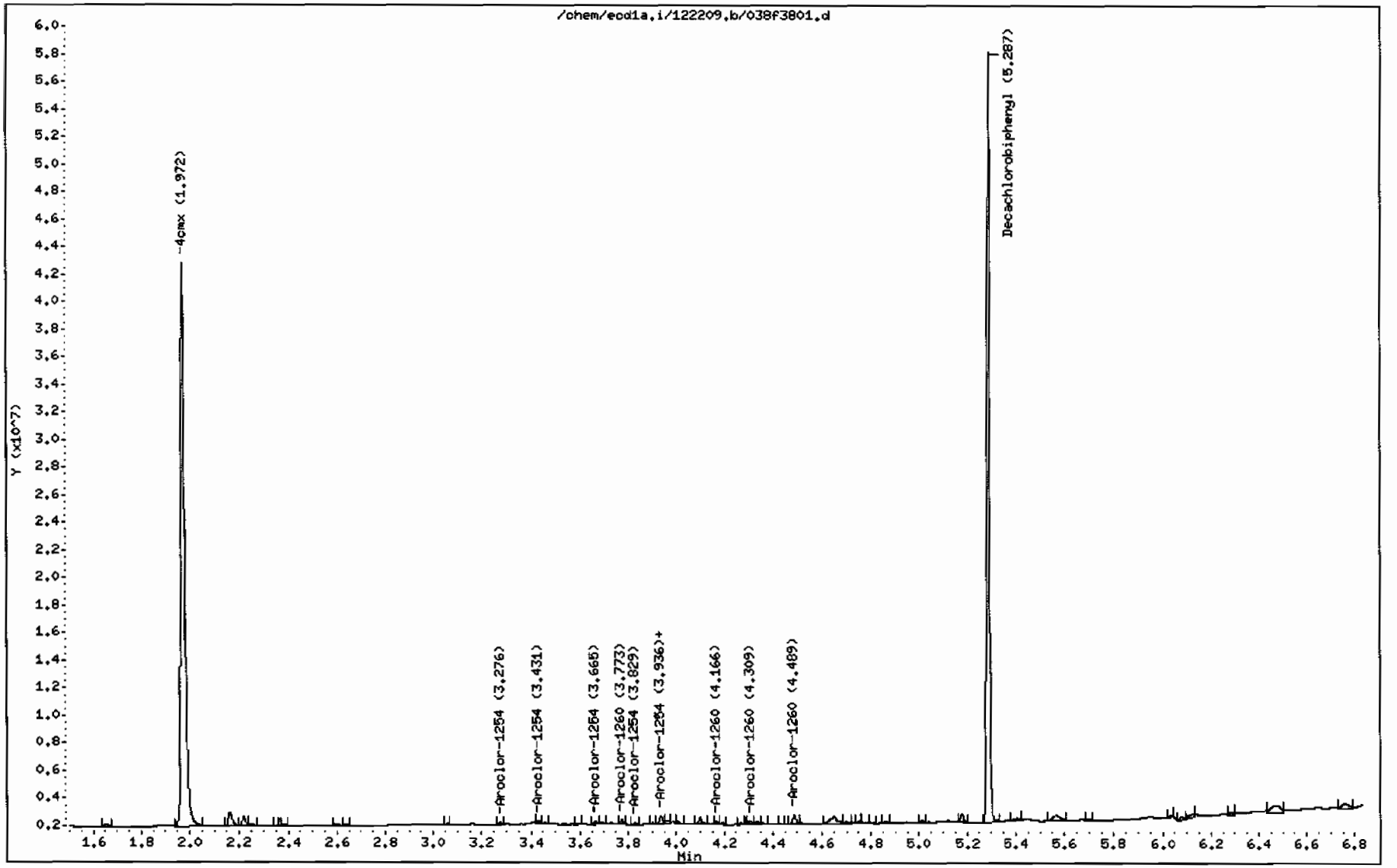

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/122209.b/038b3801.d
Lab Smp Id: 243033009 Client Smp ID: RE03-10-2734
Inj Date : 22-DEC-2009 14:24
Operator : JAOC Inst ID: ecd1a.i
Smp Info : |243033009|1|
Misc Info : |ECD82P_1S|935393|SVA|LANL|SOIL|RE03-10-2734|||
Comment :
Method : /chem/ecd1a.i/122209.b/ECD1-B-8082-121409.m
Meth Date : 22-Dec-2009 13:59 jen01212 Quant Type: ESTD
Cal Date : 14-DEC-2009 12:16 Cal File: 044b4401.d
Als bottle: 38
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-940.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.02000	Weight of sample extracted (g)
M	19.33350	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.302	2.302	0.000	35326661	117.745	4.9	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.949	5.948	0.001	29956707	128.444	5.3	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/122209.b/038b3801.d
Date : 22-DEC-2009 14:24
Client ID: RE03-10-2734
Sample Info: 1243033009111
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd1a.i
Operator: JAOC
Column diameter: 0.25

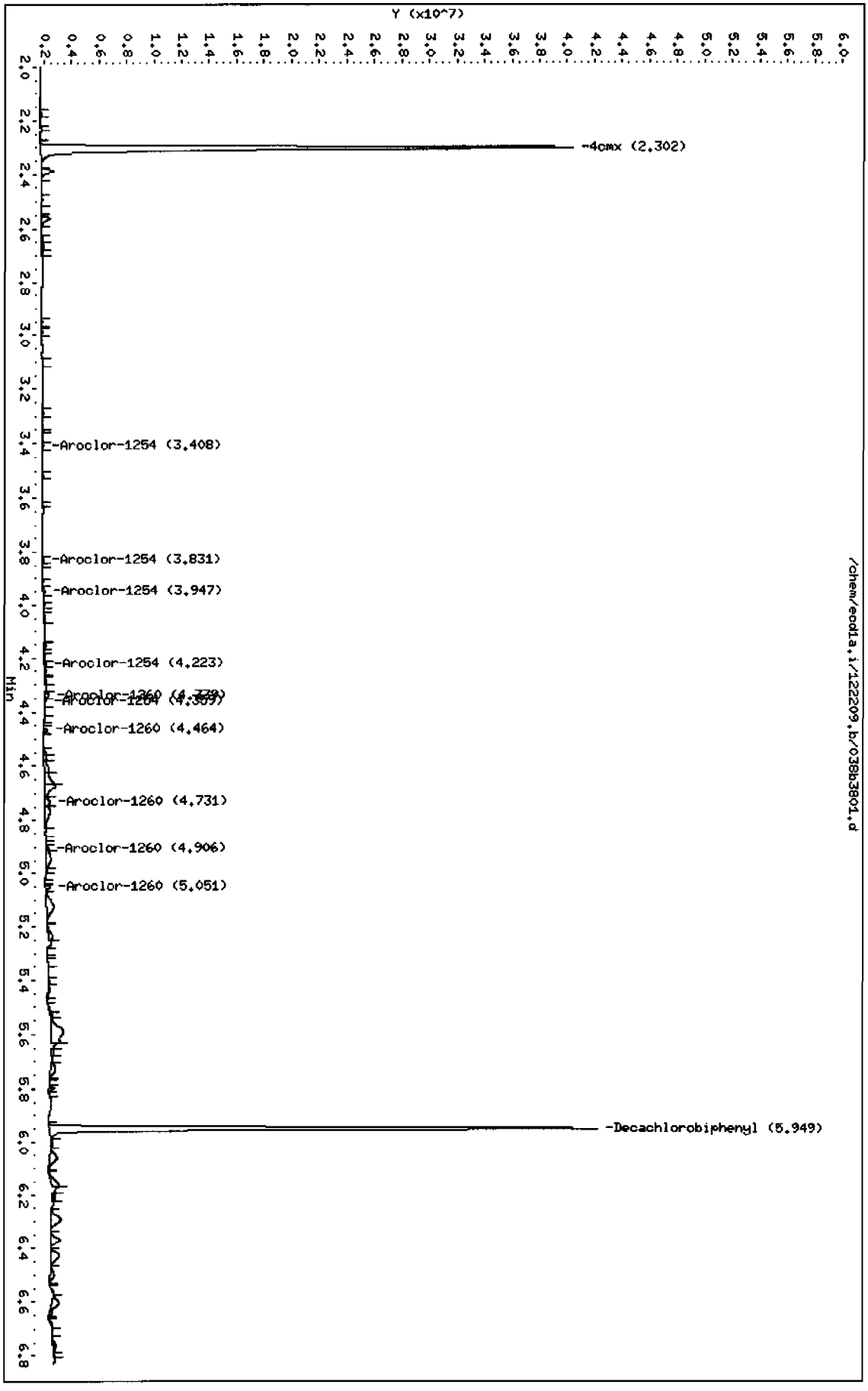

STANDARDS DATA

Report Date: 23-Dec-2009 12:05

Calibration History

Method : /chem/ecd1a.i/122209.b/ECD1-F-8082-121409.m
Start Cal Date: 14-DEC-2009 05:36
End Cal Date : 14-DEC-2009 12:37

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 100.00000		
14-DEC-2009 11:34	AR1268	/chem/ecd1a.i/121409.b/040f4001.d
14-DEC-2009 09:28	AR1248	/chem/ecd1a.i/121409.b/028f2801.d
14-DEC-2009 08:25	AR1242	/chem/ecd1a.i/121409.b/022f2201.d
14-DEC-2009 07:22	AR1254	/chem/ecd1a.i/121409.b/016f1601.d
14-DEC-2009 10:31	AR1660	/chem/ecd1a.i/121409.b/034f3401.d
Cal Level: 2 , Cal Amount: 200.00000		
14-DEC-2009 11:44	AR1268	/chem/ecd1a.i/121409.b/041f4101.d
14-DEC-2009 09:38	AR1248	/chem/ecd1a.i/121409.b/029f2901.d
14-DEC-2009 08:35	AR1242	/chem/ecd1a.i/121409.b/023f2301.d
14-DEC-2009 07:32	AR1254	/chem/ecd1a.i/121409.b/017f1701.d
14-DEC-2009 10:41	AR1660	/chem/ecd1a.i/121409.b/035f3501.d
Cal Level: 3 , Cal Amount: 500.00000		
14-DEC-2009 11:55	AR1268	/chem/ecd1a.i/121409.b/042f4201.d
14-DEC-2009 09:49	AR1248	/chem/ecd1a.i/121409.b/030f3001.d
14-DEC-2009 08:46	AR1242	/chem/ecd1a.i/121409.b/024f2401.d
14-DEC-2009 07:43	AR1254	/chem/ecd1a.i/121409.b/018f1801.d
14-DEC-2009 10:52	AR1660	/chem/ecd1a.i/121409.b/036f3601.d
Cal Level: 4 , Cal Amount: 1000.00000		
14-DEC-2009 12:37	DDTANALOGSTD	/chem/ecd1a.i/121409.b/046f4601.d
14-DEC-2009 09:59	AR1248	/chem/ecd1a.i/121409.b/031f3101.d
14-DEC-2009 08:56	AR1242	/chem/ecd1a.i/121409.b/025f2501.d
14-DEC-2009 07:53	AR1254	/chem/ecd1a.i/121409.b/019f1901.d
14-DEC-2009 11:02	AR1660	/chem/ecd1a.i/121409.b/037f3701.d
14-DEC-2009 12:06	AR1268	/chem/ecd1a.i/121409.b/043f4301.d
14-DEC-2009 05:58	AR1262	/chem/ecd1a.i/121409.b/008f0801.d
14-DEC-2009 05:47	AR1221	/chem/ecd1a.i/121409.b/007f0701.d
14-DEC-2009 05:36	AR1232	/chem/ecd1a.i/121409.b/006f0601.d
Cal Level: 5 , Cal Amount: 4000.00000		
14-DEC-2009 12:16	AR1268	/chem/ecd1a.i/121409.b/044f4401.d
14-DEC-2009 10:10	AR1248	/chem/ecd1a.i/121409.b/032f3201.d
14-DEC-2009 09:07	AR1242	/chem/ecd1a.i/121409.b/026f2601.d
14-DEC-2009 08:04	AR1254	/chem/ecd1a.i/121409.b/020f2001.d
14-DEC-2009 11:13	AR1660	/chem/ecd1a.i/121409.b/038f3801.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 1000		
22-DEC-2009 15:27	AR1660	/chem/ecd1a.i/122209.b/044f4401.d
Ccal Level: 4 , Ccal Amount: 1000		
22-DEC-2009 13:42	AR1660	/chem/ecd1a.i/122209.b/034f3401.d
Ccal Level: 4 , Ccal Amount: 1000		
22-DEC-2009 11:36	AR1660	/chem/ecd1a.i/122209.b/022f2201.d
Ccal Level: 4 , Ccal Amount: 1000		
22-DEC-2009 09:19	AR1268	/chem/ecd1a.i/122209.b/009f0901.d
Ccal Level: 4 , Ccal Amount: 1000		
22-DEC-2009 09:08	AR1262	/chem/ecd1a.i/122209.b/008f0801.d
Ccal Level: 4 , Ccal Amount: 1000		
22-DEC-2009 08:58	AR1221	/chem/ecd1a.i/122209.b/007f0701.d
Ccal Level: 4 , Ccal Amount: 1000		
22-DEC-2009 08:47	AR1232	/chem/ecd1a.i/122209.b/006f0601.d
Ccal Level: 4 , Ccal Amount: 1000		
22-DEC-2009 08:37	AR1248	/chem/ecd1a.i/122209.b/005f0501.d
Ccal Level: 4 , Ccal Amount: 1000		
22-DEC-2009 08:26	AR1242	/chem/ecd1a.i/122209.b/004f0401.d
Ccal Level: 4 , Ccal Amount: 1000		
22-DEC-2009 08:16	AR1254	/chem/ecd1a.i/122209.b/003f0301.d
Ccal Level: 4 , Ccal Amount: 1000		
22-DEC-2009 08:05	AR1660	/chem/ecd1a.i/122209.b/002f0201.d

Report Date: 23-Dec-2009 12:04

Calibration History

Method : /chem/ecd1a.i/122209.b/ECD1-B-8082-121409.m
Start Cal Date: 11-DEC-2009 10:17
End Cal Date : 14-DEC-2009 12:37

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 100.00000		
14-DEC-2009 11:34	AR1268	/chem/ecd1a.i/121409.b/040b4001.d
14-DEC-2009 09:28	AR1248	/chem/ecd1a.i/121409.b/028b2801.d
14-DEC-2009 08:25	AR1242	/chem/ecd1a.i/121409.b/022b2201.d
14-DEC-2009 07:22	AR1254	/chem/ecd1a.i/121409.b/016b1601.d
14-DEC-2009 10:31	AR1660	/chem/ecd1a.i/121409.b/034b3401.d
Cal Level: 2 , Cal Amount: 200.00000		
14-DEC-2009 11:44	AR1268	/chem/ecd1a.i/121409.b/041b4101.d
14-DEC-2009 09:38	AR1248	/chem/ecd1a.i/121409.b/029b2901.d
14-DEC-2009 08:35	AR1242	/chem/ecd1a.i/121409.b/023b2301.d
14-DEC-2009 07:32	AR1254	/chem/ecd1a.i/121409.b/017b1701.d
14-DEC-2009 10:41	AR1660	/chem/ecd1a.i/121409.b/035b3501.d
Cal Level: 3 , Cal Amount: 500.00000		
14-DEC-2009 11:55	AR1268	/chem/ecd1a.i/121409.b/042b4201.d
14-DEC-2009 09:49	AR1248	/chem/ecd1a.i/121409.b/030b3001.d
14-DEC-2009 08:46	AR1242	/chem/ecd1a.i/121409.b/024b2401.d
14-DEC-2009 07:43	AR1254	/chem/ecd1a.i/121409.b/018b1801.d
14-DEC-2009 10:52	AR1660	/chem/ecd1a.i/121409.b/036b3601.d
Cal Level: 4 , Cal Amount: 1000.00000		
14-DEC-2009 12:37	DDTANALOGSTD	/chem/ecd1a.i/121409.b/046b4601.d
14-DEC-2009 12:06	AR1268	/chem/ecd1a.i/121409.b/043b4301.d
14-DEC-2009 05:58	AR1262	/chem/ecd1a.i/121409.b/008b0801.d
14-DEC-2009 05:47	AR1221	/chem/ecd1a.i/121409.b/007b0701.d
14-DEC-2009 05:36	AR1232	/chem/ecd1a.i/121409.b/006b0601.d
14-DEC-2009 09:59	AR1248	/chem/ecd1a.i/121409.b/031b3101.d
14-DEC-2009 08:56	AR1242	/chem/ecd1a.i/121409.b/025b2501.d
14-DEC-2009 07:53	AR1254	/chem/ecd1a.i/121409.b/019b1901.d
14-DEC-2009 11:02	AR1660	/chem/ecd1a.i/121409.b/037b3701.d
Cal Level: 5 , Cal Amount: 4000.00000		
14-DEC-2009 12:16	AR1268	/chem/ecd1a.i/121409.b/044b4401.d
14-DEC-2009 10:10	AR1248	/chem/ecd1a.i/121409.b/032b3201.d
14-DEC-2009 09:07	AR1242	/chem/ecd1a.i/121409.b/026b2601.d
14-DEC-2009 08:04	AR1254	/chem/ecd1a.i/121409.b/020b2001.d
14-DEC-2009 11:13	AR1660	/chem/ecd1a.i/121409.b/038b3801.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 1000		
22-DEC-2009 15:27	AR1660	/chem/ecd1a.i/122209.b/044b4401.d
Ccal Level: 4 , Ccal Amount: 1000		
22-DEC-2009 13:42	AR1660	/chem/ecd1a.i/122209.b/034b3401.d
Ccal Level: 4 , Ccal Amount: 1000		
22-DEC-2009 11:36	AR1660	/chem/ecd1a.i/122209.b/022b2201.d
Ccal Level: 4 , Ccal Amount: 1000		
22-DEC-2009 09:19	AR1268	/chem/ecd1a.i/122209.b/009b0901.d
Ccal Level: 4 , Ccal Amount: 1000		
22-DEC-2009 09:08	AR1262	/chem/ecd1a.i/122209.b/008b0801.d
Ccal Level: 4 , Ccal Amount: 1000		
22-DEC-2009 08:58	AR1221	/chem/ecd1a.i/122209.b/007b0701.d
Ccal Level: 4 , Ccal Amount: 1000		
22-DEC-2009 08:47	AR1232	/chem/ecd1a.i/122209.b/006b0601.d
Ccal Level: 4 , Ccal Amount: 1000		
22-DEC-2009 08:37	AR1248	/chem/ecd1a.i/122209.b/005b0501.d
Ccal Level: 4 , Ccal Amount: 1000		
22-DEC-2009 08:26	AR1242	/chem/ecd1a.i/122209.b/004b0401.d
Ccal Level: 4 , Ccal Amount: 1000		
22-DEC-2009 08:16	AR1254	/chem/ecd1a.i/122209.b/003b0301.d
Ccal Level: 4 , Ccal Amount: 1000		
22-DEC-2009 08:05	AR1660	/chem/ecd1a.i/122209.b/002b0201.d

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd1a.i/122209.b/ECD1-F-8082-121409.m
Quant Method : ESTD Target Version : 3.50
Last Update : 23-Dec-2009 06:42 Number of Cpnds : 15
Data Type : GC MULTI COMP

Global Integrator : Falcon

Chromat Events	Values
Initial:Start Threshold	12031.000000
Initial:End Threshold	6015.500000
Initial:Area Threshold	15489.000000
Initial:P-P Resolution	1.000000
Initial:Bunch Factor	2.000000
Initial:Negative Peaks	OFF
Initial:Tension	0.500000

Compound	RT	RT Window	RF
1 Aroclor-1016	2.427	2.397-2.457	1.387e+04
	2.705	2.675-2.735	1.010e+04
	2.796	2.766-2.826	1.176e+04
	2.835	2.805-2.865	6.599e+03
	3.046	3.016-3.076	8.673e+03
63 4,4-DDD	3.953	3.933-3.973	3.938e+05
64 4,4-DDE	3.603	3.583-3.623	4.795e+05
62 4,4-DDT	4.118	4.098-4.138	3.238e+05
2 Aroclor-1221	2.084	2.054-2.114	4.301e+03
	2.177	2.147-2.207	2.440e+03
	2.203	2.173-2.233	1.027e+04
3 Aroclor-1232	2.428	2.398-2.458	6.717e+03
	2.718	2.688-2.748	8.157e+03
	2.798	2.768-2.828	5.751e+03
	3.047	3.017-3.077	3.954e+03
	3.301	3.271-3.331	3.533e+03
4 Aroclor-1242	2.428	2.398-2.458	1.166e+04
	2.717	2.687-2.747	1.345e+04
	2.836	2.806-2.866	5.506e+03
	3.047	3.017-3.077	7.245e+03
	3.300	3.270-3.330	6.811e+03

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecdla.i/122209.b/ECD1-F-8082-121409.m

Compound	RT	RT Window	RF
5 Aroclor-1248	3.098	3.068-3.128	7.848e+03
	3.249	3.219-3.279	6.870e+03
	3.300	3.271-3.330	1.331e+04
	3.432	3.402-3.462	1.101e+04
	3.666	3.636-3.696	7.455e+03
6 Aroclor-1254	3.275	3.245-3.305	1.249e+04
	3.430	3.400-3.460	1.672e+04
	3.664	3.634-3.694	2.071e+04
	3.827	3.797-3.857	1.569e+04
	3.936	3.906-3.966	1.517e+04
7 Aroclor-1260	3.771	3.741-3.801	1.675e+04
	3.934	3.904-3.964	2.474e+04
	4.165	4.135-4.195	1.469e+04
	4.307	4.277-4.337	1.518e+04
	4.486	4.456-4.516	3.435e+04
8 Aroclor-1262	3.774	3.744-3.804	1.402e+04
	3.936	3.906-3.966	1.841e+04
	4.167	4.137-4.197	2.251e+04
	4.309	4.279-4.339	2.033e+04
	4.489	4.459-4.519	4.317e+04
9 Aroclor-1268	4.674	4.644-4.704	5.438e+04
	4.697	4.667-4.727	5.419e+04
	4.809	4.779-4.839	4.052e+04
	5.013	4.983-5.043	1.833e+04
	5.179	5.149-5.209	1.233e+05
M 10 Aroclor-Total	1.000	0.980-1.020	
$ 11 4cmx	1.971	1.941-2.001	3.757e+05
$ 12 Decachlorobiphenyl	5.286	5.256-5.316	3.175e+05

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd1a.i/122209.b/ECD1-B-8082-121409.m
Quant Method : ESTD Target Version : 3.50
Last Update : 23-Dec-2009 06:44 Number of Cpnds : 15
Data Type : GC MULTI COMP

Global Integrator : Falcon

Chromat Events	Values
Initial:Start Threshold	7222.000000
Initial:End Threshold	3611.000000
Initial:Area Threshold	6833.000000
Initial:P-P Resolution	0.000000
Initial:Bunch Factor	2.000000
Initial:Negative Peaks	OFF
Initial:Tension	0.500000

Compound	RT	RT Window	RF
1 Aroclor-1016	3.199	3.169-3.229	1.261e+04
	3.282	3.252-3.312	9.328e+03
	3.346	3.316-3.376	5.411e+03
	3.572	3.542-3.602	7.052e+03
	3.648	3.618-3.678	6.551e+03
62 4,4-DDT	4.670	4.650-4.690	2.436e+05
63 4,4-DDE	4.139	4.119-4.159	3.580e+05
64 4,4-DDD	4.483	4.463-4.503	2.893e+05
2 Aroclor-1221	2.499	2.469-2.529	3.640e+03
	2.594	2.564-2.624	2.329e+03
	2.635	2.604-2.664	8.119e+03
3 Aroclor-1232	2.635	2.605-2.665	6.156e+03
	3.201	3.171-3.231	6.302e+03
	3.283	3.253-3.313	4.701e+03
	3.574	3.544-3.604	3.243e+03
	3.807	3.777-3.837	3.151e+03
4 Aroclor-1242	3.200	3.170-3.230	1.059e+04
	3.283	3.253-3.313	8.054e+03
	3.574	3.544-3.604	5.962e+03
	3.807	3.777-3.837	6.057e+03
	3.835	3.805-3.865	6.701e+03

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecdla.i/122209.b/ECD1-B-8082-121409.m

	Compound	RT	RT Window	RF
	5 Aroclor-1248	3.409	3.379-3.439	8.054e+03
		3.574	3.544-3.604	9.874e+03
		3.808	3.778-3.838	1.122e+04
		3.836	3.805-3.865	1.248e+04
		3.972	3.942-4.002	1.210e+04
	6 Aroclor-1254	3.407	3.377-3.437	6.435e+03
		3.830	3.800-3.860	1.156e+04
		3.947	3.917-3.977	1.243e+04
		4.223	4.193-4.253	1.688e+04
		4.359	4.329-4.389	1.244e+04
	7 Aroclor-1260	4.338	4.308-4.368	1.368e+04
		4.463	4.433-4.493	1.603e+04
		4.729	4.699-4.759	1.256e+04
		4.903	4.873-4.933	1.281e+04
		5.050	5.020-5.080	2.790e+04
	8 Aroclor-1262	4.464	4.434-4.494	1.292e+04
		4.731	4.701-4.761	1.831e+04
		4.904	4.874-4.934	1.658e+04
		5.051	5.021-5.081	3.329e+04
		5.264	5.234-5.294	2.297e+04
	9 Aroclor-1268	5.263	5.233-5.293	4.358e+04
		5.290	5.260-5.320	4.039e+04
		5.440	5.410-5.470	3.144e+04
		5.605	5.575-5.635	1.427e+04
		5.798	5.768-5.828	8.886e+04
M	10 Aroclor-Total	1.000	0.980-1.020	
$	11 4cmx	2.302	2.272-2.332	3.000e+05
$	12 Decachlorobiphenyl	5.948	5.918-5.978	2.332e+05

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 14-DEC-2009 05:36
End Cal Date : 14-DEC-2009 12:37
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd1a.i/122209.b/ECD1-F-8082-121409.m
Cal Date : 23-Dec-2009 06:42 jen01212
Curve Type : Average

Calibration File Names:
Level 1: /chem/ecd1a.i/121409.b/040f4001.d
Level 2: /chem/ecd1a.i/121409.b/041f4101.d
Level 3: /chem/ecd1a.i/121409.b/042f4201.d
Level 4: /chem/ecd1a.i/121409.b/046f4601.d
Level 5: /chem/ecd1a.i/121409.b/044f4401.d

Compound	100.000 Level 1	200.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
1 Aroclor-1016(1)	15975	14641	13829	13236	11653	13867	11.596
(2)	10801	10349	9832	9922	9584	10098	4.757
(3)	13242	12280	11732	11291	10240	11757	9.507
(4)	7178	6867	6609	6421	5920	6599	7.183
(5)	9710	9021	8649	8224	7763	8673	8.604
63 4,4-DDD	+++++	+++++	+++++	393799	+++++	393799	0.000
64 4,4-DDE	+++++	+++++	+++++	479509	+++++	479509	0.000
62 4,4-DDT	+++++	+++++	+++++	323817	+++++	323817	0.000
2 Aroclor-1221(1)	+++++	+++++	+++++	4301	+++++	4301	0.000
(2)	+++++	+++++	+++++	2440	+++++	2440	0.000
(3)	+++++	+++++	+++++	10272	+++++	10272	0.000
3 Aroclor-1232(1)	+++++	+++++	+++++	6717	+++++	6717	0.000
(2)	+++++	+++++	+++++	8157	+++++	8157	0.000
(3)	+++++	+++++	+++++	5751	+++++	5751	0.000
(4)	+++++	+++++	+++++	3954	+++++	3954	0.000
(5)	+++++	+++++	+++++	3533	+++++	3533	0.000
4 Aroclor-1242(1)	13692	12467	11522	10819	9798	11660	12.846
(2)	14782	14429	13236	12555	12263	13453	8.301
(3)	6076	5890	5423	5191	4949	5506	8.563
(4)	8395	7578	7079	6747	6426	7245	10.645
(5)	7587	7189	6604	6378	6296	6811	8.178
5 Aroclor-1248(1)	9070	8103	7743	7247	7078	7848	10.119
(2)	7785	7181	6827	6444	6114	6870	9.456
(3)	15108	13267	13037	12915	12225	13310	8.094
(4)	12682	11331	10815	10392	9852	11015	9.799
(5)	8605	7806	7405	7124	6336	7455	11.244

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 14-DEC-2009 05:36
End Cal Date : 14-DEC-2009 12:37
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd1a.i/122209.b/ECD1-F-8082-121409.m
Cal Date : 23-Dec-2009 06:42 jen01212
Curve Type : Average

Compound	100.000 Level 1	200.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
6 Aroclor-1254(1)	14281	12975	12313	11911	10947	12485	9.963
(2)	18803	17181	16666	15949	15010	16722	8.494
(3)	22492	20906	20786	20326	19059	20714	5.957
(4)	16753	15627	15809	15513	14770	15694	4.535
(5)	16595	15169	15433	15075	13591	15172	7.071
7 Aroclor-1260(1)	18145	17177	16842	16407	15189	16752	6.464
(2)	26410	24871	24973	24571	22887	24743	5.081
(3)	16099	14386	14855	14472	13625	14687	6.171
(4)	16517	14719	15311	15032	14343	15185	5.451
(5)	35425	33953	34899	34487	32987	34350	2.719
8 Aroclor-1262(1)	+++++	+++++	+++++	14019	+++++	14019	0.000
(2)	+++++	+++++	+++++	18406	+++++	18406	0.000
(3)	+++++	+++++	+++++	22511	+++++	22511	0.000
(4)	+++++	+++++	+++++	20327	+++++	20327	0.000
(5)	+++++	+++++	+++++	43170	+++++	43170	0.000
9 Aroclor-1268(1)	56914	55996	53872	52565	52528	54375	3.680
(2)	57500	55307	54092	52376	51697	54194	4.300
(3)	43006	41368	40020	38976	39247	40524	4.120
(4)	19620	18932	18085	17425	17569	18326	5.094
(5)	128350	126812	122798	118830	119599	123278	3.436
M 10 Aroclor-Total	+++++	+++++	+++++	+++++	+++++	+++++	+++++
$ 11 4cmx	367897	454677	359986	359846	335942	375669	12.182
$ 12 Decachlorobiphenyl	316645	388263	307193	296602	278999	317541	13.206

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 11-DEC-2009 10:17
End Cal Date : 14-DEC-2009 12:37
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd1a.i/122209.b/ECD1-B-8082-121409.m
Cal Date : 23-Dec-2009 06:44 jen01212
Curve Type : Average

Calibration File Names:
Level 1: /chem/ecd1a.i/121409.b/040b4001.d
Level 2: /chem/ecd1a.i/121409.b/041b4101.d
Level 3: /chem/ecd1a.i/121409.b/042b4201.d
Level 4: /chem/ecd1a.i/121409.b/046b4601.d
Level 5: /chem/ecd1a.i/121409.b/044b4401.d

Compound	100.000 Level 1	200.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
1 Aroclor-1016(1)	14281	12734	12848	12156	11039	12612	9.333
(2)	10954	9913	9256	8806	7710	9328	13.003
(3)	6310	5679	5380	5089	4598	5411	11.852
(4)	8214	7430	6981	6696	5938	7052	12.003
(5)	7754	6843	6481	6115	5561	6551	12.561
62 4,4-DDT	+++++	+++++	+++++	243613	+++++	243613	0.000
63 4,4-DDE	+++++	+++++	+++++	357996	+++++	357996	0.000
64 4,4-DDD	+++++	+++++	+++++	289343	+++++	289343	0.000
2 Aroclor-1221(1)	+++++	+++++	+++++	3640	+++++	3640	0.000
(2)	+++++	+++++	+++++	2329	+++++	2329	0.000
(3)	+++++	+++++	+++++	8119	+++++	8119	0.000
3 Aroclor-1232(1)	+++++	+++++	+++++	6156	+++++	6156	0.000
(2)	+++++	+++++	+++++	6302	+++++	6302	0.000
(3)	+++++	+++++	+++++	4701	+++++	4701	0.000
(4)	+++++	+++++	+++++	3243	+++++	3243	0.000
(5)	+++++	+++++	+++++	3151	+++++	3151	0.000
4 Aroclor-1242(1)	12348	11309	9989	9755	9542	10589	11.338
(2)	9730	8628	7875	7358	6677	8054	14.627
(3)	7163	6326	5763	5452	5107	5962	13.534
(4)	7183	6468	5900	5548	5185	6057	12.997
(5)	7820	7123	6589	6229	5746	6701	11.977
5 Aroclor-1248(1)	9914	8542	7972	7289	6553	8054	15.880
(2)	11996	10356	9798	9046	8173	9874	14.605
(3)	13306	11756	11119	10365	9555	11220	12.723
(4)	14720	13121	12480	11577	10516	12483	12.732
(5)	14361	12633	11977	11210	10342	12104	12.596

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 11-DEC-2009 10:17
End Cal Date : 14-DEC-2009 12:37
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd1a.i/122209.b/ECD1-B-8082-121409.m
Cal Date : 23-Dec-2009 06:44 jen01212
Curve Type : Average

Compound	100.000 Level 1	200.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
6 Aroclor-1254(1)	7857	6938	6317	5878	5185	6435	15.850
(2)	13759	12316	11389	10708	9625	11559	13.615
(3)	14674	13172	12243	11576	10492	12431	12.786
(4)	19102	17554	16808	16165	14771	16880	9.533
(5)	14276	12708	12612	11843	10739	12435	10.425
7 Aroclor-1260(1)	15678	14232	13583	13177	11731	13680	10.567
(2)	18142	16574	16035	15527	13867	16029	9.709
(3)	14298	13064	12524	12030	10903	12564	9.989
(4)	14593	13310	12766	12230	11150	12810	9.970
(5)	30553	28626	28257	27276	24777	27898	7.569
8 Aroclor-1262(1)	+++++	+++++	+++++	12922	+++++	12922	0.000
(2)	+++++	+++++	+++++	18311	+++++	18311	0.000
(3)	+++++	+++++	+++++	16579	+++++	16579	0.000
(4)	+++++	+++++	+++++	33287	+++++	33287	0.000
(5)	+++++	+++++	+++++	22972	+++++	22972	0.000
9 Aroclor-1268(1)	48327	45655	43354	41349	39206	43578	8.193
(2)	44968	41865	39872	38249	36983	40388	7.790
(3)	35350	32573	30975	29630	28674	31440	8.372
(4)	16410	14977	13894	13214	12876	14274	10.077
(5)	96769	92419	87897	84047	83161	88859	6.460
M 10 Aroclor-Total	+++++	+++++	+++++	+++++	+++++	+++++	+++++
$ 11 4cmx	307069	367145	286931	282899	256086	300026	13.893
$ 12 Decachlorobiphenyl	248884	286011	224119	212175	194946	233227	15.194

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-940

Instrument ID: ECD1A Calibration Date: 12/22/09 Time: 0805

Lab File ID: 002F0201 Init. Calib. Date(s): 12/14/09 12/14/09

Heated Purge: (Y/N) N Init. Calib. Times: 1031 1113

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	13866.870	11819.100	0.01	-14.8	15.0
(2)	10097.726	10041.405	0.01	-0.6	15.0
(3)	11757.020	10232.893	0.01	-13.0	15.0
(4)	6599.010	6218.851	0.01	-5.8	15.0
(5)	8673.402	7893.471	0.01	-9.0	15.0
Aroclor-1260	16752.150	15831.089	0.01	-5.5	15.0
(2)	24742.603	24387.503	0.01	-1.4	15.0
(3)	14687.346	14641.032	0.01	-0.3	15.0
(4)	15184.529	15291.566	0.01	0.7	15.0
(5)	34350.443	35549.448	0.01	3.5	15.0
4cmx	375669.41	339416.84	0.01	-9.6	15.0
Decachlorobiphenyl	317540.53	312855.09	0.01	-1.5	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-940

Instrument ID: ECD1A Calibration Date: 12/22/09 Time: 0805

Lab File ID: 002B0201 Init. Calib. Date(s): 12/14/09 12/14/09

Heated Purge: (Y/N) N Init. Calib. Times: 1031 1113

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	12611.539	12307.559	0.01	-2.4	15.0
(2)	9327.875	7955.901	0.01	-14.7	15.0
(3)	5411.316	4945.153	0.01	-8.6	15.0
(4)	7051.879	6459.718	0.01	-8.4	15.0
(5)	6550.733	5874.937	0.01	-10.3	15.0
Aroclor-1260	13680.027	12456.008	0.01	-8.9	15.0
(2)	16029.019	15351.218	0.01	-4.2	15.0
(3)	12563.933	11813.735	0.01	-6.0	15.0
(4)	12810.076	12208.277	0.01	-4.7	15.0
(5)	27897.674	27912.067	0.01	0.0	15.0
4cmx	300025.77	266655.00	0.01	-11.1	15.0
Decachlorobiphenyl	233227.08	232646.98	0.01	-0.2	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-940

Instrument ID: ECD1A Calibration Date: 12/22/09 Time: 0816

Lab File ID: 003F0301 Init. Calib. Date(s): 12/14/09 12/14/09

Heated Purge: (Y/N) N Init. Calib. Times: 0722 0804

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1254	12485.476	11604.571	0.01	-7.0	15.0
(2)	16721.938	15968.395	0.01	-4.5	15.0
(3)	20713.923	21043.271	0.01	1.6	15.0
(4)	15694.205	16237.348	0.01	3.5	15.0
(5)	15172.491	15345.718	0.01	1.1	15.0
4cmx	375669.41	362010.01	0.01	-3.6	15.0
Decachlorobiphenyl	317540.53	334073.43	0.01	5.2	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-940

Instrument ID: ECD1A Calibration Date: 12/22/09 Time: 0816

Lab File ID: 003B0301 Init. Calib. Date(s): 12/14/09 12/14/09

Heated Purge: (Y/N) N Init. Calib. Times: 0722 0804

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1254	6435.255	5816.655	0.01	-9.6	15.0
(2)	11559.316	10553.840	0.01	-8.7	15.0
(3)	12431.285	11728.700	0.01	-5.6	15.0
(4)	16880.060	16524.474	0.01	-2.1	15.0
(5)	12435.475	12248.095	0.01	-1.5	15.0
4cmx	300025.77	286334.91	0.01	-4.6	15.0
Decachlorobiphenyl	233227.08	247804.73	0.01	6.2	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-940

Instrument ID: ECD1A Calibration Date: 12/22/09 Time: 1136

Lab File ID: 022F2201 Init. Calib. Date(s): 12/14/09 12/14/09

Heated Purge: (Y/N) N Init. Calib. Times: 1031 1113

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	13866.870	12195.989	0.01	-12.0	15.0
(2)	10097.726	10155.647	0.01	0.6	15.0
(3)	11757.020	10536.169	0.01	-10.4	15.0
(4)	6599.010	6316.222	0.01	-4.3	15.0
(5)	8673.402	8227.877	0.01	-5.1	15.0
Aroclor-1260	16752.150	16412.717	0.01	-2.0	15.0
(2)	24742.603	25383.228	0.01	2.6	15.0
(3)	14687.346	15136.737	0.01	3.0	15.0
(4)	15184.529	15881.438	0.01	4.6	15.0
(5)	34350.443	36861.795	0.01	7.3	15.0
4cmx	375669.41	353567.03	0.01	-5.9	15.0
Decachlorobiphenyl	317540.53	323120.44	0.01	1.8	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-940

Instrument ID: ECD1A Calibration Date: 12/22/09 Time: 1136

Lab File ID: 022B2201 Init. Calib. Date(s): 12/14/09 12/14/09

Heated Purge: (Y/N) N Init. Calib. Times: 1031 1113

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	12611.539	12044.894	0.01	-4.5	15.0
(2)	9327.875	7971.400	0.01	-14.5	15.0
(3)	5411.316	5010.350	0.01	-7.4	15.0
(4)	7051.879	6461.988	0.01	-8.4	15.0
(5)	6550.733	5901.695	0.01	-9.9	15.0
Aroclor-1260	13680.027	12441.498	0.01	-9.0	15.0
(2)	16029.019	15419.548	0.01	-3.8	15.0
(3)	12563.933	11883.895	0.01	-5.4	15.0
(4)	12810.076	12259.583	0.01	-4.3	15.0
(5)	27897.674	28019.266	0.01	0.4	15.0
4cmx	300025.77	268297.90	0.01	-10.6	15.0
Decachlorobiphenyl	233227.08	234407.24	0.01	0.5	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-940

Instrument ID: ECD1A Calibration Date: 12/22/09 Time: 1342

Lab File ID: 034F3401 Init. Calib. Date(s): 12/14/09 12/14/09

Heated Purge: (Y/N) N Init. Calib. Times: 1031 1113

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	13866.870	12307.109	0.01	-11.2	15.0
(2)	10097.726	9886.673	0.01	-2.1	15.0
(3)	11757.020	10619.709	0.01	-9.7	15.0
(4)	6599.010	6396.545	0.01	-3.1	15.0
(5)	8673.402	8146.353	0.01	-6.1	15.0
Aroclor-1260	16752.150	16477.385	0.01	-1.6	15.0
(2)	24742.603	25407.089	0.01	2.7	15.0
(3)	14687.346	15258.339	0.01	3.9	15.0
(4)	15184.529	15999.261	0.01	5.4	15.0
(5)	34350.443	36981.333	0.01	7.6	15.0
4cmx	375669.41	355020.73	0.01	-5.5	15.0
Decachlorobiphenyl	317540.53	320715.88	0.01	1.0	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-940

Instrument ID: ECD1A Calibration Date: 12/22/09 Time: 1342

Lab File ID: 034B3401 Init. Calib. Date(s): 12/14/09 12/14/09

Heated Purge: (Y/N) N Init. Calib. Times: 1031 1113

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	12611.539	12230.495	0.01	-3.0	15.0
(2)	9327.875	8013.748	0.01	-14.1	15.0
(3)	5411.316	5019.210	0.01	-7.2	15.0
(4)	7051.879	6532.589	0.01	-7.4	15.0
(5)	6550.733	5980.984	0.01	-8.7	15.0
Aroclor-1260	13680.027	12671.837	0.01	-7.4	15.0
(2)	16029.019	15649.823	0.01	-2.4	15.0
(3)	12563.933	12040.790	0.01	-4.2	15.0
(4)	12810.076	12404.464	0.01	-3.2	15.0
(5)	27897.674	28369.150	0.01	1.7	15.0
4cmx	300025.77	271988.42	0.01	-9.3	15.0
Decachlorobiphenyl	233227.08	232000.37	0.01	-0.5	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-940

Instrument ID: ECD1A Calibration Date: 12/22/09 Time: 1527

Lab File ID: 044F4401 Init. Calib. Date(s): 12/14/09 12/14/09

Heated Purge: (Y/N) N Init. Calib. Times: 1031 1113

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	13866.870	12576.066	0.01	-9.3	15.0
(2)	10097.726	10713.222	0.01	6.1	15.0
(3)	11757.020	10878.773	0.01	-7.5	15.0
(4)	6599.010	6544.137	0.01	-0.8	15.0
(5)	8673.402	8439.862	0.01	-2.7	15.0
Aroclor-1260	16752.150	16868.686	0.01	0.7	15.0
(2)	24742.603	26021.185	0.01	5.2	15.0
(3)	14687.346	15560.653	0.01	5.9	15.0
(4)	15184.529	16290.765	0.01	7.3	15.0
(5)	34350.443	37535.072	0.01	9.3	15.0
4cmx	375669.41	364858.12	0.01	-2.9	15.0
Decachlorobiphenyl	317540.53	323581.44	0.01	1.9	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-940

Instrument ID: ECD1A Calibration Date: 12/22/09 Time: 1527

Lab File ID: 044B4401 Init. Calib. Date(s): 12/14/09 12/14/09

Heated Purge: (Y/N) N Init. Calib. Times: 1031 1113

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	12611.539	12223.105	0.01	-3.1	15.0
(2)	9327.875	8174.997	0.01	-12.4	15.0
(3)	5411.316	5090.328	0.01	-5.9	15.0
(4)	7051.879	6438.929	0.01	-8.7	15.0
(5)	6550.733	6113.381	0.01	-6.7	15.0
Aroclor-1260	13680.027	12596.367	0.01	-7.9	15.0
(2)	16029.019	14981.774	0.01	-6.5	15.0
(3)	12563.933	12122.093	0.01	-3.5	15.0
(4)	12810.076	12513.940	0.01	-2.3	15.0
(5)	27897.674	28363.537	0.01	1.7	15.0
4cmx	300025.77	278693.13	0.01	-7.1	15.0
Decachlorobiphenyl	233227.08	221832.89	0.01	-4.9	15.0

FORM VII PEST

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/122209.b/002f0201.d
Lab Smp Id: WAR091211-60 01 Client Smp ID: AR166001
Inj Date : 22-DEC-2009 08:05
Operator : JAOC Inst ID: ecd1a.i
Smp Info : |WAR091211-60 01
Misc Info :
Comment :
Method : /chem/ecd1a.i/122209.b/ECD1-F-8082-121409.m
Meth Date : 22-Dec-2009 10:30 jen01212 Quant Type: ESTD
Cal Date : 14-DEC-2009 11:34 Cal File: 040f4001.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.971	1.971	0.000	33941684	100.000	90.3	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.286	5.286	0.000	31285509	100.000	98.5	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.427	2.427	0.000	11819100	1000.00	852	80.00- 120.00	100.00(M)
2.705	2.705	0.000	10041405	1000.00	994	64.96- 104.96	84.96
2.796	2.796	0.000	10232893	1000.00	870	66.58- 106.58	86.58
2.835	2.835	0.000	6218851	1000.00	942	32.62- 72.62	52.62
3.046	3.046	0.000	7893471	1000.00	910	46.79- 86.79	66.79
Average of Peak Amounts =					914		
7 Aroclor-1260					CAS #: 11096-82-5		
3.771	3.771	0.000	15831089	1000.00	945	80.00- 120.00	100.00
3.934	3.934	0.000	24387503	1000.00	986	134.05- 174.05	154.05
4.165	4.165	0.000	14641032	1000.00	997	72.48- 112.48	92.48
4.307	4.307	0.000	15291566	1000.00	1010	76.59- 116.59	96.59
4.486	4.486	0.000	35549448	1000.00	1030	204.55- 244.55	224.55
Average of Peak Amounts =					994		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd1a.i/122209.b/002f0201.d
Date : 22-DEC-2009 08:05
Client ID: AR166001
Sample Info: IWAR091211-60 01

Column phase: CLP1

Page 1

Instrument: ecd1a.i

Operator: JAOC
Column diameter: 0.25

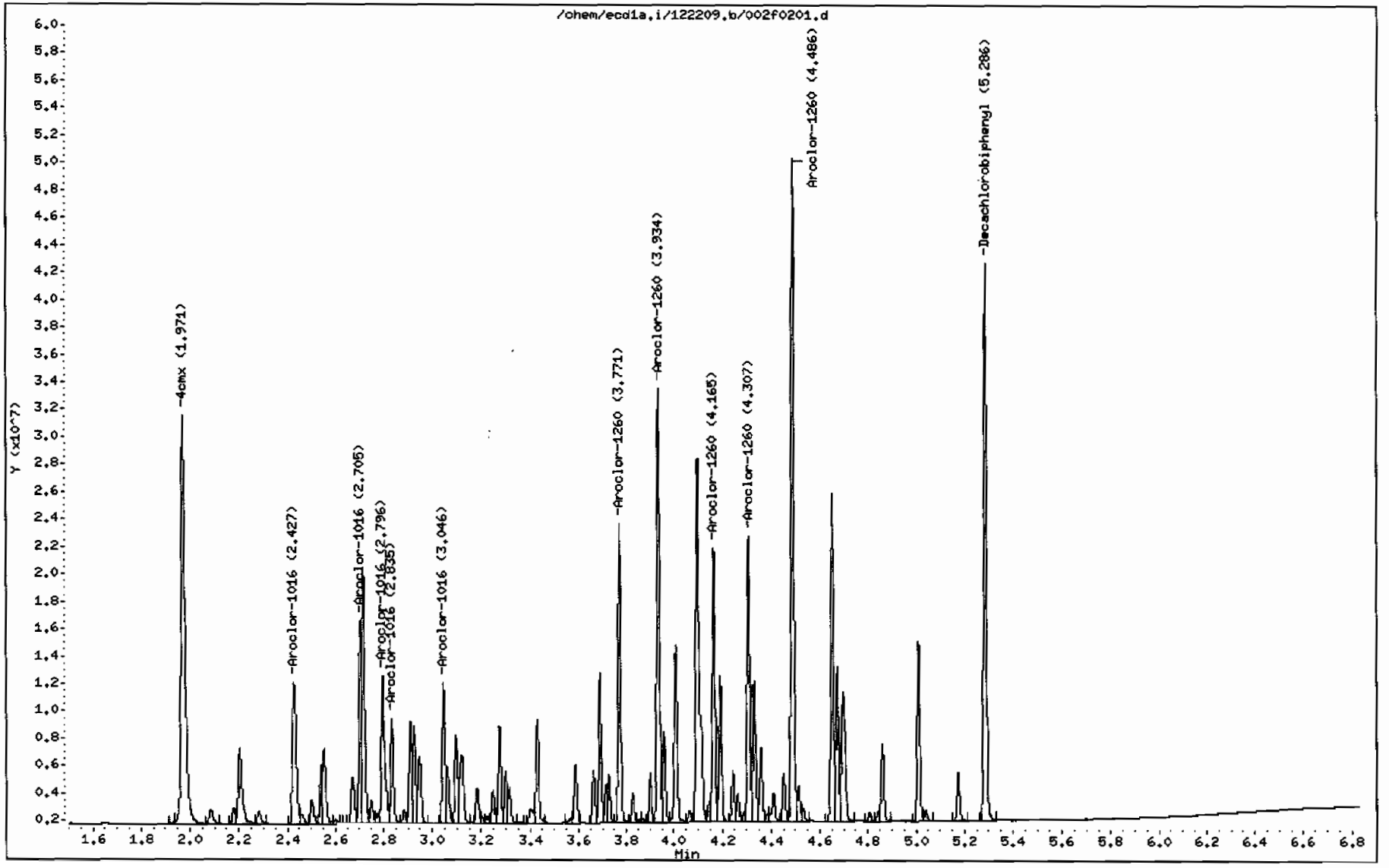

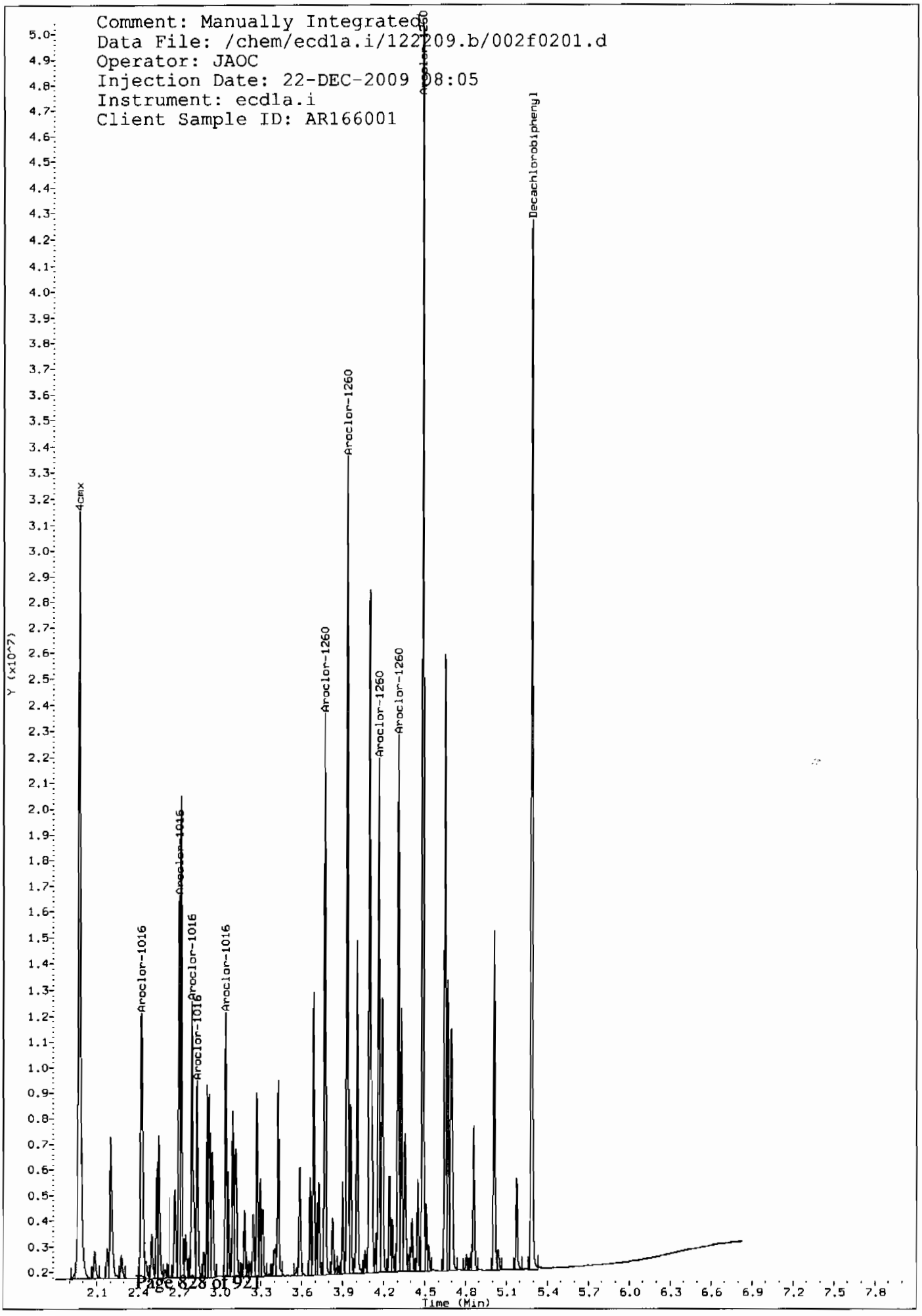
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Operator: JAOC
Injection Date: 22-DEC-2009 08:05
Instrument: ecd1a.i
Client Sample ID: AR166001
Decachlorobiphenyl
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
4cmx
Y (x10^7)
Time (Min)

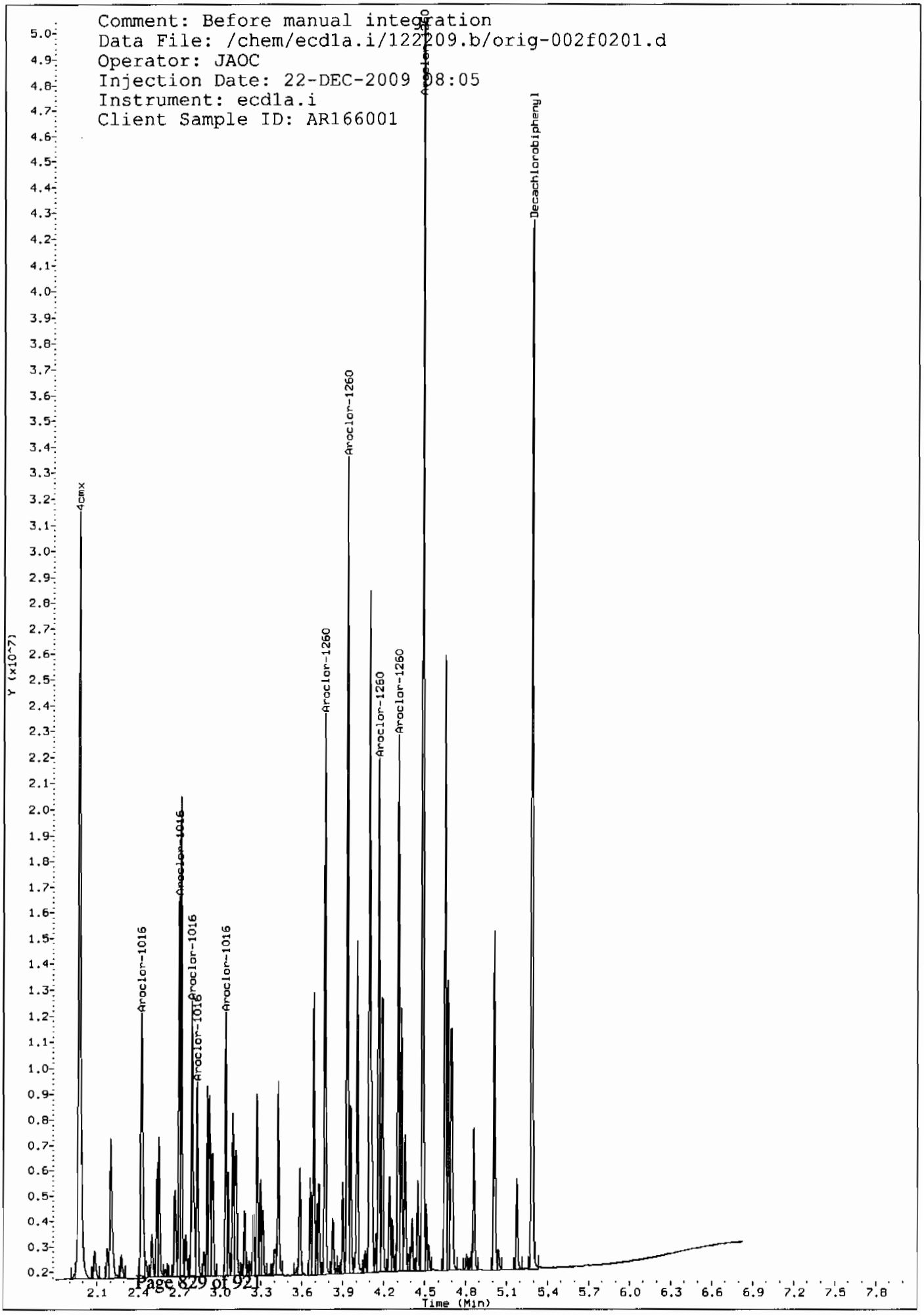
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Operator: JAOC
Injection Date: 22-DEC-2009 08:05
Instrument: ecd1a.i
Client Sample ID: AR166001
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/122209.b/002b0201.d
Lab Smp Id: WAR091211-60 01 Client Smp ID: AR166001
Inj Date : 22-DEC-2009 08:05
Operator : JAOC Inst ID: ecd1a.i
Smp Info : |WAR091211-60 01
Misc Info :
Comment :
Method : /chem/ecd1a.i/122209.b/ECD1-B-8082-121409.m
Meth Date : 22-Dec-2009 10:30 jen01212 Quant Type: ESTD
Cal Date : 14-DEC-2009 12:16 Cal File: 044b4401.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.302	2.302	0.000	26665500	100.000	88.9	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.948	5.948	0.000	23264698	100.000	99.8	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.199	3.199	0.000	12307559	1000.00	976	80.00- 120.00	100.00(M)
3.282	3.282	0.000	7955901	1000.00	853	44.64- 84.64	64.64
3.346	3.346	0.000	4945153	1000.00	914	20.18- 60.18	40.18
3.572	3.572	0.000	6459718	1000.00	916	32.49- 72.49	52.49
3.648	3.648	0.000	5874937	1000.00	897	27.73- 67.73	47.73
Average of Peak Amounts =					911		
7 Aroclor-1260					CAS #: 11096-82-5		
4.338	4.338	0.000	12456008	1000.00	910	80.00- 120.00	100.00
4.463	4.463	0.000	15351218	1000.00	958	103.24- 143.24	123.24
4.729	4.729	0.000	11813735	1000.00	940	74.84- 114.84	94.84
4.903	4.903	0.000	12208277	1000.00	953	78.01- 118.01	98.01
5.050	5.050	0.000	27912067	1000.00	1000	204.09- 244.09	224.09
Average of Peak Amounts =					952		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd1a.i/122209.b/002b0201.d

Date : 22-DEC-2009 08:05

Client ID: AR166001

Sample Info: IWAR091211-60 01

Column phase: CLP2

Instrument: ecd1a.i

Operator: JAOC

Column diameter: 0.25

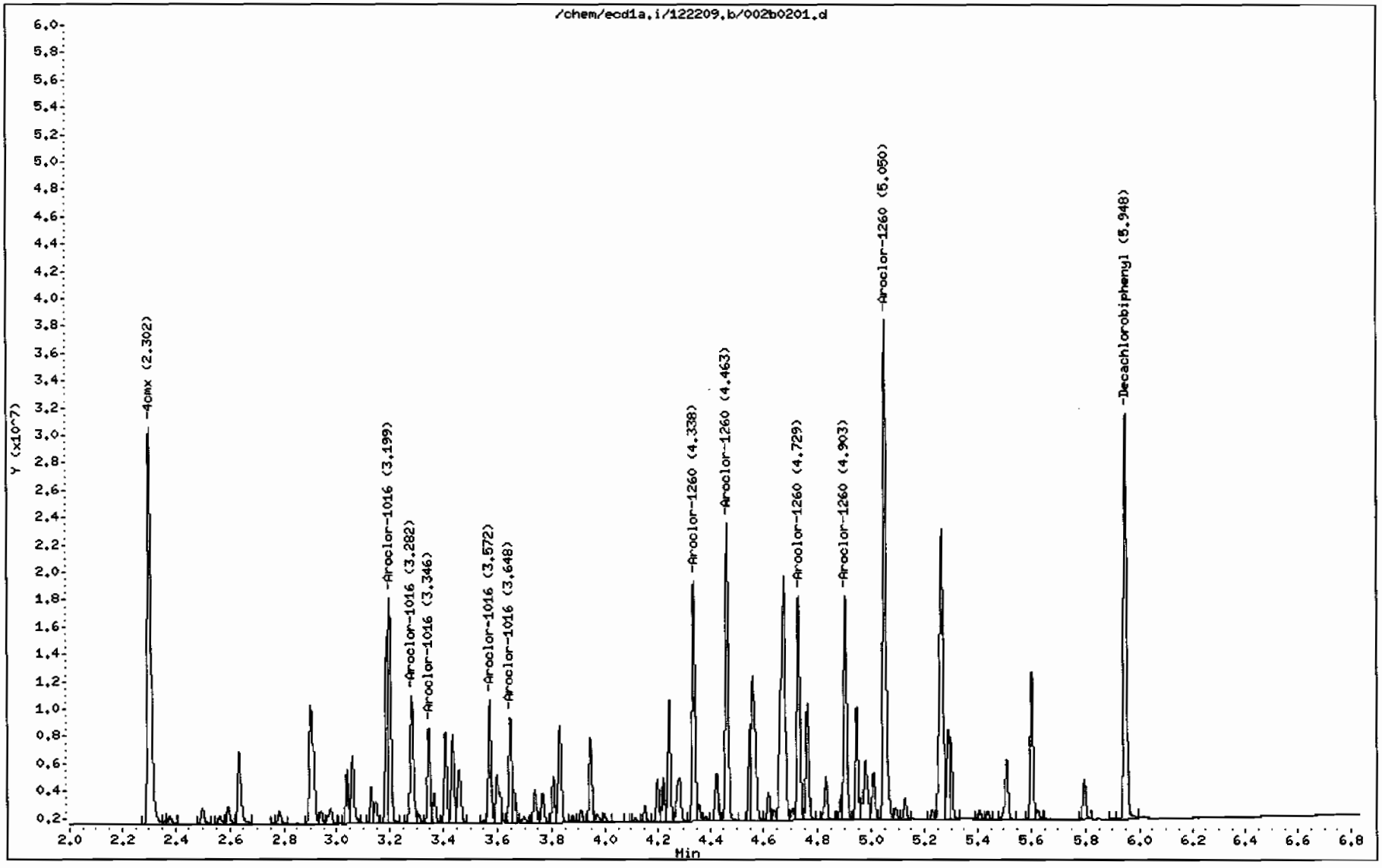

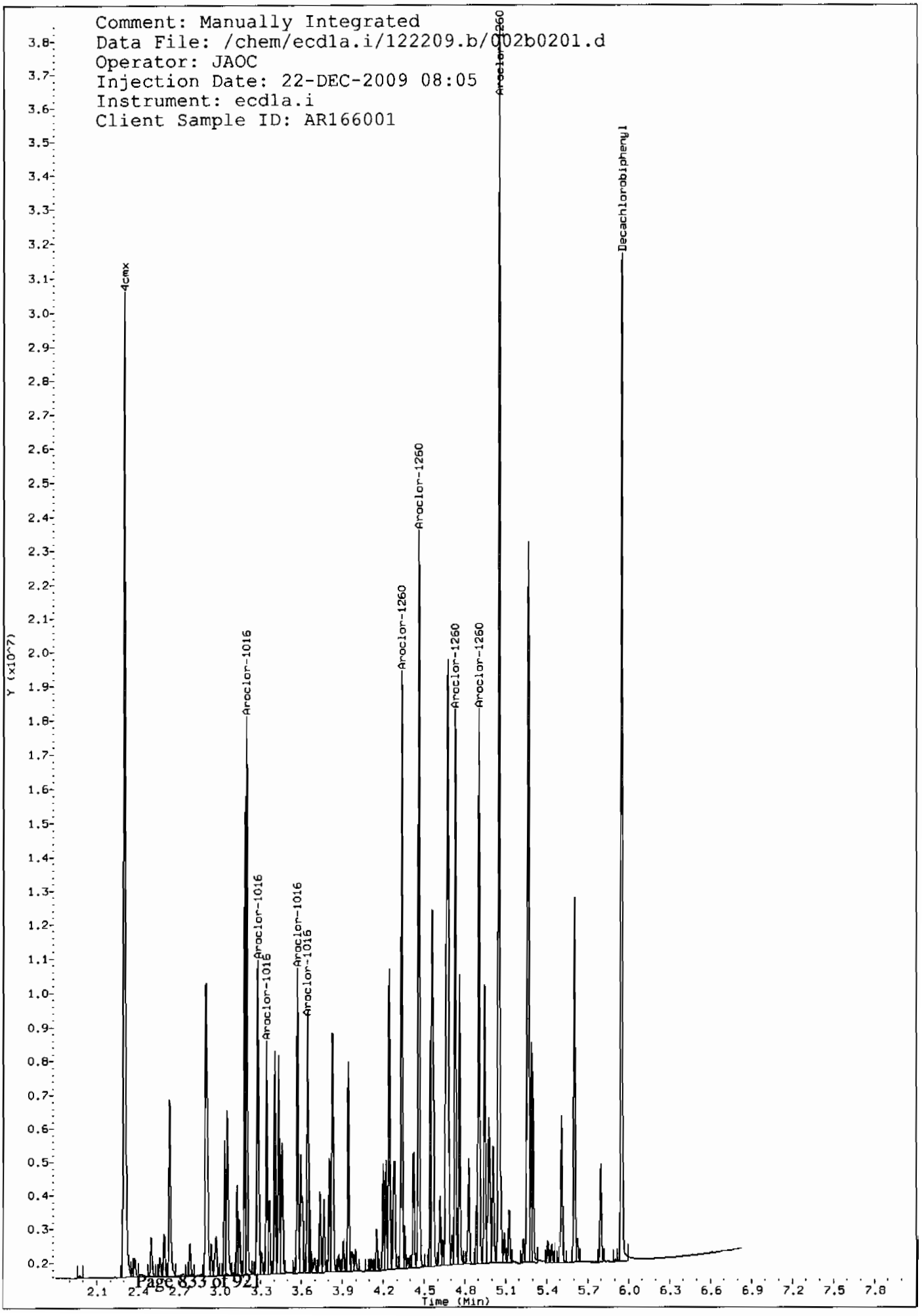
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Operator: JAOC
Injection Date: 22-DEC-2009 08:05
Instrument: ecd1a.i
Client Sample ID: AR166001
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
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Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

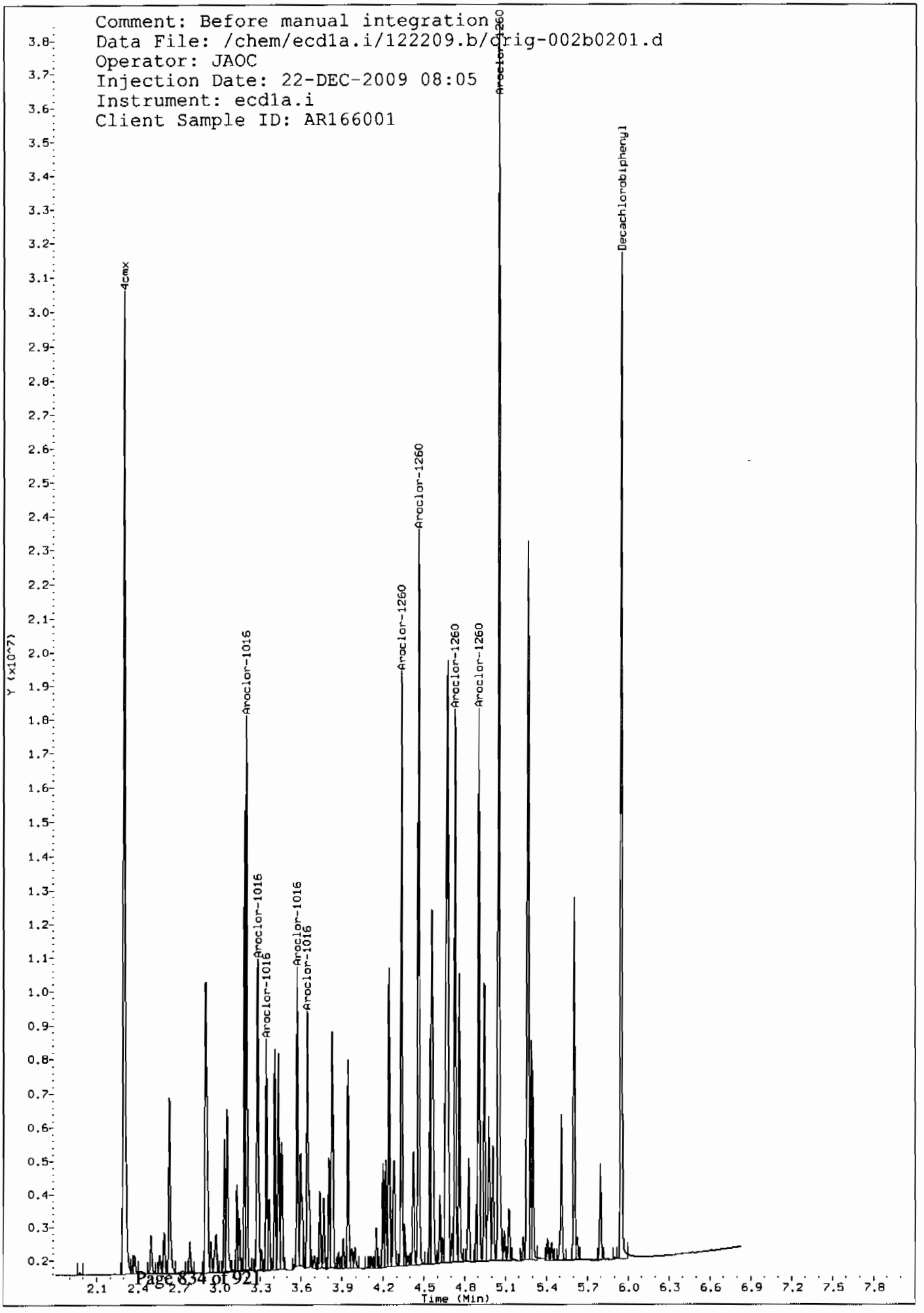
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Operator: JAOC
Injection Date: 22-DEC-2009 08:05
Instrument: ecd1a.i
Client Sample ID: AR166001
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/122209.b/003f0301.d
Lab Smp Id: WAR091216-54 Client Smp ID: AR125401
Inj Date : 22-DEC-2009 08:16
Operator : JAOC Inst ID: ecd1a.i
Smp Info : |WAR091216-54
Misc Info :
Comment :
Method : /chem/ecd1a.i/122209.b/ECD1-F-8082-121409.m
Meth Date : 22-Dec-2009 10:30 jen01212 Quant Type: ESTD
Cal Date : 14-DEC-2009 11:34 Cal File: 040f4001.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1254.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.972	1.971	0.001	36201001	100.000	96.4	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.287	5.286	0.001	33407343	100.000	105	80.00- 120.00	100.00
6 Aroclor-1254					CAS #: 11097-69-1		
3.275	3.275	0.000	11604571	1000.00	929	80.00- 120.00	100.00
3.430	3.430	0.000	15968395	1000.00	955	117.60- 157.60	137.60
3.664	3.664	0.000	21043271	1000.00	1020	161.34- 201.34	181.34
3.827	3.827	0.000	16237348	1000.00	1030	119.92- 159.92	139.92
3.936	3.936	0.000	15345718	1000.00	1010	112.24- 152.24	132.24
Average of Peak Amounts =					989		

Data File: /chem/ecd1a.i/122209.b/003f0301.d

Date : 22-DEC-2009 08:16

Client ID: AR125401

Sample Info: IWAR091216-54

Column phase: CLP1

Instrument: ecd1a.i

Operator: JAOC

Column diameter: 0.25

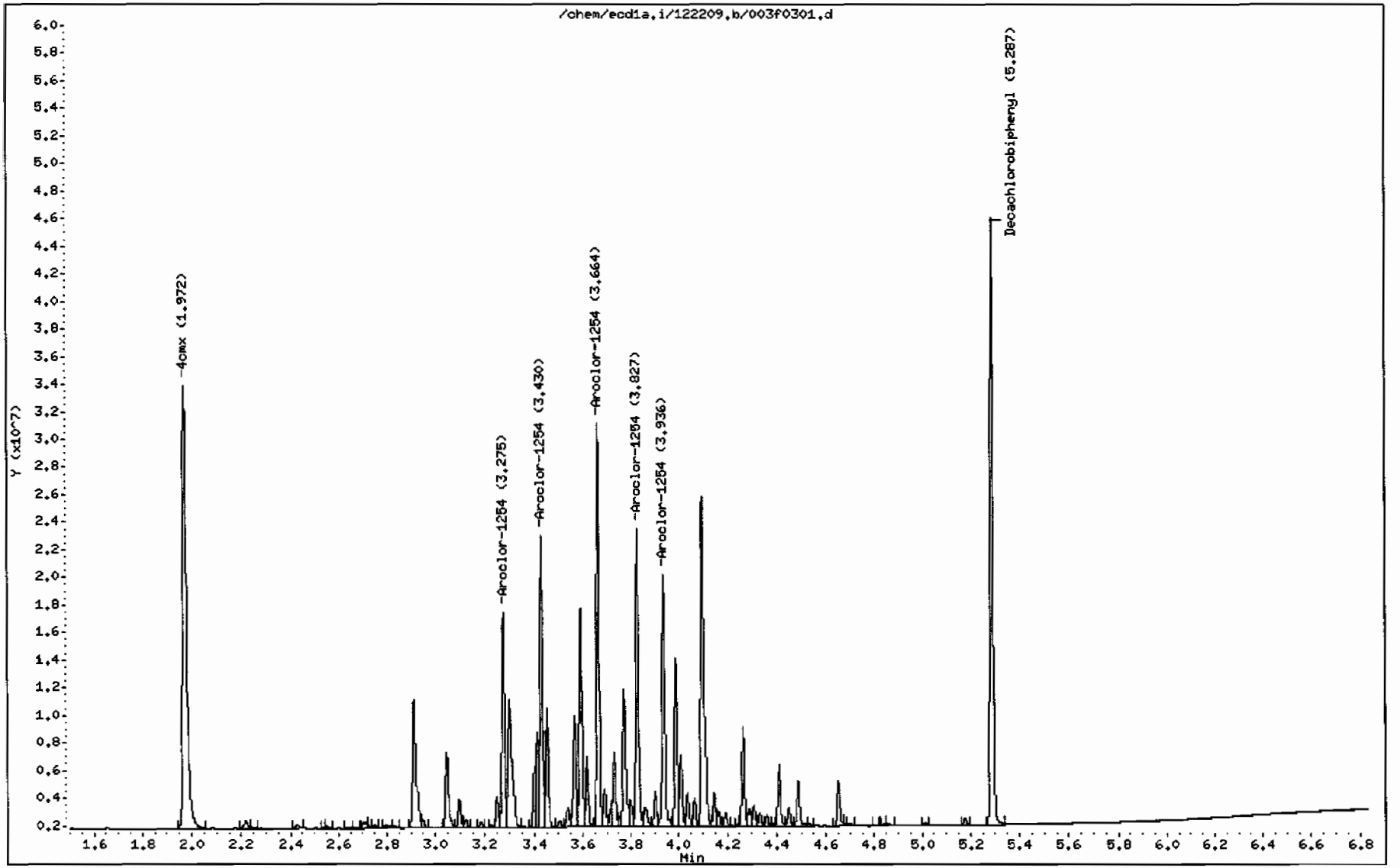

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/122209.b/003b0301.d
Lab Smp Id: WAR091216-54 Client Smp ID: AR125401
Inj Date : 22-DEC-2009 08:16
Operator : JAOC Inst ID: ecd1a.i
Smp Info : |WAR091216-54
Misc Info :
Comment :
Method : /chem/ecd1a.i/122209.b/ECD1-B-8082-121409.m
Meth Date : 22-Dec-2009 10:30 jen01212 Quant Type: ESTD
Cal Date : 14-DEC-2009 12:16 Cal File: 044b4401.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1254.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.302	2.302	0.000	28633491	100.000	95.4	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.949	5.948	0.001	24780473	100.000	106	80.00- 120.00	100.00
6 Aroclor-1254					CAS #: 11097-69-1		
3.407	3.407	0.000	5816655	1000.00	904	80.00- 120.00	100.00
3.830	3.830	0.000	10553840	1000.00	913	161.44- 201.44	181.44
3.947	3.947	0.000	11728700	1000.00	943	181.64- 221.64	201.64
4.223	4.223	0.000	16524474	1000.00	979	264.09- 304.09	284.09
4.359	4.359	0.000	12248094	1000.00	985	190.57- 230.57	210.57
			Average of Peak Amounts =		945		

Data File: /chem/ecd1a.i/122209.b/003b0301.d

Date : 22-DEC-2009 08:16

Client ID: AR125401

Sample Info: IWAR091216-54

Column phase: CLP2

Instrument: ecd1a.i

Operator: JAOC

Column diameter: 0.25

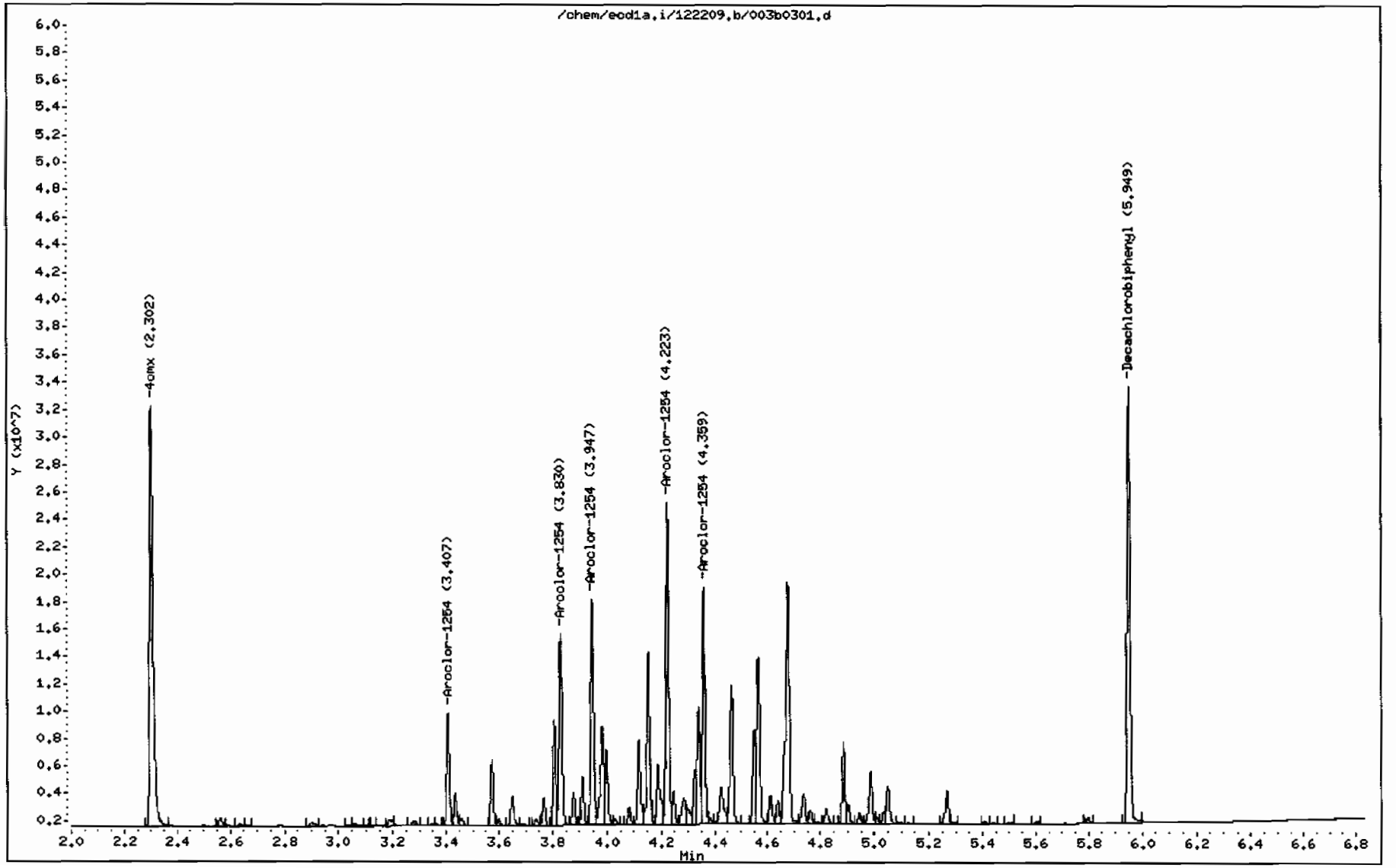

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/122209.b/004f0401.d
Lab Smp Id: WAR091102-42 Client Smp ID: AR124201
Inj Date : 22-DEC-2009 08:26
Operator : JAOC Inst ID: ecd1a.i
Smp Info : |WAR091102-42
Misc Info :
Comment :
Method : /chem/ecd1a.i/122209.b/ECD1-F-8082-121409.m
Meth Date : 22-Dec-2009 10:30 jen01212 Quant Type: ESTD
Cal Date : 14-DEC-2009 11:34 Cal File: 040f4001.d
Als bottle: 4 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1242.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.971	1.971	0.000	37237901	100.000	99.1	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.288	5.286	0.002	33757311	100.000	106	80.00- 120.00	100.00
4 Aroclor-1242					CAS #: 53469-21-9		
2.428	2.428	0.000	10444613	1000.00	896	80.00- 120.00	100.00
2.717	2.717	0.000	13312273	1000.00	990	107.46- 147.46	127.46
2.836	2.836	0.000	5271178	1000.00	957	30.47- 70.47	50.47
3.047	3.047	0.000	6995254	1000.00	966	46.97- 86.97	66.97
3.300	3.300	0.000	6938813	1000.00	1020	46.43- 86.43	66.43
Average of Peak Amounts =					965		

Data File: /chem/ecd1a.i/122209.b/004f0401.d
Date : 22-DEC-2009 08:26
Client ID: AR124201
Sample Info: IWAR091102-42

Column phase: CLP1

Instrument: ecd1a.i

Operator: JAOC
Column diameter: 0.25

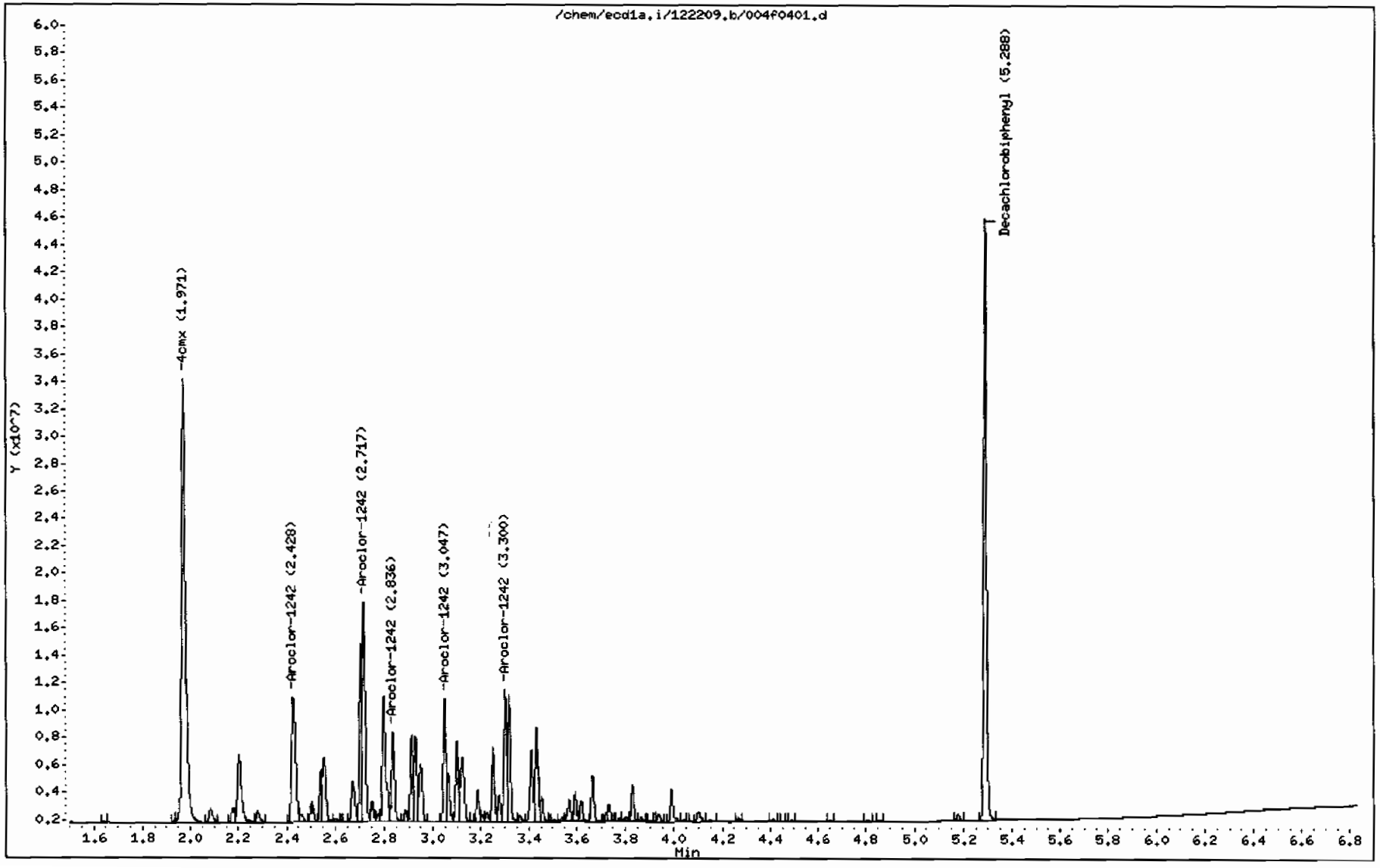

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/122209.b/004b0401.d
Lab Smp Id: WAR091102-42 Client Smp ID: AR124201
Inj Date : 22-DEC-2009 08:26
Operator : JAOC Inst ID: ecd1a.i
Smp Info : |WAR091102-42
Misc Info :
Comment :
Method : /chem/ecd1a.i/122209.b/ECD1-B-8082-121409.m
Meth Date : 22-Dec-2009 10:30 jen01212 Quant Type: ESTD
Cal Date : 14-DEC-2009 12:16 Cal File: 044b4401.d
Als bottle: 4 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1242.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.302	2.302	0.000	29061552	100.000	96.9	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.950	5.948	0.002	25130300	100.000	108	80.00- 120.00	100.00
4 Aroclor-1242					CAS #: 53469-21-9		
3.200	3.200	0.000	10099566	1000.00	954	80.00- 120.00	100.00
3.283	3.283	0.000	6910257	1000.00	858	48.42- 88.42	68.42
3.574	3.574	0.000	5687190	1000.00	954	36.31- 76.31	56.31
3.807	3.807	0.000	5862246	1000.00	968	38.04- 78.04	58.04
3.835	3.835	0.000	6495896	1000.00	969	44.32- 84.32	64.32
Average of Peak Amounts =					941		

Data File: /chem/eod1a.i/122209.b/004b0401.d

Date : 22-DEC-2009 08:26

Client ID: AR124201

Sample Info: IWAR091102-42

Column phase: CLP2

Instrument: eod1a.i

Operator: JAOC

Column diameter: 0.25

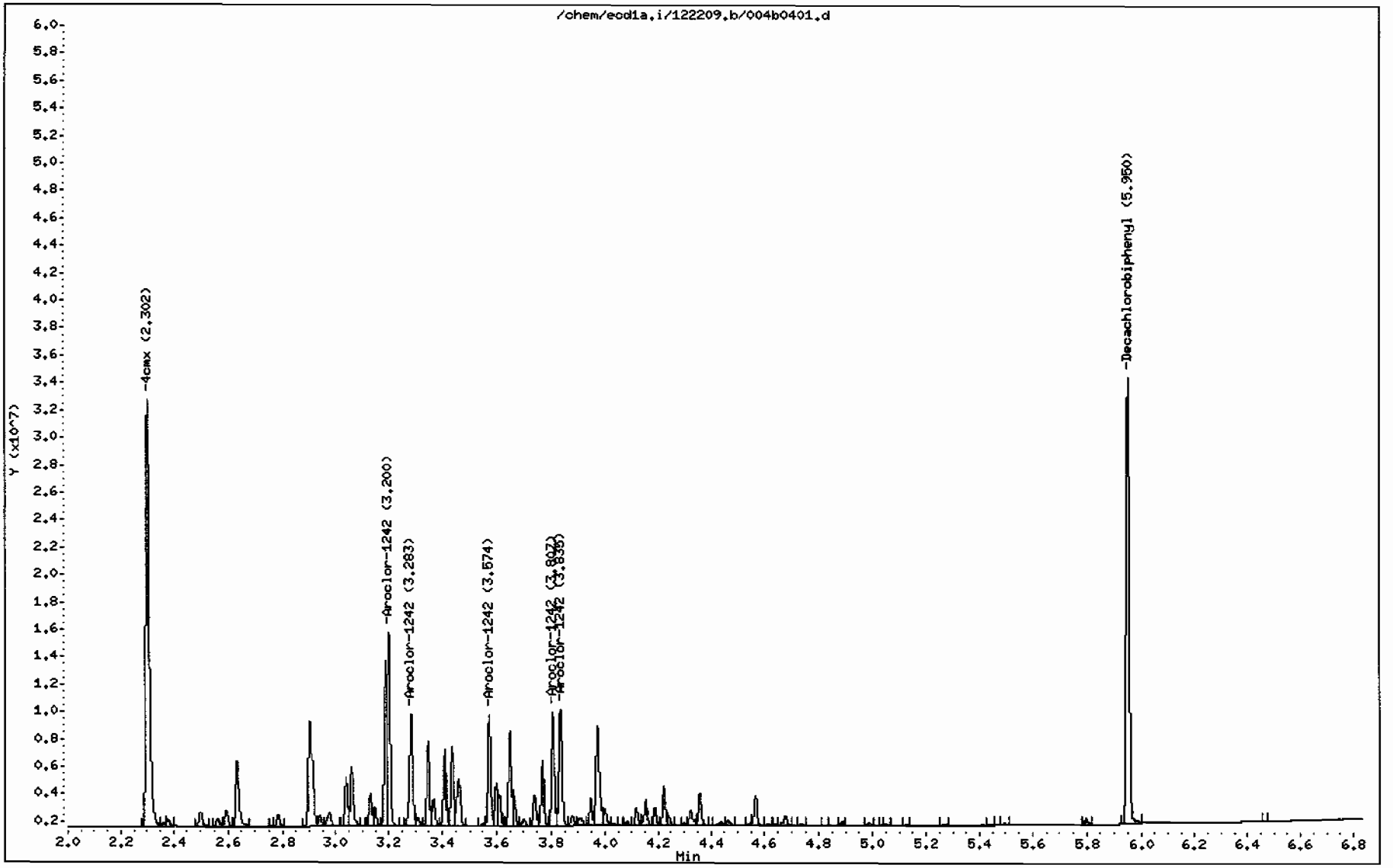

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RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/122209.b/005f0501.d
Lab Smp Id: WAR091027-48 Client Smp ID: AR124801
Inj Date : 22-DEC-2009 08:37
Operator : JAOC Inst ID: ecd1a.i
Smp Info : |WAR091027-48
Misc Info :
Comment :
Method : /chem/ecd1a.i/122209.b/ECD1-F-8082-121409.m
Meth Date : 22-Dec-2009 10:30 jen01212 Quant Type: ESTD
Cal Date : 14-DEC-2009 11:34 Cal File: 040f4001.d
Als bottle: 5 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1248.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.970	1.971	-0.001	39993494	100.000	106	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.288	5.286	0.002	37162300	100.000	117	80.00- 120.00	100.00
5 Aroclor-1248					CAS #: 12672-29-6		
3.098	3.098	0.000	7931287	1000.00	1010	80.00- 120.00	100.00
3.249	3.249	0.000	7026159	1000.00	1020	68.59- 108.59	88.59
3.300	3.300	0.000	13762481	1000.00	1030	153.52- 193.52	173.52
3.432	3.432	0.000	11051789	1000.00	1000	119.34- 159.34	139.34
3.666	3.666	0.000	7023283	1000.00	942	68.55- 108.55	88.55

Average of Peak Amounts = 1e+03

Data File: /chem/ecd1a.i/122209.b/005f0501.d
Date : 22-DEC-2009 08:37
Client ID: AR124801
Sample Info: IWAR091027-48

Column phase: CLP1

Instrument: ecd1a.i

Operator: JAOC
Column diameter: 0.25

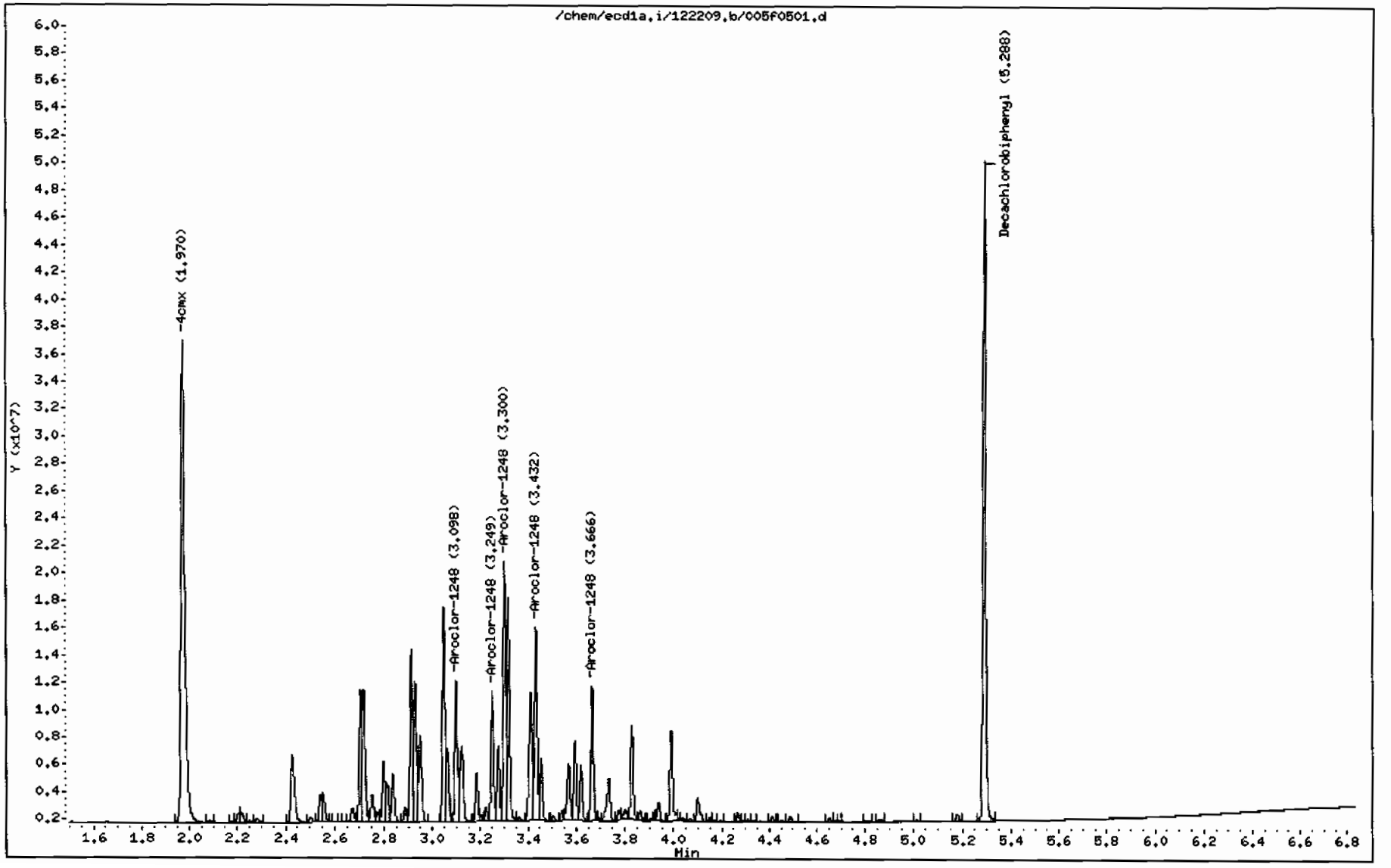

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RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/122209.b/005b0501.d
Lab Smp Id: WAR091027-48 Client Smp ID: AR124801
Inj Date : 22-DEC-2009 08:37
Operator : JAOC Inst ID: ecd1a.i
Smp Info : |WAR091027-48
Misc Info :
Comment :
Method : /chem/ecd1a.i/122209.b/ECD1-B-8082-121409.m
Meth Date : 22-Dec-2009 10:30 jen01212 Quant Type: ESTD
Cal Date : 14-DEC-2009 12:16 Cal File: 044b4401.d
Als bottle: 5 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1248.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.302	2.302	0.000	31311883	100.000	104	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.950	5.948	0.002	27622840	100.000	118	80.00- 120.00	100.00
5 Aroclor-1248					CAS #: 12672-29-6		
3.409	3.409	0.000	7605862	1000.00	944	80.00- 120.00	100.00
3.574	3.574	0.000	9578982	1000.00	970	105.94- 145.94	125.94
3.808	3.808	0.000	11087939	1000.00	988	125.78- 165.78	145.78
3.836	3.836	0.000	12233448	1000.00	980	140.84- 180.84	160.84
3.972	3.972	0.000	11853978	1000.00	979	135.85- 175.85	155.85
		Average of Peak Amounts =			972		

Data File: /chem/ecd1a.i/122209.b/005b0501.d
Date : 22-DEC-2009 08:37
Client ID: AR124801
Sample Info: IWAR091027-48

Instrument: ecd1a.i
Operator: JAOC
Column diameter: 0.25

Column phase: CLP2

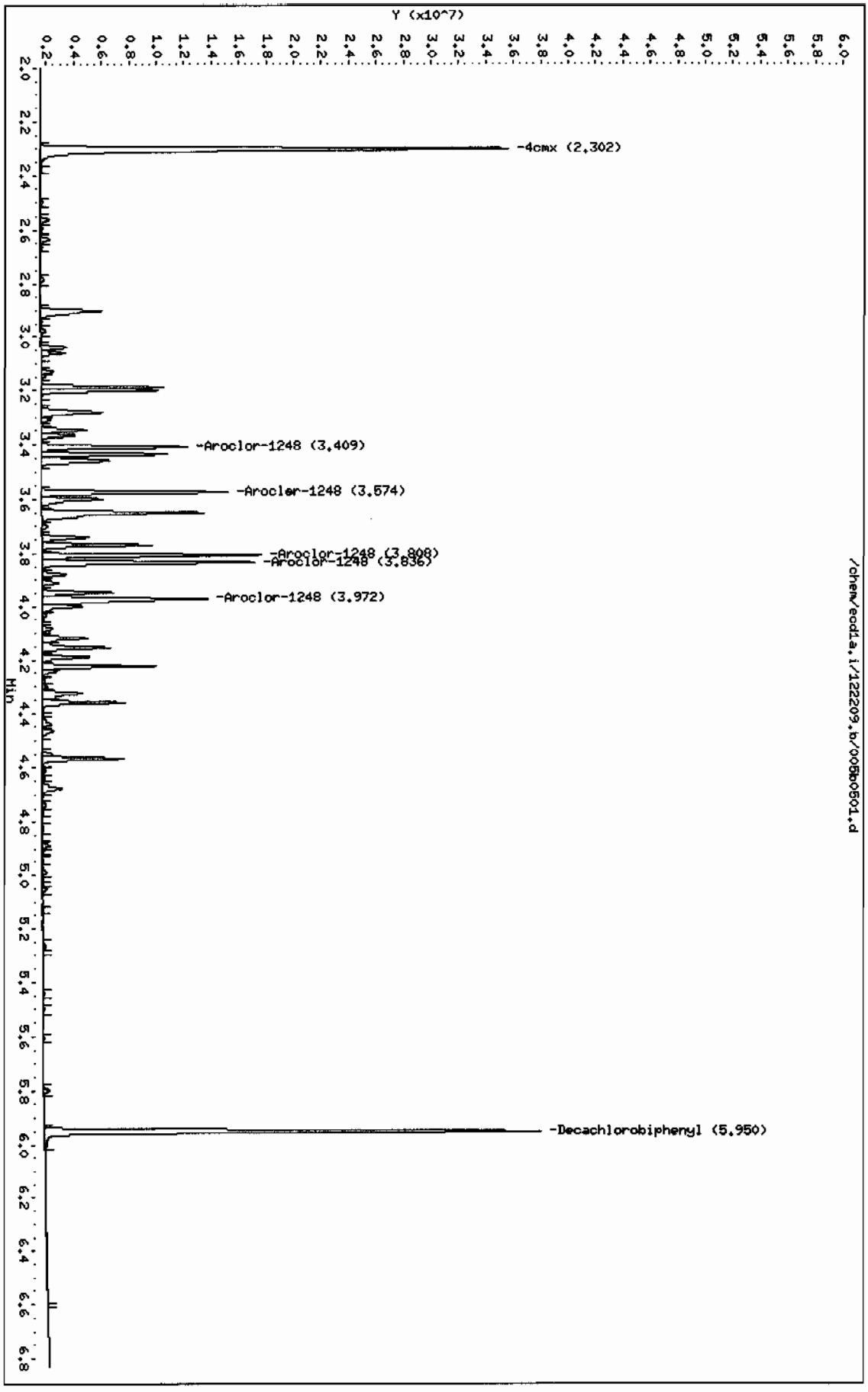

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RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/122209.b/006f0601.d
Lab Smp Id: WAR090930-32 Client Smp ID: AR123201
Inj Date : 22-DEC-2009 08:47
Operator : JAOC Inst ID: ecd1a.i
Smp Info : |WAR090930-32
Misc Info :
Comment :
Method : /chem/ecd1a.i/122209.b/ECD1-F-8082-121409.m
Meth Date : 22-Dec-2009 10:30 jen01212 Quant Type: ESTD
Cal Date : 14-DEC-2009 11:34 Cal File: 040f4001.d
Als bottle: 6 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1232.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.972	1.971	0.001	50735059	100.000	135	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.288	5.286	0.002	46259482	100.000	146	80.00- 120.00	100.00
3 Aroclor-1232					CAS #: 11141-16-5		
2.428	2.428	0.000	6887309	1000.00	1020	80.00- 120.00	100.00
2.718	2.718	0.000	8815316	1000.00	1080	107.99- 147.99	127.99
2.798	2.798	0.000	5909243	1000.00	1030	65.80- 105.80	85.80
3.047	3.047	0.000	4340371	1000.00	1100	43.02- 83.02	63.02
3.301	3.301	0.000	4103939	1000.00	1160	39.59- 79.59	59.59

Average of Peak Amounts = 1.08e+03

Data File: /chem/ecd1a.i/122209.b/006f0601.d

Date : 22-DEC-2009 08:47

Client ID: AR123201

Sample Info: IWAR090930-32

Column phase: CLP1

Instrument: ecd1a.i

Operator: JAOC

Column diameter: 0.25

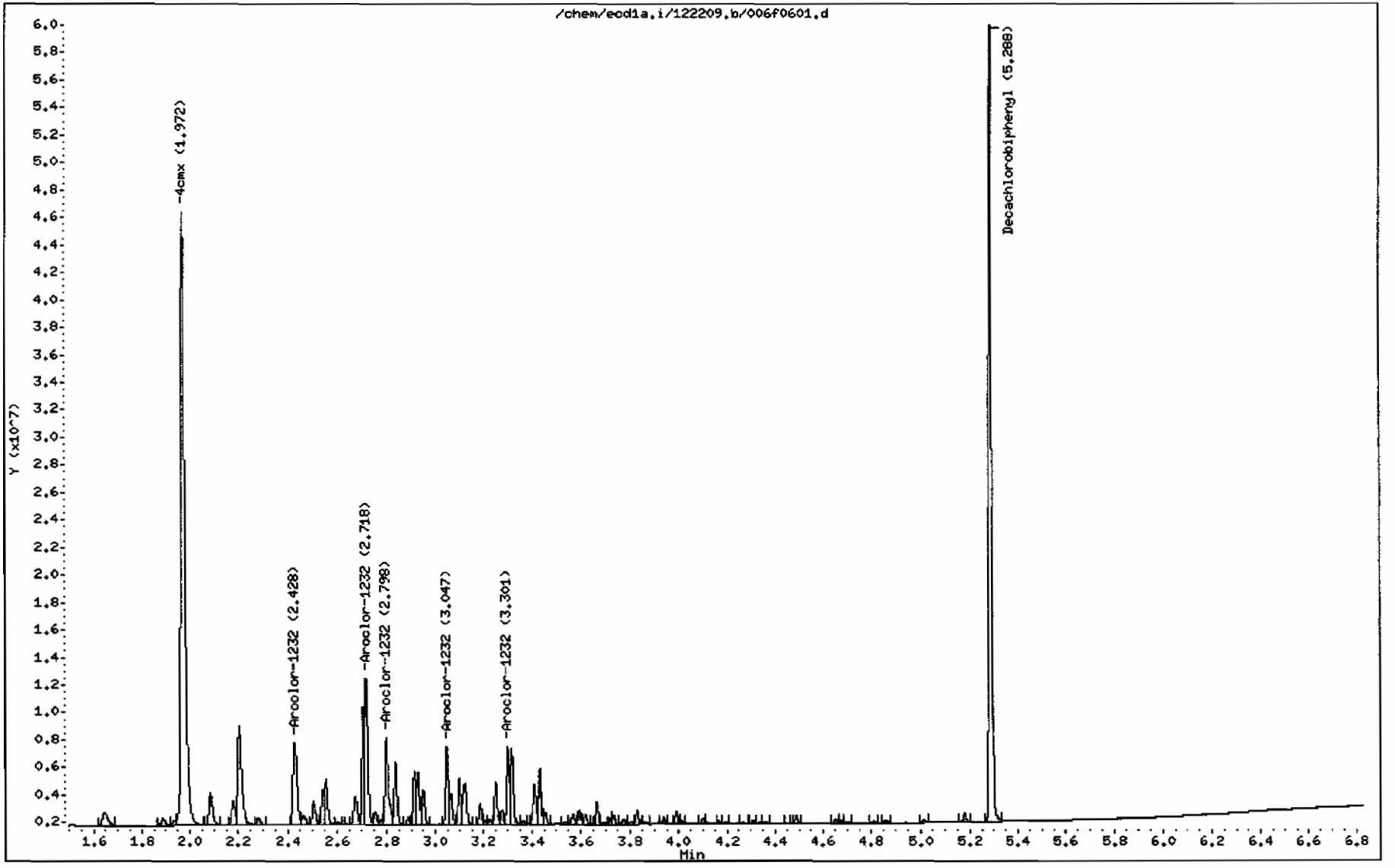

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/122209.b/006b0601.d
Lab Smp Id: WAR090930-32 Client Smp ID: AR123201
Inj Date : 22-DEC-2009 08:47
Operator : JAOC Inst ID: ecd1a.i
Smp Info : |WAR090930-32
Misc Info :
Comment :
Method : /chem/ecd1a.i/122209.b/ECD1-B-8082-121409.m
Meth Date : 22-Dec-2009 10:30 jen01212 Quant Type: ESTD
Cal Date : 14-DEC-2009 12:16 Cal File: 044b4401.d
Als bottle: 6 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1232.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.302	2.302	0.000	39340004	100.000	131	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.950	5.948	0.002	34163690	100.000	146	80.00- 120.00	100.00
3 Aroclor-1232					CAS #: 11141-16-5		
2.635	2.635	0.000	6174849	1000.00	1000	80.00- 120.00	100.00
3.201	3.201	0.000	6712340	1000.00	1060	88.70- 128.70	108.70
3.283	3.283	0.000	4682612	1000.00	996	55.83- 95.83	75.83
3.574	3.574	0.000	3474500	1000.00	1070	36.27- 76.27	56.27
3.807	3.807	0.000	3503346	1000.00	1110	36.74- 76.74	56.74

Average of Peak Amounts = 1.05e+03

Data File: /chem/ecd1a.i/122209.b/006b0601.d

Date : 22-DEC-2009 08:47

Client ID: AR123201

Sample Info: IWAR090930-32

Column phase: CLP2

Instrument: ecd1a.i

Operator: JAOC

Column diameter: 0.25

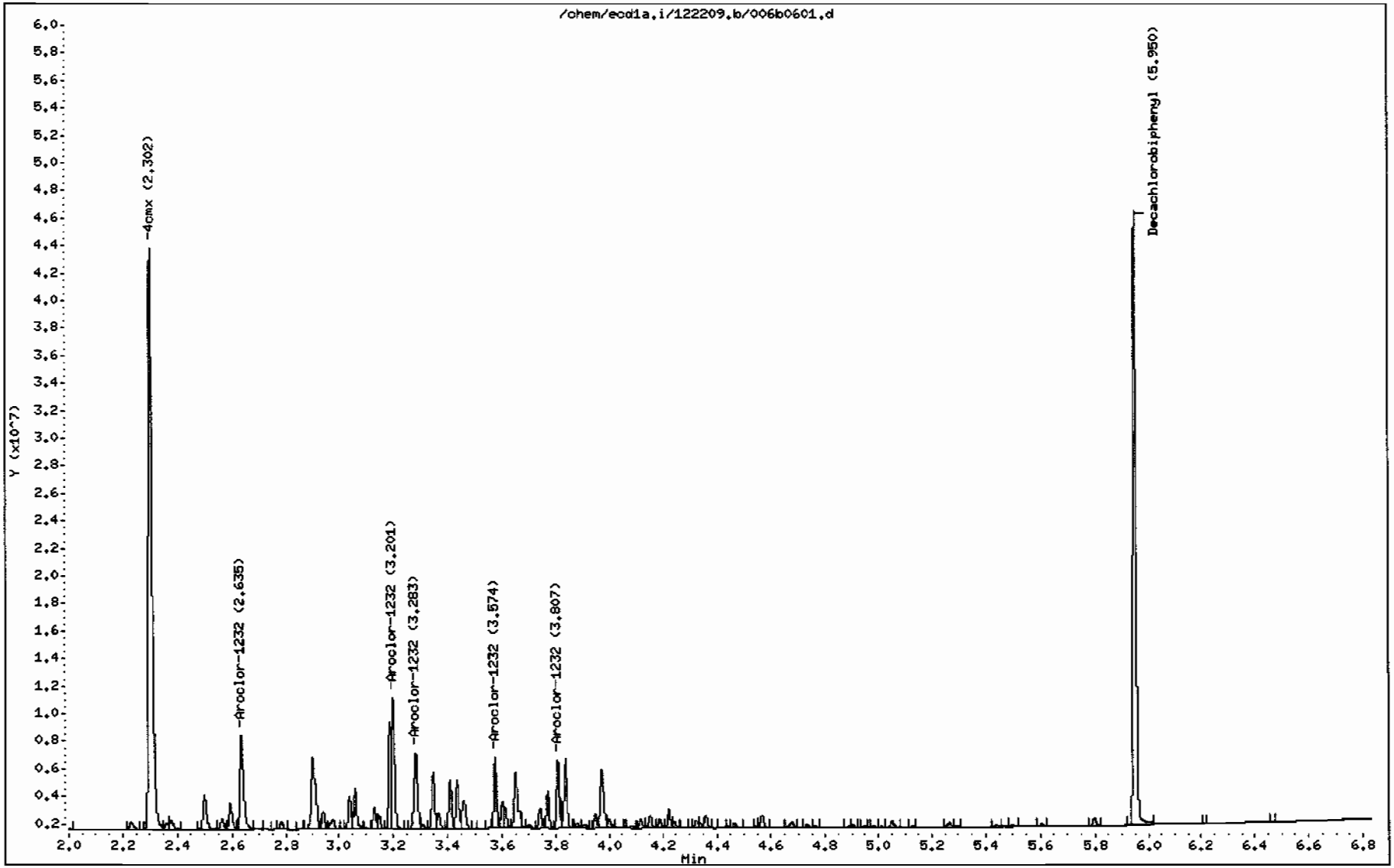

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RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/122209.b/007f0701.d
Lab Smp Id: WAR090803-21 Client Smp ID: AR122101
Inj Date : 22-DEC-2009 08:58
Operator : JAOC Inst ID: ecd1a.i
Smp Info : |WAR090803-21
Misc Info :
Comment :
Method : /chem/ecd1a.i/122209.b/ECD1-F-8082-121409.m
Meth Date : 22-Dec-2009 10:30 jen01212 Quant Type: ESTD
Cal Date : 14-DEC-2009 11:34 Cal File: 040f4001.d
Als bottle: 7 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1221.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.970	1.971	-0.001	37237905	100.000	99.1	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.288	5.286	0.002	34252960	100.000	108	80.00- 120.00	100.00
2 Aroclor-1221					CAS #: 11104-28-2		
2.084	2.084	0.000	4275079	1000.00	994	80.00- 120.00	100.00
2.177	2.177	0.000	2404255	1000.00	985	36.24- 76.24	56.24
2.203	2.203	0.000	10269221	1000.00	1000	220.21- 260.21	240.21
Average of Peak Amounts =					993		

Data File: /chem/ecd1a.i/122209.b/007f0701.d

Date : 22-DEC-2009 08:58

Client ID: AR122101

Sample Info: IWAR090803-21

Column phase: CLP1

Instrument: ecd1a.i

Operator: JAOC

Column diameter: 0.25

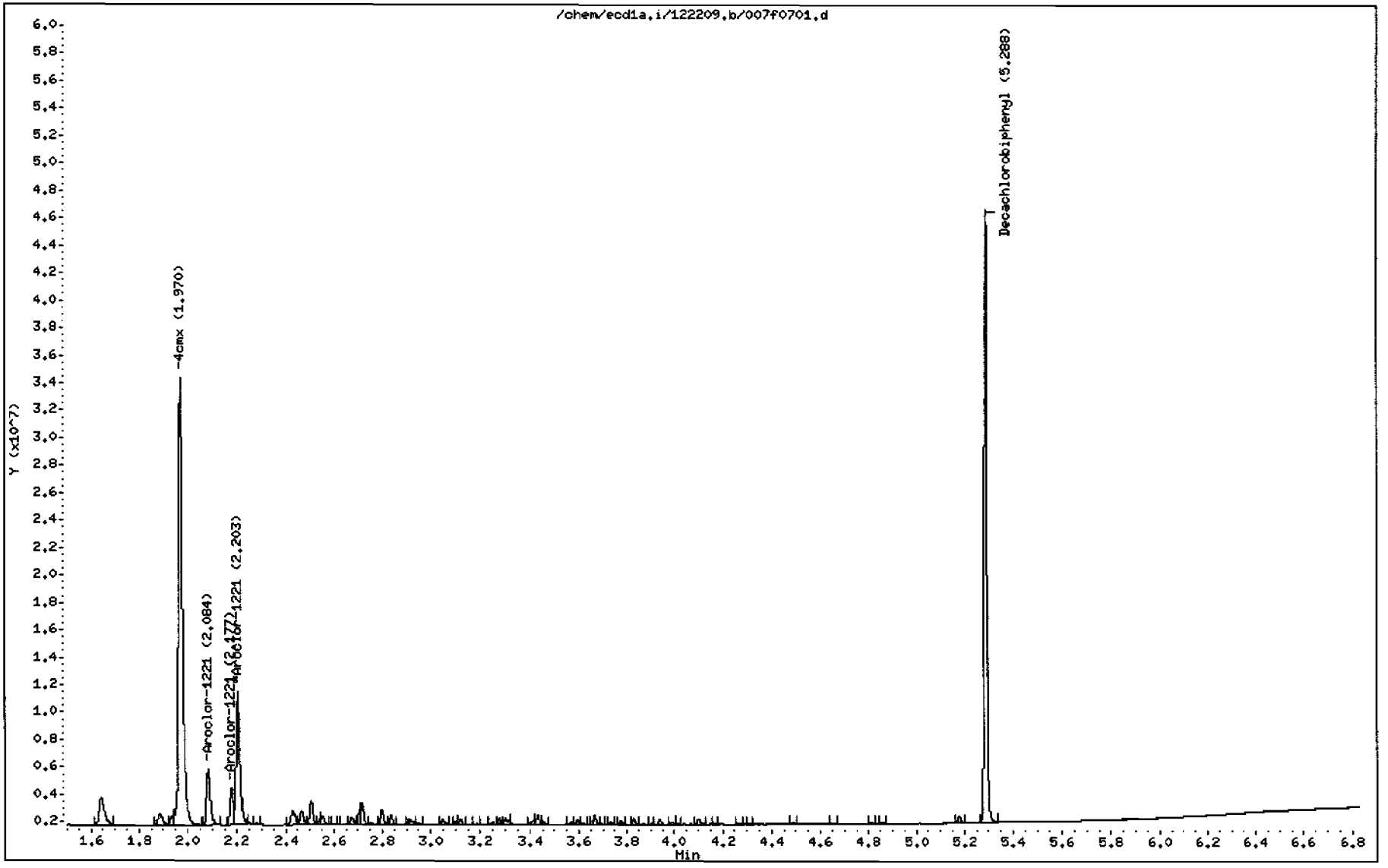

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/122209.b/007b0701.d
Lab Smp Id: WAR090803-21 Client Smp ID: AR122101
Inj Date : 22-DEC-2009 08:58
Operator : JAOC Inst ID: ecd1a.i
Smp Info : |WAR090803-21
Misc Info :
Comment :
Method : /chem/ecd1a.i/122209.b/ECD1-B-8082-121409.m
Meth Date : 22-Dec-2009 10:30 jen01212 Quant Type: ESTD
Cal Date : 14-DEC-2009 12:16 Cal File: 044b4401.d
Als bottle: 7 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1221.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.301	2.302	-0.001	28811147	100.000	96.0	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.950	5.948	0.002	25347070	100.000	109	80.00- 120.00	100.00
2 Aroclor-1221					CAS #: 11104-28-2		
2.499	2.499	0.000	3581860	1000.00	984	80.00- 120.00	100.00
2.594	2.594	0.000	2312559	1000.00	993	44.56- 84.56	64.56
2.635	2.635	0.000	8030890	1000.00	989	204.21- 244.21	224.21
Average of Peak Amounts =					989		

Data File: /chem/ecd1a.i/122209.b/007b0701.d
Date : 22-DEC-2009 08:58
Client ID: AR122101
Sample Info: IWAR090803-21

Column phase: CLP2

Instrument: ecd1a.i

Operator: JAOC
Column diameter: 0.25

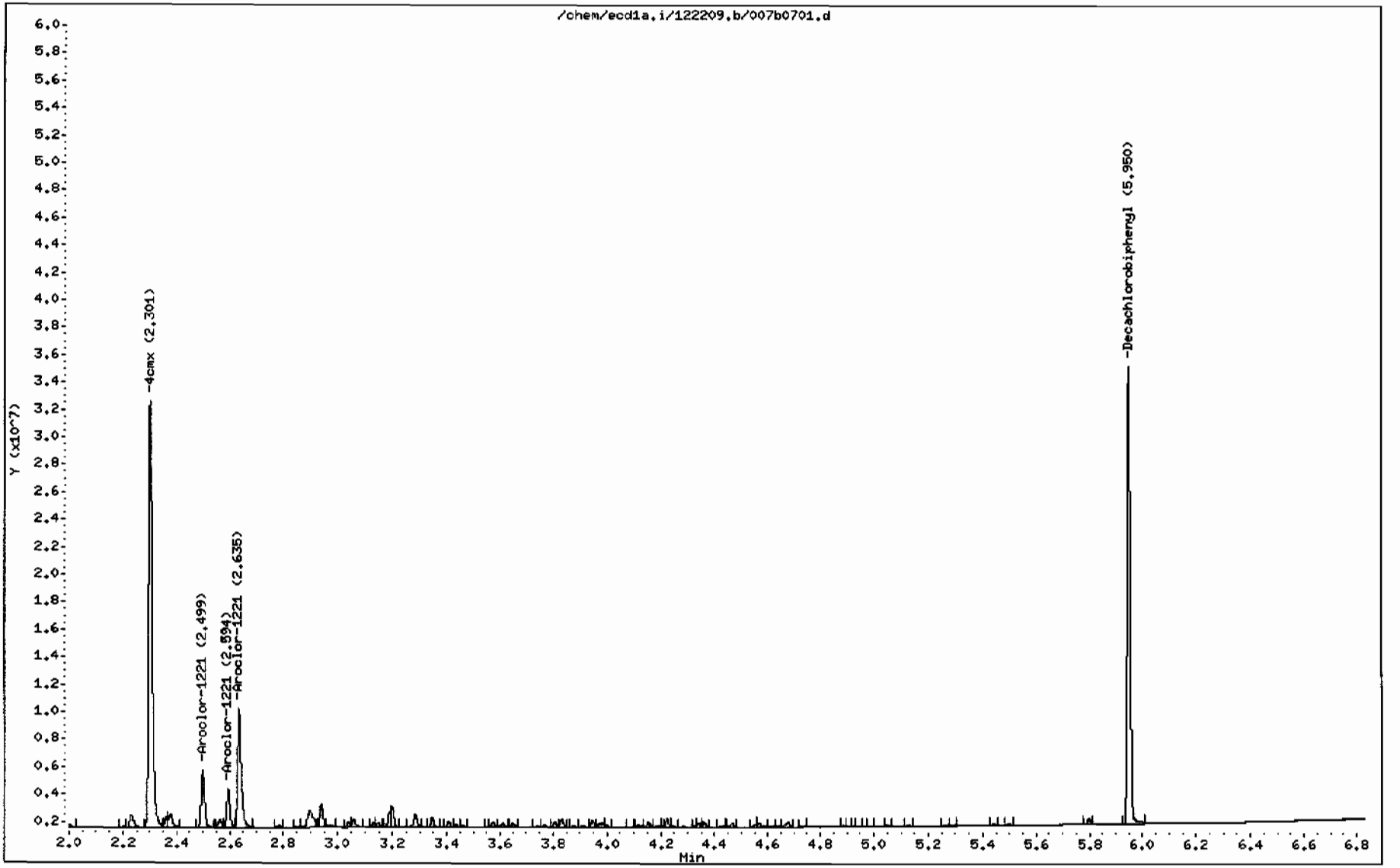

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/122209.b/022f2201.d
Lab Smp Id: WAR091211-60 02 Client Smp ID: AR166002
Inj Date : 22-DEC-2009 11:36
Operator : JAOC Inst ID: ecd1a.i
Smp Info : |WAR091211-60 02
Misc Info :
Comment :
Method : /chem/ecd1a.i/122209.b/ECD1-F-8082-121409.m
Meth Date : 22-Dec-2009 14:00 jen01212 Quant Type: ESTD
Cal Date : 14-DEC-2009 11:34 Cal File: 040f4001.d
Als bottle: 22 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.971	1.971	0.000	35356703	100.000	94.1	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.287	5.286	0.001	32312044	100.000	102	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.427	2.427	0.000	12195989	1000.00	880	80.00- 120.00	100.00
2.705	2.705	0.000	10155647	1000.00	1000	60.33- 100.33	83.27
2.797	2.796	0.001	10536169	1000.00	896	66.29- 106.29	86.39
2.836	2.835	0.001	6316222	1000.00	957	31.97- 71.97	51.79
3.047	3.046	0.001	8227877	1000.00	949	46.19- 86.19	67.46
Average of Peak Amounts =					937		
7 Aroclor-1260					CAS #: 11096-82-5		
3.772	3.771	0.001	16412717	1000.00	980	80.00- 120.00	100.00
3.936	3.934	0.002	25383228	1000.00	1020	126.54- 166.54	154.66
4.166	4.165	0.001	15136737	1000.00	1030	71.39- 111.39	92.23
4.309	4.307	0.002	15881438	1000.00	1040	76.29- 116.29	96.76
4.488	4.486	0.002	36861795	1000.00	1070	204.73- 244.73	224.59
Average of Peak Amounts =					1.03e+03		

Data File: /chem/ecdla.i/122209.b/022f2201.d
Date : 22-DEC-2009 11:36
Client ID: AR166002
Sample Info: IWAR091211-60 02

Column phase: CLP1

Instrument: ecdla.i
Operator: JAOC
Column diameter: 0.25

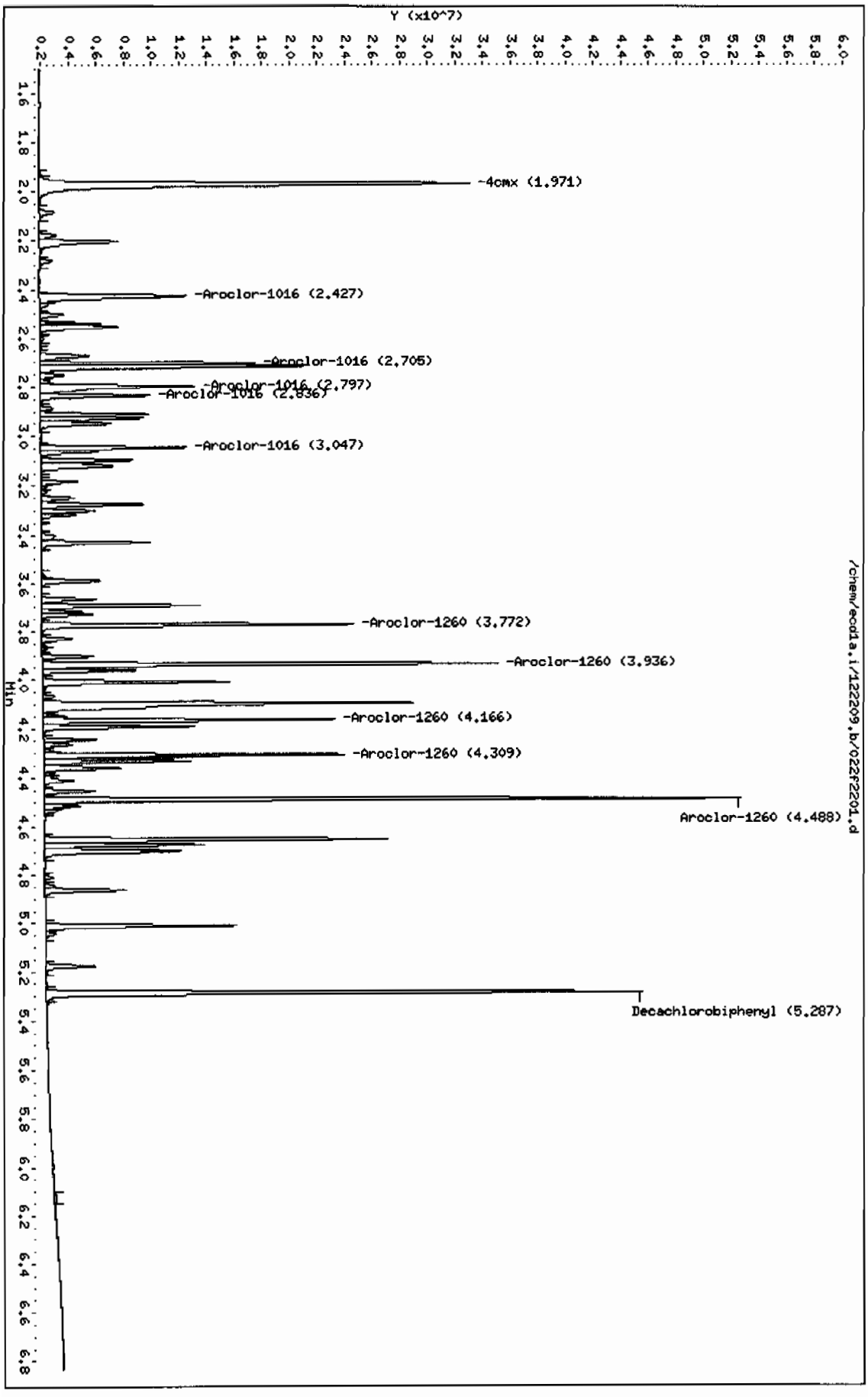

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GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/122209.b/022b2201.d
Lab Smp Id: WAR091211-60 02 Client Smp ID: AR166002
Inj Date : 22-DEC-2009 11:36
Operator : JAOC Inst ID: ecd1a.i
Smp Info : |WAR091211-60 02
Misc Info :
Comment :
Method : /chem/ecd1a.i/122209.b/ECD1-B-8082-121409.m
Meth Date : 22-Dec-2009 13:59 jen01212 Quant Type: ESTD
Cal Date : 14-DEC-2009 12:16 Cal File: 044b4401.d
Als bottle: 22 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.302	2.302	0.000	26829790	100.000	89.4	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.949	5.948	0.001	23440724	100.000	100	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.199	3.199	0.000	12044893	1000.00	955	80.00- 120.00	100.00(M)
3.282	3.282	0.000	7971400	1000.00	854	45.52- 85.52	66.18
3.347	3.346	0.001	5010349	1000.00	926	21.04- 61.04	41.60
3.573	3.572	0.001	6461987	1000.00	916	33.41- 73.41	53.65
3.649	3.648	0.001	5901694	1000.00	901	28.90- 68.90	60.03
Average of Peak Amounts =					911		
7 Aroclor-1260					CAS #: 11096-82-5		
4.339	4.338	0.001	12441498	1000.00	909	80.00- 120.00	100.00
4.463	4.463	0.000	15419548	1000.00	962	103.50- 143.50	123.94
4.730	4.729	0.001	11883895	1000.00	946	75.02- 115.02	95.52
4.903	4.903	0.000	12259583	1000.00	957	77.89- 117.89	98.54
5.051	5.050	0.001	28019266	1000.00	1000	203.88- 243.88	225.21
Average of Peak Amounts =					956		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd1a.i/122209.b/022b2201.d

Page 1

Date : 22-DEC-2009 11:36

Client ID: AR166002

Instrument: ecd1a.i

Sample Info: IWAR091211-60 02

Operator: JAOC

Column phase: CLP2

Column diameter: 0.25

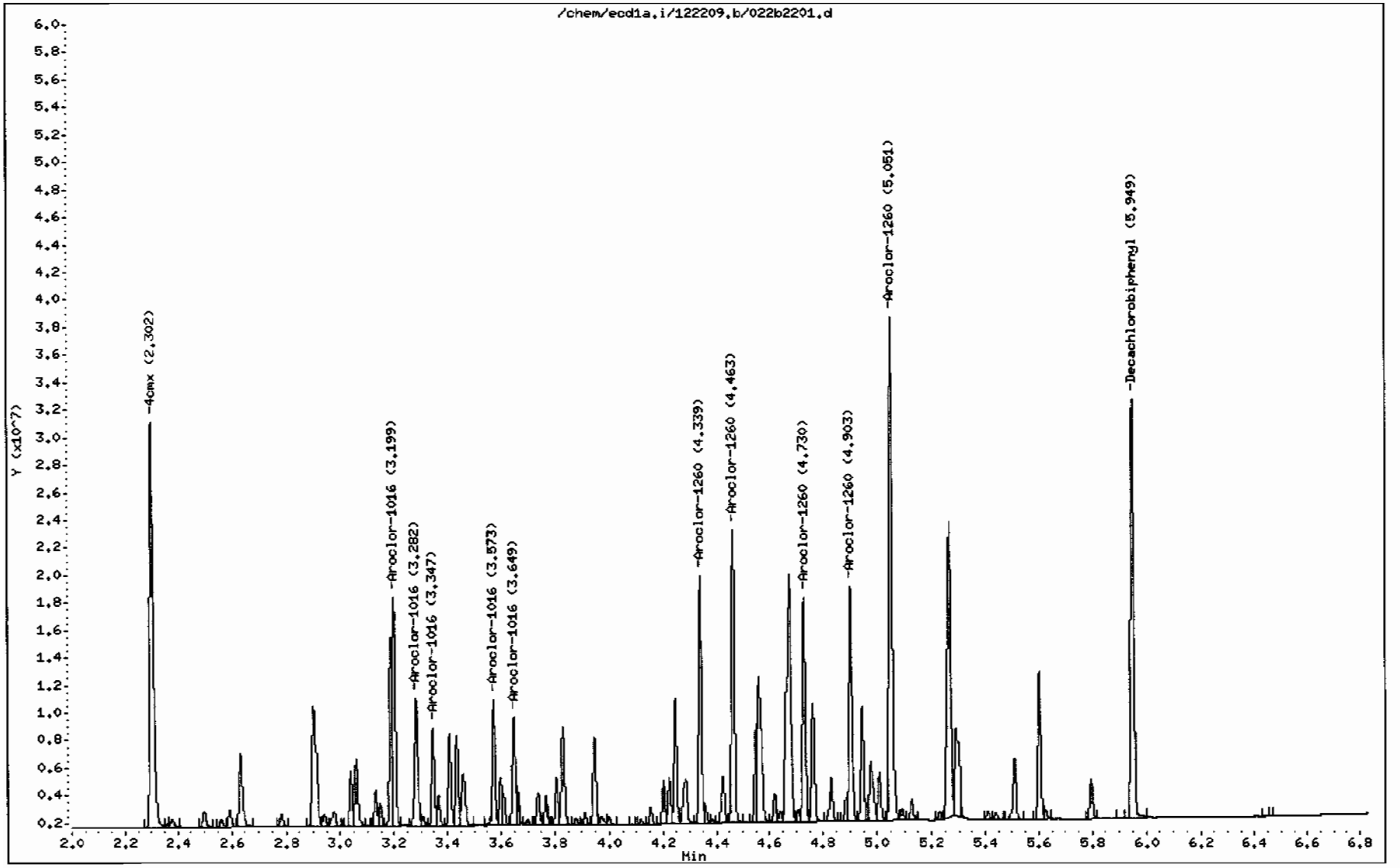

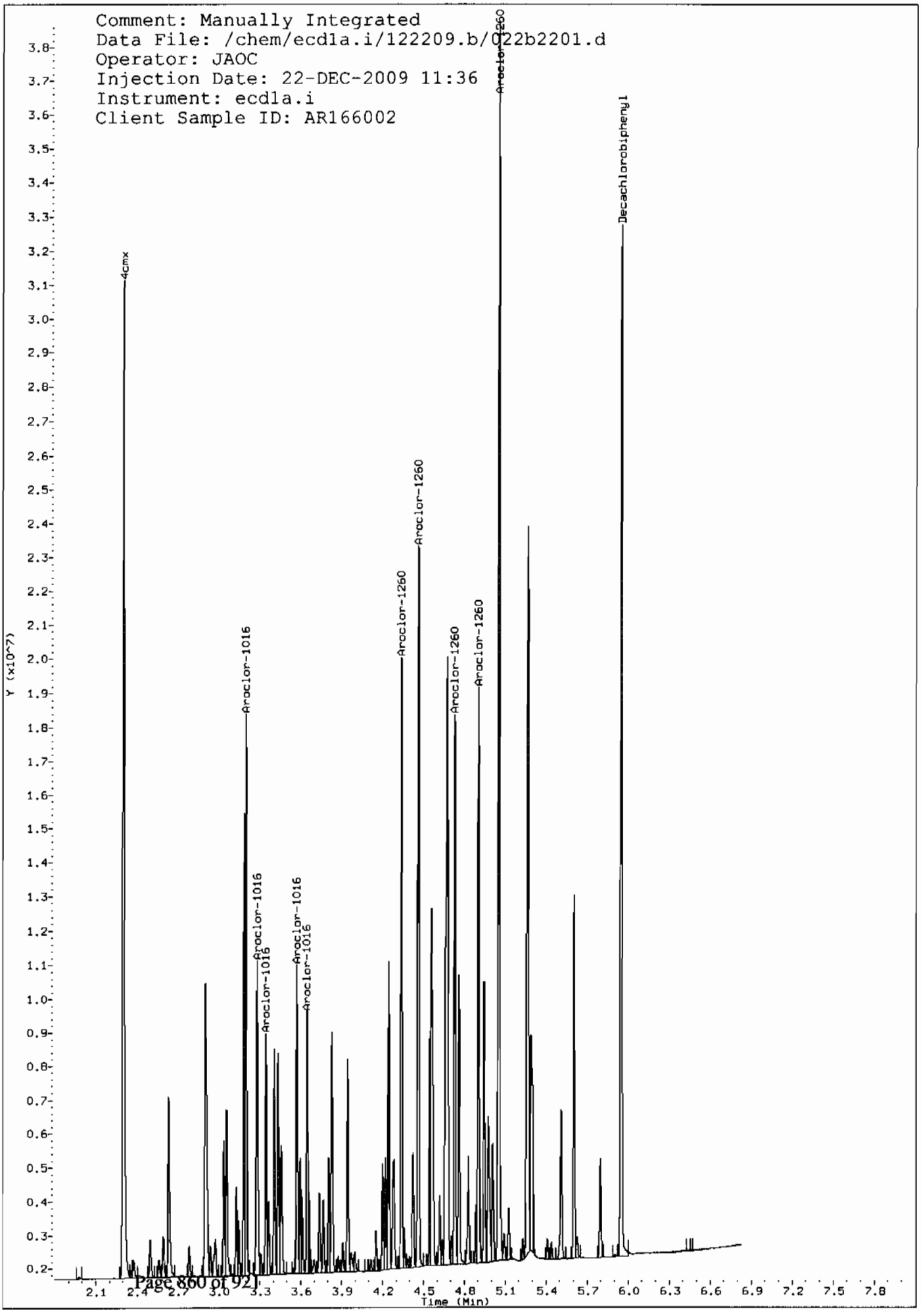
Comment: Manually Integrated
Data File: /chem/ecd1a.i/122209.b/022b2201.d
Operator: JAOC
Injection Date: 22-DEC-2009 11:36
Instrument: ecd1a.i
Client Sample ID: AR166002
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

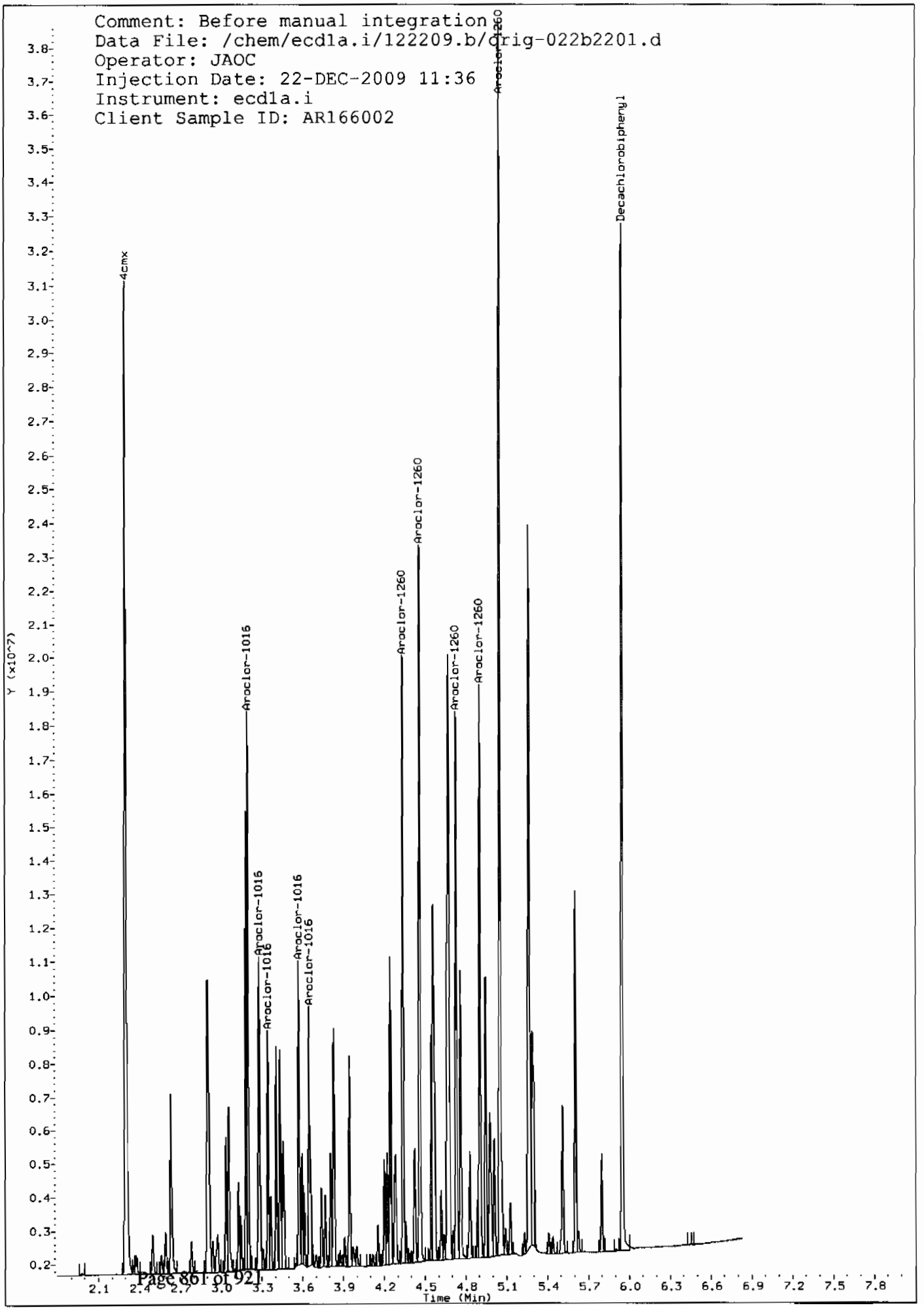
Comment: Before manual integration
Data File: /chem/ecd1a.i/122209.b/orig-022b2201.d
Operator: JAOC
Injection Date: 22-DEC-2009 11:36
Instrument: ecd1a.i
Client Sample ID: AR166002
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/122209.b/034f3401.d
Lab Smp Id: WAR091211-60 03 Client Smp ID: AR166003
Inj Date : 22-DEC-2009 13:42
Operator : JAOC Inst ID: ecd1a.i
Smp Info : |WAR091211-60 03
Misc Info :
Comment :
Method : /chem/ecd1a.i/122209.b/ECD1-F-8082-121409.m
Meth Date : 23-Dec-2009 06:42 jen01212 Quant Type: ESTD
Cal Date : 14-DEC-2009 11:34 Cal File: 040f4001.d
Als bottle: 34 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.971	1.971	0.000	35502073	100.000	94.5	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.288	5.286	0.002	32071588	100.000	101	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.428	2.427	0.001	12307109	1000.00	888	80.00- 120.00	100.00
2.705	2.705	0.000	9886673	1000.00	979	65.19- 105.19	80.33
2.798	2.796	0.002	10619709	1000.00	903	66.50- 106.50	86.29
2.835	2.835	0.000	6396545	1000.00	969	32.04- 72.04	51.97
3.046	3.046	0.000	8146353	1000.00	939	47.11- 87.11	66.19
Average of Peak Amounts =					936		
7 Aroclor-1260					CAS #: 11096-82-5		
3.773	3.771	0.002	16477385	1000.00	984	80.00- 120.00	100.00(M)
3.936	3.934	0.002	25407089	1000.00	1030	134.26- 174.26	154.19
4.166	4.165	0.001	15258339	1000.00	1040	72.25- 112.25	92.60
4.310	4.307	0.003	15999261	1000.00	1050	76.57- 116.57	97.10
4.489	4.486	0.003	36981333	1000.00	1080	202.51- 242.51	224.44
Average of Peak Amounts =					1.04e+03		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecdla.i/122209.b/034f3401.d
Date : 22-DEC-2009 13:42
Client ID: AR166003
Sample Info: IWAR091211-60 03

Column phase: CLP1

Instrument: ecdla.i
Operator: JAOC
Column diameter: 0.25

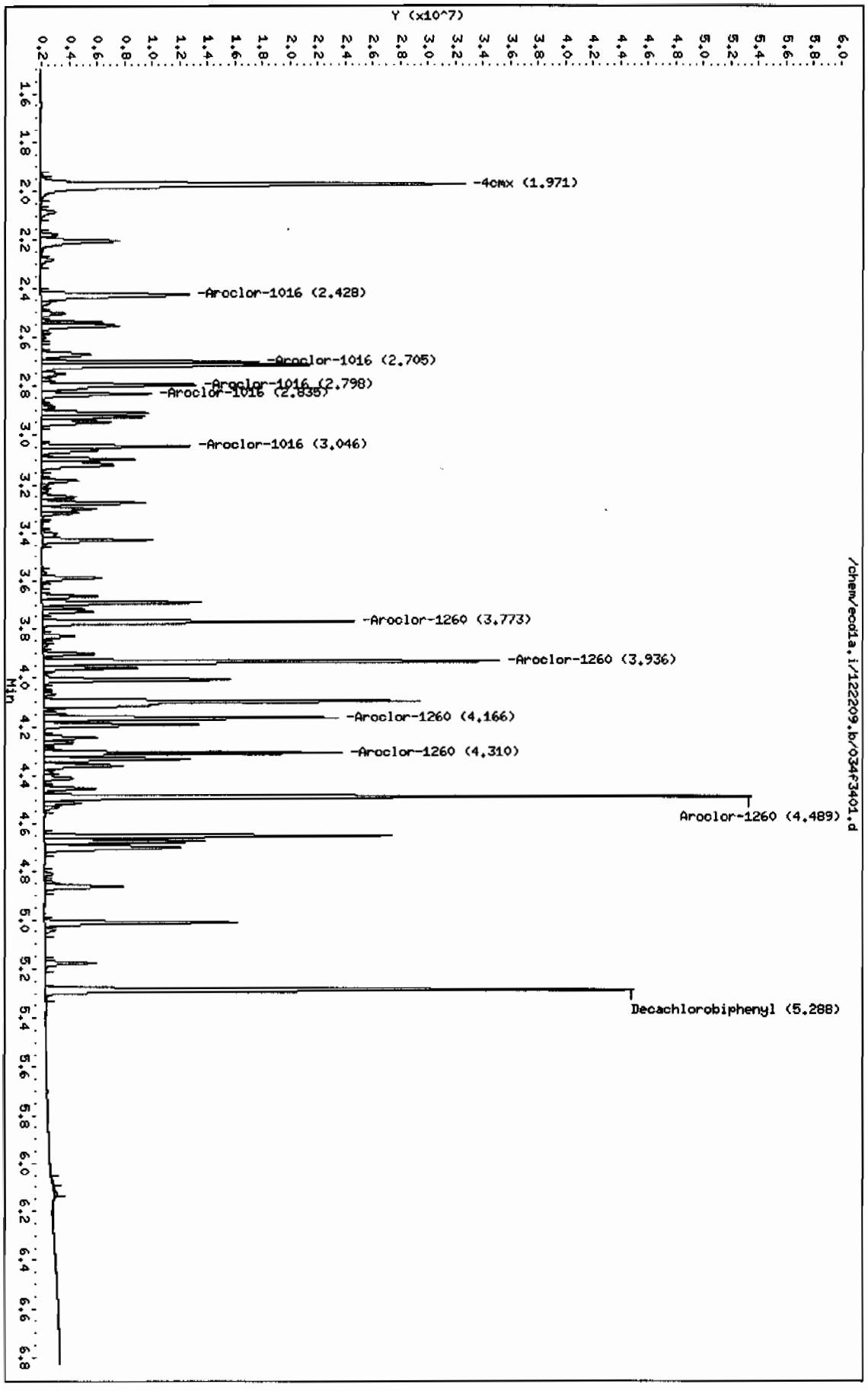

Page 1

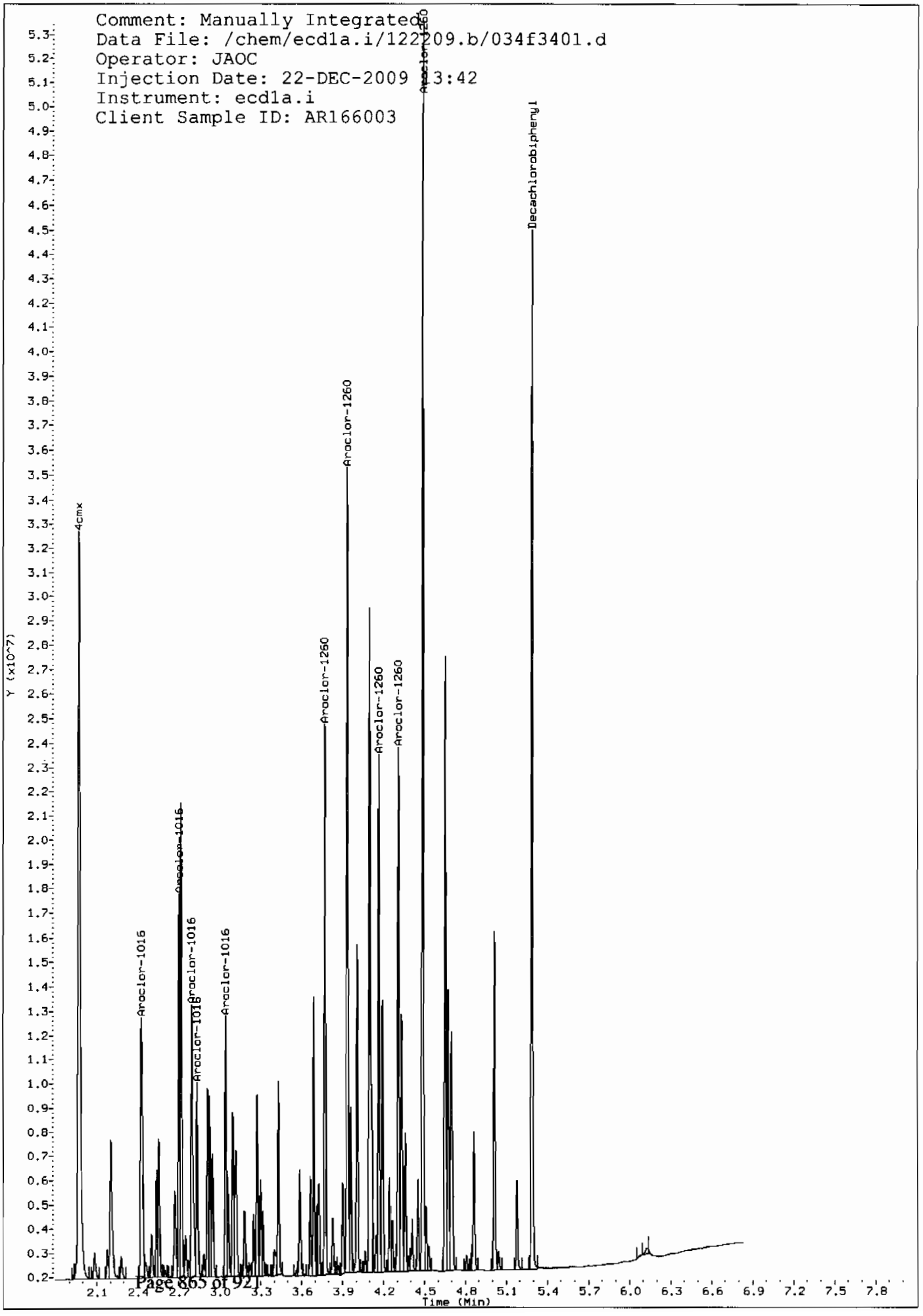
Comment: Manually Integrated
Data File: /chem/ecd1a.i/122209.b/034f3401.d
Operator: JAOC
Injection Date: 22-DEC-2009 13:42
Instrument: ecd1a.i
Client Sample ID: AR166003
Y (x10^7)
Time (Min)
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl

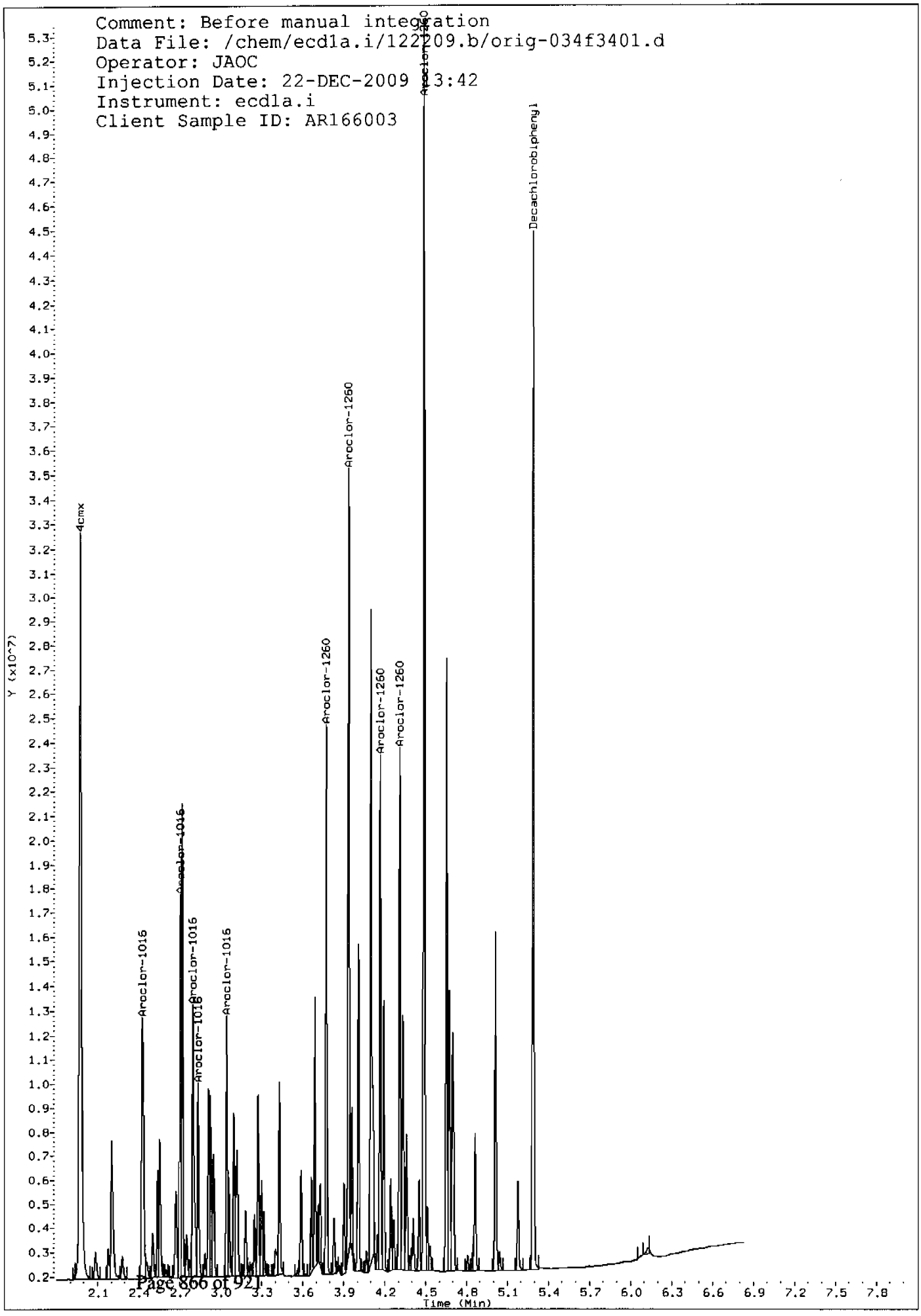
Comment: Before manual integration
Data File: /chem/ecd1a.i/122209.b/orig-034f3401.d
Operator: JAOC
Injection Date: 22-DEC-2009 13:42
Instrument: ecd1a.i
Client Sample ID: AR166003
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/122209.b/034b3401.d
Lab Smp Id: WAR091211-60 03 Client Smp ID: AR166003
Inj Date : 22-DEC-2009 13:42
Operator : JAOC Inst ID: ecd1a.i
Smp Info : |WAR091211-60 03
Misc Info :
Comment :
Method : /chem/ecd1a.i/122209.b/ECD1-B-8082-121409.m
Meth Date : 22-Dec-2009 13:59 jen01212 Quant Type: ESTD
Cal Date : 14-DEC-2009 12:16 Cal File: 044b4401.d
Als bottle: 34 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.302	2.302	0.000	27198842	100.000	90.6	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.950	5.948	0.002	23200037	100.000	99.5	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.200	3.199	0.001	12230495	1000.00	970	80.00- 120.00	100.00
3.283	3.282	0.001	8013748	1000.00	859	45.52- 85.52	65.52
3.346	3.346	0.000	5019209	1000.00	928	21.04- 61.04	41.04
3.573	3.572	0.001	6532588	1000.00	926	33.41- 73.41	53.41
3.649	3.648	0.001	5980984	1000.00	913	28.90- 68.90	48.90
Average of Peak Amounts =					919		
7 Aroclor-1260					CAS #: 11096-82-5		
4.340	4.338	0.002	12671837	1000.00	926	80.00- 120.00	100.00
4.464	4.463	0.001	15649823	1000.00	976	103.50- 143.50	123.50
4.730	4.729	0.001	12040790	1000.00	958	75.02- 115.02	95.02
4.904	4.903	0.001	12404464	1000.00	968	77.89- 117.89	97.89
5.050	5.050	0.000	28369149	1000.00	1020	203.88- 243.88	223.88
Average of Peak Amounts =					969		

Data File: /chem/ecd1a.i/122209.b/034b3401.d

Date : 22-DEC-2009 13:42

Client ID: AR166003

Sample Info: IWAR091211-60 03

Column phase: CLP2

Instrument: ecd1a.i

Operator: JAOC

Column diameter: 0.25

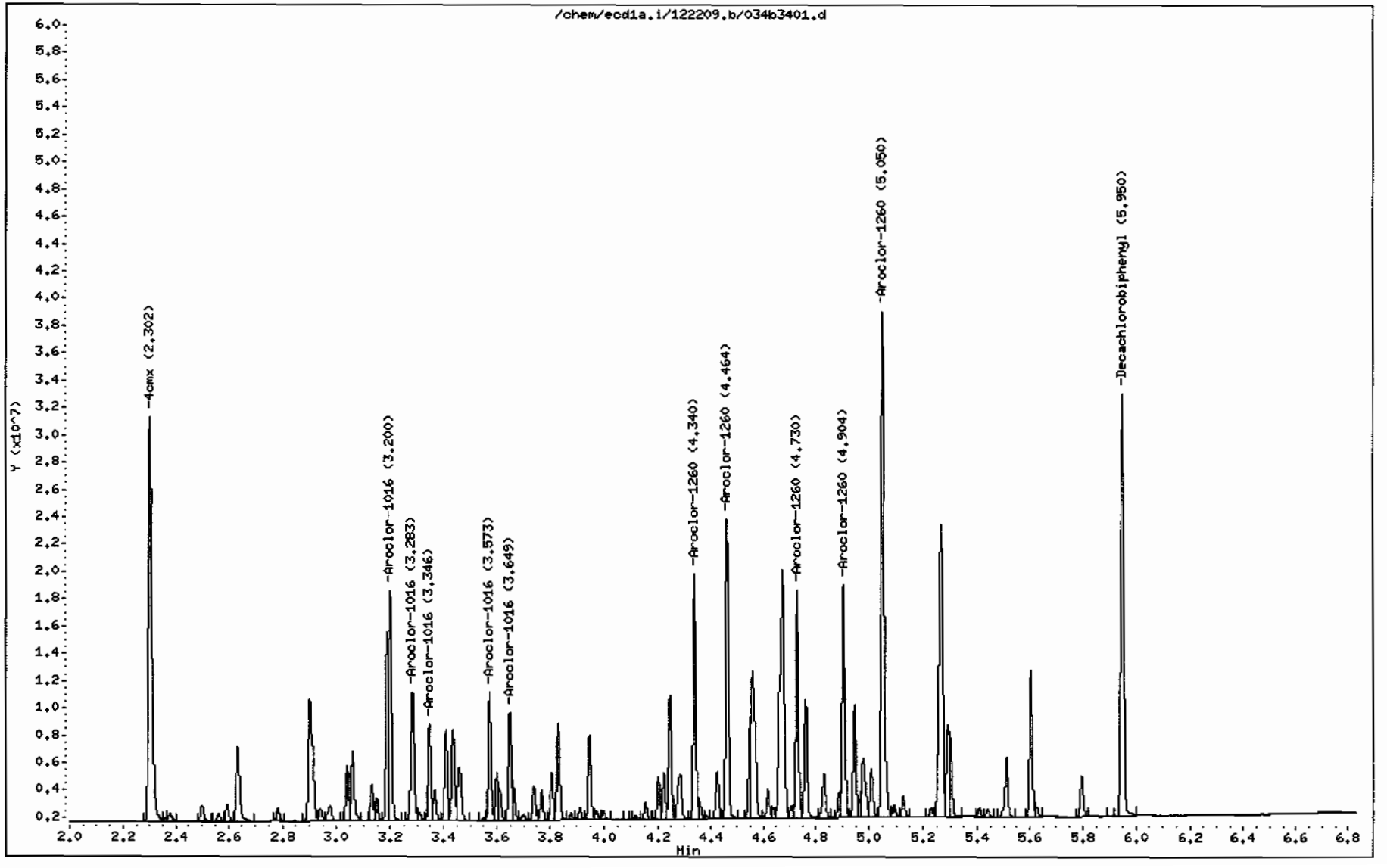

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/122209.b/044f4401.d
Lab Smp Id: WAR091211-60 04 Client Smp ID: AR166004
Inj Date : 22-DEC-2009 15:27
Operator : JAOC Inst ID: ecd1a.i
Smp Info : |WAR091211-60 04
Misc Info :
Comment :
Method : /chem/ecd1a.i/122209.b/ECD1-F-8082-121409.m
Meth Date : 23-Dec-2009 06:42 jen01212 Quant Type: ESTD
Cal Date : 14-DEC-2009 11:34 Cal File: 040f4001.d
Als bottle: 44 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.972	1.971	0.001	36485812	100.000	97.1	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.287	5.286	0.001	32358144	100.000	102	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.428	2.427	0.001	12576066	1000.00	907	80.00- 120.00	100.00
2.706	2.705	0.001	10713222	1000.00	1060	65.19- 105.19	85.19
2.798	2.796	0.002	10878772	1000.00	925	66.50- 106.50	86.50
2.836	2.835	0.001	6544136	1000.00	992	32.04- 72.04	52.04
3.047	3.046	0.001	8439862	1000.00	973	47.11- 87.11	67.11
Average of Peak Amounts =					972		
7 Aroclor-1260					CAS #: 11096-82-5		
3.772	3.771	0.001	16868685	1000.00	1010	80.00- 120.00	100.00
3.936	3.934	0.002	26021184	1000.00	1050	134.26- 174.26	154.26
4.166	4.165	0.001	15560652	1000.00	1060	72.25- 112.25	92.25
4.309	4.307	0.002	16290764	1000.00	1070	76.57- 116.57	96.57
4.487	4.486	0.001	37535072	1000.00	1090	202.51- 242.51	222.51
Average of Peak Amounts =					1.06e+03		

Data File: /chem/ecd1a.i/122209.b/044f4401.d
Date : 22-DEC-2009 15:27
Client ID: AR166004
Sample Info: IWAR091211-60 04

Column phase: CLP1

Instrument: ecd1a.i

Operator: JAOC
Column diameter: 0.25

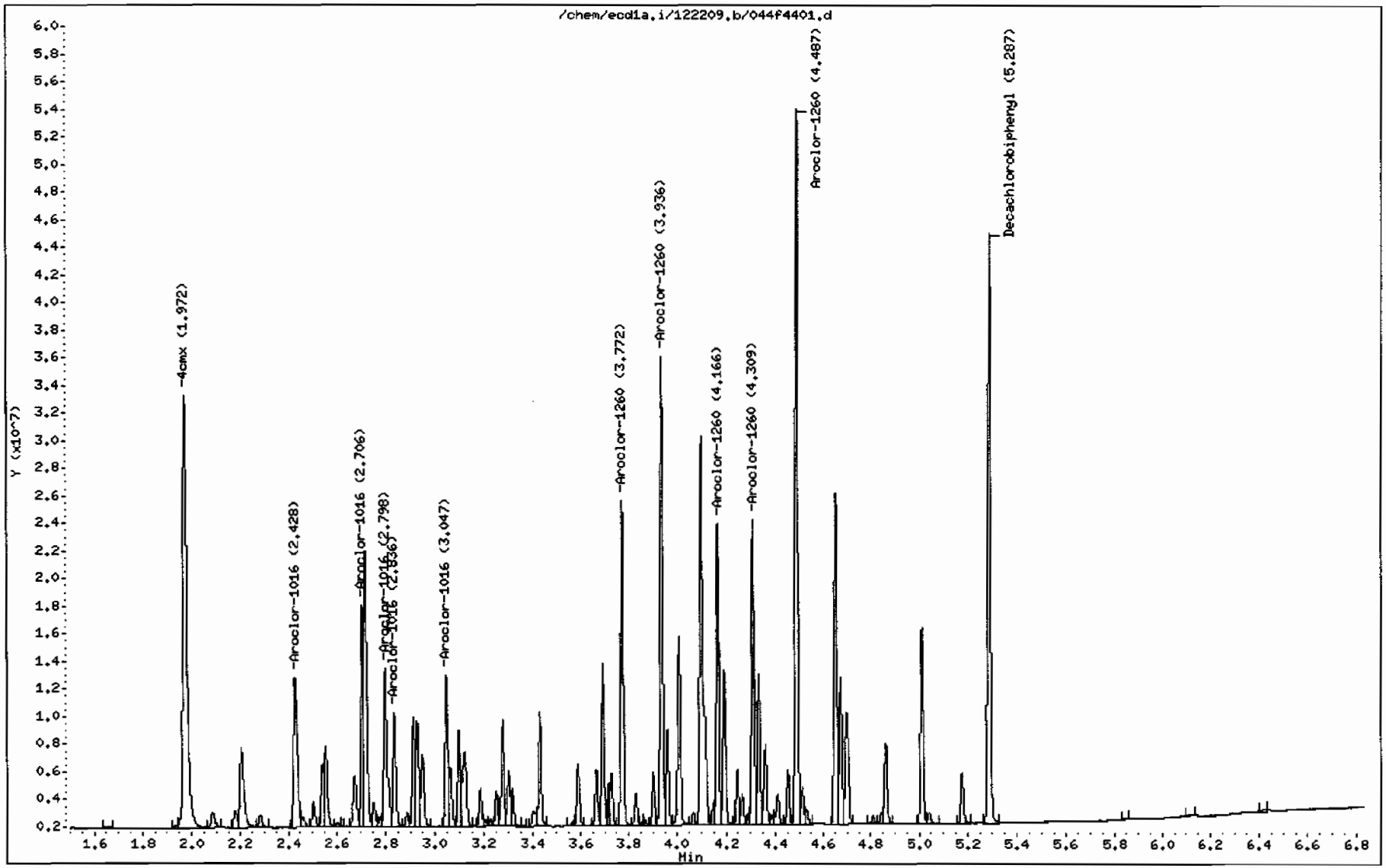

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/122209.b/044b4401.d
Lab Smp Id: WAR091211-60 04 Client Smp ID: AR166004
Inj Date : 22-DEC-2009 15:27
Operator : JAOC Inst ID: ecd1a.i
Smp Info : |WAR091211-60 04
Misc Info :
Comment :
Method : /chem/ecd1a.i/122209.b/ECD1-B-8082-121409.m
Meth Date : 23-Dec-2009 06:44 jen01212 Quant Type: ESTD
Cal Date : 14-DEC-2009 12:16 Cal File: 044b4401.d
Als bottle: 44 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.302	2.302	0.000	27869313	100.000	92.9	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.949	5.948	0.001	22183289	100.000	95.1	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.200	3.199	0.001	12223105	1000.00	969	80.00- 120.00	100.00(M)
3.282	3.282	0.000	8174997	1000.00	876	46.88- 86.88	66.88
3.347	3.346	0.001	5090328	1000.00	941	21.65- 61.65	41.65
3.573	3.572	0.001	6438929	1000.00	913	32.68- 72.68	52.68
3.649	3.648	0.001	6113381	1000.00	933	30.01- 70.01	50.01
Average of Peak Amounts =					927		
7 Aroclor-1260					CAS #: 11096-82-5		
4.339	4.338	0.001	12596367	1000.00	921	80.00- 120.00	100.00
4.464	4.463	0.001	14981774	1000.00	935	98.94- 138.94	118.94
4.729	4.729	0.000	12122093	1000.00	965	76.23- 116.23	96.23
4.903	4.903	0.000	12513940	1000.00	977	79.35- 119.35	99.35
5.050	5.050	0.000	28363537	1000.00	1020	205.17- 245.17	225.17
Average of Peak Amounts =					963		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd1a.i/122209.b/044b4401.d

Date : 22-DEC-2009 15:27

Client ID: AR166004

Sample Info: IWAR091211-60 04

Column phase: CLP2

Instrument: ecd1a.i

Operator: JAOC

Column diameter: 0.25

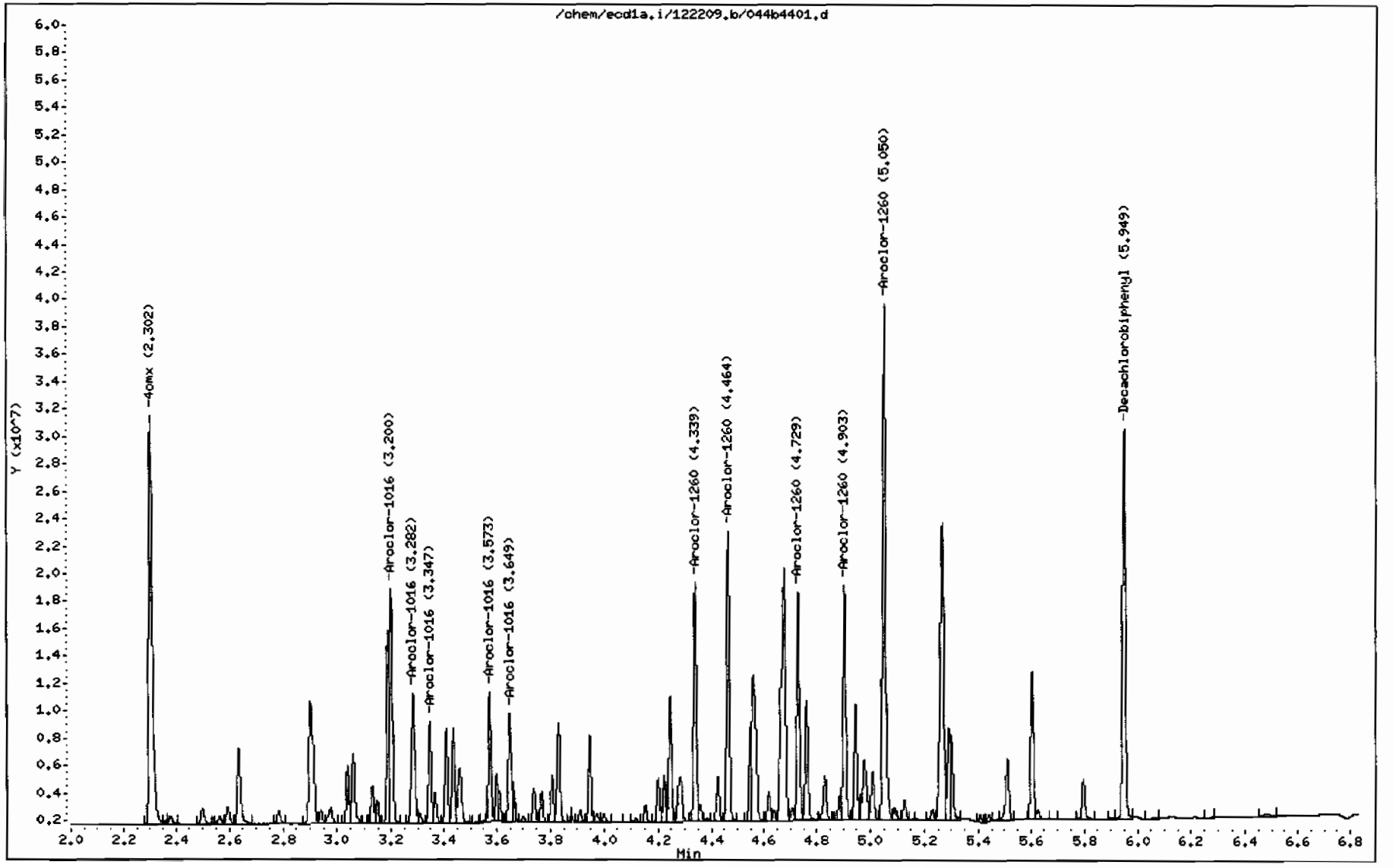

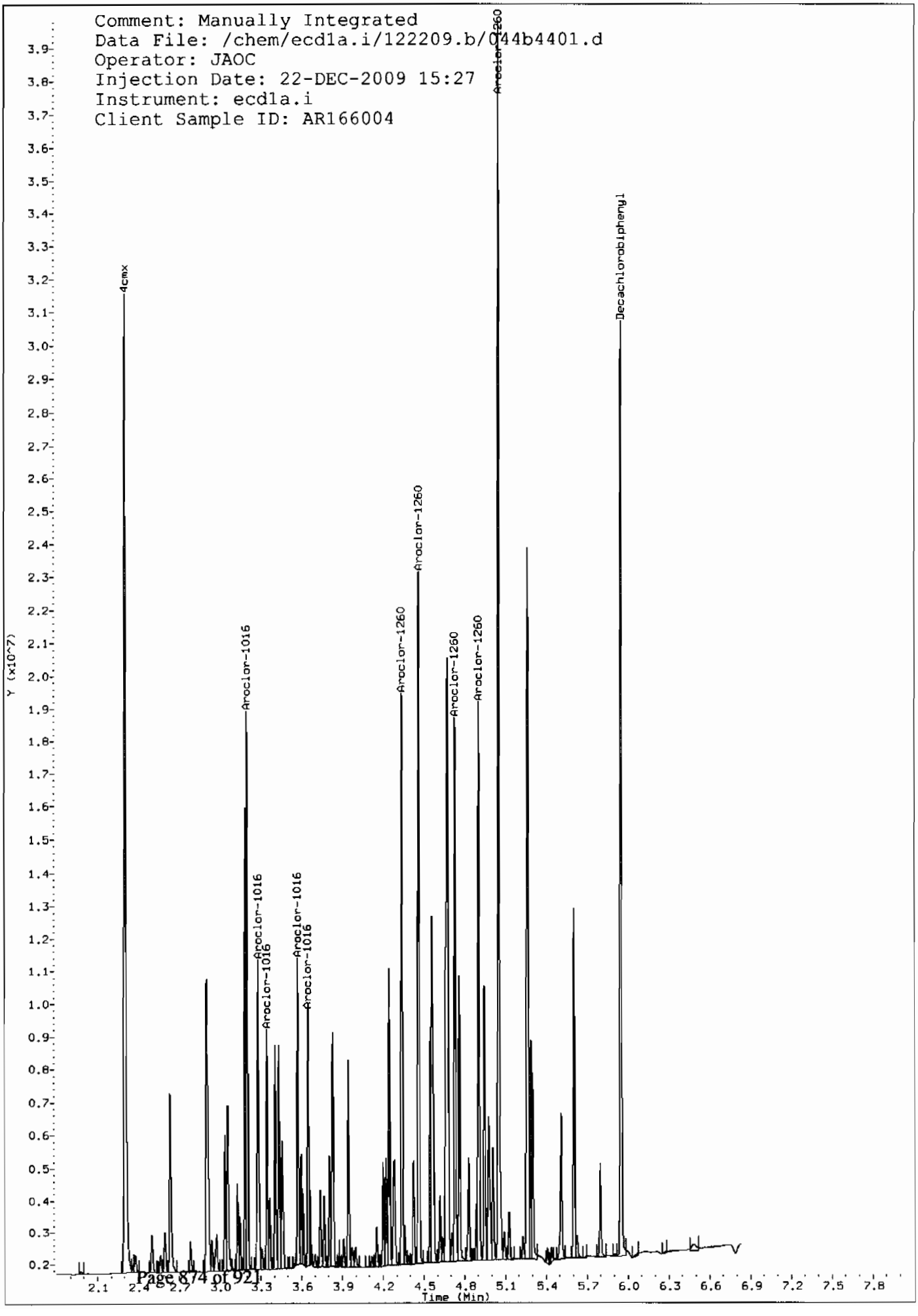
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Injection Date: 22-DEC-2009 15:27
Instrument: ecd1a.i
Client Sample ID: AR166004
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
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Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

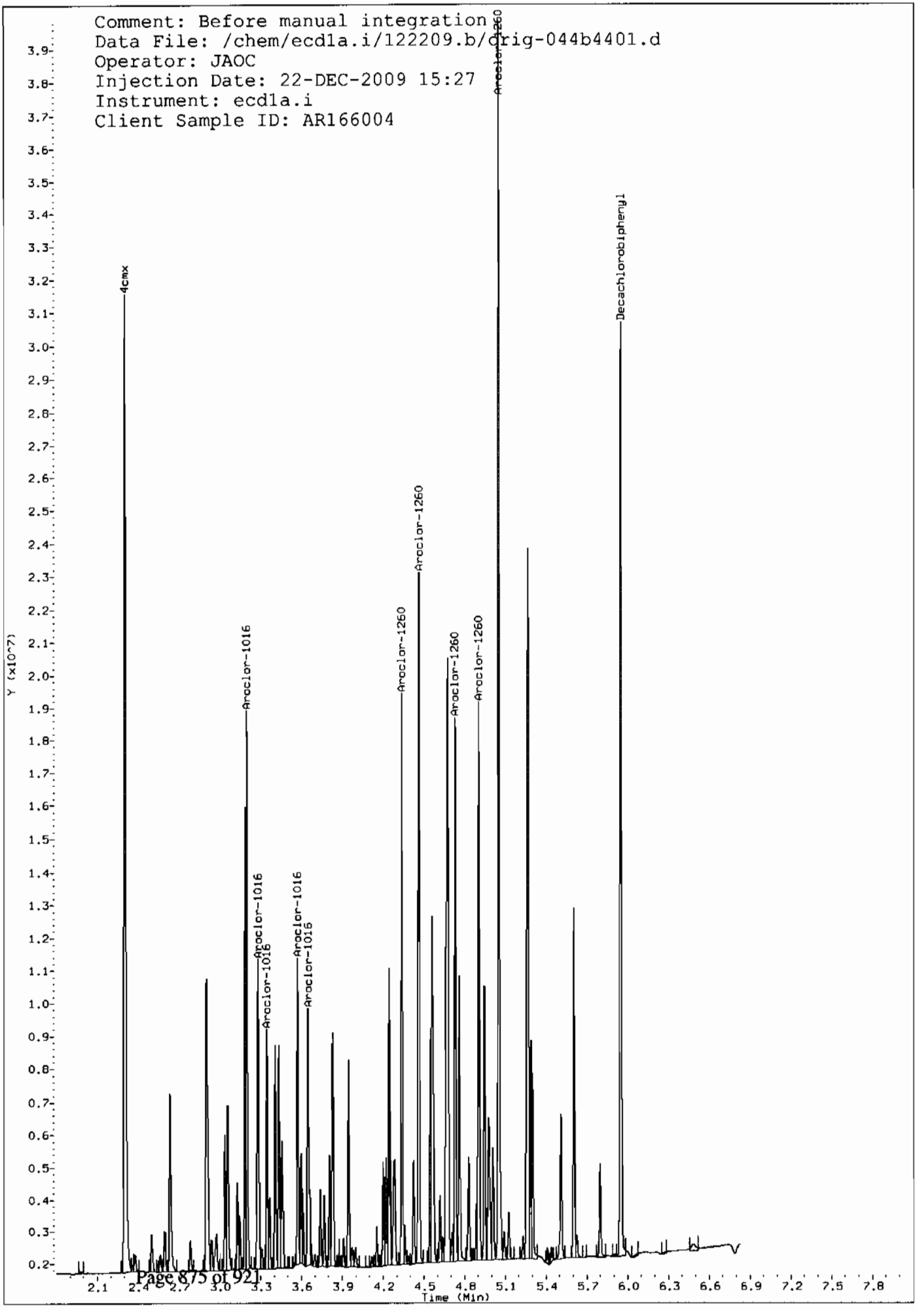
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Operator: JAOC
Injection Date: 22-DEC-2009 15:27
Instrument: ecd1a.i
Client Sample ID: AR166004
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-940

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 12/14/09 12/14/09

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 1.97 DCB: 5.29

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR091130-99	12/14/09	0444	1.97	5.29
02	ZZZZZ	ZZZZZ	12/14/09	0454	1.97	5.29
03	ZZZZZ	ZZZZZ	12/14/09	0505	1.97	5.29
04	ZZZZZ	ZZZZZ	12/14/09	0515	1.97	5.29
05	ZZZZZ	ZZZZZ	12/14/09	0526	1.97	5.29
06	AR123201	WAR090930-32	12/14/09	0536	1.97	5.29
07	AR122101	WAR090803-21	12/14/09	0547	1.97	5.29
08	AR126201	WAR090803-62	12/14/09	0558	1.97	5.29
09	ZZZZZ	ZZZZZ	12/14/09	0608	1.97	5.29
10	ZZZZZ	ZZZZZ	12/14/09	0619	1.97	5.29
11	ZZZZZ	ZZZZZ	12/14/09	0629	1.97	5.29
12	ZZZZZ	ZZZZZ	12/14/09	0640	1.97	5.29
13	ZZZZZ	ZZZZZ	12/14/09	0650	1.97	5.29
14	ZZZZZ	ZZZZZ	12/14/09	0701	1.97	5.29
15	ZZZZZ	ZZZZZ	12/14/09	0711	1.97	5.29
16	AR125401	WAR091214-05	12/14/09	0722	1.97	5.29
17	AR125402	WAR091214-06	12/14/09	0732	1.97	5.29
18	AR125403	WAR091214-07	12/14/09	0743	1.97	5.29
19	AR125404	WAR091214-08	12/14/09	0753	1.97	5.29
20	AR125405	IAR091027-01	12/14/09	0804	1.97	5.29
21	AR125401	WAR091102-54	12/14/09	0814	1.97	5.29
22	AR124201	WAR091214-09	12/14/09	0825	1.97	5.29
23	AR124202	WAR091214-10	12/14/09	0835	1.97	5.29
24	AR124203	WAR091214-11	12/14/09	0846	1.97	5.29
25	AR124204	WAR091214-12	12/14/09	0856	1.97	5.29
26	AR124205	IAR0911111-0	12/14/09	0907	1.97	5.29
27	AR124201	WAR091102-42	12/14/09	0917	1.97	5.29
28	AR124801	WAR091214-13	12/14/09	0928	1.97	5.29
29	AR124802	WAR091214-14	12/14/09	0938	1.97	5.29
30	AR124803	WAR091214-15	12/14/09	0949	1.97	5.29
31	AR124804	WAR091214-16	12/14/09	0959	1.97	5.29
32	AR124805	IAR091027-02	12/14/09	1010	1.97	5.29

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-940

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 12/14/09 12/14/09

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 1.97 DCB: 5.29

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	AR124801	WAR091027-48	12/14/09	1020	1.97	5.29
02	AR166001	WAR091214-01	12/14/09	1031	1.97	5.29
03	AR166002	WAR091214-02	12/14/09	1041	1.97	5.29
04	AR166003	WAR091214-03	12/14/09	1052	1.97	5.29
05	AR166004	WAR091214-04	12/14/09	1102	1.97	5.29
06	AR166005	IAR091102-01	12/14/09	1113	1.97	5.29
07	AR166001	WAR091211-60	12/14/09	1123	1.97	5.29
08	AR126801	WAR091214-17	12/14/09	1134	1.97	5.29
09	AR126802	WAR091214-18	12/14/09	1144	1.97	5.29
10	AR126803	WAR091214-19	12/14/09	1155	1.97	5.29
11	AR126804	WAR091214-20	12/14/09	1206	1.97	5.29
12	AR126805	IAR090817-02	12/14/09	1216	1.97	5.29
13	AR126801	WAR091106-68	12/14/09	1227	1.97	5.29
14	DDTANALOGSTD	WAR091020-DD	12/14/09	1237		
15	PIBLK02	WAR091130-99	12/14/09	1248	1.97	5.29
16	ZZZZZ	ZZZZZ	12/14/09	1258	1.97	5.29
17	ZZZZZ	ZZZZZ	12/14/09	1309	1.97	5.29
18	ZZZZZ	ZZZZZ	12/14/09	1319	1.97	5.29
19	ZZZZZ	ZZZZZ	12/14/09	1330	1.97	5.29
20	ZZZZZ	ZZZZZ	12/14/09	1340	1.97	5.29
21	ZZZZZ	ZZZZZ	12/14/09	1351	1.97	5.29
22	ZZZZZ	ZZZZZ	12/14/09	1403	1.97	5.29
23	ZZZZZ	ZZZZZ	12/14/09	1416	1.97	5.29
24	ZZZZZ	ZZZZZ	12/14/09	1429	1.97	5.29
25	ZZZZZ	ZZZZZ	12/14/09	1441	1.97	5.29
26	AR166002	WAR091211-60	12/14/09	1452	1.97	5.29
27	PIBLK03	WAR091130-99	12/14/09	1502	1.97	5.29
28	ZZZZZ	ZZZZZ	12/14/09	1513	1.97	5.29
29	ZZZZZ	ZZZZZ	12/14/09	1525	1.97	5.29
30	ZZZZZ	ZZZZZ	12/14/09	1538	1.97	5.29
31	ZZZZZ	ZZZZZ	12/14/09	1551	1.97	5.29
32	ZZZZZ	ZZZZZ	12/14/09	1603	1.97	5.27

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-940

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 12/14/09 12/14/09

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.30 DCB: 5.94

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR091130-99	12/14/09	0444	2.30	5.95
02	ZZZZZ	ZZZZZ	12/14/09	0454	2.30	5.94
03	ZZZZZ	ZZZZZ	12/14/09	0505	2.30	5.95
04	ZZZZZ	ZZZZZ	12/14/09	0515	2.30	5.95
05	ZZZZZ	ZZZZZ	12/14/09	0526	2.30	5.95
06	AR123201	WAR090930-32	12/14/09	0536	2.30	5.95
07	AR122101	WAR090803-21	12/14/09	0547	2.30	5.95
08	AR126201	WAR090803-62	12/14/09	0558	2.30	5.94
09	ZZZZZ	ZZZZZ	12/14/09	0608	2.30	5.94
10	ZZZZZ	ZZZZZ	12/14/09	0619	2.30	5.95
11	ZZZZZ	ZZZZZ	12/14/09	0629	2.30	5.94
12	ZZZZZ	ZZZZZ	12/14/09	0640	2.30	5.94
13	ZZZZZ	ZZZZZ	12/14/09	0650	2.30	5.95
14	ZZZZZ	ZZZZZ	12/14/09	0701	2.30	5.94
15	ZZZZZ	ZZZZZ	12/14/09	0711	2.30	5.95
16	AR125401	WAR091214-05	12/14/09	0722	2.30	5.94
17	AR125402	WAR091214-06	12/14/09	0732	2.30	5.94
18	AR125403	WAR091214-07	12/14/09	0743	2.30	5.94
19	AR125404	WAR091214-08	12/14/09	0753	2.30	5.94
20	AR125405	IAR091027-01	12/14/09	0804	2.30	5.95
21	AR125401	WAR091102-54	12/14/09	0814	2.30	5.94
22	AR124201	WAR091214-09	12/14/09	0825	2.30	5.94
23	AR124202	WAR091214-10	12/14/09	0835	2.30	5.94
24	AR124203	WAR091214-11	12/14/09	0846	2.30	5.94
25	AR124204	WAR091214-12	12/14/09	0856	2.30	5.94
26	AR124205	IAR0911111-0	12/14/09	0907	2.30	5.94
27	AR124201	WAR091102-42	12/14/09	0917	2.30	5.94
28	AR124801	WAR091214-13	12/14/09	0928	2.30	5.94
29	AR124802	WAR091214-14	12/14/09	0938	2.30	5.94
30	AR124803	WAR091214-15	12/14/09	0949	2.30	5.94
31	AR124804	WAR091214-16	12/14/09	0959	2.30	5.94
32	AR124805	IAR091027-02	12/14/09	1010	2.30	5.94

QC LIMITS
S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-940

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 12/14/09 12/14/09

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.30 DCB: 5.94

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	AR124801	WAR091027-48	12/14/09	1020	2.30	5.95
02	AR166001	WAR091214-01	12/14/09	1031	2.30	5.94
03	AR166002	WAR091214-02	12/14/09	1041	2.30	5.94
04	AR166003	WAR091214-03	12/14/09	1052	2.30	5.94
05	AR166004	WAR091214-04	12/14/09	1102	2.30	5.94
06	AR166005	IAR091102-01	12/14/09	1113	2.30	5.94
07	AR166001	WAR091211-60	12/14/09	1123	2.30	5.94
08	AR126801	WAR091214-17	12/14/09	1134	2.30	5.95
09	AR126802	WAR091214-18	12/14/09	1144	2.30	5.94
10	AR126803	WAR091214-19	12/14/09	1155	2.30	5.94
11	AR126804	WAR091214-20	12/14/09	1206	2.30	5.94
12	AR126805	IAR090817-02	12/14/09	1216	2.30	5.94
13	AR126801	WAR091106-68	12/14/09	1227	2.30	5.94
14	DDTANALOGSTD	WAR091020-DD	12/14/09	1237		
15	PIBLK02	WAR091130-99	12/14/09	1248	2.30	5.94
16	ZZZZZ	ZZZZZ	12/14/09	1258	2.30	5.94
17	ZZZZZ	ZZZZZ	12/14/09	1309	2.30	5.94
18	ZZZZZ	ZZZZZ	12/14/09	1319	2.30	5.94
19	ZZZZZ	ZZZZZ	12/14/09	1330	2.30	5.94
20	ZZZZZ	ZZZZZ	12/14/09	1340	2.30	5.94
21	ZZZZZ	ZZZZZ	12/14/09	1351	2.30	5.94
22	ZZZZZ	ZZZZZ	12/14/09	1403	2.30	5.94
23	ZZZZZ	ZZZZZ	12/14/09	1416	2.30	5.94
24	ZZZZZ	ZZZZZ	12/14/09	1429	2.30	5.94
25	ZZZZZ	ZZZZZ	12/14/09	1441	2.30	5.94
26	AR166002	WAR091211-60	12/14/09	1452	2.30	5.94
27	PIBLK03	WAR091130-99	12/14/09	1502	2.30	5.94
28	ZZZZZ	ZZZZZ	12/14/09	1513	2.30	5.94
29	ZZZZZ	ZZZZZ	12/14/09	1525	2.30	5.94
30	ZZZZZ	ZZZZZ	12/14/09	1538	2.30	5.94
31	ZZZZZ	ZZZZZ	12/14/09	1551	2.30	5.94
32	ZZZZZ	ZZZZZ	12/14/09	1603	2.30	5.94

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-940

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 12/14/09 12/14/09

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 1.97 DCB: 5.29

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR091130-99	12/22/09	0755	1.97	5.28
02	AR166001	WAR091211-60	12/22/09	0805	1.97	5.29
03	AR125401	WAR091216-54	12/22/09	0816	1.97	5.29
04	AR124201	WAR091102-42	12/22/09	0826	1.97	5.29
05	AR124801	WAR091027-48	12/22/09	0837	1.97	5.29
06	AR123201	WAR090930-32	12/22/09	0847	1.97	5.29
07	AR122101	WAR090803-21	12/22/09	0858	1.97	5.29
08	AR126201	WAR090803-62	12/22/09	0908	1.97	5.29
09	AR126801	WAR091106-68	12/22/09	0919	1.97	5.29
10	DDTANALOGSTD	WAR091219-DD	12/22/09	0929		
11	PIBLK02	WAR091130-99	12/22/09	0940	1.97	5.29
12	ZZZZZ	ZZZZZ	12/22/09	0950	1.97	5.29
13	ZZZZZ	ZZZZZ	12/22/09	1001	1.97	5.29
14	ZZZZZ	ZZZZZ	12/22/09	1011	1.97	5.29
15	ZZZZZ	ZZZZZ	12/22/09	1022	1.97	5.29
16	ZZZZZ	ZZZZZ	12/22/09	1032	1.97	5.29
17	ZZZZZ	ZZZZZ	12/22/09	1043	1.97	5.29
18	ZZZZZ	ZZZZZ	12/22/09	1053	1.97	5.29
19	ZZZZZ	ZZZZZ	12/22/09	1104	1.97	5.29
20	ZZZZZ	ZZZZZ	12/22/09	1115	1.97	5.29
21	ZZZZZ	ZZZZZ	12/22/09	1125	1.97	5.29
22	AR166002	WAR091211-60	12/22/09	1136	1.97	5.29
23	PIBLK03	WAR091130-99	12/22/09	1146	1.97	5.29
24	PBLK01	1202001507	12/22/09	1157	1.97	5.29
25	PBLK01LCS	1202001508	12/22/09	1207	1.97	5.29
26	ZZZZZ	ZZZZZ	12/22/09	1218	1.97	5.29
27	ZZZZZ	ZZZZZ	12/22/09	1228	1.97	5.29
28	RE03-09-14221	243033001	12/22/09	1239	1.97	5.29
29	RE03-09-14211	243033002	12/22/09	1249	1.97	5.29
30	RE03-09-14210	243033003	12/22/09	1300	1.97	5.29
31	RE03-09-14209	243033004	12/22/09	1310	1.97	5.29
32	RE03-09-14208	243033005	12/22/09	1321	1.97	5.29

QC LIMITS
S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-940

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 12/14/09 12/14/09

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 1.97 DCB: 5.29

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	RE03-09-14222	243033006	12/22/09	1331	1.97	5.29
02	AR166003	WAR091211-60	12/22/09	1342	1.97	5.29
03	PIBLK04	WAR091130-99	12/22/09	1353	1.97	5.29
04	RE03-09-14223	243033007	12/22/09	1403	1.97	5.29
05	RE03-09-14220	243033008	12/22/09	1414	1.97	5.29
06	RE03-10-2734	243033009	12/22/09	1424	1.97	5.29
07	ZZZZZ	ZZZZZ	12/22/09	1435	1.97	5.29
08	ZZZZZ	ZZZZZ	12/22/09	1445	1.97	5.29
09	ZZZZZ	ZZZZZ	12/22/09	1456	1.97	5.29
10	ZZZZZ	ZZZZZ	12/22/09	1506	1.97	5.29
11	ZZZZZ	ZZZZZ	12/22/09	1517	1.97	5.29
12	AR166004	WAR091211-60	12/22/09	1527	1.97	5.29
13	PIBLK05	WAR091130-99	12/22/09	1538	1.97	5.29
14						
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26						
27						
28						
29						
30						
31						
32						

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-940

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 12/14/09 12/14/09

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.30 DCB: 5.95

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR091130-99	12/22/09	0755	2.30	5.95
02	AR166001	WAR091211-60	12/22/09	0805	2.30	5.95
03	AR125401	WAR091216-54	12/22/09	0816	2.30	5.95
04	AR124201	WAR091102-42	12/22/09	0826	2.30	5.95
05	AR124801	WAR091027-48	12/22/09	0837	2.30	5.95
06	AR123201	WAR090930-32	12/22/09	0847	2.30	5.95
07	AR122101	WAR090803-21	12/22/09	0858	2.30	5.95
08	AR126201	WAR090803-62	12/22/09	0908	2.30	5.95
09	AR126801	WAR091106-68	12/22/09	0919	2.30	5.95
10	DDTANALOGSTD	WAR091219-DD	12/22/09	0929		
11	PIBLK02	WAR091130-99	12/22/09	0940	2.30	5.95
12	ZZZZZ	ZZZZZ	12/22/09	0950	2.30	5.95
13	ZZZZZ	ZZZZZ	12/22/09	1001	2.30	5.95
14	ZZZZZ	ZZZZZ	12/22/09	1011	2.30	5.95
15	ZZZZZ	ZZZZZ	12/22/09	1022	2.30	5.95
16	ZZZZZ	ZZZZZ	12/22/09	1032	2.30	5.95
17	ZZZZZ	ZZZZZ	12/22/09	1043	2.30	5.95
18	ZZZZZ	ZZZZZ	12/22/09	1053	2.30	5.95
19	ZZZZZ	ZZZZZ	12/22/09	1104	2.30	5.95
20	ZZZZZ	ZZZZZ	12/22/09	1114	2.30	5.95
21	ZZZZZ	ZZZZZ	12/22/09	1125	2.30	5.95
22	AR166002	WAR091211-60	12/22/09	1136	2.30	5.95
23	PIBLK03	WAR091130-99	12/22/09	1146	2.30	5.95
24	PBLK01	1202001507	12/22/09	1157	2.30	5.95
25	PBLK01LCS	1202001508	12/22/09	1207	2.30	5.95
26	ZZZZZ	ZZZZZ	12/22/09	1218	2.30	5.95
27	ZZZZZ	ZZZZZ	12/22/09	1228	2.30	5.95
28	RE03-09-14221	243033001	12/22/09	1239	2.30	5.95
29	RE03-09-14211	243033002	12/22/09	1249	2.30	5.95
30	RE03-09-14210	243033003	12/22/09	1300	2.30	5.95
31	RE03-09-14209	243033004	12/22/09	1310	2.30	5.95
32	RE03-09-14208	243033005	12/22/09	1321	2.30	5.95

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-940

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 12/14/09 12/14/09

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.30 DCB: 5.95

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	RE03-09-14222	243033006	12/22/09	1331	2.30	5.95
02	AR166003	WAR091211-60	12/22/09	1342	2.30	5.95
03	PIBLK04	WAR091130-99	12/22/09	1353	2.30	5.95
04	RE03-09-14223	243033007	12/22/09	1403	2.30	5.95
05	RE03-09-14220	243033008	12/22/09	1414	2.30	5.95
06	RE03-10-2734	243033009	12/22/09	1424	2.30	5.95
07	ZZZZZ	ZZZZZ	12/22/09	1435	2.30	5.95
08	ZZZZZ	ZZZZZ	12/22/09	1445	2.30	5.95
09	ZZZZZ	ZZZZZ	12/22/09	1456	2.30	5.95
10	ZZZZZ	ZZZZZ	12/22/09	1506	2.30	5.95
11	ZZZZZ	ZZZZZ	12/22/09	1517	2.30	5.95
12	AR166004	WAR091211-60	12/22/09	1527	2.30	5.95
13	PIBLK05	WAR091130-99	12/22/09	1538	2.30	5.95
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						
31						
32						

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

Identification Summary

SDG Number: 10–940 **Client ID:** LCS for batch 935357

Lab Sample ID: 1202001508

Data File:	025f2501.d	**Data File:**	025b2501.d
Inst:	ECD1A.I_1	**Inst:**	ECD1A.I_2
Column:	CLP1	**Column:**	CLP2
Analyzed:	22–DEC–09 12:07	**Analyzed:**	22–DEC–09 12:07

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor–1016							.00975
Column 1	1	2.43	2.4 – 2.46	21.1		ug/kg	
	2	2.7	2.67 – 2.73	22.5		ug/kg	
	3	2.8	2.77 – 2.83	21.1		ug/kg	
	4	2.83	2.8 – 2.86	22.3		ug/kg	
	5	3.05	3.02 – 3.08	22.6		ug/kg	
					21.9		
Column 2	1	3.2	3.17 – 3.23	23.2		ug/kg	
	2	3.28	3.25 – 3.31	20.8		ug/kg	
	3	3.35	3.32 – 3.38	21.5		ug/kg	
	4	3.57	3.54 – 3.6	22.1		ug/kg	
	5	3.65	3.62 – 3.68	22.1		ug/kg	
					21.9		
Aroclor–1260							5.36
Column 1	1	3.77	3.74 – 3.8	25.3		ug/kg	
	2	3.94	3.9 – 3.96	26.8		ug/kg	
	3	4.17	4.13 – 4.19	27.3		ug/kg	
	4	4.31	4.28 – 4.34	27.3		ug/kg	
	5	4.49	4.46 – 4.52	29		ug/kg	
					27.2		
Column 2	1	4.34	4.31 – 4.37	24		ug/kg	
	2	4.46	4.43 – 4.49	25.6		ug/kg	
	3	4.73	4.7 – 4.76	25.5		ug/kg	
	4	4.9	4.87 – 4.93	26		ug/kg	
	5	5.05	5.02 – 5.08	27.6		ug/kg	
					25.7		

Identification Summary

SDG Number: 10-940 **Client ID:** RE03-09-14220

Lab Sample ID: 243033008

Data File:	037f3701.d	**Data File:**	037b3701.d
Inst:	ECD1A.I_1	**Inst:**	ECD1A.I_2
Column:	CLP1	**Column:**	CLP2
Analyzed:	22-DEC-09 14:14	**Analyzed:**	22-DEC-09 14:14

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor-1254							84
Column 1	1	3.27	3.24 – 3.3	79.6		ug/kg	
	2	3.43	3.4 – 3.46	67.9		ug/kg	
	3	3.66	3.63 – 3.69	70.3		ug/kg	
	4	3.83	3.8 – 3.86	65		ug/kg	
	5	3.93	3.91 – 3.97	300		ug/kg	
					116		
Column 2	1	3.41	3.38 – 3.44	20		ug/kg	
	2	3.83	3.8 – 3.86	47.4		ug/kg	
	3	3.95	3.92 – 3.98	67		ug/kg	
	4	4.22	4.19 – 4.25	63.7		ug/kg	
	5	4.36	4.33 – 4.39	39.6		ug/kg	
					47.6		
Aroclor-1260							9.08
Column 1	1	3.77	3.74 – 3.8	173		ug/kg	
	2	3.93	3.9 – 3.96	184		ug/kg	
	3	4.17	4.13 – 4.19	135		ug/kg	
	4	4.31	4.28 – 4.34	130		ug/kg	
	5	4.49	4.46 – 4.52	142		ug/kg	
					153		
Column 2	1	4.34	4.31 – 4.37	163		ug/kg	
	2	4.46	4.43 – 4.49	151		ug/kg	
	3	4.73	4.7 – 4.76	129		ug/kg	
	4	4.9	4.87 – 4.93	119		ug/kg	
	5	5.05	5.02 – 5.08	135		ug/kg	
					139		

Identification Summary

SDG Number: 10–940 **Client ID:** RE03–09–14221

Lab Sample ID: 243033001

Data File:	028f2801.d	**Data File:**	028b2801.d
Inst:	ECD1A.I_1	**Inst:**	ECD1A.I_2
Column:	CLP1	**Column:**	CLP2
Analyzed:	22–DEC–09 12:39	**Analyzed:**	22–DEC–09 12:39

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor–1260							4.38
Column 1	1	3.77	3.74 – 3.8	2.86		ug/kg	
	2	3.94	3.9 – 3.96	3.11		ug/kg	
	3	4.17	4.13 – 4.19	2.47		ug/kg	
	4	4.31	4.28 – 4.34	2.25		ug/kg	
	5	4.49	4.46 – 4.52	2.57		ug/kg	
					2.65		
Column 2	1	4.34	4.31 – 4.37	3.03		ug/kg	
	2	4.46	4.43 – 4.49	3.01		ug/kg	
	3	4.73	4.7 – 4.76	2.67		ug/kg	
	4	4.9	4.87 – 4.93	2.44		ug/kg	
	5	5.05	5.02 – 5.08	2.7		ug/kg	
					2.77		

QUALITY CONTROL DATA

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10-940**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202001507**				
Client Sample:	**QC for batch 935357**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 935357**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**935393**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**12/22/2009 11:57**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**12/21/2009 20:06**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**024f2401-1.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	024b2401-1.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.33	ug/kg	1.11	3.33	1
11104-28-2	Aroclor-1221	U	3.33	ug/kg	1.11	3.33	1
11141-16-5	Aroclor-1232	U	3.33	ug/kg	1.11	3.33	1
53469-21-9	Aroclor-1242	U	3.33	ug/kg	1.11	3.33	1
12672-29-6	Aroclor-1248	U	3.33	ug/kg	1.11	3.33	1
11097-69-1	Aroclor-1254	U	3.33	ug/kg	1.11	3.33	1
11096-82-5	Aroclor-1260	U	3.33	ug/kg	1.11	3.33	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/122209.b/024f2401-1.d
Lab Smp Id: 1202001507 Client Smp ID: PBLK01
Inj Date : 22-DEC-2009 11:57
Operator : JAOC Inst ID: ecd1a.i
Smp Info : |1202001507|1|
Misc Info : |ECD82P_1S|935393|SVA|QC A|SOIL|MB|||
Comment :
Method : /chem/ecd1a.i/122209.b/ECD1-F-8082-121409.m
Meth Date : 23-Dec-2009 06:42 jen01212 Quant Type: ESTD
Cal Date : 14-DEC-2009 11:34 Cal File: 040f4001.d
Als bottle: 24 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-940.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.972	1.971	0.001	47264058	125.813	4.2	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.287	5.286	0.001	46979061	147.947	4.9	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/122209.b/024f2401-1.d
Date : 22-DEC-2009 11:57
Client ID: PBLK01
Sample Info: |120200150711|
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecd1a.i
Operator: JAOC
Column diameter: 0.25

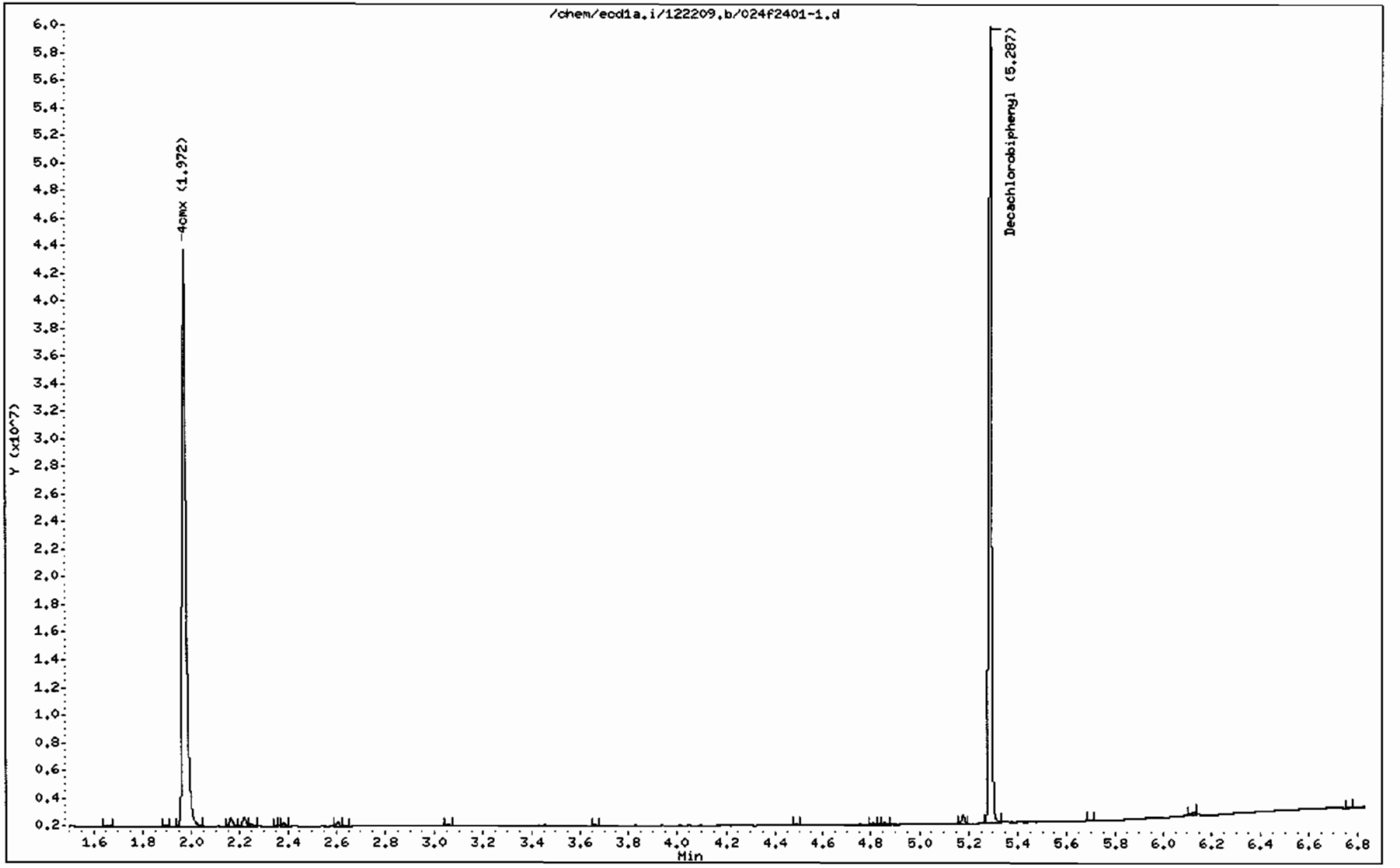

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/122209.b/024b2401-1.d
Lab Smp Id: 1202001507 Client Smp ID: PBLK01
Inj Date : 22-DEC-2009 11:57
Operator : JAOC Inst ID: ecd1a.i
Smp Info : |1202001507|1|
Misc Info : |ECD82P_1S|935393|SVA|QC A|SOIL|MB|||
Comment :
Method : /chem/ecd1a.i/122209.b/ECD1-B-8082-121409.m
Meth Date : 23-Dec-2009 06:44 jen01212 Quant Type: ESTD
Cal Date : 14-DEC-2009 12:16 Cal File: 044b4401.d
Als bottle: 24 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-940.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.302	2.302	0.000	36277461	120.914	4.0	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.948	5.948	0.000	33838380	145.088	4.8	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/122209.b/024b2401-1.d

Date : 22-DEC-2009 11:57

Client ID: PBLK01

Sample Info: |1202001507|1|

Volume Injected (uL): 1.0

Column phase: CLP2

Instrument: ecd1a.i

Operator: JAOC

Column diameter: 0.25

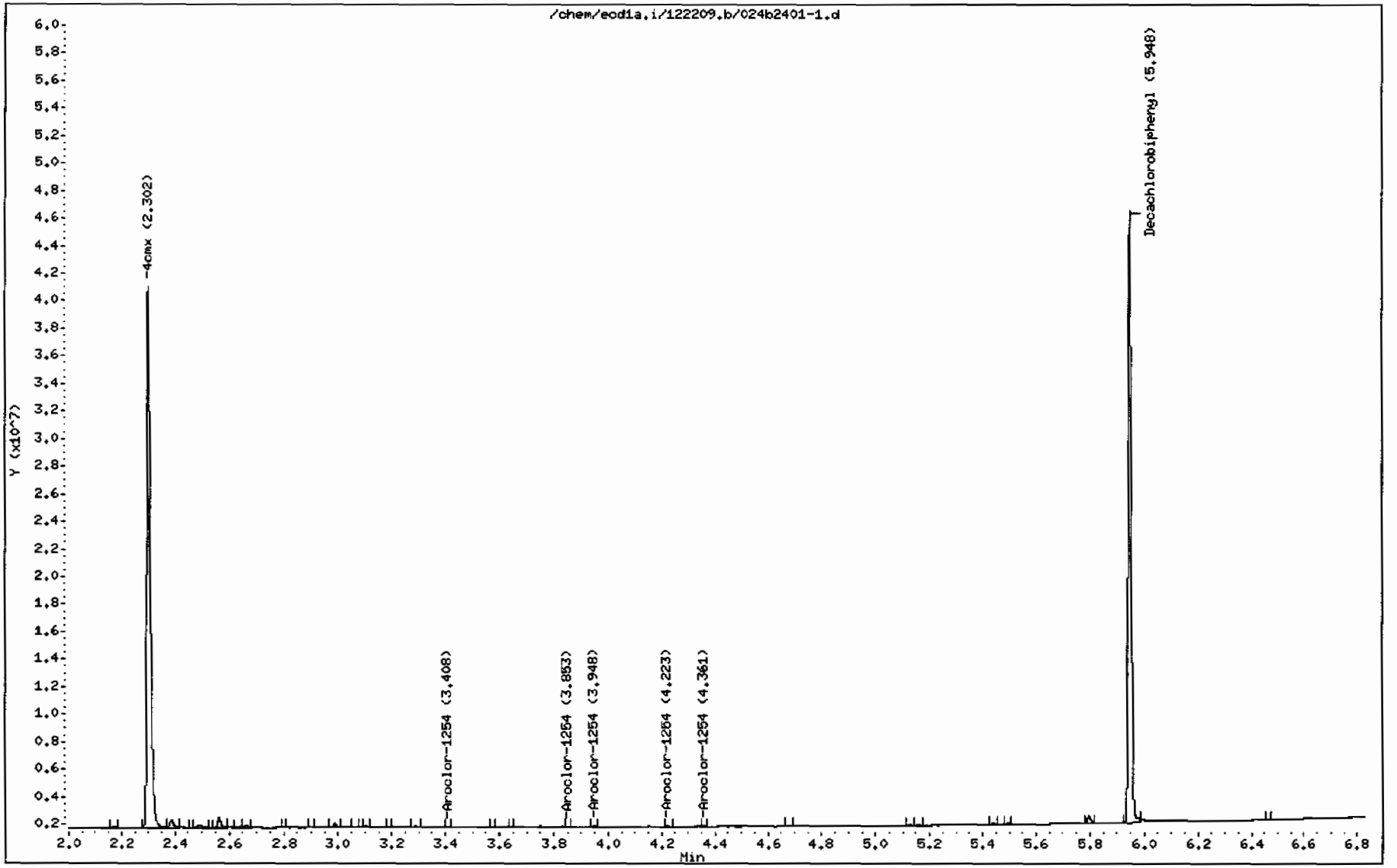

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10-940**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202001508**				
Client Sample:	**QC for batch 935357**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 935357**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**935393**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**12/22/2009 12:07**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**12/21/2009 20:06**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**025f2501-1.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	025b2501-1.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016		21.9	ug/kg	1.11	3.33	1
11104-28-2	Aroclor-1221	U	3.33	ug/kg	1.11	3.33	1
11141-16-5	Aroclor-1232	U	3.33	ug/kg	1.11	3.33	1
53469-21-9	Aroclor-1242	U	3.33	ug/kg	1.11	3.33	1
12672-29-6	Aroclor-1248	U	3.33	ug/kg	1.11	3.33	1
11097-69-1	Aroclor-1254	U	3.33	ug/kg	1.11	3.33	1
11096-82-5	Aroclor-1260		27.1	ug/kg	1.11	3.33	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdla.i/122209.b/025f2501-1.d
Lab Smp Id: 1202001508 Client Smp ID: PBLK01LCS
Inj Date : 22-DEC-2009 12:07
Operator : JAOC Inst ID: ecdla.i
Smp Info : |1202001508|1|
Misc Info : |ECD82P_1S|935393|SVA|QC A|SOIL|LCS|||
Comment :
Method : /chem/ecdla.i/122209.b/ECD1-F-8082-121409.m
Meth Date : 23-Dec-2009 06:42 jen01212 Quant Type: ESTD
Cal Date : 14-DEC-2009 11:34 Cal File: 040f4001.d
Als bottle: 25 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-940.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.971	1.971	0.000	46943582	124.960	4.2	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.286	5.286	0.000	46455035	146.296	4.9	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.427	2.427	0.000	8785579	633.566	21.1	80.00- 120.00	100.00
2.705	2.705	0.000	6826997	676.092	22.5	65.19- 105.19	77.71
2.797	2.796	0.001	7437715	632.619	21.1	66.50- 106.50	84.66
2.835	2.835	0.000	4418736	669.606	22.3	32.04- 72.04	50.30

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
1 Aroclor-1016 (continued)							
3.046	3.046	0.000	5880773	678.024	22.6	47.11- 87.11	66.94
Average of Peak Concentrations =					21.9		
7 Aroclor-1260					CAS #: 11096-82-5		
3.772	3.771	0.001	12731136	759.970	25.3	80.00- 120.00	100.00
3.936	3.934	0.002	19869687	803.056	26.8	134.26- 174.26	156.07
4.166	4.165	0.001	12036575	819.520	27.3	72.25- 112.25	94.54
4.309	4.307	0.002	12447890	819.775	27.3	76.57- 116.57	97.78
4.488	4.486	0.002	29918254	870.971	29.0	202.51- 242.51	235.00
Average of Peak Concentrations =					27.1		

Data File: /chem/ecd1a.i/122209.b/025f2501-1.d

Date : 22-DEC-2009 12:07

Client ID: PBLK01LCS

Sample Info: |120200150811|

Volume Injected (uL): 1.0

Column phase: CLP1

Page 1

Instrument: ecd1a.i

Operator: JAOC

Column diameter: 0.25

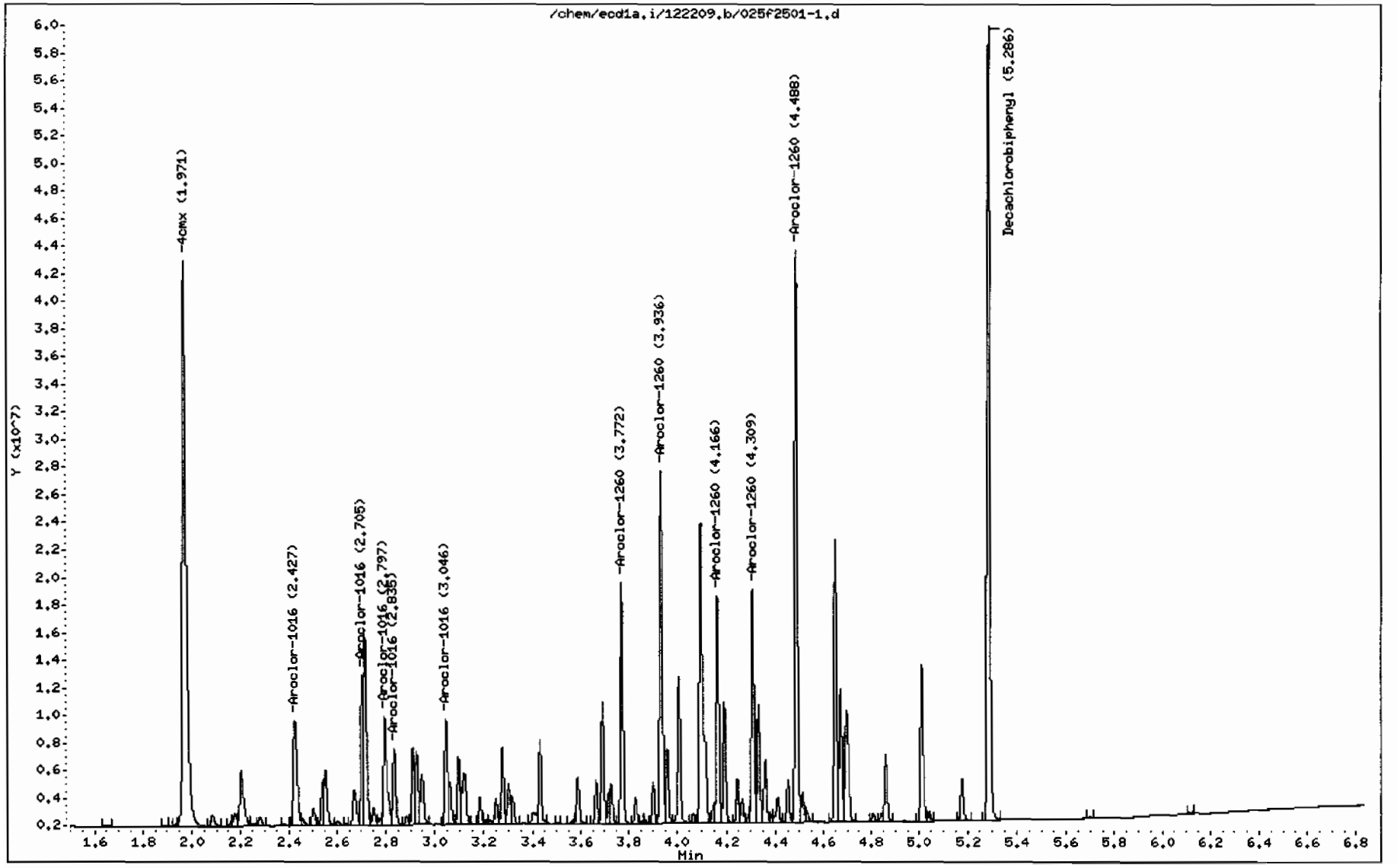

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/122209.b/025b2501-1.d
Lab Smp Id: 1202001508 Client Smp ID: PBLK01LCS
Inj Date : 22-DEC-2009 12:07
Operator : JAOC Inst ID: ecd1a.i
Smp Info : |1202001508|1|
Misc Info : |ECD82P_1S|935393|SVA|QC A|SOIL|LCS|||
Comment :
Method : /chem/ecd1a.i/122209.b/ECD1-B-8082-121409.m
Meth Date : 23-Dec-2009 06:44 jen01212 Quant Type: ESTD
Cal Date : 14-DEC-2009 12:16 Cal File: 044b4401.d
Als bottle: 25 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-940.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.301	2.302	-0.001	35826232	119.411	4.0	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.948	5.948	0.000	32997561	141.483	4.7	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.199	3.199	0.000	8761104	694.690	23.2	80.00- 120.00	100.00
3.282	3.282	0.000	5812365	623.118	20.8	46.88- 86.88	66.34
3.346	3.346	0.000	3493102	645.518	21.5	21.65- 61.65	39.87
3.573	3.572	0.001	4683367	664.130	22.1	32.68- 72.68	53.46

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
1 Aroclor-1016 (continued)							
3.649	3.648	0.001	4341646	662.773	22.1	30.01- 70.01	49.56
Average of Peak Concentrations =					21.9		
7 Aroclor-1260					CAS #: 11096-82-5		
4.339	4.338	0.001	9842996	719.516	24.0	80.00- 120.00	100.00
4.464	4.463	0.001	12323981	768.854	25.6	98.94- 138.94	125.21
4.730	4.729	0.001	9604344	764.438	25.5	76.23- 116.23	97.58
4.903	4.903	0.000	9990404	779.886	26.0	79.35- 119.35	101.50
5.050	5.050	0.000	23095644	827.870	27.6	205.17- 245.17	234.64
Average of Peak Concentrations =					25.7		

Data File: /chem/ecd1a.i/122209.b/025b2501-1.d

Date : 22-DEC-2009 12:07

Client ID: PBLK01LCS

Sample Info: |120200150811|

Volume Injected (uL): 1.0

Column phase: CLP2

Instrument: ecd1a.i

Operator: JAOC

Column diameter: 0.25

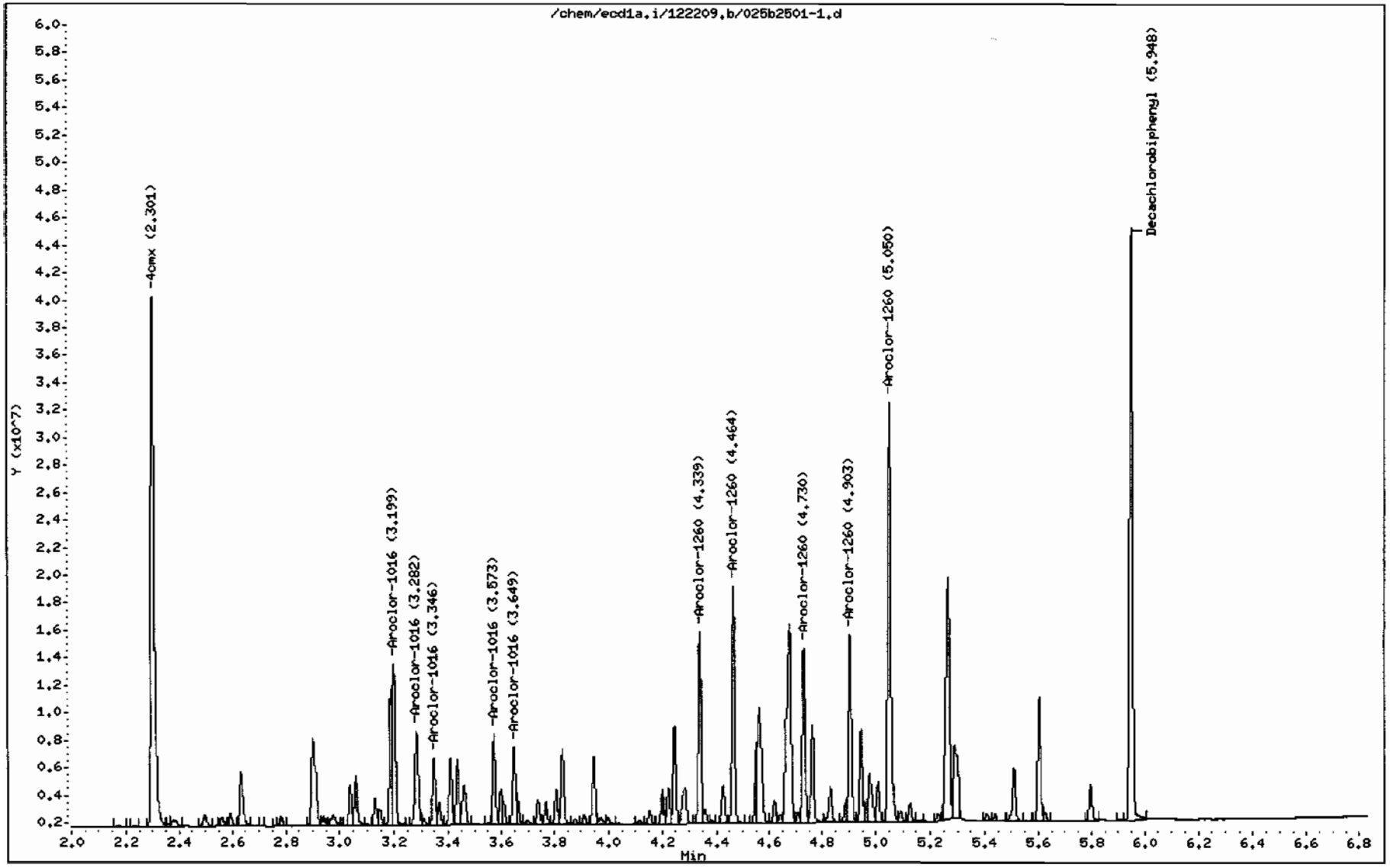

MISCELLANEOUS DATA

GEL ORGANIC RUN LOG INSTRUMENT ID: ECD1

DATE: 12/15/2009 METHOD: ECD1-F-8082-121409.m OPERATOR:YS1 REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1

SOLVENT LOT DA385
ALUMINA LOT 1230997-A
COPPER LOT 236547-A

Calibration & QC Information
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.
GEL SOP GL-OA-E-040 Polychlorinated Biphenyl: EPA 8082
Chromatogram Abbreviation Legend: AB-Assign Baseline, AP-Assign Peak,
DNC-Do Not Call, DMP-Doesn't Match Pattern, NC-Not Confirmed, RT-Retention Time,
BF-Before, AF-After.

Sequence Number: /chem/ecd1a.i/121409.b Injection Volume: 0.5 ul

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001f0101.d	WAR091130-99 01	YS1	14-DEC-2009 04:44		121409	1.0		CLEAN
002f0201.d	WAR091211-60 01	YS1	14-DEC-2009 04:54		121409	1.0		DUSE RE-ICAL
003f0301.d	WAR091102-54	YS1	14-DEC-2009 05:05		121409	1.0		DUSE RE-ICAL
004f0401.d	WAR091102-42	YS1	14-DEC-2009 05:15		121409	1.0		DUSE RE-ICAL
005f0501.d	WAR091027-48	YS1	14-DEC-2009 05:26		121409	1.0		DUSE RE-ICAL
006f0601.d	WAR090930-32	YS1	14-DEC-2009 05:36		121409	1.0		PATTERN ONLY
007f0701.d	WAR090803-21	YS1	14-DEC-2009 05:47		121409	1.0		PATTERN ONLY
008f0801.d	WAR090803-62	YS1	14-DEC-2009 05:58		121409	1.0		PATTERN ONLY
009f0901.d	WAR091106-68	YS1	14-DEC-2009 06:08		121409	1.0		DUSE RE-ICAL
010f1001.d	1660-1	YS1	14-DEC-2009 06:19		121409	1.0		DUSE
011f1101.d	1660-2	YS1	14-DEC-2009 06:29		121409	1.0		DUSE
012f1201.d	1660-3	YS1	14-DEC-2009 06:40		121409	1.0		DUSE
013f1301.d	1660-4	YS1	14-DEC-2009 06:50		121409	1.0		DUSE
014f1401.d	IAR091102-01	YS1	14-DEC-2009 07:01		121409	1.0		DUSE
015f1501.d	WAR091211-60 01	YS1	14-DEC-2009 07:11		121409	1.0		DUSE

Instrument Batch: /chem/ecd1a.i/121409.b Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments

016f1601.d	WAR091214-05 54	YS1	14-DEC-2009 07:22		121409		1.0	AR1254 I-CAL LEVEL 1
017f1701.d	WAR091214-06 54	YS1	14-DEC-2009 07:32		121409		1.0	AR1254 I-CAL LEVEL 2
018f1801.d	WAR091214-07 54	YS1	14-DEC-2009 07:43		121409		1.0	AR1254 I-CAL LEVEL 3
019f1901.d	WAR091214-08 54	YS1	14-DEC-2009 07:53		121409		1.0	AR1254 I-CAL LEVEL 4
020f2001.d	IAR091027-01	YS1	14-DEC-2009 08:04		121409		1.0	AR1254 I-CAL LEVEL 5
021f2101.d	WAR091102-54	YS1	14-DEC-2009 08:14		121409		1.0	PASSED ON BOTH COLUMNS
022f2201.d	WAR091214-09 42	YS1	14-DEC-2009 08:25		121409		1.0	AR1242 I-CAL LEVEL 1
023f2301.d	WAR091214-10 42	YS1	14-DEC-2009 08:35		121409		1.0	AR1242 I-CAL LEVEL 2
024f2401.d	WAR091214-11 42	YS1	14-DEC-2009 08:46		121409		1.0	AR1242 I-CAL LEVEL 3
025f2501.d	WAR091214-12 42	YS1	14-DEC-2009 08:56		121409		1.0	AR1242 I-CAL LEVEL 4
026f2601.d	IAR0911111-01	YS1	14-DEC-2009 09:07		121409		1.0	AR1242 I-CAL LEVEL 5
027f2701.d	WAR091102-42	YS1	14-DEC-2009 09:17		121409		1.0	PASSED ON BOTH COLUMNS
028f2801.d	WAR091214-13 48	YS1	14-DEC-2009 09:28		121409		1.0	AR1248 I-CAL LEVEL 1
029f2901.d	WAR091214-14 48	YS1	14-DEC-2009 09:38		121409		1.0	AR1248 I-CAL LEVEL 2
030f3001.d	WAR091214-15 48	YS1	14-DEC-2009 09:49		121409		1.0	AR1248 I-CAL LEVEL 3
031f3101.d	WAR091214-16 48	YS1	14-DEC-2009 09:59		121409		1.0	AR1248 I-CAL LEVEL 4
032f3201.d	IAR091027-02	YS1	14-DEC-2009 10:10		121409		1.0	AR1248 I-CAL LEVEL 5
033f3301.d	WAR091027-48	YS1	14-DEC-2009 10:20		121409		1.0	PASSED ON BOTH COLUMNS
034f3401.d	WAR091214-01 60	YS1	14-DEC-2009 10:31		121409		1.0	AR1660 I-CAL LEVEL 1
035f3501.d	WAR091214-02 60	YS1	14-DEC-2009 10:41		121409		1.0	AR1660 I-CAL LEVEL 2

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
036f3601.d	WAR091214-03 60	YS1	14-DEC-2009 10:52		121409		1.0	AR1660 I-CAL LEVEL 3
037f3701.d	WAR091214-04 60	YS1	14-DEC-2009 11:02		121409		1.0	AR1660 I-CAL LEVEL 4
038f3801.d	IAR091102-01	YS1	14-DEC-2009 11:13		121409		1.0	AR1660 I-CAL LEVEL 5
039f3901.d	WAR091211-60 01	YS1	14-DEC-2009 11:23		121409		1.0	PASSED ON BOTH COLUMNS
040f4001.d	WAR091214-17 68	YS1	14-DEC-2009 11:34		121409		1.0	AR1268 I-CAL LEVEL 1

041f4101.d	WAR091214-18 68	YS1	14-DEC-2009 11:44		121409		1.0		AR1268 I-CAL LEVEL 2
042f4201.d	WAR091214-19 68	YS1	14-DEC-2009 11:55		121409		1.0		AR1268 I-CAL LEVEL 3
043f4301.d	WAR091214-20 68	YS1	14-DEC-2009 12:06		121409		1.0		AR1268 I-CAL LEVEL 4
044f4401.d	IAR090817-02	YS1	14-DEC-2009 12:16		121409		1.0		AR1268 I-CAL LEVEL 5
045f4501.d	WAR091106-68	YS1	14-DEC-2009 12:27		121409		1.0		PASSED ON BOTH COLUMNS
046f4601.d	WAR091020-DDT	YS1	14-DEC-2009 12:37		121409		1.0		DDT ANALOG STANDARD
047f4701.d	WAR091130-99 02	YS1	14-DEC-2009 12:48		121409		1.0		CLEAN
048f4801.d	1201991693	YS1	14-DEC-2009 12:58	931140	10-782		1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
049f4901.d	1201991694	YS1	14-DEC-2009 13:09	931140	10-782		1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
050f5001.d	242297001	YS1	14-DEC-2009 13:19	931140	10-782		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
051f5101.d	242297002	YS1	14-DEC-2009 13:30	931140	10-782		10.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
052f5201.d	242297003	YS1	14-DEC-2009 13:40	931140	10-782		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
053f5301.d	242297004	YS1	14-DEC-2009 13:51	931140	10-782		5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
054f5401.d	242297005	YS1	14-DEC-2009 14:03	931140	10-782		5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
055f5501.d	242297006	YS1	14-DEC-2009 14:16	931140	10-782		10.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER

Instrument Batch: /chem/ecd1a.i/121409.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
056f5601.d	242297007	YS1	14-DEC-2009 14:29	931140	10-782	5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
057f5701.d	242297008	YS1	14-DEC-2009 14:41	931140	10-782	25.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
058f5801.d	WAR091211-60 02	YS1	14-DEC-2009 14:52		121409	1.0		PASSED ON BOTH COLUMNS
059f5901.d	WAR091130-99 03	YS1	14-DEC-2009 15:02		121409	1.0		CLEAN
060f6001.d	242297009	YS1	14-DEC-2009 15:13	931140	10-782	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
061f6101.d	242297010	YS1	14-DEC-2009 15:25	931140	10-782	1.0	LANL	DCB LOW RE
062f6201.d	242297011	YS1	14-DEC-2009 15:38	931140	10-782	5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
063f6301.d	242297012	YS1	14-DEC-2009 15:51	931140	10-782	5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
064f6401.d	242297013	YS1	14-DEC-2009 16:03	931140	10-782	10.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER

065f6501.d	242305004	YS1	14-DEC-2009 16:16	931140	10-786		5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
066f6601.d	1201991695	YS1	14-DEC-2009 16:28	931140	10-786		5.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
067f6701.d	1201991696	YS1	14-DEC-2009 16:41	931140	10-786		5.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
068f6801.d	242305005	YS1	14-DEC-2009 16:53	931140	10-786		5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
069f6901.d	242305006	YS1	14-DEC-2009 17:06	931140	10-786		5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
070f7001.d	WAR091211-60 03	YS1	14-DEC-2009 17:19		121409		1.0		PASSED ON BOTH COLUMNS
071f7101.d	WAR091130-99 04	YS1	14-DEC-2009 17:31		121409		1.0		CLEAN
072f7201.d	1201992645	YS1	14-DEC-2009 17:44	931553	242521		1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
073f7301.d	1201992646	YS1	14-DEC-2009 17:57	931553	242521		1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
074f7401.d	242264001	YS1	14-DEC-2009 18:09	931553	242264		5.0	ENRG	UPLOAD BOTH COLUMNS, USE HIGHER
075f7501.d	242521001	YS1	14-DEC-2009 18:22	931553	242521		5.0	EMSC	UPLOAD BOTH COLUMNS, USE HIGHER

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
076f7601.d	1201992647	YS1	14-DEC-2009 18:35	931553	242521		5.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
077f7701.d	1201992648	YS1	14-DEC-2009 18:47	931553	242521		5.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
078f7801.d	242521002	YS1	14-DEC-2009 19:00	931553	242521		5.0	EMSC	UPLOAD BOTH COLUMNS, USE HIGHER
079f7901.d	242521003	YS1	14-DEC-2009 19:12	931553	242521		5.0	EMSC	UPLOAD BOTH COLUMNS, USE HIGHER
080f8001.d	242521004	YS1	14-DEC-2009 19:25	931553	242521		5.0	EMSC	UPLOAD BOTH COLUMNS, USE HIGHER
081f8101.d	242521005	YS1	14-DEC-2009 19:38	931553	242521		5.0	EMSC	UPLOAD BOTH COLUMNS, USE HIGHER
082f8201.d	WAR091211-60 04	YS1	14-DEC-2009 19:50		121409		1.0		PASSED ON BOTH COLUMNS
083f8301.d	WAR091130-99 05	YS1	14-DEC-2009 20:03		121409		1.0		CLEAN
084f8401.d	242521006	YS1	14-DEC-2009 20:15	931553	242521		5.0	EMSC	UPLOAD BOTH COLUMNS, USE HIGHER
085f8501.d	242521007	YS1	14-DEC-2009 20:28	931553	242521		5.0	EMSC	UPLOAD BOTH COLUMNS, USE HIGHER
086f8601.d	242521008	YS1	14-DEC-2009 20:41	931553	242521		5.0	EMSC	UPLOAD BOTH COLUMNS, USE HIGHER
087f8701.d	WAR091211-60 05	YS1	14-DEC-2009 20:53		121409		1.0		PASSED ON BOTH COLUMNS
088f8801.d	WAR091130-99 06	YS1	14-DEC-2009 21:06		121409		1.0		CLEAN
089f8901.d	242297010	YS1	14-DEC-2009 21:19	931140	10-782		1.0	LANL	

090f9001.d	WAR091211-60 06	YS1	14-DEC-2009 21:31		121409	1.0	PASSED ON BOTH COLUMNS
091f9101.d	WAR091130-99 07	YS1	14-DEC-2009 21:44		121409	1.0	CLEAN
092f9201.d	1660	YS1	14-DEC-2009 21:56		121409	1.0	screen
093f9301.d	1660	YS1	14-DEC-2009 22:09		121409	1.0	screen
094f9401.d	1660	YS1	14-DEC-2009 22:22		121409	1.0	screen

Instrument Batch: /chem/ecd1a.i/121409.b

Page: 5

GEL ORGANIC RUN LOG INSTRUMENT ID: ECD1

DATE: 12/23/2009 METHOD: ECD1-F-8082-121409.m OPERATOR:JAOC REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1

SOLVENT LOT DA385
ALUMINA LOT 1230997-A
COPPER LOT 236547-A

Calibration & QC Information
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.
GEL SOP GL-OA-E-040 Polychlorinated Biphenyl: EPA 8082
Chromatogram Abbreviation Legend: AB-Assign Baseline, AP-Assign Peak,
DNC-Do Not Call, DMP-Doesn't Match Pattern, NC-Not Confirmed, RT-Retention Time,
BF-Before, AF-After.

Sequence Number: /chem/ecd1a.i/122209.b Injection Volume: 0.5 ul

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001f0101.d	WAR091130-99 01	JAOC	22-DEC-2009 07:55		122209	1.0		CLEAN
002f0201.d	WAR091211-60 01	JAOC	22-DEC-2009 08:05		122209	1.0		PASSES BOTH COLUMNS
003f0301.d	WAR091216-54	JAOC	22-DEC-2009 08:16		122209	1.0		PASSES BOTH COLUMNS
004f0401.d	WAR091102-42	JAOC	22-DEC-2009 08:26		122209	1.0		PASSES BOTH COLUMNS
005f0501.d	WAR091027-48	JAOC	22-DEC-2009 08:37		122209	1.0		PASSES BOTH COLUMNS
006f0601.d	WAR090930-32	JAOC	22-DEC-2009 08:47		122209	1.0		PATTERN ONLY
007f0701.d	WAR090803-21	JAOC	22-DEC-2009 08:58		122209	1.0		PATTERN ONLY
008f0801.d	WAR090803-62	JAOC	22-DEC-2009 09:08		122209	1.0		PATTERN ONLY
009f0901.d	WAR091106-68	JAOC	22-DEC-2009 09:19		122209	1.0		PATTERN ONLY
010f1001.d	WAR091219-DDT	JAOC	22-DEC-2009 09:29		122209	1.0		DDT
011f1101.d	WAR091130-99 02	JAOC	22-DEC-2009 09:40		122209	1.0		CLEAN
012f1201.d	1202000305	JAOC	22-DEC-2009 09:50	934936	242826	1.0	QC A	UPLOAD BOTH, USE HIGHER
013f1301.d	1202000306	JAOC	22-DEC-2009 10:01	934936	242826	1.0	QC A	UPLOAD BOTH, USE HIGHER
014f1401.d	242826001	JAOC	22-DEC-2009 10:11	934936	242826	1.0	SCEG	UPLOAD BOTH, USE HIGHER
015f1501.d	1202000307	JAOC	22-DEC-2009 10:22	934936	242826	1.0	QC A	UPLOAD BOTH, USE HIGHER

Instrument Batch: /chem/ecd1a.i/122209.b Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments

016f1601.d	1202000308	JAOC	22-DEC-2009 10:32	934936	242826	1.0	QC A	UPLOAD BOTH, USE HIGHER
017f1701.d	242826002	JAOC	22-DEC-2009 10:43	934936	242826	1.0	SCEG	UPLOAD BOTH, USE HIGHER
018f1801.d	242826003	JAOC	22-DEC-2009 10:53	934936	242826	1.0	SCEG	UPLOAD BOTH, USE HIGHER
019f1901.d	242826004	JAOC	22-DEC-2009 11:04	934936	242826	1.0	SCEG	UPLOAD BOTH, USE HIGHER
020f2001.d	242826005	JAOC	22-DEC-2009 11:15	934936	242826	1.0	SCEG	UPLOAD BOTH, USE HIGHER
021f2101.d	242826006	JAOC	22-DEC-2009 11:25	934936	242826	1.0	SCEG	UPLOAD BOTH, USE HIGHER
022f2201.d	WAR091211-60 02	JAOC	22-DEC-2009 11:36		122209	1.0		PASSES BOTH COLUMNS
023f2301.d	WAR091130-99 03	JAOC	22-DEC-2009 11:46		122209	1.0		CLEAN
024f2401.d	1202001507	JAOC	22-DEC-2009 11:57	935393	10-939	1.0	QC A	UPLOAD BOTH, USE HIGHER
025f2501.d	1202001508	JAOC	22-DEC-2009 12:07	935393	10-939	1.0	QC A	UPLOAD BOTH, USE HIGHER
026f2601.d	242937001	JAOC	22-DEC-2009 12:18	935393	10-917	1.0	LANL	DUSE, NO HITS CONFIRMS ORGINAL SAMPLE
027f2701.d	243007002	JAOC	22-DEC-2009 12:28	935393	10-939	1.0	LANL	UPLOAD BOTH, USE HIGHER
028f2801.d	243033001	JAOC	22-DEC-2009 12:39	935393	10-940	1.0	LANL	UPLOAD BOTH, USE HIGHER
029f2901.d	243033002	JAOC	22-DEC-2009 12:49	935393	10-940	1.0	LANL	UPLOAD BOTH, USE HIGHER
030f3001.d	243033003	JAOC	22-DEC-2009 13:00	935393	10-940	1.0	LANL	UPLOAD BOTH, USE HIGHER
031f3101.d	243033004	JAOC	22-DEC-2009 13:10	935393	10-940	1.0	LANL	UPLOAD BOTH, USE HIGHER
032f3201.d	243033005	JAOC	22-DEC-2009 13:21	935393	10-940	1.0	LANL	UPLOAD BOTH, USE HIGHER
033f3301.d	243033006	JAOC	22-DEC-2009 13:31	935393	10-940	1.0	LANL	UPLOAD BOTH, USE HIGHER
034f3401.d	WAR091211-60 03	JAOC	22-DEC-2009 13:42		122209	1.0		PASSES BOTH COLUMNS
035f3501.d	WAR091130-99 04	JAOC	22-DEC-2009 13:53		122209	1.0		CLEAN

Instrument Batch: /chem/ecd1a.i/122209.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
036f3601.d	243033007	JAOC	22-DEC-2009 14:03	935393	10-940	1.0	LANL	UPLOAD BOTH, USE HIGHER
037f3701.d	243033008	JAOC	22-DEC-2009 14:14	935393	10-940	1.0	LANL	UPLOAD BOTH, USE HIGHER
038f3801.d	243033009	JAOC	22-DEC-2009 14:24	935393	10-940	1.0	LANL	UPLOAD BOTH, USE HIGHER
039f3901.d	243273001	JAOC	22-DEC-2009 14:35	935393	10-988	1.0	LANL	UPLOAD BOTH, USE HIGHER
040f4001.d	243274001	JAOC	22-DEC-2009 14:45	935393	10-989	1.0	LANL	UPLOAD BOTH, USE HIGHER

041f4101.d	1202001509	JAOC	22-DEC-2009 14:56	935393	10-989		1.0	QC A	UPLOAD BOTH, USE HIGHER
042f4201.d	1202001510	JAOC	22-DEC-2009 15:06	935393	10-989		1.0	QC A	UPLOAD BOTH, USE HIGHER
043f4301.d	243274010	JAOC	22-DEC-2009 15:17	935393	10-989		1.0	LANL	UPLOAD BOTH, USE HIGHER
044f4401.d	WAR091211-60 04	JAOC	22-DEC-2009 15:27		122209		1.0		PASSES BOTH COLUMNS
045f4501.d	WAR091130-99 05	JAOC	22-DEC-2009 15:38		122209		1.0		CLEAN

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/122209.b/041b4101.d
Lab Smp Id: 1202001509 Client Smp ID: RE12-10-7352MS
Inj Date : 22-DEC-2009 14:56
Operator : JAOC Inst ID: ecd1a.i
Smp Info : |1202001509|1|
Misc Info : |ECD82P_1S|935393|SVA|QC A|SOIL|MS|||
Comment :
Method : /chem/ecd1a.i/122209.b/ECD1-B-8082-121409.m
Meth Date : 23-Dec-2009 06:44 jen01212 Quant Type: ESTD
Cal Date : 14-DEC-2009 12:16 Cal File: 044b4401.d
Als bottle: 41 QC Sample: MS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-989.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.02000	Weight of sample extracted (g)
M	9.79470	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.303	2.302	0.001	34882093	116.264	4.3	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.949	5.948	0.001	29723878	127.446	4.7	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.200	3.199	0.001	8140755	645.501	23.8	80.00- 120.00	100.00
3.283	3.282	0.001	6678679	715.992	26.4	46.88- 86.88	82.04
3.347	3.346	0.001	4233213	782.289	28.9	21.65- 61.65	52.00
3.573	3.572	0.001	4321988	612.885	22.6	32.68- 72.68	53.09
3.649	3.648	0.001	4701736	717.742	26.5	30.01- 70.01	57.76

Average of Peak Concentrations = 25.6

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
7 Aroclor-1260					CAS #: 11096-82-5		
4.340	4.338	0.002	9489576	693.681	25.6	80.00- 120.00	100.00
4.464	4.463	0.001	11540856	719.998	26.6	98.94- 138.94	121.62
4.730	4.729	0.001	9056698	720.849	26.6	76.23- 116.23	95.44
4.903	4.903	0.000	9546017	745.196	27.5	79.35- 119.35	100.59
5.051	5.050	0.001	22016938	789.203	29.1	205.17- 245.17	232.01

Average of Peak Concentrations = 27.1

Data File: /chem/ecdia.i/122209.b/041b4101.d
Date : 22-DEC-2009 14:56
Client ID: RE12-10-7352MS
Sample Info: 1120200150911
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecdia.i
Operator: JAOC
Column diameter: 0.25

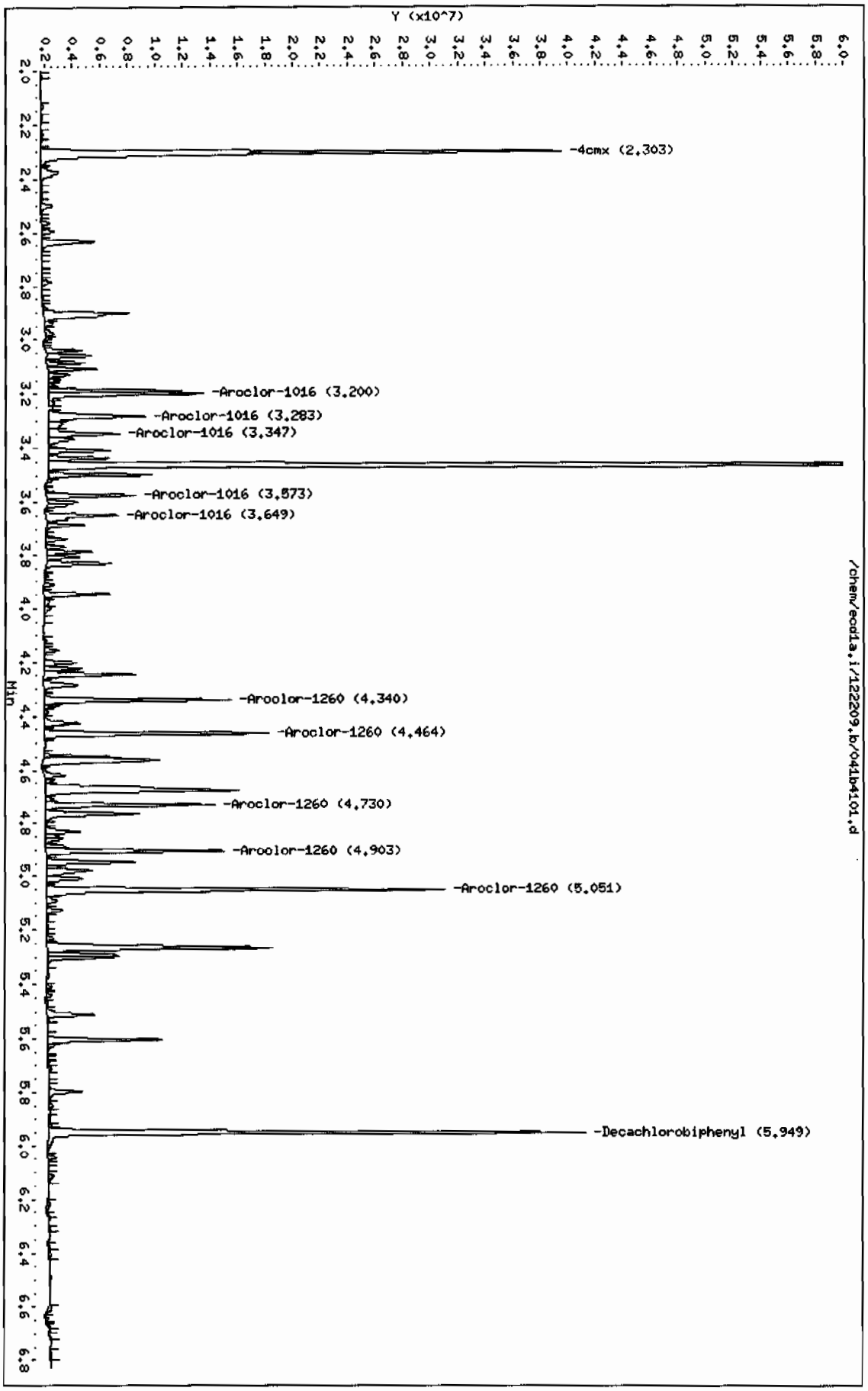

Page 1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/122209.b/041f4101.d
Lab Smp Id: 1202001509 Client Smp ID: RE12-10-7352MS
Inj Date : 22-DEC-2009 14:56
Operator : JAOC Inst ID: ecd1a.i
Smp Info : |1202001509|1|
Misc Info : |ECD82P_1S|935393|SVA|QC A|SOIL|MS|||
Comment :
Method : /chem/ecd1a.i/122209.b/ECD1-F-8082-121409.m
Meth Date : 23-Dec-2009 06:42 jen01212 Quant Type: ESTD
Cal Date : 14-DEC-2009 11:34 Cal File: 040f4001.d
Als bottle: 41 QC Sample: MS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-989.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.02000	Weight of sample extracted (g)
M	9.79470	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.972	1.971	0.001	45548248	121.246	4.5	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.287	5.286	0.001	41757542	131.503	4.8	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.428	2.427	0.001	8917469	643.077	23.7	80.00- 120.00	100.00
2.705	2.705	0.000	6895523	682.879	25.2	65.19- 105.19	77.33
2.797	2.796	0.001	8433875	717.348	26.5	66.50- 106.50	94.58
2.835	2.835	0.000	4318050	654.348	24.2	32.04- 72.04	48.42
3.047	3.046	0.001	4874837	562.044	20.8	47.11- 87.11	54.67
			Average of Peak Concentrations =		24.1		

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
7 Aroclor-1260					CAS #: 11096-82-5		
3.772	3.771	0.001	13189999	787.362	29.1	80.00- 120.00	100.00
3.936	3.934	0.002	19554769	790.328	29.2	134.26- 174.26	148.25
4.165	4.165	0.000	12102233	823.990	30.4	72.25- 112.25	91.75
4.308	4.307	0.001	13504795	889.379	32.8	76.57- 116.57	102.39
4.488	4.486	0.002	28658539	834.299	30.8	202.51- 242.51	217.27
			Average of Peak Concentrations =		30.5		

Data File: /chem/ecd1a.i/122209.b/041f4101.d

Date : 22-DEC-2009 14:56

Client ID: RE12-10-7352MS

Sample Info: |120200150911|

Volume Injected (uL): 1.0

Column phase: CLP1

Instrument: ecd1a.i

Operator: JAOC

Column diameter: 0.25

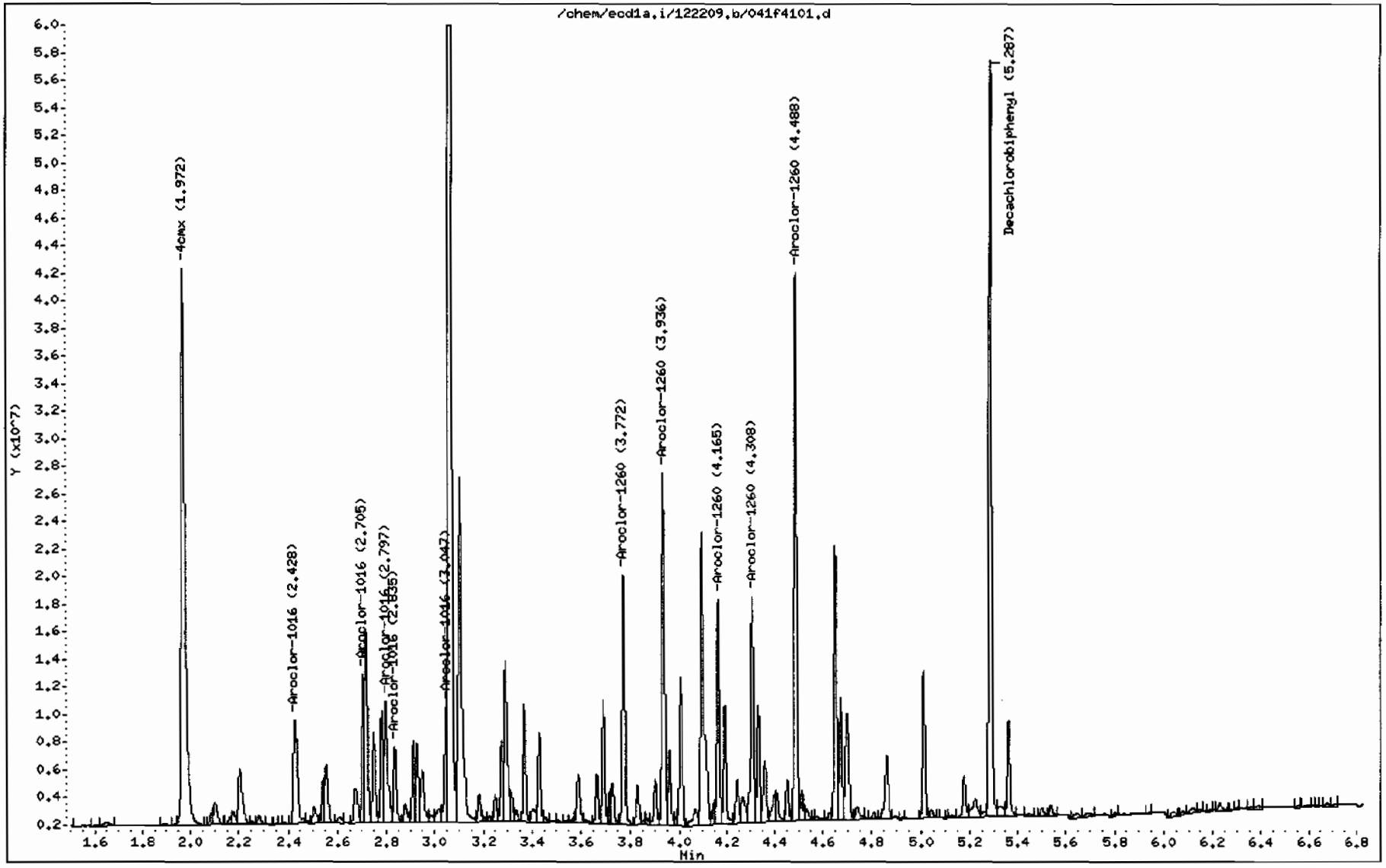

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/122209.b/042b4201.d
Lab Smp Id: 1202001510 Client Smp ID: RE12-10-7352MSD
Inj Date : 22-DEC-2009 15:06
Operator : JAOC Inst ID: ecd1a.i
Smp Info : |1202001510|1|
Misc Info : |ECD82P_1S|935393|SVA|QC A|SOIL|MSD|||
Comment :
Method : /chem/ecd1a.i/122209.b/ECD1-B-8082-121409.m
Meth Date : 23-Dec-2009 06:44 jen01212 Quant Type: ESTD
Cal Date : 14-DEC-2009 12:16 Cal File: 044b4401.d
Als bottle: 42 QC Sample: MSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-989.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.01000	Weight of sample extracted (g)
M	9.79470	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.302	2.302	0.000	34824282	116.071	4.3	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.948	5.948	0.000	30260536	129.747	4.8	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.199	3.199	0.000	8173859	648.125	23.9	80.00- 120.00	100.00
3.283	3.282	0.001	6691403	717.356	26.5	46.88- 86.88	81.86
3.347	3.346	0.001	4263313	787.851	29.1	21.65- 61.65	52.16
3.573	3.572	0.001	4423157	627.231	23.2	32.68- 72.68	54.11
3.649	3.648	0.001	4840945	738.993	27.3	30.01- 70.01	59.22

Average of Peak Concentrations = 26.0

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
7 Aroclor-1260					CAS #: 11096-82-5		
4.339	4.338	0.001	9883833	722.501	26.7	80.00- 120.00	100.00
4.464	4.463	0.001	12060963	752.446	27.8	98.94- 138.94	122.03
4.730	4.729	0.001	9376541	746.306	27.6	76.23- 116.23	94.87
4.903	4.903	0.000	9874401	770.831	28.5	79.35- 119.35	99.90
5.051	5.050	0.001	22960048	823.009	30.4	205.17- 245.17	232.30
			Average of Peak Concentrations =		28.2		

Data File: /chem/ecd1a.i/122209.b/042b4201.d
Date : 22-DEC-2009 15:06
Client ID: RE12-10-7352MSD
Sample Info: |1202001510|1|
Volume Injected (uL): 1.0
Column phase: CLP2

Page 1

Instrument: ecd1a.i

Operator: JAOC
Column diameter: 0.25

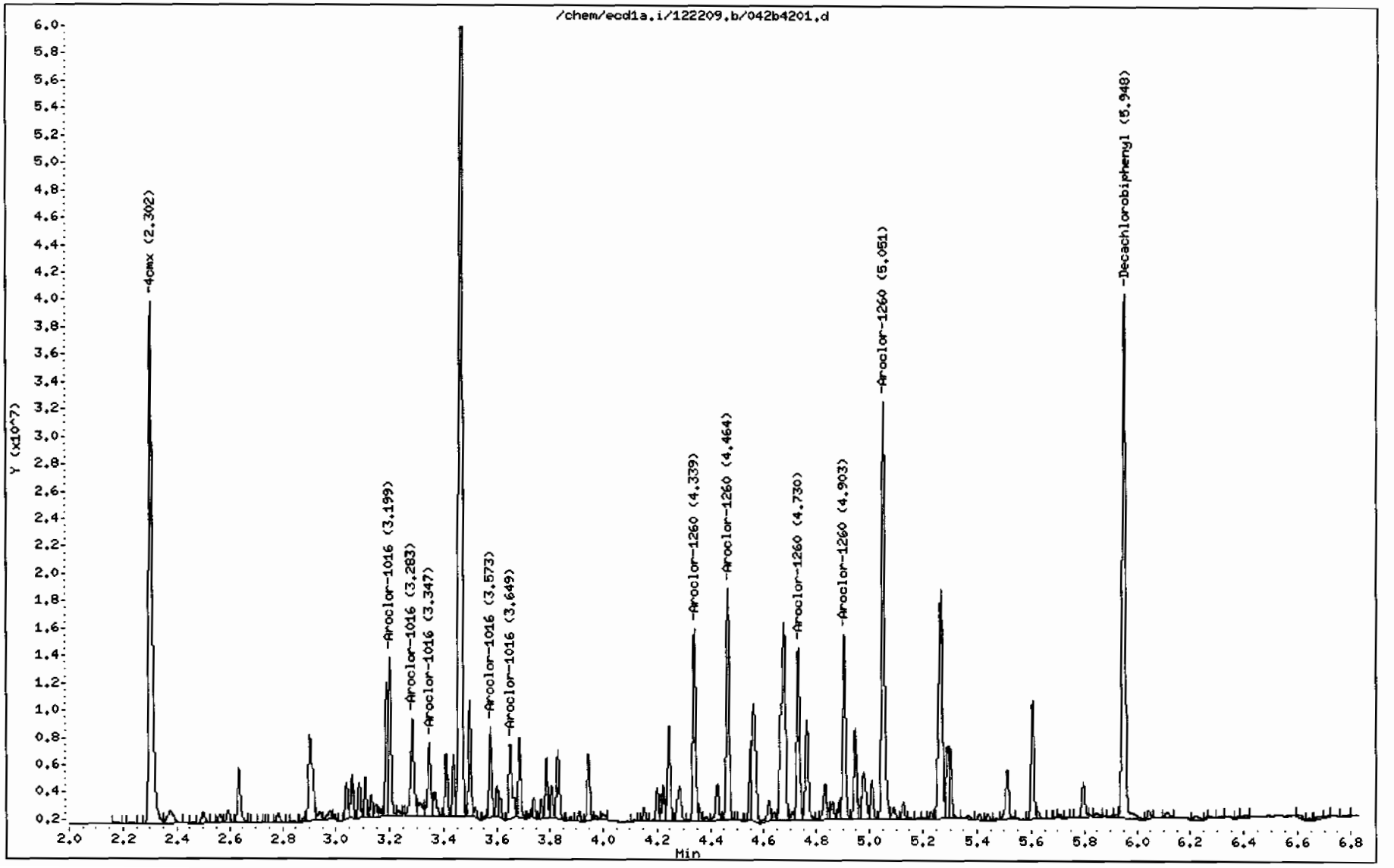

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/122209.b/042f4201.d
Lab Smp Id: 1202001510 Client Smp ID: RE12-10-7352MSD
Inj Date : 22-DEC-2009 15:06
Operator : JAOC Inst ID: ecd1a.i
Smp Info : |1202001510|1|
Misc Info : |ECD82P_1S|935393|SVA|QC A|SOIL|MSD|||
Comment :
Method : /chem/ecd1a.i/122209.b/ECD1-F-8082-121409.m
Meth Date : 23-Dec-2009 06:42 jen01212 Quant Type: ESTD
Cal Date : 14-DEC-2009 11:34 Cal File: 040f4001.d
Als bottle: 42 QC Sample: MSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-989.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.01000	Weight of sample extracted (g)
M	9.79470	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.971	1.971	0.000	45616082	121.426	4.5	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.287	5.286	0.001	41952079	132.116	4.9	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.428	2.427	0.001	8717913	628.686	23.2	80.00- 120.00	100.00
2.705	2.705	0.000	7343052	727.199	26.9	65.19- 105.19	84.23
2.797	2.796	0.001	8568068	728.762	26.9	66.50- 106.50	98.28
2.835	2.835	0.000	4514084	684.055	25.3	32.04- 72.04	51.78
3.047	3.046	0.001	5213832	601.129	22.2	47.11- 87.11	59.81
Average of Peak Concentrations =					24.9		

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
7 Aroclor-1260					CAS #: 11096-82-5		
3.773	3.771	0.002	13668321	815.914	30.1	80.00- 120.00	100.00
3.935	3.934	0.001	20415030	825.096	30.5	134.26- 174.26	149.36
4.165	4.165	0.000	11609553	790.446	29.2	72.25- 112.25	84.94
4.308	4.307	0.001	12914492	850.503	31.4	76.57- 116.57	94.48
4.488	4.486	0.002	29312497	853.337	31.5	202.51- 242.51	214.46
			Average of Peak Concentrations =		30.5		

Data File: /chem/ecd1a.i/122209.b/042f4201.d

Date : 22-DEC-2009 15:06

Client ID: RE12-10-7352MSD

Sample Info: |120200151011|

Volume Injected (uL): 1.0

Column phase: CLP1

Instrument: ecd1a.i

Operator: JAOC

Column diameter: 0.25

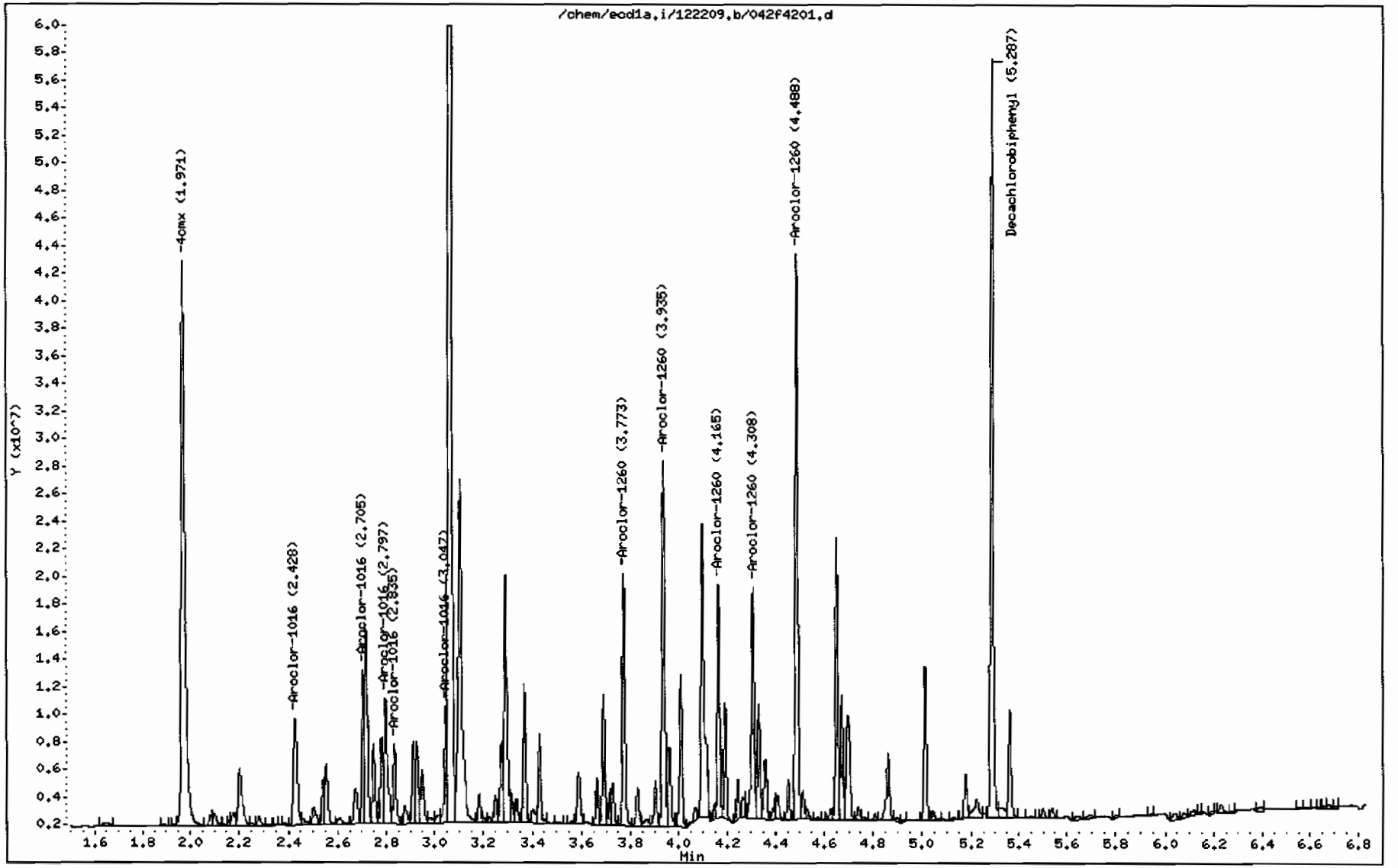

Prep Logbook

Extraction of Semivolatile and Nonvolatile Organic Compounds from Soil, Sludge, and Other Miscellaneous Solid Samples

Batch ID: 935357 **Verified by:** _____

Analyst: Andrew Schwemin

Method: SW846 3550B

Lab SOP: GL-OA-E-010 REV# 18

Instrument: Semi-Volatiles Manual

Sample ID	Run Date	Aliquot (g)	Clean Up	Prior to Clean up (mL)	Amount Cleaned (mL)	After Clean up (mL)	Prepped Aliquot (mL)	Prepped Factor (mL/g)
1202001507 MB	21-DEC-2009 20:06:26	30	H2SO4/KMn2		2	9	1	0.03333
1202001508 LCS	21-DEC-2009 20:06:26	30	H2SO4/KMn2		2	9	1	0.03333
242937001 - 2	21-DEC-2009 20:06:26	30.02	H2SO4/KMn2		2	9	1	0.03331
243007002	21-DEC-2009 20:06:26	30.05	H2SO4/KMn2		2	9	1	0.03328
243033001	21-DEC-2009 20:06:26	30.09	H2SO4/KMn2		2	9	1	0.03323
243033002	21-DEC-2009 20:06:26	30.01	H2SO4/KMn2		2	9	1	0.03332
243033003	21-DEC-2009 20:06:26	30.02	H2SO4/KMn2		2	9	1	0.03331
243033004	21-DEC-2009 20:06:26	30.03	H2SO4/KMn2		2	9	1	0.0333
243033005	21-DEC-2009 20:06:26	30.04	H2SO4/KMn2		2	9	1	0.03329
243033006	21-DEC-2009 20:06:26	30.18	H2SO4/KMn2		2	9	1	0.03313
243033007	21-DEC-2009 20:06:26	30.05	H2SO4/KMn2		2	9	1	0.03328
243033008	21-DEC-2009 20:06:26	30.02	H2SO4/KMn2		2	9	1	0.03331
243033009	21-DEC-2009 20:06:26	30.02	H2SO4/KMn2		2	9	1	0.03331
243273001	21-DEC-2009 20:06:26	30.14	H2SO4/KMn2		2	9	1	0.03318
243274001	21-DEC-2009 20:06:26	30.14	H2SO4/KMn2		2	9	1	0.03318
1202001509 MS (243274001)	21-DEC-2009 20:06:26	30.02	H2SO4/KMn2		2	9	1	0.03331
1202001510 MSD (243274001)	21-DEC-2009 20:06:26	30.01	H2SO4/KMn2		2	9	1	0.03332
243274010	21-DEC-2009 20:06:26	30.07	H2SO4/KMn2		2	9	1	0.03326

Type	Sample Id	Description	Serial Number	Spike Amt	Units
LCS	1202001508	PCB Laboratory Control	WE091210-07	1	mL
MS	1202001509	PCB Laboratory Control	WE091210-07	1	mL
MSD	1202001510	PCB Laboratory Control	WE091210-07	1	mL
SURR	All	PEST LOW LEVEL SURROGATE 200 UG/L	UE091130-15	1	mL
REGNT	All	1:1 sulfuric acid	1133264a	5	mL
REGNT	All	Acetone	1233927	150	mL
REGNT	All	Hexane	1241300-B2	150	mL
REGNT	All	5% Potassium Permanganate	B1202457-F	5	mL
SOURC	All	SODIUM SULFATE	1242582	30	g

Comments:

Clean up Date: 12/21/09

Clean up Initials: AJS

Verified By: AV

Final Solvent: Hexane

Clean Up SOP: GL-OA-E-037

Tuesday, December 15, 2009

REQUEST NUMBER: 10-939

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

These Samples are on:

LANL Request Number:10-939

Per Agreement Number:126310011

Project Cost Code: MR2A054196D0

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 12/15/2009

TURNAROUND/REPORT DUE: 12/30/2009

TURNAROUND REQ'D: 15 Days

RAD SCREENING: Not Required

LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:

Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:906.0	1	WST03-10-2147	R	12/14/2009	
	HASL-300:ISOPU	1	WST03-10-2147	R	12/14/2009	
	HASL-300:ISOU	1	WST03-10-2147	R	12/14/2009	
	SW-846:6010B	1	WST03-10-2147	R	12/14/2009	
	SW-846:8015M_EXTRACTABLE	1	WST03-10-2147	R	12/14/2009	
	SW-846:8015M_PURGEABLE	1	WST03-10-2147	R	12/14/2009	
		2	WST03-10-2147	R	12/14/2009	

Tuesday, December 15, 2009

REQUEST NUMBER: 10-939

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8081A	1	WST03-10-2147	R	12/14/2009	
	SW-846:8081A_TCLP	1	WST03-10-2147	R	12/14/2009	
	SW-846:8082	1	WST03-10-2147	R	12/14/2009	
	SW-846:8151A	1	WST03-10-2147	R	12/14/2009	
	SW-846:8151A_TCLP	1	WST03-10-2147	R	12/14/2009	
	SW-846:8260B	1	WST03-10-2147	R	12/14/2009	
		2	WST03-10-2147	R	12/14/2009	
		1	WST03-10-2200	S	12/14/2009	
	SW-846:8260B_TCLP	1	WST03-10-2147	R	12/14/2009	
	SW-846:8270C	1	WST03-10-2147	R	12/14/2009	
	SW-846:8270C_TCLP	1	WST03-10-2147	R	12/14/2009	
	SW-846:9012A	1	WST03-10-2147	R	12/14/2009	

Final Page of REQUEST NUMBER 10-939

Tuesday, December 15, 2009

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-939

REQUEST NUMBER: 10-939

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 12/30/2009

TURNAROUND REQ'D: 15

LAB REQUEST COMMENTS:

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
WST03-10-2200	1	SEPTUM AMBER GLASS	8260B Trip Blank	Ice	S
WST03-10-2147	1	GLASS	8081A+8151A	Ice	R
WST03-10-2147	1	GLASS	8260B+TPH-GRO	Ice	R
WST03-10-2147	2	GLASS	8260B+TPH-GRO	Ice	R
WST03-10-2147	1	GLASS	8270C+8082+TPH-DRO	Ice	R
WST03-10-2147	1	POLY	AM-241+ISOPU+ISOU+SR90	None	R
WST03-10-2147	1	POLY	H3	Ice	R
WST03-10-2147	1	POLY	TAL metals + TCLP metals	Ice	R
WST03-10-2147	1	AMBER GLASS	TCLP ORGANICS P/H/S/V	Ice	R
WST03-10-2147	1	POLY	TCN	Ice	R

Relinquished By:		Date	Time	Received By:		Date	Time
[illegible]	[illegible]	12/15/09	1400				
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

Received for DISPOSAL By:		Date	Time	Remarks:
Printed Name	Signature			

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2350 **EVENT NAME:** Upper Sandia Cyn Aggregate Area - Waste Characterization

SAMPLE ID: WST03-10-2147 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12-14-09	MEDIA:	NA	ok
TIME COLLECTED (HH:MM)		1400	SUB-MEDIA:	OTHER	
PRS ID:		60-004 (f)	SAMPLE TECH CODE:	HA	
LOCATION ID:	WST-600902	ok	FIELD QC TYPE:	NA	
LOCATION TYPE:	GENERIC		FIELD PREP:	NA	
TOP DEPTH:	0		SAMPLE USAGE:	WST	
BOTTOM DEPTH:	0		SCREEN/PORT DESC:	NA	
FIELD MATRIX:	R		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — **COMPOSITE TIME INTERVAL:** — **WATER FLOWING:** YES / NO / NA

BOREHOLE: YES / NO / NA **BOREHOLE DECLINATION:** — **BOREHOLE DIRECTION:** —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8081A+8151A	500 ML GLASS	Ice	Y	
2		8260B+TPH-GRO	125 ML GLASS	Ice	Y	
1		8270C+8082+TPH-DRO	500 ML GLASS	Ice	Y	
1		AM-241+ISOPU+ISOU+SR90	1 LITER POLY	None	Y	
1		H3	500 ML POLY	Ice	Y	
1		TAL metals + TCLP metals	1 LITER POLY	Ice	Y	
1		TCLP ORGANICS P/H/S/V	500 ML AMBER GLASS	Ice	Y	
1		TCN	125 ML POLY	Ice	Y	

SAMPLE DESC: NA

SAMPLE COMMENTS: ~~10~~ 15 DAY TURNAROUND
mr 12/14/09

LOCATION DESC: 60-004(f)

FIELD SCREENING/MEASUREMENT RESULTS: mr 12/14/09 ~~PID~~ NA

COLLECTED BY (PRINT) M. Nauck **REVIEWED BY (PRINT)** M. Rains

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) M. Rains	12/14/09 1510	(Printed Name) Sherri Sherwood	12/14/09 1510

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2350 **EVENT NAME:** Upper Sandia Cyn Aggregate Area - Waste Characterization

SAMPLE ID: WST03-10-2200 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12-14-09	MEDIA:	ALLH	ok
TIME COLLECTED (HH:MM)		1400	SUB-MEDIA:	SOIL	
PRS ID:		60-004(f)	SAMPLE TECH CODE:	DC	
LOCATION ID:	WST-600902	ok	FIELD QC TYPE:	FTB	
LOCATION TYPE:	GENERIC		FIELD PREP:	NA	
TOP DEPTH:	0		SAMPLE USAGE:	QC	
BOTTOM DEPTH:	0		SCREEN/PORT DESC:		
FIELD MATRIX:	S		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: _____ **COMPOSITE TIME INTERVAL:** _____ **WATER FLOWING:** YES / NO / NA

BOREHOLE: YES / NO / NA **BOREHOLE DECLINATION:** _____ **BOREHOLE DIRECTION:** _____

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
2	mR 12/14/09	8260B Trip Blank	40 ML SEPTUM AMBER GLASS	Ice	Y	

SAMPLE DESC: QC Sample of WST03-10-2147

SAMPLE COMMENTS: ~~10~~ 15 **DAY TURNAROUND**
mR 12/14/09

LOCATION DESC: NA

FIELD SCREENING/MEASUREMENT RESULTS: NA

COLLECTED BY (PRINT) M. Nauck **REVIEWED BY (PRINT)** M. Rains

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) M. Rains (Signature) [signature]	12/14/09 1510	(Printed Name) Sherri Sherwood (Signature) Sherri Sherwood	12/14/09 1510
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name) (Signature)		(Printed Name) (Signature)	

DATA VALIDATION COVER SHEET

5114-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-939 VALIDATION DATE: 01/27/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Peter Steves ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☒ OTHER (DESCRIBE): VOCs (TCLP and no-TCLP)

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☒	☐	☐	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☒	☐	☐	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. In the FTB, sample WST03-10-2200, associated with sample -2147, acetone was detected. The associated sample result was a detect ≤10X the FTB concentration and, thus, was qualified U,V4d.
2. The non-TCLP ICV and or CCV %Ds were >20% for dichlorodifluoromethane, chloromethane and acetone. Also, the TCLP CCV %D was >20% for 2-butanone. The acetone result for sample -2200 was a detect and, thus, was qualified J,V7c. All other associated sample results were NDs or qualified NDs and, thus, were qualified UJ,V7c.
3. It should be noted that the acetone and 1,2-dibromo-3-chloropropane results in the LCS sample exceeded the calibration range. No sample data were qualified as a result.

Reviewed by: Mary Donivan Level: I Date: 01/28/10

VALIDATOR'S SIGNATURE: Mr. Peter Steves DATE: 01/27/10

VOLATILE ORGANIC COMPOUND (VOC) ANALYTICAL DATA VALIDATION CHECKLIST

5114-2

Volatile Organic Compound (VOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, V9	J-, V9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, V9a	J-, V9a
☐	☐	☒	3. The instrument performance sample did not pass method acceptance criteria.	R, V16	R, V16
☐	☐	☒	4. Samples were analyzed outside specific method tune time criteria.	N/A	J, V16b
☐	☐	☒	5. The required instrument performance sample information is missing. Contact the SMO or external laboratory for information.	R, V16c	R, V16c
☐	☒	☐	6. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ or R, V7	J, V7
☐	☒	☐	7. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, V7a	J, V7a
☐	☒	☐	8. The affected analytes were analyzed with an RRF of <0.05 in the initial calibration and/or CCV.	R, V7b	J, V7b
☒	☐	☐	9. The Initial Calibration Verification (ICV) and/or Continuing Calibration Verification (CCV) were recovered outside the method-specific limits.	UJ, V7c	J, V7c
☐	☒	☐	10. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, V7d	J, V7d
☐	☒	☐	11. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, V7f	R, V7f

VOLATILE ORGANIC COMPOUND (VOC) ANALYTICAL DATA VALIDATION CHECKLIST

5114-2

Volatile Organic Compound (VOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	12. The sample result is ≤5X (10X for common organic laboratory contaminants) the concentration of the related analyte in the method blank.	U, V4	N/A
☐	☒	☐	13. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X (10X for common laboratory contaminants).	N/A	J, V4a
☒	☐	☐	14. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, and/or equipment blank.	U, V4d	N/A
☐	☒	☐	15. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V4e	R, V4e
☐	☒	☐	16. The IS retention time has shifted by more than 30 seconds.	UJ, V0	J, V0
☐	☐	☒	17. Analyte is positively confirmed but outside the IS retention time window; however, spectral matches must be provided.	N/A	J, V0a
☐	☒	☐	18. Required IS retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V0b	R, V0b
☐	☐	☒	19. The quantitating IS are count is <10% of the expected value, which indicates increased potential for false negative results and other possible problems with sample quantitation. Follow method-specific windows.	R, V1a	J, V1a
☐	☐	☒	20. The IS area count for the quantitating IS is <50% but >10% for organics window relation to the previous continuing calibration. Follow the method-specific windows.	UJ, V1b	J, V1b

VOLATILE ORGANIC COMPOUND (VOC) ANALYTICAL DATA VALIDATION CHECKLIST

5114-2

Volatile Organic Compound (VOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	21. The IS area count for the quantitating IS is >200% of the area count for the previous organic continuing calibration. Follow the method-specific windows.	UJ, V1c	J, V1c
☐	☐	☒	22. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V1d	R, V1d
☐	☒	☐	23. The surrogate is <10%R. Follow the external laboratory limits located within the associated data package.	R, V3	J-, V3
☐	☒	☐	24. The surrogate is < the Lower Acceptance Limit (LAL) but ≥10%R. Follow the external laboratory limits located within the associated data package.	UJ, V3a	J-, V3a
☐	☒	☐	25. The surrogate %R is > the Upper Acceptance Limit (UAL) Follow the external laboratory limits located within the associated data package.	N/A	J+, V3b
☐	☒	☐	26. At least one surrogate is > the UAL and one surrogate is < the LAL. Follow the external laboratory limits located within the associated data package.	UJ, V3c	J, V3c
☐	☒	☐	27. Required surrogate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V3d	R, V3d
☐	☒	☐	28. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, V12	J-, V12
☐	☒	☐	29. The LCS percent recovery was < the LAL but > 10%. Follow the external laboratory limits located within the associated data package.	UV, V12a	J-, V12a
☐	☒	☐	30. The LCS percent recover was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, V12b

VOLATILE ORGANIC COMPOUND (VOC) ANALYTICAL DATA VALIDATION CHECKLIST

5114-2

Volatile Organic Compound (VOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	31. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V12c	R, V12c
☐	☒	☐	32. The affected analyte is considered not detected because mass spectrum did not meet specifications.	N/A	U, V8
☐	☒	☐	33. The mass spectrum column documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V8a	R, V8a
☐	☒	☐	34. Duplicate, dilution, or reanalysis.	UJ, V88	J, V88
☐	☐	☒	35. The affected analytes have elevated detection limits and may not meet project DQOs because the sample was diluted without any target analytees identified due to matrix interference. Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.	UJ, R, V15	R, V15
☒	☐	☐	36. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB, NQ, NQ
☐	☒	☐	37. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.	UJ, R, V19	J, R, V19

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-939	Date Collected:	12/14/2009 12:00	Matrix:	S
Lab Sample ID:	243007001	Date Received:	12/16/2009 09:10		
		Client:	LANL010	Project:	LANL01004
Client ID:	WST03-10-2200	Method:	SW846 8260B	SOP Ref:	GL-OA-E-038
Batch ID:	935590	Inst:	VOA6.I	Dilution:	1
Run Date:	12/22/2009 18:48	Analyst:	RXD1	Purge Vol:	5 mL
Prep Date:	12/22/2009 11:42	Aliquot:	5 g	Final Volume:	5 mL
Data File:	122209V6\6Q220.D	Column:	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
75-71-8	Dichlorodifluoromethane	U	1.00	ug/kg	0.340	1.00	UJ,V7c
74-87-3	Chloromethane	U	1.00	ug/kg	0.300	1.00	UJ,V7c
75-01-4	Vinyl chloride	U	1.00	ug/kg	0.300	1.00	
74-83-9	Bromomethane	U	1.00	ug/kg	0.300	1.00	
75-00-3	Chloroethane	U	1.00	ug/kg	0.300	1.00	
75-69-4	Trichlorofluoromethane	U	1.00	ug/kg	0.300	1.00	
67-64-1	Acetone	J	3.07	ug/kg	1.66	5.00	J,V7c
75-35-4	1,1-Dichloroethylene	U	1.00	ug/kg	0.300	1.00	
74-88-4	Iodomethane	U	5.00	ug/kg	1.60	5.00	
75-09-2	Methylene chloride	U	5.00	ug/kg	2.00	5.00	
75-15-0	Carbon disulfide	U	5.00	ug/kg	1.25	5.00	
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00	
75-34-3	1,1-Dichloroethane	U	1.00	ug/kg	0.300	1.00	
78-93-3	2-Butanone	U	5.00	ug/kg	1.50	5.00	
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00	
594-20-7	2,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00	
67-66-3	Chloroform	U	1.00	ug/kg	0.300	1.00	
74-97-5	Bromochloromethane	U	1.00	ug/kg	0.330	1.00	
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/kg	0.300	1.00	
563-58-6	1,1-Dichloropropene	U	1.00	ug/kg	0.300	1.00	
56-23-5	Carbon tetrachloride	U	1.00	ug/kg	0.300	1.00	
107-06-2	1,2-Dichloroethane	U	1.00	ug/kg	0.300	1.00	
71-43-2	Benzene	U	1.00	ug/kg	0.300	1.00	
79-01-6	Trichloroethylene	U	1.00	ug/kg	0.330	1.00	
78-87-5	1,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00	
75-27-4	Bromodichloromethane	U	1.00	ug/kg	0.300	1.00	
74-95-3	Dibromomethane	U	1.00	ug/kg	0.300	1.00	
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/kg	1.25	5.00	
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00	
108-88-3	Toluene	U	1.00	ug/kg	0.300	1.00	
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00	
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/kg	0.300	1.00	
591-78-6	2-Hexanone	U	5.00	ug/kg	1.50	5.00	
142-28-9	1,3-Dichloropropane	U	1.00	ug/kg	0.300	1.00	
127-18-4	Tetrachloroethylene	U	1.00	ug/kg	0.300	1.00	
124-48-1	Dibromochloromethane	U	1.00	ug/kg	0.300	1.00	
106-93-4	1,2-Dibromoethane	U	1.00	ug/kg	0.300	1.00	
108-90-7	Chlorobenzene	U	1.00	ug/kg	0.300	1.00	

P.S. 1/27/10

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-939	**Date Collected:**	12/14/2009 12:00	**Matrix:**	S
Lab Sample ID:	243007001	**Date Received:**	12/16/2009 09:10		
		Client:	LANL010	**Project:**	LANL01004
Client ID:	WST03-10-2200	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	935590	**Inst:**	VOA6.I	**Dilution:**	1
Run Date:	12/22/2009 18:48	**Analyst:**	RXD1	**Purge Vol:**	5 mL
Prep Date:	12/22/2009 11:42	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	122209V6\6Q220.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.00	ug/kg	0.300	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/kg	0.300	2.00
95-47-6	o-Xylene	U	1.00	ug/kg	0.300	1.00
100-42-5	Styrene	U	1.00	ug/kg	0.300	1.00
75-25-2	Bromoform	U	1.00	ug/kg	0.300	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/kg	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/kg	0.300	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/kg	0.300	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/kg	0.300	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/kg	0.300	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/kg	0.300	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/kg	0.300	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/kg	0.300	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/kg	0.300	1.00
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.00	ug/kg	1.60	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated Units	Fit	Qual
	No Tentatively Identified Compounds Found		ug/kg		

P.S. 1/27/10

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-939	**Date Collected:**	12/14/2009 12:00	**Matrix:**	R
Lab Sample ID:	243007002	**Date Received:**	12/16/2009 09:10	**%Moisture:**	13.5
		Client:	LANL010	**Project:**	LANL01004
Client ID:	WST03-10-2147	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	935590	**Inst:**	VOA6.I	**Dilution:**	1
Run Date:	12/22/2009 15:06	**Analyst:**	RXD1	**Purge Vol:**	5 mL
Prep Date:	12/22/2009 11:44	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	122209V6\6Q212.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
75-71-8	Dichlorodifluoromethane	U	1.16	ug/kg	0.393	1.16	UJ,V7c
74-87-3	Chloromethane	U	1.16	ug/kg	0.347	1.16	UJ,V7c
75-01-4	Vinyl chloride	U	1.16	ug/kg	0.347	1.16	
74-83-9	Bromomethane	U	1.16	ug/kg	0.347	1.16	
75-00-3	Chloroethane	U	1.16	ug/kg	0.347	1.16	
75-69-4	Trichlorofluoromethane	U	1.16	ug/kg	0.347	1.16	
67-64-1	Acetone		9.79	ug/kg	1.92	5.78	U,V4d
75-35-4	1,1-Dichloroethylene	U	1.16	ug/kg	0.347	1.16	
74-88-4	Iodomethane	U	5.78	ug/kg	1.85	5.78	
75-09-2	Methylene chloride	U	5.78	ug/kg	2.31	5.78	
75-15-0	Carbon disulfide	U	5.78	ug/kg	1.44	5.78	
156-60-5	trans-1,2-Dichloroethylene	U	1.16	ug/kg	0.347	1.16	
75-34-3	1,1-Dichloroethane	U	1.16	ug/kg	0.347	1.16	
78-93-3	2-Butanone	U	5.78	ug/kg	1.73	5.78	
156-59-2	cis-1,2-Dichloroethylene	U	1.16	ug/kg	0.347	1.16	
594-20-7	2,2-Dichloropropane	U	1.16	ug/kg	0.347	1.16	
67-66-3	Chloroform	U	1.16	ug/kg	0.347	1.16	
74-97-5	Bromochloromethane	U	1.16	ug/kg	0.381	1.16	
71-55-6	1,1,1-Trichloroethane	U	1.16	ug/kg	0.347	1.16	
563-58-6	1,1-Dichloropropene	U	1.16	ug/kg	0.347	1.16	
56-23-5	Carbon tetrachloride	U	1.16	ug/kg	0.347	1.16	
107-06-2	1,2-Dichloroethane	U	1.16	ug/kg	0.347	1.16	
71-43-2	Benzene	U	1.16	ug/kg	0.347	1.16	
79-01-6	Trichloroethylene	U	1.16	ug/kg	0.381	1.16	
78-87-5	1,2-Dichloropropane	U	1.16	ug/kg	0.347	1.16	
75-27-4	Bromodichloromethane	U	1.16	ug/kg	0.347	1.16	
74-95-3	Dibromomethane	U	1.16	ug/kg	0.347	1.16	
108-10-1	4-Methyl-2-pentanone	U	5.78	ug/kg	1.44	5.78	
10061-01-5	cis-1,3-Dichloropropylene	U	1.16	ug/kg	0.347	1.16	
108-88-3	Toluene	U	1.16	ug/kg	0.347	1.16	
10061-02-6	trans-1,3-Dichloropropylene	U	1.16	ug/kg	0.347	1.16	
79-00-5	1,1,2-Trichloroethane	U	1.16	ug/kg	0.347	1.16	
591-78-6	2-Hexanone	U	5.78	ug/kg	1.73	5.78	
142-28-9	1,3-Dichloropropane	U	1.16	ug/kg	0.347	1.16	
127-18-4	Tetrachloroethylene	U	1.16	ug/kg	0.347	1.16	
124-48-1	Dibromochloromethane	U	1.16	ug/kg	0.347	1.16	
106-93-4	1,2-Dibromoethane	U	1.16	ug/kg	0.347	1.16	
108-90-7	Chlorobenzene	U	1.16	ug/kg	0.347	1.16	

P.S. 1/27/10

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-939**	**Date Collected:**	**12/14/2009 12:00**	**Matrix:**	**R**
Lab Sample ID:	**243007002**	**Date Received:**	**12/16/2009 09:10**	**%Moisture:**	**13.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**WST03-10-2147**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**935590**	**Inst:**	**VOA6.I**	**Dilution:**	**1**
Run Date:	**12/22/2009 15:06**	**Analyst:**	**RXD1**	**Purge Vol:**	**5 mL**
Prep Date:	**12/22/2009 11:44**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**122209V6\6Q212.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.16	ug/kg	0.347	1.16
179601-23-1	m,p-Xylenes	U	2.31	ug/kg	0.347	2.31
95-47-6	o-Xylene	U	1.16	ug/kg	0.347	1.16
100-42-5	Styrene	U	1.16	ug/kg	0.347	1.16
75-25-2	Bromoform	U	1.16	ug/kg	0.347	1.16
79-34-5	1,1,2,2-Tetrachloroethane	U	1.16	ug/kg	0.347	1.16
96-18-4	1,2,3-Trichloropropane	U	1.16	ug/kg	0.347	1.16
108-86-1	Bromobenzene	U	1.16	ug/kg	0.347	1.16
103-65-1	n-Propylbenzene	U	1.16	ug/kg	0.347	1.16
95-49-8	2-Chlorotoluene	U	1.16	ug/kg	0.347	1.16
98-82-8	Isopropylbenzene	U	1.16	ug/kg	0.347	1.16
108-67-8	1,3,5-Trimethylbenzene	U	1.16	ug/kg	0.347	1.16
106-43-4	4-Chlorotoluene	U	1.16	ug/kg	0.347	1.16
98-06-6	tert-Butylbenzene	U	1.16	ug/kg	0.347	1.16
95-63-6	1,2,4-Trimethylbenzene	U	1.16	ug/kg	0.347	1.16
135-98-8	sec-Butylbenzene	U	1.16	ug/kg	0.347	1.16
99-87-6	4-Isopropyltoluene	U	1.16	ug/kg	0.347	1.16
541-73-1	1,3-Dichlorobenzene	U	1.16	ug/kg	0.347	1.16
106-46-7	1,4-Dichlorobenzene	U	1.16	ug/kg	0.347	1.16
104-51-8	n-Butylbenzene	U	1.16	ug/kg	0.347	1.16
96-12-8	1,2-Dibromo-3-chloropropane	U	1.16	ug/kg	0.347	1.16
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.78	ug/kg	1.85	5.78
630-20-6	1,1,1,2-Tetrachloroethane	U	1.16	ug/kg	0.347	1.16
95-50-1	1,2-Dichlorobenzene	U	1.16	ug/kg	0.347	1.16

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown siloxane	14.24	12.5	ug/kg	0	J
	unknown siloxane	16.17	11	ug/kg	0	J

P.S. 1/27/10

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-939-1	**Date Collected:**	12/14/2009 12:00	**Matrix:**	TCLP R
Lab Sample ID:	243010001	**Date Received:**	12/16/2009 09:10		
		Client:	LANL010	**Project:**	LANL01004
Client ID:	WST03-10-2147	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	935696	**Inst:**	VOA4.I	**Dilution:**	10
Run Date:	12/21/2009 22:09	**Analyst:**	ACJ	**Purge Vol:**	5 mL
Prep Date:	12/18/2009 16:00				
Data File:	4q109.d	**Column:**	RTX-VOLATILES	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
75-01-4	Vinyl chloride	U	0.010	mg/L	0.005	0.010	
75-35-4	1,1-Dichloroethylene	U	0.010	mg/L	0.003	0.010	
78-93-3	2-Butanone	U	0.050	mg/L	0.0125	0.050	UJ,V7c
67-66-3	Chloroform	U	0.010	mg/L	0.0025	0.010	
56-23-5	Carbon tetrachloride	U	0.010	mg/L	0.003	0.010	
107-06-2	1,2-Dichloroethane	U	0.010	mg/L	0.0025	0.010	
71-43-2	Benzene	U	0.010	mg/L	0.003	0.010	
79-01-6	Trichloroethylene	U	0.010	mg/L	0.0025	0.010	
127-18-4	Tetrachloroethylene	U	0.010	mg/L	0.003	0.010	
108-90-7	Chlorobenzene	U	0.010	mg/L	0.0025	0.010	
106-46-7	1,4-Dichlorobenzene	U	0.010	mg/L	0.0025	0.010	

P.S. 1/27/10

DATA VALIDATION COVER SHEET

5115-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-939 VALIDATION DATE: 01/27/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Peter Steves ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☒ OTHER (DESCRIBE): SVOCs (TCLP and no-TCLP)

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☒	☐	☐	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☒	☐	☐	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. The non-TCLP ICV and/or CCV %Ds were > 20% for pyridine; 3-nitroaniline; 4-nitroaniline and dibenzo(a,h)anthracene. Also, the TCLP ICV %Ds was > 20% pyridine. The associated sample results were NDs and, thus, were qualified UJ,SV7c.
2. It should be noted that the parent sample for the TCLP QC analyses was from another LANL RN. No sample data were qualified as a result.

Reviewed by: Mary Donivan Level: I Date: 01/28/10

VALIDATOR'S SIGNATURE: Mr. Peter Steves DATE: 01/27/10

SEMIVOLATILE ORGANIC COMPOUND (SVOC) ANALYTICAL DATA VALIDATION CHECKLIST

5115-2

Semivolatile Organic Compound (SVOC) Analytical Data Validation Checklist

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Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, SV9	J-, SV9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, SV9a	J-, SV9a
☐	☒	☐	3. The affected analytes are regarded as rejected because the analytical holding time was exceeded.	R, SV9b	R, SV9b
☐	☐	☒	4. The instrument performance sample did not pass method acceptance criteria.	R, SV16	R, SV16
☐	☐	☒	5. Samples were analyzed outside specific method tune time criteria.	N/A	J, SV16b
☐	☐	☒	6. The required instrument performance sample information is missing. Contact the SMO or external laboratory for information.	R, SV16c	R, SV16c
☐	☒	☐	7. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, SV7	J, SV7
☐	☒	☐	8. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, SV7a	J, SV7a
☐	☒	☐	9. The affected analytes were analyzed with an RRF of <0.05 in the initial calibration and/or Continuing Calibration Verification (CCV).	R, SV7b	J, SV7b
☒	☐	☐	10. The Initial Calibration Verification (ICV) and/or CCV were recovered outside the method-specific limits.	UJ, SV7c	J, SV7c
☐	☒	☐	11. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, SV7d	J, SV7d

SEMIVOLATILE ORGANIC COMPOUND (SVOC) ANALYTICAL DATA VALIDATION CHECKLIST

5115-2

Semivolatile Organic Compound (SVOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	12. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, SV7f	R, SV7f
☐	☒	☐	13. The sample result is ≤5X (10X for common organic laboratory contaminates) the concentration of the related analyte in the method blank.	U, SV4	J, V4a
☐	☒	☐	14. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was greater than 5X (10X for common laboratory contaminates).	N/A	J, SV4a
☐	☐	☒	15. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	UJ, SV4d	N/A
☐	☒	☐	16. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV4e	R, SV4e
☐	☒	☐	17. The IS retention time has shifted by more than 30 seconds.	UJ, SV0	J, SV0
☐	☐	☒	18. Analyte is positively confirmed but outside the IS retention time window; however, spectral matches must be provided.	N/A	J, SV0a
☐	☒	☐	19. Required IS retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV0b	R, SV0b
☐	☐	☒	20. The quantitating IS area count is <10% of the expected value, which indicates increased potential for false negative results and other possible problems with sample quantitation. Follow method-specific windows.	R, SV1a	J, SV1a

SEMIVOLATILE ORGANIC COMPOUND (SVOC) ANALYTICAL DATA VALIDATION CHECKLIST

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Semivolatile Organic Compound (SVOC) Analytical Data Validation Checklist

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Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	21. The IS area count for the quantitating IS is <50% but >10% for organics window relation to the previous continuing calibration. Follow method-specific windows.	UJ, SV1b	J, SV1b
☐	☐	☒	22. The IS area count for the quantitating IS is >200% of the area count for the previous continuing calibration. Follow method-specific windows.	UJ, SV1c	J, SV1c
☐	☐	☒	23. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV1d	R, SV1d
☐	☒	☐	24. The surrogate is <10%R. Follow the external laboratory limits located within the associated data package.	R, SV3	J-, SV3
☐	☒	☐	25. The surrogate is < the Lower Acceptance Level (LAL) but ≥10%R. Follow the external laboratory limits located within the associated data package.	UJ, SV3a	J-, SV3a
☐	☒	☐	26. The surrogate %R value is > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, SV3b
☐	☒	☐	27. At least one surrogate is > the Upper Acceptance Limit (UAL) and one surrogate is < the LAL. Follow the external laboratory limits located within the associated data package.	UJ, SV3c	J, SV3c
☐	☒	☐	28. Required surrogate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV3d	R, SV3d
☐	☒	☐	29. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, SV12	J-, SV12

SEMIVOLATILE ORGANIC COMPOUND (SVOC) ANALYTICAL DATA VALIDATION CHECKLIST

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Semivolatile Organic Compound (SVOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	30. The LCS percent recovery was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, SV12a	J-, SV12a
☐	☒	☐	31. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, SV12b
☐	☒	☐	32. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV12c	R, SV12c
☐	☒	☐	33. The affected analyte is considered not detected because mass spectrum did not meet specifications.	N/A	U, SV8
☐	☒	☐	34. The mass spectrum column documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV8a	R, SV8a
☐	☒	☐	35. Duplicate, dilution, or reanalysis.	UJ, SV88	J, SV88
☐	☐	☒	36. The affected analytes have elevated detection limits and may not meet project DQOs because the sample was diluted without any target analytees identified due to matrix interference. Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.	UJ, R, SV15	R, SV15
☒	☐	☐	37. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB, NQ, NQ
☐	☒	☐	38. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.	UJ, R, SV19	J, R, SV19

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-939	**Date Collected:**	12/14/2009 12:00	**Matrix:**	R
Lab Sample ID:	243007002	**Date Received:**	12/16/2009 09:10	**%Moisture:**	13.5
		Client:	LANL010	**Project:**	LANL01004
Client ID:	WST03-10-2147	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	934473	**Inst:**	MSD1.I	**Dilution:**	1
Run Date:	12/21/2009 12:35	**Analyst:**	AMY	**Inj. Vol:**	.5 uL
Prep Date:	12/18/2009 19:56	**Aliquot:**	30.02 g	**Final Volume:**	1 mL
Data File:	s112108.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
62-75-9	N-Methyl-N-nitrosomethylamine	U	385	ug/kg	77.0	385	
108-95-2	Phenol	U	385	ug/kg	77.0	385	
95-57-8	2-Chlorophenol	U	385	ug/kg	77.0	385	
106-46-7	1,4-Dichlorobenzene	U	385	ug/kg	77.0	385	
621-64-7	N-Nitrosodipropylamine	U	385	ug/kg	77.0	385	
59-50-7	4-Chloro-3-methylphenol	U	385	ug/kg	77.0	385	
83-32-9	Acenaphthene	U	38.5	ug/kg	12.7	38.5	
121-14-2	2,4-Dinitrotoluene	U	385	ug/kg	38.5	385	
100-02-7	4-Nitrophenol	U	385	ug/kg	127	385	
87-86-5	Pentachlorophenol	U	385	ug/kg	96.3	385	
129-00-0	Pyrene	U	38.5	ug/kg	11.6	38.5	
110-86-1	Pyridine	U	385	ug/kg	77.0	385	UJ,V7c
62-53-3	Aniline	U	385	ug/kg	116	385	
111-44-4	bis(2-Chloroethyl) ether	U	385	ug/kg	77.0	385	
541-73-1	1,3-Dichlorobenzene	U	385	ug/kg	77.0	385	
100-51-6	Benzyl alcohol	U	385	ug/kg	116	385	
95-50-1	1,2-Dichlorobenzene	U	385	ug/kg	77.0	385	
108-60-1	bis(2-Chloroisopropyl)ether	U	385	ug/kg	77.0	385	
95-48-7	o-Cresol	U	385	ug/kg	77.0	385	
65794-96-9	m,p-Cresols	U	385	ug/kg	116	385	
67-72-1	Hexachloroethane	U	385	ug/kg	77.0	385	
98-95-3	Nitrobenzene	U	385	ug/kg	77.0	385	
78-59-1	Isophorone	U	385	ug/kg	77.0	385	
88-75-5	2-Nitrophenol	U	385	ug/kg	77.0	385	
105-67-9	2,4-Dimethylphenol	U	385	ug/kg	135	385	
111-91-1	bis(2-Chloroethoxy)methane	U	385	ug/kg	77.0	385	
120-83-2	2,4-Dichlorophenol	U	385	ug/kg	77.0	385	
65-85-0	Benzoic acid	U	770	ug/kg	193	770	
91-20-3	Naphthalene	U	38.5	ug/kg	11.6	38.5	
106-47-8	4-Chloroaniline	U	385	ug/kg	77.0	385	
87-68-3	Hexachlorobutadiene	U	385	ug/kg	77.0	385	
91-57-6	2-Methylnaphthalene	U	38.5	ug/kg	7.70	38.5	
77-47-4	Hexachlorocyclopentadiene	U	385	ug/kg	77.0	385	
88-06-2	2,4,6-Trichlorophenol	U	385	ug/kg	77.0	385	
95-95-4	2,4,5-Trichlorophenol	U	385	ug/kg	77.0	385	
91-58-7	2-Chloronaphthalene	U	38.5	ug/kg	12.7	38.5	
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	385	ug/kg	77.0	385	
99-09-2	3-Nitroaniline	U	385	ug/kg	77.0	385	UJ,V7c

P.S. 1/27/10

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-939	Date Collected:	12/14/2009 12:00	Matrix:	R
Lab Sample ID:	243007002	Date Received:	12/16/2009 09:10	%Moisture:	13.5
		Client:	LANL010	Project:	LANL01004
Client ID:	WST03-10-2147	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	934473	Inst:	MSD1.I	Dilution:	1
Run Date:	12/21/2009 12:35	Analyst:	AMY	Inj. Vol:	.5 uL
Prep Date:	12/18/2009 19:56	Aliquot:	30.02 g	Final Volume:	1 mL
Data File:	s112108.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
	m-Nitroaniline						
131-11-3	Dimethylphthalate	U	385	ug/kg	77.0	385	
606-20-2	2,6-Dinitrotoluene	U	385	ug/kg	38.5	385	
208-96-8	Acenaphthylene	U	38.5	ug/kg	11.6	38.5	
51-28-5	2,4-Dinitrophenol	U	770	ug/kg	146	770	
132-64-9	Dibenzofuran	U	385	ug/kg	77.0	385	
84-66-2	Diethylphthalate	U	385	ug/kg	77.0	385	
86-73-7	Fluorene	U	38.5	ug/kg	11.6	38.5	
7005-72-3	4-Chlorophenylphenylether	U	385	ug/kg	77.0	385	
534-52-1	2-Methyl-4,6-dinitrophenol	U	385	ug/kg	77.0	385	
100-01-6	4-Nitroaniline	U	385	ug/kg	116	385	UJ,V7c
	p-Nitroaniline						
122-39-4	Diphenylamine	U	385	ug/kg	77.0	385	
122-66-7	Azobenzene	U	385	ug/kg	77.0	385	
	1,2-Diphenylhydrazine						
101-55-3	4-Bromophenylphenylether	U	385	ug/kg	77.0	385	
118-74-1	Hexachlorobenzene	U	385	ug/kg	77.0	385	
85-01-8	Phenanthrene	U	38.5	ug/kg	11.6	38.5	
120-12-7	Anthracene	U	38.5	ug/kg	7.70	38.5	
84-74-2	Di-n-butylphthalate	U	385	ug/kg	77.0	385	
206-44-0	Fluoranthene	U	38.5	ug/kg	11.6	38.5	
85-68-7	Butylbenzylphthalate	U	385	ug/kg	77.0	385	
56-55-3	Benzo(a)anthracene	U	38.5	ug/kg	11.6	38.5	
91-94-1	3,3'-Dichlorobenzidine	U	385	ug/kg	116	385	
218-01-9	Chrysene	U	38.5	ug/kg	11.6	38.5	
117-81-7	bis(2-Ethylhexyl)phthalate	U	385	ug/kg	77.0	385	
117-84-0	Di-n-octylphthalate	U	385	ug/kg	77.0	385	
205-99-2	Benzo(b)fluoranthene	U	38.5	ug/kg	11.6	38.5	
207-08-9	Benzo(k)fluoranthene	U	38.5	ug/kg	11.6	38.5	
50-32-8	Benzo(a)pyrene	U	38.5	ug/kg	11.6	38.5	
193-39-5	Indeno(1,2,3-cd)pyrene	U	38.5	ug/kg	11.6	38.5	
53-70-3	Dibenzo(a,h)anthracene	U	38.5	ug/kg	11.6	38.5	UJ,V7c
191-24-2	Benzo(ghi)perylene	U	38.5	ug/kg	11.6	38.5	
120-82-1	1,2,4-Trichlorobenzene	U	385	ug/kg	77.0	385	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	1.68	286	ug/kg		JA
	Unknown	2.96	440	ug/kg		J

P.S. 1/27/10

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-939-1**	**Date Collected:**	**12/14/2009 12:00**	**Matrix:**	**TCLP R**
Lab Sample ID:	**243010001**	**Date Received:**	**12/16/2009 09:10**		
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**WST03-10-2147**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**935425**	**Inst:**	**MSD1.I**	**Dilution:**	**1**
Run Date:	**12/22/2009 18:53**	**Analyst:**	**AMY**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/21/2009 20:40**	**Aliquot:**	**200 mL**	**Final Volume:**	**1 mL**
Data File:	**s112220.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
106-46-7	1,4-Dichlorobenzene	U	0.050	mg/L	0.010	0.050	
121-14-2	2,4-Dinitrotoluene	U	0.050	mg/L	0.010	0.050	
87-86-5	Pentachlorophenol	U	0.050	mg/L	0.010	0.050	
110-86-1	Pyridine	U	0.050	mg/L	0.015	0.050	UJ,V7c
95-48-7	o-Cresol	U	0.050	mg/L	0.010	0.050	
65794-96-9	m,p-Cresols	U	0.050	mg/L	0.015	0.050	
67-72-1	Hexachloroethane	U	0.050	mg/L	0.010	0.050	
98-95-3	Nitrobenzene	U	0.050	mg/L	0.015	0.050	
87-68-3	Hexachlorobutadiene	U	0.050	mg/L	0.010	0.050	
88-06-2	2,4,6-Trichlorophenol	U	0.050	mg/L	0.010	0.050	
95-95-4	2,4,5-Trichlorophenol	U	0.050	mg/L	0.010	0.050	
118-74-1	Hexachlorobenzene	U	0.050	mg/L	0.010	0.050	

P.S. 1/27/10

DATA VALIDATION COVER SHEET

5130-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-939 VALIDATION DATE: 01/27/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Peter Steves ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☒ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE):

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

None

Reviewed by: Mary Donivan Level: I Date: 01/28/10

VALIDATOR'S SIGNATURE: Mr. Peter Steves DATE: 01/27/10

TPH GRO AND DRO ANALYTICAL DATA VALIDATION CHECKLIST

5130-2

TPH GRO and DRO Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The retention time criteria were not met.	R, DR0 or GR0	R, DR0 or GR0
☐	☒	☐	2. Required retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, DR0b	R, GR0b
☐	☒	☐	3. The surrogate is less than 10%R. Follow external laboratory limits.	R, DR3 or GR3	J-, DR3 or GR3
☐	☒	☐	4. The surrogate is less than the Lower Acceptance Limit, but greater than or equal to 10%R. Follow external laboratory limits.	UJ, DR3a or GR3a	J-, DR3a or GR3a
☐	☒	☐	5. The surrogate %R value is greater than the Upper Acceptance Limit. Follow external laboratory limits.	N/A	J+, DR3b or GR3b
☐	☒	☐	6. Required surrogate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, DR3d or GR3d	R, DR3d or GR3d
☐	☒	☐	7. The sample result is less than or equal to 5 times the concentration of the related analyte in the method blank.	U, DR4 or GR4	N/A
☐	☒	☐	8. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank, but was greater than 5x.	N/A	J+, DR4a or GR4a
☐	☐	☒	9. The sample result is less than or equal to 5 times the concentration of the related analyte in the trip blank, rinsate blank or equipment blank.	U, DR4d or GR4d	N/A
☐	☒	☐	10. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, DR4e or GR4e	R, DR4e or GR4e
☐	☒	☐	11. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ or R, DR7 or GR7	J, DR7 or GR7

TPH GRO AND DRO ANALYTICAL DATA VALIDATION CHECKLIST	
5130-2 TPH GRO and DRO Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	12. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is less than 0.995.	UJ, DR7a or GR7a	J, DR7a or GR7a
☐	☒	☐	13. The ICV and/or CCV were recovered outside the method specific limits.	UJ, DR7c or GR7c	J, DR7c or GR7c
☐	☒	☐	14. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, DR7d or GR7d	J, DR7d or GR7d
☐	☒	☐	15. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, DR7f or GR7f	R, DR7f or GR7f
☐	☒	☐	16. The holding time was greater than 1 and less than or equal to 2 times the applicable holding time requirement.	UJ, DR9 or GR9	J-, DR9 or GR9
☐	☒	☐	17. The holding time was greater than 2 times the applicable holding time requirement.	R, DR9a or GR9a	J-, DR9a or GR9a
☐	☒	☐	18. The LCS percent recovery was less than 10%. Follow the external laboratory limits.	R, DR12 or GR12	J-, DR12 or GR12
☐	☒	☐	19. The LCS percent recovery was less than the Lower Acceptance Limit, but greater than 10%. Follow the external laboratory limits.	UJ, DR12a or GR12a	J-, DR12a or GR12a
☐	☒	☐	20. The LCS percent recovery was greater than the Upper Acceptance Limit. Follow the external laboratory limits.	N/A	J+, DR12b or GR12b
☐	☒	☐	21. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or the external laboratory for information.	R, DR12c or GR12c	R, DR12c or GR12c
☐	☒	☐	22. The MS/MSD percent recovery was less than 10%.	R, DR12d or GR12d	R, DR12d or Gr12d
☐	☒	☐	23. The MS/MSD percent recovery was greater than 10%, but less than 70%.	UJ, DR12e or GR12e	J, DR12e or GR12e

TPH GRO AND DRO ANALYTICAL DATA VALIDATION CHECKLIST

5130-2

TPH GRO and DRO Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST 1942

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	24. The MS/MSD percent recovery was greater than 70%.	N/A	J+, DR12f or GR12f
☐	☒	☐	25. The MS/MSD relative percent difference was greater than 30%.	UJ, DR12g or GR12g	J, DR12g or GR12g
☐	☐	☒	26. The affected analytes have elevated detection limits and may not meet project DQOs because the sample was diluted without any target analytes identified due to matrix interference. (Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.)	UJ, R, DR15 or GR15	R, DR15 or GR15
☐	☒	☐	27. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.	UJ, R, DR19 or GR19	J, R, DR19 or GR19
☐	☒	☐	28. Duplicate, dilution, or reanalysis.	UJ, DR88 or GR88	J, DR88 or GR88

GC Volatiles (GRO)
Certificate of Analysis
Sample Summary

SDG Number:	10-939	**Date Collected:**	12/14/2009 12:00	**Matrix:**	R
Lab Sample ID:	243007002	**Date Received:**	12/16/2009 09:10	**%Moisture:**	13.5
		Client:	LANL010	**Project:**	LANL01004
Client ID:	WST03-10-2147	**Method:**	SW846 8015A/B VOC	**SOP Ref:**	GL-OA-E-004
Batch ID:	936471	**Inst:**	VOC4A.I	**Dilution:**	1
Run Date:	12/23/2009 23:43	**Analyst:**	ACJ	**Aliquot:**	5 mL
Prep Date:	12/23/2009 21:59	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	4q300006.d	**Column:**	Rtx-Volatiles	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
TPH-GRO	Gasoline Range Organics	J	15.7	ug/kg	12.9	57.8

P.S. 1/27/10

DATA VALIDATION COVER SHEET

5130-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-939 VALIDATION DATE: 01/27/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Peter Steves ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☒ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE):

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. It should be noted that the MS/MSD analyses were performed on a LANL parent sample from another RN. No sample data were qualified as a result.

Reviewed by: Mary Donivan Level: I Date: 01/28/10

VALIDATOR'S SIGNATURE: Mr. Peter Steves DATE: 01/27/10

TPH GRO AND DRO ANALYTICAL DATA VALIDATION CHECKLIST

5130-2

TPH GRO and DRO Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The retention time criteria were not met.	R, DR0 or GR0	R, DR0 or GR0
☐	☒	☐	2. Required retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, DR0b	R, GR0b
☐	☒	☐	3. The surrogate is less than 10%R. Follow external laboratory limits.	R, DR3 or GR3	J-, DR3 or GR3
☐	☒	☐	4. The surrogate is less than the Lower Acceptance Limit, but greater than or equal to 10%R. Follow external laboratory limits.	UJ, DR3a or GR3a	J-, DR3a or GR3a
☐	☒	☐	5. The surrogate %R value is greater than the Upper Acceptance Limit. Follow external laboratory limits.	N/A	J+, DR3b or GR3b
☐	☒	☐	6. Required surrogate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, DR3d or GR3d	R, DR3d or GR3d
☐	☒	☐	7. The sample result is less than or equal to 5 times the concentration of the related analyte in the method blank.	U, DR4 or GR4	N/A
☐	☒	☐	8. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank, but was greater than 5x.	N/A	J+, DR4a or GR4a
☐	☐	☒	9. The sample result is less than or equal to 5 times the concentration of the related analyte in the trip blank, rinsate blank or equipment blank.	U, DR4d or GR4d	N/A
☐	☒	☐	10. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, DR4e or GR4e	R, DR4e or GR4e
☐	☒	☐	11. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ or R, DR7 or GR7	J, DR7 or GR7

TPH GRO AND DRO ANALYTICAL DATA VALIDATION CHECKLIST

5130-2

TPH GRO and DRO Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	12. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is less than 0.995.	UJ, DR7a or GR7a	J, DR7a or GR7a
☐	☒	☐	13. The ICV and/or CCV were recovered outside the method specific limits.	UJ, DR7c or GR7c	J, DR7c or GR7c
☐	☒	☐	14. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, DR7d or GR7d	J, DR7d or GR7d
☐	☒	☐	15. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, DR7f or GR7f	R, DR7f or GR7f
☐	☒	☐	16. The holding time was greater than 1 and less than or equal to 2 times the applicable holding time requirement.	UJ, DR9 or GR9	J-, DR9 or GR9
☐	☒	☐	17. The holding time was greater than 2 times the applicable holding time requirement.	R, DR9a or GR9a	J-, DR9a or GR9a
☐	☒	☐	18. The LCS percent recovery was less than 10%. Follow the external laboratory limits.	R, DR12 or GR12	J-, DR12 or GR12
☐	☒	☐	19. The LCS percent recovery was less than the Lower Acceptance Limit, but greater than 10%. Follow the external laboratory limits.	UJ, DR12a or GR12a	J-, DR12a or GR12a
☐	☒	☐	20. The LCS percent recovery was greater than the Upper Acceptance Limit. Follow the external laboratory limits.	N/A	J+, DR12b or GR12b
☐	☒	☐	21. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or the external laboratory for information.	R, DR12c or GR12c	R, DR12c or GR12c
☐	☒	☐	22. The MS/MSD percent recovery was less than 10%.	R, DR12d or GR12d	R, DR12d or Gr12d
☐	☒	☐	23. The MS/MSD percent recovery was greater than 10%, but less than 70%.	UJ, DR12e or GR12e	J, DR12e or GR12e

TPH GRO AND DRO ANALYTICAL DATA VALIDATION CHECKLIST	
5130-2 **TPH GRO and DRO Analytical Data Validation Checklist**	Records Use only Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	24. The MS/MSD percent recovery was greater than 70%.	N/A	J+, DR12f or GR12f
☐	☒	☐	25. The MS/MSD relative percent difference was greater than 30%.	UJ, DR12g or GR12g	J, DR12g or GR12g
☐	☐	☒	26. The affected analytes have elevated detection limits and may not meet project DQOs because the sample was diluted without any target analytes identified due to matrix interference. (Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.)	UJ, R, DR15 or GR15	R, DR15 or GR15
☐	☒	☐	27. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.	UJ, R, DR19 or GR19	J, R, DR19 or GR19
☐	☒	☐	28. Duplicate, dilution, or reanalysis.	UJ, DR88 or GR88	J, DR88 or GR88

Flame Ionization Detector
Certificate of Analysis
Sample Summary

SDG Number:	10-939	Date Collected:	12/14/2009 12:00	Matrix:	R
Lab Sample ID:	243007002	Date Received:	12/16/2009 09:10	%Moisture:	13.5
		Client:	LANL010	Project:	LANL01004
Client ID:	WST03-10-2147	Method:	SW846 8015A/B SVOC	SOP Ref:	GL-OA-E-003
Batch ID:	934477	Inst:	FID7.I	Dilution:	1
Run Date:	12/21/2009 15:00	Analyst:	KXR2	Inj. Vol:	1 uL
Prep Date:	12/18/2009 19:50	Aliquot:	30.17 g	Final Volume:	1 mL
Data File:	007f0701.d	Column:	DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics	U	7.66	mg/kg	2.49	7.66

P.S. 1/27/10

DATA VALIDATION COVER SHEET

5116-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY

Section I.

REQUEST NUMBER: 10-939 VALIDATION DATE: 01/27/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Peter Steves ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☒ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE): Pesticides (TCLP and no-TCLP)

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. The non-TCLP CCV %D was >15% on a single column for endosulfan sulfate, endrin and methoxychlor. Also, the TCLP CCV %D was >15% for methoxychlor. The associated sample results were NDs and, thus, were not qualified.
2. The non-TCLP surrogate %Rs were > the laboratory UAL for the LCS samples. Since theses were QC samples no sample data were qualified.
3. The TCLP MS/MSD RPDs for heptachlor and methoxychlor were outside laboratory acceptance criteria. Since the analysis of an MS or MSD was not required for pesticides, no sample data were qualified as a result. It should be noted that the parent sample for the TCLP QC analyses was from another LANL RN. No sample data were qualified as a result.

Reviewed by: Mary Donivan Level: I Date: 01/28/10

VALIDATOR'S SIGNATURE: Mr. Peter Steves DATE: 01/27/10

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2

Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, P9	J-, P9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, P9	J-, P9a
☐	☒	☐	3. The affected analytes are regarded as rejected because the analytical holding time was exceeded.	R, P9b	R, P9b
☐	☒	☐	4. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, P7	J, P7
☐	☒	☐	5. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, P7a	J, P7a
☒	☐	☐	6. The Initial Calibration Verification (ICV) and/or Continuing Calibration Verification (CCV) were recovered outside the method-specific limits.	UJ, P7c	J, P7c
☐	☒	☐	7. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, P7d	J, P7d
☐	☐	☒	8. The multicomponent standard was not analyzed within 72 hours of the initial analysis.	R, P7e	J, P7e
☐	☒	☐	9. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, P7f	R, P7f
☐	☐	☒	10. The breakdown criteria have been exceeded. This can cause low bias in reported results. If compound is detected, qualify J-. If compound is not present, but breakdown products are present, qualify R. If no compounds or breakdown products are present, qualify UJ (4,4' DDT and Endrin).	UJ, R, P13	J-, P13

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2

Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	11. The breakdown criteria have been exceeded. This can cause high bias in the reported results and potential false positive results for the breakdown products Endrin ketone, Endrin aldehyde, DDD, and DDE.	UJ, P13a	J+, P13a
☐	☐	☒	12. The breakdown documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P13b	R, P13b
☐	☒	☐	13. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, P4	N/A
☐	☒	☐	14. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was greater than 5X.	N/A	J, P4a
☐	☐	☒	15. The sample result is ≤5X the concentration of the related analyte in the instrument blank and continuing calibration blank.	UJ, P4b	N/A
☐	☐	☒	16. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	UJ, P4d	N/A
☐	☒	☐	17. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P4e	R, P4e
☐	☒	☐	18. The analyte RT shifted by more than 0.05 minutes from the mid-level standard of the initial calibration.	R, P0	J, P0
☐	☒	☐	19. Required retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P0b	R, P0b
☐	☒	☐	20. The surrogate is <10%R. Follow the external laboratory limits located within the associated data package.	R, P3	J-, P3

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2

Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	21. The surrogate is < the Lower Acceptance Level (LAL) but ≥10%R. Follow the external laboratory limits located within the associated data package.	UJ, P3a	J-, P3a
☒	☐	☐	22. The surrogate %R value is > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, P3b
☐	☒	☐	23. At least one surrogate is > the Upper Acceptance Limit (UAL) and one surrogate is < the LAL. Follow the external laboratory limits located within the associated data package.	UJ, P3c	J, P3c
☐	☒	☐	24. Required surrogate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P3d	R, P3d
☐	☒	☐	25. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, P12	J-, P12
☐	☒	☐	26. The LCS percent recovery was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, P12a	J-, P12a
☐	☒	☐	27. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, P12b
☐	☒	☐	28. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P12c	R, P12c
☐	☐	☒	29. The analyte was not confirmed on a second dissimilar column.	N/A	R, P8
☐	☐	☒	30. The second dissimilar column documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P8a	R, P8a
☐	☒	☐	31. Duplicate, Dilution, or reanalysis.	UJ, P88	J, P88

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2 Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	32. The affected analytes have elevated detection limits and may not meet project DQOs because the sample was diluted without any target analytees identified due to matrix interference. Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.	UJ, R, P15	R, P15
☒	☐	☐	33. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB, NQ, NQ
☐	☒	☐	34. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.	UJ, R, P19	J, R, P19

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	10-939	Date Collected:	12/14/2009 12:00	Matrix:	R
Lab Sample ID:	243007002	Date Received:	12/16/2009 09:10	%Moisture:	13.5
		Client:	LANL010	Project:	LANL01004
Client ID:	WST03-10-2147	Method:	SW846 8081A	SOP Ref:	GL-OA-E-041
Batch ID:	934325	Inst:	ECD5A.I	Dilution:	5
Run Date:	12/19/2009 04:00	Analyst:	HXJ1	Inj. Vol:	1 uL
Prep Date:	12/18/2009 09:03	Aliquot:	30.02 g	Final Volume:	5 mL
Data File:	050f5001.d	Column:	1 CLP-1	Level:	LOW
	050b5001.d		2 CLP-2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
319-84-6	alpha-BHC	U	3.85	ug/kg	0.963	3.85	1
58-89-9	gamma-BHC (Lindane)	U	3.85	ug/kg	0.963	3.85	1
319-85-7	beta-BHC	U	3.85	ug/kg	0.963	3.85	1
319-86-8	delta-BHC	U	3.85	ug/kg	0.963	3.85	1
76-44-8	Heptachlor	U	3.85	ug/kg	0.963	3.85	1
309-00-2	Aldrin	U	3.85	ug/kg	0.963	3.85	1
1024-57-3	Heptachlor epoxide	U	3.85	ug/kg	1.20	3.85	1
5103-74-2	gamma-Chlordane	U	3.85	ug/kg	0.963	3.85	1
5103-71-9	alpha-Chlordane	U	3.85	ug/kg	0.963	3.85	1
959-98-8	Endosulfan I	U	3.85	ug/kg	0.963	3.85	1
72-55-9	4,4'-DDE	U	7.70	ug/kg	1.93	7.70	1
60-57-1	Dieldrin	U	7.70	ug/kg	1.93	7.70	1
72-20-8	Endrin	U	7.70	ug/kg	1.93	7.70	1
72-54-8	4,4'-DDD	U	7.70	ug/kg	1.93	7.70	1
33213-65-9	Endosulfan II	U	7.70	ug/kg	1.93	7.70	1
7421-93-4	Endrin aldehyde	U	7.70	ug/kg	1.93	7.70	1
50-29-3	4,4'-DDT	U	7.70	ug/kg	1.93	7.70	1
1031-07-8	Endosulfan sulfate	U	7.70	ug/kg	1.93	7.70	1
72-43-5	Methoxychlor	U	38.5	ug/kg	9.63	38.5	1
53494-70-5	Endrin ketone	U	7.70	ug/kg	1.93	7.70	1
8001-35-2	Toxaphene	U	96.3	ug/kg	32.1	96.3	1

P.S. 1/27/10

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	10-939-1	**Date Collected:**	12/14/2009 12:00	**Matrix:**	TCLP R
Lab Sample ID:	243010001	**Date Received:**	12/16/2009 09:10		
		Client:	LANL010	**Project:**	LANL01004
Client ID:	WST03-10-2147	**Method:**	SW846 8081A	**SOP Ref:**	GL-OA-E-041
Batch ID:	934315	**Inst:**	ECD5A.I	**Dilution:**	5
Run Date:	12/22/2009 22:40	**Analyst:**	CXC2	**Inj. Vol:**	1 uL
Prep Date:	12/22/2009 17:25	**Aliquot:**	20 mL	**Final Volume:**	1 mL
Data File:	043f4301.d	**Column:**	1 CLP-1	**Level:**	LOW
	043b4301.d		2 CLP-2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
58-89-9	gamma-BHC (Lindane)	U	0.001	mg/L	0.00025	0.001	1
76-44-8	Heptachlor	U	0.001	mg/L	0.00025	0.001	1
1024-57-3	Heptachlor epoxide	U	0.001	mg/L	0.00025	0.001	1
72-20-8	Endrin	U	0.002	mg/L	0.0005	0.002	1
72-43-5	Methoxychlor	U	0.010	mg/L	0.0025	0.010	1
57-74-9	Chlordane (tech.)	U	0.0125	mg/L	0.00383	0.0125	1
8001-35-2	Toxaphene	U	0.025	mg/L	0.0075	0.025	1

P.S. 1/27/10

DATA VALIDATION COVER SHEET

5116-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY

Section I.

REQUEST NUMBER: 10-939 VALIDATION DATE: 01/27/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Peter Steves ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☒ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE): PCBs

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. It should be noted that the MS/MSD analyses were performed on a LANL parent sample from another RN. No sample data were qualified as a result.

Reviewed by: Mary Donivan Level: I Date: 01/28/10

VALIDATOR'S SIGNATURE: Mr. Peter Steves DATE: 01/27/10

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2

Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, P9	J-, P9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, P9	J-, P9a
☐	☒	☐	3. The affected analytes are regarded as rejected because the analytical holding time was exceeded.	R, P9b	R, P9b
☐	☒	☐	4. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, P7	J, P7
☐	☒	☐	5. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, P7a	J, P7a
☐	☒	☐	6. The Initial Calibration Verification (ICV) and/or Continuing Calibration Verification (CCV) were recovered outside the method-specific limits.	UJ, P7c	J, P7c
☐	☒	☐	7. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, P7d	J, P7d
☐	☒	☐	8. The multicomponent standard was not analyzed within 72 hours of the initial analysis.	R, P7e	J, P7e
☐	☒	☐	9. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, P7f	R, P7f
☐	☐	☒	10. The breakdown criteria have been exceeded. This can cause low bias in reported results. If compound is detected, qualify J-. If compound is not present, but breakdown products are present, qualify R. If no compounds or breakdown products are present, qualify UJ (4,4' DDT and Endrin).	UJ, R, P13	J-, P13

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2

Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	11. The breakdown criteria have been exceeded. This can cause high bias in the reported results and potential false positive results for the breakdown products Endrin ketone, Endrin aldehyde, DDD, and DDE.	UJ, P13a	J+, P13a
☐	☐	☒	12. The breakdown documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P13b	R, P13b
☐	☒	☐	13. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, P4	N/A
☐	☒	☐	14. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was greater than 5X.	N/A	J, P4a
☐	☐	☒	15. The sample result is ≤5X the concentration of the related analyte in the instrument blank and continuing calibration blank.	UJ, P4b	N/A
☐	☐	☒	16. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	UJ, P4d	N/A
☐	☒	☐	17. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P4e	R, P4e
☐	☒	☐	18. The analyte RT shifted by more than 0.05 minutes from the mid-level standard of the initial calibration.	R, P0	J, P0
☐	☒	☐	19. Required retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P0b	R, P0b
☐	☒	☐	20. The surrogate is <10%R. Follow the external laboratory limits located within the associated data package.	R, P3	J-, P3

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2

Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	21. The surrogate is < the Lower Acceptance Level (LAL) but ≥10%R. Follow the external laboratory limits located within the associated data package.	UJ, P3a	J-, P3a
☐	☒	☐	22. The surrogate %R value is > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, P3b
☐	☒	☐	23. At least one surrogate is > the Upper Acceptance Limit (UAL) and one surrogate is < the LAL. Follow the external laboratory limits located within the associated data package.	UJ, P3c	J, P3c
☐	☒	☐	24. Required surrogate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P3d	R, P3d
☐	☒	☐	25. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, P12	J-, P12
☐	☒	☐	26. The LCS percent recovery was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, P12a	J-, P12a
☐	☒	☐	27. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, P12b
☐	☒	☐	28. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P12c	R, P12c
☐	☒	☐	29. The analyte was not confirmed on a second dissimilar column.	N/A	R, P8
☐	☒	☐	30. The second dissimilar column documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P8a	R, P8a
☐	☒	☐	31. Duplicate, Dilution, or reanalysis.	UJ, P88	J, P88

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2 Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	32. The affected analytes have elevated detection limits and may not meet project DQOs because the sample was diluted without any target analytees identified due to matrix interference. Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.	UJ, R, P15	R, P15
☒	☐	☐	33. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB, NQ, NQ
☐	☒	☐	34. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.	UJ, R, P19	J, R, P19

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10–939	**Date Collected:**	12/14/2009 12:00	**Matrix:**	R
Lab Sample ID:	243007002	**Date Received:**	12/16/2009 09:10	**%Moisture:**	13.5
		Client:	LANL010	**Project:**	LANL01004
Client ID:	WST03–10–2147	**Method:**	SW846 8082	**SOP Ref:**	GL–OA–E–040
Batch ID:	935393	**Inst:**	ECD1A.I	**Dilution:**	1
Run Date:	12/22/2009 12:28	**Analyst:**	JAOC	**Inj. Vol:**	1 uL
Prep Date:	12/21/2009 20:06	**Aliquot:**	30.05 g	**Final Volume:**	1 mL
Data File:	027f2701.d	**Column:**	1 CLP1	**Level:**	LOW
	027b2701.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	3.85	ug/kg	1.28	3.85	1
11104–28–2	Aroclor–1221	U	3.85	ug/kg	1.28	3.85	1
11141–16–5	Aroclor–1232	U	3.85	ug/kg	1.28	3.85	1
53469–21–9	Aroclor–1242	U	3.85	ug/kg	1.28	3.85	1
12672–29–6	Aroclor–1248	U	3.85	ug/kg	1.28	3.85	1
11097–69–1	Aroclor–1254	JP	2.90	ug/kg	1.28	3.85	1
11096–82–5	Aroclor–1260	J	3.50	ug/kg	1.28	3.85	2

P.S. 1/27/10

DATA VALIDATION COVER SHEET

5116-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-939 VALIDATION DATE: 01/27/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Peter Steves ORGANIZATION: Analytical Quality Associates, Inc

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☒ OTHER (DESCRIBE): Herbicides (TCLP and no-TCLP)

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. The non-TCLP CCV %D was >15% on both columns for dinoseb. The associated sample result was an ND and, thus, was qualified UJ,P7c. The TCLP CCV %Ds were >15% on a single column for 2,4-D and 2,4,5-TP. The associated sample results were NDs and, thus, were not qualified.
2. The non-TCLP MS/MSD %Rs and/or RPDs for several compounds were outside laboratory acceptance criteria. Since the analysis of an MS or MSD was not required for herbicides, no sample data were qualified as a result.

Reviewed by: Mary Donivan Level: I Date: 01/28/10

VALIDATOR'S SIGNATURE: Mr. Peter Steves DATE: 01/27/10

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2

Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, P9	J-, P9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, P9	J-, P9a
☐	☒	☐	3. The affected analytes are regarded as rejected because the analytical holding time was exceeded.	R, P9b	R, P9b
☐	☒	☐	4. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, P7	J, P7
☐	☒	☐	5. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, P7a	J, P7a
☒	☐	☐	6. The Initial Calibration Verification (ICV) and/or Continuing Calibration Verification (CCV) were recovered outside the method-specific limits.	UJ, P7c	J, P7c
☐	☒	☐	7. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, P7d	J, P7d
☐	☐	☒	8. The multicomponent standard was not analyzed within 72 hours of the initial analysis.	R, P7e	J, P7e
☐	☒	☐	9. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, P7f	R, P7f
☐	☐	☒	10. The breakdown criteria have been exceeded. This can cause low bias in reported results. If compound is detected, qualify J-. If compound is not present, but breakdown products are present, qualify R. If no compounds or breakdown products are present, qualify UJ (4,4' DDT and Endrin).	UJ, R, P13	J-, P13

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2

Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	11. The breakdown criteria have been exceeded. This can cause high bias in the reported results and potential false positive results for the breakdown products Endrin ketone, Endrin aldehyde, DDD, and DDE.	UJ, P13a	J+, P13a
☐	☐	☒	12. The breakdown documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P13b	R, P13b
☐	☒	☐	13. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, P4	N/A
☐	☒	☐	14. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was greater than 5X.	N/A	J, P4a
☐	☐	☒	15. The sample result is ≤5X the concentration of the related analyte in the instrument blank and continuing calibration blank.	UJ, P4b	N/A
☐	☐	☒	16. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	UJ, P4d	N/A
☐	☒	☐	17. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P4e	R, P4e
☐	☒	☐	18. The analyte RT shifted by more than 0.05 minutes from the mid-level standard of the initial calibration.	R, P0	J, P0
☐	☒	☐	19. Required retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P0b	R, P0b
☐	☒	☐	20. The surrogate is <10%R. Follow the external laboratory limits located within the associated data package.	R, P3	J-, P3

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2

Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	21. The surrogate is < the Lower Acceptance Level (LAL) but ≥10%R. Follow the external laboratory limits located within the associated data package.	UJ, P3a	J-, P3a
☐	☒	☐	22. The surrogate %R value is > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, P3b
☐	☐	☒	23. At least one surrogate is > the Upper Acceptance Limit (UAL) and one surrogate is < the LAL. Follow the external laboratory limits located within the associated data package.	UJ, P3c	J, P3c
☐	☒	☐	24. Required surrogate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P3d	R, P3d
☐	☒	☐	25. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, P12	J-, P12
☐	☒	☐	26. The LCS percent recovery was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, P12a	J-, P12a
☐	☒	☐	27. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, P12b
☐	☒	☐	28. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P12c	R, P12c
☐	☐	☒	29. The analyte was not confirmed on a second dissimilar column.	N/A	R, P8
☐	☐	☒	30. The second dissimilar column documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P8a	R, P8a
☐	☒	☐	31. Duplicate, Dilution, or reanalysis.	UJ, P88	J, P88

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2 Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	32. The affected analytes have elevated detection limits and may not meet project DQOs because the sample was diluted without any target analytees identified due to matrix interference. Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.	UJ, R, P15	R, P15
☒	☐	☐	33. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB, NQ, NQ
☐	☒	☐	34. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.	UJ, R, P19	J, R, P19

Herbicide
Certificate of Analysis
Sample Summary

SDG Number:	10–939	**Date Collected:**	12/14/2009 12:00	**Matrix:**	R
Lab Sample ID:	243007002	**Date Received:**	12/16/2009 09:10	**%Moisture:**	13.5
		Client:	LANL010	**Project:**	LANL01004
Client ID:	WST03–10–2147	**Method:**	SW846 8151A	**SOP Ref:**	GL–OA–E–011
Batch ID:	934339	**Inst:**	ECD6A.I	**Dilution:**	1
Run Date:	12/23/2009 16:18	**Analyst:**	HXJ1	**Inj. Vol:**	1 uL
Prep Date:	12/18/2009 08:56	**Aliquot:**	50.01 g	**Final Volume:**	10 mL
Data File:	043f4301.d	**Column:**	1 Rtx–CLP	**Level:**	LOW
	043b4301.d		2 Rtx–CLPII		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column	
75–99–0	Dalapon	U	116	ug/kg	23.1	116	1	
1918–00–9	Dicamba	U	5.78	ug/kg	1.92	5.78	1	
93–65–2	MCPP	U	1160	ug/kg	231	1160	1	
94–74–6	MCPA	U	1160	ug/kg	266	1160	1	
120–36–5	Dichlorprop	U	5.78	ug/kg	1.92	5.78	1	
94–75–7	2,4–D	U	5.78	ug/kg	1.92	5.78	1	
93–72–1	2,4,5–TP	U	5.78	ug/kg	1.92	5.78	1	
93–76–5	2,4,5–T	U	5.78	ug/kg	1.92	5.78	1	
94–82–6	2,4–DB	U	5.78	ug/kg	1.92	5.78	1	
88–85–7	Dinoseb	U	5.78	ug/kg	1.92	5.78	1	UJ,P7c

P.S. 1/27/10

Herbicide
Certificate of Analysis
Sample Summary

SDG Number:	10-939-1	**Date Collected:**	12/14/2009 12:00	**Matrix:**	TCLP R
Lab Sample ID:	243010001	**Date Received:**	12/16/2009 09:10		
		Client:	LANL010	**Project:**	LANL01004
Client ID:	WST03-10-2147	**Method:**	SW846 8151A	**SOP Ref:**	GL-OA-E-011
Batch ID:	935579	**Inst:**	ECD3A.I	**Dilution:**	1
Run Date:	12/23/2009 08:12	**Analyst:**	HXJ1	**Inj. Vol:**	1 uL
Prep Date:	12/22/2009 17:21	**Aliquot:**	5 mL	**Final Volume:**	10 mL
Data File:	035f3501.d	**Column:**	1 Rtx-CLPI	**Level:**	LOW
	035h3501.d		2 Rtx-CLPII		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
94-75-7	2,4-D	U	0.050	mg/L	0.0166	0.050	1
93-72-1	2,4,5-TP	U	0.050	mg/L	0.0166	0.050	1

P.S. 1/27/10

DATA VALIDATION COVER SHEET

5118-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY

Section I.

REQUEST NUMBER: 10-939 VALIDATION DATE: 01/27/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Peter Steves ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☒ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE): (TCLP and no-TCLP)

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☐	☐	☒	8. QUANTITATION REPORTS
☐	☐	☒	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. In the non-TCLP ICB/CCBs, Tl and Sb were detected. The associated sample results were detects ≤5X the greatest associated blank concentration and, thus, were qualified U,I4b.
2. The non-TCLP MS %R was < the laboratory LAL but ≥10% for Se. The associated sample result was an ND and, thus, was qualified UJ,I6a. The non-TCLP MS %Rs were > the laboratory UAL for K, Ba and Cu. The associated sample results were detects and, thus, were qualified J+,I6b. Also, the non-TCLP MS %Rs were > the laboratory UAL for Mg, Mn, Al, Ca and Fe. However, the associated parent sample concentrations were >4X the spike concentrations. Thus, the associated sample results were not qualified, based on professional judgment.

Reviewed by: Mary Donivan Level: I Date: 01/28/10

VALIDATOR'S SIGNATURE: Mr. Peter Steves DATE: 01/27/10

METALS ANALYTICAL DATA VALIDATION CHECKLIST

5118-2

Metals Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, I9	J-, I9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, I9a	J-, I9a
☐	☐	☒	3. The instrument performance sample did not pass method acceptance criteria.	R, I16	R, I16
☐	☐	☒	4. The mass calibration is not within 0.1 amu or %RSD is >5% for any isotope (Be, Mg, Co, In, Pb).	UJ, I16a	J, I16a
☐	☐	☒	5. Samples were analyzed outside specific method tune time criteria.	N/A	J, I16b
☐	☐	☒	6. The required instrument performance sample information is missing. Contact the SMO or external laboratory for information.	R, I16c	R, I16c
☐	☒	☐	7. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, I7	J, I7
☐	☒	☐	8. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, I7a	J, I7a
☐	☒	☐	9. The initial Calibration Verification (ICV) and/or Continuing Calibration Verification (CCV) were recovered outside the method-specific limits.	UJ, I7c	J, I7c
☐	☒	☐	10. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, I7d	J, I7d
☐	☒	☐	11. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, I7f	R, I7f
☐	☒	☐	12. Metals interference check sample percent recover value is <50%.	R, I2	J-, I2

METALS ANALYTICAL DATA VALIDATION CHECKLIST	
5118-2 Metals Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	13. Metals interference check sample percent recovery value is ≥50% and <80%	UJ, I2a	J-, I2a
☐	☒	☐	14. Metals interference check sample percent recovery value is >120%.	N/A	J+, I2b
☐	☒	☐	15. Metals interference check sample was not analyzed with the samples.	R, I2c	R, I2c
☐	☒	☐	16. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, I4	N/A
☐	☒	☐	17. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X.	N/A	J, I4a
☒	☐	☐	18. The sample result is ≤5X the concentration of the related analyte in the instrument blank and continuing calibration blank.	U, I4b	N/A
☐	☒	☐	19. Continuing calibration blanks were not analyzed at the appropriate method frequency.	UJ, I4c	J, I4c
☐	☐	☒	20. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	U, I4d	N/A
☐	☒	☐	21. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, I4e	R, I4e
☐	☒	☐	22. The associated matrix spike recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I6	R, I6
☒	☐	☐	23. The associated matrix spike recovery was <the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I6a	J+, I6a
☒	☐	☐	24. The associated matrix spike recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	UJ, I6b	J+, I6b

METALS ANALYTICAL DATA VALIDATION CHECKLIST	
5118-2 Metals Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	25. Required matrix spike information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. If the LCS information is present, do not Reject. Qualify data based on the LCS information.	R, I6c	R, I6c
☐	☒	☐	26. The sample and the duplicate sample results were ≥5X the RL and the duplicate RPD was >20% for water samples and >35% for soil samples.	UJ, I10a	J, I10a
☐	☒	☐	27. The duplicate sample was not prepared and/or analyzed with the samples for unspecified reasons. The duplicate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	UJ, I10d	J, I10d
☐	☒	☐	28. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I12	R, I12
☐	☒	☐	29. The LCS percent recover was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I12a	J-, I12a
☐	☒	☐	30. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, I12b
☐	☒	☐	31. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. Do not Reject if MS/MSD information is present. Qualify according to MS/MSD criteria.	R, I12c	R, I12c
☐	☐	☒	32. The quantitating IS area count is <10% for metals window in relation to the initial calibration blank. Follow the method-specific windows.	R, I1a	J, I1a

METALS ANALYTICAL DATA VALIDATION CHECKLIST

5118-2

Metals Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	33. The IS area count for the quantitating IS is <60% but >10% for metals window in relation to the initial calibration blank. Follow the method-specific windows.	UJ, I1b	J, I1b
☐	☐	☒	34. The IS area count for the quantitating IS is >125% in relation to the metals initial calibration blank. Follow method-specific windows.	UJ, I1c	J, I1c
☐	☐	☒	35. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, I1d	R, I1d
☐	☐	☒	36. Serial dilution sample RPD was >10% and the sample result was >50X the MDL (>100X the MDL for ICPMS). Qualify ONLY the sample used for the serial dilution.	UJ, I18	J, I18
☐	☐	☒	37. Serial dilution sample was not analyzed with the samples.	UJ, I18a	J, I18
☐	☐	☒	38. The sample result was reported as detected between the IDL and the EDL.	N/A	J, I1
☐	☒	☐	39. Duplicate, dilution, or reanalysis.	UJ, I88	J, I88
☒	☐	☐	40. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB, NQ, NQ
☐	☒	☐	41. The LANL project chemist identified quality deficiencies in the reported data that require further qualification. This code can ONLY be used and/or under advisement by the LANL project chemist.	UJ, R, I19	J, R, I19

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-939 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 243007002 **BASIS:** Dry Weight **DATE COLLECTED** 14-DEC-09

CLIENT ID: WST03-10-2147 **LEVEL:** Low **DATE RECEIVED** 16-DEC-09

MATRIX: SOIL **%SOLIDS:** 87

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	12200000	ug/kg		7660	22500	22500	1	P	HSC	12/19/09 07:14	121909B-1	934468
7440-36-0	Antimony U,I4b	1670	ug/kg		372	1130	1130	1	P	HSC	12/19/09 07:14	121909B-1	934468
7440-38-2	Arsenic	1880	ug/kg		221	1110	1110	2	MS	BAJ	12/20/09 15:50	091220-3	934470
7440-39-3	Barium J+,I6b	134000	ug/kg	N	113	563	563	1	P	HSC	12/19/09 07:14	121909B-1	934468
7440-41-7	Beryllium	742	ug/kg		22.1	111	111	2	MS	BAJ	12/20/09 15:50	091220-3	934470
7440-43-9	Cadmium	350	ug/kg	J	113	563	563	1	P	HSC	12/19/09 07:14	121909B-1	934468
7440-70-2	Calcium	2360000	ug/kg		9010	28200	28200	1	P	HSC	12/19/09 07:14	121909B-1	934468
7440-47-3	Chromium	18100	ug/kg		169	563	563	1	P	HSC	12/19/09 07:14	121909B-1	934468
7440-48-4	Cobalt	5370	ug/kg		169	563	563	1	P	HSC	12/19/09 07:14	121909B-1	934468
7440-50-8	Copper J+,I6b	13600	ug/kg	*N	338	1130	1130	1	P	HSC	12/19/09 07:14	121909B-1	934468
7439-89-6	Iron	15500000	ug/kg		9010	28200	28200	1	P	HSC	12/19/09 07:14	121909B-1	934468
7439-92-1	Lead	20200	ug/kg		282	1130	1130	1	P	HSC	12/19/09 07:14	121909B-1	934468
7439-95-4	Magnesium	2320000	ug/kg		9580	33800	33800	1	P	HSC	12/19/09 07:14	121909B-1	934468
7439-96-5	Manganese	319000	ug/kg		225	1130	1130	1	P	HSC	12/19/09 07:14	121909B-1	934468
7439-97-6	Mercury	65.4	ug/kg	*	4.38	12.9	12.9	1	AV	JXL1	12/22/09 10:50	122209S1-4	934379
7440-02-0	Nickel	7620	ug/kg		111	443	443	2	MS	BAJ	12/20/09 15:50	091220-3	934470
7440-09-7	Potassium J+,I6b	1520000	ug/kg	N	7210	28200	28200	1	P	HSC	12/19/09 07:14	121909B-1	934468
7782-49-2	Selenium UJ,I6a	1110	ug/kg	UN	554	1110	1110	2	MS	BAJ	12/20/09 15:50	091220-3	934470
7440-22-4	Silver	148	ug/kg	J	113	563	563	1	P	HSC	12/19/09 07:14	121909B-1	934468
7440-23-5	Sodium	177000	ug/kg		7890	28200	28200	1	P	HSC	12/19/09 07:14	121909B-1	934468
7440-28-0	Thallium U,I4b	244	ug/kg		66.4	221	221	2	MS	BAJ	12/20/09 15:50	091220-3	934470
7440-62-2	Vanadium	19200	ug/kg		113	563	563	1	P	JWJ	12/23/09 20:03	122309-2	935146
7440-66-6	Zinc	68900	ug/kg		372	1130	1130	1	P	HSC	12/19/09 07:14	121909B-1	934468

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
934379	934377	SW846 7471A Prep	0.539	g	30	mL	12/21/09	TXB3
934468	934467	SW846 3050B	0.513	g	50	mL	12/18/09	BCD1
934470	934469	SW846 3050B	0.522	g	50	mL	12/18/09	BCD1
935146	935145	SW846 3050B	0.513	g	50	mL	12/21/09	AXG2

P.S. 1/27/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-939-1 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 243010001 **BASIS:** As Received **DATE COLLECTED** 14-DEC-09

CLIENT ID: WST03-10-2147 **LEVEL:** Low **DATE RECEIVED** 16-DEC-09

MATRIX: TCLP **%SOLIDS:** 0

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7440-38-2	Arsenic	0.0355	mg/L	J	0.016	0.05	0.05	1	MS	BAJ	12/21/09 19:27	091221-1	935115
7440-39-3	Barium	0.850	mg/L		0.006	0.02	0.02	1	MS	BAJ	12/21/09 19:27	091221-1	935115
7440-43-9	Cadmium	0.010	mg/L	U	0.0011	0.01	0.01	1	MS	BAJ	12/21/09 19:27	091221-1	935115
7440-47-3	Chromium	0.0257	mg/L	J	0.02	0.1	0.1	1	MS	BAJ	12/21/09 19:27	091221-1	935115
7439-92-1	Lead	0.020	mg/L	U	0.005	0.02	0.02	1	MS	BAJ	12/21/09 19:27	091221-1	935115
7439-97-6	Mercury	0.000808	mg/L	J	0.00066	0.002	0.002	1	AV	JXL1	12/22/09 11:38	122209W1-2	935282
7782-49-2	Selenium	0.050	mg/L	U	0.01	0.05	0.05	1	MS	BAJ	12/21/09 19:27	091221-1	935115
7440-22-4	Silver	0.010	mg/L	U	0.002	0.01	0.01	1	MS	BAJ	12/21/09 19:27	091221-1	935115

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
935115	935114	SW846 3010A	5	mL	50	mL	12/21/09	AXG2
935282	935279	SW846 7470A Prep	2	mL	20	mL	12/21/09	TXB3

P.S. 1/27/10

DATA VALIDATION COVER SHEET

5120-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY

Section I.

REQUEST NUMBER: 10-939 VALIDATION DATE: 01/27/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Peter Steves ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☒ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE): Total CN only

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☐	☐	☒	8. QUANTITATION REPORTS
☐	☐	☒	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. The MS %R was > the laboratory UAL. The associated sample result was a detect and, thus, was qualified J+,I6b. It should be noted that the matrix QC analysis was performed on a LANL sample from another RN. No sample data were qualified as a result.

Reviewed by: Mary Donivan Level: I Date: 01/28/10

VALIDATOR'S SIGNATURE: Mr. Peter Steves DATE: 01/27/10

GENERAL CHEMISTRY ANALYTICAL DATA VALIDATION CHECKLIST

5120-2

General Chemistry Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, I9	J-, I9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, I9a	J-, I9a
☐	☐	☒	3. The affected analytes are regarded as rejected because the analytical holding time was exceeded.	R, I9b	R, I9b
☐	☒	☐	4. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, I7	J, I7
☐	☒	☐	5. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, I7a	J, I7a
☐	☒	☐	6. The ICV and/or CCV were recovered outside the method specific limits.	UJ, I7c	J, I7c
☐	☒	☐	7. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, I7d	J, I7d
☐	☒	☐	8. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, I7f	R, I7f
☐	☐	☒	9. The interference check sample percent recovery value is <50%.	R, I2	J-, I2
☐	☐	☒	10. The interference check sample percent recovery value is ≥50% and <80%.	UJ, I2a	J-, I2a
☐	☐	☒	11. The interference check sample percent recovery value is >120%.	N/A	J+, I2b
☐	☐	☒	12. The interference check sample was not analyzed with the samples.	R, I2c	R, I2c
☐	☒	☐	13. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, I4	N/A

GENERAL CHEMISTRY ANALYTICAL DATA VALIDATION CHECKLIST	
5120-2 General Chemistry Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	14. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X.	N/A	J, I4a
☐	☒	☐	15. The sample result is ≤5X the concentration of the related analyte in the instrument blank and continuing calibration blank.	U, I4b	N/A
☐	☒	☐	16. Continuing calibration blanks were not analyzed at the appropriate method frequency.	UJ, I4c	J, I4c
☐	☐	☒	17. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	U, I4d	N/A
☐	☒	☐	18. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, I4e	R, I4e
☐	☒	☐	19. The associate matrix spike recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I6	R, I6
☐	☒	☐	20. The associated matrix spike recovery was below the Lower Acceptance Limit (LAL) but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I6a	J-, I6a
☒	☐	☐	21. The associated matrix spike recovery was above the Upper Acceptance Limit (UAL). Follow the external laboratory limits located within the associated data package.	UJ, I6b	J+, I6b
☐	☒	☐	22. Required matrix spike information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. If LCS information is present, do not reject. Qualify data based on LCS information.	R, I6c	R, I6c
☐	☒	☐	23. The sample and/or the duplicate sample results RPD is not within the acceptance limits. Follow the external laboratory limits located within the associated data package.	UJ, I10b	J, I10b

GENERAL CHEMISTRY ANALYTICAL DATA VALIDATION CHECKLIST	
5120-2 **General Chemistry Analytical Data Validation Checklist**	Records Use only Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	24. The duplicate sample was not prepared and/or analyzed with the samples for unspecified reasons. The duplicate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	UJ, I10d	J, I10d
☐	☒	☐	25. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I12	R, I12
☐	☒	☐	26. The LCS percent recover was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I12a	J-, I12a
☐	☒	☐	27. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, I12b
☐	☒	☐	28. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. Do not Reject if MS/MSD information is present. Qualify according to MS/MSD criteria.	R, I12c	R, I12c
☐	☒	☐	29. Duplicate, dilution, or reanalysis	UJ, I88	J, I88
☐	☒	☐	30. The LANL project chemist identified quality deficiencies in the reported data that require further qualification. This code can ONLY be used and/or under advisement by the LANL project chemist.	UJ, R, I19	J, R, I19
☒	☐	☐	31. Qualification of data via data validation does not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB NQ, NQ (no qualification)

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: December 29, 2009

Client SDG: 10-939

Client Sample ID:	WST03-10-2147	Project:	LANL01004
Sample ID:	243007002	Client ID:	LANL010
Matrix:	R		
Collect Date:	14-DEC-09 12:00		
Receive Date:	16-DEC-09		
Collector:	Client		
Moisture:	13.5%		

Parameter	Qualifier	Result		DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis											
SW9012A Cyanide, Total Federal "Dry Weight Corrected"											
Cyanide, Total	J	134	J+,I6b	74.2	273	ug/kg	1	AXC2 12/22/09	1514	934285	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	12/21/09	1327	934282

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

P.S. 1/27/10

DATA VALIDATION COVER SHEET

5119-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-939 VALIDATION DATE: 01/27/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Peter Steves ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☒ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE):

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☐	☐	☒	8. QUANTITATION REPORTS
☐	☐	☒	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. It should be noted that all associated alpha-spec QC analyses were performed on LANL samples from other RNs. No sample data were qualified as a result.
2. An LCS was analyzed and evaluated in lieu of an MS sample for tritium. Acceptance criteria were met and, thus, no sample data were qualified as a result.

Reviewed by: Mary Donivan Level: I Date: 01/28/10

VALIDATOR'S SIGNATURE: Mr. Peter Steves DATE: 01/27/10

RAD ANALYTICAL DATA VALIDATION CHECKLIST

5119-2

Rad Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, R9	J-, R9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, R9a	J-, R9a
☐	☐	☒	3. The results for the affected analytes are considered not detected (U) because the associated sample concentration was less than or equal to the MDC.	U, R5	N/A
☐	☐	☒	4. The analyte should be regarded as rejected because spectral interferences prevent positive identification of the analytes.	R, R5a	R, R5a
☐	☒	☐	5. The MDC and/or TPU documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, R5b	J-, R5b
☐	☐	☒	6. The results for the affected analytes should be regarded as not detected (U) because the associated sample concentration was less than 3X the 1 sigma TPU.	U, R11	N/A
☐	☒	☐	7. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, R4	N/A
☐	☒	☐	8. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X.	N/A	J, R4a
☐	☐	☒	9. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	U, R4d	N/A
☐	☒	☐	10. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, R4e	R, R4e
☐	☒	☐	11. The tracer is <10%R. Follow the external laboratory limits located within the associated data package. Tracer%R is not applicable for Gamma Spectroscopy.	R, R3	R, R3

RAD ANALYTICAL DATA VALIDATION CHECKLIST

5119-2 Rad Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	12. The tracer is < the Lower Acceptance Level (LAL) but ≥10%R. Follow the external laboratory limits located within the associated data package. Tracer%R is not applicable for Gamma Spectroscopy.	UJ, R3a	J-, R3a
☐	☒	☐	13. The Tracer%R value is > the Upper Acceptance Limit (UAL). Follow the external laboratory limits located within the associated data package. Tracer%R is not applicable for Gamma Spectroscopy.	N/A	J+, R3b
☐	☒	☐	14. Required tracer information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. Tracer%R is not applicable for Gamma Spectroscopy.	R, R3d	R, R3d
☐	☒	☐	15. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, R12	R, R12
☐	☒	☐	16. The LCS percent recovery was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, R12a	J-, R12a
☐	☒	☐	17. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, R12b
☐	☒	☐	18. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, R12c	R, R12c
☐	☒	☐	19. Associated duplicate sample has DER or RER > the analytical laboratory's acceptance limits.	R, R10	J, J10
☐	☒	☐	20. The duplicate sample was not prepared and/or analyzed with the samples for unspecified reasons. The duplicate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, R6	R, R6

RAD ANALYTICAL DATA VALIDATION CHECKLIST

5119-2

Rad Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	21. The associated matrix spike recovery was <10%. Follow the external laboratory limits. MS/MSD is not applicable to Gamma Spectroscopy.	R, R6	R, R6
☐	☐	☒	22. The associated matrix spike recovery was <10%. Follow the external laboratory limits. MS/MSD is not applicable to Gamma Spectroscopy.	UJ, R6a	J-, R6a
☐	☐	☒	23. The associated matrix spike recovery was above the UAL. Follow the external laboratory limits. MS/MSD is not applicable to Gamma Spectroscopy.	UJ, R6b	J+, R6b
☒	☐	☐	24. Required matrix spike information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. If LCS information is present, do not Reject. Qualify data based on LCS information. MS/MSD is not applicable to Gamma Spectroscopy.	R, R6c	R, R6c
☐	☒	☐	25. Duplicate, dilution, or reanalysis.	UJ, R88	J, R88
☐	☒	☐	26. The LANL project chemist identified quality deficiencies in the reported data that require further qualification. This code can ONLY be used and/or under advisement by the LANL project chemist.	UJ, R, R19	J, R, R19
☒	☐	☐	27. Quantification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB NQ, NQ

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: December 30, 2009

Client Sample ID:	WST03-10-2147	Project:	LANL01004
Sample ID:	243007002	Client ID:	LANL010
Matrix:	R		
Collect Date:	14-DEC-09		
Receive Date:	16-DEC-09		
Collector:	Client		
Moisture:	13.5%		

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids												
"As Received"												
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241		0.178	0.0201	+/-0.0171	0.050	pCi/g		MXE1	12/24/09	1314	934644	2
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	0.00233	0.0189	+/-0.00754	0.050	pCi/g		MXE1	12/23/09	1607	934649	4
Plutonium-239/240	U	0.00233	0.0213	+/-0.00329	0.050	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		1.02	0.173	+/-0.108	0.100	pCi/g		MXA1	12/28/09	2012	934652	5
Uranium-235/236	U	0.0777	0.105	+/-0.028	0.100	pCi/g						
Uranium-238		0.846	0.0958	+/-0.0936	0.100	pCi/g						
Rad Gas Flow Proportional Counting												
SR90 "Dry Weight Corrected"												
Strontium-90	U	0.0147	0.278	+/-0.0742	0.500	pCi/g		JXR1	12/23/09	1615	934816	7
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		755	240	+/-104	250	pCi/L		KXK2	12/23/09	1154	935328	8

The following Analytical Methods were performed

Method	Description
1	ASTM D 2216 (Modified)
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Am-05-RC Modified
4	DOE EML HASL-300, Pu-11-RC Modified
5	DOE EML HASL-300, U-02-RC Modified
6	DOE EML HASL-300, U-02-RC Modified
7	EPA 905.0 Modified
8	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	88.8	(50%-105%)

P.S. 1/27/10

Tuesday, December 15, 2009

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-939

REQUEST NUMBER: 10-939

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 12/30/2009

TURNAROUND REQ'D: 15

LAB REQUEST COMMENTS: 243007, 243010

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
WST03-10-2200	1	SEPTUM AMBER GLASS	8260B Trip Blank	Ice	S
WST03-10-2147	1	GLASS	8081A+8151A	Ice	R
WST03-10-2147	1	GLASS	8260B+TPH-GRO	Ice	R
WST03-10-2147	2	GLASS	8260B+TPH-GRO	Ice	R
WST03-10-2147	1	GLASS	8270C+8082+TPH-DRO	Ice	R
WST03-10-2147	1	POLY	AM-241+ISOPU+ISOU+SR90	None	R
WST03-10-2147	1	POLY	H3	Ice	R
WST03-10-2147	1	POLY	TAL metals + TCLP metals	Ice	R
WST03-10-2147	1	AMBER GLASS	TCLP ORGANICS P/H/S/V	Ice	R
WST03-10-2147	1	POLY	TCN	Ice	R

Relinquished By:		Date	Time	Received By:		Date	Time
[illegible]	[illegible]	12/15/09	1400	Patricia Dover-Dent	P. Dover-Dent	12-16-09	09:10
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

Received for DISPOSAL By: **Date** **Time** **Remarks:**

Printed Name Signature

Tuesday, December 15, 2009

REQUEST NUMBER: 10-939

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis
General Engineering Laboratories, Inc., Charleston, SC.
2040 Savage Rd
Charleston, SC 29407

These Samples are on:
LANL Request Number:10-939
Per Agreement Number:126310011
Project Cost Code: MR2A054196D0

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 12/15/2009
TURNAROUND/REPORT DUE: 12/30/2009
TURNAROUND REQ'D: 15 Days

RAD SCREENING: Not Required
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:908.0	1	WST03-10-2147	R	12/14/2009	
	HASL-300:ISOPU	1	WST03-10-2147	R	12/14/2009	
	HASL-300:ISOU	1	WST03-10-2147	R	12/14/2009	
	SW-846:6010B	1	WST03-10-2147	R	12/14/2009	
	SW-846:8015M_EXTRACTABLE	1	WST03-10-2147	R	12/14/2009	
	SW-846:8015M_PURGEABLE	1	WST03-10-2147	R	12/14/2009	
		2	WST03-10-2147	R	12/14/2009	

Tuesday, December 15, 2009

REQUEST NUMBER: 10-939

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8081A	1	WST03-10-2147	R	12/14/2009	
	SW-846:8081A_TCLP	1	WST03-10-2147	R	12/14/2009	
	SW-846:8082	1	WST03-10-2147	R	12/14/2009	
	SW-846:8151A	1	WST03-10-2147	R	12/14/2009	
	SW-846:8151A_TCLP	1	WST03-10-2147	R	12/14/2009	
	SW-846:8260B	1	WST03-10-2147	R	12/14/2009	
		2	WST03-10-2147	R	12/14/2009	
		1	WST03-10-2200	S	12/14/2009	
	SW-846:8260B_TCLP	1	WST03-10-2147	R	12/14/2009	
	SW-846:8270C	1	WST03-10-2147	R	12/14/2009	
	SW-846:8270C_TCLP	1	WST03-10-2147	R	12/14/2009	
	SW-846:9012A	1	WST03-10-2147	R	12/14/2009	

Final Page of REQUEST NUMBER 10-939

GEL Laboratories LLC

a member of The GEL Group INC

PO Box 30712 Charleston, SC 29417
2040 Savage Road Charleston, SC 29407
P 843.556.8171 F 843.766.1178

www.gel.com

January 19, 2010

Ms. Joylene Valdez
Los Alamos National Laboratory
PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545

Re: LANL ER Project
Work Orders: 243007 243010
SDG: 10-939

Dear Ms. Valdez:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the following analytical results for the sample(s) we received on December 16, 2009, and analyzed for FID Flame Ionization Detector, GC Semivolatile Herbicide, GC Semivolatile PCB, GC Semi de, GC Volatiles (GRO), GC/MS Semivolatile, GC/MS Volatile, General Chemistry, Metals and Radiochemistry. This revised report is being submitted to include the Radiochemistry data.

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 4485.

Sincerely,

for Francis

Valerie Davis
Project Manager

Purchase Order: 72733-001-09
Chain of Custody: 10-939 and
Enclosures

problem solved

Case Narrative **1**

Chain of Custody and Supporting Documentation **4**

Data Review Qualifier Flag Definition Sheet **13**

GC/MS Volatile Analysis **15**
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Sample Data Summary 21
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Sample Data 49
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GC/MS Volatile Analysis **187**
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Sample Data 204
Standard Data 209
QC Data 242
Miscellaneous Data 268

GC/MS Semivolatile Analysis **271**
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Sample Data 301
Standard Data 311
QC Data 363
Miscellaneous Data 412

GC/MS Semivolatile Analysis **420**
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Sample Data 439
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QC Data 486
Miscellaneous Data 512

GC Semivolatile DRO Analysis **528**
Sample Data Summary 533

Quality Control Summary 535
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GC Volatile GRO Analysis 577
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GC Semivolatile Pesticide Analysis 629
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Quality Control Data 730
Miscellaneous Data 778

GC Semivolatile Pesticide Analysis 784
Sample Data Summary 791
Quality Control Summary 793
Sample Data 805
Standards Data 811
Quality Control Data 927
Miscellaneous Data 969

GC Semivolatile PCB Analysis 1012
Sample Data Summary 1018
Quality Control Summary 1020
Sample Data 1026
Standards Data 1034
Quality Control Data 1109
Miscellaneous Data 1122

GC Semivolatile Herbicide Analysis 1144
Sample Data Summary 1150
Quality Control Summary 1152

Sample Data 1158
Standards Data 1164
Quality Control Data 1213
Miscellaneous Data 1240

GC Semivolatile Herbicide Analysis 1246
Sample Data Summary 1252
Quality Control Summary 1254
Sample Data 1260
Standards Data 1266
Quality Control Data 1312
Miscellaneous Data 1350

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Sample Data Summary 1769
Quality Control Summary 1771
Standards 1793
Raw Data 1797
Miscellaneous 1895

General Chemistry Analysis 1924
Case Narrative 1925
Sample Data Summary 1930
Quality Control Summary 1933
Instrument QC Data Summary 1936
Cyanide, Total 1938
Miscellaneous 1951

Radiological Analysis 1953
Sample Data Summary 1964
Quality Control Data 1968
Raw Data 1972

Background and Efficiency Data 2024
Standards Data 2080
Runlogs 2113

Case Narrative

Case Narrative for
Los Alamos National Laboratory (72733-001-09)
LANL ER Project
Workorder #: 243007 and 243010
SDG # : 10-939

December 19, 2009

Laboratory Identification:

GEL Laboratories LLC
2040 Savage Road
Charleston, South Carolina 29407
(843) 556-8171

Summary

Sample receipt The samples arrived at GEL Laboratories LLC, Charleston, South Carolina on December 16, 2009 for analysis. The samples were prepared/analyzed within the required holding time. Shipping container temperatures were checked, documented, and within specifications. The samples were screened according to GEL Standard Operating Procedure. The lab did not receive the H3 and AM241+ISOPU+PU+SR90 poly containers for sample WST03-10-2147. Los Alamos was notified. Please see attached e-mail. All sample containers arrived without any visible signs of tampering or breakage. Containers were checked for pH, where appropriate, and matched the preservative as documented on the accompanying chain of custody. Shipping container temperature was within specification (0 - 6C).

Sample Identification The laboratory received the following samples:

Laboratory ID	Client ID
243007001	WST03-10-2200
243007002	WST03-10-2147
243010001	WST03-10-2147

Case Narrative

Sample analyses were conducted using methodology as outlined in GEL Laboratories, LLC (GEL) Standard Operating Procedures. Any technical or administrative problems during analysis, data review, and reduction are contained in the analytical case narratives in the enclosed data package.

Data Package The enclosed data package contains the following sections: Case Narrative, Chain of Custody, Cooler Receipt Checklist, Data Package Qualifier Definitions and data from the following fractions: FID Flame Ionization Detector, GC Semivolatile Herbicide, GC Semivolatile PCB, GC Semivolatile Pesticide, GC Volatiles (GRO), GC/MS Semivolatile, GC/MS Volatile, General Chemistry, Metals and Radiochemistry.

I certify that this data report is in compliance with the terms and conditions of the subcontract and task order, both technically and for completeness, for other than the conditions detailed in the attached case narrative.

for

Valerie Davis

Project Manager

List of current GEL Certifications as of 19 December 2009

State	Certification
Arizona	AZ0668
Arkansas	88–0651
CLIA	42D0904046
California – NELAP	01151CA
Colorado	GEL
Connecticut	PH–0169
Dept. of Navy	NFESC 413
EPA Region 5	WG–15J
Florida – NELAP	E87156
Georgia	E87156 (FL/NELAP)
Georgia DW	967
Hawaii	N/A
ISO 17025	2567.01
Idaho	SC00012
Illinois – NELAP	200029
Indiana	C–SC–01
Kansas – NELAP	E–10332
Kentucky	90129
Louisiana – NELAP	03046
Maryland	270
Massachusetts	M–SC012
Nevada	SC00012
New Jersey – NELAP	SC002
New Mexico	FL NELAP E87156
New York – NELAP	11501
North Carolina	233
North Carolina DW	45709
Oklahoma	9904
Pennsylvania – NELAP	68–00485
South Carolina	10120001/10120002
Tennessee	TN 02934
Texas – NELAP	T104704235–07B–TX
U.S. Dept. of Agriculture	S–52597
Utah – NELAP	GEL
Vermont	VT87156
Virginia	00151
Washington	C1641

Chain of Custody and Supporting Documentation

Tuesday, December 15, 2009

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-939

REQUEST NUMBER: 10-939

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 12/30/2009

TURNAROUND REQ'D: 15

LAB REQUEST COMMENTS: 243007, 243010 1/.

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
WST03-10-2200	1	SEPTUM AMBER GLASS	8260B Trip Blank	Ice	S
WST03-10-2147	1	GLASS	8081A+8151A	Ice	R
WST03-10-2147	1	GLASS	8260B+TPH-GRO	Ice	R
WST03-10-2147	2	GLASS	8260B+TPH-GRO	Ice	R
WST03-10-2147	1	GLASS	8270C+8082+TPH-DRO	Ice	R
WST03-10-2147	1	POLY	AM-241+ISOPU+ISOU+SR90	None	R
WST03-10-2147	1	POLY	H3	Ice	R
WST03-10-2147	1	POLY	TAL metals + TCLP metals	Ice	R
WST03-10-2147	1	AMBER GLASS	TCLP ORGANICS P/H/S/V	Ice	R
WST03-10-2147	1	POLY	TCN	Ice	R

Relinquished By:		Date	Time	Received By:		Date	Time
[illegible]		12/15/09	1400	Patricia Dover-Dent	P. Dover-Dent	12-16-09	09.10
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

Received for DISPOSAL By: **Date** **Time** **Remarks:**

Printed Name Signature

Tuesday, December 15, 2009

REQUEST NUMBER: 10-939

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

These Samples are on:

LANL Request Number:10-939

Per Agreement Number:126310011

Project Cost Code: MR2A054196D0

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 12/15/2009

TURNAROUND/REPORT DUE: 12/30/2009

TURNAROUND REQ'D: 15 Days

RAD SCREENING: Not Required

LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:

Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:906.0	1	WST03-10-2147	R	12/14/2009	
	HASL-300:ISOPU	1	WST03-10-2147	R	12/14/2009	
	HASL-300:ISOU	1	WST03-10-2147	R	12/14/2009	
	SW-846:6010B	1	WST03-10-2147	R	12/14/2009	
	SW-846:8015M_EXTRACTABLE	1	WST03-10-2147	R	12/14/2009	
	SW-846:8015M_PURGEABLE	1	WST03-10-2147	R	12/14/2009	
		2	WST03-10-2147	R	12/14/2009	

Tuesday, December 15, 2009

REQUEST NUMBER: 10-939

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8081A	1	WST03-10-2147	R	12/14/2009	
	SW-846:8081A_TCLP	1	WST03-10-2147	R	12/14/2009	
	SW-846:8082	1	WST03-10-2147	R	12/14/2009	
	SW-846:8151A	1	WST03-10-2147	R	12/14/2009	
	SW-846:8151A_TCLP	1	WST03-10-2147	R	12/14/2009	
	SW-846:8260B	1	WST03-10-2147	R	12/14/2009	
		2	WST03-10-2147	R	12/14/2009	
		1	WST03-10-2200	S	12/14/2009	
	SW-846:8260B_TCLP	1	WST03-10-2147	R	12/14/2009	
	SW-846:8270C	1	WST03-10-2147	R	12/14/2009	
	SW-846:8270C_TCLP	1	WST03-10-2147	R	12/14/2009	
	SW-846:9012A	1	WST03-10-2147	R	12/14/2009	

Final Page of REQUEST NUMBER 10-939

GEL Laboratories LLC

SAMPLE RECEIPT & REVIEW FORM

Client:LANL	**SDG/ARCOC/Work Order:10-939**
Received By:Patricia Dover-Dent	**Date Received:December 16, 2009**

Suspected Hazard Information	**Yes**	**No**	*If Counts > x2 area background on samples not marked "radioactive", contact the Radiation Safety Group of further
COC/Samples marked as radioactive?		X	Maximum Counts Observed*:40CPM
Classified Radioactive II by RSO?		X	
COC/Samples marked containing PCBs?		X	
Shipped as a DOT Hazardous?		X	Hazard Class Shipped: UN#:
Samples identified as Foreign Soil?		X	

	Sample Receipt Criteria	**Yes**	**NA**	**No**	**Comments/Qualifiers (Required for Non-Conforming Items)**
1	Shipping containers received intact and sealed?	X			Circle Applicable: seals broken damaged container leaking container other (describe
2	Samples requiring cold preservation within (0 < 6 deg. C?	X			Preservation Method: ice bags **BLUE ICE** dry ice **NONE** other (describe) **1-3,14**
3	Chain of custody documents included with shipment?	X			
4	Sample containers intact and sealed?	X			Circle Applicable: seals broken damaged container leaking container other (describe)
5	Samples requiring chemical preservation at proper pH?		X		Sample ID's, containers affected and observed pH. If Preservative added, Lot#
6	VOA vials free of headspace (defined as < 6mm bubble)?		X		Sample ID's and containers affected:
7	Are Encore containers present?			X	(If yes, immediately deliver to Volatiles laboratory)
8	Samples received within holding time?	X			Id's and tests affected:
9	Sample ID's on COC match ID's on bottles?	X			Sample ID's and containers affected:
10	Date & time on COC match date & time on bottles?		X		Sample ID's affected: **No Time on Chain of Custody**
11	Number of containers received match number indicated on COC?			X	Sample ID's affected: **WST03-10-2147 for AM241+ISOPU+ISOU+SR90 and H3, The lab did not receive containers.**
12	COC form is properly signed in relinquished/received sections?	X			

Comments:FED EX #'S

7209 7849 2417 1C
7209 7849 2440 1C
7209 7849 2369 2C
7209 7849 2370 2C
7209 7849 2406 2C
7209 7849 2439 2C
7209 7849 2358 3C
7209 7849 2428 3C
7209 7849 2450 3C
7209 7849 2461 3C
7209 7849 2347 14C

PM (or PMA) review: Initials _____ Date 12/17/09

Subject: Re: Sample Receipt for 12/16/09
From: Dionne Francis <Dionne.Francis@gel.com>
Date: Mon, 21 Dec 2009 12:20:15 -0500
To: "Keith R. Greene" <kgreene@lanl.gov>, Joylene Valdez <joylenev@lanl.gov>

Keith,

RN 10-928, 941, 939: containers rec'd on 12/17/09

RN 10-927: we still have not rec'd RE16-10-173, 172, 166, 176, 177, 171, 169, 170,175 and 176.

Please advise.
Thanks,
Dionne

Dionne Francis wrote:

> Keith,
>
> RN 10-938: the Gross A/B containers were preserved prior to analysis.
>
> RN 10-932: the TKN+TOC containers for samples CAPA-10-6101 and 6105 were rec'd unpreserved. The lab will be preserved prior to analysis.
>
> RN 10-928: the lab did not receive the 8270C container for sample RE16-10-218 as listed on the COC.
>
> RN 10-941: the lab did not receive the H3 containers for any of the samples as listed on the COC.
>
> RN10-939: the lab did not receive the AM241+ISOU+ISOPU+SR90, H3 containers for sample WST03-10-2147 as listed on the COC.
>
> RN 10-927: the lab did not receive the AM241+ISOU+ISOPU+SR90 containers for sample RE16-10-173, 172, 166, 176, 177, 171, 169, 170,175 and 176.
>
> Thanks,
> Dionne

--
Dionne Francis
Project Manager Assistant
GEL Laboratories, LLC
2040 Savage Road
Charleston, SC (USA) 29407
Direct: 843.769.7376 Ext. 4432
Main: 843.556.8171
Fax: 843.766.1178
E-mail: daf@gel.com
Web: www.gel.com

Let the Bible fill the memory, rule the heart, and guide the feet.

ORIGIN ID: SAFA (505)665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 15DEC09
ACTWGT: 51.0 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843)556-8171
REF: 6B010AMR2A05419D0

1c

FedEx Express

1 of 2
MPS# 0263 7209 7849 2417
Mstr# 7209 7849 2440 0201

WED - 16DEC A1
PRIORITY OVERNIGHT

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ORIGIN ID: SAFA (505)665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 15DEC09
ACTWGT: 81.0 LB MAN
CAD: 0014176/CAFE2434

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GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
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1 of 3
TRK# 0201 7209 7849 2440
MASTER

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CHS

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Part # 156148-434 NRIT V3 06-09

7209 7849 2417

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TO
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843)556-8171
REF: 6B010AMR1A015AGWM0

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1 of 2
TRK# 0201 7209 7849 2369
MASTER

WED - 16DEC A1
PRIORITY OVERNIGHT

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SC-US
CHS

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ORIGIN ID: SAFA (505)665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 15DEC09
ACTWGT: 54.0 LB MAN
CAD: 0014176/CAFE2434

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GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843)556-8171
REF: 6B010AMR1A015AGWM0

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MPS# 0263 7209 7849 2370
Mstr# 7209 7849 2369 0201

WED - 16DEC A1
PRIORITY OVERNIGHT

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SC-US
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ORIGIN ID: SAFA (505)665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 15DEC09
ACTWGT: 54.0 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843)556-8171
REF: 6B010AMR2A054196D0

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FedEx Express

1 of 2
TRK# 0201 7209 7849 2406
MASTER

WED - 16DEC A1
PRIORITY OVERNIGHT

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Part # 156148-434 NRIT V3 09-09

ORIGIN ID: SAFA (505)665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 15DEC09
ACTWGT: 52.0 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843)556-8171
REF: 6B010AMR3A0352VA00

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2 of 2
MPS# 0263 7209 7849 2439
Mstr# 7209 7849 2428 0201

WED - 16DEC A1
PRIORITY OVERNIGHT

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CHS

Part # 156148-434 NRIT V3 09-09

ORIGIN ID: SAFA (505)665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 15DEC09
ACTWGT: 52.0 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

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(843)556-8171
REF: 6B010AMR1A015AGWM0

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3 of 3
MPS# 0263 7209 7849 2358
Mstr# 7209 7849 2336 0201

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PRIORITY OVERNIGHT

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ORIGIN ID: SAFA (505)665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 15DEC09
ACTWGT: 48.0 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843)556-8171
REF: 6B010AMR3A0352VA00

3c

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1 of 2
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MASTER

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ORIGIN ID: SAFA (505)665-9960
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 15DEC09
ACTWGT: 48.0 LB MAN
CAD: 0014176/CAFE2434

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GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843)556-8171
REF: 6B010AMR3A0352VA00

3

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2 of 3
MPS# 0263 7209 7849 2450
Mstr# 7209 7849 2440 0201

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CHS

Part # 156148-434 NRIT V3 09-09

ORIGIN ID: SAFA (505)665-9960
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 15DEC09
ACTWGT: 48.0 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843)556-8171
REF: 6B010AMR3A0352VA00

3c

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3 of 3
MPS# 0263 7209 7849 2461
Mstr# 7209 7849 2440 0201

WED - 16DEC A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

Part # 156148-434 NRIT V3 09-09

ORIGIN ID: SAFA (505)665-9960
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 15DEC09
ACTWGT: 46.0 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843)556-8171
REF: 6B010AMR1A015AGNM0

14c

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2 of 3
MPS# 0263 7209 7849 2347
Mstr# 7209 7849 2336 0201

WED - 16DEC A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

Data Review Qualifier Flag Definition Sheet

Data Review Qualifier Definitions

Qualifier	Explanation
*	A quality control analyte recovery is outside of specified acceptance criteria
**	Analyte is a surrogate compound
<	Result is less than value reported
>	Result is greater than value reported
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL
A	The TIC is a suspected aldol-condensation product
B	Target analyte was detected in the associated blank
B	Metals-Either presence of analyte detected in the associated blank, or MDL/IDL < sample value < PQL
BD	Results are either below the MDC or tracer recovery is low
C	Analyte has been confirmed by GC/MS analysis
D	Results are reported from a diluted aliquot of the sample
d	5-day BOD-The 2:1 depletion requirement was not met for this sample
E	Organics-Concentration of the target analyte exceeds the instrument calibration range
E	Metals-%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
H	Analytical holding time was exceeded
h	Preparation or preservation holding time was exceeded
J	Value is estimated
N	Metals-The Matrix spike sample recovery is not within specified control limits
N	Organics-Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A	Spike recovery limits do not apply. Sample concentration exceeds spike concentration by 4X or more
ND	Analyte concentration is not detected above the reporting limit
UI	Gamma Spectroscopy-Uncertain identification
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
Z	Paint Filter Test-Particulates passed through the filter, however no free liquids were observed.

GC/MS Volatile Analysis

Case Narrative

ChemStation Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-939

Method/Analysis Information

Procedure:	Volatile Organic Compounds (VOC) by Gas Chromatograph/Mass Spectrometer
Analytical Method:	SW846 8260B
Prep Method:	SW846 5030
Analytical Batch Number:	935590
Prep Batch Number:	935589

Sample Analysis

The following client and quality control samples were analyzed to complete this SDG using the methods referenced in the Analysis Information section:

Sample ID	Client ID
243007001	WST03-10-2200
243007002	WST03-10-2147
1202001914	Method Blank (MB)
1202001917	Laboratory Control Sample (LCS)
1202001918	Laboratory Control Sample (LCS)
1202004059	Method Blank (MB)
1202004060	Laboratory Control Sample (LCS)
1202004061	Laboratory Control Sample (LCS)
1202001915	243007002(WST03-10-2147) Post Spike (PS)
1202001916	243007002(WST03-10-2147) Post Spike Duplicate (PSD)

NOTE: For volatile organic analyses the matrix spike designations may be indicated as "PS" or "PSD". The "PS" designation (post spike) indicates that the matrix was fortified prior to analysis but after applying any prep factors, such as a dilution. The laboratory considers the MS/MSD and PS/PSD designations interchangeable.
Samples 243007 002 in this SDG were analyzed on an "dry weight" basis. Samples 243007 001 in this SDG were analyzed on a "as received" basis.

Preparation/Analytical Method Verification

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-038 REV# 13.

Raw data reports are processed and reviewed by the analyst using the Chemstation software package. False positives have been removed from the quantitation reports per standard operating procedures (SOP) section 19.1.2. False positive analytes are designated on the quantitation report with a 'd' qualifier.

Calibration Information

Please note that the 'Cal Date' indicated on each quantitation report reflects the date and time of the most recent calibrated analyte(s) in the processing method. Since the laboratory may calibrate with multiple solutions on different days using the same processing method, the software will update the 'Cal Date' to the last calibration file, date and time. The correct dates and times for all calibration files are located on the Calibration History report in the Standard Data section in the data package.

The surrogate compounds were calibrated using a minimum five-point calibration curve. The surrogates were added by the auto sampler at a concentration of 50 ug/L. GEL Laboratories LLC will not have surrogate recoveries reported for Dibromofluoromethane. This is due to increased regulations for this analyte and an industry shortage.

A complete list of the initial calibration data files are shown in the Calibration History report located in the Standard Data section of the data package.

Initial Calibration
All initial calibration requirements have been met for this sample delivery groups (SDG). A second source initial calibration verification (ICV) was included in the standard section directly behind the initial calibration.

Continuing Calibration Verification Requirements
All associated calibration verification standard(s) (ICV or CCV) met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
Target analytes were detected in the blank (1202004059) below the reporting limit.

Surrogate Recoveries
Surrogate recoveries in all client and quality control samples were within the acceptance limits.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

QC Sample Designation
Sample 243007002 (WST03-10-2147) was designated for spike analysis in this SDG.

Matrix Spike (PS) Recovery Statement
The spike recoveries for this SDG were within the required acceptance limits.

Matrix Spike Duplicate (PSD) Recovery Statement
The spike duplicate recoveries for this SDG were within the required acceptance limits.

Relative Percent Difference (RPD) Statement
The RPD(s) between the matrix spike pair met the acceptance limits.

Internal Standard (ISTD) Acceptance
The internal standard responses in all client and quality control samples met the required acceptance criteria.

Technical Information

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection or sample receipt. Those holding times expressed in hours are calculated in the ALPHALIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Sample Preservation and Integrity
All samples met the sample preservation and integrity requirements.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-extraction/Re-analysis
Re-analyses were required for this SDG due to unacceptable recoveries in the initial analysis.

Miscellaneous Information

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted: Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. An electronic signature page inserted after the case narrative will include the data validator's signature and title. The signature page also includes the data qualifiers used in the fractional package. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Nonconformance (NCR) Documentation
A nonconformance report was not required for this SDG.

Manual Integrations
Data files associated with the initial calibration, continuing calibration check, and samples did not require manual integrations.

TIC Comment
Tentatively identified compounds (TIC) were required for this sample delivery group/work order. Please note that non-requested target analytes that are reported on the quantitation reports will not be present on the Form I. These detected analytes are included in the calibrated method and as a result cannot be reported on the TIC quantitation report.

Additional Comments
Additional comments were not required for this SDG.

Residual Chlorine
Residual Chlorine was not detected in any of the samples in this SDG.

System Configuration
The Volatile-GC/MS analysis was performed on the following instrument configuration:

Instrument ID	Instrument	System Configuration	Column ID	Column Description	P & T Trap
VOA6.I	Gas Chromatograph/Mass Spectrometer	HP6890N/HP5975	DB-624	J&W, 60m x 0.25mm x 1.4um	Trap 10

Certification Statement
Where the analytical method has been performed under NELAP certification, the analysis has met all the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis Report
for

LANL010 Los Alamos National Laboratory (72733-001-09)

Client SDG: 10-939 GEL Work Order: 243007

The Qualifiers in this report are defined as follows:

* A quality control analyte recovery is outside of specified acceptance criteria

** Analyte is a surrogate compound

B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.

E Organics--Concentration of the target analyte exceeds the instrument calibration range

J Value is estimated

U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

Review/Validation

GEL requires all analytical data to be verified by a qualified data reviewer. In addition, all CLP-like deliverables receive a third level review of the fractional data package.

The following data validator verified the information presented in this case narrative:

Signature: Erin Haubert **Name: Erin Haubert**

Date: 30 DEC 2009 **Title: Data Validator**

Sample Data Summary

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-939**	**Date Collected:**	**12/14/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243007001**	**Date Received:**	**12/16/2009 09:10**		
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**WST03-10-2200**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**935590**	**Inst:**	**VOA6.I**	**Dilution:**	**1**
Run Date:	**12/22/2009 18:48**	**Analyst:**	**RXD1**	**Purge Vol:**	**5 mL**
Prep Date:	**12/22/2009 11:42**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**122209V6\6Q220.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/kg	0.340	1.00
74-87-3	Chloromethane	U	1.00	ug/kg	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/kg	0.300	1.00
74-83-9	Bromomethane	U	1.00	ug/kg	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/kg	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/kg	0.300	1.00
67-64-1	Acetone	J	3.07	ug/kg	1.66	5.00
75-35-4	1,1-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/kg	1.60	5.00
75-09-2	Methylene chloride	U	5.00	ug/kg	2.00	5.00
75-15-0	Carbon disulfide	U	5.00	ug/kg	1.25	5.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/kg	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/kg	1.50	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/kg	0.300	1.00
74-97-5	Bromochloromethane	U	1.00	ug/kg	0.330	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/kg	0.300	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/kg	0.300	1.00
56-23-5	Carbon tetrachloride	U	1.00	ug/kg	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/kg	0.300	1.00
71-43-2	Benzene	U	1.00	ug/kg	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/kg	0.330	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/kg	0.300	1.00
74-95-3	Dibromomethane	U	1.00	ug/kg	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/kg	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
108-88-3	Toluene	U	1.00	ug/kg	0.300	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/kg	0.300	1.00
591-78-6	2-Hexanone	U	5.00	ug/kg	1.50	5.00
142-28-9	1,3-Dichloropropane	U	1.00	ug/kg	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/kg	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/kg	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/kg	0.300	1.00
108-90-7	Chlorobenzene	U	1.00	ug/kg	0.300	1.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-939**	**Date Collected:**	**12/14/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243007001**	**Date Received:**	**12/16/2009 09:10**		
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**WST03-10-2200**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**935590**	**Inst:**	**VOA6.I**	**Dilution:**	**1**
Run Date:	**12/22/2009 18:48**	**Analyst:**	**RXD1**	**Purge Vol:**	**5 mL**
Prep Date:	**12/22/2009 11:42**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**122209V6\6Q220.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.00	ug/kg	0.300	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/kg	0.300	2.00
95-47-6	o-Xylene	U	1.00	ug/kg	0.300	1.00
100-42-5	Styrene	U	1.00	ug/kg	0.300	1.00
75-25-2	Bromoform	U	1.00	ug/kg	0.300	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/kg	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/kg	0.300	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/kg	0.300	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/kg	0.300	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/kg	0.300	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/kg	0.300	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/kg	0.300	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/kg	0.300	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/kg	0.300	1.00
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.00	ug/kg	1.60	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	No Tentatively Identified Compounds Found			ug/kg		

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-939**	**Date Collected:**	**12/14/2009 12:00**	**Matrix:**	**R**
Lab Sample ID:	**243007002**	**Date Received:**	**12/16/2009 09:10**	**%Moisture:**	**13.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**WST03-10-2147**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**935590**	**Inst:**	**VOA6.I**	**Dilution:**	**1**
Run Date:	**12/22/2009 15:06**	**Analyst:**	**RXD1**	**Purge Vol:**	**5 mL**
Prep Date:	**12/22/2009 11:44**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**122209V6\6Q212.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.16	ug/kg	0.393	1.16
74-87-3	Chloromethane	U	1.16	ug/kg	0.347	1.16
75-01-4	Vinyl chloride	U	1.16	ug/kg	0.347	1.16
74-83-9	Bromomethane	U	1.16	ug/kg	0.347	1.16
75-00-3	Chloroethane	U	1.16	ug/kg	0.347	1.16
75-69-4	Trichlorofluoromethane	U	1.16	ug/kg	0.347	1.16
67-64-1	Acetone		9.79	ug/kg	1.92	5.78
75-35-4	1,1-Dichloroethylene	U	1.16	ug/kg	0.347	1.16
74-88-4	Iodomethane	U	5.78	ug/kg	1.85	5.78
75-09-2	Methylene chloride	U	5.78	ug/kg	2.31	5.78
75-15-0	Carbon disulfide	U	5.78	ug/kg	1.44	5.78
156-60-5	trans-1,2-Dichloroethylene	U	1.16	ug/kg	0.347	1.16
75-34-3	1,1-Dichloroethane	U	1.16	ug/kg	0.347	1.16
78-93-3	2-Butanone	U	5.78	ug/kg	1.73	5.78
156-59-2	cis-1,2-Dichloroethylene	U	1.16	ug/kg	0.347	1.16
594-20-7	2,2-Dichloropropane	U	1.16	ug/kg	0.347	1.16
67-66-3	Chloroform	U	1.16	ug/kg	0.347	1.16
74-97-5	Bromochloromethane	U	1.16	ug/kg	0.381	1.16
71-55-6	1,1,1-Trichloroethane	U	1.16	ug/kg	0.347	1.16
563-58-6	1,1-Dichloropropene	U	1.16	ug/kg	0.347	1.16
56-23-5	Carbon tetrachloride	U	1.16	ug/kg	0.347	1.16
107-06-2	1,2-Dichloroethane	U	1.16	ug/kg	0.347	1.16
71-43-2	Benzene	U	1.16	ug/kg	0.347	1.16
79-01-6	Trichloroethylene	U	1.16	ug/kg	0.381	1.16
78-87-5	1,2-Dichloropropane	U	1.16	ug/kg	0.347	1.16
75-27-4	Bromodichloromethane	U	1.16	ug/kg	0.347	1.16
74-95-3	Dibromomethane	U	1.16	ug/kg	0.347	1.16
108-10-1	4-Methyl-2-pentanone	U	5.78	ug/kg	1.44	5.78
10061-01-5	cis-1,3-Dichloropropylene	U	1.16	ug/kg	0.347	1.16
108-88-3	Toluene	U	1.16	ug/kg	0.347	1.16
10061-02-6	trans-1,3-Dichloropropylene	U	1.16	ug/kg	0.347	1.16
79-00-5	1,1,2-Trichloroethane	U	1.16	ug/kg	0.347	1.16
591-78-6	2-Hexanone	U	5.78	ug/kg	1.73	5.78
142-28-9	1,3-Dichloropropane	U	1.16	ug/kg	0.347	1.16
127-18-4	Tetrachloroethylene	U	1.16	ug/kg	0.347	1.16
124-48-1	Dibromochloromethane	U	1.16	ug/kg	0.347	1.16
106-93-4	1,2-Dibromoethane	U	1.16	ug/kg	0.347	1.16
108-90-7	Chlorobenzene	U	1.16	ug/kg	0.347	1.16

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-939	**Date Collected:**	12/14/2009 12:00	**Matrix:**	R
Lab Sample ID:	243007002	**Date Received:**	12/16/2009 09:10	**%Moisture:**	13.5
		Client:	LANL010	**Project:**	LANL01004
Client ID:	WST03-10-2147	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	935590	**Inst:**	VOA6.I	**Dilution:**	1
Run Date:	12/22/2009 15:06	**Analyst:**	RXD1	**Purge Vol:**	5 mL
Prep Date:	12/22/2009 11:44	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	122209V6\6Q212.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.16	ug/kg	0.347	1.16
179601-23-1	m,p-Xylenes	U	2.31	ug/kg	0.347	2.31
95-47-6	o-Xylene	U	1.16	ug/kg	0.347	1.16
100-42-5	Styrene	U	1.16	ug/kg	0.347	1.16
75-25-2	Bromoform	U	1.16	ug/kg	0.347	1.16
79-34-5	1,1,2,2-Tetrachloroethane	U	1.16	ug/kg	0.347	1.16
96-18-4	1,2,3-Trichloropropane	U	1.16	ug/kg	0.347	1.16
108-86-1	Bromobenzene	U	1.16	ug/kg	0.347	1.16
103-65-1	n-Propylbenzene	U	1.16	ug/kg	0.347	1.16
95-49-8	2-Chlorotoluene	U	1.16	ug/kg	0.347	1.16
98-82-8	Isopropylbenzene	U	1.16	ug/kg	0.347	1.16
108-67-8	1,3,5-Trimethylbenzene	U	1.16	ug/kg	0.347	1.16
106-43-4	4-Chlorotoluene	U	1.16	ug/kg	0.347	1.16
98-06-6	tert-Butylbenzene	U	1.16	ug/kg	0.347	1.16
95-63-6	1,2,4-Trimethylbenzene	U	1.16	ug/kg	0.347	1.16
135-98-8	sec-Butylbenzene	U	1.16	ug/kg	0.347	1.16
99-87-6	4-Isopropyltoluene	U	1.16	ug/kg	0.347	1.16
541-73-1	1,3-Dichlorobenzene	U	1.16	ug/kg	0.347	1.16
106-46-7	1,4-Dichlorobenzene	U	1.16	ug/kg	0.347	1.16
104-51-8	n-Butylbenzene	U	1.16	ug/kg	0.347	1.16
96-12-8	1,2-Dibromo-3-chloropropane	U	1.16	ug/kg	0.347	1.16
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.78	ug/kg	1.85	5.78
630-20-6	1,1,1,2-Tetrachloroethane	U	1.16	ug/kg	0.347	1.16
95-50-1	1,2-Dichlorobenzene	U	1.16	ug/kg	0.347	1.16

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown siloxane	14.24	12.5	ug/kg	0	J
	unknown siloxane	16.17	11	ug/kg	0	J

Quality Control Summary

Volatile

Surrogate Recovery Report

SDG Number: 10-939

Matrix Type: SOLID

Sample ID	Client ID	DCED4 %REC	TOL %REC	BFB %REC
1202001917	LCS for batch 935589	97	95	98
1202001918	LCS for batch 935589	98	95	99
1202001914	MB for batch 935589	99	96	102
243007002	WST03-10-2147	97	100	106
243007001	WST03-10-2200	99	97	102
1202004060	LCS for batch 935589	100	100	99
1202004061	LCS for batch 935589	102	96	99
1202004059	MB for batch 935589	98	97	100
1202001915	WST03-10-2147PS	97	100	104
1202001916	WST03-10-2147PSD	97	97	99

Surrogate		Acceptance Limits
DCED4	= 1,2-Dichloroethane-d4	(68%-131%)
TOL	= Toluene-d8	(75%-129%)
BFB	= Bromofluorobenzene	(68%-133%)

* Recovery outside Acceptance Limits

\# Column to be used to flag recovery values

D Sample Diluted

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number:	10-939	**Sample Type:**	Post Spike
Client ID:	WST03-10-2147PS	**Matrix:**	R
Lab Sample ID:	1202001915	**%Moisture:**	13.5
Instrument:	VOA6.I	**Analysis Date:**	12/23/2009 15:03
Analyst:	RXD1	**Prep Batch ID:**	935589
Purge Vol:	5 mL	**Batch ID:**	935590

Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
75-71-8	PS	Dichlorodifluoromethane	50.0	0.00	U	42.4	85	25-149
74-87-3	PS	Chloromethane	50.0	0.00	U	42.1	84	39-140
75-01-4	PS	Vinyl chloride	50.0	0.00	U	47.2	94	47-129
74-83-9	PS	Bromomethane	50.0	0.00	U	46.6	93	31-135
75-00-3	PS	Chloroethane	50.0	0.00	U	46.7	93	53-128
75-69-4	PS	Trichlorofluoromethane	50.0	0.00	U	46.7	93	51-151
67-64-1	PS	Acetone	250	8.47		161	61	21-153
75-35-4	PS	1,1-Dichloroethylene	50.0	0.00	U	46.7	93	61-125
74-88-4	PS	Iodomethane	250	0.00	U	226	90	53-142
75-09-2	PS	Methylene chloride	50.0	0.00	U	42.4	85	59-136
75-15-0	PS	Carbon disulfide	250	0.00	U	239	95	46-129
156-60-5	PS	trans-1,2-Dichloroethylene	50.0	0.00	U	45.6	91	56-126
75-34-3	PS	1,1-Dichloroethane	50.0	0.00	U	45.9	92	62-125
78-93-3	PS	2-Butanone	250	0.00	U	206	82	26-152
156-59-2	PS	cis-1,2-Dichloroethylene	50.0	0.00	U	46.2	92	60-130
594-20-7	PS	2,2-Dichloropropane	50.0	0.00	U	52.3	105	55-135
67-66-3	PS	Chloroform	50.0	0.00	U	45.5	91	60-127
74-97-5	PS	Bromochloromethane	50.0	0.00	U	45.1	90	61-131
71-55-6	PS	1,1,1-Trichloroethane	50.0	0.00	U	49.2	98	59-131
563-58-6	PS	1,1-Dichloropropene	50.0	0.00	U	47.8	96	57-128
56-23-5	PS	Carbon tetrachloride	50.0	0.00	U	50.4	101	58-136
107-06-2	PS	1,2-Dichloroethane	50.0	0.00	U	44.6	89	58-126

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-939
Client ID: WST03-10-2147PS
Lab Sample ID: 1202001915
Instrument: VOA6.I
Analyst: RXD1
Purge Vol: 5 mL

Sample Type: Post Spike
Matrix: R
%Moisture: 13.5
Analysis Date: 12/23/2009 15:03
Dilution: 1
Prep Batch ID: 935589
Batch ID: 935590

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
71-43-2	PS	Benzene	50.0	0.00	U	44.9	90	56-123
79-01-6	PS	Trichloroethylene	50.0	0.00	U	46.0	92	51-137
78-87-5	PS	1,2-Dichloropropane	50.0	0.00	U	46.6	93	60-126
75-27-4	PS	Bromodichloromethane	50.0	0.00	U	49.1	98	55-138
74-95-3	PS	Dibromomethane	50.0	0.00	U	44.7	89	60-132
108-10-1	PS	4-Methyl-2-pentanone	250	0.00	U	234	94	58-136
10061-01-5	PS	cis-1,3-Dichloropropylene	50.0	0.00	U	47.9	96	54-133
108-88-3	PS	Toluene	50.0	0.00	U	45.1	90	52-128
10061-02-6	PS	trans-1,3-Dichloropropylene	50.0	0.00	U	48.7	97	53-137
79-00-5	PS	1,1,2-Trichloroethane	50.0	0.00	U	45.2	90	59-130
591-78-6	PS	2-Hexanone	250	0.00	U	224	90	31-148
142-28-9	PS	1,3-Dichloropropane	50.0	0.00	U	44.7	89	57-127
127-18-4	PS	Tetrachloroethylene	50.0	0.00	U	46.3	93	51-128
124-48-1	PS	Dibromochloromethane	50.0	0.00	U	51.0	102	59-139
106-93-4	PS	1,2-Dibromoethane	50.0	0.00	U	45.8	92	57-133
108-90-7	PS	Chlorobenzene	50.0	0.00	U	46.2	92	53-122
100-41-4	PS	Ethylbenzene	50.0	0.00	U	47.3	95	51-125
179601-23-1	PS	m,p-Xylenes	100	0.00	U	94.2	94	50-126
95-47-6	PS	o-Xylene	50.0	0.00	U	47.1	94	52-127
100-42-5	PS	Styrene	50.0	0.00	U	47.5	95	49-135
75-25-2	PS	Bromoform	50.0	0.00	U	55.4	111	57-149
79-34-5	PS	1,1,2,2-Tetrachloroethane	50.0	0.00	U	48.5	97	63-127

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-939
Client ID: WST03-10-2147PS
Lab Sample ID: 1202001915
Instrument: VOA6.I
Analyst: RXD1
Purge Vol: 5 mL

Sample Type: Post Spike
Matrix: R
%Moisture: 13.5
Analysis Date: 12/23/2009 15:03
Prep Batch ID 935589
Batch ID: 935590

Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
96-18-4	PS	1,2,3-Trichloropropane	50.0	0.00	U	48.7	97	57-149
108-86-1	PS	Bromobenzene	50.0	0.00	U	47.1	94	49-131
103-65-1	PS	n-Propylbenzene	50.0	0.00	U	50.1	100	40-136
95-49-8	PS	2-Chlorotoluene	50.0	0.00	U	49.3	99	44-135
98-82-8	PS	Isopropylbenzene	50.0	0.00	U	50.6	101	44-140
108-67-8	PS	1,3,5-Trimethylbenzene	50.0	0.00	U	49.4	99	42-140
106-43-4	PS	4-Chlorotoluene	50.0	0.00	U	48.6	97	44-132
98-06-6	PS	tert-Butylbenzene	50.0	0.00	U	48.5	97	42-142
95-63-6	PS	1,2,4-Trimethylbenzene	50.0	0.00	U	47.6	95	43-137
135-98-8	PS	sec-Butylbenzene	50.0	0.00	U	49.2	98	39-139
99-87-6	PS	4-Isopropyltoluene	50.0	0.00	U	48.6	97	38-145
541-73-1	PS	1,3-Dichlorobenzene	50.0	0.00	U	45.4	91	43-129
106-46-7	PS	1,4-Dichlorobenzene	50.0	0.00	U	44.5	89	44-125
104-51-8	PS	n-Butylbenzene	50.0	0.00	U	47.2	94	36-141
96-12-8	PS	1,2-Dibromo-3-chloropropane	50.0	0.00	U	49.1	98	47-151
630-20-6	PS	1,1,1,2-Tetrachloroethane	50.0	0.00	U	49.2	98	59-131
95-50-1	PS	1,2-Dichlorobenzene	50.0	0.00	U	43.6	87	43-129

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-939
Client ID: WST03-10-2147PSD
Lab Sample ID: 1202001916
Instrument: VOA6.I
Analyst: RXD1
Purge Vol: 5 mL

Sample Type: Post Spike Duplicate
Matrix: R
%Moisture: 13.5
Analysis Date: 12/23/2009 15:31
Dilution: 1
Prep Batch ID: 935589
Batch ID: 935590

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
75-71-8	PSD	Dichlorodifluoromethane	50.0	0.00	U	40.8	82	25-149	4	0-25
74-87-3	PSD	Chloromethane	50.0	0.00	U	41.6	83	39-140	1	0-25
75-01-4	PSD	Vinyl chloride	50.0	0.00	U	46.7	93	47-129	1	0-25
74-83-9	PSD	Bromomethane	50.0	0.00	U	44.8	90	31-135	4	0-25
75-00-3	PSD	Chloroethane	50.0	0.00	U	45.5	91	53-128	3	0-25
75-69-4	PSD	Trichlorofluoromethane	50.0	0.00	U	45.3	91	51-151	3	0-25
67-64-1	PSD	Acetone	250	8.47		173	66	21-153	7	0-25
75-35-4	PSD	1,1-Dichloroethylene	50.0	0.00	U	45.4	91	61-125	3	0-25
74-88-4	PSD	Iodomethane	250	0.00	U	220	88	53-142	3	0-25
75-09-2	PSD	Methylene chloride	50.0	0.00	U	41.2	82	59-136	3	0-25
75-15-0	PSD	Carbon disulfide	250	0.00	U	229	92	46-129	4	0-25
156-60-5	PSD	trans-1,2-Dichloroethylene	50.0	0.00	U	44.2	88	56-126	3	0-25
75-34-3	PSD	1,1-Dichloroethane	50.0	0.00	U	44.8	90	62-125	2	0-25
78-93-3	PSD	2-Butanone	250	0.00	U	222	89	26-152	8	0-25
156-59-2	PSD	cis-1,2-Dichloroethylene	50.0	0.00	U	45.2	90	60-130	2	0-25
594-20-7	PSD	2,2-Dichloropropane	50.0	0.00	U	51.4	103	55-135	2	0-25
67-66-3	PSD	Chloroform	50.0	0.00	U	44.5	89	60-127	2	0-25
74-97-5	PSD	Bromochloromethane	50.0	0.00	U	44.7	89	61-131	1	0-25
71-55-6	PSD	1,1,1-Trichloroethane	50.0	0.00	U	48.3	97	59-131	2	0-25
563-58-6	PSD	1,1-Dichloropropene	50.0	0.00	U	46.6	93	57-128	3	0-25
56-23-5	PSD	Carbon tetrachloride	50.0	0.00	U	48.7	97	58-136	4	0-25
107-06-2	PSD	1,2-Dichloroethane	50.0	0.00	U	43.7	87	58-126	2	0-25

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-939
Client ID: WST03-10-2147PSD
Lab Sample ID: 1202001916
Instrument: VOA6.I
Analyst: RXD1
Purge Vol: 5 mL

Sample Type: Post Spike Duplicate
Matrix: R
%Moisture: 13.5
Analysis Date: 12/23/2009 15:31
Dilution: 1
Prep Batch ID: 935589
Batch ID: 935590

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
71-43-2	PSD	Benzene	50.0	0.00	U	43.5	87	56-123	3	0-25
79-01-6	PSD	Trichloroethylene	50.0	0.00	U	44.6	89	51-137	3	0-25
78-87-5	PSD	1,2-Dichloropropane	50.0	0.00	U	45.2	90	60-126	3	0-25
75-27-4	PSD	Bromodichloromethane	50.0	0.00	U	47.9	96	55-138	2	0-25
74-95-3	PSD	Dibromomethane	50.0	0.00	U	44.9	90	60-132	0	0-25
108-10-1	PSD	4-Methyl-2-pentanone	250	0.00	U	249	100	58-136	6	0-25
10061-01-5	PSD	cis-1,3-Dichloropropylene	50.0	0.00	U	46.7	93	54-133	3	0-25
108-88-3	PSD	Toluene	50.0	0.00	U	43.5	87	52-128	4	0-25
10061-02-6	PSD	trans-1,3-Dichloropropylene	50.0	0.00	U	47.7	95	53-137	2	0-25
79-00-5	PSD	1,1,2-Trichloroethane	50.0	0.00	U	45.4	91	59-130	0	0-25
591-78-6	PSD	2-Hexanone	250	0.00	U	240	96	31-148	7	0-25
142-28-9	PSD	1,3-Dichloropropane	50.0	0.00	U	44.3	89	57-127	1	0-25
127-18-4	PSD	Tetrachloroethylene	50.0	0.00	U	44.4	89	51-128	4	0-25
124-48-1	PSD	Dibromochloromethane	50.0	0.00	U	50.2	100	59-139	2	0-25
106-93-4	PSD	1,2-Dibromoethane	50.0	0.00	U	45.9	92	57-133	0	0-25
108-90-7	PSD	Chlorobenzene	50.0	0.00	U	44.4	89	53-122	4	0-25
100-41-4	PSD	Ethylbenzene	50.0	0.00	U	45.3	91	51-125	4	0-25
179601-23-1	PSD	m,p-Xylenes	100	0.00	U	90.5	90	50-126	4	0-25
95-47-6	PSD	o-Xylene	50.0	0.00	U	45.5	91	52-127	3	0-25
100-42-5	PSD	Styrene	50.0	0.00	U	45.3	91	49-135	5	0-25
75-25-2	PSD	Bromoform	50.0	0.00	U	56.1	112	57-149	1	0-25
79-34-5	PSD	1,1,2,2-Tetrachloroethane	50.0	0.00	U	49.1	98	63-127	1	0-25

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-939
Client ID: WST03-10-2147PSD
Lab Sample ID: 1202001916
Instrument: VOA6.I
Analyst: RXD1
Purge Vol: 5 mL

Sample Type: Post Spike Duplicate
Matrix: R
%Moisture: 13.5
Analysis Date: 12/23/2009 15:31
Dilution: 1
Prep Batch ID: 935589
Batch ID: 935590

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
96-18-4	PSD	1,2,3-Trichloropropane	50.0	0.00	U	49.0	98	57-149	1	0-25
108-86-1	PSD	Bromobenzene	50.0	0.00	U	45.0	90	49-131	5	0-25
103-65-1	PSD	n-Propylbenzene	50.0	0.00	U	47.1	94	40-136	6	0-25
95-49-8	PSD	2-Chlorotoluene	50.0	0.00	U	46.9	94	44-135	5	0-25
98-82-8	PSD	Isopropylbenzene	50.0	0.00	U	48.4	97	44-140	5	0-25
108-67-8	PSD	1,3,5-Trimethylbenzene	50.0	0.00	U	47.3	95	42-140	4	0-25
106-43-4	PSD	4-Chlorotoluene	50.0	0.00	U	45.8	92	44-132	6	0-25
98-06-6	PSD	tert-Butylbenzene	50.0	0.00	U	46.9	94	42-142	3	0-25
95-63-6	PSD	1,2,4-Trimethylbenzene	50.0	0.00	U	45.6	91	43-137	4	0-25
135-98-8	PSD	sec-Butylbenzene	50.0	0.00	U	46.8	94	39-139	5	0-25
99-87-6	PSD	4-Isopropyltoluene	50.0	0.00	U	47.1	94	38-145	3	0-25
541-73-1	PSD	1,3-Dichlorobenzene	50.0	0.00	U	43.5	87	43-129	4	0-25
106-46-7	PSD	1,4-Dichlorobenzene	50.0	0.00	U	42.6	85	44-125	4	0-25
104-51-8	PSD	n-Butylbenzene	50.0	0.00	U	45.4	91	36-141	4	0-25
96-12-8	PSD	1,2-Dibromo-3-chloropropane	50.0	0.00	U	53.9	108	47-151	9	0-25
630-20-6	PSD	1,1,1,2-Tetrachloroethane	50.0	0.00	U	47.7	95	59-131	3	0-25
95-50-1	PSD	1,2-Dichlorobenzene	50.0	0.00	U	43.0	86	43-129	1	0-25

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-939
Client ID: LCS for batch 935589
Lab Sample ID: 1202001917
Instrument: VOA6.I
Analyst: RXD1
Purge Vol: 5 mL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 12/22/2009 10:55
Dilution: 1
Prep Batch ID: 935589
Batch ID: 935590

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
75-71-8	LCS	Dichlorodifluoromethane	50.0	0.0	45.0	90	33-155
74-87-3	LCS	Chloromethane	50.0	0.0	44.1	88	53-132
75-01-4	LCS	Vinyl chloride	50.0	0.0	49.0	98	61-128
74-83-9	LCS	Bromomethane	50.0	0.0	47.1	94	63-126
75-00-3	LCS	Chloroethane	50.0	0.0	47.2	94	67-124
75-69-4	LCS	Trichlorofluoromethane	50.0	0.0	47.6	95	67-151
67-64-1	LCS	Acetone	250	0.0	168	67	29-160
75-35-4	LCS	1,1-Dichloroethylene	50.0	0.0	47.9	96	70-125
74-88-4	LCS	Iodomethane	250	0.0	230	92	74-131
75-09-2	LCS	Methylene chloride	50.0	0.0	41.9	84	72-127
75-15-0	LCS	Carbon disulfide	250	0.0	251	101	64-127
156-60-5	LCS	trans-1,2-Dichloroethylene	50.0	0.0	46.6	93	71-122
75-34-3	LCS	1,1-Dichloroethane	50.0	0.0	46.4	93	75-120
78-93-3	LCS	2-Butanone	250	0.0	224	90	35-162
156-59-2	LCS	cis-1,2-Dichloroethylene	50.0	0.0	46.8	94	76-122
594-20-7	LCS	2,2-Dichloropropane	50.0	0.0	53.0	106	74-135
67-66-3	LCS	Chloroform	50.0	0.0	46.0	92	77-120
74-97-5	LCS	Bromochloromethane	50.0	0.0	45.3	91	76-122
71-55-6	LCS	1,1,1-Trichloroethane	50.0	0.0	50.3	101	75-128
563-58-6	LCS	1,1-Dichloropropene	50.0	0.0	50.0	100	77-125
56-23-5	LCS	Carbon tetrachloride	50.0	0.0	51.8	104	77-134
107-06-2	LCS	1,2-Dichloroethane	50.0	0.0	44.0	88	72-120

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-939
Client ID: LCS for batch 935589
Lab Sample ID: 1202001917
Instrument: VOA6.I
Analyst: RXD1
Purge Vol: 5 mL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 12/22/2009 10:55
Dilution: 1
Prep Batch ID: 935589
Batch ID: 935590

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
71-43-2	LCS	Benzene	50.0	0.0	45.2	90	72-120
79-01-6	LCS	Trichloroethylene	50.0	0.0	47.2	94	78-121
78-87-5	LCS	1,2-Dichloropropane	50.0	0.0	46.2	92	74-120
75-27-4	LCS	Bromodichloromethane	50.0	0.0	48.6	97	79-125
74-95-3	LCS	Dibromomethane	50.0	0.0	45.3	91	78-122
108-10-1	LCS	4-Methyl-2-pentanone	250	0.0	243	97	71-134
10061-01-5	LCS	cis-1,3-Dichloropropylene	50.0	0.0	48.6	97	80-125
108-88-3	LCS	Toluene	50.0	0.0	44.3	89	65-124
10061-02-6	LCS	trans-1,3-Dichloropropylene	50.0	0.0	48.1	96	71-134
79-00-5	LCS	1,1,2-Trichloroethane	50.0	0.0	44.1	88	76-120
591-78-6	LCS	2-Hexanone	250	0.0	235	94	42-159
142-28-9	LCS	1,3-Dichloropropane	50.0	0.0	43.8	88	72-120
127-18-4	LCS	Tetrachloroethylene	50.0	0.0	46.9	94	74-123
124-48-1	LCS	Dibromochloromethane	50.0	0.0	50.3	101	83-128
106-93-4	LCS	1,2-Dibromoethane	50.0	0.0	45.9	92	79-121
108-90-7	LCS	Chlorobenzene	50.0	0.0	45.8	92	75-120
100-41-4	LCS	Ethylbenzene	50.0	0.0	46.6	93	74-120
179601-23-1	LCS	m,p-Xylenes	100	0.0	94.1	94	74-120
95-47-6	LCS	o-Xylene	50.0	0.0	46.4	93	74-120
100-42-5	LCS	Styrene	50.0	0.0	48.1	96	76-125
75-25-2	LCS	Bromoform	50.0	0.0	52.5	105	77-138
79-34-5	LCS	1,1,2,2-Tetrachloroethane	50.0	0.0	45.9	92	72-122

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-939
Client ID: LCS for batch 935589
Lab Sample ID: 1202001917
Instrument: VOA6.I
Analyst: RXD1
Purge Vol: 5 mL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 12/22/2009 10:55
Dilution: 1
Prep Batch ID: 935589
Batch ID: 935590

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
96-18-4	LCS	1,2,3-Trichloropropane	50.0	0.0	45.6	91	75-135
108-86-1	LCS	Bromobenzene	50.0	0.0	44.5	89	73-120
103-65-1	LCS	n-Propylbenzene	50.0	0.0	46.7	93	68-121
95-49-8	LCS	2-Chlorotoluene	50.0	0.0	46.5	93	69-120
98-82-8	LCS	Isopropylbenzene	50.0	0.0	47.3	95	66-127
108-67-8	LCS	1,3,5-Trimethylbenzene	50.0	0.0	46.8	94	67-126
106-43-4	LCS	4-Chlorotoluene	50.0	0.0	45.9	92	72-120
98-06-6	LCS	tert-Butylbenzene	50.0	0.0	46.9	94	72-124
95-63-6	LCS	1,2,4-Trimethylbenzene	50.0	0.0	45.6	91	72-122
135-98-8	LCS	sec-Butylbenzene	50.0	0.0	47.1	94	71-124
99-87-6	LCS	4-Isopropyltoluene	50.0	0.0	47.6	95	72-130
541-73-1	LCS	1,3-Dichlorobenzene	50.0	0.0	44.5	89	73-120
106-46-7	LCS	1,4-Dichlorobenzene	50.0	0.0	44.5	89	73-120
104-51-8	LCS	n-Butylbenzene	50.0	0.0	47.1	94	72-128
96-12-8	LCS	1,2-Dibromo-3-chloropropane	50.0	0.0	52.2	104	68-145
630-20-6	LCS	1,1,1,2-Tetrachloroethane	50.0	0.0	47.6	95	78-121
95-50-1	LCS	1,2-Dichlorobenzene	50.0	0.0	43.8	88	74-120

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-939
Client ID: LCS for batch 935589
Lab Sample ID: 1202001918
Instrument: VOA6.I
Analyst: RXD1
Purge Vol: 5 mL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 12/22/2009 11:51
Dilution: 1
Prep Batch ID: 935589
Batch ID: 935590

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
76-13-1	LCS	1,1,2-Trichloro-1,2,2-Trifluor *Trichlorotrifluoroethane*	250	0.0	278	111	52-139

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-939
Client ID: LCS for batch 935589
Lab Sample ID: 1202004060
Instrument: VOA6.I
Analyst: RXD1
Purge Vol: 5 mL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 12/23/2009 11:21
Dilution: 1
Prep Batch ID: 935589
Batch ID: 935590

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
75-71-8	LCS	Dichlorodifluoromethane	50.0	0.0	44.9	90	33-155
74-87-3	LCS	Chloromethane	50.0	0.0	44.6	89	53-132
75-01-4	LCS	Vinyl chloride	50.0	0.0	49.5	99	61-128
74-83-9	LCS	Bromomethane	50.0	0.0	48.6	97	63-126
75-00-3	LCS	Chloroethane	50.0	0.0	48.6	97	67-124
75-69-4	LCS	Trichlorofluoromethane	50.0	0.0	49.2	98	67-151
67-64-1	LCS	Acetone	250	0.0	173	69	29-160
75-35-4	LCS	1,1-Dichloroethylene	50.0	0.0	49.2	98	70-125
74-88-4	LCS	Iodomethane	250	0.0	234	93	74-131
75-09-2	LCS	Methylene chloride	50.0	0.0	42.6	85	72-127
75-15-0	LCS	Carbon disulfide	250	0.0	254	102	64-127
156-60-5	LCS	trans-1,2-Dichloroethylene	50.0	0.0	48.1	96	71-122
75-34-3	LCS	1,1-Dichloroethane	50.0	0.0	47.0	94	75-120
78-93-3	LCS	2-Butanone	250	0.0	226	90	35-162
156-59-2	LCS	cis-1,2-Dichloroethylene	50.0	0.0	47.7	95	76-122
594-20-7	LCS	2,2-Dichloropropane	50.0	0.0	54.2	108	74-135
67-66-3	LCS	Chloroform	50.0	0.0	46.9	94	77-120
74-97-5	LCS	Bromochloromethane	50.0	0.0	46.5	93	76-122
71-55-6	LCS	1,1,1-Trichloroethane	50.0	0.0	52.1	104	75-128
563-58-6	LCS	1,1-Dichloropropene	50.0	0.0	50.7	101	77-125
56-23-5	LCS	Carbon tetrachloride	50.0	0.0	53.0	106	77-134
107-06-2	LCS	1,2-Dichloroethane	50.0	0.0	45.2	90	72-120

Volatile

Quality Control Summary

Spike Recovery Report

SDG Number: 10-939 **Sample Type:** Laboratory Control Sample

Client ID: LCS for batch 935589 **Matrix:** SOIL

Lab Sample ID: 1202004060

Instrument: VOA6.I **Analysis Date:** 12/23/2009 11:21 **Dilution:** 1

Analyst: RXD1 **Prep Batch ID** 935589

Purge Vol: 5 mL **Batch ID:** 935590

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
71-43-2	LCS	Benzene	50.0	0.0	46.0	92	72-120
79-01-6	LCS	Trichloroethylene	50.0	0.0	47.7	95	78-121
78-87-5	LCS	1,2-Dichloropropane	50.0	0.0	47.0	94	74-120
75-27-4	LCS	Bromodichloromethane	50.0	0.0	50.0	100	79-125
74-95-3	LCS	Dibromomethane	50.0	0.0	46.3	93	78-122
108-10-1	LCS	4-Methyl-2-pentanone	250	0.0	250	100	71-134
10061-01-5	LCS	cis-1,3-Dichloropropylene	50.0	0.0	49.6	99	80-125
108-88-3	LCS	Toluene	50.0	0.0	46.0	92	65-124
10061-02-6	LCS	trans-1,3-Dichloropropylene	50.0	0.0	50.5	101	71-134
79-00-5	LCS	1,1,2-Trichloroethane	50.0	0.0	46.0	92	76-120
591-78-6	LCS	2-Hexanone	250	0.0	246	99	42-159
142-28-9	LCS	1,3-Dichloropropane	50.0	0.0	45.5	91	72-120
127-18-4	LCS	Tetrachloroethylene	50.0	0.0	47.8	96	74-123
124-48-1	LCS	Dibromochloromethane	50.0	0.0	51.9	104	83-128
106-93-4	LCS	1,2-Dibromoethane	50.0	0.0	46.8	94	79-121
108-90-7	LCS	Chlorobenzene	50.0	0.0	47.7	95	75-120
100-41-4	LCS	Ethylbenzene	50.0	0.0	48.6	97	74-120
179601-23-1	LCS	m,p-Xylenes	100	0.0	97.2	97	74-120
95-47-6	LCS	o-Xylene	50.0	0.0	48.5	97	74-120
100-42-5	LCS	Styrene	50.0	0.0	50.3	101	76-125
75-25-2	LCS	Bromoform	50.0	0.0	55.6	111	77-138
79-34-5	LCS	1,1,2,2-Tetrachloroethane	50.0	0.0	49.0	98	72-122

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-939
Client ID: LCS for batch 935589
Lab Sample ID: 1202004060
Instrument: VOA6.I
Analyst: RXD1
Purge Vol: 5 mL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 12/23/2009 11:21
Dilution: 1
Prep Batch ID: 935589
Batch ID: 935590

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
96-18-4	LCS	1,2,3-Trichloropropane	50.0	0.0	48.2	96	75-135
108-86-1	LCS	Bromobenzene	50.0	0.0	46.4	93	73-120
103-65-1	LCS	n-Propylbenzene	50.0	0.0	48.4	97	68-121
95-49-8	LCS	2-Chlorotoluene	50.0	0.0	48.2	96	69-120
98-82-8	LCS	Isopropylbenzene	50.0	0.0	48.6	97	66-127
108-67-8	LCS	1,3,5-Trimethylbenzene	50.0	0.0	48.3	97	67-126
106-43-4	LCS	4-Chlorotoluene	50.0	0.0	47.9	96	72-120
98-06-6	LCS	tert-Butylbenzene	50.0	0.0	48.1	96	72-124
95-63-6	LCS	1,2,4-Trimethylbenzene	50.0	0.0	47.2	94	72-122
135-98-8	LCS	sec-Butylbenzene	50.0	0.0	48.6	97	71-124
99-87-6	LCS	4-Isopropyltoluene	50.0	0.0	48.7	97	72-130
541-73-1	LCS	1,3-Dichlorobenzene	50.0	0.0	46.9	94	73-120
106-46-7	LCS	1,4-Dichlorobenzene	50.0	0.0	46.4	93	73-120
104-51-8	LCS	n-Butylbenzene	50.0	0.0	48.9	98	72-128
96-12-8	LCS	1,2-Dibromo-3-chloropropane	50.0	0.0	55.7	111	68-145
630-20-6	LCS	1,1,1,2-Tetrachloroethane	50.0	0.0	50.1	100	78-121
95-50-1	LCS	1,2-Dichlorobenzene	50.0	0.0	46.2	92	74-120

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-939
Client ID: LCS for batch 935589
Lab Sample ID: 1202004061
Instrument: VOA6.I
Analyst: RXD1
Purge Vol: 5 mL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 12/23/2009 12:16
Dilution: 1
Prep Batch ID 935589
Batch ID: 935590

CAS No	Parmname		Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
76-13-1	LCS	1,1,2-Trichloro-1,2,2-Trifluor *Trichlorotrifluoroethane*	250	0.0	281	113	52-139

Method Blank Summary

SDG Number:	10-939	Client:	LANL010	Matrix:	SOIL
Client ID:	MB for batch 935589	Instrument ID:	VOA6.I	Data File:	122209V6\6Q206BL.D
Lab Sample ID:	1202001914	Prep Date:	12/22/2009 09:42	Analyzed:	12/22/09 12:19
Column:	DB-624				

This method blank applies to the following samples and quality control samples:

	Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01	LCS for batch 935589	1202001917	122209V6\6Q203LL.D	12/22/09	1055
02	LCS for batch 935589	1202001918	122209V6\6Q205SL.D	12/22/09	1151
03	WST03-10-2147	243007002	122209V6\6Q212.D	12/22/09	1506
04	WST03-10-2200	243007001	122209V6\6Q220.D	12/22/09	1848

Method Blank Summary

SDG Number:	10-939	Client:	LANL010	Matrix:	SOIL
Client ID:	MB for batch 935589	Instrument ID:	VOA6.I	Data File:	122309V6\6Q306BL.D
Lab Sample ID:	1202004059	Prep Date:	12/23/2009 09:29	Analyzed:	12/23/09 12:44
Column:	DB-624				

This method blank applies to the following samples and quality control samples:

Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01 LCS for batch 935589	1202004060	122309V6\6Q303LL.D	12/23/09	1121
02 LCS for batch 935589	1202004061	122309V6\6Q305SL.D	12/23/09	1216
03 WST03-10-2147PS	1202001915	122309V6\6Q311.D	12/23/09	1503
04 WST03-10-2147PSD	1202001916	122309V6\6Q312.D	12/23/09	1531

Instrument Performance Check

BFB

Lab Name GEL Laboratories LLC **Client SDG:** 10-939

Instrument ID: VOA6.I **Injection Date/Time:** 10-DEC-09 10:12

Column Description: DB-624 **Lab File ID** 121009V6\6O404.D

m/e	Ion Abundance Criteria	% Relative Abundance
50	15.0 - 40.0% of mass 95	20
75	30.0 - 60.0% of mass 95	48.2
95	Base Peak, 100% Relative Abundance	100
96	5.0 - 9.0% of mass 95	6.7
173	Less than 2.0% of mass 174	0.8
174	50.0 - 100.0% of mass 95	84.2
175	5.0 -9.0% of mass 174	7.2
176	95.0 - 101.0% of mass 174	96.8
177	5.0 - 9.0% of mass 176	6.6

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
ICALMIX[A]	W6VM091210-03	121009V6\6O407.D	10-DEC-09 11:34
ICALMIX[A]	W6VM091210-04	121009V6\6O408.D	10-DEC-09 12:02
ICALMIX[A]	W6VM091210-05	121009V6\6O409.D	10-DEC-09 12:30
ICALMIX[A]	W6VM091210-06	121009V6\6O410.D	10-DEC-09 12:58
ICALMIX[A]	W6VM091210-07	121009V6\6O411.D	10-DEC-09 13:26
ICALMIX[A]	W6VM091210-08	121009V6\6O412.D	10-DEC-09 13:54
ICALMIX[A]	W6VM091210-09	121009V6\6O414.D	10-DEC-09 14:49
ICALMIX[A]	W6VM091210-10	121009V6\6O415.D	10-DEC-09 15:17
ICVMIX[A]01	W6VM091210-11	121009V6\6O416.D	10-DEC-09 15:45
ICALMIX[B]	W6VM091210-13	121009V6\6O418.D	10-DEC-09 16:40
ICALMIX[B]	W6VM091210-14	121009V6\6O419.D	10-DEC-09 17:08
ICALMIX[B]	W6VM091210-15	121009V6\6O420.D	10-DEC-09 17:36
ICALMIX[B]	W6VM091210-16	121009V6\6O421.D	10-DEC-09 18:04
ICALMIX[B]	W6VM091210-17	121009V6\6O422.D	10-DEC-09 18:32
ICALMIX[B]	W6VM091210-18	121009V6\6O423.D	10-DEC-09 19:00
ICALMIX[B]	W6VM091210-19	121009V6\6O424.D	10-DEC-09 19:28
ICVMIX[B]02	W6VM091210-20	121009V6\6O426.D	10-DEC-09 20:23

Instrument Performance Check

BFB

Lab Name GEL Laboratories LLC **Client SDG:** 10-939

Instrument ID: VOA6.I **Injection Date/Time:** 22-DEC-09 09:59

Column Description: DB-624 **Lab File ID** 122209V6\6Q201.D

m/e	Ion Abundance Criteria	% Relative Abundance
50	15.0 - 40.0% of mass 95	19.8
75	30.0 - 60.0% of mass 95	47.8
95	Base Peak, 100% Relative Abundance	100
96	5.0 - 9.0% of mass 95	6.7
173	Less than 2.0% of mass 174	0.9
174	50.0 - 100.0% of mass 95	83.5
175	5.0 -9.0% of mass 174	7.2
176	95.0 - 101.0% of mass 174	97.3
177	5.0 - 9.0% of mass 176	6.7

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
CCVMIX[A]01	W6VM091222-01	122209V6\6Q202.D	22-DEC-09 10:27
BLK01LCS	1202001917	122209V6\6Q203LL.D	22-DEC-09 10:55
CCVMIX[B]02	W6VM091222-03	122209V6\6Q204.D	22-DEC-09 11:23
BLK01SLCS	1202001918	122209V6\6Q205SL.D	22-DEC-09 11:51
BLK01	1202001914	122209V6\6Q206BL.D	22-DEC-09 12:19
WST03-10-2147	243007002	122209V6\6Q212.D	22-DEC-09 15:06
WST03-10-2200	243007001	122209V6\6Q220.D	22-DEC-09 18:48

Instrument Performance Check

BFB

Lab Name GEL Laboratories LLC **Client SDG:** 10-939

Instrument ID: VOA6.I **Injection Date/Time:** 23-DEC-09 10:25

Column Description: DB-624 **Lab File ID** 122309V6\6Q301.D

m/e	Ion Abundance Criteria	% Relative Abundance
50	15.0 - 40.0% of mass 95	19.4
75	30.0 - 60.0% of mass 95	47.8
95	Base Peak, 100% Relative Abundance	100
96	5.0 - 9.0% of mass 95	6.7
173	Less than 2.0% of mass 174	0.9
174	50.0 - 100.0% of mass 95	84.3
175	5.0 -9.0% of mass 174	7.1
176	95.0 - 101.0% of mass 174	97.8
177	5.0 - 9.0% of mass 176	6.1

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
CCVMIX[A]05	W6VM091223-01	122309V6\6Q302.D	23-DEC-09 10:53
BLK02LCS	1202004060	122309V6\6Q303LL.D	23-DEC-09 11:21
CCVMIX[B]06	W6VM091223-03	122309V6\6Q304.D	23-DEC-09 11:49
BLK02SLCS	1202004061	122309V6\6Q305SL.D	23-DEC-09 12:16
BLK02	1202004059	122309V6\6Q306BL.D	23-DEC-09 12:44
WST03-10-2147MS	1202001915	122309V6\6Q311.D	23-DEC-09 15:03
WST03-10-2147MSD	1202001916	122309V6\6Q312.D	23-DEC-09 15:31

Internal Standard
Area and RT Summary

Lab Name : GEL Laboratories LLC

Instrument: VOA6.I

GC Column: DB-624

Client SDG: 10-939

STD Analysis Time: 22-DEC-09 10:27

Data File: C:\msdchem\1\DATA\122209V6\6Q202.D

	Fluorobenzene		Chlorobenzene-d5		1,4-Dichlorobenzene-d4	
	Area #	RT #	Area #	RT #	Area #	RT #
12 Hour STD	1453025	9.97	1074695	13.2	597681	15.6
Upper Limit	2906050	10.5	2149390	13.7	1195362	16.1
Lower Limit	726513	9.47	537348	12.7	298841	15.1
Sample ID						
BLK01LCS	1504891	9.97	1103908	13.2	616302	15.6
BLK01SLCS	1459834	9.97	1073688	13.2	609431	15.6
BLK01	1466063	9.97	1060196	13.2	582013	15.6
WST03-10-2147	1358366	9.97	954827	13.2	491683	15.6
WST03-10-2200	1334608	9.98	982361	13.2	530206	15.6

Area Upper Limit = +100% of internal standard area
Area Lower Limit = - 50% of internal standard area

RT Upper Limit = + 0.50 minutes of internal standard RT
RT Lower Limit = - 0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Value outside of QC Limits

Internal Standard
Area and RT Summary

Lab Name : GEL Laboratories LLC

Instrument: VOA6.I

GC Column: DB-624

Client SDG: 10-939

STD Analysis Time: 23-DEC-09 10:53

Data File: C:\msdchem\1\DATA\122309V6\6Q302.D

	Fluorobenzene			Chlorobenzene-d5			1,4-Dichlorobenzene-d4		
	Area	#	RT #	Area	#	RT #	Area	#	RT #
12 Hour STD	1707852		9.97	1237523		13.2	701406		15.6
Upper Limit	3415704		10.5	2475046		13.7	1402812		16.1
Lower Limit	853926		9.47	618762		12.7	350703		15.1
Sample ID									
BLK02LCS	1696199		9.97	1227794		13.2	691041		15.6
BLK02SLCS	1696615		9.97	1234219		13.2	703183		15.6
BLK02	1735478		9.97	1232026		13.2	653874		15.6
WST03-10-2147MS	1626693		9.98	1164978		13.2	606401		15.6
WST03-10-2147MSD	1689533		9.97	1204285		13.2	633330		15.6

Area Upper Limit = +100% of internal standard area
Area Lower Limit = - 50% of internal standard area

RT Upper Limit = + 0.50 minutes of internal standard RT
RT Lower Limit = - 0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Value outside of QC Limits

Sample Data

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-939	**Date Collected:**	12/14/2009 12:00	**Matrix:**	R
Lab Sample ID:	243007002	**Date Received:**	12/16/2009 09:10	**%Moisture:**	13.5
		Client:	LANL010	**Project:**	LANL01004
Client ID:	WST03-10-2147	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	935590	**Inst:**	VOA6.I	**Dilution:**	1
Run Date:	12/22/2009 15:06	**Analyst:**	RXD1	**Purge Vol:**	5 mL
Prep Date:	12/22/2009 11:44	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	122209V6\6Q212.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.16	ug/kg	0.393	1.16
74-87-3	Chloromethane	U	1.16	ug/kg	0.347	1.16
75-01-4	Vinyl chloride	U	1.16	ug/kg	0.347	1.16
74-83-9	Bromomethane	U	1.16	ug/kg	0.347	1.16
75-00-3	Chloroethane	U	1.16	ug/kg	0.347	1.16
75-69-4	Trichlorofluoromethane	U	1.16	ug/kg	0.347	1.16
67-64-1	Acetone		9.79	ug/kg	1.92	5.78
75-35-4	1,1-Dichloroethylene	U	1.16	ug/kg	0.347	1.16
74-88-4	Iodomethane	U	5.78	ug/kg	1.85	5.78
75-09-2	Methylene chloride	U	5.78	ug/kg	2.31	5.78
75-15-0	Carbon disulfide	U	5.78	ug/kg	1.44	5.78
156-60-5	trans-1,2-Dichloroethylene	U	1.16	ug/kg	0.347	1.16
75-34-3	1,1-Dichloroethane	U	1.16	ug/kg	0.347	1.16
78-93-3	2-Butanone	U	5.78	ug/kg	1.73	5.78
156-59-2	cis-1,2-Dichloroethylene	U	1.16	ug/kg	0.347	1.16
594-20-7	2,2-Dichloropropane	U	1.16	ug/kg	0.347	1.16
67-66-3	Chloroform	U	1.16	ug/kg	0.347	1.16
74-97-5	Bromochloromethane	U	1.16	ug/kg	0.381	1.16
71-55-6	1,1,1-Trichloroethane	U	1.16	ug/kg	0.347	1.16
563-58-6	1,1-Dichloropropene	U	1.16	ug/kg	0.347	1.16
56-23-5	Carbon tetrachloride	U	1.16	ug/kg	0.347	1.16
107-06-2	1,2-Dichloroethane	U	1.16	ug/kg	0.347	1.16
71-43-2	Benzene	U	1.16	ug/kg	0.347	1.16
79-01-6	Trichloroethylene	U	1.16	ug/kg	0.381	1.16
78-87-5	1,2-Dichloropropane	U	1.16	ug/kg	0.347	1.16
75-27-4	Bromodichloromethane	U	1.16	ug/kg	0.347	1.16
74-95-3	Dibromomethane	U	1.16	ug/kg	0.347	1.16
108-10-1	4-Methyl-2-pentanone	U	5.78	ug/kg	1.44	5.78
10061-01-5	cis-1,3-Dichloropropylene	U	1.16	ug/kg	0.347	1.16
108-88-3	Toluene	U	1.16	ug/kg	0.347	1.16
10061-02-6	trans-1,3-Dichloropropylene	U	1.16	ug/kg	0.347	1.16
79-00-5	1,1,2-Trichloroethane	U	1.16	ug/kg	0.347	1.16
591-78-6	2-Hexanone	U	5.78	ug/kg	1.73	5.78
142-28-9	1,3-Dichloropropane	U	1.16	ug/kg	0.347	1.16
127-18-4	Tetrachloroethylene	U	1.16	ug/kg	0.347	1.16
124-48-1	Dibromochloromethane	U	1.16	ug/kg	0.347	1.16
106-93-4	1,2-Dibromoethane	U	1.16	ug/kg	0.347	1.16
108-90-7	Chlorobenzene	U	1.16	ug/kg	0.347	1.16

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-939	**Date Collected:**	12/14/2009 12:00	**Matrix:**	R
Lab Sample ID:	243007002	**Date Received:**	12/16/2009 09:10	**%Moisture:**	13.5
		Client:	LANL010	**Project:**	LANL01004
Client ID:	WST03-10-2147	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	935590	**Inst:**	VOA6.I	**Dilution:**	1
Run Date:	12/22/2009 15:06	**Analyst:**	RXD1	**Purge Vol:**	5 mL
Prep Date:	12/22/2009 11:44	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	122209V6\6Q212.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.16	ug/kg	0.347	1.16
179601-23-1	m,p-Xylenes	U	2.31	ug/kg	0.347	2.31
95-47-6	o-Xylene	U	1.16	ug/kg	0.347	1.16
100-42-5	Styrene	U	1.16	ug/kg	0.347	1.16
75-25-2	Bromoform	U	1.16	ug/kg	0.347	1.16
79-34-5	1,1,2,2-Tetrachloroethane	U	1.16	ug/kg	0.347	1.16
96-18-4	1,2,3-Trichloropropane	U	1.16	ug/kg	0.347	1.16
108-86-1	Bromobenzene	U	1.16	ug/kg	0.347	1.16
103-65-1	n-Propylbenzene	U	1.16	ug/kg	0.347	1.16
95-49-8	2-Chlorotoluene	U	1.16	ug/kg	0.347	1.16
98-82-8	Isopropylbenzene	U	1.16	ug/kg	0.347	1.16
108-67-8	1,3,5-Trimethylbenzene	U	1.16	ug/kg	0.347	1.16
106-43-4	4-Chlorotoluene	U	1.16	ug/kg	0.347	1.16
98-06-6	tert-Butylbenzene	U	1.16	ug/kg	0.347	1.16
95-63-6	1,2,4-Trimethylbenzene	U	1.16	ug/kg	0.347	1.16
135-98-8	sec-Butylbenzene	U	1.16	ug/kg	0.347	1.16
99-87-6	4-Isopropyltoluene	U	1.16	ug/kg	0.347	1.16
541-73-1	1,3-Dichlorobenzene	U	1.16	ug/kg	0.347	1.16
106-46-7	1,4-Dichlorobenzene	U	1.16	ug/kg	0.347	1.16
104-51-8	n-Butylbenzene	U	1.16	ug/kg	0.347	1.16
96-12-8	1,2-Dibromo-3-chloropropane	U	1.16	ug/kg	0.347	1.16
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.78	ug/kg	1.85	5.78
630-20-6	1,1,1,2-Tetrachloroethane	U	1.16	ug/kg	0.347	1.16
95-50-1	1,2-Dichlorobenzene	U	1.16	ug/kg	0.347	1.16

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown siloxane	14.24	12.5	ug/kg	0	J
	unknown siloxane	16.17	11	ug/kg	0	J

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\122209V6\
Data File : 6Q212.D
Acq On : 22 Dec 2009 3:06 pm
Operator : RXD1
InstName : VOA6
Sample : |243007002|935590|1|VOAF|1|VOA8260BS|
Misc : LANL 5g N/A SOIL
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Dec 23 09:28:59 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Fluorobenzene	9.974	96	1359870	50.00 ug/L	0.00
41) Chlorobenzene-d5	13.156	117	954827	50.00 ug/L	0.00
58) 1,4-Dichlorobenzene-d4	15.576	152	491683	50.00 ug/L	0.00
82) B Fluorobenzene	9.974	96	1358366	50.00 ug/L	0.00
103) B Chlorobenzene-d5	13.156	117	954827	50.00 ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	15.576	152	491683	50.00 ug/L	0.00
System Monitoring Compounds					
29) 1,2-Dichloroethane-d4	9.626	65	388072	48.37 ug/L	0.00
Spiked Amount 50.000	Range 68 - 131		Recovery = 96.74%		
43) Toluene-d8	11.626	98	1318712	49.81 ug/L	0.00
Spiked Amount 50.000	Range 75 - 129		Recovery = 99.62%		
61) Bromofluorobenzene	14.357	95	499892	52.76 ug/L	0.00
Spiked Amount 50.000	Range 68 - 133		Recovery = 105.52%		
Target Compounds					Qvalue
2) Dichlorodifluoromethane	0.000		0	N.D.	
3) Chloromethane	4.662	50	155	N.D.	
4) Vinyl chloride	0.000		0	N.D.	
5) Bromomethane	0.000		0	N.D.	
6) Chloroethane	0.000		0	N.D.	
7) Trichlorofluoromethane	0.000		0	N.D.	
8) Ethyl ether	0.000		0	N.D.	
9) Acetone	6.712	43	20965	8.47 ug/L	90
10) 1,1-Dichloroethylene	0.000		0	N.D.	
11) Iodomethane	0.000		0	N.D.	
12) Acetonitrile	0.000		0	N.D.	
13) Methyl acetate	0.000		0	N.D.	
14) Carbon disulfide	7.072	76	482	N.D.	
15) Methylene chloride	7.285	84	8127	N.D.	
16) tert-Butyl methyl ether	0.000		0	N.D.	
17) trans-1,2-Dichloroethy...	0.000		0	N.D.	
18) Vinyl acetate	0.000		0	N.D.	
19) 1,1-Dichloroethane	0.000		0	N.D.	
20) 2-Butanone	8.700	43	1609	N.D.	
21) cis-1,2-Dichloroethylene	0.000		0	N.D.	
22) 2,2-Dichloropropane	0.000		0	N.D.	
23) Bromochloromethane	0.000		0	N.D.	
24) Chloroform	0.000		0	N.D.	
25) 1,1,1-Trichloroethane	0.000		0	N.D.	
26) Cyclohexane	0.000		0	N.D.	
27) 1,1-Dichloropropene	0.000		0	N.D.	
28) Carbon tetrachloride	0.000		0	N.D.	
30) 1,2-Dichloroethane	0.000		0	N.D.	
31) Benzene	9.718	78	210	N.D.	
32) Cyclohexene	0.000		0	N.D.	
33) n-Butyl alcohol	0.000		0	N.D.	
34) Trichloroethylene	0.000		0	N.D.	
35) 1,2-Dichloropropane	0.000		0	N.D.	
36) Methylcyclohexane	0.000		0	N.D.	
37) Dibromomethane	0.000		0	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\122209V6\
Data File : 6Q212.D
Acq On : 22 Dec 2009 3:06 pm
Operator : RXD1
InstName : VOA6
Sample : |243007002|935590|1|VOAF|1|VOA8260BS|
Misc : LANL 5g N/A SOIL
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Dec 23 09:28:59 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
38) Bromodichloromethane	0.000		0	N.D.	
39) 2-Chloroethylvinyl ether	0.000		0	N.D.	
40) cis-1,3-Dichloropropylene	0.000		0	N.D.	
42) 4-Methyl-2-pentanone	0.000		0	N.D.	
44) Toluene	11.687	91	3312	N.D.	
45) trans-1,3-Dichloroprop...	0.000		0	N.D.	
46) 1,1,2-Trichloroethane	0.000		0	N.D.	
47) 2-Hexanone	0.000		0	N.D.	
48) 1,3-Dichloropropane	0.000		0	N.D.	
49) Tetrachloroethylene	0.000		0	N.D.	
50) Dibromochloromethane	0.000		0	N.D.	
51) 1,2-Dibromoethane	0.000		0	N.D.	
52) Chlorobenzene	0.000		0	N.D.	
53) 1,1,1,2-Tetrachloroethane	0.000		0	N.D.	
54) Ethylbenzene	13.254	91	1313	N.D.	
55) m,p-Xylenes	13.369	106	1866	N.D.	
56) o-Xylene	13.790	106	203	N.D.	
57) Styrene	13.802	104	404	N.D.	
59) Bromoform	0.000		0	N.D.	
60) Isopropylbenzene	0.000		0	N.D.	
62) 1,1,2,2-Tetrachloroethane	0.000		0	N.D.	
63) 1,2,3-Trichloropropane	0.000		0	N.D.	
64) Bromobenzene	0.000		0	N.D.	
65) n-Propylbenzene	14.583	91	1091	N.D.	
66) 1,3,5-Trimethylbenzene	14.735	105	1079	N.D.	
67) 2-Chlorotoluene	0.000		0	N.D.	
68) 4-Chlorotoluene	0.000		0	N.D.	
69) tert-Butylbenzene	0.000		0	N.D.	
70) 1,2,4-Trimethylbenzene	15.150	105	4301	N.D.	
71) sec-Butylbenzene	15.326	105	1095	N.D.	
72) 4-Isopropyltoluene	15.461	119	1179	N.D.	
73) 1,3-Dichlorobenzene	0.000		0	N.D.	
74) 1,4-Dichlorobenzene	0.000		0	N.D.	
75) n-Butylbenzene	15.893	91	1985	N.D.	
76) 1,2-Dichlorobenzene	0.000		0	N.D.	
77) 1,2-Dibromo-3-chloropr...	0.000		0	N.D.	
78) 1,2,4-Trichlorobenzene	0.000		0	N.D.	
79) Hexachlorobutadiene	0.000		0	N.D.	
80) Naphthalene	0.000		0m	N.D.	d
81) 1,2,3-Trichlorobenzene	0.000		0	N.D.	
83) Chlorotrifluoroethylene	0.000		0	N.D.	
84) 2-Chloro-1,1,1-trifluo...	0.000		0	N.D.	
85) Acrolein	0.000		0	N.D.	
86) Trichlorotrifluoroethane	0.000		0	N.D.	
87) Isopropyl Alcohol	0.000		0	N.D.	
88) Allyl chloride	0.000		0	N.D.	
89) tert-Butyl Alcohol	0.000		0	N.D.	
90) Acrylonitrile	0.000		0	N.D.	
91) Isopropyl ether	0.000		0	N.D.	
92) 2-Chloro-1,3-butadiene	0.000		0	N.D.	
93) Ethyl tert-butyl ether	0.000		0	N.D.	
94) Ethyl acetate	8.700	43	1609	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\122209V6\
Data File : 6Q212.D
Acq On : 22 Dec 2009 3:06 pm
Operator : RXD1
InstName : VOA6
Sample : |243007002|935590|1|VOAF|1|VOA8260BS|
Misc : LANL 5g N/A SOIL
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Dec 23 09:28:59 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
95)	Propionitrile	0.000		0	N.D.	
96)	Methacrylonitrile	0.000		0	N.D.	
97)	Tetrahydrofuran	0.000		0	N.D.	
98)	Isobutyl alcohol	0.000		0	N.D.	
99)	Methyl tert-amyl ether	0.000		0	N.D.	
100)	Methyl methacrylate	0.000		0	N.D.	
101)	1,4-Dioxane	0.000		0	N.D.	
102)	2-Nitropropane	0.000		0	N.D.	
104)	Ethyl methacrylate	0.000		0	N.D.	
106)	1-Chlorohexane	0.000		0	N.D.	
107)	cis-1,4-Dichloro-2-butene	0.000		0	N.D.	
108)	Cyclohexanone	0.000		0	N.D.	
109)	trans-1,4-Dichloro-2-b...	0.000		0	N.D.	
110)	Pentachloroethane	0.000		0	N.D.	
111)	Benzyl chloride	15.717	91	9376	0.74 ug/L	88
112)	bis(2-Chloroisopropyl)...	0.000		0m	N.D. d	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\122209V6\
Data File : 6Q212.D
Acq On : 22 Dec 2009 3:06 pm
Operator : RXD1
InstName : VOA6
Sample : |243007002|935590|1|VOAF|1|VOA8260BS|
Misc : LANL 5g N/A SOIL
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Dec 23 09:28:59 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

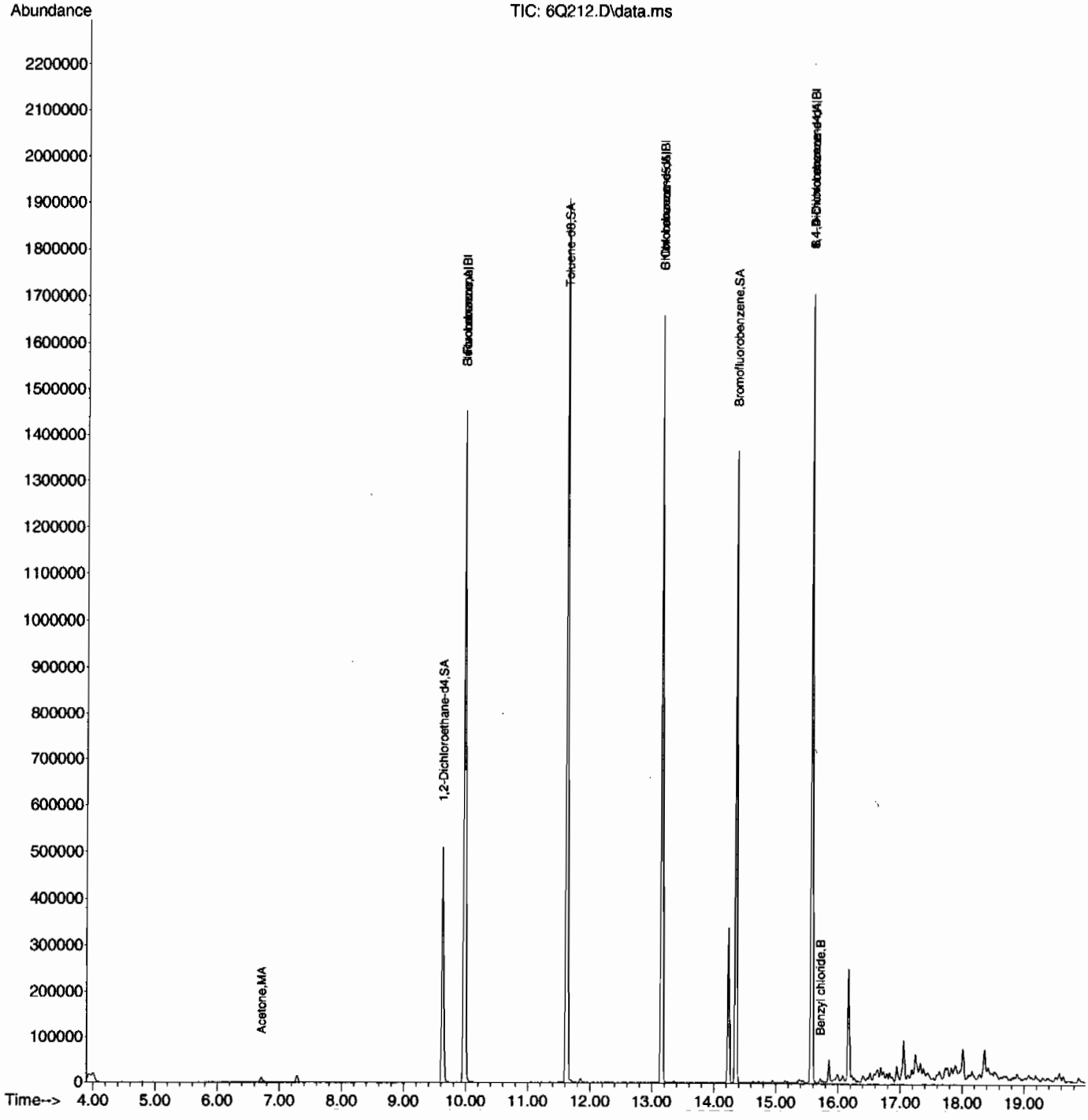

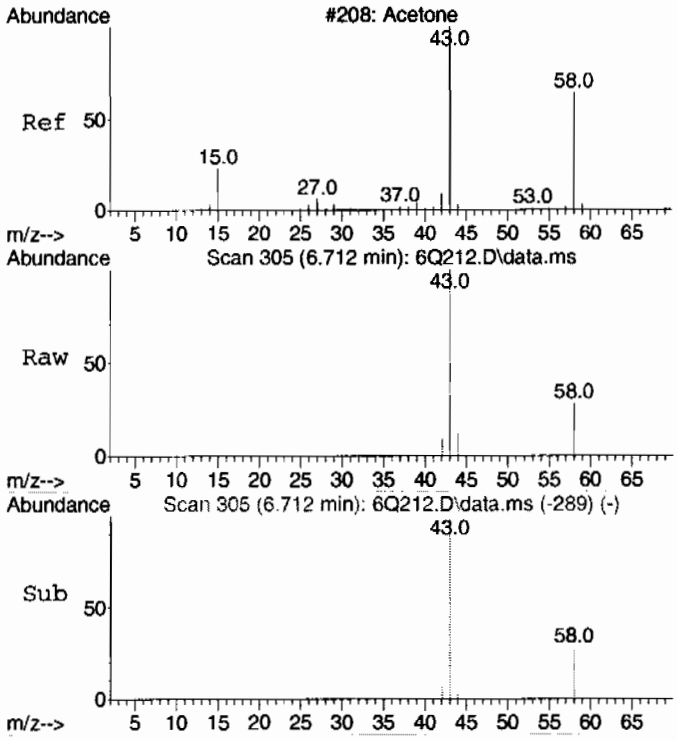

#9
Acetone
Concen: 8.47 ug/L
RT: 6.712 min Scan# 305
Delta R.T. 0.000 min
Lab File: 6Q212.D
Acq: 22 Dec 2009 3:06 pm

Tgt Ion: 43 Resp: 20965

Ion	Ratio	Lower	Upper
43	100		
58	25.1	0.4	60.4

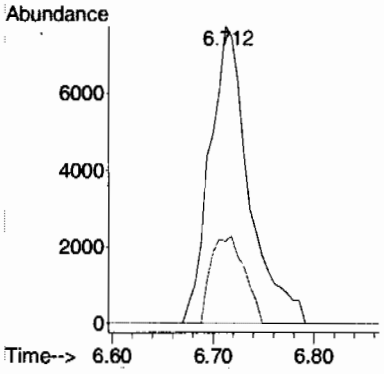

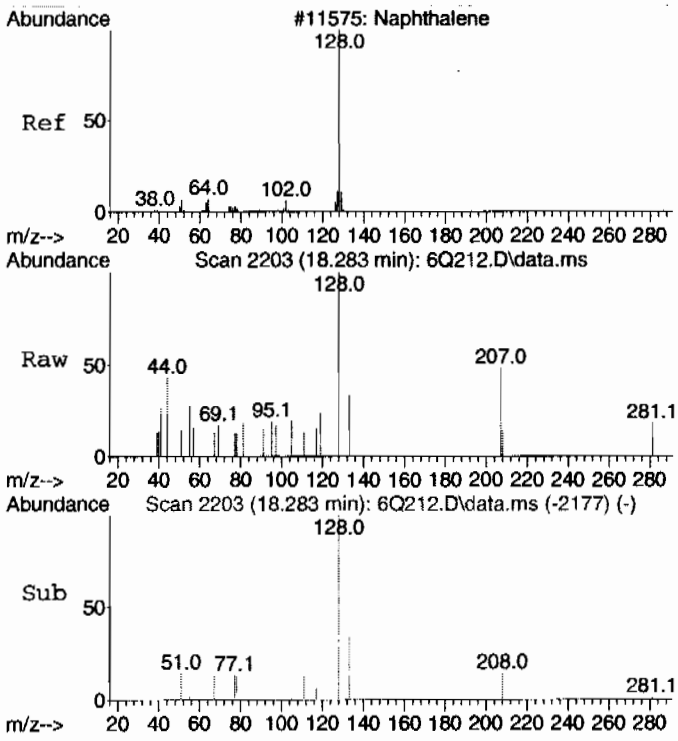

#80 BEFORE analyst DELETION
Naphthalene
Concen: 0.36 ug/L
RT: 18.283 min Scan# 2203
Delta R.T. -0.006 min
Lab File: 6Q212.D
Acq: 22 Dec 2009 3:06 pm

Tgt Ion:128 Resp: 8043

Ion	Ratio	Lower	Upper
128	100		
127	4.7	0.0	42.6
129	4.9	0.0	40.9

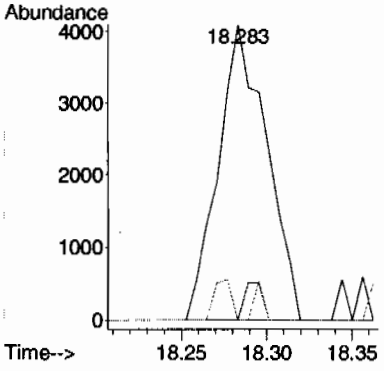

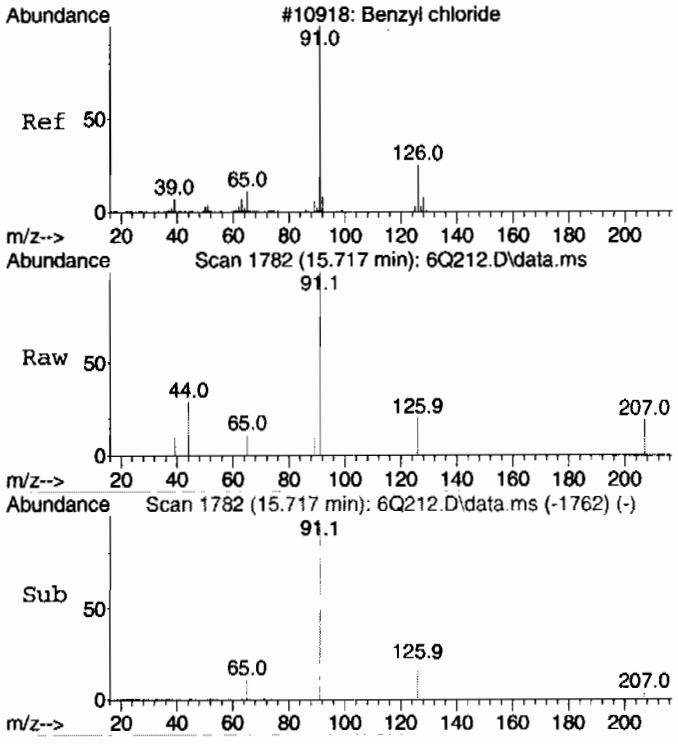

#111
Benzyl chloride
Concen: 0.74 ug/L
RT: 15.717 min Scan# 1782
Delta R.T. 0.001 min
Lab File: 6Q212.D
Acq: 22 Dec 2009 3:06 pm

Tgt Ion: 91 Resp: 9376

Ion	Ratio	Lower	Upper
91	100		
126	17.4	0.0	52.6
65	6.8	0.0	42.9

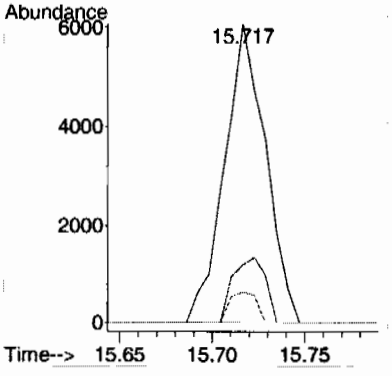

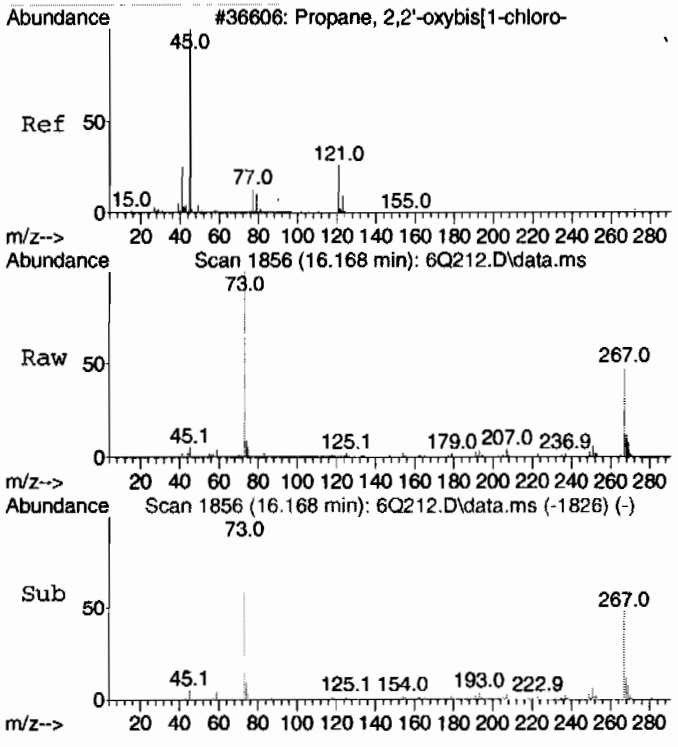

#112 BEFORE analyst DELETION
bis(2-Chloroisopropyl)ether
Concen: 2.70 ug/L
RT: 16.168 min Scan# 1856
Delta R.T. 0.055 min
Lab File: 6Q212.D
Acq: 22 Dec 2009 3:06 pm

Tgt Ion: 45 Resp: 10067

Ion	Ratio	Lower	Upper
45	100		
121	0.0	0.0	53.0

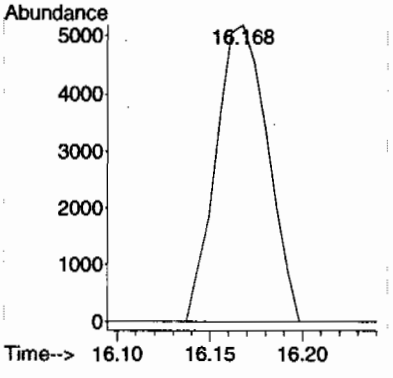

Library Search Compound Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\122209V6\
Data File : 6Q212.D
Acq On : 22 Dec 2009 3:06 pm
Operator : RXD1
Sample : |243007002|935590|1|VOAF|1|VOA8260BS|
Misc : LANL 5g N/A SOIL
ALS Vial : 12 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

****

Peak Number 1 unknown siloxane Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
14.235	10.81 ug/L	629929	B Chlorobenzene-d5	13.156

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclotetrasiloxane, octamethyl-	296	C8H24O4Si4	000556-67-2	90
2	Cyclotetrasiloxane, octamethyl-	296	C8H24O4Si4	000556-67-2	90
3	Benzene, 1-phenyl-4-(2-cyano-2-p...	281	C21H15N	027869-56-3	59
4	4H-1,2,4-Triazole-3-thiol, 4-all...	281	C16H15N3S	031803-13-1	53
5	7H-Dibenzo[b,g]carbazole, 7-methyl-	281	C21H15N	003557-49-1	53

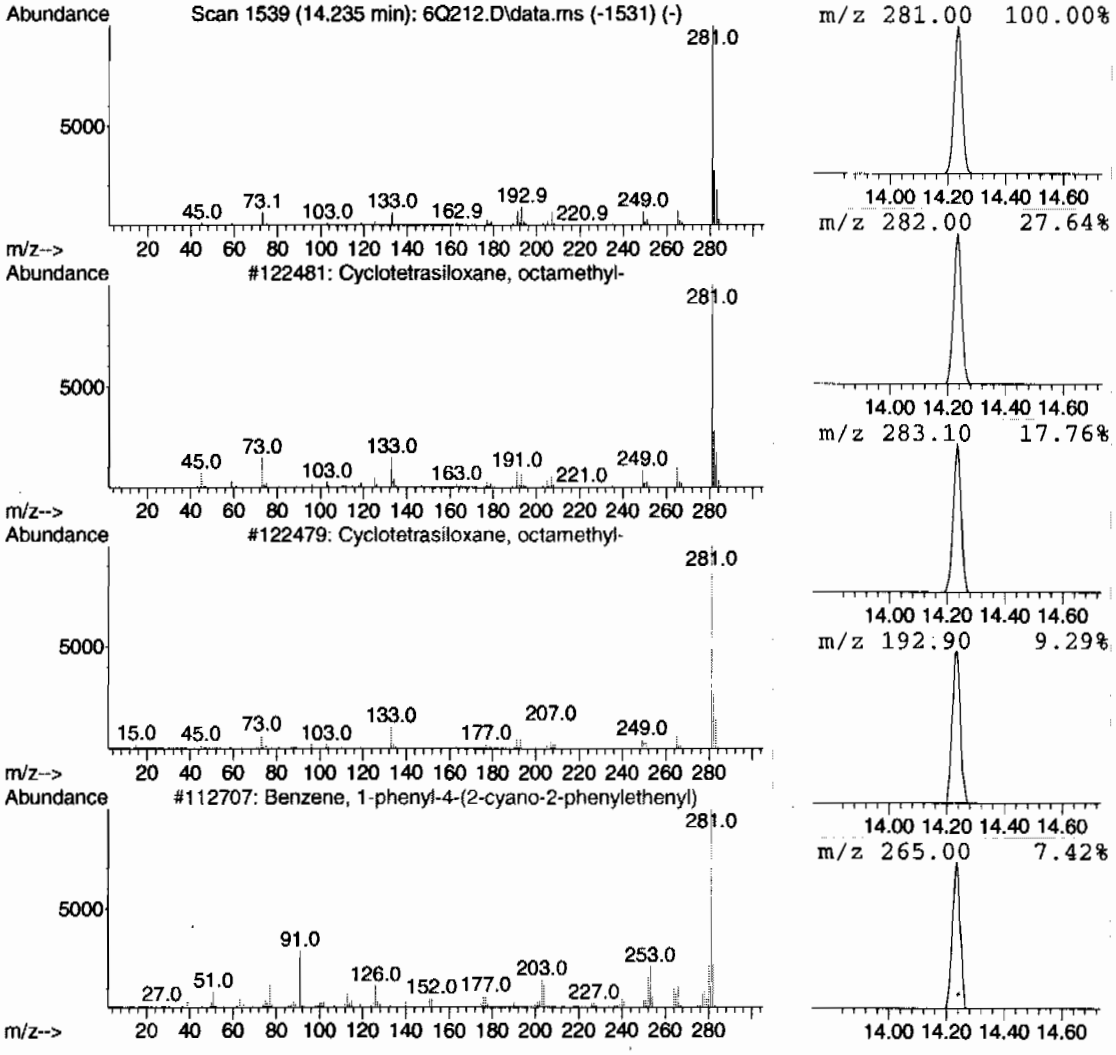

Library Search Compound Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\122209V6\
Data File : 6Q212.D
Acq On : 22 Dec 2009 3:06 pm
Operator : RXD1
Sample : |243007002|935590|1|VOAF|1|VOA8260BS|
Misc : LANL 5g N/A SOIL
ALS Vial : 12 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

****
Peak Number 2 unknown siloxane Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
16.168	9.54 ug/L	555111	B 1,4-Dichlorobenzene-d4	15.576

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzoic acid, 2-[(trimethylsilyl...	282	C13H22O3Si2	003789-85-3	40
2	Benzeneethanamine, N-[(pentafluo...	475	C21H26F5NO2Si2	055429-85-1	37
3	3,5-Dimethoxyphenylacetic acid, ...	268	C13H20O4Si	1000071-82-4	10
4	Benzeneacetic acid, 3-methoxy-4-...	268	C13H20O4Si	015964-84-8	9
5	11H-Dibenzo[b,e][1,4]diazepin-11...	267	C16H17N3O	013450-73-2	9

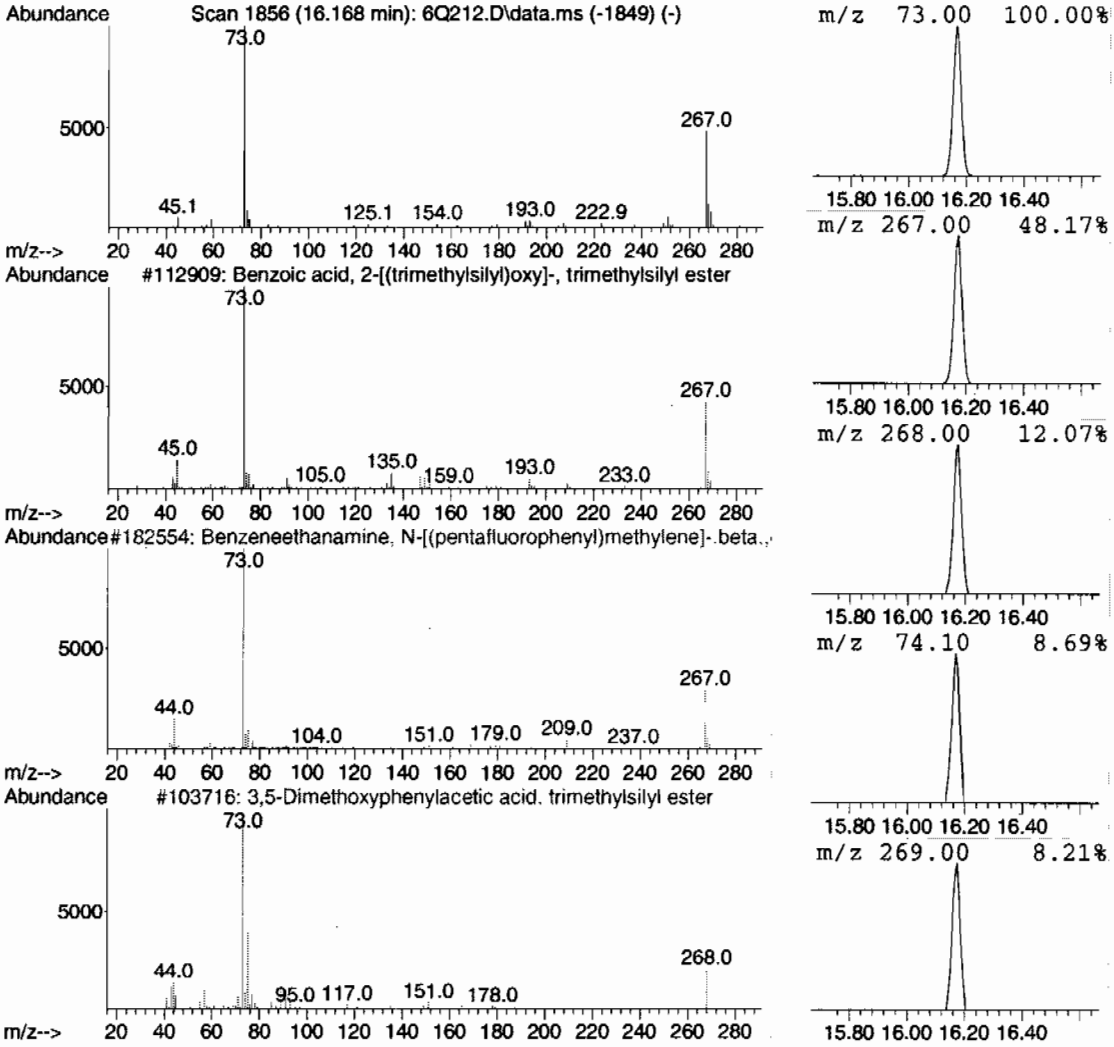

Tentatively Identified Compound (LSC) summary
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\122209V6\
Data File : 6Q212.D
Acq On : 22 Dec 2009 3:06 pm
Operator : RXD1
Sample : |243007002|935590|1|VOAF|1|VOA8260BS|
Misc : LANL 5g N/A SOIL
ALS Vial : 12 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

TIC Top Hit name	RT	EstConc	Units	Response	--Internal Standard--- #	RT	Resp	Conc
unknown siloxane	14.235	10.8	ug/L	629929	4	13.156	2912650	50.0
unknown siloxane	16.168	9.5	ug/L	555111	6	15.576	2908750	50.0

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-939**	**Date Collected:**	**12/14/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243007001**	**Date Received:**	**12/16/2009 09:10**		
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**WST03-10-2200**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**935590**	**Inst:**	**VOA6.I**	**Dilution:**	**1**
Run Date:	**12/22/2009 18:48**	**Analyst:**	**RXD1**	**Purge Vol:**	**5 mL**
Prep Date:	**12/22/2009 11:42**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**122209V6\6Q220.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/kg	0.340	1.00
74-87-3	Chloromethane	U	1.00	ug/kg	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/kg	0.300	1.00
74-83-9	Bromomethane	U	1.00	ug/kg	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/kg	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/kg	0.300	1.00
67-64-1	Acetone	J	3.07	ug/kg	1.66	5.00
75-35-4	1,1-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/kg	1.60	5.00
75-09-2	Methylene chloride	U	5.00	ug/kg	2.00	5.00
75-15-0	Carbon disulfide	U	5.00	ug/kg	1.25	5.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/kg	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/kg	1.50	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/kg	0.300	1.00
74-97-5	Bromochloromethane	U	1.00	ug/kg	0.330	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/kg	0.300	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/kg	0.300	1.00
56-23-5	Carbon tetrachloride	U	1.00	ug/kg	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/kg	0.300	1.00
71-43-2	Benzene	U	1.00	ug/kg	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/kg	0.330	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/kg	0.300	1.00
74-95-3	Dibromomethane	U	1.00	ug/kg	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/kg	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
108-88-3	Toluene	U	1.00	ug/kg	0.300	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/kg	0.300	1.00
591-78-6	2-Hexanone	U	5.00	ug/kg	1.50	5.00
142-28-9	1,3-Dichloropropane	U	1.00	ug/kg	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/kg	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/kg	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/kg	0.300	1.00
108-90-7	Chlorobenzene	U	1.00	ug/kg	0.300	1.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-939**	**Date Collected:**	**12/14/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243007001**	**Date Received:**	**12/16/2009 09:10**		
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**WST03-10-2200**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**935590**	**Inst:**	**VOA6.I**	**Dilution:**	**1**
Run Date:	**12/22/2009 18:48**	**Analyst:**	**RXD1**	**Purge Vol:**	**5 mL**
Prep Date:	**12/22/2009 11:42**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**122209V6\6Q220.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.00	ug/kg	0.300	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/kg	0.300	2.00
95-47-6	o-Xylene	U	1.00	ug/kg	0.300	1.00
100-42-5	Styrene	U	1.00	ug/kg	0.300	1.00
75-25-2	Bromoform	U	1.00	ug/kg	0.300	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/kg	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/kg	0.300	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/kg	0.300	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/kg	0.300	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/kg	0.300	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/kg	0.300	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/kg	0.300	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/kg	0.300	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/kg	0.300	1.00
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.00	ug/kg	1.60	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated Units	Fit	Qual
	No Tentatively Identified Compounds Found		ug/kg		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\122209V6\
Data File : 6Q220.D
Acq On : 22 Dec 2009 6:48 pm
Operator : RXD1
InstName : VOA6
Sample : |243007001|935590|1|VOAF|1|VOA8260BS|
Misc : LANL 5g N/A SOIL
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Dec 23 08:58:43 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Fluorobenzene	9.980	96	1335093	50.00 ug/L	0.00
41) Chlorobenzene-d5	13.156	117	982361	50.00 ug/L	0.00
58) 1,4-Dichlorobenzene-d4	15.576	152	530206	50.00 ug/L	0.00
82) B Fluorobenzene	9.980	96	1334608	50.00 ug/L	0.00
103) B Chlorobenzene-d5	13.156	117	982361	50.00 ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	15.576	152	530206	50.00 ug/L	0.00
System Monitoring Compounds					
29) 1,2-Dichloroethane-d4	9.626	65	390790	49.61 ug/L	0.00
Spiked Amount 50.000	Range 68 - 131		Recovery = 99.22%		
43) Toluene-d8	11.626	98	1318994	48.43 ug/L	0.00
Spiked Amount 50.000	Range 75 - 129		Recovery = 96.86%		
61) Bromofluorobenzene	14.357	95	520014	50.89 ug/L	0.00
Spiked Amount 50.000	Range 68 - 133		Recovery = 101.78%		
Target Compounds					Qvalue
2) Dichlorodifluoromethane	0.000		0	N.D.	
3) Chloromethane	0.000		0	N.D.	
4) Vinyl chloride	0.000		0	N.D.	
5) Bromomethane	0.000		0	N.D.	
6) Chloroethane	0.000		0	N.D.	
7) Trichlorofluoromethane	0.000		0	N.D.	
8) Ethyl ether	0.000		0	N.D.	
9) Acetone	6.718	43	7452	3.07 ug/L	78
10) 1,1-Dichloroethylene	0.000		0	N.D.	
11) Iodomethane	0.000		0	N.D.	
12) Acetonitrile	0.000		0	N.D.	
13) Methyl acetate	0.000		0	N.D.	
14) Carbon disulfide	0.000		0	N.D.	
15) Methylene chloride	7.291	84	8840	N.D.	
16) tert-Butyl methyl ether	7.572	73	1319	N.D.	
17) trans-1,2-Dichloroethy...	0.000		0	N.D.	
18) Vinyl acetate	0.000		0	N.D.	
19) 1,1-Dichloroethane	0.000		0	N.D.	
20) 2-Butanone	8.706	43	585	N.D.	
21) cis-1,2-Dichloroethylene	0.000		0	N.D.	
22) 2,2-Dichloropropane	0.000		0	N.D.	
23) Bromochloromethane	0.000		0	N.D.	
24) Chloroform	0.000		0	N.D.	
25) 1,1,1-Trichloroethane	0.000		0	N.D.	
26) Cyclohexane	0.000		0	N.D.	
27) 1,1-Dichloropropene	0.000		0	N.D.	
28) Carbon tetrachloride	0.000		0	N.D.	
30) 1,2-Dichloroethane	0.000		0	N.D.	
31) Benzene	9.718	78	3119	N.D.	
32) Cyclohexene	0.000		0	N.D.	
33) n-Butyl alcohol	0.000		0	N.D.	
34) Trichloroethylene	0.000		0	N.D.	
35) 1,2-Dichloropropane	0.000		0	N.D.	
36) Methylcyclohexane	0.000		0	N.D.	
37) Dibromomethane	0.000		0	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\122209V6\
Data File : 6Q220.D
Acq On : 22 Dec 2009 6:48 pm
Operator : RXD1
InstName : VOA6
Sample : |243007001|935590|1|VOAF|1|VOA8260BS|
Misc : LANL 5g N/A SOIL
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Dec 23 08:58:43 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc Units Dev(Min)
38) Bromodichloromethane	0.000		0	N.D.
39) 2-Chloroethylvinyl ether	0.000		0	N.D.
40) cis-1,3-Dichloropropylene	0.000		0	N.D.
42) 4-Methyl-2-pentanone	0.000		0	N.D.
44) Toluene	11.699	91	5148	N.D.
45) trans-1,3-Dichloroprop...	0.000		0	N.D.
46) 1,1,2-Trichloroethane	0.000		0	N.D.
47) 2-Hexanone	0.000		0	N.D.
48) 1,3-Dichloropropane	0.000		0	N.D.
49) Tetrachloroethylene	0.000		0	N.D.
50) Dibromochloromethane	0.000		0	N.D.
51) 1,2-Dibromoethane	0.000		0	N.D.
52) Chlorobenzene	0.000		0	N.D.
53) 1,1,1,2-Tetrachloroethane	0.000		0	N.D.
54) Ethylbenzene	13.254	91	1087	N.D.
55) m,p-Xylenes	13.357	106	204	N.D.
56) o-Xylene	0.000		0	N.D.
57) Styrene	0.000		0	N.D.
59) Bromoform	0.000		0	N.D.
60) Isopropylbenzene	0.000		0	N.D.
62) 1,1,2,2-Tetrachloroethane	0.000		0	N.D.
63) 1,2,3-Trichloropropane	0.000		0	N.D.
64) Bromobenzene	0.000		0	N.D.
65) n-Propylbenzene	0.000		0	N.D.
66) 1,3,5-Trimethylbenzene	0.000		0	N.D.
67) 2-Chlorotoluene	0.000		0	N.D.
68) 4-Chlorotoluene	0.000		0	N.D.
69) tert-Butylbenzene	0.000		0	N.D.
70) 1,2,4-Trimethylbenzene	15.149	105	1633	N.D.
71) sec-Butylbenzene	0.000		0	N.D.
72) 4-Isopropyltoluene	15.454	119	614	N.D.
73) 1,3-Dichlorobenzene	0.000		0	N.D.
74) 1,4-Dichlorobenzene	0.000		0	N.D.
75) n-Butylbenzene	0.000		0	N.D.
76) 1,2-Dichlorobenzene	0.000		0	N.D.
77) 1,2-Dibromo-3-chloropr...	0.000		0	N.D.
78) 1,2,4-Trichlorobenzene	0.000		0	N.D.
79) Hexachlorobutadiene	0.000		0	N.D.
80) Naphthalene	18.289	128	634	N.D.
81) 1,2,3-Trichlorobenzene	0.000		0	N.D.
83) Chlorotrifluoroethylene	0.000		0	N.D.
84) 2-Chloro-1,1,1-trifluo...	0.000		0	N.D.
85) Acrolein	0.000		0	N.D.
86) Trichlorotrifluoroethane	0.000		0	N.D.
87) Isopropyl Alcohol	0.000		0	N.D.
88) Allyl chloride	0.000		0	N.D.
89) tert-Butyl Alcohol	0.000		0	N.D.
90) Acrylonitrile	0.000		0	N.D.
91) Isopropyl ether	0.000		0	N.D.
92) 2-Chloro-1,3-butadiene	0.000		0	N.D.
93) Ethyl tert-butyl ether	0.000		0	N.D.
94) Ethyl acetate	8.706	43	585	N.D.

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\122209V6\
Data File : 6Q220.D
Acq On : 22 Dec 2009 6:48 pm
Operator : RXD1
InstName : VOA6
Sample : |243007001|935590|1|VOAF|1|VOA8260BS|
Misc : LANL 5g N/A SOIL
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Dec 23 08:58:43 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
95)	Propionitrile	0.000		0	N.D.	
96)	Methacrylonitrile	0.000		0	N.D.	
97)	Tetrahydrofuran	0.000		0	N.D.	
98)	Isobutyl alcohol	0.000		0	N.D.	
99)	Methyl tert-amyl ether	0.000		0	N.D.	
100)	Methyl methacrylate	0.000		0	N.D.	
101)	1,4-Dioxane	0.000		0	N.D.	
102)	2-Nitropropane	0.000		0	N.D.	
104)	Ethyl methacrylate	0.000		0	N.D.	
106)	1-Chlorohexane	0.000		0	N.D.	
107)	cis-1,4-Dichloro-2-butene	0.000		0	N.D.	
108)	Cyclohexanone	0.000		0	N.D.	
109)	trans-1,4-Dichloro-2-b...	0.000		0	N.D.	
110)	Pentachloroethane	0.000		0	N.D.	
111)	Benzyl chloride	15.716	91	7169	0.52 ug/L	85
112)	bis(2-Chloroisopropyl)...	0.000		0	N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\122209V6\
Data File : 6Q220.D
Acq On : 22 Dec 2009 6:48 pm
Operator : RXD1
InstName : VOA6
Sample : |243007001|935590|1|VOAF|1|VOA8260BS|
Misc : LANL 5g N/A SOIL
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Dec 23 08:58:43 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

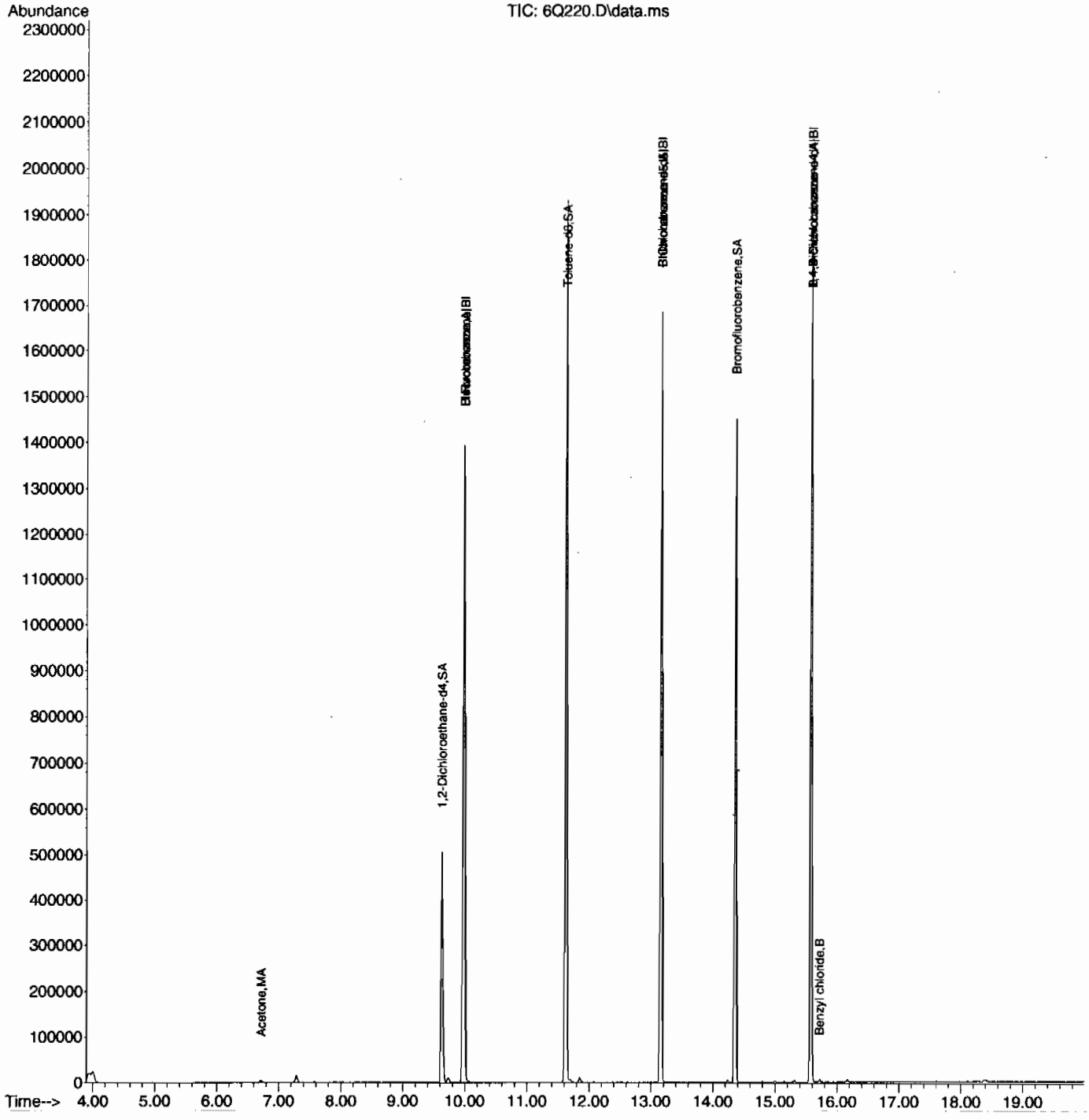

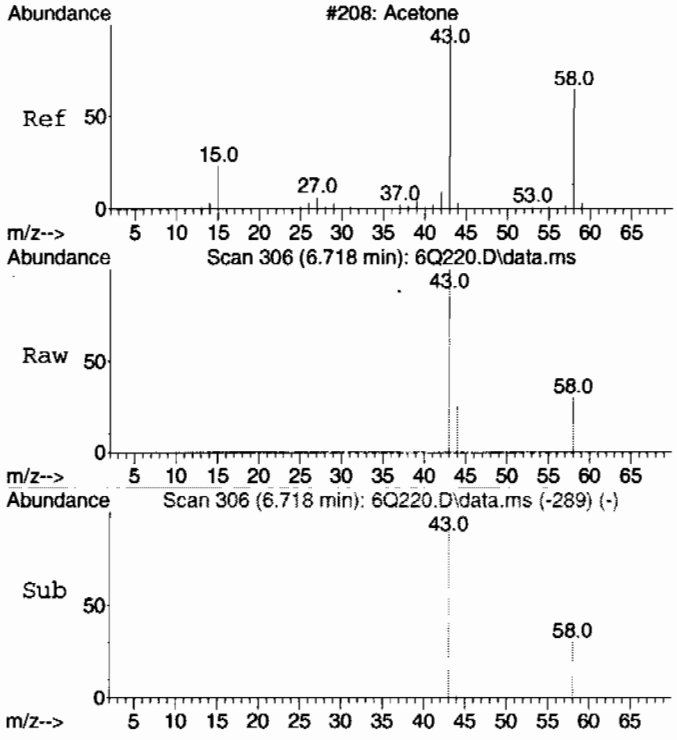

#9
Acetone
Concen: 3.07 ug/L
RT: 6.718 min Scan# 306
Delta R.T. 0.006 min
Lab File: 6Q220.D
Acq: 22 Dec 2009 6:48 pm

Tgt Ion: 43 Resp: 7452

Ion	Ratio	Lower	Upper
43	100		
58	18.7	0.4	60.4

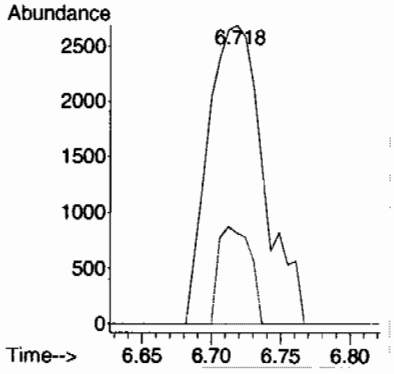

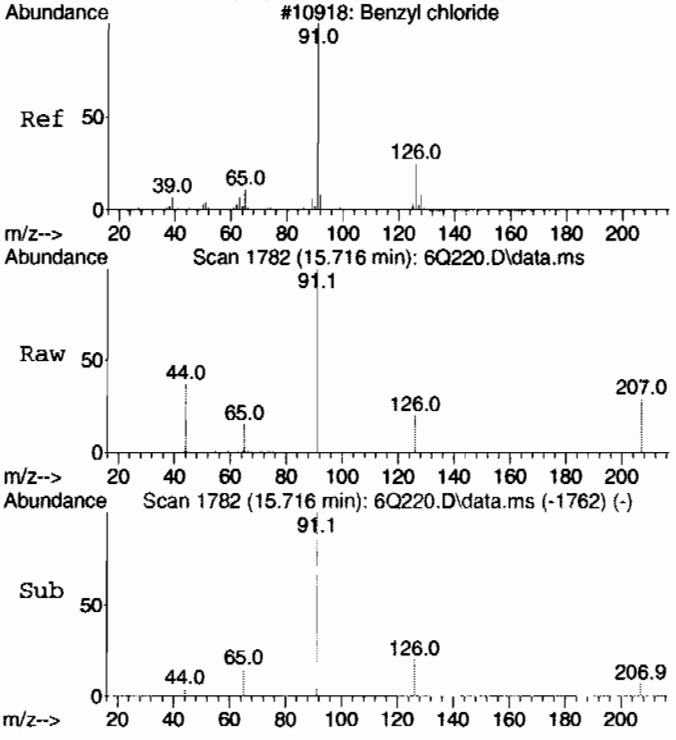

#111
Benzyl chloride
Concen: 0.52 ug/L
RT: 15.716 min Scan# 1782
Delta R.T. 0.000 min
Lab File: 6Q220.D
Acq: 22 Dec 2009 6:48 pm

Tgt Ion: 91 Resp: 7169

Ion	Ratio	Lower	Upper
91	100		
126	16.0	0.0	52.6
65	6.3	0.0	42.9

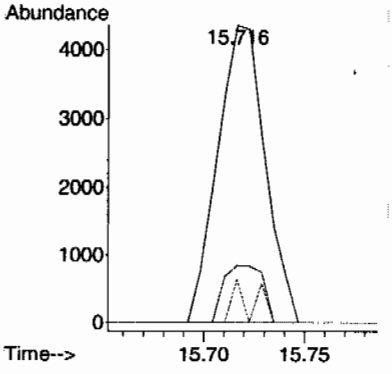

Library Search Compound Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\122209V6\
Data File : 6Q220.D
Acq On : 22 Dec 2009 6:48 pm
Operator : RXD1
Sample : |243007001|935590|1|VOAF|1|VOA8260BS|
Misc : LANL 5g N/A SOIL
ALS Vial : 20 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

No Library Search Compounds Detected
****

Tentatively Identified Compound (LSC) summary
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\122209V6\
Data File : 6Q220.D
Acq On : 22 Dec 2009 6:48 pm
Operator : RXD1
Sample : |243007001|935590|1|VOAF|1|VOA8260BS|
Misc : LANL 5g N/A SOIL
ALS Vial : 20 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

TIC Top Hit name	RT	EstConc	Units	Response	Internal Standard #	RT	Resp	Conc

Standards

EPA 524.2/Low level SW846 8260B and Regular level 8260B and EPA 624

Calibration Standard Concentration Levels

	Level 1	Level 1a	Level 2	Level 3	Level 4 #	Level 5	Level 6	Level 7 !	Level 7a
Fluorobenzene (IS)									
1,2-Dichloroethane-d4(surr)		0.5	1	2	5	10	20	50	100
Dichlorodifluoromethane		0.5	1	2	5	10	20	50	100
Chloromethane		0.5	1	2	5	10	20	50	100
Vinyl chloride		0.5	1	2	5	10	20	50	100
Bromomethane		0.5	1	2	5	10	20	50	100
Chloroethane		0.5	1	2	5	10	20	50	100
Trichlorofluoromethane		0.5	1	2	5	10	20	50	100
1,1-Dichloroethene		0.5	1	2	5	10	20	50	100
Acetone	1	2.5	5	10	25	50	100	250	500
Iodomethane	1	2.5	5	10	25	50	100	250	500
Carbon disulfide	1	2.5	5	10	25	50	100	250	500
Methylene chloride		0.5	1	2	5	10	20	50	100
trans-1,2-Dichloroethene		0.5	1	2	5	10	20	50	100
1,1-Dichloroethane		0.5	1	2	5	10	20	50	100
Ethyl ether		0.5	1	2	5	10	20	50	100
Vinyl acetate	1	2.5	5	10	25	50	100	250	500
cis-1,2-Dichloroethene		0.5	1	2	5	10	20	50	100
1,2-Dichloroethene (total)		1	2	4	10	20	40	100	200
Cyclohexene		0.5	1	2	5	10	20	50	100
2-Chloroethylvinyl ether			5	10	25	50	100	250	500
2,2-Dichloropropane		0.5	1	2	5	10	20	50	100
2-Butanone	1	2.5	5	10	25	50	100	250	500
Bromochloromethane		0.5	1	2	5	10	20	50	100
Chloroform		0.5	1	2	5	10	20	50	100
1,1,1-Trichloroethane		0.5	1	2	5	10	20	50	100
1,1-Dichloropropene		0.5	1	2	5	10	20	50	100
Carbon tetrachloride		0.5	1	2	5	10	20	50	100
Benzene		0.5	1	2	5	10	20	50	100
1,2-Dichloroethane		0.5	1	2	5	10	20	50	100
Trichloroethene		0.5	1	2	5	10	20	50	100
1,2-Dichloropropane		0.5	1	2	5	10	20	50	100
Dibromomethane		0.5	1	2	5	10	20	50	100
Bromodichloromethane		0.5	1	2	5	10	20	50	100
cis-1,3-Dichloropropene		0.5	1	2	5	10	20	50	100
tert-Butylmethylether		0.5	1	2	5	10	20	50	100
Ethyl Ether			1	2	5	10	20	50	100
Acetonitrile			25	50	125	250	500	1250	2500
Methyl acetate			5	10	25	50	100	250	500
Cyclohexane			1	2	5	10	20	50	100
Methylcyclohexane			1	2	5	10	20	50	100
n-Butyl alcohol			50	100	250	500	1000	2500	5000
2-Nitropropane			5	10	25	50	100	250	500
Ethyl acetate			5	10	25	50	100	250	500
Acrolein			5	10	25	50	100	250	500
Trichlorotrifluoroethane			5	10	25	50	100	250	500
Allyl chloride			5	10	25	50	100	250	500
Acrylonitrile			5	10	25	50	100	250	500
1,4-Dioxane			50	100	250	500	1000	2500	5000
Isobutyl alcohol			50	100	250	500	1000	2500	5000
Methacrylonitrile			5	10	25	50	100	250	500
Propionitrile			5	10	25	50	100	250	500
Methyl methacrylate			5	10	25	50	100	250	500
Chlorotrifluoroethylene			5	10	25	50	100	250	500
2-Chloro-1,1,1-trifluoroethane			5	10	25	50	100	250	500

tert-Butyl alcohol			50	100	250	500	1000	2500	5000
Isopropyl ether			1	2	5	10	20	50	100
Ethyl tert-butyl ether			1	2	5	10	20	50	100
Isopropyl alcohol			50	100	250	500	1000	2500	5000
Methyl tert-amyl ether			1	2	5	10	20	50	100
1-Chlorohexane			1	2	5	10	20	50	100
2-Chloro-1,3-butadiene(chloroprene)			1	2	5	10	20	50	100
Chlorobenzene-d5 (IS)									
Toluene-d8 (surr)		0.5	1	2	5	10	20	50	100
4-Methyl-2-pentanone	1	2.5	5	10	25	50	100	250	500
Toluene		0.5	1	2	5	10	20	50	100
trans-1,3-Dichloropropene		0.5	1	2	5	10	20	50	100
1,1,2-Trichloroethane		0.5	1	2	5	10	20	50	100
Tetrachloroethene		0.5	1	2	5	10	20	50	100
1,3-Dichloropropane		0.5	1	2	5	10	20	50	100
2-Hexanone	1	2.5	5	10	25	50	20	250	500
Dibromochloromethane		0.5	1	2	5	10	20	50	100
1,2-Dibromoethane		0.5	1	2	5	10	20	50	100
Chlorobenzene		0.5	1	2	5	10	20	50	100
1,1,1,2-Tetrachloroethane		0.5	1	2	5	10	20	50	100
Ethylbenzene		0.5	1	2	5	10	20	50	100
m,p-Xylene		1	2	4	10	20	20	100	200
o-Xylene		0.5	1	2	5	10	20	50	100
Xylenes (total)		1.5	3	6	15	30	60	150	300
Stryene		0.5	1	2	5	10	20	50	100
Cyclohexanone			50	100	250	500	1000	2500	5000
Ethyl methacrylate			5	10	25	50	100	250	500
1,4-Dichlorobenzene-d4 (IS)									
Bromofluorobenzene (surr)		0.5	1	2	5	10	20	50	100
Bromoform		0.5	1	2	5	10	20	50	100
Isopropylbenzene		0.5	1	2	5	10	20	50	100
1,1,2,2-Tetrachloroethane		0.5	1	2	5	10	20	50	100
Bromobenzene		0.5	1	2	5	10	20	50	100
1,2,3-Trichloropropane		0.5	1	2	5	10	20	50	100
n-Propylbenzene		0.5	1	2	5	10	20	50	100
2-Chlorotoluene		0.5	1	2	5	10	20	50	100
1,3,5-Trimethylbenzene		0.5	1	2	5	10	20	50	100
4-Chlorotoluene		0.5	1	2	5	10	20	50	100
1,2,4-Trimethylbenzene		0.5	1	2	5	10	20	50	100
sec-Butylbenzene		0.5	1	2	5	10	20	50	100
1,3-Dichlorobenzene		0.5	1	2	5	10	20	50	100
tert-Butylbenzene		0.5	1	2	5	10	20	50	100
Isopropyltoluene		0.5	1	2	5	10	20	50	100
1,4-Dichlorobenzene		0.5	1	2	5	10	20	50	100
n-Butylbenzene		0.5	1	2	5	10	20	50	100
1,2-Dichlorobenzene		0.5	1	2	5	10	20	50	100
1,2-Dibromo-3-chloropropa		0.5	1	2	5	10	20	50	100
1,2,4-Trichlorobenzene		0.5	1	2	5	10	20	50	100
Hexachlorobutadiene		0.5	1	2	5	10	20	50	100
Naphthalene		0.5	1	2	5	10	20	50	100
1,2,3-Trichlorobenzene		0.5	1	2	5	10	20	50	100
cis-1,4-Dichloro-2-butene			5	10	25	50	100	250	500
trans-1,4-Dichloro-2-butene			5	10	25	50	100	250	500
Tetrahydrofuran			5	10	25	50	100	250	500
Pentachloroethane			5	10	25	50	100	250	500
Benzyl chloride			5	10	25	50	100	250	500
bis(2-Chloro-isopropyl)ether			5	10	25	50	100	250	500

Method	PQL	Concentration range
EPA 524.2	Level 1a	Levels 1a -> 7a
SW 846 8260B low level	Level 1a	Levels 1-> 7a
EPA 624	Level 2	Levels 2-> 7a
SW846 8260B	Level 2	Levels 2-> 7a

#: Indicates calibration verification concentration level used for low level analysis

!: Indicates calibration verification concentration level used for regular level analysis

Calibration History Report VOA6
GEL Laboratories, LLC

Method File : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Last Update : Mon Dec 14 12:44:52 2009
Integrator : (RTE Integrator) Response via : Initial Calibration

Cal Lvl:8 Amt:-1 Last Updated with: C:\msdchem\1\DATA\121009V6\60414.D

Injection Date	Mix	Calibration File
10 Dec 2009 2:49 pm	A	C:\msdchem\1\DATA\121009V6\60414.D

Cal Lvl:1 Amt:1 Last Updated with: C:\msdchem\1\DATA\121009V6\60418.D

Injection Date	Mix	Calibration File
10 Dec 2009 3:17 pm	A	C:\msdchem\1\DATA\121009V6\60415.D
10 Dec 2009 4:40 pm	B	C:\msdchem\1\DATA\121009V6\60418.D

Cal Lvl:2 Amt:2 Last Updated with: C:\msdchem\1\DATA\121009V6\60419.D

Injection Date	Mix	Calibration File
10 Dec 2009 11:34 am	A	C:\msdchem\1\DATA\121009V6\60407.D
10 Dec 2009 5:08 pm	B	C:\msdchem\1\DATA\121009V6\60419.D

Cal Lvl:3 Amt:5 Last Updated with: C:\msdchem\1\DATA\121009V6\60420.D

Injection Date	Mix	Calibration File
10 Dec 2009 12:02 pm	A	C:\msdchem\1\DATA\121009V6\60408.D
10 Dec 2009 5:36 pm	B	C:\msdchem\1\DATA\121009V6\60420.D

Cal Lvl:4 Amt:10 Last Updated with: C:\msdchem\1\DATA\121009V6\60421.D

Injection Date	Mix	Calibration File
10 Dec 2009 12:30 pm	A	C:\msdchem\1\DATA\121009V6\60409.D
10 Dec 2009 6:04 pm	B	C:\msdchem\1\DATA\121009V6\60421.D

Cal Lvl:5 Amt:20 Last Updated with: C:\msdchem\1\DATA\121009V6\60422.D

Injection Date	Mix	Calibration File
10 Dec 2009 12:58 pm	A	C:\msdchem\1\DATA\121009V6\60410.D
10 Dec 2009 6:32 pm	B	C:\msdchem\1\DATA\121009V6\60422.D

Cal Lvl:6 Amt:50 Last Updated with: C:\msdchem\1\DATA\121009V6\60423.D

Injection Date	Mix	Calibration File
10 Dec 2009 1:26 pm	A	C:\msdchem\1\DATA\121009V6\60411.D
10 Dec 2009 7:00 pm	B	C:\msdchem\1\DATA\121009V6\60423.D

Cal Lvl:7 Amt:100 Last Updated with: C:\msdchem\1\DATA\121009V6\60424.D

Injection Date	Mix	Calibration File
10 Dec 2009 1:54 pm	A	C:\msdchem\1\DATA\121009V6\60412.D
10 Dec 2009 7:28 pm	B	C:\msdchem\1\DATA\121009V6\60424.D

VOA6-8260-121009.M Tue Dec 29 16:42:49 2009

Response Factor Report VOA6
GEL Laboratories, LLC

Method File : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Last Update : Mon Dec 14 12:44:52 2009
Integrator : (RTE Integrator) Response via : Initial Calibration

For Linear Calibration: y = concentration ratio, x = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
2)MA Dichlorodifluoromethane	0.2122344	0.2232812 0.2116585	0.2246314	0.2792048	0.2086322	0.2094071	0.2241	AVRG		11.2099
3)MPA Chloromethane	0.3018661	0.3377571 0.3004831	0.3107589	0.3220134	0.2922306	0.2928066	0.3083	AVRG		5.3998
4)MCA Vinyl chloride	0.2701427	0.2854050 0.2661185	0.2798535	0.2793538	0.2574013	0.2562340	0.2706	AVRG		4.2191
5)MA Bromomethane	0.2055878	0.2082186 0.2001872	0.2035578	0.2044313	0.1953195	0.1956995	0.2019	AVRG		2.4550
6)MA Chloroethane	0.2053181	0.1952824 0.2012262	0.1986611	0.2015154	0.2002854	0.2038765	0.2009	AVRG		1.6487
7)MA Trichlorofluoromethane	0.3997047	0.3941850 0.3884566	0.4116021	0.3975569	0.3941101	0.3917678	0.3968	AVRG		1.8892
8)MA Ethyl ether	0.2476936	0.2981892 0.2357482	0.2773795	0.2492815	0.2442189	0.2520515	0.2578	AVRG		8.5179
9)MA Acetone		0.1105217	0.0983102	0.0841360	0.0810798	0.0807655	0.0910	AVRG		14.3843
10)MCA 1,1-Dichloroethylene	0.3759820	0.3796793 0.3524014	0.3629430	0.3459163	0.3753148	0.3696478	0.3660	AVRG		3.4999
11)MA Iodomethane	0.3943182	0.4027922 0.3607777	0.4129224	0.3859253	0.4079415	0.3958907	0.3944	AVRG		4.3937
12)MA Acetonitrile	0.0374099	0.0381593 0.0355251	0.0364691	0.0362921	0.0381896	0.0389799	0.0373	AVRG		3.3243
13)MA Methyl acetate	0.2119610	0.2062288 0.1961051	0.1959205	0.2011061	0.2042341	0.2165080	0.2046	AVRG		3.7782
14)MA Carbon disulfide	0.7342336	0.7427821 0.6535432	0.7701791	0.7148046	0.7816045	0.7437036	0.7344	AVRG		5.7197
15)MA Methylene chloride	0.2650295	0.2504097	0.3586873	0.2965955	0.2843227	0.2716573	0.2878	AVRG		13.2697
16)MA tert-Butyl methyl ether	0.7178414	0.7916862 0.6912656	0.7640083	0.6846200	0.7126300	0.7280524	0.7272	AVRG		5.3019

Response Factor Report VOA6
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For Linear Calibration: y = concentration ratio, x = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
17)MA trans-1,2-Dichloroethyle		0.3683886	0.4015524	0.3537796	0.3876870	0.3732115				
	0.3776554	0.3524416					0.3735	AVRG		4.7187
18)MA Vinyl acetate		0.4905047	0.5108814	0.5558842	0.5450210	0.5774248				
	0.5608365	0.5259008					0.5381	AVRG		5.6690
19)MPA 1,1-Dichloroethane		0.4735992	0.4838472	0.4549248	0.4839184	0.4670680				
	0.4689507	0.4394961					0.4674	AVRG		3.4037
20)MA 2-Butanone		0.1213262	0.1148871	0.1185865	0.1150297	0.1212154				
	0.1105573	0.1040462					0.1151	AVRG		5.3934
21)MA cis-1,2-Dichloroethylene		0.4195003	0.4236643	0.4068955	0.4278609	0.4198225				
	0.4182469	0.3964212					0.4161	AVRG		2.5915
22)MA 2,2-Dichloropropane		0.3275044	0.3362806	0.3210795	0.3478993	0.3436341				
	0.3501550	0.3303592					0.3367	AVRG		3.2613
23)MA Bromochloromethane		0.1243742	0.1254803	0.1274374	0.1331449	0.1291842				
	0.1316678	0.1258530					0.1282	AVRG		2.5792
24)MCA Chloroform		0.4327655	0.4517753	0.4320750	0.4466964	0.4384843				
	0.4357051	0.4088180					0.4352	AVRG		3.1530
25)MA 1,1,1-Trichloroethane		0.3545665	0.3781073	0.3429955	0.3752445	0.3724629				
	0.3766651	0.3564585					0.3652	AVRG		3.7646
26)MA Cyclohexane		0.4658020	0.4746435	0.4533501	0.4920645	0.4789968				
	0.4872574	0.4538365					0.4723	AVRG		3.2424
27)MA 1,1-Dichloropropene		0.3267449	0.3460611	0.3219637	0.3460734	0.3330388				
	0.3373146	0.3157520					0.3324	AVRG		3.5086
28)MA Carbon tetrachloride		0.3260108	0.3191166	0.3100868	0.3287754	0.3271430				
	0.3318274	0.3186325					0.3231	AVRG		2.3243
29)SA 1,2-Dichloroethane-d4		0.2993517	0.2966709	0.2953114	0.2955918	0.2934623				
	0.2962702	0.2883697					0.2950	AVRG		1.1588
30)MA 1,2-Dichloroethane		0.3729201	0.3560339	0.3576492	0.3613600	0.3581947				
	0.3560932	0.3353587					0.3568	AVRG		3.1212
31)MA Benzene	1.0999736	1.0415992	1.0414520	1.0006924	1.0382904	1.0154085				
	0.9930403	0.9179240					1.0185	AVRG		5.1392

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For Linear Calibration: y = concentration ratio, x = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
32)MA Cyclohexene	0.5019296	0.4667640 0.4716311	0.4824499	0.4619734	0.5039427	0.5027549	0.4845	AVRG		3.7748
33)MA n-Butyl alcohol -0.0092 | 0.0086 | 0.00	13494 1762453	22120 3606257	45316	125907	295915	713263		LINR	#	0.9997
34)MA Trichloroethylene	0.2551409	0.2695070 0.2379508	0.2586517	0.2446072	0.2599620	0.2537951	0.2542	AVRG		4.0764
35)MCA 1,2-Dichloropropane	0.2733027	0.2681400 0.2586003	0.2688681	0.2668460	0.2754567	0.2731595	0.2692	AVRG		2.0947
36)MA Methylcyclohexane	0.4528596	0.4399298 0.4205278	0.4571718	0.4146793	0.4625598	0.4491111	0.4424	AVRG		4.1597
37)MA Dibromomethane	0.1493533	0.1361965 0.1421583	0.1387731	0.1434422	0.1437514	0.1473206	0.1430	AVRG		3.1875
38)MA Bromodichloromethane	0.3274031	0.2757345 0.3128155	0.2864166	0.2900783	0.3029399	0.3149084	0.3015	AVRG		6.0602
39)MA 2-Chloroethylvinyl ether	0.1727019	0.1437961 0.1640503	0.1445594	0.1936062	0.1634662	0.1718516	0.1649	AVRG		10.4918
40)MA cis-1,3-Dichloropropylen	0.4096143	0.3609206 0.3927613	0.3482530	0.3701967	0.3849783	0.3963204	0.3804	AVRG		5.6760
42)MA 4-Methyl-2-pentanone	0.1368731	0.1241555 0.1328924	0.1169303	0.1298552	0.1358418	0.1424309	0.1313	AVRG		6.5061
43)SA Toluene-d8	1.3826016	1.4063658 1.3692128	1.4037116	1.3758963	1.3859025	1.3803183	1.3863	AVRG		1.0011
44)MCA Toluene	1.4288332	1.6072192 1.3239846	1.5996153	1.4745282	1.5061227	1.4893060	1.4899	AVRG		6.5737
45)MA trans-1,3-Dichloropropyl	0.5194597	0.4513267 0.5012892	0.4482156	0.4467542	0.4897035	0.5151138	0.4817	AVRG		6.7030
46)MA 1,1,2-Trichloroethane	0.2456732	0.2526383 0.2379460	0.2452014	0.2379916	0.2436152	0.2524711	0.2451	AVRG		2.4449
47)MA 2-Hexanone	0.2519791	0.2341341 0.2397697	0.2145162	0.2349889	0.2425614	0.2670615	0.2407	AVRG		6.7580

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For Linear Calibration: y = concentration ratio, x = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
48)MA 1,3-Dichloropropane	0.5182872	0.5277262 0.4833653	0.5198835	0.5294688	0.5366747	0.5355168	0.5216	AVRG		3.4972
49)MA Tetrachloroethylene	0.2867699	0.3219671 0.2694709	0.3198263	0.2944521	0.3145210	0.3003462	0.3011	AVRG		6.3847
50)MA Dibromochloromethane	0.3485497	0.2618656 0.3433980	0.2782664	0.2837730	0.3144298	0.3301487	0.3086	AVRG		11.0874
51)MA 1,2-Dibromoethane	0.3063965	0.2847395 0.2970674	0.2904709	0.2867757	0.2994790	0.3035953	0.2955	AVRG		2.8305
52)MPA Chlorobenzene	0.9505480	0.9700730 0.8950379	1.0085837	0.9725408	0.9735874	0.9741070	0.9635	AVRG		3.6020
53)MA 1,1,1,2-Tetrachloroethan	0.3532770	0.2998710 0.3340249	0.3281956	0.3291800	0.3414970	0.3486527	0.3335	AVRG		5.2827
54)MCA Ethylbenzene	1.6174875	1.6835128 1.4859878	1.6688459	1.6127534	1.7068395	1.6597100	1.6336	AVRG		4.4888
55)MA m,p-Xylenes	0.6551259	0.6638384 0.6036628	0.6584253	0.6422963	0.6747784	0.6753009	0.6533	AVRG		3.7859
56)MA o-Xylene	0.6530015	0.6611161 0.6096110	0.6142579	0.6238887	0.6636513	0.6637868	0.6413	AVRG		3.8053
57)MA Styrene	1.0764753	0.9809620 1.0120490	0.9430807	0.9912570	1.0599807	1.0877000	1.0216	AVRG		5.3137
59)MPA Bromoform	0.4129312	0.2977739 0.4168101	0.3003833	0.3111675	0.3463784	0.3890668	0.3535	AVRG		14.8681
60)MA Isopropylbenzene	3.0509839	3.0934768 2.7744449	3.0640796	2.9850060	3.1810630	3.1851114	3.0477	AVRG		4.5944
61)SA Bromofluorobenzene	0.9668800	0.9796877 0.9391525	0.9668644	0.9652127	0.9606038	0.9666108	0.9636	AVRG		1.2700
62)MPA 1,1,2,2-Tetrachloroethan	0.7003404	0.6497580 0.6714973	0.6785578	0.6772856	0.6866139	0.7187445	0.6833	AVRG		3.2069
63)MA 1,2,3-Trichloropropane	0.1964037	0.1611670 0.1907103	0.1973369	0.1998901	0.1957398	0.2040378	0.1922	AVRG		7.4232

Response Factor Report VOA6
GEL Laboratories, LLC

Method File : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Last Update : Mon Dec 14 12:44:52 2009
Integrator : (RTE Integrator) Response via : Initial Calibration

For Linear Calibration: y = concentration ratio, x = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
64)MA Bromobenzene	0.7696909	0.8413387 0.7077793	0.8187846	0.7620473	0.7933353	0.7923493	0.7836	AVRG		5.5012
65)MA n-Propylbenzene	3.5156399	3.7621957 3.1628154	3.6484124	3.5249531	3.7005892	3.6840295	3.5712	AVRG		5.6458
66)MA 1,3,5-Trimethylbenzene	2.6038213	2.7105701 2.3810487	2.6419943	2.5446442	2.7125708	2.6942284	2.6127	AVRG		4.5671
67)MA 2-Chlorotoluene	0.7510140	0.7793660 0.6930984	0.7646150	0.7553678	0.7855246	0.7866550	0.7594	AVRG		4.2785
68)MA 4-Chlorotoluene	2.1634039	2.3003674 1.9979894	2.2344153	2.1711396	2.2741567	2.2514575	2.1990	AVRG		4.6368
69)MA tert-Butylbenzene	0.5865540	0.6374780 0.5500763	0.5556470	0.5469296	0.5969844	0.5948356	0.5812	AVRG		5.6311
70)MA 1,2,4-Trimethylbenzene	2.7008576	2.9025961 2.4985635	2.8455061	2.7107079	2.8226597	2.7878638	2.7527	AVRG		4.8343
71)MA sec-Butylbenzene	3.5077111	3.6647193 3.2018291	3.5222670	3.4220850	3.6614145	3.6096166	3.5128	AVRG		4.6427
72)MA 4-Isopropyltoluene	2.8893721	3.0039538 2.6637164	2.8435132	2.7611634	2.9810390	2.9650620	2.8725	AVRG		4.3745
73)MA 1,3-Dichlorobenzene	1.4810019	1.6471735 1.3887383	1.5794464	1.5207738	1.5572737	1.5462071	1.5315	AVRG		5.3050
74)MA 1,4-Dichlorobenzene	1.5004775	1.7340242 1.4068187	1.6203186	1.5941590	1.5891533	1.5468635	1.5703	AVRG		6.4936
75)MA n-Butylbenzene	2.7968535	2.8738367 2.5716912	2.7836913	2.6970713	2.9236329	2.8680236	2.7878	AVRG		4.3273
76)MA 1,2-Dichlorobenzene	1.4471145	1.5622316 1.3570774	1.5360911	1.4861645	1.5057432	1.4982778	1.4847	AVRG		4.5168
77)MA 1,2-Dibromo-3-chloroprop	0.1493914	0.1010395	0.1073264	0.1228811	0.1269645	0.1400227	0.1246	AVRG		14.8610
78)MA 1,2,4-Trichlorobenzene	1.0959346	1.3000887 1.0145764	1.1132870	1.0888211	1.1105460	1.0936020	1.1167	AVRG		7.8283

Response Factor Report VOA6
GEL Laboratories, LLC

Method File : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Last Update : Mon Dec 14 12:44:52 2009
Integrator : (RTE Integrator) Response via : Initial Calibration

For Linear Calibration: y = concentration ratio, x = response ratio. y = b + m1(x) + m2(xE2)

Compound	b	m1	m2	8	6	1	7	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
79)MA Hexachlorobutadiene					0.6922023	0.7926004	0.6317986	0.7317473	0.7046472	0.7222174	0.6878052	0.7090	AVRG		6.9077
80)MA Naphthalene					2.2616887	2.6711850	2.1625424	1.9890184	2.1503816	2.2126319	2.2623259	2.2443	AVRG		9.3561
81)MA 1,2,3-Trichlorobenzene					0.9162040	1.1336407	0.8601809	0.9105267	0.8813930	0.9286071	0.9152550	0.9351	AVRG		9.6948
83)B Chlorotrifluoroethylene					0.1881216	0.1490342		0.1816961	0.1788430	0.1898346	0.1848474	0.1787	AVRG		8.4468
84)B 2-Chloro-1,1,1-trifluoro					0.3264422	0.2824525	0.2908168	0.2879324	0.2875075	0.3110905	0.2998157	0.2980	AVRG		5.2851
85)B Acrolein					0.0395317	0.0356113	0.0363122	0.0359365	0.0356931	0.0348688	0.0373620	0.0365	AVRG		4.2451
86)B Trichlorotrifluoroethane					0.0922475	0.1000504	0.0891276	0.0967221	0.0905673	0.0939880	0.0911033	0.0934	AVRG		4.1117
87)B Isopropyl Alcohol					0.0215827	0.0196008	0.0194556	0.0187955	0.0177190	0.0189093	0.0196533	0.0194	AVRG		6.0674
88)B Allyl chloride					0.4383010	0.4550005	0.4124570	0.4406552	0.4273726	0.4484022	0.4377811	0.4371	AVRG		3.1871
89)B tert-Butyl Alcohol					0.0330042	0.0290000	0.0290688	0.0295413	0.0276804	0.0285352	0.0302175	0.0296	AVRG		5.7625
90)B Acrylonitrile					0.0978829	0.0914371	0.0898519	0.0936750	0.0907006	0.0926063	0.0939948	0.0929	AVRG		2.8817
91)B Isopropyl ether					1.0445233	0.9702112	0.9845102	0.9702464	0.9587353	1.0107760	1.0272262	0.9952	AVRG		3.2798
92)B 2-Chloro-1,3-butadiene					0.3994571	0.3469645	0.3937049	0.3501799	0.3461045	0.3820921	0.3856556	0.3720	AVRG		6.2913
93)B Ethyl tert-butyl ether					0.8972627	0.8171915	0.8476037	0.8171509	0.8112386	0.8577802	0.8677665	0.8451	AVRG		3.7754
94)B Ethyl acetate					0.2700764	0.2945890	0.2417925	0.2773388	0.2549074	0.2572784	0.2613638	0.2653	AVRG		6.4659

Response Factor Report VOA6
GEL Laboratories, LLC

Method File : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Last Update : Mon Dec 14 12:44:52 2009
Integrator : (RTE Integrator) Response via : Initial Calibration

For Linear Calibration: y = concentration ratio, x = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
95)B Propionitrile	0.0384242	0.0353437 0.0354602	0.0364254	0.0339544	0.0363230	0.0367154	0.0361	AVRG		3.8393
96)B Methacrylonitrile	0.1675008	0.1506741 0.1527979	0.1625637	0.1539664	0.1616947	0.1620017	0.1587	AVRG		3.9332
97)B Tetrahydrofuran	0.0864598	0.0896706 0.0775202	0.0877985	0.0827308	0.0816822	0.0841379	0.0843	AVRG		4.8691
98)B Isobutyl alcohol	0.0106873	0.0090225 0.0093963	0.0095742	0.0089893	0.0091716	0.0098651	0.0095	AVRG	#	6.2815
99)B Methyl tert-amyl ether	0.7785884	0.6722986 0.7250961	0.6932561	0.6933257	0.7362331	0.7538752	0.7218	AVRG		5.2294
100)B Methyl methacrylate	0.1644996	0.1431557 0.1476097	0.1466455	0.1462899	0.1539413	0.1602513	0.1518	AVRG		5.2882
101)B 1,4-Dioxane	0.0024191	0.0024798 0.0022436	0.0024445	0.0023123	0.0022142	0.0023018	0.0023	AVRG	#	4.4001
102)B 2-Nitropropane -0.0058 | 0.0780 | 0.00	831550	11509 1561467	24133	59867	127906	294691		LINR		0.9983
104)B Ethyl methacrylate	0.4180230	0.3499429 0.3693288	0.3833601	0.3903187	0.4136001	0.4152529	0.3914	AVRG		6.6315
106)B 1-Chlorohexane	0.7159302	0.6241483 0.7024941	0.6720327	0.6761025	0.7303460	0.7123984	0.6905	AVRG		5.2246
107)B cis-1,4-Dichloro-2-buten	0.2492203	0.2250675 0.2345680	0.2295042	0.2248694	0.2388553	0.2451969	0.2353	AVRG		4.0759
108)B Cyclohexanone	0.0212890	0.0183082 0.0197798	0.0189898	0.0173811	0.0187546	0.0202618	0.0193	AVRG		6.7576
109)B trans-1,4-Dichloro-2-but	0.2381868	0.2140663 0.2222904	0.2271296	0.2192916	0.2301195	0.2313238	0.2261	AVRG		3.5950
110)B Pentachloroethane	0.3483537	0.3198791 0.3218054	0.3046995	0.3480490	0.3529256	0.3443905	0.3343	AVRG		5.5636
111)B Benzyl chloride	1.3269105	1.2676355 1.1561169	1.3106652	1.2969449	1.3396149	1.3571593	1.2936	AVRG		5.1997

Response Factor Report VOA6
GEL Laboratories, LLC

Method File : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Last Update : Mon Dec 14 12:44:52 2009
Integrator : (RTE Integrator) Response via : Initial Calibration

For Linear Calibration: y = concentration ratio, x = response ratio. y = b + m1(x) + m2(xE2)

Compound	8	1	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
b m1 m2	6	7								
112)B bis(2-Chloroisopropyl)et	0.4024800	0.3888848 0.3645249	0.3923756	0.3593955	0.3612045	0.3881230	0.3796	AVRG		4.5878

(#) = Out of Range

Continuing Calibration Summary

Client SDG: 10-939

Instrument ID: VOA6.I **Injection Date** 10-DEC-09 15:45

Data File: 121009V6\6O416.D **Init. Cal. Date(s)** 10-DEC-09 11:34 - 10-DEC-09 19:2

Lab Sample ID W6VM091210-11 **Quant Type** ISTD **Method:** VOA6-8260-121009.M

	Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type	
S	1,2-Dichloroethane-d4	0.295	0.28522		.01		-3.31525	30		Averaged	
S	Toluene-d8	1.3863	1.37374		.01		-0.90601	30		Averaged	
S	Bromofluorobenzene	0.9636	0.96409		.01		0.05085	30		Averaged	
	Dichlorodifluoromethane	0.2241	0.17489		.01		-21.95895	30		Averaged	
	Chloromethane	0.3083	0.24044		.1		-22.01103	30		Averaged	spcc
	Vinyl chloride	0.2706	0.24311		.01		-10.15891	20		Averaged	ccc
	Bromomethane	0.2019	0.18278		.01		-9.47003	30		Averaged	
	Chloroethane	0.2009	0.18563		.01		-7.6008	30		Averaged	
	Trichlorofluoromethane	0.3968	0.372		.01		-6.25	30		Averaged	
	Ethyl ether	0.2578	0.2312		.01		-10.31808	30		Averaged	
	Acetone	0.091	0.07078		.01		-22.21978	40		Averaged	
	1,1-Dichloroethylene	0.366	0.34543		.01		-5.62022	20		Averaged	ccc
	Iodomethane	0.3944	0.36435		.01		-7.61917	30		Averaged	
	Acetonitrile	0.0373	0.03702		.01		-0.75067	30		Averaged	
	Carbon disulfide	0.7344	0.7168		.01		-2.39651	30		Averaged	
	Methyl acetate	0.2046	0.20258		.01		-0.98729	40		Averaged	
	Methylene chloride	0.2878	0.25012		.01		-13.09243	30		Averaged	
	tert-Butyl methyl ether	0.7272	0.68144		.01		-6.29263	30		Averaged	
	trans-1,2-Dichloroethylene	0.3735	0.35831		.01		-4.06693	30		Averaged	
	Vinyl acetate	0.5381	0.58958		.01		9.56699	40		Averaged	
	1,1-Dichloroethane	0.4674	0.44799		.1		-4.15276	30		Averaged	spcc
	2-Butanone	0.1151	0.1155		.01		0.34752	40		Averaged	
	cis-1,2-Dichloroethylene	0.4161	0.40307		.01		-3.13146	30		Averaged	
	2,2-Dichloropropane	0.3367	0.35182		.01		4.49064	30		Averaged	
	Bromochloromethane	0.1282	0.12437		.01		-2.98752	30		Averaged	
	Chloroform	0.4352	0.41847		.01		-3.84421	20		Averaged	ccc
	1,1,1-Trichloroethane	0.3652	0.36984		.01		1.27054	30		Averaged	
	Cyclohexane	0.4723	0.48637		.01		2.97904	30		Averaged	
	1,1-Dichloropropene	0.3324	0.33568		.01		0.98676	30		Averaged	
	Carbon tetrachloride	0.3231	0.32867		.01		1.72392	30		Averaged	
	1,2-Dichloroethane	0.3568	0.33679		.01		-5.60818	30		Averaged	
	Benzene	1.0185	0.96132		.01		-5.61414	30		Averaged	
	Cyclohexene	0.4845	0.48291		.01		-0.32817	30		Averaged	
	n-Butyl alcohol	5000	5176.1	5000			3.522	40		Linear	
	Trichloroethylene	0.2542	0.24527		.01		-3.51298	30		Averaged	
	Methylcyclohexane	0.4424	0.45818		.01		3.56691	30		Averaged	
	1,2-Dichloropropane	0.2692	0.26546		.01		-1.3893	20		Averaged	ccc

Continuing Calibration Summary

Instrument ID: VOA6.I **Injection Date** 10-DEC-09 15:45

Data File: 121009V6\6O416.D **Init. Cal. Date(s)** 10-DEC-09 11:34 10-DEC-09 19:2

Lab Sample ID W6VM091210-11 **Quant Type** ISTD **Method:** VOA6-8260-121009.M

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type	
Dibromomethane	0.143	0.1431		.01		0.06993	30		Averaged	
Bromodichloromethane	0.3015	0.31168		.01		3.37645	30		Averaged	
2-Chloroethylvinyl ether	0.1649	0.1587		.01		-3.75985	30		Averaged	
cis-1,3-Dichloropropylene	0.3804	0.39161		.01		2.9469	30		Averaged	
4-Methyl-2-pentanone	0.1313	0.14172		.01		7.93602	40		Averaged	
Toluene	1.4899	1.40874		.01		-5.44735	20		Averaged	ccc
trans-1,3-Dichloropropylene	0.4817	0.50939		.01		5.74839	30		Averaged	
1,1,2-Trichloroethane	0.2451	0.24367		.01		-0.58344	30		Averaged	
2-Hexanone	0.2407	0.2584		.01		7.35355	40		Averaged	
1,3-Dichloropropane	0.5216	0.50181		.01		-3.7941	30		Averaged	
Tetrachloroethylene	0.3011	0.29232		.01		-2.91597	30		Averaged	
Dibromochloromethane	0.3086	0.33407		.01		8.2534	30		Averaged	
1,2-Dibromoethane	0.2955	0.29919		.01		1.24873	30		Averaged	
Chlorobenzene	0.9635	0.95414		.3		-0.97146	30		Averaged	spcc
1,1,1,2-Tetrachloroethane	0.3335	0.34501		.01		3.45127	30		Averaged	
Ethylbenzene	1.6336	1.60387		.01		-1.81991	20		Averaged	ccc
m,p-Xylenes	0.6533	0.64511		.01		-1.25364	30		Averaged	
o-Xylene	0.6413	0.64163		.01		0.05146	30		Averaged	
Styrene	1.0216	1.06105		.01		3.86159	30		Averaged	
Bromoform	0.3535	0.40598		.1		14.84583	30		Averaged	spcc
Isopropylbenzene	3.0477	3.05443		.01		0.22082	30		Averaged	
1,1,2,2-Tetrachloroethane	0.6833	0.69191		.3		1.26006	30		Averaged	spcc
1,2,3-Trichloropropane	0.1922	0.19345		.01		0.65036	30		Averaged	
Bromobenzene	0.7836	0.762		.01		-2.75651	30		Averaged	
n-Propylbenzene	3.5712	3.52957		.01		-1.16571	30		Averaged	
2-Chlorotoluene	0.7594	0.7636		.01		0.55307	30		Averaged	
1,3,5-Trimethylbenzene	2.6127	2.61898		.01		0.24036	30		Averaged	
4-Chlorotoluene	2.199	2.19172		.01		-0.33106	30		Averaged	
tert-Butylbenzene	0.5812	0.58558		.01		0.75361	30		Averaged	
1,2,4-Trimethylbenzene	2.7527	2.70923		.01		-1.57918	30		Averaged	
sec-Butylbenzene	3.5128	3.57971		.01		1.90475	30		Averaged	
4-Isopropyltoluene	2.8725	2.93059		.01		2.02228	30		Averaged	
1,3-Dichlorobenzene	1.5315	1.50041		.01		-2.03004	30		Averaged	
1,4-Dichlorobenzene	1.5703	1.51104		.01		-3.7738	30		Averaged	
n-Butylbenzene	2.7878	2.86819		.01		2.88364	30		Averaged	
1,2-Dichlorobenzene	1.4847	1.45009		.01		-2.33111	30		Averaged	
1,2-Dibromo-3-chloropropane	0.1246	0.14729		.01		18.21027	30		Averaged	

Continuing Calibration Summary

Instrument ID: VOA6.I **Injection Date** 10-DEC-09 15:45

Data File: 121009V6\6O416.D **Init. Cal. Date(s)** 10-DEC-09 11:34 10-DEC-09 19:2

Lab Sample ID W6VM091210-11 **Quant Type** ISTD **Method:** VOA6-8260-121009.M

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
1,2,4-Trichlorobenzene	1.1167	1.09445		.01		-1.99248	30		Averaged
Hexachlorobutadiene	0.709	0.70257		.01		-0.90691	30		Averaged
Naphthalene	2.2443	2.17025		.01		-3.29947	30		Averaged
1,2,3-Trichlorobenzene	0.9351	0.90939		.01		-2.74944	30		Averaged

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121009V6\
Data File : 60416.D
Acq On : 10 Dec 2009 3:45 pm
Operator : RXD1
InstName : VOA6
Sample : |W6VM091210-11|ICV|1|VOAF|1|VOA8260BLF|
Misc : ICV 5uL N/A MIX[A] 1129-01C+1209-01
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Dec 18 14:01:52 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
Internal Standards							
1) Fluorobenzene	9.974	96	2076762	50.00	ug/L	0.00	
41) Chlorobenzene-d5	13.156	117	1479289	50.00	ug/L	0.00	
58) 1,4-Dichlorobenzene-d4	15.576	152	821790	50.00	ug/L	0.00	
82) B Fluorobenzene	9.974	96	2074029	50.00	ug/L	0.00	
103) B Chlorobenzene-d5	13.156	117	1479289	50.00	ug/L	0.00	
105) B 1,4-Dichlorobenzene-d4	15.576	152	821790	50.00	ug/L	0.00	
System Monitoring Compounds							
29) 1,2-Dichloroethane-d4	9.626	65	592342	48.34	ug/L	0.00	
43) Toluene-d8	11.626	98	2032165	49.55	ug/L	0.00	
61) Bromofluorobenzene	14.357	95	792283	50.03	ug/L	0.00	
Target Compounds						Qvalue	
2) Dichlorodifluoromethane	4.350	85	363203	39.01	ug/L	99	
3) Chloromethane	4.672	50	499344	39.00	ug/L	100	
4) Vinyl chloride	4.904	62	504880	44.91	ug/L	99	
5) Bromomethane	5.468	94	379588	45.27	ug/L	99	
6) Chloroethane	5.609	64	385512	46.20	ug/L	100	
7) Trichlorofluoromethane	6.022	101	772555	46.88	ug/L	100	
8) Ethyl ether	6.328	59	480153	44.84	ug/L	98	
9) Acetone	6.706	43	734983	194.53	ug/L	99	E
10) 1,1-Dichloroethylene	6.706	61	717365	47.19	ug/L	99	
11) Iodomethane	6.956	142	3783308	230.97	ug/L	99	
12) Acetonitrile	7.066	41	1921932	1240.90	ug/L	100	
13) Methyl acetate	7.096	43	2103597	247.56	ug/L	99	
14) Carbon disulfide	7.078	76	7443145	244.01	ug/L	100	
15) Methylene chloride	7.285	84	519443	43.46	ug/L	99	
16) tert-Butyl methyl ether	7.572	73	1415189	46.86	ug/L	100	
17) trans-1,2-Dichloroethy...	7.615	61	744131	47.96	ug/L	100	
18) Vinyl acetate	8.060	43	6122051	273.93	ug/L	98	
19) 1,1-Dichloroethane	8.102	63	930374	47.92	ug/L	100	
20) 2-Butanone	8.694	43	1199321	250.88	ug/L	100	
21) cis-1,2-Dichloroethylene	8.742	61	837075	48.44	ug/L	99	
22) 2,2-Dichloropropane	8.767	77	730642	52.24	ug/L	100	
23) Bromochloromethane	9.017	128	258291	48.52	ug/L	99	
24) Chloroform	9.053	83	869059	48.08	ug/L	99	
25) 1,1,1-Trichloroethane	9.322	97	768065	50.63	ug/L	99	
26) Cyclohexane	9.413	56	1010074	51.49	ug/L	99	
27) 1,1-Dichloropropene	9.480	75	697122	50.49	ug/L	99	
28) Carbon tetrachloride	9.510	117	682571	50.86	ug/L	100	
30) 1,2-Dichloroethane	9.712	62	699424	47.20	ug/L	100	
31) Benzene	9.724	78	1996431	47.19	ug/L	100	
32) Cyclohexene	9.834	67	1002879	49.84	ug/L	100	
33) n-Butyl alcohol	10.084	56	1821129	5176.10	ug/L	99	
34) Trichloroethylene	10.364	95	509356	48.24	ug/L	99	
35) 1,2-Dichloropropane	10.614	63	551304	49.31	ug/L	100	
36) Methylcyclohexane	10.602	83	951526	51.78	ug/L	99	
37) Dibromomethane	10.748	93	297183	50.03	ug/L	99	
38) Bromodichloromethane	10.864	83	647276	51.69	ug/L	100	
39) 2-Chloroethylvinyl ether	11.089	63	1647879	240.65	ug/L	99	
40) cis-1,3-Dichloropropylene	11.315	75	813271	51.47	ug/L	99	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121009V6\
Data File : 60416.D
Acq On : 10 Dec 2009 3:45 pm
Operator : RXD1
InstName : VOA6
Sample : |W6VM091210-11|ICV|1|VOAF|1|VOA8260BLF|
Misc : ICV 5uL N/A MIX[A] 1129-01C+1209-01
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Dec 18 14:01:52 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)	
42) 4-Methyl-2-pentanone	11.413	58	1048244	269.88	ug/L		98	
44) Toluene	11.699	91	2083933	47.27	ug/L		99	
45) trans-1,3-Dichloroprop...	11.858	75	753539	52.88	ug/L		100	
46) 1,1,2-Trichloroethane	12.083	83	360461	49.71	ug/L		99	
47) 2-Hexanone	12.260	43	1911268	268.37	ug/L		98	
48) 1,3-Dichloropropane	12.272	76	742316	48.11	ug/L		99	
49) Tetrachloroethylene	12.290	164	432420	48.55	ug/L		100	
50) Dibromochloromethane	12.540	129	494184	54.12	ug/L		99	
51) 1,2-Dibromoethane	12.705	107	442584	50.62	ug/L		100	
52) Chlorobenzene	13.187	112	1411452	49.51	ug/L		100	
53) 1,1,1,2-Tetrachloroethane	13.241	131	510375	51.72	ug/L		100	
54) Ethylbenzene	13.254	91	2372593	49.09	ug/L		100	
55) m,p-Xylenes	13.363	106	1908607	98.74	ug/L		99	
56) o-Xylene	13.796	106	949151	50.02	ug/L		100	
57) Styrene	13.802	104	1569605	51.93	ug/L		100	
59) Bromoform	14.064	173	333633	57.42	ug/L		99	
60) Isopropylbenzene	14.156	105	2510102	50.11	ug/L		100	
62) 1,1,2,2-Tetrachloroethane	14.442	83	568603	50.63	ug/L		100	
63) 1,2,3-Trichloropropane	14.528	110	158978	50.33	ug/L		98	
64) Bromobenzene	14.564	156	626203	48.62	ug/L		99	
65) n-Propylbenzene	14.583	91	2900567	49.42	ug/L		100	
66) 1,3,5-Trimethylbenzene	14.735	105	2152253	50.12	ug/L		100	
67) 2-Chlorotoluene	14.729	126	627521	50.28	ug/L		100	
68) 4-Chlorotoluene	14.833	91	1801130	49.83	ug/L		100	
69) tert-Butylbenzene	15.107	134	481226	50.38	ug/L	#	92	
70) 1,2,4-Trimethylbenzene	15.150	105	2226416	49.21	ug/L		100	
71) sec-Butylbenzene	15.333	105	2941769	50.95	ug/L		99	
72) 4-Isopropyltoluene	15.454	119	2408327	51.01	ug/L		100	
73) 1,3-Dichlorobenzene	15.515	146	1233026	48.98	ug/L		100	
74) 1,4-Dichlorobenzene	15.601	146	1241759	48.11	ug/L		100	
75) n-Butylbenzene	15.887	91	2357048	51.44	ug/L		100	
76) 1,2-Dichlorobenzene	16.021	146	1191666	48.84	ug/L		100	
77) 1,2-Dibromo-3-chloropr...	16.881	157	121043	59.10	ug/L		100	E
78) 1,2,4-Trichlorobenzene	17.911	180	899407	49.00	ug/L		99	
79) Hexachlorobutadiene	18.076	225	577367	49.55	ug/L		100	
80) Naphthalene	18.283	128	1783489	48.35	ug/L		100	
81) 1,2,3-Trichlorobenzene	18.618	180	747330	48.62	ug/L		99	
83) Chlorotrifluoroethylene	0.000		0	N.D.				
84) 2-Chloro-1,1,1-trifluo...	0.000		0	N.D.				
85) Acrolein	6.474		0m	N.D.	d			
86) Trichlorotrifluoroethane	0.000		0	N.D.				
87) Isopropyl Alcohol	6.700		0m	N.D.	d			
88) Allyl chloride	7.066		0m	N.D.	d			
89) tert-Butyl Alcohol	7.298		0m	N.D.	d			
90) Acrylonitrile	7.578		0m	N.D.	d			
91) Isopropyl ether	8.060		0m	N.D.	d			
92) 2-Chloro-1,3-butadiene	8.212		0m	N.D.	d			
93) Ethyl tert-butyl ether	0.000		0	N.D.				
94) Ethyl acetate	8.694		0m	N.D.	d			
95) Propionitrile	8.694		0m	N.D.	d			
96) Methacrylonitrile	0.000		0	N.D.				
97) Tetrahydrofuran	9.053		0m	N.D.	d			

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121009V6\
Data File : 60416.D
Acq On : 10 Dec 2009 3:45 pm
Operator : RXD1
InstName : VOA6
Sample : |W6VM091210-11|ICV|1|VOAF|1|VOA8260BLF|
Misc : ICV 5uL N/A MIX[A] 1129-01C+1209-01
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Dec 18 14:01:52 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
98)	Isobutyl alcohol	9.413		0m	N.D. d	
99)	Methyl tert-amyl ether	9.724		0m	N.D. d	
100)	Methyl methacrylate	10.602		0m	N.D. d	
101)	1,4-Dioxane	10.748		0m	N.D. d	
102)	2-Nitropropane	11.089		0m	N.D. d	
104)	Ethyl methacrylate	11.797		0m	N.D. d	
106)	1-Chlorohexane	0.000		0	N.D.	
107)	cis-1,4-Dichloro-2-butene	14.156		0m	N.D. d	
108)	Cyclohexanone	0.000		0	N.D.	
109)	trans-1,4-Dichloro-2-b...	14.577		0m	N.D. d	
110)	Pentachloroethane	15.180		0m	N.D. d	
111)	Benzyl chloride	15.717		0m	N.D. d	
112)	bis(2-Chloroisopropyl)...	16.168		0m	N.D. d	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121009V6\
Data File : 6O416.D
Acq On : 10 Dec 2009 3:45 pm
Operator : RXD1
InstName : VOA6
Sample : |W6VM091210-11|ICV|1|VOAF|1|VOA8260BLF|
Misc : ICV 5uL N/A MIX[A] 1129-01C+1209-01
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Dec 18 14:01:52 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

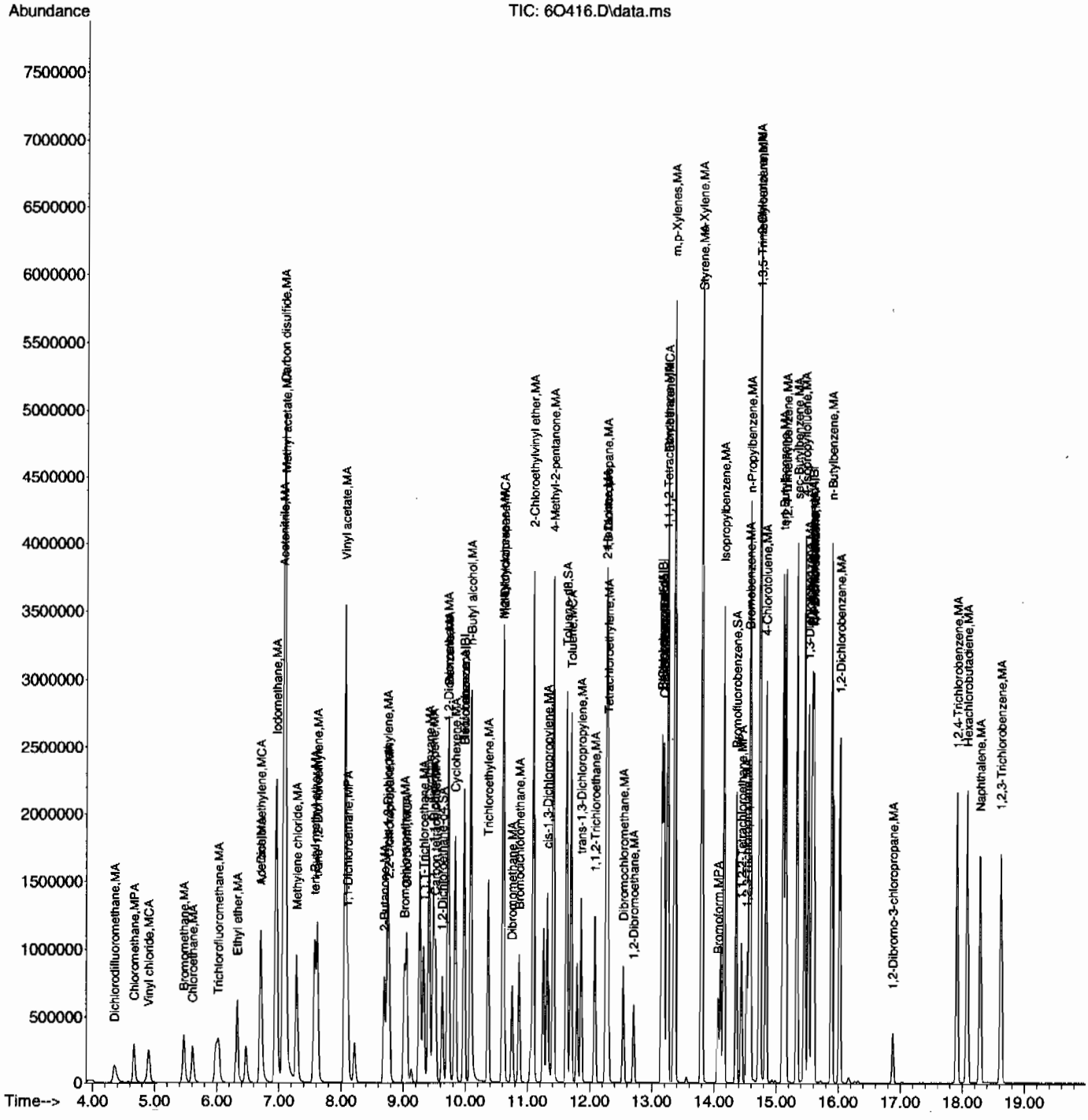

Continuing Calibration Summary

Client SDG: 10-939

Instrument ID: VOA6.I **Injection Date** 10-DEC-09 20:23

Data File: 121009V6\6O426.D **Init. Cal. Date(s)** 10-DEC-09 11:34 - 10-DEC-09 19:2

Lab Sample ID W6VM091210-20 **Quant Type** ISTD **Method:** VOA6-8260-121009.M

	Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
S	1,2-Dichloroethane-d4	0.295	0.28775		.01		-2.45763	30		Averaged
S	Toluene-d8	1.3863	1.32236		.01		-4.61228	30		Averaged
S	Bromofluorobenzene	0.9636	0.9473		.01		-1.69157	30		Averaged
	Chlorotrifluoroethylene	0.1787	0.17081		.01		-4.41522	30		Averaged
	2-Chloro-1,1,1-trifluoroethane	0.298	0.3032		.01		1.74497	30		Averaged
	Acrolein	0.0365	0.03752		.01		2.79452	30		Averaged
	Trichlorotrifluoroethane	0.0934	0.09837		.01		5.3212	30		Averaged
	Isopropyl Alcohol	0.0194	0.01952		.01		0.61856	40		Averaged
	Allyl chloride	0.4371	0.43895		.01		0.42324	30		Averaged
	tert-Butyl Alcohol	0.0296	0.02942		.01		-0.60811	40		Averaged
	Acrylonitrile	0.0929	0.09193		.01		-1.04413	30		Averaged
	Isopropyl ether	0.9952	1.00769		.01		1.25502	30		Averaged
	2-Chloro-1,3-butadiene	0.372	0.39445		.01		6.03495	30		Averaged
	Ethyl tert-butyl ether	0.8451	0.86472		.01		2.32162	30		Averaged
	Ethyl acetate	0.2653	0.23815		.01		-10.2337	40		Averaged
	Propionitrile	0.0361	0.03522		.01		-2.43767	30		Averaged
	Methacrylonitrile	0.1587	0.15541		.01		-2.07309	30		Averaged
	Tetrahydrofuran	0.0843	0.08134		.01		-3.51127	30		Averaged
	Isobutyl alcohol	0.0095	0.00935		.01		-1.57895	40		Averaged
	Methyl tert-amyl ether	0.7218	0.74518		.01		3.23912	30		Averaged
	Methyl methacrylate	0.1518	0.15186		.01		0.03953	30		Averaged
	1,4-Dioxane	0.0023	0.00225		.01		-2.17391	40		Averaged
	2-Nitropropane	250	241.39	250			-3.444	30		Linear
	Ethyl methacrylate	0.3914	0.38964		.01		-0.44967	30		Averaged
	1-Chlorohexane	0.6905	0.6849		.01		-0.81101	30		Averaged
	cis-1,4-Dichloro-2-butene	0.2353	0.24021		.01		2.0867	30		Averaged
	Cyclohexanone	0.0193	0.01686		.01		-12.64249	40		Averaged
	trans-1,4-Dichloro-2-butene	0.2261	0.23045		.01		1.92393	30		Averaged
	Pentachloroethane	0.3343	0.31118		.01		-6.91594	30		Averaged
	Benzyl chloride	1.2936	1.12957		.01		-12.68012	30		Averaged
	bis(2-Chloroisopropyl)ether	0.3796	0.36692		.01		-3.34036	30		Averaged

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121009V6\
Data File : 60426.D
Acq On : 10 Dec 2009 8:23 pm
Operator : RXD1
InstName : VOA6
Sample : |W6VM091210-20|ICV|1|VOAF|1|VOA8260BLF|
Misc : ICV 5uL N/A MIX[B] 1118-08B+1105-02D
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Dec 18 14:02:16 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Fluorobenzene	9.974	96	2070691	50.00 ug/L	0.00
41) Chlorobenzene-d5	13.156	117	1510228	50.00 ug/L	0.00
58) 1,4-Dichlorobenzene-d4	15.576	152	850667	50.00 ug/L	0.00
82) B Fluorobenzene	9.974	96	2067712	50.00 ug/L	0.00
103) B Chlorobenzene-d5	13.156	117	1510228	50.00 ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	15.576	152	850667	50.00 ug/L	0.00
System Monitoring Compounds					
29) 1,2-Dichloroethane-d4	9.626	65	595841	48.77 ug/L	0.00
43) Toluene-d8	11.626	98	1997061	47.69 ug/L	0.00
61) Bromofluorobenzene	14.357	95	805834	49.16 ug/L	0.00

Target Compounds			Qvalue
2) Dichlorodifluoromethane	4.269	0m N.D.	d
3) Chloromethane	4.652	0m N.D.	d
4) Vinyl chloride	4.894	0m N.D.	d
5) Bromomethane	0.000	0 N.D.	
6) Chloroethane	0.000	0 N.D.	
7) Trichlorofluoromethane	0.000	0 N.D.	
8) Ethyl ether	0.000	0 N.D.	
9) Acetone	6.676	0m N.D.	d
10) 1,1-Dichloroethylene	6.663	0m N.D.	d
11) Iodomethane	6.956	0m N.D.	d
12) Acetonitrile	7.054	0m N.D.	d
13) Methyl acetate	7.102	0m N.D.	d
14) Carbon disulfide	7.139	0m N.D.	d
15) Methylene chloride	7.285	0m N.D.	d
16) tert-Butyl methyl ether	7.572	0m N.D.	d
17) trans-1,2-Dichloroethy...	0.000	0 N.D.	
18) Vinyl acetate	8.078	0m N.D.	d
19) 1,1-Dichloroethane	8.206	0m N.D.	d
20) 2-Butanone	8.700	0m N.D.	d
21) cis-1,2-Dichloroethylene	8.700	0m N.D.	d
22) 2,2-Dichloropropane	0.000	0 N.D.	
23) Bromochloromethane	0.000	0 N.D.	
24) Chloroform	9.047	0m N.D.	d
25) 1,1,1-Trichloroethane	0.000	0 N.D.	
26) Cyclohexane	9.389	0m N.D.	d
27) 1,1-Dichloropropene	0.000	0 N.D.	
28) Carbon tetrachloride	0.000	0 N.D.	
30) 1,2-Dichloroethane	9.736	0m N.D.	d
31) Benzene	9.724	0m N.D.	d
32) Cyclohexene	0.000	0 N.D.	
33) n-Butyl alcohol	0.000	0 N.D.	
34) Trichloroethylene	10.370	0m N.D.	d
35) 1,2-Dichloropropane	0.000	0 N.D.	
36) Methylcyclohexane	10.590	0m N.D.	d
37) Dibromomethane	0.000	0 N.D.	
38) Bromodichloromethane	0.000	0 N.D.	
39) 2-Chloroethylvinyl ether	11.096	0m N.D.	d
40) cis-1,3-Dichloropropylene	0.000	0 N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121009V6\
Data File : 60426.D
Acq On : 10 Dec 2009 8:23 pm
Operator : RXD1
InstName : VOA6
Sample : |W6VM091210-20|ICV|1|VOAF|1|VOA8260BLF|
Misc : ICV 5uL N/A MIX[B] 1118-08B+1105-02D
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Dec 18 14:02:16 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
42) 4-Methyl-2-pentanone	0.000		0	N.D.		
44) Toluene	11.699		0m	N.D.	d	
45) trans-1,3-Dichloroprop...	11.852		0m	N.D.	d	
46) 1,1,2-Trichloroethane	0.000		0	N.D.		
47) 2-Hexanone	12.260		0m	N.D.	d	
48) 1,3-Dichloropropane	12.309		0m	N.D.	d	
49) Tetrachloroethylene	12.290		0m	N.D.	d	
50) Dibromochloromethane	0.000		0	N.D.		
51) 1,2-Dibromoethane	12.705		0m	N.D.	d	
52) Chlorobenzene	13.187		0m	N.D.	d	
53) 1,1,1,2-Tetrachloroethane	0.000		0	N.D.		
54) Ethylbenzene	13.248		0m	N.D.	d	
55) m,p-Xylenes	13.363		0m	N.D.	d	
56) o-Xylene	0.000		0	N.D.		
57) Styrene	13.796		0m	N.D.	d	
59) Bromoform	0.000		0	N.D.		
60) Isopropylbenzene	14.156		0m	N.D.	d	
62) 1,1,2,2-Tetrachloroethane	14.491		0m	N.D.	d	
63) 1,2,3-Trichloropropane	0.000		0	N.D.		
64) Bromobenzene	0.000		0	N.D.		
65) n-Propylbenzene	14.583		0m	N.D.	d	
66) 1,3,5-Trimethylbenzene	14.735		0m	N.D.	d	
67) 2-Chlorotoluene	14.729		0m	N.D.	d	
68) 4-Chlorotoluene	14.833		0m	N.D.	d	
69) tert-Butylbenzene	15.180		0m	N.D.	d	
70) 1,2,4-Trimethylbenzene	15.150		0m	N.D.	d	
71) sec-Butylbenzene	15.333		0m	N.D.	d	
72) 4-Isopropyltoluene	15.454		0m	N.D.	d	
73) 1,3-Dichlorobenzene	15.515		0m	N.D.	d	
74) 1,4-Dichlorobenzene	15.601		0m	N.D.	d	
75) n-Butylbenzene	0.000		0	N.D.		
76) 1,2-Dichlorobenzene	16.015		0m	N.D.	d	
77) 1,2-Dibromo-3-chloropr...	0.000		0	N.D.		
78) 1,2,4-Trichlorobenzene	0.000		0	N.D.		
79) Hexachlorobutadiene	0.000		0	N.D.		
80) Naphthalene	18.283		0m	N.D.	d	
81) 1,2,3-Trichlorobenzene	0.000		0	N.D.		
83) Chlorotrifluoroethylene	4.280	116	1059558	143.35	ug/L	100
84) 2-Chloro-1,1,1-trifluo...	5.025	118	1880817	152.62	ug/L	100
85) Acrolein	6.535	56	387873	257.15	ug/L	99
86) Trichlorotrifluoroethane	6.676	85	1016953	263.29	ug/L	99
87) Isopropyl Alcohol	6.785	45	2017620	2516.44	ug/L	100
88) Allyl chloride	7.139	41	4538143	251.04	ug/L	100
89) tert-Butyl Alcohol	7.285	59	3041617	2486.64	ug/L	100
90) Acrylonitrile	7.541	53	950443	247.45	ug/L	100
91) Isopropyl ether	8.078	45	2083609	50.63	ug/L	99
92) 2-Chloro-1,3-butadiene	8.206	53	815608	53.01	ug/L	99
93) Ethyl tert-butyl ether	8.486	59	1787994	51.16	ug/L	100
94) Ethyl acetate	8.700	43	2462110	224.38	ug/L	100
95) Propionitrile	8.773	54	364096	243.94	ug/L	100
96) Methacrylonitrile	8.950	41	1606705	244.75	ug/L	100
97) Tetrahydrofuran	9.059	42	840938	241.26	ug/L	99

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121009V6\
Data File : 60426.D
Acq On : 10 Dec 2009 8:23 pm
Operator : RXD1
InstName : VOA6
Sample : |W6VM091210-20|ICV|1|VOAF|1|VOA8260BLF|
Misc : ICV 5uL N/A MIX[B] 1118-08B+1105-02D
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Dec 18 14:02:16 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
98)	Isobutyl alcohol	9.389	41	966349	2452.14	ug/L	99
99)	Methyl tert-amyl ether	9.742	73	1540810	51.62	ug/L	99
100)	Methyl methacrylate	10.590	69	1570042	250.15	ug/L	99
101)	1,4-Dioxane	10.699	88	232295	2395.33	ug/L	99
102)	2-Nitropropane	11.071	43	766103	241.39	ug/L	98
104)	Ethyl methacrylate	11.858	69	2942230	248.87	ug/L	100
106)	1-Chlorohexane	13.052	55	582623	49.60	ug/L	99
107)	cis-1,4-Dichloro-2-butene	14.205	53	1021686	255.19	ug/L	100
108)	Cyclohexanone	14.314	42	358486	1094.48	ug/L	98
109)	trans-1,4-Dichloro-2-b...	14.491	53	980168	254.85	ug/L	99
110)	Pentachloroethane	15.180	167	1323559	232.71	ug/L	99
111)	Benzyl chloride	15.717	91	4804424	218.30	ug/L	100
112)	bis(2-Chloroisopropyl)...	16.113	45	1560613	241.67	ug/L	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121009V6\
Data File : 6O426.D
Acq On : 10 Dec 2009 8:23 pm
Operator : RXD1
InstName : VOA6
Sample : |W6VM091210-20|ICV|1|VOAF|1|VOA8260BLF|
Misc : ICV 5uL N/A MIX[B] 1118-08B+1105-02D
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Dec 18 14:02:16 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

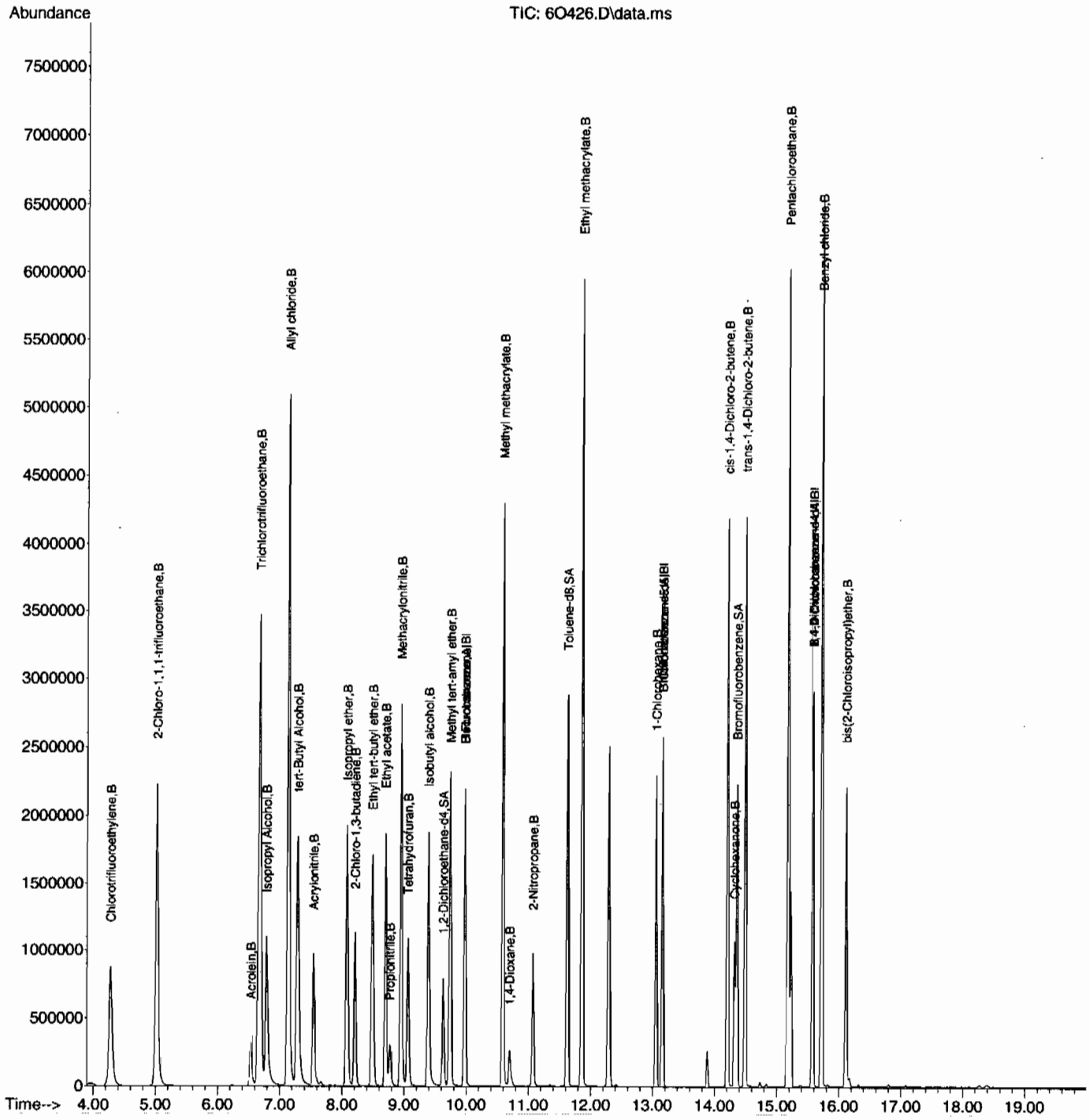

Continuing Calibration Summary

Client SDG: 10-939

Instrument ID: VOA6.I **Injection Date** 22-DEC-09 10:27

Data File: 122209V6\6Q202.D **Init. Cal. Date(s)** 10-DEC-09 11:34 - 10-DEC-09 19:2

Lab Sample ID W6VM091222-01 **Quant Type** ISTD **Method:** VOA6-8260-121009.M

	Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type	
S	1,2-Dichloroethane-d4	0.295	0.28633		.01		-2.93898	30		Averaged	
S	Toluene-d8	1.3863	1.35818		.01		-2.02842	30		Averaged	
S	Bromofluorobenzene	0.9636	0.98652		.01		2.37858	30		Averaged	
	Dichlorodifluoromethane	0.2241	0.21015		.01		-6.2249	30		Averaged	
	Chloromethane	0.3083	0.28959		.1		-6.06876	30		Averaged	spcc
	Vinyl chloride	0.2706	0.28413		.01		5	20		Averaged	ccc
	Bromomethane	0.2019	0.20171		.01		-0.09411	30		Averaged	
	Chloroethane	0.2009	0.20057		.01		-0.16426	30		Averaged	
	Trichlorofluoromethane	0.3968	0.39922		.01		0.60988	30		Averaged	
	Ethyl ether	0.2578	0.23203		.01		-9.99612	30		Averaged	
	Acetone	0.091	0.0605		.01		-33.51648	40		Averaged	
	1,1-Dichloroethylene	0.366	0.37018		.01		1.14208	20		Averaged	ccc
	Iodomethane	0.3944	0.3843		.01		-2.56085	30		Averaged	
	Acetonitrile	0.0373	0.03414		.01		-8.47185	30		Averaged	
	Carbon disulfide	0.7344	0.77639		.01		5.71759	30		Averaged	
	Methyl acetate	0.2046	0.18745		.01		-8.38221	40		Averaged	
	Methylene chloride	0.2878	0.25504		.01		-11.3829	30		Averaged	
	tert-Butyl methyl ether	0.7272	0.66199		.01		-8.96727	30		Averaged	
	trans-1,2-Dichloroethylene	0.3735	0.36716		.01		-1.69746	30		Averaged	
	Vinyl acetate	0.5381	0.57952		.01		7.69745	40		Averaged	
	1,1-Dichloroethane	0.4674	0.45918		.1		-1.75866	30		Averaged	spcc
	2-Butanone	0.1151	0.10019		.01		-12.95395	40		Averaged	
	cis-1,2-Dichloroethylene	0.4161	0.41443		.01		-0.40135	30		Averaged	
	2,2-Dichloropropane	0.3367	0.37981		.01		12.80368	30		Averaged	
	Bromochloromethane	0.1282	0.12366		.01		-3.54134	30		Averaged	
	Chloroform	0.4352	0.42241		.01		-2.93888	20		Averaged	ccc
	1,1,1-Trichloroethane	0.3652	0.38566		.01		5.60241	30		Averaged	
	Cyclohexane	0.4723	0.51618		.01		9.29071	30		Averaged	
	1,1-Dichloropropene	0.3324	0.34809		.01		4.72022	30		Averaged	
	Carbon tetrachloride	0.3231	0.35408		.01		9.58836	30		Averaged	
	1,2-Dichloroethane	0.3568	0.33158		.01		-7.06839	30		Averaged	
	Benzene	1.0185	0.97724		.01		-4.05106	30		Averaged	
	Cyclohexene	0.4845	0.50909		.01		5.07534	30		Averaged	
	n-Butyl alcohol	5000	4609.72	5000			-7.8056	40		Linear	
	Trichloroethylene	0.2542	0.25186		.01		-0.92054	30		Averaged	
	Methylcyclohexane	0.4424	0.47134		.01		6.54159	30		Averaged	
	1,2-Dichloropropane	0.2692	0.26699		.01		-0.82095	20		Averaged	ccc

Continuing Calibration Summary

Instrument ID: VOA6.I **Injection Date** 22-DEC-09 10:27

Data File: 122209V6\6Q202.D **Init. Cal. Date(s)** 10-DEC-09 11:34 10-DEC-09 19:2

Lab Sample ID W6VM091222-01 **Quant Type** ISTD **Method:** VOA6-8260-121009.M

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type	
Dibromomethane	0.143	0.13644		.01		-4.58741	30		Averaged	
Bromodichloromethane	0.3015	0.31243		.01		3.62521	30		Averaged	
2-Chloroethylvinyl ether	0.1649	0.13639		.01		-17.28927	30		Averaged	
cis-1,3-Dichloropropylene	0.3804	0.39195		.01		3.03628	30		Averaged	
4-Methyl-2-pentanone	0.1313	0.12593		.01		-4.08987	40		Averaged	
Toluene	1.4899	1.40361		.01		-5.79166	20		Averaged	ccc
trans-1,3-Dichloropropylene	0.4817	0.49071		.01		1.87046	30		Averaged	
1,1,2-Trichloroethane	0.2451	0.22524		.01		-8.10282	30		Averaged	
2-Hexanone	0.2407	0.22101		.01		-8.18031	40		Averaged	
1,3-Dichloropropane	0.5216	0.47956		.01		-8.05982	30		Averaged	
Tetrachloroethylene	0.3011	0.29481		.01		-2.08901	30		Averaged	
Dibromochloromethane	0.3086	0.32491		.01		5.28516	30		Averaged	
1,2-Dibromoethane	0.2955	0.28194		.01		-4.58883	30		Averaged	
Chlorobenzene	0.9635	0.94678		.3		-1.73534	30		Averaged	spcc
1,1,1,2-Tetrachloroethane	0.3335	0.33634		.01		0.85157	30		Averaged	
Ethylbenzene	1.6336	1.62801		.01		-0.34219	20		Averaged	ccc
m,p-Xylenes	0.6533	0.65828		.01		0.76228	30		Averaged	
o-Xylene	0.6413	0.64054		.01		-0.11851	30		Averaged	
Styrene	1.0216	1.06969		.01		4.70732	30		Averaged	
Bromoform	0.3535	0.39323		.1		11.23904	30		Averaged	spcc
Isopropylbenzene	3.0477	3.08457		.01		1.20976	30		Averaged	
1,1,2,2-Tetrachloroethane	0.6833	0.65341		.3		-4.37436	30		Averaged	spcc
1,2,3-Trichloropropane	0.1922	0.18072		.01		-5.97294	30		Averaged	
Bromobenzene	0.7836	0.75005		.01		-4.28152	30		Averaged	
n-Propylbenzene	3.5712	3.60604		.01		0.97558	30		Averaged	
2-Chlorotoluene	0.7594	0.76436		.01		0.65315	30		Averaged	
1,3,5-Trimethylbenzene	2.6127	2.6348		.01		0.84587	30		Averaged	
4-Chlorotoluene	2.199	2.20304		.01		0.18372	30		Averaged	
tert-Butylbenzene	0.5812	0.57418		.01		-1.20785	30		Averaged	
1,2,4-Trimethylbenzene	2.7527	2.7089		.01		-1.59117	30		Averaged	
sec-Butylbenzene	3.5128	3.53065		.01		0.50814	30		Averaged	
4-Isopropyltoluene	2.8725	2.9187		.01		1.60836	30		Averaged	
1,3-Dichlorobenzene	1.5315	1.47681		.01		-3.57101	30		Averaged	
1,4-Dichlorobenzene	1.5703	1.49483		.01		-4.80609	30		Averaged	
n-Butylbenzene	2.7878	2.81338		.01		0.91757	30		Averaged	
1,2-Dichlorobenzene	1.4847	1.37836		.01		-7.16239	30		Averaged	
1,2-Dibromo-3-chloropropane	0.1246	0.12537		.01		0.61798	30		Averaged	

Continuing Calibration Summary

Instrument ID: VOA6.I **Injection Dat** 22-DEC-09 10:27

Data File: 122209V6\6Q202.D **Init. Cal. Date(s)** 10-DEC-09 11:34 10-DEC-09 19:2

Lab Sample ID W6VM091222-01 **Quant Type** ISTD **Method:** VOA6-8260-121009.M

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
1,2,4-Trichlorobenzene	1.1167	0.9789		.01		-12.33993	30		Averaged
Hexachlorobutadiene	0.709	0.6387		.01		-9.91537	30		Averaged
Naphthalene	2.2443	1.87143		.01		-16.61409	30		Averaged
1,2,3-Trichlorobenzene	0.9351	0.81858		.01		-12.4607	30		Averaged

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\122209V6\
Data File : 6Q202.D
Acq On : 22 Dec 2009 10:27 am
Operator : RXD1
InstName : VOA6
Sample : |W6VM091222-01|CCV|1|VOAF|1|VOA8260BS|
Misc : CCV 5mL N/A MIX[A] 1214-01B+1217-01
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 22 10:47:55 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)	
Internal Standards						
1) Fluorobenzene	9.974	96	1453419	50.00 ug/L	0.00	
41) Chlorobenzene-d5	13.156	117	1074695	50.00 ug/L	0.00	
58) 1,4-Dichlorobenzene-d4	15.576	152	597681	50.00 ug/L	0.00	
82) B Fluorobenzene	9.974	96	1453025	50.00 ug/L	0.00	
103) B Chlorobenzene-d5	13.156	117	1074695	50.00 ug/L	0.00	
105) B 1,4-Dichlorobenzene-d4	15.576	152	597681	50.00 ug/L	0.00	
System Monitoring Compounds						
29) 1,2-Dichloroethane-d4	9.626	65	416153	48.53 ug/L	0.00	
43) Toluene-d8	11.626	98	1459629	48.99 ug/L	0.00	
61) Bromofluorobenzene	14.357	95	589624	51.19 ug/L	0.00	
Target Compounds					Qvalue	
2) Dichlorodifluoromethane	4.360	85	305435	46.88 ug/L	100	
3) Chloromethane	4.672	50	420900	46.97 ug/L	100	
4) Vinyl chloride	4.914	62	412952	52.49 ug/L	100	
5) Bromomethane	5.468	94	293172	49.96 ug/L	100	
6) Chloroethane	5.609	64	291506	49.92 ug/L	100	
7) Trichlorofluoromethane	6.022	101	580236	50.31 ug/L	100	
8) Ethyl ether	6.328	59	337237	45.00 ug/L	95	
9) Acetone	6.706	43	439663	166.28 ug/L	98	E
10) 1,1-Dichloroethylene	6.706	61	538026	50.57 ug/L	100	
11) Iodomethane	6.956	142	2792728	243.62 ug/L	100	
12) Acetonitrile	7.072	41	1240499	1144.44 ug/L	99	
13) Methyl acetate	7.096	43	1362210	229.07 ug/L	100	
14) Carbon disulfide	7.078	76	5642077	264.29 ug/L	100	
15) Methylene chloride	7.285	84	370673	44.31 ug/L	99	
16) tert-Butyl methyl ether	7.572	73	962154	45.52 ug/L	99	
17) trans-1,2-Dichloroethy...	7.621	61	533640	49.15 ug/L	98	
18) Vinyl acetate	8.060	43	4211449	269.26 ug/L	97	
19) 1,1-Dichloroethane	8.102	63	667383	49.12 ug/L	99	
20) 2-Butanone	8.694	43	728081	217.63 ug/L	100	
21) cis-1,2-Dichloroethylene	8.742	61	602346	49.80 ug/L	99	
22) 2,2-Dichloropropane	8.767	77	552029	56.40 ug/L	99	
23) Bromochloromethane	9.017	128	179726	48.24 ug/L	99	
24) Chloroform	9.053	83	613941	48.53 ug/L	99	
25) 1,1,1-Trichloroethane	9.321	97	560522	52.80 ug/L	100	
26) Cyclohexane	9.413	56	750229	54.65 ug/L	100	
27) 1,1-Dichloropropene	9.480	75	505926	52.36 ug/L	99	
28) Carbon tetrachloride	9.510	117	514631	54.80 ug/L	99	
30) 1,2-Dichloroethane	9.706	62	481919	46.47 ug/L	100	
31) Benzene	9.724	78	1420343	47.97 ug/L	100	
32) Cyclohexene	9.834	67	739924	52.54 ug/L	100	
33) n-Butyl alcohol	10.077	56	1133589	4609.72 ug/L	98	
34) Trichloroethylene	10.364	95	366063	49.53 ug/L	99	
35) 1,2-Dichloropropane	10.614	63	388041	49.59 ug/L	99	
36) Methylcyclohexane	10.602	83	685048	53.27 ug/L	100	
37) Dibromomethane	10.748	93	198305	47.71 ug/L	99	
38) Bromodichloromethane	10.864	83	454093	51.82 ug/L	100	
39) 2-Chloroethylvinyl ether	11.089	63	991126	206.82 ug/L	99	
40) cis-1,3-Dichloropropylene	11.315	75	569670	51.51 ug/L	99	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\122209V6\
Data File : 6Q202.D
Acq On : 22 Dec 2009 10:27 am
Operator : RXD1
InstName : VOA6
Sample : |W6VM091222-01|CCV|1|VOAF|1|VOA8260BS|
Misc : CCV 5mL N/A MIX[A] 1214-01B+1217-01
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 22 10:47:55 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)	
42)	4-Methyl-2-pentanone	11.413	58	676672	239.80 ug/L	98	
44)	Toluene	11.699	91	1508451	47.10 ug/L	100	
45)	trans-1,3-Dichloroprop...	11.858	75	527358	50.94 ug/L	100	
46)	1,1,2-Trichloroethane	12.083	83	242066	45.95 ug/L	99	
47)	2-Hexanone	12.260	43	1187605	229.54 ug/L	98	
48)	1,3-Dichloropropane	12.272	76	515377	45.97 ug/L	95	
49)	Tetrachloroethylene	12.290	164	316828	48.96 ug/L	99	
50)	Dibromochloromethane	12.540	129	349180	52.64 ug/L	99	
51)	1,2-Dibromoethane	12.705	107	303003	47.71 ug/L	99	
52)	Chlorobenzene	13.193	112	1017494	49.13 ug/L	100	
53)	1,1,1,2-Tetrachloroethane	13.241	131	361459	50.42 ug/L	99	
54)	Ethylbenzene	13.254	91	1749619	49.83 ug/L	100	
55)	m,p-Xylenes	13.363	106	1414897	100.75 ug/L	100	
56)	o-Xylene	13.796	106	688380	49.94 ug/L	99	
57)	Styrene	13.802	104	1149592	52.35 ug/L	99	
59)	Bromoform	14.058	173	235024	55.62 ug/L	99	
60)	Isopropylbenzene	14.156	105	1843588	50.60 ug/L	100	
62)	1,1,2,2-Tetrachloroethane	14.442	83	390532	47.82 ug/L	99	
63)	1,2,3-Trichloropropane	14.528	110	108011	47.02 ug/L #	89	
64)	Bromobenzene	14.564	156	448289	47.86 ug/L	99	
65)	n-Propylbenzene	14.583	91	2155259	50.49 ug/L	100	
66)	1,3,5-Trimethylbenzene	14.735	105	1574769	50.42 ug/L	100	
67)	2-Chlorotoluene	14.735	126	456843	50.33 ug/L	100	
68)	4-Chlorotoluene	14.833	91	1316717	50.09 ug/L	100	
69)	tert-Butylbenzene	15.107	134	343175	49.39 ug/L #	91	
70)	1,2,4-Trimethylbenzene	15.150	105	1619060	49.20 ug/L	100	
71)	sec-Butylbenzene	15.333	105	2110202	50.25 ug/L	99	
72)	4-Isopropyltoluene	15.454	119	1744451	50.80 ug/L	99	
73)	1,3-Dichlorobenzene	15.515	146	882661	48.21 ug/L	100	
74)	1,4-Dichlorobenzene	15.601	146	893433	47.60 ug/L	100	
75)	n-Butylbenzene	15.887	91	1681506	50.46 ug/L	100	
76)	1,2-Dichlorobenzene	16.021	146	823819	46.42 ug/L	100	
77)	1,2-Dibromo-3-chloropr...	16.881	157	74932	50.31 ug/L	99	E
78)	1,2,4-Trichlorobenzene	17.911	180	585068	43.83 ug/L	100	
79)	Hexachlorobutadiene	18.076	225	381740	45.04 ug/L	99	
80)	Naphthalene	18.289	128	1118520	41.69 ug/L	100	
81)	1,2,3-Trichlorobenzene	18.618	180	489250	43.77 ug/L	99	
83)	Chlorotrifluoroethylene	0.000		0	N.D.		
84)	2-Chloro-1,1,1-trifluo...	0.000		0	N.D.		
85)	Acrolein	0.000		0	N.D.		
86)	Trichlorotrifluoroethane	0.000		0	N.D.		
87)	Isopropyl Alcohol	6.706		0m	N.D. d		
88)	Allyl chloride	7.072		0m	N.D. d		
89)	tert-Butyl Alcohol	0.000		0	N.D.		
90)	Acrylonitrile	7.578		0m	N.D. d		
91)	Isopropyl ether	8.060		0m	N.D. d		
92)	2-Chloro-1,3-butadiene	8.218		0m	N.D. d		
93)	Ethyl tert-butyl ether	0.000		0	N.D.		
94)	Ethyl acetate	8.694		0m	N.D. d		
95)	Propionitrile	8.700		0m	N.D. d		
96)	Methacrylonitrile	8.944		0m	N.D. d		
97)	Tetrahydrofuran	9.053		0m	N.D. d		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\122209V6\
Data File : 6Q202.D
Acq On : 22 Dec 2009 10:27 am
Operator : RXD1
InstName : VOA6
Sample : |W6VM091222-01|CCV|1|VOAF|1|VOA8260BS|
Misc : CCV 5mL N/A MIX[A] 1214-01B+1217-01
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 22 10:47:55 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
98)	Isobutyl alcohol	9.413		0m	N.D. d	
99)	Methyl tert-amyl ether	9.724		0m	N.D. d	
100)	Methyl methacrylate	10.602		0m	N.D. d	
101)	1,4-Dioxane	10.748		0m	N.D. d	
102)	2-Nitropropane	11.089		0m	N.D. d	
104)	Ethyl methacrylate	11.864		0m	N.D. d	
106)	1-Chlorohexane	0.000		0	N.D.	
107)	cis-1,4-Dichloro-2-butene	14.156		0m	N.D. d	
108)	Cyclohexanone	0.000		0	N.D.	
109)	trans-1,4-Dichloro-2-b...	0.000		0	N.D.	
110)	Pentachloroethane	15.180		0m	N.D. d	
111)	Benzyl chloride	15.717		0m	N.D. d	
112)	bis(2-Chloroisopropyl)...	16.168		0m	N.D. d	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\122209V6\
Data File : 6Q202.D
Acq On : 22 Dec 2009 10:27 am
Operator : RXD1
InstName : VOA6
Sample : |W6VM091222-01|CCV|1|VOAF|1|VOA8260BS|
Misc : CCV 5mL N/A MIX[A] 1214-01B+1217-01
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 22 10:47:55 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

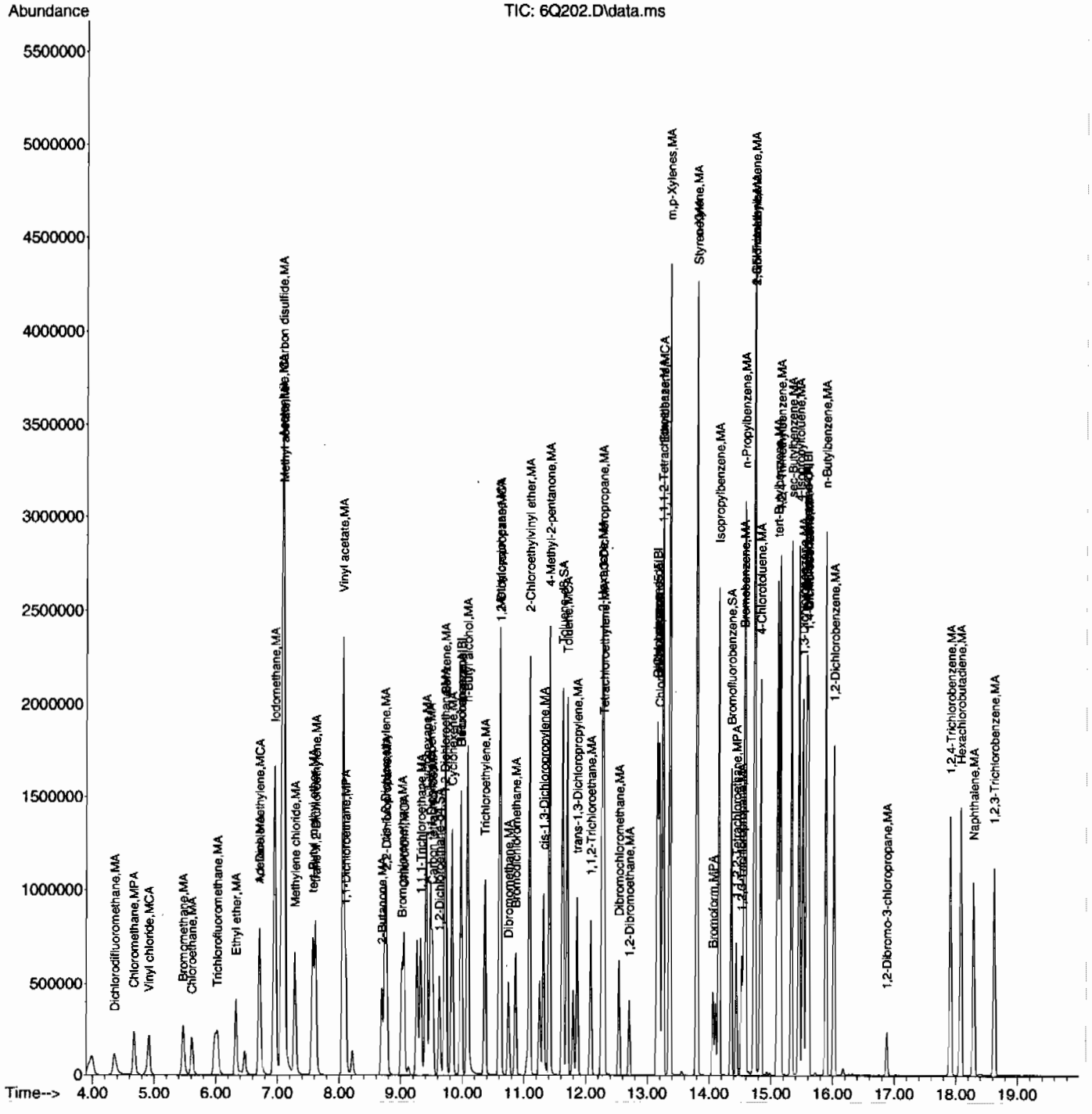

Continuing Calibration Summary

Client SDG: 10-939

Instrument ID: VOA6.I **Injection Date** 22-DEC-09 11:23

Data File: 122209V6\6Q204.D **Init. Cal. Date(s)** 10-DEC-09 11:34 - 10-DEC-09 19:2

Lab Sample ID W6VM091222-03 **Quant Type** ISTD **Method:** VOA6-8260-121009.M

	Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
S	1,2-Dichloroethane-d4	0.295	0.29097		.01		-1.3661	30		Averaged
S	Toluene-d8	1.3863	1.33951		.01		-3.37517	30		Averaged
S	Bromofluorobenzene	0.9636	0.97855		.01		1.55147	30		Averaged
	Acrolein	0.0365	0.04158		.01		13.91781	30		Averaged
	Trichlorotrifluoroethane	0.0934	0.11245		.01		20.39615	30		Averaged
	Allyl chloride	0.4371	0.47336		.01		8.29558	30		Averaged
	Acrylonitrile	0.0929	0.09394		.01		1.11948	30		Averaged
	2-Chloro-1,3-butadiene	0.372	0.43621		.01		17.26075	30		Averaged
	Ethyl acetate	0.2653	0.24736		.01		-6.76216	40		Averaged
	Propionitrile	0.0361	0.03579		.01		-0.85873	30		Averaged
	Methacrylonitrile	0.1587	0.15795		.01		-0.47259	30		Averaged
	Tetrahydrofuran	0.0843	0.08339		.01		-1.07948	30		Averaged
	Isobutyl alcohol	0.0095	0.01015		.01		6.84211	40		Averaged
	Methyl methacrylate	0.1518	0.15712		.01		3.50461	30		Averaged
	1,4-Dioxane	0.0023	0.00243		.01		5.65217	40		Averaged
	2-Nitropropane	250	268.52	250			7.408	30		Linear
	Ethyl methacrylate	0.3914	0.40058		.01		2.34543	30		Averaged
	cis-1,4-Dichloro-2-butene	0.2353	0.25594		.01		8.77178	30		Averaged
	Cyclohexanone	0.0193	0.01609		.01		-16.63212	40		Averaged
	trans-1,4-Dichloro-2-butene	0.2261	0.24695		.01		9.22158	30		Averaged
	Pentachloroethane	0.3343	0.46446		.01		38.93509	30	*	Averaged
	Benzyl chloride	1.2936	1.34084		.01		3.65182	30		Averaged
	bis(2-Chloroisopropyl)ether	0.3796	0.37003		.01		-2.52107	30		Averaged

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\122209V6\
Data File : 6Q204.D
Acq On : 22 Dec 2009 11:23 am
Operator : RXD1
InstName : VOA6
Sample : |W6VM091222-03|CCV|1|VOAF|1|VOA8260BS|
Misc : CCV 5mL N/A MIX[B] 1118-08C
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Dec 22 12:13:22 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Fluorobenzene	9.974	96	1435871	50.00 ug/L	0.00
41) Chlorobenzene-d5	13.156	117	1064957	50.00 ug/L	0.00
58) 1,4-Dichlorobenzene-d4	15.576	152	605760	50.00 ug/L	0.00
82) B Fluorobenzene	9.974	96	1435149	50.00 ug/L	0.00
103) B Chlorobenzene-d5	13.156	117	1064957	50.00 ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	15.576	152	605760	50.00 ug/L	0.00
System Monitoring Compounds					
29) 1,2-Dichloroethane-d4	9.626	65	417789	49.32 ug/L	0.00
43) Toluene-d8	11.626	98	1426521	48.31 ug/L	0.00
61) Bromofluorobenzene	14.357	95	592768	50.78 ug/L	0.00
Target Compounds					Qvalue
2) Dichlorodifluoromethane	4.360		0m	N.D. d	
3) Chloromethane	4.672		0m	N.D. d	
4) Vinyl chloride	4.914		0m	N.D. d	
5) Bromomethane	0.000		0	N.D.	
6) Chloroethane	0.000		0	N.D.	
7) Trichlorofluoromethane	0.000		0	N.D.	
8) Ethyl ether	0.000		0	N.D.	
9) Acetone	6.676		0m	N.D. d	
10) 1,1-Dichloroethylene	6.694		0m	N.D. d	
11) Iodomethane	6.956		0m	N.D. d	
12) Acetonitrile	7.139		0m	N.D. d	
13) Methyl acetate	7.096		0m	N.D. d	
14) Carbon disulfide	7.139		0m	N.D. d	
15) Methylene chloride	7.285		0m	N.D. d	
16) tert-Butyl methyl ether	7.566		0m	N.D. d	
17) trans-1,2-Dichloroethy...	7.615		0m	N.D. d	
18) Vinyl acetate	8.066		0m	N.D. d	
19) 1,1-Dichloroethane	8.206		0m	N.D. d	
20) 2-Butanone	8.700		0m	N.D. d	
21) cis-1,2-Dichloroethylene	8.700		0m	N.D. d	
22) 2,2-Dichloropropane	0.000		0	N.D.	
23) Bromochloromethane	0.000		0	N.D.	
24) Chloroform	9.053		0m	N.D. d	
25) 1,1,1-Trichloroethane	0.000		0	N.D.	
26) Cyclohexane	9.389		0m	N.D. d	
27) 1,1-Dichloropropene	0.000		0	N.D.	
28) Carbon tetrachloride	0.000		0	N.D.	
30) 1,2-Dichloroethane	9.712		0m	N.D. d	
31) Benzene	9.712		0m	N.D. d	
32) Cyclohexene	9.828		0m	N.D. d	
33) n-Butyl alcohol	10.090		0m	N.D. d	
34) Trichloroethylene	10.370		0m	N.D. d	
35) 1,2-Dichloropropane	0.000		0	N.D.	
36) Methylcyclohexane	10.584		0m	N.D. d	
37) Dibromomethane	0.000		0	N.D.	
38) Bromodichloromethane	0.000		0	N.D.	
39) 2-Chloroethylvinyl ether	11.083		0m	N.D. d	
40) cis-1,3-Dichloropropylene	11.315		0m	N.D. d	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\122209V6\
Data File : 6Q204.D
Acq On : 22 Dec 2009 11:23 am
Operator : RXD1
InstName : VOA6
Sample : |W6VM091222-03|CCV|1|VOAF|1|VOA8260BS|
Misc : CCV 5mL N/A MIX[B] 1118-08C
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Dec 22 12:13:22 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
42) 4-Methyl-2-pentanone	11.419		0m	N.D. d	
44) Toluene	11.693		0m	N.D. d	
45) trans-1,3-Dichloroprop...	11.852		0m	N.D. d	
46) 1,1,2-Trichloroethane	0.000		0	N.D.	
47) 2-Hexanone	12.266		0m	N.D. d	
48) 1,3-Dichloropropane	12.272		0m	N.D. d	
49) Tetrachloroethylene	12.291		0m	N.D. d	
50) Dibromochloromethane	12.547		0m	N.D. d	
51) 1,2-Dibromoethane	12.705		0m	N.D. d	
52) Chlorobenzene	13.187		0m	N.D. d	
53) 1,1,1,2-Tetrachloroethane	13.248		0m	N.D. d	
54) Ethylbenzene	13.248		0m	N.D. d	
55) m,p-Xylenes	13.364		0m	N.D. d	
56) o-Xylene	13.796		0m	N.D. d	
57) Styrene	13.802		0m	N.D. d	
59) Bromoform	14.059		0m	N.D. d	
60) Isopropylbenzene	14.156		0m	N.D. d	
62) 1,1,2,2-Tetrachloroethane	14.436		0m	N.D. d	
63) 1,2,3-Trichloropropane	0.000		0	N.D.	
64) Bromobenzene	14.565		0m	N.D. d	
65) n-Propylbenzene	14.583		0m	N.D. d	
66) 1,3,5-Trimethylbenzene	14.735		0m	N.D. d	
67) 2-Chlorotoluene	14.729		0m	N.D. d	
68) 4-Chlorotoluene	14.833		0m	N.D. d	
69) tert-Butylbenzene	15.101		0m	N.D. d	
70) 1,2,4-Trimethylbenzene	15.150		0m	N.D. d	
71) sec-Butylbenzene	15.333		0m	N.D. d	
72) 4-Isopropyltoluene	15.455		0m	N.D. d	
73) 1,3-Dichlorobenzene	15.516		0m	N.D. d	
74) 1,4-Dichlorobenzene	15.607		0m	N.D. d	
75) n-Butylbenzene	15.887		0m	N.D. d	
76) 1,2-Dichlorobenzene	16.022		0m	N.D. d	
77) 1,2-Dibromo-3-chloropr...	16.881		0m	N.D. d	
78) 1,2,4-Trichlorobenzene	17.911		0m	N.D. d	
79) Hexachlorobutadiene	18.076		0m	N.D. d	
80) Naphthalene	18.283		0m	N.D. d	
81) 1,2,3-Trichlorobenzene	18.625		0m	N.D. d	
83) Chlorotrifluoroethylene	0.000		0	N.D.	
84) 2-Chloro-1,1,1-trifluo...	0.000		0	N.D.	
85) Acrolein	6.536	56	298347	284.98 ug/L	98
86) Trichlorotrifluoroethane	6.676	85	806883	300.98 ug/L	99
87) Isopropyl Alcohol	0.000		0m	N.D. d	
88) Allyl chloride	7.139	41	3396703	270.71 ug/L	100
89) tert-Butyl Alcohol	0.000		0	N.D.	
90) Acrylonitrile	7.541	53	674092	252.86 ug/L	99
91) Isopropyl ether	0.000		0	N.D.	
92) 2-Chloro-1,3-butadiene	8.206	53	626028	58.63 ug/L	100
93) Ethyl tert-butyl ether	0.000		0	N.D.	
94) Ethyl acetate	8.700	43	1774988	233.06 ug/L	100
95) Propionitrile	8.773	54	256799	247.89 ug/L	100
96) Methacrylonitrile	8.950	41	1133391	248.75 ug/L	100
97) Tetrahydrofuran	9.059	42	598407	247.35 ug/L	99

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\122209V6\
Data File : 6Q204.D
Acq On : 22 Dec 2009 11:23 am
Operator : RXD1
InstName : VOA6
Sample : |W6VM091222-03|CCV|1|VOAF|1|VOA8260BS|
Misc : CCV 5mL N/A MIX[B] 1118-08C
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Dec 22 12:13:22 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
98)	Isobutyl alcohol	9.389	41	728654	2663.94 ug/L	99
99)	Methyl tert-amyl ether	9.724	73	1250	N.D.	
100)	Methyl methacrylate	10.590	69	1127447	258.81 ug/L	100
101)	1,4-Dioxane	10.699	88	174086	2586.32 ug/L	99
102)	2-Nitropropane	11.071	43	592434	268.52 ug/L	100
104)	Ethyl methacrylate	11.858	69	2133025	255.86 ug/L	99
106)	1-Chlorohexane	0.000		0	N.D.	
107)	cis-1,4-Dichloro-2-butene	14.205	53	775186	271.90 ug/L	99
108)	Cyclohexanone	14.315	42	243635	1044.56 ug/L	97
109)	trans-1,4-Dichloro-2-b...	14.491	53	747970	273.11 ug/L	100
110)	Pentachloroethane	15.180	167	1406766	347.34 ug/L	98
111)	Benzyl chloride	15.717	91	4061122	259.13 ug/L	100
112)	bis(2-Chloroisopropyl)...	16.113	45	1120731	243.71 ug/L	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\122209V6\
Data File : 6Q204.D
Acq On : 22 Dec 2009 11:23 am
Operator : RXD1
InstName : VOA6
Sample : |W6VM091222-03|CCV|1|VOAF|1|VOA8260BS|
Misc : CCV 5mL N/A MIX[B] 1118-08C
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Dec 22 12:13:22 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

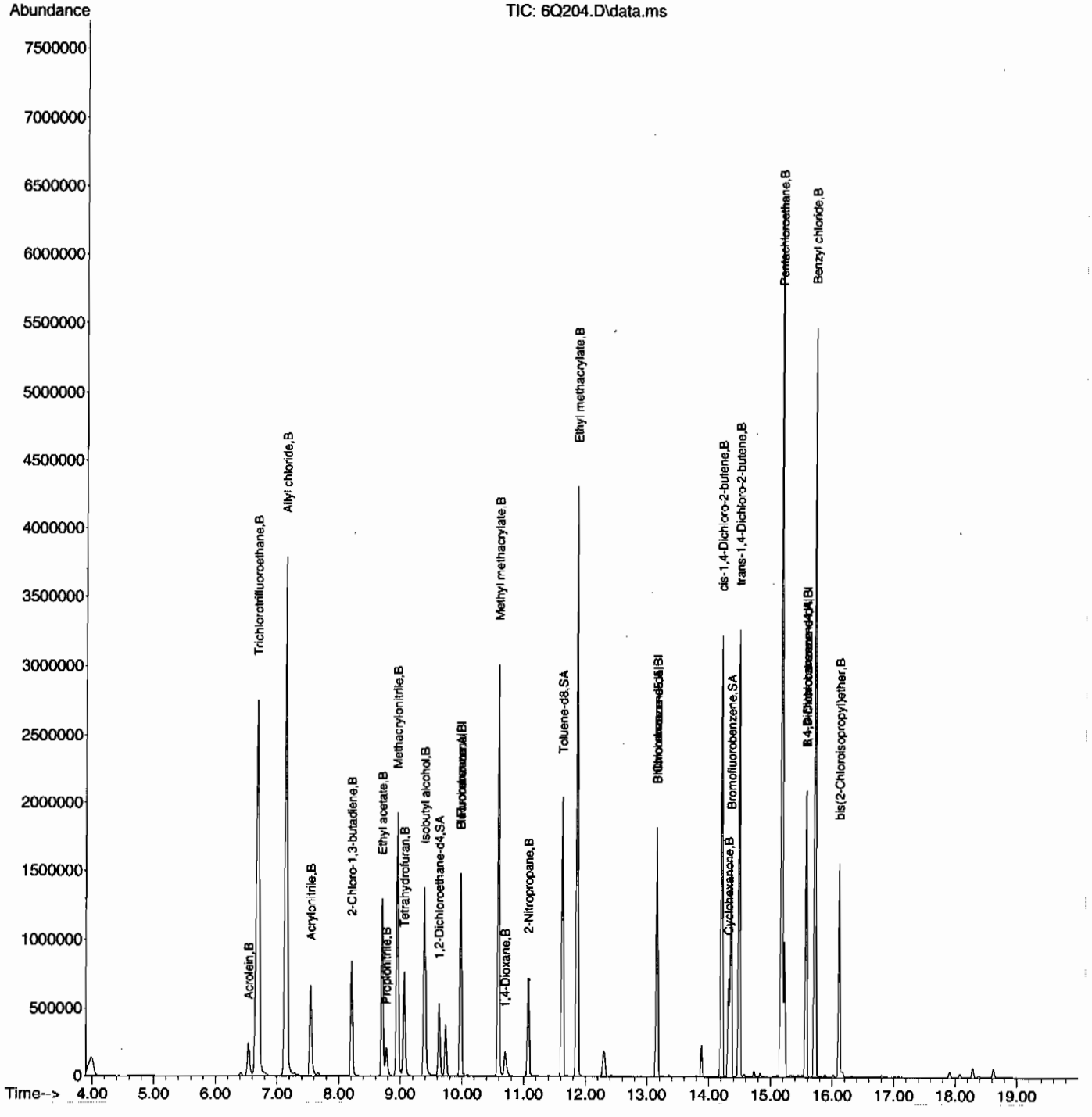

Continuing Calibration Summary

Client SDG: 10-939

Instrument ID: VOA6.I **Injection Date** 23-DEC-09 10:53

Data File: 122309V6\6Q302.D **Init. Cal. Date(s)** 10-DEC-09 11:34 - 10-DEC-09 19:2

Lab Sample ID W6VM091223-01 **Quant Type** ISTD **Method:** VOA6-8260-121009.M

	Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type	
S	1,2-Dichloroethane-d4	0.295	0.28913		.01		-1.98983	30		Averaged	
S	Toluene-d8	1.3863	1.34793		.01		-2.7678	30		Averaged	
S	Bromofluorobenzene	0.9636	0.92203		.01		-4.31403	30		Averaged	
	Dichlorodifluoromethane	0.2241	0.20773		.01		-7.30477	30		Averaged	
	Chloromethane	0.3083	0.28467		.1		-7.66461	30		Averaged	spcc
	Vinyl chloride	0.2706	0.27757		.01		2.57576	20		Averaged	ccc
	Bromomethane	0.2019	0.20273		.01		0.41109	30		Averaged	
	Chloroethane	0.2009	0.19978		.01		-0.55749	30		Averaged	
	Trichlorofluoromethane	0.3968	0.40175		.01		1.24748	30		Averaged	
	Ethyl ether	0.2578	0.22413		.01		-13.06051	30		Averaged	
	Acetone	0.091	0.06099		.01		-32.97802	40		Averaged	
	1,1-Dichloroethylene	0.366	0.36633		.01		0.09016	20		Averaged	ccc
	Iodomethane	0.3944	0.37904		.01		-3.89452	30		Averaged	
	Acetonitrile	0.0373	0.03353		.01		-10.10724	30		Averaged	
	Carbon disulfide	0.7344	0.76688		.01		4.42266	30		Averaged	
	Methyl acetate	0.2046	0.18358		.01		-10.2737	40		Averaged	
	Methylene chloride	0.2878	0.25391		.01		-11.77554	30		Averaged	
	tert-Butyl methyl ether	0.7272	0.64869		.01		-10.7962	30		Averaged	
	trans-1,2-Dichloroethylene	0.3735	0.36737		.01		-1.64123	30		Averaged	
	Vinyl acetate	0.5381	0.56146		.01		4.3412	40		Averaged	
	1,1-Dichloroethane	0.4674	0.45228		.1		-3.23492	30		Averaged	spcc
	2-Butanone	0.1151	0.09815		.01		-14.72632	40		Averaged	
	cis-1,2-Dichloroethylene	0.4161	0.40894		.01		-1.72074	30		Averaged	
	2,2-Dichloropropane	0.3367	0.38184		.01		13.40659	30		Averaged	
	Bromochloromethane	0.1282	0.12013		.01		-6.29485	30		Averaged	
	Chloroform	0.4352	0.4188		.01		-3.76838	20		Averaged	ccc
	1,1,1-Trichloroethane	0.3652	0.38611		.01		5.72563	30		Averaged	
	Cyclohexane	0.4723	0.50117		.01		6.11264	30		Averaged	
	1,1-Dichloropropene	0.3324	0.34427		.01		3.571	30		Averaged	
	Carbon tetrachloride	0.3231	0.35153		.01		8.79913	30		Averaged	
	1,2-Dichloroethane	0.3568	0.32823		.01		-8.00729	30		Averaged	
	Benzene	1.0185	0.9576		.01		-5.97938	30		Averaged	
	Cyclohexene	0.4845	0.49864		.01		2.91847	30		Averaged	
	n-Butyl alcohol	5000	4458.58	5000			-10.8284	40		Linear	
	Trichloroethylene	0.2542	0.24773		.01		-2.54524	30		Averaged	
	Methylcyclohexane	0.4424	0.4646		.01		5.01808	30		Averaged	
	1,2-Dichloropropane	0.2692	0.26138		.01		-2.9049	20		Averaged	ccc

Continuing Calibration Summary

Instrument ID: VOA6.I **Injection Date** 23-DEC-09 10:53

Data File: 122309V6\6Q302.D **Init. Cal. Date(s)** 10-DEC-09 11:34 10-DEC-09 19:2

Lab Sample ID W6VM091223-01 **Quant Type** ISTD **Method:** VOA6-8260-121009.M

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type	
Dibromomethane	0.143	0.13467		.01		-5.82517	30		Averaged	
Bromodichloromethane	0.3015	0.3079		.01		2.12272	30		Averaged	
2-Chloroethylvinyl ether	0.1649	0.1612		.01		-2.24378	30		Averaged	
cis-1,3-Dichloropropylene	0.3804	0.38202		.01		0.42587	30		Averaged	
4-Methyl-2-pentanone	0.1313	0.12391		.01		-5.62833	40		Averaged	
Toluene	1.4899	1.40589		.01		-5.63863	20		Averaged	ccc
trans-1,3-Dichloropropylene	0.4817	0.48678		.01		1.0546	30		Averaged	
1,1,2-Trichloroethane	0.2451	0.22535		.01		-8.05794	30		Averaged	
2-Hexanone	0.2407	0.21649		.01		-10.05816	40		Averaged	
1,3-Dichloropropane	0.5216	0.47307		.01		-9.30406	30		Averaged	
Tetrachloroethylene	0.3011	0.29438		.01		-2.23182	30		Averaged	
Dibromochloromethane	0.3086	0.32356		.01		4.8477	30		Averaged	
1,2-Dibromoethane	0.2955	0.27543		.01		-6.79188	30		Averaged	
Chlorobenzene	0.9635	0.9262		.3		-3.8713	30		Averaged	spcc
1,1,1,2-Tetrachloroethane	0.3335	0.33613		.01		0.78861	30		Averaged	
Ethylbenzene	1.6336	1.61398		.01		-1.20103	20		Averaged	ccc
m,p-Xylenes	0.6533	0.64384		.01		-1.44803	30		Averaged	
o-Xylene	0.6413	0.62788		.01		-2.09262	30		Averaged	
Styrene	1.0216	1.03731		.01		1.53778	30		Averaged	
Bromoform	0.3535	0.37696		.1		6.63649	30		Averaged	spcc
Isopropylbenzene	3.0477	2.97046		.01		-2.53437	30		Averaged	
1,1,2,2-Tetrachloroethane	0.6833	0.62486		.3		-8.55261	30		Averaged	spcc
1,2,3-Trichloropropane	0.1922	0.17282		.01		-10.08325	30		Averaged	
Bromobenzene	0.7836	0.72788		.01		-7.11077	30		Averaged	
n-Propylbenzene	3.5712	3.4689		.01		-2.86458	30		Averaged	
2-Chlorotoluene	0.7594	0.7397		.01		-2.59415	30		Averaged	
1,3,5-Trimethylbenzene	2.6127	2.54442		.01		-2.61339	30		Averaged	
4-Chlorotoluene	2.199	2.11728		.01		-3.71623	30		Averaged	
tert-Butylbenzene	0.5812	0.55991		.01		-3.66311	30		Averaged	
1,2,4-Trimethylbenzene	2.7527	2.59425		.01		-5.75617	30		Averaged	
sec-Butylbenzene	3.5128	3.43034		.01		-2.34742	30		Averaged	
4-Isopropyltoluene	2.8725	2.8311		.01		-1.44125	30		Averaged	
1,3-Dichlorobenzene	1.5315	1.43092		.01		-6.56742	30		Averaged	
1,4-Dichlorobenzene	1.5703	1.45007		.01		-7.6565	30		Averaged	
n-Butylbenzene	2.7878	2.77727		.01		-0.37772	30		Averaged	
1,2-Dichlorobenzene	1.4847	1.35272		.01		-8.88934	30		Averaged	
1,2-Dibromo-3-chloropropane	0.1246	0.12486		.01		0.20867	30		Averaged	

Continuing Calibration Summary

Instrument ID: VOA6.I **Injection Dat** 23-DEC-09 10:53

Data File: 122309V6\6Q302.D **Init. Cal. Date(s)** 10-DEC-09 11:34 10-DEC-09 19:2

Lab Sample ID W6VM091223-01 **Quant Type** ISTD **Method:** VOA6-8260-121009.M

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
1,2,4-Trichlorobenzene	1.1167	0.98613		.01		-11.69249	30		Averaged
Hexachlorobutadiene	0.709	0.63932		.01		-9.82793	30		Averaged
Naphthalene	2.2443	1.87976		.01		-16.24293	30		Averaged
1,2,3-Trichlorobenzene	0.9351	0.8234		.01		-11.94525	30		Averaged

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\122309V6\
Data File : 6Q302.D
Acq On : 23 Dec 2009 10:53 am
Operator : RXD1
InstName : VOA6
Sample : |W6VM091223-01|CCV|1|VOAF|1|VOA8260BS|
Misc : CCV 5mL N/A MIX[A] 1214-01B+1222-01
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 23 11:11:18 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)	
Internal Standards						
1) Fluorobenzene	9.974	96	1709733	50.00 ug/L	0.00	
41) Chlorobenzene-d5	13.156	117	1237523	50.00 ug/L	0.00	
58) 1,4-Dichlorobenzene-d4	15.576	152	701406	50.00 ug/L	0.00	
82) B Fluorobenzene	9.974	96	1707852	50.00 ug/L	0.00	
103) B Chlorobenzene-d5	13.156	117	1237523	50.00 ug/L	0.00	
105) B 1,4-Dichlorobenzene-d4	15.576	152	701406	50.00 ug/L	0.00	
System Monitoring Compounds						
29) 1,2-Dichloroethane-d4	9.626	65	494329	49.00 ug/L	0.00	
43) Toluene-d8	11.620	98	1668091	48.62 ug/L	0.00	
61) Bromofluorobenzene	14.357	95	646716	47.84 ug/L	0.00	
Target Compounds					Qvalue	
2) Dichlorodifluoromethane	4.360	85	355163	46.34 ug/L	99	
3) Chloromethane	4.672	50	486717	46.17 ug/L	99	
4) Vinyl chloride	4.914	62	474565	51.28 ug/L	99	
5) Bromomethane	5.468	94	346614	50.22 ug/L	100	
6) Chloroethane	5.609	64	341569	49.73 ug/L	99	
7) Trichlorofluoromethane	6.022	101	686879	50.63 ug/L	100	
8) Ethyl ether	6.328	59	383197	43.47 ug/L	99	
9) Acetone	6.706	43	521382	167.62 ug/L	98	E
10) 1,1-Dichloroethylene	6.706	61	626320	50.05 ug/L	99	
11) Iodomethane	6.950	142	3240292	240.28 ug/L	99	
12) Acetonitrile	7.072	41	1433373	1124.13 ug/L	99	
13) Methyl acetate	7.096	43	1569377	224.34 ug/L	99	
14) Carbon disulfide	7.078	76	6555780	261.05 ug/L	100	
15) Methylene chloride	7.285	84	434115	44.11 ug/L	99	
16) tert-Butyl methyl ether	7.572	73	1109093	44.60 ug/L	100	
17) trans-1,2-Dichloroethy...	7.615	61	628108	49.18 ug/L	99	
18) Vinyl acetate	8.060	43	4799692	260.87 ug/L	96	
19) 1,1-Dichloroethane	8.102	63	773277	48.38 ug/L	100	
20) 2-Butanone	8.688	43	839011	213.19 ug/L	99	
21) cis-1,2-Dichloroethylene	8.742	61	699169	49.14 ug/L	98	
22) 2,2-Dichloropropane	8.767	77	652849	56.70 ug/L	99	
23) Bromochloromethane	9.017	128	205392	46.87 ug/L	99	
24) Chloroform	9.053	83	716039	48.12 ug/L	99	
25) 1,1,1-Trichloroethane	9.322	97	660142	52.86 ug/L	100	
26) Cyclohexane	9.413	56	856871	53.06 ug/L	100	
27) 1,1-Dichloropropene	9.480	75	588612	51.78 ug/L	99	
28) Carbon tetrachloride	9.511	117	601027	54.40 ug/L	99	
30) 1,2-Dichloroethane	9.706	62	561182	46.00 ug/L	99	
31) Benzene	9.724	78	1637236	47.01 ug/L	100	
32) Cyclohexene	9.834	67	852545	51.46 ug/L	100	
33) n-Butyl alcohol	10.078	56	1289262	4458.58 ug/L	100	
34) Trichloroethylene	10.364	95	423555	48.72 ug/L	100	
35) 1,2-Dichloropropane	10.614	63	446886	48.55 ug/L	99	
36) Methylcyclohexane	10.602	83	794349	52.51 ug/L	99	
37) Dibromomethane	10.748	93	230249	47.09 ug/L	99	
38) Bromodichloromethane	10.864	83	526430	51.07 ug/L	99	
39) 2-Chloroethylvinyl ether	11.090	63	1378043	244.45 ug/L	99	
40) cis-1,3-Dichloropropylene	11.315	75	653143	50.21 ug/L	100	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\122309V6\
Data File : 6Q302.D
Acq On : 23 Dec 2009 10:53 am
Operator : RXD1
InstName : VOA6
Sample : |W6VM091223-01|CCV|1|VOAF|1|VOA8260BS|
Misc : CCV 5mL N/A MIX[A] 1214-01B+1222-01
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 23 11:11:18 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	QIon	Response	Conc Units		Dev(Min)	
42)	4-Methyl-2-pentanone	11.413	58	766710	235.96 ug/L		98	
44)	Toluene	11.699	91	1739820	47.18 ug/L		100	
45)	trans-1,3-Dichloroprop...	11.858	75	602405	50.53 ug/L		99	
46)	1,1,2-Trichloroethane	12.083	83	278873	45.97 ug/L		99	
47)	2-Hexanone	12.260	43	1339543	224.84 ug/L		98	
48)	1,3-Dichloropropane	12.272	76	585434	45.35 ug/L		97	
49)	Tetrachloroethylene	12.291	164	364298	48.89 ug/L		99	
50)	Dibromochloromethane	12.540	129	400413	52.42 ug/L		99	
51)	1,2-Dibromoethane	12.705	107	340846	46.60 ug/L		100	
52)	Chlorobenzene	13.187	112	1146199	48.06 ug/L		100	
53)	1,1,1,2-Tetrachloroethane	13.242	131	415972	50.39 ug/L		100	
54)	Ethylbenzene	13.254	91	1997340	49.40 ug/L		99	
55)	m,p-Xylenes	13.363	106	1593529	98.54 ug/L		99	
56)	o-Xylene	13.796	106	777018	48.95 ug/L		98	
57)	Styrene	13.796	104	1283694	50.77 ug/L		100	
59)	Bromoform	14.058	173	264404	53.32 ug/L		99	
60)	Isopropylbenzene	14.156	105	2083501	48.73 ug/L		99	
62)	1,1,2,2-Tetrachloroethane	14.436	83	438283	45.73 ug/L		99	
63)	1,2,3-Trichloropropane	14.528	110	121214	44.96 ug/L	#	88	
64)	Bromobenzene	14.564	156	510542	46.44 ug/L		100	
65)	n-Propylbenzene	14.583	91	2433107	48.57 ug/L		100	
66)	1,3,5-Trimethylbenzene	14.735	105	1784672	48.69 ug/L		99	
67)	2-Chlorotoluene	14.729	126	518828	48.70 ug/L		99	
68)	4-Chlorotoluene	14.833	91	1485074	48.14 ug/L		100	
69)	tert-Butylbenzene	15.107	134	392723	48.17 ug/L	#	90	
70)	1,2,4-Trimethylbenzene	15.150	105	1819624	47.12 ug/L		100	
71)	sec-Butylbenzene	15.333	105	2406062	48.83 ug/L		99	
72)	4-Isopropyltoluene	15.455	119	1985749	49.28 ug/L		99	
73)	1,3-Dichlorobenzene	15.515	146	1003654	46.72 ug/L		100	
74)	1,4-Dichlorobenzene	15.601	146	1017089	46.17 ug/L		99	
75)	n-Butylbenzene	15.887	91	1947997	49.81 ug/L		100	
76)	1,2-Dichlorobenzene	16.022	146	948805	45.56 ug/L		100	
77)	1,2-Dibromo-3-chloropr...	16.881	157	87579	50.10 ug/L		98	E
78)	1,2,4-Trichlorobenzene	17.911	180	691678	44.15 ug/L		99	
79)	Hexachlorobutadiene	18.076	225	448424	45.09 ug/L		100	
80)	Naphthalene	18.283	128	1318477	41.88 ug/L		100	
81)	1,2,3-Trichlorobenzene	18.619	180	577538	44.03 ug/L		98	
83)	Chlorotrifluoroethylene	0.000		0	N.D.			
84)	2-Chloro-1,1,1-trifluo...	0.000		0	N.D.			
85)	Acrolein	6.462		0m	N.D.	d		
86)	Trichlorotrifluoroethane	0.000		0	N.D.			
87)	Isopropyl Alcohol	6.712		0m	N.D.	d		
88)	Allyl chloride	7.072		0m	N.D.	d		
89)	tert-Butyl Alcohol	0.000		0	N.D.			
90)	Acrylonitrile	7.572		0m	N.D.	d		
91)	Isopropyl ether	8.060		0m	N.D.	d		
92)	2-Chloro-1,3-butadiene	8.218		0m	N.D.	d		
93)	Ethyl tert-butyl ether	0.000		0	N.D.			
94)	Ethyl acetate	8.688		0m	N.D.	d		
95)	Propionitrile	8.706		0m	N.D.	d		
96)	Methacrylonitrile	8.956		0m	N.D.	d		
97)	Tetrahydrofuran	9.059		0m	N.D.	d		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\122309V6\
Data File : 6Q302.D
Acq On : 23 Dec 2009 10:53 am
Operator : RXD1
InstName : VOA6
Sample : |W6VM091223-01|CCV|1|VOAF|1|VOA8260BS|
Misc : CCV 5mL N/A MIX[A] 1214-01B+1222-01
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 23 11:11:18 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
98)	Isobutyl alcohol	9.413		0m	N.D.	d	
99)	Methyl tert-amyl ether	9.724		0m	N.D.	d	
100)	Methyl methacrylate	10.602		0m	N.D.	d	
101)	1,4-Dioxane	10.748		0m	N.D.	d	
102)	2-Nitropropane	11.090		0m	N.D.	d	
104)	Ethyl methacrylate	11.864		0m	N.D.	d	
106)	1-Chlorohexane	0.000		0	N.D.		
107)	cis-1,4-Dichloro-2-butene	14.156		0m	N.D.	d	
108)	Cyclohexanone	0.000		0	N.D.		
109)	trans-1,4-Dichloro-2-b...	0.000		0	N.D.		
110)	Pentachloroethane	15.174		0m	N.D.	d	
111)	Benzyl chloride	15.717		0m	N.D.	d	
112)	bis(2-Chloroisopropyl)...	16.107		0m	N.D.	d	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\122309V6\
Data File : 6Q302.D
Acq On : 23 Dec 2009 10:53 am
Operator : RXD1
InstName : VOA6
Sample : |W6VM091223-01|CCV|1|VOAF|1|VOA8260BS|
Misc : CCV 5mL N/A MIX[A] 1214-01B+1222-01
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 23 11:11:18 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

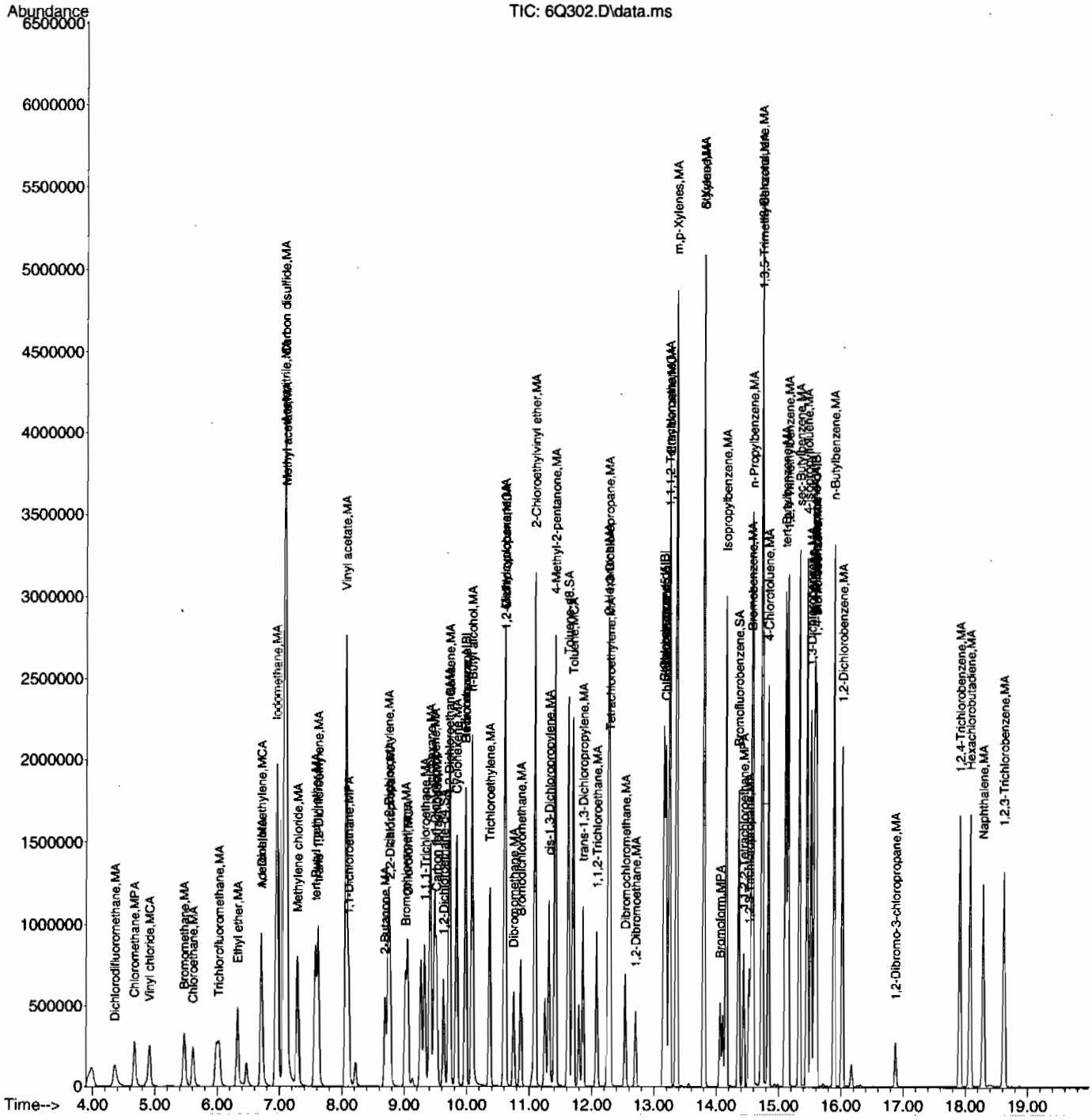

Continuing Calibration Summary

Client SDG: 10-939

Instrument ID: VOA6.I **Injection Date** 23-DEC-09 11:49

Data File: 122309V6\6Q304.D **Init. Cal. Date(s)** 10-DEC-09 11:34 - 10-DEC-09 19:2

Lab Sample ID W6VM091223-03 **Quant Type** ISTD **Method:** VOA6-8260-121009.M

	Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
S	1,2-Dichloroethane-d4	0.295	0.28194		.01		-4.42712	30		Averaged
S	Toluene-d8	1.3863	1.3134		.01		-5.2586	30		Averaged
S	Bromofluorobenzene	0.9636	0.93474		.01		-2.99502	30		Averaged
	Acrolein	0.0365	0.03648		.01		-0.05479	30		Averaged
	Trichlorotrifluoroethane	0.0934	0.10789		.01		15.51392	30		Averaged
	Allyl chloride	0.4371	0.44992		.01		2.93297	30		Averaged
	Acrylonitrile	0.0929	0.08339		.01		-10.23681	30		Averaged
	2-Chloro-1,3-butadiene	0.372	0.41403		.01		11.29839	30		Averaged
	Ethyl acetate	0.2653	0.21915		.01		-17.3954	40		Averaged
	Propionitrile	0.0361	0.03144		.01		-12.90859	30		Averaged
	Methacrylonitrile	0.1587	0.14249		.01		-10.21424	30		Averaged
	Tetrahydrofuran	0.0843	0.07284		.01		-13.59431	30		Averaged
	Isobutyl alcohol	0.0095	0.00858		.01		-9.68421	40		Averaged
	Methyl methacrylate	0.1518	0.1422		.01		-6.32411	30		Averaged
	1,4-Dioxane	0.0023	0.00196		.01		-14.78261	40		Averaged
	2-Nitropropane	250	237.13	250			-5.148	30		Linear
	Ethyl methacrylate	0.3914	0.3688		.01		-5.77414	30		Averaged
	cis-1,4-Dichloro-2-butene	0.2353	0.23587		.01		0.24224	30		Averaged
	Cyclohexanone	0.0193	0.0138		.01		-28.49741	40		Averaged
	trans-1,4-Dichloro-2-butene	0.2261	0.22508		.01		-0.45113	30		Averaged
	Pentachloroethane	0.3343	0.44677		.01		33.64343	30	*	Averaged
	Benzyl chloride	1.2936	1.2375		.01		-4.33673	30		Averaged
	bis(2-Chloroisopropyl)ether	0.3796	0.32366		.01		-14.73656	30		Averaged

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\122309V6\
Data File : 6Q304.D
Acq On : 23 Dec 2009 11:49 am
Operator : RXD1
InstName : VOA6
Sample : |W6VM091223-03|CCV|1|VOAF|1|VOA8260BS|
Misc : CCV 5mL N/A MIX[B] 1118-08C
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Dec 23 12:43:16 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Fluorobenzene	9.980	96	1730720	50.00 ug/L	0.00
41) Chlorobenzene-d5	13.156	117	1281287	50.00 ug/L	0.00
58) 1,4-Dichlorobenzene-d4	15.576	152	718628	50.00 ug/L	0.00
82) B Fluorobenzene	9.980	96	1729292	50.00 ug/L	0.00
103) B Chlorobenzene-d5	13.156	117	1281287	50.00 ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	15.576	152	718628	50.00 ug/L	0.00
System Monitoring Compounds					
29) 1,2-Dichloroethane-d4	9.626	65	487955	47.79 ug/L	0.00
43) Toluene-d8	11.626	98	1682843	47.37 ug/L	0.00
61) Bromofluorobenzene	14.357	95	671727	48.50 ug/L	0.00

Target Compounds				Qvalue
2) Dichlorodifluoromethane	0.000	0	N.D.	
3) Chloromethane	4.662	0m	N.D. d	
4) Vinyl chloride	4.914	0m	N.D. d	
5) Bromomethane	0.000	0	N.D.	
6) Chloroethane	0.000	0	N.D.	
7) Trichlorofluoromethane	0.000	0	N.D.	
8) Ethyl ether	0.000	0	N.D.	
9) Acetone	6.682	0m	N.D. d	
10) 1,1-Dichloroethylene	6.676	0m	N.D. d	
11) Iodomethane	6.950	0m	N.D. d	
12) Acetonitrile	7.139	0m	N.D. d	
13) Methyl acetate	7.102	0m	N.D. d	
14) Carbon disulfide	7.139	0m	N.D. d	
15) Methylene chloride	7.285	0m	N.D. d	
16) tert-Butyl methyl ether	7.572	0m	N.D. d	
17) trans-1,2-Dichloroethy...	7.614	0m	N.D. d	
18) Vinyl acetate	8.072	0m	N.D. d	
19) 1,1-Dichloroethane	8.206	0m	N.D. d	
20) 2-Butanone	8.706	0m	N.D. d	
21) cis-1,2-Dichloroethylene	8.700	0m	N.D. d	
22) 2,2-Dichloropropane	0.000	0	N.D.	
23) Bromochloromethane	0.000	0	N.D.	
24) Chloroform	9.059	0m	N.D. d	
25) 1,1,1-Trichloroethane	0.000	0	N.D.	
26) Cyclohexane	9.395	0m	N.D. d	
27) 1,1-Dichloropropene	9.474	0m	N.D. d	
28) Carbon tetrachloride	0.000	0	N.D.	
30) 1,2-Dichloroethane	9.705	0m	N.D. d	
31) Benzene	9.718	0m	N.D. d	
32) Cyclohexene	9.833	0m	N.D. d	
33) n-Butyl alcohol	10.089	0m	N.D. d	
34) Trichloroethylene	10.376	0m	N.D. d	
35) 1,2-Dichloropropane	0.000	0	N.D.	
36) Methylcyclohexane	10.589	0m	N.D. d	
37) Dibromomethane	0.000	0	N.D.	
38) Bromodichloromethane	0.000	0	N.D.	
39) 2-Chloroethylvinyl ether	11.089	0m	N.D. d	
40) cis-1,3-Dichloropropylene	11.315	0m	N.D. d	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\122309V6\
Data File : 6Q304.D
Acq On : 23 Dec 2009 11:49 am
Operator : RXD1
InstName : VOA6
Sample : |W6VM091223-03|CCV|1|VOAF|1|VOA8260BS|
Misc : CCV 5mL N/A MIX[B] 1118-08C
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Dec 23 12:43:16 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
42) 4-Methyl-2-pentanone	11.406		0m	N.D. d	
44) Toluene	11.699		0m	N.D. d	
45) trans-1,3-Dichloroprop...	11.857		0m	N.D. d	
46) 1,1,2-Trichloroethane	0.000		0	N.D.	
47) 2-Hexanone	12.266		0m	N.D. d	
48) 1,3-Dichloropropane	12.272		0m	N.D. d	
49) Tetrachloroethylene	12.290		0m	N.D. d	
50) Dibromochloromethane	0.000		0	N.D.	
51) 1,2-Dibromoethane	12.711		0m	N.D. d	
52) Chlorobenzene	13.193		0m	N.D. d	
53) 1,1,1,2-Tetrachloroethane	13.235		0m	N.D. d	
54) Ethylbenzene	13.254		0m	N.D. d	
55) m,p-Xylenes	13.363		0m	N.D. d	
56) o-Xylene	13.796		0m	N.D. d	
57) Styrene	13.796		0m	N.D. d	
59) Bromoform	14.058		0m	N.D. d	
60) Isopropylbenzene	14.156		0m	N.D. d	
62) 1,1,2,2-Tetrachloroethane	14.436		0m	N.D. d	
63) 1,2,3-Trichloropropane	14.528		0m	N.D. d	
64) Bromobenzene	14.564		0m	N.D. d	
65) n-Propylbenzene	14.583		0m	N.D. d	
66) 1,3,5-Trimethylbenzene	14.735		0m	N.D. d	
67) 2-Chlorotoluene	14.729		0m	N.D. d	
68) 4-Chlorotoluene	14.832		0m	N.D. d	
69) tert-Butylbenzene	15.107		0m	N.D. d	
70) 1,2,4-Trimethylbenzene	15.149		0m	N.D. d	
71) sec-Butylbenzene	15.332		0m	N.D. d	
72) 4-Isopropyltoluene	15.448		0m	N.D. d	
73) 1,3-Dichlorobenzene	15.515		0m	N.D. d	
74) 1,4-Dichlorobenzene	15.601		0m	N.D. d	
75) n-Butylbenzene	15.887		0m	N.D. d	
76) 1,2-Dichlorobenzene	16.021		0m	N.D. d	
77) 1,2-Dibromo-3-chloropr...	16.875		0m	N.D. d	
78) 1,2,4-Trichlorobenzene	17.911		0m	N.D. d	
79) Hexachlorobutadiene	18.070		0m	N.D. d	
80) Naphthalene	18.289		0m	N.D. d	
81) 1,2,3-Trichlorobenzene	18.618		0m	N.D. d	
83) Chlorotrifluoroethylene	0.000		0	N.D.	
84) 2-Chloro-1,1,1-trifluo...	0.000		0	N.D.	
85) Acrolein	6.535	56	315386	250.01 ug/L	98
86) Trichlorotrifluoroethane	6.682	85	932905	288.79 ug/L	99
87) Isopropyl Alcohol	0.000		0m	N.D. d	
88) Allyl chloride	7.139	41	3890181	257.31 ug/L	99
89) tert-Butyl Alcohol	0.000		0	N.D.	
90) Acrylonitrile	7.547	53	721026	224.46 ug/L	100
91) Isopropyl ether	0.000		0	N.D.	
92) 2-Chloro-1,3-butadiene	8.206	53	715976	55.65 ug/L	98
93) Ethyl tert-butyl ether	0.000		0	N.D.	
94) Ethyl acetate	8.706	43	1894875	206.48 ug/L	100
95) Propionitrile	8.773	54	271835	217.77 ug/L	100
96) Methacrylonitrile	8.949	41	1232045	224.41 ug/L	100
97) Tetrahydrofuran	9.065	42	629839	216.06 ug/L	99

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\122309V6\
Data File : 6Q304.D
Acq On : 23 Dec 2009 11:49 am
Operator : RXD1
InstName : VOA6
Sample : |W6VM091223-03|CCV|1|VOAF|1|VOA8260BS|
Misc : CCV 5mL N/A MIX[B] 1118-08C
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Dec 23 12:43:16 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
98)	Isobutyl alcohol	9.388	41	741806	2250.73 ug/L	99
99)	Methyl tert-amyl ether	9.736	73	1971	N.D.	
100)	Methyl methacrylate	10.589	69	1229480	234.23 ug/L	100
101)	1,4-Dioxane	10.699	88	169721	2092.58 ug/L	97
102)	2-Nitropropane	11.071	43	629233	237.13 ug/L	99
104)	Ethyl methacrylate	11.857	69	2362710	235.56 ug/L	99
106)	1-Chlorohexane	0.000		0	N.D.	
107)	cis-1,4-Dichloro-2-butene	14.205	53	847514	250.58 ug/L	100
108)	Cyclohexanone	14.314	42	247862	895.78 ug/L	100
109)	trans-1,4-Dichloro-2-b...	14.491	53	808758	248.92 ug/L	100
110)	Pentachloroethane	15.180	167	1605313	334.11 ug/L	98
111)	Benzyl chloride	15.716	91	4446507	239.16 ug/L	100
112)	bis(2-Chloroisopropyl)...	16.113	45	1162970	213.18 ug/L	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\122309V6\
Data File : 6Q304.D
Acq On : 23 Dec 2009 11:49 am
Operator : RXD1
InstName : VOA6
Sample : |W6VM091223-03|CCV|1|VOAF|1|VOA8260BS|
Misc : CCV 5mL N/A MIX[B] 1118-08C
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Dec 23 12:43:16 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

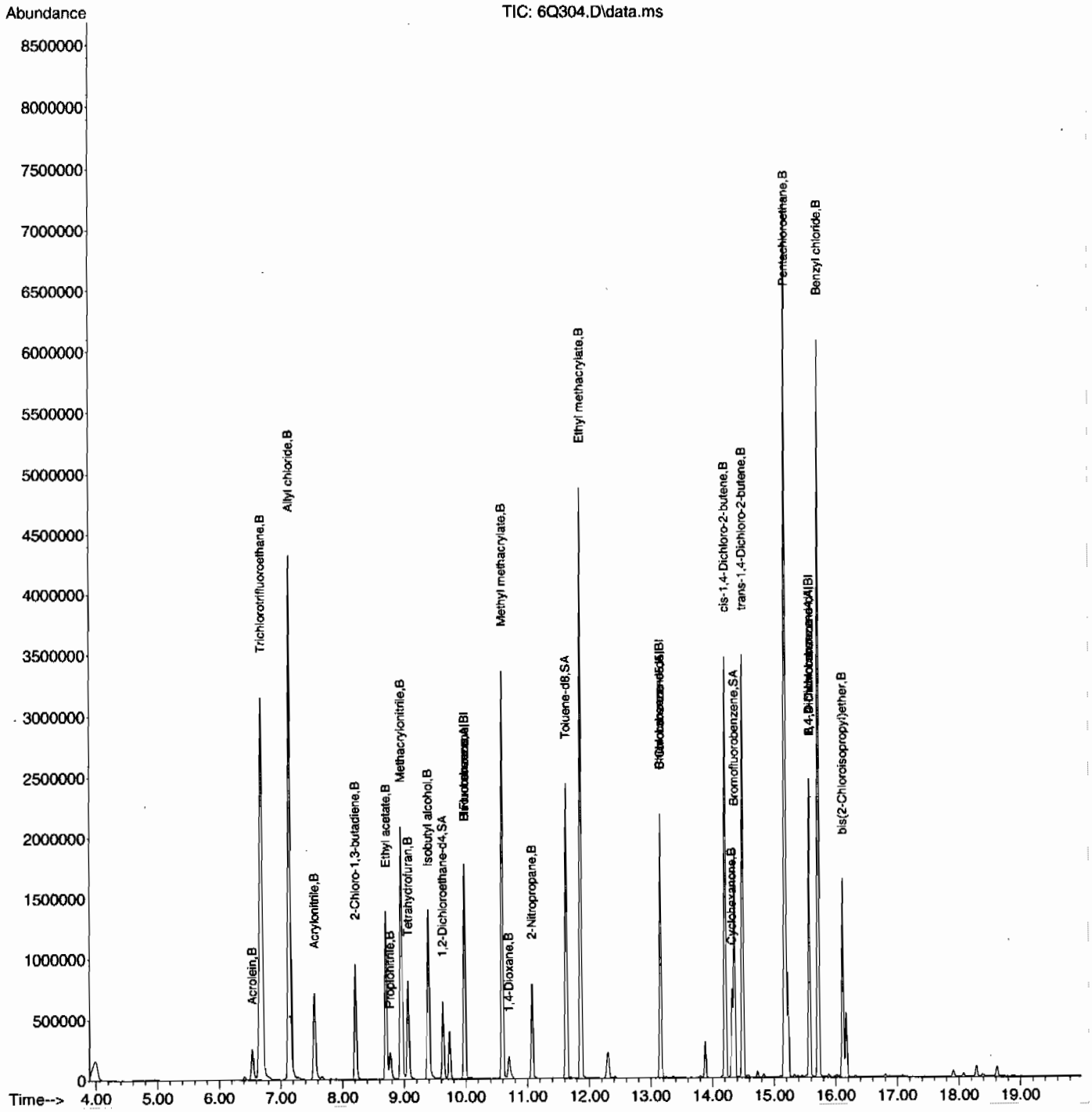

Quality Control Data

Tune Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121009V6\
Data File : 6O404.D
Acq On : 10 Dec 2009 10:12 am
Operator : RXD1
Sample : |UVM091020-02|BFB|1|VOAF|1|VOA8260BLF|
Misc : GEL 5mL N/A BFB
ALS Vial : 4 Sample Multiplier: 1

Integration File: default.P

Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Title : Volatile Organics 8260B SubList :
Last Update : Mon Dec 14 12:44:52 2009

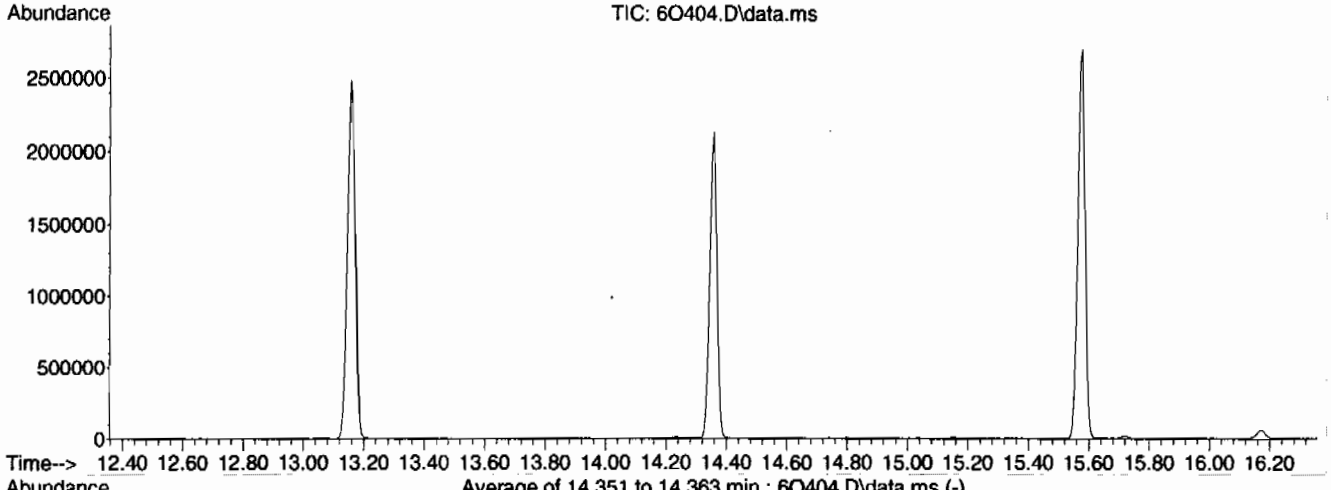

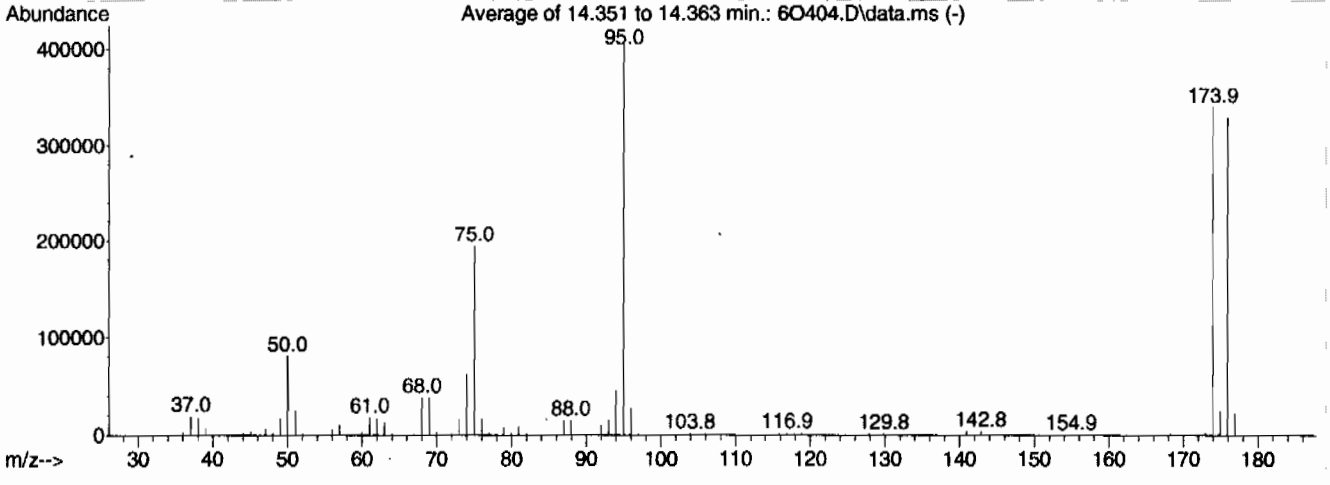

AutoFind: Scans 1558, 1559, 1560; Background Corrected with Scan 1550

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	20.0	80893	PASS
75	95	30	60	48.2	194667	PASS
95	95	100	100	100.0	404032	PASS
96	95	5	9	6.7	27179	PASS
173	174	0.00	2	0.8	2837	PASS
174	95	50	100	84.2	340352	PASS
175	174	5	9	7.2	24547	PASS
176	174	95	101	96.8	329472	PASS
177	176	5	9	6.6	21595	PASS

Tune Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\122209V6\
Data File : 6Q201.D
Acq On : 22 Dec 2009 9:59 am
Operator : RXD1
Sample : |UVM091020-02|BFB|1|VOAF|1|
Misc : GEL 5mL N/A BFB
ALS Vial : 1 Sample Multiplier: 1

Integration File: default.P

Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Title : Volatile Organics 8260B SubList :
Last Update : Mon Dec 14 12:44:52 2009

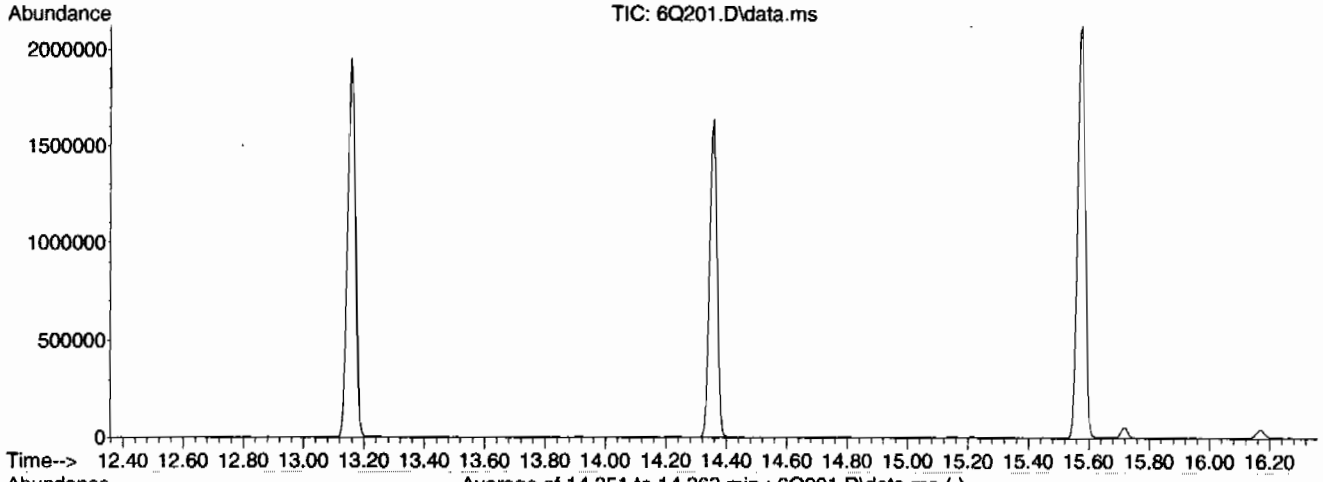

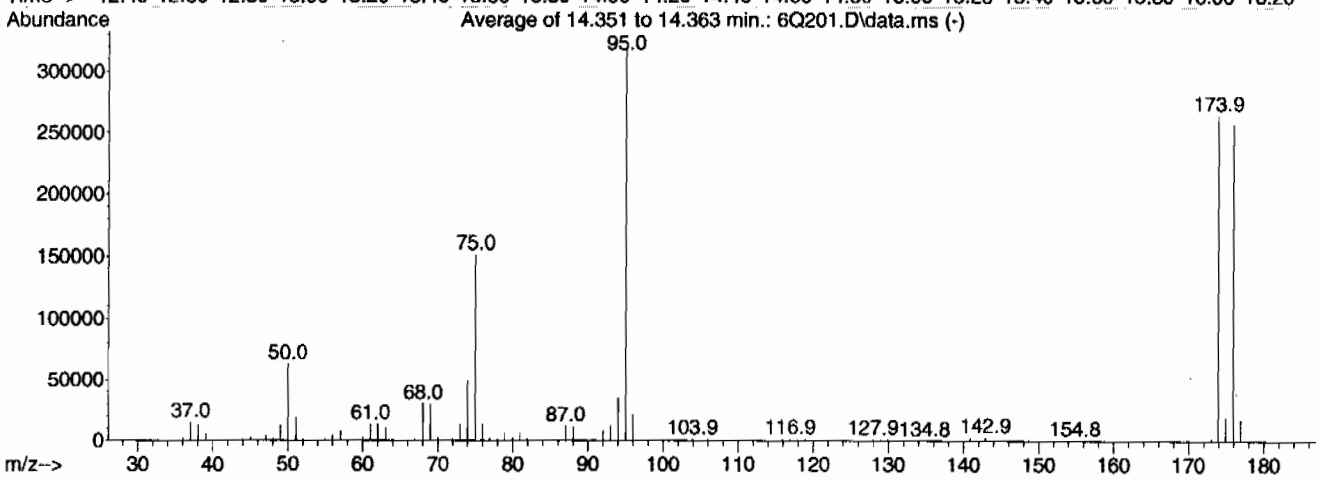

AutoFind: Scans 1558, 1559, 1560; Background Corrected with Scan 1550

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	19.8	62805	PASS
75	95	30	60	47.8	151480	PASS
95	95	100	100	100.0	316843	PASS
96	95	5	9	6.7	21243	PASS
173	174	0.00	2	0.9	2322	PASS
174	95	50	100	83.5	264448	PASS
175	174	5	9	7.2	18979	PASS
176	174	95	101	97.3	257323	PASS
177	176	5	9	6.7	17137	PASS

Tune Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\122309V6\
Data File : 6Q301.D
Acq On : 23 Dec 2009 10:25 am
Operator : RXD1
Sample : |UVM091020-02|BFB|1|VOAF|1|
Misc : GEL 5mL N/A BFB
ALS Vial : 1 Sample Multiplier: 1

Integration File: default.P

Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Title : Volatile Organics 8260B SubList :
Last Update : Mon Dec 14 12:44:52 2009

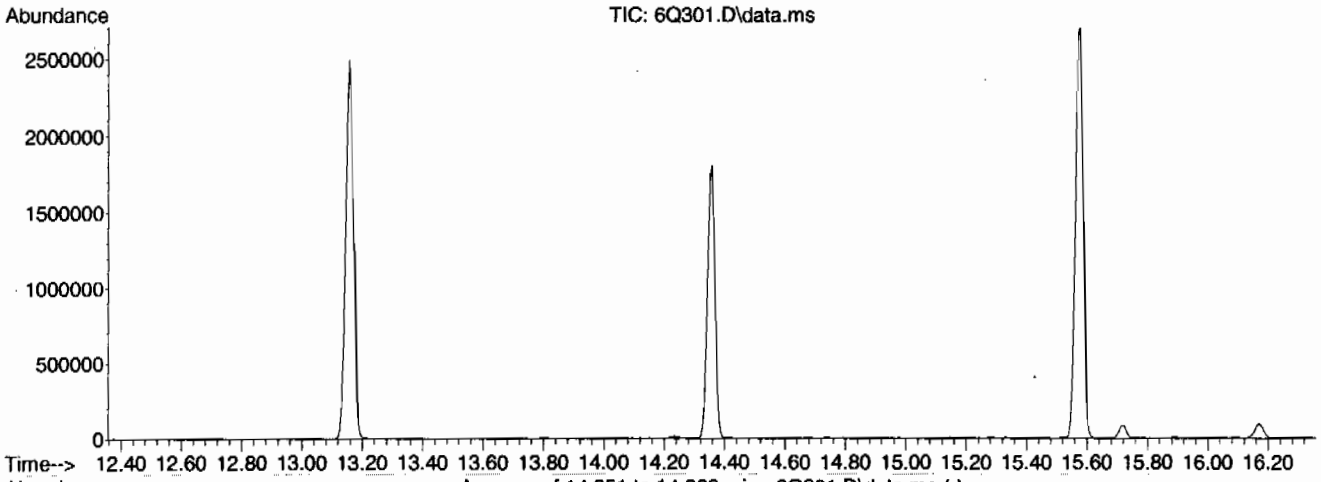

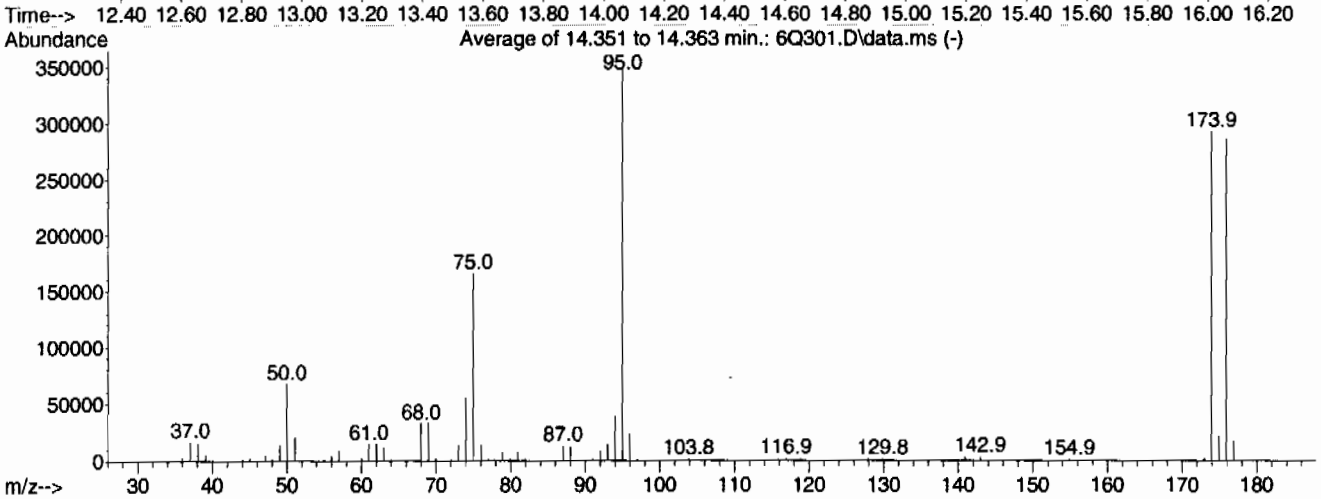

AutoFind: Scans 1558, 1559, 1560; Background Corrected with Scan 1550

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	19.4	67173	PASS
75	95	30	60	47.8	165867	PASS
95	95	100	100	100.0	346859	PASS
96	95	5	9	6.7	23104	PASS
173	174	0.00	2	0.9	2525	PASS
174	95	50	100	84.3	292416	PASS
175	174	5	9	7.1	20709	PASS
176	174	95	101	97.8	286080	PASS
177	176	5	9	6.1	17502	PASS

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-939**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202001914**				
Client Sample:	**QC for batch 935589**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 935589**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**935590**	**Inst:**	**VOA6.1**	**Dilution:**	**1**
Run Date:	**12/22/2009 12:19**	**Analyst:**	**RXD1**	**Purge Vol:**	**5 mL**
Prep Date:	**12/22/2009 09:42**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**122209V6\6Q206BL.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/kg	0.340	1.00
74-87-3	Chloromethane	U	1.00	ug/kg	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/kg	0.300	1.00
74-83-9	Bromomethane	U	1.00	ug/kg	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/kg	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/kg	0.300	1.00
67-64-1	Acetone	U	5.00	ug/kg	1.66	5.00
75-35-4	1,1-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/kg	1.60	5.00
75-09-2	Methylene chloride	U	5.00	ug/kg	2.00	5.00
75-15-0	Carbon disulfide	U	5.00	ug/kg	1.25	5.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/kg	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/kg	1.50	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/kg	0.300	1.00
74-97-5	Bromochloromethane	U	1.00	ug/kg	0.330	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/kg	0.300	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/kg	0.300	1.00
56-23-5	Carbon tetrachloride	U	1.00	ug/kg	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/kg	0.300	1.00
71-43-2	Benzene	U	1.00	ug/kg	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/kg	0.330	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/kg	0.300	1.00
74-95-3	Dibromomethane	U	1.00	ug/kg	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/kg	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
108-88-3	Toluene	U	1.00	ug/kg	0.300	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/kg	0.300	1.00
591-78-6	2-Hexanone	U	5.00	ug/kg	1.50	5.00
142-28-9	1,3-Dichloropropane	U	1.00	ug/kg	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/kg	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/kg	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/kg	0.300	1.00
108-90-7	Chlorobenzene	U	1.00	ug/kg	0.300	1.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-939			**Matrix:**	SOIL
Lab Sample ID:	1202001914				
Client Sample:	QC for batch 935589	**Client:**	LANL010	**Project:**	QC
Client ID:	MB for batch 935589	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	935590	**Inst:**	VOA6.I	**Dilution:**	1
Run Date:	12/22/2009 12:19	**Analyst:**	RXD1	**Purge Vol:**	5 mL
Prep Date:	12/22/2009 09:42	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	122209V6\6Q206BL.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.00	ug/kg	0.300	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/kg	0.300	2.00
95-47-6	o-Xylene	U	1.00	ug/kg	0.300	1.00
100-42-5	Styrene	U	1.00	ug/kg	0.300	1.00
75-25-2	Bromoform	U	1.00	ug/kg	0.300	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/kg	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/kg	0.300	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/kg	0.300	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/kg	0.300	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/kg	0.300	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/kg	0.300	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/kg	0.300	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/kg	0.300	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/kg	0.300	1.00
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.00	ug/kg	1.60	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated Units	Fit	Qual
	No Tentatively Identified Compounds Found		ug/kg		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\122209V6\
Data File : 6Q206BL.D
Acq On : 22 Dec 2009 12:19 pm
Operator : RXD1
InstName : VOA6
Sample : |1202001914|935590|1|VOAF|1|VOA8260BS|
Misc : BLANK 5g N/A SOIL
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Dec 22 13:02:49 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Fluorobenzene	9.974	96	1467328	50.00 ug/L	0.00
41) Chlorobenzene-d5	13.156	117	1060196	50.00 ug/L	0.00
58) 1,4-Dichlorobenzene-d4	15.576	152	582013	50.00 ug/L	0.00
82) B Fluorobenzene	9.974	96	1466063	50.00 ug/L	0.00
103) B Chlorobenzene-d5	13.156	117	1060196	50.00 ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	15.576	152	582013	50.00 ug/L	0.00
System Monitoring Compounds					
29) 1,2-Dichloroethane-d4	9.626	65	428199	49.46 ug/L	0.00
Spiked Amount 50.000	Range 68 - 131		Recovery = 98.92%		
43) Toluene-d8	11.626	98	1407429	47.88 ug/L	0.00
Spiked Amount 50.000	Range 75 - 129		Recovery = 95.76%		
61) Bromofluorobenzene	14.357	95	571818	50.98 ug/L	0.00
Spiked Amount 50.000	Range 68 - 133		Recovery = 101.96%		
Target Compounds					Qvalue
2) Dichlorodifluoromethane	0.000		0	N.D.	
3) Chloromethane	4.662	50	523	N.D.	
4) Vinyl chloride	0.000		0	N.D.	
5) Bromomethane	0.000		0	N.D.	
6) Chloroethane	0.000		0	N.D.	
7) Trichlorofluoromethane	0.000		0	N.D.	
8) Ethyl ether	0.000		0	N.D.	
9) Acetone	6.712	43	3147	N.D.	
10) 1,1-Dichloroethylene	0.000		0	N.D.	
11) Iodomethane	0.000		0	N.D.	
12) Acetonitrile	7.127	41	424	N.D.	
13) Methyl acetate	0.000		0	N.D.	
14) Carbon disulfide	0.000		0	N.D.	
15) Methylene chloride	7.279	84	5921	N.D.	
16) tert-Butyl methyl ether	0.000		0	N.D.	
17) trans-1,2-Dichloroethy...	0.000		0	N.D.	
18) Vinyl acetate	0.000		0	N.D.	
19) 1,1-Dichloroethane	0.000		0	N.D.	
20) 2-Butanone	8.700	43	2482	N.D.	
21) cis-1,2-Dichloroethylene	0.000		0	N.D.	
22) 2,2-Dichloropropane	0.000		0	N.D.	
23) Bromochloromethane	0.000		0	N.D.	
24) Chloroform	0.000		0	N.D.	
25) 1,1,1-Trichloroethane	0.000		0	N.D.	
26) Cyclohexane	0.000		0	N.D.	
27) 1,1-Dichloropropene	0.000		0	N.D.	
28) Carbon tetrachloride	0.000		0	N.D.	
30) 1,2-Dichloroethane	0.000		0	N.D.	
31) Benzene	0.000		0	N.D.	
32) Cyclohexene	0.000		0	N.D.	
33) n-Butyl alcohol	0.000		0	N.D.	
34) Trichloroethylene	0.000		0	N.D.	
35) 1,2-Dichloropropane	0.000		0	N.D.	
36) Methylcyclohexane	0.000		0	N.D.	
37) Dibromomethane	0.000		0	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\122209V6\
Data File : 6Q206BL.D
Acq On : 22 Dec 2009 12:19 pm
Operator : RXD1
InstName : VOA6
Sample : |1202001914|935590|1|VOAF|1|VOA8260BS|
Misc : BLANK 5g N/A SOIL
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Dec 22 13:02:49 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc Units Dev(Min)
38) Bromodichloromethane	0.000		0	N.D.
39) 2-Chloroethylvinyl ether	0.000		0	N.D.
40) cis-1,3-Dichloropropylene	0.000		0	N.D.
42) 4-Methyl-2-pentanone	0.000		0	N.D.
44) Toluene	11.699	91	1303	N.D.
45) trans-1,3-Dichloroprop...	0.000		0	N.D.
46) 1,1,2-Trichloroethane	0.000		0	N.D.
47) 2-Hexanone	12.260	43	433	N.D.
48) 1,3-Dichloropropane	0.000		0	N.D.
49) Tetrachloroethylene	0.000		0	N.D.
50) Dibromochloromethane	0.000		0	N.D.
51) 1,2-Dibromoethane	0.000		0	N.D.
52) Chlorobenzene	0.000		0	N.D.
53) 1,1,1,2-Tetrachloroethane	0.000		0	N.D.
54) Ethylbenzene	13.254	91	268	N.D.
55) m,p-Xylenes	13.363	106	616	N.D.
56) o-Xylene	0.000		0	N.D.
57) Styrene	13.802	104	416	N.D.
59) Bromoform	0.000		0	N.D.
60) Isopropylbenzene	14.156	105	690	N.D.
62) 1,1,2,2-Tetrachloroethane	0.000		0	N.D.
63) 1,2,3-Trichloropropane	0.000		0	N.D.
64) Bromobenzene	0.000		0	N.D.
65) n-Propylbenzene	14.583	91	1821	N.D.
66) 1,3,5-Trimethylbenzene	14.735	105	1575	N.D.
67) 2-Chlorotoluene	0.000		0	N.D.
68) 4-Chlorotoluene	14.833	91	529	N.D.
69) tert-Butylbenzene	15.174	134	373	N.D.
70) 1,2,4-Trimethylbenzene	15.144	105	3214	N.D.
71) sec-Butylbenzene	15.327	105	1825	N.D.
72) 4-Isopropyltoluene	15.448	119	1360	N.D.
73) 1,3-Dichlorobenzene	15.515	146	183	N.D.
74) 1,4-Dichlorobenzene	15.595	146	446	N.D.
75) n-Butylbenzene	15.887	91	1458	N.D.
76) 1,2-Dichlorobenzene	16.022	146	226	N.D.
77) 1,2-Dibromo-3-chloropr...	0.000		0	N.D.
78) 1,2,4-Trichlorobenzene	0.000		0	N.D.
79) Hexachlorobutadiene	0.000		0	N.D.
80) Naphthalene	18.283	128	3535	N.D.
81) 1,2,3-Trichlorobenzene	18.625	180	831	N.D.
83) Chlorotrifluoroethylene	0.000		0	N.D.
84) 2-Chloro-1,1,1-trifluo...	0.000		0	N.D.
85) Acrolein	0.000		0	N.D.
86) Trichlorotrifluoroethane	0.000		0	N.D.
87) Isopropyl Alcohol	0.000		0	N.D.
88) Allyl chloride	7.127	41	424	N.D.
89) tert-Butyl Alcohol	0.000		0	N.D.
90) Acrylonitrile	7.548	53	223	N.D.
91) Isopropyl ether	0.000		0	N.D.
92) 2-Chloro-1,3-butadiene	0.000		0	N.D.
93) Ethyl tert-butyl ether	0.000		0	N.D.
94) Ethyl acetate	8.700	43	2482	N.D.

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\122209V6\
Data File : 6Q206BL.D
Acq On : 22 Dec 2009 12:19 pm
Operator : RXD1
InstName : VOA6
Sample : |1202001914|935590|1|VOAF|1|VOA8260BS|
Misc : BLANK 5g N/A SOIL
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Dec 22 13:02:49 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
95)	Propionitrile	0.000		0	N.D.	
96)	Methacrylonitrile	8.950	41	745	N.D.	
97)	Tetrahydrofuran	9.066	42	705	N.D.	
98)	Isobutyl alcohol	0.000		0m	N.D. d	
99)	Methyl tert-amyl ether	0.000		0	N.D.	
100)	Methyl methacrylate	10.590	69	927	N.D.	
101)	1,4-Dioxane	0.000		0	N.D.	
102)	2-Nitropropane	0.000		0	N.D.	
104)	Ethyl methacrylate	11.864	69	2747	N.D.	
106)	1-Chlorohexane	0.000		0	N.D.	
107)	cis-1,4-Dichloro-2-butene	14.205	53	1797	N.D.	
108)	Cyclohexanone	14.315	42	940	N.D.	
109)	trans-1,4-Dichloro-2-b...	14.485	53	3065	1.16 ug/L	81
110)	Pentachloroethane	15.180	167	3915	1.01 ug/L	66
111)	Benzyl chloride	15.717	91	32820	2.18 ug/L	96
112)	bis(2-Chloroisopropyl)...	16.113	45	14237	3.22 ug/L	91

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\122209V6\
Data File : 6Q206BL.D
Acq On : 22 Dec 2009 12:19 pm
Operator : RXD1
InstName : VOA6
Sample : |1202001914|935590|1|VOAF|1|VOA8260BS|
Misc : BLANK 5g N/A SOIL
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Dec 22 13:02:49 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

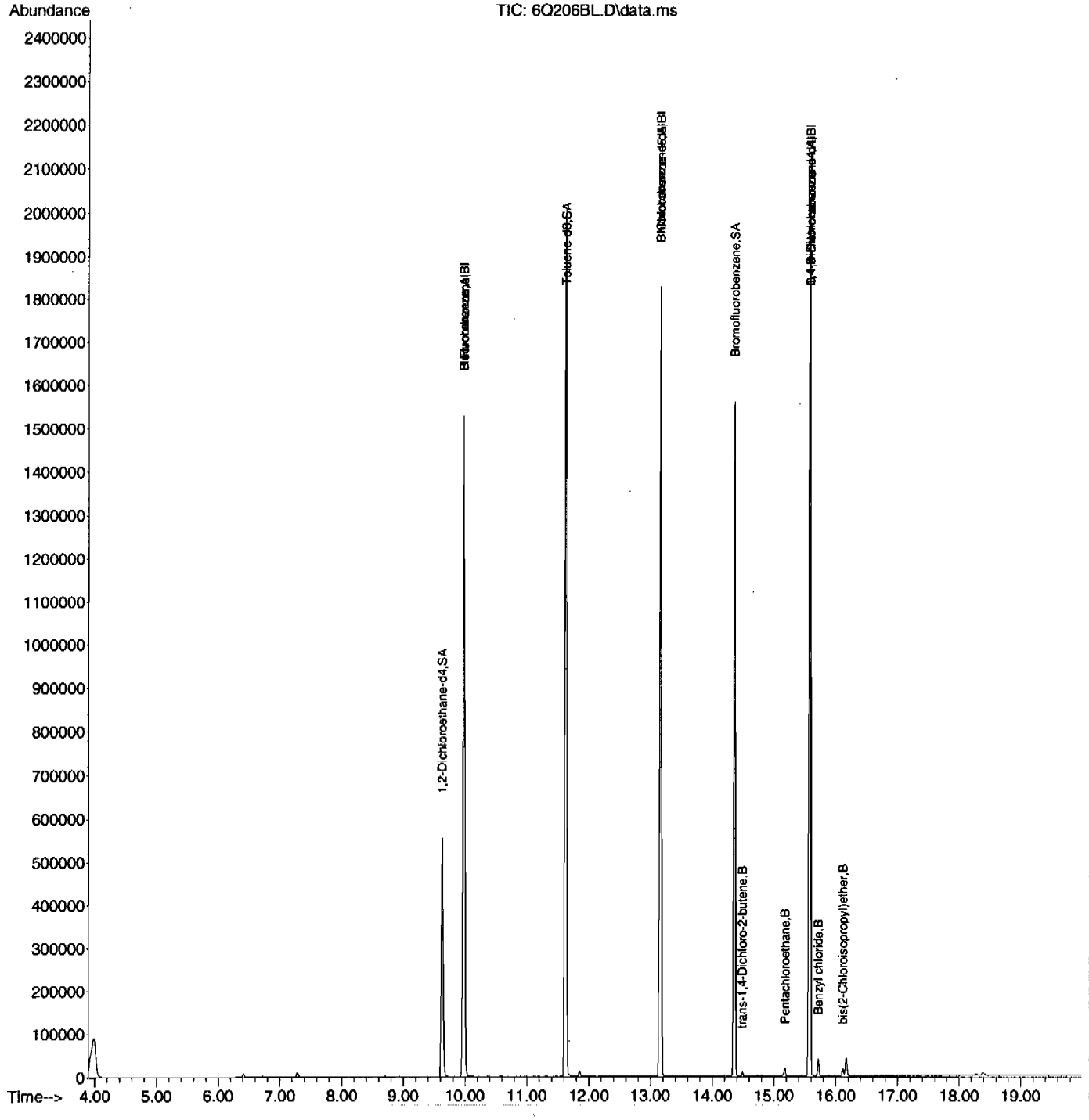

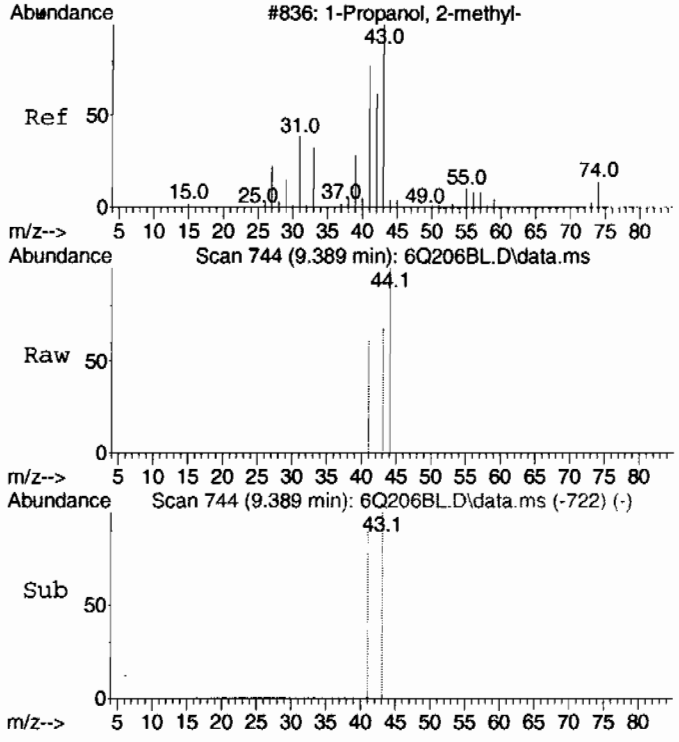

#98 BEFORE analyst DELETION
Isobutyl alcohol
Concen: 0.67 ug/L
RT: 9.389 min Scan# 744
Delta R.T. 0.001 min
Lab File: 6Q206BL.D
Acq: 22 Dec 2009 12:19 pm

Tgt Ion: 41 Resp: 188

Ion	Ratio	Lower	Upper
41	100		
43	220.7	111.2	171.2#

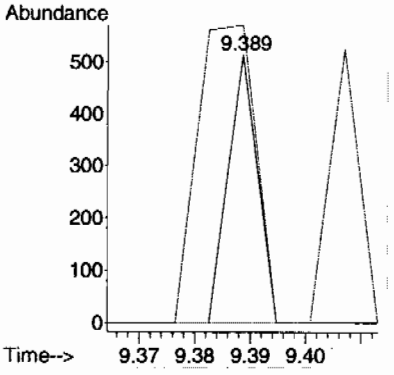

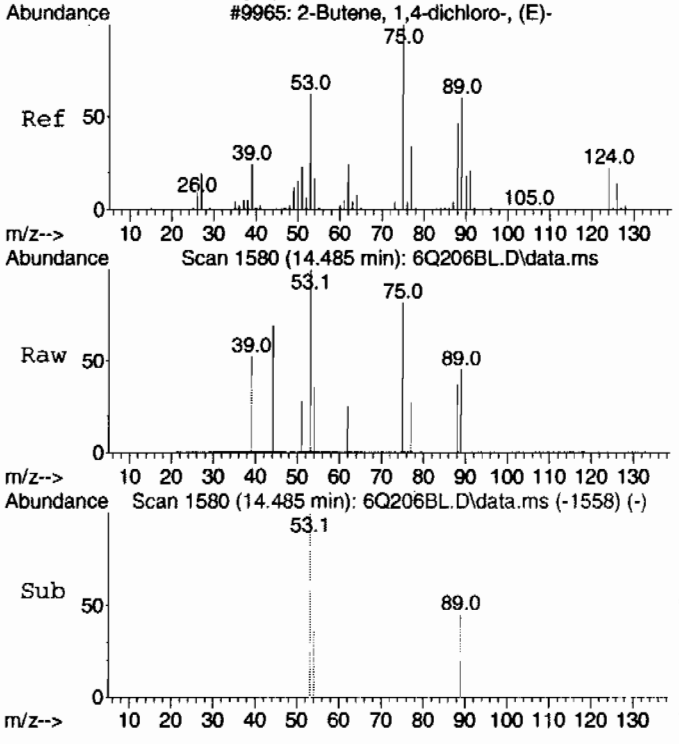

#109
trans-1,4-Dichloro-2-butene
Concen: 1.16 ug/L
RT: 14.485 min Scan# 1580
Delta R.T. -0.006 min
Lab File: 6Q206BL.D
Acq: 22 Dec 2009 12:19 pm

Tgt Ion: 53 Resp: 3065

Ion	Ratio	Lower	Upper
53	100		
88	38.7	19.8	79.8
75	98.8	91.6	151.6

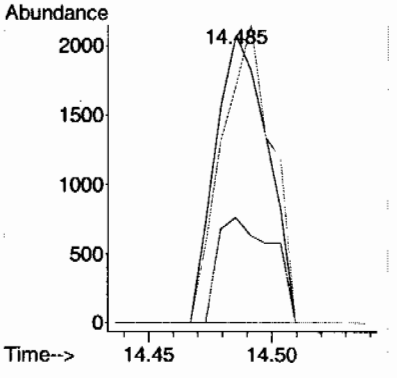

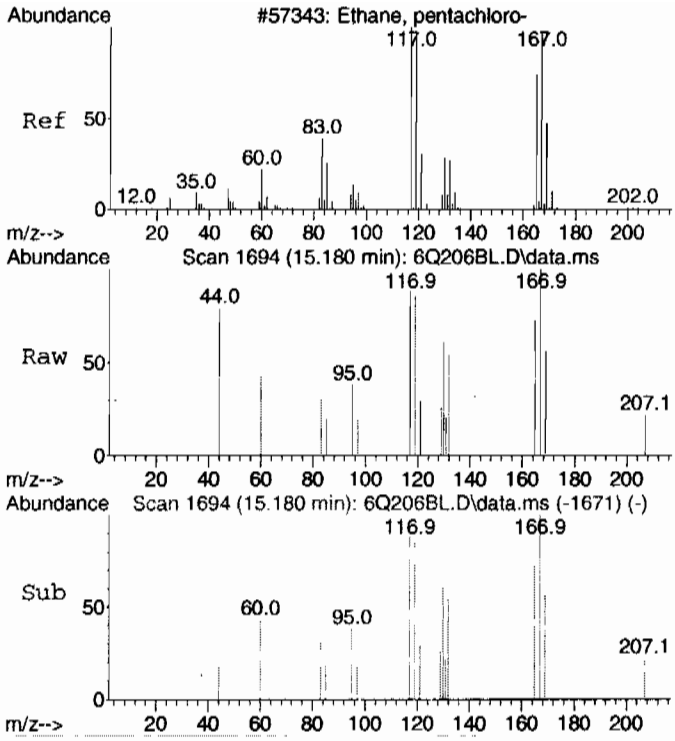

#110
Pentachloroethane
Concen: 1.01 ug/L
RT: 15.180 min Scan# 1694
Delta R.T. 0.000 min
Lab File: 6Q206BL.D
Acq: 22 Dec 2009 12:19 pm

Tgt Ion:167 Resp: 3915

Ion	Ratio	Lower	Upper
167	100		
130	60.4	10.0	70.0
132	58.2	7.5	67.5

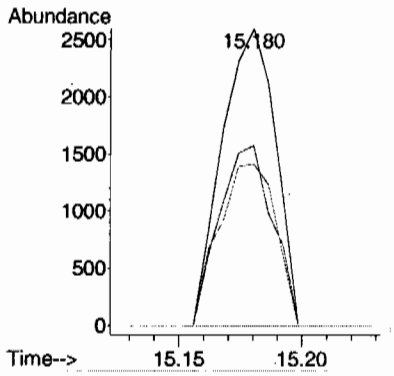

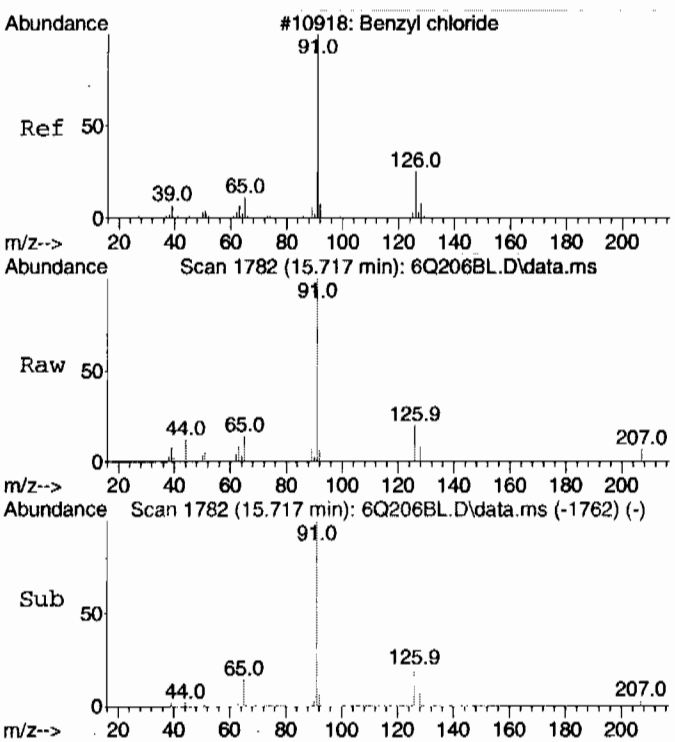

#111
Benzyl chloride
Concen: 2.18 ug/L
RT: 15.717 min Scan# 1782
Delta R.T. 0.001 min
Lab File: 6Q206BL.D
Acq: 22 Dec 2009 12:19 pm

Tgt Ion: 91 Resp: 32820

Ion	Ratio	Lower	Upper
91	100		
126	19.8	0.0	52.6
65	13.7	0.0	42.9

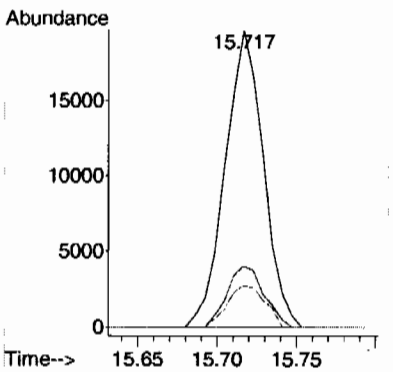

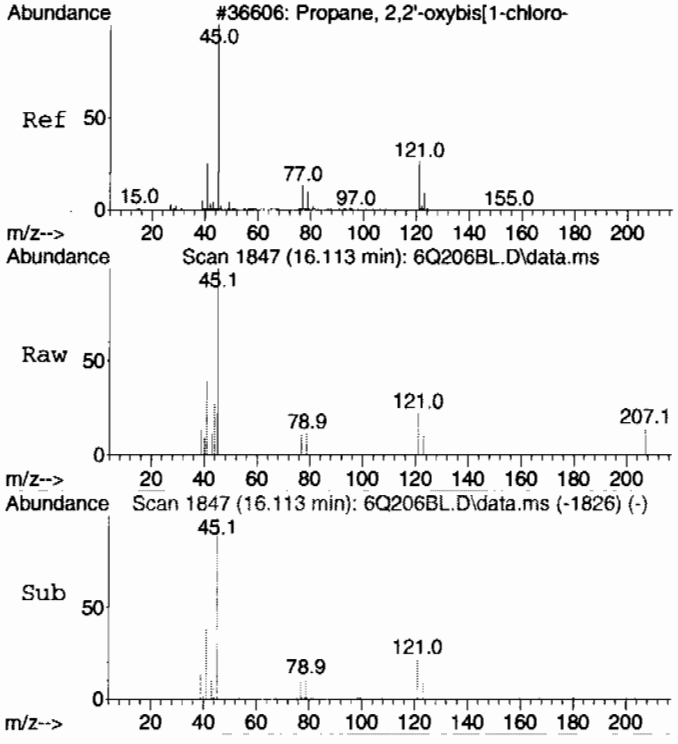

#112
bis(2-Chloroisopropyl)ether
Concen: 3.22 ug/L
RT: 16.113 min Scan# 1847
Delta R.T. -0.000 min
Lab File: 6Q206BL.D
Acq: 22 Dec 2009 12:19 pm

Tgt Ion: 45 Resp: 14237

Ion	Ratio	Lower	Upper
45	100		
121	18.5	0.0	53.0

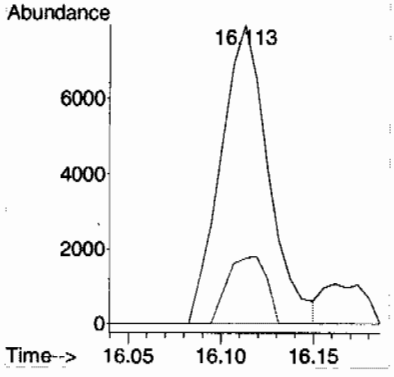

Library Search Compound Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\122209V6\
Data File : 6Q206BL.D
Acq On : 22 Dec 2009 12:19 pm
Operator : RXD1
Sample : |1202001914|935590|1|VOAF|1|VOA8260BS|
Misc : BLANK 5g N/A SOIL
ALS Vial : 6 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

No Library Search Compounds Detected
****

Tentatively Identified Compound (LSC) summary
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\122209V6\
Data File : 6Q206BL.D
Acq On : 22 Dec 2009 12:19 pm
Operator : RXD1
Sample : |1202001914|935590|1|VOAF|1|VOA8260BS|
Misc : BLANK 5g N/A SOIL
ALS Vial : 6 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

TIC Top Hit name	RT	EstConc	Units	Response	--Internal Standard--- #	RT	Resp	Conc

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-939**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202004059**				
Client Sample:	**QC for batch 935589**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 935589**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**935590**	**Inst:**	**VOA6.I**	**Dilution:**	**1**
Run Date:	**12/23/2009 12:44**	**Analyst:**	**RXD1**	**Purge Vol:**	**5 mL**
Prep Date:	**12/23/2009 09:29**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**122309V6\6Q306BL.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/kg	0.340	1.00
74-87-3	Chloromethane	U	1.00	ug/kg	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/kg	0.300	1.00
74-83-9	Bromomethane	U	1.00	ug/kg	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/kg	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/kg	0.300	1.00
67-64-1	Acetone	J	2.00	ug/kg	1.66	5.00
75-35-4	1,1-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/kg	1.60	5.00
75-09-2	Methylene chloride	U	5.00	ug/kg	2.00	5.00
75-15-0	Carbon disulfide	U	5.00	ug/kg	1.25	5.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/kg	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/kg	1.50	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/kg	0.300	1.00
74-97-5	Bromochloromethane	U	1.00	ug/kg	0.330	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/kg	0.300	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/kg	0.300	1.00
56-23-5	Carbon tetrachloride	U	1.00	ug/kg	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/kg	0.300	1.00
71-43-2	Benzene	U	1.00	ug/kg	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/kg	0.330	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/kg	0.300	1.00
74-95-3	Dibromomethane	U	1.00	ug/kg	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/kg	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
108-88-3	Toluene	U	1.00	ug/kg	0.300	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/kg	0.300	1.00
591-78-6	2-Hexanone	U	5.00	ug/kg	1.50	5.00
142-28-9	1,3-Dichloropropane	U	1.00	ug/kg	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/kg	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/kg	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/kg	0.300	1.00
108-90-7	Chlorobenzene	U	1.00	ug/kg	0.300	1.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-939**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202004059**				
Client Sample:	**QC for batch 935589**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 935589**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**935590**	**Inst:**	**VOA6.I**	**Dilution:**	**1**
Run Date:	**12/23/2009 12:44**	**Analyst:**	**RXD1**	**Purge Vol:**	**5 mL**
Prep Date:	**12/23/2009 09:29**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**122309V6\6Q306BL.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.00	ug/kg	0.300	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/kg	0.300	2.00
95-47-6	o-Xylene	U	1.00	ug/kg	0.300	1.00
100-42-5	Styrene	U	1.00	ug/kg	0.300	1.00
75-25-2	Bromoform	U	1.00	ug/kg	0.300	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/kg	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/kg	0.300	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/kg	0.300	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/kg	0.300	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/kg	0.300	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/kg	0.300	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/kg	0.300	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/kg	0.300	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/kg	0.300	1.00
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.00	ug/kg	1.60	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	No Tentatively Identified Compounds Found			ug/kg		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\122309V6\
Data File : 6Q306BL.D
Acq On : 23 Dec 2009 12:44 pm
Operator : RXD1
InstName : VOA6
Sample : |1202004059|935590|1|VOAF|1|VOA8260BS|
Misc : BLANK 5g N/A SOIL
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Dec 23 13:28:44 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	9.974	96	1737260	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.156	117	1232026	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	15.576	152	653874	50.00	ug/L	0.00
82) B Fluorobenzene	9.974	96	1735478	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.156	117	1232026	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	15.576	152	653874	50.00	ug/L	0.00
System Monitoring Compounds						
29) 1,2-Dichloroethane-d4	9.626	65	502841	49.06	ug/L	0.00
Spiked Amount 50.000	Range 68 - 131		Recovery = 98.12%			
43) Toluene-d8	11.626	98	1656003	48.48	ug/L	0.00
Spiked Amount 50.000	Range 75 - 129		Recovery = 96.96%			
61) Bromofluorobenzene	14.357	95	631643	50.13	ug/L	0.00
Spiked Amount 50.000	Range 68 - 133		Recovery = 100.26%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	0.000		0	N.D.		
3) Chloromethane	4.662	50	1356	N.D.		
4) Vinyl chloride	4.894	62	555	N.D.		
5) Bromomethane	0.000		0	N.D.		
6) Chloroethane	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000		0	N.D.		
8) Ethyl ether	0.000		0	N.D.		
9) Acetone	6.718	43	6329	2.00	ug/L	72
10) 1,1-Dichloroethylene	0.000		0	N.D.		
11) Iodomethane	6.938	142	384	N.D.		
12) Acetonitrile	7.127	41	907	N.D.		
13) Methyl acetate	0.000		0	N.D.		
14) Carbon disulfide	7.072	76	607	N.D.		
15) Methylene chloride	7.285	84	6022	N.D.		
16) tert-Butyl methyl ether	0.000		0	N.D.		
17) trans-1,2-Dichloroethy...	0.000		0	N.D.		
18) Vinyl acetate	0.000		0	N.D.		
19) 1,1-Dichloroethane	0.000		0	N.D.		
20) 2-Butanone	8.712	43	2991	N.D.		
21) cis-1,2-Dichloroethylene	0.000		0	N.D.		
22) 2,2-Dichloropropane	0.000		0	N.D.		
23) Bromochloromethane	0.000		0	N.D.		
24) Chloroform	0.000		0	N.D.		
25) 1,1,1-Trichloroethane	0.000		0	N.D.		
26) Cyclohexane	0.000		0	N.D.		
27) 1,1-Dichloropropene	0.000		0	N.D.		
28) Carbon tetrachloride	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000		0	N.D.		
31) Benzene	9.724	78	230	N.D.		
32) Cyclohexene	0.000		0	N.D.		
33) n-Butyl alcohol	0.000		0	N.D.		
34) Trichloroethylene	0.000		0	N.D.		
35) 1,2-Dichloropropane	0.000		0	N.D.		
36) Methylcyclohexane	0.000		0	N.D.		
37) Dibromomethane	0.000		0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\122309V6\
Data File : 6Q306BL.D
Acq On : 23 Dec 2009 12:44 pm
Operator : RXD1
InstName : VOA6
Sample : |1202004059|935590|1|VOAF|1|VOA8260BS|
Misc : BLANK 5g N/A SOIL
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Dec 23 13:28:44 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
38)	Bromodichloromethane	0.000		0	N.D.	
39)	2-Chloroethylvinyl ether	0.000		0	N.D.	
40)	cis-1,3-Dichloropropylene	0.000		0	N.D.	
42)	4-Methyl-2-pentanone	0.000		0	N.D.	
44)	Toluene	11.699	91	1478	N.D.	
45)	trans-1,3-Dichloroprop...	0.000		0	N.D.	
46)	1,1,2-Trichloroethane	0.000		0	N.D.	
47)	2-Hexanone	12.266	43	903	N.D.	
48)	1,3-Dichloropropane	0.000		0	N.D.	
49)	Tetrachloroethylene	0.000		0	N.D.	
50)	Dibromochloromethane	0.000		0	N.D.	
51)	1,2-Dibromoethane	0.000		0	N.D.	
52)	Chlorobenzene	0.000		0	N.D.	
53)	1,1,1,2-Tetrachloroethane	0.000		0	N.D.	
54)	Ethylbenzene	13.254	91	742	N.D.	
55)	m,p-Xylenes	13.357	106	693	N.D.	
56)	o-Xylene	0.000		0	N.D.	
57)	Styrene	13.809	104	744	N.D.	
59)	Bromoform	0.000		0	N.D.	
60)	Isopropylbenzene	14.150	105	1131	N.D.	
62)	1,1,2,2-Tetrachloroethane	0.000		0	N.D.	
63)	1,2,3-Trichloropropane	0.000		0	N.D.	
64)	Bromobenzene	0.000		0	N.D.	
65)	n-Propylbenzene	14.583	91	2838	N.D.	
66)	1,3,5-Trimethylbenzene	14.735	105	2218	N.D.	
67)	2-Chlorotoluene	0.000		0	N.D.	
68)	4-Chlorotoluene	14.839	91	1230	N.D.	
69)	tert-Butylbenzene	15.180	134	285	N.D.	
70)	1,2,4-Trimethylbenzene	15.156	105	3872	N.D.	
71)	sec-Butylbenzene	15.339	105	2822	N.D.	
72)	4-Isopropyltoluene	15.448	119	2054	N.D.	
73)	1,3-Dichlorobenzene	15.516	146	220	N.D.	
74)	1,4-Dichlorobenzene	15.601	146	1232	N.D.	
75)	n-Butylbenzene	15.881	91	2244	N.D.	
76)	1,2-Dichlorobenzene	16.022	146	621	N.D.	
77)	1,2-Dibromo-3-chloropr...	0.000		0	N.D.	
78)	1,2,4-Trichlorobenzene	17.905	180	864	N.D.	
79)	Hexachlorobutadiene	18.076	225	183	N.D.	
80)	Naphthalene	18.283	128	4805	N.D.	
81)	1,2,3-Trichlorobenzene	18.612	180	1578	N.D.	
83)	Chlorotrifluoroethylene	0.000		0	N.D.	
84)	2-Chloro-1,1,1-trifluo...	0.000		0	N.D.	
85)	Acrolein	0.000		0	N.D.	
86)	Trichlorotrifluoroethane	0.000		0	N.D.	
87)	Isopropyl Alcohol	0.000		0	N.D.	
88)	Allyl chloride	7.127	41	907	N.D.	
89)	tert-Butyl Alcohol	0.000		0	N.D.	
90)	Acrylonitrile	0.000		0	N.D.	
91)	Isopropyl ether	0.000		0	N.D.	
92)	2-Chloro-1,3-butadiene	0.000		0	N.D.	
93)	Ethyl tert-butyl ether	0.000		0	N.D.	
94)	Ethyl acetate	8.712	43	2991	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\122309V6\
Data File : 6Q306BL.D
Acq On : 23 Dec 2009 12:44 pm
Operator : RXD1
InstName : VOA6
Sample : |1202004059|935590|1|VOAF|1|VOA8260BS|
Misc : BLANK 5g N/A SOIL
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Dec 23 13:28:44 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
95)	Propionitrile	0.000		0	N.D.	
96)	Methacrylonitrile	8.962	41	1234	N.D.	
97)	Tetrahydrofuran	9.066	42	1830	N.D.	
98)	Isobutyl alcohol	0.000		0m	N.D. d	
99)	Methyl tert-amyl ether	0.000		0	N.D.	
100)	Methyl methacrylate	10.590	69	1566	N.D.	
101)	1,4-Dioxane	0.000		0m	N.D. d	
102)	2-Nitropropane	0.000		0m	N.D. d	
104)	Ethyl methacrylate	11.864	69	3353	N.D.	
106)	1-Chlorohexane	0.000		0	N.D.	
107)	cis-1,4-Dichloro-2-butene	14.199	53	1664	N.D.	
108)	Cyclohexanone	14.321	42	1184	N.D.	
109)	trans-1,4-Dichloro-2-b...	14.485	53	3179	1.08 ug/L	87
110)	Pentachloroethane	15.180	167	5319	1.22 ug/L	82
111)	Benzyl chloride	15.717	91	37540	2.22 ug/L	99
112)	bis(2-Chloroisopropyl)...	16.113	45	19142	3.86 ug/L	92

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\122309V6\
Data File : 6Q306BL.D
Acq On : 23 Dec 2009 12:44 pm
Operator : RXD1
InstName : VOA6
Sample : |1202004059|935590|1|VOAF|1|VOA8260BS|
Misc : BLANK 5g N/A SOIL
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Dec 23 13:28:44 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

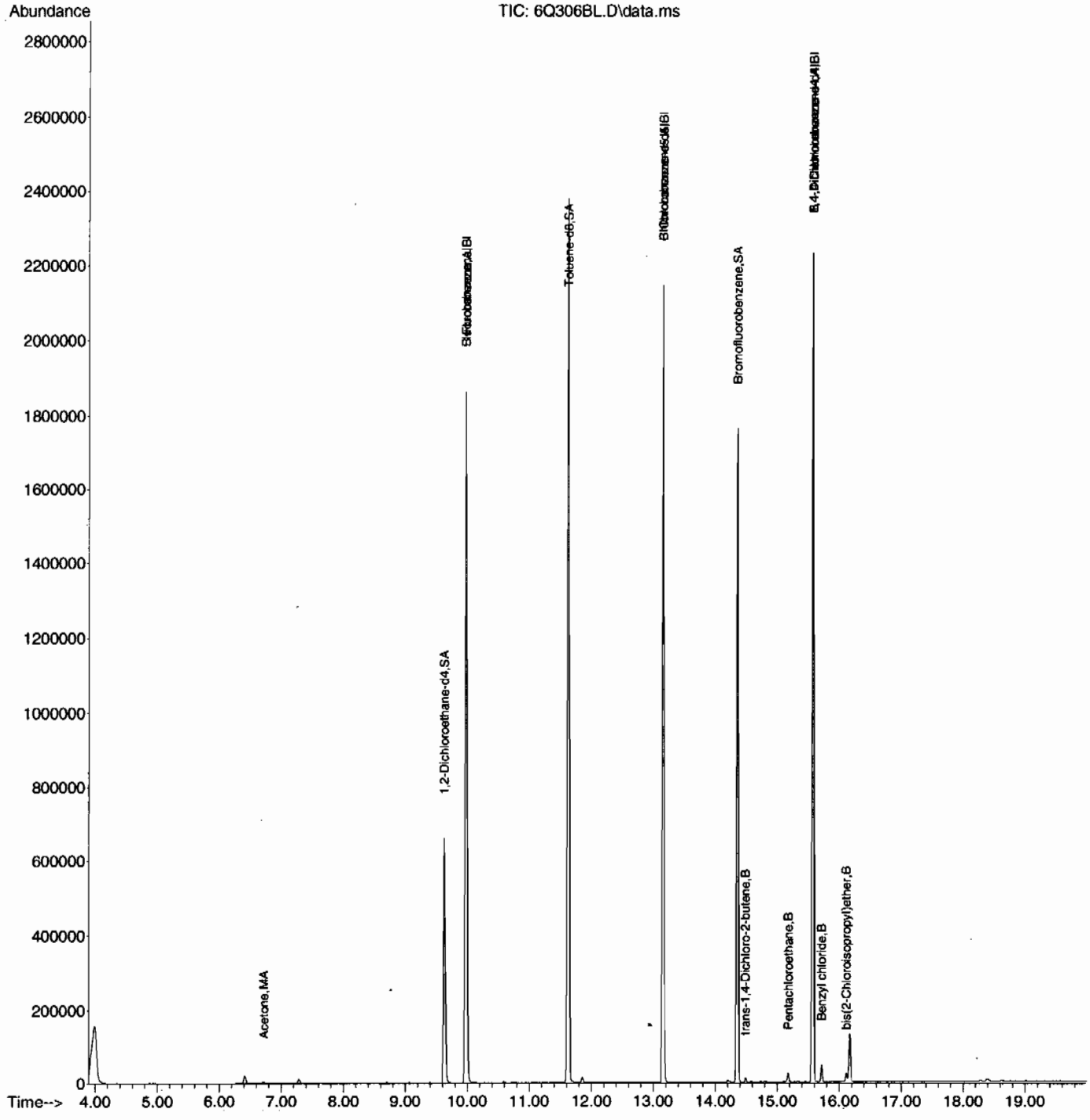

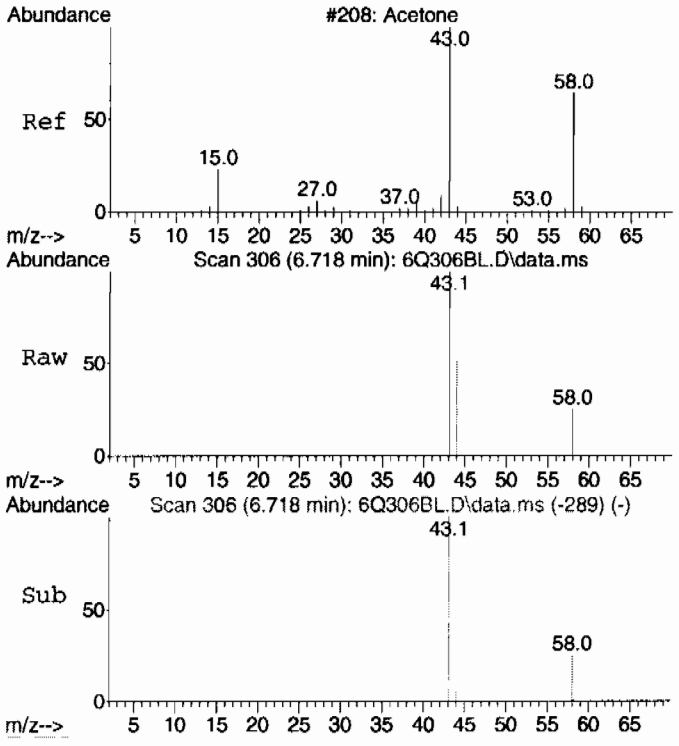

#9
Acetone
Concen: 2.00 ug/L
RT: 6.718 min Scan# 306
Delta R.T. 0.006 min
Lab File: 6Q306BL.D
Acq: 23 Dec 2009 12:44 pm

Tgt Ion: 43 Resp: 6329

Ion	Ratio	Lower	Upper
43	100		
58	15.3	0.4	60.4

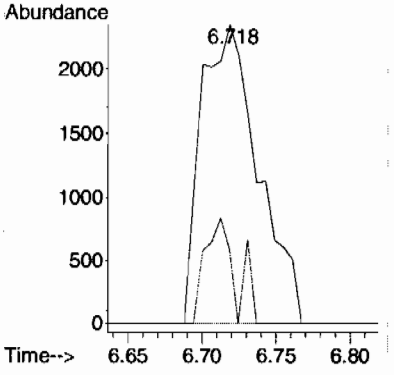

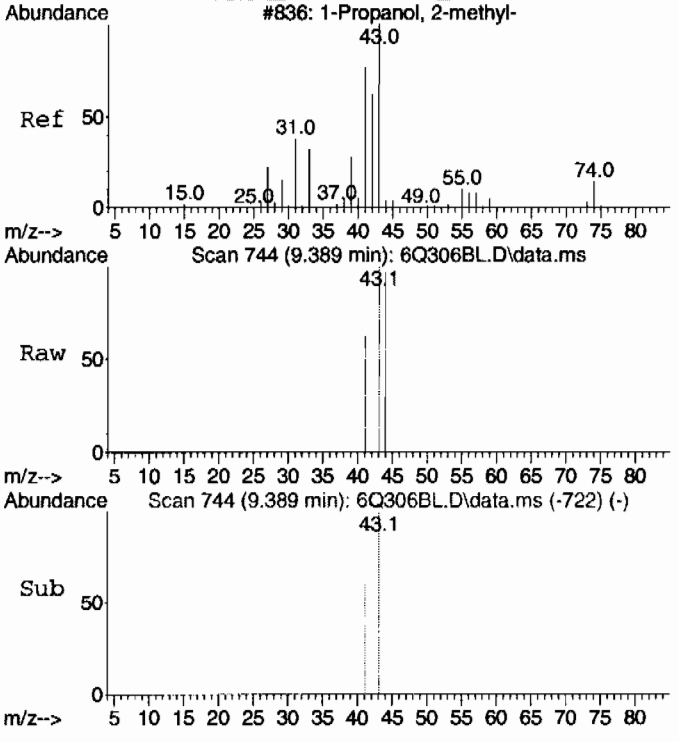

#98 BEFORE analyst DELETION
Isobutyl alcohol
Concen: 0.60 ug/L
RT: 9.389 min Scan# 744
Delta R.T. 0.001 min
Lab File: 6Q306BL.D
Acq: 23 Dec 2009 12:44 pm

Tgt Ion: 41 Resp: 197

Ion	Ratio	Lower	Upper
41	100		
43	392.9	111.2	171.2#

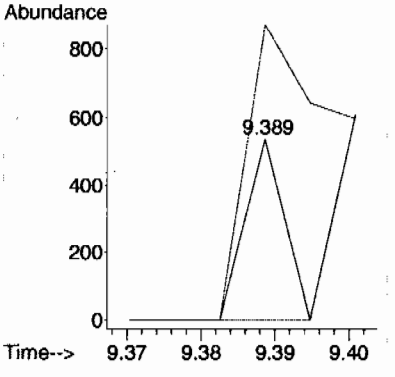

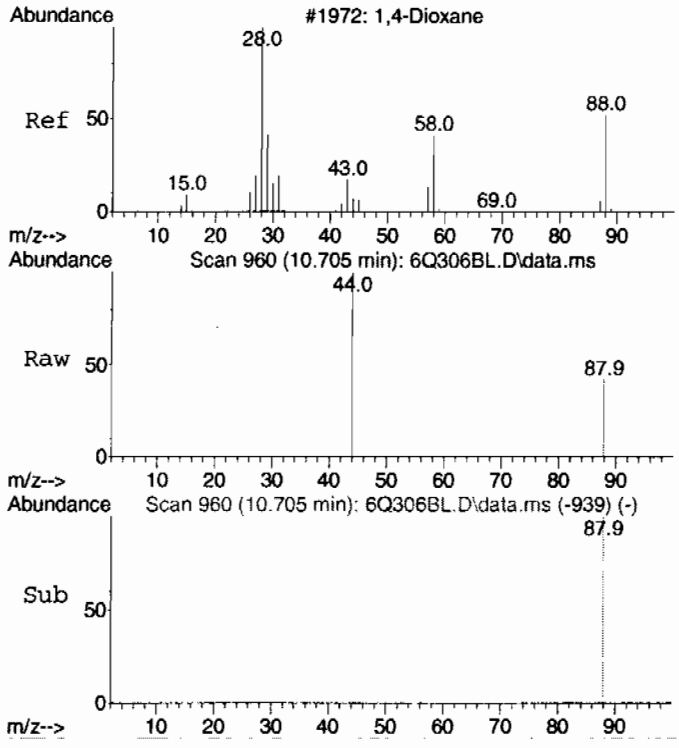

#101 BEFORE analyst DELETION
1,4-Dioxane
Concen: 2.26 ug/L
RT: 10.705 min Scan# 960
Delta R.T. 0.006 min
Lab File: 6Q306BL.D
Acq: 23 Dec 2009 12:44 pm

Tgt Ion: 88 Resp: 184

Ion	Ratio	Lower	Upper
88	100		
58	0.0	44.2	104.2#

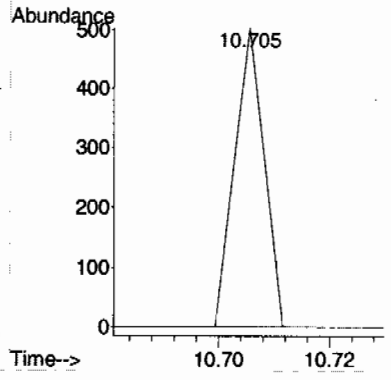

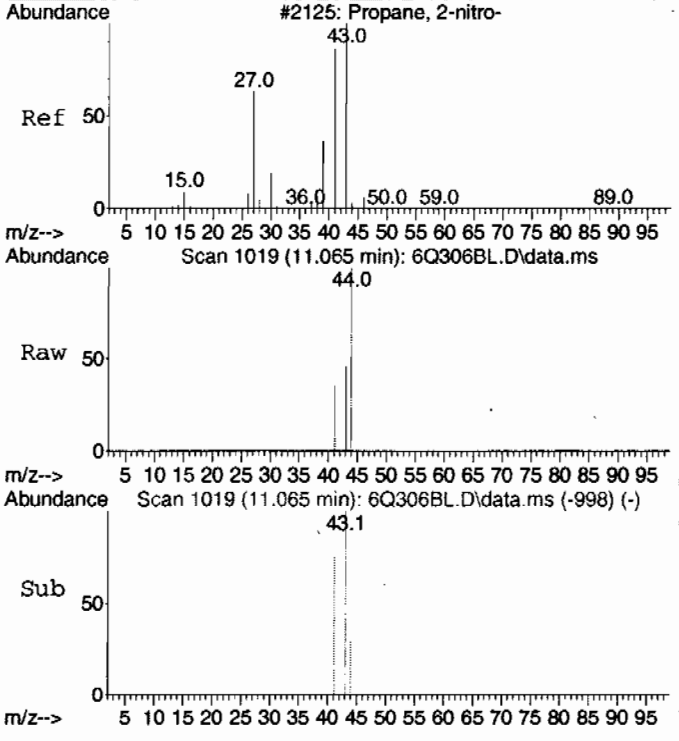

#102 BEFORE analyst DELETION
2-Nitropropane
Concen: 3.83 ug/L
RT: 11.065 min Scan# 1019
Delta R.T. -0.006 min
Lab File: 6Q306BL.D
Acq: 23 Dec 2009 12:44 pm

Tgt Ion: 43 Resp: 252

Ion	Ratio	Lower	Upper
43	100		
41	152.0	52.2	112.2#

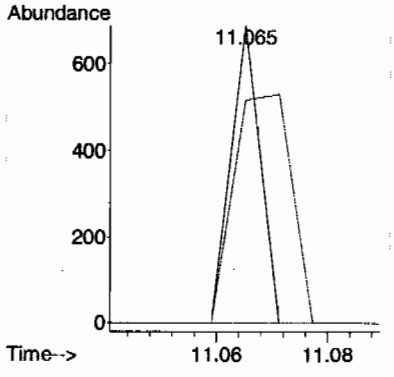

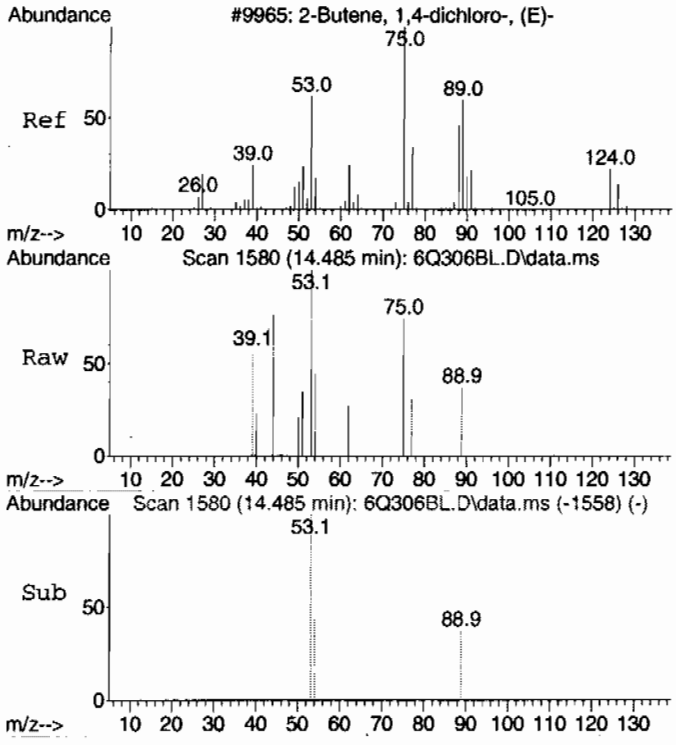

#109
trans-1,4-Dichloro-2-butene
Concen: 1.08 ug/L
RT: 14.485 min Scan# 1580
Delta R.T. -0.006 min
Lab File: 6Q306BL.D
Acq: 23 Dec 2009 12:44 pm

Tgt Ion: 53 Resp: 3179

Ion	Ratio	Lower	Upper
53	100		
88	28.3	19.8	79.8
75	114.8	91.6	151.6

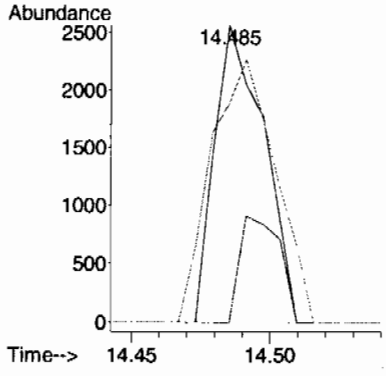

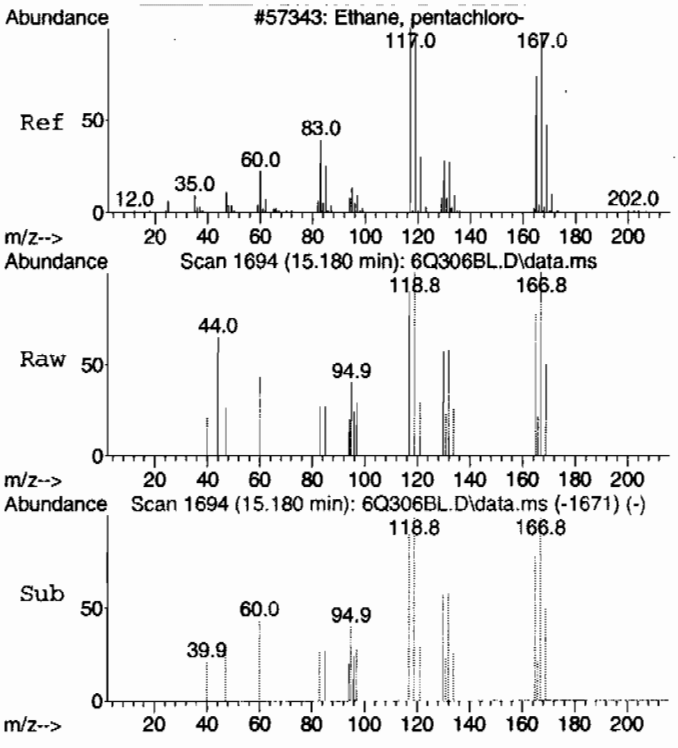

#110
Pentachloroethane
Concen: 1.22 ug/L
RT: 15.180 min Scan# 1694
Delta R.T. 0.000 min
Lab File: 6Q306BL.D
Acq: 23 Dec 2009 12:44 pm

Tgt Ion:167 Resp: 5319

Ion	Ratio	Lower	Upper
167	100		
130	52.9	10.0	70.0
132	46.9	7.5	67.5

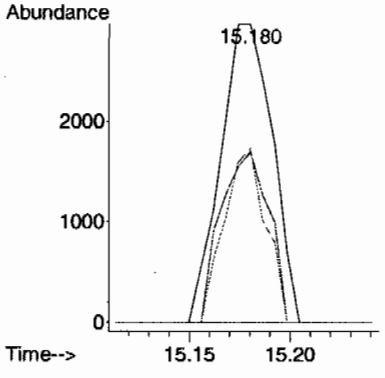

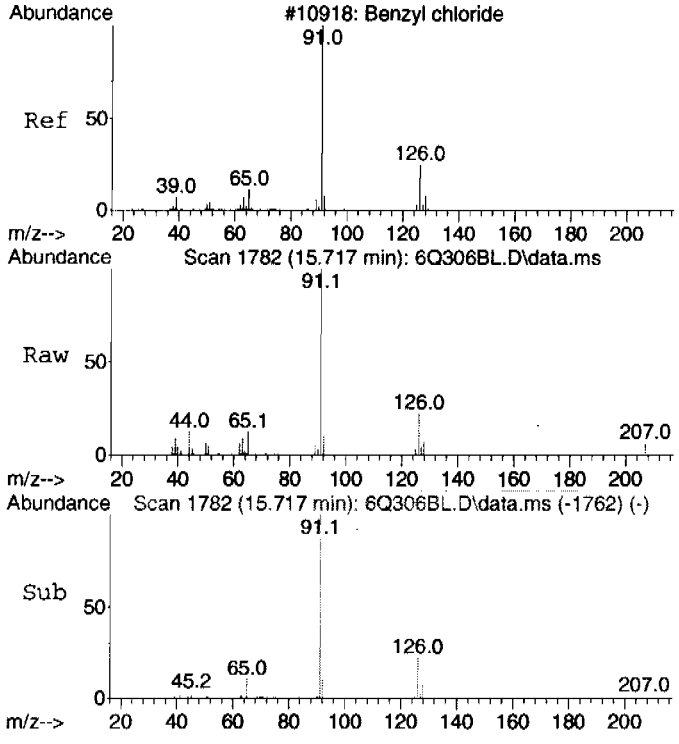

#111
Benzyl chloride
Concen: 2.22 ug/L
RT: 15.717 min Scan# 1782
Delta R.T. 0.001 min
Lab File: 6Q306BL.D
Acq: 23 Dec 2009 12:44 pm

Tgt Ion: 91 Resp: 37540

Ion	Ratio	Lower	Upper
91	100		
126	21.7	0.0	52.6
65	12.6	0.0	42.9

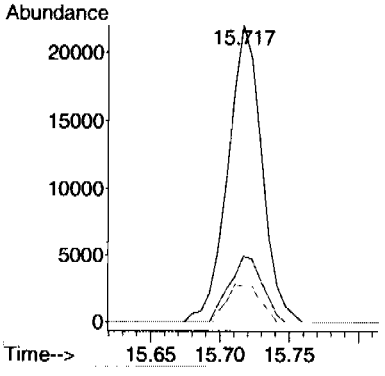

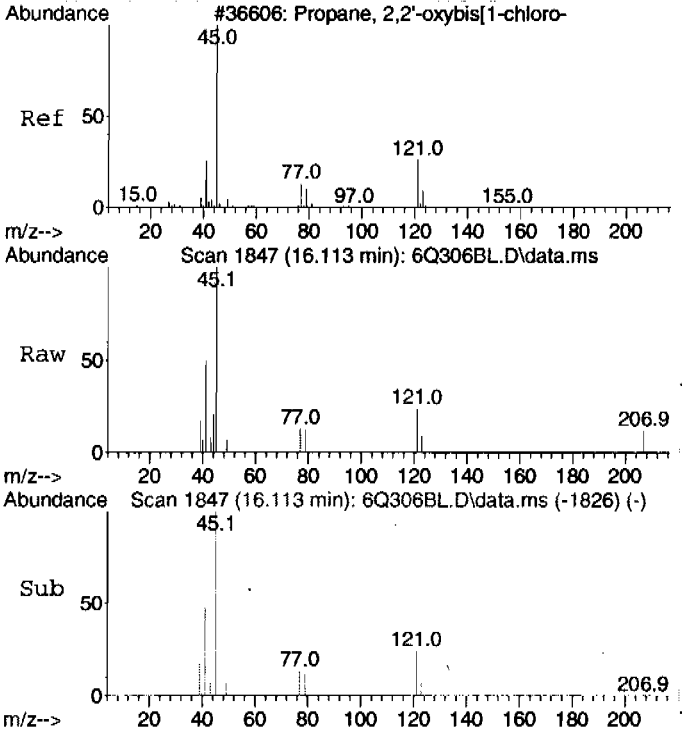

#112
bis(2-Chloroisopropyl)ether
Concen: 3.86 ug/L
RT: 16.113 min Scan# 1847
Delta R.T. -0.000 min
Lab File: 6Q306BL.D
Acq: 23 Dec 2009 12:44 pm

Tgt Ion: 45 Resp: 19142

Ion	Ratio	Lower	Upper
45	100		
121	19.2	0.0	53.0

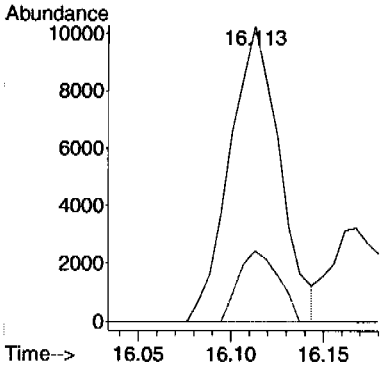

Library Search Compound Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\122309V6\
Data File : 6Q306BL.D
Acq On : 23 Dec 2009 12:44 pm
Operator : RXD1
Sample : |1202004059|935590|1|VOAF|1|VOA8260BS|
Misc : BLANK 5g N/A SOIL
ALS Vial : 6 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

No Library Search Compounds Detected
****

Tentatively Identified Compound (LSC) summary
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\122309V6\
Data File : 6Q306BL.D
Acq On : 23 Dec 2009 12:44 pm
Operator : RXD1
Sample : |1202004059|935590|1|VOAF|1|VOA8260BS|
Misc : BLANK 5g N/A SOIL
ALS Vial : 6 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

TIC Top Hit name	RT	EstConc	Units	Response	--Internal Standard--- #	RT	Resp	Conc

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-939**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202001917**				
Client Sample:	**QC for batch 935589**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 935589**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**935590**	**Inst:**	**VOA6.I**	**Dilution:**	**1**
Run Date:	**12/22/2009 10:55**	**Analyst:**	**RXD1**	**Purge Vol:**	**5 mL**
Prep Date:	**12/22/2009 09:38**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**122209V6\6Q203LL.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane		45.0	ug/kg	0.340	1.00
74-87-3	Chloromethane		44.1	ug/kg	0.300	1.00
75-01-4	Vinyl chloride		49.0	ug/kg	0.300	1.00
74-83-9	Bromomethane		47.1	ug/kg	0.300	1.00
75-00-3	Chloroethane		47.2	ug/kg	0.300	1.00
75-69-4	Trichlorofluoromethane		47.6	ug/kg	0.300	1.00
67-64-1	Acetone	E	168	ug/kg	1.66	5.00
75-35-4	1,1-Dichloroethylene		47.9	ug/kg	0.300	1.00
74-88-4	Iodomethane		230	ug/kg	1.60	5.00
75-09-2	Methylene chloride		41.9	ug/kg	2.00	5.00
75-15-0	Carbon disulfide		251	ug/kg	1.25	5.00
156-60-5	trans-1,2-Dichloroethylene		46.6	ug/kg	0.300	1.00
75-34-3	1,1-Dichloroethane		46.4	ug/kg	0.300	1.00
78-93-3	2-Butanone		224	ug/kg	1.50	5.00
156-59-2	cis-1,2-Dichloroethylene		46.8	ug/kg	0.300	1.00
594-20-7	2,2-Dichloropropane		53.0	ug/kg	0.300	1.00
67-66-3	Chloroform		46.0	ug/kg	0.300	1.00
74-97-5	Bromochloromethane		45.3	ug/kg	0.330	1.00
71-55-6	1,1,1-Trichloroethane		50.3	ug/kg	0.300	1.00
563-58-6	1,1-Dichloropropene		50.0	ug/kg	0.300	1.00
56-23-5	Carbon tetrachloride		51.8	ug/kg	0.300	1.00
107-06-2	1,2-Dichloroethane		44.0	ug/kg	0.300	1.00
71-43-2	Benzene		45.2	ug/kg	0.300	1.00
79-01-6	Trichloroethylene		47.2	ug/kg	0.330	1.00
78-87-5	1,2-Dichloropropane		46.2	ug/kg	0.300	1.00
75-27-4	Bromodichloromethane		48.6	ug/kg	0.300	1.00
74-95-3	Dibromomethane		45.3	ug/kg	0.300	1.00
108-10-1	4-Methyl-2-pentanone		243	ug/kg	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene		48.6	ug/kg	0.300	1.00
108-88-3	Toluene		44.3	ug/kg	0.300	1.00
10061-02-6	trans-1,3-Dichloropropylene		48.1	ug/kg	0.300	1.00
79-00-5	1,1,2-Trichloroethane		44.1	ug/kg	0.300	1.00
591-78-6	2-Hexanone		235	ug/kg	1.50	5.00
142-28-9	1,3-Dichloropropane		43.8	ug/kg	0.300	1.00
127-18-4	Tetrachloroethylene		46.9	ug/kg	0.300	1.00
124-48-1	Dibromochloromethane		50.3	ug/kg	0.300	1.00
106-93-4	1,2-Dibromoethane		45.9	ug/kg	0.300	1.00
108-90-7	Chlorobenzene		45.8	ug/kg	0.300	1.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-939**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202001917**				
Client Sample:	**QC for batch 935589**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 935589**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**935590**	**Inst:**	**VOA6.I**	**Dilution:**	**1**
Run Date:	**12/22/2009 10:55**	**Analyst:**	**RXD1**	**Purge Vol:**	**5 mL**
Prep Date:	**12/22/2009 09:38**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**122209V6\6Q203LL.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene		46.6	ug/kg	0.300	1.00
179601-23-1	m,p-Xylenes		94.1	ug/kg	0.300	2.00
95-47-6	o-Xylene		46.4	ug/kg	0.300	1.00
100-42-5	Styrene		48.1	ug/kg	0.300	1.00
75-25-2	Bromoform		52.5	ug/kg	0.300	1.00
79-34-5	1,1,2,2-Tetrachloroethane		45.9	ug/kg	0.300	1.00
96-18-4	1,2,3-Trichloropropane		45.6	ug/kg	0.300	1.00
108-86-1	Bromobenzene		44.5	ug/kg	0.300	1.00
103-65-1	n-Propylbenzene		46.7	ug/kg	0.300	1.00
95-49-8	2-Chlorotoluene		46.5	ug/kg	0.300	1.00
98-82-8	Isopropylbenzene		47.3	ug/kg	0.300	1.00
108-67-8	1,3,5-Trimethylbenzene		46.8	ug/kg	0.300	1.00
106-43-4	4-Chlorotoluene		45.9	ug/kg	0.300	1.00
98-06-6	tert-Butylbenzene		46.9	ug/kg	0.300	1.00
95-63-6	1,2,4-Trimethylbenzene		45.6	ug/kg	0.300	1.00
135-98-8	sec-Butylbenzene		47.1	ug/kg	0.300	1.00
99-87-6	4-Isopropyltoluene		47.6	ug/kg	0.300	1.00
541-73-1	1,3-Dichlorobenzene		44.5	ug/kg	0.300	1.00
106-46-7	1,4-Dichlorobenzene		44.5	ug/kg	0.300	1.00
104-51-8	n-Butylbenzene		47.1	ug/kg	0.300	1.00
96-12-8	1,2-Dibromo-3-chloropropane	E	52.2	ug/kg	0.300	1.00
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.00	ug/kg	1.60	5.00
630-20-6	1,1,1,2-Tetrachloroethane		47.6	ug/kg	0.300	1.00
95-50-1	1,2-Dichlorobenzene		43.8	ug/kg	0.300	1.00

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\122209V6\
Data File : 6Q203LL.D
Acq On : 22 Dec 2009 10:55 am
Operator : RXD1
InstName : VOA6
Sample : |1202001917|935590|1|VOAF|1|VOA8260BS|
Misc : LCS 5g N/A MIX[A] SOIL 1214-01B+1217-01
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Dec 22 11:13:57 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	9.974	96	1505997	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.156	117	1103908	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	15.576	152	616302	50.00	ug/L	0.00
82) B Fluorobenzene	9.974	96	1504891	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.156	117	1103908	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	15.576	152	616302	50.00	ug/L	0.00
System Monitoring Compounds						
29) 1,2-Dichloroethane-d4	9.626	65	432266	48.65	ug/L	0.00
Spiked Amount 50.000	Range 68 - 131		Recovery = 97.30%			
43) Toluene-d8	11.626	98	1450401	47.39	ug/L	0.00
Spiked Amount 50.000	Range 75 - 129		Recovery = 94.78%			
61) Bromofluorobenzene	14.357	95	583841	49.16	ug/L	0.00
Spiked Amount 50.000	Range 68 - 133		Recovery = 98.32%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	4.360	85	303523	44.96	ug/L	99
3) Chloromethane	4.672	50	409047	44.05	ug/L	99
4) Vinyl chloride	4.914	62	399137	48.96	ug/L	99
5) Bromomethane	5.468	94	286158	47.07	ug/L	100
6) Chloroethane	5.609	64	285741	47.23	ug/L	100
7) Trichlorofluoromethane	6.022	101	568565	47.58	ug/L	100
8) Ethyl ether	6.328	59	334190	43.04	ug/L	100
9) Acetone	6.712	43	461210	168.34	ug/L	100 E
10) 1,1-Dichloroethylene	6.706	61	527758	47.88	ug/L	100
11) Iodomethane	6.956	142	2726546	229.54	ug/L	100
12) Acetonitrile	7.072	41	1269440	1130.25	ug/L	99
13) Methyl acetate	7.096	43	1398727	226.99	ug/L	100
14) Carbon disulfide	7.078	76	5560080	251.36	ug/L	100
15) Methylene chloride	7.285	84	363069	41.89	ug/L	99
16) tert-Butyl methyl ether	7.572	73	969877	44.28	ug/L	100
17) trans-1,2-Dichloroethy...	7.620	61	524786	46.64	ug/L	99
18) Vinyl acetate	8.059	43	4221843	260.50	ug/L	96
19) 1,1-Dichloroethane	8.102	63	653365	46.41	ug/L	100
20) 2-Butanone	8.693	43	778127	224.47	ug/L	100
21) cis-1,2-Dichloroethylene	8.742	61	586195	46.78	ug/L	98
22) 2,2-Dichloropropane	8.767	77	537283	52.98	ug/L	99
23) Bromochloromethane	9.023	128	174944	45.32	ug/L	99
24) Chloroform	9.053	83	602742	45.98	ug/L	100
25) 1,1,1-Trichloroethane	9.327	97	553062	50.28	ug/L	100
26) Cyclohexane	9.413	56	735660	51.72	ug/L	100
27) 1,1-Dichloropropene	9.480	75	500369	49.97	ug/L	99
28) Carbon tetrachloride	9.516	117	504238	51.82	ug/L	99
30) 1,2-Dichloroethane	9.712	62	472466	43.96	ug/L	100
31) Benzene	9.724	78	1385362	45.16	ug/L	100
32) Cyclohexene	9.833	67	719961	49.34	ug/L	100
33) n-Butyl alcohol	10.083	56	1216486	4772.19	ug/L	98
34) Trichloroethylene	10.364	95	361151	47.16	ug/L	99
35) 1,2-Dichloropropane	10.614	63	374712	46.21	ug/L	99
36) Methylcyclohexane	10.608	83	674164	50.59	ug/L	99
37) Dibromomethane	10.748	93	195244	45.33	ug/L	98

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\122209V6\
Data File : 6Q203LL.D
Acq On : 22 Dec 2009 10:55 am
Operator : RXD1
InstName : VOA6
Sample : |1202001917|935590|1|VOAF|1|VOA8260BS|
Misc : LCS 5g N/A MIX[A] SOIL 1214-01B+1217-01
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Dec 22 11:13:57 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	QIon	Response	Conc Units		Dev(Min)	
38)	Bromodichloromethane	10.864	83	441071	48.57 ug/L		98	
39)	2-Chloroethylvinyl ether	11.089	63	972840	195.91 ug/L		99	
40)	cis-1,3-Dichloropropylene	11.315	75	556366	48.55 ug/L		99	
42)	4-Methyl-2-pentanone	11.412	58	703831	242.83 ug/L		99	
44)	Toluene	11.699	91	1456729	44.28 ug/L		99	
45)	trans-1,3-Dichloroprop...	11.857	75	511370	48.08 ug/L		100	
46)	1,1,2-Trichloroethane	12.077	83	238584	44.09 ug/L		100	
47)	2-Hexanone	12.260	43	1246534	234.55 ug/L		97	
48)	1,3-Dichloropropane	12.272	76	503994	43.77 ug/L		98	
49)	Tetrachloroethylene	12.290	164	311851	46.92 ug/L		99	
50)	Dibromochloromethane	12.540	129	342725	50.30 ug/L		100	
51)	1,2-Dibromoethane	12.705	107	299143	45.85 ug/L		100	
52)	Chlorobenzene	13.193	112	974649	45.82 ug/L		100	
53)	1,1,1,2-Tetrachloroethane	13.247	131	350496	47.60 ug/L		100	
54)	Ethylbenzene	13.254	91	1680749	46.60 ug/L		100	
55)	m,p-Xylenes	13.363	106	1357345	94.10 ug/L		99	
56)	o-Xylene	13.796	106	657418	46.43 ug/L		99	
57)	Styrene	13.802	104	1084603	48.08 ug/L		99	
59)	Bromoform	14.058	173	228639	52.47 ug/L		98	
60)	Isopropylbenzene	14.156	105	1774947	47.25 ug/L		100	
62)	1,1,2,2-Tetrachloroethane	14.436	83	386285	45.87 ug/L		99	
63)	1,2,3-Trichloropropane	14.528	110	107969	45.58 ug/L		97	
64)	Bromobenzene	14.564	156	429945	44.51 ug/L		100	
65)	n-Propylbenzene	14.583	91	2053922	46.66 ug/L		100	
66)	1,3,5-Trimethylbenzene	14.735	105	1505814	46.76 ug/L		100	
67)	2-Chlorotoluene	14.735	126	434891	46.46 ug/L		100	
68)	4-Chlorotoluene	14.833	91	1242958	45.86 ug/L		100	
69)	tert-Butylbenzene	15.107	134	335729	46.86 ug/L	#	92	
70)	1,2,4-Trimethylbenzene	15.150	105	1547598	45.61 ug/L		100	
71)	sec-Butylbenzene	15.332	105	2041284	47.14 ug/L		99	
72)	4-Isopropyltoluene	15.454	119	1683544	47.55 ug/L		99	
73)	1,3-Dichlorobenzene	15.515	146	840882	44.54 ug/L		100	
74)	1,4-Dichlorobenzene	15.601	146	861087	44.49 ug/L		99	
75)	n-Butylbenzene	15.887	91	1619961	47.14 ug/L		100	
76)	1,2-Dichlorobenzene	16.021	146	801430	43.79 ug/L		100	
77)	1,2-Dibromo-3-chloropr...	16.881	157	80090	52.15 ug/L		98	E
78)	1,2,4-Trichlorobenzene	17.911	180	597616	43.42 ug/L		100	
79)	Hexachlorobutadiene	18.076	225	365752	41.85 ug/L		100	
80)	Naphthalene	18.283	128	1214131	43.89 ug/L		100	
81)	1,2,3-Trichlorobenzene	18.618	180	513138	44.52 ug/L		99	
83)	Chlorotrifluoroethylene	0.000		0	N.D.			
84)	2-Chloro-1,1,1-trifluo...	0.000		0	N.D.			
85)	Acrolein	0.000		0	N.D.			
86)	Trichlorotrifluoroethane	0.000		0	N.D.			
87)	Isopropyl Alcohol	6.712		0m	N.D.	d		
88)	Allyl chloride	7.072		0m	N.D.	d		
89)	tert-Butyl Alcohol	7.285		0m	N.D.	d		
90)	Acrylonitrile	7.578		0m	N.D.	d		
91)	Isopropyl ether	8.059		0m	N.D.	d		
92)	2-Chloro-1,3-butadiene	8.218		0m	N.D.	d		
93)	Ethyl tert-butyl ether	0.000		0	N.D.			
94)	Ethyl acetate	8.693		0m	N.D.	d		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\122209V6\
Data File : 6Q203LL.D
Acq On : 22 Dec 2009 10:55 am
Operator : RXD1
InstName : VOA6
Sample : |1202001917|935590|1|VOAF|1|VOA8260BS|
Misc : LCS 5g N/A MIX[A] SOIL 1214-01B+1217-01
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Dec 22 11:13:57 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
95)	Propionitrile	8.687		0m	N.D. d	
96)	Methacrylonitrile	8.943		0m	N.D. d	
97)	Tetrahydrofuran	9.059		0m	N.D. d	
98)	Isobutyl alcohol	9.413		0m	N.D. d	
99)	Methyl tert-amyl ether	9.724		0m	N.D. d	
100)	Methyl methacrylate	10.608		0m	N.D. d	
101)	1,4-Dioxane	10.754		0m	N.D. d	
102)	2-Nitropropane	11.089		0m	N.D. d	
104)	Ethyl methacrylate	11.864		0m	N.D. d	
106)	1-Chlorohexane	0.000		0	N.D.	
107)	cis-1,4-Dichloro-2-butene	14.156		0m	N.D. d	
108)	Cyclohexanone	0.000		0	N.D.	
109)	trans-1,4-Dichloro-2-b...	0.000		0	N.D.	
110)	Pentachloroethane	15.180		0m	N.D. d	
111)	Benzyl chloride	15.716		0m	N.D. d	
112)	bis(2-Chloroisopropyl)...	16.174		0m	N.D. d	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\122209V6\
Data File : 6Q203LL.D
Acq On : 22 Dec 2009 10:55 am
Operator : RXD1
InstName : VOA6
Sample : |1202001917|935590|1|VOAF|1|VOA8260BS|
Misc : LCS 5g N/A MIX[A] SOIL 1214-01B+1217-01
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Dec 22 11:13:57 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

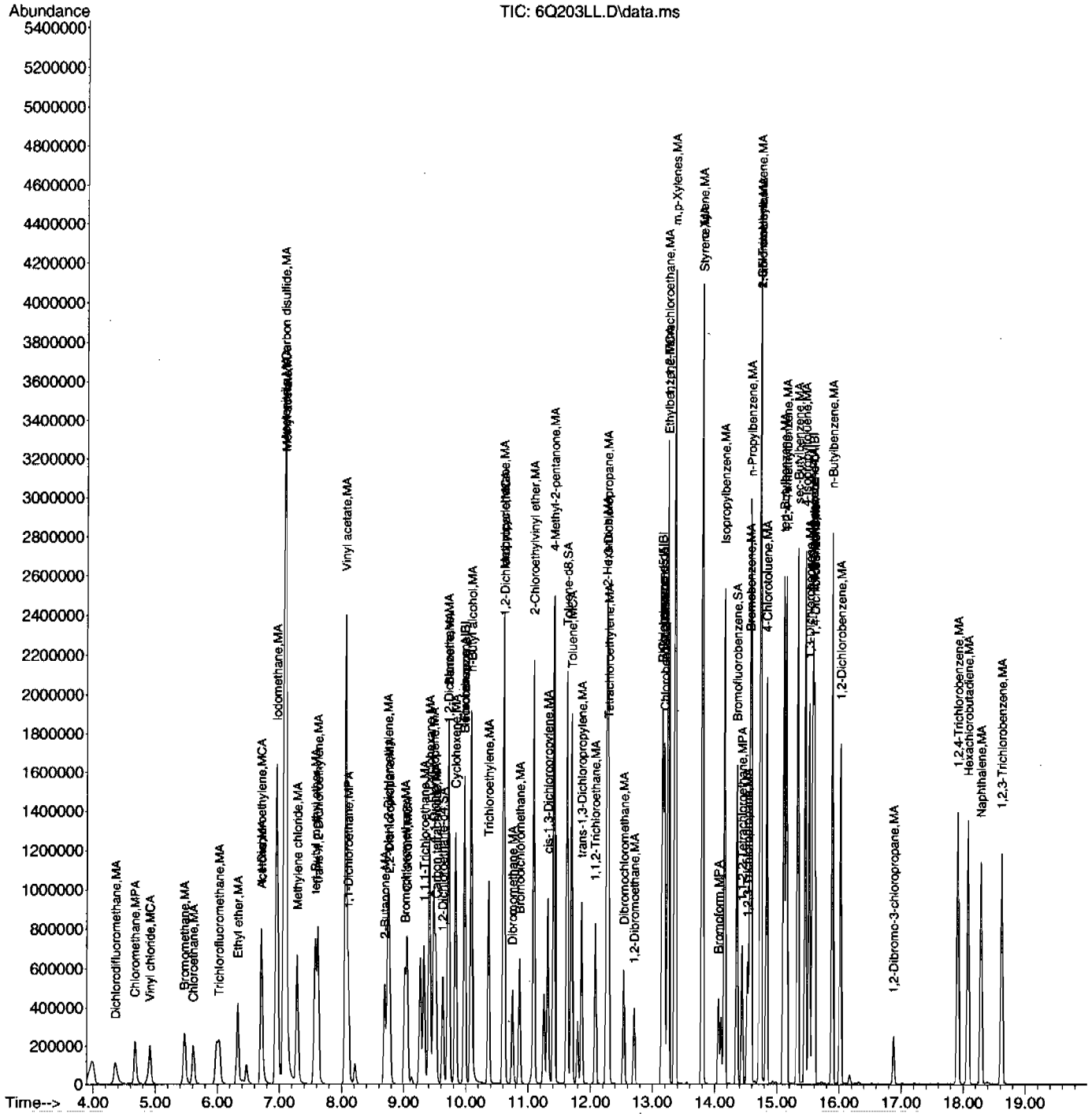

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-939			**Matrix:**	SOIL
Lab Sample ID:	1202001918				
Client Sample:	QC for batch 935589	**Client:**	LANL010	**Project:**	QC
Client ID:	LCS for batch 935589	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	935590	**Inst:**	VOA6.I	**Dilution:**	1
Run Date:	12/22/2009 11:51	**Analyst:**	RXD1	**Purge Vol:**	5 mL
Prep Date:	12/22/2009 09:39	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	122209V6\6Q205SL.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/kg	0.340	1.00
74-87-3	Chloromethane	U	1.00	ug/kg	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/kg	0.300	1.00
74-83-9	Bromomethane	U	1.00	ug/kg	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/kg	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/kg	0.300	1.00
67-64-1	Acetone	U	5.00	ug/kg	1.66	5.00
75-35-4	1,1-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/kg	1.60	5.00
75-09-2	Methylene chloride	U	5.00	ug/kg	2.00	5.00
75-15-0	Carbon disulfide	U	5.00	ug/kg	1.25	5.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/kg	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/kg	1.50	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/kg	0.300	1.00
74-97-5	Bromochloromethane	U	1.00	ug/kg	0.330	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/kg	0.300	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/kg	0.300	1.00
56-23-5	Carbon tetrachloride	U	1.00	ug/kg	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/kg	0.300	1.00
71-43-2	Benzene	U	1.00	ug/kg	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/kg	0.330	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/kg	0.300	1.00
74-95-3	Dibromomethane	U	1.00	ug/kg	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/kg	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
108-88-3	Toluene	U	1.00	ug/kg	0.300	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/kg	0.300	1.00
591-78-6	2-Hexanone	U	5.00	ug/kg	1.50	5.00
142-28-9	1,3-Dichloropropane	U	1.00	ug/kg	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/kg	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/kg	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/kg	0.300	1.00
108-90-7	Chlorobenzene	U	1.00	ug/kg	0.300	1.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-939			**Matrix:**	SOIL
Lab Sample ID:	1202001918				
Client Sample:	QC for batch 935589	**Client:**	LANL010	**Project:**	QC
Client ID:	LCS for batch 935589	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	935590	**Inst:**	VOA6.I	**Dilution:**	1
Run Date:	12/22/2009 11:51	**Analyst:**	RXD1	**Purge Vol:**	5 mL
Prep Date:	12/22/2009 09:39	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	122209V6\6Q205SL.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.00	ug/kg	0.300	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/kg	0.300	2.00
95-47-6	o-Xylene	U	1.00	ug/kg	0.300	1.00
100-42-5	Styrene	U	1.00	ug/kg	0.300	1.00
75-25-2	Bromoform	U	1.00	ug/kg	0.300	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/kg	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/kg	0.300	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/kg	0.300	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/kg	0.300	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/kg	0.300	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/kg	0.300	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/kg	0.300	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/kg	0.300	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/kg	0.300	1.00
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*		278	ug/kg	1.60	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\122209V6\
Data File : 6Q205SL.D
Acq On : 22 Dec 2009 11:51 am
Operator : RXD1
InstName : VOA6
Sample : |1202001918|935590|1|VOAF|1|VOA8260BS|
Misc : LCS 5g N/A MIX[B] SOIL 1118-08C
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Dec 22 12:14:33 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Fluorobenzene	9.974	96	1460559	50.00 ug/L	0.00
41) Chlorobenzene-d5	13.156	117	1073688	50.00 ug/L	0.00
58) 1,4-Dichlorobenzene-d4	15.576	152	609431	50.00 ug/L	0.00
82) B Fluorobenzene	9.974	96	1459834	50.00 ug/L	0.00
103) B Chlorobenzene-d5	13.156	117	1073688	50.00 ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	15.576	152	609431	50.00 ug/L	0.00
System Monitoring Compounds					
29) 1,2-Dichloroethane-d4	9.626	65	422965	49.08 ug/L	0.00
Spiked Amount 50.000	Range 68 - 131		Recovery = 98.16%		
43) Toluene-d8	11.626	98	1415277	47.54 ug/L	0.00
Spiked Amount 50.000	Range 75 - 129		Recovery = 95.08%		
61) Bromofluorobenzene	14.357	95	579211	49.32 ug/L	0.00
Spiked Amount 50.000	Range 68 - 133		Recovery = 98.64%		

Target Compounds				Qvalue
2) Dichlorodifluoromethane	0.000	0	N.D.	
3) Chloromethane	4.662	0m	N.D. d	
4) Vinyl chloride	4.904	0m	N.D. d	
5) Bromomethane	0.000	0	N.D.	
6) Chloroethane	0.000	0	N.D.	
7) Trichlorofluoromethane	0.000	0	N.D.	
8) Ethyl ether	0.000	0	N.D.	
9) Acetone	6.676	0m	N.D. d	
10) 1,1-Dichloroethylene	6.682	0m	N.D. d	
11) Iodomethane	6.956	0m	N.D. d	
12) Acetonitrile	7.139	0m	N.D. d	
13) Methyl acetate	7.096	0m	N.D. d	
14) Carbon disulfide	7.139	0m	N.D. d	
15) Methylene chloride	7.285	0m	N.D. d	
16) tert-Butyl methyl ether	0.000	0	N.D.	
17) trans-1,2-Dichloroethy...	0.000	0	N.D.	
18) Vinyl acetate	8.066	0m	N.D. d	
19) 1,1-Dichloroethane	8.206	0m	N.D. d	
20) 2-Butanone	8.700	0m	N.D. d	
21) cis-1,2-Dichloroethylene	8.700	0m	N.D. d	
22) 2,2-Dichloropropane	0.000	0	N.D.	
23) Bromochloromethane	0.000	0	N.D.	
24) Chloroform	9.053	0m	N.D. d	
25) 1,1,1-Trichloroethane	0.000	0	N.D.	
26) Cyclohexane	9.389	0m	N.D. d	
27) 1,1-Dichloropropene	0.000	0	N.D.	
28) Carbon tetrachloride	0.000	0	N.D.	
30) 1,2-Dichloroethane	0.000	0	N.D.	
31) Benzene	9.724	0m	N.D. d	
32) Cyclohexene	0.000	0	N.D.	
33) n-Butyl alcohol	10.084	0m	N.D. d	
34) Trichloroethylene	10.358	0m	N.D. d	
35) 1,2-Dichloropropane	0.000	0	N.D.	
36) Methylcyclohexane	10.590	0m	N.D. d	
37) Dibromomethane	0.000	0	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\122209V6\
Data File : 6Q205SL.D
Acq On : 22 Dec 2009 11:51 am
Operator : RXD1
InstName : VOA6
Sample : |1202001918|935590|1|VOAF|1|VOA8260BS|
Misc : LCS 5g N/A MIX[B] SOIL 1118-08C
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Dec 22 12:14:33 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
38)	Bromodichloromethane	0.000		0	N.D.	
39)	2-Chloroethylvinyl ether	11.090		0m	N.D. d	
40)	cis-1,3-Dichloropropylene	0.000		0	N.D.	
42)	4-Methyl-2-pentanone	11.407		0m	N.D. d	
44)	Toluene	11.699		0m	N.D. d	
45)	trans-1,3-Dichloroprop...	11.858		0m	N.D. d	
46)	1,1,2-Trichloroethane	0.000		0	N.D.	
47)	2-Hexanone	12.254		0m	N.D. d	
48)	1,3-Dichloropropane	12.309		0m	N.D. d	
49)	Tetrachloroethylene	12.291		0m	N.D. d	
50)	Dibromochloromethane	0.000		0	N.D.	
51)	1,2-Dibromoethane	12.711		0m	N.D. d	
52)	Chlorobenzene	13.187		0m	N.D. d	
53)	1,1,1,2-Tetrachloroethane	13.248		0m	N.D. d	
54)	Ethylbenzene	13.254		0m	N.D. d	
55)	m,p-Xylenes	13.370		0m	N.D. d	
56)	o-Xylene	13.790		0m	N.D. d	
57)	Styrene	13.802		0m	N.D. d	
59)	Bromoform	0.000		0	N.D.	
60)	Isopropylbenzene	14.162		0m	N.D. d	
62)	1,1,2,2-Tetrachloroethane	14.436		0m	N.D. d	
63)	1,2,3-Trichloropropane	0.000		0	N.D.	
64)	Bromobenzene	14.571		0m	N.D. d	
65)	n-Propylbenzene	14.583		0m	N.D. d	
66)	1,3,5-Trimethylbenzene	14.735		0m	N.D. d	
67)	2-Chlorotoluene	14.735		0m	N.D. d	
68)	4-Chlorotoluene	14.833		0m	N.D. d	
69)	tert-Butylbenzene	15.180		0m	N.D. d	
70)	1,2,4-Trimethylbenzene	15.150		0m	N.D. d	
71)	sec-Butylbenzene	15.339		0m	N.D. d	
72)	4-Isopropyltoluene	15.455		0m	N.D. d	
73)	1,3-Dichlorobenzene	15.516		0m	N.D. d	
74)	1,4-Dichlorobenzene	15.601		0m	N.D. d	
75)	n-Butylbenzene	0.000		0	N.D.	
76)	1,2-Dichlorobenzene	16.022		0m	N.D. d	
77)	1,2-Dibromo-3-chloropr...	0.000		0	N.D.	
78)	1,2,4-Trichlorobenzene	17.911		0m	N.D. d	
79)	Hexachlorobutadiene	18.082		0m	N.D. d	
80)	Naphthalene	18.283		0m	N.D. d	
81)	1,2,3-Trichlorobenzene	18.619		0m	N.D. d	
83)	Chlorotrifluoroethylene	0.000		0	N.D.	
84)	2-Chloro-1,1,1-trifluo...	0.000		0	N.D.	
85)	Acrolein	6.529	56	278604	261.62 ug/L	98
86)	Trichlorotrifluoroethane	6.676	85	757707	277.85 ug/L	100
87)	Isopropyl Alcohol	0.000		0m	N.D. d	
88)	Allyl chloride	7.139	41	3156687	247.33 ug/L	100
89)	tert-Butyl Alcohol	0.000		0	N.D.	
90)	Acrylonitrile	7.541	53	633972	233.79 ug/L	99
91)	Isopropyl ether	0.000		0	N.D.	
92)	2-Chloro-1,3-butadiene	8.206	53	583480	53.72 ug/L	98
93)	Ethyl tert-butyl ether	0.000		0	N.D.	
94)	Ethyl acetate	8.700	43	1661496	214.47 ug/L	100

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\122209V6\
Data File : 6Q205SL.D
Acq On : 22 Dec 2009 11:51 am
Operator : RXD1
InstName : VOA6
Sample : |1202001918|935590|1|VOAF|1|VOA8260BS|
Misc : LCS 5g N/A MIX[B] SOIL 1118-08C
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Dec 22 12:14:33 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
95)	Propionitrile	8.773	54	244865	232.37 ug/L	100
96)	Methacrylonitrile	8.950	41	1060266	228.76 ug/L	100
97)	Tetrahydrofuran	9.059	42	567422	230.58 ug/L	100
98)	Isobutyl alcohol	9.389	41	691200	2484.28 ug/L	98
99)	Methyl tert-amyl ether	9.730	73	1357	N.D.	
100)	Methyl methacrylate	10.590	69	1055847	238.28 ug/L	99
101)	1,4-Dioxane	10.699	88	165525	2417.55 ug/L	100
102)	2-Nitropropane	11.071	43	543543	242.56 ug/L	99
104)	Ethyl methacrylate	11.858	69	1969361	234.31 ug/L	100
106)	1-Chlorohexane	0.000		0	N.D.	
107)	cis-1,4-Dichloro-2-butene	14.199	53	703010	245.10 ug/L	99
108)	Cyclohexanone	14.315	42	230898	983.99 ug/L	98
109)	trans-1,4-Dichloro-2-b...	14.491	53	680371	246.93 ug/L	99
110)	Pentachloroethane	15.180	167	1294399	317.67 ug/L	97
111)	Benzyl chloride	15.717	91	3733786	236.81 ug/L	99
112)	bis(2-Chloroisopropyl)...	16.113	45	1085471	234.62 ug/L	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\122209V6\
Data File : 6Q205SL.D
Acq On : 22 Dec 2009 11:51 am
Operator : RXD1
InstName : VOA6
Sample : |1202001918|935590|1|VOAF|1|VOA8260BS|
Misc : LCS 5g N/A MIX[B] SOIL 1118-08C
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Dec 22 12:14:33 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

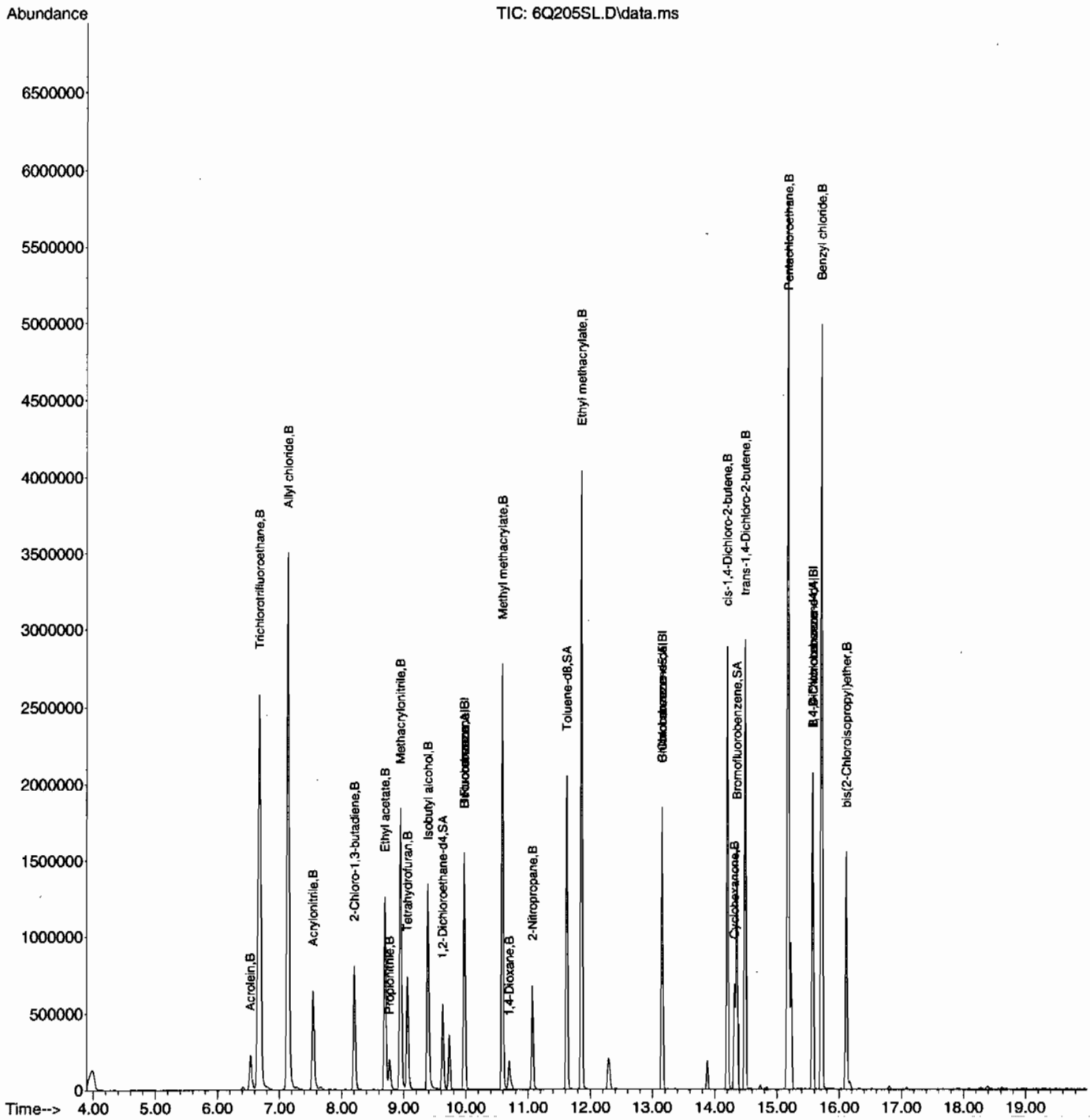

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-939**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202004060**				
Client Sample:	**QC for batch 935589**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 935589**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**935590**	**Inst:**	**VOA6.J**	**Dilution:**	**1**
Run Date:	**12/23/2009 11:21**	**Analyst:**	**RXD1**	**Purge Vol:**	**5 mL**
Prep Date:	**12/23/2009 09:26**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**122309V6\6Q303LL.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane		44.9	ug/kg	0.340	1.00
74-87-3	Chloromethane		44.6	ug/kg	0.300	1.00
75-01-4	Vinyl chloride		49.5	ug/kg	0.300	1.00
74-83-9	Bromomethane		48.6	ug/kg	0.300	1.00
75-00-3	Chloroethane		48.6	ug/kg	0.300	1.00
75-69-4	Trichlorofluoromethane		49.2	ug/kg	0.300	1.00
67-64-1	Acetone	BE	173	ug/kg	1.66	5.00
75-35-4	1,1-Dichloroethylene		49.2	ug/kg	0.300	1.00
74-88-4	Iodomethane		234	ug/kg	1.60	5.00
75-09-2	Methylene chloride		42.6	ug/kg	2.00	5.00
75-15-0	Carbon disulfide		254	ug/kg	1.25	5.00
156-60-5	trans-1,2-Dichloroethylene		48.1	ug/kg	0.300	1.00
75-34-3	1,1-Dichloroethane		47.0	ug/kg	0.300	1.00
78-93-3	2-Butanone		226	ug/kg	1.50	5.00
156-59-2	cis-1,2-Dichloroethylene		47.7	ug/kg	0.300	1.00
594-20-7	2,2-Dichloropropane		54.2	ug/kg	0.300	1.00
67-66-3	Chloroform		46.9	ug/kg	0.300	1.00
74-97-5	Bromochloromethane		46.5	ug/kg	0.330	1.00
71-55-6	1,1,1-Trichloroethane		52.1	ug/kg	0.300	1.00
563-58-6	1,1-Dichloropropene		50.7	ug/kg	0.300	1.00
56-23-5	Carbon tetrachloride		53.0	ug/kg	0.300	1.00
107-06-2	1,2-Dichloroethane		45.2	ug/kg	0.300	1.00
71-43-2	Benzene		46.0	ug/kg	0.300	1.00
79-01-6	Trichloroethylene		47.7	ug/kg	0.330	1.00
78-87-5	1,2-Dichloropropane		47.0	ug/kg	0.300	1.00
75-27-4	Bromodichloromethane		50.0	ug/kg	0.300	1.00
74-95-3	Dibromomethane		46.3	ug/kg	0.300	1.00
108-10-1	4-Methyl-2-pentanone		250	ug/kg	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene		49.6	ug/kg	0.300	1.00
108-88-3	Toluene		46.0	ug/kg	0.300	1.00
10061-02-6	trans-1,3-Dichloropropylene		50.5	ug/kg	0.300	1.00
79-00-5	1,1,2-Trichloroethane		46.0	ug/kg	0.300	1.00
591-78-6	2-Hexanone		246	ug/kg	1.50	5.00
142-28-9	1,3-Dichloropropane		45.5	ug/kg	0.300	1.00
127-18-4	Tetrachloroethylene		47.8	ug/kg	0.300	1.00
124-48-1	Dibromochloromethane		51.9	ug/kg	0.300	1.00
106-93-4	1,2-Dibromoethane		46.8	ug/kg	0.300	1.00
108-90-7	Chlorobenzene		47.7	ug/kg	0.300	1.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-939**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202004060**				
Client Sample:	**QC for batch 935589**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 935589**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**935590**	**Inst:**	**VOA6.1**	**Dilution:**	**1**
Run Date:	**12/23/2009 11:21**	**Analyst:**	**RXD1**	**Purge Vol:**	**5 mL**
Prep Date:	**12/23/2009 09:26**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**122309V6\6Q303LL.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene		48.6	ug/kg	0.300	1.00
179601-23-1	m,p-Xylenes		97.2	ug/kg	0.300	2.00
95-47-6	o-Xylene		48.5	ug/kg	0.300	1.00
100-42-5	Styrene		50.3	ug/kg	0.300	1.00
75-25-2	Bromoform		55.6	ug/kg	0.300	1.00
79-34-5	1,1,2,2-Tetrachloroethane		49.0	ug/kg	0.300	1.00
96-18-4	1,2,3-Trichloropropane		48.2	ug/kg	0.300	1.00
108-86-1	Bromobenzene		46.4	ug/kg	0.300	1.00
103-65-1	n-Propylbenzene		48.4	ug/kg	0.300	1.00
95-49-8	2-Chlorotoluene		48.2	ug/kg	0.300	1.00
98-82-8	Isopropylbenzene		48.6	ug/kg	0.300	1.00
108-67-8	1,3,5-Trimethylbenzene		48.3	ug/kg	0.300	1.00
106-43-4	4-Chlorotoluene		47.9	ug/kg	0.300	1.00
98-06-6	tert-Butylbenzene		48.1	ug/kg	0.300	1.00
95-63-6	1,2,4-Trimethylbenzene		47.2	ug/kg	0.300	1.00
135-98-8	sec-Butylbenzene		48.6	ug/kg	0.300	1.00
99-87-6	4-Isopropyltoluene		48.7	ug/kg	0.300	1.00
541-73-1	1,3-Dichlorobenzene		46.9	ug/kg	0.300	1.00
106-46-7	1,4-Dichlorobenzene		46.4	ug/kg	0.300	1.00
104-51-8	n-Butylbenzene		48.9	ug/kg	0.300	1.00
96-12-8	1,2-Dibromo-3-chloropropane	E	55.7	ug/kg	0.300	1.00
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.00	ug/kg	1.60	5.00
630-20-6	1,1,1,2-Tetrachloroethane		50.1	ug/kg	0.300	1.00
95-50-1	1,2-Dichlorobenzene		46.2	ug/kg	0.300	1.00

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\122309V6\
Data File : 6Q303LL.D
Acq On : 23 Dec 2009 11:21 am
Operator : RXD1
InstName : VOA6
Sample : |1202004060|935590|1|VOAF|1|VOA8260BS|
Misc : LCS 5g N/A MIX[A] SOIL 1214-01B+1222-01
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Dec 23 12:41:48 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	9.974	96	1697553	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.156	117	1227794	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	15.576	152	691041	50.00	ug/L	0.00
82) B Fluorobenzene	9.974	96	1696199	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.156	117	1227794	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	15.576	152	691041	50.00	ug/L	0.00
System Monitoring Compounds						
29) 1,2-Dichloroethane-d4	9.626	65	501170	50.04	ug/L	0.00
Spiked Amount 50.000	Range 68 - 131		Recovery = 100.08%			
43) Toluene-d8	11.626	98	1694316	49.77	ug/L	0.00
Spiked Amount 50.000	Range 75 - 129		Recovery = 99.54%			
61) Bromofluorobenzene	14.357	95	660287	49.58	ug/L	0.00
Spiked Amount 50.000	Range 68 - 133		Recovery = 99.16%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	4.360	85	341611	44.89	ug/L	100
3) Chloromethane	4.672	50	467102	44.63	ug/L	100
4) Vinyl chloride	4.914	62	454804	49.50	ug/L	100
5) Bromomethane	5.478	94	333020	48.59	ug/L	100
6) Chloroethane	5.619	64	331743	48.64	ug/L	99
7) Trichlorofluoromethane	6.022	101	663061	49.22	ug/L	100
8) Ethyl ether	6.328	59	380143	43.43	ug/L	100
9) Acetone	6.712	43	534812	173.17	ug/L	99 E
10) 1,1-Dichloroethylene	6.706	61	611401	49.21	ug/L	99
11) Iodomethane	6.956	142	3127389	233.58	ug/L	99
12) Acetonitrile	7.072	41	1441332	1138.48	ug/L	99
13) Methyl acetate	7.096	43	1574420	226.67	ug/L	100
14) Carbon disulfide	7.078	76	6337178	254.16	ug/L	100
15) Methylene chloride	7.285	84	415941	42.57	ug/L	99
16) tert-Butyl methyl ether	7.572	73	1092994	44.27	ug/L	100
17) trans-1,2-Dichloroethy...	7.621	61	609569	48.07	ug/L	99
18) Vinyl acetate	8.060	43	4738400	259.38	ug/L	96
19) 1,1-Dichloroethane	8.102	63	745840	47.00	ug/L	99
20) 2-Butanone	8.694	43	883556	226.12	ug/L	99
21) cis-1,2-Dichloroethylene	8.742	61	674021	47.72	ug/L	98
22) 2,2-Dichloropropane	8.767	77	619827	54.22	ug/L	99
23) Bromochloromethane	9.017	128	202395	46.51	ug/L	99
24) Chloroform	9.053	83	692654	46.88	ug/L	99
25) 1,1,1-Trichloroethane	9.328	97	646437	52.13	ug/L	99
26) Cyclohexane	9.413	56	836591	52.17	ug/L	100
27) 1,1-Dichloropropene	9.480	75	572419	50.72	ug/L	98
28) Carbon tetrachloride	9.511	117	581171	52.98	ug/L	100
30) 1,2-Dichloroethane	9.712	62	547187	45.17	ug/L	100
31) Benzene	9.724	78	1591812	46.03	ug/L	100
32) Cyclohexene	9.834	67	831160	50.53	ug/L	99
33) n-Butyl alcohol	10.077	56	1404275	4885.95	ug/L	99
34) Trichloroethylene	10.364	95	411894	47.72	ug/L	99
35) 1,2-Dichloropropane	10.614	63	429852	47.03	ug/L	100
36) Methylcyclohexane	10.602	83	772182	51.41	ug/L	99
37) Dibromomethane	10.748	93	224786	46.30	ug/L	99

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\122309V6\
Data File : 6Q303LL.D
Acq On : 23 Dec 2009 11:21 am
Operator : RXD1
InstName : VOA6
Sample : |1202004060|935590|1|VOAF|1|VOA8260BS|
Misc : LCS 5g N/A MIX[A] SOIL 1214-01B+1222-01
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Dec 23 12:41:48 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	QIon	Response	Conc Units		Dev(Min)	
38)	Bromodichloromethane	10.864	83	511913	50.01 ug/L		99	
39)	2-Chloroethylvinyl ether	11.089	63	1408714	251.68 ug/L		99	
40)	cis-1,3-Dichloropropylene	11.315	75	640004	49.55 ug/L		99	
42)	4-Methyl-2-pentanone	11.406	58	806517	250.18 ug/L		98	
44)	Toluene	11.699	91	1681464	45.96 ug/L		100	
45)	trans-1,3-Dichloroprop...	11.858	75	597030	50.47 ug/L		99	
46)	1,1,2-Trichloroethane	12.077	83	276539	45.95 ug/L		100	
47)	2-Hexanone	12.260	43	1456337	246.38 ug/L		97	
48)	1,3-Dichloropropane	12.272	76	583071	45.53 ug/L		99	
49)	Tetrachloroethylene	12.290	164	353036	47.76 ug/L		100	
50)	Dibromochloromethane	12.540	129	393619	51.94 ug/L		100	
51)	1,2-Dibromoethane	12.711	107	339552	46.79 ug/L		99	
52)	Chlorobenzene	13.193	112	1127527	47.66 ug/L		100	
53)	1,1,1,2-Tetrachloroethane	13.241	131	410357	50.10 ug/L		100	
54)	Ethylbenzene	13.254	91	1947494	48.55 ug/L		100	
55)	m,p-Xylenes	13.363	106	1559547	97.21 ug/L		98	
56)	o-Xylene	13.796	106	763087	48.45 ug/L		99	
57)	Styrene	13.802	104	1260653	50.25 ug/L		100	
59)	Bromoform	14.058	173	271493	55.57 ug/L		100	
60)	Isopropylbenzene	14.156	105	2046127	48.58 ug/L		100	
62)	1,1,2,2-Tetrachloroethane	14.436	83	462459	48.97 ug/L		99	
63)	1,2,3-Trichloropropane	14.528	110	128034	48.20 ug/L		98	
64)	Bromobenzene	14.564	156	502134	46.36 ug/L		99	
65)	n-Propylbenzene	14.583	91	2388982	48.40 ug/L		100	
66)	1,3,5-Trimethylbenzene	14.735	105	1742520	48.26 ug/L		100	
67)	2-Chlorotoluene	14.729	126	506010	48.21 ug/L		98	
68)	4-Chlorotoluene	14.833	91	1456690	47.93 ug/L		100	
69)	tert-Butylbenzene	15.107	134	386639	48.13 ug/L	#	91	
70)	1,2,4-Trimethylbenzene	15.150	105	1796835	47.23 ug/L		99	
71)	sec-Butylbenzene	15.333	105	2358353	48.58 ug/L		100	
72)	4-Isopropyltoluene	15.454	119	1933814	48.71 ug/L		99	
73)	1,3-Dichlorobenzene	15.515	146	993066	46.92 ug/L		100	
74)	1,4-Dichlorobenzene	15.601	146	1007948	46.44 ug/L		100	
75)	n-Butylbenzene	15.887	91	1882670	48.86 ug/L		100	
76)	1,2-Dichlorobenzene	16.021	146	947035	46.15 ug/L		100	
77)	1,2-Dibromo-3-chloropr...	16.881	157	95830	55.65 ug/L		98	E
78)	1,2,4-Trichlorobenzene	17.911	180	692353	44.86 ug/L		100	
79)	Hexachlorobutadiene	18.076	225	426631	43.54 ug/L		99	
80)	Naphthalene	18.283	128	1424549	45.93 ug/L		100	
81)	1,2,3-Trichlorobenzene	18.618	180	595207	46.05 ug/L		99	
83)	Chlorotrifluoroethylene	0.000		0	N.D.			
84)	2-Chloro-1,1,1-trifluo...	0.000		0	N.D.			
85)	Acrolein	0.000		0	N.D.			
86)	Trichlorotrifluoroethane	0.000		0	N.D.			
87)	Isopropyl Alcohol	6.706		0m	N.D.	d		
88)	Allyl chloride	7.072		0m	N.D.	d		
89)	tert-Butyl Alcohol	0.000		0	N.D.			
90)	Acrylonitrile	7.578		0m	N.D.	d		
91)	Isopropyl ether	8.060		0m	N.D.	d		
92)	2-Chloro-1,3-butadiene	8.224		0m	N.D.	d		
93)	Ethyl tert-butyl ether	0.000		0	N.D.			
94)	Ethyl acetate	8.694		0m	N.D.	d		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\122309V6\
Data File : 6Q303LL.D
Acq On : 23 Dec 2009 11:21 am
Operator : RXD1
InstName : VOA6
Sample : |1202004060|935590|1|VOAF|1|VOA8260BS|
Misc : LCS 5g N/A MIX[A] SOIL 1214-01B+1222-01
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Dec 23 12:41:48 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
95)	Propionitrile	8.694		0m	N.D. d	
96)	Methacrylonitrile	8.956		0m	N.D. d	
97)	Tetrahydrofuran	9.065		0m	N.D. d	
98)	Isobutyl alcohol	9.413		0m	N.D. d	
99)	Methyl tert-amyl ether	9.718		0m	N.D. d	
100)	Methyl methacrylate	10.602		0m	N.D. d	
101)	1,4-Dioxane	10.742		0m	N.D. d	
102)	2-Nitropropane	11.089		0m	N.D. d	
104)	Ethyl methacrylate	11.864		0m	N.D. d	
106)	1-Chlorohexane	0.000		0	N.D.	
107)	cis-1,4-Dichloro-2-butene	14.156		0m	N.D. d	
108)	Cyclohexanone	0.000		0	N.D.	
109)	trans-1,4-Dichloro-2-b...	0.000		0	N.D.	
110)	Pentachloroethane	15.180		0m	N.D. d	
111)	Benzyl chloride	15.717		0m	N.D. d	
112)	bis(2-Chloroisopropyl)...	16.107		0m	N.D. d	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\122309V6\
Data File : 6Q303LL.D
Acq On : 23 Dec 2009 11:21 am
Operator : RXD1
InstName : VOA6
Sample : |1202004060|935590|1|VOAF|1|VOA8260BS|
Misc : LCS 5g N/A MIX[A] SOIL 1214-01B+1222-01
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Dec 23 12:41:48 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

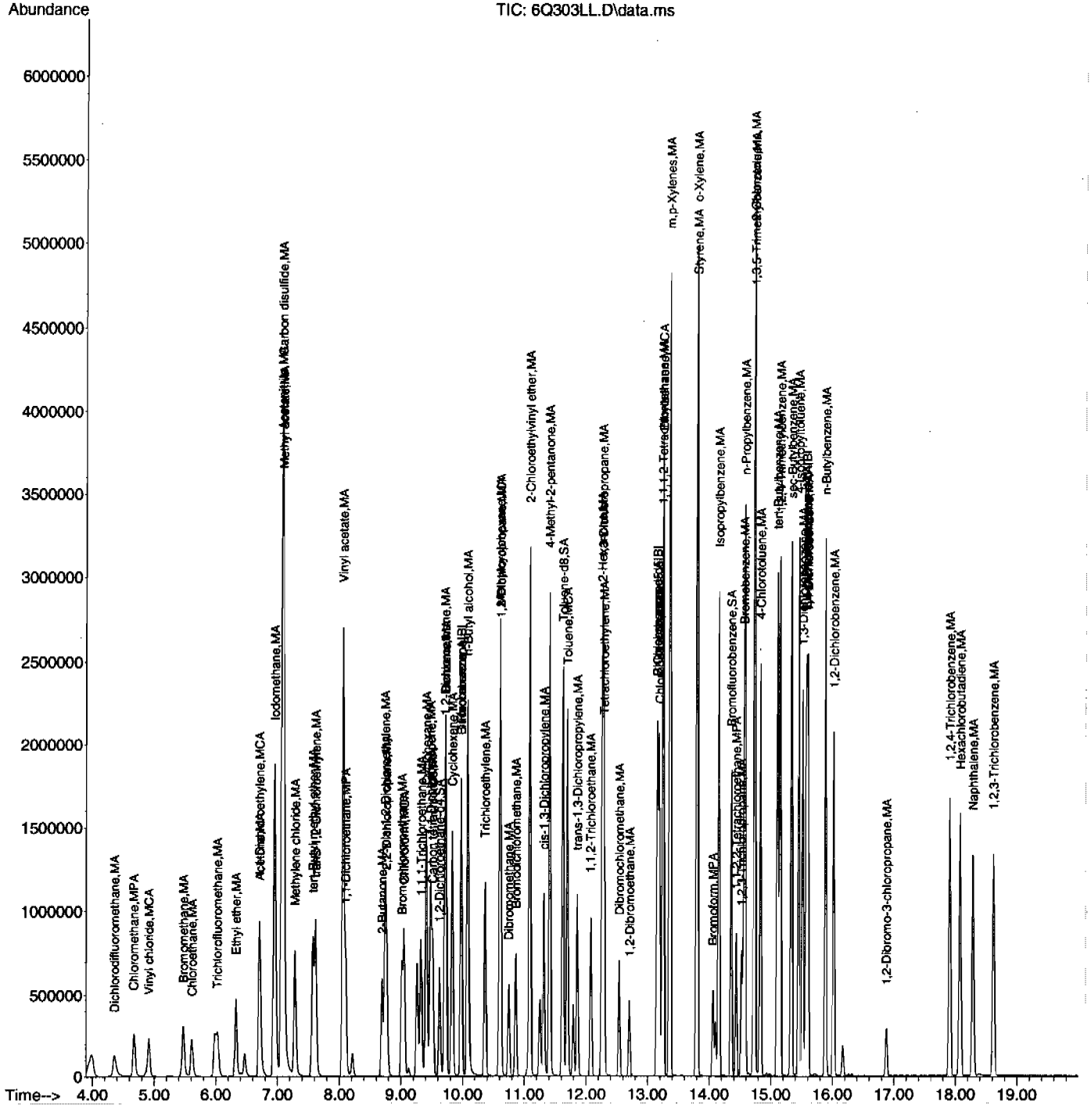

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-939			**Matrix:**	SOIL
Lab Sample ID:	1202004061				
Client Sample:	QC for batch 935589	**Client:**	LANL010	**Project:**	QC
Client ID:	LCS for batch 935589	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	935590	**Inst:**	VOA6.I	**Dilution:**	1
Run Date:	12/23/2009 12:16	**Analyst:**	RXD1	**Purge Vol:**	5 mL
Prep Date:	12/23/2009 09:27	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	122309V6\6Q305SL.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/kg	0.340	1.00
74-87-3	Chloromethane	U	1.00	ug/kg	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/kg	0.300	1.00
74-83-9	Bromomethane	U	1.00	ug/kg	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/kg	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/kg	0.300	1.00
67-64-1	Acetone	U	5.00	ug/kg	1.66	5.00
75-35-4	1,1-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/kg	1.60	5.00
75-09-2	Methylene chloride	U	5.00	ug/kg	2.00	5.00
75-15-0	Carbon disulfide	U	5.00	ug/kg	1.25	5.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/kg	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/kg	1.50	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/kg	0.300	1.00
74-97-5	Bromochloromethane	U	1.00	ug/kg	0.330	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/kg	0.300	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/kg	0.300	1.00
56-23-5	Carbon tetrachloride	U	1.00	ug/kg	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/kg	0.300	1.00
71-43-2	Benzene	U	1.00	ug/kg	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/kg	0.330	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/kg	0.300	1.00
74-95-3	Dibromomethane	U	1.00	ug/kg	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/kg	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
108-88-3	Toluene	U	1.00	ug/kg	0.300	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/kg	0.300	1.00
591-78-6	2-Hexanone	U	5.00	ug/kg	1.50	5.00
142-28-9	1,3-Dichloropropane	U	1.00	ug/kg	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/kg	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/kg	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/kg	0.300	1.00
108-90-7	Chlorobenzene	U	1.00	ug/kg	0.300	1.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-939**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202004061**				
Client Sample:	**QC for batch 935589**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 935589**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**935590**	**Inst:**	**VOA6.I**	**Dilution:**	**1**
Run Date:	**12/23/2009 12:16**	**Analyst:**	**RXD1**	**Purge Vol:**	**5 mL**
Prep Date:	**12/23/2009 09:27**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**122309V6\6Q305SL.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.00	ug/kg	0.300	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/kg	0.300	2.00
95-47-6	o-Xylene	U	1.00	ug/kg	0.300	1.00
100-42-5	Styrene	U	1.00	ug/kg	0.300	1.00
75-25-2	Bromoform	U	1.00	ug/kg	0.300	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/kg	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/kg	0.300	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/kg	0.300	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/kg	0.300	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/kg	0.300	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/kg	0.300	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/kg	0.300	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/kg	0.300	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/kg	0.300	1.00
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*		281	ug/kg	1.60	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\122309V6\
Data File : 6Q305SL.D
Acq On : 23 Dec 2009 12:16 pm
Operator : RXD1
InstName : VOA6
Sample : |1202004061|935590|1|VOAF|1|VOA8260BS|
Misc : LCS 5g N/A MIX[B] SOIL 1118-08C
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Dec 23 12:44:02 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	9.974	96	1698646	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.156	117	1234219	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	15.576	152	703183	50.00	ug/L	0.00
82) B Fluorobenzene	9.974	96	1696615	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.156	117	1234219	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	15.576	152	703183	50.00	ug/L	0.00
System Monitoring Compounds						
29) 1,2-Dichloroethane-d4	9.626	65	511367	51.02	ug/L	0.00
Spiked Amount 50.000	Range 68 - 131		Recovery = 102.04%			
43) Toluene-d8	11.626	98	1647680	48.15	ug/L	0.00
Spiked Amount 50.000	Range 75 - 129		Recovery = 96.30%			
61) Bromofluorobenzene	14.357	95	671997	49.59	ug/L	0.00
Spiked Amount 50.000	Range 68 - 133		Recovery = 99.18%			

Target Compounds			Qvalue
2) Dichlorodifluoromethane	0.000	0	N.D.
3) Chloromethane	4.662	0m	N.D. d
4) Vinyl chloride	4.904	0m	N.D. d
5) Bromomethane	0.000	0	N.D.
6) Chloroethane	0.000	0	N.D.
7) Trichlorofluoromethane	0.000	0	N.D.
8) Ethyl ether	0.000	0	N.D.
9) Acetone	6.676	0m	N.D. d
10) 1,1-Dichloroethylene	6.670	0m	N.D. d
11) Iodomethane	6.956	0m	N.D. d
12) Acetonitrile	7.139	0m	N.D. d
13) Methyl acetate	7.102	0m	N.D. d
14) Carbon disulfide	7.139	0m	N.D. d
15) Methylene chloride	7.291	0m	N.D. d
16) tert-Butyl methyl ether	0.000	0	N.D.
17) trans-1,2-Dichloroethy...	0.000	0	N.D.
18) Vinyl acetate	8.066	0m	N.D. d
19) 1,1-Dichloroethane	8.206	0m	N.D. d
20) 2-Butanone	8.700	0m	N.D. d
21) cis-1,2-Dichloroethylene	8.700	0m	N.D. d
22) 2,2-Dichloropropane	0.000	0	N.D.
23) Bromochloromethane	0.000	0	N.D.
24) Chloroform	9.053	0m	N.D. d
25) 1,1,1-Trichloroethane	0.000	0	N.D.
26) Cyclohexane	9.389	0m	N.D. d
27) 1,1-Dichloropropene	0.000	0	N.D.
28) Carbon tetrachloride	0.000	0	N.D.
30) 1,2-Dichloroethane	0.000	0	N.D.
31) Benzene	9.724	0m	N.D. d
32) Cyclohexene	9.827	0m	N.D. d
33) n-Butyl alcohol	10.084	0m	N.D. d
34) Trichloroethylene	10.370	0m	N.D. d
35) 1,2-Dichloropropane	0.000	0	N.D.
36) Methylcyclohexane	10.590	0m	N.D. d
37) Dibromomethane	0.000	0	N.D.

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\122309V6\
Data File : 6Q305SL.D
Acq On : 23 Dec 2009 12:16 pm
Operator : RXD1
InstName : VOA6
Sample : |1202004061|935590|1|VOAF|1|VOA8260BS|
Misc : LCS 5g N/A MIX[B] SOIL 1118-08C
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Dec 23 12:44:02 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
38)	Bromodichloromethane	0.000		0	N.D.	
39)	2-Chloroethylvinyl ether	11.096		0m	N.D. d	
40)	cis-1,3-Dichloropropylene	0.000		0	N.D.	
42)	4-Methyl-2-pentanone	11.413		0m	N.D. d	
44)	Toluene	11.699		0m	N.D. d	
45)	trans-1,3-Dichloroprop...	11.858		0m	N.D. d	
46)	1,1,2-Trichloroethane	0.000		0	N.D.	
47)	2-Hexanone	12.272		0m	N.D. d	
48)	1,3-Dichloropropane	12.272		0m	N.D. d	
49)	Tetrachloroethylene	12.290		0m	N.D. d	
50)	Dibromochloromethane	0.000		0	N.D.	
51)	1,2-Dibromoethane	12.705		0m	N.D. d	
52)	Chlorobenzene	13.193		0m	N.D. d	
53)	1,1,1,2-Tetrachloroethane	13.241		0m	N.D. d	
54)	Ethylbenzene	13.248		0m	N.D. d	
55)	m,p-Xylenes	13.357		0m	N.D. d	
56)	o-Xylene	13.796		0m	N.D. d	
57)	Styrene	13.796		0m	N.D. d	
59)	Bromoform	0.000		0	N.D.	
60)	Isopropylbenzene	14.150		0m	N.D. d	
62)	1,1,2,2-Tetrachloroethane	14.442		0m	N.D. d	
63)	1,2,3-Trichloropropane	0.000		0	N.D.	
64)	Bromobenzene	14.558		0m	N.D. d	
65)	n-Propylbenzene	14.583		0m	N.D. d	
66)	1,3,5-Trimethylbenzene	14.735		0m	N.D. d	
67)	2-Chlorotoluene	14.735		0m	N.D. d	
68)	4-Chlorotoluene	14.833		0m	N.D. d	
69)	tert-Butylbenzene	15.107		0m	N.D. d	
70)	1,2,4-Trimethylbenzene	15.150		0m	N.D. d	
71)	sec-Butylbenzene	15.333		0m	N.D. d	
72)	4-Isopropyltoluene	15.454		0m	N.D. d	
73)	1,3-Dichlorobenzene	15.515		0m	N.D. d	
74)	1,4-Dichlorobenzene	15.601		0m	N.D. d	
75)	n-Butylbenzene	0.000		0	N.D.	
76)	1,2-Dichlorobenzene	16.015		0m	N.D. d	
77)	1,2-Dibromo-3-chloropr...	0.000		0	N.D.	
78)	1,2,4-Trichlorobenzene	17.905		0m	N.D. d	
79)	Hexachlorobutadiene	18.082		0m	N.D. d	
80)	Naphthalene	18.289		0m	N.D. d	
81)	1,2,3-Trichlorobenzene	18.625		0m	N.D. d	
83)	Chlorotrifluoroethylene	0.000		0	N.D.	
84)	2-Chloro-1,1,1-trifluo...	0.000		0	N.D.	
85)	Acrolein	6.529	56	329280	266.06 ug/L	98
86)	Trichlorotrifluoroethane	6.676	85	891642	281.34 ug/L	99
87)	Isopropyl Alcohol	0.000		0m	N.D. d	
88)	Allyl chloride	7.139	41	3722407	250.95 ug/L	99
89)	tert-Butyl Alcohol	0.000		0	N.D.	
90)	Acrylonitrile	7.541	53	759986	241.14 ug/L	100
91)	Isopropyl ether	0.000		0	N.D.	
92)	2-Chloro-1,3-butadiene	8.206	53	686422	54.38 ug/L	98
93)	Ethyl tert-butyl ether	0.000		0	N.D.	
94)	Ethyl acetate	8.700	43	2009046	223.14 ug/L	100

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\122309V6\
Data File : 6Q305SL.D
Acq On : 23 Dec 2009 12:16 pm
Operator : RXD1
InstName : VOA6
Sample : |1202004061|935590|1|VOAF|1|VOA8260BS|
Misc : LCS 5g N/A MIX[B] SOIL 1118-08C
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Dec 23 12:44:02 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
95)	Propionitrile	8.773	54	288303	235.41 ug/L	99
96)	Methacrylonitrile	8.950	41	1280568	237.74 ug/L	100
97)	Tetrahydrofuran	9.059	42	684427	239.31 ug/L	99
98)	Isobutyl alcohol	9.389	41	832501	2574.55 ug/L	100
99)	Methyl tert-amyl ether	9.736	73	1635	N.D.	
100)	Methyl methacrylate	10.590	69	1264414	245.52 ug/L	99
101)	1,4-Dioxane	10.699	88	187698	2358.80 ug/L	99
102)	2-Nitropropane	11.071	43	666356	255.66 ug/L	99
104)	Ethyl methacrylate	11.858	69	2391240	247.50 ug/L	100
106)	1-Chlorohexane	0.000		0	N.D.	
107)	cis-1,4-Dichloro-2-butene	14.199	53	853344	257.84 ug/L	99
108)	Cyclohexanone	14.314	42	277251	1024.00 ug/L	98
109)	trans-1,4-Dichloro-2-b...	14.485	53	825869	259.77 ug/L	100
110)	Pentachloroethane	15.180	167	1542012	327.98 ug/L	98
111)	Benzyl chloride	15.717	91	4493616	247.00 ug/L	99
112)	bis(2-Chloroisopropyl)...	16.113	45	1343139	251.61 ug/L	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\122309V6\
Data File : 6Q305SL.D
Acq On : 23 Dec 2009 12:16 pm
Operator : RXD1
InstName : VOA6
Sample : |1202004061|935590|1|VOAF|1|VOA8260BS|
Misc : LCS 5g N/A MIX[B] SOIL 1118-08C
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Dec 23 12:44:02 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

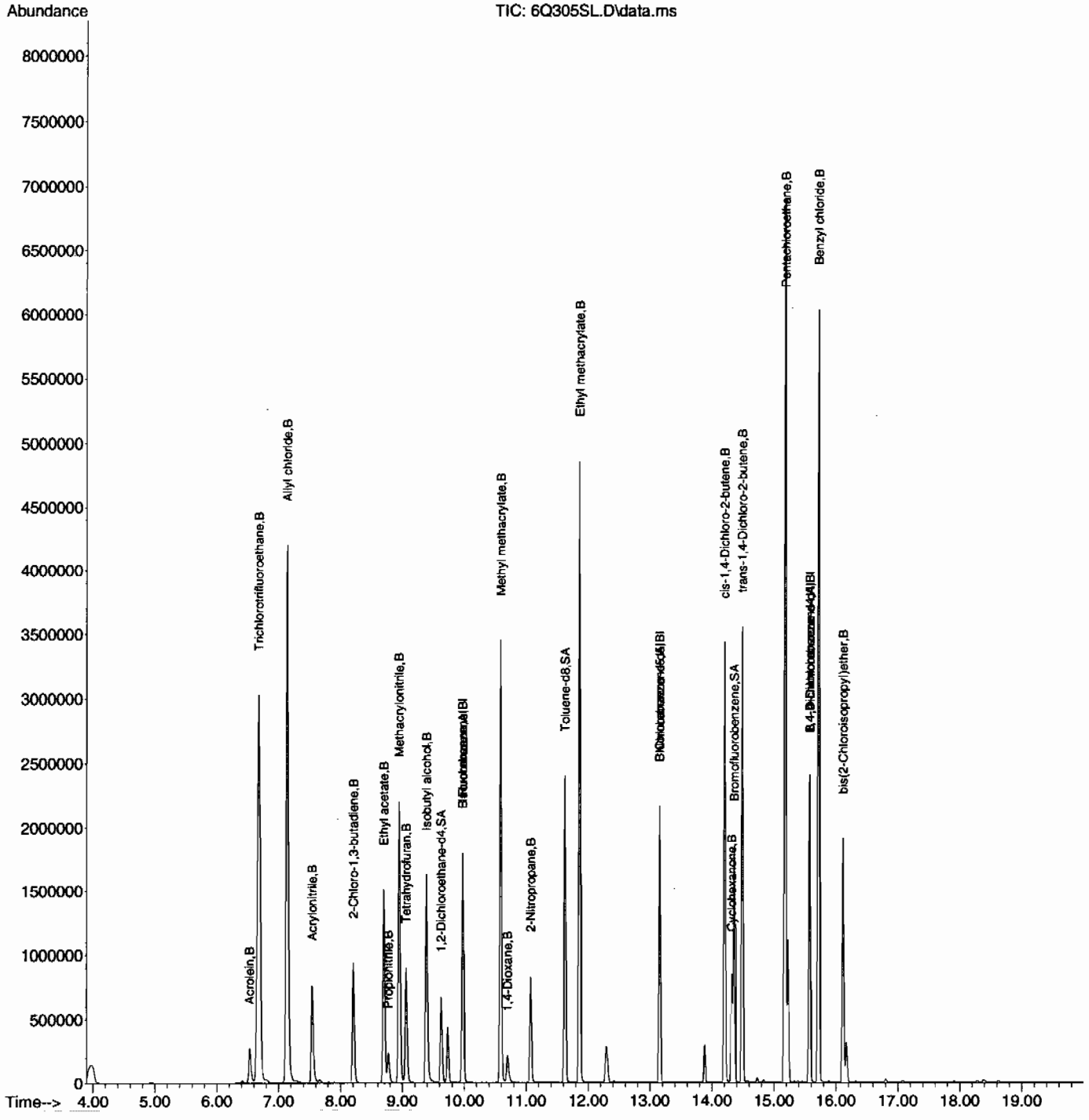

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-939	**Date Collected:**	12/14/2009 12:00	**Matrix:**	R
Lab Sample ID:	1202001915	**Date Received:**	12/16/2009 09:10	**%Moisture:**	13.5
Client Sample:	QC for batch 935589	**Client:**	LANL010	**Project:**	QC
Client ID:	WST03-10-2147PS	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	935590	**Inst:**	VOA6.I	**Dilution:**	1
Run Date:	12/23/2009 15:03	**Analyst:**	RXD1	**Purge Vol:**	5 mL
Prep Date:	12/23/2009 13:06	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	122309V6\6Q311.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane		49.0	ug/kg	0.393	1.16
74-87-3	Chloromethane		48.7	ug/kg	0.347	1.16
75-01-4	Vinyl chloride		54.6	ug/kg	0.347	1.16
74-83-9	Bromomethane		53.8	ug/kg	0.347	1.16
75-00-3	Chloroethane		53.9	ug/kg	0.347	1.16
75-69-4	Trichlorofluoromethane		53.9	ug/kg	0.347	1.16
67-64-1	Acetone	BE	186	ug/kg	1.92	5.78
75-35-4	1,1-Dichloroethylene		54.0	ug/kg	0.347	1.16
74-88-4	Iodomethane		261	ug/kg	1.85	5.78
75-09-2	Methylene chloride		49.0	ug/kg	2.31	5.78
75-15-0	Carbon disulfide		276	ug/kg	1.44	5.78
156-60-5	trans-1,2-Dichloroethylene		52.7	ug/kg	0.347	1.16
75-34-3	1,1-Dichloroethane		53.1	ug/kg	0.347	1.16
78-93-3	2-Butanone		238	ug/kg	1.73	5.78
156-59-2	cis-1,2-Dichloroethylene		53.4	ug/kg	0.347	1.16
594-20-7	2,2-Dichloropropane		60.4	ug/kg	0.347	1.16
67-66-3	Chloroform		52.6	ug/kg	0.347	1.16
74-97-5	Bromochloromethane		52.2	ug/kg	0.381	1.16
71-55-6	1,1,1-Trichloroethane		56.8	ug/kg	0.347	1.16
563-58-6	1,1-Dichloropropene		55.3	ug/kg	0.347	1.16
56-23-5	Carbon tetrachloride		58.3	ug/kg	0.347	1.16
107-06-2	1,2-Dichloroethane		51.6	ug/kg	0.347	1.16
71-43-2	Benzene		51.9	ug/kg	0.347	1.16
79-01-6	Trichloroethylene		53.2	ug/kg	0.381	1.16
78-87-5	1,2-Dichloropropane		53.9	ug/kg	0.347	1.16
75-27-4	Bromodichloromethane		56.7	ug/kg	0.347	1.16
74-95-3	Dibromomethane		51.7	ug/kg	0.347	1.16
108-10-1	4-Methyl-2-pentanone		271	ug/kg	1.44	5.78
10061-01-5	cis-1,3-Dichloropropylene		55.4	ug/kg	0.347	1.16
108-88-3	Toluene		52.1	ug/kg	0.347	1.16
10061-02-6	trans-1,3-Dichloropropylene		56.3	ug/kg	0.347	1.16
79-00-5	1,1,2-Trichloroethane		52.2	ug/kg	0.347	1.16
591-78-6	2-Hexanone		259	ug/kg	1.73	5.78
142-28-9	1,3-Dichloropropane		51.6	ug/kg	0.347	1.16
127-18-4	Tetrachloroethylene		53.5	ug/kg	0.347	1.16
124-48-1	Dibromochloromethane		58.9	ug/kg	0.347	1.16
106-93-4	1,2-Dibromoethane		52.9	ug/kg	0.347	1.16
108-90-7	Chlorobenzene		53.4	ug/kg	0.347	1.16

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-939**	**Date Collected:**	**12/14/2009 12:00**	**Matrix:**	**R**
Lab Sample ID:	**1202001915**	**Date Received:**	**12/16/2009 09:10**	**%Moisture:**	**13.5**
Client Sample:	**QC for batch 935589**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**WST03-10-2147PS**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**935590**	**Inst:**	**VOA6.I**	**Dilution:**	**1**
Run Date:	**12/23/2009 15:03**	**Analyst:**	**RXD1**	**Purge Vol:**	**5 mL**
Prep Date:	**12/23/2009 13:06**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**122309V6\6Q311.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene		54.6	ug/kg	0.347	1.16
179601-23-1	m,p-Xylenes		109	ug/kg	0.347	2.31
95-47-6	o-Xylene		54.5	ug/kg	0.347	1.16
100-42-5	Styrene		54.9	ug/kg	0.347	1.16
75-25-2	Bromoform		64.1	ug/kg	0.347	1.16
79-34-5	1,1,2,2-Tetrachloroethane		56.1	ug/kg	0.347	1.16
96-18-4	1,2,3-Trichloropropane		56.3	ug/kg	0.347	1.16
108-86-1	Bromobenzene		54.4	ug/kg	0.347	1.16
103-65-1	n-Propylbenzene		57.9	ug/kg	0.347	1.16
95-49-8	2-Chlorotoluene		57.0	ug/kg	0.347	1.16
98-82-8	Isopropylbenzene		58.5	ug/kg	0.347	1.16
108-67-8	1,3,5-Trimethylbenzene		57.2	ug/kg	0.347	1.16
106-43-4	4-Chlorotoluene		56.2	ug/kg	0.347	1.16
98-06-6	tert-Butylbenzene		56.1	ug/kg	0.347	1.16
95-63-6	1,2,4-Trimethylbenzene		55.0	ug/kg	0.347	1.16
135-98-8	sec-Butylbenzene		56.9	ug/kg	0.347	1.16
99-87-6	4-Isopropyltoluene		56.2	ug/kg	0.347	1.16
541-73-1	1,3-Dichlorobenzene		52.5	ug/kg	0.347	1.16
106-46-7	1,4-Dichlorobenzene		51.4	ug/kg	0.347	1.16
104-51-8	n-Butylbenzene		54.5	ug/kg	0.347	1.16
96-12-8	1,2-Dibromo-3-chloropropane		56.7	ug/kg	0.347	1.16
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.78	ug/kg	1.85	5.78
630-20-6	1,1,1,2-Tetrachloroethane		56.9	ug/kg	0.347	1.16
95-50-1	1,2-Dichlorobenzene		50.4	ug/kg	0.347	1.16

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\122309V6\
Data File : 6Q311.D
Acq On : 23 Dec 2009 3:03 pm
Operator : RXD1
InstName : VOA6
Sample : |1202001915|935590|1|VOAF|1|VOA8260BS|
Misc : LANL 5g N/A SOIL MIX[A] MS 243007002
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Dec 24 09:00:31 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	9.980	96	1629285	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.156	117	1164978	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	15.576	152	606401	50.00	ug/L	0.00
82) B Fluorobenzene	9.980	96	1626693	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.156	117	1164978	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	15.576	152	606401	50.00	ug/L	0.00
System Monitoring Compounds						
29) 1,2-Dichloroethane-d4	9.626	65	465023	48.37	ug/L	0.00
Spiked Amount 50.000	Range 68 - 131		Recovery = 96.74%			
43) Toluene-d8	11.626	98	1618736	50.12	ug/L	0.00
Spiked Amount 50.000	Range 75 - 129		Recovery = 100.24%			
61) Bromofluorobenzene	14.357	95	606564	51.90	ug/L	0.00
Spiked Amount 50.000	Range 68 - 133		Recovery = 103.80%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	4.360	85	309943	42.43	ug/L	99
3) Chloromethane	4.672	50	422944	42.10	ug/L	100
4) Vinyl chloride	4.914	62	416548	47.23	ug/L	99
5) Bromomethane	5.468	94	306394	46.58	ug/L	100
6) Chloroethane	5.619	64	305418	46.66	ug/L	100
7) Trichlorofluoromethane	6.022	101	603095	46.65	ug/L	100
8) Ethyl ether	6.328	59	346623	41.26	ug/L	99
9) Acetone	6.706	43	476823	160.87	ug/L	99 E
10) 1,1-Dichloroethylene	6.706	61	557467	46.74	ug/L	100
11) Iodomethane	6.956	142	2901012	225.75	ug/L	99
12) Acetonitrile	7.072	41	1301943	1071.47	ug/L	100
13) Methyl acetate	7.096	43	1833655	275.06	ug/L	100
14) Carbon disulfide	7.084	76	5708791	238.55	ug/L	100
15) Methylene chloride	7.285	84	397301	42.37	ug/L	99
16) tert-Butyl methyl ether	7.572	73	1013808	42.79	ug/L	100
17) trans-1,2-Dichloroethy...	7.621	61	554661	45.57	ug/L	99
18) Vinyl acetate	8.066	43	1774979	101.24	ug/L	93
19) 1,1-Dichloroethane	8.102	63	699430	45.92	ug/L	100
20) 2-Butanone	8.694	43	771282	205.65	ug/L	99
21) cis-1,2-Dichloroethylene	8.742	61	626098	46.18	ug/L	99
22) 2,2-Dichloropropane	8.767	77	573721	52.29	ug/L	100
23) Bromochloromethane	9.017	128	188498	45.14	ug/L	99
24) Chloroform	9.053	83	645853	45.54	ug/L	98
25) 1,1,1-Trichloroethane	9.328	97	585164	49.17	ug/L	100
26) Cyclohexane	9.413	56	756907	49.18	ug/L	99
27) 1,1-Dichloropropene	9.480	75	518076	47.83	ug/L	98
28) Carbon tetrachloride	9.517	117	530995	50.44	ug/L	99
30) 1,2-Dichloroethane	9.712	62	518711	44.61	ug/L	100
31) Benzene	9.724	78	1489946	44.89	ug/L	100
32) Cyclohexene	9.834	67	752642	47.67	ug/L	100
33) n-Butyl alcohol	10.084	56	1178037	4277.30	ug/L	99
34) Trichloroethylene	10.364	95	380958	45.99	ug/L	99
35) 1,2-Dichloropropane	10.614	63	409066	46.63	ug/L	99
36) Methylcyclohexane	10.602	83	690391	47.89	ug/L	99
37) Dibromomethane	10.754	93	208281	44.70	ug/L	99

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\122309V6\
Data File : 6Q311.D
Acq On : 23 Dec 2009 3:03 pm
Operator : RXD1
InstName : VOA6
Sample : |1202001915|935590|1|VOAF|1|VOA8260BS|
Misc : LANL 5g N/A SOIL MIX[A] MS 243007002
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Dec 24 09:00:31 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
38) Bromodichloromethane	10.864	83	481946	49.06 ug/L	100
39) 2-Chloroethylvinyl ether	11.089	63	1333520	248.23 ug/L	99
40) cis-1,3-Dichloropropylene	11.315	75	593830	47.90 ug/L	99
42) 4-Methyl-2-pentanone	11.413	58	716306	234.18 ug/L	99
44) Toluene	11.699	91	1565563	45.10 ug/L	99
45) trans-1,3-Dichloroprop...	11.864	75	546488	48.69 ug/L	99
46) 1,1,2-Trichloroethane	12.083	83	258054	45.19 ug/L	99
47) 2-Hexanone	12.260	43	1255824	223.91 ug/L	99
48) 1,3-Dichloropropane	12.272	76	542923	44.68 ug/L	97
49) Tetrachloroethylene	12.290	164	324558	46.27 ug/L	99
50) Dibromochloromethane	12.540	129	366603	50.98 ug/L	99
51) 1,2-Dibromoethane	12.705	107	315020	45.75 ug/L	100
52) Chlorobenzene	13.193	112	1036209	46.16 ug/L	100
53) 1,1,1,2-Tetrachloroethane	13.248	131	382345	49.20 ug/L	99
54) Ethylbenzene	13.254	91	1799344	47.27 ug/L	100
55) m,p-Xylenes	13.357	106	1434332	94.22 ug/L	98
56) o-Xylene	13.796	106	703959	47.11 ug/L	99
57) Styrene	13.802	104	1131307	47.53 ug/L	98
59) Bromoform	14.064	173	237649	55.43 ug/L	100
60) Isopropylbenzene	14.156	105	1870995	50.62 ug/L	100
62) 1,1,2,2-Tetrachloroethane	14.436	83	401871	48.50 ug/L	99
63) 1,2,3-Trichloropropane	14.528	110	113448	48.67 ug/L	97
64) Bromobenzene	14.564	156	447654	47.10 ug/L	98
65) n-Propylbenzene	14.583	91	2170326	50.11 ug/L	100
66) 1,3,5-Trimethylbenzene	14.735	105	1566733	49.44 ug/L	99
67) 2-Chlorotoluene	14.729	126	454403	49.34 ug/L	98
68) 4-Chlorotoluene	14.833	91	1297183	48.64 ug/L	100
69) tert-Butylbenzene	15.107	134	341944	48.51 ug/L #	90
70) 1,2,4-Trimethylbenzene	15.150	105	1588583	47.58 ug/L	100
71) sec-Butylbenzene	15.333	105	2095466	49.19 ug/L	99
72) 4-Isopropyltoluene	15.454	119	1692447	48.58 ug/L	99
73) 1,3-Dichlorobenzene	15.515	146	843257	45.40 ug/L	100
74) 1,4-Dichlorobenzene	15.601	146	846462	44.45 ug/L	100
75) n-Butylbenzene	15.887	91	1594939	47.17 ug/L	99
76) 1,2-Dichlorobenzene	16.021	146	784760	43.58 ug/L	100
77) 1,2-Dibromo-3-chloropr...	16.881	157	74127	49.05 ug/L	100
78) 1,2,4-Trichlorobenzene	17.911	180	474099	35.01 ug/L	98
79) Hexachlorobutadiene	18.076	225	316586	36.82 ug/L	99
80) Naphthalene	18.283	128	948080	34.83 ug/L	100
81) 1,2,3-Trichlorobenzene	18.618	180	384102	33.87 ug/L	99
83) Chlorotrifluoroethylene	0.000		0	N.D.	
84) 2-Chloro-1,1,1-trifluo...	0.000		0	N.D.	
85) Acrolein	0.000		0	N.D.	
86) Trichlorotrifluoroethane	0.000		0	N.D.	
87) Isopropyl Alcohol	6.724		0m	N.D. d	
88) Allyl chloride	7.072		0m	N.D. d	
89) tert-Butyl Alcohol	7.285		0m	N.D. d	
90) Acrylonitrile	7.578		0m	N.D. d	
91) Isopropyl ether	8.060		0m	N.D. d	
92) 2-Chloro-1,3-butadiene	8.218		0m	N.D. d	
93) Ethyl tert-butyl ether	0.000		0	N.D.	
94) Ethyl acetate	8.694		0m	N.D. d	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\122309V6\
Data File : 6Q311.D
Acq On : 23 Dec 2009 3:03 pm
Operator : RXD1
InstName : VOA6
Sample : |1202001915|935590|1|VOAF|1|VOA8260BS|
Misc : LANL 5g N/A SOIL MIX[A] MS 243007002
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Dec 24 09:00:31 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
95)	Propionitrile	8.694		0m	N.D.	d	
96)	Methacrylonitrile	8.962		0m	N.D.	d	
97)	Tetrahydrofuran	9.053		0m	N.D.	d	
98)	Isobutyl alcohol	9.413		0m	N.D.	d	
99)	Methyl tert-amyl ether	9.724		0m	N.D.	d	
100)	Methyl methacrylate	10.602		0m	N.D.	d	
101)	1,4-Dioxane	10.736		0m	N.D.	d	
102)	2-Nitropropane	11.089		0m	N.D.	d	
104)	Ethyl methacrylate	11.858		0m	N.D.	d	
106)	1-Chlorohexane	0.000		0	N.D.		
107)	cis-1,4-Dichloro-2-butene	14.156		0m	N.D.	d	
108)	Cyclohexanone	0.000		0	N.D.		
109)	trans-1,4-Dichloro-2-b...	0.000		0	N.D.		
110)	Pentachloroethane	15.180		0m	N.D.	d	
111)	Benzyl chloride	15.717		0m	N.D.	d	
112)	bis(2-Chloroisopropyl)...	16.101		0m	N.D.	d	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\122309V6\
Data File : 6Q311.D
Acq On : 23 Dec 2009 3:03 pm
Operator : RXD1
InstName : VOA6
Sample : |1202001915|935590|1|VOAF|1|VOA8260BS|
Misc : LANL 5g N/A SOIL MIX[A] MS 243007002
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Dec 24 09:00:31 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

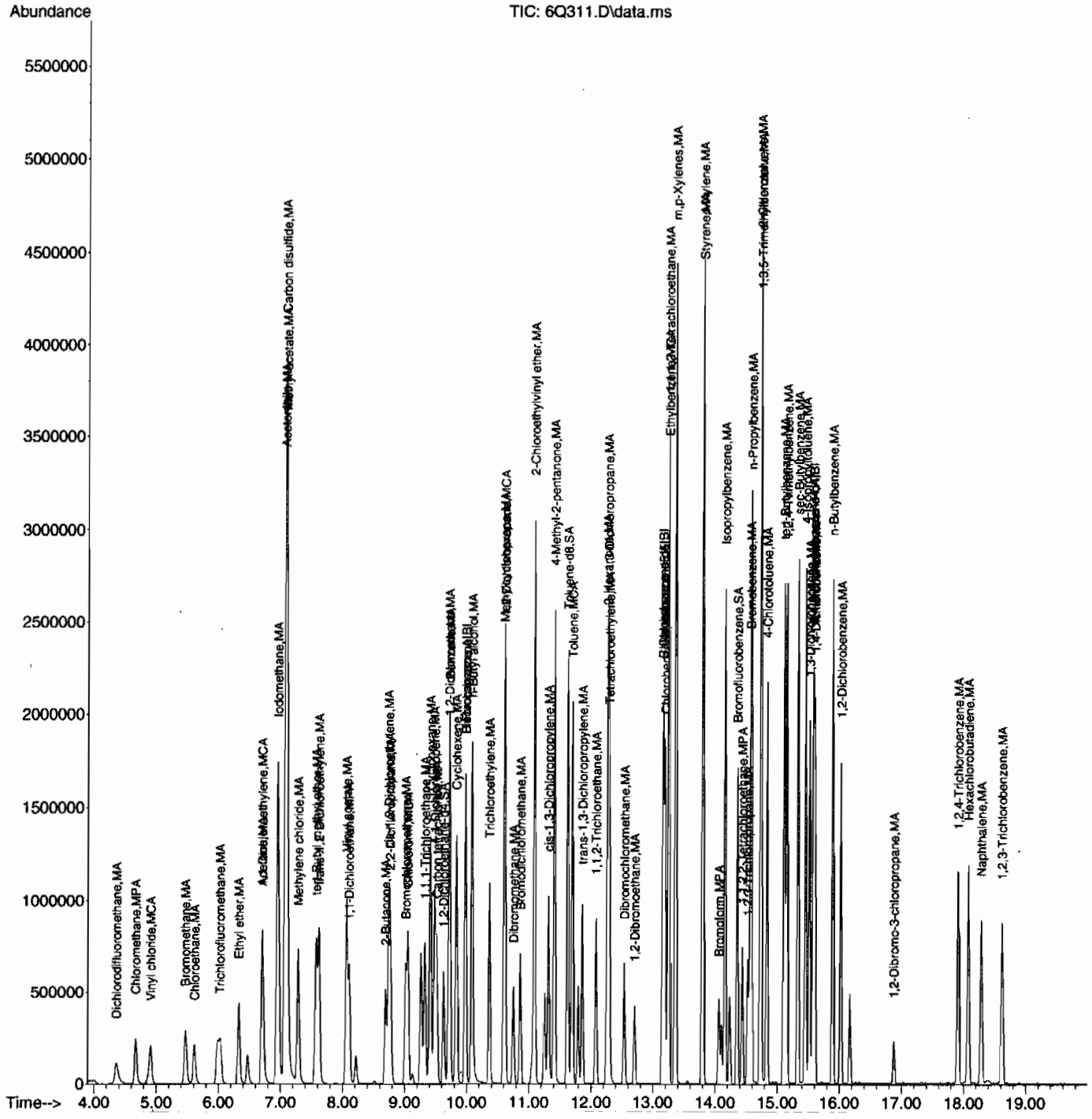

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-939	**Date Collected:**	12/14/2009 12:00	**Matrix:**	R
Lab Sample ID:	1202001916	**Date Received:**	12/16/2009 09:10	**%Moisture:**	13.5
Client Sample:	QC for batch 935589	**Client:**	LANL010	**Project:**	QC
Client ID:	WST03-10-2147PSD	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	935590	**Inst:**	VOA6.1	**Dilution:**	1
Run Date:	12/23/2009 15:31	**Analyst:**	RXD1	**Purge Vol:**	5 mL
Prep Date:	12/23/2009 13:08	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	122309V6\6Q312.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane		47.2	ug/kg	0.393	1.16
74-87-3	Chloromethane		48.0	ug/kg	0.347	1.16
75-01-4	Vinyl chloride		54.0	ug/kg	0.347	1.16
74-83-9	Bromomethane		51.8	ug/kg	0.347	1.16
75-00-3	Chloroethane		52.5	ug/kg	0.347	1.16
75-69-4	Trichlorofluoromethane		52.3	ug/kg	0.347	1.16
67-64-1	Acetone	BE	200	ug/kg	1.92	5.78
75-35-4	1,1-Dichloroethylene		52.4	ug/kg	0.347	1.16
74-88-4	Iodomethane		254	ug/kg	1.85	5.78
75-09-2	Methylene chloride		47.6	ug/kg	2.31	5.78
75-15-0	Carbon disulfide		265	ug/kg	1.44	5.78
156-60-5	trans-1,2-Dichloroethylene		51.1	ug/kg	0.347	1.16
75-34-3	1,1-Dichloroethane		51.8	ug/kg	0.347	1.16
78-93-3	2-Butanone		257	ug/kg	1.73	5.78
156-59-2	cis-1,2-Dichloroethylene		52.2	ug/kg	0.347	1.16
594-20-7	2,2-Dichloropropane		59.4	ug/kg	0.347	1.16
67-66-3	Chloroform		51.5	ug/kg	0.347	1.16
74-97-5	Bromochloromethane		51.7	ug/kg	0.381	1.16
71-55-6	1,1,1-Trichloroethane		55.8	ug/kg	0.347	1.16
563-58-6	1,1-Dichloropropene		53.9	ug/kg	0.347	1.16
56-23-5	Carbon tetrachloride		56.2	ug/kg	0.347	1.16
107-06-2	1,2-Dichloroethane		50.5	ug/kg	0.347	1.16
71-43-2	Benzene		50.3	ug/kg	0.347	1.16
79-01-6	Trichloroethylene		51.5	ug/kg	0.381	1.16
78-87-5	1,2-Dichloropropane		52.2	ug/kg	0.347	1.16
75-27-4	Bromodichloromethane		55.4	ug/kg	0.347	1.16
74-95-3	Dibromomethane		51.9	ug/kg	0.347	1.16
108-10-1	4-Methyl-2-pentanone		288	ug/kg	1.44	5.78
10061-01-5	cis-1,3-Dichloropropylene		53.9	ug/kg	0.347	1.16
108-88-3	Toluene		50.3	ug/kg	0.347	1.16
10061-02-6	trans-1,3-Dichloropropylene		55.1	ug/kg	0.347	1.16
79-00-5	1,1,2-Trichloroethane		52.5	ug/kg	0.347	1.16
591-78-6	2-Hexanone		278	ug/kg	1.73	5.78
142-28-9	1,3-Dichloropropane		51.2	ug/kg	0.347	1.16
127-18-4	Tetrachloroethylene		51.3	ug/kg	0.347	1.16
124-48-1	Dibromochloromethane		58.1	ug/kg	0.347	1.16
106-93-4	1,2-Dibromoethane		53.0	ug/kg	0.347	1.16
108-90-7	Chlorobenzene		51.3	ug/kg	0.347	1.16

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-939**	**Date Collected:**	**12/14/2009 12:00**	**Matrix:**	**R**
Lab Sample ID:	**1202001916**	**Date Received:**	**12/16/2009 09:10**	**%Moisture:**	**13.5**
Client Sample:	**QC for batch 935589**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**WST03-10-2147PSD**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**935590**	**Inst:**	**VOA6.I**	**Dilution:**	**1**
Run Date:	**12/23/2009 15:31**	**Analyst:**	**RXD1**	**Purge Vol:**	**5 mL**
Prep Date:	**12/23/2009 13:08**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**122309V6\6Q312.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene		52.4	ug/kg	0.347	1.16
179601-23-1	m,p-Xylenes		105	ug/kg	0.347	2.31
95-47-6	o-Xylene		52.6	ug/kg	0.347	1.16
100-42-5	Styrene		52.4	ug/kg	0.347	1.16
75-25-2	Bromoform		64.9	ug/kg	0.347	1.16
79-34-5	1,1,2,2-Tetrachloroethane		56.8	ug/kg	0.347	1.16
96-18-4	1,2,3-Trichloropropane		56.7	ug/kg	0.347	1.16
108-86-1	Bromobenzene		52.0	ug/kg	0.347	1.16
103-65-1	n-Propylbenzene		54.4	ug/kg	0.347	1.16
95-49-8	2-Chlorotoluene		54.2	ug/kg	0.347	1.16
98-82-8	Isopropylbenzene		55.9	ug/kg	0.347	1.16
108-67-8	1,3,5-Trimethylbenzene		54.6	ug/kg	0.347	1.16
106-43-4	4-Chlorotoluene		52.9	ug/kg	0.347	1.16
98-06-6	tert-Butylbenzene		54.2	ug/kg	0.347	1.16
95-63-6	1,2,4-Trimethylbenzene		52.7	ug/kg	0.347	1.16
135-98-8	sec-Butylbenzene		54.1	ug/kg	0.347	1.16
99-87-6	4-Isopropyltoluene		54.4	ug/kg	0.347	1.16
541-73-1	1,3-Dichlorobenzene		50.3	ug/kg	0.347	1.16
106-46-7	1,4-Dichlorobenzene		49.2	ug/kg	0.347	1.16
104-51-8	n-Butylbenzene		52.4	ug/kg	0.347	1.16
96-12-8	1,2-Dibromo-3-chloropropane	E	62.3	ug/kg	0.347	1.16
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.78	ug/kg	1.85	5.78
630-20-6	1,1,1,2-Tetrachloroethane		55.2	ug/kg	0.347	1.16
95-50-1	1,2-Dichlorobenzene		49.7	ug/kg	0.347	1.16

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\122309V6\
Data File : 6Q312.D
Acq On : 23 Dec 2009 3:31 pm
Operator : RXD1
InstName : VOA6
Sample : |1202001916|935590|1|VOAF|1|VOA8260BS|
Misc : LANL 5g N/A SOIL MIX[A] MSD 243007002
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Dec 24 09:00:34 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	9.974	96	1691277	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.156	117	1204285	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	15.576	152	633330	50.00	ug/L	0.00
82) B Fluorobenzene	9.974	96	1689533	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.156	117	1204285	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	15.576	152	633330	50.00	ug/L	0.00
System Monitoring Compounds						
29) 1,2-Dichloroethane-d4	9.626	65	482179	48.32	ug/L	0.00
Spiked Amount 50.000	Range 68 - 131		Recovery = 96.64%			
43) Toluene-d8	11.626	98	1616275	48.41	ug/L	0.00
Spiked Amount 50.000	Range 75 - 129		Recovery = 96.82%			
61) Bromofluorobenzene	14.357	95	605065	49.57	ug/L	0.00
Spiked Amount 50.000	Range 68 - 133		Recovery = 99.14%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	4.360	85	309538	40.83	ug/L	99
3) Chloromethane	4.672	50	433222	41.55	ug/L	100
4) Vinyl chloride	4.914	62	427316	46.68	ug/L	99
5) Bromomethane	5.468	94	306007	44.82	ug/L	100
6) Chloroethane	5.609	64	308864	45.46	ug/L	100
7) Trichlorofluoromethane	6.022	101	607627	45.27	ug/L	100
8) Ethyl ether	6.328	59	366520	42.03	ug/L	99
9) Acetone	6.706	43	532876	173.19	ug/L	99 E
10) 1,1-Dichloroethylene	6.706	61	561490	45.36	ug/L	100
11) Iodomethane	6.956	142	2934054	219.95	ug/L	99
12) Acetonitrile	7.072	41	1417808	1124.06	ug/L	99
13) Methyl acetate	7.096	43	2004885	289.72	ug/L	100
14) Carbon disulfide	7.078	76	5694502	229.23	ug/L	100
15) Methylene chloride	7.285	84	400821	41.18	ug/L	99
16) tert-Butyl methyl ether	7.572	73	1070566	43.53	ug/L	100
17) trans-1,2-Dichloroethy...	7.621	61	558536	44.21	ug/L	99
18) Vinyl acetate	8.060	43	1706048	93.74	ug/L	93
19) 1,1-Dichloroethane	8.102	63	708395	44.81	ug/L	100
20) 2-Butanone	8.694	43	865274	222.26	ug/L	99
21) cis-1,2-Dichloroethylene	8.742	61	635425	45.15	ug/L	99
22) 2,2-Dichloropropane	8.767	77	585678	51.42	ug/L	98
23) Bromochloromethane	9.017	128	193886	44.72	ug/L	100
24) Chloroform	9.053	83	655245	44.51	ug/L	99
25) 1,1,1-Trichloroethane	9.328	97	596628	48.30	ug/L	99
26) Cyclohexane	9.413	56	770192	48.21	ug/L	100
27) 1,1-Dichloropropene	9.480	75	523918	46.59	ug/L	99
28) Carbon tetrachloride	9.511	117	531819	48.66	ug/L	99
30) 1,2-Dichloroethane	9.712	62	527224	43.68	ug/L	100
31) Benzene	9.724	78	1498465	43.49	ug/L	100
32) Cyclohexene	9.834	67	766883	46.79	ug/L	100
33) n-Butyl alcohol	10.078	56	1339869	4681.43	ug/L	99
34) Trichloroethylene	10.364	95	383248	44.57	ug/L	99
35) 1,2-Dichloropropane	10.614	63	411240	45.16	ug/L	99
36) Methylcyclohexane	10.602	83	701044	46.85	ug/L	99
37) Dibromomethane	10.748	93	217292	44.92	ug/L	100

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\122309V6\
Data File : 6Q312.D
Acq On : 23 Dec 2009 3:31 pm
Operator : RXD1
InstName : VOA6
Sample : |1202001916|935590|1|VOAF|1|VOA8260BS|
Misc : LANL 5g N/A SOIL MIX[A] MSD 243007002
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Dec 24 09:00:34 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)	
38)	Bromodichloromethane	10.864	83	488732	47.93	ug/L		99	
39)	2-Chloroethylvinyl ether	11.089	63	1371864	246.01	ug/L		99	
40)	cis-1,3-Dichloropropylene	11.315	75	600367	46.65	ug/L		99	
42)	4-Methyl-2-pentanone	11.406	58	786677	248.79	ug/L		97	
44)	Toluene	11.699	91	1561686	43.52	ug/L		100	
45)	trans-1,3-Dichloroprop...	11.858	75	553217	47.68	ug/L		99	
46)	1,1,2-Trichloroethane	12.083	83	268047	45.41	ug/L		98	
47)	2-Hexanone	12.260	43	1392487	240.17	ug/L		98	
48)	1,3-Dichloropropane	12.272	76	556114	44.27	ug/L		100	
49)	Tetrachloroethylene	12.290	164	322109	44.42	ug/L		99	
50)	Dibromochloromethane	12.540	129	373311	50.22	ug/L		99	
51)	1,2-Dibromoethane	12.705	107	326566	45.88	ug/L		99	
52)	Chlorobenzene	13.193	112	1030729	44.42	ug/L		100	
53)	1,1,1,2-Tetrachloroethane	13.248	131	383352	47.72	ug/L		99	
54)	Ethylbenzene	13.254	91	1782375	45.30	ug/L		100	
55)	m,p-Xylenes	13.363	106	1423676	90.47	ug/L		98	
56)	o-Xylene	13.796	106	703443	45.54	ug/L		98	
57)	Styrene	13.802	104	1115600	45.34	ug/L		99	
59)	Bromoform	14.058	173	251249	56.11	ug/L		99	
60)	Isopropylbenzene	14.156	105	1866709	48.35	ug/L		100	
62)	1,1,2,2-Tetrachloroethane	14.436	83	424922	49.10	ug/L		100	
63)	1,2,3-Trichloropropane	14.528	110	119316	49.01	ug/L		94	
64)	Bromobenzene	14.564	156	446706	45.00	ug/L		99	
65)	n-Propylbenzene	14.583	91	2129568	47.08	ug/L		100	
66)	1,3,5-Trimethylbenzene	14.735	105	1564268	47.27	ug/L		100	
67)	2-Chlorotoluene	14.729	126	451058	46.89	ug/L		98	
68)	4-Chlorotoluene	14.833	91	1274705	45.76	ug/L		100	
69)	tert-Butylbenzene	15.107	134	344930	46.85	ug/L	#	90	
70)	1,2,4-Trimethylbenzene	15.150	105	1588223	45.55	ug/L		99	
71)	sec-Butylbenzene	15.333	105	2083859	46.83	ug/L		100	
72)	4-Isopropyltoluene	15.454	119	1712131	47.06	ug/L		99	
73)	1,3-Dichlorobenzene	15.515	146	844529	43.53	ug/L		99	
74)	1,4-Dichlorobenzene	15.601	146	847268	42.60	ug/L		100	
75)	n-Butylbenzene	15.887	91	1601997	45.37	ug/L		100	
76)	1,2-Dichlorobenzene	16.021	146	808734	43.00	ug/L		100	
77)	1,2-Dibromo-3-chloropr...	16.881	157	85126	53.93	ug/L		98	E
78)	1,2,4-Trichlorobenzene	17.911	180	495562	35.04	ug/L		100	
79)	Hexachlorobutadiene	18.076	225	323251	35.99	ug/L		99	
80)	Naphthalene	18.289	128	1078581	37.94	ug/L		99	
81)	1,2,3-Trichlorobenzene	18.619	180	426458	36.00	ug/L		99	
83)	Chlorotrifluoroethylene	0.000		0	N.D.				
84)	2-Chloro-1,1,1-trifluo...	0.000		0	N.D.				
85)	Acrolein	6.468		0m	N.D.	d			
86)	Trichlorotrifluoroethane	0.000		0	N.D.				
87)	Isopropyl Alcohol	6.731		0m	N.D.	d			
88)	Allyl chloride	7.072		0m	N.D.	d			
89)	tert-Butyl Alcohol	7.285		0m	N.D.	d			
90)	Acrylonitrile	7.566		0m	N.D.	d			
91)	Isopropyl ether	8.066		0m	N.D.	d			
92)	2-Chloro-1,3-butadiene	8.212		0m	N.D.	d			
93)	Ethyl tert-butyl ether	0.000		0	N.D.				
94)	Ethyl acetate	8.694		0m	N.D.	d			

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\122309V6\
Data File : 6Q312.D
Acq On : 23 Dec 2009 3:31 pm
Operator : RXD1
InstName : VOA6
Sample : |1202001916|935590|1|VOAF|1|VOA8260BS|
Misc : LANL 5g N/A SOIL MIX[A] MSD 243007002
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Dec 24 09:00:34 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
95)	Propionitrile	8.688		0m	N.D. d	
96)	Methacrylonitrile	8.950		0m	N.D. d	
97)	Tetrahydrofuran	9.047		0m	N.D. d	
98)	Isobutyl alcohol	9.413		0m	N.D. d	
99)	Methyl tert-amyl ether	9.724		0m	N.D. d	
100)	Methyl methacrylate	10.608		0m	N.D. d	
101)	1,4-Dioxane	10.730		0m	N.D. d	
102)	2-Nitropropane	11.089		0m	N.D. d	
104)	Ethyl methacrylate	11.864		0m	N.D. d	
106)	1-Chlorohexane	0.000		0	N.D.	
107)	cis-1,4-Dichloro-2-butene	14.156		0m	N.D. d	
108)	Cyclohexanone	0.000		0	N.D.	
109)	trans-1,4-Dichloro-2-b...	0.000		0	N.D.	
110)	Pentachloroethane	15.174		0m	N.D. d	
111)	Benzyl chloride	15.723		0m	N.D. d	
112)	bis(2-Chloroisopropyl)...	16.107		0m	N.D. d	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\122309V6\
Data File : 6Q312.D
Acq On : 23 Dec 2009 3:31 pm
Operator : RXD1
InstName : VOA6
Sample : |1202001916|935590|1|VOAF|1|VOA8260BS|
Misc : LANL 5g N/A SOIL MIX[A] MSD 243007002
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Dec 24 09:00:34 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

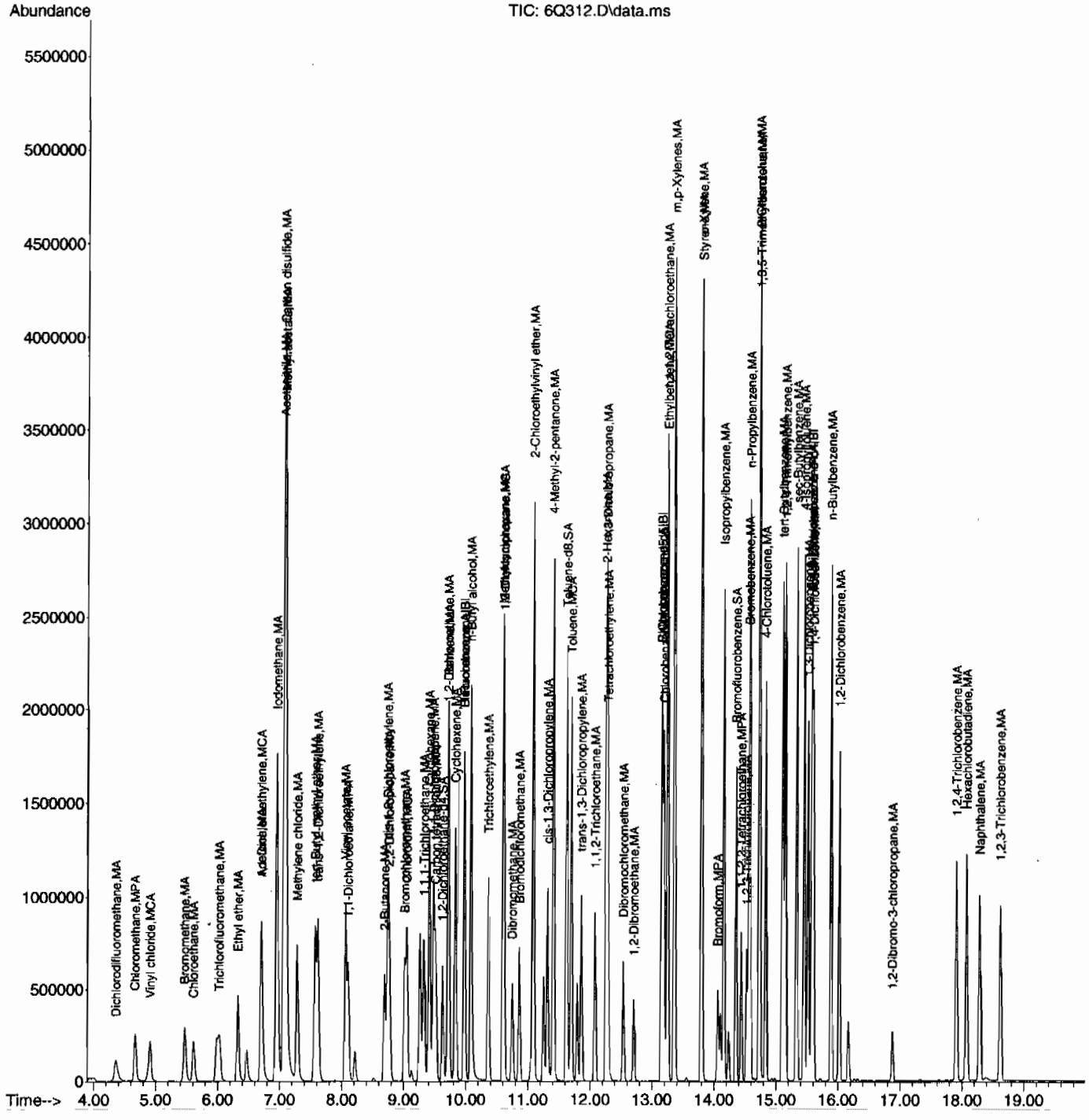

Miscellaneous

Prep Logbook

Volatile Organic Compounds (VOC) by Gas Chromatograph/Mass Spectrometer

Batch ID: **935589** Verified by: _____

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units

Analyst: Ryan Dushak
Method: SW846 5030
Lab SOP: GL-OA-E-038 REV# 13
Instrument: Sartorius Balance B-001

Sample ID	Run Date	Matrix	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check 1
1202001917 LCS	22-DEC-2009 09:38:00	Soil	5	5	1	
1202001918 LCS	22-DEC-2009 09:39:00	Soil	5	5	1	
1202001914 MB	22-DEC-2009 09:42:00	Soil	5	5	1	
243007001	22-DEC-2009 11:42:00	Soil	5	5	1	
243007002	22-DEC-2009 11:44:00	Soil	5	5	1	
243083001	22-DEC-2009 11:50:00	Soil	5	5	1	
243083002	22-DEC-2009 11:52:00	Soil	5	5	1	
243083003	22-DEC-2009 11:54:00	Soil	5	5	1	
243083004	22-DEC-2009 11:56:00	Soil	5	5	1	
243083006	22-DEC-2009 12:00:00	Soil	5	5	1	
1202004060 LCS	23-DEC-2009 09:26:00	Soil	5	5	1	
1202004061 LCS	23-DEC-2009 09:27:00	Soil	5	5	1	
1202004059 MB	23-DEC-2009 09:29:00	Soil	5	5	1	
1202001915 PS (243007002)	23-DEC-2009 13:06:00	Soil	5	5	1	
1202001916 PSD (243007002)	23-DEC-2009 13:08:00	Soil	5	5	1	
243083005	23-DEC-2009 13:10:00	Soil	5	5	1	

Reagent/Solvent Lot ID	Description	Amount

Comments:

GEL Laboratories, LLC
Revision:11/22/04

ORGANIC RUN LOG - INSTRUMENT ID#VOA6

Date: 12/10/2009 Method 8260B/624 Operator: RXD1

REVIEWED BY: _____
DATE: _____

HARDWARE CONFIGURATION & METHOD CONDITIONS SUMMARY No# 4

Daily Instrument Readings:
Multiplier Voltage: 1624

CALIBRATION & CC INFORMATION:

Initial Calibration Date: 12/10/2009

(See pg. for ICAL Std. Sci. Ids)

NaHSO4 lot # n/a
Cl test lot # 72612
Sequence Number: 121009V6

Daily Standard — Volume Added for Purge (ul)

Solution ID#		Blk/ Smpl	CCV	MS/ LCS	BFB
L-ICV	W6VM091210-11		5+5		
IS	UVM091203-01	1	1		
SS	UVM091020-02	1	1		
S-ICV	W6VM091210-20		5+5		
BFB	UVM091020-02				1
N/A					
N/A					

Purge Amount

5	Water Purge Vol:ML
N/A	Soil Purge Wt.:G
N/A	Mid level ext. MeOH Vol:
N/A	ul
N/A	Methanol Lot #
x	Heated Purge

Analysis Date	Time	Data File	Lab Sample ID	Client	Batch #	Wt.(g) or Vol(ml/ul)	Dil. Factor	pH	AS Slot #	Matrix w or s	Analyst	Cl test (Y/N)	Acceptable (O/X)	Comments
12/10/2009	8:31	6O401.D	12019--	BLANK	BLANK	5mL	1	N/A	1	w	RXD1	N/A	X	RINSE
12/10/2009	8:59	6O402.D	W6VM091210-00	GEL	CCV	5mL	1	N/A	2	w	RXD1	N/A	X	MIX[A] UVM091129-01C+IVM091209-01
12/10/2009	9:26	6O403.D	12019--	BLANK	BLANK	5mL	1	N/A	3	w	RXD1	N/A	X	RINSE
12/10/2009	10:12	6O404.D	UVM091020-02	GEL	BFB	5mL	1	N/A	4	w	RXD1	N/A	O	BFB
12/10/2009	10:39	6O405.D	W6VM091210-01	VSTD001	ICAL	5uL	1	N/A	5	w	RXD1	N/A	X	MIX[A] UVM090911-02C+UVM091130-02B, see 6O415
12/10/2009	11:07	6O406.D	W6VM091210-02	VSTD001	ICAL	5uL	1	N/A	6	w	RXD1	N/A	X	MIX[A] UVM090911-02C+UVM091130-02B, see 6O415
12/10/2009	11:34	6O407.D	W6VM091210-03	VSTD002	ICAL	5uL	1	N/A	7	w	RXD1	N/A	O	MIX[A] UVM090911-03C+UVM091130-03B
12/10/2009	12:02	6O408.D	W6VM091210-04	VSTD005	ICAL	5uL	1	N/A	8	w	RXD1	N/A	O	MIX[A] UVM090911-04C+UVM091130-04B
12/10/2009	12:30	6O409.D	W6VM091210-05	VSTD010	ICAL	5uL	1	N/A	9	w	RXD1	N/A	O	MIX[A] UVM090911-05C+UVM091130-05B
12/10/2009	12:58	6O410.D	W6VM091210-06	VSTD020	ICAL	5uL	1	N/A	10	w	RXD1	N/A	O	MIX[A] UVM090911-06C+UVM091130-06B
12/10/2009	13:26	6O411.D	W6VM091210-07	VSTD050	ICAL	5uL	1	N/A	11	w	RXD1	N/A	O	MIX[A] UVM090911-07C+UVM091130-07B
12/10/2009	13:54	6O412.D	W6VM091210-08	VSTD100	ICAL	5uL	1	N/A	12	w	RXD1	N/A	O	MIX[A] UVM090911-08C+UVM091130-08B
12/10/2009	14:22	6O413.D	12019--	BLANK	BLANK	5mL	1	N/A	13	w	RXD1	N/A	X	RINSE
12/10/2009	14:49	6O414.D	W6VM091210-09	VSTD0005	ICAL	5uL	1	N/A	14	w	RXD1	N/A	O	MIX[A] UVM090911-01C+UVM091130-01B
12/10/2009	15:17	6O415.D	W6VM091210-10	VSTD001	ICAL	2.5uL	1	N/A	15	w	RXD1	N/A	O	MIX[A] UVM090911-03C+UVM091130-03B
12/10/2009	15:45	6O416.D	W6VM091210-11	ICV	ICV	5uL	1	N/A	16	w	RXD1	N/A	O	MIX[A] UVM091129-01C+IVM091209-01
12/10/2009	16:13	6O417.D	W6VM091210-12	ICV	ICV	5uL	1	N/A	17	w	RXD1	N/A	X	MIX[A] UVM091105-01D+IVM091209-01
12/10/2009	16:40	6O418.D	W6VM091210-13	VSTD005S	ICAL	5uL	1	N/A	18	w	RXD1	N/A	O	MIX[B] UVM091118-01+UVM091110-01B
12/10/2009	17:08	6O419.D	W6VM091210-14	VSTD010S	ICAL	5uL	1	N/A	19	w	RXD1	N/A	O	MIX[B] UVM091118-02+UVM091110-02B
12/10/2009	17:36	6O420.D	W6VM091210-15	VSTD025S	ICAL	5uL	1	N/A	20	w	RXD1	N/A	O	MIX[B] UVM091118-03+UVM091110-03B
12/10/2009	18:04	6O421.D	W6VM091210-16	VSTD050S	ICAL	5uL	1	N/A	21	w	RXD1	N/A	O	MIX[B] UVM091118-04+UVM091110-04B
12/10/2009	18:32	6O422.D	W6VM091210-17	VSTD100S	ICAL	5uL	1	N/A	22	w	RXD1	N/A	O	MIX[B] UVM091118-05+UVM091110-05B
12/10/2009	19:00	6O423.D	W6VM091210-18	VSTD250S	ICAL	5uL	1	N/A	23	w	RXD1	N/A	O	MIX[B] UVM091118-06+UVM091110-06B
12/10/2009	19:28	6O424.D	W6VM091210-19	VSTD500S	ICAL	5uL	1	N/A	24	w	RXD1	N/A	O	MIX[B] UVM091118-07+UVM091110-07B
12/10/2009	19:56	6O425.D	12019--	BLANK	BLANK	5mL	1	N/A	25	w	RXD1	N/A	X	RINSE
12/10/2009	20:23	6O426.D	W6VM091210-20	ICV	ICV	5uL	1	N/A	26	w	RXD1	N/A	O	MIX[B] UVM091118-08B+UVM091105-02D
12/10/2009	20:51	6O427.D	12019--	BLANK	BLANK	5mL	1	N/A	27	w	RXD1	N/A	X	RINSE

GEL Laboratories, LLC
Revision:11/22/04

ORGANIC RUN LOG - INSTRUMENT ID#VOA6

Date: 12/22/2009 Method 8260B/624 Operator: RXD1

REVIEWED BY: _____
DATE: _____

HARDWARE CONFIGURATION & METHOD CONDITIONS SUMMARY No# 4

Daily Instrument Readings:
Multiplier Voltage: 1647

CALIBRATION & CC INFORMATION:

Initial Calibration Date: 12/10/2009

(See pg. 234 for ICAL Std. Sci. Ids)

NaHSO4 lot # n/a
Cl test lot # 72612
Sequence Number: 122209V6

Daily Standard Solution ID#		Volume Added for Purge (ul) Blk/ Smpl	CCV	MS/ LCS	BFB
CCV	W6VM091222-01		5+5		
IS	UVM091203-01	1	1	1	
SS	UVM091020-02	1	1	1	
LCS/MS	W6VM091222-01/02			5+5	
BFB	UVM091020-02				1
SHORT	W6VM091222-03		5	5	
DHEC	N/A		0		

Purge Amount	
5	Water Purge Vol:ML
varied	Soil Purge Wt.:G
N/A	Mid level ext. MeOH Vol:
N/A	ul
N/A	Methanol Lot #
x	Heated Purge

Analysis Date Time	Data File	Lab Sample ID	Client	Batch #	Wt.(g) or Vol(ml/ul)	Dil. Factor	pH	AS Slot #	Matrix w or s	Analyst	Cl test (Y/N)	Acceptable (O/X)	Comments
12/22/2009 9:59	6Q201.D	UVM091020-02	GEL	BFB	5mL	1	N/A	1	w	RXD1	N/A	O	BFB
12/22/2009 10:27	6Q202.D	W6VM091222-01	GEL	CCV/LCS	5mL	1	N/A	2	w	RXD1	N/A	O	MIX[A] UVM091214-01B+IVM091217-01
12/22/2009 10:55	6Q203.D	W6VM091222-02	GEL	LCS	5g	1	N/A	3	s	RXD1	N/A	O	MIX[A] SOIL UVM091214-01B+IVM091217-01
12/22/2009 11:23	6Q204.D	W6VM091222-03	GEL	CCV	5mL	1	N/A	4	w	RXD1	N/A	O	MIX[B] UVM091118-08C
12/22/2009 11:51	6Q205.D	W6VM091222-04	GEL	LCS	5g	1	N/A	5	s	RXD1	N/A	O	MIX[B] SOIL UVM091118-08C
12/22/2009 12:19	6Q206.D	12020--	BLANK	BLANK	5g	1	N/A	6	s	RXD1	N/A	O	SOIL
12/22/2009 12:47	6Q207.D	12020--	BLANK	BLANK	5mL	1	N/A	7	w	RXD1	N/A	O	
12/22/2009 13:15	6Q208.D	242683006	GEEL	935150	25uL	200	pH2	8	w	RXD1	N	O	dilution of 6P714
12/22/2009 13:43	6Q209.D	242683008	GEEL	935150	100uL	50	pH2	9	w	RXD1	N	O	dilution of 6Q121
12/22/2009 14:10	6Q210.D	242683010	GEEL	935150	5mL	1	pH2	10	w	RXD1	N	O	O/R, see 6Q219
12/22/2009 14:38	6Q211.D	243007001	LANL	935590	5g	1	N/A	11	s	RXD1	N/A	X	SOIL, C/O see 6Q220
12/22/2009 15:06	6Q212.D	243007002	LANL	935590	5g	1	N/A	12	s	RXD1	N/A	O	SOIL
12/22/2009 15:34	6Q213.D	243083001	LANL	935590	5g	1	N/A	13	s	RXD1	N/A	O	SOIL
12/22/2009 16:02	6Q214.D	243083002	LANL	935590	5g	1	N/A	14	s	RXD1	N/A	O	SOIL
12/22/2009 16:29	6Q215.D	243083003	LANL	935590	5g	1	N/A	15	s	RXD1	N/A	O	SOIL
12/22/2009 16:57	6Q216.D	243083004	LANL	935590	5g	1	N/A	16	s	RXD1	N/A	O	SOIL
12/22/2009 17:25	6Q217.D	243083005	LANL	935590	5g	1	N/A	17	s	RXD1	N/A	x	SOIL, IS low, see 6Q310
12/22/2009 17:53	6Q218.D	243083006	LANL	935590	5g	1	N/A	18	s	RXD1	N/A	O	SOIL
12/22/2009 18:21	6Q219.D	242683010	GEEL	935150	500uL	10	pH2	19	w	RXD1	N	O	dilution of 6Q210
12/22/2009 18:48	6Q220.D	243007001	LANL	935590	5g	1	N/A	20	s	RXD1	N/A	O	SOIL
12/22/2009 19:16	6Q221.D	243034001	WSRS	935969	5.1g	1	N/A	21	s	RXD1	N/A	O	SOIL
12/22/2009 19:44	6Q222.D	1202001915	LANL	935590	5g	1	N/A	22	s	RXD1	N/A	x	SOIL MIX[A] MS 243007002, IS low
12/22/2009 20:12	6Q223.D	1202001916	LANL	935590	5g	1	N/A	23	s	RXD1	N/A	x	SOIL MIX[A] MSD 243007002, IS low
12/22/2009 20:40	6Q224.D	1202002693	WSRS	935969	5.0g	1	N/A	24	s	RXD1	N/A	O	SOIL MIX[A] MS 243034001
12/22/2009 21:08	6Q225.D	1202002694	WSRS	935969	5.0g	1	N/A	25	s	RXD1	N/A	O	SOIL MIX[A] MSD 243034001
12/22/2009 21:35	6Q226.D	12020--	BLANK	BLANK	5mL	1	N/A	26	w	RXD1	N/A	X	RINSE

GEL Laboratories, LLC
Revision:11/22/04

ORGANIC RUN LOG - INSTRUMENT ID#VOA6

Date: 12/23/2009 Method 8260B/624 Operator: RXD1

REVIEWED BY: _____
DATE: _____

HARDWARE CONFIGURATION & METHOD CONDITIONS SUMMARY No# 4

Daily Instrument Readings:
Multiplier Voltage: 1682

CALIBRATION & CC INFORMATION:

Initial Calibration Date: 12/10/2009

(See pg. 234 for ICAL Std. Sci. Ids)

NaHSO4 lot # n/a
Cl test lot # 72612
Sequence Number: 122309V6

Daily Standard	Solution ID#	Volume Added for Purge (ul) Blk/ Smpl	CCV	MS/ LCS	BFB
CCV	W6VM091223-01		5+5		
IS	UVM091216-09	1	1	1	
SS	UVM091117-02	1	1	1	
LCS/MS	W6VM091223-01/02			5+5	
BFB	UVM091020-02				1
SHORT	W6VM091223-03		5	5	
DHEC	N/A		0		

Purge Amount	
5	Water Purge Vol:ML
varied	Soil Purge Wt.:G
x	Mid level ext. MeOH Vol:
100	ul
CZ937	Methanol Lot #
x	Heated Purge

Analysis Date	Time	Data File	Lab Sample ID	Client	Batch #	Wt.(g) or Vol(ml/ul)	Dil. Factor	pH	AS Slot #	Matrix w or s	Analyst	Cl test (Y/N)	Acceptable (O/X)	Comments
12/23/2009	10:25	6Q301.D	UVM091020-02	GEL	BFB	5mL	1	N/A	1	w	RXD1	N/A	O	BFB
12/23/2009	10:53	6Q302.D	W6VM091223-01	GEL	CCV/LCS	5mL	1	N/A	2	w	RXD1	N/A	O	MIX[A] UVM091214-01B+IVM091222-01
12/23/2009	11:21	6Q303.D	W6VM091223-02	GEL	LCS	5g	1	N/A	3	s	RXD1	N/A	O	MIX[A] SOIL UVM091214-01B+IVM091222-01
12/23/2009	11:49	6Q304.D	W6VM091223-03	GEL	CCV	5mL	1	N/A	4	w	RXD1	N/A	O	MIX[B] UVM091118-08C
12/23/2009	12:16	6Q305.D	W6VM091223-04	GEL	LCS	5g	1	N/A	5	s	RXD1	N/A	O	MIX[B] SOIL UVM091118-08C
12/23/2009	12:44	6Q306.D	12020--	BLANK	BLANK	5g	1	N/A	6	s	RXD1	N/A	O	SOIL
12/23/2009	13:12	6Q307.D	12020--	BLANK	BLANK	5mL	1	N/A	7	w	RXD1	N/A	O	
12/23/2009	13:40	6Q308.D	12020--	HB	HB	100uL	50	N/A	8	s	RXD1	N/A	O	SOIL
12/23/2009	14:07	6Q309.D	243032008	WSRB	935970	2.5mL	2	pH2	9	w	RXD1	N	O	Dilution of 6Q238
12/23/2009	14:35	6Q310.D	243083005	LANL	935590	5g	1	N/A	10	s	RXD1	N/A	O	SOIL, RR of 6Q310
12/23/2009	15:03	6Q311.D	1202001915	LANL	935590	5g	1	N/A	11	s	RXD1	N/A	O	SOIL MIX[A] MS 243007002
12/23/2009	15:31	6Q312.D	1202001916	LANL	935590	5g	1	N/A	12	s	RXD1	N/A	O	SOIL MIX[A] MSD 243007002
12/23/2009	15:59	6Q313.D	12020--	BLANK	BLANK	5mL	1	N/A	13	w	RXD1	N/A	X	RINSE
12/23/2009	16:26	6Q314.D	243372001	MECP	936320	100uL	50	N/A	14	s	RXD1	N/A	O	SOIL
12/23/2009	16:54	6Q315.D	243372002	MECP	936320	100uL	50	N/A	15	s	RXD1	N/A	O	SOIL
12/23/2009	17:22	6Q316.D	243372003	MECP	936320	100uL	50	N/A	16	s	RXD1	N/A	O	SOIL
12/23/2009	17:50	6Q317.D	243372004	MECP	936320	100uL	50	N/A	17	s	RXD1	N/A	O	SOIL
12/23/2009	18:18	6Q318.D	1202001576	MCLI	936317	500uL	10	N/A	18	w	RXD1	N/A	O	TCLPBLANK
12/23/2009	18:45	6Q319.D	243266006	MCLI	936317	500uL	10	N/A	19	w	RXD1	N/A	O	
12/23/2009	19:13	6Q320.D	243266007	MCLI	936317	500uL	10	N/A	20	w	RXD1	N/A	O	
12/23/2009	19:41	6Q321.D	1202003425	MECP	936320	100uL	50	N/A	21	s	RXD1	N/A	O	SOIL MIX[A] MS 243372001
12/23/2009	20:09	6Q322.D	1202003426	MECP	936320	100uL	50	N/A	22	s	RXD1	N/A	O	SOIL MIX[A] MSD 24337200
12/23/2009	20:36	6Q323.D	1202003421	MCLI	936317	500uL	10	N/A	23	w	RXD1	N/A	O	MIX[A] MS 243266006
12/23/2009	21:04	6Q324.D	1202003422	MCLI	936317	500uL	10	N/A	24	w	RXD1	N/A	O	MIX[A] MSD 243266006
12/23/2009	21:32	6Q325.D	12020--	BLANK	BLANK	5mL	1	N/A	25	w	RXD1	N/A	X	RINSE

GC/MS Volatile Analysis

GC/MS Volatile Organics
Los Alamos National Laboratory (LANL)
SDG 10-939-1

Method/Analysis Information

Procedure:	Volatile Organic Compounds (VOC) by Gas Chromatograph/Mass Spectrometer
Analytical Method:	SW846 8260B
Prep Method:	SW846 1311 / 5030B
Analytical Batch Number:	935696
Prep Batch Number:	934761

Sample Analysis

The following client and quality control samples were analyzed to complete this SDG using the methods referenced in the Analysis Information section:

Sample ID	Client ID
243010001	WST03-10-2147
1201999914	Tumbling Blank (TB)
1202002119	Method Blank (MB)
1202002122	Laboratory Control Sample (LCS)
1202002120	243010001(WST03-10-2147) Post Spike (PS)
1202002121	243010001(WST03-10-2147) Post Spike Duplicate (PSD)

NOTE: For volatile organic analyses the matrix spike designations may be indicated as "PS" or "PSD". The "PS" designation (post spike) indicates that the matrix was fortified prior to analysis but after applying any prep factors, such as a dilution. The laboratory considers the MS/MSD and PS/PSD designations interchangeable.
The samples in this SDG were analyzed on an "as received" basis.

Preparation/Analytical Method Verification

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-038 REV# 13.

Raw data reports are processed and reviewed by the analyst using the Target software package. False positives have been removed from the Target quantitation reports per standard operating procedures (SOP) section 19.1.2.

Calibration Information

Please note that the 'Cal Date' indicated on each quantitation report reflects the date and time of the most recent calibrated analyte(s) in the Target processing method. Since the laboratory may calibrate with multiple solutions on different days using the same processing method, the Target software will update the 'Cal Date' to the last calibration file, date and time. The correct dates and times for all calibration files are located on the Calibration History report in the Standard Data section in the data package.

The surrogate compounds were calibrated using a minimum five-point calibration curve. The surrogates were added by the auto sampler at a concentration of 50 ug/L. GEL Laboratories LLC will not have surrogate recoveries reported for Dibromofluoromethane. This is due to increased regulations for this analyte and an industry shortage.

Due to software limitations, the Calibration Summary Form 6 may not indicate all the calibration files comprising the initial calibration. A complete list of the initial calibration data files are shown in the Calibration History report located in the Standard Data section of the data package.

The linear equation used in Target and indicated on the initial calibration summary form is not a conventional linear equation (slope intercept formula) and does not match the equation found in SW-846 method 8000B. The x and y axes are inversed in Target, so that the instrument response is treated as the independent variable (x) and the concentration ratio is treated as the dependent variable (y). The equation used in Target to calculate sample results is adjusted to account for the linear equation inversion and reciprocal slope. The adjusted calculation has been independently verified to produce valid results.

Initial Calibration
All initial calibration requirements have been met for this sample delivery groups (SDG). A second source initial calibration verification (ICV) was included in the standard section directly behind the initial calibration.

Continuing Calibration Verification Requirements
All associated calibration verification standard(s) (ICV or CCV) met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Surrogate Recoveries
Surrogate recoveries in all client and quality control samples were within the acceptance limits.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

QC Sample Designation
Sample 243010001 (WST03-10-2147) was designated for spike analysis in this SDG.

Matrix Spike (PS) Recovery Statement
The spike recoveries for this SDG were within the required acceptance limits.

Matrix Spike Duplicate (PSD) Recovery Statement
The spike duplicate recoveries for this SDG were within the required acceptance limits.

Relative Percent Difference (RPD) Statement
The RPD(s) between the matrix spike pair met the acceptance limits.

Internal Standard (ISTD) Acceptance
The internal standard responses in all client and quality control samples met the required acceptance criteria.

Technical Information

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection or sample receipt. Those holding times expressed in hours are calculated in the ALPHALIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Sample Preservation and Integrity
All samples met the sample preservation and integrity requirements.

Sample Dilutions
Due to problems associated with the nature of the TCLP matrix, volatile extracts are routinely diluted before analysis. The dilution factor does not increase detection limits above the regulatory limits required by the client.

Sample Re-extraction/Re-analysis
Re-analyses were not required for samples in this SDG.

Miscellaneous Information

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted: Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. An electronic signature page inserted after the case narrative of each electronic package will indicate the analyst, reviewer, and report specialist names associated with the generation of the data and package. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Nonconformance (NCR) Documentation
A nonconformance report was not required for this SDG.

Manual Integrations
Some initial calibration standards, continuing calibration standards, and/or samples may have required manual integrations due to software limitations.

TIC Comment
Tentatively identified compounds (TIC) were not required for this SDG.

Additional Comments
Additional comments were not required for this SDG.

Residual Chlorine
Residual Chlorine was not detected in any of the samples in this SDG.

System Configuration
The Volatile-GC/MS analysis was performed on the following instrument configuration:

Instrument ID	Instrument	System Configuration	Column ID	Column Description	P & T Trap
VOA4.I	Gas Chromatograph/Mass Spectrometer	HP6890/HP5973	DB-624	J&W, 60m x 0.25mm x 1.4um	Trap 10

Certification Statement
Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis Report
for

LANL010 Los Alamos National Laboratory (72733-001-09)

Client SDG: 10-939-1 GEL Work Order: 243010

The Qualifiers in this report are defined as follows:

* A quality control analyte recovery is outside of specified acceptance criteria

** Analyte is a surrogate compound

U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

Review/Validation

GEL requires all analytical data to be verified by a qualified data reviewer. In addition, all CLP-like deliverables receive a third level review of the fractional data package.

The following data validator verified the information presented in this case narrative:

Signature: Erin Haubert **Name: Erin Haubert**

Date: 28 DEC 2009 **Title: Data Validator**

Roadmap for LANL 10-939-1 VOA

This roadmap was analyzed by acj on 12-23-2009, 18:57.
This roadmap was reviewed by sar00518 on 12-24-2009, 08:26.

Sample

exclude	manual	datafile	smpid	clientid	injdate	injtime	sublist	dilution	batchid	comment
☐	N	/chem/VOA4.i/122109v4/4q109.d	243010001	WST03-10-2147	21-DEC-2009	22:09	10-939-1.sub	10	935696	

QC Sample

exclude	manual	datafile	smpid	clientid	sampletype	injdate	injtime	sublist	dilution	batchid	comment
☐	N	/chem/VOA4.i/122109v4/4q103ll.d	1202002122	LCS	lcs	21-DEC-2009	19:07	all.sub	1	935696	
☐	N	/chem/VOA4.i/122109v4/4q107bl.d	1202002119	BLANK	mb	21-DEC-2009	20:55	all.sub	1	935696	
☐	N	/chem/VOA4.i/122109v4/4q108.d	1201999914	TCLPBLANK	tb	21-DEC-2009	21:42	CALsubL+.sub	10	935696	
☐	N	/chem/VOA4.i/122109v4/4q120.d	1202002120	WST03-10-2147MS	ms	22-DEC-2009	03:07	10-939-1.sub	10	935696	
☐	N	/chem/VOA4.i/122109v4/4q121.d	1202002121	WST03-10-2147MSD	msd	22-DEC-2009	03:34	10-939-1.sub	10	935696	

Sample Data Summary

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-939-1**	**Date Collected:**	**12/14/2009 12:00**	**Matrix:**	**TCLP R**
Lab Sample ID:	**243010001**	**Date Received:**	**12/16/2009 09:10**		
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**WST03-10-2147**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**935696**	**Inst:**	**VOA4.I**	**Dilution:**	**10**
Run Date:	**12/21/2009 22:09**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**12/18/2009 16:00**				
Data File:	**4q109.d**	**Column:**	**RTX-VOLATILES**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-01-4	Vinyl chloride	U	0.010	mg/L	0.005	0.010
75-35-4	1,1-Dichloroethylene	U	0.010	mg/L	0.003	0.010
78-93-3	2-Butanone	U	0.050	mg/L	0.0125	0.050
67-66-3	Chloroform	U	0.010	mg/L	0.0025	0.010
56-23-5	Carbon tetrachloride	U	0.010	mg/L	0.003	0.010
107-06-2	1,2-Dichloroethane	U	0.010	mg/L	0.0025	0.010
71-43-2	Benzene	U	0.010	mg/L	0.003	0.010
79-01-6	Trichloroethylene	U	0.010	mg/L	0.0025	0.010
127-18-4	Tetrachloroethylene	U	0.010	mg/L	0.003	0.010
108-90-7	Chlorobenzene	U	0.010	mg/L	0.0025	0.010
106-46-7	1,4-Dichlorobenzene	U	0.010	mg/L	0.0025	0.010

QC Summary

Surrogate Recovery Report

SDG Number: 10-939-1

Matrix Type: TCLP SOLID

CAP Column (1) : RTX-VOLATILES

Sample ID	Client ID	DCED4 %REC		TOL %REC		BFB %REC	
1202002122	LCS for batch 935696	97		96		104	
1202002119	MB for batch 935696	93		100		110	
1201999914	TB for batch 934761	92	D	98	D	109	D
243010001	WST03-10-2147	99	D	104	D	114	D
1202002120	WST03-10-2147PS	97	D	100	D	107	D
1202002121	WST03-10-2147PSD	93	D	96	D	106	D

Surrogate		Acceptance Limits
DCED4	= 1,2-Dichloroethane-d4	(59%-130%)
TOL	= Toluene-d8	(76%-129%)
BFB	= Bromofluorobenzene	(71%-126%)

* Recovery outside Acceptance Limits

\# Column to be used to flag recovery values

D Sample Diluted

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-939-1 **Sample Type:** Post Spike

Client ID: WST03-10-2147PS **Matrix:** TCLP R

Lab Sample ID: 1202002120

Instrument: VOA4.1 **Analysis Date:** 12/22/2009 03:07 **Dilution:** 10

Analyst: ACJ **Prep Batch ID** 934761

Purge Vol: 5 mL **Batch ID:** 935696

CAS No		Parmname	Amount Added mg/L	Sample Conc. mg/L		Spike Conc. mg/L	Recovery %	Acceptance Limits
75-01-4	PS	Vinyl chloride	0.050	0.00	U	0.0398	80	51-134
75-35-4	PS	1,1-Dichloroethylene	0.050	0.00	U	0.0326	65	61-129
78-93-3	PS	2-Butanone	0.250	0.00	U	0.111	45	11-151
67-66-3	PS	Chloroform	0.050	0.00	U	0.0379	76	70-126
56-23-5	PS	Carbon tetrachloride	0.050	0.00	U	0.0357	71	66-138
107-06-2	PS	1,2-Dichloroethane	0.050	0.00	U	0.0382	76	65-129
71-43-2	PS	Benzene	0.050	0.00	U	0.037	74	66-121
79-01-6	PS	Trichloroethylene	0.050	0.00	U	0.0361	72	66-127
127-18-4	PS	Tetrachloroethylene	0.050	0.00	U	0.0341	68	63-126
108-90-7	PS	Chlorobenzene	0.050	0.00	U	0.0378	76	69-120
106-46-7	PS	1,4-Dichlorobenzene	0.050	0.00	U	0.0381	76	64-120

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-939-1
Client ID: WST03-10-2147PSD
Lab Sample ID: 1202002121
Instrument: VOA4.I
Analyst: ACJ
Purge Vol: 5 mL

Sample Type: Post Spike Duplicate
Matrix: TCLP R
Analysis Date: 12/22/2009 03:34
Dilution: 10
Prep Batch ID: 934761
Batch ID: 935696

CAS No		Parmname	Amount Added mg/L	Sample Conc. mg/L		Spike Conc. mg/L	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
75-01-4	PSD	Vinyl chloride	0.050	0.00	U	0.0391	78	51-134	2	0-20
75-35-4	PSD	1,1-Dichloroethylene	0.050	0.00	U	0.0332	66	61-129	2	0-20
78-93-3	PSD	2-Butanone	0.250	0.00	U	0.108	43	11-151	3	0-20
67-66-3	PSD	Chloroform	0.050	0.00	U	0.0389	78	70-126	3	0-20
56-23-5	PSD	Carbon tetrachloride	0.050	0.00	U	0.0381	76	66-138	7	0-20
107-06-2	PSD	1,2-Dichloroethane	0.050	0.00	U	0.0384	77	65-129	1	0-20
71-43-2	PSD	Benzene	0.050	0.00	U	0.0377	75	66-121	2	0-20
79-01-6	PSD	Trichloroethylene	0.050	0.00	U	0.0371	74	66-127	3	0-20
127-18-4	PSD	Tetrachloroethylene	0.050	0.00	U	0.0363	73	63-126	6	0-20
108-90-7	PSD	Chlorobenzene	0.050	0.00	U	0.0388	78	69-120	3	0-20
106-46-7	PSD	1,4-Dichlorobenzene	0.050	0.00	U	0.0398	80	64-120	4	0-20

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-939-1
Client ID: LCS for batch 935696
Lab Sample ID: 1202002122
Instrument: VOA4.I
Analyst: ACJ
Purge Vol: 5 mL

Sample Type: Laboratory Control Sample
Matrix: TCLP SOIL
Analysis Date: 12/21/2009 19:07
Dilution: 1
Prep Batch ID: 934761
Batch ID: 935696

CAS No		Parmname	Amount Added mg/L	Sample Conc. mg/L	Spike Conc. mg/L	Recovery %	Acceptance Limits
75-01-4	LCS	Vinyl chloride	0.050	0.0	0.0398	80	61-131
75-35-4	LCS	1,1-Dichloroethylene	0.050	0.0	0.0363	73	70-128
78-93-3	LCS	2-Butanone	0.250	0.0	0.154	61	31-160
67-66-3	LCS	Chloroform	0.050	0.0	0.0387	77	76-121
56-23-5	LCS	Carbon tetrachloride	0.050	0.0	0.0407	81	75-139
107-06-2	LCS	1,2-Dichloroethane	0.050	0.0	0.0386	77	70-123
71-43-2	LCS	Benzene	0.050	0.0	0.038	76	72-120
79-01-6	LCS	Trichloroethylene	0.050	0.0	0.0391	78	76-123
127-18-4	LCS	Tetrachloroethylene	0.050	0.0	0.0389	78	72-126
108-90-7	LCS	Chlorobenzene	0.050	0.0	0.0389	78	76-120
106-46-7	LCS	1,4-Dichlorobenzene	0.050	0.0	0.0395	79	74-120

Method Blank Summary

SDG Number:	10-939-1	Client:	LANL010	Matrix:	TCLP SOIL
Client ID:	MB for batch 935696	Instrument ID:	VOA4.I	Data File:	4q107bl.d
Lab Sample ID:	1202002119	Prep Date:	12/21/2009 20:55	Analyzed:	12/21/09 20:55
Column:	RTX-VOLATILES	Heated Purge:	Yes		

This method blank applies to the following samples and quality control samples:

	Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01	LCS for batch 935696	1202002122	4q103ll.d	12/21/09	1907
02	TB for batch 934761	1201999914	4q108.d	12/21/09	2142
03	WST03-10-2147	243010001	4q109.d	12/21/09	2209
04	WST03-10-2147PS	1202002120	4q120.d	12/22/09	0307
05	WST03-10-2147PSD	1202002121	4q121.d	12/22/09	0334

Instrument Performance Check

BFB

Lab Name GEL Laboratories LLC **Client SDG:** 10-939-1

Instrument ID: VOA4.I **Injection Date/Time:** 19-DEC-09 18:50

Column Description: DB-624 **Lab File ID** /121909v4/4p601.d

m/e	Ion Abundance Criteria	% Relative Abundance
95	Base Peak, 100% Relative Abundance	100
50	15.0 - 40.0% of mass 95	22.4
75	30.0 - 60.0% of mass 95	46.5
96	5.0 - 9.0% of mass 95	7
173	Less than 2.0% of mass 174	0.6
174	50.0 - 100.0% of mass 95	91.9
175	5.0 -9.0% of mass 174	7.8
176	95.0 - 101.0% of mass 174	100.7
177	5.0 - 9.0% of mass 176	6.4

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
VSTD0005	W4VM091219-01	/121909v4/4p603.d	19-DEC-09 19:44
VSTD001	W4VM091219-03	/121909v4/4p605.d	19-DEC-09 20:39
VSTD002	W4VM091219-04	/121909v4/4p606.d	19-DEC-09 21:07
VSTD005	W4VM091219-05	/121909v4/4p607.d	19-DEC-09 21:34
VSTD010	W4VM091219-06	/121909v4/4p608.d	19-DEC-09 22:01
VSTD020	W4VM091219-07	/121909v4/4p609.d	19-DEC-09 22:28
VSTD050	W4VM091219-08	/121909v4/4p610.d	19-DEC-09 22:55
VSTD100	W4VM091219-09	/121909v4/4p611.d	19-DEC-09 23:22
SECOND SOURCE	W4VM091219-17	/121909v4/4p621.d	20-DEC-09 03:55

Instrument Performance Check

BFB

Lab Name GEL Laboratories LLC **Client SDG:** 10-939-1

Instrument ID: VOA4.I **Injection Date/Time:** 21-DEC-09 18:12

Column Description: DB-624 **Lab File ID** /122109v4/4q101.d

m/e	Ion Abundance Criteria	% Relative Abundance
95	Base Peak, 100% Relative Abundance	100
50	15.0 - 40.0% of mass 95	23.7
75	30.0 - 60.0% of mass 95	47.6
96	5.0 - 9.0% of mass 95	7.6
173	Less than 2.0% of mass 174	0.5
174	50.0 - 100.0% of mass 95	90.4
175	5.0 -9.0% of mass 174	7.4
176	95.0 - 101.0% of mass 174	100.4
177	5.0 - 9.0% of mass 176	7.5

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
VSTD050	W4VM091221-01	/122109v4/4q102.d	21-DEC-09 18:40
LCS	1202002122	/122109v4/4q103ll.d	21-DEC-09 19:07
BLANK	1202002119	/122109v4/4q107bl.d	21-DEC-09 20:55
TCLPBLANK	1201999914	/122109v4/4q108.d	21-DEC-09 21:42
WST03-10-2147	243010001	/122109v4/4q109.d	21-DEC-09 22:09
WST03-10-2147MS	1202002120	/122109v4/4q120.d	22-DEC-09 03:07
WST03-10-2147MSD	1202002121	/122109v4/4q121.d	22-DEC-09 03:34

Internal Standard
Area and RT Summary

Lab Name : GEL Laboratories LLC

Instrument: VOA4.I

GC Column: RTX-VOLATILES

Client SDG: 10-939-1

STD Analysis Time: 21-DEC-09 18:40

Data File: 4q102.d

	Fluorobenzene			Chlorobenzene-d5			1,4-Dichlorobenzene-d4		
	Area	#	RT #	Area	#	RT #	Area	#	RT #
12 Hour STD	1254513		10.6	957923		13.8	614414		16.2
Upper Limit	2509026		11.1	1915846		14.3	1228828		16.7
Lower Limit	627257		10.1	478962		13.3	307207		15.7
Sample ID									
BLK01LCS	1306395		10.6	980822		13.8	628072		16.2
BLK01	1209862		10.6	879266		13.8	513093		16.2
TBLK01	1250100		10.6	904749		13.8	525392		16.2
WST03-10-2147	1204266		10.6	879793		13.8	511782		16.2
WST03-10-2147MS	1134864		10.6	866703		13.8	565611		16.2
WST03-10-2147MSD	1233416		10.6	929273		13.8	579896		16.2

Area Upper Limit = +100% of internal standard area
Area Lower Limit = - 50% of internal standard area

RT Upper Limit = + 0.50 minutes of internal standard RT
RT Lower Limit = - 0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Value outside of QC Limits

Sample Data

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-939-1**	**Date Collected:**	**12/14/2009 12:00**	**Matrix:**	**TCLP R**
Lab Sample ID:	**243010001**	**Date Received:**	**12/16/2009 09:10**		
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**WST03-10-2147**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**935696**	**Inst:**	**VOA4.I**	**Dilution:**	**10**
Run Date:	**12/21/2009 22:09**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**12/18/2009 16:00**				
Data File:	**4q109.d**	**Column:**	**RTX-VOLATILES**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-01-4	Vinyl chloride	U	0.010	mg/L	0.005	0.010
75-35-4	1,1-Dichloroethylene	U	0.010	mg/L	0.003	0.010
78-93-3	2-Butanone	U	0.050	mg/L	0.0125	0.050
67-66-3	Chloroform	U	0.010	mg/L	0.0025	0.010
56-23-5	Carbon tetrachloride	U	0.010	mg/L	0.003	0.010
107-06-2	1,2-Dichloroethane	U	0.010	mg/L	0.0025	0.010
71-43-2	Benzene	U	0.010	mg/L	0.003	0.010
79-01-6	Trichloroethylene	U	0.010	mg/L	0.0025	0.010
127-18-4	Tetrachloroethylene	U	0.010	mg/L	0.003	0.010
108-90-7	Chlorobenzene	U	0.010	mg/L	0.0025	0.010
106-46-7	1,4-Dichlorobenzene	U	0.010	mg/L	0.0025	0.010

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA4.i/122109v4/4q109.d
Lab Smp Id: 243010001 Client Smp ID: WST03-10-2147
Inj Date : 21-DEC-2009 22:09
Operator : ACJ Inst ID: VOA4.i
Smp Info : |243010001|935696|10|VOAF|1|
Misc Info : LANL 500UL N/A
Comment :
Method : /chem/VOA4.i/122109v4/VOA4-8260-121909.m
Meth Date : 21-Dec-2009 20:38 amj Quant Type: ISTD
Cal Date : 20-DEC-2009 02:33 Cal File: 4p618.d
Als bottle: 9
Dil Factor: 10.00000
Integrator: HP RTE Compound Sublist: 10-939-1.sub
Target Version: 3.50

Concentration Formula: Amt * DF * (Uf/Vo) * CpndVariable

Name	Value	Description
DF	10.00000	Dilution Factor
Uf	0.00500	ng unit correction factor
Vo	5.00000	sample purged

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (mg/l)
* 40 Fluorobenzene	96	10.619	10.614	(1.000)	1204266	50.0000	
* 61 Chlorobenzene-d5	117	13.771	13.765	(1.000)	879793	50.0000	
* 86 1,4-Dichlorobenzene-d4	152	16.179	16.173	(1.000)	511782	50.0000	
$ 138 1,2-Dichloroethane-d4	65	10.259	10.260	(0.966)	310991	49.5650	0.050
$ 47 Toluene-d8	98	12.246	12.247	(0.889)	1079145	51.7924	0.052
$ 71 Bromofluorobenzene	95	14.953	14.948	(0.924)	472318	56.8350	0.057

ION RATIO REPORT

VOA REPORT

Data file: 4q109.d
Report Date: 12/21/2009 22:24
Lab. ID: 243010001 SampleType: SAMPLE
Injection Date: 21-DEC-2009 22:09
Operator: ACJ Instrument: VOA4.i
Sample Info: |243010001|935696|10|VOAF|1|
Miscellaneous Info: LANL 500UL N/A
Comment:
Method used: /chem/VOA4.i/122109v4/VOA4-8260-121909.m
Dilution Factor= 10.0
Integrator: HP RTE Compound Sublist: 10-939-1
Sample Matrix: WATER

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
37	1,2-Dichloroethane			CAS#: 107-06-2		
62	16651	10.61	10.34	80-120	100	(T)
64	3098	10.61	10.34	3- 63	19	(T)

Q qualifier indicates ion failed ratio requirement

Data File: /chem/VOA4.i/122109v4/4q109.d
Date : 21-DEC-2009 22:09
Client ID: WST03-10-2147
Sample Info: |2430100001|935696|10|VOAF|1|
Purge Volume: 5.0
Column phase: RTX-VOLATILES

Instrument: VOA4.i
Operator: ACJ
Column diameter: 0.25

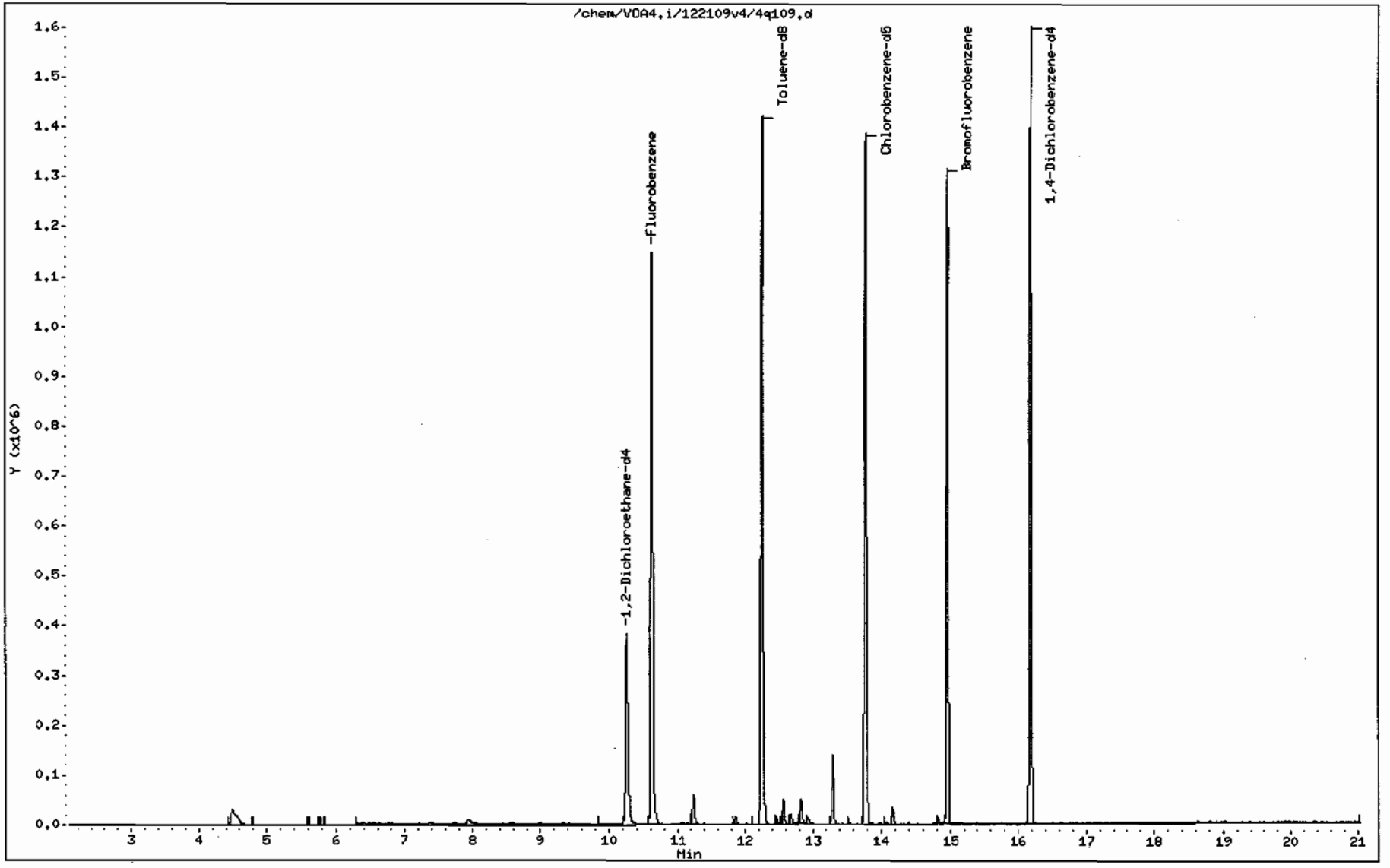

Standard Data

EPA 524.2/Low level SW846 8260B and Regular level 8260B and EPA 624
Calibration Standard Concentration Levels

	Level 1	Level 1a	Level 2	Level 3	Level 4 #	Level 5	Level 6	Level 7 !	Level 7a
Fluorobenzene (IS)									
1,2-Dichloroethane-d4(surr)		0.5	1	2	5	10	20	50	100
Dichlorodifluoromethane		0.5	1	2	5	10	20	50	100
Chloromethane		0.5	1	2	5	10	20	50	100
Vinyl chloride		0.5	1	2	5	10	20	50	100
Bromomethane		0.5	1	2	5	10	20	50	100
Chloroethane		0.5	1	2	5	10	20	50	100
Trichlorofluoromethane		0.5	1	2	5	10	20	50	100
1,1-Dichloroethene		0.5	1	2	5	10	20	50	100
Acetone	1	2.5	5	10	25	50	100	250	500
Iodomethane	1	2.5	5	10	25	50	100	250	500
Carbon disulfide	1	2.5	5	10	25	50	100	250	500
Methylene chloride		0.5	1	2	5	10	20	50	100
trans-1,2-Dichloroethene		0.5	1	2	5	10	20	50	100
1,1-Dichloroethane		0.5	1	2	5	10	20	50	100
Ethyl ether		0.5	1	2	5	10	20	50	100
Vinyl acetate	1	2.5	5	10	25	50	100	250	500
cis-1,2-Dichloroethene		0.5	1	2	5	10	20	50	100
1,2-Dichloroethene (total)		1	2	4	10	20	40	100	200
Cyclohexene		0.5	1	2	5	10	20	50	100
2-Chloroethylvinyl ether			5	10	25	50	100	250	500
2,2-Dichloropropane		0.5	1	2	5	10	20	50	100
2-Butanone	1	2.5	5	10	25	50	100	250	500
Bromochloromethane		0.5	1	2	5	10	20	50	100
Chloroform		0.5	1	2	5	10	20	50	100
1,1,1-Trichloroethane		0.5	1	2	5	10	20	50	100
1,1-Dichloropropene		0.5	1	2	5	10	20	50	100
Carbon tetrachloride		0.5	1	2	5	10	20	50	100
Benzene		0.5	1	2	5	10	20	50	100
1,2-Dichloroethane		0.5	1	2	5	10	20	50	100
Trichloroethene		0.5	1	2	5	10	20	50	100
1,2-Dichloropropane		0.5	1	2	5	10	20	50	100
Dibromomethane		0.5	1	2	5	10	20	50	100
Bromodichloromethane		0.5	1	2	5	10	20	50	100
cis-1,3-Dichloropropene		0.5	1	2	5	10	20	50	100
tert-Butylmethylether		0.5	1	2	5	10	20	50	100
Ethyl Ether			1	2	5	10	20	50	100
Acetonitrile			25	50	125	250	500	1250	2500
Methyl acetate			5	10	25	50	100	250	500
Cyclohexane			1	2	5	10	20	50	100
Methylcyclohexane			1	2	5	10	20	50	100
n-Butyl alcohol			50	100	250	500	1000	2500	5000
2-Nitropropane			5	10	25	50	100	250	500
Ethyl acetate			5	10	25	50	100	250	500
Acrolein			5	10	25	50	100	250	500
Trichlorotrifluoroethane			5	10	25	50	100	250	500
Allyl chloride			5	10	25	50	100	250	500
Acrylonitrile			5	10	25	50	100	250	500
1,4-Dioxane			50	100	250	500	1000	2500	5000
Isobutyl alcohol			50	100	250	500	1000	2500	5000
Methacrylonitrile			5	10	25	50	100	250	500
Propionitrile			5	10	25	50	100	250	500
Methyl methacrylate			5	10	25	50	100	250	500
Chlorotrifluoroethylene			5	10	25	50	100	250	500
2-Chloro-1,1,1-trifluoroethane			5	10	25	50	100	250	500

tert-Butyl alcohol			50	100	250	500	1000	2500	5000
Isopropyl ether			1	2	5	10	20	50	100
Ethyl tert-butyl ether			1	2	5	10	20	50	100
Isopropyl alcohol			50	100	250	500	1000	2500	5000
Methyl tert-amyl ether			1	2	5	10	20	50	100
1-Chlorohexane			1	2	5	10	20	50	100
2-Chloro-1,3-butadiene(chloroprene)			1	2	5	10	20	50	100
Chlorobenzene-d5 (IS)									
Toluene-d8 (surr)		0.5	1	2	5	10	20	50	100
4-Methyl-2-pentanone	1	2.5	5	10	25	50	100	250	500
Toluene		0.5	1	2	5	10	20	50	100
trans-1,3-Dichloropropene		0.5	1	2	5	10	20	50	100
1,1,2-Trichloroethane		0.5	1	2	5	10	20	50	100
Tetrachloroethene		0.5	1	2	5	10	20	50	100
1,3-Dichloropropane		0.5	1	2	5	10	20	50	100
2-Hexanone	1	2.5	5	10	25	50	20	250	500
Dibromochloromethane		0.5	1	2	5	10	20	50	100
1,2-Dibromoethane		0.5	1	2	5	10	20	50	100
Chlorobenzene		0.5	1	2	5	10	20	50	100
1,1,1,2-Tetrachloroethane		0.5	1	2	5	10	20	50	100
Ethylbenzene		0.5	1	2	5	10	20	50	100
m,p-Xylene		1	2	4	10	20	20	100	200
o-Xylene		0.5	1	2	5	10	20	50	100
Xylenes (total)		1.5	3	6	15	30	60	150	300
Stryene		0.5	1	2	5	10	20	50	100
Cyclohexanone			50	100	250	500	1000	2500	5000
Ethyl methacrylate			5	10	25	50	100	250	500
1,4-Dichlorobenzene-d4 (IS)									
Bromofluorobenzene (surr)		0.5	1	2	5	10	20	50	100
Bromoform		0.5	1	2	5	10	20	50	100
Isopropylbenzene		0.5	1	2	5	10	20	50	100
1,1,2,2-Tetrachloroethane		0.5	1	2	5	10	20	50	100
Bromobenzene		0.5	1	2	5	10	20	50	100
1,2,3-Trichloropropane		0.5	1	2	5	10	20	50	100
n-Propylbenzene		0.5	1	2	5	10	20	50	100
2-Chlorotoluene		0.5	1	2	5	10	20	50	100
1,3,5-Trimethylbenzene		0.5	1	2	5	10	20	50	100
4-Chlorotoluene		0.5	1	2	5	10	20	50	100
1,2,4-Trimethylbenzene		0.5	1	2	5	10	20	50	100
sec-Butylbenzene		0.5	1	2	5	10	20	50	100
1,3-Dichlorobenzene		0.5	1	2	5	10	20	50	100
tert-Butylbenzene		0.5	1	2	5	10	20	50	100
Isopropyltoluene		0.5	1	2	5	10	20	50	100
1,4-Dichlorobenzene		0.5	1	2	5	10	20	50	100
n-Butylbenzene		0.5	1	2	5	10	20	50	100
1,2-Dichlorobenzene		0.5	1	2	5	10	20	50	100
1,2-Dibromo-3-chloropropa		0.5	1	2	5	10	20	50	100
1,2,4-Trichlorobenzene		0.5	1	2	5	10	20	50	100
Hexachlorobutadiene		0.5	1	2	5	10	20	50	100
Naphthalene		0.5	1	2	5	10	20	50	100
1,2,3-Trichlorobenzene		0.5	1	2	5	10	20	50	100
cis-1,4-Dichloro-2-butene			5	10	25	50	100	250	500
trans-1,4-Dichloro-2-butene			5	10	25	50	100	250	500
Tetrahydrofuran			5	10	25	50	100	250	500
Pentachloroethane			5	10	25	50	100	250	500
Benzyl chloride			5	10	25	50	100	250	500
bis(2-Chloro-isopropyl)ether			5	10	25	50	100	250	500

Report Date: 22-Dec-2009 22:15

Calibration History

Method : /chem/VOA4.i/122109v4/VOA4-8260-121909.m
Start Cal Date: 19-DEC-2009 19:44
End Cal Date : 20-DEC-2009 03:01

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 1.00000		
20-DEC-2009 00:17	ICALsubS	/chem/VOA4.i/121909v4/4p613.d
19-DEC-2009 20:39	CALsubL+	/chem/VOA4.i/121909v4/4p605.d
Cal Level: 2 , Cal Amount: 2.00000		
20-DEC-2009 00:44	ICALsubS	/chem/VOA4.i/121909v4/4p614.d
19-DEC-2009 21:07	CALsubL+	/chem/VOA4.i/121909v4/4p606.d
Cal Level: 3 , Cal Amount: 5.00000		
20-DEC-2009 01:12	ICALsubS	/chem/VOA4.i/121909v4/4p615.d
19-DEC-2009 21:34	CALsubL+	/chem/VOA4.i/121909v4/4p607.d
Cal Level: 4 , Cal Amount: 10.00000		
20-DEC-2009 01:39	ICALsubS	/chem/VOA4.i/121909v4/4p616.d
19-DEC-2009 22:01	CALsubL+	/chem/VOA4.i/121909v4/4p608.d
Cal Level: 5 , Cal Amount: 20.00000		
20-DEC-2009 02:06	ICALsubS	/chem/VOA4.i/121909v4/4p617.d
19-DEC-2009 22:28	CALsubL+	/chem/VOA4.i/121909v4/4p609.d
Cal Level: 6 , Cal Amount: 50.00000		
20-DEC-2009 02:33	ICALsubS	/chem/VOA4.i/121909v4/4p618.d
19-DEC-2009 22:55	CALsubL+	/chem/VOA4.i/121909v4/4p610.d
Cal Level: 7 , Cal Amount: 100.00000		
20-DEC-2009 03:01	ICALsubS	/chem/VOA4.i/121909v4/4p619.d
19-DEC-2009 23:22	CALsubL+	/chem/VOA4.i/121909v4/4p611.d
Cal Level: 8 , Cal Amount: 200.00000		
19-DEC-2009 19:44	BENZENE+	/chem/VOA4.i/121909v4/4p603.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 6

Ccal Level: 6 , Ccal Amount: 50.0		
21-DEC-2009 18:40	CALsubL+	/chem/VOA4.i/122109v4/4q102.d
Ccal Level: 6 , Ccal Amount: 50.0		
21-DEC-2009 20:01	CALsubS+SS	/chem/VOA4.i/122109v4/4q105.d

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 19-DEC-2009 19:44
End Cal Date : 20-DEC-2009 03:01
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/VOA4.i/122109v4/VOA4-8260-121909.m
Cal Date : 21-Dec-2009 20:38 amj

Calibration File Names:
Level 1: /chem/VOA4.i/121909v4/4p613.d
Level 2: /chem/VOA4.i/121909v4/4p614.d
Level 3: /chem/VOA4.i/121909v4/4p615.d
Level 4: /chem/VOA4.i/121909v4/4p616.d
Level 5: /chem/VOA4.i/121909v4/4p617.d
Level 6: /chem/VOA4.i/121909v4/4p618.d
Level 7: /chem/VOA4.i/121909v4/4p619.d
Level 8: /chem/VOA4.i/121909v4/4p603.d

Compound	1 Level 1	2 Level 2	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	200 Level 8									
M 1 Xylenes (total)	0.81265	0.76052	0.75475	0.81069	0.80456	0.73562					
	0.68132	+++++					AVRG		0.76573		6.28815
M 2 1,2-Dichloroethylene (total)	0.53928	0.49527	0.49546	0.53959	0.51860	0.48300					
	0.46174	+++++					AVRG		0.50471		5.77473
M 135 1,3-Dichloropropylene	0.46128	0.39697	0.41012	0.46856	0.47648	0.45675					
	0.44107	+++++					AVRG		0.44446		6.80371
153 Chlorotrifluoroethylene	0.18967	0.20469	0.17505	0.20787	0.20225	0.21225					
	0.17205	+++++					AVRG		0.19483		8.28265
154 2-Chloro-1,1,1-trifluoroethan	0.29705	0.28271	0.27958	0.28616	0.28338	0.30900					
	0.28029	+++++					AVRG		0.28831		3.76021

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 19-DEC-2009 19:44
End Cal Date : 20-DEC-2009 03:01
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/VOA4.i/122109v4/VOA4-8260-121909.m
Cal Date : 21-Dec-2009 20:38 amj

Compound	1 Level 1	2 Level 2	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	200 Level 8									
3 Dichlorodifluoromethane	0.20022	0.24864	0.29673	0.23326	0.23185	0.22776					
	0.23348	+++++					AVRG		0.23885		12.28991
4 Chloromethane	0.43086	0.49694	0.49936	0.48678	0.46938	0.45681					
	0.46588	+++++					AVRG		0.47229		5.15523
5 Vinyl chloride	0.31504	0.37014	0.36700	0.36174	0.35296	0.34032					
	0.34418	+++++					AVRG		0.35020		5.45562
6 Bromomethane	0.27599	0.30046	0.28529	0.28438	0.27289	0.27180					
	0.27436	+++++					AVRG		0.28074		3.64314
7 Chloroethane	0.28640	0.29309	0.28798	0.29840	0.29164	0.28667					
	0.28706	+++++					AVRG		0.29018		1.53685
8 Trichlorofluoromethane	0.37009	0.43688	0.40536	0.39929	0.41782	0.40577					
	0.43053	+++++					AVRG		0.40939		5.41586
134 Ethyl Ether	0.28284	0.29163	0.27679	0.27112	0.28658	0.28382					
	0.28705	+++++					AVRG		0.28283		2.43119
9 Acrolein	0.06218	0.05508	0.06113	0.05911	0.05998	0.06073					
	0.05918	+++++					AVRG		0.05963		3.82891
12 Trichlorotrifluoroethane	0.11632	0.10087	0.10107	0.09368	0.09372	0.09050					
	0.08673	+++++					AVRG		0.09755		10.01105

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 19-DEC-2009 19:44
End Cal Date : 20-DEC-2009 03:01
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/VOA4.i/122109v4/VOA4-8260-121909.m
Cal Date : 21-Dec-2009 20:38 amj

Compound	1 Level 1	2 Level 2	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	200 Level 8									
10 Acetone	0.38640	0.29421	0.30966	0.31991	0.32328	0.30512					
	0.26019	+++++					AVRG		0.31411		12.15646
11 1,1-Dichloroethylene	0.58004	0.57529	0.51561	0.55608	0.56496	0.52345					
	0.51009	+++++					AVRG		0.54650		5.38569
147 Isopropyl Alcohol	0.03224	0.02635	0.03159	0.03038	0.02970	0.03229					
	0.02992	+++++					AVRG		0.03035		6.79301
13 Iodomethane	0.55315	0.54711	0.53747	0.59050	0.58874	0.55481					
	0.53896	+++++					AVRG		0.55868		3.95828
15 Acetonitrile	0.06894	0.05763	0.05858	0.06419	0.06080	0.05460					
	0.04661	+++++					AVRG		0.05876		12.10208
128 Methyl acetate	0.33599	0.29032	0.28560	0.30925	0.29940	0.27583					
	0.23532	+++++					AVRG		0.29024		10.69740
14 Carbon disulfide	1.00626	1.07738	1.01276	1.09958	1.06356	0.94908					
	0.86347	+++++					AVRG		1.01030		8.14573
16 Allyl chloride	0.63863	0.58032	0.57638	0.57267	0.57845	0.54540					
	0.49341	+++++					AVRG		0.56932		7.65781
148 tert-Butyl Alcohol	0.04284	0.03790	0.04443	0.04221	0.04110	0.04394					
	0.04056	+++++					AVRG		0.04186		5.34493

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 19-DEC-2009 19:44
End Cal Date : 20-DEC-2009 03:01
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/VOA4.i/122109v4/VOA4-8260-121909.m
Cal Date : 21-Dec-2009 20:38 amj

Compound	1 Level 1 100 Level 7	2 Level 2 200 Level 8	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
17 Methylene chloride	+++++	33556	62205	113655	217762	482921					
	964039	+++++					LINR	-0.05167	0.33737		0.99941
18 Acrylonitrile	0.14772	0.12206	0.13849	0.12844	0.12772	0.12951					
	0.12449	+++++					AVRG		0.13121		6.79602
20 tert-Butyl methyl ether	0.87766	0.86281	0.78394	0.87572	0.83092	0.78935					
	0.74945	+++++					AVRG		0.82427		6.16025
21 trans-1,2-Dichloroethylene	0.50602	0.47495	0.47543	0.51041	0.49777	0.46601					
	0.44626	+++++					AVRG		0.48241		4.83014
23 Vinyl acetate	0.74532	0.71527	0.75245	0.78195	0.76766	0.67564					
	0.61492	+++++					AVRG		0.72189		8.15825
149 Isopropyl ether	1.32814	1.24839	1.25311	1.30296	1.28917	1.33442					
	1.22662	+++++					AVRG		1.28326		3.24225
22 1,1-Dichloroethane	0.68601	0.63314	0.60461	0.63576	0.62873	0.57341					
	0.55089	+++++					AVRG		0.61608		7.23794
24 2-Chloro-1,3-butadiene	0.48162	0.44462	0.47696	0.45812	0.47769	0.47065					
	0.47061	+++++					AVRG		0.46861		2.77614
150 Ethyl tert-butyl ether	1.06568	0.99230	1.03725	1.06738	1.05694	1.09357					
	1.01587	+++++					AVRG		1.04700		3.28284

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 19-DEC-2009 19:44
End Cal Date : 20-DEC-2009 03:01
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/VOA4.i/122109v4/VOA4-8260-121909.m
Cal Date : 21-Dec-2009 20:38 amj

Compound	1 Level 1	2 Level 2	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	200 Level 8									
30 2-Butanone	0.40347	0.31600	0.34281	0.36355	0.37846	0.37488					
	0.31192	+++++					AVRG		0.35587		9.52131
26 Ethyl acetate	0.48355	0.37255	0.40155	0.37758	0.36243	0.35318					
	0.32114	+++++					AVRG		0.38171		13.40984
31 cis-1,2-Dichloroethylene	0.57254	0.51556	0.51549	0.56877	0.53943	0.50000					
	0.47723	+++++					AVRG		0.52700		6.68317
25 2,2-Dichloropropane	0.30228	0.29068	0.28722	0.29769	0.29186	0.27444					
	0.26364	+++++					AVRG		0.28683		4.69488
28 Propionitrile	0.06081	0.05254	0.05395	0.05298	0.05102	0.05146					
	0.05081	+++++					AVRG		0.05337		6.50459
27 Methacrylonitrile	0.27359	0.21455	0.23787	0.22892	0.22451	0.21902					
	0.19895	+++++					AVRG		0.22820		10.26764
29 Bromochloromethane	0.17010	0.15729	0.15722	0.17212	0.17130	0.16049					
	0.15704	+++++					AVRG		0.16365		4.37461
32 Chloroform	0.57004	0.53031	0.51810	0.56467	0.55240	0.50997					
	0.48954	+++++					AVRG		0.53358		5.62086
72 Tetrahydrofuran	0.34036	0.26314	0.28402	0.26089	0.25362	0.24409					
	0.23071	+++++					AVRG		0.26812		13.39211

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INITIAL CALIBRATION DATA

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End Cal Date : 20-DEC-2009 03:01
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/VOA4.i/122109v4/VOA4-8260-121909.m
Cal Date : 21-Dec-2009 20:38 amj

Compound	1 Level 1	2 Level 2	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	200 Level 8									
36 1,1,1-Trichloroethane	0.43840	0.38202	0.40215	0.41069	0.42401	0.40471					
	0.39285	+++++					AVRG		0.40783		4.62741
19 Isobutyl alcohol	0.02008	0.01519	0.01747	0.01640	0.01622	0.01607					
	0.01482	+++++					AVRG		0.01661		10.55902
129 Cyclohexane	0.59857	0.56742	0.54266	0.56712	0.56519	0.52631					
	0.50124	+++++					AVRG		0.55264		5.78349
34 1,1-Dichloropropene	0.40638	0.38401	0.38305	0.41207	0.40861	0.37707					
	0.36138	+++++					AVRG		0.39037		4.87266
33 Carbon tetrachloride	0.40729	0.37302	0.37786	0.39826	0.39632	0.38152					
	0.37561	+++++					AVRG		0.38712		3.44042
37 1,2-Dichloroethane	0.45283	0.43086	0.42719	0.45922	0.44859	0.41905					
	0.40127	+++++					AVRG		0.43414		4.75246
38 Benzene	1.34087	1.27789	1.22229	1.28891	1.26243	1.16314					
	1.09141	1.27584					AVRG		1.24035		6.39855
151 Methyl tert-amyl ether	0.84985	0.77813	0.84429	0.85200	0.83272	0.87480					
	0.81348	+++++					AVRG		0.83504		3.74951
139 Cyclohexene	0.62066	0.60285	0.58314	0.61749	0.61525	0.57775					
	0.54806	+++++					AVRG		0.59503		4.48722

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Integrator : HP RTE
Method file : /chem/VOA4.i/122109v4/VOA4-8260-121909.m
Cal Date : 21-Dec-2009 20:38 amj

Compound	1 Level 1	2 Level 2	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	200 Level 8									
131 n-Butyl alcohol	0.01241	0.01014	0.01086	0.01262	0.01008	0.01213					
	0.01057	0.01107					AVRG		0.01124		9.07688
39 Trichloroethylene	0.32936	0.30509	0.29943	0.31939	0.30825	0.29845					
	0.28531	+++++					AVRG		0.30647		4.72414
42 Methyl methacrylate	0.20611	0.17968	0.20203	0.19437	0.19683	0.19342					
	0.17092	+++++					AVRG		0.19191		6.47670
130 Methylcyclohexane	0.50950	0.46490	0.48075	0.50687	0.49723	0.46418					
	0.43959	+++++					AVRG		0.48043		5.37414
41 1,2-Dichloropropane	0.37983	0.34581	0.34869	0.38401	0.37072	0.34121					
	0.31310	+++++					AVRG		0.35477		7.06945
97 1,4-Dioxane	0.00425	0.00314	0.00338	0.00339	0.00321	0.00337					
	0.00325	+++++					AVRG		0.00343		10.92294
43 Dibromomethane	0.19150	0.17715	0.17960	0.19890	0.19065	0.18349					
	0.17626	+++++					AVRG		0.18537		4.59720
45 Bromodichloromethane	0.41449	0.36230	0.35661	0.40276	0.40242	0.39879					
	0.38461	+++++					AVRG		0.38885		5.64973
48 2-Nitropropane	0.10489	0.08130	0.09477	0.09750	0.09977	0.10490					
	0.10359	+++++					AVRG		0.09810		8.52029

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End Cal Date : 20-DEC-2009 03:01
Quant Method : ISTD
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Integrator : HP RTE
Method file : /chem/VOA4.i/122109v4/VOA4-8260-121909.m
Cal Date : 21-Dec-2009 20:38 amj

Compound	1 Level 1	2 Level 2	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	200 Level 8									
44 2-Chloroethylvinyl ether	0.15830	0.15243	0.16120	0.16830	0.17417	0.16931					
	0.15403	+++++					AVRG		0.16253		5.07872
46 cis-1,3-Dichloropropylene	0.48454	0.42681	0.43584	0.49215	0.49903	0.47608					
	0.45863	+++++					AVRG		0.46758		5.98701
49 4-Methyl-2-pentanone	0.21196	0.18428	0.18853	0.20882	0.21262	0.20864					
	0.16991	+++++					AVRG		0.19782		8.52290
50 Toluene	1.14606	0.99250	0.99332	1.02553	1.00872	0.92100					
	0.85394	+++++					AVRG		0.99158		9.13621
51 Ethyl methacrylate	0.52578	0.47433	0.53132	0.52233	0.50770	0.45962					
	0.39174	+++++					AVRG		0.48755		10.29859
53 trans-1,3-Dichloropropylene	0.60806	0.51429	0.53356	0.60161	0.61422	0.57102					
	0.54733	+++++					AVRG		0.57001		6.92506
54 1,1,2-Trichloroethane	0.36661	0.30877	0.29991	0.32506	0.32454	0.29272					
	0.27476	+++++					AVRG		0.31320		9.41364
55 2-Hexanone	0.66669	0.56305	0.58842	0.63454	0.66404	0.64005					
	0.50273	+++++					AVRG		0.60850		9.90607
52 1,3-Dichloropropane	0.73470	0.60962	0.63121	0.64923	0.64095	0.56042					
	0.49003	+++++					AVRG		0.61659		12.39429

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INITIAL CALIBRATION DATA

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End Cal Date : 20-DEC-2009 03:01
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/VOA4.i/122109v4/VOA4-8260-121909.m
Cal Date : 21-Dec-2009 20:38 amj

Compound	1 Level 1 100 Level 7	2 Level 2 200 Level 8	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
56 Tetrachloroethylene	0.40926	0.39742	0.36216	0.38829	0.37728	0.34872					
	0.34015	+++++					AVRG		0.37476		6.82738
57 Dibromochloromethane	0.39948	0.37877	0.39034	0.42156	0.44733	0.42361					
	0.42501	+++++					AVRG		0.41230		5.75126
59 1,2-Dibromoethane	0.38444	0.33398	0.36077	0.39025	0.39908	0.37539					
	0.36601	+++++					AVRG		0.37285		5.83018
152 1-Chlorohexane	0.30988	0.27910	0.30923	0.32183	0.32017	0.33216					
	0.31178	+++++					AVRG		0.31202		5.33777
62 Chlorobenzene	1.28974	1.17144	1.13488	1.17962	1.17805	1.07796					
	1.02830	+++++					AVRG		1.15143		7.25464
60 1,1,1,2-Tetrachloroethane	0.44150	0.40715	0.41093	0.44113	0.45626	0.42300					
	0.40958	+++++					AVRG		0.42708		4.52208
58 Ethylbenzene	2.17028	2.01581	1.95872	2.07832	2.02954	1.80660					
	1.62077	+++++					AVRG		1.95429		9.44788
63 m,p-Xylenes	0.79954	0.75917	0.74134	0.79920	0.78958	0.72261					
	0.67119	+++++					AVRG		0.75466		6.26443
64 o-Xylene	0.83888	0.76321	0.78156	0.83368	0.83452	0.76165					
	0.70158	+++++					AVRG		0.78787		6.48405

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INITIAL CALIBRATION DATA

Start Cal Date : 19-DEC-2009 19:44
End Cal Date : 20-DEC-2009 03:01
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/VOA4.i/122109v4/VOA4-8260-121909.m
Cal Date : 21-Dec-2009 20:38 amj

Compound	1 Level 1 100 Level 7	2 Level 2 200 Level 8	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
65 Styrene	1.16063	1.08519	1.14154	1.27402	1.28147	1.21813					
	1.10780	+++++					AVRG		1.18125		6.61483
66 Bromoform	0.49552	0.43575	0.47336	0.53633	0.55668	0.56770					
	0.57305	+++++					AVRG		0.51977		10.11178
67 Isopropylbenzene	3.51495	3.38362	3.35463	3.45020	3.36294	3.05236					
	2.82692	+++++					AVRG		3.27794		7.51842
68 cis-1,4-Dichloro-2-butene	0.30887	0.25441	0.28794	0.28936	0.28031	0.28031					
	0.26406	+++++					AVRG		0.28075		6.32075
70 Cyclohexanone	0.04600	0.03466	0.04477	0.04588	0.04838	0.04998					
	+++++	+++++					AVRG		0.04494		11.98252
73 1,1,2,2-Tetrachloroethane	0.99266	0.89407	0.91571	0.95496	0.92349	0.83794					
	0.78165	+++++					AVRG		0.90007		7.89514
69 trans-1,4-Dichloro-2-butene	0.29258	0.24147	0.27255	0.27207	0.27075	0.26153					
	0.24777	+++++					AVRG		0.26553		6.45206
74 1,2,3-Trichloropropane	0.26522	0.23015	0.22433	0.23733	0.23343	0.21830					
	0.20778	+++++					AVRG		0.23093		7.83148
75 Bromobenzene	1.05770	1.00503	0.94543	1.02581	0.98121	0.92065					
	0.89518	+++++					AVRG		0.97586		5.99789

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INITIAL CALIBRATION DATA

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End Cal Date : 20-DEC-2009 03:01
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Integrator : HP RTE
Method file : /chem/VOA4.i/122109v4/VOA4-8260-121909.m
Cal Date : 21-Dec-2009 20:38 amj

Compound	1 Level 1 100 Level 7	2 Level 2 200 Level 8	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
76 n-Propylbenzene	4.35110	4.12289	4.06016	4.27328	4.06219	3.61246					
	3.21473	+++++					AVRG		3.95669		10.18420
78 1,3,5-Trimethylbenzene	3.13552	3.05519	3.02341	3.14462	2.96616	2.69990					
	2.43119	+++++					AVRG		2.92228		9.00348
77 2-Chlorotoluene	3.11733	2.96580	2.89258	3.00691	2.80894	2.48431					
	2.17073	+++++					AVRG		2.77809		12.04597
80 4-Chlorotoluene	2.93131	2.57999	2.54019	2.65417	2.58773	2.39848					
	2.21061	+++++					AVRG		2.55750		8.69082
81 tert-Butylbenzene	3.09476	2.87771	2.84763	3.03704	2.92107	2.71430					
	2.56320	+++++					AVRG		2.86510		6.36899
79 1,2,4-Trimethylbenzene	3.34291	3.08638	3.12390	3.27142	3.15763	2.88116					
	2.64073	+++++					AVRG		3.07202		7.81473
82 Pentachloroethane	0.42564	0.28316	0.39310	0.35972	0.35493	0.36348					
	0.32885	+++++					AVRG		0.35841		12.63224
83 sec-Butylbenzene	4.43184	4.15066	4.04671	4.22651	4.08737	3.70131					
	3.37028	+++++					AVRG		4.00210		8.86968
84 4-Isopropyltoluene	3.26672	3.12237	3.13891	3.35557	3.25046	2.98093					
	2.76172	+++++					AVRG		3.12524		6.42496

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Integrator : HP RTE
Method file : /chem/VOA4.i/122109v4/VOA4-8260-121909.m
Cal Date : 21-Dec-2009 20:38 amj

Compound	1 Level 1	2 Level 2	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	200 Level 8									
85 1,3-Dichlorobenzene	2.14603	1.97368	1.91523	1.96795	1.93959	1.81210					
	1.72778	+++++					AVRG		1.92605		6.86879
87 1,4-Dichlorobenzene	2.08855	1.93310	1.85380	1.96302	1.93996	1.80779					
	1.71123	+++++					AVRG		1.89963		6.39272
88 Benzyl chloride	1.31613	1.15327	1.33623	1.31144	1.30449	1.20691					
	1.03649	+++++					AVRG		1.23785		8.99101
89 n-Butylbenzene	3.17293	3.01362	3.09058	3.29169	3.12758	2.86431					
	2.54350	+++++					AVRG		3.01489		8.17986
90 1,2-Dichlorobenzene	2.00841	1.83634	1.80803	1.88655	1.85356	1.73582					
	1.62843	+++++					AVRG		1.82245		6.53889
91 bis(2-Chloroisopropyl)ether	0.51710	0.42660	0.48782	0.47472	0.47577	0.46739					
	0.42595	+++++					AVRG		0.46791		6.97559
92 1,2-Dibromo-3-chloropropane	0.12819	0.12707	0.14343	0.15859	0.16936	0.16562					
	0.16290	+++++					AVRG		0.15074		11.80344
93 1,2,4-Trichlorobenzene	0.98949	0.89168	0.94262	1.06001	1.06704	1.00943					
	0.96288	+++++					AVRG		0.98902		6.37522
94 Hexachlorobutadiene	0.84602	0.71792	0.72907	0.78136	0.75883	0.71017					
	0.69952	+++++					AVRG		0.74898		6.86788

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End Cal Date : 20-DEC-2009 03:01
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Integrator : HP RTE
Method file : /chem/VOA4.i/122109v4/VOA4-8260-121909.m
Cal Date : 21-Dec-2009 20:38 amj

Compound	1 Level 1	2 Level 2	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	200 Level 8									
95 Naphthalene	1.56334	1.34017	1.51534	1.73644	1.83286	1.73715					
	1.62241	+++++					AVRG		1.62110		10.23140
96 1,2,3-Trichlorobenzene	0.78862	0.68210	0.75784	0.84790	0.87740	0.80969					
	0.76898	+++++					AVRG		0.79036		8.08469
$ 138 1,2-Dichloroethane-d4	0.25296	0.24705	0.25223	0.25949	0.25673	0.27306					
	0.28203	+++++					AVRG		0.26051		4.81054
$ 47 Toluene-d8	1.19321	1.21540	1.20097	1.18409	1.18246	1.16177					
	1.15107	+++++					AVRG		1.18414		1.86917
$ 71 Bromofluorobenzene	0.80893	0.82727	0.82209	0.80764	0.80231	0.81299					
	0.80209	+++++					AVRG		0.81190		1.18610

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 19-DEC-2009 19:44
End Cal Date : 20-DEC-2009 03:01
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/VOA4.i/122109v4/VOA4-8260-121909.m
Cal Date : 21-Dec-2009 20:38 amj

Curve	Formula	Units
Averaged	Amt = Rsp/ml	Response
Linear	Amt = b + Rsp/ml	Response

Data File: /chem/VOA4.i/121909v4/4p621.d
Report Date: 21-Dec-2009 17:10

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA4.i
Lab File ID: 4p621.d
Analysis Type: WATER
Lab Sample ID: W4VM091219-17
Method: /chem/VOA4.i/121909v4/VOA4-8260-121909.m

Injection Date: 20-DEC-2009 03:55
Init. Cal. Date(s): 19-DEC-2009 20-DEC-2009
Init. Cal. Times: 19:44 03:01
Quant Type: ISTD

COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
M 1 Xylenes (total)	0.76573	0.68758	0.68758	0.050	-10.20563	30.00000	Averaged	
M 2 1,2-Dichloroethylene (total	0.50471	0.45264	0.45264	0.050	-10.31622	30.00000	Averaged	
M 135 1,3-Dichloropropylene	0.44446	0.43190	0.43190	0.050	-2.82734	30.00000	Averaged	
3 Dichlorodifluoromethane	0.23885	0.20784	0.20784	0.050	-12.98240	30.00000	Averaged	
4 Chloromethane	0.47229	0.41188	0.41188	0.100	-12.79055	30.00000	Averaged	spcc
5 Vinyl chloride	0.35020	0.32641	0.32641	0.050	-6.79369	20.00000	Averaged	ccc
6 Bromomethane	0.28074	0.25357	0.25357	0.050	-9.67634	30.00000	Averaged	
7 Chloroethane	0.29018	0.26921	0.26921	0.050	-7.22655	30.00000	Averaged	
8 Trichlorofluoromethane	0.40939	0.39162	0.39162	0.050	-4.34087	30.00000	Averaged	
134 Ethyl Ether	0.28283	0.26280	0.26280	0.001	-7.08282	30.00000	Averaged	
10 Acetone	0.31411	0.20629	0.20629	0.050	-34.32404	40.00000	Averaged	
15 Acetonitrile	0.05876	0.05062	0.05062	0.010	-13.85146	30.00000	Averaged	
11 1,1-Dichloroethylene	0.54650	0.46348	0.46348	0.050	-15.19163	20.00000	Averaged	ccc
128 Methyl acetate	0.29024	0.25571	0.25571	0.010	-11.89842	40.00000	Averaged	
13 Iodomethane	0.55868	0.51398	0.51398	0.050	-8.00095	30.00000	Averaged	
17 Methylene chloride	47.66089	50.00000	0.33902	0.050	-4.67822	30.00000	Linear	
14 Carbon disulfide	1.01030	0.89561	0.89561	0.050	-11.35179	30.00000	Averaged	
20 tert-Butyl methyl ether	0.82427	0.75543	0.75543	0.050	-8.35123	30.00000	Averaged	
21 trans-1,2-Dichloroethylene	0.48241	0.42742	0.42742	0.050	-11.39744	30.00000	Averaged	
23 Vinyl acetate	0.72189	0.58860	0.58860	0.010	-18.46425	40.00000	Averaged	
22 1,1-Dichloroethane	0.61608	0.53887	0.53887	0.100	-12.53213	30.00000	Averaged	spcc
30 2-Butanone	0.35587	0.24574	0.24574	0.030	-30.94721	40.00000	Averaged	
31 cis-1,2-Dichloroethylene	0.52700	0.47786	0.47786	0.050	-9.32576	30.00000	Averaged	
25 2,2-Dichloropropane	0.28683	0.25760	0.25760	0.050	-10.19161	30.00000	Averaged	
32 Chloroform	0.53358	0.48986	0.48986	0.010	-8.19333	20.00000	Averaged	ccc
29 Bromochloromethane	0.16365	0.15405	0.15405	0.010	-5.86597	30.00000	Averaged	
36 1,1,1-Trichloroethane	0.40783	0.38050	0.38050	0.010	-6.70119	30.00000	Averaged	
129 Cyclohexane	0.55264	0.48600	0.48600	0.010	-12.05953	30.00000	Averaged	
34 1,1-Dichloropropene	0.39037	0.35236	0.35236	0.010	-9.73796	30.00000	Averaged	
131 n-Butyl alcohol	0.01124	0.01131	0.01131	0.001	0.61492	40.00000	Averaged	
33 Carbon tetrachloride	0.38712	0.35709	0.35709	0.010	-7.75868	30.00000	Averaged	
$ 138 1,2-Dichloroethane-d4	0.26051	0.26938	0.26938	0.001	3.40566	30.00000	Averaged	
37 1,2-Dichloroethane	0.43414	0.39825	0.39825	0.010	-8.26694	30.00000	Averaged	
38 Benzene	1.24035	1.09965	1.09965	0.010	-11.34293	30.00000	Averaged	
139 Cyclohexene	0.59503	0.51686	0.51686	0.001	-13.13707	30.00000	Averaged	

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA4.i
Lab File ID: 4p621.d
Analysis Type: WATER
Lab Sample ID: W4VM091219-17 Quant Type: ISTD
Method: /chem/VOA4.i/121909v4/VOA4-8260-121909.m

Injection Date: 20-DEC-2009 03:55
Init. Cal. Date(s): 19-DEC-2009 20-DEC-2009
Init. Cal. Times: 19:44 03:01

	COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
	39 Trichloroethylene	0.30647	0.28336	0.28336	0.010	-7.53918	30.00000	Averaged	
	41 1,2-Dichloropropane	0.35477	0.31711	0.31711	0.010	-10.61528	20.00000	Averaged	ccc
	130 Methylcyclohexane	0.48043	0.43333	0.43333	0.010	-9.80389	30.00000	Averaged	
	45 Bromodichloromethane	0.38885	0.37390	0.37390	0.010	-3.84439	30.00000	Averaged	
	43 Dibromomethane	0.18537	0.17080	0.17080	0.010	-7.85991	30.00000	Averaged	
	44 2-Chloroethylvinyl ether	0.16253	0.15357	0.15357	0.005	-5.51265	30.00000	Averaged	
	49 4-Methyl-2-pentanone	0.19782	0.16772	0.16772	0.010	-15.21550	40.00000	Averaged	
	46 cis-1,3-Dichloropropylene	0.46758	0.45089	0.45089	0.010	-3.56995	30.00000	Averaged	
$	47 Toluene-d8	1.18414	1.14917	1.14917	0.010	-2.95342	30.00000	Averaged	
	50 Toluene	0.99158	0.85287	0.85287	0.010	-13.98874	20.00000	Averaged	ccc
	53 trans-1,3-Dichloropropylene	0.57001	0.53396	0.53396	0.010	-6.32479	30.00000	Averaged	
	54 1,1,2-Trichloroethane	0.31320	0.27416	0.27416	0.010	-12.46471	30.00000	Averaged	
	55 2-Hexanone	0.60850	0.41913	0.41913	0.010	-31.12078	40.00000	Averaged	
	52 1,3-Dichloropropane	0.61659	0.53490	0.53490	0.010	-13.24869	30.00000	Averaged	
	56 Tetrachloroethylene	0.37476	0.33007	0.33007	0.010	-11.92298	30.00000	Averaged	
	57 Dibromochloromethane	0.41230	0.40234	0.40234	0.010	-2.41536	30.00000	Averaged	
	59 1,2-Dibromoethane	0.37285	0.35467	0.35467	0.010	-4.87461	30.00000	Averaged	
	62 Chlorobenzene	1.15143	1.03259	1.03259	0.300	-10.32116	30.00000	Averaged	spcc
	60 1,1,1,2-Tetrachloroethane	0.42708	0.40885	0.40885	0.010	-4.26818	30.00000	Averaged	
	58 Ethylbenzene	1.95429	1.67701	1.67701	0.010	-14.18846	20.00000	Averaged	ccc
	63 m,p-Xylenes	0.75466	0.67392	0.67392	0.010	-10.69904	30.00000	Averaged	
	64 o-Xylene	0.78787	0.71491	0.71491	0.010	-9.26014	30.00000	Averaged	
	65 Styrene	1.18125	1.13110	1.13110	0.010	-4.24603	30.00000	Averaged	
	66 Bromoform	0.51977	0.54682	0.54682	0.100	5.20481	30.00000	Averaged	spcc
	67 Isopropylbenzene	3.27794	2.88972	2.88972	0.010	-11.84366	30.00000	Averaged	
	73 1,1,2,2-Tetrachloroethane	0.90007	0.79353	0.79353	0.300	-11.83713	30.00000	Averaged	spcc
$	71 Bromofluorobenzene	0.81190	0.82268	0.82268	0.010	1.32697	30.00000	Averaged	
	74 1,2,3-Trichloropropane	0.23093	0.21190	0.21190	0.010	-8.24181	30.00000	Averaged	
	75 Bromobenzene	0.97586	0.90705	0.90705	0.010	-7.05100	30.00000	Averaged	
	76 n-Propylbenzene	3.95669	3.37943	3.37943	0.010	-14.58946	30.00000	Averaged	
	77 2-Chlorotoluene	2.77809	2.39331	2.39331	0.010	-13.85038	30.00000	Averaged	
	78 1,3,5-Trimethylbenzene	2.92228	2.53397	2.53397	0.010	-13.28793	30.00000	Averaged	
	80 4-Chlorotoluene	2.55750	2.25535	2.25535	0.010	-11.81412	30.00000	Averaged	
	81 tert-Butylbenzene	2.86510	2.53962	2.53962	0.010	-11.36029	30.00000	Averaged	
	79 1,2,4-Trimethylbenzene	3.07202	2.68305	2.68305	0.010	-12.66176	30.00000	Averaged	
	83 sec-Butylbenzene	4.00210	3.42102	3.42102	0.010	-14.51925	30.00000	Averaged	

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA4.i
Lab File ID: 4p621.d
Analysis Type: WATER
Lab Sample ID: W4VM091219-17
Method: /chem/VOA4.i/121909v4/VOA4-8260-121909.m

Injection Date: 20-DEC-2009 03:55
Init. Cal. Date(s): 19-DEC-2009 20-DEC-2009
Init. Cal. Times: 19:44 03:01
Quant Type: ISTD

COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
84 4-Isopropyltoluene	3.12524	2.70544	2.70544	0.010	-13.43270	30.00000	Averaged
85 1,3-Dichlorobenzene	1.92605	1.69424	1.69424	0.010	-12.03578	30.00000	Averaged
87 1,4-Dichlorobenzene	1.89963	1.69916	1.69916	0.010	-10.55333	30.00000	Averaged
89 n-Butylbenzene	3.01489	2.52049	2.52049	0.010	-16.39848	30.00000	Averaged
90 1,2-Dichlorobenzene	1.82245	1.63120	1.63120	0.010	-10.49383	30.00000	Averaged
92 1,2-Dibromo-3-chloropropane	0.15074	0.15187	0.15187	0.010	0.75081	30.00000	Averaged
93 1,2,4-Trichlorobenzene	0.98902	0.93471	0.93471	0.010	-5.49186	30.00000	Averaged
94 Hexachlorobutadiene	0.74898	0.64331	0.64331	0.010	-14.10922	30.00000	Averaged
95 Naphthalene	1.62110	1.58914	1.58914	0.010	-1.97170	30.00000	Averaged
96 1,2,3-Trichlorobenzene	0.79036	0.76577	0.76577	0.010	-3.11097	30.00000	Averaged

Average %D / Drift Results.

Calculated Average %D/Drift = 10.04973
Maximun Average %D/Drift = 20.00000
* Passed Average %D/Drift Test.

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA4.i/121909v4/4p621.d
Lab Smp Id: W4VM091219-17 Client Smp ID: SECOND SOURCE
Inj Date : 20-DEC-2009 03:55
Operator : ACJ Inst ID: VOA4.i
Smp Info : |W4VM091219-17|CCV/LCS|1|VOAF|1|
Misc Info : GEL 5ML N/A UVM091214-01A/IVM091217-01
Comment :
Method : /chem/VOA4.i/121909v4/VOA4-8260-121909.m
Meth Date : 21-Dec-2009 17:10 amj Quant Type: ISTD
Cal Date : 20-DEC-2009 02:33 Cal File: 4p618.d
Als bottle: 21 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: CALsubL+.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (Uf/Vo) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	sample purged

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
M 1 Xylenes (total)	106				2199670	150.000	135
M 2 1,2-Dichloroethylene (total)	96				1248409	100.000	89.6
M 135 1,3-Dichloropropylene	75				1191196	100.000	97.2
3 Dichlorodifluoromethane	85	4.912	4.912	(0.463)	286617	50.0000	43.5
4 Chloromethane	50	5.299	5.299	(0.499)	567995	50.0000	43.6
5 Vinyl chloride	62	5.528	5.528	(0.521)	450123	50.0000	46.6
6 Bromomethane	94	6.138	6.138	(0.578)	349682	50.0000	45.2
7 Chloroethane	64	6.295	6.295	(0.593)	371247	50.0000	46.4
8 Trichlorofluoromethane	101	6.662	6.662	(0.627)	540056	50.0000	47.8
134 Ethyl Ether	59	6.997	6.997	(0.659)	362410	50.0000	46.4
10 Acetone	43	7.357	7.357	(0.693)	1422434	250.000	164
15 Acetonitrile	41	7.705	7.705	(0.726)	1745314	1250.00	1080
11 1,1-Dichloroethylene	61	7.394	7.394	(0.696)	639153	50.0000	42.4
128 Methyl acetate	43	7.747	7.747	(0.730)	1763154	250.000	220
13 Iodomethane	142	7.631	7.631	(0.719)	3543953	250.000	230

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
17 Methylene chloride	84	7.942	7.942	(0.748)	467516	50.0000	47.7
14 Carbon disulfide	76	7.778	7.778	(0.732)	6175388	250.000	222
20 tert-Butyl methyl ether	73	8.241	8.241	(0.776)	1041760	50.0000	45.8
21 trans-1,2-Dichloroethylene	61	8.284	8.284	(0.780)	589432	50.0000	44.3
23 Vinyl acetate	43	8.710	8.710	(0.820)	4058456	250.000	204
22 1,1-Dichloroethane	63	8.759	8.759	(0.825)	743119	50.0000	43.7
30 2-Butanone	43	9.326	9.326	(0.878)	1694403	250.000	173
31 cis-1,2-Dichloroethylene	61	9.387	9.387	(0.884)	658977	50.0000	45.3
25 2,2-Dichloropropane	77	9.424	9.424	(0.887)	355236	50.0000	44.9
32 Chloroform	83	9.692	9.692	(0.913)	675530	50.0000	45.9
29 Bromochloromethane	128	9.661	9.661	(0.910)	212441	50.0000	47.1
36 1,1,1-Trichloroethane	97	9.979	9.979	(0.940)	524725	50.0000	46.6
129 Cyclohexane	56	10.082	10.082	(0.949)	670205	50.0000	44.0
34 1,1-Dichloropropene	75	10.137	10.137	(0.955)	485909	50.0000	45.1
131 n-Butyl alcohol	56	10.692	10.692	(1.007)	1559013	5000.00	5030
33 Carbon tetrachloride	117	10.174	10.174	(0.958)	492437	50.0000	46.1
$ 138 1,2-Dichloroethane-d4	65	10.259	10.259	(0.966)	371483	50.0000	51.7
37 1,2-Dichloroethane	62	10.338	10.338	(0.974)	549205	50.0000	45.9
38 Benzene	78	10.375	10.375	(0.977)	1516458	50.0000	44.3
139 Cyclohexene	67	10.497	10.497	(0.989)	712763	50.0000	43.4
* 40 Fluorobenzene	96	10.619	10.619	(1.000)	1379031	50.0000	
39 Trichloroethylene	95	11.003	11.003	(1.036)	390767	50.0000	46.2
41 1,2-Dichloropropane	63	11.240	11.240	(1.059)	437301	50.0000	44.7
130 Methylcyclohexane	83	11.265	11.265	(1.061)	597575	50.0000	45.1
45 Bromodichloromethane	83	11.484	11.484	(1.082)	515626	50.0000	48.1
43 Dibromomethane	93	11.375	11.375	(1.071)	235534	50.0000	46.1
44 2-Chloroethylvinyl ether	63	11.698	11.698	(1.102)	1058913	250.000	236
49 4-Methyl-2-pentanone	58	12.021	12.021	(0.873)	894280	250.000	212
46 cis-1,3-Dichloropropylene	75	11.929	11.929	(1.123)	621792	50.0000	48.2
$ 47 Toluene-d8	98	12.252	12.252	(0.890)	1225446	50.0000	48.5
50 Toluene	92	12.326	12.326	(0.895)	909483	50.0000	43.0
53 trans-1,3-Dichloropropylene	75	12.466	12.466	(0.905)	569404	50.0000	46.8
54 1,1,2-Trichloroethane	83	12.685	12.685	(0.921)	292354	50.0000	43.8
55 2-Hexanone	43	12.856	12.856	(0.934)	2234761	250.000	172
52 1,3-Dichloropropane	76	12.880	12.880	(0.935)	570408	50.0000	43.4
56 Tetrachloroethylene	164	12.923	12.923	(0.938)	351982	50.0000	44.0
57 Dibromochloromethane	129	13.149	13.149	(0.955)	429048	50.0000	48.8
59 1,2-Dibromoethane	107	13.319	13.319	(0.967)	378212	50.0000	47.6
* 61 Chlorobenzene-d5	117	13.770	13.770	(1.000)	1066376	50.0000	
62 Chlorobenzene	112	13.801	13.801	(1.002)	1101127	50.0000	44.8
60 1,1,1,2-Tetrachloroethane	131	13.850	13.850	(1.006)	435987	50.0000	47.9
58 Ethylbenzene	91	13.862	13.862	(1.007)	1788320	50.0000	42.9
63 m,p-Xylenes	106	13.972	13.972	(1.015)	1437307	100.000	89.3
64 o-Xylene	106	14.404	14.404	(1.046)	762363	50.0000	45.4
65 Styrene	104	14.404	14.404	(1.046)	1206176	50.0000	47.9
66 Bromoform	173	14.661	14.661	(0.906)	374884	50.0000	52.6
67 Isopropylbenzene	105	14.758	14.758	(0.912)	1981097	50.0000	44.1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
73 1,1,2,2-Tetrachloroethane	83	15.020	15.020	(0.928)	544016	50.0000	44.1
$ 71 Bromofluorobenzene	95	14.953	14.953	(0.924)	564000	50.0000	50.7
74 1,2,3-Trichloropropane	110	15.112	15.112	(0.934)	145273	50.0000	45.9
75 Bromobenzene	156	15.167	15.167	(0.937)	621845	50.0000	46.5
76 n-Propylbenzene	91	15.185	15.185	(0.939)	2316829	50.0000	42.7
77 2-Chlorotoluene	91	15.331	15.331	(0.948)	1640777	50.0000	43.1
78 1,3,5-Trimethylbenzene	105	15.331	15.331	(0.948)	1737211	50.0000	43.4
80 4-Chlorotoluene	91	15.429	15.429	(0.954)	1546197	50.0000	44.1
81 tert-Butylbenzene	119	15.703	15.703	(0.971)	1741081	50.0000	44.3
79 1,2,4-Trimethylbenzene	105	15.746	15.746	(0.973)	1839412	50.0000	43.7
83 sec-Butylbenzene	105	15.929	15.929	(0.985)	2345344	50.0000	42.7
84 4-Isopropyltoluene	119	16.050	16.050	(0.992)	1854760	50.0000	43.3
85 1,3-Dichlorobenzene	146	16.124	16.124	(0.997)	1161514	50.0000	44.0
* 86 1,4-Dichlorobenzene-d4	152	16.179	16.179	(1.000)	685568	50.0000	
87 1,4-Dichlorobenzene	146	16.209	16.209	(1.002)	1164889	50.0000	44.7
89 n-Butylbenzene	91	16.502	16.502	(1.020)	1727968	50.0000	41.8
90 1,2-Dichlorobenzene	146	16.642	16.642	(1.029)	1118300	50.0000	44.8
92 1,2-Dibromo-3-chloropropane	157	17.532	17.532	(1.084)	104117	50.0000	50.4
93 1,2,4-Trichlorobenzene	180	18.629	18.629	(1.151)	640805	50.0000	47.2
94 Hexachlorobutadiene	225	18.818	18.818	(1.163)	441032	50.0000	42.9
95 Naphthalene	128	19.032	19.032	(1.176)	1089462	50.0000	49.0
96 1,2,3-Trichlorobenzene	180	19.391	19.391	(1.199)	524990	50.0000	48.4

Data File: /chem/VOA4.i/121909v4/4p621.d
Date : 20-DEC-2009 03:58
Client ID: SECOND SOURCE
Sample Info: !W4VH092219-17!CCV/LCS!1!VOAF!1!
Purge Volume: 5.0
Column phase: RTX-VOLATILES

Instrument: VOA4.i
Operator: ACJ
Column diameter: 0.25

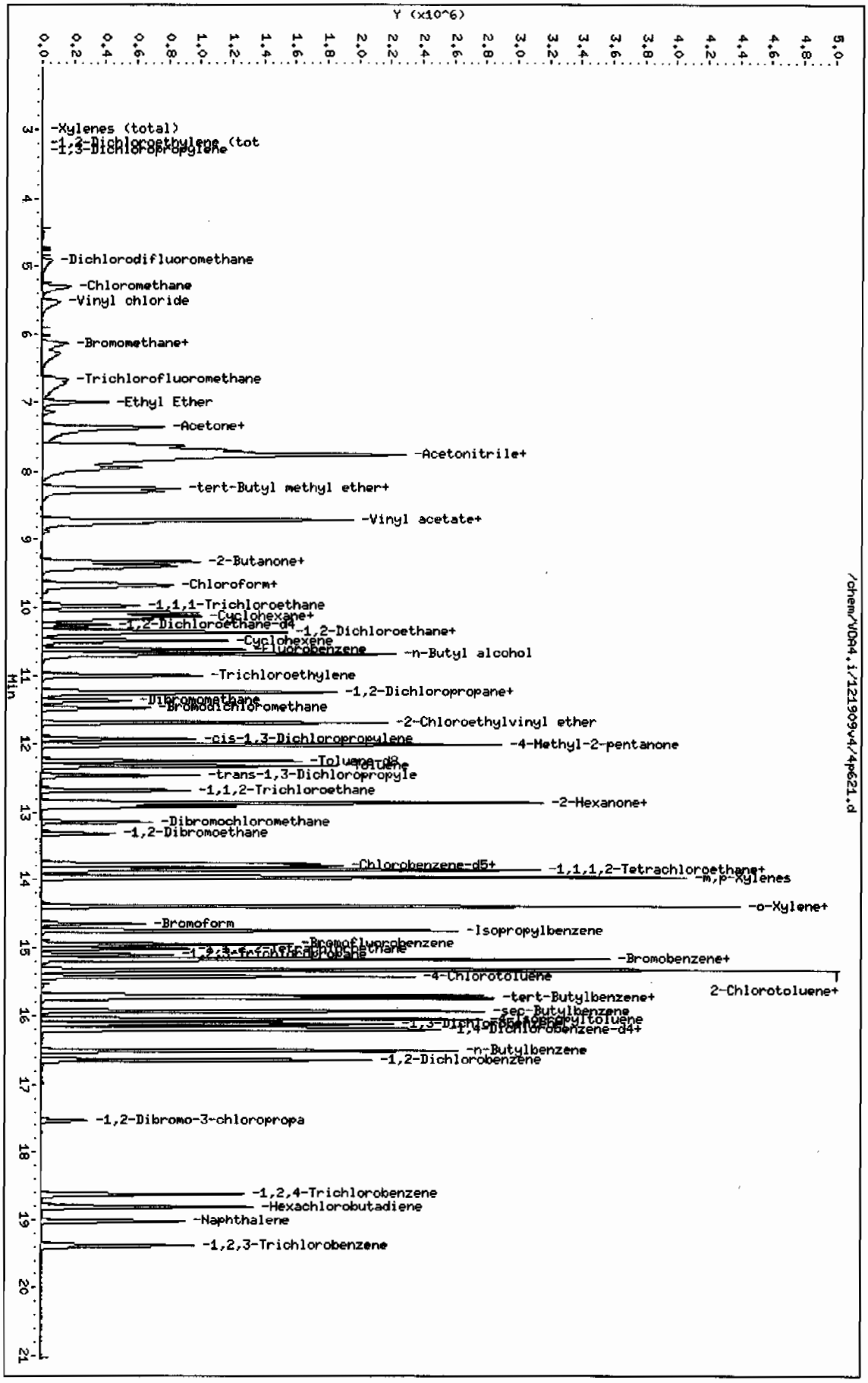

Data File: /chem/VOA4.i/122109v4/4q102.d
Report Date: 24-Dec-2009 16:24

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA4.i
Lab File ID: 4q102.d
Analysis Type: WATER
Lab Sample ID: W4VM091221-01
Method: /chem/VOA4.i/122109v4/VOA4-8260-121909.m

Injection Date: 21-DEC-2009 18:40
Init. Cal. Date(s): 19-DEC-2009 20-DEC-2009
Init. Cal. Times: 19:44 03:01
Quant Type: ISTD

COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
M 1 Xylenes (total)	0.76573	0.78310	0.78310	0.050	2.26777	30.00000	Averaged	
M 2 1,2-Dichloroethylene (total	0.50471	0.50560	0.50560	0.050	0.17777	30.00000	Averaged	
M 135 1,3-Dichloropropylene	0.44446	0.46757	0.46757	0.050	5.19958	30.00000	Averaged	
3 Dichlorodifluoromethane	0.23885	0.23869	0.23869	0.050	-0.06720	30.00000	Averaged	
4 Chloromethane	0.47229	0.51352	0.51352	0.100	8.72967	30.00000	Averaged	spcc
5 Vinyl chloride	0.35020	0.38352	0.38352	0.050	9.51591	20.00000	Averaged	ccc
6 Bromomethane	0.28074	0.28061	0.28061	0.050	-0.04448	30.00000	Averaged	
7 Chloroethane	0.29018	0.29323	0.29323	0.050	1.05109	30.00000	Averaged	
8 Trichlorofluoromethane	0.40939	0.43169	0.43169	0.050	5.44691	30.00000	Averaged	
134 Ethyl Ether	0.28283	0.26573	0.26573	0.001	-6.04866	30.00000	Averaged	
10 Acetone	0.31411	0.29268	0.29268	0.050	-6.82361	40.00000	Averaged	
15 Acetonitrile	0.05876	0.05217	0.05217	0.010	-11.21636	30.00000	Averaged	
11 1,1-Dichloroethylene	0.54650	0.55388	0.55388	0.050	1.35001	20.00000	Averaged	ccc
128 Methyl acetate	0.29024	0.26211	0.26211	0.010	-9.69302	40.00000	Averaged	
13 Iodomethane	0.55868	0.55947	0.55947	0.050	0.14202	30.00000	Averaged	
17 Methylene chloride	50.90576	50.00000	0.36091	0.050	1.81152	30.00000	Linear	
14 Carbon disulfide	1.01030	1.01430	1.01430	0.050	0.39560	30.00000	Averaged	
20 tert-Butyl methyl ether	0.82427	0.75849	0.75849	0.050	-7.97963	30.00000	Averaged	
21 trans-1,2-Dichloroethylene	0.48241	0.48966	0.48966	0.050	1.50374	30.00000	Averaged	
23 Vinyl acetate	0.72189	0.72800	0.72800	0.010	0.84727	40.00000	Averaged	
22 1,1-Dichloroethane	0.61608	0.60429	0.60429	0.100	-1.91285	30.00000	Averaged	spcc
30 2-Butanone	0.35587	0.36167	0.36167	0.030	1.62946	40.00000	Averaged	
31 cis-1,2-Dichloroethylene	0.52700	0.52155	0.52155	0.050	-1.03518	30.00000	Averaged	
25 2,2-Dichloropropane	0.28683	0.29347	0.29347	0.050	2.31603	30.00000	Averaged	
32 Chloroform	0.53358	0.52155	0.52155	0.010	-2.25480	20.00000	Averaged	ccc
29 Bromochloromethane	0.16365	0.15783	0.15783	0.010	-3.55420	30.00000	Averaged	
36 1,1,1-Trichloroethane	0.40783	0.42299	0.42299	0.010	3.71734	30.00000	Averaged	
129 Cyclohexane	0.55264	0.57085	0.57085	0.010	3.29452	30.00000	Averaged	
34 1,1-Dichloropropene	0.39037	0.39813	0.39813	0.010	1.98796	30.00000	Averaged	
131 n-Butyl alcohol	0.01124	0.01151	0.01151	0.001	2.46748	40.00000	Averaged	
33 Carbon tetrachloride	0.38712	0.40455	0.40455	0.010	4.50048	30.00000	Averaged	
$ 138 1,2-Dichloroethane-d4	0.26051	0.25134	0.25134	0.001	-3.51865	30.00000	Averaged	
37 1,2-Dichloroethane	0.43414	0.41570	0.41570	0.010	-4.24836	30.00000	Averaged	
38 Benzene	1.24035	1.21292	1.21292	0.010	-2.21111	30.00000	Averaged	
139 Cyclohexene	0.59503	0.61723	0.61723	0.001	3.73183	30.00000	Averaged	

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA4.i Injection Date: 21-DEC-2009 18:40
Lab File ID: 4q102.d Init. Cal. Date(s): 19-DEC-2009 20-DEC-2009
Analysis Type: WATER Init. Cal. Times: 19:44 03:01
Lab Sample ID: W4VM091221-01 Quant Type: ISTD
Method: /chem/VOA4.i/122109v4/VOA4-8260-121909.m

	COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
	39 Trichloroethylene	0.30647	0.30814	0.30814	0.010	0.54492	30.00000	Averaged	
	41 1,2-Dichloropropane	0.35477	0.34643	0.34643	0.010	-2.34907	20.00000	Averaged	ccc
	130 Methylcyclohexane	0.48043	0.50779	0.50779	0.010	5.69576	30.00000	Averaged	
	45 Bromodichloromethane	0.38885	0.39566	0.39566	0.010	1.74984	30.00000	Averaged	
	43 Dibromomethane	0.18537	0.18145	0.18145	0.010	-2.11079	30.00000	Averaged	
	44 2-Chloroethylvinyl ether	0.16253	0.16507	0.16507	0.005	1.56143	30.00000	Averaged	
	49 4-Methyl-2-pentanone	0.19782	0.22524	0.22524	0.010	13.85886	40.00000	Averaged	
	46 cis-1,3-Dichloropropylene	0.46758	0.48875	0.48875	0.010	4.52754	30.00000	Averaged	
$	47 Toluene-d8	1.18414	1.13460	1.13460	0.010	-4.18413	30.00000	Averaged	
	50 Toluene	0.99158	0.96496	0.96496	0.010	-2.68490	20.00000	Averaged	ccc
	53 trans-1,3-Dichloropropylene	0.57001	0.58460	0.58460	0.010	2.55948	30.00000	Averaged	
	54 1,1,2-Trichloroethane	0.31320	0.29525	0.29525	0.010	-5.72939	30.00000	Averaged	
	55 2-Hexanone	0.60850	0.66882	0.66882	0.010	9.91203	40.00000	Averaged	
	52 1,3-Dichloropropane	0.61659	0.56415	0.56415	0.010	-8.50614	30.00000	Averaged	
	56 Tetrachloroethylene	0.37476	0.36848	0.36848	0.010	-1.67568	30.00000	Averaged	
	57 Dibromochloromethane	0.41230	0.43079	0.43079	0.010	4.48553	30.00000	Averaged	
	59 1,2-Dibromoethane	0.37285	0.37083	0.37083	0.010	-0.53924	30.00000	Averaged	
	62 Chlorobenzene	1.15143	1.11473	1.11473	0.300	-3.18755	30.00000	Averaged	spcc
	60 1,1,1,2-Tetrachloroethane	0.42708	0.43748	0.43748	0.010	2.43566	30.00000	Averaged	
	58 Ethylbenzene	1.95429	1.93728	1.93728	0.010	-0.87049	20.00000	Averaged	ccc
	63 m,p-Xylenes	0.75466	0.77574	0.77574	0.010	2.79225	30.00000	Averaged	
	64 o-Xylene	0.78787	0.79782	0.79782	0.010	1.26330	30.00000	Averaged	
	65 Styrene	1.18125	1.27985	1.27985	0.010	8.34651	30.00000	Averaged	
	66 Bromoform	0.51977	0.56360	0.56360	0.100	8.43308	30.00000	Averaged	spcc
	67 Isopropylbenzene	3.27794	3.36310	3.36310	0.010	2.59774	30.00000	Averaged	
	73 1,1,2,2-Tetrachloroethane	0.90007	0.86369	0.86369	0.300	-4.04157	30.00000	Averaged	spcc
$	71 Bromofluorobenzene	0.81190	0.84308	0.84308	0.010	3.84071	30.00000	Averaged	
	74 1,2,3-Trichloropropane	0.23093	0.21731	0.21731	0.010	-5.90010	30.00000	Averaged	
	75 Bromobenzene	0.97586	0.96565	0.96565	0.010	-1.04642	30.00000	Averaged	
	76 n-Propylbenzene	3.95669	4.01523	4.01523	0.010	1.47960	30.00000	Averaged	
	77 2-Chlorotoluene	2.77809	2.70022	2.70022	0.010	-2.80274	30.00000	Averaged	
	78 1,3,5-Trimethylbenzene	2.92228	2.93600	2.93600	0.010	0.46920	30.00000	Averaged	
	80 4-Chlorotoluene	2.55750	2.60168	2.60168	0.010	1.72759	30.00000	Averaged	
	81 tert-Butylbenzene	2.86510	2.94856	2.94856	0.010	2.91277	30.00000	Averaged	
	79 1,2,4-Trimethylbenzene	3.07202	3.12067	3.12067	0.010	1.58369	30.00000	Averaged	
	83 sec-Butylbenzene	4.00210	4.06492	4.06492	0.010	1.56962	30.00000	Averaged	

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA4.i
Lab File ID: 4q102.d
Analysis Type: WATER
Lab Sample ID: W4VM091221-01
Method: /chem/VOA4.i/122109v4/VOA4-8260-121909.m

Injection Date: 21-DEC-2009 18:40
Init. Cal. Date(s): 19-DEC-2009 20-DEC-2009
Init. Cal. Times: 19:44 03:01
Quant Type: ISTD

COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
84 4-Isopropyltoluene	3.12524	3.26252	3.26252	0.010	4.39275	30.00000	Averaged
85 1,3-Dichlorobenzene	1.92605	1.90155	1.90155	0.010	-1.27218	30.00000	Averaged
87 1,4-Dichlorobenzene	1.89963	1.89369	1.89369	0.010	-0.31293	30.00000	Averaged
89 n-Butylbenzene	3.01489	3.17107	3.17107	0.010	5.18042	30.00000	Averaged
90 1,2-Dichlorobenzene	1.82245	1.77655	1.77655	0.010	-2.51833	30.00000	Averaged
92 1,2-Dibromo-3-chloropropane	0.15074	0.15358	0.15358	0.010	1.88252	30.00000	Averaged
93 1,2,4-Trichlorobenzene	0.98902	1.01778	1.01778	0.010	2.90763	30.00000	Averaged
94 Hexachlorobutadiene	0.74898	0.74911	0.74911	0.010	0.01614	30.00000	Averaged
95 Naphthalene	1.62110	1.60910	1.60910	0.010	-0.74046	30.00000	Averaged
96 1,2,3-Trichlorobenzene	0.79036	0.79409	0.79409	0.010	0.47193	30.00000	Averaged

Average %D / Drift Results.

Calculated Average %D/Drift = 3.36250
Maximun Average %D/Drift = 20.00000
* Passed Average %D/Drift Test.

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA4.i/122109v4/4q102.d
Lab Smp Id: W4VM091221-01 Client Smp ID: VSTD050
Inj Date : 21-DEC-2009 18:40
Operator : ACJ Inst ID: VOA4.i
Smp Info : |W4VM091221-01|CCV|1|VOAF|1|
Misc Info : GEL 5ML N/A UVM090911-07D/UVM091130-07C
Comment :
Method : /chem/VOA4.i/122109v4/VOA4-8260-121909.m
Meth Date : 24-Dec-2009 16:24 amj Quant Type: ISTD
Cal Date : 20-DEC-2009 02:33 Cal File: 4p618.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: CALsubL+.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (Uf/Vo) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	sample purged

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
M 1 Xylenes (total)	106				2250440	150.000	153
M 2 1,2-Dichloroethylene (total)	96				1268573	100.000	100
M 135 1,3-Dichloropropylene	75				1173152	100.000	105
3 Dichlorodifluoromethane	85	4.911	4.911	(0.463)	299436	50.0000	50.0
4 Chloromethane	50	5.299	5.299	(0.499)	644214	50.0000	54.4
5 Vinyl chloride	62	5.521	5.521	(0.520)	481132	50.0000	54.8
6 Bromomethane	94	6.130	6.130	(0.578)	352030	50.0000	50.0
7 Chloroethane	64	6.288	6.288	(0.592)	367859	50.0000	50.5
8 Trichlorofluoromethane	101	6.669	6.669	(0.628)	541561	50.0000	52.7
134 Ethyl Ether	59	6.998	6.998	(0.659)	333356	50.0000	47.0
10 Acetone	43	7.358	7.358	(0.693)	1835831	250.000	233
15 Acetonitrile	41	7.699	7.699	(0.725)	1636288	1250.00	1110
11 1,1-Dichloroethylene	61	7.389	7.389	(0.696)	694850	50.0000	50.7
128 Methyl acetate	43	7.748	7.748	(0.730)	1644103	250.000	226
13 Iodomethane	142	7.632	7.632	(0.719)	3509313	250.000	250

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
17 Methylene chloride	84	7.943	7.943	(0.748)	452769	50.0000	50.9
14 Carbon disulfide	76	7.773	7.773	(0.732)	6362241	250.000	251
20 tert-Butyl methyl ether	73	8.242	8.242	(0.777)	951538	50.0000	46.0
21 trans-1,2-Dichloroethylene	61	8.285	8.285	(0.781)	614286	50.0000	50.8
23 Vinyl acetate	43	8.705	8.705	(0.820)	4566443	250.000	252
22 1,1-Dichloroethane	63	8.754	8.754	(0.825)	758094	50.0000	49.0
30 2-Butanone	43	9.327	9.327	(0.879)	2268591	250.000	254
31 cis-1,2-Dichloroethylene	61	9.388	9.388	(0.885)	654287	50.0000	49.5
25 2,2-Dichloropropane	77	9.419	9.419	(0.887)	368167	50.0000	51.2
32 Chloroform	83	9.687	9.687	(0.913)	654285	50.0000	48.9
29 Bromochloromethane	128	9.656	9.656	(0.910)	198005	50.0000	48.2
36 1,1,1-Trichloroethane	97	9.980	9.980	(0.940)	530650	50.0000	51.8
129 Cyclohexane	56	10.083	10.083	(0.950)	716139	50.0000	51.6
34 1,1-Dichloropropene	75	10.132	10.132	(0.955)	499459	50.0000	51.0
131 n-Butyl alcohol	56	10.687	10.687	(1.007)	1444357	5000.00	5120
33 Carbon tetrachloride	117	10.175	10.175	(0.959)	507510	50.0000	52.2
$ 138 1,2-Dichloroethane-d4	65	10.260	10.260	(0.967)	315311	50.0000	48.2
37 1,2-Dichloroethane	62	10.339	10.339	(0.974)	521502	50.0000	47.9
38 Benzene	78	10.370	10.370	(0.977)	1521625	50.0000	48.9
139 Cyclohexene	67	10.492	10.492	(0.988)	774326	50.0000	51.9
* 40 Fluorobenzene	96	10.614	10.614	(1.000)	1254513	50.0000	
39 Trichloroethylene	95	11.004	11.004	(1.037)	386564	50.0000	50.3
41 1,2-Dichloropropane	63	11.241	11.241	(1.059)	434605	50.0000	48.8
130 Methylcyclohexane	83	11.260	11.260	(1.061)	637035	50.0000	52.8
45 Bromodichloromethane	83	11.479	11.479	(1.082)	496358	50.0000	50.9
43 Dibromomethane	93	11.376	11.376	(1.072)	227636	50.0000	48.9
44 2-Chloroethylvinyl ether	63	11.699	11.699	(1.102)	1035420	250.000	254
49 4-Methyl-2-pentanone	58	12.016	12.016	(0.873)	1078808	250.000	285
46 cis-1,3-Dichloropropylene	75	11.930	11.930	(1.124)	613147	50.0000	52.3
$ 47 Toluene-d8	98	12.247	12.247	(0.890)	1086855	50.0000	47.9
50 Toluene	92	12.321	12.321	(0.895)	924357	50.0000	48.6
53 trans-1,3-Dichloropropylene	75	12.461	12.461	(0.905)	560005	50.0000	51.3
54 1,1,2-Trichloroethane	83	12.680	12.680	(0.921)	282828	50.0000	47.1
55 2-Hexanone	43	12.857	12.857	(0.934)	3203379	250.000	275
52 1,3-Dichloropropane	76	12.875	12.875	(0.935)	540408	50.0000	45.7
56 Tetrachloroethylene	164	12.918	12.918	(0.938)	352971	50.0000	49.2
57 Dibromochloromethane	129	13.144	13.144	(0.955)	412668	50.0000	52.2
59 1,2-Dibromoethane	107	13.314	13.314	(0.967)	355231	50.0000	49.7
* 61 Chlorobenzene-d5	117	13.765	13.765	(1.000)	957923	50.0000	
62 Chlorobenzene	112	13.802	13.802	(1.003)	1067822	50.0000	48.4
60 1,1,1,2-Tetrachloroethane	131	13.851	13.851	(1.006)	419072	50.0000	51.2
58 Ethylbenzene	91	13.863	13.863	(1.007)	1855764	50.0000	49.6
63 m,p-Xylenes	106	13.967	13.967	(1.015)	1486189	100.000	103
64 o-Xylene	106	14.399	14.399	(1.046)	764251	50.0000	50.6
65 Styrene	104	14.399	14.399	(1.046)	1225996	50.0000	54.2
66 Bromoform	173	14.655	14.655	(0.906)	346285	50.0000	54.2
67 Isopropylbenzene	105	14.759	14.759	(0.913)	2066334	50.0000	51.3

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
73 1,1,2,2-Tetrachloroethane	83	15.015	15.015	(0.928)	530664	50.0000	48.0
$ 71 Bromofluorobenzene	95	14.948	14.948	(0.924)	518003	50.0000	51.9
74 1,2,3-Trichloropropane	110	15.107	15.107	(0.934)	133518	50.0000	47.0
75 Bromobenzene	156	15.168	15.168	(0.938)	593307	50.0000	49.5
76 n-Propylbenzene	91	15.180	15.180	(0.939)	2467015	50.0000	50.7
77 2-Chlorotoluene	91	15.332	15.332	(0.948)	1659055	50.0000	48.6
78 1,3,5-Trimethylbenzene	105	15.332	15.332	(0.948)	1803917	50.0000	50.2
80 4-Chlorotoluene	91	15.430	15.430	(0.954)	1598509	50.0000	50.9
81 tert-Butylbenzene	119	15.704	15.704	(0.971)	1811634	50.0000	51.4
79 1,2,4-Trimethylbenzene	105	15.741	15.741	(0.973)	1917384	50.0000	50.8
83 sec-Butylbenzene	105	15.930	15.930	(0.985)	2497541	50.0000	50.8
84 4-Isopropyltoluene	119	16.052	16.052	(0.992)	2004540	50.0000	52.2
85 1,3-Dichlorobenzene	146	16.119	16.119	(0.997)	1168338	50.0000	49.4
* 86 1,4-Dichlorobenzene-d4	152	16.173	16.173	(1.000)	614414	50.0000	
87 1,4-Dichlorobenzene	146	16.204	16.204	(1.002)	1163509	50.0000	49.8
89 n-Butylbenzene	91	16.503	16.503	(1.020)	1948350	50.0000	52.6
90 1,2-Dichlorobenzene	146	16.643	16.643	(1.029)	1091538	50.0000	48.7
92 1,2-Dibromo-3-chloropropane	157	17.527	17.527	(1.084)	94359	50.0000	50.9
93 1,2,4-Trichlorobenzene	180	18.630	18.630	(1.152)	625338	50.0000	51.4
94 Hexachlorobutadiene	225	18.813	18.813	(1.163)	460261	50.0000	50.0
95 Naphthalene	128	19.033	19.033	(1.177)	988652	50.0000	49.6
96 1,2,3-Trichlorobenzene	180	19.386	19.386	(1.199)	487901	50.0000	50.2

Data File: /chem/VOA4.i/122109v4/4q102.d
Date : 21-DEC-2009 18:40
Client ID: VSTD050
Sample Info: |W4VM091221-01|CCV|1|VOAF|1|
Purge Volume: 5.0
Column phase: RTX-VOLATILES

Instrument: VOA4.i
Operator: ACJ
Column diameter: 0.25

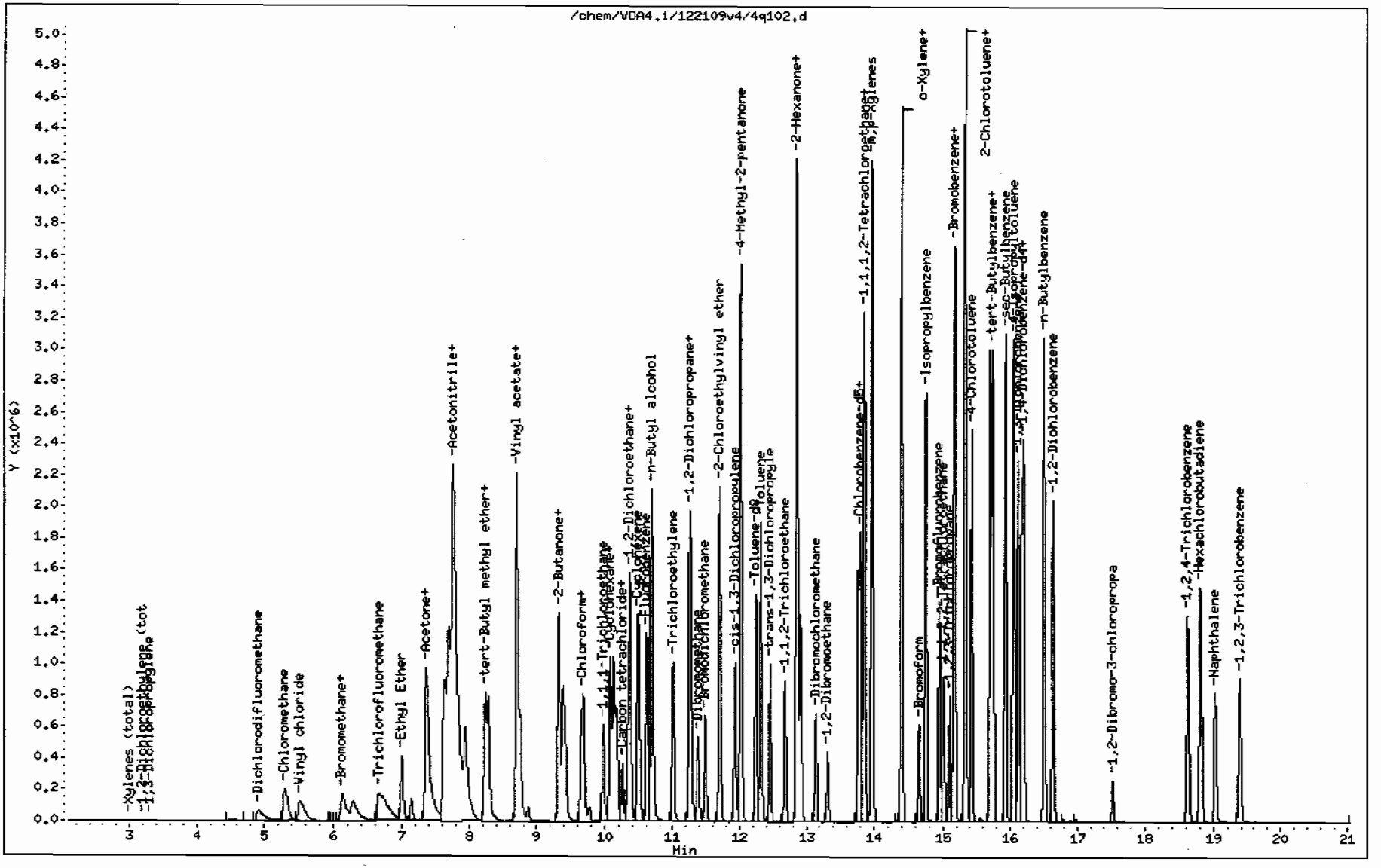

QC Data

Data File: /chem/VOA4.i/121909v4/4p601.d

Page 1

Date : 19-DEC-2009 18:50

Client ID: BFB01

Instrument: VOA4.i

Sample Info: |UVH090910-02|BFB|1|VOAF|1|

Operator: ACJ

Column phase: DB-624

Column diameter: 0.25

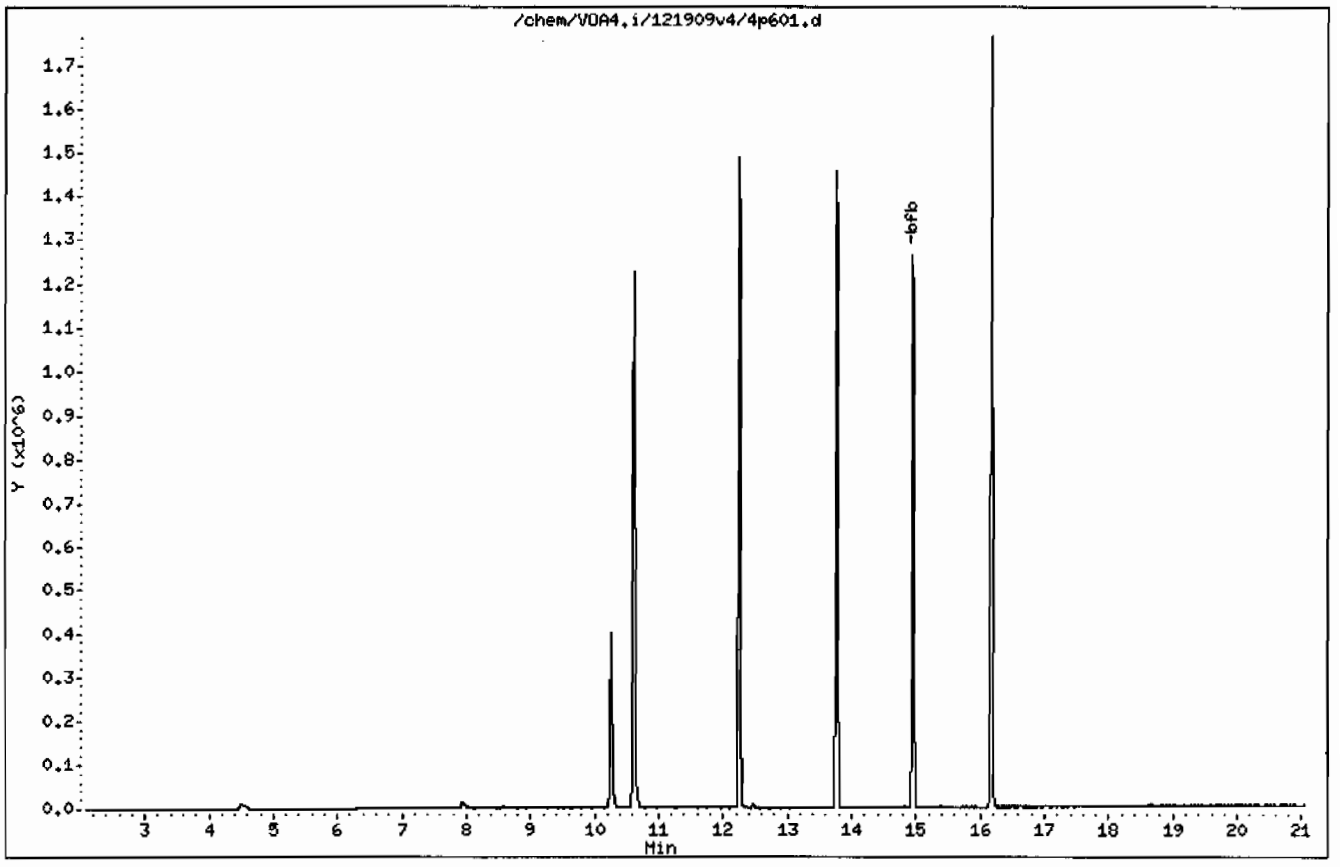

Data File: /chem/VOA4.i/121909v4/4p601.d

Date : 19-DEC-2009 18:50

Client ID: BFB01 Instrument: VOA4.i

Sample Info: |UVM090910-02|BFB|1|VOAF|1|

Operator: ACJ

Column phase: DB-624 Column diameter: 0.25

1 bfb

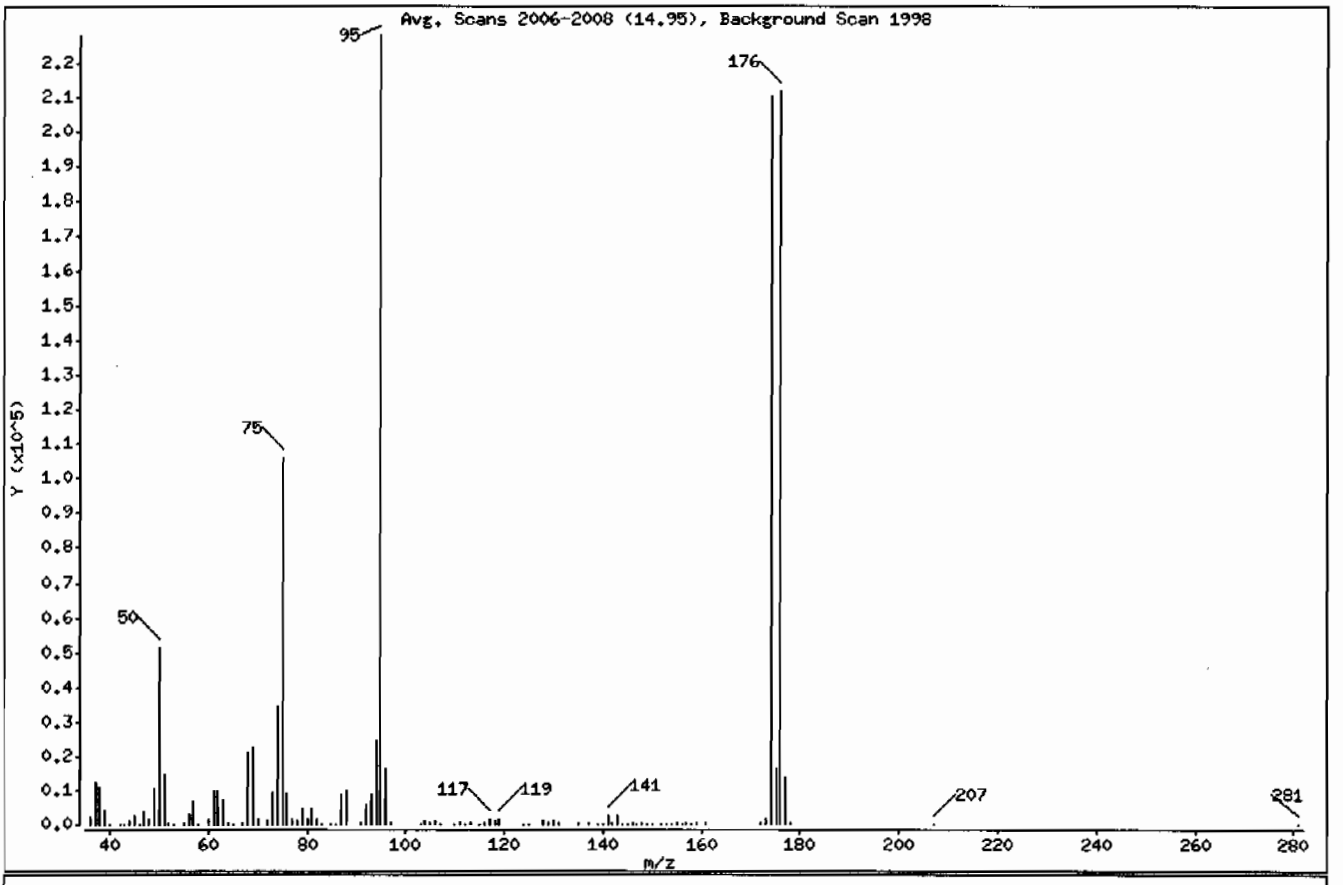

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	22.45
75	30.00 - 60.00% of mass 95	46.50
96	5.00 - 9.00% of mass 95	7.03
173	Less than 2.00% of mass 174	0.58 (0.63)
174	50.00 - 100.00% of mass 95	91.87
175	5.00 - 9.00% of mass 174	7.13 (7.76)
176	95.00 - 101.00% of mass 174	92.54 (100.73)
177	5.00 - 9.00% of mass 176	5.96 (6.45)

Data File: /chem/VOA4.i/121909v4/4p601.d

Date : 19-DEC-2009 18:50

Client ID: BFB01 Instrument: VOA4.i

Sample Info: |UVH090910-02|BFB|1|VOAF|1|

Operator: ACJ

Column phase: DB-624 Column diameter: 0.25

Data File: 4p601.d
Spectrum: Avg. Scans 2006-2008 (14.95), Background Scan 1998
Location of Maximum: 95.00
Number of points: 106

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	2242	67.00	435	103.00	57	144.00	133
37.00	12564	68.00	20800	104.00	883	145.00	215
38.00	10797	69.00	22696	105.00	293	146.00	382
39.00	4231	70.00	1542	106.00	900	147.00	202
40.00	70	72.00	1072	107.00	228	148.00	663
42.00	60	73.00	9341	110.00	69	149.00	202
43.00	139	74.00	34408	111.00	273	150.00	245
44.00	1103	75.00	106096	112.00	51	152.00	70
45.00	2370	76.00	8670	113.00	263	153.00	178
46.00	231	77.00	1566	115.00	148	154.00	82
47.00	3852	78.00	928	116.00	679	155.00	456
48.00	1328	79.00	4928	117.00	1443	156.00	211
49.00	10482	80.00	1511	118.00	1031	157.00	442
50.00	51216	81.00	4981	119.00	1358	158.00	66
51.00	14626	82.00	1330	124.00	75	159.00	342
52.00	684	83.00	217	125.00	126	161.00	316
53.00	59	85.00	88	128.00	894	172.00	362
55.00	458	86.00	72	129.00	312	173.00	1324
56.00	3260	87.00	9157	130.00	879	174.00	209600
57.00	6611	88.00	10177	131.00	348	175.00	16265
58.00	168	91.00	728	135.00	490	176.00	211136
60.00	1706	92.00	5937	137.00	447	177.00	13608
61.00	10079	93.00	8667	139.00	69	178.00	396
62.00	10138	94.00	24488	140.00	254	207.00	67
63.00	7367	95.00	228160	141.00	2855	281.00	20
64.00	632	96.00	16036	142.00	311		
65.00	182	97.00	575	143.00	2742		

Data File: /chem/VOA4.i/122109v4/4q101.d

Date : 21-DEC-2009 18:12

Client ID: BFB01

Instrument: VOA4.i

Sample Info: |UVH090910-02|BFB|1|VOAF|1|

Operator: ACJ

Column phase: DB-624

Column diameter: 0.25

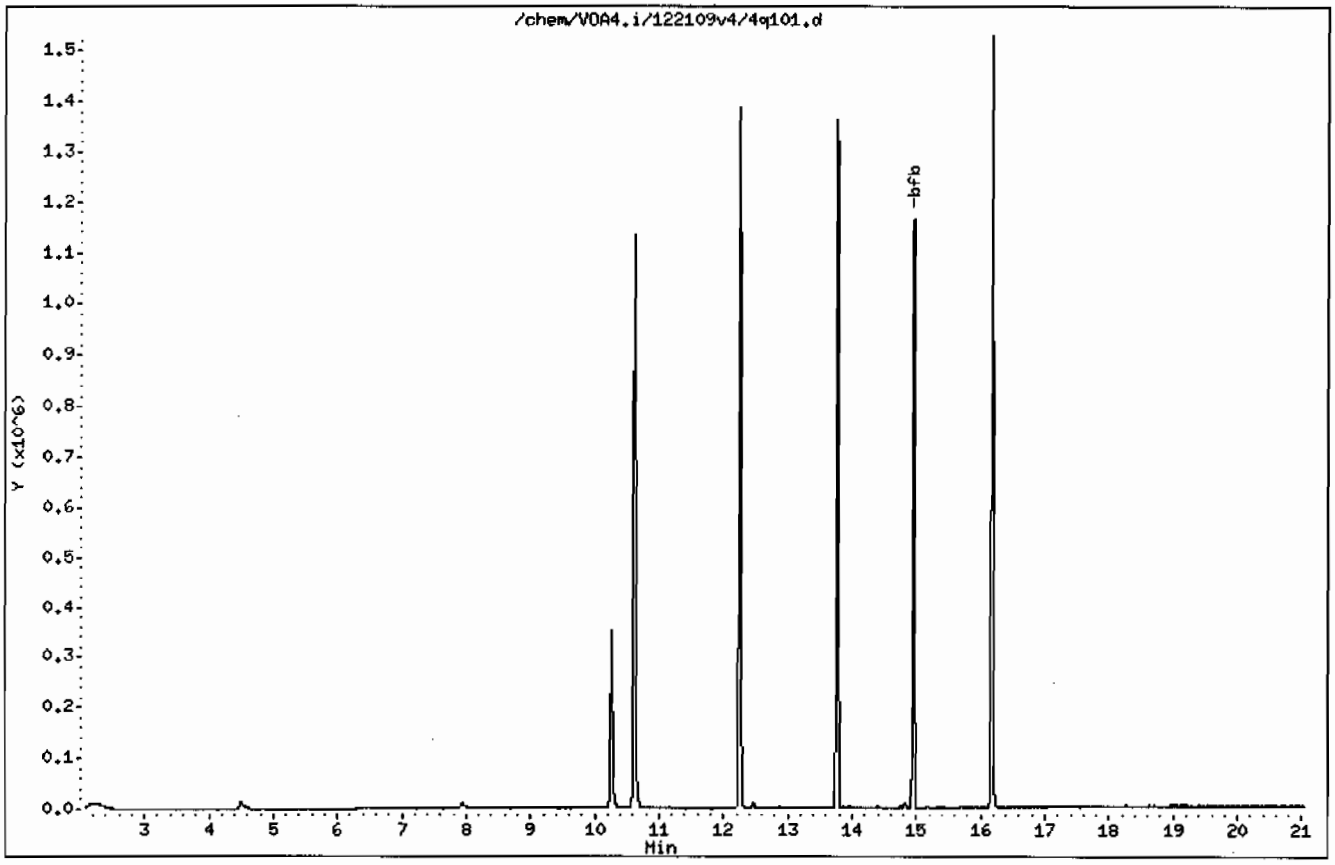

Data File: /chem/VOA4.i/122109v4/4q101.d

Date : 21-DEC-2009 18:12

Client ID: BFB01

Instrument: VOA4.i

Sample Info: |UVM090910-02|BFB|1|VOAF|1|

Operator: ACJ

Column phase: DB-624

Column diameter: 0.25

1 bfb

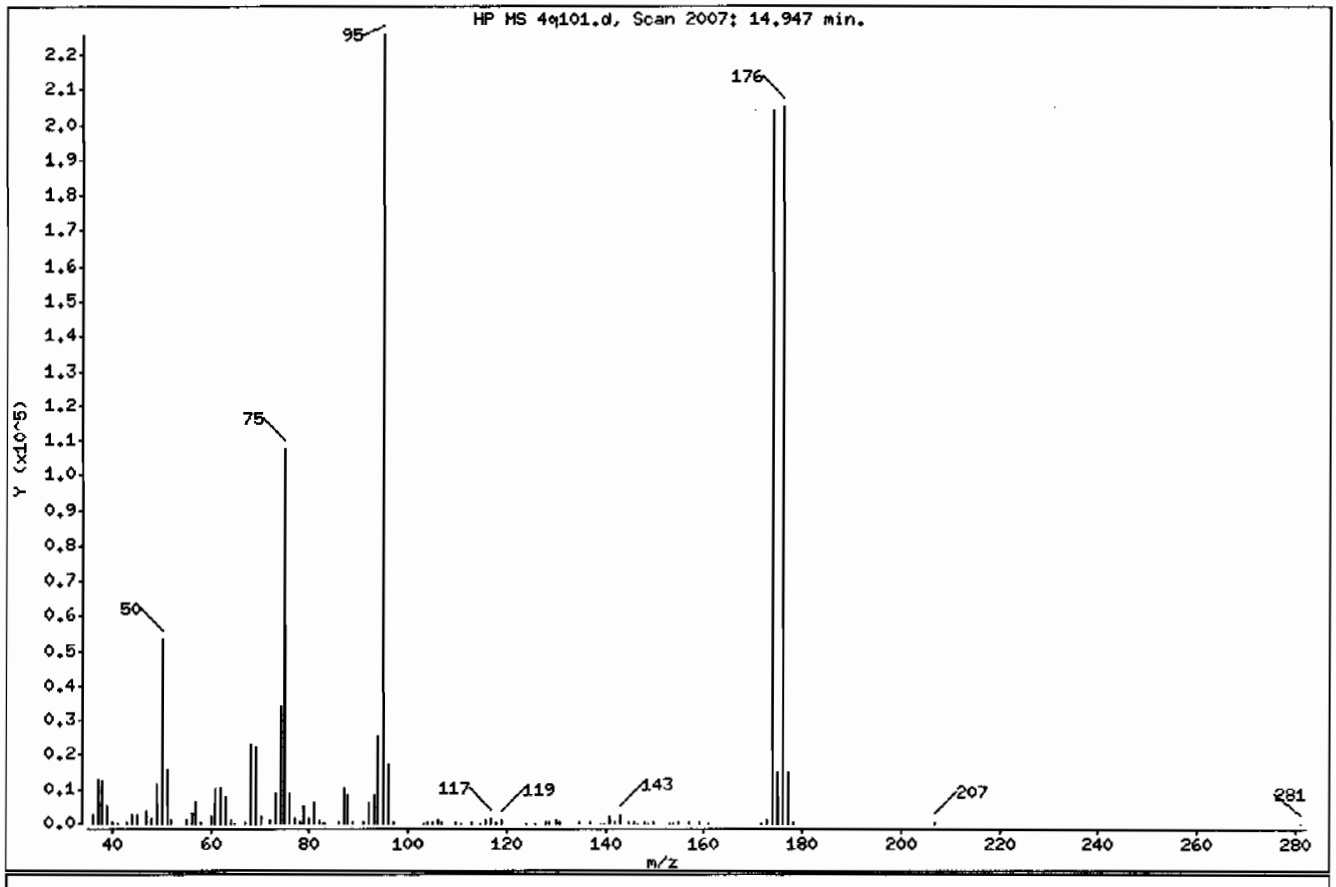

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	23.69
75	30.00 - 60.00% of mass 95	47.60
96	5.00 - 9.00% of mass 95	7.56
173	Less than 2.00% of mass 174	0.43 (0.48)
174	50.00 - 100.00% of mass 95	90.42
175	5.00 - 9.00% of mass 174	6.66 (7.36)
176	95.00 - 101.00% of mass 174	90.79 (100.41)
177	5.00 - 9.00% of mass 176	6.76 (7.45)

Data File: /chem/VOA4.i/122109v4/4q101.d

Date : 21-DEC-2009 18:12

Client ID: BFB01 Instrument: VOA4.i

Sample Info: |UVM090910-02|BFB|1|VOAF|1|

Operator: ACJ

Column phase: DB-624 Column diameter: 0.25

Data File: 4q101.d
Spectrum: HP MS 4q101.d, Scan 2007: 14.947 min.
Location of Maximum: 95.00
Number of points: 100

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	2626	68.00	22608	97.00	638	142.90	2359
37.00	13234	69.00	22144	103.00	205	144.90	260
38.00	12352	70.00	2134	103.80	675	145.90	506
39.00	4966	72.10	942	104.80	494	146.70	167
40.00	687	73.00	8958	105.90	928	147.90	700
41.00	186	74.00	34256	106.90	444	148.90	252
43.00	338	75.00	107480	109.80	286	149.70	275
44.00	2404	76.00	8844	110.80	184	152.90	193
45.10	2622	77.00	1445	113.00	301	153.80	176
47.00	3823	77.90	688	114.70	236	154.90	748
47.90	1608	78.90	5437	115.90	834	157.00	495
49.00	11463	79.90	1514	116.90	1482	159.00	316
50.00	53480	80.90	6128	117.90	684	160.90	252
51.00	15342	81.90	989	118.90	1230	171.70	218
52.00	889	82.80	164	123.90	158	172.90	981
55.10	801	83.10	191	125.80	199	173.90	204160
56.00	3055	86.00	271	127.80	757	174.90	15006
57.00	6086	86.90	10198	128.80	300	175.90	204992
58.00	282	87.90	8397	129.90	928	176.90	15274
60.00	2084	88.70	444	130.80	299	178.00	333
61.00	10043	90.90	753	134.90	481	206.90	429
62.00	10148	91.90	6368	136.80	305	281.20	161
63.00	7754	93.00	8475	138.90	176		
64.00	970	94.00	25248	139.90	153		
64.90	198	95.00	225792	140.90	2005		
67.10	420	96.00	17072	141.90	496		

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-939-1**			**Matrix:**	**TCLP SOIL**
Lab Sample ID:	**1201999914**				
Client Sample:	**QC for batch 934761**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**TB for batch 934761**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**935696**	**Inst:**	**VOA4.I**	**Dilution:**	**10**
Run Date:	**12/21/2009 21:42**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**12/18/2009 16:00**				
Data File:	**4q108.d**	**Column:**	**RTX-VOLATILES**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-01-4	Vinyl chloride	U	0.010	mg/L	0.005	0.010
75-35-4	1,1-Dichloroethylene	U	0.010	mg/L	0.003	0.010
78-93-3	2-Butanone	U	0.050	mg/L	0.0125	0.050
67-66-3	Chloroform	U	0.010	mg/L	0.0025	0.010
56-23-5	Carbon tetrachloride	U	0.010	mg/L	0.003	0.010
107-06-2	1,2-Dichloroethane	U	0.010	mg/L	0.0025	0.010
71-43-2	Benzene	U	0.010	mg/L	0.003	0.010
79-01-6	Trichloroethylene	U	0.010	mg/L	0.0025	0.010
127-18-4	Tetrachloroethylene	U	0.010	mg/L	0.003	0.010
108-90-7	Chlorobenzene	U	0.010	mg/L	0.0025	0.010
106-46-7	1,4-Dichlorobenzene	U	0.010	mg/L	0.0025	0.010

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA4.i/122109v4/4q108.d
Lab Smp Id: 1201999914 Client Smp ID: TCLPBLANK
Inj Date : 21-DEC-2009 21:42
Operator : ACJ Inst ID: VOA4.i
Smp Info : |1201999914|935696|10|VOAF|1|
Misc Info : GEL 500UL N/A TCLPBLANK
Comment :
Method : /chem/VOA4.i/122109v4/VOA4-8260-121909.m
Meth Date : 21-Dec-2009 20:38 amj Quant Type: ISTD
Cal Date : 20-DEC-2009 02:33 Cal File: 4p618.d
Als bottle: 8 QC Sample: TB
Dil Factor: 10.00000
Integrator: HP RTE Compound Sublist: CALsubL+.sub
Target Version: 3.50

Concentration Formula: Amt * DF * (Uf/Vo) * CpndVariable

Name	Value	Description
DF	10.00000	Dilution Factor
Uf	0.00500	ng unit correction factor
Vo	5.00000	sample purged

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (mg/l)
$ 138 1,2-Dichloroethane-d4	65	10.260	10.260	(0.967)	300931	46.2032	0.046
* 40 Fluorobenzene	96	10.614	10.614	(1.000)	1250100	50.0000	
$ 47 Toluene-d8	98	12.254	12.247	(0.890)	1047420	48.8832	0.049
* 61 Chlorobenzene-d5	117	13.765	13.765	(1.000)	904749	50.0000	
$ 71 Bromofluorobenzene	95	14.948	14.948	(0.924)	465162	54.5239	0.054
* 86 1,4-Dichlorobenzene-d4	152	16.180	16.173	(1.000)	525392	50.0000	

Data File: /chem/VOA4.i/122109v4/4q108.d
Date : 21-DEC-2009 21:42
Client ID: TCLPBLANK
Sample Info: |120199991419356961101VOAF|1|
Purge Volume: 5.0
Column phase: RTX-VOLATILES

Instrument: VOA4.i
Operator: ACJ
Column diameter: 0.25

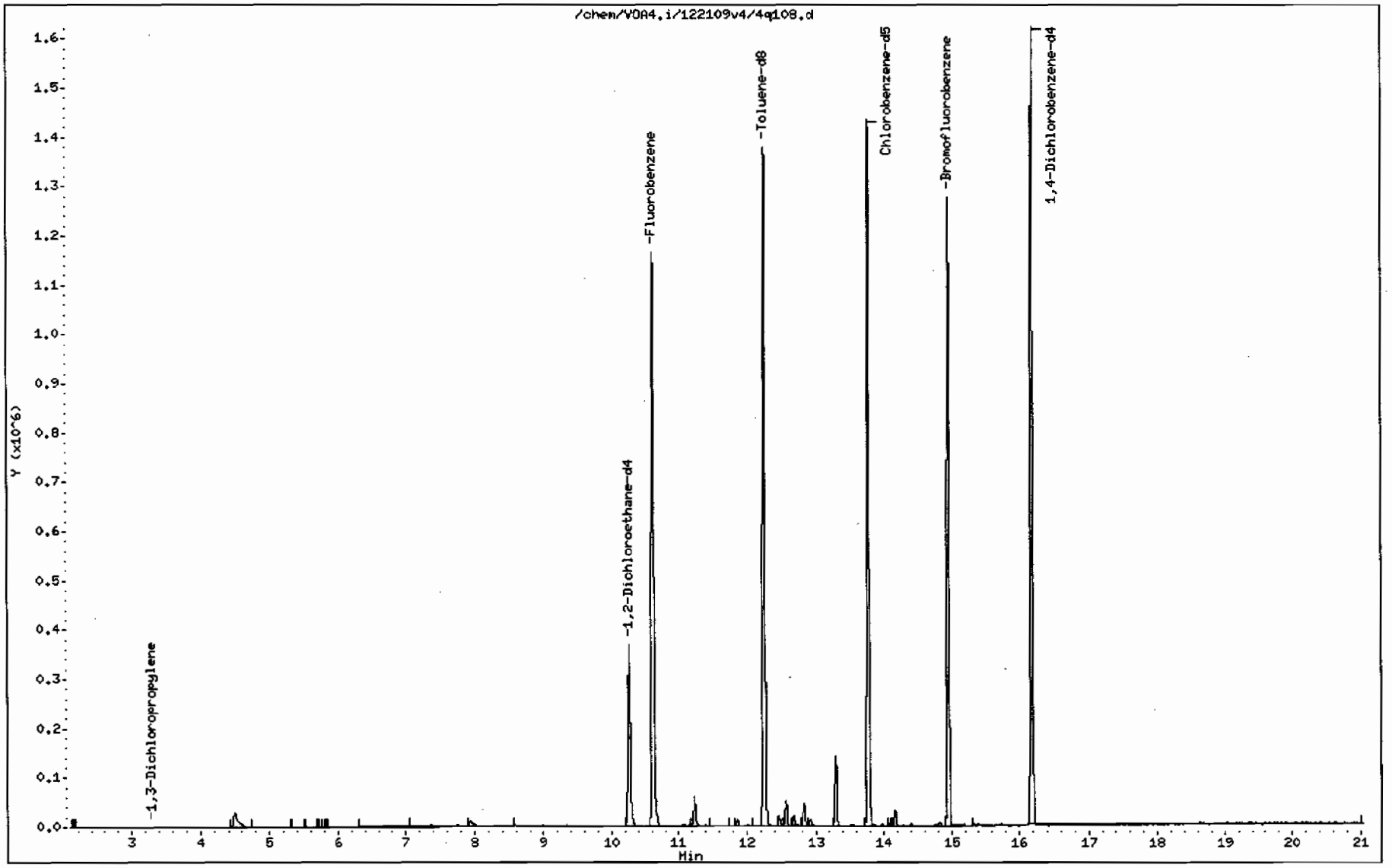

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-939-1**			**Matrix:**	**TCLP SOIL**
Lab Sample ID:	**1202002119**				
Client Sample:	**QC for batch 935696**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 935696**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**935696**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**12/21/2009 20:55**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**12/21/2009 20:55**				
Data File:	**4q107bl.d**	**Column:**	**RTX-VOLATILES**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-01-4	Vinyl chloride	U	0.001	mg/L	0.0005	0.001
75-35-4	1,1-Dichloroethylene	U	0.001	mg/L	0.0003	0.001
78-93-3	2-Butanone	U	0.005	mg/L	0.00125	0.005
67-66-3	Chloroform	U	0.001	mg/L	0.00025	0.001
56-23-5	Carbon tetrachloride	U	0.001	mg/L	0.0003	0.001
107-06-2	1,2-Dichloroethane	U	0.001	mg/L	0.00025	0.001
71-43-2	Benzene	U	0.001	mg/L	0.0003	0.001
79-01-6	Trichloroethylene	U	0.001	mg/L	0.00025	0.001
127-18-4	Tetrachloroethylene	U	0.001	mg/L	0.0003	0.001
108-90-7	Chlorobenzene	U	0.001	mg/L	0.00025	0.001
106-46-7	1,4-Dichlorobenzene	U	0.001	mg/L	0.00025	0.001

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA4.i/122109v4/4q107bl.d
Lab Smp Id: 1202002119 Client Smp ID: BLANK
Inj Date : 21-DEC-2009 20:55
Operator : ACJ Inst ID: VOA4.i
Smp Info : |1202002119|935696|1|VOAF|1|
Misc Info : GEL 5ML N/A
Comment :
Method : /chem/VOA4.i/122109v4/VOA4-8260-121909.m
Meth Date : 21-Dec-2009 20:38 amj Quant Type: ISTD
Cal Date : 20-DEC-2009 02:33 Cal File: 4p618.d
Als bottle: 7 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (Uf/Vo) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	0.00500	ng unit correction factor
Vo	5.00000	sample purged

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (mg/l)
$ 138 1,2-Dichloroethane-d4	65	10.259	10.260	(0.966)	293084	46.4949	0.046
* 40 Fluorobenzene	96	10.619	10.614	(1.000)	1209862	50.0000	
$ 47 Toluene-d8	98	12.252	12.247	(0.890)	1038534	49.8732	0.050
* 61 Chlorobenzene-d5	117	13.770	13.765	(1.000)	879266	50.0000	
$ 71 Bromofluorobenzene	95	14.953	14.948	(0.924)	459401	55.1394	0.055
* 86 1,4-Dichlorobenzene-d4	152	16.178	16.173	(1.000)	513093	50.0000	

Data File: /chem/VOA4.i/122109v4/4q107bl.d
Date : 21-DEC-2009 20:55
Client ID: BLANK
Sample Info: |120200211919356961|1|VOAF|1|
Purge Volume: 5.0
Column phase: RTX-VOLATILES

Instrument: VOA4.i

Operator: ACJ
Column diameter: 0.25

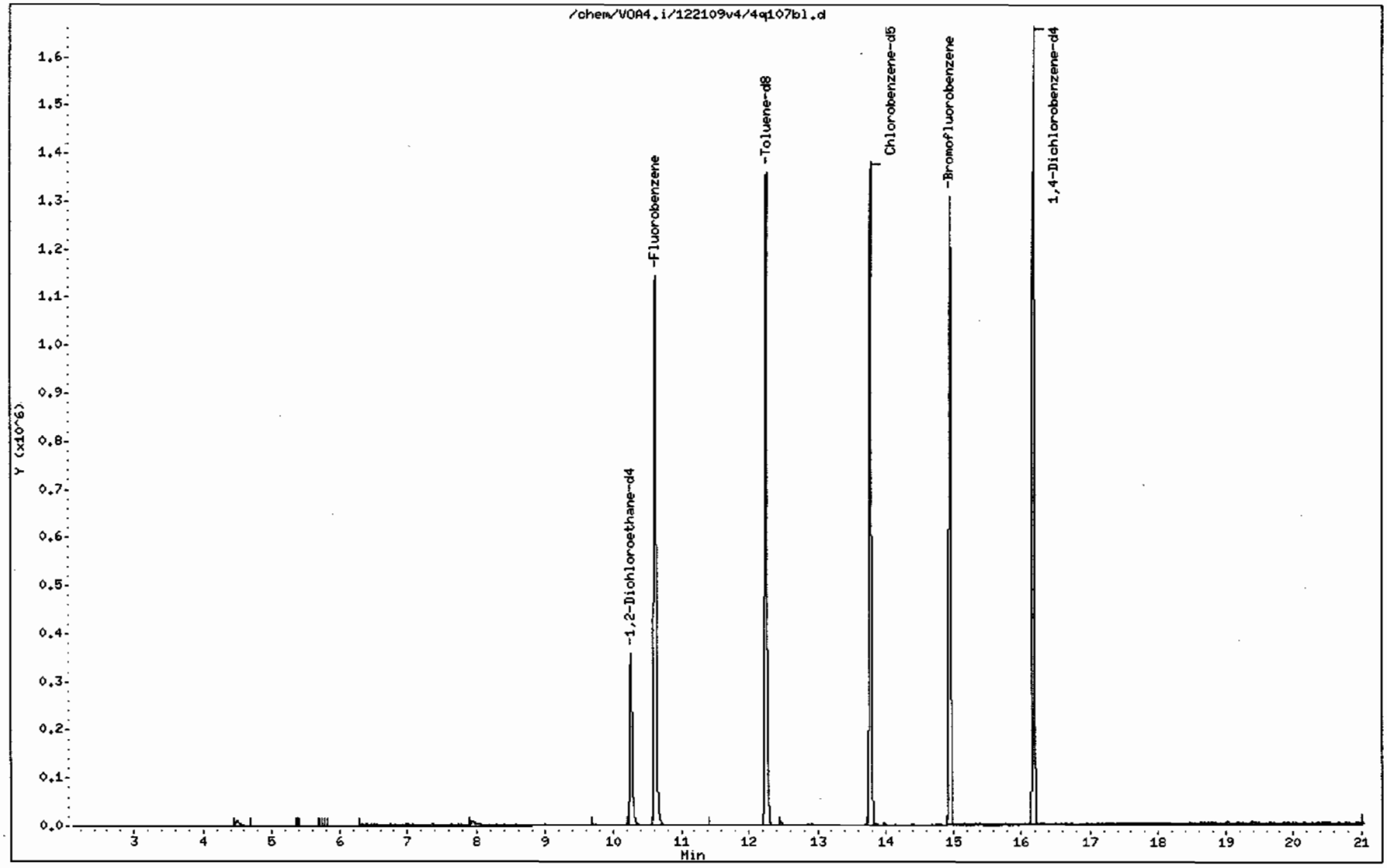

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-939-1**			**Matrix:**	**TCLP SOIL**
Lab Sample ID:	**1202002122**				
Client Sample:	**QC for batch 935696**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 935696**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**935696**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**12/21/2009 19:07**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**12/21/2009 19:07**				
Data File:	**4q103ll.d**	**Column:**	**RTX-VOLATILES**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-01-4	Vinyl chloride		0.0398	mg/L	0.0005	0.001
75-35-4	1,1-Dichloroethylene		0.0363	mg/L	0.0003	0.001
78-93-3	2-Butanone		0.154	mg/L	0.00125	0.005
67-66-3	Chloroform		0.0387	mg/L	0.00025	0.001
56-23-5	Carbon tetrachloride		0.0407	mg/L	0.0003	0.001
107-06-2	1,2-Dichloroethane		0.0386	mg/L	0.00025	0.001
71-43-2	Benzene		0.038	mg/L	0.0003	0.001
79-01-6	Trichloroethylene		0.0391	mg/L	0.00025	0.001
127-18-4	Tetrachloroethylene		0.0389	mg/L	0.0003	0.001
108-90-7	Chlorobenzene		0.0389	mg/L	0.00025	0.001
106-46-7	1,4-Dichlorobenzene		0.0395	mg/L	0.00025	0.001

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA4.i/122109v4/4q10311.d
Lab Smp Id: 1202002122 Client Smp ID: LCS
Inj Date : 21-DEC-2009 19:07
Operator : ACJ Inst ID: VOA4.i
Smp Info : |1202002122|935696|1|VOAF|1|
Misc Info : GEL 5ML N/A UVM091214-01A/IVM091217-01
Comment :
Method : /chem/VOA4.i/122109v4/VOA4-8260-121909.m
Meth Date : 21-Dec-2009 20:38 amj Quant Type: ISTD
Cal Date : 20-DEC-2009 02:33 Cal File: 4p618.d
Als bottle: 3 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (Uf/Vo) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	0.00500	ng unit correction factor
Vo	5.00000	sample purged

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (mg/l)
M 1 Xylenes (total)	106				1787564	119.015	0.12
M 2 1,2-Dichloroethylene (total)	96				1023356	77.6272	0.078
M 135 1,3-Dichloropropylene	75				957667	82.4660	0.082
3 Dichlorodifluoromethane	85	4.911	4.911	(0.463)	207260	33.2116	0.033
4 Chloromethane	50	5.299	5.299	(0.499)	446166	36.1564	0.036
5 Vinyl chloride	62	5.521	5.521	(0.520)	363770	39.7567	0.040
6 Bromomethane	94	6.137	6.130	(0.578)	277075	37.7742	0.038
7 Chloroethane	64	6.281	6.288	(0.592)	291086	38.3930	0.038
8 Trichlorofluoromethane	101	6.669	6.669	(0.628)	448054	41.8878	0.042
134 Ethyl Ether	59	6.998	6.998	(0.659)	277850	37.5990	0.038
10 Acetone	43	7.358	7.358	(0.693)	1202932	146.573	0.15
11 1,1-Dichloroethylene	61	7.382	7.389	(0.696)	518078	36.2826	0.036
13 Iodomethane	142	7.632	7.632	(0.719)	2740011	187.710	0.19
15 Acetonitrile	41	7.699	7.699	(0.725)	1385311	902.259	0.90
128 Methyl acetate	43	7.748	7.748	(0.730)	1409241	185.831	0.18

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (mg/l)
14 Carbon disulfide	76	7.773	7.773	(0.732)	5032598	190.650	0.19
17 Methylene chloride	84	7.937	7.943	(0.748)	361349	38.4103	0.038
20 tert-Butyl methyl ether	73	8.242	8.242	(0.777)	805260	37.3908	0.037
21 trans-1,2-Dichloroethylene	61	8.285	8.285	(0.781)	492505	39.0744	0.039
23 Vinyl acetate	43	8.705	8.705	(0.820)	4002774	212.221	0.21
22 1,1-Dichloroethane	63	8.760	8.754	(0.825)	606465	37.6761	0.038
30 2-Butanone	43	9.327	9.327	(0.879)	1428186	153.599	0.15
31 cis-1,2-Dichloroethylene	61	9.388	9.388	(0.885)	530851	38.5528	0.038
25 2,2-Dichloropropane	77	9.419	9.419	(0.887)	314466	41.9607	0.042
29 Bromochloromethane	128	9.656	9.656	(0.910)	166774	39.0037	0.039
32 Chloroform	83	9.693	9.687	(0.913)	539164	38.6741	0.039
36 1,1,1-Trichloroethane	97	9.979	9.980	(0.940)	439693	41.2632	0.041
129 Cyclohexane	56	10.083	10.083	(0.950)	581075	40.2423	0.040
34 1,1-Dichloropropene	75	10.132	10.132	(0.955)	408552	40.0560	0.040
33 Carbon tetrachloride	117	10.175	10.175	(0.959)	411278	40.6612	0.041
$ 138 1,2-Dichloroethane-d4	65	10.260	10.260	(0.967)	329449	48.4020	0.048
37 1,2-Dichloroethane	62	10.339	10.339	(0.974)	437486	38.5678	0.038
38 Benzene	78	10.370	10.370	(0.977)	1230550	37.9710	0.038
139 Cyclohexene	67	10.492	10.492	(0.988)	609900	39.2299	0.039
* 40 Fluorobenzene	96	10.614	10.614	(1.000)	1306395	50.0000	
131 n-Butyl alcohol	56	10.687	10.687	(1.007)	1247963	4250.93	4.2
39 Trichloroethylene	95	11.004	11.004	(1.037)	312945	39.0821	0.039
130 Methylcyclohexane	83	11.260	11.260	(1.061)	517521	41.2281	0.041
41 1,2-Dichloropropane	63	11.241	11.241	(1.059)	355702	38.3741	0.038
43 Dibromomethane	93	11.376	11.376	(1.072)	187464	38.7064	0.039
45 Bromodichloromethane	83	11.479	11.479	(1.082)	413653	40.7142	0.041
44 2-Chloroethylvinyl ether	63	11.699	11.699	(1.102)	900575	212.067	0.21
46 cis-1,3-Dichloropropylene	75	11.930	11.930	(1.124)	496282	40.6224	0.041
49 4-Methyl-2-pentanone	58	12.016	12.016	(0.872)	735548	189.546	0.19
$ 47 Toluene-d8	98	12.253	12.247	(0.890)	1116825	48.0797	0.048
50 Toluene	92	12.320	12.321	(0.895)	730669	37.5640	0.038
53 trans-1,3-Dichloropropylene	75	12.461	12.461	(0.905)	461385	41.2627	0.041
54 1,1,2-Trichloroethane	83	12.686	12.680	(0.921)	231659	37.7063	0.038(R)
55 2-Hexanone	43	12.857	12.857	(0.934)	1917463	160.637	0.16
52 1,3-Dichloropropane	76	12.875	12.875	(0.935)	452230	37.3887	0.037(Q)
56 Tetrachloroethylene	164	12.918	12.918	(0.938)	285983	38.9021	0.039
57 Dibromochloromethane	129	13.144	13.144	(0.954)	327337	40.4726	0.040(R)
59 1,2-Dibromoethane	107	13.314	13.314	(0.967)	288309	39.4194	0.039
* 61 Chlorobenzene-d5	117	13.771	13.765	(1.000)	980822	50.0000	
62 Chlorobenzene	112	13.802	13.802	(1.002)	878180	38.8800	0.039
60 1,1,1,2-Tetrachloroethane	131	13.851	13.851	(1.006)	337702	40.3094	0.040
58 Ethylbenzene	91	13.863	13.863	(1.007)	1477721	38.5463	0.038
63 m,p-Xylenes	106	13.967	13.967	(1.014)	1178142	79.5837	0.080
64 o-Xylene	106	14.399	14.399	(1.046)	609422	39.4316	0.039
65 Styrene	104	14.399	14.399	(1.046)	974117	42.0385	0.042
66 Bromoform	173	14.655	14.655	(0.906)	281944	43.1830	0.043
67 Isopropylbenzene	105	14.759	14.759	(0.912)	1644496	39.9385	0.040

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (mg/l)
$ 71 Bromofluorobenzene	95	14.948	14.948	(0.924)	530292	51.9963	0.052
73 1,1,2,2-Tetrachloroethane	83	15.015	15.015	(0.928)	431483	38.1636	0.038
74 1,2,3-Trichloropropane	110	15.107	15.107	(0.934)	110045	37.9351	0.038
75 Bromobenzene	156	15.168	15.168	(0.937)	481760	39.3011	0.039
76 n-Propylbenzene	91	15.180	15.180	(0.938)	1962800	39.4916	0.039
78 1,3,5-Trimethylbenzene	105	15.326	15.332	(0.947)	1453540	39.5973	0.040
77 2-Chlorotoluene	91	15.332	15.332	(0.948)	1352028	38.7437	0.039
80 4-Chlorotoluene	91	15.430	15.430	(0.954)	1290390	40.1667	0.040
81 tert-Butylbenzene	119	15.704	15.704	(0.971)	1438341	39.9652	0.040
79 1,2,4-Trimethylbenzene	105	15.741	15.741	(0.973)	1527725	39.5897	0.040
83 sec-Butylbenzene	105	15.930	15.930	(0.985)	2007349	39.9297	0.040
84 4-Isopropyltoluene	119	16.051	16.052	(0.992)	1603052	40.8343	0.041
85 1,3-Dichlorobenzene	146	16.119	16.119	(0.996)	947081	39.1453	0.039
* 86 1,4-Dichlorobenzene-d4	152	16.180	16.173	(1.000)	628072	50.0000	
87 1,4-Dichlorobenzene	146	16.204	16.204	(1.002)	943102	39.5230	0.040
89 n-Butylbenzene	91	16.503	16.503	(1.020)	1540082	40.6662	0.041
90 1,2-Dichlorobenzene	146	16.643	16.643	(1.029)	897712	39.2141	0.039
92 1,2-Dibromo-3-chloropropane	157	17.527	17.527	(1.083)	80425	42.4746	0.042
93 1,2,4-Trichlorobenzene	180	18.630	18.630	(1.151)	547600	44.0776	0.044
94 Hexachlorobutadiene	225	18.819	18.813	(1.163)	398298	42.3346	0.042
95 Naphthalene	128	19.027	19.033	(1.176)	881205	43.2740	0.043
96 1,2,3-Trichlorobenzene	180	19.386	19.386	(1.198)	442165	44.5368	0.044

QC Flag Legend

Q - Qualifier signal failed the ratio test.
R - Spike/Surrogate failed recovery limits.

Data File: /chem/VOA4.i/122109v4/4q10311.d
Date : 21-DEC-2009 19:07
Client ID: LCS
Sample Info: 1120200212219356961|1|VOAF1|1|
Purge Volume: 5.0
Column phase: RTX-VOLATILES

Instrument: VOA4.i
Operator: ACJ
Column diameter: 0.25

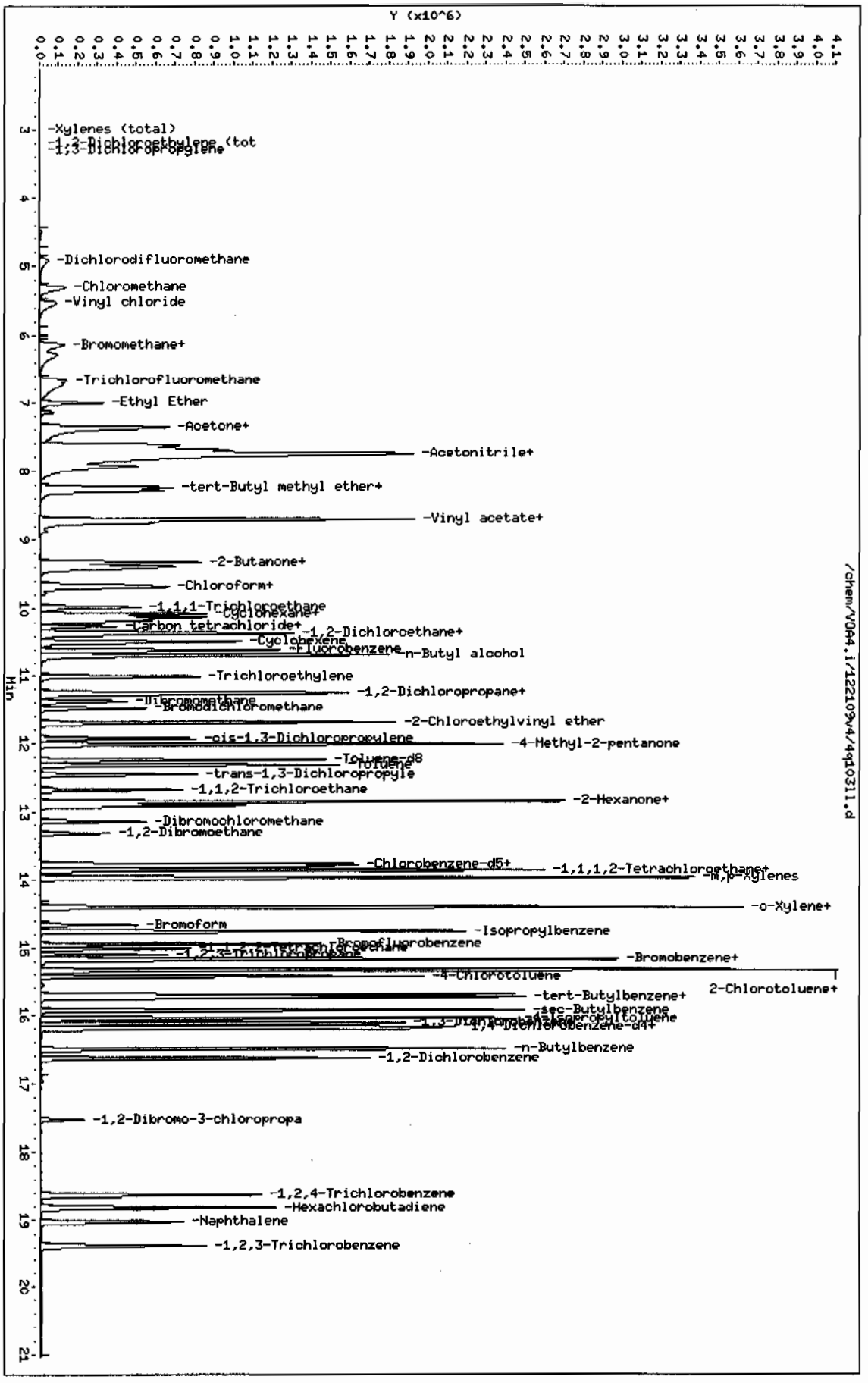

Page 1

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-939-1	**Date Collected:**	12/14/2009 12:00	**Matrix:**	TCLP R
Lab Sample ID:	1202002120	**Date Received:**	12/16/2009 09:10		
Client Sample:	QC for batch 935696	**Client:**	LANL010	**Project:**	QC
Client ID:	WST03-10-2147PS	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	935696	**Inst:**	VOA4.I	**Dilution:**	10
Run Date:	12/22/2009 03:07	**Analyst:**	ACJ	**Purge Vol:**	5 mL
Prep Date:	12/22/2009 03:07				
Data File:	4q120.d	**Column:**	RTX-VOLATILES	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-01-4	Vinyl chloride		0.398	mg/L	0.005	0.010
75-35-4	1,1-Dichloroethylene		0.326	mg/L	0.003	0.010
78-93-3	2-Butanone		1.11	mg/L	0.0125	0.050
67-66-3	Chloroform		0.379	mg/L	0.0025	0.010
56-23-5	Carbon tetrachloride		0.357	mg/L	0.003	0.010
107-06-2	1,2-Dichloroethane		0.382	mg/L	0.0025	0.010
71-43-2	Benzene		0.370	mg/L	0.003	0.010
79-01-6	Trichloroethylene		0.361	mg/L	0.0025	0.010
127-18-4	Tetrachloroethylene		0.341	mg/L	0.003	0.010
108-90-7	Chlorobenzene		0.378	mg/L	0.0025	0.010
106-46-7	1,4-Dichlorobenzene		0.381	mg/L	0.0025	0.010

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VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA4.i/122109v4/4q120.d
Lab Smp Id: 1202002120 Client Smp ID: WST03-10-2147MS
Inj Date : 22-DEC-2009 03:07
Operator : ACJ Inst ID: VOA4.i
Smp Info : |1202002120|935696|10|VOAF|1|
Misc Info : LANL 500UL N/A MS 243010001
Comment :
Method : /chem/VOA4.i/122109v4/VOA4-8260-121909.m
Meth Date : 21-Dec-2009 20:38 amj Quant Type: ISTD
Cal Date : 20-DEC-2009 02:33 Cal File: 4p618.d
Als bottle: 20 QC Sample: MS
Dil Factor: 10.00000
Integrator: HP RTE Compound Sublist: 10-939-1.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (Uf/Vo) * CpndVariable

Name	Value	Description
DF	10.00000	Dilution Factor
Uf	0.00500	ng unit correction factor
Vo	5.00000	sample purged

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (mg/l)
* 40 Fluorobenzene	96	10.620	10.614	(1.000)	1134864	50.0000	
* 61 Chlorobenzene-d5	117	13.765	13.765	(1.000)	866703	50.0000	
* 86 1,4-Dichlorobenzene-d4	152	16.180	16.173	(1.000)	565611	50.0000	
$ 138 1,2-Dichloroethane-d4	65	10.260	10.260	(0.966)	286504	48.4547	0.048
$ 47 Toluene-d8	98	12.253	12.247	(0.890)	1024206	49.8980	0.050
$ 71 Bromofluorobenzene	95	14.954	14.948	(0.924)	491936	53.5621	0.054
5 Vinyl chloride	62	5.528	5.521	(0.521)	316282	39.7914	0.40
11 1,1-Dichloroethylene	61	7.389	7.389	(0.696)	404361	32.5989	0.32
87 1,4-Dichlorobenzene	146	16.204	16.204	(1.002)	817969	38.0644	0.38
30 2-Butanone	43	9.327	9.327	(0.878)	898788	111.274	1.1
32 Chloroform	83	9.693	9.687	(0.913)	459027	37.9025	0.38
33 Carbon tetrachloride	117	10.175	10.175	(0.958)	313331	35.6598	0.36
37 1,2-Dichloroethane	62	10.339	10.339	(0.974)	376423	38.2004	0.38
38 Benzene	78	10.370	10.370	(0.976)	1040338	36.9537	0.37
39 Trichloroethylene	95	11.004	11.004	(1.036)	250859	36.0637	0.36

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (mg/l)
56 Tetrachloroethylene	164	12.918	12.918	(0.938)	221521	34.1010	0.34
62 Chlorobenzene	112	13.802	13.802	(1.003)	754256	37.7904	0.38

Data File: /chem/VOA4.i/122109v4/4q120.d
Date : 22-DEC-2009 03:07
Client ID: WST03-10-2147MS
Sample Info: 1120200212019356961101VOAF11
Purge Volume: 5.0
Column phase: RTX-VOLATILES

Instrument: VOA4.i
Operator: ACJ
Column diameter: 0.25

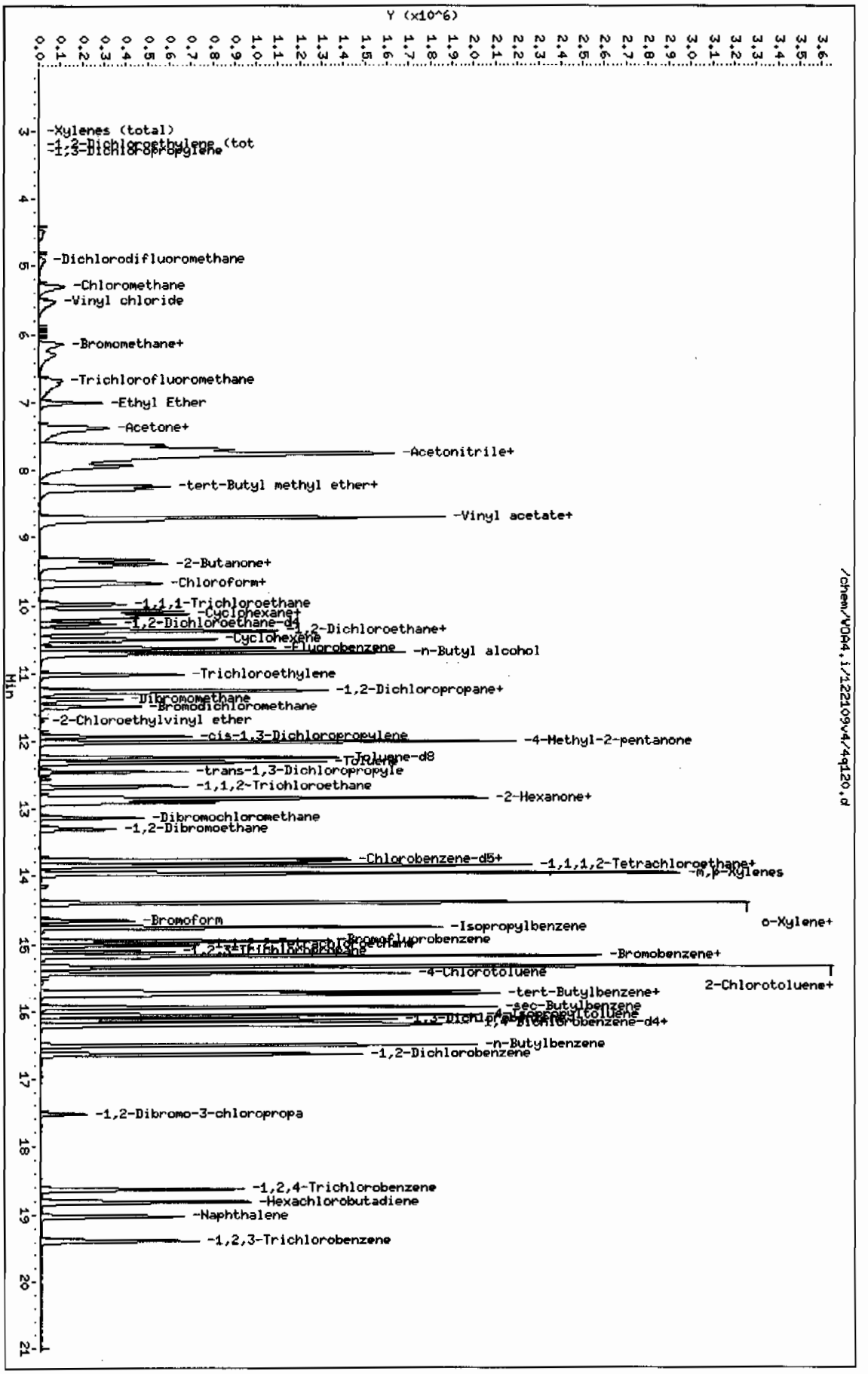

Page 1

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-939-1	**Date Collected:**	12/14/2009 12:00	**Matrix:**	TCLP R
Lab Sample ID:	1202002121	**Date Received:**	12/16/2009 09:10		
Client Sample:	QC for batch 935696	**Client:**	LANL010	**Project:**	QC
Client ID:	WST03-10-2147PSD	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	935696	**Inst:**	VOA4.I	**Dilution:**	10
Run Date:	12/22/2009 03:34	**Analyst:**	ACJ	**Purge Vol:**	5 mL
Prep Date:	12/22/2009 03:34				
Data File:	4q121.d	**Column:**	RTX-VOLATILES	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-01-4	Vinyl chloride		0.391	mg/L	0.005	0.010
75-35-4	1,1-Dichloroethylene		0.332	mg/L	0.003	0.010
78-93-3	2-Butanone		1.08	mg/L	0.0125	0.050
67-66-3	Chloroform		0.389	mg/L	0.0025	0.010
56-23-5	Carbon tetrachloride		0.381	mg/L	0.003	0.010
107-06-2	1,2-Dichloroethane		0.384	mg/L	0.0025	0.010
71-43-2	Benzene		0.377	mg/L	0.003	0.010
79-01-6	Trichloroethylene		0.371	mg/L	0.0025	0.010
127-18-4	Tetrachloroethylene		0.363	mg/L	0.003	0.010
108-90-7	Chlorobenzene		0.388	mg/L	0.0025	0.010
106-46-7	1,4-Dichlorobenzene		0.398	mg/L	0.0025	0.010

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA4.i/122109v4/4q121.d
Lab Smp Id: 1202002121 Client Smp ID: WST03-10-2147MSD
Inj Date : 22-DEC-2009 03:34
Operator : ACJ Inst ID: VOA4.i
Smp Info : |1202002121|935696|10|VOAF|1|
Misc Info : LANL 500UL N/A MSD 243010001
Comment :
Method : /chem/VOA4.i/122109v4/VOA4-8260-121909.m
Meth Date : 21-Dec-2009 20:38 amj Quant Type: ISTD
Cal Date : 20-DEC-2009 02:33 Cal File: 4p618.d
Als bottle: 21 QC Sample: MSD
Dil Factor: 10.00000
Integrator: HP RTE Compound Sublist: 10-939-1.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (Uf/Vo) * CpndVariable

Name	Value	Description
DF	10.00000	Dilution Factor
Uf	0.00500	ng unit correction factor
Vo	5.00000	sample purged

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (mg/l)
* 40 Fluorobenzene	96	10.619	10.614	(1.000)	1233416	50.0000	
* 61 Chlorobenzene-d5	117	13.771	13.765	(1.000)	929273	50.0000	
* 86 1,4-Dichlorobenzene-d4	152	16.179	16.173	(1.000)	579896	50.0000	
$ 138 1,2-Dichloroethane-d4	65	10.259	10.260	(0.966)	300078	46.6954	0.047
$ 47 Toluene-d8	98	12.253	12.247	(0.890)	1053541	47.8712	0.048
$ 71 Bromofluorobenzene	95	14.953	14.948	(0.924)	499773	53.0749	0.053
5 Vinyl chloride	62	5.521	5.521	(0.520)	338018	39.1281	0.39
11 1,1-Dichloroethylene	61	7.388	7.389	(0.696)	447843	33.2196	0.33
87 1,4-Dichlorobenzene	146	16.203	16.204	(1.002)	876838	39.7987	0.40
30 2-Butanone	43	9.326	9.327	(0.878)	944764	107.620	1.1
32 Chloroform	83	9.692	9.687	(0.913)	512427	38.9310	0.39
33 Carbon tetrachloride	117	10.174	10.175	(0.958)	363616	38.0761	0.38
37 1,2-Dichloroethane	62	10.338	10.339	(0.974)	411237	38.3988	0.38
38 Benzene	78	10.375	10.370	(0.977)	1153603	37.7028	0.38
39 Trichloroethylene	95	11.003	11.004	(1.036)	280219	37.0657	0.37

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (mg/l)
56 Tetrachloroethylene	164	12.917	12.918	(0.938)	252643	36.2732	0.36
62 Chlorobenzene	112	13.801	13.802	(1.002)	829278	38.7516	0.39

Data File: /chem/VOA4.i/122109v4/4q121.d
Date : 22-DEC-2009 03:34
Client ID: WST03-10-2147MSD
Sample Info: 1120200212119356961101VOAF1I1
Purge Volume: 5.0
Column phase: RTX-VOLATILES

Instrument: VOA4.i
Operator: ACJ
Column diameter: 0.25

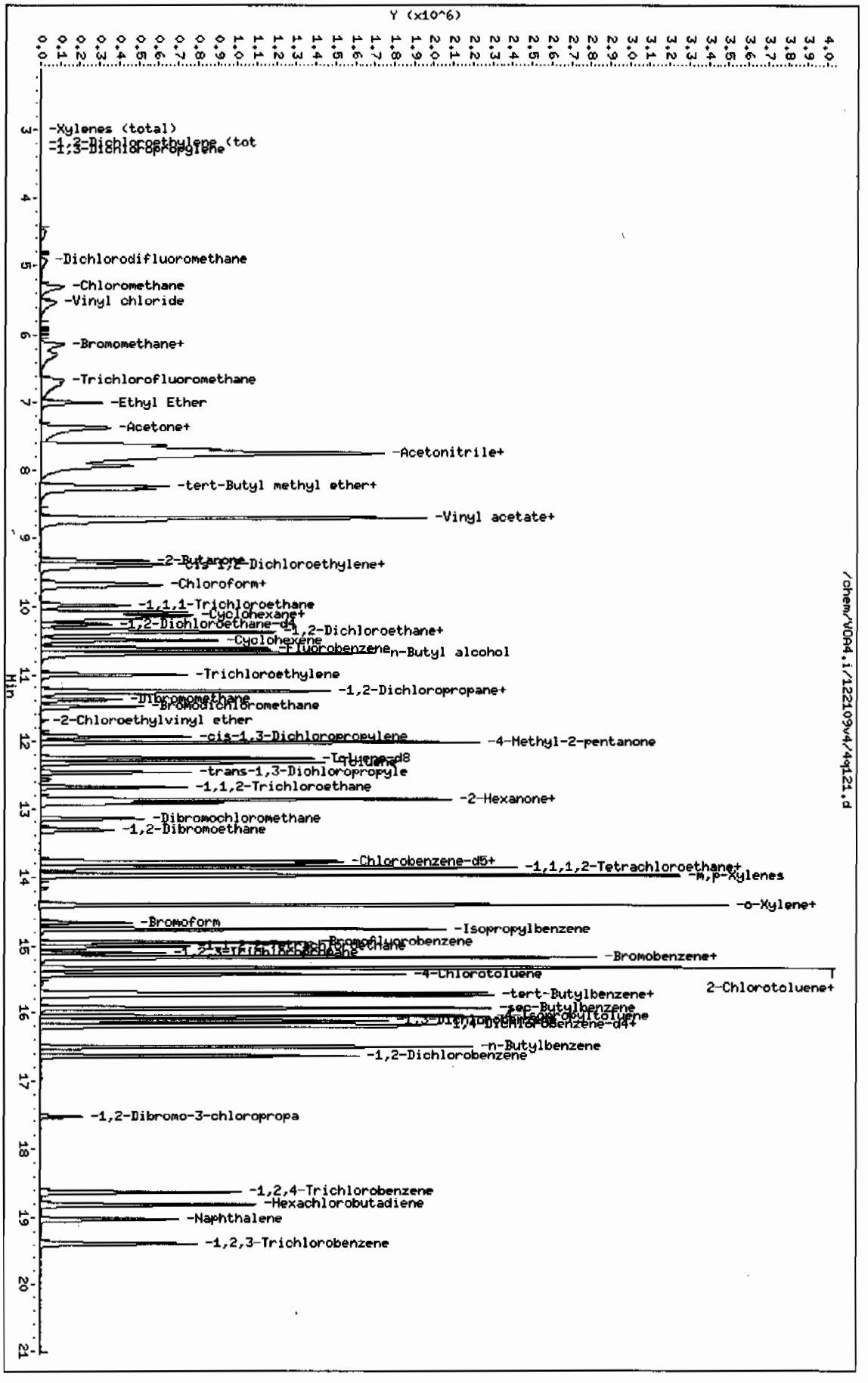

Miscellaneous Data

GEL Laboratories, LLC
Revision:11/22/04

ORGANIC RUN LOG - INSTRUMENT ID#VOA4

Date: 12/19/2009 Method 8260B/624 Operator: ACJ

REVIEWED BY: _____
DATE: _____

HARDWARE CONFIGURATION & METHOD CONDITIONS SUMMARY No# 1

Daily Instrument Readings:
Multiplier Voltage: 1624

CALIBRATION & CC INFORMATION:

Initial Calibration Date: 12/19/2009

(See pg. 197 for ICAL Std. Scl. Ids)

NaHSO4 lot # N/A

Cl test lot # 81710

Sequence Number: 121908V4

Daily Standard Solution ID#		Volume Added for Purge (ul) Blk/ Smpl	CCV	MS/ LCS	BFB
CCV					
IS	UVM091203-01	1	1	1	
SS	UVM090910-02	1	1	1	
LCS/MS					
BFB	UVM090910-02				1
SHORT					
DHEC					

Purge Amount	
5	Water Purge Vol:
	Soil Purge Wt.
	Mid level ext. MeOH Vol:
	ul
	Methanol Lot #
x	Heated Purge

Analysis Date Time	Data File	Lab Sample ID	Client	Batch #	Wt.(g) or Vol(ml/ul)	Dil. Factor	pH	AS Slot #	Matrix w or s	Analyst	Cl test (Y/N)	Acceptable (O/X)	Comments
12/19/2009 18:50	4P601.D	UVM090910-02	GEL	BFB	5ML	1	N/A	1	W	ACJ	N/A	O	
12/19/2009 19:17	4P602.D	12019----	GEL	BLANK	5ML	1	N/A	2	w	ACJ	N/A	X	
12/19/2009 19:44	4P603.D	W4VM091219-01	GEL	VSTD0005	5ML	1	N/A	3	w	ACJ	N/A	X	UVM090911-01D/UVM091130-01C; DICHLORODIFLUOROMETHANE
12/19/2009 20:12	4P604.D	W4VM091219-02	GEL	VSTD001	5ML	1	N/A	4	w	ACJ	N/A	O	UVM090911-02D/UVM091130-02C
12/19/2009 20:39	4P605.D	W4VM091219-03	GEL	VSTD001	5ML	1	N/A	5	w	ACJ	N/A	O	UVM090911-02D/UVM091130-02C
12/19/2009 21:07	4P606.D	W4VM091219-04	GEL	VSTD002	5ML	1	N/A	6	w	ACJ	N/A	O	UVM090911-03D/UVM091130-03C
12/19/2009 21:34	4P607.D	W4VM091219-05	GEL	VSTD005	5ML	1	N/A	7	w	ACJ	N/A	O	UVM090911-04D/UVM091130-04C
12/19/2009 22:01	4P608.D	W4VM091219-06	GEL	VSTD010	5ML	1	N/A	8	w	ACJ	N/A	O	UVM090911-05D/UVM091130-05C
12/19/2009 22:28	4P609.D	W4VM091219-07	GEL	VSTD020	5ML	1	N/A	9	w	ACJ	N/A	O	UVM090911-06D/UVM091130-06C
12/19/2009 22:55	4P610.D	W4VM091219-08	GEL	VSTD050	5ML	1	N/A	10	w	ACJ	N/A	O	UVM090911-07D/UVM091130-07C
12/19/2009 23:22	4P611.D	W4VM091219-09	GEL	VSTD100	5ML	1	N/A	11	w	ACJ	N/A	O	UVM090911-08D/UVM091130-08C
12/19/2009 23:50	4P612.D	12019----	GEL	BLANK	5ML	1	N/A	12	w	ACJ	N/A	X	
12/20/2009 0:17	4P613.D	W4VM091219-10	GEL	VSTD005S	5ML	1	N/A	13	w	ACJ	N/A	O	UVM091216-01/UVM091110-01D
12/20/2009 0:44	4P614.D	W4VM091219-11	GEL	VSTD010S	5ML	1	N/A	14	w	ACJ	N/A	O	UVM091216-02/UVM091110-02D
12/20/2009 1:12	4P615.D	W4VM091219-12	GEL	VSTD025S	5ML	1	N/A	15	w	ACJ	N/A	O	UVM091216-03/UVM091110-03D
12/20/2009 1:39	4P616.D	W4VM091219-13	GEL	VSTD050S	5ML	1	N/A	16	w	ACJ	N/A	O	UVM091216-04/UVM091110-04D
12/20/2009 2:06	4P617.D	W4VM091219-14	GEL	VSTD100S	5ML	1	N/A	17	w	ACJ	N/A	O	UVM091216-05/UVM091110-05D
12/20/2009 2:33	4P618.D	W4VM091219-15	GEL	VSTD250S	5ML	1	N/A	18	w	ACJ	N/A	O	UVM091216-06/UVM091110-06D
12/20/2009 3:01	4P619.D	W4VM091219-16	GEL	VSTD500S	5ML	1	N/A	19	w	ACJ	N/A	O	UVM091216-07/UVM091110-07D
12/20/2009 3:28	4P620.D	12019----	GEL	BLANK	5ML	1	N/A	20	w	ACJ	N/A	X	
12/20/2009 3:55	4P621.D	W4VM091219-17	GEL	ICV	5ML	1	N/A	21	w	ACJ	N/A	O	UVM091214-01A/IVM091217-01
12/20/2009 4:22	4P622.D	W4VM091219-18	GEL	SHORTICV	5ML	1	N/A	22	w	ACJ	N/A	O	UVM091118-08C/UVM091105-02E

GEL Laboratories, LLC
Revision:11/22/04

ORGANIC RUN LOG - INSTRUMENT ID#VOA4

Date: 12/21/2009 Method 8260B/624 Operator: ACJ

REVIEWED BY: ____
DATE: ____

HARDWARE CONFIGURATION & METHOD CONDITIONS SUMMARY No# 1

Daily Instrument Readings:
Multiplier Voltage: 1624

CALIBRATION & CC INFORMATION:

Initial Calibration Date: 12/19/2009

(See pg. 197 for ICAL Std. Sci. Ids)

NaHSO4 lot # N/A

Cl test lot # 81710

Sequence Number: 122109V4

Daily Standard Solution ID#		Volume Added for Purge (ul) Blk/ Smpl	CCV	MS/ LCS	BFB
CCV	W4VM091221-01		5+5		
IS	UVM091203-01	1	1	1	
SS	UVM090910-02	1	1	1	
LCS/MS	W4VM091221-02			5+5	
BFB	UVM090910-02				1
SHORT	UVM091118-08C		5	5	
DHEC	N/A			5	

Purge Amount	
5	Water Purge Vol:
N/A	Soil Purge Wt.
N/A	Mid level ext. MeOH Vol:
N/A	ul
N/A	Methanol Lot #
x	Heated Purge

Analysis Date	Time	Data File	Lab Sample ID	Client	Batch #	Wt.(g) or Vol(ml/ul)	Dil. Factor	pH	AS Slot #	Matrix w or s	Analyst	Cl test (Y/N)	Acceptable (O/X)	Comments
12/21/2009	18:12	4Q101.D	UVM090910-02	GEL	BFB	5ML	1	N/A	1	W	ACJ	N/A	O	
12/21/2009	18:40	4Q102.D	W4VM091221-01	GEL	CCV	5ML	1	N/A	2	W	ACJ	N/A	O	UVM090911-07D/UVM091130-07C
12/21/2009	19:07	4Q103.D	W4VM091221-02	GEL	LCS	5ML	1	N/A	3	W	ACJ	N/A	O	UVM091214-01A/IVM091217-01
12/21/2009	19:34	4Q104.D	W4VM091221-03	GEL	LCS	5G	1	N/A	4	S	ACJ	N/A	X	UVM091214-01A/IVM091217-01; NOT NEEDED
12/21/2009	20:01	4Q105.D	UVM091118-08C	GEL	SHORT	5ML	1	N/A	5	W	ACJ	N/A	O	
12/21/2009	20:28	4Q106.D	12020----	GEL	BLANK	5G	1	N/A	6	S	ACJ	N/A	X	NOT NEEDED
12/21/2009	20:55	4Q107.D	12020----	GEL	BLANK	5ML	1	N/A	7	W	ACJ	N/A	O	
12/21/2009	21:42	4Q108.D	1201999914	GEL	935696	500UL	10	N/A	8	W	ACJ	N/A	O	TCLPBLANK
12/21/2009	22:09	4Q109.D	243010001	LANL	935696	500UL	10	N/A	9	W	ACJ	N/A	O	
12/21/2009	22:36	4Q110.D	243024001	LANL	935695	5ML	1	PH2	10	W	ACJ	N	O	
12/21/2009	23:04	4Q111.D	243024002	LANL	935695	5ML	1	PH2	11	W	ACJ	N	O	
12/21/2009	23:31	4Q112.D	243084001	LANL	935695	5ML	1	PH2	12	W	ACJ	N	O	
12/21/2009	23:58	4Q113.D	243156001	LANL	935695	5ML	1	PH2	13	W	ACJ	N	O	
12/22/2009	0:25	4Q114.D	243156002	LANL	935695	5ML	1	PH2	14	W	ACJ	N	O	
12/22/2009	0:53	4Q115.D	242714005	ACET	935155	5ML	1	PH2	15	W	ACJ	N	O	
12/22/2009	1:19	4Q116.D	242714001	ACET	935155	5ML	1	PH2	16	W	ACJ	N	O	
12/22/2009	1:46	4Q117.D	242714002	ACET	935155	5ML	1	PH2	17	W	ACJ	N	O	
12/22/2009	2:13	4Q118.D	242714003	ACET	935155	5ML	1	PH2	18	W	ACJ	N	O	
12/22/2009	2:40	4Q119.D	242714004	ACET	935155	5ML	1	PH2	19	W	ACJ	N	O	
12/22/2009	3:07	4Q120.D	1202002120	LANL	935696	500UL	10	N/A	20	W	ACJ	N/A	O	MS 243010001
12/22/2009	3:34	4Q121.D	1202002121	LANL	935696	500UL	10	N/A	21	W	ACJ	N/A	O	MSD 243010001
12/22/2009	4:01	4Q122.D	1202002115	LANL	935695	5ML	1	PH2	22	W	ACJ	N	O	MS 243084001
12/22/2009	4:28	4Q123.D	1202002116	LANL	935695	5ML	1	PH2	23	W	ACJ	N	O	MSD 243084001
12/22/2009	4:55	4Q124.D	1202000847	ACET	935155	5ML	1	PH2	24	W	ACJ	N	O	MS 242714003
12/22/2009	5:23	4Q125.D	1202000848	ACET	935155	5ML	1	PH2	25	W	ACJ	N	O	MSD 242714003
12/22/2009	5:49	4Q126.D	12020----	GEL	BLANK	5ML	1	N/A	26	W	ACJ	N/A	X	

GC/MS Semivolatile Analysis

Semi-Volatile Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-939

Method/Analysis Information

Procedure:	**Analysis of Semivolatile Organic Compounds by Gas Chromatography/Mass Spectrometry**
Analytical Method:	SW846 8270C
Prep Method:	SW846 3550B
Analytical Batch Number:	934473
Prep Batch Number:	934457

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 8270C:

Sample ID	Client ID
243007002	WST03-10-2147
1201999288	Method Blank (MB)
1201999289	Laboratory Control Sample (LCS)
1201999290	243007002(WST03-10-2147) Matrix Spike (MS)
1201999291	243007002(WST03-10-2147) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on a "dry weight" basis.

Preparation/Analytical Method Verification

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-009 REV# 23.

Raw data reports are processed and reviewed by the analyst using the Target software package. False positives have been removed from the Target quantitation reports per standard operating procedures (SOP) section 18.2.

Calibration Information

Please note that the 'Cal Date' indicated on each quantitation report reflects the date and time of the most recent calibrated analyte(s) in the Target processing method. Since the laboratory may calibrate with multiple solutions on different days using the same processing method, the Target software will update the 'Cal Date' to the last calibration file, date and time. The correct dates and times for all calibration files are located on the Calibration History report in the Standard Data section in the data package.

Due to software limitations, the Calibration Summary Form 6 may not indicate all the calibration files comprising the initial calibration. A complete list of the initial calibration data files are shown in the Calibration History report located in the Standard Data section of the data package. Please note that the second level of the initial calibration (5 mg/L) is only used for n-Nitrosodipropylamine. The various calibration mixes may not be calibrated using all of the calibration levels. In addition, not all of the mixes are calibrated using the same levels.

Diphenylamine has now superseded N-Nitroso-diphenylamine as a CCC on Quantitation Reports, Initial Calibration Reports, Calibration Check Standard Reports, etc. Previous versions of EPA Method 8270 (prior to 8270C) listed N-Nitroso-diphenylamine as a CCC. However, as stated in EPA Method 8270C, Revision 3, December, 1996, Section 1.4.5, "N-Nitroso-diphenylamine decomposes in the gas chromatographic inlet and cannot be separated from Diphenylamine." Studies of these two compounds at GEL, both independent of each other and together, show that they not only co-elute, but also have similar mass spectra. N-Nitroso-diphenylamine and Diphenylamine will be reported as Diphenylamine on all reports and forms.

The linear equation used in Target and indicated on the initial calibration summary form is not a conventional linear equation (slope intercept formula) and does not match the equation found in SW-846 method 8000B. The x and y axes are inversed in Target, so that the instrument response is treated as the independent variable (x) and the concentration ratio is treated as the dependent variable (y). The equation used in Target to calculate sample results is adjusted to account for the linear equation inversion and reciprocal slope. The adjusted calculation has been independently verified to produce valid results.

Initial Calibration
All initial calibration requirements have been met for this sample delivery group (SDG). A second source initial calibration verification (ICV) was included in the standard section directly behind the initial calibration.

CCV Requirements
All associated calibration verification standard(s) (ICV or CCV) met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Surrogate Recoveries
All the surrogate recoveries were within the established acceptance criteria for this SDG.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

QC Sample Designation
Sample 243007002 (WST03-10-2147) was selected for analysis as the matrix spike and matrix spike duplicate.

Matrix Spike (MS) Recovery Statement
The MS recoveries were within the established acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recoveries were within the established acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD(s) between the MS and MSD met the acceptance limits.

Internal Standard (ISTD) Acceptance
The internal standard responses were within the required acceptance criteria for all samples and QC.

Technical Information

Holding Time Specifications
All samples in this SDG met the specified holding time. GEL assigns holding times based on the associated

methodology that assigns the date and time from sample collection or sample receipt. Those holding times expressed in hours are calculated in the ALPHALIMS system. Those holding times expressed as days expire at midnight on the day of expiration.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-extraction/Re-analysis
Re-extractions or re-analyses were not required in this SDG except for confirmations and/or dilutions.

Miscellaneous Information

Nonconformance (NCR) Documentation
Nonconformance reports (NCRs) are generated to document procedural anomalies that may deviate from referenced SOP or contractual documents. A nonconformance report (NCR) was not generated for this SDG.

Manual Integrations
Some initial calibration standards, continuing calibration standards, and/or samples may require manual integrations due to software limitations. Please see the raw data in the Miscellaneous Section.

Additional Comments
Additional comments were not required for this SDG.

Electronic Package Comment
The following package was generated using an electronic data processing program referred to as "virtual packaging". In an effort to increase quality and efficiency, the laboratory is developing systems to eventually generate all data packages electronically. The following change from "traditional" packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. An electronic signature page inserted after the case narrative of each electronic package will indicate the analyst, reviewer, and report specialist names associated with the generation of the data and package. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

System Configuration
The samples reported in this SDG were analyzed on one or more of the following instrument systems. Instrument systems are referenced in the raw data and individual form headers by the Instrument ID designations listed below:

Instrument ID	Instrument	System Configuration	Column ID	Column Description
MSD1.I	HP 5973 Mass Spectrometer	HP6890/HP5973	ZB-5ms	25m x 0.2mm, 0.33um (5% Polysilarylene-95% Polydimethylsiloxane)

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

Reviewer: Dan Beaubien **Date:** 12-29-09

Roadmap for LANL 10-939 SVOA

This roadmap was analyzed by amy01291 on 12-28-2009, 12:08.
This roadmap was analyzed by bar00895 on 12-28-2009, 15:01.
This roadmap was reviewed by bar00895 on 12-28-2009, 15:19.

Sample

exclude	manual	datafile	smpid	injdate	injtime	sublist	clientid	dilution	batchid	comment
☐	N	/chem/MSD1.i/s122109.b/s112108.d	243007002	21-DEC-2009	12:35	10-939.sub	WST03-10-2147	1	934473	REPORT

QC Sample

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	batchid	comment
☐	N	/chem/MSD1.i/s122109.b/s112106-1.d	1201999288	mb	21-DEC-2009	11:49	10-939.sub	SBLK01	1	934473	REPORT
☐	N	/chem/MSD1.i/s122109.b/s112107-1.d	1201999289	lcs	21-DEC-2009	12:12	10-939.sub	SBLK01LCS	1	934473	REPORT
☐	N	/chem/MSD1.i/s122109.b/s112109.d	1201999290	ms	21-DEC-2009	12:59	10-939.sub	WST03-10-2147MS	1	934473	REPORT
☐	N	/chem/MSD1.i/s122109.b/s112110.d	1201999291	msd	21-DEC-2009	13:23	10-939.sub	WST03-10-2147MSD	1	934473	REPORT

Sample Data Summary

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-939	**Date Collected:**	12/14/2009 12:00	**Matrix:**	R
Lab Sample ID:	243007002	**Date Received:**	12/16/2009 09:10	**%Moisture:**	13.5
		Client:	LANL010	**Project:**	LANL01004
Client ID:	WST03-10-2147	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	934473	**Inst:**	MSD1.I	**Dilution:**	1
Run Date:	12/21/2009 12:35	**Analyst:**	AMY	**Inj. Vol:**	.5 uL
Prep Date:	12/18/2009 19:56	**Aliquot:**	30.02 g	**Final Volume:**	1 mL
Data File:	s1l2108.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	385	ug/kg	77.0	385
108-95-2	Phenol	U	385	ug/kg	77.0	385
95-57-8	2-Chlorophenol	U	385	ug/kg	77.0	385
106-46-7	1,4-Dichlorobenzene	U	385	ug/kg	77.0	385
621-64-7	N-Nitrosodipropylamine	U	385	ug/kg	77.0	385
59-50-7	4-Chloro-3-methylphenol	U	385	ug/kg	77.0	385
83-32-9	Acenaphthene	U	38.5	ug/kg	12.7	38.5
121-14-2	2,4-Dinitrotoluene	U	385	ug/kg	38.5	385
100-02-7	4-Nitrophenol	U	385	ug/kg	127	385
87-86-5	Pentachlorophenol	U	385	ug/kg	96.3	385
129-00-0	Pyrene	U	38.5	ug/kg	11.6	38.5
110-86-1	Pyridine	U	385	ug/kg	77.0	385
62-53-3	Aniline	U	385	ug/kg	116	385
111-44-4	bis(2-Chloroethyl) ether	U	385	ug/kg	77.0	385
541-73-1	1,3-Dichlorobenzene	U	385	ug/kg	77.0	385
100-51-6	Benzyl alcohol	U	385	ug/kg	116	385
95-50-1	1,2-Dichlorobenzene	U	385	ug/kg	77.0	385
108-60-1	bis(2-Chloroisopropyl)ether	U	385	ug/kg	77.0	385
95-48-7	o-Cresol	U	385	ug/kg	77.0	385
65794-96-9	m,p-Cresols	U	385	ug/kg	116	385
67-72-1	Hexachloroethane	U	385	ug/kg	77.0	385
98-95-3	Nitrobenzene	U	385	ug/kg	77.0	385
78-59-1	Isophorone	U	385	ug/kg	77.0	385
88-75-5	2-Nitrophenol	U	385	ug/kg	77.0	385
105-67-9	2,4-Dimethylphenol	U	385	ug/kg	135	385
111-91-1	bis(2-Chloroethoxy)methane	U	385	ug/kg	77.0	385
120-83-2	2,4-Dichlorophenol	U	385	ug/kg	77.0	385
65-85-0	Benzoic acid	U	770	ug/kg	193	770
91-20-3	Naphthalene	U	38.5	ug/kg	11.6	38.5
106-47-8	4-Chloroaniline	U	385	ug/kg	77.0	385
87-68-3	Hexachlorobutadiene	U	385	ug/kg	77.0	385
91-57-6	2-Methylnaphthalene	U	38.5	ug/kg	7.70	38.5
77-47-4	Hexachlorocyclopentadiene	U	385	ug/kg	77.0	385
88-06-2	2,4,6-Trichlorophenol	U	385	ug/kg	77.0	385
95-95-4	2,4,5-Trichlorophenol	U	385	ug/kg	77.0	385
91-58-7	2-Chloronaphthalene	U	38.5	ug/kg	12.7	38.5
88-74-4	2-Nitroaniline	U	385	ug/kg	77.0	385
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	385	ug/kg	77.0	385

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-939	**Date Collected:**	12/14/2009 12:00	**Matrix:**	R
Lab Sample ID:	243007002	**Date Received:**	12/16/2009 09:10	**%Moisture:**	13.5
		Client:	LANL010	**Project:**	LANL01004
Client ID:	WST03-10-2147	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	934473	**Inst:**	MSD1.I	**Dilution:**	1
Run Date:	12/21/2009 12:35	**Analyst:**	AMY	**Inj. Vol:**	.5 uL
Prep Date:	12/18/2009 19:56	**Aliquot:**	30.02 g	**Final Volume:**	1 mL
Data File:	s1l2108.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	385	ug/kg	77.0	385
606-20-2	2,6-Dinitrotoluene	U	385	ug/kg	38.5	385
208-96-8	Acenaphthylene	U	38.5	ug/kg	11.6	38.5
51-28-5	2,4-Dinitrophenol	U	770	ug/kg	146	770
132-64-9	Dibenzofuran	U	385	ug/kg	77.0	385
84-66-2	Diethylphthalate	U	385	ug/kg	77.0	385
86-73-7	Fluorene	U	38.5	ug/kg	11.6	38.5
7005-72-3	4-Chlorophenylphenylether	U	385	ug/kg	77.0	385
534-52-1	2-Methyl-4,6-dinitrophenol	U	385	ug/kg	77.0	385
100-01-6	4-Nitroaniline	U	385	ug/kg	116	385
	p-Nitroaniline					
122-39-4	Diphenylamine	U	385	ug/kg	77.0	385
122-66-7	Azobenzene	U	385	ug/kg	77.0	385
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	385	ug/kg	77.0	385
118-74-1	Hexachlorobenzene	U	385	ug/kg	77.0	385
85-01-8	Phenanthrene	U	38.5	ug/kg	11.6	38.5
120-12-7	Anthracene	U	38.5	ug/kg	7.70	38.5
84-74-2	Di-n-butylphthalate	U	385	ug/kg	77.0	385
206-44-0	Fluoranthene	U	38.5	ug/kg	11.6	38.5
85-68-7	Butylbenzylphthalate	U	385	ug/kg	77.0	385
56-55-3	Benzo(a)anthracene	U	38.5	ug/kg	11.6	38.5
91-94-1	3,3'-Dichlorobenzidine	U	385	ug/kg	116	385
218-01-9	Chrysene	U	38.5	ug/kg	11.6	38.5
117-81-7	bis(2-Ethylhexyl)phthalate	U	385	ug/kg	77.0	385
117-84-0	Di-n-octylphthalate	U	385	ug/kg	77.0	385
205-99-2	Benzo(b)fluoranthene	U	38.5	ug/kg	11.6	38.5
207-08-9	Benzo(k)fluoranthene	U	38.5	ug/kg	11.6	38.5
50-32-8	Benzo(a)pyrene	U	38.5	ug/kg	11.6	38.5
193-39-5	Indeno(1,2,3-cd)pyrene	U	38.5	ug/kg	11.6	38.5
53-70-3	Dibenzo(a,h)anthracene	U	38.5	ug/kg	11.6	38.5
191-24-2	Benzo(ghi)perylene	U	38.5	ug/kg	11.6	38.5
120-82-1	1,2,4-Trichlorobenzene	U	385	ug/kg	77.0	385

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	1.68	286	ug/kg		JA
	Unknown	2.96	440	ug/kg		J

QC Summary

Semi-Volatile

Surrogate Recovery Report

SDG Number: 10-939

Matrix Type: SOLID

CAP Column (1) : J&W DB-5MS

Sample ID	Client ID	2FP %REC	PHL %REC	NBZ %REC	FBP %REC	TBP %REC	TPH %REC
1201999288	MB for batch 934457	72	72	84	85	84	93
1201999289	LCS for batch 934457	67	68	79	84	94	90
243007002	WST03-10-2147	68	72	82	81	88	88
1201999290	WST03-10-2147MS	62	63	75	74	86	77
1201999291	WST03-10-2147MSD	57	58	68	72	86	81

Surrogate		Acceptance Limits
2FP	= 2-Fluorophenol	(35%-96%)
PHL	= Phenol-d5	(36%-96%)
NBZ	= Nitrobenzene-d5	(34%-104%)
FBP	= 2-Fluorobiphenyl	(36%-100%)
TBP	= 2,4,6-Tribromophenol	(37%-106%)
TPH	= p-Terphenyl-d14	(40%-124%)

* Recovery outside Acceptance Limits

\# Column to be used to flag recovery values

D Sample Diluted

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-939
Sample Type: Laboratory Control Sample
Client ID: LCS for batch 934457
Matrix: SOIL
Lab Sample ID: 1201999289
Instrument: MSD1.I
Analysis Date: 12/21/2009 12:12
Dilution: 1
Analyst: AMY
Prep Batch ID: 934457
Inj. Vol: .5 uL
Batch ID: 934473

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
62-75-9	LCS	N-Methyl-N-nitrosomethylam	1670	0.0	1270	76	31-95
108-95-2	LCS	Phenol	1670	0.0	1140	68	37-104
95-57-8	LCS	2-Chlorophenol	1670	0.0	1140	68	40-105
106-46-7	LCS	1,4-Dichlorobenzene	1670	0.0	1060	63	34-103
621-64-7	LCS	N-Nitrosodipropylamine	1670	0.0	1120	67	36-110
59-50-7	LCS	4-Chloro-3-methylphenol	1670	0.0	1250	75	46-114
83-32-9	LCS	Acenaphthene	1670	0.0	1260	76	40-105
121-14-2	LCS	2,4-Dinitrotoluene	1670	0.0	1190	72	49-107
100-02-7	LCS	4-Nitrophenol	1670	0.0	1170	70	33-110
87-86-5	LCS	Pentachlorophenol	1670	0.0	1400	84	38-116
129-00-0	LCS	Pyrene	1670	0.0	1390	83	43-108
110-86-1	LCS	Pyridine	1670	0.0	984	59	13-129
62-53-3	LCS	Aniline	1670	0.0	968	58	30-121
111-44-4	LCS	bis(2-Chloroethyl) ether	1670	0.0	1170	70	37-106
541-73-1	LCS	1,3-Dichlorobenzene	1670	0.0	1030	62	33-103
100-51-6	LCS	Benzyl alcohol	1670	0.0	1260	76	31-100
95-50-1	LCS	1,2-Dichlorobenzene	1670	0.0	1100	66	34-108
108-60-1	LCS	bis(2-Chloroisopropyl)ether	1670	0.0	1160	70	34-120
95-48-7	LCS	o-Cresol	1670	0.0	1240	74	39-111
65794-96-9	LCS	m,p-Cresols	1670	0.0	1210	72	43-118
67-72-1	LCS	Hexachloroethane	1670	0.0	1100	66	34-105
98-95-3	LCS	Nitrobenzene	1670	0.0	1330	80	37-110

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-939
Client ID: LCS for batch 934457
Lab Sample ID: 1201999289
Instrument: MSD1.I
Analyst: AMY
Inj. Vol: .5 uL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 12/21/2009 12:12
Dilution: 1
Prep Batch ID: 934457
Batch ID: 934473

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
78-59-1	LCS	Isophorone	1670	0.0	1420	85	41-108
88-75-5	LCS	2-Nitrophenol	1670	0.0	1140	68	35-112
105-67-9	LCS	2,4-Dimethylphenol	1670	0.0	1220	73	35-114
111-91-1	LCS	bis(2-Chloroethoxy)methane	1670	0.0	1200	72	40-109
120-83-2	LCS	2,4-Dichlorophenol	1670	0.0	1170	70	45-109
65-85-0	LCS	Benzoic acid	3330	0.0	3010	90	27-137
91-20-3	LCS	Naphthalene	1670	0.0	1160	70	35-105
106-47-8	LCS	4-Chloroaniline	1670	0.0	930	56	30-122
87-68-3	LCS	Hexachlorobutadiene	1670	0.0	1310	79	37-111
91-57-6	LCS	2-Methylnaphthalene	1670	0.0	1220	73	40-106
77-47-4	LCS	Hexachlorocyclopentadiene	1670	0.0	1880	113	24-135
88-06-2	LCS	2,4,6-Trichlorophenol	1670	0.0	1330	80	46-107
95-95-4	LCS	2,4,5-Trichlorophenol	1670	0.0	1390	83	44-110
91-58-7	LCS	2-Chloronaphthalene	1670	0.0	1150	69	44-104
88-74-4	LCS	2-Nitroaniline *o-Nitroaniline*	1670	0.0	1150	69	44-113
99-09-2	LCS	3-Nitroaniline *m-Nitroaniline*	1670	0.0	987	59	48-113
131-11-3	LCS	Dimethylphthalate	1670	0.0	1280	77	47-104
606-20-2	LCS	2,6-Dinitrotoluene	1670	0.0	1210	73	47-103
208-96-8	LCS	Acenaphthylene	1670	0.0	1250	75	43-104
51-28-5	LCS	2,4-Dinitrophenol	1670	0.0	1330	80	32-114
132-64-9	LCS	Dibenzofuran	1670	0.0	1440	86	47-112
84-66-2	LCS	Diethylphthalate	1670	0.0	1410	84	50-108

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-939
Client ID: LCS for batch 934457
Lab Sample ID: 1201999289
Instrument: MSD1.I
Analyst: AMY
Inj. Vol: .5 uL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 12/21/2009 12:12
Dilution: 1
Prep Batch ID: 934457
Batch ID: 934473

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
86-73-7	LCS	Fluorene	1670	0.0	1190	71	49-102
7005-72-3	LCS	4-Chlorophenylphenylether	1670	0.0	1380	83	50-109
534-52-1	LCS	2-Methyl-4,6-dinitrophenol	1670	0.0	1210	73	35-114
100-01-6	LCS	4-Nitroaniline *p-Nitroaniline*	1670	0.0	1060	64	44-139
122-39-4	LCS	Diphenylamine	1670	0.0	1190	71	46-111
122-66-7	LCS	Azobenzene *1,2-Diphenylhydrazine*	1670	0.0	1260	76	40-119
101-55-3	LCS	4-Bromophenylphenylether	1670	0.0	1550	93	45-112
118-74-1	LCS	Hexachlorobenzene	1670	0.0	1390	84	44-115
85-01-8	LCS	Phenanthrene	1670	0.0	1270	76	45-107
120-12-7	LCS	Anthracene	1670	0.0	1230	74	46-106
84-74-2	LCS	Di-n-butylphthalate	1670	0.0	1540	92	52-115
206-44-0	LCS	Fluoranthene	1670	0.0	1420	85	50-115
85-68-7	LCS	Butylbenzylphthalate	1670	0.0	1490	89	49-115
56-55-3	LCS	Benzo(a)anthracene	1670	0.0	1400	84	48-105
91-94-1	LCS	3,3'-Dichlorobenzidine	1670	0.0	1210	73	45-98
218-01-9	LCS	Chrysene	1670	0.0	1330	80	48-105
117-81-7	LCS	bis(2-Ethylhexyl)phthalate	1670	0.0	1430	86	50-117
117-84-0	LCS	Di-n-octylphthalate	1670	0.0	1430	86	39-123
205-99-2	LCS	Benzo(b)fluoranthene	1670	0.0	1380	83	46-111
207-08-9	LCS	Benzo(k)fluoranthene	1670	0.0	1420	85	46-114
50-32-8	LCS	Benzo(a)pyrene	1670	0.0	1440	86	49-112
193-39-5	LCS	Indeno(1,2,3-cd)pyrene	1670	0.0	1290	77	45-128

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-939
Client ID: LCS for batch 934457
Lab Sample ID: 1201999289
Instrument: MSD1.I
Analyst: AMY
Inj. Vol: .5 uL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 12/21/2009 12:12
Dilution: 1
Prep Batch ID: 934457
Batch ID: 934473

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
53-70-3	LCS	Dibenzo(a,h)anthracene	1670	0.0	1260	75	44-131
191-24-2	LCS	Benzo(ghi)perylene	1670	0.0	1350	81	42-128
120-82-1	LCS	1,2,4-Trichlorobenzene	1670	0.0	1220	73	36-109

Semi-Volatile

Quality Control Summary

Spike Recovery Report

SDG Number: 10-939

Client ID: WST03-10-2147MS

Lab Sample ID: 1201999290

Instrument: MSD1.I

Analyst: AMY

Inj. Vol: .5 uL

Sample Type: Matrix Spike

Matrix: R

%Moisture: 13.5

Analysis Date: 12/21/2009 12:59

Dilution: 1

Prep Batch ID: 934457

Batch ID: 934473

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
62-75-9	MS	N-Methyl-N-nitrosomethylam	1920	0.00	U	1240	65	32-90
108-95-2	MS	Phenol	1920	0.00	U	1190	62	32-105
95-57-8	MS	2-Chlorophenol	1920	0.00	U	1190	62	33-106
106-46-7	MS	1,4-Dichlorobenzene	1920	0.00	U	1070	56	33-95
621-64-7	MS	N-Nitrosodipropylamine	1920	0.00	U	1150	60	31-109
59-50-7	MS	4-Chloro-3-methylphenol	1920	0.00	U	1310	68	38-119
83-32-9	MS	Acenaphthene	1920	0.00	U	1290	67	39-100
121-14-2	MS	2,4-Dinitrotoluene	1920	0.00	U	1230	64	42-107
100-02-7	MS	4-Nitrophenol	1920	0.00	U	1060	55	24-120
87-86-5	MS	Pentachlorophenol	1920	0.00	U	1350	70	26-121
129-00-0	MS	Pyrene	1920	0.00	U	1400	73	34-120
110-86-1	MS	Pyridine	1920	0.00	U	907	47	30-95
62-53-3	MS	Aniline	1920	0.00	U	1220	64	34-111
111-44-4	MS	bis(2-Chloroethyl) ether	1920	0.00	U	1220	63	34-101
541-73-1	MS	1,3-Dichlorobenzene	1920	0.00	U	1040	54	31-97
100-51-6	MS	Benzyl alcohol	1920	0.00	U	1390	73	17-120
95-50-1	MS	1,2-Dichlorobenzene	1920	0.00	U	1110	58	32-102
108-60-1	MS	bis(2-Chloroisopropyl)ether	1920	0.00	U	1210	63	32-113
95-48-7	MS	o-Cresol	1920	0.00	U	1260	66	31-119
65794-96-9	MS	m,p-Cresols	1920	0.00	U	1320	69	35-125
67-72-1	MS	Hexachloroethane	1920	0.00	U	1100	57	30-100
98-95-3	MS	Nitrobenzene	1920	0.00	U	1350	71	33-108

Semi-Volatile

Quality Control Summary

Spike Recovery Report

SDG Number:	10-939	Sample Type:	Matrix Spike
Client ID:	WST03-10-2147MS	Matrix:	R
Lab Sample ID:	1201999290	%Moisture:	13.5
Instrument:	MSD1.I	Analysis Date:	12/21/2009 12:59
Analyst:	AMY	Prep Batch ID:	934457
Inj. Vol:	.5 uL	Batch ID:	934473

Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
78-59-1	MS	Isophorone	1920	0.00	U	1440	75	34-110
88-75-5	MS	2-Nitrophenol	1920	0.00	U	1160	60	32-108
105-67-9	MS	2,4-Dimethylphenol	1920	0.00	U	1240	65	32-115
111-91-1	MS	bis(2-Chloroethoxy)methane	1920	0.00	U	1230	64	35-108
120-83-2	MS	2,4-Dichlorophenol	1920	0.00	U	1200	62	38-110
65-85-0	MS	Benzoic acid	3840	0.00	U	2180	57	18-134
91-20-3	MS	Naphthalene	1920	0.00	U	1180	61	31-105
106-47-8	MS	4-Chloroaniline	1920	0.00	U	1210	63	29-123
87-68-3	MS	Hexachlorobutadiene	1920	0.00	U	1330	69	31-109
91-57-6	MS	2-Methylnaphthalene	1920	0.00	U	1260	66	32-110
77-47-4	MS	Hexachlorocyclopentadiene	1920	0.00	U	1660	86	21-122
88-06-2	MS	2,4,6-Trichlorophenol	1920	0.00	U	1570	82	37-108
95-95-4	MS	2,4,5-Trichlorophenol	1920	0.00	U	1330	69	37-116
91-58-7	MS	2-Chloronaphthalene	1920	0.00	U	1190	62	37-103
88-74-4	MS	2-Nitroaniline *o-Nitroaniline*	1920	0.00	U	1190	62	36-115
99-09-2	MS	3-Nitroaniline *m-Nitroaniline*	1920	0.00	U	1140	60	39-117
131-11-3	MS	Dimethylphthalate	1920	0.00	U	1240	65	41-105
606-20-2	MS	2,6-Dinitrotoluene	1920	0.00	U	1160	60	41-103
208-96-8	MS	Acenaphthylene	1920	0.00	U	1310	68	41-103
51-28-5	MS	2,4-Dinitrophenol	1920	0.00	U	817	43	25-104
132-64-9	MS	Dibenzofuran	1920	0.00	U	1500	78	40-114
84-66-2	MS	Diethylphthalate	1920	0.00	U	1400	73	43-110

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-939
Client ID: WST03-10-2147MS
Lab Sample ID: 1201999290
Instrument: MSD1.I
Analyst: AMY
Inj. Vol: .5 uL

Sample Type: Matrix Spike
Matrix: R
%Moisture: 13.5
Analysis Date: 12/21/2009 12:59
Prep Batch ID: 934457
Batch ID: 934473
Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
86-73-7	MS	Fluorene	1920	0.00	U	1270	66	48-99
7005-72-3	MS	4-Chlorophenylphenylether	1920	0.00	U	1440	75	42-111
534-52-1	MS	2-Methyl-4,6-dinitrophenol	1920	0.00	U	932	49	19-118
100-01-6	MS	4-Nitroaniline *p-Nitroaniline*	1920	0.00	U	1140	59	35-139
122-39-4	MS	Diphenylamine	1920	0.00	U	1240	65	41-112
122-66-7	MS	Azobenzene *1,2-Diphenylhydrazine*	1920	0.00	U	1430	75	37-118
101-55-3	MS	4-Bromophenylphenylether	1920	0.00	U	1650	86	39-112
118-74-1	MS	Hexachlorobenzene	1920	0.00	U	1460	76	38-113
85-01-8	MS	Phenanthrene	1920	0.00	U	1070	56	38-110
120-12-7	MS	Anthracene	1920	0.00	U	1250	65	38-112
84-74-2	MS	Di-n-butylphthalate	1920	0.00	U	1530	80	42-119
206-44-0	MS	Fluoranthene	1920	0.00	U	1460	76	38-119
85-68-7	MS	Butylbenzylphthalate	1920	0.00	U	1550	81	39-126
56-55-3	MS	Benzo(a)anthracene	1920	0.00	U	1380	72	39-110
91-94-1	MS	3,3'-Dichlorobenzidine	1920	0.00	U	1320	69	35-106
218-01-9	MS	Chrysene	1920	0.00	U	1330	69	39-109
117-81-7	MS	bis(2-Ethylhexyl)phthalate	1920	0.00	U	1480	77	40-125
117-84-0	MS	Di-n-octylphthalate	1920	0.00	U	1500	78	30-147
205-99-2	MS	Benzo(b)fluoranthene	1920	0.00	U	1440	75	38-117
207-08-9	MS	Benzo(k)fluoranthene	1920	0.00	U	1370	71	39-120
50-32-8	MS	Benzo(a)pyrene	1920	0.00	U	1410	74	40-115
193-39-5	MS	Indeno(1,2,3-cd)pyrene	1920	0.00	U	1260	66	32-120

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-939
Client ID: WST03-10-2147MS
Lab Sample ID: 1201999290
Instrument: MSD1.I
Analyst: AMY
Inj. Vol: .5 uL

Sample Type: Matrix Spike
Matrix: R
%Moisture: 13.5
Analysis Date: 12/21/2009 12:59
Prep Batch ID 934457
Batch ID: 934473
Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
53-70-3	MS	Dibenzo(a,h)anthracene	1920	0.00	U	1220	64	32-124
191-24-2	MS	Benzo(ghi)perylene	1920	0.00	U	1300	68	28-119
120-82-1	MS	1,2,4-Trichlorobenzene	1920	0.00	U	1230	64	31-105

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-939
Client ID: WST03-10-2147MSD
Lab Sample ID: 1201999291
Instrument: MSD1.I
Analyst: AMY
Inj. Vol: .5 uL

Sample Type: Matrix Spike Duplicate
Matrix: R
%Moisture: 13.5
Analysis Date: 12/21/2009 13:23
Dilution: 1
Prep Batch ID: 934457
Batch ID: 934473

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
62-75-9	MSD N-Methyl-N-nitrosomethylam	1910	0.00	U	1150	60	32-90	8	0-30
108-95-2	MSD Phenol	1910	0.00	U	1110	58	32-105	6	0-30
95-57-8	MSD 2-Chlorophenol	1910	0.00	U	1100	58	33-106	8	0-30
106-46-7	MSD 1,4-Dichlorobenzene	1910	0.00	U	1000	52	33-95	7	0-30
621-64-7	MSD N-Nitrosodipropylamine	1910	0.00	U	1080	57	31-109	6	0-30
59-50-7	MSD 4-Chloro-3-methylphenol	1910	0.00	U	1310	69	38-119	1	0-30
83-32-9	MSD Acenaphthene	1910	0.00	U	1280	67	39-100	1	0-30
121-14-2	MSD 2,4-Dinitrotoluene	1910	0.00	U	1230	64	42-107	0	0-30
100-02-7	MSD 4-Nitrophenol	1910	0.00	U	1160	60	24-120	9	0-30
87-86-5	MSD Pentachlorophenol	1910	0.00	U	1310	68	26-121	3	0-30
129-00-0	MSD Pyrene	1910	0.00	U	1420	74	34-120	1	0-30
110-86-1	MSD Pyridine	1910	0.00	U	829	43	30-95	9	0-30
62-53-3	MSD Aniline	1910	0.00	U	1100	58	34-111	10	0-30
111-44-4	MSD bis(2-Chloroethyl) ether	1910	0.00	U	1130	59	34-101	7	0-30
541-73-1	MSD 1,3-Dichlorobenzene	1910	0.00	U	981	51	31-97	6	0-30
100-51-6	MSD Benzyl alcohol	1910	0.00	U	1310	68	17-120	6	0-30
95-50-1	MSD 1,2-Dichlorobenzene	1910	0.00	U	1050	55	32-102	5	0-30
108-60-1	MSD bis(2-Chloroisopropyl)ether	1910	0.00	U	1140	59	32-113	6	0-30
95-48-7	MSD o-Cresol	1910	0.00	U	1200	63	31-119	5	0-30
65794-96-9	MSD m,p-Cresols	1910	0.00	U	1270	66	35-125	4	0-30
67-72-1	MSD Hexachloroethane	1910	0.00	U	1040	55	30-100	5	0-30
98-95-3	MSD Nitrobenzene	1910	0.00	U	1260	66	33-108	7	0-30

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-939
Client ID: WST03-10-2147MSD
Lab Sample ID: 1201999291
Instrument: MSD1.I
Analyst: AMY
Inj. Vol: .5 uL

Sample Type: Matrix Spike Duplicate
Matrix: R
%Moisture: 13.5
Analysis Date: 12/21/2009 13:23
Prep Batch ID: 934457
Batch ID: 934473
Dilution: 1

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
78-59-1	MSD Isophorone	1910	0.00	U	1380	72	34-110	5	0-30
88-75-5	MSD 2-Nitrophenol	1910	0.00	U	1080	57	32-108	6	0-30
105-67-9	MSD 2,4-Dimethylphenol	1910	0.00	U	1210	63	32-115	3	0-30
111-91-1	MSD bis(2-Chloroethoxy)methane	1910	0.00	U	1160	61	35-108	5	0-30
120-83-2	MSD 2,4-Dichlorophenol	1910	0.00	U	1160	61	38-110	3	0-30
65-85-0	MSD Benzoic acid	3830	0.00	U	2070	54	18-134	6	0-30
91-20-3	MSD Naphthalene	1910	0.00	U	1110	58	31-105	6	0-30
106-47-8	MSD 4-Chloroaniline	1910	0.00	U	1130	59	29-123	8	0-30
87-68-3	MSD Hexachlorobutadiene	1910	0.00	U	1270	66	31-109	5	0-30
91-57-6	MSD 2-Methylnaphthalene	1910	0.00	U	1200	63	32-110	5	0-30
77-47-4	MSD Hexachlorocyclopentadiene	1910	0.00	U	1530	80	21-122	8	0-30
88-06-2	MSD 2,4,6-Trichlorophenol	1910	0.00	U	1380	72	37-108	13	0-30
95-95-4	MSD 2,4,5-Trichlorophenol	1910	0.00	U	1460	76	37-116	10	0-30
91-58-7	MSD 2-Chloronaphthalene	1910	0.00	U	1140	59	37-103	4	0-30
88-74-4	MSD 2-Nitroaniline *o-Nitroaniline*	1910	0.00	U	1170	61	36-115	1	0-30
99-09-2	MSD 3-Nitroaniline *m-Nitroaniline*	1910	0.00	U	1120	59	39-117	2	0-30
131-11-3	MSD Dimethylphthalate	1910	0.00	U	1320	69	41-105	6	0-30
606-20-2	MSD 2,6-Dinitrotoluene	1910	0.00	U	1250	65	41-103	7	0-30
208-96-8	MSD Acenaphthylene	1910	0.00	U	1280	67	41-103	2	0-30
51-28-5	MSD 2,4-Dinitrophenol	1910	0.00	U	873	46	25-104	7	0-30
132-64-9	MSD Dibenzofuran	1910	0.00	U	1500	78	40-114	0	0-30
84-66-2	MSD Diethylphthalate	1910	0.00	U	1460	77	43-110	5	0-30

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-939
Client ID: WST03-10-2147MSD
Lab Sample ID: 1201999291
Instrument: MSD1.I
Analyst: AMY
Inj. Vol: .5 uL

Sample Type: Matrix Spike Duplicate
Matrix: R
%Moisture: 13.5
Analysis Date: 12/21/2009 13:23
Dilution: 1
Prep Batch ID: 934457
Batch ID: 934473

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
86-73-7	MSD	Fluorene	1910	0.00	U	1250	66	48-99	1	0-30
7005-72-3	MSD	4-Chlorophenylphenylether	1910	0.00	U	1440	75	42-111	0	0-30
534-52-1	MSD	2-Methyl-4,6-dinitrophenol	1910	0.00	U	965	50	19-118	3	0-30
100-01-6	MSD	4-Nitroaniline *p-Nitroaniline*	1910	0.00	U	1120	59	35-139	1	0-30
122-39-4	MSD	Diphenylamine	1910	0.00	U	1260	66	41-112	2	0-30
122-66-7	MSD	Azobenzene *1,2-Diphenylhydrazine*	1910	0.00	U	1320	69	37-118	8	0-30
101-55-3	MSD	4-Bromophenylphenylether	1910	0.00	U	1660	87	39-112	0	0-30
118-74-1	MSD	Hexachlorobenzene	1910	0.00	U	1460	76	38-113	0	0-30
85-01-8	MSD	Phenanthrene	1910	0.00	U	1330	70	38-110	22	0-30
120-12-7	MSD	Anthracene	1910	0.00	U	1290	68	38-112	3	0-30
84-74-2	MSD	Di-n-butylphthalate	1910	0.00	U	1580	83	42-119	3	0-30
206-44-0	MSD	Fluoranthene	1910	0.00	U	1450	76	38-119	0	0-30
85-68-7	MSD	Butylbenzylphthalate	1910	0.00	U	1560	81	39-126	1	0-30
56-55-3	MSD	Benzo(a)anthracene	1910	0.00	U	1340	70	39-110	3	0-30
91-94-1	MSD	3,3'-Dichlorobenzidine	1910	0.00	U	1350	71	35-106	2	0-30
218-01-9	MSD	Chrysene	1910	0.00	U	1410	73	39-109	5	0-30
117-81-7	MSD	bis(2-Ethylhexyl)phthalate	1910	0.00	U	1520	80	40-125	3	0-30
117-84-0	MSD	Di-n-octylphthalate	1910	0.00	U	1520	79	30-147	1	0-30
205-99-2	MSD	Benzo(b)fluoranthene	1910	0.00	U	1330	69	38-117	8	0-30
207-08-9	MSD	Benzo(k)fluoranthene	1910	0.00	U	1490	78	39-120	9	0-30
50-32-8	MSD	Benzo(a)pyrene	1910	0.00	U	1420	74	40-115	1	0-30
193-39-5	MSD	Indeno(1,2,3-cd)pyrene	1910	0.00	U	1260	66	32-120	0	0-30

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number:	10-939	Sample Type:	Matrix Spike Duplicate
Client ID:	WST03-10-2147MSD	Matrix:	R
Lab Sample ID:	1201999291	%Moisture:	13.5
Instrument:	MSD1.1	Analysis Date:	12/21/2009 13:23
Analyst:	AMY	Prep Batch ID:	934457
Inj. Vol:	.5 uL	Batch ID:	934473

Dilution: 1

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
53-70-3	MSD Dibenzo(a,h)anthracene	1910	0.00	U	1240	65	32-124	2	0-30
191-24-2	MSD Benzo(ghi)perylene	1910	0.00	U	1300	68	28-119	0	0-30
120-82-1	MSD 1,2,4-Trichlorobenzene	1910	0.00	U	1180	61	31-105	4	0-30

Method Blank Summary

SDG Number:	10-939	Client:	LANL010	Matrix:	SOIL
Client ID:	MB for batch 934457	Instrument ID:	MSD1.I	Data File:	s1l2106-1.d
Lab Sample ID:	1201999288	Prep Date:	12/18/2009 19:56	Analyzed:	12/21/09 11:49
Column:	J&W DB-5MS	Level:	LOW		

This method blank applies to the following samples and quality control samples:

Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01 LCS for batch 934457	1201999289	s1l2107.d	12/21/09	1212
02 WST03-10-2147	243007002	s1l2108.d	12/21/09	1235
03 WST03-10-2147MS	1201999290	s1l2109.d	12/21/09	1259
04 WST03-10-2147MSD	1201999291	s1l2110.d	12/21/09	1323

Instrument Performance Check

DFTPP

Lab Name GEL Laboratories LLC **Client SDG:** 10-939

Instrument ID: MSD1.I **Injection Date/Time:** 14-NOV-09 17:38

Column Description: J&W DB-5MS **Lab File ID** /chem/MSD1.i/s111409.b/s1k1201.d

m/e	Ion Abundance Criteria	% Relative Abundance
198	Base Peak, 100% Relative Abundance	100
51	30 - 60% of mass 198	41.3
68	Less than 2% of mass 69	1.8
69	Mass 69 Relative Abundance	36.7
70	Less than 2% of mass 69	0.6
127	40 - 60% of mass 198	48.3
197	0 - 1% of mass 198	0.7
199	5 - 9% of mass 198	6.6
275	10 - 30% of mass 198	23.3
365	Greater than 1% of mass 198	2.2
441	Present, but less than mass 443	74.2
442	Greater than 40% of mass 198	77.4
443	17 - 23% of mass 442	19.2

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
MEGA001	WBN091111-16	/chem/MSD1.i/s111409.b/s1k120	14-NOV-09 18:22
MEGA010	WBN091111-15	/chem/MSD1.i/s111409.b/s1k120	14-NOV-09 18:51
MEGA020	WBN091111-14	/chem/MSD1.i/s111409.b/s1k120	14-NOV-09 19:21
MEGA040	WBN091111-13.1	/chem/MSD1.i/s111409.b/s1k120	14-NOV-09 19:50
MEGA050	WBN091111-12	/chem/MSD1.i/s111409.b/s1k120	14-NOV-09 20:19
MEGA080	WBN091111-11	/chem/MSD1.i/s111409.b/s1k120	14-NOV-09 20:47
MEGA100	WBN091111-10	/chem/MSD1.i/s111409.b/s1k120	14-NOV-09 21:16
MEGA120	WBN091111-09	/chem/MSD1.i/s111409.b/s1k121	14-NOV-09 21:45

Instrument Performance Check

DFTPP

Lab Name GEL Laboratories LLC **Client SDG:** 10-939

Instrument ID: MSD1.I **Injection Date/Time:** 15-NOV-09 14:50

Column Description: J&W DB-5MS **Lab File ID** /chem/MSD1.i/s111409.b/s1k1213.d

m/e	Ion Abundance Criteria	% Relative Abundance
198	Base Peak, 100% Relative Abundance	100
51	30 - 60% of mass 198	45.1
68	Less than 2% of mass 69	1.8
69	Mass 69 Relative Abundance	39.1
70	Less than 2% of mass 69	0.5
127	40 - 60% of mass 198	50.2
197	0 - 1% of mass 198	0.9
199	5 - 9% of mass 198	6.6
275	10 - 30% of mass 198	22.4
365	Greater than 1% of mass 198	2.3
441	Present, but less than mass 443	72.7
442	Greater than 40% of mass 198	70.7
443	17 - 23% of mass 442	19.3

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
AP010	WBN091111-01	/chem/MSD1.i/s111409.b/s1k121	15-NOV-09 15:28
AP020	WBN091111-02	/chem/MSD1.i/s111409.b/s1k121	15-NOV-09 15:51
AP040	WBN091111-03.1	/chem/MSD1.i/s111409.b/s1k121	15-NOV-09 16:14
AP050	WBN091111-04	/chem/MSD1.i/s111409.b/s1k121	15-NOV-09 16:38
AP080	WBN091111-05	/chem/MSD1.i/s111409.b/s1k121	15-NOV-09 17:01
AP100	WBN091111-06	/chem/MSD1.i/s111409.b/s1k122	15-NOV-09 17:24
AP120	WBN091111-07	/chem/MSD1.i/s111409.b/s1k122	15-NOV-09 17:47
APICV	WBN091111-08.1	/chem/MSD1.i/s111409.b/s1k123	15-NOV-09 23:17

Instrument Performance Check

DFTPP

Lab Name GEL Laboratories LLC **Client SDG:** 10-939

Instrument ID: MSD1.I **Injection Date/Time:** 17-NOV-09 15:48

Column Description: J&W DB-5MS **Lab File ID** /chem/MSD1.i/s111409.b/s1k1259.d

m/e	Ion Abundance Criteria	% Relative Abundance
198	Base Peak, 100% Relative Abundance	100
51	30 - 60% of mass 198	44.2
68	Less than 2% of mass 69	1.8
69	Mass 69 Relative Abundance	38.5
70	Less than 2% of mass 69	0.6
127	40 - 60% of mass 198	49.6
197	0 - 1% of mass 198	0.7
199	5 - 9% of mass 198	6.7
275	10 - 30% of mass 198	23.8
365	Greater than 1% of mass 198	2.4
441	Present, but less than mass 443	72.4
442	Greater than 40% of mass 198	78.9
443	17 - 23% of mass 442	19.2

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
MEGAICV	WBN091027-09.3	/chem/MSD1.i/s111409.b/s1k126	17-NOV-09 16:27

Instrument Performance Check

DFTPP

Lab Name GEL Laboratories LLC **Client SDG:** 10-939

Instrument ID: MSD1.I **Injection Date/Time:** 21-DEC-09 09:05

Column Description: J&W DB-5MS **Lab File ID** /chem/MSD1.i/s122109.b/s1l2102.d

m/e	Ion Abundance Criteria	% Relative Abundance
198	Base Peak, 100% Relative Abundance	100
51	30 - 60% of mass 198	38.2
68	Less than 2% of mass 69	1.5
69	Mass 69 Relative Abundance	34.6
70	Less than 2% of mass 69	0.5
127	40 - 60% of mass 198	44.9
197	0 - 1% of mass 198	0.6
199	5 - 9% of mass 198	6.5
275	10 - 30% of mass 198	23.8
365	Greater than 1% of mass 198	2.4
441	Present, but less than mass 443	76.6
442	Greater than 40% of mass 198	69.6
443	17 - 23% of mass 442	19

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
MEGACVS	WBN091111-17.2	/chem/MSD1.i/s122109.b/s1l2103	21-DEC-09 09:19
APCVS	WBN091201-03.5	/chem/MSD1.i/s122109.b/s1l2104	21-DEC-09 10:32
SBLK01	1201999288	/chem/MSD1.i/s122109.b/s1l2106	21-DEC-09 11:49
SBLK01LCS	1201999289	/chem/MSD1.i/s122109.b/s1l2107	21-DEC-09 12:12
WST03-10-2147	243007002	/chem/MSD1.i/s122109.b/s1l2108	21-DEC-09 12:35
WST03-10-2147MS	1201999290	/chem/MSD1.i/s122109.b/s1l2109	21-DEC-09 12:59
WST03-10-2147MSD	1201999291	/chem/MSD1.i/s122109.b/s1l2110	21-DEC-09 13:23

Internal Standard
Area and RT Summary

Lab Name : GEL Laboratories LLC

Client SDG: 10-939

Instrument: MSD1.I

STD Analysis Time: 21-DEC-09 09:19

GC Column: J&W DB-5MS

Data File: s112103.d

	1,4-Dichlorobenzene-d4			Naphthalene-d8			Acenaphthene-d10			Phenanthrene-d10			Chrysene-d12			Perylene-d12		
	Area	#	RT #	Area	#	RT #	Area	#	RT #	Area	#	RT #	Area	#	RT #	Area	#	RT #
12 Hour STD	625798		3.92	2543363		4.78	1323598		6.03	2152578		7	1840086		8.66	1436197		10.1
Upper Limit	1251596		4.42	5086726		5.28	2647196		6.53	4305156		7.5	3680172		9.16	2872394		10.6
Lower Limit	312899		3.42	1271682		4.28	661799		5.53	1076289		6.5	920043		8.16	718099		9.61
Sample ID																		
BLK01	696929		3.92	2754920		4.77	1515024		6.02	2499135		7	2067207		8.66	1691794		10.1
BLK01LCS	826149		3.92	3256008		4.78	1731252		6.03	2930797		7	2612571		8.67	2210343		10.1
WST03-10-2147	838840		3.91	3345672		4.78	1851177		6.02	3124976		7	2747616		8.66	2413361		10.1
WST03-10-2147MS	753011		3.91	3035176		4.78	1623882		6.03	2766814		7	2458335		8.67	2124807		10.1
WST03-10-2147MSD	730413		3.92	2934665		4.78	1566776		6.03	2650146		7	2335968		8.67	2015057		10.1

Area Upper Limit = +100% of internal standard area
Area Lower Limit = - 50% of internal standard area

RT Upper Limit = + 0.50 minutes of internal standard RT
RT Lower Limit = - 0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Value outside of QC Limits

Sample Data

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-939	Date Collected:	12/14/2009 12:00	Matrix:	R
Lab Sample ID:	243007002	Date Received:	12/16/2009 09:10	%Moisture:	13.5
		Client:	LANL010	Project:	LANL01004
Client ID:	WST03-10-2147	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	934473	Inst:	MSD1.I	Dilution:	1
Run Date:	12/21/2009 12:35	Analyst:	AMY	Inj. Vol:	.5 uL
Prep Date:	12/18/2009 19:56	Aliquot:	30.02 g	Final Volume:	1 mL
Data File:	s112108.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	385	ug/kg	77.0	385
108-95-2	Phenol	U	385	ug/kg	77.0	385
95-57-8	2-Chlorophenol	U	385	ug/kg	77.0	385
106-46-7	1,4-Dichlorobenzene	U	385	ug/kg	77.0	385
621-64-7	N-Nitrosodipropylamine	U	385	ug/kg	77.0	385
59-50-7	4-Chloro-3-methylphenol	U	385	ug/kg	77.0	385
83-32-9	Acenaphthene	U	38.5	ug/kg	12.7	38.5
121-14-2	2,4-Dinitrotoluene	U	385	ug/kg	38.5	385
100-02-7	4-Nitrophenol	U	385	ug/kg	127	385
87-86-5	Pentachlorophenol	U	385	ug/kg	96.3	385
129-00-0	Pyrene	U	38.5	ug/kg	11.6	38.5
110-86-1	Pyridine	U	385	ug/kg	77.0	385
62-53-3	Aniline	U	385	ug/kg	116	385
111-44-4	bis(2-Chloroethyl) ether	U	385	ug/kg	77.0	385
541-73-1	1,3-Dichlorobenzene	U	385	ug/kg	77.0	385
100-51-6	Benzyl alcohol	U	385	ug/kg	116	385
95-50-1	1,2-Dichlorobenzene	U	385	ug/kg	77.0	385
108-60-1	bis(2-Chloroisopropyl)ether	U	385	ug/kg	77.0	385
95-48-7	o-Cresol	U	385	ug/kg	77.0	385
65794-96-9	m,p-Cresols	U	385	ug/kg	116	385
67-72-1	Hexachloroethane	U	385	ug/kg	77.0	385
98-95-3	Nitrobenzene	U	385	ug/kg	77.0	385
78-59-1	Isophorone	U	385	ug/kg	77.0	385
88-75-5	2-Nitrophenol	U	385	ug/kg	77.0	385
105-67-9	2,4-Dimethylphenol	U	385	ug/kg	135	385
111-91-1	bis(2-Chloroethoxy)methane	U	385	ug/kg	77.0	385
120-83-2	2,4-Dichlorophenol	U	385	ug/kg	77.0	385
65-85-0	Benzoic acid	U	770	ug/kg	193	770
91-20-3	Naphthalene	U	38.5	ug/kg	11.6	38.5
106-47-8	4-Chloroaniline	U	385	ug/kg	77.0	385
87-68-3	Hexachlorobutadiene	U	385	ug/kg	77.0	385
91-57-6	2-Methylnaphthalene	U	38.5	ug/kg	7.70	38.5
77-47-4	Hexachlorocyclopentadiene	U	385	ug/kg	77.0	385
88-06-2	2,4,6-Trichlorophenol	U	385	ug/kg	77.0	385
95-95-4	2,4,5-Trichlorophenol	U	385	ug/kg	77.0	385
91-58-7	2-Chloronaphthalene	U	38.5	ug/kg	12.7	38.5
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	385	ug/kg	77.0	385
99-09-2	3-Nitroaniline	U	385	ug/kg	77.0	385

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-939	Date Collected:	12/14/2009 12:00	Matrix:	R
Lab Sample ID:	243007002	Date Received:	12/16/2009 09:10	%Moisture:	13.5
		Client:	LANL010	Project:	LANL01004
Client ID:	WST03-10-2147	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	934473	Inst:	MSD1.I	Dilution:	1
Run Date:	12/21/2009 12:35	Analyst:	AMY	Inj. Vol:	.5 uL
Prep Date:	12/18/2009 19:56	Aliquot:	30.02 g	Final Volume:	1 mL
Data File:	s112108.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	385	ug/kg	77.0	385
606-20-2	2,6-Dinitrotoluene	U	385	ug/kg	38.5	385
208-96-8	Acenaphthylene	U	38.5	ug/kg	11.6	38.5
51-28-5	2,4-Dinitrophenol	U	770	ug/kg	146	770
132-64-9	Dibenzofuran	U	385	ug/kg	77.0	385
84-66-2	Diethylphthalate	U	385	ug/kg	77.0	385
86-73-7	Fluorene	U	38.5	ug/kg	11.6	38.5
7005-72-3	4-Chlorophenylphenylether	U	385	ug/kg	77.0	385
534-52-1	2-Methyl-4,6-dinitrophenol	U	385	ug/kg	77.0	385
100-01-6	4-Nitroaniline	U	385	ug/kg	116	385
	p-Nitroaniline					
122-39-4	Diphenylamine	U	385	ug/kg	77.0	385
122-66-7	Azobenzene	U	385	ug/kg	77.0	385
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	385	ug/kg	77.0	385
118-74-1	Hexachlorobenzene	U	385	ug/kg	77.0	385
85-01-8	Phenanthrene	U	38.5	ug/kg	11.6	38.5
120-12-7	Anthracene	U	38.5	ug/kg	7.70	38.5
84-74-2	Di-n-butylphthalate	U	385	ug/kg	77.0	385
206-44-0	Fluoranthene	U	38.5	ug/kg	11.6	38.5
85-68-7	Butylbenzylphthalate	U	385	ug/kg	77.0	385
56-55-3	Benzo(a)anthracene	U	38.5	ug/kg	11.6	38.5
91-94-1	3,3'-Dichlorobenzidine	U	385	ug/kg	116	385
218-01-9	Chrysene	U	38.5	ug/kg	11.6	38.5
117-81-7	bis(2-Ethylhexyl)phthalate	U	385	ug/kg	77.0	385
117-84-0	Di-n-octylphthalate	U	385	ug/kg	77.0	385
205-99-2	Benzo(b)fluoranthene	U	38.5	ug/kg	11.6	38.5
207-08-9	Benzo(k)fluoranthene	U	38.5	ug/kg	11.6	38.5
50-32-8	Benzo(a)pyrene	U	38.5	ug/kg	11.6	38.5
193-39-5	Indeno(1,2,3-cd)pyrene	U	38.5	ug/kg	11.6	38.5
53-70-3	Dibenzo(a,h)anthracene	U	38.5	ug/kg	11.6	38.5
191-24-2	Benzo(ghi)perylene	U	38.5	ug/kg	11.6	38.5
120-82-1	1,2,4-Trichlorobenzene	U	385	ug/kg	77.0	385

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	1.68	286	ug/kg		JA
	Unknown	2.96	440	ug/kg		J

GEL Laboratories LLC

Data file : /chem/MSD1.i/s122109.b/s112108.d
Lab Smp Id: 243007002 Client Smp ID: WST03-10-2147
Inj Date : 21-DEC-2009 12:35
Operator : AMY Inst ID: MSD1.i
Smp Info : |243007002|934473|1|SVMF|1|LANL
Misc Info : |MSD8270_S|WBN091208-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD1.i/s122109.b/MSD1-M8270AQA-111409.m
Meth Date : 28-Dec-2009 09:37 amy01291 Quant Type: ISTD
Cal Date : 17-NOV-2009 17:42 Cal File: s1k1264.d
Als bottle: 7
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-939.sub
Target Version: 3.50
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.02000	weight of sample
M	13.49180	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.910	3.916	(1.000)	838840	40.0000	
* 29 Naphthalene-d8	136	4.775	4.781	(1.000)	3345672	40.0000	
* 46 Acenaphthene-d10	164	6.022	6.028	(1.000)	1851177	40.0000	
* 67 Phenanthrene-d10	188	7.004	7.004	(1.000)	3124976	40.0000	
* 91 Chrysene-d12	240	8.663	8.663	(1.000)	2747616	40.0000	
* 98 Perylene-d12	264	10.116	10.110	(1.000)	2413361	40.0000	
$ 3 2-Fluorophenol	112	3.116	3.116	(0.797)	1485716	67.8094	2610
$ 5 Phenol-d5	99	3.634	3.640	(0.929)	1923971	72.2490	2780
$ 20 Nitrobenzene-d5	82	4.275	4.281	(0.895)	904774	41.0360	1580
$ 39 2-Fluorobiphenyl	172	5.516	5.522	(0.916)	1801522	40.6337	1560
$ 60 2,4,6-Tribromophenol	329	6.557	6.557	(1.089)	456314	88.2765	3400
$ 81 p-Terphenyl-d14	244	7.916	7.916	(0.914)	1894343	43.9228	1690

ION RATIO REPORT

SV REPORT

Data file: s112108.d
Report Date: 12/22/2009 12:35
Lab. ID: 243007002 SampleType: SAMPLE
Injection Date: 21-DEC-2009 12:35
Operator: AMY Instrument: MSD1.i
Sample Info: |243007002|934473|1|SVMF|1|LANL
Miscellaneous Info: |MSD8270_S|WBN091208-01|
Comment:
Method used: /chem/MSD1.i/s122109.b/MSD1-M8270AQA-111409.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-939
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
4 Aniline		CAS#: 62-53-3				
66	93064	3.63	3.70	80-120	100	(T)
93	162	3.63	3.72	416-476	0	(QT)
17 N-Nitrosodipropylamine				CAS#: 621-64-7		
70	120623	4.28	4.16	80-120	100	(T)
42	74738	4.28	4.16	49-109	62	(T)
43 Dimethylphthalate			CAS#: 131-11-3			
163	326378	6.02	5.80	80-120	100	(T)
164	1851177	6.02	5.80	0- 40	567	(QT)
44 2,6-Dinitrotoluene			CAS#: 606-20-2			
165	236239	6.02	5.85	80-120	100	(T)
63	2382	6.02	5.85	55-115	1	(QT)
50 2,4-Dinitrotoluene			CAS#: 121-14-2			
165	236239	6.02	6.13	80-120	100	(T)
89	3037	6.02	6.13	45-105	1	(QT)
63	2526	6.02	6.13	22- 82	1	(QT)
53 Fluorene		CAS#: 86-73-7				
166	29446	6.55	6.40	80-120	100	(T)
165	29628	6.55	6.40	62-122	101	(T)
167	9800	6.55	6.40	0- 43	33	(T)

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
61 4-Bromophenylphenylether				CAS#: 101-55-3		
248	28323	6.55	6.70	80-120	100	(T)
141	188568	6.55	6.70	48-108	666	(QT)
250	57822	6.56	6.70	66-126	204	(QT)
95 Benzo(b)fluoranthene				CAS#: 205-99-2		
252	1723	9.65	9.65	80-120	100	( )
253	163	9.63	9.65	0- 52	10	( )
125	704	9.64	9.65	0- 44	41	( )

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

Data file : /chem/MSD1.i/s122109.b/s112108.d
Lab Smp Id: 243007002 Client Smp ID: WST03-10-2147
Inj Date : 21-DEC-2009 12:35
Operator : AMY Inst ID: MSD1.i
Smp Info : |243007002|934473|1|SVMF|1|LANL
Misc Info : |MSD8270_S|WBN091208-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD1.i/s122109.b/MSD1-M8270AQA-111409.m
Meth Date : 28-Dec-2009 09:37 amy01291 Quant Type: ISTD
Cal Date : 17-NOV-2009 17:42 Cal File: s1k1264.d
Als bottle: 7
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-939.sub
Target Version: 3.50
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariabl

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.02000	weight of sample
M	13.49180	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	3.910	5021179	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown Aldol Condensate				CAS #:			
1.675	933582	7.43715100	286	0		0	10
Unknown				CAS #:			
2.957	1433527	11.4198419	440	0		0	10

Data File: /chem/MSD1.i/s122109.b/s112108.d

Date : 21-DEC-2009 12:35

Client ID: WST03-10-2147

Sample Info: 1243007002193447311|SVMF11|LANL

Volume Injected (uL): 0.5

Column phase: J&W DB-5MS

Instrument: MSD1.i

Operator: AMY

Column diameter: 0.20

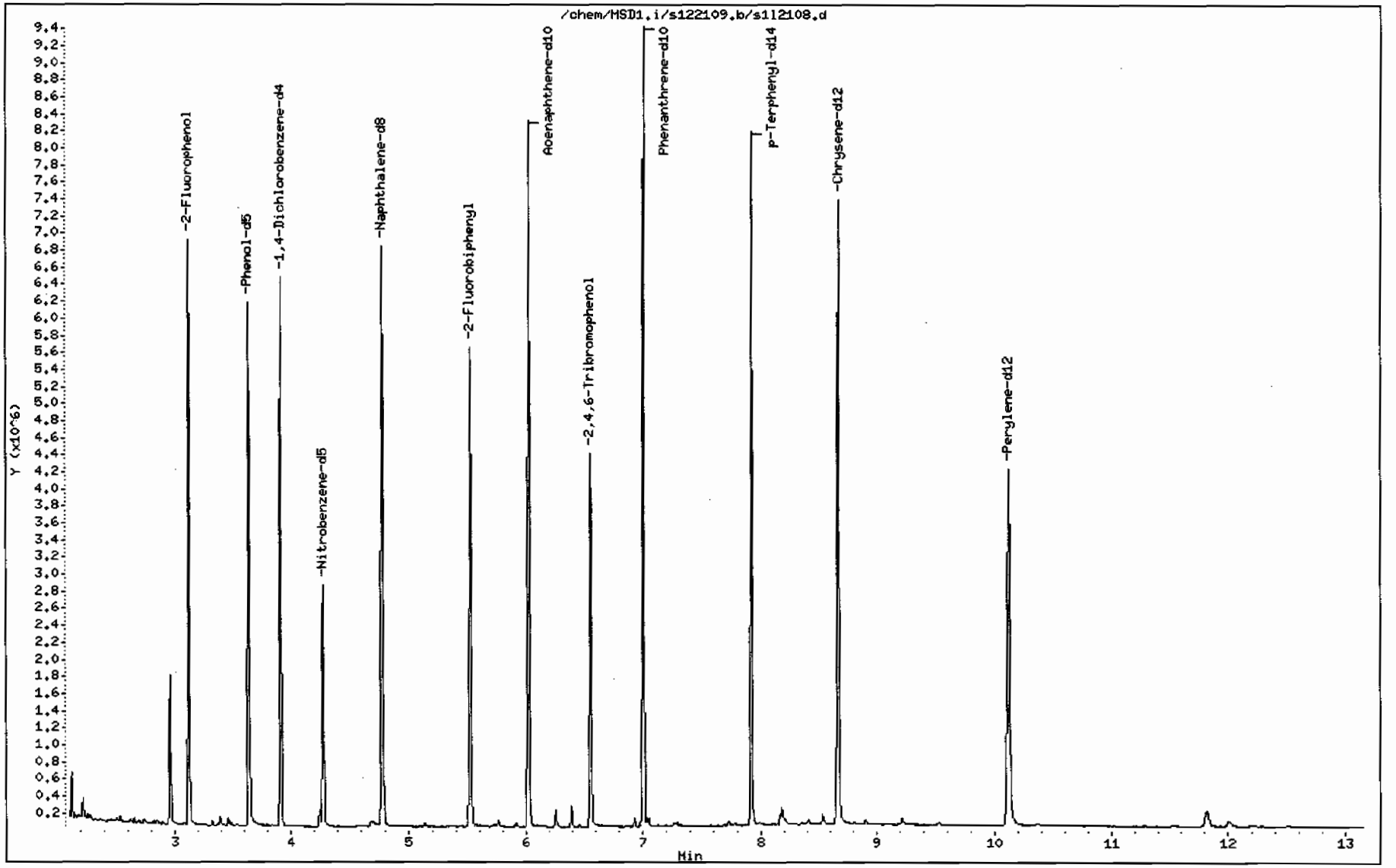

Data File: /chem/MSD1.i/s122109.b/s112108.d

Date : 21-DEC-2009 12:35

Client ID: WST03-10-2147

Instrument: MSD1.i

Sample Info: 1243007002193447311ISVMF11ILANL

Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	25	C6H12O2	116
2-Furanmethanamine, tetrahydro-	4795-29-3	NIST05.L	4024	4	C5H11NO	101
Propylamine	107-10-8	NIST05.L	242	4	C3H9N	59

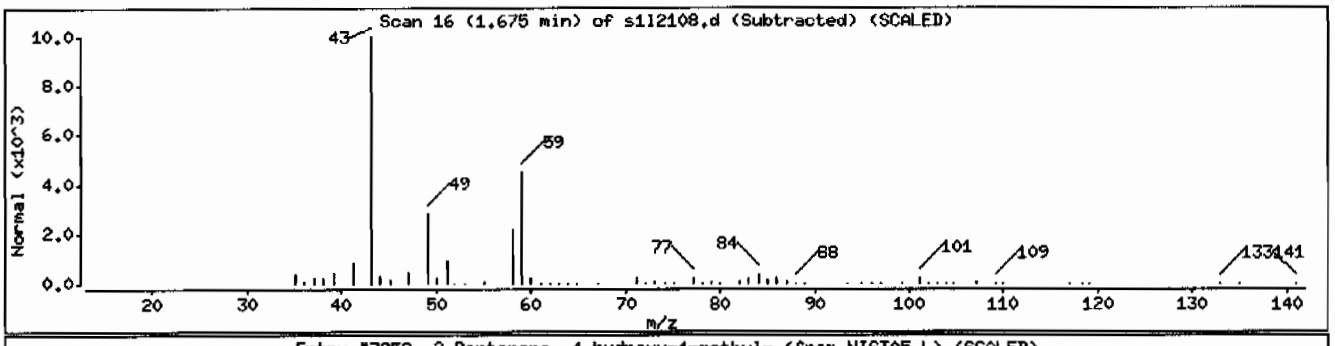

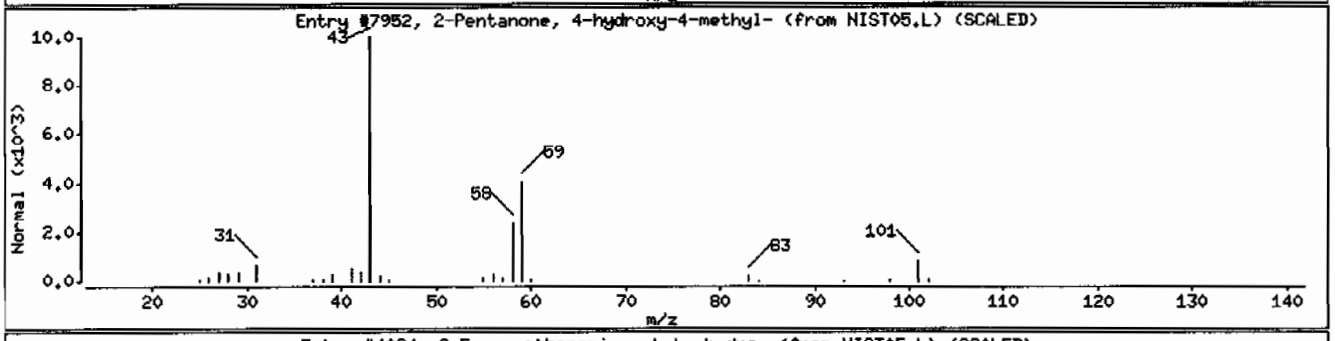

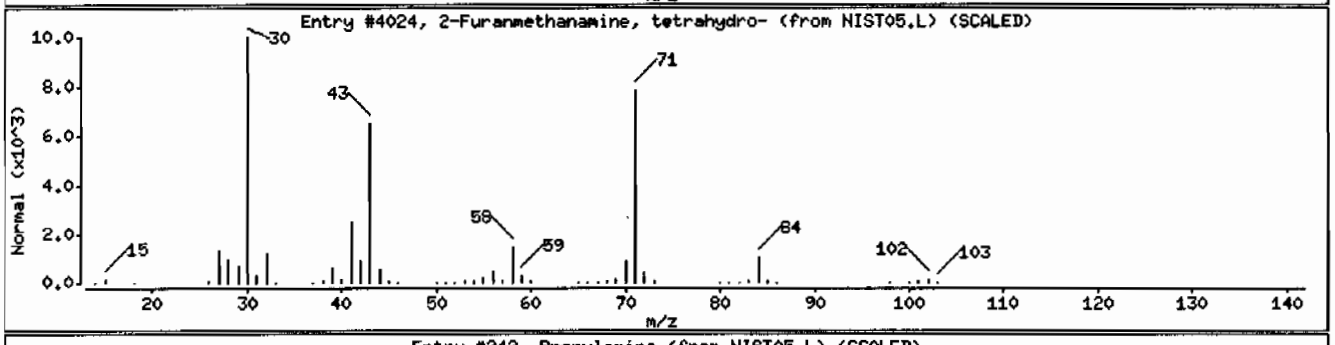

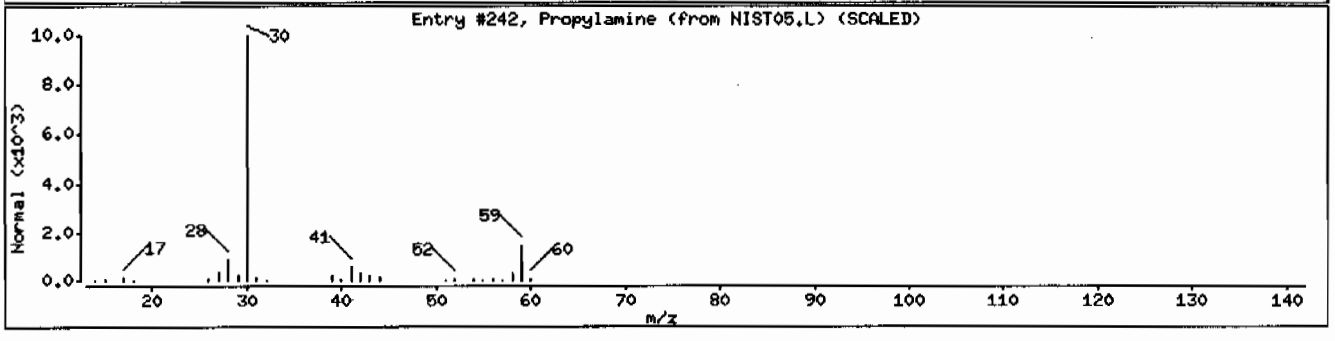

Data File: /chem/MSD1.i/s122109.b/s112108.d

Date : 21-DEC-2009 12:35

Client ID: WST03-10-2147 Instrument: MSD1.i

Sample Info: |2430070021934473|1|SVMF|1|LANL

Volume Injected (uL): 0.5 Operator: AMY

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	59	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	50	C6H12O2	116
2,3-Butanedione, monooxime	57-71-6	NIST05.L	3949	27	C4H7NO2	101

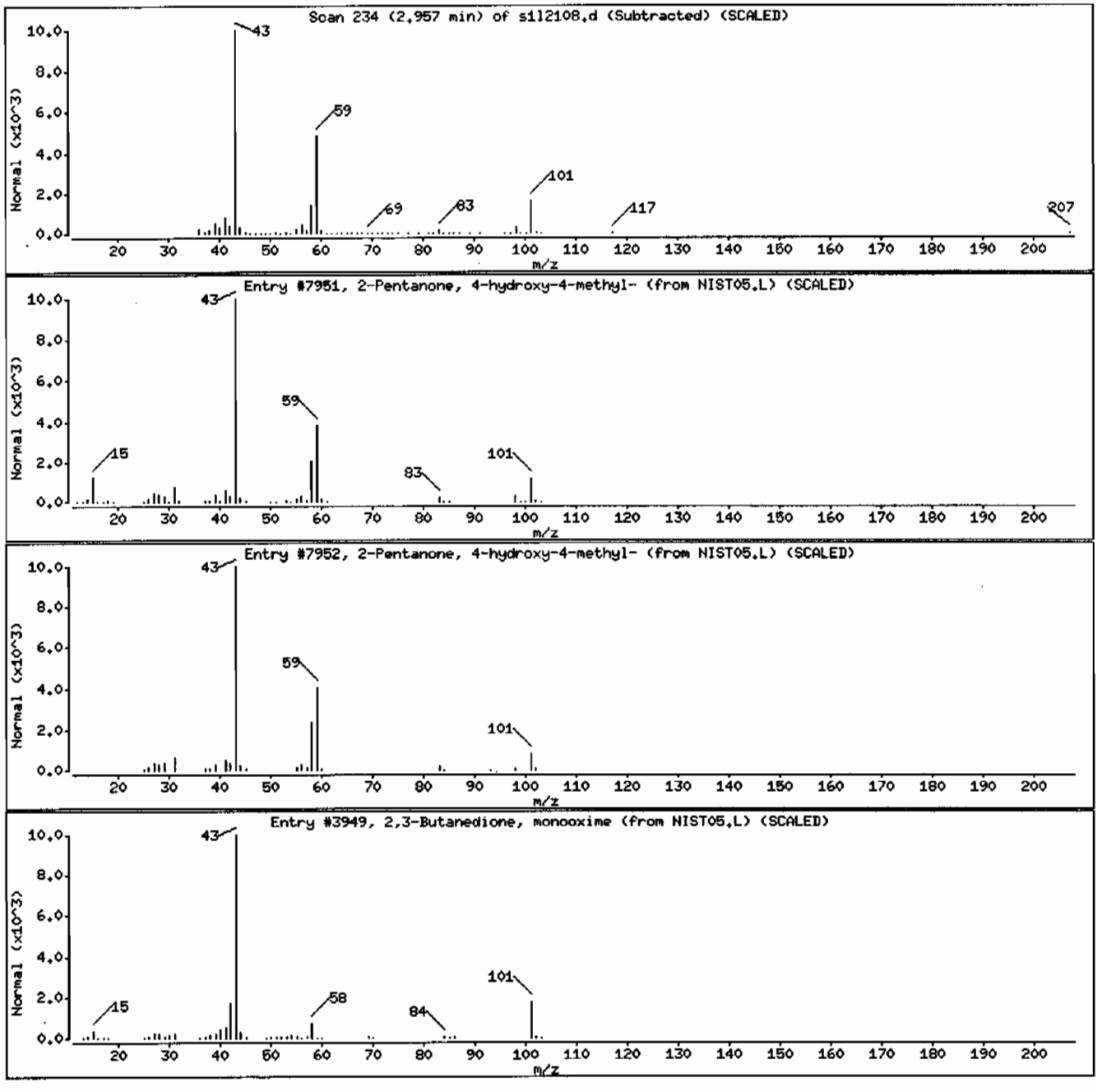

Standard Data

SW846 8270C//8270D/EPA 625								
Calibration Standard Concentration Levels*								
	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
1,4-Dichlorobenzene-d4 (INTERNAL STANDARD)								
Naphthalene-d8 (INTERNAL STANDARD)								
Acenaphthene-d10 (INTERNAL STANDARD)								
Phenanthrene-d10 (INTERNAL STANDARD)								
Chrysene-d12 (INTERNAL STANDARD)								
Perylene-d12 (INTERNAL STANDARD)								
2-Fluorophenol (SURROGATE)		10	20	40	50	80	100	120
Phenol-d5 (SURROGATE)		10	20	40	50	80	100	120
2-Chlorophenol-d4 (CLP SURROGATE)		10	20	40	50	80	100	120
1,2-Dichlorobenzene-d4 (CLP SURROGATE)		10	20	40	50	80	100	120
Nitrobenzene-d5 (SURROGATE)		10	20	40	50	80	100	120
2-Fluorobiphenyl (SURROGATE)		10	20	40	50	80	100	120
2,4,6-Tribromophenol (SURROGATE)		10	20	40	50	80	100	120
p-Terphenyl-d14 (SURROGATE)		10	20	40	50	80	100	120
N-Nitrosodimethylamine		10	20	40	50	80	100	120
Pyridine		10	20	40	50	80	100	120
Aniline		10	20	40	50	80	100	120
Benzaldehyde		10	20	40	50	80	100	120
Phenol		10	20	40	50	80	100	120
bis(2-Chloroethyl)ether	1	10	20	40	50	80	100	120
2-Chlorophenol		10	20	40	50	80	100	120
n-Decane		10	20	40	50	80	100	120
1,3-Dichlorobenzene		10	20	40	50	80	100	120
1,4-Dichlorobenzene		10	20	40	50	80	100	120
Benzyl Alcohol		10	20	40	50	80	100	120
1,2-Dichlorobenzene		10	20	40	50	80	100	120
bis(2-Chloroisopropyl)ether		10	20	40	50	80	100	120
o-Cresol (2-Methylphenol)		10	20	40	50	80	100	120
Acetophenone		10	20	40	50	80	100	120
N-Nitrosodipropylamine	1	10	20	40	50	80	100	120
m,p-Cresols (3-Methylphenol & 4-Methylphenol)		10	20	40	50	80	100	120
Hexachloroethane		10	20	40	50	80	100	120
Nitrobenzene		10	20	40	50	80	100	120
Isophorone		10	20	40	50	80	100	120
2-Nitrophenol		10	20	40	50	80	100	120
2,4-Dimethylphenol		10	20	40	50	80	100	120
bis(2-Chloroethoxy)methane		10	20	40	50	80	100	120
2,4-Dichlorophenol		10	20	40	50	80	100	120
Benzoic Acid			20	40	50	80	100	120
1,2,4-Trichlorobenzene		10	20	40	50	80	100	120
Naphthalene	1	10	20	40	50	80	100	120
alpha-Terpineol		10	20	40	50	80	100	120
4-Chloroaniline		10	20	40	50	80	100	120
Caprolactam		10	20	40	50	80	100	120

SW846 8270C//8270D/EPA 625								
Calibration Standard Concentration Levels*								
	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Hexachlorobutadiene		10	20	40	50	80	100	120
4-Chloro-3-methylphenol		10	20	40	50	80	100	120

2-Methylnaphthalene	1	10	20	40	50	80	100	120
1-Methylnaphthalene	1	10	20	40	50	80	100	120
Hexachlorocyclopentadiene		10	20	40	50	80	100	120
1,1'-Biphenyl		10	20	40	50	80	100	120
2,3-Dichloroaniline		10	20	40	50	80	100	120
2,4,6-Trichlorophenol		10	20	40	50	80	100	120
2,4,5-Trichlorophenol		10	20	40	50	80	100	120
2-Chloronaphthalene	1	10	20	40	50	80	100	120
o-Nitroaniline		10	20	40	50	80	100	120
m-Nitroaniline		10	20	40	50	80	100	120
Dimethylphthalate	1	10	20	40	50	80	100	120
2,6-Dinitrotoluene		10	20	40	50	80	100	120
Acenaphthylene	1	10	20	40	50	80	100	120
Acenaphthene	1	10	20	40	50	80	100	120
2,4-Dinitrophenol			20	40	50	80	100	120
Dibenzofuran		10	20	40	50	80	100	120
2,4-Dinitrotoluene		10	20	40	50	80	100	120
Diethylphthalate	1	10	20	40	50	80	100	120
4-Nitrophenol		10	20	40	50	80	100	120
Fluorene	1	10	20	40	50	80	100	120
4-Chlorophenyl phenyl ether		10	20	40	50	80	100	120
2-Methyl-4,6-dinitrophenol		10	20	40	50	80	100	120
p-Nitroaniline		10	20	40	50	80	100	120
Diphenylamine		10	20	40	50	80	100	120
1,2-Diphenylhydrazine		10	20	40	50	80	100	120
Tributylphosphate		10	20	40	50	80	100	120
4-Bromophenyl phenyether		10	20	40	50	80	100	120
Hexachlorobenzene		10	20	40	50	80	100	120
Atrazine		10	20	40	50	80	100	120
Pentachlorophenol		10	20	40	50	80	100	120
n-Octadecane		10	20	40	50	80	100	120
Phenanthrene	1	10	20	40	50	80	100	120
Anthracene	1	10	20	40	50	80	100	120
Di-n-butylphthalate	1	10	20	40	50	80	100	120
Fluoranthene	1	10	20	40	50	80	100	120
Benzidine		10	20	40	50	80	100	120
Pyrene	1	10	20	40	50	80	100	120
Butylbenzylphthalate	1	10	20	40	50	80	100	120
Benzo(a)anthracene	1	10	20	40	50	80	100	120
3,3'-Dichlorobenzidene		10	20	40	50	80	100	120
Chrysene	1	10	20	40	50	80	100	120
bis (2-Ethylhexyl) phthalate	1	10	20	40	50	80	100	120
Di-n-octylphthalate	1	10	20	40	50	80	100	120

SW846 8270C//8270D/EPA 625								
Calibration Standard Concentration Levels*								
	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Benzo(b)fluoranthene	1	10	20	40	50	80	100	120
Benzo(k)fluoranthene	1	10	20	40	50	80	100	120
Benzo(a)pyrene	1	10	20	40	50	80	100	120
Indeno-(1,2,3-cd)pyrene	1	10	20	40	50	80	100	120
Dibenzo(a,h)anthracene	1	10	20	40	50	80	100	120
Benzo(ghi)perylene	1	10	20	40	50	80	100	120
Carbazole	1	10	20	40	50	80	100	120

APPENDIX IX

1,4-Dioxane		10	20	40	50	80	100	120
Methyl methacrylate		10	20	40	50	80	100	120
Ethyl methacrylate		10	20	40	50	80	100	120
2-Picoline		10	20	40	50	80	100	120
N-Nitrosomethylethylamine		10	20	40	50	80	100	120
Methyl methanesulfonate		10	20	40	50	80	100	120
N-Nitrosodiethylamine		10	20	40	50	80	100	120
Ethyl methanesulfonate		10	20	40	50	80	100	120
Pentachloroethane		10	20	40	50	80	100	120
N-Nitrosopyrrolidine		10	20	40	50	80	100	120
N-Nitrosomorpholine		10	20	40	50	80	100	120
o-Toluidine		10	20	40	50	80	100	120
N-Nitrosopiperidine		10	20	40	50	80	100	120
a,a-Dimethhylphenethylamine		10	20	40	50	80	100	120
Triethylphosphorothioate		10	20	40	50	80	100	120
2,6-Dichlorophenol		10	20	40	50	80	100	120
Hexachloropropene		10	20	40	50	80	100	120
p-Phenylenediamine		10	20	40	50	80	100	120
N-Nitrosodi-n-butylamine		10	20	40	50	80	100	120
Safrole		10	20	40	50	80	100	120
1,2,4,5-Tetrachlorobenzene		10	20	40	50	80	100	120
Isosafrole		10	20	40	50	80	100	120
1,4-Naphthoquinone		10	20	40	50	80	100	120
m-Dinitrobenzene		10	20	40	50	80	100	120
Pentachlorobenzene		10	20	40	50	80	100	120
1-Naphthylamine		10	20	40	50	80	100	120
2-Naphthylamine		10	20	40	50	80	100	120
2,3,4,6-Tetrachlorophenol		10	20	40	50	80	100	120
5-Nitro-o-toluidine		10	20	40	50	80	100	120
Thionazin		10	20	40	50	80	100	120
Sulfotepp		10	20	40	50	80	100	120
Phorate		10	20	40	50	80	100	120
1,3,5-Trinitrobenzene		10	20	40	50	80	100	120
Phenacetin		10	20	40	50	80	100	120
Diallate (cis and trans)		10	20	40	50	80	100	120

SW846 8270C//8270D/EPA 625

Calibration Standard Concentration Levels*

	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Dimethoate		10	20	40	50	80	100	120
4-Aminobiphenyl		10	20	40	50	80	100	120
Pentachloronitrobenzene		10	20	40	50	80	100	120
Pronamide		10	20	40	50	80	100	120
Dinoseb		10	20	40	50	80	100	120
Disulfoton		10	20	40	50	80	100	120
Methyl parathion		10	20	40	50	80	100	120
4-Nitroquinoline oxide		10	20	40	50	80	100	120
Methapyrilene		10	20	40	50	80	100	120
Isodrin		10	20	40	50	80	100	120
Aramite		10	20	40	50	80	100	120
Kepone		10	20	40	50	80	100	120
p-(Dimethylamino)azobenzene		10	20	40	50	80	100	120

Chlorobenzilate		10	20	40	50	80	100	120
3,3'-Dimethylbenzidine		10	20	40	50	80	100	120
Famphur		10	20	40	50	80	100	120
2-Acetylaminofluorene		10	20	40	50	80	100	120
7,12-Dimethylbenz(a)anthracene		10	20	40	50	80	100	120
3-Methylcholanthrene		10	20	40	50	80	100	120
Hexachlorophene		500	1000	1250	1500	1750	2000	
p-Benzoquinone		10	20	40	50	80	100	120
Parathion		10	20	40	50	80	100	120
Methoxychlor		10	20	40	50	80	100	120
2-Ethoxyethanol		50	75	100	125	150	200	250
cis-Diallate		1.5	3	6	7.5	12	15	18
trans-Diallate		8.5	17	34	42	68	85	102
Dibenzo(a,e)pyrene		50	75	100	125	150	200	250
Phthalic anhydride		50	75	100	125	150	200	250
1,4-Dinitrobenzene		50	75	100	125	150	200	250
(2,3-Dibromopropyl)phosphate		50	75	100	125	150	200	250
Methylenebis(2-chloroaniline)		50	75	100	125	150	200	250
p-Toluidine		10	20	40	50	80	100	120
m-Toluidine		10	20	40	50	80	10	120

SW846 8270C//8270D/EPA 625								
Calibration Standard Concentration Levels*								
	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
bis(Chloromethyl)ether		10	20	40	50	80	100	120
Thiophenol		10	20	40	50	80	100	120
4-Chlorothiophenol		10	20	40	50	80	100	120
4-Chlorothio anisole		10	20	40	50	80	100	120
Phthalic acid		10	20	40	50	80	100	120
Hydroxymethyl phthalamide		10	20	40	50	80	100	120
Diphenyl sulfide		10	20	40	50	80	100	120
Diphenyl disulfide		10	20	40	50	80	100	120
Phenyl sulfone		10	20	40	50	80	100	120
Octachlorostyrene		10	20	40	50	80	100	120
2,2'-Dichlorobenzil		10	20	40	50	80	100	120
bis(p-Chlorophenyl)disulfide		10	20	40	50	80	100	120
bis(p-Chlorophenyl)sulfone		10	20	40	50	80	10	120

All values are mg/L without the prep factor.
# Indicates the calibration verification concentration level used
* Usual calibration levels using SCAN methodology
Level 1 may be included at request of client
(06/08)

Report Date: 22-Dec-2009 12:12

Calibration History

Method : /chem/MSD1.i/s122109.b/MSD1-M8270AQA-111409.m
Start Cal Date: 14-NOV-2009 18:22
End Cal Date : 17-NOV-2009 19:15

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 1.00000		
14-NOV-2009 18:22	MEGAIICARE	/chem/MSD1.i/s111409.b/s1k1203.d
Cal Level: 2 , Cal Amount: 10.00000		
17-NOV-2009 16:56	nev	/chem/MSD1.i/s111409.b/s1k1262.d
15-NOV-2009 20:55	hex	/chem/MSD1.i/s111409.b/s1k1229.d
15-NOV-2009 18:11	pest	/chem/MSD1.i/s111409.b/s1k1222.d
15-NOV-2009 15:28	ap12	/chem/MSD1.i/s111409.b/s1k1215.d
14-NOV-2009 18:51	MEGAIICARE	/chem/MSD1.i/s111409.b/s1k1204.d
Cal Level: 3 , Cal Amount: 20.00000		
17-NOV-2009 17:19	nev	/chem/MSD1.i/s111409.b/s1k1263.d
15-NOV-2009 21:18	hex	/chem/MSD1.i/s111409.b/s1k1230.d
15-NOV-2009 18:35	pest	/chem/MSD1.i/s111409.b/s1k1223.d
15-NOV-2009 15:51	ap12	/chem/MSD1.i/s111409.b/s1k1216.d
14-NOV-2009 19:21	MEGAIICARE	/chem/MSD1.i/s111409.b/s1k1205.d
Cal Level: 4 , Cal Amount: 40.00000		
17-NOV-2009 17:42	nev	/chem/MSD1.i/s111409.b/s1k1264.d
15-NOV-2009 21:42	hex	/chem/MSD1.i/s111409.b/s1k1231.d
15-NOV-2009 18:58	pest	/chem/MSD1.i/s111409.b/s1k1224.d
15-NOV-2009 16:14	ap12	/chem/MSD1.i/s111409.b/s1k1217.d
14-NOV-2009 19:50	MEGAIICARE	/chem/MSD1.i/s111409.b/s1k1206.d
Cal Level: 5 , Cal Amount: 50.00000		
17-NOV-2009 18:05	nev	/chem/MSD1.i/s111409.b/s1k1265.d
15-NOV-2009 22:06	hex	/chem/MSD1.i/s111409.b/s1k1232.d
15-NOV-2009 19:21	pest	/chem/MSD1.i/s111409.b/s1k1225.d
15-NOV-2009 16:38	ap12	/chem/MSD1.i/s111409.b/s1k1218.d
14-NOV-2009 20:19	MEGAIICARE	/chem/MSD1.i/s111409.b/s1k1207.d
Cal Level: 6 , Cal Amount: 80.00000		
17-NOV-2009 18:28	nev	/chem/MSD1.i/s111409.b/s1k1266.d
15-NOV-2009 22:30	hex	/chem/MSD1.i/s111409.b/s1k1233.d
15-NOV-2009 19:45	pest	/chem/MSD1.i/s111409.b/s1k1226.d
15-NOV-2009 17:01	ap12	/chem/MSD1.i/s111409.b/s1k1219.d
14-NOV-2009 20:47	MEGAIICARE	/chem/MSD1.i/s111409.b/s1k1208.d
Cal Level: 7 , Cal Amount: 100.00000		

17-NOV-2009 18:52	nev	/chem/MSD1.i/s111409.b/s1k1267.d
15-NOV-2009 22:53	hex	/chem/MSD1.i/s111409.b/s1k1234.d
15-NOV-2009 20:09	pest	/chem/MSD1.i/s111409.b/s1k1227.d
15-NOV-2009 17:24	ap12	/chem/MSD1.i/s111409.b/s1k1220.d
14-NOV-2009 21:16	MEGAIICARE	/chem/MSD1.i/s111409.b/s1k1209.d

Cal Level: 8 , Cal Amount: 120.00000		
17-NOV-2009 19:15	nev	/chem/MSD1.i/s111409.b/s1k1268.d
15-NOV-2009 20:31	pest	/chem/MSD1.i/s111409.b/s1k1228.d
15-NOV-2009 17:47	ap12	/chem/MSD1.i/s111409.b/s1k1221.d
14-NOV-2009 21:45	MEGAIICARE	/chem/MSD1.i/s111409.b/s1k1210.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 40.0		
21-DEC-2009 09:19	MEGAIICARE	/chem/MSD1.i/s122109.b/s112103.d
Ccal Level: 4 , Ccal Amount: 40.0		
21-DEC-2009 10:55	pest	/chem/MSD1.i/s122109.b/s112105.d
Ccal Level: 4 , Ccal Amount: 40.0		
21-DEC-2009 10:32	ap12	/chem/MSD1.i/s122109.b/s112104.d

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INITIAL CALIBRATION DATA

Start Cal Date : 14-NOV-2009 18:22
End Cal Date : 17-NOV-2009 19:15
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD1.i/s122109.b/MSD1-M8270AQA-111409.m
Cal Date : 22-Dec-2009 12:04 amy01291

Calibration File Names:
Level 1: /chem/MSD1.i/s111409.b/s1k1203.d
Level 2: /chem/MSD1.i/s111409.b/s1k1262.d
Level 3: /chem/MSD1.i/s111409.b/s1k1263.d
Level 4: /chem/MSD1.i/s111409.b/s1k1264.d
Level 5: /chem/MSD1.i/s111409.b/s1k1265.d
Level 6: /chem/MSD1.i/s111409.b/s1k1266.d
Level 7: /chem/MSD1.i/s111409.b/s1k1267.d
Level 8: /chem/MSD1.i/s111409.b/s1k1268.d

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
1 N-Methyl-N-nitrosomethylamine	+++++	0.54039	0.59425	0.56483	0.56773	0.57115					
	0.58358	0.54985					AVRG		0.56740		3.25055
2 Pyridine	+++++	0.93895	1.06231	1.03607	0.88870	0.86312					
	1.01434	0.86615					AVRG		0.95281		8.83991
4 Aniline	+++++	0.52437	0.56877	0.55954	0.56752	0.56439					
	0.57920	0.54312					AVRG		0.55813		3.31324
209 Benzaldehyde	+++++	0.85863	0.89515	0.82459	0.84178	+++++					
	0.78498	0.73887					AVRG		0.82400		6.72378
6 Phenol	+++++	1.30044	1.37922	1.37450	1.34330	1.33206					
	1.36293	1.27353					AVRG		1.33800		2.93989

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Cal Date : 22-Dec-2009 12:04 amy01291

Compound	1 Level 1 100 Level 7	10 Level 2 120 Level 8	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
7 bis(2-Chloroethyl) ether	0.97066	0.92013	0.97374	0.95071	0.94120	0.92474					
	0.92138	0.84393					AVRG		0.93081		4.39644
8 2-Chlorophenol	+++++	1.10018	1.18374	1.15316	1.14675	1.13425					
	1.15576	1.08633					AVRG		1.13717		2.96542
203 n-Decane	+++++	1.60577	1.68138	1.52755	1.45137	1.35767					
	1.27260	1.12485					AVRG		1.43160		13.59167
9 1,3-Dichlorobenzene	+++++	1.34153	1.44138	1.36782	1.35778	1.32788					
	1.29449	1.20929					AVRG		1.33431		5.33878
11 1,4-Dichlorobenzene	+++++	1.33212	1.41388	1.35420	1.32607	1.29299					
	1.26993	1.16675					AVRG		1.30799		5.91221
12 Benzyl alcohol	+++++	0.65002	0.69243	0.70051	0.67929	0.68651					
	0.73179	0.69932					AVRG		0.69141		3.57264
13 1,2-Dichlorobenzene	+++++	1.29605	1.34639	1.26381	1.21944	1.15866					
	1.13607	1.03545					AVRG		1.20798		8.78247
14 bis(2-Chloroisopropyl)ether	+++++	2.32509	2.42028	2.31148	2.26329	2.15456					
	2.11135	1.93355					AVRG		2.21709		7.35350
15 o-Cresol	+++++	0.90774	0.91911	0.87727	0.85502	0.81471					
	0.80779	0.74384					AVRG		0.84650		7.32849

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
16 Acetophenone	+++++	1.16435	1.20208	1.12556	1.15316	+++++					
	1.08411	1.04352					AVRG		1.12880		5.09017
17 N-Nitrosodipropylamine	0.81293	0.75653	0.80116	0.77693	0.78822	0.71050					
	0.77452	0.67823					AVRG		0.76238		6.05014
18 m,p-Cresols	+++++	1.13181	1.16963	1.17353	1.13669	1.14618					
	1.18516	1.11948					AVRG		1.15179		2.12873
19 Hexachloroethane	+++++	0.47556	0.50281	0.48245	0.48088	0.46955					
	0.46206	0.42193					AVRG		0.47075		5.31168
21 Nitrobenzene	+++++	0.28437	0.30442	0.28298	0.28351	0.27052					
	0.25822	0.23858					AVRG		0.27466		7.74785
22 Isophorone	+++++	0.49709	0.51707	0.49540	0.49196	0.47802					
	0.46730	0.41658					AVRG		0.48049		6.70733
23 2-Nitrophenol	+++++	0.14839	0.15989	0.15609	0.15578	0.14421					
	0.13558	0.12065					AVRG		0.14580		9.49803
24 2,4-Dimethylphenol	+++++	0.25377	0.24260	0.23030	0.24361	0.23323					
	0.21824	0.21248					AVRG		0.23346		6.25831
25 bis(2-Chloroethoxy)methane	+++++	0.32659	0.33857	0.32017	0.31630	0.30271					
	0.29085	0.27012					AVRG		0.30933		7.51487

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
26 2,4-Dichlorophenol	+++++	0.21991	0.23451	0.22671	0.22578	0.22138					
	0.21025	0.19507					AVRG		0.21909		5.89795
27 Benzoic acid	+++++	+++++	0.12652	0.15647	0.17043	0.17939					
	0.17420	0.15820					AVRG		0.16087		11.85426
28 1,2,4-Trichlorobenzene	+++++	0.25324	0.26639	0.25283	0.25336	0.23817					
	0.22476	0.20597					AVRG		0.24210		8.56147
30 Naphthalene	1.00192	0.89427	0.93446	0.86563	0.83102	0.76369					
	0.73215	0.65539					AVRG		0.83482		13.59329
204 alpha-Terpineol	+++++	0.21791	0.22387	0.20802	0.18690	0.18694					
	0.18377	0.16707					AVRG		0.19635		10.50339
31 4-Chloroaniline	+++++	0.39677	0.40757	0.39487	0.39324	0.37614					
	0.36195	0.33806					AVRG		0.38123		6.35973
189 Caprolactam	+++++	0.06846	0.07656	0.07363	0.07653	+++++					
	0.06782	0.06711					AVRG		0.07169		6.15581
32 Hexachlorobutadiene	+++++	0.13511	0.14100	0.13045	0.12864	0.12021					
	0.11205	0.10277					AVRG		0.12432		10.80535
33 4-Chloro-3-methylphenol	+++++	0.21530	0.22699	0.22627	0.22610	0.21202					
	0.21204	0.17967					AVRG		0.21406		7.75567

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
34 2-Methylnaphthalene	0.63189	0.59091	0.61031	0.56805	0.55492	0.51261					
	0.47801	0.44368					AVRG		0.54880		11.97650
35 1-Methylnaphthalene	0.57039	0.52594	0.54774	0.50754	0.49716	0.46294					
	0.43668	0.39804					AVRG		0.49330		11.71827
36 Hexachlorocyclopentadiene	+++++	0.10604	0.13033	0.13014	0.13942	0.12687					
	0.11688	0.10523					AVRG		0.12213		10.70285
208 1,1'-Biphenyl	+++++	1.17951	1.24377	1.14549	1.13585	+++++					
	1.04839	0.97002					AVRG		1.12050		8.68804
205 2,3-Dichloroaniline	+++++	0.46645	0.48933	0.47427	0.46997	0.44649					
	0.43405	0.39749					AVRG		0.45401		6.79831
37 2,4,6-Trichlorophenol	+++++	0.26977	0.29094	0.27785	0.27904	0.25743					
	0.25024	0.23713					AVRG		0.26606		7.03474
38 2,4,5-Trichlorophenol	+++++	0.26905	0.31036	0.32159	0.23043	0.31171					
	0.26900	0.26816					AVRG		0.28290		11.57703
40 2-Chloronaphthalene	1.06866	1.01017	1.06218	1.02382	1.00740	0.95458					
	0.92971	0.84336					AVRG		0.98748		7.61587
42 o-Nitroaniline	+++++	0.29397	0.31274	0.31408	0.31185	0.30784					
	0.31350	0.28932					AVRG		0.30619		3.33957

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
41 m-Nitroaniline	+++++	0.27156	0.28234	0.28082	0.27143	0.25979					
	0.28219	0.24573					AVRG		0.27055		5.03620
43 Dimethylphthalate	+++++	1.09522	1.14427	1.12702	1.11254	1.08188					
	1.07235	0.99634					AVRG		1.08995		4.43176
44 2,6-Dinitrotoluene	+++++	0.26660	0.28518	0.28098	0.27933	0.27123					
	0.26992	0.24768					AVRG		0.27156		4.59036
45 Acenaphthylene	1.62784	1.60004	1.67564	1.59865	1.57380	1.47905					
	1.44269	1.32968					AVRG		1.54092		7.42836
47 Acenaphthene	1.00456	0.99034	1.02942	0.97302	0.94853	0.86787					
	0.82882	0.73816					AVRG		0.92259		10.97291
48 2,4-Dinitrophenol	+++++	+++++	0.08843	0.11349	0.11534	0.11082					
	0.11305	0.10198					AVRG		0.10718		9.63049
49 Dibenzofuran	+++++	1.40383	1.45777	1.40759	1.36431	1.30285					
	1.24923	1.15395					AVRG		1.33422		7.92638
50 2,4-Dinitrotoluene	+++++	0.34056	0.36497	0.37079	0.37131	0.36633					
	0.36565	0.33990					AVRG		0.35993		3.80091
51 Diethylphthalate	+++++	1.04278	1.09197	1.06193	1.04018	0.99480					
	0.99307	0.88837					AVRG		1.01616		6.53371

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
52 4-Nitrophenol	+++++	0.13809	0.17287	0.18777	0.19477	0.20369					
	0.21665	0.20716					AVRG		0.18871		14.01343
53 Fluorene	1.22796	1.15355	1.19493	1.10753	1.06188	0.99894					
	0.97721	0.88428					AVRG		1.07578		10.93658
54 4-Chlorophenylphenylether	+++++	0.47537	0.49720	0.47503	0.46785	0.44264					
	0.43218	0.38915					AVRG		0.45420		7.92169
55 2-Methyl-4,6-dinitrophenol	+++++	0.08375	0.09608	0.10582	0.10320	0.10771					
	0.10908	0.10272					AVRG		0.10120		8.67983
56 p-Nitroaniline	+++++	0.24392	0.26348	0.26430	0.28144	0.26774					
	0.27465	0.25651					AVRG		0.26458		4.60021
133 Diphenylamine	+++++	0.55588	0.57977	0.55886	0.54789	0.52659					
	0.50269	0.46310					AVRG		0.53354		7.43632
58 1,2-Diphenylhydrazine	+++++	0.69850	0.71486	0.68099	0.66427	0.63670					
	0.61324	0.54832					AVRG		0.65098		8.77582
59 Tributylphosphate	+++++	1.22698	1.16066	1.10479	1.12684	1.06119					
	1.01440	0.96114					AVRG		1.09371		8.21068
61 4-Bromophenylphenylether	+++++	0.13960	0.14381	0.14105	0.13893	0.13903					
	0.13474	0.12486					AVRG		0.13743		4.49074

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	100 Level 7	120 Level 8									
63 Hexachlorobenzene	+++++	0.18056	0.18610	0.17775	0.16888	0.16686					
	0.15868	0.14199					AVRG		0.16869		8.86819
207 Atrazine	+++++	0.04275	0.04402	0.04191	0.04036	+++++					
	0.03698	0.03447					AVRG		0.04008		9.14364
65 Pentachlorophenol	+++++	0.08713	0.10123	0.10564	0.10198	0.10716					
	0.10688	0.09814					AVRG		0.10117		6.93558
206 n-Octadecane	+++++	0.49445	0.50531	0.45683	0.42873	0.36788					
	0.34975	+++++					AVRG		0.43383		14.85243
68 Phenanthrene	1.08140	0.97577	0.96718	0.91676	0.90684	0.85016					
	0.82329	0.75087					AVRG		0.90903		11.26824
69 Anthracene	1.05572	0.98071	1.00934	0.97561	0.92329	0.88140					
	0.83261	0.73707					AVRG		0.92447		11.24280
72 Di-n-butylphthalate	+++++	1.06714	1.12314	1.06117	1.02135	0.94081					
	0.88726	0.80148					AVRG		0.98605		11.57265
76 Fluoranthene	0.94603	0.94387	0.96313	0.92832	0.88364	0.83514					
	0.79976	0.71979					AVRG		0.87746		9.80038
77 Benzidine	+++++	0.28582	0.36970	0.35152	0.36897	+++++					
	0.43187	0.36504					AVRG		0.36215		12.90005

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Cal Date : 22-Dec-2009 12:04 amy01291

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
79 Pyrene	1.12921	1.08043	1.13184	1.09423	1.03887	1.05677					
	1.02924	0.94284					AVRG		1.06293		5.79953
85 Butylbenzylphthalate	+++++	0.53253	0.56219	0.50335	0.46569	0.43331					
	0.40529	+++++					AVRG		0.48372		12.38419
89 Benzo(a)anthracene	1.00602	0.91134	0.98073	0.96992	0.98002	0.96903					
	0.95763	0.89850					AVRG		0.95915		3.79585
90 3,3'-Dichlorobenzidine	+++++	0.24634	0.28908	0.28847	0.28710	+++++					
	0.28231	0.25909					AVRG		0.27540		6.60230
92 Chrysene	0.98731	0.93210	0.94599	0.88032	0.86729	0.85456					
	0.87955	0.82465					AVRG		0.89647		6.00506
93 bis(2-Ethylhexyl)phthalate	0.57061	0.72394	0.78180	0.75934	0.74451	0.72196					
	0.68855	0.63132					AVRG		0.70275		10.02985
94 Di-n-octylphthalate	+++++	1.17035	1.39716	1.40560	1.36840	1.34274					
	1.30766	1.16752					AVRG		1.30849		7.70640
95 Benzo(b)fluoranthene	21625	340509	730849	1739197	2305837	3304287					
	3978698	5127789					LINR	0.06661	1.08695		0.99870
96 Benzo(k)fluoranthene	1.03711	1.06722	1.12263	1.01575	1.02623	1.00211					
	0.97020	0.78256					AVRG		1.00298		9.96839

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INITIAL CALIBRATION DATA

Start Cal Date : 14-NOV-2009 18:22
End Cal Date : 17-NOV-2009 19:15
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD1.i/s122109.b/MSD1-M8270AQA-111409.m
Cal Date : 22-Dec-2009 12:04 amy01291

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
97 Benzo(a)pyrene	20918	319721	688146	1504125	2094282	2912657					
	3398226	3934490					LINR	-0.00385	0.87033		0.99612
99 Indeno(1,2,3-cd)pyrene	21578	336515	700258	1580353	2201480	3025334					
	3523403	4020592					LINR	-0.01092	0.89653		0.99431
100 Dibenzo(a,h)anthracene	16162	268427	581631	1325626	1846286	2532762					
	2946699	3397425					LINR	-0.00445	0.75511		0.99519
101 Benzo(ghi)perylene	0.56462	0.70452	0.77602	0.81299	0.83023	0.80394					
	0.79303	0.72783					AVRG		0.75165		11.54879
102 1,4-Dioxane	+++++	0.32550	0.33716	0.30934	0.31455	+++++					
	0.30805	0.28861					AVRG		0.31387		5.27573
103 Methyl methacrylate	+++++	0.17774	0.19107	0.17805	0.17495	+++++					
	0.17326	0.16336					AVRG		0.17640		5.08144
104 Ethyl methacrylate	+++++	0.73346	0.76622	0.70794	0.70643	+++++					
	0.69714	0.66675					AVRG		0.71299		4.73943
105 2-Picoline	+++++	1.18802	1.23130	1.15065	1.15312	+++++					
	1.12223	1.07774					AVRG		1.15384		4.58113
106 N-Nitrosomethylethylamine	+++++	0.42951	0.48460	0.44623	0.45222	+++++					
	0.46395	0.44906					AVRG		0.45426		4.08577

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
107 Methyl methanesulfonate	+++++	0.43204	0.45674	0.42468	0.43227	+++++					
	0.41648	0.39202					AVRG		0.42570		5.00242
108 N-Nitrosodiethylamine	+++++	0.47915	0.50719	0.47065	0.48068	+++++					
	0.47830	0.46128					AVRG		0.47954		3.20356
109 Ethyl Methanesulfonate	+++++	0.59343	0.63202	0.58286	0.59990	+++++					
	0.59568	0.57362					AVRG		0.59625		3.34808
110 Pentachloroethane	+++++	0.30094	0.30775	0.28811	0.28717	+++++					
	0.28774	0.27522					AVRG		0.29115		3.95122
111 N-Nitrosopyrrolidine	+++++	0.47773	0.52978	0.49561	0.51566	+++++					
	0.41369	0.41806					AVRG		0.47509		10.34926
113 N-Nitrosomorpholine	+++++	0.63587	0.69755	0.63481	0.65791	+++++					
	0.54487	0.53392					AVRG		0.61749		10.47980
114 o-Toluidine	+++++	1.64551	1.76888	1.61850	1.65178	+++++					
	1.65679	1.57817					AVRG		1.65327		3.85302
115 N-Nitrosopiperidine	+++++	0.12931	0.13922	0.12850	0.13280	+++++					
	0.13244	0.12709					AVRG		0.13156		3.32124
116 a,a-Dimethylphenethylamine	+++++	0.70597	0.78545	0.76293	0.79408	+++++					
	0.79335	0.76628					AVRG		0.76801		4.32000

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	100 Level 7	120 Level 8									
117 Triethylphosphorothioate	+++++	0.12812	0.12428	0.12751	0.12901	0.12488					
	0.12021	0.11633					AVRG		0.12433		3.70966
118 2,6-Dichlorophenol	+++++	0.18796	0.20530	0.19528	0.20193	+++++					
	0.20014	0.19147					AVRG		0.19701		3.35416
119 Hexachloropropene	+++++	0.07891	0.09539	0.09133	0.09091	+++++					
	0.09225	0.08492					AVRG		0.08895		6.72708
120 p-Phenylenediamine	+++++	0.17417	0.23091	0.21919	0.22009	+++++					
	0.19257	0.17231					AVRG		0.20154		12.55674
121 N-Nitrosodi-n-butylamine	+++++	0.16926	0.19309	0.16843	0.17454	+++++					
	0.16640	0.15862					AVRG		0.17172		6.79719
122 Safrole	+++++	0.18021	0.18852	0.17847	0.18253	+++++					
	0.17443	0.16766					AVRG		0.17864		3.98501
123 1,2,4,5-Tetrachlorobenzene	+++++	0.38048	0.40351	0.37295	0.37017	+++++					
	0.35065	0.32500					AVRG		0.36713		7.29953
124 Isosafrole	+++++	0.32136	0.34935	0.32718	0.32927	+++++					
	0.32898	0.30952					AVRG		0.32761		3.96520
125 1,4-Naphthoquinone	+++++	0.37346	0.38046	0.31457	0.30180	+++++					
	0.18844	0.22186					AVRG		0.29676		26.34996 <-

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
126 m-Dinitrobenzene	+++++	0.17349	0.18721	0.19120	0.19440	0.19057					
	0.19238	0.17644					AVRG		0.18653		4.41251
127 Pentachlorobenzene	+++++	0.32992	0.34557	0.31675	0.31835	+++++					
	0.29677	0.27972					AVRG		0.31451		7.45207
128 1-Naphthylamine	+++++	0.82636	0.98891	0.93384	0.93443	+++++					
	0.87178	0.80990					AVRG		0.89420		7.80762
129 2-Naphthylamine	+++++	0.96588	1.05556	1.00159	1.00599	+++++					
	0.94403	0.87535					AVRG		0.97473		6.34557
130 2,3,4,6-Tetrachlorophenol	+++++	0.20567	0.22518	0.22987	0.20102	0.22712					
	0.21818	0.20523					AVRG		0.21604		5.51582
131 5-Nitro-o-toluidine	+++++	0.25535	0.29363	0.28574	0.29496	+++++					
	0.29982	0.28219					AVRG		0.28528		5.60973
132 Thionazin	+++++	0.16358	0.16364	0.16630	0.16880	0.16339					
	0.15554	0.14821					AVRG		0.16135		4.38820
134 Sulfotepp	+++++	0.08562	0.08304	0.08303	0.08467	0.07953					
	0.07427	0.07214					AVRG		0.08033		6.54838
135 Phorate	+++++	0.36567	0.35586	0.35721	0.36683	0.34385					
	0.32742	0.31541					AVRG		0.34747		5.65187

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Cal Date : 22-Dec-2009 12:04 amy01291

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
136 1,3,5-Trinitrobenzene	+++++	0.10196	0.12348	0.12395	0.12006	+++++					
	0.11894	0.10898					AVRG		0.11623		7.60291
137 Phenacetin	+++++	0.22684	0.26317	0.26291	0.26441	+++++					
	0.26599	0.25918					AVRG		0.25708		5.83046
138 Diallate	+++++	0.24760	0.24927	0.23322	0.23010	+++++					
	0.21802	0.20853					AVRG		0.23112		6.94549
139 Dimethoate	+++++	0.21461	0.21994	0.23007	0.23724	0.23858					
	0.23513	0.22967					AVRG		0.22932		3.92960
140 4-Aminobiphenyl	+++++	0.53696	0.55369	0.57677	0.59426	+++++					
	0.49840	0.45674					AVRG		0.53614		9.53476
141 Pentachloronitrobenzene	+++++	0.05720	0.06067	0.05490	0.05533	+++++					
	0.04673	0.04463					AVRG		0.05324		11.71339
142 Pronamide	+++++	0.24822	0.26125	0.24154	0.23765	+++++					
	0.17973	+++++					AVRG		0.23368		13.46482
143 Dinoseb	+++++	0.10297	0.12216	0.13126	0.12950	0.13024					
	0.13017	0.12500					AVRG		0.12447		8.06727
144 Disulfoton	+++++	0.32280	0.31415	0.31231	0.32231	0.30214					
	0.27306	0.26345					AVRG		0.30146		7.92046

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Compound	1 Level 1 100 Level 7	10 Level 2 120 Level 8	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	mi	m2	%RSD or R^2
145 Methyl parathion	+++++	0.18413	0.18908	0.19611	0.20206	0.20472					
	0.19613	0.19053					AVRG		0.19468		3.74715
146 4-Nitroquinoline-1-oxide	+++++	0.00831	0.00998	0.00800	0.01074	+++++					
	0.01133	0.01046					AVRG		0.00980		13.77700
147 Methapyrilene	+++++	0.36466	0.38869	0.39386	0.38311	+++++					
	0.36077	0.31821					AVRG		0.36822		7.55340
148 Isodrin	+++++	0.09085	0.09372	0.08925	0.08743	+++++					
	0.07960	0.07570					AVRG		0.08609		8.09255
149 Aramite	+++++	0.04141	0.04570	0.04371	0.04272	+++++					
	0.04204	0.03972					AVRG		0.04255		4.79399
150 Kepone	+++++	0.06055	0.06732	0.06349	0.06380	+++++					
	0.06458	0.05876					AVRG		0.06308		4.80408
151 p-(Dimethylamino)azobenzene	+++++	0.28782	0.31583	0.29702	0.29097	+++++					
	0.26535	0.24656					AVRG		0.28392		8.62091
152 Chlorobenzilate	+++++	0.21991	0.23787	0.22800	0.23044	+++++					
	0.20814	0.19524					AVRG		0.21994		7.17760
153 3,3'-Dimethylbenzidine	+++++	0.45675	0.51768	0.48413	0.48879	+++++					
	0.49372	0.43564					AVRG		0.47945		6.05117

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	100 Level 7	120 Level 8										
154 Famphur	+++++	0.29819	0.30032	0.31780	0.33430	0.32440						
	0.30595	0.30061					AVRG		0.31165		4.49495	
155 2-Acetylaminofluorene	+++++	0.23107	0.30345	0.31881	0.32045	+++++						
	0.34822	0.32608					AVRG		0.30801		13.11206	
157 7,12Dimethylbenz(a)anthracene	+++++	0.41118	0.44192	0.42666	0.43253	+++++						
	0.40970	0.40537					AVRG		0.42123		3.47443	
158 3-Methylcholanthrene	+++++	0.29680	0.36865	0.37932	0.38459	+++++						
	0.39125	0.38204					AVRG		0.36711		9.59696	
26 Phthalic anhydride	+++++	30283	90214	245905	320454	497228						
	555160	687649					LINR	0.08413	0.10332		0.99692	
173 Carbazole	0.90246	0.82255	0.80875	0.81414	0.83946	0.78812						
	0.78058	0.70109					AVRG		0.80714		7.06036	
174 Hexachlorophene	+++++	0.03640	0.04820	0.05180	0.05353	0.05136						
	0.04905	+++++					AVRG		0.04839		12.77621	
179 Dibenzo(a,e)pyrene	+++++	117900	312429	817402	1225621	1557621						
	1812574	+++++					LINR	0.07449	0.50549		0.99368	
185 (2,3-Dibromopropyl)phosphate	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-

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	100 Level 7	120 Level 8									
184 p-Benzoquinone	+++++	2462	14132	46568	48315	83536					
	96111	113764					LINR	0.17192	0.08067		0.99223
191 Parathion	+++++	0.06169	0.06089	0.06449	0.06621	0.06308					
	0.06173	0.06112					AVRG		0.06274		3.14637
192 Methoxychlor	+++++	0.32535	0.36631	0.33959	0.33867	0.27894					
	0.25594	+++++					AVRG		0.31747		13.10686
210 m-Toluidine	+++++	0.77272	0.88703	0.90355	0.94226	1.01524					
	0.94351	+++++					AVRG		0.91072		8.87324
211 p-Toluidine	+++++	0.69169	0.70617	0.72166	0.71562	0.68688					
	+++++	+++++					AVRG		0.70440		2.12367
212 Cis Diallate	+++++	0.23437	0.24880	0.23465	0.23944	+++++					
	0.24434	0.23833					AVRG		0.23999		2.35508
213 Trans Diallate	+++++	0.29129	0.29326	0.27438	0.27070	+++++					
	0.25649	0.24533					AVRG		0.27191		6.94549
214 1,4-Dinitrobenzene	+++++	0.16000	0.17119	0.17754	0.17866	0.17639					
	0.17966	0.16860					AVRG		0.17315		4.08379
215 2-Ethoxyethanol	+++++	0.57555	0.62918	0.65385	0.56961	0.58718					
	0.62071	0.58595					AVRG		0.60315		5.24047

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	100 Level 7	120 Level 8									
216 Methylenebis(2-chloroaniline)	+++++	0.11447	0.12909	0.13171	0.13536	0.13420					
	0.13376	0.12587					AVRG		0.12921		5.63660
229 2,2'-Dichlorobenzil	+++++	0.67948	0.77608	0.71487	+++++	0.73565					
	+++++	0.63422					AVRG		0.70806		7.63914
230 4-Chlorothioanisole	+++++	0.23155	0.23520	0.23685	+++++	0.23140					
	+++++	0.22159					AVRG		0.23132		2.56050
231 4-Chlorothiophenol	+++++	0.15409	0.17482	0.19368	+++++	0.19893					
	+++++	0.19703					AVRG		0.18371		10.41669
232 bis(p-Chlorophenyl)sulfone	+++++	0.39430	0.43698	0.38579	+++++	0.39600					
	+++++	0.34721					AVRG		0.39206		8.15529
233 bis(p-Chlorophenyl)disulfide	+++++	0.10045	0.11150	0.11707	+++++	0.12020					
	+++++	0.10635					AVRG		0.11111		7.18003
234 Diphenyl disulfide	+++++	0.17804	0.18209	0.18631	+++++	0.17491					
	+++++	0.16341					AVRG		0.17695		4.91531
235 Diphenyl sulfide	+++++	0.71955	0.73103	0.70874	+++++	0.65333					
	+++++	0.61709					AVRG		0.68595		7.09988
236 Phenyl sulfone	+++++	0.43275	0.44078	0.42799	+++++	0.41905					
	+++++	0.39177					AVRG		0.42247		4.46830

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	100 Level 7	120 Level 8									
237 Hydroxymethyl phthalimide	+++++	0.12384	0.15720	0.10384	+++++	0.13032					
	+++++	0.12669					AVRG		0.12838		14.88299
238 Phthalic acid	+++++	24604	70600	163991	+++++	411903					
	+++++	634014					LINR	0.25540	0.11087		0.99102
239 Thiophenol	+++++	0.94048	1.03561	1.08365	+++++	1.12900					
	+++++	1.09332					AVRG		1.05641		6.89893
240 bis(Chloromethyl)ether	+++++	0.78790	0.79417	0.76917	+++++	0.75455					
	+++++	0.73576					AVRG		0.76831		3.12263
241 Octachlorostyrene	+++++	0.06103	0.06315	0.05827	+++++	0.05420					
	+++++	0.04861					AVRG		0.05705		10.14342
M 225 Trichlorophenols	+++++	0.26941	0.30065	0.29972	0.25473	0.28457					
	0.25962	0.25265					AVRG		0.27448		7.49129
M 226 Tetrachlorophenols	+++++	0.20567	0.22518	0.22987	0.20102	0.22712					
	0.21818	0.20523					AVRG		0.21604		5.51582
M 227 Benzo(b,k)fluoranthene	0.78278	0.93887	1.02131	1.01324	1.00976	1.01479					
	1.00963	0.93381					AVRG		0.96552		8.47131
M 228 TTO Sum Semivolatiles	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+00		0.000e+00 <-

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 14-NOV-2009 18:22
End Cal Date : 17-NOV-2009 19:15
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD1.i/s122109.b/MSD1-M8270AQA-111409.m
Cal Date : 22-Dec-2009 12:04 amy01291

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	100 Level 7	120 Level 8										
$ 3 2-Fluorophenol	+++++	0.97776	1.06271	1.06423	1.06306	1.07281						
	1.07136	1.00157					AVRG		1.04478		3.68308	
$ 5 Phenol-d5	+++++	1.21974	1.33050	1.28249	1.27680	1.26954						
	1.29216	1.21764					AVRG		1.26984		3.15351	
$ 187 2-Chlorophenol-d4	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
$ 188 1,2-Dichlorobenzene-d4	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
$ 20 Nitrobenzene-d5	+++++	0.27426	0.28571	0.27066	0.27231	0.25884						
	0.24945	0.23400					AVRG		0.26360		6.62019	
$ 39 2-Fluorobiphenyl	+++++	0.99823	1.04801	1.00239	0.98618	0.93991						
	0.91199	0.81928					AVRG		0.95800		7.87748	
$ 60 2,4,6-Tribromophenol	+++++	0.10924	0.11530	0.11503	0.10898	0.11186						
	0.11271	0.10874					AVRG		0.11169		2.51418	
$ 81 p-Terphenyl-d14	+++++	0.64452	0.67675	0.65301	0.63863	0.61256						
	0.60853	0.56112					AVRG		0.62787		5.98666	

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 14-NOV-2009 18:22
End Cal Date : 17-NOV-2009 19:15
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD1.i/s122109.b/MSD1-M8270AQA-111409.m
Cal Date : 22-Dec-2009 12:04 amy01291

Curve	Formula	Units
Averaged	Amt = Rsp/ml	Response
Linear	Amt = b + Rsp/ml	Response

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD1.i Injection Date: 15-NOV-2009 23:17
Lab File ID: s1k1235.d Init. Cal. Date(s): 14-NOV-2009 15-NOV-2009
Analysis Type: Init. Cal. Times: 18:22 22:53
Lab Sample ID: WBN091111-08.1 Quant Type: ISTD
Method: /chem/MSD1.i/s111409.b/MSD1-M8270AQA-111409.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
209 Benzaldehyde	0.82400	0.71239	0.71239	0.000	-13.54468	60.00000	Averaged
16 Acetophenone	1.12880	1.15012	1.15012	0.000	1.88924	60.00000	Averaged
189 Caprolactam	0.07169	0.08295	0.08295	0.000	15.71078	60.00000	Averaged
208 1,1'-Biphenyl	1.12050	1.24126	1.24126	0.000	10.77724	60.00000	Averaged
207 Atrazine	0.04008	0.04737	0.04737	0.000	18.18184	60.00000	Averaged
77 Benzidine	0.36215	0.33951	0.33951	0.000	-6.25196	60.00000	Averaged
90 3,3'-Dichlorobenzidine	0.27540	0.29917	0.29917	0.000	8.63115	60.00000	Averaged
102 1,4-Dioxane	0.31387	0.37981	0.37981	0.000	21.00923	60.00000	Averaged
103 Methyl methacrylate	0.17640	0.20821	0.20821	0.000	18.03005	60.00000	Averaged
104 Ethyl methacrylate	0.71299	0.86659	0.86659	0.000	21.54329	60.00000	Averaged
105 2-Picoline	1.15384	1.13306	1.13306	0.000	-1.80140	60.00000	Averaged
106 N-Nitrosomethylethylamine	0.45426	0.46463	0.46463	0.000	2.28123	60.00000	Averaged
107 Methyl methanesulfonate	0.42570	0.48978	0.48978	0.000	15.05276	60.00000	Averaged
108 N-Nitrosodiethylamine	0.47954	0.49102	0.49102	0.000	2.39384	60.00000	Averaged
109 Ethyl Methanesulfonate	0.59625	0.74183	0.74183	0.000	24.41607	60.00000	Averaged
110 Pentachloroethane	0.29115	0.40985	0.40985	0.000	40.76840	60.00000	Averaged
111 N-Nitrosopyrrolidine	0.47509	0.50932	0.50932	0.000	7.20593	60.00000	Averaged
113 N-Nitrosomorpholine	0.61749	0.67896	0.67896	0.000	9.95518	60.00000	Averaged
114 o-Toluidine	1.65327	1.64031	1.64031	0.000	-0.78415	60.00000	Averaged
115 N-Nitrosopiperidine	0.13156	0.13273	0.13273	0.000	0.88789	60.00000	Averaged
116 a,a-Dimethylphenethylamine	0.76801	0.79273	0.79273	0.000	3.21891	60.00000	Averaged
118 2,6-Dichlorophenol	0.19701	0.21797	0.21797	0.000	10.63653	60.00000	Averaged
119 Hexachloropropene	0.08895	0.13367	0.13367	0.000	50.27176	60.00000	Averaged
120 p-Phenylenediamine	0.20154	0.18980	0.18980	0.000	-5.82557	60.00000	Averaged
121 N-Nitrosodi-n-butylamine	0.17172	0.17829	0.17829	0.000	3.82057	60.00000	Averaged
122 Safrole	0.17864	0.21665	0.21665	0.000	21.27785	60.00000	Averaged
123 1,2,4,5-Tetrachlorobenzene	0.36713	0.42376	0.42376	0.000	15.42574	60.00000	Averaged
124 Isosafrole	0.32761	0.46202	0.46202	0.000	41.02664	60.00000	Averaged
125 1,4-Naphthoquinone	0.29676	0.32067	0.32067	0.000	8.05637	60.00000	Averaged
127 Pentachlorobenzene	0.31451	0.35074	0.35074	0.000	11.51805	60.00000	Averaged
128 1-Naphthylamine	0.89420	0.98926	0.98926	0.000	10.62991	60.00000	Averaged
129 2-Naphthylamine	0.97473	1.09077	1.09077	0.000	11.90459	60.00000	Averaged
131 5-Nitro-o-toluidine	0.28528	0.30775	0.30775	0.000	7.87638	60.00000	Averaged
136 1,3,5-Trinitrobenzene	0.11623	0.15168	0.15168	0.000	30.50015	60.00000	Averaged
137 Phenacetin	0.25708	0.29576	0.29576	0.000	15.04579	60.00000	Averaged
138 Diallate	0.23112	0.23284	0.23284	0.000	0.74457	60.00000	Averaged

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD1.i
Lab File ID: s1k1235.d
Analysis Type:
Lab Sample ID: WBN091111-08.1
Method: /chem/MSD1.i/s111409.b/MSD1-M8270AQA-111409.m

Injection Date: 15-NOV-2009 23:17
Init. Cal. Date(s): 14-NOV-2009 15-NOV-2009
Init. Cal. Times: 18:22 22:53
Quant Type: ISTD

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
212 Cis Diallate	0.23999	0.31739	0.31739	0.000	32.25095	60.00000	Averaged
213 Trans Diallate	0.27191	0.27393	0.27393	0.000	0.74457	60.00000	Averaged
140 4-Aminobiphenyl	0.53614	0.62569	0.62569	0.000	16.70322	60.00000	Averaged
141 Pentachloronitrobenzene	0.05324	0.06215	0.06215	0.000	16.73283	60.00000	Averaged
142 Pronamide	0.23368	0.26726	0.26726	0.000	14.37225	60.00000	Averaged
146 4-Nitroquinoline-1-oxide	0.00980	0.00923	0.00923	0.000	-5.86960	60.00000	Averaged
147 Methapyrilene	0.36822	0.29090	0.29090	0.000	-20.99905	60.00000	Averaged
148 Isodrin	0.08609	0.08812	0.08812	0.000	2.35297	60.00000	Averaged
149 Aramite	0.04255	0.04327	0.04327	0.000	1.67534	60.00000	Averaged
150 Kepone	0.06308	0.07178	0.07178	0.000	13.77677	60.00000	Averaged
151 p-(Dimethylamino)azobenzene	0.28392	0.29411	0.29411	0.000	3.58893	60.00000	Averaged
152 Chlorobenzilate	0.21994	0.24578	0.24578	0.000	11.75217	60.00000	Averaged
153 3,3'-Dimethylbenzidine	0.47945	0.47257	0.47257	0.000	-1.43591	60.00000	Averaged
155 2-Acetylaminofluorene	0.30801	0.33042	0.33042	0.000	7.27461	60.00000	Averaged
157 7,12Dimethylbenz(a)anthrace	0.42123	0.42978	0.42978	0.000	2.03140	60.00000	Averaged
158 3-Methylcholanthrene	0.36711	0.40048	0.40048	0.000	9.08958	60.00000	Averaged

GEL Laboratories LLC

Data file : /chem/MSD1.i/s111409.b/s1k1235.d
Lab Smp Id: WBN091111-08.1 Client Smp ID: APICV
Inj Date : 15-NOV-2009 23:17
Operator : amy Inst ID: MSD1.i
Smp Info : |WBN091111-08.1|40 PPM|1|SVMF|1|APICV
Misc Info : |MSD8270|WBN091106-10|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD1.i/s111409.b/MSD1-M8270AQA-111409.m
Meth Date : 17-Nov-2009 10:44 nat00999 Quant Type: ISTD
Cal Date : 15-NOV-2009 21:42 Cal File: s1k1231.d
Als bottle: 23 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ap12.sub
Target Version: 3.50

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	3.957	3.940	(1.000)	601939	40.0000	
* 29 Naphthalene-d8	136	4.828	4.810	(1.000)	2374945	40.0000	
* 46 Acenaphthene-d10	164	6.075	6.057	(1.000)	1270499	40.0000	
* 67 Phenanthrene-d10	188	7.057	7.040	(1.000)	2114263	40.0000	
* 91 Chrysene-d12	240	8.739	8.722	(1.000)	1927170	40.0000	
* 98 Perylene-d12	264	10.251	10.222	(1.000)	1696025	40.0000	(H)
209 Benzaldehyde	77	3.681	3.681	(0.930)	428816	40.0000	34.6
16 Acetophenone	105	4.210	4.210	(1.064)	692304	40.0000	40.8
189 Caprolactam	113	5.104	5.122	(1.057)	197001	40.0000	46.3
208 1,1'-Biphenyl	154	5.646	5.651	(0.929)	1577025	40.0000	44.3
207 Atrazine	173	6.822	6.834	(0.967)	100151	40.0000	47.3
77 Benzidine	184	7.828	7.834	(0.896)	654298	40.0000	37.5
90 3,3'-Dichlorobenzidine	252	8.663	8.669	(0.991)	576557	40.0000	43.4
102 1,4-Dioxane	88	2.281	2.287	(0.576)	228622	40.0000	48.4
103 Methyl methacrylate	100	2.275	2.275	(0.575)	125330	40.0000	47.2
104 Ethyl methacrylate	69	2.652	2.652	(0.670)	521635	40.0000	48.6
105 2-Picoline	93	2.846	2.846	(0.719)	682032	40.0000	39.3
106 N-Nitrosomethylethylamine	88	2.887	2.893	(0.729)	279676	40.0000	40.9
107 Methyl methanesulfonate	80	3.046	3.052	(0.770)	294820	40.0000	46.0
108 N-Nitrosodiethylamine	102	3.281	3.287	(0.829)	295564	40.0000	41.0
109 Ethyl Methanesulfonate	79	3.440	3.446	(0.869)	446538	40.0000	49.8
110 Pentachloroethane	167	3.781	3.781	(0.955)	246707	40.0000	56.3
111 N-Nitrosopyrrolidine	100	4.199	4.216	(1.061)	306582	40.0000	42.9
113 N-Nitrosomorpholine	56	4.216	4.228	(1.065)	408692	40.0000	44.0
114 o-Toluidine	106	4.234	4.246	(1.070)	987365	40.0000	39.7
115 N-Nitrosopiperidine	114	4.434	4.446	(0.918)	315224	40.0000	40.4
116 a,a-Dimethylphenethylamine	58	4.681	4.681	(0.970)	1882697	40.0000	41.3

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
118 2,6-Dichlorophenol	162	4.869	4.875	(1.009)	517655	40.0000	44.2
119 Hexachloropropene	213	4.899	4.898	(1.015)	317465	40.0000	60.1
120 p-Phenylenediamine	108	5.104	5.116	(1.057)	450756	40.0000	37.7
121 N-Nitrosodi-n-butylamine	84	5.069	5.075	(1.050)	423419	40.0000	41.5(T)
122 Safrole	162	5.234	5.240	(1.084)	514526	40.0000	48.5
123 1,2,4,5-Tetrachlorobenzene	216	5.440	5.446	(0.895)	538386	40.0000	46.2
124 Isosafrole	162	5.604	5.610	(0.923)	586994	40.0000	56.4
125 1,4-Naphthoquinone	158	5.793	5.793	(0.954)	407413	40.0000	43.2
127 Pentachlorobenzene	250	6.181	6.187	(1.017)	445615	40.0000	44.6
128 1-Naphthylamine	143	6.263	6.269	(1.031)	1256848	40.0000	44.2
129 2-Naphthylamine	143	6.316	6.322	(1.040)	1385825	40.0000	44.8
131 5-Nitro-o-toluidine	152	6.434	6.445	(1.059)	390998	40.0000	43.2
136 1,3,5-Trinitrobenzene	75	6.645	6.651	(0.942)	320686	40.0000	52.2
137 Phenacetin	108	6.687	6.698	(0.947)	625324	40.0000	46.0
138 Diallate	86	6.669	6.675	(0.945)	492291	40.0000	40.3
212 Cis Diallate	86	6.734	6.734	(0.954)	100656	6.00000	7.9
213 Trans Diallate	86	6.669	6.675	(0.945)	492291	34.0000	34.2
140 4-Aminobiphenyl	169	6.910	6.916	(0.979)	1322873	40.0000	46.7
141 Pentachloronitrobenzene	237	6.934	6.940	(0.982)	131405	40.0000	46.7
142 Pronamide	173	6.922	6.928	(0.981)	565063	40.0000	45.7
146 4-Nitroquinoline-1-oxide	101	7.516	7.522	(1.065)	19512	40.0000	37.6
147 Methapyrilene	58	7.534	7.539	(1.067)	615031	40.0000	31.6
148 Isodrin	193	7.692	7.692	(1.090)	186303	40.0000	40.9
149 Aramite	185	7.916	7.916	(1.122)	91474	40.0000	40.7
150 Kepone	272	8.351	8.363	(1.183)	151752	40.0000	45.5
151 p-(Dimethylamino)azobenzene	120	8.045	8.051	(0.921)	566806	40.0000	41.4
152 Chlorobenzilate	251	8.057	8.063	(0.922)	473667	40.0000	44.7
153 3,3'-Dimethylbenzidine	212	8.257	8.263	(0.945)	910722	40.0000	39.4
155 2-Acetylaminofluorene	181	8.445	8.457	(0.966)	636774	40.0000	42.9
157 7,12Dimethylbenz(a)anthracene	256	9.733	9.745	(0.945)	728922	40.0000	40.8
158 3-Methylcholanthrene	268	10.622	10.639	(1.031)	679223	40.0000	43.6

QC Flag Legend

T - Target compound detected outside RT window.
H - Operator selected an alternate compound hit.

Data File: /chem/MSD1.i/s111409.b/s1k1235.d
Date : 15-NOV-2009 23:17
Client ID: APICV
Sample Info: IWBN091111-08,1140 PPM11ISWMF11IAPICV

Column phase: J&W DB-5MS

Instrument: MSD1.i

Operator: amy
Column diameter: 0.20

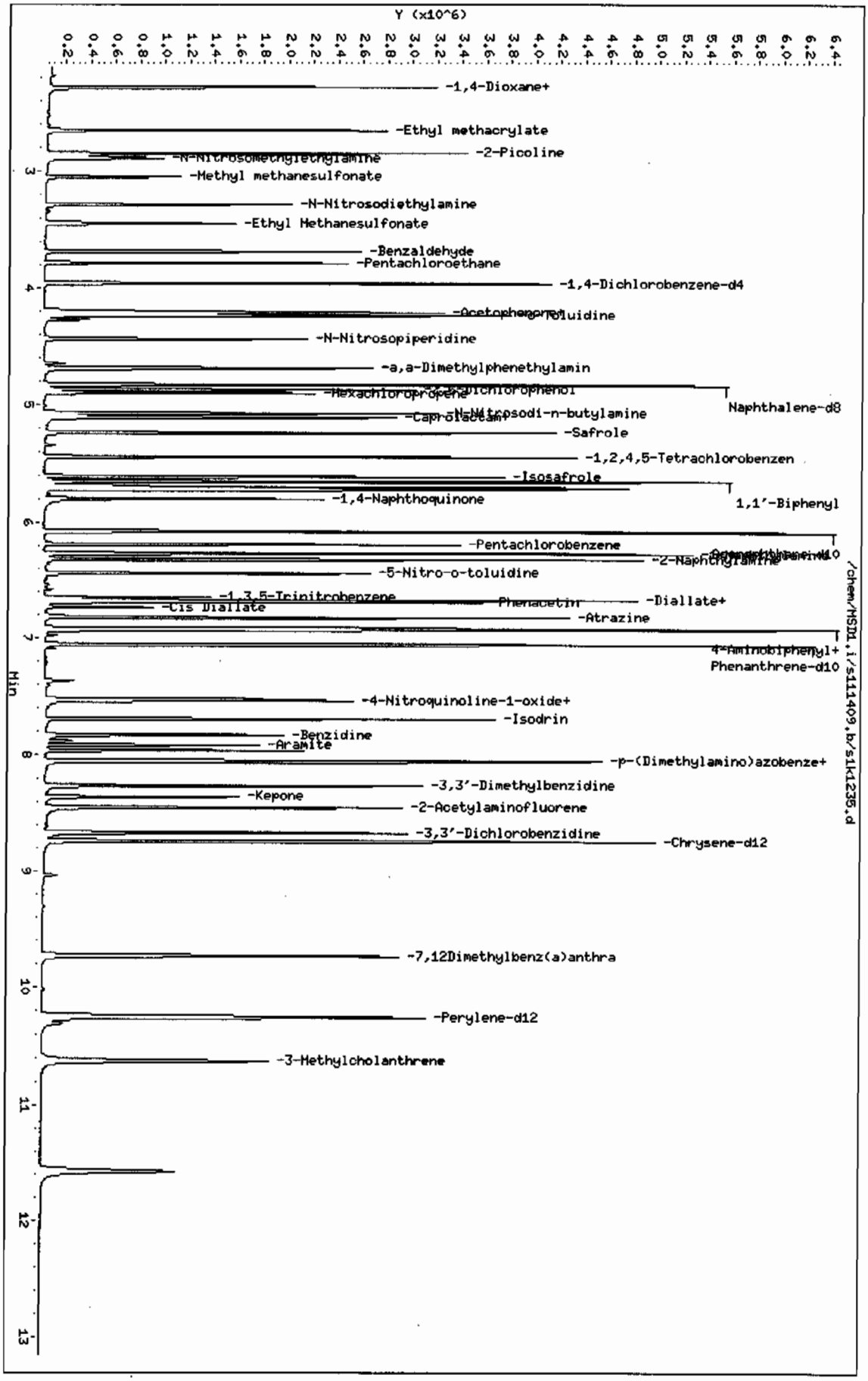

Page 1

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD1.i Injection Date: 17-NOV-2009 16:27
Lab File ID: s1k1261.d Init. Cal. Date(s): 14-NOV-2009 17-NOV-2009
Analysis Type: Init. Cal. Times: 18:22 12:38
Lab Sample ID: WBN091027-09.3 Quant Type: ISTD
Method: /chem/MSD1.i/s111409.b/MSD1-M8270AQA-111409.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
$ 3 2-Fluorophenol	1.04478	0.92701	0.92701	0.000	-11.27306	60.00000	Averaged
$ 5 Phenol-d5	1.26984	1.11829	1.11829	0.000	-11.93416	60.00000	Averaged
$ 20 Nitrobenzene-d5	0.26360	0.25882	0.25882	0.000	-1.81289	60.00000	Averaged
$ 39 2-Fluorobiphenyl	0.95800	0.95545	0.95545	0.000	-0.26619	60.00000	Averaged
$ 60 2,4,6-Tribromophenol	0.11169	0.11397	0.11397	0.000	2.04032	60.00000	Averaged
$ 81 p-Terphenyl-d14	0.62787	0.61091	0.61091	0.000	-2.70233	60.00000	Averaged
1 N-Methyl-N-nitrosomethylami	0.56740	0.52259	0.52259	0.000	-7.89719	60.00000	Averaged
2 Pyridine	0.95281	0.72054	0.72054	0.000	-24.37721	60.00000	Averaged
4 Aniline	0.55813	0.46069	0.46069	0.000	-17.45935	60.00000	Averaged
6 Phenol	1.33800	1.13102	1.13102	0.001	-15.46941	20.00000	Averaged ccc
7 bis(2-Chloroethyl) ether	0.93081	0.78725	0.78725	0.000	-15.42323	60.00000	Averaged
8 2-Chlorophenol	1.13717	0.96631	0.96631	0.000	-15.02517	60.00000	Averaged
203 n-Decane	1.43160	1.33489	1.33489	0.000	-6.75532	60.00000	Averaged
9 1,3-Dichlorobenzene	1.33431	1.14485	1.14485	0.000	-14.19930	60.00000	Averaged
11 1,4-Dichlorobenzene	1.30799	1.12905	1.12905	0.001	-13.68038	20.00000	Averaged ccc
13 1,2-Dichlorobenzene	1.20798	1.02631	1.02631	0.000	-15.03923	60.00000	Averaged
14 bis(2-Chloroisopropyl)ether	2.21709	1.93928	1.93928	0.000	-12.53006	60.00000	Averaged
12 Benzyl alcohol	0.69141	0.59629	0.59629	0.000	-13.75808	60.00000	Averaged
15 o-Cresol	0.84650	0.72216	0.72216	0.000	-14.68816	60.00000	Averaged
18 m,p-Cresols	1.15179	1.00178	1.00178	0.000	-13.02332	60.00000	Averaged
17 N-Nitrosodipropylamine	0.76238	0.61385	0.61385	0.050	-19.48192	60.00000	Averaged spcc
19 Hexachloroethane	0.47075	0.38923	0.38923	0.000	-17.31682	60.00000	Averaged
21 Nitrobenzene	0.27466	0.23975	0.23975	0.000	-12.70858	60.00000	Averaged
22 Isophorone	0.48049	0.42824	0.42824	0.000	-10.87384	60.00000	Averaged
23 2-Nitrophenol	0.14580	0.12443	0.12443	0.001	-14.65471	20.00000	Averaged ccc
24 2,4-Dimethylphenol	0.23346	0.23407	0.23407	0.000	0.25935	60.00000	Averaged
25 bis(2-Chloroethoxy)methane	0.30933	0.25445	0.25445	0.000	-17.74126	60.00000	Averaged
26 2,4-Dichlorophenol	0.21909	0.18847	0.18847	0.001	-13.97781	20.00000	Averaged ccc
27 Benzoic acid	0.16087	0.16553	0.16553	0.000	2.89975	60.00000	Averaged
28 1,2,4-Trichlorobenzene	0.24210	0.21218	0.21218	0.000	-12.36169	60.00000	Averaged
30 Naphthalene	0.83482	0.76679	0.76679	0.000	-8.14910	60.00000	Averaged
204 alpha-Terpineol	0.19635	0.19249	0.19249	0.000	-1.96852	60.00000	Averaged
31 4-Chloroaniline	0.38123	0.34324	0.34324	0.000	-9.96471	60.00000	Averaged
32 Hexachlorobutadiene	0.12432	0.10582	0.10582	0.001	-14.87841	20.00000	Averaged ccc
33 4-Chloro-3-methylphenol	0.21406	0.17276	0.17276	0.001	-19.29025	20.00000	Averaged ccc
34 2-Methylnaphthalene	0.54880	0.51972	0.51972	0.000	-5.29812	60.00000	Averaged

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD1.i Injection Date: 17-NOV-2009 16:27
Lab File ID: s1k1261.d Init. Cal. Date(s): 14-NOV-2009 17-NOV-2009
Analysis Type: Init. Cal. Times: 18:22 12:38
Lab Sample ID: WBN091027-09.3 Quant Type: ISTD
Method: /chem/MSD1.i/s111409.b/MSD1-M8270AQA-111409.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
35 1-Methylnaphthalene	0.49330	0.47920	0.47920	0.000	-2.85884	60.00000	Averaged	
36 Hexachlorocyclopentadiene	0.12213	0.12462	0.12462	0.050	2.03810	60.00000	Averaged	spcc
205 2,3-Dichloroaniline	0.45401	0.44519	0.44519	0.000	-1.94238	60.00000	Averaged	
37 2,4,6-Trichlorophenol	0.26606	0.24935	0.24935	0.001	-6.28041	20.00000	Averaged	ccc
38 2,4,5-Trichlorophenol	0.28290	0.25595	0.25595	0.000	-9.52679	60.00000	Averaged	
40 2-Chloronaphthalene	0.98748	0.82050	0.82050	0.000	-16.91018	60.00000	Averaged	
42 o-Nitroaniline	0.30619	0.24946	0.24946	0.000	-18.52571	60.00000	Averaged	
41 m-Nitroaniline	0.27055	0.22438	0.22438	0.000	-17.06469	60.00000	Averaged	
43 Dimethylphthalate	1.08995	0.95932	0.95932	0.000	-11.98438	60.00000	Averaged	
44 2,6-Dinitrotoluene	0.27156	0.22271	0.22271	0.000	-17.99006	60.00000	Averaged	
50 2,4-Dinitrotoluene	0.35993	0.29440	0.29440	0.000	-18.20706	60.00000	Averaged	
45 Acenaphthylene	1.54092	1.46812	1.46812	0.000	-4.72441	60.00000	Averaged	
47 Acenaphthene	0.92259	0.85781	0.85781	0.001	-7.02192	20.00000	Averaged	ccc
48 2,4-Dinitrophenol	0.10718	0.09229	0.09229	0.050	-13.89853	60.00000	Averaged	spcc
49 Dibenzofuran	1.33422	1.12564	1.12564	0.000	-15.63294	60.00000	Averaged	
51 Diethylphthalate	1.01616	0.93320	0.93320	0.000	-8.16403	60.00000	Averaged	
52 4-Nitrophenol	0.18871	0.18660	0.18660	0.050	-1.12202	60.00000	Averaged	spcc
53 Fluorene	1.07578	0.99783	0.99783	0.000	-7.24582	60.00000	Averaged	
54 4-Chlorophenylphenylether	0.45420	0.42578	0.42578	0.000	-6.25867	60.00000	Averaged	
55 2-Methyl-4,6-dinitrophenol	0.10120	0.09844	0.09844	0.000	-2.71965	60.00000	Averaged	
56 p-Nitroaniline	0.26458	0.21819	0.21819	0.000	-17.53206	60.00000	Averaged	
133 Diphenylamine	0.53354	0.46493	0.46493	0.001	-12.85961	20.00000	Averaged	ccc
58 1,2-Diphenylhydrazine	0.65098	0.55777	0.55777	0.000	-14.31896	60.00000	Averaged	
61 4-Bromophenylphenylether	0.13743	0.14126	0.14126	0.000	2.79050	60.00000	Averaged	
63 Hexachlorobenzene	0.16869	0.14433	0.14433	0.000	-14.43782	60.00000	Averaged	
65 Pentachlorophenol	0.10117	0.09042	0.09042	0.001	-10.61921	20.00000	Averaged	ccc
206 n-Octadecane	0.43383	0.42570	0.42570	0.000	-1.87309	60.00000	Averaged	
68 Phenanthrene	0.90903	0.83581	0.83581	0.000	-8.05558	60.00000	Averaged	
69 Anthracene	0.92447	0.85110	0.85110	0.000	-7.93592	60.00000	Averaged	
72 Di-n-butylphthalate	0.98605	0.95396	0.95396	0.000	-3.25457	60.00000	Averaged	
76 Fluoranthene	0.87746	0.81704	0.81704	0.001	-6.88555	20.00000	Averaged	ccc
79 Pyrene	1.06293	0.98267	0.98267	0.000	-7.55079	60.00000	Averaged	
85 Butylbenzylphthalate	0.48372	0.46739	0.46739	0.000	-3.37649	60.00000	Averaged	
89 Benzo(a)anthracene	0.95915	0.87571	0.87571	0.000	-8.69930	60.00000	Averaged	
92 Chrysene	0.89647	0.82199	0.82199	0.000	-8.30767	60.00000	Averaged	
93 bis(2-Ethylhexyl)phthalate	0.70275	0.65271	0.65271	0.000	-7.12169	60.00000	Averaged	

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD1.i
Lab File ID: s1k1261.d
Analysis Type:
Lab Sample ID: WBN091027-09.3
Method: /chem/MSD1.i/s111409.b/MSD1-M8270AQA-111409.m

Injection Date: 17-NOV-2009 16:27
Init. Cal. Date(s): 14-NOV-2009 17-NOV-2009
Init. Cal. Times: 18:22 12:38
Quant Type: ISTD

	COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
	94 Di-n-octylphthalate	1.30849	1.19375	1.19375	0.001	-8.76858	20.00000	Averaged	ccc
	95 Benzo(b)fluoranthene	34.69168	40.00000	0.87030	0.000	-13.27080	60.00000	Linear	
	96 Benzo(k)fluoranthene	1.00298	0.95633	0.95633	0.000	-4.65112	60.00000	Averaged	
	97 Benzo(a)pyrene	37.92700	40.00000	0.82858	0.001	-5.18249	20.00000	Linear	ccc
	99 Indeno(1,2,3-cd)pyrene	35.83759	40.00000	0.81303	0.000	-10.40601	60.00000	Linear	
	100 Dibenzo(a,h)anthracene	35.09981	40.00000	0.66597	0.000	-12.25048	60.00000	Linear	
	101 Benzo(ghi)perylene	0.75165	0.69836	0.69836	0.000	-7.08991	60.00000	Averaged	
	126 m-Dinitrobenzene	0.18653	0.15696	0.15696	0.000	-15.84920	60.00000	Averaged	
	130 2,3,4,6-Tetrachlorophenol	0.21604	0.19708	0.19708	0.000	-8.77777	60.00000	Averaged	
	143 Dinoseb	0.12447	0.10965	0.10965	0.000	-11.90708	60.00000	Averaged	
	173 Carbazole	0.80714	0.69773	0.69773	0.000	-13.55506	60.00000	Averaged	
	184 p-Benzoquinone	40.49777	40.00000	0.06781	0.000	1.24442	60.00000	Linear	
	192 Methoxychlor	0.31747	0.36177	0.36177	0.000	13.95477	60.00000	Averaged	
	211 p-Toluidine	0.70440	0.95402	0.95402	0.000	35.43664	60.00000	Averaged	
	210 m-Toluidine	0.91072	0.95200	0.95200	0.000	4.53333	60.00000	Averaged	
	26 Phthalic anhydride	42.71723	40.00000	0.10164	0.000	6.79306	60.00000	Linear	
	179 Dibenzo(a,e)pyrene	24.88814	40.00000	0.27687	0.000	-37.77964	60.00000	Linear	
	214 1,4-Dinitrobenzene	0.17315	0.14504	0.14504	0.000	-16.23762	60.00000	Averaged	
	215 2-Ethoxyethanol	0.60315	0.59707	0.59707	0.000	-1.00765	60.00000	Averaged	
	216 Methylenebis(2-chloroanilin	0.12921	0.12373	0.12373	0.000	-4.23543	60.00000	Averaged	
M	225 Trichlorophenols	0.27448	0.25265	0.25265	0.000	-7.95340	60.00000	Averaged	
M	226 Tetrachlorophenols	0.21604	0.19708	0.19708	0.000	-8.77777	60.00000	Averaged	
M	227 Benzo(b,k)fluoranthene	0.96552	0.91331	0.91331	0.000	-5.40733	60.00000	Averaged	

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Data file : /chem/MSD1.i/s111409.b/s1k1261.d
Lab Smp Id: WBN091027-09.3 Client Smp ID: MEGAICV
Inj Date : 17-NOV-2009 16:27
Operator : amy Inst ID: MSD1.i
Smp Info : |WBN091027-09.3|40 PPM|1|SVMF|1|MEGAICV
Misc Info : |MSD8270|WBN091106-10|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD1.i/s111409.b/MSD1-M8270AQA-111409.m
Meth Date : 17-Nov-2009 16:47 llo00884 Quant Type: ISTD
Cal Date : 17-NOV-2009 12:38 Cal File: s1k1256.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: MEGAIICARE.sub
Target Version: 3.50
Processing Host: kilroy

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)	
* 10 1,4-Dichlorobenzene-d4	152	3.928	3.928	(1.000)	530038	40.0000		
* 29 Naphthalene-d8	136	4.793	4.793	(1.000)	2205306	40.0000		
* 46 Acenaphthene-d10	164	6.040	6.040	(1.000)	1135267	40.0000		
* 67 Phenanthrene-d10	188	7.022	7.022	(1.000)	1874551	40.0000		(H)
* 91 Chrysene-d12	240	8.704	8.704	(1.000)	1621760	40.0000		
* 98 Perylene-d12	264	10.198	10.198	(1.000)	1481649	40.0000		
$ 3 2-Fluorophenol	112	3.104	3.104	(0.790)	491348	40.0000	35.5	
$ 5 Phenol-d5	99	3.640	3.640	(0.927)	592737	40.0000	35.2	
$ 20 Nitrobenzene-d5	82	4.287	4.287	(0.894)	570788	40.0000	39.3	
$ 39 2-Fluorobiphenyl	172	5.534	5.534	(0.916)	1084689	40.0000	39.9	
$ 60 2,4,6-Tribromophenol	329	6.575	6.575	(1.089)	129390	40.0000	40.8	
$ 81 p-Terphenyl-d14	244	7.939	7.939	(0.912)	990744	40.0000	38.9	
1 N-Methyl-N-nitrosomethylamine	74	2.410	2.410	(0.614)	276992	40.0000	36.8	
2 Pyridine	79	2.446	2.446	(0.623)	381913	40.0000	30.2	
4 Aniline	66	3.710	3.710	(0.945)	244181	40.0000	33.0	
6 Phenol	94	3.646	3.646	(0.928)	599483	40.0000	33.8	
7 bis(2-Chloroethyl) ether	63	3.722	3.722	(0.948)	417273	40.0000	33.8	
8 2-Chlorophenol	128	3.787	3.787	(0.964)	512179	40.0000	34.0	
203 n-Decane	43	3.775	3.775	(0.961)	707542	40.0000	37.3	
9 1,3-Dichlorobenzene	146	3.893	3.893	(0.991)	606813	40.0000	34.3	
11 1,4-Dichlorobenzene	146	3.934	3.934	(1.001)	598440	40.0000	34.5	
13 1,2-Dichlorobenzene	146	4.040	4.040	(1.028)	543984	40.0000	34.0	
14 bis(2-Chloroisopropyl)ether	45	4.069	4.069	(1.036)	1027894	40.0000	35.0	
12 Benzyl alcohol	108	3.993	3.993	(1.016)	316054	40.0000	34.5	
15 o-Cresol	107	4.040	4.040	(1.028)	382773	40.0000	34.1	
18 m,p-Cresols	107	4.146	4.146	(1.055)	530984	40.0000	34.8	

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
17 N-Nitrosodipropylamine	70	4.163	4.163	(1.060)	325364	40.0000	32.2
19 Hexachloroethane	117	4.269	4.269	(1.087)	206306	40.0000	33.1
21 Nitrobenzene	77	4.304	4.304	(0.898)	528723	40.0000	34.9
22 Isophorone	82	4.457	4.457	(0.930)	944401	40.0000	35.6
23 2-Nitrophenol	139	4.516	4.516	(0.942)	274410	40.0000	34.1
24 2,4-Dimethylphenol	122	4.504	4.504	(0.940)	516190	40.0000	40.1
25 bis(2-Chloroethoxy)methane	93	4.575	4.575	(0.955)	561140	40.0000	32.9
26 2,4-Dichlorophenol	162	4.681	4.681	(0.977)	415624	40.0000	34.4
27 Benzoic acid	105	4.575	4.575	(0.955)	365053	40.0000	41.2
28 1,2,4-Trichlorobenzene	180	4.745	4.745	(0.990)	467914	40.0000	35.0
30 Naphthalene	128	4.810	4.810	(1.004)	1690998	40.0000	36.7
204 alpha-Terpineol	59	4.787	4.787	(0.999)	424496	40.0000	39.2
31 4-Chloroaniline	127	4.822	4.822	(1.006)	756952	40.0000	36.0
32 Hexachlorobutadiene	225	4.875	4.875	(1.017)	233369	40.0000	34.0
33 4-Chloro-3-methylphenol	107	5.134	5.134	(1.071)	380998	40.0000	32.3
34 2-Methylnaphthalene	142	5.293	5.293	(1.104)	1146146	40.0000	37.9
35 1-Methylnaphthalene	142	5.363	5.363	(1.119)	1056787	40.0000	38.8
36 Hexachlorocyclopentadiene	237	5.393	5.393	(0.893)	141475	40.0000	40.8
205 2,3-Dichloroaniline	161	5.487	5.487	(0.908)	505408	40.0000	39.2
37 2,4,6-Trichlorophenol	196	5.475	5.475	(0.906)	283075	40.0000	37.5(H)
38 2,4,5-Trichlorophenol	196	5.504	5.504	(0.911)	290570	40.0000	36.2
40 2-Chloronaphthalene	162	5.645	5.645	(0.935)	931485	40.0000	33.2
42 o-Nitroaniline	65	5.698	5.698	(0.944)	283207	40.0000	32.6
41 m-Nitroaniline	138	5.992	5.992	(0.992)	254734	40.0000	33.2
43 Dimethylphthalate	163	5.810	5.810	(0.962)	1089088	40.0000	35.2
44 2,6-Dinitrotoluene	165	5.863	5.863	(0.971)	252831	40.0000	32.8
50 2,4-Dinitrotoluene	165	6.145	6.145	(1.018)	334220	40.0000	32.7
45 Acenaphthylene	152	5.945	5.945	(0.984)	1666713	40.0000	38.1
47 Acenaphthene	154	6.063	6.063	(1.004)	973838	40.0000	37.2
48 2,4-Dinitrophenol	184	6.057	6.057	(1.003)	104771	40.0000	34.4(Q)
49 Dibenzofuran	168	6.181	6.181	(1.023)	1277902	40.0000	33.7
51 Diethylphthalate	149	6.287	6.287	(1.041)	1059428	40.0000	36.7
52 4-Nitrophenol	139	6.075	6.075	(1.006)	211838	40.0000	39.6
53 Fluorene	166	6.416	6.416	(1.062)	1132809	40.0000	37.1
54 4-Chlorophenylphenylether	204	6.392	6.392	(1.058)	483371	40.0000	37.5
55 2-Methyl-4,6-dinitrophenol	198	6.428	6.428	(0.911)	184539	40.0000	38.9
56 p-Nitroaniline	138	6.410	6.410	(1.061)	247705	40.0000	33.0
133 Diphenylamine	169	6.469	6.469	(0.917)	871532	40.0000	34.8
58 1,2-Diphenylhydrazine	77	6.498	6.498	(0.921)	1045567	40.0000	34.3
61 4-Bromophenylphenylether	248	6.716	6.716	(0.952)	264808	40.0000	41.1(H)
63 Hexachlorobenzene	284	6.775	6.775	(0.960)	270561	40.0000	34.2
65 Pentachlorophenol	266	6.892	6.892	(0.977)	169503	40.0000	35.8
206 n-Octadecane	57	6.869	6.869	(0.973)	797995	40.0000	39.2
68 Phenanthrene	178	7.039	7.039	(0.997)	1566761	40.0000	36.8
69 Anthracene	178	7.069	7.069	(1.002)	1595437	40.0000	36.8
72 Di-n-butylphthalate	149	7.310	7.310	(1.036)	1788243	40.0000	38.7
76 Fluoranthene	202	7.751	7.751	(1.098)	1531590	40.0000	37.2

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
79 Pyrene	202	7.892	7.892	(0.907)	1593654	40.0000	37.0
85 Butylbenzylphthalate	149	8.204	8.204	(0.943)	757996	40.0000	38.6
89 Benzo(a)anthracene	228	8.692	8.692	(0.999)	1420191	40.0000	36.5(H)
92 Chrysene	228	8.728	8.728	(1.003)	1333078	40.0000	36.7
93 bis(2-Ethylhexyl)phthalate	149	8.569	8.569	(0.984)	1058534	40.0000	37.2(H)
94 Di-n-octylphthalate	149	9.110	9.110	(0.893)	1768724	40.0000	36.5
95 Benzo(b)fluoranthene	252	9.716	9.716	(0.953)	1289484	40.0000	34.7(H)
96 Benzo(k)fluoranthene	252	9.745	9.745	(0.956)	1416940	40.0000	38.1
97 Benzo(a)pyrene	252	10.122	10.122	(0.992)	1227658	40.0000	37.9
99 Indeno(1,2,3-cd)pyrene	276	11.863	11.863	(1.163)	1204623	40.0000	35.8(H)
100 Dibenzo(a,h)anthracene	278	11.863	11.863	(1.163)	986733	40.0000	35.1
101 Benzo(ghi)perylene	276	12.380	12.380	(1.214)	1034720	40.0000	37.2
126 m-Dinitrobenzene	168	5.845	5.845	(0.968)	178196	40.0000	33.7
130 2,3,4,6-Tetrachlorophenol	232	6.251	6.251	(1.035)	223733	40.0000	36.5
143 Dinoseb	211	6.981	6.981	(0.989)	205546	40.0000	35.2
173 Carbazole	167	7.151	7.151	(1.013)	1307938	40.0000	34.6
184 p-Benzoquinone	54	3.404	3.404	(0.867)	35940	40.0000	40.5
192 Methoxychlor	227	8.557	8.557	(0.983)	586700	40.0000	45.6
211 p-Toluidine	106	4.204	4.204	(1.070)	505668	40.0000	54.2(H)
210 m-Toluidine	106	4.228	4.228	(1.076)	504598	40.0000	41.8
26 Phthalic anhydride	104	5.322	5.322	(1.110)	224154	40.0000	42.7
179 Dibenzo(a,e)pyrene	302	16.327	16.327	(1.601)	410219	40.0000	24.9(H)
214 1,4-Dinitrobenzene	168	5.787	5.787	(0.958)	164654	40.0000	33.5
215 2-Ethoxyethanol	59	2.257	2.257	(0.575)	316469	40.0000	39.6
216 Methylenebis(2-chloroaniline)	231	8.622	8.622	(0.991)	200666	40.0000	38.3
M 225 Trichlorophenols	196				573645	80.0000	73.6
M 226 Tetrachlorophenols	232				223733	40.0000	36.5
M 227 Benzo(b,k)fluoranthene	252				2706424	80.0000	75.7

QC Flag Legend

Q - Qualifier signal failed the ratio test.
H - Operator selected an alternate compound hit.

Data File: /chem/MSD1.i/s111409.b/s1k1261.d
Date : 17-NOV-2009 16:27
Client ID: MEGAICV
Sample Info: IWBN091027-09,3140 PPM|1|SVMF1|1MEGAICV
Column phase: J&W DB-5MS

Instrument: MSD1.i
Operator: amy
Column diameter: 0.20

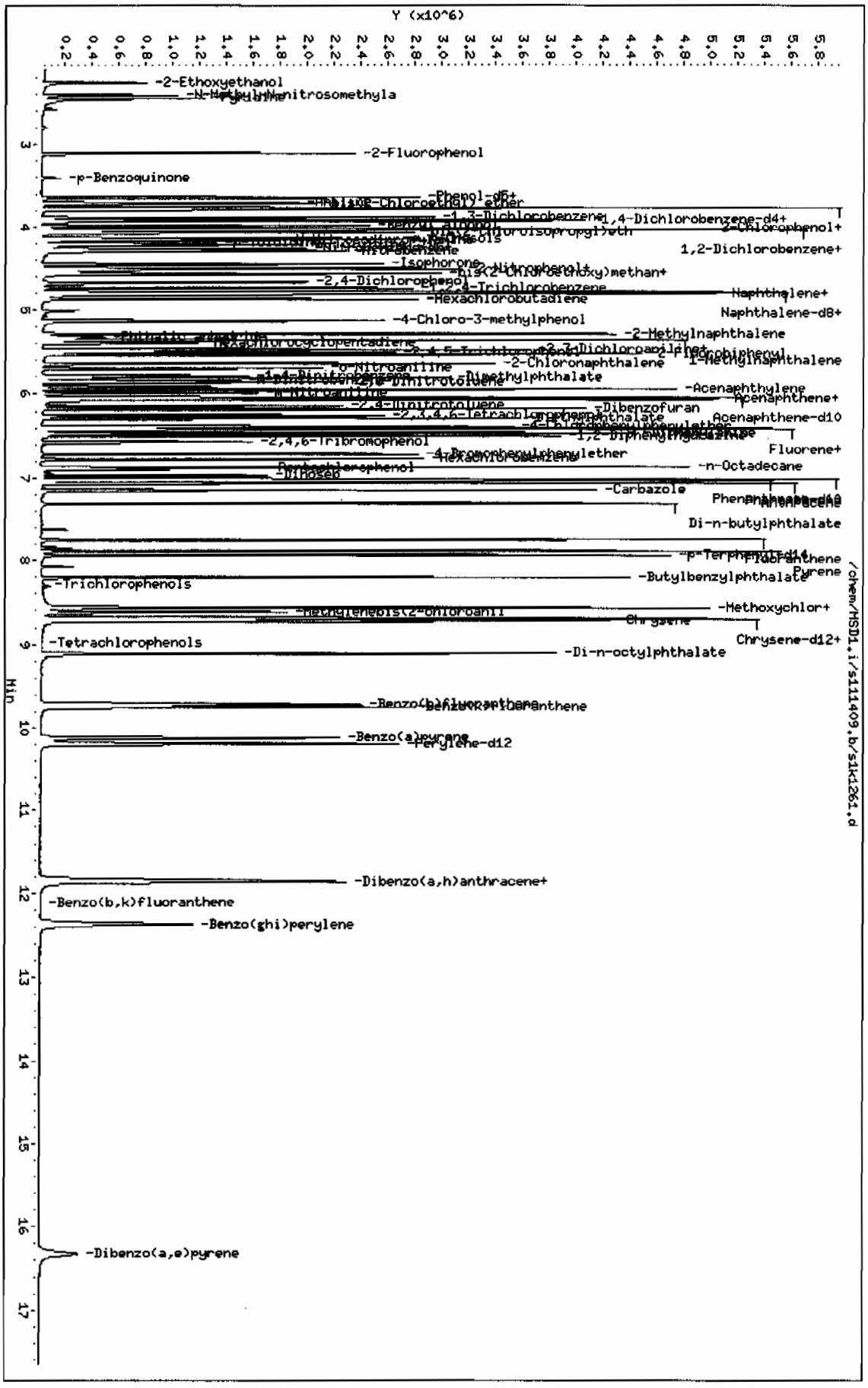

Page 1

Data File: /chem/MSD1.i/s122109.b/s112103.d
Report Date: 28-Dec-2009 16:51

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD1.i
Lab File ID: s112103.d
Analysis Type:
Lab Sample ID: WBN091111-17.2
Method: /chem/MSD1.i/s122109.b/MSD1-M8270AQA-111409.m

Injection Date: 21-DEC-2009 09:19
Init. Cal. Date(s): 14-NOV-2009 17-NOV-2009
Init. Cal. Times: 18:22 19:15
Quant Type: ISTD

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
$ 3 2-Fluorophenol	1.04478	0.97451	0.97451	0.000	-6.72581	60.00000	Averaged
$ 5 Phenol-d5	1.26984	1.18682	1.18682	0.000	-6.53784	60.00000	Averaged
$ 20 Nitrobenzene-d5	0.26360	0.27611	0.27611	0.000	4.74361	60.00000	Averaged
$ 39 2-Fluorobiphenyl	0.95800	1.02837	1.02837	0.000	7.34533	60.00000	Averaged
$ 60 2,4,6-Tribromophenol	0.11169	0.12412	0.12412	0.000	11.12681	60.00000	Averaged
$ 81 p-Terphenyl-d14	0.62787	0.66165	0.66165	0.000	5.37867	60.00000	Averaged
1 N-Methyl-N-nitrosomethylami	0.56740	0.59020	0.59020	0.000	4.01881	60.00000	Averaged
2 Pyridine	0.95281	0.80905	0.80905	0.000	-15.08818	60.00000	Averaged
4 Aniline	0.55813	0.48922	0.48922	0.000	-12.34631	60.00000	Averaged
6 Phenol	1.33800	1.21791	1.21791	0.001	-8.97538	20.00000	Averaged ccc
7 bis(2-Chloroethyl) ether	0.93081	0.89075	0.89075	0.000	-4.30447	60.00000	Averaged
8 2-Chlorophenol	1.13717	1.02290	1.02290	0.000	-10.04840	60.00000	Averaged
203 n-Decane	1.43160	1.64354	1.64354	0.000	14.80466	60.00000	Averaged
9 1,3-Dichlorobenzene	1.33431	1.17965	1.17965	0.000	-11.59103	60.00000	Averaged
11 1,4-Dichlorobenzene	1.30799	1.16805	1.16805	0.001	-10.69847	20.00000	Averaged ccc
13 1,2-Dichlorobenzene	1.20798	1.09712	1.09712	0.000	-9.17744	60.00000	Averaged
14 bis(2-Chloroisopropyl)ether	2.21709	2.11801	2.11801	0.000	-4.46870	60.00000	Averaged
12 Benzyl alcohol	0.69141	0.65858	0.65858	0.000	-4.74878	60.00000	Averaged
15 o-Cresol	0.84650	0.78736	0.78736	0.000	-6.98605	60.00000	Averaged
18 m,p-Cresols	1.15179	1.05270	1.05270	0.000	-8.60312	60.00000	Averaged
17 N-Nitrosodipropylamine	0.76238	0.69338	0.69338	0.050	-9.05069	60.00000	Averaged spcc
19 Hexachloroethane	0.47075	0.45553	0.45553	0.000	-3.23315	60.00000	Averaged
21 Nitrobenzene	0.27466	0.27688	0.27688	0.000	0.81142	60.00000	Averaged
22 Isophorone	0.48049	0.49844	0.49844	0.000	3.73633	60.00000	Averaged
23 2-Nitrophenol	0.14580	0.12603	0.12603	0.001	-13.55579	20.00000	Averaged ccc
24 2,4-Dimethylphenol	0.23346	0.21829	0.21829	0.000	-6.49942	60.00000	Averaged
25 bis(2-Chloroethoxy)methane	0.30933	0.28412	0.28412	0.000	-8.14904	60.00000	Averaged
26 2,4-Dichlorophenol	0.21909	0.18750	0.18750	0.001	-14.41678	20.00000	Averaged ccc
27 Benzoic acid	0.16087	0.17567	0.17567	0.000	9.20310	60.00000	Averaged
28 1,2,4-Trichlorobenzene	0.24210	0.22722	0.22722	0.000	-6.14721	60.00000	Averaged
30 Naphthalene	0.83482	0.80915	0.80915	0.000	-3.07470	60.00000	Averaged
204 alpha-Terpineol	0.19635	0.22065	0.22065	0.000	12.37190	60.00000	Averaged
31 4-Chloroaniline	0.38123	0.34072	0.34072	0.000	-10.62499	60.00000	Averaged
32 Hexachlorobutadiene	0.12432	0.12918	0.12918	0.001	3.91471	20.00000	Averaged ccc
33 4-Chloro-3-methylphenol	0.21406	0.18869	0.18869	0.001	-11.84882	20.00000	Averaged ccc
34 2-Methylnaphthalene	0.54880	0.53831	0.53831	0.000	-1.91056	60.00000	Averaged

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD1.i Injection Date: 21-DEC-2009 09:19
Lab File ID: s112103.d Init. Cal. Date(s): 14-NOV-2009 17-NOV-2009
Analysis Type: Init. Cal. Times: 18:22 19:15
Lab Sample ID: WBN091111-17.2 Quant Type: ISTD
Method: /chem/MSD1.i/s122109.b/MSD1-M8270AQA-111409.m

	COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
35	1-Methylnaphthalene	0.49330	0.51397	0.51397	0.000	4.18816	60.00000	Averaged	
36	Hexachlorocyclopentadiene	0.12213	0.13908	0.13908	0.050	13.87697	60.00000	Averaged	spcc
205	2,3-Dichloroaniline	0.45401	0.45674	0.45674	0.000	0.60123	60.00000	Averaged	
37	2,4,6-Trichlorophenol	0.26606	0.26147	0.26147	0.001	-1.72489	20.00000	Averaged	ccc
38	2,4,5-Trichlorophenol	0.28290	0.27388	0.27388	0.000	-3.18944	60.00000	Averaged	
40	2-Chloronaphthalene	0.98748	0.85162	0.85162	0.000	-13.75902	60.00000	Averaged	
42	o-Nitroaniline	0.30619	0.27309	0.27309	0.000	-10.80946	60.00000	Averaged	
41	m-Nitroaniline	0.27055	0.19760	0.19760	0.000	-26.96530	60.00000	Averaged	
43	Dimethylphthalate	1.08995	1.01456	1.01456	0.000	-6.91644	60.00000	Averaged	
44	2,6-Dinitrotoluene	0.27156	0.22567	0.22567	0.000	-16.90043	60.00000	Averaged	
50	2,4-Dinitrotoluene	0.35993	0.28849	0.28849	0.000	-19.84794	60.00000	Averaged	
45	Acenaphthylene	1.54092	1.54267	1.54267	0.000	0.11308	60.00000	Averaged	
47	Acenaphthene	0.92259	0.93653	0.93653	0.001	1.51142	20.00000	Averaged	ccc
48	2,4-Dinitrophenol	0.10718	0.09803	0.09803	0.050	-8.53910	60.00000	Averaged	spcc
49	Dibenzofuran	1.33422	1.15623	1.15623	0.000	-13.33992	60.00000	Averaged	
51	Diethylphthalate	1.01616	1.04563	1.04563	0.000	2.90080	60.00000	Averaged	
52	4-Nitrophenol	0.18871	0.16512	0.16512	0.050	-12.50115	60.00000	Averaged	spcc
53	Fluorene	1.07578	1.07766	1.07766	0.000	0.17467	60.00000	Averaged	
54	4-Chlorophenylphenylether	0.45420	0.45012	0.45012	0.000	-0.89926	60.00000	Averaged	
55	2-Methyl-4,6-dinitrophenol	0.10120	0.10608	0.10608	0.000	4.82685	60.00000	Averaged	
56	p-Nitroaniline	0.26458	0.15865	0.15865	0.000	-40.03510	60.00000	Averaged	
133	Diphenylamine	0.53354	0.45856	0.45856	0.001	-14.05411	20.00000	Averaged	ccc
58	1,2-Diphenylhydrazine	0.65098	0.62478	0.62478	0.000	-4.02503	60.00000	Averaged	
61	4-Bromophenylphenylether	0.13743	0.15379	0.15379	0.000	11.90442	60.00000	Averaged	
63	Hexachlorobenzene	0.16869	0.17383	0.17383	0.000	3.04485	60.00000	Averaged	
65	Pentachlorophenol	0.10117	0.09785	0.09785	0.001	-3.28119	20.00000	Averaged	ccc
206	n-Octadecane	0.43383	0.48521	0.48521	0.000	11.84411	60.00000	Averaged	
68	Phenanthrene	0.90903	0.89907	0.89907	0.000	-1.09602	60.00000	Averaged	
69	Anthracene	0.92447	0.89450	0.89450	0.000	-3.24142	60.00000	Averaged	
72	Di-n-butylphthalate	0.98605	1.09080	1.09080	0.000	10.62345	60.00000	Averaged	
76	Fluoranthene	0.87746	0.92769	0.92769	0.001	5.72416	20.00000	Averaged	ccc
79	Pyrene	1.06293	1.13408	1.13408	0.000	6.69377	60.00000	Averaged	
85	Butylbenzylphthalate	0.48372	0.51437	0.51437	0.000	6.33456	60.00000	Averaged	
89	Benzo(a)anthracene	0.95915	0.89177	0.89177	0.000	-7.02518	60.00000	Averaged	
92	Chrysene	0.89647	0.93773	0.93773	0.000	4.60203	60.00000	Averaged	
93	bis(2-Ethylhexyl)phthalate	0.70275	0.69072	0.69072	0.000	-1.71232	60.00000	Averaged	

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD1.i Injection Date: 21-DEC-2009 09:19
Lab File ID: s112103.d Init. Cal. Date(s): 14-NOV-2009 17-NOV-2009
Analysis Type: Init. Cal. Times: 18:22 19:15
Lab Sample ID: WBN091111-17.2 Quant Type: ISTD
Method: /chem/MSD1.i/s122109.b/MSD1-M8270AQA-111409.m

	COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
	94 Di-n-octylphthalate	1.30849	1.28702	1.28702	0.001	-1.64113	20.00000	Averaged	ccc
	95 Benzo(b)fluoranthene	35.33639	40.00000	0.88782	0.000	-11.65902	60.00000	Linear	
	96 Benzo(k)fluoranthene	1.00298	1.20505	1.20505	0.000	20.14708	60.00000	Averaged	
	97 Benzo(a)pyrene	37.25266	40.00000	0.81390	0.001	-6.86834	20.00000	Linear	ccc
	99 Indeno(1,2,3-cd)pyrene	31.95379	40.00000	0.72598	0.000	-20.11552	60.00000	Linear	
	100 Dibenzo(a,h)anthracene	28.65395	40.00000	0.54429	0.000	-28.36513	60.00000	Linear	
	101 Benzo(ghi)perylene	0.75165	0.64503	0.64503	0.000	-14.18460	60.00000	Averaged	
	126 m-Dinitrobenzene	0.18653	0.15608	0.15608	0.000	-16.32560	60.00000	Averaged	
	130 2,3,4,6-Tetrachlorophenol	0.21604	0.21905	0.21905	0.000	1.39352	60.00000	Averaged	
	143 Dinoseb	0.12447	0.12058	0.12058	0.000	-3.12880	60.00000	Averaged	
	173 Carbazole	0.80714	0.52819	0.52819	0.000	-34.56059	60.00000	Averaged	
	184 p-Benzoquinone	89.73343	40.00000	0.16711	0.000	124	60.00000	Linear	<-
	192 Methoxychlor	0.31747	0.42921	0.42921	0.000	35.19943	60.00000	Averaged	
	211 p-Toluidine	0.70440	0.92497	0.92497	0.000	31.31242	60.00000	Averaged	
	210 m-Toluidine	0.91072	1.15141	1.15141	0.000	26.42851	60.00000	Averaged	
	26 Phthalic anhydride	43.62704	40.00000	0.10399	0.000	9.06760	60.00000	Linear	
	179 Dibenzo(a,e)pyrene	8.97376	40.00000	0.07575	0.000	-77.56561	60.00000	Linear	<-
	214 1,4-Dinitrobenzene	0.17315	0.14546	0.14546	0.000	-15.99095	60.00000	Averaged	
	215 2-Ethoxyethanol	0.60315	0.64785	0.64785	0.000	7.41198	60.00000	Averaged	
	216 Methylenebis(2-chloroanilin	0.12921	0.08093	0.08093	0.000	-37.36024	60.00000	Averaged	
M	225 Trichlorophenols	0.27448	0.26767	0.26767	0.000	-2.47963	60.00000	Averaged	
M	226 Tetrachlorophenols	0.21604	0.21905	0.21905	0.000	1.39352	60.00000	Averaged	
M	227 Benzo(b,k)fluoranthene	0.96552	1.04643	1.04643	0.000	8.37996	60.00000	Averaged	

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Data file : /chem/MSD1.i/s122109.b/s112103.d
Lab Smp Id: WBN091111-17.2 Client Smp ID: MEGACVS
Inj Date : 21-DEC-2009 09:19
Operator : AMY Inst ID: MSD1.i
Smp Info : |WBN091111-17.2|40 PPM|1|SVMF|1|MEGACVS
Misc Info : |MSD8270|WBN091208-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD1.i/s122109.b/MSD1-M8270AQA-111409.m
Meth Date : 28-Dec-2009 16:51 amy01291 Quant Type: ISTD
Cal Date : 17-NOV-2009 17:42 Cal File: s1k1264.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: MEGAIICARE.sub
Target Version: 3.50
Processing Host: hpclp1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	3.916	3.916	(1.000)	625798	40.0000	
* 29 Naphthalene-d8	136	4.781	4.781	(1.000)	2543363	40.0000	
* 46 Acenaphthene-d10	164	6.028	6.028	(1.000)	1323598	40.0000	
* 67 Phenanthrene-d10	188	7.004	7.004	(1.000)	2152578	40.0000	
* 91 Chrysene-d12	240	8.663	8.663	(1.000)	1840086	40.0000	
* 98 Perylene-d12	264	10.110	10.110	(1.000)	1436197	40.0000	
$ 3 2-Fluorophenol	112	3.116	3.116	(0.796)	609849	40.0000	37.3
$ 5 Phenol-d5	99	3.640	3.640	(0.929)	742707	40.0000	37.4
$ 20 Nitrobenzene-d5	82	4.281	4.281	(0.895)	702243	40.0000	41.9
$ 39 2-Fluorobiphenyl	172	5.522	5.522	(0.916)	1361144	40.0000	42.9
$ 60 2,4,6-Tribromophenol	329	6.557	6.557	(1.088)	164288	40.0000	44.4
$ 81 p-Terphenyl-d14	244	7.916	7.916	(0.914)	1217484	40.0000	42.2
1 N-Methyl-N-nitrosomethylamine	74	2.434	2.434	(0.621)	369346	40.0000	41.6
2 Pyridine	79	2.469	2.469	(0.630)	506299	40.0000	34.0
4 Aniline	66	3.704	3.704	(0.946)	306155	40.0000	35.1
6 Phenol	94	3.651	3.651	(0.932)	762165	40.0000	36.4
7 bis(2-Chloroethyl) ether	63	3.722	3.722	(0.950)	557427	40.0000	38.3
8 2-Chlorophenol	128	3.787	3.787	(0.967)	640129	40.0000	36.0
203 n-Decane	43	3.763	3.763	(0.961)	1028525	40.0000	45.9
9 1,3-Dichlorobenzene	146	3.887	3.887	(0.992)	738223	40.0000	35.4
11 1,4-Dichlorobenzene	146	3.928	3.928	(1.003)	730966	40.0000	35.7
13 1,2-Dichlorobenzene	146	4.034	4.034	(1.030)	686576	40.0000	36.3
14 bis(2-Chloroisopropyl)ether	45	4.057	4.057	(1.036)	1325447	40.0000	38.2
12 Benzyl alcohol	108	3.987	3.987	(1.018)	412136	40.0000	38.1
15 o-Cresol	107	4.040	4.040	(1.032)	492728	40.0000	37.2
18 m,p-Cresols	107	4.145	4.145	(1.059)	658775	40.0000	36.6

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
17 N-Nitrosodipropylamine	70	4.157	4.157	(1.062)	433913	40.0000	36.4
19 Hexachloroethane	117	4.257	4.257	(1.087)	285068	40.0000	38.7
21 Nitrobenzene	77	4.298	4.298	(0.899)	704216	40.0000	40.3
22 Isophorone	82	4.445	4.445	(0.930)	1267715	40.0000	41.5
23 2-Nitrophenol	139	4.510	4.510	(0.943)	320550	40.0000	34.6
24 2,4-Dimethylphenol	122	4.504	4.504	(0.942)	555186	40.0000	37.4
25 bis(2-Chloroethoxy)methane	93	4.569	4.569	(0.956)	722624	40.0000	36.7
26 2,4-Dichlorophenol	162	4.669	4.669	(0.977)	476890	40.0000	34.2
27 Benzoic acid	105	4.575	4.575	(0.957)	446803	40.0000	43.7
28 1,2,4-Trichlorobenzene	180	4.734	4.734	(0.990)	577908	40.0000	37.5
30 Naphthalene	128	4.798	4.798	(1.004)	2057957	40.0000	38.8(Q)
204 alpha-Terpineol	59	4.769	4.769	(0.998)	561184	40.0000	44.9
31 4-Chloroaniline	127	4.816	4.816	(1.007)	866585	40.0000	35.8
32 Hexachlorobutadiene	225	4.863	4.863	(1.017)	328564	40.0000	41.6
33 4-Chloro-3-methylphenol	107	5.128	5.128	(1.073)	479915	40.0000	35.3
34 2-Methylnaphthalene	142	5.275	5.275	(1.103)	1369125	40.0000	39.2
35 1-Methylnaphthalene	142	5.351	5.351	(1.119)	1307200	40.0000	41.7
36 Hexachlorocyclopentadiene	237	5.375	5.375	(0.892)	184082	40.0000	45.6
205 2,3-Dichloroaniline	161	5.475	5.475	(0.908)	604536	40.0000	40.2
37 2,4,6-Trichlorophenol	196	5.469	5.469	(0.907)	346077	40.0000	39.3
38 2,4,5-Trichlorophenol	196	5.498	5.498	(0.912)	362503	40.0000	38.7
40 2-Chloronaphthalene	162	5.628	5.628	(0.934)	1127197	40.0000	34.5
42 o-Nitroaniline	65	5.692	5.692	(0.944)	361460	40.0000	35.7
41 m-Nitroaniline	138	5.981	5.981	(0.992)	261538	40.0000	29.2
43 Dimethylphthalate	163	5.798	5.798	(0.962)	1342871	40.0000	37.2
44 2,6-Dinitrotoluene	165	5.851	5.851	(0.971)	298690	40.0000	33.2
50 2,4-Dinitrotoluene	165	6.134	6.134	(1.018)	381847	40.0000	32.1
45 Acenaphthylene	152	5.934	5.934	(0.984)	2041870	40.0000	40.0
47 Acenaphthene	154	6.051	6.051	(1.004)	1239593	40.0000	40.6
48 2,4-Dinitrophenol	184	6.051	6.051	(1.004)	129755	40.0000	36.6(Q)
49 Dibenzofuran	168	6.163	6.163	(1.022)	1530389	40.0000	34.7
51 Diethylphthalate	149	6.275	6.275	(1.041)	1383998	40.0000	41.2
52 4-Nitrophenol	139	6.075	6.075	(1.008)	218557	40.0000	35.0
53 Fluorene	166	6.398	6.398	(1.061)	1426393	40.0000	40.1
54 4-Chlorophenylphenylether	204	6.375	6.375	(1.058)	595778	40.0000	39.6
55 2-Methyl-4,6-dinitrophenol	198	6.416	6.416	(0.916)	228348	40.0000	41.9
56 p-Nitroaniline	138	6.404	6.404	(1.062)	209993	40.0000	24.0
133 Diphenylamine	169	6.451	6.451	(0.921)	987076	40.0000	34.4
58 1,2-Diphenylhydrazine	77	6.481	6.481	(0.925)	1344890	40.0000	38.4
61 4-Bromophenylphenylether	248	6.698	6.698	(0.956)	331045	40.0000	44.8
63 Hexachlorobenzene	284	6.757	6.757	(0.965)	374172	40.0000	41.2
65 Pentachlorophenol	266	6.875	6.875	(0.982)	210623	40.0000	38.7
206 n-Octadecane	57	6.851	6.851	(0.978)	1044448	40.0000	44.7
68 Phenanthrene	178	7.022	7.022	(1.003)	1935320	40.0000	39.6
69 Anthracene	178	7.051	7.051	(1.007)	1925487	40.0000	38.7
72 Di-n-butylphthalate	149	7.286	7.286	(1.040)	2348037	40.0000	44.2
76 Fluoranthene	202	7.728	7.728	(1.103)	1996923	40.0000	42.3

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
79 Pyrene	202	7.869	7.869	(0.908)	2086803	40.0000	42.7
85 Butylbenzylphthalate	149	8.175	8.175	(0.944)	946477	40.0000	42.5
89 Benzo(a)anthracene	228	8.651	8.651	(0.999)	1640928	40.0000	37.2
92 Chrysene	228	8.686	8.686	(1.003)	1725497	40.0000	41.8
93 bis(2-Ethylhexyl)phthalate	149	8.527	8.527	(0.984)	1270987	40.0000	39.3
94 Di-n-octylphthalate	149	9.051	9.051	(0.895)	1848408	40.0000	39.3
95 Benzo(b)fluoranthene	252	9.651	9.651	(0.955)	1275088	40.0000	35.3
96 Benzo(k)fluoranthene	252	9.680	9.680	(0.958)	1730684	40.0000	48.0
97 Benzo(a)pyrene	252	10.045	10.045	(0.994)	1168925	40.0000	37.2
99 Indeno(1,2,3-cd)pyrene	276	11.733	11.733	(1.161)	1042650	40.0000	32.0
100 Dibenzo(a,h)anthracene	278	11.733	11.733	(1.161)	781701	40.0000	28.6
101 Benzo(ghi)perylene	276	12.233	12.233	(1.210)	926390	40.0000	34.3
126 m-Dinitrobenzene	168	5.839	5.839	(0.969)	206581	40.0000	33.5
130 2,3,4,6-Tetrachlorophenol	232	6.239	6.239	(1.035)	289933	40.0000	40.6
143 Dinoseb	211	6.963	6.963	(0.994)	259552	40.0000	38.7
173 Carbazole	167	7.139	7.139	(1.019)	1136969	40.0000	26.2
184 p-Benzoquinone	54	3.410	3.410	(0.871)	104574	40.0000	89.7
192 Methoxychlor	227	8.522	8.522	(0.984)	789787	40.0000	54.1
211 p-Toluidine	106	4.198	4.198	(1.072)	578845	40.0000	52.5
210 m-Toluidine	106	4.222	4.222	(1.078)	720548	40.0000	50.6
26 Phthalic anhydride	104	5.316	5.316	(1.112)	264492	40.0000	43.6
179 Dibenzo(a,e)pyrene	302	16.062	16.062	(1.589)	108795	40.0000	9.0
214 1,4-Dinitrobenzene	168	5.781	5.781	(0.959)	192534	40.0000	33.6
215 2-Ethoxyethanol	59	2.281	2.281	(0.582)	405424	40.0000	43.0
216 Methylenebis(2-chloroaniline)	231	8.586	8.586	(0.991)	148926	40.0000	25.0
M 225 Trichlorophenols	196				708580	80.0000	78.0
M 226 Tetrachlorophenols	232				289933	40.0000	40.6
M 227 Benzo(b,k)fluoranthene	252				3005772	80.0000	86.7

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: /chem/MSD1.i/s122109.b/s112103.d
Date : 21-DEC-2009 09:19
Client ID: MEGACVS
Sample Info: IWBN091111-17,2140 PPM11SVMF1|MEGACVS
Column phase: J&W DB-5MS

Instrument: MSD1.i
Operator: AMY
Column diameter: 0.20

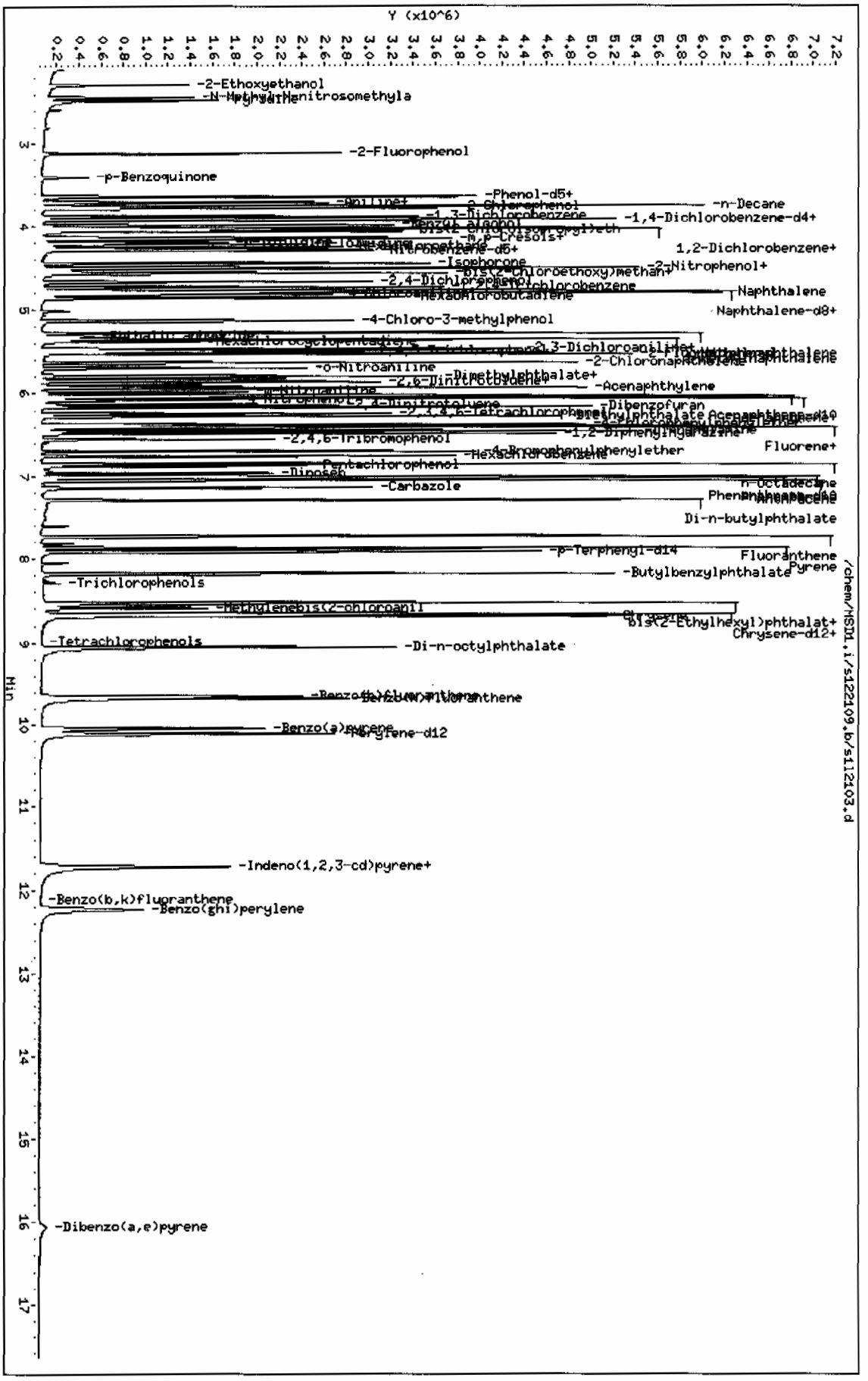

Page 1

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD1.i Injection Date: 21-DEC-2009 10:32
Lab File ID: s112104.d Init. Cal. Date(s): 14-NOV-2009 17-NOV-2009
Analysis Type: Init. Cal. Times: 18:22 19:15
Lab Sample ID: WBN091201-03.5 Quant Type: ISTD
Method: /chem/MSD1.i/s122109.b/MSD1-M8270AQA-111409.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
209 Benzaldehyde	0.82400	0.91210	0.91210	0.000	10.69224	60.00000	Averaged
16 Acetophenone	1.12880	1.22097	1.22097	0.000	8.16529	60.00000	Averaged
189 Caprolactam	0.07169	0.07864	0.07864	0.000	9.69875	60.00000	Averaged
208 1,1'-Biphenyl	1.12050	1.20176	1.20176	0.000	7.25178	60.00000	Averaged
207 Atrazine	0.04008	0.02850	0.02850	0.000	-28.90659	60.00000	Averaged
77 Benzidine	0.36215	0.16286	0.16286	0.000	-55.03012	60.00000	Averaged
90 3,3'-Dichlorobenzidine	0.27540	0.25795	0.25795	0.000	-6.33558	60.00000	Averaged
102 1,4-Dioxane	0.31387	0.35815	0.35815	0.000	14.10820	60.00000	Averaged
103 Methyl methacrylate	0.17640	0.19392	0.19392	0.000	9.92794	60.00000	Averaged
104 Ethyl methacrylate	0.71299	0.83382	0.83382	0.000	16.94657	60.00000	Averaged
105 2-Picoline	1.15384	1.28094	1.28094	0.000	11.01545	60.00000	Averaged
106 N-Nitrosomethylethylamine	0.45426	0.47798	0.47798	0.000	5.22107	60.00000	Averaged
107 Methyl methanesulfonate	0.42570	0.49727	0.49727	0.000	16.81113	60.00000	Averaged
108 N-Nitrosodiethylamine	0.47954	0.48815	0.48815	0.000	1.79503	60.00000	Averaged
109 Ethyl Methanesulfonate	0.59625	0.65017	0.65017	0.000	9.04349	60.00000	Averaged
110 Pentachloroethane	0.29115	0.33172	0.33172	0.000	13.93291	60.00000	Averaged
111 N-Nitrosopyrrolidine	0.47509	0.50804	0.50804	0.000	6.93641	60.00000	Averaged
113 N-Nitrosomorpholine	0.61749	0.67607	0.67607	0.000	9.48716	60.00000	Averaged
114 o-Toluidine	1.65327	1.72407	1.72407	0.000	4.28220	60.00000	Averaged
115 N-Nitrosopiperidine	0.13156	0.13365	0.13365	0.000	1.58883	60.00000	Averaged
116 a,a-Dimethylphenethylamine	0.76801	0.32921	0.32921	0.000	-57.13497	60.00000	Averaged
118 2,6-Dichlorophenol	0.19701	0.20643	0.20643	0.000	4.78177	60.00000	Averaged
119 Hexachloropropene	0.08895	0.10060	0.10060	0.000	13.09744	60.00000	Averaged
120 p-Phenylenediamine	0.20154	0.09220	0.09220	0.000	-54.25226	60.00000	Averaged
121 N-Nitrosodi-n-butylamine	0.17172	0.17786	0.17786	0.000	3.57217	60.00000	Averaged
122 Safrole	0.17864	0.18076	0.18076	0.000	1.18878	60.00000	Averaged
123 1,2,4,5-Tetrachlorobenzene	0.36713	0.41987	0.41987	0.000	14.36547	60.00000	Averaged
124 Isosafrole	0.32761	0.31393	0.31393	0.000	-4.17516	60.00000	Averaged
125 1,4-Naphthoquinone	0.29676	0.31671	0.31671	0.000	6.72289	60.00000	Averaged
127 Pentachlorobenzene	0.31451	0.37527	0.37527	0.000	19.31843	60.00000	Averaged
128 1-Naphthylamine	0.89420	0.79845	0.79845	0.000	-10.70870	60.00000	Averaged
129 2-Naphthylamine	0.97473	0.63836	0.63836	0.000	-34.50935	60.00000	Averaged
131 5-Nitro-o-toluidine	0.28528	0.27178	0.27178	0.000	-4.73121	60.00000	Averaged
136 1,3,5-Trinitrobenzene	0.11623	0.13871	0.13871	0.000	19.34209	60.00000	Averaged
137 Phenacetin	0.25708	0.26547	0.26547	0.000	3.26038	60.00000	Averaged
138 Diallate	0.23112	0.25143	0.25143	0.000	8.78456	60.00000	Averaged

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD1.i
Lab File ID: s112104.d
Analysis Type:
Lab Sample ID: WBN091201-03.5
Method: /chem/MSD1.i/s122109.b/MSD1-M8270AQA-111409.m

Injection Date: 21-DEC-2009 10:32
Init. Cal. Date(s): 14-NOV-2009 17-NOV-2009
Init. Cal. Times: 18:22 19:15
Quant Type: ISTD

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
212 Cis Diallate	0.23999	0.24747	0.24747	0.000	3.11839	60.00000	Averaged
213 Trans Diallate	0.27191	0.29579	0.29579	0.000	8.78456	60.00000	Averaged
140 4-Aminobiphenyl	0.53614	0.43671	0.43671	0.000	-18.54565	60.00000	Averaged
141 Pentachloronitrobenzene	0.05324	0.06880	0.06880	0.000	29.21884	60.00000	Averaged
142 Pronamide	0.23368	0.26033	0.26033	0.000	11.40610	60.00000	Averaged
146 4-Nitroquinoline-1-oxide	0.00980	0.01232	0.01232	0.000	25.69374	60.00000	Averaged
147 Methapyrilene	0.36822	0.37378	0.37378	0.000	1.51108	60.00000	Averaged
148 Isodrin	0.08609	0.09681	0.09681	0.000	12.45040	60.00000	Averaged
149 Aramite	0.04255	0.04433	0.04433	0.000	4.18443	60.00000	Averaged
150 Kepone	0.06308	0.06688	0.06688	0.000	6.02068	60.00000	Averaged
151 p-(Dimethylamino)azobenzene	0.28392	0.28254	0.28254	0.000	-0.48791	60.00000	Averaged
152 Chlorobenzilate	0.21994	0.28203	0.28203	0.000	28.23166	60.00000	Averaged
153 3,3'-Dimethylbenzidine	0.47945	0.37948	0.37948	0.000	-20.85176	60.00000	Averaged
155 2-Acetylaminofluorene	0.30801	0.26535	0.26535	0.000	-13.85103	60.00000	Averaged
157 7,12Dimethylbenz(a)anthrace	0.42123	0.46936	0.46936	0.000	11.42639	60.00000	Averaged
158 3-Methylcholanthrene	0.36711	0.32632	0.32632	0.000	-11.11088	60.00000	Averaged

GEL Laboratories LLC

Data file : /chem/MSD1.i/s122109.b/s112104.d
Lab Smp Id: WBN091201-03.5 Client Smp ID: APCVS
Inj Date : 21-DEC-2009 10:32
Operator : AMY Inst ID: MSD1.i
Smp Info : |WBN091201-03.5|40 PPM|1|SVMF|1|APCVS
Misc Info : |MSD8270|WBN091208-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD1.i/s122109.b/MSD1-M8270AQA-111409.m
Meth Date : 21-Dec-2009 11:20 amy01291 Quant Type: ISTD
Cal Date : 17-NOV-2009 17:42 Cal File: s1k1264.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ap12.sub
Target Version: 3.50
Processing Host: hpclp1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	3.916	3.916	(1.000)	586119	40.0000	
* 29 Naphthalene-d8	136	4.781	4.781	(1.000)	2245922	40.0000	
* 46 Acenaphthene-d10	164	6.022	6.022	(1.000)	1245204	40.0000	
* 67 Phenanthrene-d10	188	7.004	7.004	(1.000)	2112586	40.0000	
* 91 Chrysene-d12	240	8.663	8.663	(1.000)	1849383	40.0000	
* 98 Perylene-d12	264	10.110	10.110	(1.000)	1462163	40.0000	
209 Benzaldehyde	77	3.646	3.646	(0.931)	534601	40.0000	44.3
16 Acetophenone	105	4.169	4.169	(1.065)	715632	40.0000	43.3
189 Caprolactam	113	5.063	5.063	(1.059)	176619	40.0000	43.9
208 1,1'-Biphenyl	154	5.598	5.598	(0.930)	1496438	40.0000	42.9
207 Atrazine	173	6.775	6.775	(0.967)	60199	40.0000	28.4
77 Benzidine	184	7.781	7.781	(0.898)	301191	40.0000	18.0
90 3,3'-Dichlorobenzidine	252	8.592	8.592	(0.992)	477056	40.0000	37.5
102 1,4-Dioxane	88	2.281	2.281	(0.582)	209918	40.0000	45.6
103 Methyl methacrylate	100	2.275	2.275	(0.581)	113659	40.0000	44.0
104 Ethyl methacrylate	69	2.634	2.634	(0.673)	488716	40.0000	46.8
105 2-Picoline	93	2.828	2.828	(0.722)	750786	40.0000	44.4
106 N-Nitrosomethylethylamine	88	2.869	2.869	(0.733)	280153	40.0000	42.1
107 Methyl methanesulfonate	80	3.028	3.028	(0.773)	291459	40.0000	46.7
108 N-Nitrosodiethylamine	102	3.252	3.252	(0.830)	286113	40.0000	40.7
109 Ethyl Methanesulfonate	79	3.410	3.410	(0.871)	381079	40.0000	43.6
110 Pentachloroethane	167	3.746	3.746	(0.956)	194428	40.0000	45.6
111 N-Nitrosopyrrolidine	100	4.163	4.163	(1.063)	297774	40.0000	42.8
113 N-Nitrosomorpholine	56	4.181	4.181	(1.068)	396257	40.0000	43.8
114 o-Toluidine	106	4.199	4.199	(1.072)	1010509	40.0000	41.7
115 N-Nitrosopiperidine	114	4.399	4.399	(0.920)	300170	40.0000	40.6

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
116 a,a-Dimethylphenethylamine	58	4.646	4.646	(0.972)	739376	40.0000	17.1
118 2,6-Dichlorophenol	162	4.828	4.828	(1.010)	463627	40.0000	41.9
119 Hexachloropropene	213	4.851	4.851	(1.015)	225950	40.0000	45.2
120 p-Phenylenediamine	108	4.781	4.781	(1.000)	207071	40.0000	18.3
121 N-Nitrosodi-n-butylamine	84	5.022	5.022	(1.050)	399458	40.0000	41.4(T)
122 Safrole	162	5.193	5.193	(1.086)	405975	40.0000	40.5
123 1,2,4,5-Tetrachlorobenzene	216	5.393	5.393	(0.895)	522820	40.0000	45.7
124 Isosafrole	162	5.557	5.557	(0.923)	390910	40.0000	38.3
125 1,4-Naphthoquinone	158	5.745	5.745	(0.954)	394374	40.0000	42.7
127 Pentachlorobenzene	250	6.134	6.134	(1.019)	467292	40.0000	47.7
128 1-Naphthylamine	143	6.216	6.216	(1.032)	994227	40.0000	35.7
129 2-Naphthylamine	143	6.269	6.269	(1.041)	794888	40.0000	26.2
131 5-Nitro-o-toluidine	152	6.393	6.393	(1.062)	338427	40.0000	38.1
136 1,3,5-Trinitrobenzene	75	6.610	6.610	(0.944)	293034	40.0000	47.7
137 Phenacetin	108	6.640	6.640	(0.948)	560820	40.0000	41.3
138 Diallate	86	6.622	6.622	(0.945)	531157	40.0000	43.5
212 Cis Diallate	86	6.687	6.687	(0.955)	78421	6.00000	6.2
213 Trans Diallate	86	6.622	6.622	(0.945)	531157	34.0000	37.0
140 4-Aminobiphenyl	169	6.863	6.863	(0.980)	922582	40.0000	32.6
141 Pentachloronitrobenzene	237	6.881	6.881	(0.982)	145345	40.0000	51.7
142 Pronamide	173	6.875	6.875	(0.982)	549972	40.0000	44.6
146 4-Nitroquinoline-1-oxide	101	7.475	7.475	(1.067)	26034	40.0000	50.3
147 Methapyrilene	58	7.487	7.487	(1.069)	789648	40.0000	40.6
148 Isodrin	193	7.639	7.639	(1.091)	204520	40.0000	45.0
149 Aramite	185	7.869	7.869	(1.123)	93657	40.0000	41.7
150 Kepone	272	8.286	8.286	(1.183)	141295	40.0000	42.4
151 p-(Dimethylamino)azobenzene	120	7.992	7.992	(0.923)	522521	40.0000	39.8
152 Chlorobenzilate	251	8.004	8.004	(0.924)	521578	40.0000	51.3
153 3,3'-Dimethylbenzidine	212	8.204	8.204	(0.947)	701803	40.0000	31.6
155 2-Acetylaminofluorene	181	8.381	8.381	(0.967)	490733	40.0000	34.4
157 7,12Dimethylbenz(a)anthracene	256	9.616	9.616	(0.951)	686276	40.0000	44.6
158 3-Methylcholanthrene	268	10.463	10.463	(1.035)	477135	40.0000	35.6

QC Flag Legend

T - Target compound detected outside RT window.

Data File: /chem/MSD1.i/s122109.b/s112104.d
Date : 21-DEC-2009 10:32
Client ID: APCVS
Sample Info: IWBN091201-03,5140 PPM|1|SVHF|1|APCVS
Column phase: J&W DB-5MS

Instrument: MSD1.i
Operator: AMY
Column diameter: 0.20

Page 1

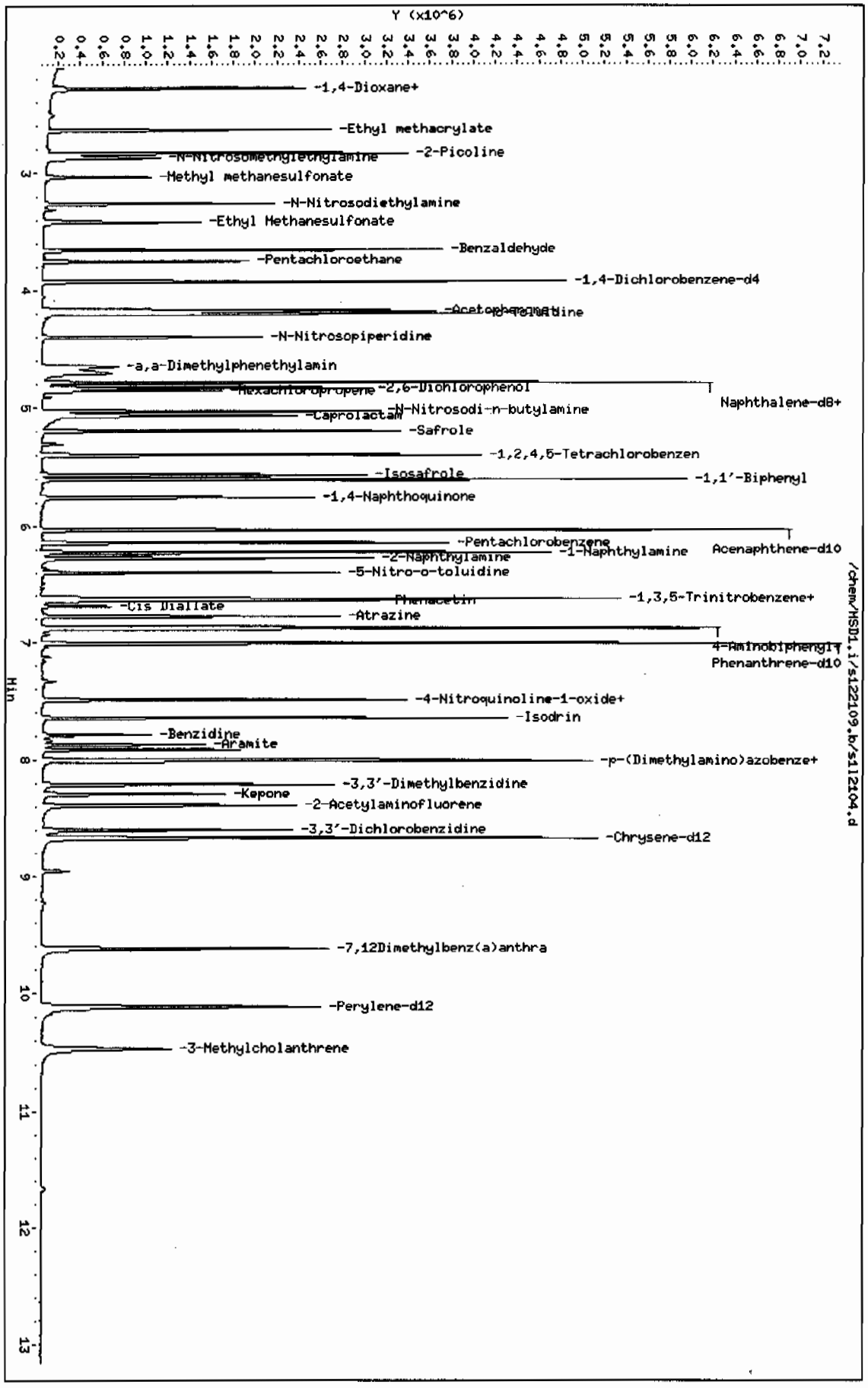

QC Data

Data File: /chem/MSD1.i/s111409.b/s1k1201.d

Date : 14-NOV-2009 17:38

Client ID: DFTPP

Instrument: MSD1.i

Sample Info: |WBN091101-01|50 PPM|1|SVMF|1|DFTPP

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

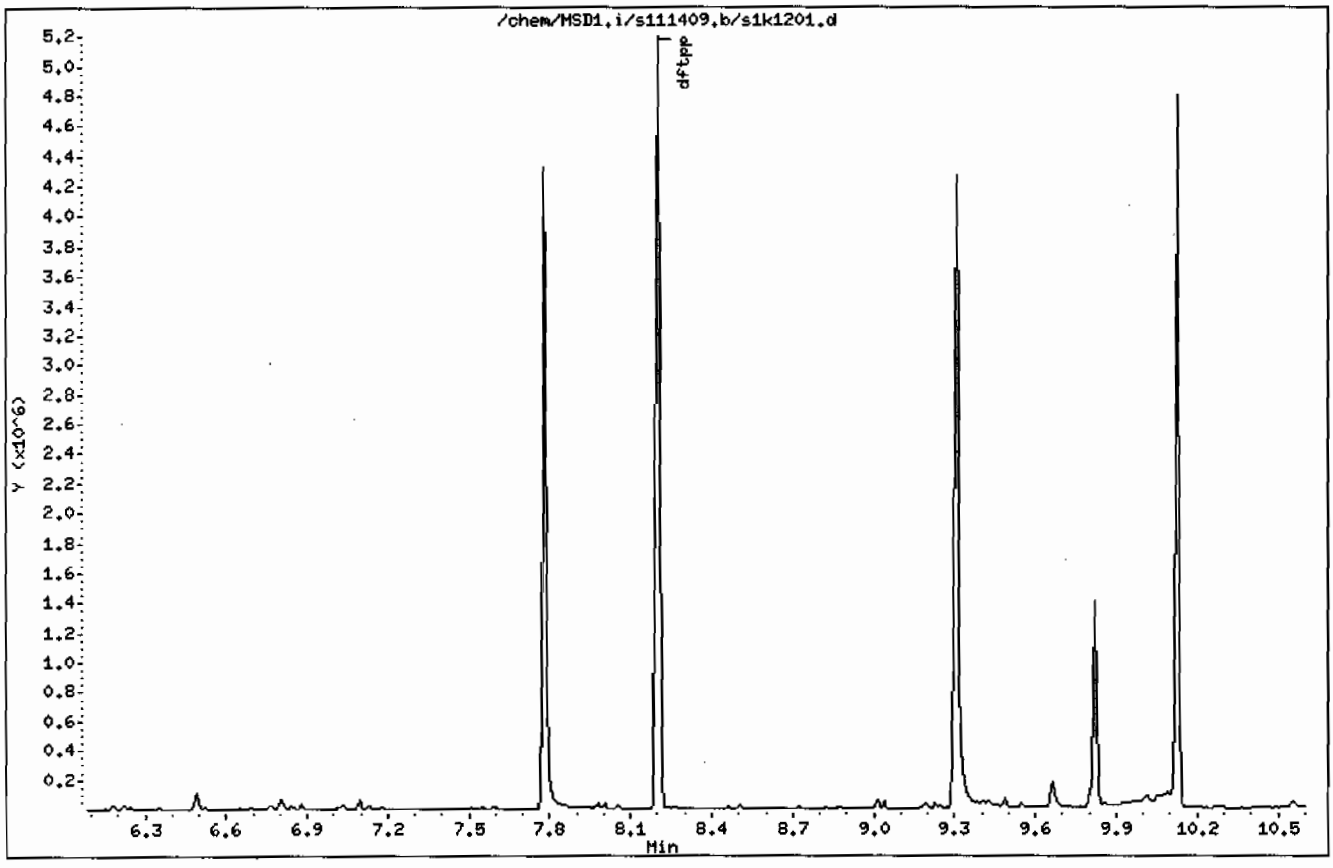

Data File: /chem/MSD1.i/s111409.b/s1k1201.d

Date : 14-NOV-2009 17:38

Client ID: DFTPP

Instrument: MSD1.i

Sample Info: IWBN091101-01|50 PPM|1|SVMF|1|DFTPP

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

1 dftpp

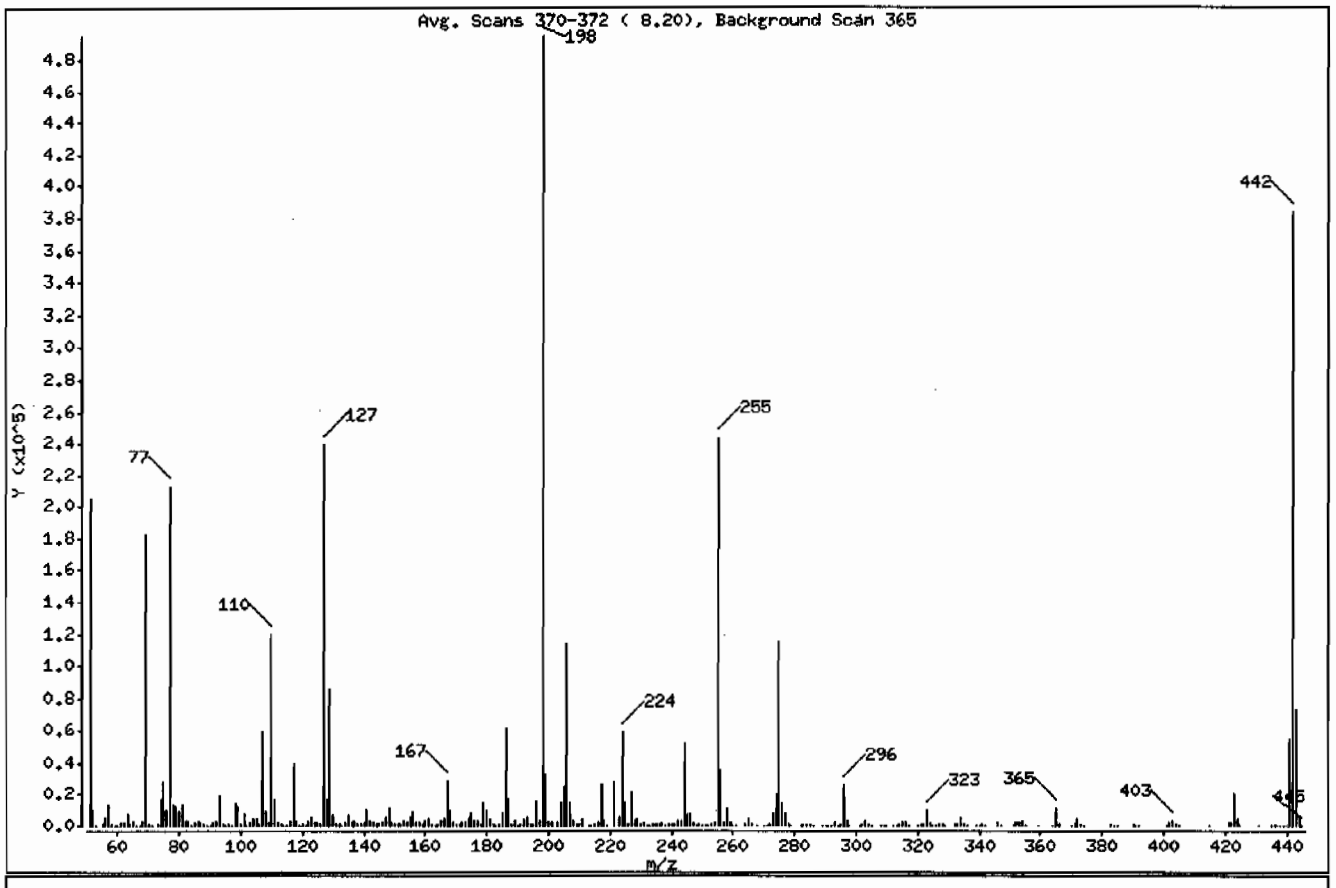

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	41.33
68	Less than 2.00% of mass 69	0.66 (1.81)
69	Mass 69 relative abundance	36.68
70	Less than 2.00% of mass 69	0.20 (0.55)
127	40.00 - 60.00% of mass 198	48.32
197	Less than 1.00% of mass 198	0.69
199	5.00 - 9.00% of mass 198	6.57
275	10.00 - 30.00% of mass 198	23.31
365	Greater than 1.00% of mass 198	2.23
441	Present, but less than mass 443	11.00
442	Greater than 40.00% of mass 198	77.37
443	17.00 - 23.00% of mass 442	14.83 (19.16)

Data File: /chem/MSD1.i/s111409.b/s1k1201.d

Date : 14-NOV-2009 17:38

Client ID: DFTPP

Instrument: MSD1.i

Sample Info: |WBN091101-01|50 PPM|1|SVMF|1|DFTPP

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

Data File: s1k1201.d
Spectrum: Avg. Scans 370-372 (8.20), Background Scan 365
Location of Maximum: 198.00
Number of points: 312

m/z	Y	m/z	Y	m/z	Y	m/z	Y
51.00	204544	132.00	849	213.00	322	304.00	857
52.00	10058	133.00	398	214.00	81	305.00	126
53.00	476	134.00	2213	215.00	1065	308.00	339
55.00	808	135.00	6445	216.00	2209	309.00	249
56.00	5675	136.00	2682	217.00	25976	310.00	361
57.00	13163	137.00	3409	218.00	3600	312.00	52
58.00	676	138.00	864	219.00	390	313.00	288
59.00	142	139.00	1285	221.00	28416	314.00	1372
60.00	58	140.00	1711	223.00	5970	315.00	2833
61.00	2414	141.00	10495	224.00	59288	316.00	1731
62.00	2627	142.00	3783	225.00	15318	317.00	279
63.00	7561	143.00	2378	226.00	1533	320.00	54
64.00	1048	144.00	706	227.00	21184	321.00	903
65.00	3902	145.00	666	228.00	3165	322.00	596
66.00	253	146.00	1908	229.00	4804	323.00	9908
67.00	264	147.00	5356	230.00	759	324.00	1942
68.00	3280	148.00	10849	231.00	2133	325.00	119
69.00	181568	149.00	2326	232.00	408	326.00	93
70.00	999	150.00	640	233.00	450	327.00	1701
71.00	119	151.00	1554	234.00	1483	328.00	891
73.00	1219	152.00	808	235.00	1658	329.00	88
74.00	17536	153.00	3187	236.00	1183	332.00	578
75.00	28056	154.00	2701	237.00	1728	333.00	855
76.00	9746	155.00	5991	238.00	324	334.00	5817
77.00	212736	156.00	9066	239.00	813	335.00	1475
78.00	13840	157.00	1942	240.00	775	336.00	75
79.00	12099	158.00	1971	241.00	1214	339.00	62
80.00	9416	159.00	1574	242.00	3186	340.00	77
81.00	13432	160.00	3233	243.00	3508	341.00	1027
82.00	3448	161.00	4832	244.00	51832	342.00	243
83.00	3440	162.00	1519	245.00	6691	346.00	2015
84.00	276	163.00	414	246.00	8221	347.00	283
85.00	2469	164.00	763	247.00	1725	351.00	182
86.00	3499	165.00	3823	248.00	403	352.00	2745
87.00	1914	166.00	4542	249.00	1698	353.00	2043

Data File: /chem/MSD1.i/s111409.b/s1k1201.d

Date : 14-NOV-2009 17:38

Client ID: DFTPP

Instrument: MSD1.i

Sample Info: IWBN091101-01|50 PPM|1|SVMF|1|DFTPP

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

Data File: s1k1201.d
Spectrum: Avg. Scans 370-372 (8.20), Background Scan 365
Location of Maximum: 198.00
Number of points: 312

m/z	Y	m/z	Y	m/z	Y	m/z	Y
88.00	945	167.00	28056	250.00	338	354.00	3347
89.00	408	168.00	9882	251.00	378	355.00	568
90.00	81	169.00	1949	252.00	461	359.00	68
91.00	2811	170.00	666	253.00	965	364.00	82
92.00	3305	171.00	868	254.00	2194	365.00	11049
93.00	19392	172.00	1736	255.00	243712	366.00	1525
94.00	1530	173.00	2151	256.00	34792	370.00	312
95.00	401	174.00	4365	257.00	2654	371.00	749
96.00	1021	175.00	8331	258.00	11699	372.00	5103
97.00	481	176.00	2950	259.00	1976	373.00	1317
98.00	14829	177.00	3734	260.00	354	374.00	211
99.00	12143	178.00	1429	261.00	488	383.00	1475
100.00	1081	179.00	14903	264.00	588	384.00	413
101.00	7582	180.00	10676	265.00	4651	385.00	112
102.00	501	181.00	5074	266.00	630	390.00	664
103.00	2806	182.00	848	268.00	97	391.00	481
104.00	4764	183.00	484	270.00	316	392.00	349
105.00	4470	184.00	1118	271.00	565	401.00	323
106.00	1531	185.00	7578	272.00	574	402.00	2059
107.00	58720	186.00	61632	273.00	7763	403.00	3027
108.00	9198	187.00	16824	274.00	20360	404.00	981
109.00	1983	188.00	1678	275.00	115400	405.00	157
110.00	119360	189.00	3368	276.00	14998	415.00	61
111.00	17336	190.00	542	277.00	8371	421.00	2728
112.00	2224	191.00	1652	278.00	1328	422.00	2498
113.00	793	192.00	4637	279.00	337	423.00	19928
114.00	277	193.00	5425	282.00	172	424.00	3991
115.00	405	194.00	1196	283.00	908	425.00	403
116.00	3276	195.00	960	284.00	671	431.00	50
117.00	39312	196.00	15938	285.00	1513	435.00	182
118.00	2868	197.00	3428	286.00	245	436.00	64
119.00	376	198.00	494976	289.00	275	437.00	123
120.00	724	199.00	32528	290.00	365	438.00	300
121.00	279	200.00	2387	291.00	237	439.00	370
122.00	3763	201.00	2747	292.00	481	440.00	354

Data File: /chem/HSD1.i/s111409.b/s1k1201.d

Date : 14-NOV-2009 17:38

Client ID: DFTPP

Instrument: HSD1.i

Sample Info: |WBN091101-01|50 PPM|1|SVMF|1|DFTPP

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

Data File: s1k1201.d
Spectrum: Avg. Scans 370-372 (8.20), Background Scan 365
Location of Maximum: 198.00
Number of points: 312

m/z	Y	m/z	Y	m/z	Y	m/z	Y
123.00	6008	203.00	2693	293.00	2054	441.00	54440
124.00	2602	204.00	14604	294.00	532	442.00	382976
125.00	2647	205.00	25208	295.00	657	443.00	73384
126.00	904	206.00	113680	296.00	26240	444.00	6543
127.00	239168	207.00	14454	297.00	3789	445.00	363
128.00	17576	208.00	3160	298.00	253		
129.00	85072	209.00	1021	301.00	417		
130.00	7156	210.00	801	302.00	580		
131.00	1445	211.00	4362	303.00	3041		

Data File: /chem/MSD1.i/s111409.b/s1k1213.d

Date : 15-NOV-2009 14:50

Client ID: DFTPP

Instrument: MSD1.i

Sample Info: IWBN091101-01|50 PPH|1|SVMF|1|DFTPP

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

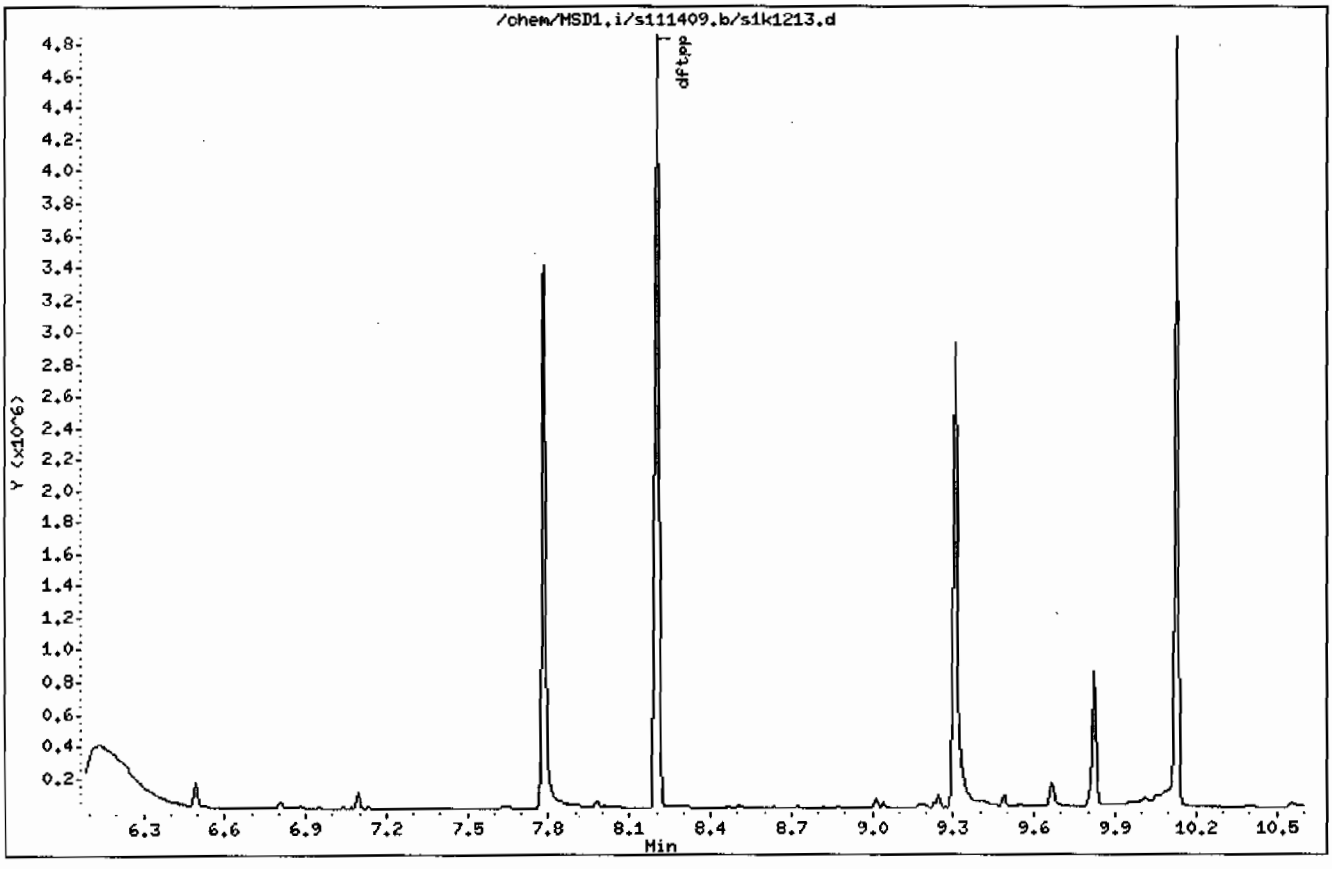

Data File: /chem/MSD1.i/s111409.b/s1k1213.d

Date : 15-NOV-2009 14:50

Client ID: DFTPP

Instrument: MSD1.i

Sample Info: IWBN091101-01|50 PPM|1|SVMF|1|DFTPP

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

1 dftpp

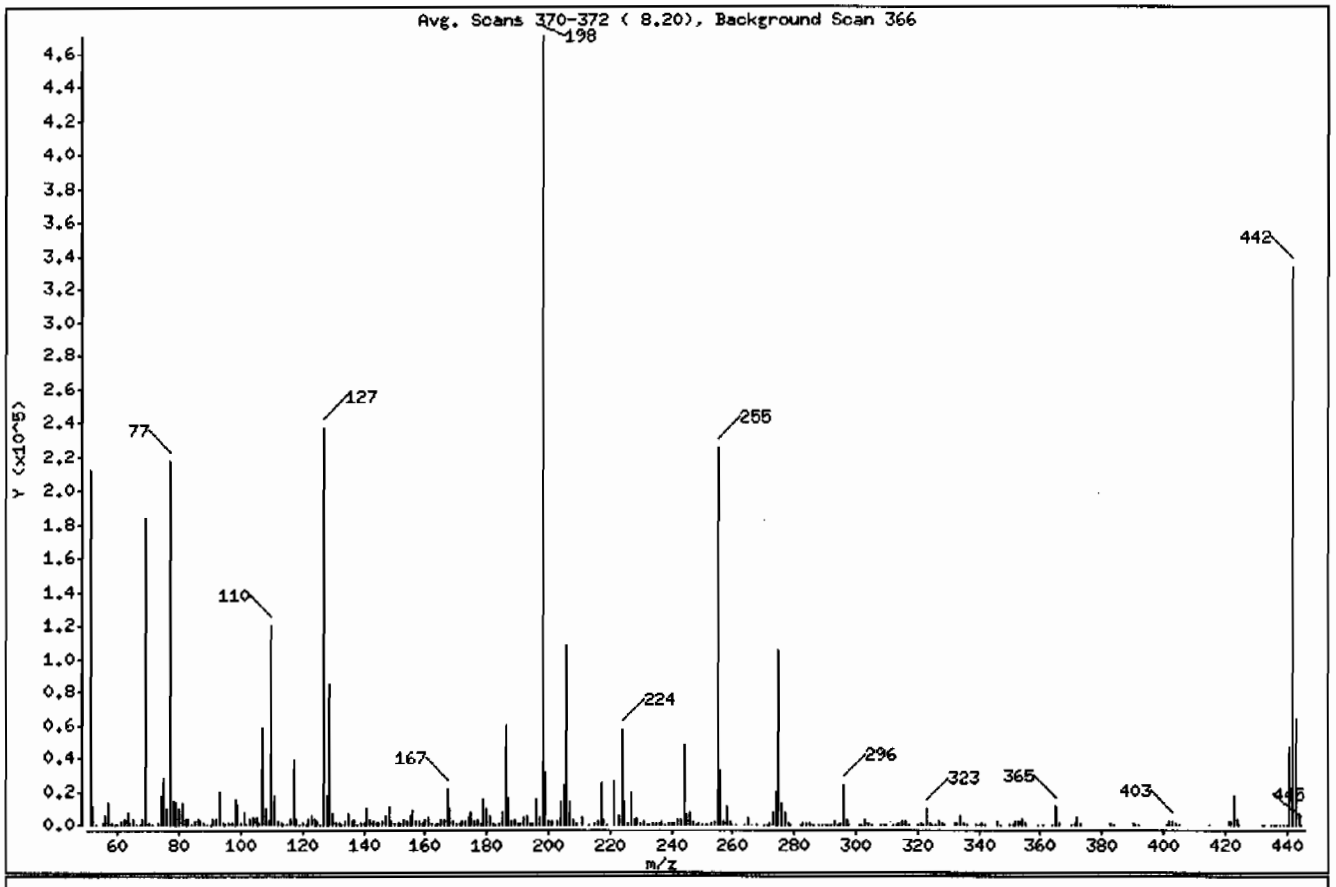

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	45.07
68	Less than 2.00% of mass 69	0.69 (1.77)
69	Mass 69 relative abundance	39.06
70	Less than 2.00% of mass 69	0.20 (0.51)
127	40.00 - 60.00% of mass 198	50.24
197	Less than 1.00% of mass 198	0.94
199	5.00 - 9.00% of mass 198	6.64
275	10.00 - 30.00% of mass 198	22.36
365	Greater than 1.00% of mass 198	2.27
441	Present, but less than mass 443	9.91
442	Greater than 40.00% of mass 198	70.70
443	17.00 - 23.00% of mass 442	13.63 (19.28)

Data File: /chem/MSD1.i/s111409.b/s1k1213.d

Date : 15-NOV-2009 14:50

Client ID: DFTPP

Instrument: MSD1.i

Sample Info: |WBN091101-01|50 PPM|1|SVMF|1|DFTPP

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

Data File: s1k1213.d
Spectrum: Avg. Scans 370-372 (8.20), Background Scan 366
Location of Maximum: 198.00
Number of points: 312

m/z	Y	m/z	Y	m/z	Y	m/z	Y
51.00	212096	132.00	898	215.00	1069	305.00	54
52.00	10563	133.00	158	216.00	2175	308.00	369
53.00	539	134.00	2246	217.00	25096	309.00	234
55.00	827	135.00	6673	218.00	3427	310.00	330
56.00	5710	136.00	2589	219.00	310	312.00	53
57.00	13040	137.00	3388	221.00	26264	313.00	225
58.00	622	138.00	481	223.00	5732	314.00	1148
59.00	197	139.00	738	224.00	57128	315.00	2673
60.00	264	140.00	1183	225.00	14268	316.00	1636
61.00	2458	141.00	10022	226.00	1583	317.00	257
62.00	2719	142.00	3500	227.00	19912	320.00	120
63.00	7568	143.00	2527	228.00	3016	321.00	868
64.00	1100	144.00	604	229.00	4436	322.00	443
65.00	3684	145.00	642	230.00	645	323.00	9345
66.00	306	146.00	1966	231.00	2162	324.00	1574
67.00	172	147.00	5499	232.00	373	325.00	117
68.00	3245	148.00	10590	233.00	410	326.00	63
69.00	183808	149.00	2267	234.00	1277	327.00	1667
70.00	937	150.00	711	235.00	1617	328.00	859
71.00	201	151.00	1389	236.00	1067	329.00	66
73.00	1312	152.00	1009	237.00	1713	332.00	666
74.00	16976	153.00	3123	238.00	252	333.00	761
75.00	27896	154.00	2582	239.00	815	334.00	5270
76.00	9904	155.00	5732	240.00	635	335.00	1342
77.00	217344	156.00	8806	241.00	1337	336.00	127
78.00	14484	157.00	1860	242.00	2922	339.00	65
79.00	12543	158.00	1872	243.00	3255	340.00	61
80.00	9582	159.00	1459	244.00	47840	341.00	1023
81.00	13483	160.00	3146	245.00	6361	342.00	289
82.00	3494	161.00	4861	246.00	7662	346.00	1844
83.00	3404	162.00	1440	247.00	1632	347.00	399
84.00	268	163.00	441	248.00	425	350.00	54
85.00	2429	164.00	756	249.00	1557	351.00	146
86.00	3717	165.00	3644	250.00	323	352.00	2683
87.00	1777	166.00	3330	251.00	376	353.00	1903

Data File: /chem/MSD1.i/s111409.b/s1k1213.d

Date : 15-NOV-2009 14:50

Client ID: DFTPP

Instrument: MSD1.i

Sample Info: IWBN091101-01|50 PPM|1|SVMF|1|DFTPP

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

Data File: s1k1213.d

Spectrum: Avg. Scans 370-372 (8.20), Background Scan 366

Location of Maximum: 198.00

Number of points: 312

m/z	Y	m/z	Y	m/z	Y	m/z	Y
88.00	858	167.00	21384	252.00	497	354.00	2848
89.00	353	168.00	9329	253.00	1026	355.00	645
90.00	52	169.00	1925	254.00	2307	359.00	128
91.00	2960	170.00	698	255.00	224896	361.00	54
92.00	3280	171.00	771	256.00	32856	364.00	139
93.00	19472	172.00	1741	257.00	2457	365.00	10703
94.00	1413	173.00	2444	258.00	11321	366.00	1552
95.00	284	174.00	4219	259.00	1877	370.00	274
96.00	1152	175.00	8099	260.00	305	371.00	720
97.00	591	176.00	2630	261.00	356	372.00	4645
98.00	14679	177.00	3711	264.00	230	373.00	1151
99.00	12313	178.00	1199	265.00	4470	383.00	1268
100.00	1108	179.00	14622	266.00	429	384.00	380
101.00	7679	180.00	10168	268.00	129	390.00	651
102.00	505	181.00	5015	270.00	325	391.00	487
103.00	2879	182.00	784	271.00	443	392.00	279
104.00	4625	183.00	540	272.00	688	401.00	276
105.00	4311	184.00	1176	273.00	7045	402.00	1862
106.00	1512	185.00	7084	274.00	19240	403.00	2656
107.00	58544	186.00	59904	275.00	105256	404.00	848
108.00	9265	187.00	16158	276.00	13094	405.00	140
109.00	1897	188.00	1716	277.00	7627	415.00	133
110.00	119952	189.00	3108	278.00	1312	421.00	2323
111.00	16904	190.00	572	279.00	308	422.00	2190
112.00	2240	191.00	1592	282.00	136	423.00	16944
113.00	768	192.00	4599	283.00	867	424.00	3191
114.00	126	193.00	5084	284.00	734	425.00	414
115.00	267	194.00	1198	285.00	1299	432.00	51
116.00	3229	195.00	880	286.00	172	433.00	63
117.00	38800	196.00	15085	288.00	53	435.00	138
118.00	2837	197.00	4415	289.00	263	436.00	193
119.00	448	198.00	470656	290.00	271	437.00	144
120.00	769	199.00	31248	291.00	161	438.00	208
121.00	319	200.00	2323	292.00	403	439.00	422
122.00	3761	201.00	2603	293.00	1958	440.00	420

Data File: /chem/MSD1.i/s111409.b/s1k1213.d

Date : 15-NOV-2009 14:50

Client ID: DFTPP

Instrument: MSD1.i

Sample Info: |WBN091101-01|50 PPM|1|SVMF|1|DFTPP

Operator: AHY

Column phase: J&W DB-5MS

Column diameter: 0.20

Data File: s1k1213.d
Spectrum: Avg. Scans 370-372 (8.20), Background Scan 366
Location of Maximum: 198.00
Number of points: 312

m/z	Y	m/z	Y	m/z	Y	m/z	Y
123.00	5880	203.00	2606	294.00	491	441.00	46632
124.00	2783	204.00	13871	295.00	593	442.00	332736
125.00	2563	205.00	24136	296.00	24248	443.00	64136
126.00	365	206.00	107936	297.00	3568	444.00	5493
127.00	236480	207.00	13718	298.00	201	445.00	305
128.00	17448	208.00	3264	301.00	372		
129.00	84656	209.00	932	302.00	462		
130.00	6942	211.00	4014	303.00	2821		
131.00	1354	213.00	308	304.00	785		

Data File: /chem/MSD1.i/s111409.b/s1k1259.d

Page 1

Date : 17-NOV-2009 15:48

Client ID: DFTPP

Instrument: MSD1.i

Sample Info: |WBN091101-01|50 PPM|1|SVMF|1|DFTPP

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

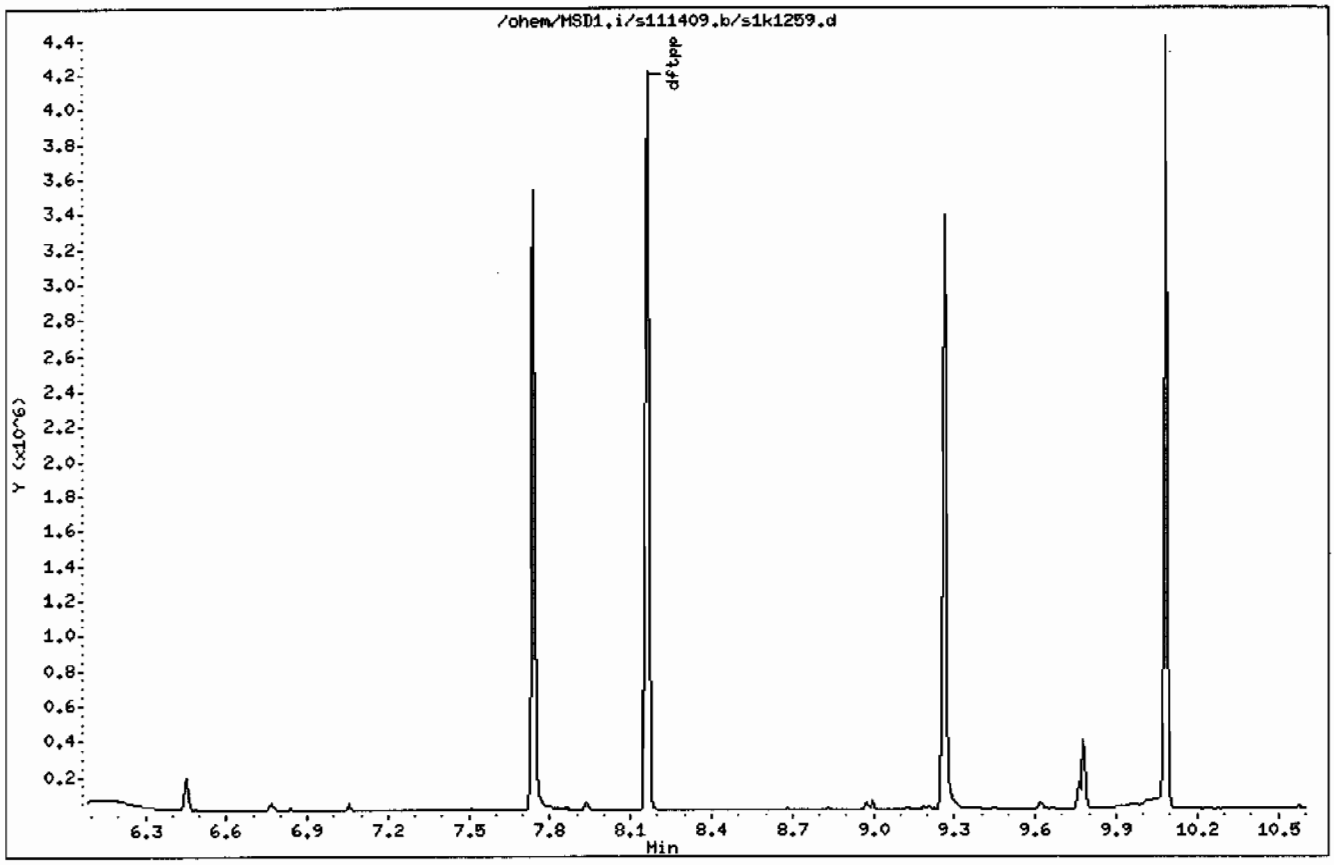

Data File: /chem/MSD1.i/s111409.b/s1k1259.d

Date : 17-NOV-2009 15:48

Client ID: DFTPP

Instrument: MSD1.i

Sample Info: |WBN091101-01|50 PPM|1|SVMF|1|DFTPP

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

1 dftpp

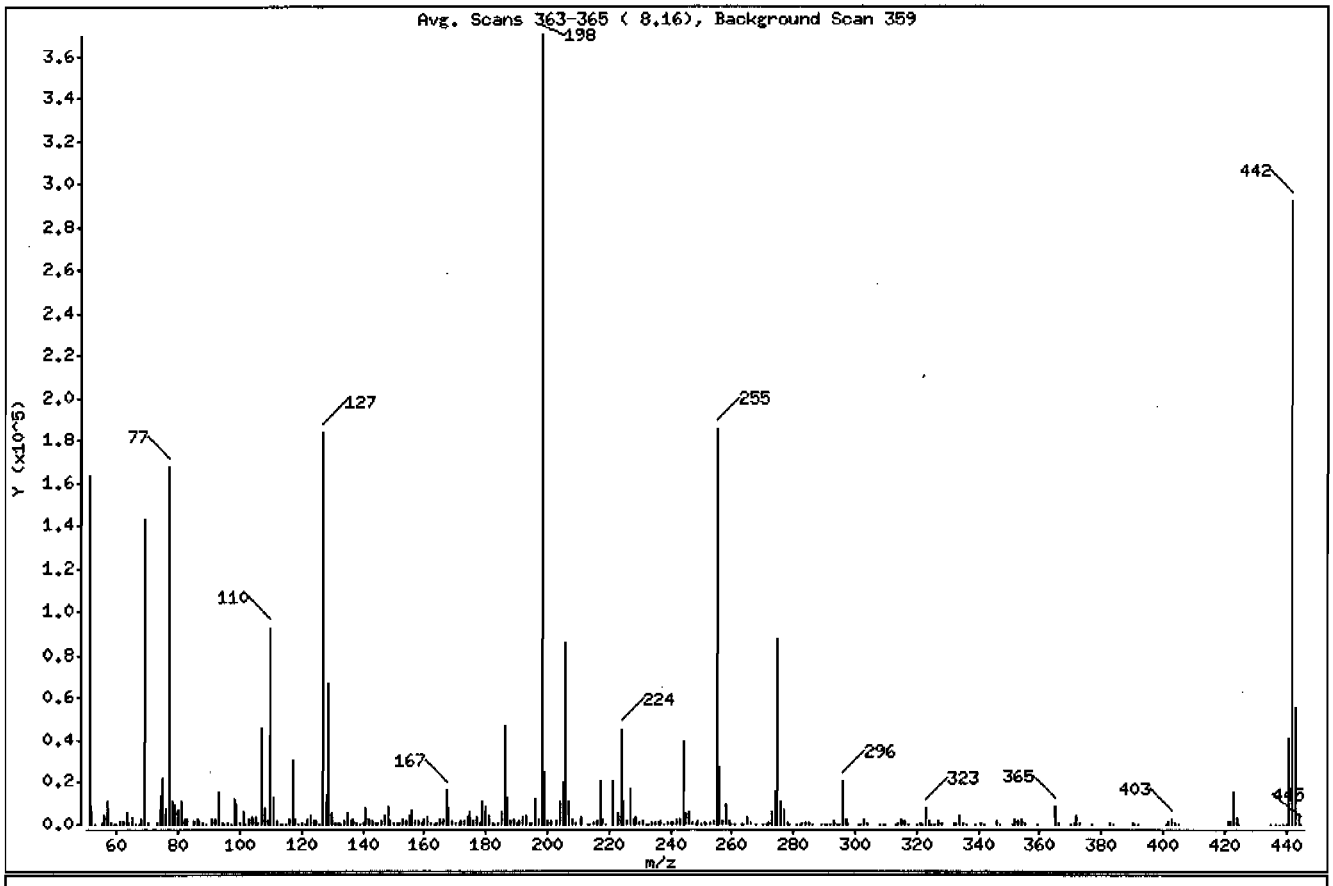

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	44.19
68	Less than 2.00% of mass 69	0.70 (1.82)
69	Mass 69 relative abundance	38.52
70	Less than 2.00% of mass 69	0.22 (0.58)
127	40.00 - 60.00% of mass 198	49.61
197	Less than 1.00% of mass 198	0.73
199	5.00 - 9.00% of mass 198	6.68
275	10.00 - 30.00% of mass 198	23.76
365	Greater than 1.00% of mass 198	2.39
441	Present, but less than mass 443	10.94
442	Greater than 40.00% of mass 198	78.91
443	17.00 - 23.00% of mass 442	15.11 (19.15)

Data File: /chem/MSD1.i/s111409.b/s1k1259.d

Date : 17-NOV-2009 15:48

Client ID: DFTPP

Instrument: MSD1.i

Sample Info: |WBN091101-01|50 PPM|1|SVMF|1|DFTPP

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

Data File: s1k1259.d

Spectrum: Avg. Scans 363-365 (8.16), Background Scan 359

Location of Maximum: 198.00

Number of points: 301

m/z	Y	m/z	Y	m/z	Y	m/z	Y
51.00	163520	132.00	696	209.00	894	295.00	409
52.00	8218	133.00	165	211.00	3176	296.00	20504
53.00	278	134.00	1736	213.00	157	297.00	2961
55.00	768	135.00	5284	214.00	60	298.00	242
56.00	4517	136.00	1990	215.00	896	301.00	228
57.00	10646	137.00	2882	216.00	1633	302.00	377
58.00	485	138.00	608	217.00	20280	303.00	2440
59.00	173	139.00	322	218.00	2791	304.00	779
60.00	130	140.00	728	219.00	287	308.00	333
61.00	1880	141.00	8017	221.00	20640	309.00	180
62.00	1926	142.00	2864	223.00	4752	310.00	288
63.00	5930	143.00	1765	224.00	45496	313.00	172
64.00	771	144.00	446	225.00	11459	314.00	1000
65.00	3009	145.00	462	226.00	1320	315.00	2189
66.00	190	146.00	1638	227.00	16640	316.00	1304
67.00	147	147.00	4131	228.00	2433	317.00	255
68.00	2590	148.00	8419	229.00	3596	320.00	58
69.00	142592	149.00	1752	230.00	541	321.00	701
70.00	823	150.00	512	231.00	1631	322.00	395
73.00	1236	151.00	1272	232.00	323	323.00	7827
74.00	13875	152.00	886	233.00	236	324.00	1465
75.00	21824	153.00	2474	234.00	1059	325.00	55
76.00	7905	154.00	2034	235.00	1215	326.00	117
77.00	167296	155.00	4599	236.00	846	327.00	1319
78.00	11034	156.00	6876	237.00	1279	328.00	683
79.00	9492	157.00	1450	238.00	168	332.00	545
80.00	7131	158.00	1509	239.00	670	333.00	652
81.00	10804	159.00	1113	240.00	618	334.00	4627
82.00	2610	160.00	2655	241.00	1019	335.00	1148
83.00	2719	161.00	3658	242.00	2369	336.00	50
85.00	1896	162.00	1109	243.00	2744	339.00	57
86.00	2616	163.00	339	244.00	39256	341.00	855
87.00	1519	164.00	493	245.00	4982	342.00	192
88.00	684	165.00	2904	246.00	6349	346.00	1554
89.00	219	166.00	2427	247.00	1255	347.00	356

Data File: /chem/MSD1.i/s111409.b/s1k1259.d

Date : 17-NOV-2009 15:48

Client ID: DFTPP

Instrument: MSD1.i

Sample Info: |WBN091101-01|50 PPM|1|SVMF|1|DFTPP

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

Data File: s1k1259.d

Spectrum: Avg. Scans 363-365 (8,16), Background Scan 359

Location of Maximum: 198.00

Number of points: 301

m/z	Y	m/z	Y	m/z	Y	m/z	Y
91.00	2379	167.00	16175	248.00	341	351.00	56
92.00	2447	168.00	7387	249.00	1305	352.00	2339
93.00	14969	169.00	1311	250.00	210	353.00	1624
94.00	1153	170.00	539	251.00	450	354.00	2500
95.00	287	171.00	706	252.00	278	355.00	434
96.00	810	172.00	1473	253.00	769	359.00	83
97.00	388	173.00	1748	254.00	1972	365.00	8863
98.00	11810	174.00	3414	255.00	185216	366.00	1195
99.00	9686	175.00	6350	256.00	27176	370.00	215
100.00	914	176.00	2063	257.00	2039	371.00	581
101.00	5933	177.00	3047	258.00	9022	372.00	4002
102.00	375	178.00	995	259.00	1444	373.00	996
103.00	2163	179.00	11274	260.00	214	377.00	51
104.00	3736	180.00	8159	261.00	279	383.00	974
105.00	3394	181.00	4009	263.00	55	384.00	323
106.00	1190	182.00	670	264.00	157	390.00	592
107.00	46232	183.00	413	265.00	3712	391.00	375
108.00	7538	184.00	909	266.00	481	392.00	323
109.00	1503	185.00	5852	268.00	53	401.00	231
110.00	92872	186.00	47008	270.00	282	402.00	1478
111.00	12963	187.00	12615	271.00	380	403.00	2390
112.00	1503	188.00	1316	272.00	540	404.00	821
113.00	406	189.00	2602	273.00	5676	405.00	134
114.00	121	190.00	427	274.00	15599	421.00	2054
115.00	133	191.00	1281	275.00	87936	422.00	1867
116.00	2637	192.00	3712	276.00	11240	423.00	15373
117.00	30336	193.00	4225	277.00	6439	424.00	3047
118.00	2397	194.00	901	278.00	950	425.00	291
119.00	332	195.00	603	279.00	182	435.00	71
120.00	620	196.00	12028	281.00	60	437.00	71
121.00	175	197.00	2717	282.00	68	438.00	134
122.00	2801	198.00	370176	283.00	713	439.00	238
123.00	4622	199.00	24728	284.00	493	440.00	191
124.00	2083	200.00	1826	285.00	1250	441.00	40480
125.00	1949	201.00	2072	286.00	264	442.00	292096

Data File: /chem/HSD1.i/s111409.b/s1k1259.d

Date : 17-NOV-2009 15:48

Client ID: DFTPP

Instrument: HSD1.i

Sample Info: |WBN091101-01|50 PPM|1|SVMF|1|DFTPP

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

Data File: s1k1259.d

Spectrum: Avg. Scans 363-365 (8.16), Background Scan 359

Location of Maximum: 198.00

Number of points: 301

m/z	Y	m/z	Y	m/z	Y	m/z	Y
126.00	135	203.00	2082	289.00	243	443.00	55944
127.00	183616	204.00	10956	290.00	235	444.00	5034
128.00	13544	205.00	19552	291.00	131	445.00	311
129.00	66872	206.00	85904	292.00	339		
130.00	5516	207.00	10725	293.00	1482		
131.00	1048	208.00	2576	294.00	389		

Data File: /chem/MSD1.i/s122109.b/s112102.d

Page 1

Date : 21-DEC-2009 09:05

Client ID: DFTPP

Instrument: MSD1.i

Sample Info: |WBN091213-01|50 PPM|1|SVMF|1|DFTPP

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

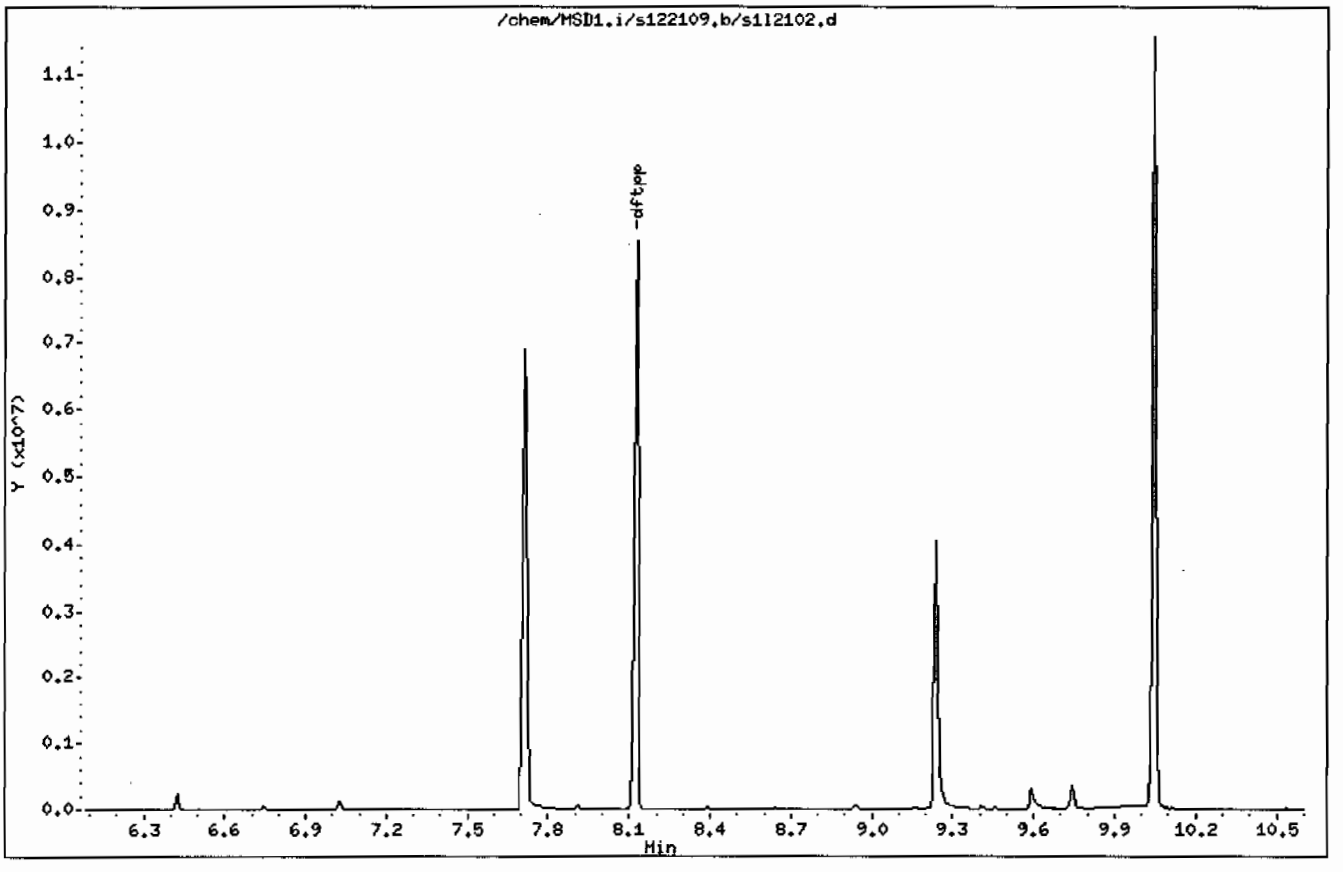

Data File: /chem/HSD1.i/s122109.b/s112102.d

Date : 21-DEC-2009 09:05

Client ID: DFTPP

Instrument: HSD1.i

Sample Info: IWBN091213-01|50 PPM|1|SVMF|1|DFTPP

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

1 dftpp

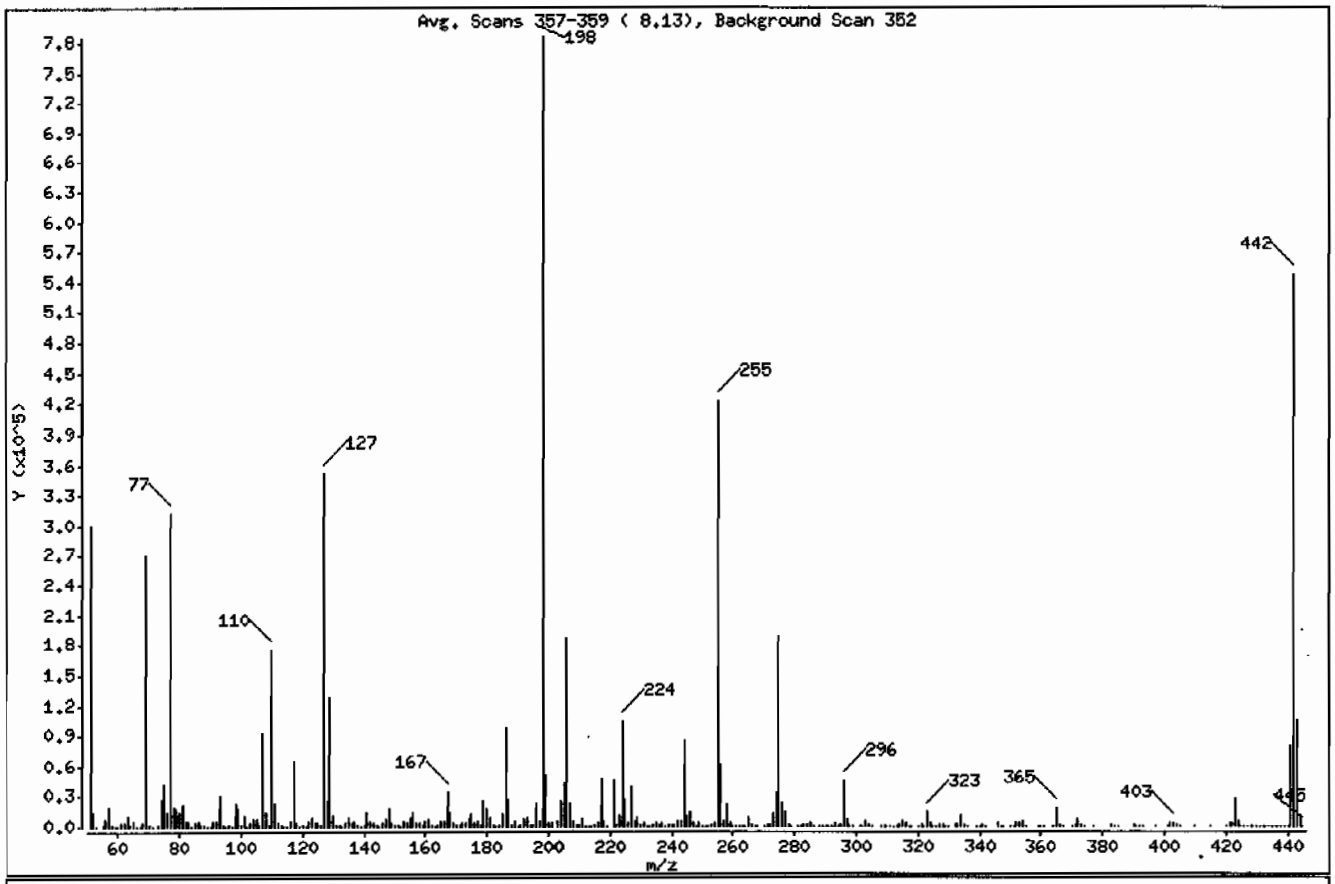

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	38.16
68	Less than 2.00% of mass 69	0.53 (1.54)
69	Mass 69 relative abundance	34.59
70	Less than 2.00% of mass 69	0.16 (0.47)
127	40.00 - 60.00% of mass 198	44.91
197	Less than 1.00% of mass 198	0.63
199	5.00 - 9.00% of mass 198	6.53
275	10.00 - 30.00% of mass 198	23.84
365	Greater than 1.00% of mass 198	2.35
441	Present, but less than mass 443	10.13
442	Greater than 40.00% of mass 198	69.65
443	17.00 - 23.00% of mass 442	13.23 (19.00)

Data File: /chem/MSD1.i/s122109.b/s112102.d

Date : 21-DEC-2009 09:05

Client ID: DFTPP

Instrument: MSD1.i

Sample Info: |WBN091213-01|50 PPM|1|SVMF|1|DFTPP

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

Data File: s112102.d

Spectrum: Avg. Scans 357-359 (8.13), Background Scan 352

Location of Maximum: 198.00

Number of points: 341

m/z	Y	m/z	Y	m/z	Y	m/z	Y
51.00	299584	139.00	571	227.00	39336	320.00	154
52.00	14467	140.00	1543	228.00	5366	321.00	1306
53.00	567	141.00	15288	229.00	8911	322.00	759
55.00	1190	142.00	4918	230.00	1090	323.00	15102
56.00	7792	143.00	3671	231.00	3712	324.00	3003
57.00	19856	144.00	1061	232.00	687	325.00	355
58.00	931	145.00	894	233.00	739	326.00	332
59.00	218	146.00	2922	234.00	2535	327.00	2617
60.00	288	147.00	7912	235.00	3023	328.00	1432
61.00	3409	148.00	17616	236.00	1919	329.00	272
62.00	3598	149.00	3660	237.00	3050	330.00	85
63.00	11018	150.00	957	238.00	347	332.00	984
64.00	1555	151.00	2200	239.00	1718	333.00	1308
65.00	5269	152.00	647	240.00	1216	334.00	9931
66.00	508	153.00	4934	241.00	2455	335.00	2407
67.00	210	154.00	3991	242.00	5442	336.00	249
68.00	4195	155.00	9018	243.00	5674	339.00	202
69.00	271552	156.00	14211	244.00	85312	340.00	241
70.00	1274	157.00	2891	245.00	11290	341.00	1806
71.00	188	158.00	2936	246.00	13944	342.00	366
73.00	1955	159.00	2322	247.00	2917	346.00	3096
74.00	26256	160.00	4921	248.00	554	347.00	603
75.00	41416	161.00	7413	249.00	3044	348.00	53
76.00	14748	162.00	2541	250.00	501	350.00	131
77.00	311488	163.00	566	251.00	616	351.00	290
78.00	20728	164.00	1021	252.00	896	352.00	4366
79.00	17352	165.00	5622	253.00	1963	353.00	3300
80.00	14530	166.00	5012	254.00	3494	354.00	4598
81.00	21064	167.00	34008	255.00	422336	355.00	739
82.00	5035	168.00	13952	256.00	61160	359.00	345
83.00	4783	169.00	2787	257.00	4572	360.00	53
84.00	279	170.00	1094	258.00	21472	361.00	119
85.00	3383	171.00	1334	259.00	3526	364.00	104
86.00	5334	172.00	2920	260.00	628	365.00	18488
87.00	2645	173.00	3800	261.00	609	366.00	2404

Data File: /chem/MSD1.i/s122109.b/s112102.d

Date : 21-DEC-2009 09:05

Client ID: DFTPP

Instrument: MSD1.i

Sample Info: IWBN091213-01|50 PPM|1|SVMF|1|DFTPP

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

Data File: s112102.d
Spectrum: Avg. Scans 357-359 (8.13), Background Scan 352
Location of Maximum: 198.00
Number of points: 341

m/z	Y	m/z	Y	m/z	Y	m/z	Y
88.00	1211	174.00	6481	262.00	133	367.00	174
89.00	403	175.00	12849	263.00	283	370.00	470
90.00	57	176.00	4117	264.00	679	371.00	1128
91.00	4554	177.00	5460	265.00	9188	372.00	7922
92.00	4796	178.00	1911	266.00	1266	373.00	1934
93.00	30336	179.00	24736	267.00	319	374.00	181
94.00	2042	180.00	17248	268.00	161	377.00	98
95.00	624	181.00	8376	270.00	516	383.00	2203
96.00	1531	182.00	1340	271.00	1070	384.00	625
97.00	551	183.00	570	272.00	1221	385.00	146
98.00	23448	184.00	1826	273.00	12372	390.00	1072
99.00	18344	185.00	11978	274.00	31792	391.00	672
100.00	1722	186.00	98168	275.00	187136	392.00	502
101.00	11532	187.00	27352	276.00	24032	393.00	63
102.00	655	188.00	2571	277.00	13688	397.00	65
103.00	3540	189.00	5606	278.00	2218	401.00	427
104.00	7037	190.00	835	279.00	502	402.00	3036
105.00	6506	191.00	2662	281.00	52	403.00	4242
106.00	2189	192.00	7777	282.00	381	404.00	1499
107.00	92288	193.00	9037	283.00	1633	405.00	87
108.00	14022	194.00	1784	284.00	1133	410.00	58
109.00	2383	195.00	1439	285.00	2904	415.00	216
110.00	175296	196.00	23280	286.00	504	420.00	63
111.00	24048	197.00	4964	288.00	164	421.00	3616
112.00	2926	198.00	785216	289.00	563	422.00	3485
113.00	980	199.00	51248	290.00	567	423.00	27608
114.00	220	200.00	3993	291.00	419	424.00	5662
115.00	311	201.00	3680	292.00	703	425.00	677
116.00	4544	203.00	4789	293.00	3241	426.00	70
117.00	64800	204.00	25248	294.00	868	427.00	62
118.00	4493	205.00	42952	295.00	1037	428.00	143
119.00	516	206.00	186304	296.00	45560	429.00	136
120.00	1250	207.00	23632	297.00	6320	430.00	263
121.00	293	208.00	5575	298.00	420	431.00	83
122.00	5767	209.00	1636	299.00	75	432.00	369

Date : 21-DEC-2009 09:05

Client ID: DFTPP Instrument: MSD1.i

Sample Info: IWBN091213-01|50 PPM|1|SVMF|1|DFTPP

Operator: AMY

Column phase: J&W DB-5MS Column diameter: 0.20

Data File: s112102.d
Spectrum: Avg. Scans 357-359 (8.13), Background Scan 352
Location of Maximum: 198.00
Number of points: 341

m/z	Y	m/z	Y	m/z	Y	m/z	Y
123.00	9015	210.00	1431	301.00	633	433.00	89
124.00	3769	211.00	6841	302.00	829	434.00	215
125.00	3803	212.00	282	303.00	5501	435.00	169
126.00	1826	213.00	377	304.00	1592	436.00	287
127.00	352640	214.00	165	305.00	69	437.00	361
128.00	25504	215.00	1813	308.00	707	438.00	329
129.00	128784	216.00	3814	309.00	472	439.00	650
130.00	10248	217.00	46536	310.00	806	440.00	489
131.00	1957	218.00	5985	311.00	103	441.00	79576
132.00	964	219.00	528	312.00	208	442.00	546880
133.00	657	221.00	44744	313.00	551	443.00	103888
134.00	3333	222.00	907	314.00	2176	444.00	9045
135.00	9590	223.00	10859	315.00	4960	445.00	563
136.00	4094	224.00	104568	316.00	2853		
137.00	5127	225.00	26184	317.00	544		
138.00	1122	226.00	2871	318.00	50		

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-939**			**Matrix:**	**SOIL**
Lab Sample ID:	**1201999288**				
Client Sample:	**QC for batch 934457**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 934457**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**934473**	**Inst:**	**MSD1.I**	**Dilution:**	**1**
Run Date:	**12/21/2009 11:49**	**Analyst:**	**AMY**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/18/2009 19:56**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**s112106-1.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	333	ug/kg	66.7	333
108-95-2	Phenol	U	333	ug/kg	66.7	333
95-57-8	2-Chlorophenol	U	333	ug/kg	66.7	333
106-46-7	1,4-Dichlorobenzene	U	333	ug/kg	66.7	333
621-64-7	N-Nitrosodipropylamine	U	333	ug/kg	66.7	333
59-50-7	4-Chloro-3-methylphenol	U	333	ug/kg	66.7	333
83-32-9	Acenaphthene	U	33.3	ug/kg	11.0	33.3
121-14-2	2,4-Dinitrotoluene	U	333	ug/kg	33.3	333
100-02-7	4-Nitrophenol	U	333	ug/kg	110	333
87-86-5	Pentachlorophenol	U	333	ug/kg	83.3	333
129-00-0	Pyrene	U	33.3	ug/kg	10.0	33.3
110-86-1	Pyridine	U	333	ug/kg	66.7	333
62-53-3	Aniline	U	333	ug/kg	100	333
111-44-4	bis(2-Chloroethyl) ether	U	333	ug/kg	66.7	333
541-73-1	1,3-Dichlorobenzene	U	333	ug/kg	66.7	333
100-51-6	Benzyl alcohol	U	333	ug/kg	100	333
95-50-1	1,2-Dichlorobenzene	U	333	ug/kg	66.7	333
108-60-1	bis(2-Chloroisopropyl)ether	U	333	ug/kg	66.7	333
95-48-7	o-Cresol	U	333	ug/kg	66.7	333
65794-96-9	m,p-Cresols	U	333	ug/kg	100	333
67-72-1	Hexachloroethane	U	333	ug/kg	66.7	333
98-95-3	Nitrobenzene	U	333	ug/kg	66.7	333
78-59-1	Isophorone	U	333	ug/kg	66.7	333
88-75-5	2-Nitrophenol	U	333	ug/kg	66.7	333
105-67-9	2,4-Dimethylphenol	U	333	ug/kg	117	333
111-91-1	bis(2-Chloroethoxy)methane	U	333	ug/kg	66.7	333
120-83-2	2,4-Dichlorophenol	U	333	ug/kg	66.7	333
65-85-0	Benzoic acid	U	667	ug/kg	167	667
91-20-3	Naphthalene	U	33.3	ug/kg	10.0	33.3
106-47-8	4-Chloroaniline	U	333	ug/kg	66.7	333
87-68-3	Hexachlorobutadiene	U	333	ug/kg	66.7	333
91-57-6	2-Methylnaphthalene	U	33.3	ug/kg	6.67	33.3
77-47-4	Hexachlorocyclopentadiene	U	333	ug/kg	66.7	333
88-06-2	2,4,6-Trichlorophenol	U	333	ug/kg	66.7	333
95-95-4	2,4,5-Trichlorophenol	U	333	ug/kg	66.7	333
91-58-7	2-Chloronaphthalene	U	33.3	ug/kg	11.0	33.3
88-74-4	2-Nitroaniline	U	333	ug/kg	66.7	333
	o-Nitroaniline					
99-09-2	3-Nitroaniline	U	333	ug/kg	66.7	333

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-939			Matrix:	SOIL
Lab Sample ID:	1201999288				
Client Sample:	QC for batch 934457	Client:	LANL010	Project:	QC
Client ID:	MB for batch 934457	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	934473	Inst:	MSD1.I	Dilution:	1
Run Date:	12/21/2009 11:49	Analyst:	AMY	Inj. Vol:	.5 uL
Prep Date:	12/18/2009 19:56	Aliquot:	30 g	Final Volume:	1 mL
Data File:	s112106-1.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	333	ug/kg	66.7	333
606-20-2	2,6-Dinitrotoluene	U	333	ug/kg	33.3	333
208-96-8	Acenaphthylene	U	33.3	ug/kg	10.0	33.3
51-28-5	2,4-Dinitrophenol	U	667	ug/kg	127	667
132-64-9	Dibenzofuran	U	333	ug/kg	66.7	333
84-66-2	Diethylphthalate	U	333	ug/kg	66.7	333
86-73-7	Fluorene	U	33.3	ug/kg	10.0	33.3
7005-72-3	4-Chlorophenylphenylether	U	333	ug/kg	66.7	333
534-52-1	2-Methyl-4,6-dinitrophenol	U	333	ug/kg	66.7	333
100-01-6	4-Nitroaniline	U	333	ug/kg	100	333
	p-Nitroaniline					
122-39-4	Diphenylamine	U	333	ug/kg	66.7	333
122-66-7	Azobenzene	U	333	ug/kg	66.7	333
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	333	ug/kg	66.7	333
118-74-1	Hexachlorobenzene	U	333	ug/kg	66.7	333
85-01-8	Phenanthrene	U	33.3	ug/kg	10.0	33.3
120-12-7	Anthracene	U	33.3	ug/kg	6.67	33.3
84-74-2	Di-n-butylphthalate	U	333	ug/kg	66.7	333
206-44-0	Fluoranthene	U	33.3	ug/kg	10.0	33.3
85-68-7	Butylbenzylphthalate	U	333	ug/kg	66.7	333
56-55-3	Benzo(a)anthracene	U	33.3	ug/kg	10.0	33.3
91-94-1	3,3'-Dichlorobenzidine	U	333	ug/kg	100	333
218-01-9	Chrysene	U	33.3	ug/kg	10.0	33.3
117-81-7	bis(2-Ethylhexyl)phthalate	U	333	ug/kg	66.7	333
117-84-0	Di-n-octylphthalate	U	333	ug/kg	66.7	333
205-99-2	Benzo(b)fluoranthene	U	33.3	ug/kg	10.0	33.3
207-08-9	Benzo(k)fluoranthene	U	33.3	ug/kg	10.0	33.3
50-32-8	Benzo(a)pyrene	U	33.3	ug/kg	10.0	33.3
193-39-5	Indeno(1,2,3-cd)pyrene	U	33.3	ug/kg	10.0	33.3
53-70-3	Dibenzo(a,h)anthracene	U	33.3	ug/kg	10.0	33.3
191-24-2	Benzo(ghi)perylene	U	33.3	ug/kg	10.0	33.3
120-82-1	1,2,4-Trichlorobenzene	U	333	ug/kg	66.7	333

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	1.84	167	ug/kg		J
	Unknown	2.07	1750	ug/kg		J

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-939**			**Matrix:**	**SOIL**
Lab Sample ID:	**1201999288**				
Client Sample:	**QC for batch 934457**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 934457**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**934473**	**Inst:**	**MSD1.1**	**Dilution:**	**1**
Run Date:	**12/21/2009 11:49**	**Analyst:**	**AMY**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/18/2009 19:56**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**s112106-1.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.96	355	ug/kg		JA

GEL Laboratories LLC

Data file : /chem/MSD1.i/s122109.b/s112106-1.d
Lab Smp Id: 1201999288 Client Smp ID: SBLK01
Inj Date : 21-DEC-2009 11:49
Operator : AMY Inst ID: MSD1.i
Smp Info : |1201999288|934473|1|SVMF|1|SBLK01
Misc Info : |MSD8270_S|WBN091208-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD1.i/s122109.b/MSD1-M8270AQA-111409.m
Meth Date : 28-Dec-2009 09:37 amy01291 Quant Type: ISTD
Cal Date : 17-NOV-2009 17:42 Cal File: s1k1264.d
Als bottle: 5 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-939.sub
Target Version: 3.50
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	0.00000	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.916	3.916	(1.000)	696929	40.0000	
* 29 Naphthalene-d8	136	4.775	4.781	(1.000)	2754920	40.0000	
* 46 Acenaphthene-d10	164	6.022	6.028	(1.000)	1515024	40.0000	
* 67 Phenanthrene-d10	188	7.004	7.004	(1.000)	2499135	40.0000	
* 91 Chrysene-d12	240	8.663	8.663	(1.000)	2067207	40.0000	
* 98 Perylene-d12	264	10.116	10.110	(1.000)	1691794	40.0000	
$ 3 2-Fluorophenol	112	3.122	3.116	(0.797)	1306640	71.7796	2390
$ 5 Phenol-d5	99	3.640	3.640	(0.929)	1593894	72.0416	2400
$ 20 Nitrobenzene-d5	82	4.275	4.281	(0.895)	766868	42.2396	1410
$ 39 2-Fluorobiphenyl	172	5.516	5.522	(0.916)	1536554	42.3471	1410
$ 60 2,4,6-Tribromophenol	329	6.557	6.557	(1.089)	354792	83.8655	2800
$ 81 p-Terphenyl-d14	244	7.916	7.916	(0.914)	1507238	46.4500	1550

GEL Laboratories LLC

Data file : /chem/MSD1.i/s122109.b/s112106-1.d
Lab Smp Id: 1201999288 Client Smp ID: SBLK01
Inj Date : 21-DEC-2009 11:49
Operator : AMY Inst ID: MSD1.i
Smp Info : |1201999288|934473|1|SVMF|1|SBLK01
Misc Info : |MSD8270_S|WBN091208-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD1.i/s122109.b/MSD1-M8270AQA-111409.m
Meth Date : 28-Dec-2009 09:37 amy01291 Quant Type: ISTD
Cal Date : 17-NOV-2009 17:42 Cal File: s1k1264.d
Als bottle: 5 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-939.sub
Target Version: 3.50
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	0.00000	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	3.916	4187920	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown				CAS #:			
1.840	523293	4.99812084	167	0		0	10
Unknown				CAS #:			
2.075	5501558	52.5469172	1750	0		0	10

RT	AREA	CONCENTRATIONS ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	QUANT LIBRARY	LIB ENTRY	CPND #
Unknown Aldol Condensate					CAS #:		
2.957	1114928	10.6489934	355	0		0	10

Data File: /chem/MSD1.i/s122109.b/s112106-1.d
Date : 21-DEC-2009 11:49
Client ID: SBLK01
Sample Info: |120199928|934473|1|SVMF|1|SBLK01
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD1.i

Operator: AMY
Column diameter: 0.20

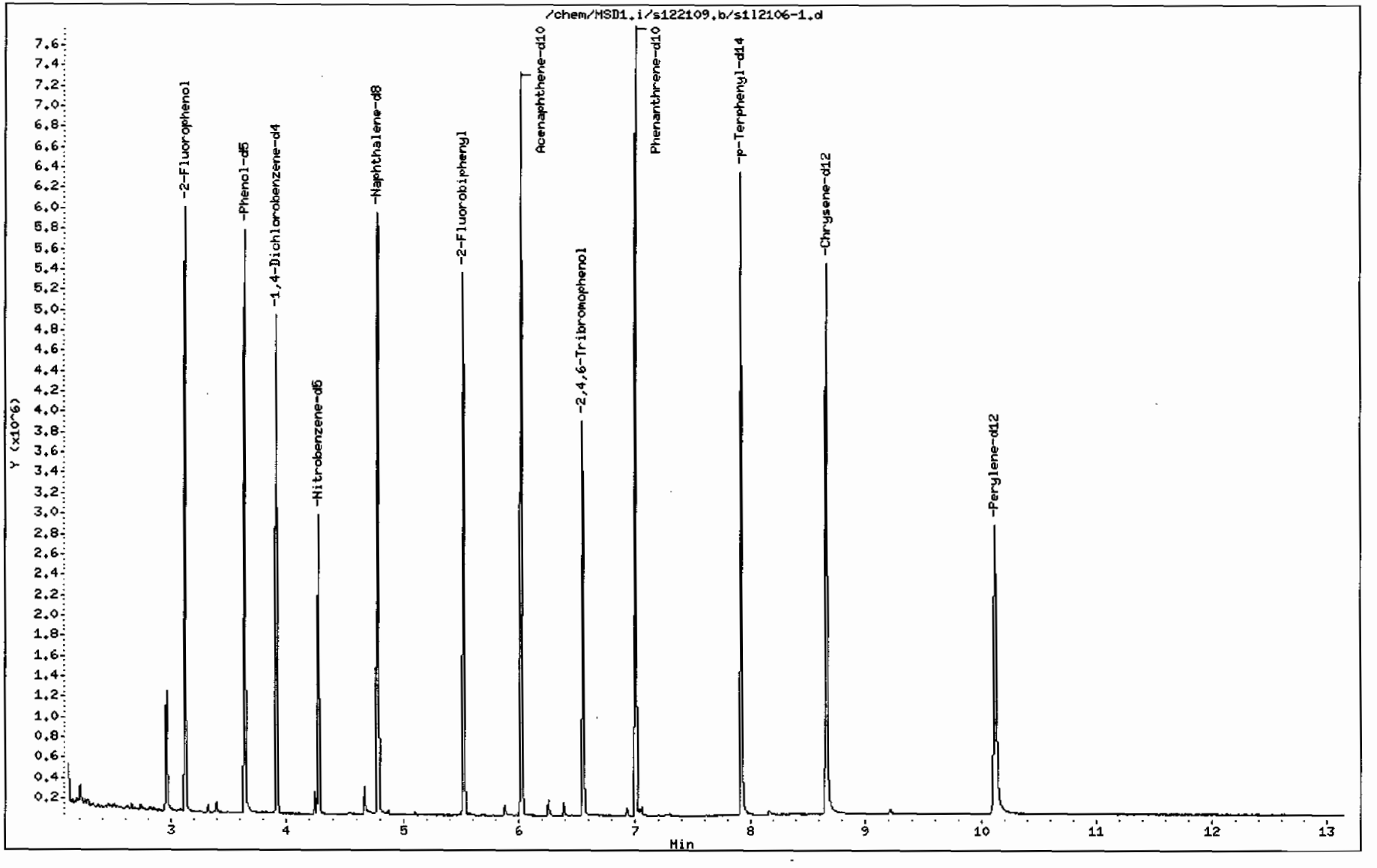

Data File: /chem/MSD1.i/s122109.b/s112106-1.d

Date : 21-DEC-2009 11:49

Client ID: SBLK01

Instrument: MSD1.i

Sample Info: |1201999288|934473|1|SVMF|1|SBLK01

Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Propanal, 2-methyl-	78-84-2	NIST05.L	669	10	C4H8O	72
Propanal, 2-methyl-	78-84-2	NIST05.L	671	9	C4H8O	72
Propanol, methoxy-, acetate	84540-57-8	NIST05.L	13830	9	C6H12O3	132

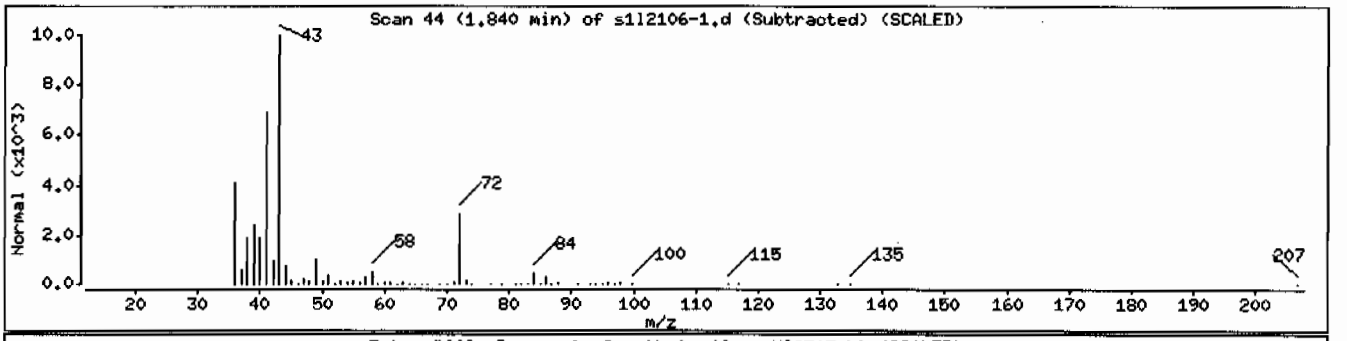

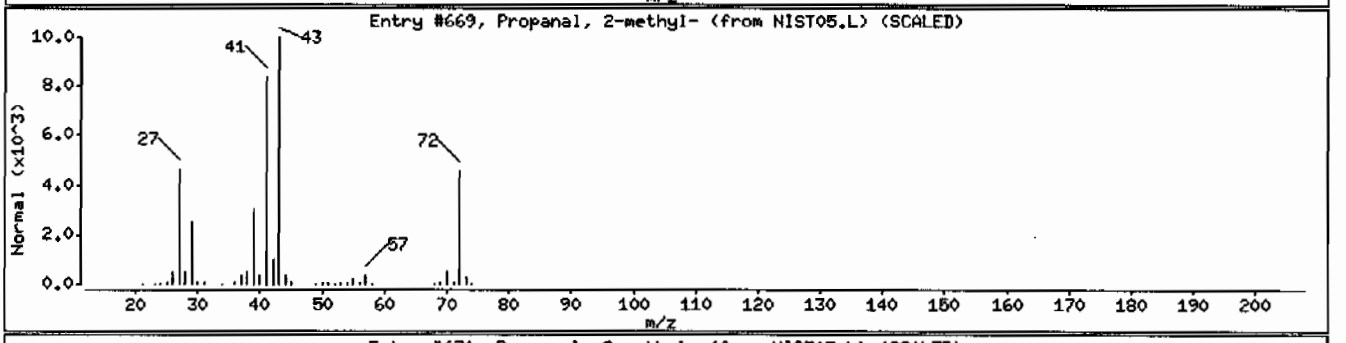

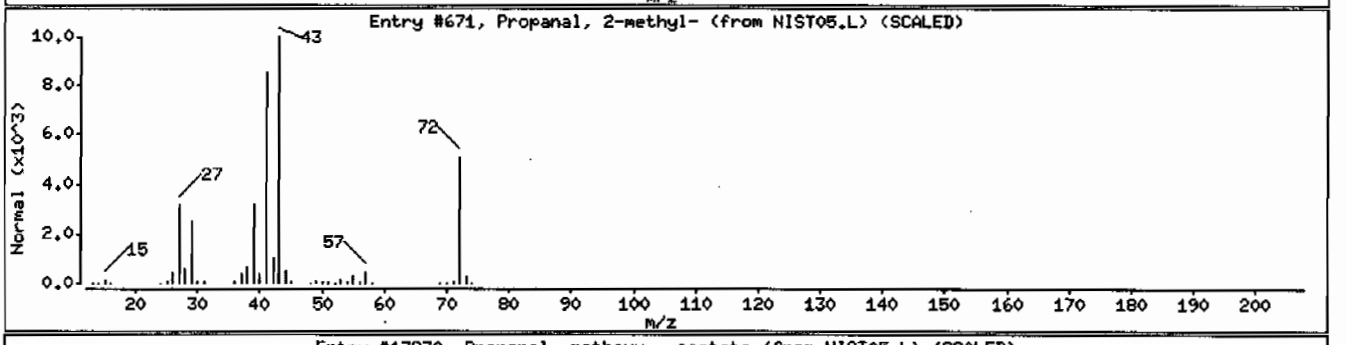

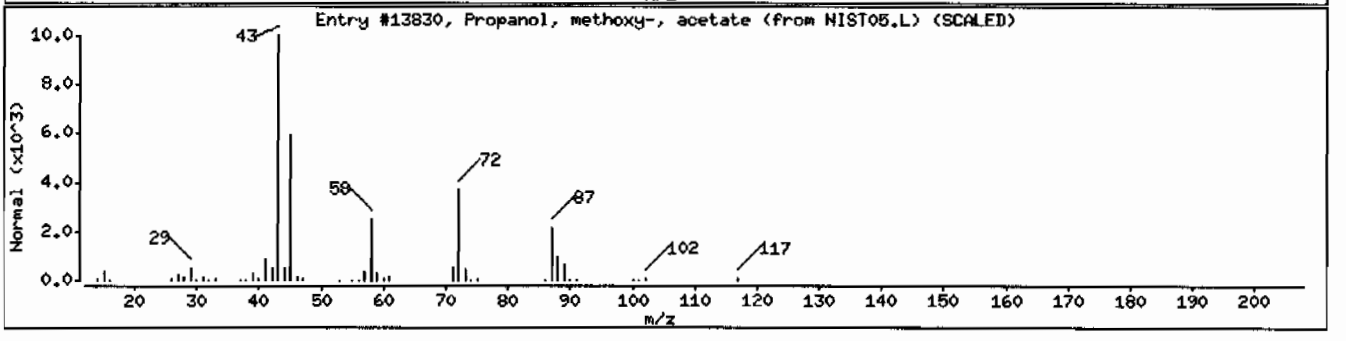

Data File: /chem/MSD1.i/s122109.b/s112106-1.d

Date : 21-DEC-2009 11:49

Client ID: SBLK01 Instrument: MSD1.i

Sample Info: |1201999288193447311|SVMF|1|SBLK01

Volume Injected (uL): 0.5 Operator: AMY

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Propane, 2,2-dimethoxy-	77-76-9	NIST05.L	4663	72	C5H12O2	104
Propanoic acid, 2-methyl-, propyl ester	644-49-5	NIST05.L	13119	23	C7H14O2	130
Acetamide, N-methyl-	79-16-3	NIST05.L	723	9	C3H7NO	73

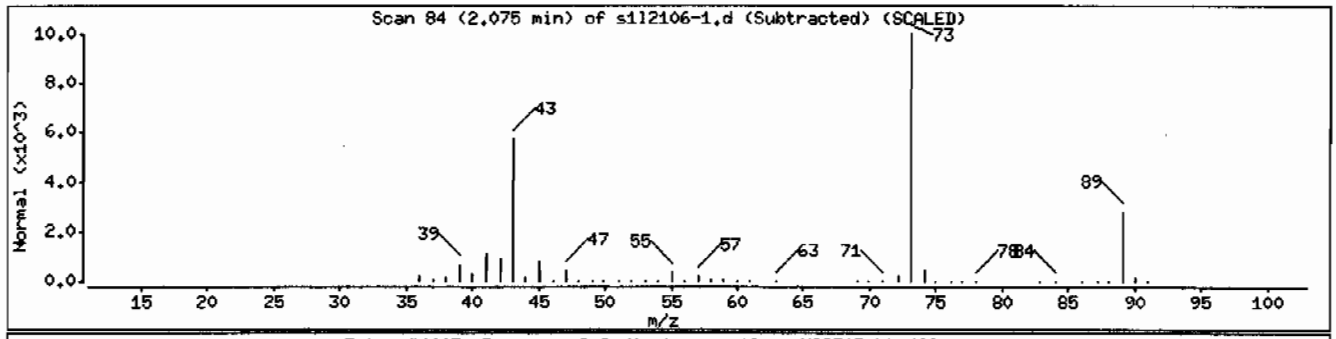

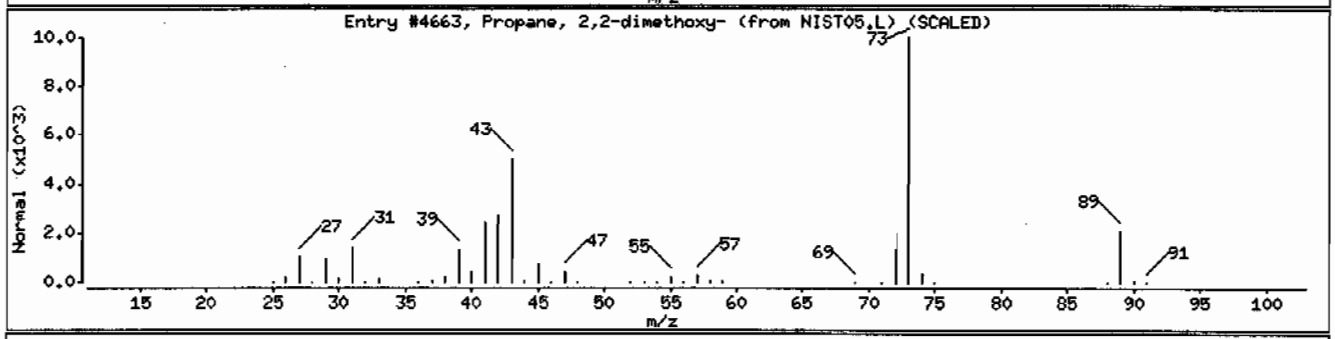

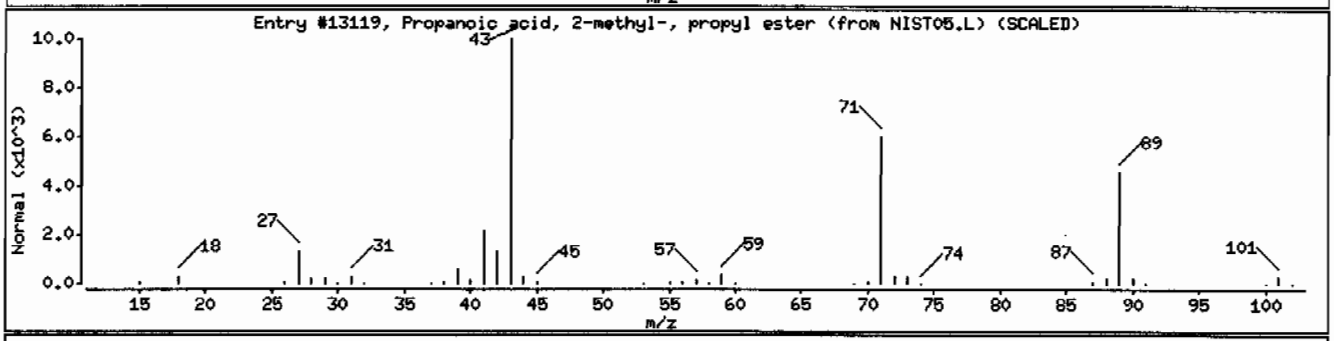

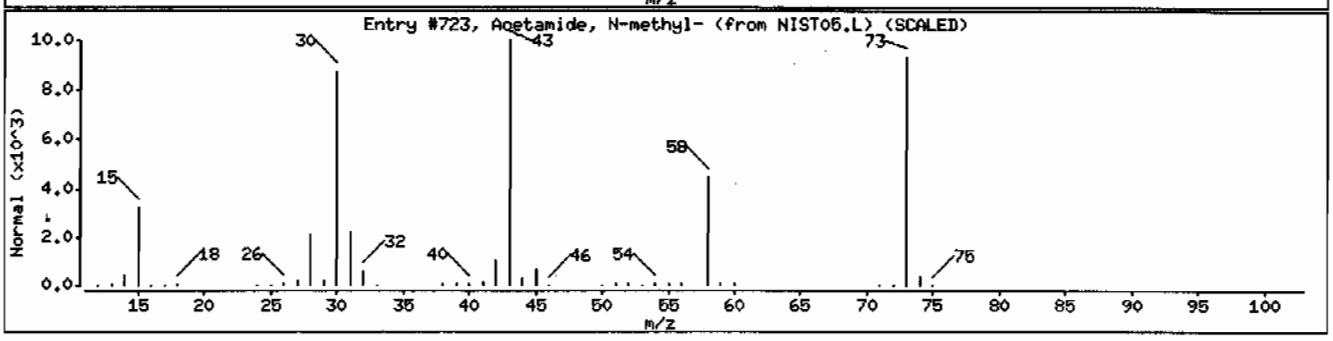

Data File: /chem/MSD1.i/s122109.b/s112106-1.d

Date : 21-DEC-2009 11:49

Client ID: SBLK01 Instrument: MSD1.i

Sample Info: |1201999288|934473|1|SVMF|1|SBLK01

Volume Injected (uL): 0.5 Operator: AHY

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	53	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	45	C6H12O2	116
2,3-Butanedione, monooxime	57-71-6	NIST05.L	3949	16	C4H7NO2	101

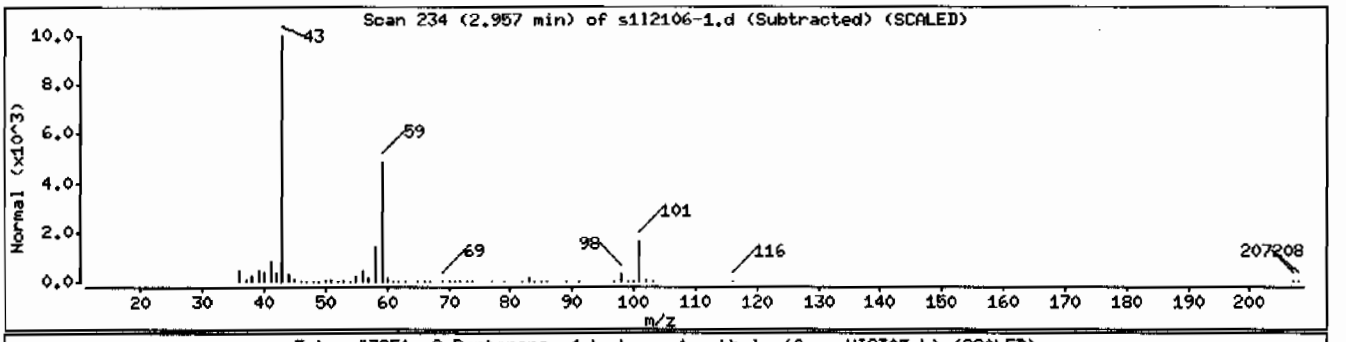

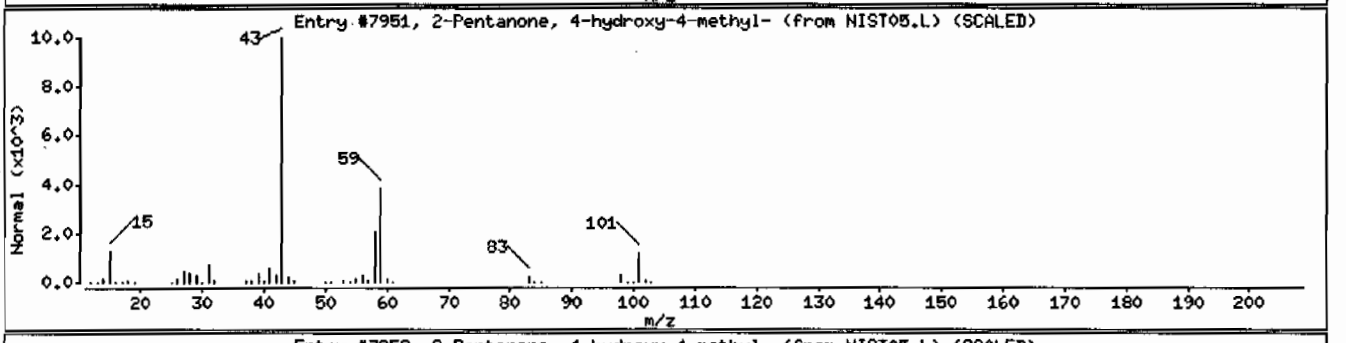

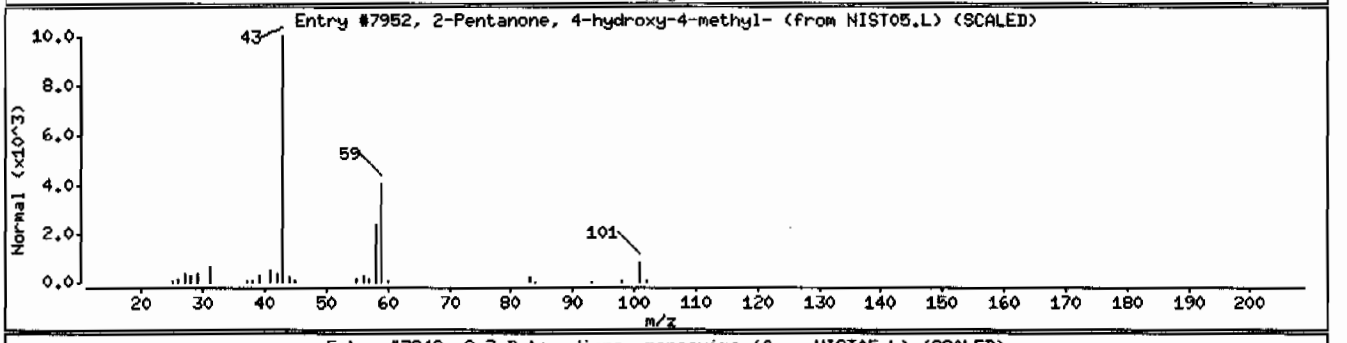

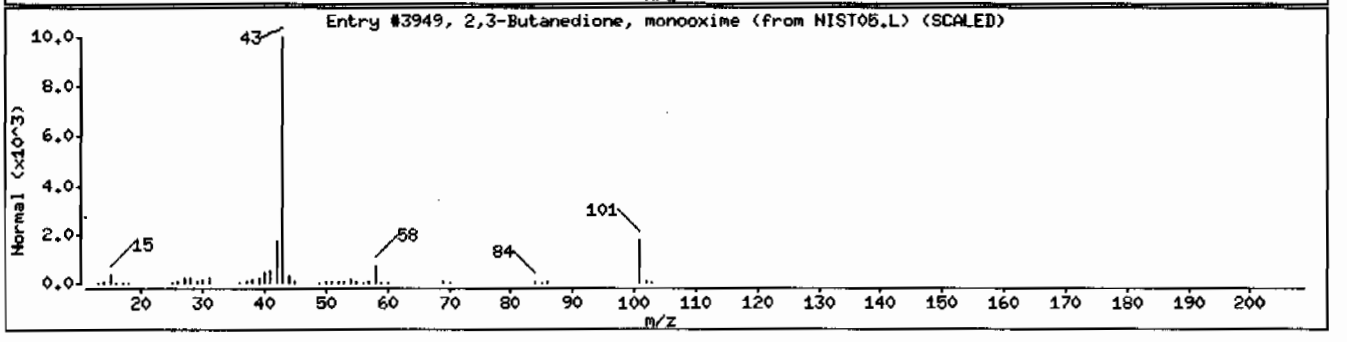

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-939			**Matrix:**	SOIL
Lab Sample ID:	1201999289				
Client Sample:	QC for batch 934457	**Client:**	LANL010	**Project:**	QC
Client ID:	LCS for batch 934457	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	934473	**Inst:**	MSD1.I	**Dilution:**	1
Run Date:	12/21/2009 12:12	**Analyst:**	AMY	**Inj. Vol:**	.5 uL
Prep Date:	12/18/2009 19:56	**Aliquot:**	30 g	**Final Volume:**	1 mL
Data File:	s112107.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine		1270	ug/kg	66.7	333
108-95-2	Phenol		1140	ug/kg	66.7	333
95-57-8	2-Chlorophenol		1140	ug/kg	66.7	333
106-46-7	1,4-Dichlorobenzene		1060	ug/kg	66.7	333
621-64-7	N-Nitrosodipropylamine		1120	ug/kg	66.7	333
59-50-7	4-Chloro-3-methylphenol		1250	ug/kg	66.7	333
83-32-9	Acenaphthene		1260	ug/kg	11.0	33.3
121-14-2	2,4-Dinitrotoluene		1190	ug/kg	33.3	333
100-02-7	4-Nitrophenol		1170	ug/kg	110	333
87-86-5	Pentachlorophenol		1400	ug/kg	83.3	333
129-00-0	Pyrene		1390	ug/kg	10.0	33.3
110-86-1	Pyridine		984	ug/kg	66.7	333
62-53-3	Aniline		968	ug/kg	100	333
111-44-4	bis(2-Chloroethyl) ether		1170	ug/kg	66.7	333
541-73-1	1,3-Dichlorobenzene		1030	ug/kg	66.7	333
100-51-6	Benzyl alcohol		1260	ug/kg	100	333
95-50-1	1,2-Dichlorobenzene		1100	ug/kg	66.7	333
108-60-1	bis(2-Chloroisopropyl)ether		1160	ug/kg	66.7	333
95-48-7	o-Cresol		1240	ug/kg	66.7	333
65794-96-9	m,p-Cresols		1210	ug/kg	100	333
67-72-1	Hexachloroethane		1100	ug/kg	66.7	333
98-95-3	Nitrobenzene		1330	ug/kg	66.7	333
78-59-1	Isophorone		1420	ug/kg	66.7	333
88-75-5	2-Nitrophenol		1140	ug/kg	66.7	333
105-67-9	2,4-Dimethylphenol		1220	ug/kg	117	333
111-91-1	bis(2-Chloroethoxy)methane		1200	ug/kg	66.7	333
120-83-2	2,4-Dichlorophenol		1170	ug/kg	66.7	333
65-85-0	Benzoic acid		3010	ug/kg	167	667
91-20-3	Naphthalene		1160	ug/kg	10.0	33.3
106-47-8	4-Chloroaniline		930	ug/kg	66.7	333
87-68-3	Hexachlorobutadiene		1310	ug/kg	66.7	333
91-57-6	2-Methylnaphthalene		1220	ug/kg	6.67	33.3
77-47-4	Hexachlorocyclopentadiene		1880	ug/kg	66.7	333
88-06-2	2,4,6-Trichlorophenol		1330	ug/kg	66.7	333
95-95-4	2,4,5-Trichlorophenol		1390	ug/kg	66.7	333
91-58-7	2-Chloronaphthalene		1150	ug/kg	11.0	33.3
88-74-4	2-Nitroaniline		1150	ug/kg	66.7	333
99-09-2	*o-Nitroaniline* 3-Nitroaniline		987	ug/kg	66.7	333

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-939**			**Matrix:**	**SOIL**
Lab Sample ID:	**1201999289**				
Client Sample:	**QC for batch 934457**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 934457**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**934473**	**Inst:**	**MSD1.I**	**Dilution:**	**1**
Run Date:	**12/21/2009 12:12**	**Analyst:**	**AMY**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/18/2009 19:56**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**s1l2107.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate		1280	ug/kg	66.7	333
606-20-2	2,6-Dinitrotoluene		1210	ug/kg	33.3	333
208-96-8	Acenaphthylene		1250	ug/kg	10.0	33.3
51-28-5	2,4-Dinitrophenol		1330	ug/kg	127	667
132-64-9	Dibenzofuran		1440	ug/kg	66.7	333
84-66-2	Diethylphthalate		1410	ug/kg	66.7	333
86-73-7	Fluorene		1190	ug/kg	10.0	33.3
7005-72-3	4-Chlorophenylphenylether		1380	ug/kg	66.7	333
534-52-1	2-Methyl-4,6-dinitrophenol		1210	ug/kg	66.7	333
100-01-6	4-Nitroaniline		1060	ug/kg	100	333
	p-Nitroaniline					
122-39-4	Diphenylamine		1190	ug/kg	66.7	333
122-66-7	Azobenzene		1260	ug/kg	66.7	333
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether		1550	ug/kg	66.7	333
118-74-1	Hexachlorobenzene		1390	ug/kg	66.7	333
85-01-8	Phenanthrene		1270	ug/kg	10.0	33.3
120-12-7	Anthracene		1230	ug/kg	6.67	33.3
84-74-2	Di-n-butylphthalate		1540	ug/kg	66.7	333
206-44-0	Fluoranthene		1420	ug/kg	10.0	33.3
85-68-7	Butylbenzylphthalate		1490	ug/kg	66.7	333
56-55-3	Benzo(a)anthracene		1400	ug/kg	10.0	33.3
91-94-1	3,3'-Dichlorobenzidine		1210	ug/kg	100	333
218-01-9	Chrysene		1330	ug/kg	10.0	33.3
117-81-7	bis(2-Ethylhexyl)phthalate		1430	ug/kg	66.7	333
117-84-0	Di-n-octylphthalate		1430	ug/kg	66.7	333
205-99-2	Benzo(b)fluoranthene		1380	ug/kg	10.0	33.3
207-08-9	Benzo(k)fluoranthene		1420	ug/kg	10.0	33.3
50-32-8	Benzo(a)pyrene		1440	ug/kg	10.0	33.3
193-39-5	Indeno(1,2,3-cd)pyrene		1290	ug/kg	10.0	33.3
53-70-3	Dibenzo(a,h)anthracene		1260	ug/kg	10.0	33.3
191-24-2	Benzo(ghi)perylene		1350	ug/kg	10.0	33.3
120-82-1	1,2,4-Trichlorobenzene		1220	ug/kg	66.7	333

GEL Laboratories LLC

Data file : /chem/MSD1.i/s122109.b/s112107-1.d
Lab Smp Id: 1201999289 Client Smp ID: SBLK01LCS
Inj Date : 21-DEC-2009 12:12
Operator : AMY Inst ID: MSD1.i
Smp Info : |1201999289|934473|1|SVMF|1|SBLK01LCS
Misc Info : |MSD8270_S|WBN091208-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD1.i/s122109.b/MSD1-M8270AQA-111409.m
Meth Date : 28-Dec-2009 09:37 amy01291 Quant Type: ISTD
Cal Date : 17-NOV-2009 17:42 Cal File: s1k1264.d
Als bottle: 6 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-939.sub
Target Version: 3.50
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	0.00000	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.916	3.916	(1.000)	826149	40.0000	
* 29 Naphthalene-d8	136	4.781	4.781	(1.000)	3256008	40.0000	
* 46 Acenaphthene-d10	164	6.028	6.028	(1.000)	1731252	40.0000	
* 67 Phenanthrene-d10	188	7.004	7.004	(1.000)	2930797	40.0000	
* 91 Chrysene-d12	240	8.669	8.663	(1.000)	2612571	40.0000	
* 98 Perylene-d12	264	10.116	10.110	(1.000)	2210343	40.0000	
$ 3 2-Fluorophenol	112	3.122	3.116	(0.797)	1456259	67.4860	2250
$ 5 Phenol-d5	99	3.646	3.640	(0.931)	1783250	67.9933	2270
$ 20 Nitrobenzene-d5	82	4.281	4.281	(0.895)	849629	39.5961	1320
$ 39 2-Fluorobiphenyl	172	5.522	5.522	(0.916)	1746264	42.1158	1400
$ 60 2,4,6-Tribromophenol	329	6.557	6.557	(1.088)	452860	93.6770	3120
$ 81 p-Terphenyl-d14	244	7.916	7.916	(0.913)	1843365	44.9501	1500

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
6 Phenol	94	3.651	3.651	(0.932)	943933	34.1576	1140
8 2-Chlorophenol	128	3.787	3.787	(0.967)	803537	34.2124	1140
11 1,4-Dichlorobenzene	146	3.922	3.928	(1.002)	856786	31.7154	1060
17 N-Nitrosodipropylamine	70	4.157	4.157	(1.062)	529835	33.6491	1120(Q)
28 1,2,4-Trichlorobenzene	180	4.728	4.734	(0.989)	720119	36.5406	1220
33 4-Chloro-3-methylphenol	107	5.140	5.128	(1.075)	654637	37.5705	1250
47 Acenaphthene	154	6.045	6.051	(1.003)	1514763	37.9347	1260
50 2,4-Dinitrotoluene	165	6.134	6.134	(1.018)	557103	35.7616	1190
52 4-Nitrophenol	139	6.081	6.075	(1.009)	287467	35.1950	1170
65 Pentachlorophenol	266	6.881	6.875	(0.982)	311221	41.9863	1400
79 Pyrene	202	7.869	7.869	(0.908)	2885501	41.5632	1380
2 Pyridine	79	2.504	2.469	(0.640)	580979	29.5228	984
4 Aniline	66	3.704	3.704	(0.946)	334719	29.0365	968(Q)
7 bis(2-Chloroethyl) ether	63	3.716	3.722	(0.949)	674539	35.0870	1170
9 1,3-Dichlorobenzene	146	3.881	3.887	(0.991)	854812	31.0181	1030
12 Benzyl alcohol	108	3.987	3.987	(1.018)	540645	37.8598	1260
13 1,2-Dichlorobenzene	146	4.028	4.034	(1.029)	821708	32.9351	1100
14 bis(2-Chloroisopropyl)ether	45	4.057	4.057	(1.036)	1600050	34.9424	1160
15 o-Cresol	107	4.046	4.040	(1.033)	648819	37.1108	1240
18 m,p-Cresols	107	4.140	4.145	(1.057)	860275	36.1632	1200
19 Hexachloroethane	117	4.257	4.257	(1.087)	319902	32.9026	1100
21 Nitrobenzene	77	4.293	4.298	(0.898)	893090	39.9468	1330
22 Isophorone	82	4.446	4.445	(0.930)	1662684	42.5111	1420
23 2-Nitrophenol	139	4.504	4.510	(0.942)	405594	34.1755	1140
24 2,4-Dimethylphenol	122	4.504	4.504	(0.942)	698309	36.7457	1220
25 bis(2-Chloroethoxy)methane	93	4.563	4.569	(0.954)	909717	36.1294	1200
26 2,4-Dichlorophenol	162	4.669	4.669	(0.977)	625052	35.0485	1170
27 Benzoic acid	105	4.593	4.575	(0.961)	1183009	90.3420	3010
30 Naphthalene	128	4.798	4.798	(1.004)	2367866	34.8450	1160(Q)
31 4-Chloroaniline	127	4.816	4.816	(1.007)	865702	27.8969	930
32 Hexachlorobutadiene	225	4.857	4.863	(1.016)	398436	39.3730	1310
34 2-Methylnaphthalene	142	5.275	5.275	(1.103)	1636425	36.6318	1220
36 Hexachlorocyclopentadiene	237	5.375	5.375	(0.892)	297721	56.3235	1880
37 2,4,6-Trichlorophenol	196	5.469	5.469	(0.907)	459876	39.9363	1330
38 2,4,5-Trichlorophenol	196	5.498	5.498	(0.912)	509266	41.5922	1390
40 2-Chloronaphthalene	162	5.628	5.628	(0.934)	1469226	34.3762	1140
42 o-Nitroaniline	65	5.693	5.692	(0.944)	457847	34.5489	1150
41 m-Nitroaniline	138	5.981	5.981	(0.992)	346646	29.6030	987
43 Dimethylphthalate	163	5.793	5.798	(0.961)	1810398	38.3768	1280
44 2,6-Dinitrotoluene	165	5.851	5.851	(0.971)	427921	36.4081	1210
45 Acenaphthylene	152	5.928	5.934	(0.983)	2501951	37.5143	1250
48 2,4-Dinitrophenol	184	6.051	6.051	(1.004)	184899	39.8567	1330(Q)
49 Dibenzofuran	168	6.163	6.163	(1.022)	2488847	43.0994	1440
51 Diethylphthalate	149	6.275	6.275	(1.041)	1853786	42.1501	1400
53 Fluorene	166	6.398	6.398	(1.061)	1659611	35.6435	1190
54 4-Chlorophenylphenylether	204	6.375	6.375	(1.058)	812628	41.3371	1380
55 2-Methyl-4,6-dinitrophenol	198	6.416	6.416	(0.916)	269426	36.3369	1210

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
56 p-Nitroaniline	138	6.404	6.404	(1.062)	363962	31.7837	1060
133 Diphenylamine	169	6.457	6.451	(0.922)	1397080	35.7379	1190
58 1,2-Diphenylhydrazine	77	6.481	6.481	(0.925)	1801660	37.7726	1260
61 4-Bromophenylphenylether	248	6.698	6.698	(0.956)	469243	46.6006	1550
63 Hexachlorobenzene	284	6.757	6.757	(0.965)	516932	41.8236	1390
68 Phenanthrene	178	7.022	7.022	(1.003)	2534708	38.0559	1270
69 Anthracene	178	7.051	7.051	(1.007)	2496243	36.8527	1230
72 Di-n-butylphthalate	149	7.292	7.286	(1.041)	3330425	46.0973	1540
76 Fluoranthene	202	7.728	7.728	(1.103)	2747483	42.7347	1420
85 Butylbenzylphthalate	149	8.175	8.175	(0.943)	1410146	44.6332	1490
89 Benzo(a)anthracene	228	8.657	8.651	(0.999)	2622589	41.8635	1400
90 3,3'-Dichlorobenzidine	252	8.598	8.592	(0.992)	655211	36.4255	1210
92 Chrysene	228	8.686	8.686	(1.002)	2333143	39.8472	1330
93 bis(2-Ethylhexyl)phthalate	149	8.528	8.527	(0.984)	1965411	42.8195	1430
94 Di-n-octylphthalate	149	9.051	9.051	(0.895)	3094106	42.7923	1430
95 Benzo(b)fluoranthene	252	9.651	9.651	(0.954)	2329153	41.4426	1380
96 Benzo(k)fluoranthene	252	9.686	9.680	(0.958)	2365389	42.6788	1420
97 Benzo(a)pyrene	252	10.051	10.045	(0.994)	2079247	43.0797	1440
99 Indeno(1,2,3-cd)pyrene	276	11.739	11.733	(1.160)	1940157	38.7258	1290
100 Dibenzo(a,h)anthracene	278	11.739	11.733	(1.160)	1579335	37.6716	1260
101 Benzo(ghi)perylene	276	12.245	12.233	(1.210)	1683131	40.5232	1350
1 N-Methyl-N-nitrosomethylamine	74	2.463	2.434	(0.629)	447300	38.1692	1270

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: /chem/MSD1.i/s122109.b/s112107-1.d
Date : 21-DEC-2009 12:12
Client ID: SBLK01LCS
Sample Info: 1120199928919344731 1 1SVHF11 1SBLK01LCS
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD1.i
Operator: AMY
Column diameter: 0.20

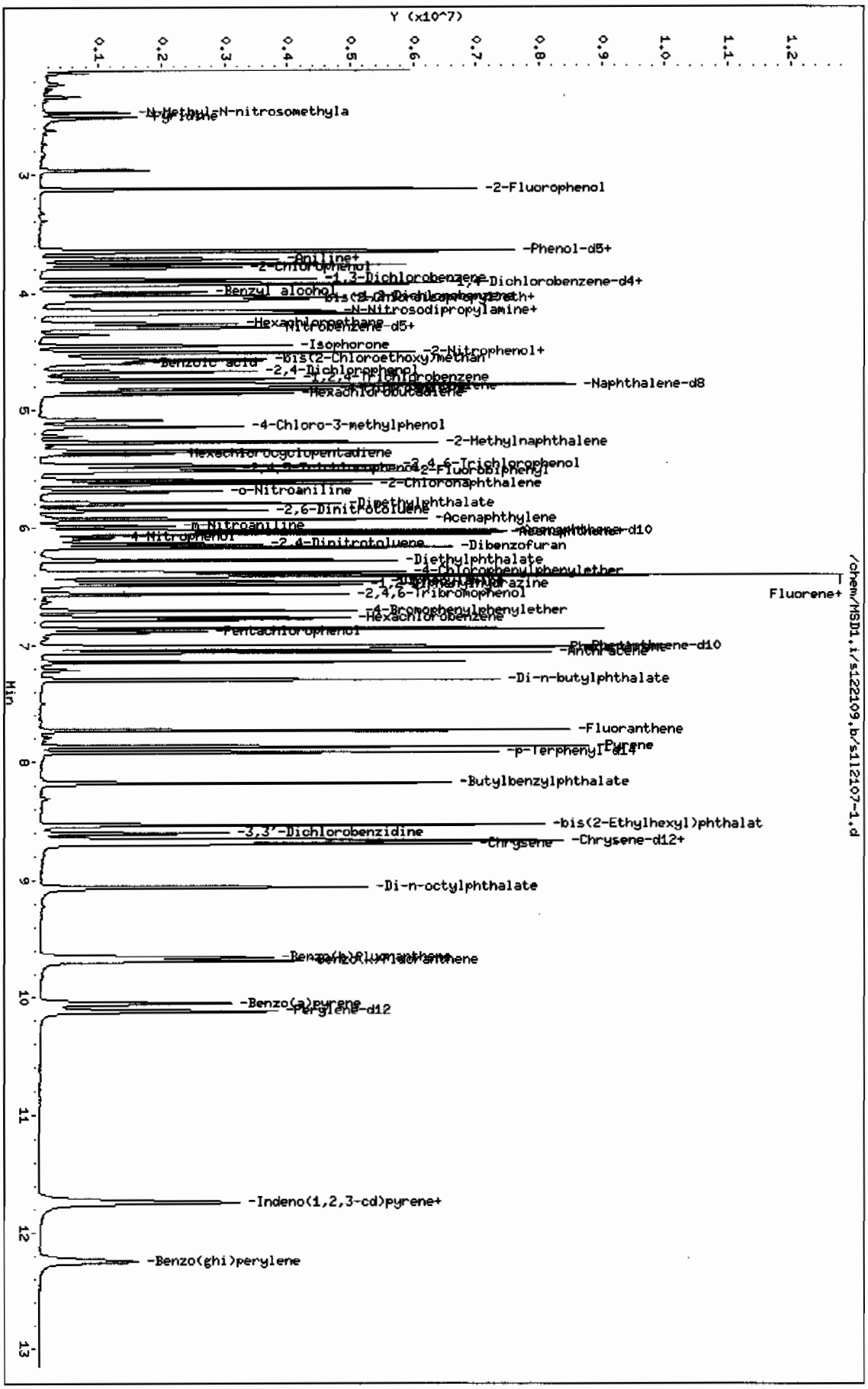

Page 1

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-939**	**Date Collected:**	**12/14/2009 12:00**	**Matrix:**	**R**
Lab Sample ID:	**1201999290**	**Date Received:**	**12/16/2009 09:10**	**%Moisture:**	**13.5**
Client Sample:	**QC for batch 934457**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**WST03-10-2147MS**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**934473**	**Inst:**	**MSD1.I**	**Dilution:**	**1**
Run Date:	**12/21/2009 12:59**	**Analyst:**	**AMY**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/18/2009 19:56**	**Aliquot:**	**30.13 g**	**Final Volume:**	**1 mL**
Data File:	**s1l2109.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine		1240	ug/kg	76.7	384
108-95-2	Phenol		1190	ug/kg	76.7	384
95-57-8	2-Chlorophenol		1190	ug/kg	76.7	384
106-46-7	1,4-Dichlorobenzene		1070	ug/kg	76.7	384
621-64-7	N-Nitrosodipropylamine		1150	ug/kg	76.7	384
59-50-7	4-Chloro-3-methylphenol		1310	ug/kg	76.7	384
83-32-9	Acenaphthene		1290	ug/kg	12.7	38.4
121-14-2	2,4-Dinitrotoluene		1230	ug/kg	38.4	384
100-02-7	4-Nitrophenol		1060	ug/kg	127	384
87-86-5	Pentachlorophenol		1350	ug/kg	95.9	384
129-00-0	Pyrene		1400	ug/kg	11.5	38.4
110-86-1	Pyridine		907	ug/kg	76.7	384
62-53-3	Aniline		1220	ug/kg	115	384
111-44-4	bis(2-Chloroethyl) ether		1220	ug/kg	76.7	384
541-73-1	1,3-Dichlorobenzene		1040	ug/kg	76.7	384
100-51-6	Benzyl alcohol		1390	ug/kg	115	384
95-50-1	1,2-Dichlorobenzene		1110	ug/kg	76.7	384
108-60-1	bis(2-Chloroisopropyl)ether		1210	ug/kg	76.7	384
95-48-7	o-Cresol		1260	ug/kg	76.7	384
65794-96-9	m,p-Cresols		1320	ug/kg	115	384
67-72-1	Hexachloroethane		1100	ug/kg	76.7	384
98-95-3	Nitrobenzene		1350	ug/kg	76.7	384
78-59-1	Isophorone		1440	ug/kg	76.7	384
88-75-5	2-Nitrophenol		1160	ug/kg	76.7	384
105-67-9	2,4-Dimethylphenol		1240	ug/kg	134	384
111-91-1	bis(2-Chloroethoxy)methane		1230	ug/kg	76.7	384
120-83-2	2,4-Dichlorophenol		1200	ug/kg	76.7	384
65-85-0	Benzoic acid		2180	ug/kg	192	767
91-20-3	Naphthalene		1180	ug/kg	11.5	38.4
106-47-8	4-Chloroaniline		1210	ug/kg	76.7	384
87-68-3	Hexachlorobutadiene		1330	ug/kg	76.7	384
91-57-6	2-Methylnaphthalene		1260	ug/kg	7.67	38.4
77-47-4	Hexachlorocyclopentadiene		1660	ug/kg	76.7	384
88-06-2	2,4,6-Trichlorophenol		1570	ug/kg	76.7	384
95-95-4	2,4,5-Trichlorophenol		1330	ug/kg	76.7	384
91-58-7	2-Chloronaphthalene		1190	ug/kg	12.7	38.4
88-74-4	2-Nitroaniline		1190	ug/kg	76.7	384
	o-Nitroaniline					
99-09-2	3-Nitroaniline		1140	ug/kg	76.7	384

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-939**	**Date Collected:**	**12/14/2009 12:00**	**Matrix:**	**R**
Lab Sample ID:	**1201999290**	**Date Received:**	**12/16/2009 09:10**	**%Moisture:**	**13.5**
Client Sample:	**QC for batch 934457**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**WST03-10-2147MS**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**934473**	**Inst:**	**MSD1.I**	**Dilution:**	**1**
Run Date:	**12/21/2009 12:59**	**Analyst:**	**AMY**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/18/2009 19:56**	**Aliquot:**	**30.13 g**	**Final Volume:**	**1 mL**
Data File:	**s112109.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate		1240	ug/kg	76.7	384
606-20-2	2,6-Dinitrotoluene		1160	ug/kg	38.4	384
208-96-8	Acenaphthylene		1310	ug/kg	11.5	38.4
51-28-5	2,4-Dinitrophenol		817	ug/kg	146	767
132-64-9	Dibenzofuran		1500	ug/kg	76.7	384
84-66-2	Diethylphthalate		1400	ug/kg	76.7	384
86-73-7	Fluorene		1270	ug/kg	11.5	38.4
7005-72-3	4-Chlorophenylphenylether		1440	ug/kg	76.7	384
534-52-1	2-Methyl-4,6-dinitrophenol		932	ug/kg	76.7	384
100-01-6	4-Nitroaniline		1140	ug/kg	115	384
	p-Nitroaniline					
122-39-4	Diphenylamine		1240	ug/kg	76.7	384
122-66-7	Azobenzene		1430	ug/kg	76.7	384
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether		1650	ug/kg	76.7	384
118-74-1	Hexachlorobenzene		1460	ug/kg	76.7	384
85-01-8	Phenanthrene		1070	ug/kg	11.5	38.4
120-12-7	Anthracene		1250	ug/kg	7.67	38.4
84-74-2	Di-n-butylphthalate		1530	ug/kg	76.7	384
206-44-0	Fluoranthene		1460	ug/kg	11.5	38.4
85-68-7	Butylbenzylphthalate		1550	ug/kg	76.7	384
56-55-3	Benzo(a)anthracene		1380	ug/kg	11.5	38.4
91-94-1	3,3'-Dichlorobenzidine		1320	ug/kg	115	384
218-01-9	Chrysene		1330	ug/kg	11.5	38.4
117-81-7	bis(2-Ethylhexyl)phthalate		1480	ug/kg	76.7	384
117-84-0	Di-n-octylphthalate		1500	ug/kg	76.7	384
205-99-2	Benzo(b)fluoranthene		1440	ug/kg	11.5	38.4
207-08-9	Benzo(k)fluoranthene		1370	ug/kg	11.5	38.4
50-32-8	Benzo(a)pyrene		1410	ug/kg	11.5	38.4
193-39-5	Indeno(1,2,3-cd)pyrene		1260	ug/kg	11.5	38.4
53-70-3	Dibenzo(a,h)anthracene		1220	ug/kg	11.5	38.4
191-24-2	Benzo(ghi)perylene		1300	ug/kg	11.5	38.4
120-82-1	1,2,4-Trichlorobenzene		1230	ug/kg	76.7	384

GEL Laboratories LLC

Data file : /chem/MSD1.i/s122109.b/s112109.d
Lab Smp Id: 1201999290 Client Smp ID: WST03-10-2147MS
Inj Date : 21-DEC-2009 12:59
Operator : AMY Inst ID: MSD1.i
Smp Info : |1201999290|934473|1|SVMF|1|LANLMS
Misc Info : |MSD8270_S|WBN091208-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD1.i/s122109.b/MSD1-M8270AQA-111409.m
Meth Date : 28-Dec-2009 09:37 amy01291 Quant Type: ISTD
Cal Date : 17-NOV-2009 17:42 Cal File: s1k1264.d
Als bottle: 8 QC Sample: MS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-939.sub
Target Version: 3.50
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.13000	weight of sample
M	13.49180	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.910	3.916	(1.000)	753011	40.0000	
* 29 Naphthalene-d8	136	4.781	4.781	(1.000)	3035176	40.0000	
* 46 Acenaphthene-d10	164	6.028	6.028	(1.000)	1623882	40.0000	
* 67 Phenanthrene-d10	188	7.004	7.004	(1.000)	2766814	40.0000	
* 91 Chrysene-d12	240	8.669	8.663	(1.000)	2458335	40.0000	
* 98 Perylene-d12	264	10.116	10.110	(1.000)	2124807	40.0000	
$ 3 2-Fluorophenol	112	3.116	3.116	(0.797)	1209769	61.5084	2360
$ 5 Phenol-d5	99	3.645	3.640	(0.932)	1495077	62.5424	2400
$ 20 Nitrobenzene-d5	82	4.281	4.281	(0.895)	750227	37.5074	1440
$ 39 2-Fluorobiphenyl	172	5.522	5.522	(0.916)	1443654	37.1196	1420
$ 60 2,4,6-Tribromophenol	329	6.557	6.557	(1.088)	390322	86.0791	3300
$ 81 p-Terphenyl-d14	244	7.916	7.916	(0.913)	1480897	38.3770	1470

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
6 Phenol	94	3.651	3.651	(0.934)	778529	30.9085	1180
8 2-Chlorophenol	128	3.781	3.787	(0.967)	663188	30.9792	1190
11 1,4-Dichlorobenzene	146	3.922	3.928	(1.003)	688507	27.9617	1070
17 N-Nitrosodipropylamine	70	4.151	4.157	(1.062)	430776	30.0152	1150(Q)
28 1,2,4-Trichlorobenzene	180	4.728	4.734	(0.989)	587419	31.9758	1230
33 4-Chloro-3-methylphenol	107	5.139	5.128	(1.075)	552935	34.0426	1310
47 Acenaphthene	154	6.045	6.051	(1.003)	1259554	33.6290	1290
50 2,4-Dinitrotoluene	165	6.134	6.134	(1.018)	469021	32.0981	1230
52 4-Nitrophenol	139	6.081	6.075	(1.009)	212110	27.6860	1060
65 Pentachlorophenol	266	6.881	6.875	(0.982)	245942	35.1461	1350
79 Pyrene	202	7.869	7.869	(0.908)	2385807	36.5216	1400
2 Pyridine	79	2.498	2.469	(0.639)	423842	23.6297	906
4 Aniline	66	3.698	3.704	(0.946)	334110	31.7988	1220
7 bis(2-Chloroethyl) ether	63	3.710	3.722	(0.949)	555388	31.6952	1220
9 1,3-Dichlorobenzene	146	3.875	3.887	(0.991)	680520	27.0921	1040
12 Benzyl alcohol	108	3.987	3.987	(1.020)	472078	36.2691	1390
13 1,2-Dichlorobenzene	146	4.028	4.034	(1.030)	657354	28.9066	1110
14 bis(2-Chloroisopropyl)ether	45	4.057	4.057	(1.038)	1312525	31.4473	1210
15 o-Cresol	107	4.045	4.040	(1.035)	523327	32.8403	1260
18 m,p-Cresols	107	4.140	4.145	(1.059)	746350	34.4215	1320(Q)
19 Hexachloroethane	117	4.251	4.257	(1.087)	253395	28.5936	1100
21 Nitrobenzene	77	4.293	4.298	(0.898)	735981	35.3147	1350
22 Isophorone	82	4.445	4.445	(0.930)	1372274	37.6387	1440
23 2-Nitrophenol	139	4.504	4.510	(0.942)	333523	30.1474	1160
24 2,4-Dimethylphenol	122	4.504	4.504	(0.942)	571551	32.2638	1240
25 bis(2-Chloroethoxy)methane	93	4.563	4.569	(0.954)	749772	31.9437	1220
26 2,4-Dichlorophenol	162	4.669	4.669	(0.977)	518828	31.2089	1200
27 Benzoic acid	105	4.575	4.575	(0.957)	694490	56.8944	2180
30 Naphthalene	128	4.798	4.798	(1.004)	1941586	30.6508	1180
31 4-Chloroaniline	127	4.816	4.816	(1.007)	914902	31.6274	1210
32 Hexachlorobutadiene	225	4.857	4.863	(1.016)	325885	34.5466	1320
34 2-Methylnaphthalene	142	5.275	5.275	(1.103)	1369072	32.8768	1260
36 Hexachlorocyclopentadiene	237	5.375	5.375	(0.892)	213993	43.1604	1660
37 2,4,6-Trichlorophenol	196	5.469	5.469	(0.907)	442246	40.9446	1570
38 2,4,5-Trichlorophenol	196	5.498	5.498	(0.912)	396857	34.5547	1320
40 2-Chloronaphthalene	162	5.628	5.628	(0.934)	1239831	30.9270	1190
42 o-Nitroaniline	65	5.692	5.692	(0.944)	384825	30.9588	1190
41 m-Nitroaniline	138	5.981	5.981	(0.992)	327360	29.8045	1140
43 Dimethylphthalate	163	5.792	5.798	(0.961)	1428986	32.2945	1240
44 2,6-Dinitrotoluene	165	5.851	5.851	(0.971)	332809	30.1880	1160
45 Acenaphthylene	152	5.928	5.934	(0.983)	2132208	34.0843	1310
48 2,4-Dinitrophenol	184	6.051	6.051	(1.004)	92678	21.2985	817(Q)
49 Dibenzofuran	168	6.163	6.163	(1.022)	2121558	39.1682	1500
51 Diethylphthalate	149	6.275	6.275	(1.041)	1501737	36.4031	1400
53 Fluorene	166	6.398	6.398	(1.061)	1441572	33.0078	1270
54 4-Chlorophenylphenylether	204	6.375	6.375	(1.058)	692849	37.5745	1440
55 2-Methyl-4,6-dinitrophenol	198	6.416	6.416	(0.916)	170063	24.2954	932

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
56 p-Nitroaniline	138	6.404	6.404	(1.062)	318211	29.6257	1140
133 Diphenylamine	169	6.457	6.451	(0.922)	1197050	32.4359	1240
58 1,2-Diphenylhydrazine	77	6.481	6.481	(0.925)	1682698	37.3694	1430
61 4-Bromophenylphenylether	248	6.698	6.698	(0.956)	409920	43.1219	1650
63 Hexachlorobenzene	284	6.757	6.757	(0.965)	443621	38.0195	1460
68 Phenanthrene	178	7.022	7.022	(1.003)	1759403	27.9811	1070
69 Anthracene	178	7.051	7.051	(1.007)	2086049	32.6221	1250
72 Di-n-butylphthalate	149	7.292	7.286	(1.041)	2722707	39.9192	1530
76 Fluoranthene	202	7.728	7.728	(1.103)	2302412	37.9345	1460
85 Butylbenzylphthalate	149	8.180	8.175	(0.944)	1200169	40.3705	1550
89 Benzo(a)anthracene	228	8.657	8.651	(0.999)	2114390	35.8689	1380
90 3,3'-Dichlorobenzidine	252	8.598	8.592	(0.992)	584149	34.5124	1320
92 Chrysene	228	8.686	8.686	(1.002)	1910578	34.6775	1330
93 bis(2-Ethylhexyl)phthalate	149	8.528	8.527	(0.984)	1670826	38.6853	1480
94 Di-n-octylphthalate	149	9.057	9.051	(0.895)	2715139	39.0627	1500
95 Benzo(b)fluoranthene	252	9.651	9.651	(0.954)	2008574	37.4515	1440
96 Benzo(k)fluoranthene	252	9.680	9.680	(0.957)	1896523	35.5966	1360
97 Benzo(a)pyrene	252	10.045	10.045	(0.993)	1712005	36.8767	1410
99 Indeno(1,2,3-cd)pyrene	276	11.733	11.733	(1.160)	1590461	32.9595	1260
100 Dibenzo(a,h)anthracene	278	11.733	11.733	(1.160)	1281451	31.7690	1220
101 Benzo(ghi)perylene	276	12.239	12.233	(1.210)	1352721	33.8793	1300
1 N-Methyl-N-nitrosomethylamine	74	2.457	2.434	(0.628)	345820	32.3759	1240

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: /chem/MSD1.i/s122109.b/s122109.d
Date : 21-DEC-2009 12:59
Client ID: WST03-10-2147MS
Sample Info: !120199929019344731!SVMF11!LANLMS
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD1.i
Operator: AMY
Column diameter: 0.20

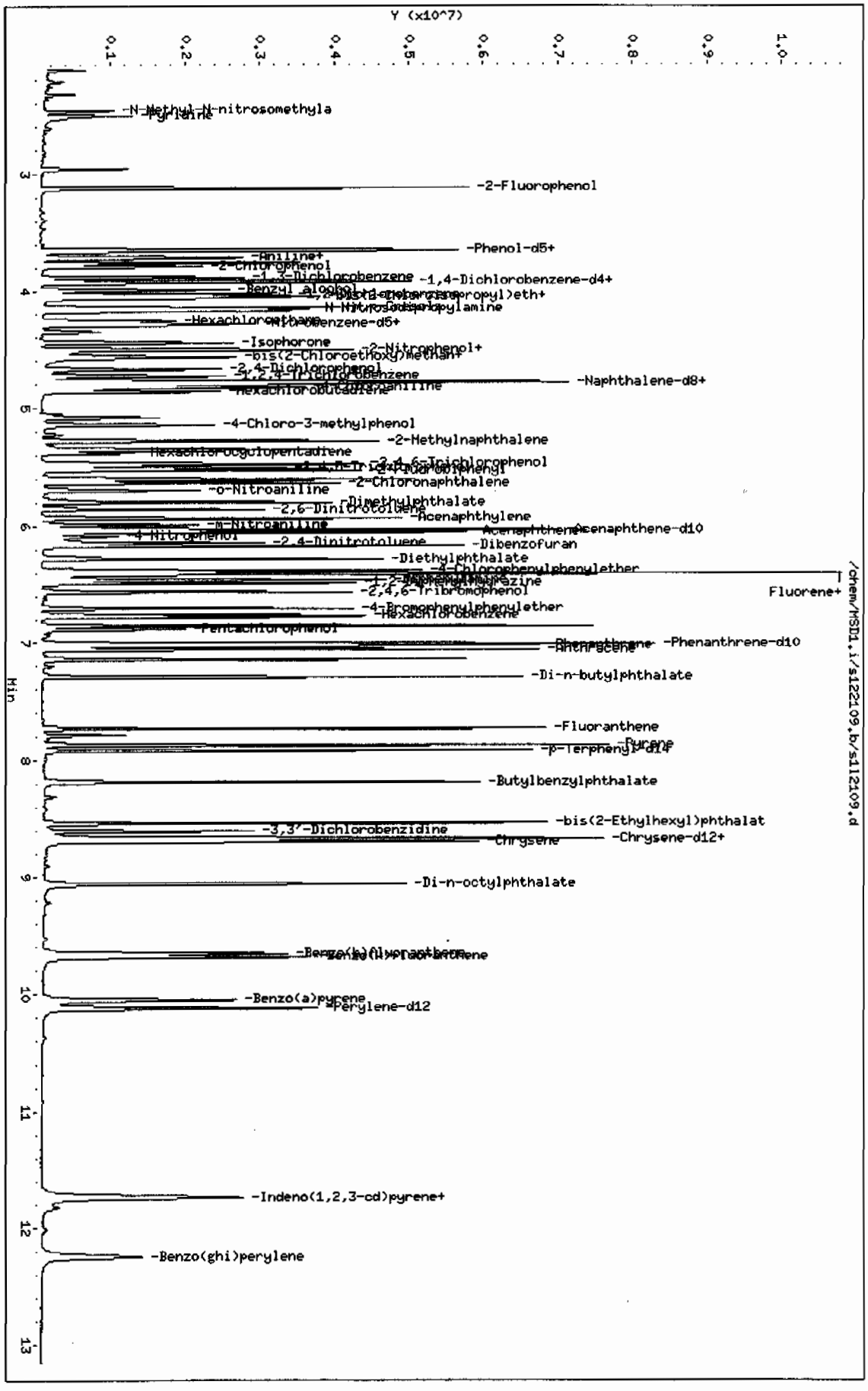

Page 1

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-939	**Date Collected:**	12/14/2009 12:00	**Matrix:**	R
Lab Sample ID:	1201999291	**Date Received:**	12/16/2009 09:10	**%Moisture:**	13.5
Client Sample:	QC for batch 934457	**Client:**	LANL010	**Project:**	QC
Client ID:	WST03-10-2147MSD	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	934473	**Inst:**	MSD1.I	**Dilution:**	1
Run Date:	12/21/2009 13:23	**Analyst:**	AMY	**Inj. Vol:**	.5 uL
Prep Date:	12/18/2009 19:56	**Aliquot:**	30.22 g	**Final Volume:**	1 mL
Data File:	s112110.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine		1150	ug/kg	76.5	383
108-95-2	Phenol		1110	ug/kg	76.5	383
95-57-8	2-Chlorophenol		1100	ug/kg	76.5	383
106-46-7	1,4-Dichlorobenzene		1000	ug/kg	76.5	383
621-64-7	N-Nitrosodipropylamine		1080	ug/kg	76.5	383
59-50-7	4-Chloro-3-methylphenol		1310	ug/kg	76.5	383
83-32-9	Acenaphthene		1280	ug/kg	12.6	38.3
121-14-2	2,4-Dinitrotoluene		1230	ug/kg	38.3	383
100-02-7	4-Nitrophenol		1160	ug/kg	126	383
87-86-5	Pentachlorophenol		1310	ug/kg	95.6	383
129-00-0	Pyrene		1420	ug/kg	11.5	38.3
110-86-1	Pyridine		829	ug/kg	76.5	383
62-53-3	Aniline		1100	ug/kg	115	383
111-44-4	bis(2-Chloroethyl) ether		1130	ug/kg	76.5	383
541-73-1	1,3-Dichlorobenzene		981	ug/kg	76.5	383
100-51-6	Benzyl alcohol		1310	ug/kg	115	383
95-50-1	1,2-Dichlorobenzene		1050	ug/kg	76.5	383
108-60-1	bis(2-Chloroisopropyl)ether		1140	ug/kg	76.5	383
95-48-7	o-Cresol		1200	ug/kg	76.5	383
65794-96-9	m,p-Cresols		1270	ug/kg	115	383
67-72-1	Hexachloroethane		1040	ug/kg	76.5	383
98-95-3	Nitrobenzene		1260	ug/kg	76.5	383
78-59-1	Isophorone		1380	ug/kg	76.5	383
88-75-5	2-Nitrophenol		1080	ug/kg	76.5	383
105-67-9	2,4-Dimethylphenol		1210	ug/kg	134	383
111-91-1	bis(2-Chloroethoxy)methane		1160	ug/kg	76.5	383
120-83-2	2,4-Dichlorophenol		1160	ug/kg	76.5	383
65-85-0	Benzoic acid		2070	ug/kg	191	765
91-20-3	Naphthalene		1110	ug/kg	11.5	38.3
106-47-8	4-Chloroaniline		1130	ug/kg	76.5	383
87-68-3	Hexachlorobutadiene		1270	ug/kg	76.5	383
91-57-6	2-Methylnaphthalene		1200	ug/kg	7.65	38.3
77-47-4	Hexachlorocyclopentadiene		1530	ug/kg	76.5	383
88-06-2	2,4,6-Trichlorophenol		1380	ug/kg	76.5	383
95-95-4	2,4,5-Trichlorophenol		1460	ug/kg	76.5	383
91-58-7	2-Chloronaphthalene		1140	ug/kg	12.6	38.3
88-74-4	2-Nitroaniline		1170	ug/kg	76.5	383
99-09-2	*o-Nitroaniline* 3-Nitroaniline		1120	ug/kg	76.5	383

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-939	**Date Collected:**	12/14/2009 12:00	**Matrix:**	R
Lab Sample ID:	1201999291	**Date Received:**	12/16/2009 09:10	**%Moisture:**	13.5
Client Sample:	QC for batch 934457	**Client:**	LANL010	**Project:**	QC
Client ID:	WST03-10-2147MSD	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	934473	**Inst:**	MSD1.I	**Dilution:**	1
Run Date:	12/21/2009 13:23	**Analyst:**	AMY	**Inj. Vol:**	.5 uL
Prep Date:	12/18/2009 19:56	**Aliquot:**	30.22 g	**Final Volume:**	1 mL
Data File:	s112110.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate		1320	ug/kg	76.5	383
606-20-2	2,6-Dinitrotoluene		1250	ug/kg	38.3	383
208-96-8	Acenaphthylene		1280	ug/kg	11.5	38.3
51-28-5	2,4-Dinitrophenol		873	ug/kg	145	765
132-64-9	Dibenzofuran		1500	ug/kg	76.5	383
84-66-2	Diethylphthalate		1460	ug/kg	76.5	383
86-73-7	Fluorene		1250	ug/kg	11.5	38.3
7005-72-3	4-Chlorophenylphenylether		1440	ug/kg	76.5	383
534-52-1	2-Methyl-4,6-dinitrophenol		965	ug/kg	76.5	383
100-01-6	4-Nitroaniline		1120	ug/kg	115	383
	p-Nitroaniline					
122-39-4	Diphenylamine		1260	ug/kg	76.5	383
122-66-7	Azobenzene		1320	ug/kg	76.5	383
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether		1660	ug/kg	76.5	383
118-74-1	Hexachlorobenzene		1460	ug/kg	76.5	383
85-01-8	Phenanthrene		1330	ug/kg	11.5	38.3
120-12-7	Anthracene		1290	ug/kg	7.65	38.3
84-74-2	Di-n-butylphthalate		1580	ug/kg	76.5	383
206-44-0	Fluoranthene		1450	ug/kg	11.5	38.3
85-68-7	Butylbenzylphthalate		1560	ug/kg	76.5	383
56-55-3	Benzo(a)anthracene		1340	ug/kg	11.5	38.3
91-94-1	3,3'-Dichlorobenzidine		1350	ug/kg	115	383
218-01-9	Chrysene		1410	ug/kg	11.5	38.3
117-81-7	bis(2-Ethylhexyl)phthalate		1520	ug/kg	76.5	383
117-84-0	Di-n-octylphthalate		1520	ug/kg	76.5	383
205-99-2	Benzo(b)fluoranthene		1330	ug/kg	11.5	38.3
207-08-9	Benzo(k)fluoranthene		1490	ug/kg	11.5	38.3
50-32-8	Benzo(a)pyrene		1420	ug/kg	11.5	38.3
193-39-5	Indeno(1,2,3-cd)pyrene		1260	ug/kg	11.5	38.3
53-70-3	Dibenzo(a,h)anthracene		1240	ug/kg	11.5	38.3
191-24-2	Benzo(ghi)perylene		1300	ug/kg	11.5	38.3
120-82-1	1,2,4-Trichlorobenzene		1180	ug/kg	76.5	383

GEL Laboratories LLC

Data file : /chem/MSD1.i/s122109.b/s112110.d
Lab Smp Id: 1201999291 Client Smp ID: WST03-10-2147MSD
Inj Date : 21-DEC-2009 13:23
Operator : AMY Inst ID: MSD1.i
Smp Info : |1201999291|934473|1|SVMF|1|LANLMSD
Misc Info : |MSD8270_S|WBN091208-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD1.i/s122109.b/MSD1-M8270AQA-111409.m
Meth Date : 28-Dec-2009 09:37 amy01291 Quant Type: ISTD
Cal Date : 17-NOV-2009 17:42 Cal File: s1k1264.d
Als bottle: 9 QC Sample: MSD
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-939.sub
Target Version: 3.50
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.22000	weight of sample
M	13.49180	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.916	3.916	(1.000)	730413	40.0000	
* 29 Naphthalene-d8	136	4.781	4.781	(1.000)	2934665	40.0000	
* 46 Acenaphthene-d10	164	6.028	6.028	(1.000)	1566776	40.0000	
* 67 Phenanthrene-d10	188	7.004	7.004	(1.000)	2650146	40.0000	
* 91 Chrysene-d12	240	8.669	8.663	(1.000)	2335968	40.0000	
* 98 Perylene-d12	264	10.116	10.110	(1.000)	2015057	40.0000	
$ 3 2-Fluorophenol	112	3.116	3.116	(0.796)	1096456	57.4720	2200
$ 5 Phenol-d5	99	3.640	3.640	(0.929)	1353432	58.3688	2230
$ 20 Nitrobenzene-d5	82	4.281	4.281	(0.895)	656416	33.9413	1300
$ 39 2-Fluorobiphenyl	172	5.522	5.522	(0.916)	1358737	36.2096	1380
$ 60 2,4,6-Tribromophenol	329	6.557	6.557	(1.088)	374625	85.6286	3280
$ 81 p-Terphenyl-d14	244	7.916	7.916	(0.913)	1479887	40.3598	1540

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
6 Phenol	94	3.651	3.651	(0.932)	710891	29.0964	1110
8 2-Chlorophenol	128	3.787	3.787	(0.967)	598228	28.8094	1100
11 1,4-Dichlorobenzene	146	3.922	3.928	(1.002)	626575	26.2338	1000
17 N-Nitrosodipropylamine	70	4.151	4.157	(1.060)	393704	28.2808	1080(Q)
28 1,2,4-Trichlorobenzene	180	4.728	4.734	(0.989)	546014	30.7399	1180
33 4-Chloro-3-methylphenol	107	5.139	5.128	(1.075)	539877	34.3770	1310
47 Acenaphthene	154	6.045	6.051	(1.003)	1207463	33.4133	1280
50 2,4-Dinitrotoluene	165	6.133	6.134	(1.018)	452163	32.0723	1230
52 4-Nitrophenol	139	6.081	6.075	(1.009)	223485	30.2340	1160
65 Pentachlorophenol	266	6.880	6.875	(0.982)	229234	34.2006	1310
79 Pyrene	202	7.869	7.869	(0.908)	2298824	37.0335	1420
2 Pyridine	79	2.498	2.469	(0.638)	377048	21.6712	829
4 Aniline	66	3.704	3.704	(0.946)	293466	28.7947	1100
7 bis(2-Chloroethyl) ether	63	3.716	3.722	(0.949)	501648	29.5140	1130
9 1,3-Dichlorobenzene	146	3.881	3.887	(0.991)	624670	25.6381	981
12 Benzyl alcohol	108	3.987	3.987	(1.018)	431504	34.1775	1310
13 1,2-Dichlorobenzene	146	4.028	4.034	(1.029)	605464	27.4485	1050
14 bis(2-Chloroisopropyl)ether	45	4.057	4.057	(1.036)	1201495	29.6777	1140
15 o-Cresol	107	4.045	4.040	(1.033)	486132	31.4500	1200
18 m,p-Cresols	107	4.139	4.145	(1.057)	697048	33.1423	1270
19 Hexachloroethane	117	4.257	4.257	(1.087)	234292	27.2559	1040
21 Nitrobenzene	77	4.292	4.298	(0.898)	666122	33.0573	1260
22 Isophorone	82	4.445	4.445	(0.930)	1272231	36.0898	1380
23 2-Nitrophenol	139	4.504	4.510	(0.942)	303271	28.3518	1080
24 2,4-Dimethylphenol	122	4.504	4.504	(0.942)	540351	31.5473	1210
25 bis(2-Chloroethoxy)methane	93	4.563	4.569	(0.954)	688564	30.3407	1160
26 2,4-Dichlorophenol	162	4.669	4.669	(0.977)	489288	30.4400	1160
27 Benzoic acid	105	4.575	4.575	(0.957)	637361	54.0025	2060
30 Naphthalene	128	4.798	4.798	(1.004)	1771801	28.9285	1110
31 4-Chloroaniline	127	4.816	4.816	(1.007)	822988	29.4244	1120
32 Hexachlorobutadiene	225	4.857	4.863	(1.016)	301709	33.0792	1260
34 2-Methylnaphthalene	142	5.275	5.275	(1.103)	1261822	31.3391	1200
36 Hexachlorocyclopentadiene	237	5.375	5.375	(0.892)	190949	39.9164	1530
37 2,4,6-Trichlorophenol	196	5.469	5.469	(0.907)	374780	35.9630	1380
38 2,4,5-Trichlorophenol	196	5.498	5.498	(0.912)	423450	38.2140	1460
40 2-Chloronaphthalene	162	5.628	5.628	(0.934)	1148472	29.6923	1140
42 o-Nitroaniline	65	5.692	5.692	(0.944)	367770	30.6651	1170
41 m-Nitroaniline	138	5.981	5.981	(0.992)	310330	29.2838	1120
43 Dimethylphthalate	163	5.792	5.798	(0.961)	1468532	34.3979	1320
44 2,6-Dinitrotoluene	165	5.851	5.851	(0.971)	346925	32.6154	1250
45 Acenaphthylene	152	5.928	5.934	(0.983)	2023053	33.5181	1280
48 2,4-Dinitrophenol	184	6.051	6.051	(1.004)	95858	22.8323	873(Q)
49 Dibenzofuran	168	6.163	6.163	(1.022)	2045123	39.1332	1500
51 Diethylphthalate	149	6.275	6.275	(1.041)	1522888	38.2614	1460
53 Fluorene	166	6.398	6.398	(1.061)	1381285	32.7802	1250
54 4-Chlorophenylphenylether	204	6.375	6.375	(1.058)	669361	37.6237	1440
55 2-Methyl-4,6-dinitrophenol	198	6.416	6.416	(0.916)	169095	25.2206	965

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
56 p-Nitroaniline	138	6.404	6.404	(1.062)	303799	29.3149	1120
133 Diphenylamine	169	6.451	6.451	(0.921)	1168201	33.0477	1260
58 1,2-Diphenylhydrazine	77	6.481	6.481	(0.925)	1488572	34.5136	1320
61 4-Bromophenylphenylether	248	6.698	6.698	(0.956)	394915	43.3723	1660
63 Hexachlorobenzene	284	6.757	6.757	(0.965)	426775	38.1859	1460
68 Phenanthrene	178	7.022	7.022	(1.003)	2096975	34.8180	1330
69 Anthracene	178	7.051	7.051	(1.007)	2067379	33.7534	1290
72 Di-n-butylphthalate	149	7.292	7.286	(1.041)	2698243	41.3021	1580
76 Fluoranthene	202	7.728	7.728	(1.103)	2208198	37.9839	1450
85 Butylbenzylphthalate	149	8.175	8.175	(0.943)	1150776	40.7368	1560
89 Benzo(a)anthracene	228	8.651	8.651	(0.998)	1958326	34.9617	1340
90 3,3'-Dichlorobenzidine	252	8.598	8.592	(0.992)	567136	35.2624	1350
92 Chrysene	228	8.686	8.686	(1.002)	1923758	36.7458	1400
93 bis(2-Ethylhexyl)phthalate	149	8.527	8.527	(0.984)	1633969	39.8137	1520
94 Di-n-octylphthalate	149	9.051	9.051	(0.895)	2616268	39.6903	1520
95 Benzo(b)fluoranthene	252	9.651	9.651	(0.954)	1753104	34.6806	1330
96 Benzo(k)fluoranthene	252	9.680	9.680	(0.957)	1965230	38.8952	1490
97 Benzo(a)pyrene	252	10.045	10.045	(0.993)	1639050	37.2296	1420
99 Indeno(1,2,3-cd)pyrene	276	11.733	11.733	(1.160)	1507771	32.9475	1260
100 Dibenzo(a,h)anthracene	278	11.733	11.733	(1.160)	1244344	32.5335	1240
101 Benzo(ghi)perylene	276	12.233	12.233	(1.209)	1283298	33.8911	1300
1 N-Methyl-N-nitrosomethylamine	74	2.457	2.434	(0.627)	310614	29.9796	1150

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: /chem/MSD1.i/s122109.b/s112110.d
Date : 21-DEC-2009 13:23
Client ID: WSTO3-10-2147MSD
Sample Info: 1120199929119344731111SVMF111LANLMSD
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD1.i
Operator: AMY
Column diameter: 0.20

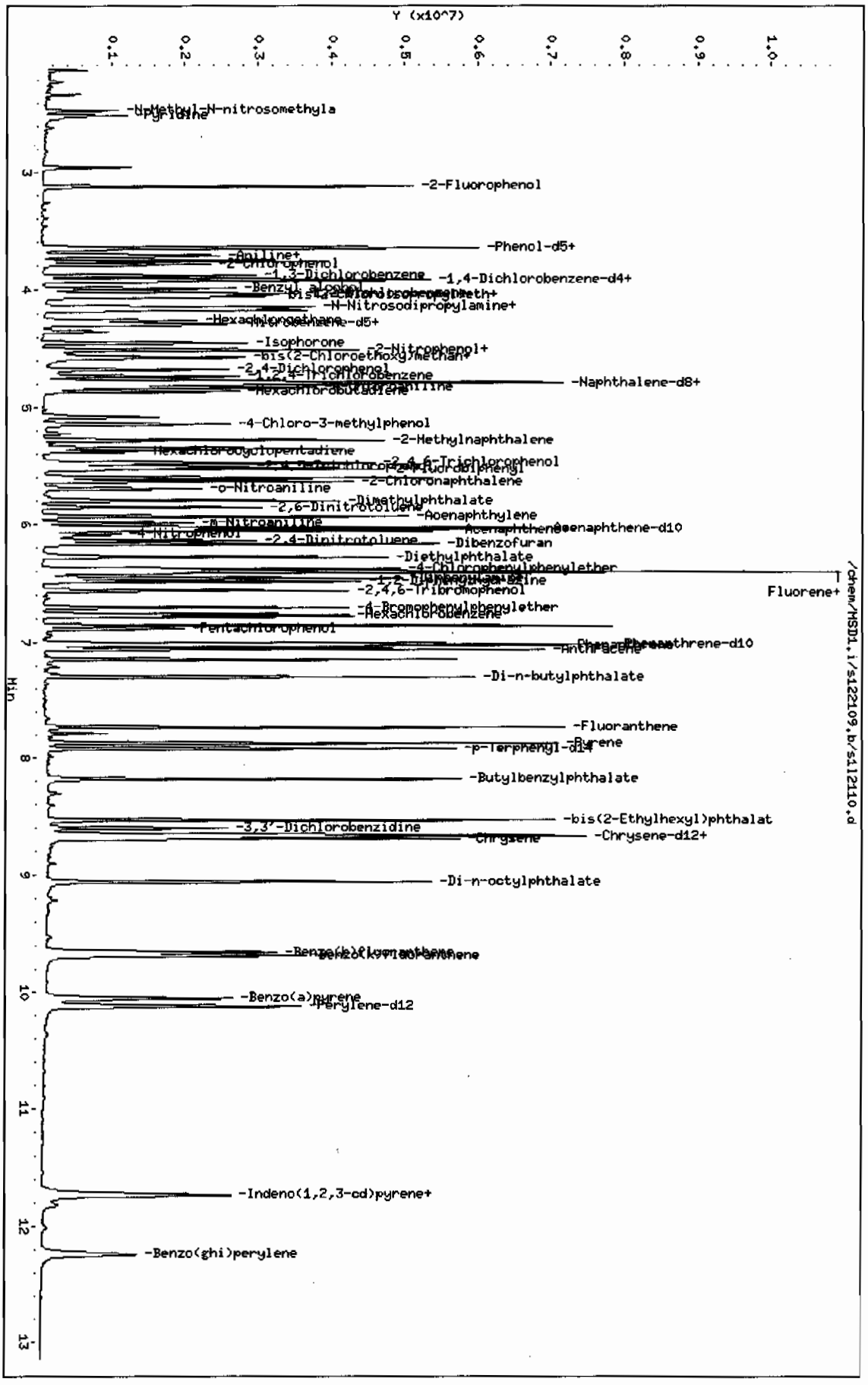

Page 1

Miscellaneous Data

Prep Logbook

Extraction of Semivolatile and Nonvolatile Organic Compounds from Soil, Sludge, and Other Miscellaneous Solid Samples

Batch ID: 934457 **Verified by:** _____

Analyst: Alberto Velasco

Method: SW846 3550B

Lab SOP: GL-OA-E-010 REV# 18

Instrument: Semi-Volatiles Manual

Sample ID	Run Date	Aliquot (g)	Prepped Aliquot (mL)	Prepped Factor (mL/g)
1201999288 MB	18-DEC-2009 19:56:33	30	1	0.03333
1201999289 LCS	18-DEC-2009 19:56:33	30	1	0.03333
243007002	18-DEC-2009 19:56:33	30.02	1	0.03331
1201999290 MS (243007002)	18-DEC-2009 19:56:33	30.13	1	0.03319
1201999291 MSD (243007002)	18-DEC-2009 19:56:33	30.22	1	0.03309
243023003	18-DEC-2009 19:56:33	30.12	1	0.0332
243023004	18-DEC-2009 19:56:33	30.03	1	0.0333
243023005	18-DEC-2009 19:56:33	30.03	1	0.0333
243023006	18-DEC-2009 19:56:33	30.17	1	0.03315
243023007	18-DEC-2009 19:56:33	30.11	1	0.03321
243023008	18-DEC-2009 19:56:33	30.02	1	0.03331
243023009	18-DEC-2009 19:56:33	30.08	1	0.03324
243023010	18-DEC-2009 19:56:33	30.05	1	0.03328
243023011	18-DEC-2009 19:56:33	30.01	1	0.03332
243023012	18-DEC-2009 19:56:33	30.02	1	0.03331
243023013	18-DEC-2009 19:56:33	30.01	1	0.03332
243023014	18-DEC-2009 19:56:33	30.13	1	0.03319
243023015	18-DEC-2009 19:56:33	30.03	1	0.0333
243023016	18-DEC-2009 19:56:33	30.02	0.97	0.03231
243023017	18-DEC-2009 19:56:33	30.07	1	0.03326
243023018	18-DEC-2009 19:56:33	30.11	1	0.03321
243023019	18-DEC-2009 19:56:33	30.12	1	0.0332

Type	Sample Id	Description	Serial Number	Spike Amt	Units
LCS	1201999289	BNA LCS w/o Benzidine 50ppm	UE091130-11	1	mL
LCS	1201999289	BENZIDINE LCS	UE091217-21	1	mL
MS	1201999290	BNA LCS w/o Benzidine 50ppm	UE091130-11	1	mL
MS	1201999290	BENZIDINE LCS	UE091217-21	1	mL
MSD	1201999291	BNA LCS w/o Benzidine 50ppm	UE091130-11	1	mL
MSD	1201999291	BENZIDINE LCS	UE091217-21	1	mL
SURR	All	BNA for all Surrogate	UE091215-10	1	mL
REGNT	All	Acetone	1233927	150	mL
REGNT	All	Methylene Chloride	1242565-D	150	mL
SOURC	All	SODIUM SULFATE	1242582	30	g

Comments:

Verified By: AJS

Final Solvent: CH2Cl2

GEL ORGANIC RUN LOG INSTRUMENT ID: MSD1

DATE: 11/14/2009 METHOD: See raw data OPERATOR: AMY REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT:116462-D
Multiplier Voltage: 1400 Emv Extr. Injection Volume: 0.5, 1.0 ul
DFTPP Solution ID: WBN091006-01 Internal Std ID: WBN091024-01
CALIBRATION & QC INFORMATION:
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.

SOP: GL-OA-E-009 Rev. 22 Sequence Number: /chem/MSD1.i/s111409.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
s1k1201-D.d	WBN091101-01	AMY	14-NOV-2009 17:38	50 PPM	s111409	1.0	DFTPP	TUNE-MEGA ICAL
s1k1201.d	WBN091101-01	AMY	14-NOV-2009 17:38	50 PPM	s111409	1.0	DFTPP	TUNE-MEGA ICAL
s1k1202.d	INST BLK	amy	14-NOV-2009 17:53	-----	s111409	1.0	INST BLK	
s1k1203.d	WBN091111-16	amy	14-NOV-2009 18:22	1 PPM	s111409	1.0	MEGA001	
s1k1204.d	WBN091111-15	amy	14-NOV-2009 18:51	10 PPM	s111409	1.0	MEGA010	
s1k1204MRQ.d	WBN091111-15	amy	14-NOV-2009 18:51	10 PPM	s111409	1.0	MEGA010	pass linearity for c26 and c184
s1k1205.d	WBN091111-14	amy	14-NOV-2009 19:21	20 PPM	s111409	1.0	MEGA020	
s1k1206.d	WBN091111-13.1	amy	14-NOV-2009 19:50	40 PPM	s111409	1.0	MEGA040	
s1k1207.d	WBN091111-12	amy	14-NOV-2009 20:19	50 PPM	s111409	1.0	MEGA050	
s1k1208.d	WBN091111-11	amy	14-NOV-2009 20:47	80 PPM	s111409	1.0	MEGA080	
s1k1209.d	WBN091111-10	amy	14-NOV-2009 21:16	100 PPM	s111409	1.0	MEGA100	
s1k1210.d	WBN091111-09	amy	14-NOV-2009 21:45	120 PPM	s111409	1.0	MEGA120	
s1k1211.d	INST BLK	amy	14-NOV-2009 22:14	-----	s111409	1.0	INST BLK	
s1k1212-BOE.d	WBN091111-17.1	amy	14-NOV-2009 22:43	40 PPM	s111409	1.0	MEGAICV	DUSE-fail c65
s1k1212-D.d	WBN091111-17.1	amy	14-NOV-2009 22:43	40 PPM	s111409	1.0	MEGAICV	DUSE-fail c65
s1k1212.d	WBN091111-17.1	amy	14-NOV-2009 22:43	40 PPM	s111409	1.0	MEGAICV	DUSE: fails c65
s1k1213-D.d	WBN091101-01	AMY	15-NOV-2009 14:50	50 PPM	s111409	1.0	DFTPP	TUNE-AP/PEST/HEX ICALS
s1k1213.d	WBN091101-01	AMY	15-NOV-2009 14:50	50 PPM	s111409	1.0	DFTPP	TUNE-AP/PEST/HEX ICALS
s1k1214.d	INST BLK	amy	15-NOV-2009 15:05	-----	s111409	1.0	INST BLK	

s1k1215.d	WBN091111-01	amy	15-NOV-2009 15:28	10 PPM	s111409	1.0	AP010	
s1k1216.d	WBN091111-02	amy	15-NOV-2009 15:51	20 PPM	s111409	1.0	AP020	
s1k1217.d	WBN091111-03.1	amy	15-NOV-2009 16:14	40 PPM	s111409	1.0	AP040	
s1k1218.d	WBN091111-04	amy	15-NOV-2009 16:38	50 PPM	s111409	1.0	AP050	
s1k1219.d	WBN091111-05	amy	15-NOV-2009 17:01	80 PPM	s111409	1.0	AP080	
s1k1220.d	WBN091111-06	amy	15-NOV-2009 17:24	100 PPM	s111409	1.0	AP100	
s1k1221.d	WBN091111-07	amy	15-NOV-2009 17:47	120 PPM	s111409	1.0	AP120	
s1k1222.d	WBN091029-25	amy	15-NOV-2009 18:11	10 PPM	s111409	1.0	PEST010	
s1k1223.d	WBN091029-24	amy	15-NOV-2009 18:35	20 PPM	s111409	1.0	PEST020	
s1k1224.d	WBN091029-23.1	amy	15-NOV-2009 18:58	40 PPM	s111409	1.0	PEST040	
s1k1225.d	WBN091029-22	amy	15-NOV-2009 19:21	50 PPM	s111409	1.0	PEST050	
s1k1226.d	WBN091029-21	amy	15-NOV-2009 19:45	80 PPM	s111409	1.0	PEST080	
s1k1227.d	WBN091029-20	amy	15-NOV-2009 20:09	100 PPM	s111409	1.0	PEST100	
s1k1228.d	WBN091029-19	amy	15-NOV-2009 20:31	120 PPM	s111409	1.0	PEST120	
s1k1229.d	WBN091016-16	amy	15-NOV-2009 20:55	500 PPM	s111409	1.0	HEX500	
s1k1230.d	WBN091016-15	amy	15-NOV-2009 21:18	1000 PPM	s111409	1.0	HEX1000	
s1k1231.d	WBN091016-14	amy	15-NOV-2009 21:42	1250 PPM	s111409	1.0	HEX1250	
s1k1232.d	WBN091016-13	amy	15-NOV-2009 22:06	1500 PPM	s111409	1.0	HEX503	
s1k1233.d	WBN091016-12	amy	15-NOV-2009 22:30	1750 PPM	s111409	1.0	HEX504	
s1k1234.d	UBN090825-02.4	amy	15-NOV-2009 22:53	2000 PPM	s111409	1.0	HEX2000	
s1k1235-D.d	WBN091111-08.1	amy	15-NOV-2009 23:17	40 PPM	s111409	1.0	APICV	
s1k1235.d	WBN091111-08.1	amy	15-NOV-2009 23:17	40 PPM	s111409	1.0	APICV	
s1k1236-D.d	WBN091029-26.1	amy	15-NOV-2009 23:40	40 PPM	s111409	1.0	PESTICV	
s1k1236.d	WBN091029-26.1	amy	15-NOV-2009 23:40	40 PPM	s111409	1.0	PESTICV	
s1k1237-D.d	WBN091016-10.2	amy	16-NOV-2009 00:03	1250 PPM	s111409	1.0	HEXICV	
s1k1237.d	WBN091016-10.2	amy	16-NOV-2009 00:03	1250 PPM	s111409	1.0	HEXICV	
s1k1238-D.d	WBN091101-01	AMY	16-NOV-2009 00:27	50 PPM	s111409	1.0	DFTPP	DUSE: fails breakdown

s1k1238.d	WBN091101-01	AMY	16-NOV-2009 00:27	50 PPM	s111409	1.0	DFTPP	DUSE: fails breakdown
s1k1239.d	INST BLK	amy	16-NOV-2009 00:43	-----	s111409	1.0	INST BLK	
s1k1240.d	UBN090924-01	amy	16-NOV-2009 01:05	10 PPM	s111409	1.0	NEV010	DUSE
s1k1241.d	UBN090924-02	amy	16-NOV-2009 01:28	20 PPM	s111409	1.0	NEV020	DUSE
s1k1242.d	UBN090924-03	amy	16-NOV-2009 01:51	40 PPM	s111409	1.0	NEV040	DUSE
s1k1243.d	UBN090924-04	amy	16-NOV-2009 02:14	50 PPM	s111409	1.0	NEV050	DUSE
s1k1244.d	UBN090924-05	amy	16-NOV-2009 02:38	80 PPM	s111409	1.0	NEV080	DUSE
s1k1245.d	UBN090924-06	amy	16-NOV-2009 03:01	100 PPM	s111409	1.0	NEV100	DUSE
s1k1246.d	UBN090924-07	amy	16-NOV-2009 03:23	120 PPM	s111409	1.0	NEV120	DUSE
s1k1247-D.d	WBN091101-01	AMY	17-NOV-2009 09:05	50 PPM	s111409	1.0	DFTPP	DUSE
s1k1247.d	WBN091101-01	AMY	17-NOV-2009 09:05	50 PPM	s111409	1.0	DFTPP	DUSE
s1k1248.d	INST BLK	amy	17-NOV-2009 09:20	-----	s111409	1.0	INST BLK	
s1k1249.d	WBN091027-09.2	amy	17-NOV-2009 09:48	40 PPM	s111409	1.0	MEGAICV	DUSE: c65 fails
s1k1250.d	UBN090924-01	amy	17-NOV-2009 10:17	10 PPM	s111409	1.0	NEV010	DUSE
s1k1251.d	UBN090924-02	amy	17-NOV-2009 10:41	20 PPM	s111409	1.0	NEV020	DUSE
s1k1252.d	UBN090924-03	amy	17-NOV-2009 11:04	40 PPM	s111409	1.0	NEV040	DUSE
s1k1253.d	UBN090924-04	amy	17-NOV-2009 11:27	50 PPM	s111409	1.0	NEV050	DUSE
s1k1254.d	UBN090924-05	amy	17-NOV-2009 11:50	80 PPM	s111409	1.0	NEV080	DUSE
s1k1255.d	UBN090924-06	amy	17-NOV-2009 12:14	100 PPM	s111409	1.0	NEV100	DUSE
s1k1256.d	UBN090924-07	amy	17-NOV-2009 12:38	120 PPM	s111409	1.0	NEV120	DUSE
s1k1257.d	WBN091027-09.1	amy	17-NOV-2009 13:02	40 PPM	s111409	1.0	MEGAICV	DUSE: c65 fails /clean inj port
s1k1259-D.d	WBN091101-01	AMY	17-NOV-2009 15:48	50 PPM	s111409	1.0	DFTPP	TUNE-MEGAICV/NEV ICAL
s1k1259.d	WBN091101-01	AMY	17-NOV-2009 15:48	50 PPM	s111409	1.0	DFTPP	TUNE-MEGAICV/NEV ICAL
s1k1260.d	INST BLK	amy	17-NOV-2009 16:04	-----	s111409	1.0	INST BLK	
s1k1261-BOE.d	WBN091027-09.3	amy	17-NOV-2009 16:27	40 PPM	s111409	1.0	MEGAICV	
s1k1261-D.d	WBN091027-09.3	amy	17-NOV-2009 16:27	40 PPM	s111409	1.0	MEGAICV	
s1k1261.d	WBN091027-09.3	amy	17-NOV-2009 16:27	40 PPM	s111409	1.0	MEGAICV	pass 530038

s1k1262.d	UBN091117-01	amy	17-NOV-2009 16:56	10 PPM	s111409	1.0	NEV010	
s1k1263.d	UBN091117-02	amy	17-NOV-2009 17:19	20 PPM	s111409	1.0	NEV020	
s1k1264.d	UBN091117-03	amy	17-NOV-2009 17:42	40 PPM	s111409	1.0	NEV040	
s1k1265.d	UBN091117-04	amy	17-NOV-2009 18:05	50 PPM	s111409	1.0	NEV050	DUSE
s1k1266.d	UBN091117-05	amy	17-NOV-2009 18:28	80 PPM	s111409	1.0	NEV080	
s1k1267.d	UBN091117-06	amy	17-NOV-2009 18:52	100 PPM	s111409	1.0	NEV100	DUSE
s1k1268.d	UBN091117-07	amy	17-NOV-2009 19:15	120 PPM	s111409	1.0	NEV120	

GEL ORGANIC RUN LOG INSTRUMENT ID: MSD1

DATE: 12/21/2009 METHOD: See raw data OPERATOR: JMB3 REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT:1202440-D
Multiplier Voltage: 1318 Emv Extr. Injection Volume: 0.5, 1.0 ul
DFTPP Solution ID: WBN091101-01 Internal Std ID: WBN091106-10
CALIBRATION & QC INFORMATION:
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.

SOP: GL-OA-E-009 Rev. 23 Sequence Number: /chem/MSD1.i/s122109.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
s112101.d	INSTBLK	AMY	21-DEC-2009 08:41		all	1.0		DUSE
s112102.d	WBN091213-01	AMY	21-DEC-2009 09:05	50 PPM	s122109	1.0	DFTPP	PASSING
s112103.d	WBN091111-17.2	AMY	21-DEC-2009 09:19	40 PPM	MEGAIICARE	1.0	MEGACVS	PASSING
s112104.d	WBN091201-03.5	AMY	21-DEC-2009 10:32	40 PPM	ap12	1.0	APCVS	PASSING
s112105.d	WBN091202-23.5	AMY	21-DEC-2009 10:55	40 PPM	pest	1.0	PESTCVS	DUSE-not needed
s112106-1.d	1201999288	AMY	21-DEC-2009 11:49	934473	10-939	1.0	SBLK01	REPORT
s112106.d	1201999288	AMY	21-DEC-2009 11:49	934473	10-928	1.0	SBLK01	REPORT
s112107-1.d	1201999289	AMY	21-DEC-2009 12:12	934473	10-939	1.0	SBLK01LCS	REPORT
s112107.d	1201999289	AMY	21-DEC-2009 12:12	934473	10-928	1.0	SBLK01LCS	REPORT
s112108.d	243007002	AMY	21-DEC-2009 12:35	934473	10-939	1.0	LANL	REPORT
s112109.d	1201999290	AMY	21-DEC-2009 12:59	934473	10-939	1.0	LANLMS	REPORT
s112110.d	1201999291	AMY	21-DEC-2009 13:23	934473	10-939	1.0	LANLMSD	REPORT
s112111.d	243023003	AMY	21-DEC-2009 14:39	934473	10-928	1.0	LANL	REPORT
s112112.d	243023004	AMY	21-DEC-2009 15:03	934473	10-928	1.0	LANL	REPORT
s112113.d	243023005	AMY	21-DEC-2009 15:27	934473	10-928	1.0	LANL	REPORT
s112114.d	243023006	AMY	21-DEC-2009 15:51	934473	10-928	1.0	LANL	REPORT
s112115.d	243023007	AMY	21-DEC-2009 16:34	934473	10-928	1.0	LANL	REPORT
s112116.d	243023008	AMY	21-DEC-2009 16:59	934473	10-928	1.0	LANL	REPORT
s112117.d	243023009	AMY	21-DEC-2009 17:23	934473	10-928	1.0	LANL	REPORT

s112118.d	243023010	AMY	21-DEC-2009 17:46	934473	10-928	1.0	LANL	REPORT
s112119.d	243023011	AMY	21-DEC-2009 18:09	934473	10-928	1.0	LANL	REPORT
s112120.d	243023012	AMY	21-DEC-2009 18:32	934473	10-928	1.0	LANL	REPORT
s112121.d	243023013	AMY	21-DEC-2009 18:55	934473	10-928	1.0	LANL	REPORT
s112122.d	243023014	AMY	21-DEC-2009 19:18	934473	10-928	1.0	LANL	REPORT-$ c.60 fails, no hits.
s112123.d	243023015	AMY	21-DEC-2009 19:42	934473	10-928	1.0	LANL	REPORT-$ c.60 fails, no hits.
s112124.d	243023016	AMY	21-DEC-2009 20:04	934473	10-928	1.0	LANL	REPORT-$ c.60 fails, no hits.
s112125.d	243023017	AMY	21-DEC-2009 20:27	934473	10-928	10.0	LANL	REPORT-several $ fail due to 10X dilution.
s112126.d	243023018	AMY	21-DEC-2009 20:50	934473	10-928	1.0	LANL	REPORT
s112127.d	243023019	AMY	21-DEC-2009 21:13	934473	10-928	1.0	LANL	DUSE-Out of tune window

Instrument Batch: /chem/MSD1.i/s122109.b

Page: 1

GC/MS Semivolatile Analysis

Semi-Volatile Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-939-1

Method/Analysis Information

Procedure:	**Analysis of Semivolatile Organic Compounds by Gas Chromatography/Mass Spectrometry**
Analytical Method:	SW846 8270C
Prep Method:	SW846 3510C
TCLP Prep Method :	SW846 1311
Analytical Batch Number:	935425
Prep Batch Number:	935424
TCLP Prep Batch Number:	934762

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 8270C:

Sample ID	Client ID
243010001	WST03-10-2147
1201999915	TCLP Blank (TB)
1202001585	Method Blank (MB)
1202001586	Laboratory Control Sample (LCS)
1202001587	242306003(WST03-10-2143) Matrix Spike (MS)
1202001588	242306003(WST03-10-2143) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on an "as received" basis.

Preparation/Analytical Method Verification

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-009 REV# 23.

Raw data reports are processed and reviewed by the analyst using the Target software package. False positives have been removed from the Target quantitation reports per standard operating procedures (SOP) section 18.2.

Calibration Information

Please note that the 'Cal Date' indicated on each quantitation report reflects the date and time of the most recent calibrated analyte(s) in the Target processing method. Since the laboratory may calibrate with multiple solutions on different days using the same processing method, the Target software will update the 'Cal Date' to the last calibration file, date and time. The correct dates and times for all calibration files are located on the Calibration History report in the Standard Data section in the data package.

Due to software limitations, the Calibration Summary Form 6 may not indicate all the calibration files comprising the initial calibration. A complete list of the initial calibration data files are shown in the Calibration History report located in the Standard Data section of the data package. Please note that the second level of the initial calibration (5 mg/L) is only used for n-Nitrosodipropylamine. The various

calibration mixes may not be calibrated using all of the calibration levels. In addition, not all of the mixes are calibrated using the same levels.

Diphenylamine has now superseded N-Nitroso-diphenylamine as a CCC on Quantitation Reports, Initial Calibration Reports, Calibration Check Standard Reports, etc. Previous versions of EPA Method 8270 (prior to 8270C) listed N-Nitroso-diphenylamine as a CCC. However, as stated in EPA Method 8270C, Revision 3, December, 1996, Section 1.4.5, "N-Nitroso-diphenylamine decomposes in the gas chromatographic inlet and cannot be separated from Diphenylamine." Studies of these two compounds at GEL, both independent of each other and together, show that they not only co-elute, but also have similar mass spectra. N-Nitroso-diphenylamine and Diphenylamine will be reported as Diphenylamine on all reports and forms.

The linear equation used in Target and indicated on the initial calibration summary form is not a conventional linear equation (slope intercept formula) and does not match the equation found in SW-846 method 8000B. The x and y axes are inversed in Target, so that the instrument response is treated as the independent variable (x) and the concentration ratio is treated as the dependent variable (y). The equation used in Target to calculate sample results is adjusted to account for the linear equation inversion and reciprocal slope. The adjusted calculation has been independently verified to produce valid results.

Initial Calibration
All initial calibration requirements have been met for this sample delivery group (SDG). A second source initial calibration verification (ICV) was included in the standard section directly behind the initial calibration.

CCV Requirements
All associated calibration verification standard(s) (ICV or CCV) met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Surrogate Recoveries
All the surrogate recoveries were within the established acceptance criteria for this SDG.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

QC Sample Designation
The non-SDG sample 242306003 (WST03-10-2143) was selected for analysis as the matrix spike and matrix spike duplicate. Please see the associated raw data files located in the Miscellaneous Section of the data report.

Matrix Spike (MS) Recovery Statement
The MS recoveries were within the established acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recoveries were within the established acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD(s) between the MS and MSD met the acceptance limits.

Internal Standard (ISTD) Acceptance
The internal standard responses were within the required acceptance criteria for all samples and QC.

Technical Information

Holding Time Specifications
All samples in this SDG met the specified holding time. GEL assigns holding times based on the associated methodology that assigns the date and time from sample collection or sample receipt. Those holding times expressed in hours are calculated in the ALPHALIMS system. Those holding times expressed as days expire at midnight on the day of expiration.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-extraction/Re-analysis
Re-extractions or re-analyses were not required in this SDG except for confirmations and/or dilutions.

Miscellaneous Information

Nonconformance (NCR) Documentation
The following NCR was generated for this SDG: 773757. It is located in the Miscellaneous Section of the data report.

Manual Integrations
Some initial calibration standards, continuing calibration standards, and/or samples may require manual integrations due to software limitations. Please see the raw data in the Miscellaneous Section.

Additional Comments
The analyst did not scan the samples into custody until after the analysis had been completed. Physical custody of the samples was maintained was maintained throughout the analysis process.

Electronic Package Comment
The following package was generated using an electronic data processing program referred to as "virtual packaging". In an effort to increase quality and efficiency, the laboratory is developing systems to eventually generate all data packages electronically. The following change from "traditional" packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. An electronic signature page inserted after the case narrative of each electronic package will indicate the analyst, reviewer, and report specialist names associated with the generation of the data and package. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

System Configuration

The samples reported in this SDG were analyzed on one or more of the following instrument systems. Instrument systems are referenced in the raw data and individual form headers by the Instrument ID designations listed below:

Instrument ID	Instrument	System Configuration	Column ID	Column Description
MSD1.I	HP 5973 Mass Spectrometer	HP6890/HP5973	ZB-5ms	25m x 0.2mm, 0.33um (5% Polysilarylene-95% Polydimethylsiloxane)

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

Reviewer: Dan Beaubien **Date:** 12-29-09

Roadmap for LANL 10-939-1 SVOA

This roadmap was analyzed by amy01291 on 12-23-2009, 11:28.
This roadmap was reviewed by amy01291 on 12-23-2009, 11:40.
This roadmap was reviewed by dan01134 on 12-23-2009, 13:54.

Sample

exclude	manual	datafile	smpid	injdate	injtime	sublist	clientid	dilution	batchid	comment
☐	N	/chem/MSD1.i/s122209.b/s112220.d	243010001	22-DEC-2009	18:53	10-939-1.sub	WST03-10-2147	1	935425	USE

QC Sample

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	batchid	comment
☐	N	/chem/MSD1.i/s122209.b/s112208.d	1201999915	tb	22-DEC-2009	14:04	10-939-1.sub	TCLPBLANK	1	935425	USE
☐	N	/chem/MSD1.i/s122209.b/s112209-4.d	1202001585	mb	22-DEC-2009	14:29	10-939-1.sub	SBLK01	1	935425	USE
☐	N	/chem/MSD1.i/s122209.b/s112210-4.d	1202001586	lcs	22-DEC-2009	14:52	10-939-1.sub	SBLK01LCS	1	935425	USE

Sample Data Summary

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-939-1**	**Date Collected:**	**12/14/2009 12:00**	**Matrix:**	**TCLP R**
Lab Sample ID:	**243010001**	**Date Received:**	**12/16/2009 09:10**		
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**WST03-10-2147**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**935425**	**Inst:**	**MSD1.I**	**Dilution:**	**1**
Run Date:	**12/22/2009 18:53**	**Analyst:**	**AMY**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/21/2009 20:40**	**Aliquot:**	**200 mL**	**Final Volume:**	**1 mL**
Data File:	**s1l2220.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
106-46-7	1,4-Dichlorobenzene	U	0.050	mg/L	0.010	0.050
121-14-2	2,4-Dinitrotoluene	U	0.050	mg/L	0.010	0.050
87-86-5	Pentachlorophenol	U	0.050	mg/L	0.010	0.050
110-86-1	Pyridine	U	0.050	mg/L	0.015	0.050
95-48-7	o-Cresol	U	0.050	mg/L	0.010	0.050
65794-96-9	m,p-Cresols	U	0.050	mg/L	0.015	0.050
67-72-1	Hexachloroethane	U	0.050	mg/L	0.010	0.050
98-95-3	Nitrobenzene	U	0.050	mg/L	0.015	0.050
87-68-3	Hexachlorobutadiene	U	0.050	mg/L	0.010	0.050
88-06-2	2,4,6-Trichlorophenol	U	0.050	mg/L	0.010	0.050
95-95-4	2,4,5-Trichlorophenol	U	0.050	mg/L	0.010	0.050
118-74-1	Hexachlorobenzene	U	0.050	mg/L	0.010	0.050

QC Summary

Semi-Volatile

Surrogate Recovery Report

SDG Number: 10-939-1

Matrix Type: TCLP SOLID

CAP Column (1) : J&W DB-5MS

Sample ID	Client ID	2FP %REC	PHL %REC	NBZ %REC	FBP %REC	TBP %REC	TPH %REC
1201999915	TB for batch 934762	50	33	91	81	93	103
1202001585	MB for batch 935424	47	30	87	79	88	102
1202001586	LCS for batch 935424	51	33	94	84	97	103
243010001	WST03-10-2147	41	26	83	79	89	101

Surrogate		Acceptance Limits
2FP	= 2-Fluorophenol	(25%-92%)
PHL	= Phenol-d5	(15%-73%)
NBZ	= Nitrobenzene-d5	(40%-112%)
FBP	= 2-Fluorobiphenyl	(35%-100%)
TBP	= 2,4,6-Tribromophenol	(39%-115%)
TPH	= p-Terphenyl-d14	(46%-130%)

* Recovery outside Acceptance Limits

\# Column to be used to flag recovery values

D Sample Diluted

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-939-1
Client ID: LCS for batch 935424
Lab Sample ID: 1202001586
Instrument: MSD1.I
Analyst: AMY
Inj. Vol: .5 uL

Sample Type: Laboratory Control Sample
Matrix: TCLP SOIL
Analysis Date: 12/22/2009 14:52
Dilution: 1
Prep Batch ID 935424
Batch ID: 935425

CAS No		Parmname	Amount Added mg/L	Sample Conc. mg/L	Spike Conc. mg/L	Recovery %	Acceptance Limits
106-46-7	LCS	1,4-Dichlorobenzene	0.100	0.0	0.0631	63	38-88
121-14-2	LCS	2,4-Dinitrotoluene	0.100	0.0	0.0719	72	55-108
87-86-5	LCS	Pentachlorophenol	0.100	0.0	0.0901	90	44-121
110-86-1	LCS	Pyridine	0.100	0.0	0.0658	66	26-103
95-48-7	LCS	o-Cresol	0.100	0.0	0.0705	70	41-94
65794-96-9	LCS	m,p-Cresols	0.100	0.0	0.0667	67	38-96
67-72-1	LCS	Hexachloroethane	0.100	0.0	0.0626	63	35-92
98-95-3	LCS	Nitrobenzene	0.100	0.0	0.0861	86	48-112
87-68-3	LCS	Hexachlorobutadiene	0.100	0.0	0.0715	71	33-98
88-06-2	LCS	2,4,6-Trichlorophenol	0.100	0.0	0.0928	93	54-111
95-95-4	LCS	2,4,5-Trichlorophenol	0.100	0.0	0.0925	92	50-111
118-74-1	LCS	Hexachlorobenzene	0.100	0.0	0.0913	91	53-115

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-939-1
Client ID: WST03-10-2143MS
Lab Sample ID: 1202001587
Instrument: MSD1.I
Analyst: AMY
Inj. Vol: .5 uL

Sample Type: Matrix Spike
Matrix: TCLP R
Analysis Date: 12/22/2009 17:19
Prep Batch ID: 935424
Batch ID: 935425
Dilution: 1

CAS No		Parmname	Amount Added mg/L	Sample Conc. mg/L		Spike Conc. mg/L	Recovery %	Acceptance Limits
106-46-7	MS	1,4-Dichlorobenzene	0.500	0.00	U	0.300	60	37-91
121-14-2	MS	2,4-Dinitrotoluene	0.500	0.00	U	0.358	72	50-109
87-86-5	MS	Pentachlorophenol	0.500	0.00	U	0.476	95	38-131
110-86-1	MS	Pyridine	0.500	0.00	U	0.325	65	28-110
95-48-7	MS	o-Cresol	0.500	0.00	U	0.335	67	37-105
65794-96-9	MS	m,p-Cresols	0.500	0.00	U	0.308	62	33-110
67-72-1	MS	Hexachloroethane	0.500	0.00	U	0.300	60	34-95
98-95-3	MS	Nitrobenzene	0.500	0.00	U	0.409	82	43-118
87-68-3	MS	Hexachlorobutadiene	0.500	0.00	U	0.340	68	31-106
88-06-2	MS	2,4,6-Trichlorophenol	0.500	0.00	U	0.457	91	46-114
95-95-4	MS	2,4,5-Trichlorophenol	0.500	0.00	U	0.460	92	46-117
118-74-1	MS	Hexachlorobenzene	0.500	0.00	U	0.458	92	47-120

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-939-1
Client ID: WST03-10-2143MSD
Lab Sample ID: 1202001588
Instrument: MSD1.I
Analyst: AMY
Inj. Vol: .5 uL

Sample Type: Matrix Spike Duplicate
Matrix: TCLP R
Analysis Date: 12/22/2009 17:42
Dilution: 1
Prep Batch ID: 935424
Batch ID: 935425

CAS No	Parmname	Amount Added mg/L	Sample Conc. mg/L		Spike Conc. mg/L	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
106-46-7	MSD 1,4-Dichlorobenzene	0.500	0.00	U	0.329	66	37-91	9	0-25
121-14-2	MSD 2,4-Dinitrotoluene	0.500	0.00	U	0.355	71	50-109	1	0-25
87-86-5	MSD Pentachlorophenol	0.500	0.00	U	0.495	99	38-131	4	0-25
110-86-1	MSD Pyridine	0.500	0.00	U	0.331	66	28-110	2	0-25
95-48-7	MSD o-Cresol	0.500	0.00	U	0.359	72	37-105	7	0-25
65794-96-9	MSD m,p-Cresols	0.500	0.00	U	0.332	66	33-110	7	0-25
67-72-1	MSD Hexachloroethane	0.500	0.00	U	0.327	65	34-95	9	0-25
98-95-3	MSD Nitrobenzene	0.500	0.00	U	0.431	86	43-118	5	0-25
87-68-3	MSD Hexachlorobutadiene	0.500	0.00	U	0.378	76	31-106	10	0-25
88-06-2	MSD 2,4,6-Trichlorophenol	0.500	0.00	U	0.469	94	46-114	2	0-25
95-95-4	MSD 2,4,5-Trichlorophenol	0.500	0.00	U	0.482	96	46-117	5	0-25
118-74-1	MSD Hexachlorobenzene	0.500	0.00	U	0.494	99	47-120	8	0-25

Method Blank Summary

SDG Number:	10-939-1	Client:	LANL010	Matrix:	TCLP SOIL
Client ID:	MB for batch 935424	Instrument ID:	MSD1.I	Data File:	s1l2209-1.d
Lab Sample ID:	1202001585	Prep Date:	12/21/2009 20:40	Analyzed:	12/22/09 14:29
Column:	J&W DB-5MS	Level:	LOW		

This method blank applies to the following samples and quality control samples:

Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01 TB for batch 934762	1201999915	s1l2208.d	12/22/09	1404
02 LCS for batch 935424	1202001586	s1l2210-1.d	12/22/09	1452
05 WST03-10-2147	243010001	s1l2220.d	12/22/09	1853

Instrument Performance Check

DFTPP

Lab Name GEL Laboratories LLC **Client SDG:** 10-939-1

Instrument ID: MSD1.I **Injection Date/Time:** 14-NOV-09 17:38

Column Description: J&W DB-5MS **Lab File ID** /chem/MSD1.i/s111409.b/s1k1201.d

m/e	Ion Abundance Criteria	% Relative Abundance
198	Base Peak, 100% Relative Abundance	100
51	30 - 60% of mass 198	41.3
68	Less than 2% of mass 69	1.8
69	Mass 69 Relative Abundance	36.7
70	Less than 2% of mass 69	0.6
127	40 - 60% of mass 198	48.3
197	0 - 1% of mass 198	0.7
199	5 - 9% of mass 198	6.6
275	10 - 30% of mass 198	23.3
365	Greater than 1% of mass 198	2.2
441	Present, but less than mass 443	74.2
442	Greater than 40% of mass 198	77.4
443	17 - 23% of mass 442	19.2

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
MEGA001	WBN091111-16	/chem/MSD1.i/s111409.b/s1k120	14-NOV-09 18:22
MEGA010	WBN091111-15	/chem/MSD1.i/s111409.b/s1k120	14-NOV-09 18:51
MEGA020	WBN091111-14	/chem/MSD1.i/s111409.b/s1k120	14-NOV-09 19:21
MEGA040	WBN091111-13.1	/chem/MSD1.i/s111409.b/s1k120	14-NOV-09 19:50
MEGA050	WBN091111-12	/chem/MSD1.i/s111409.b/s1k120	14-NOV-09 20:19
MEGA080	WBN091111-11	/chem/MSD1.i/s111409.b/s1k120	14-NOV-09 20:47
MEGA100	WBN091111-10	/chem/MSD1.i/s111409.b/s1k120	14-NOV-09 21:16
MEGA120	WBN091111-09	/chem/MSD1.i/s111409.b/s1k121	14-NOV-09 21:45

Instrument Performance Check

DFTPP

Lab Name GEL Laboratories LLC **Client SDG:** 10-939-1

Instrument ID: MSD1.1 **Injection Date/Time:** 17-NOV-09 15:48

Column Description: J&W DB-5MS **Lab File ID** /chem/MSD1.i/s111409.b/s1k1259.d

m/e	Ion Abundance Criteria	% Relative Abundance
198	Base Peak, 100% Relative Abundance	100
51	30 - 60% of mass 198	44.2
68	Less than 2% of mass 69	1.8
69	Mass 69 Relative Abundance	38.5
70	Less than 2% of mass 69	0.6
127	40 - 60% of mass 198	49.6
197	0 - 1% of mass 198	0.7
199	5 - 9% of mass 198	6.7
275	10 - 30% of mass 198	23.8
365	Greater than 1% of mass 198	2.4
441	Present, but less than mass 443	72.4
442	Greater than 40% of mass 198	78.9
443	17 - 23% of mass 442	19.2

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
MEGAICV	WBN091027-09.3	/chem/MSD1.i/s111409.b/s1k126	17-NOV-09 16:27

Instrument Performance Check

DFTPP

Lab Name GEL Laboratories LLC **Client SDG:** 10-939-1

Instrument ID: MSD1.I **Injection Date/Time:** 22-DEC-09 09:58

Column Description: J&W DB-5MS **Lab File ID** /chem/MSD1.i/s122209.b/s1l2202.d

m/e	Ion Abundance Criteria	% Relative Abundance
198	Base Peak, 100% Relative Abundance	100
51	30 - 60% of mass 198	43.1
68	Less than 2% of mass 69	1.6
69	Mass 69 Relative Abundance	38.6
70	Less than 2% of mass 69	0.5
127	40 - 60% of mass 198	47.7
197	0 - 1% of mass 198	0.8
199	5 - 9% of mass 198	6.7
275	10 - 30% of mass 198	23.5
365	Greater than 1% of mass 198	2.3
441	Present, but less than mass 443	74.2
442	Greater than 40% of mass 198	65.5
443	17 - 23% of mass 442	19.4

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
MEGACVS	WBN091111-17.2	/chem/MSD1.i/s122209.b/s1l2203	22-DEC-09 10:14
TCLPBLANK	1201999915	/chem/MSD1.i/s122209.b/s1l2208	22-DEC-09 14:04
SBLK01	1202001585	/chem/MSD1.i/s122209.b/s1l2209	22-DEC-09 14:29
SBLK01LCS	1202001586	/chem/MSD1.i/s122209.b/s1l2210	22-DEC-09 14:52
WST03-10-2147	243010001	/chem/MSD1.i/s122209.b/s1l2220	22-DEC-09 18:53

Internal Standard
Area and RT Summary

Lab Name : GEL Laboratories LLC

Instrument: MSD1.I

GC Column: J&W DB-5MS

Client SDG: 10-939-1

STD Analysis Time: 22-DEC-09 10:14

Data File: s1I2203.d

	1,4-Dichlorobenzene-d4			Naphthalene-d8			Acenaphthene-d10			Phenanthrene-d10			Chrysene-d12			Perylene-d12		
	Area	#	RT #	Area	#	RT #	Area	#	RT #	Area	#	RT #	Area	#	RT #	Area	#	RT #
12 Hour STD	746088		3.88	2985861		4.75	1554369		5.99	2636834		6.97	2284347		8.63	2055173		10.1
Upper Limit	1492176		4.38	5971722		5.25	3108738		6.49	5273668		7.47	4568694		9.13	4110346		10.6
Lower Limit	373044		3.38	1492931		4.25	777185		5.49	1318417		6.47	1142174		8.13	1027587		9.56
Sample ID																		
TBLK01	761961		3.88	2994887		4.75	1666801		5.99	2859175		6.97	2371570		8.65	1958189		10.1
BLK01	796945		3.88	3098452		4.75	1726059		5.99	2899388		6.97	2443680		8.63	2026475		10.1
BLK01LCS	755276		3.88	2924407		4.75	1647119		5.99	2722410		6.97	2246847		8.63	1799838		10.1
WST03-10-2147	677642		3.88	2618948		4.75	1419465		5.99	2372327		6.97	1891986		8.63	1521259		10.1

Area Upper Limit = +100% of internal standard area
Area Lower Limit = - 50% of internal standard area

RT Upper Limit = + 0.50 minutes of internal standard RT
RT Lower Limit = - 0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Value outside of QC Limits

Sample Data

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-939-1**	**Date Collected:**	**12/14/2009 12:00**	**Matrix:**	**TCLP R**
Lab Sample ID:	**243010001**	**Date Received:**	**12/16/2009 09:10**		
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**WST03-10-2147**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**935425**	**Inst:**	**MSD1.I**	**Dilution:**	**1**
Run Date:	**12/22/2009 18:53**	**Analyst:**	**AMY**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/21/2009 20:40**	**Aliquot:**	**200 mL**	**Final Volume:**	**1 mL**
Data File:	**s112220.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
106-46-7	1,4-Dichlorobenzene	U	0.050	mg/L	0.010	0.050
121-14-2	2,4-Dinitrotoluene	U	0.050	mg/L	0.010	0.050
87-86-5	Pentachlorophenol	U	0.050	mg/L	0.010	0.050
110-86-1	Pyridine	U	0.050	mg/L	0.015	0.050
95-48-7	o-Cresol	U	0.050	mg/L	0.010	0.050
65794-96-9	m,p-Cresols	U	0.050	mg/L	0.015	0.050
67-72-1	Hexachloroethane	U	0.050	mg/L	0.010	0.050
98-95-3	Nitrobenzene	U	0.050	mg/L	0.015	0.050
87-68-3	Hexachlorobutadiene	U	0.050	mg/L	0.010	0.050
88-06-2	2,4,6-Trichlorophenol	U	0.050	mg/L	0.010	0.050
95-95-4	2,4,5-Trichlorophenol	U	0.050	mg/L	0.010	0.050
118-74-1	Hexachlorobenzene	U	0.050	mg/L	0.010	0.050

GEL Laboratories LLC

Data file : /chem/MSD1.i/s122209.b/s112220.d
Lab Smp Id: 243010001 Client Smp ID: WST03-10-2147
Inj Date : 22-DEC-2009 18:53
Operator : AMY Inst ID: MSD1.i
Smp Info : |243010001|935425|1|SVMF|1|LANL
Misc Info : |MSDTCLP_L|WBN091208-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD1.i/s122209.b/MSD1-M8270AQA-111409.m
Meth Date : 22-Dec-2009 18:41 amy01291 Quant Type: ISTD
Cal Date : 17-NOV-2009 17:42 Cal File: s1k1264.d
Als bottle: 19
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-939-1.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vo *Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	0.50000	ng unit correction factor
Vt	1.00000	volume of final ext
Vo	200.00000	volume of sample ext
Vi	0.50000	volume injected

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (mg/L)
* 10 1,4-Dichlorobenzene-d4	152	3.881	3.881	(1.000)	677642	40.0000	
* 29 Naphthalene-d8	136	4.745	4.752	(1.000)	2618948	40.0000	
* 46 Acenaphthene-d10	164	5.992	5.993	(1.000)	1419465	40.0000	
* 67 Phenanthrene-d10	188	6.975	6.975	(1.000)	2372327	40.0000	
* 91 Chrysene-d12	240	8.628	8.628	(1.000)	1891986	40.0000	
* 98 Perylene-d12	264	10.057	10.057	(1.000)	1521259	40.0000	
$ 3 2-Fluorophenol	112	3.081	3.081	(0.794)	721644	40.7714	0.20
$ 5 Phenol-d5	99	3.610	3.616	(0.930)	564392	26.2357	0.13
$ 20 Nitrobenzene-d5	82	4.245	4.252	(0.895)	713531	41.3423	0.21
$ 39 2-Fluorobiphenyl	172	5.487	5.487	(0.916)	1342983	39.5040	0.20
$ 60 2,4,6-Tribromophenol	329	6.528	6.528	(1.089)	354206	89.3635	0.45
$ 81 p-Terphenyl-d14	244	7.886	7.887	(0.914)	1498732	50.4654	0.25

ION RATIO REPORT

SV REPORT

Data file: s112220.d
Report Date: 12/22/2009 19:06
Lab. ID: 243010001 SampleType: SAMPLE
Injection Date: 22-DEC-2009 18:53
Operator: AMY Instrument: MSD1.i
Sample Info: |243010001|935425|1|SVMF|1|LANL
Miscellaneous Info: |MSDTCLP_L|WBN091208-01|
Comment:
Method used: /chem/MSD1.i/s122209.b/MSD1-M8270AQA-111409.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-939-1
Sample Matrix: WATER

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
50	2,4-Dinitrotoluene			CAS#: 121-14-2		
165	183514	5.99	6.10	80-120	100	(T)
89	2000	5.99	6.10	43-103	1	(QT)
63	2354	5.99	6.10	19- 79	1	(QT)

Q qualifier indicates ion failed ratio requirement

Data File: /chem/MSD1.i/s122209.b/s112220.d

Date : 22-DEC-2009 18:53

Client ID: WST03-10-2147

Sample Info: |243010001|935425|1|SVMF|1|LANL

Volume Injected (uL): 0.5

Column phase: J&W DB-5MS

Instrument: MSD1.i

Operator: AMY

Column diameter: 0.20

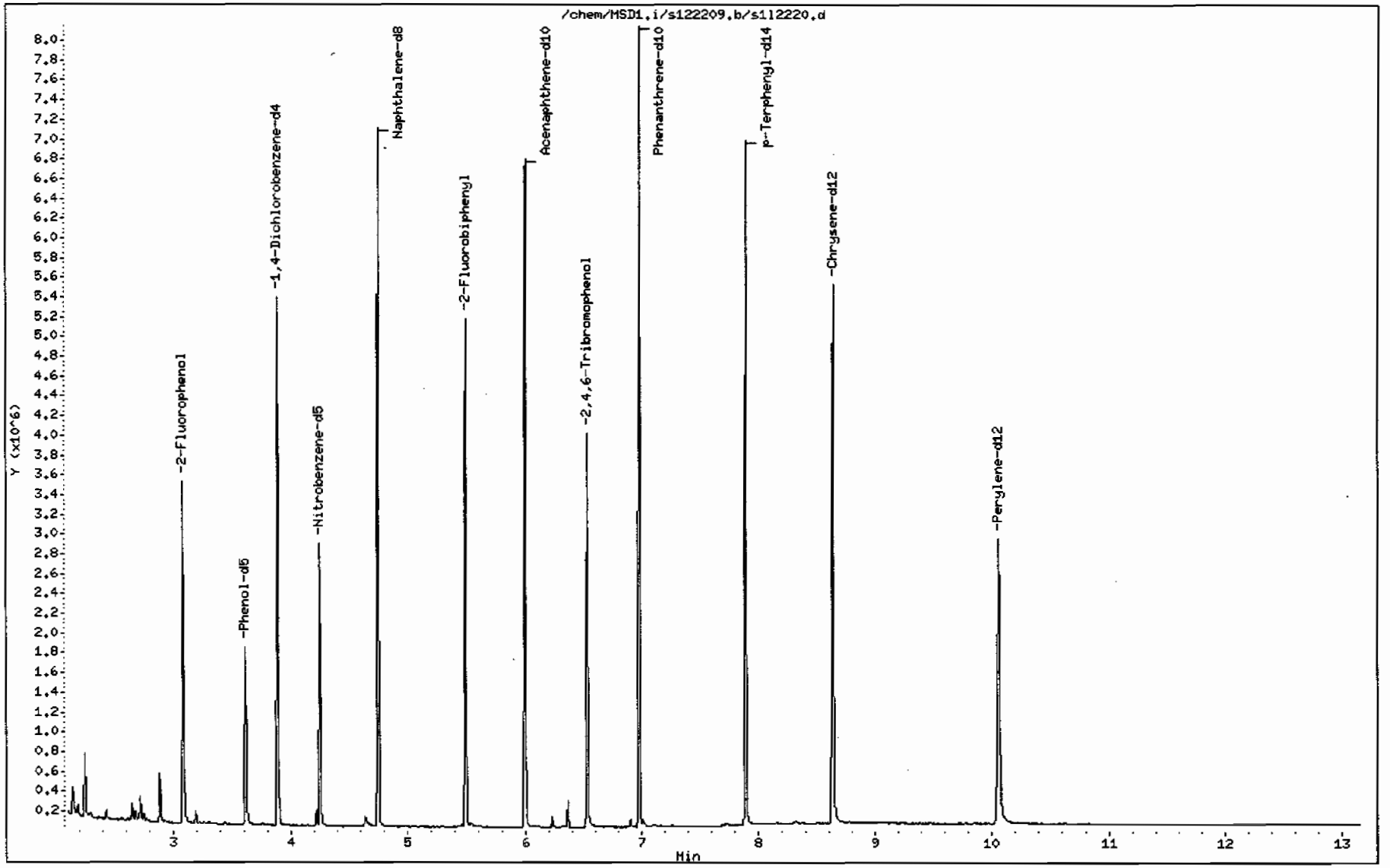

Standard Data

SW846 8270C//8270D/EPA 625								
Calibration Standard Concentration Levels*								
	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
1,4-Dichlorobenzene-d4 (INTERNAL STANDARD)								
Naphthalene-d8 (INTERNAL STANDARD)								
Acenaphthene-d10 (INTERNAL STANDARD)								
Phenanthrene-d10 (INTERNAL STANDARD)								
Chrysene-d12 (INTERNAL STANDARD)								
Perylene-d12 (INTERNAL STANDARD)								
2-Fluorophenol (SURROGATE)		10	20	40	50	80	100	120
Phenol-d5 (SURROGATE)		10	20	40	50	80	100	120
2-Chlorophenol-d4 (CLP SURROGATE)		10	20	40	50	80	100	120
1,2-Dichlorobenzene-d4 (CLP SURROGATE)		10	20	40	50	80	100	120
Nitrobenzene-d5 (SURROGATE)		10	20	40	50	80	100	120
2-Fluorobiphenyl (SURROGATE)		10	20	40	50	80	100	120
2,4,6-Tribromophenol (SURROGATE)		10	20	40	50	80	100	120
p-Terphenyl-d14 (SURROGATE)		10	20	40	50	80	100	120
N-Nitrosodimethylamine		10	20	40	50	80	100	120
Pyridine		10	20	40	50	80	100	120
Aniline		10	20	40	50	80	100	120
Benzaldehyde		10	20	40	50	80	100	120
Phenol		10	20	40	50	80	100	120
bis(2-Chloroethyl)ether	1	10	20	40	50	80	100	120
2-Chlorophenol		10	20	40	50	80	100	120
n-Decane		10	20	40	50	80	100	120
1,3-Dichlorobenzene		10	20	40	50	80	100	120
1,4-Dichlorobenzene		10	20	40	50	80	100	120
Benzyl Alcohol		10	20	40	50	80	100	120
1,2-Dichlorobenzene		10	20	40	50	80	100	120
bis(2-Chloroisopropyl)ether		10	20	40	50	80	100	120
o-Cresol (2-Methylphenol)		10	20	40	50	80	100	120
Acetophenone		10	20	40	50	80	100	120
N-Nitrosodipropylamine	1	10	20	40	50	80	100	120
m,p-Cresols (3-Methylphenol & 4-Methylphenol)		10	20	40	50	80	100	120
Hexachloroethane		10	20	40	50	80	100	120
Nitrobenzene		10	20	40	50	80	100	120
Isophorone		10	20	40	50	80	100	120
2-Nitrophenol		10	20	40	50	80	100	120
2,4-Dimethylphenol		10	20	40	50	80	100	120
bis(2-Chloroethoxy)methane		10	20	40	50	80	100	120
2,4-Dichlorophenol		10	20	40	50	80	100	120
Benzoic Acid			20	40	50	80	100	120
1,2,4-Trichlorobenzene		10	20	40	50	80	100	120
Naphthalene	1	10	20	40	50	80	100	120
alpha-Terpineol		10	20	40	50	80	100	120
4-Chloroaniline		10	20	40	50	80	100	120
Caprolactam		10	20	40	50	80	100	120

SW846 8270C//8270D/EPA 625								
Calibration Standard Concentration Levels*								
	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Hexachlorobutadiene		10	20	40	50	80	100	120
4-Chloro-3-methylphenol		10	20	40	50	80	100	120

2-Methylnaphthalene	1	10	20	40	50	80	100	120
1-Methylnaphthalene	1	10	20	40	50	80	100	120
Hexachlorocyclopentadiene		10	20	40	50	80	100	120
1,1'-Biphenyl		10	20	40	50	80	100	120
2,3-Dichloroaniline		10	20	40	50	80	100	120
2,4,6-Trichlorophenol		10	20	40	50	80	100	120
2,4,5-Trichlorophenol		10	20	40	50	80	100	120
2-Chloronaphthalene	1	10	20	40	50	80	100	120
o-Nitroaniline		10	20	40	50	80	100	120
m-Nitroaniline		10	20	40	50	80	100	120
Dimethylphthalate	1	10	20	40	50	80	100	120
2,6-Dinitrotoluene		10	20	40	50	80	100	120
Acenaphthylene	1	10	20	40	50	80	100	120
Acenaphthene	1	10	20	40	50	80	100	120
2,4-Dinitrophenol			20	40	50	80	100	120
Dibenzofuran		10	20	40	50	80	100	120
2,4-Dinitrotoluene		10	20	40	50	80	100	120
Diethylphthalate	1	10	20	40	50	80	100	120
4-Nitrophenol		10	20	40	50	80	100	120
Fluorene	1	10	20	40	50	80	100	120
4-Chlorophenyl phenyl ether		10	20	40	50	80	100	120
2-Methyl-4,6-dinitrophenol		10	20	40	50	80	100	120
p-Nitroaniline		10	20	40	50	80	100	120
Diphenylamine		10	20	40	50	80	100	120
1,2-Diphenylhydrazine		10	20	40	50	80	100	120
Tributylphosphate		10	20	40	50	80	100	120
4-Bromophenyl phenyether		10	20	40	50	80	100	120
Hexachlorobenzene		10	20	40	50	80	100	120
Atrazine		10	20	40	50	80	100	120
Pentachlorophenol		10	20	40	50	80	100	120
n-Octadecane		10	20	40	50	80	100	120
Phenanthrene	1	10	20	40	50	80	100	120
Anthracene	1	10	20	40	50	80	100	120
Di-n-butylphthalate	1	10	20	40	50	80	100	120
Fluoranthene	1	10	20	40	50	80	100	120
Benzidine		10	20	40	50	80	100	120
Pyrene	1	10	20	40	50	80	100	120
Butylbenzylphthalate	1	10	20	40	50	80	100	120
Benzo(a)anthracene	1	10	20	40	50	80	100	120
3,3'-Dichlorobenzidene		10	20	40	50	80	100	120
Chrysene	1	10	20	40	50	80	100	120
bis (2-Ethylhexyl) phthalate	1	10	20	40	50	80	100	120
Di-n-octylphthalate	1	10	20	40	50	80	100	120

SW846 8270C//8270D/EPA 625								
Calibration Standard Concentration Levels*								
	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Benzo(b)fluoranthene	1	10	20	40	50	80	100	120
Benzo(k)fluoranthene	1	10	20	40	50	80	100	120
Benzo(a)pyrene	1	10	20	40	50	80	100	120
Indeno-(1,2,3-cd)pyrene	1	10	20	40	50	80	100	120
Dibenzo(a,h)anthracene	1	10	20	40	50	80	100	120
Benzo(ghi)perylene	1	10	20	40	50	80	100	120
Carbazole	1	10	20	40	50	80	100	120

APPENDIX IX

1,4-Dioxane		10	20	40	50	80	100	120
Methyl methacrylate		10	20	40	50	80	100	120
Ethyl methacrylate		10	20	40	50	80	100	120
2-Picoline		10	20	40	50	80	100	120
N-Nitrosomethylethylamine		10	20	40	50	80	100	120
Methyl methanesulfonate		10	20	40	50	80	100	120
N-Nitrosodiethylamine		10	20	40	50	80	100	120
Ethyl methanesulfonate		10	20	40	50	80	100	120
Pentachloroethane		10	20	40	50	80	100	120
N-Nitrosopyrrolidine		10	20	40	50	80	100	120
N-Nitrosomorpholine		10	20	40	50	80	100	120
o-Toluidine		10	20	40	50	80	100	120
N-Nitrosopiperidine		10	20	40	50	80	100	120
a,a-Dimethhylphenethylamine		10	20	40	50	80	100	120
Triethylphosphorothioate		10	20	40	50	80	100	120
2,6-Dichlorophenol		10	20	40	50	80	100	120
Hexachloropropene		10	20	40	50	80	100	120
p-Phenylenediamine		10	20	40	50	80	100	120
N-Nitrosodi-n-butylamine		10	20	40	50	80	100	120
Safrole		10	20	40	50	80	100	120
1,2,4,5-Tetrachlorobenzene		10	20	40	50	80	100	120
Isosafrole		10	20	40	50	80	100	120
1,4-Naphthoquinone		10	20	40	50	80	100	120
m-Dinitrobenzene		10	20	40	50	80	100	120
Pentachlorobenzene		10	20	40	50	80	100	120
1-Naphthylamine		10	20	40	50	80	100	120
2-Naphthylamine		10	20	40	50	80	100	120
2,3,4,6-Tetrachlorophenol		10	20	40	50	80	100	120
5-Nitro-o-toluidine		10	20	40	50	80	100	120
Thionazin		10	20	40	50	80	100	120
Sulfotepp		10	20	40	50	80	100	120
Phorate		10	20	40	50	80	100	120
1,3,5-Trinitrobenzene		10	20	40	50	80	100	120
Phenacetin		10	20	40	50	80	100	120
Diallate (cis and trans)		10	20	40	50	80	100	120

SW846 8270C//8270D/EPA 625

Calibration Standard Concentration Levels*

	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Dimethoate		10	20	40	50	80	100	120
4-Aminobiphenyl		10	20	40	50	80	100	120
Pentachloronitrobenzene		10	20	40	50	80	100	120
Pronamide		10	20	40	50	80	100	120
Dinoseb		10	20	40	50	80	100	120
Disulfoton		10	20	40	50	80	100	120
Methyl parathion		10	20	40	50	80	100	120
4-Nitroquinoline oxide		10	20	40	50	80	100	120
Methapyrilene		10	20	40	50	80	100	120
Isodrin		10	20	40	50	80	100	120
Aramite		10	20	40	50	80	100	120
Kepone		10	20	40	50	80	100	120
p-(Dimethylamino)azobenzene		10	20	40	50	80	100	120

Chlorobenzilate		10	20	40	50	80	100	120
3,3'-Dimethylbenzidine		10	20	40	50	80	100	120
Famphur		10	20	40	50	80	100	120
2-Acetylaminofluorene		10	20	40	50	80	100	120
7,12-Dimethylbenz(a)anthracene		10	20	40	50	80	100	120
3-Methylcholanthrene		10	20	40	50	80	100	120
Hexachlorophene		500	1000	1250	1500	1750	2000	
p-Benzoquinone		10	20	40	50	80	100	120
Parathion		10	20	40	50	80	100	120
Methoxychlor		10	20	40	50	80	100	120
2-Ethoxyethanol		50	75	100	125	150	200	250
cis-Diallate		1.5	3	6	7.5	12	15	18
trans-Diallate		8.5	17	34	42	68	85	102
Dibenzo(a,e)pyrene		50	75	100	125	150	200	250
Phthalic anhydride		50	75	100	125	150	200	250
1,4-Dinitrobenzene		50	75	100	125	150	200	250
(2,3-Dibromopropyl)phosphate		50	75	100	125	150	200	250
Methylenebis(2-chloroaniline)		50	75	100	125	150	200	250
p-Toluidine		10	20	40	50	80	100	120
m-Toluidine		10	20	40	50	80	10	120

SW846 8270C//8270D/EPA 625								
Calibration Standard Concentration Levels*								
	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
bis(Chloromethyl)ether		10	20	40	50	80	100	120
Thiophenol		10	20	40	50	80	100	120
4-Chlorothiophenol		10	20	40	50	80	100	120
4-Chlorothio anisole		10	20	40	50	80	100	120
Phthalic acid		10	20	40	50	80	100	120
Hydroxymethyl phthalamide		10	20	40	50	80	100	120
Diphenyl sulfide		10	20	40	50	80	100	120
Diphenyl disulfide		10	20	40	50	80	100	120
Phenyl sulfone		10	20	40	50	80	100	120
Octachlorostyrene		10	20	40	50	80	100	120
2,2'-Dichlorobenzil		10	20	40	50	80	100	120
bis(p-Chlorophenyl)disulfide		10	20	40	50	80	100	120
bis(p-Chlorophenyl)sulfone		10	20	40	50	80	10	120

All values are mg/L without the prep factor.
# Indicates the calibration verification concentration level used
* Usual calibration levels using SCAN methodology
Level 1 may be included at request of client
(06/08)

Report Date: 23-Dec-2009 07:22

Calibration History

Method : /chem/MSD1.i/s122209.b/MSD1-M8270AQA-111409.m
Start Cal Date: 14-NOV-2009 18:22
End Cal Date : 17-NOV-2009 19:15

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 1.00000		
14-NOV-2009 18:22	MEGAIICARE	/chem/MSD1.i/s111409.b/s1k1203.d

Injection Date	Sublist	Calibration File
Cal Level: 2 , Cal Amount: 10.00000		
17-NOV-2009 16:56	nev	/chem/MSD1.i/s111409.b/s1k1262.d
15-NOV-2009 20:55	hex	/chem/MSD1.i/s111409.b/s1k1229.d
15-NOV-2009 18:11	pest	/chem/MSD1.i/s111409.b/s1k1222.d
15-NOV-2009 15:28	ap12	/chem/MSD1.i/s111409.b/s1k1215.d
14-NOV-2009 18:51	MEGAIICARE	/chem/MSD1.i/s111409.b/s1k1204.d

Injection Date	Sublist	Calibration File
Cal Level: 3 , Cal Amount: 20.00000		
17-NOV-2009 17:19	nev	/chem/MSD1.i/s111409.b/s1k1263.d
15-NOV-2009 21:18	hex	/chem/MSD1.i/s111409.b/s1k1230.d
15-NOV-2009 18:35	pest	/chem/MSD1.i/s111409.b/s1k1223.d
15-NOV-2009 15:51	ap12	/chem/MSD1.i/s111409.b/s1k1216.d
14-NOV-2009 19:21	MEGAIICARE	/chem/MSD1.i/s111409.b/s1k1205.d

Injection Date	Sublist	Calibration File
Cal Level: 4 , Cal Amount: 40.00000		
17-NOV-2009 17:42	nev	/chem/MSD1.i/s111409.b/s1k1264.d
15-NOV-2009 21:42	hex	/chem/MSD1.i/s111409.b/s1k1231.d
15-NOV-2009 18:58	pest	/chem/MSD1.i/s111409.b/s1k1224.d
15-NOV-2009 16:14	ap12	/chem/MSD1.i/s111409.b/s1k1217.d
14-NOV-2009 19:50	MEGAIICARE	/chem/MSD1.i/s111409.b/s1k1206.d

Injection Date	Sublist	Calibration File
Cal Level: 5 , Cal Amount: 50.00000		
17-NOV-2009 18:05	nev	/chem/MSD1.i/s111409.b/s1k1265.d
15-NOV-2009 22:06	hex	/chem/MSD1.i/s111409.b/s1k1232.d
15-NOV-2009 19:21	pest	/chem/MSD1.i/s111409.b/s1k1225.d
15-NOV-2009 16:38	ap12	/chem/MSD1.i/s111409.b/s1k1218.d
14-NOV-2009 20:19	MEGAIICARE	/chem/MSD1.i/s111409.b/s1k1207.d

Injection Date	Sublist	Calibration File
Cal Level: 6 , Cal Amount: 80.00000		
17-NOV-2009 18:28	nev	/chem/MSD1.i/s111409.b/s1k1266.d
15-NOV-2009 22:30	hex	/chem/MSD1.i/s111409.b/s1k1233.d
15-NOV-2009 19:45	pest	/chem/MSD1.i/s111409.b/s1k1226.d
15-NOV-2009 17:01	ap12	/chem/MSD1.i/s111409.b/s1k1219.d
14-NOV-2009 20:47	MEGAIICARE	/chem/MSD1.i/s111409.b/s1k1208.d

Injection Date	Sublist	Calibration File
Cal Level: 7 , Cal Amount: 100.00000		

17-NOV-2009 18:52	nev	/chem/MSD1.i/s111409.b/s1k1267.d
15-NOV-2009 22:53	hex	/chem/MSD1.i/s111409.b/s1k1234.d
15-NOV-2009 20:09	pest	/chem/MSD1.i/s111409.b/s1k1227.d
15-NOV-2009 17:24	ap12	/chem/MSD1.i/s111409.b/s1k1220.d
14-NOV-2009 21:16	MEGAIICARE	/chem/MSD1.i/s111409.b/s1k1209.d

Cal Level: 8 , Cal Amount: 120.00000		
17-NOV-2009 19:15	nev	/chem/MSD1.i/s111409.b/s1k1268.d
15-NOV-2009 20:31	pest	/chem/MSD1.i/s111409.b/s1k1228.d
15-NOV-2009 17:47	ap12	/chem/MSD1.i/s111409.b/s1k1221.d
14-NOV-2009 21:45	MEGAIICARE	/chem/MSD1.i/s111409.b/s1k1210.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 40.0		
22-DEC-2009 10:14	MEGAIICARE	/chem/MSD1.i/s122209.b/s112203.d
Ccal Level: 4 , Ccal Amount: 40.0		
22-DEC-2009 11:36	pest	/chem/MSD1.i/s122209.b/s112205.d
Ccal Level: 4 , Ccal Amount: 40.0		
22-DEC-2009 11:11	ap12	/chem/MSD1.i/s122209.b/s112204.d

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 14-NOV-2009 18:22
End Cal Date : 17-NOV-2009 19:15
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD1.i/s122209.b/MSD1-M8270AQA-111409.m
Cal Date : 22-Dec-2009 18:41 amy01291

Calibration File Names:
Level 1: /chem/MSD1.i/s111409.b/s1k1203.d
Level 2: /chem/MSD1.i/s111409.b/s1k1262.d
Level 3: /chem/MSD1.i/s111409.b/s1k1263.d
Level 4: /chem/MSD1.i/s111409.b/s1k1264.d
Level 5: /chem/MSD1.i/s111409.b/s1k1265.d
Level 6: /chem/MSD1.i/s111409.b/s1k1266.d
Level 7: /chem/MSD1.i/s111409.b/s1k1267.d
Level 8: /chem/MSD1.i/s111409.b/s1k1268.d

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
1 N-Methyl-N-nitrosomethylamine	+++++	0.54039	0.59425	0.56483	0.56773	0.57115					
	0.58358	0.54985					AVRG		0.56740		3.25055
2 Pyridine	+++++	0.93895	1.06231	1.03607	0.88870	0.86312					
	1.01434	0.86615					AVRG		0.95281		8.83991
4 Aniline	+++++	0.52437	0.56877	0.55954	0.56752	0.56439					
	0.57920	0.54312					AVRG		0.55813		3.31324
209 Benzaldehyde	+++++	0.85863	0.89515	0.82459	0.84178	+++++					
	0.78498	0.73887					AVRG		0.82400		6.72378
6 Phenol	+++++	1.30044	1.37922	1.37450	1.34330	1.33206					
	1.36293	1.27353					AVRG		1.33800		2.93989

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 14-NOV-2009 18:22
End Cal Date : 17-NOV-2009 19:15
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD1.i/s122209.b/MSD1-M8270AQA-111409.m
Cal Date : 22-Dec-2009 18:41 amy01291

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
7 bis(2-Chloroethyl) ether	0.97066	0.92013	0.97374	0.95071	0.94120	0.92474					
	0.92138	0.84393					AVRG		0.93081		4.39644
8 2-Chlorophenol	+++++	1.10018	1.18374	1.15316	1.14675	1.13425					
	1.15576	1.08633					AVRG		1.13717		2.96542
203 n-Decane	+++++	1.60577	1.68138	1.52755	1.45137	1.35767					
	1.27260	1.12485					AVRG		1.43160		13.59167
9 1,3-Dichlorobenzene	+++++	1.34153	1.44138	1.36782	1.35778	1.32788					
	1.29449	1.20929					AVRG		1.33431		5.33878
11 1,4-Dichlorobenzene	+++++	1.33212	1.41388	1.35420	1.32607	1.29299					
	1.26993	1.16675					AVRG		1.30799		5.91221
12 Benzyl alcohol	+++++	0.65002	0.69243	0.70051	0.67929	0.68651					
	0.73179	0.69932					AVRG		0.69141		3.57264
13 1,2-Dichlorobenzene	+++++	1.29605	1.34639	1.26381	1.21944	1.15866					
	1.13607	1.03545					AVRG		1.20798		8.78247
14 bis(2-Chloroisopropyl)ether	+++++	2.32509	2.42028	2.31148	2.26329	2.15456					
	2.11135	1.93355					AVRG		2.21709		7.35350
15 o-Cresol	+++++	0.90774	0.91911	0.87727	0.85502	0.81471					
	0.80779	0.74384					AVRG		0.84650		7.32849

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 14-NOV-2009 18:22
End Cal Date : 17-NOV-2009 19:15
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD1.i/s122209.b/MSD1-M8270AQA-111409.m
Cal Date : 22-Dec-2009 18:41 amy01291

Compound	1 Level 1 / 100 Level 7	10 Level 2 / 120 Level 8	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
16 Acetophenone	+++++	1.16435	1.20208	1.12556	1.15316	+++++					
	1.08411	1.04352					AVRG		1.12880		5.09017
17 N-Nitrosodipropylamine	0.81293	0.75653	0.80116	0.77693	0.78822	0.71050					
	0.77452	0.67823					AVRG		0.76238		6.05014
18 m,p-Cresols	+++++	1.13181	1.16963	1.17353	1.13669	1.14618					
	1.18516	1.11948					AVRG		1.15179		2.12873
19 Hexachloroethane	+++++	0.47556	0.50281	0.48245	0.48088	0.46955					
	0.46206	0.42193					AVRG		0.47075		5.31168
21 Nitrobenzene	+++++	0.28437	0.30442	0.28298	0.28351	0.27052					
	0.25822	0.23858					AVRG		0.27466		7.74785
22 Isophorone	+++++	0.49709	0.51707	0.49540	0.49196	0.47802					
	0.46730	0.41658					AVRG		0.48049		6.70733
23 2-Nitrophenol	+++++	0.14839	0.15989	0.15609	0.15578	0.14421					
	0.13558	0.12065					AVRG		0.14580		9.49803
24 2,4-Dimethylphenol	+++++	0.25377	0.24260	0.23030	0.24361	0.23323					
	0.21824	0.21248					AVRG		0.23346		6.25831
25 bis(2-Chloroethoxy)methane	+++++	0.32659	0.33857	0.32017	0.31630	0.30271					
	0.29085	0.27012					AVRG		0.30933		7.51487

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Start Cal Date : 14-NOV-2009 18:22
End Cal Date : 17-NOV-2009 19:15
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD1.i/s122209.b/MSD1-M8270AQA-111409.m
Cal Date : 22-Dec-2009 18:41 amy01291

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
26 2,4-Dichlorophenol	+++++	0.21991	0.23451	0.22671	0.22578	0.22138					
	0.21025	0.19507					AVRG		0.21909		5.89795
27 Benzoic acid	+++++	+++++	0.12652	0.15647	0.17043	0.17939					
	0.17420	0.15820					AVRG		0.16087		11.85426
28 1,2,4-Trichlorobenzene	+++++	0.25324	0.26639	0.25283	0.25336	0.23817					
	0.22476	0.20597					AVRG		0.24210		8.56147
30 Naphthalene	1.00192	0.89427	0.93446	0.86563	0.83102	0.76369					
	0.73215	0.65539					AVRG		0.83482		13.59329
204 alpha-Terpineol	+++++	0.21791	0.22387	0.20802	0.18690	0.18694					
	0.18377	0.16707					AVRG		0.19635		10.50339
31 4-Chloroaniline	+++++	0.39677	0.40757	0.39487	0.39324	0.37614					
	0.36195	0.33806					AVRG		0.38123		6.35973
189 Caprolactam	+++++	0.06846	0.07656	0.07363	0.07653	+++++					
	0.06782	0.06711					AVRG		0.07169		6.15581
32 Hexachlorobutadiene	+++++	0.13511	0.14100	0.13045	0.12864	0.12021					
	0.11205	0.10277					AVRG		0.12432		10.80535
33 4-Chloro-3-methylphenol	+++++	0.21530	0.22699	0.22627	0.22610	0.21202					
	0.21204	0.17967					AVRG		0.21406		7.75567

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
34 2-Methylnaphthalene	0.63189	0.59091	0.61031	0.56805	0.55492	0.51261					
	0.47801	0.44368					AVRG		0.54880		11.97650
35 1-Methylnaphthalene	0.57039	0.52594	0.54774	0.50754	0.49716	0.46294					
	0.43668	0.39804					AVRG		0.49330		11.71827
36 Hexachlorocyclopentadiene	+++++	0.10604	0.13033	0.13014	0.13942	0.12687					
	0.11688	0.10523					AVRG		0.12213		10.70285
208 1,1'-Biphenyl	+++++	1.17951	1.24377	1.14549	1.13585	+++++					
	1.04839	0.97002					AVRG		1.12050		8.68804
205 2,3-Dichloroaniline	+++++	0.46645	0.48933	0.47427	0.46997	0.44649					
	0.43405	0.39749					AVRG		0.45401		6.79831
37 2,4,6-Trichlorophenol	+++++	0.26977	0.29094	0.27785	0.27904	0.25743					
	0.25024	0.23713					AVRG		0.26606		7.03474
38 2,4,5-Trichlorophenol	+++++	0.26905	0.31036	0.32159	0.23043	0.31171					
	0.26900	0.26816					AVRG		0.28290		11.57703
40 2-Chloronaphthalene	1.06866	1.01017	1.06218	1.02382	1.00740	0.95458					
	0.92971	0.84336					AVRG		0.98748		7.61587
42 o-Nitroaniline	+++++	0.29397	0.31274	0.31408	0.31185	0.30784					
	0.31350	0.28932					AVRG		0.30619		3.33957

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
41 m-Nitroaniline	+++++	0.27156	0.28234	0.28082	0.27143	0.25979					
	0.28219	0.24573					AVRG		0.27055		5.03620
43 Dimethylphthalate	+++++	1.09522	1.14427	1.12702	1.11254	1.08188					
	1.07235	0.99634					AVRG		1.08995		4.43176
44 2,6-Dinitrotoluene	+++++	0.26660	0.28518	0.28098	0.27933	0.27123					
	0.26992	0.24768					AVRG		0.27156		4.59036
45 Acenaphthylene	1.62784	1.60004	1.67564	1.59865	1.57380	1.47905					
	1.44269	1.32968					AVRG		1.54092		7.42836
47 Acenaphthene	1.00456	0.99034	1.02942	0.97302	0.94853	0.86787					
	0.82882	0.73816					AVRG		0.92259		10.97291
48 2,4-Dinitrophenol	+++++	+++++	0.08843	0.11349	0.11534	0.11082					
	0.11305	0.10198					AVRG		0.10718		9.63049
49 Dibenzofuran	+++++	1.40383	1.45777	1.40759	1.36431	1.30285					
	1.24923	1.15395					AVRG		1.33422		7.92638
50 2,4-Dinitrotoluene	+++++	0.34056	0.36497	0.37079	0.37131	0.36633					
	0.36565	0.33990					AVRG		0.35993		3.80091
51 Diethylphthalate	+++++	1.04278	1.09197	1.06193	1.04018	0.99480					
	0.99307	0.88837					AVRG		1.01616		6.53371

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	100 Level 7	120 Level 8									
52 4-Nitrophenol	+++++	0.13809	0.17287	0.18777	0.19477	0.20369					
	0.21665	0.20716					AVRG		0.18871		14.01343
53 Fluorene	1.22796	1.15355	1.19493	1.10753	1.06188	0.99894					
	0.97721	0.88428					AVRG		1.07578		10.93658
54 4-Chlorophenylphenylether	+++++	0.47537	0.49720	0.47503	0.46785	0.44264					
	0.43218	0.38915					AVRG		0.45420		7.92169
55 2-Methyl-4,6-dinitrophenol	+++++	0.08375	0.09608	0.10582	0.10320	0.10771					
	0.10908	0.10272					AVRG		0.10120		8.67983
56 p-Nitroaniline	+++++	0.24392	0.26348	0.26430	0.28144	0.26774					
	0.27465	0.25651					AVRG		0.26458		4.60021
133 Diphenylamine	+++++	0.55588	0.57977	0.55886	0.54789	0.52659					
	0.50269	0.46310					AVRG		0.53354		7.43632
58 1,2-Diphenylhydrazine	+++++	0.69850	0.71486	0.68099	0.66427	0.63670					
	0.61324	0.54832					AVRG		0.65098		8.77582
59 Tributylphosphate	+++++	1.22698	1.16066	1.10479	1.12684	1.06119					
	1.01440	0.96114					AVRG		1.09371		8.21068
61 4-Bromophenylphenylether	+++++	0.13960	0.14381	0.14105	0.13893	0.13903					
	0.13474	0.12486					AVRG		0.13743		4.49074

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Compound	1 Level 1 100 Level 7	10 Level 2 120 Level 8	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
63 Hexachlorobenzene	+++++	0.18056	0.18610	0.17775	0.16888	0.16686					
	0.15868	0.14199					AVRG		0.16869		8.86819
207 Atrazine	+++++	0.04275	0.04402	0.04191	0.04036	+++++					
	0.03698	0.03447					AVRG		0.04008		9.14364
65 Pentachlorophenol	+++++	0.08713	0.10123	0.10564	0.10198	0.10716					
	0.10688	0.09814					AVRG		0.10117		6.93558
206 n-Octadecane	+++++	0.49445	0.50531	0.45683	0.42873	0.36788					
	0.34975	+++++					AVRG		0.43383		14.85243
68 Phenanthrene	1.08140	0.97577	0.96718	0.91676	0.90684	0.85016					
	0.82329	0.75087					AVRG		0.90903		11.26824
69 Anthracene	1.05572	0.98071	1.00934	0.97561	0.92329	0.88140					
	0.83261	0.73707					AVRG		0.92447		11.24280
72 Di-n-butylphthalate	+++++	1.06714	1.12314	1.06117	1.02135	0.94081					
	0.88726	0.80148					AVRG		0.98605		11.57265
76 Fluoranthene	0.94603	0.94387	0.96313	0.92832	0.88364	0.83514					
	0.79976	0.71979					AVRG		0.87746		9.80038
77 Benzidine	+++++	0.28582	0.36970	0.35152	0.36897	+++++					
	0.43187	0.36504					AVRG		0.36215		12.90005

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	mi	m2	%RSD or R^2
	100 Level 7	120 Level 8									
79 Pyrene	1.12921	1.08043	1.13184	1.09423	1.03887	1.05677					
	1.02924	0.94284					AVRG		1.06293		5.79953
85 Butylbenzylphthalate	+++++	0.53253	0.56219	0.50335	0.46569	0.43331					
	0.40529	+++++					AVRG		0.48372		12.38419
89 Benzo(a)anthracene	1.00602	0.91134	0.98073	0.96992	0.98002	0.96903					
	0.95763	0.89850					AVRG		0.95915		3.79585
90 3,3'-Dichlorobenzidine	+++++	0.24634	0.28908	0.28847	0.28710	+++++					
	0.28231	0.25909					AVRG		0.27540		6.60230
92 Chrysene	0.98731	0.93210	0.94599	0.88032	0.86729	0.85456					
	0.87955	0.82465					AVRG		0.89647		6.00506
93 bis(2-Ethylhexyl)phthalate	0.57061	0.72394	0.78180	0.75934	0.74451	0.72196					
	0.68855	0.63132					AVRG		0.70275		10.02985
94 Di-n-octylphthalate	+++++	1.17035	1.39716	1.40560	1.36840	1.34274					
	1.30766	1.16752					AVRG		1.30849		7.70640
95 Benzo(b)fluoranthene	21625	340509	730849	1739197	2305837	3304287					
	3978698	5127789					LINR	0.06661	1.08695		0.99870
96 Benzo(k)fluoranthene	1.03711	1.06722	1.12263	1.01575	1.02623	1.00211					
	0.97020	0.78256					AVRG		1.00298		9.96839

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
97 Benzo(a)pyrene	20918	319721	688146	1504125	2094282	2912657					
	3398226	3934490					LINR	-0.00385	0.87033		0.99612
99 Indeno(1,2,3-cd)pyrene	21578	336515	700258	1580353	2201480	3025334					
	3523403	4020592					LINR	-0.01092	0.89653		0.99431
100 Dibenzo(a,h)anthracene	16162	268427	581631	1325626	1846286	2532762					
	2946699	3397425					LINR	-0.00445	0.75511		0.99519
101 Benzo(ghi)perylene	0.56462	0.70452	0.77602	0.81299	0.83023	0.80394					
	0.79303	0.72783					AVRG		0.75165		11.54879
102 1,4-Dioxane	+++++	0.32550	0.33716	0.30934	0.31455	+++++					
	0.30805	0.28861					AVRG		0.31387		5.27573
103 Methyl methacrylate	+++++	0.17774	0.19107	0.17805	0.17495	+++++					
	0.17326	0.16336					AVRG		0.17640		5.08144
104 Ethyl methacrylate	+++++	0.73346	0.76622	0.70794	0.70643	+++++					
	0.69714	0.66675					AVRG		0.71299		4.73943
105 2-Picoline	+++++	1.18802	1.23130	1.15065	1.15312	+++++					
	1.12223	1.07774					AVRG		1.15384		4.58113
106 N-Nitrosomethylethylamine	+++++	0.42951	0.48460	0.44623	0.45222	+++++					
	0.46395	0.44906					AVRG		0.45426		4.08577

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107 Methyl methanesulfonate	+++++	0.43204	0.45674	0.42468	0.43227	+++++					
	0.41648	0.39202					AVRG		0.42570		5.00242
108 N-Nitrosodiethylamine	+++++	0.47915	0.50719	0.47065	0.48068	+++++					
	0.47830	0.46128					AVRG		0.47954		3.20356
109 Ethyl Methanesulfonate	+++++	0.59343	0.63202	0.58286	0.59990	+++++					
	0.59568	0.57362					AVRG		0.59625		3.34808
110 Pentachloroethane	+++++	0.30094	0.30775	0.28811	0.28717	+++++					
	0.28774	0.27522					AVRG		0.29115		3.95122
111 N-Nitrosopyrrolidine	+++++	0.47773	0.52978	0.49561	0.51566	+++++					
	0.41369	0.41806					AVRG		0.47509		10.34926
113 N-Nitrosomorpholine	+++++	0.63587	0.69755	0.63481	0.65791	+++++					
	0.54487	0.53392					AVRG		0.61749		10.47980
114 o-Toluidine	+++++	1.64551	1.76888	1.61850	1.65178	+++++					
	1.65679	1.57817					AVRG		1.65327		3.85302
115 N-Nitrosopiperidine	+++++	0.12931	0.13922	0.12850	0.13280	+++++					
	0.13244	0.12709					AVRG		0.13156		3.32124
116 a,a-Dimethylphenethylamine	+++++	0.70597	0.78545	0.76293	0.79408	+++++					
	0.79335	0.76628					AVRG		0.76801		4.32000

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	100 Level 7	120 Level 8									
117 Triethylphosphorothioate	+++++	0.12812	0.12428	0.12751	0.12901	0.12488					
	0.12021	0.11633					AVRG		0.12433		3.70966
118 2,6-Dichlorophenol	+++++	0.18796	0.20530	0.19528	0.20193	+++++					
	0.20014	0.19147					AVRG		0.19701		3.35416
119 Hexachloropropene	+++++	0.07891	0.09539	0.09133	0.09091	+++++					
	0.09225	0.08492					AVRG		0.08895		6.72708
120 p-Phenylenediamine	+++++	0.17417	0.23091	0.21919	0.22009	+++++					
	0.19257	0.17231					AVRG		0.20154		12.55674
121 N-Nitrosodi-n-butylamine	+++++	0.16926	0.19309	0.16843	0.17454	+++++					
	0.16640	0.15862					AVRG		0.17172		6.79719
122 Safrole	+++++	0.18021	0.18852	0.17847	0.18253	+++++					
	0.17443	0.16766					AVRG		0.17864		3.98501
123 1,2,4,5-Tetrachlorobenzene	+++++	0.38048	0.40351	0.37295	0.37017	+++++					
	0.35065	0.32500					AVRG		0.36713		7.29953
124 Isosafrole	+++++	0.32136	0.34935	0.32718	0.32927	+++++					
	0.32898	0.30952					AVRG		0.32761		3.96520
125 1,4-Naphthoquinone	+++++	0.37346	0.38046	0.31457	0.30180	+++++					
	0.18844	0.22186					AVRG		0.29676		26.34996 <-

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	100 Level 7	120 Level 8									
126 m-Dinitrobenzene	+++++	0.17349	0.18721	0.19120	0.19440	0.19057					
	0.19238	0.17644					AVRG		0.18653		4.41251
127 Pentachlorobenzene	+++++	0.32992	0.34557	0.31675	0.31835	+++++					
	0.29677	0.27972					AVRG		0.31451		7.45207
128 1-Naphthylamine	+++++	0.82636	0.98891	0.93384	0.93443	+++++					
	0.87178	0.80990					AVRG		0.89420		7.80762
129 2-Naphthylamine	+++++	0.96588	1.05556	1.00159	1.00599	+++++					
	0.94403	0.87535					AVRG		0.97473		6.34557
130 2,3,4,6-Tetrachlorophenol	+++++	0.20567	0.22518	0.22987	0.20102	0.22712					
	0.21818	0.20523					AVRG		0.21604		5.51582
131 5-Nitro-o-toluidine	+++++	0.25535	0.29363	0.28574	0.29496	+++++					
	0.29982	0.28219					AVRG		0.28528		5.60973
132 Thionazin	+++++	0.16358	0.16364	0.16630	0.16880	0.16339					
	0.15554	0.14821					AVRG		0.16135		4.38820
134 Sulfotepp	+++++	0.08562	0.08304	0.08303	0.08467	0.07953					
	0.07427	0.07214					AVRG		0.08033		6.54838
135 Phorate	+++++	0.36567	0.35586	0.35721	0.36683	0.34385					
	0.32742	0.31541					AVRG		0.34747		5.65187

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 14-NOV-2009 18:22
End Cal Date : 17-NOV-2009 19:15
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD1.i/s122209.b/MSD1-M8270AQA-111409.m
Cal Date : 22-Dec-2009 18:41 amy01291

Compound	1 Level 1 100 Level 7	10 Level 2 120 Level 8	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
136 1,3,5-Trinitrobenzene	+++++	0.10196	0.12348	0.12395	0.12006	+++++					
	0.11894	0.10898					AVRG		0.11623		7.60291
137 Phenacetin	+++++	0.22684	0.26317	0.26291	0.26441	+++++					
	0.26599	0.25918					AVRG		0.25708		5.83046
138 Diallate	+++++	0.24760	0.24927	0.23322	0.23010	+++++					
	0.21802	0.20853					AVRG		0.23112		6.94549
139 Dimethoate	+++++	0.21461	0.21994	0.23007	0.23724	0.23858					
	0.23513	0.22967					AVRG		0.22932		3.92960
140 4-Aminobiphenyl	+++++	0.53696	0.55369	0.57677	0.59426	+++++					
	0.49840	0.45674					AVRG		0.53614		9.53476
141 Pentachloronitrobenzene	+++++	0.05720	0.06067	0.05490	0.05533	+++++					
	0.04673	0.04463					AVRG		0.05324		11.71339
142 Pronamide	+++++	0.24822	0.26125	0.24154	0.23765	+++++					
	0.17973	+++++					AVRG		0.23368		13.46482
143 Dinoseb	+++++	0.10297	0.12216	0.13126	0.12950	0.13024					
	0.13017	0.12500					AVRG		0.12447		8.06727
144 Disulfoton	+++++	0.32280	0.31415	0.31231	0.32231	0.30214					
	0.27306	0.26345					AVRG		0.30146		7.92046

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 14-NOV-2009 18:22
End Cal Date : 17-NOV-2009 19:15
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD1.i/s122209.b/MSD1-M8270AQA-111409.m
Cal Date : 22-Dec-2009 18:41 amy01291

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
145 Methyl parathion	+++++	0.18413	0.18908	0.19611	0.20206	0.20472					
	0.19613	0.19053					AVRG		0.19468		3.74715
146 4-Nitroquinoline-1-oxide	+++++	0.00831	0.00998	0.00800	0.01074	+++++					
	0.01133	0.01046					AVRG		0.00980		13.77700
147 Methapyrilene	+++++	0.36466	0.38869	0.39386	0.38311	+++++					
	0.36077	0.31821					AVRG		0.36822		7.55340
148 Isodrin	+++++	0.09085	0.09372	0.08925	0.08743	+++++					
	0.07960	0.07570					AVRG		0.08609		8.09255
149 Aramite	+++++	0.04141	0.04570	0.04371	0.04272	+++++					
	0.04204	0.03972					AVRG		0.04255		4.79399
150 Kepone	+++++	0.06055	0.06732	0.06349	0.06380	+++++					
	0.06458	0.05876					AVRG		0.06308		4.80408
151 p-(Dimethylamino)azobenzene	+++++	0.28782	0.31583	0.29702	0.29097	+++++					
	0.26535	0.24656					AVRG		0.28392		8.62091
152 Chlorobenzilate	+++++	0.21991	0.23787	0.22800	0.23044	+++++					
	0.20814	0.19524					AVRG		0.21994		7.17760
153 3,3'-Dimethylbenzidine	+++++	0.45675	0.51768	0.48413	0.48879	+++++					
	0.49372	0.43564					AVRG		0.47945		6.05117

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 14-NOV-2009 18:22
End Cal Date : 17-NOV-2009 19:15
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD1.i/s122209.b/MSD1-M8270AQA-111409.m
Cal Date : 22-Dec-2009 18:41 amy01291

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
154 Famphur	+++++	0.29819	0.30032	0.31780	0.33430	0.32440					
	0.30595	0.30061					AVRG		0.31165		4.49495
155 2-Acetylaminofluorene	+++++	0.23107	0.30345	0.31881	0.32045	+++++					
	0.34822	0.32608					AVRG		0.30801		13.11206
157 7,12Dimethylbenz(a)anthracene	+++++	0.41118	0.44192	0.42666	0.43253	+++++					
	0.40970	0.40537					AVRG		0.42123		3.47443
158 3-Methylcholanthrene	+++++	0.29680	0.36865	0.37932	0.38459	+++++					
	0.39125	0.38204					AVRG		0.36711		9.59696
26 Phthalic anhydride	+++++	30283	90214	245905	320454	497228					
	555160	687649					LINR	0.08413	0.10332		0.99692
173 Carbazole	0.90246	0.82255	0.80875	0.81414	0.83946	0.78812					
	0.78058	0.70109					AVRG		0.80714		7.06036
174 Hexachlorophene	+++++	0.03640	0.04820	0.05180	0.05353	0.05136					
	0.04905	+++++					AVRG		0.04839		12.77621
179 Dibenzo(a,e)pyrene	+++++	117900	312429	817402	1225621	1557621					
	1812574	+++++					LINR	0.07449	0.50549		0.99368
185 (2,3-Dibromopropyl)phosphate	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+00		0.000e+00 <-

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 14-NOV-2009 18:22
End Cal Date : 17-NOV-2009 19:15
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD1.i/s122209.b/MSD1-M8270AQA-111409.m
Cal Date : 22-Dec-2009 18:41 amy01291

Compound	1 Level 1 100 Level 7	10 Level 2 120 Level 8	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	ml	m2	%RSD or R^2
184 p-Benzoquinone	+++++	2462	14132	46568	48315	83536					
	96111	113764					LINR	0.17192	0.08067		0.99223
191 Parathion	+++++	0.06169	0.06089	0.06449	0.06621	0.06308					
	0.06173	0.06112					AVRG		0.06274		3.14637
192 Methoxychlor	+++++	0.32535	0.36631	0.33959	0.33867	0.27894					
	0.25594	+++++					AVRG		0.31747		13.10686
210 m-Toluidine	+++++	0.77272	0.88703	0.90355	0.94226	1.01524					
	0.94351	+++++					AVRG		0.91072		8.87324
211 p-Toluidine	+++++	0.69169	0.70617	0.72166	0.71562	0.68688					
	+++++	+++++					AVRG		0.70440		2.12367
212 Cis Diallate	+++++	0.23437	0.24880	0.23465	0.23944	+++++					
	0.24434	0.23833					AVRG		0.23999		2.35508
213 Trans Diallate	+++++	0.29129	0.29326	0.27438	0.27070	+++++					
	0.25649	0.24533					AVRG		0.27191		6.94549
214 1,4-Dinitrobenzene	+++++	0.16000	0.17119	0.17754	0.17866	0.17639					
	0.17966	0.16860					AVRG		0.17315		4.08379
215 2-Ethoxyethanol	+++++	0.57555	0.62918	0.65385	0.56961	0.58718					
	0.62071	0.58595					AVRG		0.60315		5.24047

GEL Laboratories LLC

INITIAL CALIBRATION DATA

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End Cal Date : 17-NOV-2009 19:15
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD1.i/s122209.b/MSD1-M8270AQA-111409.m
Cal Date : 22-Dec-2009 18:41 amy01291

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
216 Methylenebis(2-chloroaniline)	+++++	0.11447	0.12909	0.13171	0.13536	0.13420					
	0.13376	0.12587					AVRG		0.12921		5.63660
229 2,2'-Dichlorobenzil	+++++	0.67948	0.77608	0.71487	+++++	0.73565					
	+++++	0.63422					AVRG		0.70806		7.63914
230 4-Chlorothioanisole	+++++	0.23155	0.23520	0.23685	+++++	0.23140					
	+++++	0.22159					AVRG		0.23132		2.56050
231 4-Chlorothiophenol	+++++	0.15409	0.17482	0.19368	+++++	0.19893					
	+++++	0.19703					AVRG		0.18371		10.41669
232 bis(p-Chlorophenyl)sulfone	+++++	0.39430	0.43698	0.38579	+++++	0.39600					
	+++++	0.34721					AVRG		0.39206		8.15529
233 bis(p-Chlorophenyl)disulfide	+++++	0.10045	0.11150	0.11707	+++++	0.12020					
	+++++	0.10635					AVRG		0.11111		7.18003
234 Diphenyl disulfide	+++++	0.17804	0.18209	0.18631	+++++	0.17491					
	+++++	0.16341					AVRG		0.17695		4.91531
235 Diphenyl sulfide	+++++	0.71955	0.73103	0.70874	+++++	0.65333					
	+++++	0.61709					AVRG		0.68595		7.09988
236 Phenyl sulfone	+++++	0.43275	0.44078	0.42799	+++++	0.41905					
	+++++	0.39177					AVRG		0.42247		4.46830

GEL Laboratories LLC

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Start Cal Date : 14-NOV-2009 18:22
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Integrator : HP RTE
Method file : /chem/MSD1.i/s122209.b/MSD1-M8270AQA-111409.m
Cal Date : 22-Dec-2009 18:41 amy01291

Compound	1 Level 1 100 Level 7	10 Level 2 120 Level 8	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
237 Hydroxymethyl phthalimide	+++++	0.12384	0.15720	0.10384	+++++	0.13032					
	+++++	0.12669					AVRG		0.12838		14.88299
238 Phthalic acid	+++++	24604	70600	163991	+++++	411903					
	+++++	634014					LINR	0.25540	0.11087		0.99102
239 Thiophenol	+++++	0.94048	1.03561	1.08365	+++++	1.12900					
	+++++	1.09332					AVRG		1.05641		6.89893
240 bis(Chloromethyl)ether	+++++	0.78790	0.79417	0.76917	+++++	0.75455					
	+++++	0.73576					AVRG		0.76831		3.12263
241 Octachlorostyrene	+++++	0.06103	0.06315	0.05827	+++++	0.05420					
	+++++	0.04861					AVRG		0.05705		10.14342
M 225 Trichlorophenols	+++++	0.26941	0.30065	0.29972	0.25473	0.28457					
	0.25962	0.25265					AVRG		0.27448		7.49129
M 226 Tetrachlorophenols	+++++	0.20567	0.22518	0.22987	0.20102	0.22712					
	0.21818	0.20523					AVRG		0.21604		5.51582
M 227 Benzo(b,k)fluoranthene	0.78278	0.93887	1.02131	1.01324	1.00976	1.01479					
	1.00963	0.93381					AVRG		0.96552		8.47131
M 228 TTO Sum Semivolatiles	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+00		0.000e+00 <-

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 14-NOV-2009 18:22
End Cal Date : 17-NOV-2009 19:15
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD1.i/s122209.b/MSD1-M8270AQA-111409.m
Cal Date : 22-Dec-2009 18:41 amy01291

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	100 Level 7	120 Level 8										
$ 3 2-Fluorophenol	+++++	0.97776	1.06271	1.06423	1.06306	1.07281						
	1.07136	1.00157					AVRG		1.04478		3.68308	
$ 5 Phenol-d5	+++++	1.21974	1.33050	1.28249	1.27680	1.26954						
	1.29216	1.21764					AVRG		1.26984		3.15351	
$ 187 2-Chlorophenol-d4	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
$ 188 1,2-Dichlorobenzene-d4	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
$ 20 Nitrobenzene-d5	+++++	0.27426	0.28571	0.27066	0.27231	0.25884						
	0.24945	0.23400					AVRG		0.26360		6.62019	
$ 39 2-Fluorobiphenyl	+++++	0.99823	1.04801	1.00239	0.98618	0.93991						
	0.91199	0.81928					AVRG		0.95800		7.87748	
$ 60 2,4,6-Tribromophenol	+++++	0.10924	0.11530	0.11503	0.10898	0.11186						
	0.11271	0.10874					AVRG		0.11169		2.51418	
$ 81 p-Terphenyl-d14	+++++	0.64452	0.67675	0.65301	0.63863	0.61256						
	0.60853	0.56112					AVRG		0.62787		5.98666	

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 14-NOV-2009 18:22
End Cal Date : 17-NOV-2009 19:15
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD1.i/s122209.b/MSD1-M8270AQA-111409.m
Cal Date : 22-Dec-2009 18:41 amy01291

Curve	Formula	Units
Averaged	Amt = Rsp/ml	Response
Linear	Amt = b + Rsp/ml	Response

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD1.i Injection Date: 17-NOV-2009 16:27
Lab File ID: s1k1261.d Init. Cal. Date(s): 14-NOV-2009 17-NOV-2009
Analysis Type: Init. Cal. Times: 18:22 12:38
Lab Sample ID: WBN091027-09.3 Quant Type: ISTD
Method: /chem/MSD1.i/s111409.b/MSD1-M8270AQA-111409.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
$ 3 2-Fluorophenol	1.04478	0.92701	0.92701	0.000	-11.27306	60.00000	Averaged
$ 5 Phenol-d5	1.26984	1.11829	1.11829	0.000	-11.93416	60.00000	Averaged
$ 20 Nitrobenzene-d5	0.26360	0.25882	0.25882	0.000	-1.81289	60.00000	Averaged
$ 39 2-Fluorobiphenyl	0.95800	0.95545	0.95545	0.000	-0.26619	60.00000	Averaged
$ 60 2,4,6-Tribromophenol	0.11169	0.11397	0.11397	0.000	2.04032	60.00000	Averaged
$ 81 p-Terphenyl-d14	0.62787	0.61091	0.61091	0.000	-2.70233	60.00000	Averaged
1 N-Methyl-N-nitrosomethylami	0.56740	0.52259	0.52259	0.000	-7.89719	60.00000	Averaged
2 Pyridine	0.95281	0.72054	0.72054	0.000	-24.37721	60.00000	Averaged
4 Aniline	0.55813	0.46069	0.46069	0.000	-17.45935	60.00000	Averaged
6 Phenol	1.33800	1.13102	1.13102	0.001	-15.46941	20.00000	Averaged ccc
7 bis(2-Chloroethyl) ether	0.93081	0.78725	0.78725	0.000	-15.42323	60.00000	Averaged
8 2-Chlorophenol	1.13717	0.96631	0.96631	0.000	-15.02517	60.00000	Averaged
203 n-Decane	1.43160	1.33489	1.33489	0.000	-6.75532	60.00000	Averaged
9 1,3-Dichlorobenzene	1.33431	1.14485	1.14485	0.000	-14.19930	60.00000	Averaged
11 1,4-Dichlorobenzene	1.30799	1.12905	1.12905	0.001	-13.68038	20.00000	Averaged ccc
13 1,2-Dichlorobenzene	1.20798	1.02631	1.02631	0.000	-15.03923	60.00000	Averaged
14 bis(2-Chloroisopropyl)ether	2.21709	1.93928	1.93928	0.000	-12.53006	60.00000	Averaged
12 Benzyl alcohol	0.69141	0.59629	0.59629	0.000	-13.75808	60.00000	Averaged
15 o-Cresol	0.84650	0.72216	0.72216	0.000	-14.68816	60.00000	Averaged
18 m,p-Cresols	1.15179	1.00178	1.00178	0.000	-13.02332	60.00000	Averaged
17 N-Nitrosodipropylamine	0.76238	0.61385	0.61385	0.050	-19.48192	60.00000	Averaged spcc
19 Hexachloroethane	0.47075	0.38923	0.38923	0.000	-17.31682	60.00000	Averaged
21 Nitrobenzene	0.27466	0.23975	0.23975	0.000	-12.70858	60.00000	Averaged
22 Isophorone	0.48049	0.42824	0.42824	0.000	-10.87384	60.00000	Averaged
23 2-Nitrophenol	0.14580	0.12443	0.12443	0.001	-14.65471	20.00000	Averaged ccc
24 2,4-Dimethylphenol	0.23346	0.23407	0.23407	0.000	0.25935	60.00000	Averaged
25 bis(2-Chloroethoxy)methane	0.30933	0.25445	0.25445	0.000	-17.74126	60.00000	Averaged
26 2,4-Dichlorophenol	0.21909	0.18847	0.18847	0.001	-13.97781	20.00000	Averaged ccc
27 Benzoic acid	0.16087	0.16553	0.16553	0.000	2.89975	60.00000	Averaged
28 1,2,4-Trichlorobenzene	0.24210	0.21218	0.21218	0.000	-12.36169	60.00000	Averaged
30 Naphthalene	0.83482	0.76679	0.76679	0.000	-8.14910	60.00000	Averaged
204 alpha-Terpineol	0.19635	0.19249	0.19249	0.000	-1.96852	60.00000	Averaged
31 4-Chloroaniline	0.38123	0.34324	0.34324	0.000	-9.96471	60.00000	Averaged
32 Hexachlorobutadiene	0.12432	0.10582	0.10582	0.001	-14.87841	20.00000	Averaged ccc
33 4-Chloro-3-methylphenol	0.21406	0.17276	0.17276	0.001	-19.29025	20.00000	Averaged ccc
34 2-Methylnaphthalene	0.54880	0.51972	0.51972	0.000	-5.29812	60.00000	Averaged

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD1.i Injection Date: 17-NOV-2009 16:27
Lab File ID: s1k1261.d Init. Cal. Date(s): 14-NOV-2009 17-NOV-2009
Analysis Type: Init. Cal. Times: 18:22 12:38
Lab Sample ID: WBN091027-09.3 Quant Type: ISTD
Method: /chem/MSD1.i/s111409.b/MSD1-M8270AQA-111409.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
35 1-Methylnaphthalene	0.49330	0.47920	0.47920	0.000	-2.85884	60.00000	Averaged
36 Hexachlorocyclopentadiene	0.12213	0.12462	0.12462	0.050	2.03810	60.00000	Averaged spcc
205 2,3-Dichloroaniline	0.45401	0.44519	0.44519	0.000	-1.94238	60.00000	Averaged
37 2,4,6-Trichlorophenol	0.26606	0.24935	0.24935	0.001	-6.28041	20.00000	Averaged ccc
38 2,4,5-Trichlorophenol	0.28290	0.25595	0.25595	0.000	-9.52679	60.00000	Averaged
40 2-Chloronaphthalene	0.98748	0.82050	0.82050	0.000	-16.91018	60.00000	Averaged
42 o-Nitroaniline	0.30619	0.24946	0.24946	0.000	-18.52571	60.00000	Averaged
41 m-Nitroaniline	0.27055	0.22438	0.22438	0.000	-17.06469	60.00000	Averaged
43 Dimethylphthalate	1.08995	0.95932	0.95932	0.000	-11.98438	60.00000	Averaged
44 2,6-Dinitrotoluene	0.27156	0.22271	0.22271	0.000	-17.99006	60.00000	Averaged
50 2,4-Dinitrotoluene	0.35993	0.29440	0.29440	0.000	-18.20706	60.00000	Averaged
45 Acenaphthylene	1.54092	1.46812	1.46812	0.000	-4.72441	60.00000	Averaged
47 Acenaphthene	0.92259	0.85781	0.85781	0.001	-7.02192	20.00000	Averaged ccc
48 2,4-Dinitrophenol	0.10718	0.09229	0.09229	0.050	-13.89853	60.00000	Averaged spcc
49 Dibenzofuran	1.33422	1.12564	1.12564	0.000	-15.63294	60.00000	Averaged
51 Diethylphthalate	1.01616	0.93320	0.93320	0.000	-8.16403	60.00000	Averaged
52 4-Nitrophenol	0.18871	0.18660	0.18660	0.050	-1.12202	60.00000	Averaged spcc
53 Fluorene	1.07578	0.99783	0.99783	0.000	-7.24582	60.00000	Averaged
54 4-Chlorophenylphenylether	0.45420	0.42578	0.42578	0.000	-6.25867	60.00000	Averaged
55 2-Methyl-4,6-dinitrophenol	0.10120	0.09844	0.09844	0.000	-2.71965	60.00000	Averaged
56 p-Nitroaniline	0.26458	0.21819	0.21819	0.000	-17.53206	60.00000	Averaged
133 Diphenylamine	0.53354	0.46493	0.46493	0.001	-12.85961	20.00000	Averaged ccc
58 1,2-Diphenylhydrazine	0.65098	0.55777	0.55777	0.000	-14.31896	60.00000	Averaged
61 4-Bromophenylphenylether	0.13743	0.14126	0.14126	0.000	2.79050	60.00000	Averaged
63 Hexachlorobenzene	0.16869	0.14433	0.14433	0.000	-14.43782	60.00000	Averaged
65 Pentachlorophenol	0.10117	0.09042	0.09042	0.001	-10.61921	20.00000	Averaged ccc
206 n-Octadecane	0.43383	0.42570	0.42570	0.000	-1.87309	60.00000	Averaged
68 Phenanthrene	0.90903	0.83581	0.83581	0.000	-8.05558	60.00000	Averaged
69 Anthracene	0.92447	0.85110	0.85110	0.000	-7.93592	60.00000	Averaged
72 Di-n-butylphthalate	0.98605	0.95396	0.95396	0.000	-3.25457	60.00000	Averaged
76 Fluoranthene	0.87746	0.81704	0.81704	0.001	-6.88555	20.00000	Averaged ccc
79 Pyrene	1.06293	0.98267	0.98267	0.000	-7.55079	60.00000	Averaged
85 Butylbenzylphthalate	0.48372	0.46739	0.46739	0.000	-3.37649	60.00000	Averaged
89 Benzo(a)anthracene	0.95915	0.87571	0.87571	0.000	-8.69930	60.00000	Averaged
92 Chrysene	0.89647	0.82199	0.82199	0.000	-8.30767	60.00000	Averaged
93 bis(2-Ethylhexyl)phthalate	0.70275	0.65271	0.65271	0.000	-7.12169	60.00000	Averaged

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD1.i Injection Date: 17-NOV-2009 16:27
Lab File ID: s1k1261.d Init. Cal. Date(s): 14-NOV-2009 17-NOV-2009
Analysis Type: Init. Cal. Times: 18:22 12:38
Lab Sample ID: WBN091027-09.3 Quant Type: ISTD
Method: /chem/MSD1.i/s111409.b/MSD1-M8270AQA-111409.m

	COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
	94 Di-n-octylphthalate	1.30849	1.19375	1.19375	0.001	-8.76858	20.00000	Averaged	ccc
	95 Benzo(b)fluoranthene	34.69168	40.00000	0.87030	0.000	-13.27080	60.00000	Linear	
	96 Benzo(k)fluoranthene	1.00298	0.95633	0.95633	0.000	-4.65112	60.00000	Averaged	
	97 Benzo(a)pyrene	37.92700	40.00000	0.82858	0.001	-5.18249	20.00000	Linear	ccc
	99 Indeno(1,2,3-cd)pyrene	35.83759	40.00000	0.81303	0.000	-10.40601	60.00000	Linear	
	100 Dibenzo(a,h)anthracene	35.09981	40.00000	0.66597	0.000	-12.25048	60.00000	Linear	
	101 Benzo(ghi)perylene	0.75165	0.69836	0.69836	0.000	-7.08991	60.00000	Averaged	
	126 m-Dinitrobenzene	0.18653	0.15696	0.15696	0.000	-15.84920	60.00000	Averaged	
	130 2,3,4,6-Tetrachlorophenol	0.21604	0.19708	0.19708	0.000	-8.77777	60.00000	Averaged	
	143 Dinoseb	0.12447	0.10965	0.10965	0.000	-11.90708	60.00000	Averaged	
	173 Carbazole	0.80714	0.69773	0.69773	0.000	-13.55506	60.00000	Averaged	
	184 p-Benzoquinone	40.49777	40.00000	0.06781	0.000	1.24442	60.00000	Linear	
	192 Methoxychlor	0.31747	0.36177	0.36177	0.000	13.95477	60.00000	Averaged	
	211 p-Toluidine	0.70440	0.95402	0.95402	0.000	35.43664	60.00000	Averaged	
	210 m-Toluidine	0.91072	0.95200	0.95200	0.000	4.53333	60.00000	Averaged	
	26 Phthalic anhydride	42.71723	40.00000	0.10164	0.000	6.79306	60.00000	Linear	
	179 Dibenzo(a,e)pyrene	24.88814	40.00000	0.27687	0.000	-37.77964	60.00000	Linear	
	214 1,4-Dinitrobenzene	0.17315	0.14504	0.14504	0.000	-16.23762	60.00000	Averaged	
	215 2-Ethoxyethanol	0.60315	0.59707	0.59707	0.000	-1.00765	60.00000	Averaged	
	216 Methylenebis(2-chloroanilin	0.12921	0.12373	0.12373	0.000	-4.23543	60.00000	Averaged	
M	225 Trichlorophenols	0.27448	0.25265	0.25265	0.000	-7.95340	60.00000	Averaged	
M	226 Tetrachlorophenols	0.21604	0.19708	0.19708	0.000	-8.77777	60.00000	Averaged	
M	227 Benzo(b,k)fluoranthene	0.96552	0.91331	0.91331	0.000	-5.40733	60.00000	Averaged	

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Data file : /chem/MSD1.i/s111409.b/s1k1261.d
Lab Smp Id: WBN091027-09.3 Client Smp ID: MEGAICV
Inj Date : 17-NOV-2009 16:27
Operator : amy Inst ID: MSD1.i
Smp Info : |WBN091027-09.3|40 PPM|1|SVMF|1|MEGAICV
Misc Info : |MSD8270|WBN091106-10|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD1.i/s111409.b/MSD1-M8270AQA-111409.m
Meth Date : 17-Nov-2009 16:47 llo00884 Quant Type: ISTD
Cal Date : 17-NOV-2009 12:38 Cal File: s1k1256.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: MEGAIICARE.sub
Target Version: 3.50
Processing Host: kilroy

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)	
* 10 1,4-Dichlorobenzene-d4	152	3.928	3.928	(1.000)	530038	40.0000		
* 29 Naphthalene-d8	136	4.793	4.793	(1.000)	2205306	40.0000		
* 46 Acenaphthene-d10	164	6.040	6.040	(1.000)	1135267	40.0000		
* 67 Phenanthrene-d10	188	7.022	7.022	(1.000)	1874551	40.0000		(H)
* 91 Chrysene-d12	240	8.704	8.704	(1.000)	1621760	40.0000		
* 98 Perylene-d12	264	10.198	10.198	(1.000)	1481649	40.0000		
$ 3 2-Fluorophenol	112	3.104	3.104	(0.790)	491348	40.0000	35.5	
$ 5 Phenol-d5	99	3.640	3.640	(0.927)	592737	40.0000	35.2	
$ 20 Nitrobenzene-d5	82	4.287	4.287	(0.894)	570788	40.0000	39.3	
$ 39 2-Fluorobiphenyl	172	5.534	5.534	(0.916)	1084689	40.0000	39.9	
$ 60 2,4,6-Tribromophenol	329	6.575	6.575	(1.089)	129390	40.0000	40.8	
$ 81 p-Terphenyl-d14	244	7.939	7.939	(0.912)	990744	40.0000	38.9	
1 N-Methyl-N-nitrosomethylamine	74	2.410	2.410	(0.614)	276992	40.0000	36.8	
2 Pyridine	79	2.446	2.446	(0.623)	381913	40.0000	30.2	
4 Aniline	66	3.710	3.710	(0.945)	244181	40.0000	33.0	
6 Phenol	94	3.646	3.646	(0.928)	599483	40.0000	33.8	
7 bis(2-Chloroethyl) ether	63	3.722	3.722	(0.948)	417273	40.0000	33.8	
8 2-Chlorophenol	128	3.787	3.787	(0.964)	512179	40.0000	34.0	
203 n-Decane	43	3.775	3.775	(0.961)	707542	40.0000	37.3	
9 1,3-Dichlorobenzene	146	3.893	3.893	(0.991)	606813	40.0000	34.3	
11 1,4-Dichlorobenzene	146	3.934	3.934	(1.001)	598440	40.0000	34.5	
13 1,2-Dichlorobenzene	146	4.040	4.040	(1.028)	543984	40.0000	34.0	
14 bis(2-Chloroisopropyl)ether	45	4.069	4.069	(1.036)	1027894	40.0000	35.0	
12 Benzyl alcohol	108	3.993	3.993	(1.016)	316054	40.0000	34.5	
15 o-Cresol	107	4.040	4.040	(1.028)	382773	40.0000	34.1	
18 m,p-Cresols	107	4.146	4.146	(1.055)	530984	40.0000	34.8	

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
17 N-Nitrosodipropylamine	70	4.163	4.163	(1.060)	325364	40.0000	32.2
19 Hexachloroethane	117	4.269	4.269	(1.087)	206306	40.0000	33.1
21 Nitrobenzene	77	4.304	4.304	(0.898)	528723	40.0000	34.9
22 Isophorone	82	4.457	4.457	(0.930)	944401	40.0000	35.6
23 2-Nitrophenol	139	4.516	4.516	(0.942)	274410	40.0000	34.1
24 2,4-Dimethylphenol	122	4.504	4.504	(0.940)	516190	40.0000	40.1
25 bis(2-Chloroethoxy)methane	93	4.575	4.575	(0.955)	561140	40.0000	32.9
26 2,4-Dichlorophenol	162	4.681	4.681	(0.977)	415624	40.0000	34.4
27 Benzoic acid	105	4.575	4.575	(0.955)	365053	40.0000	41.2
28 1,2,4-Trichlorobenzene	180	4.745	4.745	(0.990)	467914	40.0000	35.0
30 Naphthalene	128	4.810	4.810	(1.004)	1690998	40.0000	36.7
204 alpha-Terpineol	59	4.787	4.787	(0.999)	424496	40.0000	39.2
31 4-Chloroaniline	127	4.822	4.822	(1.006)	756952	40.0000	36.0
32 Hexachlorobutadiene	225	4.875	4.875	(1.017)	233369	40.0000	34.0
33 4-Chloro-3-methylphenol	107	5.134	5.134	(1.071)	380998	40.0000	32.3
34 2-Methylnaphthalene	142	5.293	5.293	(1.104)	1146146	40.0000	37.9
35 1-Methylnaphthalene	142	5.363	5.363	(1.119)	1056787	40.0000	38.8
36 Hexachlorocyclopentadiene	237	5.393	5.393	(0.893)	141475	40.0000	40.8
205 2,3-Dichloroaniline	161	5.487	5.487	(0.908)	505408	40.0000	39.2
37 2,4,6-Trichlorophenol	196	5.475	5.475	(0.906)	283075	40.0000	37.5(H)
38 2,4,5-Trichlorophenol	196	5.504	5.504	(0.911)	290570	40.0000	36.2
40 2-Chloronaphthalene	162	5.645	5.645	(0.935)	931485	40.0000	33.2
42 o-Nitroaniline	65	5.698	5.698	(0.944)	283207	40.0000	32.6
41 m-Nitroaniline	138	5.992	5.992	(0.992)	254734	40.0000	33.2
43 Dimethylphthalate	163	5.810	5.810	(0.962)	1089088	40.0000	35.2
44 2,6-Dinitrotoluene	165	5.863	5.863	(0.971)	252831	40.0000	32.8
50 2,4-Dinitrotoluene	165	6.145	6.145	(1.018)	334220	40.0000	32.7
45 Acenaphthylene	152	5.945	5.945	(0.984)	1666713	40.0000	38.1
47 Acenaphthene	154	6.063	6.063	(1.004)	973838	40.0000	37.2
48 2,4-Dinitrophenol	184	6.057	6.057	(1.003)	104771	40.0000	34.4(Q)
49 Dibenzofuran	168	6.181	6.181	(1.023)	1277902	40.0000	33.7
51 Diethylphthalate	149	6.287	6.287	(1.041)	1059428	40.0000	36.7
52 4-Nitrophenol	139	6.075	6.075	(1.006)	211838	40.0000	39.6
53 Fluorene	166	6.416	6.416	(1.062)	1132809	40.0000	37.1
54 4-Chlorophenylphenylether	204	6.392	6.392	(1.058)	483371	40.0000	37.5
55 2-Methyl-4,6-dinitrophenol	198	6.428	6.428	(0.911)	184539	40.0000	38.9
56 p-Nitroaniline	138	6.410	6.410	(1.061)	247705	40.0000	33.0
133 Diphenylamine	169	6.469	6.469	(0.917)	871532	40.0000	34.8
58 1,2-Diphenylhydrazine	77	6.498	6.498	(0.921)	1045567	40.0000	34.3
61 4-Bromophenylphenylether	248	6.716	6.716	(0.952)	264808	40.0000	41.1(H)
63 Hexachlorobenzene	284	6.775	6.775	(0.960)	270561	40.0000	34.2
65 Pentachlorophenol	266	6.892	6.892	(0.977)	169503	40.0000	35.8
206 n-Octadecane	57	6.869	6.869	(0.973)	797995	40.0000	39.2
68 Phenanthrene	178	7.039	7.039	(0.997)	1566761	40.0000	36.8
69 Anthracene	178	7.069	7.069	(1.002)	1595437	40.0000	36.8
72 Di-n-butylphthalate	149	7.310	7.310	(1.036)	1788243	40.0000	38.7
76 Fluoranthene	202	7.751	7.751	(1.098)	1531590	40.0000	37.2

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
79 Pyrene	202	7.892	7.892	(0.907)	1593654	40.0000	37.0
85 Butylbenzylphthalate	149	8.204	8.204	(0.943)	757996	40.0000	38.6
89 Benzo(a)anthracene	228	8.692	8.692	(0.999)	1420191	40.0000	36.5(H)
92 Chrysene	228	8.728	8.728	(1.003)	1333078	40.0000	36.7
93 bis(2-Ethylhexyl)phthalate	149	8.569	8.569	(0.984)	1058534	40.0000	37.2(H)
94 Di-n-octylphthalate	149	9.110	9.110	(0.893)	1768724	40.0000	36.5
95 Benzo(b)fluoranthene	252	9.716	9.716	(0.953)	1289484	40.0000	34.7(H)
96 Benzo(k)fluoranthene	252	9.745	9.745	(0.956)	1416940	40.0000	38.1
97 Benzo(a)pyrene	252	10.122	10.122	(0.992)	1227658	40.0000	37.9
99 Indeno(1,2,3-cd)pyrene	276	11.863	11.863	(1.163)	1204623	40.0000	35.8(H)
100 Dibenzo(a,h)anthracene	278	11.863	11.863	(1.163)	986733	40.0000	35.1
101 Benzo(ghi)perylene	276	12.380	12.380	(1.214)	1034720	40.0000	37.2
126 m-Dinitrobenzene	168	5.845	5.845	(0.968)	178196	40.0000	33.7
130 2,3,4,6-Tetrachlorophenol	232	6.251	6.251	(1.035)	223733	40.0000	36.5
143 Dinoseb	211	6.981	6.981	(0.989)	205546	40.0000	35.2
173 Carbazole	167	7.151	7.151	(1.013)	1307938	40.0000	34.6
184 p-Benzoquinone	54	3.404	3.404	(0.867)	35940	40.0000	40.5
192 Methoxychlor	227	8.557	8.557	(0.983)	586700	40.0000	45.6
211 p-Toluidine	106	4.204	4.204	(1.070)	505668	40.0000	54.2(H)
210 m-Toluidine	106	4.228	4.228	(1.076)	504598	40.0000	41.8
26 Phthalic anhydride	104	5.322	5.322	(1.110)	224154	40.0000	42.7
179 Dibenzo(a,e)pyrene	302	16.327	16.327	(1.601)	410219	40.0000	24.9(H)
214 1,4-Dinitrobenzene	168	5.787	5.787	(0.958)	164654	40.0000	33.5
215 2-Ethoxyethanol	59	2.257	2.257	(0.575)	316469	40.0000	39.6
216 Methylenebis(2-chloroaniline)	231	8.622	8.622	(0.991)	200666	40.0000	38.3
M 225 Trichlorophenols	196				573645	80.0000	73.6
M 226 Tetrachlorophenols	232				223733	40.0000	36.5
M 227 Benzo(b,k)fluoranthene	252				2706424	80.0000	75.7

QC Flag Legend

Q - Qualifier signal failed the ratio test.
H - Operator selected an alternate compound hit.

Data File: /chem/MSD1.i/s111409.b/s1k1261.d
Date : 17-NOV-2009 16:27
Client ID: MEGAICV
Sample Info: IWBN091027-09,3140 PPM!1ISVHF1!MEGAICV
Column phase: J&W DB-5MS

Instrument: MSD1.i
Operator: amy
Column diameter: 0.20

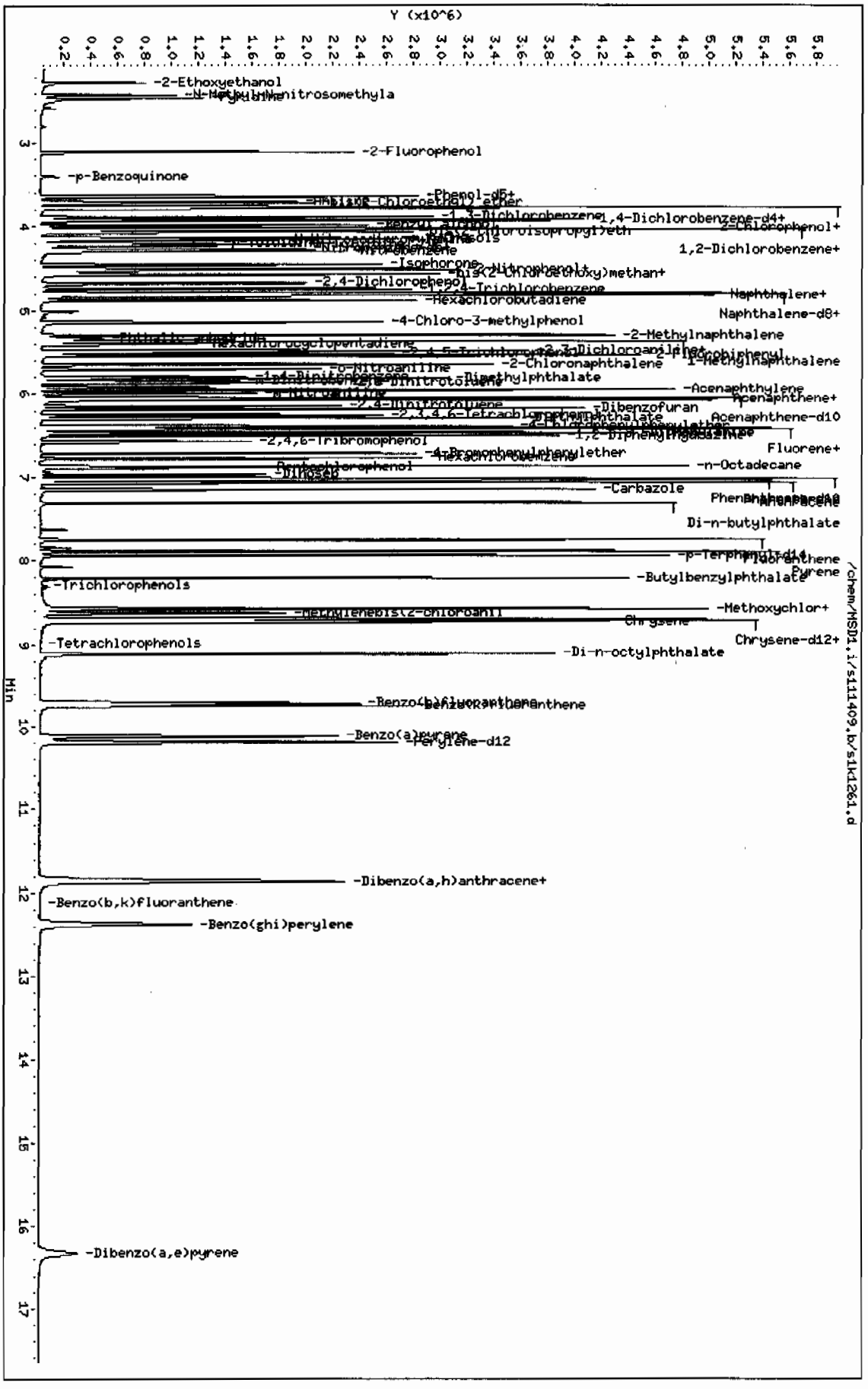

Data File: /chem/MSD1.i/s122209.b/s112203.d
Report Date: 23-Dec-2009 09:30

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD1.i Injection Date: 22-DEC-2009 10:14
Lab File ID: s112203.d Init. Cal. Date(s): 14-NOV-2009 17-NOV-2009
Analysis Type: Init. Cal. Times: 18:22 19:15
Lab Sample ID: WBN091111-17.2 Quant Type: ISTD
Method: /chem/MSD1.i/s122209.b/MSD1-M8270AQA-111409.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
$ 3 2-Fluorophenol	1.04478	0.97602	0.97602	0.000	-6.58191	60.00000	Averaged
$ 5 Phenol-d5	1.26984	1.19187	1.19187	0.000	-6.14003	60.00000	Averaged
$ 20 Nitrobenzene-d5	0.26360	0.27423	0.27423	0.000	4.03019	60.00000	Averaged
$ 39 2-Fluorobiphenyl	0.95800	1.05642	1.05642	0.000	10.27396	60.00000	Averaged
$ 60 2,4,6-Tribromophenol	0.11169	0.12908	0.12908	0.000	15.56607	60.00000	Averaged
$ 81 p-Terphenyl-d14	0.62787	0.66387	0.66387	0.000	5.73292	60.00000	Averaged
1 N-Methyl-N-nitrosomethylami	0.56740	0.54242	0.54242	0.000	-4.40141	60.00000	Averaged
2 Pyridine	0.95281	0.80231	0.80231	0.000	-15.79478	60.00000	Averaged
4 Aniline	0.55813	0.48974	0.48974	0.000	-12.25450	60.00000	Averaged
6 Phenol	1.33800	1.22789	1.22789	0.001	-8.22912	20.00000	Averaged ccc
7 bis(2-Chloroethyl) ether	0.93081	0.86242	0.86242	0.000	-7.34778	60.00000	Averaged
8 2-Chlorophenol	1.13717	1.02656	1.02656	0.000	-9.72647	60.00000	Averaged
203 n-Decane	1.43160	1.49409	1.49409	0.000	4.36502	60.00000	Averaged
9 1,3-Dichlorobenzene	1.33431	1.16215	1.16215	0.000	-12.90273	60.00000	Averaged
11 1,4-Dichlorobenzene	1.30799	1.14503	1.14503	0.001	-12.45906	20.00000	Averaged ccc
13 1,2-Dichlorobenzene	1.20798	1.08150	1.08150	0.000	-10.47070	60.00000	Averaged
14 bis(2-Chloroisopropyl)ether	2.21709	2.01848	2.01848	0.000	-8.95783	60.00000	Averaged
12 Benzyl alcohol	0.69141	0.65119	0.65119	0.000	-5.81657	60.00000	Averaged
15 o-Cresol	0.84650	0.80766	0.80766	0.000	-4.58841	60.00000	Averaged
18 m,p-Cresols	1.15179	1.06506	1.06506	0.000	-7.52983	60.00000	Averaged
17 N-Nitrosodipropylamine	0.76238	0.67910	0.67910	0.050	-10.92308	60.00000	Averaged spcc
19 Hexachloroethane	0.47075	0.43930	0.43930	0.000	-6.68039	60.00000	Averaged
21 Nitrobenzene	0.27466	0.27836	0.27836	0.000	1.34716	60.00000	Averaged
22 Isophorone	0.48049	0.50103	0.50103	0.000	4.27500	60.00000	Averaged
23 2-Nitrophenol	0.14580	0.12911	0.12911	0.001	-11.44883	20.00000	Averaged ccc
24 2,4-Dimethylphenol	0.23346	0.22084	0.22084	0.000	-5.40516	60.00000	Averaged
25 bis(2-Chloroethoxy)methane	0.30933	0.28475	0.28475	0.000	-7.94573	60.00000	Averaged
26 2,4-Dichlorophenol	0.21909	0.19722	0.19722	0.001	-9.98079	20.00000	Averaged ccc
27 Benzoic acid	0.16087	0.18036	0.18036	0.000	12.11516	60.00000	Averaged
28 1,2,4-Trichlorobenzene	0.24210	0.23262	0.23262	0.000	-3.91662	60.00000	Averaged
30 Naphthalene	0.83482	0.81452	0.81452	0.000	-2.43102	60.00000	Averaged
204 alpha-Terpineol	0.19635	0.21535	0.21535	0.000	9.67260	60.00000	Averaged
31 4-Chloroaniline	0.38123	0.35091	0.35091	0.000	-7.95431	60.00000	Averaged
32 Hexachlorobutadiene	0.12432	0.13287	0.13287	0.001	6.88294	20.00000	Averaged ccc
33 4-Chloro-3-methylphenol	0.21406	0.20648	0.20648	0.001	-3.54008	20.00000	Averaged ccc
34 2-Methylnaphthalene	0.54880	0.55594	0.55594	0.000	1.30088	60.00000	Averaged

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD1.i Injection Date: 22-DEC-2009 10:14
Lab File ID: s112203.d Init. Cal. Date(s): 14-NOV-2009 17-NOV-2009
Analysis Type: Init. Cal. Times: 18:22 19:15
Lab Sample ID: WBN091111-17.2 Quant Type: ISTD
Method: /chem/MSD1.i/s122209.b/MSD1-M8270AQA-111409.m

	COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
35	1-Methylnaphthalene	0.49330	0.51952	0.51952	0.000	5.31356	60.00000	Averaged
36	Hexachlorocyclopentadiene	0.12213	0.14549	0.14549	0.050	19.12423	60.00000	Averaged spcc
205	2,3-Dichloroaniline	0.45401	0.47217	0.47217	0.000	4.00105	60.00000	Averaged
37	2,4,6-Trichlorophenol	0.26606	0.27099	0.27099	0.001	1.85293	20.00000	Averaged ccc
38	2,4,5-Trichlorophenol	0.28290	0.30556	0.30556	0.000	8.01131	60.00000	Averaged
40	2-Chloronaphthalene	0.98748	0.86922	0.86922	0.000	-11.97620	60.00000	Averaged
42	o-Nitroaniline	0.30619	0.28403	0.28403	0.000	-7.23643	60.00000	Averaged
41	m-Nitroaniline	0.27055	0.20603	0.20603	0.000	-23.84678	60.00000	Averaged
43	Dimethylphthalate	1.08995	1.02971	1.02971	0.000	-5.52687	60.00000	Averaged
44	2,6-Dinitrotoluene	0.27156	0.23231	0.23231	0.000	-14.45435	60.00000	Averaged
50	2,4-Dinitrotoluene	0.35993	0.30441	0.30441	0.000	-15.42559	60.00000	Averaged
45	Acenaphthylene	1.54092	1.59337	1.59337	0.000	3.40377	60.00000	Averaged
47	Acenaphthene	0.92259	0.95364	0.95364	0.001	3.36530	20.00000	Averaged ccc
48	2,4-Dinitrophenol	0.10718	0.10194	0.10194	0.050	-4.89691	60.00000	Averaged spcc
49	Dibenzofuran	1.33422	1.22857	1.22857	0.000	-7.91813	60.00000	Averaged
51	Diethylphthalate	1.01616	1.04325	1.04325	0.000	2.66579	60.00000	Averaged
52	4-Nitrophenol	0.18871	0.16650	0.16650	0.050	-11.77116	60.00000	Averaged spcc
53	Fluorene	1.07578	1.11743	1.11743	0.000	3.87093	60.00000	Averaged
54	4-Chlorophenylphenylether	0.45420	0.46996	0.46996	0.000	3.46820	60.00000	Averaged
55	2-Methyl-4,6-dinitrophenol	0.10120	0.11149	0.11149	0.000	10.17336	60.00000	Averaged
56	p-Nitroaniline	0.26458	0.17027	0.17027	0.000	-35.64398	60.00000	Averaged
133	Diphenylamine	0.53354	0.46090	0.46090	0.001	-13.61413	20.00000	Averaged ccc
58	1,2-Diphenylhydrazine	0.65098	0.61199	0.61199	0.000	-5.98922	60.00000	Averaged
61	4-Bromophenylphenylether	0.13743	0.15343	0.15343	0.000	11.64068	60.00000	Averaged
63	Hexachlorobenzene	0.16869	0.16980	0.16980	0.000	0.65980	60.00000	Averaged
65	Pentachlorophenol	0.10117	0.10180	0.10180	0.001	0.63099	20.00000	Averaged ccc
206	n-Octadecane	0.43383	0.45928	0.45928	0.000	5.86672	60.00000	Averaged
68	Phenanthrene	0.90903	0.88475	0.88475	0.000	-2.67174	60.00000	Averaged
69	Anthracene	0.92447	0.88560	0.88560	0.000	-4.20489	60.00000	Averaged
72	Di-n-butylphthalate	0.98605	1.05381	1.05381	0.000	6.87223	60.00000	Averaged
76	Fluoranthene	0.87746	0.92478	0.92478	0.001	5.39287	20.00000	Averaged ccc
79	Pyrene	1.06293	1.11150	1.11150	0.000	4.56947	60.00000	Averaged
85	Butylbenzylphthalate	0.48372	0.51264	0.51264	0.000	5.97885	60.00000	Averaged
89	Benzo(a)anthracene	0.95915	0.93536	0.93536	0.000	-2.48007	60.00000	Averaged
92	Chrysene	0.89647	0.85906	0.85906	0.000	-4.17343	60.00000	Averaged
93	bis(2-Ethylhexyl)phthalate	0.70275	0.71140	0.71140	0.000	1.22995	60.00000	Averaged

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD1.i
Lab File ID: s112203.d
Analysis Type:
Lab Sample ID: WBN091111-17.2 Quant Type: ISTD
Method: /chem/MSD1.i/s122209.b/MSD1-M8270AQA-111409.m

Injection Date: 22-DEC-2009 10:14
Init. Cal. Date(s): 14-NOV-2009 17-NOV-2009
Init. Cal. Times: 18:22 19:15

	COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
	94 Di-n-octylphthalate	1.30849	1.30396	1.30396	0.001	-0.34612	20.00000	Averaged	ccc
	95 Benzo(b)fluoranthene	41.17824	40.00000	1.04657	0.000	2.94559	60.00000	Linear	
	96 Benzo(k)fluoranthene	1.00298	0.98648	0.98648	0.000	-1.64480	60.00000	Averaged	
	97 Benzo(a)pyrene	41.27884	40.00000	0.90151	0.001	3.19709	20.00000	Linear	ccc
	99 Indeno(1,2,3-cd)pyrene	39.43640	40.00000	0.89369	0.000	-1.40899	60.00000	Linear	
	100 Dibenzo(a,h)anthracene	38.21989	40.00000	0.72487	0.000	-4.45028	60.00000	Linear	
	101 Benzo(ghi)perylene	0.75165	0.77399	0.77399	0.000	2.97203	60.00000	Averaged	
	126 m-Dinitrobenzene	0.18653	0.16218	0.16218	0.000	-13.05368	60.00000	Averaged	
	130 2,3,4,6-Tetrachlorophenol	0.21604	0.23452	0.23452	0.000	8.55568	60.00000	Averaged	
	143 Dinoseb	0.12447	0.13735	0.13735	0.000	10.34476	60.00000	Averaged	
	173 Carbazole	0.80714	0.63899	0.63899	0.000	-20.83363	60.00000	Averaged	
	184 p-Benzoquinone	30.44629	40.00000	0.04753	0.000	-23.88429	60.00000	Linear	
	192 Methoxychlor	0.31747	0.49644	0.49644	0.000	56.37654	60.00000	Averaged	
	211 p-Toluidine	0.70440	0.87154	0.87154	0.000	23.72667	60.00000	Averaged	
	210 m-Toluidine	0.91072	1.10200	1.10200	0.000	21.00393	60.00000	Averaged	
	26 Phthalic anhydride	41.63908	40.00000	0.09886	0.000	4.09769	60.00000	Linear	
	179 Dibenzo(a,e)pyrene	26.97161	40.00000	0.30320	0.000	-32.57097	60.00000	Linear	
	214 1,4-Dinitrobenzene	0.17315	0.15030	0.15030	0.000	-13.19671	60.00000	Averaged	
	215 2-Ethoxyethanol	0.60315	0.59884	0.59884	0.000	-0.71313	60.00000	Averaged	
	216 Methylenebis(2-chloroanilin	0.12921	0.09776	0.09776	0.000	-24.33909	60.00000	Averaged	
M	225 Trichlorophenols	0.27448	0.28827	0.28827	0.000	5.02660	60.00000	Averaged	
M	226 Tetrachlorophenols	0.21604	0.23452	0.23452	0.000	8.55568	60.00000	Averaged	
M	227 Benzo(b,k)fluoranthene	0.96552	1.01652	1.01652	0.000	5.28201	60.00000	Averaged	

GEL Laboratories LLC

Data file : /chem/MSD1.i/s122209.b/s112203.d
Lab Smp Id: WBN091111-17.2 Client Smp ID: MEGACVS
Inj Date : 22-DEC-2009 10:14
Operator : AMY Inst ID: MSD1.i
Smp Info : |WBN091111-17.2|40 PPM|1|SVMF|1|MEGACVS
Misc Info : |MSD8270|WBN091208-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD1.i/s122209.b/MSD1-M8270AQA-111409.m
Meth Date : 23-Dec-2009 09:30 amy01291 Quant Type: ISTD
Cal Date : 17-NOV-2009 17:42 Cal File: s1k1264.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: MEGAIICARE.sub
Target Version: 3.50
Processing Host: hpclp1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	3.881	3.881	(1.000)	746088	40.0000	
* 29 Naphthalene-d8	136	4.752	4.752	(1.000)	2985861	40.0000	
* 46 Acenaphthene-d10	164	5.993	5.993	(1.000)	1554369	40.0000	
* 67 Phenanthrene-d10	188	6.975	6.975	(1.000)	2636834	40.0000	
* 91 Chrysene-d12	240	8.628	8.628	(1.000)	2284347	40.0000	
* 98 Perylene-d12	264	10.057	10.057	(1.000)	2055173	40.0000	
$ 3 2-Fluorophenol	112	3.081	3.081	(0.794)	728195	40.0000	37.4
$ 5 Phenol-d5	99	3.616	3.616	(0.932)	889238	40.0000	37.5
$ 20 Nitrobenzene-d5	82	4.252	4.252	(0.895)	818805	40.0000	41.6
$ 39 2-Fluorobiphenyl	172	5.487	5.487	(0.916)	1642071	40.0000	44.1
$ 60 2,4,6-Tribromophenol	329	6.528	6.528	(1.089)	200639	40.0000	46.2
$ 81 p-Terphenyl-d14	244	7.887	7.887	(0.914)	1516508	40.0000	42.3
1 N-Methyl-N-nitrosomethylamine	74	2.393	2.393	(0.617)	404696	40.0000	38.2
2 Pyridine	79	2.428	2.428	(0.626)	598596	40.0000	33.7
4 Aniline	66	3.675	3.675	(0.947)	365386	40.0000	35.1
6 Phenol	94	3.622	3.622	(0.933)	916117	40.0000	36.7
7 bis(2-Chloroethyl) ether	63	3.687	3.687	(0.950)	643440	40.0000	37.1
8 2-Chlorophenol	128	3.752	3.752	(0.967)	765905	40.0000	36.1
203 n-Decane	43	3.728	3.728	(0.961)	1114721	40.0000	41.7
9 1,3-Dichlorobenzene	146	3.852	3.852	(0.992)	867065	40.0000	34.8
11 1,4-Dichlorobenzene	146	3.893	3.893	(1.003)	854290	40.0000	35.0
13 1,2-Dichlorobenzene	146	3.999	3.999	(1.030)	806893	40.0000	35.8
14 bis(2-Chloroisopropyl)ether	45	4.028	4.028	(1.038)	1505966	40.0000	36.4
12 Benzyl alcohol	108	3.957	3.957	(1.020)	485848	40.0000	37.7
15 o-Cresol	107	4.010	4.010	(1.033)	602582	40.0000	38.2
18 m,p-Cresols	107	4.116	4.116	(1.061)	794627	40.0000	37.0

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
17 N-Nitrosodipropylamine	70	4.128	4.128	(1.064)	506669	40.0000	35.6
19 Hexachloroethane	117	4.222	4.222	(1.088)	327756	40.0000	37.3
21 Nitrobenzene	77	4.263	4.263	(0.897)	831130	40.0000	40.5
22 Isophorone	82	4.416	4.416	(0.929)	1496002	40.0000	41.7
23 2-Nitrophenol	139	4.475	4.475	(0.942)	385492	40.0000	35.4
24 2,4-Dimethylphenol	122	4.475	4.475	(0.942)	659406	40.0000	37.8
25 bis(2-Chloroethoxy)methane	93	4.534	4.534	(0.954)	850225	40.0000	36.8
26 2,4-Dichlorophenol	162	4.640	4.640	(0.976)	588879	40.0000	36.0
27 Benzoic acid	105	4.546	4.546	(0.957)	538526	40.0000	44.8
28 1,2,4-Trichlorobenzene	180	4.699	4.699	(0.989)	694578	40.0000	38.4
30 Naphthalene	128	4.763	4.763	(1.002)	2432048	40.0000	39.0(Q)
204 alpha-Terpineol	59	4.740	4.740	(0.998)	642994	40.0000	43.9
31 4-Chloroaniline	127	4.787	4.787	(1.007)	1047755	40.0000	36.8
32 Hexachlorobutadiene	225	4.828	4.828	(1.016)	396746	40.0000	42.8
33 4-Chloro-3-methylphenol	107	5.104	5.104	(1.074)	616516	40.0000	38.6
34 2-Methylnaphthalene	142	5.240	5.240	(1.103)	1659951	40.0000	40.5
35 1-Methylnaphthalene	142	5.316	5.316	(1.119)	1551205	40.0000	42.1
36 Hexachlorocyclopentadiene	237	5.346	5.346	(0.892)	226138	40.0000	47.6
205 2,3-Dichloroaniline	161	5.446	5.446	(0.909)	733930	40.0000	41.6
37 2,4,6-Trichlorophenol	196	5.434	5.434	(0.907)	421212	40.0000	40.7
38 2,4,5-Trichlorophenol	196	5.463	5.463	(0.912)	474959	40.0000	43.2
40 2-Chloronaphthalene	162	5.593	5.593	(0.933)	1351090	40.0000	35.2
42 o-Nitroaniline	65	5.657	5.657	(0.944)	441486	40.0000	37.1
41 m-Nitroaniline	138	5.951	5.951	(0.993)	320252	40.0000	30.5
43 Dimethylphthalate	163	5.763	5.763	(0.962)	1600544	40.0000	37.8
44 2,6-Dinitrotoluene	165	5.822	5.822	(0.972)	361092	40.0000	34.2
50 2,4-Dinitrotoluene	165	6.104	6.104	(1.019)	473164	40.0000	33.8
45 Acenaphthylene	152	5.898	5.898	(0.984)	2476690	40.0000	41.4
47 Acenaphthene	154	6.016	6.016	(1.004)	1482303	40.0000	41.3
48 2,4-Dinitrophenol	184	6.022	6.022	(1.005)	158446	40.0000	38.0(Q)
49 Dibenzofuran	168	6.134	6.134	(1.024)	1909655	40.0000	36.8
51 Diethylphthalate	149	6.246	6.246	(1.042)	1621588	40.0000	41.1
52 4-Nitrophenol	139	6.051	6.051	(1.010)	258804	40.0000	35.3
53 Fluorene	166	6.369	6.369	(1.063)	1736894	40.0000	41.5
54 4-Chlorophenylphenylether	204	6.346	6.346	(1.059)	730487	40.0000	41.4
55 2-Methyl-4,6-dinitrophenol	198	6.387	6.387	(0.916)	293985	40.0000	44.1
56 p-Nitroaniline	138	6.375	6.375	(1.064)	264664	40.0000	25.7
133 Diphenylamine	169	6.422	6.422	(0.921)	1215324	40.0000	34.6
58 1,2-Diphenylhydrazine	77	6.451	6.451	(0.925)	1613728	40.0000	37.6
61 4-Bromophenylphenylether	248	6.669	6.669	(0.956)	404563	40.0000	44.6
63 Hexachlorobenzene	284	6.728	6.728	(0.965)	447739	40.0000	40.3
65 Pentachlorophenol	266	6.845	6.845	(0.981)	268442	40.0000	40.2
206 n-Octadecane	57	6.822	6.822	(0.978)	1211036	40.0000	42.3
68 Phenanthrene	178	6.993	6.993	(1.003)	2332931	40.0000	38.9
69 Anthracene	178	7.022	7.022	(1.007)	2335169	40.0000	38.3
72 Di-n-butylphthalate	149	7.263	7.263	(1.041)	2778731	40.0000	42.7
76 Fluoranthene	202	7.698	7.698	(1.104)	2438497	40.0000	42.2

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
79 Pyrene	202	7.840	7.840	(0.909)	2539050	40.0000	41.8
85 Butylbenzylphthalate	149	8.145	8.145	(0.944)	1171059	40.0000	42.4
89 Benzo(a)anthracene	228	8.616	8.616	(0.999)	2136690	40.0000	39.0
92 Chrysene	228	8.651	8.651	(1.003)	1962384	40.0000	38.3
93 bis(2-Ethylhexyl)phthalate	149	8.492	8.492	(0.984)	1625081	40.0000	40.5
94 Di-n-octylphthalate	149	9.010	9.010	(0.896)	2679865	40.0000	39.9
95 Benzo(b)fluoranthene	252	9.598	9.598	(0.954)	2150876	40.0000	41.2
96 Benzo(k)fluoranthene	252	9.628	9.628	(0.957)	2027385	40.0000	39.3
97 Benzo(a)pyrene	252	9.992	9.992	(0.994)	1852750	40.0000	41.3
99 Indeno(1,2,3-cd)pyrene	276	11.657	11.657	(1.159)	1836687	40.0000	39.4
100 Dibenzo(a,h)anthracene	278	11.651	11.651	(1.158)	1489733	40.0000	38.2
101 Benzo(ghi)perylene	276	12.151	12.151	(1.208)	1590678	40.0000	41.2
126 m-Dinitrobenzene	168	5.810	5.810	(0.970)	252085	40.0000	34.8
130 2,3,4,6-Tetrachlorophenol	232	6.210	6.210	(1.036)	364534	40.0000	43.4
143 Dinoseb	211	6.934	6.934	(0.994)	362164	40.0000	44.1
173 Carbazole	167	7.110	7.110	(1.019)	1684899	40.0000	31.7
184 p-Benzoquinone	54	3.381	3.381	(0.871)	35465	40.0000	30.4
192 Methoxychlor	227	8.487	8.487	(0.984)	1134046	40.0000	62.6(H)
211 p-Toluidine	106	4.163	4.163	(1.073)	650243	40.0000	49.5
210 m-Toluidine	106	4.187	4.187	(1.079)	822192	40.0000	48.4
26 Phthalic anhydride	104	5.287	5.287	(1.113)	295177	40.0000	41.6
179 Dibenzo(a,e)pyrene	302	15.921	15.921	(1.583)	623120	40.0000	27.0
214 1,4-Dinitrobenzene	168	5.751	5.751	(0.960)	233623	40.0000	34.7
215 2-Ethoxyethanol	59	2.240	2.240	(0.577)	446791	40.0000	39.7
216 Methylenebis(2-chloroaniline)	231	8.551	8.551	(0.991)	223314	40.0000	30.3
M 225 Trichlorophenols	196				896171	80.0000	84.0
M 226 Tetrachlorophenols	232				364534	40.0000	43.4
M 227 Benzo(b,k)fluoranthene	252				4178261	80.0000	84.2

QC Flag Legend

Q - Qualifier signal failed the ratio test.
H - Operator selected an alternate compound hit.

Data File: /chem/MSD1.i/s122209.b/s112203.d

Date : 22-DEC-2009 10:14

Client ID: MEGACVS

Sample Info: |WBN091111-17.2|40 PPM|1|SVMF|1|MEGACVS

Column phase: J&W DB-5MS

Instrument: MSD1.i

Operator: AMY

Column diameter: 0.20

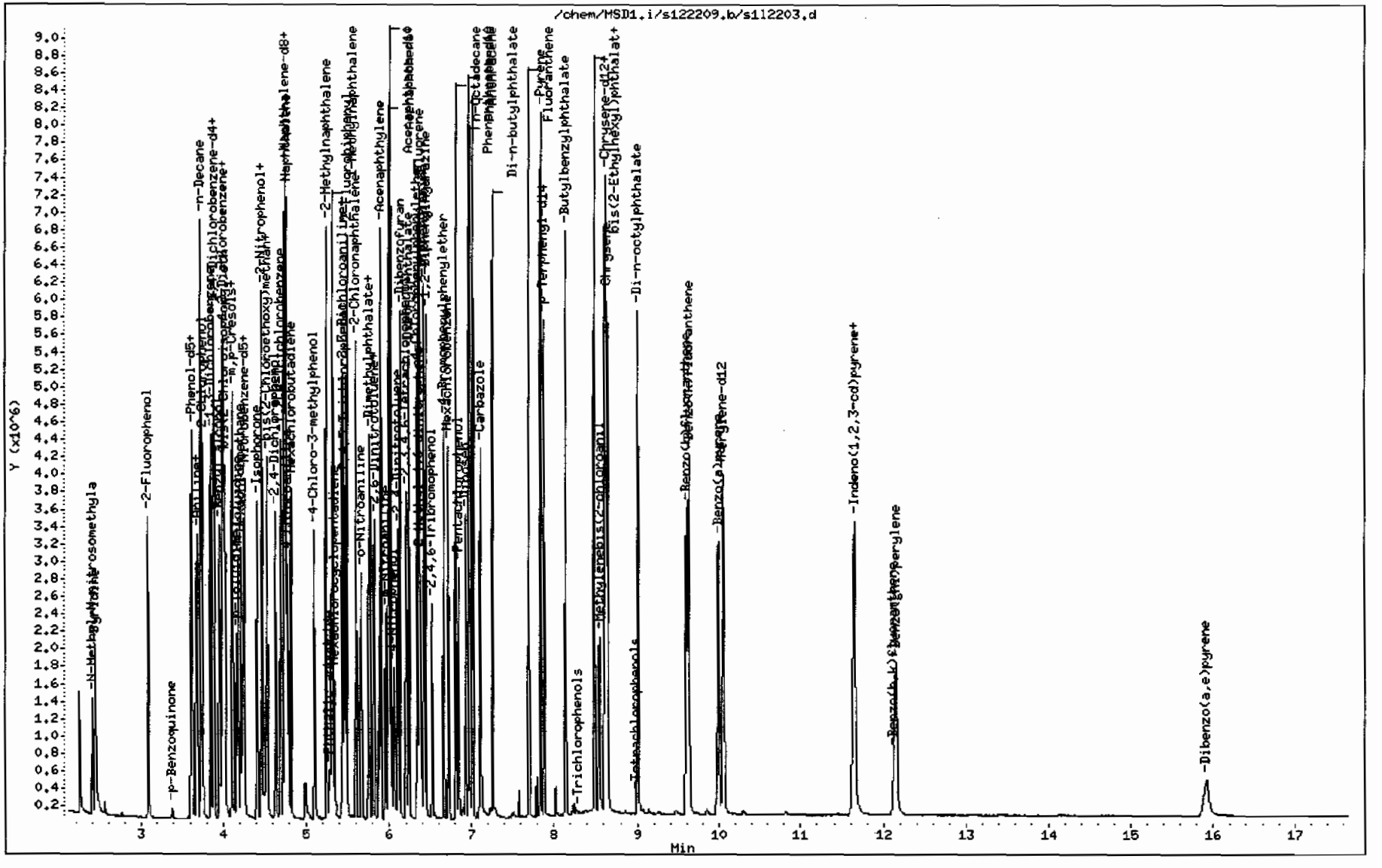

QC Data

Data File: /chem/MSD1.i/s111409.b/s1k1201.d

Date : 14-NOV-2009 17:38

Client ID: DFTPP

Instrument: MSD1.i

Sample Info: |WBN091101-01|50 PPM|1|SVMF|1|DFTPP

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

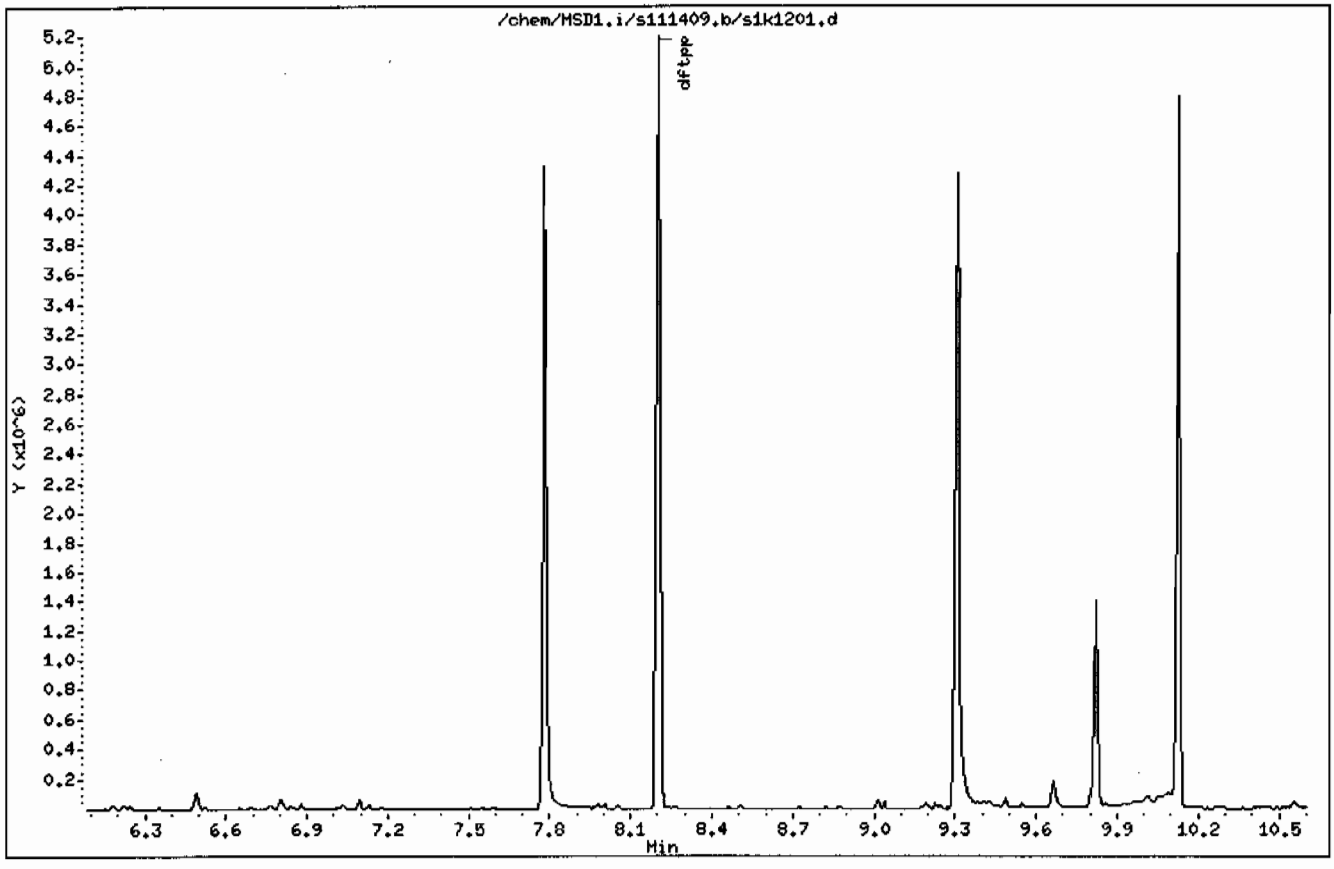

Data File: /chem/MSD1.i/s111409.b/s1k1201.d

Date : 14-NOV-2009 17:38

Client ID: DFTPP

Instrument: MSD1.i

Sample Info: IWBN091101-01|50 PPM|1|SVMF|1|DFTPP

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

1 dftpp

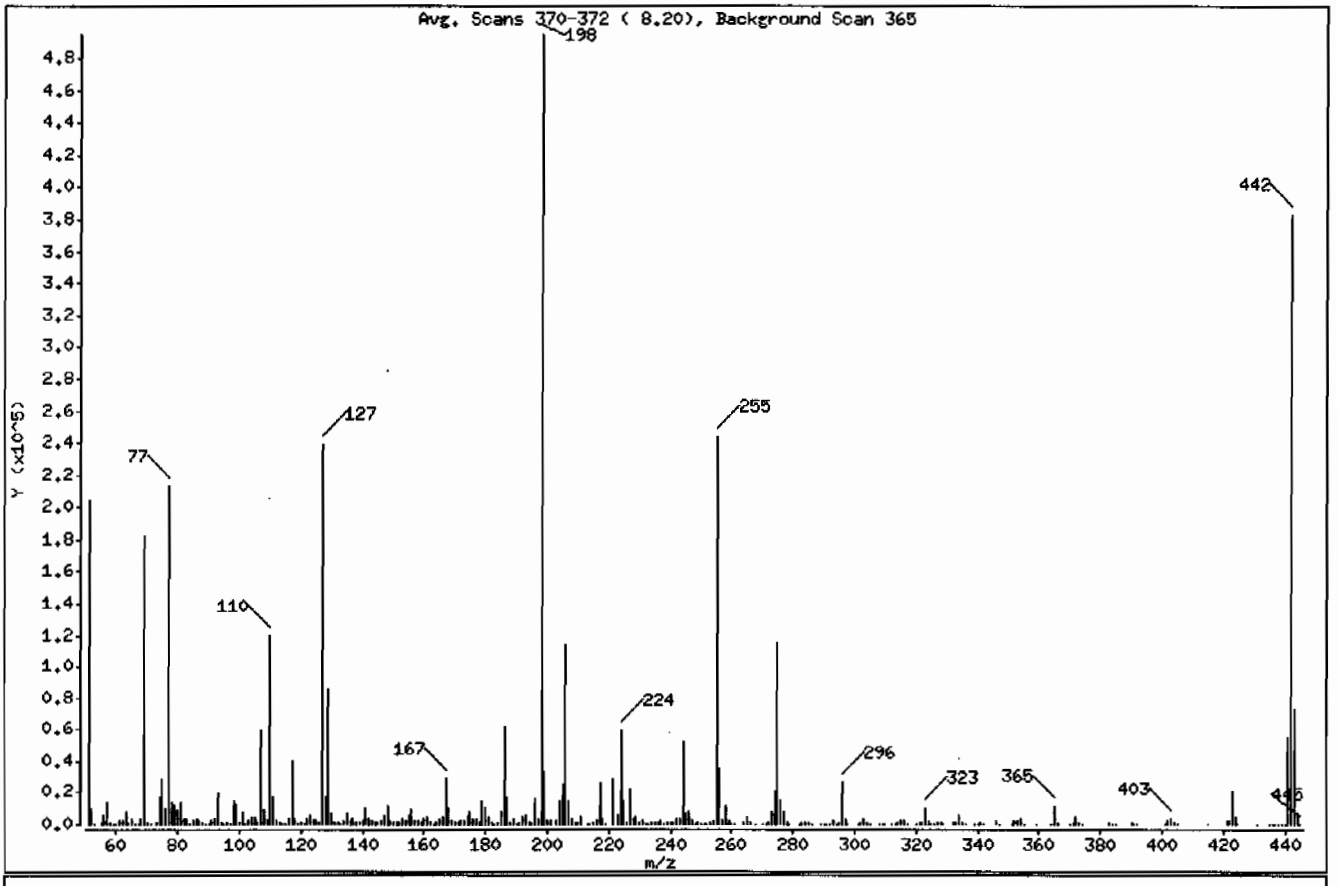

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	41.33
68	Less than 2.00% of mass 69	0.66 (1.81)
69	Mass 69 relative abundance	36.68
70	Less than 2.00% of mass 69	0.20 (0.55)
127	40.00 - 60.00% of mass 198	48.32
197	Less than 1.00% of mass 198	0.69
199	5.00 - 9.00% of mass 198	6.57
275	10.00 - 30.00% of mass 198	23.31
365	Greater than 1.00% of mass 198	2.23
441	Present, but less than mass 443	11.00
442	Greater than 40.00% of mass 198	77.37
443	17.00 - 23.00% of mass 442	14.83 (19.16)

Data File: /chem/MSD1.i/s111409.b/s1k1201.d

Date : 14-NOV-2009 17:38

Client ID: DFTPP

Instrument: MSD1.i

Sample Info: |WBN091101-01|50 PPM|1|SVMF|1|DFTPP

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

Data File: s1k1201.d
Spectrum: Avg. Scans 370-372 (8.20), Background Scan 365
Location of Maximum: 198.00
Number of points: 312

m/z	Y	m/z	Y	m/z	Y	m/z	Y
51.00	204544	132.00	849	213.00	322	304.00	857
52.00	10058	133.00	398	214.00	81	305.00	126
53.00	476	134.00	2213	215.00	1065	308.00	339
55.00	808	135.00	6445	216.00	2209	309.00	249
56.00	5675	136.00	2682	217.00	25976	310.00	361
57.00	13163	137.00	3409	218.00	3600	312.00	52
58.00	676	138.00	864	219.00	390	313.00	288
59.00	142	139.00	1285	221.00	28416	314.00	1372
60.00	58	140.00	1711	223.00	5970	315.00	2833
61.00	2414	141.00	10495	224.00	59288	316.00	1731
62.00	2627	142.00	3783	225.00	15318	317.00	279
63.00	7561	143.00	2378	226.00	1533	320.00	54
64.00	1048	144.00	706	227.00	21184	321.00	903
65.00	3902	145.00	666	228.00	3165	322.00	596
66.00	253	146.00	1908	229.00	4804	323.00	9908
67.00	264	147.00	5356	230.00	759	324.00	1942
68.00	3280	148.00	10849	231.00	2133	325.00	119
69.00	181568	149.00	2326	232.00	408	326.00	93
70.00	999	150.00	640	233.00	450	327.00	1701
71.00	119	151.00	1554	234.00	1483	328.00	891
73.00	1219	152.00	808	235.00	1658	329.00	88
74.00	17536	153.00	3187	236.00	1183	332.00	578
75.00	28056	154.00	2701	237.00	1728	333.00	855
76.00	9746	155.00	5991	238.00	324	334.00	5817
77.00	212736	156.00	9066	239.00	813	335.00	1475
78.00	13840	157.00	1942	240.00	775	336.00	75
79.00	12099	158.00	1971	241.00	1214	339.00	62
80.00	9416	159.00	1574	242.00	3186	340.00	77
81.00	13432	160.00	3233	243.00	3508	341.00	1027
82.00	3448	161.00	4832	244.00	51832	342.00	243
83.00	3440	162.00	1519	245.00	6691	346.00	2015
84.00	276	163.00	414	246.00	8221	347.00	283
85.00	2469	164.00	763	247.00	1725	351.00	182
86.00	3499	165.00	3823	248.00	403	352.00	2745
87.00	1914	166.00	4542	249.00	1698	353.00	2043

Data File: /chem/MSD1.i/s111409.b/s1k1201.d

Date : 14-NOV-2009 17:38

Client ID: DFTPP

Instrument: MSD1.i

Sample Info: |WBN091101-01|50 PPM|1|SVMF|1|DFTPP

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

Data File: s1k1201.d
Spectrum: Avg. Scans 370-372 (8.20), Background Scan 365
Location of Maximum: 198.00
Number of points: 312

m/z	Y	m/z	Y	m/z	Y	m/z	Y
88.00	945	167.00	28056	250.00	338	354.00	3347
89.00	408	168.00	9882	251.00	378	355.00	568
90.00	81	169.00	1949	252.00	461	359.00	68
91.00	2811	170.00	666	253.00	965	364.00	82
92.00	3305	171.00	868	254.00	2194	365.00	11049
93.00	19392	172.00	1736	255.00	243712	366.00	1525
94.00	1530	173.00	2151	256.00	34792	370.00	312
95.00	401	174.00	4365	257.00	2654	371.00	749
96.00	1021	175.00	8331	258.00	11699	372.00	5103
97.00	481	176.00	2950	259.00	1976	373.00	1317
98.00	14829	177.00	3734	260.00	354	374.00	211
99.00	12143	178.00	1429	261.00	488	383.00	1475
100.00	1081	179.00	14903	264.00	588	384.00	413
101.00	7582	180.00	10676	265.00	4651	385.00	112
102.00	501	181.00	5074	266.00	630	390.00	664
103.00	2806	182.00	848	268.00	97	391.00	481
104.00	4764	183.00	484	270.00	316	392.00	349
105.00	4470	184.00	1118	271.00	565	401.00	323
106.00	1531	185.00	7578	272.00	574	402.00	2059
107.00	58720	186.00	61632	273.00	7763	403.00	3027
108.00	9198	187.00	16824	274.00	20360	404.00	981
109.00	1983	188.00	1678	275.00	115400	405.00	157
110.00	119360	189.00	3368	276.00	14998	415.00	61
111.00	17336	190.00	542	277.00	8371	421.00	2728
112.00	2224	191.00	1652	278.00	1328	422.00	2498
113.00	793	192.00	4637	279.00	337	423.00	19928
114.00	277	193.00	5425	282.00	172	424.00	3991
115.00	405	194.00	1196	283.00	908	425.00	403
116.00	3276	195.00	960	284.00	671	431.00	50
117.00	39312	196.00	15938	285.00	1513	435.00	182
118.00	2868	197.00	3428	286.00	245	436.00	64
119.00	376	198.00	494976	289.00	275	437.00	123
120.00	724	199.00	32528	290.00	365	438.00	300
121.00	279	200.00	2387	291.00	237	439.00	370
122.00	3763	201.00	2747	292.00	481	440.00	354

Data File: /chem/MSD1.i/s111409.b/s1k1201.d

Date : 14-NOV-2009 17:38

Client ID: DFTPP

Instrument: MSD1.i

Sample Info: IWBN091101-01|50 PPM|1|SVMF|1|DFTPP

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

Data File: s1k1201.d

Spectrum: Avg. Scans 370-372 (8.20), Background Scan 365

Location of Maximum: 198.00

Number of points: 312

m/z	Y	m/z	Y	m/z	Y	m/z	Y
123.00	6008	203.00	2693	293.00	2054	441.00	54440
124.00	2602	204.00	14604	294.00	532	442.00	382976
125.00	2647	205.00	25208	295.00	657	443.00	73384
126.00	904	206.00	113680	296.00	26240	444.00	6543
127.00	239168	207.00	14454	297.00	3789	445.00	363
128.00	17576	208.00	3160	298.00	253		
129.00	85072	209.00	1021	301.00	417		
130.00	7156	210.00	801	302.00	580		
131.00	1445	211.00	4362	303.00	3041		

Data File: /chem/MSD1.i/s111409.b/s1k1259.d

Date : 17-NOV-2009 15:48

Client ID: DFTPP

Instrument: MSD1.i

Sample Info: IWBN091101-01|50 PPM|1|SVMF|1|DFTPP

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

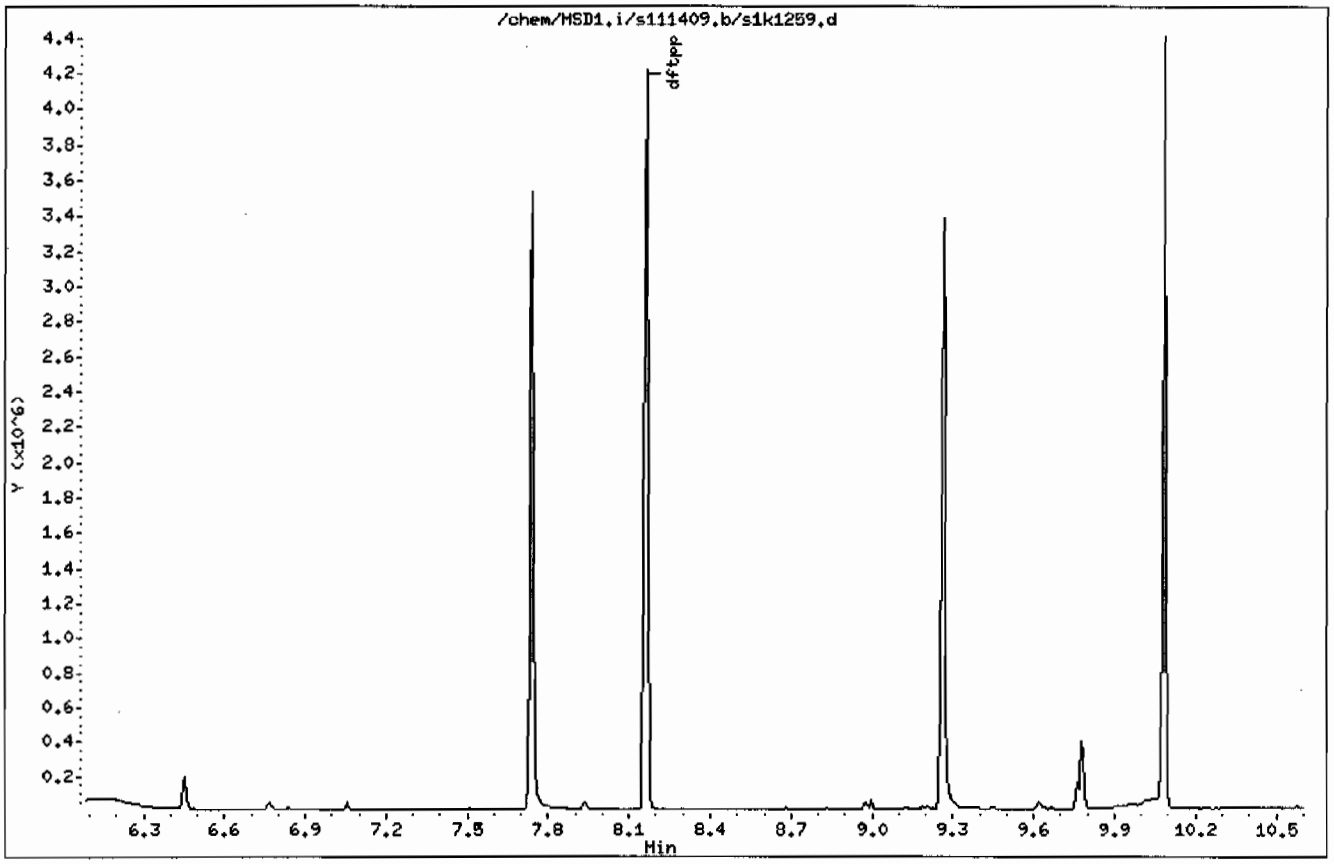

Data File: /chem/MSD1.i/s111409.b/s1k1259.d

Date : 17-NOV-2009 15:48

Client ID: DFTPP

Instrument: MSD1.i

Sample Info: IWBN091101-01|50 PPM|1|SVHF|1|DFTPP

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

1 dftpp

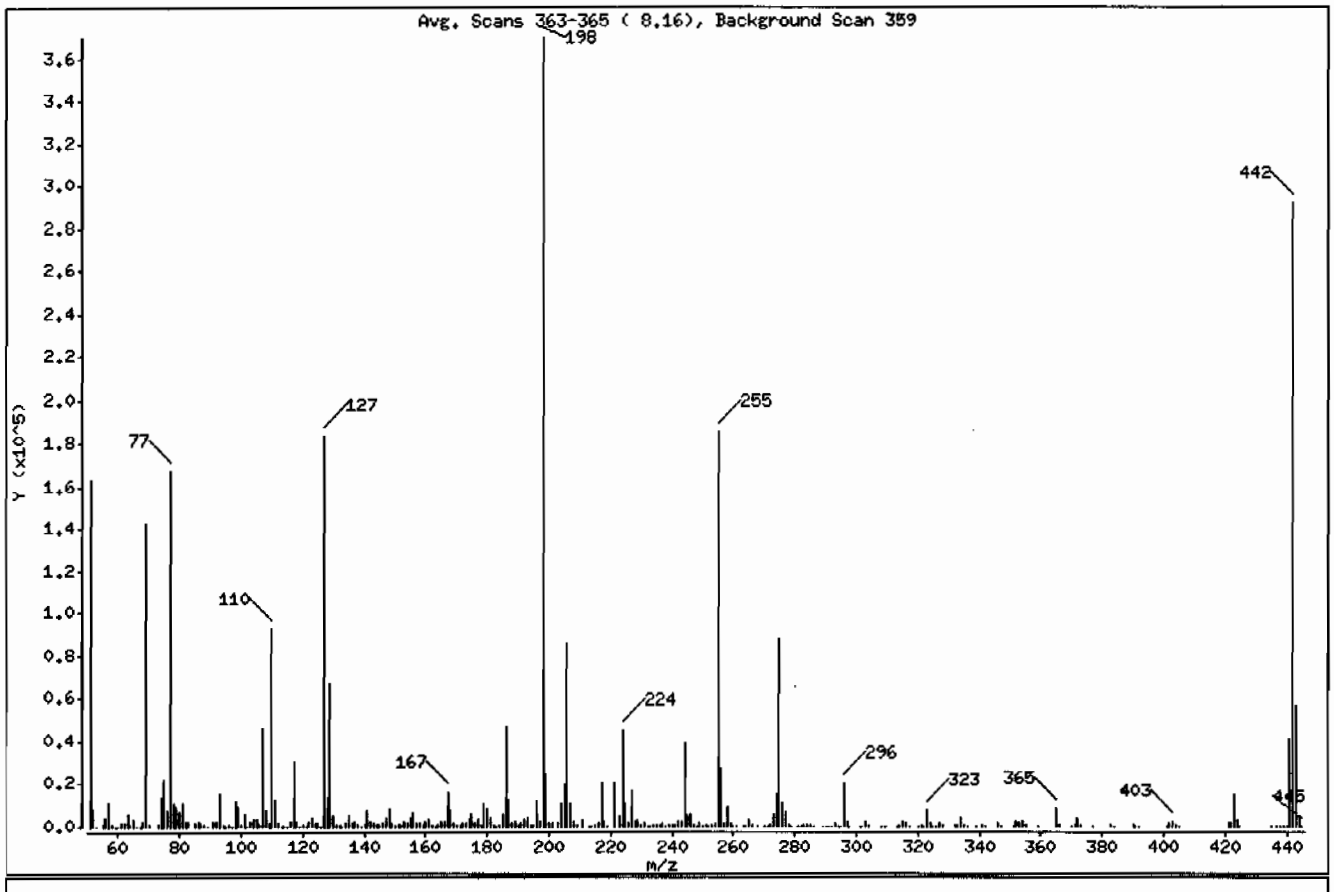

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	44.19
68	Less than 2.00% of mass 69	0.70 (1.82)
69	Mass 69 relative abundance	38.52
70	Less than 2.00% of mass 69	0.22 (0.58)
127	40.00 - 60.00% of mass 198	49.61
197	Less than 1.00% of mass 198	0.73
199	5.00 - 9.00% of mass 198	6.68
275	10.00 - 30.00% of mass 198	23.76
365	Greater than 1.00% of mass 198	2.39
441	Present, but less than mass 443	10.94
442	Greater than 40.00% of mass 198	78.91
443	17.00 - 23.00% of mass 442	15.11 (19.15)

Data File: /chem/MSD1.i/s111409.b/s1k1259.d

Date : 17-NOV-2009 15:48

Client ID: DFTPP

Instrument: MSD1.i

Sample Info: |WBN091101-01|50 PPM|1|SVMF|1|DFTPP

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

Data File: s1k1259.d
Spectrum: Avg. Scans 363-365 (8.16), Background Scan 359
Location of Maximum: 198.00
Number of points: 301

m/z	Y	m/z	Y	m/z	Y	m/z	Y
51.00	163520	132.00	696	209.00	894	295.00	409
52.00	8218	133.00	165	211.00	3176	296.00	20504
53.00	278	134.00	1736	213.00	157	297.00	2961
55.00	768	135.00	5284	214.00	60	298.00	242
56.00	4517	136.00	1990	215.00	896	301.00	228
57.00	10646	137.00	2882	216.00	1633	302.00	377
58.00	485	138.00	608	217.00	20280	303.00	2440
59.00	173	139.00	322	218.00	2791	304.00	779
60.00	130	140.00	728	219.00	287	308.00	333
61.00	1880	141.00	8017	221.00	20640	309.00	180
62.00	1926	142.00	2864	223.00	4752	310.00	288
63.00	5930	143.00	1765	224.00	45496	313.00	172
64.00	771	144.00	446	225.00	11459	314.00	1000
65.00	3009	145.00	462	226.00	1320	315.00	2189
66.00	190	146.00	1638	227.00	16640	316.00	1304
67.00	147	147.00	4131	228.00	2433	317.00	255
68.00	2590	148.00	8419	229.00	3596	320.00	58
69.00	142592	149.00	1752	230.00	541	321.00	701
70.00	823	150.00	512	231.00	1631	322.00	395
73.00	1236	151.00	1272	232.00	323	323.00	7827
74.00	13875	152.00	886	233.00	236	324.00	1465
75.00	21824	153.00	2474	234.00	1059	325.00	55
76.00	7905	154.00	2034	235.00	1215	326.00	117
77.00	167296	155.00	4599	236.00	846	327.00	1319
78.00	11034	156.00	6876	237.00	1279	328.00	683
79.00	9492	157.00	1450	238.00	168	332.00	545
80.00	7131	158.00	1509	239.00	670	333.00	652
81.00	10804	159.00	1113	240.00	518	334.00	4627
82.00	2610	160.00	2655	241.00	1019	335.00	1148
83.00	2719	161.00	3658	242.00	2369	336.00	50
85.00	1896	162.00	1109	243.00	2744	339.00	57
86.00	2616	163.00	339	244.00	39256	341.00	855
87.00	1519	164.00	493	245.00	4982	342.00	192
88.00	684	165.00	2904	246.00	6349	346.00	1554
89.00	219	166.00	2427	247.00	1255	347.00	356

Data File: /chem/MSD1.i/s111409.b/s1k1259.d

Date : 17-NOV-2009 15:48

Client ID: DFTPP

Instrument: MSD1.i

Sample Info: IWBN091101-01|50 PPM|1|SVMF|1|DFTPP

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

Data File: s1k1259.d
Spectrum: Avg. Scans 363-365 (8.16), Background Scan 359
Location of Maximum: 198.00
Number of points: 301

m/z	Y	m/z	Y	m/z	Y	m/z	Y
91.00	2379	167.00	16175	248.00	341	351.00	56
92.00	2447	168.00	7387	249.00	1305	352.00	2339
93.00	14969	169.00	1311	250.00	210	353.00	1624
94.00	1153	170.00	539	251.00	450	354.00	2500
95.00	287	171.00	706	252.00	278	355.00	434
96.00	810	172.00	1473	253.00	769	359.00	83
97.00	388	173.00	1748	254.00	1972	365.00	8863
98.00	11810	174.00	3414	255.00	185216	366.00	1195
99.00	9686	175.00	6350	256.00	27176	370.00	215
100.00	914	176.00	2063	257.00	2039	371.00	581
101.00	5933	177.00	3047	258.00	9022	372.00	4002
102.00	375	178.00	995	259.00	1444	373.00	996
103.00	2163	179.00	11274	260.00	214	377.00	51
104.00	3736	180.00	8159	261.00	279	383.00	974
105.00	3394	181.00	4009	263.00	55	384.00	323
106.00	1190	182.00	670	264.00	157	390.00	592
107.00	46232	183.00	413	265.00	3712	391.00	375
108.00	7538	184.00	909	266.00	481	392.00	323
109.00	1503	185.00	5852	268.00	53	401.00	231
110.00	92872	186.00	47008	270.00	282	402.00	1478
111.00	12963	187.00	12615	271.00	380	403.00	2390
112.00	1503	188.00	1316	272.00	540	404.00	821
113.00	406	189.00	2602	273.00	5676	405.00	134
114.00	121	190.00	427	274.00	15599	421.00	2054
115.00	133	191.00	1281	275.00	87936	422.00	1867
116.00	2637	192.00	3712	276.00	11240	423.00	15373
117.00	30336	193.00	4225	277.00	6439	424.00	3047
118.00	2397	194.00	901	278.00	950	425.00	291
119.00	332	195.00	603	279.00	182	435.00	71
120.00	620	196.00	12028	281.00	60	437.00	71
121.00	175	197.00	2717	282.00	68	438.00	134
122.00	2801	198.00	370176	283.00	713	439.00	238
123.00	4622	199.00	24728	284.00	493	440.00	191
124.00	2083	200.00	1826	285.00	1250	441.00	40480
125.00	1949	201.00	2072	286.00	254	442.00	292096

Data File: /chem/MSD1.i/s111409.b/s1k1259.d

Date : 17-NOV-2009 15:48

Client ID: DFTPP

Instrument: MSD1.i

Sample Info: IWBN091101-01|50 PPM|1|SVMF|1|DFTPP

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

Data File: s1k1259.d
Spectrum: Avg. Scans 363-365 (8,16), Background Scan 359
Location of Maximum: 198.00
Number of points: 301

m/z	Y	m/z	Y	m/z	Y	m/z	Y
126.00	135	203.00	2082	289.00	243	443.00	55944
127.00	183616	204.00	10956	290.00	235	444.00	5034
128.00	13544	205.00	19552	291.00	131	445.00	311
129.00	66872	206.00	85904	292.00	339		
130.00	5516	207.00	10725	293.00	1482		
131.00	1048	208.00	2576	294.00	389		

Data File: /chem/MSD1.i/s122209.b/s112202.d

Page 1

Date : 22-DEC-2009 09:58

Client ID: DFTPP

Instrument: MSD1.i

Sample Info: IWBN091213-01|50 PPM|1|SVMF|1|DFTPP

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

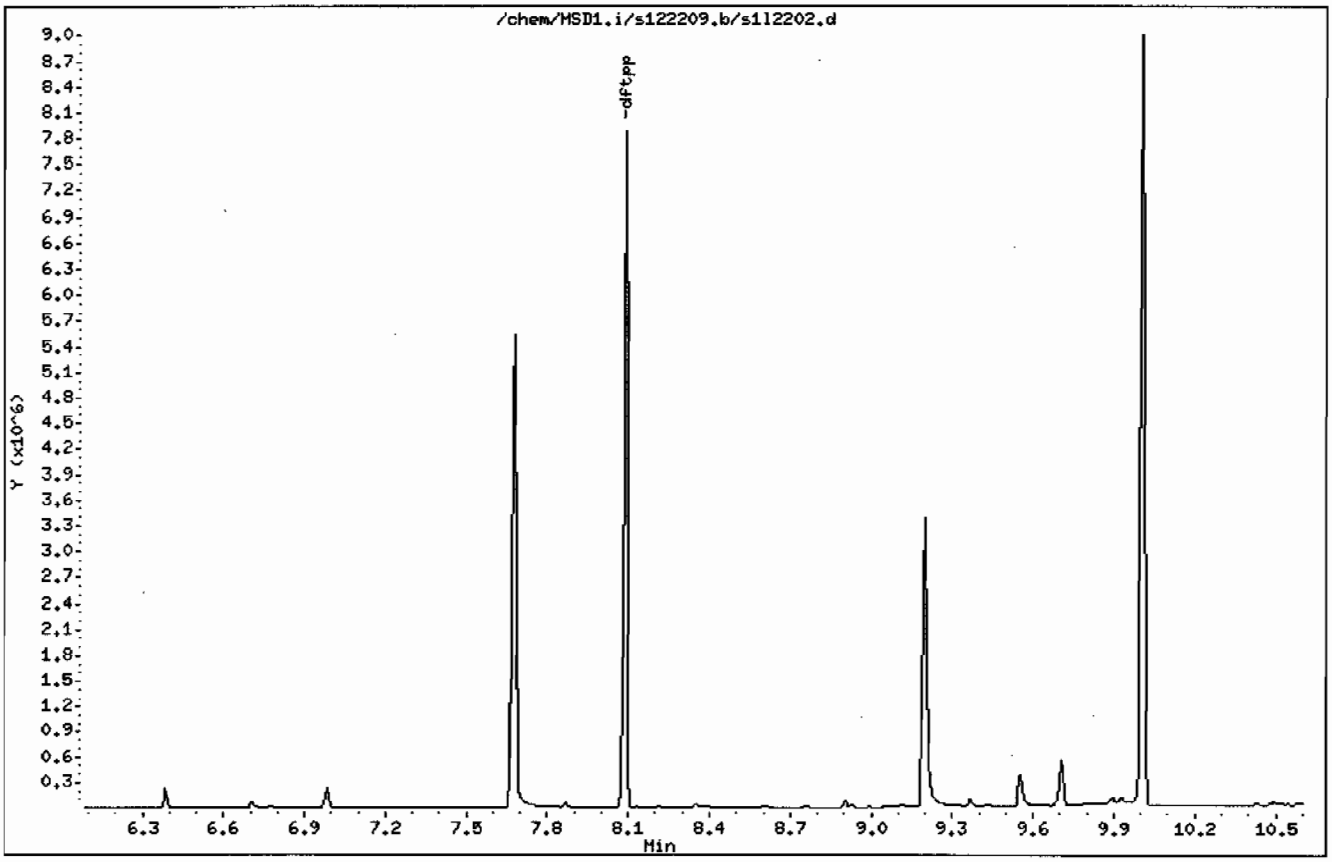

Data File: /chem/MSD1.i/s122209.b/s112202.d

Date : 22-DEC-2009 09:58

Client ID: DFTPP

Instrument: MSD1.i

Sample Info: |WBN091213-01|50 PPM|1|SVMF|1|DFTPP

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

1 dftpp

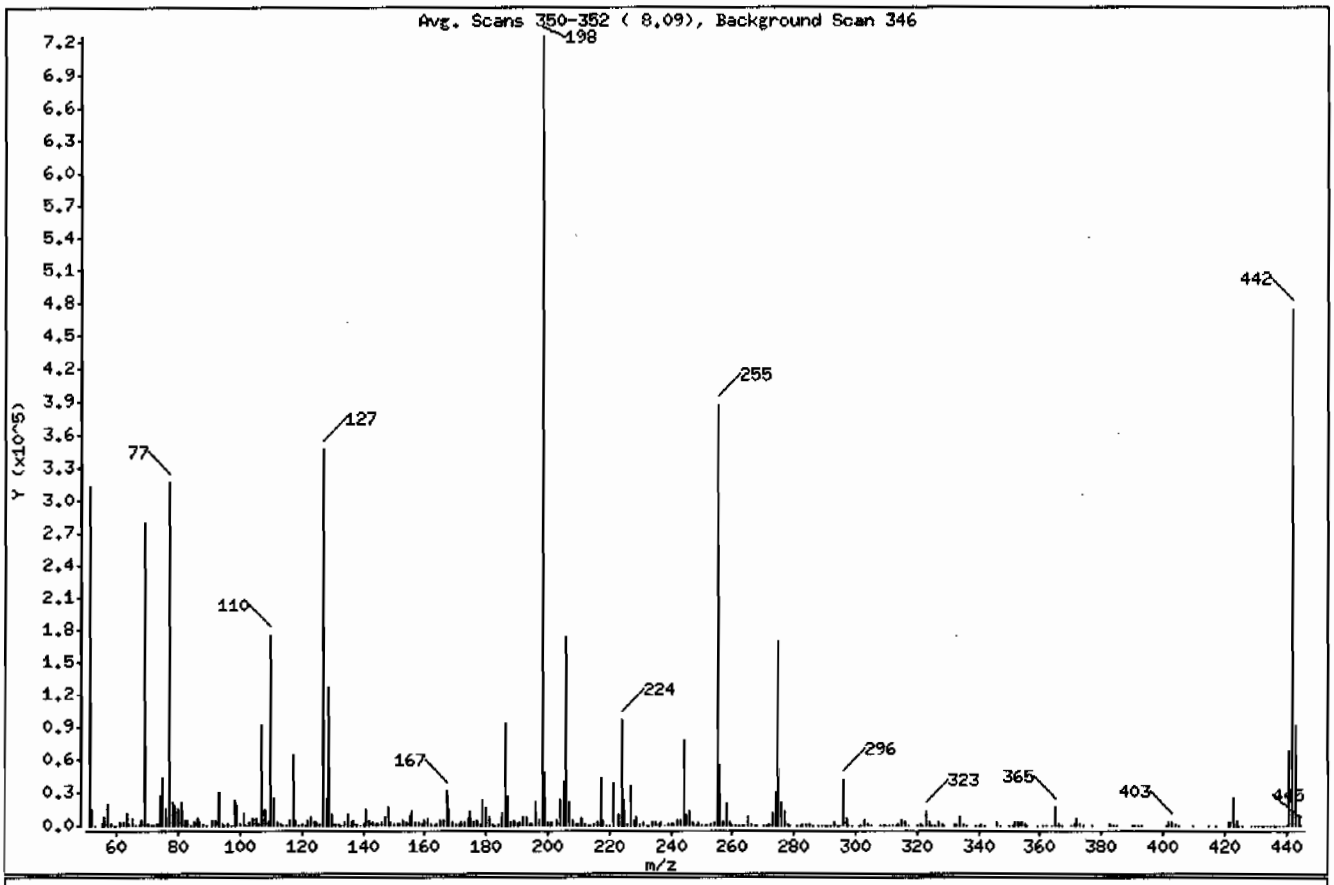

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	43.13
68	Less than 2.00% of mass 69	0.62 (1.60)
69	Mass 69 relative abundance	38.58
70	Less than 2.00% of mass 69	0.19 (0.50)
127	40.00 - 60.00% of mass 198	47.72
197	Less than 1.00% of mass 198	0.77
199	5.00 - 9.00% of mass 198	6.67
275	10.00 - 30.00% of mass 198	23.55
365	Greater than 1.00% of mass 198	2.33
441	Present, but less than mass 443	9.42
442	Greater than 40.00% of mass 198	65.52
443	17.00 - 23.00% of mass 442	12.70 (19.39)

Data File: /chem/MSD1.i/s122209.b/s112202.d

Date : 22-DEC-2009 09:58

Client ID: DFTPP

Instrument: MSD1.i

Sample Info: |WBN091213-01|50 PPM|1|SVMF|1|DFTPP

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

Data File: s112202.d
Spectrum: Avg. Scans 350-352 (8.09), Background Scan 346
Location of Maximum: 198.00
Number of points: 336

m/z	Y	m/z	Y	m/z	Y	m/z	Y
51.00	313024	138.00	1040	225.00	23784	316.00	2517
52.00	15728	139.00	744	226.00	2322	317.00	423
53.00	681	140.00	1509	227.00	36752	320.00	220
55.00	1098	141.00	15673	228.00	4842	321.00	1206
56.00	8401	142.00	4877	229.00	8124	322.00	584
57.00	20328	143.00	3559	230.00	1185	323.00	14032
58.00	1025	144.00	991	231.00	3455	324.00	3033
59.00	260	145.00	894	232.00	596	325.00	175
60.00	304	146.00	2594	233.00	777	326.00	290
61.00	3577	147.00	8207	234.00	2601	327.00	2644
62.00	4005	148.00	16896	235.00	2704	328.00	1339
63.00	11266	149.00	3921	236.00	1973	329.00	284
64.00	1699	150.00	1023	237.00	3010	332.00	866
65.00	6011	151.00	2013	238.00	500	333.00	1250
66.00	416	152.00	1275	239.00	1554	334.00	9147
67.00	156	153.00	5346	240.00	1137	335.00	2266
68.00	4491	154.00	3917	241.00	2031	336.00	291
69.00	280000	155.00	8652	242.00	5339	339.00	237
70.00	1396	156.00	13158	243.00	5104	340.00	192
71.00	114	157.00	2804	244.00	77640	341.00	1682
72.00	104	158.00	2837	245.00	10083	342.00	425
73.00	1664	159.00	2311	246.00	13520	346.00	3046
74.00	26392	160.00	4926	247.00	2850	347.00	526
75.00	43376	161.00	7413	248.00	708	350.00	95
76.00	14873	162.00	2244	249.00	2629	351.00	216
77.00	317504	163.00	639	250.00	607	352.00	4039
78.00	21272	164.00	1072	251.00	645	353.00	2703
79.00	18352	165.00	5433	252.00	757	354.00	4100
80.00	14710	166.00	4569	253.00	1874	355.00	909
81.00	21104	167.00	30864	254.00	3206	356.00	54
82.00	5276	168.00	15768	255.00	387712	359.00	248
83.00	4983	169.00	2631	256.00	55624	361.00	74
84.00	479	170.00	1077	257.00	4078	362.00	53
85.00	3485	171.00	1331	258.00	20496	364.00	259
86.00	6087	172.00	2841	259.00	3364	365.00	16872

Data File: /chem/MSD1.i/s122209.b/s112202.d

Date : 22-DEC-2009 09:58

Client ID: DFTPP

Instrument: MSD1.i

Sample Info: |WBN091213-01|50 PPM|1|SVMF|1|DFTPP

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

Data File: s112202.d
Spectrum: Avg. Scans 350-352 (8.09), Background Scan 346
Location of Maximum: 198.00
Number of points: 336

m/z	Y	m/z	Y	m/z	Y	m/z	Y
87.00	2810	173.00	3766	260.00	627	366.00	2480
88.00	1123	174.00	6754	261.00	640	367.00	59
89.00	438	175.00	13071	262.00	88	370.00	350
91.00	4731	176.00	4095	263.00	221	371.00	1170
92.00	4737	177.00	5531	264.00	522	372.00	7259
93.00	30120	178.00	1803	265.00	8019	373.00	1697
94.00	2250	179.00	23416	266.00	849	374.00	178
95.00	718	180.00	17016	267.00	70	377.00	106
96.00	1335	181.00	7527	268.00	145	383.00	2005
97.00	402	182.00	1254	270.00	405	384.00	551
98.00	23816	183.00	781	271.00	814	385.00	139
99.00	18928	184.00	1861	272.00	1085	390.00	775
100.00	1897	185.00	11873	273.00	11341	391.00	540
101.00	11532	186.00	93752	274.00	29624	392.00	503
102.00	684	187.00	26096	275.00	170880	393.00	114
103.00	3820	188.00	2744	276.00	22296	401.00	499
104.00	7207	189.00	5558	277.00	13165	402.00	2611
105.00	6636	190.00	957	278.00	2081	403.00	3390
106.00	2258	191.00	2517	279.00	456	404.00	1260
107.00	92232	192.00	7632	281.00	163	405.00	222
108.00	14439	193.00	8546	282.00	301	410.00	100
109.00	2836	194.00	1747	283.00	1518	415.00	189
110.00	175424	195.00	1240	284.00	1157	417.00	54
111.00	24808	196.00	22096	285.00	2432	421.00	3471
112.00	3192	197.00	5577	286.00	498	422.00	3045
113.00	1038	198.00	725696	288.00	133	423.00	24384
114.00	324	199.00	48376	289.00	646	424.00	5128
115.00	234	200.00	3886	290.00	507	425.00	820
116.00	4558	201.00	3104	291.00	356	426.00	171
117.00	64336	203.00	4699	292.00	613	429.00	181
118.00	4669	204.00	23464	293.00	2969	430.00	50
119.00	678	205.00	40568	294.00	735	431.00	116
120.00	1184	206.00	173760	295.00	822	432.00	220
121.00	620	207.00	21704	296.00	41664	433.00	94
122.00	5570	208.00	5608	297.00	6370	434.00	143

Data File: /chem/MSD1.i/s122209.b/s112202.d

Date : 22-DEC-2009 09:58

Client ID: DFTPP

Instrument: MSD1.i

Sample Info: |WBN091213-01|50 PPM|1|SVMF|1|DFTPP

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

Data File: s112202.d

Spectrum: Avg. Scans 350-352 (8.09), Background Scan 346

Location of Maximum: 198.00

Number of points: 336

m/z	Y	m/z	Y	m/z	Y	m/z	Y
123.00	8621	209.00	1798	298.00	395	435.00	121
124.00	3858	210.00	2368	299.00	73	436.00	158
125.00	4039	211.00	6238	301.00	621	437.00	117
126.00	1577	212.00	1245	302.00	648	438.00	161
127.00	346304	213.00	432	303.00	4927	439.00	222
128.00	24656	214.00	166	304.00	1528	440.00	302
129.00	127544	215.00	1797	305.00	130	441.00	68392
130.00	10532	216.00	3805	308.00	606	442.00	475520
131.00	2018	217.00	43248	309.00	456	443.00	92192
132.00	1076	218.00	5707	310.00	580	444.00	8222
133.00	381	219.00	583	311.00	55	445.00	503
134.00	2929	220.00	208	312.00	83		
135.00	10030	221.00	38896	313.00	300		
136.00	3954	223.00	10304	314.00	2144		
137.00	5192	224.00	96456	315.00	4759		

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-939-1**			**Matrix:**	**TCLP SOIL**
Lab Sample ID:	**1201999915**				
Client Sample:	**QC for batch 934762**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**TB for batch 934762**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**935425**	**Inst:**	**MSD1.I**	**Dilution:**	**1**
Run Date:	**12/22/2009 14:04**	**Analyst:**	**AMY**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/21/2009 20:40**	**Aliquot:**	**200 mL**	**Final Volume:**	**1 mL**
Data File:	**s112208.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
106-46-7	1,4-Dichlorobenzene	U	0.050	mg/L	0.010	0.050
121-14-2	2,4-Dinitrotoluene	U	0.050	mg/L	0.010	0.050
87-86-5	Pentachlorophenol	U	0.050	mg/L	0.010	0.050
110-86-1	Pyridine	U	0.050	mg/L	0.015	0.050
95-48-7	o-Cresol	U	0.050	mg/L	0.010	0.050
65794-96-9	m,p-Cresols	U	0.050	mg/L	0.015	0.050
67-72-1	Hexachloroethane	U	0.050	mg/L	0.010	0.050
98-95-3	Nitrobenzene	U	0.050	mg/L	0.015	0.050
87-68-3	Hexachlorobutadiene	U	0.050	mg/L	0.010	0.050
88-06-2	2,4,6-Trichlorophenol	U	0.050	mg/L	0.010	0.050
95-95-4	2,4,5-Trichlorophenol	U	0.050	mg/L	0.010	0.050
118-74-1	Hexachlorobenzene	U	0.050	mg/L	0.010	0.050

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Data file : /chem/MSD1.i/s122209.b/s112208.d
Lab Smp Id: 1201999915 Client Smp ID: TCLPBLANK
Inj Date : 22-DEC-2009 14:04
Operator : AMY Inst ID: MSD1.i
Smp Info : |1201999915|935425|1|SVMF|1|TBLK01
Misc Info : |MSDTCLP_L|WBN091208-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD1.i/s122209.b/MSD1-M8270AQA-111409.m
Meth Date : 22-Dec-2009 18:41 amy01291 Quant Type: ISTD
Cal Date : 17-NOV-2009 17:42 Cal File: s1k1264.d
Als bottle: 7 QC Sample: TB
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-939-1.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vo *Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	0.50000	ng unit correction factor
Vt	1.00000	volume of final ext
Vo	200.00000	volume of sample ext
Vi	0.50000	volume injected

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (mg/L)
* 10 1,4-Dichlorobenzene-d4	152	3.881	3.881	(1.000)	761961	40.0000	
* 29 Naphthalene-d8	136	4.745	4.752	(1.000)	2994887	40.0000	
* 46 Acenaphthene-d10	164	5.992	5.993	(1.000)	1666801	40.0000	
* 67 Phenanthrene-d10	188	6.975	6.975	(1.000)	2859175	40.0000	
* 91 Chrysene-d12	240	8.645	8.628	(1.000)	2371570	40.0000	
* 98 Perylene-d12	264	10.086	10.057	(1.000)	1958189	40.0000	
$ 3 2-Fluorophenol	112	3.087	3.081	(0.795)	999129	50.2021	0.25
$ 5 Phenol-d5	99	3.610	3.616	(0.930)	791665	32.7281	0.16
$ 20 Nitrobenzene-d5	82	4.245	4.252	(0.895)	900062	45.6037	0.23
$ 39 2-Fluorobiphenyl	172	5.486	5.487	(0.916)	1626253	40.7380	0.20
$ 60 2,4,6-Tribromophenol	329	6.528	6.528	(1.089)	432899	93.0105	0.46
$ 81 p-Terphenyl-d14	244	7.904	7.887	(0.914)	1910377	51.3181	0.26

Data File: /chem/MSD1.i/s122209.b/s112208.d

Date : 22-DEC-2009 14:04

Client ID: TCLPBLANK

Sample Info: |1201999915|935425|1|SVMF|1|TBLK01

Volume Injected (uL): 0.5

Column phase: J&W DB-5MS

Instrument: MSD1.i

Operator: AMY

Column diameter: 0.20

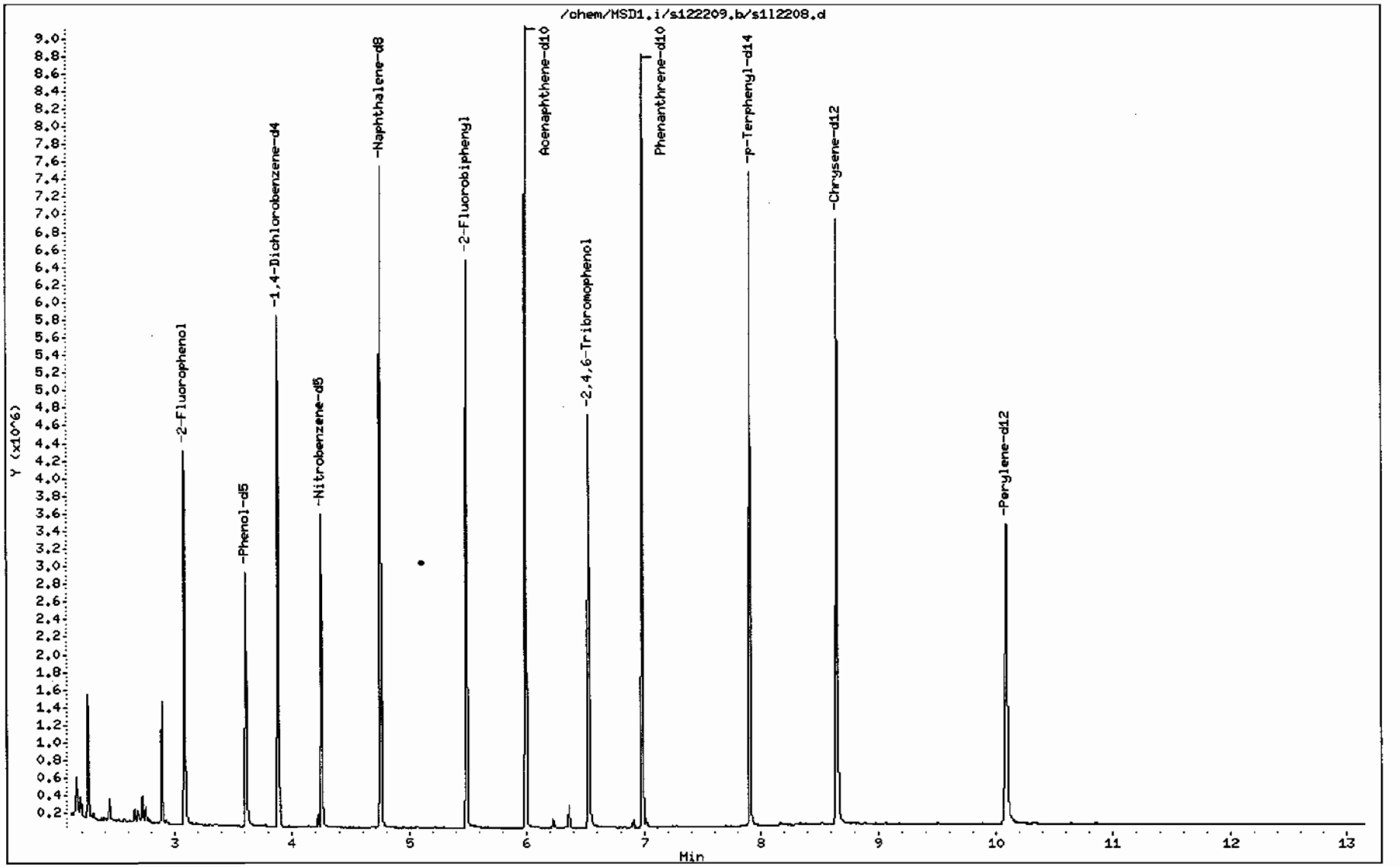

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-939-1**			**Matrix:**	**TCLP SOIL**
Lab Sample ID:	**1202001585**				
Client Sample:	**QC for batch 935424**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 935424**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**935425**	**Inst:**	**MSD1.I**	**Dilution:**	**1**
Run Date:	**12/22/2009 14:29**	**Analyst:**	**AMY**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/21/2009 20:40**	**Aliquot:**	**1000 mL**	**Final Volume:**	**1 mL**
Data File:	**s1l2209-1.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
106-46-7	1,4-Dichlorobenzene	U	0.010	mg/L	0.002	0.010
121-14-2	2,4-Dinitrotoluene	U	0.010	mg/L	0.002	0.010
87-86-5	Pentachlorophenol	U	0.010	mg/L	0.002	0.010
110-86-1	Pyridine	U	0.010	mg/L	0.003	0.010
95-48-7	o-Cresol	U	0.010	mg/L	0.002	0.010
65794-96-9	m,p-Cresols	U	0.010	mg/L	0.003	0.010
67-72-1	Hexachloroethane	U	0.010	mg/L	0.002	0.010
98-95-3	Nitrobenzene	U	0.010	mg/L	0.003	0.010
87-68-3	Hexachlorobutadiene	U	0.010	mg/L	0.002	0.010
88-06-2	2,4,6-Trichlorophenol	U	0.010	mg/L	0.002	0.010
95-95-4	2,4,5-Trichlorophenol	U	0.010	mg/L	0.002	0.010
118-74-1	Hexachlorobenzene	U	0.010	mg/L	0.002	0.010

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Data file : /chem/MSD1.i/s122209.b/s112209-4.d
Lab Smp Id: 1202001585 Client Smp ID: SBLK01
Inj Date : 22-DEC-2009 14:29
Operator : AMY Inst ID: MSD1.i
Smp Info : |1202001585|935425|1|SVMF|1|SBLK01
Misc Info : |MSDTCLP_L|WBN091208-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD1.i/s122209.b/MSD1-M8270AQA-111409.m
Meth Date : 22-Dec-2009 18:41 amy01291 Quant Type: ISTD
Cal Date : 17-NOV-2009 17:42 Cal File: s1k1264.d
Als bottle: 8 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-939-1.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vo *Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	0.50000	ng unit correction factor
Vt	1.00000	volume of final ext
Vo	1000.00000	volume of sample ext
Vi	0.50000	volume injected

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (mg/L)
* 10 1,4-Dichlorobenzene-d4	152	3.881	3.881	(1.000)	796945	40.0000	
* 29 Naphthalene-d8	136	4.745	4.752	(1.000)	3098452	40.0000	
* 46 Acenaphthene-d10	164	5.992	5.993	(1.000)	1726059	40.0000	
* 67 Phenanthrene-d10	188	6.975	6.975	(1.000)	2899388	40.0000	
* 91 Chrysene-d12	240	8.628	8.628	(1.000)	2443680	40.0000	
* 98 Perylene-d12	264	10.063	10.057	(1.000)	2026475	40.0000	
$ 3 2-Fluorophenol	112	3.081	3.081	(0.794)	973252	46.7552	0.047
$ 5 Phenol-d5	99	3.610	3.616	(0.930)	764649	30.2236	0.030
$ 20 Nitrobenzene-d5	82	4.245	4.252	(0.895)	890680	43.6200	0.044
$ 39 2-Fluorobiphenyl	172	5.487	5.487	(0.916)	1631079	39.4561	0.039
$ 60 2,4,6-Tribromophenol	329	6.528	6.528	(1.089)	424337	88.0409	0.088
$ 81 p-Terphenyl-d14	244	7.892	7.887	(0.915)	1948659	50.8018	0.051

Data File: /chem/MSD1.i/s122209.b/s112209-4.d
Date : 22-DEC-2009 14:29
Client ID: SBLK01
Sample Info: |120200158519354251|SVMF|1|SBLK01
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD1.i

Operator: AMY
Column diameter: 0.20

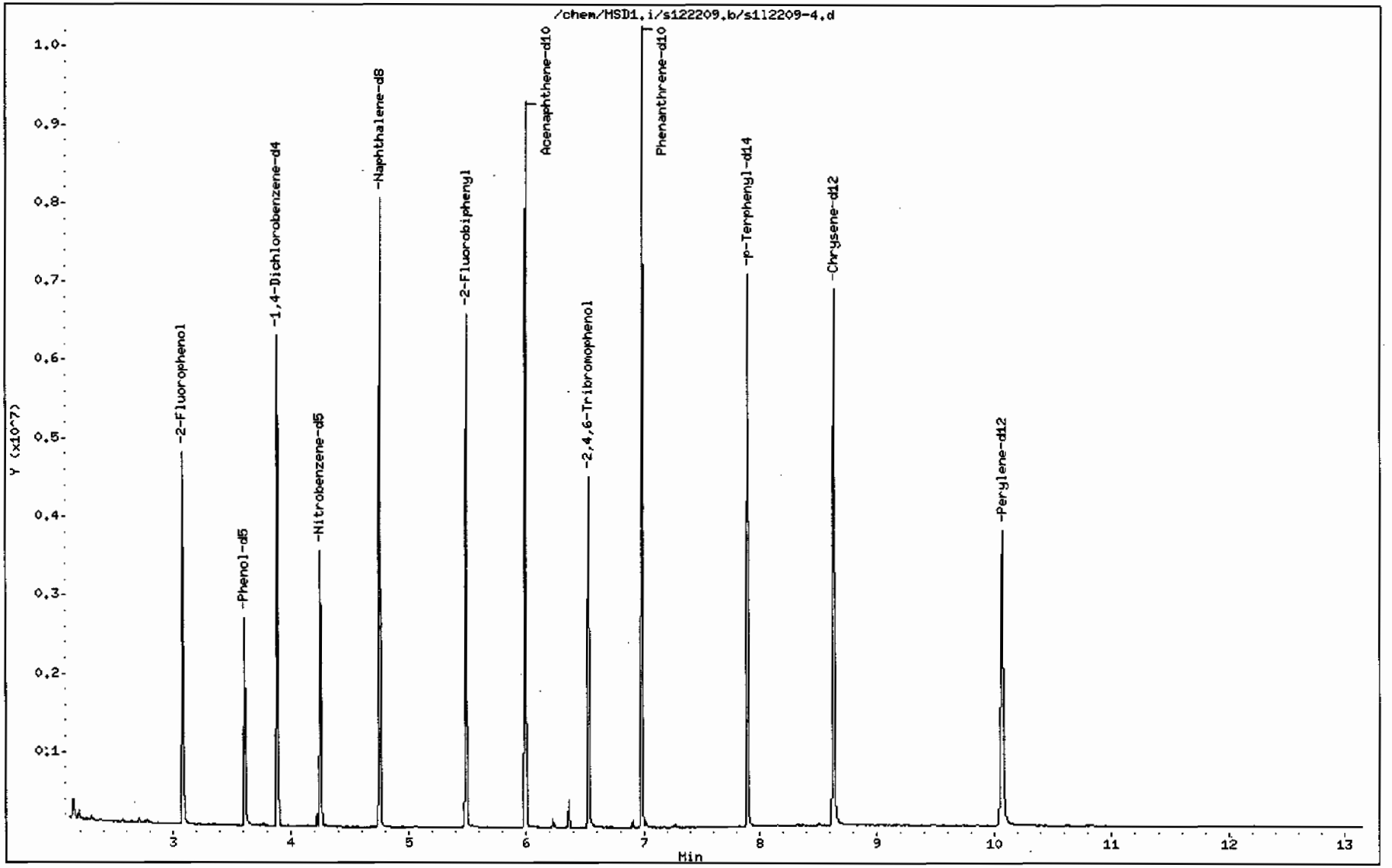

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-939-1**			**Matrix:**	**TCLP SOIL**
Lab Sample ID:	**1202001586**				
Client Sample:	**QC for batch 935424**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 935424**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**935425**	**Inst:**	**MSD1.I**	**Dilution:**	**1**
Run Date:	**12/22/2009 14:52**	**Analyst:**	**AMY**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/21/2009 20:40**	**Aliquot:**	**1000 mL**	**Final Volume:**	**1 mL**
Data File:	**s1l2210-1.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
106-46-7	1,4-Dichlorobenzene		0.0631	mg/L	0.002	0.010
121-14-2	2,4-Dinitrotoluene		0.0719	mg/L	0.002	0.010
87-86-5	Pentachlorophenol		0.0901	mg/L	0.002	0.010
110-86-1	Pyridine		0.0658	mg/L	0.003	0.010
95-48-7	o-Cresol		0.0705	mg/L	0.002	0.010
65794-96-9	m,p-Cresols		0.0667	mg/L	0.003	0.010
67-72-1	Hexachloroethane		0.0626	mg/L	0.002	0.010
98-95-3	Nitrobenzene		0.0861	mg/L	0.003	0.010
87-68-3	Hexachlorobutadiene		0.0715	mg/L	0.002	0.010
88-06-2	2,4,6-Trichlorophenol		0.0928	mg/L	0.002	0.010
95-95-4	2,4,5-Trichlorophenol		0.0925	mg/L	0.002	0.010
118-74-1	Hexachlorobenzene		0.0913	mg/L	0.002	0.010

GEL Laboratories LLC

Data file : /chem/MSD1.i/s122209.b/s112210-4.d
Lab Smp Id: 1202001586 Client Smp ID: SBLK01LCS
Inj Date : 22-DEC-2009 14:52
Operator : AMY Inst ID: MSD1.i
Smp Info : |1202001586|935425|1|SVMF|1|SBLK01LCS
Misc Info : |MSDTCLP_L|WBN091208-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD1.i/s122209.b/MSD1-M8270AQA-111409.m
Meth Date : 22-Dec-2009 18:41 amy01291 Quant Type: ISTD
Cal Date : 17-NOV-2009 17:42 Cal File: s1k1264.d
Als bottle: 9 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-939-1.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vo *Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	0.50000	ng unit correction factor
Vt	1.00000	volume of final ext
Vo	1000.00000	volume of sample ext
Vi	0.50000	volume injected

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (mg/L)
* 10 1,4-Dichlorobenzene-d4	152	3.881	3.881	(1.000)	755276	40.0000	
* 29 Naphthalene-d8	136	4.745	4.752	(1.000)	2924407	40.0000	
* 46 Acenaphthene-d10	164	5.992	5.993	(1.000)	1647119	40.0000	
* 67 Phenanthrene-d10	188	6.975	6.975	(1.000)	2722410	40.0000	
* 91 Chrysene-d12	240	8.628	8.628	(1.000)	2246847	40.0000	
* 98 Perylene-d12	264	10.063	10.057	(1.000)	1799838	40.0000	
$ 3 2-Fluorophenol	112	3.081	3.081	(0.794)	1008160	51.1043	0.051
$ 5 Phenol-d5	99	3.610	3.616	(0.930)	793322	33.0869	0.033
$ 20 Nitrobenzene-d5	82	4.251	4.252	(0.896)	905363	46.9779	0.047
$ 39 2-Fluorobiphenyl	172	5.487	5.487	(0.916)	1653319	41.9109	0.042
$ 60 2,4,6-Tribromophenol	329	6.528	6.528	(1.089)	444147	96.5675	0.096
$ 81 p-Terphenyl-d14	244	7.892	7.887	(0.915)	1821053	51.6341	0.052
11 1,4-Dichlorobenzene	146	3.893	3.893	(1.003)	1559560	63.1469	0.063

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (mg/L)
50 2,4-Dinitrotoluene	165	6.104	6.104	(1.019)	1066049	71.9273	0.072
65 Pentachlorophenol	266	6.851	6.845	(0.982)	620434	90.1086	0.090
2 Pyridine	79	2.428	2.428	(0.626)	1183693	65.7944	0.066
15 o-Cresol	107	4.010	4.010	(1.033)	1126539	70.4816	0.070
18 m,p-Cresols	107	4.110	4.116	(1.059)	1451640	66.7485	0.067
19 Hexachloroethane	117	4.228	4.222	(1.089)	556839	62.6464	0.063
21 Nitrobenzene	77	4.263	4.263	(0.898)	1728941	86.1023	0.086
32 Hexachlorobutadiene	225	4.828	4.828	(1.017)	649553	71.4664	0.071
37 2,4,6-Trichlorophenol	196	5.434	5.434	(0.907)	1016985	92.8275	0.093
38 2,4,5-Trichlorophenol	196	5.469	5.463	(0.913)	1077010	92.4532	0.092
63 Hexachlorobenzene	284	6.728	6.728	(0.965)	1048051	91.2857	0.091

Data File: /chem/MSD1.i/s122209.b/s112210-4.d
Date : 22-DEC-2009 14:52
Client ID: SBLK01LCS
Sample Info: |12020015861935425|1|SVMF|1|SBLK01LCS
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD1.i
Operator: AMY
Column diameter: 0.20

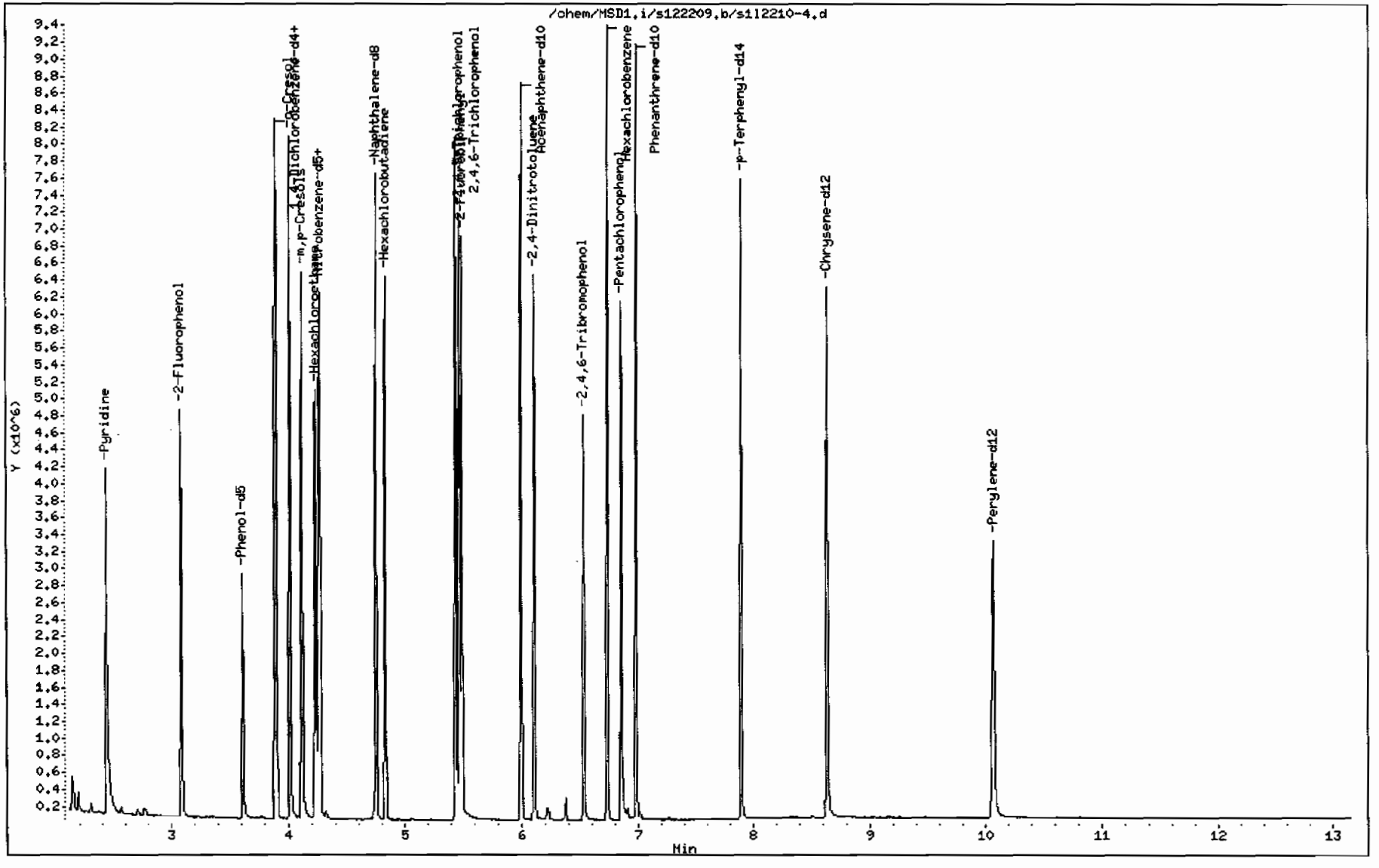

Miscellaneous Data

Prep Logbook

Toxicity Characteristic Leaching Procedure Preparation

Batch ID: 934762 **Verified by:** _____
Analyst: Matthew Oswald
Method: SW846 1311

Lab SOP: GL-LB-E-006 REV# 13
Instrument: TCLP Tumbler #105

Sample ID Analysis Start Date	1201999915 TB 18-DEC-2009 16:00:00	243010001 18-DEC-2009 16:00:00
100% Solid Y/N		Y
(I) Sub Sample Aliquot I=G-H (g)		100
Initial pH (su)	4.92	7.1
pH Temperature (celsius)	50	50
Filtrate pH (su)	4.92	5
Final pH (su)	4.92	1.86
Tumbler Speed	28	28
Sample Properties <>/= Water	tclp#1	Solid
(J) 20X Wet Solid Weight 20XC (g)	2000	2000
Filtrate Volume (mL)	1000	1000

Type	Sample Id	Description	Serial Number	Spike Amt	Units
RGNT	All	TCLP EXTRACTION FLUID 1	1018205	2000	mL
RGNT	All	1N HCl for pH testing	1202901	3.5	mL

Comments:

Extration End Date: 19-DEC-09 09:55:38
Filtration End Date: 19-DEC-09 17:22:09
Bottle Lot Number: H931601DB
Filter Lot Number: 8335066
Extration Start Temperature: 23 C
Extration End Temperature: 23 C
Filtration End Temperature: 23 C

Prep Logbook

Extraction of Semivolatile and Nonvolatile Organic Compounds from Groundwater, Wastewater, and Other Aqueous Samples

Batch ID: 935424 **Verified by:** _____
Analyst: Matthew Selepack
Method: SW846 3510C

Lab SOP: GL-OA-E-013 REV# 21
Instrument: Semi-Volatiles Manual

Sample ID	Run Date	Initial Volume (mL)	Initial pH	Int Ext pH	Sec Ext pH	Final Volume (mL)	Prepped Factor (mL/mL)
1201995775 TB	21-DEC-2009 20:40:32	200	5	1	13	1	0.005
1201998947 TB	21-DEC-2009 20:40:32	200	5	1	13	1	0.005
1201999915 TB	21-DEC-2009 20:40:32	200	5	1	13	1	0.005
1202001585 MB	21-DEC-2009 20:40:32	1000	5	1	13	1	0.001
1202001586 LCS	21-DEC-2009 20:40:32	1000	5	1	13	1	0.001
242168001	21-DEC-2009 20:40:32	200	6	1	13	1	0.005
242168002	21-DEC-2009 20:40:32	200	6	1	13	1	0.005
242306001	21-DEC-2009 20:40:32	200	6	1	13	1	0.005
242306002	21-DEC-2009 20:40:32	200	6	1	13	1	0.005
242306003	21-DEC-2009 20:40:32	200	6	1	13	1	0.005
1202001587 MS (242306003)	21-DEC-2009 20:40:32	200	6	1	13	1	0.005
1202001588 MSD (242306003)	21-DEC-2009 20:40:32	200	6	1	13	1	0.005
242446001	21-DEC-2009 20:40:32	200	6	1	13	1	0.005
243004001	21-DEC-2009 20:40:32	200	8	1	13	1	0.005
243010001	21-DEC-2009 20:40:32	200	6	1	13	1	0.005

Type	Sample Id	Description	Serial Number	Spike Amt	Units
LCS	1202001586	8270 TCLP Spiking Solution	UE091121-16	1	mL
MS	1202001587	8270 TCLP Spiking Solution	UE091121-16	1	mL
MSD	1202001588	8270 TCLP Spiking Solution	UE091121-16	1	mL
SURR	All	BNA for all Surrogate	UE091215-10	1	mL
REGNT	All	Methylene Chloride	1242565-D	360	mL
REGNT	All	Sulfuric Acid Sol., 1:1	1243284	2	mL
REGNT	All	10 N Sodium Hydroxide Solution	1244973	10	mL
SOURC	All	SODIUM SULFATE	1242582	30	g

Comments:

SAMPLE 6003,6001,4001,AND 0001 WERE EMULSIVE IN BASE AND 4001 REQUIRED AN ADDITIONAL 120mL OF CH2CL2
Verified By: AAW
Final Solvent: CH2CL2

GEL ORGANIC RUN LOG INSTRUMENT ID: MSD1

DATE: 11/14/2009 METHOD: See raw data OPERATOR: AMY REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT:116462-D
Multiplier Voltage: 1400 Emv Extr. Injection Volume: 0.5, 1.0 ul
DFTPP Solution ID: WBN091006-01 Internal Std ID: WBN091024-01
CALIBRATION & QC INFORMATION:
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.

SOP: GL-OA-E-009 Rev. 22 Sequence Number: /chem/MSD1.i/s111409.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
s1k1201-D.d	WBN091101-01	AMY	14-NOV-2009 17:38	50 PPM	s111409	1.0	DFTPP	TUNE-MEGA ICAL
s1k1201.d	WBN091101-01	AMY	14-NOV-2009 17:38	50 PPM	s111409	1.0	DFTPP	TUNE-MEGA ICAL
s1k1202.d	INST BLK	amy	14-NOV-2009 17:53	-----	s111409	1.0	INST BLK	
s1k1203.d	WBN091111-16	amy	14-NOV-2009 18:22	1 PPM	s111409	1.0	MEGA001	
s1k1204.d	WBN091111-15	amy	14-NOV-2009 18:51	10 PPM	s111409	1.0	MEGA010	
s1k1204MRQ.d	WBN091111-15	amy	14-NOV-2009 18:51	10 PPM	s111409	1.0	MEGA010	pass linearity for c26 and c184
s1k1205.d	WBN091111-14	amy	14-NOV-2009 19:21	20 PPM	s111409	1.0	MEGA020	
s1k1206.d	WBN091111-13.1	amy	14-NOV-2009 19:50	40 PPM	s111409	1.0	MEGA040	
s1k1207.d	WBN091111-12	amy	14-NOV-2009 20:19	50 PPM	s111409	1.0	MEGA050	
s1k1208.d	WBN091111-11	amy	14-NOV-2009 20:47	80 PPM	s111409	1.0	MEGA080	
s1k1209.d	WBN091111-10	amy	14-NOV-2009 21:16	100 PPM	s111409	1.0	MEGA100	
s1k1210.d	WBN091111-09	amy	14-NOV-2009 21:45	120 PPM	s111409	1.0	MEGA120	
s1k1211.d	INST BLK	amy	14-NOV-2009 22:14	-----	s111409	1.0	INST BLK	
s1k1212-BOE.d	WBN091111-17.1	amy	14-NOV-2009 22:43	40 PPM	s111409	1.0	MEGAICV	DUSE-fail c65
s1k1212-D.d	WBN091111-17.1	amy	14-NOV-2009 22:43	40 PPM	s111409	1.0	MEGAICV	DUSE-fail c65
s1k1212.d	WBN091111-17.1	amy	14-NOV-2009 22:43	40 PPM	s111409	1.0	MEGAICV	DUSE: fails c65
s1k1213-D.d	WBN091101-01	AMY	15-NOV-2009 14:50	50 PPM	s111409	1.0	DFTPP	TUNE-AP/PEST/HEX ICALS
s1k1213.d	WBN091101-01	AMY	15-NOV-2009 14:50	50 PPM	s111409	1.0	DFTPP	TUNE-AP/PEST/HEX ICALS
s1k1214.d	INST BLK	amy	15-NOV-2009 15:05	-----	s111409	1.0	INST BLK	

s1k1215.d	WBN091111-01	amy	15-NOV-2009 15:28	10 PPM	s111409	1.0	AP010	
s1k1216.d	WBN091111-02	amy	15-NOV-2009 15:51	20 PPM	s111409	1.0	AP020	
s1k1217.d	WBN091111-03.1	amy	15-NOV-2009 16:14	40 PPM	s111409	1.0	AP040	
s1k1218.d	WBN091111-04	amy	15-NOV-2009 16:38	50 PPM	s111409	1.0	AP050	
s1k1219.d	WBN091111-05	amy	15-NOV-2009 17:01	80 PPM	s111409	1.0	AP080	
s1k1220.d	WBN091111-06	amy	15-NOV-2009 17:24	100 PPM	s111409	1.0	AP100	
s1k1221.d	WBN091111-07	amy	15-NOV-2009 17:47	120 PPM	s111409	1.0	AP120	
s1k1222.d	WBN091029-25	amy	15-NOV-2009 18:11	10 PPM	s111409	1.0	PEST010	
s1k1223.d	WBN091029-24	amy	15-NOV-2009 18:35	20 PPM	s111409	1.0	PEST020	
s1k1224.d	WBN091029-23.1	amy	15-NOV-2009 18:58	40 PPM	s111409	1.0	PEST040	
s1k1225.d	WBN091029-22	amy	15-NOV-2009 19:21	50 PPM	s111409	1.0	PEST050	
s1k1226.d	WBN091029-21	amy	15-NOV-2009 19:45	80 PPM	s111409	1.0	PEST080	
s1k1227.d	WBN091029-20	amy	15-NOV-2009 20:09	100 PPM	s111409	1.0	PEST100	
s1k1228.d	WBN091029-19	amy	15-NOV-2009 20:31	120 PPM	s111409	1.0	PEST120	
s1k1229.d	WBN091016-16	amy	15-NOV-2009 20:55	500 PPM	s111409	1.0	HEX500	
s1k1230.d	WBN091016-15	amy	15-NOV-2009 21:18	1000 PPM	s111409	1.0	HEX1000	
s1k1231.d	WBN091016-14	amy	15-NOV-2009 21:42	1250 PPM	s111409	1.0	HEX1250	
s1k1232.d	WBN091016-13	amy	15-NOV-2009 22:06	1500 PPM	s111409	1.0	HEX503	
s1k1233.d	WBN091016-12	amy	15-NOV-2009 22:30	1750 PPM	s111409	1.0	HEX504	
s1k1234.d	UBN090825-02.4	amy	15-NOV-2009 22:53	2000 PPM	s111409	1.0	HEX2000	
s1k1235-D.d	WBN091111-08.1	amy	15-NOV-2009 23:17	40 PPM	s111409	1.0	APICV	
s1k1235.d	WBN091111-08.1	amy	15-NOV-2009 23:17	40 PPM	s111409	1.0	APICV	
s1k1236-D.d	WBN091029-26.1	amy	15-NOV-2009 23:40	40 PPM	s111409	1.0	PESTICV	
s1k1236.d	WBN091029-26.1	amy	15-NOV-2009 23:40	40 PPM	s111409	1.0	PESTICV	
s1k1237-D.d	WBN091016-10.2	amy	16-NOV-2009 00:03	1250 PPM	s111409	1.0	HEXICV	
s1k1237.d	WBN091016-10.2	amy	16-NOV-2009 00:03	1250 PPM	s111409	1.0	HEXICV	
s1k1238-D.d	WBN091101-01	AMY	16-NOV-2009 00:27	50 PPM	s111409	1.0	DFTPP	DUSE: fails breakdown

s1k1238.d	WBN091101-01	AMY	16-NOV-2009 00:27	50 PPM	s111409	1.0	DFTPP	DUSE: fails breakdown
s1k1239.d	INST BLK	amy	16-NOV-2009 00:43	-----	s111409	1.0	INST BLK	
s1k1240.d	UBN090924-01	amy	16-NOV-2009 01:05	10 PPM	s111409	1.0	NEV010	DUSE
s1k1241.d	UBN090924-02	amy	16-NOV-2009 01:28	20 PPM	s111409	1.0	NEV020	DUSE
s1k1242.d	UBN090924-03	amy	16-NOV-2009 01:51	40 PPM	s111409	1.0	NEV040	DUSE
s1k1243.d	UBN090924-04	amy	16-NOV-2009 02:14	50 PPM	s111409	1.0	NEV050	DUSE
s1k1244.d	UBN090924-05	amy	16-NOV-2009 02:38	80 PPM	s111409	1.0	NEV080	DUSE
s1k1245.d	UBN090924-06	amy	16-NOV-2009 03:01	100 PPM	s111409	1.0	NEV100	DUSE
s1k1246.d	UBN090924-07	amy	16-NOV-2009 03:23	120 PPM	s111409	1.0	NEV120	DUSE
s1k1247-D.d	WBN091101-01	AMY	17-NOV-2009 09:05	50 PPM	s111409	1.0	DFTPP	DUSE
s1k1247.d	WBN091101-01	AMY	17-NOV-2009 09:05	50 PPM	s111409	1.0	DFTPP	DUSE
s1k1248.d	INST BLK	amy	17-NOV-2009 09:20	-----	s111409	1.0	INST BLK	
s1k1249.d	WBN091027-09.2	amy	17-NOV-2009 09:48	40 PPM	s111409	1.0	MEGAICV	DUSE: c65 fails
s1k1250.d	UBN090924-01	amy	17-NOV-2009 10:17	10 PPM	s111409	1.0	NEV010	DUSE
s1k1251.d	UBN090924-02	amy	17-NOV-2009 10:41	20 PPM	s111409	1.0	NEV020	DUSE
s1k1252.d	UBN090924-03	amy	17-NOV-2009 11:04	40 PPM	s111409	1.0	NEV040	DUSE
s1k1253.d	UBN090924-04	amy	17-NOV-2009 11:27	50 PPM	s111409	1.0	NEV050	DUSE
s1k1254.d	UBN090924-05	amy	17-NOV-2009 11:50	80 PPM	s111409	1.0	NEV080	DUSE
s1k1255.d	UBN090924-06	amy	17-NOV-2009 12:14	100 PPM	s111409	1.0	NEV100	DUSE
s1k1256.d	UBN090924-07	amy	17-NOV-2009 12:38	120 PPM	s111409	1.0	NEV120	DUSE
s1k1257.d	WBN091027-09.1	amy	17-NOV-2009 13:02	40 PPM	s111409	1.0	MEGAICV	DUSE: c65 fails /clean inj port
s1k1259-D.d	WBN091101-01	AMY	17-NOV-2009 15:48	50 PPM	s111409	1.0	DFTPP	TUNE-MEGAICV/NEV ICAL
s1k1259.d	WBN091101-01	AMY	17-NOV-2009 15:48	50 PPM	s111409	1.0	DFTPP	TUNE-MEGAICV/NEV ICAL
s1k1260.d	INST BLK	amy	17-NOV-2009 16:04	-----	s111409	1.0	INST BLK	
s1k1261-BOE.d	WBN091027-09.3	amy	17-NOV-2009 16:27	40 PPM	s111409	1.0	MEGAICV	
s1k1261-D.d	WBN091027-09.3	amy	17-NOV-2009 16:27	40 PPM	s111409	1.0	MEGAICV	
s1k1261.d	WBN091027-09.3	amy	17-NOV-2009 16:27	40 PPM	s111409	1.0	MEGAICV	pass 530038

s1k1262.d	UBN091117-01	amy	17-NOV-2009 16:56	10 PPM	s111409	1.0	NEV010	
s1k1263.d	UBN091117-02	amy	17-NOV-2009 17:19	20 PPM	s111409	1.0	NEV020	
s1k1264.d	UBN091117-03	amy	17-NOV-2009 17:42	40 PPM	s111409	1.0	NEV040	
s1k1265.d	UBN091117-04	amy	17-NOV-2009 18:05	50 PPM	s111409	1.0	NEV050	DUSE
s1k1266.d	UBN091117-05	amy	17-NOV-2009 18:28	80 PPM	s111409	1.0	NEV080	
s1k1267.d	UBN091117-06	amy	17-NOV-2009 18:52	100 PPM	s111409	1.0	NEV100	DUSE
s1k1268.d	UBN091117-07	amy	17-NOV-2009 19:15	120 PPM	s111409	1.0	NEV120	

GEL ORGANIC RUN LOG INSTRUMENT ID: MSD1

DATE: 12/22/2009 METHOD: See raw data OPERATOR: JMB3 REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT:1202440-D
Multiplier Voltage: 1318 Emv Extr. Injection Volume: 0.5, 1.0 ul
DFTPP Solution ID: WBN091101-01 Internal Std ID: WBN091106-10
CALIBRATION & QC INFORMATION:
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.

SOP: GL-OA-E-009 Rev. 23 Sequence Number: /chem/MSD1.i/s122209.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
s112201.d	INSTBLK	AMY	22-DEC-2009 09:34		all	1.0		DUSE
s112202.d	WBN091213-01	AMY	22-DEC-2009 09:58	50 PPM	s122209	1.0	DFTPP	
s112203.d	WBN091111-17.2	AMY	22-DEC-2009 10:14	40 PPM	MEGAIICARE	1.0	MEGACVS	pass 746088
s112204.d	WBN091201-08.2	AMY	22-DEC-2009 11:11	40 PPM	s122209	1.0	APCVS	
s112205.d	WBN091202-26.2	AMY	22-DEC-2009 11:36	40 PPM	s122209	1.0	PESTCVS	
s112206-1.d	1201995775	AMY	22-DEC-2009 12:00	935425	10-786-1	1.0	TBLK01	USE
s112206.d	1201995775	AMY	22-DEC-2009 12:00	935425	10-753-1	1.0	TBLK01	USE
s112207.d	1201998947	AMY	22-DEC-2009 12:25	935425	243004	1.0	TBLK01	USE
s112208.d	1201999915	AMY	22-DEC-2009 14:04	935425	10-939-1	1.0	TBLK01	USE
s112209-1.d	1202001585	AMY	22-DEC-2009 14:29	935425	10-786-1	1.0	SBLK01	USE
s112209-2.d	1202001585	AMY	22-DEC-2009 14:29	935425	10-832-1	1.0	SBLK01	USE
s112209-3.d	1202001585	AMY	22-DEC-2009 14:29	935425	243004	1.0	SBLK01	USE
s112209-4.d	1202001585	AMY	22-DEC-2009 14:29	935425	10-939-1	1.0	SBLK01	USE
s112209.d	1202001585	AMY	22-DEC-2009 14:29	935425	10-753-1	1.0	SBLK01	USE
s112210-1.d	1202001586	AMY	22-DEC-2009 14:52	935425	10-786-1	1.0	SBLK01LCS	USE
s112210-2.d	1202001586	AMY	22-DEC-2009 14:52	935425	10-832-1	1.0	SBLK01LCS	USE
s112210-3.d	1202001586	AMY	22-DEC-2009 14:52	935425	243004	1.0	SBLK01LCS	USE
s112210-4.d	1202001586	AMY	22-DEC-2009 14:52	935425	10-939-1	1.0	SBLK01LCS	USE
s112210.d	1202001586	AMY	22-DEC-2009 14:52	935425	10-753-1	1.0	SBLK01LCS	USE

s112211.d	242168001	AMY	22-DEC-2009 15:17	935425	10-753-1	1.0	LANL	USE
s112212.d	242168002	AMY	22-DEC-2009 15:41	935425	10-753-1	1.0	LANL	USE
s112213.d	242306001	AMY	22-DEC-2009 16:06	935425	10-786-1	1.0	LANL	USE
s112214.d	242306002	AMY	22-DEC-2009 16:30	935425	10-786-1	1.0	LANL	USE
s112215.d	242306003	AMY	22-DEC-2009 16:55	935425	10-786-1	1.0	LANL	USE
s112216.d	1202001587	AMY	22-DEC-2009 17:19	935425	10-786-1	1.0	LANLMS	USE
s112217.d	1202001588	AMY	22-DEC-2009 17:42	935425	10-786-1	1.0	LANLMSD	USE
s112218.d	242446001	AMY	22-DEC-2009 18:06	935425	10-832-1	1.0	LANL	USE
s112219.d	243004001	AMY	22-DEC-2009 18:30	935425	243004	1.0	LANL	USE
s112220.d	243010001	AMY	22-DEC-2009 18:53	935425	10-939-1	1.0	LANL	USE

NCR Report No.: 773757
Revision No.:

COMPANY - WIDE NONCONFORMANCE REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
23-DEC-09	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
SEMIVOA GC/MS	SW846 8270C	Solid	ENRG, LANL
Batch ID:	**Sample Numbers:**		
935425	See Below		

Potentially affected work order(s)(SDG): 242168(10-753-1),242306(10-786-1),242446(10-832-1),243004,243010(10-939-1)

Application Issues:

Container scanning event for custody missed

Specification and Requirements Nonconformance Description:	NRG Disposition:
1. The container scanning event for custody missed for the following samples: 242168001,002; 242306001,002,003; 242446001, 243004001 and 243010001.	1. The analyst had full custody of all samples prior to and during analysis. The analyst mistakenly missed the scanning event for custody. Custody was taken after the analysis had been completed.

Originator's Name:

Amy Carroll 23-DEC-09

Data Validator/Group Leader:

Daniel Beacham 23-DEC-09

GEL Laboratories LLC

Data file : /chem/MSD1.i/s122209.b/s112216.d
Lab Smp Id: 1202001587 Client Smp ID: WST03-10-2143MS
Inj Date : 22-DEC-2009 17:19
Operator : AMY Inst ID: MSD1.i
Smp Info : |1202001587|935425|1|SVMF|1|LANLMS
Misc Info : |MSDTCLP_L|WBN091208-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD1.i/s122209.b/MSD1-M8270AQA-111409.m
Meth Date : 22-Dec-2009 18:41 amy01291 Quant Type: ISTD
Cal Date : 17-NOV-2009 17:42 Cal File: s1k1264.d
Als bottle: 15 QC Sample: MS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-786-1.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vo *Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	0.50000	ng unit correction factor
Vt	1.00000	volume of final ext
Vo	200.00000	volume of sample ext
Vi	0.50000	volume injected

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (mg/L)
* 10 1,4-Dichlorobenzene-d4	152	3.881	3.881	(1.000)	696606	40.0000	
* 29 Naphthalene-d8	136	4.745	4.752	(1.000)	2719217	40.0000	
* 46 Acenaphthene-d10	164	5.992	5.993	(1.000)	1511060	40.0000	
* 67 Phenanthrene-d10	188	6.975	6.975	(1.000)	2477064	40.0000	
* 91 Chrysene-d12	240	8.627	8.628	(1.000)	2063218	40.0000	
* 98 Perylene-d12	264	10.057	10.057	(1.000)	1704960	40.0000	
$ 3 2-Fluorophenol	112	3.081	3.081	(0.794)	831282	45.6872	0.23
$ 5 Phenol-d5	99	3.610	3.616	(0.930)	640200	28.9495	0.14
$ 20 Nitrobenzene-d5	82	4.251	4.252	(0.896)	790706	44.1245	0.22
$ 39 2-Fluorobiphenyl	172	5.487	5.487	(0.916)	1486345	41.0708	0.20
$ 60 2,4,6-Tribromophenol	329	6.528	6.528	(1.089)	402963	95.5020	0.48
$ 81 p-Terphenyl-d14	244	7.886	7.887	(0.914)	1654404	51.0839	0.26
11 1,4-Dichlorobenzene	146	3.893	3.893	(1.003)	1364567	59.9051	0.30

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (mg/L)
50 2,4-Dinitrotoluene	165	6.104	6.104	(1.019)	974522	71.6723	0.36
65 Pentachlorophenol	266	6.845	6.845	(0.981)	596843	95.2680	0.48
2 Pyridine	79	2.434	2.428	(0.627)	1077762	64.9518	0.32
15 o-Cresol	107	4.010	4.010	(1.033)	987531	66.9882	0.33
18 m,p-Cresols	107	4.110	4.116	(1.059)	1234657	61.5528	0.31
19 Hexachloroethane	117	4.222	4.222	(1.088)	492273	60.0470	0.30
21 Nitrobenzene	77	4.263	4.263	(0.898)	1527472	81.8091	0.41
32 Hexachlorobutadiene	225	4.828	4.828	(1.017)	574732	68.0059	0.34
37 2,4,6-Trichlorophenol	196	5.434	5.434	(0.907)	919552	91.4917	0.46
38 2,4,5-Trichlorophenol	196	5.463	5.463	(0.912)	983642	92.0413	0.46
63 Hexachlorobenzene	284	6.728	6.728	(0.965)	956691	91.5816	0.46

Data File: /chem/MSD1.i/s122209.b/s112216.d

Date : 22-DEC-2009 17:19

Client ID: WST03-10-2143MS

Sample Info: |1202001587|935425|1|SVMF|1|LANLMS

Volume Injected (uL): 0.5

Column phase: J&W DB-5MS

Instrument: MSD1.i

Operator: AMY

Column diameter: 0.20

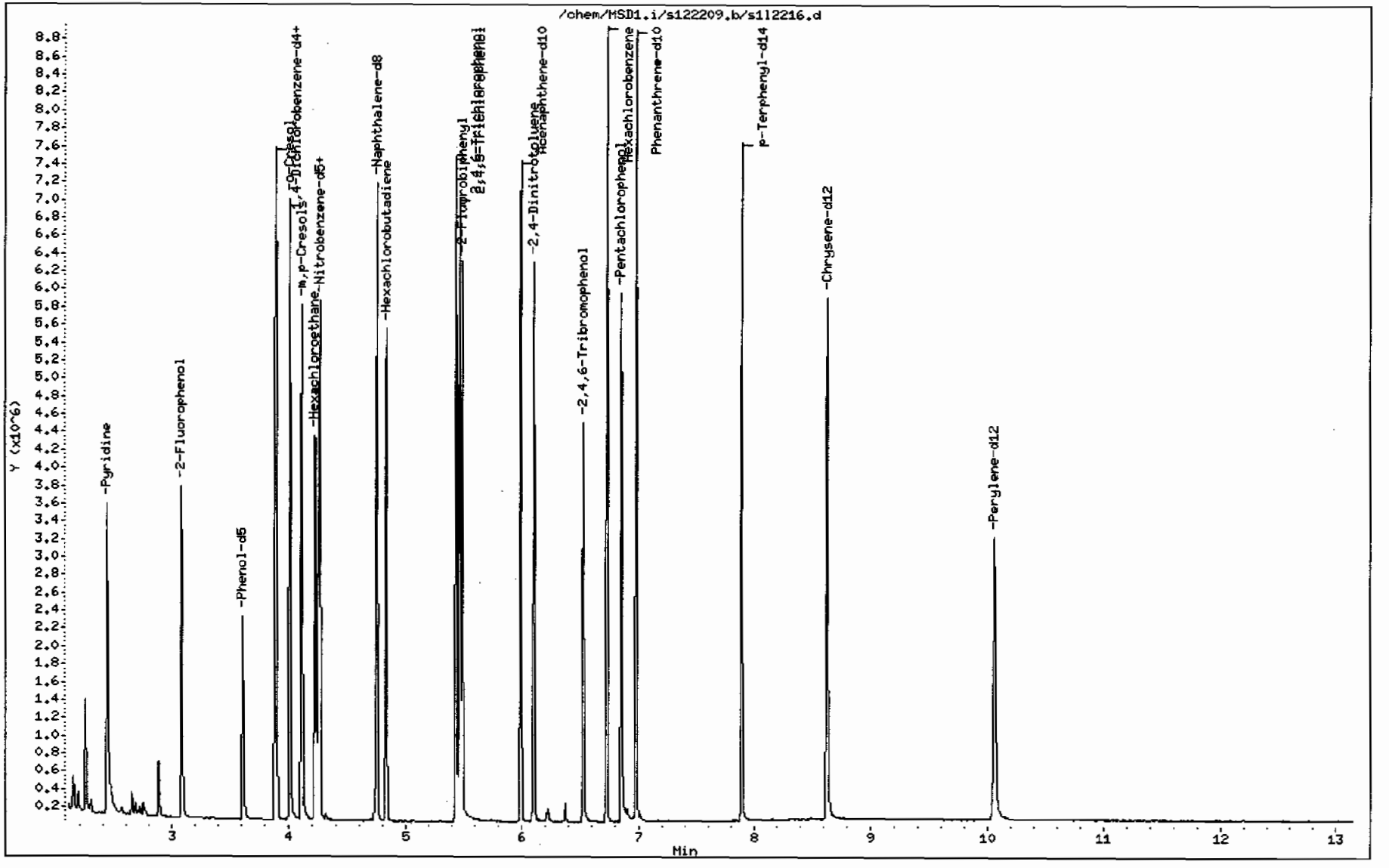

GEL Laboratories LLC

Data file : /chem/MSD1.i/s122209.b/s112217.d
Lab Smp Id: 1202001588 Client Smp ID: WST03-10-2143MSD
Inj Date : 22-DEC-2009 17:42
Operator : AMY Inst ID: MSD1.i
Smp Info : |1202001588|935425|1|SVMF|1|LANLMSD
Misc Info : |MSDTCLP_L|WBN091208-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD1.i/s122209.b/MSD1-M8270AQA-111409.m
Meth Date : 22-Dec-2009 18:41 amy01291 Quant Type: ISTD
Cal Date : 17-NOV-2009 17:42 Cal File: s1k1264.d
Als bottle: 16 QC Sample: MSD
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-786-1.sub
Target Version: 3.50
Processing Host: hpclpl

Concentration Formula: Amt * DF * Uf * Vt/(Vo *Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	0.50000	ng unit correction factor
Vt	1.00000	volume of final ext
Vo	200.00000	volume of sample ext
Vi	0.50000	volume injected

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (mg/L)
* 10 1,4-Dichlorobenzene-d4	152	3.881	3.881	(1.000)	658440	40.0000	
* 29 Naphthalene-d8	136	4.746	4.752	(1.000)	2520553	40.0000	
* 46 Acenaphthene-d10	164	5.993	5.993	(1.000)	1404878	40.0000	
* 67 Phenanthrene-d10	188	6.975	6.975	(1.000)	2250676	40.0000	
* 91 Chrysene-d12	240	8.628	8.628	(1.000)	1667336	40.0000	
* 98 Perylene-d12	264	10.057	10.057	(1.000)	1250074	40.0000	
$ 3 2-Fluorophenol	112	3.081	3.081	(0.794)	896471	52.1259	0.26
$ 5 Phenol-d5	99	3.610	3.616	(0.930)	712154	34.0698	0.17
$ 20 Nitrobenzene-d5	82	4.251	4.252	(0.896)	779502	46.9278	0.23
$ 39 2-Fluorobiphenyl	172	5.487	5.487	(0.916)	1457718	43.3242	0.22
$ 60 2,4,6-Tribromophenol	329	6.528	6.528	(1.089)	382827	97.5872	0.49
$ 81 p-Terphenyl-d14	244	7.887	7.887	(0.914)	1522841	58.1861	0.29
11 1,4-Dichlorobenzene	146	3.893	3.893	(1.003)	1414607	65.7015	0.33

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (mg/L)
50 2,4-Dinitrotoluene	165	6.104	6.104	(1.019)	898307	71.0604	0.36
65 Pentachlorophenol	266	6.845	6.845	(0.981)	563091	98.9213	0.49
2 Pyridine	79	2.434	2.428	(0.627)	1037680	66.1611	0.33
15 o-Cresol	107	4.010	4.010	(1.033)	1000183	71.7791	0.36
18 m,p-Cresols	107	4.110	4.116	(1.059)	1257783	66.3404	0.33
19 Hexachloroethane	117	4.222	4.222	(1.088)	507390	65.4784	0.33
21 Nitrobenzene	77	4.263	4.263	(0.898)	1491127	86.1571	0.43
32 Hexachlorobutadiene	225	4.828	4.828	(1.017)	591453	75.5005	0.38
37 2,4,6-Trichlorophenol	196	5.434	5.434	(0.907)	876096	93.7562	0.47
38 2,4,5-Trichlorophenol	196	5.463	5.463	(0.912)	958202	96.4374	0.48
63 Hexachlorobenzene	284	6.728	6.728	(0.965)	937879	98.8116	0.49

Data File: /chem/MSD1.i/s122209.b/s112217.d
Date : 22-DEC-2009 17:42
Client ID: WST03-10-2143MSD
Sample Info: |12020015881935425|1|SVMF|1|LANLMSD
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD1.i
Operator: AMY
Column diameter: 0.20

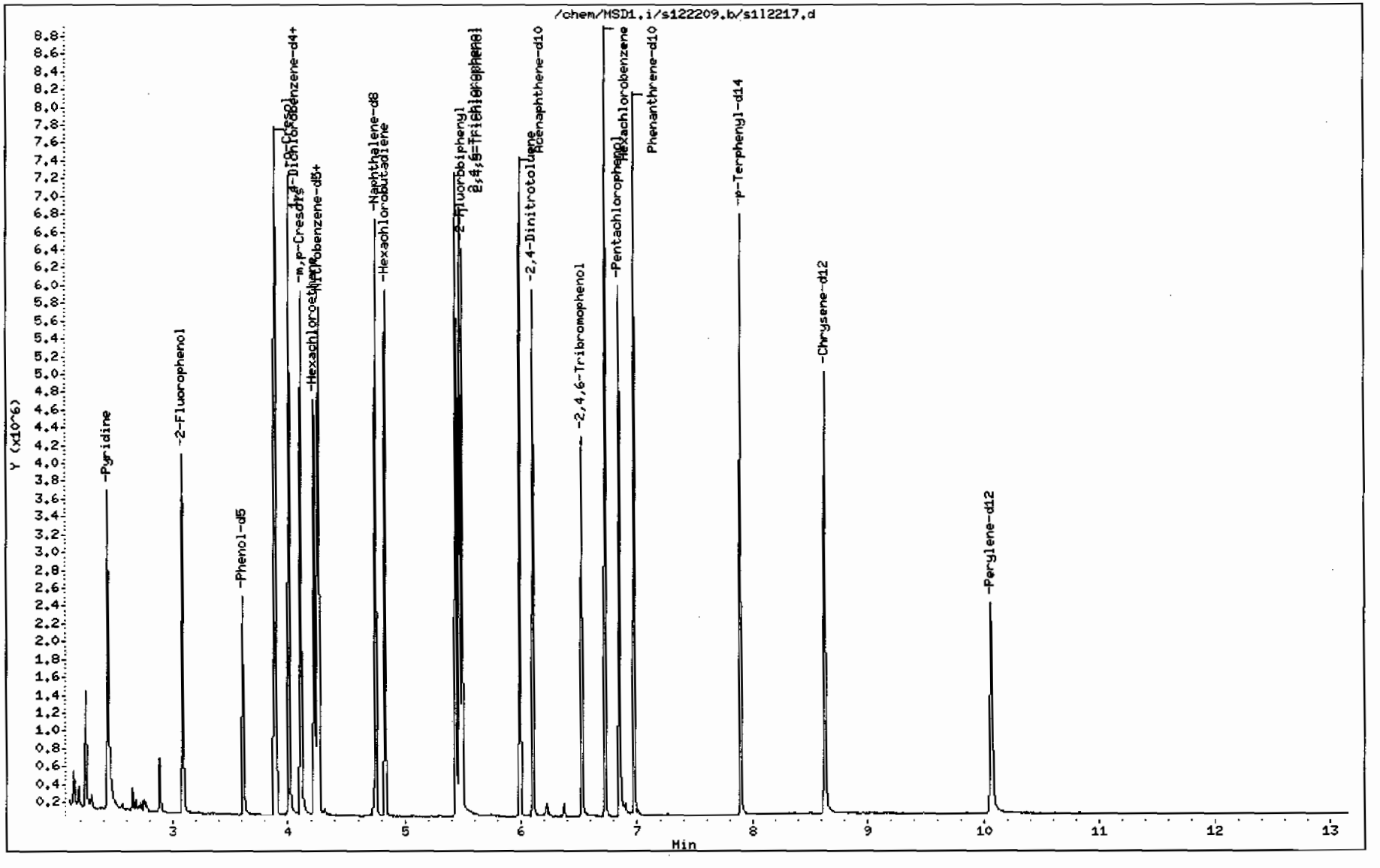

GC SEMIVOLATILE DRO ANALYSIS

DRO Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-939

Method/Analysis Information

Procedure:	**Analysis of Diesel Range Organics by Flame Ionization Detector**
Analytical Method:	SW846 8015A/B SVOC
Prep Method:	SW846 3550B
Analytical Batch Number:	934477
Prep Batch Number:	934475

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 8015A/B SVOC:

Sample ID	Client ID
243007002	WST03-10-2147
1201999297	Method Blank (MB)
1201999298	Laboratory Control Sample (LCS)
1201999299	243033001(RE03-09-14221) Matrix Spike (MS)
1201999300	243033001(RE03-09-14221) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on a "dry weight" basis.

Preparation/Analytical Method Verification

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-003 REV# 18.

Raw data reports are processed and reviewed by the analyst using the Target software package. False positives have been removed from the Target quantitation reports per standard operating procedures (SOP) section 23.0.

Calibration Information

Initial Calibration
All initial calibration requirements have been met for this sample delivery group (SDG).

The linear equation used in Target and indicated on the initial calibration summary form is not a conventional linear equation (slope intercept formula) and does not match the equation found in SW-846 method 8000B. The x and y axes are inversed in Target, so that the instrument response is treated as the independent variable (x) and the concentration ratio is treated as the dependent variable (y). The equation used in Target to calculate sample results is adjusted to account for the linear equation inversion and reciprocal slope. The adjusted calculation has been independently verified to produce valid results.

Continuing Calibration Verification (CCV) Requirements
All associated calibration verification standard(s) (ICV or CCV) met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB(s) analyzed with this SDG met the acceptance criteria.

Surrogate Recoveries
All surrogate recoveries were within the established acceptance criteria for this SDG.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

QC Sample Designation
A LANL sample of similar matrix associated with another SDG (#10-940) was selected for the matrix spike and matrix spike duplicate analysis. A Form III and QC raw data are included in the package summarizing the results.

Matrix Spike (MS) Recovery Statement
The MS recovery was within the established acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recovery was within the established acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD(s) between the MS and MSD met the acceptance limits.

Technical Information

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-extraction/Re-analysis
Re-extractions or re-analyses were not required in this SDG.

Miscellaneous Information

Electronic Package Comment

The following package was generated using an electronic data processing program referred to as "virtual packaging". In an effort to increase quality and efficiency, the laboratory is developing systems to eventually generate all data packages electronically. The following change from "traditional" packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. An electronic signature page inserted after the case narrative of each electronic package will indicate the analyst, reviewer, and report specialist names associated with the generation of the data and package. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned

and inserted into the electronic package.

Nonconformance (NCR) Documentation
Nonconformance report (NCR) is for documentation of any procedural anomalies that may deviate from referenced SOP or contractual document. A NCR was not required for this SDG.

Manual Integrations
Certain standards and QC samples may have required manual integrations to correctly position the baseline as set in the calibration standard injections. If manual integrations were performed, copies of all manual integration peak profiles are included in the raw data section of this fraction. Some of the samples were manually integrated.

Additional Comments
The additional comments field is used to address special issues associated with each analysis, clarify method/contractual issues pertaining to the analysis, and to list any report documents generated as a result of sample analysis or review. The following additional comments were required:

Due to software limitation, the Form VIIs will display the results either in the % difference or % drift depending on the type of the calibration curve. If the curve of all analytes is generated using an average response factor (RF), the Form VII will display results using the difference calculation (RF). If the curve of one or more analytes is generated using a linear curve, the Form VII will display results using the % drift calculation (by concentration) for all analytes.

System Configuration

The GC-FID analysis was performed on the following instrument configuration:

Instrument ID	Instrument	System Configuration	Column ID	Column Description
FID7.I	Agilent GC FID	Agilent 6890N GC/FID	DB-5MS	30m x 0.25mm, 0.25um(J&W)

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Andy Whitlock **Date:** 12-28-2009

Roadmap for LANL 10-939 DRO

This roadmap was analyzed by kev01577 on 12-22-2009, 00:41.
This roadmap was reviewed by jcb on 12-28-2009, 10:40.
This roadmap was packaged by yml on 12-28-2009, 11:37.

Sample

exclude	manual	datafile	smpid	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/fid7.i/122109dr/007f0701.d	243007002	21-DEC-2009	15:00	10-939.sub	WST03-10-2147	1.00000	934477	

QC Sample

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/fid7.i/122109dr/005f0501.d	1201999297	mb	21-DEC-2009	13:46	10-939.sub	DBLK01	1.00000	934477	
☐	N	/chem/fid7.i/122109dr/006f0601.d	1201999298	lcs	21-DEC-2009	14:23	10-939.sub	DBLK01LCS	1.00000	934477	

SAMPLE DATA SUMMARY

Flame Ionization Detector
Certificate of Analysis
Sample Summary

SDG Number:	10–939	**Date Collected:**	12/14/2009 12:00	**Matrix:**	R
Lab Sample ID:	243007002	**Date Received:**	12/16/2009 09:10	**%Moisture:**	13.5
		Client:	LANL010	**Project:**	LANL01004
Client ID:	WST03–10–2147	**Method:**	SW846 8015A/B SVOC	**SOP Ref:**	GL–OA–E–003
Batch ID:	934477	**Inst:**	FID7.I	**Dilution:**	1
Run Date:	12/21/2009 15:00	**Analyst:**	KXR2	**Inj. Vol:**	1 uL
Prep Date:	12/18/2009 19:50	**Aliquot:**	30.17 g	**Final Volume:**	1 mL
Data File:	007f0701.d	**Column:**	DB–5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics	U	7.66	mg/kg	2.49	7.66

QUALITY CONTROL SUMMARY

Flame Ionization Detector

Surrogate Recovery Report

SDG Number: 10-939

Matrix Type: SOLID

CAP Column (1) : DB-5MS

Sample ID	Client ID	OTP %REC
1201999297	MB for batch 934475	51
1201999298	LCS for batch 934475	84
243007002	WST03-10-2147	54

Surrogate	Acceptance Limits
OTP = o-Terphenyl	(24%-124%)

* Recovery outside Acceptance Limits

\# Column to be used to flag recovery values

D Sample Diluted

Flame Ionization Detector
Quality Control Summary
Spike Recovery Report

SDG Number: 10–939
Client ID: LCS for batch 934475
Lab Sample ID: 1201999298
Instrument: FID7.I
Analyst: KXR2
Inj. Vol: 1 uL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 12/21/2009 14:23
Dilution: 1
Prep Batch ID: 934475
Batch ID: 934477

CAS No		Parmname	Amount Added mg/kg	Sample Conc. mg/kg	Spike Conc. mg/kg	Recovery %	Acceptance Limits
DRO	LCS	Diesel Range Organics	33.3	0.0	26.4	79	53–114

Flame Ionization Detector

Quality Control Summary

Spike Recovery Report

SDG Number:	**10-940**	**Sample Type:**	**Matrix Spike**		
Client ID:	**RE03-09-14221MS**	**Matrix:**	**S**		
Lab Sample ID:	**1201999299**	**%Moisture:**	**14.8**		
Instrument:	**FID7.I**	**Analysis Date:**	**12/21/2009 16:14**	**Dilution: 1**	
Analyst:	**KXR2**	**Prep Batch ID:**	**934475**		
Inj. Vol:	**1 uL**	**Batch ID:**	**934477**		

CAS No		Parmname	Amount Added mg/kg	Sample Conc. mg/kg		Spike Conc. mg/kg	Recovery %	Acceptance Limits
DRO	MS	Diesel Range Organics	39.1	6.01	J	36.2	77	21-122

Flame Ionization Detector

Quality Control Summary

Spike Recovery Report

SDG Number:	10–940	**Sample Type:**	Matrix Spike Duplicate
Client ID:	RE03–09–14221MSD	**Matrix:**	S
Lab Sample ID:	1201999300	**%Moisture:**	14.8
Instrument:	FID7.I	**Analysis Date:**	12/21/2009 16:51
Analyst:	KXR2	**Prep Batch ID:**	934475
Inj. Vol:	1 uL	**Batch ID:**	934477

Dilution: 1

CAS No	Parmname	Amount Added mg/kg	Sample Conc. mg/kg		Spike Conc. mg/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
DRO	MSD Diesel Range Organics	38.9	6.01	J	46.4	104	21–122	25	0–30

Method Blank Summary

SDG Number:	10–939	Client:	LANL010	Matrix:	SOIL
Client ID:	MB for batch 934475	Instrument ID:	FID7.I	Data File:	005f0501.d
Lab Sample ID:	1201999297	Prep Date:	12/18/2009 19:50	Analyzed:	12/21/09 13:46
Column:	DB–5MS	Level:	LOW		

This method blank applies to the following samples and quality control samples:

Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01 LCS for batch 934475	1201999298	006f0601.d	12/21/09	1423
02 WST03–10–2147	243007002	007f0701.d	12/21/09	1500

SAMPLE
DATA

Flame Ionization Detector
Certificate of Analysis
Sample Summary

SDG Number:	10-939	**Date Collected:**	12/14/2009 12:00	**Matrix:**	R
Lab Sample ID:	243007002	**Date Received:**	12/16/2009 09:10	**%Moisture:**	13.5
		Client:	LANL010	**Project:**	LANL01004
Client ID:	WST03-10-2147	**Method:**	SW846 8015A/B SVOC	**SOP Ref:**	GL-OA-E-003
Batch ID:	934477	**Inst:**	FID7.I	**Dilution:**	1
Run Date:	12/21/2009 15:00	**Analyst:**	KXR2	**Inj. Vol:**	1 uL
Prep Date:	12/18/2009 19:50	**Aliquot:**	30.17 g	**Final Volume:**	1 mL
Data File:	007f0701.d	**Column:**	DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics	U	7.66	mg/kg	2.49	7.66

GEL Laboratories LLC

DB-5MS .25mm

Data file : /chem/fid7.i/122109dr/007f0701.d
Lab Smp Id: 243007002 Client Smp ID: WST03-10-2147
Inj Date : 21-DEC-2009 15:00
Operator : KXR2 Inst ID: fid7.i
Smp Info : |243007002|1|
Misc Info : |FIDDRO_S|934477|FIDF|LANL|
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fid7.i/122109dr/FID7a.i_b_DRO_121309.m
Meth Date : 22-Dec-2009 00:16 kev01577 Quant Type: ESTD
Cal Date : 13-DEC-2009 18:58 Cal File: 007f0701.d
Als bottle: 7
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-939.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.17000	Weigth of sample extracted (g)
M	13.49180	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (mg/L)	FINAL (mg/Kg)
$ 2 o-Terphenyl					CAS #: 84-15-1
13.591	13.595	-0.004	282625	10.7199	0.41

Data File: /chem/fid7.i/122109dr/007f0701.d

Date : 21-DEC-2009 15:00

Client ID: WST03-10-2147

Sample Info: 1243007002|1|

Volume Injected (uL): 1.0

Column phase: DB-5MS

Instrument: fid7.i

Operator: KXR2

Column diameter: 0.25

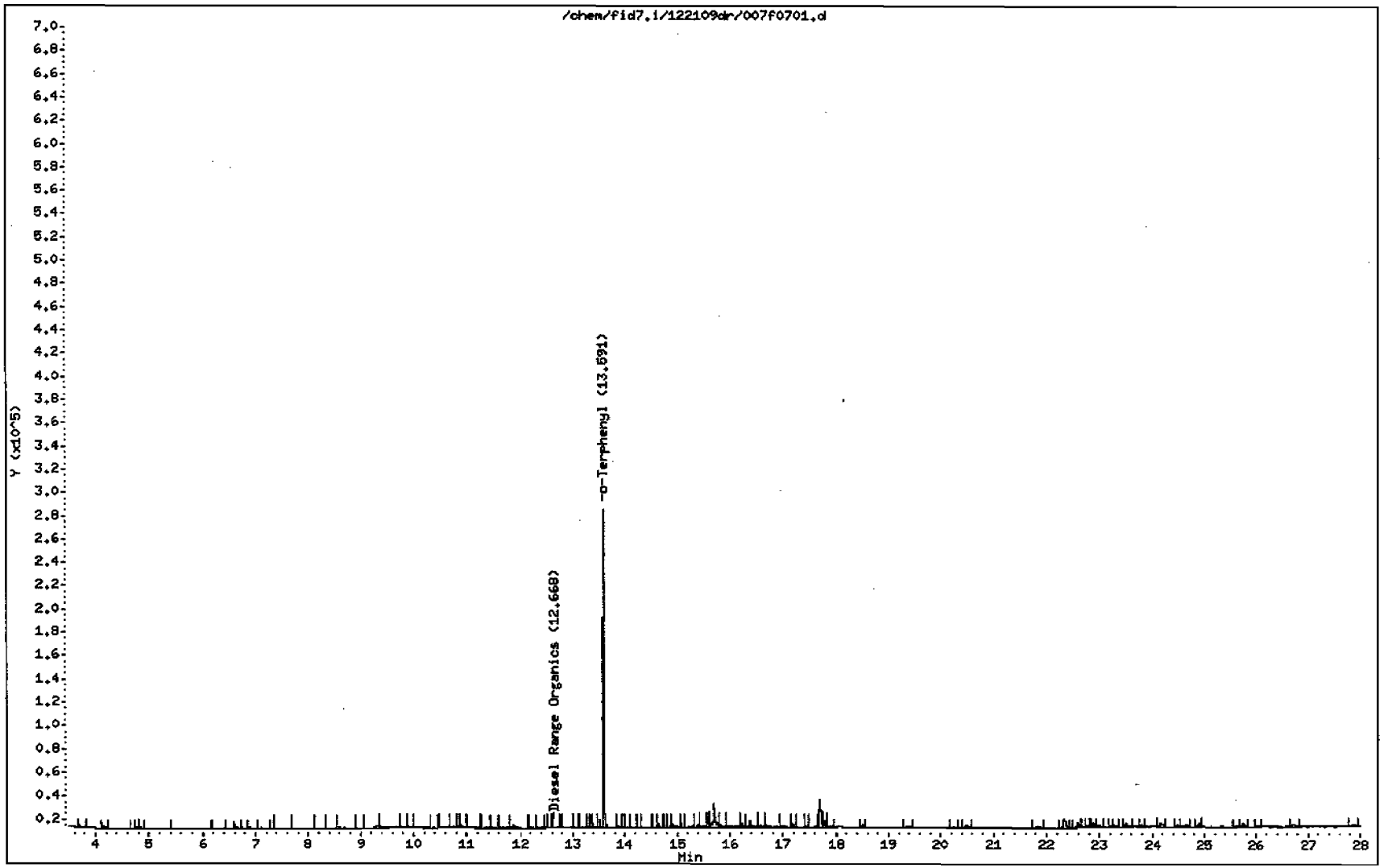

STANDARDS DATA

Report Date: 28-Dec-2009 13:11

Calibration History

Method : /chem/fid7.i/122109dr/FID7a.i_b_DRO_121309.m
Start Cal Date: 13-DEC-2009 16:31
End Cal Date : 13-DEC-2009 18:58

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 3 , Cal Amount: 200.00000		
13-DEC-2009 16:31	dro	/chem/fid7.i/121309dr/003f0301.d
Cal Level: 4 , Cal Amount: 500.00000		
13-DEC-2009 17:07	dro	/chem/fid7.i/121309dr/004f0401.d
Cal Level: 5 , Cal Amount: 1000.00000		
13-DEC-2009 17:45	dro	/chem/fid7.i/121309dr/005f0501.d
Cal Level: 6 , Cal Amount: 2000.00000		
13-DEC-2009 18:22	dro	/chem/fid7.i/121309dr/006f0601.d
Cal Level: 7 , Cal Amount: 5000.00000		
13-DEC-2009 18:58	dro	/chem/fid7.i/121309dr/007f0701.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 5

Ccal Level: 5 , Ccal Amount: 1000		
22-DEC-2009 05:07	dro	/chem/fid7.i/122109dr/030f3001.d
Ccal Level: 5 , Ccal Amount: 1000		
22-DEC-2009 14:12	dro	/chem/fid7.i/122109dr/039f3901.d
Ccal Level: 5 , Ccal Amount: 1000		
22-DEC-2009 09:52	dro	/chem/fid7.i/122109dr/032f3201.d
Ccal Level: 5 , Ccal Amount: 1000		
21-DEC-2009 23:38	dro	/chem/fid7.i/122109dr/021f2101.d
Ccal Level: 5 , Ccal Amount: 1000		
21-DEC-2009 18:04	dro	/chem/fid7.i/122109dr/012f1201.d

Ccal Level: 5 , Ccal Amount: 1000		
21-DEC-2009 12:32	dro	/chem/fid7.i/122109dr/003f0301.d

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COMPOUND LISTING

Method file : /chem/fid7.i/122109dr/FID7a.i_b_DRO_121309.m
Quant Method : ESTD Target Version : 3.50
Last Update : 28-Dec-2009 09:06 Number of Cpnds : 6
Data Type : GC DATA

Global Integrator : Falcon

Chromat Events	Values
Initial:Start Threshold	100.000000
Initial:End Threshold	50.000000
Initial:Area Threshold	100.000000
Initial:P-P Resolution	1.000000
Initial:Bunch Factor	11.000000
Initial:Negative Peaks	OFF
Initial:Tension	7.000000
5.000:Force Cluster ON	n/a
17.000:Force Cluster OFF	n/a
17.371:Tension	1.000000

	Compound	RT	RT Window	RF
	3 Decane (C10)	7.508	7.478-7.538	
S	1 Diesel Range Organics	12.668	7.480-17.855	1.342e+04
$	2 o-Terphenyl	13.595	13.565-13.625	2.636e+04
	4 Octacosane (C28)	17.821	17.791-17.851	
S	75 JP-4	6.750	3.500-10.000	
S	76 Motor oil	17.000	14.000-20.000	

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 13-DEC-2009 16:31
End Cal Date : 13-DEC-2009 18:58
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/fid7.i/122109dr/FID7a.i_b_DRO_121309.m
Cal Date : 28-Dec-2009 09:06 kev01577
Curve Type : Average

Calibration File Names:
Level 3: /chem/fid7.i/121309dr/003f0301.d
Level 4: /chem/fid7.i/121309dr/004f0401.d
Level 5: /chem/fid7.i/121309dr/005f0501.d
Level 6: /chem/fid7.i/121309dr/006f0601.d
Level 7: /chem/fid7.i/121309dr/007f0701.d

	Compound	200.000 Level 3	500.000 Level 4	1000.000 Level 5	2000.000 Level 6	5000.000 Level 7	___ RRF	% RSD
	3 Decane (C10)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
S	1 Diesel Range Organics	12370	13330	13518	14106	13763	13417	4.871
	4 Octacosane (C28)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
S	75 JP-4	+++++	+++++	+++++	+++++	+++++	+++++	+++++
S	76 Motor oil	+++++	+++++	+++++	+++++	+++++	+++++	+++++
$	2 o-Terphenyl	24795	27259	25475	26481	27813	26365	4.710

FORM 7
SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-939

Instrument ID: FID7 Calibration Date: 12/21/09 Time: 1232

Lab File ID: 003F0301 Init. Calib. Date(s): 12/13/09 12/13/09

Init. Calib. Times: 1631 1858

GC Column: DB-5MS ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Diesel Range Organics	13417.204	12925.965	0.01	-3.7	15.0
o-Terphenyl	26364.536	23166.916	0.01	-12.1	15.0

FORM VII SV

FORM 7
SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-939

Instrument ID: FID7 Calibration Date: 12/21/09 Time: 1804

Lab File ID: 012F1201 Init. Calib. Date(s): 12/13/09 12/13/09

Init. Calib. Times: 1631 1858

GC Column: DB-5MS ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Diesel Range Organics	13417.204	13484.654	0.01	0.5	15.0
o-Terphenyl	26364.536	24135.120	0.01	-8.4	15.0

FORM VII SV

GEL Laboratories LLC

DB-5MS .25mm

Data file : /chem/fid7.i/122109dr/003f0301.d
Lab Smp Id: UFI091203-02 D1 Client Smp ID: DSTD01
Inj Date : 21-DEC-2009 12:32
Operator : KXR2 Inst ID: fid7.i
Smp Info : |UFI091203-02 D1
Misc Info :
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fid7.i/122109dr/FID7a.i_b_DRO_121309.m
Meth Date : 22-Dec-2009 00:16 kev01577 Quant Type: ESTD
Cal Date : 13-DEC-2009 18:58 Cal File: 007f0701.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: dro.sub
Target Version: 3.50 Sample Matrix: None

	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (mg/L)	AMOUNTS ON-COL (mg/L)	
S	1 Diesel Range Organics						CAS #:
	7.480- 17.855			12925965	1000.00		963
$	2 o-Terphenyl						CAS #: 84-15-1
	13.595	13.595	0.000	579172	25.0000		22.0

Data File: /chem/fid7.i/122109dr/003f0301.d
Date : 21-DEC-2009 12:32
Client ID: DSTD01
Sample Info: IUFI091203-02 D1

Column phase: DB-5MS

Instrument: fid7.i

Operator: KXR2
Column diameter: 0.25

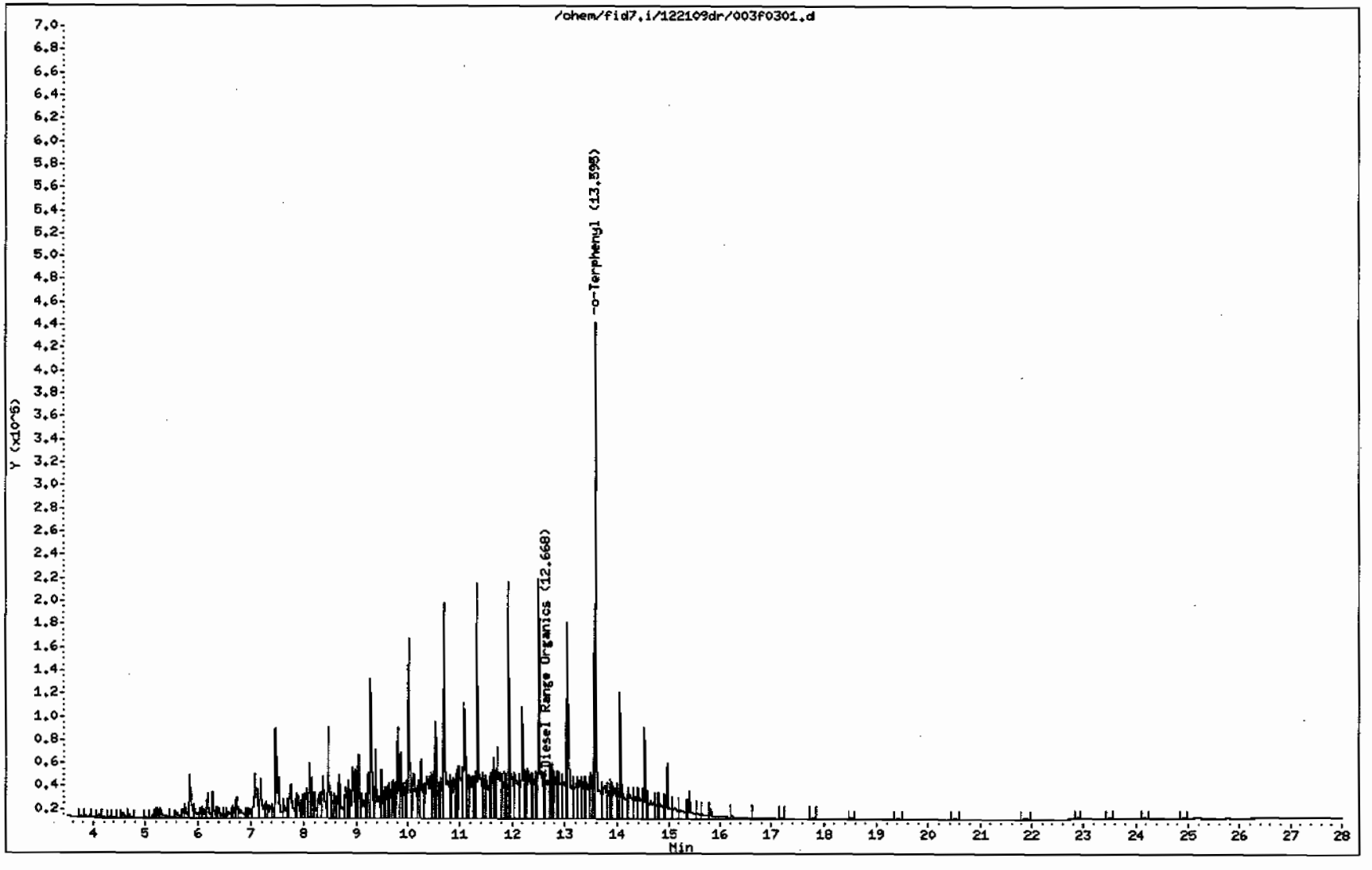

GEL Laboratories LLC

DB-5MS .25mm

Data file : /chem/fid7.i/122109dr/012f1201.d
Lab Smp Id: UFI091203-02 D2 Client Smp ID: DSTD02
Inj Date : 21-DEC-2009 18:04
Operator : KXR2 Inst ID: fid7.i
Smp Info : |UFI091203-02 D2
Misc Info :
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fid7.i/122109dr/FID7a.i_b_DRO_121309.m
Meth Date : 22-Dec-2009 00:16 kev01577 Quant Type: ESTD
Cal Date : 13-DEC-2009 18:58 Cal File: 007f0701.d
Als bottle: 12 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: dro.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (mg/L)	AMOUNTS ON-COL (mg/L)		
S 1 Diesel Range Organics					CAS #:		
7.480-	17.855		13484654	1000.00	1000		(M)
$ 2 o-Terphenyl					CAS #: 84-15-1		
13.595	13.595	0.000	603378	25.0000	22.9		(M)

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/fid7.i/122109dr/012f1201.d
Date : 21-DEC-2009 18:04
Client ID: DSTD02
Sample Info: !UFI091203-02 D2

Column phase: DB-5MS

Instrument: fid7.i

Operator: KXR2
Column diameter: 0.25

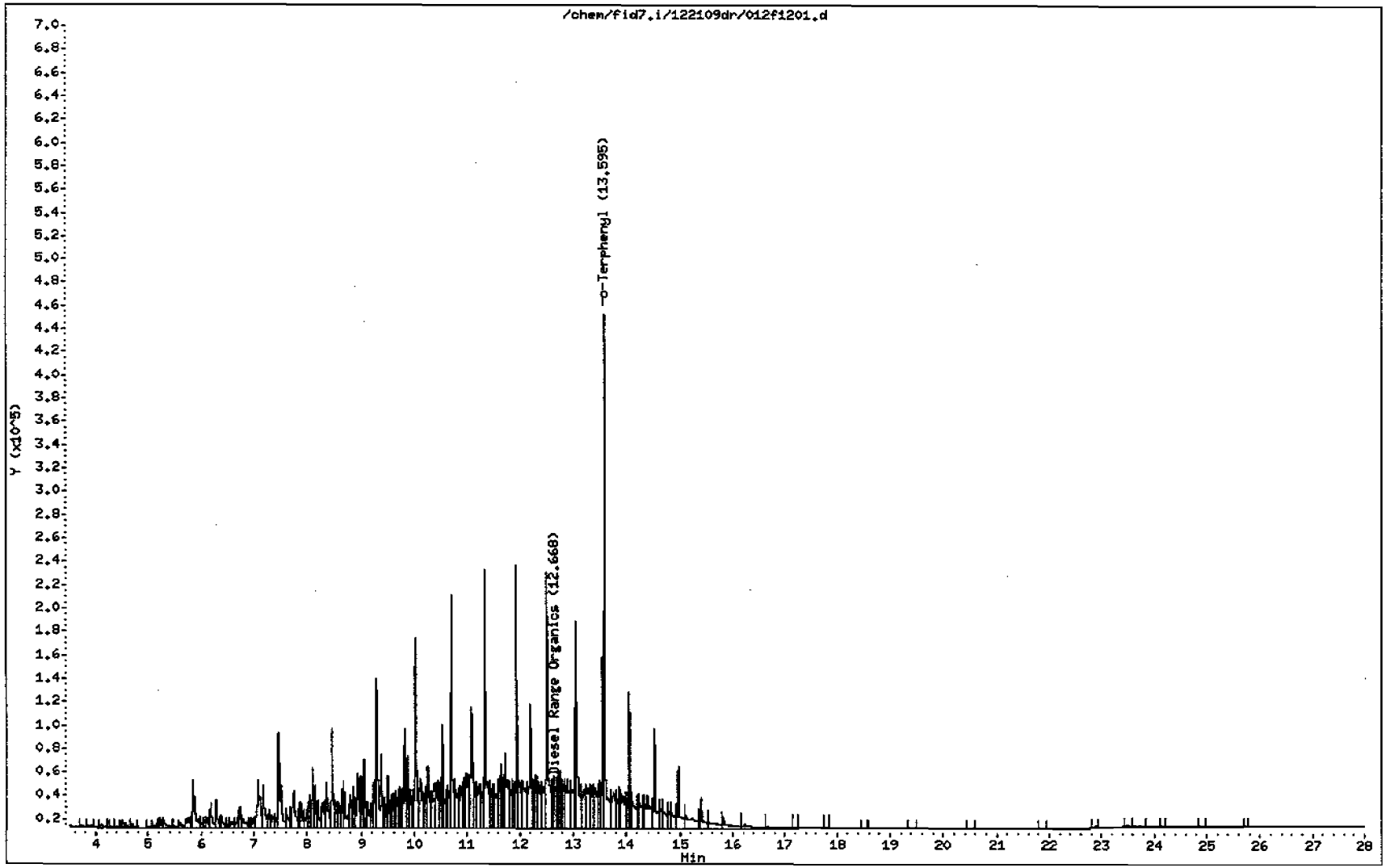

Data File: /chem/fid7.i/122109dc/012f1201.d
Injection Date: 21-DEC-2009 18:04
Instrument: fid7.i
Client Sample ID: DSTD02

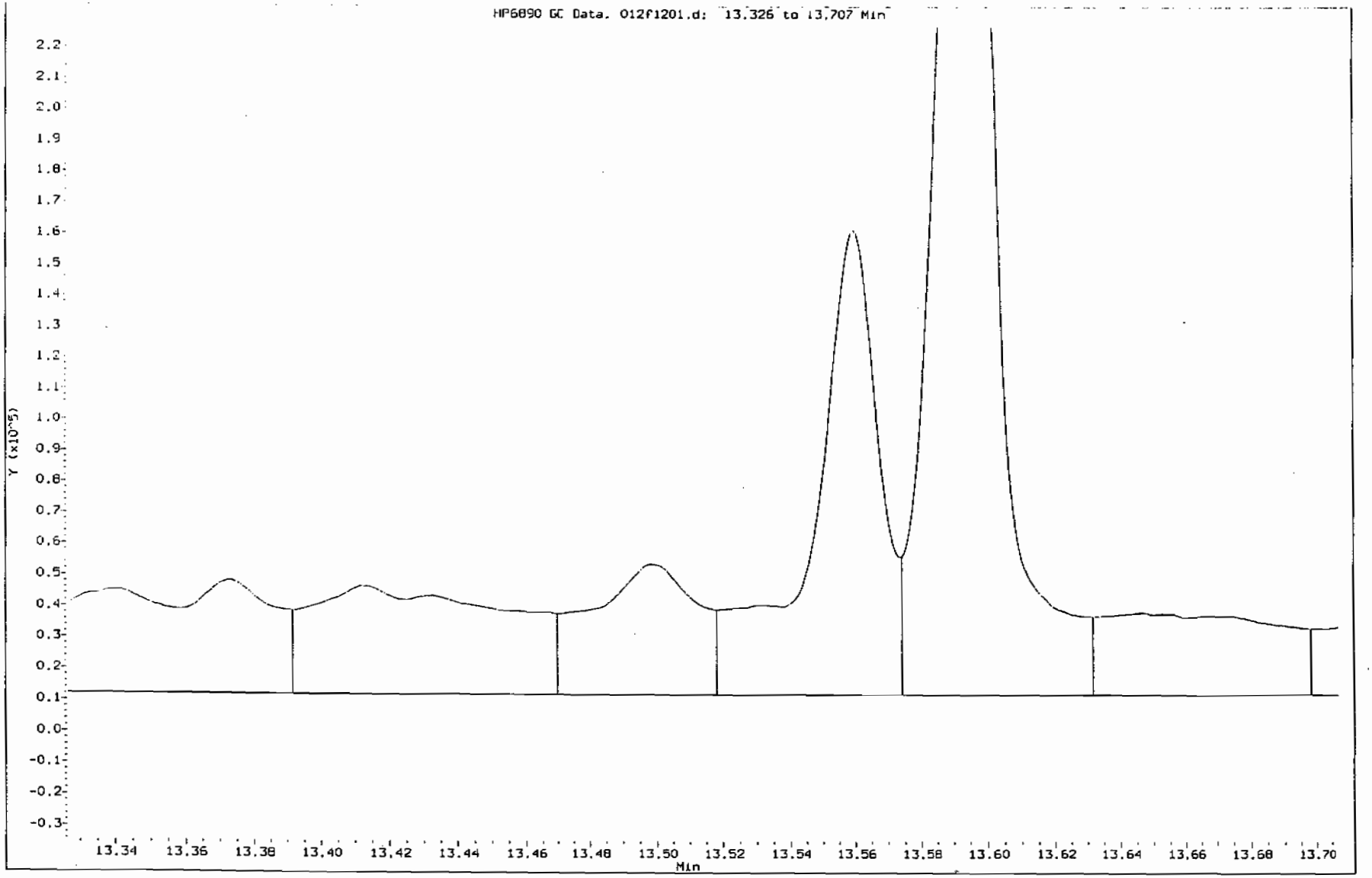

Data File: /chem/fid7.i/122109dr/012f1201.d
Injection Date: 21-DEC-2009 10:04
Instrument: fid7.i
Client Sample ID: DSTD02

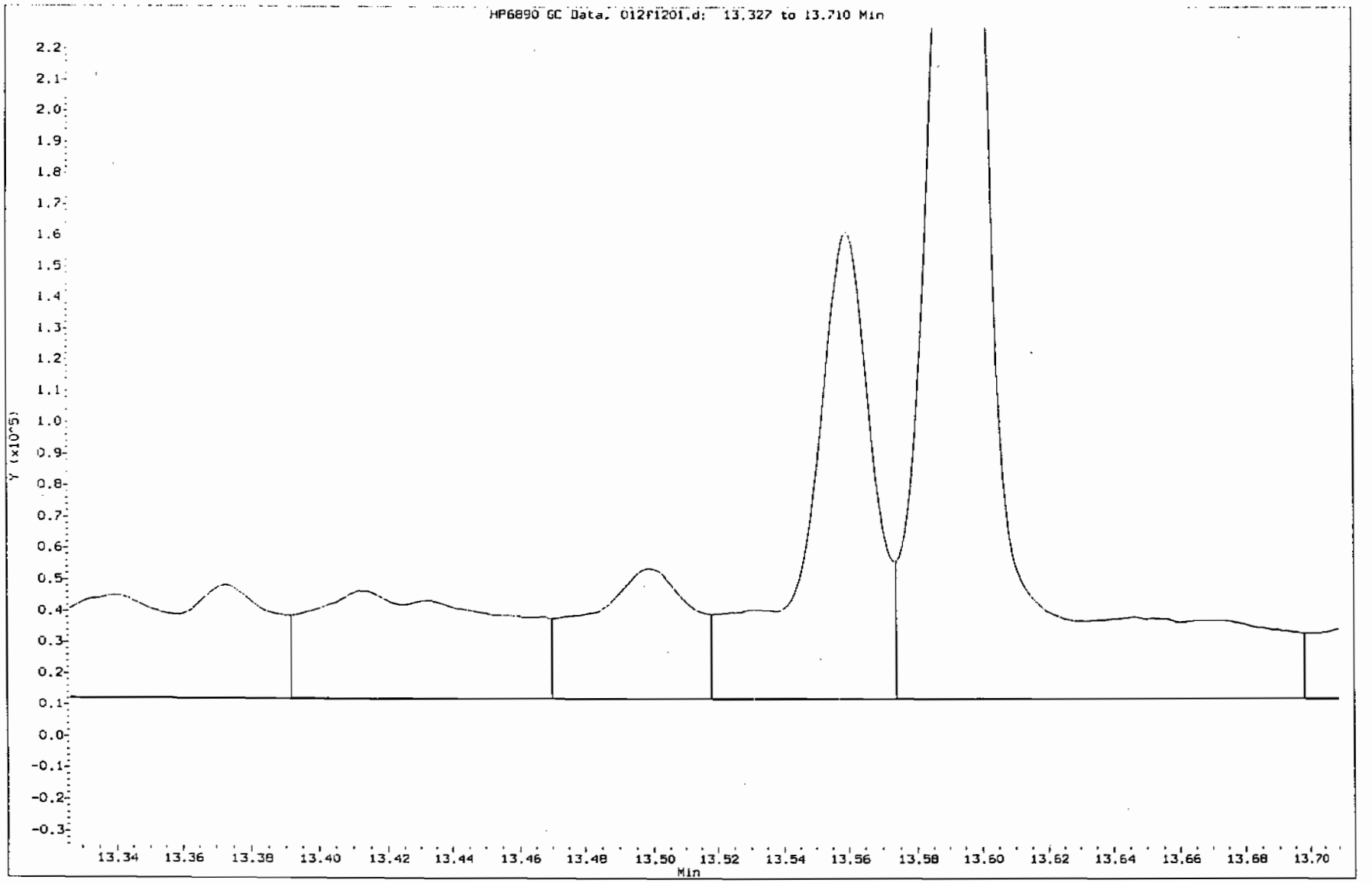

8D
DRO ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-939

GC Column: DB-5MS ID: 0.25 (mm) Init. Calib. Date(s): 12/13/09 12/13/09

Instrument ID: FID7

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 13.60

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT	#	RT
01	DIBLK01	WFI091130-06	12/13/09	1516	13.59		
02	RTMARKER	UFI091013-03	12/13/09	1553			
03	CSTD01	UFI090827-10	12/13/09	1631	13.59		
04	CSTD02	UFI090827-11	12/13/09	1707	13.59		
05	CSTD03	UFI090827-12	12/13/09	1745	13.60		
06	CSTD04	UFI090827-13	12/13/09	1822	13.61		
07	CSTD05	UFI090827-14	12/13/09	1858	13.62		
08	DSTD01	WFI090928-01	12/13/09	1936	13.60		
09	DIBLK02	WFI091130-06	12/13/09	2012	13.59		
10	ZZZZZ	ZZZZZ	12/13/09	2049	13.59		
11	ZZZZZ	ZZZZZ	12/13/09	2126	13.59		
12	ZZZZZ	ZZZZZ	12/13/09	2203	13.59		
13	ZZZZZ	ZZZZZ	12/13/09	2240	13.59		
14	ZZZZZ	ZZZZZ	12/13/09	2318	13.60		
15	ZZZZZ	ZZZZZ	12/13/09	2354	13.59		
16	ZZZZZ	ZZZZZ	12/14/09	0032	13.59		
17	ZZZZZ	ZZZZZ	12/14/09	0109	13.59		
18	ZZZZZ	ZZZZZ	12/14/09	0146	13.59		
19	ZZZZZ	ZZZZZ	12/14/09	0223	13.59		
20	DSTD02	UFI091118-02	12/14/09	0300	13.60		
21	DIBLK03	WFI091130-06	12/14/09	0337	13.60		
22	ZZZZZ	ZZZZZ	12/14/09	0413	13.59		
23	ZZZZZ	ZZZZZ	12/14/09	0450	13.59		
24	ZZZZZ	ZZZZZ	12/14/09	0527	13.59		
25	ZZZZZ	ZZZZZ	12/14/09	0604	13.59		
26	ZZZZZ	ZZZZZ	12/14/09	0641	13.59		
27	ZZZZZ	ZZZZZ	12/14/09	0718	13.59		
28	ZZZZZ	ZZZZZ	12/14/09	0755	13.59		
29	ZZZZZ	ZZZZZ	12/14/09	0832	13.59		
30	ZZZZZ	ZZZZZ	12/14/09	0909	13.59		
31	DSTD03	UFI091118-02	12/14/09	0946	13.60		
32	DIBLK04	WFI091130-06	12/14/09	1023	13.60		

S1 = o-Terphenyl QC LIMITS (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

8D
DRO ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-939

GC Column: DB-5MS ID: 0.25 (mm) Init. Calib. Date(s): 12/13/09 12/13/09

Instrument ID: FID7

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 13.60

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	RT
01	DIBLK01	WFI091130-06	12/21/09	1118	13.59	
02	RTMARKER	UFI091013-03	12/21/09	1155		
03	DSTD01	UFI091203-02	12/21/09	1232	13.60	
04	DIBLK02	WFI091130-06	12/21/09	1309	13.59	
05	DBLK01	1201999297	12/21/09	1346	13.59	
06	DBLK01LCS	1201999298	12/21/09	1423	13.59	
07	WST03-10-2147	243007002	12/21/09	1500	13.59	
08	ZZZZZ	ZZZZZ	12/21/09	1537	13.59	
09	ZZZZZ	ZZZZZ	12/21/09	1614	13.59	
10	ZZZZZ	ZZZZZ	12/21/09	1651	13.59	
11	ZZZZZ	ZZZZZ	12/21/09	1727	13.59	
12	DSTD02	UFI091203-02	12/21/09	1804	13.60	
13	DIBLK03	WFI091130-06	12/21/09	1841	13.59	
14	ZZZZZ	ZZZZZ	12/21/09	1917	13.59	
15	ZZZZZ	ZZZZZ	12/21/09	1954	13.59	
16	ZZZZZ	ZZZZZ	12/21/09	2030	13.59	
17	ZZZZZ	ZZZZZ	12/21/09	2107	13.59	
18	ZZZZZ	ZZZZZ	12/21/09	2143	13.59	
19	ZZZZZ	ZZZZZ	12/21/09	2220	13.59	
20	ZZZZZ	ZZZZZ	12/21/09	2257	13.59	
21	DSTD03	UFI091203-02	12/21/09	2338	13.60	
22	DIBLK04	WFI091130-06	12/22/09	0014	13.59	
23	ZZZZZ	ZZZZZ	12/22/09	0051	13.59	
24	ZZZZZ	ZZZZZ	12/22/09	0128	13.59	
25	ZZZZZ	ZZZZZ	12/22/09	0204	13.59	
26	ZZZZZ	ZZZZZ	12/22/09	0241	13.59	
27	ZZZZZ	ZZZZZ	12/22/09	0318	13.60	
28	ZZZZZ	ZZZZZ	12/22/09	0354	13.61	
29	ZZZZZ	ZZZZZ	12/22/09	0431		
30	DSTD04	UFI091203-02	12/22/09	0507	13.60	
31	DIBLK05	WFI091130-06	12/22/09	0544	13.59	
32	DSTD05	UFI091203-02	12/22/09	0952	13.60	

S1 = o-Terphenyl QC LIMITS (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

QUALITY CONTROL DATA

Flame Ionization Detector
Certificate of Analysis
Sample Summary

SDG Number:	10-939			**Matrix:**	SOIL
Lab Sample ID:	1201999297				
Client Sample:	QC for batch 934475	**Client:**	LANL010	**Project:**	QC
Client ID:	MB for batch 934475	**Method:**	SW846 8015A/B SVOC	**SOP Ref:**	GL-OA-E-003
Batch ID:	934477	**Inst:**	FID7.I	**Dilution:**	1
Run Date:	12/21/2009 13:46	**Analyst:**	KXR2	**Inj. Vol:**	1 uL
Prep Date:	12/18/2009 19:50	**Aliquot:**	30 g	**Final Volume:**	1 mL
Data File:	005f0501.d	**Column:**	DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics	U	6.67	mg/kg	2.17	6.67

GEL Laboratories LLC

DB-5MS .25mm

Data file : /chem/fid7.i/122109dr/005f0501.d
Lab Smp Id: 1201999297 Client Smp ID: DBLK01
Inj Date : 21-DEC-2009 13:46
Operator : KXR2 Inst ID: fid7.i
Smp Info : |1201999297|1|
Misc Info : |FIDDRO_S|934477|FIDF|MB|
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fid7.i/122109dr/FID7a.i_b_DRO_121309.m
Meth Date : 22-Dec-2009 00:16 kev01577 Quant Type: ESTD
Cal Date : 13-DEC-2009 18:58 Cal File: 007f0701.d
Als bottle: 5 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-939.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weigth of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (mg/L)	FINAL (mg/Kg)
$ 2 o-Terphenyl					CAS #: 84-15-1
13.592	13.595	-0.003	268508	10.1845	0.34

Data File: /chem/fid7.i/122109dr/005f0501.d
Date : 21-DEC-2009 13:46
Client ID: DBLK01
Sample Info: |120199929711|
Volume Injected (uL): 1.0
Column phase: DB-5MS

Instrument: fid7.i
Operator: KXR2
Column diameter: 0.25

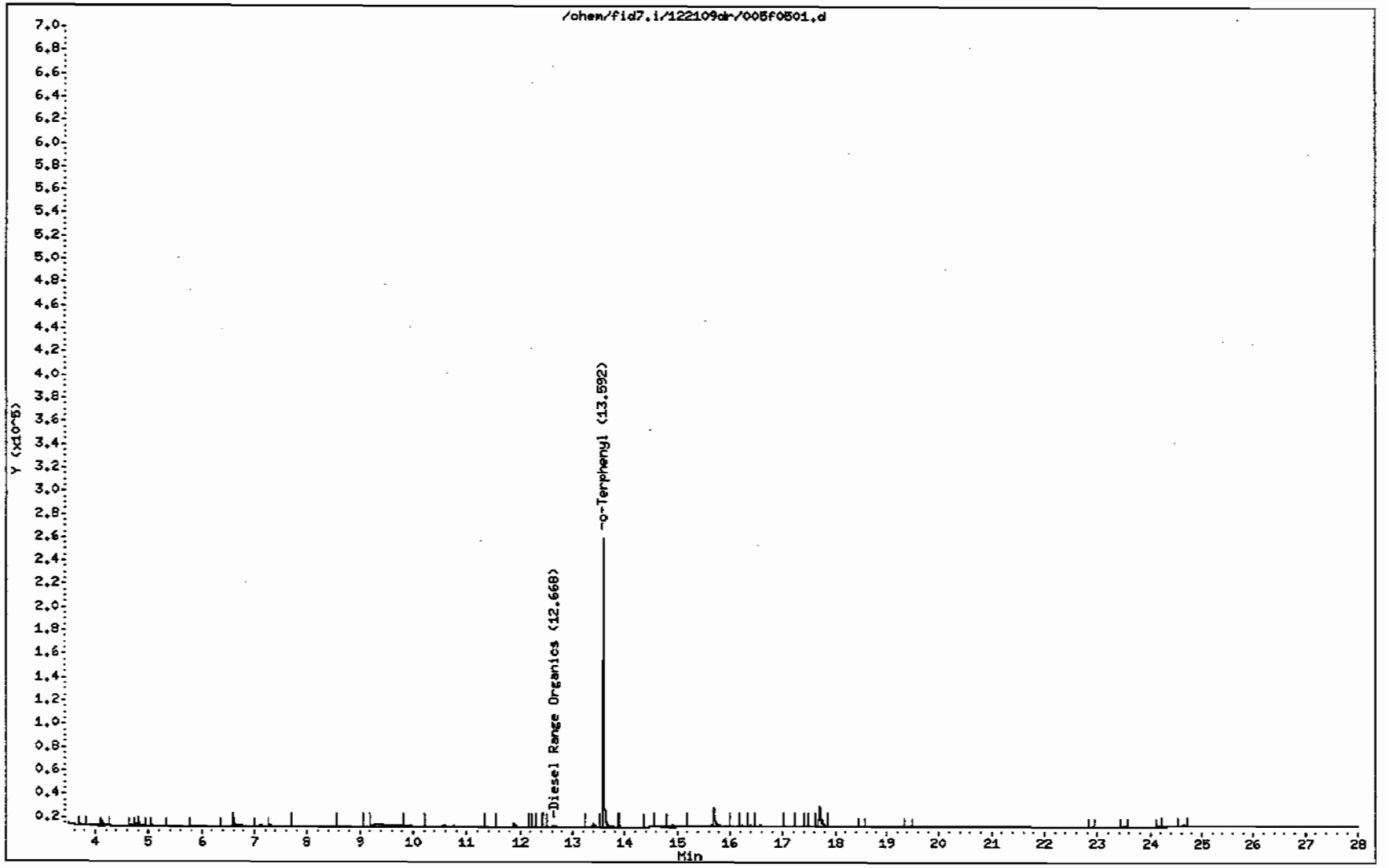

Flame Ionization Detector
Certificate of Analysis
Sample Summary

SDG Number:	10-939			**Matrix:**	SOIL
Lab Sample ID:	1201999298				
Client Sample:	QC for batch 934475	**Client:**	LANL010	**Project:**	QC
Client ID:	LCS for batch 934475	**Method:**	SW846 8015A/B SVOC	**SOP Ref:**	GL-OA-E-003
Batch ID:	934477	**Inst:**	FID7.I	**Dilution:**	1
Run Date:	12/21/2009 14:23	**Analyst:**	KXR2	**Inj. Vol:**	1 uL
Prep Date:	12/18/2009 19:50	**Aliquot:**	30 g	**Final Volume:**	1 mL
Data File:	006f0601.d	**Column:**	DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics		26.4	mg/kg	2.17	6.67

GEL Laboratories LLC

DB-5MS .25mm

Data file : /chem/fid7.i/122109dr/006f0601.d
Lab Smp Id: 1201999298 Client Smp ID: DBLK01LCS
Inj Date : 21-DEC-2009 14:23
Operator : KXR2 Inst ID: fid7.i
Smp Info : |1201999298|1|
Misc Info : |FIDDRO_S|934477|FIDF|LCS|
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fid7.i/122109dr/FID7a.i_b_DRO_121309.m
Meth Date : 22-Dec-2009 00:16 kev01577 Quant Type: ESTD
Cal Date : 13-DEC-2009 18:58 Cal File: 007f0701.d
Als bottle: 6 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-939.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weigth of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (mg/L)	FINAL (mg/Kg)
S 1 Diesel Range Organics					CAS #:
7.480	17.855		10645874	793.450	26.4
$ 2 o-Terphenyl					CAS #: 84-15-1
13.593	13.595	-0.002	440908	16.7235	0.56

Data File: /chem/fid7.i/122109dr/006f0601.d
Date : 21-DEC-2009 14:23
Client ID: DBLK01LCS
Sample Info: |1201999298|1|
Volume Injected (uL): 1.0
Column phase: DB-5MS

Instrument: fid7.i

Operator: KXR2
Column diameter: 0.25

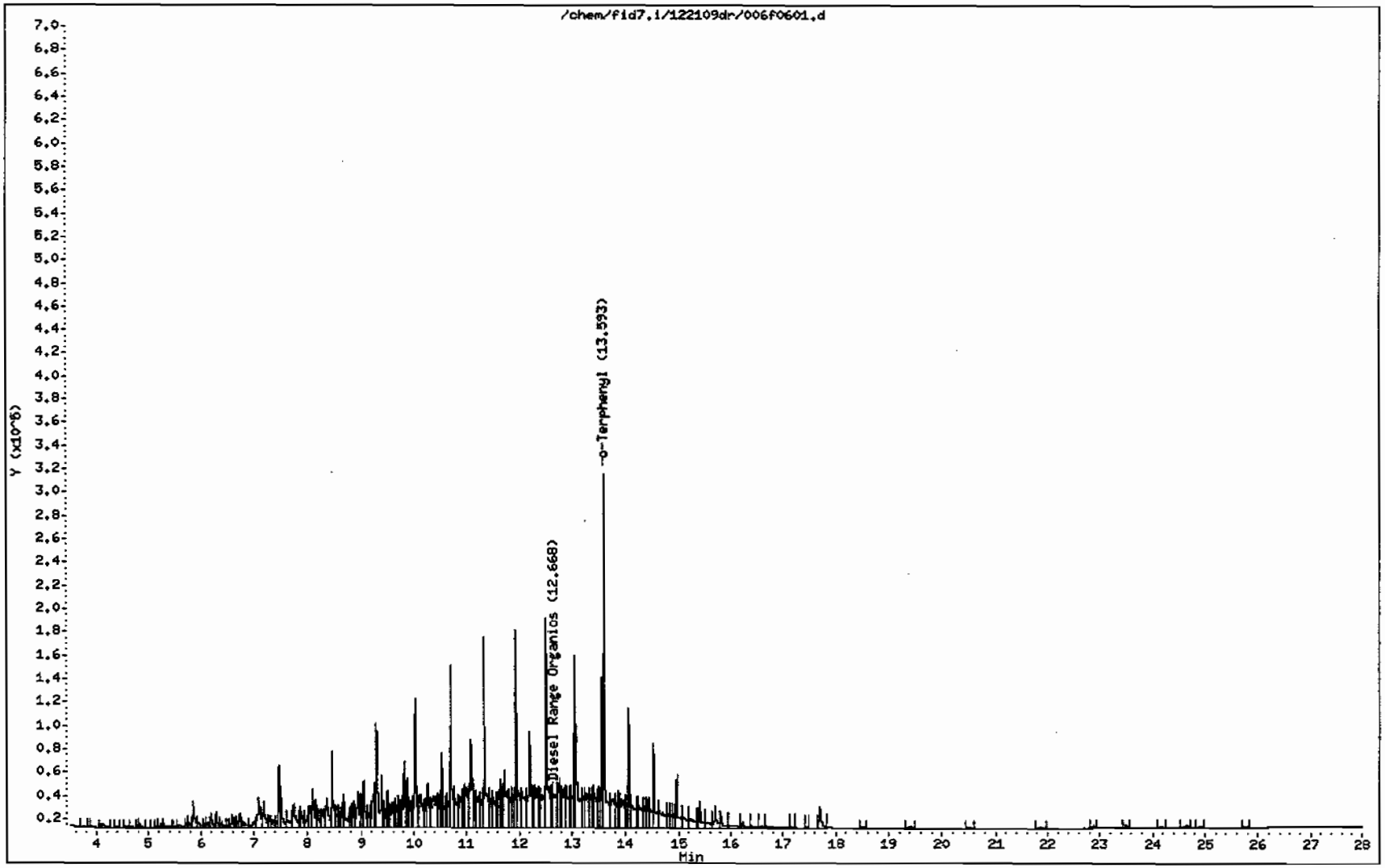

MISCELLANEOUS DATA

GEL ORGANIC RUN LOG INSTRUMENT ID: FID7.i

DATE: 12/14/2009 METHOD: FID7a.i_b_DRO_121309.m OPERATOR:KXR2 REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 16 on pg. 16 Solvent REMAT ID:CH2CL2

Calibration & QC Information
GC Column: DB-5MS 30m x 0.25mm x 0.25um
Initial Calibration Dates: See Calibration History and Standards Log
Initial Calibration Std ID's: See Calibration History and Standards Log
FID analysis of GEL SOP:GL-OA-E-003

Sequence Number:121309DR Injection Volume: 1.0 ul

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001f0101.d	WFI091130-06 B1	KXR2	13-DEC-2009 15:16		SDGa20942	1.0		CLEAN
002f0201.d	UFI091013-03 RT	KXR2	13-DEC-2009 15:53		SDGa20942	1.0		RTMARKER
003f0301.d	UFI090827-10 200	KXR2	13-DEC-2009 16:31		SDGa20942	1.0		CAL. LEVEL 1
004f0401.d	UFI090827-11 500	KXR2	13-DEC-2009 17:07		SDGa20942	1.0		CAL. LEVEL 2
005f0501.d	UFI090827-12 1000	KXR2	13-DEC-2009 17:45		SDGa20942	1.0		CAL. LEVEL 3
006f0601.d	UFI090827-13 2000	KXR2	13-DEC-2009 18:22		SDGa20942	1.0		CAL. LEVEL 4
007f0701.d	UFI090827-14 5000	KXR2	13-DEC-2009 18:58		SDGa20942	1.0		CAL. LEVEL 5
008f0801.d	WFI090928-01 D1	KXR2	13-DEC-2009 19:36		SDGa20942	1.0		PASSES
009f0901.d	WFI091130-06 B2	KXR2	13-DEC-2009 20:12		SDGa20942	1.0		CLEAN
010f1001.d	1201993826	KXR2	13-DEC-2009 20:49	932074	10-830	1.0	MB	USE
011f1101.d	1201993827	KXR2	13-DEC-2009 21:26	932074	10-830	1.0	LCS	USE
012f1201.d	242439002	KXR2	13-DEC-2009 22:03	932074	10-830	1.0	LANL	USE
013f1301.d	1201993828	KXR2	13-DEC-2009 22:40	932074	10-830	1.0	MS	USE
014f1401.d	1201993829	KXR2	13-DEC-2009 23:18	932074	10-830	1.0	MSD	USE
015f1501.d	242439003	KXR2	13-DEC-2009 23:54	932074	10-830	1.0	LANL	USE

Instrument Batch: /chem/fid7.i/121309dr Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
016f1601.d	242439004	KXR2	14-DEC-2009 00:32	932074	10-830	1.0	LANL	USE

017f1701.d	242439005	KXR2	14-DEC-2009 01:09	932074	10-830		5.0	LANL	USE
018f1801.d	242439006	KXR2	14-DEC-2009 01:46	932074	10-830		1.0	LANL	USE
019f1901.d	242439007	KXR2	14-DEC-2009 02:23	932074	10-830		1.0	LANL	USE
020f2001.d	UFI091118-02 D2	KXR2	14-DEC-2009 03:00		SDGa20942		1.0		PASSES
021f2101.d	WFI091130-06 B3	KXR2	14-DEC-2009 03:37		SDGa20942		1.0		CLEAN
022f2201.d	242439008	KXR2	14-DEC-2009 04:13	932074	10-830		1.0	LANL	USE
023f2301.d	242439009	KXR2	14-DEC-2009 04:50	932074	10-830		1.0	LANL	USE
024f2401.d	242439010	KXR2	14-DEC-2009 05:27	932074	10-830		1.0	LANL	USE
025f2501.d	242439011	KXR2	14-DEC-2009 06:04	932074	10-830		1.0	LANL	USE
026f2601.d	242439012	KXR2	14-DEC-2009 06:41	932074	10-830		1.0	LANL	USE
027f2701.d	242439013	KXR2	14-DEC-2009 07:18	932074	10-830		20.0	LANL	USE
028f2801.d	242439014	KXR2	14-DEC-2009 07:55	932074	10-830		1.0	LANL	USE
029f2901.d	242439015	KXR2	14-DEC-2009 08:32	932074	10-830		10.0	LANL	USE
030f3001.d	242439016	KXR2	14-DEC-2009 09:09	932074	10-830		1.0	LANL	USE
031f3101.d	UFI091118-02 D3	KXR2	14-DEC-2009 09:46		SDGa20942		1.0		PASSES
032f3201.d	WFI091130-06 B4	KXR2	14-DEC-2009 10:23		SDGa20942		1.0		CLEAN

GEL ORGANIC RUN LOG INSTRUMENT ID: FID7.1

DATE: 12/28/2009 METHOD: FID7a.i_b_DRO_121309.m OPERATOR:KXR2 REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 16 on pg. 16 Solvent REMAT ID:CH2CL2

Calibration & QC Information
GC Column: DB-5MS 30m x 0.25mm x 0.25um
Initial Calibration Dates: See Calibration History and Standards Log
Initial Calibration Std ID's: See Calibration History and Standards Log
FID analysis of GEL SOP:GL-OA-E-003

Sequence Number:122109DR Injection Volume: 1.0 ul

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001f0101.d	WFI091130-06 B1	KXR2	21-DEC-2009 11:18		SDGa21099	1.0		CLEAN
002f0201.d	UFI091013-03 RT	KXR2	21-DEC-2009 11:55		SDGa21099	1.0		RTMARKER
003f0301.d	UFI091203-02 D1	KXR2	21-DEC-2009 12:32		SDGa21099	1.0		PASSES
004f0401.d	WFI091130-06 B2	KXR2	21-DEC-2009 13:09		SDGa21099	1.0		CLEAN
005f0501.d	1201999297	KXR2	21-DEC-2009 13:46	934477	10-939	1.0	MB	USE
006f0601.d	1201999298	KXR2	21-DEC-2009 14:23	934477	10-939	1.0	LCS	USE
007f0701.d	243007002	KXR2	21-DEC-2009 15:00	934477	10-939	1.0	LANL	USE
008f0801.d	243033001	KXR2	21-DEC-2009 15:37	934477	10-940	1.0	LANL	USE
009f0901.d	1201999299	KXR2	21-DEC-2009 16:14	934477	10-940	1.0	MS	USE
010f1001.d	1201999300	KXR2	21-DEC-2009 16:51	934477	10-940	1.0	MSD	USE
011f1101.d	243033002	KXR2	21-DEC-2009 17:27	934477	10-940	1.0	LANL	USE
012f1201.d	UFI091203-02 D2	KXR2	21-DEC-2009 18:04		SDGa21099	1.0		PASSES
013f1301.d	WFI091130-06 B3	KXR2	21-DEC-2009 18:41		SDGa21099	1.0		CLEAN
014f1401.d	243033003	KXR2	21-DEC-2009 19:17	934477	10-940	1.0	LANL	USE
015f1501.d	243033004	KXR2	21-DEC-2009 19:54	934477	10-940	1.0	LANL	USE

Instrument Batch: /chem/fid7.i/122109dr Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
016f1601.d	243033005	KXR2	21-DEC-2009 20:30	934477	10-940	1.0	LANL	USE

017f1701.d	243033006	KXR2	21-DEC-2009 21:07	934477	10-940		1.0	LANL	USE
018f1801.d	243033007	KXR2	21-DEC-2009 21:43	934477	10-940		1.0	LANL	USE
019f1901.d	243033008	KXR2	21-DEC-2009 22:20	934477	10-940		1.0	LANL	USE
020f2001.d	243033009	KXR2	21-DEC-2009 22:57	934477	10-940		1.0	LANL	USE
021f2101.d	UFI091203-02 D3	KXR2	21-DEC-2009 23:38		SDGa21099		1.0		PASSES
022f2201.d	WFI091130-06 B4	KXR2	22-DEC-2009 00:14		SDGa21099		1.0		CLEAN
023f2301.d	1202001581	KXR2	22-DEC-2009 00:51	935422	10-987		1.0	MB	USE
024f2401.d	1202001582	KXR2	22-DEC-2009 01:28	935422	10-987		1.0	LCS	USE
025f2501.d	243275004	KXR2	22-DEC-2009 02:04	935422	10-987		1.0	LANL	USE,OVERRANGE RERUN @5X
026f2601.d	1202001583	KXR2	22-DEC-2009 02:41	935422	10-987		1.0	MS	USE,OVERRANGE RERUN @5X
027f2701.d	1202001584	KXR2	22-DEC-2009 03:18	935422	10-987		1.0	MSD	USE,OVERRANGE RERUN @5X
028f2801.d	243275005	KXR2	22-DEC-2009 03:54	935422	10-987		100.0	LANL	USE,OVERRANGE PRIOR
029f2901.d	243275006	KXR2	22-DEC-2009 04:31	935422	10-987		20.0	LANL	USE,OVERRANGE RERUN @100X
030f3001.d	UFI091203-02 D4	KXR2	22-DEC-2009 05:07		SDGa21099		1.0		PASSES
031f3101.d	WFI091130-06 B5	KXR2	22-DEC-2009 05:44		SDGa21099		1.0		CLEAN
032f3201.d	UFI091203-02 D5	KXR2	22-DEC-2009 09:52		SDGa21099		1.0		PASSES
033f3301.d	WFI091130-06 B6	KXR2	22-DEC-2009 10:29		SDGa21099		1.0		CLEAN
034f3401.d	243275004	KXR2	22-DEC-2009 11:06	935422	10-987		5.0	LANL	USE
035f3501.d	1202001583	KXR2	22-DEC-2009 11:43	935422	10-987		5.0	MS	USE

Instrument Batch: /chem/fid7.i/122109dr

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
036f3601.d	1202001584	KXR2	22-DEC-2009 12:20	935422	10-987		5.0	MSD	USE
037f3701.d	243275005	KXR2	22-DEC-2009 12:57	935422	10-987		100.0	LANL	USE
038f3801.d	243275006	KXR2	22-DEC-2009 13:34	935422	10-987		100.0	LANL	USE
039f3901.d	UFI091203-02 D6	KXR2	22-DEC-2009 14:12		SDGa21099		1.0		PASSES
040f4001.d	WFI091130-06 B7	KXR2	22-DEC-2009 14:49		SDGa21099		1.0		CLEAN

Prep Logbook

Extraction of Semivolatile and Nonvolatile Organic Compounds from Soil, Sludge, and Other Miscellaneous Solid Samples

Batch ID: 934475 **Verified by:** _____

Analyst: Alberto Velasco

Method: SW846 3550B

Lab SOP: GL-OA-E-010 REV# 18

Instrument: Semi-Volatiles Manual

Sample ID	Run Date	Aliquot (g)	Prepped Aliquot (mL)	Prepped Factor (mL/g)
1201999297 MB	18-DEC-2009 19:50:00	30	1	0.03333
1201999298 LCS	18-DEC-2009 19:50:00	30	1	0.03333
243007002	18-DEC-2009 19:50:00	30.17	1	0.03315
243033001	18-DEC-2009 19:50:00	30.09	1	0.03323
1201999299 MS (243033001)	18-DEC-2009 19:50:00	30.01	1	0.03332
1201999300 MSD (243033001)	18-DEC-2009 19:50:00	30.17	1	0.03315
243033002	18-DEC-2009 19:50:00	30.02	1	0.03331
243033003	18-DEC-2009 19:50:00	30.08	1	0.03324
243033004	18-DEC-2009 19:50:00	30.18	1	0.03313
243033005	18-DEC-2009 19:50:00	30.15	1	0.03317
243033006	18-DEC-2009 19:50:00	30.18	1	0.03313
243033007	18-DEC-2009 19:50:00	30.19	1	0.03312
243033008	18-DEC-2009 19:50:00	30.17	1	0.03315
243033009	18-DEC-2009 19:50:00	30.01	1	0.03332

Type	Sample Id	Description	Serial Number	Spike Amt	Units
LCS	1201999298	TPH DRO LCS	UE091030-08	1	mL
MS	1201999299	TPH DRO LCS	UE091030-08	1	mL
MSD	1201999300	TPH DRO LCS	UE091030-08	1	mL
SURR	All	20 ppm surrogate	WE091210-04	1	mL
REGNT	All	Methylene Chloride	1242565-D	300	mL
SOURC	All	SODIUM SULFATE	1242582	30	g

Comments:

Verified By: AJS

Final Solvent: CH2Cl2

GEL Laboratories LLC

DB-5MS .25mm

Data file : /chem/fid7.i/122109dr/009f0901.d
Lab Smp Id: 1201999299 Client Smp ID: RE03-09-14221MS
Inj Date : 21-DEC-2009 16:14
Operator : KXR2 Inst ID: fid7.i
Smp Info : |1201999299|1|
Misc Info : |FIDDRO_S|934477|FIDF|MS|
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fid7.i/122109dr/FID7a.i_b_DRO_121309.m
Meth Date : 22-Dec-2009 00:16 kev01577 Quant Type: ESTD
Cal Date : 13-DEC-2009 18:58 Cal File: 007f0701.d
Als bottle: 9 QC Sample: MS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-940.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.01000	Weigth of sample extracted (g)
M	14.77230	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (mg/L)	FINAL (mg/Kg)
$ 1 Diesel Range Organics					CAS #:
7.480- 17.855			12439185	927.107	36.2
$ 2 o-Terphenyl					CAS #: 84-15-1
13.593	13.595	-0.002	428100	16.2377	0.63

Data File: /chem/fid7.i/122109dr/009f0901.d
Date : 21-DEC-2009 16:14
Client ID: RE03-09-14221MS
Sample Info: !1201999299|1|
Volume Injected (uL): 1.0
Column phase: DB-5MS

Instrument: fid7.i
Operator: KXR2
Column diameter: 0.25

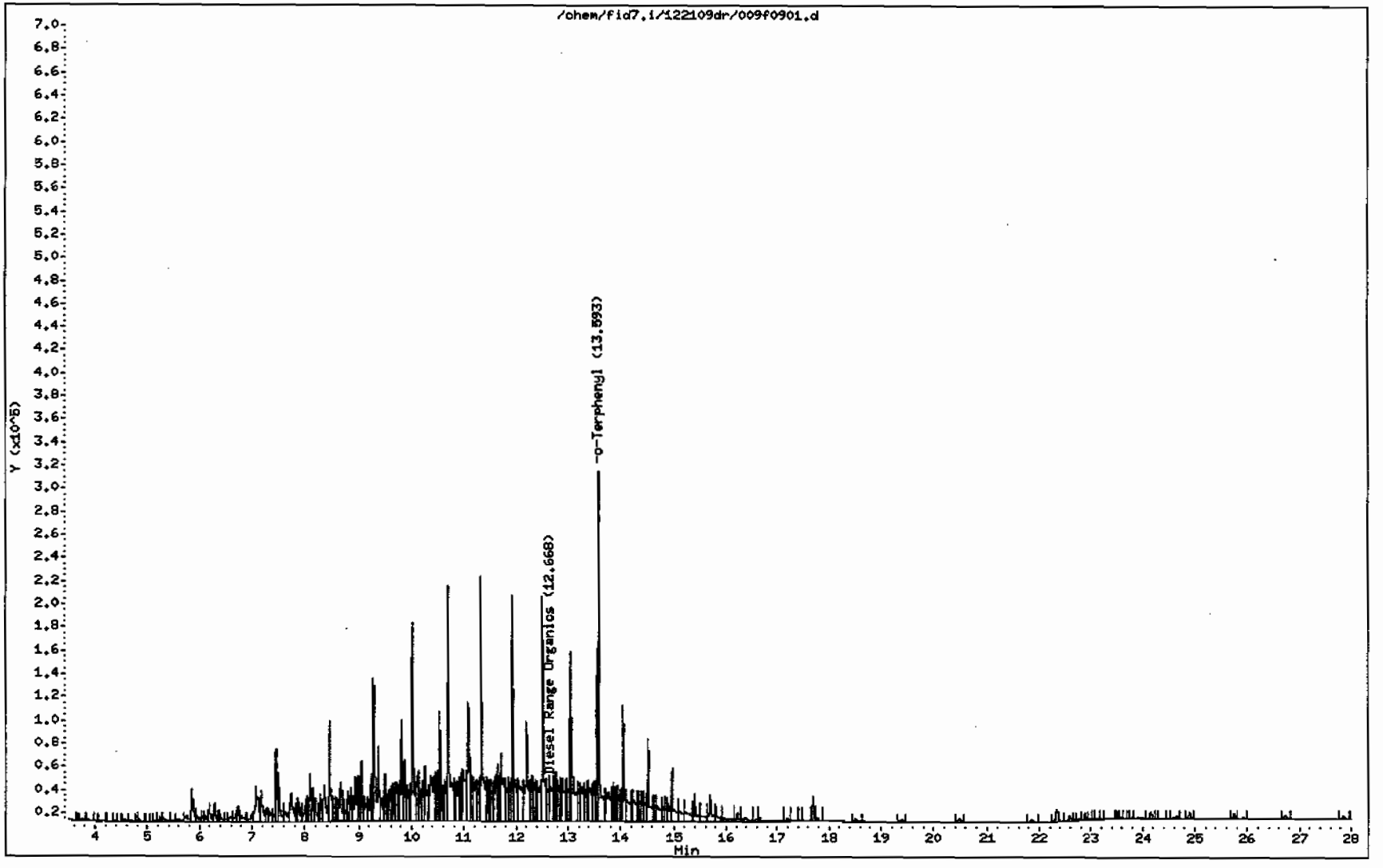

GEL Laboratories LLC

DB-5MS .25mm

Data file : /chem/fid7.i/122109dr/010f1001.d
Lab Smp Id: 1201999300 Client Smp ID: RE03-09-14221MSD
Inj Date : 21-DEC-2009 16:51
Operator : KXR2 Inst ID: fid7.i
Smp Info : |1201999300|1|
Misc Info : |FIDDRO_S|934477|FIDF|MSD|
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fid7.i/122109dr/FID7a.i_b_DRO_121309.m
Meth Date : 22-Dec-2009 00:16 kev01577 Quant Type: ESTD
Cal Date : 13-DEC-2009 18:58 Cal File: 007f0701.d
Als bottle: 10 QC Sample: MSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-940.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.17000	Weigth of sample extracted (g)
M	14.77230	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (mg/L)	FINAL (mg/Kg)
S 1 Diesel Range Organics					CAS #:
7.480- 17.855			16016324	1193.72	46.4
$ 2 o-Terphenyl					CAS #: 84-15-1
13.593	13.595	-0.002	442451	16.7821	0.65

Data File: /chem/fid7.i/122109dr/010f1001.d
Date : 21-DEC-2009 16:51
Client ID: RE03-09-14221MSD
Sample Info: |120199930011|
Volume Injected (uL): 1.0
Column phase: DB-5MS

Instrument: fid7.i

Operator: KXR2
Column diameter: 0.25

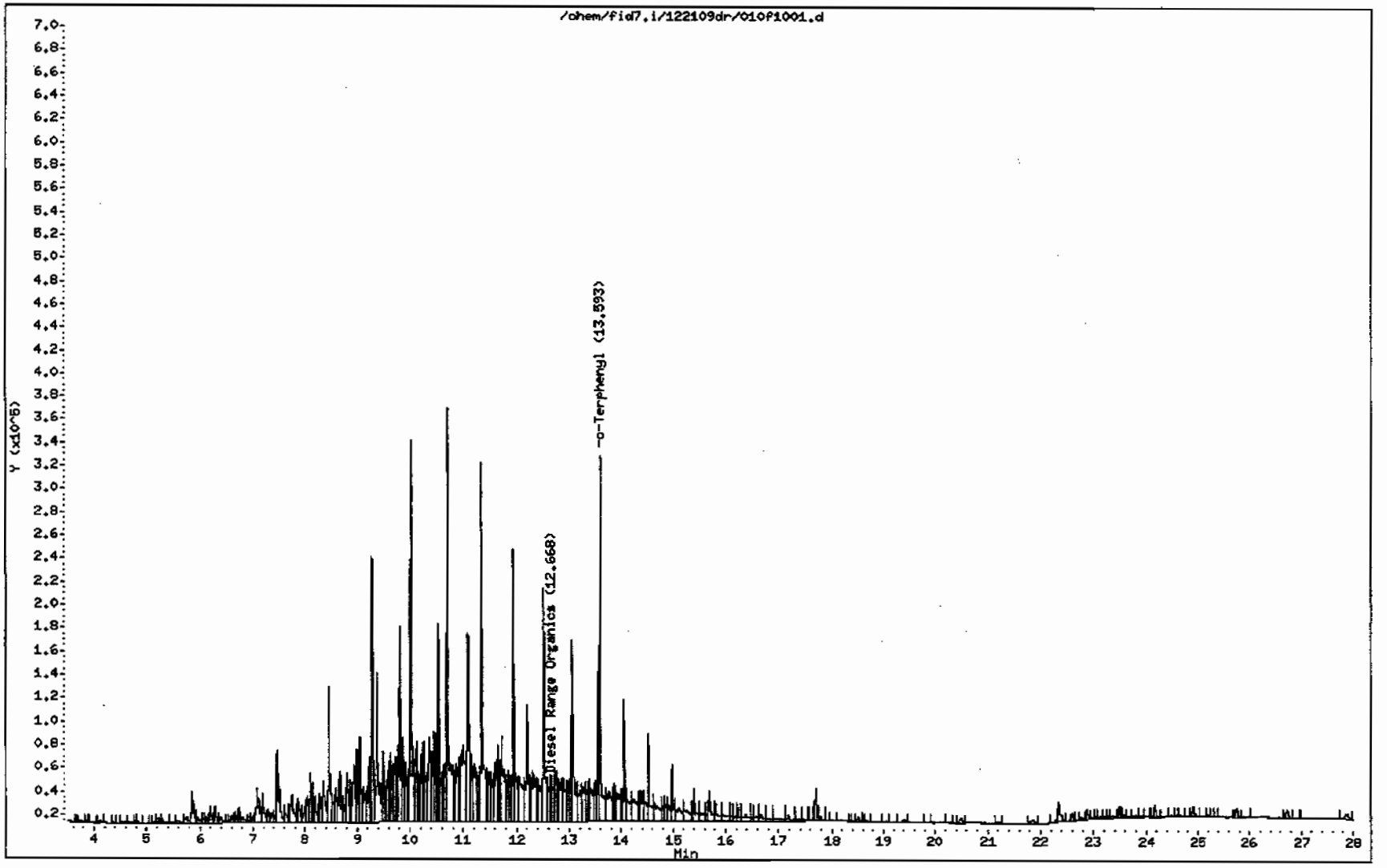

GC Volatile GRO Analysis

GC Volatile Organics
Los Alamos National Laboratory (LANL)
SDG 10-939

Method/Analysis Information

Procedure:	Volatile Total Petroleum Hydrocarbons by Flame Ionization Detector
Analytical Method:	SW846 8015B VOC
Prep Method:	SW846 8015B PREP
Analytical Batch Number:	936471
Prep Batch Number:	936470

Sample Analysis
The following client and quality control samples were analyzed to complete this sample delivery group/work order using the methods referenced in the Analysis Information section:

Sample ID	Client ID
243007002	WST03-10-2147
1202003741	Method Blank (MB)
1202003744	Laboratory Control Sample (LCS)
1202003742	243007002(WST03-10-2147) Post Spike (PS)
1202003743	243007002(WST03-10-2147) Post Spike Duplicate (PSD)

The samples in this SDG were analyzed on a "dry weight" basis.

NOTE: For volatile organic analyses the matrix spike designations may be indicated as "PS" or "PSD". The "PS" designation (post spike) indicates that the matrix was fortified prior to analysis but after applying any prep factors, such as a dilution. The laboratory considers the MS/MSD and PS/PSD designations interchangeable.

Gasoline Range Organics will be designated as GRO throughout this case narrative.

Raw data reports are processed and reviewed by the analyst using the Target software package. False positives have been removed from the Target quantitation reports per standard operating procedures (SOP) section 20.2.6.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-004 REV# 18.

Calibration Information
Due to the limited capacity of software, all of the current initial calibration files may not be displayed. If necessary, a calibration history report was inserted, prior to the appropriate Form 6, in the Standards section in the data package.

The linear equation used in Target and indicated on the initial calibration summary form is not a conventional linear equation (slope intercept formula) and does not match the equation found in SW-846 method 8000B. The x and y axes are inversed in Target, so that the instrument response is treated as the independent variable (x) and the concentration ratio is treated as the dependent variable (y). The equation used in Target to calculate sample results is adjusted to account for the linear equation inversion and reciprocal slope. The adjusted calculation has been independently verified to produce valid results.

Initial Calibration
All initial calibration requirements have been met for this sample delivery group (SDG).

CCV Requirements
All associated calibration verification standard(s) (ICV or CCV) met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB(s) analyzed with this SDG met the acceptance criteria.

Surrogate Recoveries
Surrogate recoveries, in all samples and quality control samples, were within the acceptance limits.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

QC Sample Designation
Sample 243007002 (WST03-10-2147) was selected for analysis as the matrix spike.

Matrix Spike (PS) Recovery Statement
The GRO recovery was within the acceptance limits.

Matrix Spike Duplicate (PSD) Recovery Statement
The GRO recovery was within the acceptance limits.

Relative Percent Difference (RPD) Statement
The RPD between the matrix spike pair met the acceptance limits.

Technical Information

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the ALPHALIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-extraction/Re-analysis
Re-extractions or re-analyses were not required in this SDG.

Miscellaneous Information

Electronic Package Comment
The following package was generated using an electronic data processing program referred to as "virtual packaging". In an effort to increase quality and efficiency, the laboratory is developing systems to eventually generate all data packages electronically. The following change from "traditional" packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. An electronic signature page inserted after the case narrative of each electronic package will indicate the analyst, reviewer, and report specialist names associated with the generation of the data and package. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Nonconformance (NCR) Documentation
A NCR was not required for this sample delivery group/work order.

Manual Integrations
Data files associated with the initial calibration, continuing calibration check(s), and samples may have been manually integrated to correct misidentification of peaks by the integration software.

Additional Comments
Additional comments were not required for this SDG.

System Configuration
The GRO Organics analysis was performed on the following instrument configuration:

Instrument ID	Instrument	System Configuration	Column ID	Column Description	P & T Trap
VOC4A.I	Agilent 6890N FID	HP6890N GC/FID	DB-624	0.53mm x 3.0u x 15m	Tekmar #1

Certification Statement
Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis Report
for

LANL010 Los Alamos National Laboratory (72733-001-09)

Client SDG: 10-987 GEL Work Order: 243275

The Qualifiers in this report are defined as follows:

* A quality control analyte recovery is outside of specified acceptance criteria

** Analyte is a surrogate compound

J Value is estimated

U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

Review/Validation

GEL requires all analytical data to be verified by a qualified data reviewer. In addition, all CLP-like deliverables receive a third level review of the fractional data package.

The following data validator verified the information presented in this case narrative:

Signature: Erin Haubert **Name: Erin Haubert**

Date: 28 DEC 2009 **Title: Data Validator**

Roadmap for LANL 10-939 GRO

This roadmap was analyzed by acj on 12-28-2009, 13:45.
This roadmap was reviewed by ehl on 12-28-2009, 13:55.

Sample

exclude	manual	datafile	smpid	injdate	injtime	sublist	clientid	dilution	comment
☐	N	/chem/voc4a.i/122309/4q300006.d	243007002	23-DEC-2009	23:43	GRO.sub	WST03-10-2147	1	

QC Sample

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	comment
☐	N	/chem/voc4a.i/122309/4q300011.d	1202003742	ms	24-DEC-2009	02:12	GRO.sub	WST03-10-2147MS	1	
☐	N	/chem/voc4a.i/122309/4q300012.d	1202003743	msd	24-DEC-2009	02:42	GRO.sub	WST03-10-2147MSD	1	
☐	Y	/chem/voc4a.i/122309/4q300003l.d	1202003744	lcs	23-DEC-2009	21:57	GRO.sub	LCS	1.00000	
☐	Y	/chem/voc4a.i/122309/4q300004b.d	1202003741	mb	23-DEC-2009	22:27	GRO.sub	BLANK	1.00000	

Sample Data Summary

GC Volatiles (GRO)
Certificate of Analysis
Sample Summary

SDG Number:	10-939	**Date Collected:**	12/14/2009 12:00	**Matrix:**	R
Lab Sample ID:	243007002	**Date Received:**	12/16/2009 09:10	**%Moisture:**	13.5
		Client:	LANL010	**Project:**	LANL01004
Client ID:	WST03-10-2147	**Method:**	SW846 8015A/B VOC	**SOP Ref:**	GL-OA-E-004
Batch ID:	936471	**Inst:**	VOC4A.I	**Dilution:**	1
Run Date:	12/23/2009 23:43	**Analyst:**	ACJ	**Aliquot:**	5 mL
Prep Date:	12/23/2009 21:59	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	4q300006.d	**Column:**	Rtx-Volatiles	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
TPH-GRO	Gasoline Range Organics	J	15.7	ug/kg	12.9	57.8

QC Summary

GC Volatiles (GRO)

Surrogate Recovery Report

SDG Number: 10-939

Matrix Type: SOLID

CAP Column (1) : Rtx-Volatiles

Sample ID	Client ID	BFB %REC
1202003744	LCS for batch 936470	98
1202003741	MB for batch 936470	92
243007002	WST03-10-2147	85
1202003742	WST03-10-2147PS	66
1202003743	WST03-10-2147PSD	76

Surrogate	Acceptance Limits
BFB = Bromofluorobenzene	(26%-143%)

* Recovery outside Acceptance Limits
# Column to be used to flag recovery values
D Sample Diluted

GC Volatiles (GRO)

Quality Control Summary

Spike Recovery Report

SDG Number:	**10-939**	**Sample Type:**	**Post Spike**	
Client ID:	**WST03-10-2147PS**	**Matrix:**	**R**	
Lab Sample ID:	**1202003742**	**%Moisture:**	**13.5**	
Instrument:	**VOC4A.I**	**Analysis Date:**	**12/24/2009 02:12**	**Dilution: 1**
Analyst:	**ACJ**	**Prep Batch ID:**	**936470**	
Aliquot:	**5 mL**	**Batch ID:**	**936471**	

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
PS	Gasoline Range Organics	500	13.5	J	433	84	5-138

GC Volatiles (GRO)

Quality Control Summary

Spike Recovery Report

SDG Number:	10-939	Sample Type:	Post Spike Duplicate	
Client ID:	WST03-10-2147PSD	Matrix:	R	
Lab Sample ID:	1202003743	%Moisture:	13.5	
Instrument:	VOC4A.I	Analysis Date:	12/24/2009 02:42	Dilution: 1
Analyst:	ACJ	Prep Batch ID:	936470	
Aliquot:	5 mL	Batch ID:	936471	

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
	PSD	Gasoline Range Organics	500	13.5	J	448	87	5-138	3	0-30

GC Volatiles (GRO)

Quality Control Summary

Spike Recovery Report

SDG Number: 10-939

Client ID: LCS for batch 936470

Lab Sample ID: 1202003744

Instrument: VOC4A.I

Analyst: ACJ

Aliquot: 5 mL

Sample Type: Laboratory Control Sample

Matrix: SOIL

Analysis Date: 12/23/2009 21:57

Dilution: 1

Prep Batch ID: 936470

Batch ID: 936471

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
LCS	Gasoline Range Organics	500	0.0	501	100	85-123

Method Blank Summary

SDG Number:	10-939	Client:	LANL010	Matrix:	SOIL
Client ID:	MB for batch 936470	Instrument ID:	VOC4A.I	Data File:	4q300004b.d
Lab Sample ID:	1202003741	Prep Date:	12/23/2009 20:00	Analyzed:	12/23/09 22:27
Column:	Rtx-Volatiles	Heated Purge:	Yes		

This method blank applies to the following samples and quality control samples:

	Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01	LCS for batch 936470	1202003744	4q300003l.d	12/23/09	2157
02	WST03-10-2147	243007002	4q300006.d	12/23/09	2343
03	WST03-10-2147PS	1202003742	4q300011.d	12/24/09	0212
04	WST03-10-2147PSD	1202003743	4q300012.d	12/24/09	0242

Sample Data

GC Volatiles (GRO)
Certificate of Analysis
Sample Summary

SDG Number:	10-939	**Date Collected:**	12/14/2009 12:00	**Matrix:**	R
Lab Sample ID:	243007002	**Date Received:**	12/16/2009 09:10	**%Moisture:**	13.5
		Client:	LANL010	**Project:**	LANL01004
Client ID:	WST03-10-2147	**Method:**	SW846 8015A/B VOC	**SOP Ref:**	GL-OA-E-004
Batch ID:	936471	**Inst:**	VOC4A.I	**Dilution:**	1
Run Date:	12/23/2009 23:43	**Analyst:**	ACJ	**Aliquot:**	5 mL
Prep Date:	12/23/2009 21:59	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	4q300006.d	**Column:**	Rtx-Volatiles	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
TPH-GRO	Gasoline Range Organics	J	15.7	ug/kg	12.9	57.8

GEL Laboratories LLC

SW-846 3rd edition 8015 Modified

Data file : /chem/voc4a.i/122309/4q300006.d
Lab Smp Id: 243007002 Client Smp ID: WST03-10-2147
Inj Date : 23-DEC-2009 23:43
Operator : ACJ Inst ID: voc4a.i
Smp Info : |243007002|1|
Misc Info : |VOC8015_LF|936471|GROF|
Comment : FID
Method : /chem/voc4a.i/122309/8015GRO-120709.m
Meth Date : 24-Dec-2009 11:50 amj Quant Type: ESTD
Cal Date : 07-DEC-2009 19:47 Cal File: 4o100008.d
Als bottle: 6
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: GRO.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * (100/(100-M)*(Vt/Ws))*Uf * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	13.49180	% Moisture
Vt	5.00000	Purge Volume (mL)
Ws	5.00000	Weight of sample (g)
Uf	1.00000	Unit Correction Factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	
S 1 Gasoline Range Organics					CAS #:	
2.867- 10.941			13854220	13.5399	15.6	(a)
$ 3 Bromofluorobenzene					CAS #: 460-00-4	
9.512	9.508	0.004	34137005	42.5393	49.2	

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

Data File: /chem/voc4a.i/122309/4q300006.d
Date : 23-DEC-2009 23:43
Client ID: WST03-10-2147
Sample Info: |2430070021|1|

Column phase: Rtx-Volatiles

Instrument: voc4a.i

Operator: ACJ
Column diameter: 0.25

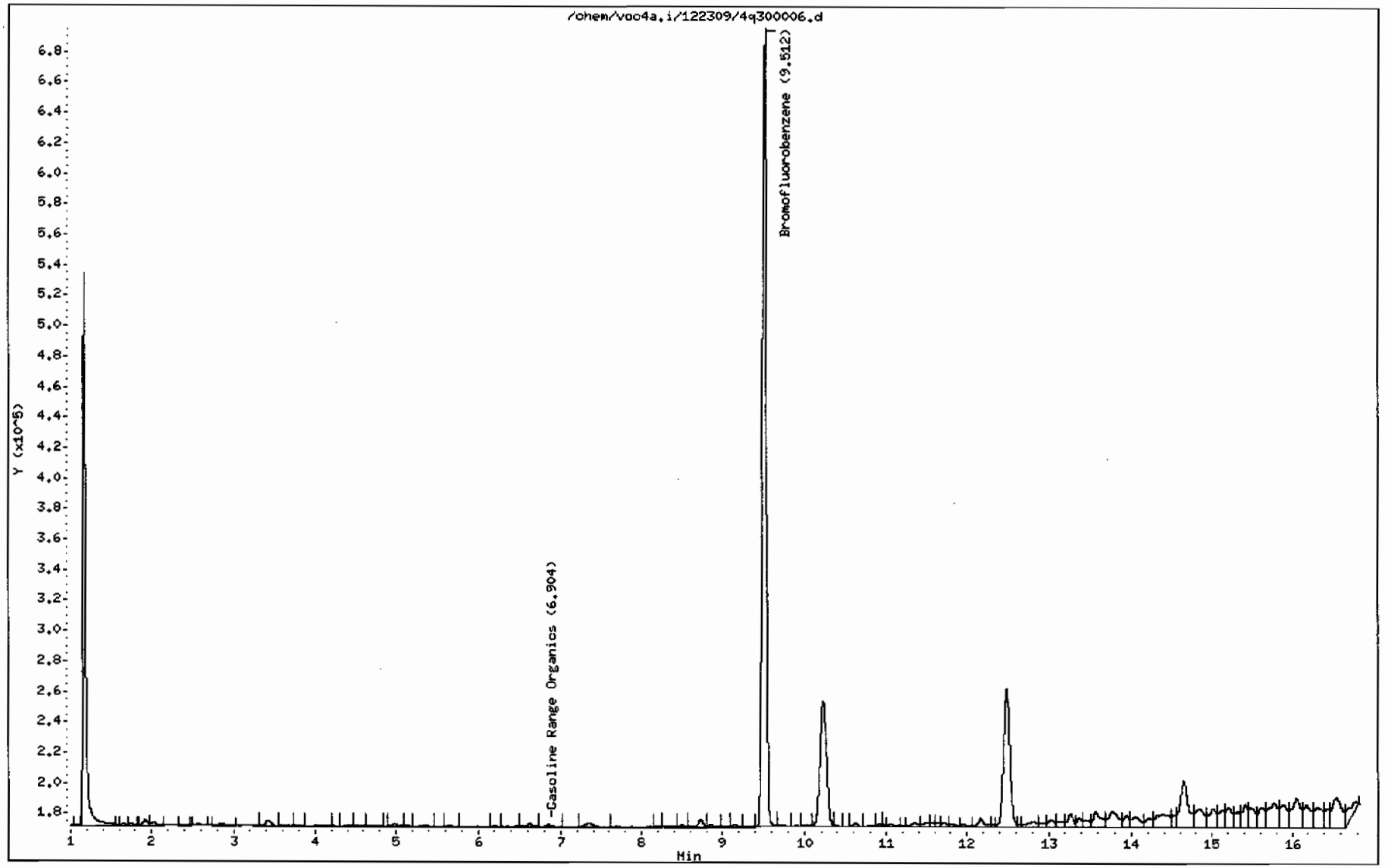

Standard Data

Report Date: 28-Dec-2009 12:37

Calibration History

Method : /chem/voc4a.i/122309/8015GRO-120709.m
Start Cal Date: 07-DEC-2009 16:47
End Cal Date : 07-DEC-2009 19:47

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 50.00000		
07-DEC-2009 16:47	GRO	/chem/voc4a.i/120709/4o100002.d
Cal Level: 2 , Cal Amount: 100.00000		
07-DEC-2009 17:17	GRO	/chem/voc4a.i/120709/4o100003.d
Cal Level: 3 , Cal Amount: 250.00000		
07-DEC-2009 17:48	GRO	/chem/voc4a.i/120709/4o100004.d
Cal Level: 4 , Cal Amount: 500.00000		
07-DEC-2009 18:18	GRO	/chem/voc4a.i/120709/4o100005.d
Cal Level: 5 , Cal Amount: 750.00000		
07-DEC-2009 18:48	GRO	/chem/voc4a.i/120709/4o100006.d
Cal Level: 6 , Cal Amount: 1000.00000		
07-DEC-2009 19:17	GRO	/chem/voc4a.i/120709/4o100007.d
Cal Level: 7 , Cal Amount: 2000.00000		
07-DEC-2009 19:47	GRO	/chem/voc4a.i/120709/4o100008.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 500		
24-DEC-2009 03:12	GRO	/chem/voc4a.i/122309/4q300013.d
Ccal Level: 4 , Ccal Amount: 500		
23-DEC-2009 21:27	GRO	/chem/voc4a.i/122309/4q300002.d

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 07-DEC-2009 16:47
End Cal Date : 07-DEC-2009 19:47
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem/voc4a.i/122309/8015GRO-120709.m
Cal Date : 24-Dec-2009 11:50 amj
Curve Type : Average

Calibration File Names:
Level 1: /chem/voc4a.i/120709/4o100002.d
Level 2: /chem/voc4a.i/120709/4o100003.d
Level 3: /chem/voc4a.i/120709/4o100004.d
Level 4: /chem/voc4a.i/120709/4o100005.d
Level 5: /chem/voc4a.i/120709/4o100006.d
Level 6: /chem/voc4a.i/120709/4o100007.d
Level 7: /chem/voc4a.i/120709/4o100008.d

Compound	50.000 Level 1 / 2000.000 Level 7	100.000 Level 2	250.000 Level 3	500.000 Level 4	750.000 Level 5	1000.000 Level 6	RRF	% RSD
S 1 Gasoline Range Organics	1082682 / 1057684	1001230	981010	1065173	1033194	941533	1023215	4.971
2 2-Methylpentane	+++++ / +++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
4 1,2,4-Trimethylbenzene	+++++ / +++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
$ 3 Bromofluorobenzene	+++++ / 777588	857128	835052	792622	785837	766662	802481	4.432

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: voc4a.i
Lab File ID: 4o100010.d
Analysis Type: WATER
Lab Sample ID: GROICV
Method: /chem/voc4a.i/120709/8015GRO-120709.m

Injection Date: 07-DEC-2009 20:47
Init. Cal. Date(s): 07-DEC-2009 07-DEC-2009
Init. Cal. Times: 16:47 19:47
Quant Type: ESTD

COMPOUND	RRF / AMOUNT	RF500	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
S 1 Gasoline Range Organics	1023215	1052132	0.010	2.82609	15.00000	Averaged
$ 3 Bromofluorobenzene	802481	794937	0.010	-0.94007	15.00000	Averaged

GEL Laboratories LLC

SW-846 3rd edition 8015 Modified

Data file : /chem/voc4a.i/120709/4o100010.d
Lab Smp Id: GROICV Client Smp ID: SECOND SOURCE
Inj Date : 07-DEC-2009 20:47
Operator : ACJ Inst ID: voc4a.i
Smp Info : |GROICV|
Misc Info : |VOC8015_LF|-----|GROF|
Comment : FID
Method : /chem/voc4a.i/120709/8015GRO-120709.m
Meth Date : 07-Dec-2009 21:00 amj Quant Type: ESTD
Cal Date : 07-DEC-2009 19:47 Cal File: 4o100008.d
Als bottle: 10 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: GRO.sub
Target Version: 3.50 Sample Matrix: WATER
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (Vt/Vo)*Uf * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	5.00000	Purge Volume
Vo	5.00000	Initial sample volume
Uf	1.00000	Unit Correction Factor

Cpnd Variable Local Compound Variable

	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	
S	1 Gasoline Range Organics						CAS #:
	2.859-	10.941		526065994	500.000		514
$	3 Bromofluorobenzene						CAS #: 460-00-4
	9.510	9.507	0.003	39746867	50.0000		49.5

Data File: /chem/voc4a.i/120709/4o100010.d

Date : 07-DEC-2009 20:47

Client ID: SECOND SOURCE

Sample Info: |GROICV|

Purge Volume: 5.0

Column phase: Rtx-Volatiles

Instrument: voc4a.i

Operator: ACJ

Column diameter: 0.25

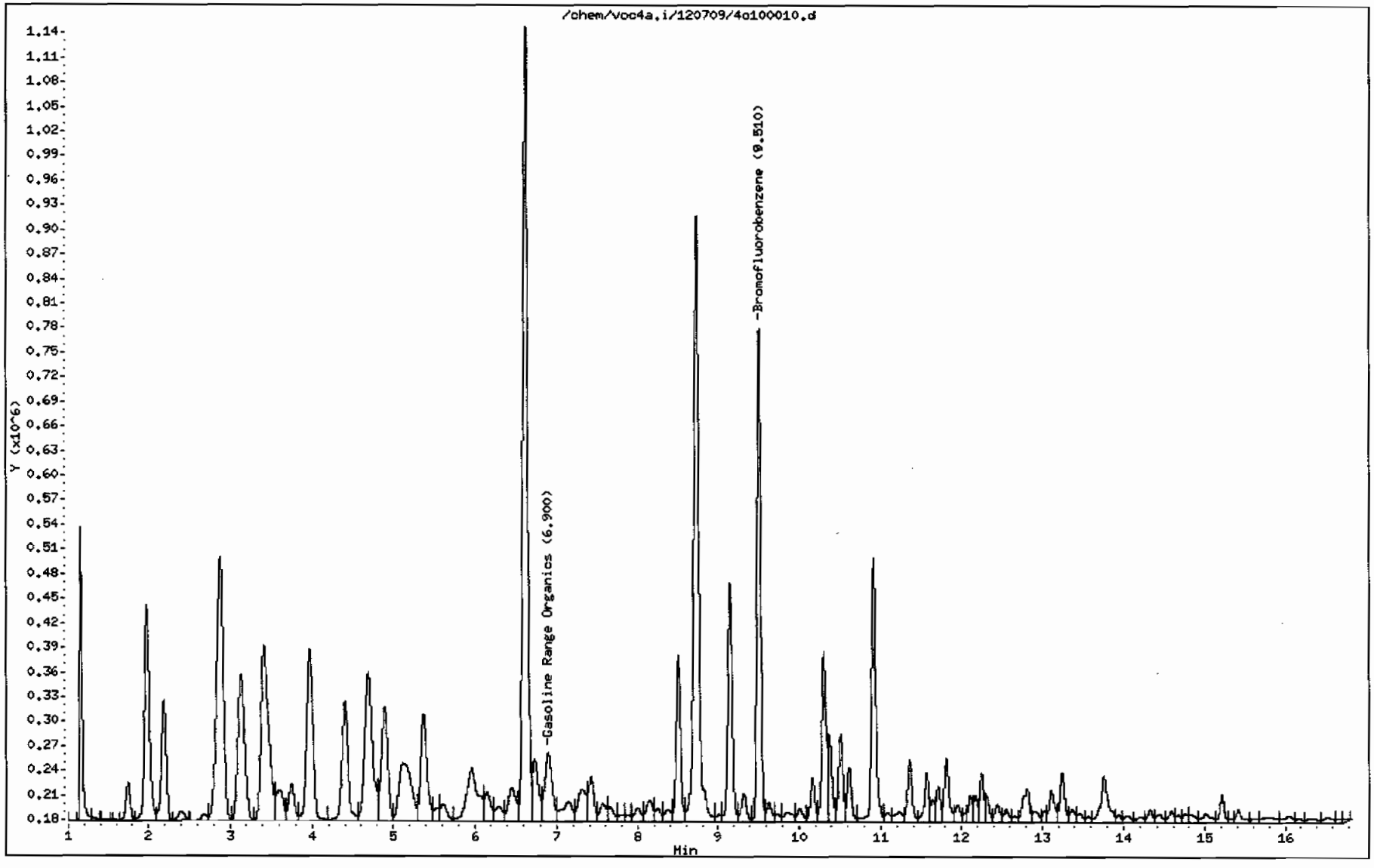

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COMPOUND LISTING

Method file : /chem/voc4a.i/122309/8015GRO-120709.m
Quant Method : ESTD Target Version : 3.50
Last Update : 24-Dec-2009 11:50 Number of Cpnds : 4
Data Type : GC DATA

Global Integrator : HP Genie

Chromat Events	Values
Initial:Thresh Units	1.000000
Initial:Peak Width	0.050000
Initial:Area Reject	50000.000000
Initial:Solvent Slope	500000.000000
Initial:Split Solvent	2000.000000
2.500:Baseline Now	n/a

		Compound	RT	RT Window	RF
S	1	Gasoline Range Organics	6.904	2.867-10.941	1.023e+06
	2	2-Methylpentane	2.897	2.867-2.927	
$	3	Bromofluorobenzene	9.508	9.478-9.538	8.025e+05
	4	1,2,4-Trimethylbenzene	10.911	10.881-10.941	

GEL Laboratories LLC

SW-846 3rd edition 8015 Modified

Data file : /chem/voc4a.i/122309/4q300001.d
Lab Smp Id: WVG091223-01 Client Smp ID: RT_CHECK
Inj Date : 23-DEC-2009 20:57
Operator : ACJ Inst ID: voc4a.i
Smp Info : |WVG091223-01|
Misc Info : |VOC8015_LF|-----|GROF|
Comment : FID
Method : /chem/voc4a.i/122309/8015GRO-120709.m
Meth Date : 24-Dec-2009 11:50 amj Quant Type: ESTD
Cal Date : 07-DEC-2009 19:47 Cal File: 4o100008.d
Als bottle: 1 QC Sample: RT_CHECK
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: Range.sub
Target Version: 3.50 Sample Matrix: WATER

Concentration Formula: Amt * DF * (Vt/Vo)*Uf * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	5.00000	Purge Volume
Vo	5.00000	Initial sample volume
Uf	1.00000	Unit Correction Factor

Cpnd Variable Local Compound Variable

	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	
	2 2-Methylpentane					CAS #:	
	2.897	2.897	0.000	73056114			(a)
$	3 Bromofluorobenzene					CAS #: 460-00-4	
	9.508	9.508	0.000	36944281	46.0376	46.0	
	4 1,2,4-Trimethylbenzene					CAS #:	
	10.911	10.911	0.000	76929811			(a)

QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).

Data File: /chem/voc4a.i/122309/4q300001.d
Date : 23-DEC-2009 20:57
Client ID: RT_CHECK
Sample Info: IWVC091223-01I
Purge Volume: 5.0
Column phase: Rtx-Volatiles

Instrument: voc4a.i
Operator: ACJ
Column diameter: 0.25

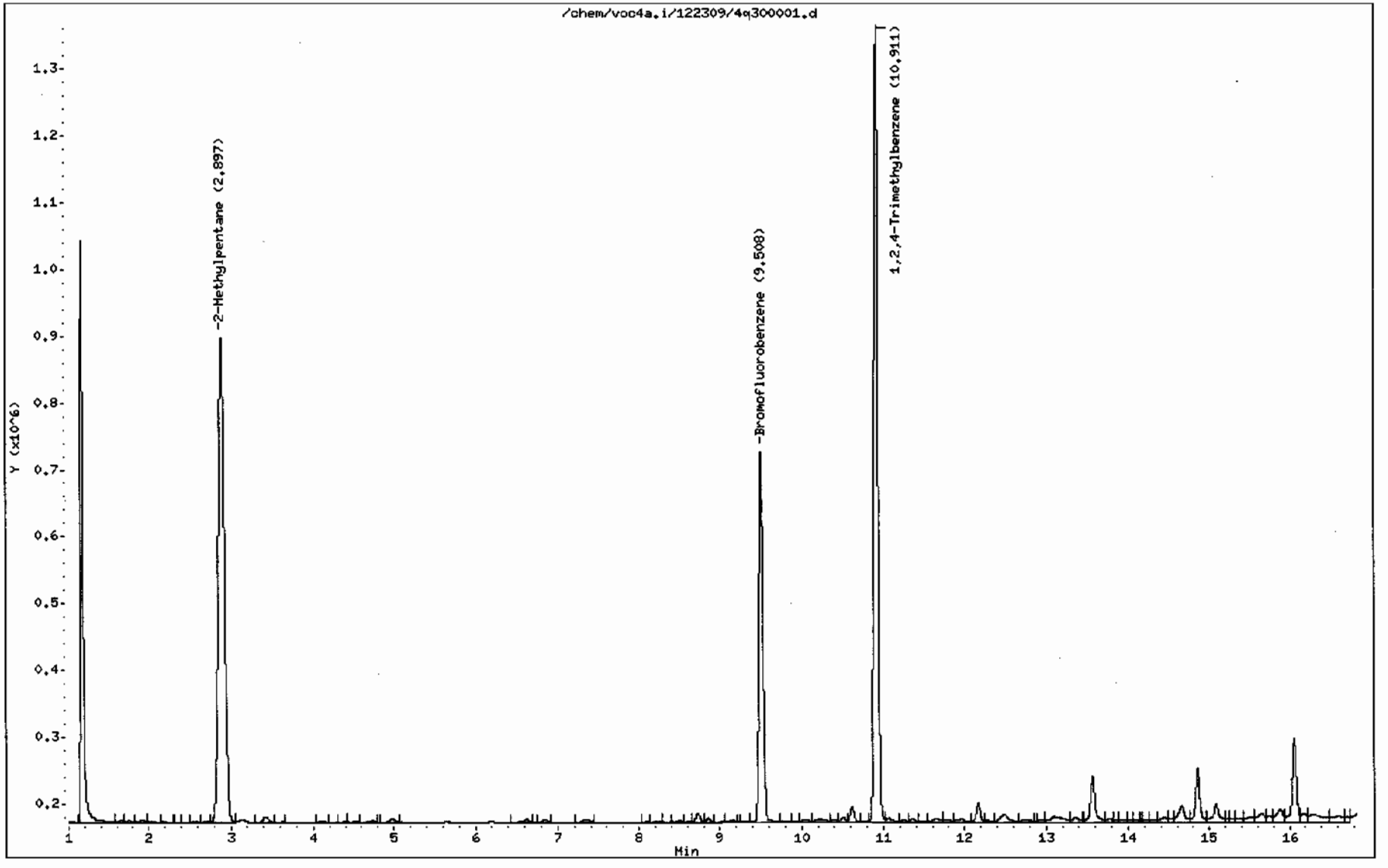

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: voc4a.i
Lab File ID: 4q300002.d
Analysis Type: WATER
Lab Sample ID: GROCCV
Method: /chem/voc4a.i/122309/8015GRO-120709.m

Injection Date: 23-DEC-2009 21:27
Init. Cal. Date(s): 07-DEC-2009 07-DEC-2009
Init. Cal. Times: 16:47 19:47
Quant Type: ESTD

COMPOUND	RRF / AMOUNT	RF500	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
S 1 Gasoline Range Organics	1023215	1072408	0.010	4.80770	15.00000	Averaged
$ 3 Bromofluorobenzene	802481	801529	0.010	-0.11862	15.00000	Averaged

GEL Laboratories LLC

SW-846 3rd edition 8015 Modified

Data file : /chem/voc4a.i/122309/4q300002.d
Lab Smp Id: GROCCV Client Smp ID: VSTD0500
Inj Date : 23-DEC-2009 21:27
Operator : ACJ Inst ID: voc4a.i
Smp Info : |GROCCV|
Misc Info : |VOC8015_LF|-----|GROF|
Comment : FID
Method : /chem/voc4a.i/122309/8015GRO-120709.m
Meth Date : 24-Dec-2009 11:50 amj Quant Type: ESTD
Cal Date : 07-DEC-2009 19:47 Cal File: 4o100008.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: GRO.sub
Target Version: 3.50 Sample Matrix: WATER

Concentration Formula: Amt * DF * (Vt/Vo)*Uf * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	5.00000	Purge Volume
Vo	5.00000	Initial sample volume
Uf	1.00000	Unit Correction Factor

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
S 1 Gasoline Range Organics					CAS #:
2.867- 10.941			536204086	500.000	524
$ 3 Bromofluorobenzene					CAS #: 460-00-4
9.511	9.508	0.003	40076468	50.0000	49.9

Data File: /chem/voc4a.i/122309/4q300002.d
Date : 23-DEC-2009 21:27
Client ID: VSTD0500
Sample Info: IGROCCVI
Purge Volume: 5.0
Column phase: Rtx-Volatiles

Instrument: voc4a.i
Operator: ACJ
Column diameter: 0.25

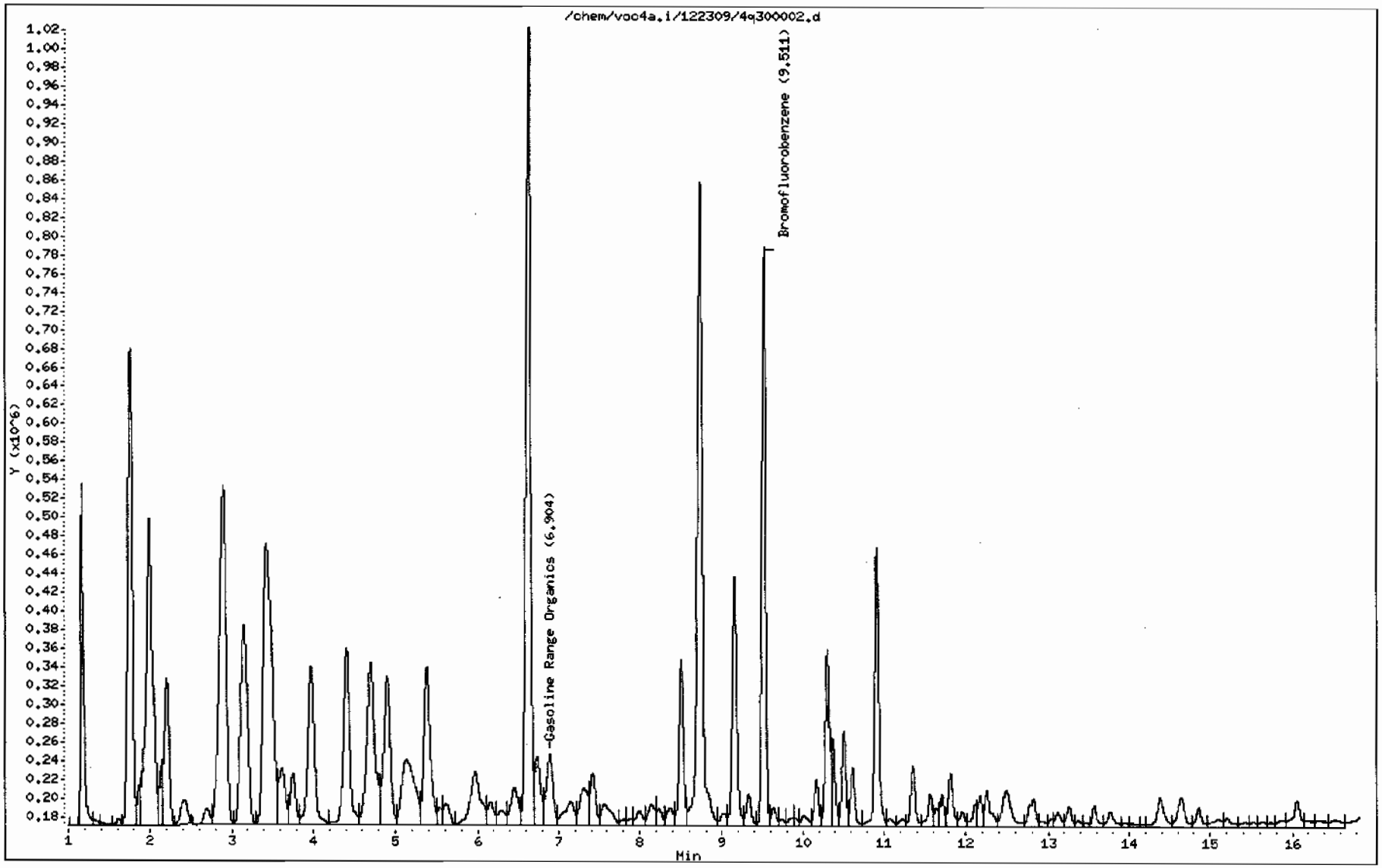

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: voc4a.i
Lab File ID: 4q300013.d
Analysis Type: WATER
Lab Sample ID: GROCCV
Method: /chem/voc4a.i/122309/8015GRO-120709.m

Injection Date: 24-DEC-2009 03:12
Init. Cal. Date(s): 07-DEC-2009 07-DEC-2009
Init. Cal. Times: 16:47 19:47
Quant Type: ESTD

COMPOUND	RRF / AMOUNT	RF500	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
S 1 Gasoline Range Organics	1023215	1081797	0.010	5.72525	15.00000	Averaged
$ 3 Bromofluorobenzene	802481	748632	0.010	-6.71033	15.00000	Averaged

GEL Laboratories LLC

SW-846 3rd edition 8015 Modified

Data file : /chem/voc4a.i/122309/4q300013.d
Lab Smp Id: GROCCV Client Smp ID: VSTD0500
Inj Date : 24-DEC-2009 03:12
Operator : ACJ Inst ID: voc4a.i
Smp Info : |GROCCV|
Misc Info : |VOC8015_LF|-----|GROF|
Comment : FID
Method : /chem/voc4a.i/122309/8015GRO-120709.m
Meth Date : 24-Dec-2009 11:50 amj Quant Type: ESTD
Cal Date : 07-DEC-2009 19:47 Cal File: 4o100008.d
Als bottle: 13 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: GRO.sub
Target Version: 3.50 Sample Matrix: WATER

Concentration Formula: Amt * DF * (Vt/Vo)*Uf * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	5.00000	Purge Volume
Vo	5.00000	Initial sample volume
Uf	1.00000	Unit Correction Factor

Cpnd Variable Local Compound Variable

	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
S 1 Gasoline Range Organics						CAS #:
	2.867-	10.941		540898314	500.000	529
$ 3 Bromofluorobenzene						CAS #: 460-00-4
	9.510	9.508	0.002	37431605	50.0000	46.6

Data File: /chem/voc4a.i/122309/4q300013.d

Date : 24-DEC-2009 03:12

Client ID: VSTD0500

Sample Info: (GROCCV)

Purge Volume: 5.0

Column phase: Rtx-Volatiles

Instrument: voc4a.i

Operator: ACJ

Column diameter: 0.25

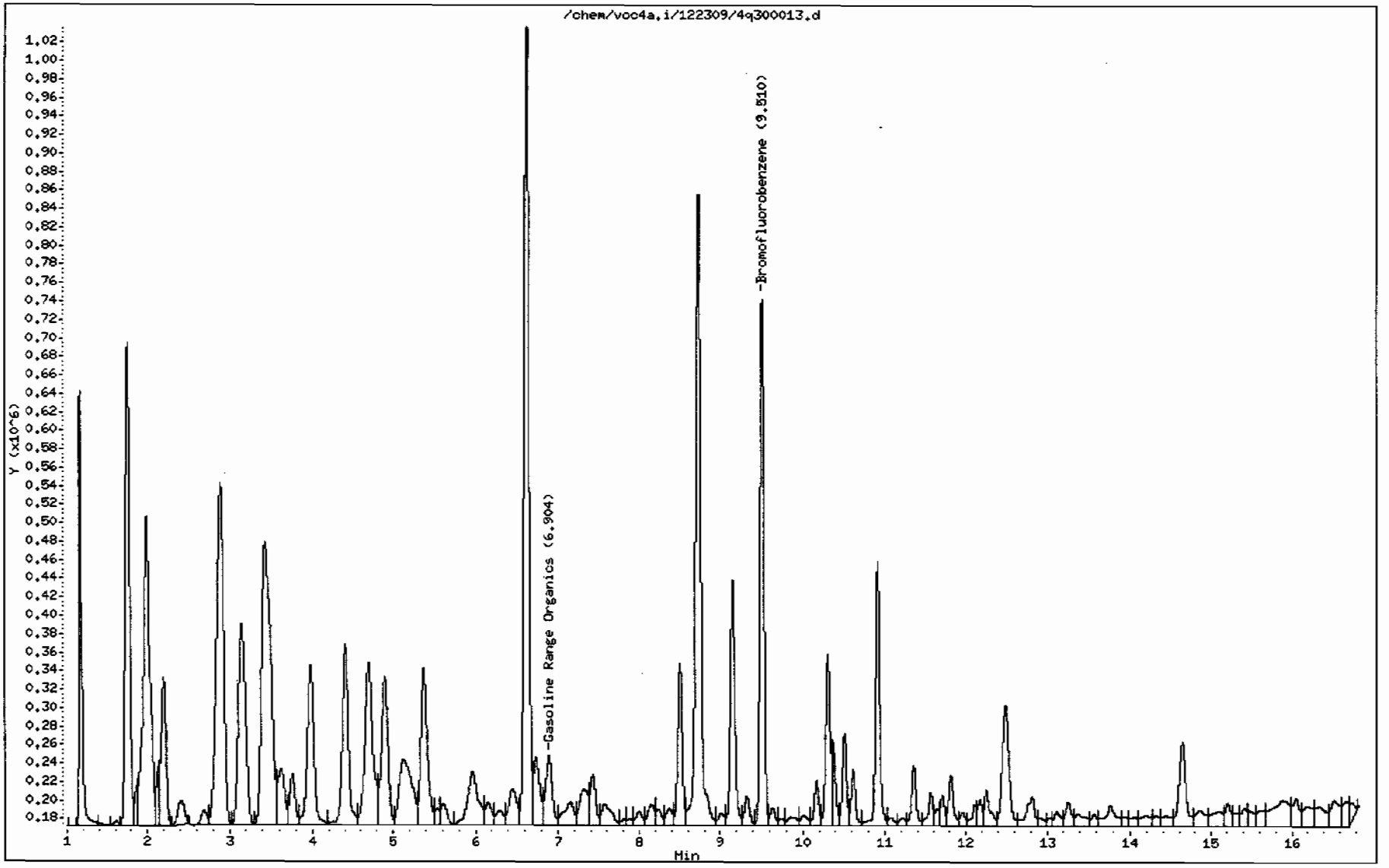

Analytical Sequence

Lab Name: GEL Laboratories LLC **Client SDG:** 10-939

GC Column: Rtx-Volatiles **Init. Calibration Dates:** 07-DEC-09 16:47 - 07-DEC-09 19:47

Instrument ID: VOC4A.

Analytical Sequence for Performance Evaluation Mixtures, Blanks, Samples, and Standards is given below:

			Mean Surrogate RT From Initial Calibration:	9.51
			RT Range Based on Calibration Verification:	9.48 9.54 #
	Sample Number	**Lab Sample ID**	**Analysis Date**	**Bromofluorobenzene**
1	VSTD0050	VSTD0050	07-DEC-09 16:47	9.51
2	VSTD0100	VSTD0100	07-DEC-09 17:17	9.51
3	VSTD0250	VSTD0250	07-DEC-09 17:48	9.51
4	VSTD0500	VSTD0500	07-DEC-09 18:18	9.51
5	VSTD0750	VSTD0750	07-DEC-09 18:48	9.51
6	VSTD1000	VSTD1000	07-DEC-09 19:17	9.51
7	VSTD2000	VSTD2000	07-DEC-09 19:47	9.51
8	VSTD0500	GROICV	07-DEC-09 20:47	9.51

Column used to flag retention time values with an asterisk.

Analytical Sequence

Lab Name: GEL Laboratories LLC **Client SDG:** 10-939

GC Column: Rtx-Volatiles **Init. Calibration Dates:** 07-DEC-09 16:47 - 07-DEC-09 19:47

Instrument ID: VOC4A.

Analytical Sequence for Performance Evaluation Mixtures, Blanks, Samples, and Standards is given below:

			Mean Surrogate RT From Initial Calibration:	9.51
			RT Range Based on Calibration Verification:	9.48 9.54 #
	Sample Number	**Lab Sample ID**	**Analysis Date**	**Bromofluorobenzene**
1	VSTD0500	GROCCV	23-DEC-09 21:27	9.51
2	BLK01LCS	1202003744	23-DEC-09 21:57	9.51
3	BLANK	1202003741	23-DEC-09 22:27	9.51
4	ZZZZZZZ	ZZZZZZZ	23-DEC-09 23:14	9.51
5	WST03-10-2147	243007002	23-DEC-09 23:43	9.51
6	ZZZZZZZ	ZZZZZZZ	24-DEC-09 00:13	9.51
7	ZZZZZZZ	ZZZZZZZ	24-DEC-09 00:43	9.51
8	ZZZZZZZ	ZZZZZZZ	24-DEC-09 01:13	ZZZZ
9	ZZZZZZZ	ZZZZZZZ	24-DEC-09 01:43	ZZZZ
10	WST03-10-2147PS	1202003742	24-DEC-09 02:12	9.51
11	WST03-10-2147PSD	1202003743	24-DEC-09 02:42	9.51
12	VSTD0500	GROCCV	24-DEC-09 03:12	9.51

Column used to flag retention time values with an asterisk.

QC Data

GC Volatiles (GRO)
Certificate of Analysis
Sample Summary

SDG Number:	10-939			**Matrix:**	SOIL
Lab Sample ID:	1202003741				
Client Sample:	QC for batch 936470	**Client:**	LANL010	**Project:**	QC
Client ID:	MB for batch 936470	**Method:**	SW846 8015A/B VOC	**SOP Ref:**	GL-OA-E-004
Batch ID:	936471	**Inst:**	VOC4A.I	**Dilution:**	1
Run Date:	12/23/2009 22:27	**Analyst:**	ACJ	**Aliquot:**	5 mL
Prep Date:	12/23/2009 20:00	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	4q300004b.d	**Column:**	Rtx-Volatiles	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
TPH-GRO	Gasoline Range Organics	U	50.0	ug/kg	11.2	50.0

GEL Laboratories LLC

SW-846 3rd edition 8015 Modified

Data file : /chem/voc4a.i/122309/4q300004b.d
Lab Smp Id: 1202003741 Client Smp ID: BLANK
Inj Date : 23-DEC-2009 22:27
Operator : ACJ Inst ID: voc4a.i
Smp Info : |1202003741|1|
Misc Info : |VOC8015_LF|936471|GROF|
Comment : FID
Method : /chem/voc4a.i/122309/8015GRO-120709.m
Meth Date : 24-Dec-2009 11:50 amj Quant Type: ESTD
Cal Date : 07-DEC-2009 19:47 Cal File: 4o100008.d
Als bottle: 4 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: GRO.sub
Target Version: 3.50 Sample Matrix: SOIL

Concentration Formula: Amt * DF * (100/(100-M)*(Vt/Ws))*Uf * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	0.00000	% Moisture
Vt	5.00000	Purge Volume (mL)
Ws	5.00000	Weight of sample (g)
Uf	1.00000	Unit Correction Factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)
$ 3 Bromofluorobenzene					CAS #: 460-00-4
9.511	9.508	0.003	37016463	46.1275	46.1

Data File: /chem/voc4a.i/122309/4q300004b.d
Date : 23-DEC-2009 22:27
Client ID: BLANK
Sample Info: |1202003741|1|

Column phase: Rtx-Volatiles

Instrument: voc4a.i

Operator: ACJ
Column diameter: 0.25

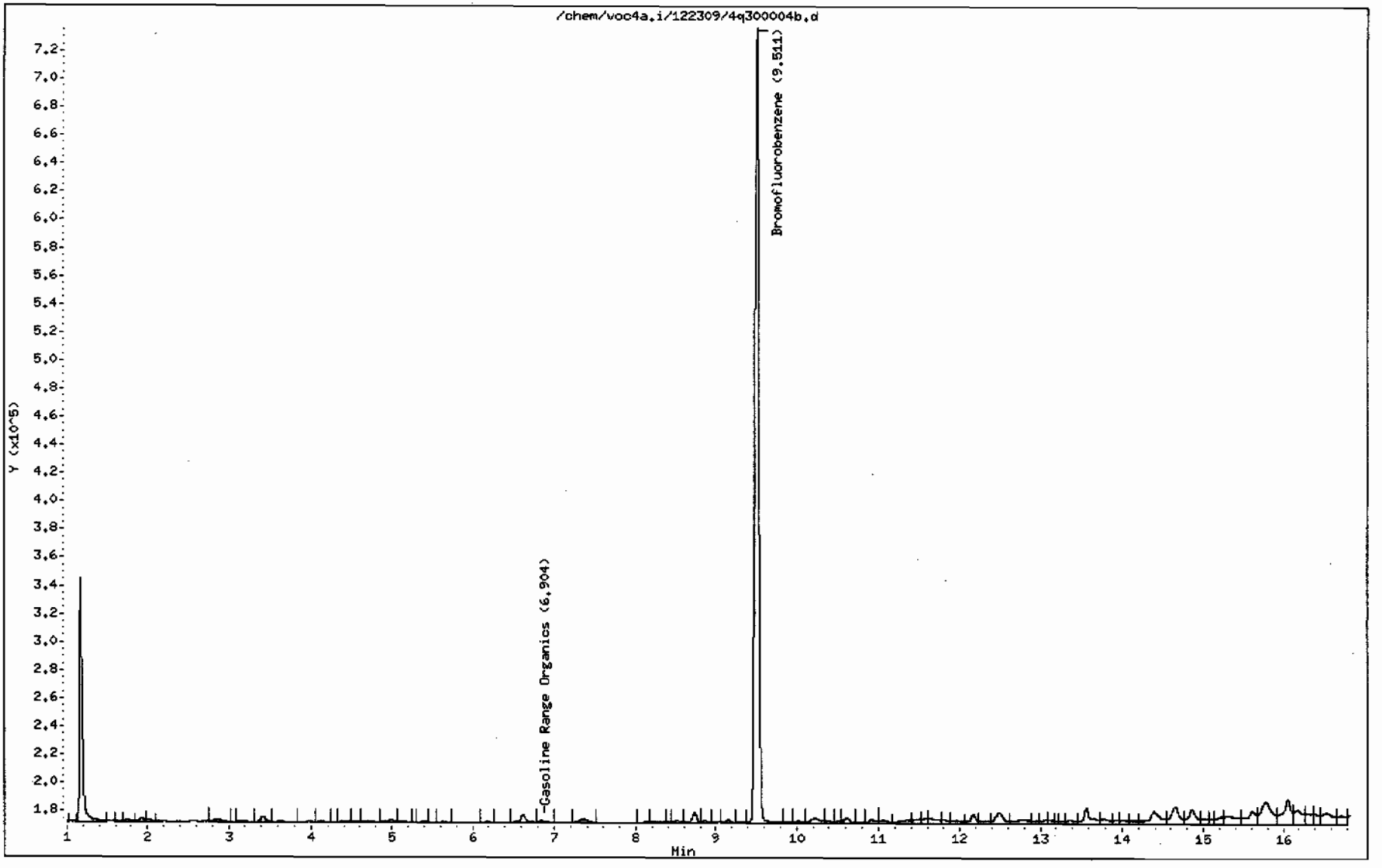

GC Volatiles (GRO)
Certificate of Analysis
Sample Summary

SDG Number:	10-939			**Matrix:**	SOIL
Lab Sample ID:	1202003744				
Client Sample:	QC for batch 936470	**Client:**	LANL010	**Project:**	QC
Client ID:	LCS for batch 936470	**Method:**	SW846 8015A/B VOC	**SOP Ref:**	GL-OA-E-004
Batch ID:	936471	**Inst:**	VOC4A.I	**Dilution:**	1
Run Date:	12/23/2009 21:57	**Analyst:**	ACJ	**Aliquot:**	5 mL
Prep Date:	12/23/2009 19:30	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	4q300003l.d	**Column:**	Rtx-Volatiles	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
TPH-GRO	Gasoline Range Organics		501	ug/kg	11.2	50.0

GEL Laboratories LLC

SW-846 3rd edition 8015 Modified

Data file : /chem/voc4a.i/122309/4q3000031.d
Lab Smp Id: 1202003744 Client Smp ID: LCS
Inj Date : 23-DEC-2009 21:57
Operator : ACJ Inst ID: voc4a.i
Smp Info : |1202003744|1|
Misc Info : |VOC8015_LF|936471|GROF|
Comment : FID
Method : /chem/voc4a.i/122309/8015GRO-120709.m
Meth Date : 24-Dec-2009 11:50 amj Quant Type: ESTD
Cal Date : 07-DEC-2009 19:47 Cal File: 4o100008.d
Als bottle: 3 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: GRO.sub
Target Version: 3.50 Sample Matrix: SOIL

Concentration Formula: Amt * DF * (100/(100-M)*(Vt/Ws))*Uf * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	0.00000	% Moisture
Vt	5.00000	Purge Volume (mL)
Ws	5.00000	Weight of sample (g)
Uf	1.00000	Unit Correction Factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)
S 1 Gasoline Range Organics					CAS #:
2.867- 10.941			513085117	501.444	501
$ 3 Bromofluorobenzene					CAS #: 460-00-4
9.511	9.508	0.003	39479977	49.1974	49.2

Data File: /chem/voc4a.i/122309/4q3000031.d

Date : 23-DEC-2009 21:57

Client ID: LCS

Sample Info: |1202003744|1|

Column phase: Rtx-Volatiles

Instrument: voc4a.i

Operator: ACJ

Column diameter: 0.25

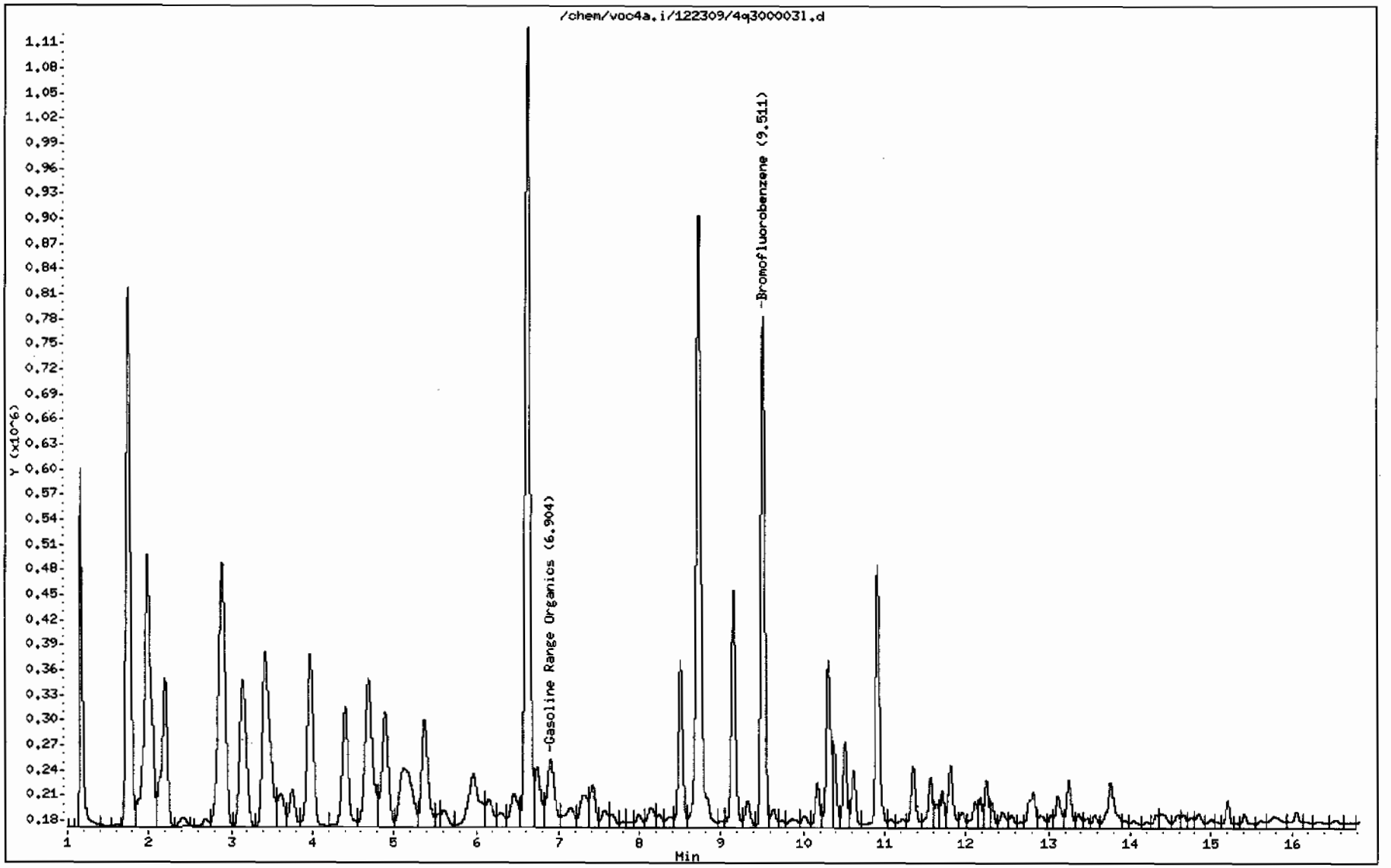

GC Volatiles (GRO)
Certificate of Analysis
Sample Summary

SDG Number:	10-939	**Date Collected:**	12/14/2009 12:00	**Matrix:**	R
Lab Sample ID:	1202003742	**Date Received:**	12/16/2009 09:10	**%Moisture:**	13.5
Client Sample:	QC for batch 936470	**Client:**	LANL010	**Project:**	QC
Client ID:	WST03-10-2147PS	**Method:**	SW846 8015A/B VOC	**SOP Ref:**	GL-OA-E-004
Batch ID:	936471	**Inst:**	VOC4A.I	**Dilution:**	1
Run Date:	12/24/2009 02:12	**Analyst:**	ACJ	**Aliquot:**	5 mL
Prep Date:	12/23/2009 22:00	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	4q300011.d	**Column:**	Rtx-Volatiles	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
TPH-GRO	Gasoline Range Organics		500	ug/kg	12.9	57.8

GEL Laboratories LLC

SW-846 3rd edition 8015 Modified

Data file : /chem/voc4a.i/122309/4q300011.d
Lab Smp Id: 1202003742 Client Smp ID: WST03-10-2147MS
Inj Date : 24-DEC-2009 02:12
Operator : ACJ Inst ID: voc4a.i
Smp Info : |1202003742|1|
Misc Info : |VOC8015_LF|936471|GROF|
Comment : FID
Method : /chem/voc4a.i/122309/8015GRO-120709.m
Meth Date : 24-Dec-2009 11:50 amj Quant Type: ESTD
Cal Date : 07-DEC-2009 19:47 Cal File: 4o100008.d
Als bottle: 11 QC Sample: MS
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: GRO.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M)*(Vt/Ws))*Uf * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	13.49180	% Moisture
Vt	5.00000	Purge Volume (mL)
Ws	5.00000	Weight of sample (g)
Uf	1.00000	Unit Correction Factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)
S 1 Gasoline Range Organics					CAS #:
2.867-	10.941		442933556	432.884	500
$ 3 Bromofluorobenzene					CAS #: 460-00-4
9.511	9.508	0.003	26361778	32.8503	38.0

Data File: /chem/voc4a.i/122309/4q300011.d
Date : 24-DEC-2009 02:12
Client ID: WST03-10-2147MS
Sample Info: |1202003742|1|

Column phase: Rtx-Volatiles

Instrument: voc4a.i

Operator: ACJ
Column diameter: 0.25

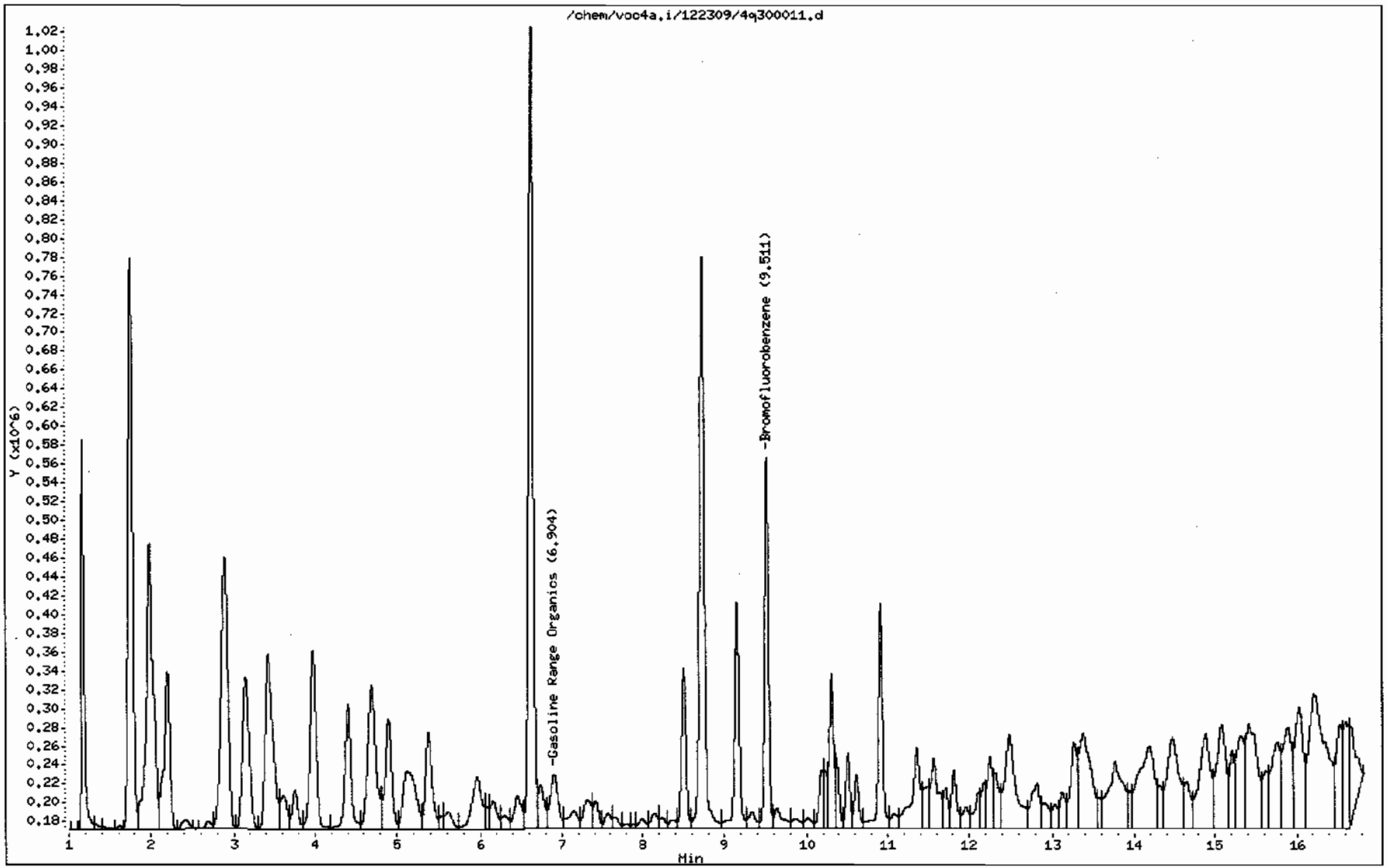

GC Volatiles (GRO)
Certificate of Analysis
Sample Summary

SDG Number:	10-939	**Date Collected:**	12/14/2009 12:00	**Matrix:**	R
Lab Sample ID:	1202003743	**Date Received:**	12/16/2009 09:10	**%Moisture:**	13.5
Client Sample:	QC for batch 936470	**Client:**	LANL010	**Project:**	QC
Client ID:	WST03-10-2147PSD	**Method:**	SW846 8015A/B VOC	**SOP Ref:**	GL-OA-E-004
Batch ID:	936471	**Inst:**	VOC4A.I	**Dilution:**	1
Run Date:	12/24/2009 02:42	**Analyst:**	ACJ	**Aliquot:**	5 mL
Prep Date:	12/23/2009 22:01	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	4q300012.d	**Column:**	Rtx-Volatiles	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
TPH-GRO	Gasoline Range Organics		518	ug/kg	12.9	57.8

GEL Laboratories LLC

SW-846 3rd edition 8015 Modified

Data file : /chem/voc4a.i/122309/4q300012.d
Lab Smp Id: 1202003743 Client Smp ID: WST03-10-2147MSD
Inj Date : 24-DEC-2009 02:42
Operator : ACJ Inst ID: voc4a.i
Smp Info : |1202003743|1|
Misc Info : |VOC8015_LF|936471|GROF|
Comment : FID
Method : /chem/voc4a.i/122309/8015GRO-120709.m
Meth Date : 24-Dec-2009 11:50 amj Quant Type: ESTD
Cal Date : 07-DEC-2009 19:47 Cal File: 4o100008.d
Als bottle: 12 QC Sample: MSD
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: GRO.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * (100/(100-M)*(Vt/Ws))*Uf * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	13.49180	% Moisture
Vt	5.00000	Purge Volume (mL)
Ws	5.00000	Weight of sample (g)
Uf	1.00000	Unit Correction Factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)
S 1 Gasoline Range Organics					CAS #:
2.867- 10.941			458301438	447.903	518
$ 3 Bromofluorobenzene					CAS #: 460-00-4
9.511	9.508	0.003	30383294	37.8617	43.8

Data File: /chem/voc4a.i/122309/4q300012.d
Date : 24-DEC-2009 02:42
Client ID: WST03-10-2147MSD
Sample Info: |1202003743|1|

Column phase: Rtx-Volatiles

Instrument: voc4a.i

Operator: ACJ
Column diameter: 0.25

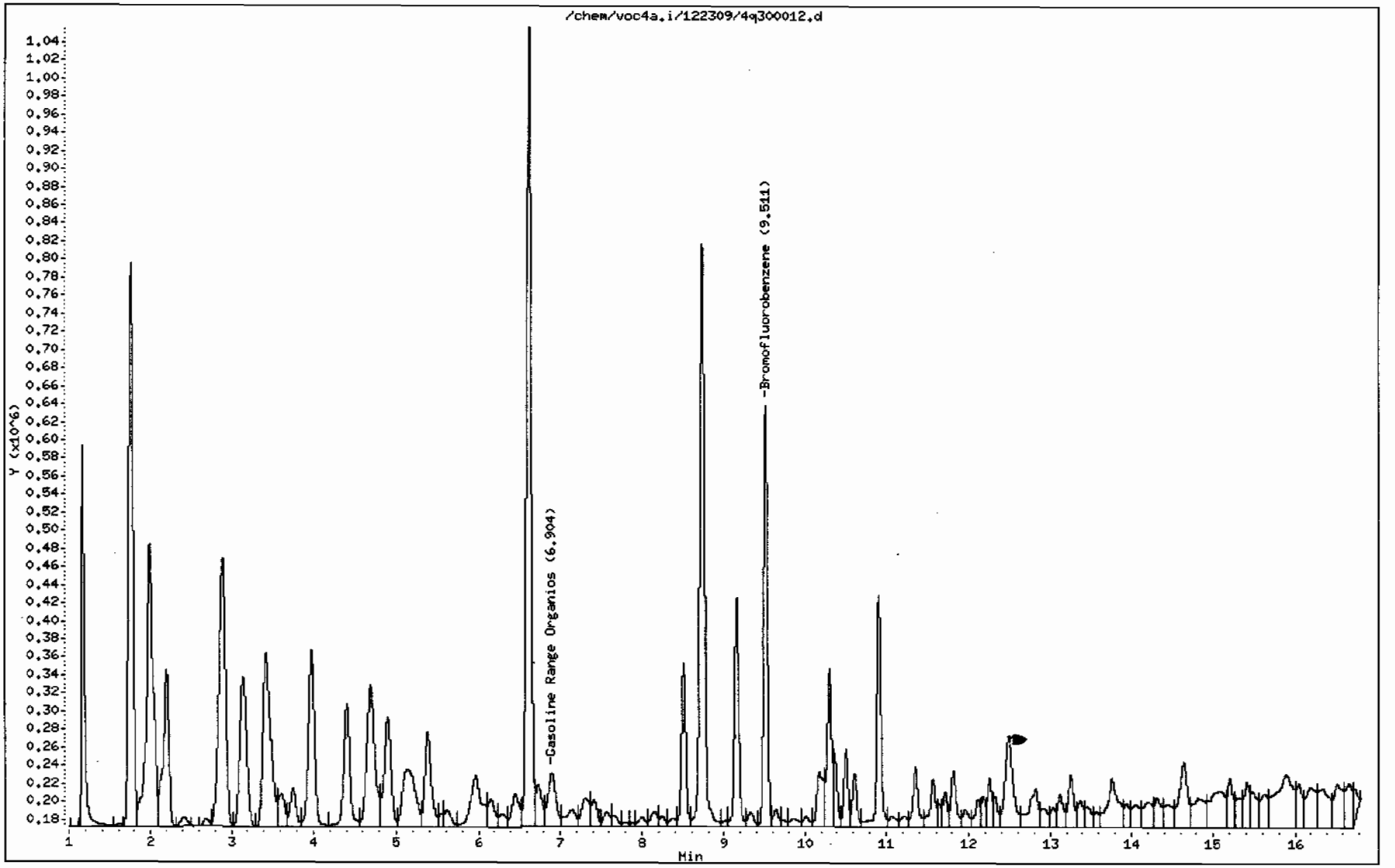

Miscellaneous Data

Prep Logbook

Volatile Total Petroleum Hydrocarbons by Flame Ionization Detector

Batch ID: **936470** Verified by: _____

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units

Analyst: Amy Jamison
Method: SW846 8015A/B PREP
Lab SOP: GL-OA-E-004 REV# 18
Instrument: Sartorius Balance B-001

Sample ID	Run Date	Matrix	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check 1
1202003744 LCS	23-DEC-2009 19:30:00	Soil	5	5	1	
1202003741 MB	23-DEC-2009 20:00:00	Soil	5	5	1	
1202003745 HB	23-DEC-2009 21:56:00	Soil	5	10	2	
243007002	23-DEC-2009 21:59:00	Soil	5	5	1	
1202003742 PS (243007002)	23-DEC-2009 22:00:00	Soil	5	5	1	
1202003743 PSD (243007002)	23-DEC-2009 22:01:00	Soil	5	5	1	
243275004	23-DEC-2009 22:02:00	Misc Solid	5	10	2	
243275005	23-DEC-2009 22:03:00	Misc Solid	5.1	10	1.96078	
243275006	23-DEC-2009 22:08:00	Misc Solid	1.1	10	9.09091	
1202005249 LCS	24-DEC-2009 12:00:00	Soil	5	5	1	
1202005248 MB	24-DEC-2009 12:30:00	Soil	5	5	1	

Reagent/Solvent Lot ID	Description	Amount

Comments:

General Engineering Laboratories, LLC
Revision:11/22/04

ORGANIC RUN LOG - INSTRUMENT ID#VOC4A

Date: 12/7/2009 Method 8015 Operator ACJ

REVIEWED BY: _____
DATE: _____

HARDWARE CONFIGURATION & METHOD CONDITIONS SUMMARY No# 1

Daily Instrument Readings:
Multiplier Voltage: N/A

CALIBRATION & CC INFORMATION:

Initial Calibration Date: 12/7/2009

(See pg. 129 for ICAL Std. Sci. Ids)

NaHSO4 lot # N/A

Cl test lot # N/A

Sequence Number: VOC4A 120709

	Daily Standard Solution ID#	Volume Added for Purge (ul) Blk/ Smpl	CCV	MS/ LCS	RT
CCV	UVG091112-01A		5		
IS	N/A				
SS	UVG091022-01D	2.5	2.5	2.5	2.5
LCS/MS	UVG091112-01A			5	
RTCHECK	WVG091207-01				5+5
C5/C12 RTCHECK	N/A				5

	Purge Amount
5	Water Purge Vol:
VARIED	Soil Purge Wt.
N/A	Mid level ext. MeOH Vol:
N/A	ul
N/A	Methanol Lot #
x	Heated Purge

Analysis Date Time	Data File	Lab Sample ID	Client	Batch #	Wt.(g) or Vol(ml/ul)	Dil. Factor	pH	AS Slot #	Matrix w or s	Analyst	Cl test (Y/N)	Acceptable(√/X)	Comments
12/7/2009 16:17	4O100001.D	WVG091207-01	GEL	RTCHECK	5ML	1	N/A	1	W	ACJ	N/A	O	UVG090909-01A/UVG081212-02B
12/7/2009 16:47	4O100002.D	VSTD0050	GEL	ICAL	5ML	1	N/A	2	W	ACJ	N/A	O	UVG090915-01C/UVG091022-01D
12/7/2009 17:17	4O100003.D	VSTD0100	GEL	ICAL	5ML	1	N/A	3	W	ACJ	N/A	O	UVG090915-01C/UVG091022-01D
12/7/2009 17:48	4O100004.D	VSTD0250	GEL	ICAL	5ML	1	N/A	4	W	ACJ	N/A	O	UVG090915-01C/UVG091022-01D
12/7/2009 18:18	4O100005.D	VSTD0500	GEL	ICAL	5ML	1	N/A	5	W	ACJ	N/A	O	UVG090915-01C/UVG091022-01D
12/7/2009 18:48	4O100006.D	VSTD0750	GEL	ICAL	5ML	1	N/A	6	W	ACJ	N/A	O	UVG090915-01C/UVG091022-01D
12/7/2009 19:17	4O100007.D	VSTD1000	GEL	ICAL	5ML	1	N/A	7	W	ACJ	N/A	O	UVG090915-01C/UVG091022-01D
12/7/2009 19:47	4O100008.D	VSTD2000	GEL	ICAL	5ML	1	N/A	8	W	ACJ	N/A	O	UVG090915-01C/UVG091022-01D
12/7/2009 20:17	4O100009.D	BLANK	GEL	BLANK	5ML	1	N/A	9	W	ACJ	N/A	X	
12/7/2009 20:47	4O100010.D	UVG091112-01A	GEL	ICV	5ML	1	N/A	10	W	ACJ	N/A	O	
12/7/2009 21:19	4O100011.D	UVG091112-01A	GEL	LCS	5G	1	N/A	11	S	ACJ	N/A	O	
12/7/2009 21:49	4O100012.D	UVG091112-01A	GEL	LCSD	5G	1	N/A	12	S	ACJ	N/A	X	SPIKED USING 2.5UL
12/7/2009 22:18	4O100013.D	BLANK	GEL	BLANK	5G	1	N/A	13	S	ACJ	N/A	X	
12/7/2009 22:48	4O100014.D	UVG091112-01A	GEL	LCSD	5G	1	N/A	14	S	ACJ	N/A	O	
12/7/2009 23:18	4O100015.D	BLANK	GEL	BLANK	5G	1	N/A	15	S	ACJ	N/A	O	
12/7/2009 23:58	4O100016.D	241238002	LANL	930378	5G	1	N/A	16	S	ACJ	N/A	O	
12/8/2009 0:28	4O100017.D	242247001	SLAC	929818	5.4G	1	N/A	17	S	ACJ	N/A	O	
12/8/2009 0:58	4O100018.D	242247002	SLAC	929818	5.4G	1	N/A	18	S	ACJ	N/A	O	
12/8/2009 1:27	4O100019.D	UVG091112-01A	GEL	CCV	5ML	1	N/A	19	W	ACJ	N/A	O	

General Engineering Laboratories, LLC
Revision:11/22/04

ORGANIC RUN LOG - INSTRUMENT ID#VOC4A

Date: 12/23/2009 Method 8015 Operator ACJ

REVIEWED BY: _____
DATE: _____

HARDWARE CONFIGURATION & METHOD CONDITIONS SUMMARY No# 1

Daily Instrument Readings:
Multiplier Voltage: N/A

CALIBRATION & CC INFORMATION:

Initial Calibration Date: 12/7/2009

(See pg. 129 for ICAL Std. Sci. Ids)

NaHSO4 lot # N/A

Cl test lot # N/A

Sequence Number: VOC4A 122309

Daily Standard Volume Added for Purge (ul)

	Solution ID#	Blk/ Smpl	CCV	MS/ LCS	RT
CCV	UVG090915-01C		5		
IS	N/A				
SS	UVG091022-01D	2.5	2.5	2.5	2.5
LCS/MS	UVG091112-01A			5	
RTCHECK	WCG091223-01				5+5
C5/C12 RTCHECK	N/A				5

Purge Amount

5	Water Purge Vol:
VARIED	Soil Purge Wt.
X	Mid level ext. MeOH Vol:
VARIED	ul
CZ937	Methanol Lot #
x	Heated Purge

Analysis Date	Time	Data File	Lab Sample ID	Client	Batch #	Wt.(g) or Vol(ml/ul)	Dil. Factor	pH	AS Slot #	Matrix w or s	Analyst	Cl test (Y/N)	Acceptable(√/X)	Comments
12/23/2009	20:57	4Q300001.D	WVG091223-01	GEL	RTCHECK	5ML	1	N/A	1	W	ACJ	N/A	O	UVG090909-01A/UVG081212-02B
12/23/2009	21:27	4Q300002.D	UVG090915-01C	GEL	CCV	5ML	1	N/A	2	W	ACJ	N/A	O	
12/23/2009	21:57	4Q300003.D	UVG091112-01A	GEL	LCS	5G	1	N/A	3	S	ACJ	N/A	O	
12/23/2009	22:27	4Q300004.D	BLANK	GEL	BLANK	5G	1	N/A	4	S	ACJ	N/A	O	
12/23/2009	23:14	4Q300005.D	1202003745	GEL	936471	100UL	50	N/A	5	S	ACJ	N/A	O	
12/23/2009	23:43	4Q300006.D	243007002	LANL	936471	5G		N/A	6	S	ACJ	N/A	O	
12/24/2009	0:13	4Q300007.D	243275004	LANL	936471	100UL	50	N/A	7	S	ACJ	N/A	O	
12/24/2009	0:43	4Q300008.D	243275006	LANL	936471	100UL	50	N/A	8	S	ACJ	N/A	O	
12/24/2009	1:13	4Q300009.D	243275005	LANL	936471	10UL	500	N/A	9	S	ACJ	N/A	X	RR 1000X; SEE 4Q400008
12/24/2009	1:43	4Q300010.D	BLANK	GEL	BLANK	5ML	1	N/A	10	W	ACJ	N/A	X	
12/24/2009	2:12	4Q300011.D	1202003742	LANL	936471	5G	1	N/A	11	S	ACJ	N/A	O	
12/24/2009	2:42	4Q300012.D	1202003743	LANL	936471	5G	1	N/A	12	S	ACJ	N/A	O	
12/24/2009	3:12	4Q300013.D	UVG090915-01C	GEL	CCV	5ML	1	N/A	13	W	ACJ	N/A	O	

GC SEMIVOLATILE PESTICIDE ANALYSIS

Pesticide Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-939

Method/Analysis Information

Procedure:	**Analysis of Organochlorine Pesticides and Chlorinated Hydrocarbons by ECD**
Analytical Method:	SW846 8081A
Prep Method:	SW846 3550B
Analytical Batch Number:	934325
Prep Batch Number:	934324

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 8081A:

Sample ID	Client ID
243007002	WST03-10-2147
1201998999	Method Blank (MB)
1201999000	Laboratory Control Sample (LCS)
1201999003	Laboratory Control Sample (LCS)-Toxaphene LCS Only
1201999001	243007002(WST03-10-2147) Matrix Spike (MS)
1201999002	243007002(WST03-10-2147) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on a "dry weight" basis.

Preparation/Analytical Method Verification

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-041 REV# 10.

Raw data reports are processed and reviewed by the analyst using the Target software package. False positives have been removed from the Target quantitation reports per standard operating procedures (SOP) section 23.0.

Calibration Information

Please note that the 'Cal Date' indicated on each quantitation report reflects the date and time of the most recent calibrated analyte(s) in the Target processing method. Since the laboratory may calibrate with multiple solutions on different days using the same processing method, the Target software will update the 'Cal Date' to the last calibration file, date and time. The correct dates and times for all calibration files are located on the Calibration History report in the Standard Data section in the data package.

Due to software limitations, the Calibration Summary Form 6 may not indicate all the calibration files comprising the initial calibration. A complete list of the initial calibration data files are shown in the Calibration History report located in the Standard Data section of the data package.

Initial Calibration
All initial calibration requirements have been met for this sample delivery group (SDG).

The linear equation used in Target and indicated on the initial calibration summary form is not a conventional linear equation (slope intercept formula) and does not match the equation found in SW-846 method 8000B. The x and y axes are inversed in Target, so that the instrument response is treated as the independent variable (x) and the concentration ratio is treated as the dependent variable (y). The equation used in Target to calculate sample results is adjusted to account for the linear equation inversion and reciprocal slope. The adjusted calculation has been independently verified to produce valid results.

Continuing Calibration Verification (CCV) Requirements
The calibration verification standards (CVS, ICV, or CCV) requirements have not been met for this SDG.

Several target analytes failed to meet the acceptance criteria with positive or negative bias in the standards analyzed for this SDG. The positive and negative bias for the analytical data is a result of instrument response increasing or decreasing after the initial calibration. The instrument response never decreased to a point where the target analytes would not be detected. These target analytes were not detected in the associated samples; therefore, the non-compliance has no adverse effects on the data.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB(s) analyzed with this SDG met the acceptance criteria.

Surrogate Recoveries
QC samples 1201999000 (Pesticide LCS), and 1201999003 (Toxaphene LCS) did not meet the surrogate recovery acceptance criteria for Decachlorobiphenyl (DCB) with a positive bias. However, this non-compliance had no adverse effects on the data, as the LCS spike recovery met the acceptance limits. There were no target analytes detected in the associated samples. See NCR #772533 located in the Miscellaneous Data section.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

QC Sample Designation
Sample 243007002 (WST03-10-2147) was selected for the matrix spike and matrix spike duplicate analysis.

Matrix Spike (MS) Recovery Statement
The MS recoveries for this SDG were within the established acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recoveries for this SDG were within the established acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD(s) between the MS and MSD met the acceptance limits.

Technical Information:

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP. Additionally, copper was added to all sample extracts to remove sulfur. Florisil was used prior to sample extract analysis.

Sample Dilutions
Samples 1201999001 (WST03-10-2147MS), 1201999002 (WST03-10-2147MSD) and 243007002 (WST03-10-2147) were diluted at 1:5 due to their bright yellow hue, strong odor, and the presence of high concentrations of sulfur within the sample matrices.

Sample Re-extraction/Re-analysis
Re-extractions or re-analyses were not required in this SDG.

Miscellaneous Information:

Electronic Package Comment

This package was generated using an electronic data processing program referred to as "virtual packaging". In an effort to increase quality and efficiency, the laboratory is developing systems to eventually generate all data packages electronically. The following change from "traditional" packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative.

Nonconformance (NCR) Documentation
Nonconformance report (NCRs) is for documentation of any procedural anomalies that may deviate from referenced SOP or contractual document. NCR # 772533 was generated for this SDG. A copy is included in the Miscellaneous Data section of this package.

Manual Integrations
Certain standards and samples may have required manual integration to correctly position the baseline as set in the calibration standard injections. If manual integration was performed, copies of all manual integration peak profiles are included in the raw data section of this pesticide fraction.

Additional Comments
The additional comments field is used to address special issues associated with each analysis, clarify method/contractual issues pertaining to the analysis, and to list any report documents generated as a result of sample analysis or review. The following additional comments were required:

The lower results from either column have been chosen and reported in the data package for the client samples, MB and LCS. The data reported for the MS and MSD are from the same analytical column as the parent sample.

The data reported on the form I and III may differ slightly from the data reported on the form X. This is due to software limitations in rounding differences between the forms.

Due to software limitation, the Form VIIs will display the results either in the % difference or % drift depending on the type of the calibration curve. If the curve of all analytes is generated using an average response factor (RF), the Form VII will display results using the difference calculation (RF). If the curve of one or more analytes is generated using a linear curve, the Form VII will display results using the % drift calculation (by concentration) for all analytes.

System Configuration

The Semi-Volatiles-Pesticide analysis was performed on the following instrument configuration:

Instrument ID	Instrument	System Configuration	Column ID	Column Description
ECD5A.I_1	HP Gas Chromatograph	HP6890 Series ECD	Rtx-CLP I	30m x 0.25mm, 0.25um (Rtx-CLPesticide)
ECD5A.I_2	HP Gas Chromatograph	HP6890 Series ECD	Rtx-CLP II	30m x 0.25mm, 0.20um (Rtx-CLPesticide II)

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: _____ Date: 12/30/09

Roadmap for LANL 10-939 PEST

This roadmap was analyzed by hea01125 on 12-19-2009, 15:42.
This roadmap was reviewed by rob01090 on 12-22-2009, 07:36.
This roadmap was packaged by yml on 12-30-2009, 07:46.

Front Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd5a.i/121809.b/0503b001.d	243007002	sample	19-DEC-2009	04:00	10-939.sub	WST03-10-2147	5.00000	934325	USE, uploaded both columns, reporting lower result

Back Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd5a.i/121809.b/0503b001.d	243007002	sample	19-DEC-2009	04:00	10-939.sub	WST03-10-2147	5.00000	934325	USE, uploaded both columns, reporting lower result

Front QC Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd5a.i/121809.b/0474f701.d	1201998999	mb	19-DEC-2009	03:24	10-939.sub	PBLK01	1.00000	934325	USE, uploaded both columns, reporting lower result
☐	N	/chem/ecd5a.i/121809.b/0484f801.d	1201999000	lcs	19-DEC-2009	03:36	10-939.sub	PBLK01LCS	1.00000	934325	USE, uploaded both columns, reporting lower result
☐	N	/chem/ecd5a.i/121809.b/0494f901.d	1201999003	lcs	19-DEC-2009	03:48	10-939.sub	PBLK01TLCS	1.00000	934325	USE, uploaded both columns, reporting lower result
☐	N	/chem/ecd5a.i/121809.b/0514f5101.d	1201999001	ms	19-DEC-2009	04:12	10-939.sub	WST03-10-2147MS	5.00000	934325	USE, uploaded both columns, reporting lower result
☐	N	/chem/ecd5a.i/121809.b/0524f5201.d	1201999002	msd	19-DEC-2009	04:24	10-939.sub	WST03-10-2147MSD	5.00000	934325	USE, uploaded both columns, reporting lower result

Back QC Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd5a.i/121809.b/047b4701.d	1201998999	mb	19-DEC-2009	03:24	10-939.sub	PBLK01	1.00000	934325	USE, uploaded both columns, reporting lower result
☐	N	/chem/ecd5a.i/121809.b/048b4801.d	1201999000	lcs	19-DEC-2009	03:36	10-939.sub	PBLK01LCS	1.00000	934325	USE, uploaded both columns, reporting lower result
☐	N	/chem/ecd5a.i/121809.b/049b4901.d	1201999003	lcs	19-DEC-2009	03:48	10-939.sub	PBLK01TLCS	1.00000	934325	USE, uploaded both columns, reporting lower result
☐	N	/chem/ecd5a.i/121809.b/051b5101.d	1201999001	ms	19-DEC-2009	04:12	10-939.sub	WST03-10-2147MS	5.00000	934325	USE, uploaded both columns, reporting lower result
☐	N	/chem/ecd5a.i/121809.b/052b5201.d	1201999002	msd	19-DEC-2009	04:24	10-939.sub	WST03-10-2147MSD	5.00000	934325	USE, uploaded both columns, reporting lower result

SAMPLE DATA SUMMARY

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	10-939	**Date Collected:**	12/14/2009 12:00	**Matrix:**	R
Lab Sample ID:	243007002	**Date Received:**	12/16/2009 09:10	**%Moisture:**	13.5
		Client:	LANL010	**Project:**	LANL01004
Client ID:	WST03-10-2147	**Method:**	SW846 8081A	**SOP Ref:**	GL-OA-E-041
Batch ID:	934325	**Inst:**	ECD5A.I	**Dilution:**	5
Run Date:	12/19/2009 04:00	**Analyst:**	HXJ1	**Inj. Vol:**	1 uL
Prep Date:	12/18/2009 09:03	**Aliquot:**	30.02 g	**Final Volume:**	5 mL
Data File:	050f5001.d	**Column:**	1 CLP-1	**Level:**	LOW
	050b5001.d		2 CLP-2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
319-84-6	alpha-BHC	U	3.85	ug/kg	0.963	3.85	1
58-89-9	gamma-BHC (Lindane)	U	3.85	ug/kg	0.963	3.85	1
319-85-7	beta-BHC	U	3.85	ug/kg	0.963	3.85	1
319-86-8	delta-BHC	U	3.85	ug/kg	0.963	3.85	1
76-44-8	Heptachlor	U	3.85	ug/kg	0.963	3.85	1
309-00-2	Aldrin	U	3.85	ug/kg	0.963	3.85	1
1024-57-3	Heptachlor epoxide	U	3.85	ug/kg	1.20	3.85	1
5103-74-2	gamma-Chlordane	U	3.85	ug/kg	0.963	3.85	1
5103-71-9	alpha-Chlordane	U	3.85	ug/kg	0.963	3.85	1
959-98-8	Endosulfan I	U	3.85	ug/kg	0.963	3.85	1
72-55-9	4,4'-DDE	U	7.70	ug/kg	1.93	7.70	1
60-57-1	Dieldrin	U	7.70	ug/kg	1.93	7.70	1
72-20-8	Endrin	U	7.70	ug/kg	1.93	7.70	1
72-54-8	4,4'-DDD	U	7.70	ug/kg	1.93	7.70	1
33213-65-9	Endosulfan II	U	7.70	ug/kg	1.93	7.70	1
7421-93-4	Endrin aldehyde	U	7.70	ug/kg	1.93	7.70	1
50-29-3	4,4'-DDT	U	7.70	ug/kg	1.93	7.70	1
1031-07-8	Endosulfan sulfate	U	7.70	ug/kg	1.93	7.70	1
72-43-5	Methoxychlor	U	38.5	ug/kg	9.63	38.5	1
53494-70-5	Endrin ketone	U	7.70	ug/kg	1.93	7.70	1
8001-35-2	Toxaphene	U	96.3	ug/kg	32.1	96.3	1

QUALITY CONTROL SUMMARY

Pesticide

Surrogate Recovery Report

SDG Number: 10–939

Matrix Type: SOLID

CAP Column (1) : CLP–1 **CAP Column (2) : CLP–2**

Sample ID	Client ID	4CMX 1 %REC #		4CMX 2 %REC #		DCB 1 %REC #		DCB 2 %REC #	
1201998999	MB for batch 934324	78		77		113		110	
1201999000	LCS for batch 934324	83		83		125 *		113	
1201999003	LCS for batch 934324	89		89		121 *		117 *	
243007002	WST03–10–2147	62	D	68	D	107	D	106	D
1201999001	WST03–10–2147MS	59	D	64	D	103	D	98	D
1201999002	WST03–10–2147MSD	65	D	71	D	111	D	109	D

Surrogate	Acceptance Limits
4CMX = 4cmx	(34%–105%)
DCB = Decachlorobiphenyl	(33%–115%)

* Recovery outside Acceptance Limits

\# Column to be used to flag recovery values

D Sample Diluted

Pesticide

Quality Control Summary
Spike Recovery Report

SDG Number: 10-939
Client ID: LCS for batch 934324
Lab Sample ID: 1201999000
Instrument: ECD5A.I
Analyst: HXJ1
Inj. Vol: 1 uL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 12/19/2009 03:36
Dilution: 1
Prep Batch ID: 934324
Batch ID: 934325

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
319-84-6	LCS	alpha-BHC	16.7	0.0	14.5	87	56-129
58-89-9	LCS	gamma-BHC (Lindane)	16.7	0.0	15.2	91	56-127
319-85-7	LCS	beta-BHC	16.7	0.0	14.6	88	54-117
319-86-8	LCS	delta-BHC	16.7	0.0	16.3	98	60-129
76-44-8	LCS	Heptachlor	16.7	0.0	14.3	86	55-127
309-00-2	LCS	Aldrin	16.7	0.0	14.7	88	54-123
1024-57-3	LCS	Heptachlor epoxide	16.7	0.0	15.3	92	58-122
5103-74-2	LCS	gamma-Chlordane	16.7	0.0	16.2	97	55-124
5103-71-9	LCS	alpha-Chlordane	16.7	0.0	15.4	92	56-120
959-98-8	LCS	Endosulfan I	16.7	0.0	16.2	97	51-119
72-55-9	LCS	4,4'-DDE	41.7	0.0	40.4	97	60-128
60-57-1	LCS	Dieldrin	41.7	0.0	40.6	97	59-119
72-20-8	LCS	Endrin	41.7	0.0	46.8	112	63-131
72-54-8	LCS	4,4'-DDD	41.7	0.0	44.6	107	61-131
33213-65-9	LCS	Endosulfan II	41.7	0.0	42.3	102	59-120
7421-93-4	LCS	Endrin aldehyde	41.7	0.0	43.8	105	55-125
50-29-3	LCS	4,4'-DDT	41.7	0.0	39.0	94	63-139
1031-07-8	LCS	Endosulfan sulfate	41.7	0.0	51.6	124	60-127
72-43-5	LCS	Methoxychlor	167	0.0	158	95	59-143
53494-70-5	LCS	Endrin ketone	41.7	0.0	38.8	93	59-132

Pesticide

Quality Control Summary
Spike Recovery Report

SDG Number: 10-939
Client ID: LCS for batch 934324
Lab Sample ID: 1201999003
Instrument: ECD5A.I
Analyst: HXJ1
Inj. Vol: 1 uL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 12/19/2009 03:48
Dilution: 1
Prep Batch ID: 934324
Batch ID: 934325

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
8001-35-2	LCS	Toxaphene	133	0.0	137	103	48-131

Pesticide

Quality Control Summary
Spike Recovery Report

SDG Number:	10-939	**Sample Type:**	Matrix Spike
Client ID:	WST03-10-2147MS	**Matrix:**	R
Lab Sample ID:	1201999001	**%Moisture:**	13.5
Instrument:	ECD5A.I	**Analysis Date:**	12/19/2009 04:12
Analyst:	HXJ1	**Prep Batch ID:**	934324
Inj. Vol:	1 uL	**Batch ID:**	934325

Dilution: 5

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
319-84-6	MS	alpha-BHC	19.3	0.00	U	13.2	68	41-132
58-89-9	MS	gamma-BHC (Lindane)	19.3	0.00	U	14.0	73	43-127
319-85-7	MS	beta-BHC	19.3	0.00	U	16.7	87	36-130
319-86-8	MS	delta-BHC	19.3	0.00	U	16.1	84	39-134
76-44-8	MS	Heptachlor	19.3	0.00	U	13.6	70	41-133
309-00-2	MS	Aldrin	19.3	0.00	U	13.9	72	41-128
1024-57-3	MS	Heptachlor epoxide	19.3	0.00	U	15.9	82	39-133
5103-74-2	MS	gamma-Chlordane	19.3	0.00	U	16.7	87	37-133
5103-71-9	MS	alpha-Chlordane	19.3	0.00	U	16.9	88	40-122
959-98-8	MS	Endosulfan I	19.3	0.00	U	16.3	84	32-126
72-55-9	MS	4,4'-DDE	48.1	0.00	U	45.0	93	42-138
60-57-1	MS	Dieldrin	48.1	0.00	U	42.5	88	38-132
72-20-8	MS	Endrin	48.1	0.00	U	49.9	104	45-139
72-54-8	MS	4,4'-DDD	48.1	0.00	U	46.4	96	41-139
33213-65-9	MS	Endosulfan II	48.1	0.00	U	47.0	98	35-130
7421-93-4	MS	Endrin aldehyde	48.1	0.00	U	40.7	85	29-126
50-29-3	MS	4,4'-DDT	48.1	0.00	U	44.2	92	38-155
1031-07-8	MS	Endosulfan sulfate	48.1	0.00	U	48.2	100	39-131
72-43-5	MS	Methoxychlor	193	0.00	U	186	97	44-153
53494-70-5	MS	Endrin ketone	48.1	0.00	U	43.4	90	41-133

Pesticide

Quality Control Summary
Spike Recovery Report

SDG Number: 10-939
Client ID: WST03-10-2147MSD
Lab Sample ID: 1201999002
Instrument: ECD5A.I
Analyst: HXJ1
Inj. Vol: 1 uL

Sample Type: Matrix Spike Duplicate
Matrix: R
%Moisture: 13.5
Analysis Date: 12/19/2009 04:24
Prep Batch ID: 934324
Batch ID: 934325
Dilution: 5

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
319-84-6	MSD alpha-BHC	19.2	0.00	U	14.9	77	41-132	12	0-30
58-89-9	MSD gamma-BHC (Lindane)	19.2	0.00	U	15.6	81	43-127	11	0-30
319-85-7	MSD beta-BHC	19.2	0.00	U	17.9	93	36-130	7	0-30
319-86-8	MSD delta-BHC	19.2	0.00	U	17.5	91	39-134	8	0-30
76-44-8	MSD Heptachlor	19.2	0.00	U	14.9	78	41-133	10	0-30
309-00-2	MSD Aldrin	19.2	0.00	U	14.8	77	41-128	6	0-30
1024-57-3	MSD Heptachlor epoxide	19.2	0.00	U	17.1	89	39-133	8	0-30
5103-74-2	MSD gamma-Chlordane	19.2	0.00	U	18.1	94	37-133	8	0-30
5103-71-9	MSD alpha-Chlordane	19.2	0.00	U	18.1	94	40-122	7	0-30
959-98-8	MSD Endosulfan I	19.2	0.00	U	18.3	95	32-126	12	0-30
72-55-9	MSD 4,4'-DDE	48.1	0.00	U	48.3	100	42-138	7	0-30
60-57-1	MSD Dieldrin	48.1	0.00	U	45.4	94	38-132	7	0-30
72-20-8	MSD Endrin	48.1	0.00	U	54.4	113	45-139	9	0-30
72-54-8	MSD 4,4'-DDD	48.1	0.00	U	52.8	110	41-139	13	0-30
33213-65-9	MSD Endosulfan II	48.1	0.00	U	51.3	107	35-130	9	0-30
7421-93-4	MSD Endrin aldehyde	48.1	0.00	U	43.2	90	29-126	6	0-30
50-29-3	MSD 4,4'-DDT	48.1	0.00	U	48.5	101	38-155	9	0-30
1031-07-8	MSD Endosulfan sulfate	48.1	0.00	U	52.7	109	39-131	9	0-30
72-43-5	MSD Methoxychlor	192	0.00	U	200	104	44-153	7	0-30
53494-70-5	MSD Endrin ketone	48.1	0.00	U	47.5	99	41-133	9	0-30

Method Blank Summary

SDG Number:	10-939	Client:	LANL010	Matrix:	SOIL
Client ID:	MB for batch 934324	Instrument ID:	ECD5A.I_2 ECD5A.I_1	Data File:	047b4701.d 047f4701.d
Lab Sample ID:	1201998999				
Column:	CLP-2 CLP-1	Prep Date:	12/18/2009 09:03	Analyzed:	12/19/09 03:24
		Level:	LOW		

This method blank applies to the following samples and quality control samples:

Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01 LCS for batch 934324	1201999000	048f4801.d 048b4801.d	12/19/09	0336
02 LCS for batch 934324	1201999003	049f4901.d 049b4901.d	12/19/09	0348
03 WST03-10-2147	243007002	050f5001.d 050b5001.d	12/19/09	0400
04 WST03-10-2147MS	1201999001	051f5101.d 051b5101.d	12/19/09	0412
05 WST03-10-2147MSD	1201999002	052f5201.d 052b5201.d	12/19/09	0424

SAMPLE
DATA

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	10-939	**Date Collected:**	12/14/2009 12:00	**Matrix:**	R
Lab Sample ID:	243007002	**Date Received:**	12/16/2009 09:10	**%Moisture:**	13.5
		Client:	LANL010	**Project:**	LANL01004
Client ID:	WST03-10-2147	**Method:**	SW846 8081A	**SOP Ref:**	GL-OA-E-041
Batch ID:	934325	**Inst:**	ECD5A.I	**Dilution:**	5
Run Date:	12/19/2009 04:00	**Analyst:**	HXJ1	**Inj. Vol:**	1 uL
Prep Date:	12/18/2009 09:03	**Aliquot:**	30.02 g	**Final Volume:**	5 mL
Data File:	050f5001.d	**Column:**	1 CLP-1	**Level:**	LOW
	050b5001.d		2 CLP-2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
319-84-6	alpha-BHC	U	3.85	ug/kg	0.963	3.85	1
58-89-9	gamma-BHC (Lindane)	U	3.85	ug/kg	0.963	3.85	1
319-85-7	beta-BHC	U	3.85	ug/kg	0.963	3.85	1
319-86-8	delta-BHC	U	3.85	ug/kg	0.963	3.85	1
76-44-8	Heptachlor	U	3.85	ug/kg	0.963	3.85	1
309-00-2	Aldrin	U	3.85	ug/kg	0.963	3.85	1
1024-57-3	Heptachlor epoxide	U	3.85	ug/kg	1.20	3.85	1
5103-74-2	gamma-Chlordane	U	3.85	ug/kg	0.963	3.85	1
5103-71-9	alpha-Chlordane	U	3.85	ug/kg	0.963	3.85	1
959-98-8	Endosulfan I	U	3.85	ug/kg	0.963	3.85	1
72-55-9	4,4'-DDE	U	7.70	ug/kg	1.93	7.70	1
60-57-1	Dieldrin	U	7.70	ug/kg	1.93	7.70	1
72-20-8	Endrin	U	7.70	ug/kg	1.93	7.70	1
72-54-8	4,4'-DDD	U	7.70	ug/kg	1.93	7.70	1
33213-65-9	Endosulfan II	U	7.70	ug/kg	1.93	7.70	1
7421-93-4	Endrin aldehyde	U	7.70	ug/kg	1.93	7.70	1
50-29-3	4,4'-DDT	U	7.70	ug/kg	1.93	7.70	1
1031-07-8	Endosulfan sulfate	U	7.70	ug/kg	1.93	7.70	1
72-43-5	Methoxychlor	U	38.5	ug/kg	9.63	38.5	1
53494-70-5	Endrin ketone	U	7.70	ug/kg	1.93	7.70	1
8001-35-2	Toxaphene	U	96.3	ug/kg	32.1	96.3	1

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd5a.i/121809.b/050f5001.d
Lab Smp Id: 243007002 Client Smp ID: WST03-10-2147
Inj Date : 19-DEC-2009 04:00
Operator : HXJ1 Inst ID: ecd5a.i
Smp Info : |243007002|5|
Misc Info : |ECD81A_1S|934325|SVPF|LANL|SOIL|WST03-10-2147|||
Comment :
Method : /chem/ecd5a.i/121809.b/ECD5-F-8081-121809.m
Meth Date : 19-Dec-2009 12:49 hea01125 Quant Type: ESTD
Cal Date : 05-DEC-2009 03:28 Cal File: 025f2501.d
Als bottle: 50
Dil Factor: 5.00000
Integrator: Falcon Compound Sublist: 10-939.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	5.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.02000	Weigth of sample extracted (g)
M	13.49180	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.789	2.791	-0.002	11407919	24.9053	24.0	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
6.485	6.485	0.000	10851923	42.6064	41.0	80.00- 120.00	100.00

Data File: /chem/ecd5a.i/121809.b/050f5001.d
Date : 19-DEC-2009 04:00
Client ID: WST03-10-2147
Sample Info: 1243007002151
Volume Injected (uL): 1.0
Column phase: CLP-1

Instrument: ecd5a.i
Operator: HXJ1
Column diameter: 0.25

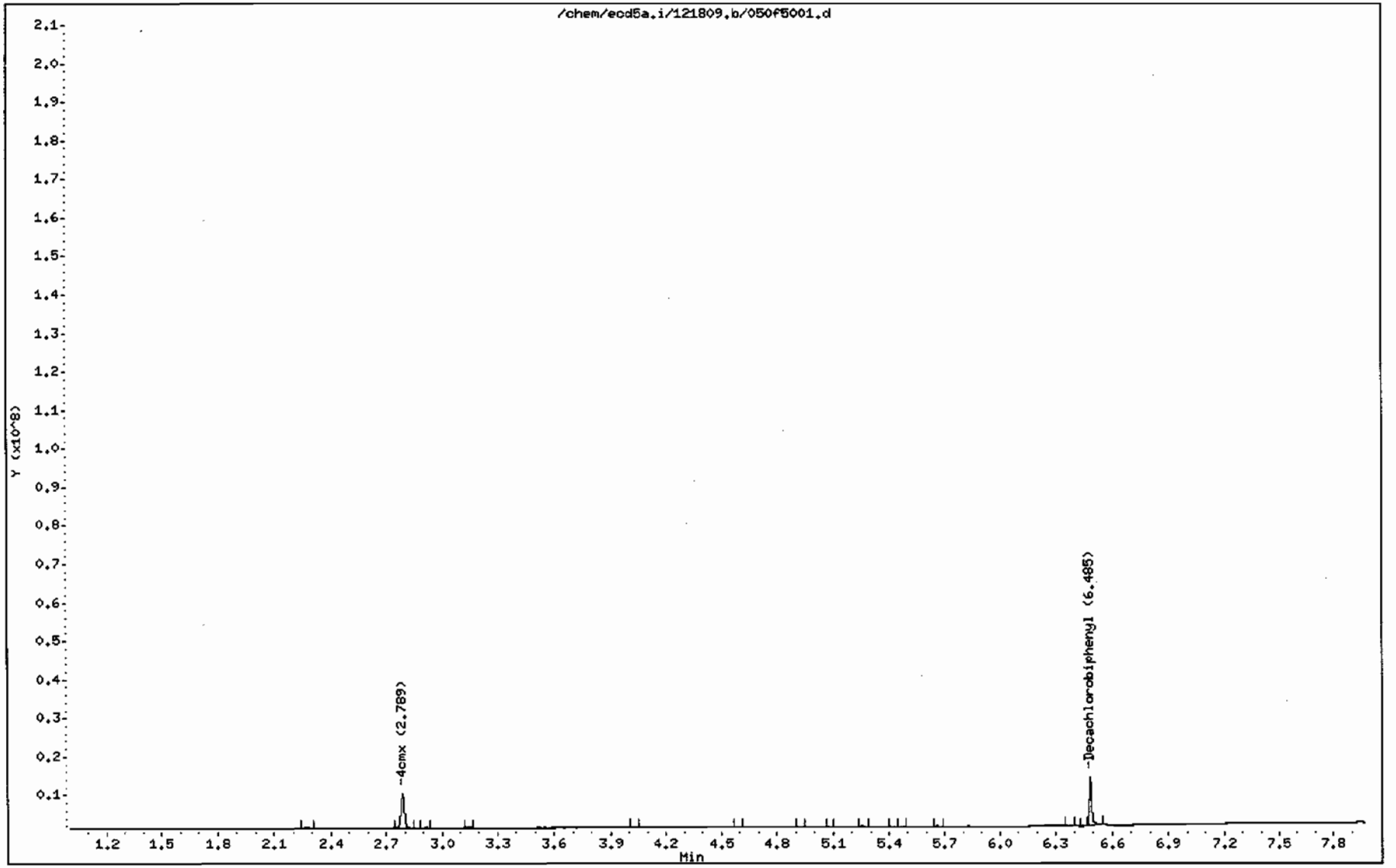

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd5a.i/121809.b/050b5001.d
Lab Smp Id: 243007002 Client Smp ID: WST03-10-2147
Inj Date : 19-DEC-2009 04:00
Operator : HXJ1 Inst ID: ecd5a.i
Smp Info : |243007002|5|
Misc Info : |ECD81A_1S|934325|SVPF|LANL|SOIL|WST03-10-2147|||
Comment :
Method : /chem/ecd5a.i/121809.b/ECD5-B-8081-121809.m
Meth Date : 19-Dec-2009 12:43 hea01125 Quant Type: ESTD
Cal Date : 05-DEC-2009 03:28 Cal File: 025b2501.d
Als bottle: 50
Dil Factor: 5.00000
Integrator: Falcon Compound Sublist: 10-939.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	5.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.02000	Weigth of sample extracted (g)
M	13.49180	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
3.199	3.202	-0.003	84000696	27.3069	26.3	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.159	7.160	-0.001	55276470	42.2310	40.6	80.00- 120.00	100.00

Data File: /chem/ecd5a.i/121809.b/050b5001.d

Date : 19-DEC-2009 04:00

Client ID: WST03-10-2147

Sample Info: 1243007002!5!

Volume Injected (uL): 1.0

Column phase: CLP-2

Instrument: ecd5a.i

Operator: HXJ1

Column diameter: 0.25

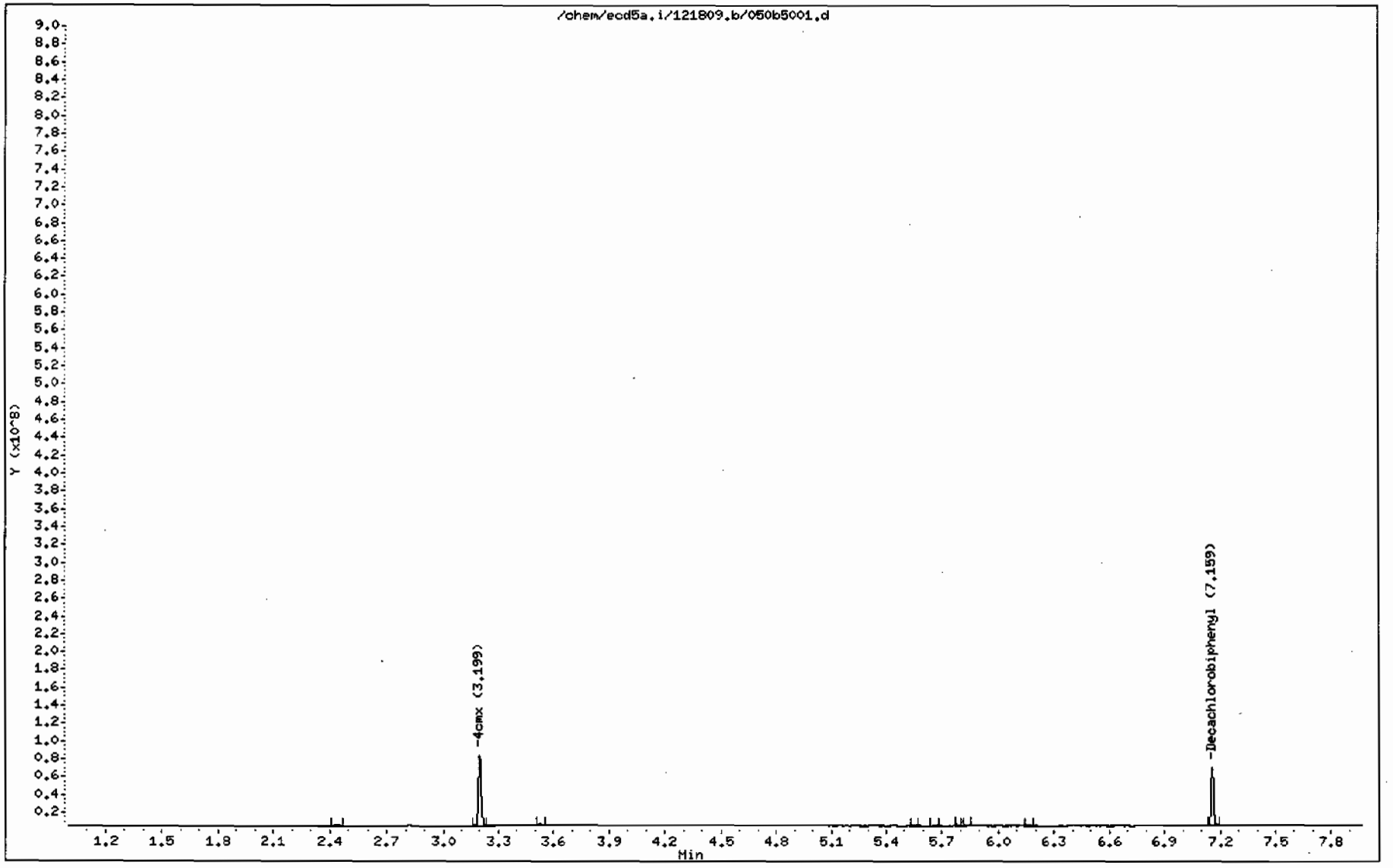

STANDARDS DATA

Report Date: 18-Dec-2009 23:16

Calibration History

Method : /chem/ecd5a.i/121809.b/ECD5-F-8081-121809.m
Start Cal Date: 16-SEP-2009 20:07
End Cal Date : 18-DEC-2009 22:02

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 2.00000		
05-DEC-2009 02:40	gapa	/chem/ecd5a.i/120409b.b/021f2101.d
03-NOV-2009 15:03	ar1660	/chem/ecd5a.i/110309.b/006f0601.d
18-DEC-2009 21:15	chlor	/chem/ecd5a.i/121809.b/016f1601.d
18-DEC-2009 19:51	tox	/chem/ecd5a.i/121809.b/009f0901.d
18-DEC-2009 18:40	indab	/chem/ecd5a.i/121809.b/003f0301.d
Cal Level: 2 , Cal Amount: 10.00000		
05-DEC-2009 02:52	gapa	/chem/ecd5a.i/120409b.b/022f2201.d
03-NOV-2009 15:15	ar1660	/chem/ecd5a.i/110309.b/007f0701.d
18-DEC-2009 21:27	chlor	/chem/ecd5a.i/121809.b/017f1701.d
18-DEC-2009 20:03	tox	/chem/ecd5a.i/121809.b/010f1001.d
18-DEC-2009 18:52	indab	/chem/ecd5a.i/121809.b/004f0401.d
Cal Level: 3 , Cal Amount: 50.00000		
05-DEC-2009 03:04	gapa	/chem/ecd5a.i/120409b.b/023f2301.d
03-NOV-2009 15:26	ar1660	/chem/ecd5a.i/110309.b/008f0801.d
18-DEC-2009 21:39	chlor	/chem/ecd5a.i/121809.b/018f1801.d
18-DEC-2009 20:15	tox	/chem/ecd5a.i/121809.b/011f1101.d
18-DEC-2009 19:03	indab	/chem/ecd5a.i/121809.b/005f0501.d
Cal Level: 4 , Cal Amount: 100.00000		
05-DEC-2009 03:16	gapa	/chem/ecd5a.i/120409b.b/024f2401.d
03-NOV-2009 18:34	ar1254	/chem/ecd5a.i/110309.b/024f2401.d
03-NOV-2009 18:22	ar1248	/chem/ecd5a.i/110309.b/023f2301.d
03-NOV-2009 18:10	ar1242	/chem/ecd5a.i/110309.b/022f2201.d
03-NOV-2009 16:48	ar1232	/chem/ecd5a.i/110309.b/015f1501.d
03-NOV-2009 16:25	ar1221	/chem/ecd5a.i/110309.b/013f1301.d
03-NOV-2009 15:38	ar1660	/chem/ecd5a.i/110309.b/009f0901.d
18-DEC-2009 21:51	chlor	/chem/ecd5a.i/121809.b/019f1901.d
18-DEC-2009 20:27	tox	/chem/ecd5a.i/121809.b/012f1201.d
18-DEC-2009 19:15	indab	/chem/ecd5a.i/121809.b/006f0601.d
Cal Level: 5 , Cal Amount: 200.00000		
05-DEC-2009 03:28	gapa	/chem/ecd5a.i/120409b.b/025f2501.d
03-NOV-2009 15:50	ar1660	/chem/ecd5a.i/110309.b/010f1001.d
18-DEC-2009 22:02	chlor	/chem/ecd5a.i/121809.b/020f2001.d
18-DEC-2009 20:39	tox	/chem/ecd5a.i/121809.b/013f1301.d
18-DEC-2009 19:27	indab	/chem/ecd5a.i/121809.b/007f0701.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 100		
18-DEC-2009 22:14	chlor	/chem/ecd5a.i/121809.b/021f2101.d
Ccal Level: 4 , Ccal Amount: 100		
18-DEC-2009 21:51	chlor	/chem/ecd5a.i/121809.b/019f1901.d
Ccal Level: 4 , Ccal Amount: 100		
18-DEC-2009 22:26	indab	/chem/ecd5a.i/121809.b/022f2201.d
Ccal Level: 4 , Ccal Amount: 100		
18-DEC-2009 20:51	tox	/chem/ecd5a.i/121809.b/014f1401.d
Ccal Level: 4 , Ccal Amount: 100		
18-DEC-2009 20:27	tox	/chem/ecd5a.i/121809.b/012f1201.d
Ccal Level: 4 , Ccal Amount: 100		
18-DEC-2009 21:03	indab	/chem/ecd5a.i/121809.b/015f1501.d
Ccal Level: 4 , Ccal Amount: 100		
18-DEC-2009 19:39	indab	/chem/ecd5a.i/121809.b/008f0801.d
Ccal Level: 4 , Ccal Amount: 100		
18-DEC-2009 19:15	indab	/chem/ecd5a.i/121809.b/006f0601.d

Report Date: 18-Dec-2009 23:16

Calibration History

Method : /chem/ecd5a.i/121809.b/ECD5-B-8081-121809.m
Start Cal Date: 16-SEP-2009 20:07
End Cal Date : 18-DEC-2009 22:02

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 2.00000		
05-DEC-2009 02:40	gapa	/chem/ecd5a.i/120409b.b/021b2101.d
03-NOV-2009 15:03	ar1660	/chem/ecd5a.i/110309.b/006b0601.d
18-DEC-2009 21:15	chlor	/chem/ecd5a.i/121809.b/016b1601.d
18-DEC-2009 19:51	tox	/chem/ecd5a.i/121809.b/009b0901.d
18-DEC-2009 18:40	indab	/chem/ecd5a.i/121809.b/003b0301.d
Cal Level: 2 , Cal Amount: 10.00000		
05-DEC-2009 02:52	gapa	/chem/ecd5a.i/120409b.b/022b2201.d
03-NOV-2009 15:15	ar1660	/chem/ecd5a.i/110309.b/007b0701.d
18-DEC-2009 21:27	chlor	/chem/ecd5a.i/121809.b/017b1701.d
18-DEC-2009 20:03	tox	/chem/ecd5a.i/121809.b/010b1001.d
18-DEC-2009 18:52	indab	/chem/ecd5a.i/121809.b/004b0401.d
Cal Level: 3 , Cal Amount: 50.00000		
05-DEC-2009 03:04	gapa	/chem/ecd5a.i/120409b.b/023b2301.d
03-NOV-2009 15:26	ar1660	/chem/ecd5a.i/110309.b/008b0801.d
18-DEC-2009 21:39	chlor	/chem/ecd5a.i/121809.b/018b1801.d
18-DEC-2009 20:15	tox	/chem/ecd5a.i/121809.b/011b1101.d
18-DEC-2009 19:03	indab	/chem/ecd5a.i/121809.b/005b0501.d
Cal Level: 4 , Cal Amount: 100.00000		
05-DEC-2009 03:16	gapa	/chem/ecd5a.i/120409b.b/024b2401.d
03-NOV-2009 18:34	ar1254	/chem/ecd5a.i/110309.b/024b2401.d
03-NOV-2009 18:22	ar1248	/chem/ecd5a.i/110309.b/023b2301.d
03-NOV-2009 18:10	ar1242	/chem/ecd5a.i/110309.b/022b2201.d
03-NOV-2009 16:48	ar1232	/chem/ecd5a.i/110309.b/015b1501.d
03-NOV-2009 16:25	ar1221	/chem/ecd5a.i/110309.b/013b1301.d
03-NOV-2009 15:38	ar1660	/chem/ecd5a.i/110309.b/009b0901.d
18-DEC-2009 21:51	chlor	/chem/ecd5a.i/121809.b/019b1901.d
18-DEC-2009 20:27	tox	/chem/ecd5a.i/121809.b/012b1201.d
18-DEC-2009 19:15	indab	/chem/ecd5a.i/121809.b/006b0601.d
Cal Level: 5 , Cal Amount: 200.00000		
05-DEC-2009 03:28	gapa	/chem/ecd5a.i/120409b.b/025b2501.d
03-NOV-2009 15:50	ar1660	/chem/ecd5a.i/110309.b/010b1001.d
18-DEC-2009 22:02	chlor	/chem/ecd5a.i/121809.b/020b2001.d
18-DEC-2009 20:39	tox	/chem/ecd5a.i/121809.b/013b1301.d
18-DEC-2009 19:27	indab	/chem/ecd5a.i/121809.b/007b0701.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 100		
18-DEC-2009 22:14	chlor	/chem/ecd5a.i/121809.b/021b2101.d
Ccal Level: 4 , Ccal Amount: 100		
18-DEC-2009 21:51	chlor	/chem/ecd5a.i/121809.b/019b1901.d
Ccal Level: 4 , Ccal Amount: 100		
18-DEC-2009 20:51	tox	/chem/ecd5a.i/121809.b/014b1401.d
Ccal Level: 4 , Ccal Amount: 100		
18-DEC-2009 20:27	tox	/chem/ecd5a.i/121809.b/012b1201.d
Ccal Level: 4 , Ccal Amount: 100		
18-DEC-2009 21:03	indab	/chem/ecd5a.i/121809.b/015b1501.d
Ccal Level: 4 , Ccal Amount: 100		
18-DEC-2009 19:15	indab	/chem/ecd5a.i/121809.b/006b0601.d
Ccal Level: 4 , Ccal Amount: 100		
18-DEC-2009 19:39	indab	/chem/ecd5a.i/121809.b/008b0801.d

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd5a.i/121809.b/ECD5-F-8081-121809.m
Quant Method : ESTD Target Version : 3.50
Last Update : 18-Dec-2009 23:11 Number of Cpnds : 44
Data Type : GC MULTI COMP

Global Integrator : Falcon

Chromat Events	Values
Initial:Start Threshold	10005.000000
Initial:End Threshold	5002.500000
Initial:Area Threshold	100050.000000
Initial:P-P Resolution	1.000000
Initial:Bunch Factor	3.000000
Initial:Negative Peaks	OFF
Initial:Tension	0.000000

Compound	RT	RT Window	RF
$ 1 4cmx	2.791	2.761-2.821	4.581e+05
63 2,4,5-Trichlorophenol	1.476	1.376-1.576	
59 Hexachlorobenzene	3.159	3.059-3.259	3.882e+05
2 Aroclor-1221	2.631	2.601-2.661	5.910e+03
	2.767	2.736-2.796	3.363e+03
	2.802	2.772-2.832	1.422e+04
3 Aroclor-1016	3.102	3.072-3.132	1.760e+04
	3.460	3.430-3.490	2.200e+04
	3.686	3.656-3.716	8.402e+03
	3.702	3.672-3.732	8.144e+03
	3.839	3.809-3.869	1.168e+04
4 Aroclor-1232	3.104	3.074-3.134	7.998e+03
	3.248	3.218-3.278	2.167e+03
	3.459	3.430-3.490	1.042e+04
	3.555	3.525-3.585	6.943e+03
	4.119	4.089-4.149	4.959e+03
5 alpha-BHC	3.295	3.265-3.325	6.117e+05
6 Aroclor-1242	3.124	3.024-3.224	1.426e+04
	3.486	3.386-3.586	1.830e+04
	3.570	3.470-3.670	7.474e+03
	4.082	3.982-4.182	9.828e+03
	4.170	4.070-4.270	9.417e+03
7 gamma-BHC (Lindane)	3.552	3.522-3.582	5.478e+05

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd5a.i/121809.b/ECD5-F-8081-121809.m

Compound	RT	RT Window	RF
8 Chlordane (tech.)	3.846	3.746-3.946	1.741e+04
	3.904	3.804-4.004	2.262e+04
	4.212	4.112-4.312	1.723e+04
	4.607	4.507-4.707	5.443e+04
	5.173	5.073-5.273	1.347e+04
9 Aroclor-1248	3.686	3.586-3.786	1.281e+04
	3.839	3.739-3.939	1.679e+04
	3.897	3.797-3.997	1.095e+04
	4.119	4.019-4.219	2.029e+04
	4.509	4.409-4.609	9.814e+03
10 Heptachlor	3.905	3.875-3.935	4.974e+05
11 Aldrin	4.117	4.087-4.147	5.102e+05
12 beta-BHC	3.621	3.591-3.651	2.451e+05
13 delta-BHC	3.755	3.725-3.785	5.425e+05
14 Heptachlor epoxide	4.526	4.496-4.556	4.471e+05
15 Aroclor-1254	4.090	4.060-4.120	1.481e+04
	4.257	4.227-4.287	2.571e+04
	4.509	4.479-4.539	2.679e+04
	4.679	4.649-4.709	2.010e+04
	4.960	4.930-4.990	2.920e+04
16 Endosulfan I	4.780	4.750-4.810	4.147e+05
17 gamma-Chlordane	4.607	4.577-4.637	4.355e+05
18 alpha-Chlordane	4.691	4.661-4.721	4.338e+05
19 4,4'-DDE	4.735	4.705-4.765	4.185e+05
20 Dieldrin	4.930	4.900-4.960	4.345e+05
21 Aroclor-1260	4.608	4.508-4.708	2.245e+04
	4.796	4.696-4.896	3.535e+04
	4.881	4.781-4.981	1.482e+04
	4.941	4.841-5.041	3.945e+04
	5.332	5.232-5.432	4.235e+04
22 Endrin	5.076	5.046-5.106	3.148e+05
23 Toxaphene	4.717	4.687-4.747	2.803e+03
	4.932	4.902-4.962	5.283e+03
	4.987	4.957-5.017	6.997e+03
	5.025	4.995-5.055	8.919e+03
	5.087	5.057-5.117	8.608e+03
24 Endosulfan II	5.215	5.185-5.245	3.565e+05
25 4,4'-DDD	5.105	5.075-5.135	3.512e+05
26 4,4'-DDT	5.275	5.245-5.305	3.232e+05
27 Endrin aldehyde	5.468	5.438-5.498	2.993e+05

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd5a.i/121809.b/ECD5-F-8081-121809.m

	Compound	RT	RT Window	RF
	28 Methoxychlor	5.560	5.530-5.590	1.183e+05
	29 Endosulfan sulfate	5.729	5.699-5.759	3.012e+05
	30 Aroclor-1268	5.050	4.950-5.150	
		5.067	4.967-5.167	
		5.185	5.085-5.285	
		5.378	5.278-5.478	
		5.531	5.431-5.631	
	61 Aroclor-1262	4.121	4.021-4.221	
		4.289	4.189-4.389	
		4.525	4.425-4.625	
		4.671	4.571-4.771	
		4.854	4.754-4.954	
	31 Endrin ketone	5.903	5.873-5.933	3.632e+05
	51 Mirex	5.805	5.775-5.835	2.290e+05
	52 C-Nonachlor	5.228	5.198-5.258	3.943e+05
	53 O-Chlordane	4.586	4.556-4.616	3.128e+05
	54 T-Nonachlor	4.811	4.781-4.841	3.369e+05
	55 1,2-Dichlorobenzene	6.525	6.495-6.555	
	56 2,4-DDE	4.647	4.617-4.677	2.204e+05
	58 2,4-DDD	4.979	4.949-5.008	1.978e+05
	57 2,4-DDT	5.136	5.106-5.166	1.547e+05
$	32 Decachlorobiphenyl	6.485	6.455-6.515	2.547e+05
M	62 TTO Sum Pesticides	1.000	0.980-1.020	

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd5a.i/121809.b/ECD5-B-8081-121809.m
Quant Method : ESTD Target Version : 3.50
Last Update : 18-Dec-2009 23:04 Number of Cpnds : 43
Data Type : GC MULTI COMP

Global Integrator : Falcon

Chromat Events	Values
Initial:Start Threshold	92700.000000
Initial:End Threshold	46350.000000
Initial:Area Threshold	927000.000000
Initial:P-P Resolution	1.000000
Initial:Bunch Factor	3.000000
Initial:Negative Peaks	OFF
Initial:Tension	0.000000

Compound	RT	RT Window	RF
$ 1 4cmx	3.202	3.172-3.232	3.076e+06
61 2,4,5-Trichlorophenol	1.631	1.531-1.731	
59 Hexachlorobenzene	2.657	2.627-2.687	4.557e+06
2 Aroclor-1221	3.136	3.107-3.167	3.819e+04
	3.255	3.225-3.285	2.282e+04
	3.304	3.274-3.334	7.878e+04
3 Aroclor-1016	3.947	3.917-3.977	1.293e+05
	4.040	4.010-4.070	8.559e+04
	4.110	4.080-4.140	5.407e+04
	4.171	4.141-4.201	5.109e+04
	4.351	4.321-4.381	6.850e+04
4 Aroclor-1232	3.304	3.275-3.334	5.230e+04
	3.949	3.919-3.979	5.701e+04
	4.040	4.010-4.070	3.929e+04
	4.350	4.320-4.380	3.045e+04
	4.622	4.592-4.652	3.317e+04
5 alpha-BHC	3.730	3.700-3.760	4.158e+06
6 Aroclor-1242	3.618	3.588-3.648	8.644e+04
	4.040	4.010-4.070	6.791e+04
	4.109	4.079-4.139	4.340e+04
	4.350	4.320-4.380	5.437e+04
	4.430	4.400-4.460	5.974e+04
7 gamma-BHC (Lindane)	4.006	3.976-4.036	3.558e+06

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd5a.i/121809.b/ECD5-B-8081-121809.m

Compound	RT	RT Window	RF
8 Chlordane (tech.)	4.227	4.197-4.257	9.389e+04
	4.652	4.622-4.682	7.620e+04
	4.907	4.877-4.937	5.344e+04
	5.055	5.025-5.085	2.514e+05
	5.146	5.116-5.176	2.034e+05
9 Aroclor-1248	4.172	4.142-4.202	7.431e+04
	4.351	4.321-4.381	9.433e+04
	4.431	4.401-4.461	1.002e+05
	4.592	4.562-4.622	1.083e+05
	4.768	4.738-4.798	1.138e+05
10 Heptachlor	4.332	4.302-4.362	3.090e+06
11 Aldrin	4.561	4.531-4.591	3.042e+06
12 beta-BHC	4.062	4.032-4.092	1.580e+06
13 delta-BHC	4.278	4.248-4.308	3.437e+06
14 Heptachlor epoxide	4.934	4.904-4.964	2.711e+06
15 Aroclor-1254	4.619	4.589-4.649	9.484e+04
	4.734	4.704-4.764	1.078e+05
	5.023	4.993-5.053	1.477e+05
	5.158	5.128-5.188	1.045e+05
	5.481	5.451-5.511	1.267e+05
16 Endosulfan I	5.190	5.160-5.220	2.274e+06
17 gamma-Chlordane	5.055	5.025-5.085	2.584e+06
18 alpha-Chlordane	5.145	5.115-5.175	2.468e+06
19 4,4'-DDE	5.230	5.200-5.260	2.353e+06
20 Dieldrin	5.359	5.329-5.389	2.384e+06
21 Aroclor-1260	5.043	5.013-5.073	6.157e+04
	5.140	5.110-5.170	1.370e+05
	5.261	5.231-5.291	1.523e+05
	5.481	5.451-5.511	1.467e+05
	6.079	6.049-6.109	1.563e+05
22 Endrin	5.550	5.520-5.580	1.778e+06
23 Toxaphene	5.412	5.382-5.442	2.203e+04
	5.547	5.517-5.577	3.434e+04
	5.638	5.608-5.668	3.377e+04
	5.668	5.638-5.698	5.641e+04
	5.726	5.696-5.756	8.647e+04
24 Endosulfan II	5.675	5.645-5.705	2.003e+06
25 4,4'-DDD	5.583	5.553-5.613	1.969e+06
26 4,4'-DDT	5.775	5.745-5.805	1.806e+06
27 Endrin aldehyde	5.875	5.845-5.905	1.590e+06

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd5a.i/121809.b/ECD5-B-8081-121809.m

Compound	RT	RT Window	RF
28 Methoxychlor	6.170	6.140-6.200	7.735e+05
29 Endosulfan sulfate	6.040	6.010-6.070	1.652e+06
30 Aroclor-1268	5.217	5.187-5.247	
	5.596	5.566-5.626	
	5.628	5.598-5.658	
	5.769	5.739-5.799	
	6.149	6.119-6.179	
60 Aroclor-1262	4.689	4.589-4.789	
	4.779	4.679-4.879	
	5.074	4.974-5.174	
	5.224	5.124-5.324	
	5.396	5.296-5.496	
31 Endrin ketone	6.385	6.355-6.415	1.950e+06
51 Mirex	5.518	5.488-5.548	2.494e+06
52 C-Nonachlor	4.782	4.752-4.812	4.546e+06
53 O-Chlordane	4.058	4.028-4.088	3.680e+06
54 T-Nonachlor	4.303	4.274-4.333	3.953e+06
55 1,2-Dichlorobenzene	6.619	6.589-6.649	
56 2,4-DDE	4.251	4.221-4.281	2.053e+06
58 2,4-DDD	4.572	4.542-4.602	2.283e+06
57 2,4-DDT	4.757	4.727-4.787	2.076e+06
$ 32 Decachlorobiphenyl	7.160	7.130-7.190	1.309e+06

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 16-SEP-2009 20:07
End Cal Date : 18-DEC-2009 22:02
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd5a.i/121809.b/ECD5-F-8081-121809.m
Cal Date : 18-Dec-2009 23:11 hea01125
Curve Type : Average

Calibration File Names:
Level 1: /chem/ecd5a.i/120409b.b/021f2101.d
Level 2: /chem/ecd5a.i/120409b.b/022f2201.d
Level 3: /chem/ecd5a.i/120409b.b/023f2301.d
Level 4: /chem/ecd5a.i/120409b.b/024f2401.d
Level 5: /chem/ecd5a.i/120409b.b/025f2501.d

Compound	2.000 Level 1	10.000 Level 2	50.000 Level 3	100.000 Level 4	200.000 Level 5	RRF	% RSD
63 2,4,5-Trichlorophenol	+++++	+++++	+++++	+++++	+++++	+++++	+++++
59 Hexachlorobenzene	451162	387986	367027	366085	368958	388243	9.351
2 Aroclor-1221(1)	+++++	+++++	+++++	5910	+++++	5910	0.000
(2)	+++++	+++++	+++++	3363	+++++	3363	0.000
(3)	+++++	+++++	+++++	14218	+++++	14218	0.000
3 Aroclor-1016(1)	18316	18455	17930	17404	15906	17602	5.863
(2)	21725	22828	22310	22663	20456	21996	4.360
(3)	8841	8543	8438	8235	7951	8402	3.973
(4)	8274	8363	8182	8166	7736	8144	2.968
(5)	11759	11851	11816	11833	11120	11676	2.678
4 Aroclor-1232(1)	+++++	+++++	+++++	7998	+++++	7998	0.000
(2)	+++++	+++++	+++++	2167	+++++	2167	0.000
(3)	+++++	+++++	+++++	10425	+++++	10425	0.000
(4)	+++++	+++++	+++++	6943	+++++	6943	0.000
(5)	+++++	+++++	+++++	4959	+++++	4959	0.000
5 alpha-BHC	603892	594892	614223	634138	611161	611661	2.388
6 Aroclor-1242(1)	+++++	+++++	+++++	14263	+++++	14263	0.000
(2)	+++++	+++++	+++++	18303	+++++	18303	0.000
(3)	+++++	+++++	+++++	7474	+++++	7474	0.000
(4)	+++++	+++++	+++++	9828	+++++	9828	0.000
(5)	+++++	+++++	+++++	9417	+++++	9417	0.000
7 gamma-BHC (Lindane)	543784	528213	542328	557973	566654	547790	2.721
8 Chlordane (tech.)(1)	18749	17452	16350	17491	17027	17414	5.033
(2)	23650	22500	21524	23266	22182	22624	3.754
(3)	18619	17029	16558	17475	16469	17230	5.075
(4)	53988	51028	54034	58136	54970	54431	4.679
(5)	13759	12431	12502	14412	14253	13471	7.042

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 16-SEP-2009 20:07
End Cal Date : 18-DEC-2009 22:02
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd5a.i/121809.b/ECD5-F-8081-121809.m
Cal Date : 18-Dec-2009 23:11 hea01125
Curve Type : Average

Compound	2.000 Level 1	10.000 Level 2	50.000 Level 3	100.000 Level 4	200.000 Level 5	___ RRF	% RSD
9 Aroclor-1248(1)	+++++	+++++	+++++	12812	+++++	12812	0.000
(2)	+++++	+++++	+++++	16794	+++++	16794	0.000
(3)	+++++	+++++	+++++	10955	+++++	10955	0.000
(4)	+++++	+++++	+++++	20294	+++++	20294	0.000
(5)	+++++	+++++	+++++	9814	+++++	9814	0.000
10 Heptachlor	511126	486592	486695	501768	500752	497387	2.133
11 Aldrin	510264	498618	508288	515608	518064	510168	1.483
12 beta-BHC	271121	248798	231554	234080	239898	245090	6.524
13 delta-BHC	524164	513663	529826	566066	578940	542532	5.223
14 Heptachlor epoxide	462239	442816	441652	445645	443388	447148	1.914
15 Aroclor-1254(1)	+++++	+++++	+++++	14812	+++++	14812	0.000
(2)	+++++	+++++	+++++	25713	+++++	25713	0.000
(3)	+++++	+++++	+++++	26786	+++++	26786	0.000
(4)	+++++	+++++	+++++	20102	+++++	20102	0.000
(5)	+++++	+++++	+++++	29201	+++++	29201	0.000
16 Endosulfan I	410925	415284	410109	418112	419015	414689	0.979
17 gamma-Chlordane	433070	419047	436382	440440	448604	435509	2.498
18 alpha-Chlordane	441488	433619	421118	433524	439322	433814	1.824
19 4,4'-DDE	404959	419251	422738	425141	420176	418453	1.885
20 Dieldrin	433339	433931	437331	438561	429201	434473	0.848
21 Aroclor-1260(1)	22983	23321	22940	22516	20469	22446	5.085
(2)	35726	36888	36310	35624	32213	35352	5.167
(3)	14778	14965	14903	14964	14487	14820	1.354
(4)	39548	40617	40289	39914	36902	39454	3.756
(5)	42946	43953	43513	42694	38645	42350	5.027
22 Endrin	311186	306285	309873	325455	321014	314763	2.571
23 Toxaphene(1)	2932	3058	2747	2589	2692	2803	6.739
(2)	5712	5430	5070	5067	5137	5283	5.345
(3)	6963	7140	6980	6839	7062	6997	1.617
(4)	9148	8941	8783	8760	8961	8919	1.760
(5)	8683	8527	8637	8621	8569	8608	0.702
24 Endosulfan 1I	361288	356103	356790	355685	352861	356546	0.854
25 4,4'-DDD	346572	344766	347696	362721	354462	351244	2.104

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 16-SEP-2009 20:07
End Cal Date : 18-DEC-2009 22:02
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd5a.i/121809.b/ECD5-F-8081-121809.m
Cal Date : 18-Dec-2009 23:11 hea01125
Curve Type : Average

	Compound	2.000 Level 1	10.000 Level 2	50.000 Level 3	100.000 Level 4	200.000 Level 5	RRF	% RSD
	26 4,4'-DDT	301745	305712	326271	339729	342601	323212	5.840
	27 Endrin aldehyde	290440	299917	301380	301567	302951	299251	1.685
	28 Methoxychlor	109043	116378	122884	120821	122386	118302	4.883
	29 Endosulfan sulfate	287257	282675	286970	317601	331392	301179	7.276
	30 Aroclor-1268(1)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	(2)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	(3)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	(4)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	(5)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	61 Aroclor-1262(1)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	(2)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	(3)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	(4)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	(5)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	31 Endrin ketone	345750	340497	343323	386848	399805	363245	7.681
	51 Mirex	259962	231947	216366	218180	218649	229021	8.025
	52 C-Nonachlor	409160	392847	392123	390875	386731	394347	2.184
	53 O-Chlordane	343864	315598	305572	301977	297134	312829	5.954
	54 T-Nonachlor	358283	334318	332927	330171	328873	336914	3.603
	55 1,2-Dichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	56 2,4-DDE	240672	221856	219006	214175	206476	220437	5.772
	58 2,4-DDD	206130	201318	196461	194071	191092	197814	3.017
	57 2,4-DDT	143151	148792	152919	162534	166019	154683	6.141
M	62 TTO Sum Pesticides	+++++	+++++	+++++	+++++	+++++	+++++	+++++
$	1 4cmx	485169	459149	448420	449977	447539	458051	3.461
$	32 Decachlorobiphenyl	251946	246382	248096	258693	268390	254702	3.532

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 16-SEP-2009 20:07
End Cal Date : 18-DEC-2009 22:02
Quant Method : ESTD
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd5a.i/121809.b/ECD5-B-8081-121809.m
Cal Date : 18-Dec-2009 23:04 hea01125

Calibration File Names:
Level 1: /chem/ecd5a.i/120409b.b/021b2101.d
Level 2: /chem/ecd5a.i/120409b.b/022b2201.d
Level 3: /chem/ecd5a.i/120409b.b/023b2301.d
Level 4: /chem/ecd5a.i/120409b.b/024b2401.d
Level 5: /chem/ecd5a.i/120409b.b/025b2501.d

Compound	2 Level 1	10 Level 2	50 Level 3	100 Level 4	200 Level 5	Curve	Coefficients b	m1	m2	%RSD or R^2
61 2,4,5-Trichlorophenol	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
59 Hexachlorobenzene	5845652	4719180	4103250	4027456	4087067	AVRG		4556521		16.97872
2 Aroclor-1221(1)	+++++	+++++	+++++	38194	+++++	AVRG		38194		0.000e+00
(2)	+++++	+++++	+++++	22822	+++++	AVRG		22822		0.000e+00
(3)	+++++	+++++	+++++	78778	+++++	AVRG		78778		0.000e+00
3 Aroclor-1016(1)	135228	136032	131291	128421	115286	AVRG		129252		6.49152
(2)	94115	91053	86081	82205	74492	AVRG		85590		9.00075
(3)	59100	56752	54061	51882	48540	AVRG		54067		7.61842
(4)	56717	54302	51105	48729	44616	AVRG		51094		9.25654
(5)	75245	71571	68782	66056	60864	AVRG		68504		7.97140
4 Aroclor-1232(1)	+++++	+++++	+++++	52302	+++++	AVRG		52302		0.000e+00
(2)	+++++	+++++	+++++	57011	+++++	AVRG		57011		0.000e+00
(3)	+++++	+++++	+++++	39294	+++++	AVRG		39294		0.000e+00
(4)	+++++	+++++	+++++	30449	+++++	AVRG		30449		0.000e+00
(5)	+++++	+++++	+++++	33167	+++++	AVRG		33167		0.000e+00
5 alpha-BHC	4609194	4238338	3839618	3953401	4150391	AVRG		4158188		7.14739
6 Aroclor-1242(1)	+++++	+++++	+++++	86436	+++++	AVRG		86436		0.000e+00
(2)	+++++	+++++	+++++	67908	+++++	AVRG		67908		0.000e+00
(3)	+++++	+++++	+++++	43403	+++++	AVRG		43403		0.000e+00
(4)	+++++	+++++	+++++	54366	+++++	AVRG		54366		0.000e+00
(5)	+++++	+++++	+++++	59740	+++++	AVRG		59740		0.000e+00

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 16-SEP-2009 20:07
End Cal Date : 18-DEC-2009 22:02
Quant Method : ESTD
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd5a.i/121809.b/ECD5-B-8081-121809.m
Cal Date : 18-Dec-2009 23:04 hea01125

Compound	2 Level 1	10 Level 2	50 Level 3	100 Level 4	200 Level 5	Curve	Coefficients b	m1	m2	%RSD or R^2
7 gamma-BHC (Lindane)	4017248	3669614	3261795	3351765	3489146	AVRG		3557914		8.41289
8 Chlordane (tech.) (1)	7243646	12999176	52766759	102990106	284949098	LINR	-51.92081	93887		0.99946
(2)	6465169	11825679	44884577	86035689	232282240	LINR	-71.28224	76201		0.99903
(3)	4481798	7851139	29973244	63460324	161982469	LINR	-72.08439	53438		0.99710
(4)	16802571	30350054	128286776	266875379	757762764	LINR	-24.88331	251356		0.99970
(5)	13908645	24735230	104046468	215560048	613359327	LINR	-25.56136	203359		0.99974
9 Aroclor-1248 (1)	+++++	+++++	+++++	74311	+++++	AVRG		74311		0.000e+00
(2)	+++++	+++++	+++++	94327	+++++	AVRG		94327		0.000e+00
(3)	+++++	+++++	+++++	100218	+++++	AVRG		100218		0.000e+00
(4)	+++++	+++++	+++++	108276	+++++	AVRG		108276		0.000e+00
(5)	+++++	+++++	+++++	113831	+++++	AVRG		113831		0.000e+00
10 Heptachlor	3597902	3216698	2849796	2886544	2900718	AVRG		3090332		10.34648
11 Aldrin	3458351	3168461	2830721	2842822	2911482	AVRG		3042368		8.86073
12 beta-BHC	1933029	1752282	1425477	1384226	1403149	AVRG		1579633		15.75637
13 delta-BHC	3845115	3510556	3178036	3244672	3406458	AVRG		3436968		7.65593
14 Heptachlor epoxide	3131791	2847026	2493483	2514436	2569628	AVRG		2711273		10.12614
15 Aroclor-1254 (1)	+++++	+++++	+++++	94842	+++++	AVRG		94842		0.000e+00
(2)	+++++	+++++	+++++	107760	+++++	AVRG		107760		0.000e+00
(3)	+++++	+++++	+++++	147710	+++++	AVRG		147710		0.000e+00
(4)	+++++	+++++	+++++	104486	+++++	AVRG		104486		0.000e+00
(5)	+++++	+++++	+++++	126738	+++++	AVRG		126738		0.000e+00
16 Endosulfan I	2684108	2412553	2085135	2072916	2114515	AVRG		2273845		11.81958
17 gamma-Chlordane	2947340	2711635	2370810	2410655	2478879	AVRG		2583864		9.37779
18 alpha-Chlordane	2857838	2595288	2267072	2274351	2347530	AVRG		2468416		10.33965

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 16-SEP-2009 20:07
End Cal Date : 18-DEC-2009 22:02
Quant Method : ESTD
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd5a.i/121809.b/ECD5-B-8081-121809.m
Cal Date : 18-Dec-2009 23:04 hea01125

Compound	2 Level 1	10 Level 2	50 Level 3	100 Level 4	200 Level 5	Curve	Coefficients b	m1	m2	%RSD or R^2
19 4,4'-DDE	2587295	2379030	2222151	2261903	2314448	AVRG		2352965		6.10272
20 Dieldrin	2592138	2389911	2258560	2305711	2375822	AVRG		2384428		5.35795
21 Aroclor-1260 (1)	67909	63594	61133	58501	56721	AVRG		61572		7.14408
(2)	154760	142644	136554	130696	120581	AVRG		137047		9.34993
(3)	163780	157424	151415	148508	140329	AVRG		152291		5.84087
(4)	154736	148501	147397	143879	139185	AVRG		146740		3.92572
(5)	161375	159022	154521	152918	153834	AVRG		156334		2.34679
22 Endrin	1914522	1772016	1651780	1748556	1801741	AVRG		1777723		5.33917
23 Toxaphene (1)	20731	25271	23974	20636	19537	AVRG		22030		11.14970
(2)	34946	36877	35465	31260	33151	AVRG		34340		6.34112
(3)	36503	35627	34333	30811	31601	AVRG		33775		7.35630
(4)	61858	61988	54856	51276	52078	AVRG		56411		9.22517
(5)	99002	88263	82712	81353	81002	AVRG		86466		8.77850
24 Endosulfan II	2269098	2024857	1857608	1906063	1959575	AVRG		2003440		8.03704
25 4,4'-DDD	2094738	1957586	1856384	1927683	2010508	AVRG		1969380		4.54536
26 4,4'-DDT	1872012	1742617	1683656	1823160	1910117	AVRG		1806312		5.13977
27 Endrin aldehyde	1680040	1556365	1504118	1573239	1637695	AVRG		1590291		4.35312
28 Methoxychlor	787674	734559	736571	804769	804011	AVRG		773517		4.56600
29 Endosulfan sulfate	1804042	1593671	1495245	1603505	1761812	AVRG		1651655		7.74774
30 Aroclor-1268 (1)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(2)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(3)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(4)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(5)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 16-SEP-2009 20:07
End Cal Date : 18-DEC-2009 22:02
Quant Method : ESTD
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd5a.i/121809.b/ECD5-B-8081-121809.m
Cal Date : 18-Dec-2009 23:04 hea01125

Compound	2 Level 1	10 Level 2	50 Level 3	100 Level 4	200 Level 5	Curve	Coefficients b	m1	m2	%RSD or R^2
60 Aroclor-1262(1)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(2)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(3)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(4)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(5)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
31 Endrin ketone	2249385	2003092	1809765	1881871	1804401	AVRG		1949703		9.52515
51 Mirex	3034376	2586762	2271014	2269682	2306378	AVRG		2493642		13.23750
52 C-Nonachlor	5434147	4569347	4237619	4239635	4247988	AVRG		4545747		11.36243
53 O-Chlordane	4621772	3807865	3391569	3315709	3261404	AVRG		3679664		15.45956
54 T-Nonachlor	4810064	4005490	3650418	3617452	3681149	AVRG		3952915		12.74570
55 1,2-Dichlorobenzene	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
56 2,4-DDE	13446243	55335831	233676302	440290648	828617791	LINR	-8.28053	2052994		0.99881
58 2,4-DDD	2867792	2442281	2094342	2052175	1958044	AVRG		2282927		16.41635
57 2,4-DDT	2385124	2200116	1922405	1948754	1925922	AVRG		2076464		10.02315
$ 1 4cmx	3589532	3221477	2835898	2842586	2891380	AVRG		3076175		10.67198
$ 32 Decachlorobiphenyl	1503830	1342093	1188873	1231785	1277954	AVRG		1308907		9.38896

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 16-SEP-2009 20:07
End Cal Date : 18-DEC-2009 22:02
Quant Method : ESTD
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd5a.i/121809.b/ECD5-B-8081-121809.m
Cal Date : 18-Dec-2009 23:04 hea01125

Curve	Formula	Units
Averaged	Amt = Rsp/ml	Response
Linear	Amt = b + Rsp/ml	Response

7D

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-939

GC Column: CLP-1 ID: 0.25 (mm) Init. Calib. Date(s): 12/18/09 12/18/09

EPA Sample No.(PIBLK): _____ Date Analyzed :_____

Lab Sample ID (PIBLK): _____ Time Analyzed :_____

EPA Sample No.(PEM): PEM01 Date Analyzed :12/18/09

Lab Sample ID (PEM): WPE091109-99 Time Analyzed :1828

PEM COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ug/L)	NOM AMOUNT (ug/L)	%D
Aldrin	4.12	4.09	4.15	123	100	23.0
4,4'-DDE						
Endrin	5.08	5.05	5.11	122	100	22.0
4,4'-DDD						
4,4'-DDT	5.27	5.24	5.30	108	100	8.0
Endrin ketone						
Endrin aldehyde						

4,4'-DDT % breakdown (1): 3.80 Endrin % breakdown (1): 6.80

Combined % breakdown (1): 10.60

FORM VII PEST-1 OLM03.0

7D

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-939

GC Column: CLP-2 ID: 0.25 (mm) Init. Calib. Date(s): 12/18/09 12/18/09

EPA Sample No.(PIBLK): _____ Date Analyzed :_____

Lab Sample ID (PIBLK): _____ Time Analyzed :_____

EPA Sample No.(PEM): PEM01 Date Analyzed :12/18/09

Lab Sample ID (PEM): WPE091109-99 Time Analyzed :1828

PEM COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ug/L)	NOM AMOUNT (ug/L)	%D
Aldrin	4.56	4.53	4.59	116	100	16.0
4,4'-DDE						
Endrin	5.55	5.52	5.58	116	100	16.0
4,4'-DDD						
4,4'-DDT	5.78	5.74	5.80	104	100	4.0
Endrin ketone						
Endrin aldehyde						

4,4'-DDT % breakdown (1): 3.10 Endrin % breakdown (1): 7.50

Combined % breakdown (1): 10.60

FORM VII PEST-1 OLM03.0

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: Case No.: N/A SAS No.: N/A SDG No.: 10-939

Instrument ID: ECD5A Calibration Date: 12/18/09 Time: 2051

Lab File ID: 014F1401 Init. Calib. Date(s): 12/18/09 12/18/09

Heated Purge: (Y/N) N Init. Calib. Times: 1951 2039

GC Column: CLP-1 ID: 0.25 (mm)

COMPOUND	RRF	RRF100	MIN RRF	%D	MAX %D
Toxaphene	2803.338	3133.579	0.01	11.8	15.0
(2)	5283.454	5658.524	0.01	7.1	15.0
(3)	6996.763	7622.050	0.01	8.9	15.0
(4)	8918.509	8710.311	0.01	-2.3	15.0
(5)	8607.510	9122.090	0.01	6.0	15.0
4cmx	458050.97	477562.92	0.01	4.2	15.0
Decachlorobiphenyl	254701.54	266423.78	0.01	4.6	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: Case No.: N/A SAS No.: N/A SDG No.: 10-939

Instrument ID: ECD5A Calibration Date: 12/18/09 Time: 2051

Lab File ID: 014B1401 Init. Calib. Date(s): 12/18/09 12/18/09

Heated Purge: (Y/N) N Init. Calib. Times: 1951 2039

GC Column: CLP-2 ID: 0.25 (mm)

COMPOUND	RRF	RRF100	MIN RRF	%D	MAX %D
Toxaphene	22029.837	24807.864	0.01	12.6	15.0
(2)	34339.894	34708.510	0.01	1.1	15.0
(3)	33774.954	29973.156	0.01	-11.2	15.0
(4)	56411.045	54124.886	0.01	-4.0	15.0
(5)	86466.387	74070.250	0.01	-14.3	15.0
4cmx	3076174.7	3024877.1	0.01	-1.7	15.0
Decachlorobiphenyl	1308906.9	1247862.2	0.01	-4.7	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: Case No.: N/A SAS No.: N/A SDG No.: 10-939

Instrument ID: ECD5A Calibration Date: 12/18/09 Time: 2103

Lab File ID: 015F1501 Init. Calib. Date(s): 12/18/09 12/18/09

Heated Purge: (Y/N) N Init. Calib. Times: 1840 1927

GC Column: CLP-1 ID: 0.25 (mm)

COMPOUND	RRF	RRF100	MIN RRF	%D	MAX %D
alpha-BHC	611661.06	621448.36	0.01	1.6	15.0
beta-BHC	245090.04	237074.45	0.01	-3.3	15.0
delta-BHC	542531.86	559484.91	0.01	3.1	15.0
gamma-BHC (Lindane)	547790.46	580395.90	0.01	6.0	15.0
Heptachlor	497386.50	485398.01	0.01	-2.4	15.0
Aldrin	510168.39	500808.29	0.01	-1.8	15.0
Heptachlor epoxide	447147.91	447832.81	0.01	0.2	15.0
Endosulfan I	414689.14	436935.86	0.01	5.4	15.0
Dieldrin	434472.61	435486.64	0.01	0.2	15.0
4,4'-DDE	418452.84	427479.92	0.01	2.2	15.0
Endrin	314762.65	337673.95	0.01	7.3	15.0
Endosulfan II	356545.52	365034.26	0.01	2.4	15.0
4,4'-DDD	351243.63	354374.47	0.01	0.9	15.0
Endosulfan sulfate	301179.07	330098.54	0.01	9.6	15.0
4,4'-DDT	323211.75	362305.42	0.01	12.1	15.0
Methoxychlor	118302.32	133321.33	0.01	12.7	15.0
Endrin ketone	363244.53	381941.56	0.01	5.1	15.0
Endrin aldehyde	299251.01	301065.55	0.01	0.6	15.0
gamma-Chlordane	435508.62	466500.04	0.01	7.1	15.0
alpha-Chlordane	433814.30	406908.93	0.01	-6.2	15.0
4cmx	458050.97	456578.38	0.01	-0.3	15.0
Decachlorobiphenyl	254701.54	264655.00	0.01	3.9	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: Case No.: N/A SAS No.: N/A SDG No.: 10-939

Instrument ID: ECD5A Calibration Date: 12/18/09 Time: 2103

Lab File ID: 015B1501 Init. Calib. Date(s): 12/18/09 12/18/09

Heated Purge: (Y/N) N Init. Calib. Times: 1840 1927

GC Column: CLP-2 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF100	MIN RRF	%D	MAX %D
alpha-BHC	4158188.4	4085172.0	0.01	-1.8	15.0
beta-BHC	1579632.7	1433854.8	0.01	-9.2	15.0
delta-BHC	3436967.5	3345902.5	0.01	-2.6	15.0
gamma-BHC (Lindane)	3557913.7	3580200.1	0.01	0.6	15.0
Heptachlor	3090331.7	2848632.7	0.01	-7.8	15.0
Aldrin	3042367.6	2819748.0	0.01	-7.3	15.0
Heptachlor epoxide	2711272.9	2596762.5	0.01	-4.2	15.0
Endosulfan I	2273845.2	2224252.7	0.01	-2.2	15.0
Dieldrin	2384428.2	2356653.2	0.01	-1.2	15.0
4,4'-DDE	2352965.4	2325800.6	0.01	-1.2	15.0
Endrin	1777723.0	1916339.2	0.01	7.8	15.0
Endosulfan II	2003440.1	1972409.6	0.01	-1.5	15.0
4,4'-DDD	1969379.6	1962664.3	0.01	-0.3	15.0
Endosulfan sulfate	1651655.0	1632482.1	0.01	-1.2	15.0
4,4'-DDT	1806312.3	1945853.3	0.01	7.7	15.0
Methoxychlor	773517.03	805921.75	0.01	4.2	15.0
Endrin ketone	1949702.9	1873164.8	0.01	-3.9	15.0
Endrin aldehyde	1590291.3	1558083.0	0.01	-2.0	15.0
gamma-Chlordane	2583863.8	2599155.3	0.01	0.6	15.0
alpha-Chlordane	2468415.8	2191647.3	0.01	-11.2	15.0
4cmx	3076174.7	2954016.8	0.01	-4.0	15.0
Decachlorobiphenyl	1308906.9	1269434.1	0.01	-3.0	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: Case No.: N/A SAS No.: N/A SDG No.: 10-939

Instrument ID: ECD5A Calibration Date: 12/19/09 Time: 0300

Lab File ID: 045F4501 Init. Calib. Date(s): 12/18/09 12/18/09

Heated Purge: (Y/N) N Init. Calib. Times: 1840 1927

GC Column: CLP-1 ID: 0.25 (mm)

COMPOUND	RRF	RRF100	MIN RRF	%D	MAX %D
alpha-BHC	611661.06	644710.04	0.01	5.4	15.0
beta-BHC	245090.04	248541.60	0.01	1.4	15.0
delta-BHC	542531.86	591075.94	0.01	8.9	15.0
gamma-BHC (Lindane)	547790.46	607547.15	0.01	10.9	15.0
Heptachlor	497386.50	502670.64	0.01	1.1	15.0
Aldrin	510168.39	527773.12	0.01	3.4	15.0
Heptachlor epoxide	447147.91	473599.61	0.01	5.9	15.0
Endosulfan I	414689.14	459508.96	0.01	10.8	15.0
Dieldrin	434472.61	458882.76	0.01	5.6	15.0
4,4'-DDE	418452.84	451163.35	0.01	7.8	15.0
Endrin	314762.65	361943.01	0.01	15.0	15.0
Endosulfan II	356545.52	380990.50	0.01	6.8	15.0
4,4'-DDD	351243.63	374923.50	0.01	6.7	15.0
Endosulfan sulfate	301179.07	340219.47	0.01	13.0	15.0
4,4'-DDT	323211.75	343374.80	0.01	6.2	15.0
Methoxychlor	118302.32	122410.41	0.01	3.5	15.0
Endrin ketone	363244.53	359346.76	0.01	-1.1	15.0
Endrin aldehyde	299251.01	314581.62	0.01	5.1	15.0
gamma-Chlordane	435508.62	495985.82	0.01	13.9	15.0
alpha-Chlordane	433814.30	433368.23	0.01	-0.1	15.0
4cmx	458050.97	477606.04	0.01	4.3	15.0
Decachlorobiphenyl	254701.54	290169.16	0.01	13.9	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: Case No.: N/A SAS No.: N/A SDG No.: 10-939

Instrument ID: ECD5A Calibration Date: 12/19/09 Time: 0300

Lab File ID: 045B4501 Init. Calib. Date(s): 12/18/09 12/18/09

Heated Purge: (Y/N) N Init. Calib. Times: 1840 1927

GC Column: CLP-2 ID: 0.25 (mm)

COMPOUND	RRF	RRF100	MIN RRF	%D	MAX %D	
alpha-BHC	4158188.4	4383130.5	0.01	5.4	15.0	
beta-BHC	1579632.7	1534726.6	0.01	-2.8	15.0	
delta-BHC	3436967.5	3599636.5	0.01	4.7	15.0	
gamma-BHC (Lindane)	3557913.7	3827520.9	0.01	7.6	15.0	
Heptachlor	3090331.7	2989094.6	0.01	-3.3	15.0	
Aldrin	3042367.6	3059881.5	0.01	0.6	15.0	
Heptachlor epoxide	2711272.9	2806110.7	0.01	3.5	15.0	
Endosulfan I	2273845.2	2389164.4	0.01	5.1	15.0	
Dieldrin	2384428.2	2532942.8	0.01	6.2	15.0	
4,4'-DDE	2352965.4	2492645.7	0.01	5.9	15.0	
Endrin	1777723.0	2066621.3	0.01	16.2	15.0	<-
Endosulfan II	2003440.1	2113993.9	0.01	5.5	15.0	
4,4'-DDD	1969379.6	2170261.4	0.01	10.2	15.0	
Endosulfan sulfate	1651655.0	1741352.3	0.01	5.4	15.0	
4,4'-DDT	1806312.3	1671964.9	0.01	-7.4	15.0	
Methoxychlor	773517.03	599772.77	0.01	-22.5	15.0	<-
Endrin ketone	1949702.9	1707925.2	0.01	-12.4	15.0	
Endrin aldehyde	1590291.3	1636514.6	0.01	2.9	15.0	
gamma-Chlordane	2583863.8	2804426.7	0.01	8.5	15.0	
alpha-Chlordane	2468415.8	2369252.8	0.01	-4.0	15.0	
4cmx	3076174.7	3142870.4	0.01	2.2	15.0	
Decachlorobiphenyl	1308906.9	1382025.4	0.01	5.6	15.0	

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: Case No.: N/A SAS No.: N/A SDG No.: 10-939

Instrument ID: ECD5A Calibration Date: 12/19/09 Time: 0448

Lab File ID: 054F5401 Init. Calib. Date(s): 12/18/09 12/18/09

Heated Purge: (Y/N) N Init. Calib. Times: 1840 1927

GC Column: CLP-1 ID: 0.25 (mm)

COMPOUND	RRF	RRF100	MIN RRF	%D	MAX %D	
alpha-BHC	611661.06	635544.14	0.01	3.9	15.0	
beta-BHC	245090.04	248986.13	0.01	1.6	15.0	
delta-BHC	542531.86	592112.84	0.01	9.1	15.0	
gamma-BHC (Lindane)	547790.46	607668.75	0.01	10.9	15.0	
Heptachlor	497386.50	502698.50	0.01	1.1	15.0	
Aldrin	510168.39	529633.44	0.01	3.8	15.0	
Heptachlor epoxide	447147.91	474423.60	0.01	6.1	15.0	
Endosulfan I	414689.14	456795.30	0.01	10.2	15.0	
Dieldrin	434472.61	460439.89	0.01	6.0	15.0	
4,4'-DDE	418452.84	453096.32	0.01	8.3	15.0	
Endrin	314762.65	357964.59	0.01	13.7	15.0	
Endosulfan II	356545.52	384907.35	0.01	8.0	15.0	
4,4'-DDD	351243.63	377460.85	0.01	7.5	15.0	
Endosulfan sulfate	301179.07	355103.64	0.01	17.9	15.0	<-
4,4'-DDT	323211.75	350398.46	0.01	8.4	15.0	
Methoxychlor	118302.32	132374.88	0.01	11.9	15.0	
Endrin ketone	363244.53	375171.78	0.01	3.3	15.0	
Endrin aldehyde	299251.01	318931.12	0.01	6.6	15.0	
gamma-Chlordane	435508.62	499577.36	0.01	14.7	15.0	
alpha-Chlordane	433814.30	435223.48	0.01	0.3	15.0	
4cmx	458050.97	478508.78	0.01	4.5	15.0	
Decachlorobiphenyl	254701.54	289685.08	0.01	13.7	15.0	

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: Case No.: N/A SAS No.: N/A SDG No.: 10-939

Instrument ID: ECD5A Calibration Date: 12/19/09 Time: 0448

Lab File ID: 054B5401 Init. Calib. Date(s): 12/18/09 12/18/09

Heated Purge: (Y/N) N Init. Calib. Times: 1840 1927

GC Column: CLP-2 ID: 0.25 (mm)

COMPOUND	RRF	RRF100	MIN RRF	%D	MAX %D	
alpha-BHC	4158188.4	4418586.9	0.01	6.3	15.0	
beta-BHC	1579632.7	1548526.8	0.01	-2.0	15.0	
delta-BHC	3436967.5	3627543.5	0.01	5.5	15.0	
gamma-BHC (Lindane)	3557913.7	3861759.2	0.01	8.5	15.0	
Heptachlor	3090331.7	3009771.3	0.01	-2.6	15.0	
Aldrin	3042367.6	3084260.4	0.01	1.4	15.0	
Heptachlor epoxide	2711272.9	2839802.5	0.01	4.7	15.0	
Endosulfan I	2273845.2	2409302.8	0.01	6.0	15.0	
Dieldrin	2384428.2	2551560.6	0.01	7.0	15.0	
4,4'-DDE	2352965.4	2483990.2	0.01	5.6	15.0	
Endrin	1777723.0	2026839.6	0.01	14.0	15.0	
Endosulfan II	2003440.1	2089379.1	0.01	4.3	15.0	
4,4'-DDD	1969379.6	2101585.2	0.01	6.7	15.0	
Endosulfan sulfate	1651655.0	1795884.7	0.01	8.7	15.0	
4,4'-DDT	1806312.3	1628475.4	0.01	-9.8	15.0	
Methoxychlor	773517.03	609544.29	0.01	-21.2	15.0	<-
Endrin ketone	1949702.9	1770452.3	0.01	-9.2	15.0	
Endrin aldehyde	1590291.3	1659101.0	0.01	4.3	15.0	
gamma-Chlordane	2583863.8	2838679.0	0.01	9.9	15.0	
alpha-Chlordane	2468415.8	2388043.3	0.01	-3.2	15.0	
4cmx	3076174.7	3159317.6	0.01	2.7	15.0	
Decachlorobiphenyl	1308906.9	1411229.2	0.01	7.8	15.0	

FORM VII PEST

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd5a.i/121809.b/002f0201.d
Lab Smp Id: WPE091109-99DG Client Smp ID: PEM01
Inj Date : 18-DEC-2009 18:28
Operator : HXJ1 Inst ID: ecd5a.i
Smp Info : |WPE091109-99DG
Misc Info :
Comment :
Method : /chem/ecd5a.i/121809.b/ECD5-F-8081-121809.m
Meth Date : 19-Dec-2009 12:49 hea01125 Quant Type: ESTD
Cal Date : 05-DEC-2009 03:28 Cal File: 025f2501.d
Als bottle: 2 QC Sample: PEM
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: pem.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
11 Aldrin					CAS #: 309-00-2		
4.116	4.117	-0.001	62955448	123.401	123	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
4.735	4.735	0.000	197952	0.47306	0.473	80.00- 120.00	100.00(M)
22 Endrin					CAS #: 72-20-8		
5.076	5.076	0.000	38364270	121.883	122	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.105	5.105	0.000	1170493	3.33242	3.33	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
5.472	5.468	0.004	843894	2.82002	2.82	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
5.274	5.275	-0.001	34748775	107.511	108	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
5.907	5.903	0.004	1888288	5.19839	5.20	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
2.791	2.791	0.000	98126905	214.227	214	80.00- 120.00	100.00(R)
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
6.487	6.485	0.002	56278543	220.959	221	80.00- 120.00	100.00(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Data File: /chem/ecd5a.i/121809.b/002f0201.d

Date : 18-DEC-2009 18:28

Client ID: PEM01

Sample Info: IWPE091109-99DG

Column phase: CLP-1

Instrument: ecd5a.i

Operator: HXJ1

Column diameter: 0.25

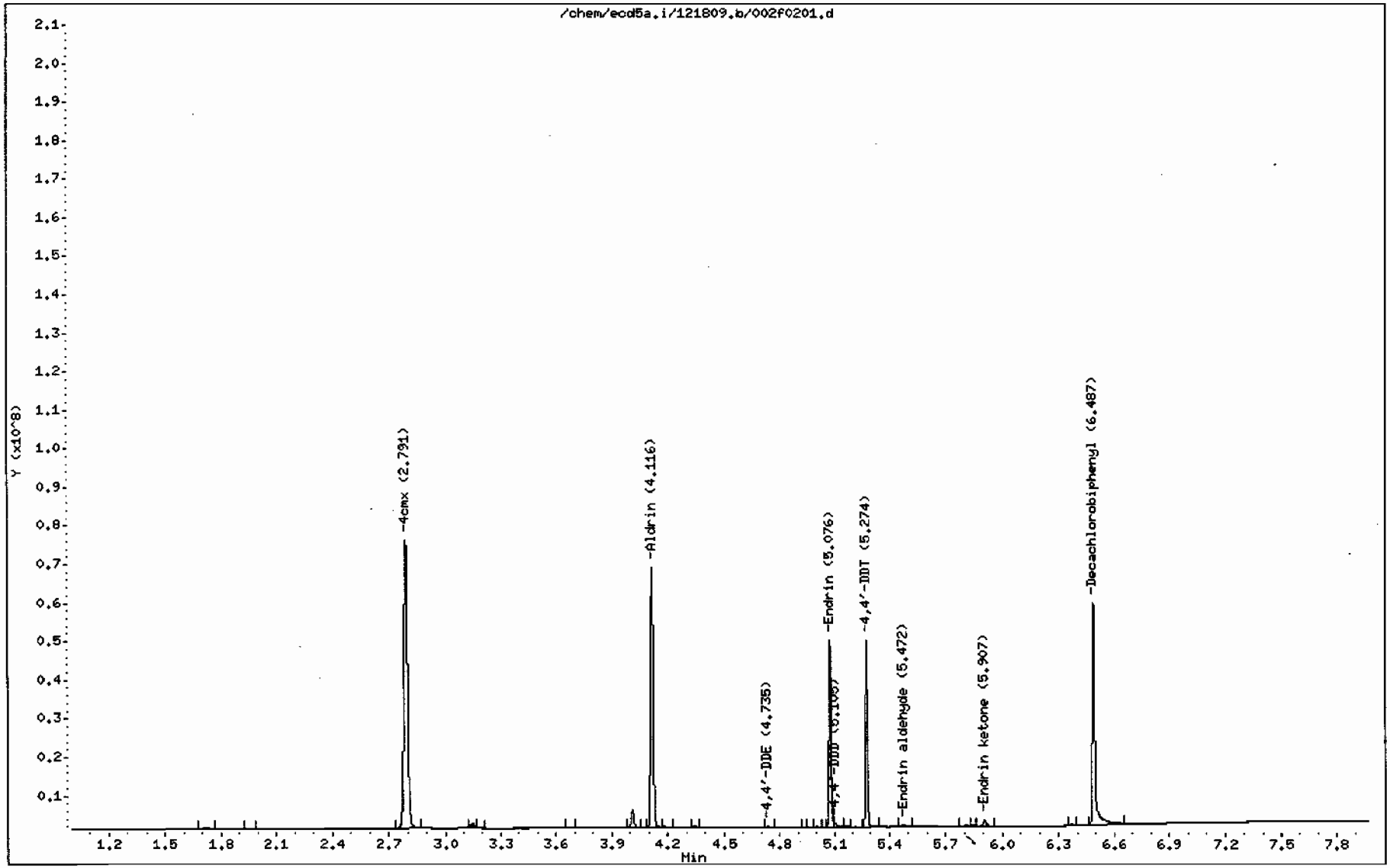

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd5a.i/121809.b/002b0201.d
Lab Smp Id: WPE091109-99DG Client Smp ID: PEM01
Inj Date : 18-DEC-2009 18:28
Operator : HXJ1 Inst ID: ecd5a.i
Smp Info : |WPE091109-99DG
Misc Info :
Comment :
Method : /chem/ecd5a.i/121809.b/ECD5-B-8081-121809.m
Meth Date : 19-Dec-2009 12:43 hea01125 Quant Type: ESTD
Cal Date : 05-DEC-2009 03:28 Cal File: 025b2501.d
Als bottle: 2 QC Sample: PEM
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: pem.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
11 Aldrin					CAS #: 309-00-2		
4.561	4.561	0.000	351946166	115.682	116	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.229	5.230	-0.001	1507585	0.64072	0.641	80.00- 120.00	100.00(M)
22 Endrin					CAS #: 72-20-8		
5.551	5.550	0.001	206135333	115.955	116	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.583	5.583	0.000	4369340	2.21864	2.22	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
5.878	5.875	0.003	4097531	2.57659	2.58	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
5.776	5.775	0.001	187057722	103.558	104	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
6.388	6.385	0.003	12705000	6.51638	6.52	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
3.201	3.202	-0.001	609235606	198.050	198	80.00- 120.00	100.00(R)
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.163	7.160	0.003	263583555	201.377	201	80.00- 120.00	100.00(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Data File: /chem/ecd5a.i/121809.b/002b0201.d

Date : 18-DEC-2009 18:28

Client ID: PEM01

Sample Info: IWPE091109-99DG

Column phase: CLP-2

Instrument: ecd5a.i

Operator: HXJ1

Column diameter: 0.25

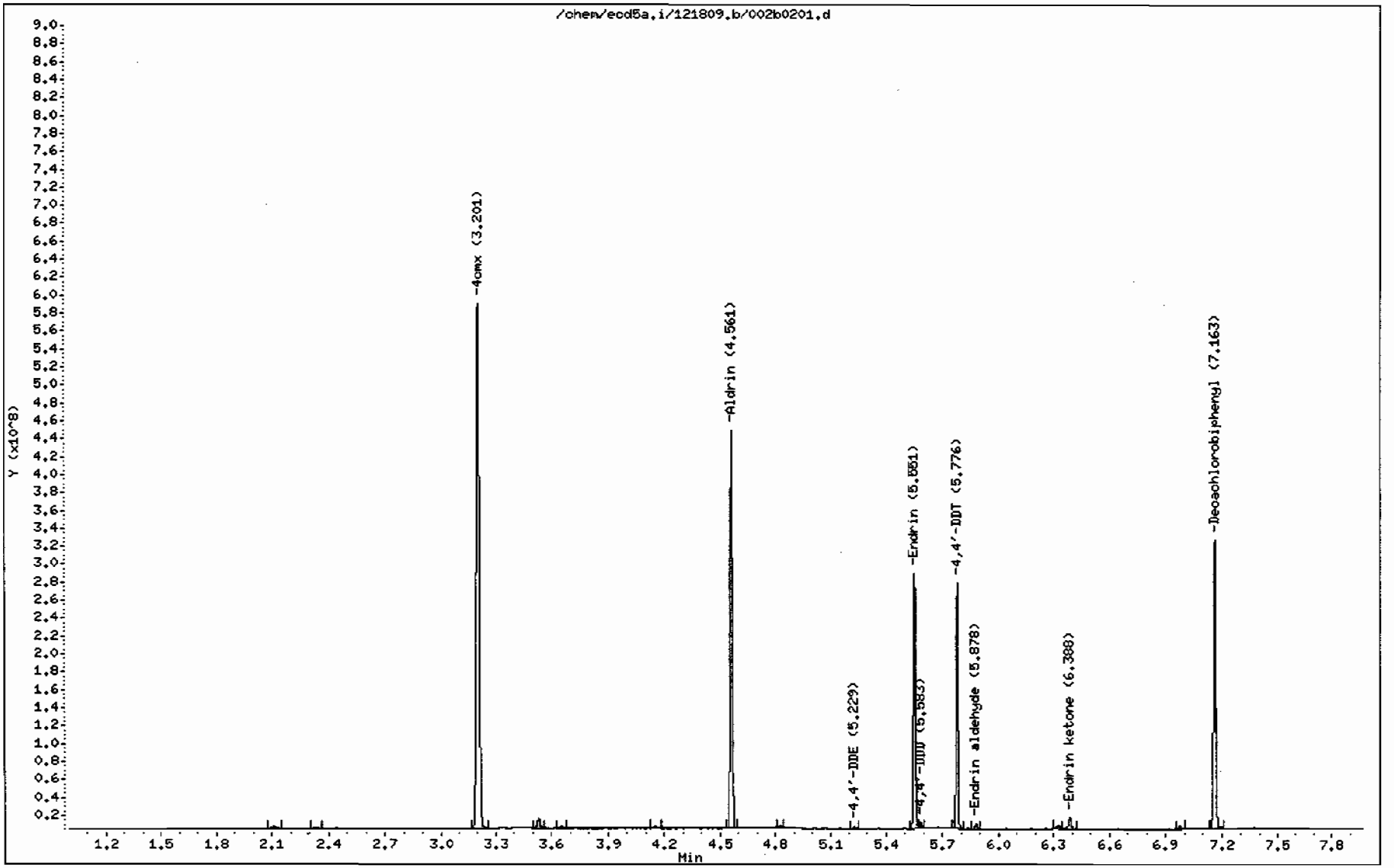

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd5a.i/121809.b/014f1401.d
Lab Smp Id: WPE091104-52TX Client Smp ID: TOXAPH01
Inj Date : 18-DEC-2009 20:51
Operator : HXJ1 Inst ID: ecd5a.i
Smp Info : |WPE091104-52TX
Misc Info :
Comment :
Method : /chem/ecd5a.i/121809.b/ECD5-F-8081-121809.m
Meth Date : 18-Dec-2009 22:39 hea01125 Quant Type: ESTD
Cal Date : 05-DEC-2009 03:28 Cal File: 025f2501.d
Als bottle: 14 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: tox.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
23 Toxaphene					CAS #: 8001-35-2		
4.717	4.717	0.000	6267158	2000.00	2240	80.00- 120.00	100.00(M)
4.932	4.932	0.000	11317049	2000.00	2140	160.58- 200.58	180.58
4.987	4.987	0.000	15244099	2000.00	2180	223.24- 263.24	243.24
5.025	5.025	0.000	17420622	2000.00	1950	257.97- 297.97	277.97
5.087	5.087	0.000	18244181	2000.00	2120	271.11- 311.11	291.11
Average of Peak Amounts =					2.13e+03		
$ 1 4cmx					CAS #: 877-09-8		
2.792	2.791	0.001	95512585	200.000	208	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
6.487	6.485	0.002	53284755	200.000	209	80.00- 120.00	100.00

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd5a.i/121809.b/014f1401.d
Date : 18-DEC-2009 20:51
Client ID: TOXAPH01
Sample Info: IWPE091104-52TX

Column phase: CLP-1

Instrument: ecd5a.i

Operator: HXJ1
Column diameter: 0.25

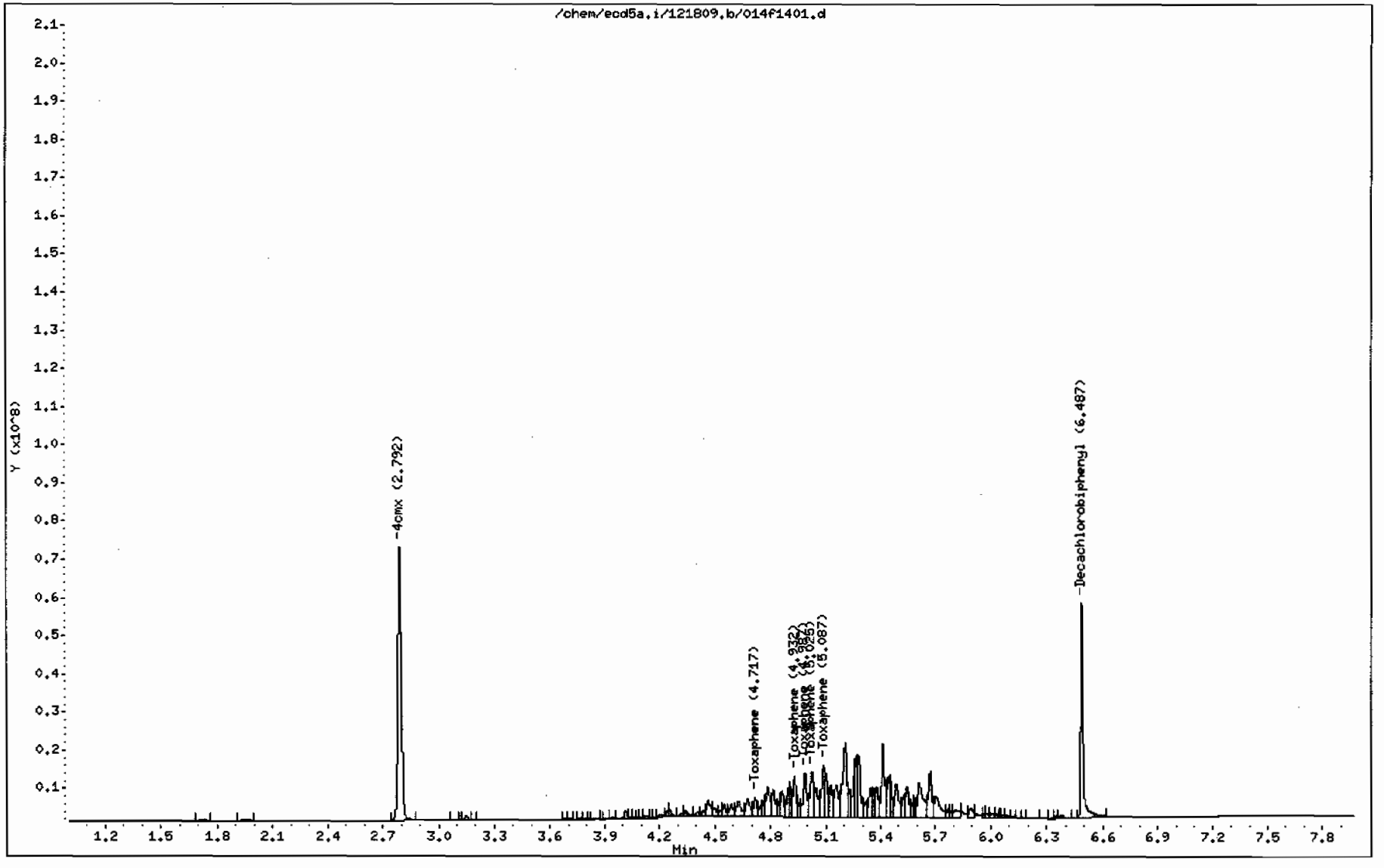

Comment: Manually Integrated
Data File: /chem/ecd5a.i/121809.b/014f1401.d
Operator: HXJ1
Injection Date: 18-DEC-2009 20:51
Instrument: ecd5a.i
Client Sample ID: TOXAPH01

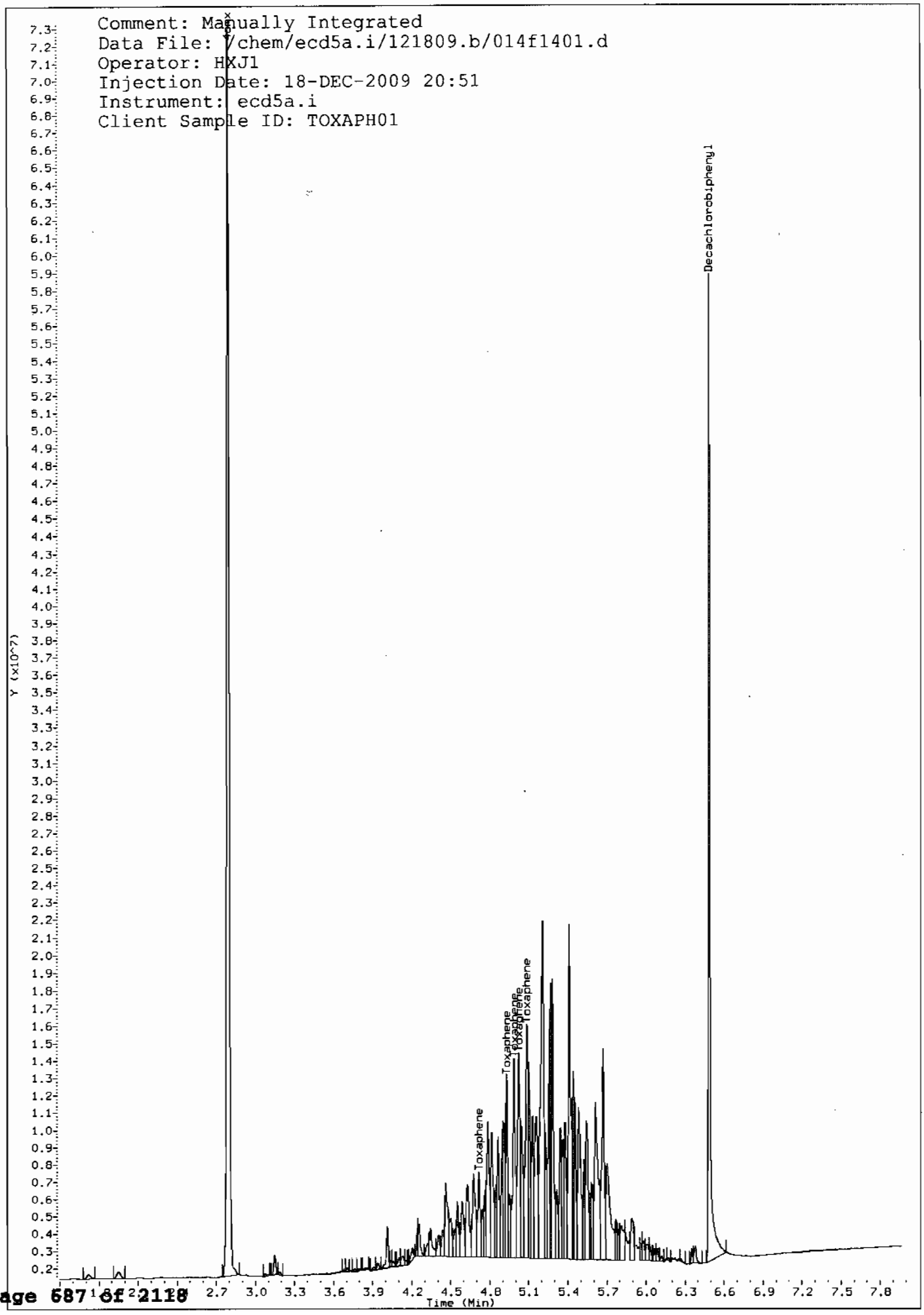

Comment: Before manual integration
Data File: /chem/ecd5a.i/121809.b/orig-014f1401.d
Operator: HXJ1
Injection Date: 18-DEC-2009 20:51
Instrument: ecd5a.i
Client Sample ID: TOXAPH01

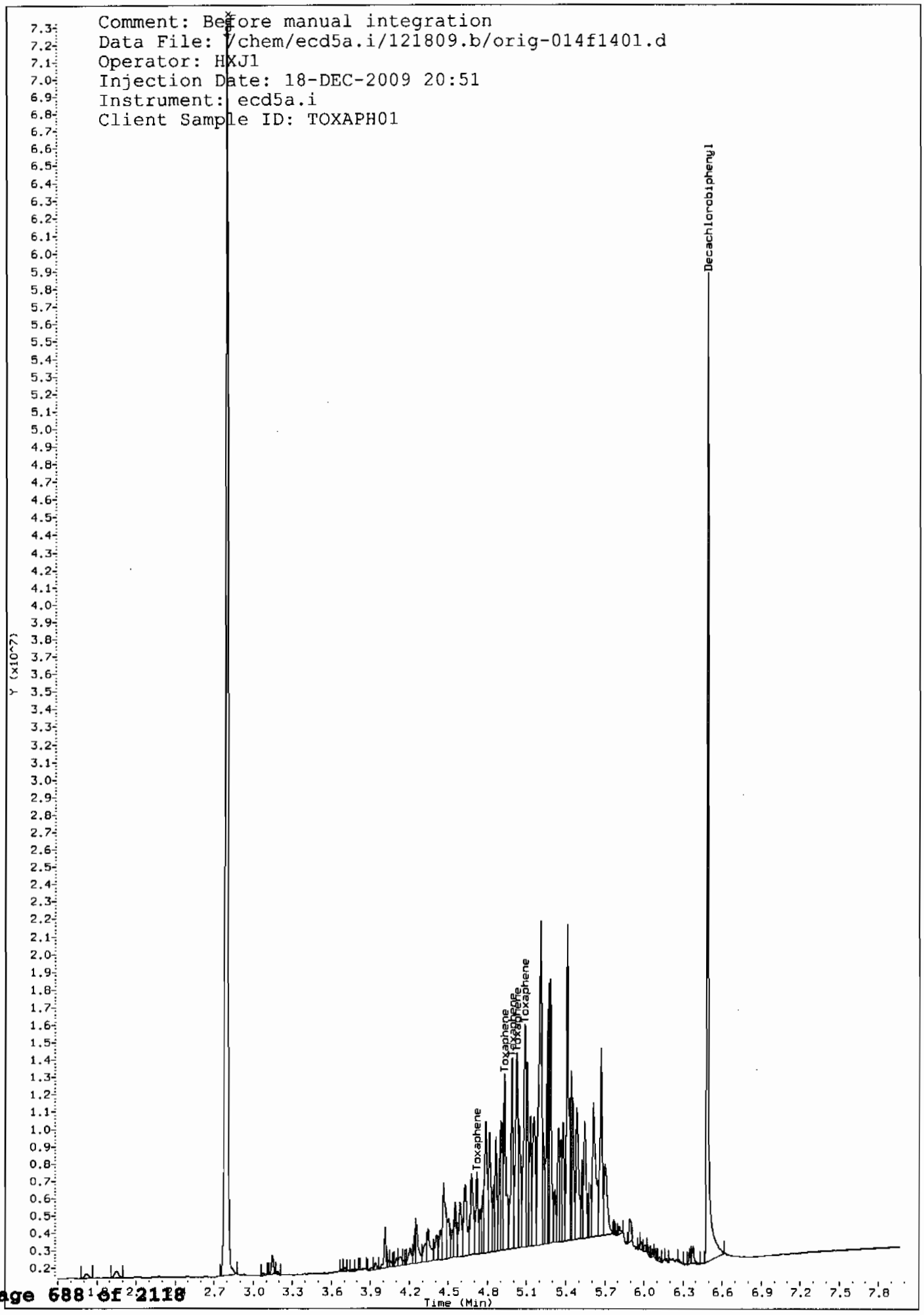

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd5a.i/121809.b/014b1401.d
Lab Smp Id: WPE091104-52TX Client Smp ID: TOXAPH01
Inj Date : 18-DEC-2009 20:51
Operator : HXJ1 Inst ID: ecd5a.i
Smp Info : |WPE091104-52TX
Misc Info :
Comment :
Method : /chem/ecd5a.i/121809.b/ECD5-B-8081-121809.m
Meth Date : 18-Dec-2009 22:27 hea01125 Quant Type: ESTD
Cal Date : 05-DEC-2009 03:28 Cal File: 025b2501.d
Als bottle: 14 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: tox.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
23 Toxaphene					CAS #: 8001-35-2		
5.412	5.412	0.000	49615729	2000.00	2250	80.00- 120.00	100.00(M)
5.547	5.547	0.000	69417019	2000.00	2020	119.91- 159.91	139.91
5.638	5.638	0.000	59946313	2000.00	1770	100.82- 140.82	120.82
5.668	5.668	0.000	108249771	2000.00	1920	198.18- 238.18	218.18
5.726	5.726	0.000	148140501	2000.00	1710	278.58- 318.58	298.58
Average of Peak Amounts =					1.94e+03		
$ 1 4cmx					CAS #: 877-09-8		
3.202	3.202	0.000	604975425	200.000	197	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.161	7.160	0.001	249572446	200.000	191	80.00- 120.00	100.00

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd5a.i/121809.b/014b1401.d

Date : 18-DEC-2009 20:51

Client ID: TOXAPH01

Sample Info: IWPE091104-52TX

Column phase: CLP-2

Instrument: ecd5a.i

Operator: HXJ1

Column diameter: 0.25

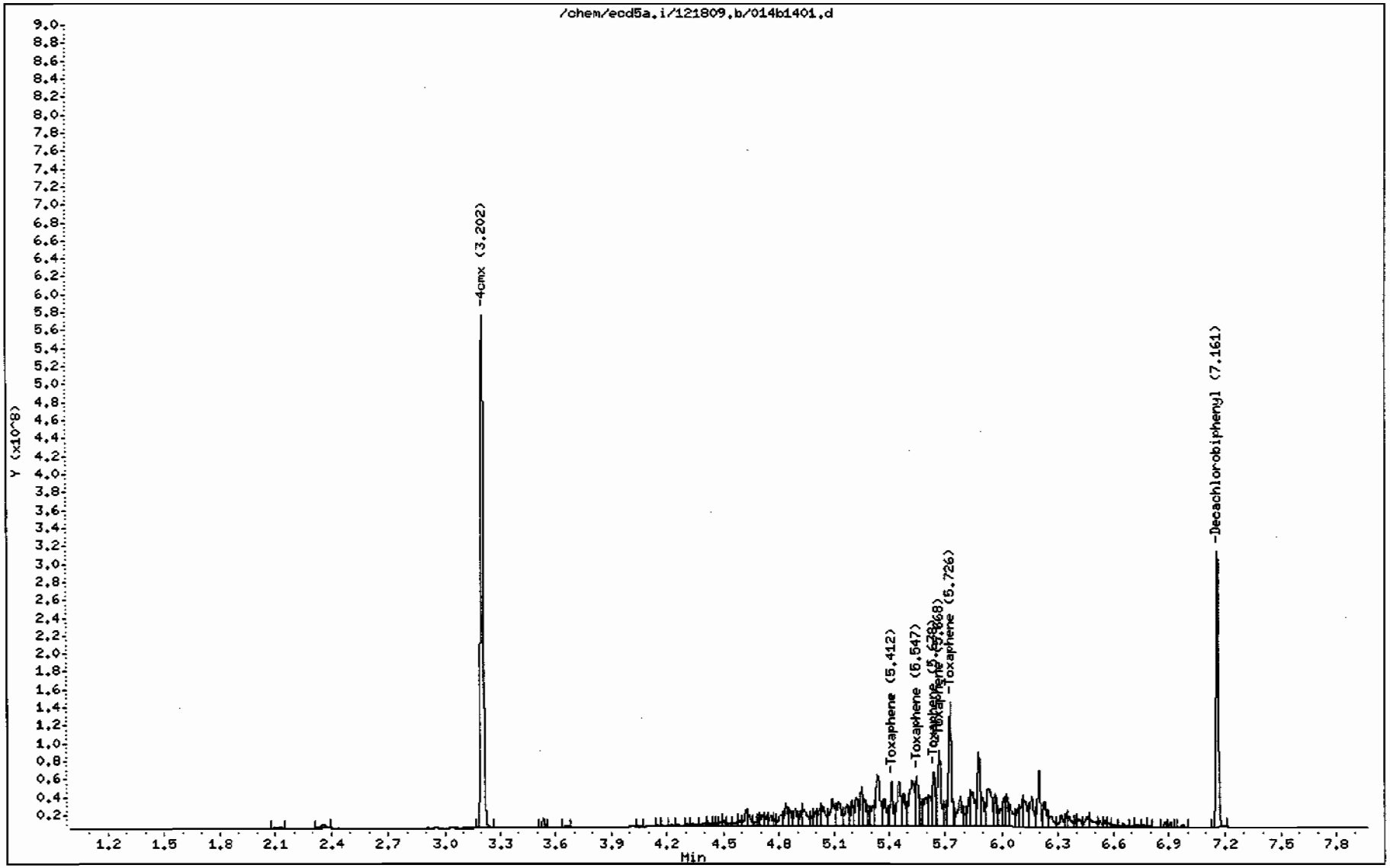

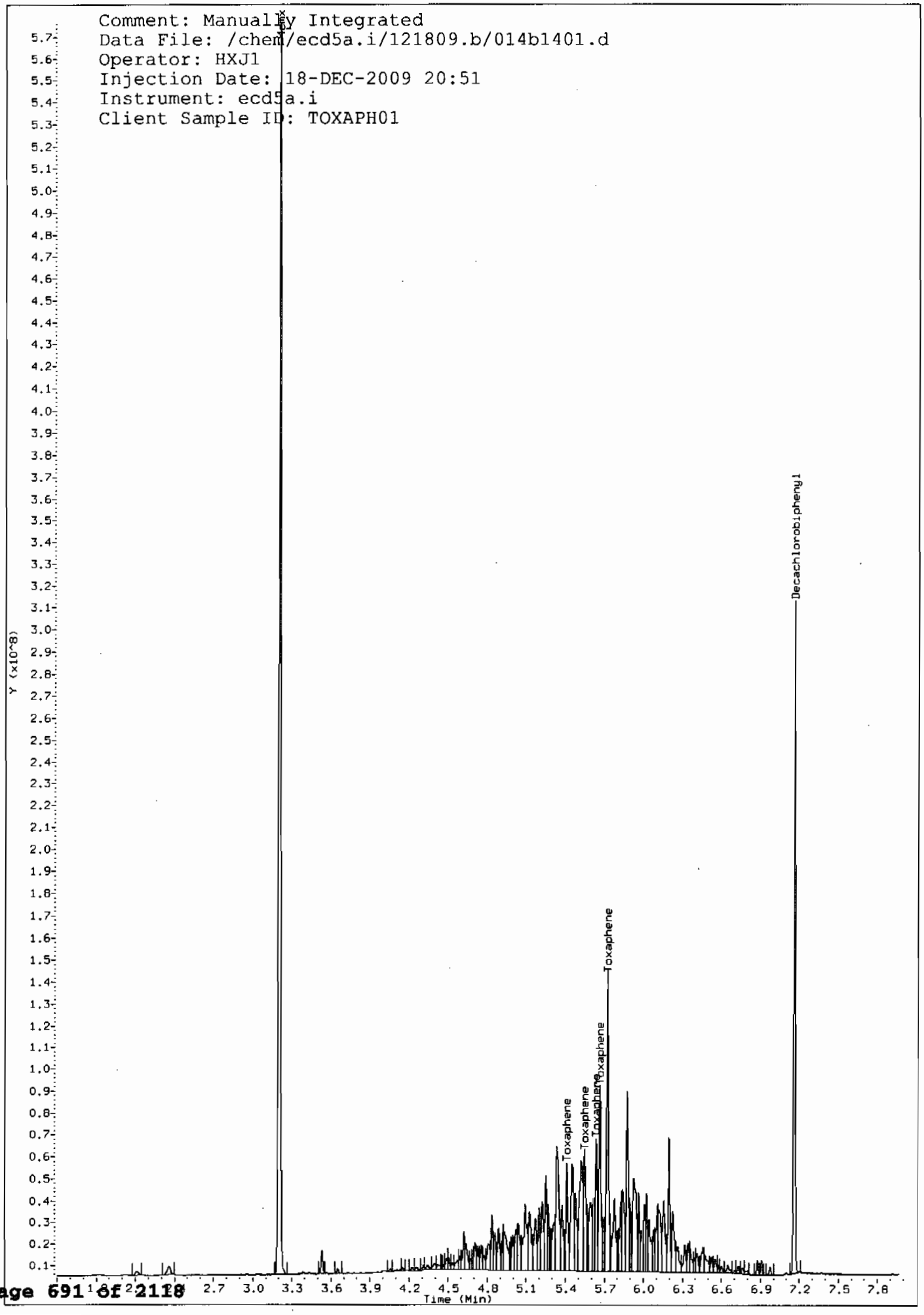
Comment: Manually Integrated
Data File: /chem/ecd5a.i/121809.b/014b1401.d
Operator: HXJ1
Injection Date: 18-DEC-2009 20:51
Instrument: ecd5a.i
Client Sample ID: TOXAPH01
Y (x10^8)
Time (Min)
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Decachlorobiphenyl

Comment: Before manual integration
Data File: /chem/ecd5a.i/121809.b/orig-014b1401.d
Operator: HXJ1
Injection Date: 18-DEC-2009 20:51
Instrument: ecd5a.i
Client Sample ID: TOXAPH01

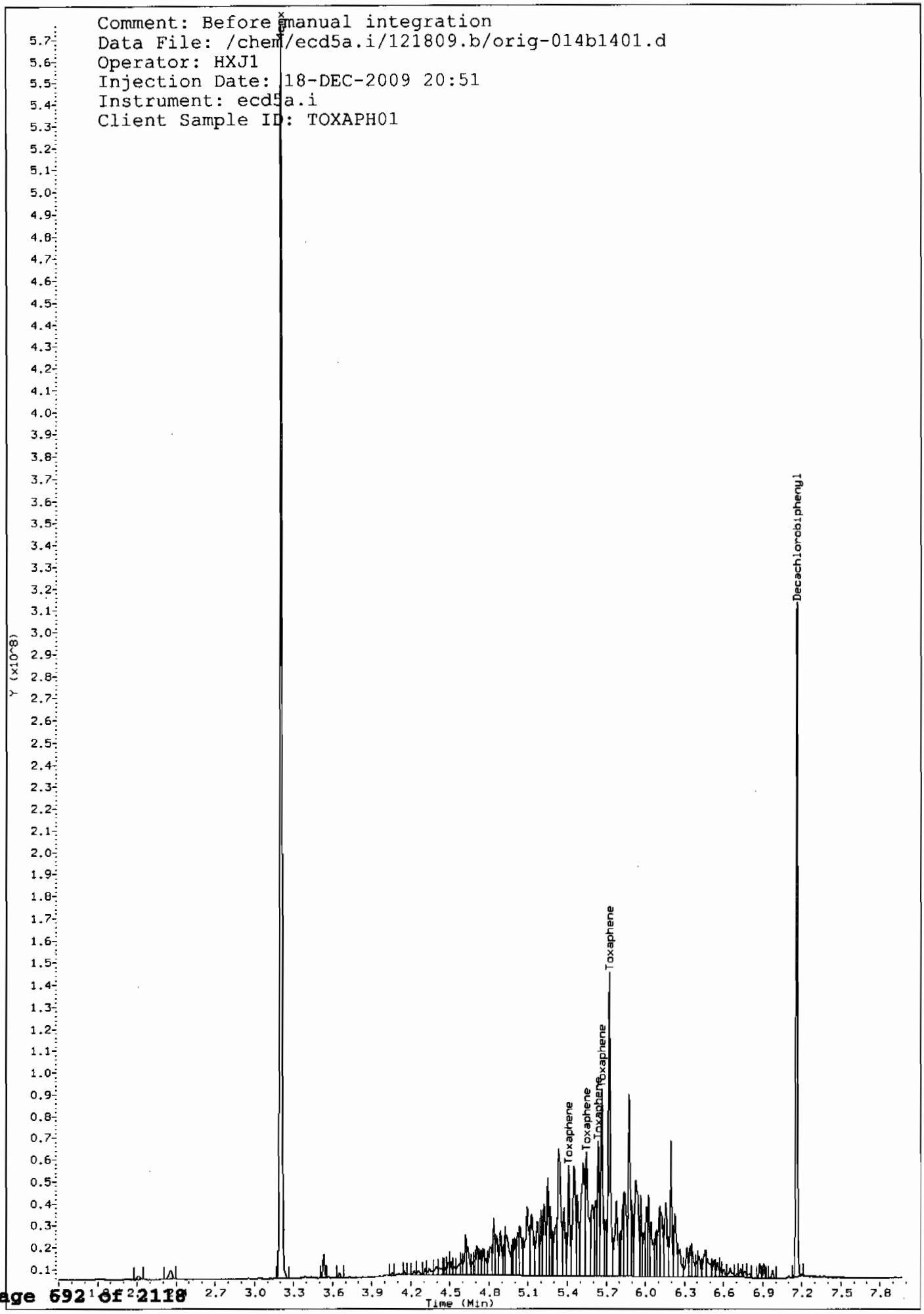

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd5a.i/121809.b/015f1501.d
Lab Smp Id: WPE091207-10AB Client Smp ID: INDAB01
Inj Date : 18-DEC-2009 21:03
Operator : HXJ1 Inst ID: ecd5a.i
Smp Info : |WPE091207-10AB
Misc Info :
Comment :
Method : /chem/ecd5a.i/121809.b/ECD5-F-8081-121809.m
Meth Date : 18-Dec-2009 22:39 hea01125 Quant Type: ESTD
Cal Date : 05-DEC-2009 03:28 Cal File: 025f2501.d
Als bottle: 15 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
3.295	3.295	0.000	62144836	100.000	102	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.552	3.552	0.000	58039590	100.000	106	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
3.621	3.621	0.000	23707445	100.000	96.7	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
3.905	3.905	0.000	48539801	100.000	97.6	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
3.755	3.755	0.000	55948491	100.000	103	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.117	4.117	0.000	50080829	100.000	98.2	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.526	4.526	0.000	44783281	100.000	100	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
4.607	4.607	0.000	46650004	100.000	107	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
4.691	4.691	0.000	40690893	100.000	93.8	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
16 Endosulfan I					CAS #: 959-98-8		
4.780	4.780	0.000	43693586	100.000	105	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
4.735	4.735	0.000	85495984	200.000	204	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
4.930	4.930	0.000	87097328	200.000	200	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.076	5.076	0.000	67534789	200.000	214	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.105	5.105	0.000	70874894	200.000	202	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
5.215	5.215	0.000	73006852	200.000	205	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
5.468	5.468	0.000	60213111	200.000	201	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
5.275	5.275	0.000	72461084	200.000	224	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
5.729	5.729	0.000	66019709	200.000	219	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
5.560	5.560	0.000	133321331	1000.00	1130	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
5.903	5.903	0.000	76388312	200.000	210	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
2.791	2.791	0.000	91315676	200.000	199	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
6.485	6.485	0.000	52931000	200.000	208	80.00- 120.00	100.00

Data File: /chem/ecd5a.i/121809.b/015f1501.d
Date : 18-DEC-2009 21:03
Client ID: INDAB01
Sample Info: IWPE091207-10AB

Column phase: CLP-1

Instrument: ecd5a.i

Operator: HXJ1
Column diameter: 0.25

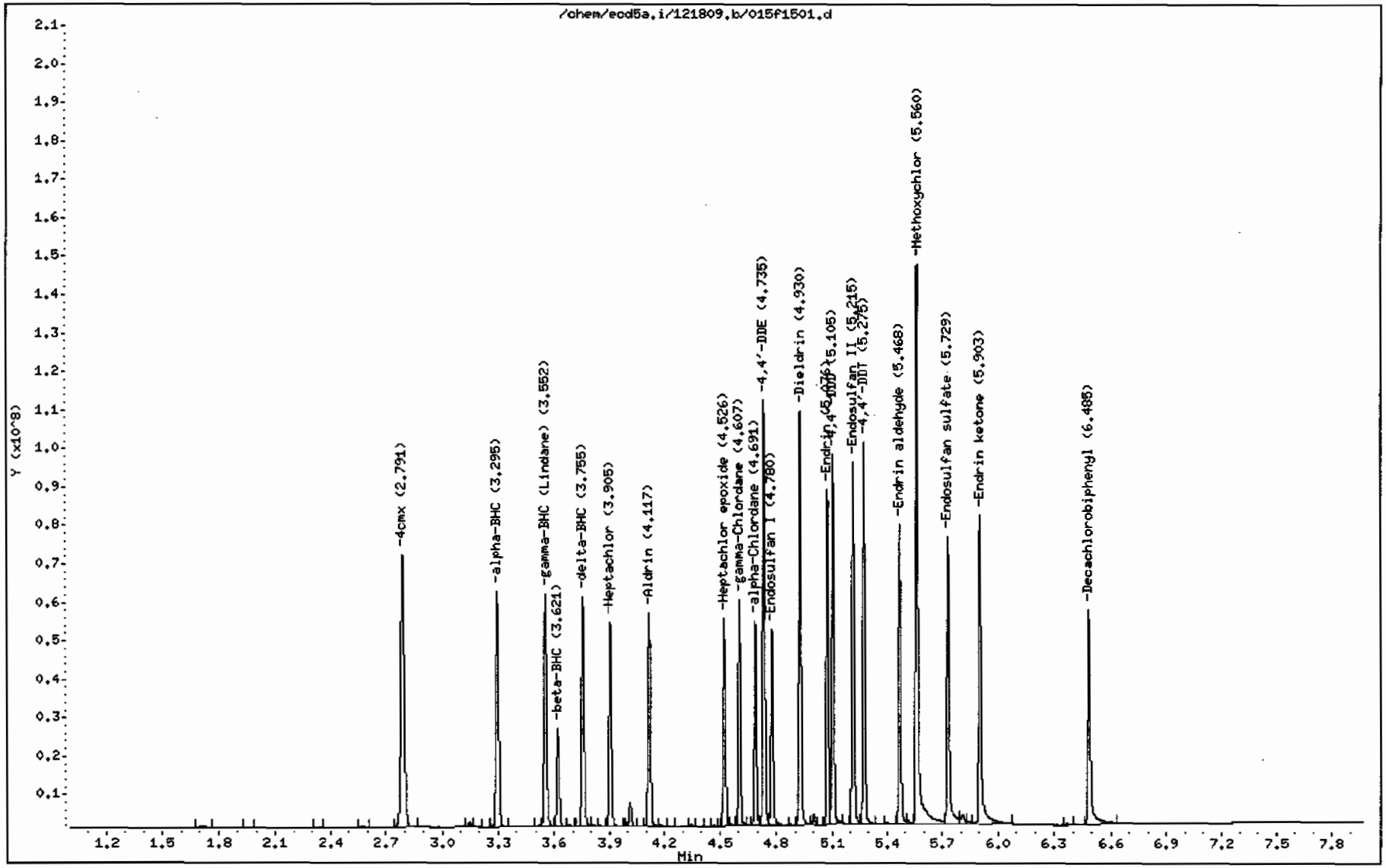

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd5a.i/121809.b/015b1501.d
Lab Smp Id: WPE091207-10AB Client Smp ID: INDAB01
Inj Date : 18-DEC-2009 21:03
Operator : HXJ1 Inst ID: ecd5a.i
Smp Info : |WPE091207-10AB
Misc Info :
Comment :
Method : /chem/ecd5a.i/121809.b/ECD5-B-8081-121809.m
Meth Date : 18-Dec-2009 22:27 hea01125 Quant Type: ESTD
Cal Date : 05-DEC-2009 03:28 Cal File: 025b2501.d
Als bottle: 15 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
3.730	3.730	0.000	408517200	100.000	98.2	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
4.006	4.006	0.000	358020012	100.000	101	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
4.062	4.062	0.000	143385479	100.000	90.8	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
4.332	4.332	0.000	284863269	100.000	92.2	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
4.278	4.278	0.000	334590245	100.000	97.4	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.561	4.561	0.000	281974802	100.000	92.7	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.934	4.934	0.000	259676248	100.000	95.8	80.00- 120.00	100.00(M)
17 gamma-Chlordane					CAS #: 5103-74-2		
5.055	5.055	0.000	259915531	100.000	100	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
5.145	5.145	0.000	219164731	100.000	88.8	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
16 Endosulfan I					CAS #: 959-98-8		
5.190	5.190	0.000	222425268	100.000	97.8	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.230	5.230	0.000	465160114	200.000	198	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
5.359	5.359	0.000	471330635	200.000	198	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.550	5.550	0.000	383267836	200.000	216	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.583	5.583	0.000	392532866	200.000	199	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
5.675	5.675	0.000	394481910	200.000	197	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
5.875	5.875	0.000	311616592	200.000	196	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
5.775	5.775	0.000	389170652	200.000	215	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
6.040	6.040	0.000	326496419	200.000	198	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
6.170	6.170	0.000	805921746	1000.00	1040	80.00- 120.00	100.00(M)
31 Endrin ketone					CAS #: 53494-70-5		
6.385	6.385	0.000	374632956	200.000	192	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
3.202	3.202	0.000	590803366	200.000	192	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.160	7.160	0.000	253886817	200.000	194	80.00- 120.00	100.00

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd5a.i/121809.b/015b1501.d
Date : 18-DEC-2009 21:03
Client ID: INDAB01
Sample Info: WPE091207-10AB
Column phase: CLP-2

Instrument: ecd5a.i
Operator: HXJ1
Column diameter: 0.25

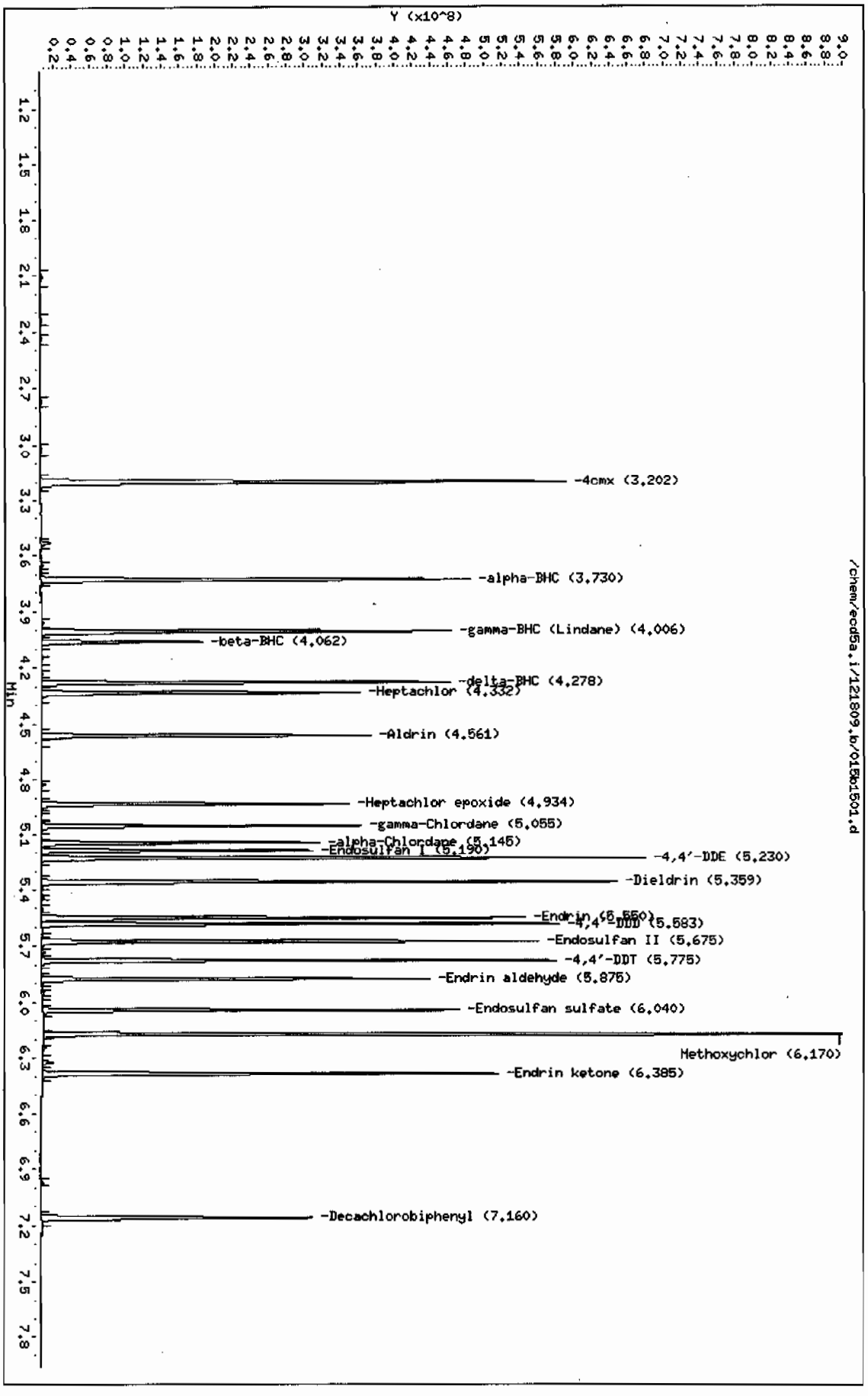

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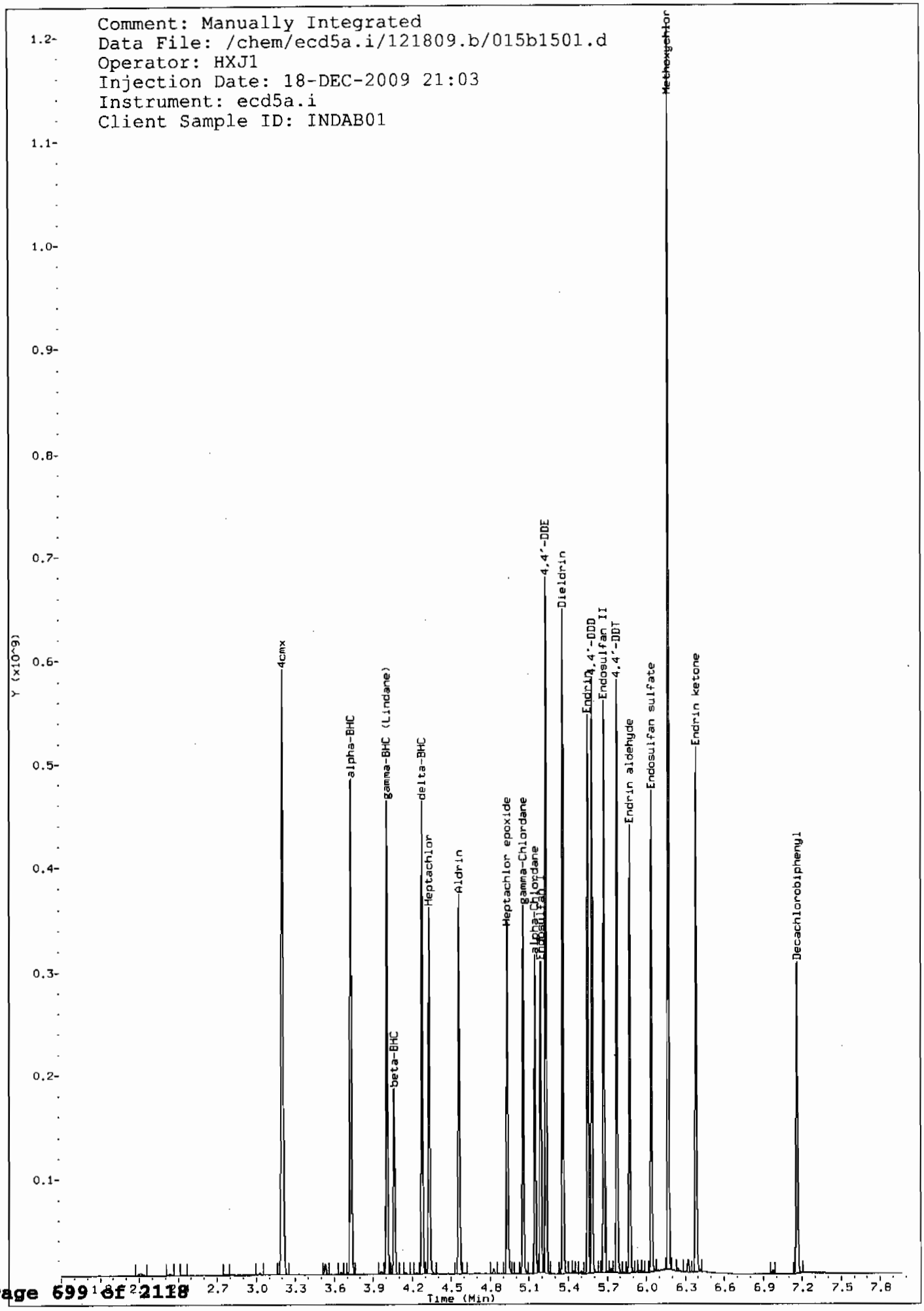
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Data File: /chem/ecd5a.i/121809.b/015b1501.d
Operator: HXJ1
Injection Date: 18-DEC-2009 21:03
Instrument: ecd5a.i
Client Sample ID: INDAB01
Y (x10^9)
Time (Min)
4cmx
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide
gamma-Chlordane
alpha-Chlordane
4,4'-DDE
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Endosulfan sulfate
Methoxychlor
Endrin ketone
Decachlorobiphenyl

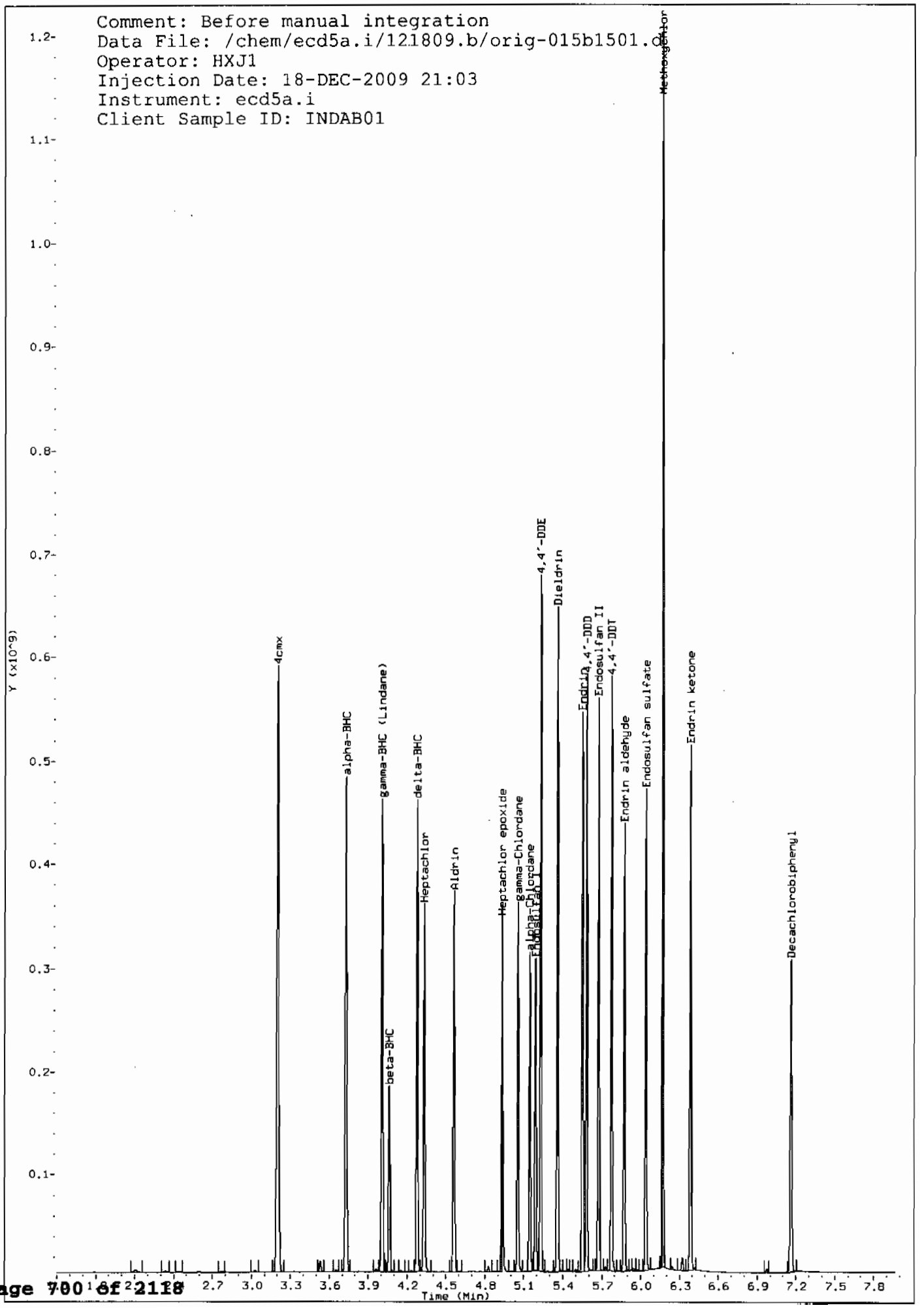
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Data File: /chem/ecd5a.i/121809.b/orig-015b1501.d
Operator: HXJ1
Injection Date: 18-DEC-2009 21:03
Instrument: ecd5a.i
Client Sample ID: INDAB01
Y (x10^9)
Time (Min)
4cmx
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide
gamma-Chlordane
alpha-Chlordane
Endosulfan I
4,4'-DDE
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Endosulfan sulfate
Methoxychlor
Endrin ketone
Decachlorobiphenyl

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd5a.i/121809.b/045f4501.d
Lab Smp Id: WPE091207-10AB Client Smp ID: INDAB03
Inj Date : 19-DEC-2009 03:00
Operator : HXJ1 Inst ID: ecd5a.i
Smp Info : |WPE091207-10AB
Misc Info :
Comment :
Method : /chem/ecd5a.i/121809.b/ECD5-F-8081-121809.m
Meth Date : 19-Dec-2009 12:49 hea01125 Quant Type: ESTD
Cal Date : 05-DEC-2009 03:28 Cal File: 025f2501.d
Als bottle: 45 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
3.293	3.295	-0.002	64471004	100.000	105	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.550	3.552	-0.002	60754714	100.000	111	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
3.619	3.621	-0.002	24854160	100.000	101	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
3.902	3.905	-0.003	50267063	100.000	101	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
3.754	3.755	-0.001	59107594	100.000	109	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.114	4.117	-0.003	52777312	100.000	103	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.524	4.526	-0.002	47359960	100.000	106	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
4.604	4.607	-0.003	49598582	100.000	114	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
4.689	4.691	-0.002	43336823	100.000	99.9	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
16 Endosulfan I					CAS #: 959-98-8		
4.778	4.780	-0.002	45950896	100.000	111	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
4.734	4.735	-0.001	90232670	200.000	216	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
4.928	4.930	-0.002	91776552	200.000	211	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.074	5.076	-0.002	72388602	200.000	230	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.104	5.105	-0.001	74984700	200.000	213	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
5.212	5.215	-0.003	76198100	200.000	214	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
5.465	5.468	-0.003	62916324	200.000	210	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
5.273	5.275	-0.002	68674959	200.000	212	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
5.727	5.729	-0.002	68043894	200.000	226	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
5.558	5.560	-0.002	122410408	1000.00	1030	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
5.901	5.903	-0.002	71869351	200.000	198	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
2.789	2.791	-0.002	95521208	200.000	208	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
6.484	6.485	-0.001	58033832	200.000	228	80.00- 120.00	100.00

Data File: /chem/ecd5a.i/121809.b/045f4501.d
Date : 19-DEC-2009 03:00
Client ID: INDAB03
Sample Info: WPE091207-10AB

Instrument: ecd5a.i

Operator: HXJ1
Column diameter: 0.25

Column phase: CLP-1

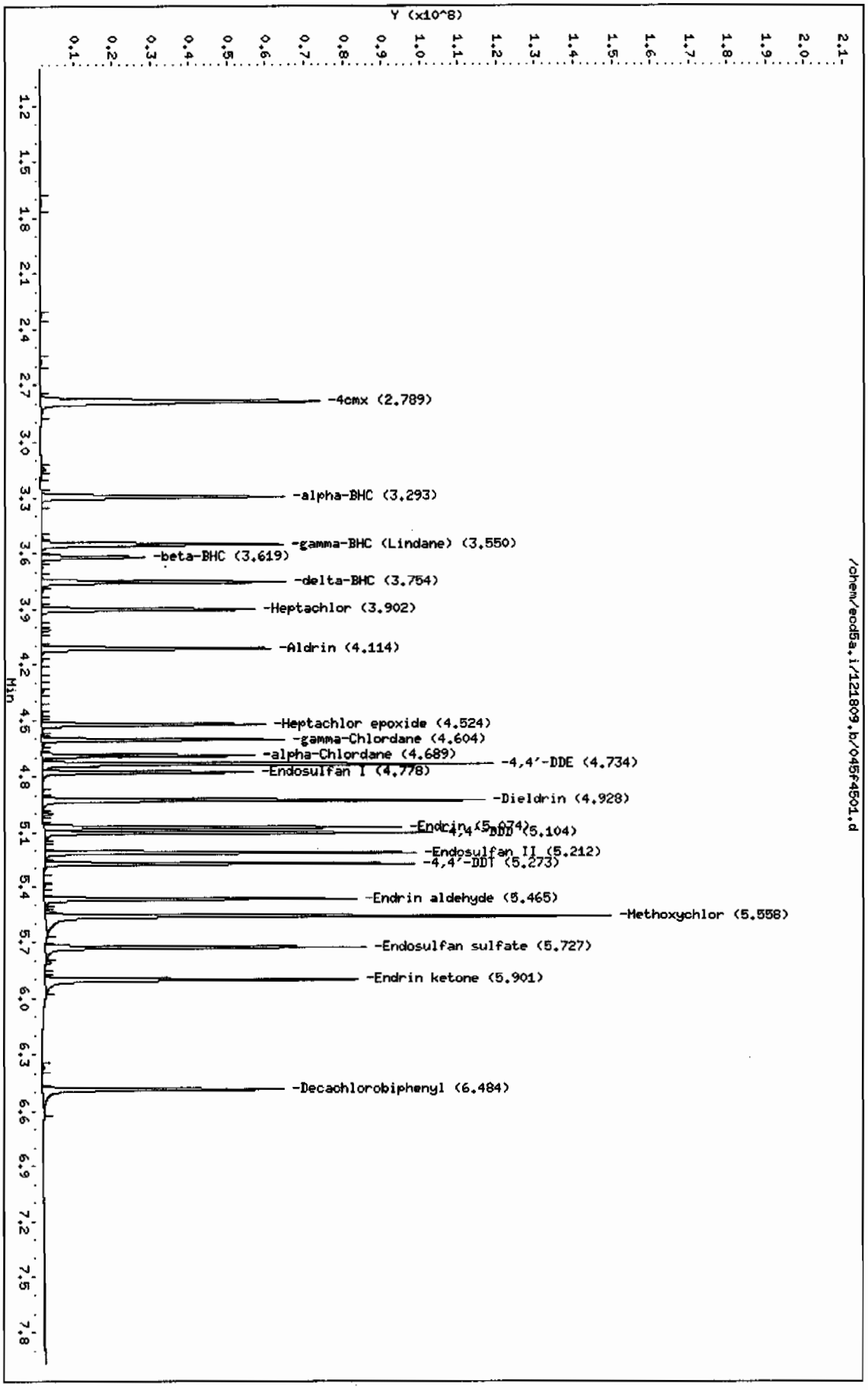

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CLP-2

Data file : /chem/ecd5a.i/121809.b/045b4501.d
Lab Smp Id: WPE091207-10AB Client Smp ID: INDAB03
Inj Date : 19-DEC-2009 03:00
Operator : HXJ1 Inst ID: ecd5a.i
Smp Info : |WPE091207-10AB
Misc Info :
Comment :
Method : /chem/ecd5a.i/121809.b/ECD5-B-8081-121809.m
Meth Date : 19-Dec-2009 12:43 hea01125 Quant Type: ESTD
Cal Date : 05-DEC-2009 03:28 Cal File: 025b2501.d
Als bottle: 45 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
3.728	3.730	-0.002	438313046	100.000	105	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
4.004	4.006	-0.002	382752091	100.000	108	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
4.060	4.062	-0.002	153472655	100.000	97.2	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
4.331	4.332	-0.001	298909460	100.000	96.7	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
4.276	4.278	-0.002	359963652	100.000	105	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.559	4.561	-0.002	305988154	100.000	100	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.932	4.934	-0.002	280611071	100.000	103	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
5.053	5.055	-0.002	280442667	100.000	108	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
5.144	5.145	-0.001	236925275	100.000	96.0	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
16 Endosulfan I					CAS #: 959-98-8		
5.187	5.190	-0.003	238916435	100.000	105	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.229	5.230	-0.001	498529134	200.000	212	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
5.357	5.359	-0.002	506588569	200.000	212	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.548	5.550	-0.002	413324259	200.000	232	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.580	5.583	-0.003	434052270	200.000	220	80.00- 120.00	100.00
24 Endosulfan 11					CAS #: 33213-65-9		
5.673	5.675	-0.002	422798789	200.000	211	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
5.872	5.875	-0.003	327302921	200.000	206	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
5.773	5.775	-0.002	334392976	200.000	185	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
6.039	6.040	-0.001	348270453	200.000	211	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
6.169	6.170	-0.001	599772767	1000.00	775	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
6.382	6.385	-0.003	341585030	200.000	175	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
3.200	3.202	-0.002	628574083	200.000	204	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.159	7.160	-0.001	276405088	200.000	211	80.00- 120.00	100.00

Data File: /chem/ecd5a.i/121809.b/045b4501.d
Date : 19-DEC-2009 03:00
Client ID: INDAB03
Sample Info: IWPE091207-10AB
Column phase: CLP-2

Instrument: ecd5a.i
Operator: HXJ1
Column diameter: 0.25

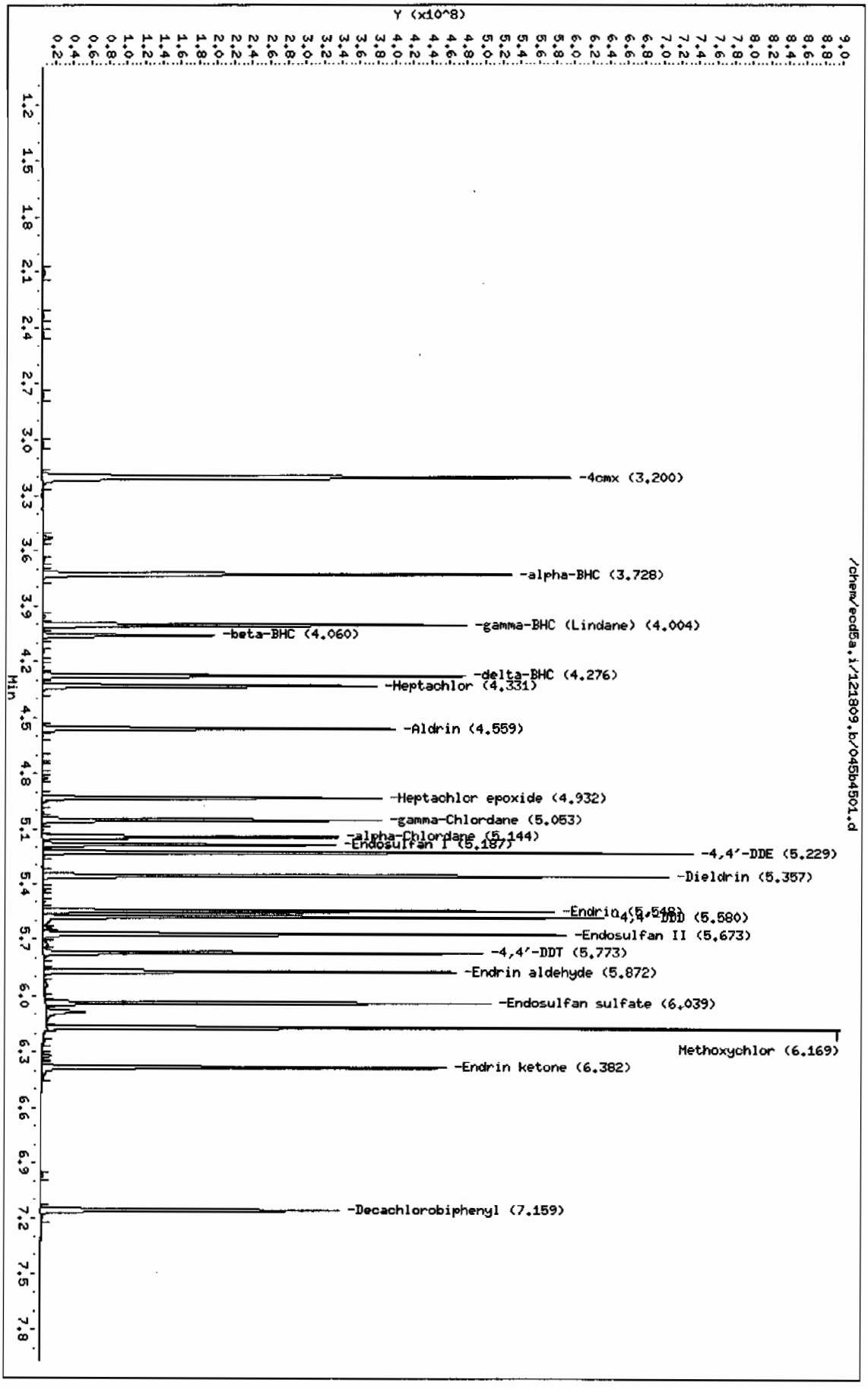

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CLP-1

Data file : /chem/ecd5a.i/121809.b/054f5401.d
Lab Smp Id: WPE091207-10AB Client Smp ID: INDAB04
Inj Date : 19-DEC-2009 04:48
Operator : HXJ1 Inst ID: ecd5a.i
Smp Info : |WPE091207-10AB
Misc Info :
Comment :
Method : /chem/ecd5a.i/121809.b/ECD5-F-8081-121809.m
Meth Date : 19-Dec-2009 12:49 hea01125 Quant Type: ESTD
Cal Date : 05-DEC-2009 03:28 Cal File: 025f2501.d
Als bottle: 54 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
3.292	3.295	-0.003	63554414	100.000	104	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.550	3.552	-0.002	60766875	100.000	111	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
3.619	3.621	-0.002	24898612	100.000	102	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
3.902	3.905	-0.003	50269850	100.000	101	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
3.753	3.755	-0.002	59211284	100.000	109	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.114	4.117	-0.003	52963344	100.000	104	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.523	4.526	-0.003	47442359	100.000	106	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
4.604	4.607	-0.003	49957735	100.000	115	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
4.689	4.691	-0.002	43522348	100.000	100	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
16 Endosulfan I					CAS #: 959-98-8		
4.777	4.780	-0.003	45679529	100.000	110	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
4.733	4.735	-0.002	90619264	200.000	216	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
4.927	4.930	-0.003	92087978	200.000	212	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.074	5.076	-0.002	71592917	200.000	227	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.104	5.105	-0.001	75492170	200.000	215	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
5.212	5.215	-0.003	76981469	200.000	216	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
5.466	5.468	-0.002	63786224	200.000	213	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
5.272	5.275	-0.003	70079692	200.000	217	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
5.727	5.729	-0.002	71020728	200.000	236	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
5.558	5.560	-0.002	132374875	1000.00	1120	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
5.902	5.903	-0.001	75034355	200.000	206	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
2.789	2.791	-0.002	95701757	200.000	209	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
6.485	6.485	0.000	57937016	200.000	227	80.00- 120.00	100.00

Data File: /chem/ecd5a.i/121809.b/0545401.d
Date : 19-DEC-2009 04:48
Client ID: INDA1B04
Sample Info: IWPE091207-10AB
Column phase: CLP-1

Instrument: ecd5a.i
Operator: HX.JL
Column diameter: 0.25

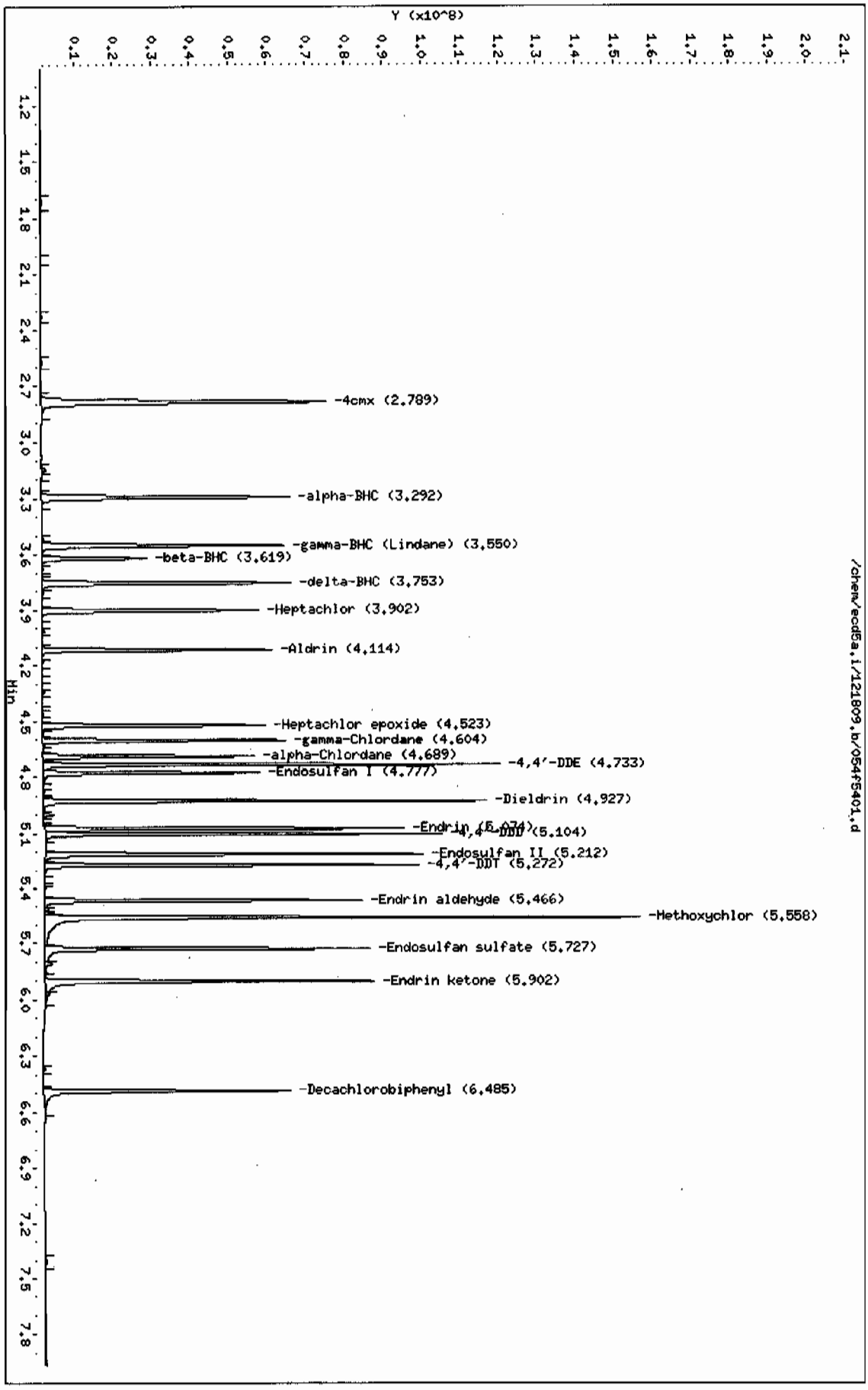

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CLP-2

Data file : /chem/ecd5a.i/121809.b/054b5401.d
Lab Smp Id: WPE091207-10AB Client Smp ID: INDAB04
Inj Date : 19-DEC-2009 04:48
Operator : HXJ1 Inst ID: ecd5a.i
Smp Info : |WPE091207-10AB
Misc Info :
Comment :
Method : /chem/ecd5a.i/121809.b/ECD5-B-8081-121809.m
Meth Date : 19-Dec-2009 12:43 hea01125 Quant Type: ESTD
Cal Date : 05-DEC-2009 03:28 Cal File: 025b2501.d
Als bottle: 54 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
3.727	3.730	-0.003	441858691	100.000	106	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
4.003	4.006	-0.003	386175918	100.000	108	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
4.060	4.062	-0.002	154852678	100.000	98.0	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
4.330	4.332	-0.002	300977130	100.000	97.4	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
4.276	4.278	-0.002	362754348	100.000	106	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.559	4.561	-0.002	308426036	100.000	101	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.932	4.934	-0.002	283980246	100.000	105	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
5.052	5.055	-0.003	283867899	100.000	110	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
5.144	5.145	-0.001	238804334	100.000	96.7	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
16 Endosulfan I					CAS #: 959-98-8		
5.187	5.190	-0.003	240930279	100.000	106	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.228	5.230	-0.002	496798048	200.000	211	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
5.357	5.359	-0.002	510312129	200.000	214	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.547	5.550	-0.003	405367916	200.000	228	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.581	5.583	-0.002	420317030	200.000	213	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
5.672	5.675	-0.003	417875816	200.000	208	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
5.872	5.875	-0.003	331820206	200.000	209	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
5.773	5.775	-0.002	325695084	200.000	180	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
6.039	6.040	-0.001	359176946	200.000	217	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
6.168	6.170	-0.002	609544288	1000.00	788	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
6.382	6.385	-0.003	354090458	200.000	182	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
3.200	3.202	-0.002	631863526	200.000	205	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.159	7.160	-0.001	282245848	200.000	216	80.00- 120.00	100.00

Data File: /chem/ecd5a.i/121809.b/054b5401.d
Date : 19-DEC-2009 04:48
Client ID: INDA1B04
Sample Info: IWPE091207-10AB
Column phase: CLP-2

Instrument: ecd5a.i
Operator: HXJ1
Column diameter: 0.25

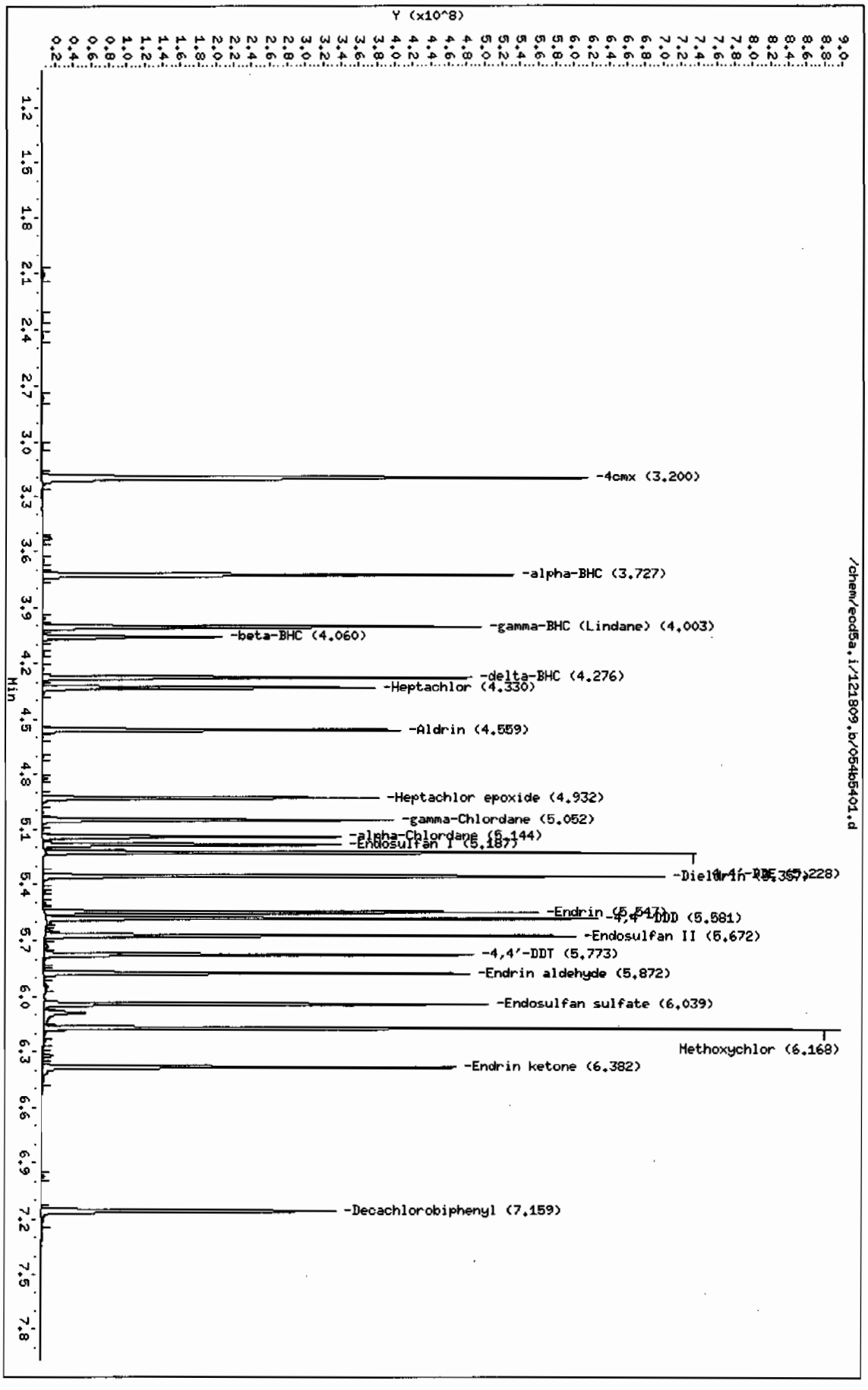

Page 1

8D
PESTICIDE ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-939

GC Column: CLP-1 ID: 0.25 (mm) Init. Calib. Date(s): 12/18/09 12/18/09

Instrument ID: ECD5A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.79 DCB: 6.49

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR091109-99	12/18/09	1816	2.79	6.49
02	PEM01	WPE091109-99	12/18/09	1828	2.79	6.49
03	INDAB01	WPE091218-01	12/18/09	1840	2.79	6.49
04	INDAB02	WPE091218-02	12/18/09	1852	2.79	6.49
05	INDAB03	WPE091218-03	12/18/09	1903	2.79	6.49
06	INDAB04	WPE091218-04	12/18/09	1915	2.79	6.49
07	INDAB05	IPE091128-02	12/18/09	1927	2.79	6.49
08	ZZZZZ	ZZZZZ	12/18/09	1939	2.79	6.49
09	TOXAPH01	WPE091216-11	12/18/09	1951	2.79	6.49
10	TOXAPH02	WPE091216-12	12/18/09	2003	2.79	6.49
11	TOXAPH03	WPE091216-13	12/18/09	2015	2.79	6.49
12	TOXAPH04	WPE091216-14	12/18/09	2027	2.79	6.49
13	TOXAPH05	IPE091121-40	12/18/09	2039	2.79	6.49
14	TOXAPH01	WPE091104-52	12/18/09	2051	2.79	6.49
15	INDAB01	WPE091207-10	12/18/09	2103	2.79	6.49
16	CHLOR01	WPE091216-21	12/18/09	2115	2.79	6.49
17	CHLOR02	WPE091216-22	12/18/09	2127	2.79	6.49
18	CHLOR03	WPE091216-23	12/18/09	2139	2.79	6.49
19	CHLOR04	WPE091216-24	12/18/09	2151	2.79	6.49
20	CHLOR05	IPE091029-05	12/18/09	2202	2.79	6.49
21	CHLOR01	WPE091021-00	12/18/09	2214	2.79	6.49
22	PIBLK02	WAR091109-99	12/18/09	2226	2.79	6.49
23	ZZZZZ	ZZZZZ	12/18/09	2238	2.79	6.49
24	ZZZZZ	ZZZZZ	12/18/09	2250	2.79	6.49
25	ZZZZZ	ZZZZZ	12/18/09	2302	2.79	6.48
26	ZZZZZ	ZZZZZ	12/18/09	2314	2.79	6.49
27	ZZZZZ	ZZZZZ	12/18/09	2326	2.79	6.49
28	ZZZZZ	ZZZZZ	12/18/09	2338	2.79	6.49
29	ZZZZZ	ZZZZZ	12/18/09	2350	2.79	6.49
30	ZZZZZ	ZZZZZ	12/19/09	0002	2.79	6.49
31	ZZZZZ	ZZZZZ	12/19/09	0014	2.79	6.48
32	ZZZZZ	ZZZZZ	12/19/09	0025	2.79	6.49

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII SV OLM03.0

8D
PESTICIDE ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-939

GC Column: CLP-1 ID: 0.25 (mm) Init. Calib. Date(s): 12/18/09 12/18/09

Instrument ID: ECD5A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.79 DCB: 6.49

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	INDAB02	WPE091207-10	12/19/09	0037	2.79	6.49
02	PIBLK03	WAR091109-99	12/19/09	0049	2.79	6.49
03	ZZZZZ	ZZZZZ	12/19/09	0101	2.79	6.49
04	ZZZZZ	ZZZZZ	12/19/09	0113	2.79	6.49
05	ZZZZZ	ZZZZZ	12/19/09	0125	2.79	6.49
06	ZZZZZ	ZZZZZ	12/19/09	0137	2.79	6.48
07	ZZZZZ	ZZZZZ	12/19/09	0149	2.79	6.48
08	ZZZZZ	ZZZZZ	12/19/09	0201	2.79	6.48
09	ZZZZZ	ZZZZZ	12/19/09	0213	2.79	6.48
10	ZZZZZ	ZZZZZ	12/19/09	0224	2.79	6.48
11	ZZZZZ	ZZZZZ	12/19/09	0236	2.79	6.48
12	PIBLK04	WAR091109-99	12/19/09	0248	2.79	6.48
13	INDAB03	WPE091207-10	12/19/09	0300	2.79	6.48
14	PIBLK05	WAR091109-99	12/19/09	0312	2.79	6.48
15	PBLK01	1201998999	12/19/09	0324	2.79	6.48
16	PBLK01LCS	1201999000	12/19/09	0336	2.79	6.48
17	PBLK01TLCS	1201999003	12/19/09	0348	2.79	6.48
18	WST03-10-2147	243007002	12/19/09	0400	2.79	6.48
19	WST03-10-2147MS	1201999001	12/19/09	0412	2.79	6.49
20	WST03-10-2147MSD	1201999002	12/19/09	0424	2.79	6.48
21	PIBLK06	WAR091109-99	12/19/09	0436	2.79	6.48
22	INDAB04	WPE091207-10	12/19/09	0448	2.79	6.48
23	PIBLK07	WAR091109-99	12/19/09	0500	2.79	6.48
24						
25						
26						
27						
28						
29						
30						
31						
32						

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

8D
PESTICIDE ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-939

GC Column: CLP-2 ID: 0.25 (mm) Init. Calib. Date(s): 12/18/09 12/18/09

Instrument ID: ECD5A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 3.20 DCB: 7.16

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR091109-99	12/18/09	1816	3.20	7.16
02	PEM01	WPE091109-99	12/18/09	1828	3.20	7.16
03	INDAB01	WPE091218-01	12/18/09	1840	3.20	7.16
04	INDAB02	WPE091218-02	12/18/09	1852	3.20	7.16
05	INDAB03	WPE091218-03	12/18/09	1903	3.20	7.16
06	INDAB04	WPE091218-04	12/18/09	1915	3.20	7.16
07	INDAB05	IPE091128-02	12/18/09	1927	3.20	7.16
08	ZZZZZ	ZZZZZ	12/18/09	1939	3.20	7.16
09	TOXAPH01	WPE091216-11	12/18/09	1951	3.20	7.16
10	TOXAPH02	WPE091216-12	12/18/09	2003	3.20	7.16
11	TOXAPH03	WPE091216-13	12/18/09	2015	3.20	7.16
12	TOXAPH04	WPE091216-14	12/18/09	2027	3.20	7.16
13	TOXAPH05	IPE091121-40	12/18/09	2039	3.20	7.16
14	TOXAPH01	WPE091104-52	12/18/09	2051	3.20	7.16
15	INDAB01	WPE091207-10	12/18/09	2103	3.20	7.16
16	CHLOR01	WPE091216-21	12/18/09	2115	3.20	7.16
17	CHLOR02	WPE091216-22	12/18/09	2127	3.20	7.16
18	CHLOR03	WPE091216-23	12/18/09	2139	3.20	7.16
19	CHLOR04	WPE091216-24	12/18/09	2151	3.20	7.16
20	CHLOR05	IPE091029-05	12/18/09	2202	3.20	7.16
21	CHLOR01	WPE091021-00	12/18/09	2214	3.20	7.16
22	PIBLK02	WAR091109-99	12/18/09	2226	3.20	7.16
23	ZZZZZ	ZZZZZ	12/18/09	2238	3.20	7.16
24	ZZZZZ	ZZZZZ	12/18/09	2250	3.20	7.16
25	ZZZZZ	ZZZZZ	12/18/09	2302	3.20	7.16
26	ZZZZZ	ZZZZZ	12/18/09	2314	3.20	7.16
27	ZZZZZ	ZZZZZ	12/18/09	2326	3.20	7.16
28	ZZZZZ	ZZZZZ	12/18/09	2338	3.20	7.16
29	ZZZZZ	ZZZZZ	12/18/09	2350	3.20	7.16
30	ZZZZZ	ZZZZZ	12/19/09	0002	3.20	7.16
31	ZZZZZ	ZZZZZ	12/19/09	0014	3.20	7.16
32	ZZZZZ	ZZZZZ	12/19/09	0025	3.20	7.16

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII SV OLM03.0

8D
PESTICIDE ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-939

GC Column: CLP-2 ID: 0.25 (mm) Init. Calib. Date(s): 12/18/09 12/18/09

Instrument ID: ECD5A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 3.20 DCB: 7.16

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	INDAB02	WPE091207-10	12/19/09	0037	3.20	7.16
02	PIBLK03	WAR091109-99	12/19/09	0049	3.20	7.16
03	ZZZZZ	ZZZZZ	12/19/09	0101	3.20	7.16
04	ZZZZZ	ZZZZZ	12/19/09	0113	3.20	7.16
05	ZZZZZ	ZZZZZ	12/19/09	0125	3.20	7.16
06	ZZZZZ	ZZZZZ	12/19/09	0137	3.20	7.16
07	ZZZZZ	ZZZZZ	12/19/09	0149	3.20	7.16
08	ZZZZZ	ZZZZZ	12/19/09	0201	3.20	7.16
09	ZZZZZ	ZZZZZ	12/19/09	0213	3.20	7.16
10	ZZZZZ	ZZZZZ	12/19/09	0224	3.20	7.16
11	ZZZZZ	ZZZZZ	12/19/09	0236	3.20	7.16
12	PIBLK04	WAR091109-99	12/19/09	0248	3.20	7.16
13	INDAB03	WPE091207-10	12/19/09	0300	3.20	7.16
14	PIBLK05	WAR091109-99	12/19/09	0312	3.20	7.16
15	PBLK01	1201998999	12/19/09	0324	3.20	7.16
16	PBLK01LCS	1201999000	12/19/09	0336	3.20	7.16
17	PBLK01TLCS	1201999003	12/19/09	0348	3.20	7.16
18	WST03-10-2147	243007002	12/19/09	0400	3.20	7.16
19	WST03-10-2147MS	1201999001	12/19/09	0412	3.20	7.16
20	WST03-10-2147MSD	1201999002	12/19/09	0424	3.20	7.16
21	PIBLK06	WAR091109-99	12/19/09	0436	3.20	7.16
22	INDAB04	WPE091207-10	12/19/09	0448	3.20	7.16
23	PIBLK07	WAR091109-99	12/19/09	0500	3.20	7.16
24						
25						
26						
27						
28						
29						
30						
31						
32						

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

Identification Summary

SDG Number: 10–939 **Client ID:** LCS for batch 934324

Lab Sample ID: 1201999000

Data File:	048f4801.d	**Data File:**	048b4801.d
Inst:	ECD5A.I_1	**Inst:**	ECD5A.I_2
Column:	CLP–1	**Column:**	CLP–2
Analyzed:	19–DEC–09 03:36	**Analyzed:**	19–DEC–09 03:36

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
alpha–BHC							2.06
Column 1	1	3.29	3.26 – 3.32	14.5		ug/kg	
Column 2	1	3.73	3.7 – 3.76	14.8		ug/kg	
gamma–BHC (Lindane)							2.35
Column 1	1	3.55	3.52 – 3.58	15.6		ug/kg	
Column 2	1	4	3.98 – 4.04	15.2		ug/kg	
beta–BHC							5.07
Column 1	1	3.62	3.59 – 3.65	15.3		ug/kg	
Column 2	1	4.06	4.03 – 4.09	14.6		ug/kg	
delta–BHC							5
Column 1	1	3.75	3.72 – 3.78	17.1		ug/kg	
Column 2	1	4.28	4.25 – 4.31	16.3		ug/kg	
Heptachlor							6.23
Column 1	1	3.9	3.87 – 3.93	15.3		ug/kg	
Column 2	1	4.33	4.3 – 4.36	14.3		ug/kg	

Identification Summary

SDG Number: 10–939 **Client ID:** LCS for batch 934324

Lab Sample ID: 1201999000

Data File:	048f4801.d	**Data File:**	048b4801.d
Inst:	ECD5A.I_1	**Inst:**	ECD5A.I_2
Column:	CLP–1	**Column:**	CLP–2
Analyzed:	19–DEC–09 03:36	**Analyzed:**	19–DEC–09 03:36

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aldrin							.107
Column 1	1	4.11	4.09 – 4.15	14.8		ug/kg	
Column 2	1	4.56	4.53 – 4.59	14.7		ug/kg	
Heptachlor epoxide							4.56
Column 1	1	4.52	4.5 – 4.56	16		ug/kg	
Column 2	1	4.93	4.9 – 4.96	15.3		ug/kg	
gamma–Chlordane							2.9
Column 1	1	4.6	4.58 – 4.64	16.6		ug/kg	
Column 2	1	5.05	5.02 – 5.08	16.2		ug/kg	
alpha–Chlordane							5.88
Column 1	1	4.69	4.66 – 4.72	16.3		ug/kg	
Column 2	1	5.14	5.12 – 5.18	15.4		ug/kg	
Endosulfan I							.923
Column 1	1	4.78	4.75 – 4.81	16.4		ug/kg	
Column 2	1	5.19	5.16 – 5.22	16.2		ug/kg	

Identification Summary

SDG Number: 10–939 **Client ID:** LCS for batch 934324

Lab Sample ID: 1201999000

Data File: 048f4801.d **Data File:** 048b4801.d

Inst: ECD5A.I_1 **Inst:** ECD5A.I_2

Column: CLP–1 **Column:** CLP–2

Analyzed: 19–DEC–09 03:36 **Analyzed:** 19–DEC–09 03:36

Analyte		Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
4,4'–DDE								.0343
	Column 1	1	4.73	4.71 – 4.77	40.5		ug/kg	
	Column 2	1	5.23	5.2 – 5.26	40.5		ug/kg	
Dieldrin								.332
	Column 1	1	4.93	4.9 – 4.96	40.6		ug/kg	
	Column 2	1	5.36	5.33 – 5.39	40.7		ug/kg	
Endrin								2.95
	Column 1	1	5.07	5.05 – 5.11	48.2		ug/kg	
	Column 2	1	5.55	5.52 – 5.58	46.8		ug/kg	
4,4'–DDD								4.36
	Column 1	1	5.1	5.08 – 5.14	46.6		ug/kg	
	Column 2	1	5.58	5.55 – 5.61	44.6		ug/kg	
Endosulfan II								11.2
	Column 1	1	5.21	5.18 – 5.24	47.3		ug/kg	
	Column 2	1	5.67	5.64 – 5.7	42.3		ug/kg	

Identification Summary

SDG Number: 10–939 **Client ID:** LCS for batch 934324

Lab Sample ID: 1201999000

Data File:	048f4801.d	**Data File:**	048b4801.d
Inst:	ECD5A.I_1	**Inst:**	ECD5A.I_2
Column:	CLP–1	**Column:**	CLP–2
Analyzed:	19–DEC–09 03:36	**Analyzed:**	19–DEC–09 03:36

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Endrin aldehyde							1.11
Column 1	1	5.46	5.44 – 5.5	43.8		ug/kg	
Column 2	1	5.87	5.84 – 5.9	44.2		ug/kg	
4,4'–DDT							14.5
Column 1	1	5.27	5.24 – 5.3	45.1		ug/kg	
Column 2	1	5.77	5.74 – 5.8	39		ug/kg	
Endosulfan sulfate							1.61
Column 1	1	5.73	5.7 – 5.76	52.5		ug/kg	
Column 2	1	6.04	6.01 – 6.07	51.6		ug/kg	
Methoxychlor							24.6
Column 1	1	5.56	5.53 – 5.59	202		ug/kg	
Column 2	1	6.17	6.14 – 6.2	158		ug/kg	
Endrin ketone							13
Column 1	1	5.9	5.87 – 5.93	44.1		ug/kg	
Column 2	1	6.38	6.35 – 6.41	38.8		ug/kg	

Identification Summary

SDG Number: 10-939 **Client ID:** WST03-10-2147MS

Lab Sample ID: 1201999001

Data File:	051f5101.d	**Data File:**	051b5101.d
Inst:	ECD5A.I_1	**Inst:**	ECD5A.I_2
Column:	CLP-1	**Column:**	CLP-2
Analyzed:	19-DEC-09 04:12	**Analyzed:**	19-DEC-09 04:12

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
alpha-BHC							6.54
Column 1	1	3.29	3.26 – 3.32	13.2		ug/kg	
Column 2	1	3.73	3.7 – 3.76	14		ug/kg	
gamma-BHC (Lindane)							7.47
Column 1	1	3.55	3.52 – 3.58	14		ug/kg	
Column 2	1	4	3.98 – 4.04	15.1		ug/kg	
beta-BHC							8.34
Column 1	1	3.62	3.59 – 3.65	16.7		ug/kg	
Column 2	1	4.06	4.03 – 4.09	18.2		ug/kg	
delta-BHC							4.16
Column 1	1	3.75	3.72 – 3.78	16.1		ug/kg	
Column 2	1	4.28	4.25 – 4.31	16.8		ug/kg	
Heptachlor							9.33
Column 1	1	3.9	3.87 – 3.93	13.6		ug/kg	
Column 2	1	4.33	4.3 – 4.36	14.9		ug/kg	

Identification Summary

SDG Number: 10–939 **Client ID:** WST03–10–2147MS

Lab Sample ID: 1201999001

Data File:	051f5101.d	**Data File:**	051b5101.d
Inst:	ECD5A.I_1	**Inst:**	ECD5A.I_2
Column:	CLP–1	**Column:**	CLP–2
Analyzed:	19–DEC–09 04:12	**Analyzed:**	19–DEC–09 04:12

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aldrin							12
Column 1	1	4.11	4.09 – 4.15	13.9		ug/kg	
Column 2	1	4.56	4.53 – 4.59	15.7		ug/kg	
Heptachlor epoxide							4.66
Column 1	1	4.52	4.5 – 4.56	15.9		ug/kg	
Column 2	1	4.93	4.9 – 4.96	16.6		ug/kg	
gamma–Chlordane							9.07
Column 1	1	4.6	4.58 – 4.64	16.7		ug/kg	
Column 2	1	5.05	5.02 – 5.08	18.3		ug/kg	
alpha–Chlordane							3.67
Column 1	1	4.69	4.66 – 4.72	16.9		ug/kg	
Column 2	1	5.14	5.12 – 5.18	17.5		ug/kg	
Endosulfan I							8.07
Column 1	1	4.78	4.75 – 4.81	16.3		ug/kg	
Column 2	1	5.19	5.16 – 5.22	17.6		ug/kg	

Identification Summary

SDG Number: 10–939 **Client ID:** WST03–10–2147MS

Lab Sample ID: 1201999001

Data File:	051f5101.d	**Data File:**	051b5101.d
Inst:	ECD5A.I_1	**Inst:**	ECD5A.I_2
Column:	CLP–1	**Column:**	CLP–2
Analyzed:	19–DEC–09 04:12	**Analyzed:**	19–DEC–09 04:12

Analyte		Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
4,4'–DDE								.635
	Column 1	1	4.73	4.71 – 4.77	45		ug/kg	
	Column 2	1	5.23	5.2 – 5.26	45.3		ug/kg	
Dieldrin								2.06
	Column 1	1	4.93	4.9 – 4.96	42.5		ug/kg	
	Column 2	1	5.36	5.33 – 5.39	43.4		ug/kg	
Endrin								1.31
	Column 1	1	5.07	5.05 – 5.11	49.9		ug/kg	
	Column 2	1	5.55	5.52 – 5.58	50.5		ug/kg	
4,4'–DDD								2.14
	Column 1	1	5.1	5.08 – 5.14	46.4		ug/kg	
	Column 2	1	5.58	5.55 – 5.61	47.4		ug/kg	
Endosulfan II								10.1
	Column 1	1	5.21	5.18 – 5.24	47		ug/kg	
	Column 2	1	5.67	5.64 – 5.7	42.5		ug/kg	

Identification Summary

SDG Number: 10–939 **Client ID:** WST03–10–2147MS

Lab Sample ID: 1201999001

Data File:	051f5101.d	**Data File:**	051b5101.d
Inst:	ECD5A.I_1	**Inst:**	ECD5A.I_2
Column:	CLP–1	**Column:**	CLP–2
Analyzed:	19–DEC–09 04:12	**Analyzed:**	19–DEC–09 04:12

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Endrin aldehyde							4.17
Column 1	1	5.47	5.44 – 5.5	40.7		ug/kg	
Column 2	1	5.87	5.84 – 5.9	42.4		ug/kg	
4,4'–DDT							13.7
Column 1	1	5.27	5.24 – 5.3	44.2		ug/kg	
Column 2	1	5.77	5.74 – 5.8	38.5		ug/kg	
Endosulfan sulfate							5.21
Column 1	1	5.73	5.7 – 5.76	48.2		ug/kg	
Column 2	1	6.04	6.01 – 6.07	45.7		ug/kg	
Methoxychlor							25
Column 1	1	5.56	5.53 – 5.59	186		ug/kg	
Column 2	1	6.17	6.14 – 6.2	145		ug/kg	
Endrin ketone							4.04
Column 1	1	5.9	5.87 – 5.93	43.4		ug/kg	
Column 2	1	6.38	6.35 – 6.41	41.6		ug/kg	

Identification Summary

SDG Number: 10–939 **Client ID:** WST03–10–2147MSD

Lab Sample ID: 1201999002

Data File:	052f5201.d	**Data File:**	052b5201.d
Inst:	ECD5A.I_1	**Inst:**	ECD5A.I_2
Column:	CLP–1	**Column:**	CLP–2
Analyzed:	19–DEC–09 04:24	**Analyzed:**	19–DEC–09 04:24

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
alpha–BHC							6.37
Column 1	1	3.29	3.26 – 3.32	14.9		ug/kg	
Column 2	1	3.73	3.7 – 3.76	15.8		ug/kg	
gamma–BHC (Lindane)							6.81
Column 1	1	3.55	3.52 – 3.58	15.6		ug/kg	
Column 2	1	4	3.98 – 4.04	16.8		ug/kg	
beta–BHC							6.06
Column 1	1	3.62	3.59 – 3.65	17.9		ug/kg	
Column 2	1	4.06	4.03 – 4.09	19		ug/kg	
delta–BHC							4.07
Column 1	1	3.75	3.72 – 3.78	17.5		ug/kg	
Column 2	1	4.27	4.25 – 4.31	18.3		ug/kg	
Heptachlor							5.79
Column 1	1	3.9	3.87 – 3.93	14.9		ug/kg	
Column 2	1	4.33	4.3 – 4.36	15.8		ug/kg	

Identification Summary

SDG Number: 10-939 **Client ID:** WST03-10-2147MSD

Lab Sample ID: 1201999002

Data File:	052f5201.d	**Data File:**	052b5201.d
Inst:	ECD5A.I_1	**Inst:**	ECD5A.I_2
Column:	CLP-1	**Column:**	CLP-2
Analyzed:	19-DEC-09 04:24	**Analyzed:**	19-DEC-09 04:24

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aldrin							11.9
Column 1	1	4.11	4.09 – 4.15	14.8		ug/kg	
Column 2	1	4.56	4.53 – 4.59	16.7		ug/kg	
Heptachlor epoxide							3.86
Column 1	1	4.52	4.5 – 4.56	17.1		ug/kg	
Column 2	1	4.93	4.9 – 4.96	17.8		ug/kg	
gamma-Chlordane							6.75
Column 1	1	4.6	4.58 – 4.64	18.1		ug/kg	
Column 2	1	5.05	5.02 – 5.08	19.4		ug/kg	
alpha-Chlordane							3.37
Column 1	1	4.69	4.66 – 4.72	18.1		ug/kg	
Column 2	1	5.14	5.12 – 5.18	18.7		ug/kg	
Endosulfan I							4.99
Column 1	1	4.78	4.75 – 4.81	18.3		ug/kg	
Column 2	1	5.19	5.16 – 5.22	19.2		ug/kg	

Identification Summary

SDG Number: 10–939 **Client ID:** WST03–10–2147MSD

Lab Sample ID: 1201999002

Data File:	052f5201.d	**Data File:**	052b5201.d
Inst:	ECD5A.I_1	**Inst:**	ECD5A.I_2
Column:	CLP–1	**Column:**	CLP–2
Analyzed:	19–DEC–09 04:24	**Analyzed:**	19–DEC–09 04:24

Analyte		Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
4,4'–DDE								.345
	Column 1	1	4.73	4.71 – 4.77	48.3		ug/kg	
	Column 2	1	5.23	5.2 – 5.26	48.5		ug/kg	
Dieldrin								1.38
	Column 1	1	4.93	4.9 – 4.96	45.4		ug/kg	
	Column 2	1	5.36	5.33 – 5.39	46.1		ug/kg	
Endrin								1.04
	Column 1	1	5.07	5.05 – 5.11	54.4		ug/kg	
	Column 2	1	5.55	5.52 – 5.58	53.8		ug/kg	
4,4'–DDD								2.45
	Column 1	1	5.1	5.08 – 5.14	52.8		ug/kg	
	Column 2	1	5.58	5.55 – 5.61	51.5		ug/kg	
Endosulfan II								10.2
	Column 1	1	5.21	5.18 – 5.24	51.3		ug/kg	
	Column 2	1	5.67	5.64 – 5.7	46.4		ug/kg	

Identification Summary

SDG Number: 10–939 **Client ID:** WST03–10–2147MSD

Lab Sample ID: 1201999002

Data File:	052f5201.d	**Data File:**	052b5201.d
Inst:	ECD5A.I_1	**Inst:**	ECD5A.I_2
Column:	CLP–1	**Column:**	CLP–2
Analyzed:	19–DEC–09 04:24	**Analyzed:**	19–DEC–09 04:24

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Endrin aldehyde							6.89
Column 1	1	5.47	5.44 – 5.5	43.2		ug/kg	
Column 2	1	5.87	5.84 – 5.9	46.3		ug/kg	
4,4'–DDT							14.5
Column 1	1	5.27	5.24 – 5.3	48.5		ug/kg	
Column 2	1	5.77	5.74 – 5.8	42		ug/kg	
Endosulfan sulfate							1.92
Column 1	1	5.73	5.7 – 5.76	52.7		ug/kg	
Column 2	1	6.04	6.01 – 6.07	51.7		ug/kg	
Methoxychlor							22.8
Column 1	1	5.56	5.53 – 5.59	200		ug/kg	
Column 2	1	6.17	6.14 – 6.2	159		ug/kg	
Endrin ketone							4.4
Column 1	1	5.9	5.87 – 5.93	47.5		ug/kg	
Column 2	1	6.38	6.35 – 6.41	45.4		ug/kg	

Identification Summary

SDG Number: 10–939 **Client ID:** LCS for batch 934324

Lab Sample ID: 1201999003

Data File:	049f4901.d	**Data File:**	049b4901.d
Inst:	ECD5A.I_1	**Inst:**	ECD5A.I_2
Column:	CLP–1	**Column:**	CLP–2
Analyzed:	19–DEC–09 03:48	**Analyzed:**	19–DEC–09 03:48

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Toxaphene							14.2
Column 1	1	4.72	4.69 – 4.75	90.4		ug/kg	
	2	4.93	4.9 – 4.96	177		ug/kg	
	3	4.99	4.96 – 5.02	140		ug/kg	
	4	5.02	4.99 – 5.05	138		ug/kg	
	5	5.09	5.06 – 5.12	142		ug/kg	
					137		
Column 2	1	5.41	5.38 – 5.44	180		ug/kg	
	2	5.55	5.52 – 5.58	150		ug/kg	
	3	5.64	5.61 – 5.67	158		ug/kg	
	4	5.67	5.64 – 5.7	147		ug/kg	
	5	5.72	5.7 – 5.76	157		ug/kg	
					158		

QUALITY CONTROL DATA

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	**10-939**			**Matrix:**	**SOIL**
Lab Sample ID:	**1201998999**				
Client Sample:	**QC for batch 934324**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 934324**	**Method:**	**SW846 8081A**	**SOP Ref:**	**GL-OA-E-041**
Batch ID:	**934325**	**Inst:**	**ECD5A.I**	**Dilution:**	**1**
Run Date:	**12/19/2009 03:24**	**Analyst:**	**HXJ1**	**Inj. Vol:**	**1 uL**
Prep Date:	**12/18/2009 09:03**	**Aliquot:**	**30 g**	**Final Volume:**	**5 mL**
Data File:	**047f4701.d**	**Column:**	**1 CLP-1**	**Level:**	**LOW**
	047b4701.d		**2 CLP-2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
319-84-6	alpha-BHC	U	0.667	ug/kg	0.167	0.667	1
58-89-9	gamma-BHC (Lindane)	U	0.667	ug/kg	0.167	0.667	1
319-85-7	beta-BHC	U	0.667	ug/kg	0.167	0.667	1
319-86-8	delta-BHC	U	0.667	ug/kg	0.167	0.667	1
76-44-8	Heptachlor	U	0.667	ug/kg	0.167	0.667	1
309-00-2	Aldrin	U	0.667	ug/kg	0.167	0.667	1
1024-57-3	Heptachlor epoxide	U	0.667	ug/kg	0.208	0.667	1
5103-74-2	gamma-Chlordane	U	0.667	ug/kg	0.167	0.667	1
5103-71-9	alpha-Chlordane	U	0.667	ug/kg	0.167	0.667	1
959-98-8	Endosulfan I	U	0.667	ug/kg	0.167	0.667	1
72-55-9	4,4'-DDE	U	1.33	ug/kg	0.333	1.33	1
60-57-1	Dieldrin	U	1.33	ug/kg	0.333	1.33	1
72-20-8	Endrin	U	1.33	ug/kg	0.333	1.33	1
72-54-8	4,4'-DDD	U	1.33	ug/kg	0.333	1.33	1
33213-65-9	Endosulfan II	U	1.33	ug/kg	0.333	1.33	1
7421-93-4	Endrin aldehyde	U	1.33	ug/kg	0.333	1.33	1
50-29-3	4,4'-DDT	U	1.33	ug/kg	0.333	1.33	1
1031-07-8	Endosulfan sulfate	U	1.33	ug/kg	0.333	1.33	1
72-43-5	Methoxychlor	U	6.67	ug/kg	1.67	6.67	1
53494-70-5	Endrin ketone	U	1.33	ug/kg	0.333	1.33	1
8001-35-2	Toxaphene	U	16.7	ug/kg	5.55	16.7	1

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd5a.i/121809.b/047f4701.d
Lab Smp Id: 1201998999 Client Smp ID: PBLK01
Inj Date : 19-DEC-2009 03:24
Operator : HXJ1 Inst ID: ecd5a.i
Smp Info : |1201998999|1|
Misc Info : |ECD81A_1S|934325|SVPF|MB|SOIL|MB|||
Comment :
Method : /chem/ecd5a.i/121809.b/ECD5-F-8081-121809.m
Meth Date : 19-Dec-2009 12:49 hea01125 Quant Type: ESTD
Cal Date : 05-DEC-2009 03:28 Cal File: 025f2501.d
Als bottle: 47 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-939.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weigth of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.789	2.791	-0.002	71276756	155.609	25.9	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
6.485	6.485	0.000	57476117	225.661	37.6	80.00- 120.00	100.00(M)

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd5a.i/121809.b/047f4701.d
Date : 19-DEC-2009 03:24
Client ID: PBLK01
Sample Info: |120199899911|
Volume Injected (uL): 1.0
Column phase: CLP-1

Instrument: ecd5a.i
Operator: HXJ1
Column diameter: 0.25

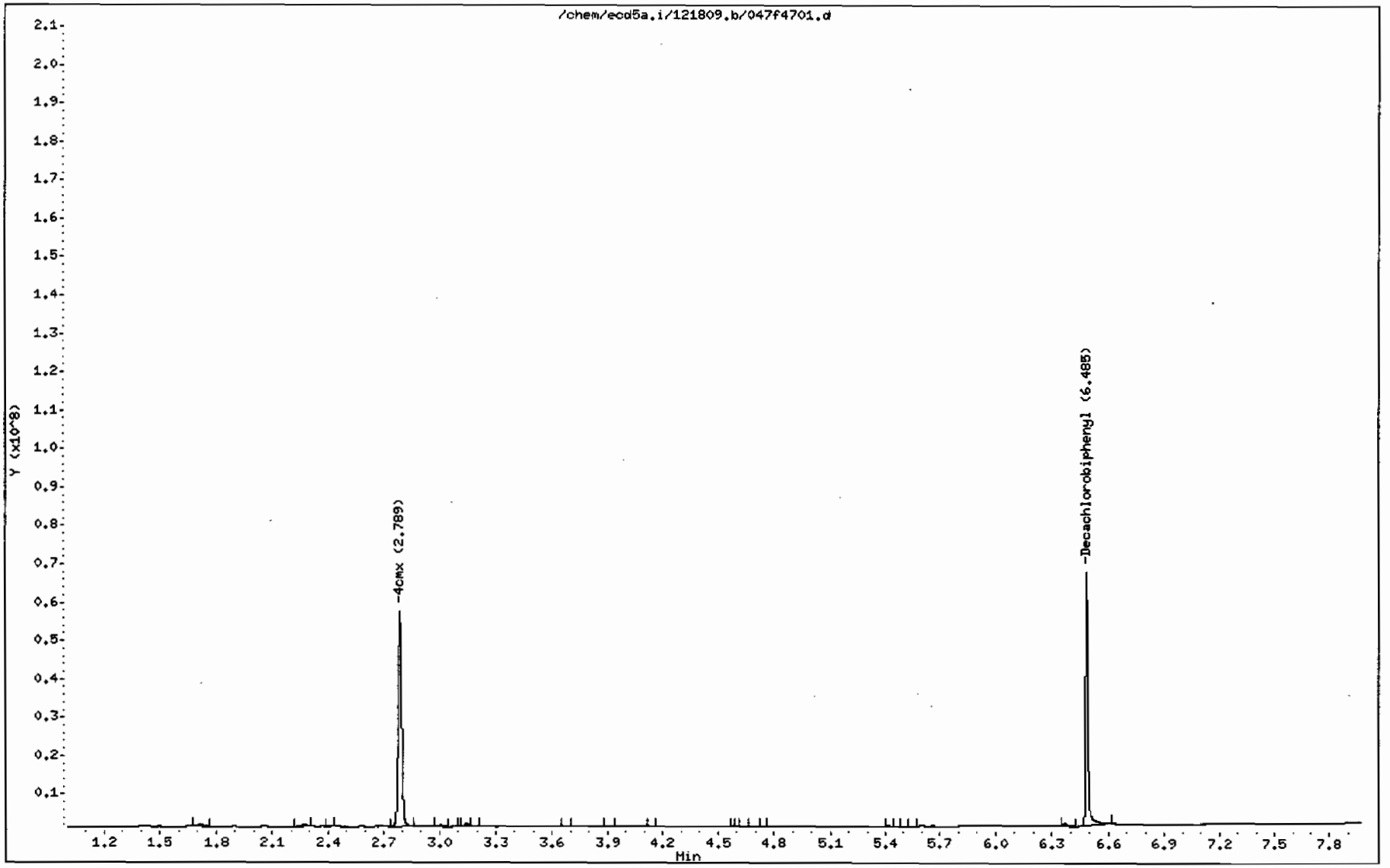

Comment: Manually Integrated
Data File: /chem/ecd5a.i/121809.b/047f4701.d
Operator: HXJ1
Injection Date: 19-DEC-2009 03:24
Instrument: ecd5a.i
Client Sample ID: PBLK01

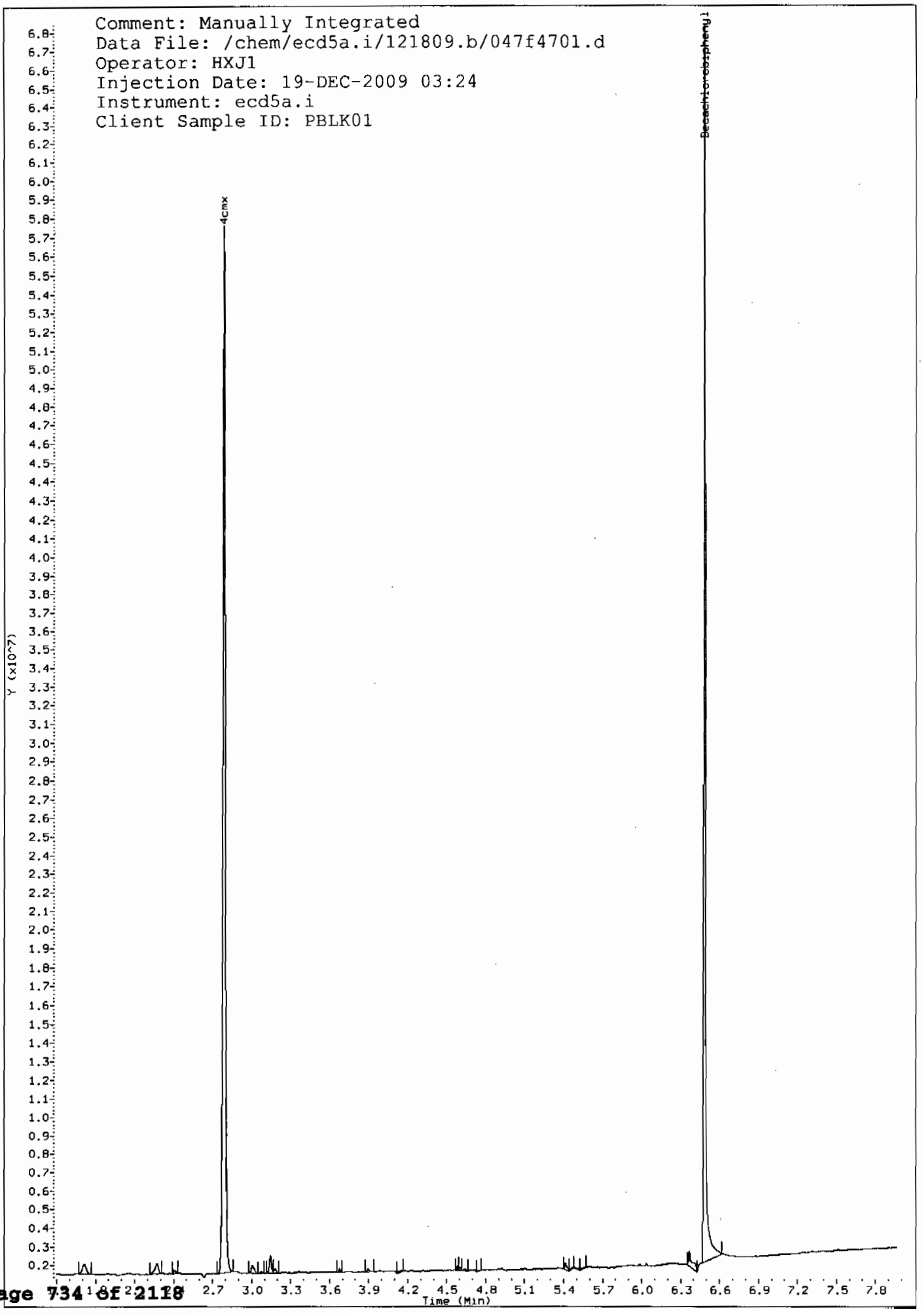

Comment: Before manual integration
Data File: /chem/ecd5a.i/121809.b/orig-047f4701.d
Operator: HXJ1
Injection Date: 19-DEC-2009 03:24
Instrument: ecd5a.i
Client Sample ID: PBLK01

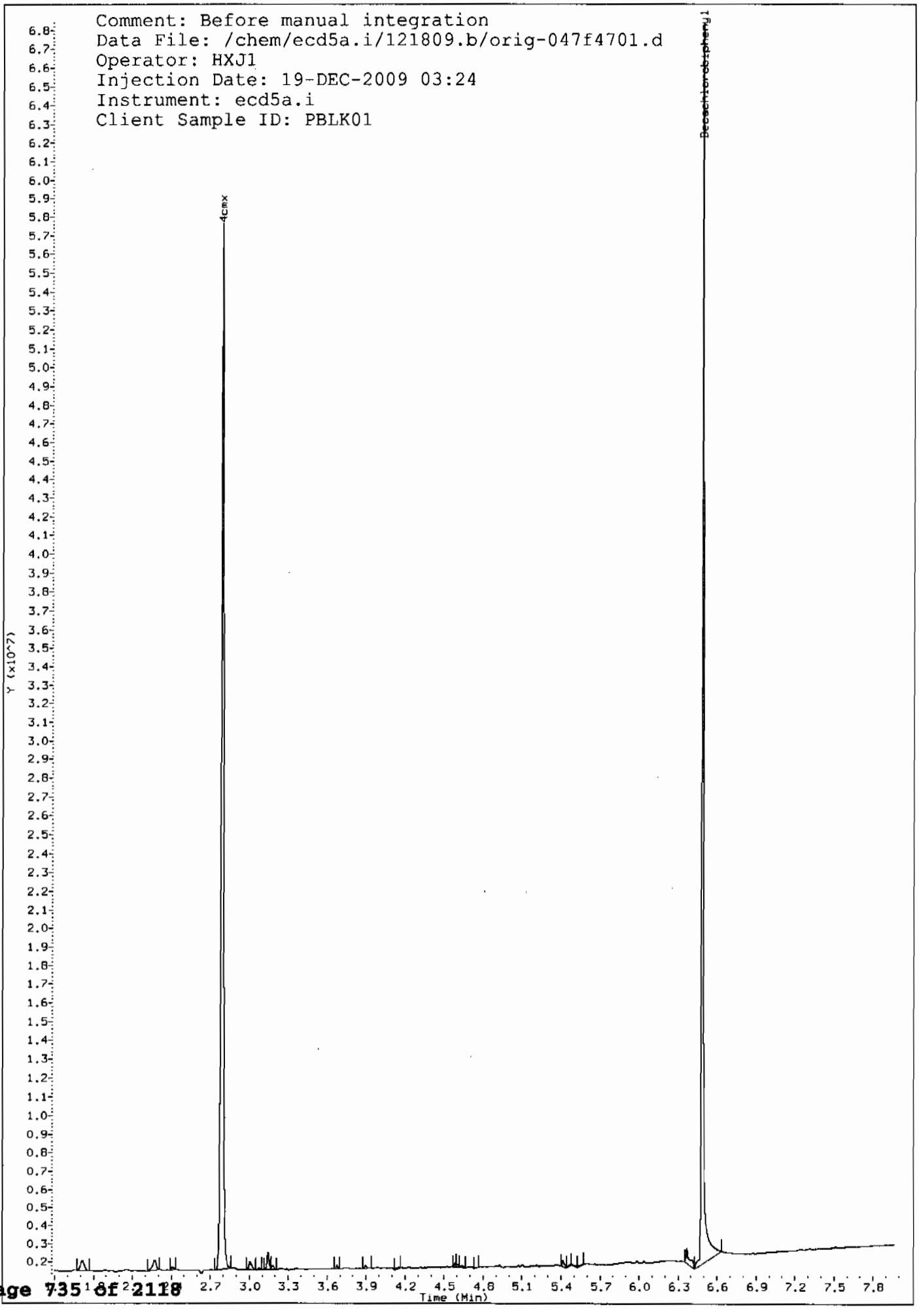

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd5a.i/121809.b/047b4701.d
Lab Smp Id: 1201998999 Client Smp ID: PBLK01
Inj Date : 19-DEC-2009 03:24
Operator : HXJ1 Inst ID: ecd5a.i
Smp Info : |1201998999|1|
Misc Info : |ECD81A_1S|934325|SVPF|MB|SOIL|MB|||
Comment :
Method : /chem/ecd5a.i/121809.b/ECD5-B-8081-121809.m
Meth Date : 19-Dec-2009 12:43 hea01125 Quant Type: ESTD
Cal Date : 05-DEC-2009 03:28 Cal File: 025b2501.d
Als bottle: 47 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-939.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weigth of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
3.200	3.202	-0.002	476348023	154.851	25.8	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.158	7.160	-0.002	287801952	219.880	36.6	80.00- 120.00	100.00

Data File: /chem/ecd5a.i/121809.b/047b4701.d

Date : 19-DEC-2009 03:24

Client ID: PBLK01

Sample Info: |1201998999|1|

Volume Injected (uL): 1.0

Column phase: CLP-2

Instrument: ecd5a.i

Operator: HXJ1

Column diameter: 0.25

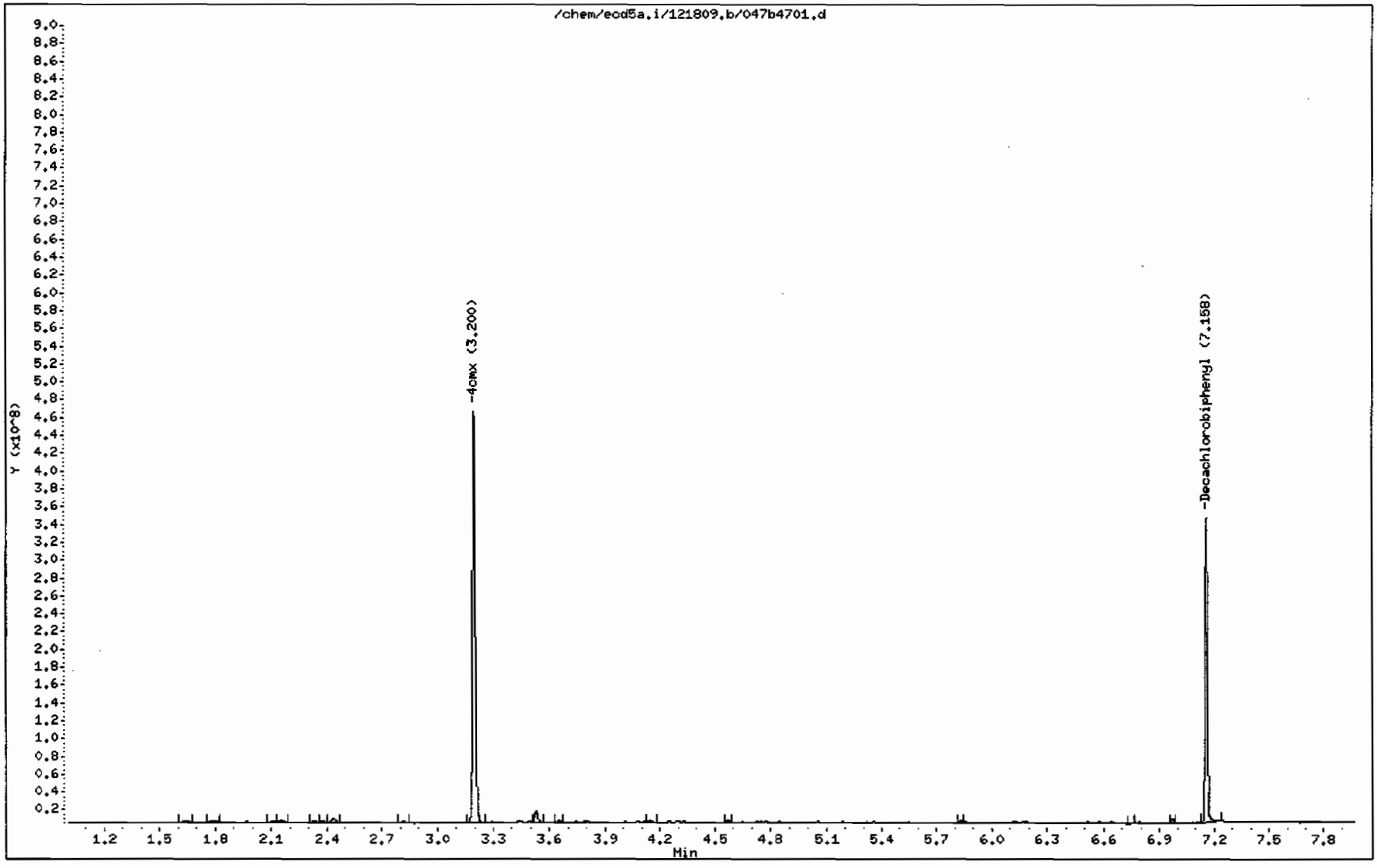

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	10-939			**Matrix:**	SOIL
Lab Sample ID:	1201999000				
Client Sample:	QC for batch 934324	**Client:**	LANL010	**Project:**	QC
Client ID:	LCS for batch 934324	**Method:**	SW846 8081A	**SOP Ref:**	GL-OA-E-041
Batch ID:	934325	**Inst:**	ECD5A.I	**Dilution:**	1
Run Date:	12/19/2009 03:36	**Analyst:**	HXJ1	**Inj. Vol:**	1 uL
Prep Date:	12/18/2009 09:03	**Aliquot:**	30 g	**Final Volume:**	5 mL
Data File:	048f4801.d	**Column:**	1 CLP-1	**Level:**	LOW
	048b4801.d		2 CLP-2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
319-84-6	alpha-BHC		14.5	ug/kg	0.167	0.667	1
58-89-9	gamma-BHC (Lindane)		15.2	ug/kg	0.167	0.667	2
319-85-7	beta-BHC		14.6	ug/kg	0.167	0.667	2
319-86-8	delta-BHC		16.3	ug/kg	0.167	0.667	2
76-44-8	Heptachlor		14.3	ug/kg	0.167	0.667	2
309-00-2	Aldrin		14.7	ug/kg	0.167	0.667	2
1024-57-3	Heptachlor epoxide		15.3	ug/kg	0.208	0.667	2
5103-74-2	gamma-Chlordane		16.2	ug/kg	0.167	0.667	2
5103-71-9	alpha-Chlordane		15.4	ug/kg	0.167	0.667	2
959-98-8	Endosulfan I		16.2	ug/kg	0.167	0.667	2
72-55-9	4,4'-DDE		40.4	ug/kg	0.333	1.33	1
60-57-1	Dieldrin		40.6	ug/kg	0.333	1.33	1
72-20-8	Endrin		46.8	ug/kg	0.333	1.33	2
72-54-8	4,4'-DDD		44.6	ug/kg	0.333	1.33	2
33213-65-9	Endosulfan II		42.3	ug/kg	0.333	1.33	2
7421-93-4	Endrin aldehyde		43.8	ug/kg	0.333	1.33	1
50-29-3	4,4'-DDT		39.0	ug/kg	0.333	1.33	2
1031-07-8	Endosulfan sulfate		51.6	ug/kg	0.333	1.33	2
72-43-5	Methoxychlor		158	ug/kg	1.67	6.67	2
53494-70-5	Endrin ketone		38.8	ug/kg	0.333	1.33	2
8001-35-2	Toxaphene	U	16.7	ug/kg	5.55	16.7	1

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd5a.i/121809.b/048f4801.d
Lab Smp Id: 1201999000 Client Smp ID: PBLK01LCS
Inj Date : 19-DEC-2009 03:36
Operator : HXJ1 Inst ID: ecd5a.i
Smp Info : |1201999000|1|
Misc Info : |ECD81A_1S|934325|SVPF|LCS|SOIL|LCS|||
Comment :
Method : /chem/ecd5a.i/121809.b/ECD5-F-8081-121809.m
Meth Date : 19-Dec-2009 12:49 hea01125 Quant Type: ESTD
Cal Date : 05-DEC-2009 03:28 Cal File: 025f2501.d
Als bottle: 48 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-939.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weigth of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.789	2.791	-0.002	76239707	166.444	27.7	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
6.484	6.485	-0.001	63845084	250.666	41.8	80.00- 120.00	100.00(R)
5 alpha-BHC					CAS #: 319-84-6		
3.293	3.295	-0.002	53088553	86.7941	14.5	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.550	3.552	-0.002	51294639	93.6392	15.6	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
12 beta-BHC					CAS #: 319-85-7		
3.619	3.621	-0.002	22563023	92.0601	15.3	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
3.753	3.755	-0.002	55726326	102.715	17.1	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
3.902	3.905	-0.003	45535874	91.5503	15.2	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.114	4.117	-0.003	45166362	88.5323	14.8	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.523	4.526	-0.003	43043516	96.2624	16.0	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
4.604	4.607	-0.003	43454386	99.7785	16.6	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
4.689	4.691	-0.002	42434067	97.8162	16.3	80.00- 120.00	100.00
16 Endosulfan I					CAS #: 959-98-8		
4.777	4.780	-0.003	40688207	98.1174	16.4	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
4.734	4.735	-0.001	101557951	242.699	40.4	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
4.927	4.930	-0.003	105715978	243.320	40.6	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.073	5.076	-0.003	91074033	289.342	48.2	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.104	5.105	-0.001	98284794	279.819	46.6	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
5.212	5.215	-0.003	101272205	284.037	47.3	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
5.464	5.468	-0.004	78561094	262.526	43.8	80.00- 120.00	100.00(M)
26 4,4'-DDT					CAS #: 50-29-3		
5.272	5.275	-0.003	87483864	270.670	45.1	80.00- 120.00	100.00(M)
29 Endosulfan sulfate					CAS #: 1031-07-8		
5.725	5.729	-0.004	94823805	314.842	52.5	80.00- 120.00	100.00(M)

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
28 Methoxychlor					CAS #: 72-43-5		
5.558	5.560	-0.002	143578218	1213.66	202	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
5.899	5.903	-0.004	96201398	264.839	44.1	80.00- 120.00	100.00(M)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Data File: /chem/ecd5a.i/121809.b/048f4801.d
Date : 19-DEC-2009 03:36
Client ID: PBLK01LCS
Sample Info: !120199900111
Volume Injected (uL): 1.0
Column phase: CLP-1

Instrument: ecd5a.i
Operator: HXJI
Column diameter: 0.25

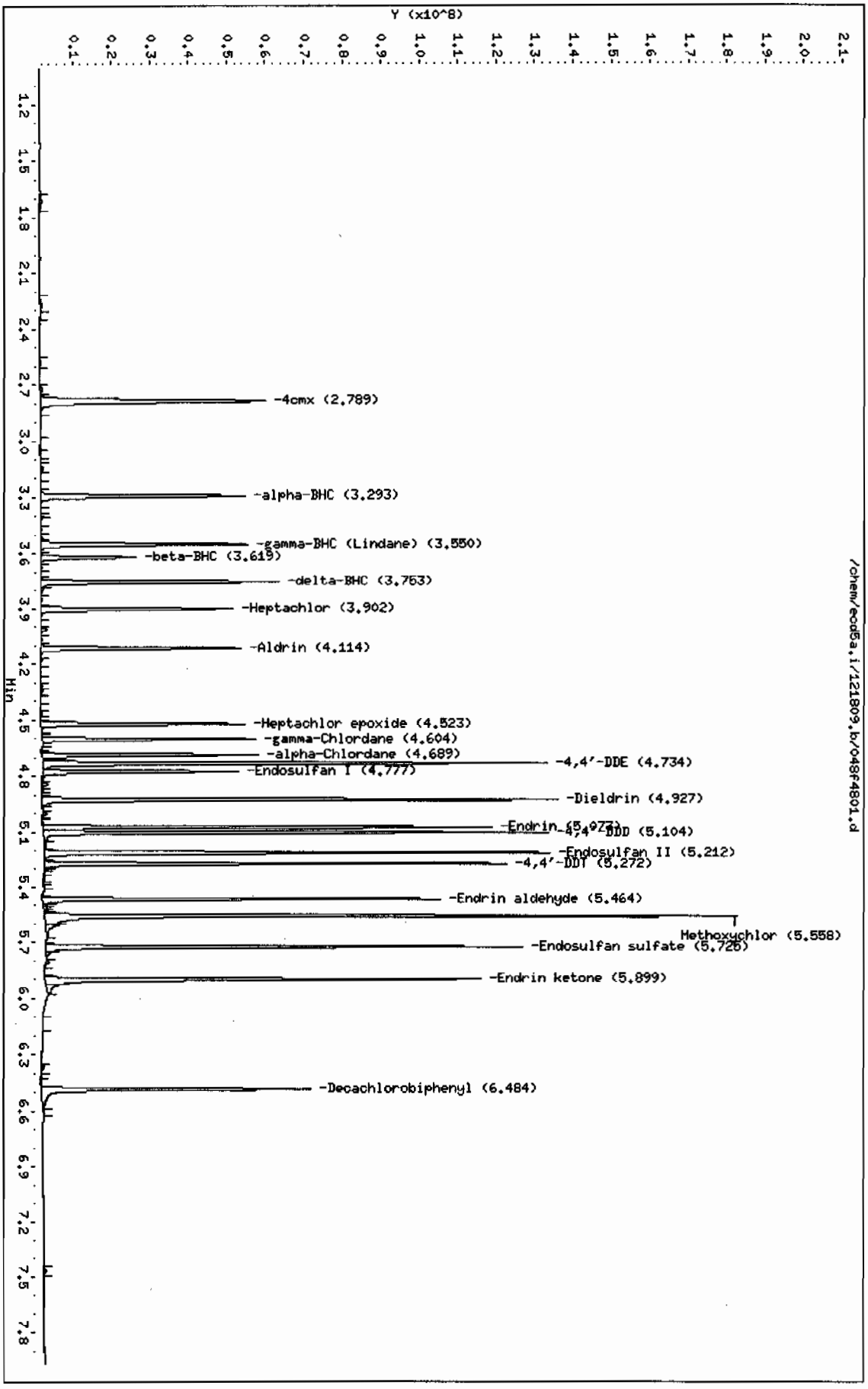

Page 1

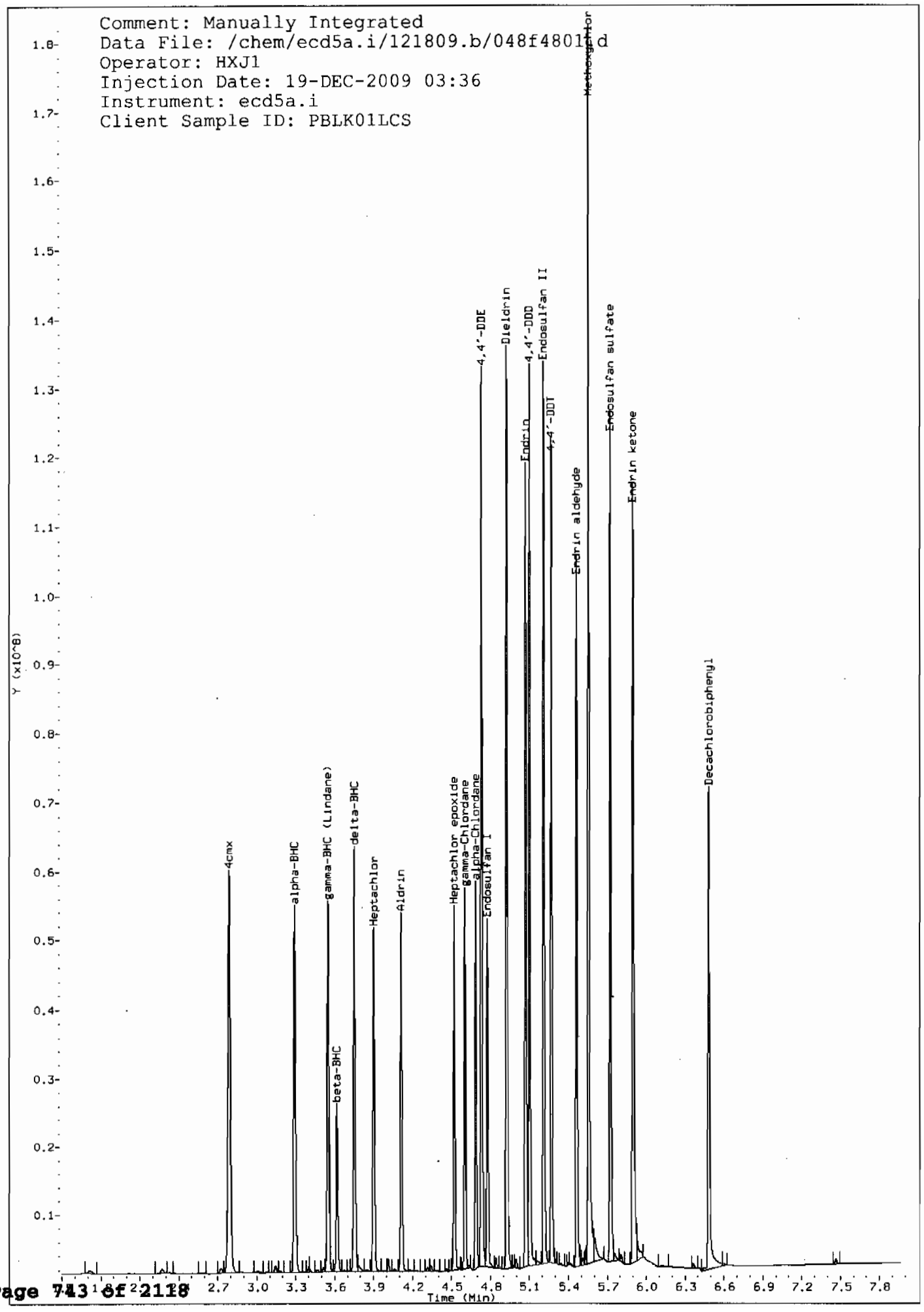
Comment: Manually Integrated
Data File: /chem/ecd5a.i/121809.b/048f4801.d
Operator: HXJ1
Injection Date: 19-DEC-2009 03:36
Instrument: ecd5a.i
Client Sample ID: PBLK01LCS
Y (x10^8)
Time (Min)
4cmx
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide
gamma-Chlordane
alpha-Chlordane
Endosulfan I
4,4'-DDE
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Methoxychlor
Endosulfan sulfate
Endrin ketone
Decachlorobiphenyl

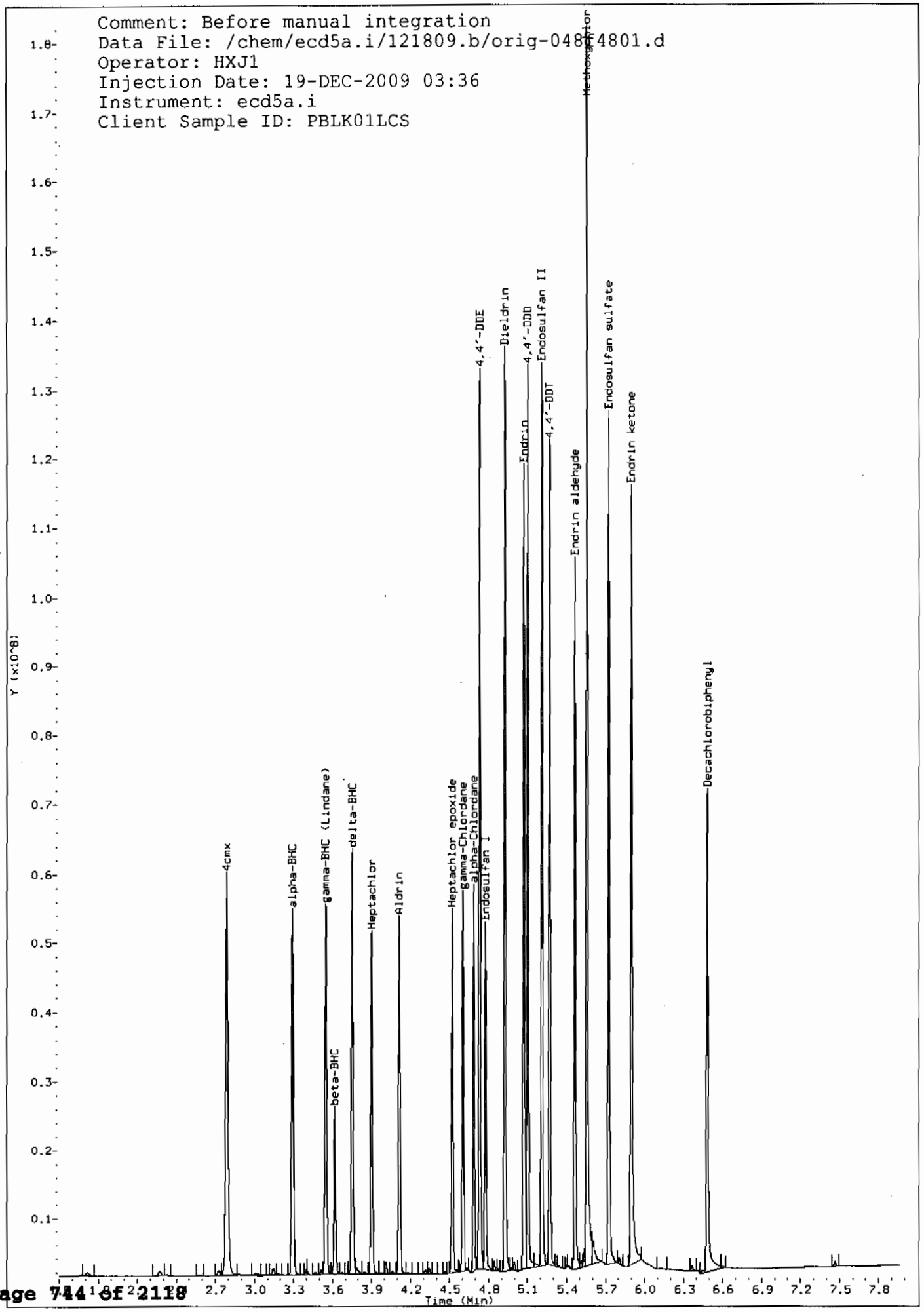
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Operator: HXJ1
Injection Date: 19-DEC-2009 03:36
Instrument: ecd5a.i
Client Sample ID: PBLK01LCS
Y (x10^8)
Time (Min)
4cmx
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide
gamma-Chlordane
alpha-Chlordane
Endosulfan I
4,4'-DDE
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Methoxychlor
Endosulfan sulfate
Endrin ketone
Decachlorobiphenyl

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CLP-2

Data file : /chem/ecd5a.i/121809.b/048b4801.d
Lab Smp Id: 1201999000 Client Smp ID: PBLK01LCS
Inj Date : 19-DEC-2009 03:36
Operator : HXJ1 Inst ID: ecd5a.i
Smp Info : |1201999000|1|
Misc Info : |ECD81A_1S|934325|SVPF|LCS|SOIL|LCS|||
Comment :
Method : /chem/ecd5a.i/121809.b/ECD5-B-8081-121809.m
Meth Date : 19-Dec-2009 12:43 hea01125 Quant Type: ESTD
Cal Date : 05-DEC-2009 03:28 Cal File: 025b2501.d
Als bottle: 48 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-939.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weigth of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
3.199	3.202	-0.003	510876870	166.075	27.7	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.159	7.160	-0.001	295578208	225.821	37.6	80.00- 120.00	100.00
5 alpha-BHC					CAS #: 319-84-6		
3.727	3.730	-0.003	368400887	88.5965	14.8	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
4.004	4.006	-0.002	325422366	91.4644	15.2	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
12 beta-BHC					CAS #: 319-85-7		
4.060	4.062	-0.002	138233790	87.5101	14.6	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
4.276	4.278	-0.002	335805055	97.7039	16.3	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
4.330	4.332	-0.002	265815603	86.0152	14.3	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.559	4.561	-0.002	269060938	88.4380	14.7	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.931	4.934	-0.003	249348540	91.9673	15.3	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
5.052	5.055	-0.003	250455273	96.9305	16.2	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
5.144	5.145	-0.001	227670320	92.2334	15.4	80.00- 120.00	100.00
16 Endosulfan I					CAS #: 959-98-8		
5.186	5.190	-0.004	221053356	97.2157	16.2	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.227	5.230	-0.003	571257412	242.782	40.5	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
5.356	5.359	-0.003	582111876	244.131	40.7	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.548	5.550	-0.002	499403582	280.923	46.8	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.580	5.583	-0.003	527534833	267.869	44.6	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
5.672	5.675	-0.003	508633416	253.880	42.3	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
5.871	5.875	-0.004	422148262	265.453	44.2	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
5.773	5.775	-0.002	422613393	233.965	39.0	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
6.038	6.040	-0.002	511703787	309.813	51.6	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
28 Methoxychlor					CAS #: 72-43-5		
6.167	6.170	-0.003	733162639	947.830	158	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
6.382	6.385	-0.003	453393759	232.545	38.8	80.00- 120.00	100.00

Data File: /chem/ecd5a.i/121809.b/048b4801.d
Date : 19-DEC-2009 03:36
Client ID: PBLK01LCS
Sample Info: 1120199900111
Volume Injected (uL): 1.0
Column phase: CLP-2

Instrument: ecd5a.i
Operator: HXJ1
Column diameter: 0.25

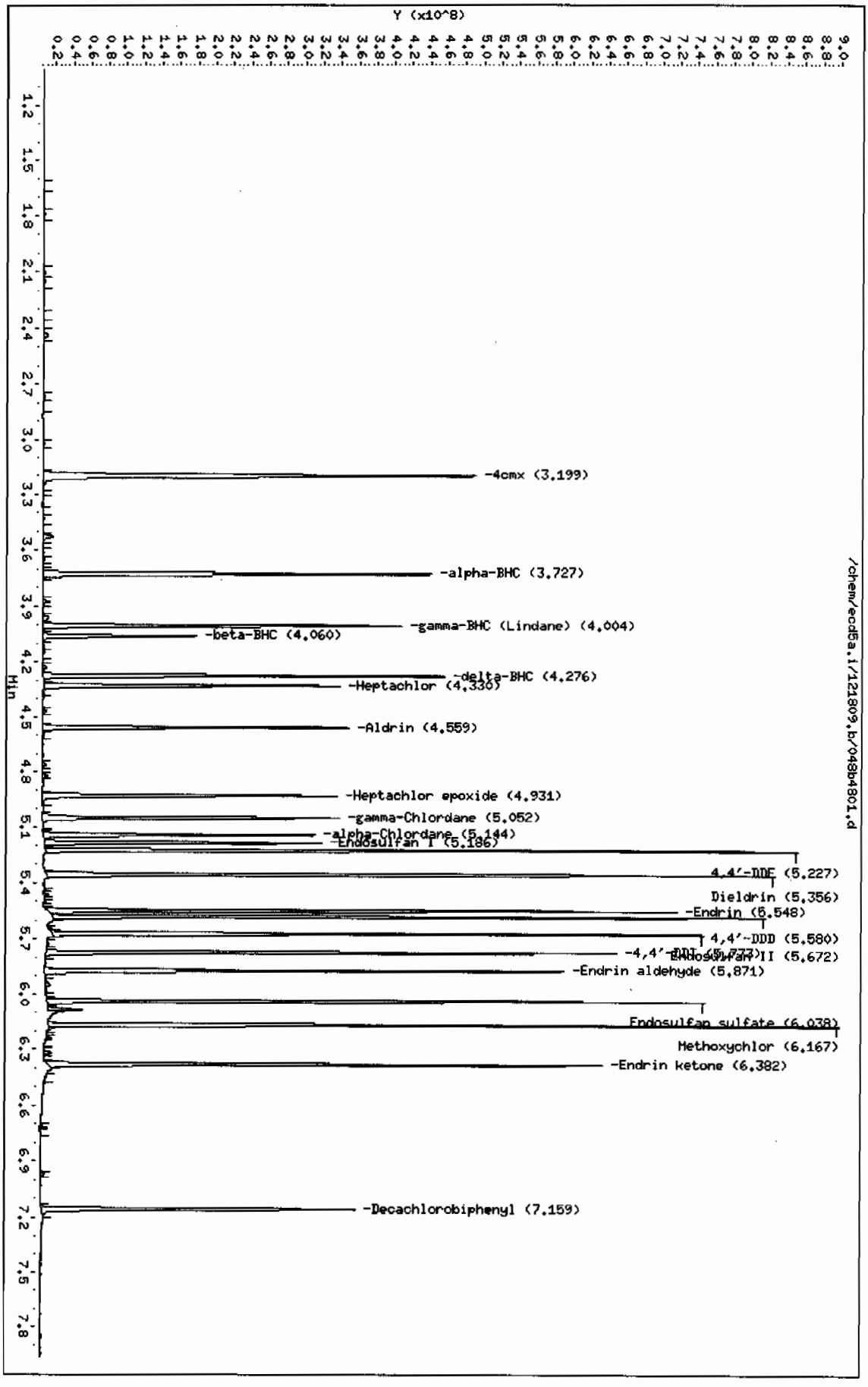

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Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	**10-939**			**Matrix:**	**SOIL**
Lab Sample ID:	**1201999003**				
Client Sample:	**QC for batch 934324**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 934324**	**Method:**	**SW846 8081A**	**SOP Ref:**	**GL-OA-E-041**
Batch ID:	**934325**	**Inst:**	**ECD5A.I**	**Dilution:**	**1**
Run Date:	**12/19/2009 03:48**	**Analyst:**	**HXJ1**	**Inj. Vol:**	**1 uL**
Prep Date:	**12/18/2009 09:03**	**Aliquot:**	**30 g**	**Final Volume:**	**5 mL**
Data File:	**049f4901.d**	**Column:**	**1 CLP-1**	**Level:**	**LOW**
	049b4901.d		**2 CLP-2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
319-84-6	alpha-BHC	U	0.667	ug/kg	0.167	0.667	1
58-89-9	gamma-BHC (Lindane)	U	0.667	ug/kg	0.167	0.667	1
319-85-7	beta-BHC	U	0.667	ug/kg	0.167	0.667	1
319-86-8	delta-BHC	U	0.667	ug/kg	0.167	0.667	1
76-44-8	Heptachlor	U	0.667	ug/kg	0.167	0.667	1
309-00-2	Aldrin	U	0.667	ug/kg	0.167	0.667	1
1024-57-3	Heptachlor epoxide	U	0.667	ug/kg	0.208	0.667	1
5103-74-2	gamma-Chlordane	U	0.667	ug/kg	0.167	0.667	1
5103-71-9	alpha-Chlordane	U	0.667	ug/kg	0.167	0.667	1
959-98-8	Endosulfan I	U	0.667	ug/kg	0.167	0.667	1
72-55-9	4,4'-DDE	U	1.33	ug/kg	0.333	1.33	1
60-57-1	Dieldrin	U	1.33	ug/kg	0.333	1.33	1
72-20-8	Endrin	U	1.33	ug/kg	0.333	1.33	1
72-54-8	4,4'-DDD	U	1.33	ug/kg	0.333	1.33	1
33213-65-9	Endosulfan II	U	1.33	ug/kg	0.333	1.33	1
7421-93-4	Endrin aldehyde	U	1.33	ug/kg	0.333	1.33	1
50-29-3	4,4'-DDT	U	1.33	ug/kg	0.333	1.33	1
1031-07-8	Endosulfan sulfate	U	1.33	ug/kg	0.333	1.33	1
72-43-5	Methoxychlor	U	6.67	ug/kg	1.67	6.67	1
53494-70-5	Endrin ketone	U	1.33	ug/kg	0.333	1.33	1
8001-35-2	Toxaphene		137	ug/kg	5.55	16.7	1

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CLP-1

Data file : /chem/ecd5a.i/121809.b/049f4901.d
Lab Smp Id: 1201999003 Client Smp ID: PBLK01TLCS
Inj Date : 19-DEC-2009 03:48
Operator : HXJ1 Inst ID: ecd5a.i
Smp Info : |1201999003|1|
Misc Info : |ECD81A_1S|934325|SVPF|TLCS|SOIL|TLCS|||
Comment :
Method : /chem/ecd5a.i/121809.b/ECD5-F-8081-121809.m
Meth Date : 19-Dec-2009 12:49 hea01125 Quant Type: ESTD
Cal Date : 05-DEC-2009 03:28 Cal File: 025f2501.d
Als bottle: 49 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-939.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weigth of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.790	2.791	-0.001	81982699	178.982	29.8	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
6.483	6.485	-0.002	61760174	242.481	40.4	80.00- 120.00	100.00(RM)
23 Toxaphene					CAS #: 8001-35-2		
4.715	4.717	-0.002	1520678	542.453	90.4	80.00- 120.00	100.00(M)
4.930	4.932	-0.002	5617109	1063.15	177	160.58- 200.58	369.38
4.986	4.987	-0.001	5873117	839.405	140	223.24- 263.24	386.22
5.024	5.025	-0.001	7367728	826.117	138	257.97- 297.97	484.50
5.086	5.087	-0.001	7317085	850.082	142	271.11- 311.11	481.17

Average of Peak Concentrations = 137

QC Flag Legend

R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Data File: /chem/ecd5a.i/121809.b/049f4901.d

Date : 19-DEC-2009 03:48

Client ID: PBLK01TLCS

Sample Info: |1201999003|1|

Volume Injected (uL): 1.0

Column phase: CLP-1

Instrument: ecd5a.i

Operator: HXJ1

Column diameter: 0.25

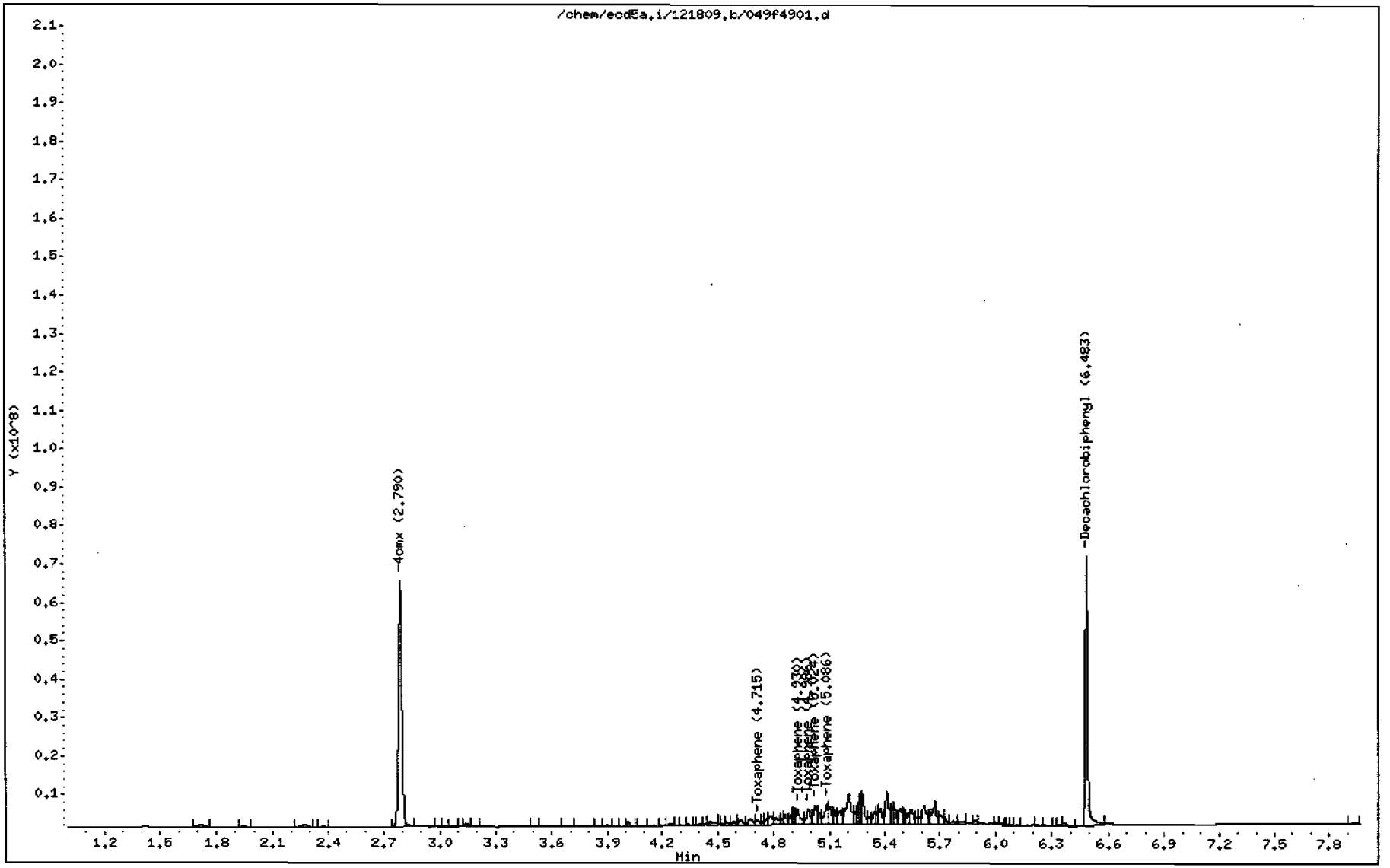

Comment: Manually Integrated
Data File: /chem/ecd5a.i/121809.b/049f4901.d
Operator: HXJ1
Injection Date: 19-DEC-2009 03:48
Instrument: ecd5a.i
Client Sample ID: PBLK01TLCS

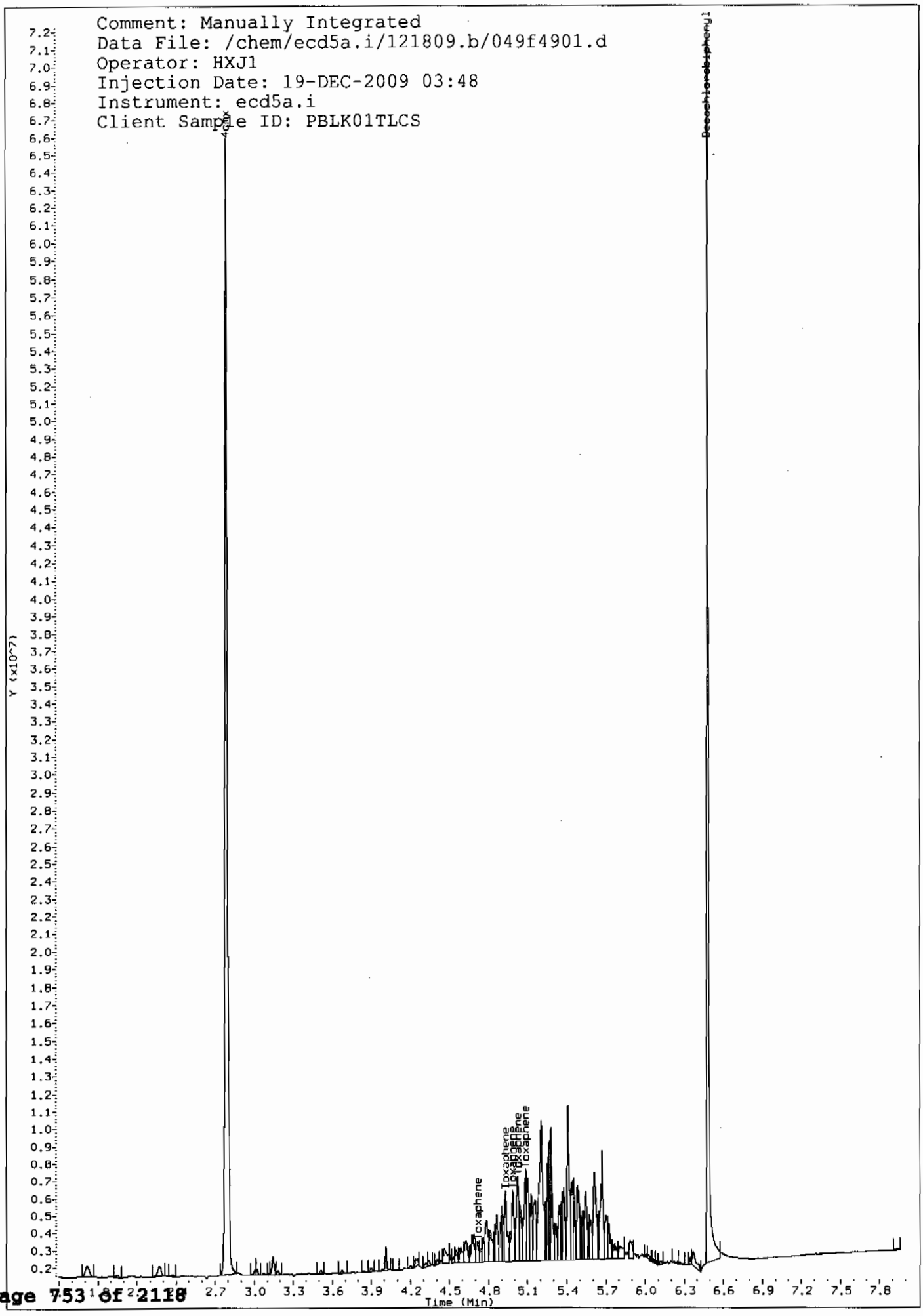

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Operator: HXJ1
Injection Date: 19-DEC-2009 03:48
Instrument: ecd5a.i
Client Sample ID: PBLK01TLCS

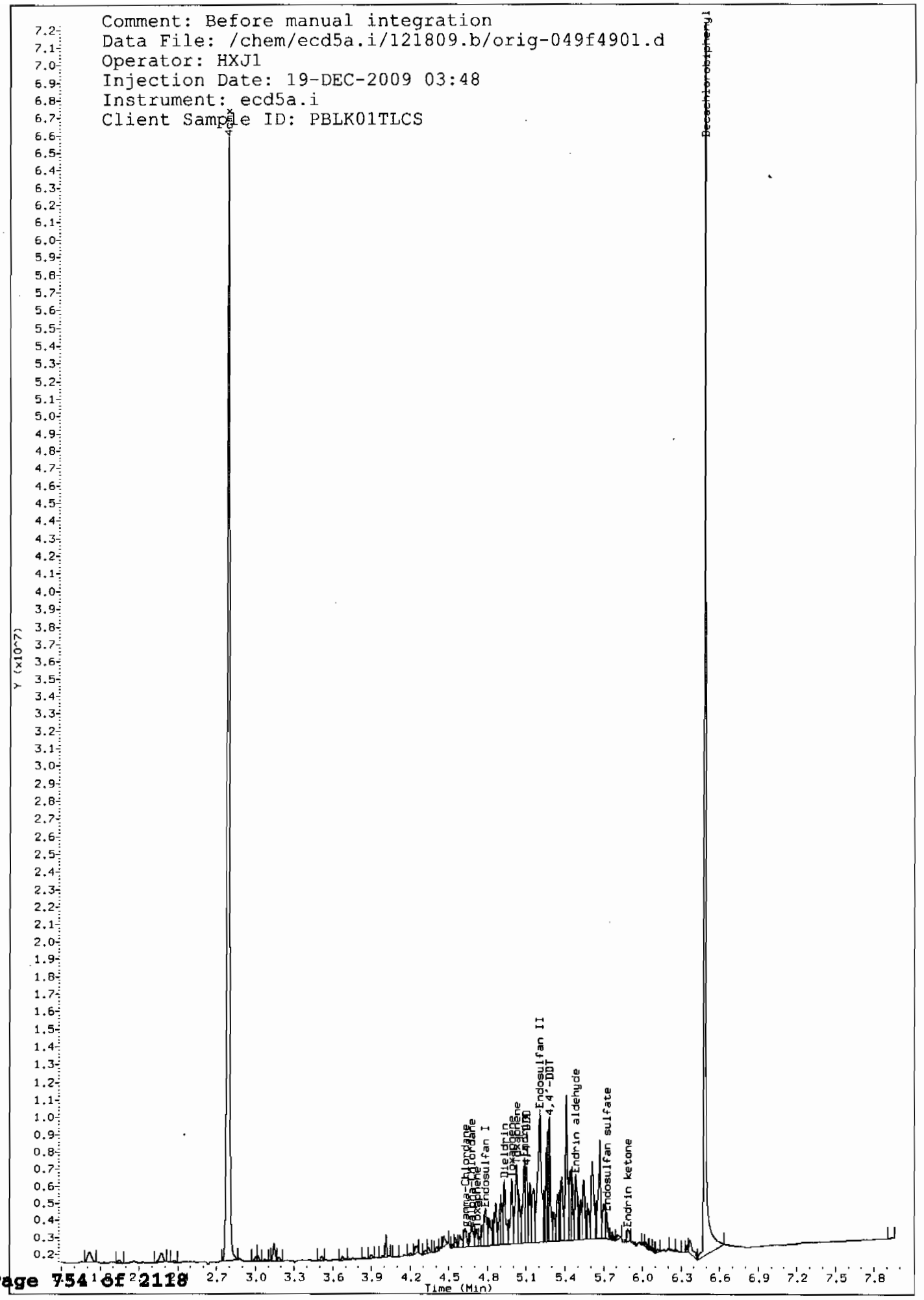

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CLP-2

Data file : /chem/ecd5a.i/121809.b/049b4901.d
Lab Smp Id: 1201999003 Client Smp ID: PBLK01TLCS
Inj Date : 19-DEC-2009 03:48
Operator : HXJ1 Inst ID: ecd5a.i
Smp Info : |1201999003|1|
Misc Info : |ECD81A_1S|934325|SVPF|TLCS|SOIL|TLCS|||
Comment :
Method : /chem/ecd5a.i/121809.b/ECD5-B-8081-121809.m
Meth Date : 19-Dec-2009 12:43 hea01125 Quant Type: ESTD
Cal Date : 05-DEC-2009 03:28 Cal File: 025b2501.d
Als bottle: 49 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-939.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weigth of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
3.199	3.202	-0.003	548941141	178.449	29.7	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.158	7.160	-0.002	306498412	234.164	39.0	80.00- 120.00	100.00(R)
23 Toxaphene					CAS #: 8001-35-2		
5.409	5.412	-0.003	23764793	1078.75	180	80.00- 120.00	100.00(M)
5.545	5.547	-0.002	30836008	897.965	150	119.91- 159.91	191.08
5.637	5.638	-0.001	32057656	949.155	158	100.82- 140.82	134.90
5.665	5.668	-0.003	49768911	882.255	147	198.18- 238.18	209.42
5.723	5.726	-0.003	81499747	942.560	157	278.58- 318.58	342.94

Average of Peak Concentrations = 158

QC Flag Legend

R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Data File: /chem/ecd5a.i/121809.b/049b4901.d

Date : 19-DEC-2009 03:48

Client ID: PBLK01TLCS

Sample Info: |120199900311|

Volume Injected (uL): 1.0

Column phase: CLP-2

Instrument: ecd5a.i

Operator: HXJ1

Column diameter: 0.25

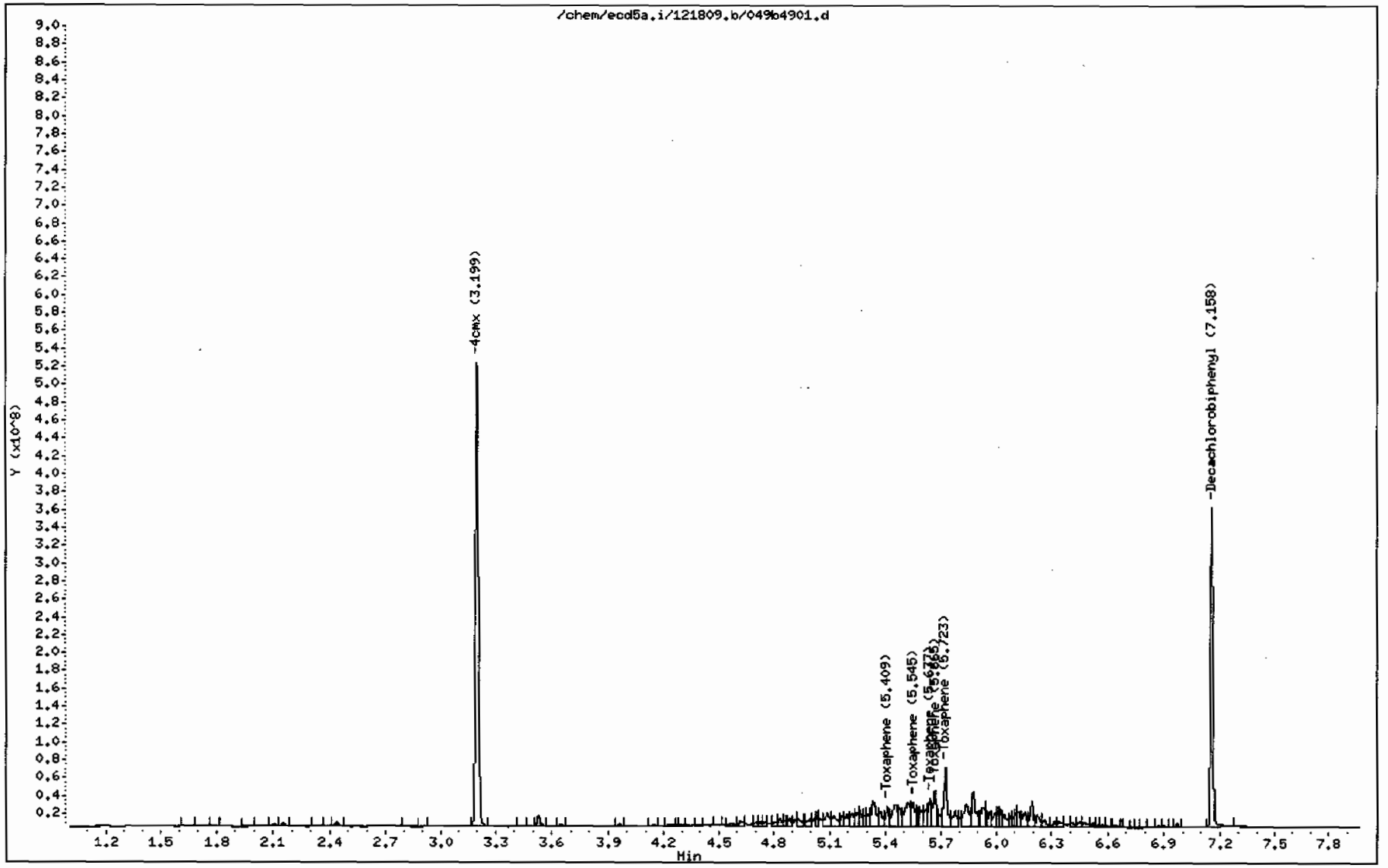

Comment: Manually Integrated
Data File: /chem/ecd5a.i/121809.b/049b4901.d
Operator: HXJ1
Injection Date: 19-DEC-2009 03:48
Instrument: ecd5a.i
Client Sample ID: PBLK01TLCS

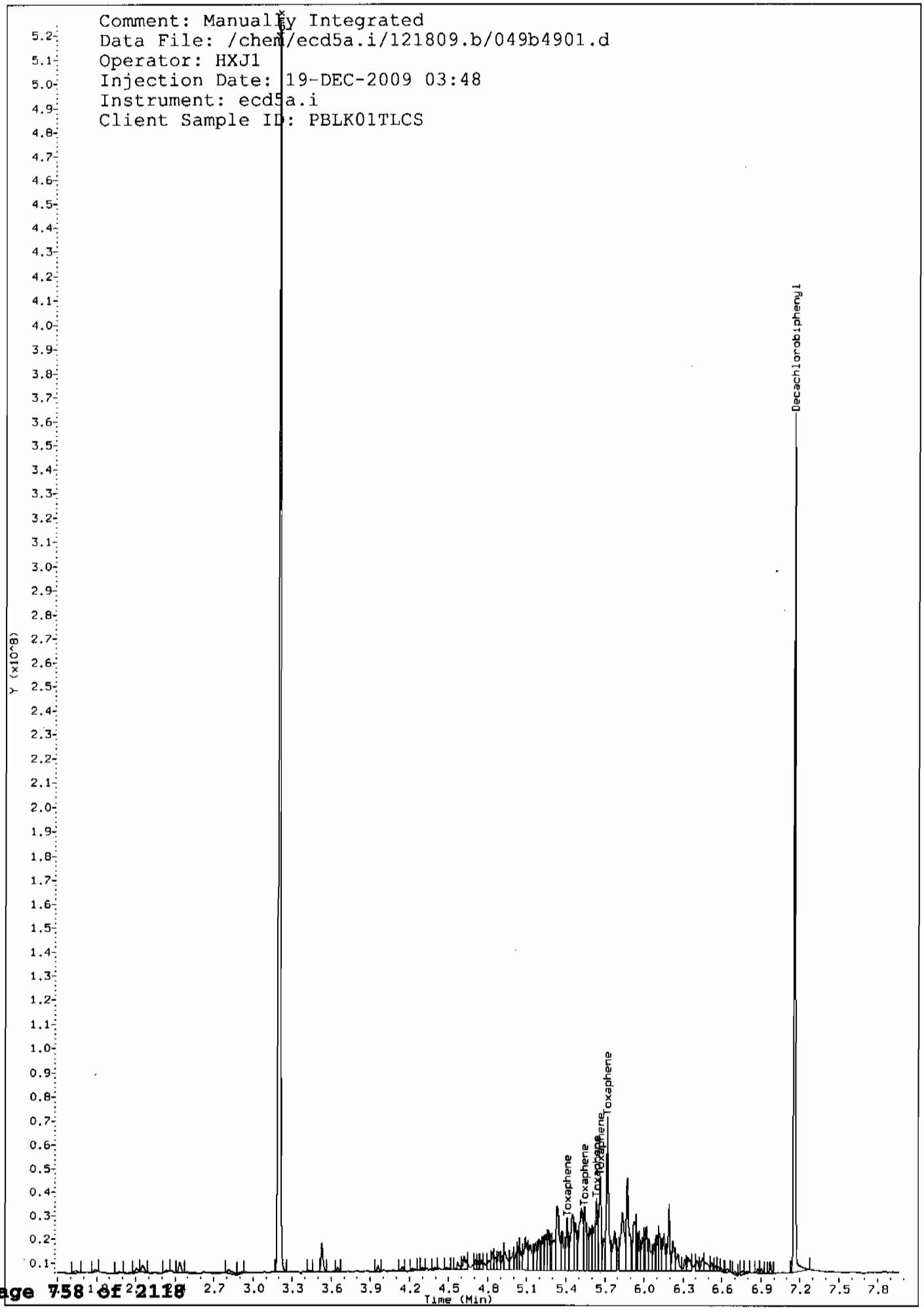

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Operator: HXJ1
Injection Date: 19-DEC-2009 03:48
Instrument: ecd5a.i
Client Sample ID: PBLK01TLCS

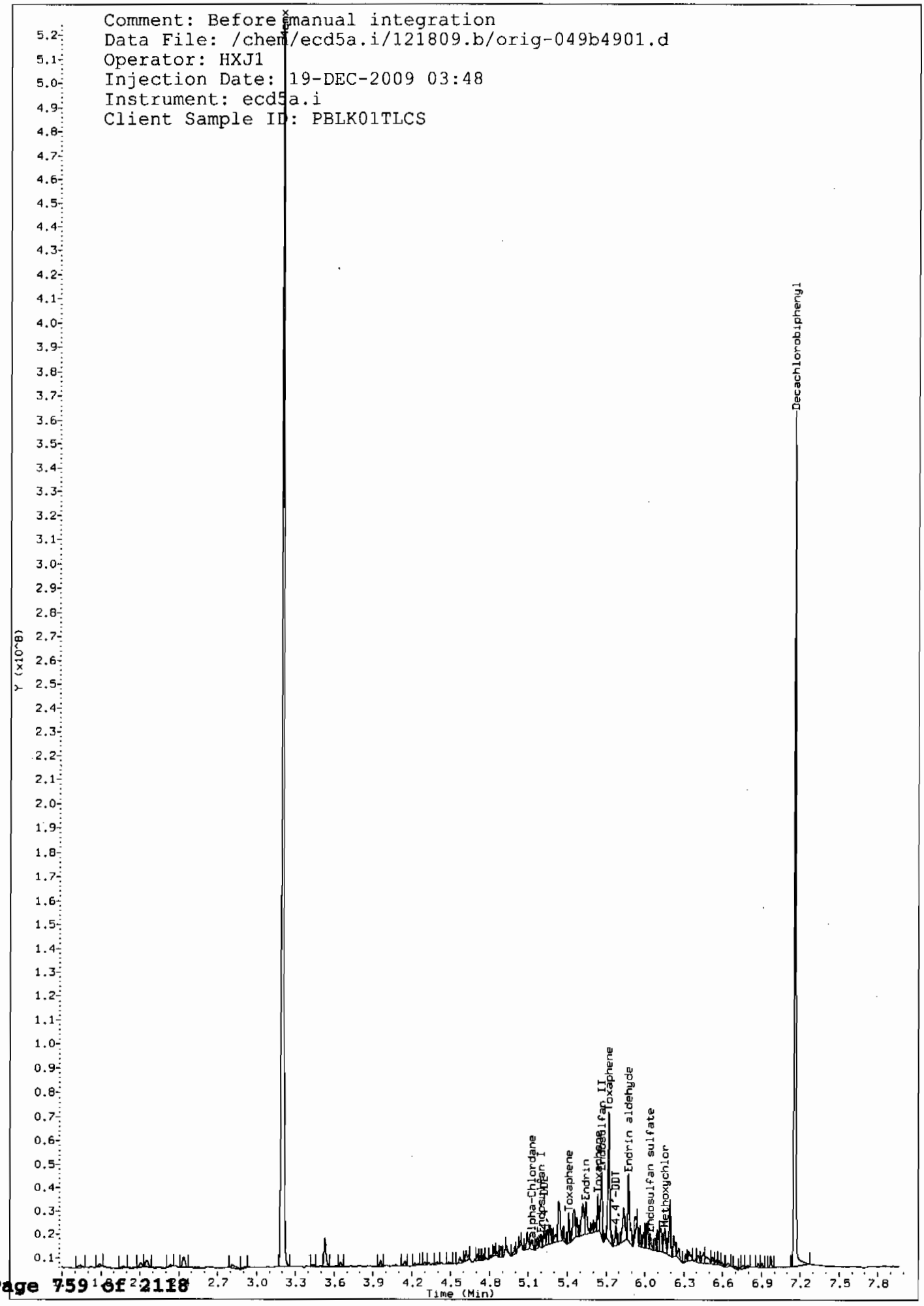

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	10–939	**Date Collected:**	12/14/2009 12:00	**Matrix:**	R
Lab Sample ID:	1201999001	**Date Received:**	12/16/2009 09:10	**%Moisture:**	13.5
Client Sample:	QC for batch 934324	**Client:**	LANL010	**Project:**	QC
Client ID:	WST03–10–2147MS	**Method:**	SW846 8081A	**SOP Ref:**	GL–OA–E–041
Batch ID:	934325	**Inst:**	ECD5A.I	**Dilution:**	5
Run Date:	12/19/2009 04:12	**Analyst:**	HXJ1	**Inj. Vol:**	1 uL
Prep Date:	12/18/2009 09:03	**Aliquot:**	30.01 g	**Final Volume:**	5 mL
Data File:	051f5101.d	**Column:**	1 CLP–1	**Level:**	LOW
	051b5101.d		2 CLP–2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
319–84–6	alpha–BHC		13.2	ug/kg	0.963	3.85	1
58–89–9	gamma–BHC (Lindane)		14.0	ug/kg	0.963	3.85	1
319–85–7	beta–BHC		16.7	ug/kg	0.963	3.85	1
319–86–8	delta–BHC		16.1	ug/kg	0.963	3.85	1
76–44–8	Heptachlor		13.6	ug/kg	0.963	3.85	1
309–00–2	Aldrin		13.9	ug/kg	0.963	3.85	1
1024–57–3	Heptachlor epoxide		15.9	ug/kg	1.20	3.85	1
5103–74–2	gamma–Chlordane		16.7	ug/kg	0.963	3.85	1
5103–71–9	alpha–Chlordane		16.9	ug/kg	0.963	3.85	1
959–98–8	Endosulfan I		16.3	ug/kg	0.963	3.85	1
72–55–9	4,4'–DDE		45.0	ug/kg	1.93	7.70	1
60–57–1	Dieldrin		42.5	ug/kg	1.93	7.70	1
72–20–8	Endrin		49.9	ug/kg	1.93	7.70	1
72–54–8	4,4'–DDD		46.4	ug/kg	1.93	7.70	1
33213–65–9	Endosulfan II		47.0	ug/kg	1.93	7.70	1
7421–93–4	Endrin aldehyde		40.7	ug/kg	1.93	7.70	1
50–29–3	4,4'–DDT		44.2	ug/kg	1.93	7.70	1
1031–07–8	Endosulfan sulfate		48.2	ug/kg	1.93	7.70	1
72–43–5	Methoxychlor		186	ug/kg	9.63	38.5	1
53494–70–5	Endrin ketone		43.4	ug/kg	1.93	7.70	1
8001–35–2	Toxaphene	U	96.3	ug/kg	32.1	96.3	1

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CLP-1

Data file : /chem/ecd5a.i/121809.b/051f5101.d
Lab Smp Id: 1201999001 Client Smp ID: WST03-10-2147MS
Inj Date : 19-DEC-2009 04:12
Operator : HXJ1 Inst ID: ecd5a.i
Smp Info : |1201999001|5|
Misc Info : |ECD81A_1S|934325|SVPF|MS|SOIL|MS|||
Comment :
Method : /chem/ecd5a.i/121809.b/ECD5-F-8081-121809.m
Meth Date : 19-Dec-2009 12:49 hea01125 Quant Type: ESTD
Cal Date : 05-DEC-2009 03:28 Cal File: 025f2501.d
Als bottle: 51 QC Sample: MS
Dil Factor: 5.00000
Integrator: Falcon Compound Sublist: 10-939.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	5.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.01000	Weigth of sample extracted (g)
M	13.49180	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.789	2.791	-0.002	10831359	23.6466	22.8	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
6.486	6.485	0.001	10476438	41.1322	39.6	80.00- 120.00	100.00
5 alpha-BHC					CAS #: 319-84-6		
3.293	3.295	-0.002	8353498	13.6571	13.2	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.550	3.552	-0.002	7966316	14.5426	14.0	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
12 beta-BHC					CAS #: 319-85-7		
3.619	3.621	-0.002	4253046	17.3530	16.7	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
3.753	3.755	-0.002	9094576	16.7632	16.1	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
3.902	3.905	-0.003	7006347	14.0863	13.6	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.115	4.117	-0.002	7369080	14.4444	13.9	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.524	4.526	-0.002	7368164	16.4781	15.9	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
4.604	4.607	-0.003	7539824	17.3127	16.7	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
4.689	4.691	-0.002	7620483	17.5662	16.9	80.00- 120.00	100.00
16 Endosulfan I					CAS #: 959-98-8		
4.778	4.780	-0.002	7003680	16.8890	16.3	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
4.733	4.735	-0.002	19547777	46.7144	45.0	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
4.927	4.930	-0.003	19160995	44.1017	42.5	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.074	5.076	-0.002	16302732	51.7937	49.9	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.104	5.105	-0.001	16939067	48.2260	46.4	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
5.213	5.215	-0.002	17400432	48.8028	47.0	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
5.467	5.468	-0.001	12648425	42.2669	40.7	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
5.272	5.275	-0.003	14836800	45.9043	44.2	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
5.727	5.729	-0.002	15068830	50.0328	48.2	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
28 Methoxychlor					CAS #: 72-43-5		
5.558	5.560	-0.002	22836392	193.034	186	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
5.903	5.903	0.000	16355526	45.0262	43.4	80.00- 120.00	100.00

Data File: /chem/ecd5a.i/121809.b/051f5101.d

Date : 19-DEC-2009 04:12

Client ID: WST03-10-2147MS

Sample Info: |1201999001|5|

Volume Injected (uL): 1.0

Column phase: CLP-1

Instrument: ecd5a.i

Operator: HXJ1

Column diameter: 0.25

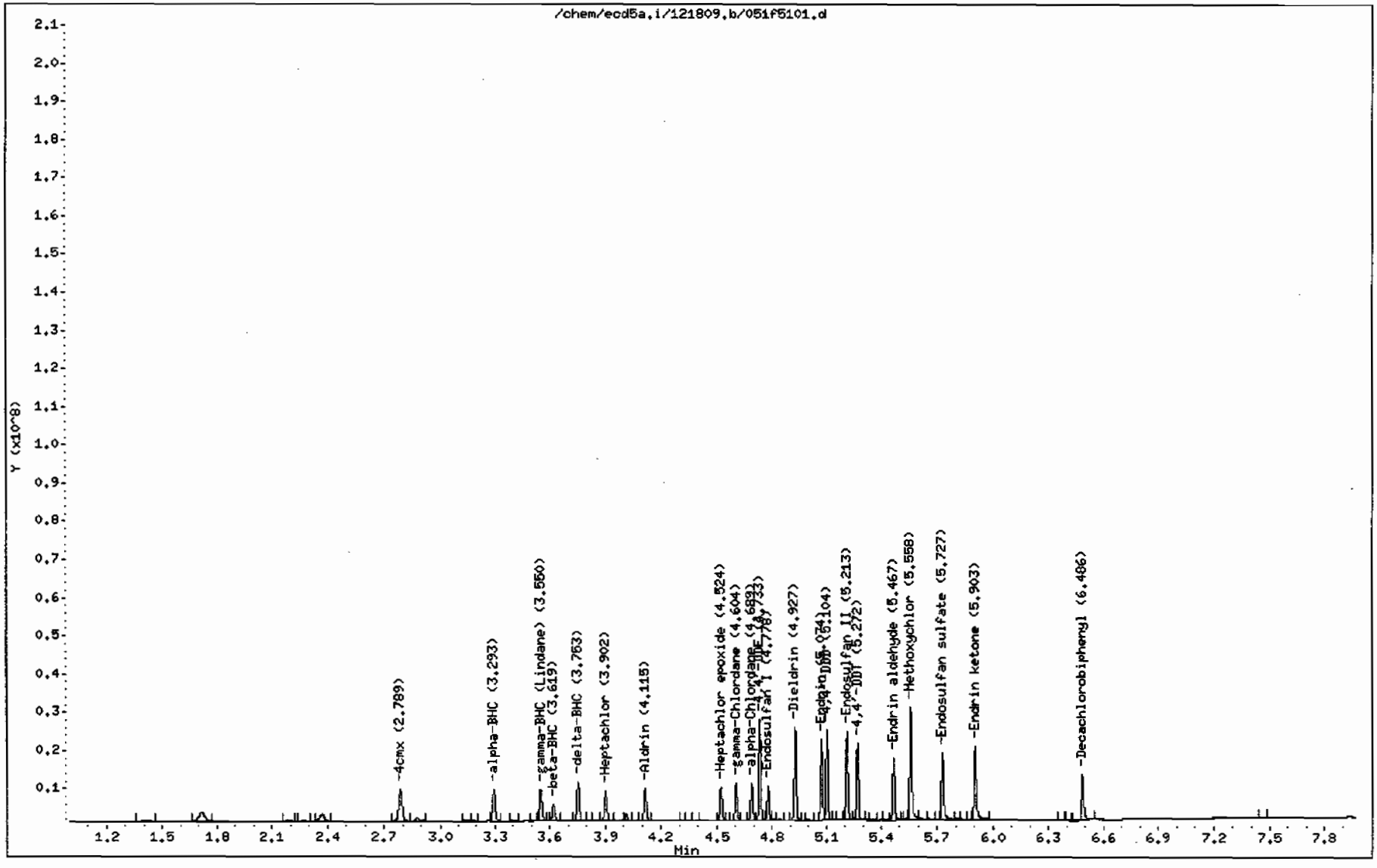

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CLP-2

Data file : /chem/ecd5a.i/121809.b/051b5101.d
Lab Smp Id: 1201999001 Client Smp ID: WST03-10-2147MS
Inj Date : 19-DEC-2009 04:12
Operator : HXJ1 Inst ID: ecd5a.i
Smp Info : |1201999001|5|
Misc Info : |ECD81A_1S|934325|SVPF|MS|SOIL|MS|||
Comment :
Method : /chem/ecd5a.i/121809.b/ECD5-B-8081-121809.m
Meth Date : 19-Dec-2009 12:43 hea01125 Quant Type: ESTD
Cal Date : 05-DEC-2009 03:28 Cal File: 025b2501.d
Als bottle: 51 QC Sample: MS
Dil Factor: 5.00000
Integrator: Falcon Compound Sublist: 10-939.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	5.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.01000	Weigth of sample extracted (g)
M	13.49180	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
3.199	3.202	-0.003	78192112	25.4186	24.5	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.159	7.160	-0.001	51506107	39.3505	37.9	80.00- 120.00	100.00
5 alpha-BHC					CAS #: 319-84-6		
3.727	3.730	-0.003	60625524	14.5798	14.0	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
4.003	4.006	-0.003	55754298	15.6705	15.1	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
12 beta-BHC					CAS #: 319-85-7		
4.060	4.062	-0.002	29796288	18.8628	18.2	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
4.276	4.278	-0.002	60059590	17.4746	16.8	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
4.330	4.332	-0.002	47793444	15.4655	14.9	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.559	4.561	-0.002	49557440	16.2891	15.7	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.931	4.934	-0.003	46808927	17.2646	16.6	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
5.052	5.055	-0.003	48985546	18.9583	18.2	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
5.143	5.145	-0.002	44980886	18.2226	17.5	80.00- 120.00	100.00
16 Endosulfan I					CAS #: 959-98-8		
5.187	5.190	-0.003	41630478	18.3084	17.6	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.227	5.230	-0.003	110617849	47.0121	45.3	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
5.357	5.359	-0.002	107341550	45.0177	43.4	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.548	5.550	-0.002	93293130	52.4790	50.5	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.581	5.583	-0.002	97031972	49.2703	47.4	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
5.672	5.675	-0.003	88401911	44.1251	42.5	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
5.872	5.875	-0.003	70078698	44.0666	42.4	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
5.773	5.775	-0.002	72292051	40.0219	38.5	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
6.040	6.040	0.000	78440636	47.4921	45.7	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
28 Methoxychlor					CAS #: 72-43-5		
6.171	6.170	0.001	116153400	150.163	145	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
6.384	6.385	-0.001	84314019	43.2445	41.6	80.00- 120.00	100.00

Data File: /chem/ecd5a.i/121809.b/051b5101.d
Date : 19-DEC-2009 04:12
Client ID: WST03-10-2147MS
Sample Info: 1120199901151
Volume Injected (uL): 1.0
Column phase: CLP-2

Instrument: ecd5a.i
Operator: HXJ1
Column diameter: 0.25

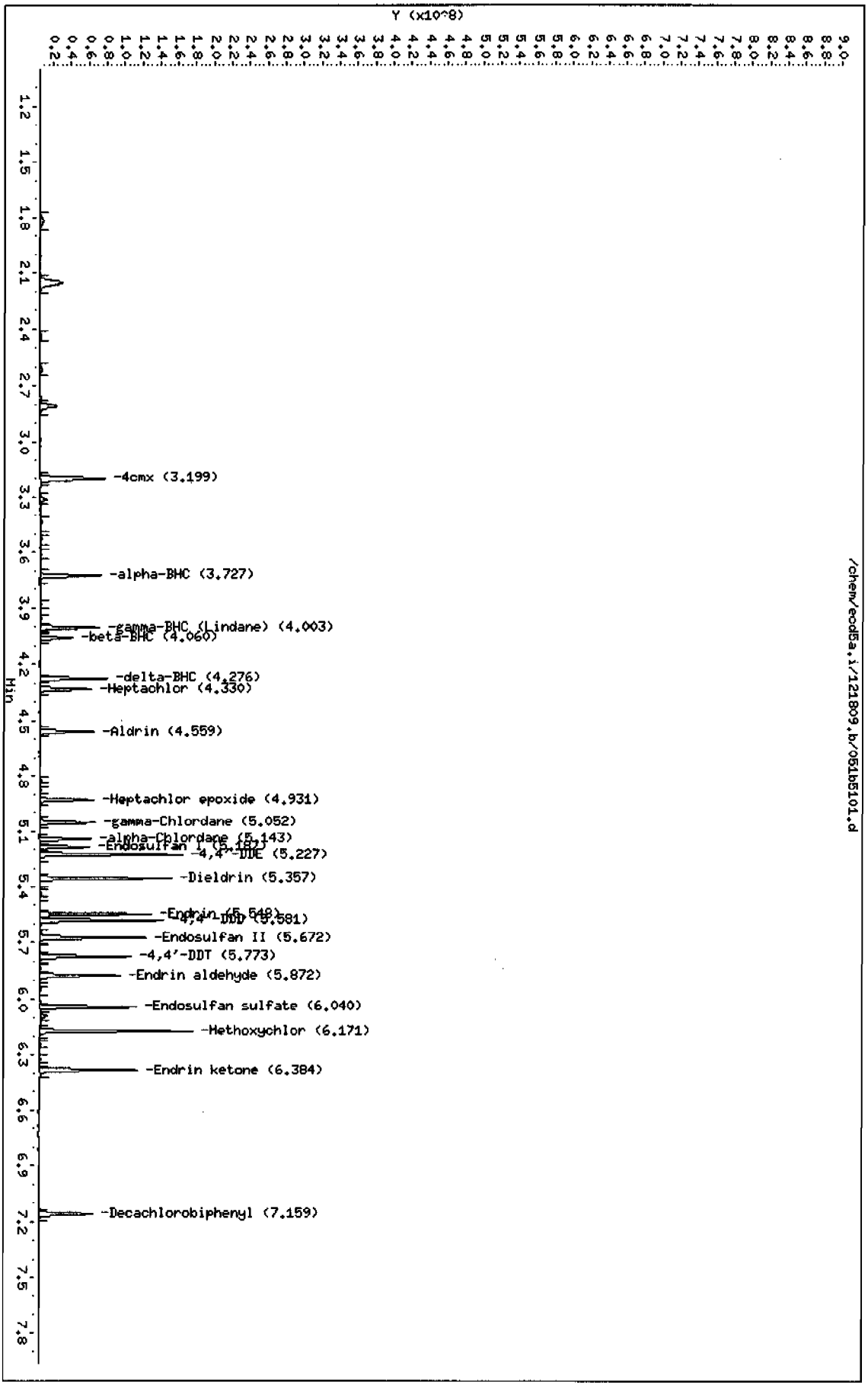

Page 1

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	10–939	**Date Collected:**	12/14/2009 12:00	**Matrix:**	R
Lab Sample ID:	1201999002	**Date Received:**	12/16/2009 09:10	**%Moisture:**	13.5
Client Sample:	QC for batch 934324	**Client:**	LANL010	**Project:**	QC
Client ID:	WST03–10–2147MSD	**Method:**	SW846 8081A	**SOP Ref:**	GL–OA–E–041
Batch ID:	934325	**Inst:**	ECD5A.I	**Dilution:**	5
Run Date:	12/19/2009 04:24	**Analyst:**	HXJ1	**Inj. Vol:**	1 uL
Prep Date:	12/18/2009 09:03	**Aliquot:**	30.04 g	**Final Volume:**	5 mL
Data File:	052f5201.d	**Column:**	1 CLP–1	**Level:**	LOW
	052b5201.d		2 CLP–2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
319–84–6	alpha–BHC		14.9	ug/kg	0.962	3.85	1
58–89–9	gamma–BHC (Lindane)		15.6	ug/kg	0.962	3.85	1
319–85–7	beta–BHC		17.9	ug/kg	0.962	3.85	1
319–86–8	delta–BHC		17.5	ug/kg	0.962	3.85	1
76–44–8	Heptachlor		14.9	ug/kg	0.962	3.85	1
309–00–2	Aldrin		14.8	ug/kg	0.962	3.85	1
1024–57–3	Heptachlor epoxide		17.1	ug/kg	1.20	3.85	1
5103–74–2	gamma–Chlordane		18.1	ug/kg	0.962	3.85	1
5103–71–9	alpha–Chlordane		18.1	ug/kg	0.962	3.85	1
959–98–8	Endosulfan I		18.3	ug/kg	0.962	3.85	1
72–55–9	4,4'–DDE		48.3	ug/kg	1.92	7.70	1
60–57–1	Dieldrin		45.4	ug/kg	1.92	7.70	1
72–20–8	Endrin		54.4	ug/kg	1.92	7.70	1
72–54–8	4,4'–DDD		52.8	ug/kg	1.92	7.70	1
33213–65–9	Endosulfan II		51.3	ug/kg	1.92	7.70	1
7421–93–4	Endrin aldehyde		43.2	ug/kg	1.92	7.70	1
50–29–3	4,4'–DDT		48.5	ug/kg	1.92	7.70	1
1031–07–8	Endosulfan sulfate		52.7	ug/kg	1.92	7.70	1
72–43–5	Methoxychlor		200	ug/kg	9.62	38.5	1
53494–70–5	Endrin ketone		47.5	ug/kg	1.92	7.70	1
8001–35–2	Toxaphene	U	96.2	ug/kg	32.0	96.2	1

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CLP-1

Data file : /chem/ecd5a.i/121809.b/052f5201.d
Lab Smp Id: 1201999002 Client Smp ID: WST03-10-2147MSD
Inj Date : 19-DEC-2009 04:24
Operator : HXJ1 Inst ID: ecd5a.i
Smp Info : |1201999002|5|
Misc Info : |ECD81A_1S|934325|SVPF|MSD|SOIL|MSD|||
Comment :
Method : /chem/ecd5a.i/121809.b/ECD5-F-8081-121809.m
Meth Date : 19-Dec-2009 12:49 hea01125 Quant Type: ESTD
Cal Date : 05-DEC-2009 03:28 Cal File: 025f2501.d
Als bottle: 52 QC Sample: MSD
Dil Factor: 5.00000
Integrator: Falcon Compound Sublist: 10-939.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	5.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.04000	Weigth of sample extracted (g)
M	13.49180	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.789	2.791	-0.002	11828875	25.8244	24.8	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
6.485	6.485	0.000	11344050	44.5386	42.8	80.00- 120.00	100.00
5 alpha-BHC					CAS #: 319-84-6		
3.292	3.295	-0.003	9454758	15.4575	14.9	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.550	3.552	-0.002	8910839	16.2669	15.6	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
12 beta-BHC					CAS #: 319-85-7		
3.619	3.621	-0.002	4560195	18.6062	17.9	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
3.753	3.755	-0.002	9897055	18.2423	17.5	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
3.902	3.905	-0.003	7721702	15.5246	14.9	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.115	4.117	-0.002	7865048	15.4166	14.8	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.523	4.526	-0.003	7964816	17.8125	17.1	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
4.605	4.607	-0.002	8192901	18.8123	18.1	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
4.689	4.691	-0.002	8160711	18.8115	18.1	80.00- 120.00	100.00
16 Endosulfan I					CAS #: 959-98-8		
4.777	4.780	-0.003	7884547	19.0132	18.3	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
4.733	4.735	-0.002	21010890	50.2109	48.3	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
4.927	4.930	-0.003	20519740	47.2291	45.4	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.074	5.076	-0.002	17792618	56.5271	54.4	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.103	5.105	-0.002	19277786	54.8844	52.8	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
5.213	5.215	-0.002	19028214	53.3683	51.3	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
5.465	5.468	-0.003	13432969	44.8886	43.2	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
5.272	5.275	-0.003	16306595	50.4517	48.5	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
5.727	5.729	-0.002	16485050	54.7350	52.6	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
28 Methoxychlor					CAS #: 72-43-5		
5.557	5.560	-0.003	24568323	207.674	200	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
5.902	5.903	-0.001	17922320	49.3395	47.5	80.00- 120.00	100.00

Data File: /chem/ecd5a.i/121809.b/052f5201.d

Date : 19-DEC-2009 04:24

Client ID: WST03-10-2147MSD

Sample Info: |120199900215|

Volume Injected (uL): 1.0

Column phase: CLP-1

Instrument: ecd5a.i

Operator: HXJ1

Column diameter: 0.25

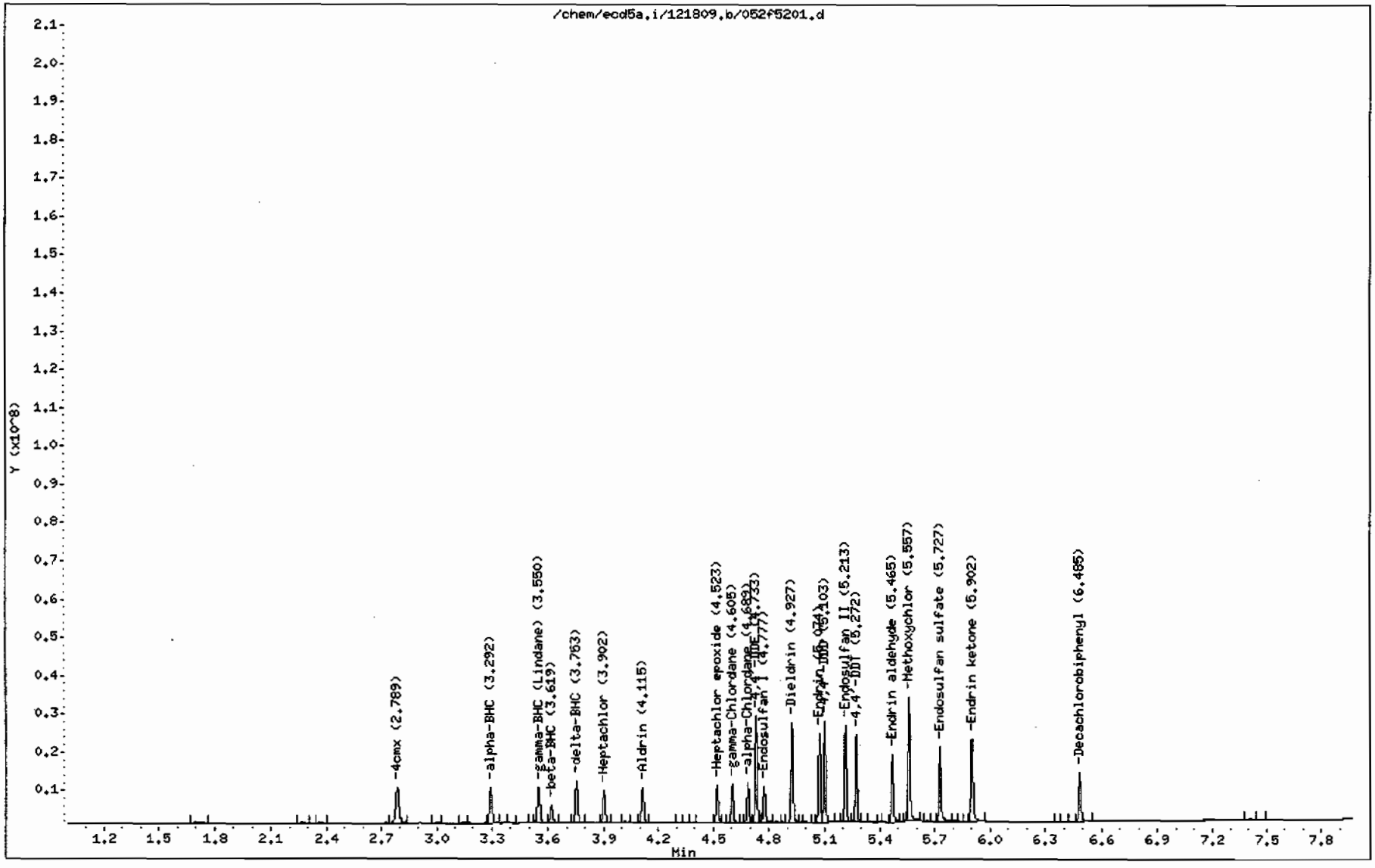

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd5a.i/121809.b/052b5201.d
Lab Smp Id: 1201999002 Client Smp ID: WST03-10-2147MSD
Inj Date : 19-DEC-2009 04:24
Operator : HXJ1 Inst ID: ecd5a.i
Smp Info : |1201999002|5|
Misc Info : |ECD81A_1S|934325|SVPF|MSD|SOIL|MSD|||
Comment :
Method : /chem/ecd5a.i/121809.b/ECD5-B-8081-121809.m
Meth Date : 19-Dec-2009 12:43 hea01125 Quant Type: ESTD
Cal Date : 05-DEC-2009 03:28 Cal File: 025b2501.d
Als bottle: 52 QC Sample: MSD
Dil Factor: 5.00000
Integrator: Falcon Compound Sublist: 10-939.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	5.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.04000	Weigth of sample extracted (g)
M	13.49180	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
3.199	3.202	-0.003	87455684	28.4300	27.4	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.159	7.160	-0.001	57049266	43.5854	41.9	80.00- 120.00	100.00
5 alpha-BHC					CAS #: 319-84-6		
3.726	3.730	-0.004	68502620	16.4742	15.8	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
4.004	4.006	-0.002	61958657	17.4143	16.8	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
12 beta-BHC					CAS #: 319-85-7		
4.060	4.062	-0.002	31227496	19.7688	19.0	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
4.275	4.278	-0.003	65299961	18.9993	18.3	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
4.330	4.332	-0.002	50838788	16.4509	15.8	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.559	4.561	-0.002	52859388	17.3744	16.7	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.931	4.934	-0.003	50194588	18.5133	17.8	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
5.052	5.055	-0.003	52001735	20.1256	19.4	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
5.144	5.145	-0.001	48025748	19.4561	18.7	80.00- 120.00	100.00
16 Endosulfan I					CAS #: 959-98-8		
5.186	5.190	-0.004	45447490	19.9871	19.2	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.227	5.230	-0.003	118552500	50.3843	48.5	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
5.355	5.359	-0.004	114176719	47.8843	46.1	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.548	5.550	-0.002	99450600	55.9427	53.8	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.580	5.583	-0.003	105471593	53.5557	51.5	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
5.672	5.675	-0.003	96556864	48.1955	46.4	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
5.872	5.875	-0.003	76482553	48.0934	46.3	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
5.772	5.775	-0.003	78817137	43.6343	42.0	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
6.039	6.040	-0.001	88685911	53.6952	51.6	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
28 Methoxychlor					CAS #: 72-43-5		
6.168	6.170	-0.002	127776675	165.189	159	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
6.382	6.385	-0.003	92058105	47.2165	45.4	80.00- 120.00	100.00

Data File: /chem/ecd5a.i/121809.b/052b5201.d
Date : 19-DEC-2009 04:24
Client ID: WST03-10-2147MSD
Sample Info: 1120199900215
Volume Injected (uL): 1.0
Column phase: CLP-2

Instrument: ecd5a.i
Operator: HXJ1
Column diameter: 0.25

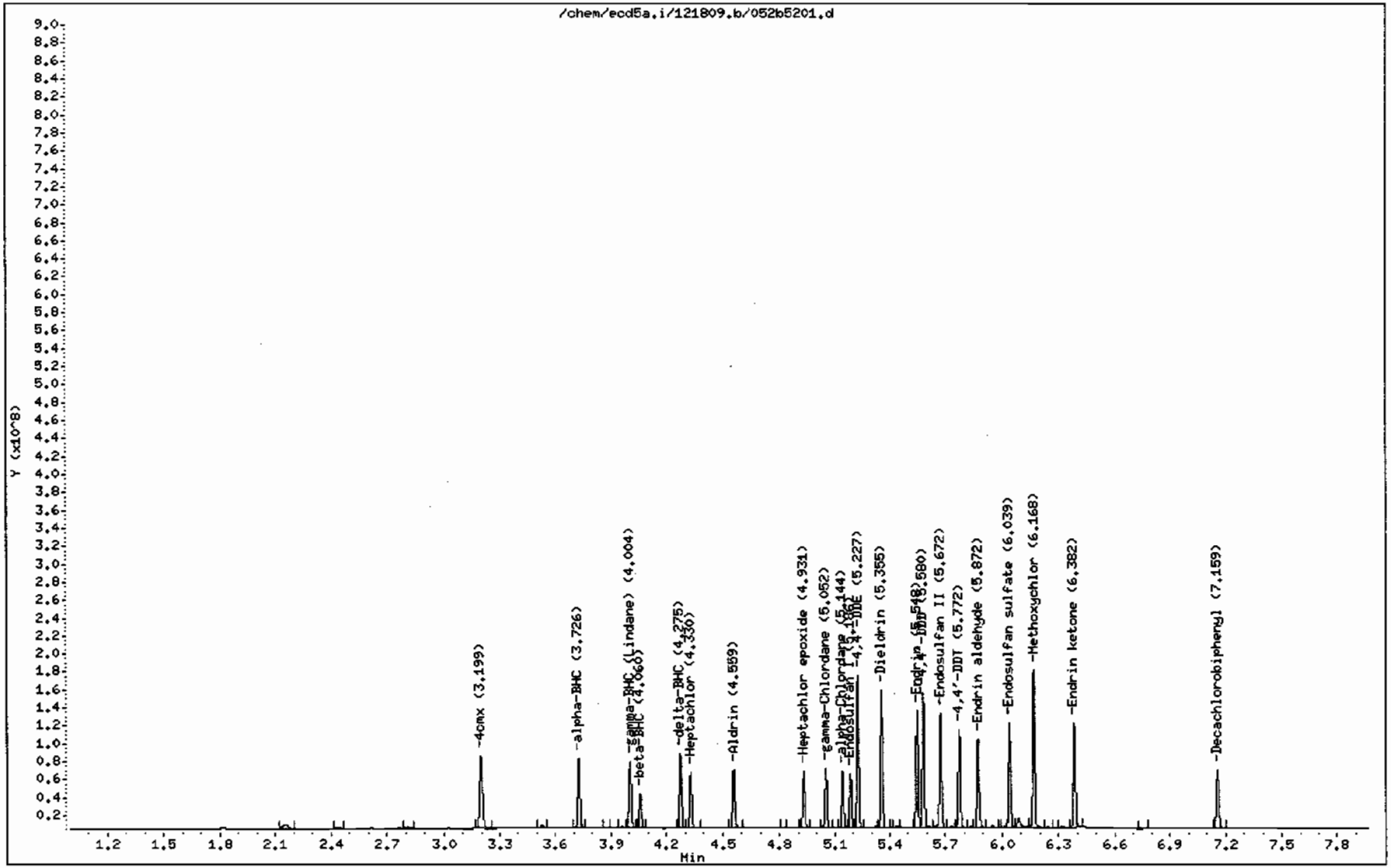

MISCELLANEOUS DATA

GEL ORGANIC RUN LOG INSTRUMENT ID: ECD5

DATE: 12/19/2009 METHOD: ECD5-B-8081-121809.m OPERATOR:HXJ1 REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT DA385
COPPER LOT 906110-AS

Calibration & QC Information
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.
GEL SOP GL-OA-E-011 Analysis of Chlorophenyoxy Acids by ECD : 8151A
Chromatogram Abbreviation Legend: AB-Assign Baseline, AP-Assign Peak, and
DNC-Do Not Call, NC-Not Confirmed, RT-Retention Time,
BF-Before, AF-After.

Sequence Number: /chem/ecd5a.i/121809.b Injection Volume: 1.0 uL

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001b0101.d	WAR091109-99IB	HXJ1	18-DEC-2009 18:16	121809		1.0		Clean
002b0201.d	WPE091109-99DG	HXJ1	18-DEC-2009 18:28	121809		1.0		(b) DDT 3.1%, Endrin 7.5%; (f) DDT 3.8%, Endrin 6.8%
003b0301.d	WPE091218-01AB	HXJ1	18-DEC-2009 18:40	121809		1.0		INDAB ICAL level 1
004b0401.d	WPE091218-02AB	HXJ1	18-DEC-2009 18:52	121809		1.0		INDAB ICAL level 2
005b0501.d	WPE091218-03AB	HXJ1	18-DEC-2009 19:03	121809		1.0		INDAB ICAL level 3
006b0601.d	WPE091218-04AB	HXJ1	18-DEC-2009 19:15	121809		1.0		INDAB ICAL level 4
007b0701.d	IPE091128-02AB	HXJ1	18-DEC-2009 19:27	121809		1.0		INDAB ICAL level 5
008b0801.d	WPE091207-10AB	HXJ1	18-DEC-2009 19:39	121809		1.0		DUSE - alpha-CHL low on back - see vial 15 for ICV
009b0901.d	WPE091216-11TX	HXJ1	18-DEC-2009 19:51	121809		1.0		TOXAPH ICAL level 1
010b1001.d	WPE091216-12TX	HXJ1	18-DEC-2009 20:03	121809		1.0		TOXAPH ICAL level 2
011b1101.d	WPE091216-13TX	HXJ1	18-DEC-2009 20:15	121809		1.0		TOXAPH ICAL level 3
012b1201.d	WPE091216-14TX	HXJ1	18-DEC-2009 20:27	121809		1.0		TOXAPH ICAL level 4
013b1301.d	IPE091121-40TX	HXJ1	18-DEC-2009 20:39	121809		1.0		TOXAPH ICAL level 5
014b1401.d	WPE091104-52TX	HXJ1	18-DEC-2009 20:51	121809		1.0		All okay
015b1501.d	WPE091207-10AB	HXJ1	18-DEC-2009 21:03	121809		1.0		All okay

Instrument Batch: /chem/ecd5a.i/121809.b Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
016b1601.d	WPE091216-21CL	HXJ1	18-DEC-2009 21:15	121809		1.0		CHLOR ICAL level 1

017b1701.d	WPE091216-22CL	HXJ1	18-DEC-2009 21:27		121809		1.0		CHLOR ICAL level 2
018b1801.d	WPE091216-23CL	HXJ1	18-DEC-2009 21:39		121809		1.0		CHLOR ICAL level 3
019b1901.d	WPE091216-24CL	HXJ1	18-DEC-2009 21:51		121809		1.0		CHLOR ICAL level 4
020b2001.d	IPE091029-05CL	HXJ1	18-DEC-2009 22:02		121809		1.0		CHLOR ICAL level 5
021b2101.d	WPE091021-00CL	HXJ1	18-DEC-2009 22:14		121809		1.0		All okay
022b2201.d	WAR091109-99IB	HXJ1	18-DEC-2009 22:26		121809		1.0		Clean
023b2301.d	1201996981	HXJ1	18-DEC-2009 22:38	933390	10-880		1.0	MB	USE, uploaded both columns, reporting lower result
024b2401.d	1201996982	HXJ1	18-DEC-2009 22:50	933390	10-880		1.0	LCS	USE, uploaded both columns, reporting lower result
025b2501.d	1201996985	HXJ1	18-DEC-2009 23:02	933390	10-880		1.0	TLCS	USE, uploaded both columns, reporting lower result
026b2601.d	242752006	HXJ1	18-DEC-2009 23:14	933390	10-880		1.0	LANL	USE, uploaded both columns, reporting lower result
027b2701.d	242752010	HXJ1	18-DEC-2009 23:26	933390	10-880		1.0	LANL	USE, uploaded both columns, reporting lower result
028b2801.d	242752013	HXJ1	18-DEC-2009 23:38	933390	10-880		1.0	LANL	USE, uploaded both columns, reporting lower result
029b2901.d	242752017	HXJ1	18-DEC-2009 23:50	933390	10-880		1.0	LANL	USE, uploaded both columns, reporting lower result
030b3001.d	242788003	HXJ1	19-DEC-2009 00:02	933390	10-894		1.0	LANL	USE, uploaded both columns, reporting lower result
031b3101.d	1201996983	HXJ1	19-DEC-2009 00:14	933390	10-894		1.0	MS	USE, uploaded both columns, reporting lower result
032b3201.d	1201996984	HXJ1	19-DEC-2009 00:25	933390	10-894		1.0	MSD	USE, uploaded both columns, reporting lower result NCR - (b) Methoxychlor low - matrix? RPD fails?
033b3301.d	WPE091207-10AB	HXJ1	19-DEC-2009 00:37		121809		1.0		(b) DDT, Methoxychlor, Endrin ketone low; (f) DDT, Methoxychlor low - CCV failure confirmed in 122909.b
034b3401.d	WAR091109-99IB	HXJ1	19-DEC-2009 00:49		121809		1.0		Clean
035b3501.d	1201997957	HXJ1	19-DEC-2009 01:01	933823	10-910		1.0	MB	DUSE - beginning CCV low - see re-analysis seq. 121909.b

Instrument Batch: /chem/ecd5a.i/121809.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
036b3601.d	1201997958	HXJ1	19-DEC-2009 01:13	933823	10-910	1.0	LCS	DUSE - beginning CCV low - see re-analysis seq. 121909.b
037b3701.d	1201997961	HXJ1	19-DEC-2009 01:25	933823	10-910	1.0	TLCS	DUSE - beginning CCV low - see re-analysis seq. 121909.b
038b3801.d	242932002	HXJ1	19-DEC-2009 01:37	933823	10-910	1.0	LANL	DUSE - beginning CCV low - see re-analysis seq. 121909.b **Surrogate recoveries elevated**
039b3901.d	242932006	HXJ1	19-DEC-2009 01:49	933823	10-910	1.0	LANL	DUSE - beginning CCV low - see re-analysis seq. 121909.b

040b4001.d	242935001	HXJ1	19-DEC-2009 02:01	933823	10-915		1.0	LANL	DUSE - beginning CCV low - see re-analysis seq. 121909.b
041b4101.d	1201997959	HXJ1	19-DEC-2009 02:13	933823	10-915		1.0	MS	DUSE - beginning CCV low - see re-analysis seq. 121909.b
042b4201.d	1201997960	HXJ1	19-DEC-2009 02:24	933823	10-915		1.0	MSD	DUSE - beginning CCV low - see re-analysis seq. 121909.b
043b4301.d	242935009	HXJ1	19-DEC-2009 02:36	933823	10-915		1.0	LANL	DUSE - beginning CCV low - see re-analysis seq. 121909.b
044b4401.d	WAR091109-99IB	HXJ1	19-DEC-2009 02:48		121809		1.0		Clean
045b4501.d	WPE091207-10AB	HXJ1	19-DEC-2009 03:00		121809		1.0		(b) Endrin elevated, Methoxychlor low; (f) All okay
046b4601.d	WAR091109-99IB	HXJ1	19-DEC-2009 03:12		121809		1.0		Clean
047b4701.d	1201998999	HXJ1	19-DEC-2009 03:24	934325	10-939		1.0	MB	USE, uploaded both columns, reporting lower result
048b4801.d	1201999000	HXJ1	19-DEC-2009 03:36	934325	10-939		1.0	LCS	USE, uploaded both columns, reporting lower result NCR - DCB elevated - sample passes surrogtes - no hits
049b4901.d	1201999003	HXJ1	19-DEC-2009 03:48	934325	10-939		1.0	TLCS	USE, uploaded both columns, reporting lower result NCR - DCB elevated - sample passes surrogtes - no hits
050b5001.d	243007002	HXJ1	19-DEC-2009 04:00	934325	10-939		5.0	LANL	USE, uploaded both columns, reporting lower result
051b5101.d	1201999001	HXJ1	19-DEC-2009 04:12	934325	10-939		5.0	MS	USE, uploaded both columns, reporting lower result
052b5201.d	1201999002	HXJ1	19-DEC-2009 04:24	934325	10-939		5.0	MSD	USE, uploaded both columns, reporting lower result
053b5301.d	WAR091109-99IB	HXJ1	19-DEC-2009 04:36		121809		1.0		Clean
054b5401.d	WPE091207-10AB	HXJ1	19-DEC-2009 04:48		121809		1.0		(b) Methoxychlor low; (f) Endosulfan sulfate elevated
055b5501.d	WAR091109-99IB	HXJ1	19-DEC-2009 05:00		121809		1.0		Clean

Prep Logbook

Extraction of Semivolatile and Nonvolatile Organic Compounds from Soil, Sludge, and Other Miscellaneous Solid Samples

Batch ID: 934324 **Verified by:** _____

Analyst: Robin Hunt

Method: SW846 3550B

Lab SOP: GL-OA-E-010 REV# 18

Instrument: Semi-Volatiles Manual

Sample ID	Run Date	Aliquot (g)	Clean Up	Prior to Clean up (mL)	Amount Cleaned (mL)	After Clean up (mL)	Prepped Aliquot (mL)	Prepped Factor (mL/g)
1201998999 MB	18-DEC-2009 09:03:42	30	Florisil	5	1	10	5	0.16667
1201999000 LCS	18-DEC-2009 09:03:42	30	Florisil	5	1	10	5	0.16667
1201999003 LCS	18-DEC-2009 09:03:42	30	Florisil	5	1	10	5	0.16667
243007002	18-DEC-2009 09:03:42	30.02	Florisil	5	1	10	5	0.16656
1201999001 MS (243007002)	18-DEC-2009 09:03:42	30.01	Florisil	5	1	10	5	0.16661
1201999002 MSD (243007002)	18-DEC-2009 09:03:42	30.04	Florisil	5	1	10	5	0.16644

Type	Sample Id	Description	Serial Number	Spike Amt	Units
LCS	1201999000	PESTSPIKE	UE091204-04	1	mL
LCS	1201999003	Toxaphene TCLP LCS	WE091204-11	2	mL
MS	1201999001	PESTSPIKE	UE091204-04	1	mL
MSD	1201999002	PESTSPIKE	UE091204-04	1	mL
SURR	All	PEST SURROGATE 1000 UG/L	UE091114-07	1	mL
REGNT	All	Florisil cartridge 1000mg per cartridge	1103846-28	1	g
REGNT	All	Acetone	1233927	150	mL
REGNT	All	Hexane	1241300-B2	150	mL
SOURC	All	SODIUM SULFATE	1242582	30	g

Comments:

Clean up Date: 12/18/2009

Clean up Initials: RWH

Verified By: JAM

Final Solvent: Hexane

Clean Up SOP: GL-OA-E-036

NCR Report No.: 772533
Revision No.: 1

COMPANY - WIDE NONCONFORMANCE REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
19-DEC-09	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
GC/ECD	SW846 8081A	Solid	LANL
Batch ID:	**Sample Numbers:**		
934325	See Below		

Potentially affected work order(s)(SDG):243007(10-939)

Application Issues:

Failed Yield for Surrogates

Specification and Requirements Nonconformance Description:	NRG Disposition:
1. QC samples 1201999000 (Pesticide LCS), and 1201999003 (Toxaphene LCS) recovered above the acceptance criteria for surrogate Decachlorobiphenyl yield.	1. Report the data as is. The Pesticide and Toxaphene LCS's exhibited a positive bias for surrogate Decachlorobiphenyl yield; however, the spike recoveries passed within the acceptance criteria for both QC samples. In addition, the surrogate yields in the environmental sample met the acceptance criteria, and there were no targets detected above the PQL in the environmental sample. Therefore, the non-compliance had no adverse effects on the data.

Originator's Name:

Heather Joy 19-DEC-09

Data Validator/Group Leader:

Robert Whitlock 22-DEC-09

GC SEMIVOLATILE PESTICIDE ANALYSIS

Pesticide Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-939-1

Method/Analysis Information

Procedure:	**Analysis of Organochlorine Pesticides and Chlorinated Hydrocarbons by ECD**
Analytical Method:	SW846 8081A
Prep Method:	SW846 3510C
TCLP Prep Method :	SW846 1311
Analytical Batch Number:	934315
Prep Batch Number:	934314
TCLP Prep Batch Number:	934762

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 8081A:

Sample ID	Client ID
243010001	WST03-10-2147
1201999915	TCLP Blank (TB)
1201998973	Method Blank (MB)
1201998980	Laboratory Control Sample (LCS)
1201998981	Laboratory Control Sample (LCS)-Toxaphene LCS Only
1201998982	Laboratory Control Sample (LCS)-Chlordane (tech.) LCS Only
1201998974	242168001(WST03-10-2137) Matrix Spike (MS)
1201998975	242168001(WST03-10-2137) Matrix Spike (MS)-Toxaphene MS Only
1201998976	242168001(WST03-10-2137) Matrix Spike (MS)-Chlordane (tech.) MS Only
1201998977	242168001(WST03-10-2137) Matrix Spike Duplicate (MSD)
1201998978	242168001(WST03-10-2137) Matrix Spike Duplicate (MSD)-Toxaphene MSD Only
1201998979	242168001(WST03-10-2137) Matrix Spike Duplicate (MSD)-Chlordane (tech.) MSD Only

The samples in this SDG were analyzed on an "as received" basis.

Preparation/Analytical Method Verification

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-041 REV# 10.

Raw data reports are processed and reviewed by the analyst using the Target software package. False positives have been removed from the Target quantitation reports per standard operating procedures (SOP) section 23.0.

Calibration Information

Please note that the 'Cal Date' indicated on each quantitation report reflects the date and time of the most recent calibrated analyte(s) in the Target processing method. Since the laboratory may calibrate with multiple solutions on different days using the same processing method, the Target software will update the 'Cal Date' to the last calibration file, date and time. The correct dates and times for all calibration files are located on the Calibration History report in the Standard Data section in the data package.

Due to software limitations, the Calibration Summary Form 6 may not indicate all the calibration files comprising the initial calibration. A complete list of the initial calibration data files are shown in the Calibration History report located in the Standard Data section of the data package.

Initial Calibration

All initial calibration requirements have been met for this sample delivery group (SDG).

The linear equation used in Target and indicated on the initial calibration summary form is not a conventional linear equation (slope intercept formula) and does not match the equation found in SW-846 method 8000B. The x and y axes are inversed in Target, so that the instrument response is treated as the independent variable (x) and the concentration ratio is treated as the dependent variable (y). The equation used in Target to calculate sample results is adjusted to account for the linear equation inversion and reciprocal slope. The adjusted calculation has been independently verified to produce valid results.

Continuing Calibration Verification (CCV) Requirements

The calibration verification standards (CVS, ICV, or CCV) requirements have not been met for this SDG.

One of five quantitated peaks failed in the Toxaphene and Chlordane (tech.) standards bracketing the samples in this SDG; however, the average amount of the five peaks met the acceptance criteria.

Several target analytes failed to meet the acceptance criteria with positive or negative bias in the standards analyzed for this SDG. The positive and negative bias for the analytical data is a result of instrument response increasing or decreasing after the initial calibration. The instrument response never decreased to a point where the target analytes would not be detected. These target analytes were not detected in the associated samples; therefore, the non-compliance has no adverse effects on the data.

Quality Control (QC) Information

Method Blank (MB) Statement

The MB(s) analyzed with this SDG met the acceptance criteria.

Surrogate Recoveries

All surrogate recoveries were within the established acceptance criteria for this SDG.

Laboratory Control Sample (LCS) Recovery

The LCS spike recoveries met the acceptance limits.

QC Sample Designation

A LANL sample of similar matrix associated with another SDG (#10-753-1) was selected for the matrix spike and matrix spike duplicate analysis. A Form III and QC raw data are included in the package summarizing the results.

Matrix Spike (MS) Recovery Statement

The MS recoveries for this SDG were within the established acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement

The MSD recoveries for this SDG were within the established acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD between the MS and MSD did not meet the acceptance limits for Heptachlor and Methoxychlor due to dilution and low spike recovery in the MS.

Technical Information:

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

Sample Dilutions
Sample 243010001 (WST03-10-2147) was diluted at 1:5 due to a sharp acidic odor.

Sample Re-extraction/Re-analysis
Re-extractions or re-analyses were not required in this SDG.

Miscellaneous Information:

Electronic Package Comment

This package was generated using an electronic data processing program referred to as "virtual packaging". In an effort to increase quality and efficiency, the laboratory is developing systems to eventually generate all data packages electronically. The following change from "traditional" packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative.

Nonconformance (NCR) Documentation
Nonconformance report (NCR) is for documentation of any procedural anomalies that may deviate from referenced SOP or contractual document. A NCR was not required for this SDG.

Manual Integrations
Certain standards and samples may have required manual integration to correctly position the baseline as set in the calibration standard injections. If manual integration was performed, copies of all manual integration peak profiles are included in the raw data section of this pesticide fraction.

Additional Comments
The additional comments field is used to address special issues associated with each analysis, clarify method/contractual issues pertaining to the analysis, and to list any report documents generated as a result of sample analysis or review. The following additional comments were required:

The lower results from either column have been chosen and reported in the data package for the client samples, MB and LCS.

The data reported on the form I and III may differ slightly from the data reported on the form X. This is due to software limitations in rounding differences between the forms.

Due to software limitation, the Form VIIs will display the results either in the % difference or % drift depending on the type of the calibration curve. If the curve of all analytes is generated using an average response factor (RF), the Form VII will display results using the difference calculation (RF). If the curve of one or more analytes is generated using a linear curve, the Form VII will display results using the % drift calculation (by concentration) for all

analytes.

System Configuration

The Semi-Volatiles-Pesticide analysis was performed on the following instrument configuration:

Instrument ID	Instrument	System Configuration	Column ID	Column Description
ECD5A.I_1	HP Gas Chromatograph	HP6890 Series ECD	Rtx-CLP I	30m x 0.25mm, 0.25um (Rtx-CLPesticide)
ECD5A.I_2	HP Gas Chromatograph	HP6890 Series ECD	Rtx-CLP II	30m x 0.25mm, 0.20um (Rtx-CLPesticide II)

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Andy Whitlock Date: 12-30-2009

Roadmap for LANL 10-939-1 PEST

This roadmap was analyzed by cla01575 on 12-23-2009, 13:02.
This roadmap was reviewed by rob01090 on 12-23-2009, 13:44.
This roadmap was validated by yml on 12-30-2009, 09:10.

Front Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd5a.i/122209.b/043f4301.d	243010001	sample	22-DEC-2009	22:40	10-939-1.sub	WST03-10-2147	5.00000	934315	USE, uploaded both columns, reporting lower result

Back Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd5a.i/122209.b/043b4301.d	243010001	sample	22-DEC-2009	22:40	10-939-1.sub	WST03-10-2147	5.00000	934315	USE, uploaded both columns, reporting lower result

Front QC Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd5a.i/122209.b/055f5501.d	1201999915	tb	23-DEC-2009	01:04	10-939-1.sub	TBLK01	1.00000	934315	USE, uploaded both columns, reporting lower result
☐	N	/chem/ecd5a.i/122209.b/047f4701-939.d	1201998973	mb	22-DEC-2009	23:28	10-939-1.sub	PBLK01	1.00000	934315	
☐	N	/chem/ecd5a.i/122209.b/048f4801-939.d	1201998980	lcs	22-DEC-2009	23:40	10-939-1.sub	PBLK01LCS	1.00000	934315	
☐	N	/chem/ecd5a.i/122209.b/049f4901-939.d	1201998981	lcs	22-DEC-2009	23:52	10-939-1.sub	PBLK01TLCS	1.00000	934315	
☐	N	/chem/ecd5a.i/122209.b/050f5001-939.d	1201998982	lcs	23-DEC-2009	00:04	10-939-1.sub	PBLK01CLCS	1.00000	934315	

Back QC Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd5a.i/122209.b/055b5501.d	1201999915	tb	23-DEC-2009	01:04	10-939-1.sub	TBLK01	1.00000	934315	USE, uploaded both columns, reporting lower result
☐	N	/chem/ecd5a.i/122209.b/047b4701-939.d	1201998973	mb	22-DEC-2009	23:28	10-939-1.sub	PBLK01	1.00000	934315	
☐	N	/chem/ecd5a.i/122209.b/048b4801-939.d	1201998980	lcs	22-DEC-2009	23:40	10-939-1.sub	PBLK01LCS	1.00000	934315	
☐	N	/chem/ecd5a.i/122209.b/049b4901-939.d	1201998981	lcs	22-DEC-2009	23:52	10-939-1.sub	PBLK01TLCS	1.00000	934315	
☐	N	/chem/ecd5a.i/122209.b/050b5001-939.d	1201998982	lcs	23-DEC-2009	00:04	10-939-1.sub	PBLK01CLCS	1.00000	934315	

SAMPLE DATA SUMMARY

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	10-939-1	**Date Collected:**	12/14/2009 12:00	**Matrix:**	TCLP R
Lab Sample ID:	243010001	**Date Received:**	12/16/2009 09:10		
		Client:	LANL010	**Project:**	LANL01004
Client ID:	WST03-10-2147	**Method:**	SW846 8081A	**SOP Ref:**	GL-OA-E-041
Batch ID:	934315	**Inst:**	ECD5A.I	**Dilution:**	5
Run Date:	12/22/2009 22:40	**Analyst:**	CXC2	**Inj. Vol:**	1 uL
Prep Date:	12/22/2009 17:25	**Aliquot:**	20 mL	**Final Volume:**	1 mL
Data File:	043f4301.d	**Column:**	1 CLP-1	**Level:**	LOW
	043b4301.d		2 CLP-2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
58-89-9	gamma-BHC (Lindane)	U	0.001	mg/L	0.00025	0.001	1
76-44-8	Heptachlor	U	0.001	mg/L	0.00025	0.001	1
1024-57-3	Heptachlor epoxide	U	0.001	mg/L	0.00025	0.001	1
72-20-8	Endrin	U	0.002	mg/L	0.0005	0.002	1
72-43-5	Methoxychlor	U	0.010	mg/L	0.0025	0.010	1
57-74-9	Chlordane (tech.)	U	0.0125	mg/L	0.00383	0.0125	1
8001-35-2	Toxaphene	U	0.025	mg/L	0.0075	0.025	1

QUALITY CONTROL SUMMARY

Pesticide

Surrogate Recovery Report

SDG Number: 10-939-1

Matrix Type: TCLP SOLID

CAP Column (1) : CLP-1 **CAP Column (2) : CLP-2**

Sample ID	Client ID	4CMX 1 %REC #		4CMX 2 %REC #		DCB 1 %REC #		DCB 2 %REC #	
243010001	WST03-10-2147	71	D	67	D	96	D	80	D
1201998973	MB for batch 934314	38		32		87		79	
1201998980	LCS for batch 934314	39		33		84		78	
1201998981	LCS for batch 934314	36		29		81		68	
1201998982	LCS for batch 934314	38		32		83		73	
1201999915	TB for batch 934762	41		34		74		71	

Surrogate	Acceptance Limits
4CMX = 4cmx	(29%-103%)
DCB = Decachlorobiphenyl	(34%-118%)

* Recovery outside Acceptance Limits

\# Column to be used to flag recovery values

D Sample Diluted

Pesticide

Quality Control Summary
Spike Recovery Report

SDG Number: 10-939-1
Client ID: LCS for batch 934314
Lab Sample ID: 1201998982
Instrument: ECD5A.I
Analyst: CXC2
Inj. Vol: 1 uL

Sample Type: Laboratory Control Sample
Matrix: TCLP SOIL
Analysis Date: 12/23/2009 00:04
Prep Batch ID: 934314
Batch ID: 934315
Dilution: 1

CAS No	Parmname	Amount Added mg/L	Sample Conc. mg/L	Spike Conc. mg/L	Recovery %	Acceptance Limits
57-74-9	LCS Chlordane (tech.)	0.100	0.0	0.0742	74	38-131

Pesticide

Quality Control Summary
Spike Recovery Report

SDG Number: 10-939-1
Client ID: LCS for batch 934314
Lab Sample ID: 1201998980
Instrument: ECD5A.I
Analyst: CXC2
Inj. Vol: 1 uL

Sample Type: Laboratory Control Sample
Matrix: TCLP SOIL
Analysis Date: 12/22/2009 23:40
Prep Batch ID: 934314
Batch ID: 934315
Dilution: 1

CAS No	Parmname		Amount Added mg/L	Sample Conc. mg/L	Spike Conc. mg/L	Recovery %	Acceptance Limits
58-89-9	LCS	gamma-BHC (Lindane)	0.005	0.0	0.00349	70	49-138
76-44-8	LCS	Heptachlor	0.005	0.0	0.00306	61	38-132
1024-57-3	LCS	Heptachlor epoxide	0.005	0.0	0.00353	71	49-134
72-20-8	LCS	Endrin	0.005	0.0	0.00469	94	56-145
72-43-5	LCS	Methoxychlor	0.050	0.0	0.0569	114	53-151

Pesticide

Quality Control Summary
Spike Recovery Report

SDG Number: 10-939-1
Client ID: LCS for batch 934314
Lab Sample ID: 1201998981
Instrument: ECD5A.I
Analyst: CXC2
Inj. Vol: 1 uL

Sample Type: Laboratory Control Sample
Matrix: TCLP SOIL
Analysis Date: 12/22/2009 23:52
Dilution: 1
Prep Batch ID: 934314
Batch ID: 934315

CAS No	Parmname	Amount Added mg/L	Sample Conc. mg/L	Spike Conc. mg/L	Recovery %	Acceptance Limits
8001-35-2	LCS Toxaphene	0.100	0.0	0.0567	57	41-143

Pesticide

Quality Control Summary
Spike Recovery Report

SDG Number: 10-753-1
Client ID: WST03-10-2137MS
Lab Sample ID: 1201998976
Instrument: ECD5A.I
Analyst: CXC2
Inj. Vol: 1 uL

Sample Type: Matrix Spike
Matrix: TCLP R
Analysis Date: 12/22/2009 20:41
Prep Batch ID: 934314
Batch ID: 934315
Dilution: 5

CAS No		Parmname	Amount Added mg/L	Sample Conc. mg/L		Spike Conc. mg/L	Recovery %	Acceptance Limits
57-74-9	MS	Chlordane (tech.)	0.100	0.00	U	0.0694	69	38-134

Pesticide

Quality Control Summary
Spike Recovery Report

SDG Number: 10–753–1
Client ID: WST03–10–2137MSD
Lab Sample ID: 1201998979
Instrument: ECD5A.I
Analyst: CXC2
Inj. Vol: 1 uL

Sample Type: Matrix Spike Duplicate
Matrix: TCLP R
Analysis Date: 12/22/2009 21:29
Dilution: 5
Prep Batch ID: 934314
Batch ID: 934315

CAS No	Parmname	Amount Added mg/L	Sample Conc. mg/L		Spike Conc. mg/L	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
57–74–9	MSD Chlordane (tech.)	0.100	0.00	U	0.0757	76	38–134	9	0–30

Pesticide

Quality Control Summary
Spike Recovery Report

SDG Number: 10-753-1
Client ID: WST03-10-2137MS
Lab Sample ID: 1201998974
Instrument: ECD5A.I
Analyst: CXC2
Inj. Vol: 1 uL

Sample Type: Matrix Spike
Matrix: TCLP R
Analysis Date: 12/22/2009 19:53
Prep Batch ID: 934314
Batch ID: 934315
Dilution: 5

CAS No		Parmname	Amount Added mg/L	Sample Conc. mg/L		Spike Conc. mg/L	Recovery %	Acceptance Limits
58-89-9	MS	gamma-BHC (Lindane)	0.005	0.00	U	0.00343	69	46-132
76-44-8	MS	Heptachlor	0.005	0.00	U	0.0023	46	37-127
1024-57-3	MS	Heptachlor epoxide	0.005	0.00	U	0.00357	71	44-129
72-20-8	MS	Endrin	0.005	0.00	U	0.00426	85	48-145
72-43-5	MS	Methoxychlor	0.050	0.00	U	0.0263	53	47-156

Pesticide

Quality Control Summary
Spike Recovery Report

SDG Number: 10–753–1
Client ID: WST03–10–2137MSD
Lab Sample ID: 1201998977
Instrument: ECD5A.I
Analyst: CXC2
Inj. Vol: 1 uL

Sample Type: Matrix Spike Duplicate
Matrix: TCLP R
Analysis Date: 12/22/2009 20:05
Dilution: 5
Prep Batch ID: 934314
Batch ID: 934315

CAS No	Parmname	Amount Added mg/L	Sample Conc. mg/L		Spike Conc. mg/L	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
58–89–9	MSD gamma–BHC (Lindane)	0.005	0.00	U	0.00396	79	46–132	14	0–30
76–44–8	MSD Heptachlor	0.005	0.00	U	0.00326	65	37–127	34 *	0–30
1024–57–3	MSD Heptachlor epoxide	0.005	0.00	U	0.00405	81	44–129	13	0–30
72–20–8	MSD Endrin	0.005	0.00	U	0.00477	95	48–145	11	0–30
72–43–5	MSD Methoxychlor	0.050	0.00	U	0.0447	89	47–156	52 *	0–30

Pesticide

Quality Control Summary
Spike Recovery Report

SDG Number: 10-753-1
Client ID: WST03-10-2137MS
Lab Sample ID: 1201998975
Instrument: ECD5A.I
Analyst: CXC2
Inj. Vol: 1 uL

Sample Type: Matrix Spike
Matrix: TCLP R
Analysis Date: 12/22/2009 20:17
Prep Batch ID: 934314
Batch ID: 934315
Dilution: 5

CAS No		Parmname	Amount Added mg/L	Sample Conc. mg/L		Spike Conc. mg/L	Recovery %	Acceptance Limits
8001-35-2	MS	Toxaphene	0.100	0.00	U	0.0899	90	38-138

Pesticide

Quality Control Summary
Spike Recovery Report

SDG Number: 10-753-1
Client ID: WST03-10-2137MSD
Lab Sample ID: 1201998978
Instrument: ECD5A.I
Analyst: CXC2
Inj. Vol: 1 uL

Sample Type: Matrix Spike Duplicate
Matrix: TCLP R
Analysis Date: 12/22/2009 20:29
Prep Batch ID: 934314
Batch ID: 934315
Dilution: 5

CAS No	Parmname	Amount Added mg/L	Sample Conc. mg/L		Spike Conc. mg/L	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
8001-35-2	MSD Toxaphene	0.100	0.00	U	0.106	106	38-138	16	0-30

Method Blank Summary

SDG Number:	10-939-1	Client:	LANL010	Matrix:	TCLP SOIL
Client ID:	MB for batch 934314	Instrument ID:	ECD5A.I_2 ECD5A.I_1	Data File:	047b4701-786.d 047f4701-786.d
Lab Sample ID:	1201998973				
Column:	CLP-2 CLP-1	Prep Date:	12/22/2009 17:25	Analyzed:	12/22/09 23:28
		Level:	LOW		

This method blank applies to the following samples and quality control samples:

Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
07 WST03-10-2147	243010001	043f4301.d 043b4301.d	12/22/09	2240
08 LCS for batch 934314	1201998980	048f4801-786.d 048b4801-786.d	12/22/09	2340
09 LCS for batch 934314	1201998981	049f4901-786.d 049b4901-786.d	12/22/09	2352
10 LCS for batch 934314	1201998982	050f5001-786.d 050b5001-786.d	12/23/09	0004
11 TB for batch 934762	1201999915	055f5501.d 055b5501.d	12/23/09	0104

SAMPLE
DATA

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	10–939–1	**Date Collected:**	12/14/2009 12:00	**Matrix:**	TCLP R
Lab Sample ID:	243010001	**Date Received:**	12/16/2009 09:10		
		Client:	LANL010	**Project:**	LANL01004
Client ID:	WST03–10–2147	**Method:**	SW846 8081A	**SOP Ref:**	GL–OA–E–041
Batch ID:	934315	**Inst:**	ECD5A.I	**Dilution:**	5
Run Date:	12/22/2009 22:40	**Analyst:**	CXC2	**Inj. Vol:**	1 uL
Prep Date:	12/22/2009 17:25	**Aliquot:**	20 mL	**Final Volume:**	1 mL
Data File:	043f4301.d	**Column:**	1 CLP–1	**Level:**	LOW
	043b4301.d		2 CLP–2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
58–89–9	gamma–BHC (Lindane)	U	0.001	mg/L	0.00025	0.001	1
76–44–8	Heptachlor	U	0.001	mg/L	0.00025	0.001	1
1024–57–3	Heptachlor epoxide	U	0.001	mg/L	0.00025	0.001	1
72–20–8	Endrin	U	0.002	mg/L	0.0005	0.002	1
72–43–5	Methoxychlor	U	0.010	mg/L	0.0025	0.010	1
57–74–9	Chlordane (tech.)	U	0.0125	mg/L	0.00383	0.0125	1
8001–35–2	Toxaphene	U	0.025	mg/L	0.0075	0.025	1

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CLP-1

Data file : /chem/ecd5a.i/122209.b/043f4301.d
Lab Smp Id: 243010001 Client Smp ID: WST03-10-2147
Inj Date : 22-DEC-2009 22:40
Operator : CXC2 Inst ID: ecd5a.i
Smp Info : |243010001|5|
Misc Info : |ECDPTL_1L|934315|SVP|LANL|SOIL|WST03-10-2147|||
Comment :
Method : /chem/ecd5a.i/122209.b/ECD5-F-8081-121809.m
Meth Date : 23-Dec-2009 08:48 cla01575 Quant Type: ESTD
Cal Date : 05-DEC-2009 03:28 Cal File: 025f2501.d
Als bottle: 43
Dil Factor: 5.00000
Integrator: Falcon Compound Sublist: 10-939-1.sub
Target Version: 3.50 Sample Matrix: Water
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	5.00000	Dilution Factor
Uf	0.00100	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	20.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (mg/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.789	2.790	-0.001	13147963	28.3753	0.00709	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
6.478	6.482	-0.004	10442735	38.2188	0.00955	80.00- 120.00	100.00

Data File: /chem/ecd5a.i/122209.b/043f4301.d
Date : 22-DEC-2009 22:40
Client ID: WST03-10-2147
Sample Info: 1243010001151
Volume Injected (uL): 1.0
Column phase: CLP-1

Instrument: ecd5a.i

Operator: CXC2
Column diameter: 0.25

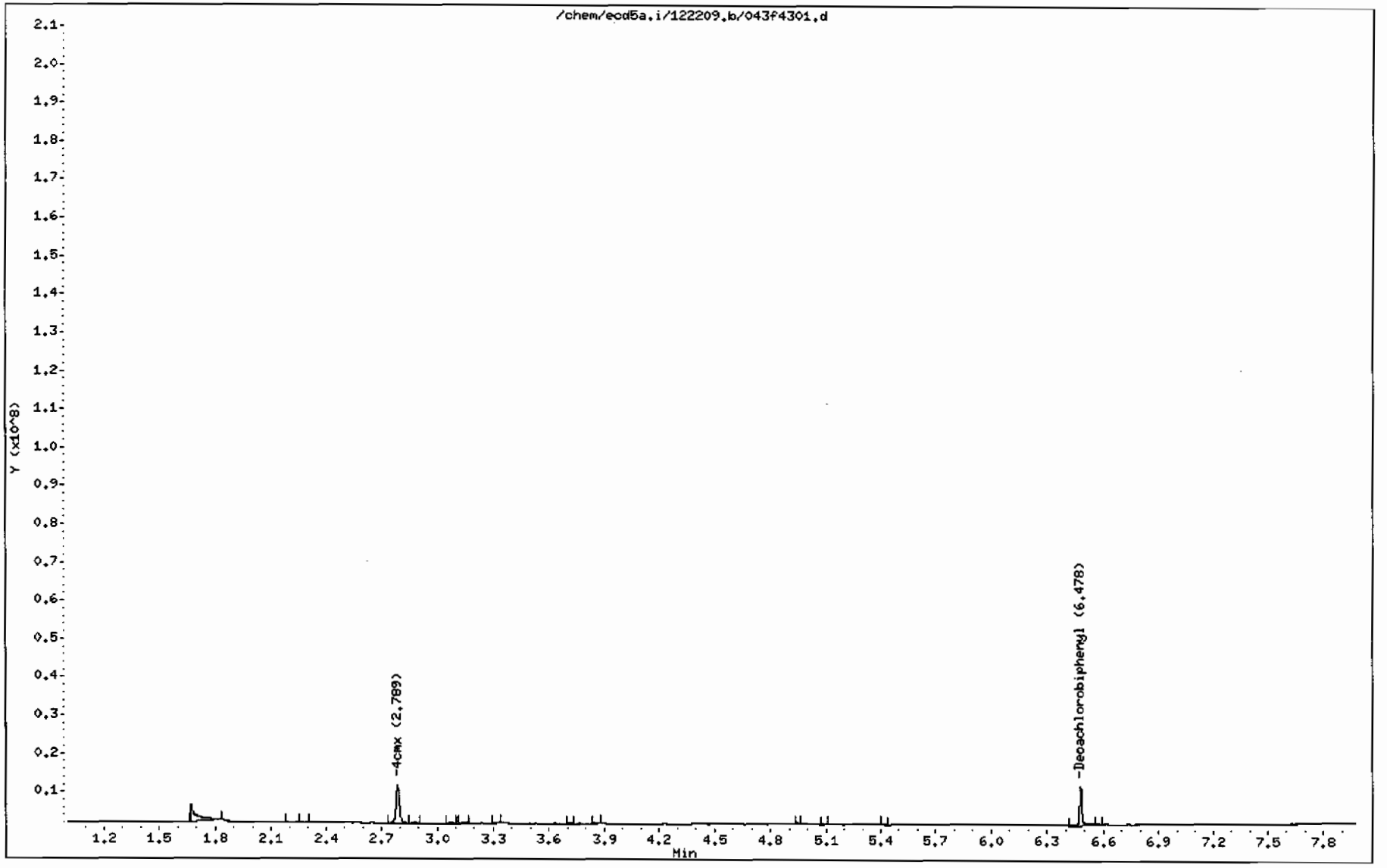

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd5a.i/122209.b/043b4301.d
Lab Smp Id: 243010001 Client Smp ID: WST03-10-2147
Inj Date : 22-DEC-2009 22:40
Operator : CXC2 Inst ID: ecd5a.i
Smp Info : |243010001|5|
Misc Info : |ECDPTL_1L|934315|SVP|LANL|SOIL|WST03-10-2147|||
Comment :
Method : /chem/ecd5a.i/122209.b/ECD5-B-8081-121809.m
Meth Date : 23-Dec-2009 08:46 cla01575 Quant Type: ESTD
Cal Date : 05-DEC-2009 03:28 Cal File: 025b2501.d
Als bottle: 43
Dil Factor: 5.00000
Integrator: Falcon Compound Sublist: 10-939-1.sub
Target Version: 3.50 Sample Matrix: Water
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	5.00000	Dilution Factor
Uf	0.00100	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	20.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (mg/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
3.196	3.198	-0.002	87109166	26.9311	0.00673	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.149	7.153	-0.004	45271502	32.1209	0.00803	80.00- 120.00	100.00

Data File: /chem/ecd5a.i/122209.b/043b4301.d

Date : 22-DEC-2009 22:40

Client ID: WST03-10-2147

Sample Info: |243010001|5|

Volume Injected (uL): 1.0

Column phase: CLP-2

Instrument: ecd5a.i

Operator: CXC2

Column diameter: 0.25

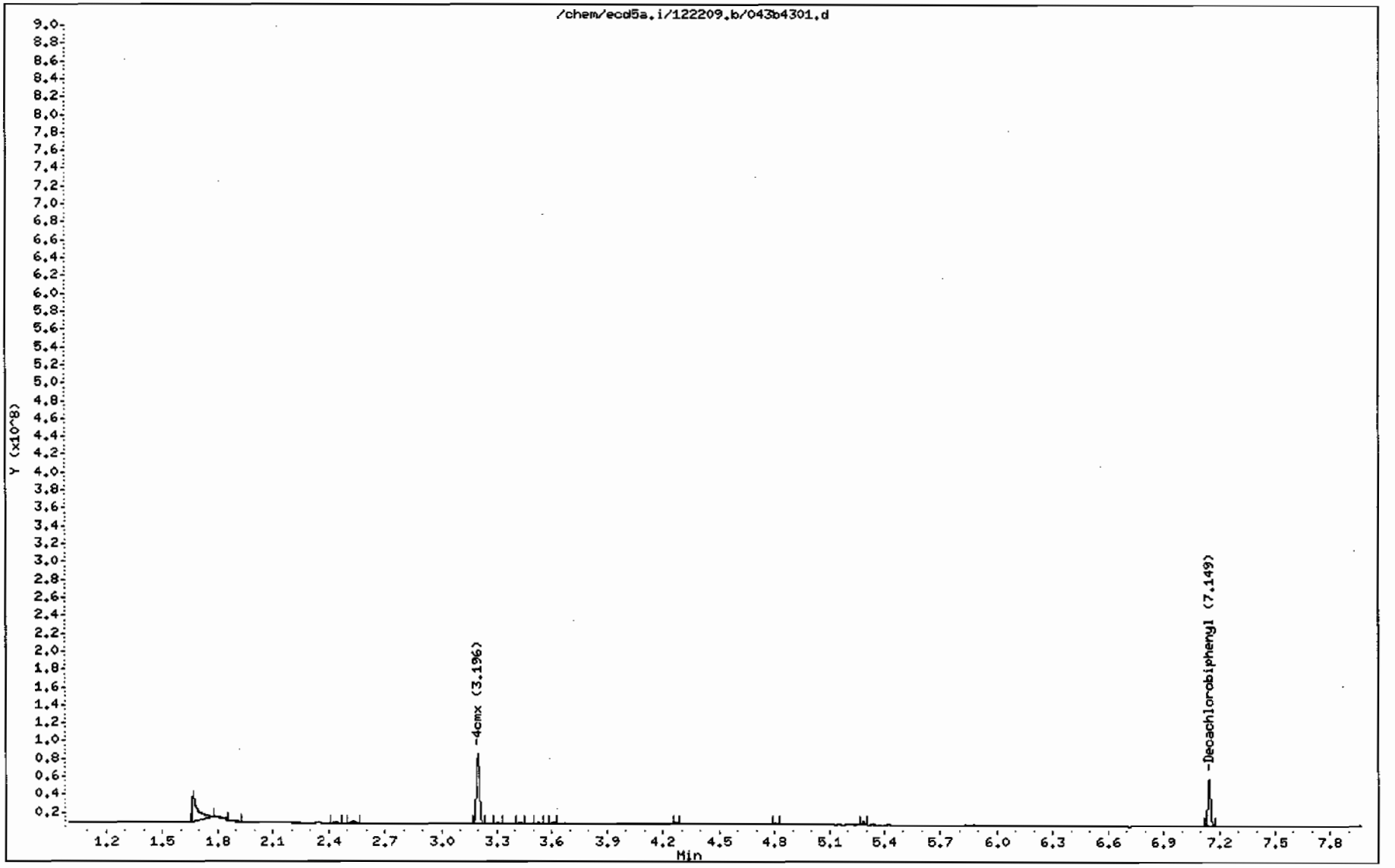

STANDARDS DATA

Report Date: 22-Dec-2009 17:28

Calibration History

Method : /chem/ecd5a.i/122209.b/ECD5-F-8081-121809.m
Start Cal Date: 16-SEP-2009 20:07
End Cal Date : 22-DEC-2009 15:52

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 2.00000		
05-DEC-2009 02:40	gapa	/chem/ecd5a.i/120409b.b/021f2101.d
03-NOV-2009 15:03	ar1660	/chem/ecd5a.i/110309.b/006f0601.d
18-DEC-2009 21:15	chlor	/chem/ecd5a.i/121809.b/016f1601.d
18-DEC-2009 19:51	tox	/chem/ecd5a.i/121809.b/009f0901.d
22-DEC-2009 15:04	indab	/chem/ecd5a.i/122209.b/007f0701.d
Cal Level: 2 , Cal Amount: 10.00000		
05-DEC-2009 02:52	gapa	/chem/ecd5a.i/120409b.b/022f2201.d
03-NOV-2009 15:15	ar1660	/chem/ecd5a.i/110309.b/007f0701.d
18-DEC-2009 21:27	chlor	/chem/ecd5a.i/121809.b/017f1701.d
18-DEC-2009 20:03	tox	/chem/ecd5a.i/121809.b/010f1001.d
22-DEC-2009 15:16	indab	/chem/ecd5a.i/122209.b/008f0801.d
Cal Level: 3 , Cal Amount: 50.00000		
05-DEC-2009 03:04	gapa	/chem/ecd5a.i/120409b.b/023f2301.d
03-NOV-2009 15:26	ar1660	/chem/ecd5a.i/110309.b/008f0801.d
18-DEC-2009 21:39	chlor	/chem/ecd5a.i/121809.b/018f1801.d
18-DEC-2009 20:15	tox	/chem/ecd5a.i/121809.b/011f1101.d
22-DEC-2009 15:28	indab	/chem/ecd5a.i/122209.b/009f0901.d
Cal Level: 4 , Cal Amount: 100.00000		
05-DEC-2009 03:16	gapa	/chem/ecd5a.i/120409b.b/024f2401.d
03-NOV-2009 18:34	ar1254	/chem/ecd5a.i/110309.b/024f2401.d
03-NOV-2009 18:22	ar1248	/chem/ecd5a.i/110309.b/023f2301.d
03-NOV-2009 18:10	ar1242	/chem/ecd5a.i/110309.b/022f2201.d
03-NOV-2009 16:48	ar1232	/chem/ecd5a.i/110309.b/015f1501.d
03-NOV-2009 16:25	ar1221	/chem/ecd5a.i/110309.b/013f1301.d
03-NOV-2009 15:38	ar1660	/chem/ecd5a.i/110309.b/009f0901.d
18-DEC-2009 21:51	chlor	/chem/ecd5a.i/121809.b/019f1901.d
18-DEC-2009 20:27	tox	/chem/ecd5a.i/121809.b/012f1201.d
22-DEC-2009 15:40	indab	/chem/ecd5a.i/122209.b/010f1001.d
Cal Level: 5 , Cal Amount: 200.00000		
05-DEC-2009 03:28	gapa	/chem/ecd5a.i/120409b.b/025f2501.d
03-NOV-2009 15:50	ar1660	/chem/ecd5a.i/110309.b/010f1001.d
18-DEC-2009 22:02	chlor	/chem/ecd5a.i/121809.b/020f2001.d
18-DEC-2009 20:39	tox	/chem/ecd5a.i/121809.b/013f1301.d
22-DEC-2009 15:52	indab	/chem/ecd5a.i/122209.b/011f1101.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 100		
22-DEC-2009 16:04	indab	/chem/ecd5a.i/122209.b/012f1201.d
Ccal Level: 4 , Ccal Amount: 100		
22-DEC-2009 15:40	indab	/chem/ecd5a.i/122209.b/010f1001.d
Ccal Level: 4 , Ccal Amount: 100		
22-DEC-2009 14:05	chlor	/chem/ecd5a.i/122209.b/005f0501.d
Ccal Level: 4 , Ccal Amount: 100		
22-DEC-2009 13:53	tox	/chem/ecd5a.i/122209.b/004f0401.d
Ccal Level: 4 , Ccal Amount: 100		
22-DEC-2009 14:47	indab	/chem/ecd5a.i/122209.b/006f0601.d
Ccal Level: 4 , Ccal Amount: 100		
22-DEC-2009 13:41	indab	/chem/ecd5a.i/122209.b/003f0301.d

Report Date: 22-Dec-2009 17:28

Calibration History

Method : /chem/ecd5a.i/122209.b/ECD5-B-8081-121809.m
Start Cal Date: 16-SEP-2009 20:07
End Cal Date : 22-DEC-2009 15:52

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 2.00000		
05-DEC-2009 02:40	gapa	/chem/ecd5a.i/120409b.b/021b2101.d
03-NOV-2009 15:03	ar1660	/chem/ecd5a.i/110309.b/006b0601.d
18-DEC-2009 21:15	chlor	/chem/ecd5a.i/121809.b/016b1601.d
18-DEC-2009 19:51	tox	/chem/ecd5a.i/121809.b/009b0901.d
22-DEC-2009 15:04	indab	/chem/ecd5a.i/122209.b/007b0701.d
Cal Level: 2 , Cal Amount: 10.00000		
05-DEC-2009 02:52	gapa	/chem/ecd5a.i/120409b.b/022b2201.d
03-NOV-2009 15:15	ar1660	/chem/ecd5a.i/110309.b/007b0701.d
18-DEC-2009 21:27	chlor	/chem/ecd5a.i/121809.b/017b1701.d
18-DEC-2009 20:03	tox	/chem/ecd5a.i/121809.b/010b1001.d
22-DEC-2009 15:16	indab	/chem/ecd5a.i/122209.b/008b0801.d
Cal Level: 3 , Cal Amount: 50.00000		
05-DEC-2009 03:04	gapa	/chem/ecd5a.i/120409b.b/023b2301.d
03-NOV-2009 15:26	ar1660	/chem/ecd5a.i/110309.b/008b0801.d
18-DEC-2009 21:39	chlor	/chem/ecd5a.i/121809.b/018b1801.d
18-DEC-2009 20:15	tox	/chem/ecd5a.i/121809.b/011b1101.d
22-DEC-2009 15:28	indab	/chem/ecd5a.i/122209.b/009b0901.d
Cal Level: 4 , Cal Amount: 100.00000		
05-DEC-2009 03:16	gapa	/chem/ecd5a.i/120409b.b/024b2401.d
03-NOV-2009 18:34	ar1254	/chem/ecd5a.i/110309.b/024b2401.d
03-NOV-2009 18:22	ar1248	/chem/ecd5a.i/110309.b/023b2301.d
03-NOV-2009 18:10	ar1242	/chem/ecd5a.i/110309.b/022b2201.d
03-NOV-2009 16:48	ar1232	/chem/ecd5a.i/110309.b/015b1501.d
03-NOV-2009 16:25	ar1221	/chem/ecd5a.i/110309.b/013b1301.d
03-NOV-2009 15:38	ar1660	/chem/ecd5a.i/110309.b/009b0901.d
18-DEC-2009 21:51	chlor	/chem/ecd5a.i/121809.b/019b1901.d
18-DEC-2009 20:27	tox	/chem/ecd5a.i/121809.b/012b1201.d
22-DEC-2009 15:40	indab	/chem/ecd5a.i/122209.b/010b1001.d
Cal Level: 5 , Cal Amount: 200.00000		
05-DEC-2009 03:28	gapa	/chem/ecd5a.i/120409b.b/025b2501.d
03-NOV-2009 15:50	ar1660	/chem/ecd5a.i/110309.b/010b1001.d
18-DEC-2009 22:02	chlor	/chem/ecd5a.i/121809.b/020b2001.d
18-DEC-2009 20:39	tox	/chem/ecd5a.i/121809.b/013b1301.d
22-DEC-2009 15:52	indab	/chem/ecd5a.i/122209.b/011b1101.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 100		
22-DEC-2009 16:04	indab	/chem/ecd5a.i/122209.b/012b1201.d
Ccal Level: 4 , Ccal Amount: 100		
22-DEC-2009 15:40	indab	/chem/ecd5a.i/122209.b/010b1001.d
Ccal Level: 4 , Ccal Amount: 100		
22-DEC-2009 13:53	tox	/chem/ecd5a.i/122209.b/004b0401.d
Ccal Level: 4 , Ccal Amount: 100		
22-DEC-2009 14:47	indab	/chem/ecd5a.i/122209.b/006b0601.d
Ccal Level: 4 , Ccal Amount: 100		
22-DEC-2009 14:05	chlor	/chem/ecd5a.i/122209.b/005b0501.d
Ccal Level: 4 , Ccal Amount: 100		
22-DEC-2009 13:41	indab	/chem/ecd5a.i/122209.b/003b0301.d

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd5a.i/122209.b/ECD5-F-8081-121809.m
Quant Method : ESTD Target Version : 3.50
Last Update : 22-Dec-2009 17:21 Number of Cpnds : 44
Data Type : GC MULTI COMP

Global Integrator : Falcon

Chromat Events	Values
Initial:Start Threshold	10005.000000
Initial:End Threshold	5002.500000
Initial:Area Threshold	100050.000000
Initial:P-P Resolution	1.000000
Initial:Bunch Factor	3.000000
Initial:Negative Peaks	OFF
Initial:Tension	0.000000

Compound	RT	RT Window	RF
$ 1 4cmx	2.790	2.760-2.820	4.634e+05
63 2,4,5-Trichlorophenol	1.476	1.376-1.576	
59 Hexachlorobenzene	3.159	3.059-3.259	3.882e+05
2 Aroclor-1221	2.631	2.601-2.661	5.910e+03
	2.767	2.736-2.796	3.363e+03
	2.802	2.772-2.832	1.422e+04
3 Aroclor-1016	3.102	3.072-3.132	1.760e+04
	3.460	3.430-3.490	2.200e+04
	3.686	3.656-3.716	8.402e+03
	3.702	3.672-3.732	8.144e+03
	3.839	3.809-3.869	1.168e+04
4 Aroclor-1232	3.104	3.074-3.134	7.998e+03
	3.248	3.218-3.278	2.167e+03
	3.459	3.430-3.490	1.042e+04
	3.555	3.525-3.585	6.943e+03
	4.119	4.089-4.149	4.959e+03
5 alpha-BHC	3.292	3.262-3.322	6.234e+05
6 Aroclor-1242	3.124	3.024-3.224	1.426e+04
	3.486	3.386-3.586	1.830e+04
	3.570	3.470-3.670	7.474e+03
	4.082	3.982-4.182	9.828e+03
	4.170	4.070-4.270	9.417e+03
7 gamma-BHC (Lindane)	3.549	3.519-3.579	5.584e+05

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd5a.i/122209.b/ECD5-F-8081-121809.m

Compound	RT	RT Window	RF
8 Chlordane (tech.)	3.843	3.743-3.943	1.741e+04
	3.900	3.800-4.000	2.262e+04
	4.209	4.109-4.309	1.723e+04
	4.602	4.502-4.702	5.443e+04
	5.168	5.068-5.268	1.347e+04
9 Aroclor-1248	3.686	3.586-3.786	1.281e+04
	3.839	3.739-3.939	1.679e+04
	3.897	3.797-3.997	1.095e+04
	4.119	4.019-4.219	2.029e+04
	4.509	4.409-4.609	9.814e+03
10 Heptachlor	3.900	3.870-3.930	5.063e+05
11 Aldrin	4.113	4.083-4.143	5.135e+05
12 beta-BHC	3.618	3.588-3.648	2.408e+05
13 delta-BHC	3.751	3.721-3.781	5.512e+05
14 Heptachlor epoxide	4.521	4.491-4.551	4.569e+05
15 Aroclor-1254	4.090	4.060-4.120	1.481e+04
	4.257	4.227-4.287	2.571e+04
	4.509	4.479-4.539	2.679e+04
	4.679	4.649-4.709	2.010e+04
	4.960	4.930-4.990	2.920e+04
16 Endosulfan I	4.775	4.745-4.805	4.158e+05
17 gamma-Chlordane	4.602	4.572-4.632	4.479e+05
18 alpha-Chlordane	4.686	4.656-4.716	4.494e+05
19 4,4'-DDE	4.731	4.701-4.761	4.305e+05
20 Dieldrin	4.924	4.894-4.954	4.470e+05
21 Aroclor-1260	4.608	4.508-4.708	2.245e+04
	4.796	4.696-4.896	3.535e+04
	4.881	4.781-4.981	1.482e+04
	4.941	4.841-5.041	3.945e+04
	5.332	5.232-5.432	4.235e+04
22 Endrin	5.070	5.040-5.100	3.408e+05
23 Toxaphene	4.713	4.683-4.743	2.803e+03
	4.927	4.897-4.957	5.283e+03
	4.982	4.952-5.012	6.997e+03
	5.020	4.990-5.050	8.919e+03
	5.082	5.052-5.112	8.608e+03
24 Endosulfan II	5.209	5.179-5.239	3.723e+05
25 4,4'-DDD	5.100	5.070-5.130	3.608e+05
26 4,4'-DDT	5.269	5.239-5.299	3.254e+05
27 Endrin aldehyde	5.462	5.432-5.492	3.106e+05

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd5a.i/122209.b/ECD5-F-8081-121809.m

	Compound	RT	RT Window	RF
	28 Methoxychlor	5.554	5.524-5.584	1.190e+05
	29 Endosulfan sulfate	5.724	5.694-5.754	3.196e+05
	30 Aroclor-1268	5.050	4.950-5.150	
		5.067	4.967-5.167	
		5.185	5.085-5.285	
		5.378	5.278-5.478	
		5.531	5.431-5.631	
	61 Aroclor-1262	4.121	4.021-4.221	
		4.289	4.189-4.389	
		4.525	4.425-4.625	
		4.671	4.571-4.771	
		4.854	4.754-4.954	
	31 Endrin ketone	5.898	5.868-5.928	3.738e+05
	51 Mirex	5.805	5.775-5.835	2.290e+05
	52 C-Nonachlor	5.228	5.198-5.258	3.943e+05
	53 O-Chlordane	4.586	4.556-4.616	3.128e+05
	54 T-Nonachlor	4.811	4.781-4.841	3.369e+05
	55 1,2-Dichlorobenzene	6.525	6.495-6.555	
	56 2,4-DDE	4.647	4.617-4.677	2.204e+05
	58 2,4-DDD	4.979	4.949-5.008	1.978e+05
	57 2,4-DDT	5.136	5.106-5.166	1.547e+05
$	32 Decachlorobiphenyl	6.482	6.452-6.512	2.732e+05
M	62 TTO Sum Pesticides	1.000	0.980-1.020	

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COMPOUND LISTING

Method file : /chem/ecd5a.i/122209.b/ECD5-B-8081-121809.m
Quant Method : ESTD Target Version : 3.50
Last Update : 22-Dec-2009 17:20 Number of Cpnds : 43
Data Type : GC MULTI COMP

Global Integrator : Falcon

Chromat Events	Values
Initial:Start Threshold	92700.000000
Initial:End Threshold	46350.000000
Initial:Area Threshold	927000.000000
Initial:P-P Resolution	1.000000
Initial:Bunch Factor	3.000000
Initial:Negative Peaks	OFF
Initial:Tension	0.000000

Compound	RT	RT Window	RF
$ 1 4cmx	3.198	3.168-3.228	3.235e+06
61 2,4,5-Trichlorophenol	1.631	1.531-1.731	
59 Hexachlorobenzene	2.657	2.627-2.687	4.557e+06
2 Aroclor-1221	3.136	3.107-3.167	3.819e+04
	3.255	3.225-3.285	2.282e+04
	3.304	3.274-3.334	7.878e+04
3 Aroclor-1016	3.947	3.917-3.977	1.293e+05
	4.040	4.010-4.070	8.559e+04
	4.110	4.080-4.140	5.407e+04
	4.171	4.141-4.201	5.109e+04
	4.351	4.321-4.381	6.850e+04
4 Aroclor-1232	3.304	3.275-3.334	5.230e+04
	3.949	3.919-3.979	5.701e+04
	4.040	4.010-4.070	3.929e+04
	4.350	4.320-4.380	3.045e+04
	4.622	4.592-4.652	3.317e+04
5 alpha-BHC	3.724	3.694-3.754	4.440e+06
6 Aroclor-1242	3.618	3.588-3.648	8.644e+04
	4.040	4.010-4.070	6.791e+04
	4.109	4.079-4.139	4.340e+04
	4.350	4.320-4.380	5.437e+04
	4.430	4.400-4.460	5.974e+04
7 gamma-BHC (Lindane)	4.000	3.970-4.030	3.817e+06

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd5a.i/122209.b/ECD5-B-8081-121809.m

Compound	RT	RT Window	RF
8 Chlordane (tech.)	4.223	4.193-4.253	9.389e+04
	4.648	4.618-4.678	7.620e+04
	4.903	4.873-4.933	5.344e+04
	5.050	5.020-5.080	2.514e+05
	5.142	5.112-5.172	2.034e+05
9 Aroclor-1248	4.172	4.142-4.202	7.431e+04
	4.351	4.321-4.381	9.433e+04
	4.431	4.401-4.461	1.002e+05
	4.592	4.562-4.622	1.083e+05
	4.768	4.738-4.798	1.138e+05
10 Heptachlor	4.327	4.297-4.357	3.191e+06
11 Aldrin	4.555	4.525-4.585	3.292e+06
12 beta-BHC	4.056	4.026-4.086	1.693e+06
13 delta-BHC	4.272	4.242-4.302	3.725e+06
14 Heptachlor epoxide	4.927	4.897-4.957	2.944e+06
15 Aroclor-1254	4.619	4.589-4.649	9.484e+04
	4.734	4.704-4.764	1.078e+05
	5.023	4.993-5.053	1.477e+05
	5.158	5.128-5.188	1.045e+05
	5.481	5.451-5.511	1.267e+05
16 Endosulfan I	5.182	5.152-5.212	2.447e+06
17 gamma-Chlordane	5.048	5.018-5.078	2.810e+06
18 alpha-Chlordane	5.139	5.109-5.169	2.700e+06
19 4,4'-DDE	5.224	5.194-5.254	2.550e+06
20 Dieldrin	5.352	5.322-5.382	2.613e+06
21 Aroclor-1260	5.043	5.013-5.073	6.157e+04
	5.140	5.110-5.170	1.370e+05
	5.261	5.231-5.291	1.523e+05
	5.481	5.451-5.511	1.467e+05
	6.079	6.049-6.109	1.563e+05
22 Endrin	5.543	5.513-5.573	2.005e+06
23 Toxaphene	5.406	5.376-5.436	2.203e+04
	5.541	5.511-5.571	3.434e+04
	5.632	5.602-5.662	3.377e+04
	5.661	5.631-5.691	5.641e+04
	5.719	5.689-5.749	8.647e+04
24 Endosulfan II	5.668	5.638-5.698	2.135e+06
25 4,4'-DDD	5.576	5.546-5.606	2.146e+06
26 4,4'-DDT	5.769	5.739-5.799	1.374e+06
27 Endrin aldehyde	5.867	5.837-5.897	1.741e+06

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd5a.i/122209.b/ECD5-B-8081-121809.m

Compound	RT	RT Window	RF
28 Methoxychlor	6.166	6.136-6.196	5.445e+05
29 Endosulfan sulfate	6.035	6.005-6.065	1.724e+06
30 Aroclor-1268	5.217	5.187-5.247	
	5.596	5.566-5.626	
	5.628	5.598-5.658	
	5.769	5.739-5.799	
	6.149	6.119-6.179	
60 Aroclor-1262	4.689	4.589-4.789	
	4.779	4.679-4.879	
	5.074	4.974-5.174	
	5.224	5.124-5.324	
	5.396	5.296-5.496	
31 Endrin ketone	6.378	6.348-6.408	1.743e+06
51 Mirex	5.518	5.488-5.548	2.494e+06
52 C-Nonachlor	4.782	4.752-4.812	4.546e+06
53 O-Chlordane	4.058	4.028-4.088	3.680e+06
54 T-Nonachlor	4.303	4.274-4.333	3.953e+06
55 1,2-Dichlorobenzene	6.619	6.589-6.649	
56 2,4-DDE	4.251	4.221-4.281	2.053e+06
58 2,4-DDD	4.572	4.542-4.602	2.283e+06
57 2,4-DDT	4.757	4.727-4.787	2.076e+06
$ 32 Decachlorobiphenyl	7.153	7.123-7.183	1.409e+06

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 16-SEP-2009 20:07
End Cal Date : 22-DEC-2009 15:52
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd5a.i/122209.b/ECD5-F-8081-121809.m
Cal Date : 22-Dec-2009 17:21 cla01575
Curve Type : Average

Calibration File Names:
Level 1: /chem/ecd5a.i/120409b.b/021f2101.d
Level 2: /chem/ecd5a.i/120409b.b/022f2201.d
Level 3: /chem/ecd5a.i/120409b.b/023f2301.d
Level 4: /chem/ecd5a.i/120409b.b/024f2401.d
Level 5: /chem/ecd5a.i/120409b.b/025f2501.d

Compound	2.000 Level 1	10.000 Level 2	50.000 Level 3	100.000 Level 4	200.000 Level 5	RRF	% RSD
63 2,4,5-Trichlorophenol	+++++	+++++	+++++	+++++	+++++	+++++	+++++
59 Hexachlorobenzene	451162	387986	367027	366085	368958	388243	9.351
2 Aroclor-1221 (1)	+++++	+++++	+++++	5910	+++++	5910	0.000
(2)	+++++	+++++	+++++	3363	+++++	3363	0.000
(3)	+++++	+++++	+++++	14218	+++++	14218	0.000
3 Aroclor-1016 (1)	18316	18455	17930	17404	15906	17602	5.863
(2)	21725	22828	22310	22663	20456	21996	4.360
(3)	8841	8543	8438	8235	7951	8402	3.973
(4)	8274	8363	8182	8166	7736	8144	2.968
(5)	11759	11851	11816	11833	11120	11676	2.678
4 Aroclor-1232 (1)	+++++	+++++	+++++	7998	+++++	7998	0.000
(2)	+++++	+++++	+++++	2167	+++++	2167	0.000
(3)	+++++	+++++	+++++	10425	+++++	10425	0.000
(4)	+++++	+++++	+++++	6943	+++++	6943	0.000
(5)	+++++	+++++	+++++	4959	+++++	4959	0.000
5 alpha-BHC	581307	609862	640785	648290	636834	623416	4.435
6 Aroclor-1242 (1)	+++++	+++++	+++++	14263	+++++	14263	0.000
(2)	+++++	+++++	+++++	18303	+++++	18303	0.000
(3)	+++++	+++++	+++++	7474	+++++	7474	0.000
(4)	+++++	+++++	+++++	9828	+++++	9828	0.000
(5)	+++++	+++++	+++++	9417	+++++	9417	0.000
7 gamma-BHC (Lindane)	521603	542782	568976	572631	585952	558389	4.628
8 Chlordane (tech.) (1)	18749	17452	16350	17491	17027	17414	5.033
(2)	23650	22500	21524	23266	22182	22624	3.754
(3)	18619	17029	16558	17475	16469	17230	5.075
(4)	53988	51028	54034	58136	54970	54431	4.679
(5)	13759	12431	12502	14412	14253	13471	7.042

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 16-SEP-2009 20:07
End Cal Date : 22-DEC-2009 15:52
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd5a.i/122209.b/ECD5-F-8081-121809.m
Cal Date : 22-Dec-2009 17:21 cla01575
Curve Type : Average

Compound	2.000 Level 1	10.000 Level 2	50.000 Level 3	100.000 Level 4	200.000 Level 5	RRF	% RSD
9 Aroclor-1248(1)	+++++	+++++	+++++	12812	+++++	12812	0.000
(2)	+++++	+++++	+++++	16794	+++++	16794	0.000
(3)	+++++	+++++	+++++	10955	+++++	10955	0.000
(4)	+++++	+++++	+++++	20294	+++++	20294	0.000
(5)	+++++	+++++	+++++	9814	+++++	9814	0.000
10 Heptachlor	489170	500242	514665	510927	516743	506349	2.275
11 Aldrin	482323	507671	527558	526801	523140	513498	3.738
12 beta-BHC	235619	244427	238276	237560	248290	240834	2.207
13 delta-BHC	504417	525334	563987	571979	590436	551231	6.409
14 Heptachlor epoxide	443606	459702	472743	457179	451383	456922	2.363
15 Aroclor-1254(1)	+++++	+++++	+++++	14812	+++++	14812	0.000
(2)	+++++	+++++	+++++	25713	+++++	25713	0.000
(3)	+++++	+++++	+++++	26786	+++++	26786	0.000
(4)	+++++	+++++	+++++	20102	+++++	20102	0.000
(5)	+++++	+++++	+++++	29201	+++++	29201	0.000
16 Endosulfan I	387101	418896	430076	419801	422940	415763	3.996
17 gamma-Chlordane	415420	435160	467899	458290	462507	447855	4.916
18 alpha-Chlordane	446934	451652	450400	444428	453352	449353	0.806
19 4,4'-DDE	412482	436795	446736	432028	424667	430542	2.993
20 Dieldrin	430589	456661	463166	450260	434352	447006	3.153
21 Aroclor-1260(1)	22983	23321	22940	22516	20469	22446	5.085
(2)	35726	36888	36310	35624	32213	35352	5.167
(3)	14778	14965	14903	14964	14487	14820	1.354
(4)	39548	40617	40289	39914	36902	39454	3.756
(5)	42946	43953	43513	42694	38645	42350	5.027
22 Endrin	321236	346554	350192	343340	342648	340794	3.326
23 Toxaphene(1)	2932	3058	2747	2589	2692	2803	6.739
(2)	5712	5430	5070	5067	5137	5283	5.345
(3)	6963	7140	6980	6839	7062	6997	1.617
(4)	9148	8941	8783	8760	8961	8919	1.760
(5)	8683	8527	8637	8621	8569	8608	0.702
24 Endosulfan II	371060	381417	379899	368615	360659	372330	2.293
25 4,4'-DDD	334898	358669	372569	371166	366750	360810	4.286

GEL Laboratories LLC

INITIAL CALIBRATION DATA

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Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd5a.i/122209.b/ECD5-F-8081-121809.m
Cal Date : 22-Dec-2009 17:21 cla01575
Curve Type : Average

	Compound	2.000 Level 1	10.000 Level 2	50.000 Level 3	100.000 Level 4	200.000 Level 5	RRF	% RSD
	26 4,4'-DDT	289222	302415	341481	335532	358111	325352	8.786
	27 Endrin aldehyde	291581	314310	321656	316220	309047	310563	3.712
	28 Methoxychlor	107536	114794	122936	120909	128951	119025	6.868
	29 Endosulfan sulfate	287797	303285	325884	332510	348676	319631	7.550
	30 Aroclor-1268 (1)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	(2)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	(3)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	(4)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	(5)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	61 Aroclor-1262 (1)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	(2)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	(3)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	(4)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	(5)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	31 Endrin ketone	351599	352637	378276	383303	403265	373816	5.860
	51 Mirex	259962	231947	216366	218180	218649	229021	8.025
	52 C-Nonachlor	409160	392847	392123	390875	386731	394347	2.184
	53 O-Chlordane	343864	315598	305572	301977	297134	312829	5.954
	54 T-Nonachlor	358283	334318	332927	330171	328873	336914	3.603
	55 1,2-Dichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	56 2,4-DDE	240672	221856	219006	214175	206476	220437	5.772
	58 2,4-DDD	206130	201318	196461	194071	191092	197814	3.017
	57 2,4-DDT	143151	148792	152919	162534	166019	154683	6.141
M	62 TTO Sum Pesticides	+++++	+++++	+++++	+++++	+++++	+++++	+++++
$	1 4cmx	465572	470927	463478	459924	456895	463359	1.161
$	32 Decachlorobiphenyl	266102	273135	270144	278597	278198	273235	1.952

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 16-SEP-2009 20:07
End Cal Date : 22-DEC-2009 15:52
Quant Method : ESTD
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd5a.i/122209.b/ECD5-B-8081-121809.m
Cal Date : 22-Dec-2009 17:20 cla01575

Calibration File Names:
Level 1: /chem/ecd5a.i/120409b.b/021b2101.d
Level 2: /chem/ecd5a.i/120409b.b/022b2201.d
Level 3: /chem/ecd5a.i/120409b.b/023b2301.d
Level 4: /chem/ecd5a.i/120409b.b/024b2401.d
Level 5: /chem/ecd5a.i/120409b.b/025b2501.d

Compound	2 Level 1	10 Level 2	50 Level 3	100 Level 4	200 Level 5	Curve	Coefficients b	m1	m2	%RSD or R^2
61 2,4,5-Trichlorophenol	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
59 Hexachlorobenzene	5845652	4719180	4103250	4027456	4087067	AVRG		4556521		16.97872
2 Aroclor-1221(1)	+++++	+++++	+++++	38194	+++++	AVRG		38194		0.000e+00
(2)	+++++	+++++	+++++	22822	+++++	AVRG		22822		0.000e+00
(3)	+++++	+++++	+++++	78778	+++++	AVRG		78778		0.000e+00
3 Aroclor-1016(1)	135228	136032	131291	128421	115286	AVRG		129252		6.49152
(2)	94115	91053	86081	82205	74492	AVRG		85590		9.00075
(3)	59100	56752	54061	51882	48540	AVRG		54067		7.61842
(4)	56717	54302	51105	48729	44616	AVRG		51094		9.25654
(5)	75245	71571	68782	66056	60864	AVRG		68504		7.97140
4 Aroclor-1232(1)	+++++	+++++	+++++	52302	+++++	AVRG		52302		0.000e+00
(2)	+++++	+++++	+++++	57011	+++++	AVRG		57011		0.000e+00
(3)	+++++	+++++	+++++	39294	+++++	AVRG		39294		0.000e+00
(4)	+++++	+++++	+++++	30449	+++++	AVRG		30449		0.000e+00
(5)	+++++	+++++	+++++	33167	+++++	AVRG		33167		0.000e+00
5 alpha-BHC	4863066	4596051	4207679	4192127	4340678	AVRG		4439920		6.45563
6 Aroclor-1242(1)	+++++	+++++	+++++	86436	+++++	AVRG		86436		0.000e+00
(2)	+++++	+++++	+++++	67908	+++++	AVRG		67908		0.000e+00
(3)	+++++	+++++	+++++	43403	+++++	AVRG		43403		0.000e+00
(4)	+++++	+++++	+++++	54366	+++++	AVRG		54366		0.000e+00
(5)	+++++	+++++	+++++	59740	+++++	AVRG		59740		0.000e+00

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 16-SEP-2009 20:07
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Quant Method : ESTD
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd5a.i/122209.b/ECD5-B-8081-121809.m
Cal Date : 22-Dec-2009 17:20 cla01575

Compound	2 Level 1	10 Level 2	50 Level 3	100 Level 4	200 Level 5	Curve	Coefficients b	m1	m2	%RSD or R^2
7 gamma-BHC (Lindane)	4213963	4000744	3602480	3581477	3685107	AVRG		3816754		7.29651
8 Chlordane (tech.) (1)	7243646	12999176	52766759	102990106	284949098	LINR	-51.92081	93887		0.99946
(2)	6465169	11825679	44884577	86035689	232282240	LINR	-71.28224	76201		0.99903
(3)	4481798	7851139	29973244	63460324	161982469	LINR	-72.08439	53438		0.99710
(4)	16802571	30350054	128286776	266875379	757762764	LINR	-24.88331	251356		0.99970
(5)	13908645	24735230	104046468	215560048	613359327	LINR	-25.56136	203359		0.99974
9 Aroclor-1248 (1)	+++++	+++++	+++++	74311	+++++	AVRG		74311		0.000e+00
(2)	+++++	+++++	+++++	94327	+++++	AVRG		94327		0.000e+00
(3)	+++++	+++++	+++++	100218	+++++	AVRG		100218		0.000e+00
(4)	+++++	+++++	+++++	108276	+++++	AVRG		108276		0.000e+00
(5)	+++++	+++++	+++++	113831	+++++	AVRG		113831		0.000e+00
10 Heptachlor	3604454	3434966	3030868	2943176	2939717	AVRG		3190636		9.66862
11 Aldrin	3714827	3541333	3129087	3053283	3022040	AVRG		3292114		9.57380
12 beta-BHC	2073258	1881198	1544613	1482400	1483430	AVRG		1692980		15.91277
13 delta-BHC	4102024	3882425	3537213	3511052	3589959	AVRG		3724535		6.92634
14 Heptachlor epoxide	3389542	3167098	2774469	2697474	2692306	AVRG		2944178		10.75617
15 Aroclor-1254 (1)	+++++	+++++	+++++	94842	+++++	AVRG		94842		0.000e+00
(2)	+++++	+++++	+++++	107760	+++++	AVRG		107760		0.000e+00
(3)	+++++	+++++	+++++	147710	+++++	AVRG		147710		0.000e+00
(4)	+++++	+++++	+++++	104486	+++++	AVRG		104486		0.000e+00
(5)	+++++	+++++	+++++	126738	+++++	AVRG		126738		0.000e+00
16 Endosulfan I	2844528	2657817	2304115	2226137	2204341	AVRG		2447388		11.74592
17 gamma-Chlordane	3167314	2983844	2646972	2604550	2646544	AVRG		2809845		8.95760
18 alpha-Chlordane	3112916	2885082	2528297	2477344	2496159	AVRG		2699959		10.56324

GEL Laboratories LLC

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Method file : /chem/ecd5a.i/122209.b/ECD5-B-8081-121809.m
Cal Date : 22-Dec-2009 17:20 cla01575

Compound	2 Level 1	10 Level 2	50 Level 3	100 Level 4	200 Level 5	Curve	Coefficients b	m1	m2	%RSD or R^2
19 4,4'-DDE	2831332	2685440	2464727	2398361	2372185	AVRG		2550409		7.82655
20 Dieldrin	2912489	2733828	2507440	2459696	2449656	AVRG		2612622		7.78840
21 Aroclor-1260 (1)	67909	63594	61133	58501	56721	AVRG		61572		7.14408
(2)	154760	142644	136554	130696	120581	AVRG		137047		9.34993
(3)	163780	157424	151415	148508	140329	AVRG		152291		5.84087
(4)	154736	148501	147397	143879	139185	AVRG		146740		3.92572
(5)	161375	159022	154521	152918	153834	AVRG		156334		2.34679
22 Endrin	2184472	2097534	1932016	1894394	1917148	AVRG		2005113		6.40871
23 Toxaphene (1)	20731	25271	23974	20636	19537	AVRG		22030		11.14970
(2)	34946	36877	35465	31260	33151	AVRG		34340		6.34112
(3)	36503	35627	34333	30811	31601	AVRG		33775		7.35630
(4)	61858	61988	54856	51276	52078	AVRG		56411		9.22517
(5)	99002	88263	82712	81353	81002	AVRG		86466		8.77850
24 Endosulfan II	2346306	2241064	2037284	2020186	2029291	AVRG		2134826		7.01871
25 4,4'-DDD	2285840	2172401	2111510	2059874	2101203	AVRG		2146166		4.09305
26 4,4'-DDT	1189078	1301792	1334773	1391288	1651355	AVRG		1373658		12.51269
27 Endrin aldehyde	1969664	1806630	1668232	1633255	1629155	AVRG		1741387		8.42059
28 Methoxychlor	492663	509683	537536	545652	636941	AVRG		544495		10.26444
29 Endosulfan sulfate	1802222	1705107	1644912	1689959	1777816	AVRG		1724003		3.75751
30 Aroclor-1268 (1)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(2)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(3)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(4)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(5)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 16-SEP-2009 20:07
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Quant Method : ESTD
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd5a.i/122209.b/ECD5-B-8081-121809.m
Cal Date : 22-Dec-2009 17:20 cla01575

Compound	2 Level 1	10 Level 2	50 Level 3	100 Level 4	200 Level 5	Curve	Coefficients b	m1	m2	%RSD or R^2
60 Aroclor-1262(1)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(2)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(3)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(4)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(5)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
31 Endrin ketone	1880828	1820218	1690228	1642514	1681550	AVRG		1743068		5.85187
51 Mirex	3034376	2586762	2271014	2269682	2306378	AVRG		2493642		13.23750
52 C-Nonachlor	5434147	4569347	4237619	4239635	4247988	AVRG		4545747		11.36243
53 O-Chlordane	4621772	3807865	3391569	3315709	3261404	AVRG		3679664		15.45956
54 T-Nonachlor	4810064	4005490	3650418	3617452	3681149	AVRG		3952915		12.74570
55 1,2-Dichlorobenzene	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
56 2,4-DDE	13446243	55335831	233676302	440290648	828617791	LINR	-8.28053	2052994		0.99881
58 2,4-DDD	2867792	2442281	2094342	2052175	1958044	AVRG		2282927		16.41635
57 2,4-DDT	2385124	2200116	1922405	1948754	1925922	AVRG		2076464		10.02315
$ 1 4cmx	3766589	3478535	3036591	2952990	2937888	AVRG		3234519		11.45441
$ 32 Decachlorobiphenyl	1625734	1475539	1305277	1311484	1329008	AVRG		1409408		9.91211

GEL Laboratories LLC

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Cal Date : 22-Dec-2009 17:20 cla01575

Curve	Formula	Units
Averaged	Amt = Rsp/ml	Response
Linear	Amt = b + Rsp/ml	Response

7D

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-939-1

GC Column: CLP-1 ID: 0.25 (mm) Init. Calib. Date(s): 12/18/09 12/22/09

EPA Sample No.(PIBLK): _____ Date Analyzed :_____

Lab Sample ID (PIBLK): _____ Time Analyzed :_____

EPA Sample No.(PEM): PEM01 Date Analyzed :12/22/09

Lab Sample ID (PEM): WPE091109-99 Time Analyzed :1329

PEM COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aldrin	4.11	4.08	4.14	124	100	24.0
4,4'-DDE						
Endrin	5.07	5.04	5.10	116	100	16.0
4,4'-DDD						
4,4'-DDT	5.27	5.24	5.30	106	100	6.0
Endrin ketone						
Endrin aldehyde						

4,4'-DDT % breakdown (1): 2.20 Endrin % breakdown (1): 4.30

Combined % breakdown (1): 6.50

FORM VII PEST-1 OLM03.0

7D

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-939-1

GC Column: CLP-2 ID: 0.25 (mm) Init. Calib. Date(s): 12/18/09 12/22/09

EPA Sample No.(PIBLK): _____ Date Analyzed :_____

Lab Sample ID (PIBLK): _____ Time Analyzed :_____

EPA Sample No.(PEM): PEM01 Date Analyzed :12/22/09

Lab Sample ID (PEM): WPE091109-99 Time Analyzed :1329

PEM COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aldrin	4.55	4.53	4.59	112	100	12.0
4,4'-DDE						
Endrin	5.54	5.51	5.57	111	100	11.0
4,4'-DDD						
4,4'-DDT	5.77	5.74	5.80	78.6	100	-21.4
Endrin ketone						
Endrin aldehyde						

4,4'-DDT % breakdown (1): 4.80 Endrin % breakdown (1): 1.70

Combined % breakdown (1): 6.50

FORM VII PEST-1 OLM03.0

7D

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-939-1

GC Column: CLP-1 ID: 0.25 (mm) Init. Calib. Date(s): 12/18/09 12/22/09

EPA Sample No.(PIBLK): _____ Date Analyzed :_____

Lab Sample ID (PIBLK): _____ Time Analyzed :_____

EPA Sample No.(PEM): PEM02 Date Analyzed :12/22/09

Lab Sample ID (PEM): WPE091109-99 Time Analyzed :1616

PEM COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aldrin	4.11	4.08	4.14	126	100	26.0
4,4'-DDE						
Endrin	5.07	5.04	5.10	120	100	20.0
4,4'-DDD						
4,4'-DDT	5.27	5.24	5.30	118	100	18.0
Endrin ketone						
Endrin aldehyde						

4,4'-DDT % breakdown (1): 2.50 Endrin % breakdown (1): 6.50

Combined % breakdown (1): 9.00

FORM VII PEST-1 OLM03.0

7D

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-939-1

GC Column: CLP-2 ID: 0.25 (mm) Init. Calib. Date(s): 12/18/09 12/22/09

EPA Sample No.(PIBLK): _____ Date Analyzed :_____

Lab Sample ID (PIBLK): _____ Time Analyzed :_____

EPA Sample No.(PEM): PEM02 Date Analyzed :12/22/09

Lab Sample ID (PEM): WPE091109-99 Time Analyzed :1616

PEM COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aldrin	4.56	4.53	4.59	118	100	18.0
4,4'-DDE						
Endrin	5.54	5.51	5.57	118	100	18.0
4,4'-DDD						
4,4'-DDT	5.77	5.74	5.80	146	100	46.0
Endrin ketone						
Endrin aldehyde						

4,4'-DDT % breakdown (1): 3.50 Endrin % breakdown (1): 7.00

Combined % breakdown (1): 10.50

FORM VII PEST-1 OLM03.0

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: Case No.: N/A SAS No.: N/A SDG No.: 10-939-1

Instrument ID: ECD5A Calibration Date: 12/22/09 Time: 1353

Lab File ID: 004F0401 Init. Calib. Date(s): 12/18/09 12/18/09

Heated Purge: (Y/N) N Init. Calib. Times: 1951 2039

GC Column: CLP-1 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF100	MIN RRF	%D	MAX %D	
Toxaphene	2803.338	3350.142	0.01	19.5	15.0	<-
(2)	5283.454	5972.864	0.01	13.0	15.0	
(3)	6996.763	7970.576	0.01	13.9	15.0	
(4)	8918.509	9409.893	0.01	5.5	15.0	
(5)	8607.510	9698.705	0.01	12.7	15.0	
4cmx	463359.36	501519.63	0.01	8.2	15.0	
Decachlorobiphenyl	273235.35	284032.97	0.01	4.0	15.0	

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: Case No.: N/A SAS No.: N/A SDG No.: 10-939-1

Instrument ID: ECD5A Calibration Date: 12/22/09 Time: 1353

Lab File ID: 004B0401 Init. Calib. Date(s): 12/18/09 12/18/09

Heated Purge: (Y/N) N Init. Calib. Times: 1951 2039

GC Column: CLP-2 ID: 0.25 (mm)

COMPOUND	RRF	RRF100	MIN RRF	%D	MAX %D	
Toxaphene	22029.837	25771.285	0.01	17.0	15.0	<-
(2)	34339.894	31929.830	0.01	-7.0	15.0	
(3)	33774.954	30999.685	0.01	-8.2	15.0	
(4)	56411.045	51863.078	0.01	-8.1	15.0	
(5)	86466.387	79324.718	0.01	-8.2	15.0	
4cmx	3234518.7	3157238.2	0.01	-2.4	15.0	
Decachlorobiphenyl	1409408.5	1339607.9	0.01	-5.0	15.0	

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: Case No.: N/A SAS No.: N/A SDG No.: 10-939-1

Instrument ID: ECD5A Calibration Date: 12/22/09 Time: 1405

Lab File ID: 005F0501 Init. Calib. Date(s): 12/18/09 12/18/09

Heated Purge: (Y/N) N Init. Calib. Times: 2115 2202

GC Column: CLP-1 ID: 0.25 (mm)

COMPOUND	RRF	RRF100	MIN RRF	%D	MAX %D	
Chlordane (tech.)	17413.775	15994.702	0.01	-8.1	15.0	
(2)	22624.241	27538.741	0.01	21.7	15.0	<-
(3)	17230.030	18798.805	0.01	9.1	15.0	
(4)	54431.359	53701.528	0.01	-1.3	15.0	
(5)	13471.278	15025.047	0.01	11.5	15.0	
4cmx	463359.36	472775.49	0.01	2.0	15.0	
Decachlorobiphenyl	273235.35	270918.80	0.01	-0.8	15.0	

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: Case No.: N/A SAS No.: N/A SDG No.: 10-939-1

Instrument ID: ECD5A Calibration Date: 12/22/09 Time: 1405

Lab File ID: 005B0501 Init. Calib. Date(s): 12/18/09 12/18/09

Heated Purge: (Y/N) N Init. Calib. Times: 2115 2202

GC Column: CLP-2 ID: 0.25 (mm)

COMPOUND	SAMPLE AMOUNT	CAL100 AMOUNT	CURVE	%D	MAX %d	
Chlordane (tech.)	970	1000	LINR	-3.0	15.0	
(2)	1180	1000	LINR	18.0	15.0	<-
(3)	1020	1000	LINR	2.0	15.0	
(4)	977	1000	LINR	-2.3	15.0	
(5)	989	1000	LINR	-1.1	15.0	
4cmx	184	200	AVRG	-8.0	15.0	
Decachlorobiphenyl	186	200	AVRG	-7.0	15.0	

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: Case No.: N/A SAS No.: N/A SDG No.: 10-939-1

Instrument ID: ECD5A Calibration Date: 12/22/09 Time: 1604

Lab File ID: 012F1201 Init. Calib. Date(s): 12/22/09 12/22/09

Heated Purge: (Y/N) N Init. Calib. Times: 1504 1552

GC Column: CLP-1 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF100	MIN RRF	%D	MAX %D
gamma-BHC (Lindane)	558388.88	597234.77	0.01	7.0	15.0
Heptachlor	506349.29	496287.82	0.01	-2.0	15.0
Heptachlor epoxide	456922.39	464281.51	0.01	1.6	15.0
Endrin	340793.97	361258.22	0.01	6.0	15.0
Methoxychlor	119025.13	125481.16	0.01	5.4	15.0
4cmx	463359.36	470687.56	0.01	1.6	15.0
Decachlorobiphenyl	273235.35	276707.13	0.01	1.3	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: Case No.: N/A SAS No.: N/A SDG No.: 10-939-1

Instrument ID: ECD5A Calibration Date: 12/22/09 Time: 1604

Lab File ID: 012B1201 Init. Calib. Date(s): 12/22/09 12/22/09

Heated Purge: (Y/N) N Init. Calib. Times: 1504 1552

GC Column: CLP-2 ID: 0.25 (mm)

COMPOUND	RRF	RRF100	MIN RRF	%D	MAX %D
gamma-BHC (Lindane)	3816754.3	3742960.2	0.01	-1.9	15.0
Heptachlor	3190636.3	2843337.8	0.01	-10.9	15.0
Heptachlor epoxide	2944177.7	2745093.5	0.01	-6.8	15.0
Endrin	2005112.7	2040518.2	0.01	1.8	15.0
Methoxychlor	544495.29	577951.29	0.01	6.1	15.0
4cmx	3234518.7	3021878.4	0.01	-6.6	15.0
Decachlorobiphenyl	1409408.5	1322914.9	0.01	-6.1	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: Case No.: N/A SAS No.: N/A SDG No.: 10-939-1

Instrument ID: ECD5A Calibration Date: 12/22/09 Time: 2105

Lab File ID: 035F3501 Init. Calib. Date(s): 12/22/09 12/22/09

Heated Purge: (Y/N) N Init. Calib. Times: 1504 1552

GC Column: CLP-1 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF100	MIN RRF	%D	MAX %D
gamma-BHC (Lindane)	558388.88	619662.25	0.01	11.0	15.0
Heptachlor	506349.29	484640.58	0.01	-4.3	15.0
Heptachlor epoxide	456922.39	482930.59	0.01	5.7	15.0
Endrin	340793.97	379999.70	0.01	11.5	15.0
Methoxychlor	119025.13	113618.13	0.01	-4.5	15.0
4cmx	463359.36	484422.34	0.01	4.5	15.0
Decachlorobiphenyl	273235.35	286721.20	0.01	4.9	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: Case No.: N/A SAS No.: N/A SDG No.: 10-939-1

Instrument ID: ECD5A Calibration Date: 12/22/09 Time: 2105

Lab File ID: 035B3501 Init. Calib. Date(s): 12/22/09 12/22/09

Heated Purge: (Y/N) N Init. Calib. Times: 1504 1552

GC Column: CLP-2 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF100	MIN RRF	%D	MAX %D	
gamma-BHC (Lindane)	3816754.3	3808357.8	0.01	-0.2	15.0	
Heptachlor	3190636.3	2735116.5	0.01	-14.3	15.0	
Heptachlor epoxide	2944177.7	2769672.2	0.01	-5.9	15.0	
Endrin	2005112.7	2012799.5	0.01	0.4	15.0	
Methoxychlor	544495.29	336799.11	0.01	-38.1	15.0	<-
4cmx	3234518.7	3074866.1	0.01	-4.9	15.0	
Decachlorobiphenyl	1409408.5	1342047.3	0.01	-4.8	15.0	

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: Case No.: N/A SAS No.: N/A SDG No.: 10-939-1

Instrument ID: ECD5A Calibration Date: 12/22/09 Time: 2304

Lab File ID: 045F4501 Init. Calib. Date(s): 12/22/09 12/22/09

Heated Purge: (Y/N) N Init. Calib. Times: 1504 1552

GC Column: CLP-1 ID: 0.25 (mm)

COMPOUND	RRF	RRF100	MIN RRF	%D	MAX %D
gamma-BHC (Lindane)	558388.88	634502.73	0.01	13.6	15.0
Heptachlor	506349.29	485442.66	0.01	-4.1	15.0
Heptachlor epoxide	456922.39	500726.82	0.01	9.6	15.0
Endrin	340793.97	387509.20	0.01	13.7	15.0
Methoxychlor	119025.13	113547.89	0.01	-4.6	15.0
4cmx	463359.36	497481.78	0.01	7.4	15.0
Decachlorobiphenyl	273235.35	300408.71	0.01	9.9	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: Case No.: N/A SAS No.: N/A SDG No.: 10-939-1

Instrument ID: ECD5A Calibration Date: 12/22/09 Time: 2304

Lab File ID: 045B4501 Init. Calib. Date(s): 12/22/09 12/22/09

Heated Purge: (Y/N) N Init. Calib. Times: 1504 1552

GC Column: CLP-2 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF100	MIN RRF	%D	MAX %D	
gamma-BHC (Lindane)	3816754.3	3941485.5	0.01	3.3	15.0	
Heptachlor	3190636.3	2818065.0	0.01	-11.7	15.0	
Heptachlor epoxide	2944177.7	2894643.6	0.01	-1.7	15.0	
Endrin	2005112.7	2055709.0	0.01	2.5	15.0	
Methoxychlor	544495.29	326487.35	0.01	-40.0	15.0	<-
4cmx	3234518.7	3168591.2	0.01	-2.0	15.0	
Decachlorobiphenyl	1409408.5	1437133.3	0.01	2.0	15.0	

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: Case No.: N/A SAS No.: N/A SDG No.: 10-939-1

Instrument ID: ECD5A Calibration Date: 12/23/09 Time: 0016

Lab File ID: 051F5101 Init. Calib. Date(s): 12/22/09 12/22/09

Heated Purge: (Y/N) N Init. Calib. Times: 1504 1552

GC Column: CLP-1 ID: 0.25 (mm)

COMPOUND	RRF	RRF100	MIN RRF	%D	MAX %D	
gamma-BHC (Lindane)	558388.88	631077.21	0.01	13.0	15.0	
Heptachlor	506349.29	444724.27	0.01	-12.2	15.0	
Heptachlor epoxide	456922.39	495672.95	0.01	8.5	15.0	
Endrin	340793.97	398621.46	0.01	17.0	15.0	<-
Methoxychlor	119025.13	108774.52	0.01	-8.6	15.0	
4cmx	463359.36	501901.25	0.01	8.3	15.0	
Decachlorobiphenyl	273235.35	294928.09	0.01	7.9	15.0	

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: Case No.: N/A SAS No.: N/A SDG No.: 10-939-1

Instrument ID: ECD5A Calibration Date: 12/23/09 Time: 0016

Lab File ID: 051B5101 Init. Calib. Date(s): 12/22/09 12/22/09

Heated Purge: (Y/N) N Init. Calib. Times: 1504 1552

GC Column: CLP-2 ID: 0.25 (mm)

COMPOUND	RRF	RRF100	MIN RRF	%D	MAX %D	
gamma-BHC (Lindane)	3816754.3	3885535.2	0.01	1.8	15.0	
Heptachlor	3190636.3	2378360.7	0.01	-25.4	15.0	<-
Heptachlor epoxide	2944177.7	2791280.6	0.01	-5.2	15.0	
Endrin	2005112.7	1991312.2	0.01	-0.7	15.0	
Methoxychlor	544495.29	141139.41	0.01	-74.1	15.0	<-
4cmx	3234518.7	3142085.7	0.01	-2.8	15.0	
Decachlorobiphenyl	1409408.5	1383668.8	0.01	-1.8	15.0	

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: Case No.: N/A SAS No.: N/A SDG No.: 10-939-1

Instrument ID: ECD5A Calibration Date: 12/23/09 Time: 0116

Lab File ID: 056F5601 Init. Calib. Date(s): 12/22/09 12/22/09

Heated Purge: (Y/N) N Init. Calib. Times: 1504 1552

GC Column: CLP-1 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF100	MIN RRF	%D	MAX %D	
gamma-BHC (Lindane)	558388.88	638353.17	0.01	14.3	15.0	
Heptachlor	506349.29	490267.92	0.01	-3.2	15.0	
Heptachlor epoxide	456922.39	495368.03	0.01	8.4	15.0	
Endrin	340793.97	408213.16	0.01	19.8	15.0	<-
Methoxychlor	119025.13	115403.64	0.01	-3.0	15.0	
4cmx	463359.36	504153.01	0.01	8.8	15.0	
Decachlorobiphenyl	273235.35	298469.47	0.01	9.2	15.0	

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: Case No.: N/A SAS No.: N/A SDG No.: 10-939-1

Instrument ID: ECD5A Calibration Date: 12/23/09 Time: 0116

Lab File ID: 056B5601 Init. Calib. Date(s): 12/22/09 12/22/09

Heated Purge: (Y/N) N Init. Calib. Times: 1504 1552

GC Column: CLP-2 ID: 0.25 (mm)

COMPOUND	RRF	RRF100	MIN RRF	%D	MAX %D	
gamma-BHC (Lindane)	3816754.3	3858860.3	0.01	1.1	15.0	
Heptachlor	3190636.3	2547321.8	0.01	-20.2	15.0	<-
Heptachlor epoxide	2944177.7	2806163.7	0.01	-4.7	15.0	
Endrin	2005112.7	2090115.6	0.01	4.2	15.0	
Methoxychlor	544495.29	254794.61	0.01	-53.2	15.0	<-
4cmx	3234518.7	3152337.7	0.01	-2.5	15.0	
Decachlorobiphenyl	1409408.5	1384416.9	0.01	-1.8	15.0	

FORM VII PEST

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd5a.i/122209.b/002f0201.d
Lab Smp Id: WPE091109-99DG Client Smp ID: PEM01
Inj Date : 22-DEC-2009 13:29
Operator : CXC2 Inst ID: ecd5a.i
Smp Info : |WPE091109-99DG
Misc Info :
Comment :
Method : /chem/ecd5a.i/122209.b/ECD5-F-8081-121809.m
Meth Date : 22-Dec-2009 17:21 cla01575 Quant Type: ESTD
Cal Date : 05-DEC-2009 03:28 Cal File: 025f2501.d
Als bottle: 2 QC Sample: PEM
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: pem.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
11 Aldrin					CAS #: 309-00-2		
4.112	4.113	-0.001	64020443	124.579	124	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
4.732	4.731	0.001	192379	0.44714	0.447	80.00- 120.00	100.00(M)
22 Endrin					CAS #: 72-20-8		
5.071	5.070	0.001	41028652	116.192	116	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.101	5.100	0.001	590128	1.62312	1.62	80.00- 120.00	100.00(M)
27 Endrin aldehyde					CAS #: 7421-93-4		
5.466	5.462	0.004	675284	2.17974	2.18	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
5.270	5.269	0.001	34717687	106.542	106	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
5.902	5.898	0.004	1187749	3.22887	3.23	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
2.787	2.790	-0.003	100186244	215.508	216	80.00- 120.00	100.00(R)
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
6.482	6.482	0.000	56634971	204.312	204	80.00- 120.00	100.00(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Data File: /chem/ecd5a.i/122209.b/002f0201.d
Date : 22-DEC-2009 13:29
Client ID: PEH01
Sample Info: !WPE091109-99DG

Column phase: CLP-1

Instrument: ecd5a.i

Operator: CXC2
Column diameter: 0.25

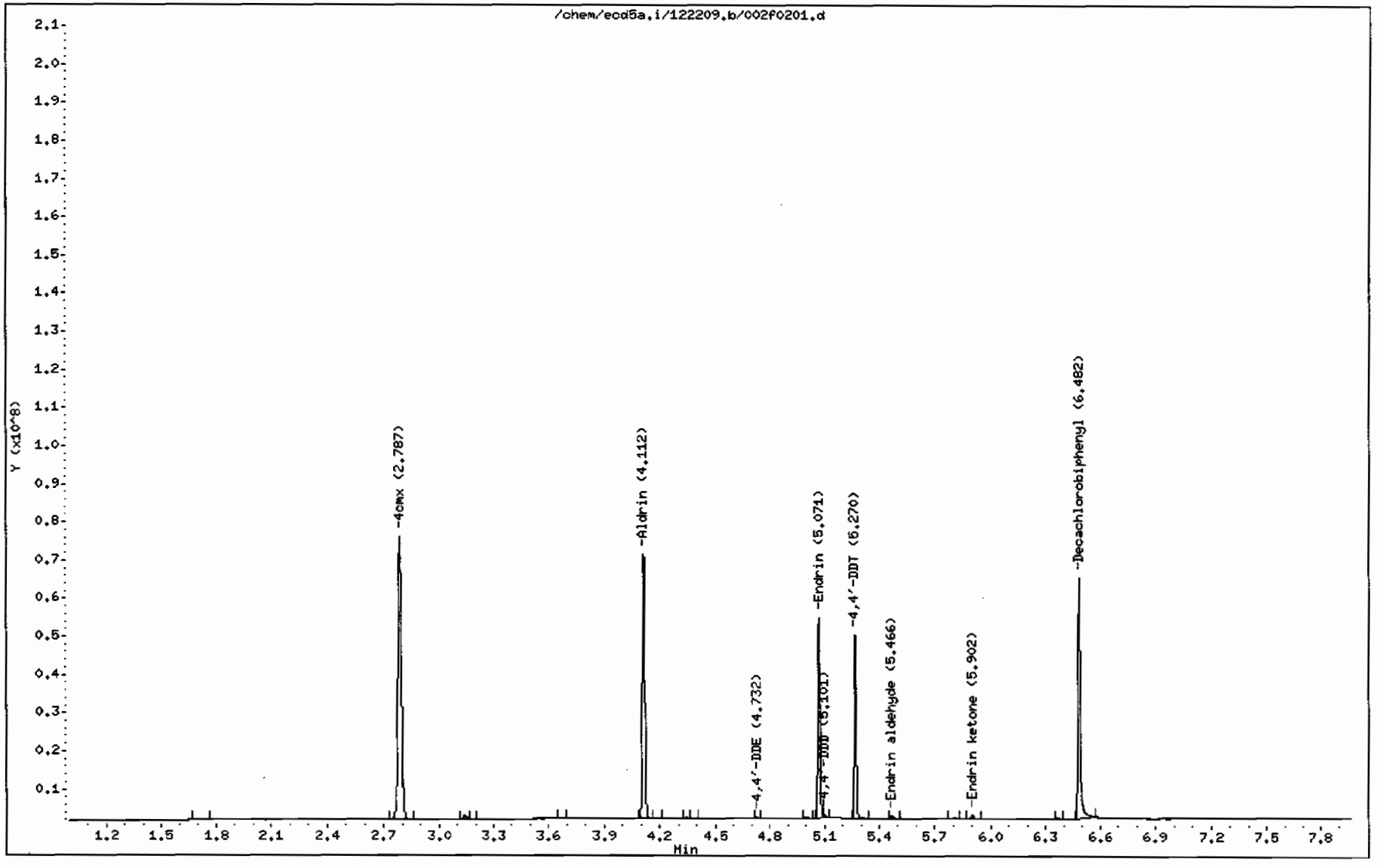

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd5a.i/122209.b/002b0201.d
Lab Smp Id: WPE091109-99DG Client Smp ID: PEM01
Inj Date : 22-DEC-2009 13:29
Operator : CXC2 Inst ID: ecd5a.i
Smp Info : |WPE091109-99DG
Misc Info :
Comment :
Method : /chem/ecd5a.i/122209.b/ECD5-B-8081-121809.m
Meth Date : 22-Dec-2009 17:20 cla01575 Quant Type: ESTD
Cal Date : 05-DEC-2009 03:28 Cal File: 025b2501.d
Als bottle: 2 QC Sample: PEM
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: pem.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
11 Aldrin					CAS #: 309-00-2		
4.555	4.555	0.000	370921097	111.843	112	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.224	5.224	0.000	1978163	0.77036	0.770	80.00- 120.00	100.00(M)
22 Endrin					CAS #: 72-20-8		
5.544	5.543	0.001	230183659	110.653	111	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.576	5.576	0.000	4780676	2.23088	2.23	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
5.870	5.867	0.003	4609963	2.64091	2.64	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
5.769	5.769	0.000	133876729	78.5560	78.6	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
6.380	6.378	0.002	6735877	3.55865	3.56	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
3.196	3.198	-0.002	623268196	189.454	189	80.00- 120.00	100.00(R)
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.154	7.153	0.001	280041014	198.450	198	80.00- 120.00	100.00(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Data File: /chem/ecd5a.i/122209.b/002b0201.d
Date : 22-DEC-2009 13:29
Client ID: PEM01
Sample Info: IWPE091109-99DG

Column phase: CLP-2

Instrument: ecd5a.i

Operator: CXC2
Column diameter: 0.25

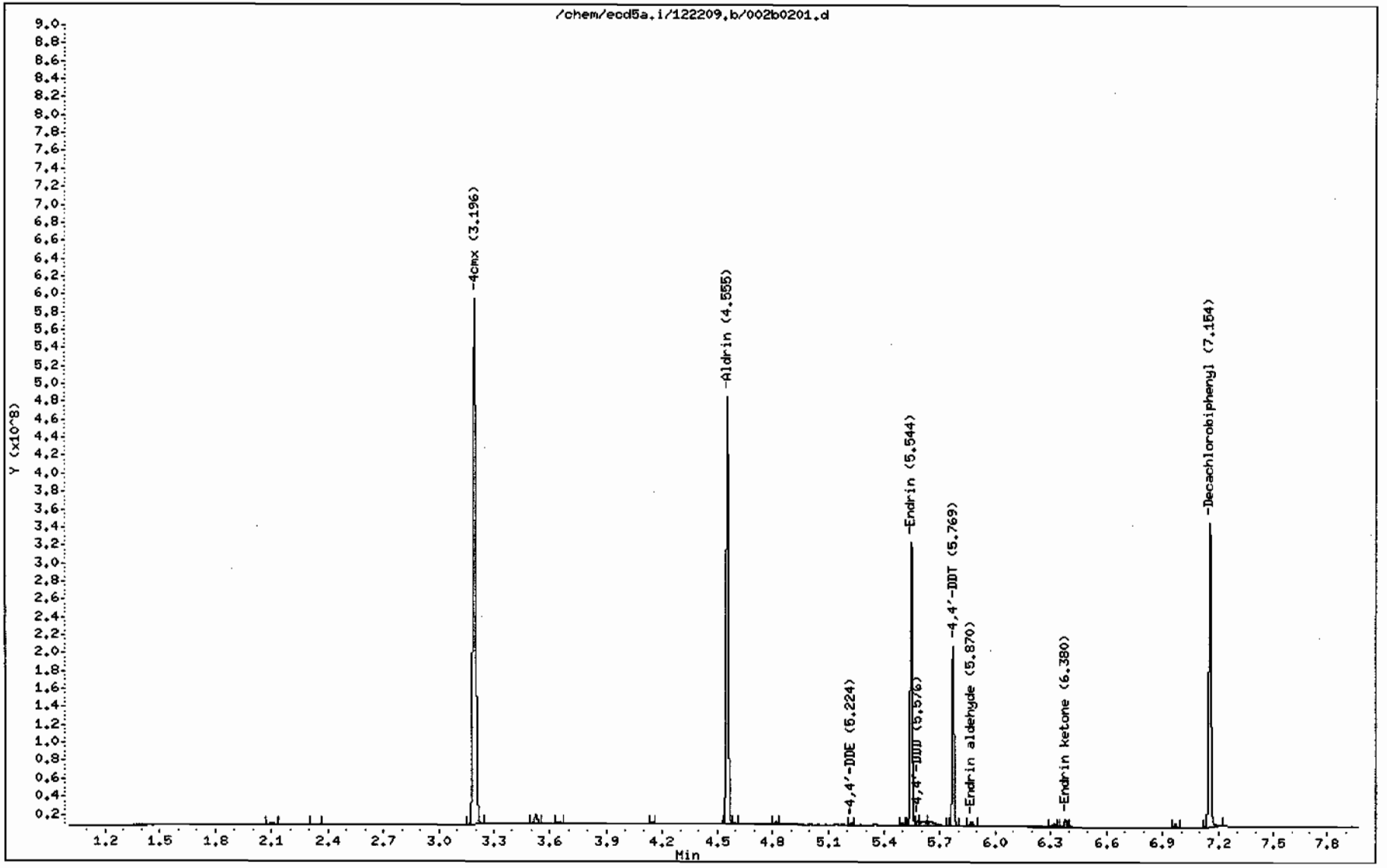

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd5a.i/122209.b/013f1301.d
Lab Smp Id: WPE091109-99DG Client Smp ID: PEM02
Inj Date : 22-DEC-2009 16:16
Operator : CXC2 Inst ID: ecd5a.i
Smp Info : |WPE091109-99DG
Misc Info :
Comment :
Method : /chem/ecd5a.i/122209.b/ECD5-F-8081-121809.m
Meth Date : 22-Dec-2009 17:21 cla01575 Quant Type: ESTD
Cal Date : 05-DEC-2009 03:28 Cal File: 025f2501.d
Als bottle: 13 QC Sample: PEM
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: pem.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
11 Aldrin					CAS #: 309-00-2		
4.113	4.113	0.000	64789879	126.173	126	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
4.732	4.731	0.001	195737	0.45463	0.455	80.00- 120.00	100.00(M)
22 Endrin					CAS #: 72-20-8		
5.071	5.070	0.001	41004074	120.319	120	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.100	5.100	0.000	714529	1.98035	1.98	80.00- 120.00	100.00(M)
27 Endrin aldehyde					CAS #: 7421-93-4		
5.466	5.462	0.004	962389	3.09885	3.10	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
5.270	5.269	0.001	38380022	117.965	118	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
5.901	5.898	0.003	1877808	5.02335	5.02	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
2.789	2.790	-0.001	100738199	217.408	217	80.00- 120.00	100.00(R)
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
6.481	6.482	-0.001	60036676	219.725	220	80.00- 120.00	100.00(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Data File: /chem/ecd5a.i/122209.b/013f1301.d
Date : 22-DEC-2009 16:16
Client ID: PEW02
Sample Info: WPE091109-99DC
Column phase: CLP-1

Instrument: ecd5a.i
Operator: CXC2
Column diameter: 0.25

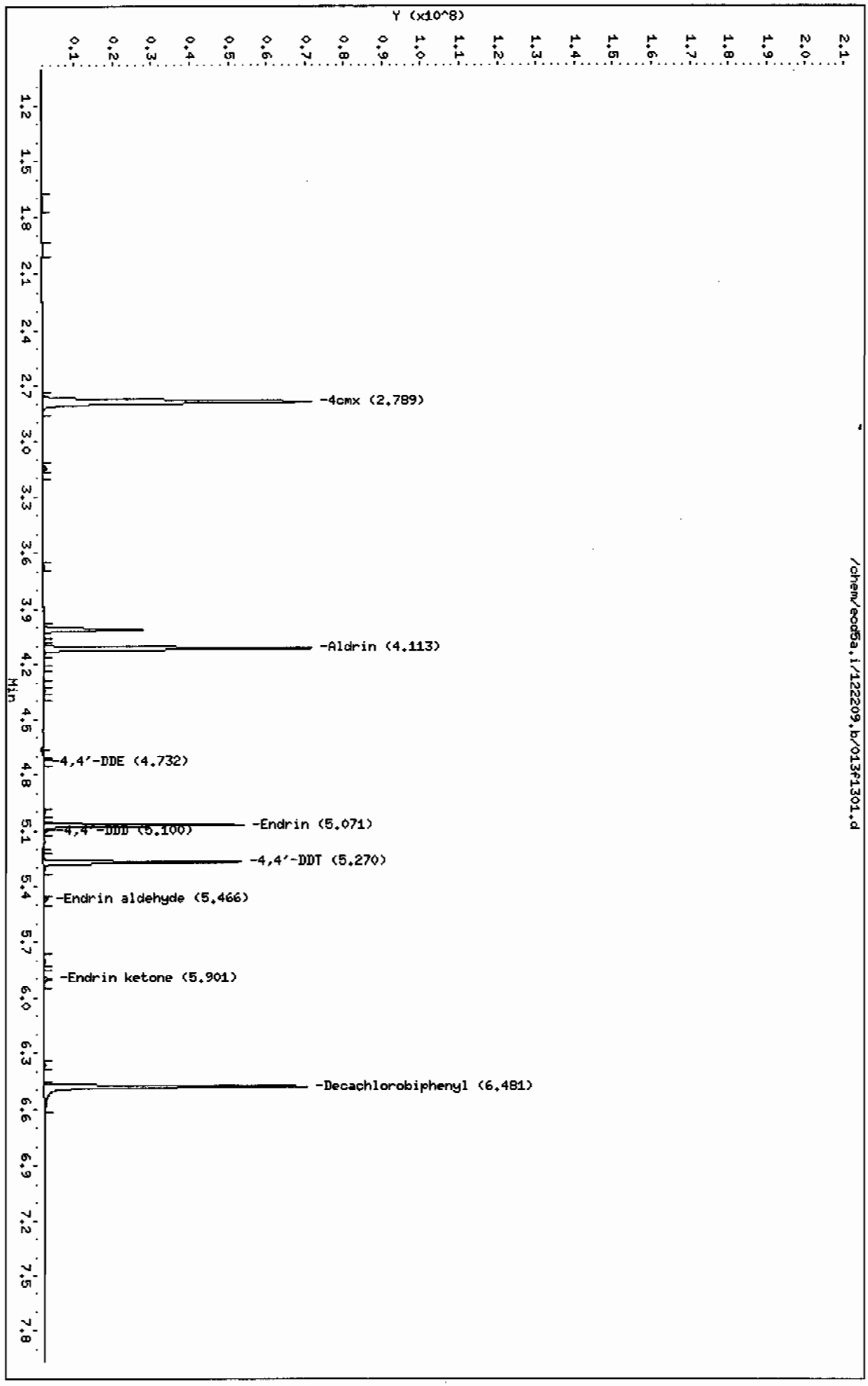

Page 1

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd5a.i/122209.b/013b1301.d
Lab Smp Id: WPE091109-99DG Client Smp ID: PEM02
Inj Date : 22-DEC-2009 16:16
Operator : CXC2 Inst ID: ecd5a.i
Smp Info : |WPE091109-99DG
Misc Info :
Comment :
Method : /chem/ecd5a.i/122209.b/ECD5-B-8081-121809.m
Meth Date : 22-Dec-2009 17:20 cla01575 Quant Type: ESTD
Cal Date : 05-DEC-2009 03:28 Cal File: 025b2501.d
Als bottle: 13 QC Sample: PEM
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: pem.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
11 Aldrin					CAS #: 309-00-2		
4.555	4.555	0.000	388865121	118.120	118	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.223	5.224	-0.001	2199485	0.86241	0.862	80.00- 120.00	100.00(M)
22 Endrin					CAS #: 72-20-8		
5.543	5.543	0.000	237578693	118.486	118	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.575	5.576	-0.001	5149244	2.39928	2.40	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
5.868	5.867	0.001	6575273	3.77588	3.78	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
5.769	5.769	0.000	201032641	146.348	146	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
6.378	6.378	0.000	11514956	6.60614	6.61	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
3.197	3.198	-0.001	647670505	200.237	200	80.00- 120.00	100.00(R)
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.153	7.153	0.000	302388814	214.550	214	80.00- 120.00	100.00(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Data File: /chem/ecd5a.i/122209.b/013b1301.d

Date : 22-DEC-2009 16:16

Client ID: PEM02

Sample Info: IWPE091109-99DC

Column phase: CLP-2

Instrument: ecd5a.i

Operator: CXC2

Column diameter: 0.25

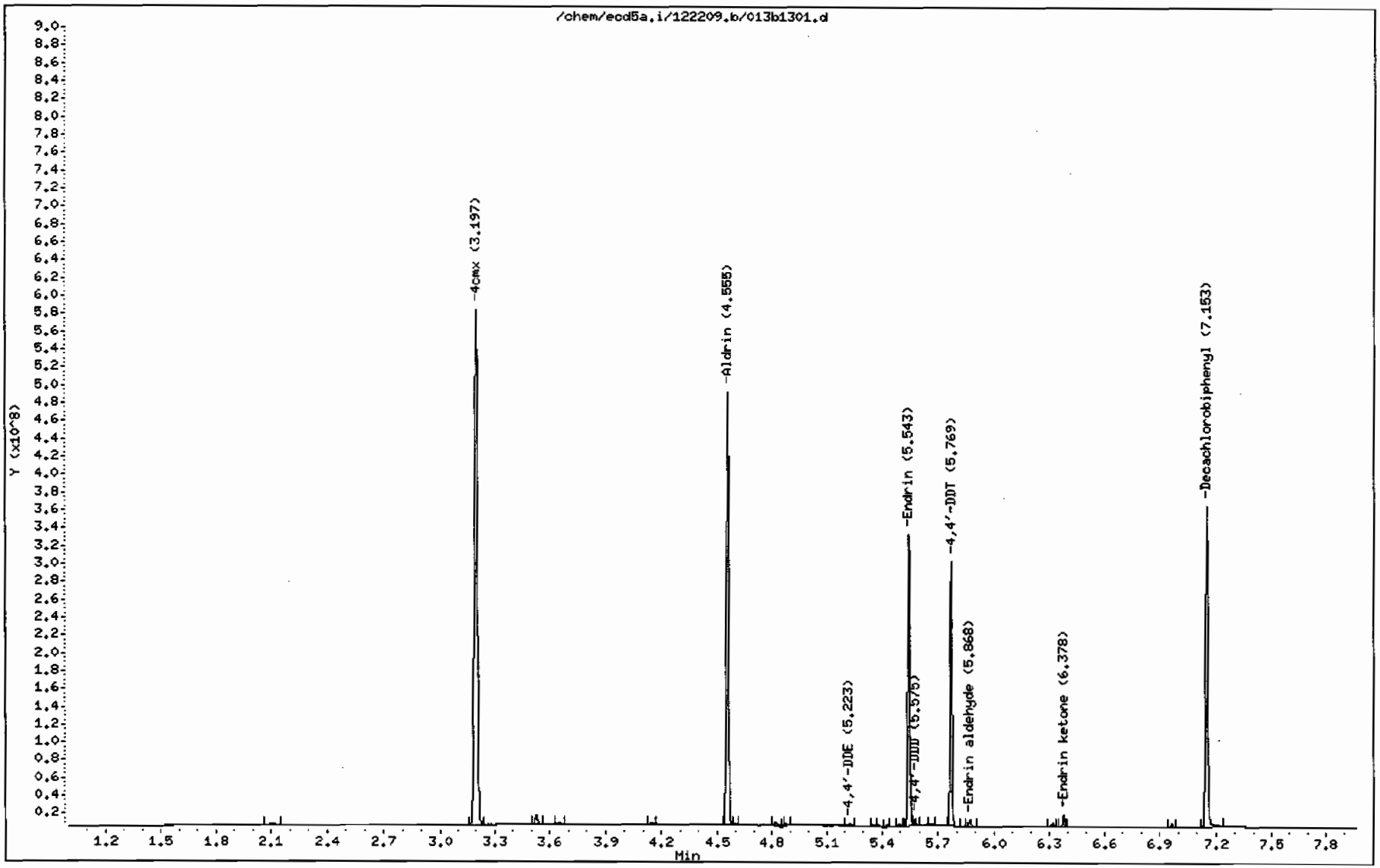

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd5a.i/122209.b/004f0401.d
Lab Smp Id: WPE091104-52TX Client Smp ID: TOXAPH01
Inj Date : 22-DEC-2009 13:53
Operator : CXC2 Inst ID: ecd5a.i
Smp Info : |WPE091104-52TX
Misc Info :
Comment :
Method : /chem/ecd5a.i/122209.b/ECD5-F-8081-121809.m
Meth Date : 22-Dec-2009 17:21 cla01575 Quant Type: ESTD
Cal Date : 05-DEC-2009 03:28 Cal File: 025f2501.d
Als bottle: 4 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: tox.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
23 Toxaphene					CAS #: 8001-35-2		
4.713	4.713	0.000	6700285	2000.00	2390	80.00- 120.00	100.00(M)
4.927	4.927	0.000	11945728	2000.00	2260	158.29- 198.29	178.29
4.982	4.982	0.000	15941151	2000.00	2280	217.92- 257.92	237.92
5.020	5.020	0.000	18819786	2000.00	2110	260.88- 300.88	280.88
5.082	5.082	0.000	19397410	2000.00	2250	269.50- 309.50	289.50
Average of Peak Amounts =					2.26e+03		
$ 1 4cmx					CAS #: 877-09-8		
2.788	2.790	-0.002	100303926	200.000	216	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
6.481	6.482	-0.001	56806595	200.000	205	80.00- 120.00	100.00

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd5a.i/122209.b/004f0401.d

Date : 22-DEC-2009 13:53

Client ID: TOXAPH01

Sample Info: IWPE091104-52TX

Column phase: CLP-1

Instrument: ecd5a.i

Operator: CXC2

Column diameter: 0.25

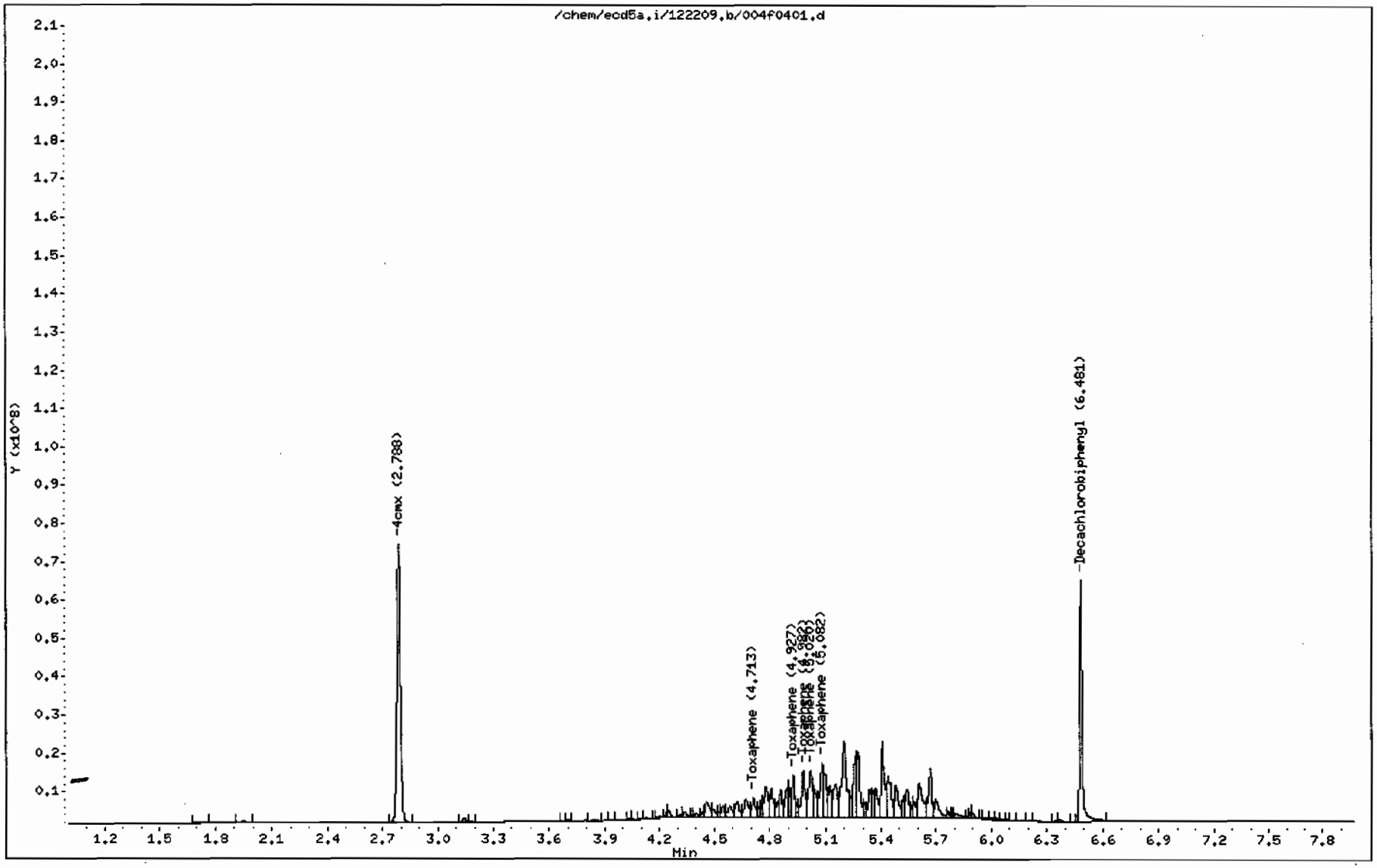

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Data File: /chem/ecd5a.i/122209.b/004f0401.d
Operator: CXC2
Injection Date: 22-DEC-2009 13:53
Instrument: ecd5a.i
Client Sample ID: TOXAPH01

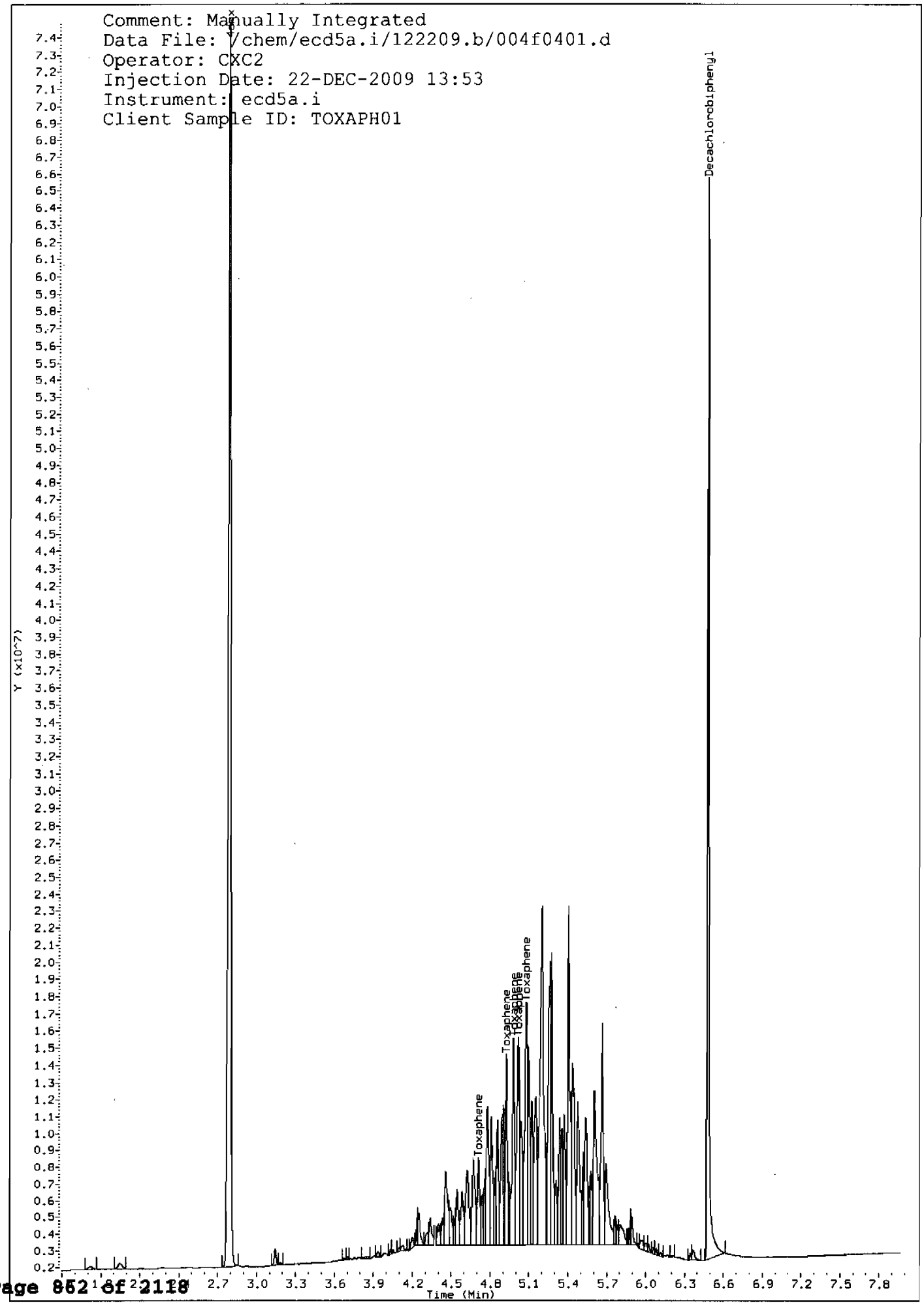

Comment: Before manual integration
Data File: /chem/ecd5a.i/122209.b/orig-004f0401.d
Operator: CXC2
Injection Date: 22-DEC-2009 13:53
Instrument: ecd5a.i
Client Sample ID: TOXAPH01

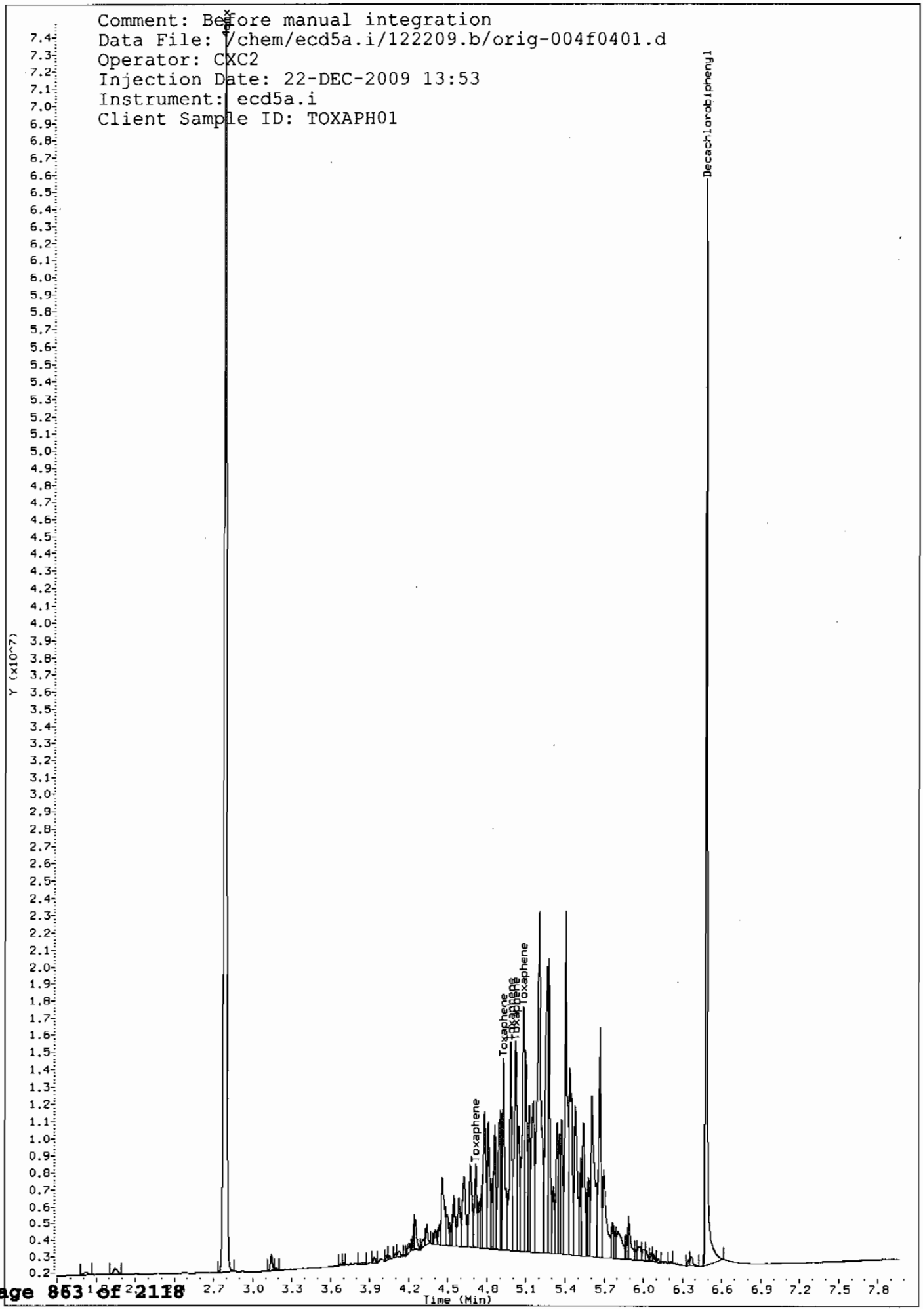

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd5a.i/122209.b/004b0401.d
Lab Smp Id: WPE091104-52TX Client Smp ID: TOXAPH01
Inj Date : 22-DEC-2009 13:53
Operator : CXC2 Inst ID: ecd5a.i
Smp Info : |WPE091104-52TX
Misc Info :
Comment :
Method : /chem/ecd5a.i/122209.b/ECD5-B-8081-121809.m
Meth Date : 22-Dec-2009 17:20 cla01575 Quant Type: ESTD
Cal Date : 05-DEC-2009 03:28 Cal File: 025b2501.d
Als bottle: 4 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: tox.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
23 Toxaphene					CAS #: 8001-35-2		
5.406	5.406	0.000	51542570	2000.00	2340	80.00- 120.00	100.00(M)
5.541	5.541	0.000	63859661	2000.00	1860	103.90- 143.90	123.90
5.632	5.632	0.000	61999370	2000.00	1840	100.29- 140.29	120.29
5.661	5.661	0.000	103726156	2000.00	1840	181.24- 221.24	201.24
5.719	5.719	0.000	158649437	2000.00	1830	287.80- 327.80	307.80
Average of Peak Amounts =					1.94e+03		
$ 1 4cmx					CAS #: 877-09-8		
3.196	3.198	-0.002	631447635	200.000	192	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.153	7.153	0.000	267921573	200.000	190	80.00- 120.00	100.00

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd5a.i/122209.b/004b0401.d

Date : 22-DEC-2009 13:53

Client ID: TOXAPH01

Sample Info: IWPE091104-52TX

Column phase: CLP-2

Instrument: ecd5a.i

Operator: CXC2

Column diameter: 0.25

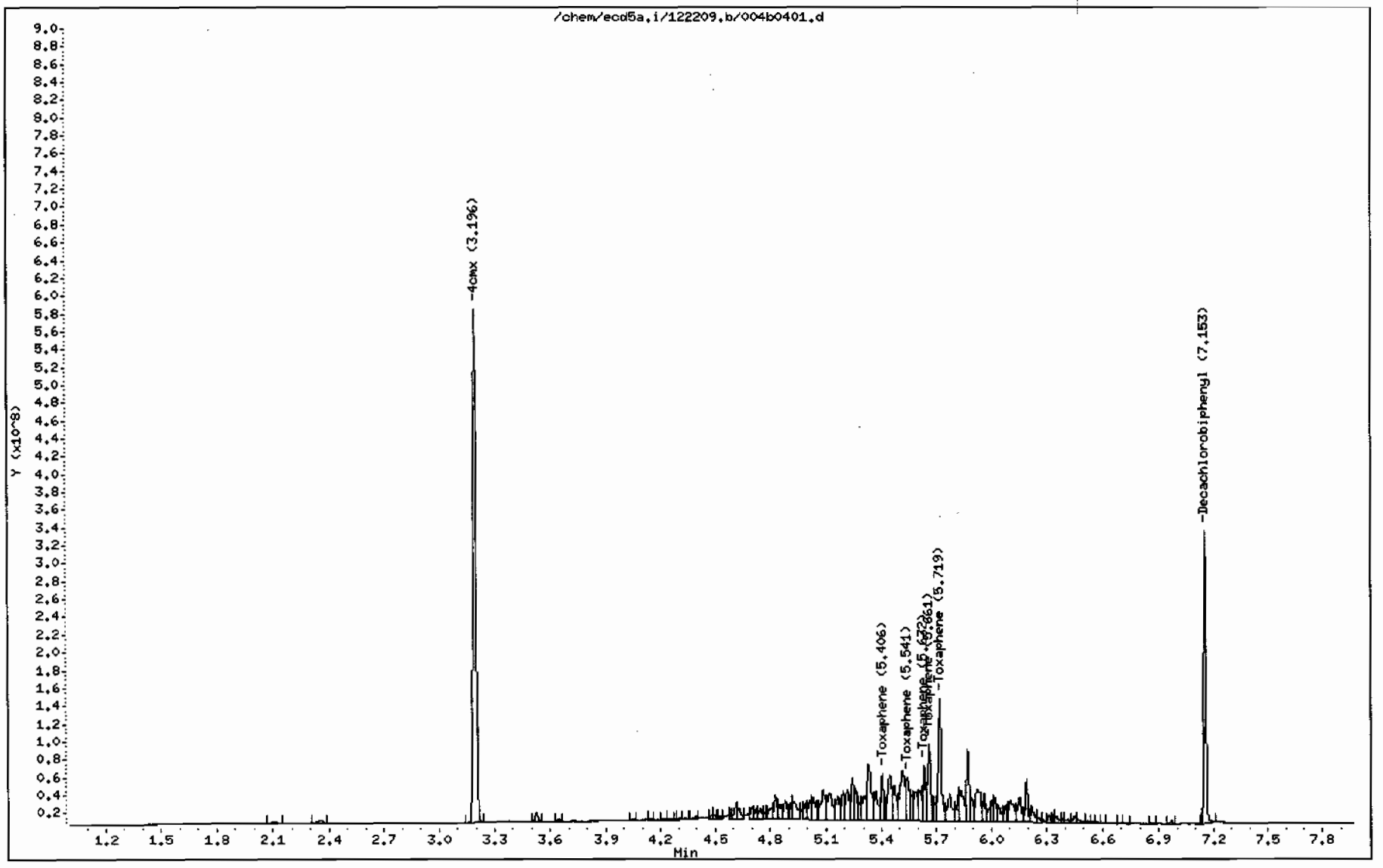

Comment: Manually Integrated
Data File: /chem/ecd5a.i/122209.b/004b0401.d
Operator: CXC2
Injection Date: 22-DEC-2009 13:53
Instrument: ecd5a.i
Client Sample ID: TOXAPH01

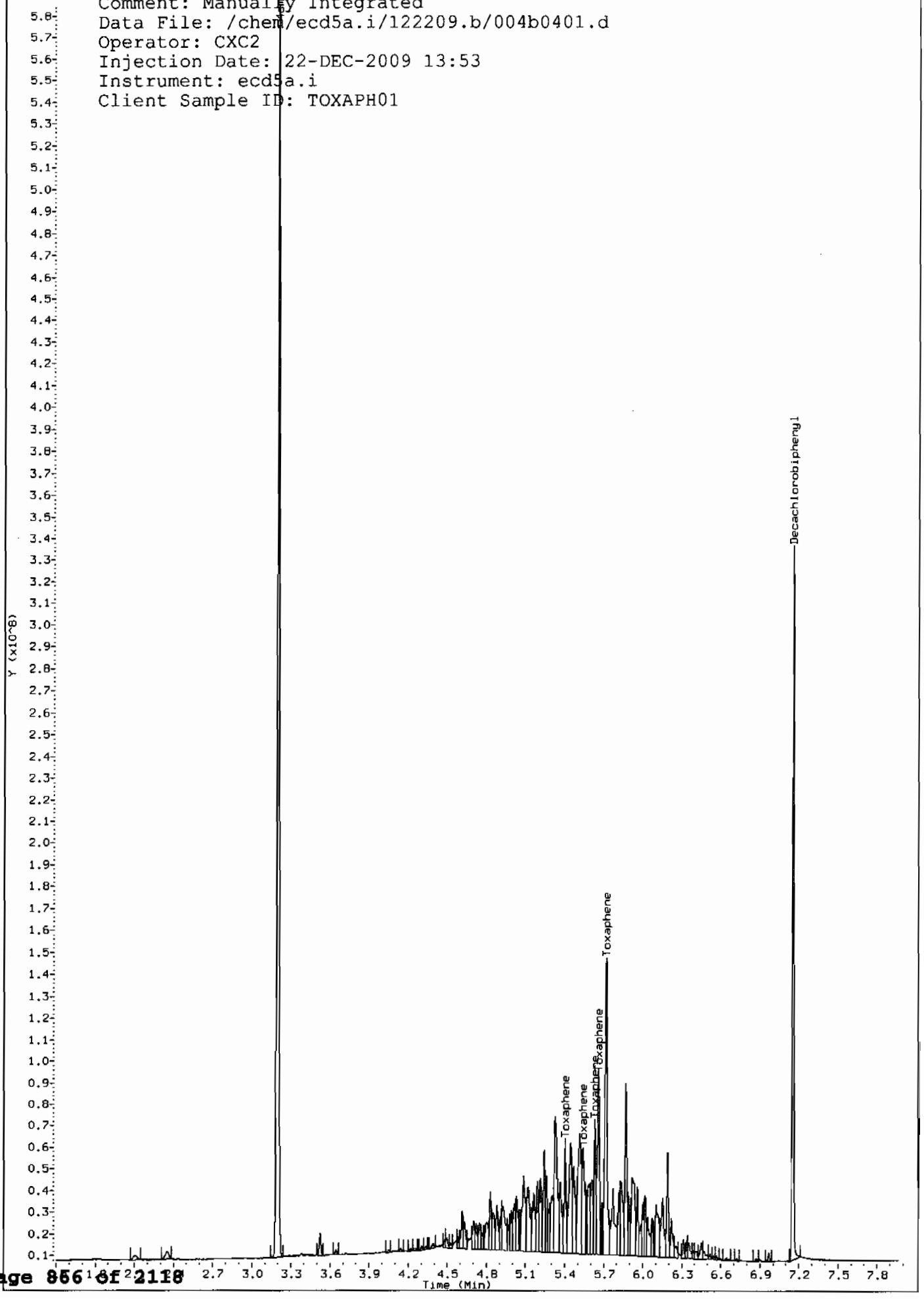

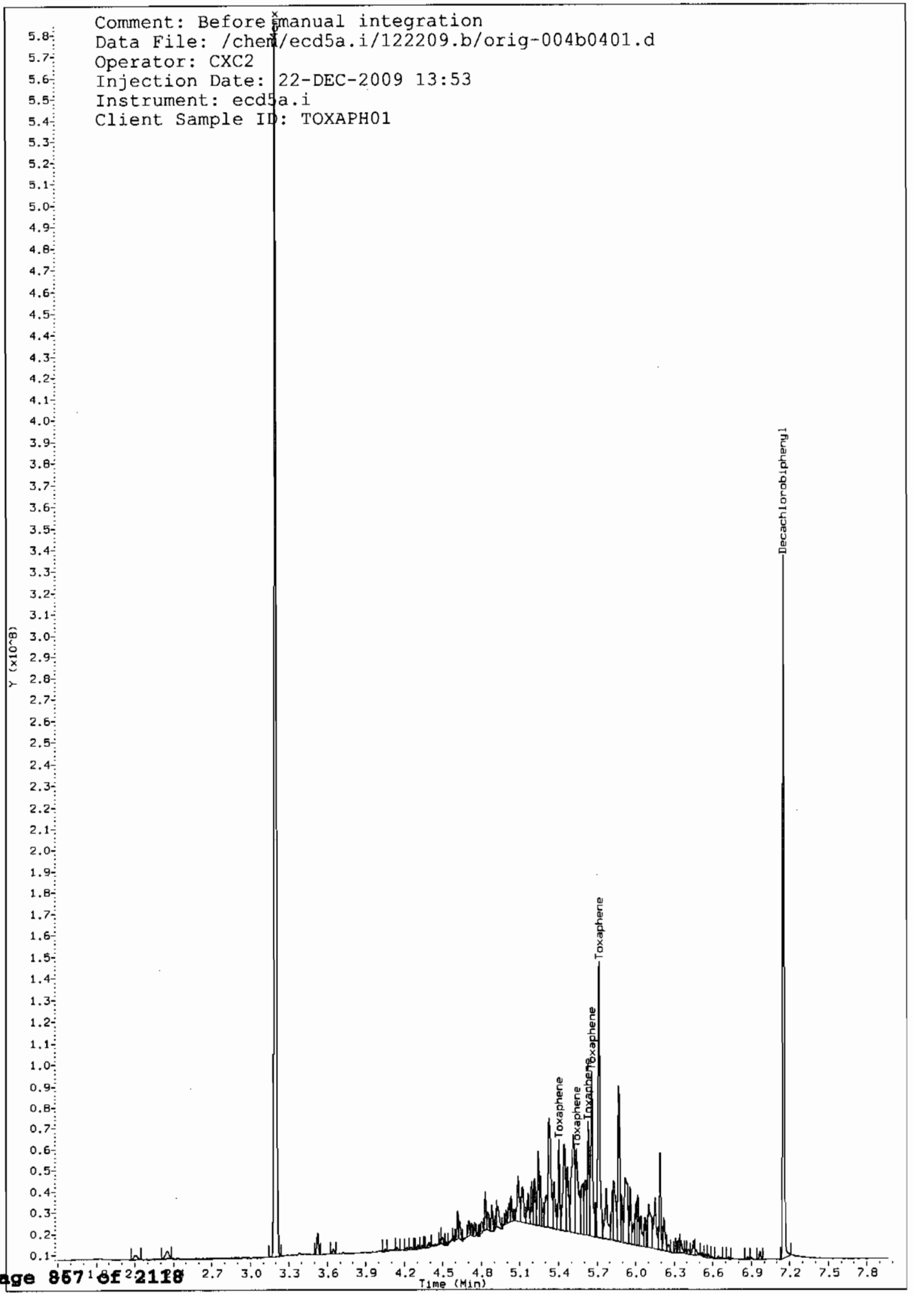
Comment: Before manual integration
Data File: /chem/ecd5a.i/122209.b/orig-004b0401.d
Operator: CXC2
Injection Date: 22-DEC-2009 13:53
Instrument: ecd5a.i
Client Sample ID: TOXAPH01
Y (x10^8)
Time (Min)
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Decachlorobiphenyl

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CLP-1

Data file : /chem/ecd5a.i/122209.b/005f0501.d
Lab Smp Id: WPE091021-00CL Client Smp ID: CHLOR01
Inj Date : 22-DEC-2009 14:05
Operator : CXC2 Inst ID: ecd5a.i
Smp Info : |WPE091021-00CL
Misc Info :
Comment :
Method : /chem/ecd5a.i/122209.b/ECD5-F-8081-121809.m
Meth Date : 22-Dec-2009 17:21 cla01575 Quant Type: ESTD
Cal Date : 05-DEC-2009 03:28 Cal File: 025f2501.d
Als bottle: 5 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: chlor.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
8 Chlordane (tech.)					CAS #: 12789-03-6		
3.843	3.843	0.000	15994702	1000.00	918	80.00- 120.00	100.00(M)
3.900	3.900	0.000	27538741	1000.00	1220	152.17- 192.17	172.17
4.209	4.209	0.000	18798805	1000.00	1090	97.53- 137.53	117.53
4.602	4.602	0.000	53701528	1000.00	986	315.75- 355.75	335.75
5.168	5.168	0.000	15025047	1000.00	1120	73.94- 113.94	93.94
Average of Peak Amounts =					1.07e+03		
$ 1 4cmx					CAS #: 877-09-8		
2.789	2.790	-0.001	94555098	200.000	203	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
6.483	6.482	0.001	54183761	200.000	195	80.00- 120.00	100.00

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd5a.i/122209.b/005f0501.d

Date : 22-DEC-2009 14:05

Client ID: CHLOR01

Sample Info: IWPE091021-00CL

Column phase: CLP-1

Instrument: ecd5a.i

Operator: CXC2

Column diameter: 0.25

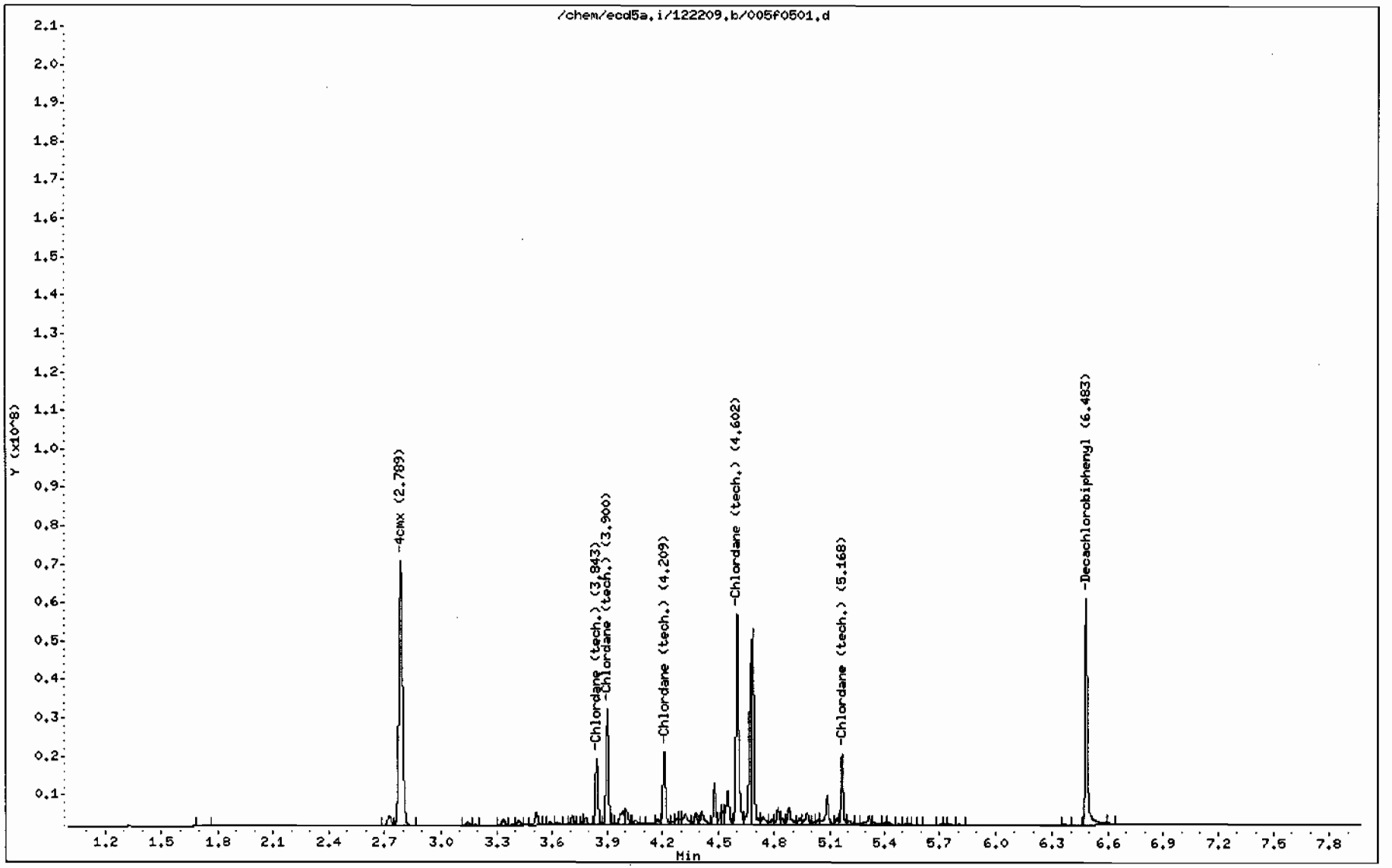

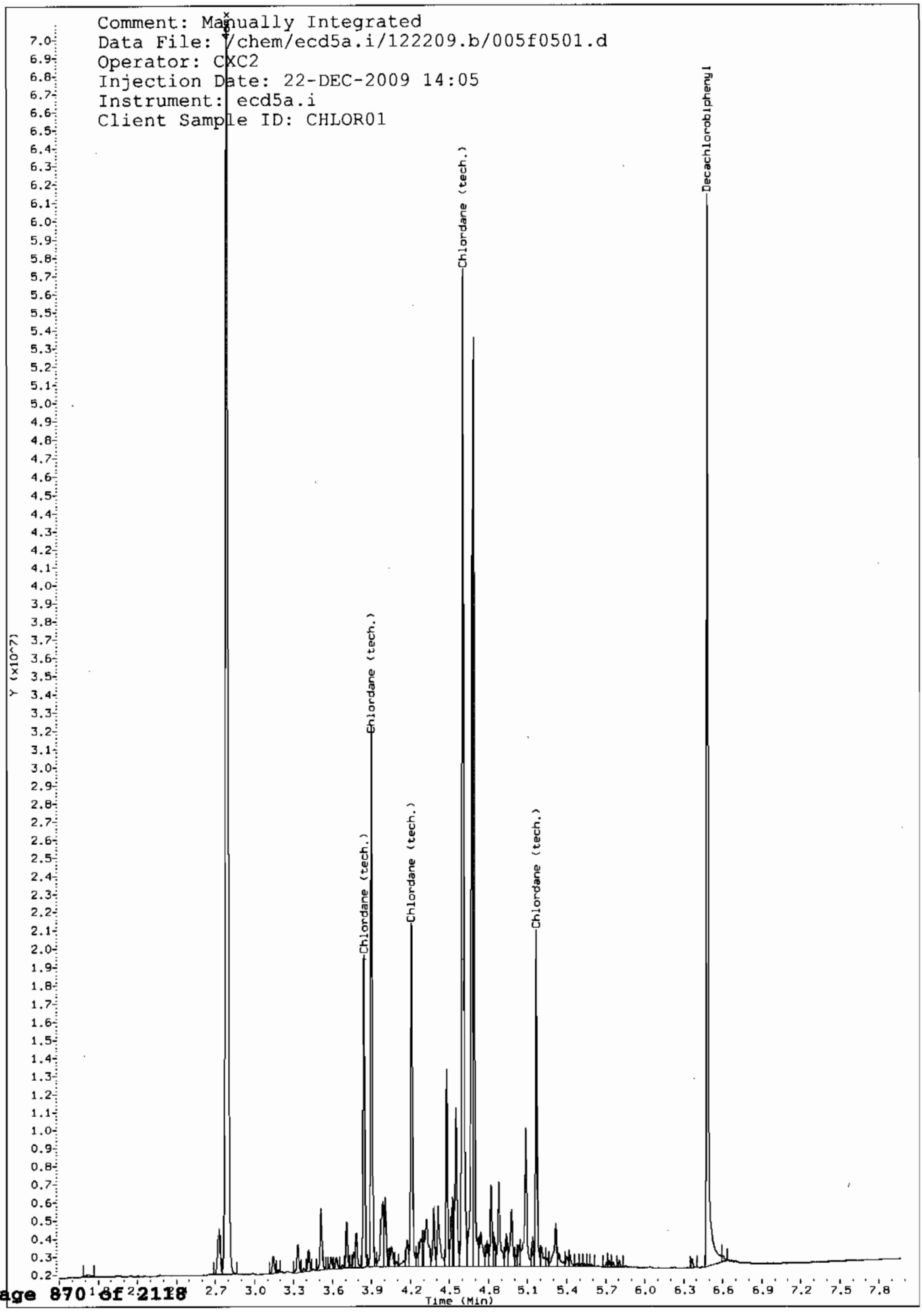
Comment: Manually Integrated
Data File: /chem/ecd5a.i/122209.b/005f0501.d
Operator: CXC2
Injection Date: 22-DEC-2009 14:05
Instrument: ecd5a.i
Client Sample ID: CHLOR01
Chlordane (tech.)
Chlordane (tech.)
Chlordane (tech.)
Chlordane (tech.)
Chlordane (tech.)
Decachlorobiphenyl
Y (x10^7)
Time (Min)

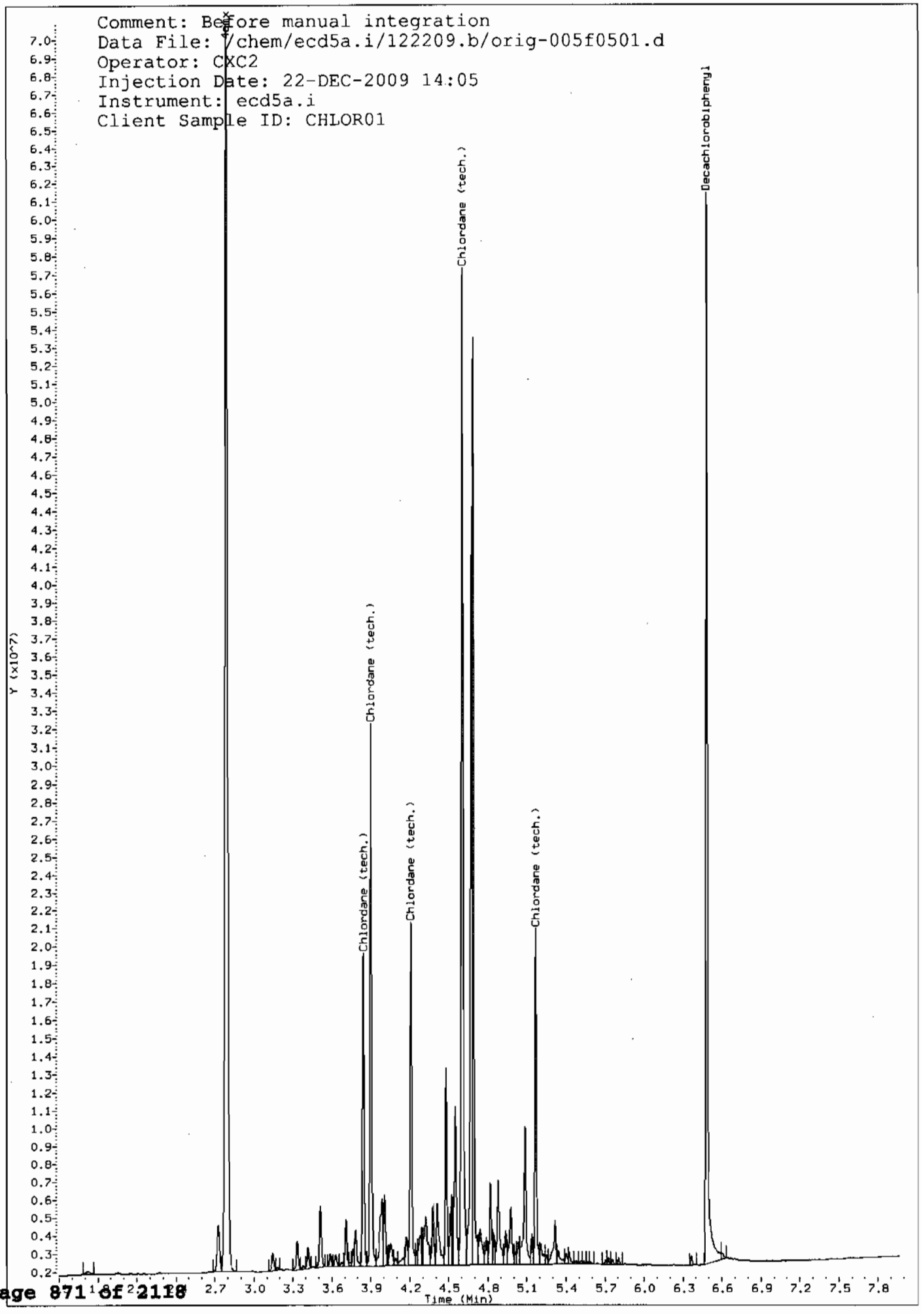
Comment: Before manual integration
Data File: /chem/ecd5a.i/122209.b/orig-005f0501.d
Operator: CXC2
Injection Date: 22-DEC-2009 14:05
Instrument: ecd5a.i
Client Sample ID: CHLOR01
Chlordane (tech.)
Chlordane (tech.)
Chlordane (tech.)
Chlordane (tech.)
Chlordane (tech.)
Decachlorobiphenyl
Y (x10^7)
Time (Min)

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd5a.i/122209.b/005b0501.d
Lab Smp Id: WPE091021-00CL Client Smp ID: CHLOR01
Inj Date : 22-DEC-2009 14:05
Operator : CXC2 Inst ID: ecd5a.i
Smp Info : |WPE091021-00CL
Misc Info :
Comment :
Method : /chem/ecd5a.i/122209.b/ECD5-B-8081-121809.m
Meth Date : 22-Dec-2009 17:48 cla01575 Quant Type: ESTD
Cal Date : 05-DEC-2009 03:28 Cal File: 025b2501.d
Als bottle: 5 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: chlor.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: kilroy

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
8 Chlordane (tech.)					CAS #: 12789-03-6		
4.222	4.222	0.000	95999442	1000.00	970	80.00- 120.00	100.00
4.647	4.647	0.000	95753881	1000.00	1180	79.74- 119.74	99.74
4.901	4.901	0.000	58280580	1000.00	1020	40.71- 80.71	60.71
5.048	5.048	0.000	251799553	1000.00	977	242.29- 282.29	262.29
5.140	5.140	0.000	206364755	1000.00	989	194.96- 234.96	214.96
Average of Peak Amounts =					1.03e+03		
$ 1 4cmx					CAS #: 877-09-8		
3.198	3.198	0.000	596001447	200.000	184	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.153	7.153	0.000	262231154	200.000	186	80.00- 120.00	100.00

Data File: /chem/ecd5a.i/122209.b/005b0501.d

Date : 22-DEC-2009 14:05

Client ID: CHLOR01

Sample Info: IWPE091021-00CL

Column phase: CLP-2

Instrument: ecd5a.i

Operator: CXC2

Column diameter: 0.25

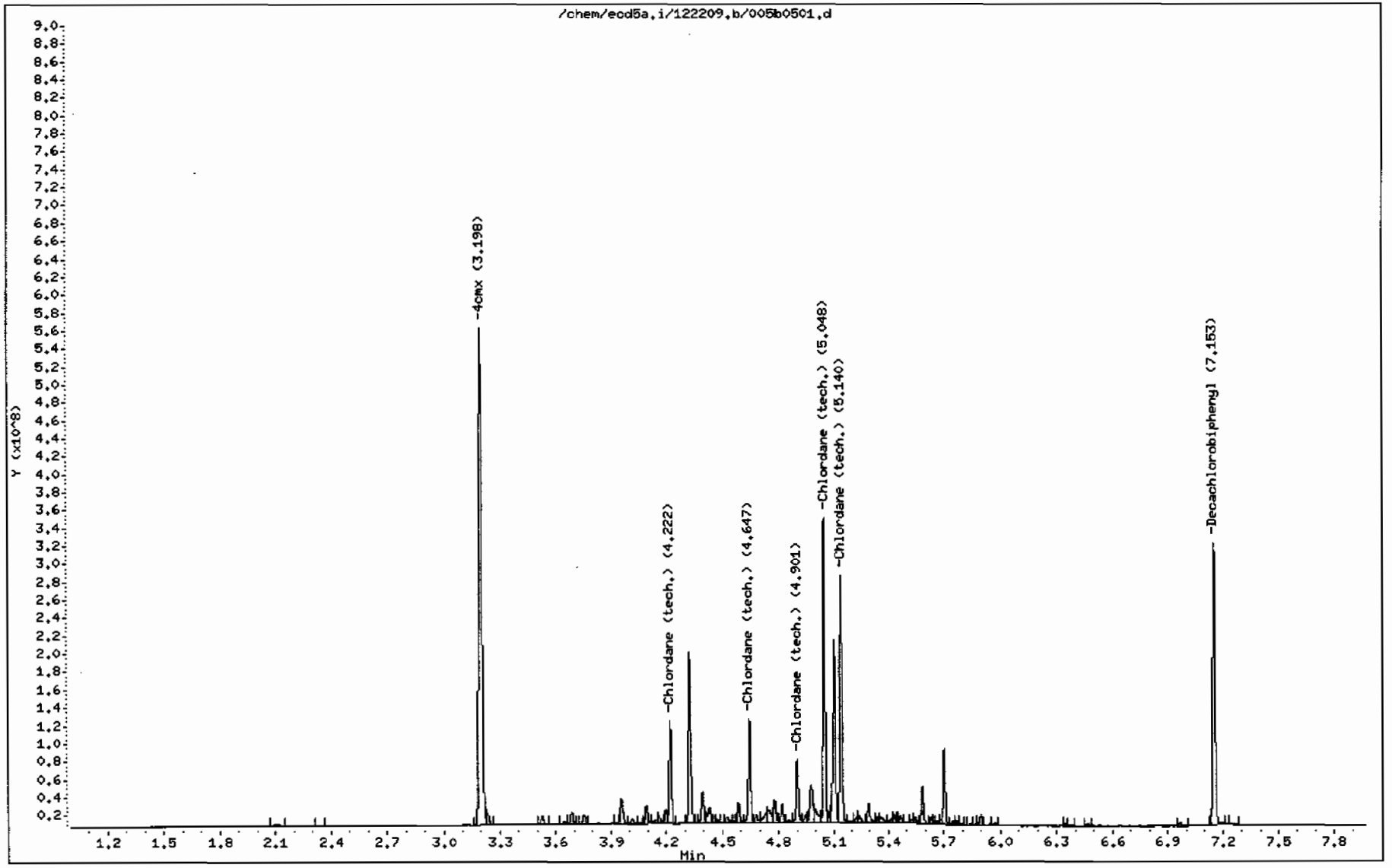

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd5a.i/122209.b/012f1201.d
Lab Smp Id: WPE091207-10AB Client Smp ID: INDAB01
Inj Date : 22-DEC-2009 16:04
Operator : CXC2 Inst ID: ecd5a.i
Smp Info : |WPE091207-10AB
Misc Info :
Comment :
Method : /chem/ecd5a.i/122209.b/ECD5-F-8081-121809.m
Meth Date : 22-Dec-2009 17:21 cla01575 Quant Type: ESTD
Cal Date : 05-DEC-2009 03:28 Cal File: 025f2501.d
Als bottle: 12 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
3.292	3.292	0.000	64948499	100.000	104	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.549	3.549	0.000	59723477	100.000	107	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
3.618	3.618	0.000	24258289	100.000	101	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
3.900	3.900	0.000	49628782	100.000	98.0	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
3.751	3.751	0.000	57325318	100.000	104	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.113	4.113	0.000	50947634	100.000	99.2	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.521	4.521	0.000	46428151	100.000	102	80.00- 120.00	100.00(M)
17 gamma-Chlordane					CAS #: 5103-74-2		
4.602	4.602	0.000	48880399	100.000	109	80.00- 120.00	100.00(M)
18 alpha-Chlordane					CAS #: 5103-71-9		
4.686	4.686	0.000	42569956	100.000	94.7	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
16 Endosulfan I					CAS #: 959-98-8		
4.775	4.775	0.000	45175611	100.000	109	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
4.731	4.731	0.000	88506481	200.000	206	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
4.924	4.924	0.000	89295633	200.000	200	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.070	5.070	0.000	72251644	200.000	212	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.100	5.100	0.000	73887978	200.000	205	80.00- 120.00	100.00(M)
24 Endosulfan II					CAS #: 33213-65-9		
5.209	5.209	0.000	74099122	200.000	199	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
5.462	5.462	0.000	61536970	200.000	198	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
5.269	5.269	0.000	72738457	200.000	224	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
5.724	5.724	0.000	66191661	200.000	207	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
5.554	5.554	0.000	125481156	1000.00	1050	80.00- 120.00	100.00(M)
31 Endrin ketone					CAS #: 53494-70-5		
5.898	5.898	0.000	72964326	200.000	195	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
2.790	2.790	0.000	94137512	200.000	203	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
6.482	6.482	0.000	55341426	200.000	202	80.00- 120.00	100.00

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd5a.i/122209.b/012f1201.d
Date : 22-DEC-2009 16:04
Client ID: INDAB01
Sample Info: IWPE091207-10AB
Column phase: CLP-1

Instrument: ecd5a.i
Operator: CXC2
Column diameter: 0.25

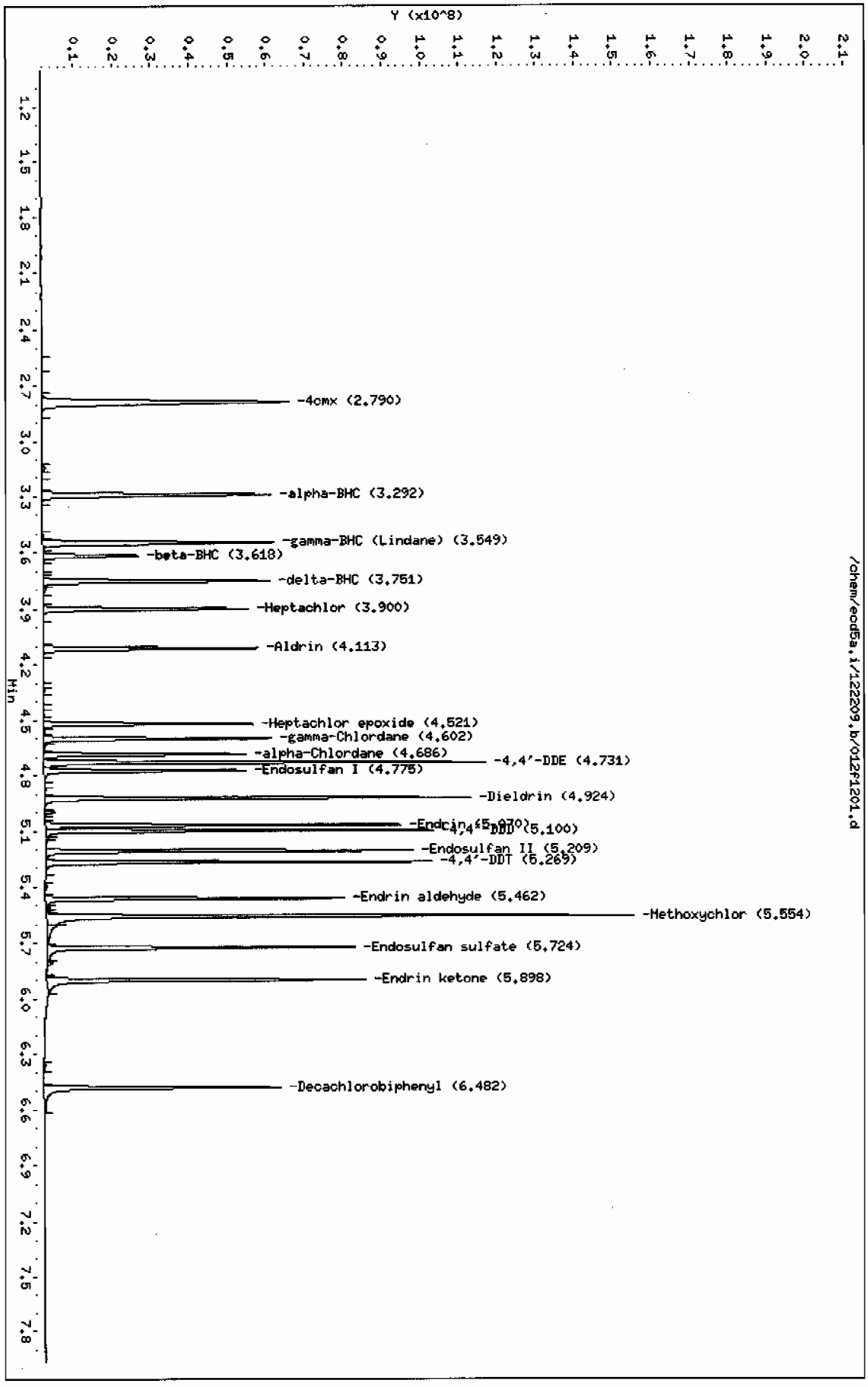

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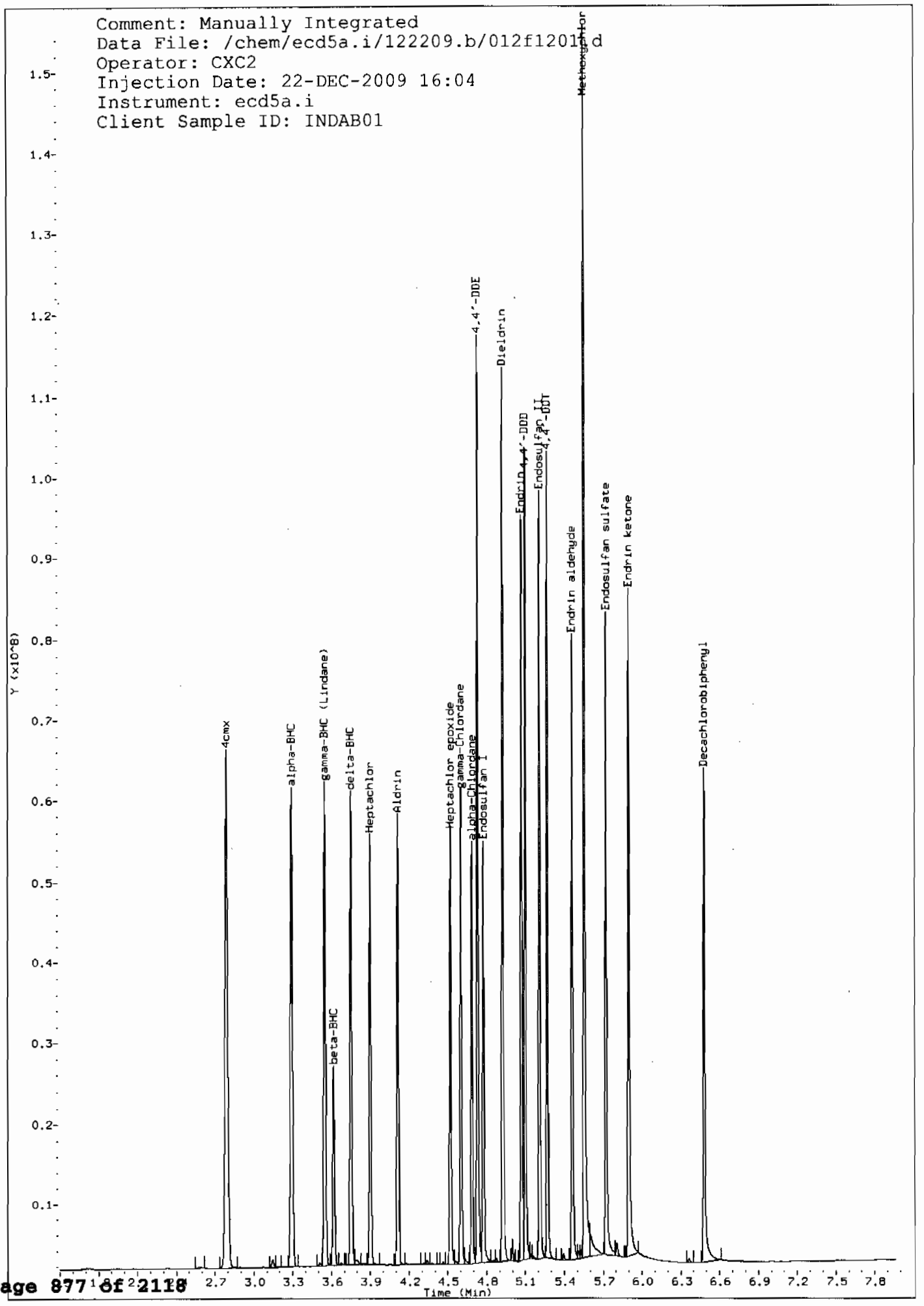
Comment: Manually Integrated
Data File: /chem/ecd5a.i/122209.b/012f1201.d
Operator: CXC2
Injection Date: 22-DEC-2009 16:04
Instrument: ecd5a.i
Client Sample ID: INDAB01
Y (x10^8)
Time (Min)
4cmx
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide
gamma-Chlordane
alpha-Chlordane
Endosulfan I
4,4'-DDE
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Methoxychlor
Endrin aldehyde
Endosulfan sulfate
Endrin ketone
Decachlorobiphenyl

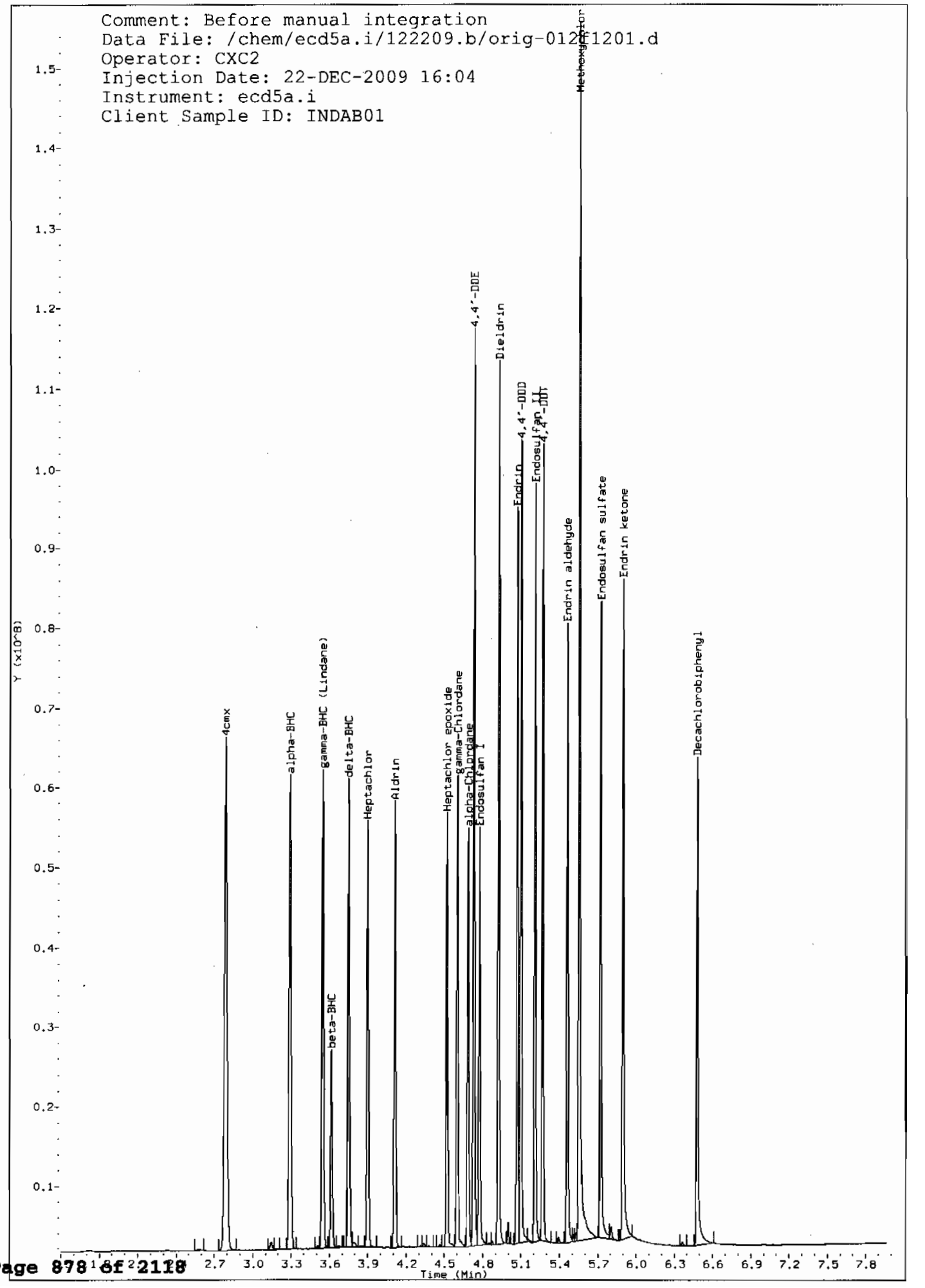
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Operator: CXC2
Injection Date: 22-DEC-2009 16:04
Instrument: ecd5a.i
Client Sample ID: INDAB01
Y (x10^8)
Time (Min)
4cmx
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide
gamma-Chlordane
alpha-Chlordane
Endosulfan I
4,4'-DDE
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Methoxychlor
Endosulfan sulfate
Endrin ketone
Decachlorobiphenyl

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CLP-2

Data file : /chem/ecd5a.i/122209.b/012b1201.d
Lab Smp Id: WPE091207-10AB Client Smp ID: INDAB01
Inj Date : 22-DEC-2009 16:04
Operator : CXC2 Inst ID: ecd5a.i
Smp Info : |WPE091207-10AB
Misc Info :
Comment :
Method : /chem/ecd5a.i/122209.b/ECD5-B-8081-121809.m
Meth Date : 22-Dec-2009 17:20 cla01575 Quant Type: ESTD
Cal Date : 05-DEC-2009 03:28 Cal File: 025b2501.d
Als bottle: 12 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None

AMOUNTS

RT	EXP RT	DLT RT	RESPONSE	CAL-AMT (ug/L)	ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
3.724	3.724	0.000	425861788	100.000	95.9	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
4.000	4.000	0.000	374296019	100.000	98.1	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
4.056	4.056	0.000	150288737	100.000	88.8	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
4.327	4.327	0.000	284333784	100.000	89.1	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
4.272	4.272	0.000	351244172	100.000	94.3	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.555	4.555	0.000	295487830	100.000	89.8	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.927	4.927	0.000	274509355	100.000	93.2	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
5.048	5.048	0.000	275894812	100.000	98.2	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
5.139	5.139	0.000	233404267	100.000	86.4	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
16 Endosulfan I					CAS #: 959-98-8		
5.182	5.182	0.000	232149247	100.000	94.8	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.224	5.224	0.000	487414168	200.000	191	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
5.352	5.352	0.000	497262295	200.000	190	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.543	5.543	0.000	408103634	200.000	204	80.00- 120.00	100.00(M)
25 4,4'-DDD					CAS #: 72-54-8		
5.576	5.576	0.000	414931558	200.000	193	80.00- 120.00	100.00(M)
24 Endosulfan II					CAS #: 33213-65-9		
5.668	5.668	0.000	408535432	200.000	191	80.00- 120.00	100.00(M)
27 Endrin aldehyde					CAS #: 7421-93-4		
5.867	5.867	0.000	319198815	200.000	183	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
5.769	5.769	0.000	315377975	200.000	230	80.00- 120.00	100.00(M)
29 Endosulfan sulfate					CAS #: 1031-07-8		
6.035	6.035	0.000	335297703	200.000	194	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
6.166	6.166	0.000	577951286	1000.00	1060	80.00- 120.00	100.00(M)
31 Endrin ketone					CAS #: 53494-70-5		
6.378	6.378	0.000	332542798	200.000	191	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
3.198	3.198	0.000	604375674	200.000	187	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.153	7.153	0.000	264582983	200.000	188	80.00- 120.00	100.00

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd5a.i/122209.b/012b1201.d
Date : 22-DEC-2009 16:04
Client ID: INDAB01
Sample Info: IWPE091207-10AB
Column phase: CLP-2

Instrument: ecd5a.i
Operator: CXC2
Column diameter: 0.25

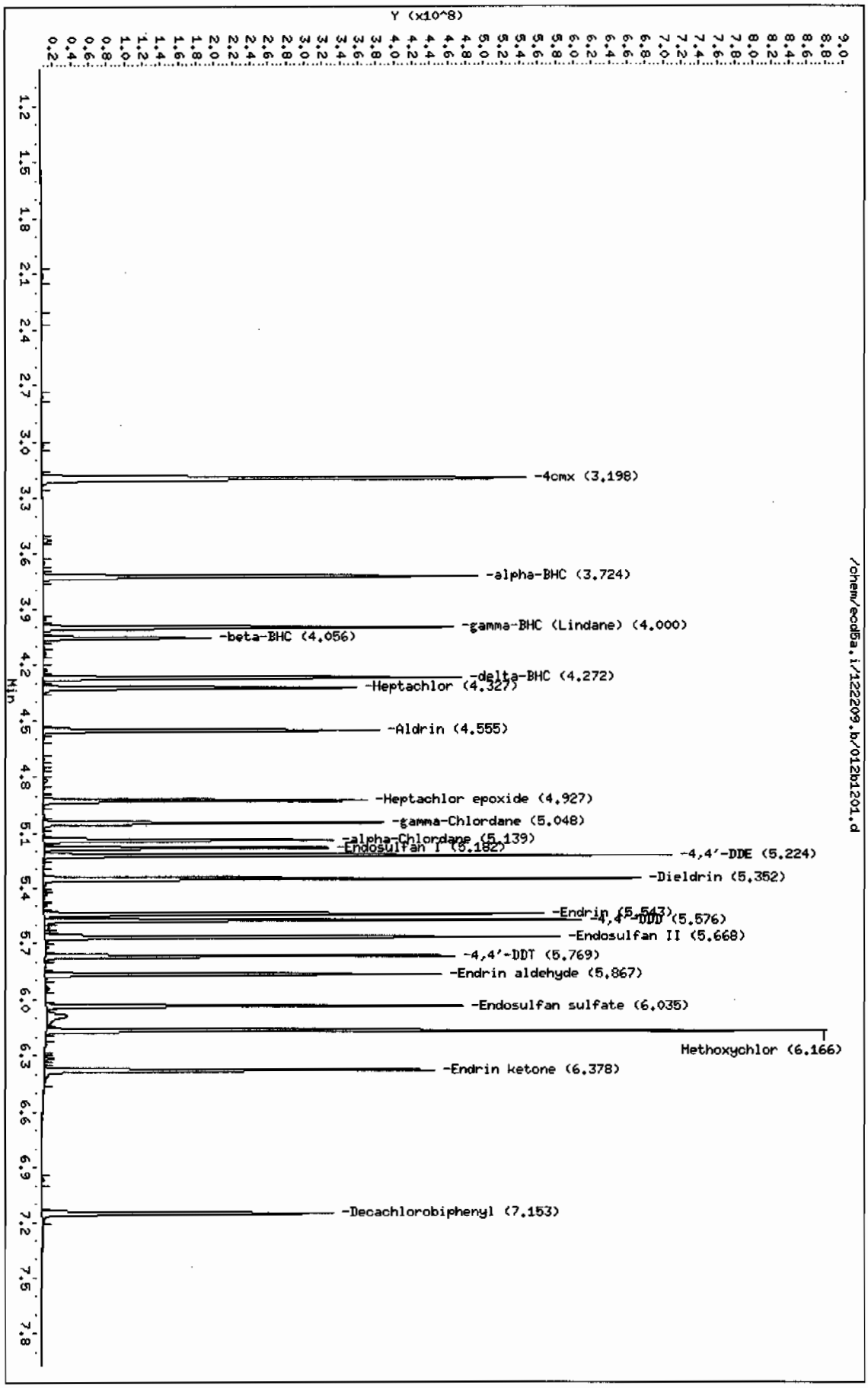

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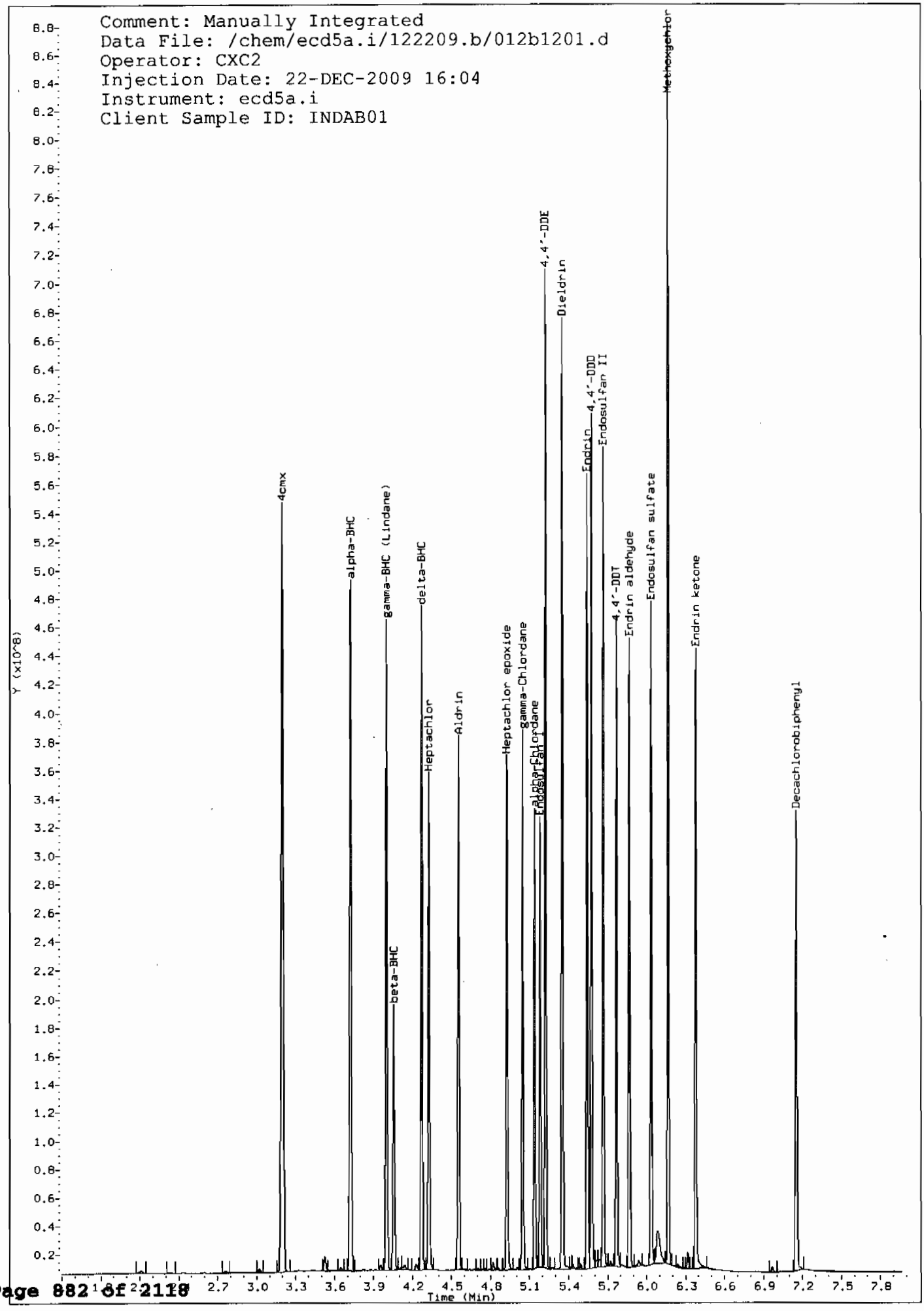
Comment: Manually Integrated
Data File: /chem/ecd5a.i/122209.b/012b1201.d
Operator: CXC2
Injection Date: 22-DEC-2009 16:04
Instrument: ecd5a.i
Client Sample ID: INDAB01
Y (x10^8)
Time (Min)
4cmx
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide
gamma-Chlordane
alpha-Chlordane
Endosulfan I
4,4'-DDE
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Endosulfan sulfate
Methoxychlor
Endrin ketone
Decachlorobiphenyl

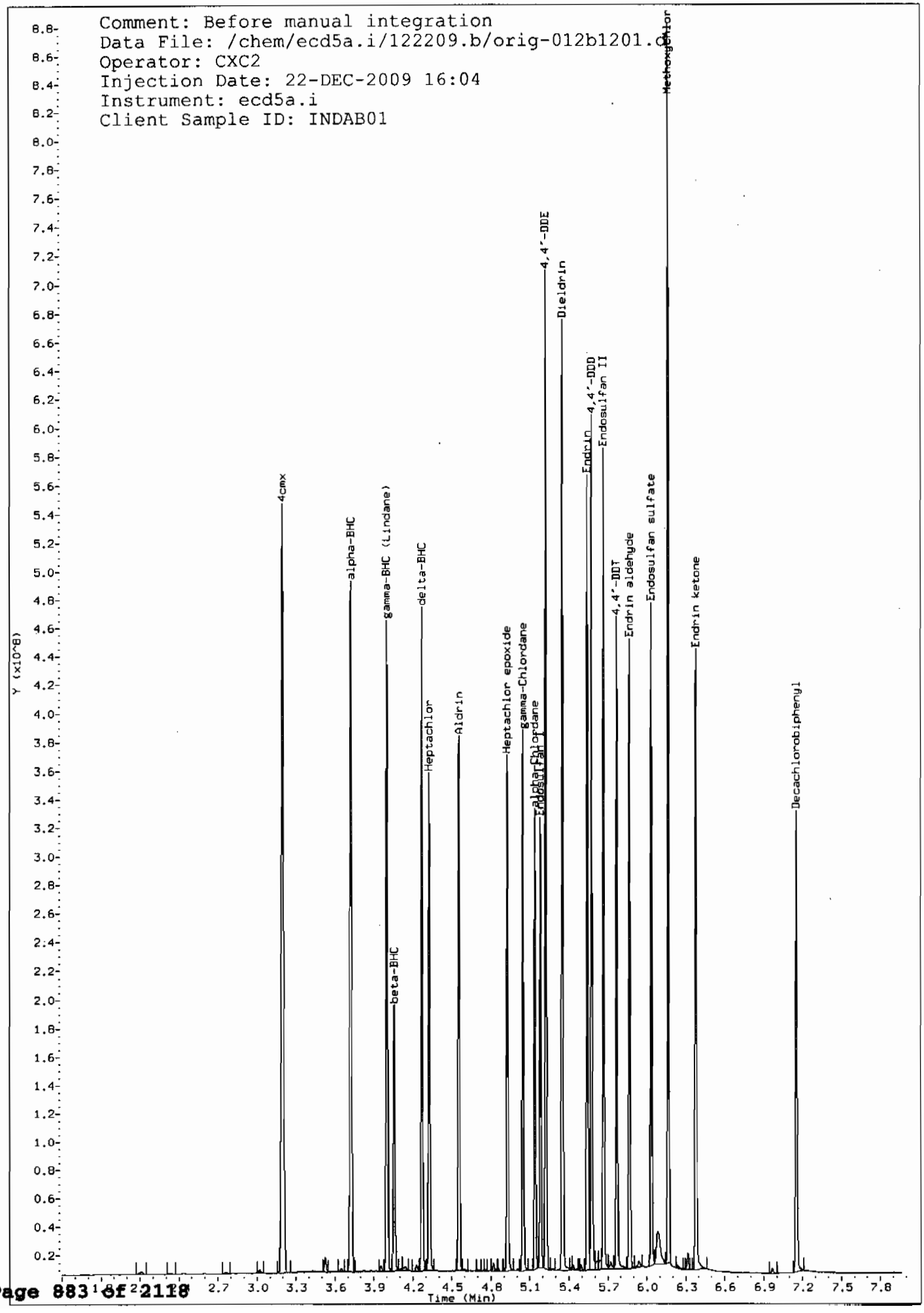
Comment: Before manual integration
Data File: /chem/ecd5a.i/122209.b/orig-012b1201.d
Operator: CXC2
Injection Date: 22-DEC-2009 16:04
Instrument: ecd5a.i
Client Sample ID: INDAB01
Y (x10^8)
Time (Min)
4cmx
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide
gamma-Chlordane
alpha-Chlordane
Endosulfan I
4,4'-DDE
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Endosulfan sulfate
Methoxychlor
Endrin ketone
Decachlorobiphenyl

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Data file : /chem/ecd5a.i/122209.b/035f3501.d
Lab Smp Id: WPE091207-10AB Client Smp ID: INDAB04
Inj Date : 22-DEC-2009 21:05
Operator : CXC2 Inst ID: ecd5a.i
Smp Info : |WPE091207-10AB
Misc Info :
Comment :
Method : /chem/ecd5a.i/122209.b/ECD5-F-8081-121809.m
Meth Date : 22-Dec-2009 21:22 hea01125 Quant Type: ESTD
Cal Date : 05-DEC-2009 03:28 Cal File: 025f2501.d
Als bottle: 35 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
3.290	3.292	-0.002	66953081	100.000	107	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.546	3.549	-0.003	61966224	100.000	111	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
3.616	3.618	-0.002	25562709	100.000	106	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
3.899	3.900	-0.001	48464058	100.000	95.7	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
3.749	3.751	-0.002	60662471	100.000	110	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.111	4.113	-0.002	52226950	100.000	102	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.519	4.521	-0.002	48293059	100.000	106	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
4.600	4.602	-0.002	50887986	100.000	114	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
4.684	4.686	-0.002	43587244	100.000	97.0	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
16 Endosulfan I					CAS #: 959-98-8		
4.774	4.775	-0.001	46636969	100.000	112	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
4.729	4.731	-0.002	90722508	200.000	211	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
4.923	4.924	-0.001	91840555	200.000	205	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.069	5.070	-0.001	75999940	200.000	223	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.099	5.100	-0.001	77786884	200.000	216	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
5.208	5.209	-0.001	77046098	200.000	207	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
5.460	5.462	-0.002	62522429	200.000	201	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
5.268	5.269	-0.001	60174196	200.000	185	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
5.721	5.724	-0.003	69189945	200.000	216	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
5.553	5.554	-0.001	113618133	1000.00	954	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
5.896	5.898	-0.002	69976905	200.000	187	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
2.787	2.790	-0.003	96884469	200.000	209	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
6.479	6.482	-0.003	57344239	200.000	210	80.00- 120.00	100.00

Data File: /chem/ecd5a.i/122209.b/035f3501.d
Date : 22-DEC-2009 21:05
Client ID: INDAB04
Sample Info: IWPE091207-10AB
Column phase: CLP-1

Instrument: ecd5a.i
Operator: CXC2
Column diameter: 0.25

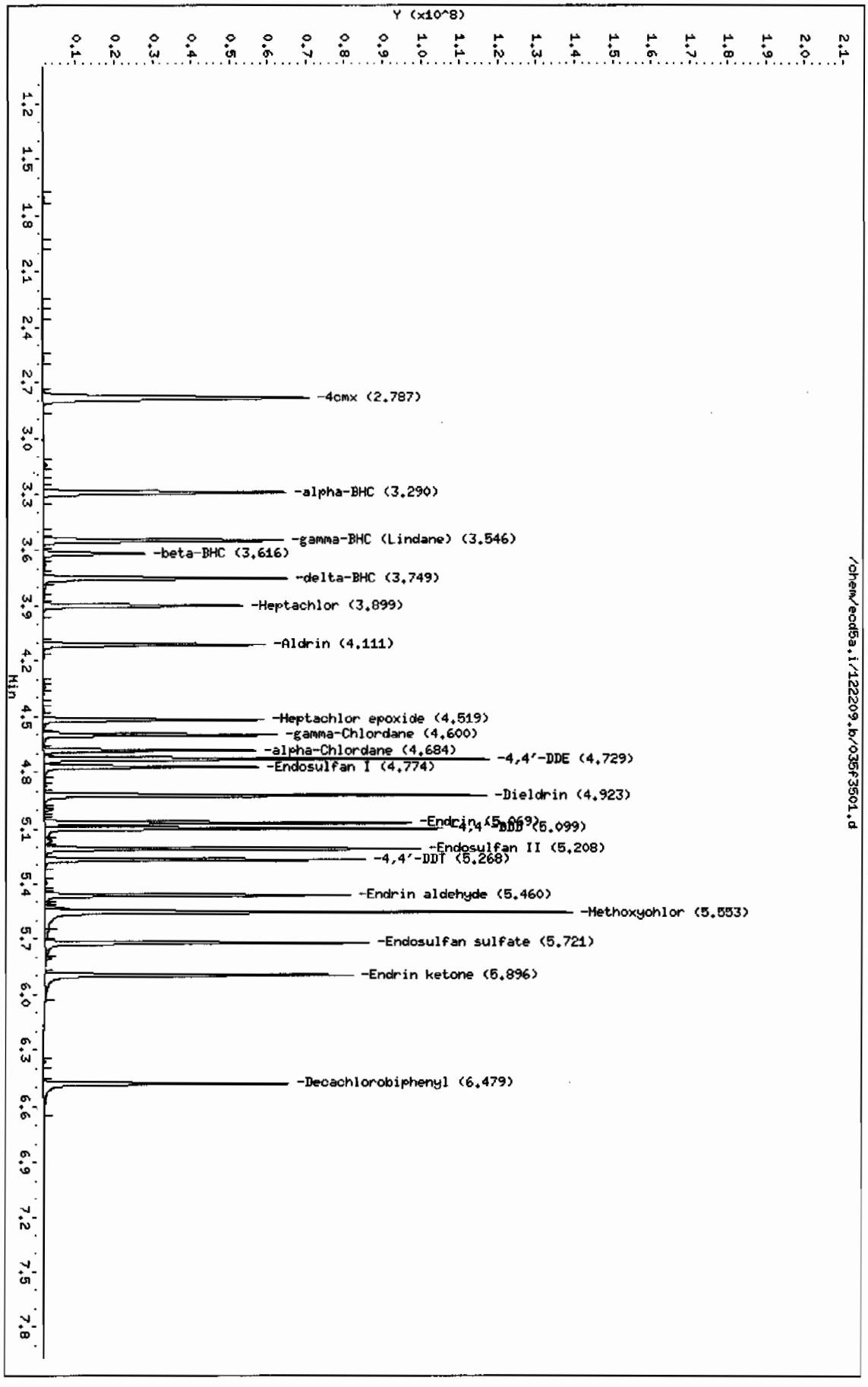

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CLP-2

Data file : /chem/ecd5a.i/122209.b/035b3501.d
Lab Smp Id: WPE091207-10AB Client Smp ID: INDAB04
Inj Date : 22-DEC-2009 21:05
Operator : CXC2 Inst ID: ecd5a.i
Smp Info : |WPE091207-10AB
Misc Info :
Comment :
Method : /chem/ecd5a.i/122209.b/ECD5-B-8081-121809.m
Meth Date : 22-Dec-2009 21:22 hea01125 Quant Type: ESTD
Cal Date : 05-DEC-2009 03:28 Cal File: 025b2501.d
Als bottle: 35 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None

				AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)		
RT	EXP RT	DLT RT	RESPONSE			TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
3.722	3.724	-0.002	433132616	100.000	97.6	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.999	4.000	-0.001	380835778	100.000	99.8	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
4.054	4.056	-0.002	153647020	100.000	90.8	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
4.325	4.327	-0.002	273511646	100.000	85.7	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
4.270	4.272	-0.002	358788863	100.000	96.3	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.554	4.555	-0.001	298139198	100.000	90.6	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.926	4.927	-0.001	276967217	100.000	94.1	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
5.047	5.048	-0.001	276071593	100.000	98.2	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
5.138	5.139	-0.001	232098731	100.000	86.0	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
16 Endosulfan I					CAS #: 959-98-8		
5.180	5.182	-0.002	232501846	100.000	95.0	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.222	5.224	-0.002	483853260	200.000	190	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
5.350	5.352	-0.002	497621001	200.000	190	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.541	5.543	-0.002	402559897	200.000	201	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.574	5.576	-0.002	406009841	200.000	189	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
5.666	5.668	-0.002	407013318	200.000	191	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
5.866	5.867	-0.001	305271896	200.000	175	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
5.767	5.769	-0.002	174193596	200.000	127	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
6.033	6.035	-0.002	326171768	200.000	189	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
6.164	6.166	-0.002	336799111	1000.00	618	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
6.375	6.378	-0.003	254896427	200.000	146	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
3.195	3.198	-0.003	614973224	200.000	190	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.150	7.153	-0.003	268409468	200.000	190	80.00- 120.00	100.00

Data File: /chem/ecd5a.i/122209.b/035b3501.d
Date : 22-DEC-2009 21:05
Client ID: INDAB04
Sample Info: IWPE091207-10AB
Column phase: CLP-2

Instrument: ecd5a.i
Operator: CXC2
Column diameter: 0.25

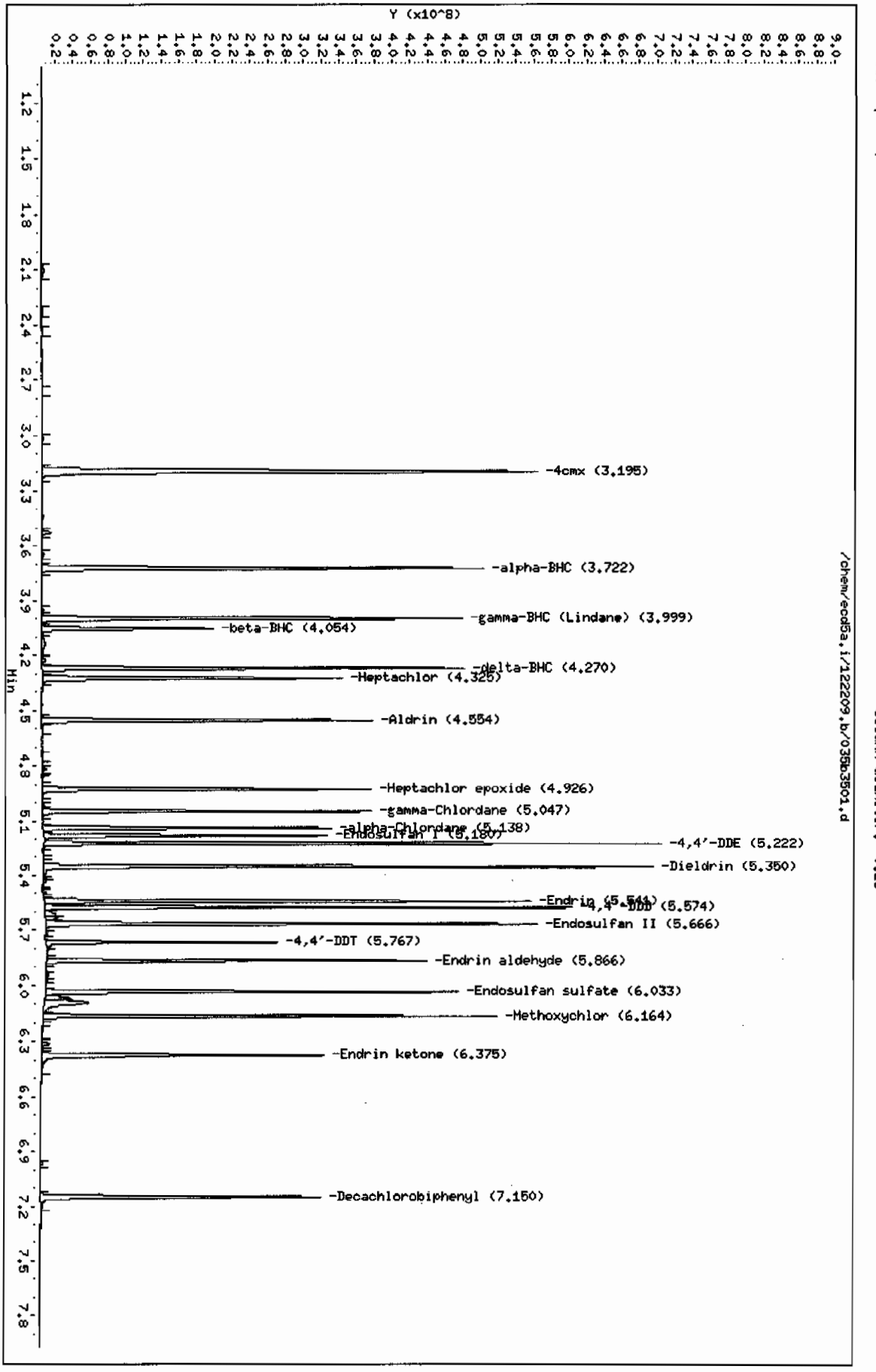

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GEL Laboratories LLC

CLP-1

Data file : /chem/ecd5a.i/122209.b/045f4501.d
Lab Smp Id: WPE091207-10AB Client Smp ID: INDAB05
Inj Date : 22-DEC-2009 23:04
Operator : CXC2 Inst ID: ecd5a.i
Smp Info : |WPE091207-10AB
Misc Info :
Comment :
Method : /chem/ecd5a.i/122209.b/ECD5-F-8081-121809.m
Meth Date : 22-Dec-2009 23:26 hea01125 Quant Type: ESTD
Cal Date : 05-DEC-2009 03:28 Cal File: 025f2501.d
Als bottle: 45 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
3.290	3.292	-0.002	69717512	100.000	112	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.547	3.549	-0.002	63450272	100.000	114	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
3.616	3.618	-0.002	25771618	100.000	107	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
3.898	3.900	-0.002	48544266	100.000	95.9	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
3.750	3.751	-0.001	62120102	100.000	113	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.111	4.113	-0.002	54574277	100.000	106	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.519	4.521	-0.002	50072681	100.000	110	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
4.600	4.602	-0.002	52885366	100.000	118	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
4.684	4.686	-0.002	45645171	100.000	102	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
16 Endosulfan I					CAS #: 959-98-8		
4.774	4.775	-0.001	48629702	100.000	117	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
4.729	4.731	-0.002	95002565	200.000	221	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
4.923	4.924	-0.001	96755001	200.000	216	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.069	5.070	-0.001	77501840	200.000	227	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.099	5.100	-0.001	83357173	200.000	231	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
5.207	5.209	-0.002	82266073	200.000	221	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
5.460	5.462	-0.002	67115903	200.000	216	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
5.268	5.269	-0.001	60215017	200.000	185	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
5.720	5.724	-0.004	73433523	200.000	230	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
5.553	5.554	-0.001	113547889	1000.00	954	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
5.895	5.898	-0.003	70175324	200.000	188	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
2.788	2.790	-0.002	99496356	200.000	215	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
6.478	6.482	-0.004	60081742	200.000	220	80.00- 120.00	100.00

Data File: /chem/ecd5a.i/122209.b/045f4501.d
Date : 22-DEC-2009 23:04
Client ID: INDAB05
Sample Info: IWFE091207-10AB
Column phase: CLP-1

Instrument: ecd5a.i
Operator: CXC2
Column diameter: 0.25

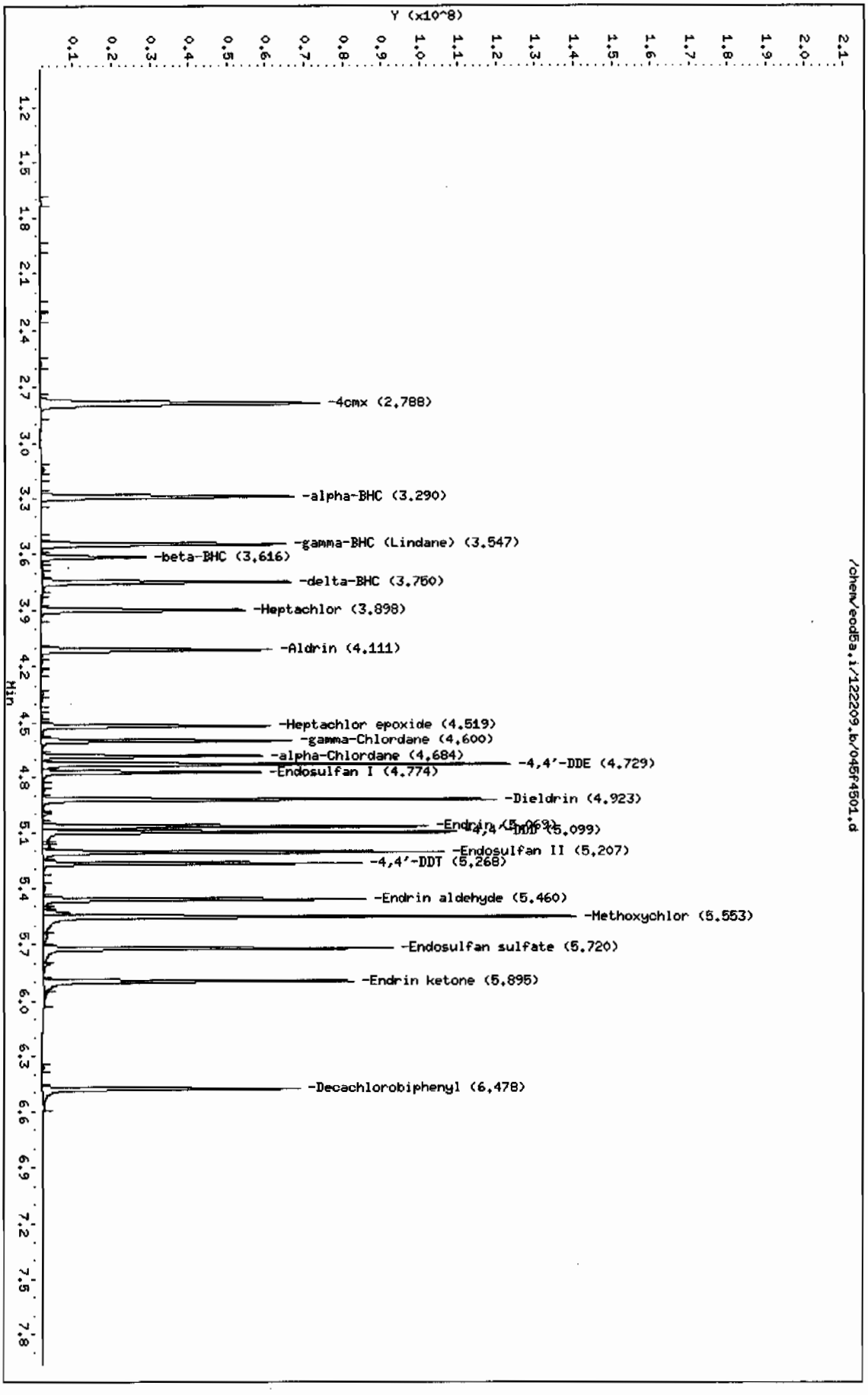

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CLP-2

Data file : /chem/ecd5a.i/122209.b/045b4501.d
Lab Smp Id: WPE091207-10AB Client Smp ID: INDAB05
Inj Date : 22-DEC-2009 23:04
Operator : CXC2 Inst ID: ecd5a.i
Smp Info : |WPE091207-10AB
Misc Info :
Comment :
Method : /chem/ecd5a.i/122209.b/ECD5-B-8081-121809.m
Meth Date : 22-Dec-2009 23:27 hea01125 Quant Type: ESTD
Cal Date : 05-DEC-2009 03:28 Cal File: 025b2501.d
Als bottle: 45 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
3.722	3.724	-0.002	451584594	100.000	102	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.998	4.000	-0.002	394148547	100.000	103	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
4.054	4.056	-0.002	161010899	100.000	95.1	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
4.324	4.327	-0.003	281806505	100.000	88.3	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
4.270	4.272	-0.002	374009707	100.000	100	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.553	4.555	-0.002	312703171	100.000	95.0	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.925	4.927	-0.002	289464356	100.000	98.3	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
5.046	5.048	-0.002	291953596	100.000	104	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
5.138	5.139	-0.001	244879727	100.000	90.7	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
16 Endosulfan I					CAS #: 959-98-8		
5.180	5.182	-0.002	244291505	100.000	99.8	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.221	5.224	-0.003	512280826	200.000	201	80.00- 120.00	100.00(M)
20 Dieldrin					CAS #: 60-57-1		
5.349	5.352	-0.003	527677388	200.000	202	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.540	5.543	-0.003	411141795	200.000	205	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.574	5.576	-0.002	448276621	200.000	209	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
5.665	5.668	-0.003	422690847	200.000	198	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
5.864	5.867	-0.003	325346993	200.000	187	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
5.766	5.769	-0.003	166482791	200.000	121	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
6.031	6.035	-0.004	350837646	200.000	204	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
6.161	6.166	-0.005	326487352	1000.00	600	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
6.373	6.378	-0.005	258810656	200.000	148	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
3.195	3.198	-0.003	633718241	200.000	196	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.149	7.153	-0.004	287426651	200.000	204	80.00- 120.00	100.00

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd5a.i/122209.b/045b4501.d
Date : 22-DEC-2009 23:04
Client ID: INDABC05
Sample Info: IWPE091207-10AB
Column phase: CLP-2

Instrument: ecd5a.i
Operator: CXC2
Column diameter: 0.25

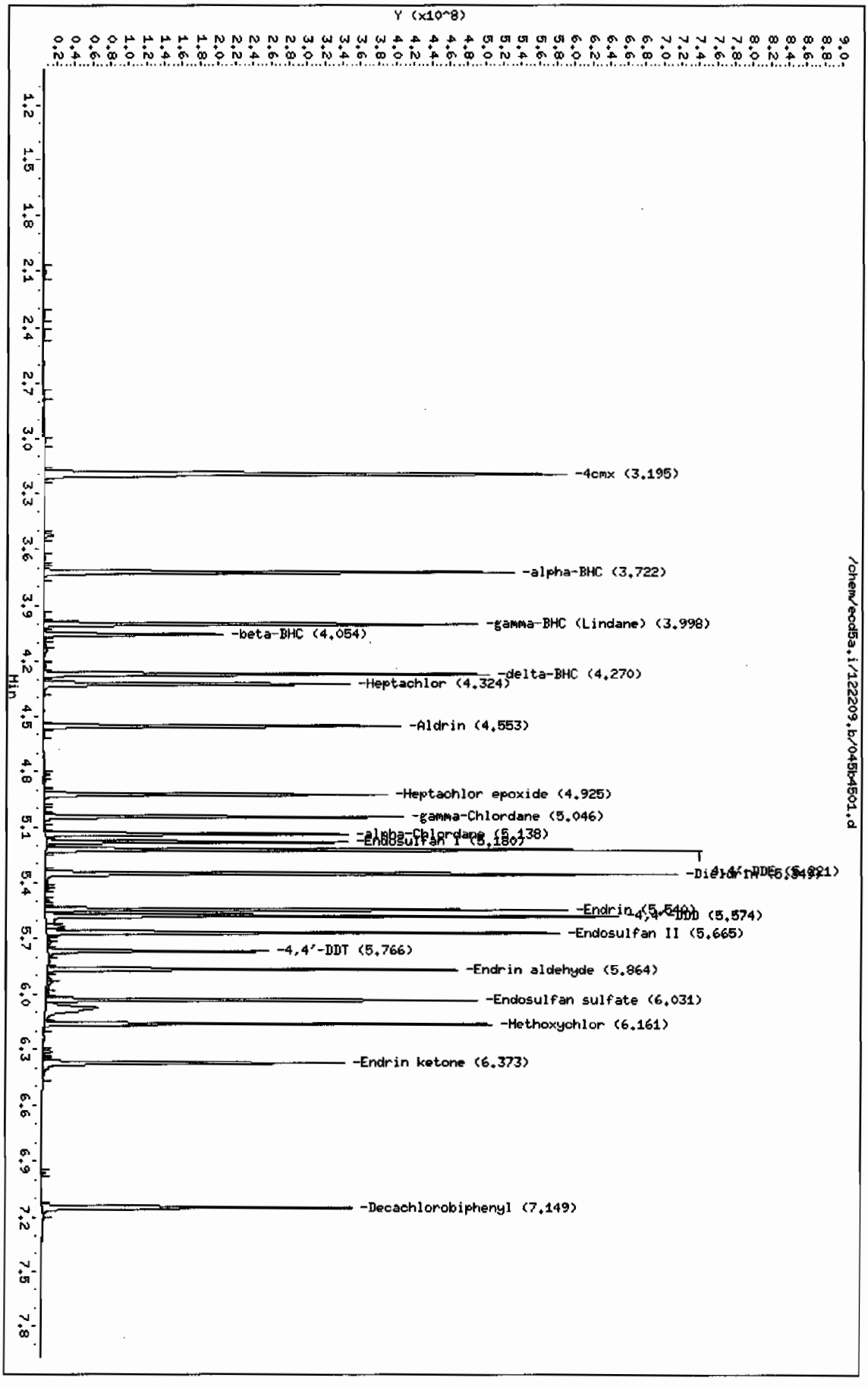

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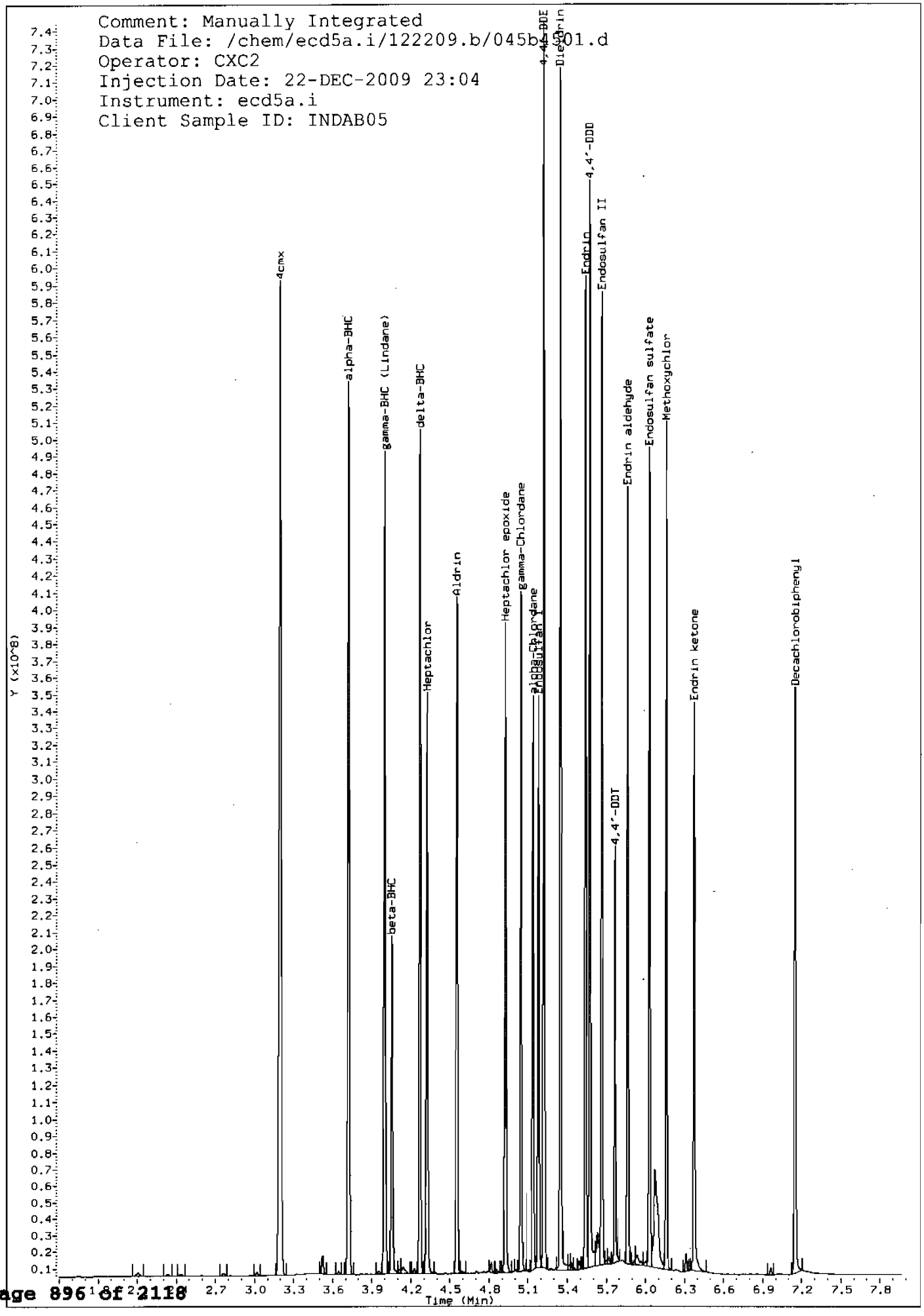
Comment: Manually Integrated
Data File: /chem/ecd5a.i/122209.b/045b0801.d
Operator: CXC2
Injection Date: 22-DEC-2009 23:04
Instrument: ecd5a.i
Client Sample ID: INDAB05
4cmx
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide
gamma-Chlordane
alpha-Chlordane
Endosulfan I
4,4'-DDE
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Endosulfan sulfate
Methoxychlor
Endrin ketone
Decachlorobiphenyl
Y (x10^8)
Time (Min)

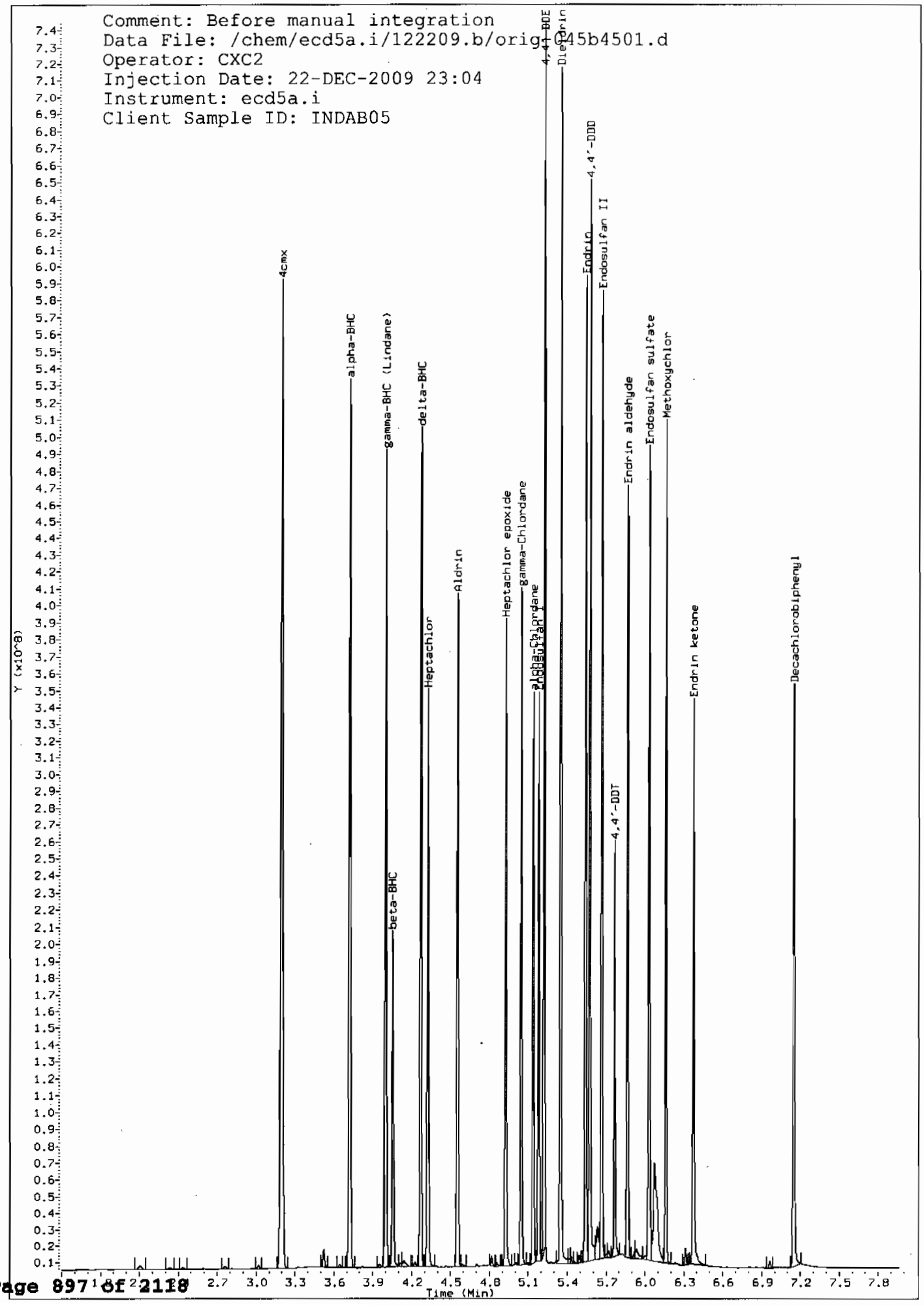
Comment: Before manual integration
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Operator: CXC2
Injection Date: 22-DEC-2009 23:04
Instrument: ecd5a.i
Client Sample ID: INDAB05
4cmx
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide
gamma-Chlordane
alpha-Chlordane
Endosulfan I
4,4'-DDE
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Endosulfan sulfate
Methoxychlor
Endrin ketone
Decachlorobiphenyl
Y (x10^8)
Time (Min)

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd5a.i/122209.b/051f5101.d
Lab Smp Id: WPE091207-10AB Client Smp ID: INDAB06
Inj Date : 23-DEC-2009 00:16
Operator : CXC2 Inst ID: ecd5a.i
Smp Info : |WPE091207-10AB
Misc Info :
Comment :
Method : /chem/ecd5a.i/122209.b/ECD5-F-8081-121809.m
Meth Date : 23-Dec-2009 08:48 cla01575 Quant Type: ESTD
Cal Date : 05-DEC-2009 03:28 Cal File: 025f2501.d
Als bottle: 51 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
3.290	3.292	-0.002	69086271	100.000	111	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.546	3.549	-0.003	63107721	100.000	113	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
3.616	3.618	-0.002	25935438	100.000	108	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
3.899	3.900	-0.001	44472427	100.000	87.8	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
3.750	3.751	-0.001	62215757	100.000	113	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.111	4.113	-0.002	54709705	100.000	106	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.520	4.521	-0.001	49567295	100.000	108	80.00- 120.00	100.00(M)
17 gamma-Chlordane					CAS #: 5103-74-2		
4.600	4.602	-0.002	51979164	100.000	116	80.00- 120.00	100.00(M)
18 alpha-Chlordane					CAS #: 5103-71-9		
4.685	4.686	-0.001	44801568	100.000	99.7	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
16 Endosulfan I					CAS #: 959-98-8		
4.774	4.775	-0.001	46897247	100.000	113	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
4.730	4.731	-0.001	93567236	200.000	217	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
4.923	4.924	-0.001	96148264	200.000	215	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.068	5.070	-0.002	79724291	200.000	234	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.099	5.100	-0.001	83013153	200.000	230	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
5.207	5.209	-0.002	81769108	200.000	220	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
5.461	5.462	-0.001	64861024	200.000	209	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
5.268	5.269	-0.001	57601619	200.000	177	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
5.721	5.724	-0.003	71603874	200.000	224	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
5.552	5.554	-0.002	108774518	1000.00	914	80.00- 120.00	100.00(M)
31 Endrin ketone					CAS #: 53494-70-5		
5.896	5.898	-0.002	65663517	200.000	176	80.00- 120.00	100.00(M)
$ 1 4cmx					CAS #: 877-09-8		
2.788	2.790	-0.002	100380250	200.000	217	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
6.480	6.482	-0.002	58985617	200.000	216	80.00- 120.00	100.00

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd5a.i/122209.b/051f5101.d
Date : 23-DEC-2009 00:16
Client ID: INDAB06
Sample Info: IWPE091207-10AB
Column phase: CLP-1

Instrument: ecd5a.i
Operator: CXC2
Column diameter: 0.25

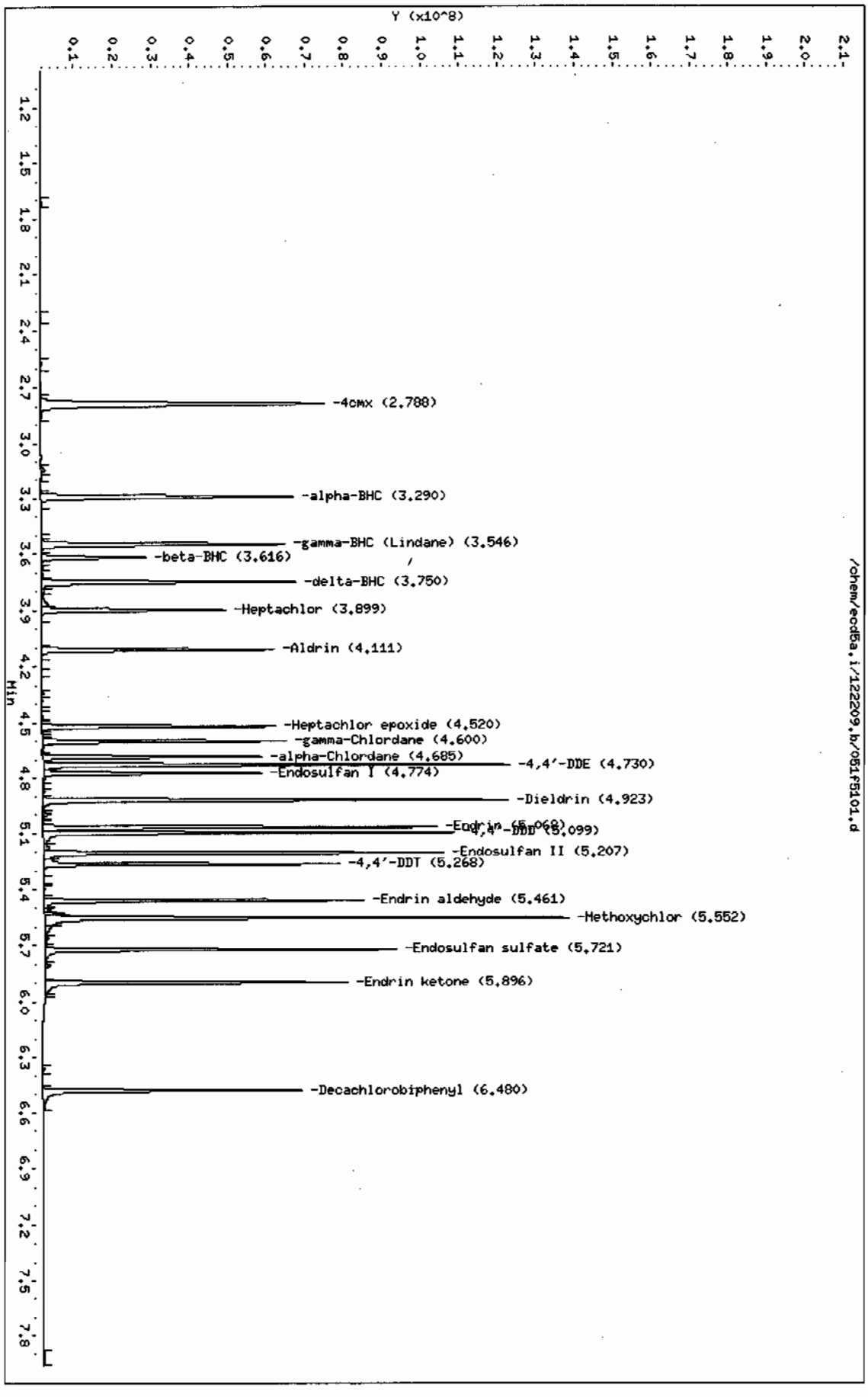

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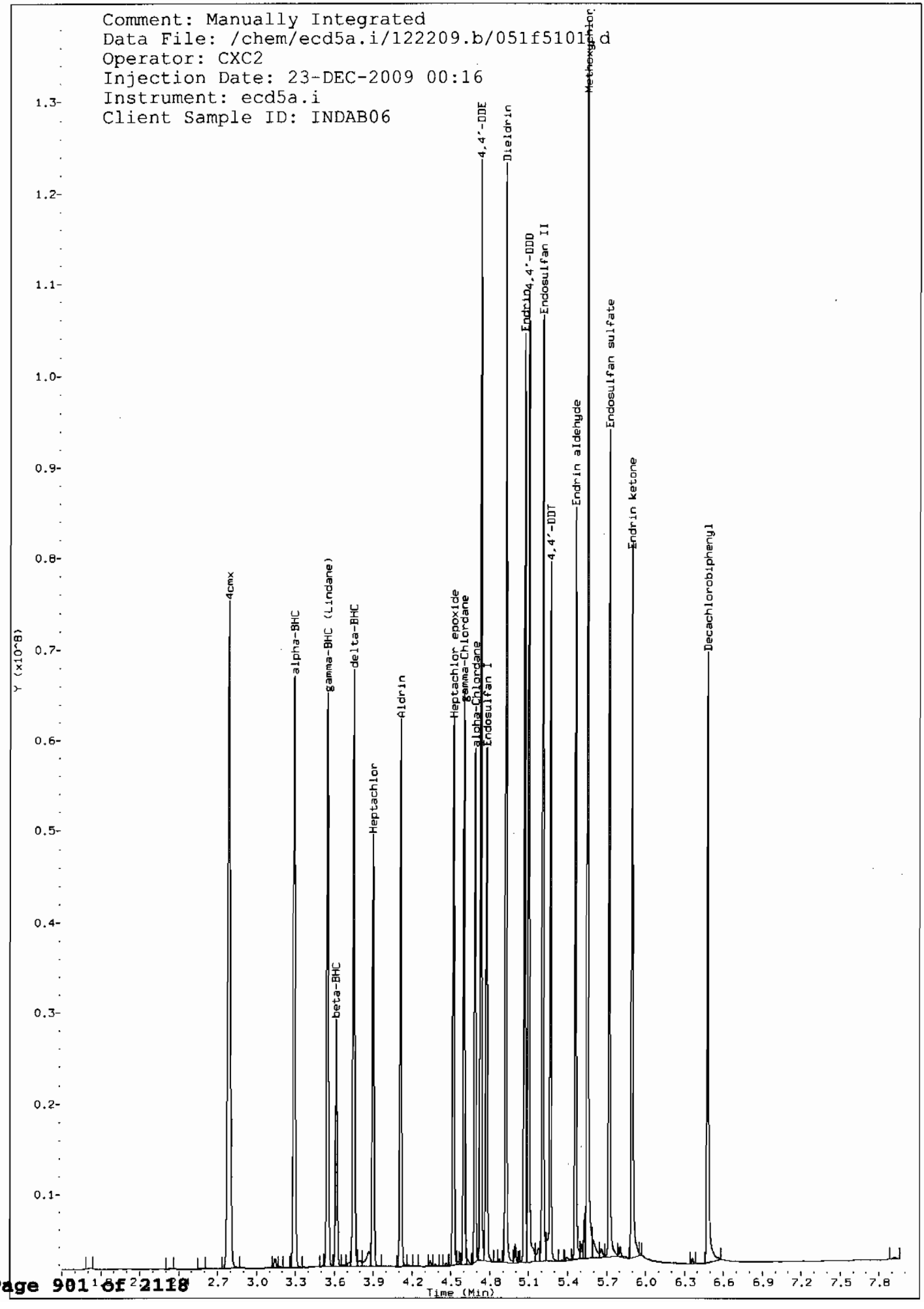
Comment: Manually Integrated
Data File: /chem/ecd5a.i/122209.b/051f5101.d
Operator: CXC2
Injection Date: 23-DEC-2009 00:16
Instrument: ecd5a.i
Client Sample ID: INDAB06
Y (x10^8)
Time (Min)
4cmx
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide
gamma-Chlordane
alpha-Chlordane
Endosulfan I
4,4'-DDE
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Methoxychlor
Endosulfan sulfate
Endrin ketone
Decachlorobiphenyl

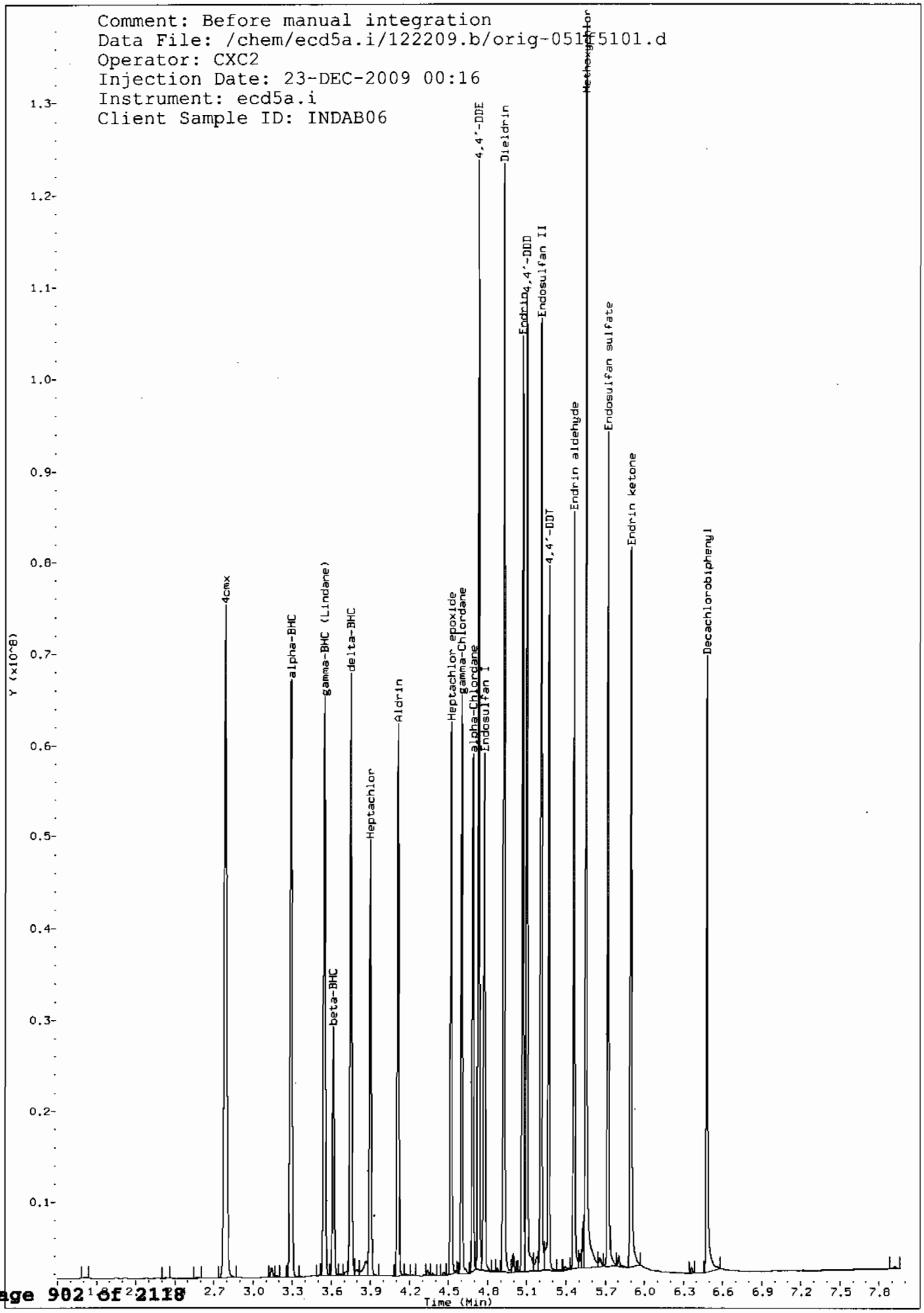
Comment: Before manual integration
Data File: /chem/ecd5a.i/122209.b/orig-051f5101.d
Operator: CXC2
Injection Date: 23-DEC-2009 00:16
Instrument: ecd5a.i
Client Sample ID: INDAB06
Y (x10^8)
Time (Min)
4cmx
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide
gamma-Chlordane
alpha-Chlordane
Endosulfan I
4,4'-DDE
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Methoxychlor
Endosulfan sulfate
Endrin ketone
Decachlorobiphenyl

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd5a.i/122209.b/051b5101.d
Lab Smp Id: WPE091207-10AB Client Smp ID: INDAB05
Inj Date : 23-DEC-2009 00:16
Operator : CXC2 Inst ID: ecd5a.i
Smp Info : |WPE091207-10AB
Misc Info :
Comment :
Method : /chem/ecd5a.i/122209.b/ECD5-B-8081-121809.m
Meth Date : 23-Dec-2009 08:46 cla01575 Quant Type: ESTD
Cal Date : 05-DEC-2009 03:28 Cal File: 025b2501.d
Als bottle: 51 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
3.722	3.724	-0.002	443701800	100.000	99.9	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.998	4.000	-0.002	388553521	100.000	102	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
4.054	4.056	-0.002	158171909	100.000	93.4	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
4.325	4.327	-0.002	237836070	100.000	74.5	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
4.270	4.272	-0.002	364784391	100.000	97.9	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.553	4.555	-0.002	304513826	100.000	92.5	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.926	4.927	-0.001	279128061	100.000	94.8	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
5.046	5.048	-0.002	279431226	100.000	99.4	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
5.137	5.139	-0.002	234210294	100.000	86.7	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
16 Endosulfan I					CAS #: 959-98-8		
5.180	5.182	-0.002	235047888	100.000	96.0	80.00- 120.00	100.00(M)
19 4,4'-DDE					CAS #: 72-55-9		
5.221	5.224	-0.003	499761629	200.000	196	80.00- 120.00	100.00(M)
20 Dieldrin					CAS #: 60-57-1		
5.350	5.352	-0.002	502075773	200.000	192	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.541	5.543	-0.002	398262449	200.000	199	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.574	5.576	-0.002	409482389	200.000	191	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
^5.666	5.668	-0.002	458501794	200.000	215	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
5.866	5.867	-0.001	314898767	200.000	181	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
5.766	5.769	-0.003	51682561	200.000	37.6	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
6.033	6.035	-0.002	329363835	200.000	191	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
6.164	6.166	-0.002	141139411	1000.00	259	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
6.375	6.378	-0.003	183877599	200.000	105	80.00- 120.00	100.00(M)
$ 1 4cmx					CAS #: 877-09-8		
3.195	3.198	-0.003	628417144	200.000	194	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.150	7.153	-0.003	276733755	200.000	196	80.00- 120.00	100.00

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd5a.i/122209.b/051b5101.d
Date : 23-DEC-2009 00:16
Client ID: INDAB05
Sample Info: IWPE091207-10AB
Column phase: CLP-2

Instrument: ecd5a.i
Operator: CXC2
Column diameter: 0.25

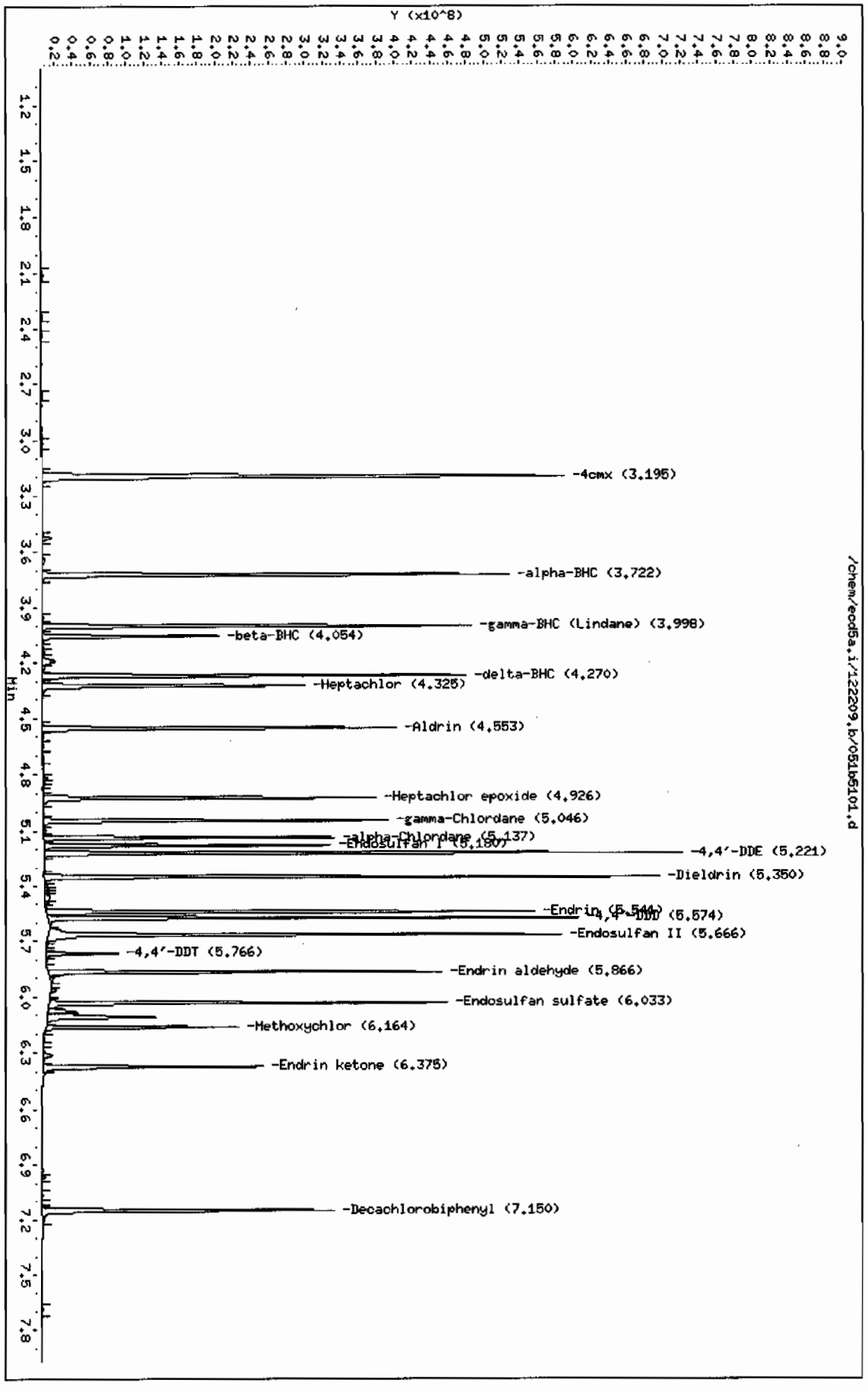

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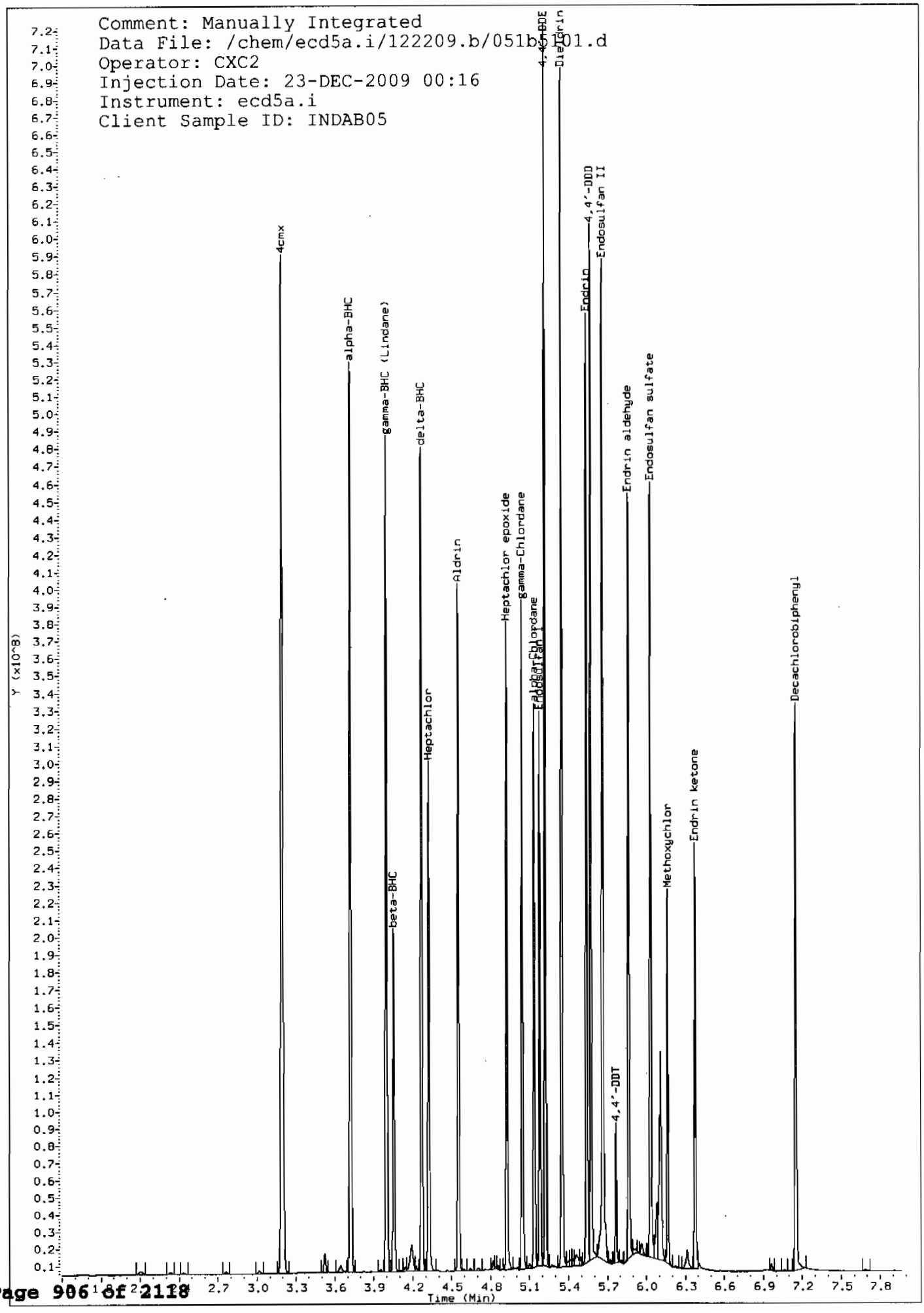
Comment: Manually Integrated
Data File: /chem/ecd5a.i/122209.b/051b5101.d
Operator: CXC2
Injection Date: 23-DEC-2009 00:16
Instrument: ecd5a.i
Client Sample ID: INDAB05
4cmx
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide
gamma-Chlordane
Endosulfan I
4,4'-DDE
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Endosulfan sulfate
Methoxychlor
Endrin ketone
Decachlorobiphenyl
Y (x10^8)
Time (Min)

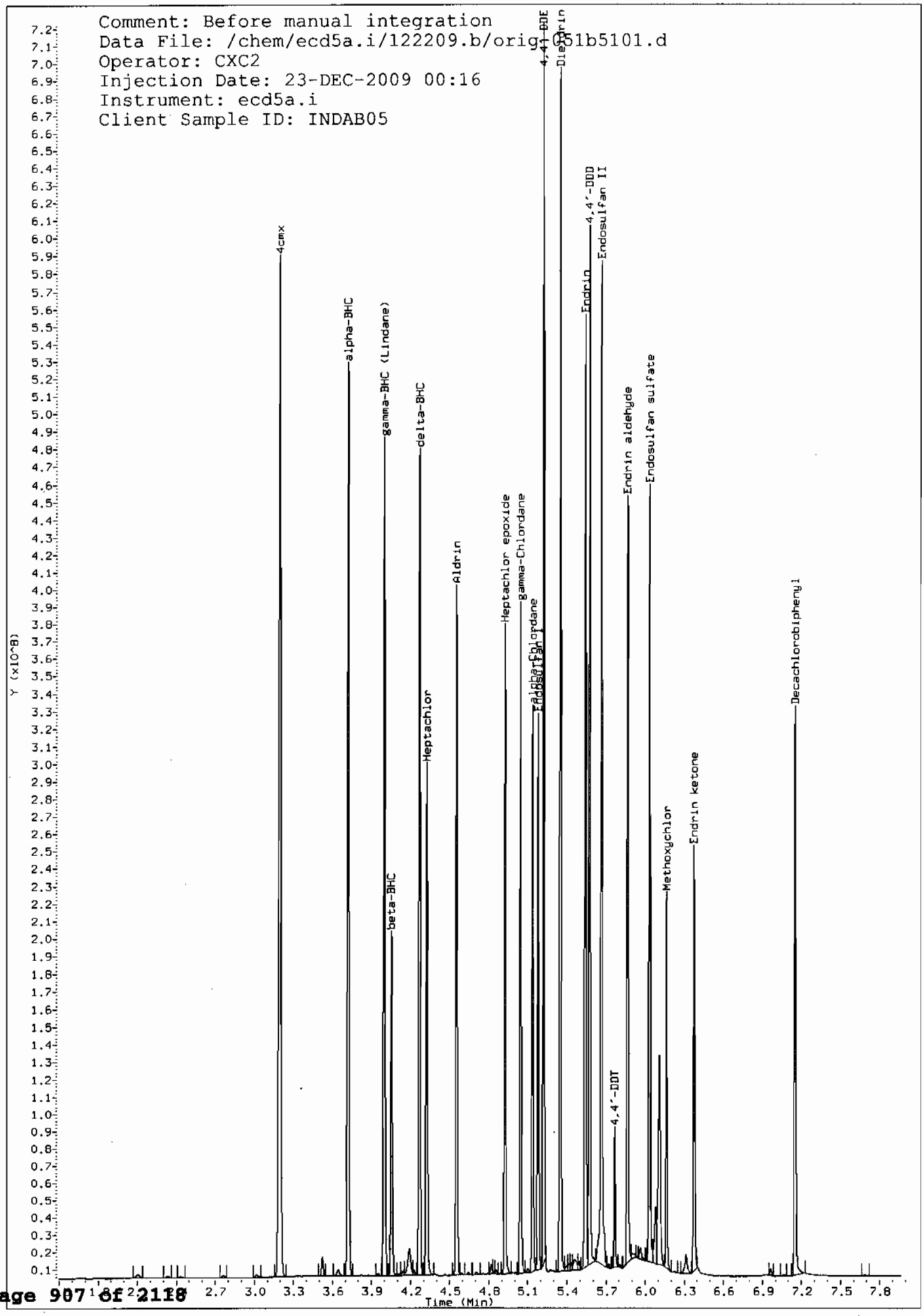
Comment: Before manual integration
Data File: /chem/ecd5a.i/122209.b/orig051b5101.d
Operator: CXC2
Injection Date: 23-DEC-2009 00:16
Instrument: ecd5a.i
Client Sample ID: INDAB05
4cmx
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide
gamma-Chlordane
alpha-Chlordane
Endosulfan I
4,4'-DDE
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Endosulfan sulfate
Methoxychlor
Endrin ketone
Decachlorobiphenyl
Y (x10^8)
Time (Min)

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd5a.i/122209.b/056f5601.d
Lab Smp Id: WPE091207-10AB Client Smp ID: INDAB07
Inj Date : 23-DEC-2009 01:16
Operator : CXC2 Inst ID: ecd5a.i
Smp Info : |WPE091207-10AB
Misc Info :
Comment :
Method : /chem/ecd5a.i/122209.b/ECD5-F-8081-121809.m
Meth Date : 23-Dec-2009 08:48 cla01575 Quant Type: ESTD
Cal Date : 05-DEC-2009 03:28 Cal File: 025f2501.d
Als bottle: 56 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None

AMOUNTS

RT	EXP RT	DLT RT	RESPONSE	CAL-AMT (ug/L)	ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
3.290	3.292	-0.002	70404067	100.000	113	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.546	3.549	-0.003	63835317	100.000	114	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
3.616	3.618	-0.002	26117490	100.000	108	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
3.899	3.900	-0.001	49026792	100.000	96.8	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
3.750	3.751	-0.001	62449598	100.000	113	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.111	4.113	-0.002	54786906	100.000	107	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.519	4.521	-0.002	49536803	100.000	108	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
4.600	4.602	-0.002	51662805	100.000	115	80.00- 120.00	100.00(M)
18 alpha-Chlordane					CAS #: 5103-71-9		
4.684	4.686	-0.002	45448923	100.000	101	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
16 Endosulfan I					CAS #: 959-98-8		
4.773	4.775	-0.002	47580412	100.000	114	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
4.729	4.731	-0.002	95023931	200.000	221	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
4.922	4.924	-0.002	95730387	200.000	214	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.068	5.070	-0.002	81642632	200.000	240	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.098	5.100	-0.002	82687249	200.000	229	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
5.207	5.209	-0.002	80576386	200.000	216	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
5.459	5.462	-0.003	64221274	200.000	207	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
5.267	5.269	-0.002	58933998	200.000	181	80.00- 120.00	100.00(M)
29 Endosulfan sulfate					CAS #: 1031-07-8		
5.721	5.724	-0.003	72440037	200.000	227	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
5.552	5.554	-0.002	115403643	1000.00	970	80.00- 120.00	100.00(M)
31 Endrin ketone					CAS #: 53494-70-5		
5.896	5.898	-0.002	67581433	200.000	181	80.00- 120.00	100.00(M)
$ 1 4cmx					CAS #: 877-09-8		
2.788	2.790	-0.002	100830601	200.000	218	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
6.479	6.482	-0.003	59693894	200.000	218	80.00- 120.00	100.00

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd5a.i/122209.b/056f5601.d
Date : 23-DEC-2009 01:16
Client ID: INDAB07
Sample Info: WPE091207-10AB

Instrument: ecd5a.i

Operator: CXC2

Column phase: CLP-1

Column diameter: 0.25

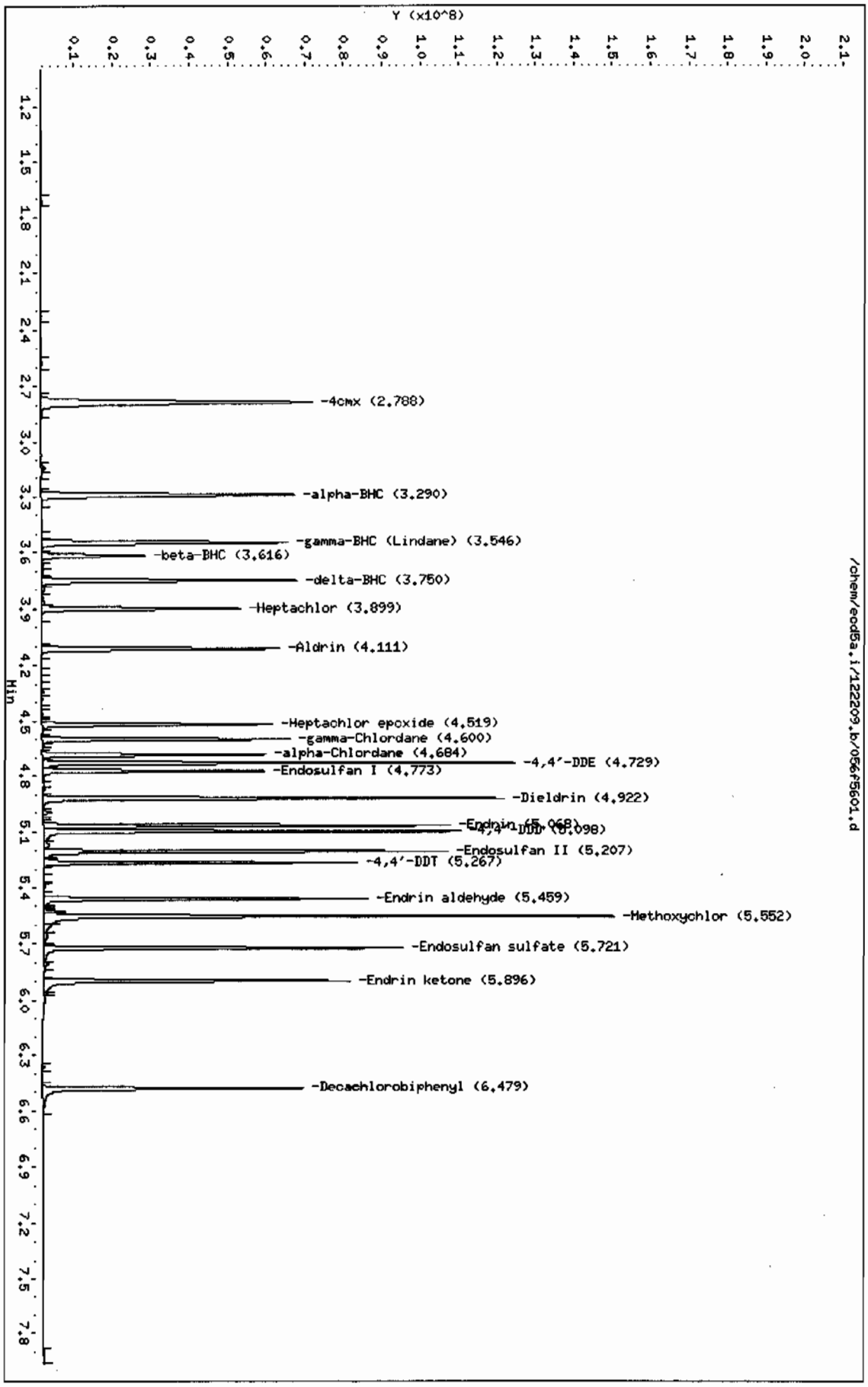

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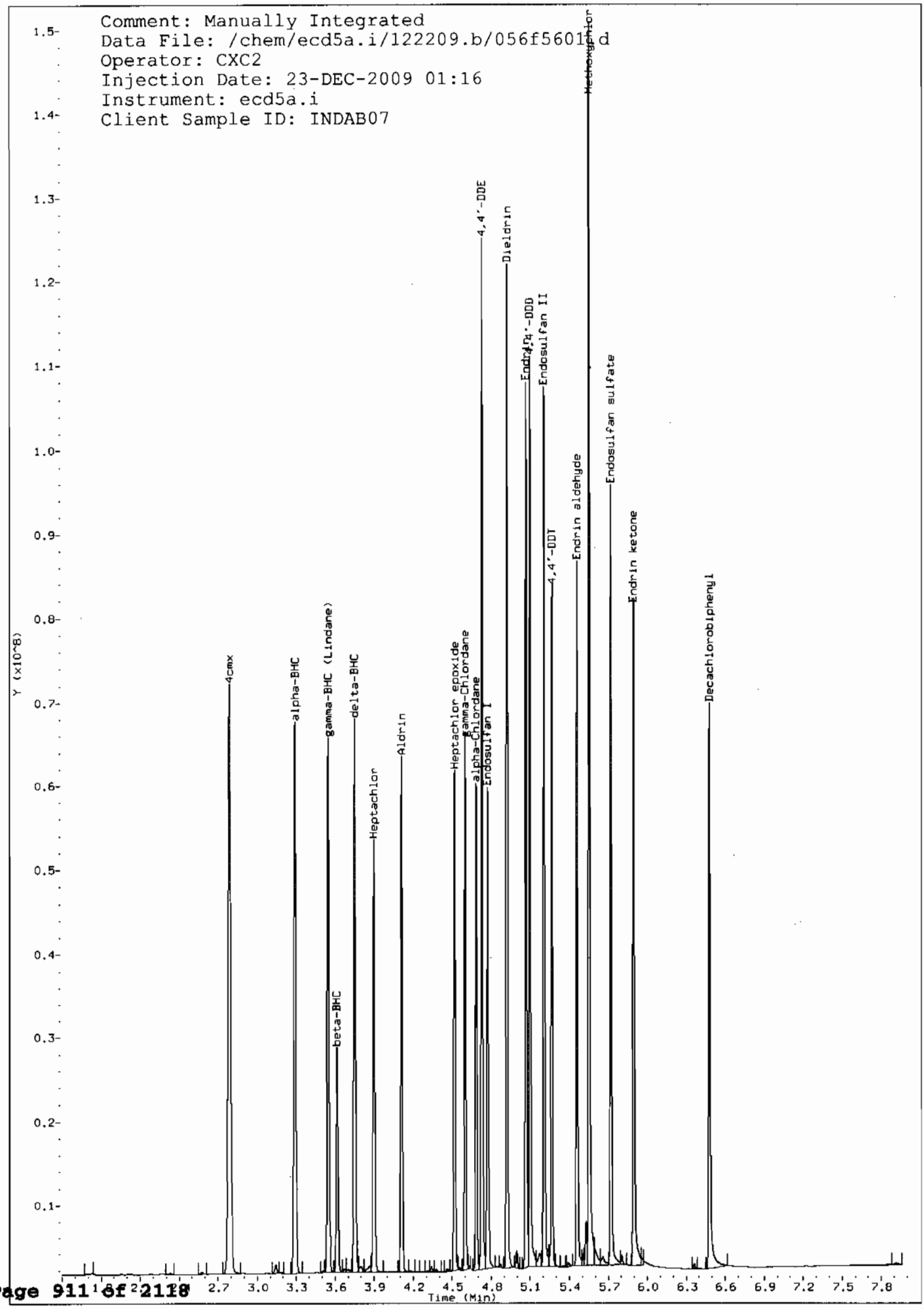
Comment: Manually Integrated
Data File: /chem/ecd5a.i/122209.b/056f5601.d
Operator: CXC2
Injection Date: 23-DEC-2009 01:16
Instrument: ecd5a.i
Client Sample ID: INDAB07
Y (x10^-8)
Time (Min)
4cmx
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide
gamma-Chlordane
alpha-Chlordane
Endosulfan I
4,4'-DDE
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Methoxychlor
Endosulfan sulfate
Endrin ketone
Decachlorobiphenyl

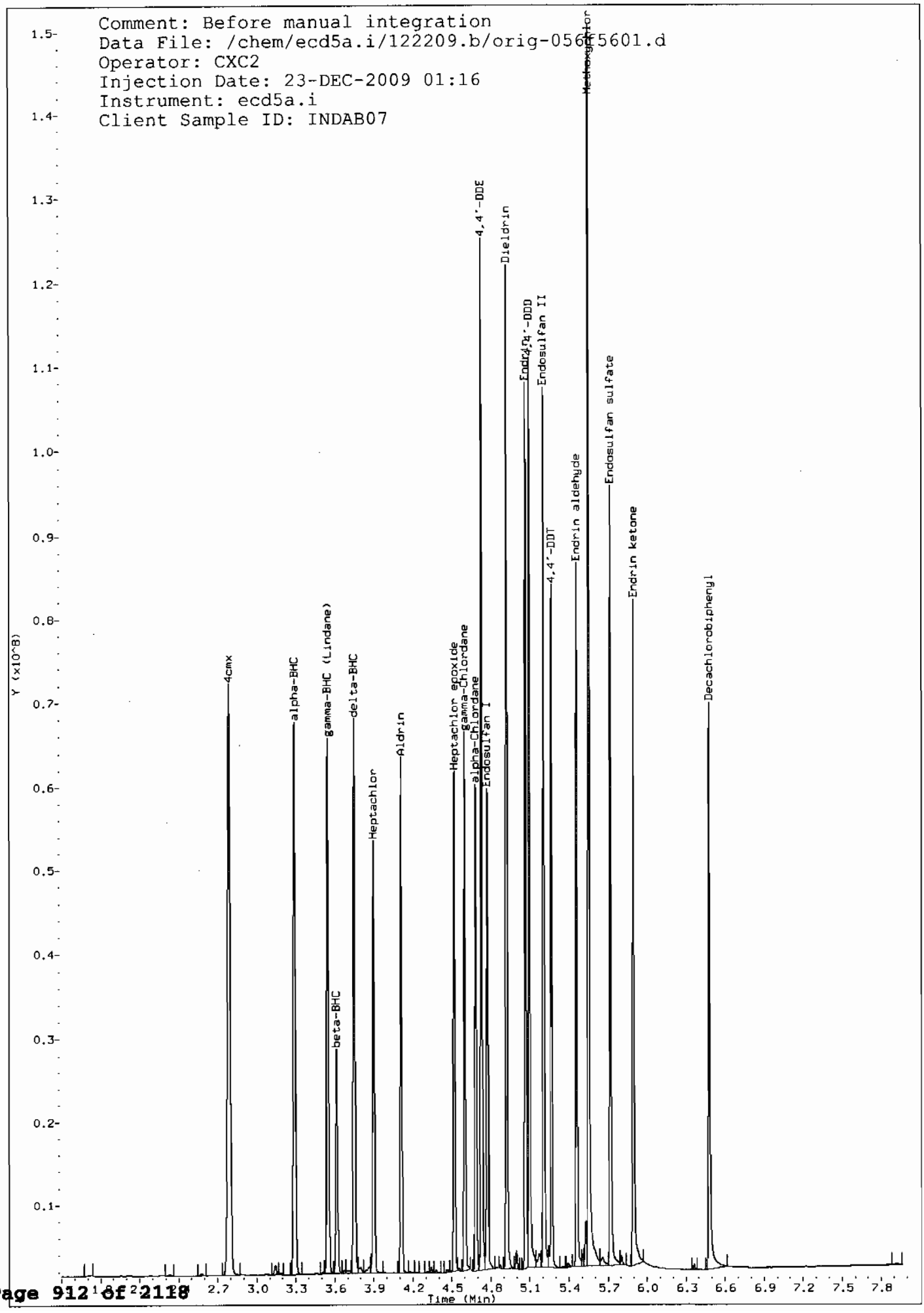
Comment: Before manual integration
Data File: /chem/ecd5a.i/122209.b/orig-056f5601.d
Operator: CXC2
Injection Date: 23-DEC-2009 01:16
Instrument: ecd5a.i
Client Sample ID: INDAB07
Y (x10^8)
Time (Min)
4cmx
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide
alpha-Chlordane
gamma-Chlordane
Endosulfan I
4,4'-DDE
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Methoxychlor
Endosulfan sulfate
Endrin ketone
Decachlorobiphenyl

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd5a.i/122209.b/056b5601.d
Lab Smp Id: WPE091207-10AB Client Smp ID: INDAB07
Inj Date : 23-DEC-2009 01:16
Operator : CXC2 Inst ID: ecd5a.i
Smp Info : |WPE091207-10AB
Misc Info :
Comment :
Method : /chem/ecd5a.i/122209.b/ECD5-B-8081-121809.m
Meth Date : 23-Dec-2009 08:46 cla01575 Quant Type: ESTD
Cal Date : 05-DEC-2009 03:28 Cal File: 025b2501.d
Als bottle: 56 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
3.721	3.724	-0.003	443867643	100.000	100	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.998	4.000	-0.002	385886027	100.000	101	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
4.054	4.056	-0.002	157223478	100.000	92.9	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
4.324	4.327	-0.003	254732182	100.000	79.8	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
4.270	4.272	-0.002	364531280	100.000	97.9	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.552	4.555	-0.003	306593347	100.000	93.1	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.925	4.927	-0.002	280616368	100.000	95.3	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
5.046	5.048	-0.002	283033606	100.000	101	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
5.137	5.139	-0.002	238049036	100.000	88.2	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
16 Endosulfan I					CAS #: 959-98-8		
5.180	5.182	-0.002	239156931	100.000	97.7	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.221	5.224	-0.003	500716248	200.000	196	80.00- 120.00	100.00(M)
20 Dieldrin					CAS #: 60-57-1		
5.349	5.352	-0.003	507881995	200.000	194	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.540	5.543	-0.003	418023111	200.000	208	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.574	5.576	-0.002	426824222	200.000	199	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
5.665	5.668	-0.003	441754966	200.000	207	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
5.865	5.867	-0.002	315133750	200.000	181	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
5.766	5.769	-0.003	107949715	200.000	78.6	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
6.032	6.035	-0.003	346618090	200.000	201	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
6.163	6.166	-0.003	254794610	1000.00	468	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
6.374	6.378	-0.004	229481982	200.000	132	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
3.195	3.198	-0.003	630467547	200.000	195	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.150	7.153	-0.003	276883374	200.000	196	80.00- 120.00	100.00

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd5a.i/122209.b/0566b5601.d
Date : 23-DEC-2009 01:16
Client ID: INDAB07
Sample Info: IWPE091207-10AB

Instrument: ecd5a.i

Column phase: CLP-2

Operator: CXC2
Column diameter: 0.25

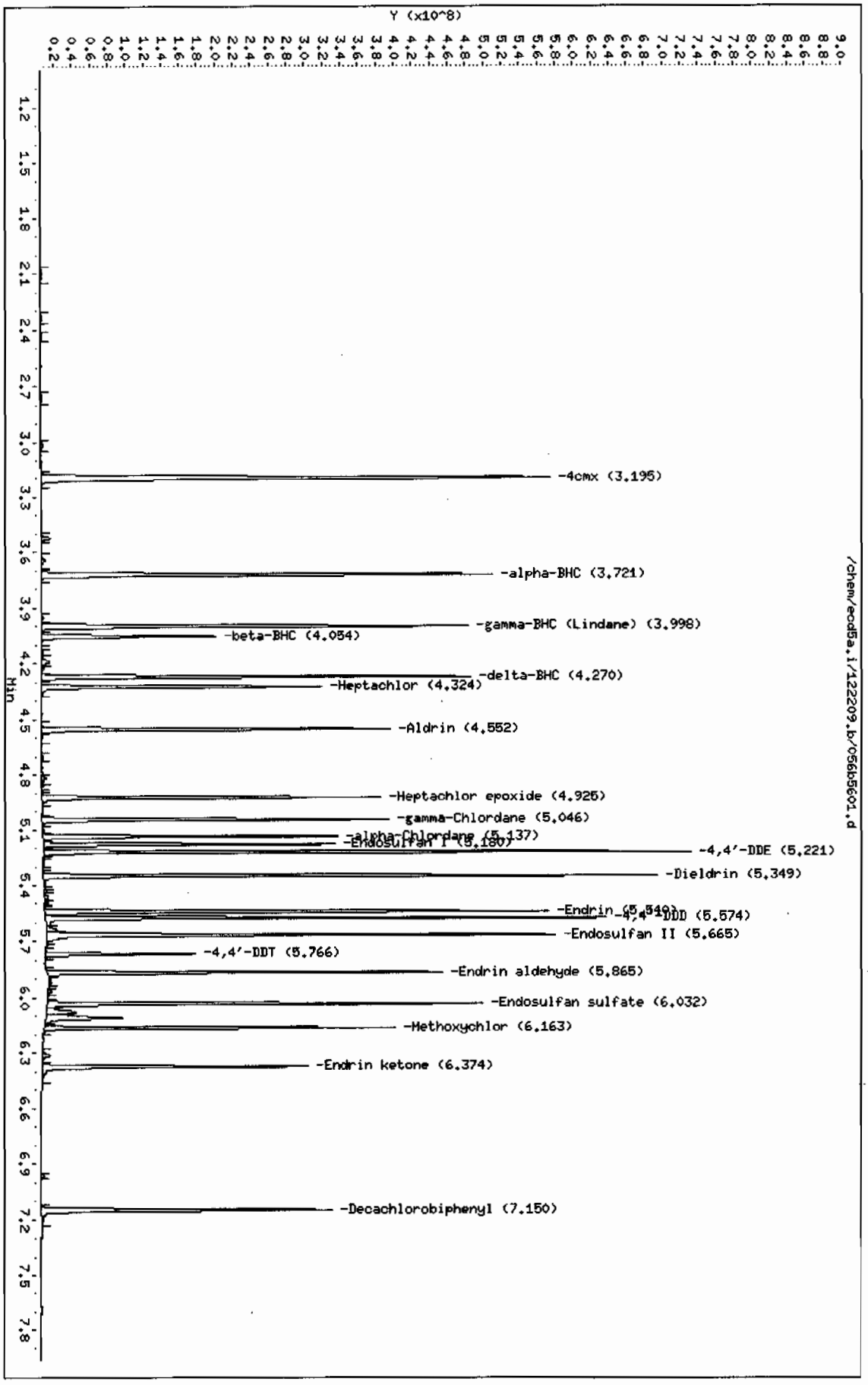

Page 1

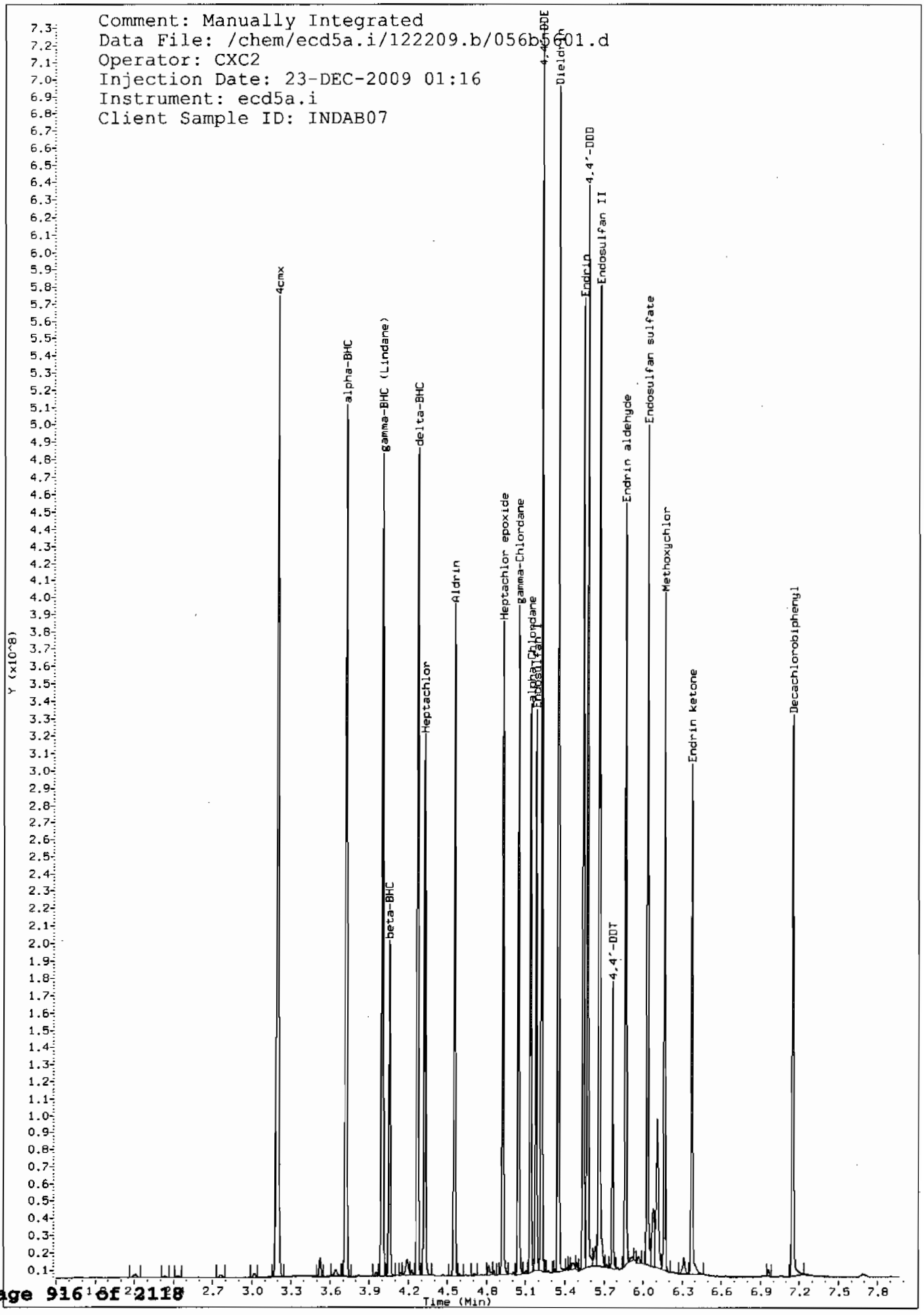
Comment: Manually Integrated
Data File: /chem/ecd5a.i/122209.b/056b5601.d
Operator: CXC2
Injection Date: 23-DEC-2009 01:16
Instrument: ecd5a.i
Client Sample ID: INDAB07
4cmx
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide
gamma-Chlordane
alpha-Chlordane
Endosulfan I
4,4'-DDE
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Endosulfan sulfate
Methoxychlor
Endrin ketone
Decachlorobiphenyl
Y (x10^8)
Time (Min)

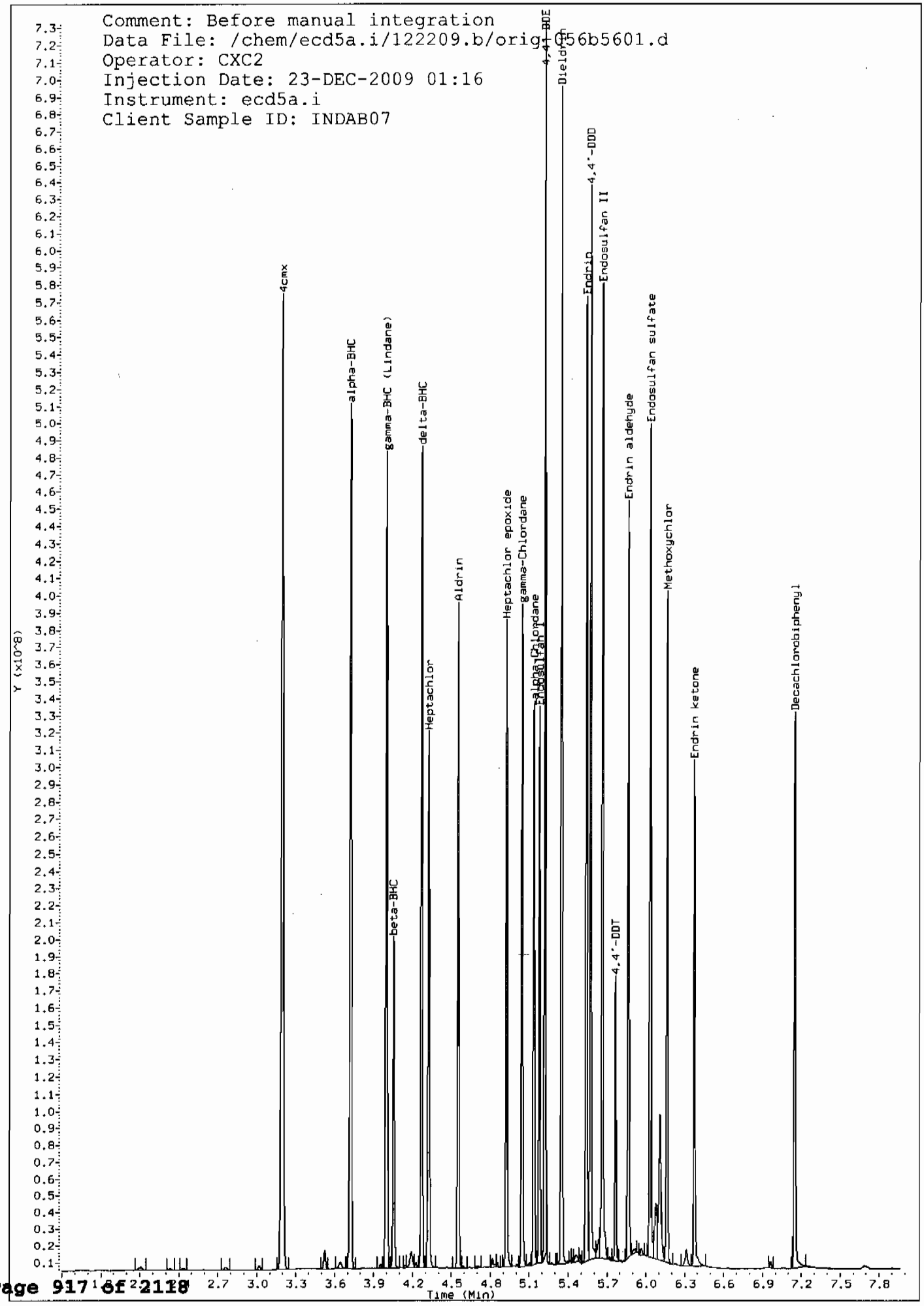
Comment: Before manual integration
Data File: /chem/ecd5a.i/122209.b/orig-C56b5601.d
Operator: CXC2
Injection Date: 23-DEC-2009 01:16
Instrument: ecd5a.i
Client Sample ID: INDAB07
4cmx
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide
gamma-Chlordane
alpha-Chlordane
Endosulfan I
4,4'-DDE
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Endosulfan sulfate
Methoxychlor
Endrin ketone
Decachlorobiphenyl
Y (x10^8)
Time (Min)

8D
PESTICIDE ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-939-1

GC Column: CLP-1 ID: 0.25 (mm) Init. Calib. Date(s): 12/18/09 12/18/09

Instrument ID: ECD5A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.79 DCB: 6.49

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR091109-99	12/18/09	1816	2.79	6.49
02	PEM01	WPE091109-99	12/18/09	1828	2.79	6.49
03	INDAB01	WPE091218-01	12/18/09	1840	2.79	6.49
04	INDAB02	WPE091218-02	12/18/09	1852	2.79	6.49
05	INDAB03	WPE091218-03	12/18/09	1903	2.79	6.49
06	INDAB04	WPE091218-04	12/18/09	1915	2.79	6.49
07	INDAB05	IPE091128-02	12/18/09	1927	2.79	6.49
08	ZZZZZ	ZZZZZ	12/18/09	1939	2.79	6.49
09	TOXAPH01	WPE091216-11	12/18/09	1951	2.79	6.49
10	TOXAPH02	WPE091216-12	12/18/09	2003	2.79	6.49
11	TOXAPH03	WPE091216-13	12/18/09	2015	2.79	6.49
12	TOXAPH04	WPE091216-14	12/18/09	2027	2.79	6.49
13	TOXAPH05	IPE091121-40	12/18/09	2039	2.79	6.49
14	TOXAPH01	WPE091104-52	12/18/09	2051	2.79	6.49
15	INDAB01	WPE091207-10	12/18/09	2103	2.79	6.49
16	CHLOR01	WPE091216-21	12/18/09	2115	2.79	6.49
17	CHLOR02	WPE091216-22	12/18/09	2127	2.79	6.49
18	CHLOR03	WPE091216-23	12/18/09	2139	2.79	6.49
19	CHLOR04	WPE091216-24	12/18/09	2151	2.79	6.49
20	CHLOR05	IPE091029-05	12/18/09	2202	2.79	6.49
21	CHLOR01	WPE091021-00	12/18/09	2214	2.79	6.49
22	PIBLK02	WAR091109-99	12/18/09	2226	2.79	6.49
23	ZZZZZ	ZZZZZ	12/18/09	2238	2.79	6.49
24	ZZZZZ	ZZZZZ	12/18/09	2250	2.79	6.49
25	ZZZZZ	ZZZZZ	12/18/09	2302	2.79	6.48
26	ZZZZZ	ZZZZZ	12/18/09	2314	2.79	6.49
27	ZZZZZ	ZZZZZ	12/18/09	2326	2.79	6.49
28	ZZZZZ	ZZZZZ	12/18/09	2338	2.79	6.49
29	ZZZZZ	ZZZZZ	12/18/09	2350	2.79	6.49
30	ZZZZZ	ZZZZZ	12/19/09	0002	2.79	6.49
31	ZZZZZ	ZZZZZ	12/19/09	0014	2.79	6.48
32	ZZZZZ	ZZZZZ	12/19/09	0025	2.79	6.49

QC LIMITS
S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII SV OLM03.0

8D
PESTICIDE ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-939-1

GC Column: CLP-2 ID: 0.25 (mm) Init. Calib. Date(s): 12/18/09 12/18/09

Instrument ID: ECD5A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 3.20 DCB: 7.16

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR091109-99	12/18/09	1816	3.20	7.16
02	PEM01	WPE091109-99	12/18/09	1828	3.20	7.16
03	INDAB01	WPE091218-01	12/18/09	1840	3.20	7.16
04	INDAB02	WPE091218-02	12/18/09	1852	3.20	7.16
05	INDAB03	WPE091218-03	12/18/09	1903	3.20	7.16
06	INDAB04	WPE091218-04	12/18/09	1915	3.20	7.16
07	INDAB05	IPE091128-02	12/18/09	1927	3.20	7.16
08	ZZZZZ	ZZZZZ	12/18/09	1939	3.20	7.16
09	TOXAPH01	WPE091216-11	12/18/09	1951	3.20	7.16
10	TOXAPH02	WPE091216-12	12/18/09	2003	3.20	7.16
11	TOXAPH03	WPE091216-13	12/18/09	2015	3.20	7.16
12	TOXAPH04	WPE091216-14	12/18/09	2027	3.20	7.16
13	TOXAPH05	IPE091121-40	12/18/09	2039	3.20	7.16
14	TOXAPH01	WPE091104-52	12/18/09	2051	3.20	7.16
15	INDAB01	WPE091207-10	12/18/09	2103	3.20	7.16
16	CHLOR01	WPE091216-21	12/18/09	2115	3.20	7.16
17	CHLOR02	WPE091216-22	12/18/09	2127	3.20	7.16
18	CHLOR03	WPE091216-23	12/18/09	2139	3.20	7.16
19	CHLOR04	WPE091216-24	12/18/09	2151	3.20	7.16
20	CHLOR05	IPE091029-05	12/18/09	2202	3.20	7.16
21	CHLOR01	WPE091021-00	12/18/09	2214	3.20	7.16
22	PIBLK02	WAR091109-99	12/18/09	2226	3.20	7.16
23	ZZZZZ	ZZZZZ	12/18/09	2238	3.20	7.16
24	ZZZZZ	ZZZZZ	12/18/09	2250	3.20	7.16
25	ZZZZZ	ZZZZZ	12/18/09	2302	3.20	7.16
26	ZZZZZ	ZZZZZ	12/18/09	2314	3.20	7.16
27	ZZZZZ	ZZZZZ	12/18/09	2326	3.20	7.16
28	ZZZZZ	ZZZZZ	12/18/09	2338	3.20	7.16
29	ZZZZZ	ZZZZZ	12/18/09	2350	3.20	7.16
30	ZZZZZ	ZZZZZ	12/19/09	0002	3.20	7.16
31	ZZZZZ	ZZZZZ	12/19/09	0014	3.20	7.16
32	ZZZZZ	ZZZZZ	12/19/09	0025	3.20	7.16

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

page 1 of 1

FORM VIII SV OLM03.0

8D
PESTICIDE ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-939-1

GC Column: CLP-1 ID: 0.25 (mm) Init. Calib. Date(s): 12/18/09 12/22/09

Instrument ID: ECD5A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.79 DCB: 6.48

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR091109-99	12/22/09	1317	2.79	6.49
02	PEM01	WPE091109-99	12/22/09	1329	2.79	6.48
03	ZZZZZ	ZZZZZ	12/22/09	1341	2.79	6.48
04	TOXAPH01	WPE091104-52	12/22/09	1353	2.79	6.48
05	CHLOR01	WPE091021-00	12/22/09	1405	2.79	6.48
06	ZZZZZ	ZZZZZ	12/22/09	1447	2.79	6.51
07	INDAB01	WPE091222-02	12/22/09	1504	2.79	6.50
08	INDAB02	WPE091222-02	12/22/09	1516	2.79	6.48
09	INDAB03	WPE091222-03	12/22/09	1528	2.79	6.48
10	INDAB04	WPE091222-04	12/22/09	1540	2.79	6.48
11	INDAB05	IPE091128-02	12/22/09	1552	2.79	6.48
12	INDAB01	WPE091207-10	12/22/09	1604	2.79	6.48
13	PEM02	WPE091109-99	12/22/09	1616	2.79	6.48
14	PIBLK02	WAR091109-99	12/22/09	1638	2.79	6.50
15	ZZZZZ	ZZZZZ	12/22/09	1659	2.79	6.49
16	ZZZZZ	ZZZZZ	12/22/09	1711	2.79	6.48
17	ZZZZZ	ZZZZZ	12/22/09	1723	2.79	6.48
18	ZZZZZ	ZZZZZ	12/22/09	1735	2.79	6.48
19	ZZZZZ	ZZZZZ	12/22/09	1747	2.79	6.48
20	INDAB02	WPE091207-10	12/22/09	1759	2.79	6.48
21	PIBLK03	WAR091109-99	12/22/09	1811	2.79	6.48
22	ZZZZZ	ZZZZZ	12/22/09	1823	2.79	6.48
23	INDAB03	WPE091207-10	12/22/09	1835	2.79	6.48
24	ZZZZZ	ZZZZZ	12/22/09	1847	2.79	6.48
25	ZZZZZ	ZZZZZ	12/22/09	1859	2.79	6.48
26	ZZZZZ	ZZZZZ	12/22/09	1913	2.79	6.48
27	ZZZZZ	ZZZZZ	12/22/09	1929	2.79	6.49
28	ZZZZZ	ZZZZZ	12/22/09	1941	2.79	6.48
29	ZZZZZ	ZZZZZ	12/22/09	1953	2.79	6.48
30	ZZZZZ	ZZZZZ	12/22/09	2005	2.79	6.48
31	ZZZZZ	ZZZZZ	12/22/09	2017	2.79	6.48
32	ZZZZZ	ZZZZZ	12/22/09	2029	2.79	6.48

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII SV OLM03.0

8D
PESTICIDE ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-939-1

GC Column: CLP-1 ID: 0.25 (mm) Init. Calib. Date(s): 12/18/09 12/22/09

Instrument ID: ECD5A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.79 DCB: 6.48

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	ZZZZZ	ZZZZZ	12/22/09	2041	2.79	6.48
02	PIBLK05	WAR091109-99	12/22/09	2053	2.79	6.48
03	INDAB04	WPE091207-10	12/22/09	2105	2.79	6.48
04	PIBLK06	WAR091109-99	12/22/09	2117	2.79	6.48
05	ZZZZZ	ZZZZZ	12/22/09	2129	2.79	6.48
06	ZZZZZ	ZZZZZ	12/22/09	2141	2.79	6.48
07	ZZZZZ	ZZZZZ	12/22/09	2153	2.79	6.48
08	ZZZZZ	ZZZZZ	12/22/09	2205	2.79	6.48
09	ZZZZZ	ZZZZZ	12/22/09	2217	2.79	6.48
10	ZZZZZ	ZZZZZ	12/22/09	2228	2.79	6.48
11	WST03-10-2147	243010001	12/22/09	2240	2.79	6.48
12	PIBLK07	WAR091109-99	12/22/09	2252	2.79	6.48
13	INDAB05	WPE091207-10	12/22/09	2304	2.79	6.48
14	PIBLK08	WAR091109-99	12/22/09	2316	2.79	6.48
15	PBLK01	1201998973	12/22/09	2328	2.79	6.48
16	PBLK01LCS	1201998980	12/22/09	2340	2.79	6.48
17	PBLK01TLCS	1201998981	12/22/09	2352	2.79	6.48
18	PBLK01CLCS	1201998982	12/23/09	0004	2.79	6.48
19	INDAB06	WPE091207-10	12/23/09	0016	2.79	6.48
20	PIBLK09	WAR091109-99	12/23/09	0028	2.79	6.48
21	ZZZZZ	ZZZZZ	12/23/09	0040	2.79	6.48
22	ZZZZZ	ZZZZZ	12/23/09	0052	2.79	6.48
23	TBLK01	1201999915	12/23/09	0104	2.79	6.48
24	INDAB07	WPE091207-10	12/23/09	0116	2.79	6.48
25	PIBLK10	WAR091109-99	12/23/09	0128	2.79	6.48
26	ZZZZZ	ZZZZZ	12/23/09	0140	2.79	6.48
27	ZZZZZ	ZZZZZ	12/23/09	0152	2.79	6.48
28	ZZZZZ	ZZZZZ	12/23/09	0204	2.79	6.48
29	ZZZZZ	ZZZZZ	12/23/09	0216	2.79	6.48
30	ZZZZZ	ZZZZZ	12/23/09	0228	2.79	6.48
31	INDAB08	WPE091207-10	12/23/09	0240	2.79	6.48
32	PIBLK11	WAR091109-99	12/23/09	0252	2.79	6.48

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII SV OLM03.0

8D
PESTICIDE ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-939-1

GC Column: CLP-2 ID: 0.25 (mm) Init. Calib. Date(s): 12/18/09 12/22/09

Instrument ID: ECD5A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 3.20 DCB: 7.15

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR091109-99	12/22/09	1317	3.19	7.16
02	PEM01	WPE091109-99	12/22/09	1329	3.20	7.15
03	ZZZZZ	ZZZZZ	12/22/09	1341	3.20	7.15
04	TOXAPH01	WPE091104-52	12/22/09	1353	3.20	7.15
05	CHLOR01	WPE091021-00	12/22/09	1405	3.20	7.15
06	ZZZZZ	ZZZZZ	12/22/09	1447	3.19	7.18
07	INDAB01	WPE091222-01	12/22/09	1504	3.19	7.16
08	INDAB02	WPE091222-02	12/22/09	1516	3.19	7.15
09	INDAB03	WPE091222-03	12/22/09	1528	3.19	7.15
10	INDAB04	WPE091222-04	12/22/09	1540	3.19	7.15
11	INDAB05	IPE091128-02	12/22/09	1552	3.20	7.15
12	INDAB01	WPE091207-10	12/22/09	1604	3.20	7.15
13	PEM02	WPE091109-99	12/22/09	1616	3.20	7.15
14	PIBLK02	WAR091109-99	12/22/09	1638	3.20	7.17
15	ZZZZZ	ZZZZZ	12/22/09	1659	3.19	7.16
16	ZZZZZ	ZZZZZ	12/22/09	1711	3.19	7.15
17	ZZZZZ	ZZZZZ	12/22/09	1723	3.20	7.15
18	ZZZZZ	ZZZZZ	12/22/09	1735	3.20	7.15
19	ZZZZZ	ZZZZZ	12/22/09	1747	3.20	7.15
20	INDAB02	WPE091207-10	12/22/09	1759	3.19	7.15
21	PIBLK03	WAR091109-99	12/22/09	1811	3.20	7.15
22	ZZZZZ	ZZZZZ	12/22/09	1823	3.20	7.15
23	INDAB03	WPE091207-10	12/22/09	1835	3.20	7.15
24	ZZZZZ	ZZZZZ	12/22/09	1847	3.20	7.15
25	ZZZZZ	ZZZZZ	12/22/09	1859	3.20	7.15
26	ZZZZZ	ZZZZZ	12/22/09	1913	3.20	7.15
27	ZZZZZ	ZZZZZ	12/22/09	1929	3.20	7.15
28	ZZZZZ	ZZZZZ	12/22/09	1941	3.19	7.15
29	ZZZZZ	ZZZZZ	12/22/09	1953	3.20	7.15
30	ZZZZZ	ZZZZZ	12/22/09	2005	3.20	7.15
31	ZZZZZ	ZZZZZ	12/22/09	2017	3.20	7.15
32	ZZZZZ	ZZZZZ	12/22/09	2029	3.20	7.15

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII SV OLM03.0

8D
PESTICIDE ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-939-1

GC Column: CLP-2 ID: 0.25 (mm) Init. Calib. Date(s): 12/18/09 12/22/09

Instrument ID: ECD5A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 3.20 DCB: 7.15

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	ZZZZZ	ZZZZZ	12/22/09	2041	3.20	7.15
02	PIBLK05	WAR091109-99	12/22/09	2053	3.20	7.15
03	INDAB04	WPE091207-10	12/22/09	2105	3.20	7.15
04	PIBLK06	WAR091109-99	12/22/09	2117	3.19	7.15
05	ZZZZZ	ZZZZZ	12/22/09	2129	3.20	7.15
06	ZZZZZ	ZZZZZ	12/22/09	2141	3.20	7.15
07	ZZZZZ	ZZZZZ	12/22/09	2153	3.20	7.15
08	ZZZZZ	ZZZZZ	12/22/09	2205	3.20	7.15
09	ZZZZZ	ZZZZZ	12/22/09	2217	3.20	7.15
10	ZZZZZ	ZZZZZ	12/22/09	2228	3.20	7.15
11	WST03-10-2147	243010001	12/22/09	2240	3.20	7.15
12	PIBLK07	WAR091109-99	12/22/09	2252	3.20	7.15
13	INDAB05	WPE091207-10	12/22/09	2304	3.20	7.15
14	PIBLK08	WAR091109-99	12/22/09	2316	3.20	7.15
15	PBLK01	1201998973	12/22/09	2328	3.20	7.15
16	PBLK01LCS	1201998980	12/22/09	2340	3.20	7.15
17	PBLK01TLCS	1201998981	12/22/09	2352	3.20	7.15
18	PBLK01CLCS	1201998982	12/23/09	0004	3.20	7.15
19	INDAB05	WPE091207-10	12/23/09	0016	3.19	7.15
20	PIBLK09	WAR091109-99	12/23/09	0028	3.20	7.15
21	ZZZZZ	ZZZZZ	12/23/09	0040	3.20	7.15
22	ZZZZZ	ZZZZZ	12/23/09	0052	3.20	7.15
23	TBLK01	1201999915	12/23/09	0104	3.20	7.15
24	INDAB07	WPE091207-10	12/23/09	0116	3.19	7.15
25	PIBLK10	WAR091109-99	12/23/09	0128	3.20	7.15
26	ZZZZZ	ZZZZZ	12/23/09	0140	3.20	7.15
27	ZZZZZ	ZZZZZ	12/23/09	0152	3.20	7.15
28	ZZZZZ	ZZZZZ	12/23/09	0204	3.20	7.15
29	ZZZZZ	ZZZZZ	12/23/09	0216	3.20	7.15
30	ZZZZZ	ZZZZZ	12/23/09	0228	3.20	7.15
31	INDAB08	WPE091207-10	12/23/09	0240	3.19	7.15
32	PIBLK11	WAR091109-99	12/23/09	0252	3.19	7.15

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII SV OLM03.0

Identification Summary

SDG Number: 10-939-1 **Client ID:** LCS for batch 934314

Lab Sample ID: 1201998980

Data File:	048f4801.d	**Data File:**	048b4801.d
Inst:	ECD5A.I_1	**Inst:**	ECD5A.I_2
Column:	CLP-1	**Column:**	CLP-2
Analyzed:	22-DEC-09 23:40	**Analyzed:**	22-DEC-09 23:40

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
gamma-BHC (Lindane)							21.5
Column 1	1	3.55	3.52 – 3.58	.00434		mg/L	
Column 2	1	4	3.97 – 4.03	.00349		mg/L	
Heptachlor							17.6
Column 1	1	3.9	3.87 – 3.93	.00366		mg/L	
Column 2	1	4.33	4.3 – 4.36	.00306		mg/L	
Heptachlor epoxide							15.5
Column 1	1	4.52	4.49 – 4.55	.00413		mg/L	
Column 2	1	4.93	4.9 – 4.96	.00353		mg/L	
Endrin							10.7
Column 1	1	5.07	5.04 – 5.1	.00523		mg/L	
Column 2	1	5.54	5.51 – 5.57	.00469		mg/L	
Methoxychlor							4.32
Column 1	1	5.55	5.52 – 5.58	.0569		mg/L	
Column 2	1	6.16	6.14 – 6.2	.0594		mg/L	

Identification Summary

SDG Number: 10–939–1

Lab Sample ID: 1201998982

Client ID: LCS for batch 934314

Data File:	050f5001.d	**Data File:**	050b5001.d
Inst:	ECD5A.I_1	**Inst:**	ECD5A.I_2
Column:	CLP–1	**Column:**	CLP–2
Analyzed:	23–DEC–09 00:04	**Analyzed:**	23–DEC–09 00:04

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Chlordane (tech.)							4.67
Column 1	1	3.84	3.74 – 3.94	.0681		mg/L	
	2	3.9	3.8 – 4	.0808		mg/L	
	3	4.21	4.11 – 4.31	.0849		mg/L	
	4	4.6	4.5 – 4.7	.077		mg/L	
	5	5.16	5.07 – 5.27	.0778		mg/L	
					.0777		
Column 2	1	4.22	4.19 – 4.25	.0627		mg/L	
	2	4.64	4.62 – 4.68	.0885		mg/L	
	3	4.9	4.87 – 4.93	.0805		mg/L	
	4	5.05	5.02 – 5.08	.0719		mg/L	
	5	5.14	5.11 – 5.17	.0673		mg/L	
					.0742		

Identification Summary

SDG Number: 10–939–1 **Client ID:** LCS for batch 934314

Lab Sample ID: 1201998981

Data File:	049f4901.d	**Data File:**	049b4901.d
Inst:	ECD5A.I_1	**Inst:**	ECD5A.I_2
Column:	CLP–1	**Column:**	CLP–2
Analyzed:	22–DEC–09 23:52	**Analyzed:**	22–DEC–09 23:52

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Toxaphene							38.2
Column 1	1	4.71	4.68 – 4.74	.0716		mg/L	
	2	4.93	4.9 – 4.96	.0887		mg/L	
	3	4.98	4.95 – 5.01	.0863		mg/L	
	4	5.02	4.99 – 5.05	.0841		mg/L	
	5	5.08	5.05 – 5.11	.0866		mg/L	
					.0835		
Column 2	1	5.4	5.38 – 5.44	.0788		mg/L	
	2	5.55	5.51 – 5.57	.0762		mg/L	
	3	5.63	5.6 – 5.66	.0511		mg/L	
	4	5.66	5.63 – 5.69	.0354		mg/L	
	5	5.72	5.69 – 5.75	.042		mg/L	
					.0567		

QUALITY CONTROL DATA

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	**10–939–1**			**Matrix:**	**TCLP SOIL**
Lab Sample ID:	**1201999915**				
Client Sample:	**QC for batch 934762**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**TB for batch 934762**	**Method:**	**SW846 8081A**	**SOP Ref:**	**GL–OA–E–041**
Batch ID:	**934315**	**Inst:**	**ECD5A.I**	**Dilution:**	**1**
Run Date:	**12/23/2009 01:04**	**Analyst:**	**CXC2**	**Inj. Vol:**	**1 uL**
Prep Date:	**12/22/2009 17:25**	**Aliquot:**	**20 mL**	**Final Volume:**	**1 mL**
Data File:	**055f5501.d**	**Column:**	**1 CLP–1**	**Level:**	**LOW**
	055b5501.d		**2 CLP–2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
58–89–9	gamma–BHC (Lindane)	U	0.0002	mg/L	0.00005	0.0002	1
76–44–8	Heptachlor	U	0.0002	mg/L	0.00005	0.0002	1
1024–57–3	Heptachlor epoxide	U	0.0002	mg/L	0.00005	0.0002	1
72–20–8	Endrin	U	0.0004	mg/L	0.0001	0.0004	1
72–43–5	Methoxychlor	U	0.002	mg/L	0.0005	0.002	1
57–74–9	Chlordane (tech.)	U	0.0025	mg/L	0.000765	0.0025	1
8001–35–2	Toxaphene	U	0.005	mg/L	0.0015	0.005	1

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd5a.i/122209.b/055f5501.d
Lab Smp Id: 1201999915 Client Smp ID: TBLK01
Inj Date : 23-DEC-2009 01:04
Operator : CXC2 Inst ID: ecd5a.i
Smp Info : |1201999915|1|
Misc Info : |ECDPTL_1L|934315|SVP|TB|SOIL|TB|||
Comment :
Method : /chem/ecd5a.i/122209.b/ECD5-F-8081-121809.m
Meth Date : 23-Dec-2009 08:48 cla01575 Quant Type: ESTD
Cal Date : 05-DEC-2009 03:28 Cal File: 025f2501.d
Als bottle: 55 QC Sample: TB
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-939-1.sub
Target Version: 3.50 Sample Matrix: Water
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	0.00100	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	20.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (mg/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.790	2.790	0.000	38342398	82.7487	0.00414	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
6.477	6.482	-0.005	40666180	148.832	0.00744	80.00- 120.00	100.00

Data File: /chem/ecd5a.i/122209.b/055f5501.d

Date : 23-DEC-2009 01:04

Client ID: TBLK01

Sample Info: |1201999915|1|

Volume Injected (uL): 1.0

Column phase: CLP-1

Instrument: ecd5a.i

Operator: CXC2

Column diameter: 0.25

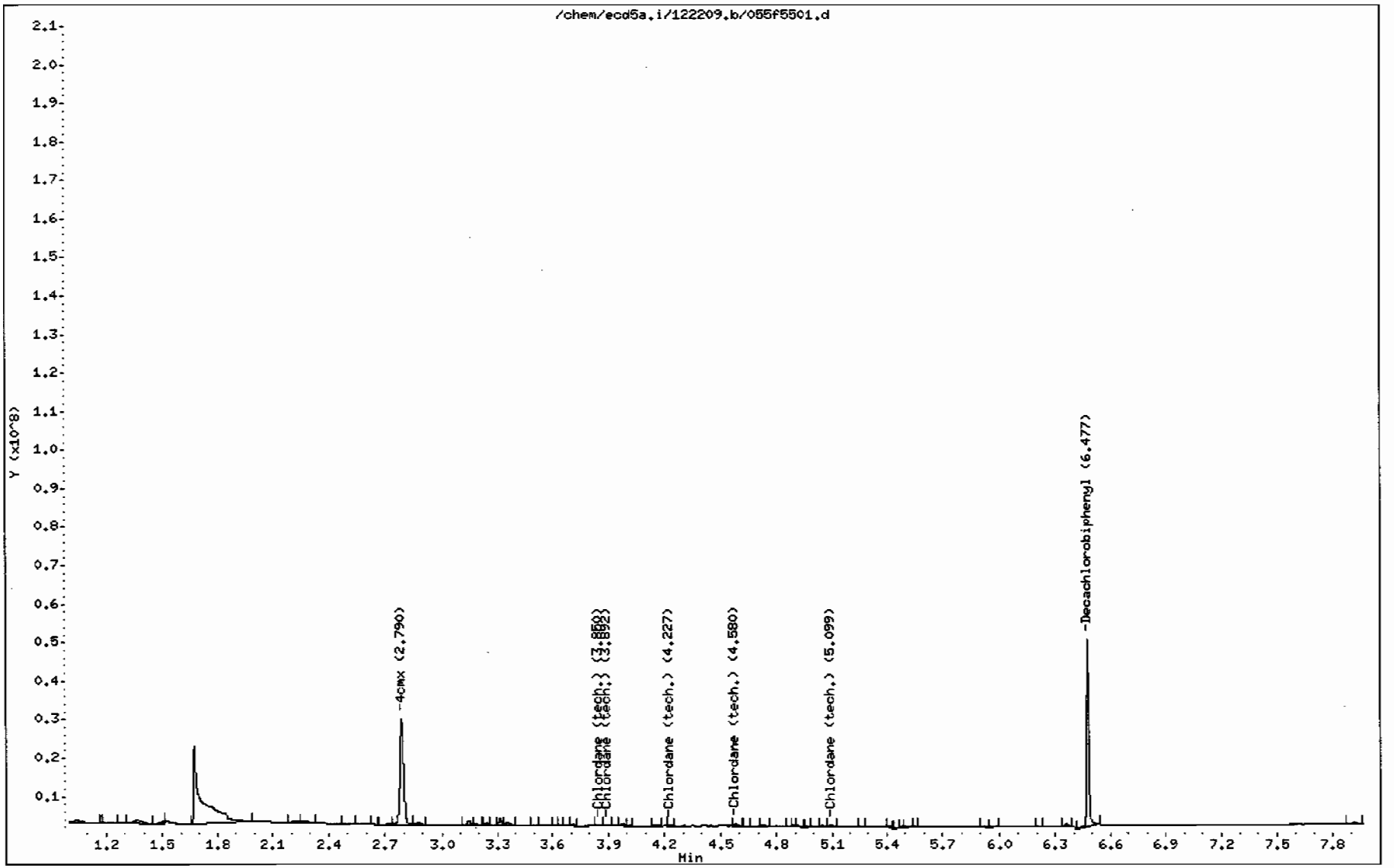

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd5a.i/122209.b/055b5501.d
Lab Smp Id: 1201999915 Client Smp ID: TBLK01
Inj Date : 23-DEC-2009 01:04
Operator : CXC2 Inst ID: ecd5a.i
Smp Info : |1201999915|1|
Misc Info : |ECDPTL_1L|934315|SVP|TB|SOIL|TB|||
Comment :
Method : /chem/ecd5a.i/122209.b/ECD5-B-8081-121809.m
Meth Date : 23-Dec-2009 08:46 cla01575 Quant Type: ESTD
Cal Date : 05-DEC-2009 03:28 Cal File: 025b2501.d
Als bottle: 55 QC Sample: TB
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-939-1.sub
Target Version: 3.50 Sample Matrix: Water
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	0.00100	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	20.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (mg/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
3.196	3.198	-0.002	220202630	68.0789	0.00340	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.148	7.153	-0.005	200307641	142.122	0.00711	80.00- 120.00	100.00

Data File: /chem/ecd5a.i/122209.b/055b5501.d

Date : 23-DEC-2009 01:04

Client ID: TBLK01

Sample Info: |120199991511|

Volume Injected (uL): 1.0

Column phase: CLP-2

Instrument: ecd5a.i

Operator: CXC2

Column diameter: 0.25

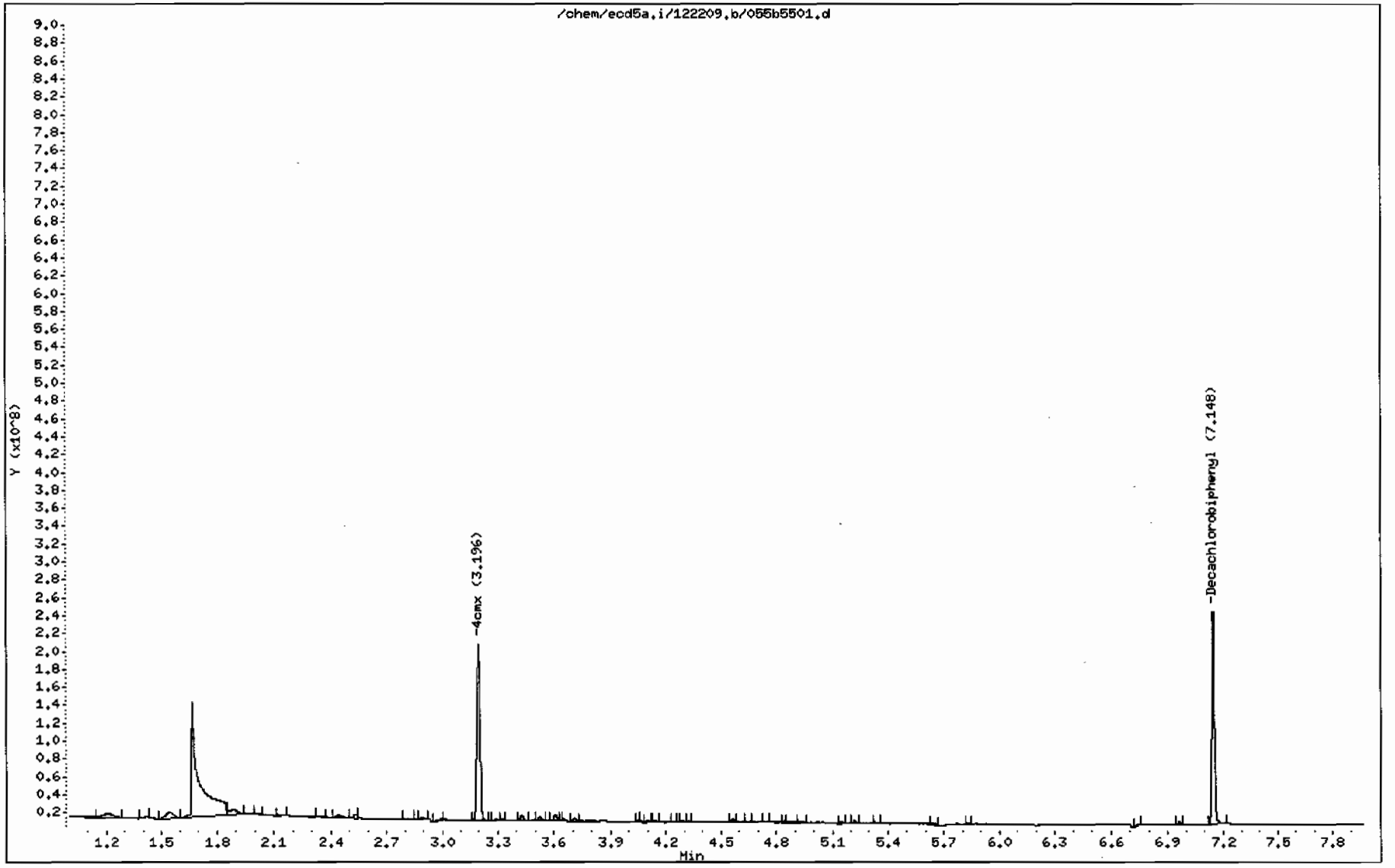

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	10-939-1			**Matrix:**	TCLP SOIL
Lab Sample ID:	1201998973				
Client Sample:	QC for batch 934314	**Client:**	LANL010	**Project:**	QC
Client ID:	MB for batch 934314	**Method:**	SW846 8081A	**SOP Ref:**	GL-OA-E-041
Batch ID:	934315	**Inst:**	ECD5A.I	**Dilution:**	1
Run Date:	12/22/2009 23:28	**Analyst:**	CXC2	**Inj. Vol:**	1 uL
Prep Date:	12/22/2009 17:25	**Aliquot:**	20 mL	**Final Volume:**	1 mL
Data File:	047f4701-786.d	**Column:**	1 CLP-1	**Level:**	LOW
	047b4701-786.d		2 CLP-2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
58-89-9	gamma-BHC (Lindane)	U	0.0002	mg/L	0.00005	0.0002	1
76-44-8	Heptachlor	U	0.0002	mg/L	0.00005	0.0002	1
1024-57-3	Heptachlor epoxide	U	0.0002	mg/L	0.00005	0.0002	1
72-20-8	Endrin	U	0.0004	mg/L	0.0001	0.0004	1
72-43-5	Methoxychlor	U	0.002	mg/L	0.0005	0.002	1
57-74-9	Chlordane (tech.)	U	0.0025	mg/L	0.000765	0.0025	1
8001-35-2	Toxaphene	U	0.005	mg/L	0.0015	0.005	1

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CLP-1

Data file : /chem/ecd5a.i/122209.b/047f4701-939.d
Lab Smp Id: 1201998973 Client Smp ID: PBLK01
Inj Date : 22-DEC-2009 23:28
Operator : CXC2 Inst ID: ecd5a.i
Smp Info : |1201998973|1|
Misc Info : |ECDPTL_1L|934315|SVP|MB|SOIL|MB|||
Comment :
Method : /chem/ecd5a.i/122209.b/ECD5-F-8081-121809.m
Meth Date : 23-Dec-2009 08:48 cla01575 Quant Type: ESTD
Cal Date : 05-DEC-2009 03:28 Cal File: 025f2501.d
Als bottle: 47 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-939-1.sub
Target Version: 3.50 Sample Matrix: Water
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	0.00100	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	20.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (mg/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.792	2.790	0.002	35537914	76.6962	0.00383	80.00- 120.00	100.00(M)
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
6.477	6.482	-0.005	47407836	173.506	0.00868	80.00- 120.00	100.00

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd5a.i/122209.b/047f4701-939.d

Date : 22-DEC-2009 23:28

Client ID: PBLK01

Sample Info: 1120199897311

Volume Injected (uL): 1.0

Column phase: CLP-1

Instrument: ecd5a.i

Operator: CXC2

Column diameter: 0.25

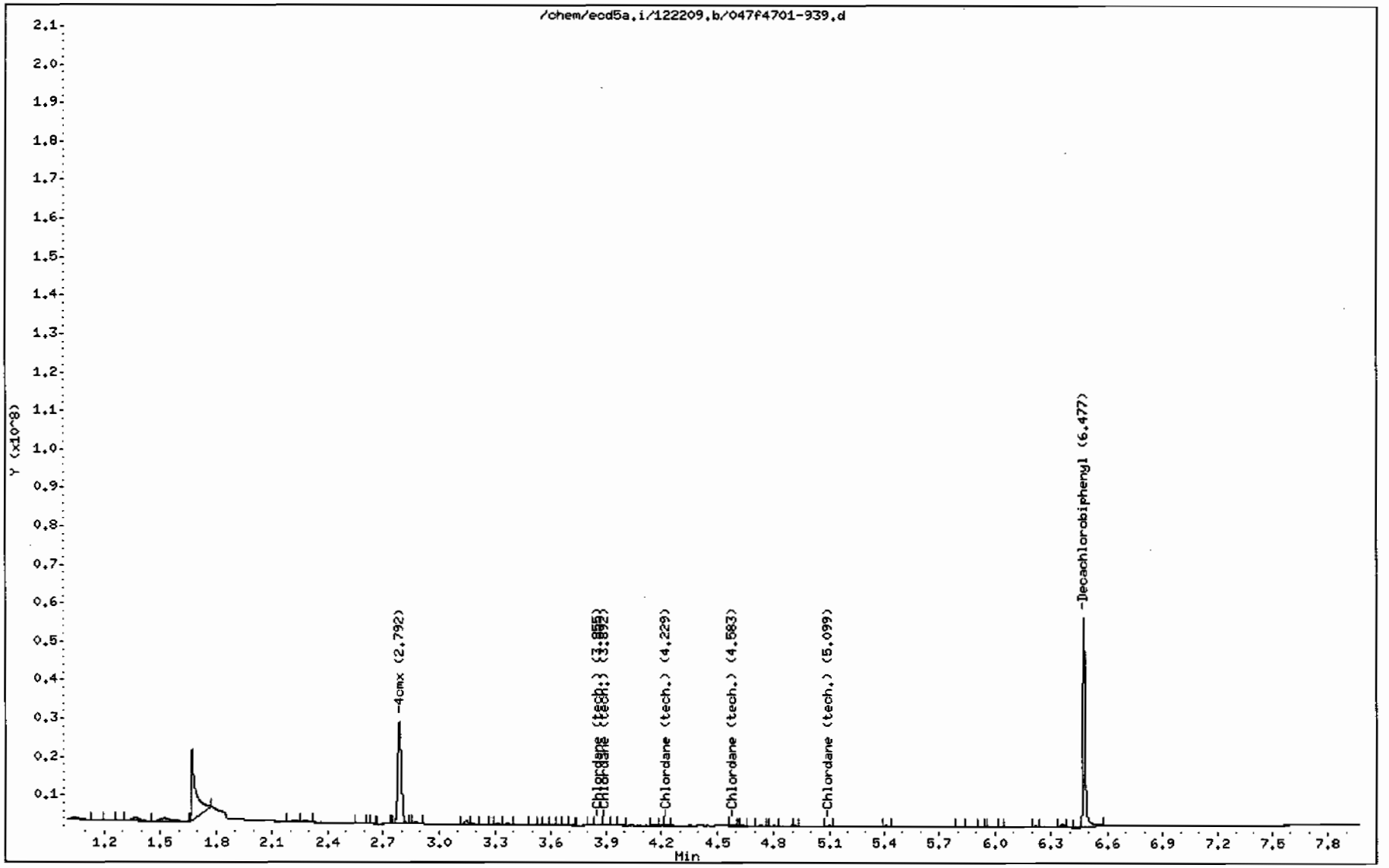

Comment: Manually Integrated
Data File: /chem/ecd5a.i/122209.b/047f4701-939.d
Operator: CXC2
Injection Date: 22-DEC-2009 23:28
Instrument: ecd5a.i
Client Sample ID: PBLK01

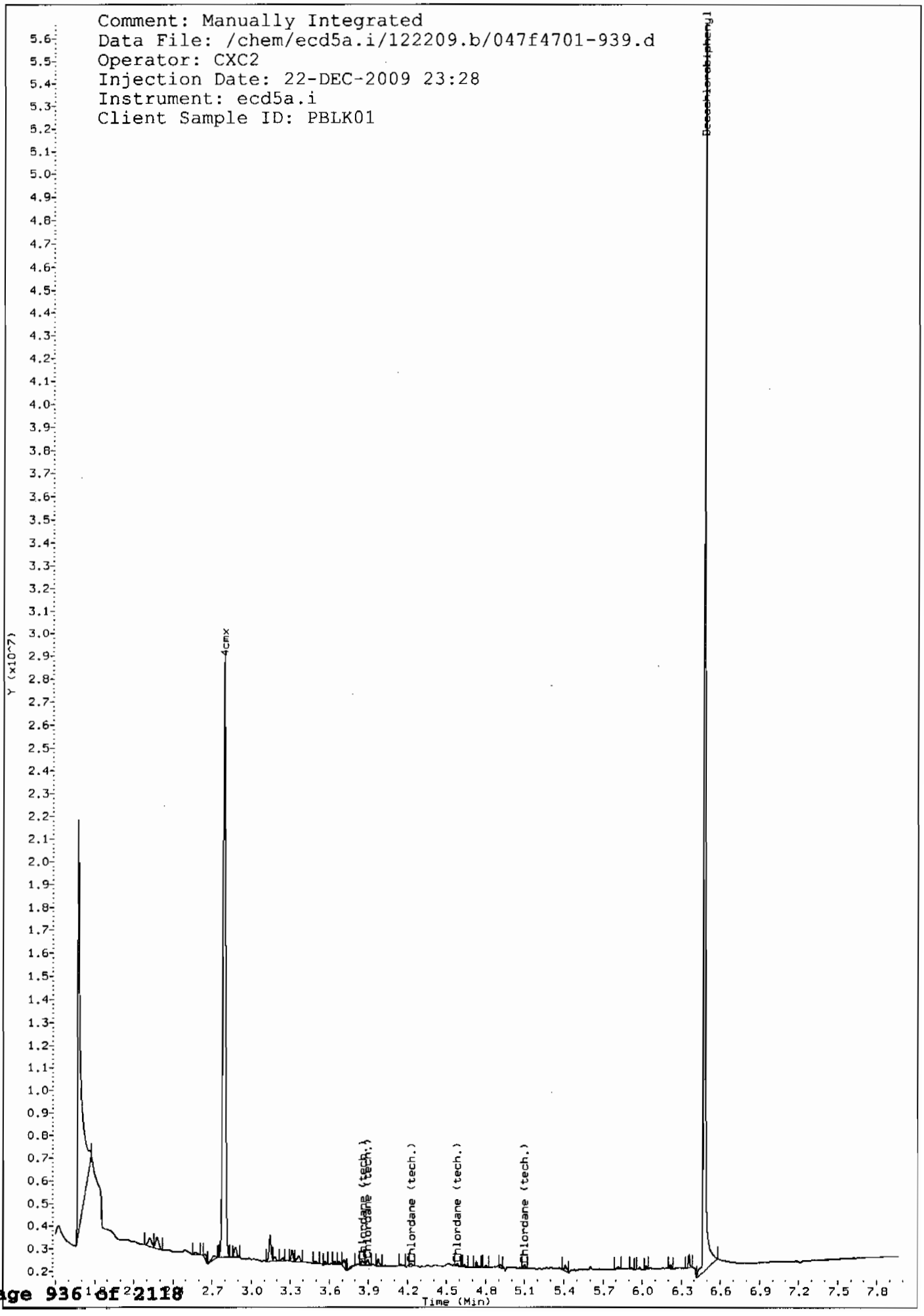

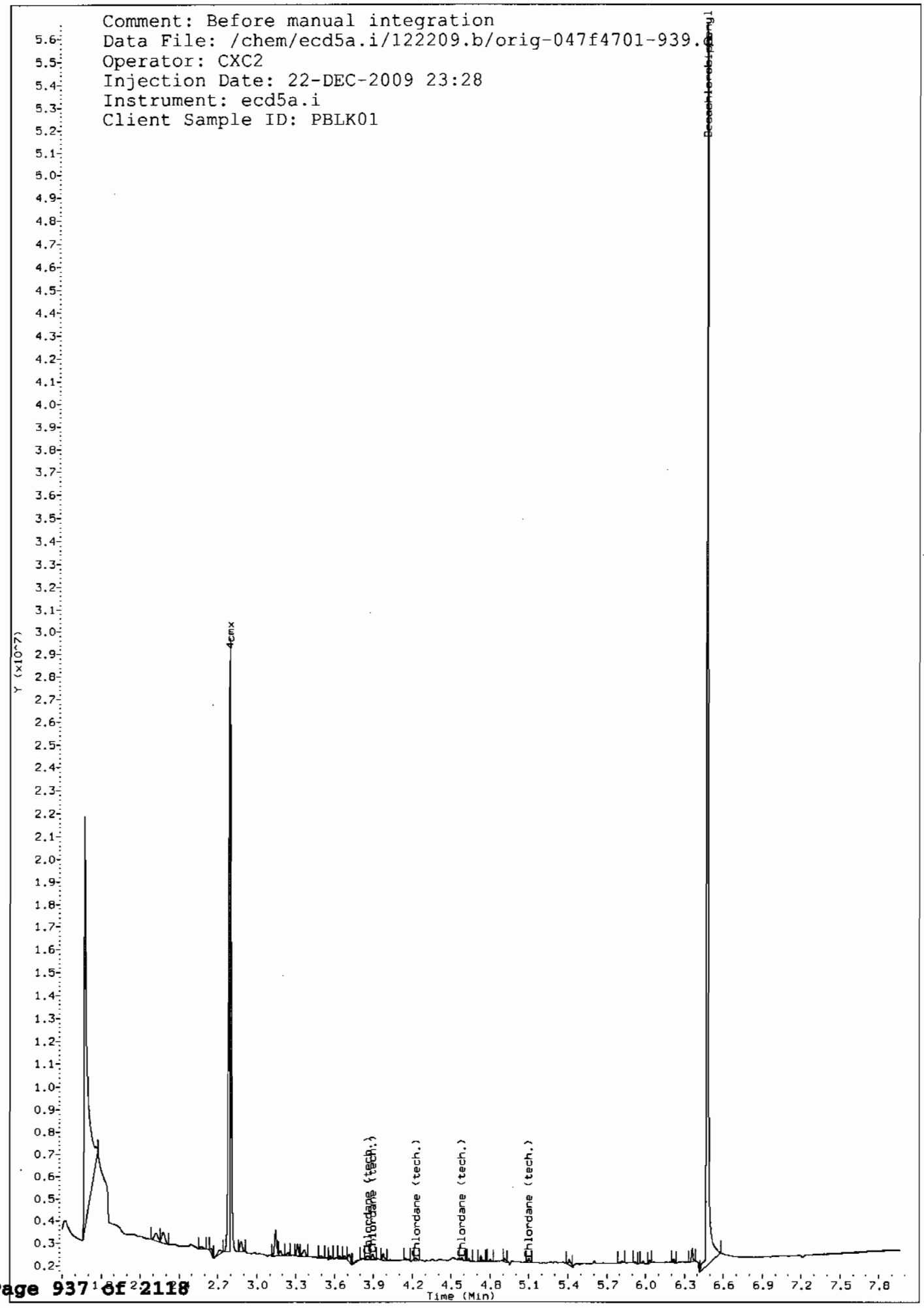
Comment: Before manual integration
Data File: /chem/ecd5a.i/122209.b/orig-047f4701-939.
Operator: CXC2
Injection Date: 22-DEC-2009 23:28
Instrument: ecd5a.i
Client Sample ID: PBLK01
Y (x10^7)
4cmx
Chlordane (tech.)
Chlordane (tech.)
Chlordane (tech.)
Chlordane (tech.)
Chlordane (tech.)
Time (Min)

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd5a.i/122209.b/047b4701-939.d
Lab Smp Id: 1201998973 Client Smp ID: PBLK01
Inj Date : 22-DEC-2009 23:28
Operator : CXC2 Inst ID: ecd5a.i
Smp Info : |1201998973|1|
Misc Info : |ECDPTL_1L|934315|SVP|MB|SOIL|MB|||
Comment :
Method : /chem/ecd5a.i/122209.b/ECD5-B-8081-121809.m
Meth Date : 23-Dec-2009 08:46 cla01575 Quant Type: ESTD
Cal Date : 05-DEC-2009 03:28 Cal File: 025b2501.d
Als bottle: 47 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-939-1.sub
Target Version: 3.50 Sample Matrix: Water
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	0.00100	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	20.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (mg/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
3.198	3.198	0.000	207630197	64.1920	0.00321	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.147	7.153	-0.006	223394830	158.503	0.00792	80.00- 120.00	100.00

Data File: /chem/ecd5a.i/122209.b/047b4701-939.d

Date : 22-DEC-2009 23:28

Client ID: PBLK01

Sample Info: |120199897311|

Volume Injected (uL): 1.0

Column phase: CLP-2

Instrument: ecd5a.i

Operator: CXC2

Column diameter: 0.25

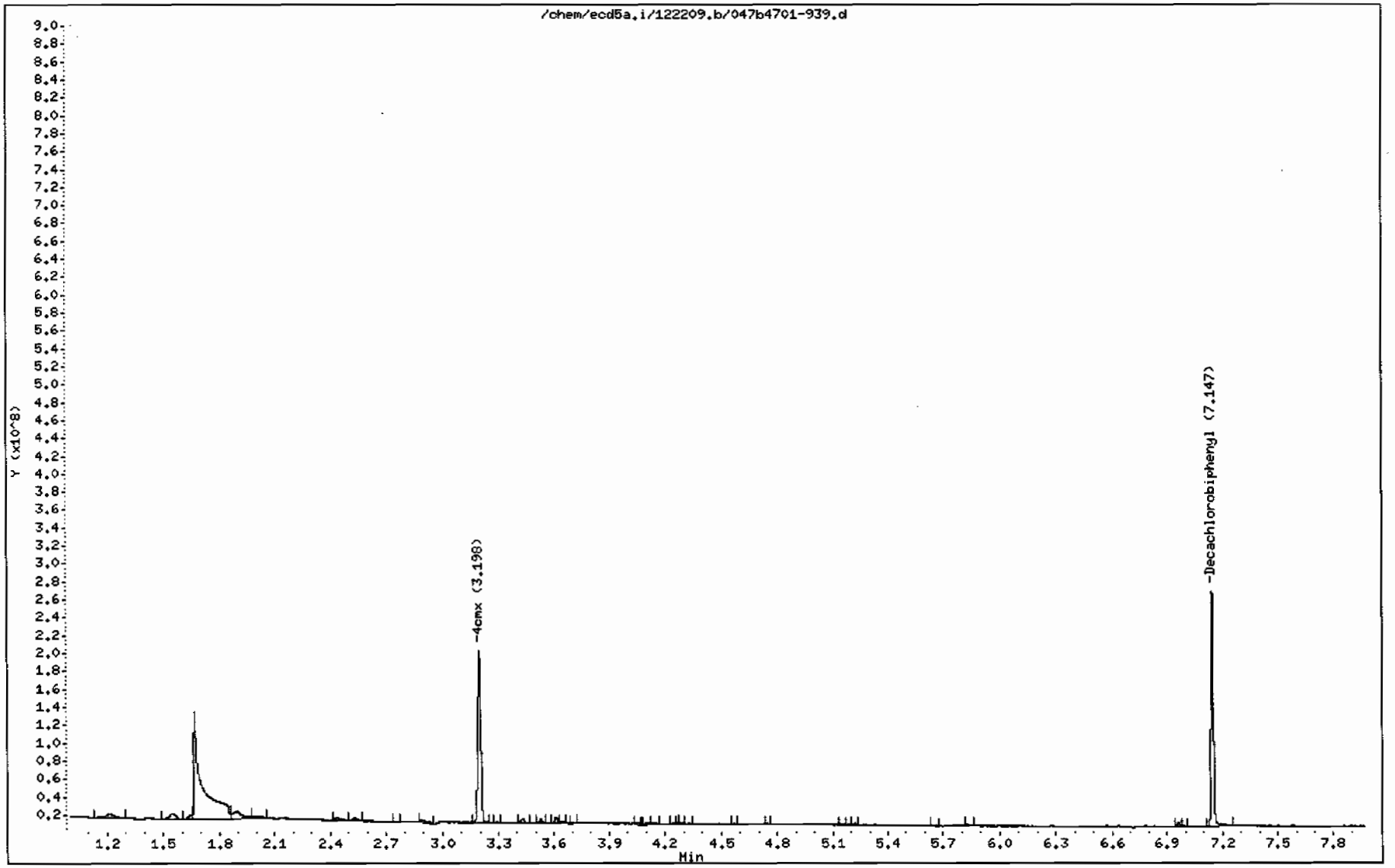

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	10-939-1			**Matrix:**	TCLP SOIL
Lab Sample ID:	1201998982				
Client Sample:	QC for batch 934314	**Client:**	LANL010	**Project:**	QC
Client ID:	LCS for batch 934314	**Method:**	SW846 8081A	**SOP Ref:**	GL-OA-E-041
Batch ID:	934315	**Inst:**	ECD5A.I	**Dilution:**	1
Run Date:	12/23/2009 00:04	**Analyst:**	CXC2	**Inj. Vol:**	1 uL
Prep Date:	12/22/2009 17:25	**Aliquot:**	20 mL	**Final Volume:**	1 mL
Data File:	050f5001-786.d	**Column:**	1 CLP-1	**Level:**	LOW
	050b5001-786.d		2 CLP-2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
58-89-9	gamma-BHC (Lindane)	U	0.0002	mg/L	0.00005	0.0002	1
76-44-8	Heptachlor	U	0.0002	mg/L	0.00005	0.0002	1
1024-57-3	Heptachlor epoxide	U	0.0002	mg/L	0.00005	0.0002	1
72-20-8	Endrin	U	0.0004	mg/L	0.0001	0.0004	1
72-43-5	Methoxychlor	U	0.002	mg/L	0.0005	0.002	1
57-74-9	Chlordane (tech.)		0.0742	mg/L	0.000765	0.0025	2
8001-35-2	Toxaphene	U	0.005	mg/L	0.0015	0.005	1

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CLP-1

Data file : /chem/ecd5a.i/122209.b/050f5001-939.d
Lab Smp Id: 1201998982 Client Smp ID: PBLK01CLCS
Inj Date : 23-DEC-2009 00:04
Operator : CXC2 Inst ID: ecd5a.i
Smp Info : |1201998982|1|
Misc Info : |ECDPTL_1L|934315|SVP|CLCS|SOIL|CLCS|||
Comment :
Method : /chem/ecd5a.i/122209.b/ECD5-F-8081-121809.m
Meth Date : 23-Dec-2009 08:48 cla01575 Quant Type: ESTD
Cal Date : 05-DEC-2009 03:28 Cal File: 025f2501.d
Als bottle: 50 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-939-1.sub
Target Version: 3.50 Sample Matrix: Water
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	0.00100	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	20.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (mg/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.793	2.790	0.003	35321283	76.2287	0.00381	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
6.476	6.482	-0.006	45316967	165.853	0.00829	80.00- 120.00	100.00
8 Chlordane (tech.)					CAS #: 12789-03-6		
3.842	3.843	-0.001	23708881	1361.50	0.0681	80.00- 120.00	100.00(M)
3.900	3.900	0.000	36562338	1616.07	0.0808	152.17- 192.17	154.21
4.208	4.209	-0.001	29267517	1698.63	0.0849	97.53- 137.53	123.45
4.601	4.602	-0.001	83864784	1540.74	0.0770	315.75- 355.75	353.73
5.164	5.168	-0.004	20959656	1555.88	0.0778	73.94- 113.94	88.40

Average of Peak Concentrations = 0.0777

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd5a.i/122209.b/050f5001-939.d
Date : 23-DEC-2009 00:04
Client ID: PBLK01CLCS
Sample Info: |120199898211|
Volume Injected (uL): 1.0
Column phase: CLP-1

Instrument: ecd5a.i

Operator: CXC2
Column diameter: 0.25

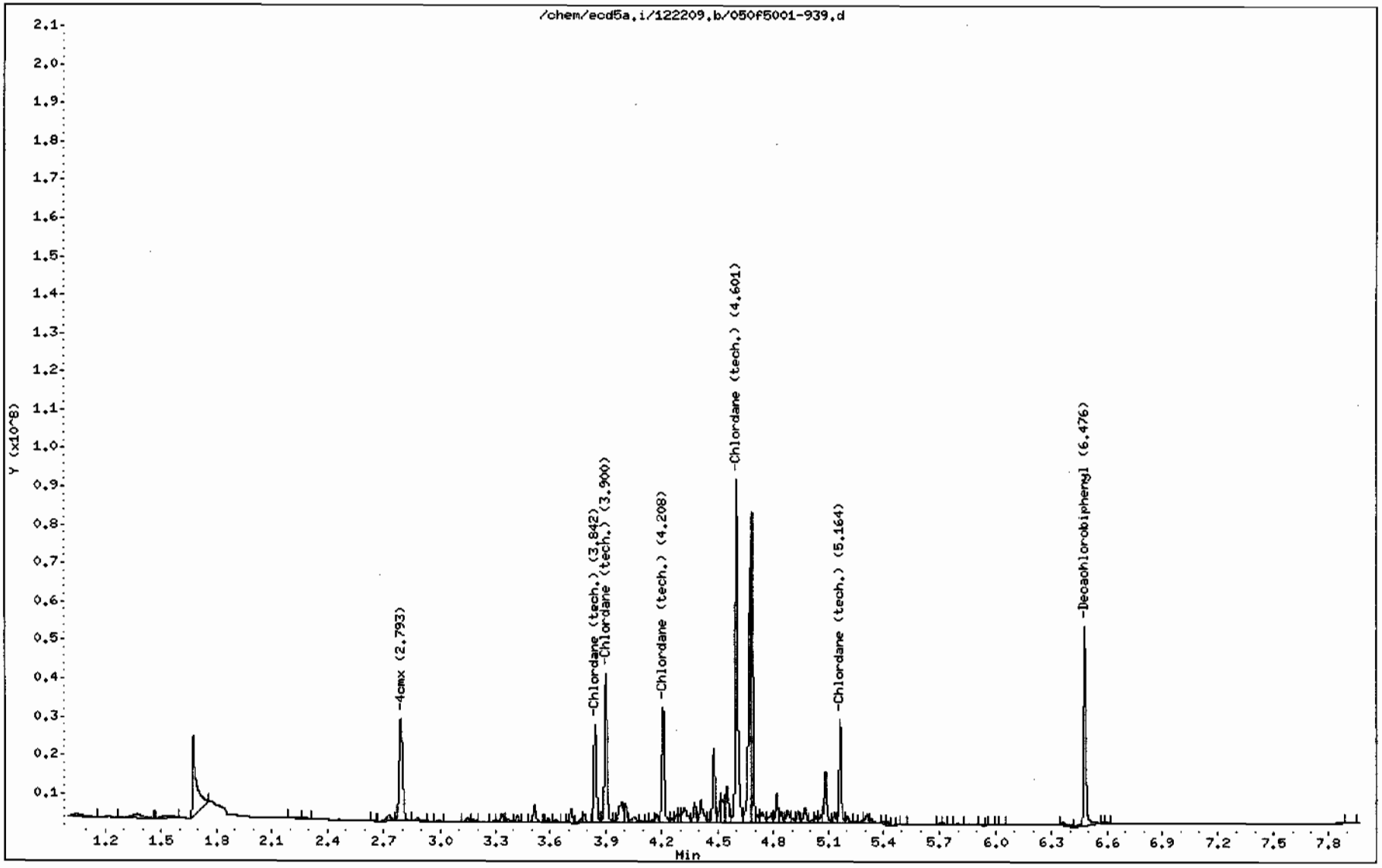

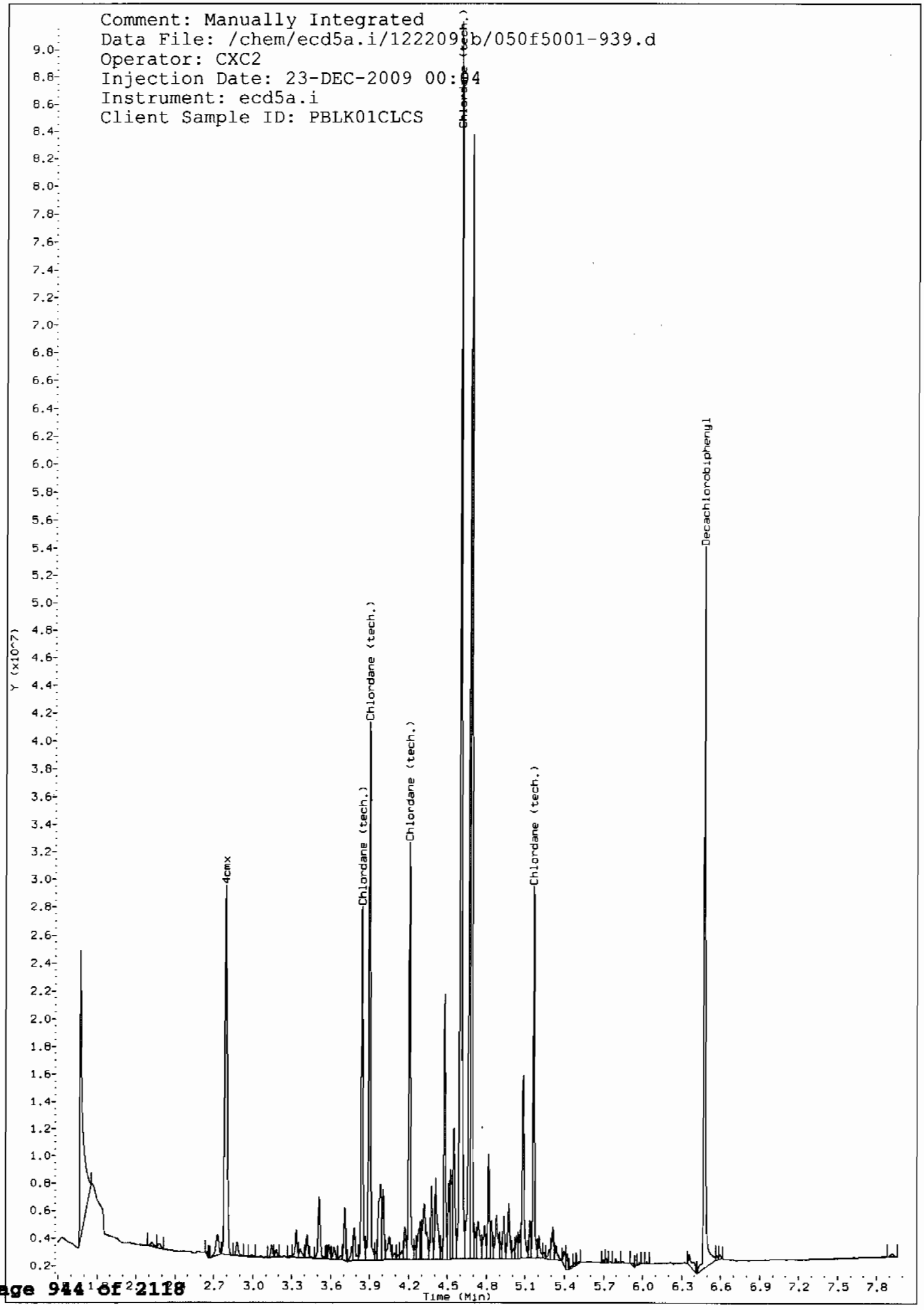
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Operator: CXC2
Injection Date: 23-DEC-2009 00:04
Instrument: ecd5a.i
Client Sample ID: PBLK01CLCS
Chlordane (tech.)
Chlordane (tech.)
Chlordane (tech.)
Chlordane (tech.)
Chlordane (tech.)
4cmx
Decachlorobiphenyl
Y (x10^7)
Time (Min)

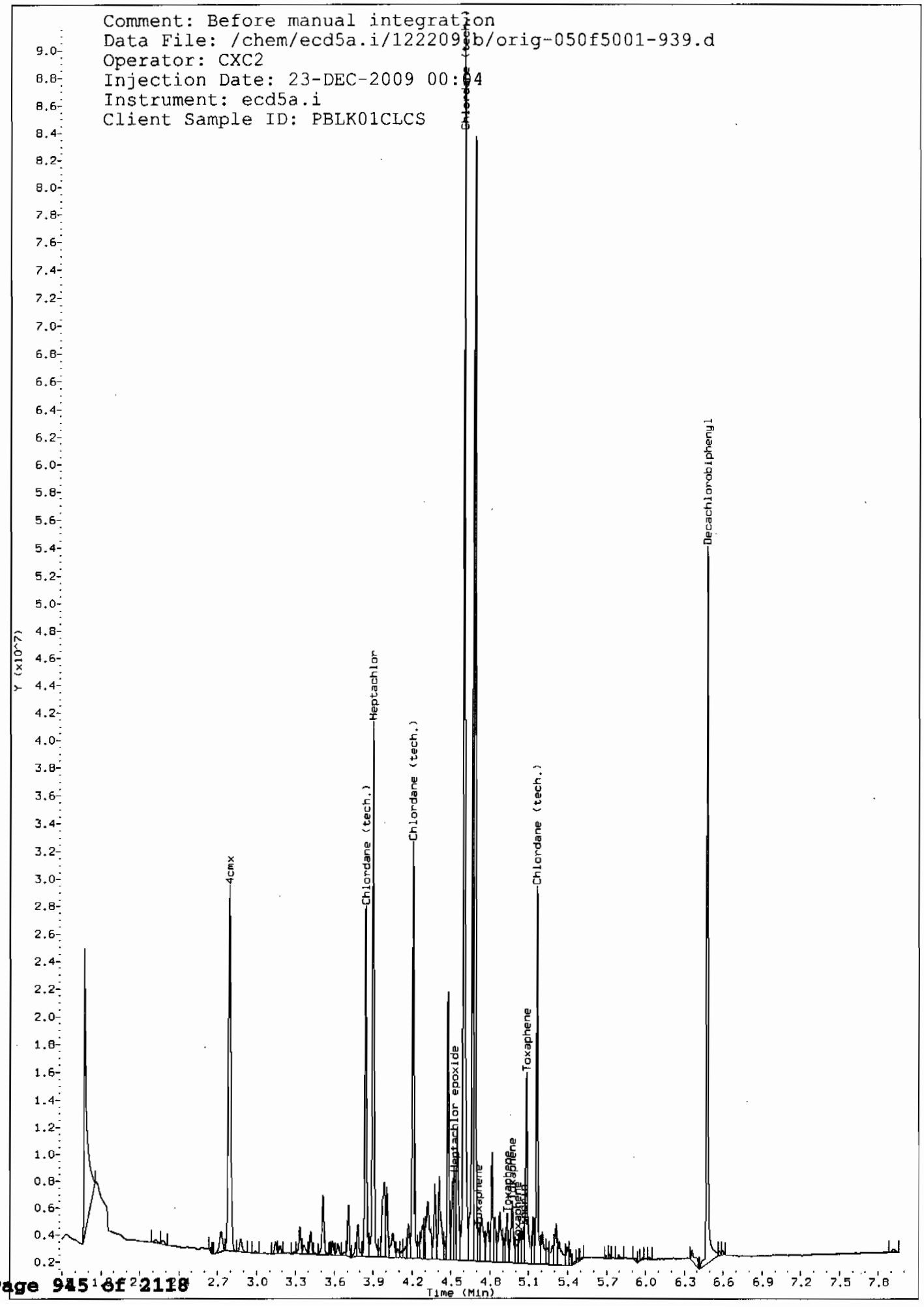
Comment: Before manual integration
Data File: /chem/ecd5a.i/122209b/orig-050f5001-939.d
Operator: CXC2
Injection Date: 23-DEC-2009 00:04
Instrument: ecd5a.i
Client Sample ID: PBLK01CLCS
Y (x10^7)
Time (Min)
4cmx
Chlordane (tech.)
Heptachlor
Chlordane (tech.)
Chlordane (tech.)
Heptachlor epoxide
Toxaphene
Toxaphene
Chlordane (tech.)
Toxaphene
Decachlorobiphenyl

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CLP-2

Data file : /chem/ecd5a.i/122209.b/050b5001-939.d
Lab Smp Id: 1201998982 Client Smp ID: PBLK01CLCS
Inj Date : 23-DEC-2009 00:04
Operator : CXC2 Inst ID: ecd5a.i
Smp Info : |1201998982|1|
Misc Info : |ECDPTL_1L|934315|SVP|CLCS|SOIL|CLCS|||
Comment :
Method : /chem/ecd5a.i/122209.b/ECD5-B-8081-121809.m
Meth Date : 23-Dec-2009 08:46 cla01575 Quant Type: ESTD
Cal Date : 05-DEC-2009 03:28 Cal File: 025b2501.d
Als bottle: 50 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-939-1.sub
Target Version: 3.50 Sample Matrix: Water
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	0.00100	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	20.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (mg/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
3.199	3.198	0.001	205640881	63.5770	0.00318	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.147	7.153	-0.006	207049838	146.905	0.00734	80.00- 120.00	100.00
8 Chlordane (tech.)					CAS #: 12789-03-6		
4.221	4.222	-0.001	122577417	1253.66	0.0627	80.00- 120.00	100.00(M)
4.645	4.647	-0.002	140352308	1770.59	0.0885	79.74- 119.74	114.50
4.899	4.901	-0.002	89897321	1610.18	0.0805	40.71- 80.71	73.34
5.046	5.048	-0.002	367479193	1437.10	0.0718	242.29- 282.29	299.79
5.138	5.140	-0.002	278977427	1346.29	0.0673	194.96- 234.96	227.59

Average of Peak Concentrations = 0.0742

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd5a.i/122209.b/050b5001-939.d

Date : 23-DEC-2009 00:04

Client ID: PBLK01CLCS

Sample Info: |120199898211|

Volume Injected (uL): 1.0

Column phase: CLP-2

Instrument: ecd5a.i

Operator: CXC2

Column diameter: 0.25

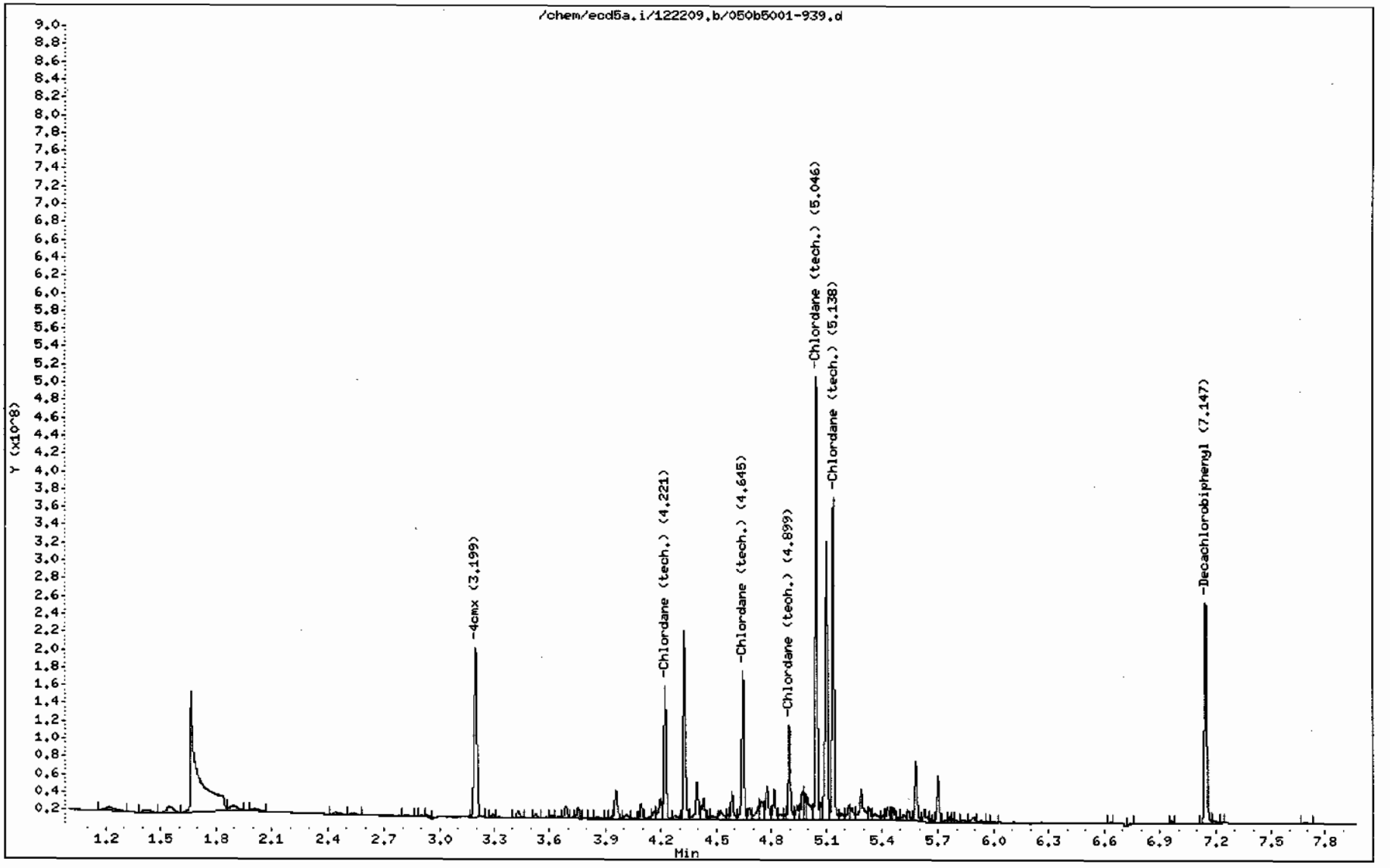

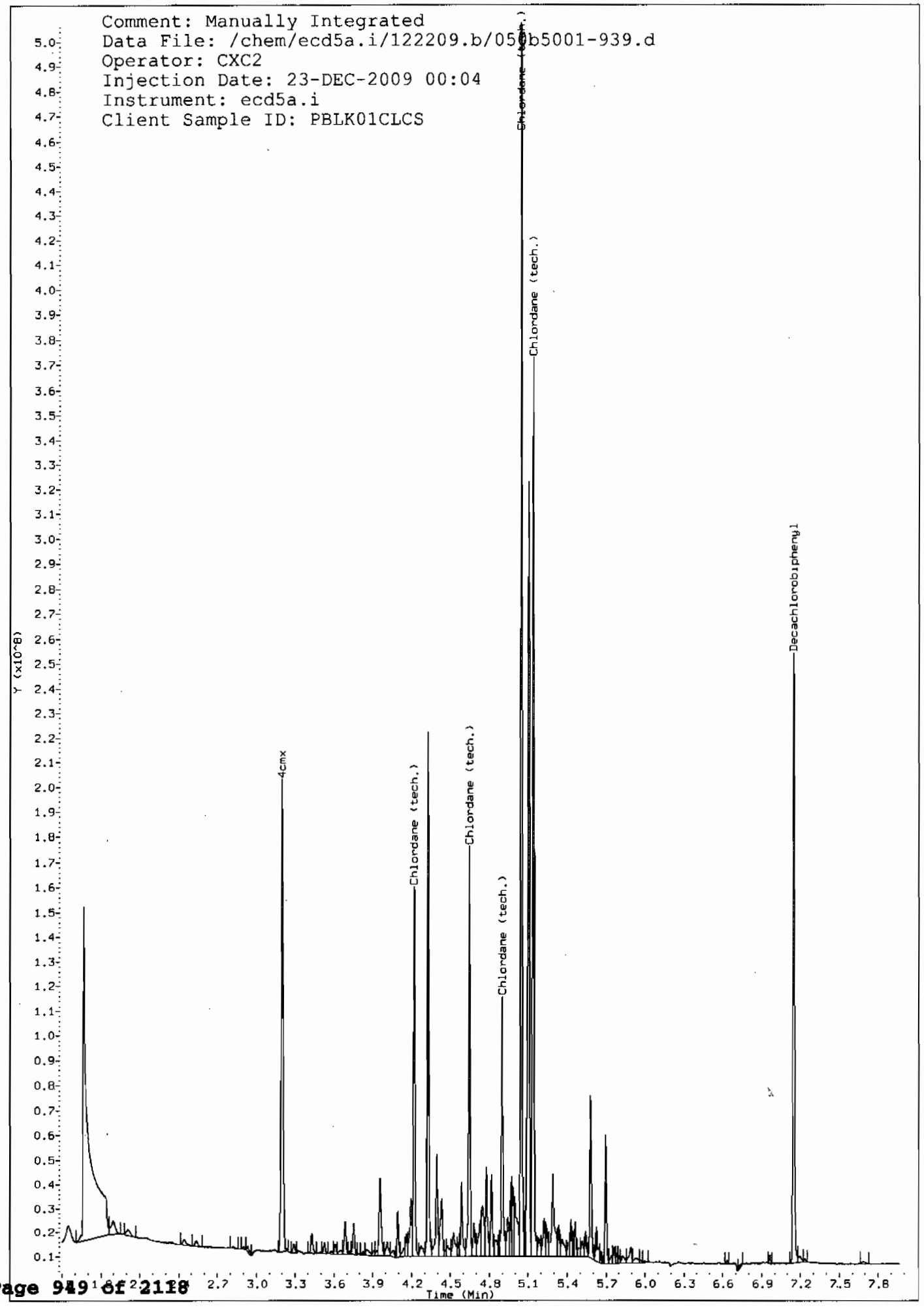
Comment: Manually Integrated
Data File: /chem/ecd5a.i/122209.b/05b5001-939.d
Operator: CXC2
Injection Date: 23-DEC-2009 00:04
Instrument: ecd5a.i
Client Sample ID: PBLK01CLCS
Chlordane (tech.)
Chlordane (tech.)
Decachlorobiphenyl
4cmx
Chlordane (tech.)
Chlordane (tech.)
Chlordane (tech.)
Y (x10^8)
Time (Min)

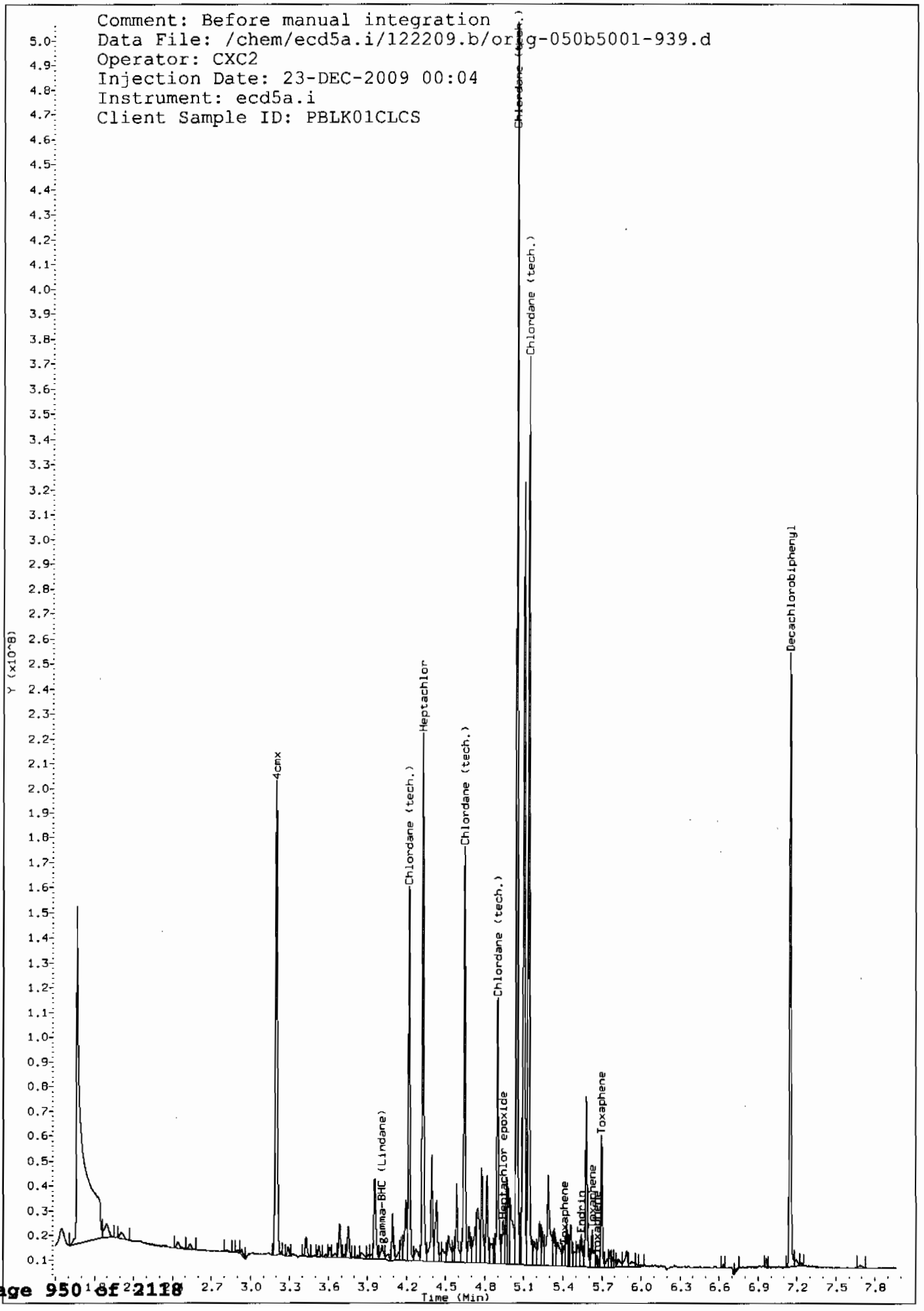
Comment: Before manual integration
Data File: /chem/ecd5a.i/122209.b/orig-050b5001-939.d
Operator: CXC2
Injection Date: 23-DEC-2009 00:04
Instrument: ecd5a.i
Client Sample ID: PBLK01CLCS
Y (x10^8)
Time (Min)
4cmx
gamma-BHC (Lindane)
Chlordane (tech.)
Heptachlor
Chlordane (tech.)
Chlordane (tech.)
Heptachlor epoxide
Chlordane (tech.)
Chlordane (tech.)
Toxaphene
Endrin
Toxaphene
Toxaphene
Decachlorobiphenyl

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	10–939–1			**Matrix:**	TCLP SOIL
Lab Sample ID:	1201998980				
Client Sample:	QC for batch 934314	**Client:**	LANL010	**Project:**	QC
Client ID:	LCS for batch 934314	**Method:**	SW846 8081A	**SOP Ref:**	GL–OA–E–041
Batch ID:	934315	**Inst:**	ECD5A.I	**Dilution:**	1
Run Date:	12/22/2009 23:40	**Analyst:**	CXC2	**Inj. Vol:**	1 uL
Prep Date:	12/22/2009 17:25	**Aliquot:**	20 mL	**Final Volume:**	1 mL
Data File:	048f4801–786.d	**Column:**	1 CLP–1	**Level:**	LOW
	048b4801–786.d		2 CLP–2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
58–89–9	gamma–BHC (Lindane)		0.00349	mg/L	0.00005	0.0002	2
76–44–8	Heptachlor		0.00306	mg/L	0.00005	0.0002	2
1024–57–3	Heptachlor epoxide		0.00353	mg/L	0.00005	0.0002	2
72–20–8	Endrin		0.00469	mg/L	0.0001	0.0004	2
72–43–5	Methoxychlor		0.0569	mg/L	0.0005	0.002	1
57–74–9	Chlordane (tech.)	U	0.0025	mg/L	0.000765	0.0025	1
8001–35–2	Toxaphene	U	0.005	mg/L	0.0015	0.005	1

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd5a.i/122209.b/048f4801-939.d
Lab Smp Id: 1201998980 Client Smp ID: PBLK01LCS
Inj Date : 22-DEC-2009 23:40
Operator : CXC2 Inst ID: ecd5a.i
Smp Info : |1201998980|1|
Misc Info : |ECDPTL_1L|934315|SVP|LCS|SOIL|LCS|||
Comment :
Method : /chem/ecd5a.i/122209.b/ECD5-F-8081-121809.m
Meth Date : 23-Dec-2009 08:48 cla01575 Quant Type: ESTD
Cal Date : 05-DEC-2009 03:28 Cal File: 025f2501.d
Als bottle: 48 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-939-1.sub
Target Version: 3.50 Sample Matrix: Water
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	0.00100	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	20.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (mg/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.793	2.790	0.003	35977309	77.6445	0.00388	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
6.477	6.482	-0.005	45970746	168.246	0.00841	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.549	3.549	0.000	48416124	86.7068	0.00434	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
3.900	3.900	0.000	37016305	73.1043	0.00366	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	CONCENTRATIONS FINAL (mg/L)	TARGET RANGE	RATIO
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.520	4.521	-0.001	37710833	82.5323	0.00413	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.069	5.070	-0.001	35624754	104.535	0.00523	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
5.552	5.554	-0.002	135502270	1138.43	0.0569	80.00- 120.00	100.00

Data File: /chem/ecd5a.i/122209.b/048f4801-939.d
Date : 22-DEC-2009 23:40
Client ID: PBLK01LCS
Sample Info: |120199898011|
Volume Injected (uL): 1.0
Column phase: CLP-1

Instrument: ecd5a.i

Operator: CXC2
Column diameter: 0.25

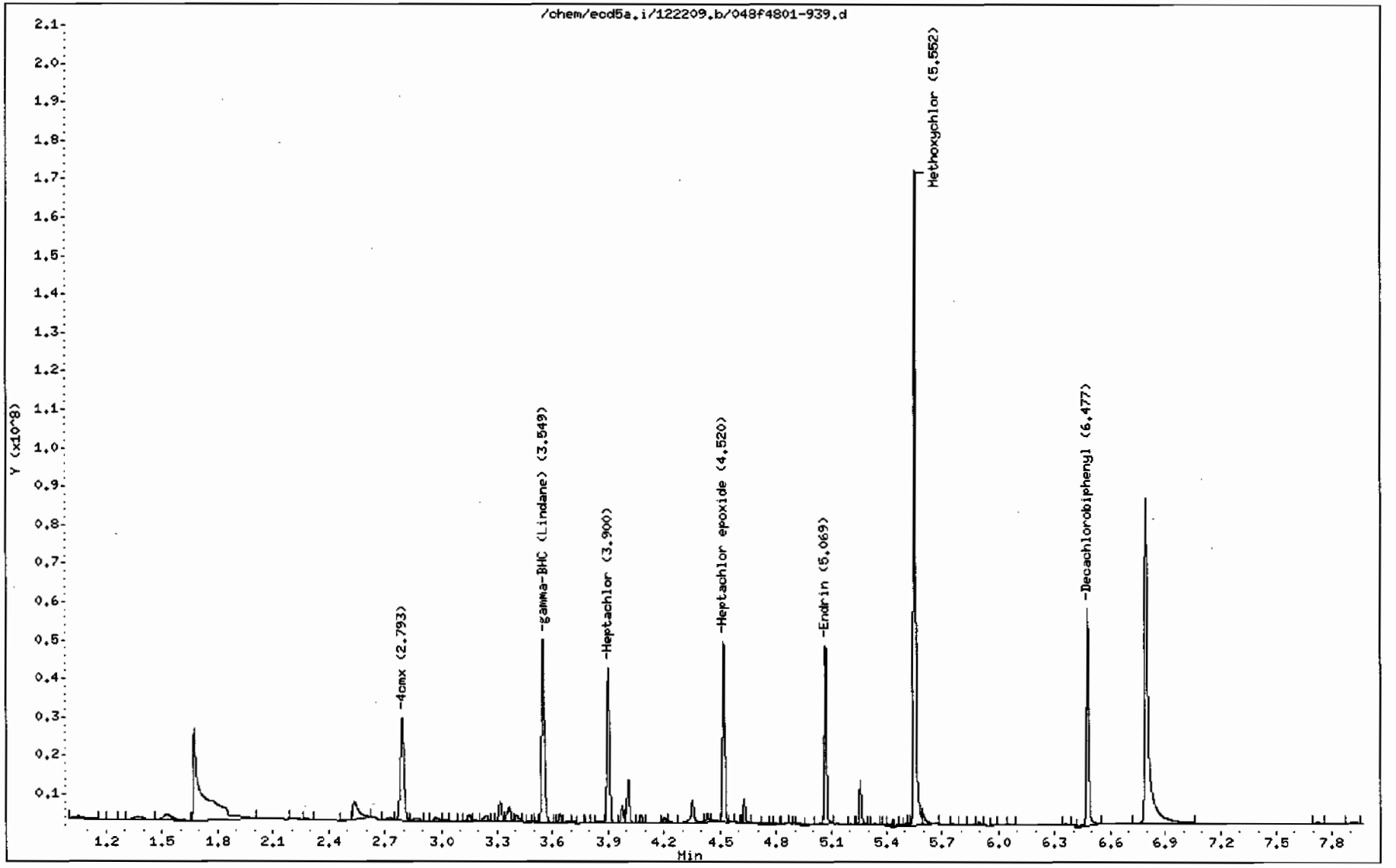

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CLP-2

Data file : /chem/ecd5a.i/122209.b/048b4801-939.d
Lab Smp Id: 1201998980 Client Smp ID: PBLK01LCS
Inj Date : 22-DEC-2009 23:40
Operator : CXC2 Inst ID: ecd5a.i
Smp Info : |1201998980|1|
Misc Info : |ECDPTL_1L|934315|SVP|LCS|SOIL|LCS|||
Comment :
Method : /chem/ecd5a.i/122209.b/ECD5-B-8081-121809.m
Meth Date : 23-Dec-2009 08:46 cla01575 Quant Type: ESTD
Cal Date : 05-DEC-2009 03:28 Cal File: 025b2501.d
Als bottle: 48 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-939-1.sub
Target Version: 3.50 Sample Matrix: Water
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	0.00100	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	20.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (mg/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
3.198	3.198	0.000	214732562	66.3878	0.00332	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.148	7.153	-0.005	220296179	156.304	0.00782	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
4.000	4.000	0.000	266683813	69.8719	0.00349	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
4.326	4.327	-0.001	195487524	61.2691	0.00306	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (mg/L)	TARGET RANGE	RATIO
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.927	4.927	0.000	207953425	70.6321	0.00353	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.541	5.543	-0.002	188255354	93.8877	0.00469	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
6.160	6.166	-0.006	647267792	1188.75	0.0594	80.00- 120.00	100.00

Data File: /chem/ecd5a.i/122209.b/048b4801-939.d
Date : 22-DEC-2009 23:40
Client ID: PBLK01LCS
Sample Info: 1120199980111
Volume Injected (uL): 1.0
Column phase: CLP-2

Instrument: ecd5a.i
Operator: CXC2
Column diameter: 0.25

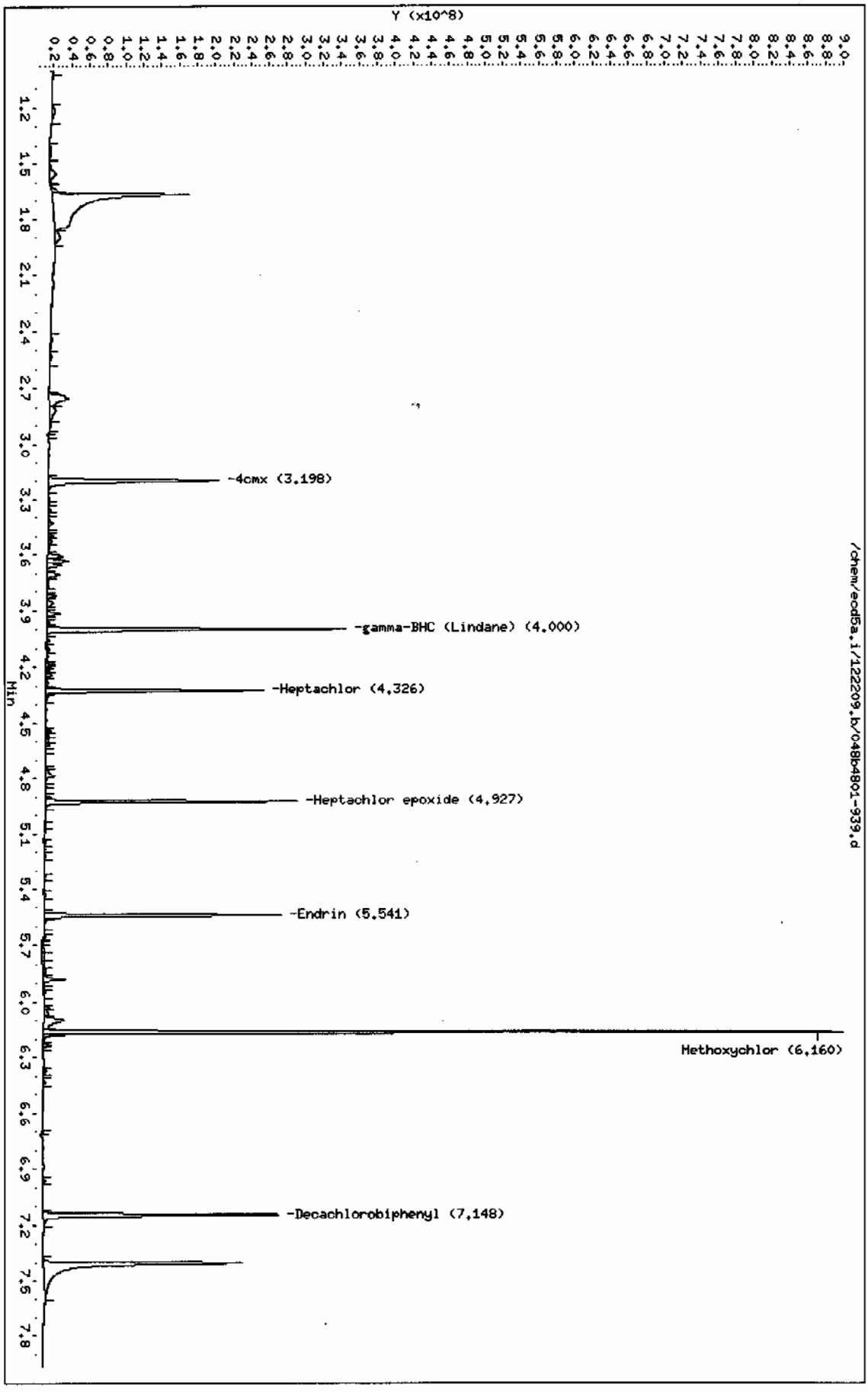

Page 1

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	10-939-1			**Matrix:**	TCLP SOIL
Lab Sample ID:	1201998981				
Client Sample:	QC for batch 934314	**Client:**	LANL010	**Project:**	QC
Client ID:	LCS for batch 934314	**Method:**	SW846 8081A	**SOP Ref:**	GL-OA-E-041
Batch ID:	934315	**Inst:**	ECD5A.I	**Dilution:**	1
Run Date:	12/22/2009 23:52	**Analyst:**	CXC2	**Inj. Vol:**	1 uL
Prep Date:	12/22/2009 17:25	**Aliquot:**	20 mL	**Final Volume:**	1 mL
Data File:	049f4901-786.d	**Column:**	1 CLP-1	**Level:**	LOW
	049b4901-786.d		2 CLP-2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
58-89-9	gamma-BHC (Lindane)	U	0.0002	mg/L	0.00005	0.0002	1
76-44-8	Heptachlor	U	0.0002	mg/L	0.00005	0.0002	1
1024-57-3	Heptachlor epoxide	U	0.0002	mg/L	0.00005	0.0002	1
72-20-8	Endrin	U	0.0004	mg/L	0.0001	0.0004	1
72-43-5	Methoxychlor	U	0.002	mg/L	0.0005	0.002	1
57-74-9	Chlordane (tech.)	U	0.0025	mg/L	0.000765	0.0025	1
8001-35-2	Toxaphene		0.0567	mg/L	0.0015	0.005	2

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CLP-1

Data file : /chem/ecd5a.i/122209.b/049f4901-939.d
Lab Smp Id: 1201998981 Client Smp ID: PBLK01TLCS
Inj Date : 22-DEC-2009 23:52
Operator : CXC2 Inst ID: ecd5a.i
Smp Info : |1201998981|1|
Misc Info : |ECDPTL_1L|934315|SVP|TLCS|SOIL|TLCS|||
Comment :
Method : /chem/ecd5a.i/122209.b/ECD5-F-8081-121809.m
Meth Date : 23-Dec-2009 08:48 cla01575 Quant Type: ESTD
Cal Date : 05-DEC-2009 03:28 Cal File: 025f2501.d
Als bottle: 49 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-939-1.sub
Target Version: 3.50 Sample Matrix: Water
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	0.00100	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	20.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (mg/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.792	2.790	0.002	32989252	71.1958	0.00356	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
6.478	6.482	-0.004	44356860	162.339	0.00812	80.00- 120.00	100.00
23 Toxaphene					CAS #: 8001-35-2		
4.712	4.713	-0.001	4016507	1432.76	0.0716	80.00- 120.00	100.00(M)
4.926	4.927	-0.001	9375679	1774.54	0.0887	158.29- 198.29	233.43
4.980	4.982	-0.002	12077555	1726.16	0.0863	217.92- 257.92	300.70
5.020	5.020	0.000	15007589	1682.75	0.0841	260.88- 300.88	373.65
5.081	5.082	-0.001	14900489	1731.10	0.0866	269.50- 309.50	370.98

Average of Peak Concentrations = 0.0835

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd5a.i/122209.b/049f4901-939.d

Date : 22-DEC-2009 23:52

Client ID: PBLK01TLCS

Sample Info: |120199898|1|

Volume Injected (uL): 1.0

Column phase: CLP-1

Instrument: ecd5a.i

Operator: CXC2

Column diameter: 0.25

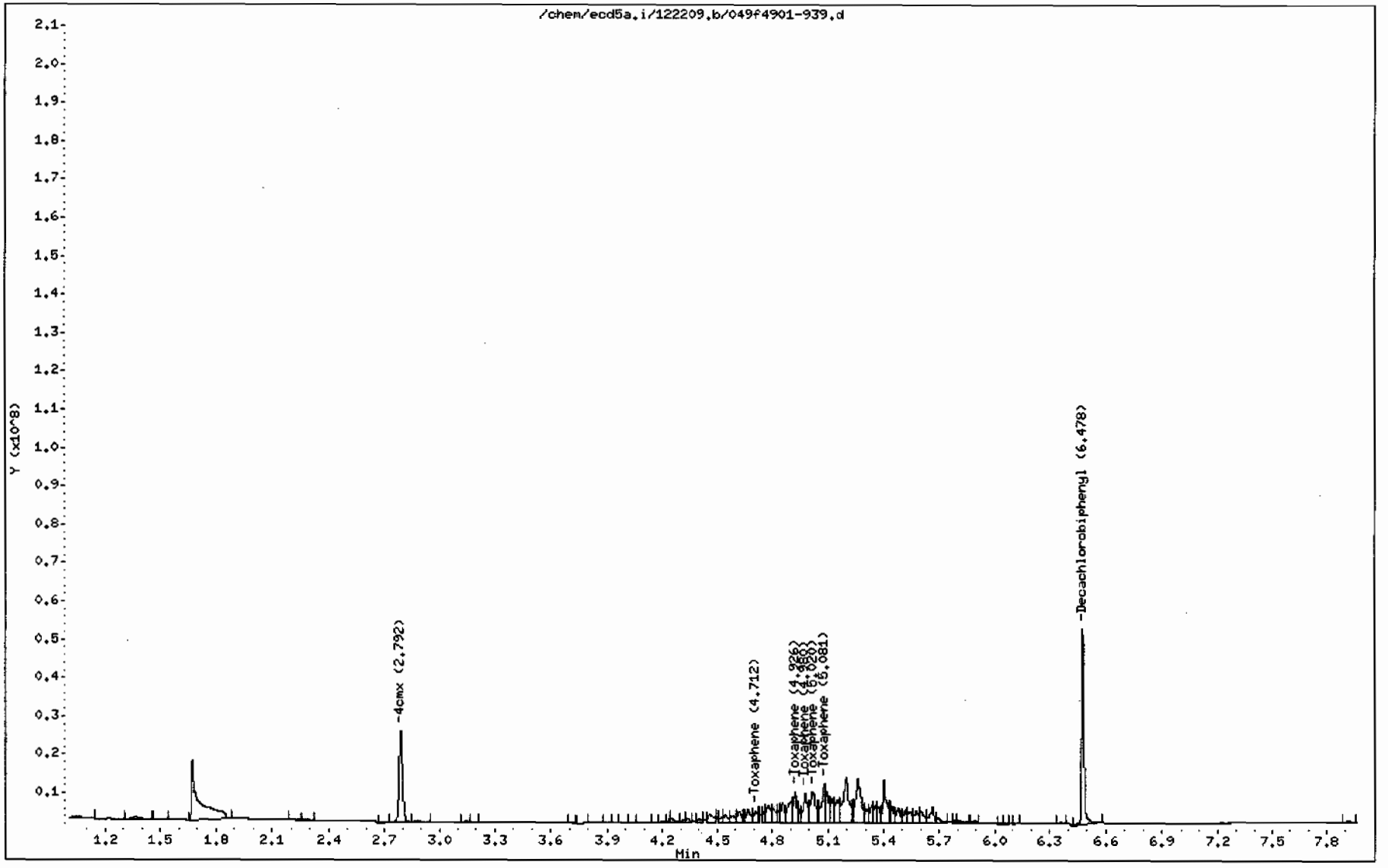

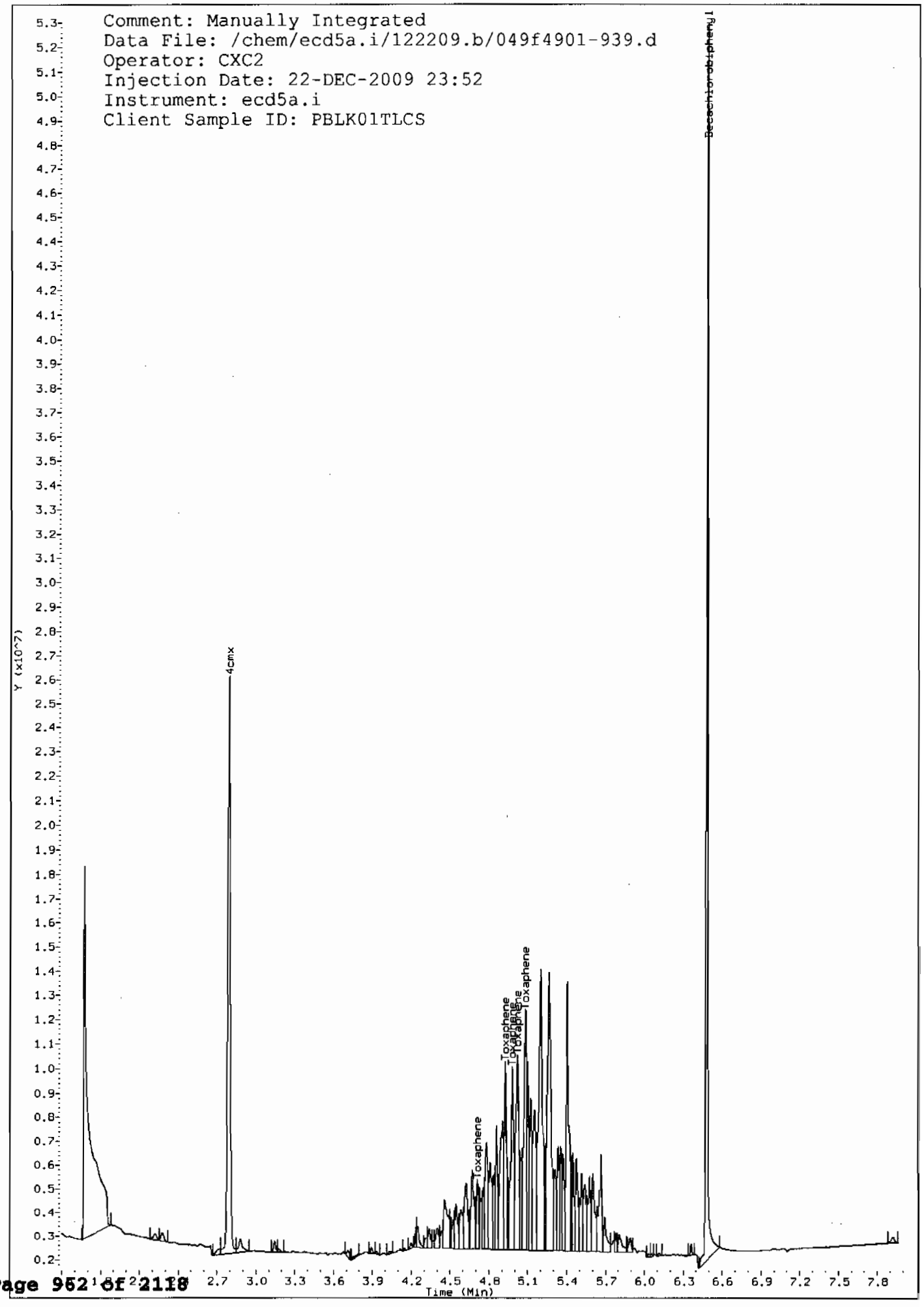
Comment: Manually Integrated
Data File: /chem/ecd5a.i/122209.b/049f4901-939.d
Operator: CXC2
Injection Date: 22-DEC-2009 23:52
Instrument: ecd5a.i
Client Sample ID: PBLK01TLCS
Decachlorobiphenyl
4cmx
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Y (x10^7)
Time (Min)

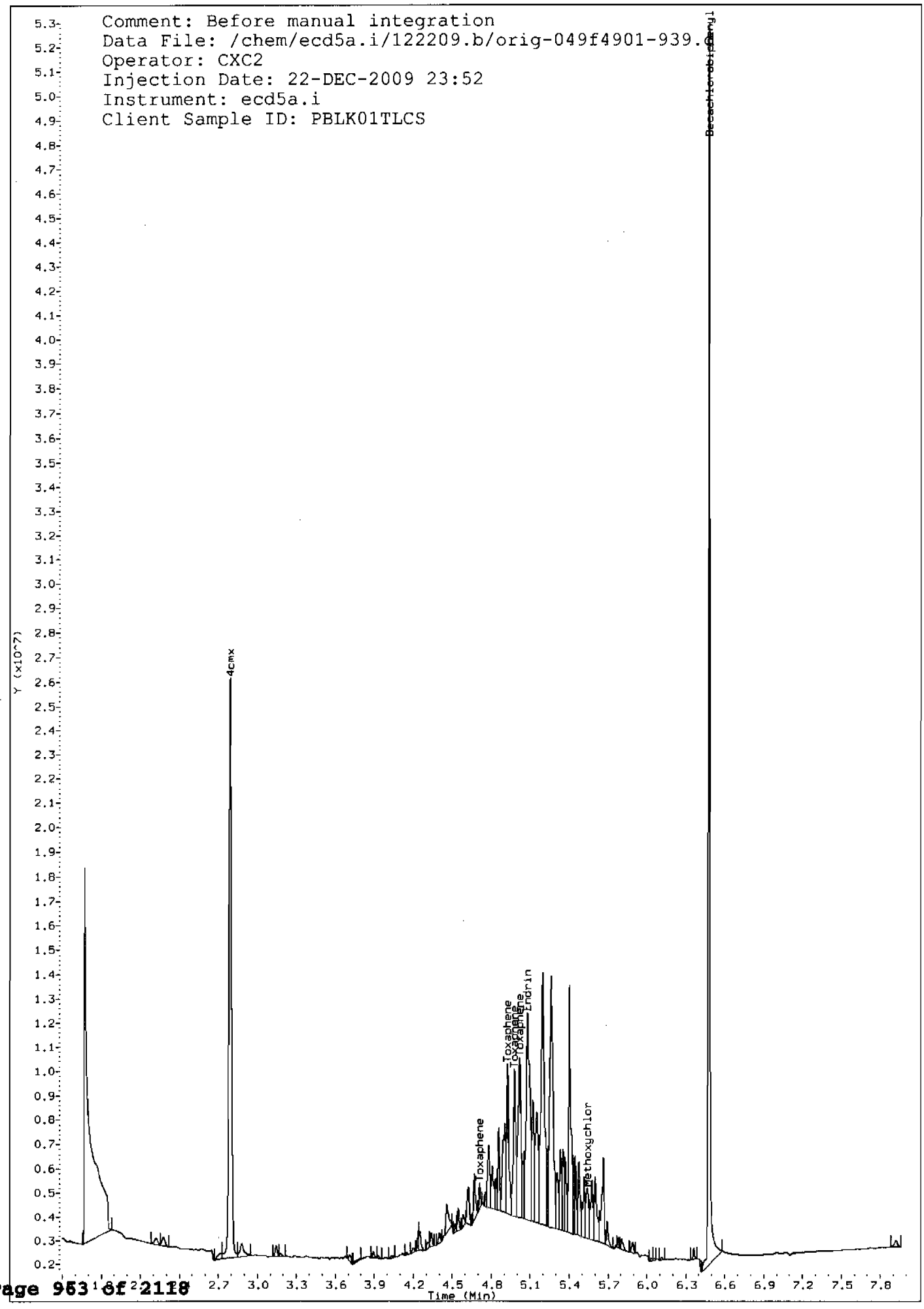
Comment: Before manual integration
Data File: /chem/ecd5a.i/122209.b/orig-049f4901-939.
Operator: CXC2
Injection Date: 22-DEC-2009 23:52
Instrument: ecd5a.i
Client Sample ID: PBLK01TLCS
Decachlorobiphenyl
4cmx
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Endrin
Methoxychlor
Y (x10^7)
Time (Min)

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd5a.i/122209.b/049b4901-939.d
Lab Smp Id: 1201998981 Client Smp ID: PBLK01TLCS
Inj Date : 22-DEC-2009 23:52
Operator : CXC2 Inst ID: ecd5a.i
Smp Info : |1201998981|1|
Misc Info : |ECDPTL_1L|934315|SVP|TLCS|SOIL|TLCS|||
Comment :
Method : /chem/ecd5a.i/122209.b/ECD5-B-8081-121809.m
Meth Date : 23-Dec-2009 08:46 cla01575 Quant Type: ESTD
Cal Date : 05-DEC-2009 03:28 Cal File: 025b2501.d
Als bottle: 49 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-939-1.sub
Target Version: 3.50 Sample Matrix: Water
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	0.00100	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	20.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (mg/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
3.197	3.198	-0.001	188458083	58.2646	0.00291	80.00- 120.00	100.00(RM)
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.149	7.153	-0.004	191649077	135.978	0.00680	80.00- 120.00	100.00
23 Toxaphene					CAS #: 8001-35-2		
5.402	5.406	-0.004	34700595	1575.16	0.0788	80.00- 120.00	100.00(M)
5.547	5.541	0.006	52302210	1523.07	0.0762	103.90- 143.90	150.72
5.629	5.632	-0.003	34497365	1021.39	0.0511	100.29- 140.29	99.41
5.658	5.661	-0.003	39976574	708.666	0.0354	181.24- 221.24	115.20
5.716	5.719	-0.003	72606378	839.706	0.0420	287.80- 327.80	209.24

Average of Peak Concentrations = 0.0567

QC Flag Legend

R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Data File: /chem/ecd5a.i/122209.b/049b4901-939.d
Date : 22-DEC-2009 23:52
Client ID: PBLK01TLCS
Sample Info: |120199898111|
Volume Injected (uL): 1.0
Column phase: CLP-2

Instrument: ecd5a.i
Operator: CXC2
Column diameter: 0.25

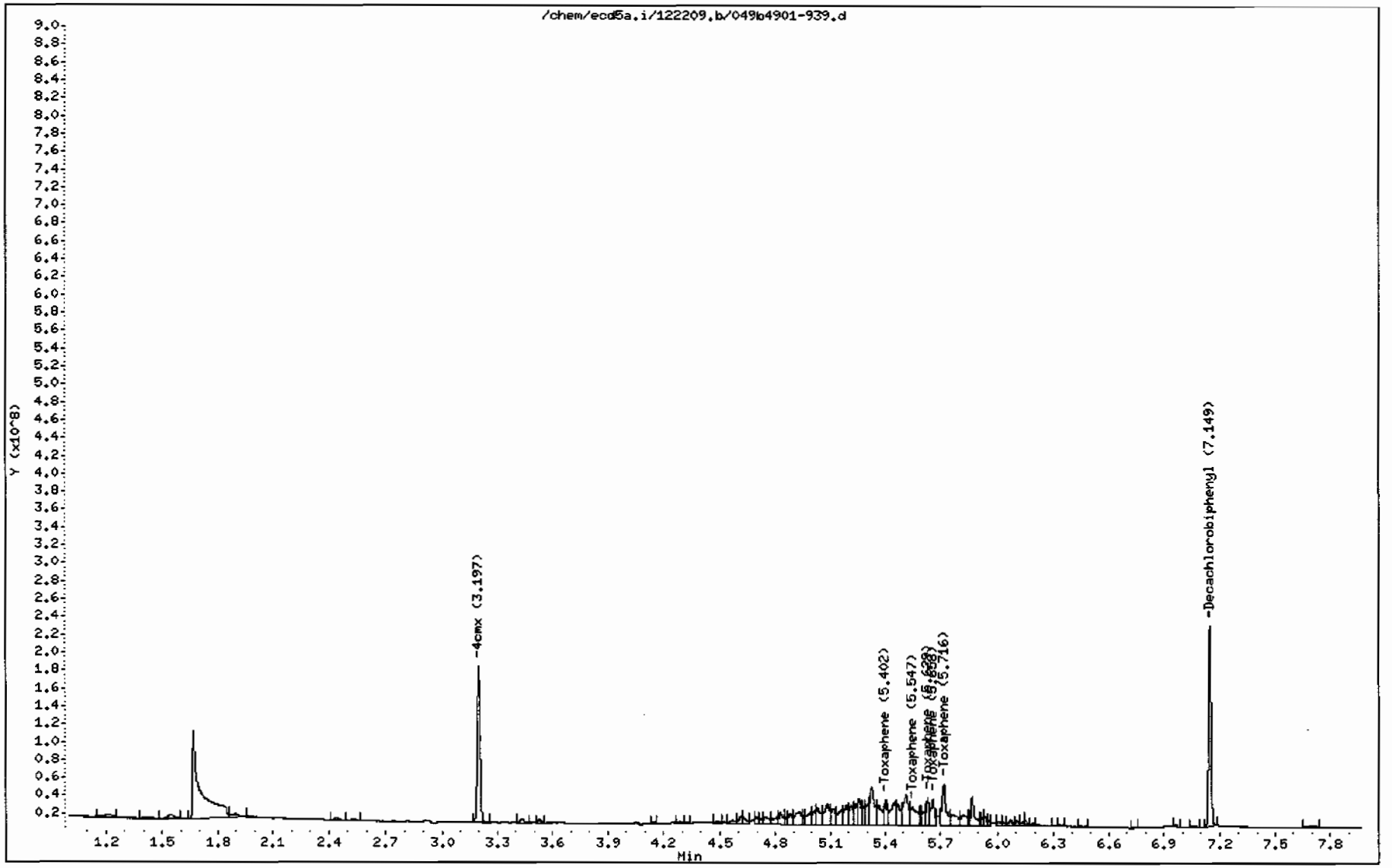

Comment: Manually Integrated
Data File: /chem/ecd5a.i/122209.b/049b4901-939.d
Operator: CXC2
Injection Date: 22-DEC-2009 23:52
Instrument: ecd5a.i
Client Sample ID: PBLK01TLCS

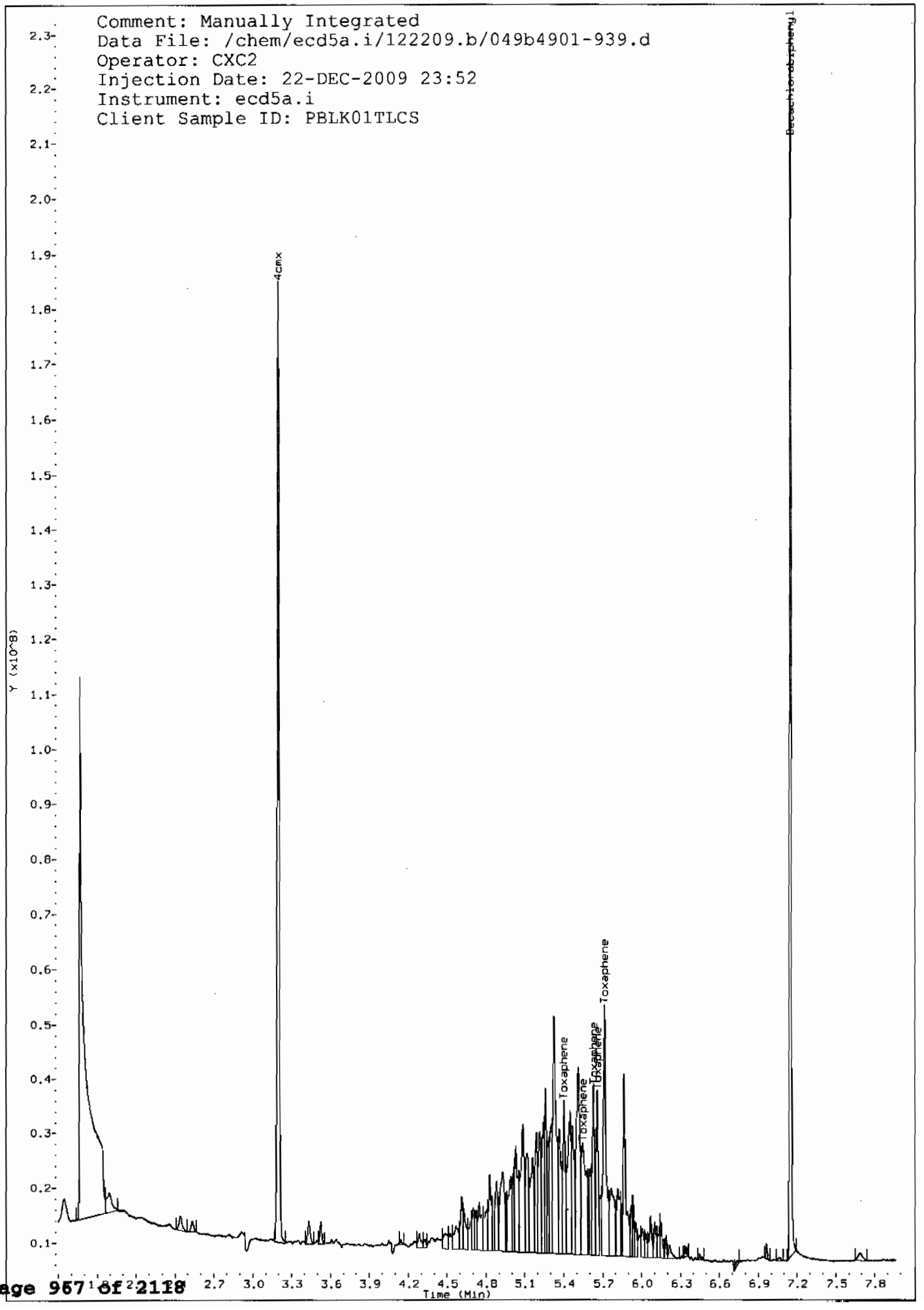

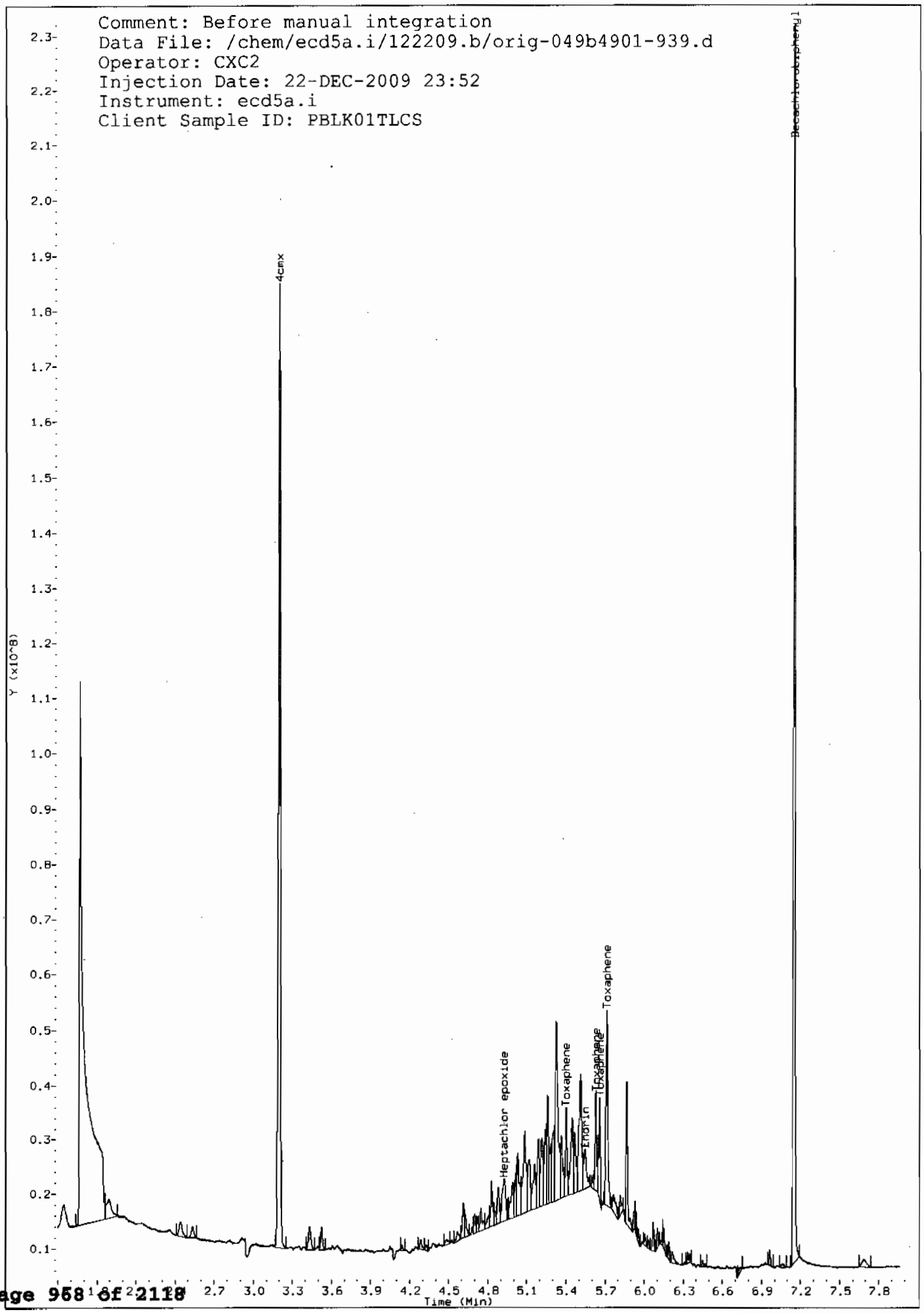
Comment: Before manual integration
Data File: /chem/ecd5a.i/122209.b/orig-049b4901-939.d
Operator: CXC2
Injection Date: 22-DEC-2009 23:52
Instrument: ecd5a.i
Client Sample ID: PBLK01TLCS
Y (x10^8)
Time (Min)
4cmx
Decachlorobiphenyl
Heptachlor epoxide
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Endrin

MISCELLANEOUS DATA

GEL ORGANIC RUN LOG INSTRUMENT ID: ECD5

DATE: 12/19/2009 METHOD: ECD5-B-8081-121809.m OPERATOR:HXJ1 REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT DA385
COPPER LOT 906110-AS

Calibration & QC Information
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.
GEL SOP GL-OA-E-011 Analysis of Chlorophenyoxy Acids by ECD : 8151A
Chromatogram Abbreviation Legend: AB-Assign Baseline, AP-Assign Peak, and
DNC-Do Not Call, NC-Not Confirmed, RT-Retention Time,
BF-Before, AF-After.

Sequence Number: /chem/ecd5a.i/121809.b Injection Volume: 1.0 uL

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001b0101.d	WAR091109-99IB	HXJ1	18-DEC-2009 18:16		121809	1.0		Clean
002b0201.d	WPE091109-99DG	HXJ1	18-DEC-2009 18:28		121809	1.0		(b) DDT 3.1%, Endrin 7.5%; (f) DDT 3.8%, Endrin 6.8%
003b0301.d	WPE091218-01AB	HXJ1	18-DEC-2009 18:40		121809	1.0		INDAB ICAL level 1
004b0401.d	WPE091218-02AB	HXJ1	18-DEC-2009 18:52		121809	1.0		INDAB ICAL level 2
005b0501.d	WPE091218-03AB	HXJ1	18-DEC-2009 19:03		121809	1.0		INDAB ICAL level 3
006b0601.d	WPE091218-04AB	HXJ1	18-DEC-2009 19:15		121809	1.0		INDAB ICAL level 4
007b0701.d	IPE091128-02AB	HXJ1	18-DEC-2009 19:27		121809	1.0		INDAB ICAL level 5
008b0801.d	WPE091207-10AB	HXJ1	18-DEC-2009 19:39		121809	1.0		DUSE - alpha-CHL low on back - see vial 15 for ICV
009b0901.d	WPE091216-11TX	HXJ1	18-DEC-2009 19:51		121809	1.0		TOXAPH ICAL level 1
010b1001.d	WPE091216-12TX	HXJ1	18-DEC-2009 20:03		121809	1.0		TOXAPH ICAL level 2
011b1101.d	WPE091216-13TX	HXJ1	18-DEC-2009 20:15		121809	1.0		TOXAPH ICAL level 3
012b1201.d	WPE091216-14TX	HXJ1	18-DEC-2009 20:27		121809	1.0		TOXAPH ICAL level 4
013b1301.d	IPE091121-40TX	HXJ1	18-DEC-2009 20:39		121809	1.0		TOXAPH ICAL level 5
014b1401.d	WPE091104-52TX	HXJ1	18-DEC-2009 20:51		121809	1.0		All okay
015b1501.d	WPE091207-10AB	HXJ1	18-DEC-2009 21:03		121809	1.0		All okay

Instrument Batch: /chem/ecd5a.i/121809.b Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
016b1601.d	WPE091216-21CL	HXJ1	18-DEC-2009 21:15		121809	1.0		CHLOR ICAL level 1

017b1701.d	WPE091216-22CL	HXJ1	18-DEC-2009 21:27		121809	1.0		CHLOR ICAL level 2
018b1801.d	WPE091216-23CL	HXJ1	18-DEC-2009 21:39		121809	1.0		CHLOR ICAL level 3
019b1901.d	WPE091216-24CL	HXJ1	18-DEC-2009 21:51		121809	1.0		CHLOR ICAL level 4
020b2001.d	IPE091029-05CL	HXJ1	18-DEC-2009 22:02		121809	1.0		CHLOR ICAL level 5
021b2101.d	WPE091021-00CL	HXJ1	18-DEC-2009 22:14		121809	1.0		All okay
022b2201.d	WAR091109-99IB	HXJ1	18-DEC-2009 22:26		121809	1.0		Clean
023b2301.d	1201996981	HXJ1	18-DEC-2009 22:38	933390	10-880	1.0	MB	USE, uploaded both columns, reporting lower result
024b2401.d	1201996982	HXJ1	18-DEC-2009 22:50	933390	10-880	1.0	LCS	USE, uploaded both columns, reporting lower result
025b2501.d	1201996985	HXJ1	18-DEC-2009 23:02	933390	10-880	1.0	TLCS	USE, uploaded both columns, reporting lower result
026b2601.d	242752006	HXJ1	18-DEC-2009 23:14	933390	10-880	1.0	LANL	USE, uploaded both columns, reporting lower result
027b2701.d	242752010	HXJ1	18-DEC-2009 23:26	933390	10-880	1.0	LANL	USE, uploaded both columns, reporting lower result
028b2801.d	242752013	HXJ1	18-DEC-2009 23:38	933390	10-880	1.0	LANL	USE, uploaded both columns, reporting lower result
029b2901.d	242752017	HXJ1	18-DEC-2009 23:50	933390	10-880	1.0	LANL	USE, uploaded both columns, reporting lower result
030b3001.d	242788003	HXJ1	19-DEC-2009 00:02	933390	10-894	1.0	LANL	USE, uploaded both columns, reporting lower result
031b3101.d	1201996983	HXJ1	19-DEC-2009 00:14	933390	10-894	1.0	MS	USE, uploaded both columns, reporting lower result
032b3201.d	1201996984	HXJ1	19-DEC-2009 00:25	933390	10-894	1.0	MSD	USE, uploaded both columns, reporting lower result NCR - (b) Methoxychlor low - matrix? RPD fails?
033b3301.d	WPE091207-10AB	HXJ1	19-DEC-2009 00:37		121809	1.0		(b) DDT, Methoxychlor, Endrin ketone low; (f) DDT, Methoxychlor low - CCV failure confirmed in 122909.b
034b3401.d	WAR091109-99IB	HXJ1	19-DEC-2009 00:49		121809	1.0		Clean
035b3501.d	1201997957	HXJ1	19-DEC-2009 01:01	933823	10-910	1.0	MB	DUSE - beginning CCV low - see re-analysis seq. 121909.b

Instrument Batch: /chem/ecd5a.i/121809.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
036b3601.d	1201997958	HXJ1	19-DEC-2009 01:13	933823	10-910	1.0	LCS	DUSE - beginning CCV low - see re-analysis seq. 121909.b
037b3701.d	1201997961	HXJ1	19-DEC-2009 01:25	933823	10-910	1.0	TLCS	DUSE - beginning CCV low - see re-analysis seq. 121909.b
038b3801.d	242932002	HXJ1	19-DEC-2009 01:37	933823	10-910	1.0	LANL	DUSE - beginning CCV low - see re-analysis seq. 121909.b **Surrogate recoveries elevated**
039b3901.d	242932006	HXJ1	19-DEC-2009 01:49	933823	10-910	1.0	LANL	DUSE - beginning CCV low - see re-analysis seq. 121909.b

040b4001.d	242935001	HXJ1	19-DEC-2009 02:01	933823	10-915	1.0	LANL	DUSE - beginning CCV low - see re-analysis seq. 121909.b
041b4101.d	1201997959	HXJ1	19-DEC-2009 02:13	933823	10-915	1.0	MS	DUSE - beginning CCV low - see re-analysis seq. 121909.b
042b4201.d	1201997960	HXJ1	19-DEC-2009 02:24	933823	10-915	1.0	MSD	DUSE - beginning CCV low - see re-analysis seq. 121909.b
043b4301.d	242935009	HXJ1	19-DEC-2009 02:36	933823	10-915	1.0	LANL	DUSE - beginning CCV low - see re-analysis seq. 121909.b
044b4401.d	WAR091109-99IB	HXJ1	19-DEC-2009 02:48		121809	1.0		Clean
045b4501.d	WPE091207-10AB	HXJ1	19-DEC-2009 03:00		121809	1.0		(b) Endrin elevated, Methoxychlor low; (f) All okay
046b4601.d	WAR091109-99IB	HXJ1	19-DEC-2009 03:12		121809	1.0		Clean
047b4701.d	1201998999	HXJ1	19-DEC-2009 03:24	934325	10-939	1.0	MB	USE, uploaded both columns, reporting lower result
048b4801.d	1201999000	HXJ1	19-DEC-2009 03:36	934325	10-939	1.0	LCS	USE, uploaded both columns, reporting lower result NCR - DCB elevated - sample passes surrogtes - no hits
049b4901.d	1201999003	HXJ1	19-DEC-2009 03:48	934325	10-939	1.0	TLCS	USE, uploaded both columns, reporting lower result NCR - DCB elevated - sample passes surrogtes - no hits
050b5001.d	243007002	HXJ1	19-DEC-2009 04:00	934325	10-939	5.0	LANL	USE, uploaded both columns, reporting lower result
051b5101.d	1201999001	HXJ1	19-DEC-2009 04:12	934325	10-939	5.0	MS	USE, uploaded both columns, reporting lower result
052b5201.d	1201999002	HXJ1	19-DEC-2009 04:24	934325	10-939	5.0	MSD	USE, uploaded both columns, reporting lower result
053b5301.d	WAR091109-99IB	HXJ1	19-DEC-2009 04:36		121809	1.0		Clean
054b5401.d	WPE091207-10AB	HXJ1	19-DEC-2009 04:48		121809	1.0		(b) Methoxychlor low; (f) Endosulfan sulfate elevated
055b5501.d	WAR091109-99IB	HXJ1	19-DEC-2009 05:00		121809	1.0		Clean

GEL ORGANIC RUN LOG INSTRUMENT ID: ECD5

DATE: 12/23/2009 METHOD: ECD5-B-8081-121809.m OPERATOR:CXC2 REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT DA385

Calibration & QC Information
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.
GEL SOP GL-OA-E-041 Organochlorine Pesticides and Chlorinated Hydrocarbons : 8081A/B
Chromatogram Abbreviation Legend: AB-Assign Baseline, AP-Assign Peak, and
SP-Split Peak, DNC-Do Not Call, NC-Not Confirmed, RT-Retention Time,
BF-Before, AF-After.

Sequence Number: /chem/ecd5a.i/122209.b Injection Volume: 1.0 uL

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001b0101.d	WAR091109-99IB	CXC2	22-DEC-2009 13:17		122209	1.0		Clean
002b0201.d	WPE091109-99DG	CXC2	22-DEC-2009 13:29		122209	1.0		(b) DDT 4.8%, Endrin 1.7%; (f) DDT 2.2%, Endrin 4.3%
003b0301.d	WPE091218-10AB	CXC2	22-DEC-2009 13:41		122209	1.0		DUSE
004b0401.d	WPE091104-52TX	CXC2	22-DEC-2009 13:53		122209	1.0		Passes on average for 8081A/ All okay 8081B
005b0501.d	WPE091021-00CL	CXC2	22-DEC-2009 14:05		122209	1.0		(b) Passes on average for 8081A/ All okay 8081B; (f) Passes on average (one peak elevated for 8081B)
006b0601.d	WAR091109-99IB	CXC2	22-DEC-2009 14:47		122209	1.0		DUSE
007b0701.d	WPE091222-01AB	CXC2	22-DEC-2009 15:04		122209	1.0		INDAB ICAL level 1
008b0801.d	WPE091222-02AB	CXC2	22-DEC-2009 15:16		122209	1.0		INDAB ICAL level 2
009b0901.d	WPE091222-03AB	CXC2	22-DEC-2009 15:28		122209	1.0		INDAB ICAL level 3
010b1001.d	WPE091222-04AB	CXC2	22-DEC-2009 15:40		122209	1.0		INDAB ICAL level 4
011b1101.d	IPE091128-02AB	CXC2	22-DEC-2009 15:52		122209	1.0		INDAB ICAL level 5
012b1201.d	WPE091207-10AB	CXC2	22-DEC-2009 16:04		122209	1.0		All okay
013b1301.d	WPE091109-99DG	CXC2	22-DEC-2009 16:16		122209	1.0		(b) DDT 3.5%, Endrin 7.0%; (f) DDT 2.5%, Endrin 6.5%
014b1401.d	WAR091109-99IB	CXC2	22-DEC-2009 16:38		122209	1.0		Clean
015b1501.d	1202001567	CXC2	22-DEC-2009 16:59	935414	10-937	1.0	MB	DUSE

10H
Instrument Batch: /chem/ecd5a.i/122209.b Page: 1
10H16.6H

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments

016b1601.d	1202001568	CXC2	22-DEC-2009 17:11	935414	10-937	1.0	LCS	DUSE
017b1701.d	1202001571	CXC2	22-DEC-2009 17:23	935414	10-937	1.0	TLCS	DUSE
018b1801.d	1202000315	CXC2	22-DEC-2009 17:35	934940	243063	1.0	LCS	DUSE
019b1901.d	1202000316	CXC2	22-DEC-2009 17:47	934940	243063	1.0	LCSD	DUSE
020b2001.d	WPE091207-10AB	CXC2	22-DEC-2009 17:59		122209	1.0		DUSE
021b2101.d	WAR091109-99IB	CXC2	22-DEC-2009 18:11		122209	1.0		Clean
022b2201.d	WPE091109-99AB	CXC2	22-DEC-2009 18:23		122209	1.0		Clean
023b2301.d	WPE091207-10AB	CXC2	22-DEC-2009 18:35		122209	1.0		(b)Methoxychlor, E. ketone low; (f)alpha-CHL elevated (passes 81B)
024b2401.d	1202000315	CXC2	22-DEC-2009 18:47	934940	243063	1.0	LCS	USE, uploaded both columns, reporting higher result PRE-FLORISIL...NCR: Endosulfan I low, Methoxychlor, DDT elevated on back (all pass on front)- no hits of these analytes in samples
025b2501.d	1202000316	CXC2	22-DEC-2009 18:59	934940	243063	1.0	LCSD	USE, uploaded both columns, reporting higher result PRE-FLORISIL...NCR: Aldrin low on back (all pass on front) no hits of Aldrin in samples
026b2601.d	242168001	CXC2	22-DEC-2009 19:13	934315	10-753-1	5.0	LANL	USE, uploaded both columns, reporting lower result
027b2701.d	242785001	CXC2	22-DEC-2009 19:29	934315	10-899-1	5.0	LANL	USE, uploaded both columns, reporting lower result
028b2801.d	242785002	CXC2	22-DEC-2009 19:41	934315	10-899-1	5.0	LANL	USE, uploaded both columns, reporting lower result
029b2901.d	1201998974	CXC2	22-DEC-2009 19:53	934315	10-753-1	5.0	MS	USE, uploaded both columns, reporting lower result NCR- (b)Methoxychlor low- RPD will fail- reporting front/default b/c no hits called in samples
030b3001.d	1201998977	CXC2	22-DEC-2009 20:05	934315	10-753-1	5.0	MSD	USE, uploaded both columns, reporting lower result
031b3101.d	1201998975	CXC2	22-DEC-2009 20:17	934315	10-753-1	5.0	TMS	USE, uploaded both columns, reporting lower result
032b3201.d	1201998978	CXC2	22-DEC-2009 20:29	934315	10-753-1	5.0	TMSD	USE, uploaded both columns, reporting lower result
033b3301.d	1201998976	CXC2	22-DEC-2009 20:41	934315	10-753-1	5.0	CMS	USE, uploaded both columns, reporting lower result
034b3401.d	WAR091109-99IB	CXC2	22-DEC-2009 20:53		122209	1.0		Clean
035b3501.d	WPE091207-10AB	CXC2	22-DEC-2009 21:05		122209	1.0		(b) DDT, Methoxychlor, Endrin ketone low; (f) All okay

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
036b3601.d	WAR091109-99IB	CXC2	22-DEC-2009 21:17		122209	1.0		Clean
037b3701.d	1201998979	CXC2	22-DEC-2009 21:29	934315	10-753-1	5.0	CMSD	USE, uploaded both columns, reporting lower result

038b3801.d	242168002	CXC2	22-DEC-2009 21:41	934315	10-753-1	5.0	LANL	USE, uploaded both columns, reporting lower result
039b3901.d	242306001	CXC2	22-DEC-2009 21:53	934315	10-786-1	5.0	LANL	USE, uploaded both columns, reporting lower result
040b4001.d	242306002	CXC2	22-DEC-2009 22:05	934315	10-786-1	5.0	LANL	USE, uploaded both columns, reporting lower result
041b4101.d	242306003	CXC2	22-DEC-2009 22:17	934315	10-786-1	5.0	LANL	USE, uploaded both columns, reporting lower result
042b4201.d	242446001	CXC2	22-DEC-2009 22:28	934315	10-832-1	5.0	LANL	USE, uploaded both columns, reporting lower result
043b4301.d	243010001	CXC2	22-DEC-2009 22:40	934315	10-939-1	5.0	LANL	USE, uploaded both columns, reporting lower result
044b4401.d	WAR091109-99IB	CXC2	22-DEC-2009 22:52		122209	1.0		Clean
045b4501.d	WPE091207-10AB	CXC2	22-DEC-2009 23:04		122209	1.0		(B) DDT Methoxychlor,E.ketone low (F) gamma-CHL,Endo I,DDD high
046b4601.d	WAR091109-99IB	CXC2	22-DEC-2009 23:16		122209	1.0		Clean
047b4701.d	1201998973	CXC2	22-DEC-2009 23:28	934315	10-753-1	1.0	MB	USE, uploaded both columns, reporting lower result
048b4801.d	1201998980	CXC2	22-DEC-2009 23:40	934315	10-753-1	1.0	LCS	USE, uploaded both columns, reporting lower result
049b4901.d	1201998981	CXC2	22-DEC-2009 23:52	934315	10-753-1	1.0	TLCS	USE, uploaded both columns, reporting lower result
050b5001.d	1201998982	CXC2	23-DEC-2009 00:04	934315	10-753-1	1.0	CLCS	USE, uploaded both columns, reporting lower result
051b5101.d	WPE091207-10AB	CXC2	23-DEC-2009 00:16		122209	1.0		(B) Heptachlor, DDT, Methoxychlor, E.ketone low (F) gamma-CHL,Endo I,DDD elevated
052b5201.d	WAR091109-99IB	CXC2	23-DEC-2009 00:28		122209	1.0		Clean
053b5301.d	1201995775	CXC2	23-DEC-2009 00:40	934315	10-753-1	1.0	TB	USE, uploaded both columns, reporting lower result
054b5401.d	1201996842	CXC2	23-DEC-2009 00:52	934315	10-832-1	1.0	TB	USE, uploaded both columns, reporting lower result
055b5501.d	1201999915	CXC2	23-DEC-2009 01:04	934315	10-939-1	1.0	TB	USE, uploaded both columns, reporting lower result

Instrument Batch: /chem/ecd5a.i/122209.b Page: 3

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
056b5601.d	WPE091207-10AB	CXC2	23-DEC-2009 01:16		122209	1.0		(B) Heptachlor, DDT, Methoxychlor, E.ketone low, even for DODQSM (F) gamma-CHL & Endrin elevated - All OK DODQSM
057b5701.d	WAR091109-99IB	CXC2	23-DEC-2009 01:28		122209	1.0		Clean
058b5801.d	1202001572	CXC2	23-DEC-2009 01:40	935418	243044	1.0	MB	USE, uploaded both columns, reporting higher result
059b5901.d	1202001573	CXC2	23-DEC-2009 01:52	935418	243044	1.0	LCS	USE, uploaded both columns, reporting higher result
060b6001.d	243044001	CXC2	23-DEC-2009 02:04	935418	243044	1.0	SAIC	USE, uploaded both columns, reporting higher result

061b6101.d	1202001574	CXC2	23-DEC-2009 02:16	935418	243044	1.0	MS	USE, uploaded both columns, reporting higher result
062b6201.d	1202001575	CXC2	23-DEC-2009 02:28	935418	243044	1.0	MSD	USE, uploaded both columns, reporting higher result
063b6301.d	WPE091207-10AB	CXC2	23-DEC-2009 02:40		122209	1.0		(B) DDT & Methoxychlor low for DODQSM; E.ketone low 8081A (F) gamma-CHL,EndoI,Endrin,EndoSO4 elevated DODQSM, several hi 81A
064b6401.d	WAR091109-99IB	CXC2	23-DEC-2009 02:52		122209	1.0		Clean

Instrument Batch: /chem/ecd5a.i/122209.b Page: 4

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd5a.i/122209.b/029b2901.d
Lab Smp Id: 1201998974 Client Smp ID: WST03-10-2137MS
Inj Date : 22-DEC-2009 19:53
Operator : CXC2 Inst ID: ecd5a.i
Smp Info : |1201998974|5|
Misc Info : |ECDPTL_1L|934315|SVP|MS|SOIL|MS|||
Comment :
Method : /chem/ecd5a.i/122209.b/ECD5-B-8081-121809.m
Meth Date : 23-Dec-2009 08:46 cla01575 Quant Type: ESTD
Cal Date : 05-DEC-2009 03:28 Cal File: 025b2501.d
Als bottle: 29 QC Sample: MS
Dil Factor: 5.00000
Integrator: Falcon Compound Sublist: 10-753-1.sub
Target Version: 3.50 Sample Matrix: Water
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	5.00000	Dilution Factor
Uf	0.00100	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	20.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	CONCENTRATIONS FINAL (mg/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
3.196	3.198	-0.002	47321476	14.6301	0.00366	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.149	7.153	-0.004	38224219	27.1208	0.00678	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.998	4.000	-0.002	50988460	13.3591	0.00334	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
4.326	4.327	-0.001	33900857	10.6251	0.00266	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	CONCENTRATIONS FINAL (mg/L)	TARGET RANGE	RATIO
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.927	4.927	0.000	40678605	13.8166	0.00345	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.542	5.543	-0.001	33777131	16.8455	0.00421	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
6.162	6.166	-0.004	29966258	55.0349	0.0138	80.00- 120.00	100.00(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: /chem/ecd5a.i/122209.b/029b2901.d

Date : 22-DEC-2009 19:53

Client ID: WST03-10-2137MS

Sample Info: |1201998974|5|

Volume Injected (uL): 1.0

Column phase: CLP-2

Instrument: ecd5a.i

Operator: CXC2

Column diameter: 0.25

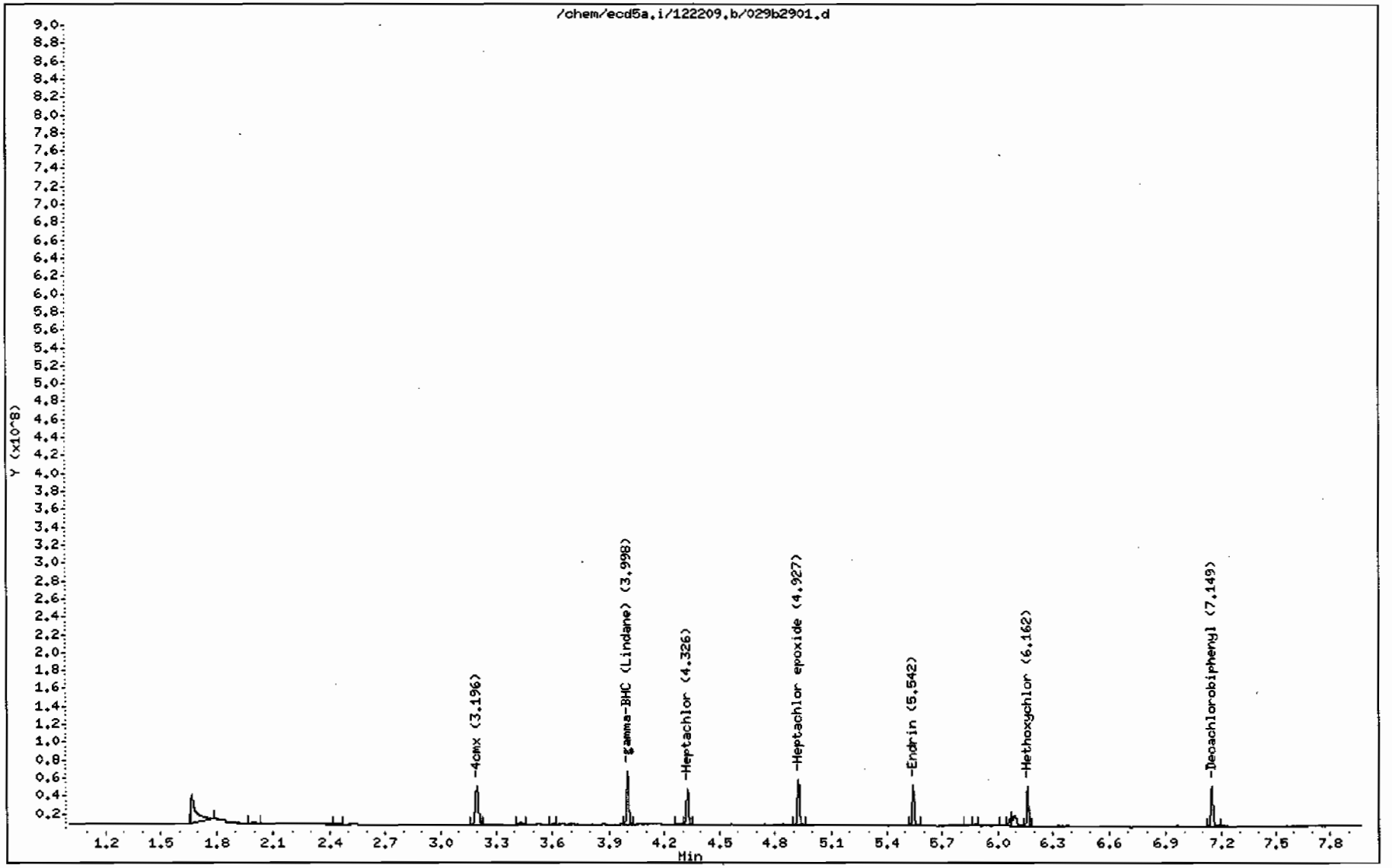

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CLP-1

Data file : /chem/ecd5a.i/122209.b/029f2901.d
Lab Smp Id: 1201998974 Client Smp ID: WST03-10-2137MS
Inj Date : 22-DEC-2009 19:53
Operator : CXC2 Inst ID: ecd5a.i
Smp Info : |1201998974|5|
Misc Info : |ECDPTL_1L|934315|SVP|MS|SOIL|MS|||
Comment :
Method : /chem/ecd5a.i/122209.b/ECD5-F-8081-121809.m
Meth Date : 23-Dec-2009 08:48 cla01575 Quant Type: ESTD
Cal Date : 05-DEC-2009 03:28 Cal File: 025f2501.d
Als bottle: 29 QC Sample: MS
Dil Factor: 5.00000
Integrator: Falcon Compound Sublist: 10-753-1.sub
Target Version: 3.50 Sample Matrix: Water
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	5.00000	Dilution Factor
Uf	0.00100	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	20.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	CONCENTRATIONS FINAL (mg/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.790	2.790	0.000	6713934	14.4897	0.00362	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
6.479	6.482	-0.003	8592271	31.4464	0.00786	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.547	3.549	-0.002	7665713	13.7283	0.00343	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
3.900	3.900	0.000	4667110	9.21717	0.00230	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (mg/L)	TARGET RANGE	RATIO
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.521	4.521	0.000	6531485	14.2945	0.00357	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.071	5.070	0.001	5805019	17.0338	0.00426	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
5.554	5.554	0.000	12503904	105.053	0.0263	80.00- 120.00	100.00

Data File: /chem/ecd5a.i/122209.b/029f2901.d
Date : 22-DEC-2009 19:53
Client ID: WST03-10-2137MS
Sample Info: |120199897415|
Volume Injected (uL): 1.0
Column phase: CLP-1

Instrument: ecd5a.i

Operator: CXC2
Column diameter: 0.25

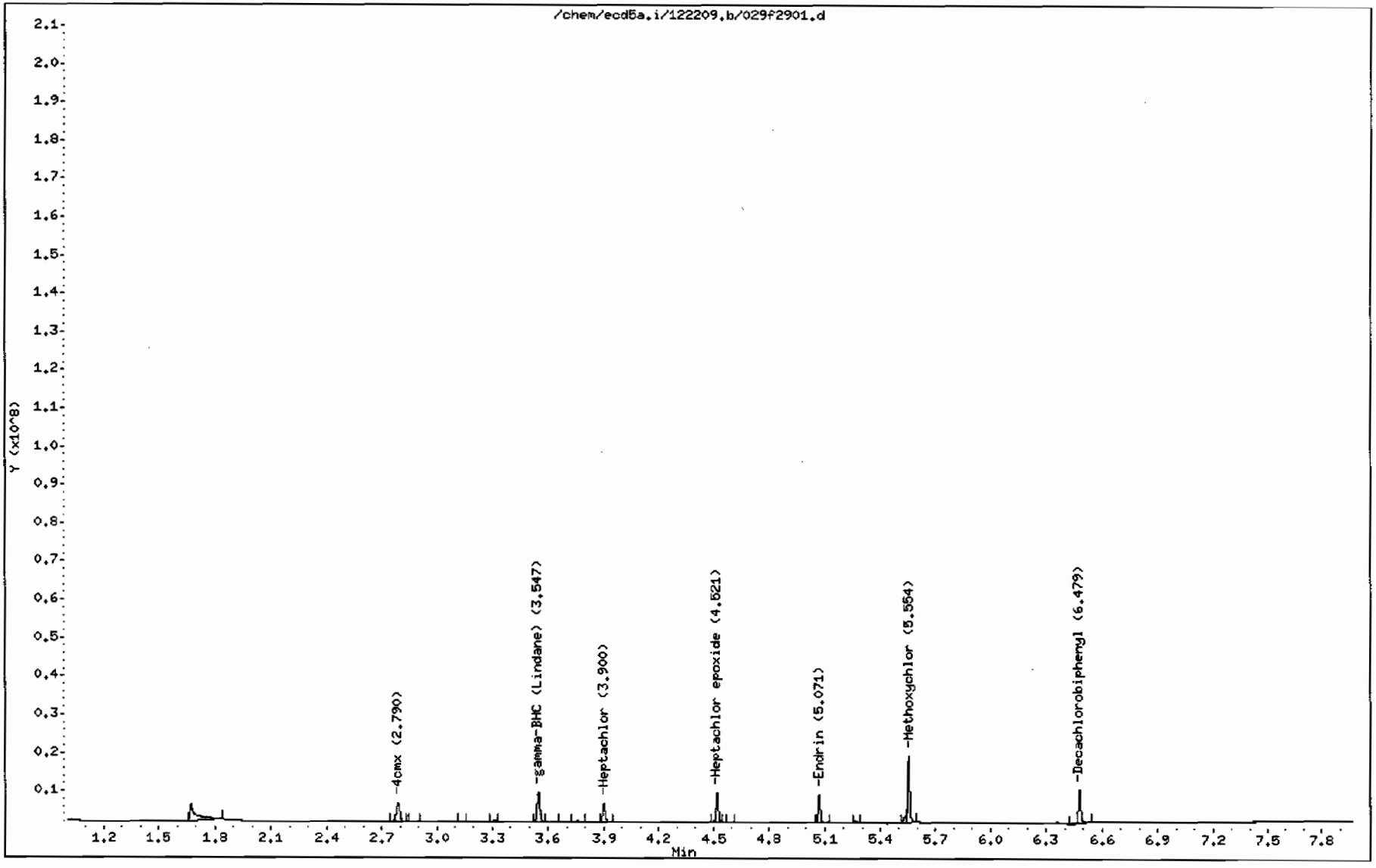

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CLP-2

Data file : /chem/ecd5a.i/122209.b/030b3001.d
Lab Smp Id: 1201998977 Client Smp ID: WST03-10-2137MSD
Inj Date : 22-DEC-2009 20:05
Operator : CXC2 Inst ID: ecd5a.i
Smp Info : |1201998977|5|
Misc Info : |ECDPTL_1L|934315|SVP|MSD|SOIL|MSD|||
Comment :
Method : /chem/ecd5a.i/122209.b/ECD5-B-8081-121809.m
Meth Date : 23-Dec-2009 08:46 cla01575 Quant Type: ESTD
Cal Date : 05-DEC-2009 03:28 Cal File: 025b2501.d
Als bottle: 30 QC Sample: MSD
Dil Factor: 5.00000
Integrator: Falcon Compound Sublist: 10-753-1.sub
Target Version: 3.50 Sample Matrix: Water
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	5.00000	Dilution Factor
Uf	0.00100	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	20.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (mg/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
3.196	3.198	-0.002	59324870	18.3412	0.00458	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.150	7.153	-0.003	41760480	29.6298	0.00741	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.999	4.000	-0.001	58021063	15.2017	0.00380	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
4.325	4.327	-0.002	42560322	13.3391	0.00333	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (mg/L)	TARGET RANGE	RATIO
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.926	4.927	-0.001	45714923	15.5272	0.00388	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.541	5.543	-0.002	38920602	19.4107	0.00485	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
6.163	6.166	-0.003	74104582	136.098	0.0340	80.00- 120.00	100.00

Data File: /chem/ecd5a.i/122209.b/030b3001.d
Date : 22-DEC-2009 20:05
Client ID: WST03-10-2137MSD
Sample Info: |1201998977151
Volume Injected (uL): 1.0
Column phase: CLP-2

Instrument: ecd5a.i

Operator: CXC2
Column diameter: 0.25

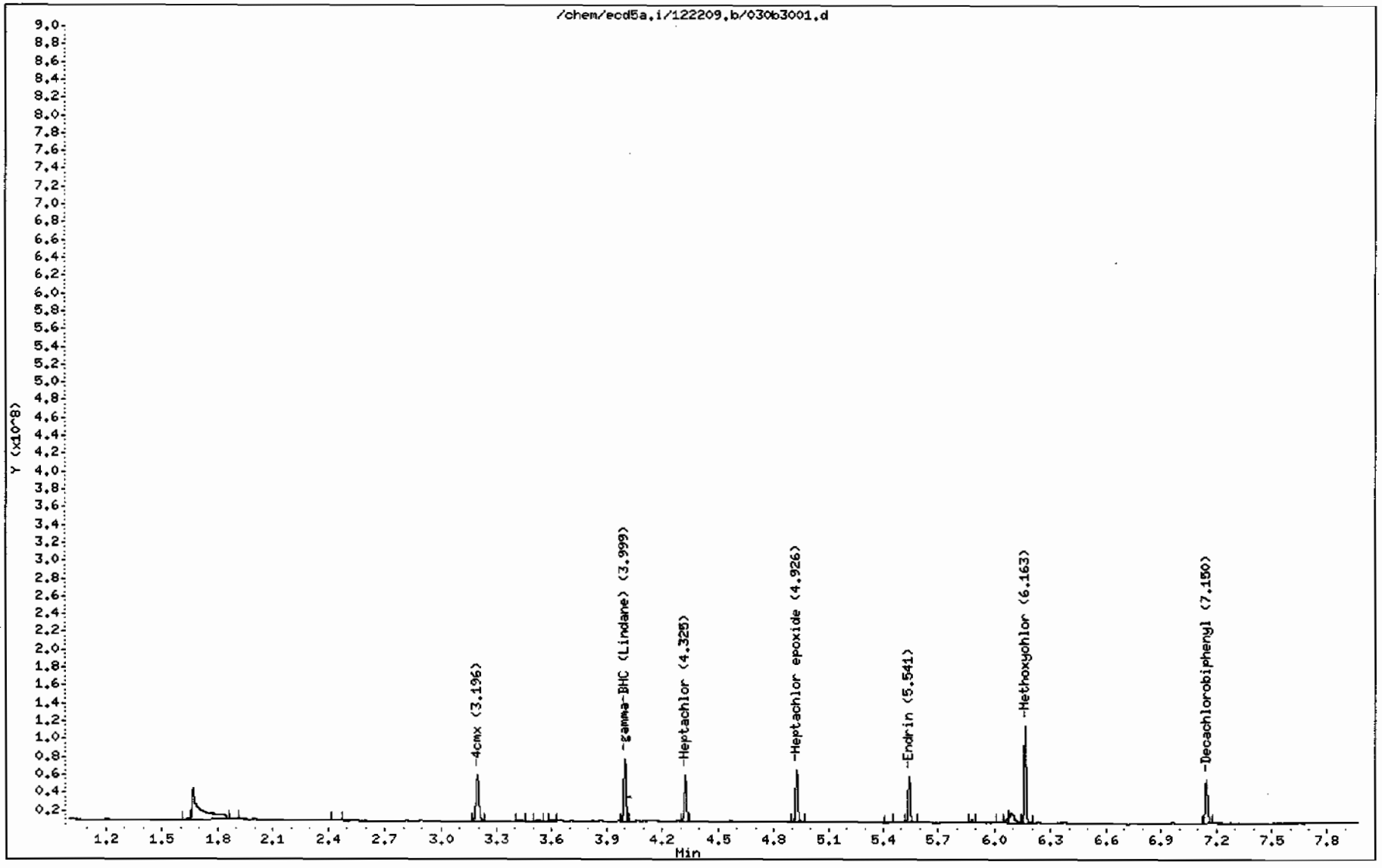

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd5a.i/122209.b/030f3001.d
Lab Smp Id: 1201998977 Client Smp ID: WST03-10-2137MSD
Inj Date : 22-DEC-2009 20:05
Operator : CXC2 Inst ID: ecd5a.i
Smp Info : |1201998977|5|
Misc Info : |ECDPTL_1L|934315|SVP|MSD|SOIL|MSD|||
Comment :
Method : /chem/ecd5a.i/122209.b/ECD5-F-8081-121809.m
Meth Date : 23-Dec-2009 08:48 cla01575 Quant Type: ESTD
Cal Date : 05-DEC-2009 03:28 Cal File: 025f2501.d
Als bottle: 30 QC Sample: MSD
Dil Factor: 5.00000
Integrator: Falcon Compound Sublist: 10-753-1.sub
Target Version: 3.50 Sample Matrix: Water
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	5.00000	Dilution Factor
Uf	0.00100	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	20.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (mg/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.790	2.790	0.000	8668900	18.7088	0.00468	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
6.480	6.482	-0.002	9343162	34.1946	0.00855	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.548	3.549	-0.001	8844628	15.8395	0.00396	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
3.900	3.900	0.000	6605620	13.0456	0.00326	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	CONCENTRATIONS FINAL (mg/L)	TARGET RANGE	RATIO
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.521	4.521	0.000	7403492	16.2030	0.00405	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.070	5.070	0.000	6501657	19.0780	0.00477	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
5.554	5.554	0.000	21298292	178.939	0.0447	80.00- 120.00	100.00

Data File: /chem/ecd5a.i/122209.b/030f3001.d

Date : 22-DEC-2009 20:05

Client ID: WST03-10-2137MSD

Sample Info: |120199897715|

Volume Injected (uL): 1.0

Column phase: CLP-1

Instrument: ecd5a.i

Operator: CXC2

Column diameter: 0.25

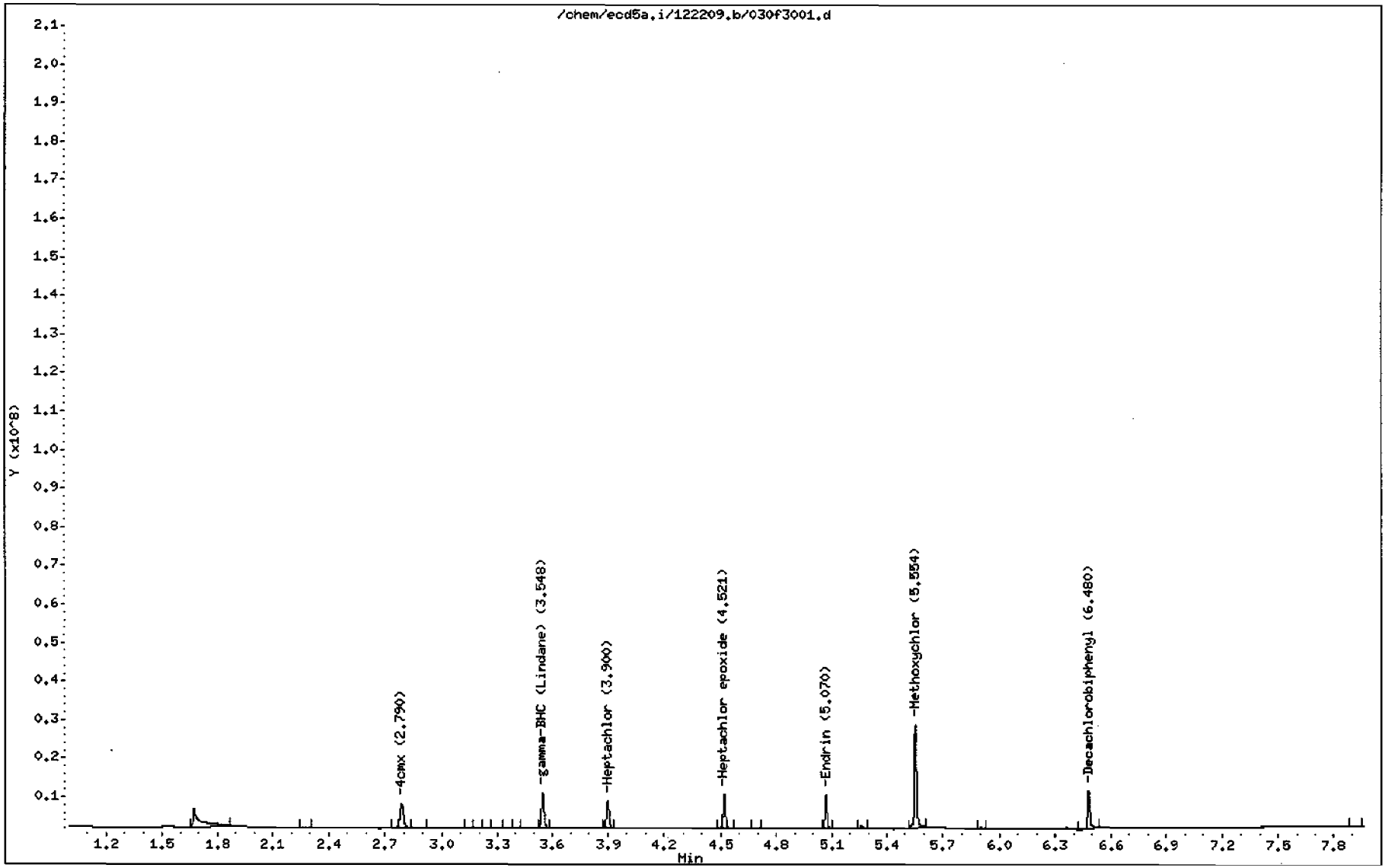

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd5a.i/122209.b/031b3101.d
Lab Smp Id: 1201998975 Client Smp ID: WST03-10-2137TMS
Inj Date : 22-DEC-2009 20:17
Operator : CXC2 Inst ID: ecd5a.i
Smp Info : |1201998975|5|
Misc Info : |ECDPTL_1L|934315|SVP|TMS|SOIL|TMS|||
Comment :
Method : /chem/ecd5a.i/122209.b/ECD5-B-8081-121809.m
Meth Date : 23-Dec-2009 08:46 cla01575 Quant Type: ESTD
Cal Date : 05-DEC-2009 03:28 Cal File: 025b2501.d
Als bottle: 31 QC Sample: MS
Dil Factor: 5.00000
Integrator: Falcon Compound Sublist: 10-753-1.sub
Target Version: 3.50 Sample Matrix: Water
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	5.00000	Dilution Factor
Uf	0.00100	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	20.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (mg/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
3.197	3.198	-0.001	69136365	21.3745	0.00534	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.148	7.153	-0.005	42863664	30.4125	0.00760	80.00- 120.00	100.00
23 Toxaphene					CAS #: 8001-35-2		
5.404	5.406	-0.002	10340591	469.390	0.117	80.00- 120.00	100.00(M)
5.538	5.541	-0.003	18481943	538.206	0.134	103.90- 143.90	178.73
5.631	5.632	-0.001	12309626	364.460	0.0911	100.29- 140.29	119.04
5.659	5.661	-0.002	21456216	380.355	0.0951	181.24- 221.24	207.50
5.717	5.719	-0.002	32172083	372.076	0.0930	287.80- 327.80	311.12

Average of Peak Concentrations = 0.106

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd5a.i/122209.b/031b3101.d

Date : 22-DEC-2009 20:17

Client ID: WST03-10-2137TMS

Sample Info: |1201998975151

Volume Injected (uL): 1.0

Column phase: CLP-2

Instrument: ecd5a.i

Operator: CXC2

Column diameter: 0.25

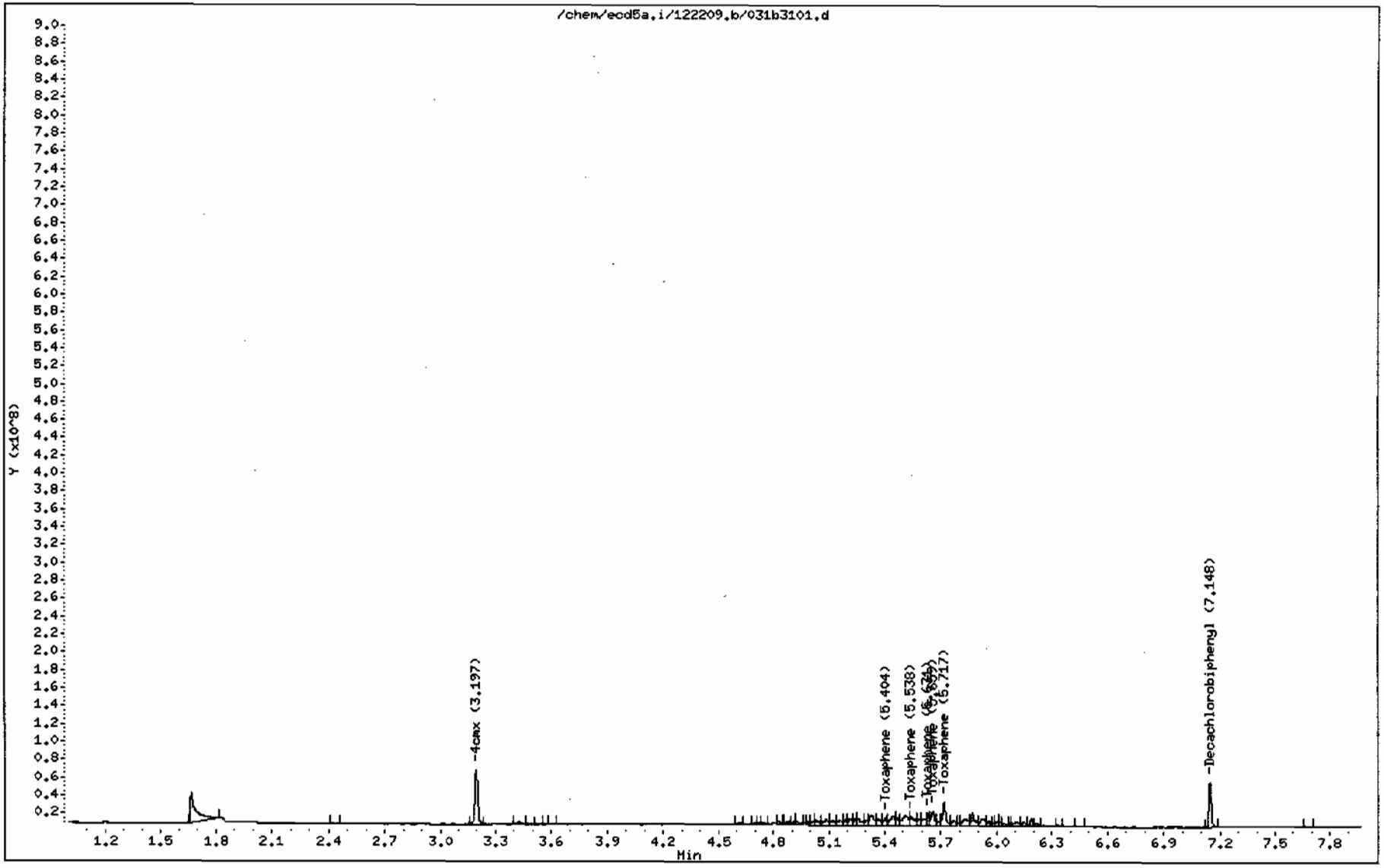

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd5a.i/122209.b/031f3101.d
Lab Smp Id: 1201998975 Client Smp ID: WST03-10-2137TMS
Inj Date : 22-DEC-2009 20:17
Operator : CXC2 Inst ID: ecd5a.i
Smp Info : |1201998975|5|
Misc Info : |ECDPTL_1L|934315|SVP|TMS|SOIL|TMS|||
Comment :
Method : /chem/ecd5a.i/122209.b/ECD5-F-8081-121809.m
Meth Date : 23-Dec-2009 08:48 cla01575 Quant Type: ESTD
Cal Date : 05-DEC-2009 03:28 Cal File: 025f2501.d
Als bottle: 31 QC Sample: MS
Dil Factor: 5.00000
Integrator: Falcon Compound Sublist: 10-753-1.sub
Target Version: 3.50 Sample Matrix: Water
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	5.00000	Dilution Factor
Uf	0.00100	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	20.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (mg/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.788	2.790	-0.002	10176083	21.9615	0.00549	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
6.478	6.482	-0.004	8830473	32.3182	0.00808	80.00- 120.00	100.00
23 Toxaphene					CAS #: 8001-35-2		
4.713	4.713	0.000	738492	263.433	0.0658	80.00- 120.00	100.00(M)
4.927	4.927	0.000	2500713	473.310	0.118	158.29- 198.29	338.62
4.982	4.982	0.000	2500249	357.344	0.0893	217.92- 257.92	338.56
5.023	5.020	0.003	3108061	348.496	0.0871	260.88- 300.88	420.87
5.083	5.082	0.001	3071232	356.808	0.0892	269.50- 309.50	415.88

Average of Peak Concentrations = 0.0899

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd5a.i/122209.b/031f3101.d
Date : 22-DEC-2009 20:17
Client ID: WST03-10-2137TMS
Sample Info: 1120199897515I
Volume Injected (uL): 1.0
Column phase: CLP-1

Instrument: ecd5a.i
Operator: CXC2
Column diameter: 0.25

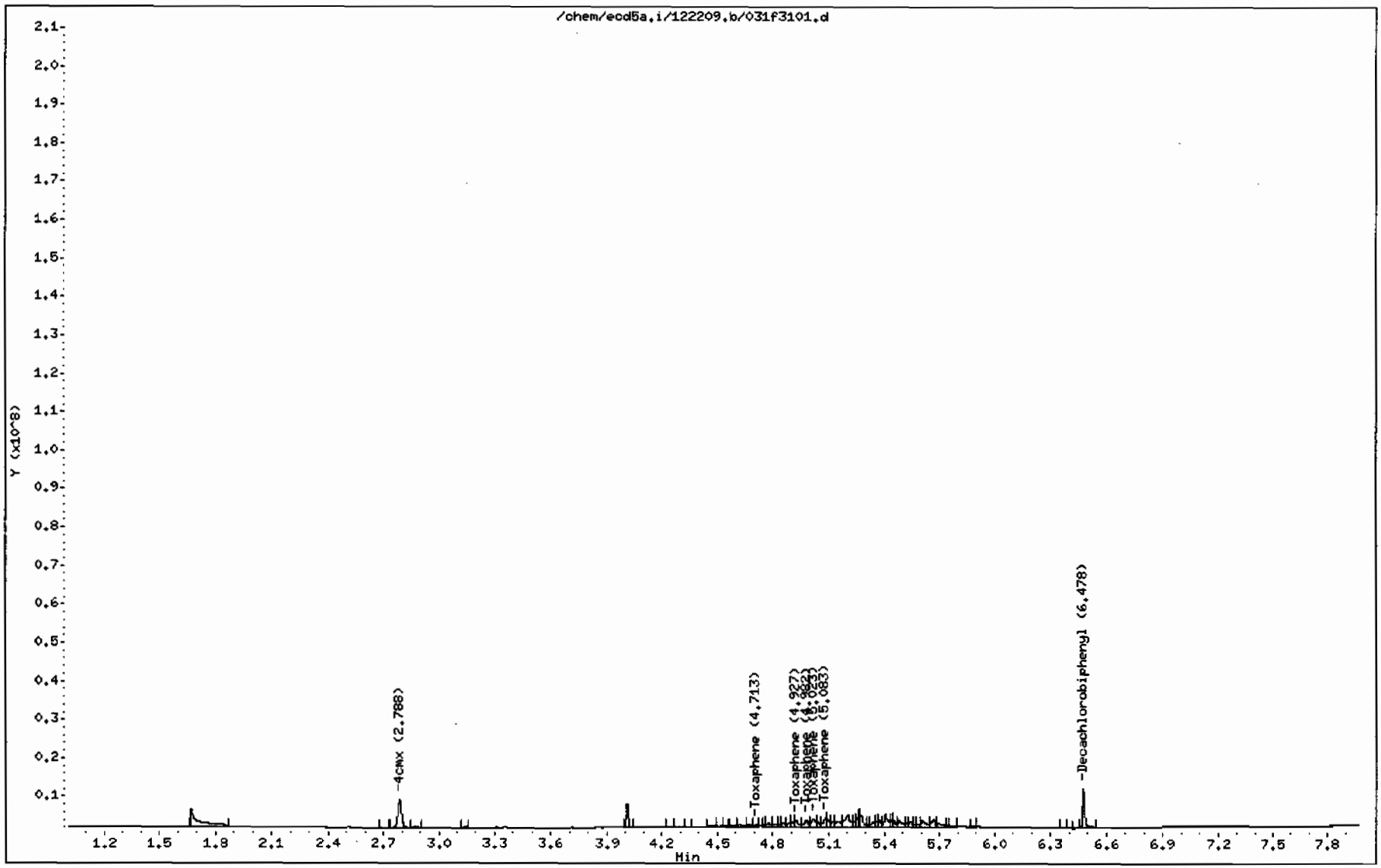

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd5a.i/122209.b/032b3201.d
Lab Smp Id: 1201998978 Client Smp ID: WST03-10-2137TMSD
Inj Date : 22-DEC-2009 20:29
Operator : CXC2 Inst ID: ecd5a.i
Smp Info : |1201998978|5|
Misc Info : |ECDPTL_1L|934315|SVP|TMSD|SOIL|TMSD|||
Comment :
Method : /chem/ecd5a.i/122209.b/ECD5-B-8081-121809.m
Meth Date : 23-Dec-2009 08:46 cla01575 Quant Type: ESTD
Cal Date : 05-DEC-2009 03:28 Cal File: 025b2501.d
Als bottle: 32 QC Sample: MSD
Dil Factor: 5.00000
Integrator: Falcon Compound Sublist: 10-753-1.sub
Target Version: 3.50 Sample Matrix: Water
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	5.00000	Dilution Factor
Uf	0.00100	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	20.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (mg/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
3.196	3.198	-0.002	60841786	18.8102	0.00470	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.149	7.153	-0.004	39321650	27.8994	0.00697	80.00- 120.00	100.00
23 Toxaphene					CAS #: 8001-35-2		
5.404	5.406	-0.002	9900134	449.397	0.112	80.00- 120.00	100.00(M)
5.540	5.541	-0.001	15460592	450.222	0.112	103.90- 143.90	156.17
5.630	5.632	-0.002	10115281	299.491	0.0749	100.29- 140.29	102.17
5.660	5.661	-0.001	15338005	271.897	0.0680	181.24- 221.24	154.93
5.717	5.719	-0.002	24108822	278.823	0.0697	287.80- 327.80	243.52

Average of Peak Concentrations = 0.0873

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd5a.i/122209.b/032b3201.d

Date : 22-DEC-2009 20:29

Client ID: WST03-10-2137TMSD

Sample Info: |12019989781 5|

Volume Injected (uL): 1.0

Column phase: CLP-2

Instrument: ecd5a.i

Operator: CXC2

Column diameter: 0.25

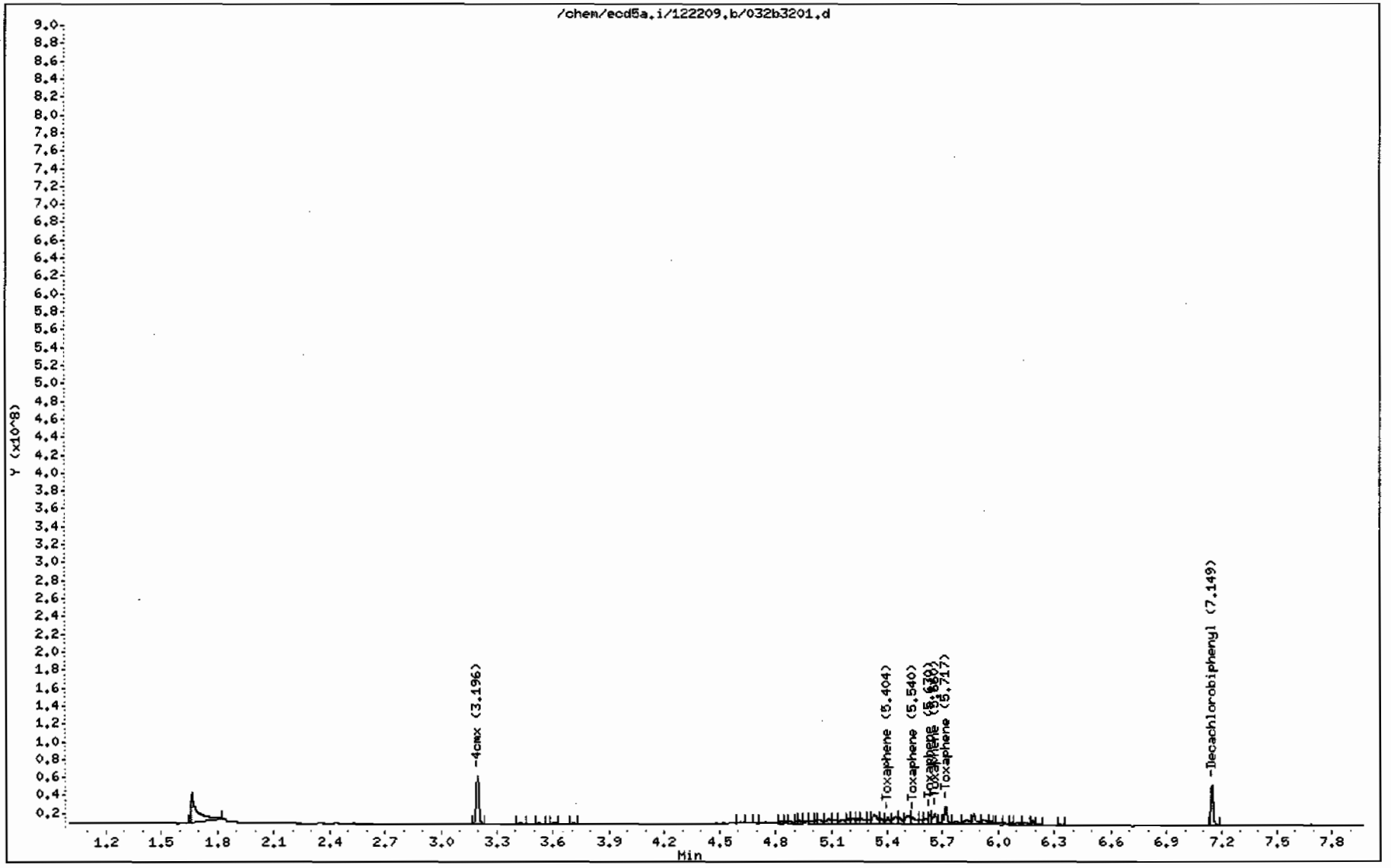

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd5a.i/122209.b/032f3201.d
Lab Smp Id: 1201998978 Client Smp ID: WST03-10-2137TMSD
Inj Date : 22-DEC-2009 20:29
Operator : CXC2 Inst ID: ecd5a.i
Smp Info : |1201998978|5|
Misc Info : |ECDPTL_1L|934315|SVP|TMSD|SOIL|TMSD|||
Comment :
Method : /chem/ecd5a.i/122209.b/ECD5-F-8081-121809.m
Meth Date : 23-Dec-2009 08:48 cla01575 Quant Type: ESTD
Cal Date : 05-DEC-2009 03:28 Cal File: 025f2501.d
Als bottle: 32 QC Sample: MSD
Dil Factor: 5.00000
Integrator: Falcon Compound Sublist: 10-753-1.sub
Target Version: 3.50 Sample Matrix: Water
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	5.00000	Dilution Factor
Uf	0.00100	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	20.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (mg/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.789	2.790	-0.001	8888277	19.1823	0.00480	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
6.479	6.482	-0.003	8554622	31.3086	0.00783	80.00- 120.00	100.00
23 Toxaphene					CAS #: 8001-35-2		
4.712	4.713	-0.001	874501	311.950	0.0780	80.00- 120.00	100.00(M)
4.927	4.927	0.000	2461264	465.844	0.116	158.29- 198.29	281.45
4.982	4.982	0.000	2446834	349.709	0.0874	217.92- 257.92	279.80
5.021	5.020	0.001	4123231	462.323	0.116	260.88- 300.88	471.50
5.082	5.082	0.000	4661029	541.507	0.135	269.50- 309.50	532.99

Average of Peak Concentrations = 0.106

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd5a.i/122209.b/032f3201.d

Date : 22-DEC-2009 20:29

Client ID: WST03-10-2137TMSD

Sample Info: |120199897815|

Volume Injected (uL): 1.0

Column phase: CLP-1

Instrument: ecd5a.i

Operator: CXC2

Column diameter: 0.25

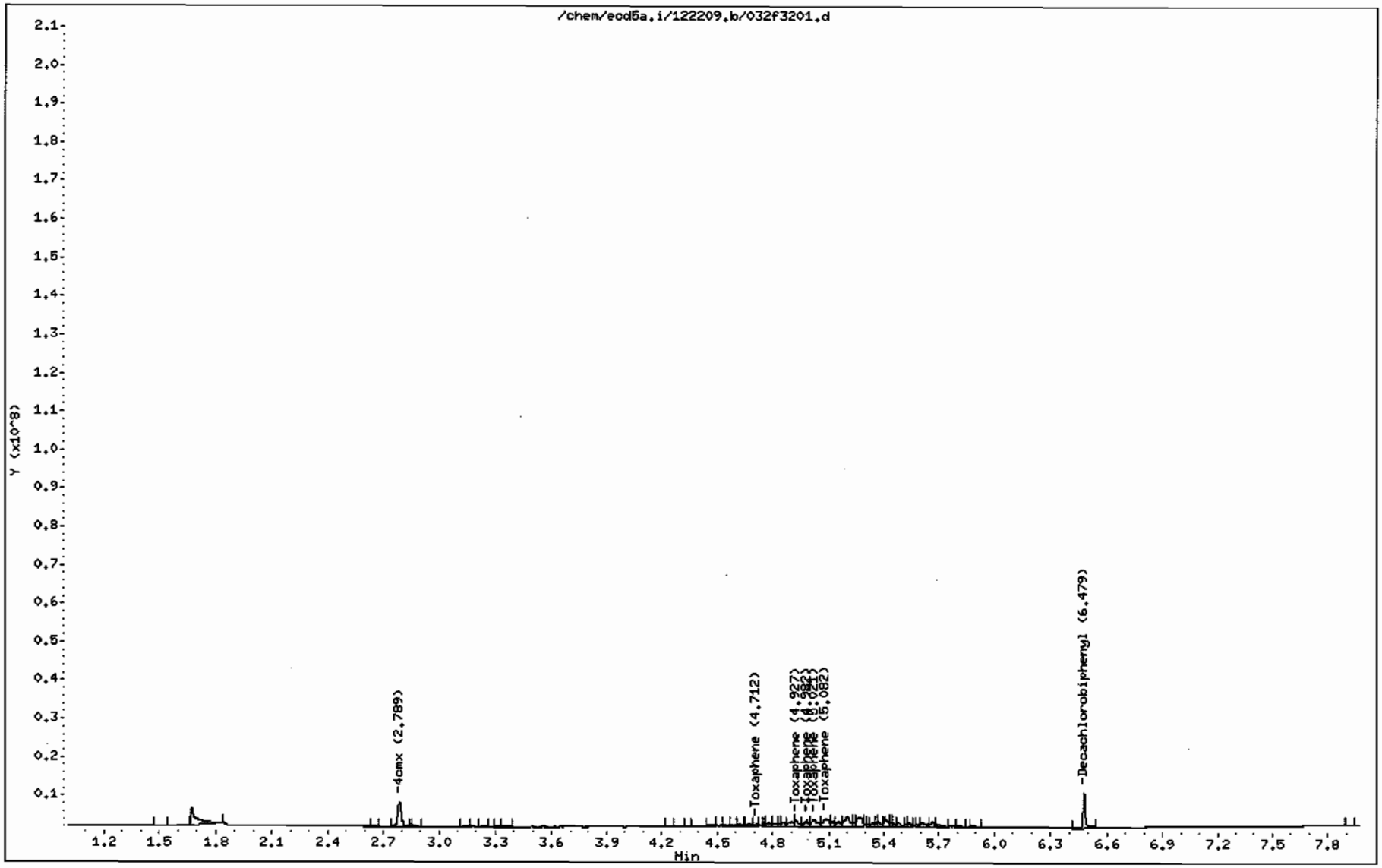

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd5a.i/122209.b/033b3301.d
Lab Smp Id: 1201998976 Client Smp ID: WST03-10-2137CMS
Inj Date : 22-DEC-2009 20:41
Operator : CXC2 Inst ID: ecd5a.i
Smp Info : |1201998976|5|
Misc Info : |ECDPTL_1L|934315|SVP|CMS|SOIL|CMS|||
Comment :
Method : /chem/ecd5a.i/122209.b/ECD5-B-8081-121809.m
Meth Date : 23-Dec-2009 08:46 cla01575 Quant Type: ESTD
Cal Date : 05-DEC-2009 03:28 Cal File: 025b2501.d
Als bottle: 33 QC Sample: MS
Dil Factor: 5.00000
Integrator: Falcon Compound Sublist: 10-753-1.sub
Target Version: 3.50 Sample Matrix: Water
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	5.00000	Dilution Factor
Uf	0.00100	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	20.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (mg/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
3.197	3.198	-0.001	58867496	18.1998	0.00455	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.149	7.153	-0.004	41584909	29.5052	0.00738	80.00- 120.00	100.00
8 Chlordane (tech.)					CAS #: 12789-03-6		
4.220	4.222	-0.002	26587136	231.261	0.0578	80.00- 120.00	100.00(M)
4.644	4.647	-0.003	31195230	338.099	0.0845	79.74- 119.74	117.33
4.899	4.901	-0.002	20483406	311.224	0.0778	40.71- 80.71	77.04
5.047	5.048	-0.001	76716369	280.327	0.0701	242.29- 282.29	288.55
5.138	5.140	-0.002	63648777	287.426	0.0718	194.96- 234.96	239.40

Average of Peak Concentrations = 0.0724

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd5a.i/122209.b/033b3301.d
Date : 22-DEC-2009 20:41
Client ID: WST03-10-2137CMS
Sample Info: |120199897615|
Volume Injected (uL): 1.0
Column phase: CLP-2

Instrument: ecd5a.i
Operator: CXC2
Column diameter: 0.25

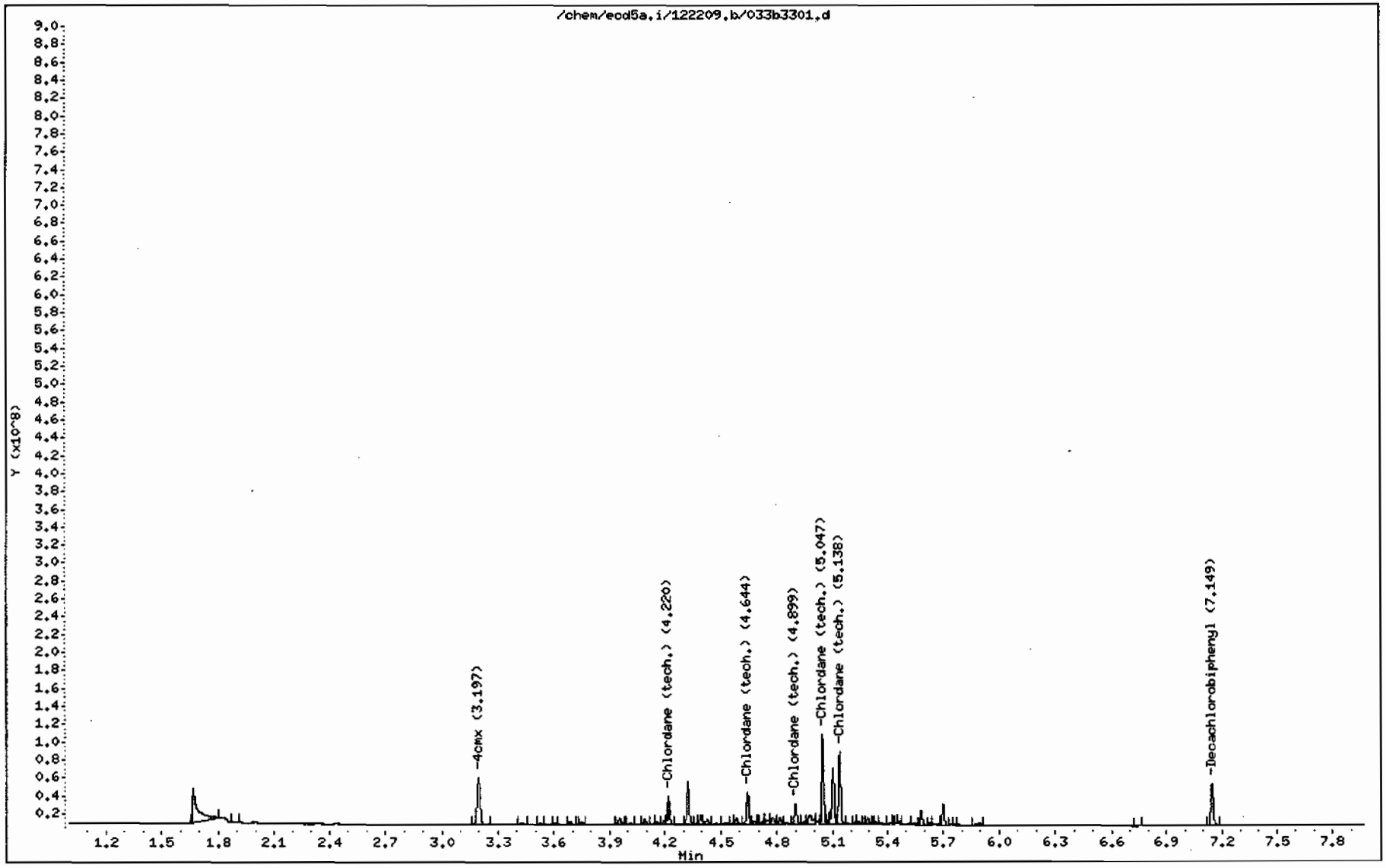

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd5a.i/122209.b/033f3301.d
Lab Smp Id: 1201998976 Client Smp ID: WST03-10-2137CMS
Inj Date : 22-DEC-2009 20:41
Operator : CXC2 Inst ID: ecd5a.i
Smp Info : |1201998976|5|
Misc Info : |ECDPTL_1L|934315|SVP|CMS|SOIL|CMS|||
Comment :
Method : /chem/ecd5a.i/122209.b/ECD5-F-8081-121809.m
Meth Date : 23-Dec-2009 08:48 cla01575 Quant Type: ESTD
Cal Date : 05-DEC-2009 03:28 Cal File: 025f2501.d
Als bottle: 33 QC Sample: MS
Dil Factor: 5.00000
Integrator: Falcon Compound Sublist: 10-753-1.sub
Target Version: 3.50 Sample Matrix: Water
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	5.00000	Dilution Factor
Uf	0.00100	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	20.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (mg/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.789	2.790	-0.001	8641149	18.6489	0.00466	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
6.479	6.482	-0.003	8936749	32.7071	0.00818	80.00- 120.00	100.00
8 Chlordane (tech.)					CAS #: 12789-03-6		
3.842	3.843	-0.001	3932991	225.855	0.0565	80.00- 120.00	100.00
3.899	3.900	-0.001	6408341	283.251	0.0708	152.17- 192.17	162.94
4.209	4.209	0.000	5040466	292.540	0.0731	97.53- 137.53	128.16
4.601	4.602	-0.001	14383304	264.247	0.0661	315.75- 355.75	365.71
5.167	5.168	-0.001	4335519	321.834	0.0804	73.94- 113.94	110.23

Average of Peak Concentrations = 0.0694

Data File: /chem/ecd5a.i/122209.b/033f3301.d

Date : 22-DEC-2009 20:41

Client ID: WST03-10-2137CMS

Sample Info: |120199897615|

Volume Injected (uL): 1.0

Column phase: CLP-1

Instrument: ecd5a.i

Operator: CXC2

Column diameter: 0.25

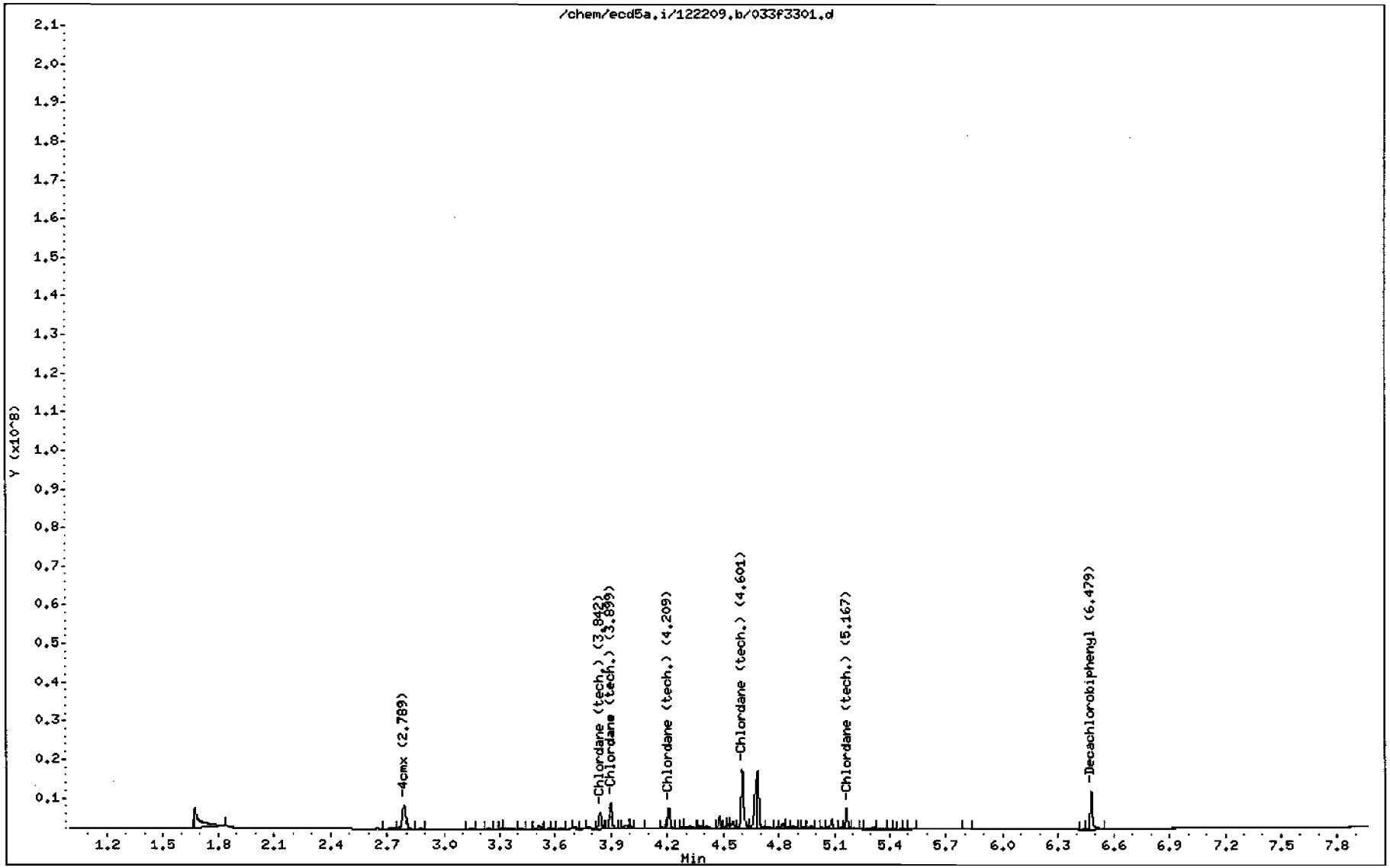

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd5a.i/122209.b/037b3701.d
Lab Smp Id: 1201998979 Client Smp ID: WST03-10-2137CMSD
Inj Date : 22-DEC-2009 21:29
Operator : CXC2 Inst ID: ecd5a.i
Smp Info : |1201998979|5|
Misc Info : |ECDPTL_1L|934315|SVP|CMSD|SOIL|CMSD|||
Comment :
Method : /chem/ecd5a.i/122209.b/ECD5-B-8081-121809.m
Meth Date : 23-Dec-2009 08:46 cla01575 Quant Type: ESTD
Cal Date : 05-DEC-2009 03:28 Cal File: 025b2501.d
Als bottle: 37 QC Sample: MSD
Dil Factor: 5.00000
Integrator: Falcon Compound Sublist: 10-753-1.sub
Target Version: 3.50 Sample Matrix: Water
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	5.00000	Dilution Factor
Uf	0.00100	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	20.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (mg/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
3.196	3.198	-0.002	62031743	19.1780	0.00479	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.150	7.153	-0.003	42324729	30.0301	0.00751	80.00- 120.00	100.00
8 Chlordane (tech.)					CAS #: 12789-03-6		
4.221	4.222	-0.001	27390004	239.812	0.0600	80.00- 120.00	100.00
4.645	4.647	-0.002	31573213	343.059	0.0858	79.74- 119.74	115.27
4.899	4.901	-0.002	18934127	282.232	0.0706	40.71- 80.71	69.13
5.047	5.048	-0.001	77142104	282.021	0.0705	242.29- 282.29	281.64
5.138	5.140	-0.002	61726046	277.971	0.0695	194.96- 234.96	225.36

Average of Peak Concentrations = 0.0713

Data File: /chem/ecd5a.i/122209.b/037b3701.d

Date : 22-DEC-2009 21:29

Client ID: WST03-10-2137CMSD

Sample Info: |1201998979|5|

Volume Injected (uL): 1.0

Column phase: CLP-2

Instrument: ecd5a.i

Operator: CXC2

Column diameter: 0.25

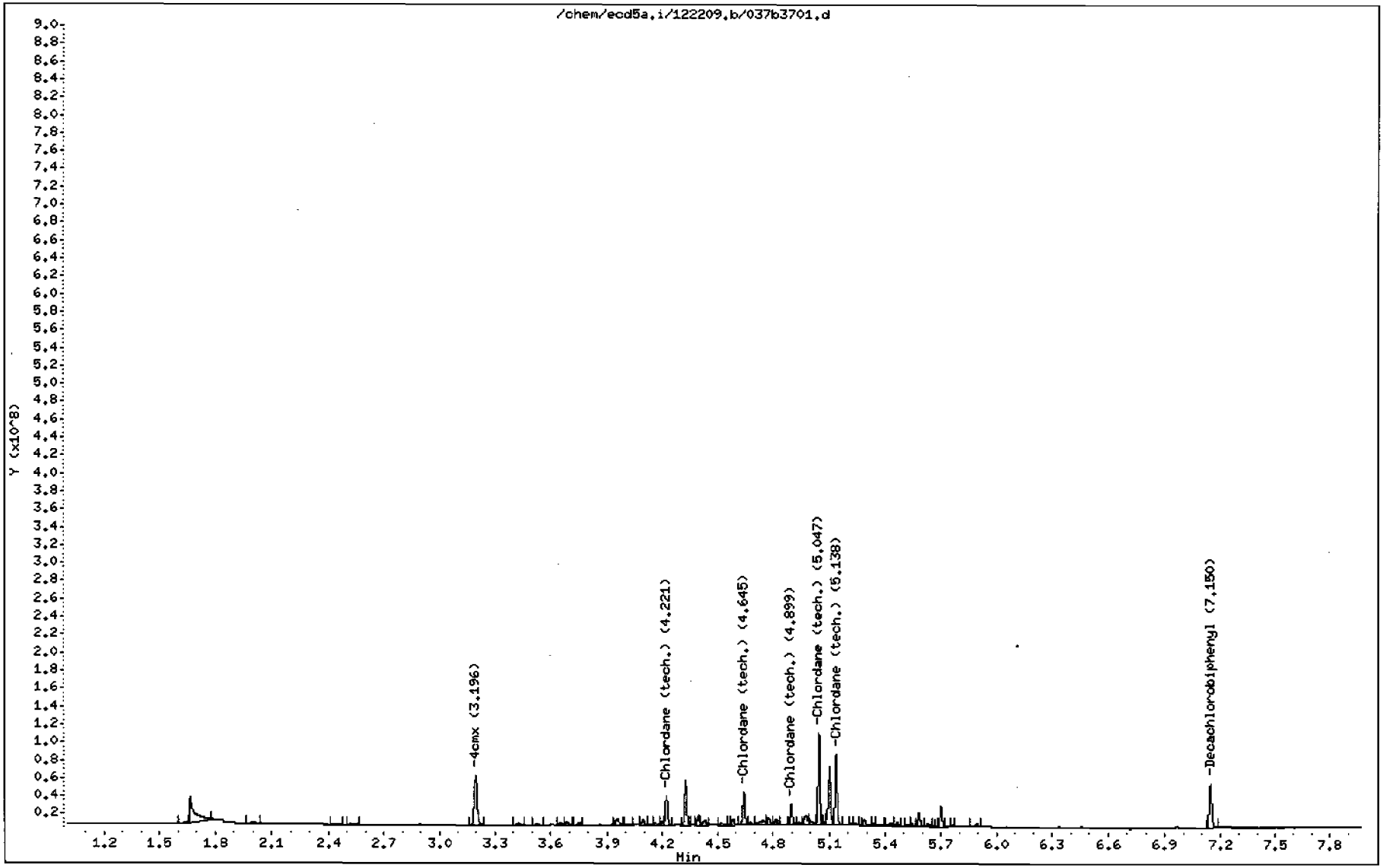

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd5a.i/122209.b/037f3701.d
Lab Smp Id: 1201998979 Client Smp ID: WST03-10-2137CMSD
Inj Date : 22-DEC-2009 21:29
Operator : CXC2 Inst ID: ecd5a.i
Smp Info : |1201998979|5|
Misc Info : |ECDPTL_1L|934315|SVP|CMSD|SOIL|CMSD|||
Comment :
Method : /chem/ecd5a.i/122209.b/ECD5-F-8081-121809.m
Meth Date : 23-Dec-2009 08:48 cla01575 Quant Type: ESTD
Cal Date : 05-DEC-2009 03:28 Cal File: 025f2501.d
Als bottle: 37 QC Sample: MSD
Dil Factor: 5.00000
Integrator: Falcon Compound Sublist: 10-753-1.sub
Target Version: 3.50 Sample Matrix: Water
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	5.00000	Dilution Factor
Uf	0.00100	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	20.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (mg/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.790	2.790	0.000	9073694	19.5824	0.00490	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
6.478	6.482	-0.004	9191337	33.6389	0.00841	80.00- 120.00	100.00
8 Chlordane (tech.)					CAS #: 12789-03-6		
3.842	3.843	-0.001	4049753	232.560	0.0581	80.00- 120.00	100.00
3.899	3.900	-0.001	6770665	299.266	0.0748	152.17- 192.17	167.19
4.207	4.209	-0.002	5701682	330.915	0.0827	97.53- 137.53	140.79
4.601	4.602	-0.001	15218159	279.584	0.0699	315.75- 355.75	375.78
5.167	5.168	-0.001	5013401	372.155	0.0930	73.94- 113.94	123.80

Average of Peak Concentrations = 0.0757

Data File: /chem/ecd5a.i/122209.b/037f3701.d

Date : 22-DEC-2009 21:29

Client ID: WST03-10-2137CMSD

Sample Info: |1201998979|5|

Volume Injected (uL): 1.0

Column phase: CLP-1

Instrument: ecd5a.i

Operator: CXC2

Column diameter: 0.25

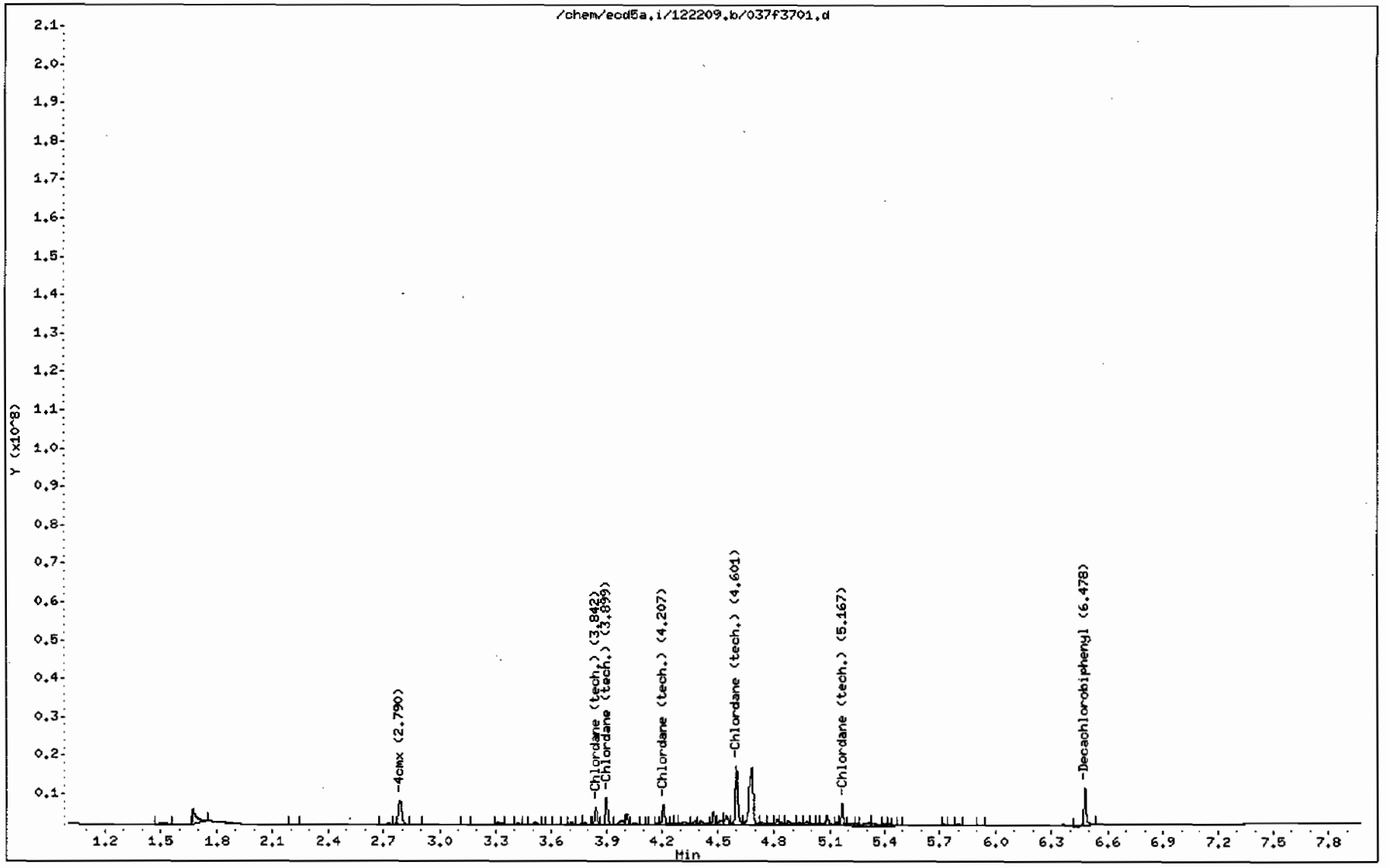

Prep Logbook

Extraction of Semivolatile and Nonvolatile Organic Compounds from Groundwater, Wastewater, and Other Aqueous Samples

Batch ID: 934314 **Verified by:** _____

Analyst: Rodricous Corbett

Method: SW846 3510C

Lab SOP: GL-OA-E-013 REV# 21

Instrument: Semi-Volatiles Manual

Sample ID	Run Date	Initial Volume (mL)	Initial pH	Int Ext pH	Final Volume (mL)	Prepped Factor (mL/mL)
1201995775 TB	22-DEC-2009 17:25:59	20	5	5	1	0.05
1201996842 TB	22-DEC-2009 17:25:59	20	5	5	1	0.05
1201998973 MB	22-DEC-2009 17:25:59	20	5	7	1	0.05
1201999915 TB	22-DEC-2009 17:25:59	20	5	5	1	0.05
1201998980 LCS	22-DEC-2009 17:25:59	20	5	7	1	0.05
1201998981 LCS	22-DEC-2009 17:25:59	20	5	7	1	0.05
1201998982 LCS	22-DEC-2009 17:25:59	20	5	7	1	0.05
242168001	22-DEC-2009 17:25:59	20	5	5	1	0.05
1201998974 MS (242168001)	22-DEC-2009 17:25:59	20	5	5	1	0.05
1201998977 MSD (242168001)	22-DEC-2009 17:25:59	20	5	5	1	0.05
1201998975 MS (242168001)	22-DEC-2009 17:25:59	20	5	5	1	0.05
1201998978 MSD (242168001)	22-DEC-2009 17:25:59	20	5	5	1	0.05
1201998976 MS (242168001)	22-DEC-2009 17:25:59	20	5	5	1	0.05
1201998979 MSD (242168001)	22-DEC-2009 17:25:59	20	5	5	1	0.05
242168002	22-DEC-2009 17:25:59	20	6	6	1	0.05
242306001	22-DEC-2009 17:25:59	20	6	6	1	0.05
242306002	22-DEC-2009 17:25:59	20	6	6	1	0.05
242306003	22-DEC-2009 17:25:59	20	6	6	1	0.05
242446001	22-DEC-2009 17:25:59	20	6	6	1	0.05
242785001	22-DEC-2009 17:25:59	20	6	6	1	0.05
242785002	22-DEC-2009 17:25:59	20	6	6	1	0.05
243010001	22-DEC-2009 17:25:59	20	6	6	1	0.05

Type	Sample Id	Description	Serial Number	Spike Amt	Units
LCS	1201998980	PESTICIDE TCLP LCS	UE091207-06A	1	mL
LCS	1201998981	Toxaphene TCLP LCS	WE091204-11	1	mL
LCS	1201998982	Chlordane TCLP LCS	WE091111-04	1	mL
MS	1201998974	PESTICIDE TCLP LCS	UE091207-06A	1	mL
MS	1201998975	Toxaphene TCLP LCS	WE091204-11	1	mL
MS	1201998976	Chlordane TCLP LCS	WE091111-04	1	mL
MSD	1201998977	PESTICIDE TCLP LCS	UE091207-06A	1	mL
MSD	1201998978	Toxaphene TCLP LCS	WE091204-11	1	mL
MSD	1201998979	Chlordane TCLP LCS	WE091111-04	1	mL
SURR	All	PEST LOW LEVEL SURROGATE 200 UG/L	UE091103-15	1	mL
REGNT	All	Hexane	1241300-B2	5	mL
REGNT	All	Methylene Chloride	1245410-D	180	mL
SOURC	All	SODIUM SULFATE	1242582	30	g

Comments:

Verified By: TA

Final Solvent: Hexane

Prep Logbook

Toxicity Characteristic Leaching Procedure Preparation

Batch ID: 934762 **Verified by:** _____
Analyst: Matthew Oswald
Method: SW846 1311

Lab SOP: GL-LB-E-006 REV# 13
Instrument: TCLP Tumbler #105

Sample ID	1201999915 TB	243010001
Analysis Start Date	18-DEC-2009 16:00:00	18-DEC-2009 16:00:00
100% Solid Y/N		Y
(I) Sub Sample Aliquot I=G-H (g)		100
Initial pH (su)	4.92	7.1
pH Temperature (celsius)	50	50
Filtrate pH (su)	4.92	5
Final pH (su)	4.92	1.86
Tumbler Speed	28	28
Sample Properties <>/= Water	tclp#1	Solid
(J) 20X Wet Solid Weight 20XC (g)	2000	2000
Filtrate Volume (mL)	1000	1000

Type	Sample Id	Description	Serial Number	Spike Amt	Units
RGNT	All	TCLP EXTRACTION FLUID 1	1018205	2000	mL
RGNT	All	1N HCl for pH testing	1202901	3.5	mL

Comments:

Extration End Date: 19-DEC-09 09:55:38
Filtration End Date: 19-DEC-09 17:22:09
Bottle Lot Number: H931601DB
Filter Lot Number: 8335066
Extration Start Temperature: 23 C
Extration End Temperature: 23 C
Filtration End Temperature: 23 C

GC SEMIVOLATILE PCB ANALYSIS

PCB Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-939

Method/Analysis Information

Procedure:	**Analysis of Polychlorinated Biphenyls by ECD**
Analytical Method:	SW846 8082
Prep Method:	SW846 3550B
Analytical Batch Number:	935393
Prep Batch Number:	935357

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 8082:

Sample ID	Client ID
243007002	WST03-10-2147
1202001507	Method Blank (MB)
1202001508	Laboratory Control Sample (LCS)
1202001509	243274001(RE12-10-7352) Matrix Spike (MS)
1202001510	243274001(RE12-10-7352) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on a "dry weight" basis.

Preparation/Analytical Method Verification

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-040 REV# 14.

Raw data reports are processed and reviewed by the analyst using the Target software package. False positives have been removed from the Target quantitation reports per standard operating procedures (SOP) section 23.0.

Calibration Information

Please note that the 'Cal Date' indicated on each quantitation report reflects the date and time of the most recent calibrated analyte(s) in the Target processing method. Since the laboratory may calibrate with multiple solutions on different days using the same processing method, the Target software will update the 'Cal Date' to the last calibration file, date and time. The correct dates and times for all calibration files are located on the Calibration History report in the Standard Data section in the data package.

Due to software limitations, the Calibration Summary Form 6 may not indicate all the calibration files comprising the initial calibration. A complete list of the initial calibration data files are shown in the Calibration History report located in the Standard Data section of the data package.

Initial Calibration
All initial calibration requirements have been met for this sample delivery group (SDG).

The linear equation used in Target and indicated on the initial calibration summary form is not a conventional linear

equation (slope intercept formula) and does not match the equation found in SW-846 method 8000B. The x and y axes are inversed in Target, so that the instrument response is treated as the independent variable (x) and the concentration ratio is treated as the dependent variable (y). The equation used in Target to calculate sample results is adjusted to account for the linear equation inversion and reciprocal slope. The adjusted calculation has been independently verified to produce valid results.

Continuing Calibration Verification (CCV) Requirements
All associated calibration verification standard(s) (ICV or CCV) met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB(s) analyzed with this SDG met the acceptance criteria.

Surrogate Recoveries
All surrogate recoveries were within the established acceptance criteria for this SDG.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

QC Sample Designation
A LANL sample of similar matrix associated with another SDG (#10-989) was selected for the matrix spike and matrix spike duplicate analysis. A Form III and QC raw data are included in the package summarizing the results.

Matrix Spike (MS) Recovery Statement
The MS recoveries for this SDG were within the established acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recoveries for this SDG were within the established acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD(s) between the MS and MSD met the acceptance limits.

Technical Information

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP. All sample extracts were cleaned using alumina. Additionally, copper was added to all sample extracts to remove sulfur.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-extraction/Re-analysis
Re-extractions or re-analyses were not required in this SDG.

Miscellaneous Information

Electronic Package Comment

The following package was generated using an electronic data processing program referred to as "virtual packaging". In an effort to increase quality and efficiency, the laboratory is developing systems to eventually generate all data packages electronically. The following change from "traditional" packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. An electronic signature page inserted after the case narrative of each electronic package will indicate the analyst, reviewer, and report specialist names associated with the generation of the data and package. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Nonconformance (NCR) Documentation
Nonconformance reports (NCRs) are for documentation of any procedural anomalies that may deviate from referenced SOP or contractual document. A NCR was not required for this SDG.

Manual Integrations
Certain standards and samples may have required manual integration to correctly position the baseline as set in the calibration standard injections. If manual integration was performed, copies of all manual integration peak profiles are included in the raw data section of this PCB fraction.

Additional Comments
The additional comments field is used to address special issues associated with each analysis, clarify method/contractual issues pertaining to the analysis, and to list any report documents generated as a result of sample analysis or review. The following additional comments were required:

The higher results from either column have been chosen and reported in the data package for the client samples, MB and LCS.

The data reported on the form I and III may differ slightly from the data reported on the form X. This is due to software limitations in rounding differences between the forms.

Aroclors quantitated on the raw data report by the Target data system do not necessarily represent positive Aroclor identification. In order for positive identification to be made, the Aroclor must match in pattern and retention time; as well as quantitate relatively close between the primary and confirmation columns, as specified in SW846 method 8000. When these conditions are not met, the Aroclor is reported as a non-detect on the data report. These situations will be noted on the raw data as DMP, representing does not match pattern, or DNC does not confirm.

Due to software limitation, the Form VIIs will display the results either in the % difference or % drift depending on the type of the calibration curve. If the curve of all analytes is generated using an average response factor (RF), the Form VII will display results using the %difference calculation (RF). If the curve of one or more analytes is generated using a linear curve, the Form VII will display results using the % drift calculation (by concentration) for all analytes.

System Configuration

The Semi-Volatiles-PCB analysis was performed on the following instrument configuration:

Instrument ID	Instrument	System Configuration	Column ID	Column Description
ECD1A.I_1	HP Gas Chromatograph	HP6890 Series ECD	Rtx-CLP I	30m x 0.25mm, 0.25um (Rtx-CLPesticide)
ECD1A.I_2	HP Gas Chromatograph	HP6890 Series ECD	Rtx-CLP II	30m x 0.25mm, 0.20um (Rtx-CLPesticideII)

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Andy Whitlock Date: 12-29-2009

Roadmap for LANL 10-939 PCB

This roadmap was analyzed by jen01212 on 12-23-2009, 12:58.
This roadmap was reviewed by hea01125 on 12-24-2009, 14:08.
This roadmap was packaged by yml on 12-28-2009, 16:04.

Front Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd1a.i/122209.b/027f2701.d	243007002	sample	22-DEC-2009	12:28	10-939.sub	WST03-10-2147	1.00000	935393	UPLOAD BOTH, USE HIGHER

Back Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd1a.i/122209.b/027b2701.d	243007002	sample	22-DEC-2009	12:28	10-939.sub	WST03-10-2147	1.00000	935393	UPLOAD BOTH, USE HIGHER

Front QC Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd1a.i/122209.b/024f2401.d	1202001507	mb	22-DEC-2009	11:57	10-939.sub	PBLK01	1.00000	935393	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd1a.i/122209.b/025f2501.d	1202001508	lcs	22-DEC-2009	12:07	10-939.sub	PBLK01LCS	1.00000	935393	UPLOAD BOTH, USE HIGHER

Back QC Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd1a.i/122209.b/024b2401.d	1202001507	mb	22-DEC-2009	11:57	10-939.sub	PBLK01	1.00000	935393	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd1a.i/122209.b/025b2501.d	1202001508	lcs	22-DEC-2009	12:07	10-939.sub	PBLK01LCS	1.00000	935393	UPLOAD BOTH, USE HIGHER

SAMPLE DATA SUMMARY

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10-939	**Date Collected:**	12/14/2009 12:00	**Matrix:**	R
Lab Sample ID:	243007002	**Date Received:**	12/16/2009 09:10	**%Moisture:**	13.5
		Client:	LANL010	**Project:**	LANL01004
Client ID:	WST03-10-2147	**Method:**	SW846 8082	**SOP Ref:**	GL-OA-E-040
Batch ID:	935393	**Inst:**	ECD1A.I	**Dilution:**	1
Run Date:	12/22/2009 12:28	**Analyst:**	JAOC	**Inj. Vol:**	1 uL
Prep Date:	12/21/2009 20:06	**Aliquot:**	30.05 g	**Final Volume:**	1 mL
Data File:	027f2701.d	**Column:**	1 CLP1	**Level:**	LOW
	027b2701.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.85	ug/kg	1.28	3.85	1
11104-28-2	Aroclor-1221	U	3.85	ug/kg	1.28	3.85	1
11141-16-5	Aroclor-1232	U	3.85	ug/kg	1.28	3.85	1
53469-21-9	Aroclor-1242	U	3.85	ug/kg	1.28	3.85	1
12672-29-6	Aroclor-1248	U	3.85	ug/kg	1.28	3.85	1
11097-69-1	Aroclor-1254	JP	2.90	ug/kg	1.28	3.85	1
11096-82-5	Aroclor-1260	J	3.50	ug/kg	1.28	3.85	2

QUALITY CONTROL SUMMARY

PCB

Surrogate Recovery Report

SDG Number: 10–939

Matrix Type: SOLID

CAP Column (1) : CLP1 **CAP Column (2) : CLP2**

Sample ID	Client ID	4CMX 1 %REC #	4CMX 2 %REC #	DCB 1 %REC #	DCB 2 %REC #
1202001507	MB for batch 935357	63	60	74	73
1202001508	LCS for batch 935357	62	60	73	71
243007002	WST03–10–2147	63	60	73	72

Surrogate	Acceptance Limits
4CMX = 4cmx	(34%–105%)
DCB = Decachlorobiphenyl	(33%–115%)

* Recovery outside Acceptance Limits

\# Column to be used to flag recovery values

D Sample Diluted

PCB

Quality Control Summary
Spike Recovery Report

SDG Number: 10-939
Client ID: LCS for batch 935357
Lab Sample ID: 1202001508
Instrument: ECD1A.I
Analyst: JAOC
Inj. Vol: 1 uL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 12/22/2009 12:07
Dilution: 1
Prep Batch ID: 935357
Batch ID: 935393

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
12674-11-2	LCS	Aroclor-1016	33.3	0.0	21.9	66	41-110
11096-82-5	LCS	Aroclor-1260	33.3	0.0	27.1	81	48-110

PCB

Quality Control Summary
Spike Recovery Report

SDG Number: 10–989
Client ID: RE12–10–7352MS
Lab Sample ID: 1202001509
Instrument: ECD1A.I
Analyst: JAOC
Inj. Vol: 1 uL

Sample Type: Matrix Spike
Matrix: R
%Moisture: 9.8
Analysis Date: 12/22/2009 14:56
Dilution: 1
Prep Batch ID: 935357
Batch ID: 935393

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
12674–11–2	MS	Aroclor–1016	36.9	0.00	U	24.1	65	23–117
11096–82–5	MS	Aroclor–1260	36.9	0.00	U	30.5	83	27–116

PCB

Quality Control Summary
Spike Recovery Report

SDG Number:	**10-989**	**Sample Type:**	**Matrix Spike Duplicate**
Client ID:	**RE12-10-7352MSD**	**Matrix:**	**R**
Lab Sample ID:	**1202001510**	**%Moisture:**	**9.8**
Instrument:	**ECD1A.I**	**Analysis Date:**	**12/22/2009 15:06**
Analyst:	**JAOC**	**Prep Batch ID:**	**935357**
Inj. Vol:	**1 uL**	**Batch ID:**	**935393**

Dilution: 1

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
12674-11-2	MSD Aroclor-1016	36.9	0.00	U	24.9	67	23-117	3	0-30
11096-82-5	MSD Aroclor-1260	36.9	0.00	U	30.5	83	27-116	0	0-30

Method Blank Summary

SDG Number:	10–939	Client:	LANL010	Matrix:	SOIL
Client ID:	MB for batch 935357	Instrument ID:	ECD1A.I_2 ECD1A.I_1	Data File:	024b2401–1.d 024f2401–1.d
Lab Sample ID:	1202001507				
Column:	CLP2 CLP1	Prep Date:	12/21/2009 20:06	Analyzed:	12/22/09 11:57
		Level:	LOW		

This method blank applies to the following samples and quality control samples:

Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01 LCS for batch 935357	1202001508	025f2501–1.d 025b2501–1.d	12/22/09	1207
02 WST03–10–2147	243007002	027f2701.d 027b2701.d	12/22/09	1228

SAMPLE DATA

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10-939	**Date Collected:**	12/14/2009 12:00	**Matrix:**	R
Lab Sample ID:	243007002	**Date Received:**	12/16/2009 09:10	**%Moisture:**	13.5
		Client:	LANL010	**Project:**	LANL01004
Client ID:	WST03-10-2147	**Method:**	SW846 8082	**SOP Ref:**	GL-OA-E-040
Batch ID:	935393	**Inst:**	ECD1A.I	**Dilution:**	1
Run Date:	12/22/2009 12:28	**Analyst:**	JAOC	**Inj. Vol:**	1 uL
Prep Date:	12/21/2009 20:06	**Aliquot:**	30.05 g	**Final Volume:**	1 mL
Data File:	027f2701.d	**Column:**	1 CLP1	**Level:**	LOW
	027b2701.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.85	ug/kg	1.28	3.85	1
11104-28-2	Aroclor-1221	U	3.85	ug/kg	1.28	3.85	1
11141-16-5	Aroclor-1232	U	3.85	ug/kg	1.28	3.85	1
53469-21-9	Aroclor-1242	U	3.85	ug/kg	1.28	3.85	1
12672-29-6	Aroclor-1248	U	3.85	ug/kg	1.28	3.85	1
11097-69-1	Aroclor-1254	JP	2.90	ug/kg	1.28	3.85	1
11096-82-5	Aroclor-1260	J	3.50	ug/kg	1.28	3.85	2

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdla.i/122209.b/027f2701.d
Lab Smp Id: 243007002 Client Smp ID: WST03-10-2147
Inj Date : 22-DEC-2009 12:28
Operator : JAOC Inst ID: ecdla.i
Smp Info : |243007002|1|
Misc Info : |ECD82P_1S|935393|SVA|LANL|SOIL|WST03-10-2147|||
Comment :
Method : /chem/ecdla.i/122209.b/ECD1-F-8082-121409.m
Meth Date : 23-Dec-2009 06:42 jen01212 Quant Type: ESTD
Cal Date : 14-DEC-2009 11:34 Cal File: 040f4001.d
Als bottle: 27
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-939.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.05000	Weight of sample extracted (g)
M	13.49180	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.971	1.971	0.000	47262402	125.808	4.8	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.287	5.286	0.001	46411135	146.158	5.6	80.00- 120.00	100.00
6 Aroclor-1254					CAS #: 11097-69-1		
3.275	3.275	0.000	577697	46.2695	1.8	80.00- 120.00	100.00(a)
3.430	3.430	0.000	797052	47.6650	1.8	117.60- 157.60	137.97
3.665	3.664	0.001	1060990	51.2211	2.0	161.34- 201.34	183.66
3.828	3.827	0.001	774335	49.3389	1.9	119.92- 159.92	134.04
3.935	3.936	-0.001	2741217	180.670	6.9	112.24- 152.24	474.51

Average of Peak Concentrations = 2.9

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
7 Aroclor-1260					CAS #: 11096-82-5		
3.773	3.771	0.002	1585860	94.6661	3.6	80.00- 120.00	100.00(a)
3.935	3.934	0.001	2741217	110.789	4.3	134.26- 174.26	172.85
4.166	4.165	0.001	1181576	80.4486	3.1	72.25- 112.25	74.51
4.309	4.307	0.002	1105970	72.8353	2.8	76.57- 116.57	69.74
4.488	4.486	0.002	2725776	79.3520	3.0	202.51- 242.51	171.88
			Average of Peak Concentrations =		3.4		

QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).

Data File: /chem/ecd1a.i/122209.b/027f2701.d
Date : 22-DEC-2009 12:28
Client ID: WST03-10-2147
Sample Info: 1243007002111
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecd1a.i
Operator: JADC
Column diameter: 0.25

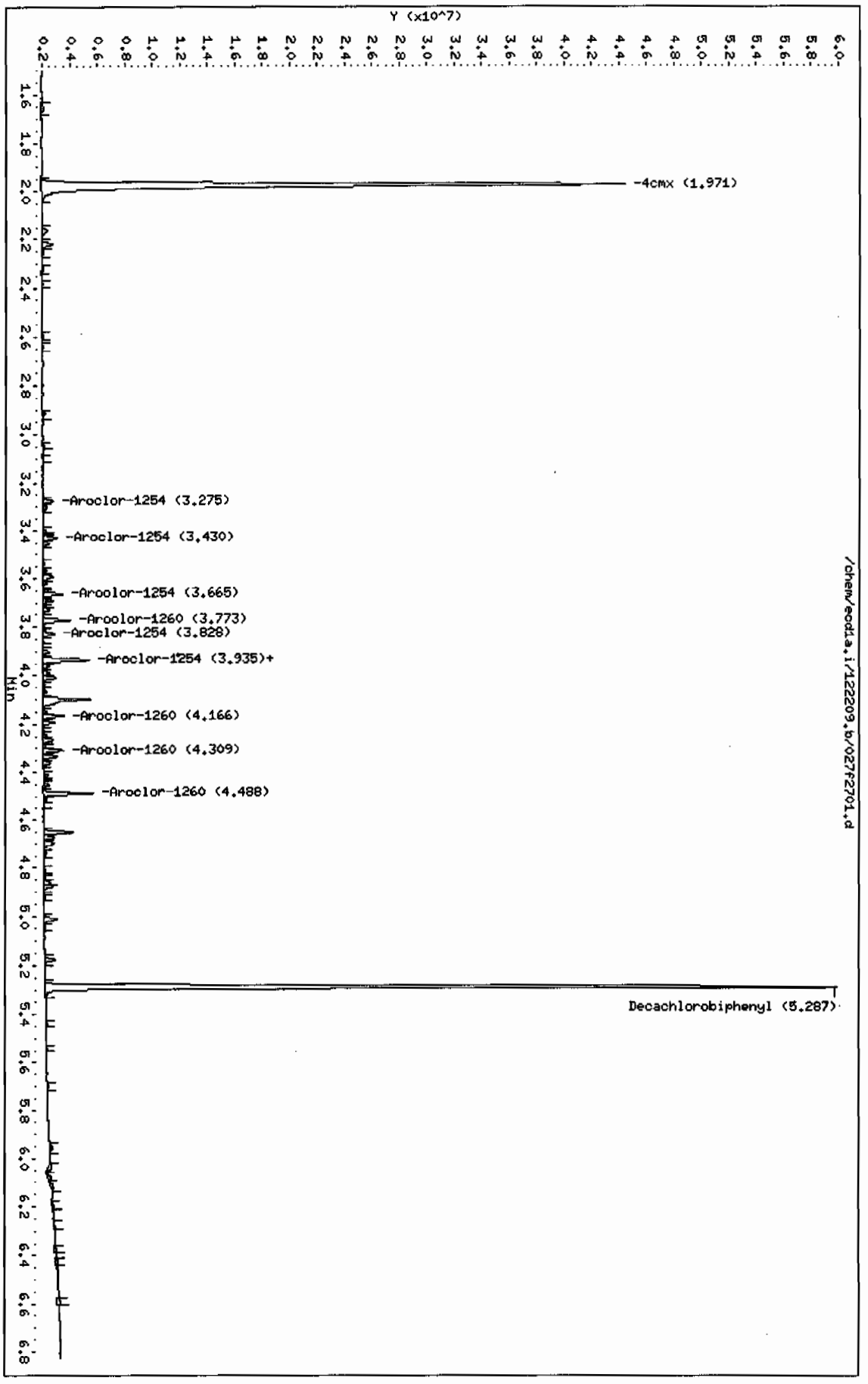

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/122209.b/027b2701.d
Lab Smp Id: 243007002 Client Smp ID: WST03-10-2147
Inj Date : 22-DEC-2009 12:28
Operator : JAOC Inst ID: ecd1a.i
Smp Info : |243007002|1|
Misc Info : |ECD82P_1S|935393|SVA|LANL|SOIL|WST03-10-2147|||
Comment :
Method : /chem/ecd1a.i/122209.b/ECD1-B-8082-121409.m
Meth Date : 22-Dec-2009 13:59 jen01212 Quant Type: ESTD
Cal Date : 14-DEC-2009 12:16 Cal File: 044b4401.d
Als bottle: 27
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-939.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.05000	Weight of sample extracted (g)
M	13.49180	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.302	2.302	0.000	36142871	120.466	4.6	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.949	5.948	0.001	33701661	144.501	5.6	80.00- 120.00	100.00
6 Aroclor-1254					CAS #: 11097-69-1		
3.408	3.407	0.001	156376	24.3000	0.93	80.00- 120.00	100.00(a)
3.830	3.830	0.000	442388	38.2712	1.5	161.44- 201.44	282.90
3.947	3.947	0.000	691076	55.5917	2.1	181.64- 221.64	441.93
4.223	4.223	0.000	844926	50.0547	1.9	264.09- 304.09	540.31
4.360	4.359	0.001	570376	45.8669	1.8	190.57- 230.57	364.74

Average of Peak Concentrations = 1.6

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
7 Aroclor-1260					CAS #: 11096-82-5		
4.340	4.338	0.002	1365235	99.7977	3.8	80.00- 120.00	100.00(a)
4.464	4.463	0.001	1724314	107.575	4.1	103.50- 143.50	126.30
4.730	4.729	0.001	1064162	84.6998	3.2	75.02- 115.02	77.95
4.904	4.903	0.001	997453	77.8648	3.0	77.89- 117.89	73.06
5.050	5.050	0.000	2361398	84.6450	3.2	203.88- 243.88	172.97
Average of Peak Concentrations =					3.5		

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

Data File: /chem/ecd1a.i/122209.b/027b2701.d
Date : 22-DEC-2009 12:28
Client ID: WST03-10-2147
Sample Info: 1243007002111
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd1a.i
Operator: JAOC
Column diameter: 0.25

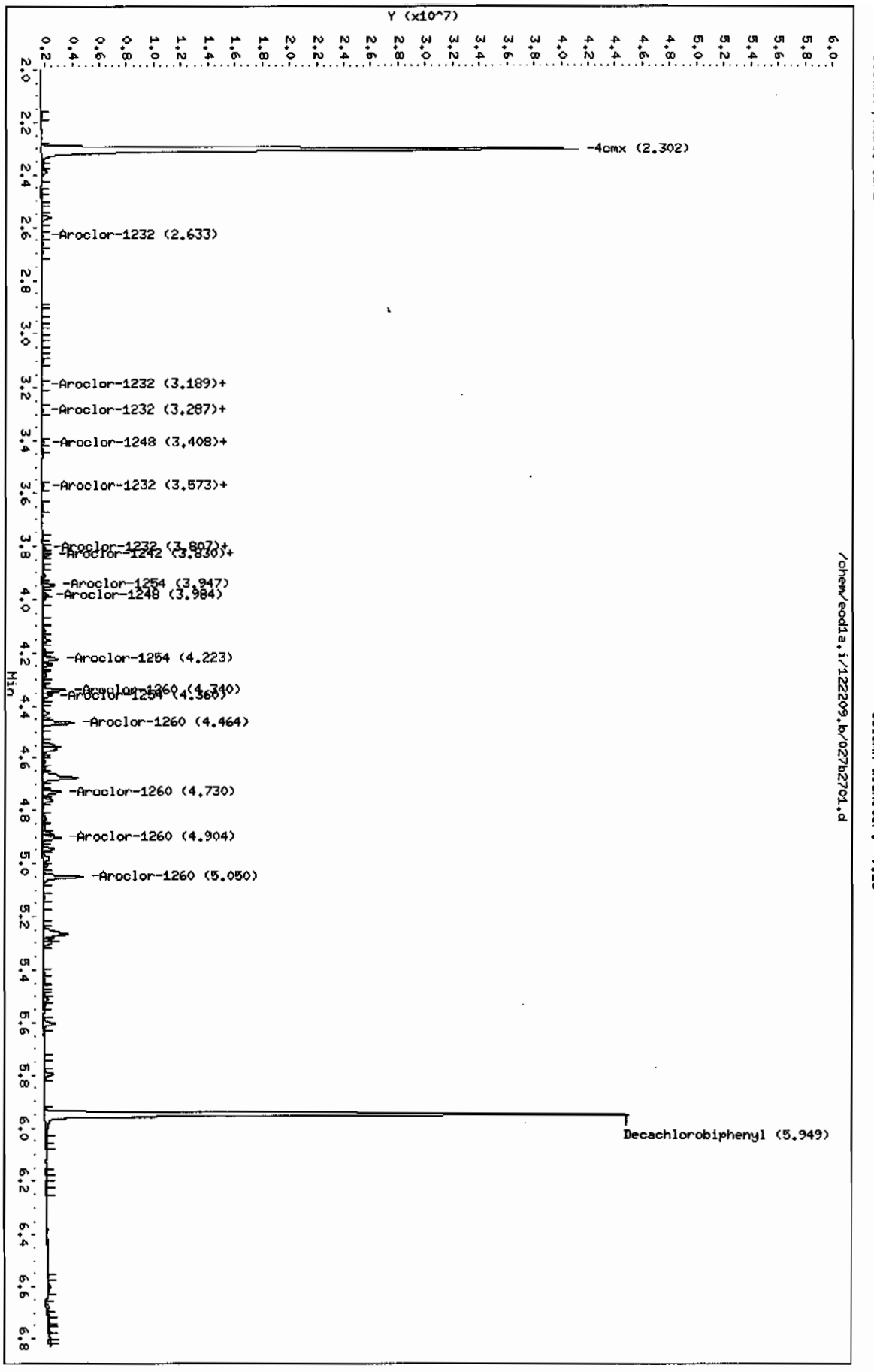

Page 1

STANDARDS DATA

Report Date: 23-Dec-2009 12:05

Calibration History

Method : /chem/ecd1a.i/122209.b/ECD1-F-8082-121409.m
Start Cal Date: 14-DEC-2009 05:36
End Cal Date : 14-DEC-2009 12:37

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 100.00000		
14-DEC-2009 11:34	AR1268	/chem/ecd1a.i/121409.b/040f4001.d
14-DEC-2009 09:28	AR1248	/chem/ecd1a.i/121409.b/028f2801.d
14-DEC-2009 08:25	AR1242	/chem/ecd1a.i/121409.b/022f2201.d
14-DEC-2009 07:22	AR1254	/chem/ecd1a.i/121409.b/016f1601.d
14-DEC-2009 10:31	AR1660	/chem/ecd1a.i/121409.b/034f3401.d
Cal Level: 2 , Cal Amount: 200.00000		
14-DEC-2009 11:44	AR1268	/chem/ecd1a.i/121409.b/041f4101.d
14-DEC-2009 09:38	AR1248	/chem/ecd1a.i/121409.b/029f2901.d
14-DEC-2009 08:35	AR1242	/chem/ecd1a.i/121409.b/023f2301.d
14-DEC-2009 07:32	AR1254	/chem/ecd1a.i/121409.b/017f1701.d
14-DEC-2009 10:41	AR1660	/chem/ecd1a.i/121409.b/035f3501.d
Cal Level: 3 , Cal Amount: 500.00000		
14-DEC-2009 11:55	AR1268	/chem/ecd1a.i/121409.b/042f4201.d
14-DEC-2009 09:49	AR1248	/chem/ecd1a.i/121409.b/030f3001.d
14-DEC-2009 08:46	AR1242	/chem/ecd1a.i/121409.b/024f2401.d
14-DEC-2009 07:43	AR1254	/chem/ecd1a.i/121409.b/018f1801.d
14-DEC-2009 10:52	AR1660	/chem/ecd1a.i/121409.b/036f3601.d
Cal Level: 4 , Cal Amount: 1000.00000		
14-DEC-2009 12:37	DDTANALOGSTD	/chem/ecd1a.i/121409.b/046f4601.d
14-DEC-2009 09:59	AR1248	/chem/ecd1a.i/121409.b/031f3101.d
14-DEC-2009 08:56	AR1242	/chem/ecd1a.i/121409.b/025f2501.d
14-DEC-2009 07:53	AR1254	/chem/ecd1a.i/121409.b/019f1901.d
14-DEC-2009 11:02	AR1660	/chem/ecd1a.i/121409.b/037f3701.d
14-DEC-2009 12:06	AR1268	/chem/ecd1a.i/121409.b/043f4301.d
14-DEC-2009 05:58	AR1262	/chem/ecd1a.i/121409.b/008f0801.d
14-DEC-2009 05:47	AR1221	/chem/ecd1a.i/121409.b/007f0701.d
14-DEC-2009 05:36	AR1232	/chem/ecd1a.i/121409.b/006f0601.d
Cal Level: 5 , Cal Amount: 4000.00000		
14-DEC-2009 12:16	AR1268	/chem/ecd1a.i/121409.b/044f4401.d
14-DEC-2009 10:10	AR1248	/chem/ecd1a.i/121409.b/032f3201.d
14-DEC-2009 09:07	AR1242	/chem/ecd1a.i/121409.b/026f2601.d
14-DEC-2009 08:04	AR1254	/chem/ecd1a.i/121409.b/020f2001.d
14-DEC-2009 11:13	AR1660	/chem/ecd1a.i/121409.b/038f3801.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 1000		
22-DEC-2009 15:27	AR1660	/chem/ecd1a.i/122209.b/044f4401.d
Ccal Level: 4 , Ccal Amount: 1000		
22-DEC-2009 13:42	AR1660	/chem/ecd1a.i/122209.b/034f3401.d
Ccal Level: 4 , Ccal Amount: 1000		
22-DEC-2009 11:36	AR1660	/chem/ecd1a.i/122209.b/022f2201.d
Ccal Level: 4 , Ccal Amount: 1000		
22-DEC-2009 09:19	AR1268	/chem/ecd1a.i/122209.b/009f0901.d
Ccal Level: 4 , Ccal Amount: 1000		
22-DEC-2009 09:08	AR1262	/chem/ecd1a.i/122209.b/008f0801.d
Ccal Level: 4 , Ccal Amount: 1000		
22-DEC-2009 08:58	AR1221	/chem/ecd1a.i/122209.b/007f0701.d
Ccal Level: 4 , Ccal Amount: 1000		
22-DEC-2009 08:47	AR1232	/chem/ecd1a.i/122209.b/006f0601.d
Ccal Level: 4 , Ccal Amount: 1000		
22-DEC-2009 08:37	AR1248	/chem/ecd1a.i/122209.b/005f0501.d
Ccal Level: 4 , Ccal Amount: 1000		
22-DEC-2009 08:26	AR1242	/chem/ecd1a.i/122209.b/004f0401.d
Ccal Level: 4 , Ccal Amount: 1000		
22-DEC-2009 08:16	AR1254	/chem/ecd1a.i/122209.b/003f0301.d
Ccal Level: 4 , Ccal Amount: 1000		
22-DEC-2009 08:05	AR1660	/chem/ecd1a.i/122209.b/002f0201.d

Report Date: 23-Dec-2009 12:04

Calibration History

Method : /chem/ecd1a.i/122209.b/ECD1-B-8082-121409.m
Start Cal Date: 11-DEC-2009 10:17
End Cal Date : 14-DEC-2009 12:37

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 100.00000		
14-DEC-2009 11:34	AR1268	/chem/ecd1a.i/121409.b/040b4001.d
14-DEC-2009 09:28	AR1248	/chem/ecd1a.i/121409.b/028b2801.d
14-DEC-2009 08:25	AR1242	/chem/ecd1a.i/121409.b/022b2201.d
14-DEC-2009 07:22	AR1254	/chem/ecd1a.i/121409.b/016b1601.d
14-DEC-2009 10:31	AR1660	/chem/ecd1a.i/121409.b/034b3401.d
Cal Level: 2 , Cal Amount: 200.00000		
14-DEC-2009 11:44	AR1268	/chem/ecd1a.i/121409.b/041b4101.d
14-DEC-2009 09:38	AR1248	/chem/ecd1a.i/121409.b/029b2901.d
14-DEC-2009 08:35	AR1242	/chem/ecd1a.i/121409.b/023b2301.d
14-DEC-2009 07:32	AR1254	/chem/ecd1a.i/121409.b/017b1701.d
14-DEC-2009 10:41	AR1660	/chem/ecd1a.i/121409.b/035b3501.d
Cal Level: 3 , Cal Amount: 500.00000		
14-DEC-2009 11:55	AR1268	/chem/ecd1a.i/121409.b/042b4201.d
14-DEC-2009 09:49	AR1248	/chem/ecd1a.i/121409.b/030b3001.d
14-DEC-2009 08:46	AR1242	/chem/ecd1a.i/121409.b/024b2401.d
14-DEC-2009 07:43	AR1254	/chem/ecd1a.i/121409.b/018b1801.d
14-DEC-2009 10:52	AR1660	/chem/ecd1a.i/121409.b/036b3601.d
Cal Level: 4 , Cal Amount: 1000.00000		
14-DEC-2009 12:37	DDTANALOGSTD	/chem/ecd1a.i/121409.b/046b4601.d
14-DEC-2009 12:06	AR1268	/chem/ecd1a.i/121409.b/043b4301.d
14-DEC-2009 05:58	AR1262	/chem/ecd1a.i/121409.b/008b0801.d
14-DEC-2009 05:47	AR1221	/chem/ecd1a.i/121409.b/007b0701.d
14-DEC-2009 05:36	AR1232	/chem/ecd1a.i/121409.b/006b0601.d
14-DEC-2009 09:59	AR1248	/chem/ecd1a.i/121409.b/031b3101.d
14-DEC-2009 08:56	AR1242	/chem/ecd1a.i/121409.b/025b2501.d
14-DEC-2009 07:53	AR1254	/chem/ecd1a.i/121409.b/019b1901.d
14-DEC-2009 11:02	AR1660	/chem/ecd1a.i/121409.b/037b3701.d
Cal Level: 5 , Cal Amount: 4000.00000		
14-DEC-2009 12:16	AR1268	/chem/ecd1a.i/121409.b/044b4401.d
14-DEC-2009 10:10	AR1248	/chem/ecd1a.i/121409.b/032b3201.d
14-DEC-2009 09:07	AR1242	/chem/ecd1a.i/121409.b/026b2601.d
14-DEC-2009 08:04	AR1254	/chem/ecd1a.i/121409.b/020b2001.d
14-DEC-2009 11:13	AR1660	/chem/ecd1a.i/121409.b/038b3801.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 1000		
22-DEC-2009 15:27	AR1660	/chem/ecd1a.i/122209.b/044b4401.d
Ccal Level: 4 , Ccal Amount: 1000		
22-DEC-2009 13:42	AR1660	/chem/ecd1a.i/122209.b/034b3401.d
Ccal Level: 4 , Ccal Amount: 1000		
22-DEC-2009 11:36	AR1660	/chem/ecd1a.i/122209.b/022b2201.d
Ccal Level: 4 , Ccal Amount: 1000		
22-DEC-2009 09:19	AR1268	/chem/ecd1a.i/122209.b/009b0901.d
Ccal Level: 4 , Ccal Amount: 1000		
22-DEC-2009 09:08	AR1262	/chem/ecd1a.i/122209.b/008b0801.d
Ccal Level: 4 , Ccal Amount: 1000		
22-DEC-2009 08:58	AR1221	/chem/ecd1a.i/122209.b/007b0701.d
Ccal Level: 4 , Ccal Amount: 1000		
22-DEC-2009 08:47	AR1232	/chem/ecd1a.i/122209.b/006b0601.d
Ccal Level: 4 , Ccal Amount: 1000		
22-DEC-2009 08:37	AR1248	/chem/ecd1a.i/122209.b/005b0501.d
Ccal Level: 4 , Ccal Amount: 1000		
22-DEC-2009 08:26	AR1242	/chem/ecd1a.i/122209.b/004b0401.d
Ccal Level: 4 , Ccal Amount: 1000		
22-DEC-2009 08:16	AR1254	/chem/ecd1a.i/122209.b/003b0301.d
Ccal Level: 4 , Ccal Amount: 1000		
22-DEC-2009 08:05	AR1660	/chem/ecd1a.i/122209.b/002b0201.d

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd1a.i/122209.b/ECD1-F-8082-121409.m
Quant Method : ESTD Target Version : 3.50
Last Update : 23-Dec-2009 06:42 Number of Cpnds : 15
Data Type : GC MULTI COMP

Global Integrator : Falcon

Chromat Events	Values
Initial:Start Threshold	12031.000000
Initial:End Threshold	6015.500000
Initial:Area Threshold	15489.000000
Initial:P-P Resolution	1.000000
Initial:Bunch Factor	2.000000
Initial:Negative Peaks	OFF
Initial:Tension	0.500000

Compound	RT	RT Window	RF
1 Aroclor-1016	2.427	2.397-2.457	1.387e+04
	2.705	2.675-2.735	1.010e+04
	2.796	2.766-2.826	1.176e+04
	2.835	2.805-2.865	6.599e+03
	3.046	3.016-3.076	8.673e+03
63 4,4-DDD	3.953	3.933-3.973	3.938e+05
64 4,4-DDE	3.603	3.583-3.623	4.795e+05
62 4,4-DDT	4.118	4.098-4.138	3.238e+05
2 Aroclor-1221	2.084	2.054-2.114	4.301e+03
	2.177	2.147-2.207	2.440e+03
	2.203	2.173-2.233	1.027e+04
3 Aroclor-1232	2.428	2.398-2.458	6.717e+03
	2.718	2.688-2.748	8.157e+03
	2.798	2.768-2.828	5.751e+03
	3.047	3.017-3.077	3.954e+03
	3.301	3.271-3.331	3.533e+03
4 Aroclor-1242	2.428	2.398-2.458	1.166e+04
	2.717	2.687-2.747	1.345e+04
	2.836	2.806-2.866	5.506e+03
	3.047	3.017-3.077	7.245e+03
	3.300	3.270-3.330	6.811e+03

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd1a.i/122209.b/ECD1-F-8082-121409.m

	Compound	RT	RT Window	RF
	5 Aroclor-1248	3.098	3.068-3.128	7.848e+03
		3.249	3.219-3.279	6.870e+03
		3.300	3.271-3.330	1.331e+04
		3.432	3.402-3.462	1.101e+04
		3.666	3.636-3.696	7.455e+03
	6 Aroclor-1254	3.275	3.245-3.305	1.249e+04
		3.430	3.400-3.460	1.672e+04
		3.664	3.634-3.694	2.071e+04
		3.827	3.797-3.857	1.569e+04
		3.936	3.906-3.966	1.517e+04
	7 Aroclor-1260	3.771	3.741-3.801	1.675e+04
		3.934	3.904-3.964	2.474e+04
		4.165	4.135-4.195	1.469e+04
		4.307	4.277-4.337	1.518e+04
		4.486	4.456-4.516	3.435e+04
	8 Aroclor-1262	3.774	3.744-3.804	1.402e+04
		3.936	3.906-3.966	1.841e+04
		4.167	4.137-4.197	2.251e+04
		4.309	4.279-4.339	2.033e+04
		4.489	4.459-4.519	4.317e+04
	9 Aroclor-1268	4.674	4.644-4.704	5.438e+04
		4.697	4.667-4.727	5.419e+04
		4.809	4.779-4.839	4.052e+04
		5.013	4.983-5.043	1.833e+04
		5.179	5.149-5.209	1.233e+05
M	10 Aroclor-Total	1.000	0.980-1.020	
$	11 4cmx	1.971	1.941-2.001	3.757e+05
$	12 Decachlorobiphenyl	5.286	5.256-5.316	3.175e+05

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd1a.i/122209.b/ECD1-B-8082-121409.m
Quant Method : ESTD Target Version : 3.50
Last Update : 23-Dec-2009 06:44 Number of Cpnds : 15
Data Type : GC MULTI COMP

Global Integrator : Falcon

Chromat Events	Values
Initial:Start Threshold	7222.000000
Initial:End Threshold	3611.000000
Initial:Area Threshold	6833.000000
Initial:P-P Resolution	0.000000
Initial:Bunch Factor	2.000000
Initial:Negative Peaks	OFF
Initial:Tension	0.500000

Compound	RT	RT Window	RF
1 Aroclor-1016	3.199	3.169-3.229	1.261e+04
	3.282	3.252-3.312	9.328e+03
	3.346	3.316-3.376	5.411e+03
	3.572	3.542-3.602	7.052e+03
	3.648	3.618-3.678	6.551e+03
62 4,4-DDT	4.670	4.650-4.690	2.436e+05
63 4,4-DDE	4.139	4.119-4.159	3.580e+05
64 4,4-DDD	4.483	4.463-4.503	2.893e+05
2 Aroclor-1221	2.499	2.469-2.529	3.640e+03
	2.594	2.564-2.624	2.329e+03
	2.635	2.604-2.664	8.119e+03
3 Aroclor-1232	2.635	2.605-2.665	6.156e+03
	3.201	3.171-3.231	6.302e+03
	3.283	3.253-3.313	4.701e+03
	3.574	3.544-3.604	3.243e+03
	3.807	3.777-3.837	3.151e+03
4 Aroclor-1242	3.200	3.170-3.230	1.059e+04
	3.283	3.253-3.313	8.054e+03
	3.574	3.544-3.604	5.962e+03
	3.807	3.777-3.837	6.057e+03
	3.835	3.805-3.865	6.701e+03

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd1a.i/122209.b/ECD1-B-8082-121409.m

Compound	RT	RT Window	RF
5 Aroclor-1248	3.409	3.379-3.439	8.054e+03
	3.574	3.544-3.604	9.874e+03
	3.808	3.778-3.838	1.122e+04
	3.836	3.805-3.865	1.248e+04
	3.972	3.942-4.002	1.210e+04
6 Aroclor-1254	3.407	3.377-3.437	6.435e+03
	3.830	3.800-3.860	1.156e+04
	3.947	3.917-3.977	1.243e+04
	4.223	4.193-4.253	1.688e+04
	4.359	4.329-4.389	1.244e+04
7 Aroclor-1260	4.338	4.308-4.368	1.368e+04
	4.463	4.433-4.493	1.603e+04
	4.729	4.699-4.759	1.256e+04
	4.903	4.873-4.933	1.281e+04
	5.050	5.020-5.080	2.790e+04
8 Aroclor-1262	4.464	4.434-4.494	1.292e+04
	4.731	4.701-4.761	1.831e+04
	4.904	4.874-4.934	1.658e+04
	5.051	5.021-5.081	3.329e+04
	5.264	5.234-5.294	2.297e+04
9 Aroclor-1268	5.263	5.233-5.293	4.358e+04
	5.290	5.260-5.320	4.039e+04
	5.440	5.410-5.470	3.144e+04
	5.605	5.575-5.635	1.427e+04
	5.798	5.768-5.828	8.886e+04
M 10 Aroclor-Total	1.000	0.980-1.020	
$ 11 4cmx	2.302	2.272-2.332	3.000e+05
$ 12 Decachlorobiphenyl	5.948	5.918-5.978	2.332e+05

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 14-DEC-2009 05:36
End Cal Date : 14-DEC-2009 12:37
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd1a.i/122209.b/ECD1-F-8082-121409.m
Cal Date : 23-Dec-2009 06:42 jen01212
Curve Type : Average

Calibration File Names:
Level 1: /chem/ecd1a.i/121409.b/040f4001.d
Level 2: /chem/ecd1a.i/121409.b/041f4101.d
Level 3: /chem/ecd1a.i/121409.b/042f4201.d
Level 4: /chem/ecd1a.i/121409.b/046f4601.d
Level 5: /chem/ecd1a.i/121409.b/044f4401.d

Compound	100.000 Level 1	200.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
1 Aroclor-1016(1)	15975	14641	13829	13236	11653	13867	11.596
(2)	10801	10349	9832	9922	9584	10098	4.757
(3)	13242	12280	11732	11291	10240	11757	9.507
(4)	7178	6867	6609	6421	5920	6599	7.183
(5)	9710	9021	8649	8224	7763	8673	8.604
63 4,4-DDD	+++++	+++++	+++++	393799	+++++	393799	0.000
64 4,4-DDE	+++++	+++++	+++++	479509	+++++	479509	0.000
62 4,4-DDT	+++++	+++++	+++++	323817	+++++	323817	0.000
2 Aroclor-1221(1)	+++++	+++++	+++++	4301	+++++	4301	0.000
(2)	+++++	+++++	+++++	2440	+++++	2440	0.000
(3)	+++++	+++++	+++++	10272	+++++	10272	0.000
3 Aroclor-1232(1)	+++++	+++++	+++++	6717	+++++	6717	0.000
(2)	+++++	+++++	+++++	8157	+++++	8157	0.000
(3)	+++++	+++++	+++++	5751	+++++	5751	0.000
(4)	+++++	+++++	+++++	3954	+++++	3954	0.000
(5)	+++++	+++++	+++++	3533	+++++	3533	0.000
4 Aroclor-1242(1)	13692	12467	11522	10819	9798	11660	12.846
(2)	14782	14429	13236	12555	12263	13453	8.301
(3)	6076	5890	5423	5191	4949	5506	8.563
(4)	8395	7578	7079	6747	6426	7245	10.645
(5)	7587	7189	6604	6378	6296	6811	8.178
5 Aroclor-1248(1)	9070	8103	7743	7247	7078	7848	10.119
(2)	7785	7181	6827	6444	6114	6870	9.456
(3)	15108	13267	13037	12915	12225	13310	8.094
(4)	12682	11331	10815	10392	9852	11015	9.799
(5)	8605	7806	7405	7124	6336	7455	11.244

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 14-DEC-2009 05:36
End Cal Date : 14-DEC-2009 12:37
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd1a.i/122209.b/ECD1-F-8082-121409.m
Cal Date : 23-Dec-2009 06:42 jen01212
Curve Type : Average

Compound	100.000 Level 1	200.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
6 Aroclor-1254(1)	14281	12975	12313	11911	10947	12485	9.963
(2)	18803	17181	16666	15949	15010	16722	8.494
(3)	22492	20906	20786	20326	19059	20714	5.957
(4)	16753	15627	15809	15513	14770	15694	4.535
(5)	16595	15169	15433	15075	13591	15172	7.071
7 Aroclor-1260(1)	18145	17177	16842	16407	15189	16752	6.464
(2)	26410	24871	24973	24571	22887	24743	5.081
(3)	16099	14386	14855	14472	13625	14687	6.171
(4)	16517	14719	15311	15032	14343	15185	5.451
(5)	35425	33953	34899	34487	32987	34350	2.719
8 Aroclor-1262(1)	+++++	+++++	+++++	14019	+++++	14019	0.000
(2)	+++++	+++++	+++++	18406	+++++	18406	0.000
(3)	+++++	+++++	+++++	22511	+++++	22511	0.000
(4)	+++++	+++++	+++++	20327	+++++	20327	0.000
(5)	+++++	+++++	+++++	43170	+++++	43170	0.000
9 Aroclor-1268(1)	56914	55996	53872	52565	52528	54375	3.680
(2)	57500	55307	54092	52376	51697	54194	4.300
(3)	43006	41368	40020	38976	39247	40524	4.120
(4)	19620	18932	18085	17425	17569	18326	5.094
(5)	128350	126812	122798	118830	119599	123278	3.436
M 10 Aroclor-Total	+++++	+++++	+++++	+++++	+++++	+++++	+++++
$ 11 4cmx	367897	454677	359986	359846	335942	375669	12.182
$ 12 Decachlorobiphenyl	316645	388263	307193	296602	278999	317541	13.206

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 11-DEC-2009 10:17
End Cal Date : 14-DEC-2009 12:37
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd1a.i/122209.b/ECD1-B-8082-121409.m
Cal Date : 23-Dec-2009 06:44 jen01212
Curve Type : Average

Calibration File Names:
Level 1: /chem/ecd1a.i/121409.b/040b4001.d
Level 2: /chem/ecd1a.i/121409.b/041b4101.d
Level 3: /chem/ecd1a.i/121409.b/042b4201.d
Level 4: /chem/ecd1a.i/121409.b/046b4601.d
Level 5: /chem/ecd1a.i/121409.b/044b4401.d

Compound	100.000 Level 1	200.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	___ RRF	% RSD
1 Aroclor-1016(1)	14281	12734	12848	12156	11039	12612	9.333
(2)	10954	9913	9256	8806	7710	9328	13.003
(3)	6310	5679	5380	5089	4598	5411	11.852
(4)	8214	7430	6981	6696	5938	7052	12.003
(5)	7754	6843	6481	6115	5561	6551	12.561
62 4,4-DDT	+++++	+++++	+++++	243613	+++++	243613	0.000
63 4,4-DDE	+++++	+++++	+++++	357996	+++++	357996	0.000
64 4,4-DDD	+++++	+++++	+++++	289343	+++++	289343	0.000
2 Aroclor-1221(1)	+++++	+++++	+++++	3640	+++++	3640	0.000
(2)	+++++	+++++	+++++	2329	+++++	2329	0.000
(3)	+++++	+++++	+++++	8119	+++++	8119	0.000
3 Aroclor-1232(1)	+++++	+++++	+++++	6156	+++++	6156	0.000
(2)	+++++	+++++	+++++	6302	+++++	6302	0.000
(3)	+++++	+++++	+++++	4701	+++++	4701	0.000
(4)	+++++	+++++	+++++	3243	+++++	3243	0.000
(5)	+++++	+++++	+++++	3151	+++++	3151	0.000
4 Aroclor-1242(1)	12348	11309	9989	9755	9542	10589	11.338
(2)	9730	8628	7875	7358	6677	8054	14.627
(3)	7163	6326	5763	5452	5107	5962	13.534
(4)	7183	6468	5900	5548	5185	6057	12.997
(5)	7820	7123	6589	6229	5746	6701	11.977
5 Aroclor-1248(1)	9914	8542	7972	7289	6553	8054	15.880
(2)	11996	10356	9798	9046	8173	9874	14.605
(3)	13306	11756	11119	10365	9555	11220	12.723
(4)	14720	13121	12480	11577	10516	12483	12.732
(5)	14361	12633	11977	11210	10342	12104	12.596

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 11-DEC-2009 10:17
End Cal Date : 14-DEC-2009 12:37
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd1a.i/122209.b/ECD1-B-8082-121409.m
Cal Date : 23-Dec-2009 06:44 jen01212
Curve Type : Average

Compound	100.000 Level 1	200.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
6 Aroclor-1254(1)	7857	6938	6317	5878	5185	6435	15.850
(2)	13759	12316	11389	10708	9625	11559	13.615
(3)	14674	13172	12243	11576	10492	12431	12.786
(4)	19102	17554	16808	16165	14771	16880	9.533
(5)	14276	12708	12612	11843	10739	12435	10.425
7 Aroclor-1260(1)	15678	14232	13583	13177	11731	13680	10.567
(2)	18142	16574	16035	15527	13867	16029	9.709
(3)	14298	13064	12524	12030	10903	12564	9.989
(4)	14593	13310	12766	12230	11150	12810	9.970
(5)	30553	28626	28257	27276	24777	27898	7.569
8 Aroclor-1262(1)	+++++	+++++	+++++	12922	+++++	12922	0.000
(2)	+++++	+++++	+++++	18311	+++++	18311	0.000
(3)	+++++	+++++	+++++	16579	+++++	16579	0.000
(4)	+++++	+++++	+++++	33287	+++++	33287	0.000
(5)	+++++	+++++	+++++	22972	+++++	22972	0.000
9 Aroclor-1268(1)	48327	45655	43354	41349	39206	43578	8.193
(2)	44968	41865	39872	38249	36983	40388	7.790
(3)	35350	32573	30975	29630	28674	31440	8.372
(4)	16410	14977	13894	13214	12876	14274	10.077
(5)	96769	92419	87897	84047	83161	88859	6.460
M 10 Aroclor-Total	+++++	+++++	+++++	+++++	+++++	+++++	+++++
$ 11 4cmx	307069	367145	286931	282899	256086	300026	13.893
$ 12 Decachlorobiphenyl	248884	286011	224119	212175	194946	233227	15.194

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-939

Instrument ID: ECD1A Calibration Date: 12/22/09 Time: 0805

Lab File ID: 002F0201 Init. Calib. Date(s): 12/14/09 12/14/09

Heated Purge: (Y/N) N Init. Calib. Times: 1031 1113

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	13866.870	11819.100	0.01	-14.8	15.0
(2)	10097.726	10041.405	0.01	-0.6	15.0
(3)	11757.020	10232.893	0.01	-13.0	15.0
(4)	6599.010	6218.851	0.01	-5.8	15.0
(5)	8673.402	7893.471	0.01	-9.0	15.0
Aroclor-1260	16752.150	15831.089	0.01	-5.5	15.0
(2)	24742.603	24387.503	0.01	-1.4	15.0
(3)	14687.346	14641.032	0.01	-0.3	15.0
(4)	15184.529	15291.566	0.01	0.7	15.0
(5)	34350.443	35549.448	0.01	3.5	15.0
4cmx	375669.41	339416.84	0.01	-9.6	15.0
Decachlorobiphenyl	317540.53	312855.09	0.01	-1.5	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-939

Instrument ID: ECD1A Calibration Date: 12/22/09 Time: 0805

Lab File ID: 002B0201 Init. Calib. Date(s): 12/14/09 12/14/09

Heated Purge: (Y/N) N Init. Calib. Times: 1031 1113

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	12611.539	12307.559	0.01	-2.4	15.0
(2)	9327.875	7955.901	0.01	-14.7	15.0
(3)	5411.316	4945.153	0.01	-8.6	15.0
(4)	7051.879	6459.718	0.01	-8.4	15.0
(5)	6550.733	5874.937	0.01	-10.3	15.0
Aroclor-1260	13680.027	12456.008	0.01	-8.9	15.0
(2)	16029.019	15351.218	0.01	-4.2	15.0
(3)	12563.933	11813.735	0.01	-6.0	15.0
(4)	12810.076	12208.277	0.01	-4.7	15.0
(5)	27897.674	27912.067	0.01	0.0	15.0
4cmx	300025.77	266655.00	0.01	-11.1	15.0
Decachlorobiphenyl	233227.08	232646.98	0.01	-0.2	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-939

Instrument ID: ECD1A Calibration Date: 12/22/09 Time: 0816

Lab File ID: 003F0301 Init. Calib. Date(s): 12/14/09 12/14/09

Heated Purge: (Y/N) N Init. Calib. Times: 0722 0804

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1254	12485.476	11604.571	0.01	-7.0	15.0
(2)	16721.938	15968.395	0.01	-4.5	15.0
(3)	20713.923	21043.271	0.01	1.6	15.0
(4)	15694.205	16237.348	0.01	3.5	15.0
(5)	15172.491	15345.718	0.01	1.1	15.0
4cmx	375669.41	362010.01	0.01	-3.6	15.0
Decachlorobiphenyl	317540.53	334073.43	0.01	5.2	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-939

Instrument ID: ECD1A Calibration Date: 12/22/09 Time: 0816

Lab File ID: 003B0301 Init. Calib. Date(s): 12/14/09 12/14/09

Heated Purge: (Y/N) N Init. Calib. Times: 0722 0804

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1254	6435.255	5816.655	0.01	-9.6	15.0
(2)	11559.316	10553.840	0.01	-8.7	15.0
(3)	12431.285	11728.700	0.01	-5.6	15.0
(4)	16880.060	16524.474	0.01	-2.1	15.0
(5)	12435.475	12248.095	0.01	-1.5	15.0
4cmx	300025.77	286334.91	0.01	-4.6	15.0
Decachlorobiphenyl	233227.08	247804.73	0.01	6.2	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-939

Instrument ID: ECD1A Calibration Date: 12/22/09 Time: 1136

Lab File ID: 022F2201 Init. Calib. Date(s): 12/14/09 12/14/09

Heated Purge: (Y/N) N Init. Calib. Times: 1031 1113

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	13866.870	12195.989	0.01	-12.0	15.0
(2)	10097.726	10155.647	0.01	0.6	15.0
(3)	11757.020	10536.169	0.01	-10.4	15.0
(4)	6599.010	6316.222	0.01	-4.3	15.0
(5)	8673.402	8227.877	0.01	-5.1	15.0
Aroclor-1260	16752.150	16412.717	0.01	-2.0	15.0
(2)	24742.603	25383.228	0.01	2.6	15.0
(3)	14687.346	15136.737	0.01	3.0	15.0
(4)	15184.529	15881.438	0.01	4.6	15.0
(5)	34350.443	36861.795	0.01	7.3	15.0
4cmx	375669.41	353567.03	0.01	-5.9	15.0
Decachlorobiphenyl	317540.53	323120.44	0.01	1.8	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-939

Instrument ID: ECD1A Calibration Date: 12/22/09 Time: 1136

Lab File ID: 022B2201 Init. Calib. Date(s): 12/14/09 12/14/09

Heated Purge: (Y/N) N Init. Calib. Times: 1031 1113

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	12611.539	12044.894	0.01	-4.5	15.0
(2)	9327.875	7971.400	0.01	-14.5	15.0
(3)	5411.316	5010.350	0.01	-7.4	15.0
(4)	7051.879	6461.988	0.01	-8.4	15.0
(5)	6550.733	5901.695	0.01	-9.9	15.0
Aroclor-1260	13680.027	12441.498	0.01	-9.0	15.0
(2)	16029.019	15419.548	0.01	-3.8	15.0
(3)	12563.933	11883.895	0.01	-5.4	15.0
(4)	12810.076	12259.583	0.01	-4.3	15.0
(5)	27897.674	28019.266	0.01	0.4	15.0
4cmx	300025.77	268297.90	0.01	-10.6	15.0
Decachlorobiphenyl	233227.08	234407.24	0.01	0.5	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-939

Instrument ID: ECD1A Calibration Date: 12/22/09 Time: 1342

Lab File ID: 034F3401 Init. Calib. Date(s): 12/14/09 12/14/09

Heated Purge: (Y/N) N Init. Calib. Times: 1031 1113

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	13866.870	12307.109	0.01	-11.2	15.0
(2)	10097.726	9886.673	0.01	-2.1	15.0
(3)	11757.020	10619.709	0.01	-9.7	15.0
(4)	6599.010	6396.545	0.01	-3.1	15.0
(5)	8673.402	8146.353	0.01	-6.1	15.0
Aroclor-1260	16752.150	16477.385	0.01	-1.6	15.0
(2)	24742.603	25407.089	0.01	2.7	15.0
(3)	14687.346	15258.339	0.01	3.9	15.0
(4)	15184.529	15999.261	0.01	5.4	15.0
(5)	34350.443	36981.333	0.01	7.6	15.0
4cmx	375669.41	355020.73	0.01	-5.5	15.0
Decachlorobiphenyl	317540.53	320715.88	0.01	1.0	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-939

Instrument ID: ECD1A Calibration Date: 12/22/09 Time: 1342

Lab File ID: 034B3401 Init. Calib. Date(s): 12/14/09 12/14/09

Heated Purge: (Y/N) N Init. Calib. Times: 1031 1113

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	12611.539	12230.495	0.01	-3.0	15.0
(2)	9327.875	8013.748	0.01	-14.1	15.0
(3)	5411.316	5019.210	0.01	-7.2	15.0
(4)	7051.879	6532.589	0.01	-7.4	15.0
(5)	6550.733	5980.984	0.01	-8.7	15.0
Aroclor-1260	13680.027	12671.837	0.01	-7.4	15.0
(2)	16029.019	15649.823	0.01	-2.4	15.0
(3)	12563.933	12040.790	0.01	-4.2	15.0
(4)	12810.076	12404.464	0.01	-3.2	15.0
(5)	27897.674	28369.150	0.01	1.7	15.0
4cmx	300025.77	271988.42	0.01	-9.3	15.0
Decachlorobiphenyl	233227.08	232000.37	0.01	-0.5	15.0

FORM VII PEST

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/122209.b/002f0201.d
Lab Smp Id: WAR091211-60 01 Client Smp ID: AR166001
Inj Date : 22-DEC-2009 08:05
Operator : JAOC Inst ID: ecd1a.i
Smp Info : |WAR091211-60 01
Misc Info :
Comment :
Method : /chem/ecd1a.i/122209.b/ECD1-F-8082-121409.m
Meth Date : 22-Dec-2009 10:30 jen01212 Quant Type: ESTD
Cal Date : 14-DEC-2009 11:34 Cal File: 040f4001.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.971	1.971	0.000	33941684	100.000	90.3	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.286	5.286	0.000	31285509	100.000	98.5	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.427	2.427	0.000	11819100	1000.00	852	80.00- 120.00	100.00(M)
2.705	2.705	0.000	10041405	1000.00	994	64.96- 104.96	84.96
2.796	2.796	0.000	10232893	1000.00	870	66.58- 106.58	86.58
2.835	2.835	0.000	6218851	1000.00	942	32.62- 72.62	52.62
3.046	3.046	0.000	7893471	1000.00	910	46.79- 86.79	66.79
Average of Peak Amounts =					914		
7 Aroclor-1260					CAS #: 11096-82-5		
3.771	3.771	0.000	15831089	1000.00	945	80.00- 120.00	100.00
3.934	3.934	0.000	24387503	1000.00	986	134.05- 174.05	154.05
4.165	4.165	0.000	14641032	1000.00	997	72.48- 112.48	92.48
4.307	4.307	0.000	15291566	1000.00	1010	76.59- 116.59	96.59
4.486	4.486	0.000	35549448	1000.00	1030	204.55- 244.55	224.55
Average of Peak Amounts =					994		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd1a.i/122209.b/002f0201.d
Date : 22-DEC-2009 08:05
Client ID: AR166001
Sample Info: IWAR091211-60 01

Column phase: CLP1

Instrument: ecd1a.i

Operator: JAOC
Column diameter: 0.25

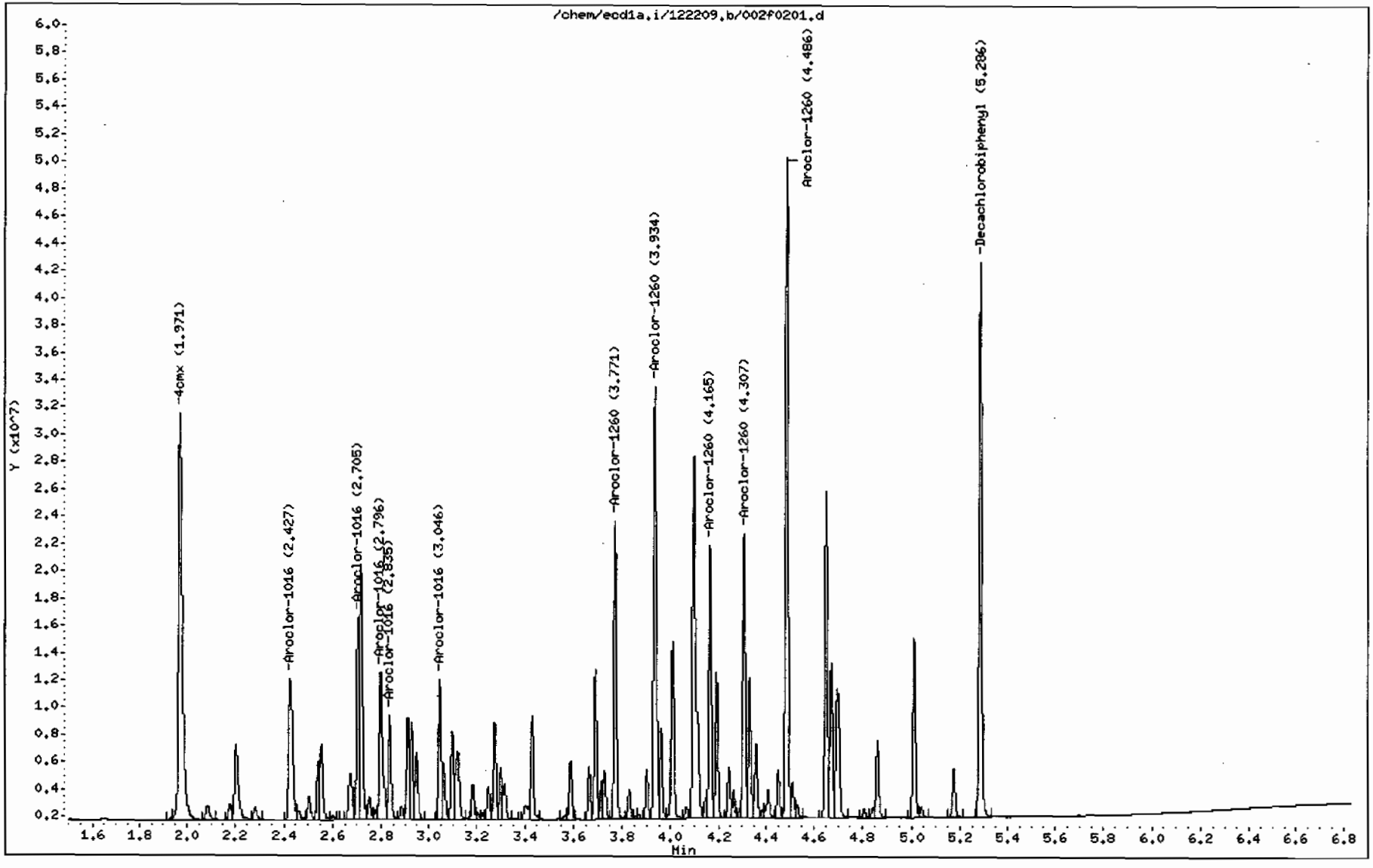

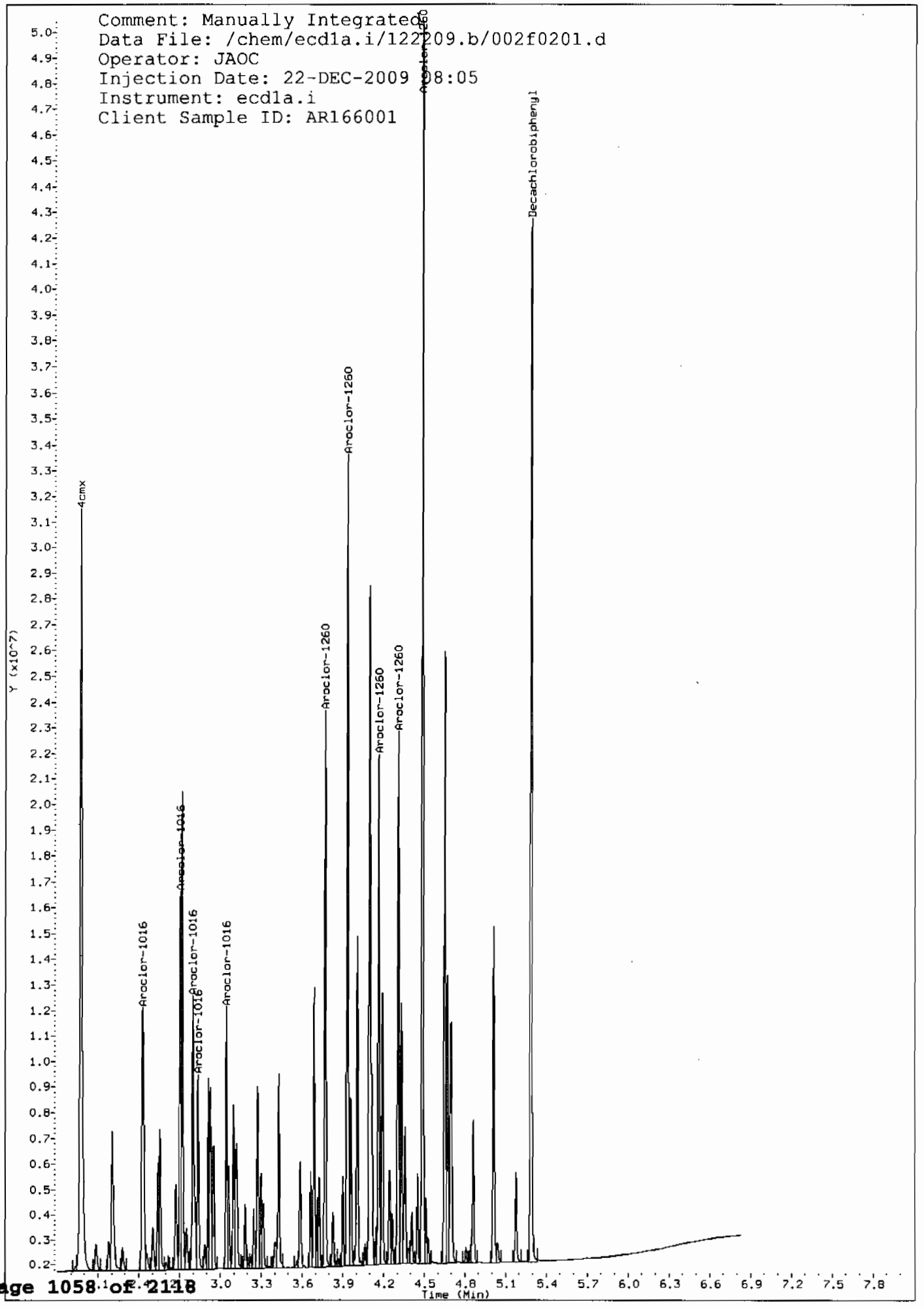
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Operator: JAOC
Injection Date: 22-DEC-2009 08:05
Instrument: ecd1a.i
Client Sample ID: AR166001
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

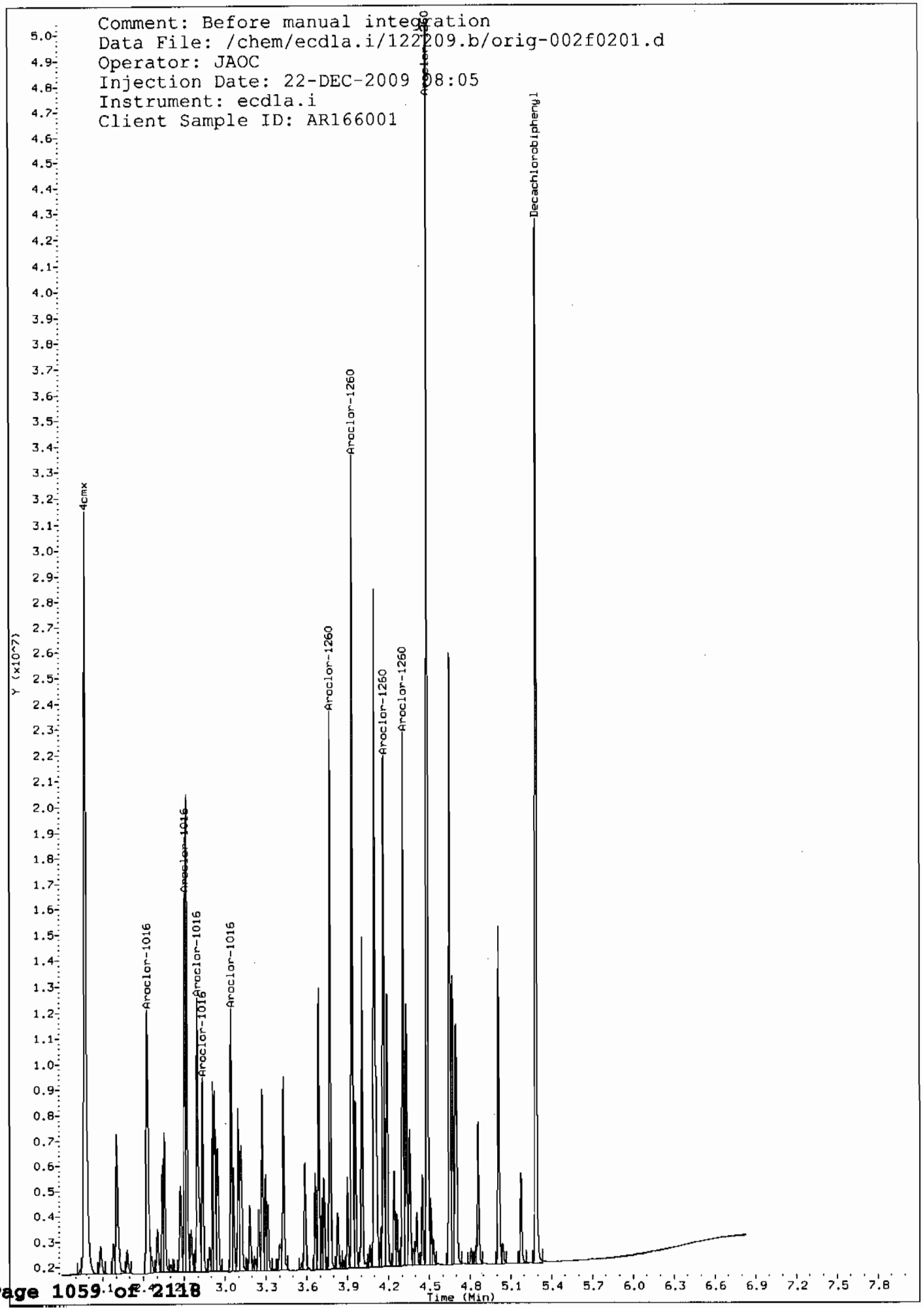
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Operator: JAOC
Injection Date: 22-DEC-2009 08:05
Instrument: ecdla.i
Client Sample ID: AR166001
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/122209.b/002b0201.d
Lab Smp Id: WAR091211-60 01 Client Smp ID: AR166001
Inj Date : 22-DEC-2009 08:05
Operator : JAOC Inst ID: ecd1a.i
Smp Info : |WAR091211-60 01
Misc Info :
Comment :
Method : /chem/ecd1a.i/122209.b/ECD1-B-8082-121409.m
Meth Date : 22-Dec-2009 10:30 jen01212 Quant Type: ESTD
Cal Date : 14-DEC-2009 12:16 Cal File: 044b4401.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.302	2.302	0.000	26665500	100.000	88.9	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.948	5.948	0.000	23264698	100.000	99.8	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.199	3.199	0.000	12307559	1000.00	976	80.00- 120.00	100.00(M)
3.282	3.282	0.000	7955901	1000.00	853	44.64- 84.64	64.64
3.346	3.346	0.000	4945153	1000.00	914	20.18- 60.18	40.18
3.572	3.572	0.000	6459718	1000.00	916	32.49- 72.49	52.49
3.648	3.648	0.000	5874937	1000.00	897	27.73- 67.73	47.73
Average of Peak Amounts =					911		
7 Aroclor-1260					CAS #: 11096-82-5		
4.338	4.338	0.000	12456008	1000.00	910	80.00- 120.00	100.00
4.463	4.463	0.000	15351218	1000.00	958	103.24- 143.24	123.24
4.729	4.729	0.000	11813735	1000.00	940	74.84- 114.84	94.84
4.903	4.903	0.000	12208277	1000.00	953	78.01- 118.01	98.01
5.050	5.050	0.000	27912067	1000.00	1000	204.09- 244.09	224.09
Average of Peak Amounts =					952		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd1a.i/122209.b/002b0201.d

Date : 22-DEC-2009 08:05

Client ID: AR166001

Sample Info: IWAR091211-60 01

Column phase: CLP2

Instrument: ecd1a.i

Operator: JAOC

Column diameter: 0.25

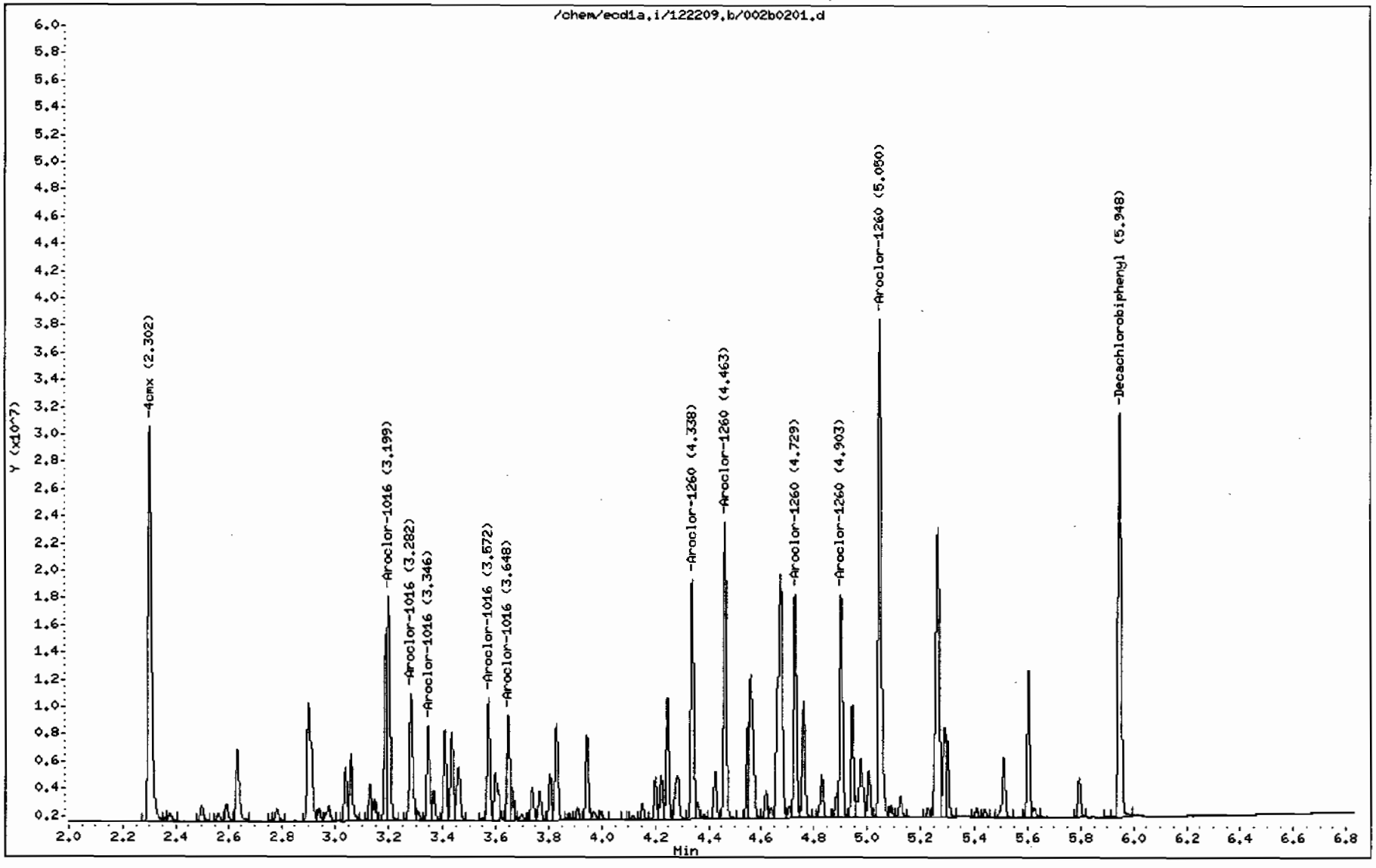

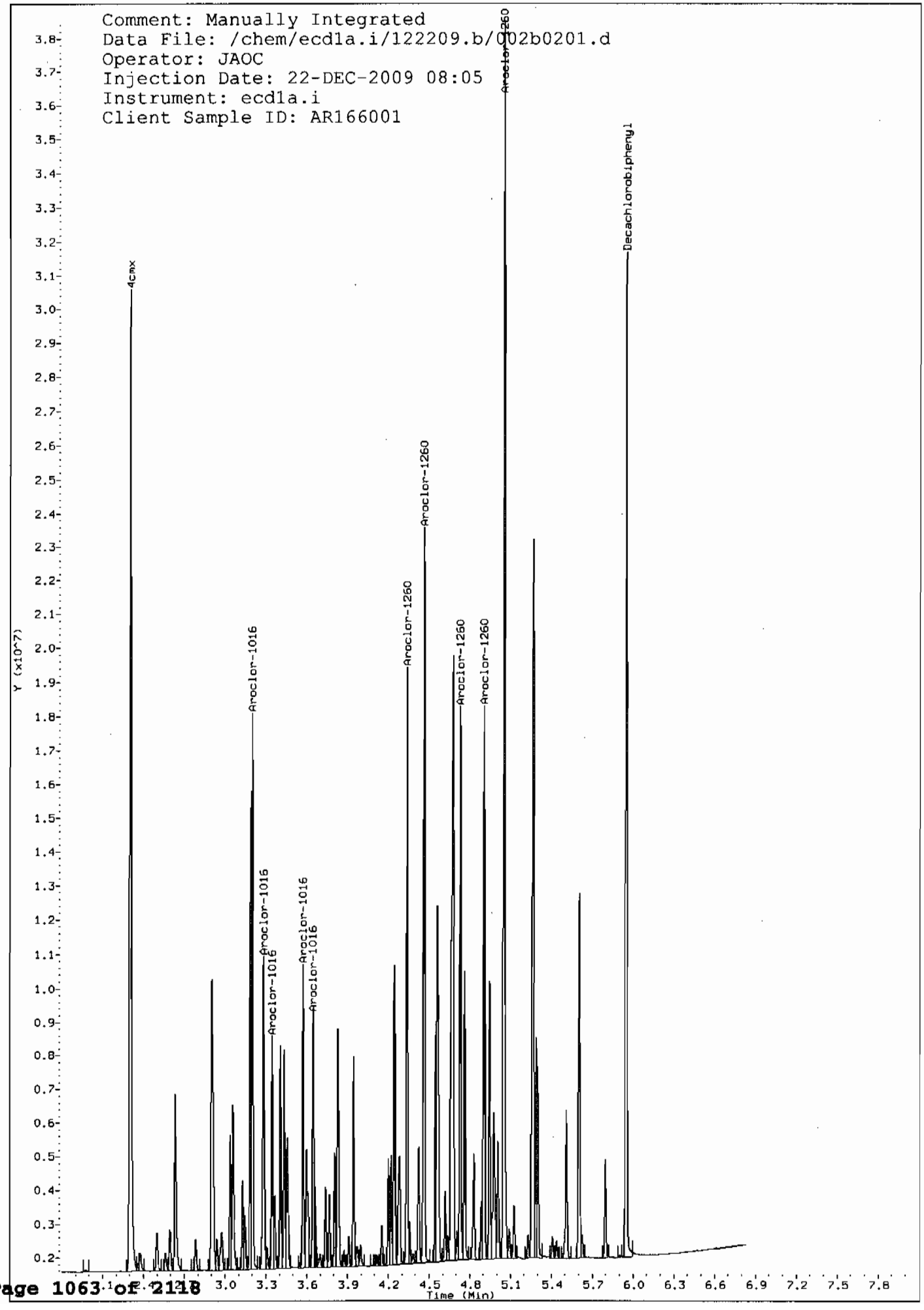
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Operator: JAOC
Injection Date: 22-DEC-2009 08:05
Instrument: ecd1a.i
Client Sample ID: AR166001
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

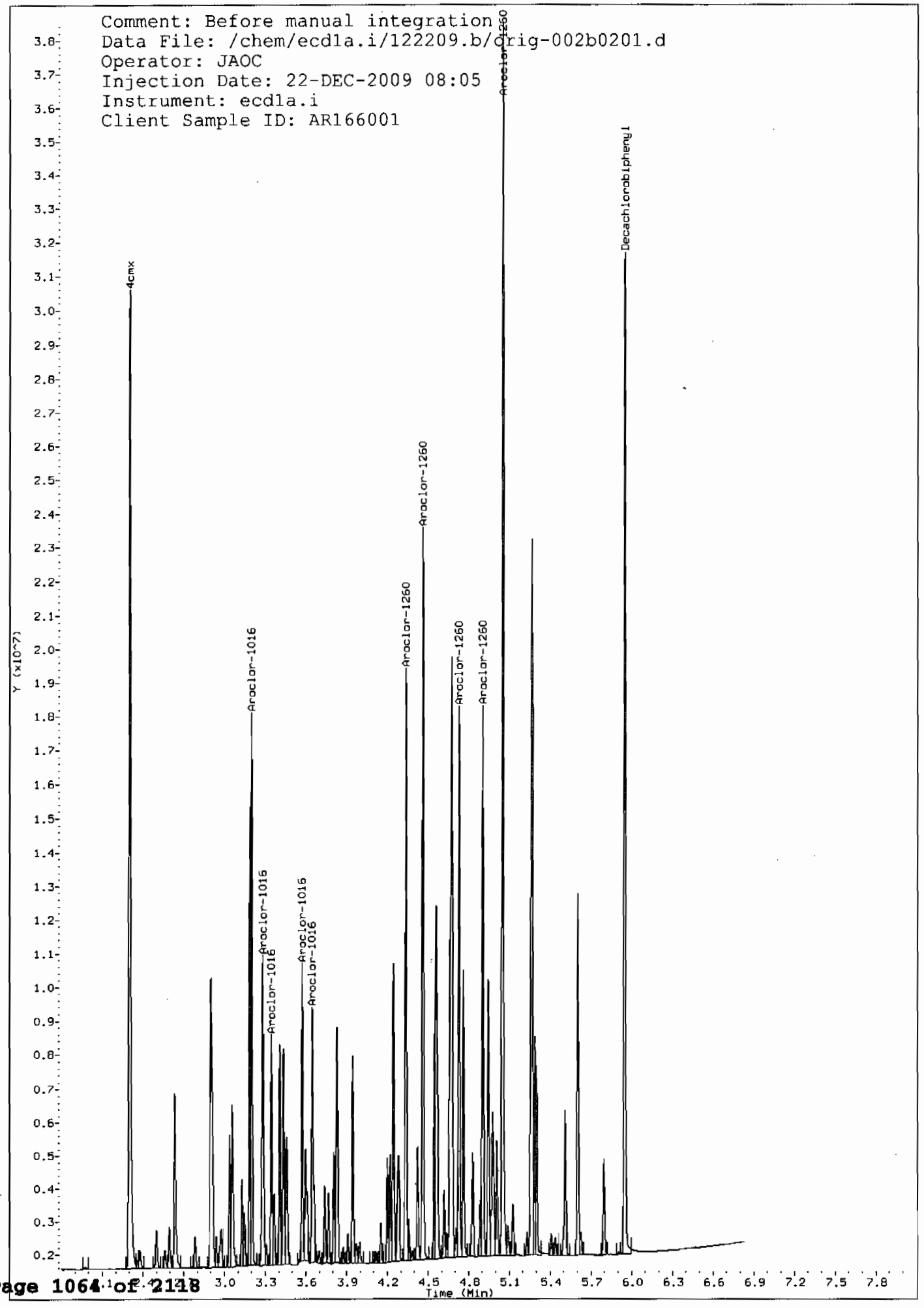
Comment: Before manual integration
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Operator: JAOC
Injection Date: 22-DEC-2009 08:05
Instrument: ecd1a.i
Client Sample ID: AR166001
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/122209.b/003f0301.d
Lab Smp Id: WAR091216-54 Client Smp ID: AR125401
Inj Date : 22-DEC-2009 08:16
Operator : JAOC Inst ID: ecd1a.i
Smp Info : |WAR091216-54
Misc Info :
Comment :
Method : /chem/ecd1a.i/122209.b/ECD1-F-8082-121409.m
Meth Date : 22-Dec-2009 10:30 jen01212 Quant Type: ESTD
Cal Date : 14-DEC-2009 11:34 Cal File: 040f4001.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1254.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.972	1.971	0.001	36201001	100.000	96.4	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.287	5.286	0.001	33407343	100.000	105	80.00- 120.00	100.00
6 Aroclor-1254					CAS #: 11097-69-1		
3.275	3.275	0.000	11604571	1000.00	929	80.00- 120.00	100.00
3.430	3.430	0.000	15968395	1000.00	955	117.60- 157.60	137.60
3.664	3.664	0.000	21043271	1000.00	1020	161.34- 201.34	181.34
3.827	3.827	0.000	16237348	1000.00	1030	119.92- 159.92	139.92
3.936	3.936	0.000	15345718	1000.00	1010	112.24- 152.24	132.24
Average of Peak Amounts =					989		

Data File: /chem/ecdla.i/122209.b/003F0301.d
Date : 22-DEC-2009 08:16
Client ID: AR125401
Sample Info: IWAR091216-54
Column phase: CLP1

Instrument: ecdla.i
Operator: JAOC
Column diameter: 0.25

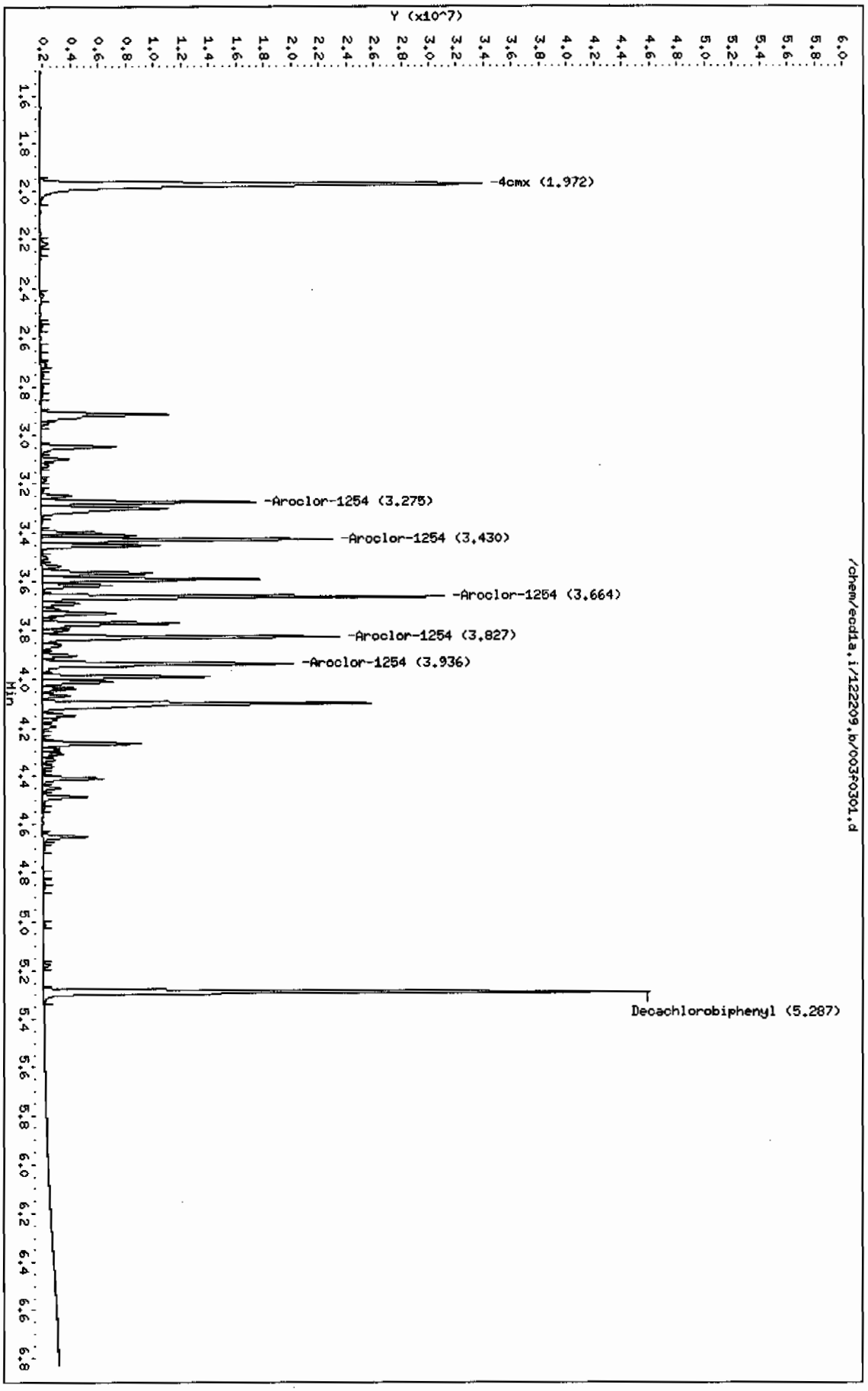

Page 1

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RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/122209.b/003b0301.d
Lab Smp Id: WAR091216-54 Client Smp ID: AR125401
Inj Date : 22-DEC-2009 08:16
Operator : JAOC Inst ID: ecd1a.i
Smp Info : |WAR091216-54
Misc Info :
Comment :
Method : /chem/ecd1a.i/122209.b/ECD1-B-8082-121409.m
Meth Date : 22-Dec-2009 10:30 jen01212 Quant Type: ESTD
Cal Date : 14-DEC-2009 12:16 Cal File: 044b4401.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1254.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.302	2.302	0.000	28633491	100.000	95.4	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.949	5.948	0.001	24780473	100.000	106	80.00- 120.00	100.00
6 Aroclor-1254					CAS #: 11097-69-1		
3.407	3.407	0.000	5816655	1000.00	904	80.00- 120.00	100.00
3.830	3.830	0.000	10553840	1000.00	913	161.44- 201.44	181.44
3.947	3.947	0.000	11728700	1000.00	943	181.64- 221.64	201.64
4.223	4.223	0.000	16524474	1000.00	979	264.09- 304.09	284.09
4.359	4.359	0.000	12248094	1000.00	985	190.57- 230.57	210.57
		Average of Peak Amounts =			945		

Data File: /chem/ecd1a.i/122209.b/003b0301.d
Date : 22-DEC-2009 08:16
Client ID: AR125401
Sample Info: IWAR091216-54

Column phase: CLP2

Instrument: ecd1a.i

Operator: JAOC
Column diameter: 0.25

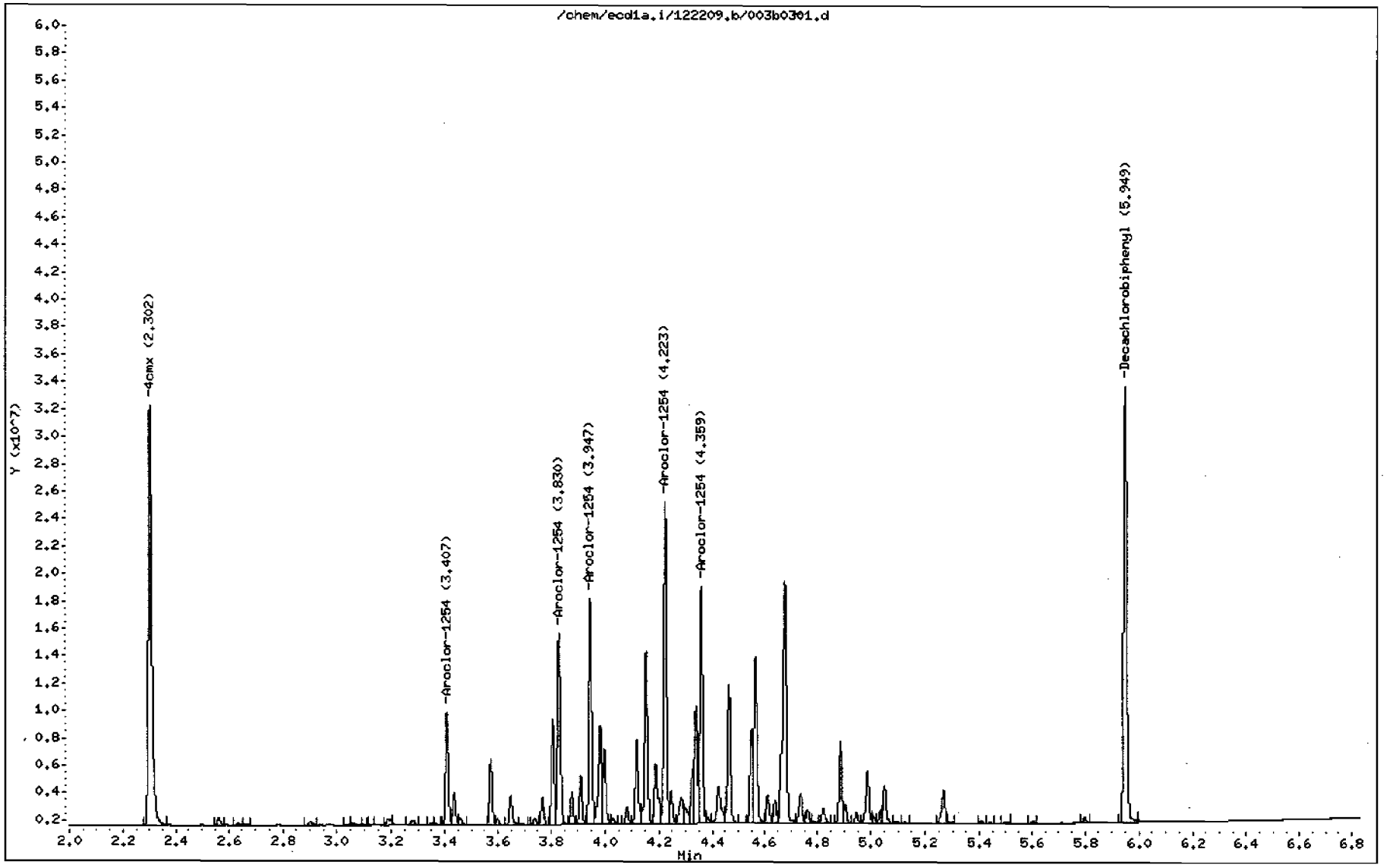

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/122209.b/004f0401.d
Lab Smp Id: WAR091102-42 Client Smp ID: AR124201
Inj Date : 22-DEC-2009 08:26
Operator : JAOC Inst ID: ecd1a.i
Smp Info : |WAR091102-42
Misc Info :
Comment :
Method : /chem/ecd1a.i/122209.b/ECD1-F-8082-121409.m
Meth Date : 22-Dec-2009 10:30 jen01212 Quant Type: ESTD
Cal Date : 14-DEC-2009 11:34 Cal File: 040f4001.d
Als bottle: 4 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1242.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.971	1.971	0.000	37237901	100.000	99.1	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.288	5.286	0.002	33757311	100.000	106	80.00- 120.00	100.00
4 Aroclor-1242					CAS #: 53469-21-9		
2.428	2.428	0.000	10444613	1000.00	896	80.00- 120.00	100.00
2.717	2.717	0.000	13312273	1000.00	990	107.46- 147.46	127.46
2.836	2.836	0.000	5271178	1000.00	957	30.47- 70.47	50.47
3.047	3.047	0.000	6995254	1000.00	966	46.97- 86.97	66.97
3.300	3.300	0.000	6938813	1000.00	1020	46.43- 86.43	66.43
Average of Peak Amounts =					965		

Data File: /chem/ecd1a.i/122209.b/004f0401.d

Date : 22-DEC-2009 08:26

Client ID: AR124201

Sample Info: IWAR091102-42

Column phase: CLP1

Instrument: ecd1a.i

Operator: JAOC

Column diameter: 0.25

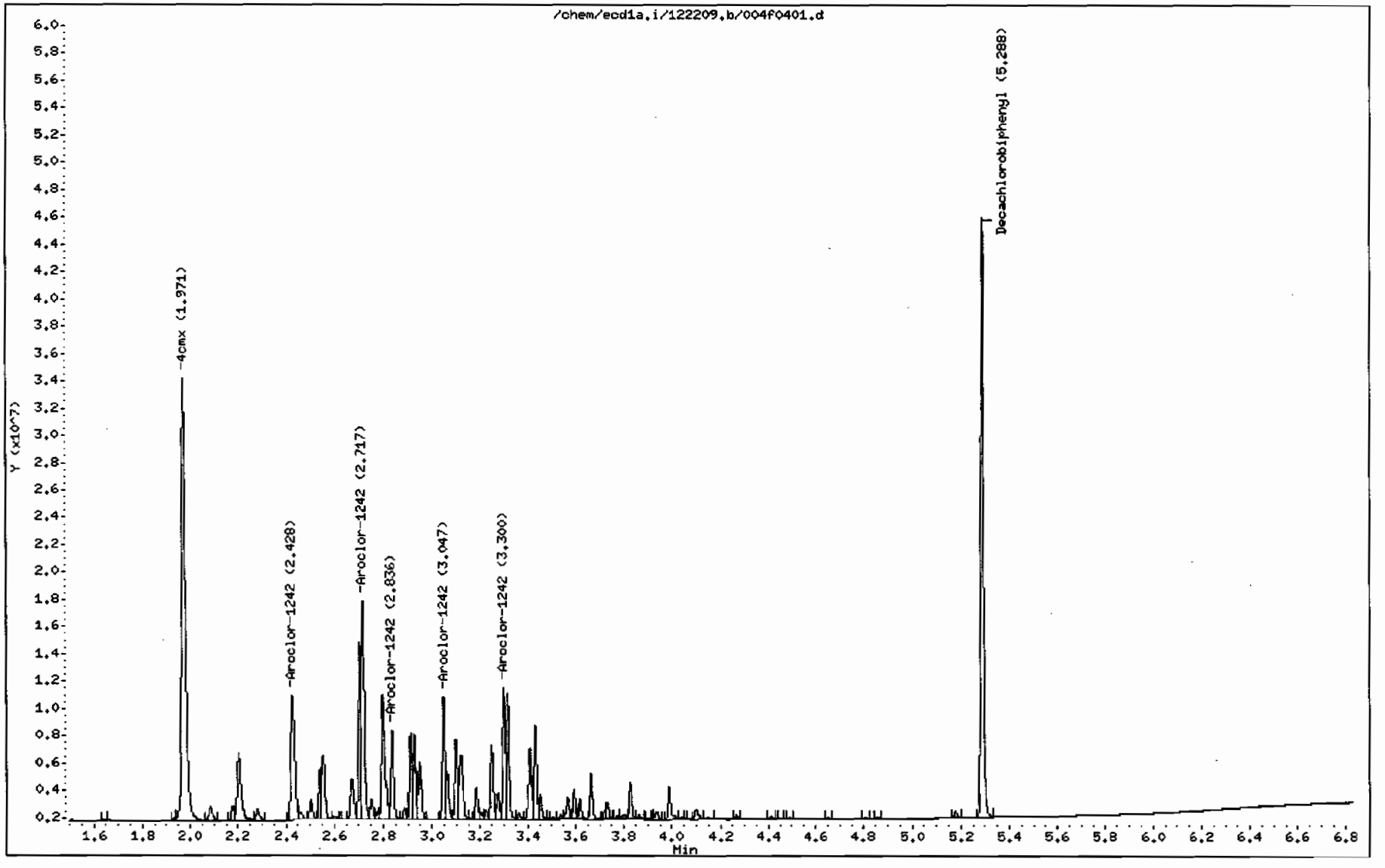

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/122209.b/004b0401.d
Lab Smp Id: WAR091102-42 Client Smp ID: AR124201
Inj Date : 22-DEC-2009 08:26
Operator : JAOC Inst ID: ecd1a.i
Smp Info : |WAR091102-42
Misc Info :
Comment :
Method : /chem/ecd1a.i/122209.b/ECD1-B-8082-121409.m
Meth Date : 22-Dec-2009 10:30 jen01212 Quant Type: ESTD
Cal Date : 14-DEC-2009 12:16 Cal File: 044b4401.d
Als bottle: 4 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1242.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.302	2.302	0.000	29061552	100.000	96.9	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.950	5.948	0.002	25130300	100.000	108	80.00- 120.00	100.00
4 Aroclor-1242					CAS #: 53469-21-9		
3.200	3.200	0.000	10099566	1000.00	954	80.00- 120.00	100.00
3.283	3.283	0.000	6910257	1000.00	858	48.42- 88.42	68.42
3.574	3.574	0.000	5687190	1000.00	954	36.31- 76.31	56.31
3.807	3.807	0.000	5862246	1000.00	968	38.04- 78.04	58.04
3.835	3.835	0.000	6495896	1000.00	969	44.32- 84.32	64.32
		Average of Peak Amounts =			941		

Data File: /chem/ecdla.i/122209.b/004b0401.d
Date : 22-DEC-2009 08:26
Client ID: AR124201
Sample Info: IWAR091102-42
Column phase: CLP2

Instrument: ecdla.i
Operator: JADC
Column diameter: 0.25

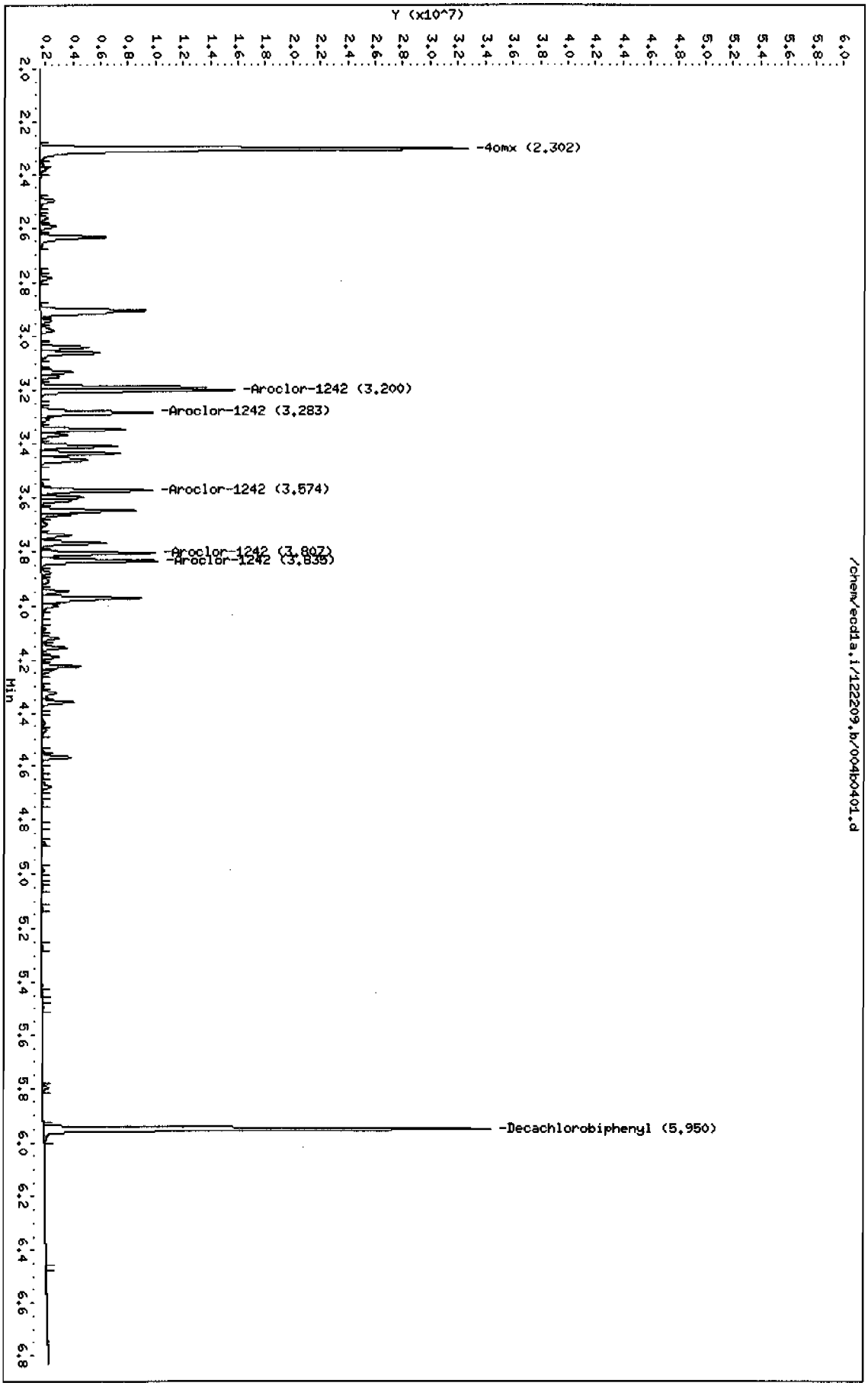

Page 1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/122209.b/005f0501.d
Lab Smp Id: WAR091027-48 Client Smp ID: AR124801
Inj Date : 22-DEC-2009 08:37
Operator : JAOC Inst ID: ecd1a.i
Smp Info : |WAR091027-48
Misc Info :
Comment :
Method : /chem/ecd1a.i/122209.b/ECD1-F-8082-121409.m
Meth Date : 22-Dec-2009 10:30 jen01212 Quant Type: ESTD
Cal Date : 14-DEC-2009 11:34 Cal File: 040f4001.d
Als bottle: 5 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1248.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.970	1.971	-0.001	39993494	100.000	106	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.288	5.286	0.002	37162300	100.000	117	80.00- 120.00	100.00
5 Aroclor-1248					CAS #: 12672-29-6		
3.098	3.098	0.000	7931287	1000.00	1010	80.00- 120.00	100.00
3.249	3.249	0.000	7026159	1000.00	1020	68.59- 108.59	88.59
3.300	3.300	0.000	13762481	1000.00	1030	153.52- 193.52	173.52
3.432	3.432	0.000	11051789	1000.00	1000	119.34- 159.34	139.34
3.666	3.666	0.000	7023283	1000.00	942	68.55- 108.55	88.55
Average of Peak Amounts =					1e+03		

Data File: /chem/ecd1a.i/122209.b/005f0501.d

Date : 22-DEC-2009 08:37

Client ID: AR124801

Sample Info: IWAR091027-48

Column phase: CLP1

Instrument: ecd1a.i

Operator: JAOC

Column diameter: 0.25

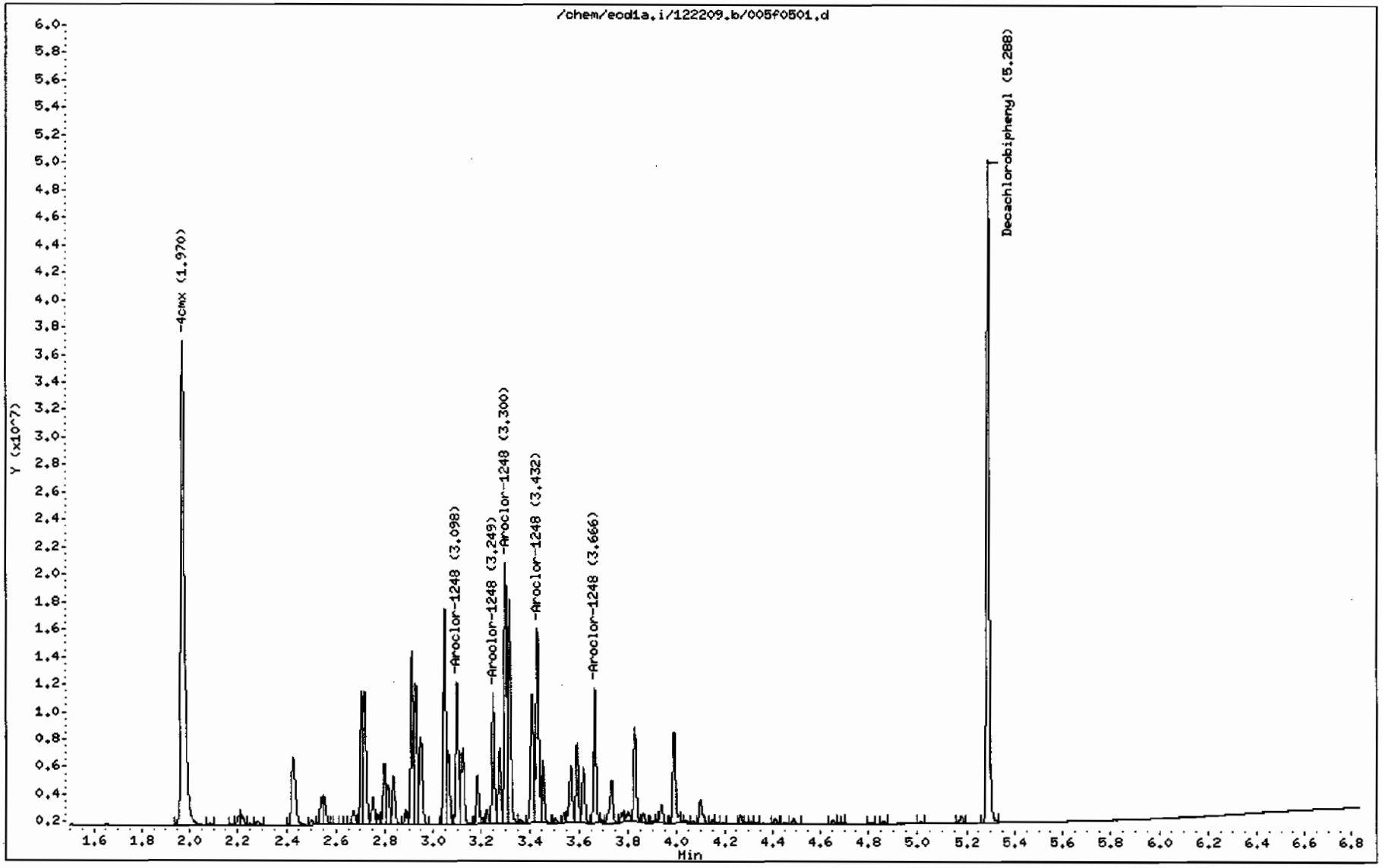

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/122209.b/005b0501.d
Lab Smp Id: WAR091027-48 Client Smp ID: AR124801
Inj Date : 22-DEC-2009 08:37
Operator : JAOC Inst ID: ecd1a.i
Smp Info : |WAR091027-48
Misc Info :
Comment :
Method : /chem/ecd1a.i/122209.b/ECD1-B-8082-121409.m
Meth Date : 22-Dec-2009 10:30 jen01212 Quant Type: ESTD
Cal Date : 14-DEC-2009 12:16 Cal File: 044b4401.d
Als bottle: 5 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1248.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.302	2.302	0.000	31311883	100.000	104	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.950	5.948	0.002	27622840	100.000	118	80.00- 120.00	100.00
5 Aroclor-1248					CAS #: 12672-29-6		
3.409	3.409	0.000	7605862	1000.00	944	80.00- 120.00	100.00
3.574	3.574	0.000	9578982	1000.00	970	105.94- 145.94	125.94
3.808	3.808	0.000	11087939	1000.00	988	125.78- 165.78	145.78
3.836	3.836	0.000	12233448	1000.00	980	140.84- 180.84	160.84
3.972	3.972	0.000	11853978	1000.00	979	135.85- 175.85	155.85
		Average of Peak Amounts =			972		

Data File: /chem/ecd1a.i/122209.b/005b0501.d

Date : 22-DEC-2009 08:37

Client ID: AR124801

Sample Info: IWAR091027-48

Column phase: CLP2

Instrument: ecd1a.i

Operator: JAOC

Column diameter: 0.25

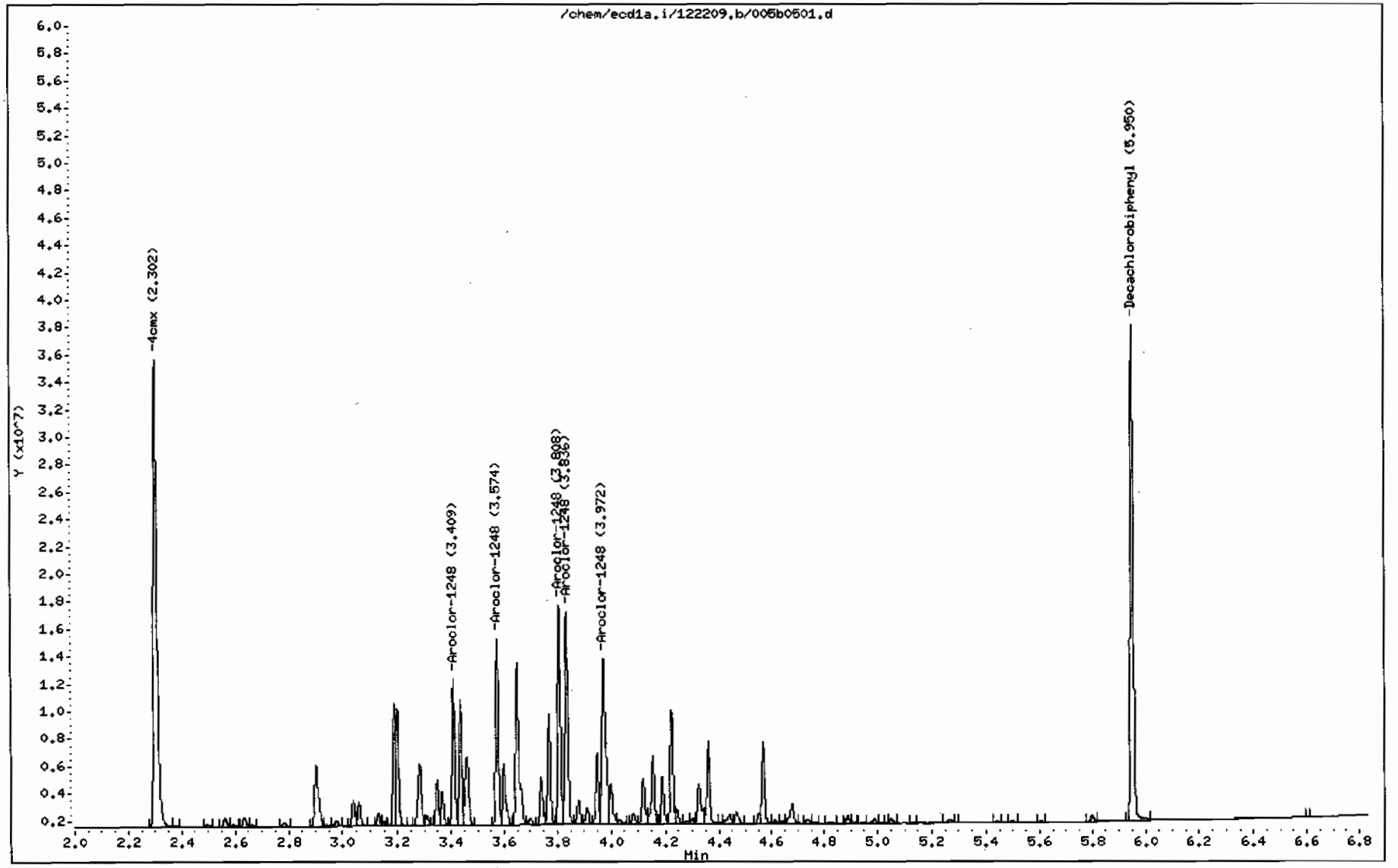

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RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/122209.b/006f0601.d
Lab Smp Id: WAR090930-32 Client Smp ID: AR123201
Inj Date : 22-DEC-2009 08:47
Operator : JAOC Inst ID: ecd1a.i
Smp Info : |WAR090930-32
Misc Info :
Comment :
Method : /chem/ecd1a.i/122209.b/ECD1-F-8082-121409.m
Meth Date : 22-Dec-2009 10:30 jen01212 Quant Type: ESTD
Cal Date : 14-DEC-2009 11:34 Cal File: 040f4001.d
Als bottle: 6 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1232.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.972	1.971	0.001	50735059	100.000	135	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.288	5.286	0.002	46259482	100.000	146	80.00- 120.00	100.00
3 Aroclor-1232					CAS #: 11141-16-5		
2.428	2.428	0.000	6887309	1000.00	1020	80.00- 120.00	100.00
2.718	2.718	0.000	8815316	1000.00	1080	107.99- 147.99	127.99
2.798	2.798	0.000	5909243	1000.00	1030	65.80- 105.80	85.80
3.047	3.047	0.000	4340371	1000.00	1100	43.02- 83.02	63.02
3.301	3.301	0.000	4103939	1000.00	1160	39.59- 79.59	59.59

Average of Peak Amounts = 1.08e+03

Data File: /chem/ecd1a.i/122209.b/006f0601.d

Date : 22-DEC-2009 08:47

Client ID: AR123201

Sample Info: IWAR090930-32

Column phase: CLP1

Instrument: ecd1a.i

Operator: JAOC

Column diameter: 0.25

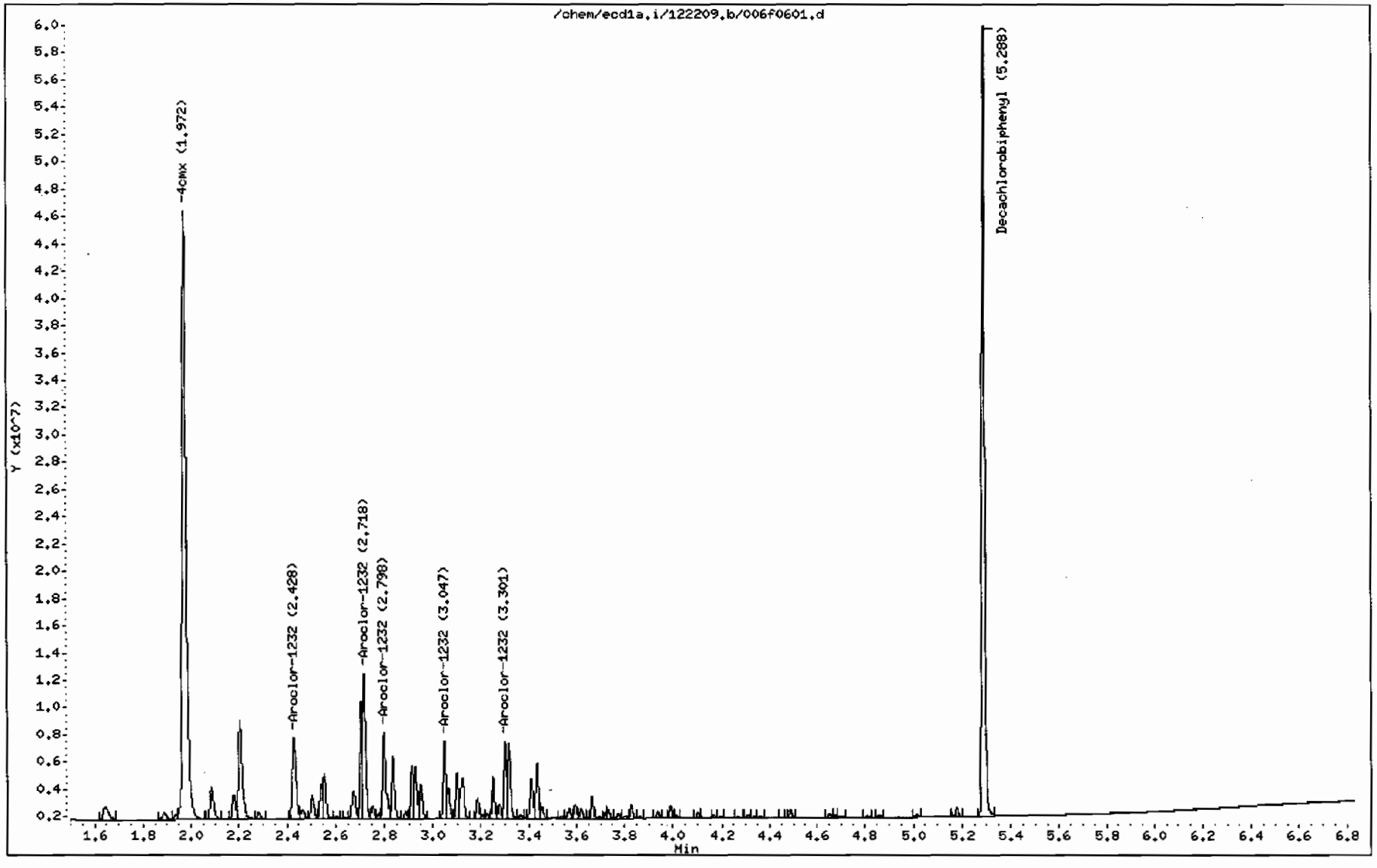

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/122209.b/006b0601.d
Lab Smp Id: WAR090930-32 Client Smp ID: AR123201
Inj Date : 22-DEC-2009 08:47
Operator : JAOC Inst ID: ecd1a.i
Smp Info : |WAR090930-32
Misc Info :
Comment :
Method : /chem/ecd1a.i/122209.b/ECD1-B-8082-121409.m
Meth Date : 22-Dec-2009 10:30 jen01212 Quant Type: ESTD
Cal Date : 14-DEC-2009 12:16 Cal File: 044b4401.d
Als bottle: 6 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1232.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.302	2.302	0.000	39340004	100.000	131	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.950	5.948	0.002	34163690	100.000	146	80.00- 120.00	100.00
3 Aroclor-1232					CAS #: 11141-16-5		
2.635	2.635	0.000	6174849	1000.00	1000	80.00- 120.00	100.00
3.201	3.201	0.000	6712340	1000.00	1060	88.70- 128.70	108.70
3.283	3.283	0.000	4682612	1000.00	996	55.83- 95.83	75.83
3.574	3.574	0.000	3474500	1000.00	1070	36.27- 76.27	56.27
3.807	3.807	0.000	3503346	1000.00	1110	36.74- 76.74	56.74

Average of Peak Amounts = 1.05e+03

Data File: /chem/ecd1a.i/122209.b/006b0601.d

Date : 22-DEC-2009 08:47

Client ID: AR123201

Sample Info: IWAR090930-32

Column phase: CLP2

Instrument: ecd1a.i

Operator: JAOC

Column diameter: 0.25

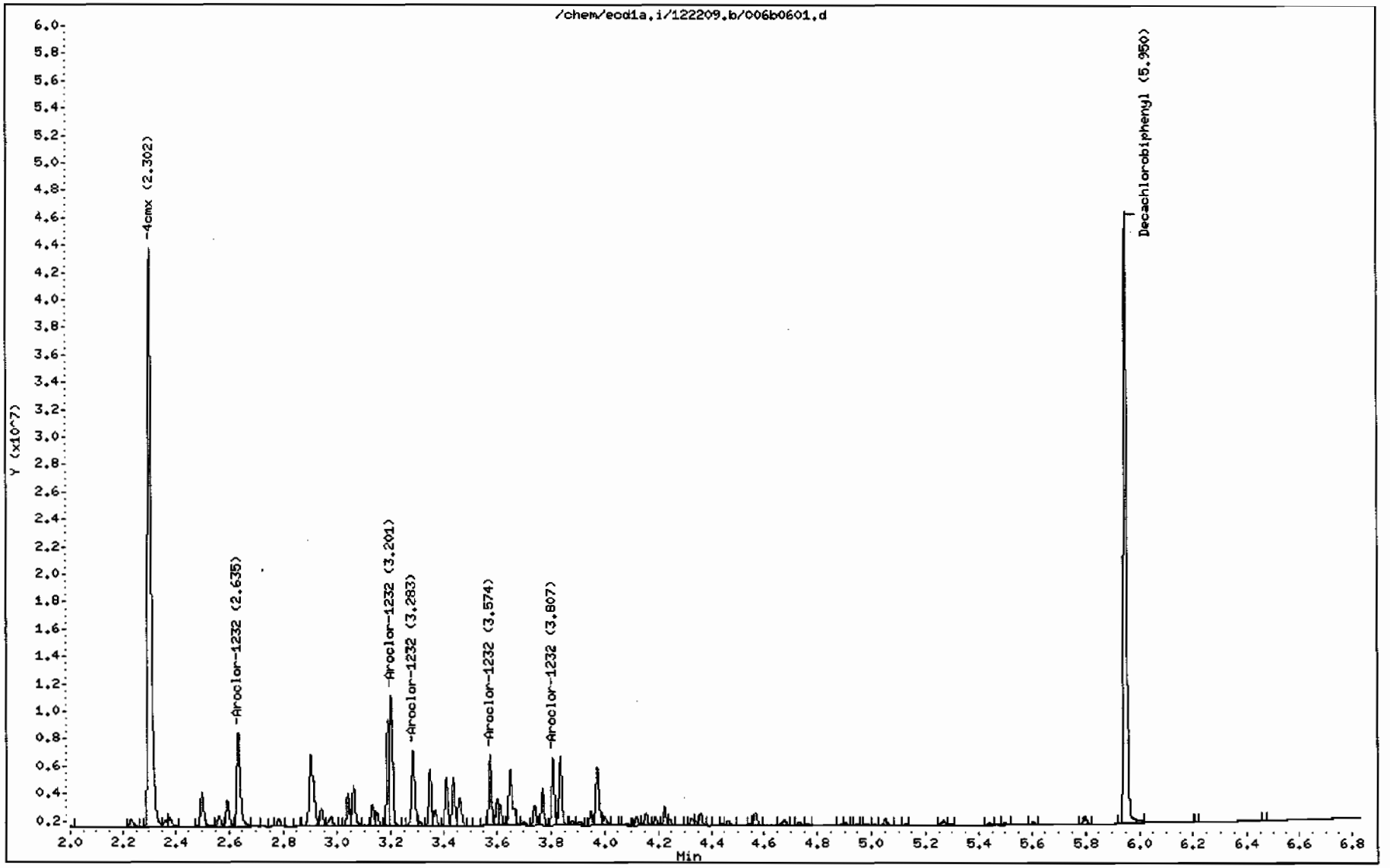

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/122209.b/007f0701.d
Lab Smp Id: WAR090803-21 Client Smp ID: AR122101
Inj Date : 22-DEC-2009 08:58
Operator : JAOC Inst ID: ecd1a.i
Smp Info : |WAR090803-21
Misc Info :
Comment :
Method : /chem/ecd1a.i/122209.b/ECD1-F-8082-121409.m
Meth Date : 22-Dec-2009 10:30 jen01212 Quant Type: ESTD
Cal Date : 14-DEC-2009 11:34 Cal File: 040f4001.d
Als bottle: 7 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1221.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.970	1.971	-0.001	37237905	100.000	99.1	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.288	5.286	0.002	34252960	100.000	108	80.00- 120.00	100.00
2 Aroclor-1221					CAS #: 11104-28-2		
2.084	2.084	0.000	4275079	1000.00	994	80.00- 120.00	100.00
2.177	2.177	0.000	2404255	1000.00	985	36.24- 76.24	56.24
2.203	2.203	0.000	10269221	1000.00	1000	220.21- 260.21	240.21
Average of Peak Amounts =					993		

Data File: /chem/ecd1a.i/122209.b/007f0701.d

Date : 22-DEC-2009 08:58

Client ID: AR122101

Sample Info: IWAR090803-21

Column phase: CLP1

Instrument: ecd1a.i

Operator: JAOC

Column diameter: 0.25

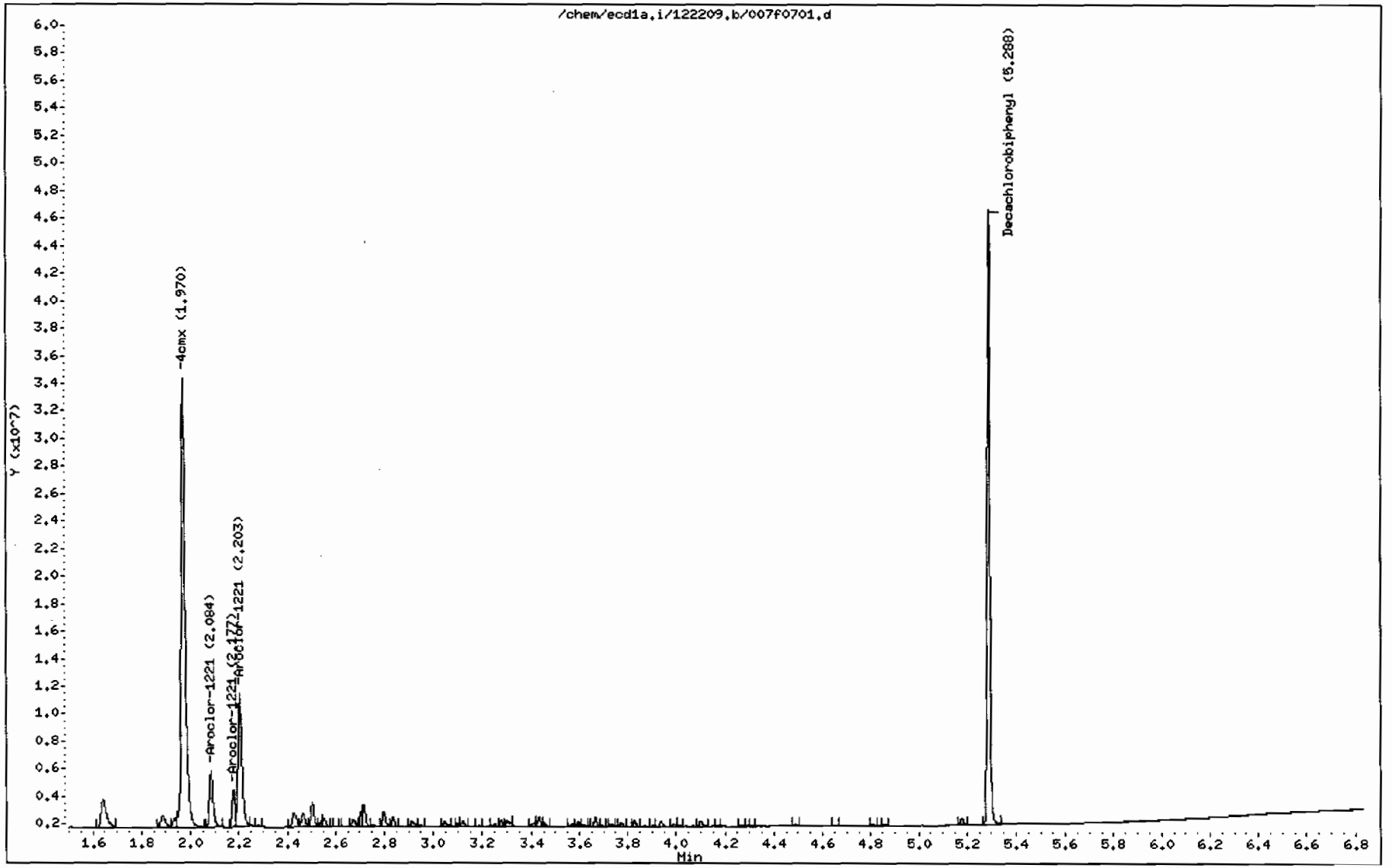

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/122209.b/007b0701.d
Lab Smp Id: WAR090803-21 Client Smp ID: AR122101
Inj Date : 22-DEC-2009 08:58
Operator : JAOC Inst ID: ecd1a.i
Smp Info : |WAR090803-21
Misc Info :
Comment :
Method : /chem/ecd1a.i/122209.b/ECD1-B-8082-121409.m
Meth Date : 22-Dec-2009 10:30 jen01212 Quant Type: ESTD
Cal Date : 14-DEC-2009 12:16 Cal File: 044b4401.d
Als bottle: 7 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1221.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.301	2.302	-0.001	28811147	100.000	96.0	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.950	5.948	0.002	25347070	100.000	109	80.00- 120.00	100.00
2 Aroclor-1221					CAS #: 11104-28-2		
2.499	2.499	0.000	3581860	1000.00	984	80.00- 120.00	100.00
2.594	2.594	0.000	2312559	1000.00	993	44.56- 84.56	64.56
2.635	2.635	0.000	8030890	1000.00	989	204.21- 244.21	224.21
Average of Peak Amounts =					989		

Data File: /chem/ecd1a.i/122209.b/007b0701.d

Date : 22-DEC-2009 08:58

Client ID: AR122101

Sample Info: IWAR090803-21

Column phase: CLP2

Instrument: ecd1a.i

Operator: JAOC

Column diameter: 0.25

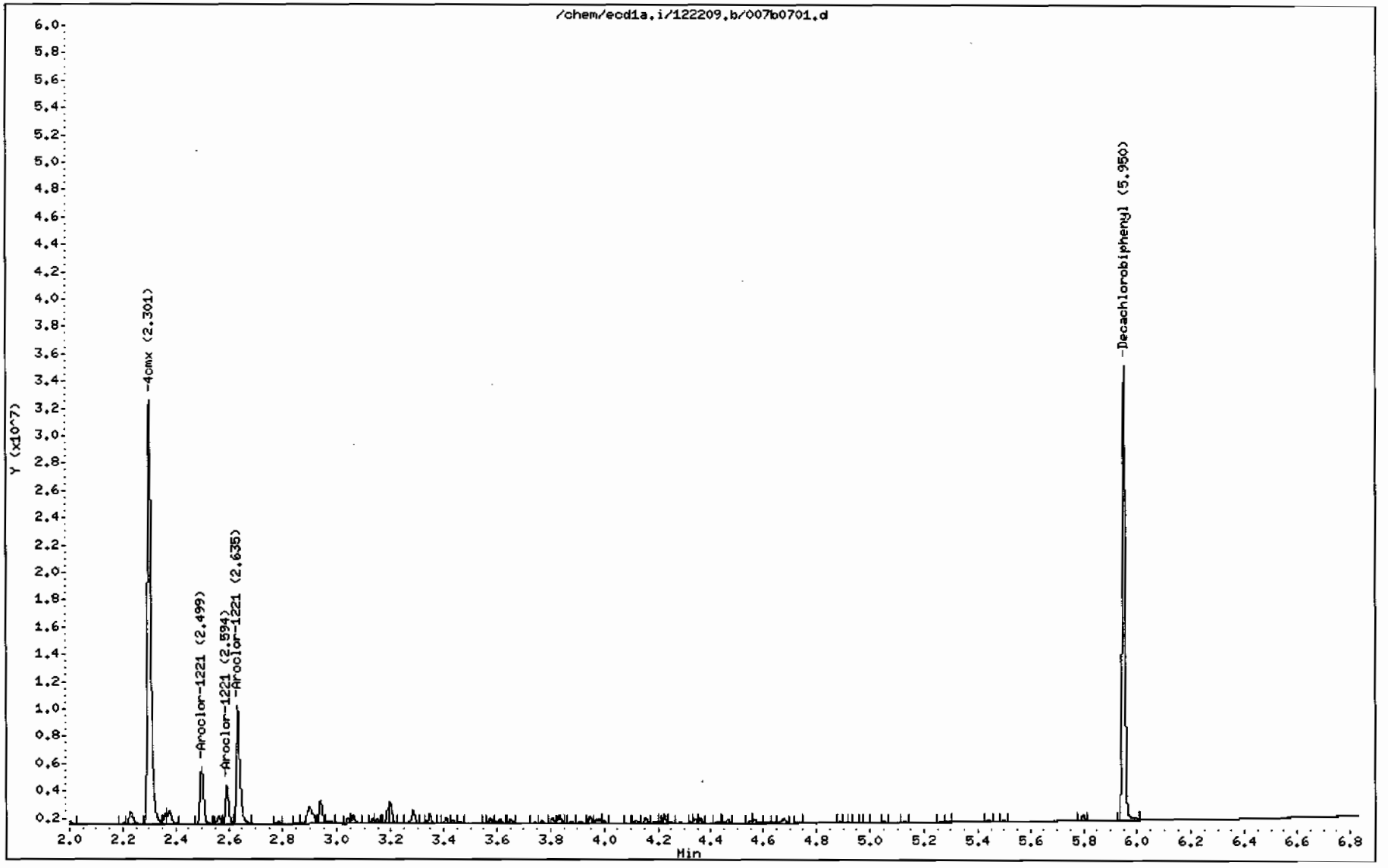

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/122209.b/022f2201.d
Lab Smp Id: WAR091211-60 02 Client Smp ID: AR166002
Inj Date : 22-DEC-2009 11:36
Operator : JAOC Inst ID: ecd1a.i
Smp Info : |WAR091211-60 02
Misc Info :
Comment :
Method : /chem/ecd1a.i/122209.b/ECD1-F-8082-121409.m
Meth Date : 22-Dec-2009 14:00 jen01212 Quant Type: ESTD
Cal Date : 14-DEC-2009 11:34 Cal File: 040f4001.d
Als bottle: 22 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.971	1.971	0.000	35356703	100.000	94.1	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.287	5.286	0.001	32312044	100.000	102	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.427	2.427	0.000	12195989	1000.00	880	80.00- 120.00	100.00
2.705	2.705	0.000	10155647	1000.00	1000	60.33- 100.33	83.27
2.797	2.796	0.001	10536169	1000.00	896	66.29- 106.29	86.39
2.836	2.835	0.001	6316222	1000.00	957	31.97- 71.97	51.79
3.047	3.046	0.001	8227877	1000.00	949	46.19- 86.19	67.46
Average of Peak Amounts =					937		
7 Aroclor-1260					CAS #: 11096-82-5		
3.772	3.771	0.001	16412717	1000.00	980	80.00- 120.00	100.00
3.936	3.934	0.002	25383228	1000.00	1020	126.54- 166.54	154.66
4.166	4.165	0.001	15136737	1000.00	1030	71.39- 111.39	92.23
4.309	4.307	0.002	15881438	1000.00	1040	76.29- 116.29	96.76
4.488	4.486	0.002	36861795	1000.00	1070	204.73- 244.73	224.59
Average of Peak Amounts =					1.03e+03		

Data File: /chem/ecd1a.i/122209.b/022f2201.d
Date : 22-DEC-2009 11:36
Client ID: AR166002
Sample Info: IWAR091211-60 02

Column phase: CLP1

Instrument: ecd1a.i

Operator: JAOC
Column diameter: 0.25

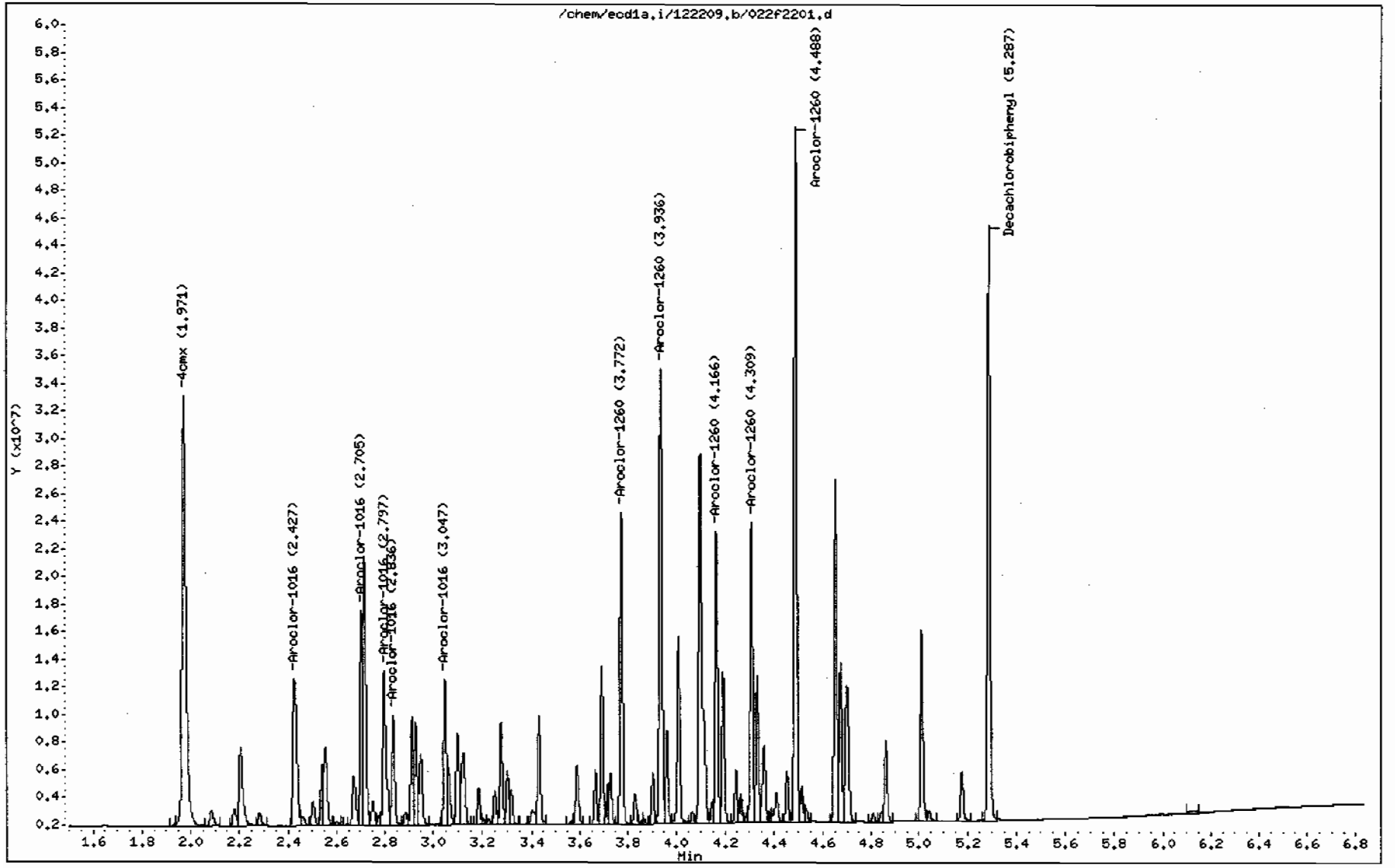

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/122209.b/022b2201.d
Lab Smp Id: WAR091211-60 02 Client Smp ID: AR166002
Inj Date : 22-DEC-2009 11:36
Operator : JAOC Inst ID: ecd1a.i
Smp Info : |WAR091211-60 02
Misc Info :
Comment :
Method : /chem/ecd1a.i/122209.b/ECD1-B-8082-121409.m
Meth Date : 22-Dec-2009 13:59 jen01212 Quant Type: ESTD
Cal Date : 14-DEC-2009 12:16 Cal File: 044b4401.d
Als bottle: 22 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.302	2.302	0.000	26829790	100.000	89.4	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.949	5.948	0.001	23440724	100.000	100	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.199	3.199	0.000	12044893	1000.00	955	80.00- 120.00	100.00(M)
3.282	3.282	0.000	7971400	1000.00	854	45.52- 85.52	66.18
3.347	3.346	0.001	5010349	1000.00	926	21.04- 61.04	41.60
3.573	3.572	0.001	6461987	1000.00	916	33.41- 73.41	53.65
3.649	3.648	0.001	5901694	1000.00	901	28.90- 68.90	60.03
Average of Peak Amounts =					911		
7 Aroclor-1260					CAS #: 11096-82-5		
4.339	4.338	0.001	12441498	1000.00	909	80.00- 120.00	100.00
4.463	4.463	0.000	15419548	1000.00	962	103.50- 143.50	123.94
4.730	4.729	0.001	11883895	1000.00	946	75.02- 115.02	95.52
4.903	4.903	0.000	12259583	1000.00	957	77.89- 117.89	98.54
5.051	5.050	0.001	28019266	1000.00	1000	203.88- 243.88	225.21
Average of Peak Amounts =					956		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd1a.i/122209.b/022b2201.d

Date : 22-DEC-2009 11:36

Client ID: AR166002

Sample Info: IWAR091211-60 02

Column phase: CLP2

Instrument: ecd1a.i

Operator: JAOC

Column diameter: 0.25

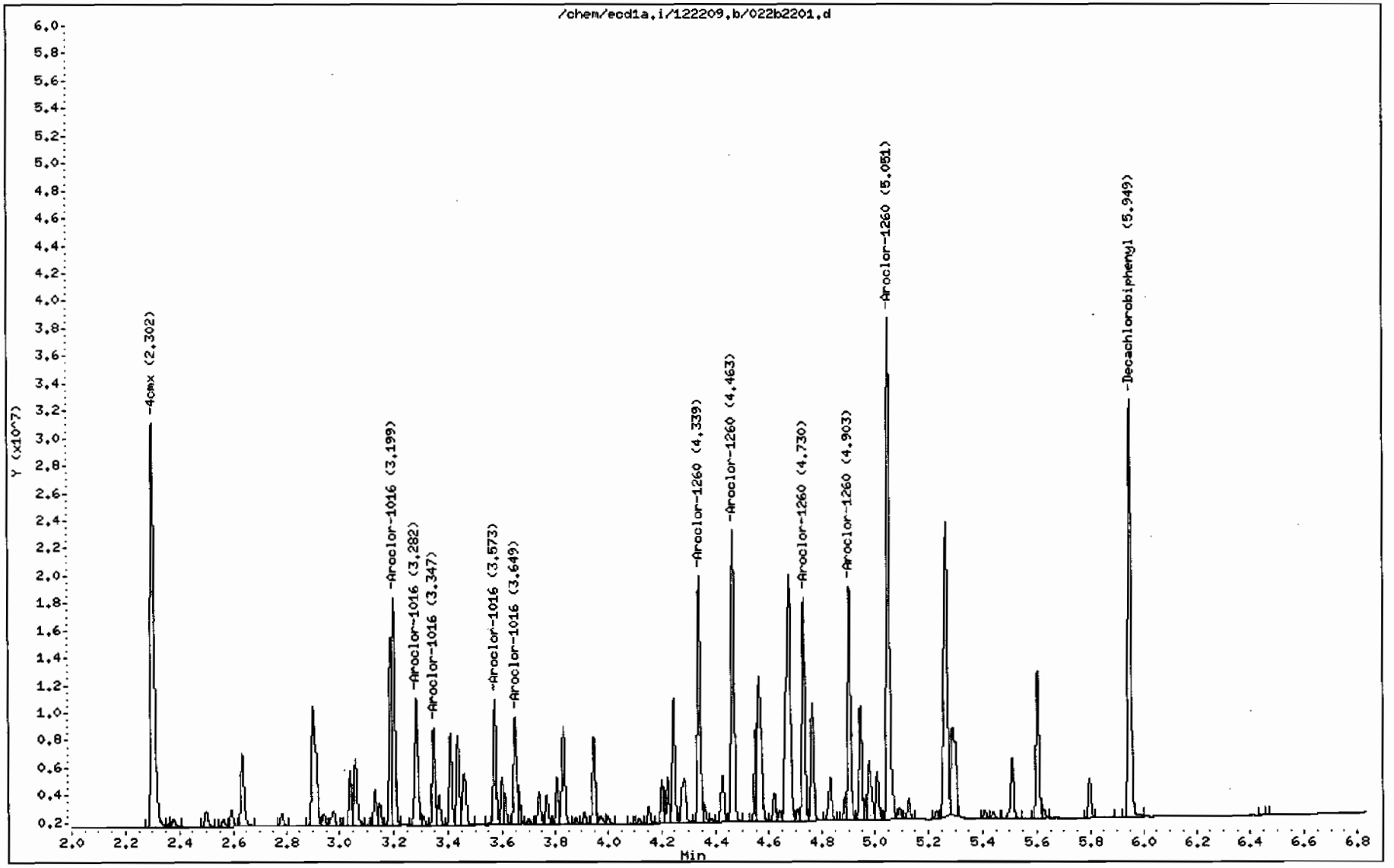

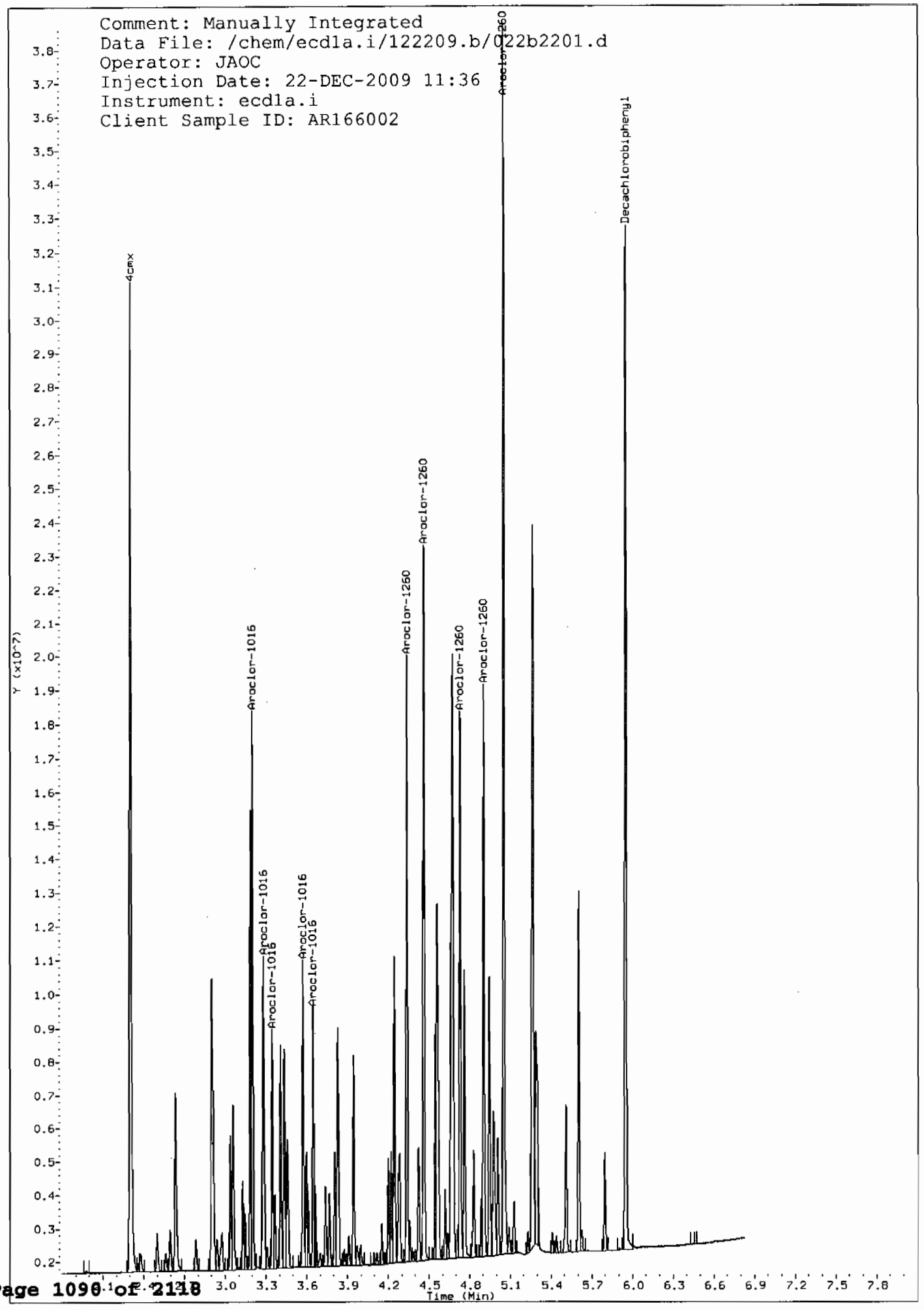
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Data File: /chem/ecd1a.i/122209.b/022b2201.d
Operator: JAOC
Injection Date: 22-DEC-2009 11:36
Instrument: ecd1a.i
Client Sample ID: AR166002
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

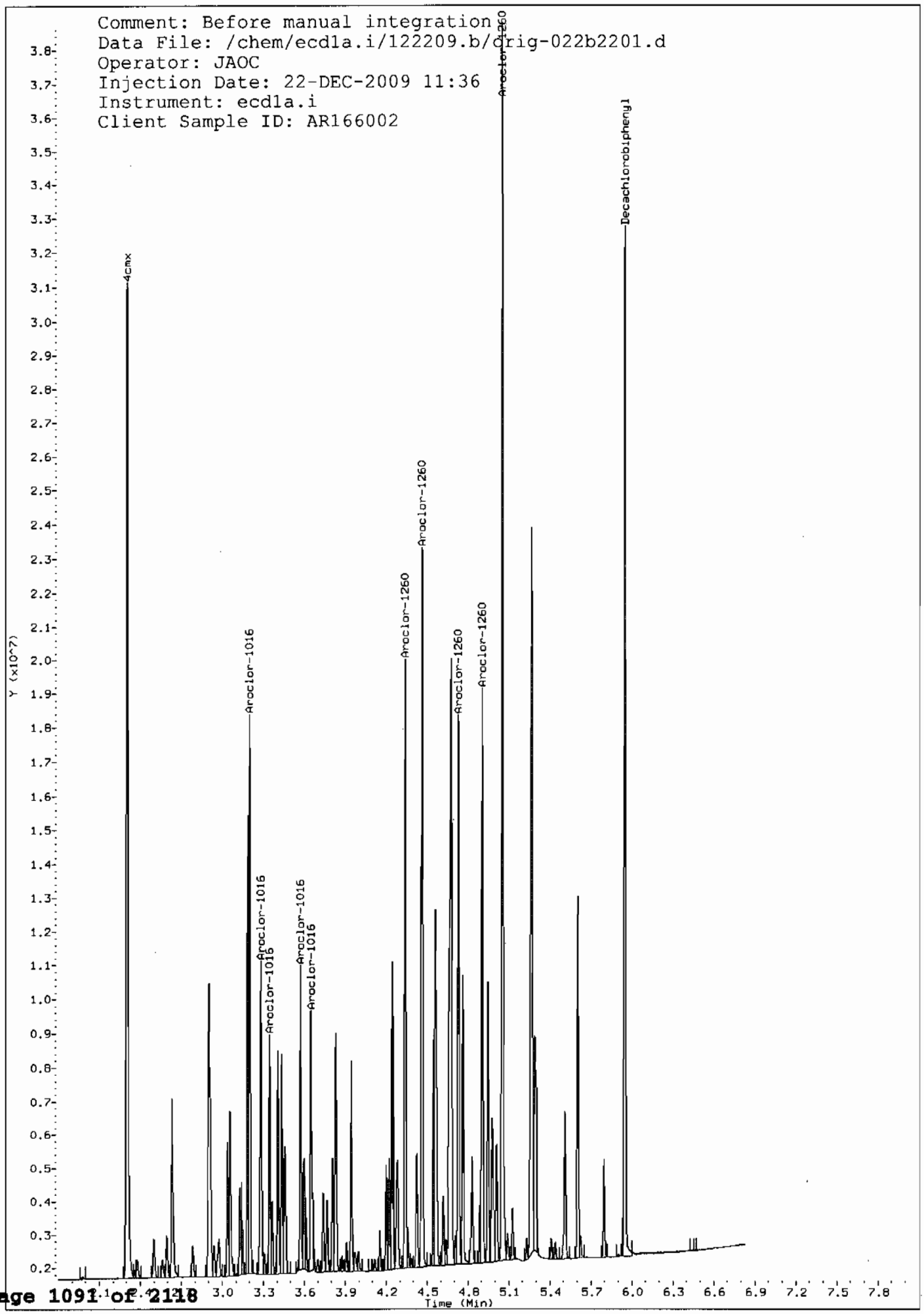
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Data File: /chem/ecd1a.i/122209.b/drig-022b2201.d
Operator: JAOC
Injection Date: 22-DEC-2009 11:36
Instrument: ecd1a.i
Client Sample ID: AR166002
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/122209.b/034f3401.d
Lab Smp Id: WAR091211-60 03 Client Smp ID: AR166003
Inj Date : 22-DEC-2009 13:42
Operator : JAOC Inst ID: ecd1a.i
Smp Info : |WAR091211-60 03
Misc Info :
Comment :
Method : /chem/ecd1a.i/122209.b/ECD1-F-8082-121409.m
Meth Date : 23-Dec-2009 06:42 jen01212 Quant Type: ESTD
Cal Date : 14-DEC-2009 11:34 Cal File: 040f4001.d
Als bottle: 34 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.971	1.971	0.000	35502073	100.000	94.5	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.288	5.286	0.002	32071588	100.000	101	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.428	2.427	0.001	12307109	1000.00	888	80.00- 120.00	100.00
2.705	2.705	0.000	9886673	1000.00	979	65.19- 105.19	80.33
2.798	2.796	0.002	10619709	1000.00	903	66.50- 106.50	86.29
2.835	2.835	0.000	6396545	1000.00	969	32.04- 72.04	51.97
3.046	3.046	0.000	8146353	1000.00	939	47.11- 87.11	66.19
Average of Peak Amounts =					936		
7 Aroclor-1260					CAS #: 11096-82-5		
3.773	3.771	0.002	16477385	1000.00	984	80.00- 120.00	100.00(M)
3.936	3.934	0.002	25407089	1000.00	1030	134.26- 174.26	154.19
4.166	4.165	0.001	15258339	1000.00	1040	72.25- 112.25	92.60
4.310	4.307	0.003	15999261	1000.00	1050	76.57- 116.57	97.10
4.489	4.486	0.003	36981333	1000.00	1080	202.51- 242.51	224.44
Average of Peak Amounts =					1.04e+03		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd1a.i/122209.b/034f3401.d
Date : 22-DEC-2009 13:42
Client ID: AR166003
Sample Info: !WAR091211-60 03
Column phase: CLP1

Instrument: ecd1a.i
Operator: JADC
Column diameter: 0.25

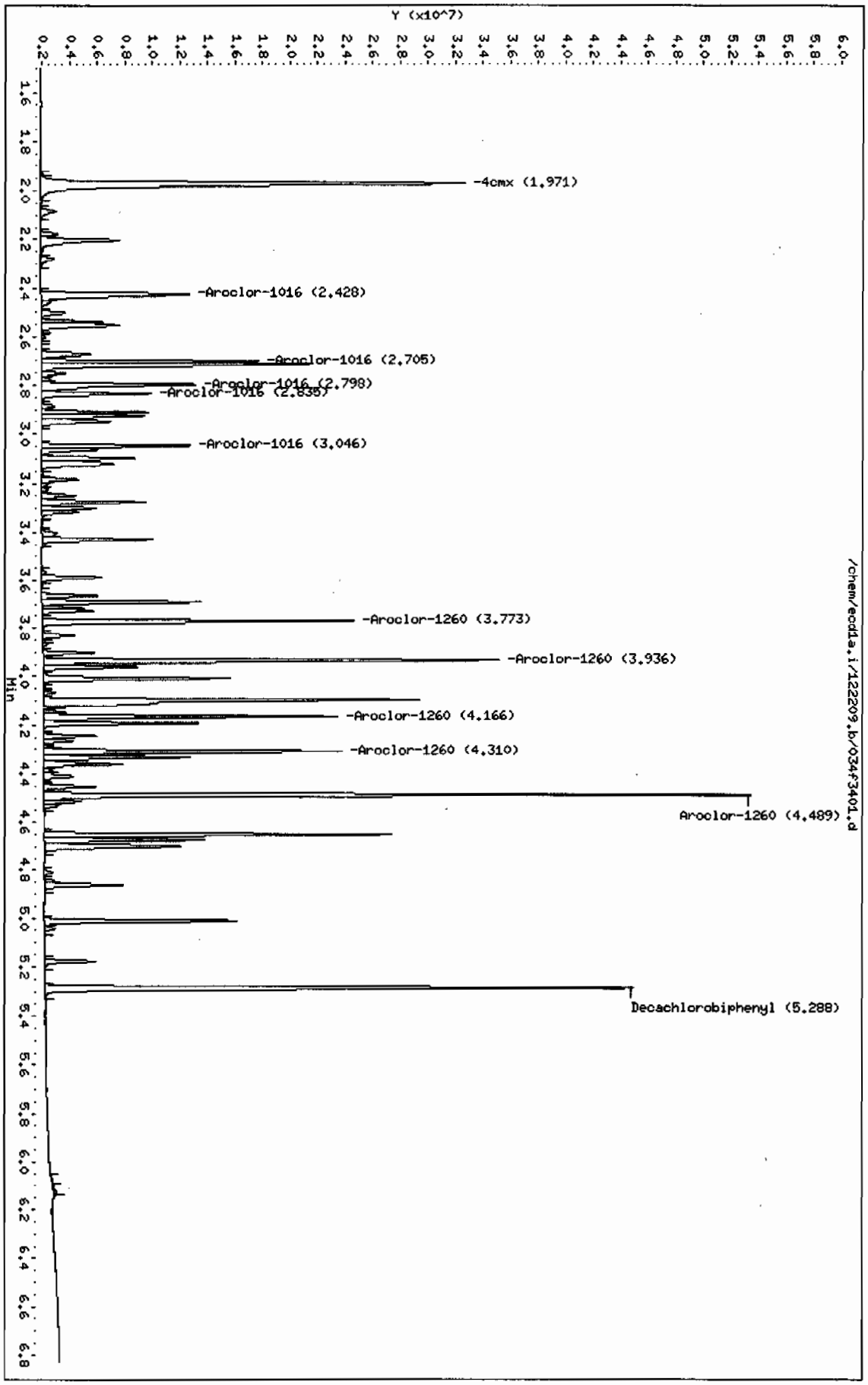

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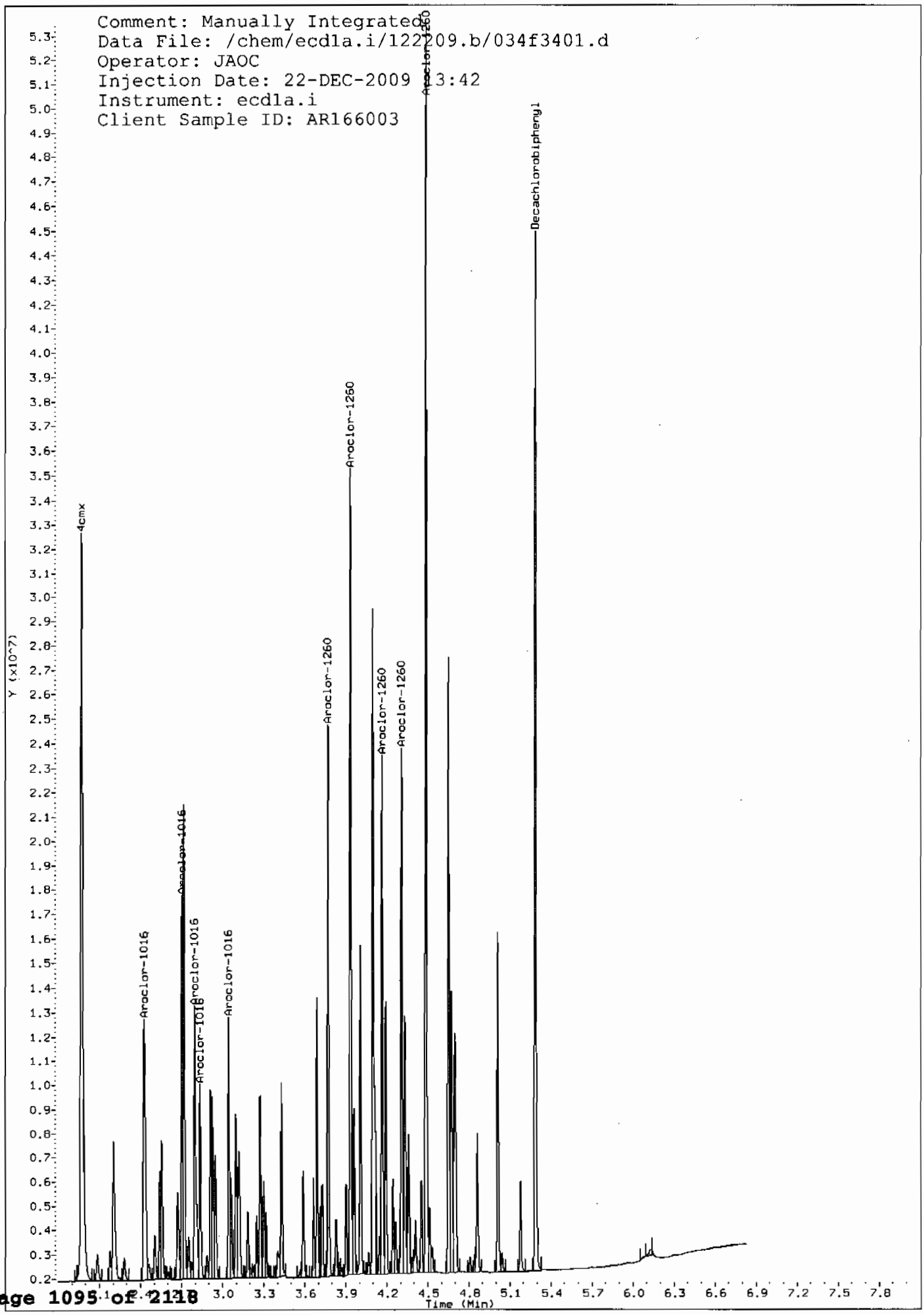
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Data File: /chem/ecd1a.i/122209.b/034f3401.d
Operator: JAOC
Injection Date: 22-DEC-2009 13:42
Instrument: ecd1a.i
Client Sample ID: AR166003
Y (x10^7)
Time (Min)
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl

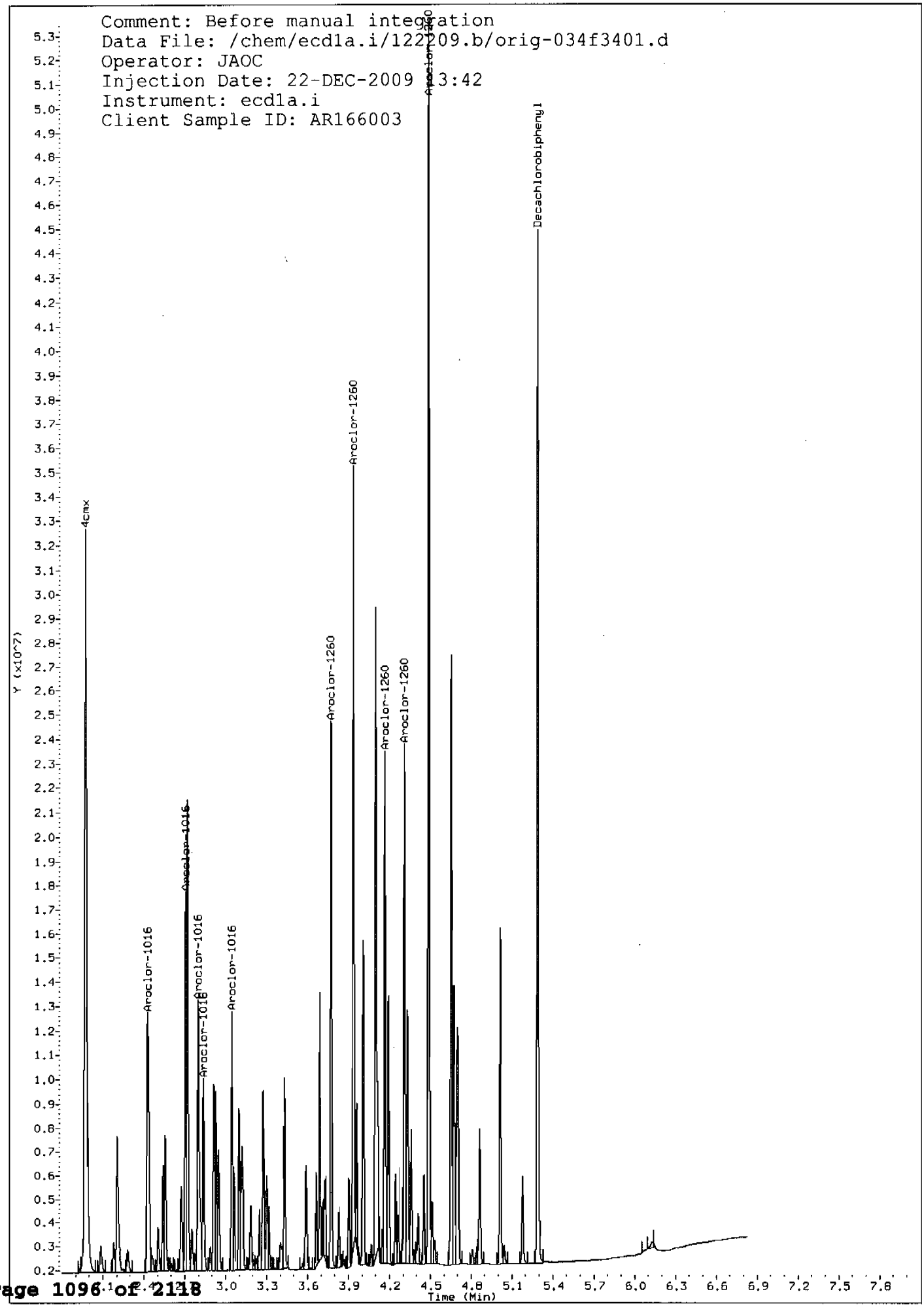
Comment: Before manual integration
Data File: /chem/ecd1a.i/122209.b/orig-034f3401.d
Operator: JAOC
Injection Date: 22-DEC-2009 13:42
Instrument: ecd1a.i
Client Sample ID: AR166003
Y (x10^7)
Time (Min)
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/122209.b/034b3401.d
Lab Smp Id: WAR091211-60 03 Client Smp ID: AR166003
Inj Date : 22-DEC-2009 13:42
Operator : JAOC Inst ID: ecd1a.i
Smp Info : |WAR091211-60 03
Misc Info :
Comment :
Method : /chem/ecd1a.i/122209.b/ECD1-B-8082-121409.m
Meth Date : 22-Dec-2009 13:59 jen01212 Quant Type: ESTD
Cal Date : 14-DEC-2009 12:16 Cal File: 044b4401.d
Als bottle: 34 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.302	2.302	0.000	27198842	100.000	90.6	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.950	5.948	0.002	23200037	100.000	99.5	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.200	3.199	0.001	12230495	1000.00	970	80.00- 120.00	100.00
3.283	3.282	0.001	8013748	1000.00	859	45.52- 85.52	65.52
3.346	3.346	0.000	5019209	1000.00	928	21.04- 61.04	41.04
3.573	3.572	0.001	6532588	1000.00	926	33.41- 73.41	53.41
3.649	3.648	0.001	5980984	1000.00	913	28.90- 68.90	48.90
Average of Peak Amounts =					919		
7 Aroclor-1260					CAS #: 11096-82-5		
4.340	4.338	0.002	12671837	1000.00	926	80.00- 120.00	100.00
4.464	4.463	0.001	15649823	1000.00	976	103.50- 143.50	123.50
4.730	4.729	0.001	12040790	1000.00	958	75.02- 115.02	95.02
4.904	4.903	0.001	12404464	1000.00	968	77.89- 117.89	97.89
5.050	5.050	0.000	28369149	1000.00	1020	203.88- 243.88	223.88
Average of Peak Amounts =					969		

Data File: /chem/ecdia.i/122209.b/034b3401.d
Date : 22-DEC-2009 13:42
Client ID: AR166003
Sample Info: IWAR091211-60 03

Instrument: ecdia.i
Operator: JAOC
Column diameter: 0.25

Column phase: CLP2

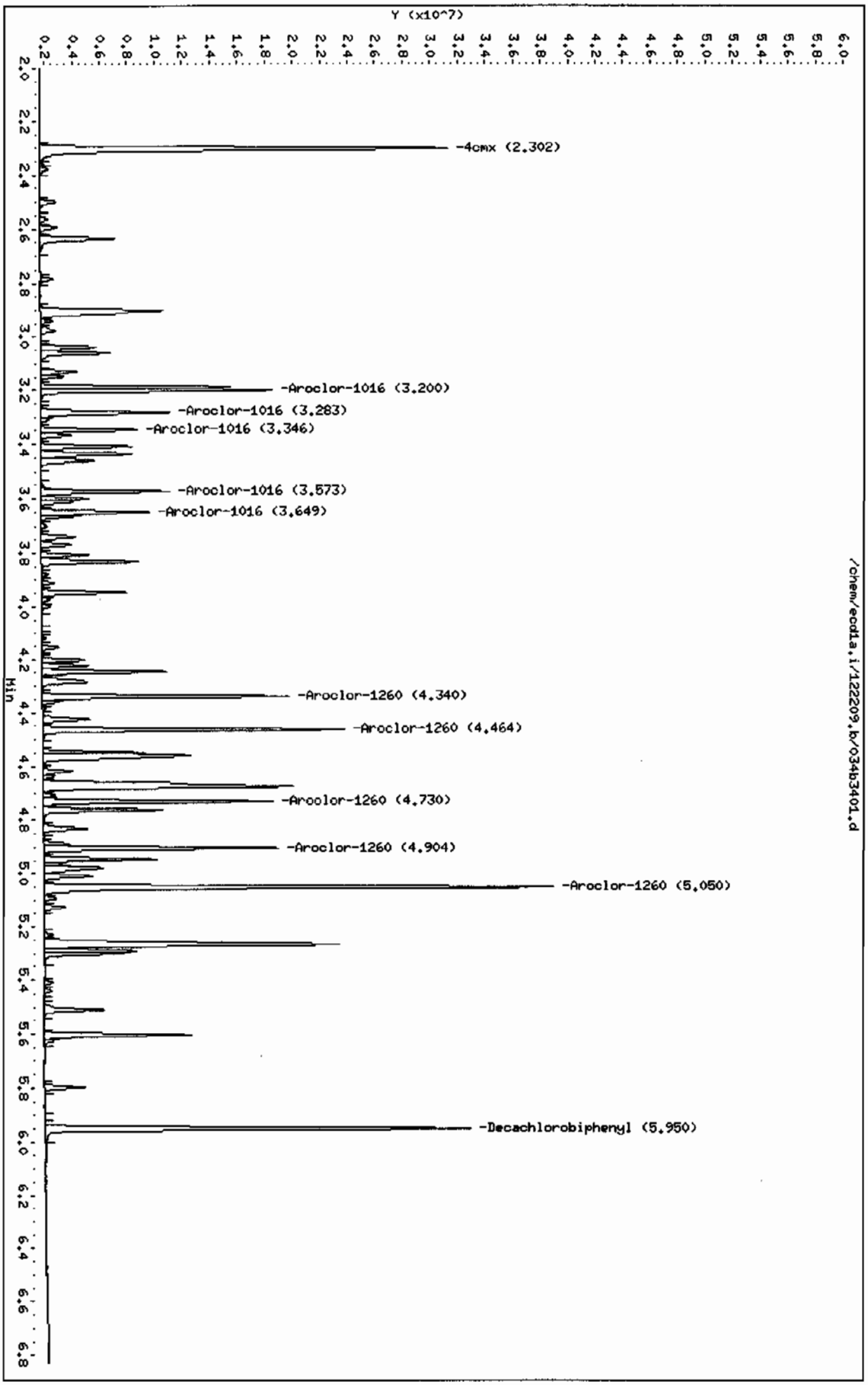

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8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-939

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 12/14/09 12/14/09

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 1.97 DCB: 5.29

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR091130-99	12/14/09	0444	1.97	5.29
02	ZZZZZ	ZZZZZ	12/14/09	0454	1.97	5.29
03	ZZZZZ	ZZZZZ	12/14/09	0505	1.97	5.29
04	ZZZZZ	ZZZZZ	12/14/09	0515	1.97	5.29
05	ZZZZZ	ZZZZZ	12/14/09	0526	1.97	5.29
06	AR123201	WAR090930-32	12/14/09	0536	1.97	5.29
07	AR122101	WAR090803-21	12/14/09	0547	1.97	5.29
08	AR126201	WAR090803-62	12/14/09	0558	1.97	5.29
09	ZZZZZ	ZZZZZ	12/14/09	0608	1.97	5.29
10	ZZZZZ	ZZZZZ	12/14/09	0619	1.97	5.29
11	ZZZZZ	ZZZZZ	12/14/09	0629	1.97	5.29
12	ZZZZZ	ZZZZZ	12/14/09	0640	1.97	5.29
13	ZZZZZ	ZZZZZ	12/14/09	0650	1.97	5.29
14	ZZZZZ	ZZZZZ	12/14/09	0701	1.97	5.29
15	ZZZZZ	ZZZZZ	12/14/09	0711	1.97	5.29
16	AR125401	WAR091214-05	12/14/09	0722	1.97	5.29
17	AR125402	WAR091214-06	12/14/09	0732	1.97	5.29
18	AR125403	WAR091214-07	12/14/09	0743	1.97	5.29
19	AR125401	WAR091214-08	12/14/09	0753	1.97	5.29
20	AR125405	IAR091027-01	12/14/09	0804	1.97	5.29
21	AR125401	WAR091102-54	12/14/09	0814	1.97	5.29
22	AR124201	WAR091214-09	12/14/09	0825	1.97	5.29
23	AR124202	WAR091214-10	12/14/09	0835	1.97	5.29
24	AR124203	WAR091214-11	12/14/09	0846	1.97	5.29
25	AR124204	WAR091214-12	12/14/09	0856	1.97	5.29
26	AR124205	IAR0911111-0	12/14/09	0907	1.97	5.29
27	AR124201	WAR091102-42	12/14/09	0917	1.97	5.29
28	AR124801	WAR091214-13	12/14/09	0928	1.97	5.29
29	AR124802	WAR091214-14	12/14/09	0938	1.97	5.29
30	AR124803	WAR091214-15	12/14/09	0949	1.97	5.29
31	AR124804	WAR091214-16	12/14/09	0959	1.97	5.29
32	AR124805	IAR091027-02	12/14/09	1010	1.97	5.29

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-939

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 12/14/09 12/14/09

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 1.97 DCB: 5.29

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	AR124801	WAR091027-48	12/14/09	1020	1.97	5.29
02	AR166001	WAR091214-01	12/14/09	1031	1.97	5.29
03	AR166002	WAR091214-02	12/14/09	1041	1.97	5.29
04	AR166003	WAR091214-03	12/14/09	1052	1.97	5.29
05	AR166004	WAR091214-04	12/14/09	1102	1.97	5.29
06	AR166005	IAR091102-01	12/14/09	1113	1.97	5.29
07	AR166001	WAR091211-60	12/14/09	1123	1.97	5.29
08	AR126801	WAR091214-17	12/14/09	1134	1.97	5.29
09	AR126802	WAR091214-18	12/14/09	1144	1.97	5.29
10	AR126803	WAR091214-19	12/14/09	1155	1.97	5.29
11	AR126804	WAR091214-20	12/14/09	1206	1.97	5.29
12	AR126805	IAR090817-02	12/14/09	1216	1.97	5.29
13	AR126801	WAR091106-68	12/14/09	1227	1.97	5.29
14	DDTANALOGSTD	WAR091020-DD	12/14/09	1237		
15	PIBLK02	WAR091130-99	12/14/09	1248	1.97	5.29
16	ZZZZZ	ZZZZZ	12/14/09	1258	1.97	5.29
17	ZZZZZ	ZZZZZ	12/14/09	1309	1.97	5.29
18	ZZZZZ	ZZZZZ	12/14/09	1319	1.97	5.29
19	ZZZZZ	ZZZZZ	12/14/09	1330	1.97	5.29
20	ZZZZZ	ZZZZZ	12/14/09	1340	1.97	5.29
21	ZZZZZ	ZZZZZ	12/14/09	1351	1.97	5.29
22	ZZZZZ	ZZZZZ	12/14/09	1403	1.97	5.29
23	ZZZZZ	ZZZZZ	12/14/09	1416	1.97	5.29
24	ZZZZZ	ZZZZZ	12/14/09	1429	1.97	5.29
25	ZZZZZ	ZZZZZ	12/14/09	1441	1.97	5.29
26	AR166002	WAR091211-60	12/14/09	1452	1.97	5.29
27	PIBLK03	WAR091130-99	12/14/09	1502	1.97	5.29
28	ZZZZZ	ZZZZZ	12/14/09	1513	1.97	5.29
29	ZZZZZ	ZZZZZ	12/14/09	1525	1.97	5.29
30	ZZZZZ	ZZZZZ	12/14/09	1538	1.97	5.29
31	ZZZZZ	ZZZZZ	12/14/09	1551	1.97	5.29
32	ZZZZZ	ZZZZZ	12/14/09	1603	1.97	5.27

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-939

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 12/14/09 12/14/09

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.30 DCB: 5.94

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR091130-99	12/14/09	0444	2.30	5.95
02	ZZZZZ	ZZZZZ	12/14/09	0454	2.30	5.94
03	ZZZZZ	ZZZZZ	12/14/09	0505	2.30	5.95
04	ZZZZZ	ZZZZZ	12/14/09	0515	2.30	5.95
05	ZZZZZ	ZZZZZ	12/14/09	0526	2.30	5.95
06	AR123201	WAR090930-32	12/14/09	0536	2.30	5.95
07	AR122101	WAR090803-21	12/14/09	0547	2.30	5.95
08	AR126201	WAR090803-62	12/14/09	0558	2.30	5.94
09	ZZZZZ	ZZZZZ	12/14/09	0608	2.30	5.94
10	ZZZZZ	ZZZZZ	12/14/09	0619	2.30	5.95
11	ZZZZZ	ZZZZZ	12/14/09	0629	2.30	5.94
12	ZZZZZ	ZZZZZ	12/14/09	0640	2.30	5.94
13	ZZZZZ	ZZZZZ	12/14/09	0650	2.30	5.95
14	ZZZZZ	ZZZZZ	12/14/09	0701	2.30	5.94
15	ZZZZZ	ZZZZZ	12/14/09	0711	2.30	5.95
16	AR125401	WAR091214-05	12/14/09	0722	2.30	5.94
17	AR125402	WAR091214-06	12/14/09	0732	2.30	5.94
18	AR125403	WAR091214-07	12/14/09	0743	2.30	5.94
19	AR125401	WAR091214-08	12/14/09	0753	2.30	5.94
20	AR125405	IAR091027-01	12/14/09	0804	2.30	5.95
21	AR125401	WAR091102-54	12/14/09	0814	2.30	5.94
22	AR124201	WAR091214-09	12/14/09	0825	2.30	5.94
23	AR124202	WAR091214-10	12/14/09	0835	2.30	5.94
24	AR124203	WAR091214-11	12/14/09	0846	2.30	5.94
25	AR124204	WAR091214-12	12/14/09	0856	2.30	5.94
26	AR124205	IAR0911111-0	12/14/09	0907	2.30	5.94
27	AR124201	WAR091102-42	12/14/09	0917	2.30	5.94
28	AR124801	WAR091214-13	12/14/09	0928	2.30	5.94
29	AR124802	WAR091214-14	12/14/09	0938	2.30	5.94
30	AR124803	WAR091214-15	12/14/09	0949	2.30	5.94
31	AR124804	WAR091214-16	12/14/09	0959	2.30	5.94
32	AR124805	IAR091027-02	12/14/09	1010	2.30	5.94

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-939

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 12/14/09 12/14/09

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.30 DCB: 5.94

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	AR124801	WAR091027-48	12/14/09	1020	2.30	5.95
02	AR166001	WAR091214-01	12/14/09	1031	2.30	5.94
03	AR166002	WAR091214-02	12/14/09	1041	2.30	5.94
04	AR166003	WAR091214-03	12/14/09	1052	2.30	5.94
05	AR166004	WAR091214-04	12/14/09	1102	2.30	5.94
06	AR166005	IAR091102-01	12/14/09	1113	2.30	5.94
07	AR166001	WAR091211-60	12/14/09	1123	2.30	5.94
08	AR126801	WAR091214-17	12/14/09	1134	2.30	5.95
09	AR126802	WAR091214-18	12/14/09	1144	2.30	5.94
10	AR126803	WAR091214-19	12/14/09	1155	2.30	5.94
11	AR126804	WAR091214-20	12/14/09	1206	2.30	5.94
12	AR126805	IAR090817-02	12/14/09	1216	2.30	5.94
13	AR126801	WAR091106-68	12/14/09	1227	2.30	5.94
14	DDTANALOGSTD	WAR091020-DD	12/14/09	1237		
15	PIBLK02	WAR091130-99	12/14/09	1248	2.30	5.94
16	ZZZZZ	ZZZZZ	12/14/09	1258	2.30	5.94
17	ZZZZZ	ZZZZZ	12/14/09	1309	2.30	5.94
18	ZZZZZ	ZZZZZ	12/14/09	1319	2.30	5.94
19	ZZZZZ	ZZZZZ	12/14/09	1330	2.30	5.94
20	ZZZZZ	ZZZZZ	12/14/09	1340	2.30	5.94
21	ZZZZZ	ZZZZZ	12/14/09	1351	2.30	5.94
22	ZZZZZ	ZZZZZ	12/14/09	1403	2.30	5.94
23	ZZZZZ	ZZZZZ	12/14/09	1416	2.30	5.94
24	ZZZZZ	ZZZZZ	12/14/09	1429	2.30	5.94
25	ZZZZZ	ZZZZZ	12/14/09	1441	2.30	5.94
26	AR166002	WAR091211-60	12/14/09	1452	2.30	5.94
27	PIBLK03	WAR091130-99	12/14/09	1502	2.30	5.94
28	ZZZZZ	ZZZZZ	12/14/09	1513	2.30	5.94
29	ZZZZZ	ZZZZZ	12/14/09	1525	2.30	5.94
30	ZZZZZ	ZZZZZ	12/14/09	1538	2.30	5.94
31	ZZZZZ	ZZZZZ	12/14/09	1551	2.30	5.94
32	ZZZZZ	ZZZZZ	12/14/09	1603	2.30	5.94

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-939

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 12/14/09 12/14/09

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 1.97 DCB: 5.29

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR091130-99	12/22/09	0755	1.97	5.28
02	AR166001	WAR091211-60	12/22/09	0805	1.97	5.29
03	AR125401	WAR091216-54	12/22/09	0816	1.97	5.29
04	AR124201	WAR091102-42	12/22/09	0826	1.97	5.29
05	AR124801	WAR091027-48	12/22/09	0837	1.97	5.29
06	AR123201	WAR090930-32	12/22/09	0847	1.97	5.29
07	AR122101	WAR090803-21	12/22/09	0858	1.97	5.29
08	AR126201	WAR090803-62	12/22/09	0908	1.97	5.29
09	AR126801	WAR091106-68	12/22/09	0919	1.97	5.29
10	DDTANALOGSTD	WAR091219-DD	12/22/09	0929		
11	PIBLK02	WAR091130-99	12/22/09	0940	1.97	5.29
12	ZZZZZ	ZZZZZ	12/22/09	0950	1.97	5.29
13	ZZZZZ	ZZZZZ	12/22/09	1001	1.97	5.29
14	ZZZZZ	ZZZZZ	12/22/09	1011	1.97	5.29
15	ZZZZZ	ZZZZZ	12/22/09	1022	1.97	5.29
16	ZZZZZ	ZZZZZ	12/22/09	1032	1.97	5.29
17	ZZZZZ	ZZZZZ	12/22/09	1043	1.97	5.29
18	ZZZZZ	ZZZZZ	12/22/09	1053	1.97	5.29
19	ZZZZZ	ZZZZZ	12/22/09	1104	1.97	5.29
20	ZZZZZ	ZZZZZ	12/22/09	1115	1.97	5.29
21	ZZZZZ	ZZZZZ	12/22/09	1125	1.97	5.29
22	AR166002	WAR091211-60	12/22/09	1136	1.97	5.29
23	PIBLK03	WAR091130-99	12/22/09	1146	1.97	5.29
24	PBLK01	1202001507	12/22/09	1157	1.97	5.29
25	PBLK01LCS	1202001508	12/22/09	1207	1.97	5.29
26	ZZZZZ	ZZZZZ	12/22/09	1218	1.97	5.29
27	WST03-10-2147	243007002	12/22/09	1228	1.97	5.29
28	ZZZZZ	ZZZZZ	12/22/09	1239	1.97	5.29
29	ZZZZZ	ZZZZZ	12/22/09	1249	1.97	5.29
30	ZZZZZ	ZZZZZ	12/22/09	1300	1.97	5.29
31	ZZZZZ	ZZZZZ	12/22/09	1310	1.97	5.29
32	ZZZZZ	ZZZZZ	12/22/09	1321	1.97	5.29

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-939

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 12/14/09 12/14/09

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 1.97 DCB: 5.29

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	ZZZZZ	ZZZZZ	12/22/09	1331	1.97	5.29
02	AR166003	WAR091211-60	12/22/09	1342	1.97	5.29
03	PIBLK04	WAR091130-99	12/22/09	1353	1.97	5.29
04	ZZZZZ	ZZZZZ	12/22/09	1403	1.97	5.29
05	ZZZZZ	ZZZZZ	12/22/09	1414	1.97	5.29
06	ZZZZZ	ZZZZZ	12/22/09	1424	1.97	5.29
07	ZZZZZ	ZZZZZ	12/22/09	1435	1.97	5.29
08	ZZZZZ	ZZZZZ	12/22/09	1445	1.97	5.29
09	ZZZZZ	ZZZZZ	12/22/09	1456	1.97	5.29
10	ZZZZZ	ZZZZZ	12/22/09	1506	1.97	5.29
11	ZZZZZ	ZZZZZ	12/22/09	1517	1.97	5.29
12	AR166004	WAR091211-60	12/22/09	1527	1.97	5.29
13	PIBLK05	WAR091130-99	12/22/09	1538	1.97	5.29
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						
31						
32						

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-939

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 12/14/09 12/14/09

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.30 DCB: 5.95

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR091130-99	12/22/09	0755	2.30	5.95
02	AR166001	WAR091211-60	12/22/09	0805	2.30	5.95
03	AR125401	WAR091216-54	12/22/09	0816	2.30	5.95
04	AR124201	WAR091102-42	12/22/09	0826	2.30	5.95
05	AR124801	WAR091027-48	12/22/09	0837	2.30	5.95
06	AR123201	WAR090930-32	12/22/09	0847	2.30	5.95
07	AR122101	WAR090803-21	12/22/09	0858	2.30	5.95
08	AR126201	WAR090803-62	12/22/09	0908	2.30	5.95
09	AR126801	WAR091106-68	12/22/09	0919	2.30	5.95
10	DDTANALOGSTD	WAR091219-DD	12/22/09	0929		
11	PIBLK02	WAR091130-99	12/22/09	0940	2.30	5.95
12	ZZZZZ	ZZZZZ	12/22/09	0950	2.30	5.95
13	ZZZZZ	ZZZZZ	12/22/09	1001	2.30	5.95
14	ZZZZZ	ZZZZZ	12/22/09	1011	2.30	5.95
15	ZZZZZ	ZZZZZ	12/22/09	1022	2.30	5.95
16	ZZZZZ	ZZZZZ	12/22/09	1032	2.30	5.95
17	ZZZZZ	ZZZZZ	12/22/09	1043	2.30	5.95
18	ZZZZZ	ZZZZZ	12/22/09	1053	2.30	5.95
19	ZZZZZ	ZZZZZ	12/22/09	1104	2.30	5.95
20	ZZZZZ	ZZZZZ	12/22/09	1114	2.30	5.95
21	ZZZZZ	ZZZZZ	12/22/09	1125	2.30	5.95
22	AR166002	WAR091211-60	12/22/09	1136	2.30	5.95
23	PIBLK03	WAR091130-99	12/22/09	1146	2.30	5.95
24	PBLK01	1202001507	12/22/09	1157	2.30	5.95
25	PBLK01LCS	1202001508	12/22/09	1207	2.30	5.95
26	ZZZZZ	ZZZZZ	12/22/09	1218	2.30	5.95
27	WST03-10-2147	243007002	12/22/09	1228	2.30	5.95
28	ZZZZZ	ZZZZZ	12/22/09	1239	2.30	5.95
29	ZZZZZ	ZZZZZ	12/22/09	1249	2.30	5.95
30	ZZZZZ	ZZZZZ	12/22/09	1300	2.30	5.95
31	ZZZZZ	ZZZZZ	12/22/09	1310	2.30	5.95
32	ZZZZZ	ZZZZZ	12/22/09	1321	2.30	5.95

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-939

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 12/14/09 12/14/09

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.30 DCB: 5.95

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	ZZZZZ	ZZZZZ	12/22/09	1331	2.30	5.95
02	AR166003	WAR091211-60	12/22/09	1342	2.30	5.95
03	PIBLK04	WAR091130-99	12/22/09	1353	2.30	5.95
04	ZZZZZ	ZZZZZ	12/22/09	1403	2.30	5.95
05	ZZZZZ	ZZZZZ	12/22/09	1414	2.30	5.95
06	ZZZZZ	ZZZZZ	12/22/09	1424	2.30	5.95
07	ZZZZZ	ZZZZZ	12/22/09	1435	2.30	5.95
08	ZZZZZ	ZZZZZ	12/22/09	1445	2.30	5.95
09	ZZZZZ	ZZZZZ	12/22/09	1456	2.30	5.95
10	ZZZZZ	ZZZZZ	12/22/09	1506	2.30	5.95
11	ZZZZZ	ZZZZZ	12/22/09	1517	2.30	5.95
12	AR166004	WAR091211-60	12/22/09	1527	2.30	5.95
13	PIBLK05	WAR091130-99	12/22/09	1538	2.30	5.95
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						
31						
32						

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

Identification Summary

SDG Number: 10–939

Client ID: LCS for batch 935357

Lab Sample ID: 1202001508

Data File:	025f2501.d	**Data File:**	025b2501.d
Inst:	ECD1A.I_1	**Inst:**	ECD1A.I_2
Column:	CLP1	**Column:**	CLP2
Analyzed:	22–DEC–09 12:07	**Analyzed:**	22–DEC–09 12:07

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor–1016							.00975
Column 1	1	2.43	2.4 – 2.46	21.1		ug/kg	
	2	2.7	2.67 – 2.73	22.5		ug/kg	
	3	2.8	2.77 – 2.83	21.1		ug/kg	
	4	2.83	2.8 – 2.86	22.3		ug/kg	
	5	3.05	3.02 – 3.08	22.6		ug/kg	
					21.9		
Column 2	1	3.2	3.17 – 3.23	23.2		ug/kg	
	2	3.28	3.25 – 3.31	20.8		ug/kg	
	3	3.35	3.32 – 3.38	21.5		ug/kg	
	4	3.57	3.54 – 3.6	22.1		ug/kg	
	5	3.65	3.62 – 3.68	22.1		ug/kg	
					21.9		
Aroclor–1260							5.36
Column 1	1	3.77	3.74 – 3.8	25.3		ug/kg	
	2	3.94	3.9 – 3.96	26.8		ug/kg	
	3	4.17	4.13 – 4.19	27.3		ug/kg	
	4	4.31	4.28 – 4.34	27.3		ug/kg	
	5	4.49	4.46 – 4.52	29		ug/kg	
					27.2		
Column 2	1	4.34	4.31 – 4.37	24		ug/kg	
	2	4.46	4.43 – 4.49	25.6		ug/kg	
	3	4.73	4.7 – 4.76	25.5		ug/kg	
	4	4.9	4.87 – 4.93	26		ug/kg	
	5	5.05	5.02 – 5.08	27.6		ug/kg	
					25.7		

Identification Summary

SDG Number: 10–939 **Client ID:** WST03–10–2147

Lab Sample ID: 243007002

Data File:	027f2701.d	**Data File:**	027b2701.d
Inst:	ECD1A.I_1	**Inst:**	ECD1A.I_2
Column:	CLP1	**Column:**	CLP2
Analyzed:	22–DEC–09 12:28	**Analyzed:**	22–DEC–09 12:28

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor–1254							54.7
Column 1	1	3.28	3.24 – 3.3	1.78		ug/kg	
	2	3.43	3.4 – 3.46	1.83		ug/kg	
	3	3.66	3.63 – 3.69	1.97		ug/kg	
	4	3.83	3.8 – 3.86	1.9		ug/kg	
	5	3.94	3.91 – 3.97	6.95		ug/kg	
					2.89		
Column 2	1	3.41	3.38 – 3.44	.935		ug/kg	
	2	3.83	3.8 – 3.86	1.47		ug/kg	
	3	3.95	3.92 – 3.98	2.14		ug/kg	
	4	4.22	4.19 – 4.25	1.93		ug/kg	
	5	4.36	4.33 – 4.39	1.76		ug/kg	
					1.65		
Aroclor–1260							3.69
Column 1	1	3.77	3.74 – 3.8	3.64		ug/kg	
	2	3.94	3.9 – 3.96	4.26		ug/kg	
	3	4.17	4.13 – 4.19	3.09		ug/kg	
	4	4.31	4.28 – 4.34	2.8		ug/kg	
	5	4.49	4.46 – 4.52	3.05		ug/kg	
					3.37		
Column 2	1	4.34	4.31 – 4.37	3.84		ug/kg	
	2	4.46	4.43 – 4.49	4.14		ug/kg	
	3	4.73	4.7 – 4.76	3.26		ug/kg	
	4	4.9	4.87 – 4.93	3		ug/kg	
	5	5.05	5.02 – 5.08	3.26		ug/kg	
					3.5		

QUALITY CONTROL DATA

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–939**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202001507**				
Client Sample:	**QC for batch 935357**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 935357**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**935393**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**12/22/2009 11:57**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**12/21/2009 20:06**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**024f2401–1.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	024b2401–1.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	3.33	ug/kg	1.11	3.33	1
11104–28–2	Aroclor–1221	U	3.33	ug/kg	1.11	3.33	1
11141–16–5	Aroclor–1232	U	3.33	ug/kg	1.11	3.33	1
53469–21–9	Aroclor–1242	U	3.33	ug/kg	1.11	3.33	1
12672–29–6	Aroclor–1248	U	3.33	ug/kg	1.11	3.33	1
11097–69–1	Aroclor–1254	U	3.33	ug/kg	1.11	3.33	1
11096–82–5	Aroclor–1260	U	3.33	ug/kg	1.11	3.33	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/122209.b/024f2401.d
Lab Smp Id: 1202001507 Client Smp ID: PBLK01
Inj Date : 22-DEC-2009 11:57
Operator : JAOC Inst ID: ecd1a.i
Smp Info : |1202001507|1|
Misc Info : |ECD82P_1S|935393|SVA|QC A|SOIL|MB|||
Comment :
Method : /chem/ecd1a.i/122209.b/ECD1-F-8082-121409.m
Meth Date : 22-Dec-2009 14:00 jen01212 Quant Type: ESTD
Cal Date : 14-DEC-2009 11:34 Cal File: 040f4001.d
Als bottle: 24 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-939.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.972	1.971	0.001	47264058	125.813	4.2	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.287	5.286	0.001	46979061	147.947	4.9	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/122209.b/024f2401.d

Date : 22-DEC-2009 11:57

Client ID: PBLK01

Sample Info: |1202001507|1|

Volume Injected (uL): 1.0

Column phase: CLP1

Instrument: ecd1a.i

Operator: JAOC

Column diameter: 0.25

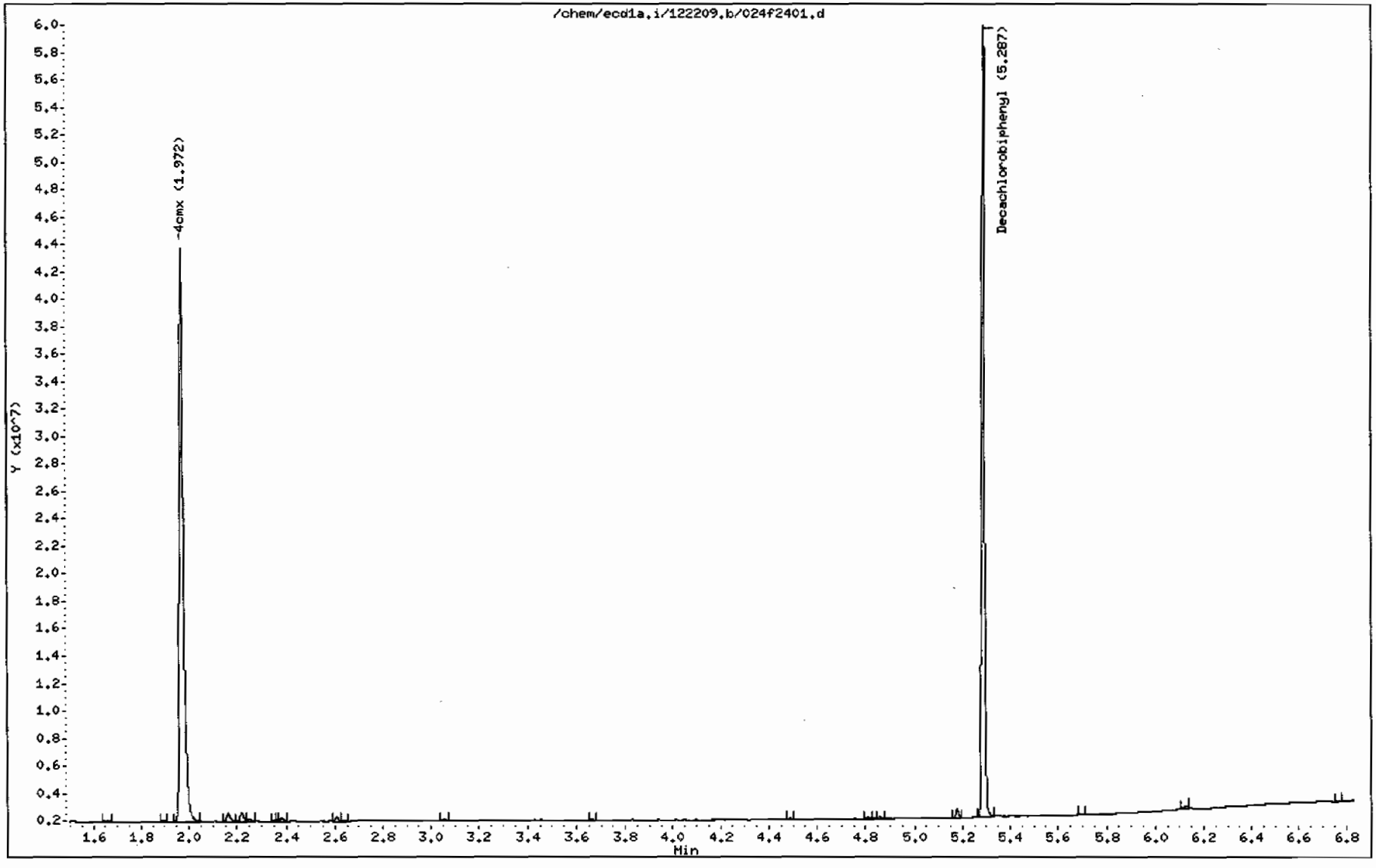

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/122209.b/024b2401.d
Lab Smp Id: 1202001507 Client Smp ID: PBLK01
Inj Date : 22-DEC-2009 11:57
Operator : JAOC Inst ID: ecd1a.i
Smp Info : |1202001507|1|
Misc Info : |ECD82P_1S|935393|SVA|QC A|SOIL|MB|||
Comment :
Method : /chem/ecd1a.i/122209.b/ECD1-B-8082-121409.m
Meth Date : 22-Dec-2009 13:59 jen01212 Quant Type: ESTD
Cal Date : 14-DEC-2009 12:16 Cal File: 044b4401.d
Als bottle: 24 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-939.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.302	2.302	0.000	36277461	120.914	4.0	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.948	5.948	0.000	33838380	145.088	4.8	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/122209.b/024b2401.d
Date : 22-DEC-2009 11:57
Client ID: PBLK01
Sample Info: |120200150711|
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd1a.i
Operator: JAOC
Column diameter: 0.25

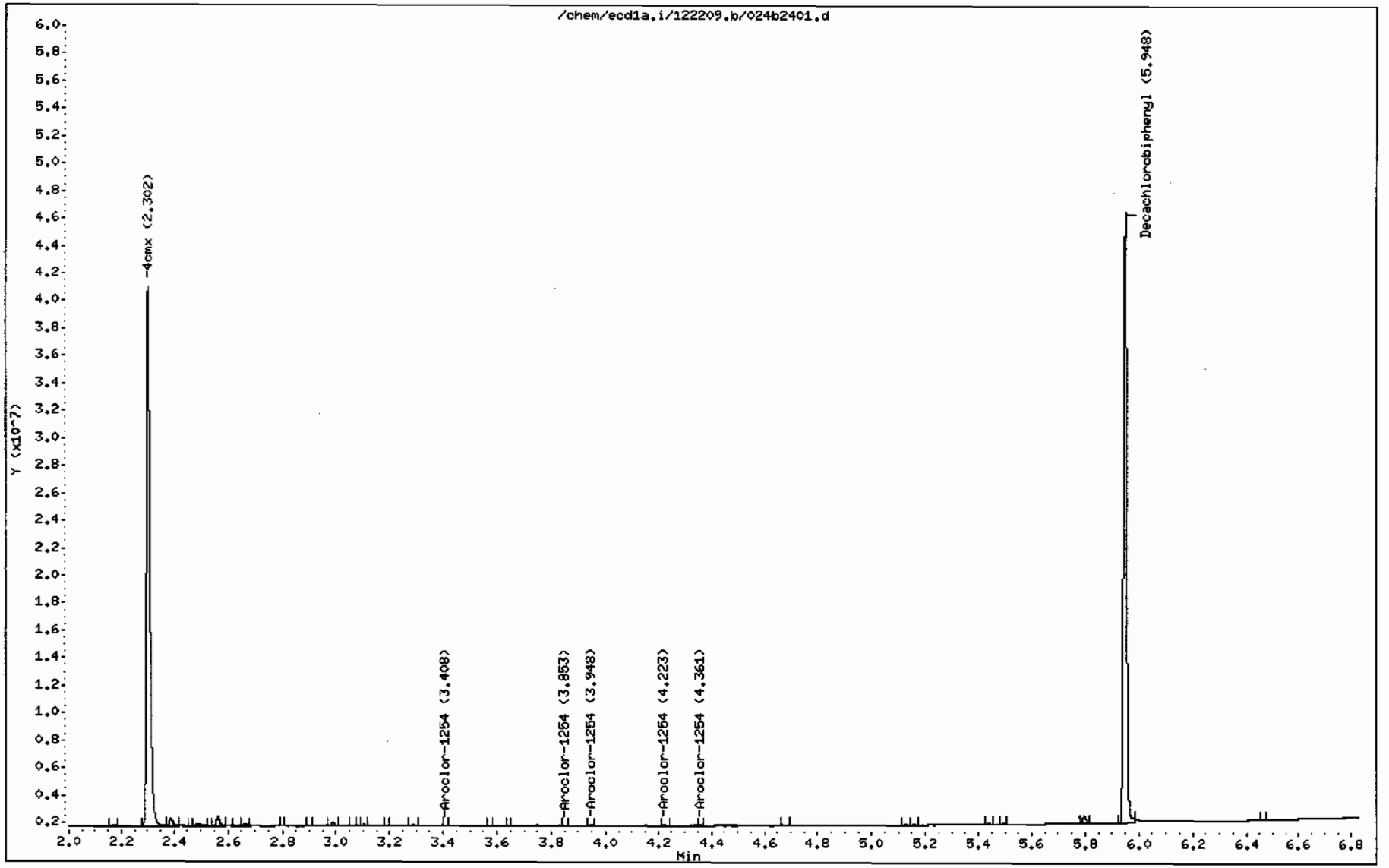

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10-939			**Matrix:**	SOIL
Lab Sample ID:	1202001508				
Client Sample:	QC for batch 935357	**Client:**	LANL010	**Project:**	QC
Client ID:	LCS for batch 935357	**Method:**	SW846 8082	**SOP Ref:**	GL-OA-E-040
Batch ID:	935393	**Inst:**	ECD1A.I	**Dilution:**	1
Run Date:	12/22/2009 12:07	**Analyst:**	JAOC	**Inj. Vol:**	1 uL
Prep Date:	12/21/2009 20:06	**Aliquot:**	30 g	**Final Volume:**	1 mL
Data File:	025f2501-1.d	**Column:**	1 CLP1	**Level:**	LOW
	025b2501-1.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016		21.9	ug/kg	1.11	3.33	1
11104-28-2	Aroclor-1221	U	3.33	ug/kg	1.11	3.33	1
11141-16-5	Aroclor-1232	U	3.33	ug/kg	1.11	3.33	1
53469-21-9	Aroclor-1242	U	3.33	ug/kg	1.11	3.33	1
12672-29-6	Aroclor-1248	U	3.33	ug/kg	1.11	3.33	1
11097-69-1	Aroclor-1254	U	3.33	ug/kg	1.11	3.33	1
11096-82-5	Aroclor-1260		27.1	ug/kg	1.11	3.33	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/122209.b/025f2501.d
Lab Smp Id: 1202001508 Client Smp ID: PBLK01LCS
Inj Date : 22-DEC-2009 12:07
Operator : JAOC Inst ID: ecd1a.i
Smp Info : |1202001508|1|
Misc Info : |ECD82P_1S|935393|SVA|QC A|SOIL|LCS|||
Comment :
Method : /chem/ecd1a.i/122209.b/ECD1-F-8082-121409.m
Meth Date : 23-Dec-2009 06:42 jen01212 Quant Type: ESTD
Cal Date : 14-DEC-2009 11:34 Cal File: 040f4001.d
Als bottle: 25 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-939.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	CONCENTRATIONS FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.971	1.971	0.000	46943582	124.960	4.2	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.286	5.286	0.000	46455035	146.296	4.9	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.427	2.427	0.000	8785579	633.566	21.1	80.00- 120.00	100.00
2.705	2.705	0.000	6826997	676.092	22.5	65.19- 105.19	77.71
2.797	2.796	0.001	7437715	632.619	21.1	66.50- 106.50	84.66
2.835	2.835	0.000	4418736	669.606	22.3	32.04- 72.04	50.30
3.046	3.046	0.000	5880773	678.024	22.6	47.11- 87.11	66.94

Average of Peak Concentrations = 21.9

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
7 Aroclor-1260					CAS #: 11096-82-5		
3.772	3.771	0.001	12731136	759.970	25.3	80.00- 120.00	100.00
3.936	3.934	0.002	19869687	803.056	26.8	134.26- 174.26	156.07
4.166	4.165	0.001	12036575	819.520	27.3	72.25- 112.25	94.54
4.309	4.307	0.002	12447890	819.775	27.3	76.57- 116.57	97.78
4.488	4.486	0.002	29918254	870.971	29.0	202.51- 242.51	235.00
			Average of Peak Concentrations =		27.1		

Data File: /chem/ecd1a.i/122209.b/025f2501.d
Date : 22-DEC-2009 12:07
Client ID: PBLK01LCS
Sample Info: 1120200150811
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecd1a.i
Operator: JAOC
Column diameter: 0.25

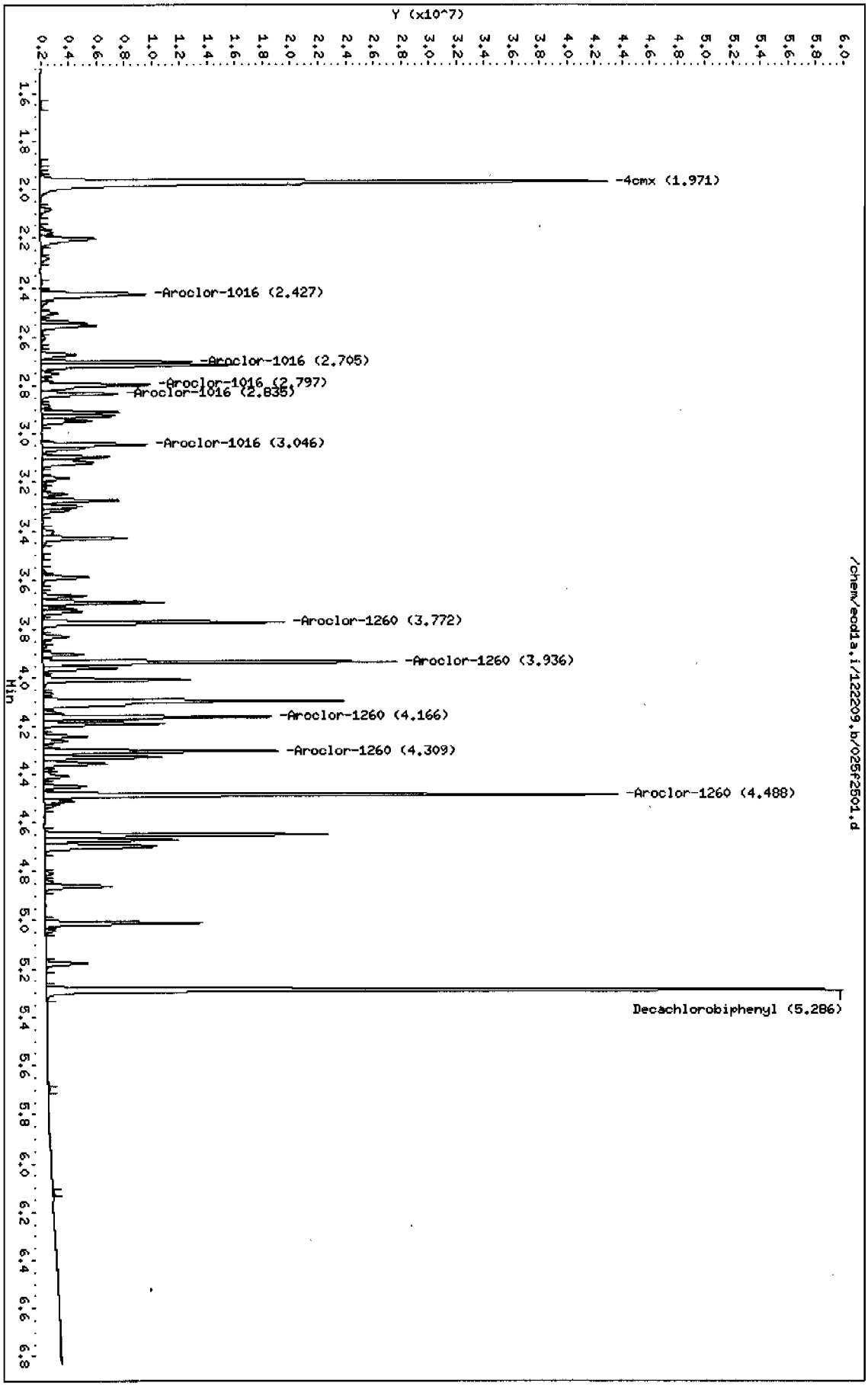

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GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/122209.b/025b2501.d
Lab Smp Id: 1202001508 Client Smp ID: PBLK01LCS
Inj Date : 22-DEC-2009 12:07
Operator : JAOC Inst ID: ecd1a.i
Smp Info : |1202001508|1|
Misc Info : |ECD82P_1S|935393|SVA|QC A|SOIL|LCS|||
Comment :
Method : /chem/ecd1a.i/122209.b/ECD1-B-8082-121409.m
Meth Date : 23-Dec-2009 06:44 jen01212 Quant Type: ESTD
Cal Date : 14-DEC-2009 12:16 Cal File: 044b4401.d
Als bottle: 25 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-939.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.301	2.302	-0.001	35826232	119.411	4.0	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.948	5.948	0.000	32997561	141.483	4.7	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.199	3.199	0.000	8761104	694.690	23.2	80.00- 120.00	100.00
3.282	3.282	0.000	5812365	623.118	20.8	46.88- 86.88	66.34
3.346	3.346	0.000	3493102	645.518	21.5	21.65- 61.65	39.87
3.573	3.572	0.001	4683367	664.130	22.1	32.68- 72.68	53.46
3.649	3.648	0.001	4341646	662.773	22.1	30.01- 70.01	49.56

Average of Peak Concentrations = 21.9

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
7 Aroclor-1260					CAS #: 11096-82-5		
4.339	4.338	0.001	9842996	719.516	24.0	80.00- 120.00	100.00
4.464	4.463	0.001	12323981	768.854	25.6	98.94- 138.94	125.21
4.730	4.729	0.001	9604344	764.438	25.5	76.23- 116.23	97.58
4.903	4.903	0.000	9990404	779.886	26.0	79.35- 119.35	101.50
5.050	5.050	0.000	23095644	827.870	27.6	205.17- 245.17	234.64
			Average of Peak Concentrations =		25.7		

Data File: /chem/ecdla.i/122209.b/025b2501.d
Date : 22-DEC-2009 12:07
Client ID: PBLK01LCS
Sample Info: 1120200150811
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecdla.i
Operator: JAOC
Column diameter: 0.25

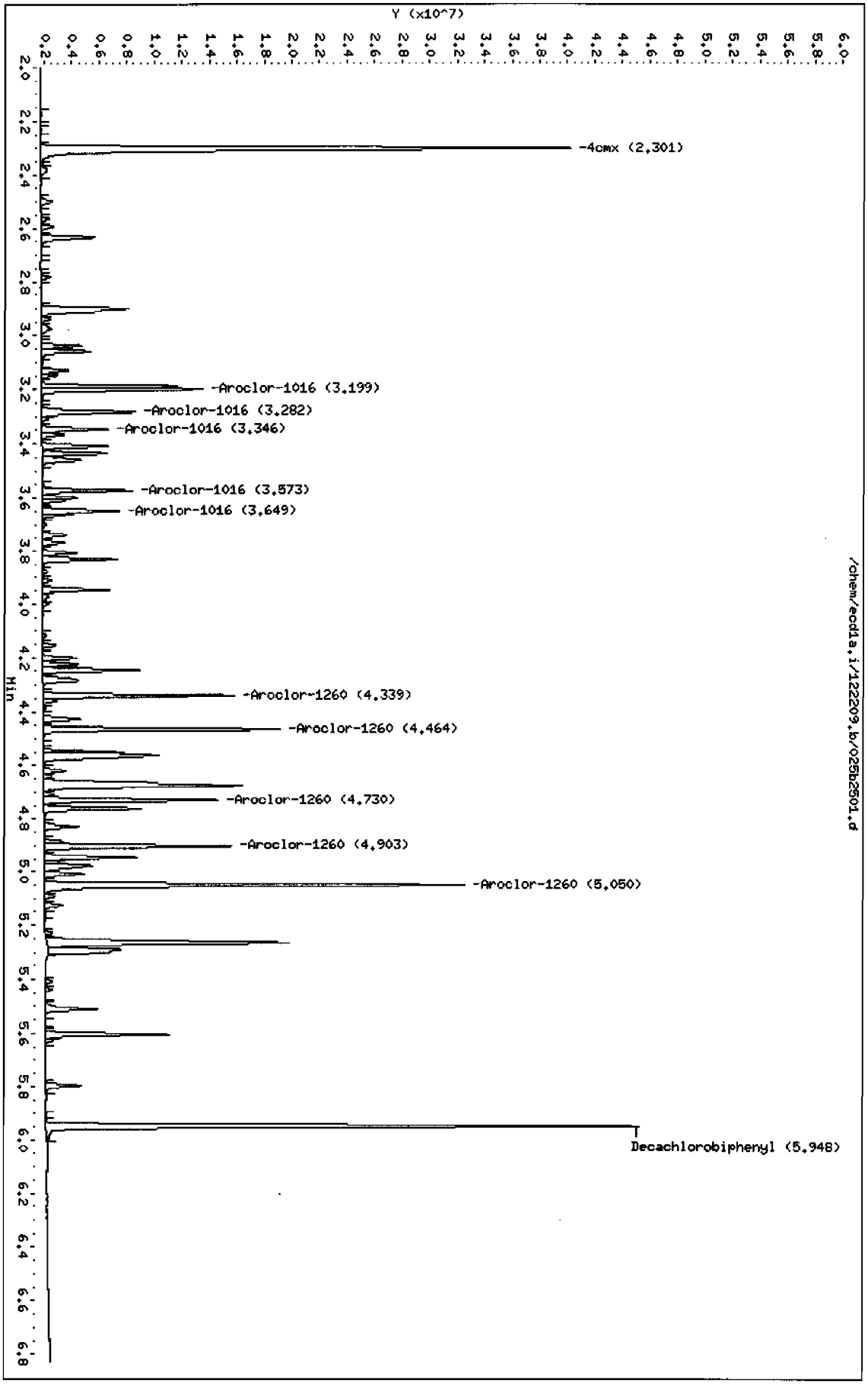

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MISCELLANEOUS DATA

GEL ORGANIC RUN LOG INSTRUMENT ID: ECD1

DATE: 12/15/2009 METHOD: ECD1-F-8082-121409.m OPERATOR:YS1 REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1

SOLVENT LOT DA385
ALUMINA LOT 1230997-A
COPPER LOT 236547-A

Calibration & QC Information
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.
GEL SOP GL-OA-E-040 Polychlorinated Biphenyl: EPA 8082
Chromatogram Abbreviation Legend: AB-Assign Baseline, AP-Assign Peak,
DNC-Do Not Call, DMP-Doesn't Match Pattern, NC-Not Confirmed, RT-Retention Time,
BF-Before, AF-After.

Sequence Number: /chem/ecd1a.i/121409.b Injection Volume: 0.5 ul

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001f0101.d	WAR091130-99 01	YS1	14-DEC-2009 04:44		121409	1.0	CLEAN	
002f0201.d	WAR091211-60 01	YS1	14-DEC-2009 04:54		121409	1.0	DUSE RE-ICAL	
003f0301.d	WAR091102-54	YS1	14-DEC-2009 05:05		121409	1.0	DUSE RE-ICAL	
004f0401.d	WAR091102-42	YS1	14-DEC-2009 05:15		121409	1.0	DUSE RE-ICAL	
005f0501.d	WAR091027-48	YS1	14-DEC-2009 05:26		121409	1.0	DUSE RE-ICAL	
006f0601.d	WAR090930-32	YS1	14-DEC-2009 05:36		121409	1.0	PATTERN ONLY	
007f0701.d	WAR090803-21	YS1	14-DEC-2009 05:47		121409	1.0	PATTERN ONLY	
008f0801.d	WAR090803-62	YS1	14-DEC-2009 05:58		121409	1.0	PATTERN ONLY	
009f0901.d	WAR091106-68	YS1	14-DEC-2009 06:08		121409	1.0	DUSE RE-ICAL	
010f1001.d	1660-1	YS1	14-DEC-2009 06:19		121409	1.0	DUSE	
011f1101.d	1660-2	YS1	14-DEC-2009 06:29		121409	1.0	DUSE	
012f1201.d	1660-3	YS1	14-DEC-2009 06:40		121409	1.0	DUSE	
013f1301.d	1660-4	YS1	14-DEC-2009 06:50		121409	1.0	DUSE	
014f1401.d	IAR091102-01	YS1	14-DEC-2009 07:01		121409	1.0	DUSE	
015f1501.d	WAR091211-60 01	YS1	14-DEC-2009 07:11		121409	1.0	DUSE	

Instrument Batch: /chem/ecd1a.i/121409.b Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments

016f1601.d	WAR091214-05 54	YS1	14-DEC-2009 07:22		121409	1.0	AR1254 I-CAL LEVEL 1
017f1701.d	WAR091214-06 54	YS1	14-DEC-2009 07:32		121409	1.0	AR1254 I-CAL LEVEL 2
018f1801.d	WAR091214-07 54	YS1	14-DEC-2009 07:43		121409	1.0	AR1254 I-CAL LEVEL 3
019f1901.d	WAR091214-08 54	YS1	14-DEC-2009 07:53		121409	1.0	AR1254 I-CAL LEVEL 4
020f2001.d	IAR091027-01	YS1	14-DEC-2009 08:04		121409	1.0	AR1254 I-CAL LEVEL 5
021f2101.d	WAR091102-54	YS1	14-DEC-2009 08:14		121409	1.0	PASSED ON BOTH COLUMNS
022f2201.d	WAR091214-09 42	YS1	14-DEC-2009 08:25		121409	1.0	AR1242 I-CAL LEVEL 1
023f2301.d	WAR091214-10 42	YS1	14-DEC-2009 08:35		121409	1.0	AR1242 I-CAL LEVEL 2
024f2401.d	WAR091214-11 42	YS1	14-DEC-2009 08:46		121409	1.0	AR1242 I-CAL LEVEL 3
025f2501.d	WAR091214-12 42	YS1	14-DEC-2009 08:56		121409	1.0	AR1242 I-CAL LEVEL 4
026f2601.d	IAR0911111-01	YS1	14-DEC-2009 09:07		121409	1.0	AR1242 I-CAL LEVEL 5
027f2701.d	WAR091102-42	YS1	14-DEC-2009 09:17		121409	1.0	PASSED ON BOTH COLUMNS
028f2801.d	WAR091214-13 48	YS1	14-DEC-2009 09:28		121409	1.0	AR1248 I-CAL LEVEL 1
029f2901.d	WAR091214-14 48	YS1	14-DEC-2009 09:38		121409	1.0	AR1248 I-CAL LEVEL 2
030f3001.d	WAR091214-15 48	YS1	14-DEC-2009 09:49		121409	1.0	AR1248 I-CAL LEVEL 3
031f3101.d	WAR091214-16 48	YS1	14-DEC-2009 09:59		121409	1.0	AR1248 I-CAL LEVEL 4
032f3201.d	IAR091027-02	YS1	14-DEC-2009 10:10		121409	1.0	AR1248 I-CAL LEVEL 5
033f3301.d	WAR091027-48	YS1	14-DEC-2009 10:20		121409	1.0	PASSED ON BOTH COLUMNS
034f3401.d	WAR091214-01 60	YS1	14-DEC-2009 10:31		121409	1.0	AR1660 I-CAL LEVEL 1
035f3501.d	WAR091214-02 60	YS1	14-DEC-2009 10:41		121409	1.0	AR1660 I-CAL LEVEL 2

Instrument Batch: /chem/ecd1a.i/121409.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
036f3601.d	WAR091214-03 60	YS1	14-DEC-2009 10:52		121409	1.0		AR1660 I-CAL LEVEL 3
037f3701.d	WAR091214-04 60	YS1	14-DEC-2009 11:02		121409	1.0		AR1660 I-CAL LEVEL 4
038f3801.d	IAR091102-01	YS1	14-DEC-2009 11:13		121409	1.0		AR1660 I-CAL LEVEL 5
039f3901.d	WAR091211-60 01	YS1	14-DEC-2009 11:23		121409	1.0		PASSED ON BOTH COLUMNS
040f4001.d	WAR091214-17 68	YS1	14-DEC-2009 11:34		121409	1.0		AR1268 I-CAL LEVEL 1

041f4101.d	WAR091214-18 68	YS1	14-DEC-2009 11:44		121409		1.0		AR1268 I-CAL LEVEL 2
042f4201.d	WAR091214-19 68	YS1	14-DEC-2009 11:55		121409		1.0		AR1268 I-CAL LEVEL 3
043f4301.d	WAR091214-20 68	YS1	14-DEC-2009 12:06		121409		1.0		AR1268 I-CAL LEVEL 4
044f4401.d	IAR090817-02	YS1	14-DEC-2009 12:16		121409		1.0		AR1268 I-CAL LEVEL 5
045f4501.d	WAR091106-68	YS1	14-DEC-2009 12:27		121409		1.0		PASSED ON BOTH COLUMNS
046f4601.d	WAR091020-DDT	YS1	14-DEC-2009 12:37		121409		1.0		DDT ANALOG STANDARD
047f4701.d	WAR091130-99 02	YS1	14-DEC-2009 12:48		121409		1.0		CLEAN
048f4801.d	1201991693	YS1	14-DEC-2009 12:58	931140	10-782		1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
049f4901.d	1201991694	YS1	14-DEC-2009 13:09	931140	10-782		1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
050f5001.d	242297001	YS1	14-DEC-2009 13:19	931140	10-782		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
051f5101.d	242297002	YS1	14-DEC-2009 13:30	931140	10-782		10.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
052f5201.d	242297003	YS1	14-DEC-2009 13:40	931140	10-782		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
053f5301.d	242297004	YS1	14-DEC-2009 13:51	931140	10-782		5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
054f5401.d	242297005	YS1	14-DEC-2009 14:03	931140	10-782		5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
055f5501.d	242297006	YS1	14-DEC-2009 14:16	931140	10-782		10.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
056f5601.d	242297007	YS1	14-DEC-2009 14:29	931140	10-782	5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
057f5701.d	242297008	YS1	14-DEC-2009 14:41	931140	10-782	25.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
058f5801.d	WAR091211-60 02	YS1	14-DEC-2009 14:52		121409	1.0		PASSED ON BOTH COLUMNS
059f5901.d	WAR091130-99 03	YS1	14-DEC-2009 15:02		121409	1.0		CLEAN
060f6001.d	242297009	YS1	14-DEC-2009 15:13	931140	10-782	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
061f6101.d	242297010	YS1	14-DEC-2009 15:25	931140	10-782	1.0	LANL	DCB LOW RE
062f6201.d	242297011	YS1	14-DEC-2009 15:38	931140	10-782	5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
063f6301.d	242297012	YS1	14-DEC-2009 15:51	931140	10-782	5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
064f6401.d	242297013	YS1	14-DEC-2009 16:03	931140	10-782	10.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER

065f6501.d	242305004	YS1	14-DEC-2009 16:16	931140	10-786	5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
066f6601.d	1201991695	YS1	14-DEC-2009 16:28	931140	10-786	5.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
067f6701.d	1201991696	YS1	14-DEC-2009 16:41	931140	10-786	5.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
068f6801.d	242305005	YS1	14-DEC-2009 16:53	931140	10-786	5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
069f6901.d	242305006	YS1	14-DEC-2009 17:06	931140	10-786	5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
070f7001.d	WAR091211-60 03	YS1	14-DEC-2009 17:19		121409	1.0		PASSED ON BOTH COLUMNS
071f7101.d	WAR091130-99 04	YS1	14-DEC-2009 17:31		121409	1.0		CLEAN
072f7201.d	1201992645	YS1	14-DEC-2009 17:44	931553	242521	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
073f7301.d	1201992646	YS1	14-DEC-2009 17:57	931553	242521	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
074f7401.d	242264001	YS1	14-DEC-2009 18:09	931553	242264	5.0	ENRG	UPLOAD BOTH COLUMNS, USE HIGHER
075f7501.d	242521001	YS1	14-DEC-2009 18:22	931553	242521	5.0	EMSC	UPLOAD BOTH COLUMNS, USE HIGHER

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
076f7601.d	1201992647	YS1	14-DEC-2009 18:35	931553	242521	5.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
077f7701.d	1201992648	YS1	14-DEC-2009 18:47	931553	242521	5.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
078f7801.d	242521002	YS1	14-DEC-2009 19:00	931553	242521	5.0	EMSC	UPLOAD BOTH COLUMNS, USE HIGHER
079f7901.d	242521003	YS1	14-DEC-2009 19:12	931553	242521	5.0	EMSC	UPLOAD BOTH COLUMNS, USE HIGHER
080f8001.d	242521004	YS1	14-DEC-2009 19:25	931553	242521	5.0	EMSC	UPLOAD BOTH COLUMNS, USE HIGHER
081f8101.d	242521005	YS1	14-DEC-2009 19:38	931553	242521	5.0	EMSC	UPLOAD BOTH COLUMNS, USE HIGHER
082f8201.d	WAR091211-60 04	YS1	14-DEC-2009 19:50		121409	1.0		PASSED ON BOTH COLUMNS
083f8301.d	WAR091130-99 05	YS1	14-DEC-2009 20:03		121409	1.0		CLEAN
084f8401.d	242521006	YS1	14-DEC-2009 20:15	931553	242521	5.0	EMSC	UPLOAD BOTH COLUMNS, USE HIGHER
085f8501.d	242521007	YS1	14-DEC-2009 20:28	931553	242521	5.0	EMSC	UPLOAD BOTH COLUMNS, USE HIGHER
086f8601.d	242521008	YS1	14-DEC-2009 20:41	931553	242521	5.0	EMSC	UPLOAD BOTH COLUMNS, USE HIGHER
087f8701.d	WAR091211-60 05	YS1	14-DEC-2009 20:53		121409	1.0		PASSED ON BOTH COLUMNS
088f8801.d	WAR091130-99 06	YS1	14-DEC-2009 21:06		121409	1.0		CLEAN
089f8901.d	242297010	YS1	14-DEC-2009 21:19	931140	10-782	1.0	LANL	

090f9001.d	WAR091211-60 06	YS1	14-DEC-2009 21:31		121409	1.0	PASSED ON BOTH COLUMNS
091f9101.d	WAR091130-99 07	YS1	14-DEC-2009 21:44		121409	1.0	CLEAN
092f9201.d	1660	YS1	14-DEC-2009 21:56		121409	1.0	screen
093f9301.d	1660	YS1	14-DEC-2009 22:09		121409	1.0	screen
094f9401.d	1660	YS1	14-DEC-2009 22:22		121409	1.0	screen

GEL ORGANIC RUN LOG INSTRUMENT ID: ECD1

DATE: 12/23/2009 METHOD: ECD1-F-8082-121409.m OPERATOR:JAOC REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1

SOLVENT LOT DA385
ALUMINA LOT 1230997-A
COPPER LOT 236547-A

Calibration & QC Information
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.
GEL SOP GL-OA-E-040 Polychlorinated Biphenyl: EPA 8082
Chromatogram Abbreviation Legend: AB-Assign Baseline, AP-Assign Peak,
DNC-Do Not Call, DMP-Doesn't Match Pattern, NC-Not Confirmed, RT-Retention Time,
BF-Before, AF-After.

Sequence Number: /chem/ecd1a.i/122209.b Injection Volume: 0.5 ul

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001f0101.d	WAR091130-99 01	JAOC	22-DEC-2009 07:55		122209	1.0		CLEAN
002f0201.d	WAR091211-60 01	JAOC	22-DEC-2009 08:05		122209	1.0		PASSES BOTH COLUMNS
003f0301.d	WAR091216-54	JAOC	22-DEC-2009 08:16		122209	1.0		PASSES BOTH COLUMNS
004f0401.d	WAR091102-42	JAOC	22-DEC-2009 08:26		122209	1.0		PASSES BOTH COLUMNS
005f0501.d	WAR091027-48	JAOC	22-DEC-2009 08:37		122209	1.0		PASSES BOTH COLUMNS
006f0601.d	WAR090930-32	JAOC	22-DEC-2009 08:47		122209	1.0		PATTERN ONLY
007f0701.d	WAR090803-21	JAOC	22-DEC-2009 08:58		122209	1.0		PATTERN ONLY
008f0801.d	WAR090803-62	JAOC	22-DEC-2009 09:08		122209	1.0		PATTERN ONLY
009f0901.d	WAR091106-68	JAOC	22-DEC-2009 09:19		122209	1.0		PATTERN ONLY
010f1001.d	WAR091219-DDT	JAOC	22-DEC-2009 09:29		122209	1.0		DDT
011f1101.d	WAR091130-99 02	JAOC	22-DEC-2009 09:40		122209	1.0		CLEAN
012f1201.d	1202000305	JAOC	22-DEC-2009 09:50	934936	242826	1.0	QC A	UPLOAD BOTH, USE HIGHER
013f1301.d	1202000306	JAOC	22-DEC-2009 10:01	934936	242826	1.0	QC A	UPLOAD BOTH, USE HIGHER
014f1401.d	242826001	JAOC	22-DEC-2009 10:11	934936	242826	1.0	SCEG	UPLOAD BOTH, USE HIGHER
015f1501.d	1202000307	JAOC	22-DEC-2009 10:22	934936	242826	1.0	QC A	UPLOAD BOTH, USE HIGHER

Instrument Batch: /chem/ecd1a.i/122209.b Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments

016f1601.d	1202000308	JAOC	22-DEC-2009 10:32	934936	242826	1.0	QC A	UPLOAD BOTH, USE HIGHER
017f1701.d	242826002	JAOC	22-DEC-2009 10:43	934936	242826	1.0	SCEG	UPLOAD BOTH, USE HIGHER
018f1801.d	242826003	JAOC	22-DEC-2009 10:53	934936	242826	1.0	SCEG	UPLOAD BOTH, USE HIGHER
019f1901.d	242826004	JAOC	22-DEC-2009 11:04	934936	242826	1.0	SCEG	UPLOAD BOTH, USE HIGHER
020f2001.d	242826005	JAOC	22-DEC-2009 11:15	934936	242826	1.0	SCEG	UPLOAD BOTH, USE HIGHER
021f2101.d	242826006	JAOC	22-DEC-2009 11:25	934936	242826	1.0	SCEG	UPLOAD BOTH, USE HIGHER
022f2201.d	WAR091211-60 02	JAOC	22-DEC-2009 11:36		122209	1.0		PASSES BOTH COLUMNS
023f2301.d	WAR091130-99 03	JAOC	22-DEC-2009 11:46		122209	1.0		CLEAN
024f2401.d	1202001507	JAOC	22-DEC-2009 11:57	935393	10-939	1.0	QC A	UPLOAD BOTH, USE HIGHER
025f2501.d	1202001508	JAOC	22-DEC-2009 12:07	935393	10-939	1.0	QC A	UPLOAD BOTH, USE HIGHER
026f2601.d	242937001	JAOC	22-DEC-2009 12:18	935393	10-917	1.0	LANL	DUSE, NO HITS CONFIRMS ORGINAL SAMPLE
027f2701.d	243007002	JAOC	22-DEC-2009 12:28	935393	10-939	1.0	LANL	UPLOAD BOTH, USE HIGHER
028f2801.d	243033001	JAOC	22-DEC-2009 12:39	935393	10-940	1.0	LANL	UPLOAD BOTH, USE HIGHER
029f2901.d	243033002	JAOC	22-DEC-2009 12:49	935393	10-940	1.0	LANL	UPLOAD BOTH, USE HIGHER
030f3001.d	243033003	JAOC	22-DEC-2009 13:00	935393	10-940	1.0	LANL	UPLOAD BOTH, USE HIGHER
031f3101.d	243033004	JAOC	22-DEC-2009 13:10	935393	10-940	1.0	LANL	UPLOAD BOTH, USE HIGHER
032f3201.d	243033005	JAOC	22-DEC-2009 13:21	935393	10-940	1.0	LANL	UPLOAD BOTH, USE HIGHER
033f3301.d	243033006	JAOC	22-DEC-2009 13:31	935393	10-940	1.0	LANL	UPLOAD BOTH, USE HIGHER
034f3401.d	WAR091211-60 03	JAOC	22-DEC-2009 13:42		122209	1.0		PASSES BOTH COLUMNS
035f3501.d	WAR091130-99 04	JAOC	22-DEC-2009 13:53		122209	1.0		CLEAN

Instrument Batch: /chem/ecd1a.i/122209.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
036f3601.d	243033007	JAOC	22-DEC-2009 14:03	935393	10-940	1.0	LANL	UPLOAD BOTH, USE HIGHER
037f3701.d	243033008	JAOC	22-DEC-2009 14:14	935393	10-940	1.0	LANL	UPLOAD BOTH, USE HIGHER
038f3801.d	243033009	JAOC	22-DEC-2009 14:24	935393	10-940	1.0	LANL	UPLOAD BOTH, USE HIGHER
039f3901.d	243273001	JAOC	22-DEC-2009 14:35	935393	10-988	1.0	LANL	UPLOAD BOTH, USE HIGHER
040f4001.d	243274001	JAOC	22-DEC-2009 14:45	935393	10-989	1.0	LANL	UPLOAD BOTH, USE HIGHER

041f4101.d	1202001509	JAOC	22-DEC-2009 14:56	935393	10-989		1.0	QC A	UPLOAD BOTH, USE HIGHER
042f4201.d	1202001510	JAOC	22-DEC-2009 15:06	935393	10-989		1.0	QC A	UPLOAD BOTH, USE HIGHER
043f4301.d	243274010	JAOC	22-DEC-2009 15:17	935393	10-989		1.0	LANL	UPLOAD BOTH, USE HIGHER
044f4401.d	WAR091211-60 04	JAOC	22-DEC-2009 15:27		122209		1.0		PASSES BOTH COLUMNS
045f4501.d	WAR091130-99 05	JAOC	22-DEC-2009 15:38		122209		1.0		CLEAN

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/122209.b/041b4101.d
Lab Smp Id: 1202001509 Client Smp ID: RE12-10-7352MS
Inj Date : 22-DEC-2009 14:56
Operator : JAOC Inst ID: ecd1a.i
Smp Info : |1202001509|1|
Misc Info : |ECD82P_1S|935393|SVA|QC A|SOIL|MS|||
Comment :
Method : /chem/ecd1a.i/122209.b/ECD1-B-8082-121409.m
Meth Date : 23-Dec-2009 06:44 jen01212 Quant Type: ESTD
Cal Date : 14-DEC-2009 12:16 Cal File: 044b4401.d
Als bottle: 41 QC Sample: MS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-989.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.02000	Weight of sample extracted (g)
M	9.79470	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.303	2.302	0.001	34882093	116.264	4.3	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.949	5.948	0.001	29723878	127.446	4.7	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.200	3.199	0.001	8140755	645.501	23.8	80.00- 120.00	100.00
3.283	3.282	0.001	6678679	715.992	26.4	46.88- 86.88	82.04
3.347	3.346	0.001	4233213	782.289	28.9	21.65- 61.65	52.00
3.573	3.572	0.001	4321988	612.885	22.6	32.68- 72.68	53.09
3.649	3.648	0.001	4701736	717.742	26.5	30.01- 70.01	57.76

Average of Peak Concentrations = 25.6

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
7 Aroclor-1260					CAS #: 11096-82-5		
4.340	4.338	0.002	9489576	693.681	25.6	80.00- 120.00	100.00
4.464	4.463	0.001	11540856	719.998	26.6	98.94- 138.94	121.62
4.730	4.729	0.001	9056698	720.849	26.6	76.23- 116.23	95.44
4.903	4.903	0.000	9546017	745.196	27.5	79.35- 119.35	100.59
5.051	5.050	0.001	22016938	789.203	29.1	205.17- 245.17	232.01
			Average of Peak Concentrations =		27.1		

Data File: /chem/ecd1a.i/122209.b/041b4101.d

Date : 22-DEC-2009 14:56

Client ID: RE12-10-7352MS

Sample Info: |1202001509|1|

Volume Injected (uL): 1.0

Column phase: CLP2

Instrument: ecd1a.i

Operator: JAOC

Column diameter: 0.25

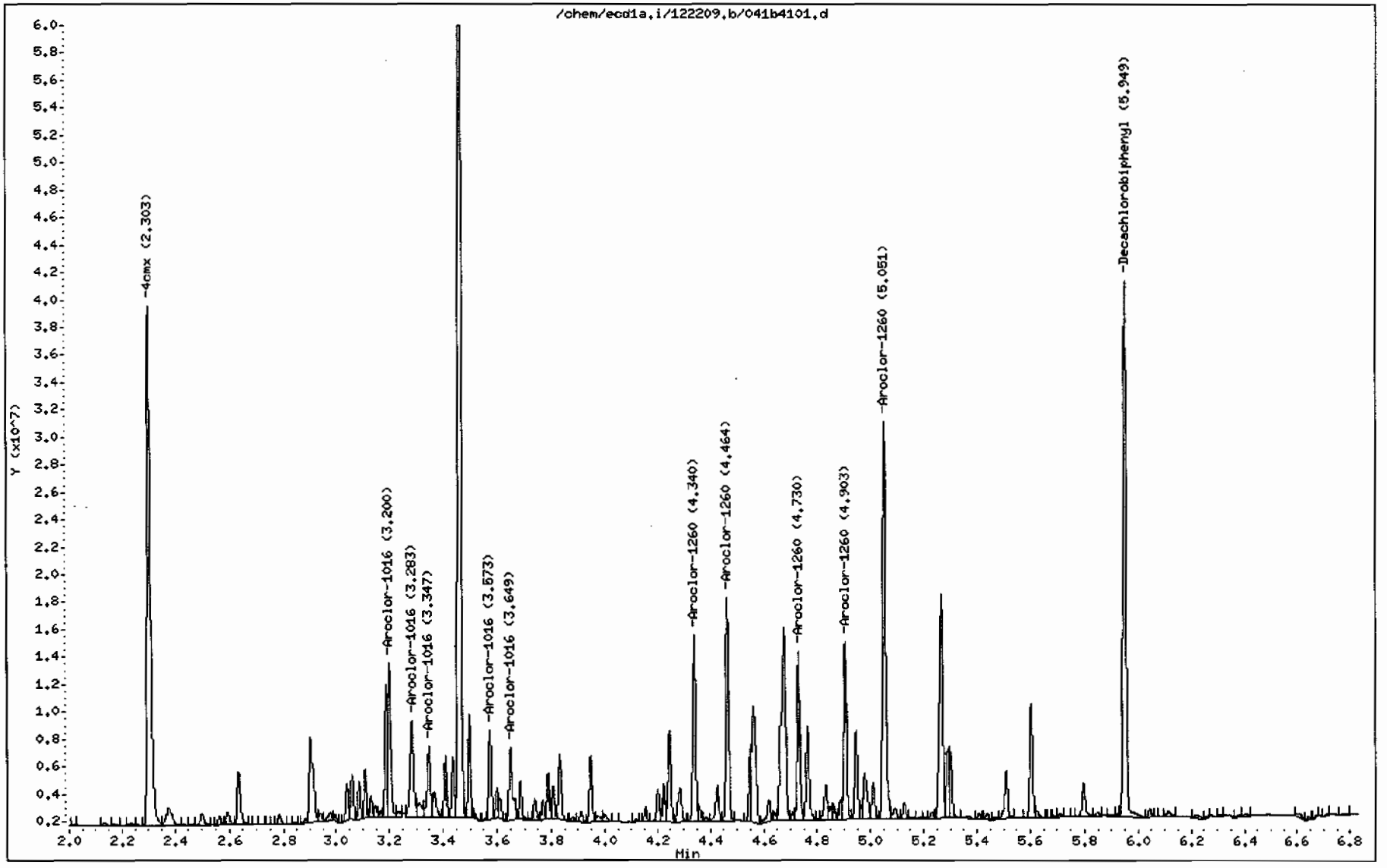

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RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/122209.b/041f4101.d
Lab Smp Id: 1202001509 Client Smp ID: RE12-10-7352MS
Inj Date : 22-DEC-2009 14:56
Operator : JAOC Inst ID: ecd1a.i
Smp Info : |1202001509|1|
Misc Info : |ECD82P_1S|935393|SVA|QC A|SOIL|MS|||
Comment :
Method : /chem/ecd1a.i/122209.b/ECD1-F-8082-121409.m
Meth Date : 23-Dec-2009 06:42 jen01212 Quant Type: ESTD
Cal Date : 14-DEC-2009 11:34 Cal File: 040f4001.d
Als bottle: 41 QC Sample: MS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-989.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.02000	Weight of sample extracted (g)
M	9.79470	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.972	1.971	0.001	45548248	121.246	4.5	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.287	5.286	0.001	41757542	131.503	4.8	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.428	2.427	0.001	8917469	643.077	23.7	80.00- 120.00	100.00
2.705	2.705	0.000	6895523	682.879	25.2	65.19- 105.19	77.33
2.797	2.796	0.001	8433875	717.348	26.5	66.50- 106.50	94.58
2.835	2.835	0.000	4318050	654.348	24.2	32.04- 72.04	48.42
3.047	3.046	0.001	4874837	562.044	20.8	47.11- 87.11	54.67
Average of Peak Concentrations =					24.1		

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
7 Aroclor-1260					CAS #: 11096-82-5		
3.772	3.771	0.001	13189999	787.362	29.1	80.00- 120.00	100.00
3.936	3.934	0.002	19554769	790.328	29.2	134.26- 174.26	148.25
4.165	4.165	0.000	12102233	823.990	30.4	72.25- 112.25	91.75
4.308	4.307	0.001	13504795	889.379	32.8	76.57- 116.57	102.39
4.488	4.486	0.002	28658539	834.299	30.8	202.51- 242.51	217.27
			Average of Peak Concentrations =		30.5		

Data File: /chem/ecd1a.i/122209.b/041f4101.d

Date : 22-DEC-2009 14:56

Client ID: RE12-10-7352MS

Sample Info: |12020015091|1|

Volume Injected (uL): 1.0

Column phase: CLP1

Instrument: ecd1a.i

Operator: JAOC

Column diameter: 0.25

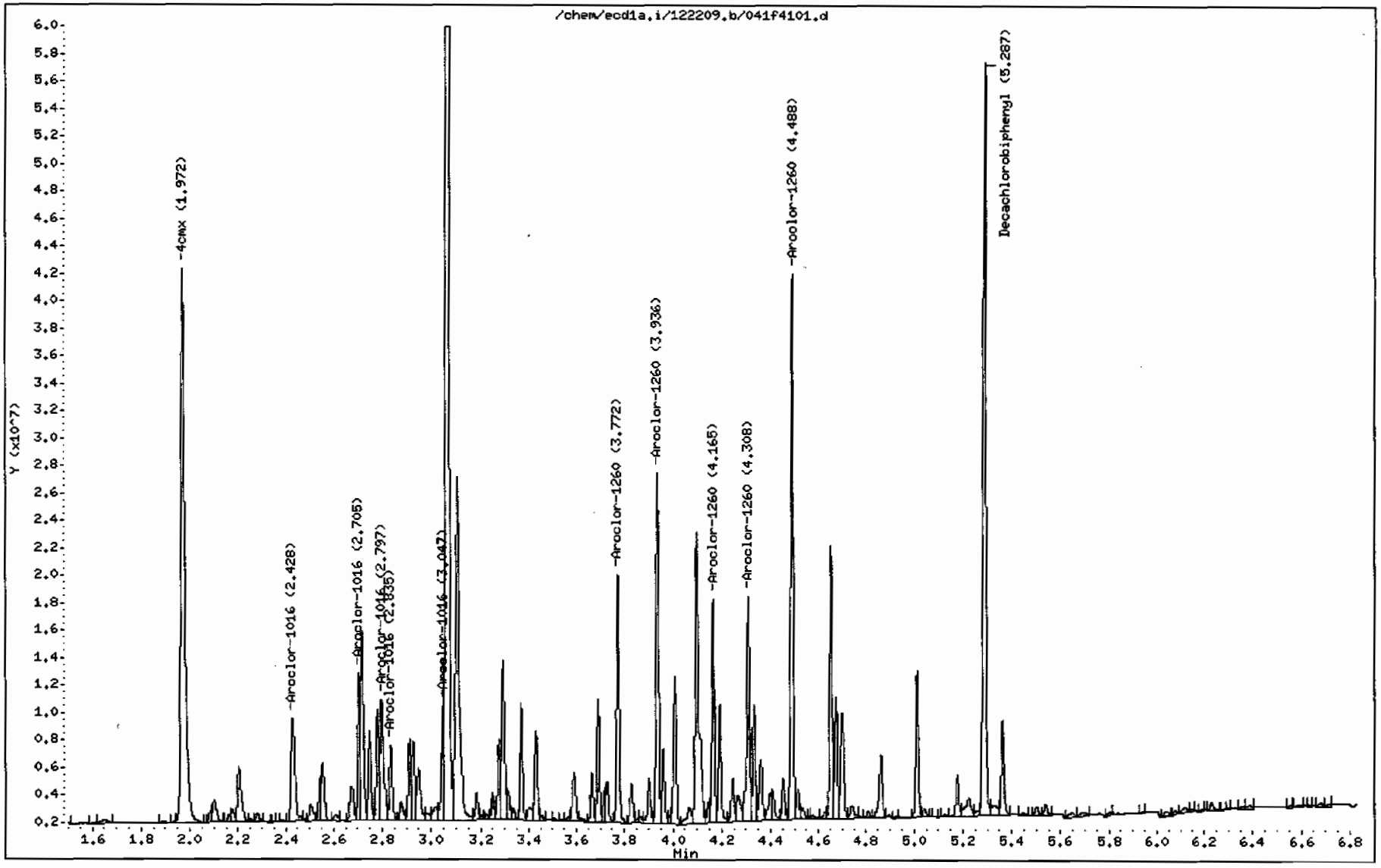

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RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/122209.b/042b4201.d
Lab Smp Id: 1202001510 Client Smp ID: RE12-10-7352MSD
Inj Date : 22-DEC-2009 15:06
Operator : JAOC Inst ID: ecd1a.i
Smp Info : |1202001510|1|
Misc Info : |ECD82P_1S|935393|SVA|QC A|SOIL|MSD|||
Comment :
Method : /chem/ecd1a.i/122209.b/ECD1-B-8082-121409.m
Meth Date : 23-Dec-2009 06:44 jen01212 Quant Type: ESTD
Cal Date : 14-DEC-2009 12:16 Cal File: 044b4401.d
Als bottle: 42 QC Sample: MSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-989.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.01000	Weight of sample extracted (g)
M	9.79470	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.302	2.302	0.000	34824282	116.071	4.3	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.948	5.948	0.000	30260536	129.747	4.8	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.199	3.199	0.000	8173859	648.125	23.9	80.00- 120.00	100.00
3.283	3.282	0.001	6691403	717.356	26.5	46.88- 86.88	81.86
3.347	3.346	0.001	4263313	787.851	29.1	21.65- 61.65	52.16
3.573	3.572	0.001	4423157	627.231	23.2	32.68- 72.68	54.11
3.649	3.648	0.001	4840945	738.993	27.3	30.01- 70.01	59.22
			Average of Peak Concentrations =		26.0		

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
7 Aroclor-1260					CAS #: 11096-82-5		
4.339	4.338	0.001	9883833	722.501	26.7	80.00- 120.00	100.00
4.464	4.463	0.001	12060963	752.446	27.8	98.94- 138.94	122.03
4.730	4.729	0.001	9376541	746.306	27.6	76.23- 116.23	94.87
4.903	4.903	0.000	9874401	770.831	28.5	79.35- 119.35	99.90
5.051	5.050	0.001	22960048	823.009	30.4	205.17- 245.17	232.30
			Average of Peak Concentrations =		28.2		

Data File: /chem/ecdla.i/122209.b/042b4201.d
Date : 22-DEC-2009 15:06
Client ID: RE12-10-7352MSD
Sample Info: 1120200151011
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecdla.i
Operator: JAOC
Column diameter: 0.25

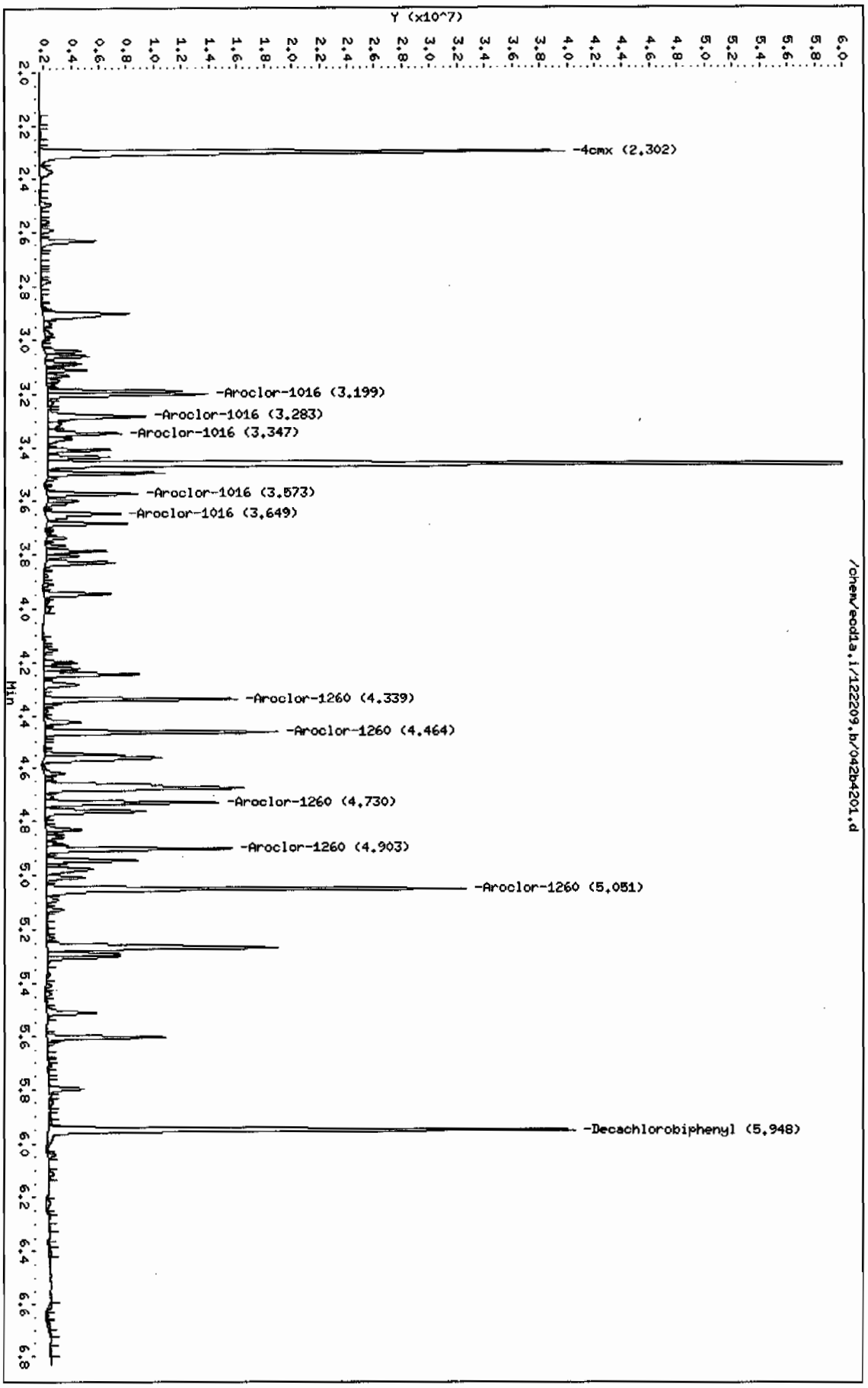

Page 1

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RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/122209.b/042f4201.d
Lab Smp Id: 1202001510 Client Smp ID: RE12-10-7352MSD
Inj Date : 22-DEC-2009 15:06
Operator : JAOC Inst ID: ecd1a.i
Smp Info : |1202001510|1|
Misc Info : |ECD82P_1S|935393|SVA|QC A|SOIL|MSD|||
Comment :
Method : /chem/ecd1a.i/122209.b/ECD1-F-8082-121409.m
Meth Date : 23-Dec-2009 06:42 jen01212 Quant Type: ESTD
Cal Date : 14-DEC-2009 11:34 Cal File: 040f4001.d
Als bottle: 42 QC Sample: MSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-989.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.01000	Weight of sample extracted (g)
M	9.79470	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.971	1.971	0.000	45616082	121.426	4.5	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.287	5.286	0.001	41952079	132.116	4.9	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.428	2.427	0.001	8717913	628.686	23.2	80.00- 120.00	100.00
2.705	2.705	0.000	7343052	727.199	26.9	65.19- 105.19	84.23
2.797	2.796	0.001	8568068	728.762	26.9	66.50- 106.50	98.28
2.835	2.835	0.000	4514084	684.055	25.3	32.04- 72.04	51.78
3.047	3.046	0.001	5213832	601.129	22.2	47.11- 87.11	59.81

Average of Peak Concentrations = 24.9

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	CONCENTRATIONS FINAL (ug/Kg)	TARGET RANGE	RATIO
7 Aroclor-1260					CAS #: 11096-82-5		
3.773	3.771	0.002	13668321	815.914	30.1	80.00- 120.00	100.00
3.935	3.934	0.001	20415030	825.096	30.5	134.26- 174.26	149.36
4.165	4.165	0.000	11609553	790.446	29.2	72.25- 112.25	84.94
4.308	4.307	0.001	12914492	850.503	31.4	76.57- 116.57	94.48
4.488	4.486	0.002	29312497	853.337	31.5	202.51- 242.51	214.46
			Average of Peak Concentrations =		30.5		

Data File: /chem/ecd1a.i/122209.b/042f4201.d

Date : 22-DEC-2009 15:06

Client ID: RE12-10-7352MSD

Sample Info: |12020015101|1|

Volume Injected (uL): 1.0

Column phase: CLP1

Instrument: ecd1a.i

Operator: JAOC

Column diameter: 0.25

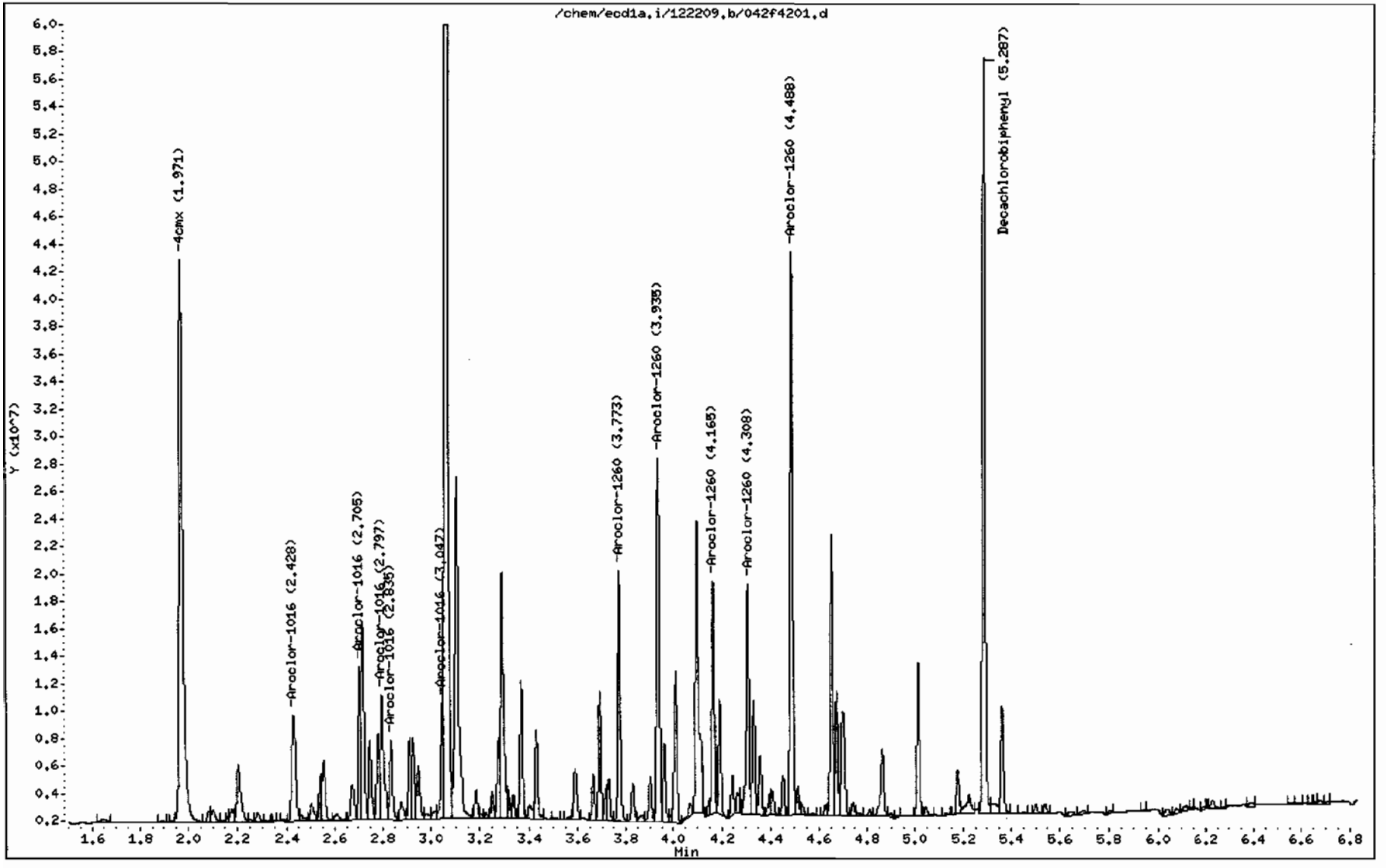

Prep Logbook

Extraction of Semivolatile and Nonvolatile Organic Compounds from Soil, Sludge, and Other Miscellaneous Solid Samples

Batch ID: 935357 **Verified by:** _____

Analyst: Andrew Schwemin

Method: SW846 3550B

Lab SOP: GL-OA-E-010 REV# 18

Instrument: Semi-Volatiles Manual

Sample ID	Run Date	Aliquot (g)	Clean Up	Prior to Clean up (mL)	Amount Cleaned (mL)	After Clean up (mL)	Prepped Aliquot (mL)	Prepped Factor (mL/g)
1202001507 MB	21-DEC-2009 20:06:26	30	H2SO4/KMl2		2	9	1	0.03333
1202001508 LCS	21-DEC-2009 20:06:26	30	H2SO4/KMl2		2	9	1	0.03333
242937001 - 2	21-DEC-2009 20:06:26	30.02	H2SO4/KMl2		2	9	1	0.03331
243007002	21-DEC-2009 20:06:26	30.05	H2SO4/KMl2		2	9	1	0.03328
243033001	21-DEC-2009 20:06:26	30.09	H2SO4/KMl2		2	9	1	0.03323
243033002	21-DEC-2009 20:06:26	30.01	H2SO4/KMl2		2	9	1	0.03332
243033003	21-DEC-2009 20:06:26	30.02	H2SO4/KMl2		2	9	1	0.03331
243033004	21-DEC-2009 20:06:26	30.03	H2SO4/KMl2		2	9	1	0.0333
243033005	21-DEC-2009 20:06:26	30.04	H2SO4/KMl2		2	9	1	0.03329
243033006	21-DEC-2009 20:06:26	30.18	H2SO4/KMl2		2	9	1	0.03313
243033007	21-DEC-2009 20:06:26	30.05	H2SO4/KMl2		2	9	1	0.03328
243033008	21-DEC-2009 20:06:26	30.02	H2SO4/KMl2		2	9	1	0.03331
243033009	21-DEC-2009 20:06:26	30.02	H2SO4/KMl2		2	9	1	0.03331
243273001	21-DEC-2009 20:06:26	30.14	H2SO4/KMl2		2	9	1	0.03318
243274001	21-DEC-2009 20:06:26	30.14	H2SO4/KMl2		2	9	1	0.03318
1202001509 MS (243274001)	21-DEC-2009 20:06:26	30.02	H2SO4/KMl2		2	9	1	0.03331
1202001510 MSD (243274001)	21-DEC-2009 20:06:26	30.01	H2SO4/KMl2		2	9	1	0.03332
243274010	21-DEC-2009 20:06:26	30.07	H2SO4/KMl2		2	9	1	0.03326

Type	Sample Id	Description	Serial Number	Spike Amt	Units
LCS	1202001508	PCB Laboratory Control	WE091210-07	1	mL
MS	1202001509	PCB Laboratory Control	WE091210-07	1	mL
MSD	1202001510	PCB Laboratory Control	WE091210-07	1	mL
SURR	All	PEST LOW LEVEL SURROGATE 200 UG/L	UE091130-15	1	mL
REGNT	All	1:1 sulfuric acid	1133264a	5	mL
REGNT	All	Acetone	1233927	150	mL
REGNT	All	Hexane	1241300-B2	150	mL
REGNT	All	5% Potassium Permanganate	B1202457-F	5	mL
SOURC	All	SODIUM SULFATE	1242582	30	g

Comments:

Clean up Date: 12/21/09

Clean up Initials: AJS

Verified By: AV

Final Solvent: Hexane

Clean Up SOP: GL-OA-E-037

HERBICIDE ANALYSIS

Herbicide Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-939

Method/Analysis Information

Procedure:	**Analysis of Chlorophenoxy Acid Herbicides by ECD**
Analytical Method:	SW846 8151A
Prep Method:	SW846 8151A
Analytical Batch Number:	934339
Prep Batch Number:	934338

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 8151A:

Sample ID	Client ID
243007002	WST03-10-2147
1201999026	Method Blank (MB)
1201999027	Laboratory Control Sample (LCS)
1201999028	243007002(WST03-10-2147) Matrix Spike (MS)
1201999029	243007002(WST03-10-2147) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on a "dry weight" basis.

Preparation/Analytical Method Verification

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-011 REV# 18.

Raw data reports are processed and reviewed by the analyst using the Target software package. False positives have been removed from the Target quantitation reports per standard operating procedures (SOP) section 21.7.

Calibration Information

Initial Calibration
All initial calibration requirements have been met for this sample delivery group (SDG).

The linear equation used in Target and indicated on the initial calibration summary form is not a conventional linear equation (slope intercept formula) and does not match the equation found in SW-846 method 8000B. The x and y axes are inversed in Target, so that the instrument response is treated as the independent variable (x) and the concentration ratio is treated as the dependent variable (y). The equation used in Target to calculate sample results is adjusted to account for the linear equation inversion and reciprocal slope. The adjusted calculation has been independently verified to produce valid results.

Continuing Calibration Verification (CCV) Requirements
All calibration verification standards (CVS, ICV, or CCV) requirements have not been met for this SDG.

Dinoseb failed acceptance criteria with a positive bias on both analytical columns in the standards bracketing the samples in this SDG. The positive bias for the analytical data is a result of instrument response increasing after the initial calibration. These target analytes were not detected in the samples; therefore, the non-compliance has no adverse effects on the data.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB(s) analyzed with this SDG met the acceptance criteria.

Surrogate Recoveries
All surrogate recoveries were within the established acceptance criteria for this SDG.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

QC Sample Designation
Sample 243007002 (WST03-10-2147) was selected for the matrix spike and matrix spike duplicate analysis.

Matrix Spike (MS) Recovery Statement
The MS recoveries for this SDG were not within the acceptance limits for several spiking target analytes due to matrix interference. See NCR #774458 located in the Miscellaneous Data section.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recoveries for this SDG were not within the acceptance limits for several spiking target analytes due to matrix interference. See NCR #774458 located in the Miscellaneous Data section.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD between the MS and MSD were not within the required acceptance for several spiking target analytes due to matrix interference. See NCR #774458 located in the Miscellaneous Data section.

Technical Information

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-extraction/Re-analysis
Re-extractions or re-analyses were not required in this SDG.

Miscellaneous Information

Electronic Package Comment

This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages

electronically. The following change from traditional packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. An electronic signature page inserted after the case narrative of each electronic package will indicate the analyst, reviewer, and report specialist names associated with the generation of the data and package. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Nonconformance Report (NCR) Documentation
Nonconformance report (NCR) is for documentation of any procedural anomalies that may deviate from referenced SOP or contractual document. NCR # 774458 was generated for this SDG. A copy is included in the Miscellaneous Data section of this package.

Manual Integrations
Certain standards and QC samples may have required manual integration to correctly position the baseline as set in the calibration standard injections. If manual integration was performed, copies of all manual integration peak profiles are included in the raw data section of this Herbicide fraction.

Additional Comments
The additional comments field is used to address special issues associated with each analysis, clarify method/contractual issues pertaining to the analysis, and to list any report documents generated as a result of sample analysis or review. The following additional comments were required:

The higher results from either column have been chosen and reported in the data package for the client samples, MB and LCS. The data reported for the MS and MSD are from the same analytical column as the parent sample.

The data reported on the form I and III may differ slightly from the data reported on the form X. This is due to software limitations in rounding differences between the forms.

Due to software limitation, the Form VIIs will display the results either in the % difference or % drift depending on the type of the calibration curve. If the curve of all analytes is generated using an average response factor (RF), the Form VII will display results using the %difference calculation (RF). If the curve of one or more analytes is generated using a linear curve, the Form VII will display results using the % drift calculation (by concentration) for all analytes.

System Configuration

The Semi-Volatiles-HERB analysis was performed on the following instrument configuration:

Instrument ID	Instrument	System Configuration	Column ID	Column Description
ECD6A.I_1	HP Gas Chromatograph	HP6890 Series GC/ECD	Rtx-CLP I	30m x 0.25mm, 0.25um (Rtx-CLPesticide)
ECD6A.I_2	HP Gas Chromatograph	HP6890 Series GC/ECD	Rtx-CLP II	30m x 0.25mm, 0.20um (Rtx-CLPesticide II)

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Andy Whitlock Date: 12-30-2009

Roadmap for LANL 10-939 HERB

This roadmap was analyzed by tif01533 on 12-28-2009, 13:32.
This roadmap was reviewed by jcb on 12-29-2009, 09:33.
This roadmap was packaged by yml on 12-29-2009, 18:57.

Front Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
■	N	/chem/ecd6a.i/121809a.b/044f4401.d	243007002	sample	19-DEC-2009	13:25	all.sub	1.00000	121809a		DUSE
■	N	/chem/ecd6a.i/122109a.b/035f3501.d	243007002	sample	22-DEC-2009	06:51	all.sub	1.00000	122109a		
□	N	/chem/ecd6a.i/122209a.b/043f4301.d	243007002	sample	23-DEC-2009	16:18	10-939.sub	WST03-10-2147	1.00000	934339	USE. PASSING BOTH COLUMNS, UPLOAD HIGHER RESULT.

Back Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
■	N	/chem/ecd6a.i/121809a.b/044b4401.d	243007002	sample	19-DEC-2009	13:25	all.sub	1.00000	121809a	RtxCLPII	DUSE
■	N	/chem/ecd6a.i/122109a.b/035b3501.d	243007002	sample	22-DEC-2009	06:51	all.sub	1.00000	122109a	RtxCLPII	
□	N	/chem/ecd6a.i/122209a.b/043b4301.d	243007002	sample	23-DEC-2009	16:18	10-939.sub	WST03-10-2147	1.00000	934339	USE. PASSING BOTH COLUMNS, UPLOAD HIGHER RESULT.

Front QC Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
□	N	/chem/ecd6a.i/122209a.b/041f4101.d	1201999026	mb	23-DEC-2009	15:20	10-939.sub	HBLK01	1.00000	934339	USE. PASSING BOTH COLUMNS, UPLOAD HIGHER RESULT.
□	N	/chem/ecd6a.i/122209a.b/042f4201.d	1201999027	lcs	23-DEC-2009	15:49	10-939.sub	HBLK01LCS	1.00000	934339	USE. PASSING BOTH COLUMNS, UPLOAD HIGHER RESULT.
□	N	/chem/ecd6a.i/122209a.b/044f4401.d	1201999028	ms	23-DEC-2009	16:46	10-939.sub	WST03-10-2147MS	1.00000	934339	USE. PASSING BOTH COLUMNS, UPLOAD HIGHER RESULT.
□	N	/chem/ecd6a.i/122209a.b/045f4501.d	1201999029	msd	23-DEC-2009	17:15	10-939.sub	WST03-10-2147MSD	1.00000	934339	USE. PASSING BOTH COLUMNS, UPLOAD HIGHER RESULT.

Back QC Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
□	N	/chem/ecd6a.i/122209a.b/041b4101.d	1201999026	mb	23-DEC-2009	15:20	10-939.sub	HBLK01	1.00000	934339	USE. PASSING BOTH COLUMNS, UPLOAD HIGHER RESULT.
□	N	/chem/ecd6a.i/122209a.b/042b4201.d	1201999027	lcs	23-DEC-2009	15:49	10-939.sub	HBLK01LCS	1.00000	934339	USE. PASSING BOTH COLUMNS, UPLOAD HIGHER RESULT.
□	N	/chem/ecd6a.i/122209a.b/044b4401.d	1201999028	ms	23-DEC-2009	16:46	10-939.sub	WST03-10-2147MS	1.00000	934339	USE. PASSING BOTH COLUMNS, UPLOAD HIGHER RESULT.
□	N	/chem/ecd6a.i/122209a.b/045b4501.d	1201999029	msd	23-DEC-2009	17:15	10-939.sub	WST03-10-2147MSD	1.00000	934339	USE. PASSING BOTH COLUMNS, UPLOAD HIGHER RESULT.

SAMPLE DATA SUMMARY

Herbicide
Certificate of Analysis
Sample Summary

SDG Number:	10-939	**Date Collected:**	12/14/2009 12:00	**Matrix:**	R
Lab Sample ID:	243007002	**Date Received:**	12/16/2009 09:10	**%Moisture:**	13.5
		Client:	LANL010	**Project:**	LANL01004
Client ID:	WST03-10-2147	**Method:**	SW846 8151A	**SOP Ref:**	GL-OA-E-011
Batch ID:	934339	**Inst:**	ECD6A.I	**Dilution:**	1
Run Date:	12/23/2009 16:18	**Analyst:**	HXJ1	**Inj. Vol:**	1 uL
Prep Date:	12/18/2009 08:56	**Aliquot:**	50.01 g	**Final Volume:**	10 mL
Data File:	043f4301.d	**Column:**	1 Rtx-CLP	**Level:**	LOW
	043b4301.d		2 Rtx-CLPII		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
75-99-0	Dalapon	U	116	ug/kg	23.1	116	1
1918-00-9	Dicamba	U	5.78	ug/kg	1.92	5.78	1
93-65-2	MCPP	U	1160	ug/kg	231	1160	1
94-74-6	MCPA	U	1160	ug/kg	266	1160	1
120-36-5	Dichlorprop	U	5.78	ug/kg	1.92	5.78	1
94-75-7	2,4-D	U	5.78	ug/kg	1.92	5.78	1
93-72-1	2,4,5-TP	U	5.78	ug/kg	1.92	5.78	1
93-76-5	2,4,5-T	U	5.78	ug/kg	1.92	5.78	1
94-82-6	2,4-DB	U	5.78	ug/kg	1.92	5.78	1
88-85-7	Dinoseb	U	5.78	ug/kg	1.92	5.78	1

QUALITY CONTROL SUMMARY

Herbicide

Surrogate Recovery Report

SDG Number: 10-939

Matrix Type: SOLID

CAP Column (1) : Rtx-CLP **CAP Column (2) : Rtx-CLPII**

Sample ID	Client ID	DCAA 1 %REC #	DCAA 2 %REC #
1201999026	MB for batch 934338	48	49
1201999027	LCS for batch 934338	82	90
243007002	WST03-10-2147	42	43
1201999028	WST03-10-2147MS	44	43
1201999029	WST03-10-2147MSD	53	51

Surrogate	Acceptance Limits
DCAA = 2,4-Dichlorophenylacetic acid	(30%-126%)

* Recovery outside Acceptance Limits

\# Column to be used to flag recovery values

D Sample Diluted

Herbicide

Quality Control Summary
Spike Recovery Report

SDG Number: 10-939
Client ID: LCS for batch 934338
Lab Sample ID: 1201999027
Instrument: ECD6A.I
Analyst: HXJ1
Inj. Vol: 1 uL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 12/23/2009 15:49
Prep Batch ID: 934338
Batch ID: 934339
Dilution: 1

CAS No	Parmname		Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
75-99-0	LCS	Dalapon	400	0.0	138	34	30-96
1918-00-9	LCS	Dicamba	40.0	0.0	27.2	68	51-105
93-65-2	LCS	MCPP	4000	0.0	3460	86	49-127
94-74-6	LCS	MCPA	4000	0.0	3040	76	47-125
120-36-5	LCS	Dichlorprop	40.0	0.0	30.6	76	56-109
94-75-7	LCS	2,4-D	40.0	0.0	30.7	77	39-125
93-72-1	LCS	2,4,5-TP	40.0	0.0	33.3	83	48-120
93-76-5	LCS	2,4,5-T	40.0	0.0	29.7	74	42-127
94-82-6	LCS	2,4-DB	40.0	0.0	34.3	86	56-128
88-85-7	LCS	Dinoseb	40.0	0.0	35.5	89	30-121

Herbicide

Quality Control Summary
Spike Recovery Report

SDG Number: 10-939
Client ID: WST03-10-2147MS
Lab Sample ID: 1201999028
Instrument: ECD6A.I
Analyst: HXJ1
Inj. Vol: 1 uL

Sample Type: Matrix Spike
Matrix: R
%Moisture: 13.5
Analysis Date: 12/23/2009 16:46
Prep Batch ID: 934338
Batch ID: 934339
Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
75-99-0	MS	Dalapon	462	0.00	U	92.5	20 *	30-94
1918-00-9	MS	Dicamba	46.2	0.00	U	13.1	28 *	30-100
93-65-2	MS	MCPP	4620	0.00	U	871	19 *	30-111
94-74-6	MS	MCPA	4620	0.00	U	1230	27 *	30-109
120-36-5	MS	Dichlorprop	46.2	0.00	U	11.3	24 *	30-111
94-75-7	MS	2,4-D	46.2	0.00	U	11.3	24 *	30-148
93-72-1	MS	2,4,5-TP	46.2	0.00	U	8.71	19 *	30-118
93-76-5	MS	2,4,5-T	46.2	0.00	U	7.90	17 *	30-123
94-82-6	MS	2,4-DB	46.2	0.00	U	15.7	34	30-119
88-85-7	MS	Dinoseb	46.2	0.00	U	14.3	31	30-140

Herbicide

Quality Control Summary
Spike Recovery Report

SDG Number: 10–939
Client ID: WST03–10–2147MSD
Lab Sample ID: 1201999029
Instrument: ECD6A.I
Analyst: HXJ1
Inj. Vol: 1 uL

Sample Type: Matrix Spike Duplicate
Matrix: R
%Moisture: 13.5
Analysis Date: 12/23/2009 17:15
Prep Batch ID: 934338
Batch ID: 934339
Dilution: 1

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
75–99–0	MSD Dalapon	462	0.00	U	206	45	30–94	76 *	0–25
1918–00–9	MSD Dicamba	46.2	0.00	U	19.7	43	30–100	40 *	0–25
93–65–2	MSD MCPP	4620	0.00	U	1350	29 *	30–111	43 *	0–25
94–74–6	MSD MCPA	4620	0.00	U	1820	39	30–109	39 *	0–25
120–36–5	MSD Dichlorprop	46.2	0.00	U	15.1	33	30–111	29 *	0–25
94–75–7	MSD 2,4–D	46.2	0.00	U	15.3	33	30–148	30 *	0–25
93–72–1	MSD 2,4,5–TP	46.2	0.00	U	12.8	28 *	30–118	38 *	0–25
93–76–5	MSD 2,4,5–T	46.2	0.00	U	10.5	23 *	30–123	29 *	0–25
94–82–6	MSD 2,4–DB	46.2	0.00	U	30.6	66	30–119	64 *	0–25
88–85–7	MSD Dinoseb	46.2	0.00	U	12.6	27 *	30–140	12	0–25

Method Blank Summary

SDG Number:	10–939	Client:	LANL010	Matrix:	SOIL
Client ID:	MB for batch 934338	Instrument ID:	ECD6A.I_2 ECD6A.I_1	Data File:	041b4101.d 041f4101.d
Lab Sample ID:	1201999026				
Column:	Rtx–CLPII Rtx–CLP	Prep Date:	12/18/2009 08:56	Analyzed:	12/23/09 15:20
		Level:	LOW		

This method blank applies to the following samples and quality control samples:

	Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01	LCS for batch 934338	1201999027	042f4201.d 042b4201.d	12/23/09	1549
02	WST03–10–2147	243007002	043f4301.d 043b4301.d	12/23/09	1618
03	WST03–10–2147MS	1201999028	044f4401.d 044b4401.d	12/23/09	1646
04	WST03–10–2147MSD	1201999029	045f4501.d 045b4501.d	12/23/09	1715

SAMPLE
DATA

Herbicide
Certificate of Analysis
Sample Summary

SDG Number:	10–939	**Date Collected:**	12/14/2009 12:00	**Matrix:**	R
Lab Sample ID:	243007002	**Date Received:**	12/16/2009 09:10	**%Moisture:**	13.5
		Client:	LANL010	**Project:**	LANL01004
Client ID:	WST03–10–2147	**Method:**	SW846 8151A	**SOP Ref:**	GL–OA–E–011
Batch ID:	934339	**Inst:**	ECD6A.I	**Dilution:**	1
Run Date:	12/23/2009 16:18	**Analyst:**	HXJ1	**Inj. Vol:**	1 uL
Prep Date:	12/18/2009 08:56	**Aliquot:**	50.01 g	**Final Volume:**	10 mL
Data File:	043f4301.d	**Column:**	1 Rtx–CLP	**Level:**	LOW
	043b4301.d		2 Rtx–CLPII		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
75–99–0	Dalapon	U	116	ug/kg	23.1	116	1
1918–00–9	Dicamba	U	5.78	ug/kg	1.92	5.78	1
93–65–2	MCPP	U	1160	ug/kg	231	1160	1
94–74–6	MCPA	U	1160	ug/kg	266	1160	1
120–36–5	Dichlorprop	U	5.78	ug/kg	1.92	5.78	1
94–75–7	2,4–D	U	5.78	ug/kg	1.92	5.78	1
93–72–1	2,4,5–TP	U	5.78	ug/kg	1.92	5.78	1
93–76–5	2,4,5–T	U	5.78	ug/kg	1.92	5.78	1
94–82–6	2,4–DB	U	5.78	ug/kg	1.92	5.78	1
88–85–7	Dinoseb	U	5.78	ug/kg	1.92	5.78	1

GEL Laboratories LLC

Column: RtxCLP 0.25mm x 30 m Inj Vol: 2 ul

Data file : /chem/ecd6a.i/122209a.b/043f4301.d
Lab Smp Id: 243007002 Client Smp ID: WST03-10-2147
Inj Date : 23-DEC-2009 16:18
Operator : HXJ1 Inst ID: ecd6a.i
Smp Info : |243007002|1|
Misc Info : |ECD51H_1S|934339|SVH|LANL|SOIL|WST03-10-2147|||
Comment :
Method : /chem/ecd6a.i/122209a.b/ECD6-F-8151A-122209.m
Meth Date : 28-Dec-2009 11:01 tif01533 Quant Type: ESTD
Cal Date : 22-DEC-2009 21:04 Cal File: 002f0201.d
Als bottle: 43
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-939.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	10.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	50.01000	Weight of sample extracted (g)
M	13.49180	% Moisture

Cpnd Variable Local Compound Variable

	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)
$ 2	2,4-Dichlorophenylacetic acid					CAS #: 19719-28-9
	9.766	9.752	0.014	34788005	209.893	48.5

Data File: /chem/ecd6a.i/122209a.b/043f4301.d

Date : 23-DEC-2009 16:18

Client ID: WST03-10-2147

Sample Info: 1243007002111

Volume Injected (uL): 1.0

Column phase: Rtx-CLP

Instrument: ecd6a.i

Operator: HXJ1

Column diameter: 0.25

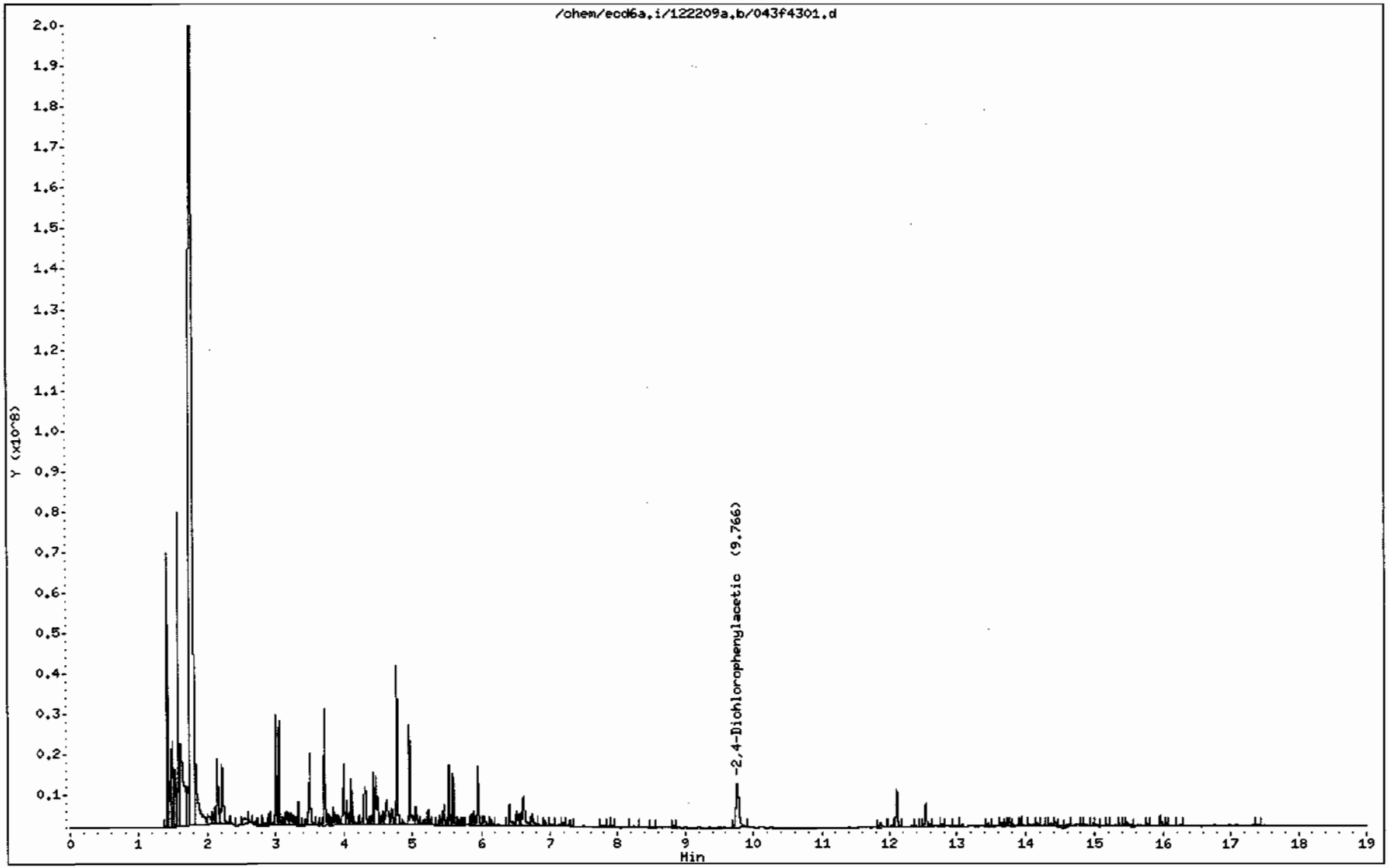

GEL Laboratories LLC

Column: RtxCLPII 0.25mm x 30 m Inj Vol: 2ul

Data file : /chem/ecd6a.i/122209a.b/043b4301.d
Lab Smp Id: 243007002 Client Smp ID: WST03-10-2147
Inj Date : 23-DEC-2009 16:18
Operator : HXJ1 Inst ID: ecd6a.i
Smp Info : |243007002|1|
Misc Info : |ECD51H_1S|934339|SVH|LANL|SOIL|WST03-10-2147|||
Comment : RtxCLPII
Method : /chem/ecd6a.i/122209a.b/ECD6-B-8151A-122209.m
Meth Date : 24-Dec-2009 18:57 tif01533 Quant Type: ESTD
Cal Date : 22-DEC-2009 21:32 Cal File: 003b0301.d
Als bottle: 43
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-939.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	10.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	50.01000	Weight of sample extracted (g)
M	13.49180	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)
$ 2 2,4-Dichlorophenylacetic acid					CAS #: 19719-28-9
10.857	10.850	0.007	46263832	217.362	50.2

Data File: /chem/ecd6a.i/122209a.b/043b4301.d

Date : 23-DEC-2009 16:18

Client ID: WST03-10-2147

Sample Info: 1243007002111

Volume Injected (uL): 1.0

Column phase: Rtx-CLPII

Instrument: ecd6a.i

Operator: HXJ1

Column diameter: 0.25

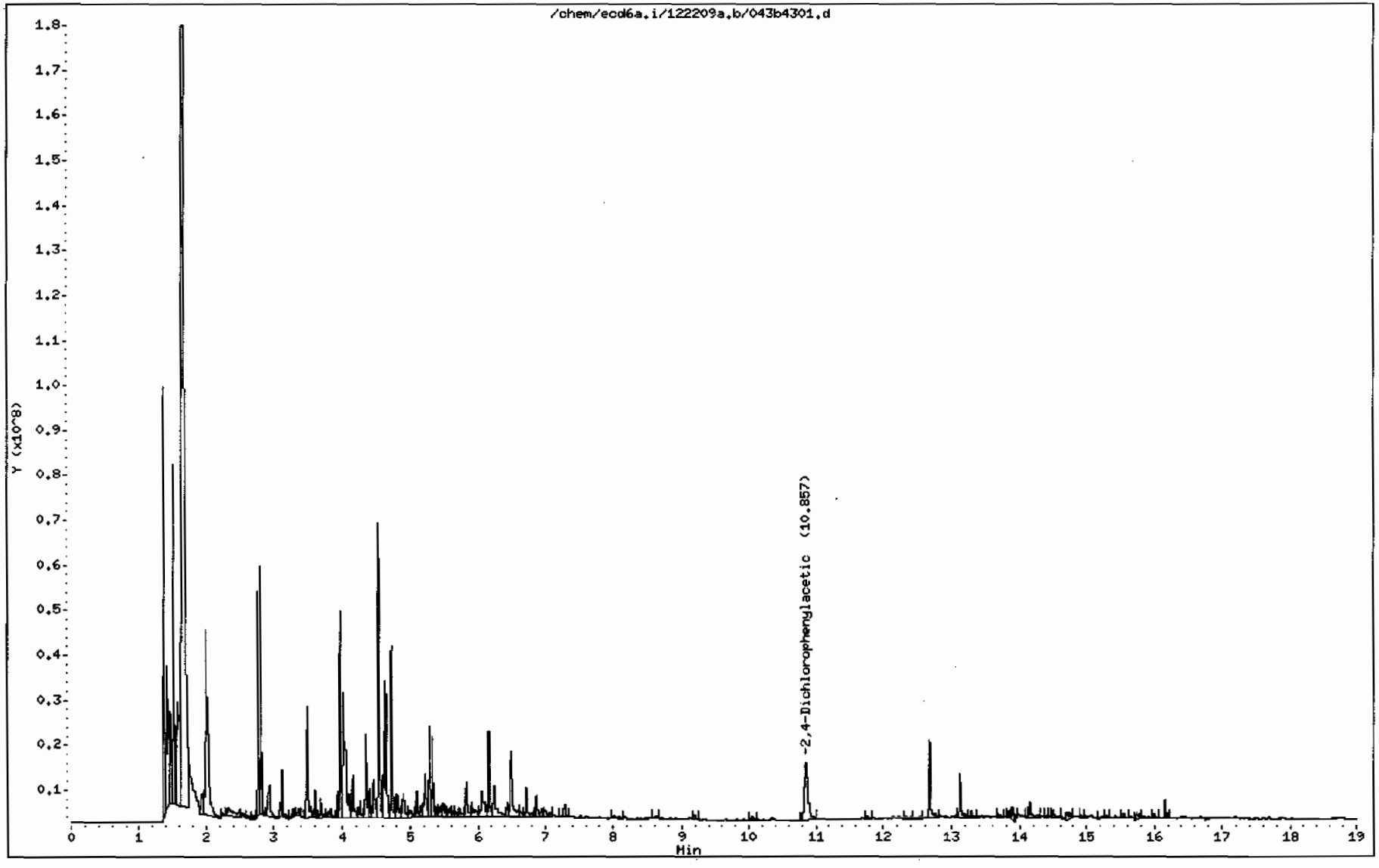

STANDARDS DATA

Report Date: 28-Dec-2009 10:40

Calibration History

Method : /chem/ecd6a.i/122209a.b/ECD6-F-8151A-122209.m
Start Cal Date: 11-NOV-2009 16:39
End Cal Date : 22-DEC-2009 23:50

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 25.00000		
22-DEC-2009 21:04	all	/chem/ecd6a.i/122209a.b/002f0201.d
Cal Level: 2 , Cal Amount: 50.00000		
22-DEC-2009 21:32	all	/chem/ecd6a.i/122209a.b/003f0301.d
Cal Level: 3 , Cal Amount: 100.00000		
22-DEC-2009 22:00	all	/chem/ecd6a.i/122209a.b/004f0401.d
Cal Level: 4 , Cal Amount: 150.00000		
22-DEC-2009 22:28	all	/chem/ecd6a.i/122209a.b/005f0501.d
Cal Level: 5 , Cal Amount: 200.00000		
22-DEC-2009 22:55	all	/chem/ecd6a.i/122209a.b/006f0601.d
Cal Level: 6 , Cal Amount: 300.00000		
22-DEC-2009 23:23	all	/chem/ecd6a.i/122209a.b/007f0701.d
Cal Level: 7 , Cal Amount: 400.00000		
22-DEC-2009 23:50	all	/chem/ecd6a.i/122209a.b/008f0801.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 5

Ccal Level: 5 , Ccal Amount: 200		
24-DEC-2009 02:06	all	/chem/ecd6a.i/122209a.b/064f6401.d
Ccal Level: 5 , Ccal Amount: 200		
23-DEC-2009 22:53	all	/chem/ecd6a.i/122209a.b/057f5701.d

Ccal Level: 5 , Ccal Amount: 200		
23-DEC-2009 14:15	all	/chem/ecd6a.i/122209a.b/039f3901.d
Ccal Level: 5 , Ccal Amount: 200		
23-DEC-2009 19:09	all	/chem/ecd6a.i/122209a.b/049f4901.d
Ccal Level: 5 , Ccal Amount: 200		
23-DEC-2009 17:43	all	/chem/ecd6a.i/122209a.b/046f4601.d
Ccal Level: 5 , Ccal Amount: 200		
23-DEC-2009 10:25	all	/chem/ecd6a.i/122209a.b/031f3101.d
Ccal Level: 5 , Ccal Amount: 200		
23-DEC-2009 06:42	all	/chem/ecd6a.i/122209a.b/023f2301.d
Ccal Level: 5 , Ccal Amount: 200		
23-DEC-2009 03:03	all	/chem/ecd6a.i/122209a.b/015f1501.d
Ccal Level: 5 , Ccal Amount: 200		
23-DEC-2009 00:18	all	/chem/ecd6a.i/122209a.b/009f0901.d
Ccal Level: 5 , Ccal Amount: 200		
22-DEC-2009 22:55	all	/chem/ecd6a.i/122209a.b/006f0601.d

Report Date: 28-Dec-2009 10:39

Calibration History

Method : /chem/ecd6a.i/122209a.b/ECD6-B-8151A-122209.m
Start Cal Date: 11-NOV-2009 16:39
End Cal Date : 22-DEC-2009 23:50

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 25.00000		
22-DEC-2009 21:04	all	/chem/ecd6a.i/122209a.b/002b0201.d
Cal Level: 2 , Cal Amount: 50.00000		
22-DEC-2009 21:32	all	/chem/ecd6a.i/122209a.b/003b0301.d
Cal Level: 3 , Cal Amount: 100.00000		
22-DEC-2009 22:00	all	/chem/ecd6a.i/122209a.b/004b0401.d
Cal Level: 4 , Cal Amount: 150.00000		
22-DEC-2009 22:28	all	/chem/ecd6a.i/122209a.b/005b0501.d
Cal Level: 5 , Cal Amount: 200.00000		
22-DEC-2009 22:55	all	/chem/ecd6a.i/122209a.b/006b0601.d
Cal Level: 6 , Cal Amount: 300.00000		
22-DEC-2009 23:23	all	/chem/ecd6a.i/122209a.b/007b0701.d
Cal Level: 7 , Cal Amount: 400.00000		
22-DEC-2009 23:50	all	/chem/ecd6a.i/122209a.b/008b0801.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 5

Ccal Level: 5 , Ccal Amount: 200		
24-DEC-2009 02:06	all	/chem/ecd6a.i/122209a.b/064b6401.d
Ccal Level: 5 , Ccal Amount: 200		
23-DEC-2009 22:53	all	/chem/ecd6a.i/122209a.b/057b5701.d
Ccal Level: 5 , Ccal Amount: 200		
23-DEC-2009 14:15	all	/chem/ecd6a.i/122209a.b/039b3901.d

Ccal Level: 5 , Ccal Amount: 200		
23-DEC-2009 19:09	all	/chem/ecd6a.i/122209a.b/049b4901.d
Ccal Level: 5 , Ccal Amount: 200		
23-DEC-2009 17:43	all	/chem/ecd6a.i/122209a.b/046b4601.d
Ccal Level: 5 , Ccal Amount: 200		
23-DEC-2009 10:25	all	/chem/ecd6a.i/122209a.b/031b3101.d
Ccal Level: 5 , Ccal Amount: 200		
23-DEC-2009 06:42	all	/chem/ecd6a.i/122209a.b/023b2301.d
Ccal Level: 5 , Ccal Amount: 200		
23-DEC-2009 03:03	all	/chem/ecd6a.i/122209a.b/015b1501.d
Ccal Level: 5 , Ccal Amount: 200		
23-DEC-2009 00:18	all	/chem/ecd6a.i/122209a.b/009b0901.d
Ccal Level: 5 , Ccal Amount: 200		
22-DEC-2009 22:55	all	/chem/ecd6a.i/122209a.b/006b0601.d

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd6a.i/122209a.b/ECD6-F-8151A-122209.m
Quant Method : ESTD Target Version : 3.50
Last Update : 24-Dec-2009 19:07 Number of Cpnds : 12
Data Type : GC DATA

Global Integrator : Falcon

Chromat Events	Values
Initial:Start Threshold	72858.000000
Initial:End Threshold	36429.000000
Initial:Area Threshold	728580.000000
Initial:P-P Resolution	1.000000
Initial:Bunch Factor	20.000000
Initial:Negative Peaks	OFF
Initial:Tension	1.000000

	Compound	RT	RT Window	RF
	1 Dalapon	3.657	3.627-3.687	1.306e+05
$	2 2,4-Dichlorophenylacetic a	9.752	9.692-9.812	1.657e+05
	3 Dicamba	10.214	10.154-10.274	5.603e+05
	4 MCPP	10.966	10.906-11.026	5.661e+02
	5 MCPA	11.400	11.340-11.460	9.940e+02
	6 Dichlorprop	12.054	11.994-12.114	1.434e+05
	7 2,4-D	12.368	12.308-12.428	1.610e+05
	43 Pentachlorophenol	12.521	12.501-12.541	1.642e+06
	8 2,4,5-TP	13.184	13.154-13.214	6.279e+05
	9 2,4,5-T	13.400	13.360-13.440	5.607e+05
	10 2,4-DB	13.767	13.727-13.807	8.642e+04
	11 Dinoseb	14.357	14.327-14.387	2.838e+05

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd6a.i/122209a.b/ECD6-B-8151A-122209.m
Quant Method : ESTD Target Version : 3.50
Last Update : 24-Dec-2009 18:57 Number of Cpnds : 12
Data Type : GC DATA

Global Integrator : Falcon

Chromat Events	Values
Initial:Start Threshold	105244.000000
Initial:End Threshold	52622.000000
Initial:Area Threshold	1052440.000000
Initial:P-P Resolution	1.000000
Initial:Bunch Factor	25.000000
Initial:Negative Peaks	OFF
Initial:Tension	2.000000

	Compound	RT	RT Window	RF
	1 Dalapon	3.610	3.580-3.640	2.103e+05
$	2 2,4-Dichlorophenylacetic a	10.850	10.790-10.910	2.128e+05
	3 MCPP	11.702	11.642-11.762	1.452e+03
	4 Dicamba	11.332	11.272-11.392	9.210e+05
	5 MCPA	12.091	12.031-12.151	1.880e+03
	6 Dichlorprop	12.525	12.465-12.585	2.000e+05
	7 2,4-D	12.850	12.790-12.910	2.370e+05
	43 Pentachlorophenol	13.129	13.109-13.149	2.460e+06
	8 2,4,5-TP	13.511	13.481-13.541	9.106e+05
	9 2,4,5-T	13.764	13.734-13.794	8.061e+05
	10 Dinoseb	14.235	14.205-14.265	4.336e+05
	11 2,4-DB	14.066	14.026-14.106	1.132e+05

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 11-NOV-2009 16:39
End Cal Date : 22-DEC-2009 23:50
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd6a.i/122209a.b/ECD6-F-8151A-122209.m
Cal Date : 24-Dec-2009 19:07 tif01533
Curve Type : Average

Calibration File Names:
Level 1: /chem/ecd6a.i/122209a.b/002f0201.d
Level 2: /chem/ecd6a.i/122209a.b/003f0301.d
Level 3: /chem/ecd6a.i/122209a.b/004f0401.d
Level 4: /chem/ecd6a.i/122209a.b/005f0501.d
Level 5: /chem/ecd6a.i/122209a.b/006f0601.d
Level 6: /chem/ecd6a.i/122209a.b/007f0701.d
Level 7: /chem/ecd6a.i/122209a.b/008f0801.d

Compound	25.000 Level 1 400.000 Level 7	50.000 Level 2	100.000 Level 3	150.000 Level 4	200.000 Level 5	300.000 Level 6	RRF	% RSD
1 Dalapon	+++++ 140017	121317	116481	144291	125721	135556	130564	8.460
3 Dicamba	570050 528292	589449	561875	570422	559218	542814	560303	3.555
4 MCPP	+++++ 593	487	547	583	592	594	566	7.535
5 MCPA	+++++ 951	1048	1006	1018	991	949	994	3.912
6 Dichlorprop	155167 130787	155607	143915	143871	140595	133897	143406	6.647
7 2,4-D	162866 156150	165932	156564	168576	159529	157109	160961	3.061
43 Pentachlorophenol	1756956 1525818	1763062	1646843	1644378	1610876	1544126	1641723	5.668

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 11-NOV-2009 16:39
End Cal Date : 22-DEC-2009 23:50
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd6a.i/122209a.b/ECD6-F-8151A-122209.m
Cal Date : 24-Dec-2009 19:07 tif01533
Curve Type : Average

Compound	25.000 Level 1	50.000 Level 2	100.000 Level 3	150.000 Level 4	200.000 Level 5	300.000 Level 6	RRF	% RSD
	400.000 Level 7							
8 2,4,5-TP	655613	668640	632818	634176	622427	595854		
	585479						627858	4.755
9 2,4,5-T	531523	559879	540391	594765	575299	562799		
	559943						560657	3.743
10 2,4-DB	86844	86574	83993	86129	89335	86631		
	85447						86422	1.870
11 Dinoseb	268978	288202	285508	281610	291587	285947		
	284620						283779	2.544
$ 2 2,4-Dichlorophenylacetic acid	206280	185392	165071	160895	154719	145960		
	141872						165742	13.794

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 11-NOV-2009 16:39
End Cal Date : 22-DEC-2009 23:50
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd6a.i/122209a.b/ECD6-B-8151A-122209.m
Cal Date : 24-Dec-2009 18:57 tif01533
Curve Type : Average

Calibration File Names:
Level 1: /chem/ecd6a.i/122209a.b/002b0201.d
Level 2: /chem/ecd6a.i/122209a.b/003b0301.d
Level 3: /chem/ecd6a.i/122209a.b/004b0401.d
Level 4: /chem/ecd6a.i/122209a.b/005b0501.d
Level 5: /chem/ecd6a.i/122209a.b/006b0601.d
Level 6: /chem/ecd6a.i/122209a.b/007b0701.d
Level 7: /chem/ecd6a.i/122209a.b/008b0801.d

Compound	25.000 Level 1 / 400.000 Level 7	50.000 Level 2	100.000 Level 3	150.000 Level 4	200.000 Level 5	300.000 Level 6	RRF	% RSD
1 Dalapon	+++++ / 237511	181439	178047	235464	204847	224561	210312	12.544
3 MCPP	+++++ / 1249	1637	1522	1532	1434	1334	1452	9.786
4 Dicamba	1292828 / 786640	1017320	879390	842860	827888	800356	921040	19.656
5 MCPA	+++++ / 1596	2262	2004	1915	1812	1688	1880	12.699
6 Dichlorprop	208882 / 191771	208465	201263	199416	197273	193107	200025	3.386
7 2,4-D	224921 / 240088	237399	227335	247705	239117	242169	236962	3.423
43 Pentachlorophenol	2383681 / 2509790	2465611	2420076	2455190	2500556	2486818	2460246	1.842

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 11-NOV-2009 16:39
End Cal Date : 22-DEC-2009 23:50
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd6a.i/122209a.b/ECD6-B-8151A-122209.m
Cal Date : 24-Dec-2009 18:57 tif01533
Curve Type : Average

Compound	25.000 Level 1	50.000 Level 2	100.000 Level 3	150.000 Level 4	200.000 Level 5	300.000 Level 6	RRF	% RSD
	400.000 Level 7							
8 2,4,5-TP	889385	912824	895952	933340	920741	911995		
	910024						910609	1.611
9 2,4,5-T	753819	797873	764748	852669	816038	827158		
	830647						806136	4.480
10 Dinoseb	377896	421208	420711	437505	456903	461778		
	458987						433570	6.932
11 2,4-DB	114174	111584	109979	114374	114870	114125		
	113070						113168	1.571
$ 2 2,4-Dichlorophenylacetic acid	213927	217697	209584	215535	213388	211083		
	208680						212842	1.526

FORM 7
HERBICIDE CONTINUING CALIBRATION CHECK

Lab Name: GEL LABORATORIES LLC Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-939

Instrument ID: ECD6A Calibration Date: 12/23/09 Time: 0018

Lab File ID: 009F0901 Init. Calib. Date(s): 12/22/09 12/22/09

Heated Purge: (Y/N) N Init. Calib. Times: 2104 2350

GC Column: RTX-CLP ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF200	MIN RRF	%D	MAX %D
Dalapon	130564.01	134283.72	0.005	2.8	15.0
MCPA	993.989	982.510	0.005	-1.2	15.0
2,4-D	160960.83	159218.19	0.005	-1.1	15.0
2,4,5-T	560657.03	554033.60	0.005	-1.2	15.0
Dinoseb	283778.75	251415.62	0.005	-11.4	15.0
MCPP	566.122	573.333	0.01	1.3	15.0
Dichlorprop	143405.58	134941.85	0.01	-5.9	15.0
2,4,5-TP	627858.11	598490.01	0.01	-4.7	15.0
Dicamba	560302.93	535385.01	0.01	-4.4	15.0
2,4-DB	86421.931	80370.797	0.01	-7.0	15.0
Pentachlorophenol	1641722.9	1547056.5	0.01	-5.8	15.0
2,4-Dichlorophenylacetic aci	165741.52	156477.80	0.01	-5.6	15.0

FORM VII HERBICIDE

FORM 7
HERBICIDE CONTINUING CALIBRATION CHECK

Lab Name: GEL LABORATORIES LLC Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-939

Instrument ID: ECD6A Calibration Date: 12/23/09 Time: 0018

Lab File ID: 009B0901 Init. Calib. Date(s): 12/22/09 12/22/09

Heated Purge: (Y/N) N Init. Calib. Times: 2104 2350

GC Column: RTX-CLPII ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF200	MIN RRF	%D	MAX %D
Dalapon	210311.69	218623.59	0.005	4.0	15.0
MCPA	1879.521	1787.540	0.005	-4.9	15.0
2,4-D	236962.17	237439.87	0.005	0.2	15.0
2,4,5-T	806136.02	804902.94	0.005	-0.2	15.0
Dinoseb	433569.71	384591.40	0.005	-11.3	15.0
MCPP	1451.538	1414.797	0.01	-2.5	15.0
Dichlorprop	200025.07	187393.39	0.01	-6.3	15.0
2,4,5-TP	910608.61	882762.37	0.01	-3.0	15.0
Dicamba	921040.14	790570.94	0.01	-14.2	15.0
2,4-DB	113167.93	109173.87	0.01	-3.5	15.0
Pentachlorophenol	2460246.1	2363321.5	0.01	-3.9	15.0
2,4-Dichlorophenylacetic aci	212842.06	221395.81	0.01	4.0	15.0

FORM VII HERBICIDE

FORM 7
HERBICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-939

Instrument ID: ECD6A Calibration Date: 12/23/09 Time: 1415

Lab File ID: 039F3901 Init. Calib. Date(s): 12/22/09 12/22/09

Heated Purge: (Y/N) N Init. Calib. Times: 2104 2350

GC Column: RTX-CLP ID: 0.25 (mm)

COMPOUND	RRF	RRF200	MIN RRF	%D	MAX %D	
Dalapon	130564.01	134331.21	0.005	2.9	15.0	
MCPA	993.989	1029.982	0.005	3.6	15.0	
2,4-D	160960.83	178188.32	0.005	10.7	15.0	
2,4,5-T	560657.03	606326.17	0.005	8.1	15.0	
Dinoseb	283778.75	341527.59	0.005	20.3	15.0	<-
MCPP	566.122	640.547	0.01	13.1	15.0	
Dichlorprop	143405.58	152110.20	0.01	6.1	15.0	
2,4,5-TP	627858.11	667420.97	0.01	6.3	15.0	
Dicamba	560302.93	604521.94	0.01	7.9	15.0	
2,4-DB	86421.931	93767.040	0.01	8.5	15.0	
Pentachlorophenol	1641722.9	1627053.4	0.01	0.9	15.0	
2,4-Dichlorophenylacetic aci	165741.52	161389.59	0.01	-2.6	15.0	

FORM VII HERBICIDE

FORM 7
HERBICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-939

Instrument ID: ECD6A Calibration Date: 12/23/09 Time: 1415

Lab File ID: 039B3901 Init. Calib. Date(s): 12/22/09 12/22/09

Heated Purge: (Y/N) N Init. Calib. Times: 2104 2350

GC Column: RTX-CLPII ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF200	MIN RRF	%D	MAX %D	
Dalapon	210311.69	216246.89	0.005	2.8	15.0	
MCPA	1879.521	1817.962	0.005	-3.3	15.0	
2,4-D	236962.17	257992.80	0.005	8.9	15.0	
2,4,5-T	806136.02	829044.83	0.005	2.8	15.0	
Dinoseb	433569.71	503545.12	0.005	16.1	15.0	<-
MCPP	1451.538	1499.211	0.01	3.3	15.0	
Dichlorprop	200025.07	208524.78	0.01	4.2	15.0	
2,4,5-TP	910608.61	986682.40	0.01	8.4	15.0	
Dicamba	921040.14	830213.06	0.01	9.9	15.0	
2,4-DB	113167.93	125866.11	0.01	11.2	15.0	
Pentachlorophenol	2460246.1	2546258.9	0.01	3.5	15.0	
2,4-Dichlorophenylacetic aci	212842.06	226188.09	0.01	6.3	15.0	

FORM VII HERBICIDE

FORM 7
HERBICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-939

Instrument ID: ECD6A Calibration Date: 12/23/09 Time: 1743

Lab File ID: 046F4601 Init. Calib. Date(s): 12/22/09 12/22/09

Heated Purge: (Y/N) N Init. Calib. Times: 2104 2350

GC Column: RTX-CLP ID: 0.25 (mm)

COMPOUND	RRF	RRF200	MIN RRF	%D	MAX %D	
Dalapon	130564.01	136833.11	0.005	4.8	15.0	
MCPA	993.989	1015.362	0.005	2.2	15.0	
2,4-D	160960.83	174045.72	0.005	8.1	15.0	
2,4,5-T	560657.03	587402.83	0.005	4.8	15.0	
Dinoseb	283778.75	356982.83	0.005	25.8	15.0	<-
MCPP	566.122	636.316	0.01	12.4	15.0	
Dichlorprop	143405.58	148477.16	0.01	3.5	15.0	
2,4,5-TP	627858.11	661168.85	0.01	5.3	15.0	
Dicamba	560302.93	583933.17	0.01	4.2	15.0	
2,4-DB	86421.931	92489.374	0.01	7.0	15.0	
Pentachlorophenol	1641722.9	1596614.0	0.01	-2.7	15.0	
2,4-Dichlorophenylacetic aci	165741.52	157159.92	0.01	-5.2	15.0	

FORM VII HERBICIDE

FORM 7
HERBICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-939

Instrument ID: ECD6A Calibration Date: 12/23/09 Time: 1743

Lab File ID: 046B4601 Init. Calib. Date(s): 12/22/09 12/22/09

Heated Purge: (Y/N) N Init. Calib. Times: 2104 2350

GC Column: RTX-CLPII ID: 0.25 (mm)

COMPOUND	RRF	RRF200	MIN RRF	%D	MAX %D	
Dalapon	210311.69	194153.82	0.005	-7.7	15.0	
MCPA	1879.521	1863.487	0.005	-0.8	15.0	
2,4-D	236962.17	253087.81	0.005	6.8	15.0	
2,4,5-T	806136.02	815502.45	0.005	1.2	15.0	
Dinoseb	433569.71	500668.39	0.005	15.5	15.0	<-
MCPP	1451.538	1541.128	0.01	6.2	15.0	
Dichlorprop	200025.07	208479.77	0.01	4.2	15.0	
2,4,5-TP	910608.61	975684.26	0.01	7.1	15.0	
Dicamba	921040.14	821180.49	0.01	-10.8	15.0	
2,4-DB	113167.93	123293.44	0.01	8.9	15.0	
Pentachlorophenol	2460246.1	2518413.7	0.01	2.4	15.0	
2,4-Dichlorophenylacetic aci	212842.06	223394.21	0.01	5.0	15.0	

FORM VII HERBICIDE

GEL Laboratories LLC

Column: RtxCLP 0.25mm x 30 m Inj Vol: 2 ul

Data file : /chem/ecd6a.i/122209a.b/009f0901.d
Lab Smp Id: WHB091222-08 Client Smp ID: HSTD01
Inj Date : 23-DEC-2009 00:18
Operator : HXJ1 Inst ID: ecd6a.i
Smp Info : |WHB091222-08
Misc Info : CHECK
Comment :
Method : /chem/ecd6a.i/122209a.b/ECD6-F-8151A-122209.m
Meth Date : 24-Dec-2009 19:07 tif01533 Quant Type: ESTD
Cal Date : 22-DEC-2009 21:04 Cal File: 002f0201.d
Als bottle: 9 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50 Sample Matrix: None

	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)		
	1 Dalapon					CAS #: 75-99-0		
	3.657	3.657	0.000	268567447	2000.00	2060		
$	2 2,4-Dichlorophenylacetic acid					CAS #: 19719-28-9		
	9.752	9.752	0.000	78238901	500.000	472		(M)
	3 Dicamba					CAS #: 6597-78-0		
	10.214	10.214	0.000	107077002	200.000	191		(M)
	4 MCPP					CAS #: 7085-19-0		
	10.966	10.966	0.000	11466665	20000.0	20200		(M)
	5 MCPA					CAS #: 94-74-6		
	11.400	11.400	0.000	19650202	20000.0	19800		(M)
	6 Dichlorprop					CAS #: 120-36-5		
	12.054	12.054	0.000	26988370	200.000	188		(M)
	7 2,4-D					CAS #: 94-75-7		
	12.368	12.368	0.000	31843638	200.000	198		(M)
	43 Pentachlorophenol					CAS #: 87-86-5		
	12.521	12.521	0.000	309411301	200.000	188		(M)
	8 2,4,5-TP					CAS #: 93-72-1		
	13.184	13.184	0.000	119698002	200.000	191		(M)

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)		
9 2,4,5-T					CAS #: 93-76-5		
13.400	13.400	0.000	110806720	200.000	198		(M)
10 2,4-DB					CAS #: 94-82-6		
13.767	13.767	0.000	16074159	200.000	186		(M)
11 Dinoseb					CAS #: 88-85-7		
14.357	14.357	0.000	50283123	200.000	177		(M)

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd6a.i/122209a.b/009f0901.d
Date : 23-DEC-2009 00:18
Client ID: HSTD01
Sample Info: IWHB091222-08
Column phase: Rtx-CLP

Instrument: ecd6a.i
Operator: HXJ1
Column diameter: 0.25

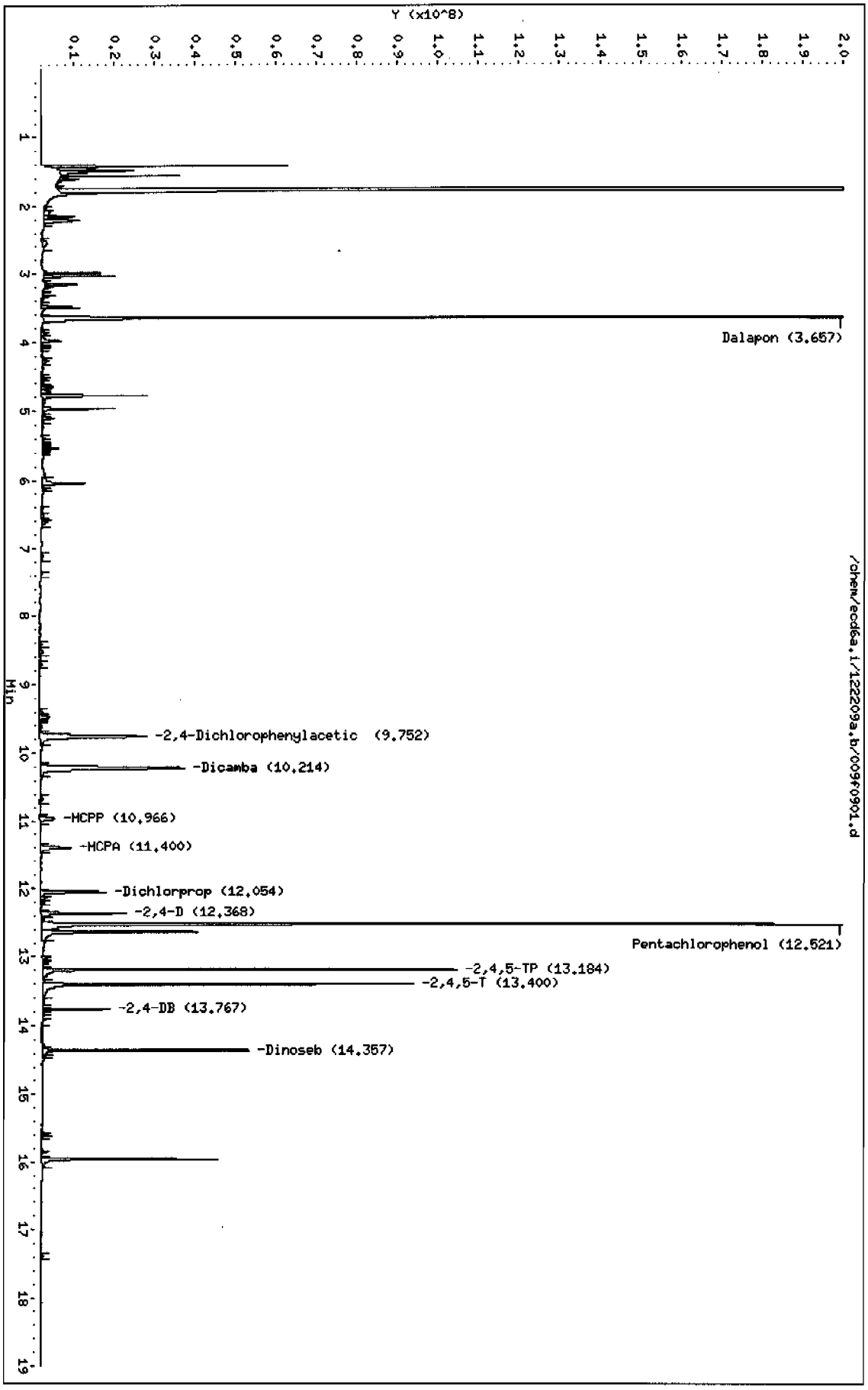

Page 1

GEL Laboratories LLC

Column: RtxCLPII 0.25mm x 30 m Inj Vol: 2ul

Data file : /chem/ecd6a.i/122209a.b/009b0901.d
Lab Smp Id: WHB091222-08 Client Smp ID: HSTD01
Inj Date : 23-DEC-2009 00:18
Operator : HXJ1 Inst ID: ecd6a.i
Smp Info : |WHB091222-08
Misc Info : CHECK
Comment : RtxCLPII
Method : /chem/ecd6a.i/122209a.b/ECD6-B-8151A-122209.m
Meth Date : 24-Dec-2009 18:57 tif01533 Quant Type: ESTD
Cal Date : 22-DEC-2009 21:32 Cal File: 003b0301.d
Als bottle: 9 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50 Sample Matrix: None

	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	
	1 Dalapon					CAS #: 88-85-7	
	3.610	3.610	0.000	437247176	2000.00	2080	
$	2 2,4-Dichlorophenylacetic acid					CAS #: 19719-28-9	
	10.850	10.850	0.000	110697906	500.000	520	(M)
	3 MCPP					CAS #: 7085-19-0	
	11.702	11.702	0.000	28295947	20000.0	19500	(M)
	4 Dicamba					CAS #: 6597-78-0	
	11.332	11.332	0.000	158114188	200.000	172	(M)
	5 MCPA					CAS #: 94-74-6	
	12.091	12.091	0.000	35750806	20000.0	19000	(M)
	6 Dichlorprop					CAS #: 120-36-5	
	12.525	12.525	0.000	37478677	200.000	187	(M)
	7 2,4-D					CAS #: 94-75-7	
	12.850	12.850	0.000	47487973	200.000	200	(M)
	43 Pentachlorophenol					CAS #: 87-86-5	
	13.129	13.129	0.000	472664295	200.000	192	(M)
	8 2,4,5-TP					CAS #: 93-72-1	
	13.511	13.511	0.000	176552474	200.000	194	(M)

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	
9 2,4,5-T					CAS #: 93-76-5	
13.764	13.764	0.000	160980589	200.000	200	(M)
10 Dinoseb					CAS #: 88-85-7	
14.235	14.235	0.000	76918280	200.000	177	(M)
11 2,4-DB					CAS #: 94-82-6	
14.066	14.066	0.000	21834773	200.000	193	(M)

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd6a.i/122209a.b/009b0901.d
Date : 23-DEC-2009 00:18
Client ID: HSTD01
Sample Info: IWHB091222-08

Instrument: ecd6a.i

Column phase: Rtx-CLPII

Operator: HXJ1
Column diameter: 0.25

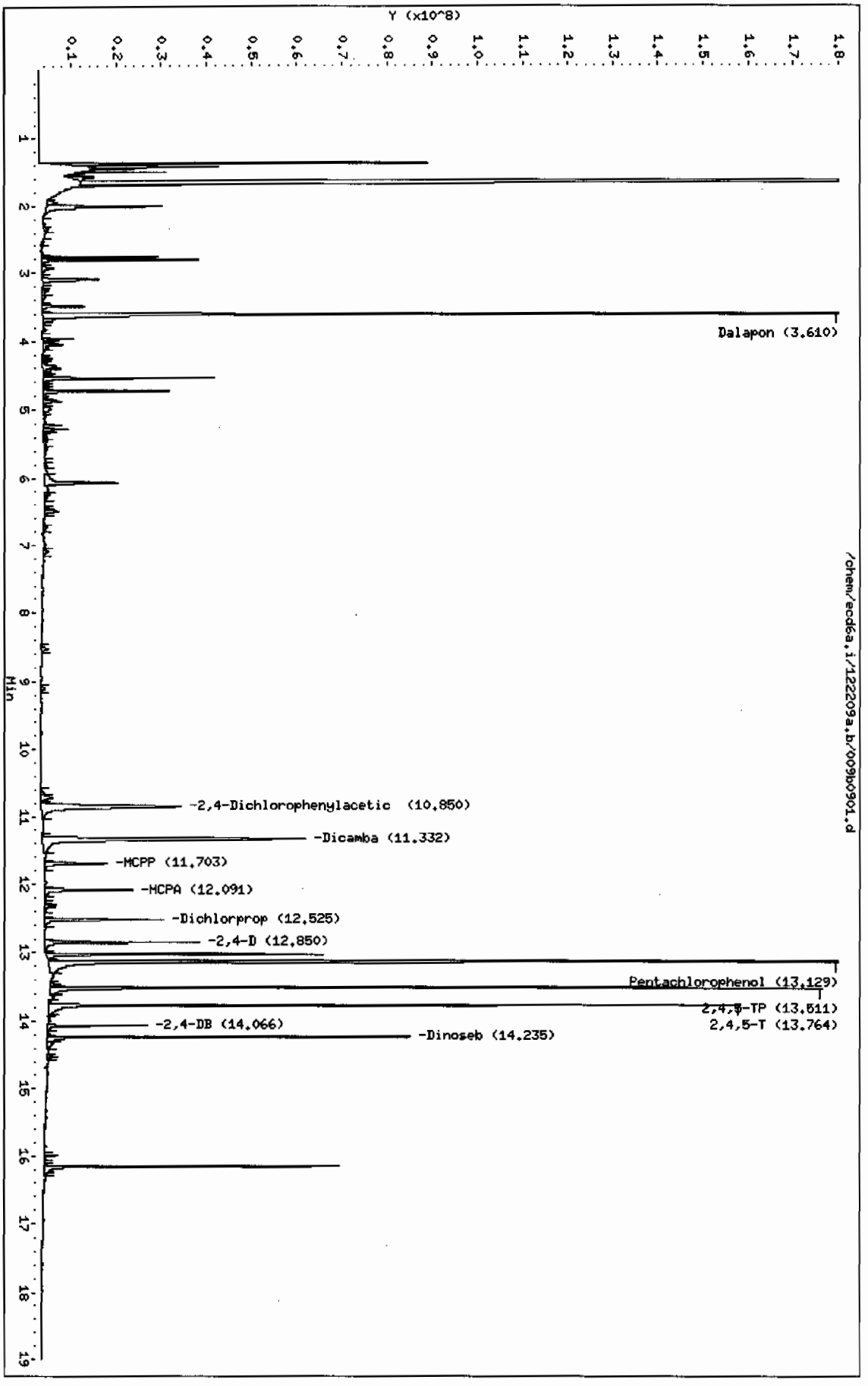

Page 1

GEL Laboratories LLC

Column: RtxCLP 0.25mm x 30 m Inj Vol: 2 ul

Data file : /chem/ecd6a.i/122209a.b/039f3901.d
Lab Smp Id: WHB091030-05 Client Smp ID: HSTD05
Inj Date : 23-DEC-2009 14:15
Operator : HXJ1 Inst ID: ecd6a.i
Smp Info : |WHB091030-05
Misc Info : CHECK
Comment :
Method : /chem/ecd6a.i/122209a.b/ECD6-F-8151A-122209.m
Meth Date : 28-Dec-2009 11:01 tif01533 Quant Type: ESTD
Cal Date : 22-DEC-2009 21:04 Cal File: 002f0201.d
Als bottle: 39 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
	1 Dalapon					CAS #: 75-99-0
	3.653	3.657	-0.004	268662429	2000.00	2060
$	2 2,4-Dichlorophenylacetic acid					CAS #: 19719-28-9
	9.755	9.752	0.003	80694797	500.000	487
	3 Dicamba					CAS #: 6597-78-0
	10.219	10.214	0.005	120904389	200.000	216
	4 MCPP					CAS #: 7085-19-0
	10.975	10.966	0.009	12810939	20000.0	22600
	5 MCPA					CAS #: 94-74-6
	11.405	11.400	0.005	20599648	20000.0	20700
	6 Dichlorprop					CAS #: 120-36-5
	12.058	12.054	0.004	30422040	200.000	212
	7 2,4-D					CAS #: 94-75-7
	12.372	12.368	0.004	35637664	200.000	221
	43 Pentachlorophenol					CAS #: 87-86-5
	12.517	12.521	-0.004	325410678	200.000	198
	8 2,4,5-TP					CAS #: 93-72-1
	13.188	13.184	0.004	133484195	200.000	213

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)		
9 2,4,5-T						CAS #: 93-76-5	
13.404	13.400	0.004	121265234	200.000	216		
10 2,4-DB						CAS #: 94-82-6	
13.771	13.767	0.004	18753408	200.000	217		
11 Dinoseb						CAS #: 88-85-7	
14.360	14.357	0.003	68305517	200.000	241		(M)

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd6a.i/122209a.b/039f3901.d

Date : 23-DEC-2009 14:15

Client ID: HSTD05

Sample Info: HWHB091030-05

Column phase: Rtx-CLP

Instrument: ecd6a.i

Operator: HXJ1

Column diameter: 0.25

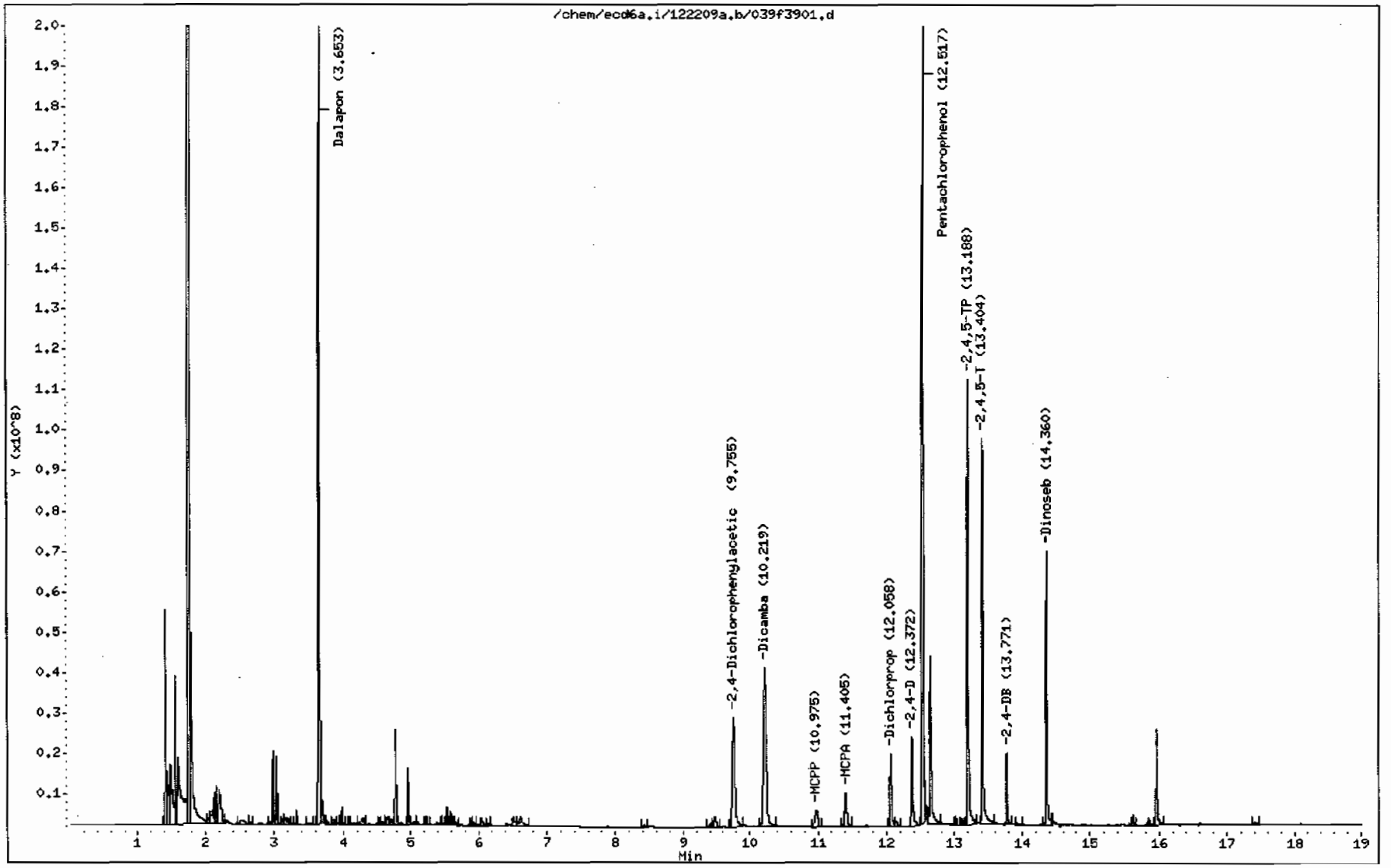

Comment: Manually Integrated
Data File: /chem/ecd6a.i/122209a.b/039f3901.d
Operator: HXJ1
Injection Date: 23-DEC-2009 14:15
Instrument: ecd6a.i
Client Sample ID: HSTD05

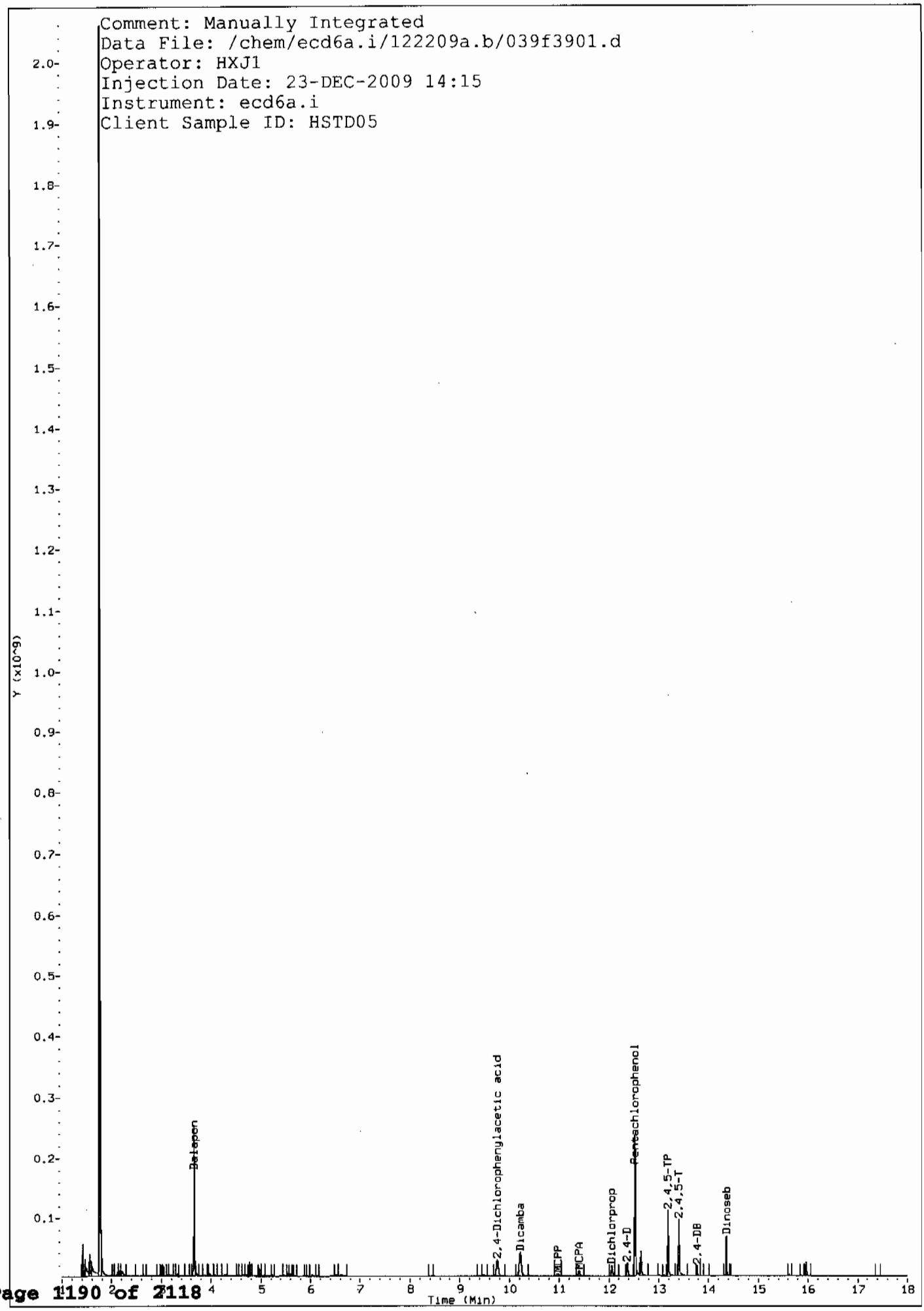

Comment: Before manual integration
Data File: /chem/ecd6a.i/122209a.b/orig-039f3901.d
Operator: HXJ1
Injection Date: 23-DEC-2009 14:15
Instrument: ecd6a.i
Client Sample ID: HSTD05

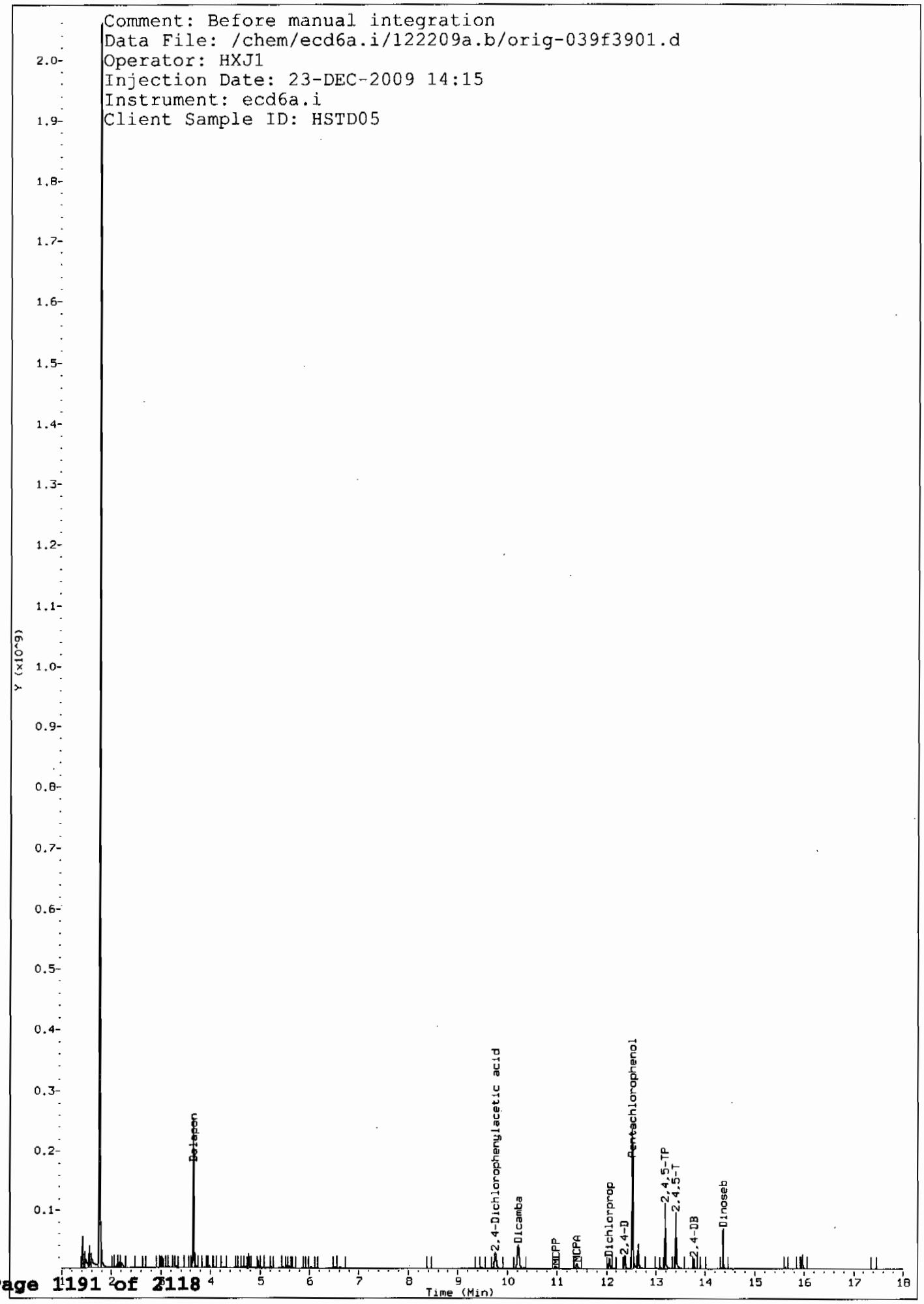

GEL Laboratories LLC

Column: RtxCLPII 0.25mm x 30 m Inj Vol: 2ul

Data file : /chem/ecd6a.i/122209a.b/039b3901.d
Lab Smp Id: WHB091030-05 Client Smp ID: HSTD05
Inj Date : 23-DEC-2009 14:15
Operator : HXJ1 Inst ID: ecd6a.i
Smp Info : |WHB091030-05
Misc Info : CHECK
Comment : RtxCLPII
Method : /chem/ecd6a.i/122209a.b/ECD6-B-8151A-122209.m
Meth Date : 24-Dec-2009 18:57 tif01533 Quant Type: ESTD
Cal Date : 22-DEC-2009 21:32 Cal File: 003b0301.d
Als bottle: 39 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50 Sample Matrix: None

	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	
	1 Dalapon						CAS #: 88-85-7
	3.606	3.610	-0.004	432493784	2000.00	2060	
$	2 2,4-Dichlorophenylacetic acid						CAS #: 19719-28-9
	10.854	10.850	0.004	113094047	500.000	531	
	3 MCPP						CAS #: 7085-19-0
	11.706	11.702	0.004	29984224	20000.0	20600	
	4 Dicamba						CAS #: 6597-78-0
	11.336	11.332	0.004	166042612	200.000	180	
	5 MCPA						CAS #: 94-74-6
	12.094	12.091	0.003	36359232	20000.0	19300	
	6 Dichlorprop						CAS #: 120-36-5
	12.528	12.525	0.003	41704956	200.000	208	
	7 2,4-D						CAS #: 94-75-7
	12.853	12.850	0.003	51598559	200.000	218	
	43 Pentachlorophenol						CAS #: 87-86-5
	13.125	13.129	-0.004	509251778	200.000	207	
	8 2,4,5-TP						CAS #: 93-72-1
	13.514	13.511	0.003	197336480	200.000	217	

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
9 2,4,5-T					CAS #: 93-76-5
13.766	13.764	0.002	165808966	200.000	206
10 Dinoseb					CAS #: 88-85-7
14.238	14.235	0.003	100709023	200.000	232
11 2,4-DB					CAS #: 94-82-6
14.069	14.066	0.003	25173222	200.000	222

Data File: /chem/ecd6a.i/122209a.b/039b3901.d

Date : 23-DEC-2009 14:15

Client ID: HSTD05

Sample Info: IWHB091030-05

Column phase: Rtx-CLPII

Instrument: ecd6a.i

Operator: HXJ1

Column diameter: 0.25

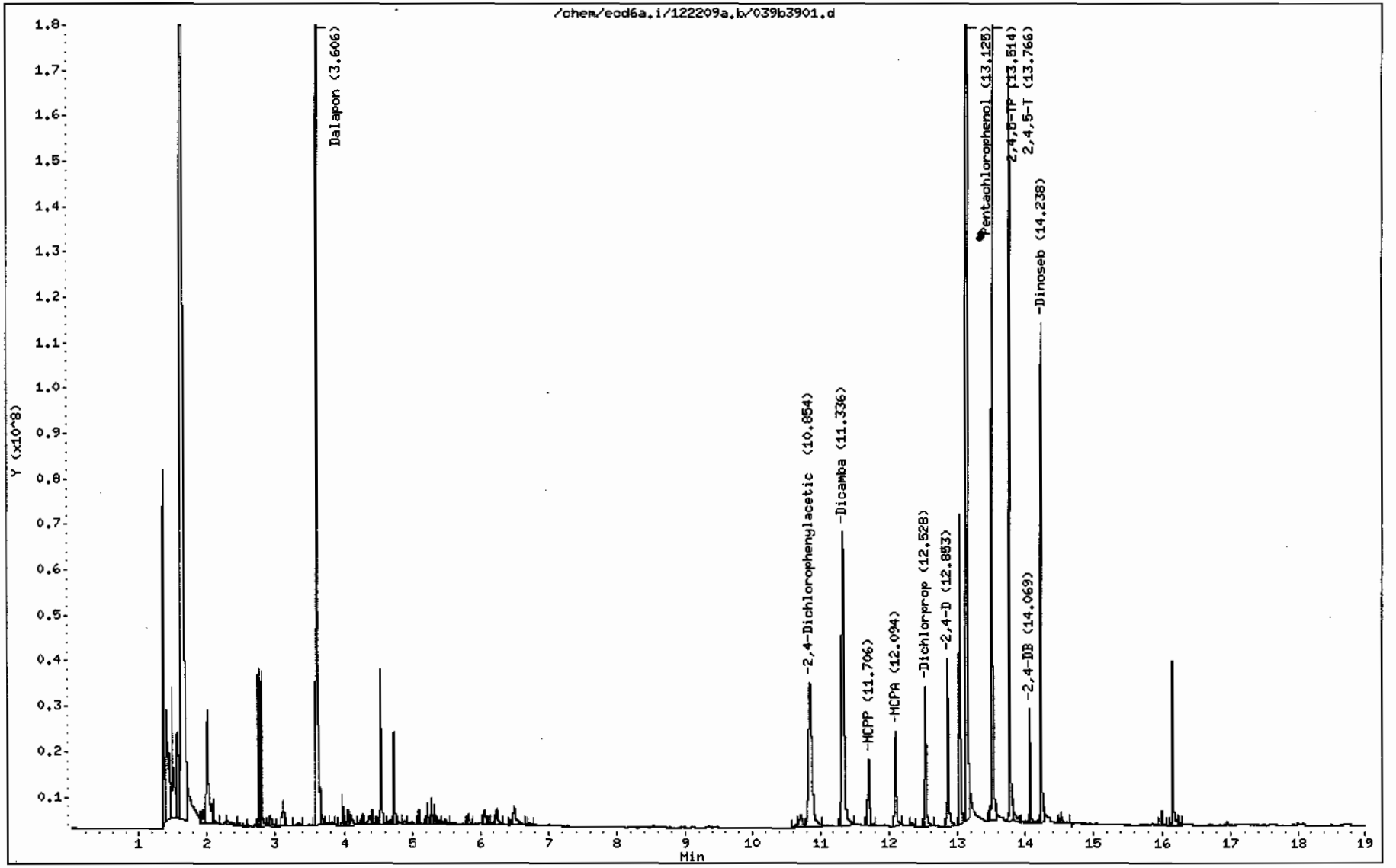

GEL Laboratories LLC

Column: RtxCLP 0.25mm x 30 m Inj Vol: 2 ul

Data file : /chem/ecd6a.i/122209a.b/046f4601.d
Lab Smp Id: WHB091030-05 Client Smp ID: HSTD06
Inj Date : 23-DEC-2009 17:43
Operator : HXJ1 Inst ID: ecd6a.i
Smp Info : |WHB091030-05
Misc Info : CHECK
Comment :
Method : /chem/ecd6a.i/122209a.b/ECD6-F-8151A-122209.m
Meth Date : 24-Dec-2009 19:07 tif01533 Quant Type: ESTD
Cal Date : 22-DEC-2009 21:04 Cal File: 002f0201.d
Als bottle: 46 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50 Sample Matrix: None

	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
	1 Dalapon					CAS #: 75-99-0
	3.657	3.657	0.000	273666222	2000.00	2100
$	2 2,4-Dichlorophenylacetic acid					CAS #: 19719-28-9
	9.754	9.752	0.002	78579961	500.000	474
	3 Dicamba					CAS #: 6597-78-0
	10.217	10.214	0.003	116786634	200.000	208
	4 MCPP					CAS #: 7085-19-0
	10.972	10.966	0.006	12726317	20000.0	22500
	5 MCPA					CAS #: 94-74-6
	11.401	11.400	0.001	20307245	20000.0	20400
	6 Dichlorprop					CAS #: 120-36-5
	12.057	12.054	0.003	29695431	200.000	207
	7 2,4-D					CAS #: 94-75-7
	12.371	12.368	0.003	34809143	200.000	216
	43 Pentachlorophenol					CAS #: 87-86-5
	12.515	12.521	-0.006	319322791	200.000	194
	8 2,4,5-TP					CAS #: 93-72-1
	13.187	13.184	0.003	132233769	200.000	211

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)		
9 2,4,5-T					CAS #: 93-76-5		
13.404	13.400	0.004	117480565	200.000	210		
10 2,4-DB					CAS #: 94-82-6		
13.770	13.767	0.003	18497874	200.000	214		
11 Dinoseb					CAS #: 88-85-7		
14.360	14.357	0.003	67443117	200.000	238		(M)

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd6a.i/122209a.b/046F4601.d
Date : 23-DEC-2009 17:43
Client ID: HSTD06
Sample Info: IWHE091030-05

Column phase: Rtx-CLP

Instrument: ecd6a.i

Operator: HXJ1
Column diameter: 0.25

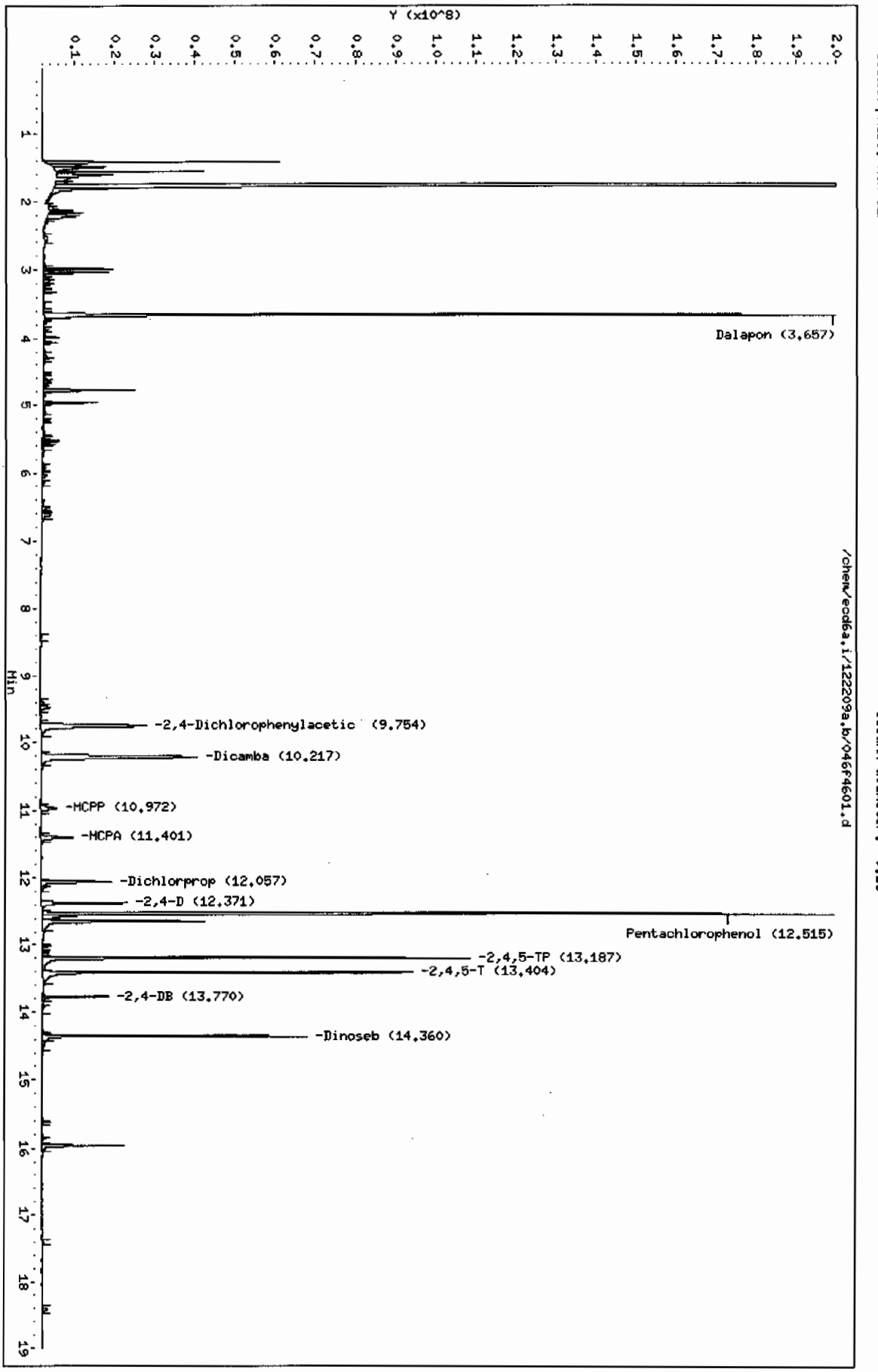

Page 1

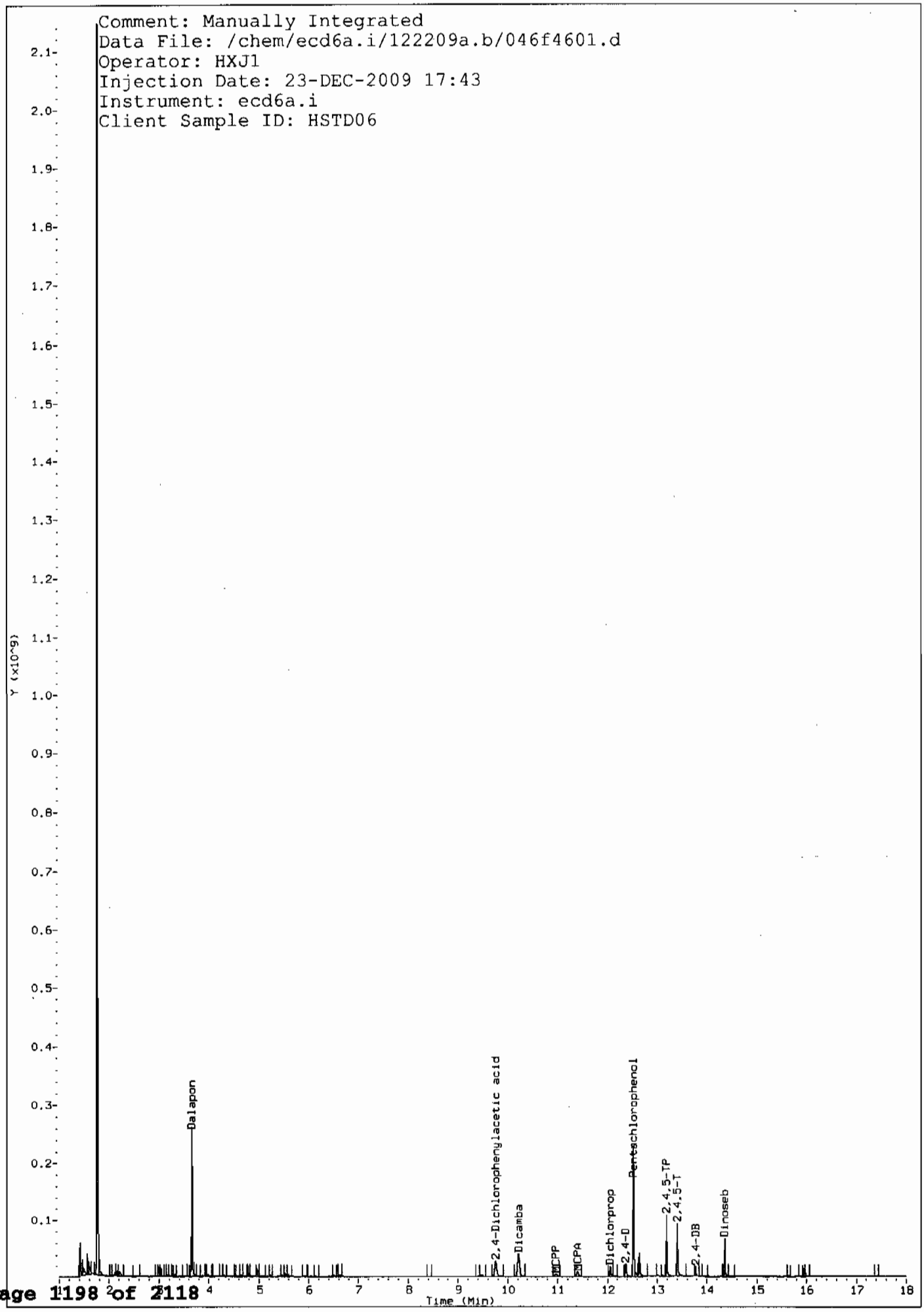
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Data File: /chem/ecd6a.i/122209a.b/046f4601.d
Operator: HXJ1
Injection Date: 23-DEC-2009 17:43
Instrument: ecd6a.i
Client Sample ID: HSTD06
Y (x10^9)
Dalapon
2,4-Dichlorophenylacetic acid
Dicamba
MCPP
MCPA
Dichlorprop
2,4-D
Pentachlorophenol
2,4,5-TP
2,4,5-T
2,4-DB
Dinoseb
Time (Min)

Comment: Before manual integration
Data File: /chem/ecd6a.i/122209a.b/orig-046f4601.d
Operator: HXJ1
Injection Date: 23-DEC-2009 17:43
Instrument: ecd6a.i
Client Sample ID: HSTD06

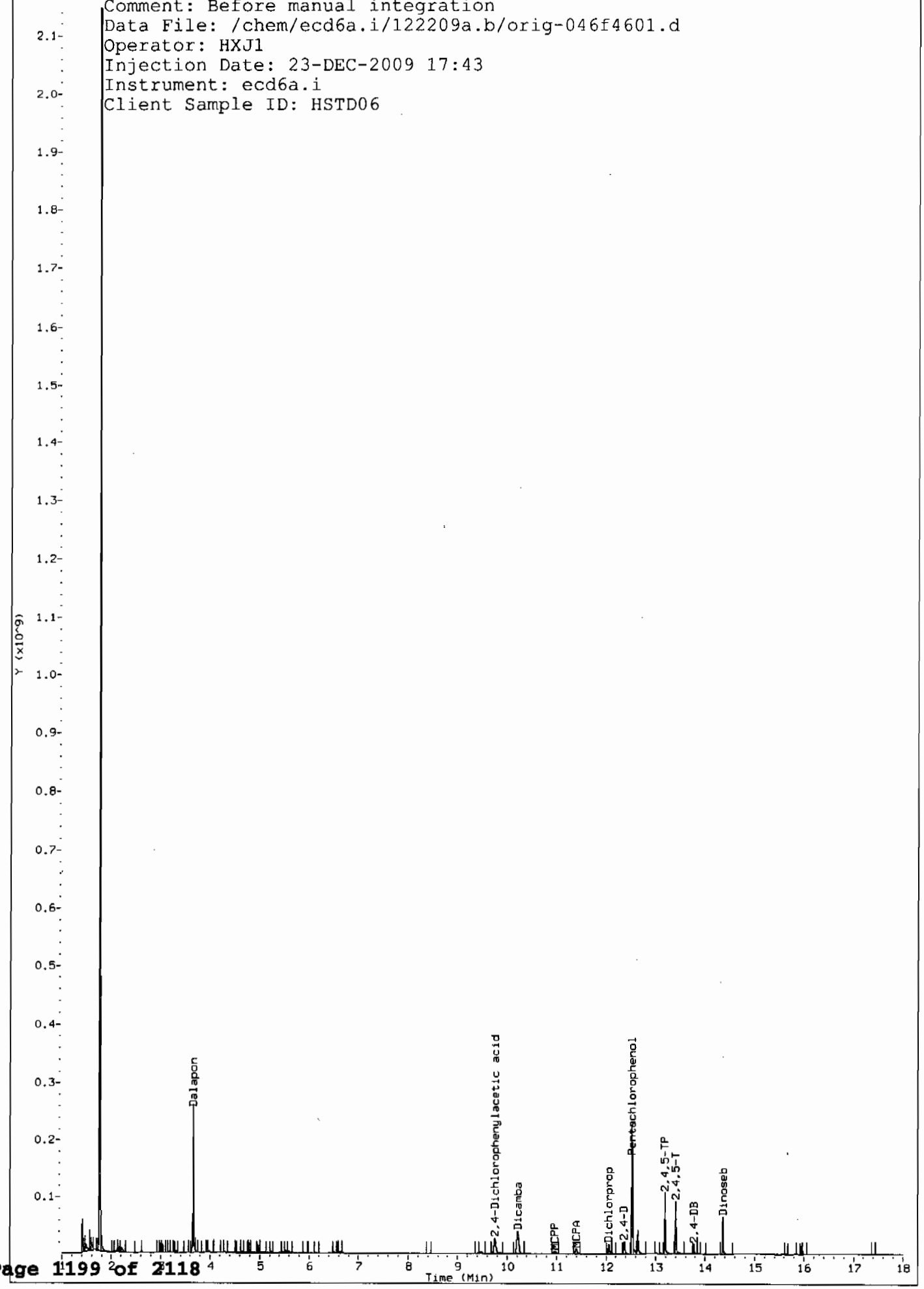

GEL Laboratories LLC

Column: RtxCLPII 0.25mm x 30 m Inj Vol: 2ul

Data file : /chem/ecd6a.i/122209a.b/046b4601.d
Lab Smp Id: WHB091030-05 Client Smp ID: HSTD06
Inj Date : 23-DEC-2009 17:43
Operator : HXJ1 Inst ID: ecd6a.i
Smp Info : |WHB091030-05
Misc Info : CHECK
Comment : RtxCLPII
Method : /chem/ecd6a.i/122209a.b/ECD6-B-8151A-122209.m
Meth Date : 24-Dec-2009 18:57 tif01533 Quant Type: ESTD
Cal Date : 22-DEC-2009 21:32 Cal File: 003b0301.d
Als bottle: 46 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50 Sample Matrix: None

	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
	1 Dalapon					CAS #: 88-85-7
	3.613	3.610	0.003	388307644	2000.00	1850
$	2 2,4-Dichlorophenylacetic acid					CAS #: 19719-28-9
	10.851	10.850	0.001	111697104	500.000	525
	3 MCPP					CAS #: 7085-19-0
	11.703	11.702	0.001	30822571	20000.0	21200
	4 Dicamba					CAS #: 6597-78-0
	11.333	11.332	0.001	164236098	200.000	178
	5 MCPA					CAS #: 94-74-6
	12.093	12.091	0.002	37269748	20000.0	19800
	6 Dichlorprop					CAS #: 120-36-5
	12.525	12.525	0.000	41695954	200.000	208
	7 2,4-D					CAS #: 94-75-7
	12.852	12.850	0.002	50617561	200.000	214
	43 Pentachlorophenol					CAS #: 87-86-5
	13.125	13.129	-0.004	503682737	200.000	205
	8 2,4,5-TP					CAS #: 93-72-1
	13.513	13.511	0.002	195136851	200.000	214

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
9 2,4,5-T					CAS #: 93-76-5
13.766	13.764	0.002	163100490	200.000	202
10 Dinoseb					CAS #: 88-85-7
14.237	14.235	0.002	100133678	200.000	231
11 2,4-DB					CAS #: 94-82-6
14.068	14.066	0.002	24658687	200.000	218

Data File: /chem/ecd6a.i/122209a.b/046b4601.d
Date : 23-DEC-2009 17:43
Client ID: HSTD06
Sample Info: !WHB091030-05

Column phase: Rtx-CLPII

Instrument: ecd6a.i

Operator: HXJ1
Column diameter: 0.25

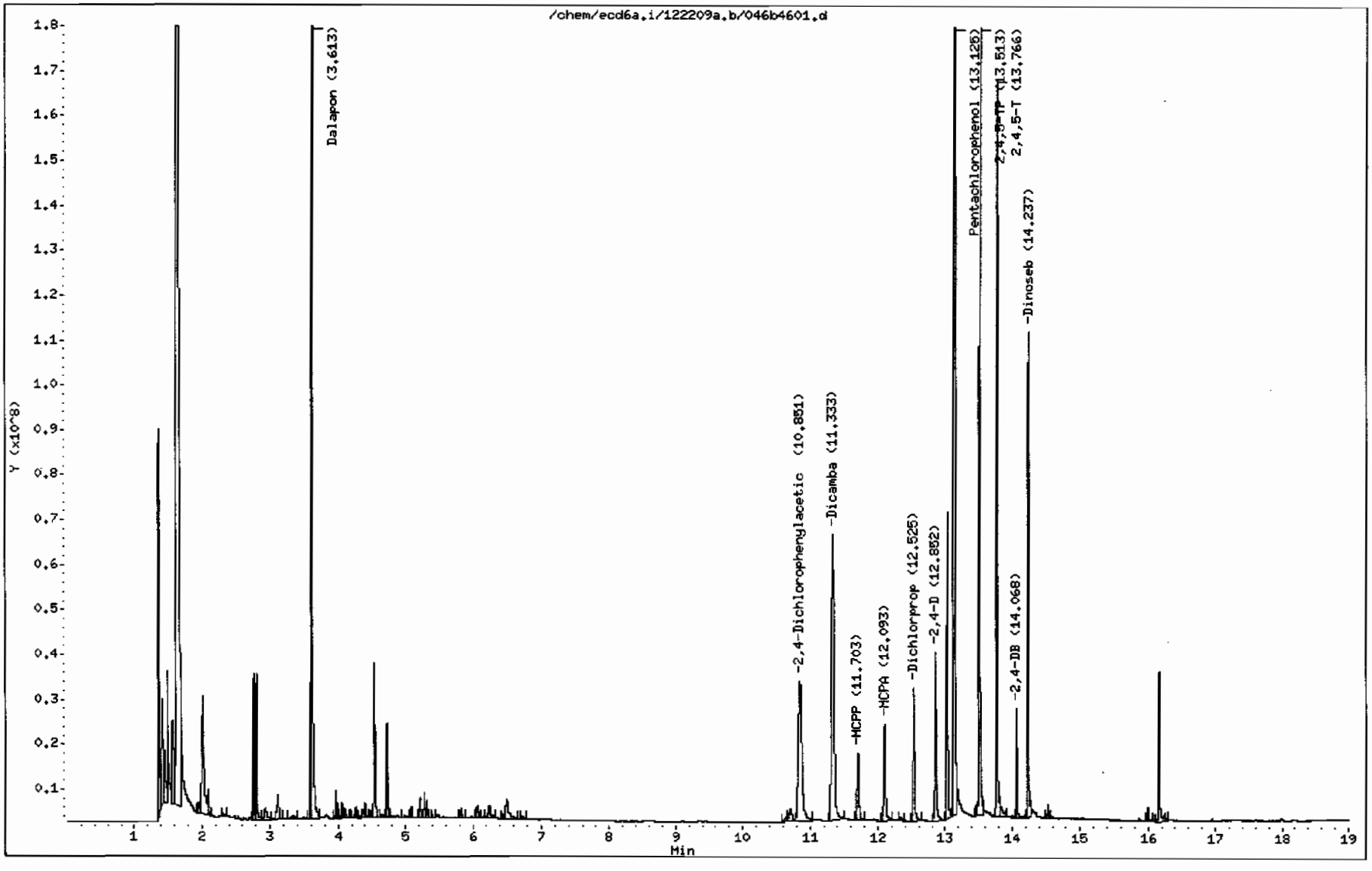

FORM 8
HERBICIDE ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-939

GC Column: RTX-CLP ID: 0.25 (mm) Init. Calib. Date(s): 12/22/09 12/22/09

Instrument ID: ECD6A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 9.75

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	RT #
01	HIBLK01	WHB091117-02	12/22/09	2036	9.76	
02	HSTD01	WHB091030-01	12/22/09	2104	9.76	
03	HSTD02	WHB091030-02	12/22/09	2132	9.76	
04	HSTD03	WHB091030-03	12/22/09	2200	9.75	
05	HSTD04	WHB091030-04	12/22/09	2228	9.75	
06	HSTD05	WHB091030-05	12/22/09	2255	9.75	
07	HSTD06	WHB091030-06	12/22/09	2323	9.75	
08	HSTD07	WHB091030-07	12/22/09	2350	9.75	
09	HSTD01	WHB091222-08	12/23/09	0018	9.75	
10	HIBLK02	WHB091117-02	12/23/09	0046	9.76	
11	ZZZZZ	ZZZZZ	12/23/09	0113	9.76	
12	ZZZZZ	ZZZZZ	12/23/09	0140	9.76	
13	ZZZZZ	ZZZZZ	12/23/09	0208	9.75	
14	ZZZZZ	ZZZZZ	12/23/09	0235	9.75	
15	HSTD02	WHB091030-05	12/23/09	0303	9.75	
16	HIBLK03	WHB091117-02	12/23/09	0330	9.76	
17	ZZZZZ	ZZZZZ	12/23/09	0357	9.76	
18	ZZZZZ	ZZZZZ	12/23/09	0425	9.75	
19	ZZZZZ	ZZZZZ	12/23/09	0452	9.76	
20	ZZZZZ	ZZZZZ	12/23/09	0520	9.77	
21	ZZZZZ	ZZZZZ	12/23/09	0547	9.76	
22	ZZZZZ	ZZZZZ	12/23/09	0615	9.76	
23	HSTD03	WHB091030-05	12/23/09	0642	9.75	
24	HIBLK04	WHB091117-02	12/23/09	0710	9.76	
25	ZZZZZ	ZZZZZ	12/23/09	0738	9.76	
26	ZZZZZ	ZZZZZ	12/23/09	0805	9.75	
27	ZZZZZ	ZZZZZ	12/23/09	0833		
28	ZZZZZ	ZZZZZ	12/23/09	0901		
29	ZZZZZ	ZZZZZ	12/23/09	0928	9.76	
30	ZZZZZ	ZZZZZ	12/23/09	0957		
31	HSTD04	WHB091030-05	12/23/09	1025	9.75	
32	HIBLK05	WHB091117-02	12/23/09	1054	9.76	

QC LIMITS
S1 = 2,4-Dichlorophenylacet (+/- 0.06 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII HERBICIDE

FORM 8
HERBICIDE ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-939

GC Column: RTX-CLP ID: 0.25 (mm) Init. Calib. Date(s): 12/22/09 12/22/09

Instrument ID: ECD6A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 9.75

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	RT #
01	ZZZZZ	ZZZZZ	12/23/09	1122	9.77	
02	ZZZZZ	ZZZZZ	12/23/09	1150	9.76	
03	ZZZZZ	ZZZZZ	12/23/09	1219	9.76	
04	ZZZZZ	ZZZZZ	12/23/09	1248	9.76	
05	ZZZZZ	ZZZZZ	12/23/09	1318	9.76	
06	ZZZZZ	ZZZZZ	12/23/09	1346	9.76	
07	HSTD05	WHB091030-05	12/23/09	1415	9.76	
08	HIBLK06	WHB091117-02	12/23/09	1444	9.77	
09	HBLK01	1201999026	12/23/09	1520	9.77	
10	HBLK01LCS	1201999027	12/23/09	1549	9.75	
11	WST03-10-2147	243007002	12/23/09	1618	9.77	
12	WST03-10-2147MS	1201999028	12/23/09	1646	9.76	
13	WST03-10-2147MSD	1201999029	12/23/09	1715	9.76	
14	HSTD06	WHB091030-05	12/23/09	1743	9.75	
15	HIBLK07	WHB091117-02	12/23/09	1812	9.77	
16	ZZZZZ	ZZZZZ	12/23/09	1840	9.75	
17	HSTD07	WHB091030-05	12/23/09	1909	9.75	
18	HIBLK08	WHB091117-02	12/23/09	1937	9.77	
19	ZZZZZ	ZZZZZ	12/23/09	2005	9.76	
20	ZZZZZ	ZZZZZ	12/23/09	2033	9.75	
21	ZZZZZ	ZZZZZ	12/23/09	2102	9.75	
22	ZZZZZ	ZZZZZ	12/23/09	2130	9.76	
23	ZZZZZ	ZZZZZ	12/23/09	2157	9.76	
24	ZZZZZ	ZZZZZ	12/23/09	2225	9.75	
25	HSTD08	WHB091030-05	12/23/09	2253	9.75	
26	HIBLK09	WHB091117-02	12/23/09	2321	9.76	
27	ZZZZZ	ZZZZZ	12/23/09	2348	9.75	
28	ZZZZZ	ZZZZZ	12/24/09	0016	9.75	
29	ZZZZZ	ZZZZZ	12/24/09	0044	9.75	
30	ZZZZZ	ZZZZZ	12/24/09	0111	9.76	
31	ZZZZZ	ZZZZZ	12/24/09	0139	9.75	
32	HSTD09	WHB091030-05	12/24/09	0206	9.75	

QC LIMITS
S1 = 2,4-Dichlorophenylacet (+/- 0.06 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII HERBICIDE

FORM 8
HERBICIDE ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-939

GC Column: RTX-CLPII ID: 0.25 (mm) Init. Calib. Date(s): 12/22/09 12/22/09

Instrument ID: ECD6A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 10.85

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	RT #
01	HIBLK01	WHB091117-02	12/22/09	2036	10.86	
02	HSTD01	WHB091030-01	12/22/09	2104	10.86	
03	HSTD02	WHB091030-02	12/22/09	2132	10.85	
04	HSTD03	WHB091030-03	12/22/09	2200	10.85	
05	HSTD04	WHB091030-04	12/22/09	2228	10.84	
06	HSTD05	WHB091030-05	12/22/09	2255	10.85	
07	HSTD06	WHB091030-06	12/22/09	2323	10.85	
08	HSTD07	WHB091030-07	12/22/09	2350	10.85	
09	HSTD01	WHB091222-08	12/23/09	0018	10.85	
10	HIBLK02	WHB091117-02	12/23/09	0046	10.86	
11	ZZZZZ	ZZZZZ	12/23/09	0113	10.86	
12	ZZZZZ	ZZZZZ	12/23/09	0140	10.85	
13	ZZZZZ	ZZZZZ	12/23/09	0208	10.85	
14	ZZZZZ	ZZZZZ	12/23/09	0235	10.85	
15	HSTD02	WHB091030-05	12/23/09	0303	10.85	
16	HIBLK03	WHB091117-02	12/23/09	0330	10.86	
17	ZZZZZ	ZZZZZ	12/23/09	0357	10.85	
18	ZZZZZ	ZZZZZ	12/23/09	0425	10.85	
19	ZZZZZ	ZZZZZ	12/23/09	0452	10.85	
20	ZZZZZ	ZZZZZ	12/23/09	0520	10.86	
21	ZZZZZ	ZZZZZ	12/23/09	0547	10.86	
22	ZZZZZ	ZZZZZ	12/23/09	0615	10.86	
23	HSTD03	WHB091030-05	12/23/09	0642	10.85	
24	HIBLK04	WHB091117-02	12/23/09	0710	10.86	
25	ZZZZZ	ZZZZZ	12/23/09	0738	10.86	
26	ZZZZZ	ZZZZZ	12/23/09	0805	10.85	
27	ZZZZZ	ZZZZZ	12/23/09	0833		
28	ZZZZZ	ZZZZZ	12/23/09	0901		
29	ZZZZZ	ZZZZZ	12/23/09	0928	10.86	
30	ZZZZZ	ZZZZZ	12/23/09	0957		
31	HSTD04	WHB091030-05	12/23/09	1025	10.85	
32	HIBLK05	WHB091117-02	12/23/09	1054	10.86	

QC LIMITS
S1 = 2,4-Dichlorophenylacet (+/- 0.06 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII HERBICIDE

FORM 8
HERBICIDE ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-939

GC Column: RTX-CLPII ID: 0.25 (mm) Init. Calib. Date(s): 12/22/09 12/22/09

Instrument ID: ECD6A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 10.85

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	RT #
01	ZZZZZ	ZZZZZ	12/23/09	1122	10.87	
02	ZZZZZ	ZZZZZ	12/23/09	1150	10.86	
03	ZZZZZ	ZZZZZ	12/23/09	1219	10.86	
04	ZZZZZ	ZZZZZ	12/23/09	1248	10.86	
05	ZZZZZ	ZZZZZ	12/23/09	1318	10.86	
06	ZZZZZ	ZZZZZ	12/23/09	1346	10.86	
07	HSTD05	WHB091030-05	12/23/09	1415	10.85	
08	HIBLK06	WHB091117-02	12/23/09	1444	10.87	
09	HBLK01	1201999026	12/23/09	1520	10.86	
10	HBLK01LCS	1201999027	12/23/09	1549	10.85	
11	WST03-10-2147	243007002	12/23/09	1618	10.86	
12	WST03-10-2147MS	1201999028	12/23/09	1646	10.86	
13	WST03-10-2147MSD	1201999029	12/23/09	1715	10.85	
14	HSTD06	WHB091030-05	12/23/09	1743	10.85	
15	HIBLK07	WHB091117-02	12/23/09	1812	10.86	
16	ZZZZZ	ZZZZZ	12/23/09	1840	10.85	
17	HSTD07	WHB091030-05	12/23/09	1909	10.85	
18	HIBLK08	WHB091117-02	12/23/09	1937	10.86	
19	ZZZZZ	ZZZZZ	12/23/09	2005	10.86	
20	ZZZZZ	ZZZZZ	12/23/09	2033	10.84	
21	ZZZZZ	ZZZZZ	12/23/09	2102	10.84	
22	ZZZZZ	ZZZZZ	12/23/09	2130	10.85	
23	ZZZZZ	ZZZZZ	12/23/09	2157	10.85	
24	ZZZZZ	ZZZZZ	12/23/09	2225	10.85	
25	HSTD08	WHB091030-05	12/23/09	2253	10.85	
26	HIBLK09	WHB091117-02	12/23/09	2321	10.86	
27	ZZZZZ	ZZZZZ	12/23/09	2348	10.85	
28	ZZZZZ	ZZZZZ	12/24/09	0016	10.84	
29	ZZZZZ	ZZZZZ	12/24/09	0044	10.85	
30	ZZZZZ	ZZZZZ	12/24/09	0111	10.85	
31	ZZZZZ	ZZZZZ	12/24/09	0139	10.85	
32	HSTD09	WHB091030-05	12/24/09	0206	10.84	

QC LIMITS
S1 = 2,4-Dichlorophenylacet (+/- 0.06 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII HERBICIDE

Identification Summary

SDG Number: 10–939 **Client ID:** LCS for batch 934338

Lab Sample ID: 1201999027

Data File:	042f4201.d	**Data File:**	042b4201.d
Inst:	ECD6A.I_1	**Inst:**	ECD6A.I_2
Column:	Rtx–CLP	**Column:**	Rtx–CLPII
Analyzed:	23–DEC–09 15:49	**Analyzed:**	23–DEC–09 15:49

Analyte		Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Dalapon								14.3
	Column 1	1	3.66	3.63 – 3.69	119		ug/kg	
	Column 2	1	3.61	3.58 – 3.64	138		ug/kg	
Dicamba								16.8
	Column 1	1	10.22	10.15 – 10.27	27.2		ug/kg	
	Column 2	1	11.33	11.27 – 11.39	23		ug/kg	
MCPP								6.42
	Column 1	1	10.97	10.91 – 11.03	3240		ug/kg	
	Column 2	1	11.7	11.64 – 11.76	3460		ug/kg	
MCPA								2.16
	Column 1	1	11.4	11.34 – 11.46	2970		ug/kg	
	Column 2	1	12.09	12.03 – 12.15	3040		ug/kg	
Dichlorprop								3.88
	Column 1	1	12.06	11.99 – 12.11	30.6		ug/kg	
	Column 2	1	12.52	12.46 – 12.58	29.4		ug/kg	

Identification Summary

SDG Number: 10–939 **Client ID:** LCS for batch 934338

Lab Sample ID: 1201999027

Data File:	042f4201.d	**Data File:**	042b4201.d
Inst:	ECD6A.I_1	**Inst:**	ECD6A.I_2
Column:	Rtx–CLP	**Column:**	Rtx–CLPII
Analyzed:	23–DEC–09 15:49	**Analyzed:**	23–DEC–09 15:49

Analyte		Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
2,4–D								.488
	Column 1	1	12.37	12.31 – 12.43	30.6		ug/kg	
	Column 2	1	12.85	12.79 – 12.91	30.7		ug/kg	
2,4,5–TP								3.83
	Column 1	1	13.19	13.15 – 13.21	32.1		ug/kg	
	Column 2	1	13.51	13.48 – 13.54	33.3		ug/kg	
2,4,5–T								.323
	Column 1	1	13.4	13.36 – 13.44	29.6		ug/kg	
	Column 2	1	13.77	13.73 – 13.79	29.7		ug/kg	
2,4–DB								8.05
	Column 1	1	13.77	13.73 – 13.81	31.7		ug/kg	
	Column 2	1	14.07	14.03 – 14.11	34.3		ug/kg	
Dinoseb								3.41
	Column 1	1	14.36	14.33 – 14.39	34.3		ug/kg	
	Column 2	1	14.24	14.2 – 14.26	35.5		ug/kg	

Identification Summary

SDG Number: 10–939 **Client ID:** WST03–10–2147MS

Lab Sample ID: 1201999028

Data File:	044f4401.d	**Data File:**	044b4401.d
Inst:	ECD6A.I_1	**Inst:**	ECD6A.I_2
Column:	Rtx–CLP	**Column:**	Rtx–CLPII
Analyzed:	23–DEC–09 16:46	**Analyzed:**	23–DEC–09 16:46

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Dalapon							5.25
Column 1	1	3.66	3.63 – 3.69	92.5		ug/kg	
Column 2	1	3.62	3.58 – 3.64	97.5		ug/kg	
Dicamba							22.2
Column 1	1	10.22	10.15 – 10.27	13.1		ug/kg	
Column 2	1	11.34	11.27 – 11.39	10.5		ug/kg	
MCPP							51.8
Column 1	1	10.97	10.91 – 11.03	871		ug/kg	
Column 2	1	11.7	11.64 – 11.76	1480		ug/kg	
MCPA							1.07
Column 1	1	11.4	11.34 – 11.46	1230		ug/kg	
Column 2	1	12.09	12.03 – 12.15	1240		ug/kg	
Dichlorprop							3.49
Column 1	1	12.06	11.99 – 12.11	11.3		ug/kg	
Column 2	1	12.53	12.46 – 12.58	10.9		ug/kg	

Identification Summary

SDG Number: 10–939 **Client ID:** WST03–10–2147MS

Lab Sample ID: 1201999028

Data File:	044f4401.d	**Data File:**	044b4401.d
Inst:	ECD6A.I_1	**Inst:**	ECD6A.I_2
Column:	Rtx–CLP	**Column:**	Rtx–CLPII
Analyzed:	23–DEC–09 16:46	**Analyzed:**	23–DEC–09 16:46

Analyte		Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
2,4–D								19.8
	Column 1	1	12.37	12.31 – 12.43	11.3		ug/kg	
	Column 2	1	12.85	12.79 – 12.91	13.8		ug/kg	
2,4,5–TP								5.84
	Column 1	1	13.19	13.15 – 13.21	8.71		ug/kg	
	Column 2	1	13.51	13.48 – 13.54	8.21		ug/kg	
2,4,5–T								20.4
	Column 1	1	13.4	13.36 – 13.44	7.9		ug/kg	
	Column 2	1	13.77	13.73 – 13.79	9.68		ug/kg	
2,4–DB								143
	Column 1	1	13.77	13.73 – 13.81	15.7		ug/kg	
	Column 2	1	14.03	14.03 – 14.11	93.6		ug/kg	
Dinoseb								12
	Column 1	1	14.36	14.33 – 14.39	14.3		ug/kg	
	Column 2	1	14.24	14.2 – 14.26	12.7		ug/kg	

Identification Summary

SDG Number: 10–939 **Client ID:** WST03–10–2147MSD

Lab Sample ID: 1201999029

Data File:	045f4501.d	**Data File:**	045b4501.d
Inst:	ECD6A.I_1	**Inst:**	ECD6A.I_2
Column:	Rtx–CLP	**Column:**	Rtx–CLPII
Analyzed:	23–DEC–09 17:15	**Analyzed:**	23–DEC–09 17:15

Analyte		Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Dalapon								3.45
	Column 1	1	3.66	3.63 – 3.69	206		ug/kg	
	Column 2	1	3.62	3.58 – 3.64	199		ug/kg	
Dicamba								21.6
	Column 1	1	10.22	10.15 – 10.27	19.7		ug/kg	
	Column 2	1	11.33	11.27 – 11.39	15.9		ug/kg	
MCPP								22.4
	Column 1	1	10.97	10.91 – 11.03	1350		ug/kg	
	Column 2	1	11.7	11.64 – 11.76	1690		ug/kg	
MCPA								8.84
	Column 1	1	11.4	11.34 – 11.46	1820		ug/kg	
	Column 2	1	12.09	12.03 – 12.15	1990		ug/kg	
Dichlorprop								.0213
	Column 1	1	12.06	11.99 – 12.11	15.1		ug/kg	
	Column 2	1	12.52	12.46 – 12.58	15.1		ug/kg	

Identification Summary

SDG Number: 10-939 **Client ID:** WST03-10-2147MSD

Lab Sample ID: 1201999029

Data File:	045f4501.d	**Data File:**	045b4501.d
Inst:	ECD6A.I_1	**Inst:**	ECD6A.I_2
Column:	Rtx-CLP	**Column:**	Rtx-CLP11
Analyzed:	23-DEC-09 17:15	**Analyzed:**	23-DEC-09 17:15

Analyte		Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
2,4-D								23.5
	Column 1	1	12.37	12.31 – 12.43	15.3		ug/kg	
	Column 2	1	12.85	12.79 – 12.91	19.4		ug/kg	
2,4,5-TP								1.45
	Column 1	1	13.19	13.15 – 13.21	12.8		ug/kg	
	Column 2	1	13.51	13.48 – 13.54	12.6		ug/kg	
2,4,5-T								4.54
	Column 1	1	13.4	13.36 – 13.44	10.5		ug/kg	
	Column 2	1	13.77	13.73 – 13.79	10.1		ug/kg	
2,4-DB								92
	Column 1	1	13.75	13.73 – 13.81	30.6		ug/kg	
	Column 2	1	14.07	14.03 – 14.11	11.3		ug/kg	
Dinoseb								5.11
	Column 1	1	14.36	14.33 – 14.39	12.6		ug/kg	
	Column 2	1	14.24	14.2 – 14.26	12		ug/kg	

QUALITY CONTROL DATA

Herbicide
Certificate of Analysis
Sample Summary

SDG Number:	10-939			**Matrix:**	SOIL
Lab Sample ID:	1201999026				
Client Sample:	QC for batch 934338	**Client:**	LANL010	**Project:**	QC
Client ID:	MB for batch 934338	**Method:**	SW846 8151A	**SOP Ref:**	GL-OA-E-011
Batch ID:	934339	**Inst:**	ECD6A.I	**Dilution:**	1
Run Date:	12/23/2009 15:20	**Analyst:**	HXJ1	**Inj. Vol:**	1 uL
Prep Date:	12/18/2009 08:56	**Aliquot:**	50 g	**Final Volume:**	10 mL
Data File:	041f4101.d	**Column:**	1 Rtx-CLP	**Level:**	LOW
	041b4101.d		2 Rtx-CLPII		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
75-99-0	Dalapon	U	100	ug/kg	20.0	100	1
1918-00-9	Dicamba	U	5.00	ug/kg	1.66	5.00	1
93-65-2	MCPP	U	1000	ug/kg	200	1000	1
94-74-6	MCPA	U	1000	ug/kg	230	1000	1
120-36-5	Dichlorprop	U	5.00	ug/kg	1.66	5.00	1
94-75-7	2,4-D	U	5.00	ug/kg	1.66	5.00	1
93-72-1	2,4,5-TP	U	5.00	ug/kg	1.66	5.00	1
93-76-5	2,4,5-T	U	5.00	ug/kg	1.66	5.00	1
94-82-6	2,4-DB	U	5.00	ug/kg	1.66	5.00	1
88-85-7	Dinoseb	U	5.00	ug/kg	1.66	5.00	1

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Column: RtxCLP 0.25mm x 30 m Inj Vol: 2 ul

Data file : /chem/ecd6a.i/122209a.b/041f4101.d
Lab Smp Id: 1201999026 Client Smp ID: HBLK01
Inj Date : 23-DEC-2009 15:20
Operator : HXJ1 Inst ID: ecd6a.i
Smp Info : |1201999026|1|
Misc Info : |ECD51H_1S|934339|SVH|MB|SOIL|MB|||
Comment :
Method : /chem/ecd6a.i/122209a.b/ECD6-F-8151A-122209.m
Meth Date : 24-Dec-2009 19:07 tif01533 Quant Type: ESTD
Cal Date : 22-DEC-2009 21:04 Cal File: 002f0201.d
Als bottle: 41 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-939.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	10.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	50.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)
$ 2 2,4-Dichlorophenylacetic acid					CAS #: 19719-28-9
9.769	9.752	0.017	39677862	239.396	47.9

Data File: /chem/ecd6a.i/122209a.b/041f4101.d

Date : 23-DEC-2009 15:20

Client ID: HBLK01

Sample Info: !120199902611!

Volume Injected (uL): 1.0

Column phase: Rtx-CLP

Instrument: ecd6a.i

Operator: HXJ1

Column diameter: 0.25

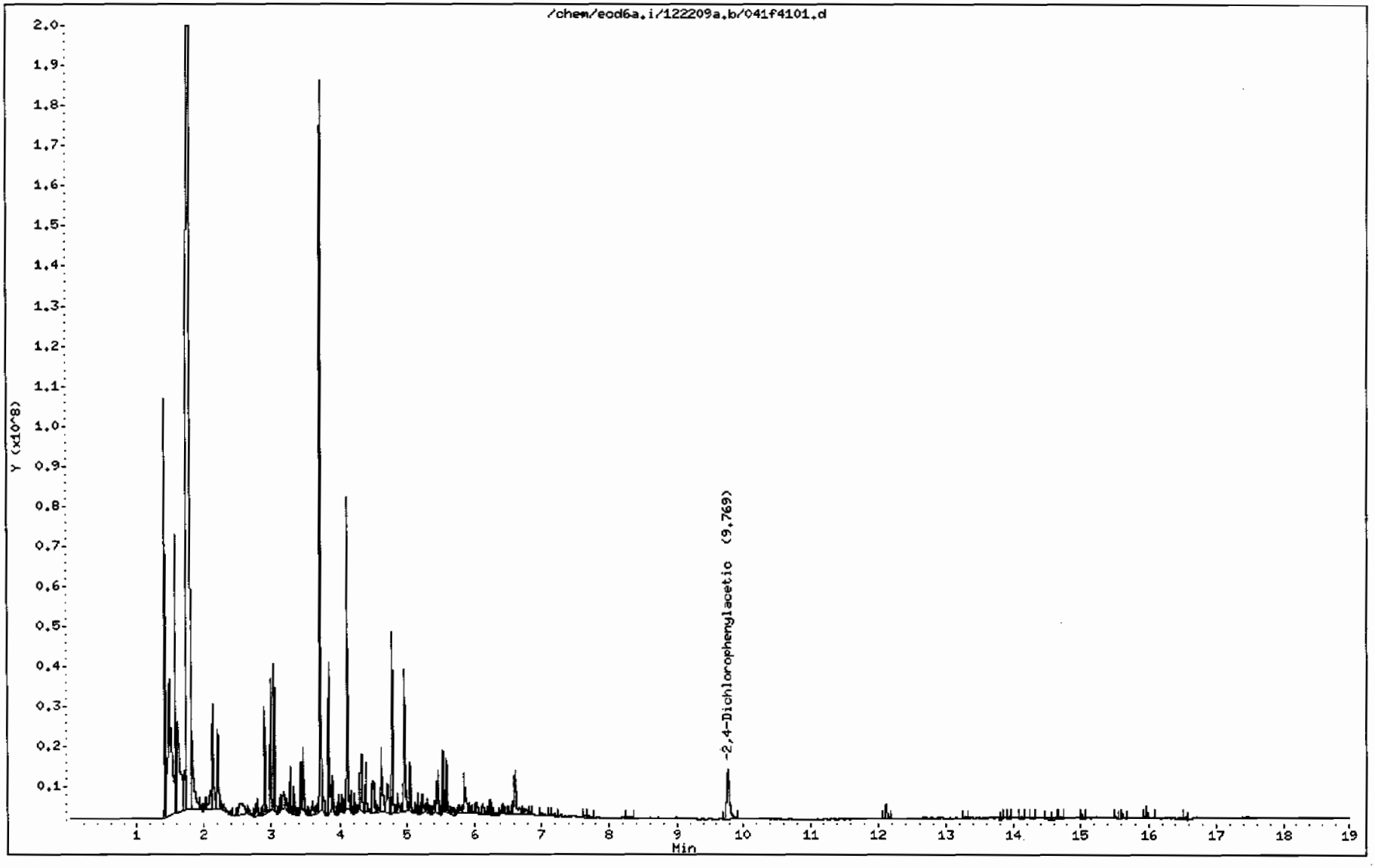

GEL Laboratories LLC

Column: RtxCLPII 0.25mm x 30 m Inj Vol: 2ul

Data file : /chem/ecd6a.i/122209a.b/041b4101.d
Lab Smp Id: 1201999026 Client Smp ID: HBLK01
Inj Date : 23-DEC-2009 15:20
Operator : HXJ1 Inst ID: ecd6a.i
Smp Info : |1201999026|1|
Misc Info : |ECD51H_1S|934339|SVH|MB|SOIL|MB|||
Comment : RtxCLPII
Method : /chem/ecd6a.i/122209a.b/ECD6-B-8151A-122209.m
Meth Date : 24-Dec-2009 18:57 tif01533 Quant Type: ESTD
Cal Date : 22-DEC-2009 21:32 Cal File: 003b0301.d
Als bottle: 41 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-939.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	10.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	50.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)
$ 2 2,4-Dichlorophenylacetic acid					CAS #: 19719-28-9
10.864	10.850	0.014	52143806	244.988	49.0

Data File: /chem/ecd6a.i/122209a.b/041b4101.d
Date : 23-DEC-2009 15:20
Client ID: HBLK01
Sample Info: |1201999026|1|
Volume Injected (uL): 1.0
Column phase: Rtx-CLPII

Instrument: ecd6a.i

Operator: HXJ1
Column diameter: 0.25

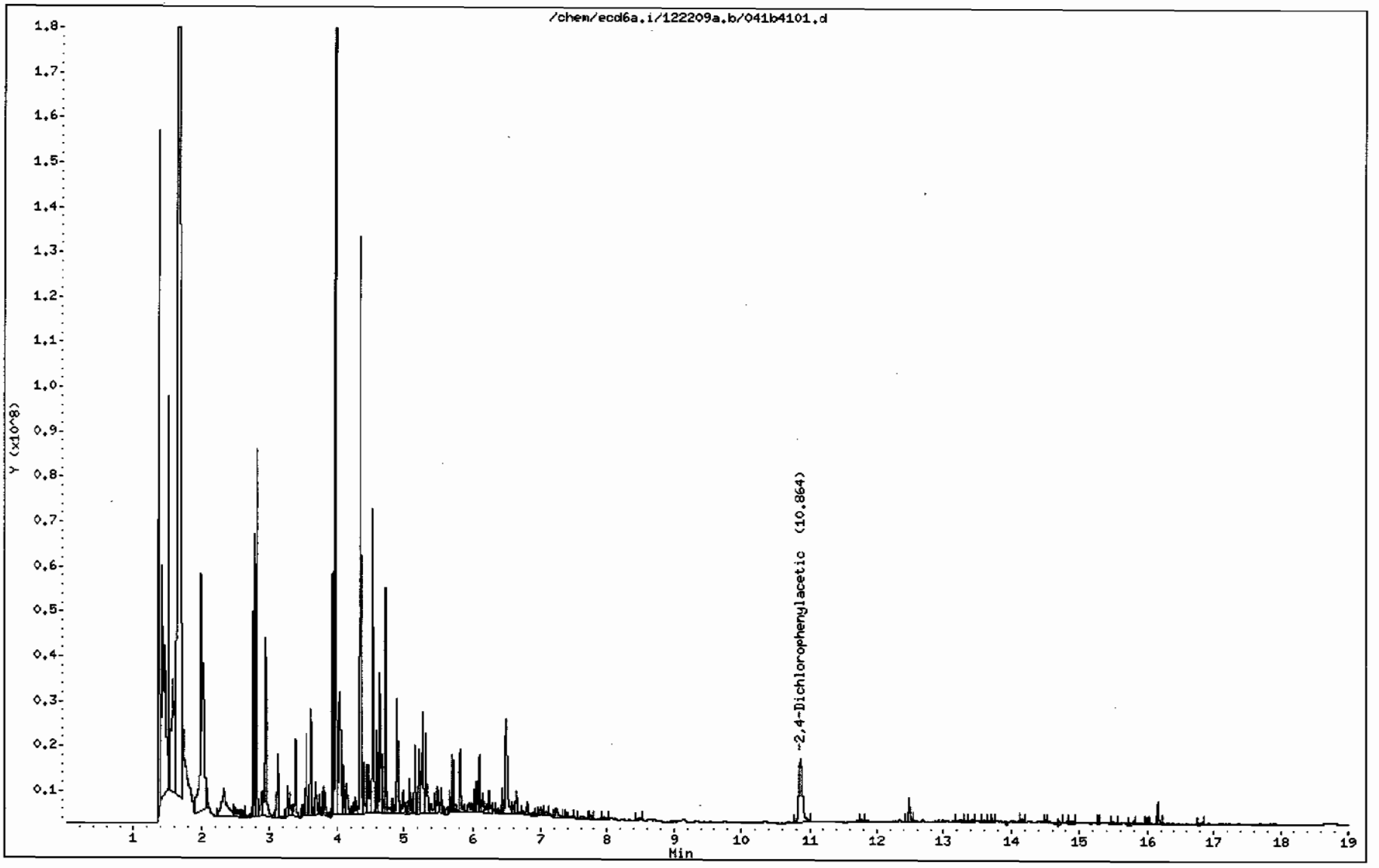

Herbicide
Certificate of Analysis
Sample Summary

SDG Number:	**10-939**			**Matrix:**	**SOIL**
Lab Sample ID:	**1201999027**				
Client Sample:	**QC for batch 934338**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 934338**	**Method:**	**SW846 8151A**	**SOP Ref:**	**GL-OA-E-011**
Batch ID:	**934339**	**Inst:**	**ECD6A.I**	**Dilution:**	**1**
Run Date:	**12/23/2009 15:49**	**Analyst:**	**HXJ1**	**Inj. Vol:**	**1 uL**
Prep Date:	**12/18/2009 08:56**	**Aliquot:**	**50 g**	**Final Volume:**	**10 mL**
Data File:	**042f4201.d**	**Column:**	**1 Rtx-CLP**	**Level:**	**LOW**
	042b4201.d		**2 Rtx-CLPII**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
75-99-0	Dalapon		138	ug/kg	20.0	100	2
1918-00-9	Dicamba		27.2	ug/kg	1.66	5.00	1
93-65-2	MCPP		3460	ug/kg	200	1000	2
94-74-6	MCPA		3040	ug/kg	230	1000	2
120-36-5	Dichlorprop		30.6	ug/kg	1.66	5.00	1
94-75-7	2,4-D		30.7	ug/kg	1.66	5.00	2
93-72-1	2,4,5-TP		33.3	ug/kg	1.66	5.00	2
93-76-5	2,4,5-T		29.7	ug/kg	1.66	5.00	2
94-82-6	2,4-DB		34.3	ug/kg	1.66	5.00	2
88-85-7	Dinoseb		35.5	ug/kg	1.66	5.00	2

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Column: RtxCLP 0.25mm x 30 m Inj Vol: 2 ul

Data file : /chem/ecd6a.i/122209a.b/042f4201.d
Lab Smp Id: 1201999027 Client Smp ID: HBLK01LCS
Inj Date : 23-DEC-2009 15:49
Operator : HXJ1 Inst ID: ecd6a.i
Smp Info : |1201999027|1|
Misc Info : |ECD51H_1S|934339|SVH|LCS|SOIL|LCS|||
Comment :
Method : /chem/ecd6a.i/122209a.b/ECD6-F-8151A-122209.m
Meth Date : 24-Dec-2009 19:07 tif01533 Quant Type: ESTD
Cal Date : 22-DEC-2009 21:04 Cal File: 002f0201.d
Als bottle: 42 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-939.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	10.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	50.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)
$ 2 2,4-Dichlorophenylacetic acid					CAS #: 19719-28-9
9.754	9.752	0.002	68079939	410.760	82.2
1 Dalapon					CAS #: 75-99-0
3.660	3.657	0.003	78008467	597.473	119
3 Dicamba					CAS #: 6597-78-0
10.219	10.214	0.005	76253115	136.093	27.2
4 MCPP					CAS #: 7085-19-0
10.970	10.966	0.004	9183164	16221.2	3240

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)
5 MCPA					CAS #: 94-74-6
11.401	11.400	0.001	14777115	14866.5	2970
6 Dichlorprop					CAS #: 120-36-5
12.057	12.054	0.003	21927458	152.905	30.6
7 2,4-D					CAS #: 94-75-7
12.371	12.368	0.003	24598528	152.823	30.6
8 2,4,5-TP					CAS #: 93-72-1
13.187	13.184	0.003	100648997	160.305	32.1
9 2,4,5-T					CAS #: 93-76-5
13.404	13.400	0.004	83098341	148.216	29.6
10 2,4-DB					CAS #: 94-82-6
13.771	13.767	0.004	13676627	158.254	31.6
11 Dinoseb					CAS #: 88-85-7
14.360	14.357	0.003	48635951	171.387	34.3

Data File: /chem/ecd6a.i/122209a.b/042f4201.d
Date : 23-DEC-2009 15:49
Client ID: HBLK01LCS
Sample Info: 1120199902711
Volume Injected (uL): 1.0
Column phase: Rtx-CLP

Instrument: ecd6a.i
Operator: HX31
Column diameter: 0.25

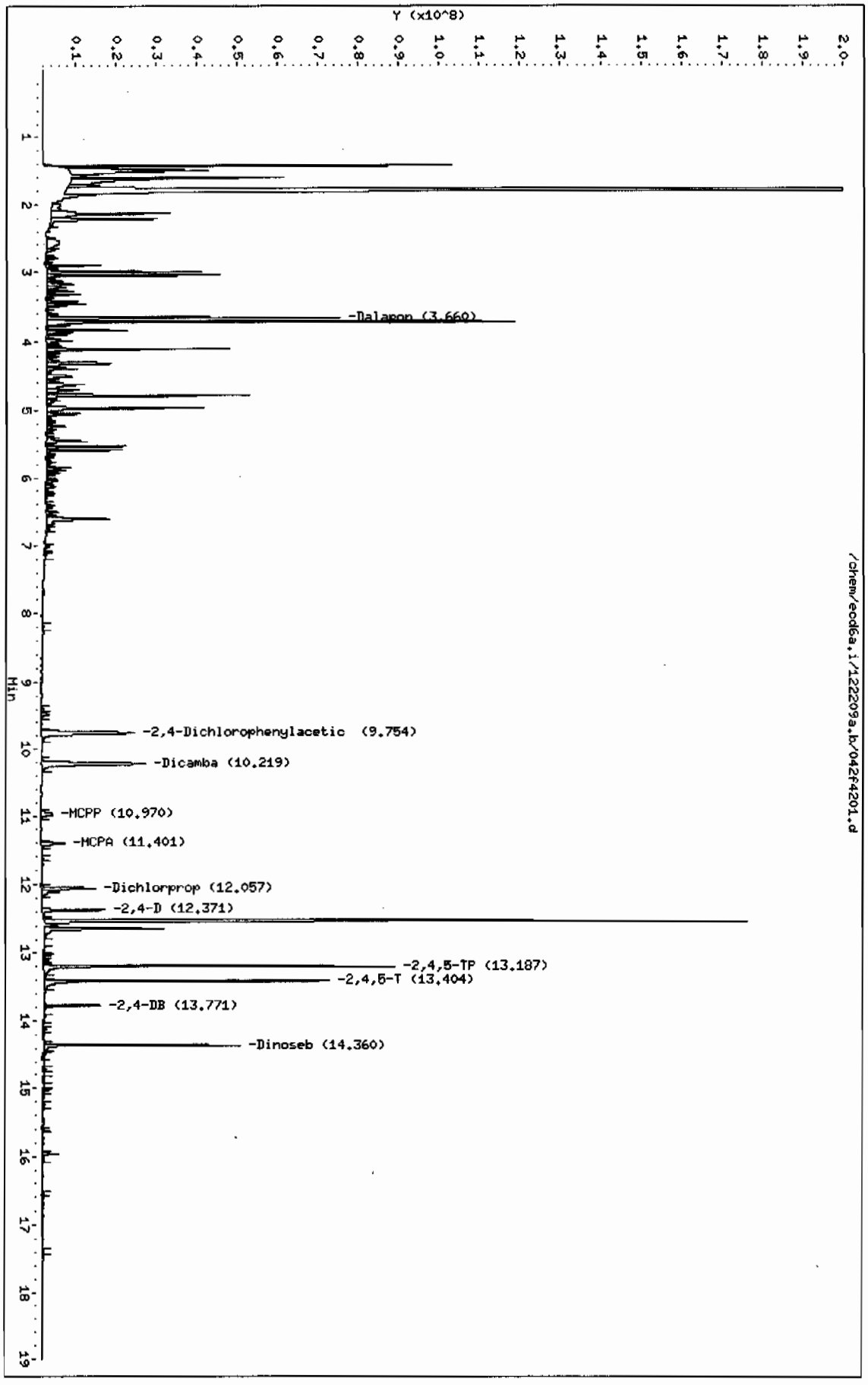

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Column: RtxCLPII 0.25mm x 30 m Inj Vol: 2ul

Data file : /chem/ecd6a.i/122209a.b/042b4201.d
Lab Smp Id: 1201999027 Client Smp ID: HBLK01LCS
Inj Date : 23-DEC-2009 15:49
Operator : HXJ1 Inst ID: ecd6a.i
Smp Info : |1201999027|1|
Misc Info : |ECD51H_1S|934339|SVH|LCS|SOIL|LCS|||
Comment : RtxCLPII
Method : /chem/ecd6a.i/122209a.b/ECD6-B-8151A-122209.m
Meth Date : 24-Dec-2009 18:57 tif01533 Quant Type: ESTD
Cal Date : 22-DEC-2009 21:32 Cal File: 003b0301.d
Als bottle: 42 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-939.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	10.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	50.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)
$ 2 2,4-Dichlorophenylacetic acid					CAS #: 19719-28-9
10.850	10.850	0.000	95402410	448.231	89.6
1 Dalapon					CAS #: 88-85-7
3.613	3.610	0.003	145036512	689.626	138
4 Dicamba					CAS #: 6597-78-0
11.333	11.332	0.001	105888053	114.966	23.0
3 MCPP					CAS #: 7085-19-0
11.702	11.702	0.000	25106325	17296.4	3460

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)
5 MCPA					CAS #: 94-74-6
12.091	12.091	0.000	28553351	15191.8	3040
6 Dichlorprop					CAS #: 120-36-5
12.525	12.525	0.000	29419882	147.081	29.4
7 2,4-D					CAS #: 94-75-7
12.853	12.850	0.003	36390346	153.570	30.7
8 2,4,5-TP					CAS #: 93-72-1
13.510	13.511	-0.001	151673753	166.563	33.3
9 2,4,5-T					CAS #: 93-76-5
13.766	13.764	0.002	119869025	148.696	29.7
11 2,4-DB					CAS #: 94-82-6
14.068	14.066	0.002	19411826	171.531	34.3
10 Dinoseb					CAS #: 88-85-7
14.237	14.235	0.002	76886124	177.333	35.5

Data File: /chem/ecd6a.i/122209a.b/042b4201.d
Date : 23-DEC-2009 15:49
Client ID: HBLK01LCS
Sample Info: |120199902711|
Volume Injected (uL): 1.0
Column phase: Rtx-CLPII

Instrument: ecd6a.i
Operator: HXJ1
Column diameter: 0.25

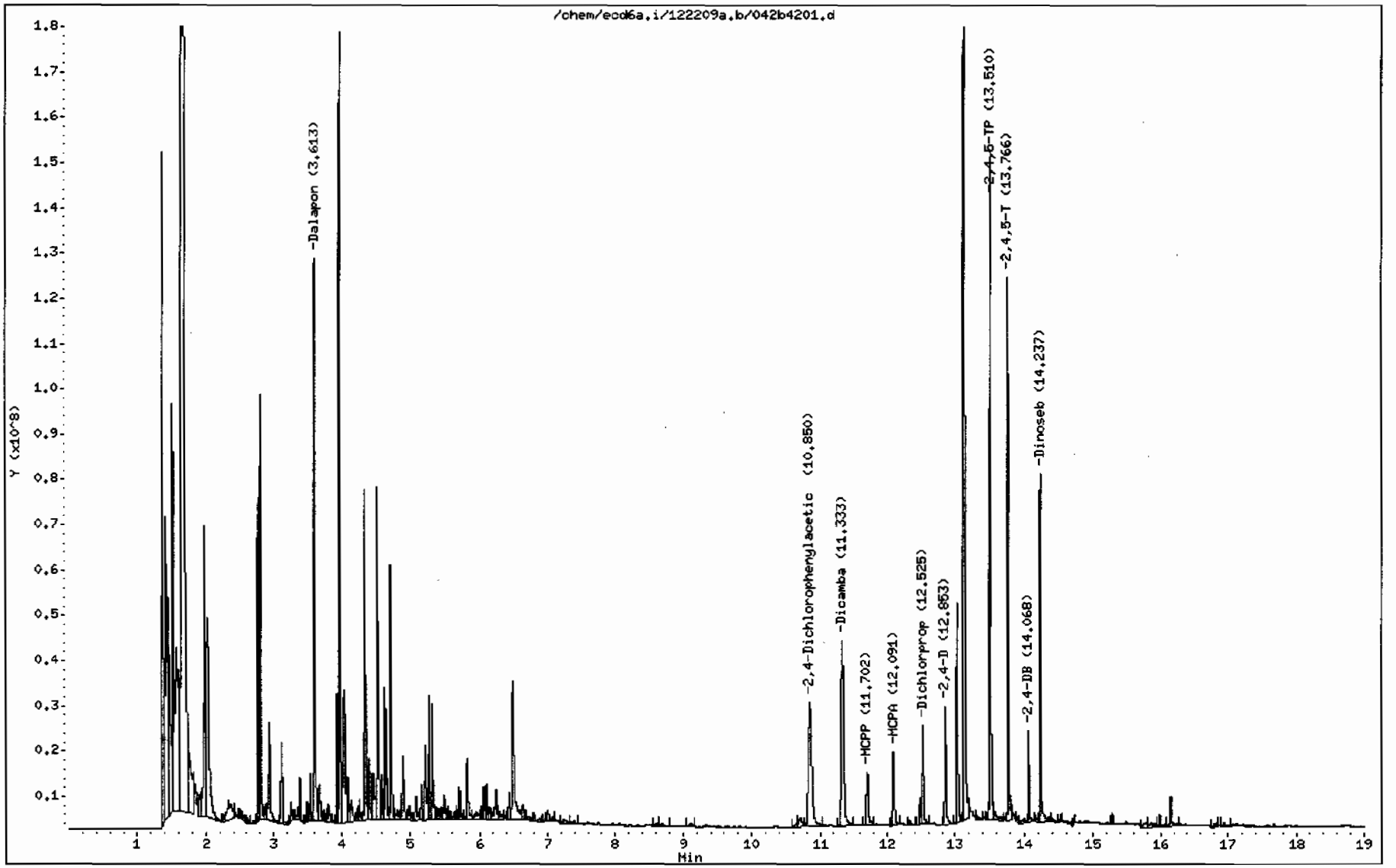

Herbicide
Certificate of Analysis
Sample Summary

SDG Number:	10–939	**Date Collected:**	12/14/2009 12:00	**Matrix:**	R
Lab Sample ID:	1201999028	**Date Received:**	12/16/2009 09:10	**%Moisture:**	13.5
Client Sample:	QC for batch 934338	**Client:**	LANL010	**Project:**	QC
Client ID:	WST03–10–2147MS	**Method:**	SW846 8151A	**SOP Ref:**	GL–OA–E–011
Batch ID:	934339	**Inst:**	ECD6A.I	**Dilution:**	1
Run Date:	12/23/2009 16:46	**Analyst:**	HXJ1	**Inj. Vol:**	1 uL
Prep Date:	12/18/2009 08:56	**Aliquot:**	50.04 g	**Final Volume:**	10 mL
Data File:	044f4401.d	**Column:**	1 Rtx–CLP	**Level:**	LOW
	044b4401.d		2 Rtx–CLPII		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
75–99–0	Dalapon	J	92.5	ug/kg	23.1	116	1
1918–00–9	Dicamba		13.1	ug/kg	1.92	5.78	1
93–65–2	MCPP	JP	871	ug/kg	231	1160	1
94–74–6	MCPA		1230	ug/kg	266	1160	1
120–36–5	Dichlorprop		11.3	ug/kg	1.92	5.78	1
94–75–7	2,4–D		11.3	ug/kg	1.92	5.78	1
93–72–1	2,4,5–TP		8.71	ug/kg	1.92	5.78	1
93–76–5	2,4,5–T		7.90	ug/kg	1.92	5.78	1
94–82–6	2,4–DB	P	15.7	ug/kg	1.92	5.78	1
88–85–7	Dinoseb		14.3	ug/kg	1.92	5.78	1

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Column: RtxCLP 0.25mm x 30 m Inj Vol: 2 ul

Data file : /chem/ecd6a.i/122209a.b/044f4401.d
Lab Smp Id: 1201999028 Client Smp ID: WST03-10-2147MS
Inj Date : 23-DEC-2009 16:46
Operator : HXJ1 Inst ID: ecd6a.i
Smp Info : |1201999028|1|
Misc Info : |ECD51H_1S|934339|SVH|MS|SOIL|MS|||
Comment :
Method : /chem/ecd6a.i/122209a.b/ECD6-F-8151A-122209.m
Meth Date : 24-Dec-2009 19:07 tif01533 Quant Type: ESTD
Cal Date : 22-DEC-2009 21:04 Cal File: 002f0201.d
Als bottle: 44 QC Sample: MS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-939.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	10.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	50.04000	Weight of sample extracted (g)
M	13.49180	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	
$ 2 2,4-Dichlorophenylacetic acid					CAS #: 19719-28-9	
9.759	9.752	0.007	36544429	220.490	50.9	
1 Dalapon					CAS #: 75-99-0	
3.662	3.657	0.005	52308601	400.636	92.5	(aR)
3 Dicamba					CAS #: 6597-78-0	
10.221	10.214	0.007	31744602	56.6561	13.1	(R)
4 MCPP					CAS #: 7085-19-0	
10.973	10.966	0.007	2135466	3772.10	871	(aR)

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	
5 MCPA					CAS #: 94-74-6	
11.400	11.400	0.000	5290351	5322.34	1230	(R)
6 Dichlorprop					CAS #: 120-36-5	
12.056	12.054	0.002	6986401	48.7178	11.2	(R)
7 2,4-D					CAS #: 94-75-7	
12.373	12.368	0.005	7865393	48.8653	11.3	(R)
8 2,4,5-TP					CAS #: 93-72-1	
13.187	13.184	0.003	23664654	37.6911	8.7	(R)
9 2,4,5-T					CAS #: 93-76-5	
13.403	13.400	0.003	19162582	34.1788	7.9	(R)
10 2,4-DB					CAS #: 94-82-6	
13.769	13.767	0.002	5874497	67.9746	15.7	
11 Dinoseb					CAS #: 88-85-7	
14.359	14.357	0.002	17562874	61.8893	14.3	

QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
R - Spike/Surrogate failed recovery limits.

Data File: /chem/ecd6a.i/122209a.b/044f4401.d
Date : 23-DEC-2009 16:46
Client ID: WST03-10-2147MS
Sample Info: 1120199902811
Volume Injected (uL): 1.0
Column phase: Rtx-CLP

Instrument: ecd6a.i
Operator: HXJ1
Column diameter: 0.25

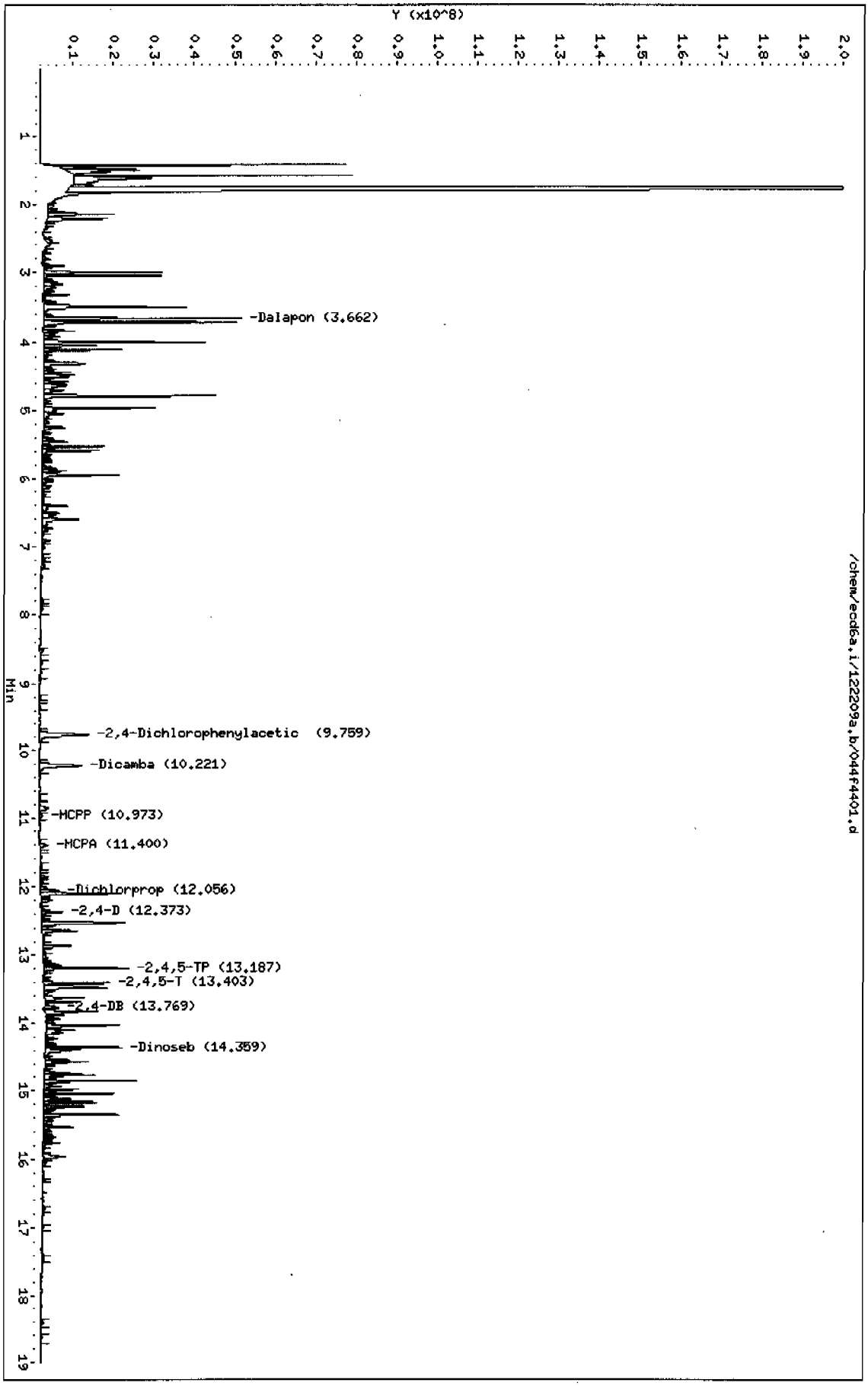

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GEL Laboratories LLC

Column: RtxCLPII 0.25mm x 30 m Inj Vol: 2ul

Data file : /chem/ecd6a.i/122209a.b/044b4401.d
Lab Smp Id: 1201999028 Client Smp ID: WST03-10-2147MS
Inj Date : 23-DEC-2009 16:46
Operator : HXJ1 Inst ID: ecd6a.i
Smp Info : |1201999028|1|
Misc Info : |ECD51H_1S|934339|SVH|MS|SOIL|MS|||
Comment : RtxCLPII
Method : /chem/ecd6a.i/122209a.b/ECD6-B-8151A-122209.m
Meth Date : 24-Dec-2009 18:57 tif01533 Quant Type: ESTD
Cal Date : 22-DEC-2009 21:32 Cal File: 003b0301.d
Als bottle: 44 QC Sample: MS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-939.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	10.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	50.04000	Weight of sample extracted (g)
M	13.49180	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	
$ 2 2,4-Dichlorophenylacetic acid					CAS #: 19719-28-9	
10.855	10.850	0.005	45432634	213.457	49.3	
1 Dalapon					CAS #: 88-85-7	
3.617	3.610	0.007	88804646	422.253	97.5	(aR)
4 Dicamba					CAS #: 6597-78-0	
11.337	11.332	0.005	41769046	45.3499	10.5	(R)
3 MCPP					CAS #: 7085-19-0	
11.700	11.702	-0.002	9300262	6407.18	1480	

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	
5 MCPA					CAS #: 94-74-6	
12.089	12.091	-0.002	10111490	5379.82	1240	(R)
6 Dichlorprop					CAS #: 120-36-5	
12.525	12.525	0.000	9410596	47.0471	10.9	(R)
7 2,4-D					CAS #: 94-75-7	
12.853	12.850	0.003	14125305	59.6100	13.8	(R)
8 2,4,5-TP					CAS #: 93-72-1	
13.512	13.511	0.001	32373523	35.5515	8.2	(R)
9 2,4,5-T					CAS #: 93-76-5	
13.766	13.764	0.002	33796227	41.9237	9.7	(R)
11 2,4-DB					CAS #: 94-82-6	
14.033	14.066	-0.033	45874673	405.368	93.6	(AR)
10 Dinoseb					CAS #: 88-85-7	
14.238	14.235	0.003	23799463	54.8919	12.7	(R)

QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
A - Target compound detected but, quantitated amount exceeded maximum amount.
R - Spike/Surrogate failed recovery limits.

Data File: /chem/ecd6a.i/122209a.b/044b4401.d
Date : 23-DEC-2009 16:46
Client ID: WST03-10-2147MS
Sample Info: |1201999028|1|
Volume Injected (uL): 1.0
Column phase: Rtx-CLPII

Instrument: ecd6a.i
Operator: HXJ1
Column diameter: 0.25

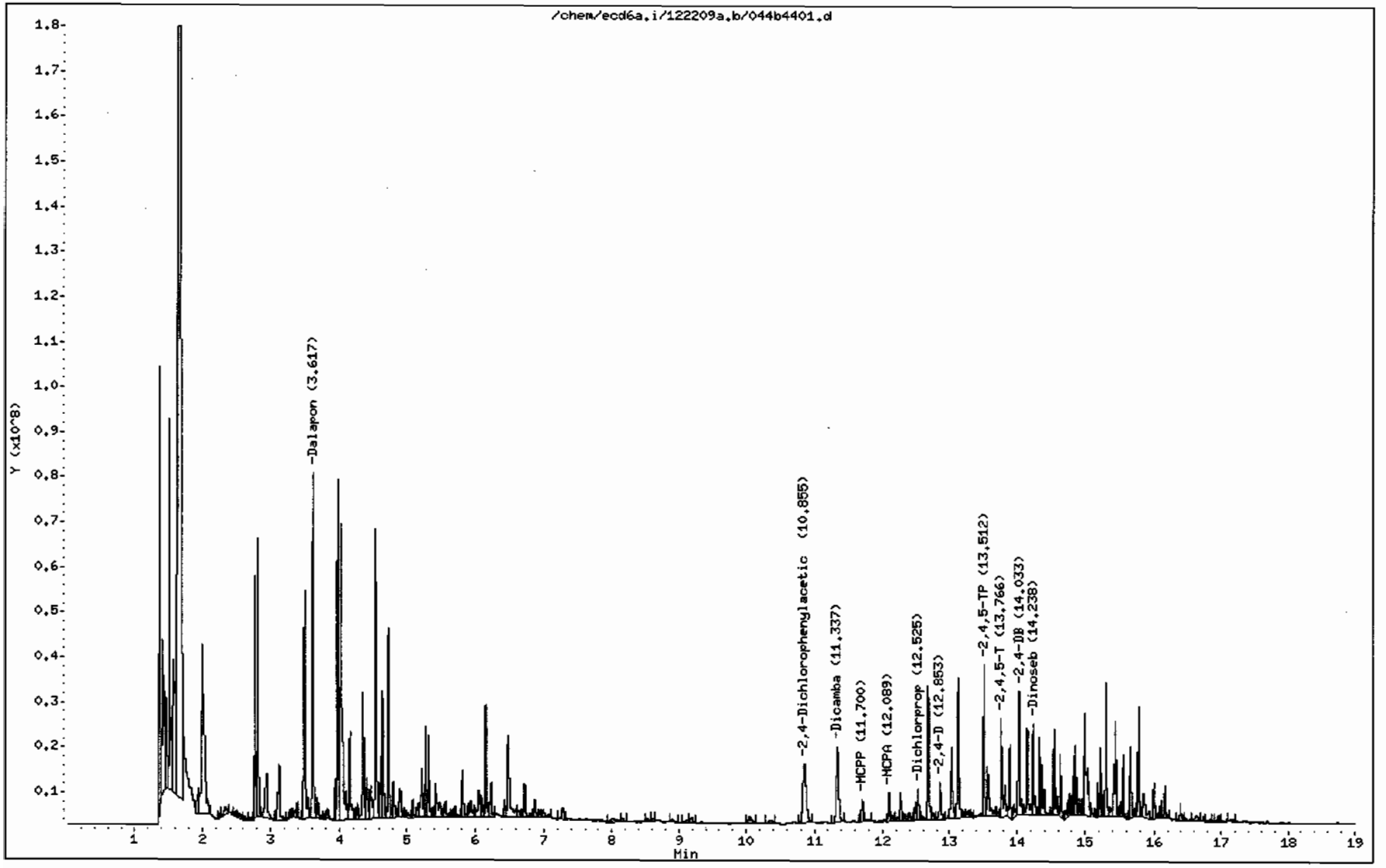

Herbicide
Certificate of Analysis
Sample Summary

SDG Number:	10–939	**Date Collected:**	12/14/2009 12:00	**Matrix:**	R
Lab Sample ID:	1201999029	**Date Received:**	12/16/2009 09:10	**%Moisture:**	13.5
Client Sample:	QC for batch 934338	**Client:**	LANL010	**Project:**	QC
Client ID:	WST03–10–2147MSD	**Method:**	SW846 8151A	**SOP Ref:**	GL–OA–E–011
Batch ID:	934339	**Inst:**	ECD6A.I	**Dilution:**	1
Run Date:	12/23/2009 17:15	**Analyst:**	HXJ1	**Inj. Vol:**	1 uL
Prep Date:	12/18/2009 08:56	**Aliquot:**	50.04 g	**Final Volume:**	10 mL
Data File:	045f4501.d	**Column:**	1 Rtx–CLP	**Level:**	LOW
	045b4501.d		2 Rtx–CLPII		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
75–99–0	Dalapon		206	ug/kg	23.1	116	1
1918–00–9	Dicamba		19.7	ug/kg	1.92	5.78	1
93–65–2	MCPP		1350	ug/kg	231	1160	1
94–74–6	MCPA		1820	ug/kg	266	1160	1
120–36–5	Dichlorprop		15.1	ug/kg	1.92	5.78	1
94–75–7	2,4–D		15.3	ug/kg	1.92	5.78	1
93–72–1	2,4,5–TP		12.8	ug/kg	1.92	5.78	1
93–76–5	2,4,5–T		10.5	ug/kg	1.92	5.78	1
94–82–6	2,4–DB	P	30.6	ug/kg	1.92	5.78	1
88–85–7	Dinoseb		12.6	ug/kg	1.92	5.78	1

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Column: RtxCLP 0.25mm x 30 m Inj Vol: 2 ul

Data file : /chem/ecd6a.i/122209a.b/045f4501.d
Lab Smp Id: 1201999029 Client Smp ID: WST03-10-2147MSD
Inj Date : 23-DEC-2009 17:15
Operator : HXJ1 Inst ID: ecd6a.i
Smp Info : |1201999029|1|
Misc Info : |ECD51H_1S|934339|SVH|MSD|SOIL|MSD|||
Comment :
Method : /chem/ecd6a.i/122209a.b/ECD6-F-8151A-122209.m
Meth Date : 28-Dec-2009 11:01 tif01533 Quant Type: ESTD
Cal Date : 22-DEC-2009 21:04 Cal File: 002f0201.d
Als bottle: 45 QC Sample: MSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-939.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	10.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	50.04000	Weight of sample extracted (g)
M	13.49180	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	
$ 2 2,4-Dichlorophenylacetic acid					CAS #: 19719-28-9	
9.758	9.752	0.006	44127092	266.240	61.5	
1 Dalapon					CAS #: 75-99-0	
3.663	3.657	0.006	116247584	890.349	206	
3 Dicamba					CAS #: 6597-78-0	
10.221	10.214	0.007	47822404	85.3510	19.7	
4 MCPP					CAS #: 7085-19-0	
10.969	10.966	0.003	3312458	5851.14	1350	(R)

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	
5 MCPA					CAS #: 94-74-6	
11.397	11.400	-0.003	7823237	7870.54	1820	
6 Dichlorprop					CAS #: 120-36-5	
12.056	12.054	0.002	9380135	65.4098	15.1	
7 2,4-D					CAS #: 94-75-7	
12.369	12.368	0.001	10675868	66.3259	15.3	
8 2,4,5-TP					CAS #: 93-72-1	
13.186	13.184	0.002	34775487	55.3875	12.8	(R)
9 2,4,5-T					CAS #: 93-76-5	
13.403	13.400	0.003	25545633	45.5637	10.5	(R)
10 2,4-DB					CAS #: 94-82-6	
13.754	13.767	-0.013	11460271	132.608	30.6	
11 Dinoseb					CAS #: 88-85-7	
14.361	14.357	0.004	15513124	54.6663	12.6	(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: /chem/ecd6a.i/122209a.b/045f4501.d

Date : 23-DEC-2009 17:15

Client ID: WST03-10-2147MSD

Sample Info: |120199902911|

Volume Injected (uL): 1.0

Column phase: Rtx-CLP

Instrument: ecd6a.i

Operator: HXJ1

Column diameter: 0.25

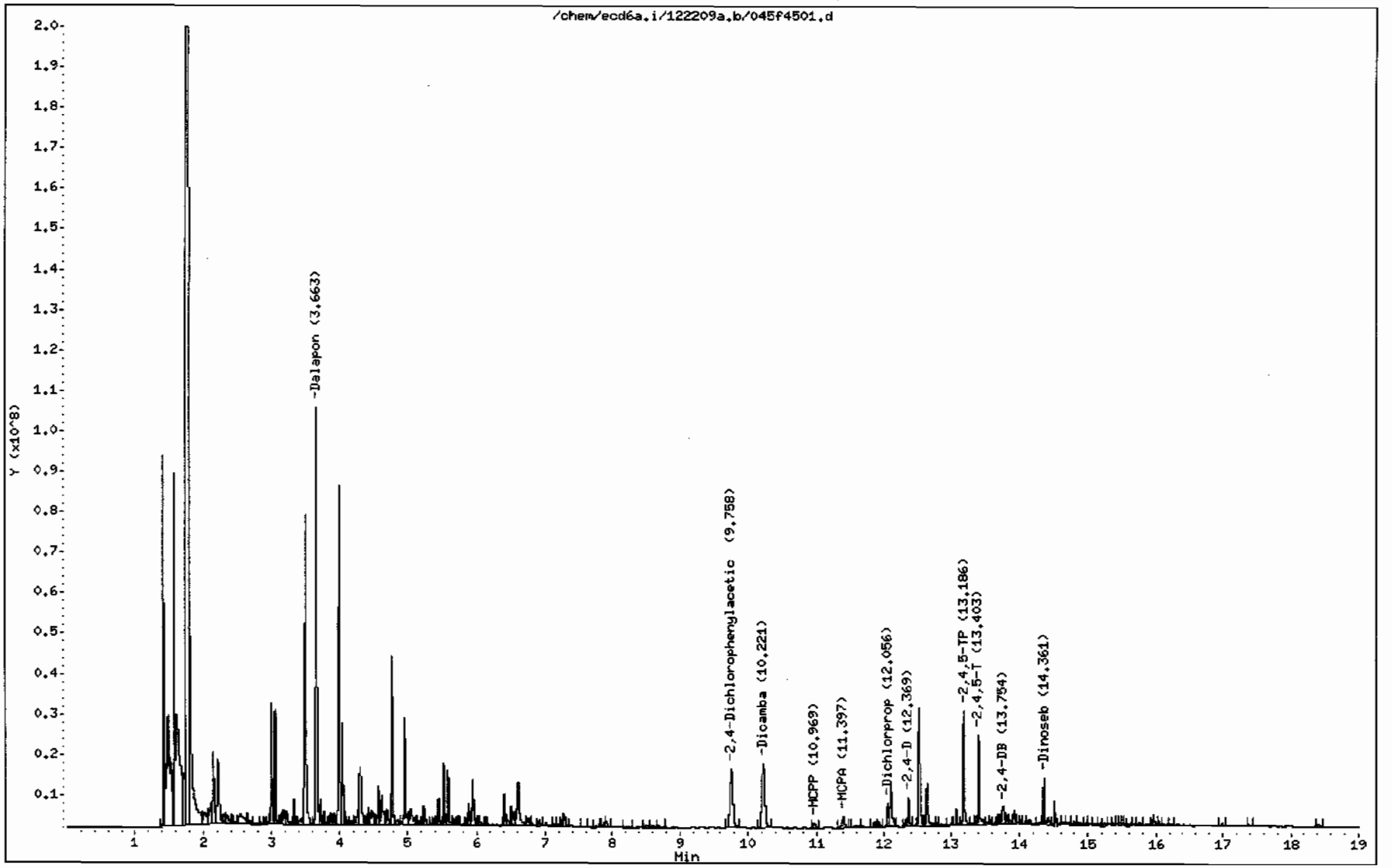

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Column: RtxCLPII 0.25mm x 30 m Inj Vol: 2ul

Data file : /chem/ecd6a.i/122209a.b/045b4501.d
Lab Smp Id: 1201999029 Client Smp ID: WST03-10-2147MSD
Inj Date : 23-DEC-2009 17:15
Operator : HXJ1 Inst ID: ecd6a.i
Smp Info : |1201999029|1|
Misc Info : |ECD51H_1S|934339|SVH|MSD|SOIL|MSD|||
Comment : RtxCLPII
Method : /chem/ecd6a.i/122209a.b/ECD6-B-8151A-122209.m
Meth Date : 24-Dec-2009 18:57 tif01533 Quant Type: ESTD
Cal Date : 22-DEC-2009 21:32 Cal File: 003b0301.d
Als bottle: 45 QC Sample: MSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-939.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	10.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	50.04000	Weight of sample extracted (g)
M	13.49180	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)
$ 2 2,4-Dichlorophenylacetic acid					CAS #: 19719-28-9
10.853	10.850	0.003	53787702	252.712	58.4
1 Dalapon					CAS #: 88-85-7
3.618	3.610	0.008	180901901	860.161	199
4 Dicamba					CAS #: 6597-78-0
11.333	11.332	0.001	63274955	68.6995	15.9
3 MCPP					CAS #: 7085-19-0
11.699	11.702	-0.003	10633752	7325.85	1690

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	
5 MCPA					CAS #: 94-74-6	
12.090	12.091	-0.001	16161264	8598.61	1990	
6 Dichlorprop					CAS #: 120-36-5	
12.524	12.525	-0.001	13086398	65.4238	15.1	
7 2,4-D					CAS #: 94-75-7	
12.851	12.850	0.001	19902148	83.9887	19.4	
8 2,4,5-TP					CAS #: 93-72-1	
13.512	13.511	0.001	49712019	54.5921	12.6	(R)
9 2,4,5-T					CAS #: 93-76-5	
13.766	13.764	0.002	35100714	43.5419	10.0	(R)
11 2,4-DB					CAS #: 94-82-6	
14.067	14.066	0.001	5551393	49.0545	11.3	(R)
10 Dinoseb					CAS #: 88-85-7	
14.237	14.235	0.002	22521201	51.9437	12.0	(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: /chem/ecd6a.i/122209a.b/045b4501.d

Date : 23-DEC-2009 17:15

Client ID: WST03-10-2147MSD

Sample Info: |120199902911|

Volume Injected (uL): 1.0

Column phase: Rtx-CLPII

Instrument: ecd6a.i

Operator: HXJ1

Column diameter: 0.25

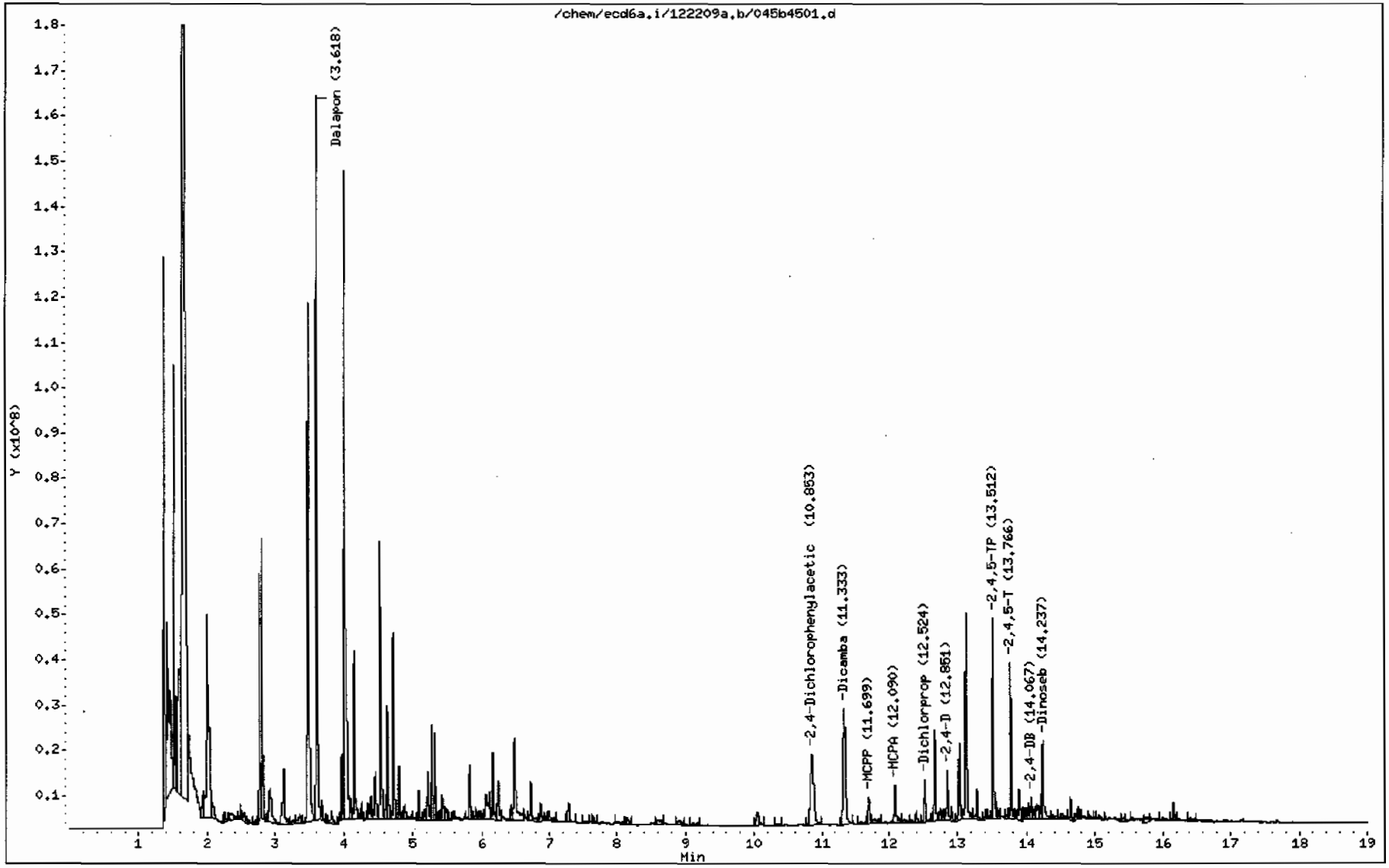

MISCELLANEOUS DATA

GEL ORGANIC RUN LOG INSTRUMENT ID __ECD6__

DATE: 12/28/2009 METHOD: ECD6-F-8151A-122209.m OPERATOR:HXJ1 REVIEWED BY:_____

DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT CZ454

Calibration & QC Information
Initial Calibration Dates: See Calibration History and Standards Log
Initial Calibration Std ID's: See Calibration History and Standards Log
GEL SOP GL-OA-E-011 Analysis of Chlorophenoxy Acid Herbicides by ECD
EPA Method: 8151A Chlorinated Herbicides by GC Using Derivatization
Sequence Number:122209a Injection Volume: 1.0 uL

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001f0101.d	WHB091117-02	HXJ1	22-DEC-2009 20:36		122209a	1.0	INSTBLK	CLEAN
002f0201.d	WHB091030-01	HXJ1	22-DEC-2009 21:04		122209a	1.0	HSTD01	ICAL LVL 1
003f0301.d	WHB091030-02	HXJ1	22-DEC-2009 21:32		122209a	1.0	HSTD02	ICAL LVL 2
004f0401.d	WHB091030-03	HXJ1	22-DEC-2009 22:00		122209a	1.0	HSTD03	ICAL LVL 3
005f0501.d	WHB091030-04	HXJ1	22-DEC-2009 22:28		122209a	1.0	HSTD04	ICAL LVL 4
006f0601.d	WHB091030-05	HXJ1	22-DEC-2009 22:55		122209a	1.0	HSTD05	ICAL LVL 5
007f0701.d	WHB091030-06	HXJ1	22-DEC-2009 23:23		122209a	1.0	HSTD06	ICAL LVL 6
008f0801.d	WHB091030-07	HXJ1	22-DEC-2009 23:50		122209a	1.0	HSTD07	ICAL LVL 7
009f0901.d	WHB091222-08	HXJ1	23-DEC-2009 00:18		122209a	1.0	HSTD01	USE. ICV. ALL ANALYTES PASSING BOTH COLUMNS.
010f1001.d	WHB091117-02	HXJ1	23-DEC-2009 00:46		122209a	1.0	INSTBLK	CLEAN
011f1101.d	242167003	HXJ1	23-DEC-2009 01:13	930907	10-753	1.0	LANL	USE. PASSING BOTH COLUMNS, UPLOAD HIGHER RESULT.
012f1201.d	242935005	HXJ1	23-DEC-2009 01:40	934150	10-915	1.0	LANL	USE. PASSING BOTH COLUMNS, UPLOAD HIGHER RESULT.
013f1301.d	1201998648	HXJ1	23-DEC-2009 02:08	934150	10-915	1.0	MS	USE. PASSING BOTH COLUMNS, UPLOAD HIGHER RESULT.
014f1401.d	1201998649	HXJ1	23-DEC-2009 02:35	934150	10-915	1.0	MSD	USE. PASSING BOTH COLUMNS, UPLOAD HIGHER RESULT.
015f1501.d	WHB091030-05	HXJ1	23-DEC-2009 03:03		122209a	1.0	HSTD02	USE. CCV. ALL ANALYTES PASSING BOTH COLUMNS.

Instrument Batch: /chem/ecd6a.i/122209a.b Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
016f1601.d	WHB091117-02	HXJ1	23-DEC-2009 03:30		122209a	1.0	INSTBLK	CLEAN
017f1701.d	1201995986	HXJ1	23-DEC-2009 03:57	932999	10-899	1.0	MB	USE. PASSING BOTH COLUMNS, UPLOAD HIGHER RESULT.

018f1801.d	1201995987	HXJ1	23-DEC-2009 04:25	932999	10-899		1.0	LCS	USE. PASSING BOTH COLUMNS, UPLOAD HIGHER RESULT.
019f1901.d	242784003	HXJ1	23-DEC-2009 04:52	932999	10-899		1.0	LANL	USE. PASSING BOTH COLUMNS, UPLOAD HIGHER RESULT.
020f2001.d	242784004	HXJ1	23-DEC-2009 05:20	932999	10-899		10.0	LANL	USE. PASSING BOTH COLUMNS, UPLOAD HIGHER RESULT.
021f2101.d	1201995988	HXJ1	23-DEC-2009 05:47	932999	10-899		10.0	MS	USE. MCPP LOW (F), PASSING (B).
022f2201.d	1201995989	HXJ1	23-DEC-2009 06:15	932999	10-899		10.0	MSD	USE. MCPP LOW (F), PASSING (B).
023f2301.d	WHB091030-05	HXJ1	23-DEC-2009 06:42		122209a		1.0	HSTD03	USE. CCV. DINO HI (B).
024f2401.d	WHB091117-02	HXJ1	23-DEC-2009 07:10		122209a		1.0	INSTBLK	CLEAN
025f2501.d	1202000373	HXJ1	23-DEC-2009 07:38	934961	10-958		1.0	MB	USE. PASSING BOTH COLUMNS, UPLOAD HIGHER RESULT.
026f2601.d	1202000374	HXJ1	23-DEC-2009 08:05	934961	10-958		1.0	LCS	USE. PASSING BOTH COLUMNS, UPLOAD HIGHER RESULT.
027f2701.d	243153001	HXJ1	23-DEC-2009 08:33	934961	10-958		1.0	LANL	USE. $ LOW BOTH - confirmed in re-extraction (see 122409.b)
028f2801.d	243153002	HXJ1	23-DEC-2009 09:01	934961	10-958		1.0	LANL	USE. $ LOW BOTH, CONFIRMED BY MS/MSD.
029f2901.d	1202000375	HXJ1	23-DEC-2009 09:28	934961	10-958		1.0	MS	USE. $/SPIKES LOW BOTH, CONFIRMED BY MSD.
030f3001.d	1202000376	HXJ1	23-DEC-2009 09:57	934961	10-958		1.0	MSD	USE. $/SPIKES LOW BOTH, CONFIRMED BY MS.
031f3101.d	WHB091030-05	HXJ1	23-DEC-2009 10:25		122209a		1.0	HSTD04	USE. CCV. ALL PASSING(B) DINO HI (F).
032f3201.d	WHB091117-02	HXJ1	23-DEC-2009 10:54		122209a		1.0	INSTBLK	CLEAN
033f3301.d	WE091222-03	HXJ1	23-DEC-2009 11:22		122209a		1.0		SCREEN
034f3401.d	1201990555	HXJ1	23-DEC-2009 11:50	930683	10-778		1.0	MB	USE. PASSING BOTH COLUMNS, UPLOAD HIGHER RESULT.
035f3501.d	1201990556	HXJ1	23-DEC-2009 12:19	930683	10-778		1.0	LCS	USE. PASSING BOTH COLUMNS, UPLOAD HIGHER RESULT.

Instrument Batch: /chem/ecd6a.i/122209a.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
036f3601.d	242237006	HXJ1	23-DEC-2009 12:48	930683	10-778	1.0	LANL	USE. PASSING BOTH COLUMNS, UPLOAD HIGHER RESULT.
037f3701.d	1201990557	HXJ1	23-DEC-2009 13:18	930683	10-778	1.0	MS	USE. PASSING BOTH COLUMNS, UPLOAD HIGHER RESULT.
038f3801.d	1201990558	HXJ1	23-DEC-2009 13:46	930683	10-778	1.0	MSD	USE. PASSING BOTH COLUMNS, UPLOAD HIGHER RESULT.
039f3901.d	WHB091030-05	HXJ1	23-DEC-2009 14:15		122209a	1.0		USE. CCV. DINO HI (B)(F)
040f4001.d	WHB091117-02	HXJ1	23-DEC-2009 14:44		122209a	1.0		CLEAN
041f4101.d	1201999026	HXJ1	23-DEC-2009 15:20	934339	10-939	1.0	MB	USE. PASSING BOTH COLUMNS, UPLOAD HIGHER RESULT.

042f4201.d	1201999027	HXJ1	23-DEC-2009 15:49	934339	10-939	1.0	LCS	USE. PASSING BOTH COLUMNS, UPLOAD HIGHER RESULT.
043f4301.d	243007002	HXJ1	23-DEC-2009 16:18	934339	10-939	1.0	LANL	USE. PASSING BOTH COLUMNS, UPLOAD HIGHER RESULT.
044f4401.d	1201999028	HXJ1	23-DEC-2009 16:46	934339	10-939	1.0	MS	USE. MULT. ANALYTES FAILING BOTH COLUMNS, UPLOAD HIGHER RESULT.
045f4501.d	1201999029	HXJ1	23-DEC-2009 17:15	934339	10-939	1.0	MSD	USE. MULT. ANALYTES FAILING BOTH COLUMNS, UPLOAD HIGHER RESULT.
046f4601.d	WHB091030-05	HXJ1	23-DEC-2009 17:43		122209a	1.0		USE. CCV. DINO HI (B)(F)
047f4701.d	WHB091117-02	HXJ1	23-DEC-2009 18:12		122209a	1.0		CLEAN
048f4801.d	242840004	HXJ1	23-DEC-2009 18:40	933830	242840	1.0	LAID	DUSE. NEEDS TO BE RE-EXTRACTED.
049f4901.d	WHB091030-05	HXJ1	23-DEC-2009 19:09		122209a	1.0		USE. CCV. ALL PASSING(B) MCPP, DINO HI(F)
050f5001.d	WHB091117-02	HXJ1	23-DEC-2009 19:37		122209a	1.0		CLEAN
051f5101.d	1202002491	HXJ1	23-DEC-2009 20:05	935865	243262	1.0	MB	USE. PASSING BOTH COLUMNS, UPLOAD HIGHER RESULT.
052f5201.d	1202002492	HXJ1	23-DEC-2009 20:33	935865	243262	1.0	LCS	USE. PASSING BOTH COLUMNS, UPLOAD HIGHER RESULT.
053f5301.d	1202002495	HXJ1	23-DEC-2009 21:02	935865	243262	1.0	LCSD	USE. PASSING BOTH COLUMNS, UPLOAD HIGHER RESULT.
054f5401.d	243262001	HXJ1	23-DEC-2009 21:30	935865	243262	1.0	MECP	USE. PASSING BOTH COLUMNS, UPLOAD HIGHER RESULT.
055f5501.d	243262002	HXJ1	23-DEC-2009 21:57	935865	243262	1.0	MECP	USE. PASSING BOTH COLUMNS, UPLOAD HIGHER RESULT.

Instrument Batch: /chem/ecd6a.i/122209a.b Page: 3

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
056f5601.d	243282005	HXJ1	23-DEC-2009 22:25	935865	243282	1.0	PCGE	USE. PASSING BOTH COLUMNS, UPLOAD HIGHER RESULT.
057f5701.d	WHB091030-05	HXJ1	23-DEC-2009 22:53		122209a	1.0		USE. CCV. DINO LOW(B) MCPP HI(F)
058f5801.d	WHB091117-02	HXJ1	23-DEC-2009 23:21		122209a	1.0		CLEAN
059f5901.d	243282011	HXJ1	23-DEC-2009 23:48	935865	243282	1.0	PCGE	USE. PASSING BOTH COLUMNS, UPLOAD HIGHER RESULT.
060f6001.d	1202002493	HXJ1	24-DEC-2009 00:16	935865	243282	1.0	MS	USE. MULT. ANALYTES FAILING BOTH COLUMNS, UPLOAD HIGHER RESULT.
061f6101.d	1202002494	HXJ1	24-DEC-2009 00:44	935865	243282	1.0	MSD	USE. MULT. ANALYTES FAILING BOTH COLUMNS, UPLOAD HIGHER RESULT.
062f6201.d	243282017	HXJ1	24-DEC-2009 01:11	935865	243282	1.0	PCGE	USE. PASSING BOTH COLUMNS, UPLOAD HIGHER RESULT.
063f6301.d	243282023	HXJ1	24-DEC-2009 01:39	935865	243282	1.0	PCGE	USE. PASSING BOTH COLUMNS, UPLOAD HIGHER RESULT.
064f6401.d	WHB091030-05	HXJ1	24-DEC-2009 02:06		122209a	1.0		USE. CCV. DINO LOW(B) MCPP HI, DINO LOW(F)
065f6501.d	WHB091117-02	HXJ1	24-DEC-2009 02:34		122209a	1.0		CLEAN

Instrument Batch: /chem/ecd6a.i/122209a.b Page: 4

Prep Logbook

The Extraction of Herbicides from Soil and Sludge Samples

Batch ID: 934338 **Verified by:** _____

Analyst: Joshua McCartney

Method: SW846 8151A

Lab SOP: GL-OA-E-027 REV# 8

Instrument: Semi-Volatiles Manual

Sample ID	Run Date	Aliquot (g)	Prepped Aliquot (mL)	Prepped Factor (mL/g)
1201999026 MB	18-DEC-2009 08:56:56	50	10	0.2
1201999027 LCS	18-DEC-2009 08:56:56	50	10	0.2
243007002	18-DEC-2009 08:56:56	50.01	10	0.19996
1201999028 MS (243007002)	18-DEC-2009 08:56:56	50.04	10	0.19984
1201999029 MSD (243007002)	18-DEC-2009 08:56:56	50.04	10	0.19984

Type	Sample Id	Description	Serial Number	Spike Amt	Units
LCS	1201999027	HERBICIDE LCS	WE091208-02	1	mL
MS	1201999028	HERBICIDE LCS	WE091208-02	1	mL
MSD	1201999029	HERBICIDE LCS	WE091208-02	1	mL
SURR	All	HERBICIDE SURROGATE	WE091208-03	.05	mL
REGNT	All	Iso-octane	1106542-A	1	mL
REGNT	All	Acetone	1233927	150	mL
REGNT	All	Methanol	1239758-C	.5	mL
REGNT	All	Hexane	1241300-B2	50	mL
REGNT	All	Methylene Chloride	1242565-D	150	mL
REGNT	All	N-METHYL-N-NITROSO-P-TOLUENESULFON-AMIDE	1244470A	2	mL
SOURC	All	SODIUM SULFATE	1242582	50	g

Comments:

Verified By: RWH

Final Solvent: Hexane

COMPANY - WIDE NONCONFORMANCE REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
28-DEC-09	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
GC/ECD	SW846 8151A	Solid	LANL
Batch ID:	**Sample Numbers:**		
934339	See Below		

Potentially affected work order(s)(SDG): 243007(10-939)

Application Issues:

Failed Recovery for MSD/PSD

Failed Recovery for MS/PS

Failed RPD for MS/MSD, or PS/PSD

Specification and Requirements Nonconformance Description:	NRG Disposition:
1. The MS(1201999028) and MSD(1201999029) did not meet spike recovery acceptance limits. 2. The MS(1201999028) and MSD(1201999029) did not meet RPD acceptance limits.	1., 2. Multiple analytes failed to meet the acceptance criteria in the MS/MSD. Since the MS/MSD exhibited similar recoveries, the failures were attributed to matrix interference and the data were reported.

Originator's Name:

Tiffany Kwasigroch 28-DEC-09

Data Validator/Group Leader:

Cameron Bearden 29-DEC-09

HERBICIDE ANALYSIS

Herbicide Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-939-1

Method/Analysis Information

Procedure:	**Analysis of Chlorophenoxy Acid Herbicides by ECD**
Analytical Method:	SW846 8151A
Prep Method:	SW846 8151A Prep
TCLP Prep Method :	SW846 1311
Analytical Batch Number:	935579
Prep Batch Number:	935578
TCLP Prep Batch Number:	934762

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 8151A:

Sample ID	Client ID
243010001	WST03-10-2147
1201999915	TCLP Blank (TB)
1202001895	Method Blank (MB)
1202001896	Laboratory Control Sample (LCS)
1202001897	243010001(WST03-10-2147) Matrix Spike (MS)
1202001898	243010001(WST03-10-2147) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on an "as received" basis.

Preparation/Analytical Method Verification

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-011 REV# 18.

Raw data reports are processed and reviewed by the analyst using the Target software package. False positives have been removed from the Target quantitation reports per standard operating procedures (SOP) section 21.7.

Calibration Information

Initial Calibration
All initial calibration requirements have been met for this sample delivery group (SDG).

The linear equation used in Target and indicated on the initial calibration summary form is not a conventional linear equation (slope intercept formula) and does not match the equation found in SW-846 method 8000B. The x and y axes are inversed in Target, so that the instrument response is treated as the independent variable (x) and the concentration ratio is treated as the dependent variable (y). The equation used in Target to calculate sample results is

adjusted to account for the linear equation inversion and reciprocal slope. The adjusted calculation has been independently verified to produce valid results.

Continuing Calibration Verification (CCV) Requirements
All calibration verification standards (CVS, ICV, or CCV) requirements have not been met for this SDG:

2,4-D and 2,4,5-TP failed acceptance criteria with a negative bias on one analytical column in the standards bracketing the samples in this SDG. The negative bias for the analytical data is a result of instrument response decreasing after the initial calibration. The instrument response never decreased to a point where the target analytes would not be detected. 2,4-D and 2,4,5-TP were not detected in the samples; therefore, the non-compliance has no adverse effects on the data.

Surrogate recovery did not meet the acceptance criteria in the standards analyzed for this SDG; however, this had no adverse effects on the data as the surrogate recovery was well within the acceptance range in the sample in this SDG.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB(s) analyzed with this SDG met the acceptance criteria.

Surrogate Recoveries
All surrogate recoveries were within the established acceptance criteria for this SDG.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

QC Sample Designation
Sample 243010001 (WST03-10-2147) was selected for the matrix spike and matrix spike duplicate analysis.

Matrix Spike (MS) Recovery Statement
The MS recoveries for this SDG were within the established acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recoveries for this SDG were within the established acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD(s) between the MS and MSD met the acceptance limits.

Technical Information

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-extraction/Re-analysis
Re-extractions or re-analyses were not required in this SDG.

Miscellaneous Information

Electronic Package Comment

This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. An electronic signature page inserted after the case narrative of each electronic package will indicate the analyst, reviewer, and report specialist names associated with the generation of the data and package. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Nonconformance Report (NCR) Documentation

Nonconformance report (NCR) is for documentation of any procedural anomalies that may deviate from referenced SOP or contractual document. A NCR was not required for this SDG.

Manual Integrations

Certain standards and QC samples may have required manual integration to correctly position the baseline as set in the calibration standard injections. If manual integration was performed, copies of all manual integration peak profiles are included in the raw data section of this Herbicide fraction.

Additional Comments

The additional comments field is used to address special issues associated with each analysis, clarify method/contractual issues pertaining to the analysis, and to list any report documents generated as a result of sample analysis or review. The following additional comments were required:

The higher results from either column have been chosen and reported in the data package for the client samples, MB and LCS. The data reported for the MS and MSD are from the same analytical column as the parent sample.

The data reported on the form I and III may differ slightly from the data reported on the form X. This is due to software limitations in rounding differences between the forms.

Due to software limitation, the Form VIIs will display the results either in the % difference or % drift depending on the type of the calibration curve. If the curve of all analytes is generated using an average response factor (RF), the Form VII will display results using the %difference calculation (RF). If the curve of one or more analytes is generated using a linear curve, the Form VII will display results using the % drift calculation (by concentration) for all analytes.

System Configuration

The Semi-Volatiles-HERB analysis was performed on the following instrument configuration:

Instrument ID	Instrument	System Configuration	Column ID	Column Description
ECD3A.I_1	HP Gas Chromatograph	HP6890 Series ECD	Rtx-CLP I	30m x 0.25mm, 0.25um (Rtx-CLPesticide)
ECD3A.I_2	HP Gas Chromatograph	HP6890 Series ECD	Rtx-CLP II	30m x 0.25mm, 0.20um (Rtx-CLPesticide II)

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Andy Whitlock Date: 12-30-2009

Roadmap for LANL 10-939-1 HERB

This roadmap was analyzed by tif01533 on 12-28-2009, 15:12.
This roadmap was reviewed by jcb on 12-29-2009, 08:40.
This roadmap was packaged by yml on 12-30-2009, 13:07.

Front Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd3a.i/122209b.b035f3501.d	243010001	sample	23-DEC-2009	08:12	10-939-1.sub	WST03-10-2147	1.00000	935579	USE. PASSES BOTH COLUMNS, UPLOAD HIGHER RESULTS.

Back Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd3a.i/122209b.b035b3501.d	243010001	sample	23-DEC-2009	08:12	10-939-1.sub	WST03-10-2147	1.00000	935579	USE. PASSES BOTH COLUMNS, UPLOAD HIGHER RESULTS.

Front QC Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd3a.i/122209b.b032f3201.d	1201999915	tb	23-DEC-2009	06:58	10-939-1.sub	TBLK01	1.00000	935579	USE. PASSES BOTH COLUMNS, UPLOAD HIGHER RESULTS.
☐	N	/chem/ecd3a.i/122209b.b033f3301.d	1202001895	mb	23-DEC-2009	07:23	10-939-1.sub	HBLK01	1.00000	935579	USE. PASSES BOTH COLUMNS, UPLOAD HIGHER RESULTS.
☐	N	/chem/ecd3a.i/122209b.b034f3401.d	1202001896	lcs	23-DEC-2009	07:48	10-939-1.sub	HBLK01LCS	1.00000	935579	USE. PASSES BOTH COLUMNS, UPLOAD HIGHER RESULTS.
☐	N	/chem/ecd3a.i/122209b.b036f3601.d	1202001897	ms	23-DEC-2009	08:37	10-939-1.sub	WST03-10-2147MS	1.00000	935579	USE. PASSES BOTH COLUMNS, UPLOAD HIGHER RESULTS.
☐	N	/chem/ecd3a.i/122209b.b037f3701.d	1202001898	msd	23-DEC-2009	09:01	10-939-1.sub	WST03-10-2147MSD	1.00000	935579	USE. PASSES BOTH COLUMNS, UPLOAD HIGHER RESULTS.

Back QC Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd3a.i/122209b.b032b3201.d	1201999915	tb	23-DEC-2009	06:58	10-939-1.sub	TBLK01	1.00000	935579	USE. PASSES BOTH COLUMNS, UPLOAD HIGHER RESULTS.
☐	N	/chem/ecd3a.i/122209b.b033b3301.d	1202001895	mb	23-DEC-2009	07:23	10-939-1.sub	HBLK01	1.00000	935579	USE. PASSES BOTH COLUMNS, UPLOAD HIGHER RESULTS.
☐	N	/chem/ecd3a.i/122209b.b034b3401.d	1202001896	lcs	23-DEC-2009	07:48	10-939-1.sub	HBLK01LCS	1.00000	935579	USE. PASSES BOTH COLUMNS, UPLOAD HIGHER RESULTS.
☐	N	/chem/ecd3a.i/122209b.b036b3601.d	1202001897	ms	23-DEC-2009	08:37	10-939-1.sub	WST03-10-2147MS	1.00000	935579	USE. PASSES BOTH COLUMNS, UPLOAD HIGHER RESULTS.
☐	N	/chem/ecd3a.i/122209b.b037b3701.d	1202001898	msd	23-DEC-2009	09:02	10-939-1.sub	WST03-10-2147MSD	1.00000	935579	USE. PASSES BOTH COLUMNS, UPLOAD HIGHER RESULTS.

SAMPLE DATA SUMMARY

Herbicide
Certificate of Analysis
Sample Summary

SDG Number:	**10–939–1**	**Date Collected:**	**12/14/2009 12:00**	**Matrix:**	**TCLP R**
Lab Sample ID:	**243010001**	**Date Received:**	**12/16/2009 09:10**		
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**WST03–10–2147**	**Method:**	**SW846 8151A**	**SOP Ref:**	**GL–OA–E–011**
Batch ID:	**935579**	**Inst:**	**ECD3A.I**	**Dilution:**	**1**
Run Date:	**12/23/2009 08:12**	**Analyst:**	**HXJ1**	**Inj. Vol:**	**1 uL**
Prep Date:	**12/22/2009 17:21**	**Aliquot:**	**5 mL**	**Final Volume:**	**10 mL**
Data File:	**035f3501.d**	**Column:**	**1 Rtx–CLP1**	**Level:**	**LOW**
	035b3501.d		**2 Rtx–CLPII**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
94–75–7	2,4–D	U	0.050	mg/L	0.0166	0.050	1
93–72–1	2,4,5–TP	U	0.050	mg/L	0.0166	0.050	1

QUALITY CONTROL SUMMARY

Herbicide

Surrogate Recovery Report

SDG Number: 10-939-1

Matrix Type: TCLP SOLID

CAP Column (1) : Rtx-CLPI **CAP Column (2) : Rtx-CLPII**

Sample ID	Client ID	DCAA 1 %REC #	DCAA 2 %REC #
1201999915	TB for batch 934762	109	89
1202001895	MB for batch 935578	112	91
1202001896	LCS for batch 935578	112	95
243010001	WST03-10-2147	95	75
1202001897	WST03-10-2147MS	119	97
1202001898	WST03-10-2147MSD	114	100

Surrogate	Acceptance Limits
DCAA = 2,4-Dichlorophenylacetic acid	(47%-122%)

* Recovery outside Acceptance Limits

\# Column to be used to flag recovery values

D Sample Diluted

Herbicide

Quality Control Summary
Spike Recovery Report

SDG Number: 10-939-1
Client ID: LCS for batch 935578
Lab Sample ID: 1202001896
Instrument: ECD3A.I
Analyst: HXJ1
Inj. Vol: 1 uL

Sample Type: Laboratory Control Sample
Matrix: TCLP SOIL
Analysis Date: 12/23/2009 07:48
Dilution: 1
Prep Batch ID: 935578
Batch ID: 935579

CAS No	Parmname	Amount Added mg/L	Sample Conc. mg/L	Spike Conc. mg/L	Recovery %	Acceptance Limits
94-75-7	LCS 2,4-D	0.002	0.0	0.00197	98	43-131
93-72-1	LCS 2,4,5-TP	0.002	0.0	0.00188	94	41-122

Herbicide

Quality Control Summary
Spike Recovery Report

SDG Number: 10-939-1
Sample Type: Matrix Spike
Client ID: WST03-10-2147MS
Matrix: TCLP R
Lab Sample ID: 1202001897
Instrument: ECD3A.I
Analysis Date: 12/23/2009 08:37
Dilution: 1
Analyst: HXJ1
Prep Batch ID: 935578
Inj. Vol: 1 uL
Batch ID: 935579

CAS No		Parmname	Amount Added mg/L	Sample Conc. mg/L		Spike Conc. mg/L	Recovery %	Acceptance Limits
94-75-7	MS	2,4-D	0.400	0.00	U	0.422	106	48-125
93-72-1	MS	2,4,5-TP	0.400	0.00	U	0.399	100	24-131

Herbicide

Quality Control Summary
Spike Recovery Report

SDG Number: 10-939-1
Client ID: WST03-10-2147MSD
Lab Sample ID: 1202001898
Instrument: ECD3A.I
Analyst: HXJ1
Inj. Vol: 1 uL

Sample Type: Matrix Spike Duplicate
Matrix: TCLP R
Analysis Date: 12/23/2009 09:01
Dilution: 1
Prep Batch ID: 935578
Batch ID: 935579

CAS No	Parmname	Amount Added mg/L	Sample Conc. mg/L		Spike Conc. mg/L	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
94-75-7	MSD 2,4-D	0.400	0.00	U	0.408	102	48-125	3	0-20
93-72-1	MSD 2,4,5-TP	0.400	0.00	U	0.380	95	24-131	5	0-20

Method Blank Summary

SDG Number:	10-939-1	Client:	LANL010	Matrix:	TCLP SOIL
Client ID:	MB for batch 935578	Instrument ID:	ECD3A.I_2 ECD3A.I_1	Data File:	033b3301.d 033f3301.d
Lab Sample ID:	1202001895				
Column:	Rtx-CLPII Rtx-CLPI	Prep Date:	12/22/2009 17:21	Analyzed:	12/23/09 07:23
		Level:	LOW		

This method blank applies to the following samples and quality control samples:

Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01 TB for batch 934762	1201999915	032f3201.d 032b3201.d	12/23/09	0658
02 LCS for batch 935578	1202001896	034f3401.d 034b3401.d	12/23/09	0748
03 WST03-10-2147	243010001	035f3501.d 035b3501.d	12/23/09	0812
04 WST03-10-2147MS	1202001897	036f3601.d 036b3601.d	12/23/09	0837
05 WST03-10-2147MSD	1202001898	037f3701.d 037b3701.d	12/23/09	0902

SAMPLE
DATA

Herbicide
Certificate of Analysis
Sample Summary

SDG Number:	**10–939–1**	**Date Collected:**	**12/14/2009 12:00**	**Matrix:**	**TCLP R**
Lab Sample ID:	**243010001**	**Date Received:**	**12/16/2009 09:10**		
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**WST03–10–2147**	**Method:**	**SW846 8151A**	**SOP Ref:**	**GL–OA–E–011**
Batch ID:	**935579**	**Inst:**	**ECD3A.I**	**Dilution:**	**1**
Run Date:	**12/23/2009 08:12**	**Analyst:**	**HXJ1**	**Inj. Vol:**	**1 uL**
Prep Date:	**12/22/2009 17:21**	**Aliquot:**	**5 mL**	**Final Volume:**	**10 mL**
Data File:	**035f3501.d**	**Column:**	**1 Rtx–CLPI**	**Level:**	**LOW**
	035b3501.d		**2 Rtx–CLPII**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
94–75–7	2,4–D	U	0.050	mg/L	0.0166	0.050	1
93–72–1	2,4,5–TP	U	0.050	mg/L	0.0166	0.050	1

GEL Laboratories LLC

Rtx-CLPI

Data file : /chem/ecd3a.i/122209h.b/035f3501.d
Lab Smp Id: 243010001 Client Smp ID: WST03-10-2147
Inj Date : 23-DEC-2009 08:12
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |243010001|1|
Misc Info : |ECDTPH_1L|935579|SVH|MS|SOIL|MS|||
Comment :
Method : /chem/ecd3a.i/122209h.b/ECD3-F-HERB-122209h.m
Meth Date : 28-Dec-2009 14:03 tif01533 Quant Type: ESTD
Cal Date : 22-DEC-2009 21:08 Cal File: 008f0801.d
Als bottle: 35 QC Sample: SAMPLE
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-939-1.sub
Target Version: 3.50 Sample Matrix: Water

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	10.00000	Volume of final extract (mL)
Vo	5.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)
$ 2 2,4-Dichlorophenylacetic acid					CAS #: 19719-28-9
7.714	7.707	0.007	4169172	473.446	947

Data File: /chem/ecd3a.i/122209h.b/035f3501.d

Date : 23-DEC-2009 08:12

Client ID: WST03-10-2147

Sample Info: |243010001|1|

Volume Injected (uL): 1.0

Column phase: Rtx-CLPI

Instrument: ecd3a.i

Operator: HXJ1

Column diameter: 0.25

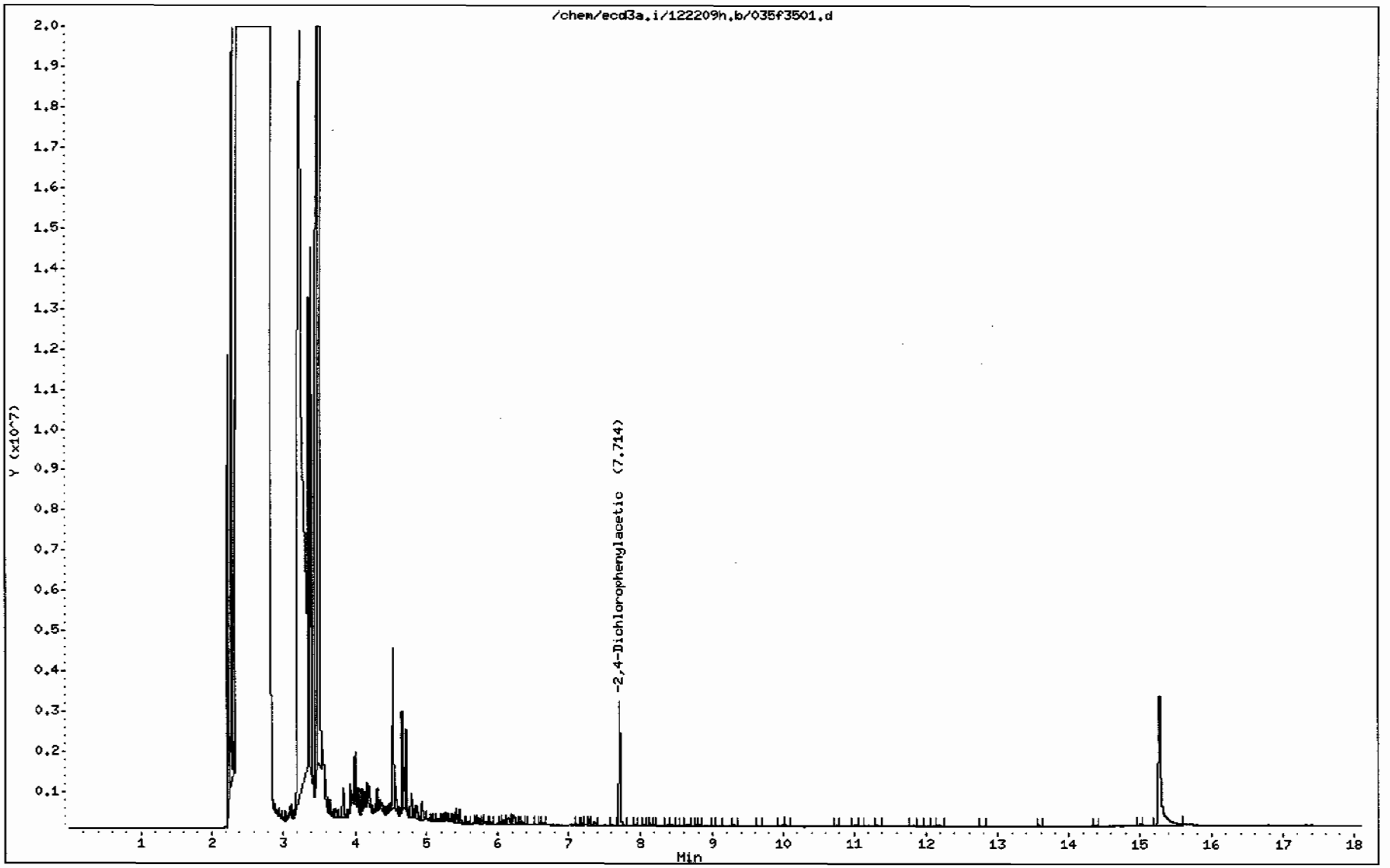

GEL Laboratories LLC

Rtx-CLPII

Data file : /chem/ecd3a.i/122209h.b/035b3501.d
Lab Smp Id: 243010001 Client Smp ID: WST03-10-2147
Inj Date : 23-DEC-2009 08:12
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |243010001|1|
Misc Info : |ECDTPH_1L|935579|SVH|MS|SOIL|MS|||
Comment :
Method : /chem/ecd3a.i/122209h.b/ECD3-B-HERB-122209h.m
Meth Date : 23-Dec-2009 17:38 hea01125 Quant Type: ESTD
Cal Date : 22-DEC-2009 21:08 Cal File: 008b0801.d
Als bottle: 35 QC Sample: SAMPLE
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-939-1.sub
Target Version: 3.50 Sample Matrix: Water

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	10.00000	Volume of final extract (mL)
Vo	5.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)
$ 2 2,4-Dichlorophenylacetic acid					CAS #: 19719-28-9
7.985	7.982	0.003	17993677	376.031	752

Data File: /chem/ecd3a.i/122209h.b/035b3501.d
Date : 23-DEC-2009 08:12
Client ID: WST03-10-2147
Sample Info: |243010001|1|
Volume Injected (uL): 1.0
Column phase: Rtx-CLPII

Instrument: ecd3a.i
Operator: HXJ1
Column diameter: 0.25

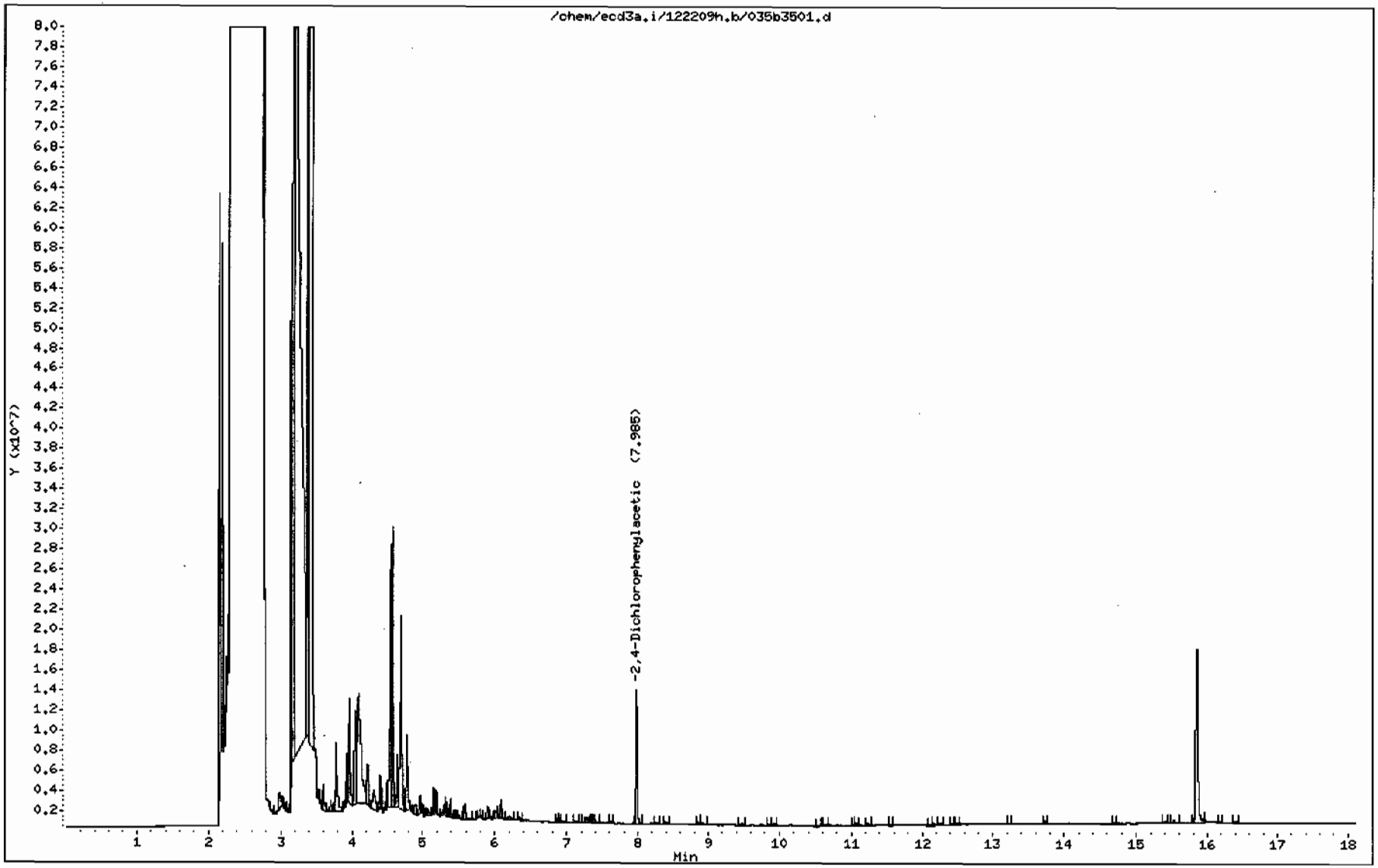

STANDARDS DATA

Report Date: 28-Dec-2009 14:13

Calibration History

Method : /chem/ecd3a.i/122209h.b/ECD3-F-HERB-122209h.m
Start Cal Date: 27-OCT-2009 16:04
End Cal Date : 22-DEC-2009 21:08

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 25.00000		
22-DEC-2009 18:39	all	/chem/ecd3a.i/122209h.b/002f0201.d
Cal Level: 2 , Cal Amount: 50.00000		
22-DEC-2009 19:04	all	/chem/ecd3a.i/122209h.b/003f0301.d
Cal Level: 3 , Cal Amount: 100.00000		
22-DEC-2009 19:29	all	/chem/ecd3a.i/122209h.b/004f0401.d
Cal Level: 4 , Cal Amount: 150.00000		
22-DEC-2009 19:54	all	/chem/ecd3a.i/122209h.b/005f0501.d
Cal Level: 5 , Cal Amount: 200.00000		
22-DEC-2009 20:18	all	/chem/ecd3a.i/122209h.b/006f0601.d
Cal Level: 6 , Cal Amount: 300.00000		
22-DEC-2009 20:43	all	/chem/ecd3a.i/122209h.b/007f0701.d
Cal Level: 7 , Cal Amount: 400.00000		
22-DEC-2009 21:08	all	/chem/ecd3a.i/122209h.b/008f0801.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 5

Ccal Level: 5 , Ccal Amount: 200		
23-DEC-2009 06:09	all	/chem/ecd3a.i/122209h.b/030f3001.d
Ccal Level: 5 , Ccal Amount: 200		
23-DEC-2009 01:14	all	/chem/ecd3a.i/122209h.b/018f1801.d

Ccal Level: 5 , Ccal Amount: 200		
23-DEC-2009 09:26	all	/chem/ecd3a.i/122209h.b/038f3801.d
Ccal Level: 5 , Ccal Amount: 200		
23-DEC-2009 01:39	all	/chem/ecd3a.i/122209h.b/019f1901.d
Ccal Level: 5 , Ccal Amount: 200		
22-DEC-2009 21:33	all	/chem/ecd3a.i/122209h.b/009f0901.d
Ccal Level: 5 , Ccal Amount: 200		
22-DEC-2009 20:18	all	/chem/ecd3a.i/122209h.b/006f0601.d

Report Date: 28-Dec-2009 14:12

Calibration History

Method : /chem/ecd3a.i/122209h.b/ECD3-B-HERB-122209h.m
Start Cal Date: 27-OCT-2009 16:04
End Cal Date : 22-DEC-2009 21:08

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 25.00000		
22-DEC-2009 18:39	all	/chem/ecd3a.i/122209h.b/002b0201.d
Cal Level: 2 , Cal Amount: 50.00000		
22-DEC-2009 19:04	all	/chem/ecd3a.i/122209h.b/003b0301.d
Cal Level: 3 , Cal Amount: 100.00000		
22-DEC-2009 19:29	all	/chem/ecd3a.i/122209h.b/004b0401.d
Cal Level: 4 , Cal Amount: 150.00000		
22-DEC-2009 19:54	all	/chem/ecd3a.i/122209h.b/005b0501.d
Cal Level: 5 , Cal Amount: 200.00000		
22-DEC-2009 20:18	all	/chem/ecd3a.i/122209h.b/006b0601.d
Cal Level: 6 , Cal Amount: 300.00000		
22-DEC-2009 20:43	all	/chem/ecd3a.i/122209h.b/007b0701.d
Cal Level: 7 , Cal Amount: 400.00000		
22-DEC-2009 21:08	all	/chem/ecd3a.i/122209h.b/008b0801.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 5

Ccal Level: 5 , Ccal Amount: 200		
23-DEC-2009 06:09	all	/chem/ecd3a.i/122209h.b/030b3001.d
Ccal Level: 5 , Ccal Amount: 200		
23-DEC-2009 01:14	all	/chem/ecd3a.i/122209h.b/018b1801.d
Ccal Level: 5 , Ccal Amount: 200		
23-DEC-2009 01:39	all	/chem/ecd3a.i/122209h.b/019b1901.d

Ccal Level: 5 , Ccal Amount: 200		
23-DEC-2009 09:26	all	/chem/ecd3a.i/122209h.b/038b3801.d
Ccal Level: 5 , Ccal Amount: 200		
22-DEC-2009 21:33	all	/chem/ecd3a.i/122209h.b/009b0901.d
Ccal Level: 5 , Ccal Amount: 200		
22-DEC-2009 20:18	all	/chem/ecd3a.i/122209h.b/006b0601.d

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd3a.i/122209h.b/ECD3-F-HERB-122209h.m
Quant Method : ESTD Target Version : 3.50
Last Update : 28-Dec-2009 14:03 Number of Cpnds : 12
Data Type : GC DATA

Global Integrator : Falcon

Chromat Events	Values
Initial:Start Threshold	1957.000000
Initial:End Threshold	978.500000
Initial:Area Threshold	19570.000000
Initial:P-P Resolution	1.000000
Initial:Bunch Factor	15.000000
Initial:Negative Peaks	OFF
Initial:Tension	1.000000

	Compound	RT	RT Window	RF
	1 Dalapon	3.888	3.857-3.918	8.564e+03
$	2 2,4-Dichlorophenylacetic a	7.707	7.647-7.767	8.806e+03
	3 Dicamba	7.886	7.827-7.947	3.386e+04
	4 MCPP	8.045	7.985-8.105	3.470e+01
	5 MCPA	8.188	8.127-8.248	6.629e+01
	6 Dichlorprop	8.550	8.491-8.610	9.097e+03
	7 2,4-D	8.771	8.710-8.831	1.059e+04
	8 Pentachlorophenol	9.061	9.031-9.091	1.299e+05
	9 2,4,5-TP	9.592	9.562-9.623	4.520e+04
	10 2,4,5-T	9.865	9.825-9.905	3.778e+04
	11 2,4-DB	10.399	10.359-10.439	6.158e+03
	12 Dinoseb	11.509	11.479-11.539	2.639e+04

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd3a.i/122209h.b/ECD3-B-HERB-122209h.m
Quant Method : ESTD Target Version : 3.50
Last Update : 23-Dec-2009 17:38 Number of Cpnds : 12
Data Type : GC DATA

Global Integrator : Falcon

Chromat Events	Values
Initial:Start Threshold	15039.000000
Initial:End Threshold	7519.500000
Initial:Area Threshold	150390.000000
Initial:P-P Resolution	1.000000
Initial:Bunch Factor	15.000000
Initial:Negative Peaks	OFF
Initial:Tension	1.000000

	Compound	RT	RT Window	RF
	1 Dalapon	3.811	3.780-3.840	6.950e+04
$	2 2,4-Dichlorophenylacetic a	7.982	7.923-8.043	4.785e+04
	3 Dicamba	8.166	8.106-8.226	1.999e+05
	4 MCPP	8.255	8.194-8.315	1.350e+02
	5 MCPA	8.479	8.419-8.539	2.094e+02
	6 Dichlorprop	8.828	8.768-8.887	4.954e+04
	7 2,4-D	9.133	9.073-9.194	5.678e+04
	8 Pentachlorophenol	9.624	9.594-9.655	5.819e+05
	9 2,4,5-TP	9.967	9.937-9.997	2.084e+05
	10 2,4,5-T	10.352	10.322-10.382	1.819e+05
	11 2,4-DB	10.871	10.832-10.912	2.778e+04
	12 Dinoseb	11.218	11.188-11.248	1.244e+05

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 27-OCT-2009 16:04
End Cal Date : 22-DEC-2009 21:08
Quant Method : ESTD
Origin : None
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd3a.i/122209h.b/ECD3-F-HERB-122209h.m
Cal Date : 28-Dec-2009 14:03 tif01533
Curve Type : Average

Calibration File Names:
Level 1: /chem/ecd3a.i/122209h.b/002f0201.d
Level 2: /chem/ecd3a.i/122209h.b/003f0301.d
Level 3: /chem/ecd3a.i/122209h.b/004f0401.d
Level 4: /chem/ecd3a.i/122209h.b/005f0501.d
Level 5: /chem/ecd3a.i/122209h.b/006f0601.d
Level 6: /chem/ecd3a.i/122209h.b/007f0701.d
Level 7: /chem/ecd3a.i/122209h.b/008f0801.d

Compound	25.000 Level 1	50.000 Level 2	100.000 Level 3	150.000 Level 4	200.000 Level 5	300.000 Level 6	RRF	% RSD
	400.000 Level 7							
1 Dalapon	+++++	7117	7055	9569	8518	9300		
	9826						8564	14.317
3 Dicamba	33742	34112	33256	34190	34420	33329		
	33958						33858	1.297
4 MCPP	+++++	44.11340	36.70990	34.20547	32.95000	30.30097		
	29.89832						34.69634	15.162
5 MCPA	+++++	83.17960	69.46260	65.24147	61.71710	59.41517		
	58.71323						66.28819	13.859
6 Dichlorprop	9874	9713	9008	9003	8910	8551		
	8619						9097	5.609
7 2,4-D	10708	10687	10183	11054	10652	10317		
	10507						10587	2.698
8 Pentachlorophenol	125675	129919	130036	133576	133344	127108		
	129780						129919	2.245

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 27-OCT-2009 16:04
End Cal Date : 22-DEC-2009 21:08
Quant Method : ESTD
Origin : None
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd3a.i/122209h.b/ECD3-F-HERB-122209h.m
Cal Date : 28-Dec-2009 14:03 tif01533
Curve Type : Average

Compound	25.000 Level 1	50.000 Level 2	100.000 Level 3	150.000 Level 4	200.000 Level 5	300.000 Level 6	RRF	% RSD
	400.000 Level 7							
9 2,4,5-TP	42475	44595	44410	46275	46616	45479		
	46574						45203	3.323
10 2,4,5-T	33222	35535	36109	40165	39502	39337		
	40576						37778	7.448
11 2,4-DB	6549	6591	6165	6104	6045	5737		
	5915						6158	5.103
12 Dinoseb	25132	25912	25946	25883	27335	26820		
	27698						26390	3.478
$ 2 2,4-Dichlorophenylacetic acid	9480	9131	8532	8718	8742	8423		
	8617						8806	4.222

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 27-OCT-2009 16:04
End Cal Date : 22-DEC-2009 21:08
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd3a.i/122209h.b/ECD3-B-HERB-122209h.m
Cal Date : 23-Dec-2009 17:38 hea01125
Curve Type : Average

Calibration File Names:
Level 1: /chem/ecd3a.i/122209h.b/002b0201.d
Level 2: /chem/ecd3a.i/122209h.b/003b0301.d
Level 3: /chem/ecd3a.i/122209h.b/004b0401.d
Level 4: /chem/ecd3a.i/122209h.b/005b0501.d
Level 5: /chem/ecd3a.i/122209h.b/006b0601.d
Level 6: /chem/ecd3a.i/122209h.b/007b0701.d
Level 7: /chem/ecd3a.i/122209h.b/008b0801.d

Compound	25.000 Level 1	50.000 Level 2	100.000 Level 3	150.000 Level 4	200.000 Level 5	300.000 Level 6	RRF	% RSD
	400.000 Level 7							
1 Dalapon	+++++	60901	58899	79978	67637	71899		
	77706						69503	12.421
3 Dicamba	232827	220706	201660	195319	192728	177735		
	178225						199886	10.321
4 MCPP	+++++	138	138	136	137	130		
	132						135	2.388
5 MCPA	+++++	229	212	210	208	197		
	200						209	5.305
6 Dichlorprop	60680	56363	50276	48638	46995	42153		
	41686						49541	14.147
7 2,4-D	65842	62801	56794	56885	54680	50401		
	50027						56776	10.398
8 Pentachlorophenol	646031	631265	588947	575602	569586	528884		
	532746						581866	7.691

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 27-OCT-2009 16:04
End Cal Date : 22-DEC-2009 21:08
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd3a.i/122209h.b/ECD3-B-HERB-122209h.m
Cal Date : 23-Dec-2009 17:38 hea01125
Curve Type : Average

Compound	25.000 Level 1	50.000 Level 2	100.000 Level 3	150.000 Level 4	200.000 Level 5	300.000 Level 6	RRF	% RSD
	400.000 Level 7							
9 2,4,5-TP	237761	227896	210411	205027	203188	187328		
	187237						208407	9.139
10 2,4,5-T	196200	190391	179172	186309	179396	170534		
	171571						181939	5.241
11 2,4-DB	33430	30353	28810	26183	26358	24773		
	24572						27783	11.710
12 Dinoseb	145153	134886	124905	118212	120179	113299		
	114504						124448	9.383
$ 2 2,4-Dichlorophenylacetic acid	60839	54402	47618	45452	44514	40877		
	41259						47852	15.277

FORM 7
HERBICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-939-1

Instrument ID: ECD3A Calibration Date: 12/22/09 Time: 2133

Lab File ID: 009F0901 Init. Calib. Date(s): 12/22/09 12/22/09

Heated Purge: (Y/N) N Init. Calib. Times: 1839 2108

GC Column: RTX-CLPI ID: 0.25 (mm)

COMPOUND	RRF	RRF200	MIN RRF	%D	MAX %D
2,4-D	10586.854	10892.320	0.005	2.9	15.0
2,4,5-TP	45203.462	45767.775	0.01	1.2	15.0
2,4-Dichlorophenylacetic aci	8806.006	8872.924	0.01	0.8	15.0

FORM VII HERBICIDE

FORM 7
HERBICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-939-1

Instrument ID: ECD3A Calibration Date: 12/22/09 Time: 2133

Lab File ID: 009B0901 Init. Calib. Date(s): 12/22/09 12/22/09

Heated Purge: (Y/N) N Init. Calib. Times: 1839 2108

GC Column: RTX-CLPII ID: 0.25 (mm)

COMPOUND	RRF	RRF200	MIN RRF	%D	MAX %D
2,4-D	56775.752	53139.345	0.005	-6.4	15.0
2,4,5-TP	208406.83	193650.14	0.01	-7.1	15.0
2,4-Dichlorophenylacetic aci	47851.597	45102.726	0.01	-5.7	15.0

FORM VII HERBICIDE

FORM 7
HERBICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-939-1

Instrument ID: ECD3A Calibration Date: 12/23/09 Time: 0609

Lab File ID: 030F3001 Init. Calib. Date(s): 12/22/09 12/22/09

Heated Purge: (Y/N) N Init. Calib. Times: 1839 2108

GC Column: RTX-CLPI ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF200	MIN RRF	%D	MAX %D
2,4-D	10586.854	11061.745	0.005	4.5	15.0
2,4,5-TP	45203.462	45761.345	0.01	1.2	15.0
2,4-Dichlorophenylacetic aci	8806.006	8992.054	0.01	2.1	15.0

FORM VII HERBICIDE

FORM 7
HERBICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-939-1

Instrument ID: ECD3A Calibration Date: 12/23/09 Time: 0609

Lab File ID: 030B3001 Init. Calib. Date(s): 12/22/09 12/22/09

Heated Purge: (Y/N) N Init. Calib. Times: 1839 2108

GC Column: RTX-CLPII ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF200	MIN RRF	%D	MAX %D	
2,4-D	56775.752	48979.415	0.005	-13.7	15.0	
2,4,5-TP	208406.83	175962.09	0.01	-15.6	15.0	<-
2,4-Dichlorophenylacetic aci	47851.597	38642.826	0.01	-19.2	15.0	<-

FORM VII HERBICIDE

FORM 7
HERBICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-939-1

Instrument ID: ECD3A Calibration Date: 12/23/09 Time: 0926

Lab File ID: 038F3801 Init. Calib. Date(s): 12/22/09 12/22/09

Heated Purge: (Y/N) N Init. Calib. Times: 1839 2108

GC Column: RTX-CLPI ID: 0.25 (mm)

COMPOUND	RRF	RRF200	MIN RRF	%D	MAX %D
2,4-D	10586.854	10985.468	0.005	3.8	15.0
2,4,5-TP	45203.462	45499.510	0.01	0.6	15.0
2,4-Dichlorophenylacetic aci	8806.006	8974.358	0.01	1.9	15.0

FORM VII HERBICIDE

FORM 7
HERBICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-939-1

Instrument ID: ECD3A Calibration Date: 12/23/09 Time: 0926

Lab File ID: 038B3801 Init. Calib. Date(s): 12/22/09 12/22/09

Heated Purge: (Y/N) N Init. Calib. Times: 1839 2108

GC Column: RTX-CLPII ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF200	MIN RRF	%D	MAX %D	
2,4-D	56775.752	45030.356	0.005	-20.7	15.0	<-
2,4,5-TP	208406.83	174492.10	0.01	-16.3	15.0	<-
2,4-Dichlorophenylacetic aci	47851.597	36458.236	0.01	-23.8	15.0	<-

FORM VII HERBICIDE

GEL Laboratories LLC

Rtx-CLPI

Data file : /chem/ecd3a.i/122209h.b/009f0901.d
Lab Smp Id: WHB091222-08 Client Smp ID: HSTD01
Inj Date : 22-DEC-2009 21:33
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |WHB091222-08|
Misc Info :
Comment :
Method : /chem/ecd3a.i/122209h.b/ECD3-F-HERB-122209h.m
Meth Date : 28-Dec-2009 14:03 tif01533 Quant Type: ESTD
Cal Date : 22-DEC-2009 21:08 Cal File: 008f0801.d
Als bottle: 9 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50 Sample Matrix: None

	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
	1 Dalapon					CAS #: 75-99-0
	3.888	3.888	0.000	19059142	2000.00	2220
$	2 2,4-Dichlorophenylacetic acid					CAS #: 19719-28-9
	7.707	7.707	0.000	4436462	500.000	504
	3 Dicamba					CAS #: 6597-78-0
	7.886	7.886	0.000	6613394	200.000	195
	4 MCPP					CAS #: 7085-19-0
	8.045	8.045	0.000	637512	20000.0	18400
	5 MCPA					CAS #: 94-74-6
	8.188	8.188	0.000	1187509	20000.0	17900
	6 Dichlorprop					CAS #: 120-36-5
	8.550	8.550	0.000	1741798	200.000	191
	7 2,4-D					CAS #: 94-75-7
	8.771	8.771	0.000	2178464	200.000	206
	8 Pentachlorophenol					CAS #: 87-86-5
	9.061	9.061	0.000	25757560	200.000	198
	9 2,4,5-TP					CAS #: 93-72-1
	9.592	9.592	0.000	9153555	200.000	202

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)
10 2,4,5-T					CAS #: 93-76-5
9.865	9.865	0.000	8149539	200.000	216
11 2,4-DB					CAS #: 94-82-6
10.399	10.399	0.000	1218009	200.000	198
12 Dinoseb					CAS #: 88-85-7
11.509	11.509	0.000	5229320	200.000	198

Data File: /chem/ecd3a.i/122209h.b/009f0901.d

Date : 22-DEC-2009 21:33

Client ID: HSTD01

Sample Info: IWHB091222-08I

Column phase: Rtx-CLPI

Instrument: ecd3a.i

Operator: HXJ1

Column diameter: 0.25

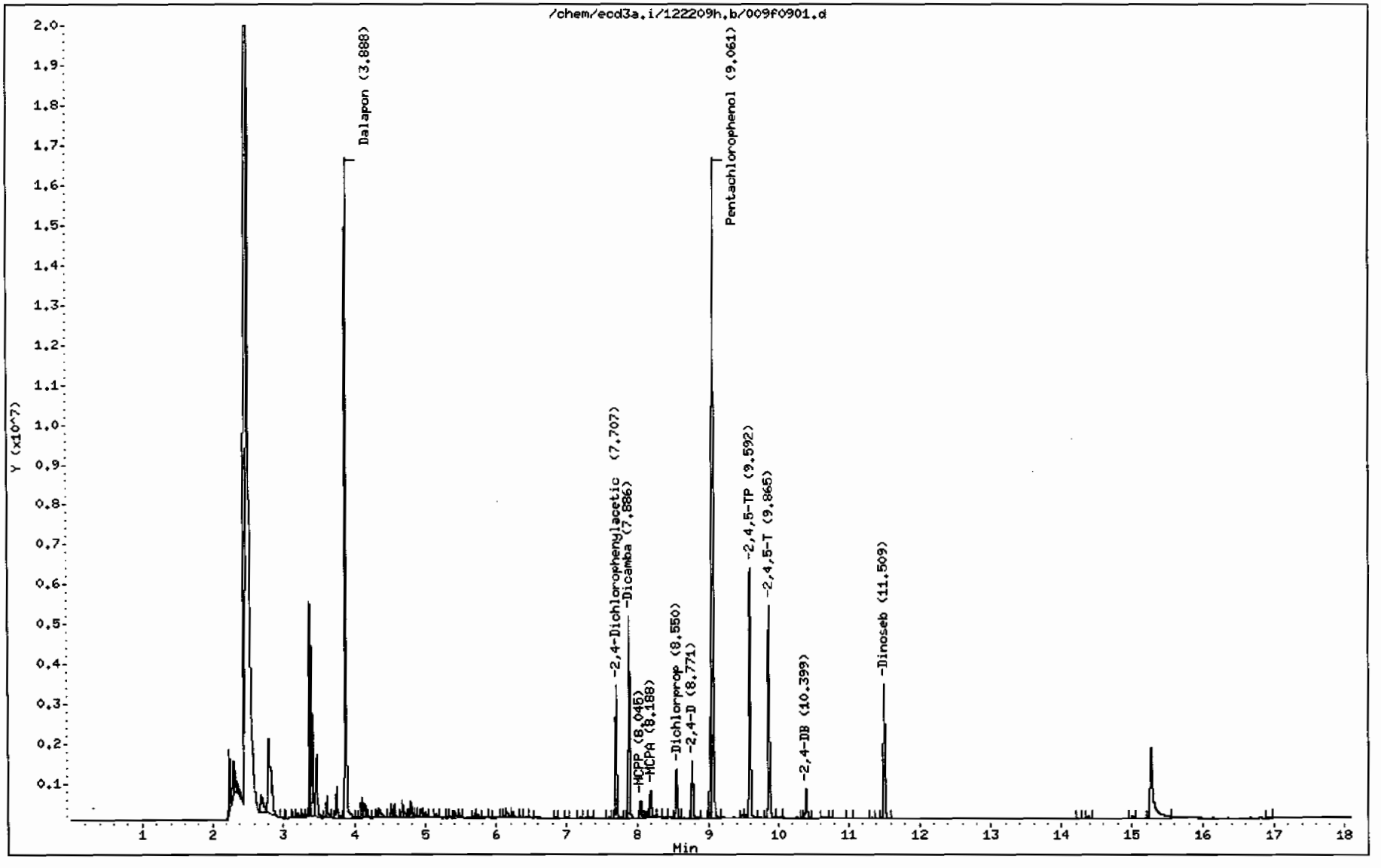

GEL Laboratories LLC

Rtx-CLPII

Data file : /chem/ecd3a.i/122209h.b/009b0901.d
Lab Smp Id: WHB091222-08 Client Smp ID: HSTD01
Inj Date : 22-DEC-2009 21:33
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |WHB091222-08|
Misc Info :
Comment :
Method : /chem/ecd3a.i/122209h.b/ECD3-B-HERB-122209h.m
Meth Date : 23-Dec-2009 17:38 hea01125 Quant Type: ESTD
Cal Date : 22-DEC-2009 21:08 Cal File: 008b0801.d
Als bottle: 9 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50 Sample Matrix: None

	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
	1 Dalapon					CAS #: 88-85-7
	3.811	3.811	0.000	151289107	2000.00	2180
$	2 2,4-Dichlorophenylacetic acid					CAS #: 19719-28-9
	7.982	7.982	0.000	22551363	500.000	471
	3 Dicamba					CAS #: 6597-78-0
	8.166	8.166	0.000	36648706	200.000	183
	4 MCPP					CAS #: 7085-19-0
	8.255	8.255	0.000	2609434	20000.0	19300
	5 MCPA					CAS #: 94-74-6
	8.479	8.479	0.000	4166447	20000.0	19900
	6 Dichlorprop					CAS #: 120-36-5
	8.828	8.828	0.000	8847216	200.000	178
	7 2,4-D					CAS #: 94-75-7
	9.133	9.133	0.000	10627869	200.000	187
	8 Pentachlorophenol					CAS #: 87-86-5
	9.624	9.624	0.000	106915466	200.000	184
	9 2,4,5-TP					CAS #: 93-72-1
	9.967	9.967	0.000	38730028	200.000	186

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
10 2,4,5-T					CAS #: 93-76-5
10.352	10.352	0.000	36135983	200.000	199
11 2,4-DB					CAS #: 94-82-6
10.871	10.871	0.000	5130347	200.000	185
12 Dinoseb					CAS #: 88-85-7
11.218	11.218	0.000	22759262	200.000	183

Data File: /chem/ecd3a.i/122209h.b/009b0901.d
Date : 22-DEC-2009 21:33
Client ID: HSTD01
Sample Info: IWHE091222-081
Column phase: Rtx-CLPII

Instrument: ecd3a.i
Operator: HXJ1
Column diameter: 0.25

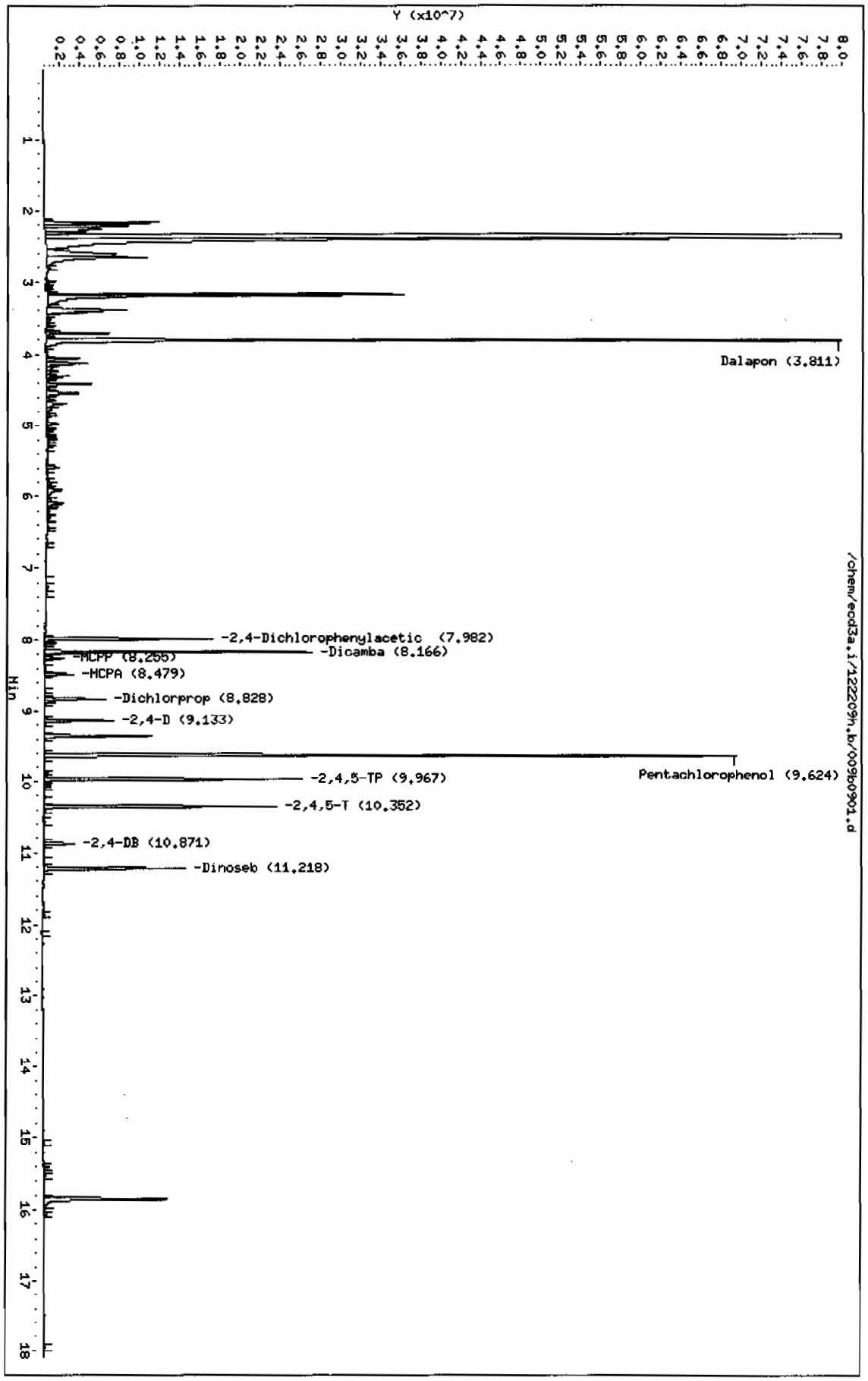

GEL Laboratories LLC

Rtx-CLPI

Data file : /chem/ecd3a.i/122209h.b/030f3001.d
Lab Smp Id: WHB091222-08 Client Smp ID: HSTD03
Inj Date : 23-DEC-2009 06:09
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |WHB091222-08|
Misc Info : IB
Comment :
Method : /chem/ecd3a.i/122209h.b/ECD3-F-HERB-122209h.m
Meth Date : 28-Dec-2009 14:03 tif01533 Quant Type: ESTD
Cal Date : 22-DEC-2009 21:08 Cal File: 008f0801.d
Als bottle: 30 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: kilroy

	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	
	1 Dalapon					CAS #: 75-99-0	
	3.886	3.888	-0.002	19203602	2000.00	2240	(M)
$	2 2,4-Dichlorophenylacetic acid					CAS #: 19719-28-9	
	7.706	7.707	-0.001	4496027	500.000	510	
	3 Dicamba					CAS #: 6597-78-0	
	7.886	7.886	0.000	6611985	200.000	195	
	4 MCPP					CAS #: 7085-19-0	
	8.044	8.045	-0.001	649907	20000.0	18700	
	5 MCPA					CAS #: 94-74-6	
	8.187	8.188	-0.001	1181288	20000.0	17800	
	6 Dichlorprop					CAS #: 120-36-5	
	8.549	8.550	-0.001	1764427	200.000	194	
	7 2,4-D					CAS #: 94-75-7	
	8.771	8.771	0.000	2212349	200.000	209	
	8 Pentachlorophenol					CAS #: 87-86-5	
	9.060	9.061	-0.001	25117437	200.000	193	
	9 2,4,5-TP					CAS #: 93-72-1	
	9.592	9.592	0.000	9152269	200.000	202	

				AMOUNTS	
				CAL-AMT	ON-COL
RT	EXP RT	DLT RT	RESPONSE	(ug/L)	(ug/L)
==	======	========	========	=======	=======
10 2,4,5-T					CAS #: 93-76-5
9.865	9.865	0.000	8211113	200.000	217
11 2,4-DB					CAS #: 94-82-6
10.400	10.399	0.001	1189041	200.000	193
12 Dinoseb					CAS #: 88-85-7
11.508	11.509	-0.001	5425520	200.000	206

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd3a.i/122209h.b/030f3001.d
Date : 23-DEC-2009 06:09
Client ID: HSTD03
Sample Info: IWHB091222-081

Column phase: Rtx-CLPI

Instrument: ecd3a.i

Operator: HXJ1
Column diameter: 0.25

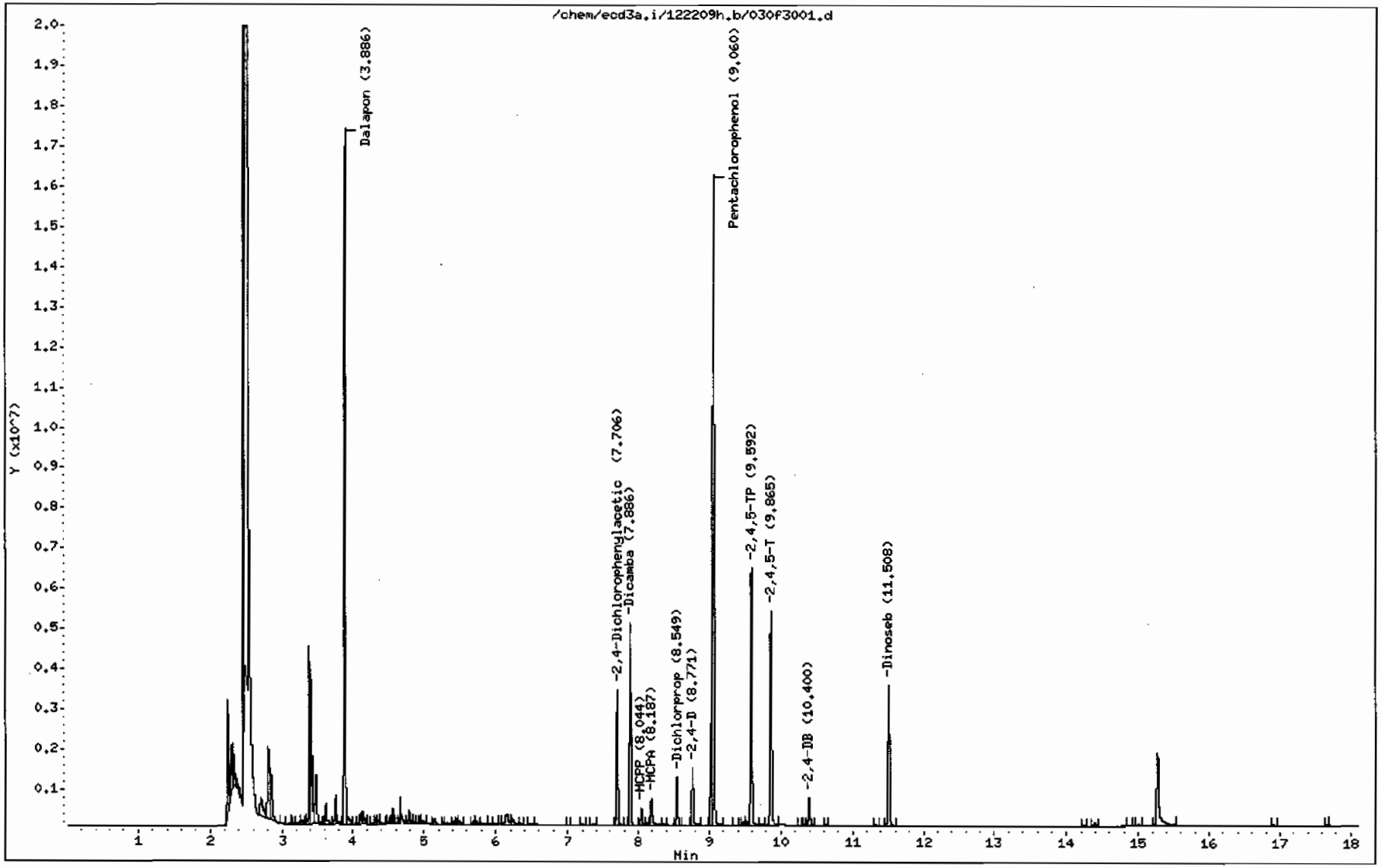

Comment: Manually Integrated
Data File: /chem/ecd3a.i/122209h.b/030f3001.d
Operator: HXJ1
Injection Date: 23-DEC-2009 06:09
Instrument: ecd3a.i
Client Sample ID: HSTD03

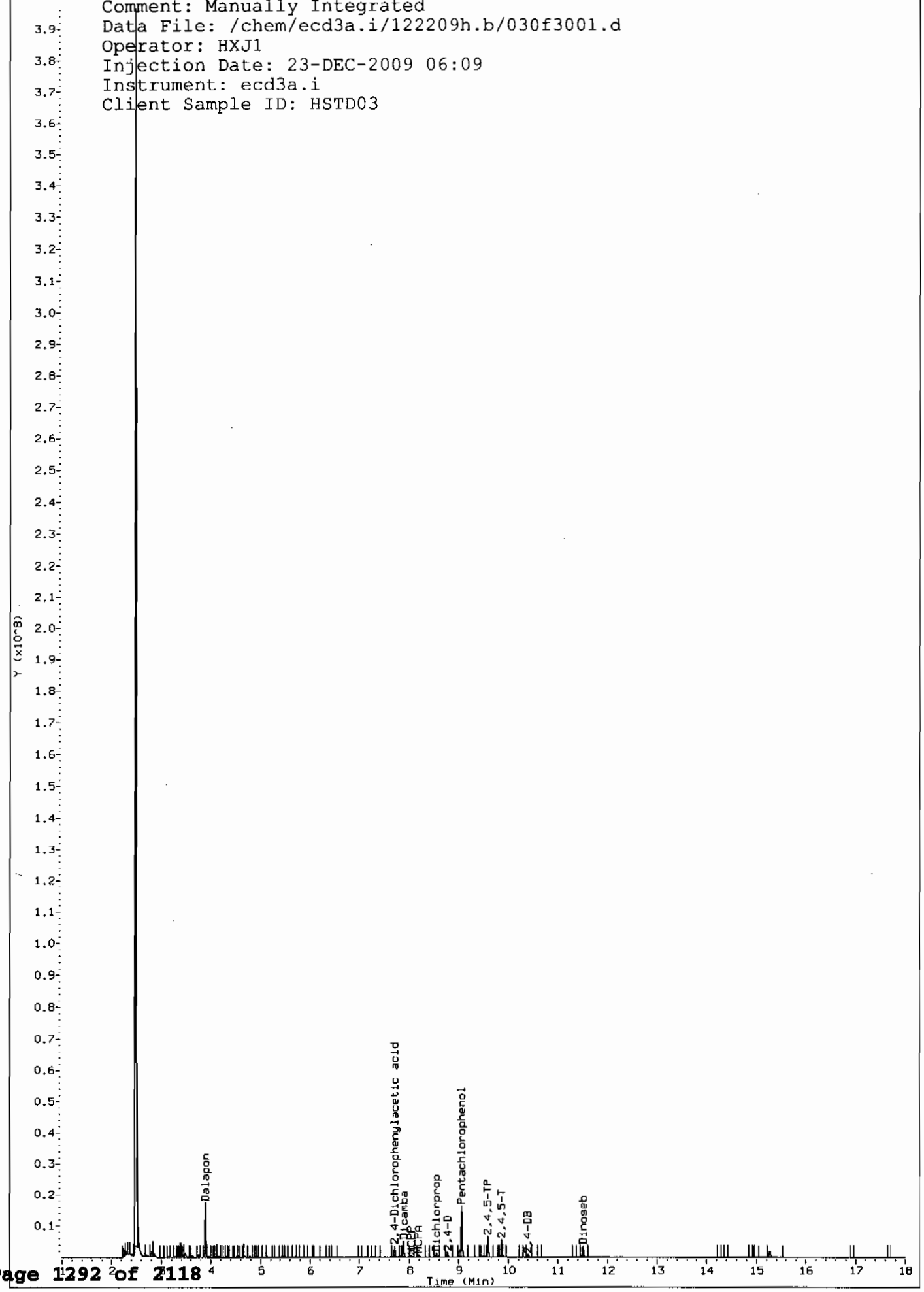

Comment: Before manual integration
Data File: /chem/ecd3a.i/122209h.b/orig-030f3001.d
Operator: HXJ1
Injection Date: 23-DEC-2009 06:09
Instrument: ecd3a.i
Client Sample ID: HSTD03

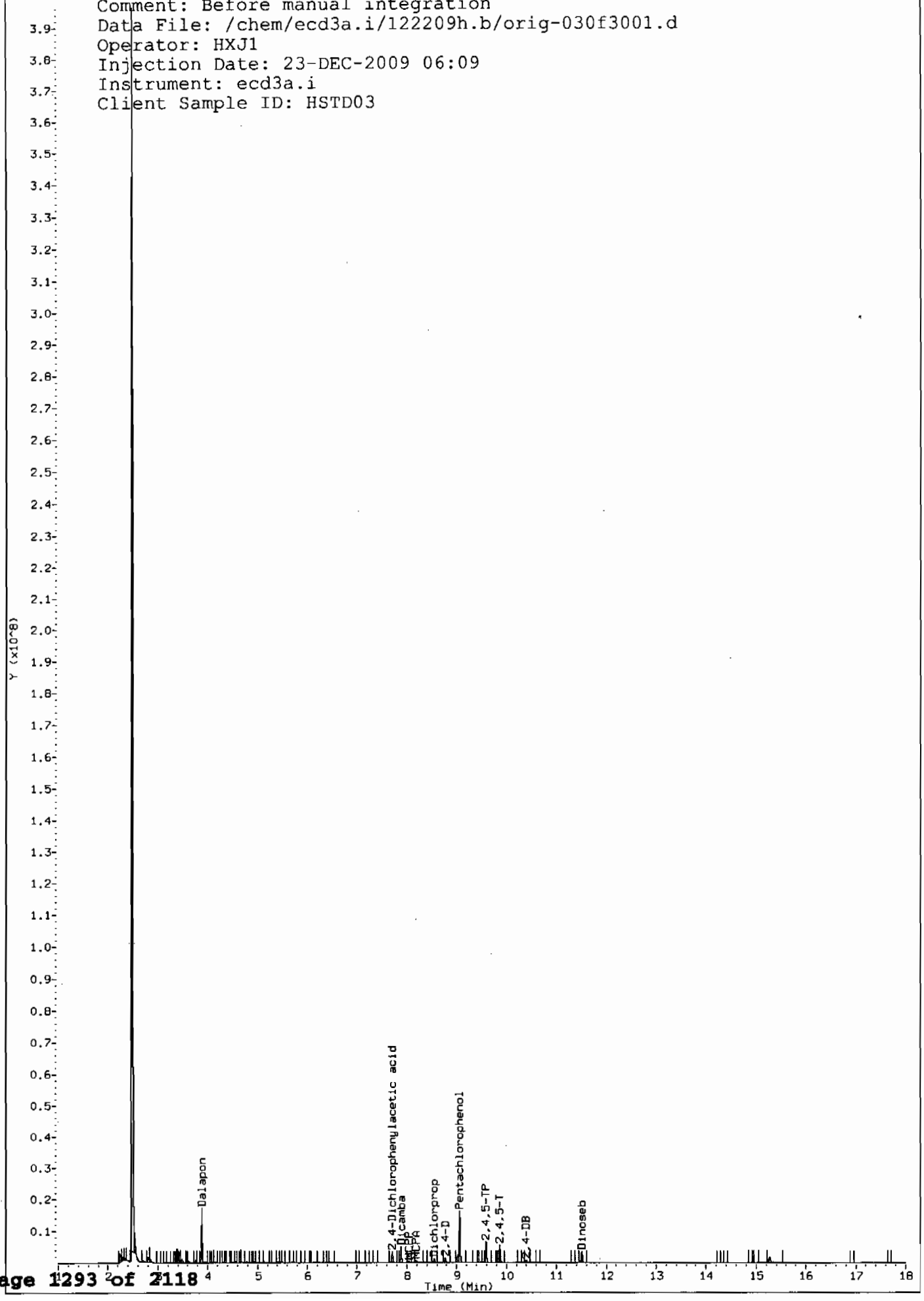

GEL Laboratories LLC

Rtx-CLPII

Data file : /chem/ecd3a.i/122209h.b/030b3001.d
Lab Smp Id: WHB091222-08 Client Smp ID: HSTD03
Inj Date : 23-DEC-2009 06:09
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |WHB091222-08|
Misc Info : IB
Comment :
Method : /chem/ecd3a.i/122209h.b/ECD3-B-HERB-122209h.m
Meth Date : 23-Dec-2009 17:38 hea01125 Quant Type: ESTD
Cal Date : 22-DEC-2009 21:08 Cal File: 008b0801.d
Als bottle: 30 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: kilroy

	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)		
	1 Dalapon					CAS #: 88-85-7		
	3.809	3.811	-0.002	151741409	2000.00	2180		
$	2 2,4-Dichlorophenylacetic acid					CAS #: 19719-28-9		
	7.980	7.982	-0.002	19321413	500.000	404		(M)
	3 Dicamba					CAS #: 6597-78-0		
	8.165	8.166	-0.001	30972189	200.000	155		(M)
	4 MCPP					CAS #: 7085-19-0		
	8.253	8.255	-0.002	2329468	20000.0	17200		(M)
	5 MCPA					CAS #: 94-74-6		
	8.478	8.479	-0.001	3777397	20000.0	18000		(M)
	6 Dichlorprop					CAS #: 120-36-5		
	8.826	8.828	-0.002	7689452	200.000	155		(M)
	7 2,4-D					CAS #: 94-75-7		
	9.132	9.133	-0.001	9795883	200.000	172		(M)
	8 Pentachlorophenol					CAS #: 87-86-5		
	9.624	9.624	0.000	97697533	200.000	168		(M)
	9 2,4,5-TP					CAS #: 93-72-1		
	9.966	9.967	-0.001	35192418	200.000	169		(M)

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)		
10 2,4,5-T					CAS #: 93-76-5		
10.352	10.352	0.000	33995688	200.000	187		(M)
11 2,4-DB					CAS #: 94-82-6		
10.873	10.871	0.002	5119339	200.000	184		
12 Dinoseb					CAS #: 88-85-7		
11.217	11.218	-0.001	27886932	200.000	224		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd3a.i/122209h.b/030b3001.d
Date : 23-DEC-2009 06:09
Client ID: HSTD03
Sample Info: IWHB091222-081
Column phase: Rtx-CLPII

Instrument: ecd3a.i
Operator: HXJ1
Column diameter: 0.25

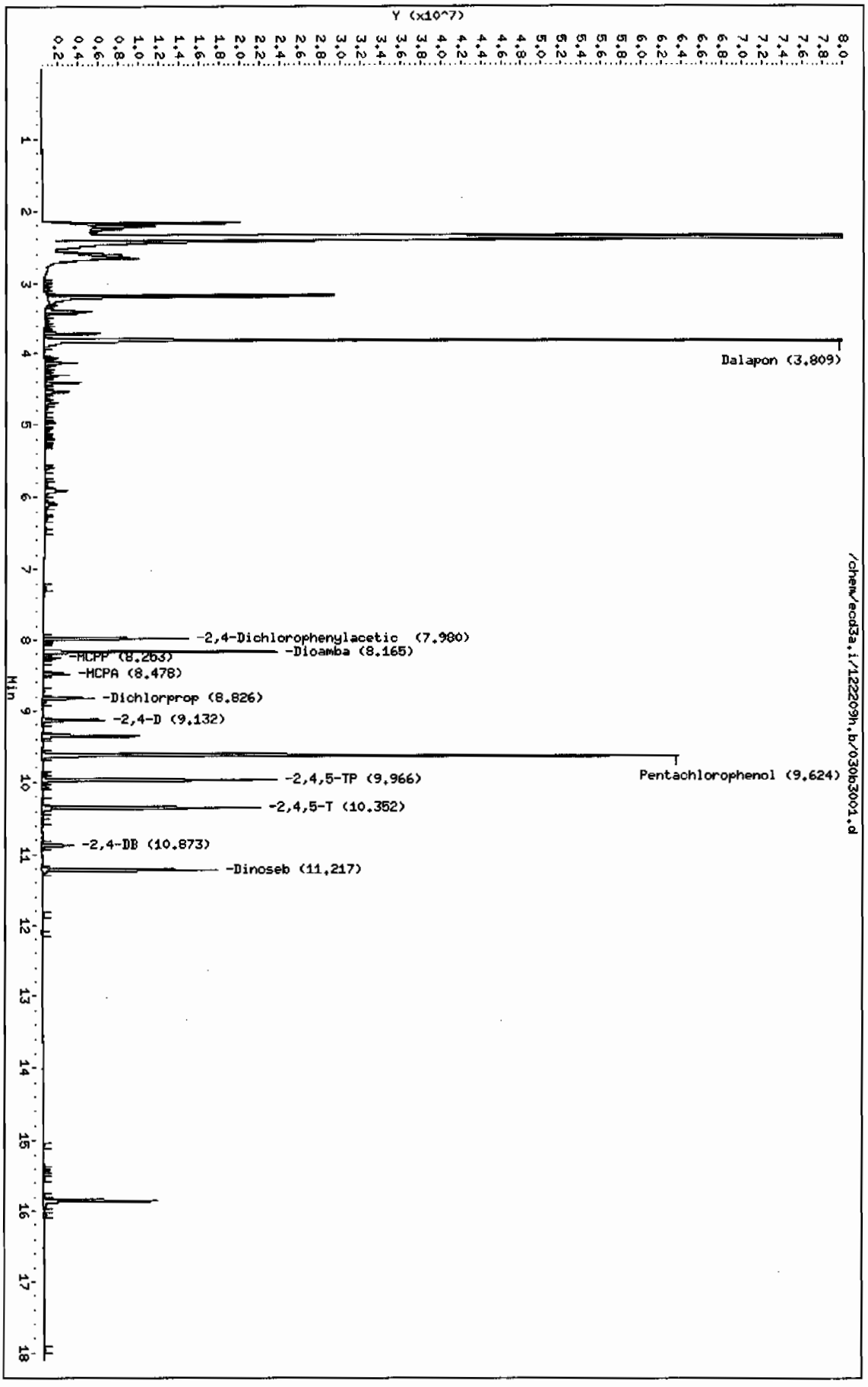

Comment: Manually Integrated
Data File: /chem/ecd3a.i/122209h.b/030b3001.d
Operator: HXJ1
Injection Date: 23-DEC-2009 06:09
Instrument: ecd3a.i
Client Sample ID: HSTD03

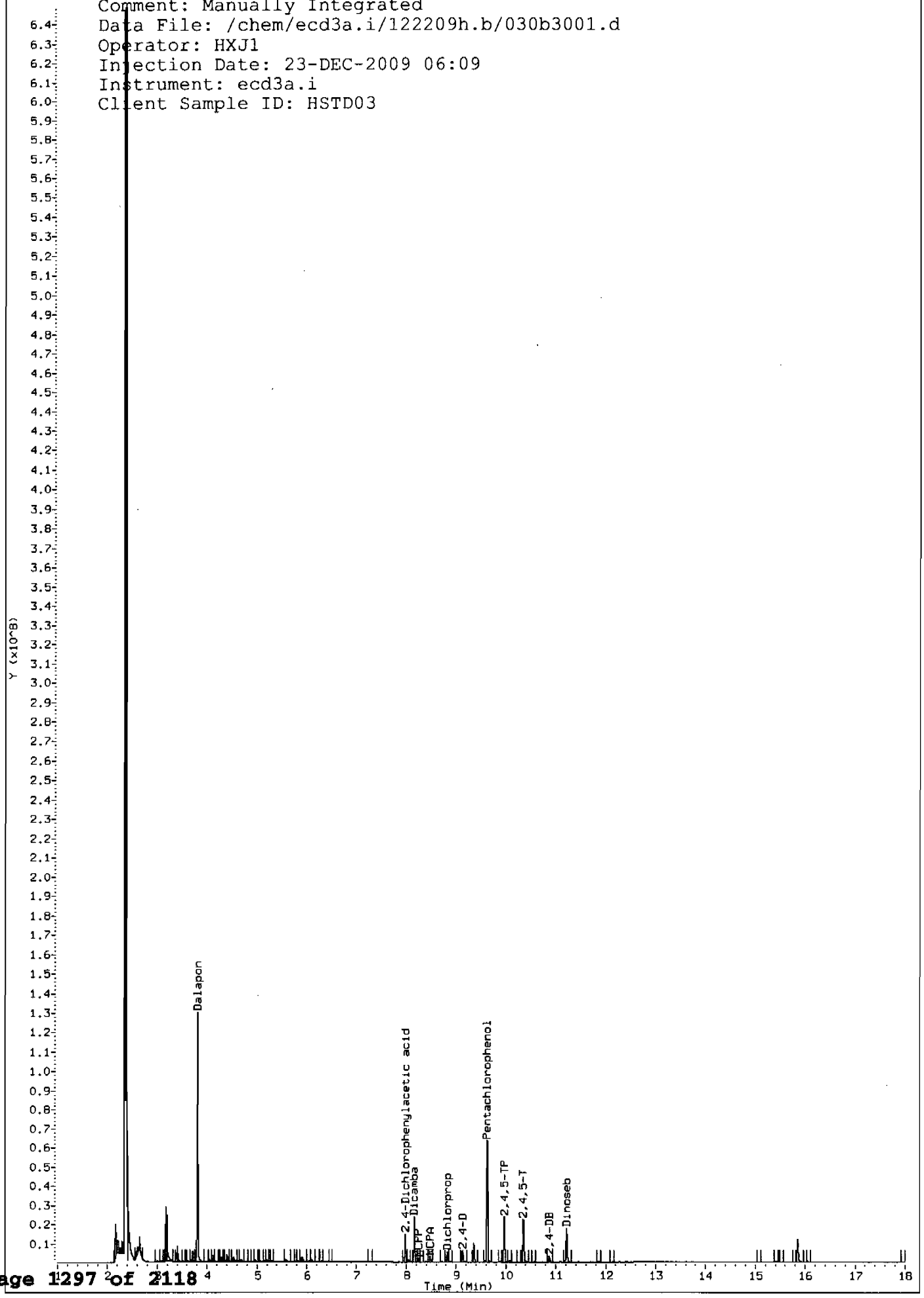

Comment: Before manual integration
Data File: /chem/ecd3a.i/122209h.b/orig-030b3001.d
Operator: HXJ1
Injection Date: 23-DEC-2009 06:09
Instrument: ecd3a.i
Client Sample ID: HSTD03

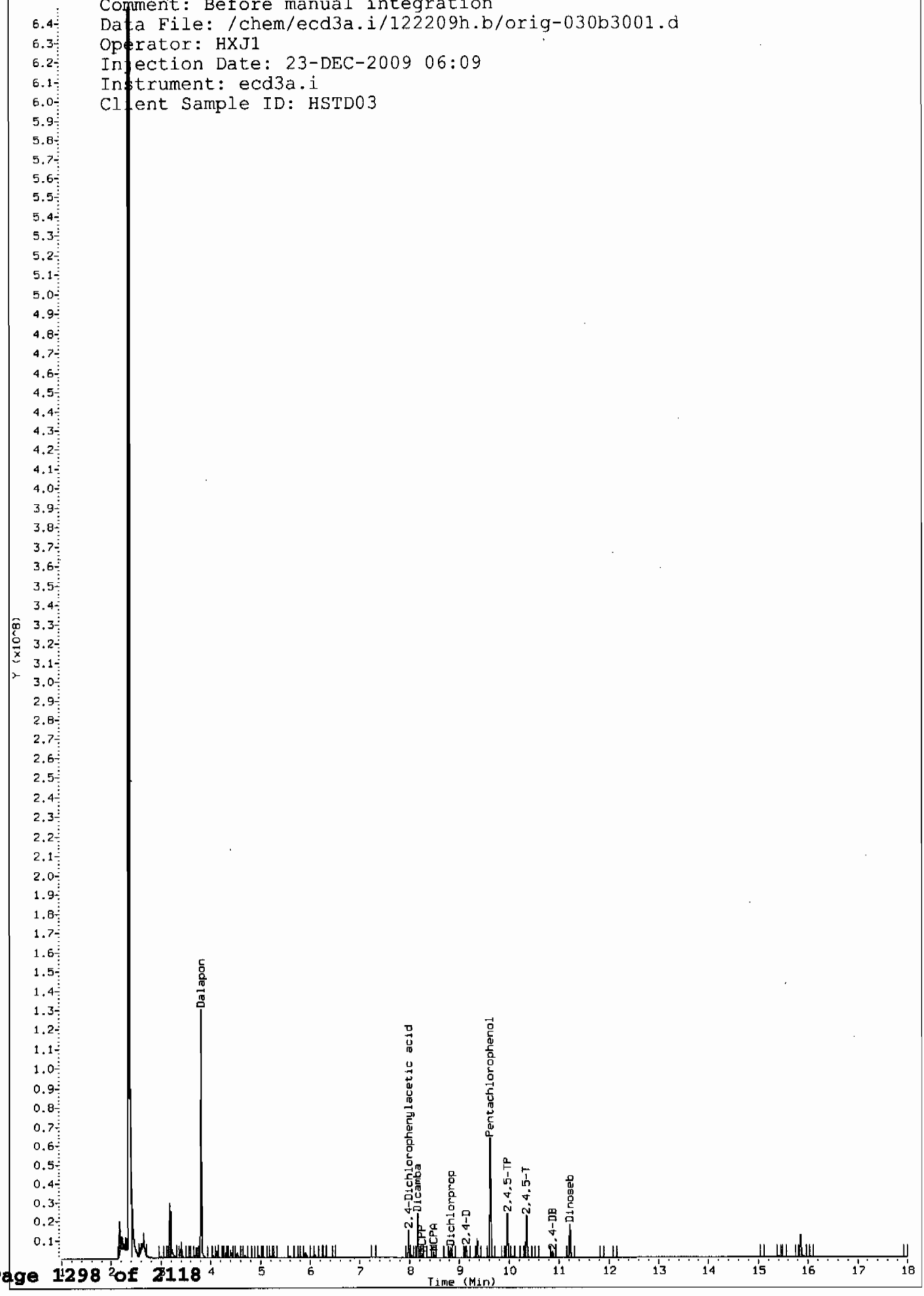

GEL Laboratories LLC

Rtx-CLPI

Data file : /chem/ecd3a.i/122209h.b/038f3801.d
Lab Smp Id: WHB091222-08 Client Smp ID: HSTD04
Inj Date : 23-DEC-2009 09:26
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |WHB091222-08|
Misc Info :
Comment :
Method : /chem/ecd3a.i/122209h.b/ECD3-F-HERB-122209h.m
Meth Date : 28-Dec-2009 14:03 tif01533 Quant Type: ESTD
Cal Date : 22-DEC-2009 21:08 Cal File: 008f0801.d
Als bottle: 38 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50 Sample Matrix: None

	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	
	1 Dalapon						CAS #: 75-99-0
	3.885	3.888	-0.003	19333206	2000.00	2260	
$	2 2,4-Dichlorophenylacetic acid						CAS #: 19719-28-9
	7.706	7.707	-0.001	4487179	500.000	510	
	3 Dicamba						CAS #: 6597-78-0
	7.886	7.886	0.000	6560605	200.000	194	
	4 MCPP						CAS #: 7085-19-0
	8.044	8.045	-0.001	643990	20000.0	18600	
	5 MCPA						CAS #: 94-74-6
	8.187	8.188	-0.001	1120429	20000.0	16900	
	6 Dichlorprop						CAS #: 120-36-5
	8.549	8.550	-0.001	1752857	200.000	193	
	7 2,4-D						CAS #: 94-75-7
	8.769	8.771	-0.002	2197093	200.000	208	
	8 Pentachlorophenol						CAS #: 87-86-5
	9.059	9.061	-0.002	24719411	200.000	190	
	9 2,4,5-TP						CAS #: 93-72-1
	9.591	9.592	-0.001	9099901	200.000	201	

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)
10 2,4,5-T					CAS #: 93-76-5
9.864	9.865	-0.001	8174203	200.000	216
11 2,4-DB					CAS #: 94-82-6
10.399	10.399	0.000	1178213	200.000	191
12 Dinoseb					CAS #: 88-85-7
11.508	11.509	-0.001	5305162	200.000	201

Data File: /chem/ecd3a.i/122209h.b/038F3801.d
Date : 23-DEC-2009 09:26
Client ID: HSTD04
Sample Info: IWHB091222-081
Column phase: Rtx-CLPI

Instrument: ecd3a.i
Operator: HXJ1
Column diameter: 0.25

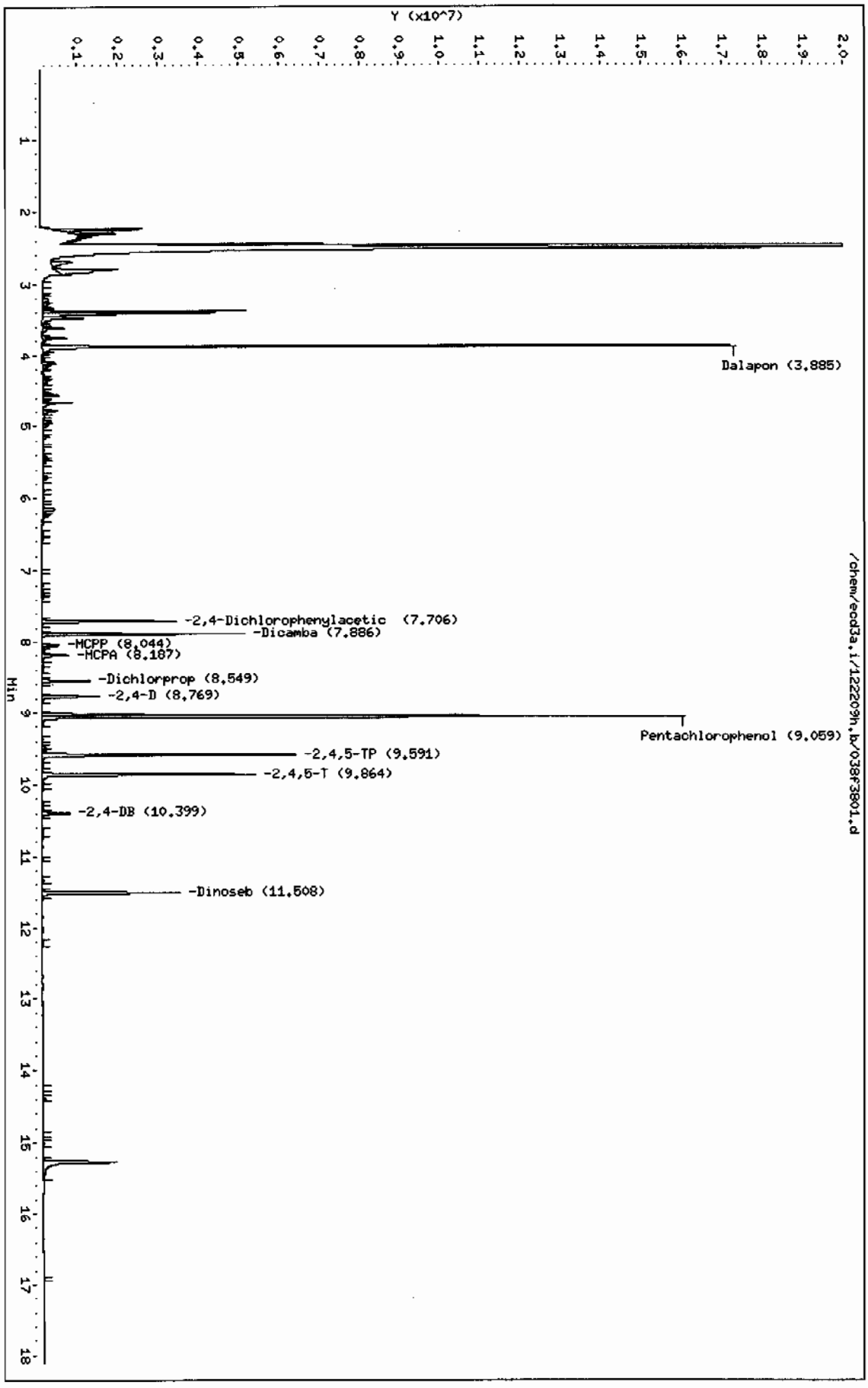

Page 1

GEL Laboratories LLC

Rtx-CLPII

Data file : /chem/ecd3a.i/122209h.b/038b3801.d
Lab Smp Id: WHB091222-08 Client Smp ID: HSTD04
Inj Date : 23-DEC-2009 09:26
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |WHB091222-08|
Misc Info :
Comment :
Method : /chem/ecd3a.i/122209h.b/ECD3-B-HERB-122209h.m
Meth Date : 23-Dec-2009 17:38 hea01125 Quant Type: ESTD
Cal Date : 22-DEC-2009 21:08 Cal File: 008b0801.d
Als bottle: 38 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
1 Dalapon					CAS #: 88-85-7
3.808	3.811	-0.003	147401261	2000.00	2120
$ 2 2,4-Dichlorophenylacetic acid					CAS #: 19719-28-9
7.980	7.982	-0.002	18229117	500.000	381
3 Dicamba					CAS #: 6597-78-0
8.164	8.166	-0.002	29311907	200.000	147
4 MCPP					CAS #: 7085-19-0
8.253	8.255	-0.002	2241891	20000.0	16600
5 MCPA					CAS #: 94-74-6
8.478	8.479	-0.001	3653119	20000.0	17400
6 Dichlorprop					CAS #: 120-36-5
8.825	8.828	-0.003	7271434	200.000	147
7 2,4-D					CAS #: 94-75-7
9.132	9.133	-0.001	9006071	200.000	159
8 Pentachlorophenol					CAS #: 87-86-5
9.624	9.624	0.000	92809495	200.000	160
9 2,4,5-TP					CAS #: 93-72-1
9.966	9.967	-0.001	34898419	200.000	167

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
.10 2,4,5-T					CAS #: 93-76-5
10.351	10.352	-0.001	35046499	200.000	193
11 2,4-DB					CAS #: 94-82-6
10.871	10.871	0.000	5590808	200.000	201
12 Dinoseb					CAS #: 88-85-7
11.216	11.218	-0.002	31567261	200.000	254

Data File: /chem/ecd3a.i/122209h.b/038b3801.d

Date : 23-DEC-2009 09:26

Client ID: HSTD04

Sample Info: [WHB091222-08]

Column phase: Rtx-CLPII

Instrument: ecd3a.i

Operator: HXJ1

Column diameter: 0.25

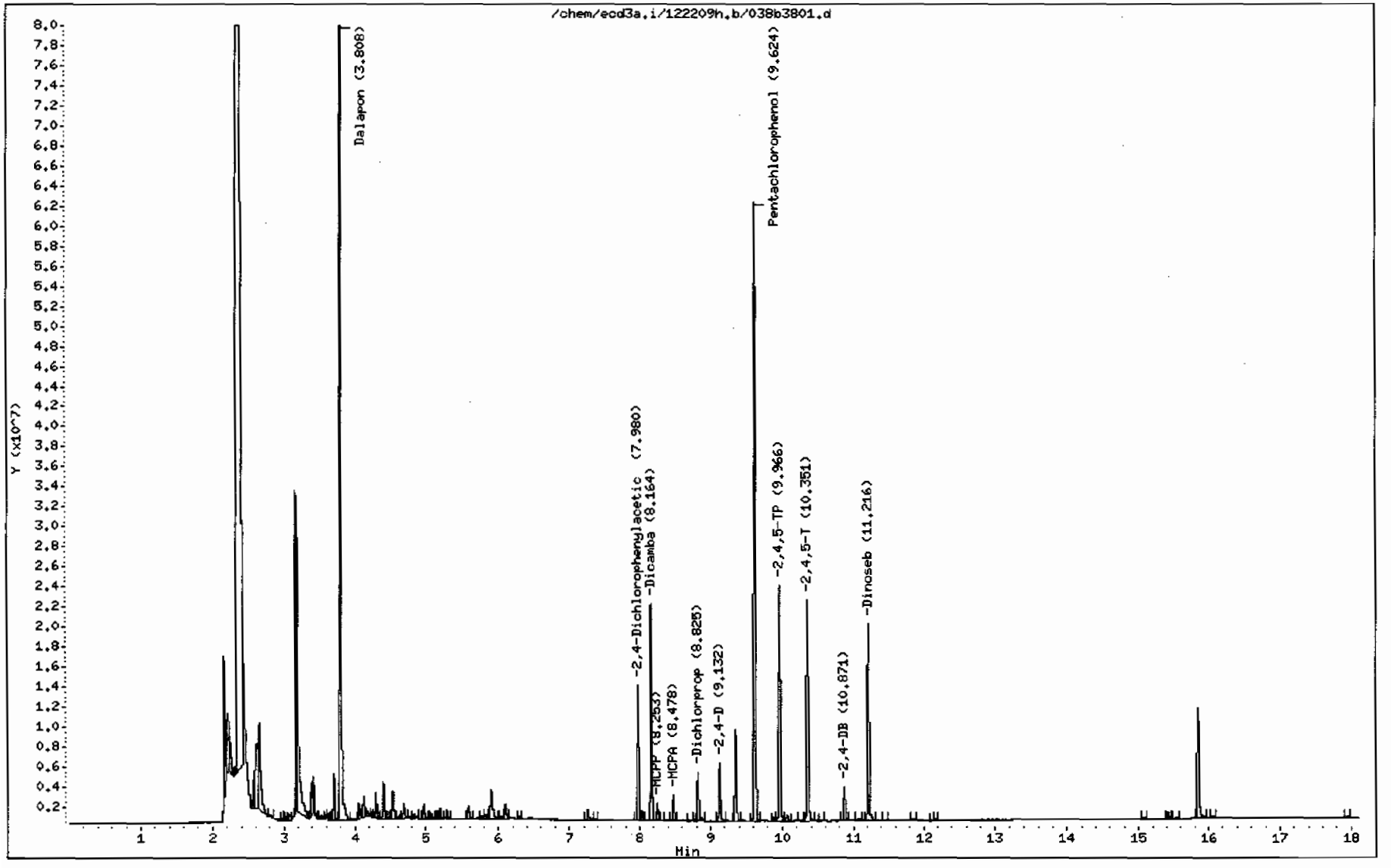

FORM 8
HERBICIDE ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-939-1

GC Column: RTX-CLPI ID: 0.25 (mm) Init. Calib. Date(s): 12/22/09 12/22/09

Instrument ID: ECD3A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 7.71

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	RT #
01	HIBLK01	WHB091117-02	12/22/09	1815	7.73	
02	HSTD01	WHB091030-01	12/22/09	1839	7.72	
03	HSTD02	WHB091030-02	12/22/09	1904	7.71	
04	HSTD03	WHB091030-03	12/22/09	1929	7.71	
05	HSTD04	WHB091030-04	12/22/09	1954	7.71	
06	HSTD05	WHB091030-05	12/22/09	2018	7.71	
07	HSTD06	WHB091030-06	12/22/09	2043	7.71	
08	HSTD07	WHB091030-07	12/22/09	2108	7.71	
09	HSTD01	WHB091222-08	12/22/09	2133	7.71	
10	HSTD02	WHB091222-08	12/22/09	2157	7.71	
11	HIBLK02	WHB091117-02	12/22/09	2222	7.72	
12	ZZZZZ	ZZZZZ	12/22/09	2247	7.72	
13	ZZZZZ	ZZZZZ	12/22/09	2311	7.71	
14	ZZZZZ	ZZZZZ	12/22/09	2336	7.71	
15	ZZZZZ	ZZZZZ	12/23/09	0001	7.72	
16	ZZZZZ	ZZZZZ	12/23/09	0025	7.71	
17	ZZZZZ	ZZZZZ	12/23/09	0050	7.71	
18	HSTD02	WHB091222-08	12/23/09	0114	7.71	
19	HIBLK03	WHB091117-02	12/23/09	0139	7.72	
20	ZZZZZ	ZZZZZ	12/23/09	0204	7.72	
21	ZZZZZ	ZZZZZ	12/23/09	0228	7.71	
22	ZZZZZ	ZZZZZ	12/23/09	0253	7.71	
23	ZZZZZ	ZZZZZ	12/23/09	0317	7.72	
24	ZZZZZ	ZZZZZ	12/23/09	0342	7.72	
25	ZZZZZ	ZZZZZ	12/23/09	0406	7.71	
26	ZZZZZ	ZZZZZ	12/23/09	0431	7.71	
27	ZZZZZ	ZZZZZ	12/23/09	0455	7.71	
28	ZZZZZ	ZZZZZ	12/23/09	0520	7.72	
29	ZZZZZ	ZZZZZ	12/23/09	0545	7.71	
30	HSTD03	WHB091222-08	12/23/09	0609	7.71	
31	HIBLK04	WHB091117-02	12/23/09	0634	7.72	
32	TBLK01	1201999915	12/23/09	0658	7.71	

QC LIMITS
S1 = 2,4-Dichlorophenylacet (+/- 0.06 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII HERBICIDE

FORM 8
HERBICIDE ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-939-1

GC Column: RTX-CLPI ID: 0.25 (mm) Init. Calib. Date(s): 12/22/09 12/22/09

Instrument ID: ECD3A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 7.71

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	RT #
01	HBLK01	1202001895	12/23/09	0723	7.71	
02	HBLK01LCS	1202001896	12/23/09	0748	7.71	
03	WST03-10-2147	243010001	12/23/09	0812	7.71	
04	WST03-10-2147MS	1202001897	12/23/09	0837	7.71	
05	WST03-10-2147MSD	1202001898	12/23/09	0901	7.71	
06	HSTD04	WHB091222-08	12/23/09	0926	7.71	
07	HIBLK05	WHB091117-02	12/23/09	0951	7.72	
08						
09						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						
31						
32						

QC LIMITS
S1 = 2,4-Dichlorophenylacet (+/- 0.06 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII HERBICIDE

FORM 8
HERBICIDE ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-939-1

GC Column: RTX-CLPII ID: 0.25 (mm) Init. Calib. Date(s): 12/22/09 12/22/09

Instrument ID: ECD3A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 7.98

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	RT #
01	HIBLK01	WHB091117-02	12/22/09	1815	8.00	
02	HSTD01	WHB091030-01	12/22/09	1839	7.99	
03	HSTD02	WHB091030-02	12/22/09	1904	7.99	
04	HSTD03	WHB091030-03	12/22/09	1929	7.98	
05	HSTD04	WHB091030-04	12/22/09	1954	7.98	
06	HSTD05	WHB091030-05	12/22/09	2018	7.98	
07	HSTD06	WHB091030-06	12/22/09	2043	7.98	
08	HSTD07	WHB091030-07	12/22/09	2108	7.98	
09	HSTD01	WHB091222-08	12/22/09	2133	7.98	
10	HSTD02	WHB091222-08	12/22/09	2157	7.98	
11	HIBLK02	WHB091117-02	12/22/09	2222	7.99	
12	ZZZZZ	ZZZZZ	12/22/09	2247	7.99	
13	ZZZZZ	ZZZZZ	12/22/09	2311	7.99	
14	ZZZZZ	ZZZZZ	12/22/09	2336	7.99	
15	ZZZZZ	ZZZZZ	12/23/09	0001	7.99	
16	ZZZZZ	ZZZZZ	12/23/09	0025	7.98	
17	ZZZZZ	ZZZZZ	12/23/09	0050	7.99	
18	HSTD02	WHB091222-08	12/23/09	0114	7.98	
19	HIBLK03	WHB091117-02	12/23/09	0139	7.99	
20	ZZZZZ	ZZZZZ	12/23/09	0204	7.99	
21	ZZZZZ	ZZZZZ	12/23/09	0228	7.98	
22	ZZZZZ	ZZZZZ	12/23/09	0253	7.98	
23	ZZZZZ	ZZZZZ	12/23/09	0317	7.99	
24	ZZZZZ	ZZZZZ	12/23/09	0342	7.99	
25	ZZZZZ	ZZZZZ	12/23/09	0406	7.99	
26	ZZZZZ	ZZZZZ	12/23/09	0431	7.99	
27	ZZZZZ	ZZZZZ	12/23/09	0455	7.99	
28	ZZZZZ	ZZZZZ	12/23/09	0520	7.99	
29	ZZZZZ	ZZZZZ	12/23/09	0545	7.99	
30	HSTD03	WHB091222-08	12/23/09	0609	7.98	
31	HIBLK04	WHB091117-02	12/23/09	0634	7.99	
32	TBLK01	1201999915	12/23/09	0658	7.99	

QC LIMITS
S1 = 2,4-Dichlorophenylacet (+/- 0.06 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII HERBICIDE

FORM 8
HERBICIDE ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-939-1

GC Column: RTX-CLPII ID: 0.25 (mm) Init. Calib. Date(s): 12/22/09 12/22/09

Instrument ID: ECD3A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 7.98

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	RT #
01	HBLK01	1202001895	12/23/09	0723	7.99	
02	HBLK01LCS	1202001896	12/23/09	0748	7.98	
03	WST03-10-2147	243010001	12/23/09	0812	7.99	
04	WST03-10-2147MS	1202001897	12/23/09	0837	7.98	
05	WST03-10-2147MSD	1202001898	12/23/09	0902	7.98	
06	HSTD04	WHB091222-08	12/23/09	0926	7.98	
07	HIBLK05	WHB091117-02	12/23/09	0951	7.99	
08						
09						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						
31						
32						

QC LIMITS
S1 = 2,4-Dichlorophenylacet (+/- 0.06 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII HERBICIDE

Identification Summary

SDG Number: 10–939–1

Client ID: LCS for batch 935578

Lab Sample ID: 1202001896

Data File:	034f3401.d	**Data File:**	034b3401.d
Inst:	ECD3A.I_1	**Inst:**	ECD3A.I_2
Column:	Rtx–CLPI	**Column:**	Rtx–CLPII
Analyzed:	23–DEC–09 07:48	**Analyzed:**	23–DEC–09 07:48

Analyte		Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
2,4–D								26.6
	Column 1	1	8.77	8.71 – 8.83	.00197		mg/L	
	Column 2	1	9.13	9.07 – 9.19	.00151		mg/L	
2,4,5–TP								17.7
	Column 1	1	9.59	9.56 – 9.62	.00188		mg/L	
	Column 2	1	9.97	9.94 – 10	.00158		mg/L	

Identification Summary

SDG Number: 10–939–1 **Client ID:** WST03–10–2147MS

Lab Sample ID: 1202001897

Data File:	036f3601.d	**Data File:**	036b3601.d
Inst:	ECD3A.I_1	**Inst:**	ECD3A.I_2
Column:	Rtx–CLPI	**Column:**	Rtx–CLPII
Analyzed:	23–DEC–09 08:37	**Analyzed:**	23–DEC–09 08:37

Analyte		Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
2,4–D								30.8
	Column 1	1	8.77	8.71 – 8.83	.422		mg/L	
	Column 2	1	9.13	9.07 – 9.19	.309		mg/L	
2,4,5–TP								18
	Column 1	1	9.59	9.56 – 9.62	.399		mg/L	
	Column 2	1	9.96	9.94 – 10	.333		mg/L	

Identification Summary

SDG Number: 10-939-1 **Client ID:** WST03-10-2147MSD

Lab Sample ID: 1202001898

Data File:	037f3701.d	**Data File:**	037b3701.d
Inst:	ECD3A.I_1	**Inst:**	ECD3A.I_2
Column:	Rtx-CLPI	**Column:**	Rtx-CLPII
Analyzed:	23-DEC-09 09:02	**Analyzed:**	23-DEC-09 09:02

Analyte		Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
2,4-D								31.6
	Column 1	1	8.77	8.71 – 8.83	.408		mg/L	
	Column 2	1	9.13	9.07 – 9.19	.297		mg/L	
2,4,5-TP								18.5
	Column 1	1	9.59	9.56 – 9.62	.38		mg/L	
	Column 2	1	9.96	9.94 – 10	.315		mg/L	

QUALITY CONTROL DATA

Herbicide
Certificate of Analysis
Sample Summary

SDG Number:	**10-939-1**			**Matrix:**	**TCLP SOIL**
Lab Sample ID:	**1201999915**				
Client Sample:	**QC for batch 934762**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**TB for batch 934762**	**Method:**	**SW846 8151A**	**SOP Ref:**	**GL-OA-E-011**
Batch ID:	**935579**	**Inst:**	**ECD3A.I**	**Dilution:**	**1**
Run Date:	**12/23/2009 06:58**	**Analyst:**	**HXJ1**	**Inj. Vol:**	**1 uL**
Prep Date:	**12/22/2009 17:21**	**Aliquot:**	**5 mL**	**Final Volume:**	**10 mL**
Data File:	**032f3201.d**	**Column:**	**1 Rtx-CLPI**	**Level:**	**LOW**
	032b3201.d		**2 Rtx-CLPII**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
94-75-7	2,4-D	U	0.050	mg/L	0.0166	0.050	1
93-72-1	2,4,5-TP	U	0.050	mg/L	0.0166	0.050	1

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Rtx-CLPI

Data file : /chem/ecd3a.i/122209h.b/032f3201.d
Lab Smp Id: 1201999915 Client Smp ID: TBLK01
Inj Date : 23-DEC-2009 06:58
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |1201999915|1|
Misc Info : |ECDTPH_1L|935579|SVH|MB|SOIL|MB|||
Comment :
Method : /chem/ecd3a.i/122209h.b/ECD3-F-HERB-122209h.m
Meth Date : 28-Dec-2009 14:03 tif01533 Quant Type: ESTD
Cal Date : 22-DEC-2009 21:08 Cal File: 008f0801.d
Als bottle: 32 QC Sample: TB
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-939-1.sub
Target Version: 3.50 Sample Matrix: Water

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	10.00000	Volume of final extract (mL)
Vo	5.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)
$ 2 2,4-Dichlorophenylacetic acid					CAS #: 19719-28-9
7.715	7.707	0.008	4795278	544.546	1090

Data File: /chem/ecd3a.i/122209h.b/032f3201.d
Date : 23-DEC-2009 06:58
Client ID: TBLK01
Sample Info: |1201999915|1|
Volume Injected (uL): 1.0
Column phase: Rtx-CLPI

Instrument: ecd3a.i

Operator: HXJ1
Column diameter: 0.25

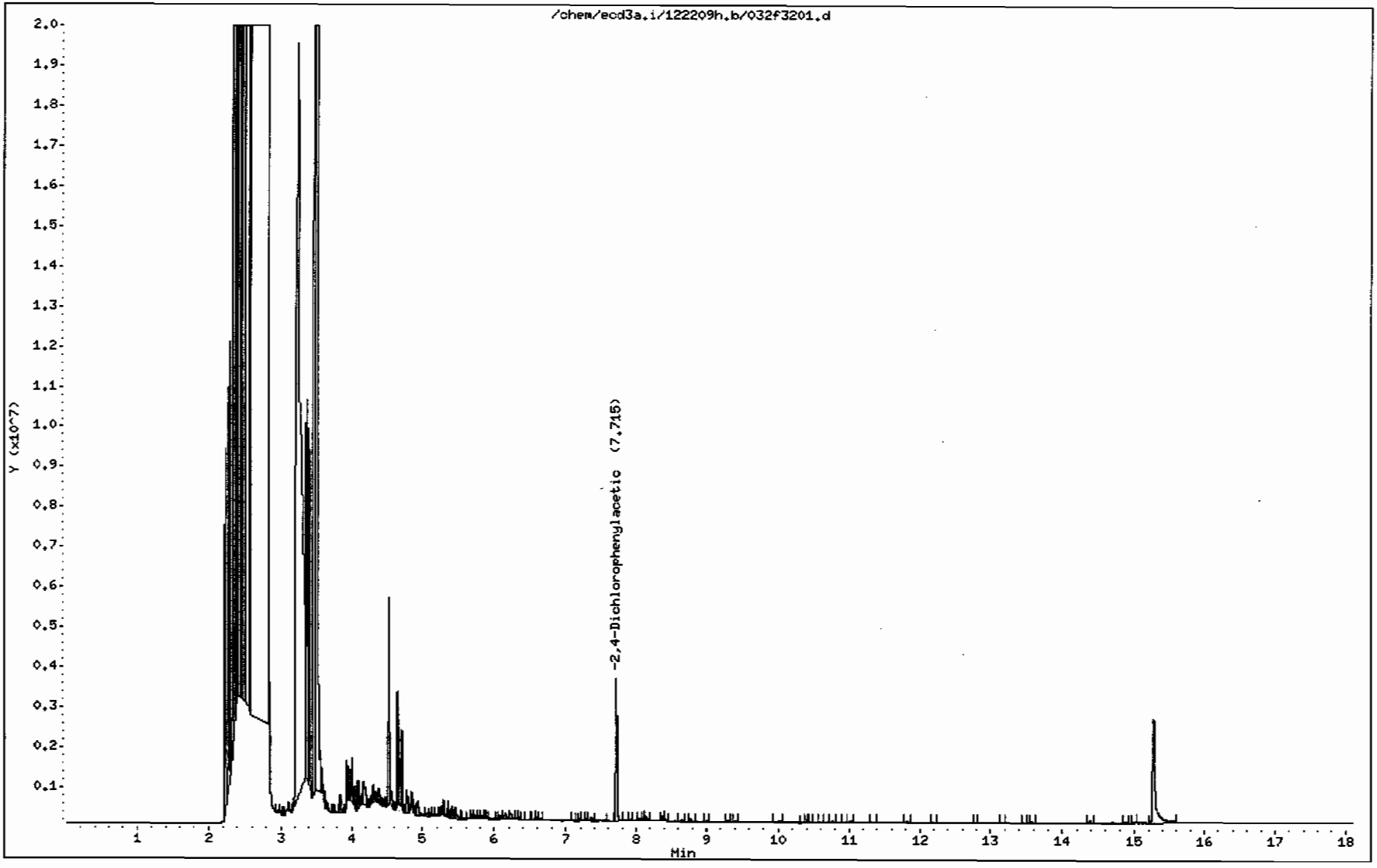

GEL Laboratories LLC

Rtx-CLPII

Data file : /chem/ecd3a.i/122209h.b/032b3201.d
Lab Smp Id: 1201999915 Client Smp ID: TBLK01
Inj Date : 23-DEC-2009 06:58
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |1201999915|1|
Misc Info : |ECDTPH_1L|935579|SVH|MB|SOIL|MB|||
Comment :
Method : /chem/ecd3a.i/122209h.b/ECD3-B-HERB-122209h.m
Meth Date : 23-Dec-2009 17:38 hea01125 Quant Type: ESTD
Cal Date : 22-DEC-2009 21:08 Cal File: 008b0801.d
Als bottle: 32 QC Sample: TB
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-939-1.sub
Target Version: 3.50 Sample Matrix: Water

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	10.00000	Volume of final extract (mL)
Vo	5.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)
$ 2 2,4-Dichlorophenylacetic acid					CAS #: 19719-28-9
7.986	7.982	0.004	21177643	442.569	885

Data File: /chem/ecd3a.i/122209h.b/032b3201.d

Date : 23-DEC-2009 06:58

Client ID: TBLK01

Sample Info: |1201999915|1|

Volume Injected (uL): 1.0

Column phase: Rtx-CLPII

Instrument: ecd3a.i

Operator: HXJ1

Column diameter: 0.25

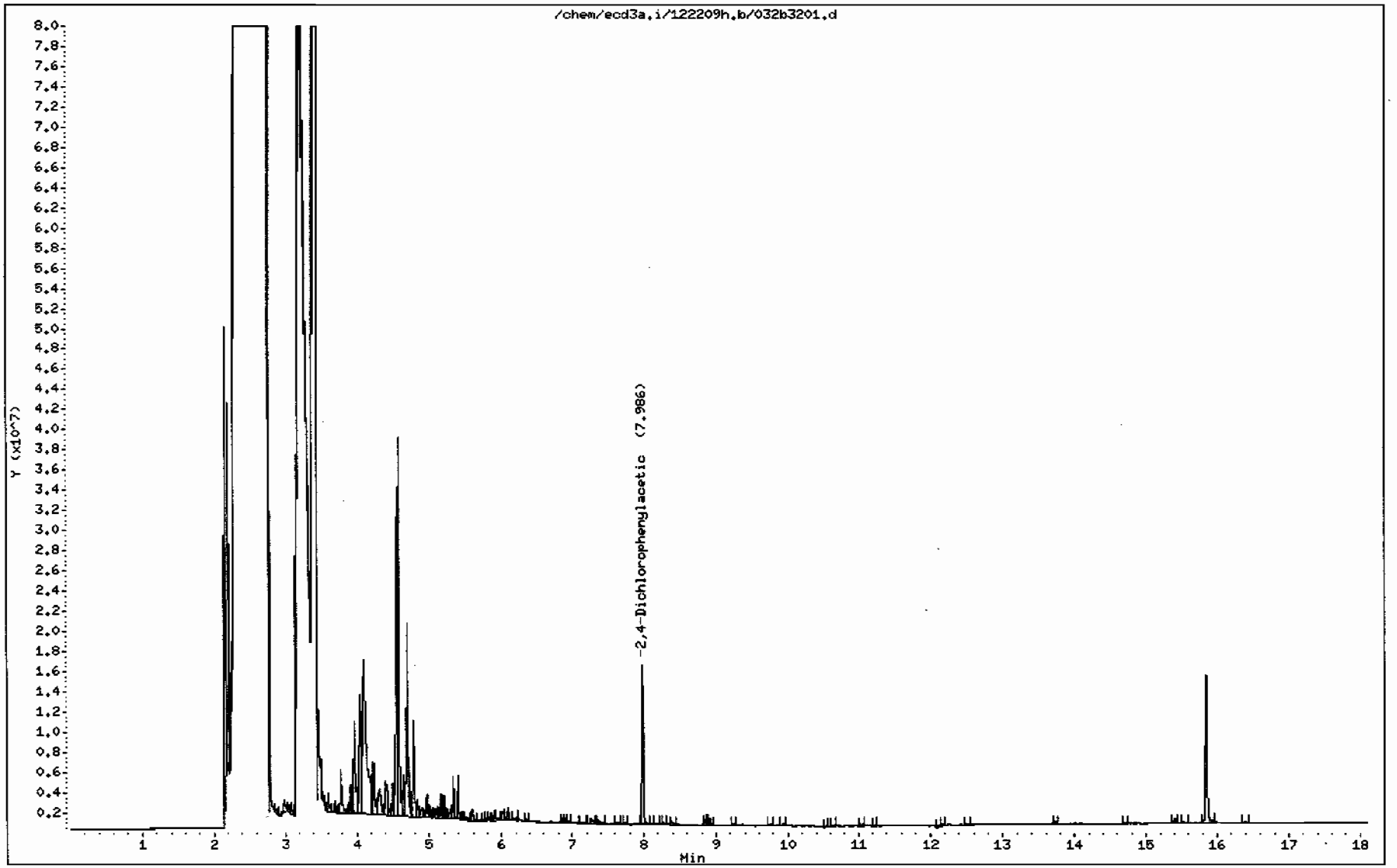

Herbicide
Certificate of Analysis
Sample Summary

SDG Number:	10-939-1			**Matrix:**	TCLP SOIL
Lab Sample ID:	1202001895				
Client Sample:	QC for batch 935578	**Client:**	LANL010	**Project:**	QC
Client ID:	MB for batch 935578	**Method:**	SW846 8151A	**SOP Ref:**	GL-OA-E-011
Batch ID:	935579	**Inst:**	ECD3A.I	**Dilution:**	1
Run Date:	12/23/2009 07:23	**Analyst:**	HXJ1	**Inj. Vol:**	1 uL
Prep Date:	12/22/2009 17:21	**Aliquot:**	1000 mL	**Final Volume:**	10 mL
Data File:	033f3301.d	**Column:**	1 Rtx-CLPI	**Level:**	LOW
	033b3301.d		2 Rtx-CLPII		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
94-75-7	2,4-D	U	0.00025	mg/L	0.000083	0.00025	1
93-72-1	2,4,5-TP	U	0.00025	mg/L	0.000083	0.00025	1

GEL Laboratories LLC

Rtx-CLPI

Data file : /chem/ecd3a.i/122209h.b/033f3301.d
Lab Smp Id: 1202001895 Client Smp ID: HBLK01
Inj Date : 23-DEC-2009 07:23
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |1202001895|1|
Misc Info : |ECDTPH_1L|935579|SVH|LCS|SOIL|LCS|||
Comment :
Method : /chem/ecd3a.i/122209h.b/ECD3-F-HERB-122209h.m
Meth Date : 28-Dec-2009 14:03 tif01533 Quant Type: ESTD
Cal Date : 22-DEC-2009 21:08 Cal File: 008f0801.d
Als bottle: 33 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-939-1.sub
Target Version: 3.50 Sample Matrix: Water

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	10.00000	Volume of final extract (mL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)
$ 2 2,4-Dichlorophenylacetic acid					CAS #: 19719-28-9
7.714	7.707	0.007	4934811	560.392	5.6

Data File: /chem/ecd3a.i/122209h.b/033f3301.d

Date : 23-DEC-2009 07:23

Client ID: HBLK01

Sample Info: |1202001895|1|

Volume Injected (uL): 1.0

Column phase: Rtx-CLPI

Instrument: ecd3a.i

Operator: HXJ1

Column diameter: 0.25

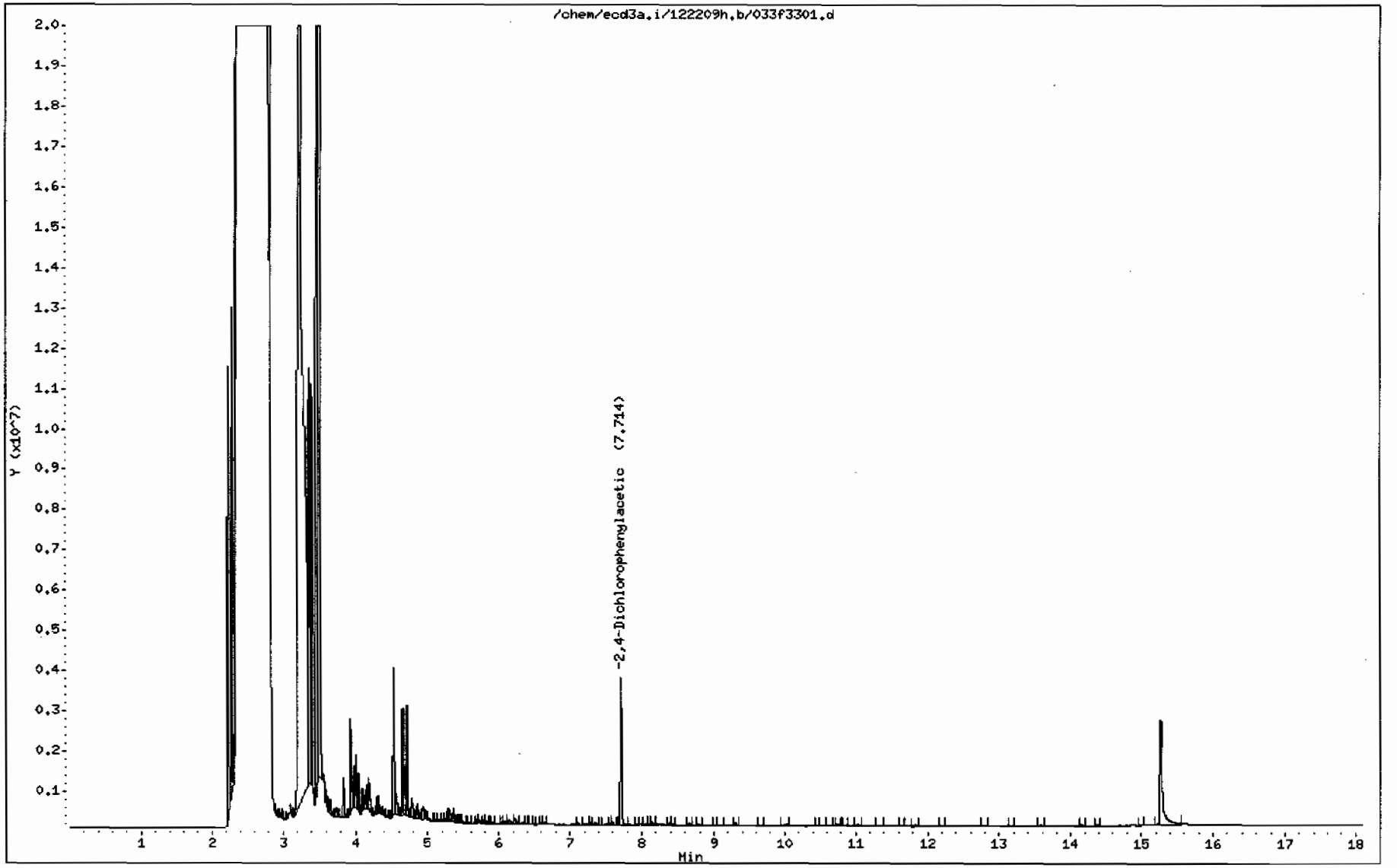

GEL Laboratories LLC

Rtx-CLPII

Data file : /chem/ecd3a.i/122209h.b/033b3301.d
Lab Smp Id: 1202001895 Client Smp ID: HBLK01
Inj Date : 23-DEC-2009 07:23
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |1202001895|1|
Misc Info : |ECDTPH_1L|935579|SVH|LCS|SOIL|LCS|||
Comment :
Method : /chem/ecd3a.i/122209h.b/ECD3-B-HERB-122209h.m
Meth Date : 23-Dec-2009 17:38 hea01125 Quant Type: ESTD
Cal Date : 22-DEC-2009 21:08 Cal File: 008b0801.d
Als bottle: 33 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-939-1.sub
Target Version: 3.50 Sample Matrix: Water

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	10.00000	Volume of final extract (mL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)
$ 2 2,4-Dichlorophenylacetic acid					CAS #: 19719-28-9
7.986	7.982	0.004	21832489	456.254	4.6

Data File: /chem/ecd3a.i/122209h.b/033b3301.d
Date : 23-DEC-2009 07:23
Client ID: HBLK01
Sample Info: |1202001895|1|
Volume Injected (uL): 1.0
Column phase: Rtx-CLPII

Instrument: ecd3a.i

Operator: HXJ1
Column diameter: 0.25

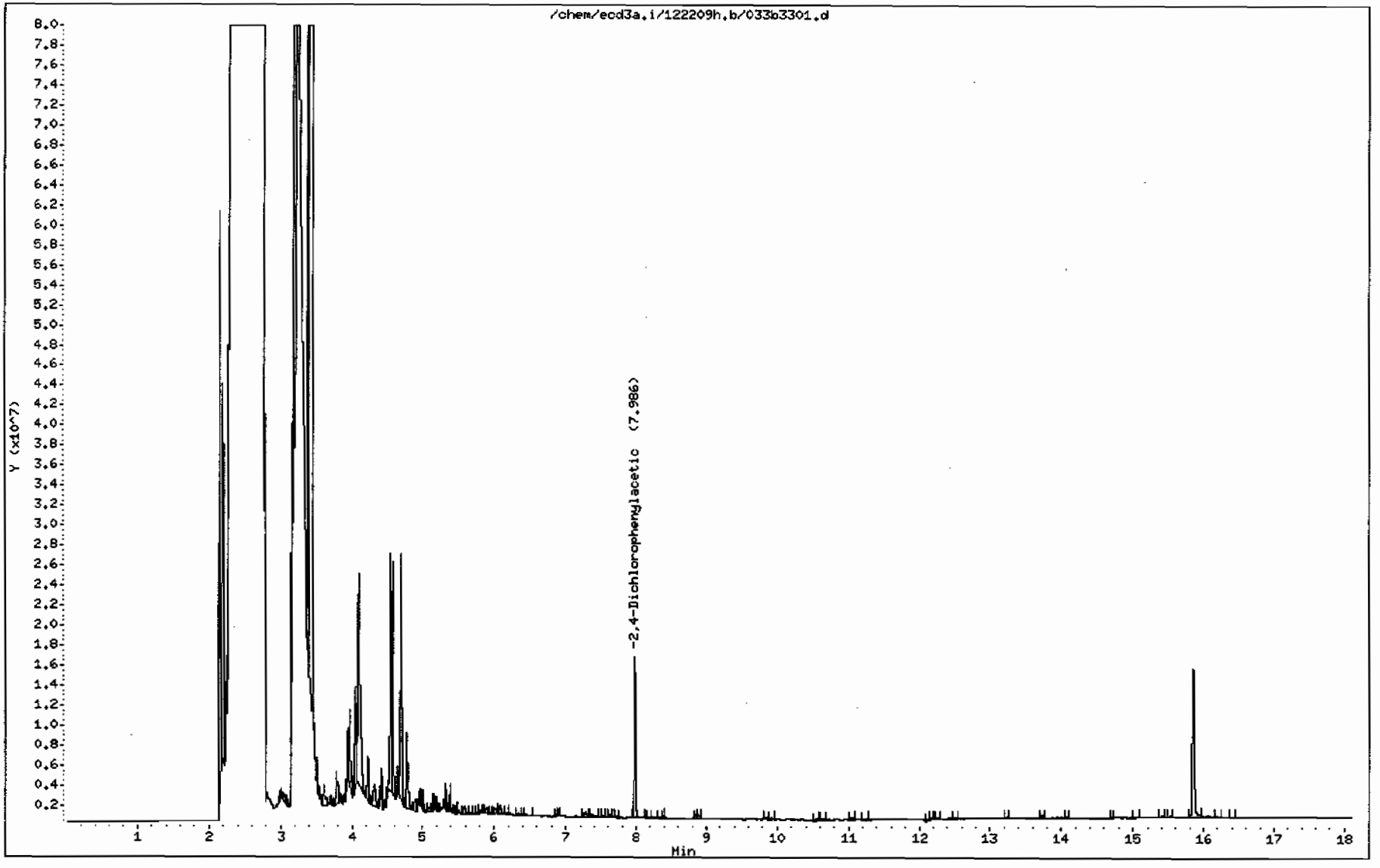

Herbicide
Certificate of Analysis
Sample Summary

SDG Number:	10-939-1			**Matrix:**	TCLP SOIL
Lab Sample ID:	1202001896				
Client Sample:	QC for batch 935578	**Client:**	LANL010	**Project:**	QC
Client ID:	LCS for batch 935578	**Method:**	SW846 8151A	**SOP Ref:**	GL-OA-E-011
Batch ID:	935579	**Inst:**	ECD3A.I	**Dilution:**	1
Run Date:	12/23/2009 07:48	**Analyst:**	HXJ1	**Inj. Vol:**	1 uL
Prep Date:	12/22/2009 17:21	**Aliquot:**	1000 mL	**Final Volume:**	10 mL
Data File:	034f3401.d	**Column:**	1 Rtx-CLPI	**Level:**	LOW
	034b3401.d		2 Rtx-CLPII		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
94-75-7	2,4-D		0.00197	mg/L	0.000083	0.00025	1
93-72-1	2,4,5-TP		0.00188	mg/L	0.000083	0.00025	1

GEL Laboratories LLC

Rtx-CLPI

Data file : /chem/ecd3a.i/122209h.b/034f3401.d
Lab Smp Id: 1202001896 Client Smp ID: HBLK01LCS
Inj Date : 23-DEC-2009 07:48
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |1202001896|1|
Misc Info : |ECDTPH_1L|935579|SVH|LANL|SOIL|WST03-10-2147|||
Comment :
Method : /chem/ecd3a.i/122209h.b/ECD3-F-HERB-122209h.m
Meth Date : 28-Dec-2009 14:03 tif01533 Quant Type: ESTD
Cal Date : 22-DEC-2009 21:08 Cal File: 008f0801.d
Als bottle: 34 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-939-1.sub
Target Version: 3.50 Sample Matrix: Water

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	10.00000	Volume of final extract (mL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	
$ 2 2,4-Dichlorophenylacetic acid					CAS #: 19719-28-9	
7.706	7.707	-0.001	4924688	559.242	5.6	
7 2,4-D					CAS #: 94-75-7	
8.770	8.771	-0.001	2084094	196.857	2.0	
9 2,4,5-TP					CAS #: 93-72-1	
9.590	9.592	-0.002	8507091	188.196	1.9	(M)

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd3a.i/122209h.b/034f3401.d
Date : 23-DEC-2009 07:48
Client ID: HBLK01LCS
Sample Info: |120200189611|
Volume Injected (uL): 1.0
Column phase: Rtx-CLPI

Instrument: ecd3a.i
Operator: HXJ1
Column diameter: 0.25

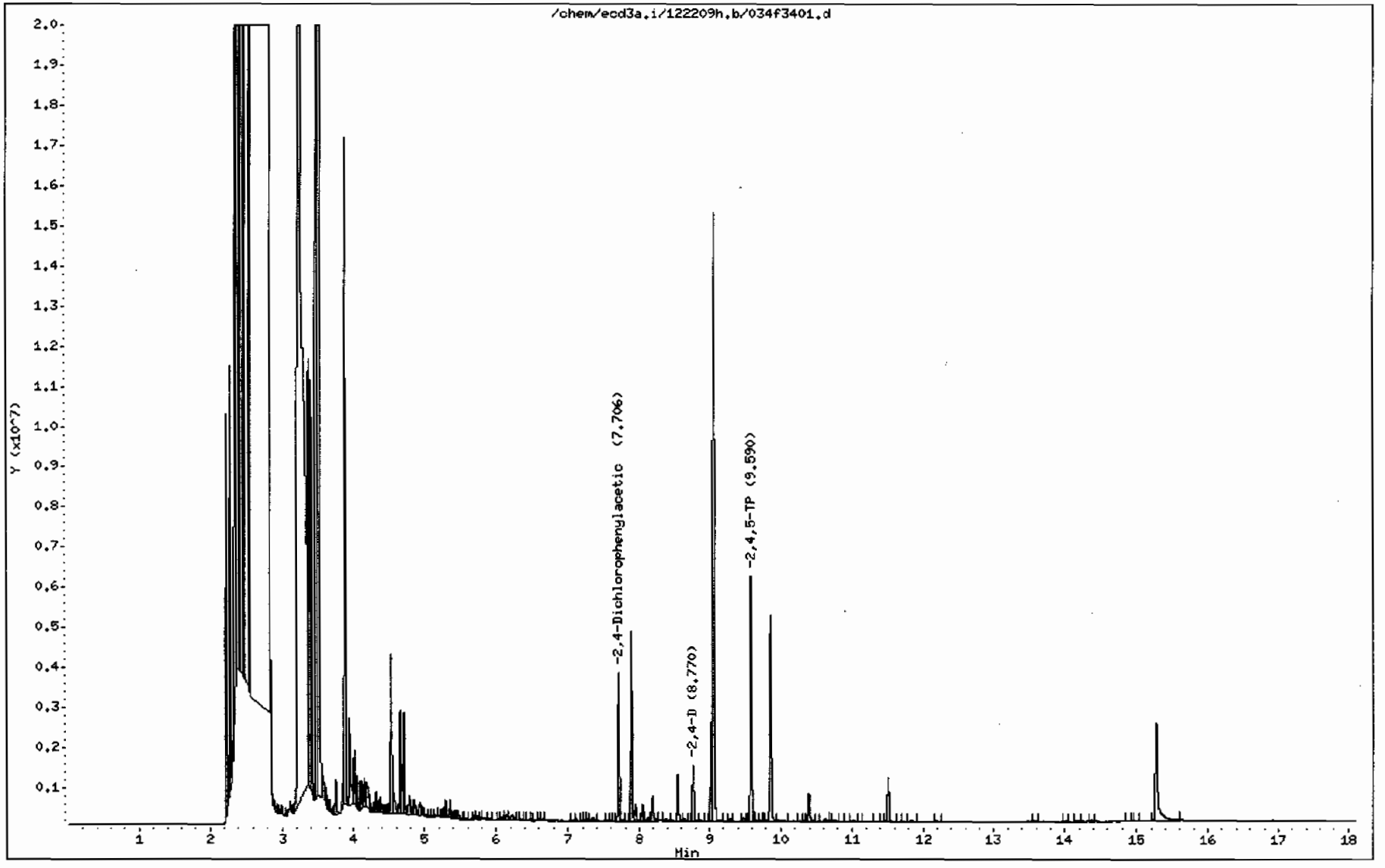

Comment: Manually Integrated
Data File: /chem/ecd3a.i/122209h.b/034f3401.d
Operator: HXJ1
Injection Date: 23-DEC-2009 07:48
Instrument: ecd3a.i
Client Sample ID: HBLK01LCS

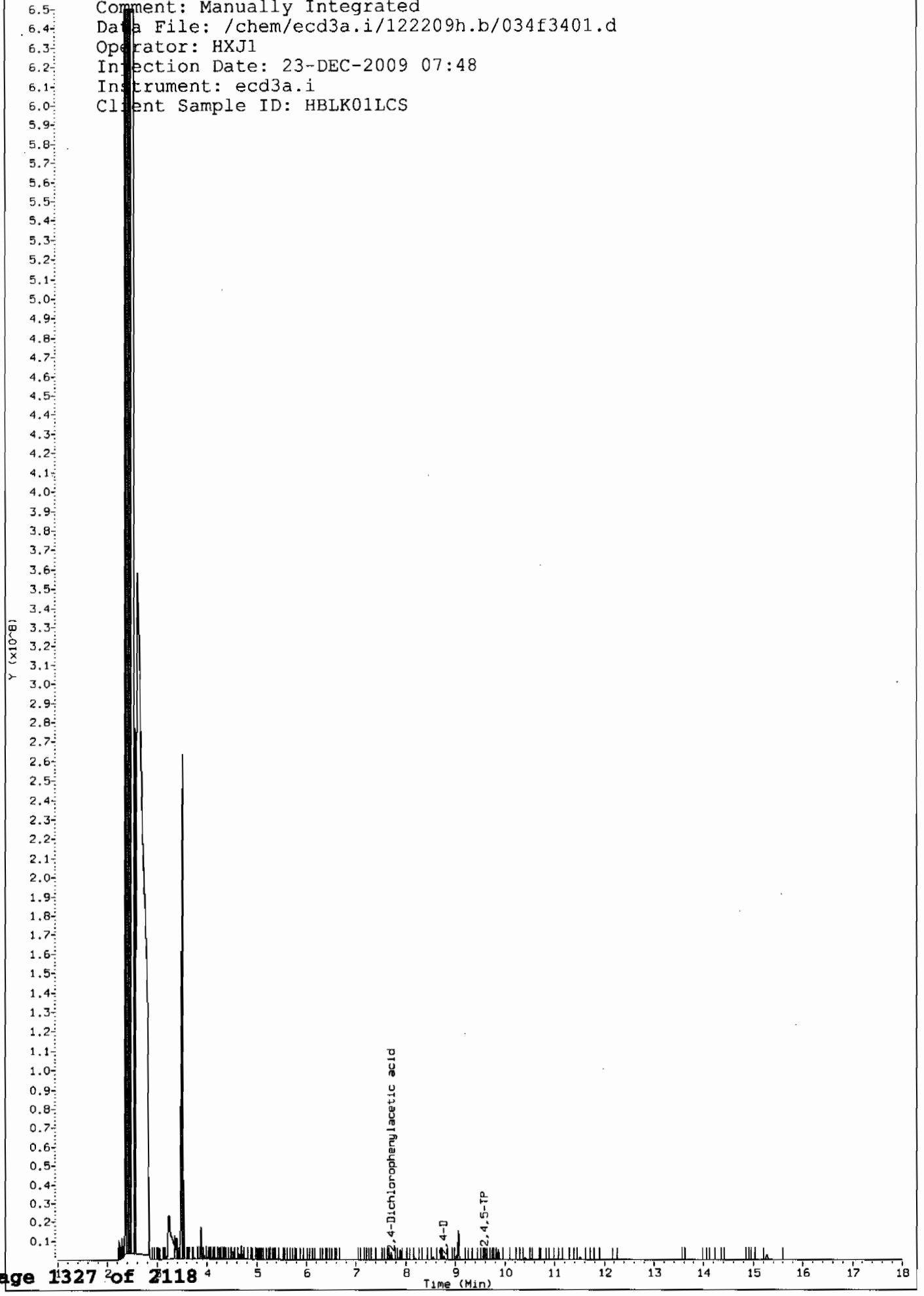

Comment: Before manual integration
Data File: /chem/ecd3a.i/122209h.b/orig-034f3401.d
Operator: HXJ1
Injection Date: 23-DEC-2009 07:48
Instrument: ecd3a.i
Client Sample ID: HBLK01LCS

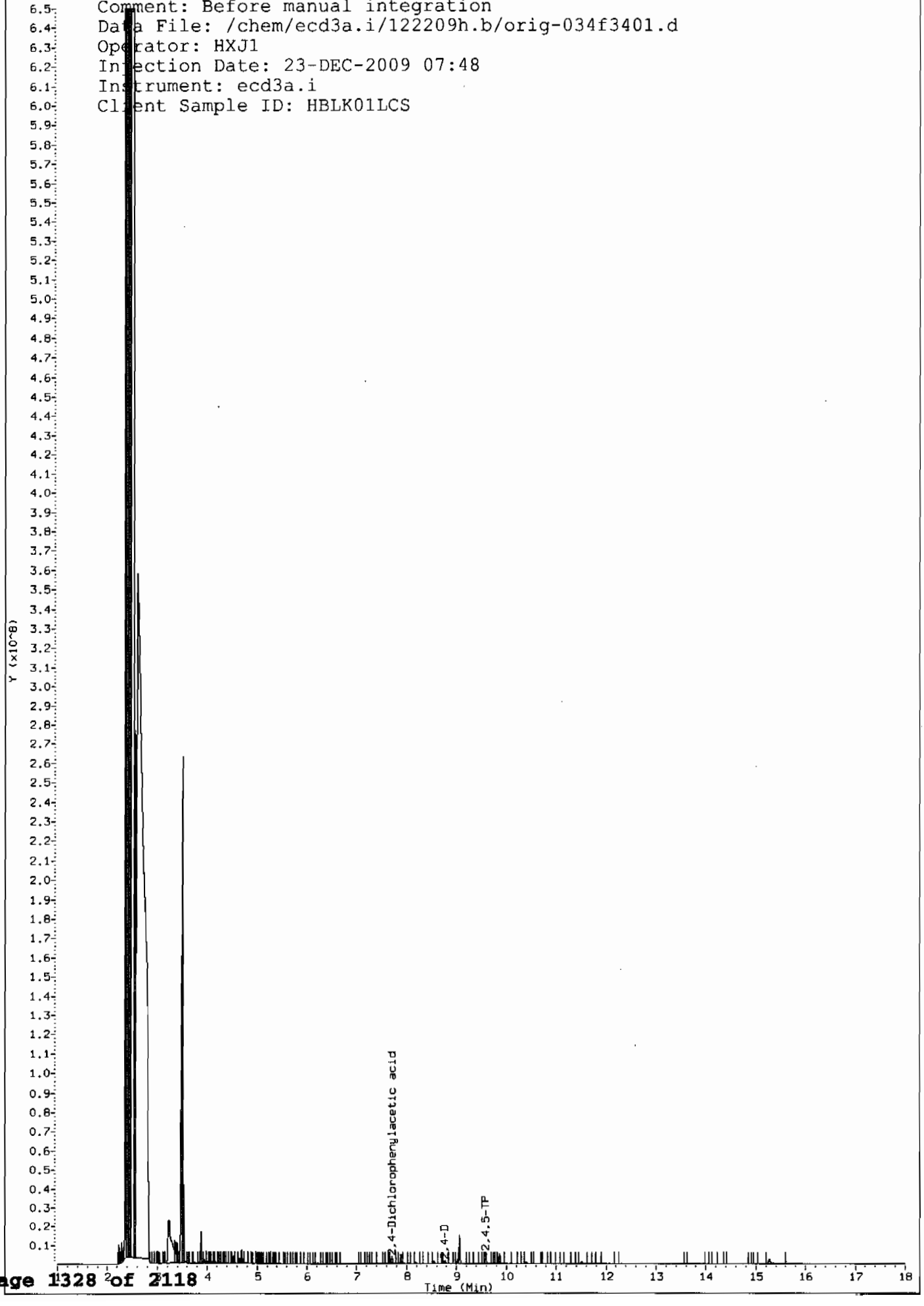

GEL Laboratories LLC

Rtx-CLPII

Data file : /chem/ecd3a.i/122209h.b/034b3401.d
Lab Smp Id: 1202001896 Client Smp ID: HBLK01LCS
Inj Date : 23-DEC-2009 07:48
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |1202001896|1|
Misc Info : |ECDTPH_1L|935579|SVH|LANL|SOIL|WST03-10-2147|||
Comment :
Method : /chem/ecd3a.i/122209h.b/ECD3-B-HERB-122209h.m
Meth Date : 23-Dec-2009 17:38 hea01125 Quant Type: ESTD
Cal Date : 22-DEC-2009 21:08 Cal File: 008b0801.d
Als bottle: 34 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-939-1.sub
Target Version: 3.50 Sample Matrix: Water
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	10.00000	Volume of final extract (mL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)
$ 2 2,4-Dichlorophenylacetic acid					CAS #: 19719-28-9
7.981	7.982	-0.001	22714756	474.692	4.7
7 2,4-D					CAS #: 94-75-7
9.131	9.133	-0.002	8549544	150.584	1.5
9 2,4,5-TP					CAS #: 93-72-1
9.966	9.967	-0.001	32845577	157.603	1.6

Data File: /chem/ecd3a.i/122209h.b/034b3401.d
Date : 23-DEC-2009 07:48
Client ID: HBLK01LCS
Sample Info: |12020018961|
Volume Injected (uL): 1.0
Column phase: Rtx-CLPII

Instrument: ecd3a.i
Operator: HXJ1
Column diameter: 0.25

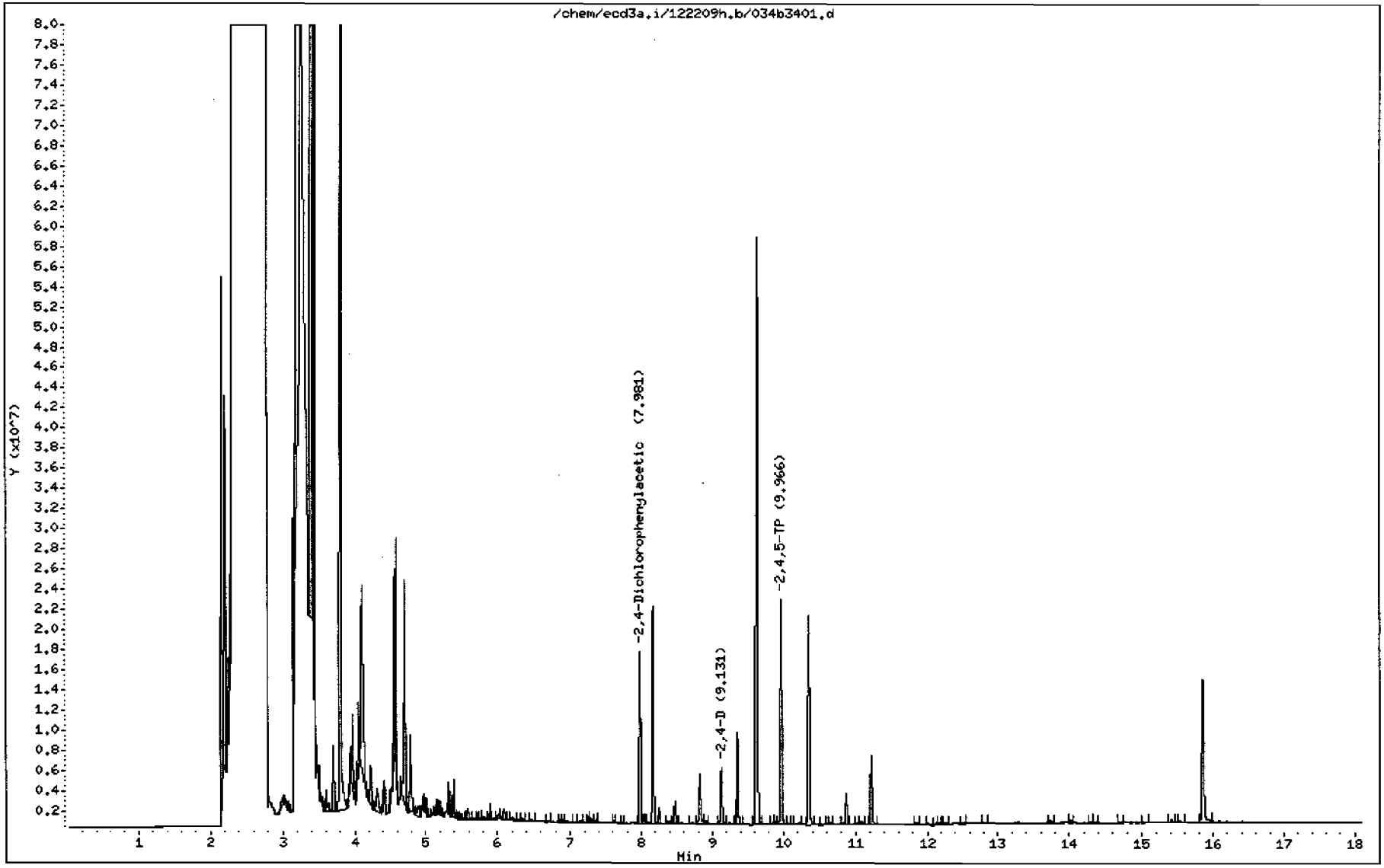

Herbicide
Certificate of Analysis
Sample Summary

SDG Number:	10-939-1	**Date Collected:**	12/14/2009 12:00	**Matrix:**	TCLP R
Lab Sample ID:	1202001897	**Date Received:**	12/16/2009 09:10		
Client Sample:	QC for batch 935578	**Client:**	LANL010	**Project:**	QC
Client ID:	WST03-10-2147MS	**Method:**	SW846 8151A	**SOP Ref:**	GL-OA-E-011
Batch ID:	935579	**Inst:**	ECD3A.I	**Dilution:**	1
Run Date:	12/23/2009 08:37	**Analyst:**	HXJ1	**Inj. Vol:**	1 uL
Prep Date:	12/22/2009 17:21	**Aliquot:**	5 mL	**Final Volume:**	10 mL
Data File:	036f3601.d	**Column:**	1 Rtx-CLPI	**Level:**	LOW
	036b3601.d		2 Rtx-CLPII		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
94-75-7	2,4-D		0.422	mg/L	0.0166	0.050	1
93-72-1	2,4,5-TP		0.399	mg/L	0.0166	0.050	1

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Rtx-CLPI

Data file : /chem/ecd3a.i/122209h.b/036f3601.d
Lab Smp Id: 1202001897 Client Smp ID: WST03-10-2147MS
Inj Date : 23-DEC-2009 08:37
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |1202001897|1|
Misc Info : |ECDTPH_1L|935579|SVH|MS|SOIL|MS|||
Comment :
Method : /chem/ecd3a.i/122209h.b/ECD3-F-HERB-122209h.m
Meth Date : 28-Dec-2009 14:03 tif01533 Quant Type: ESTD
Cal Date : 22-DEC-2009 21:08 Cal File: 008f0801.d
Als bottle: 36 QC Sample: MS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-939-1.sub
Target Version: 3.50 Sample Matrix: Water
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	10.00000	Volume of final extract (mL)
Vo	5.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)
$ 2 2,4-Dichlorophenylacetic acid					CAS #: 19719-28-9
7.706	7.707	-0.001	5241546	595.224	1190
7 2,4-D					CAS #: 94-75-7
8.767	8.771	-0.004	2234283	211.043	422
9 2,4,5-TP					CAS #: 93-72-1
9.589	9.592	-0.003	9018305	199.505	399

Data File: /chem/ecd3a.i/122209h.b/036f3601.d
Date : 23-DEC-2009 08:37
Client ID: WST03-10-2147MS
Sample Info: |1202001897|1|
Volume Injected (uL): 1.0
Column phase: Rtx-CLPI

Instrument: ecd3a.i

Operator: HXJ1
Column diameter: 0.25

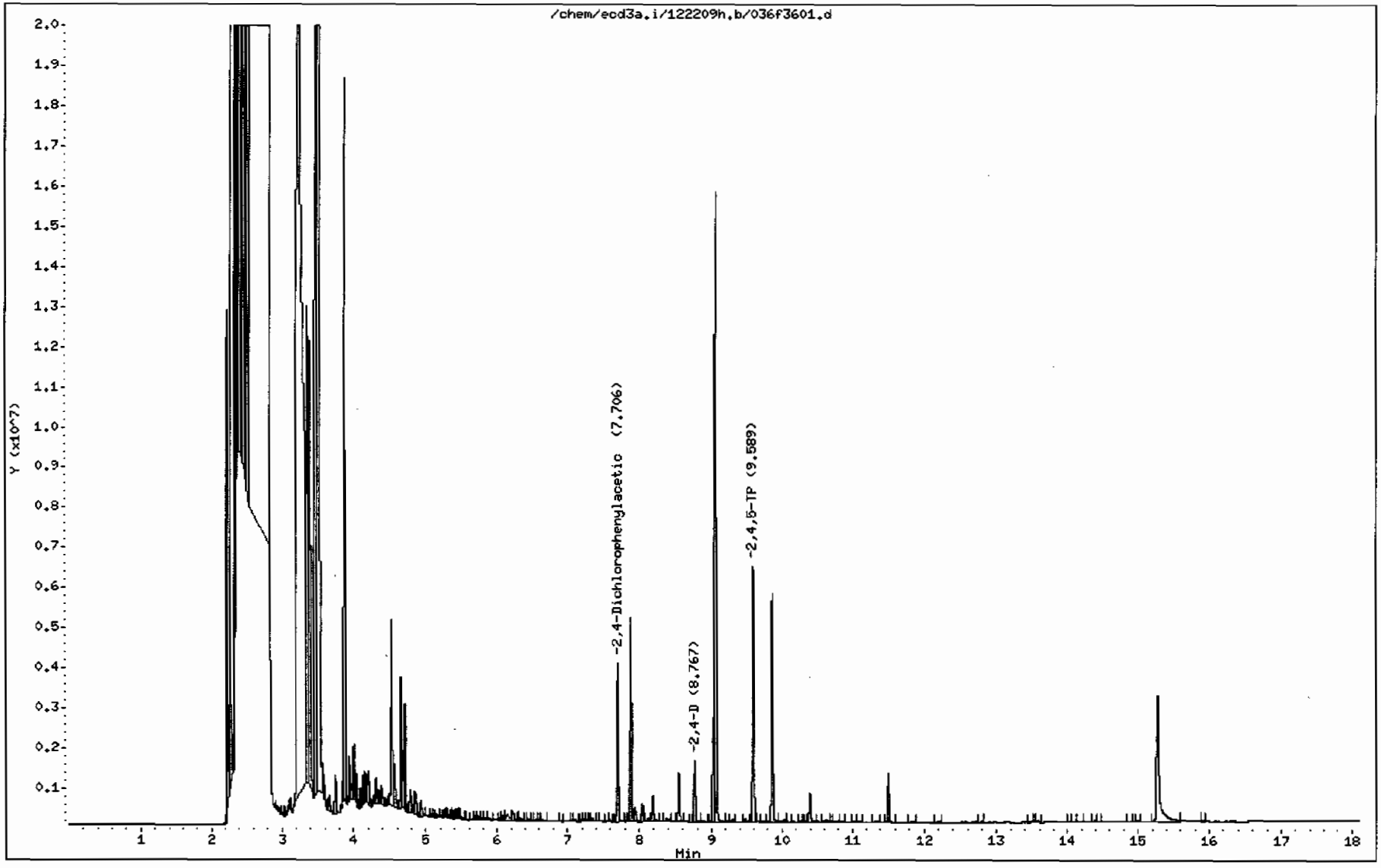

GEL Laboratories LLC

Rtx-CLPII

Data file : /chem/ecd3a.i/122209h.b/036b3601.d
Lab Smp Id: 1202001897 Client Smp ID: WST03-10-2147MS
Inj Date : 23-DEC-2009 08:37
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |1202001897|1|
Misc Info : |ECDTPH_1L|935579|SVH|MS|SOIL|MS|||
Comment :
Method : /chem/ecd3a.i/122209h.b/ECD3-B-HERB-122209h.m
Meth Date : 23-Dec-2009 17:38 hea01125 Quant Type: ESTD
Cal Date : 22-DEC-2009 21:08 Cal File: 008b0801.d
Als bottle: 36 QC Sample: MS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-939-1.sub
Target Version: 3.50 Sample Matrix: Water
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	10.00000	Volume of final extract (mL)
Vo	5.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	
$ 2 2,4-Dichlorophenylacetic acid					CAS #: 19719-28-9	
7.980	7.982	-0.002	23159498	483.986	968	
7 2,4-D					CAS #: 94-75-7	
9.129	9.133	-0.004	8784564	154.724	309	(M)
9 2,4,5-TP					CAS #: 93-72-1	
9.964	9.967	-0.003	34697105	166.487	333	

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd3a.i/122209h.b/036b3601.d
Date : 23-DEC-2009 08:37
Client ID: WST03-10-2147MS
Sample Info: |1202001897|1|
Volume Injected (uL): 1.0
Column phase: Rtx-CLPII

Instrument: ecd3a.i
Operator: HXJ1
Column diameter: 0.25

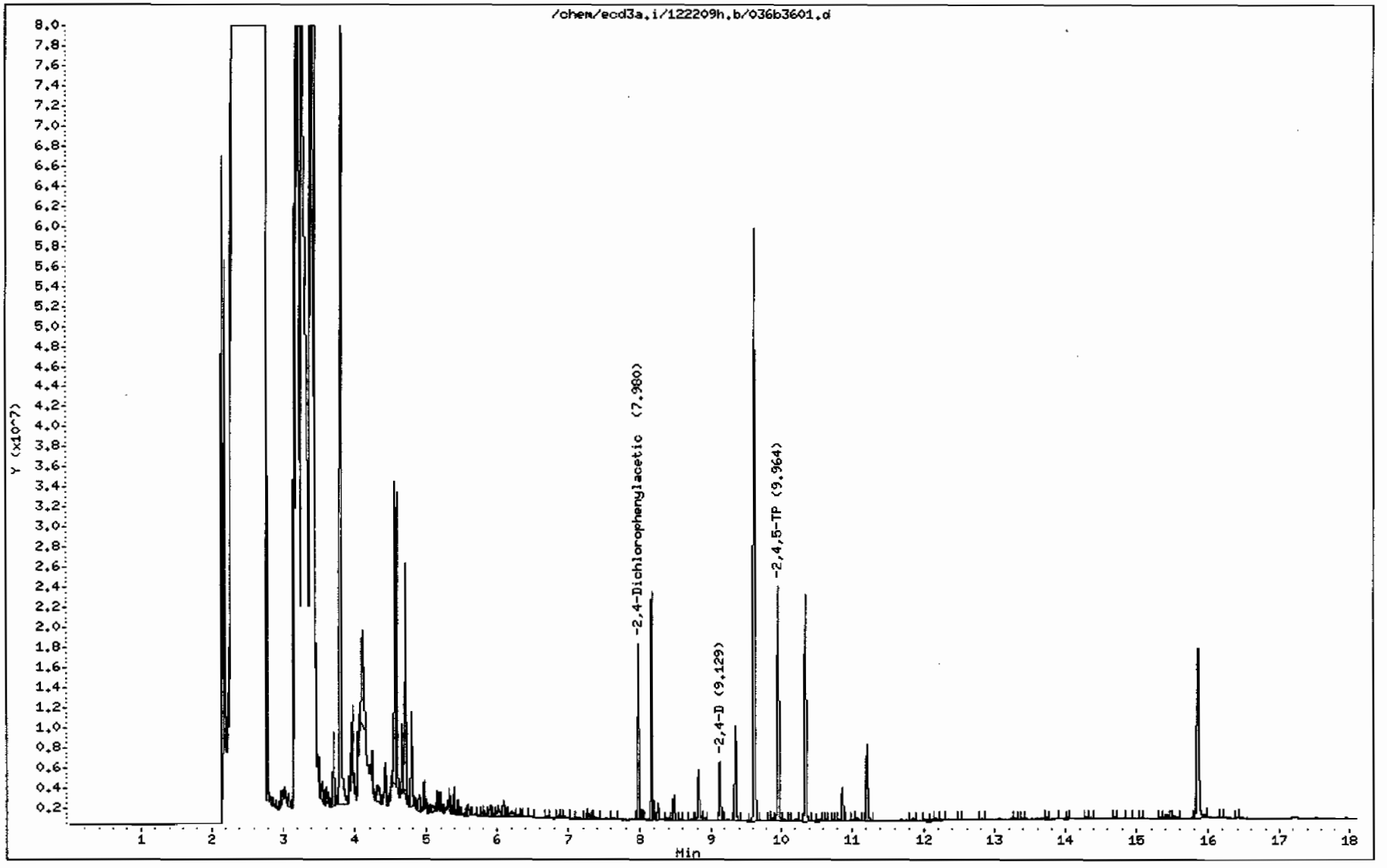

Comment: Manually Integrated
Data File: /chem/ecd3a.i/122209h.b/036b3601.d
Operator: HXJ1
Injection Date: 23-DEC-2009 08:37
Instrument: ecd3a.i
Client Sample ID: WST03-10-2147MS

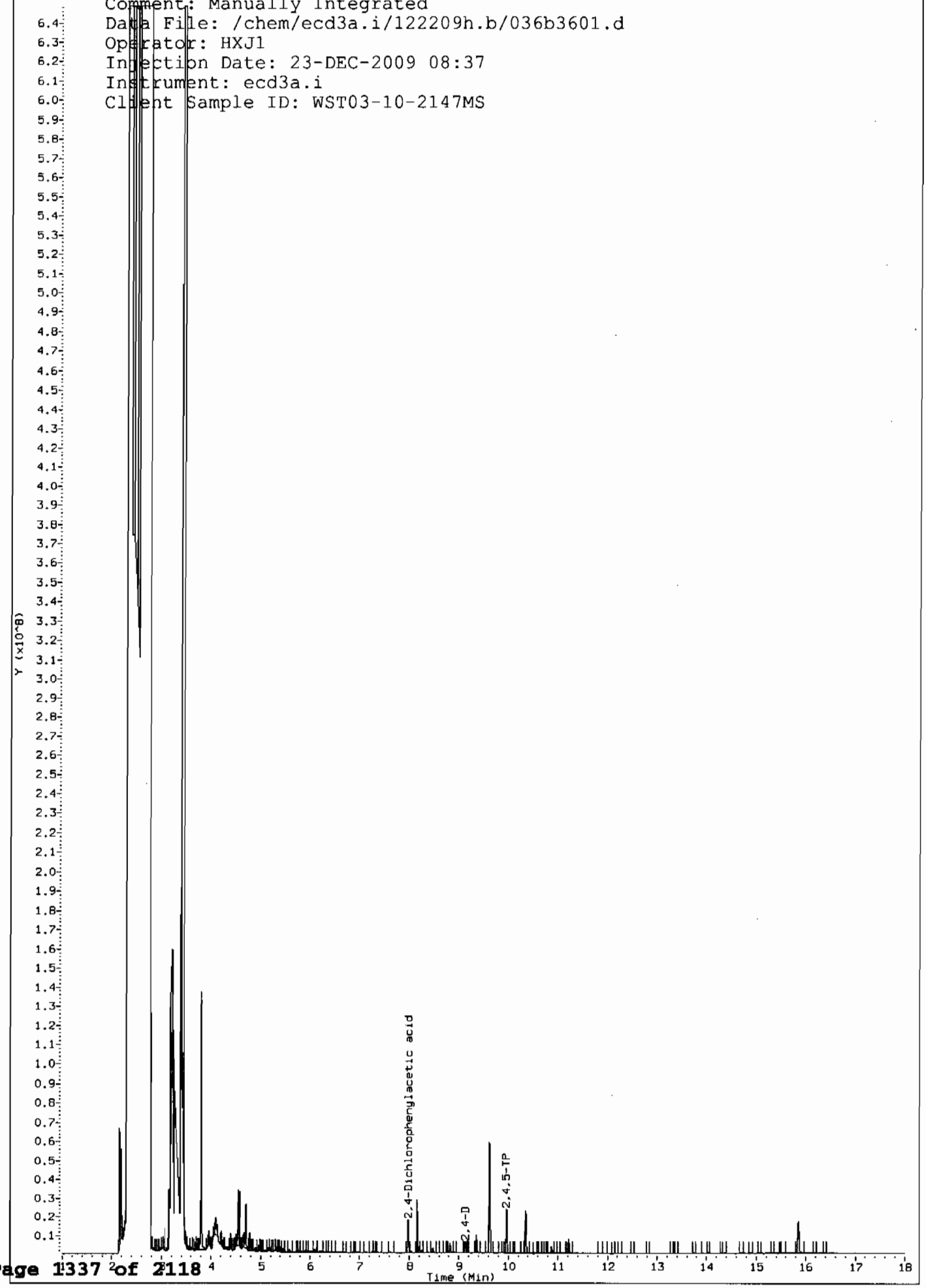

Comment: Before manual integration
Data File: /chem/ecd3a.i/122209h.b/orig-036b3601.d
Operator: HXJ1
Injection Date: 23-DEC-2009 08:37
Instrument: ecd3a.i
Client Sample ID: WST03-10-2147MS

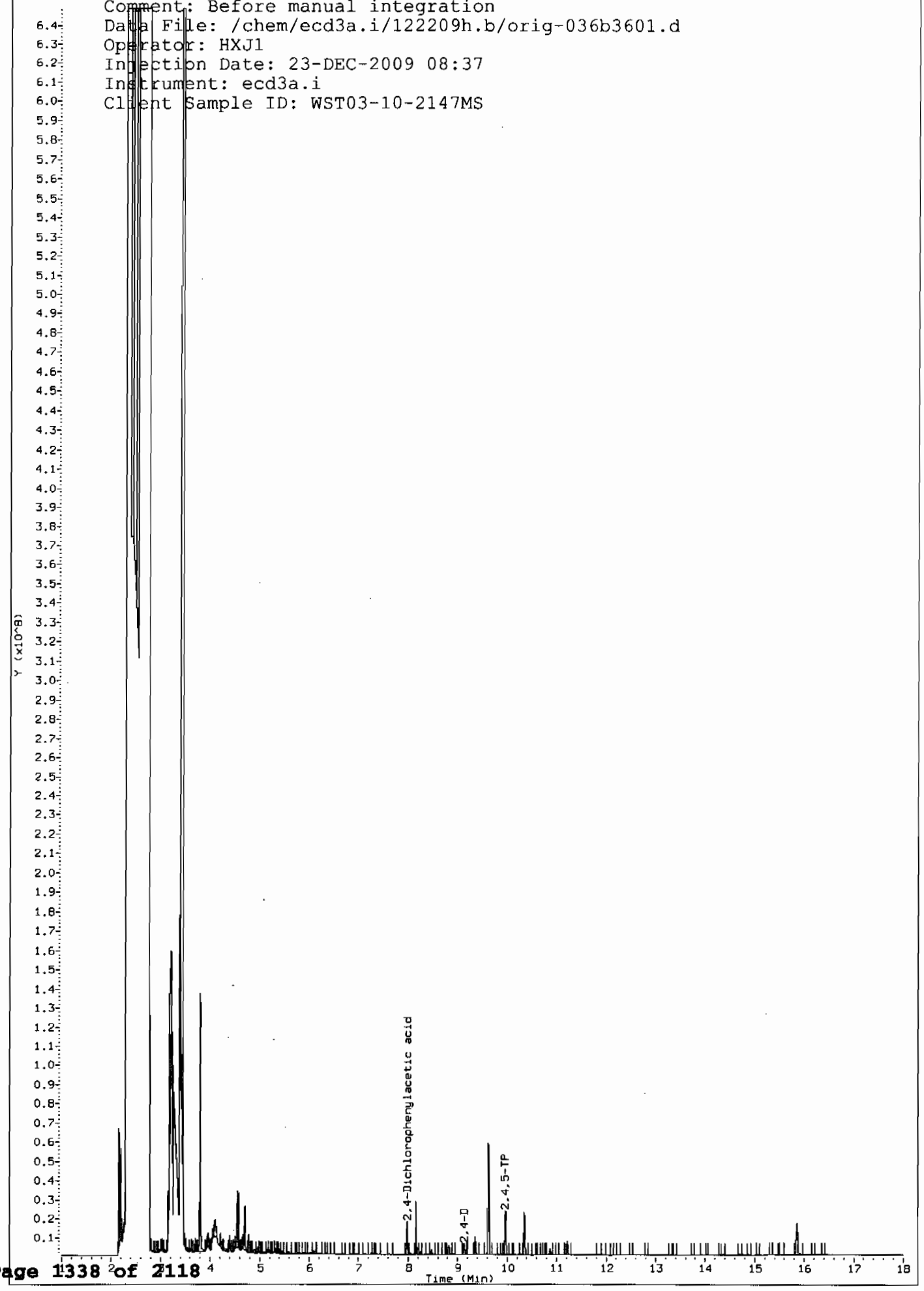

Herbicide
Certificate of Analysis
Sample Summary

SDG Number:	10–939–1	**Date Collected:**	12/14/2009 12:00	**Matrix:**	TCLP R
Lab Sample ID:	1202001898	**Date Received:**	12/16/2009 09:10		
Client Sample:	QC for batch 935578	**Client:**	LANL010	**Project:**	QC
Client ID:	WST03–10–2147MSD	**Method:**	SW846 8151A	**SOP Ref:**	GL–OA–E–011
Batch ID:	935579	**Inst:**	ECD3A.I	**Dilution:**	1
Run Date:	12/23/2009 09:02	**Analyst:**	HXJ1	**Inj. Vol:**	1 uL
Prep Date:	12/22/2009 17:21	**Aliquot:**	5 mL	**Final Volume:**	10 mL
Data File:	037f3701.d	**Column:**	1 Rtx–CLPI	**Level:**	LOW
	037b3701.d		2 Rtx–CLPII		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
94–75–7	2,4–D		0.408	mg/L	0.0166	0.050	1
93–72–1	2,4,5–TP		0.380	mg/L	0.0166	0.050	1

GEL Laboratories LLC

Rtx-CLPI

Data file : /chem/ecd3a.i/122209h.b/037f3701.d
Lab Smp Id: 1202001898 Client Smp ID: WST03-10-2147MSD
Inj Date : 23-DEC-2009 09:01
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |1202001898|1|
Misc Info : |ECDTPH_1L|935579|SVH|MSD|SOIL|MSD|||
Comment :
Method : /chem/ecd3a.i/122209h.b/ECD3-F-HERB-122209h.m
Meth Date : 28-Dec-2009 14:03 tif01533 Quant Type: ESTD
Cal Date : 22-DEC-2009 21:08 Cal File: 008f0801.d
Als bottle: 37 QC Sample: MSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-939-1.sub
Target Version: 3.50 Sample Matrix: Water
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	10.00000	Volume of final extract (mL)
Vo	5.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	
$ 2 2,4-Dichlorophenylacetic acid						CAS #: 19719-28-9	
	7.706	7.707	-0.001	5001610	567.977	1140	
7 2,4-D						CAS #: 94-75-7	
	8.767	8.771	-0.004	2160594	204.083	408	
9 2,4,5-TP						CAS #: 93-72-1	
	9.589	9.592	-0.003	8581525	189.842	380	(M)

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd3a.i/122209h.b/037f3701.d
Date : 23-DEC-2009 09:01
Client ID: WST03-10-2147MSD
Sample Info: |12020018981|1|
Volume Injected (uL): 1.0
Column phase: Rtx-CLPI

Instrument: ecd3a.i
Operator: HXJ1
Column diameter: 0.25

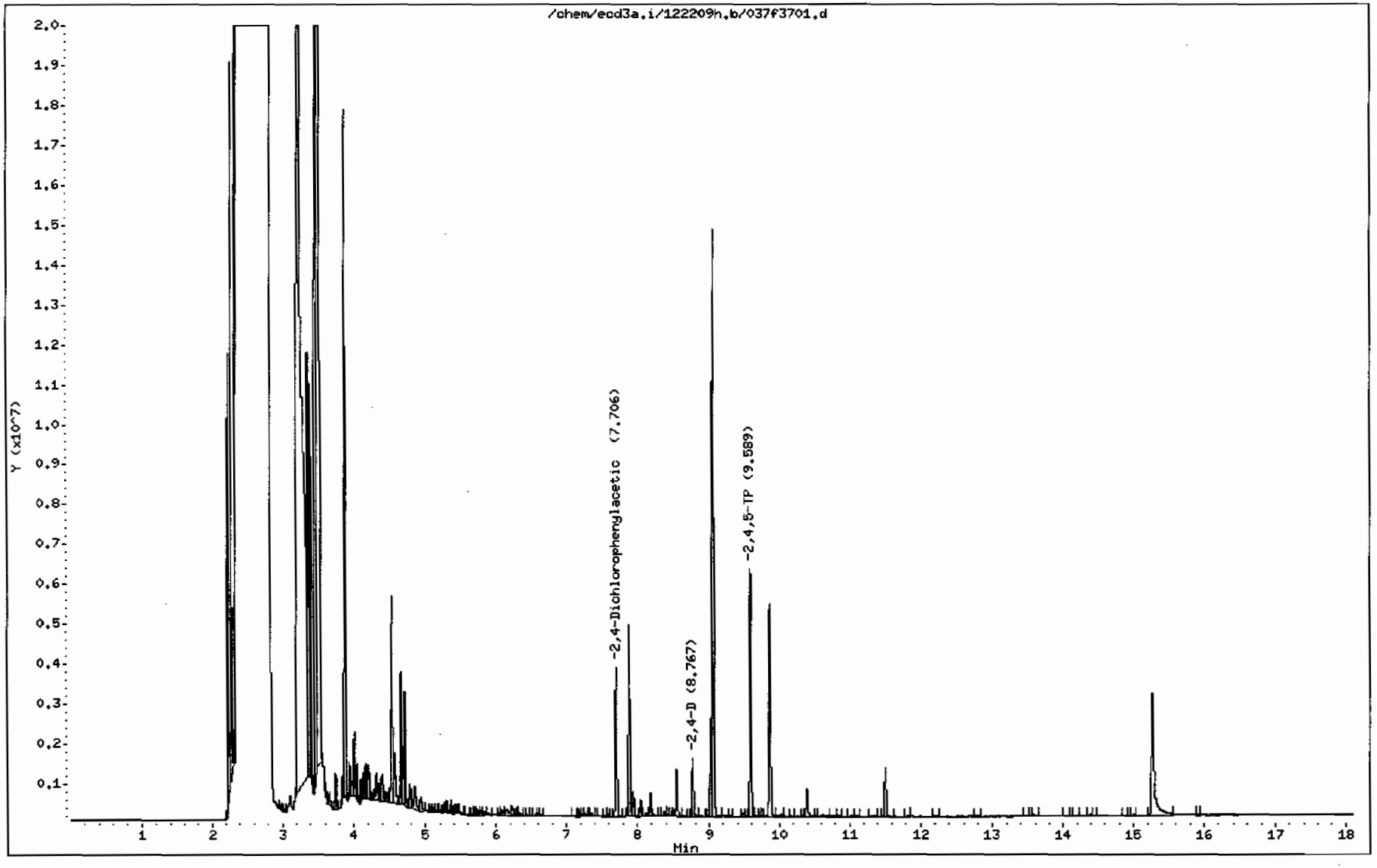

Comment: Manually Integrated
Data File: /chem/ecd3a.i/122209h.b/037f3701.d
Operator: HXJ1
Injection Date: 23-DEC-2009 09:01
Instrument: ecd3a.i
Client Sample ID: WST03-10-2147MSD

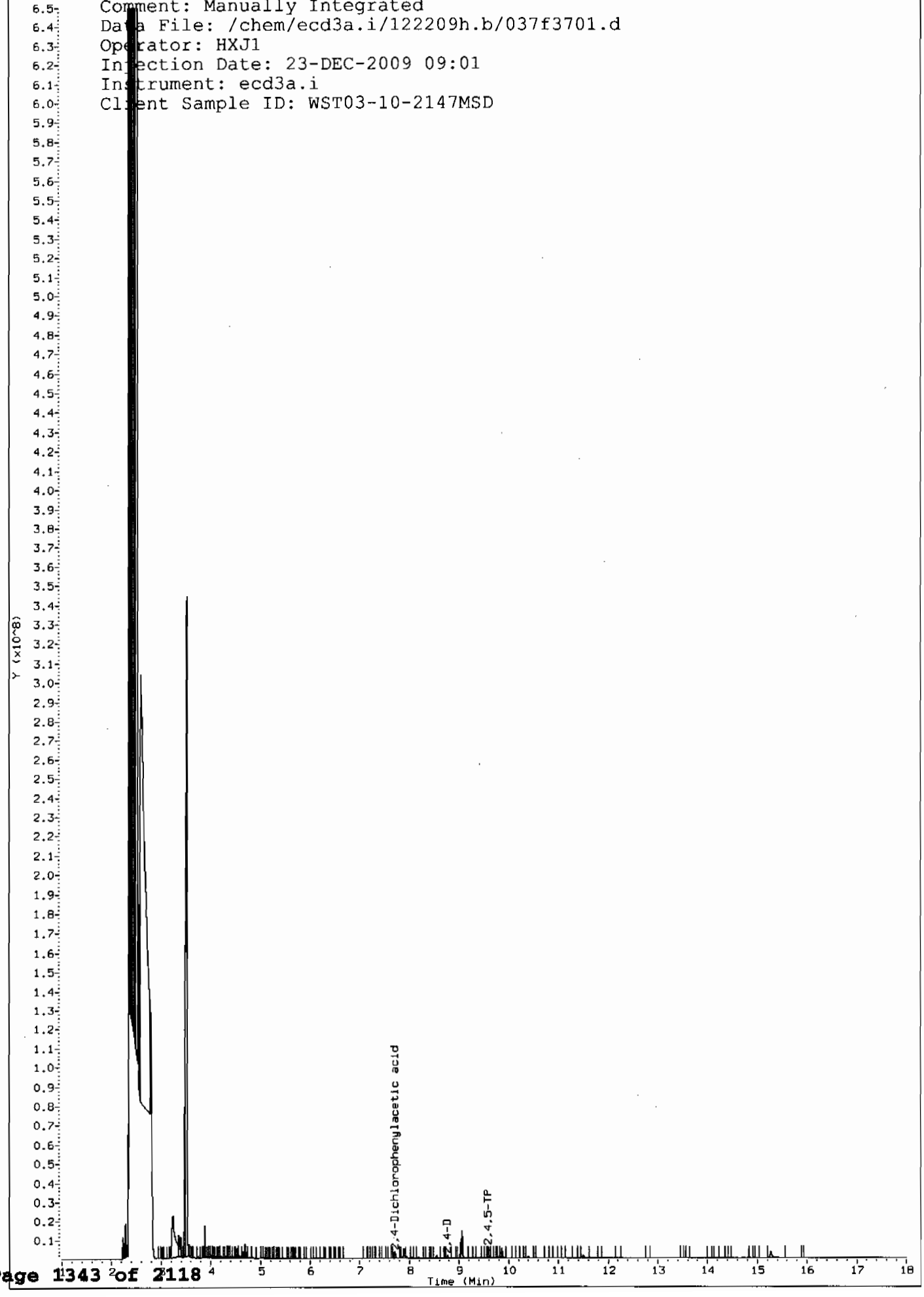

Comment: Before manual integration
Data File: /chem/ecd3a.i/122209h.b/orig-037f3701.d
Operator: HXJ1
Injection Date: 23-DEC-2009 09:01
Instrument: ecd3a.i
Client Sample ID: WST03-10-2147MSD

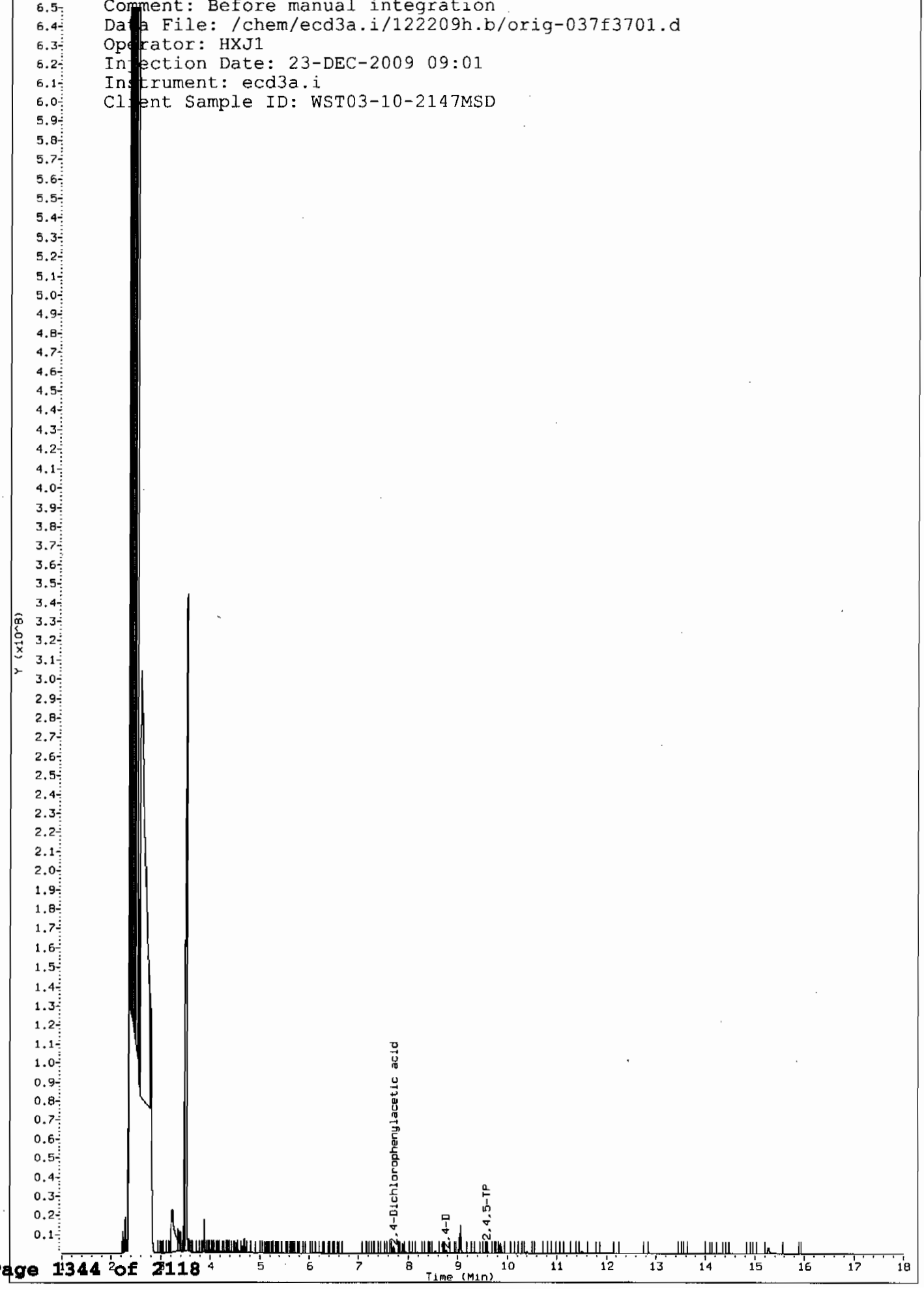

GEL Laboratories LLC

Rtx-CLPII

Data file : /chem/ecd3a.i/122209h.b/037b3701.d
Lab Smp Id: 1202001898 Client Smp ID: WST03-10-2147MSD
Inj Date : 23-DEC-2009 09:02
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |1202001898|1|
Misc Info : |ECDTPH_1L|935579|SVH|MSD|SOIL|MSD|||
Comment :
Method : /chem/ecd3a.i/122209h.b/ECD3-B-HERB-122209h.m
Meth Date : 23-Dec-2009 17:38 hea01125 Quant Type: ESTD
Cal Date : 22-DEC-2009 21:08 Cal File: 008b0801.d
Als bottle: 37 QC Sample: MSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-939-1.sub
Target Version: 3.50 Sample Matrix: Water
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	10.00000	Volume of final extract (mL)
Vo	5.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	
$ 2 2,4-Dichlorophenylacetic acid					CAS #: 19719-28-9	
7.981	7.982	-0.001	23870713	498.849	998	
7 2,4-D					CAS #: 94-75-7	
9.130	9.133	-0.003	8429336	148.467	297	(M)
9 2,4,5-TP					CAS #: 93-72-1	
9.965	9.967	-0.002	32851064	157.629	315	

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd3a.i/122209h.b/037b3701.d

Date : 23-DEC-2009 09:02

Client ID: WST03-10-2147MSD

Sample Info: |1202001898111

Volume Injected (uL): 1.0

Column phase: Rtx-CLPII

Instrument: ecd3a.i

Operator: HXJ1

Column diameter: 0.25

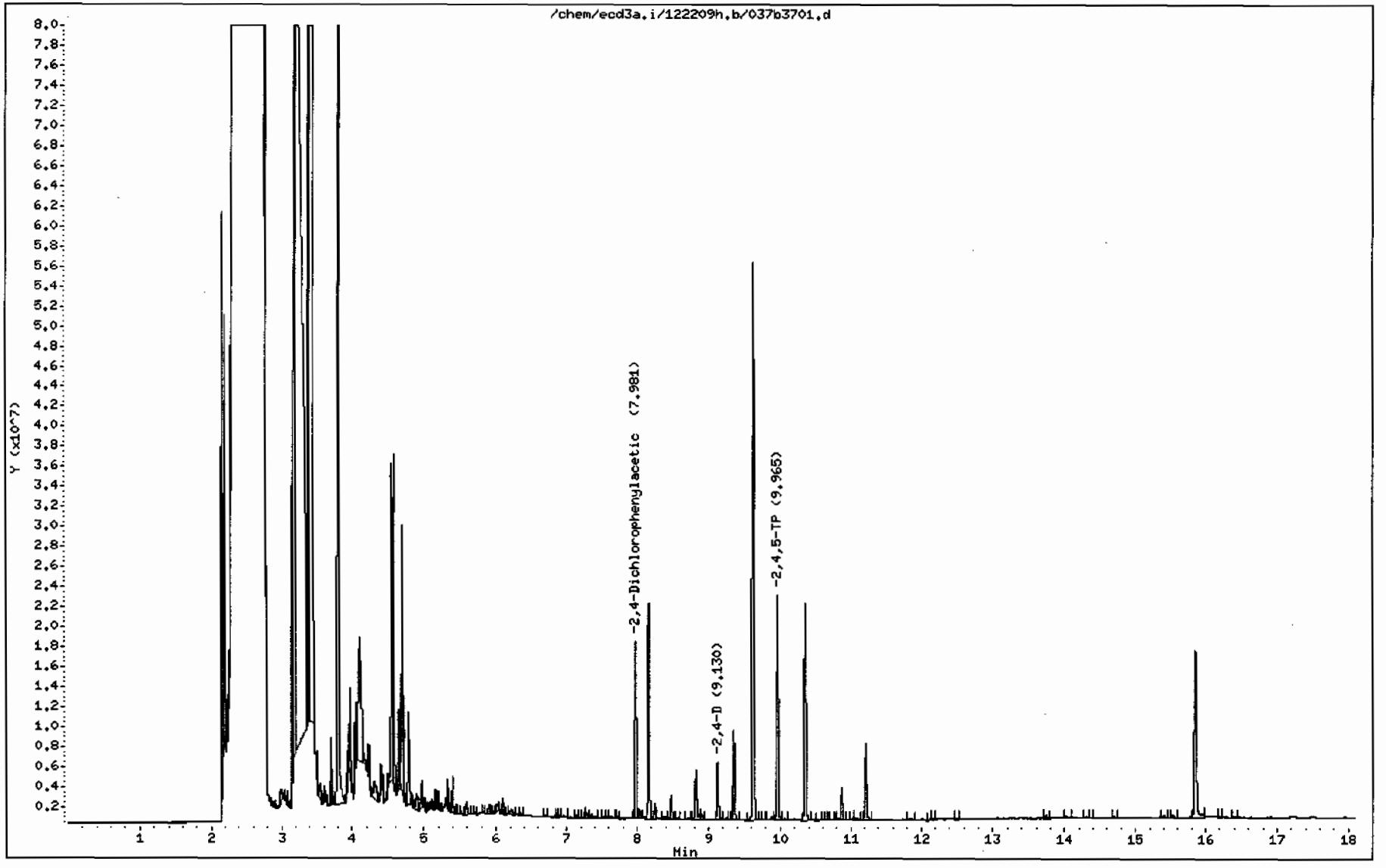

Comment: Manually Integrated
Data File: /chem/ecd3a.i/122209h.b/037b3701.d
Operator: HXJ1
Injection Date: 23-DEC-2009 09:02
Instrument: ecd3a.i
Client Sample ID: WST03-10-2147MSD

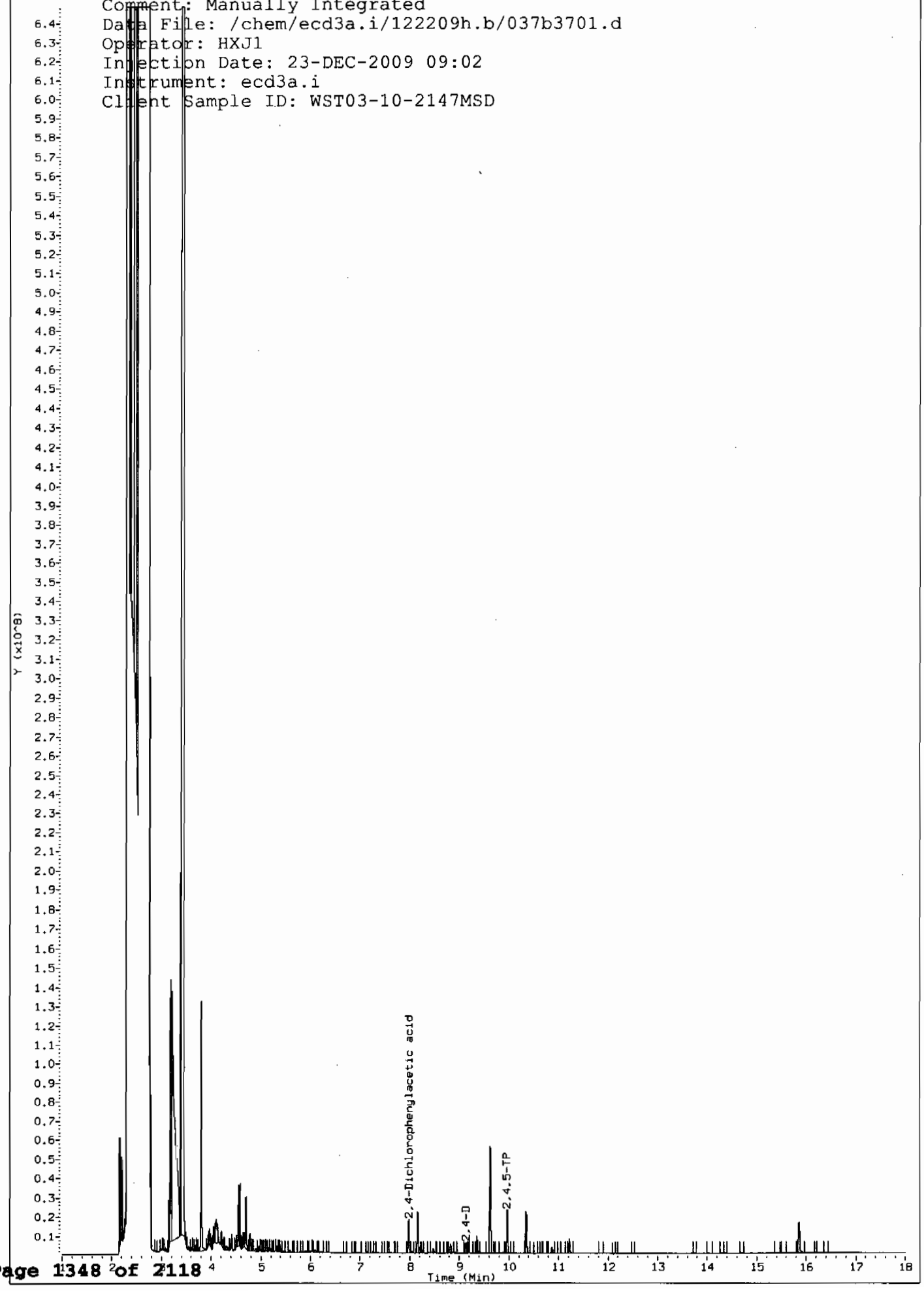

Comment: Before manual integration
Data File: /chem/ecd3a.i/122209h.b/orig-037b3701.d
Operator: HXJ1
Injection Date: 23-DEC-2009 09:02
Instrument: ecd3a.i
Client Sample ID: WST03-10-2147MSD

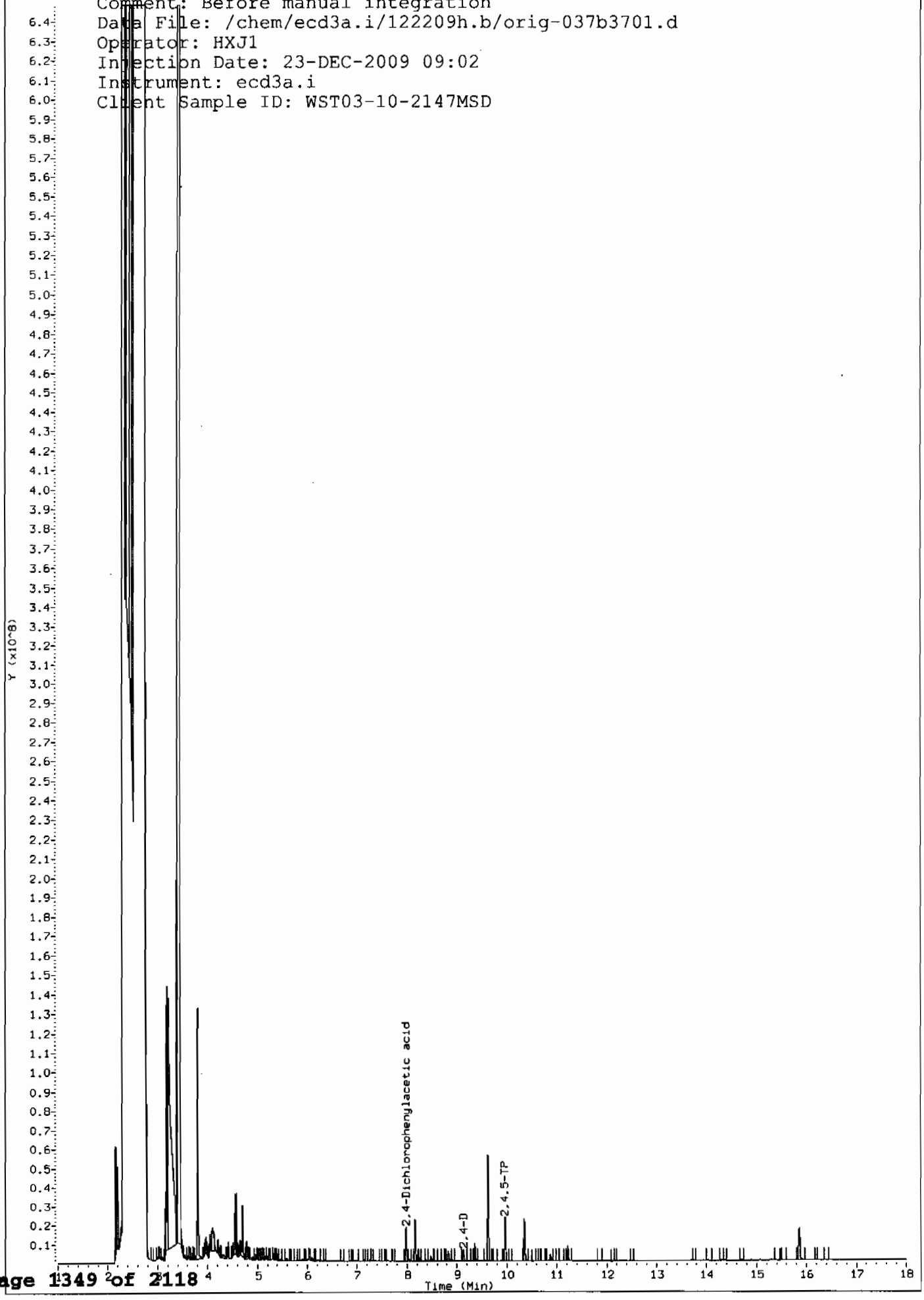

MISCELLANEOUS DATA

GEL ORGANIC RUN LOG INSTRUMENT ID: ECD3

DATE: 12/23/2009 METHOD: ECD3-F-HERB-122209h.m OPERATOR:HXJ1 REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT DA385

Calibration & QC Information
Initial Calibration Dates: See Calibration History and Standards Log
Initial Calibration Std ID's: See Calibration History and Standards Log
GEL SOP GL-OA-E-041
EPA Method: 8081
8081A
Sequence Number:122209h Injection Volume: 1.0 uL

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001f0101.d	WHB091117-02	HXJ1	22-DEC-2009 18:15		122209h	1.0		CLEAN
002f0201.d	WHB091030-01	HXJ1	22-DEC-2009 18:39		122209h	1.0		LEVEL1
003f0301.d	WHB091030-02	HXJ1	22-DEC-2009 19:04		122209h	1.0		LEVEL2
004f0401.d	WHB091030-03	HXJ1	22-DEC-2009 19:29		122209h	1.0		LEVEL3
005f0501.d	WHB091030-04	HXJ1	22-DEC-2009 19:54		122209h	1.0		LEVEL4
006f0601.d	WHB091030-05	HXJ1	22-DEC-2009 20:18		122209h	1.0		LEVEL5
007f0701.d	WHB091030-06	HXJ1	22-DEC-2009 20:43		122209h	1.0		LEVEL6
008f0801.d	WHB091030-07	HXJ1	22-DEC-2009 21:08		122209h	1.0		LEVEL7
009f0901.d	WHB091222-08	HXJ1	22-DEC-2009 21:33		122209h	1.0		ICV. USE. PASSES BOTH COLUMNS
010f1001.d	WHB091222-08	HXJ1	22-DEC-2009 21:57		122209h	1.0		DUSE. ACCIDENTALY ADDED EXTRA CHECK
011f1101.d	WHB091117-02	HXJ1	22-DEC-2009 22:22	934950	122209h	1.0		CLEAN
012f1201.d	1201995775	HXJ1	22-DEC-2009 22:47	934950	10-753-1	1.0	TB	USE. PASSES BOTH COLUMNS, UPLOAD HIGHER RESULTS.
013f1301.d	1201996842	HXJ1	22-DEC-2009 23:11	934950	10-899-1	1.0	TB	USE. PASSES BOTH COLUMNS, UPLOAD HIGHER RESULTS.
014f1401.d	1201998947	HXJ1	22-DEC-2009 23:36	934950	243004	1.0	TB	USE. PASSES BOTH COLUMNS, UPLOAD HIGHER RESULTS.
015f1501.d	1202000329	HXJ1	23-DEC-2009 00:01	934950	10-899-1	1.0	MB	USE. PASSES BOTH COLUMNS, UPLOAD HIGHER RESULTS.

Instrument Batch: /chem/ecd3a.i/122209h.b Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
016f1601.d	1202000330	HXJ1	23-DEC-2009 00:25	934950	10-899-1	1.0	LCS	USE. PASSES BOTH COLUMNS, UPLOAD HIGHER RESULTS.

017f1701.d	242168001	HXJ1	23-DEC-2009 00:50	934950	10-753-1	1.0	LANL	USE. PASSES BOTH COLUMNS, UPLOAD HIGHER RESULTS.
018f1801.d	WHB091222-08	HXJ1	23-DEC-2009 01:14		122209h	1.0		USE. DICHLOR, DICAMBA LO (B) ALL PASSING (F)
019f1901.d	WHB091117-02	HXJ1	23-DEC-2009 01:39		122209h	1.0		CLEAN
020f2001.d	242168002	HXJ1	23-DEC-2009 02:04	934950	10-753-1	1.0	LANL	USE. PASSES BOTH COLUMNS, UPLOAD HIGHER RESULTS.
021f2101.d	1202000331	HXJ1	23-DEC-2009 02:28	934950	10-753-1	1.0	MS	USE. PASSES BOTH COLUMNS, UPLOAD HIGHER RESULTS.
022f2201.d	1202000332	HXJ1	23-DEC-2009 02:53	934950	10-753-1	1.0	MSD	USE. PASSES BOTH COLUMNS, UPLOAD HIGHER RESULTS.
023f2301.d	242306001	HXJ1	23-DEC-2009 03:17	934950	10-786-1	1.0	LANL	USE. PASSES BOTH COLUMNS, UPLOAD HIGHER RESULTS.
024f2401.d	242603002	HXJ1	23-DEC-2009 03:42	934950	10-753-1	1.0	LANL	USE. PASSES BOTH COLUMNS, UPLOAD HIGHER RESULTS.
025f2501.d	242306003	HXJ1	23-DEC-2009 04:06	934950	10-786-1	1.0	LANL	USE. PASSES BOTH COLUMNS, UPLOAD HIGHER RESULTS.
026f2601.d	242446001	HXJ1	23-DEC-2009 04:31	934950	10-832-1	1.0	LANL	USE. PASSES BOTH COLUMNS, UPLOAD HIGHER RESULTS.
027f2701.d	242785001	HXJ1	23-DEC-2009 04:55	934950	10-899-1	1.0	LANL	USE. PASSES BOTH COLUMNS, UPLOAD HIGHER RESULTS.
028f2801.d	242785002	HXJ1	23-DEC-2009 05:20	934950	10-899-1	1.0	LANL	USE. PASSES BOTH COLUMNS, UPLOAD HIGHER RESULTS.
029f2901.d	243004001	HXJ1	23-DEC-2009 05:45	934950	243004	1.0	ENRG	USE. PASSES BOTH COLUMNS, UPLOAD HIGHER RESULTS.
030f3001.d	WHB091222-08	HXJ1	23-DEC-2009 06:09		122209h	1.0		USE. MULTIPLE ANALYTES FAILING (B) DALAPON HI (F)
031f3101.d	WHB091117-02	HXJ1	23-DEC-2009 06:34	935579	122209h	1.0		CLEAN
032f3201.d	1201999915	HXJ1	23-DEC-2009 06:58	935579	10-939-1	1.0	TB	USE. PASSES BOTH COLUMNS, UPLOAD HIGHER RESULTS.
033f3301.d	1202001895	HXJ1	23-DEC-2009 07:23	935579	10-939-1	1.0	MB	USE. PASSES BOTH COLUMNS, UPLOAD HIGHER RESULTS.
034f3401.d	1202001896	HXJ1	23-DEC-2009 07:48	935579	10-939-1	1.0	LCS	USE. PASSES BOTH COLUMNS, UPLOAD HIGHER RESULTS.
035f3501.d	243010001	HXJ1	23-DEC-2009 08:12	935579	10-939-1	1.0	LANL	USE. PASSES BOTH COLUMNS, UPLOAD HIGHER RESULTS.

Instrument Batch: /chem/ecd3a.i/122209h.b Page: 2

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
036f3601.d	1202001897	HXJ1	23-DEC-2009 08:37	935579	10-939-1	1.0	MS	USE. PASSES BOTH COLUMNS, UPLOAD HIGHER RESULTS.
037f3701.d	1202001898	HXJ1	23-DEC-2009 09:01	935579	10-939-1	1.0	MSD	USE. PASSES BOTH COLUMNS, UPLOAD HIGHER RESULTS.
038f3801.d	WHB091222-08	HXJ1	23-DEC-2009 09:26		122209h	1.0		USE. MULTIPLE ANALYTES FAILING (B) MCPA LOW (F)
039f3901.d	WHB091117-02	HXJ1	23-DEC-2009 09:51		122209h	1.0		CLEAN

Instrument Batch: /chem/ecd3a.i/122209h.b Page: 3

Prep Logbook

The Extraction of Herbicides from Groundwater, Wastewater and Other Aqueous Samples

Batch ID: 935578 **Verified by:** _____

Analyst: Rodricous Corbett

Method: SW846 8151A Prep

Lab SOP: GL-OA-E-015 REV# 12

Instrument: Semi-Volatiles Manual

Sample ID	Run Date	Initial Volume (mL)	Initial pH	Int Ext pH	Sec Ext pH	Final Volume (mL)	Prepped Factor (mL/mL)
1201999915 TB	22-DEC-2009 17:21:37	5	5	13	1	10	2
1202001895 MB	22-DEC-2009 17:21:37	1000	5	13	1	10	0.01
1202001896 LCS	22-DEC-2009 17:21:37	1000	5	13	1	10	0.01
243010001	22-DEC-2009 17:21:37	5	5	13	1	10	2
1202001897 MS (243010001)	22-DEC-2009 17:21:37	5	5	13	1	10	2
1202001898 MSD (243010001)	22-DEC-2009 17:21:37	5	5	13	1	10	2

Type	Sample Id	Description	Serial Number	Spike Amt	Units
LCS	1202001896	HERBICIDE LCS	WE091208-02	1	mL
MS	1202001897	HERBICIDE LCS	WE091208-02	1	mL
MSD	1202001898	HERBICIDE LCS	WE091208-02	1	mL
SURR	All	HERBICIDE SURROGATE	WE091208-03	.05	mL
REGNT	All	Iso-octane	1106542-A	1	mL
REGNT	All	Methanol	1239758-C	.5	mL
REGNT	All	Hexane	1241300-B2	4	mL
REGNT	All	Methylene Chloride	1245410-D	180	mL
REGNT	All	Sodium hydroxide sol., 6N	1245412	17	mL
REGNT	All	Sulfuric Acid Sol., 12N For Herbicides	1245414	17	mL
REGNT	All	N-METHYL-N-NITROSO-P-TOLUENESULFON-AMIDE	1246266A	2	mL
REGNT	All	Ethyl ether	UN1237020a	240	mL

Comments:

Verified By: JAC

Final Solvent: Hexane

Prep Logbook

Toxicity Characteristic Leaching Procedure Preparation

Batch ID: 934762 **Verified by:** _____

Analyst: Matthew Oswald

Method: SW846 1311

Lab SOP: GL-LB-E-006 REV# 13

Instrument: TCLP Tumbler #105

Sample ID	1201999915 TB	243010001
Analysis Start Date	18-DEC-2009 16:00:00	18-DEC-2009 16:00:00
100% Solid Y/N		Y
(I) Sub Sample Aliquot I=G-H (g)		100
Initial pH (su)	4.92	7.1
pH Temperature (celsius)	50	50
Filtrate pH (su)	4.92	5
Final pH (su)	4.92	1.86
Tumbler Speed	28	28
Sample Properties <>/= Water	tclp#1	Solid
(J) 20X Wet Solid Weight 20XC (g)	2000	2000
Filtrate Volume (mL)	1000	1000

Type	Sample Id	Description	Serial Number	Spike Amt	Units
RGNT	All	TCLP EXTRACTION FLUID 1	1018205	2000	mL
RGNT	All	1N HCl for pH testing	1202901	3.5	mL

Comments:

Extration End Date: 19-DEC-09 09:55:38
Filtration End Date: 19-DEC-09 17:22:09
Bottle Lot Number: H931601DB
Filter Lot Number: 8335066
Extration Start Temperature: 23 C
Extration End Temperature: 23 C
Filtration End Temperature: 23 C

Metals Analysis

Case Narrative

Metals Fractional Narrative
Los Alamos National Laboratory (LANL)
SDG 10-939

Sample Analysis

Sample ID	Client ID
243007002	WST03-10-2147
1201999270	Method Blank (MB) **ICP**
1202000827	Method Blank (MB) **ICP**
1201999275	Laboratory Control Sample (LCS)
1202000828	Laboratory Control Sample (LCS)
1201999272	243007002(WST03-10-2147L) Serial Dilution (SD)
1201999271	243007002(WST03-10-2147D) Sample Duplicate (DUP)
1201999273	243007002(WST03-10-2147S) Matrix Spike (MS)
1201999274	243007002(WST03-10-2147SD) Matrix Spike Duplicate (MSD)
1201999276	Method Blank (MB) **ICP-MS**
1201999281	Laboratory Control Sample (LCS)
1201999278	243007002(WST03-10-2147L) Serial Dilution (SD)
1201999277	243007002(WST03-10-2147D) Sample Duplicate (DUP)
1201999279	243007002(WST03-10-2147S) Matrix Spike (MS)
1201999280	243007002(WST03-10-2147SD) Matrix Spike Duplicate (MSD)
1201999115	Method Blank (MB) **CVAA**
1201999116	Laboratory Control Sample (LCS)
1201999119	243007002(WST03-10-2147L) Serial Dilution (SD)
1201999117	243007002(WST03-10-2147D) Sample Duplicate (DUP)
1201999118	243007002(WST03-10-2147S) Matrix Spike (MS)
1201999120	243007002(WST03-10-2147SD) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on a "dry weight" basis.

Method/Analysis Information

Analytical Batch:	934468, 935146, 934470 and 934379
Prep Batch :	934467, 935145, 934469 and 934377
Standard Operating Procedures:	GL-MA-E-013 REV# 20, GL-MA-E-009 REV# 19, GL-MA-E-014 REV# 20 and GL-MA-E-010 REV# 23
Analytical Method:	SW846 3050B/6010B, SW846 3050B/6020 and SW846 7471A
Prep Method :	SW846 3050B and SW846 7471A Prep

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

System Configuration

The Metals analysis-ICP was performed on a P E 4300 Optima radial/axial-viewing inductively coupled plasma atomic emission spectrometer. The instrument is equipped with a Burgener nebulizer, cyclonic spray chamber, and yttrium or scandium internal standard. Operating conditions for the ICP are set at a power level of 1500 watts. The instrument has a peristaltic pump flow rate of 1.4L/min, argon gas flows of 15 L/min and 0.2 L/min for the torch and auxiliary gases, and a flow setting of 0.65L/min for the nebulizer.

The Metals analysis-ICP was performed on a P E 5300 Optima radial/axial-viewing inductively coupled plasma atomic emission spectrometer. The instrument is equipped with a Burgener nebulizer, cyclonic spray chamber, and yttrium or scandium internal standard. Operating conditions for the ICP are set at a power level of 1500 watts. The instrument has a peristaltic pump flow rate of 1.4L/min, argon gas flows of 15 L/min and 0.2 L/min for the torch and auxiliary gases, and a flow setting of 0.65L/min for the nebulizer.

The Metals analysis - ICPMS was performed on a Perkin Elmer ELAN 9000 inductively coupled plasma mass spectrometer (ICP-MS). The instrument is equipped with a cross-flow nebulizer, quadrupole mass spectrometer, and dual mode electron multiplier detector. Internal standards of scandium, germanium, indium, tantalum, and/or lutetium were utilized to cover the mass spectrum. Operating conditions are set at 1400W power and combined argon pressures of 360+/-7 kPa for the plasma and auxiliary gases, and 0.85 L/min carrier gas flow, and an initial lens voltage of 5.2.

The Metals analysis-Mercury was performed on a Perkin-Elmer Flow Injection Mercury System (FIMS-100) automated mercury analyzer. The instrument consists of a cold vapor atomic absorption spectrometer set to detect mercury at a wavelength of 253.7 nm. Sample introduction

through the flow injection system is performed via a peristaltic pump at 9 mL/min and nitrogen carrier gas rate of 80 mL/min.

Calibration Information

Instrument Calibration
All initial calibration requirements have been met for this sample delivery group (SDG).

CRDL Requirements
All CRDL standard(s) met the referenced advisory control limits.

ICSA/ICSAB Statement
All interference check samples (ICSA and ICSAB) associated with this SDG met the established acceptance criteria.

Continuing Calibration Blank (CCB) Requirements
All continuing calibration blanks (CCB) bracketing this batch met the established acceptance criteria.

Continuing Calibration Verification (CCV) Requirements
All continuing calibration verifications (CCV) bracketing this SDG met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MBs analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

Quality Control (QC) Sample Statement
The following sample was selected as the quality control (QC) sample for this SDG: 243007002.

Matrix Spike (MS) Recovery Statement
The percent recoveries (%R) obtained from the MS analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. The MS met the recommended quality control acceptance criteria for percent recoveries for all applicable analytes with the exception of barium, copper, selenium and potassium, as indicated by the "N" qualifiers.

Matrix Spike Duplicate (MSD) Recovery Statement
The percent recovery (%R) obtained from the MSD analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. The MSD met the recommended quality control acceptance criteria for percent recoveries for all applicable analytes with the exception of potassium and selenium, as indicated by the "N" qualifiers.

MS/MSD Relative Percent Difference (RPD) Statement
The relative percent difference (RPD) obtained from the designated matrix spike duplicate (MSD) is evaluated based on acceptance criteria of 20%. The RPD between qualifying elements results in the MS and MSD were within the acceptance limits of 20% with the exception of copper, as indicated by the "*" qualifier.

Duplicate Relative Percent Difference (RPD) Statement
The relative percent difference (RPD) obtained from the designated sample duplicate (DUP) is evaluated based on acceptance criteria of 20% when the sample is 5X the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the contract required detection limit (RL), a control of +/-RL is used to evaluate the DUP results. All applicable analytes met these requirements with the exception of mercury, as indicated by the "*" qualifier.

Serial Dilution % Difference Statement
The serial dilution is used to assess matrix suppression or enhancement. Raw element concentrations that are 25X the IDL/MDL for CVAA, 50X the IDL/MDL for ICP, and 100X the IDL/MDL for ICP-MS analyses are applicable for serial dilution assessment. All applicable analytes met the acceptance criteria of less than 10% difference (%D).

Technical Information

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Sample Dilutions
Dilutions are performed to minimize matrix interferences resulting from elevated mineral element concentrations present in solid samples and/or to bring over range target analyte concentrations into the linear calibration range of the instrument. The samples in this SDG were diluted the standard 2x for solids on the ICPMS.

Preparation Information
The samples in this SDG were prepared exactly according to the cited SOP.

Miscellaneous Information

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in

the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Nonconformance Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. The following NCRs were generated for this SDG: 772648, 773253 and 773432. A copy of each NCR is included in the Miscellaneous Data section of this package.

Additional Comments
Additional comments were not required for this SDG.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: KristenPauson **Date:** 12/28/09

Sample Data Summary

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-939 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 243007002 **BASIS:** Dry Weight **DATE COLLECTED** 14-DEC-09

CLIENT ID: WST03-10-2147 **LEVEL:** Low **DATE RECEIVED** 16-DEC-09

MATRIX: SOIL **%SOLIDS:** 87

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	12200000	ug/kg		7660	22500	22500	1	P	HSC	12/19/09 07:14	121909B-1	934468
7440-36-0	Antimony	1670	ug/kg		372	1130	1130	1	P	HSC	12/19/09 07:14	121909B-1	934468
7440-38-2	Arsenic	1880	ug/kg		221	1110	1110	2	MS	BAJ	12/20/09 15:50	091220-3	934470
7440-39-3	Barium	134000	ug/kg	N	113	563	563	1	P	HSC	12/19/09 07:14	121909B-1	934468
7440-41-7	Beryllium	742	ug/kg		22.1	111	111	2	MS	BAJ	12/20/09 15:50	091220-3	934470
7440-43-9	Cadmium	350	ug/kg	J	113	563	563	1	P	HSC	12/19/09 07:14	121909B-1	934468
7440-70-2	Calcium	2360000	ug/kg		9010	28200	28200	1	P	HSC	12/19/09 07:14	121909B-1	934468
7440-47-3	Chromium	18100	ug/kg		169	563	563	1	P	HSC	12/19/09 07:14	121909B-1	934468
7440-48-4	Cobalt	5370	ug/kg		169	563	563	1	P	HSC	12/19/09 07:14	121909B-1	934468
7440-50-8	Copper	13600	ug/kg	*N	338	1130	1130	1	P	HSC	12/19/09 07:14	121909B-1	934468
7439-89-6	Iron	15500000	ug/kg		9010	28200	28200	1	P	HSC	12/19/09 07:14	121909B-1	934468
7439-92-1	Lead	20200	ug/kg		282	1130	1130	1	P	HSC	12/19/09 07:14	121909B-1	934468
7439-95-4	Magnesium	2320000	ug/kg		9580	33800	33800	1	P	HSC	12/19/09 07:14	121909B-1	934468
7439-96-5	Manganese	319000	ug/kg		225	1130	1130	1	P	HSC	12/19/09 07:14	121909B-1	934468
7439-97-6	Mercury	65.4	ug/kg	*	4.38	12.9	12.9	1	AV	JXL1	12/22/09 10:50	122209S1-4	934379
7440-02-0	Nickel	7620	ug/kg		111	443	443	2	MS	BAJ	12/20/09 15:50	091220-3	934470
7440-09-7	Potassium	1520000	ug/kg	N	7210	28200	28200	1	P	HSC	12/19/09 07:14	121909B-1	934468
7782-49-2	Selenium	1110	ug/kg	UN	554	1110	1110	2	MS	BAJ	12/20/09 15:50	091220-3	934470
7440-22-4	Silver	148	ug/kg	J	113	563	563	1	P	HSC	12/19/09 07:14	121909B-1	934468
7440-23-5	Sodium	177000	ug/kg		7890	28200	28200	1	P	HSC	12/19/09 07:14	121909B-1	934468
7440-28-0	Thallium	244	ug/kg		66.4	221	221	2	MS	BAJ	12/20/09 15:50	091220-3	934470
7440-62-2	Vanadium	19200	ug/kg		113	563	563	1	P	JWJ	12/23/09 20:03	122309-2	935146
7440-66-6	Zinc	68900	ug/kg		372	1130	1130	1	P	HSC	12/19/09 07:14	121909B-1	934468

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
934379	934377	SW846 7471A Prep	0.539	g	30	mL	12/21/09	TXB3
934468	934467	SW846 3050B	0.513	g	50	mL	12/18/09	BCD1
934470	934469	SW846 3050B	0.522	g	50	mL	12/18/09	BCD1
935146	935145	SW846 3050B	0.513	g	50	mL	12/21/09	AXG2

Quality Control Summary

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–939

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA1,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
ICV01										
	Aluminum	5130	ug/L	5000	ug/L	102.6	90.0 – 110.0	P	19–DEC–09 03:56	121909B–1
	Antimony	498	ug/L	500	ug/L	99.6	90.0 – 110.0	P	19–DEC–09 03:56	121909B–1
	Barium	515	ug/L	500	ug/L	103	90.0 – 110.0	P	19–DEC–09 03:56	121909B–1
	Cadmium	506	ug/L	500	ug/L	101.2	90.0 – 110.0	P	19–DEC–09 03:56	121909B–1
	Calcium	4990	ug/L	5000	ug/L	99.8	90.0 – 110.0	P	19–DEC–09 03:56	121909B–1
	Chromium	495	ug/L	500	ug/L	99.1	90.0 – 110.0	P	19–DEC–09 03:56	121909B–1
	Cobalt	515	ug/L	500	ug/L	103	90.0 – 110.0	P	19–DEC–09 03:56	121909B–1
	Copper	497	ug/L	500	ug/L	99.5	90.0 – 110.0	P	19–DEC–09 03:56	121909B–1
	Iron	5130	ug/L	5000	ug/L	102.5	90.0 – 110.0	P	19–DEC–09 03:56	121909B–1
	Lead	503	ug/L	500	ug/L	100.6	90.0 – 110.0	P	19–DEC–09 03:56	121909B–1
	Magnesium	5210	ug/L	5000	ug/L	104.2	90.0 – 110.0	P	19–DEC–09 03:56	121909B–1
	Manganese	510	ug/L	500	ug/L	102	90.0 – 110.0	P	19–DEC–09 03:56	121909B–1
	Potassium	2460	ug/L	2500	ug/L	98.4	90.0 – 110.0	P	19–DEC–09 03:56	121909B–1
	Silver	261	ug/L	250	ug/L	104.3	90.0 – 110.0	P	19–DEC–09 03:56	121909B–1
	Sodium	2530	ug/L	2500	ug/L	101.3	90.0 – 110.0	P	19–DEC–09 03:56	121909B–1
	Zinc	507	ug/L	500	ug/L	101.5	90.0 – 110.0	P	19–DEC–09 03:56	121909B–1
	Arsenic	49.5	ug/L	50	ug/L	98.9	90.0 – 110.0	MS	20–DEC–09 13:21	091220–3
	Beryllium	53.8	ug/L	50	ug/L	107.5	90.0 – 110.0	MS	20–DEC–09 13:21	091220–3
	Nickel	53.1	ug/L	50	ug/L	106.2	90.0 – 110.0	MS	20–DEC–09 13:21	091220–3
	Selenium	50	ug/L	50	ug/L	100	90.0 – 110.0	MS	20–DEC–09 13:21	091220–3
	Thallium	50.8	ug/L	50	ug/L	101.5	90.0 – 110.0	MS	20–DEC–09 13:21	091220–3
	Mercury	5.16	ug/L	5	ug/L	103.3	90.0 – 110.0	AV	22–DEC–09 09:16	122209S1–4
	Vanadium	516	ug/L	500	ug/L	103.2	90.0 – 110.0	P	23–DEC–09 17:40	122309–2
CCV01										
	Aluminum	5180	ug/L	5000	ug/L	103.5	90.0 – 110.0	P	19–DEC–09 04:20	121909B–1
	Antimony	502	ug/L	500	ug/L	100.4	90.0 – 110.0	P	19–DEC–09 04:20	121909B–1
	Barium	509	ug/L	500	ug/L	101.9	90.0 – 110.0	P	19–DEC–09 04:20	121909B–1
	Cadmium	512	ug/L	500	ug/L	102.3	90.0 – 110.0	P	19–DEC–09 04:20	121909B–1
	Calcium	5230	ug/L	5000	ug/L	104.6	90.0 – 110.0	P	19–DEC–09 04:20	121909B–1
	Chromium	508	ug/L	500	ug/L	101.5	90.0 – 110.0	P	19–DEC–09 04:20	121909B–1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-939

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA1,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Cobalt	509	ug/L	500	ug/L	101.8	90.0 – 110.0	P	19-DEC-09 04:20	121909B-1
	Copper	493	ug/L	500	ug/L	98.6	90.0 – 110.0	P	19-DEC-09 04:20	121909B-1
	Iron	5260	ug/L	5000	ug/L	105.3	90.0 – 110.0	P	19-DEC-09 04:20	121909B-1
	Lead	508	ug/L	500	ug/L	101.7	90.0 – 110.0	P	19-DEC-09 04:20	121909B-1
	Magnesium	5380	ug/L	5000	ug/L	107.7	90.0 – 110.0	P	19-DEC-09 04:20	121909B-1
	Manganese	505	ug/L	500	ug/L	101.1	90.0 – 110.0	P	19-DEC-09 04:20	121909B-1
	Potassium	5240	ug/L	5000	ug/L	104.7	90.0 – 110.0	P	19-DEC-09 04:20	121909B-1
	Silver	508	ug/L	500	ug/L	101.6	90.0 – 110.0	P	19-DEC-09 04:20	121909B-1
	Sodium	10300	ug/L	10000	ug/L	103.3	90.0 – 110.0	P	19-DEC-09 04:20	121909B-1
	Zinc	513	ug/L	500	ug/L	102.6	90.0 – 110.0	P	19-DEC-09 04:20	121909B-1
	Arsenic	48.4	ug/L	50	ug/L	96.7	90.0 – 110.0	MS	20-DEC-09 13:51	091220-3
	Beryllium	49.7	ug/L	50	ug/L	99.4	90.0 – 110.0	MS	20-DEC-09 13:51	091220-3
	Nickel	52.6	ug/L	50	ug/L	105.3	90.0 – 110.0	MS	20-DEC-09 13:51	091220-3
	Selenium	49.7	ug/L	50	ug/L	99.4	90.0 – 110.0	MS	20-DEC-09 13:51	091220-3
	Thallium	49.1	ug/L	50	ug/L	98.2	90.0 – 110.0	MS	20-DEC-09 13:51	091220-3
	Mercury	5.1	ug/L	5	ug/L	102	80.0 – 120.0	AV	22-DEC-09 09:21	122209S1-4
	Vanadium	505	ug/L	500	ug/L	101	90.0 – 110.0	P	23-DEC-09 18:25	122309-2
CCV02										
	Aluminum	5240	ug/L	5000	ug/L	104.9	90.0 – 110.0	P	19-DEC-09 04:49	121909B-1
	Antimony	503	ug/L	500	ug/L	100.6	90.0 – 110.0	P	19-DEC-09 04:49	121909B-1
	Barium	513	ug/L	500	ug/L	102.5	90.0 – 110.0	P	19-DEC-09 04:49	121909B-1
	Cadmium	516	ug/L	500	ug/L	103.1	90.0 – 110.0	P	19-DEC-09 04:49	121909B-1
	Calcium	5330	ug/L	5000	ug/L	106.7	90.0 – 110.0	P	19-DEC-09 04:49	121909B-1
	Chromium	511	ug/L	500	ug/L	102.2	90.0 – 110.0	P	19-DEC-09 04:49	121909B-1
	Cobalt	513	ug/L	500	ug/L	102.6	90.0 – 110.0	P	19-DEC-09 04:49	121909B-1
	Copper	501	ug/L	500	ug/L	100.1	90.0 – 110.0	P	19-DEC-09 04:49	121909B-1
	Iron	5290	ug/L	5000	ug/L	105.8	90.0 – 110.0	P	19-DEC-09 04:49	121909B-1
	Lead	508	ug/L	500	ug/L	101.7	90.0 – 110.0	P	19-DEC-09 04:49	121909B-1
	Magnesium	5360	ug/L	5000	ug/L	107.2	90.0 – 110.0	P	19-DEC-09 04:49	121909B-1
	Manganese	511	ug/L	500	ug/L	102.2	90.0 – 110.0	P	19-DEC-09 04:49	121909B-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-939

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA1,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Potassium	5220	ug/L	5000	ug/L	104.3	90.0 - 110.0	P	19-DEC-09 04:49	121909B-1
	Silver	518	ug/L	500	ug/L	103.5	90.0 - 110.0	P	19-DEC-09 04:49	121909B-1
	Sodium	10500	ug/L	10000	ug/L	105.4	90.0 - 110.0	P	19-DEC-09 04:49	121909B-1
	Zinc	516	ug/L	500	ug/L	103.2	90.0 - 110.0	P	19-DEC-09 04:49	121909B-1
	Arsenic	50.7	ug/L	50	ug/L	101.5	90.0 - 110.0	MS	20-DEC-09 14:09	091220-3
	Beryllium	50.8	ug/L	50	ug/L	101.6	90.0 - 110.0	MS	20-DEC-09 14:09	091220-3
	Nickel	53.1	ug/L	50	ug/L	106.3	90.0 - 110.0	MS	20-DEC-09 14:09	091220-3
	Selenium	50.6	ug/L	50	ug/L	101.2	90.0 - 110.0	MS	20-DEC-09 14:09	091220-3
	Thallium	51.2	ug/L	50	ug/L	102.4	90.0 - 110.0	MS	20-DEC-09 14:09	091220-3
	Mercury	5.26	ug/L	5	ug/L	105.2	80.0 - 120.0	AV	22-DEC-09 09:41	122209S1-4
	Vanadium	499	ug/L	500	ug/L	99.9	90.0 - 110.0	P	23-DEC-09 19:03	122309-2
CCV03										
	Aluminum	5210	ug/L	5000	ug/L	104.3	90.0 - 110.0	P	19-DEC-09 05:23	121909B-1
	Antimony	499	ug/L	500	ug/L	99.7	90.0 - 110.0	P	19-DEC-09 05:23	121909B-1
	Barium	512	ug/L	500	ug/L	102.3	90.0 - 110.0	P	19-DEC-09 05:23	121909B-1
	Cadmium	514	ug/L	500	ug/L	102.8	90.0 - 110.0	P	19-DEC-09 05:23	121909B-1
	Calcium	5230	ug/L	5000	ug/L	104.5	90.0 - 110.0	P	19-DEC-09 05:23	121909B-1
	Chromium	509	ug/L	500	ug/L	101.9	90.0 - 110.0	P	19-DEC-09 05:23	121909B-1
	Cobalt	513	ug/L	500	ug/L	102.6	90.0 - 110.0	P	19-DEC-09 05:23	121909B-1
	Copper	499	ug/L	500	ug/L	99.8	90.0 - 110.0	P	19-DEC-09 05:23	121909B-1
	Iron	5190	ug/L	5000	ug/L	103.8	90.0 - 110.0	P	19-DEC-09 05:23	121909B-1
	Lead	504	ug/L	500	ug/L	100.8	90.0 - 110.0	P	19-DEC-09 05:23	121909B-1
	Magnesium	5290	ug/L	5000	ug/L	105.8	90.0 - 110.0	P	19-DEC-09 05:23	121909B-1
	Manganese	504	ug/L	500	ug/L	100.8	90.0 - 110.0	P	19-DEC-09 05:23	121909B-1
	Potassium	5200	ug/L	5000	ug/L	104.1	90.0 - 110.0	P	19-DEC-09 05:23	121909B-1
	Silver	516	ug/L	500	ug/L	103.2	90.0 - 110.0	P	19-DEC-09 05:23	121909B-1
	Sodium	10500	ug/L	10000	ug/L	105	90.0 - 110.0	P	19-DEC-09 05:23	121909B-1
	Zinc	515	ug/L	500	ug/L	103	90.0 - 110.0	P	19-DEC-09 05:23	121909B-1
	Arsenic	48.5	ug/L	50	ug/L	96.9	90.0 - 110.0	MS	20-DEC-09 14:40	091220-3
	Beryllium	49.1	ug/L	50	ug/L	98.2	90.0 - 110.0	MS	20-DEC-09 14:40	091220-3

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-939

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA1,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Nickel	53.7	ug/L	50	ug/L	107.3	90.0 - 110.0	MS	20-DEC-09 14:40	091220-3
	Selenium	48.9	ug/L	50	ug/L	97.8	90.0 - 110.0	MS	20-DEC-09 14:40	091220-3
	Thallium	49.4	ug/L	50	ug/L	98.7	90.0 - 110.0	MS	20-DEC-09 14:40	091220-3
	Mercury	5.25	ug/L	5	ug/L	105	80.0 - 120.0	AV	22-DEC-09 10:01	122209S1-4
	Vanadium	505	ug/L	500	ug/L	101	90.0 - 110.0	P	23-DEC-09 19:37	122309-2
CCV04										
	Aluminum	5170	ug/L	5000	ug/L	103.4	90.0 - 110.0	P	19-DEC-09 05:56	121909B-1
	Antimony	502	ug/L	500	ug/L	100.4	90.0 - 110.0	P	19-DEC-09 05:56	121909B-1
	Barium	510	ug/L	500	ug/L	102	90.0 - 110.0	P	19-DEC-09 05:56	121909B-1
	Cadmium	512	ug/L	500	ug/L	102.4	90.0 - 110.0	P	19-DEC-09 05:56	121909B-1
	Calcium	5080	ug/L	5000	ug/L	101.5	90.0 - 110.0	P	19-DEC-09 05:56	121909B-1
	Chromium	508	ug/L	500	ug/L	101.6	90.0 - 110.0	P	19-DEC-09 05:56	121909B-1
	Cobalt	511	ug/L	500	ug/L	102.1	90.0 - 110.0	P	19-DEC-09 05:56	121909B-1
	Copper	499	ug/L	500	ug/L	99.8	90.0 - 110.0	P	19-DEC-09 05:56	121909B-1
	Iron	5200	ug/L	5000	ug/L	103.9	90.0 - 110.0	P	19-DEC-09 05:56	121909B-1
	Lead	502	ug/L	500	ug/L	100.5	90.0 - 110.0	P	19-DEC-09 05:56	121909B-1
	Magnesium	5270	ug/L	5000	ug/L	105.3	90.0 - 110.0	P	19-DEC-09 05:56	121909B-1
	Manganese	503	ug/L	500	ug/L	100.5	90.0 - 110.0	P	19-DEC-09 05:56	121909B-1
	Potassium	5180	ug/L	5000	ug/L	103.5	90.0 - 110.0	P	19-DEC-09 05:56	121909B-1
	Silver	516	ug/L	500	ug/L	103.1	90.0 - 110.0	P	19-DEC-09 05:56	121909B-1
	Sodium	10400	ug/L	10000	ug/L	104.1	90.0 - 110.0	P	19-DEC-09 05:56	121909B-1
	Zinc	514	ug/L	500	ug/L	102.8	90.0 - 110.0	P	19-DEC-09 05:56	121909B-1
	Arsenic	48	ug/L	50	ug/L	96.1	90.0 - 110.0	MS	20-DEC-09 15:25	091220-3
	Beryllium	48.5	ug/L	50	ug/L	97	90.0 - 110.0	MS	20-DEC-09 15:25	091220-3
	Nickel	54.2	ug/L	50	ug/L	108.5	90.0 - 110.0	MS	20-DEC-09 15:25	091220-3
	Selenium	48.9	ug/L	50	ug/L	97.7	90.0 - 110.0	MS	20-DEC-09 15:25	091220-3
	Thallium	48.7	ug/L	50	ug/L	97.3	90.0 - 110.0	MS	20-DEC-09 15:25	091220-3
	Mercury	5.24	ug/L	5	ug/L	104.8	80.0 - 120.0	AV	22-DEC-09 10:21	122209S1-4
	Vanadium	509	ug/L	500	ug/L	101.8	90.0 - 110.0	P	23-DEC-09 20:37	122309-2

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–939

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA1,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
CCV05										
	Aluminum	5250	ug/L	5000	ug/L	105	90.0 – 110.0	P	19–DEC–09 06:25	121909B–1
	Antimony	511	ug/L	500	ug/L	102.1	90.0 – 110.0	P	19–DEC–09 06:25	121909B–1
	Barium	517	ug/L	500	ug/L	103.4	90.0 – 110.0	P	19–DEC–09 06:25	121909B–1
	Cadmium	520	ug/L	500	ug/L	104	90.0 – 110.0	P	19–DEC–09 06:25	121909B–1
	Calcium	5160	ug/L	5000	ug/L	103.2	90.0 – 110.0	P	19–DEC–09 06:25	121909B–1
	Chromium	515	ug/L	500	ug/L	103	90.0 – 110.0	P	19–DEC–09 06:25	121909B–1
	Cobalt	518	ug/L	500	ug/L	103.5	90.0 – 110.0	P	19–DEC–09 06:25	121909B–1
	Copper	504	ug/L	500	ug/L	100.9	90.0 – 110.0	P	19–DEC–09 06:25	121909B–1
	Iron	5270	ug/L	5000	ug/L	105.4	90.0 – 110.0	P	19–DEC–09 06:25	121909B–1
	Lead	508	ug/L	500	ug/L	101.7	90.0 – 110.0	P	19–DEC–09 06:25	121909B–1
	Magnesium	5380	ug/L	5000	ug/L	107.6	90.0 – 110.0	P	19–DEC–09 06:25	121909B–1
	Manganese	510	ug/L	500	ug/L	102.1	90.0 – 110.0	P	19–DEC–09 06:25	121909B–1
	Potassium	5260	ug/L	5000	ug/L	105.3	90.0 – 110.0	P	19–DEC–09 06:25	121909B–1
	Silver	521	ug/L	500	ug/L	104.2	90.0 – 110.0	P	19–DEC–09 06:25	121909B–1
	Sodium	10600	ug/L	10000	ug/L	106	90.0 – 110.0	P	19–DEC–09 06:25	121909B–1
	Zinc	520	ug/L	500	ug/L	104.1	90.0 – 110.0	P	19–DEC–09 06:25	121909B–1
	Arsenic	48.1	ug/L	50	ug/L	96.2	90.0 – 110.0	MS	20–DEC–09 16:20	091220–3
	Beryllium	48.4	ug/L	50	ug/L	96.7	90.0 – 110.0	MS	20–DEC–09 16:20	091220–3
	Nickel	53.5	ug/L	50	ug/L	107	90.0 – 110.0	MS	20–DEC–09 16:20	091220–3
	Selenium	47.8	ug/L	50	ug/L	95.6	90.0 – 110.0	MS	20–DEC–09 16:20	091220–3
	Thallium	49.2	ug/L	50	ug/L	98.3	90.0 – 110.0	MS	20–DEC–09 16:20	091220–3
	Mercury	5.14	ug/L	5	ug/L	102.9	80.0 – 120.0	AV	22–DEC–09 10:42	122209S1–4
CCV06										
	Aluminum	5330	ug/L	5000	ug/L	106.5	90.0 – 110.0	P	19–DEC–09 07:00	121909B–1
	Antimony	511	ug/L	500	ug/L	102.1	90.0 – 110.0	P	19–DEC–09 07:00	121909B–1
	Barium	522	ug/L	500	ug/L	104.3	90.0 – 110.0	P	19–DEC–09 07:00	121909B–1
	Cadmium	525	ug/L	500	ug/L	105	90.0 – 110.0	P	19–DEC–09 07:00	121909B–1
	Calcium	5170	ug/L	5000	ug/L	103.5	90.0 – 110.0	P	19–DEC–09 07:00	121909B–1
	Chromium	519	ug/L	500	ug/L	103.8	90.0 – 110.0	P	19–DEC–09 07:00	121909B–1
	Cobalt	523	ug/L	500	ug/L	104.6	90.0 – 110.0	P	19–DEC–09 07:00	121909B–1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-939

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA1,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Copper	509	ug/L	500	ug/L	101.8	90.0 - 110.0	P	19-DEC-09 07:00	121909B-1
	Iron	5310	ug/L	5000	ug/L	106.2	90.0 - 110.0	P	19-DEC-09 07:00	121909B-1
	Lead	514	ug/L	500	ug/L	102.8	90.0 - 110.0	P	19-DEC-09 07:00	121909B-1
	Magnesium	5440	ug/L	5000	ug/L	108.7	90.0 - 110.0	P	19-DEC-09 07:00	121909B-1
	Manganese	515	ug/L	500	ug/L	102.9	90.0 - 110.0	P	19-DEC-09 07:00	121909B-1
	Potassium	5290	ug/L	5000	ug/L	105.8	90.0 - 110.0	P	19-DEC-09 07:00	121909B-1
	Silver	526	ug/L	500	ug/L	105.3	90.0 - 110.0	P	19-DEC-09 07:00	121909B-1
	Sodium	10700	ug/L	10000	ug/L	106.9	90.0 - 110.0	P	19-DEC-09 07:00	121909B-1
	Zinc	525	ug/L	500	ug/L	105.1	90.0 - 110.0	P	19-DEC-09 07:00	121909B-1
	Mercury	5.02	ug/L	5	ug/L	100.4	80.0 - 120.0	AV	22-DEC-09 11:02	122209S1-4
CCV07										
	Aluminum	5350	ug/L	5000	ug/L	107	90.0 - 110.0	P	19-DEC-09 07:29	121909B-1
	Antimony	519	ug/L	500	ug/L	103.7	90.0 - 110.0	P	19-DEC-09 07:29	121909B-1
	Barium	522	ug/L	500	ug/L	104.5	90.0 - 110.0	P	19-DEC-09 07:29	121909B-1
	Cadmium	524	ug/L	500	ug/L	104.9	90.0 - 110.0	P	19-DEC-09 07:29	121909B-1
	Calcium	5310	ug/L	5000	ug/L	106.1	90.0 - 110.0	P	19-DEC-09 07:29	121909B-1
	Chromium	520	ug/L	500	ug/L	104.1	90.0 - 110.0	P	19-DEC-09 07:29	121909B-1
	Cobalt	523	ug/L	500	ug/L	104.6	90.0 - 110.0	P	19-DEC-09 07:29	121909B-1
	Copper	511	ug/L	500	ug/L	102.1	90.0 - 110.0	P	19-DEC-09 07:29	121909B-1
	Iron	5320	ug/L	5000	ug/L	106.3	90.0 - 110.0	P	19-DEC-09 07:29	121909B-1
	Lead	515	ug/L	500	ug/L	103	90.0 - 110.0	P	19-DEC-09 07:29	121909B-1
	Magnesium	5450	ug/L	5000	ug/L	109	90.0 - 110.0	P	19-DEC-09 07:29	121909B-1
	Manganese	516	ug/L	500	ug/L	103.2	90.0 - 110.0	P	19-DEC-09 07:29	121909B-1
	Potassium	5340	ug/L	5000	ug/L	106.8	90.0 - 110.0	P	19-DEC-09 07:29	121909B-1
	Silver	527	ug/L	500	ug/L	105.4	90.0 - 110.0	P	19-DEC-09 07:29	121909B-1
	Sodium	10700	ug/L	10000	ug/L	107.1	90.0 - 110.0	P	19-DEC-09 07:29	121909B-1
	Zinc	527	ug/L	500	ug/L	105.4	90.0 - 110.0	P	19-DEC-09 07:29	121909B-1

METALS
-2b-
CRDL Standard for AA & ICP

SDG No: 10-939

Contract: LANL01004 **Lab Code:** GEL

AA CRDL Standard Source: SPEX

ICP CRDL Standard Source Solutions Plus

Instrument ID: HG3,ICPMS5,OPTIMA1,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Advisory Limits (%R)	M	Analysis Date/Time	Run Number
CRDL01										
	Thallium	1.24	ug/L	1	ug/L	124.2	70.0 – 130.0	MS	20-DEC-09 13:33	091220-3
	Arsenic	5.55	ug/L	5	ug/L	111	70.0 – 130.0	MS	20-DEC-09 13:33	091220-3
	Beryllium	.568	ug/L	.5	ug/L	113.6	70.0 – 130.0	MS	20-DEC-09 13:33	091220-3
	Nickel	2.17	ug/L	2	ug/L	108.7	70.0 – 130.0	MS	20-DEC-09 13:33	091220-3
	Selenium	5.47	ug/L	5	ug/L	109.4	70.0 – 130.0	MS	20-DEC-09 13:33	091220-3
	Mercury	.187	ug/L	.2	ug/L	93.5	70.0 – 130.0	AV	22-DEC-09 09:20	122209S1-4
PQL01										
	Aluminum	199	ug/L	200	ug/L	99.5	70.0 – 130.0	P	19-DEC-09 04:04	121909B-1
	Manganese	10.6	ug/L	10	ug/L	106	70.0 – 130.0	P	19-DEC-09 04:04	121909B-1
	Silver	5.27	ug/L	5	ug/L	105.4	70.0 – 130.0	P	19-DEC-09 04:04	121909B-1
	Calcium	214	ug/L	200	ug/L	107.2	70.0 – 130.0	P	19-DEC-09 04:04	121909B-1
	Zinc	10.3	ug/L	10	ug/L	103.4	70.0 – 130.0	P	19-DEC-09 04:04	121909B-1
	Copper	10.5	ug/L	10	ug/L	104.9	70.0 – 130.0	P	19-DEC-09 04:04	121909B-1
	Cobalt	5.05	ug/L	5	ug/L	101	70.0 – 130.0	P	19-DEC-09 04:04	121909B-1
	Chromium	5.4	ug/L	5	ug/L	108	70.0 – 130.0	P	19-DEC-09 04:04	121909B-1
	Cadmium	5.24	ug/L	5	ug/L	104.8	70.0 – 130.0	P	19-DEC-09 04:04	121909B-1
	Barium	5.22	ug/L	5	ug/L	104.3	70.0 – 130.0	P	19-DEC-09 04:04	121909B-1
	Antimony	9.96	ug/L	10	ug/L	99.6	70.0 – 130.0	P	19-DEC-09 04:04	121909B-1
	Sodium	323	ug/L	300	ug/L	107.6	70.0 – 130.0	P	19-DEC-09 04:04	121909B-1
	Potassium	134	ug/L	150	ug/L	89.2	70.0 – 130.0	P	19-DEC-09 04:04	121909B-1
	Magnesium	330	ug/L	300	ug/L	109.9	70.0 – 130.0	P	19-DEC-09 04:04	121909B-1
	Iron	115	ug/L	100	ug/L	115.3	70.0 – 130.0	P	19-DEC-09 04:04	121909B-1
	Lead	10.1	ug/L	10	ug/L	101.4	70.0 – 130.0	P	19-DEC-09 04:04	121909B-1
	Vanadium	5.23	ug/L	5	ug/L	104.6	70.0 – 130.0	P	23-DEC-09 17:54	122309-2
PQL02										
	Chromium	5.26	ug/L	5	ug/L	105.2	70.0 – 130.0	P	19-DEC-09 04:53	121909B-1
	Cobalt	5.1	ug/L	5	ug/L	102	70.0 – 130.0	P	19-DEC-09 04:53	121909B-1
	Copper	10.7	ug/L	10	ug/L	106.7	70.0 – 130.0	P	19-DEC-09 04:53	121909B-1
	Cadmium	5.13	ug/L	5	ug/L	102.6	70.0 – 130.0	P	19-DEC-09 04:53	121909B-1
	Barium	5.38	ug/L	5	ug/L	107.5	70.0 – 130.0	P	19-DEC-09 04:53	121909B-1

METALS
-2b-
CRDL Standard for AA & ICP

SDG No: 10-939

Contract: LANL01004 **Lab Code:** GEL

AA CRDL Standard Source:

ICP CRDL Standard Source

Instrument ID: HG3,ICPMS5,OPTIMA1,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Advisory Limits (%R)	M	Analysis Date/Time	Run Number
	Antimony	11.6	ug/L	10	ug/L	116.4	70.0 - 130.0	P	19-DEC-09 04:53	121909B-1
	Sodium	338	ug/L	300	ug/L	112.7	70.0 - 130.0	P	19-DEC-09 04:53	121909B-1
	Silver	5.63	ug/L	5	ug/L	112.6	70.0 - 130.0	P	19-DEC-09 04:53	121909B-1
	Potassium	140	ug/L	150	ug/L	93.3	70.0 - 130.0	P	19-DEC-09 04:53	121909B-1
	Manganese	10.5	ug/L	10	ug/L	105.3	70.0 - 130.0	P	19-DEC-09 04:53	121909B-1
	Magnesium	352	ug/L	300	ug/L	117.4	70.0 - 130.0	P	19-DEC-09 04:53	121909B-1
	Lead	9.73	ug/L	10	ug/L	97.3	70.0 - 130.0	P	19-DEC-09 04:53	121909B-1
	Iron	112	ug/L	100	ug/L	111.6	70.0 - 130.0	P	19-DEC-09 04:53	121909B-1
	Aluminum	206	ug/L	200	ug/L	102.9	70.0 - 130.0	P	19-DEC-09 04:53	121909B-1
	Zinc	10.5	ug/L	10	ug/L	104.6	70.0 - 130.0	P	19-DEC-09 04:53	121909B-1
	Calcium	230	ug/L	200	ug/L	114.8	70.0 - 130.0	P	19-DEC-09 04:53	121909B-1
PQL03										
	Aluminum	210	ug/L	200	ug/L	105.2	70.0 - 130.0	P	19-DEC-09 05:26	121909B-1
	Iron	113	ug/L	100	ug/L	113.1	70.0 - 130.0	P	19-DEC-09 05:26	121909B-1
	Lead	12.1	ug/L	10	ug/L	120.6	70.0 - 130.0	P	19-DEC-09 05:26	121909B-1
	Magnesium	322	ug/L	300	ug/L	107.2	70.0 - 130.0	P	19-DEC-09 05:26	121909B-1
	Manganese	10.6	ug/L	10	ug/L	105.7	70.0 - 130.0	P	19-DEC-09 05:26	121909B-1
	Potassium	156	ug/L	150	ug/L	103.7	70.0 - 130.0	P	19-DEC-09 05:26	121909B-1
	Silver	5.82	ug/L	5	ug/L	116.4	70.0 - 130.0	P	19-DEC-09 05:26	121909B-1
	Sodium	353	ug/L	300	ug/L	117.7	70.0 - 130.0	P	19-DEC-09 05:26	121909B-1
	Antimony	14	ug/L	10	ug/L	139.8	70.0 - 130.0	P	19-DEC-09 05:26	121909B-1
	Barium	5.51	ug/L	5	ug/L	110.2	70.0 - 130.0	P	19-DEC-09 05:26	121909B-1
	Cadmium	5.19	ug/L	5	ug/L	103.8	70.0 - 130.0	P	19-DEC-09 05:26	121909B-1
	Chromium	5.36	ug/L	5	ug/L	107.1	70.0 - 130.0	P	19-DEC-09 05:26	121909B-1
	Cobalt	4.71	ug/L	5	ug/L	94.2	70.0 - 130.0	P	19-DEC-09 05:26	121909B-1
	Copper	10.7	ug/L	10	ug/L	107.4	70.0 - 130.0	P	19-DEC-09 05:26	121909B-1
	Zinc	10.7	ug/L	10	ug/L	107.4	70.0 - 130.0	P	19-DEC-09 05:26	121909B-1
	Calcium	233	ug/L	200	ug/L	116.6	70.0 - 130.0	P	19-DEC-09 05:26	121909B-1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10–939

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
ICB01										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	19–DEC–09 04:00	121909B–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	19–DEC–09 04:00	121909B–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	19–DEC–09 04:00	121909B–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	19–DEC–09 04:00	121909B–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	19–DEC–09 04:00	121909B–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	19–DEC–09 04:00	121909B–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	19–DEC–09 04:00	121909B–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	19–DEC–09 04:00	121909B–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	19–DEC–09 04:00	121909B–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	19–DEC–09 04:00	121909B–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	19–DEC–09 04:00	121909B–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	19–DEC–09 04:00	121909B–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	19–DEC–09 04:00	121909B–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	19–DEC–09 04:00	121909B–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	19–DEC–09 04:00	121909B–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	19–DEC–09 04:00	121909B–1
	Arsenic	1.0	+/–5	U	1.0	5.0	SOL	MS	20–DEC–09 13:27	091220–3
	Beryllium	0.1	+/–.5	U	0.1	0.5	SOL	MS	20–DEC–09 13:27	091220–3
	Nickel	0.5	+/–2	U	0.5	2.0	SOL	MS	20–DEC–09 13:27	091220–3
	Selenium	2.5	+/–5	U	2.5	5.0	SOL	MS	20–DEC–09 13:27	091220–3
	Thallium	0.32	+/–1	J	0.3	1.0	SOL	MS	20–DEC–09 13:27	091220–3
	Mercury	0.068	+/–.2	U	0.068	0.2	SOL	AV	22–DEC–09 09:18	122209S1–4
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	23–DEC–09 17:47	122309–2
CCB01										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	19–DEC–09 04:23	121909B–1
	Antimony	6.11	+/–10	J	3.3	10.0	SOL	P	19–DEC–09 04:23	121909B–1
	Barium	2.75	+/–5	J	1.0	5.0	SOL	P	19–DEC–09 04:23	121909B–1
	Cadmium	2.15	+/–5	J	1.0	5.0	SOL	P	19–DEC–09 04:23	121909B–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	19–DEC–09 04:23	121909B–1
	Chromium	4.21	+/–5	J	1.5	5.0	SOL	P	19–DEC–09 04:23	121909B–1
	Cobalt	1.71	+/–5	J	1.5	5.0	SOL	P	19–DEC–09 04:23	121909B–1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10–939

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Copper	3.61	+/–10	J	3.0	10.0	SOL	P	19–DEC–09 04:23	121909B–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	19–DEC–09 04:23	121909B–1
	Lead	5.88	+/–10	J	2.5	10.0	SOL	P	19–DEC–09 04:23	121909B–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	19–DEC–09 04:23	121909B–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	19–DEC–09 04:23	121909B–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	19–DEC–09 04:23	121909B–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	19–DEC–09 04:23	121909B–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	19–DEC–09 04:23	121909B–1
	Zinc	3.44	+/–10	J	3.3	10.0	SOL	P	19–DEC–09 04:23	121909B–1
	Arsenic	1.0	+/–5	U	1.0	5.0	SOL	MS	20–DEC–09 13:57	091220–3
	Beryllium	0.1	+/–.5	U	0.1	0.5	SOL	MS	20–DEC–09 13:57	091220–3
	Nickel	0.5	+/–2	U	0.5	2.0	SOL	MS	20–DEC–09 13:57	091220–3
	Selenium	2.5	+/–5	U	2.5	5.0	SOL	MS	20–DEC–09 13:57	091220–3
	Thallium	0.335	+/–1	J	0.3	1.0	SOL	MS	20–DEC–09 13:57	091220–3
	Mercury	0.068	+/–.2	U	0.068	0.2	SOL	AV	22–DEC–09 09:23	122209S1–4
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	23–DEC–09 18:32	122309–2
CCB02										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	19–DEC–09 04:56	121909B–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	19–DEC–09 04:56	121909B–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	19–DEC–09 04:56	121909B–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	19–DEC–09 04:56	121909B–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	19–DEC–09 04:56	121909B–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	19–DEC–09 04:56	121909B–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	19–DEC–09 04:56	121909B–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	19–DEC–09 04:56	121909B–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	19–DEC–09 04:56	121909B–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	19–DEC–09 04:56	121909B–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	19–DEC–09 04:56	121909B–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	19–DEC–09 04:56	121909B–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	19–DEC–09 04:56	121909B–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	19–DEC–09 04:56	121909B–1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10–939

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	19–DEC–09 04:56	121909B–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	19–DEC–09 04:56	121909B–1
	Arsenic	1.0	+/–5	U	1.0	5.0	SOL	MS	20–DEC–09 14:16	091220–3
	Beryllium	0.1	+/–.5	U	0.1	0.5	SOL	MS	20–DEC–09 14:16	091220–3
	Nickel	0.5	+/–2	U	0.5	2.0	SOL	MS	20–DEC–09 14:16	091220–3
	Selenium	2.5	+/–5	U	2.5	5.0	SOL	MS	20–DEC–09 14:16	091220–3
	Thallium	0.612	+/–1	J	0.3	1.0	SOL	MS	20–DEC–09 14:16	091220–3
	Mercury	0.068	+/–.2	U	0.068	0.2	SOL	AV	22–DEC–09 09:43	122209S1–4
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	23–DEC–09 19:10	122309–2
CCB03										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	19–DEC–09 05:30	121909B–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	19–DEC–09 05:30	121909B–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	19–DEC–09 05:30	121909B–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	19–DEC–09 05:30	121909B–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	19–DEC–09 05:30	121909B–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	19–DEC–09 05:30	121909B–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	19–DEC–09 05:30	121909B–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	19–DEC–09 05:30	121909B–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	19–DEC–09 05:30	121909B–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	19–DEC–09 05:30	121909B–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	19–DEC–09 05:30	121909B–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	19–DEC–09 05:30	121909B–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	19–DEC–09 05:30	121909B–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	19–DEC–09 05:30	121909B–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	19–DEC–09 05:30	121909B–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	19–DEC–09 05:30	121909B–1
	Arsenic	1.0	+/–5	U	1.0	5.0	SOL	MS	20–DEC–09 14:46	091220–3
	Beryllium	0.1	+/–.5	U	0.1	0.5	SOL	MS	20–DEC–09 14:46	091220–3
	Nickel	0.5	+/–2	U	0.5	2.0	SOL	MS	20–DEC–09 14:46	091220–3
	Selenium	2.5	+/–5	U	2.5	5.0	SOL	MS	20–DEC–09 14:46	091220–3
	Thallium	0.357	+/–1	J	0.3	1.0	SOL	MS	20–DEC–09 14:46	091220–3

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10–939

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Mercury	0.068	+/–.2	U	0.068	0.2	SOL	AV	22–DEC–09 10:03	122209S1–4
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	23–DEC–09 19:44	122309–2
CCB04										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	19–DEC–09 06:00	121909B–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	19–DEC–09 06:00	121909B–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	19–DEC–09 06:00	121909B–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	19–DEC–09 06:00	121909B–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	19–DEC–09 06:00	121909B–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	19–DEC–09 06:00	121909B–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	19–DEC–09 06:00	121909B–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	19–DEC–09 06:00	121909B–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	19–DEC–09 06:00	121909B–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	19–DEC–09 06:00	121909B–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	19–DEC–09 06:00	121909B–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	19–DEC–09 06:00	121909B–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	19–DEC–09 06:00	121909B–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	19–DEC–09 06:00	121909B–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	19–DEC–09 06:00	121909B–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	19–DEC–09 06:00	121909B–1
	Arsenic	1.0	+/–5	U	1.0	5.0	SOL	MS	20–DEC–09 15:31	091220–3
	Beryllium	0.1	+/–.5	U	0.1	0.5	SOL	MS	20–DEC–09 15:31	091220–3
	Nickel	0.5	+/–2	U	0.5	2.0	SOL	MS	20–DEC–09 15:31	091220–3
	Selenium	2.5	+/–5	U	2.5	5.0	SOL	MS	20–DEC–09 15:31	091220–3
	Thallium	0.3	+/–1	U	0.3	1.0	SOL	MS	20–DEC–09 15:31	091220–3
	Mercury	0.068	+/–.2	U	0.068	0.2	SOL	AV	22–DEC–09 10:23	122209S1–4
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	23–DEC–09 20:44	122309–2
CCB05										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	19–DEC–09 06:29	121909B–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	19–DEC–09 06:29	121909B–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	19–DEC–09 06:29	121909B–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	19–DEC–09 06:29	121909B–1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10–939

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	19–DEC–09 06:29	121909B–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	19–DEC–09 06:29	121909B–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	19–DEC–09 06:29	121909B–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	19–DEC–09 06:29	121909B–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	19–DEC–09 06:29	121909B–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	19–DEC–09 06:29	121909B–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	19–DEC–09 06:29	121909B–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	19–DEC–09 06:29	121909B–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	19–DEC–09 06:29	121909B–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	19–DEC–09 06:29	121909B–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	19–DEC–09 06:29	121909B–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	19–DEC–09 06:29	121909B–1
	Arsenic	1.0	+/–5	U	1.0	5.0	SOL	MS	20–DEC–09 16:27	091220–3
	Beryllium	0.1	+/–.5	U	0.1	0.5	SOL	MS	20–DEC–09 16:27	091220–3
	Nickel	0.5	+/–2	U	0.5	2.0	SOL	MS	20–DEC–09 16:27	091220–3
	Selenium	2.5	+/–5	U	2.5	5.0	SOL	MS	20–DEC–09 16:27	091220–3
	Thallium	0.307	+/–1	J	0.3	1.0	SOL	MS	20–DEC–09 16:27	091220–3
	Mercury	0.068	+/–.2	U	0.068	0.2	SOL	AV	22–DEC–09 10:43	122209S1–4
CCB06										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	19–DEC–09 07:04	121909B–1
	Antimony	4.45	+/–10	J	3.3	10.0	SOL	P	19–DEC–09 07:04	121909B–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	19–DEC–09 07:04	121909B–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	19–DEC–09 07:04	121909B–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	19–DEC–09 07:04	121909B–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	19–DEC–09 07:04	121909B–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	19–DEC–09 07:04	121909B–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	19–DEC–09 07:04	121909B–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	19–DEC–09 07:04	121909B–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	19–DEC–09 07:04	121909B–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	19–DEC–09 07:04	121909B–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	19–DEC–09 07:04	121909B–1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10-939

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	19-DEC-09 07:04	121909B-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	19-DEC-09 07:04	121909B-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	19-DEC-09 07:04	121909B-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	19-DEC-09 07:04	121909B-1
	Mercury	0.068	+/-.2	U	0.068	0.2	SOL	AV	22-DEC-09 11:03	122209S1-4
CCB07										
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	19-DEC-09 07:33	121909B-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	19-DEC-09 07:33	121909B-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	19-DEC-09 07:33	121909B-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	19-DEC-09 07:33	121909B-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	19-DEC-09 07:33	121909B-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	19-DEC-09 07:33	121909B-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	19-DEC-09 07:33	121909B-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	19-DEC-09 07:33	121909B-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	19-DEC-09 07:33	121909B-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	19-DEC-09 07:33	121909B-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	19-DEC-09 07:33	121909B-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	19-DEC-09 07:33	121909B-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	19-DEC-09 07:33	121909B-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	19-DEC-09 07:33	121909B-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	19-DEC-09 07:33	121909B-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	19-DEC-09 07:33	121909B-1

METALS
-3b-
PREPARATION BLANK SUMMARY

SDG NO. 10-939

Contract: LANL01004

Matrix: SOIL

Sample ID	Analyte	Result	Units	Acceptance Window	Conc Qual	M	MDL	RDL
1201999115								
	Mercury	3.6	ug/kg	+/-10.601	U	AV	3.6	10.6
1201999270								
	Aluminum	6690	ug/kg	+/-19685.039	U	P	6690	19700
	Antimony	325	ug/kg	+/-984.252	U	P	325	984
	Barium	98.4	ug/kg	+/-492.126	U	P	98.4	492
	Cadmium	98.4	ug/kg	+/-492.126	U	P	98.4	492
	Calcium	7870	ug/kg	+/-24606.299	U	P	7870	24600
	Chromium	148	ug/kg	+/-492.126	U	P	148	492
	Cobalt	148	ug/kg	+/-492.126	U	P	148	492
	Copper	295	ug/kg	+/-984.252	U	P	295	984
	Iron	7870	ug/kg	+/-24606.299	U	P	7870	24600
	Lead	246	ug/kg	+/-984.252	U	P	246	984
	Magnesium	8370	ug/kg	+/-29527.559	U	P	8370	29500
	Manganese	197	ug/kg	+/-984.252	U	P	197	984
	Potassium	6300	ug/kg	+/-24606.299	U	P	6300	24600
	Silver	98.4	ug/kg	+/-492.126	U	P	98.4	492
	Sodium	6890	ug/kg	+/-24606.299	U	P	6890	24600
	Zinc	325	ug/kg	+/-984.252	U	P	325	984
1201999276								
	Arsenic	192	ug/kg	+/-961.538	U	MS	192	962
	Beryllium	19.2	ug/kg	+/-96.154	U	MS	19.2	96.2
	Nickel	96.2	ug/kg	+/-384.615	U	MS	96.2	385
	Selenium	481	ug/kg	+/-961.538	U	MS	481	962
	Thallium	57.7	ug/kg	+/-192.308	U	MS	57.7	192
1202000827								
	Vanadium	99	ug/kg	+/-495.05	U	P	99	495

METALS
–4–
Interference Check Sample

SDG No: 10–939

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Aluminum	516000	ug/L	500000	ug/L	103	80.0 – 120.0	19–DEC–09 04:07	121909B–1
	Antimony	–3.15	ug/L					19–DEC–09 04:07	121909B–1
	Barium	5.67	ug/L					19–DEC–09 04:07	121909B–1
	Cadmium	2.22	ug/L					19–DEC–09 04:07	121909B–1
	Calcium	492000	ug/L	500000	ug/L	98.3	80.0 – 120.0	19–DEC–09 04:07	121909B–1
	Chromium	–2.34	ug/L					19–DEC–09 04:07	121909B–1
	Cobalt	–1.73	ug/L					19–DEC–09 04:07	121909B–1
	Copper	7.59	ug/L					19–DEC–09 04:07	121909B–1
	Iron	192000	ug/L	200000	ug/L	95.9	80.0 – 120.0	19–DEC–09 04:07	121909B–1
	Lead	10.1	ug/L					19–DEC–09 04:07	121909B–1
	Magnesium	495000	ug/L	500000	ug/L	99	80.0 – 120.0	19–DEC–09 04:07	121909B–1
	Manganese	17.4	ug/L					19–DEC–09 04:07	121909B–1
	Potassium	–73.9	ug/L					19–DEC–09 04:07	121909B–1
	Silver	–4.79	ug/L					19–DEC–09 04:07	121909B–1
	Sodium	23.9	ug/L					19–DEC–09 04:07	121909B–1
	Zinc	3.01	ug/L					19–DEC–09 04:07	121909B–1
ICSAB01									
	Aluminum	515000	ug/L	500000	ug/L	103	80.0 – 120.0	19–DEC–09 04:10	121909B–1
	Antimony	513	ug/L	500	ug/L	103	80.0 – 120.0	19–DEC–09 04:10	121909B–1
	Barium	508	ug/L	500	ug/L	102	80.0 – 120.0	19–DEC–09 04:10	121909B–1
	Cadmium	485	ug/L	500	ug/L	96.9	80.0 – 120.0	19–DEC–09 04:10	121909B–1
	Calcium	491000	ug/L	500000	ug/L	98.2	80.0 – 120.0	19–DEC–09 04:10	121909B–1
	Chromium	496	ug/L	500	ug/L	99.2	80.0 – 120.0	19–DEC–09 04:10	121909B–1
	Cobalt	446	ug/L	500	ug/L	89.2	80.0 – 120.0	19–DEC–09 04:10	121909B–1
	Copper	555	ug/L	500	ug/L	111	80.0 – 120.0	19–DEC–09 04:10	121909B–1
	Iron	192000	ug/L	200000	ug/L	96	80.0 – 120.0	19–DEC–09 04:10	121909B–1
	Lead	497	ug/L	500	ug/L	99.4	80.0 – 120.0	19–DEC–09 04:10	121909B–1
	Magnesium	495000	ug/L	500000	ug/L	99	80.0 – 120.0	19–DEC–09 04:10	121909B–1
	Manganese	490	ug/L	500	ug/L	98.1	80.0 – 120.0	19–DEC–09 04:10	121909B–1

METALS
–4–
Interference Check Sample

SDG No: 10–939

Contract: LANL01004 **Lab Code:** GEL

ICS:

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
	Potassium	5210	ug/L	5000	ug/L	104	80.0 – 120.0	19–DEC–09 04:10	121909B–1
	Silver	269	ug/L	250	ug/L	108	80.0 – 120.0	19–DEC–09 04:10	121909B–1
	Sodium	5230	ug/L	5000	ug/L	105	80.0 – 120.0	19–DEC–09 04:10	121909B–1
	Zinc	494	ug/L	500	ug/L	98.8	80.0 – 120.0	19–DEC–09 04:10	121909B–1

METALS
-4-
Interference Check Sample

SDG No: 10-939

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Vanadium	0.927	ug/L					23-DEC-09 18:00	122309-2
ICSAB01									
	Vanadium	504	ug/L	500	ug/L	101	80.0 - 120.0	23-DEC-09 18:06	122309-2

METALS
–4–
Interference Check Sample

SDG No: 10–939

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: ICPMS5

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Arsenic	–0.242	ug/L					20–DEC–09 13:39	091220–3
	Beryllium	0.055	ug/L					20–DEC–09 13:39	091220–3
	Nickel	3.18	ug/L					20–DEC–09 13:39	091220–3
	Selenium	–0.85	ug/L					20–DEC–09 13:39	091220–3
	Thallium	0.076	ug/L					20–DEC–09 13:39	091220–3
ICSAB01									
	Arsenic	20.2	ug/L	20	ug/L	101	80.0 – 120.0	20–DEC–09 13:45	091220–3
	Beryllium	17.9	ug/L	20	ug/L	89.6	80.0 – 120.0	20–DEC–09 13:45	091220–3
	Nickel	22.9	ug/L	22.7	ug/L	101	80.0 – 120.0	20–DEC–09 13:45	091220–3
	Selenium	19.2	ug/L	20	ug/L	95.8	80.0 – 120.0	20–DEC–09 13:45	091220–3
	Thallium	20.6	ug/L	20	ug/L	103	80.0 – 120.0	20–DEC–09 13:45	091220–3

METALS
–5a–
Matrix Spike Summary

SDG NO. 10–939 **Client ID** WST03–10–2147S

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 87

Sample ID: 243007002 **Spike ID:** 1201999118

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Mercury	ug/kg	75–125	191		65.4		121	103		AV

METALS
–5a–

Matrix Spike Duplicate Summary

SDG NO.	10–939	**Client ID**	WST03–10–2147SD
Contract:	LANL01004	**Level:**	Low
Matrix:	SOIL	**% Solids:**	87
Sample ID:	243007002	**Spike ID:**	1201999120

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Mercury	ug/kg	75–125	221		65.4		138	113		AV

METALS
–5a–

Matrix Spike Summary

SDG NO. 10–939 **Client ID** WST03–10–2147S

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 87

Sample ID: 243007002 **Spike ID:** 1201999273

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Magnesium	ug/kg		3290000		2320000		559000	174	N/A	P
Manganese	ug/kg		401000		319000		55900	146	N/A	P
Potassium	ug/kg	75–125	2510000		1520000		559000	176	N	P
Silver	ug/kg	75–125	60000		148	J	55900	107		P
Sodium	ug/kg	75–125	741000		177000		559000	101		P
Vanadium	ug/kg	75–125	75000		19200		57500	97.2		P
Zinc	ug/kg	75–125	125000		68900		55900	101		P
Lead	ug/kg	75–125	80100		20200		55900	107		P
Aluminum	ug/kg		17600000		12200000		559000	960	N/A	P
Antimony	ug/kg	75–125	57100		1670		55900	99.2		P
Barium	ug/kg	75–125	210000		134000		55900	135	N	P
Cadmium	ug/kg	75–125	57900		350	J	55900	103		P
Calcium	ug/kg		3080000		2360000		559000	130	N/A	P
Chromium	ug/kg	75–125	74200		18100		55900	100		P
Cobalt	ug/kg	75–125	61100		5370		55900	99.7		P
Copper	ug/kg	75–125	102000		13600		55900	159	N	P
Iron	ug/kg		16500000		15500000		559000	185	N/A	P

METALS
-5a-
Matrix Spike Duplicate Summary

SDG NO. 10-939 **Client ID** WST03-10-2147SD

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 87

Sample ID: 243007002 **Spike ID:** 1201999274

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Aluminum	ug/kg		18000000		12200000		561000	1020	N/A	P
Antimony	ug/kg	75-125	57700		1670		56100	99.8		P
Barium	ug/kg	75-125	199000		134000		56100	115		P
Cadmium	ug/kg	75-125	59900		350	J	56100	106		P
Calcium	ug/kg		2930000		2360000		561000	102	N/A	P
Chromium	ug/kg	75-125	75700		18100		56100	103		P
Cobalt	ug/kg	75-125	61700		5370		56100	100		P
Copper	ug/kg	75-125	76200		13600		56100	112		P
Iron	ug/kg		16700000		15500000		561000	215	N/A	P
Lead	ug/kg	75-125	78800		20200		56100	104		P
Magnesium	ug/kg		3350000		2320000		561000	184	N/A	P
Manganese	ug/kg		389000		319000		56100	124	N/A	P
Potassium	ug/kg	75-125	2510000		1520000		561000	177	N	P
Silver	ug/kg	75-125	61900		148	J	56100	110		P
Sodium	ug/kg	75-125	754000		177000		561000	103		P
Vanadium	ug/kg	75-125	71400		19200		55700	93.8		P
Zinc	ug/kg	75-125	127000		68900		56100	103		P

METALS
-5a-
Matrix Spike Summary

SDG NO. 10-939 **Client ID** WST03-10-2147S

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 87

Sample ID: 243007002 **Spike ID:** 1201999279

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Arsenic	ug/kg	75-125	10600		1880		9190	94.9		MS
Beryllium	ug/kg	75-125	5810		742		5750	88.2		MS
Nickel	ug/kg	75-125	13300		7620		5750	99.2		MS
Selenium	ug/kg	75-125	1630		554	U	2300	69.3	N	MS
Thallium	ug/kg	75-125	11900		244		11500	102		MS

METALS
–5a–

Matrix Spike Duplicate Summary

SDG NO. 10–939 **Client ID** WST03–10–2147SD

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 87

Sample ID: 243007002 **Spike ID:** 1201999280

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Arsenic	ug/kg	75–125	9720		1880		9010	86.9		MS
Beryllium	ug/kg	75–125	5370		742		5630	82.2		MS
Nickel	ug/kg	75–125	12500		7620		5630	87.1		MS
Selenium	ug/kg	75–125	1530		554	U	2250	66.3	N	MS
Thallium	ug/kg	75–125	11100		244		11300	96.5		MS

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–939

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** WST03–10–2147D

Sample ID: 243007002 **Duplicate ID:** 1201999117 **Percent Solids for Dup:** 87

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Mercury	ug/kg	+/–12.5	65.4		46.1		34.8	*	AV

Metals
-6-
Duplicate Sample Summary

SDG No.: 10-939

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** WST03-10-2147SD

Sample ID: 1201999118 **Duplicate ID:** 1201999120 **Percent Solids for Dup:** 87

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Mercury	ug/kg	+/-20	191		221		14.9		AV

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–939

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** WST03–10–2147D

Sample ID: 243007002 **Duplicate ID:** 1201999271 **Percent Solids for Dup:** 87

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	ug/kg	+/–20%	12200000		12700000		4.01		P
Antimony	ug/kg	+/–1140	1670		1810		7.65		P
Barium	ug/kg	+/–20%	134000		148000		9.8		P
Cadmium	ug/kg	+/–568	350	J	435	J	21.6		P
Calcium	ug/kg	+/–20%	2360000		2400000		1.69		P
Chromium	ug/kg	+/–20%	18100		17600		3.15		P
Cobalt	ug/kg	+/–20%	5370		5600		4.2		P
Copper	ug/kg	+/–20%	13600		15300		11.7		P
Iron	ug/kg	+/–20%	15500000		17000000		9.17		P
Lead	ug/kg	+/–20%	20200		23000		12.6		P
Magnesium	ug/kg	+/–20%	2320000		2420000		4.47		P
Manganese	ug/kg	+/–20%	319000		358000		11.3		P
Potassium	ug/kg	+/–20%	1520000		1560000		2.42		P
Silver	ug/kg	+/–568	148	J	164	J	10.2		P
Sodium	ug/kg	+/–20%	177000		177000		.463		P
Vanadium	ug/kg	+/–20%	19200		17700		7.82		P
Zinc	ug/kg	+/–20%	68900		69600		1		P

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–939

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** WST03–10–2147SD

Sample ID: 1201999273 **Duplicate ID:** 1201999274 **Percent Solids for Dup:** 87

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	ug/kg	+/–20	17600000		18000000		2.1		P
Antimony	ug/kg	+/–20	57100		57700		.916		P
Barium	ug/kg	+/–20	210000		199000		5.29		P
Cadmium	ug/kg	+/–20	57900		59900		3.4		P
Calcium	ug/kg	+/–20	3080000		2930000		5.14		P
Chromium	ug/kg	+/–20	74200		75700		2.06		P
Cobalt	ug/kg	+/–20	61100		61700		.968		P
Copper	ug/kg	+/–20	102000		76200		29.3	*	P
Iron	ug/kg	+/–20	16500000		16700000		1.05		P
Lead	ug/kg	+/–20	80100		78800		1.6		P
Magnesium	ug/kg	+/–20	3290000		3350000		1.89		P
Manganese	ug/kg	+/–20	401000		389000		3.05		P
Potassium	ug/kg	+/–20	2510000		2510000		.316		P
Silver	ug/kg	+/–20	60000		61900		3.16		P
Sodium	ug/kg	+/–20	741000		754000		1.78		P
Vanadium	ug/kg	+/–20	75000		71400		4.93		P
Zinc	ug/kg	+/–20	125000		127000		1.18		P

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–939

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** WST03–10–2147D

Sample ID: 243007002 **Duplicate ID:** 1201999277 **Percent Solids for Dup:** 87

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Arsenic	ug/kg	+/–1120	1880		1900		.98		MS
Beryllium	ug/kg	+/–20%	742		736		.803		MS
Nickel	ug/kg	+/–20%	7620		7570		.735		MS
Selenium	ug/kg		554	U	560	U			MS
Thallium	ug/kg	+/–224	244		229		6.39		MS

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–939

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** WST03–10–2147SD

Sample ID: 1201999279 **Duplicate ID:** 1201999280 **Percent Solids for Dup:** 87

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Arsenic	ug/kg	+/–20	10600		9720		8.75		MS
Beryllium	ug/kg	+/–20	5810		5370		7.79		MS
Nickel	ug/kg	+/–20	13300		12500		6.14		MS
Selenium	ug/kg	+/–20	1630		1530		6.25		MS
Thallium	ug/kg	+/–20	11900		11100		7.19		MS

METALS
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Laboratory Control Sample Summary

SDG NO. 10-939

Contract: LANL01004

Aqueous LCS Source: **Solid LCS Source:** ERA

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1201999116								
	Mercury	ug/kg	5150	5460		106	71.6-128.3	AV

METALS
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Laboratory Control Sample Summary

SDG NO. 10-939

Contract: LANL01004

Aqueous LCS Source: **Solid LCS Source:** ERA

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1201999275								
	Aluminum	ug/kg	10500000	11500000		109	56-144	P
	Antimony	ug/kg	173000	211000		122	71-130	P
	Barium	ug/kg	198000	209000		106	80-120	P
	Cadmium	ug/kg	60700	65500		108	81-120	P
	Calcium	ug/kg	9870000	10700000		108	83-117	P
	Chromium	ug/kg	236000	266000		113	80-120	P
	Cobalt	ug/kg	91200	102000		112	81-120	P
	Copper	ug/kg	174000	198000		114	81-118	P
	Iron	ug/kg	18000000	22200000		123	51-149	P
	Lead	ug/kg	86000	91500		106	79-121	P
	Magnesium	ug/kg	4000000	4450000		111	79-122	P
	Manganese	ug/kg	558000	579000		104	81-119	P
	Potassium	ug/kg	4300000	4800000		112	74-127	P
	Silver	ug/kg	30100	34500		115	66-134	P
	Sodium	ug/kg	1020000	1110000		109	74-127	P
	Zinc	ug/kg	594000	646000		109	80-121	P

METALS
-7-
Laboratory Control Sample Summary

SDG NO. 10-939

Contract: LANL01004

Aqueous LCS Source: **Solid LCS Source:** ERA

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1201999281								
	Beryllium	ug/kg	77600	76700		98.9	81.2-126.8	MS
	Nickel	ug/kg	134000	154000		115	83.3-121.4	MS
	Selenium	ug/kg	286000	292000		102	80.2-125.9	MS
	Thallium	ug/kg	121000	138000		114	78-123.2	MS
	Arsenic	ug/kg	104000	110000		106	83-120	MS

METALS
-7-
Laboratory Control Sample Summary

SDG NO. 10-939

Contract: LANL01004

Aqueous LCS Source: **Solid LCS Source:** ERA

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202000828								
	Vanadium	ug/kg	115000	122000		106	79-121	P

METALS
–9–
Serial Dilution Sample Summary

SDG NO. 10–939 **Client ID** WST03–10–2147L

Contract: LANL01004

Matrix: SOLID **Level:** Low

Sample ID: 243007002 **Serial Dilution ID:** 1201999119

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Mercury	1.02		.935	J	8.33			AV

METALS
-9-
Serial Dilution Sample Summary

SDG NO. 10-939 **Client ID** WST03-10-2147L

Contract: LANL01004

Matrix: SOLID **Level:** Low

Sample ID: 243007002 **Serial Dilution ID:** 1201999272

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Aluminum	108000		114000		5.56		10	P
Antimony	14.9		22.1	J	48.3			P
Barium	1190		1220		2.1		10	P
Cadmium	3.11	J	5	U	100			P
Calcium	20900		21700		3.83		10	P
Chromium	161		162		.311		10	P
Cobalt	47.7		46.2		3.14			P
Copper	121		115		4.96			P
Iron	138000		146000		5.43		10	P
Lead	180		178		1.39		10	P
Magnesium	20600		21500		4.37		10	P
Manganese	2830		2920		3.18		10	P
Potassium	13500		14100		4.07		10	P
Silver	1.31	J	5	U	100			P
Sodium	1570		1650		5.1			P
Vanadium	170		178		4.71		10	P
Zinc	611		615		.655		10	P

METALS
-9-
Serial Dilution Sample Summary

SDG NO. 10-939 **Client ID** WST03-10-2147L

Contract: LANL01004

Matrix: SOLID **Level:** Low

Sample ID: 243007002 **Serial Dilution ID:** 1201999278

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Arsenic	8.51		9.4	J	10.5			MS
Beryllium	3.35		4.16		24.2			MS
Nickel	34.4		41.8		21.5			MS
Selenium	2.5	U	12.5	U				MS
Thallium	1.1		1.5	U	100			MS

METALS
-13-
SAMPLE PREPARATION SUMMARY

SDG No: 10-939 **Method Type:** P

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number 934467							
1201999270	MB for batch 934467	MB	S	18-DEC-09	.508g	50mL	
1201999275	LCS for batch 934467	LCS	S	18-DEC-09	.507g	50mL	
1201999273	WST03-10-2147S	MS	S	18-DEC-09	.517g	50mL	
1201999274	WST03-10-2147SD	MSD	S	18-DEC-09	.515g	50mL	
1201999271	WST03-10-2147D	DUP	S	18-DEC-09	.509g	50mL	
243007002	WST03-10-2147	SAMPLE	S	18-DEC-09	.513g	50mL	
Batch Number 935145							
1202000827	MB for batch 935145	MB	S	21-DEC-09	.505g	50mL	
1202000828	LCS for batch 935145	LCS	S	21-DEC-09	.518g	50mL	
1201999273	WST03-10-2147S	MS	S	21-DEC-09	.503g	50mL	
1201999274	WST03-10-2147SD	MSD	S	21-DEC-09	.519g	50mL	
1201999271	WST03-10-2147D	DUP	S	21-DEC-09	.547g	50mL	
243007002	WST03-10-2147	SAMPLE	S	21-DEC-09	.513g	50mL	

METALS
–13–
SAMPLE PREPARATION SUMMARY

SDG No: 10–939 **Method Type:** MS

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number	934469						
1201999276	MB for batch 934469	MB	S	18–DEC–09	.52g	50mL	
1201999281	LCS for batch 934469	LCS	S	18–DEC–09	.524g	50mL	
1201999279	WST03–10–2147S	MS	S	18–DEC–09	.503g	50mL	
1201999280	WST03–10–2147SD	MSD	S	18–DEC–09	.513g	50mL	
1201999277	WST03–10–2147D	DUP	S	18–DEC–09	.516g	50mL	
243007002	WST03–10–2147	SAMPLE	S	18–DEC–09	.522g	50mL	

METALS
-13-
SAMPLE PREPARATION SUMMARY

SDG No: 10-939 **Method Type:** AV

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number 934377							
1201999115	MB for batch 934377	MB	S	21-DEC-09	.566g	30mL	
1201999116	LCS for batch 934377	LCS	S	21-DEC-09	.201g	30mL	
1201999118	WST03-10-2147S	MS	S	21-DEC-09	.573g	30mL	
1201999120	WST03-10-2147SD	MSD	S	21-DEC-09	.504g	30mL	
1201999117	WST03-10-2147D	DUP	S	21-DEC-09	.555g	30mL	
243007002	WST03-10-2147	SAMPLE	S	21-DEC-09	.539g	30mL	

Metals
-14-
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: ICPMS5
Start Date: 20-DEC-09 **End Date:** 20-DEC-09

Client Sdg: 10-939
Method MS
Data File: 091220-3

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn
S0.0	1	13:02			X		X											X		X			X		
S10	1	13:08			X		X											X		X			X		
S100	1	13:15			X		X											X		X			X		
ICV01	1	13:21			X		X											X		X			X		
ICB01	1	13:27			X		X											X		X			X		
CRDL01	1	13:33			X		X											X		X			X		
ICSA01	1	13:39			X		X											X		X			X		
ICSAB01	1	13:45			X		X											X		X			X		
CCV01	1	13:51			X		X											X		X			X		
CCB01	1	13:57			X		X											X		X			X		
LR01	1	14:03			X		X											X		X			X		
CCV02	1	14:09			X		X											X		X			X		
CCB02	1	14:16			X		X											X		X			X		
ZZZZZZ	2	14:22																							
ZZZZZZ	20	14:28																							
ZZZZZZ	40	14:34																							
CCV03	1	14:40			X		X											X		X			X		
CCB03	1	14:46			X		X											X		X			X		
ZZZZZZ	2	14:52																							
ZZZZZZ	2	14:58																							
ZZZZZZ	2	15:05																							
ZZZZZZ	2	15:11																							
ZZZZZZ	10	15:19																							
CCV04	1	15:25			X		X											X		X			X		
CCB04	1	15:31			X		X											X		X			X		
1201999276	2	15:37			X		X											X		X			X		
1201999281	40	15:44			X		X											X		X			X		
243007002	2	15:50			X		X											X		X			X		
1201999277	2	15:56			X		X											X		X			X		
1201999279	2	16:02			X		X											X		X			X		
1201999280	2	16:08			X		X											X		X			X		
1201999278	10	16:14			X		X											X		X			X		
CCV05	1	16:20			X		X											X		X			X		
CCB05	1	16:27			X		X											X		X			X		

Metals
-14-
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: OPTIMA3
Start Date: 23-DEC-09 **End Date:** 23-DEC-09

Client Sdg: 10-939
Method P
Data File: 122309-2

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn
S0.0	1	17:07																						X	
S0.1	1	17:14																						X	
S0.5	1	17:20																						X	
SCAL	1	17:27																						X	
S10	1	17:34																							
ICV01	1	17:40																						X	
ICB01	1	17:47																						X	
PQL01	1	17:54																						X	
ICSA01	1	18:00																						X	
ICSAB01	1	18:06																						X	
LR01	1	18:12																						X	
LR02	1	18:18																						X	
CCV01	1	18:25																						X	
CCB01	1	18:32																						X	
LR03	1	18:49																						X	
LR04	1	18:56																						X	
CCV02	1	19:03																						X	
CCB02	1	19:10																						X	
ZZZZZZ	5	19:16																							
ZZZZZZ	50	19:23																							
ZZZZZZ	50	19:30																							
CCV03	1	19:37																						X	
CCB03	1	19:44																						X	
1202000827	1	19:49																						X	
1202000828	2	19:56																						X	
243007002	1	20:03																						X	
1201999271	1	20:09																						X	
1201999273	1	20:16																						X	
1201999274	1	20:23																						X	
1201999272	5	20:30																						X	
CCV04	1	20:37																						X	
CCB04	1	20:44																						X	

Metals
–14–
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: HG3
Start Date: 22–DEC–09 **End Date:** 22–DEC–09

Client Sdg: 10–939
Method AV
Data File: 122209S1–4

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn
S0.0	1	09:06															X								
S0.2	1	09:08															X								
S0.5	1	09:10															X								
S2.0	1	09:11															X								
S5.0	1	09:13															X								
S10.0	1	09:15															X								
ICV01	1	09:16															X								
ICB01	1	09:18															X								
CRDL01	1	09:20															X								
CCV01	1	09:21															X								
CCB01	1	09:23															X								
ZZZZZZ	1	09:25																							
ZZZZZZ	1	09:26																							
ZZZZZZ	1	09:28																							
ZZZZZZ	1	09:30																							
ZZZZZZ	1	09:31																							
ZZZZZZ	1	09:33																							
ZZZZZZ	5	09:35																							
ZZZZZZ	1	09:36																							
ZZZZZZ	10	09:38																							
ZZZZZZ	1	09:40																							
CCV02	1	09:41															X								
CCB02	1	09:43															X								
ZZZZZZ	1	09:45																							
ZZZZZZ	1	09:46																							
ZZZZZZ	1	09:48																							
ZZZZZZ	5	09:50																							
ZZZZZZ	1	09:51																							
ZZZZZZ	1	09:53																							
ZZZZZZ	1	09:55																							
ZZZZZZ	1	09:56																							
ZZZZZZ	1	09:58																							
ZZZZZZ	1	10:00																							
CCV03	1	10:01															X								
CCB03	1	10:03															X								
ZZZZZZ	1	10:05																							
ZZZZZZ	10	10:06																							
ZZZZZZ	1	10:08																							
ZZZZZZ	1	10:10																							
ZZZZZZ	1	10:11																							

Metals
-14-
Analysis Run Log

Samp No.	D/F	Run Time																						
ZZZZZZ	1	10:13																						
ZZZZZZ	1	10:15																						
ZZZZZZ	1	10:16																						
ZZZZZZ	5	10:18																						
ZZZZZZ	1	10:20																						
CCV04	1	10:21														X								
CCB04	1	10:23														X								
ZZZZZZ	1	10:25																						
ZZZZZZ	10	10:26																						
ZZZZZZ	1	10:28																						
ZZZZZZ	1	10:30																						
ZZZZZZ	1	10:31																						
ZZZZZZ	1	10:33																						
ZZZZZZ	5	10:35																						
ZZZZZZ	1	10:37																						
1201999115	1	10:38														X								
1201999116	10	10:40														X								
CCV05	1	10:42														X								
CCB05	1	10:43														X								
ZZZZZZ	1	10:45																						
ZZZZZZ	1	10:47																						
ZZZZZZ	1	10:48																						
243007002	1	10:50														X								
1201999117	1	10:52														X								
1201999118	1	10:53														X								
1201999120	1	10:55														X								
1201999119	5	10:57														X								
ZZZZZZ	1	10:58																						
ZZZZZZ	10	11:00																						
CCV06	1	11:02														X								
CCB06	1	11:03														X								

Metals
–14–
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: OPTIMA1
Start Date: 19–DEC–09 **End Date:** 19–DEC–09

Client Sdg: 10–939
Method P
Data File: 121909B–1

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn
S0.0	1	03:41	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X
S0.1	1	03:45		X		X		X		X	X	X		X		X			X		X				X
S0.5	1	03:47	X	X		X		X	X	X	X	X		X	X	X			X		X				X
SCAL	1	03:51	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X
S10	1	03:55	X						X				X		X							X			
ICV01	1	03:56	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X
ICB01	1	04:00	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X
PQL01	1	04:04	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X
ICSA01	1	04:07	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X
ICSAB01	1	04:10	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X
LR01	1	04:13	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X
LR02	1	04:16	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X
CCV01	1	04:20	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X
CCB01	1	04:23	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X
ZZZZZZ	1	04:30																							
ZZZZZZ	1	04:34																							
ZZZZZZ	1	04:38																							
ZZZZZZ	1	04:41																							
ZZZZZZ	1	04:45																							
CCV02	1	04:49	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X
PQL02	1	04:53	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X
CCB02	1	04:56	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X
ZZZZZZ	1	05:00																							
ZZZZZZ	1	05:04																							
ZZZZZZ	1	05:08																							
ZZZZZZ	1	05:12																							
ZZZZZZ	5	05:15																							
ZZZZZZ	1	05:19																							
CCV03	1	05:23	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X
PQL03	1	05:26	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X
CCB03	1	05:30	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X
ZZZZZZ	1	05:34																							
ZZZZZZ	1	05:37																							
ZZZZZZ	1	05:41																							
ZZZZZZ	1	05:45																							
ZZZZZZ	1	05:49																							
ZZZZZZ	5	05:52																							
CCV04	1	05:56	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X
CCB04	1	06:00	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X
ZZZZZZ	1	06:03																							

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time																							
ZZZZZZ	1	06:07																							
ZZZZZZ	1	06:11																							
ZZZZZZ	1	06:14																							
ZZZZZZ	1	06:18																							
ZZZZZZ	5	06:22																							
CCV05	1	06:25	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X
CCB05	1	06:29	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X
ZZZZZZ	1	06:38																							
ZZZZZZ	1	06:42																							
ZZZZZZ	1	06:46																							
ZZZZZZ	1	06:49																							
ZZZZZZ	1	06:53																							
ZZZZZZ	5	06:56																							
CCV06	1	07:00	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X
CCB06	1	07:04	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X
1201999270	1	07:07	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X
1201999275	1	07:11	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X
243007002	1	07:14	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X
1201999271	1	07:17	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X
1201999273	1	07:20	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X
1201999274	1	07:23	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X
1201999272	5	07:26	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X
CCV07	1	07:29	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X
CCB07	1	07:33	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X

Standards

METALS
-10-
Instrument Detection Limits

SDG NO. 10-939

Contract: LANL01004 **Lab Code: GEL** **MDL Effective Date:** 01-JUL-09

ICP/MS	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
SOLID	Aluminum		15.0	50
	Antimony		0.5	3
	Arsenic		1.0	5
	Barium		0.5	2
	Beryllium		0.1	.5
	Cadmium		0.1	1
	Calcium		33.0	100
	Chromium		1.0	3
	Cobalt		0.3	1
	Copper		0.33	1
	Iron		25.0	100
	Lead		0.5	2
	Magnesium		7.5	25
	Manganese		1.0	5
	Nickel		0.5	2
	Potassium		80.0	300
	Selenium		2.5	5
	Silver		0.2	1
	Sodium		80.0	250
	Thallium		0.3	1
	Vanadium		2.0	10
	Zinc		2.0	10

METALS
–10–
Instrument Detection Limits

SDG NO. 10–939

Contract: LANL01004 **Lab Code: GEL** **MDL Effective Date:** 15–JUN–09

MERCURY	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
SOLID	Mercury		0.068	.2

METALS
-10-
Instrument Detection Limits

SDG NO. 10-939

Contract: LANL01004 **Lab Code: GEL** **MDL Effective Date:** 01-JUL-09

ICP	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
SOLID	Aluminum	396.153	68.0	200
	Antimony	206.836	3.3	10
	Arsenic	188.979	5.0	30
	Barium	233.527	1.0	5
	Beryllium	313.107	1.0	5
	Cadmium	226.502	1.0	5
	Calcium	317.933	80.0	250
	Chromium	267.716	1.5	5
	Cobalt	228.616	1.5	5
	Copper	324.752	3.0	10
	Iron	238.204	80.0	250
	Lead	220.353	2.5	10
	Magnesium	279.077	85.0	300
	Manganese	257.61	2.0	10
	Nickel	231.604	1.5	5
	Potassium	766.49	64.0	250
	Selenium	196.026	5.0	30
	Silver	328.068	1.0	5
	Sodium	589.592	70.0	250
	Thallium	190.801	5.0	20
	Vanadium	292.402	1.0	5
	Zinc	213.857	3.3	10

METALS
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Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA3
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-939
Effective Dates: 01-NOV-09

Parmname	Wavelength	Aluminum	Antimony	Arsenic	Barium	Beryllium
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.02738	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	-0.44940	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	-0.22121	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	-0.33886	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	-0.13648	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	-0.05571	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.19671	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	-0.02739	0.00000	0.00000	0.00000	0.00000
Tin	189.927	-0.00058	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	0.00000

METALS
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Interelement Correction Factors

Lab Code: GEL
GEL Job No: 10-939
Contract: LANL01004
Instrument: OPTIMA3
Effective Dates: 01-NOV-09
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Parmname	Wavelength	Boron	Cadmium	Chromium	Cobalt	Copper
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	24.5549	0.00000	0.00000
Arsenic	188.979	0.52529	0.00000	-0.67113	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	2.54031	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.38952	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	-31.5465	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	0.78023
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.63859	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	160.41
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	5.22870	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.35099	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	1.93161	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.39273	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	1.19810

METALS
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Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA3
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-939
Effective Dates: 01-NOV-09

Parmname	Wavelength	Iron	Lead	Magnesium	Manganese	Molybdenum
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	42.8126
Antimony	206.836	-0.01635	0.00000	0.00000	0.00000	-22.2146
Arsenic	188.979	-0.21271	0.00000	0.00000	0.00000	1.34645
Barium	233.527	-0.03709	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.13266	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.09998	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	-0.01788	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.01425	0.00000	0.00000	0.00000	-2.64232
Copper	324.752	-0.05101	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.09069	0.00000	0.00000	0.00000	-2.44485
Magnesium	279.077	0.85543	0.00000	0.00000	0.00000	-20.2401
Manganese	257.61	-0.09972	0.00000	0.01862	0.00000	0.00000
Molybdenum	202.031	-0.07094	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.80633	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	-0.03176	0.00000	0.01823	12.4291	-3.60863
Selenium	196.026	-3.00009	0.00000	0.00000	0.00000	-3.17982
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	17.4444
Silver	328.068	-0.31825	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	-5.85948	0.00000
Tin	189.927	-0.01337	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.12581	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.15211	0.00000	-0.02256	0.00000	-14.2921
Zinc	213.857	0.09548	0.00000	0.03423	0.00000	0.00000

METALS
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Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA3
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-939
Effective Dates: 01-NOV-09

Parmname	Wavelength	Nickel	Phosphorous	Potassium	Selenium	Silicon
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	-0.64279	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	0.44040	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.33191	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	6.38465	0.00000	0.00000	0.00000	0.00000

METALS
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Interelement Correction Factors

Lab Code: GEL **GEL Job No:** 10-939
Contract: LANL01004
Instrument: OPTIMA3 **Effective Dates:** 01-NOV-09
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Parmname	Wavelength	Silver	Strontium	Sulfur	Thallium	Tin
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	0.00000	-17.4077
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	-13.8713
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	3.10491
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	0.00000

METALS
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Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA3
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-939
Effective Dates: 01-NOV-09

Parmname	Wavelength	Titanium	Uranium	Vanadium	Zinc
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	2.73145	0.00000	-2.31857	0.00000
Arsenic	188.979	-8.38419	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	-2.24883	0.00000
Beryllium	313.107	-1.96555	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.32181	-1.76281	0.00000
Cobalt	228.616	2.12623	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.85359	-3.92851	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	-7.67419	0.00000	2.18873	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.44145	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	1.10141	-1.94183	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000

METALS
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Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA1
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-939
Effective Dates: 01-NOV-09

Parmname	Wavelength	Aluminum	Antimony	Arsenic	Barium	Beryllium
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	-0.08714	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	-0.36980	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	-0.02864	0.00000	0.00000	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	0.00000

METALS
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Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA1
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-939
Effective Dates: 01-NOV-09

Parmname	Wavelength	Boron	Cadmium	Chromium	Cobalt	Copper
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	4.75140	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	-33.0980	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	1.36057
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.03970	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	122.96
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	4.07230	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	1.45160

METALS
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Interelement Correction Factors

Lab Code: GEL | GEL Job No: 10-939
Contract: LANL01004
Instrument: OPTIMA1 | Effective Dates: 01-NOV-09
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Parmname	Wavelength	Iron	Lead	Magnesium	Manganese	Molybdenum
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	38.0301
Antimony	206.836	0.00000	0.00000	0.00000	0.00000	1.47380
Arsenic	188.979	-0.82061	0.00000	0.00000	0.00000	1.83900
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.31446	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.07749	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	-2.33110
Copper	324.752	-0.24488	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.01248	0.00000	0.00000	0.00000	-2.95230
Magnesium	279.077	1.47510	0.00000	0.00000	0.00000	-24.9658
Manganese	257.61	-0.12666	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	-0.03930	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	1.17810	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	-0.61937	0.00000	0.41160	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	17.0660
Silver	328.068	-0.07890	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.14830	0.00000	0.14260	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	-4.63400	0.00000
Tin	189.927	-0.09214	0.00000	-0.16050	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.18670	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	-0.08158	0.00000	0.00000	0.00000	-6.97050
Zinc	213.857	0.06940	0.00000	0.02727	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
GEL Job No: 10-939
Contract: LANL01004
Instrument: OPTIMA1
Effective Dates: 01-NOV-09
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Parmname	Wavelength	Nickel	Phosphorous	Selenium	Silicon	Silver
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	-1.09390	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	5.19130	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA1
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-939
Effective Dates: 01-NOV-09

Parmname	Wavelength	Sulfur	Thallium	Tin	Titanium	Uranium
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	-3.74360	-0.55870
Arsenic	188.979	0.00000	0.00000	0.00000	-2.71110	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.37024	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	-0.71290
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	2.08900	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	0.84100
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	-21.8313	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	38.5869	36.0710	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	-7.24690	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	-1.61770
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA1
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-939
Effective Dates: 01-NOV-09

Parmname	Wavelength	Vanadium	Zinc
Aluminum	396.153	0.00000	0.00000
Antimony	206.836	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000
Barium	233.527	-2.10080	0.00000
Beryllium	313.107	0.00000	0.00000
Boron	249.677	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000
Chromium	267.716	-2.34600	0.00000
Cobalt	228.616	0.00000	0.00000
Copper	324.752	0.00000	0.00000
Iron	238.204	0.00000	0.00000
Lead	220.353	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000
Manganese	257.61	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000
Nickel	231.604	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000
Selenium	196.026	0.00000	0.00000
Silicon	251.611	0.00000	0.00000
Silver	328.068	-6.85200	0.00000
Sulfur	181.975	0.00000	0.00000
Thallium	190.801	0.00000	0.00000
Tin	189.927	0.00000	0.00000
Titanium	334.94	0.00000	0.00000
Uranium	409.014	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000
Zinc	213.857	0.00000	0.00000

METALS
-12-
Linear Ranges

SDG NO. 10-939

Contract: LANL01004 **Lab Code: GEL**

Instrument ID ICPMS5

Analyte	Integration Time (msec)	LDR	Units	Effective Date
Vanadium	1000	100	ug/L	01-NOV-09
Zinc	1000	2500	ug/L	01-NOV-09
Aluminum	1	50000	ug/L	01-NOV-09
Antimony	1000	250	ug/L	01-NOV-09
Arsenic	1000	1000	ug/L	01-NOV-09
Barium	1000	1000	ug/L	01-NOV-09
Beryllium	1000	1000	ug/L	01-NOV-09
Cadmium	1000	1000	ug/L	01-NOV-09
Calcium	500	50000	ug/L	01-NOV-09
Chromium	1000	1000	ug/L	01-NOV-09
Cobalt	1000	1000	ug/L	01-NOV-09
Copper	1000	1000	ug/L	01-NOV-09
Iron	500	50000	ug/L	01-NOV-09
Lead	1000	5000	ug/L	01-NOV-09
Magnesium	1	50000	ug/L	01-NOV-09
Manganese	1000	1000	ug/L	01-NOV-09
Nickel	1000	1000	ug/L	01-NOV-09
Potassium	1	50000	ug/L	01-NOV-09
Selenium	1000	500	ug/L	01-NOV-09
Silver	1000	250	ug/L	01-NOV-09
Sodium	1	50000	ug/L	01-NOV-09
Thallium	1000	500	ug/L	01-NOV-09

METALS
–12–
Linear Ranges

SDG NO. 10–939

Contract: LANL01004 **Lab Code: GEL**

Instrument ID OPTIMA3

Analyte	Integration Time (sec)	LDR	Units	Effective Date
Aluminum	20	500000	ug/L	01–NOV–09
Antimony	20	10000	ug/L	01–NOV–09
Arsenic	20	10000	ug/L	01–NOV–09
Barium	20	15000	ug/L	01–NOV–09
Beryllium	20	3000	ug/L	01–NOV–09
Cadmium	20	10000	ug/L	01–NOV–09
Calcium	20	500000	ug/L	01–NOV–09
Chromium	20	25000	ug/L	01–NOV–09
Cobalt	20	10000	ug/L	01–NOV–09
Copper	20	20000	ug/L	01–NOV–09
Iron	20	500000	ug/L	01–NOV–09
Lead	20	25000	ug/L	01–NOV–09
Magnesium	20	500000	ug/L	01–NOV–09
Manganese	20	10000	ug/L	01–NOV–09
Nickel	20	10000	ug/L	01–NOV–09
Potassium	20	300000	ug/L	01–NOV–09
Selenium	20	10000	ug/L	01–NOV–09
Silver	20	1000	ug/L	01–NOV–09
Sodium	20	500000	ug/L	01–NOV–09
Thallium	20	10000	ug/L	01–NOV–09
Vanadium	20	10000	ug/L	01–NOV–09
Zinc	20	15000	ug/L	01–NOV–09

METALS
–12–
Linear Ranges

SDG NO. 10–939

Contract: LANL01004 **Lab Code: GEL**

Instrument ID OPTIMA1

Analyte	Integration Time (sec)	LDR	Units	Effective Date
Copper	20	20000	ug/L	01–NOV–09
Iron	20	500000	ug/L	01–NOV–09
Lead	20	25000	ug/L	01–NOV–09
Magnesium	20	500000	ug/L	01–NOV–09
Manganese	20	10000	ug/L	01–NOV–09
Nickel	20	10000	ug/L	01–NOV–09
Potassium	20	300000	ug/L	01–NOV–09
Selenium	20	10000	ug/L	01–NOV–09
Silver	20	1000	ug/L	01–NOV–09
Sodium	20	500000	ug/L	01–NOV–09
Thallium	20	10000	ug/L	01–NOV–09
Vanadium	20	10000	ug/L	01–NOV–09
Zinc	20	15000	ug/L	01–NOV–09
Aluminum	20	500000	ug/L	01–NOV–09
Antimony	20	10000	ug/L	01–NOV–09
Arsenic	20	10000	ug/L	01–NOV–09
Barium	20	15000	ug/L	01–NOV–09
Beryllium	20	3000	ug/L	01–NOV–09
Cadmium	20	10000	ug/L	01–NOV–09
Calcium	20	500000	ug/L	01–NOV–09
Chromium	20	25000	ug/L	01–NOV–09
Cobalt	20	10000	ug/L	01–NOV–09

Raw Data

Method: Hg_ReAlign
Result: 122309

Sample ID: Hg_ReAlign

Hg 253.652

Rep: 1

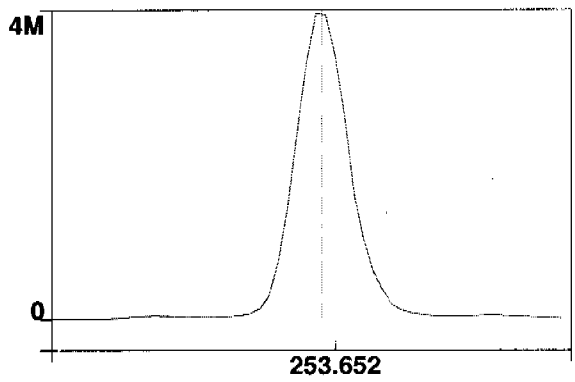

Intensity: 4008500.3 cps
Conc:

1

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Analysis Begun

Start Time: 12/19/2009 03:41:33 **Plasma On Time: 12/18/2009 22:44:08**
Logged In Analyst: optima **Technique: ICP Continuous**
Spectrometer Model: Optima 4300 DV, S/N 077N1030502Autosampler Model: AS-93plus

Sample Information File: C:\pe\optima1\Sample Information\121809H.SIF
Batch ID:
Results Data Set: 121909B
Results Library: c:\pe\optima1\Results\Results.mdb

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Sequence No.: 1 **Autosampler Location: 8**
Sample ID: S0 **Date Collected: 12/19/2009 03:41:34**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: S0

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	124721.5	124721.5	99.9	%	03:42:18
1	Al 396.153Radial†	233.8	233.9	[0.00]	µg/L	03:42:18
1	Ca 317.933Radial†	449.7	450.0	[0.00]	µg/L	03:42:39
1	Fe 238.204 Radial†	7.1	7.1	[0.00]	µg/L	03:42:39
1	K 766.490 Radial†	823.4	823.8	[0.00]	µg/L	03:42:18
1	Mg 279.077 IEC†	19.2	19.2	[0.00]	µg/L	03:42:39
1	Na 589.592 Radial†	-736.3	-736.7	[0.00]	µg/L	03:42:18
1	Sr 421.552†	-110.0	-110.0	[0.00]	µg/L	03:42:18
1	Sc 361.383	2185215.7	2185215.7	100.22	%	03:43:41
1	Y 371.029	1329010.8	1329010.8	100.23	%	03:43:41
1	Ag 328.068†	40.0	39.9	[0.00]	µg/L	03:43:46
1	As 188.979†	2.3	2.3	[0.00]	µg/L	03:44:07
1	B 249.677†	178.9	178.6	[0.00]	µg/L	03:43:46
1	Ba 233.527†	-82.1	-81.9	[0.00]	µg/L	03:44:07
1	Be 313.107†	3573.5	3565.8	[0.00]	µg/L	03:43:46
1	Cd 226.502†	-108.5	-108.3	[0.00]	µg/L	03:44:07
1	Co 228.616†	-71.7	-71.6	[0.00]	µg/L	03:44:07
1	Cr 267.716†	-157.7	-157.4	[0.00]	µg/L	03:43:46
1	Cu 324.752†	3426.4	3419.1	[0.00]	µg/L	03:43:46
1	Mn 257.610†	-221.6	-221.1	[0.00]	µg/L	03:44:07
1	Mo 202.031†	-5.7	-5.7	[0.00]	µg/L	03:44:07
1	Ni 231.604†	331.0	330.3	[0.00]	µg/L	03:44:07
1	P 214.914†	211.6	211.1	[0.00]	µg/L	03:44:07
1	Pb 220.353†	50.5	50.4	[0.00]	µg/L	03:44:07
1	S 181.975 Axial†	27.2	27.1	[0.00]	µg/L	03:44:07
1	Sb 206.836†	22.3	22.3	[0.00]	µg/L	03:44:07
1	Se 196.026†	12.3	12.3	[0.00]	µg/L	03:44:07
1	SiO2†	2113.1	2108.5	[0.00]	µg/L	03:43:46
1	Si 251.611†	373.0	372.2	[0.00]	µg/L	03:44:07
1	Sn 189.927†	22.1	22.0	[0.00]	µg/L	03:44:07
1	Ti 334.940†	903.0	901.0	[0.00]	µg/L	03:43:46
1	Tl 190.801†	-25.8	-25.7	[0.00]	µg/L	03:44:07
1	U 409.014†	903.8	901.8	[0.00]	µg/L	03:43:46
1	V 292.402†	-113.7	-113.5	[0.00]	µg/L	03:43:46
1	Zn 213.857†	597.7	596.4	[0.00]	µg/L	03:44:07
2	Sc RADIAL	125034.9	125034.9	100	%	03:42:44
2	Al 396.153Radial†	171.9	171.6	[0.00]	µg/L	03:42:44
2	Ca 317.933Radial†	447.1	446.2	[0.00]	µg/L	03:43:05
2	Fe 238.204 Radial†	8.6	8.5	[0.00]	µg/L	03:43:05
2	K 766.490 Radial†	819.3	817.6	[0.00]	µg/L	03:42:44
2	Mg 279.077 IEC†	16.7	16.7	[0.00]	µg/L	03:43:05
2	Na 589.592 Radial†	-758.0	-756.5	[0.00]	µg/L	03:42:44
2	Sr 421.552†	-99.0	-98.8	[0.00]	µg/L	03:42:44
2	Sc 361.383	2171409.1	2171409.1	99.583	%	03:44:13
2	Y 371.029	1320495.9	1320495.9	99.591	%	03:44:13
2	Ag 328.068†	84.7	85.0	[0.00]	µg/L	03:44:18
2	As 188.979†	1.4	1.4	[0.00]	µg/L	03:44:39

2	B 249.677†	137.0	137.6	[0.00]	µg/L	03:44:18
2	Ba 233.527†	-86.1	-86.4	[0.00]	µg/L	03:44:39
2	Be 313.107†	3616.1	3631.3	[0.00]	µg/L	03:44:18
2	Cd 226.502†	-116.0	-116.5	[0.00]	µg/L	03:44:39
2	Co 228.616†	-70.9	-71.2	[0.00]	µg/L	03:44:39
2	Cr 267.716†	-135.7	-136.3	[0.00]	µg/L	03:44:18
2	Cu 324.752†	3389.6	3403.8	[0.00]	µg/L	03:44:18
2	Mn 257.610†	-218.9	-219.8	[0.00]	µg/L	03:44:39
2	Mo 202.031†	-2.8	-2.9	[0.00]	µg/L	03:44:39
2	Ni 231.604†	336.3	337.7	[0.00]	µg/L	03:44:39
2	P 214.914†	210.0	210.9	[0.00]	µg/L	03:44:39
2	Pb 220.353†	52.5	52.7	[0.00]	µg/L	03:44:39
2	S 181.975 Axial†	22.1	22.2	[0.00]	µg/L	03:44:39
2	Sb 206.836†	25.0	25.1	[0.00]	µg/L	03:44:39
2	Se 196.026†	17.0	17.1	[0.00]	µg/L	03:44:39
2	SiO2†	2108.1	2116.9	[0.00]	µg/L	03:44:18
2	Si 251.611†	385.6	387.2	[0.00]	µg/L	03:44:39
2	Sn 189.927†	19.0	19.1	[0.00]	µg/L	03:44:39
2	Ti 334.940†	925.6	929.5	[0.00]	µg/L	03:44:18
2	Tl 190.801†	-24.0	-24.1	[0.00]	µg/L	03:44:39
2	U 409.014†	915.6	919.5	[0.00]	µg/L	03:44:18
2	V 292.402†	-95.3	-95.7	[0.00]	µg/L	03:44:18
2	Zn 213.857†	597.3	599.9	[0.00]	µg/L	03:44:39
3	Sc RADIAL	124598.9	124598.9	99.9	%	03:43:10
3	Al 396.153Radial†	216.4	216.8	[0.00]	µg/L	03:43:10
3	Ca 317.933Radial†	435.5	436.1	[0.00]	µg/L	03:43:31
3	Fe 238.204 Radial†	9.1	9.1	[0.00]	µg/L	03:43:31
3	K 766.490 Radial†	854.7	856.0	[0.00]	µg/L	03:43:10
3	Mg 279.077 IEC†	11.1	11.1	[0.00]	µg/L	03:43:31
3	Na 589.592 Radial†	-742.0	-743.2	[0.00]	µg/L	03:43:10
3	Sr 421.552†	-122.5	-122.7	[0.00]	µg/L	03:43:10
3	Sc 361.383	2184906.1	2184906.1	100.20	%	03:44:45
3	Y 371.029	1328241.9	1328241.9	100.18	%	03:44:45
3	Ag 328.068†	117.6	117.3	[0.00]	µg/L	03:44:51
3	As 188.979†	-0.6	-0.6	[0.00]	µg/L	03:45:11
3	B 249.677†	182.9	182.5	[0.00]	µg/L	03:44:51
3	Ba 233.527†	-93.6	-93.4	[0.00]	µg/L	03:45:11
3	Be 313.107†	3737.1	3729.6	[0.00]	µg/L	03:44:51
3	Cd 226.502†	-105.2	-105.0	[0.00]	µg/L	03:45:11
3	Co 228.616†	-84.5	-84.4	[0.00]	µg/L	03:45:11
3	Cr 267.716†	-113.4	-113.2	[0.00]	µg/L	03:44:51
3	Cu 324.752†	3394.3	3387.5	[0.00]	µg/L	03:44:51
3	Mn 257.610†	-224.1	-223.6	[0.00]	µg/L	03:45:11
3	Mo 202.031†	5.4	5.4	[0.00]	µg/L	03:45:11
3	Ni 231.604†	332.9	332.2	[0.00]	µg/L	03:45:11
3	P 214.914†	214.2	213.7	[0.00]	µg/L	03:45:11
3	Pb 220.353†	51.8	51.7	[0.00]	µg/L	03:45:11
3	S 181.975 Axial†	27.9	27.8	[0.00]	µg/L	03:45:11
3	Sb 206.836†	20.9	20.9	[0.00]	µg/L	03:45:11
3	Se 196.026†	7.9	7.9	[0.00]	µg/L	03:45:11
3	SiO2†	2160.9	2156.6	[0.00]	µg/L	03:44:51
3	Si 251.611†	378.3	377.5	[0.00]	µg/L	03:45:11
3	Sn 189.927†	25.5	25.4	[0.00]	µg/L	03:45:11
3	Ti 334.940†	821.3	819.6	[0.00]	µg/L	03:44:51
3	Tl 190.801†	-21.0	-21.0	[0.00]	µg/L	03:45:11
3	U 409.014†	990.2	988.2	[0.00]	µg/L	03:44:51
3	V 292.402†	-80.3	-80.1	[0.00]	µg/L	03:44:51
3	Zn 213.857†	593.7	592.5	[0.00]	µg/L	03:45:11

Mean Data: S0

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	2180510.3	7883.38	0.36%	100.00	%
Sc RADIAL	124785.1	224.82	0.18%	100	%
Y 371.029	1325916.2	4709.82	0.36%	100.00	%
Ag 328.068†	80.8	38.87	48.14%	[0.00]	µg/L
Al 396.153Radial†	207.4	32.19	15.52%	[0.00]	µg/L
As 188.979†	1.0	1.50	142.68%	[0.00]	µg/L
B 249.677†	166.2	24.91	14.98%	[0.00]	µg/L
Ba 233.527†	-87.2	5.77	6.61%	[0.00]	µg/L

Be 313.107†	3642.2	82.45	2.26%	[0.00] µg/L
Ca 317.933Radial†	444.1	7.18	1.62%	[0.00] µg/L
Cd 226.502†	-109.9	5.93	5.40%	[0.00] µg/L
Co 228.616†	-75.7	7.49	9.90%	[0.00] µg/L
Cr 267.716†	-135.6	22.09	16.29%	[0.00] µg/L
Cu 324.752†	3403.4	15.79	0.46%	[0.00] µg/L
Fe 238.204 Radial†	8.3	1.02	12.35%	[0.00] µg/L
K 766.490 Radial†	832.5	20.61	2.48%	[0.00] µg/L
Mg 279.077 IEC†	15.7	4.11	26.26%	[0.00] µg/L
Mn 257.610†	-221.5	1.96	0.88%	[0.00] µg/L
Mo 202.031†	-1.1	5.78	547.29%	[0.00] µg/L
Na 589.592 Radial†	-745.5	10.10	1.36%	[0.00] µg/L
Ni 231.604†	333.4	3.83	1.15%	[0.00] µg/L
P 214.914†	211.9	1.58	0.75%	[0.00] µg/L
Pb 220.353†	51.6	1.19	2.31%	[0.00] µg/L
S 181.975 Axial†	25.7	3.05	11.86%	[0.00] µg/L
Sb 206.836†	22.8	2.16	9.47%	[0.00] µg/L
Se 196.026†	12.4	4.58	36.93%	[0.00] µg/L
SiO2†	2127.3	25.66	1.21%	[0.00] µg/L
Si 251.611†	379.0	7.61	2.01%	[0.00] µg/L
Sn 189.927†	22.2	3.18	14.35%	[0.00] µg/L
Sr 421.552†	-110.5	11.98	10.84%	[0.00] µg/L
Ti 334.940†	883.4	57.02	6.45%	[0.00] µg/L
Tl 190.801†	-23.6	2.40	10.19%	[0.00] µg/L
U 409.014†	936.5	45.65	4.87%	[0.00] µg/L
V 292.402†	-96.4	16.69	17.30%	[0.00] µg/L
Zn 213.857†	596.2	3.69	0.62%	[0.00] µg/L

Sequence No.: 2
Sample ID: S0.1
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 2
Date Collected: 12/19/2009 03:45:20
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	128281.1	128281.1	103	%	03:45:55
1	K 766.490 Radial†	2741.6	1834.4	[1000]	µg/L	03:45:55
1	Sr 421.552†	19484.9	19064.3	[100]	µg/L	03:45:55
1	Sc 361.383	2196995.8	2196995.8	100.76	%	03:46:17
1	Y 371.029	1335931.0	1335931.0	100.76	%	03:46:17
1	Ag 328.068†	11528.4	11361.1	[100]	µg/L	03:46:23
1	As 188.979†	56.6	55.1	[100]	µg/L	03:46:43
1	B 249.677†	2456.1	2271.4	[100]	µg/L	03:46:23
1	Ba 233.527†	4063.5	4120.3	[100]	µg/L	03:46:23
1	Be 313.107†	171307.4	166379.7	[100]	µg/L	03:46:17
1	Cd 226.502†	3954.4	4034.7	[100]	µg/L	03:46:23
1	Co 228.616†	2094.8	2154.8	[100]	µg/L	03:46:43
1	Cr 267.716†	4883.1	4982.1	[100]	µg/L	03:46:23
1	Cu 324.752†	18300.1	14759.4	[100]	µg/L	03:46:23
1	Mn 257.610†	32668.4	32644.7	[100]	µg/L	03:46:23
1	Mo 202.031†	913.2	907.4	[100]	µg/L	03:46:43
1	Ni 231.604†	2285.8	1935.3	[100]	µg/L	03:46:23
1	P 214.914†	450.4	235.1	[500]	µg/L	03:46:43
1	Pb 220.353†	487.7	432.4	[100]	µg/L	03:46:43
1	S 181.975 Axial†	67.9	41.7	[200]	µg/L	03:46:43
1	Sb 206.836†	126.8	103.1	[100]	µg/L	03:46:43
1	Se 196.026†	90.4	77.3	[100]	µg/L	03:46:43
1	SiO2†	7886.8	5700.3	[1069.5]	µg/L	03:46:23
1	Si 251.611†	7111.1	6678.7	[500]	µg/L	03:46:23
1	Sn 189.927†	238.2	214.2	[100]	µg/L	03:46:43
1	Ti 334.940†	46536.6	45304.1	[100]	µg/L	03:46:23
1	Tl 190.801†	45.9	69.2	[100]	µg/L	03:46:43
1	U 409.014†	2032.0	1080.2	[100]	µg/L	03:46:23
1	V 292.402†	9044.6	9073.2	[100]	µg/L	03:46:23
1	Zn 213.857†	4538.6	3908.3	[100]	µg/L	03:46:23
2	Sc RADIAL	128152.2	128152.2	103	%	03:46:01
2	K 766.490 Radial†	2768.1	1862.9	[1000]	µg/L	03:46:01
2	Sr 421.552†	19566.0	19162.4	[100]	µg/L	03:46:01
2	Sc 361.383	2183238.2	2183238.2	100.13	%	03:46:50
2	Y 371.029	1327924.2	1327924.2	100.15	%	03:46:50
2	Ag 328.068†	11679.2	11583.9	[100]	µg/L	03:46:55
2	As 188.979†	53.4	52.2	[100]	µg/L	03:47:16
2	B 249.677†	2496.4	2327.0	[100]	µg/L	03:46:55
2	Ba 233.527†	4120.2	4202.3	[100]	µg/L	03:46:55
2	Be 313.107†	170280.0	166425.1	[100]	µg/L	03:46:50
2	Cd 226.502†	4015.4	4120.3	[100]	µg/L	03:46:55
2	Co 228.616†	2051.3	2124.5	[100]	µg/L	03:47:16
2	Cr 267.716†	4911.3	5040.8	[100]	µg/L	03:46:55
2	Cu 324.752†	18380.2	14953.8	[100]	µg/L	03:46:55
2	Mn 257.610†	33009.6	33189.9	[100]	µg/L	03:46:55
2	Mo 202.031†	911.5	911.4	[100]	µg/L	03:47:16
2	Ni 231.604†	2317.4	1981.1	[100]	µg/L	03:46:55
2	P 214.914†	453.9	241.4	[500]	µg/L	03:47:16
2	Pb 220.353†	459.9	407.7	[100]	µg/L	03:47:16
2	S 181.975 Axial†	66.2	40.4	[200]	µg/L	03:47:16
2	Sb 206.836†	118.4	95.5	[100]	µg/L	03:47:16
2	Se 196.026†	85.4	72.9	[100]	µg/L	03:47:16
2	SiO2†	7972.4	5835.1	[1069.5]	µg/L	03:46:55
2	Si 251.611†	7151.6	6763.6	[500]	µg/L	03:46:55
2	Sn 189.927†	239.5	217.1	[100]	µg/L	03:47:16
2	Ti 334.940†	47095.6	46153.4	[100]	µg/L	03:46:55
2	Tl 190.801†	52.1	75.6	[100]	µg/L	03:47:16
2	U 409.014†	2002.8	1063.8	[100]	µg/L	03:46:55
2	V 292.402†	9104.7	9189.7	[100]	µg/L	03:46:55

2	Zn 213.857†	4555.5	3953.6	[100]	µg/L	03:46:55
3	Sc RADIAL	127459.0	127459.0	102	%	03:46:06
3	K 766.490 Radial†	2700.2	1811.1	[1000]	µg/L	03:46:06
3	Sr 421.552†	19451.3	19153.8	[100]	µg/L	03:46:06
3	Sc 361.383	2226209.8	2226209.8	102.10	%	03:47:22
3	Y 371.029	1354428.8	1354428.8	102.15	%	03:47:22
3	Ag 328.068†	11580.3	11261.8	[100]	µg/L	03:47:28
3	As 188.979†	57.4	55.2	[100]	µg/L	03:47:48
3	B 249.677†	2433.9	2217.7	[100]	µg/L	03:47:28
3	Ba 233.527†	4052.1	4056.2	[100]	µg/L	03:47:28
3	Be 313.107†	171123.5	163968.4	[100]	µg/L	03:47:22
3	Cd 226.502†	3933.8	3963.0	[100]	µg/L	03:47:28
3	Co 228.616†	2092.9	2125.6	[100]	µg/L	03:47:48
3	Cr 267.716†	4847.9	4884.0	[100]	µg/L	03:47:28
3	Cu 324.752†	18166.1	14389.7	[100]	µg/L	03:47:28
3	Mn 257.610†	32680.6	32231.2	[100]	µg/L	03:47:28
3	Mo 202.031†	920.6	902.7	[100]	µg/L	03:47:48
3	Ni 231.604†	2311.7	1930.8	[100]	µg/L	03:47:28
3	P 214.914†	454.3	233.1	[500]	µg/L	03:47:48
3	Pb 220.353†	471.2	409.9	[100]	µg/L	03:47:48
3	S 181.975 Axial†	68.2	41.0	[200]	µg/L	03:47:48
3	Sb 206.836†	130.5	105.1	[100]	µg/L	03:47:48
3	Se 196.026†	87.0	72.8	[100]	µg/L	03:47:48
3	SiO2†	7916.8	5626.9	[1069.5]	µg/L	03:47:28
3	Si 251.611†	7058.7	6534.8	[500]	µg/L	03:47:28
3	Sn 189.927†	243.6	216.5	[100]	µg/L	03:47:48
3	Ti 334.940†	46533.3	44694.7	[100]	µg/L	03:47:28
3	Tl 190.801†	48.5	71.1	[100]	µg/L	03:47:48
3	U 409.014†	2032.9	1054.7	[100]	µg/L	03:47:28
3	V 292.402†	9073.5	8983.7	[100]	µg/L	03:47:28
3	Zn 213.857†	4530.8	3841.6	[100]	µg/L	03:47:28

Mean Data: S0.1

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	2202147.9	21944.16	1.00%	100.99	%
Sc RADIAL	127964.1	442.19	0.35%	103	%
Y 371.029	1339428.0	13593.94	1.01%	101.02	%
Ag 328.068†	11402.3	164.92	1.45%	[100]	µg/L
As 188.979†	54.2	1.68	3.09%	[100]	µg/L
B 249.677†	2272.0	54.67	2.41%	[100]	µg/L
Ba 233.527†	4126.3	73.22	1.77%	[100]	µg/L
Be 313.107†	165591.1	1405.43	0.85%	[100]	µg/L
Cd 226.502†	4039.3	78.75	1.95%	[100]	µg/L
Co 228.616†	2135.0	17.20	0.81%	[100]	µg/L
Cr 267.716†	4969.0	79.23	1.59%	[100]	µg/L
Cu 324.752†	14701.0	286.53	1.95%	[100]	µg/L
K 766.490 Radial†	1836.1	25.93	1.41%	[1000]	µg/L
Mn 257.610†	32688.6	480.82	1.47%	[100]	µg/L
Mo 202.031†	907.2	4.33	0.48%	[100]	µg/L
Ni 231.604†	1949.1	27.83	1.43%	[100]	µg/L
P 214.914†	236.5	4.34	1.83%	[500]	µg/L
Pb 220.353†	416.7	13.68	3.28%	[100]	µg/L
S 181.975 Axial†	41.0	0.62	1.51%	[200]	µg/L
Sb 206.836†	101.2	5.06	5.00%	[100]	µg/L
Se 196.026†	74.3	2.60	3.50%	[100]	µg/L
SiO2†	5720.8	105.59	1.85%	[1069.5]	µg/L
Si 251.611†	6659.1	115.66	1.74%	[500]	µg/L
Sn 189.927†	215.9	1.50	0.69%	[100]	µg/L
Sr 421.552†	19126.8	54.29	0.28%	[100]	µg/L
Ti 334.940†	45384.0	732.62	1.61%	[100]	µg/L
Tl 190.801†	71.9	3.29	4.57%	[100]	µg/L
U 409.014†	1066.2	12.95	1.21%	[100]	µg/L
V 292.402†	9082.2	103.30	1.14%	[100]	µg/L
Zn 213.857†	3901.2	56.37	1.44%	[100]	µg/L

Sequence No.: 3
Sample ID: S0.5
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 3
Date Collected: 12/19/2009 03:47:58
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	126677.2	126677.2	102	%	03:48:30
1	Al 396.153Radial†	10812.3	10443.4	[5000]	µg/L	03:48:51
1	Ca 317.933Radial†	14533.6	13872.4	[5000]	µg/L	03:48:51
1	K 766.490 Radial†	10510.8	9521.3	[5000]	µg/L	03:48:30
1	Mg 279.077 IEC†	1001.5	970.8	[5000]	µg/L	03:48:51
1	Sr 421.552†	96348.8	95020.1	[500]	µg/L	03:48:30
1	Sc 361.383	2211393.1	2211393.1	101.42	%	03:49:54
1	Y 371.029	1337377.6	1337377.6	100.86	%	03:49:54
1	Ag 328.068†	57104.4	56226.1	[500]	µg/L	03:50:00
1	As 188.979†	282.4	277.4	[500]	µg/L	03:50:20
1	B 249.677†	11949.5	11616.4	[500]	µg/L	03:50:00
1	Ba 233.527†	20655.3	20454.1	[500]	µg/L	03:50:00
1	Be 313.107†	853379.6	837819.7	[500]	µg/L	03:49:54
1	Cd 226.502†	20164.3	19992.6	[500]	µg/L	03:50:00
1	Co 228.616†	10847.7	10771.9	[500]	µg/L	03:50:00
1	Cr 267.716†	24897.3	24685.2	[500]	µg/L	03:50:00
1	Cu 324.752†	76273.0	71804.4	[500]	µg/L	03:50:00
1	Mn 257.610†	165177.4	163092.2	[500]	µg/L	03:49:54
1	Mo 202.031†	4588.1	4525.1	[500]	µg/L	03:50:20
1	Ni 231.604†	10042.6	9569.0	[500]	µg/L	03:50:00
1	P 214.914†	1446.2	1214.1	[2500]	µg/L	03:50:20
1	Pb 220.353†	2135.9	2054.5	[500]	µg/L	03:50:20
1	S 181.975 Axial†	230.8	201.8	[1000]	µg/L	03:50:20
1	Sb 206.836†	541.3	511.0	[500]	µg/L	03:50:20
1	Se 196.026†	382.3	364.5	[500]	µg/L	03:50:20
1	SiO2†	30987.4	28427.3	[5347.5]	µg/L	03:50:00
1	Si 251.611†	34054.3	33199.7	[2500]	µg/L	03:50:00
1	Sn 189.927†	1103.9	1066.4	[500]	µg/L	03:50:20
1	Ti 334.940†	235142.4	230975.2	[500]	µg/L	03:49:54
1	Tl 190.801†	325.7	344.7	[500]	µg/L	03:50:20
1	U 409.014†	6335.3	5310.4	[500]	µg/L	03:50:00
1	V 292.402†	45818.2	45274.7	[500]	µg/L	03:50:00
1	Zn 213.857†	20375.9	19495.1	[500]	µg/L	03:50:00
2	Sc RADIAL	125706.5	125706.5	101	%	03:48:56
2	Al 396.153Radial†	10902.9	10615.5	[5000]	µg/L	03:49:17
2	Ca 317.933Radial†	14680.8	14129.1	[5000]	µg/L	03:49:17
2	K 766.490 Radial†	10460.9	9551.7	[5000]	µg/L	03:48:56
2	Mg 279.077 IEC†	1013.0	989.9	[5000]	µg/L	03:49:17
2	Sr 421.552†	96214.9	95620.1	[500]	µg/L	03:48:56
2	Sc 361.383	2201586.7	2201586.7	100.97	%	03:50:27
2	Y 371.029	1331137.7	1331137.7	100.39	%	03:50:27
2	Ag 328.068†	57373.0	56743.0	[500]	µg/L	03:50:33
2	As 188.979†	286.4	282.6	[500]	µg/L	03:50:53
2	B 249.677†	11943.9	11663.4	[500]	µg/L	03:50:33
2	Ba 233.527†	20761.4	20649.8	[500]	µg/L	03:50:33
2	Be 313.107†	849807.5	838029.9	[500]	µg/L	03:50:27
2	Cd 226.502†	20201.6	20118.1	[500]	µg/L	03:50:33
2	Co 228.616†	10899.3	10870.6	[500]	µg/L	03:50:33
2	Cr 267.716†	24901.8	24799.0	[500]	µg/L	03:50:33
2	Cu 324.752†	76632.0	72494.9	[500]	µg/L	03:50:33
2	Mn 257.610†	164498.8	163145.5	[500]	µg/L	03:50:27
2	Mo 202.031†	4541.3	4498.9	[500]	µg/L	03:50:53
2	Ni 231.604†	10070.6	9640.8	[500]	µg/L	03:50:33
2	P 214.914†	1442.2	1216.5	[2500]	µg/L	03:50:53
2	Pb 220.353†	2127.5	2055.6	[500]	µg/L	03:50:53
2	S 181.975 Axial†	226.8	198.9	[1000]	µg/L	03:50:53
2	Sb 206.836†	541.1	513.1	[500]	µg/L	03:50:53
2	Se 196.026†	390.0	373.8	[500]	µg/L	03:50:53
2	SiO2†	31117.7	28692.5	[5347.5]	µg/L	03:50:33

2	Si 251.611†	34073.8	33368.6	[2500]	µg/L	03:50:33
2	Sn 189.927†	1095.6	1062.9	[500]	µg/L	03:50:53
2	Ti 334.940†	234252.8	231126.9	[500]	µg/L	03:50:27
2	Tl 190.801†	332.1	352.5	[500]	µg/L	03:50:53
2	U 409.014†	6436.0	5437.9	[500]	µg/L	03:50:33
2	V 292.402†	46146.4	45801.0	[500]	µg/L	03:50:33
2	Zn 213.857†	20425.0	19633.2	[500]	µg/L	03:50:33
3	Sc RADIAL	124797.3	124797.3	100	%	03:49:22
3	Al 396.153Radial†	10879.6	10671.1	[5000]	µg/L	03:49:42
3	Ca 317.933Radial†	14614.0	14168.5	[5000]	µg/L	03:49:42
3	K 766.490 Radial†	10561.7	9728.1	[5000]	µg/L	03:49:22
3	Mg 279.077 IEC†	1011.8	996.0	[5000]	µg/L	03:49:42
3	Sr 421.552†	97064.8	97165.8	[500]	µg/L	03:49:22
3	Sc 361.383	2192595.4	2192595.4	100.55	%	03:51:01
3	Y 371.029	1326240.5	1326240.5	100.02	%	03:51:01
3	Ag 328.068†	54875.7	54492.5	[500]	µg/L	03:51:06
3	As 188.979†	241.5	239.2	[500]	µg/L	03:51:27
3	B 249.677†	11404.7	11175.6	[500]	µg/L	03:51:06
3	Ba 233.527†	19430.1	19410.2	[500]	µg/L	03:51:06
3	Be 313.107†	810003.7	801896.9	[500]	µg/L	03:51:01
3	Cd 226.502†	18803.8	18810.0	[500]	µg/L	03:51:06
3	Co 228.616†	10115.7	10135.7	[500]	µg/L	03:51:06
3	Cr 267.716†	22575.5	22586.7	[500]	µg/L	03:51:06
3	Cu 324.752†	71401.8	67604.8	[500]	µg/L	03:51:06
3	Mn 257.610†	157133.6	156489.0	[500]	µg/L	03:51:01
3	Mo 202.031†	3891.0	3870.6	[500]	µg/L	03:51:27
3	Ni 231.604†	9364.8	8979.8	[500]	µg/L	03:51:06
3	P 214.914†	1275.7	1056.8	[2500]	µg/L	03:51:27
3	Pb 220.353†	1892.4	1830.4	[500]	µg/L	03:51:27
3	S 181.975 Axial†	215.5	188.6	[1000]	µg/L	03:51:27
3	Sb 206.836†	474.4	449.0	[500]	µg/L	03:51:27
3	Se 196.026†	348.4	334.1	[500]	µg/L	03:51:27
3	SiO2†	29445.9	27156.3	[5347.5]	µg/L	03:51:06
3	Si 251.611†	32219.5	31662.9	[2500]	µg/L	03:51:06
3	Sn 189.927†	930.7	903.4	[500]	µg/L	03:51:27
3	Ti 334.940†	222455.6	220346.1	[500]	µg/L	03:51:01
3	Tl 190.801†	299.9	321.8	[500]	µg/L	03:51:27
3	U 409.014†	5881.9	4913.0	[500]	µg/L	03:51:06
3	V 292.402†	42571.2	42433.0	[500]	µg/L	03:51:06
3	Zn 213.857†	19028.4	18327.3	[500]	µg/L	03:51:06

Mean Data: S0.5

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	2201858.4	9401.80	0.43%	100.98	%
Sc RADIAL	125727.0	940.12	0.75%	101	%
Y 371.029	1331585.3	5582.01	0.42%	100.43	%
Ag 328.068†	55820.5	1178.80	2.11%	[500]	µg/L
Al 396.153Radial†	10576.7	118.73	1.12%	[5000]	µg/L
As 188.979†	266.4	23.72	8.90%	[500]	µg/L
B 249.677†	11485.1	269.07	2.34%	[500]	µg/L
Ba 233.527†	20171.4	666.41	3.30%	[500]	µg/L
Be 313.107†	825915.5	20800.95	2.52%	[500]	µg/L
Ca 317.933Radial†	14056.7	160.77	1.14%	[5000]	µg/L
Cd 226.502†	19640.3	721.73	3.67%	[500]	µg/L
Co 228.616†	10592.8	398.89	3.77%	[500]	µg/L
Cr 267.716†	24023.6	1245.72	5.19%	[500]	µg/L
Cu 324.752†	70634.7	2646.59	3.75%	[500]	µg/L
K 766.490 Radial†	9600.4	111.69	1.16%	[5000]	µg/L
Mg 279.077 IEC†	985.6	13.13	1.33%	[5000]	µg/L
Mn 257.610†	160908.9	3827.84	2.38%	[500]	µg/L
Mo 202.031†	4298.2	370.57	8.62%	[500]	µg/L
Ni 231.604†	9396.5	362.67	3.86%	[500]	µg/L
P 214.914†	1162.5	91.53	7.87%	[2500]	µg/L
Pb 220.353†	1980.1	129.70	6.55%	[500]	µg/L
S 181.975 Axial†	196.4	6.96	3.54%	[1000]	µg/L
Sb 206.836†	491.0	36.41	7.42%	[500]	µg/L
Se 196.026†	357.5	20.80	5.82%	[500]	µg/L
SiO2†	28092.0	821.16	2.92%	[5347.5]	µg/L
Si 251.611†	32743.7	939.83	2.87%	[2500]	µg/L

Sn 189.927†	1010.9	93.10	9.21%	[500] µg/L
Sr 421.552†	95935.3	1107.01	1.15%	[500] µg/L
Ti 334.940†	227482.7	6180.97	2.72%	[500] µg/L
Tl 190.801†	339.7	15.96	4.70%	[500] µg/L
U 409.014†	5220.4	273.76	5.24%	[500] µg/L
V 292.402†	44502.9	1811.84	4.07%	[500] µg/L
Zn 213.857†	19151.8	717.44	3.75%	[500] µg/L

Sequence No.: 4
Sample ID: SCAL
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 4
Date Collected: 12/19/2009 03:51:36
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: SCAL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	128742.9	128742.9	103	%	03:52:09
1	Al 396.153Radial†	21326.3	20463.2	[10000]	µg/L	03:52:09
1	Ca 317.933Radial†	28360.3	27044.3	[10000]	µg/L	03:52:29
1	Fe 238.204 Radial†	2043.5	1972.4	[10000]	µg/L	03:52:29
1	K 766.490 Radial†	20023.9	18575.8	[10000]	µg/L	03:52:09
1	Mg 279.077 IEC†	1955.1	1879.3	[10000]	µg/L	03:52:29
1	Na 589.592 Radial†	39078.0	38622.2	[10000]	µg/L	03:52:09
1	Sr 421.552†	191282.9	185513.0	[1000]	µg/L	03:52:09
1	Sc 361.383	2188097.2	2188097.2	100.35	%	03:53:34
1	Y 371.029	1320339.2	1320339.2	99.579	%	03:53:34
1	Ag 328.068†	109578.7	109118.0	[1000]	µg/L	03:53:39
1	As 188.979†	551.8	548.9	[1000]	µg/L	03:54:00
1	B 249.677†	22866.9	22621.4	[1000]	µg/L	03:53:39
1	Ba 233.527†	39607.6	39557.5	[1000]	µg/L	03:53:39
1	Be 313.107†	1665657.5	1656239.8	[1000]	µg/L	03:53:34
1	Cd 226.502†	38173.0	38150.5	[1000]	µg/L	03:53:39
1	Co 228.616†	20744.2	20748.0	[1000]	µg/L	03:53:39
1	Cr 267.716†	47881.5	47851.1	[1000]	µg/L	03:53:39
1	Cu 324.752†	150655.9	146730.1	[1000]	µg/L	03:53:34
1	Mn 257.610†	324337.2	323434.1	[1000]	µg/L	03:53:34
1	Mo 202.031†	8899.4	8869.6	[1000]	µg/L	03:53:39
1	Ni 231.604†	18820.7	18422.0	[1000]	µg/L	03:53:39
1	P 214.914†	2614.2	2393.3	[5000]	µg/L	03:54:00
1	Pb 220.353†	4135.9	4070.0	[1000]	µg/L	03:54:00
1	S 181.975 Axial†	430.2	402.9	[2000]	µg/L	03:54:00
1	Sb 206.836†	1056.8	1030.3	[1000]	µg/L	03:54:00
1	Se 196.026†	737.8	722.8	[1000]	µg/L	03:54:00
1	SiO2†	57584.6	55257.6	[10695]	µg/L	03:53:39
1	Si 251.611†	65003.6	64399.2	[5000]	µg/L	03:53:39
1	Sn 189.927†	2162.2	2132.6	[1000]	µg/L	03:54:00
1	Ti 334.940†	466336.2	463835.9	[1000]	µg/L	03:53:34
1	Tl 190.801†	659.3	680.6	[1000]	µg/L	03:54:00
1	U 409.014†	11440.2	10464.0	[1000]	µg/L	03:53:39
1	V 292.402†	88227.1	88017.6	[1000]	µg/L	03:53:39
1	Zn 213.857†	37490.1	36763.8	[1000]	µg/L	03:53:39
2	Sc RADIAL	127891.2	127891.2	102	%	03:52:35
2	Al 396.153Radial†	21281.0	20556.7	[10000]	µg/L	03:52:35
2	Ca 317.933Radial†	28437.0	27302.3	[10000]	µg/L	03:52:55
2	Fe 238.204 Radial†	2047.1	1989.1	[10000]	µg/L	03:52:55
2	K 766.490 Radial†	19859.8	18545.0	[10000]	µg/L	03:52:35
2	Mg 279.077 IEC†	1976.5	1912.8	[10000]	µg/L	03:52:55
2	Na 589.592 Radial†	39102.5	38898.3	[10000]	µg/L	03:52:35
2	Sr 421.552†	191066.4	186536.4	[1000]	µg/L	03:52:35
2	Sc 361.383	2190658.9	2190658.9	100.47	%	03:54:07
2	Y 371.029	1323260.0	1323260.0	99.800	%	03:54:07
2	Ag 328.068†	112685.9	112083.1	[1000]	µg/L	03:54:13
2	As 188.979†	551.3	547.7	[1000]	µg/L	03:54:33
2	B 249.677†	23433.7	23159.0	[1000]	µg/L	03:54:13
2	Ba 233.527†	40618.5	40517.6	[1000]	µg/L	03:54:13
2	Be 313.107†	1654323.0	1643016.8	[1000]	µg/L	03:54:07
2	Cd 226.502†	39261.3	39189.4	[1000]	µg/L	03:54:13
2	Co 228.616†	21300.2	21277.2	[1000]	µg/L	03:54:13
2	Cr 267.716†	49190.2	49097.9	[1000]	µg/L	03:54:13
2	Cu 324.752†	149621.9	145525.4	[1000]	µg/L	03:54:07
2	Mn 257.610†	322293.1	321021.5	[1000]	µg/L	03:54:07
2	Mo 202.031†	9144.5	9103.2	[1000]	µg/L	03:54:13
2	Ni 231.604†	19317.0	18894.1	[1000]	µg/L	03:54:13
2	P 214.914†	2606.2	2382.2	[5000]	µg/L	03:54:33
2	Pb 220.353†	4128.3	4057.6	[1000]	µg/L	03:54:33

2	S 181.975 Axial†	436.7	408.9	[2000]	µg/L	03:54:33
2	Sb 206.836†	1048.6	1021.0	[1000]	µg/L	03:54:33
2	Se 196.026†	743.5	727.6	[1000]	µg/L	03:54:33
2	SiO2†	59110.6	56709.4	[10695]	µg/L	03:54:13
2	Si 251.611†	66752.0	66063.8	[5000]	µg/L	03:54:13
2	Sn 189.927†	2148.3	2116.1	[1000]	µg/L	03:54:33
2	Ti 334.940†	463199.9	460170.7	[1000]	µg/L	03:54:07
2	Tl 190.801†	666.5	686.9	[1000]	µg/L	03:54:33
2	U 409.014†	11722.5	10731.7	[1000]	µg/L	03:54:13
2	V 292.402†	90645.5	90322.0	[1000]	µg/L	03:54:13
2	Zn 213.857†	38768.4	37992.6	[1000]	µg/L	03:54:13
3	Sc RADIAL	128455.3	128455.3	103	%	03:53:01
3	Al 396.153Radial†	21380.5	20562.2	[10000]	µg/L	03:53:01
3	Ca 317.933Radial†	28105.7	26858.5	[10000]	µg/L	03:53:21
3	Fe 238.204 Radial†	2028.7	1962.5	[10000]	µg/L	03:53:21
3	K 766.490 Radial†	20105.5	18698.5	[10000]	µg/L	03:53:01
3	Mg 279.077 IEC†	1952.6	1881.2	[10000]	µg/L	03:53:21
3	Na 589.592 Radial†	39270.8	38894.2	[10000]	µg/L	03:53:01
3	Sr 421.552†	192301.0	186917.0	[1000]	µg/L	03:53:01
3	Sc 361.383	2183100.8	2183100.8	100.12	%	03:54:40
3	Y 371.029	1319398.0	1319398.0	99.508	%	03:54:40
3	Ag 328.068†	109254.5	109044.1	[1000]	µg/L	03:54:46
3	As 188.979†	496.6	495.0	[1000]	µg/L	03:55:07
3	B 249.677†	22592.7	22399.7	[1000]	µg/L	03:54:46
3	Ba 233.527†	38596.3	38637.8	[1000]	µg/L	03:54:46
3	Be 313.107†	1599521.7	1593981.5	[1000]	µg/L	03:54:40
3	Cd 226.502†	37256.1	37321.8	[1000]	µg/L	03:54:46
3	Co 228.616†	20062.9	20114.8	[1000]	µg/L	03:54:46
3	Cr 267.716†	45647.8	45729.2	[1000]	µg/L	03:54:46
3	Cu 324.752†	145046.5	141470.9	[1000]	µg/L	03:54:40
3	Mn 257.610†	312209.6	312060.7	[1000]	µg/L	03:54:40
3	Mo 202.031†	8585.2	8576.1	[1000]	µg/L	03:54:46
3	Ni 231.604†	18189.2	17834.2	[1000]	µg/L	03:54:46
3	P 214.914†	2379.8	2165.1	[5000]	µg/L	03:55:07
3	Pb 220.353†	3769.1	3713.0	[1000]	µg/L	03:55:07
3	S 181.975 Axial†	399.7	373.5	[2000]	µg/L	03:55:07
3	Sb 206.836†	952.4	928.5	[1000]	µg/L	03:55:07
3	Se 196.026†	680.0	666.8	[1000]	µg/L	03:55:07
3	SiO2†	56716.6	54522.0	[10695]	µg/L	03:54:46
3	Si 251.611†	63897.3	63442.5	[5000]	µg/L	03:54:46
3	Sn 189.927†	1893.9	1869.5	[1000]	µg/L	03:55:07
3	Ti 334.940†	446508.5	445095.3	[1000]	µg/L	03:54:40
3	Tl 190.801†	623.4	646.3	[1000]	µg/L	03:55:07
3	U 409.014†	10884.7	9935.3	[1000]	µg/L	03:54:46
3	V 292.402†	85051.0	85046.5	[1000]	µg/L	03:54:46
3	Zn 213.857†	36530.6	35891.0	[1000]	µg/L	03:54:46

Mean Data: SCAL

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	2187285.6	3843.88	0.18%	100.31	%
Sc RADIAL	128363.2	433.25	0.34%	103	%
Y 371.029	1320999.1	2013.82	0.15%	99.629	%
Ag 328.068†	110081.8	1733.64	1.57%	[1000]	µg/L
Al 396.153Radial†	20527.4	55.62	0.27%	[10000]	µg/L
As 188.979†	530.5	30.78	5.80%	[1000]	µg/L
B 249.677†	22726.7	390.45	1.72%	[1000]	µg/L
Ba 233.527†	39571.0	940.00	2.38%	[1000]	µg/L
Be 313.107†	1631079.4	32800.97	2.01%	[1000]	µg/L
Ca 317.933Radial†	27068.4	222.84	0.82%	[10000]	µg/L
Cd 226.502†	38220.6	935.74	2.45%	[1000]	µg/L
Co 228.616†	20713.3	582.01	2.81%	[1000]	µg/L
Cr 267.716†	47559.4	1703.17	3.58%	[1000]	µg/L
Cu 324.752†	144575.5	2755.26	1.91%	[1000]	µg/L
Fe 238.204 Radial†	1974.7	13.44	0.68%	[10000]	µg/L
K 766.490 Radial†	18606.4	81.23	0.44%	[10000]	µg/L
Mg 279.077 IEC†	1891.1	18.84	1.00%	[10000]	µg/L
Mn 257.610†	318838.8	5992.66	1.88%	[1000]	µg/L
Mo 202.031†	8849.6	264.10	2.98%	[1000]	µg/L
Na 589.592 Radial†	38804.9	158.25	0.41%	[10000]	µg/L

Ni 231.604†	18383.4	531.01	2.89%	[1000]	µg/L
P 214.914†	2313.5	128.68	5.56%	[5000]	µg/L
Pb 220.353†	3946.9	202.59	5.13%	[1000]	µg/L
S 181.975 Axial†	395.1	18.95	4.80%	[2000]	µg/L
Sb 206.836†	993.3	56.27	5.67%	[1000]	µg/L
Se 196.026†	705.7	33.81	4.79%	[1000]	µg/L
SiO2†	55496.3	1113.08	2.01%	[10695]	µg/L
Si 251.611†	64635.2	1326.47	2.05%	[5000]	µg/L
Sn 189.927†	2039.4	147.37	7.23%	[1000]	µg/L
Sr 421.552†	186322.1	726.13	0.39%	[1000]	µg/L
Ti 334.940†	456367.3	9932.36	2.18%	[1000]	µg/L
Tl 190.801†	671.3	21.88	3.26%	[1000]	µg/L
U 409.014†	10377.0	405.28	3.91%	[1000]	µg/L
V 292.402†	87795.4	2644.76	3.01%	[1000]	µg/L
Zn 213.857†	36882.5	1055.83	2.86%	[1000]	µg/L

Sequence No.: 5
Sample ID: S10
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 5
Date Collected: 12/19/2009 03:55:15
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S10

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	127302.3	127302.3	102	%	03:55:48
1	Al 396.153Radial†	104375.6	102104.3	[50000]	µg/L	03:55:48
1	Ca 317.933Radial†	139604.1	136399.5	[50000]	µg/L	03:55:48
1	Fe 238.204 Radial†	4051.2	3962.9	[20000]	µg/L	03:55:54
1	Mg 279.077 IEC†	9549.9	9345.4	[50000]	µg/L	03:55:54
1	Na 589.592 Radial†	77426.1	76640.5	[20000]	µg/L	03:55:48
1	Sc 361.383	2194678.7	2194678.7	100.65	%	03:56:27
1	Y 371.029	1316779.4	1316779.4	99.311	%	03:56:27
2	Sc RADIAL	126607.5	126607.5	101	%	03:55:59
2	Al 396.153Radial†	104442.3	102731.5	[50000]	µg/L	03:55:59
2	Ca 317.933Radial†	139523.7	137071.3	[50000]	µg/L	03:55:59
2	Fe 238.204 Radial†	4045.6	3979.2	[20000]	µg/L	03:56:05
2	Mg 279.077 IEC†	9506.4	9353.9	[50000]	µg/L	03:56:05
2	Na 589.592 Radial†	77389.7	77021.2	[20000]	µg/L	03:55:59
2	Sc 361.383	2202329.4	2202329.4	101.00	%	03:56:35
2	Y 371.029	1321131.3	1321131.3	99.639	%	03:56:35
3	Sc RADIAL	126369.0	126369.0	101	%	03:56:10
3	Al 396.153Radial†	104886.0	103363.9	[50000]	µg/L	03:56:10
3	Ca 317.933Radial†	140029.1	137829.8	[50000]	µg/L	03:56:10
3	Fe 238.204 Radial†	4066.8	4007.5	[20000]	µg/L	03:56:16
3	Mg 279.077 IEC†	9577.7	9442.0	[50000]	µg/L	03:56:16
3	Na 589.592 Radial†	77755.9	77526.7	[20000]	µg/L	03:56:10
3	Sc 361.383	2201799.1	2201799.1	100.98	%	03:56:43
3	Y 371.029	1320713.6	1320713.6	99.608	%	03:56:43

Mean Data: S10

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	2199602.4	4272.27	0.19%	100.88	%
Sc RADIAL	126759.6	484.88	0.38%	102	%
Y 371.029	1319541.5	2401.08	0.18%	99.519	%
Al 396.153Radial†	102733.2	629.80	0.61%	[50000]	µg/L
Ca 317.933Radial†	137100.2	715.60	0.52%	[50000]	µg/L
Fe 238.204 Radial†	3983.2	22.61	0.57%	[20000]	µg/L
Mg 279.077 IEC†	9380.4	53.45	0.57%	[50000]	µg/L
Na 589.592 Radial†	77062.8	444.57	0.58%	[20000]	µg/L

Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 328.068	3	Lin Thru 0	0.0	110.4	0.00000	0.999980	
Al 396.153Radial	3	Lin Thru 0	0.0	2.055	0.00000	0.999996	
As 188.979	3	Lin Thru 0	0.0	0.5310	0.00000	0.999997	
B 249.677	3	Lin Thru 0	0.0	22.77	0.00000	0.999991	
Ba 233.527	3	Lin Thru 0	0.0	39.74	0.00000	0.999964	
Be 313.107	3	Lin Thru 0	0.0	1635	0.00000	0.999987	
Ca 317.933Radial	3	Lin Thru 0	0.0	2.741	0.00000	0.999994	
Cd 226.502	3	Lin Thru 0	0.0	38.45	0.00000	0.999929	
Co 228.616	3	Lin Thru 0	0.0	20.81	0.00000	0.999956	
Cr 267.716	3	Lin Thru 0	0.0	47.67	0.00000	0.999985	
Cu 324.752	3	Lin Thru 0	0.0	143.9	0.00000	0.999956	
Fe 238.204 Radia	2	Lin Thru 0	0.0	0.1988	0.00000	0.999994	
K 766.490 Radial	3	Lin Thru 0	0.0	1.872	0.00000	0.999919	
Mg 279.077 IEC	3	Lin Thru 0	0.0	0.1878	0.00000	0.999987	
Mn 257.610	3	Lin Thru 0	0.0	319.5	0.00000	0.999991	
Mo 202.031	3	Lin Thru 0	0.0	8.801	0.00000	0.999931	
Na 589.592 Radia	2	Lin Thru 0	0.0	3.859	0.00000	0.999996	

Ni 231.604	3	Lin Thru 0	0.0	18.47	0.00000	0.999949
P 214.914	3	Lin Thru 0	0.0	0.4632	0.00000	0.999996
Pb 220.353	3	Lin Thru 0	0.0	3.951	0.00000	0.999987
S 181.975 Axial	3	Lin Thru 0	0.0	0.1974	0.00000	0.999991
Sb 206.836	3	Lin Thru 0	0.0	0.9912	0.00000	0.999988
Se 196.026	3	Lin Thru 0	0.0	0.7079	0.00000	0.999977
SiO2	3	Lin Thru 0	0.0	5.203	0.00000	0.999985
Si 251.611	3	Lin Thru 0	0.0	12.96	0.00000	0.999983
Sn 189.927	3	Lin Thru 0	0.0	2.037	0.00000	0.999980
Sr 421.552	3	Lin Thru 0	0.0	187.5	0.00000	0.999929
Ti 334.940	3	Lin Thru 0	0.0	456.1	0.00000	0.999999
Tl 190.801	3	Lin Thru 0	0.0	0.6733	0.00000	0.999970
U 409.014	3	Lin Thru 0	0.0	10.39	0.00000	0.999994
V 292.402	3	Lin Thru 0	0.0	88.06	0.00000	0.999981
Zn 213.857	3	Lin Thru 0	0.0	37.18	0.00000	0.999874

Sequence No.: 6
Sample ID: ICV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 9
Date Collected: 12/19/2009 03:56:52
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	127159.1	127159.1	102	%			03:57:26
1	Al 396.153Radial†	10983.4	10571.0	5122.8	µg/L	5122.8	ppb	03:57:26
1	Ca 317.933Radial†	14385.0	13672.3	4987.5	µg/L	4987.5	ppb	03:57:46
1	Fe 238.204 Radial†	1043.1	1015.4	5124.4	µg/L	5124.4	ppb	03:57:46
1	K 766.490 Radial†	5532.5	4596.8	2455.2	µg/L	2455.2	ppb	03:57:26
1	Mg 279.077 IEC†	1019.6	984.9	5251.5	µg/L	5251.5	ppb	03:57:46
1	Na 589.592 Radial†	9205.0	9778.6	2534.2	µg/L	2534.2	ppb	03:57:26
1	Sr 421.552†	101297.0	99516.4	530.86	µg/L	530.86	ppb	03:57:26
1	Sc 361.383	2182305.8	2182305.8	100.08	%			03:58:50
1	Y 371.029	1320802.3	1320802.3	99.614	%			03:58:50
1	Ag 328.068†	28381.8	28277.7	260.01	µg/L	260.01	ppb	03:58:56
1	As 188.979†	264.7	263.5	494.98	µg/L	494.98	ppb	03:59:16
1	B 249.677†	12149.1	11972.9	524.10	µg/L	524.10	ppb	03:58:56
1	Ba 233.527†	20483.1	20553.5	518.31	µg/L	518.31	ppb	03:58:56
1	Be 313.107†	431612.9	427615.6	261.29	µg/L	261.29	ppb	03:58:50
1	Cd 226.502†	19434.6	19528.5	508.43	µg/L	508.43	ppb	03:58:56
1	Co 228.616†	10755.5	10822.3	520.24	µg/L	520.24	ppb	03:58:56
1	Cr 267.716†	23820.4	23936.4	503.30	µg/L	503.30	ppb	03:58:56
1	Cu 324.752†	75535.2	72069.7	501.79	µg/L	501.79	ppb	03:58:56
1	Mn 257.610†	163243.3	163330.5	511.86	µg/L	511.86	ppb	03:58:50
1	Mo 202.031†	4804.7	4801.8	545.79	µg/L	545.79	ppb	03:59:16
1	Ni 231.604†	9668.7	9327.3	504.88	µg/L	504.88	ppb	03:58:56
1	P 214.914†	1431.6	1218.5	2576.9	µg/L	2576.9	ppb	03:59:16
1	Pb 220.353†	2101.6	2048.3	519.28	µg/L	519.28	ppb	03:59:16
1	S 181.975 Axial†	526.0	499.8	2530.6	µg/L	2530.6	ppb	03:59:16
1	Sb 206.836†	535.9	512.7	515.67	µg/L	515.67	ppb	03:59:16
1	Se 196.026†	1852.0	1838.0	2598.7	µg/L	2598.7	ppb	03:59:16
1	SiO2†	58003.2	55828.2	10730	µg/L	10730	ppb	03:58:56
1	Si 251.611†	65335.8	64903.1	4956.9	µg/L	4956.9	ppb	03:58:56
1	Sn 189.927†	1153.7	1130.5	557.80	µg/L	557.80	ppb	03:59:16
1	Ti 334.940†	227054.8	225984.6	495.22	µg/L	495.22	ppb	03:58:50
1	Tl 190.801†	336.4	359.7	536.57	µg/L	536.57	ppb	03:59:16
1	U 409.014†	6154.5	5213.0	500.80	µg/L	500.80	ppb	03:58:56
1	V 292.402†	45125.5	45184.8	518.15	µg/L	518.15	ppb	03:58:56
1	Zn 213.857†	19799.9	19187.3	512.01	µg/L	512.01	ppb	03:58:56
2	Sc RADIAL	127418.1	127418.1	102	%			03:57:52
2	Al 396.153Radial†	10989.7	10555.2	5115.2	µg/L	5115.2	ppb	03:57:52
2	Ca 317.933Radial†	14412.2	13670.3	4986.8	µg/L	4986.8	ppb	03:58:12
2	Fe 238.204 Radial†	1049.9	1020.0	5147.6	µg/L	5147.6	ppb	03:58:12
2	K 766.490 Radial†	5539.9	4592.9	2453.2	µg/L	2453.2	ppb	03:57:52
2	Mg 279.077 IEC†	1006.5	970.0	5172.4	µg/L	5172.4	ppb	03:58:12
2	Na 589.592 Radial†	9163.7	9719.8	2519.0	µg/L	2519.0	ppb	03:57:52
2	Sr 421.552†	101446.3	99460.5	530.56	µg/L	530.56	ppb	03:57:52
2	Sc 361.383	2189190.1	2189190.1	100.40	%			03:59:23
2	Y 371.029	1325508.1	1325508.1	99.969	%			03:59:23
2	Ag 328.068†	29043.9	28848.0	265.23	µg/L	265.23	ppb	03:59:29
2	As 188.979†	263.1	261.0	490.25	µg/L	490.25	ppb	03:59:49
2	B 249.677†	12347.0	12131.8	531.07	µg/L	531.07	ppb	03:59:29
2	Ba 233.527†	20910.2	20914.6	527.42	µg/L	527.42	ppb	03:59:29
2	Be 313.107†	434428.8	429064.1	262.18	µg/L	262.18	ppb	03:59:23
2	Cd 226.502†	19961.3	19992.1	520.50	µg/L	520.50	ppb	03:59:29
2	Co 228.616†	10981.7	11013.9	529.44	µg/L	529.44	ppb	03:59:29
2	Cr 267.716†	24344.8	24383.9	512.71	µg/L	512.71	ppb	03:59:29
2	Cu 324.752†	77001.2	73292.5	510.29	µg/L	510.29	ppb	03:59:29
2	Mn 257.610†	164329.8	163899.7	513.64	µg/L	513.64	ppb	03:59:23
2	Mo 202.031†	4809.7	4791.7	544.64	µg/L	544.64	ppb	03:59:49
2	Ni 231.604†	9858.2	9485.7	513.46	µg/L	513.46	ppb	03:59:29
2	P 214.914†	1431.2	1213.6	2565.0	µg/L	2565.0	ppb	03:59:49
2	Pb 220.353†	2109.6	2049.7	519.61	µg/L	519.61	ppb	03:59:49

2	S 181.975 Axial†	529.3	501.4	2538.7 µg/L	2538.7 ppb		03:59:49
2	Sb 206.836†	538.9	514.0	517.00 µg/L	517.00 ppb		03:59:49
2	Se 196.026†	1853.1	1833.4	2592.2 µg/L	2592.2 ppb		03:59:49
2	SiO2†	59146.9	56785.1	10914 µg/L	10914 ppb		03:59:29
2	Si 251.611†	66661.9	66018.7	5043.1 µg/L	5043.1 ppb		03:59:29
2	Sn 189.927†	1149.2	1122.5	553.81 µg/L	553.81 ppb		03:59:49
2	Ti 334.940†	228393.8	226604.9	496.58 µg/L	496.58 ppb		03:59:23
2	Tl 190.801†	335.1	357.3	533.00 µg/L	533.00 ppb		03:59:49
2	U 409.014†	6209.6	5248.5	504.21 µg/L	504.21 ppb		03:59:29
2	V 292.402†	46066.6	45980.4	527.18 µg/L	527.18 ppb		03:59:29
2	Zn 213.857†	20214.4	19538.0	521.39 µg/L	521.39 ppb		03:59:29
3	Sc RADIAL	126791.1	126791.1	102 %			03:58:18
3	Al 396.153Radial†	11013.1	10631.4	5154.9 µg/L	5154.9 ppb		03:58:18
3	Ca 317.933Radial†	14349.5	13678.4	4989.7 µg/L	4989.7 ppb		03:58:38
3	Fe 238.204 Radial†	1036.2	1011.6	5104.2 µg/L	5104.2 ppb		03:58:38
3	K 766.490 Radial†	5542.9	4622.7	2469.1 µg/L	2469.1 ppb		03:58:18
3	Mg 279.077 IEC†	1008.6	977.0	5207.8 µg/L	5207.8 ppb		03:58:38
3	Na 589.592 Radial†	9213.4	9813.1	2543.2 µg/L	2543.2 ppb		03:58:18
3	Sr 421.552†	101290.9	99798.8	532.37 µg/L	532.37 ppb		03:58:18
3	Sc 361.383	2156881.8	2156881.8	98.916 %			03:59:56
3	Y 371.029	1304751.2	1304751.2	98.404 %			03:59:56
3	Ag 328.068†	27722.6	27945.5	256.80 µg/L	256.80 ppb		04:00:02
3	As 188.979†	235.6	237.1	445.40 µg/L	445.40 ppb		04:00:23
3	B 249.677†	11703.8	11665.8	510.62 µg/L	510.62 ppb		04:00:02
3	Ba 233.527†	19466.9	19767.4	498.47 µg/L	498.47 ppb		04:00:02
3	Be 313.107†	420108.2	421068.2	257.29 µg/L	257.29 ppb		03:59:56
3	Cd 226.502†	18491.4	18803.9	489.53 µg/L	489.53 ppb		04:00:02
3	Co 228.616†	10114.0	10300.5	495.03 µg/L	495.03 ppb		04:00:02
3	Cr 267.716†	21990.3	22366.8	470.31 µg/L	470.31 ppb		04:00:02
3	Cu 324.752†	71598.5	68979.4	480.32 µg/L	480.32 ppb		04:00:02
3	Mn 257.610†	159214.3	161180.0	505.13 µg/L	505.13 ppb		03:59:56
3	Mo 202.031†	4152.3	4198.9	477.28 µg/L	477.28 ppb		04:00:23
3	Ni 231.604†	9130.4	8897.0	481.59 µg/L	481.59 ppb		04:00:02
3	P 214.914†	1298.4	1100.7	2323.7 µg/L	2323.7 ppb		04:00:23
3	Pb 220.353†	1883.7	1852.7	469.65 µg/L	469.65 ppb		04:00:23
3	S 181.975 Axial†	486.6	466.2	2360.2 µg/L	2360.2 ppb		04:00:23
3	Sb 206.836†	475.6	458.0	460.74 µg/L	460.74 ppb		04:00:23
3	Se 196.026†	1682.8	1688.9	2388.0 µg/L	2388.0 ppb		04:00:23
3	SiO2†	55755.7	54239.1	10425 µg/L	10425 ppb		04:00:02
3	Si 251.611†	62787.5	63096.3	4821.9 µg/L	4821.9 ppb		04:00:02
3	Sn 189.927†	993.7	982.4	485.08 µg/L	485.08 ppb		04:00:23
3	Ti 334.940†	220054.8	221582.1	485.57 µg/L	485.57 ppb		03:59:56
3	Tl 190.801†	311.2	338.2	504.66 µg/L	504.66 ppb		04:00:23
3	U 409.014†	5649.5	4774.9	458.65 µg/L	458.65 ppb		04:00:02
3	V 292.402†	42145.2	42703.3	489.42 µg/L	489.42 ppb		04:00:02
3	Zn 213.857†	18705.9	18314.5	488.69 µg/L	488.69 ppb		04:00:02

Mean Data: ICV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2176125.9	99.799	%	0.7804				0.78%
Sc RADIAL	127122.7	102	%	0.3				0.25%
Y 371.029	1317020.5	99.329	%	0.8208				0.83%
Ag 328.068†	28357.1	260.68	µg/L	4.256	260.68	ppb	4.256	1.63%
QC value within limits for Ag 328.068 Recovery = 104.27%								
Al 396.153Radial†	10585.8	5131.0	µg/L	21.04	5131.0	ppb	21.04	0.41%
QC value within limits for Al 396.153Radial Recovery = 102.62%								
As 188.979†	253.8	476.88	µg/L	27.365	476.88	ppb	27.365	5.74%
QC value within limits for As 188.979 Recovery = 95.38%								
B 249.677†	11923.5	521.93	µg/L	10.394	521.93	ppb	10.394	1.99%
QC value within limits for B 249.677 Recovery = 104.39%								
Ba 233.527†	20411.8	514.73	µg/L	14.802	514.73	ppb	14.802	2.88%
QC value within limits for Ba 233.527 Recovery = 102.95%								
Be 313.107†	425916.0	260.25	µg/L	2.603	260.25	ppb	2.603	1.00%
QC value within limits for Be 313.107 Recovery = 104.10%								
Ca 317.933Radial†	13673.7	4988.0	µg/L	1.53	4988.0	ppb	1.53	0.03%
QC value within limits for Ca 317.933Radial Recovery = 99.76%								
Cd 226.502†	19441.5	506.16	µg/L	15.609	506.16	ppb	15.609	3.08%
QC value within limits for Cd 226.502 Recovery = 101.23%								
Co 228.616†	10712.2	514.90	µg/L	17.815	514.90	ppb	17.815	3.46%

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   QC value within limits for Co 228.616  Recovery = 102.98%
Cr 267.716†            23562.3      495.44 µg/L        22.266      495.44 ppb        22.266   4.49%
   QC value within limits for Cr 267.716  Recovery = 99.09%
Cu 324.752†            71447.2      497.47 µg/L        15.448      497.47 ppb        15.448   3.11%
   QC value within limits for Cu 324.752  Recovery = 99.49%
Fe 238.204 Radial†      1015.7      5125.4 µg/L         21.75      5125.4 ppb         21.75   0.42%
   QC value within limits for Fe 238.204 Radial  Recovery = 102.51%
K 766.490 Radial†       4604.1      2459.2 µg/L          8.67      2459.2 ppb          8.67   0.35%
   QC value within limits for K 766.490 Radial  Recovery = 98.37%
Mg 279.077 IEC†          977.3      5210.6 µg/L         39.61      5210.6 ppb         39.61   0.76%
   QC value within limits for Mg 279.077 IEC  Recovery = 104.21%
Mn 257.610†           162803.4      510.21 µg/L         4.492      510.21 ppb         4.492   0.88%
   QC value within limits for Mn 257.610  Recovery = 102.04%
Mo 202.031†             4597.4      522.57 µg/L        39.226      522.57 ppb        39.226   7.51%
   QC value within limits for Mo 202.031  Recovery = 104.51%
Na 589.592 Radial†      9770.5      2532.1 µg/L         12.23      2532.1 ppb         12.23   0.48%
   QC value within limits for Na 589.592 Radial  Recovery = 101.29%
Ni 231.604†             9236.7      499.98 µg/L        16.490      499.98 ppb        16.490   3.30%
   QC value within limits for Ni 231.604  Recovery = 100.00%
P 214.914†              1177.6      2488.5 µg/L        142.87      2488.5 ppb        142.87   5.74%
   QC value within limits for P 214.914  Recovery = 99.54%
Pb 220.353†             1983.6      502.85 µg/L        28.750      502.85 ppb        28.750   5.72%
   QC value within limits for Pb 220.353  Recovery = 100.57%
S 181.975 Axial†         489.1      2476.5 µg/L        100.78      2476.5 ppb        100.78   4.07%
   QC value within limits for S 181.975 Axial  Recovery = 99.06%
Sb 206.836†              494.9      497.80 µg/L        32.104      497.80 ppb        32.104   6.45%
   QC value within limits for Sb 206.836  Recovery = 99.56%
Se 196.026†             1786.8      2526.3 µg/L        119.82      2526.3 ppb        119.82   4.74%
   QC value within limits for Se 196.026  Recovery = 101.05%
SiO2†                  55617.5       10689 µg/L         247.2       10689 ppb         247.2   2.31%
   QC value within limits for SiO2  Recovery = 99.95%
Si 251.611†            64672.7      4940.6 µg/L        111.51      4940.6 ppb        111.51   2.26%
   QC value within limits for Si 251.611  Recovery = 98.81%
Sn 189.927†             1078.5      532.23 µg/L        40.885      532.23 ppb        40.885   7.68%
   QC value within limits for Sn 189.927  Recovery = 106.45%
Sr 421.552†            99591.9      531.26 µg/L         0.968      531.26 ppb         0.968   0.18%
   QC value within limits for Sr 421.552  Recovery = 106.25%
Ti 334.940†           224723.9      492.46 µg/L         6.005      492.46 ppb         6.005   1.22%
   QC value within limits for Ti 334.940  Recovery = 98.49%
Tl 190.801†              351.7      524.74 µg/L        17.485      524.74 ppb        17.485   3.33%
   QC value within limits for Tl 190.801  Recovery = 104.95%
U 409.014†              5078.8      487.89 µg/L        25.380      487.89 ppb        25.380   5.20%
   QC value within limits for U 409.014  Recovery = 97.58%
V 292.402†             44622.8      511.58 µg/L        19.718      511.58 ppb        19.718   3.85%
   QC value within limits for V 292.402  Recovery = 102.32%
Zn 213.857†            19013.3      507.36 µg/L        16.835      507.36 ppb        16.835   3.32%
   QC value within limits for Zn 213.857  Recovery = 101.47%
All analyte(s) passed QC.
```

Sequence No.: 7
Sample ID: ICB
Analyst: JWJ
Initial Sample Wt:
Dilution:

Autosampler Location: 10
Date Collected: 12/19/2009 04:00:32
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	123696.3	123696.3	99.1	%			04:01:04
1	Al 396.153Radial†	186.3	-19.5	-9.4628	µg/L	-9.4628	ppb	04:01:04
1	Ca 317.933Radial†	475.4	35.4	12.930	µg/L	12.930	ppb	04:01:25
1	Fe 238.204 Radial†	9.5	1.3	6.6524	µg/L	6.6524	ppb	04:01:25
1	K 766.490 Radial†	830.3	5.2	2.7511	µg/L	2.7511	ppb	04:01:04
1	Mg 279.077 IEC†	16.8	1.3	6.9331	µg/L	6.9331	ppb	04:01:25
1	Na 589.592 Radial†	-704.0	35.2	9.1320	µg/L	9.1320	ppb	04:01:04
1	Sr 421.552†	-80.4	29.4	0.1568	µg/L	0.1568	ppb	04:01:04
1	Sc 361.383	2178938.2	2178938.2	99.928	%			04:02:27
1	Y 371.029	1324358.1	1324358.1	99.882	%			04:02:27
1	Ag 328.068†	79.5	-1.2	-0.0093	µg/L	-0.0093	ppb	04:02:32
1	As 188.979†	0.2	-0.8	-1.5238	µg/L	-1.5238	ppb	04:02:53
1	B 249.677†	165.3	-0.8	-0.0383	µg/L	-0.0383	ppb	04:02:32
1	Ba 233.527†	-72.2	15.0	0.3774	µg/L	0.3774	ppb	04:02:53
1	Be 313.107†	3804.0	164.5	0.1006	µg/L	0.1006	ppb	04:02:32
1	Cd 226.502†	-108.6	1.2	0.0248	µg/L	0.0248	ppb	04:02:53
1	Co 228.616†	-64.9	10.7	0.5146	µg/L	0.5146	ppb	04:02:53
1	Cr 267.716†	-138.2	-2.7	-0.0560	µg/L	-0.0560	ppb	04:02:32
1	Cu 324.752†	3362.3	-38.7	-0.2672	µg/L	-0.2672	ppb	04:02:32
1	Mn 257.610†	-181.1	40.3	0.1269	µg/L	0.1269	ppb	04:02:53
1	Mo 202.031†	-2.2	-1.2	-0.1314	µg/L	-0.1314	ppb	04:02:53
1	Ni 231.604†	334.1	0.9	0.0487	µg/L	0.0487	ppb	04:02:53
1	P 214.914†	210.4	-1.4	-3.0129	µg/L	-3.0129	ppb	04:02:53
1	Pb 220.353†	61.9	10.3	2.6155	µg/L	2.6155	ppb	04:02:53
1	S 181.975 Axial†	27.2	1.5	7.5530	µg/L	7.5530	ppb	04:02:53
1	Sb 206.836†	22.7	-0.0	-0.0413	µg/L	-0.0413	ppb	04:02:53
1	Se 196.026†	7.3	-5.1	-7.2557	µg/L	-7.2557	ppb	04:02:53
1	SiO2†	2152.5	26.7	5.1371	µg/L	5.1371	ppb	04:02:32
1	Si 251.611†	398.3	19.6	1.5269	µg/L	1.5269	ppb	04:02:53
1	Sn 189.927†	21.2	-0.9	-0.4469	µg/L	-0.4469	ppb	04:02:53
1	Ti 334.940†	927.1	44.4	0.0967	µg/L	0.0967	ppb	04:02:32
1	Tl 190.801†	-21.5	2.0	3.0248	µg/L	3.0248	ppb	04:02:53
1	U 409.014†	835.2	-100.7	-9.6877	µg/L	-9.6877	ppb	04:02:32
1	V 292.402†	-87.5	8.9	0.0846	µg/L	0.0846	ppb	04:02:32
1	Zn 213.857†	615.1	19.3	0.5177	µg/L	0.5177	ppb	04:02:53
2	Sc RADIAL	125697.9	125697.9	101	%			04:01:30
2	Al 396.153Radial†	191.8	-17.0	-8.2347	µg/L	-8.2347	ppb	04:01:30
2	Ca 317.933Radial†	470.8	23.2	8.4774	µg/L	8.4774	ppb	04:01:51
2	Fe 238.204 Radial†	8.6	0.2	1.2455	µg/L	1.2455	ppb	04:01:51
2	K 766.490 Radial†	817.6	-20.8	-11.122	µg/L	-11.122	ppb	04:01:30
2	Mg 279.077 IEC†	18.3	2.5	13.163	µg/L	13.163	ppb	04:01:51
2	Na 589.592 Radial†	-725.0	25.7	6.6673	µg/L	6.6673	ppb	04:01:30
2	Sr 421.552†	-70.5	40.5	0.2162	µg/L	0.2162	ppb	04:01:30
2	Sc 361.383	2162404.4	2162404.4	99.170	%			04:02:59
2	Y 371.029	1314849.6	1314849.6	99.165	%			04:02:59
2	Ag 328.068†	133.0	53.4	0.4822	µg/L	0.4822	ppb	04:03:05
2	As 188.979†	4.6	3.6	6.7772	µg/L	6.7772	ppb	04:03:25
2	B 249.677†	165.7	0.8	0.0357	µg/L	0.0357	ppb	04:03:05
2	Ba 233.527†	-73.9	12.7	0.3189	µg/L	0.3189	ppb	04:03:25
2	Be 313.107†	3767.4	156.8	0.0958	µg/L	0.0958	ppb	04:03:05
2	Cd 226.502†	-106.8	2.2	0.0492	µg/L	0.0492	ppb	04:03:25
2	Co 228.616†	-70.2	4.9	0.2351	µg/L	0.2351	ppb	04:03:25
2	Cr 267.716†	-101.9	32.8	0.6881	µg/L	0.6881	ppb	04:03:05
2	Cu 324.752†	3384.1	9.0	0.0626	µg/L	0.0626	ppb	04:03:05
2	Mn 257.610†	-178.4	41.7	0.1306	µg/L	0.1306	ppb	04:03:25
2	Mo 202.031†	-5.1	-4.1	-0.4655	µg/L	-0.4655	ppb	04:03:25
2	Ni 231.604†	328.9	-1.7	-0.0942	µg/L	-0.0942	ppb	04:03:25
2	P 214.914†	214.8	4.7	10.079	µg/L	10.079	ppb	04:03:25
2	Pb 220.353†	55.4	4.3	1.0917	µg/L	1.0917	ppb	04:03:25

2	S 181.975 Axial†	28.1	2.6	13.168 µg/L	13.168 ppb	04:03:25
2	Sb 206.836†	26.5	4.0	3.9874 µg/L	3.9874 ppb	04:03:25
2	Se 196.026†	15.8	3.5	5.0087 µg/L	5.0087 ppb	04:03:25
2	SiO2†	2160.0	50.8	9.7550 µg/L	9.7550 ppb	04:03:05
2	Si 251.611†	395.6	19.9	1.5200 µg/L	1.5200 ppb	04:03:25
2	Sn 189.927†	23.5	1.5	0.7418 µg/L	0.7418 ppb	04:03:25
2	Ti 334.940†	903.4	27.6	0.0601 µg/L	0.0601 ppb	04:03:05
2	Tl 190.801†	-17.5	5.9	8.7378 µg/L	8.7378 ppb	04:03:25
2	U 409.014†	806.7	-123.0	-11.840 µg/L	-11.840 ppb	04:03:05
2	V 292.402†	-110.2	-14.7	-0.1890 µg/L	-0.1890 ppb	04:03:05
2	Zn 213.857†	616.8	25.7	0.6918 µg/L	0.6918 ppb	04:03:25
3	Sc RADIAL	124526.0	124526.0	99.8 %		04:01:56
3	Al 396.153Radial†	187.3	-19.7	-9.5622 µg/L	-9.5622 ppb	04:01:56
3	Ca 317.933Radial†	467.8	24.7	8.9953 µg/L	8.9953 ppb	04:02:17
3	Fe 238.204 Radial†	10.0	1.7	8.6735 µg/L	8.6735 ppb	04:02:17
3	K 766.490 Radial†	779.1	-51.8	-27.664 µg/L	-27.664 ppb	04:01:56
3	Mg 279.077 IEC†	21.0	5.4	28.571 µg/L	28.571 ppb	04:02:17
3	Na 589.592 Radial†	-751.3	-7.4	-1.9238 µg/L	-1.9238 ppb	04:01:56
3	Sr 421.552†	-67.7	42.6	0.2274 µg/L	0.2274 ppb	04:01:56
3	Sc 361.383	2181175.8	2181175.8	100.03 %		04:03:31
3	Y 371.029	1326301.6	1326301.6	100.03 %		04:03:31
3	Ag 328.068†	136.8	56.0	0.5073 µg/L	0.5073 ppb	04:03:37
3	As 188.979†	2.5	1.5	2.7675 µg/L	2.7675 ppb	04:03:57
3	B 249.677†	190.8	24.5	1.0738 µg/L	1.0738 ppb	04:03:37
3	Ba 233.527†	-69.0	18.2	0.4589 µg/L	0.4589 ppb	04:03:57
3	Be 313.107†	3795.7	152.3	0.0931 µg/L	0.0931 ppb	04:03:37
3	Cd 226.502†	-99.5	10.4	0.2662 µg/L	0.2662 ppb	04:03:57
3	Co 228.616†	-85.2	-9.5	-0.4568 µg/L	-0.4568 ppb	04:03:57
3	Cr 267.716†	-138.7	-3.1	-0.0641 µg/L	-0.0641 ppb	04:03:37
3	Cu 324.752†	3405.6	1.1	0.0094 µg/L	0.0094 ppb	04:03:37
3	Mn 257.610†	-170.1	51.5	0.1623 µg/L	0.1623 ppb	04:03:57
3	Mo 202.031†	-5.8	-4.8	-0.5441 µg/L	-0.5441 ppb	04:03:57
3	Ni 231.604†	334.6	1.1	0.0590 µg/L	0.0590 ppb	04:03:57
3	P 214.914†	208.5	-3.5	-7.5703 µg/L	-7.5703 ppb	04:03:57
3	Pb 220.353†	57.3	5.7	1.4354 µg/L	1.4354 ppb	04:03:57
3	S 181.975 Axial†	29.0	3.3	16.471 µg/L	16.471 ppb	04:03:57
3	Sb 206.836†	24.7	1.9	1.8991 µg/L	1.8991 ppb	04:03:57
3	Se 196.026†	8.5	-3.9	-5.5696 µg/L	-5.5696 ppb	04:03:57
3	SiO2†	2091.1	-36.9	-7.0927 µg/L	-7.0927 ppb	04:03:37
3	Si 251.611†	405.9	26.8	2.1391 µg/L	2.1391 ppb	04:03:57
3	Sn 189.927†	19.3	-2.8	-1.3831 µg/L	-1.3831 ppb	04:03:57
3	Ti 334.940†	906.5	22.9	0.0497 µg/L	0.0497 ppb	04:03:37
3	Tl 190.801†	-20.4	3.2	4.7228 µg/L	4.7228 ppb	04:03:57
3	U 409.014†	868.3	-68.5	-6.5933 µg/L	-6.5933 ppb	04:03:37
3	V 292.402†	-101.0	-4.5	-0.0653 µg/L	-0.0653 ppb	04:03:37
3	Zn 213.857†	617.7	21.3	0.5711 µg/L	0.5711 ppb	04:03:57

Mean Data: ICB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2174172.8	99.709	%	0.4702				0.47%
Sc RADIAL	124640.1	99.9	%	0.81				0.81%
Y 371.029	1321836.4	99.692	%	0.4622				0.46%
Ag 328.068†	36.1	0.3267	µg/L	0.29125	0.3267	ppb	0.29125	89.14%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-18.7	-9.0866	µg/L	0.73939	-9.0866	ppb	0.73939	8.14%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	1.4	2.6736	µg/L	4.15131	2.6736	ppb	4.15131	155.27%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	8.2	0.3571	µg/L	0.62182	0.3571	ppb	0.62182	174.14%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	15.3	0.3851	µg/L	0.07030	0.3851	ppb	0.07030	18.26%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	157.9	0.0965	µg/L	0.00377	0.0965	ppb	0.00377	3.91%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	27.8	10.134	µg/L	2.4351	10.134	ppb	2.4351	24.03%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	4.6	0.1134	µg/L	0.13287	0.1134	ppb	0.13287	117.19%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	2.1	0.0976	µg/L	0.50008	0.0976	ppb	0.50008	512.14%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                 9.0      0.1893 µg/L       0.43199      0.1893 ppb        0.43199 228.16%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†                -9.5     -0.0651 µg/L       0.17705     -0.0651 ppb        0.17705 272.15%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          1.1      5.5238 µg/L       3.84046      5.5238 ppb        3.84046  69.53%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         -22.5     -12.012 µg/L       15.2270     -12.012 ppb        15.2270 126.77%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             3.0      16.222 µg/L       11.1386      16.222 ppb        11.1386  68.66%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                44.5      0.1400 µg/L       0.01945      0.1400 ppb        0.01945  13.90%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                -3.3     -0.3803 µg/L       0.21912     -0.3803 ppb        0.21912  57.61%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†         17.8      4.6252 µg/L       5.80393      4.6252 ppb        5.80393 125.48%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                 0.1      0.0045 µg/L       0.08564      0.0045 ppb        0.08564 >999.9%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -0.1     -0.1682 µg/L       9.16191     -0.1682 ppb        9.16191 >999.9%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                 6.7      1.7142 µg/L       0.79919      1.7142 ppb        0.79919  46.62%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            2.4      12.397 µg/L        4.5087      12.397 ppb         4.5087  36.37%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 1.9      1.9484 µg/L       2.01476      1.9484 ppb        2.01476 103.41%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -1.8     -2.6055 µg/L       6.64780     -2.6055 ppb        6.64780 255.15%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                      13.5      2.5998 µg/L       8.70575      2.5998 ppb        8.70575 334.86%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†                22.1      1.7287 µg/L       0.35544      1.7287 ppb        0.35544  20.56%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                -0.8     -0.3628 µg/L       1.06493     -0.3628 ppb        1.06493 293.57%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                37.5      0.2001 µg/L       0.03795      0.2001 ppb        0.03795  18.96%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                31.7      0.0688 µg/L       0.02470      0.0688 ppb        0.02470  35.88%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 3.7      5.4951 µg/L       2.93377      5.4951 ppb        2.93377  53.39%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                -97.4     -9.3737 µg/L       2.63753     -9.3737 ppb        2.63753  28.14%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 -3.5     -0.0566 µg/L       0.13703     -0.0566 ppb        0.13703 242.22%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                22.1      0.5935 µg/L       0.08921      0.5935 ppb        0.08921  15.03%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 8
Sample ID: PQL
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 101
Date Collected: 12/19/2009 04:04:06
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: PQL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	124730.5	124730.5	100.0	%			04:04:39
1	Al 396.153Radial†	629.9	422.8	205.32	µg/L	205.32	ppb	04:04:39
1	Ca 317.933Radial†	1037.3	593.6	216.55	µg/L	216.55	ppb	04:04:59
1	Fe 238.204 Radial†	30.8	22.6	113.76	µg/L	113.76	ppb	04:04:59
1	K 766.490 Radial†	1105.5	273.5	146.10	µg/L	146.10	ppb	04:04:39
1	Mg 279.077 IEC†	76.2	60.6	322.80	µg/L	322.80	ppb	04:04:59
1	Na 589.592 Radial†	542.6	1288.3	333.89	µg/L	333.89	ppb	04:04:39
1	Sr 421.552†	931.9	1042.8	5.5626	µg/L	5.5626	ppb	04:04:39
1	Sc 361.383	2183444.5	2183444.5	100.13	%			04:06:01
1	Y 371.029	1328832.9	1328832.9	100.22	%			04:06:01
1	Ag 328.068†	665.6	584.0	5.3321	µg/L	5.3321	ppb	04:06:07
1	As 188.979†	13.8	12.8	23.977	µg/L	23.977	ppb	04:06:27
1	B 249.677†	1336.1	1168.1	51.254	µg/L	51.254	ppb	04:06:07
1	Ba 233.527†	126.7	213.8	5.3907	µg/L	5.3907	ppb	04:06:27
1	Be 313.107†	12176.5	8517.9	5.2066	µg/L	5.2066	ppb	04:06:07
1	Cd 226.502†	100.2	210.0	5.4981	µg/L	5.4981	ppb	04:06:27
1	Co 228.616†	31.3	107.0	5.1549	µg/L	5.1549	ppb	04:06:27
1	Cr 267.716†	121.9	257.4	5.4106	µg/L	5.4106	ppb	04:06:07
1	Cu 324.752†	4981.6	1571.5	10.942	µg/L	10.942	ppb	04:06:07
1	Mn 257.610†	3257.9	3475.0	10.891	µg/L	10.891	ppb	04:06:07
1	Mo 202.031†	86.6	87.5	9.9458	µg/L	9.9458	ppb	04:06:27
1	Ni 231.604†	432.6	98.6	5.3356	µg/L	5.3356	ppb	04:06:27
1	P 214.914†	283.1	70.8	151.69	µg/L	151.69	ppb	04:06:27
1	Pb 220.353†	96.6	44.8	11.329	µg/L	11.329	ppb	04:06:27
1	S 181.975 Axial†	51.6	25.8	130.70	µg/L	130.70	ppb	04:06:27
1	Sb 206.836†	30.9	8.1	8.1362	µg/L	8.1362	ppb	04:06:27
1	Se 196.026†	30.3	17.9	25.232	µg/L	25.232	ppb	04:06:27
1	SiO2†	3344.0	1212.2	232.98	µg/L	232.98	ppb	04:06:07
1	Si 251.611†	1776.6	1395.2	106.74	µg/L	106.74	ppb	04:06:07
1	Sn 189.927†	47.8	25.6	12.692	µg/L	12.692	ppb	04:06:27
1	Ti 334.940†	3142.0	2254.4	4.9309	µg/L	4.9309	ppb	04:06:07
1	Tl 190.801†	-5.9	17.7	26.241	µg/L	26.241	ppb	04:06:27
1	U 409.014†	1520.8	582.2	56.012	µg/L	56.012	ppb	04:06:07
1	V 292.402†	348.8	444.7	5.2192	µg/L	5.2192	ppb	04:06:07
1	Zn 213.857†	1004.3	406.7	10.875	µg/L	10.875	ppb	04:06:27
2	Sc RADIAL	123860.4	123860.4	99.3	%			04:05:05
2	Al 396.153Radial†	614.4	411.6	199.90	µg/L	199.90	ppb	04:05:05
2	Ca 317.933Radial†	1030.3	593.8	216.63	µg/L	216.63	ppb	04:05:25
2	Fe 238.204 Radial†	32.7	24.6	124.16	µg/L	124.16	ppb	04:05:25
2	K 766.490 Radial†	1090.4	266.0	142.09	µg/L	142.09	ppb	04:05:05
2	Mg 279.077 IEC†	82.4	67.3	358.57	µg/L	358.57	ppb	04:05:25
2	Na 589.592 Radial†	459.8	1208.7	313.26	µg/L	313.26	ppb	04:05:05
2	Sr 421.552†	954.1	1071.8	5.7172	µg/L	5.7172	ppb	04:05:05
2	Sc 361.383	2174717.6	2174717.6	99.734	%			04:06:33
2	Y 371.029	1322997.3	1322997.3	99.780	%			04:06:33
2	Ag 328.068†	672.4	593.4	5.4168	µg/L	5.4168	ppb	04:06:39
2	As 188.979†	12.4	11.3	21.296	µg/L	21.296	ppb	04:06:59
2	B 249.677†	1395.7	1233.2	54.109	µg/L	54.109	ppb	04:06:39
2	Ba 233.527†	134.4	222.0	5.5966	µg/L	5.5966	ppb	04:06:59
2	Be 313.107†	12245.7	8636.1	5.2788	µg/L	5.2788	ppb	04:06:39
2	Cd 226.502†	95.2	205.4	5.3787	µg/L	5.3787	ppb	04:06:59
2	Co 228.616†	37.7	113.5	5.4668	µg/L	5.4668	ppb	04:06:59
2	Cr 267.716†	120.7	256.6	5.3940	µg/L	5.3940	ppb	04:06:39
2	Cu 324.752†	4943.6	1553.3	10.818	µg/L	10.818	ppb	04:06:39
2	Mn 257.610†	3268.3	3498.5	10.966	µg/L	10.966	ppb	04:06:39
2	Mo 202.031†	87.0	88.3	10.042	µg/L	10.042	ppb	04:06:59
2	Ni 231.604†	437.4	105.1	5.6891	µg/L	5.6891	ppb	04:06:59
2	P 214.914†	285.8	74.6	159.92	µg/L	159.92	ppb	04:06:59
2	Pb 220.353†	92.0	40.6	10.268	µg/L	10.268	ppb	04:06:59

2	S 181.975 Axial†	47.9	22.3	112.76 µg/L	112.76 ppb	04:06:59
2	Sb 206.836†	32.2	9.6	9.6392 µg/L	9.6392 ppb	04:06:59
2	Se 196.026†	37.3	25.0	35.318 µg/L	35.318 ppb	04:06:59
2	SiO2†	3322.5	1204.0	231.41 µg/L	231.41 ppb	04:06:39
2	Si 251.611†	1784.3	1410.0	107.97 µg/L	107.97 ppb	04:06:39
2	Sn 189.927†	42.1	20.1	9.9996 µg/L	9.9996 ppb	04:06:59
2	Ti 334.940†	3266.4	2391.8	5.2321 µg/L	5.2321 ppb	04:06:39
2	Tl 190.801†	-8.7	14.9	22.133 µg/L	22.133 ppb	04:06:59
2	U 409.014†	1523.3	590.9	56.840 µg/L	56.840 ppb	04:06:39
2	V 292.402†	326.0	423.3	4.9793 µg/L	4.9793 ppb	04:06:39
2	Zn 213.857†	1009.6	416.0	11.120 µg/L	11.120 ppb	04:06:59
3	Sc RADIAL	125646.9	125646.9	101 %		04:05:31
3	Al 396.153Radial†	605.7	394.2	191.46 µg/L	191.46 ppb	04:05:31
3	Ca 317.933Radial†	1026.2	575.1	209.77 µg/L	209.77 ppb	04:05:51
3	Fe 238.204 Radial†	29.9	21.4	107.88 µg/L	107.88 ppb	04:05:51
3	K 766.490 Radial†	1051.5	211.8	113.13 µg/L	113.13 ppb	04:05:31
3	Mg 279.077 IEC†	73.9	57.7	307.60 µg/L	307.60 ppb	04:05:51
3	Na 589.592 Radial†	498.9	1240.9	321.59 µg/L	321.59 ppb	04:05:31
3	Sr 421.552†	891.3	995.7	5.3112 µg/L	5.3112 ppb	04:05:31
3	Sc 361.383	2191513.8	2191513.8	100.50 %		04:07:05
3	Y 371.029	1333215.0	1333215.0	100.55 %		04:07:05
3	Ag 328.068†	639.0	555.1	5.0660 µg/L	5.0660 ppb	04:07:11
3	As 188.979†	11.5	10.4	19.475 µg/L	19.475 ppb	04:07:31
3	B 249.677†	1289.5	1116.8	49.003 µg/L	49.003 ppb	04:07:11
3	Ba 233.527†	98.1	184.9	4.6617 µg/L	4.6617 ppb	04:07:31
3	Be 313.107†	11366.6	7667.3	4.6866 µg/L	4.6866 ppb	04:07:11
3	Cd 226.502†	75.8	185.4	4.8470 µg/L	4.8470 ppb	04:07:31
3	Co 228.616†	18.4	94.0	4.5268 µg/L	4.5268 ppb	04:07:31
3	Cr 267.716†	121.6	256.6	5.3927 µg/L	5.3927 ppb	04:07:11
3	Cu 324.752†	4822.0	1394.3	9.7101 µg/L	9.7101 ppb	04:07:11
3	Mn 257.610†	2961.0	3167.6	9.9281 µg/L	9.9281 ppb	04:07:11
3	Mo 202.031†	77.5	78.1	8.8821 µg/L	8.8821 ppb	04:07:31
3	Ni 231.604†	422.0	86.5	4.6810 µg/L	4.6810 ppb	04:07:31
3	P 214.914†	268.8	55.5	118.83 µg/L	118.83 ppb	04:07:31
3	Pb 220.353†	87.0	34.9	8.8360 µg/L	8.8360 ppb	04:07:31
3	S 181.975 Axial†	44.5	18.6	94.030 µg/L	94.030 ppb	04:07:31
3	Sb 206.836†	35.0	12.0	12.102 µg/L	12.102 ppb	04:07:31
3	Se 196.026†	36.7	24.1	33.989 µg/L	33.989 ppb	04:07:31
3	SiO2†	3227.3	1083.7	208.29 µg/L	208.29 ppb	04:07:11
3	Si 251.611†	1674.5	1287.1	98.559 µg/L	98.559 ppb	04:07:11
3	Sn 189.927†	41.3	18.9	9.3934 µg/L	9.3934 ppb	04:07:31
3	Ti 334.940†	3064.9	2166.2	4.7379 µg/L	4.7379 ppb	04:07:11
3	Tl 190.801†	-8.3	15.3	22.719 µg/L	22.719 ppb	04:07:31
3	U 409.014†	1357.7	414.4	39.859 µg/L	39.859 ppb	04:07:11
3	V 292.402†	298.4	393.3	4.6014 µg/L	4.6014 ppb	04:07:11
3	Zn 213.857†	938.5	337.5	9.0199 µg/L	9.0199 ppb	04:07:31

Mean Data: PQL

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2183225.3	100.12	%	0.385				0.38%
Sc RADIAL	124745.9	100.0	%	0.72				0.72%
Y 371.029	1328348.4	100.18	%	0.387				0.39%
Ag 328.068†	577.5	5.2716	µg/L	0.18304	5.2716	ppb	0.18304	3.47%
QC value within limits for Ag 328.068 Recovery = 105.43%								
Al 396.153Radial†	409.5	198.89	µg/L	6.988	198.89	ppb	6.988	3.51%
QC value within limits for Al 396.153Radial Recovery = 99.45%								
As 188.979†	11.5	21.583	µg/L	2.2646	21.583	ppb	2.2646	10.49%
QC value within limits for As 188.979 Recovery = 71.94%								
B 249.677†	1172.7	51.455	µg/L	2.5587	51.455	ppb	2.5587	4.97%
QC value within limits for B 249.677 Recovery = 102.91%								
Ba 233.527†	206.9	5.2164	µg/L	0.49122	5.2164	ppb	0.49122	9.42%
QC value within limits for Ba 233.527 Recovery = 104.33%								
Be 313.107†	8273.8	5.0573	µg/L	0.32311	5.0573	ppb	0.32311	6.39%
QC value within limits for Be 313.107 Recovery = 101.15%								
Ca 317.933Radial†	587.5	214.32	µg/L	3.937	214.32	ppb	3.937	1.84%
QC value within limits for Ca 317.933Radial Recovery = 107.16%								
Cd 226.502†	200.2	5.2412	µg/L	0.34664	5.2412	ppb	0.34664	6.61%
QC value within limits for Cd 226.502 Recovery = 104.82%								
Co 228.616†	104.8	5.0495	µg/L	0.47875	5.0495	ppb	0.47875	9.48%

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   QC value within limits for Co 228.616  Recovery = 100.99%
Cr 267.716†              256.9      5.3991 µg/L       0.00996      5.3991 ppb        0.00996   0.18%
   QC value within limits for Cr 267.716  Recovery = 107.98%
Cu 324.752†             1506.4      10.490 µg/L        0.6783      10.490 ppb         0.6783   6.47%
   QC value within limits for Cu 324.752  Recovery = 104.90%
Fe 238.204 Radial†        22.9      115.26 µg/L         8.242      115.26 ppb          8.242   7.15%
   QC value within limits for Fe 238.204 Radial  Recovery = 115.26%
K 766.490 Radial†        250.5      133.77 µg/L        17.985      133.77 ppb         17.985  13.44%
   QC value within limits for K 766.490 Radial  Recovery = 89.18%
Mg 279.077 IEC†           61.9      329.65 µg/L        26.170      329.65 ppb         26.170   7.94%
   QC value within limits for Mg 279.077 IEC  Recovery = 109.88%
Mn 257.610†             3380.4      10.595 µg/L        0.5787      10.595 ppb         0.5787   5.46%
   QC value within limits for Mn 257.610  Recovery = 105.95%
Mo 202.031†               84.7      9.6232 µg/L       0.64357      9.6232 ppb        0.64357   6.69%
   QC value within limits for Mo 202.031  Recovery = 96.23%
Na 589.592 Radial†      1246.0      322.91 µg/L        10.379      322.91 ppb         10.379   3.21%
   QC value within limits for Na 589.592 Radial  Recovery = 107.64%
Ni 231.604†               96.7      5.2352 µg/L       0.51145      5.2352 ppb        0.51145   9.77%
   QC value within limits for Ni 231.604  Recovery = 104.70%
P 214.914†                67.0      143.48 µg/L        21.743      143.48 ppb         21.743  15.15%
   QC value within limits for P 214.914  Recovery = 95.65%
Pb 220.353†               40.1      10.144 µg/L        1.2510      10.144 ppb         1.2510  12.33%
   QC value within limits for Pb 220.353  Recovery = 101.44%
S 181.975 Axial†          22.2      112.50 µg/L        18.337      112.50 ppb         18.337  16.30%
   QC value within limits for S 181.975 Axial  Recovery = 112.50%
Sb 206.836†                9.9      9.9592 µg/L       2.00216      9.9592 ppb        2.00216  20.10%
   QC value within limits for Sb 206.836  Recovery = 99.59%
Se 196.026†               22.3      31.513 µg/L        5.4798      31.513 ppb         5.4798  17.39%
   QC value within limits for Se 196.026  Recovery = 105.04%
SiO2†                   1166.7      224.23 µg/L        13.823      224.23 ppb         13.823   6.16%
   QC value within limits for SiO2  Recovery = 105.27%
Si 251.611†             1364.1      104.42 µg/L         5.115      104.42 ppb          5.115   4.90%
   QC value within limits for Si 251.611  Recovery = 104.42%
Sn 189.927†               21.5      10.695 µg/L        1.7559      10.695 ppb         1.7559  16.42%
   QC value within limits for Sn 189.927  Recovery = 106.95%
Sr 421.552†             1036.7      5.5304 µg/L       0.20491      5.5304 ppb        0.20491   3.71%
   QC value within limits for Sr 421.552  Recovery = 110.61%
Ti 334.940†             2270.8      4.9670 µg/L       0.24909      4.9670 ppb        0.24909   5.01%
   QC value within limits for Ti 334.940  Recovery = 99.34%
Tl 190.801†               15.9      23.698 µg/L        2.2222      23.698 ppb         2.2222   9.38%
   QC value within limits for Tl 190.801  Recovery = 118.49%
U 409.014†               529.2      50.904 µg/L        9.5740      50.904 ppb         9.5740  18.81%
   QC value within limits for U 409.014  Recovery = 101.81%
V 292.402†               420.4      4.9333 µg/L       0.31146      4.9333 ppb        0.31146   6.31%
   QC value within limits for V 292.402  Recovery = 98.67%
Zn 213.857†              386.8      10.338 µg/L        1.1484      10.338 ppb         1.1484  11.11%
   QC value within limits for Zn 213.857  Recovery = 103.38%
All analyte(s) passed QC.
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Sequence No.: 9
Sample ID: ICSA
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 103
Date Collected: 12/19/2009 04:07:40
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSA

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	121185.8	121185.8	97.1	%			04:08:22
1	Al 396.153Radial†	1024321.2	1054536.8	513110	µg/L	513110	ppb	04:08:16
1	Ca 317.933Radial†	1300308.6	1338484.5	488260	µg/L	488260	ppb	04:08:16
1	Fe 238.204 Radial†	37042.3	38134.2	191800	µg/L	191800	ppb	04:08:22
1	K 766.490 Radial†	752.4	-57.7	-30.841	µg/L	-30.841	ppb	04:08:22
1	Mg 279.077 IEC†	90247.3	92912.0	494570	µg/L	494570	ppb	04:08:22
1	Na 589.592 Radial†	-636.7	89.8	23.273	µg/L	23.273	ppb	04:08:22
1	Sr 421.552†	653.6	783.5	4.1795	µg/L	4.1795	ppb	04:08:22
1	Sc 361.383	2008502.6	2008502.6	92.112	%			04:08:55
1	Y 371.029	1204446.5	1204446.5	90.839	%			04:08:55
1	Ag 328.068†	-1940.9	-2187.9	-4.7959	µg/L	-4.7959	ppb	04:09:01
1	As 188.979†	28.8	30.2	-45.009	µg/L	-45.009	ppb	04:09:22
1	B 249.677†	1932.8	1932.1	24.522	µg/L	24.522	ppb	04:09:01
1	Ba 233.527†	129.8	228.1	5.7059	µg/L	5.7059	ppb	04:09:22
1	Be 313.107†	2663.8	-750.3	-0.4686	µg/L	-0.4686	ppb	04:09:01
1	Cd 226.502†	500.3	653.1	2.1123	µg/L	2.1123	ppb	04:09:22
1	Co 228.616†	-108.7	-42.3	-2.1208	µg/L	-2.1208	ppb	04:09:22
1	Cr 267.716†	-216.8	-99.8	-2.1331	µg/L	-2.1331	ppb	04:09:22
1	Cu 324.752†	-1326.4	-4843.4	7.5501	µg/L	7.5501	ppb	04:09:01
1	Mn 257.610†	-2150.0	-2112.6	17.497	µg/L	17.497	ppb	04:09:01
1	Mo 202.031†	-121.4	-130.7	-7.3131	µg/L	-7.3131	ppb	04:09:22
1	Ni 231.604†	278.4	-31.2	-1.6883	µg/L	-1.6883	ppb	04:09:22
1	P 214.914†	222.8	30.0	27.602	µg/L	27.602	ppb	04:09:22
1	Pb 220.353†	-65.8	-123.1	11.188	µg/L	11.188	ppb	04:09:22
1	S 181.975 Axial†	62.5	42.2	114.57	µg/L	114.57	ppb	04:09:22
1	Sb 206.836†	60.1	42.5	-2.8751	µg/L	-2.8751	ppb	04:09:22
1	Se 196.026†	36.2	26.9	36.839	µg/L	36.839	ppb	04:09:22
1	SiO2†	1863.6	-104.2	-20.019	µg/L	-20.019	ppb	04:09:22
1	Si 251.611†	438.5	97.1	15.714	µg/L	15.714	ppb	04:09:22
1	Sn 189.927†	-413.0	-470.5	-1.1803	µg/L	-1.1803	ppb	04:09:22
1	Ti 334.940†	11938.9	12078.0	-0.9722	µg/L	-0.9722	ppb	04:09:01
1	Tl 190.801†	24.5	50.1	9.3159	µg/L	9.3159	ppb	04:09:22
1	U 409.014†	722.4	-152.3	-38.894	µg/L	-38.894	ppb	04:09:01
1	V 292.402†	-1457.4	-1485.8	-1.3525	µg/L	-1.3525	ppb	04:09:01
1	Zn 213.857†	1815.3	1374.5	3.1081	µg/L	3.1081	ppb	04:09:22
2	Sc RADIAL	121697.1	121697.1	97.5	%			04:08:34
2	Al 396.153Radial†	1032358.1	1058346.3	514970	µg/L	514970	ppb	04:08:28
2	Ca 317.933Radial†	1311074.9	1343898.6	490240	µg/L	490240	ppb	04:08:28
2	Fe 238.204 Radial†	37146.4	38080.7	191530	µg/L	191530	ppb	04:08:34
2	K 766.490 Radial†	633.2	-183.2	-97.869	µg/L	-97.869	ppb	04:08:34
2	Mg 279.077 IEC†	90574.4	92857.0	494280	µg/L	494280	ppb	04:08:34
2	Na 589.592 Radial†	-636.2	93.2	24.141	µg/L	24.141	ppb	04:08:34
2	Sr 421.552†	709.2	837.7	4.4684	µg/L	4.4684	ppb	04:08:34
2	Sc 361.383	2028986.6	2028986.6	93.051	%			04:09:28
2	Y 371.029	1216948.1	1216948.1	91.782	%			04:09:28
2	Ag 328.068†	-1928.8	-2153.6	-4.5036	µg/L	-4.5036	ppb	04:09:33
2	As 188.979†	42.5	44.6	-18.248	µg/L	-18.248	ppb	04:09:54
2	B 249.677†	1975.1	1956.4	25.672	µg/L	25.672	ppb	04:09:33
2	Ba 233.527†	129.8	226.7	5.6704	µg/L	5.6704	ppb	04:09:54
2	Be 313.107†	2716.2	-723.2	-0.4518	µg/L	-0.4518	ppb	04:09:33
2	Cd 226.502†	498.5	645.6	1.9452	µg/L	1.9452	ppb	04:09:54
2	Co 228.616†	-104.6	-36.7	-1.8530	µg/L	-1.8530	ppb	04:09:54
2	Cr 267.716†	-231.4	-113.1	-2.4109	µg/L	-2.4109	ppb	04:09:54
2	Cu 324.752†	-1327.6	-4830.1	7.5843	µg/L	7.5843	ppb	04:09:33
2	Mn 257.610†	-2230.6	-2175.6	17.266	µg/L	17.266	ppb	04:09:33
2	Mo 202.031†	-130.4	-139.0	-8.2718	µg/L	-8.2718	ppb	04:09:54
2	Ni 231.604†	287.1	-24.8	-1.3445	µg/L	-1.3445	ppb	04:09:54
2	P 214.914†	217.3	21.6	10.486	µg/L	10.486	ppb	04:09:54
2	Pb 220.353†	-79.9	-137.5	7.6893	µg/L	7.6893	ppb	04:09:54

2	S 181.975 Axial†	65.5	44.6	127.23 µg/L	127.23 ppb	04:09:54
2	Sb 206.836†	66.4	48.6	3.1154 µg/L	3.1154 ppb	04:09:54
2	Se 196.026†	22.9	12.2	16.256 µg/L	16.256 ppb	04:09:54
2	SiO2†	1847.9	-141.4	-27.179 µg/L	-27.179 ppb	04:09:54
2	Si 251.611†	444.8	99.0	15.936 µg/L	15.936 ppb	04:09:54
2	Sn 189.927†	-417.6	-471.0	-1.0807 µg/L	-1.0807 ppb	04:09:54
2	Ti 334.940†	11776.5	11772.6	-1.7528 µg/L	-1.7528 ppb	04:09:33
2	Tl 190.801†	9.8	34.1	-14.733 µg/L	-14.733 ppb	04:09:54
2	U 409.014†	824.2	-50.7	-29.026 µg/L	-29.026 ppb	04:09:33
2	V 292.402†	-1436.7	-1447.6	-0.9313 µg/L	-0.9313 ppb	04:09:33
2	Zn 213.857†	1821.2	1361.0	2.7782 µg/L	2.7782 ppb	04:09:54
3	Sc RADIAL	120274.2	120274.2	96.4 %		04:08:45
3	Al 396.153Radial†	1031457.0	1069934.7	520610 µg/L	520610 ppb	04:08:40
3	Ca 317.933Radial†	1311035.2	1359761.8	496020 µg/L	496020 ppb	04:08:40
3	Fe 238.204 Radial†	36760.0	38130.4	191780 µg/L	191780 ppb	04:08:45
3	K 766.490 Radial†	634.4	-174.3	-93.091 µg/L	-93.091 ppb	04:08:45
3	Mg 279.077 IEC†	89786.8	93138.6	495780 µg/L	495780 ppb	04:08:45
3	Na 589.592 Radial†	-628.5	93.4	24.209 µg/L	24.209 ppb	04:08:45
3	Sr 421.552†	666.5	802.0	4.2783 µg/L	4.2783 ppb	04:08:45
3	Sc 361.383	2020032.7	2020032.7	92.640 %		04:10:00
3	Y 371.029	1212317.6	1212317.6	91.432 %		04:10:00
3	Ag 328.068†	-1979.8	-2217.8	-5.0686 µg/L	-5.0686 ppb	04:10:06
3	As 188.979†	31.7	33.2	-40.692 µg/L	-40.692 ppb	04:10:26
3	B 249.677†	1938.6	1926.4	24.275 µg/L	24.275 ppb	04:10:06
3	Ba 233.527†	128.3	225.8	5.6462 µg/L	5.6462 ppb	04:10:26
3	Be 313.107†	2709.5	-717.4	-0.4485 µg/L	-0.4485 ppb	04:10:06
3	Cd 226.502†	520.7	672.0	2.6163 µg/L	2.6163 ppb	04:10:26
3	Co 228.616†	-92.2	-23.8	-1.2269 µg/L	-1.2269 ppb	04:10:26
3	Cr 267.716†	-233.8	-116.7	-2.4876 µg/L	-2.4876 ppb	04:10:26
3	Cu 324.752†	-1322.9	-4831.4	7.6292 µg/L	7.6292 ppb	04:10:06
3	Mn 257.610†	-2186.5	-2138.7	17.413 µg/L	17.413 ppb	04:10:06
3	Mo 202.031†	-103.1	-110.3	-4.9919 µg/L	-4.9919 ppb	04:10:26
3	Ni 231.604†	292.9	-17.3	-0.9349 µg/L	-0.9349 ppb	04:10:26
3	P 214.914†	227.8	34.0	39.141 µg/L	39.141 ppb	04:10:26
3	Pb 220.353†	-67.2	-124.2	11.553 µg/L	11.553 ppb	04:10:26
3	S 181.975 Axial†	65.3	44.8	127.53 µg/L	127.53 ppb	04:10:26
3	Sb 206.836†	54.8	36.4	-9.6833 µg/L	-9.6833 ppb	04:10:26
3	Se 196.026†	31.4	21.5	29.710 µg/L	29.710 ppb	04:10:26
3	SiO2†	1846.6	-134.0	-25.763 µg/L	-25.763 ppb	04:10:26
3	Si 251.611†	459.4	117.0	17.113 µg/L	17.113 ppb	04:10:26
3	Sn 189.927†	-409.6	-464.3	3.8277 µg/L	3.8277 ppb	04:10:26
3	Ti 334.940†	11965.9	12033.1	-1.5069 µg/L	-1.5069 ppb	04:10:06
3	Tl 190.801†	27.6	53.4	13.113 µg/L	13.113 ppb	04:10:26
3	U 409.014†	859.8	-8.4	-24.859 µg/L	-24.859 ppb	04:10:06
3	V 292.402†	-1461.1	-1480.7	-1.2580 µg/L	-1.2580 ppb	04:10:06
3	Zn 213.857†	1828.2	1377.2	3.1462 µg/L	3.1462 ppb	04:10:26

Mean Data: ICSA

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2019174.0	92.601	%	0.4709				0.51%
Sc RADIAL	121052.3	97.0	%	0.58				0.60%
Y 371.029	1211237.4	91.351	%	0.4767				0.52%
Ag 328.068†	-2186.4	-4.7894	µg/L	0.28253	-4.7894	ppb	0.28253	5.90%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	1060939.3	516230	µg/L	3902.2	516230	ppb	3902.2	0.76%
QC value within limits for Al 396.153Radial Recovery = 103.25%								
As 188.979†	36.0	-34.650	µg/L	14.3675	-34.650	ppb	14.3675	41.46%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	1938.3	24.823	µg/L	0.7451	24.823	ppb	0.7451	3.00%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	226.9	5.6742	µg/L	0.03003	5.6742	ppb	0.03003	0.53%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-730.3	-0.4563	µg/L	0.01079	-0.4563	ppb	0.01079	2.36%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	1347381.7	491510	µg/L	4033.8	491510	ppb	4033.8	0.82%
QC value within limits for Ca 317.933Radial Recovery = 98.30%								
Cd 226.502†	656.9	2.2246	µg/L	0.34935	2.2246	ppb	0.34935	15.70%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	-34.2	-1.7336	µg/L	0.45877	-1.7336	ppb	0.45877	26.46%

```
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†            -109.9     -2.3438 µg/L      0.18653     -2.3438 ppb       0.18653   7.96%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†           -4835.0      7.5879 µg/L      0.03972      7.5879 ppb       0.03972   0.52%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†    38115.1      191710 µg/L        150.2      191710 ppb         150.2   0.08%
   QC value within limits for Fe 238.204 Radial  Recovery = 95.85%
K 766.490 Radial†      -138.4     -73.934 µg/L      37.3958     -73.934 ppb      37.3958  50.58%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†       92969.2      494880 µg/L        794.9      494880 ppb         794.9   0.16%
   QC value within limits for Mg 279.077 IEC  Recovery = 98.98%
Mn 257.610†           -2142.3      17.392 µg/L       0.1170      17.392 ppb        0.1170   0.67%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†            -126.7     -6.8589 µg/L      1.68646     -6.8589 ppb       1.68646  24.59%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       92.1      23.874 µg/L       0.5221      23.874 ppb        0.5221   2.19%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†             -24.4     -1.3226 µg/L      0.37716     -1.3226 ppb      0.37716  28.52%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               28.5      25.743 µg/L      14.4175      25.743 ppb      14.4175  56.01%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†            -128.2      10.143 µg/L       2.1332      10.143 ppb       2.1332  21.03%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         43.9      123.11 µg/L        7.401      123.11 ppb        7.401   6.01%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              42.5     -3.1477 µg/L      6.40365     -3.1477 ppb      6.40365 203.44%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              20.2      27.602 µg/L      10.4519      27.602 ppb      10.4519  37.87%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                  -126.5     -24.320 µg/L       3.7914     -24.320 ppb       3.7914  15.59%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             104.4      16.255 µg/L       0.7520      16.255 ppb       0.7520   4.63%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†            -468.6      0.5222 µg/L      2.86308      0.5222 ppb      2.86308 548.24%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             807.7      4.3088 µg/L      0.14682      4.3088 ppb      0.14682   3.41%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†           11961.2     -1.4107 µg/L      0.39910     -1.4107 ppb      0.39910  28.29%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              45.9      2.5654 µg/L     15.10051      2.5654 ppb     15.10051 588.62%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              -70.4     -30.926 µg/L       7.2077     -30.926 ppb       7.2077  23.31%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†            -1471.4     -1.1806 µg/L      0.22099     -1.1806 ppb      0.22099  18.72%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†            1370.9      3.0108 µg/L      0.20237      3.0108 ppb      0.20237   6.72%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 10
Sample ID: ICSAB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 104
Date Collected: 12/19/2009 04:10:35
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSAB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	121458.2	121458.2	97.3	%			04:11:15
1	Al 396.153Radial†	1026952.6	1054874.8	513260	µg/L	513260	ppb	04:11:09
1	Ca 317.933Radial†	1306509.4	1341852.3	489490	µg/L	489490	ppb	04:11:09
1	Fe 238.204 Radial†	37144.4	38153.6	191910	µg/L	191910	ppb	04:11:15
1	K 766.490 Radial†	10292.7	9742.2	5203.5	µg/L	5203.5	ppb	04:11:15
1	Mg 279.077 IEC†	90449.4	92911.3	494580	µg/L	494580	ppb	04:11:15
1	Na 589.592 Radial†	18930.7	20194.7	5233.7	µg/L	5233.7	ppb	04:11:15
1	Sr 421.552†	92694.6	95344.1	508.60	µg/L	508.60	ppb	04:11:15
1	Sc 361.383	2001530.9	2001530.9	91.792	%			04:11:49
1	Y 371.029	1203098.5	1203098.5	90.737	%			04:11:49
1	Ag 328.068†	25374.6	27562.9	268.23	µg/L	268.23	ppb	04:11:55
1	As 188.979†	294.5	319.8	500.44	µg/L	500.44	ppb	04:12:16
1	B 249.677†	12998.9	13995.0	554.15	µg/L	554.15	ppb	04:11:55
1	Ba 233.527†	18356.8	20085.5	506.52	µg/L	506.52	ppb	04:11:55
1	Be 313.107†	369536.3	398938.5	243.75	µg/L	243.75	ppb	04:11:49
1	Cd 226.502†	17408.4	19075.0	482.10	µg/L	482.10	ppb	04:11:55
1	Co 228.616†	8456.3	9288.1	446.33	µg/L	446.33	ppb	04:12:16
1	Cr 267.716†	21439.3	23492.1	493.96	µg/L	493.96	ppb	04:11:55
1	Cu 324.752†	70942.5	73882.9	554.51	µg/L	554.51	ppb	04:11:55
1	Mn 257.610†	136175.3	148573.8	489.15	µg/L	489.15	ppb	04:11:55
1	Mo 202.031†	3982.0	4339.1	500.56	µg/L	500.56	ppb	04:12:16
1	Ni 231.604†	7949.8	8327.2	450.75	µg/L	450.75	ppb	04:12:16
1	P 214.914†	1337.4	1245.1	2594.8	µg/L	2594.8	ppb	04:12:16
1	Pb 220.353†	1693.5	1793.4	496.54	µg/L	496.54	ppb	04:12:16
1	S 181.975 Axial†	548.9	572.2	2800.0	µg/L	2800.0	ppb	04:12:16
1	Sb 206.836†	519.1	542.8	500.80	µg/L	500.80	ppb	04:12:16
1	Se 196.026†	1588.6	1718.3	2426.5	µg/L	2426.5	ppb	04:12:16
1	SiO2†	55718.4	58573.5	11258	µg/L	11258	ppb	04:11:55
1	Si 251.611†	63066.0	68326.5	5229.9	µg/L	5229.9	ppb	04:11:55
1	Sn 189.927†	562.6	590.7	520.09	µg/L	520.09	ppb	04:12:16
1	Ti 334.940†	221444.7	240363.2	499.51	µg/L	499.51	ppb	04:11:55
1	Tl 190.801†	304.5	355.4	465.65	µg/L	465.65	ppb	04:12:16
1	U 409.014†	5641.0	5209.0	477.02	µg/L	477.02	ppb	04:11:55
1	V 292.402†	40858.2	44608.2	526.47	µg/L	526.47	ppb	04:11:55
1	Zn 213.857†	18602.4	19669.6	492.00	µg/L	492.00	ppb	04:11:55
2	Sc RADIAL	121538.0	121538.0	97.4	%			04:11:26
2	Al 396.153Radial†	1030309.8	1057628.6	514600	µg/L	514600	ppb	04:11:21
2	Ca 317.933Radial†	1309787.6	1344336.4	490400	µg/L	490400	ppb	04:11:21
2	Fe 238.204 Radial†	37142.6	38126.7	191780	µg/L	191780	ppb	04:11:26
2	K 766.490 Radial†	10334.9	9778.5	5222.9	µg/L	5222.9	ppb	04:11:26
2	Mg 279.077 IEC†	90535.0	92938.2	494720	µg/L	494720	ppb	04:11:26
2	Na 589.592 Radial†	18908.5	20159.1	5224.5	µg/L	5224.5	ppb	04:11:26
2	Sr 421.552†	92844.7	95435.7	509.09	µg/L	509.09	ppb	04:11:26
2	Sc 361.383	2008485.2	2008485.2	92.111	%			04:12:22
2	Y 371.029	1206895.3	1206895.3	91.023	%			04:12:22
2	Ag 328.068†	25577.4	27687.3	269.36	µg/L	269.36	ppb	04:12:28
2	As 188.979†	286.6	310.1	482.13	µg/L	482.13	ppb	04:12:48
2	B 249.677†	13127.8	14086.0	558.18	µg/L	558.18	ppb	04:12:28
2	Ba 233.527†	18512.1	20184.9	509.03	µg/L	509.03	ppb	04:12:28
2	Be 313.107†	372106.0	400334.3	244.60	µg/L	244.60	ppb	04:12:22
2	Cd 226.502†	17620.7	19239.8	486.39	µg/L	486.39	ppb	04:12:28
2	Co 228.616†	8465.5	9266.3	445.28	µg/L	445.28	ppb	04:12:48
2	Cr 267.716†	21657.8	23648.4	497.25	µg/L	497.25	ppb	04:12:28
2	Cu 324.752†	71427.1	74141.4	556.28	µg/L	556.28	ppb	04:12:28
2	Mn 257.610†	137148.9	149117.2	490.83	µg/L	490.83	ppb	04:12:28
2	Mo 202.031†	3980.3	4322.3	498.64	µg/L	498.64	ppb	04:12:48
2	Ni 231.604†	7949.9	8297.4	449.13	µg/L	449.13	ppb	04:12:48
2	P 214.914†	1345.0	1248.3	2602.3	µg/L	2602.3	ppb	04:12:48
2	Pb 220.353†	1712.4	1807.4	500.22	µg/L	500.22	ppb	04:12:48

2	S 181.975 Axial†	542.7	563.5	2755.7 µg/L	2755.7 ppb	04:12:48
2	Sb 206.836†	531.0	553.7	511.74 µg/L	511.74 ppb	04:12:48
2	Se 196.026†	1613.5	1739.3	2456.1 µg/L	2456.1 ppb	04:12:48
2	SiO2†	56054.7	58728.4	11287 µg/L	11287 ppb	04:12:28
2	Si 251.611†	63588.2	68655.5	5255.0 µg/L	5255.0 ppb	04:12:28
2	Sn 189.927†	574.7	601.8	525.75 µg/L	525.75 ppb	04:12:48
2	Ti 334.940†	223152.6	241382.1	501.69 µg/L	501.69 ppb	04:12:28
2	Tl 190.801†	306.1	355.9	466.43 µg/L	466.43 ppb	04:12:48
2	U 409.014†	5609.2	5153.1	471.69 µg/L	471.69 ppb	04:12:28
2	V 292.402†	41171.9	44794.6	528.56 µg/L	528.56 ppb	04:12:28
2	Zn 213.857†	18768.8	19780.1	494.99 µg/L	494.99 ppb	04:12:28
3	Sc RADIAL	121154.6	121154.6	97.1 %		04:11:38
3	Al 396.153Radial†	1031802.1	1062513.7	516980 µg/L	516980 ppb	04:11:33
3	Ca 317.933Radial†	1312696.0	1351588.2	493040 µg/L	493040 ppb	04:11:33
3	Fe 238.204 Radial†	37090.7	38193.9	192120 µg/L	192120 ppb	04:11:38
3	K 766.490 Radial†	10280.7	9756.3	5211.0 µg/L	5211.0 ppb	04:11:38
3	Mg 279.077 IEC†	90446.8	93141.5	495810 µg/L	495810 ppb	04:11:38
3	Na 589.592 Radial†	18897.6	20209.3	5237.5 µg/L	5237.5 ppb	04:11:38
3	Sr 421.552†	92596.6	95481.9	509.34 µg/L	509.34 ppb	04:11:38
3	Sc 361.383	2007633.4	2007633.4	92.072 %		04:12:55
3	Y 371.029	1206255.9	1206255.9	90.975 %		04:12:55
3	Ag 328.068†	25557.1	27677.1	269.29 µg/L	269.29 ppb	04:13:00
3	As 188.979†	298.7	323.3	506.59 µg/L	506.59 ppb	04:13:21
3	B 249.677†	13104.3	14066.4	557.22 µg/L	557.22 ppb	04:13:00
3	Ba 233.527†	18497.2	20177.3	508.83 µg/L	508.83 ppb	04:13:00
3	Be 313.107†	372541.6	400978.8	244.99 µg/L	244.99 ppb	04:12:55
3	Cd 226.502†	17566.3	19188.9	485.04 µg/L	485.04 ppb	04:13:00
3	Co 228.616†	8467.6	9272.5	445.58 µg/L	445.58 ppb	04:13:21
3	Cr 267.716†	21619.0	23616.3	496.57 µg/L	496.57 ppb	04:13:00
3	Cu 324.752†	71278.9	74013.2	555.46 µg/L	555.46 ppb	04:13:00
3	Mn 257.610†	137095.0	149121.8	490.89 µg/L	490.89 ppb	04:13:00
3	Mo 202.031†	3987.6	4332.0	499.76 µg/L	499.76 ppb	04:13:21
3	Ni 231.604†	7932.3	8282.0	448.30 µg/L	448.30 ppb	04:13:21
3	P 214.914†	1333.9	1236.8	2578.1 µg/L	2578.1 ppb	04:13:21
3	Pb 220.353†	1689.1	1782.9	494.23 µg/L	494.23 ppb	04:13:21
3	S 181.975 Axial†	550.0	571.6	2796.4 µg/L	2796.4 ppb	04:13:21
3	Sb 206.836†	543.4	567.4	525.32 µg/L	525.32 ppb	04:13:21
3	Se 196.026†	1594.0	1718.9	2427.4 µg/L	2427.4 ppb	04:13:21
3	SiO2†	55947.7	58638.0	11270 µg/L	11270 ppb	04:13:00
3	Si 251.611†	63410.7	68491.9	5242.5 µg/L	5242.5 ppb	04:13:00
3	Sn 189.927†	572.2	599.3	525.38 µg/L	525.38 ppb	04:13:21
3	Ti 334.940†	223054.7	241378.5	501.53 µg/L	501.53 ppb	04:13:00
3	Tl 190.801†	312.7	363.2	476.88 µg/L	476.88 ppb	04:13:21
3	U 409.014†	5515.0	5053.4	462.10 µg/L	462.10 ppb	04:13:00
3	V 292.402†	41148.0	44787.7	528.50 µg/L	528.50 ppb	04:13:00
3	Zn 213.857†	18759.9	19779.1	494.91 µg/L	494.91 ppb	04:13:00

Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2005883.2	91.991	%	0.1740				0.19%
Sc RADIAL	121383.6	97.3	%	0.16				0.17%
Y 371.029	1205416.6	90.912	%	0.1533				0.17%
Ag 328.068†	27642.5	268.96	µg/L	0.634	268.96	ppb	0.634	0.24%
QC value within limits for Ag 328.068 Recovery = 107.58%								
Al 396.153Radial†	1058339.1	514950	µg/L	1882.4	514950	ppb	1882.4	0.37%
QC value within limits for Al 396.153Radial Recovery = 102.99%								
As 188.979†	317.7	496.39	µg/L	12.721	496.39	ppb	12.721	2.56%
QC value within limits for As 188.979 Recovery = 99.28%								
B 249.677†	14049.1	556.52	µg/L	2.107	556.52	ppb	2.107	0.38%
QC value within limits for B 249.677 Recovery = 111.30%								
Ba 233.527†	20149.2	508.13	µg/L	1.394	508.13	ppb	1.394	0.27%
QC value within limits for Ba 233.527 Recovery = 101.63%								
Be 313.107†	400083.9	244.45	µg/L	0.637	244.45	ppb	0.637	0.26%
QC value within limits for Be 313.107 Recovery = 97.78%								
Ca 317.933Radial†	1345925.6	490980	µg/L	1845.4	490980	ppb	1845.4	0.38%
QC value within limits for Ca 317.933Radial Recovery = 98.20%								
Cd 226.502†	19167.9	484.51	µg/L	2.193	484.51	ppb	2.193	0.45%
QC value within limits for Cd 226.502 Recovery = 96.90%								
Co 228.616†	9275.6	445.73	µg/L	0.546	445.73	ppb	0.546	0.12%

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   QC value within limits for Co 228.616  Recovery = 89.15%
Cr 267.716†            23585.6      495.93 µg/L         1.735      495.93 ppb          1.735   0.35%
   QC value within limits for Cr 267.716  Recovery = 99.19%
Cu 324.752†            74012.5      555.42 µg/L         0.884      555.42 ppb          0.884   0.16%
   QC value within limits for Cu 324.752  Recovery = 111.08%
Fe 238.204 Radial†     38158.0      191940 µg/L         170.1      191940 ppb          170.1   0.09%
   QC value within limits for Fe 238.204 Radial  Recovery = 95.97%
K 766.490 Radial†       9759.0      5212.5 µg/L          9.78      5212.5 ppb           9.78   0.19%
   QC value within limits for K 766.490 Radial  Recovery = 104.25%
Mg 279.077 IEC†        92997.0      495040 µg/L         670.3      495040 ppb          670.3   0.14%
   QC value within limits for Mg 279.077 IEC  Recovery = 99.01%
Mn 257.610†           148937.6      490.29 µg/L         0.989      490.29 ppb          0.989   0.20%
   QC value within limits for Mn 257.610  Recovery = 98.06%
Mo 202.031†             4331.1      499.65 µg/L         0.963      499.65 ppb          0.963   0.19%
   QC value within limits for Mo 202.031  Recovery = 99.93%
Na 589.592 Radial†     20187.7      5231.9 µg/L          6.69      5231.9 ppb           6.69   0.13%
   QC value within limits for Na 589.592 Radial  Recovery = 104.64%
Ni 231.604†             8302.2      449.39 µg/L         1.245      449.39 ppb          1.245   0.28%
   QC value within limits for Ni 231.604  Recovery = 89.88%
P 214.914†              1243.4      2591.7 µg/L         12.38      2591.7 ppb          12.38   0.48%
   QC value within limits for P 214.914  Recovery = 103.67%
Pb 220.353†             1794.6      496.99 µg/L         3.022      496.99 ppb          3.022   0.61%
   QC value within limits for Pb 220.353  Recovery = 99.40%
S 181.975 Axial†         569.1      2784.0 µg/L         24.63      2784.0 ppb          24.63   0.88%
   QC value within limits for S 181.975 Axial  Recovery = 111.36%
Sb 206.836†              554.6      512.62 µg/L        12.285      512.62 ppb         12.285   2.40%
   QC value within limits for Sb 206.836  Recovery = 102.52%
Se 196.026†             1725.5      2436.7 µg/L         16.86      2436.7 ppb          16.86   0.69%
   QC value within limits for Se 196.026  Recovery = 97.47%
SiO2†                  58646.6       11272 µg/L          15.0       11272 ppb           15.0   0.13%
   QC value within limits for SiO2  Recovery = 105.39%
Si 251.611†            68491.3      5242.5 µg/L         12.56      5242.5 ppb          12.56   0.24%
   QC value within limits for Si 251.611  Recovery = 104.85%
Sn 189.927†              597.3      523.74 µg/L         3.166      523.74 ppb          3.166   0.60%
   QC value within limits for Sn 189.927  Recovery = 104.75%
Sr 421.552†            95420.5      509.01 µg/L         0.374      509.01 ppb          0.374   0.07%
   QC value within limits for Sr 421.552  Recovery = 101.80%
Ti 334.940†           241041.3      500.91 µg/L         1.218      500.91 ppb          1.218   0.24%
   QC value within limits for Ti 334.940  Recovery = 100.18%
Tl 190.801†              358.2      469.65 µg/L         6.268      469.65 ppb          6.268   1.33%
   QC value within limits for Tl 190.801  Recovery = 93.93%
U 409.014†              5138.5      470.27 µg/L         7.563      470.27 ppb          7.563   1.61%
   QC value within limits for U 409.014  Recovery = 94.05%
V 292.402†             44730.2      527.84 µg/L         1.186      527.84 ppb          1.186   0.22%
   QC value within limits for V 292.402  Recovery = 105.57%
Zn 213.857†            19742.9      493.97 µg/L         1.701      493.97 ppb          1.701   0.34%
   QC value within limits for Zn 213.857  Recovery = 98.79%
All analyte(s) passed QC.
```

Sequence No.: 11
Sample ID: LR1
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 105
Date Collected: 12/19/2009 04:13:30
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	121515.5	121515.5	97.4	%			04:14:11
1	Al 396.153Radial†	1004489.4	1031309.1	501810	µg/L	501810	ppb	04:14:06
1	Ca 317.933Radial†	1285898.9	1320053.7	481540	µg/L	481540	ppb	04:14:06
1	Fe 238.204 Radial†	90109.7	92526.0	465370	µg/L	465370	ppb	04:14:11
1	K 766.490 Radial†	701.1	-112.6	-60.119	µg/L	-60.119	ppb	04:14:11
1	Mg 279.077 IEC†	89525.4	91918.5	488880	µg/L	488880	ppb	04:14:11
1	Na 589.592 Radial†	1831892.9	1881928.0	487720	µg/L	487720	ppb	04:14:06
1	Sr 421.552†	965.0	1101.5	5.8758	µg/L	5.8758	ppb	04:14:11
1	Sc 361.383	2032014.9	2032014.9	93.190	%			04:14:47
1	Y 371.029	1212201.0	1212201.0	91.424	%			04:14:47
1	Ag 328.068†	-3747.7	-4102.4	-0.8353	µg/L	-0.8353	ppb	04:14:53
1	As 188.979†	24.5	25.2	-93.132	µg/L	-93.132	ppb	04:15:13
1	B 249.677†	4454.8	4614.2	56.257	µg/L	56.257	ppb	04:14:53
1	Ba 233.527†	278.0	385.5	9.5783	µg/L	9.5783	ppb	04:15:13
1	Be 313.107†	-2127.6	-5925.3	-3.6382	µg/L	-3.6382	ppb	04:14:53
1	Cd 226.502†	1311.5	1517.3	13.759	µg/L	13.759	ppb	04:14:53
1	Co 228.616†	47.1	126.3	5.9247	µg/L	5.9247	ppb	04:15:13
1	Cr 267.716†	-301.3	-187.7	-4.0742	µg/L	-4.0742	ppb	04:15:13
1	Cu 324.752†	-8816.4	-12864.2	10.590	µg/L	10.590	ppb	04:14:53
1	Mn 257.610†	-13511.9	-14277.8	13.809	µg/L	13.809	ppb	04:14:53
1	Mo 202.031†	-206.8	-220.8	-6.8014	µg/L	-6.8014	ppb	04:15:13
1	Ni 231.604†	262.3	-52.0	-2.8150	µg/L	-2.8150	ppb	04:15:13
1	P 214.914†	386.6	202.9	80.763	µg/L	80.763	ppb	04:15:13
1	Pb 220.353†	15.2	-35.3	16.823	µg/L	16.823	ppb	04:15:13
1	S 181.975 Axial†	65.3	44.4	85.988	µg/L	85.988	ppb	04:15:13
1	Sb 206.836†	62.4	44.2	7.6828	µg/L	7.6828	ppb	04:15:13
1	Se 196.026†	-114.6	-135.3	0.5514	µg/L	0.5514	ppb	04:15:13
1	SiO2†	1682.6	-321.7	-61.838	µg/L	-61.838	ppb	04:15:13
1	Si 251.611†	-232.0	-627.9	-39.556	µg/L	-39.556	ppb	04:15:13
1	Sn 189.927†	-465.8	-522.0	3.0192	µg/L	3.0192	ppb	04:15:13
1	Ti 334.940†	18053.5	18489.5	13.464	µg/L	13.464	ppb	04:14:53
1	Tl 190.801†	8.5	32.6	-15.886	µg/L	-15.886	ppb	04:15:13
1	U 409.014†	141602.2	151013.7	14456	µg/L	14456	ppb	04:14:53
1	V 292.402†	-4902.6	-5164.4	2.6512	µg/L	2.6512	ppb	04:14:53
1	Zn 213.857†	3035.7	2661.3	8.8171	µg/L	8.8171	ppb	04:15:13
2	Sc RADIAL	120115.6	120115.6	96.3	%			04:14:24
2	Al 396.153Radial†	1011326.9	1050434.6	511120	µg/L	511120	ppb	04:14:18
2	Ca 317.933Radial†	1296620.2	1346581.9	491220	µg/L	491220	ppb	04:14:18
2	Fe 238.204 Radial†	89005.7	92457.5	465030	µg/L	465030	ppb	04:14:24
2	K 766.490 Radial†	714.3	-90.4	-48.294	µg/L	-48.294	ppb	04:14:24
2	Mg 279.077 IEC†	88596.5	92025.0	489440	µg/L	489440	ppb	04:14:24
2	Na 589.592 Radial†	1842302.8	1914667.3	496210	µg/L	496210	ppb	04:14:18
2	Sr 421.552†	885.3	1030.2	5.4957	µg/L	5.4957	ppb	04:14:24
2	Sc 361.383	1990581.8	1990581.8	91.290	%			04:15:19
2	Y 371.029	1187464.9	1187464.9	89.558	%			04:15:19
2	Ag 328.068†	-3835.1	-4281.8	-2.4899	µg/L	-2.4899	ppb	04:15:25
2	As 188.979†	38.5	41.1	-64.719	µg/L	-64.719	ppb	04:15:46
2	B 249.677†	4398.8	4652.3	58.041	µg/L	58.041	ppb	04:15:25
2	Ba 233.527†	263.7	376.2	9.3420	µg/L	9.3420	ppb	04:15:46
2	Be 313.107†	-2217.7	-6071.5	-3.7277	µg/L	-3.7277	ppb	04:15:25
2	Cd 226.502†	1287.4	1520.2	14.069	µg/L	14.069	ppb	04:15:25
2	Co 228.616†	31.2	109.9	5.1346	µg/L	5.1346	ppb	04:15:46
2	Cr 267.716†	-275.4	-166.1	-3.6220	µg/L	-3.6220	ppb	04:15:46
2	Cu 324.752†	-8871.2	-13121.1	8.7308	µg/L	8.7308	ppb	04:15:25
2	Mn 257.610†	-13528.1	-14597.3	12.765	µg/L	12.765	ppb	04:15:25
2	Mo 202.031†	-215.8	-235.3	-8.4586	µg/L	-8.4586	ppb	04:15:46
2	Ni 231.604†	276.0	-31.1	-1.6811	µg/L	-1.6811	ppb	04:15:46
2	P 214.914†	393.1	218.7	119.01	µg/L	119.01	ppb	04:15:46
2	Pb 220.353†	9.3	-41.4	15.833	µg/L	15.833	ppb	04:15:46

2	S 181.975 Axial†	67.5	48.2	105.28	µg/L	105.28 ppb	04:15:46
2	Sb 206.836†	56.8	39.5	2.2023	µg/L	2.2023 ppb	04:15:46
2	Se 196.026†	-93.3	-114.6	30.763	µg/L	30.763 ppb	04:15:46
2	SiO2†	1657.1	-312.1	-59.988	µg/L	-59.988 ppb	04:15:46
2	Si 251.611†	-262.3	-666.3	-42.561	µg/L	-42.561 ppb	04:15:46
2	Sn 189.927†	-453.5	-519.0	6.7246	µg/L	6.7246 ppb	04:15:46
2	Ti 334.940†	17802.3	18617.5	13.201	µg/L	13.201 ppb	04:15:25
2	Tl 190.801†	3.4	27.2	-25.218	µg/L	-25.218 ppb	04:15:46
2	U 409.014†	141480.7	154043.4	14748	µg/L	14748 ppb	04:15:25
2	V 292.402†	-4832.3	-5196.9	2.7145	µg/L	2.7145 ppb	04:15:25
2	Zn 213.857†	3030.0	2722.8	10.490	µg/L	10.490 ppb	04:15:46
3	Sc RADIAL	120800.6	120800.6	96.8	%		04:14:37
3	Al 396.153Radial†	1007496.2	1040519.9	506300	µg/L	506300 ppb	04:14:31
3	Ca 317.933Radial†	1288729.2	1330792.5	485460	µg/L	485460 ppb	04:14:31
3	Fe 238.204 Radial†	89512.2	92456.4	465020	µg/L	465020 ppb	04:14:37
3	K 766.490 Radial†	722.8	-85.9	-45.882	µg/L	-45.882 ppb	04:14:37
3	Mg 279.077 IEC†	89141.9	92066.5	489660	µg/L	489660 ppb	04:14:37
3	Na 589.592 Radial†	1835111.4	1896386.0	491470	µg/L	491470 ppb	04:14:31
3	Sr 421.552†	924.8	1065.8	5.6853	µg/L	5.6853 ppb	04:14:37
3	Sc 361.383	1992966.0	1992966.0	91.399	%		04:15:52
3	Y 371.029	1188067.3	1188067.3	89.604	%		04:15:52
3	Ag 328.068†	-3635.7	-4058.6	-0.4676	µg/L	-0.4676 ppb	04:15:58
3	As 188.979†	28.8	30.5	-83.775	µg/L	-83.775 ppb	04:16:18
3	B 249.677†	4410.7	4659.5	58.359	µg/L	58.359 ppb	04:15:58
3	Ba 233.527†	268.5	381.0	9.4637	µg/L	9.4637 ppb	04:16:18
3	Be 313.107†	-2192.2	-6040.8	-3.7087	µg/L	-3.7087 ppb	04:15:58
3	Cd 226.502†	1249.0	1476.5	12.813	µg/L	12.813 ppb	04:15:58
3	Co 228.616†	33.0	111.8	5.2237	µg/L	5.2237 ppb	04:16:18
3	Cr 267.716†	-275.7	-166.0	-3.6201	µg/L	-3.6201 ppb	04:16:18
3	Cu 324.752†	-8614.4	-12828.5	10.762	µg/L	10.762 ppb	04:15:58
3	Mn 257.610†	-13427.4	-14469.4	13.165	µg/L	13.165 ppb	04:15:58
3	Mo 202.031†	-222.5	-242.3	-9.2602	µg/L	-9.2602 ppb	04:16:18
3	Ni 231.604†	269.0	-39.2	-2.1203	µg/L	-2.1203 ppb	04:16:18
3	P 214.914†	388.1	212.7	103.85	µg/L	103.85 ppb	04:16:18
3	Pb 220.353†	25.6	-23.6	20.061	µg/L	20.061 ppb	04:16:18
3	S 181.975 Axial†	66.6	47.1	99.636	µg/L	99.636 ppb	04:16:18
3	Sb 206.836†	59.7	42.6	5.7849	µg/L	5.7849 ppb	04:16:18
3	Se 196.026†	-118.8	-142.4	-9.4135	µg/L	-9.4135 ppb	04:16:18
3	SiO2†	1657.9	-313.4	-60.227	µg/L	-60.227 ppb	04:16:18
3	Si 251.611†	-264.0	-667.8	-42.612	µg/L	-42.612 ppb	04:16:18
3	Sn 189.927†	-455.9	-520.9	4.5373	µg/L	4.5373 ppb	04:16:18
3	Ti 334.940†	17646.7	18423.9	13.100	µg/L	13.100 ppb	04:15:58
3	Tl 190.801†	13.2	38.1	-8.3613	µg/L	-8.3613 ppb	04:16:18
3	U 409.014†	140048.2	152290.7	14579	µg/L	14579 ppb	04:15:58
3	V 292.402†	-4822.5	-5179.9	2.6293	µg/L	2.6293 ppb	04:15:58
3	Zn 213.857†	3013.6	2701.0	9.8961	µg/L	9.8961 ppb	04:16:18

Mean Data: LR1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2005187.6	91.960	%	1.0669				1.16%
Sc RADIAL	120810.6	96.8	%	0.56				0.58%
Y 371.029	1195911.1	90.195	%	1.0642				1.18%
Ag 328.068†	-4147.6	-1.2643	µg/L	1.07724	-1.2643	ppb	1.07724	85.21%
Al 396.153Radial†	1040754.6	506410	µg/L	4654.1	506410	ppb	4654.1	0.92%
QC value within limits for Al 396.153Radial Recovery = 101.28%								
As 188.979†	32.3	-80.542	µg/L	14.4795	-80.542	ppb	14.4795	17.98%
B 249.677†	4642.0	57.552	µg/L	1.1333	57.552	ppb	1.1333	1.97%
Ba 233.527†	380.9	9.4613	µg/L	0.11820	9.4613	ppb	0.11820	1.25%
Be 313.107†	-6012.5	-3.6915	µg/L	0.04715	-3.6915	ppb	0.04715	1.28%
Ca 317.933Radial†	1332476.0	486070	µg/L	4867.7	486070	ppb	4867.7	1.00%
QC value within limits for Ca 317.933Radial Recovery = 97.21%								
Cd 226.502†	1504.7	13.547	µg/L	0.6543	13.547	ppb	0.6543	4.83%
Co 228.616†	116.0	5.4277	µg/L	0.43277	5.4277	ppb	0.43277	7.97%
Cr 267.716†	-173.2	-3.7721	µg/L	0.26163	-3.7721	ppb	0.26163	6.94%
Cu 324.752†	-12937.9	10.028	µg/L	1.1265	10.028	ppb	1.1265	11.23%
Fe 238.204 Radial†	92480.0	465140	µg/L	200.5	465140	ppb	200.5	0.04%
QC value within limits for Fe 238.204 Radial Recovery = 93.03%								
K 766.490 Radial†	-96.3	-51.432	µg/L	7.6193	-51.432	ppb	7.6193	14.81%
Mg 279.077 IEC†	92003.3	489330	µg/L	406.8	489330	ppb	406.8	0.08%

QC value within limits for Mg 279.077 IEC Recovery = 97.87%

Mn 257.610†	-14448.2	13.246 µg/L	0.5264	13.246 ppb	0.5264	3.97%
Mo 202.031†	-232.8	-8.1734 µg/L	1.25398	-8.1734 ppb	1.25398	15.34%
Na 589.592 Radial†	1897660.4	491800 µg/L	4252.0	491800 ppb	4252.0	0.86%

QC value within limits for Na 589.592 Radial Recovery = 98.36%

Ni 231.604†	-40.7	-2.2054 µg/L	0.57174	-2.2054 ppb	0.57174	25.92%
P 214.914†	211.4	101.21 µg/L	19.260	101.21 ppb	19.260	19.03%
Pb 220.353†	-33.4	17.572 µg/L	2.2116	17.572 ppb	2.2116	12.59%
S 181.975 Axial†	46.6	96.970 µg/L	9.9205	96.970 ppb	9.9205	10.23%
Sb 206.836†	42.1	5.2233 µg/L	2.78307	5.2233 ppb	2.78307	53.28%
Se 196.026†	-130.8	7.3003 µg/L	20.92117	7.3003 ppb	20.92117	286.58%
SiO2†	-315.7	-60.684 µg/L	1.0060	-60.684 ppb	1.0060	1.66%
Si 251.611†	-654.0	-41.576 µg/L	1.7497	-41.576 ppb	1.7497	4.21%
Sn 189.927†	-520.7	4.7604 µg/L	1.86273	4.7604 ppb	1.86273	39.13%
Sr 421.552†	1065.8	5.6856 µg/L	0.19005	5.6856 ppb	0.19005	3.34%
Ti 334.940†	18510.3	13.255 µg/L	0.1879	13.255 ppb	0.1879	1.42%
Tl 190.801†	32.7	-16.489 µg/L	8.4447	-16.489 ppb	8.4447	51.21%
U 409.014†	152449.3	14595 µg/L	146.5	14595 ppb	146.5	1.00%

QC value within limits for U 409.014 Recovery = 97.30%

V 292.402†	-5180.4	2.6650 µg/L	0.04428	2.6650 ppb	0.04428	1.66%
Zn 213.857†	2695.0	9.7343 µg/L	0.84801	9.7343 ppb	0.84801	8.71%

All analyte(s) passed QC.

Sequence No.: 12
Sample ID: LR2
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 108
Date Collected: 12/19/2009 04:16:27
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR2

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	125336.6	125336.6	100	%			04:17:10
1	Al 396.153Radial†	1159.7	947.1	79.074	µg/L	79.074	ppb	04:17:10
1	Ca 317.933Radial†	1006.4	557.9	203.51	µg/L	203.51	ppb	04:17:30
1	Fe 238.204 Radial†	17.3	8.9	371.08	µg/L	371.08	ppb	04:17:30
1	K 766.490 Radial†	564089.6	560775.1	299520	µg/L	299520	ppb	04:17:04
1	Mg 279.077 IEC†	-18.0	-33.5	71.896	µg/L	71.896	ppb	04:17:30
1	Na 589.592 Radial†	90.9	836.0	216.65	µg/L	216.65	ppb	04:17:10
1	Sr 421.552†	1832253.8	1824302.3	9731.6	µg/L	9731.6	ppb	04:17:04
1	Sc 361.383	2147672.0	2147672.0	98.494	%			04:19:01
1	Y 371.029	1287539.7	1287539.7	97.106	%			04:19:01
1	Ag 328.068†	-7341.2	-7534.2	2.6533	µg/L	2.6533	ppb	04:19:01
1	As 188.979†	5314.8	5395.1	10167	µg/L	10167	ppb	04:19:07
1	B 249.677†	113563.1	115133.3	5055.2	µg/L	5055.2	ppb	04:19:01
1	Ba 233.527†	554447.9	563012.8	14190	µg/L	14190	ppb	04:19:01
1	Be 313.107†	4715825.5	4784289.2	2921.8	µg/L	2921.8	ppb	04:18:51
1	Cd 226.502†	379724.9	385640.9	10041	µg/L	10041	ppb	04:19:01
1	Co 228.616†	201967.6	205131.4	9859.2	µg/L	9859.2	ppb	04:19:01
1	Cr 267.716†	1175347.6	1193454.5	25058	µg/L	25058	ppb	04:19:01
1	Cu 324.752†	2910991.1	2952097.3	20509	µg/L	20509	ppb	04:19:01
1	Mn 257.610†	2992091.6	3038062.8	9509.0	µg/L	9509.0	ppb	04:19:01
1	Mo 202.031†	87023.1	88354.8	10039	µg/L	10039	ppb	04:19:01
1	Ni 231.604†	182325.3	184779.7	10002	µg/L	10002	ppb	04:19:01
1	P 214.914†	8543.7	8462.5	15984	µg/L	15984	ppb	04:19:07
1	Pb 220.353†	99679.0	101151.5	25601	µg/L	25601	ppb	04:19:01
1	S 181.975 Axial†	10105.9	10234.7	51850	µg/L	51850	ppb	04:19:07
1	Sb 206.836†	10161.0	10293.6	10288	µg/L	10288	ppb	04:19:07
1	Se 196.026†	6960.7	7054.8	9966.4	µg/L	9966.4	ppb	04:19:07
1	SiO2†	525640.9	531550.7	102160	µg/L	102160	ppb	04:19:01
1	Si 251.611†	608185.6	617105.9	46543	µg/L	46543	ppb	04:19:01
1	Sn 189.927†	21833.4	22145.0	10872	µg/L	10872	ppb	04:19:07
1	Ti 334.940†	4431857.0	4498737.6	9864.1	µg/L	9864.1	ppb	04:18:51
1	Tl 190.801†	6395.1	6516.5	9738.0	µg/L	9738.0	ppb	04:19:07
1	U 409.014†	2057.2	1152.1	110.86	µg/L	110.86	ppb	04:19:01
1	V 292.402†	897117.1	910930.6	10415	µg/L	10415	ppb	04:19:01
1	Zn 213.857†	562163.9	570163.3	15253	µg/L	15253	ppb	04:19:01
2	Sc RADIAL	123958.3	123958.3	99.3	%			04:17:42
2	Al 396.153Radial†	1052.0	851.6	29.958	µg/L	29.958	ppb	04:17:42
2	Ca 317.933Radial†	993.6	556.1	202.85	µg/L	202.85	ppb	04:18:02
2	Fe 238.204 Radial†	15.7	7.6	366.57	µg/L	366.57	ppb	04:18:02
2	K 766.490 Radial†	563868.8	566797.5	302740	µg/L	302740	ppb	04:17:36
2	Mg 279.077 IEC†	-28.5	-44.3	16.268	µg/L	16.268	ppb	04:18:02
2	Na 589.592 Radial†	17.4	763.0	197.74	µg/L	197.74	ppb	04:17:42
2	Sr 421.552†	1833213.5	1845552.0	9844.9	µg/L	9844.9	ppb	04:17:36
2	Sc 361.383	2137492.1	2137492.1	98.027	%			04:19:26
2	Y 371.029	1282208.1	1282208.1	96.704	%			04:19:26
2	Ag 328.068†	-7260.0	-7486.9	3.5804	µg/L	3.5804	ppb	04:19:26
2	As 188.979†	5275.1	5380.2	10140	µg/L	10140	ppb	04:19:32
2	B 249.677†	113594.7	115714.6	5080.8	µg/L	5080.8	ppb	04:19:26
2	Ba 233.527†	555869.2	567143.6	14294	µg/L	14294	ppb	04:19:26
2	Be 313.107†	4767307.6	4859610.1	2967.8	µg/L	2967.8	ppb	04:19:16
2	Cd 226.502†	380489.7	388257.2	10109	µg/L	10109	ppb	04:19:26
2	Co 228.616†	202433.6	206583.4	9928.8	µg/L	9928.8	ppb	04:19:26
2	Cr 267.716†	1178543.2	1202397.6	25246	µg/L	25246	ppb	04:19:26
2	Cu 324.752†	2914064.5	2969308.2	20629	µg/L	20629	ppb	04:19:26
2	Mn 257.610†	2998590.0	3059159.8	9575.0	µg/L	9575.0	ppb	04:19:26
2	Mo 202.031†	87202.9	88959.0	10108	µg/L	10108	ppb	04:19:26
2	Ni 231.604†	182833.5	186179.7	10078	µg/L	10078	ppb	04:19:26
2	P 214.914†	8502.0	8461.2	15965	µg/L	15965	ppb	04:19:32
2	Pb 220.353†	100083.2	102045.9	25828	µg/L	25828	ppb	04:19:26

2	S 181.975 Axial†	10058.0	10234.7	51849 µg/L	51849 ppb	04:19:32
2	Sb 206.836†	10048.0	10227.4	10221 µg/L	10221 ppb	04:19:32
2	Se 196.026†	6928.0	7055.0	9966.7 µg/L	9966.7 ppb	04:19:32
2	SiO2†	526400.7	534867.5	102800 µg/L	102800 ppb	04:19:26
2	Si 251.611†	609289.1	621172.5	46852 µg/L	46852 ppb	04:19:26
2	Sn 189.927†	21576.7	21988.7	10795 µg/L	10795 ppb	04:19:32
2	Ti 334.940†	4472198.2	4561320.3	10001 µg/L	10001 ppb	04:19:16
2	Tl 190.801†	6383.5	6535.5	9767.2 µg/L	9767.2 ppb	04:19:32
2	U 409.014†	2034.0	1138.4	109.54 µg/L	109.54 ppb	04:19:26
2	V 292.402†	899156.8	917349.2	10488 µg/L	10488 ppb	04:19:26
2	Zn 213.857†	563403.1	574145.6	15360 µg/L	15360 ppb	04:19:26
3	Sc RADIAL	126129.6	126129.6	101 %		04:18:13
3	Al 396.153Radial†	1052.1	833.5	63.230 µg/L	63.230 ppb	04:18:13
3	Ca 317.933Radial†	897.3	443.6	161.82 µg/L	161.82 ppb	04:18:34
3	Fe 238.204 Radial†	9.7	1.3	298.70 µg/L	298.70 ppb	04:18:34
3	K 766.490 Radial†	549237.4	542550.4	289790 µg/L	289790 ppb	04:18:08
3	Mg 279.077 IEC†	-29.7	-45.1	-15.307 µg/L	-15.307 ppb	04:18:34
3	Na 589.592 Radial†	12.0	757.3	196.27 µg/L	196.27 ppb	04:18:13
3	Sr 421.552†	1789283.8	1770321.6	9443.6 µg/L	9443.6 ppb	04:18:08
3	Sc 361.383	2097471.5	2097471.5	96.192 %		04:19:51
3	Y 371.029	1259437.5	1259437.5	94.986 %		04:19:51
3	Ag 328.068†	-6385.5	-6719.0	2.5150 µg/L	2.5150 ppb	04:19:51
3	As 188.979†	4604.6	4785.9	9021.6 µg/L	9021.6 ppb	04:19:57
3	B 249.677†	103672.7	107610.9	4725.0 µg/L	4725.0 ppb	04:19:51
3	Ba 233.527†	492092.8	511662.0	12895 µg/L	12895 ppb	04:19:51
3	Be 313.107†	4484131.1	4658015.4	2844.7 µg/L	2844.7 ppb	04:19:41
3	Cd 226.502†	334736.0	348098.1	9063.6 µg/L	9063.6 ppb	04:19:51
3	Co 228.616†	176665.8	183735.7	8829.3 µg/L	8829.3 ppb	04:19:51
3	Cr 267.716†	1003793.3	1043669.1	21914 µg/L	21914 ppb	04:19:51
3	Cu 324.752†	2553190.6	2650867.9	18417 µg/L	18417 ppb	04:19:51
3	Mn 257.610†	2622631.0	2726682.3	8534.4 µg/L	8534.4 ppb	04:19:51
3	Mo 202.031†	76205.7	79223.7	9001.5 µg/L	9001.5 ppb	04:19:51
3	Ni 231.604†	159396.7	165373.8	8951.6 µg/L	8951.6 ppb	04:19:51
3	P 214.914†	7223.7	7297.8	13690 µg/L	13690 ppb	04:19:57
3	Pb 220.353†	89357.8	92843.9	23499 µg/L	23499 ppb	04:19:51
3	S 181.975 Axial†	8844.3	9168.7	46449 µg/L	46449 ppb	04:19:57
3	Sb 206.836†	8738.1	9061.3	9060.2 µg/L	9060.2 ppb	04:19:57
3	Se 196.026†	6060.7	6288.3	8883.5 µg/L	8883.5 ppb	04:19:57
3	SiO2†	472863.8	489457.2	94072 µg/L	94072 ppb	04:19:51
3	Si 251.611†	546779.0	568047.0	42856 µg/L	42856 ppb	04:19:51
3	Sn 189.927†	17963.5	18652.5	9157.5 µg/L	9157.5 ppb	04:19:57
3	Ti 334.940†	4211479.7	4377328.6	9597.9 µg/L	9597.9 ppb	04:19:41
3	Tl 190.801†	5810.7	6064.3	9065.8 µg/L	9065.8 ppb	04:19:57
3	U 409.014†	1944.8	1085.2	104.43 µg/L	104.43 ppb	04:19:51
3	V 292.402†	783215.2	814319.1	9310.3 µg/L	9310.3 ppb	04:19:51
3	Zn 213.857†	494842.4	513836.9	13747 µg/L	13747 ppb	04:19:51

Mean Data: LR2

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2127545.2	97.571	%	1.2170				1.25%
Sc RADIAL	125141.5	100	%	0.9				0.88%
Y 371.029	1276395.1	96.265	%	1.1257				1.17%
Ag 328.068†	-7246.7	2.9162	µg/L	0.57933	2.9162	ppb	0.57933	19.87%
Al 396.153Radial†	877.4	57.420	µg/L	25.0681	57.420	ppb	25.0681	43.66%
As 188.979†	5187.0	9776.3	µg/L	653.72	9776.3	ppb	653.72	6.69%
QC value within limits for As 188.979 Recovery = 97.76%								
B 249.677†	112819.6	4953.7	µg/L	198.47	4953.7	ppb	198.47	4.01%
QC value within limits for B 249.677 Recovery = 99.07%								
Ba 233.527†	547272.8	13793	µg/L	779.2	13793	ppb	779.2	5.65%
QC value within limits for Ba 233.527 Recovery = 91.95%								
Be 313.107†	4767304.9	2911.4	µg/L	62.21	2911.4	ppb	62.21	2.14%
QC value within limits for Be 313.107 Recovery = 97.05%								
Ca 317.933Radial†	519.2	189.39	µg/L	23.885	189.39	ppb	23.885	12.61%
Cd 226.502†	373998.7	9738.0	µg/L	585.08	9738.0	ppb	585.08	6.01%
QC value within limits for Cd 226.502 Recovery = 97.38%								
Co 228.616†	198483.5	9539.1	µg/L	615.71	9539.1	ppb	615.71	6.45%
QC value within limits for Co 228.616 Recovery = 95.39%								
Cr 267.716†	1146507.1	24073	µg/L	1872.0	24073	ppb	1872.0	7.78%
QC value within limits for Cr 267.716 Recovery = 96.29%								

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Cu 324.752†          2857424.5       19852 µg/L        1244.2       19852 ppb        1244.2   6.27%
   QC value within limits for Cu 324.752  Recovery = 99.26%
Fe 238.204 Radial†         5.9      345.45 µg/L        40.551      345.45 ppb        40.551  11.74%
K 766.490 Radial†     556707.6      297350 µg/L        6743.2      297350 ppb        6743.2   2.27%
   QC value within limits for K 766.490 Radial  Recovery = 99.12%
Mg 279.077 IEC†          -41.0      24.286 µg/L       44.1510      24.286 ppb       44.1510 181.80%
Mn 257.610†          2941301.7      9206.1 µg/L        582.69      9206.1 ppb        582.69   6.33%
   QC value within limits for Mn 257.610  Recovery = 92.06%
Mo 202.031†            85512.5      9716.1 µg/L        619.77      9716.1 ppb        619.77   6.38%
   QC value within limits for Mo 202.031  Recovery = 97.16%
Na 589.592 Radial†       785.4      203.55 µg/L        11.363      203.55 ppb        11.363   5.58%
Ni 231.604†           178777.7      9677.2 µg/L        629.48      9677.2 ppb        629.48   6.50%
   QC value within limits for Ni 231.604  Recovery = 96.77%
P 214.914†              8073.8      15213 µg/L        1319.1       15213 ppb        1319.1   8.67%
   QC value within limits for P 214.914  Recovery = 101.42%
Pb 220.353†            98680.4      24976 µg/L        1284.4       24976 ppb        1284.4   5.14%
   QC value within limits for Pb 220.353  Recovery = 99.90%
S 181.975 Axial†        9879.4      50049 µg/L        3117.8       50049 ppb        3117.8   6.23%
   QC value within limits for S 181.975 Axial  Recovery = 100.10%
Sb 206.836†             9860.7      9856.3 µg/L        690.27      9856.3 ppb        690.27   7.00%
   QC value within limits for Sb 206.836  Recovery = 98.56%
Se 196.026†             6799.3      9605.5 µg/L        625.26      9605.5 ppb        625.26   6.51%
   QC value within limits for Se 196.026  Recovery = 96.06%
SiO2†                 518625.1      99678 µg/L        4865.4       99678 ppb        4865.4   4.88%
   QC value within limits for SiO2  Recovery = 93.16%
Si 251.611†           602108.4      45417 µg/L        2223.5       45417 ppb        2223.5   4.90%
   QC value within limits for Si 251.611  Recovery = 90.83%
Sn 189.927†            20928.8      10275 µg/L         968.6       10275 ppb         968.6   9.43%
   QC value within limits for Sn 189.927  Recovery = 102.75%
Sr 421.552†          1813392.0      9673.4 µg/L        206.89      9673.4 ppb        206.89   2.14%
   QC value within limits for Sr 421.552  Recovery = 96.73%
Ti 334.940†          4479128.8      9821.2 µg/L        205.12      9821.2 ppb        205.12   2.09%
   QC value within limits for Ti 334.940  Recovery = 98.21%
Tl 190.801†             6372.1      9523.7 µg/L        396.78      9523.7 ppb        396.78   4.17%
   QC value within limits for Tl 190.801  Recovery = 95.24%
U 409.014†              1125.3      108.28 µg/L         3.395      108.28 ppb         3.395   3.14%
V 292.402†            880866.3      10071 µg/L         659.8       10071 ppb         659.8   6.55%
   QC value within limits for V 292.402  Recovery = 100.71%
Zn 213.857†           552715.3      14786 µg/L         902.1       14786 ppb         902.1   6.10%
   QC value within limits for Zn 213.857  Recovery = 98.58%
All analyte(s) passed QC.
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Sequence No.: 13
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 12/19/2009 04:20:05
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	123596.3	123596.3	99.0	%			04:20:43
1	Al 396.153Radial†	10988.2	10886.5	5277.4	µg/L	5277.4	ppb	04:20:43
1	Ca 317.933Radial†	14868.0	14566.9	5313.8	µg/L	5313.8	ppb	04:20:43
1	Fe 238.204 Radial†	1064.9	1066.9	5383.2	µg/L	5383.2	ppb	04:21:03
1	K 766.490 Radial†	10673.8	9944.0	5311.3	µg/L	5311.3	ppb	04:20:43
1	Mg 279.077 IEC†	1029.5	1023.7	5457.5	µg/L	5457.5	ppb	04:21:03
1	Na 589.592 Radial†	39417.0	40541.5	10507	µg/L	10507	ppb	04:20:43
1	Sr 421.552†	96331.3	97368.3	519.40	µg/L	519.40	ppb	04:20:43
1	Sc 361.383	2194211.3	2194211.3	100.63	%			04:22:07
1	Y 371.029	1329360.9	1329360.9	100.26	%			04:22:07
1	Ag 328.068†	57074.4	56637.3	516.91	µg/L	516.91	ppb	04:22:13
1	As 188.979†	289.4	286.6	538.48	µg/L	538.48	ppb	04:22:33
1	B 249.677†	12031.3	11789.9	515.98	µg/L	515.98	ppb	04:22:13
1	Ba 233.527†	20771.7	20729.2	522.75	µg/L	522.75	ppb	04:22:13
1	Be 313.107†	846935.6	838005.0	512.23	µg/L	512.23	ppb	04:22:07
1	Cd 226.502†	20196.7	20180.5	525.40	µg/L	525.40	ppb	04:22:13
1	Co 228.616†	10885.8	10893.5	523.57	µg/L	523.57	ppb	04:22:13
1	Cr 267.716†	25072.0	25051.0	526.70	µg/L	526.70	ppb	04:22:13
1	Cu 324.752†	76778.6	72895.7	507.59	µg/L	507.59	ppb	04:22:13
1	Mn 257.610†	164301.4	163497.0	512.41	µg/L	512.41	ppb	04:22:07
1	Mo 202.031†	4584.5	4556.9	517.97	µg/L	517.97	ppb	04:22:33
1	Ni 231.604†	10046.9	9650.7	522.39	µg/L	522.39	ppb	04:22:13
1	P 214.914†	1437.8	1216.9	2571.9	µg/L	2571.9	ppb	04:22:33
1	Pb 220.353†	2168.8	2103.6	533.19	µg/L	533.19	ppb	04:22:33
1	S 181.975 Axial†	239.6	212.4	1074.2	µg/L	1074.2	ppb	04:22:33
1	Sb 206.836†	549.3	523.1	526.15	µg/L	526.15	ppb	04:22:33
1	Se 196.026†	389.2	374.3	531.08	µg/L	531.08	ppb	04:22:33
1	SiO2†	31139.9	28818.1	5538.7	µg/L	5538.7	ppb	04:22:13
1	Si 251.611†	34212.2	33619.5	2543.6	µg/L	2543.6	ppb	04:22:13
1	Sn 189.927†	1109.8	1080.7	533.45	µg/L	533.45	ppb	04:22:33
1	Ti 334.940†	234697.9	232349.0	509.16	µg/L	509.16	ppb	04:22:07
1	Tl 190.801†	332.3	353.8	527.87	µg/L	527.87	ppb	04:22:33
1	U 409.014†	6403.4	5426.9	521.35	µg/L	521.35	ppb	04:22:13
1	V 292.402†	46090.3	45898.9	526.12	µg/L	526.12	ppb	04:22:13
1	Zn 213.857†	20510.4	19786.1	527.98	µg/L	527.98	ppb	04:22:13
2	Sc RADIAL	125246.9	125246.9	100	%			04:21:09
2	Al 396.153Radial†	11095.6	10847.2	5258.5	µg/L	5258.5	ppb	04:21:09
2	Ca 317.933Radial†	15095.2	14595.5	5324.2	µg/L	5324.2	ppb	04:21:09
2	Fe 238.204 Radial†	1052.3	1040.1	5248.8	µg/L	5248.8	ppb	04:21:29
2	K 766.490 Radial†	10772.6	9900.4	5288.0	µg/L	5288.0	ppb	04:21:09
2	Mg 279.077 IEC†	1030.8	1011.4	5391.7	µg/L	5391.7	ppb	04:21:29
2	Na 589.592 Radial†	39820.1	40418.8	10475	µg/L	10475	ppb	04:21:09
2	Sr 421.552†	97494.5	97245.5	518.75	µg/L	518.75	ppb	04:21:09
2	Sc 361.383	2202617.1	2202617.1	101.01	%			04:22:40
2	Y 371.029	1332273.3	1332273.3	100.48	%			04:22:40
2	Ag 328.068†	57087.2	56433.5	515.03	µg/L	515.03	ppb	04:22:46
2	As 188.979†	284.4	280.5	526.99	µg/L	526.99	ppb	04:23:07
2	B 249.677†	12042.1	11755.0	514.49	µg/L	514.49	ppb	04:22:46
2	Ba 233.527†	20762.9	20641.8	520.54	µg/L	520.54	ppb	04:22:46
2	Be 313.107†	849636.8	837467.1	511.90	µg/L	511.90	ppb	04:22:40
2	Cd 226.502†	20209.7	20116.8	523.75	µg/L	523.75	ppb	04:22:46
2	Co 228.616†	10888.2	10854.6	521.69	µg/L	521.69	ppb	04:22:46
2	Cr 267.716†	25013.6	24898.1	523.48	µg/L	523.48	ppb	04:22:46
2	Cu 324.752†	76572.4	72400.4	504.12	µg/L	504.12	ppb	04:22:46
2	Mn 257.610†	164824.5	163391.7	512.07	µg/L	512.07	ppb	04:22:40
2	Mo 202.031†	4561.2	4516.5	513.37	µg/L	513.37	ppb	04:23:07
2	Ni 231.604†	10038.0	9603.8	519.85	µg/L	519.85	ppb	04:22:46
2	P 214.914†	1429.5	1203.2	2542.8	µg/L	2542.8	ppb	04:23:07
2	Pb 220.353†	2152.3	2079.1	526.98	µg/L	526.98	ppb	04:23:07

2	S 181.975 Axial†	237.0	208.9	1056.7 µg/L	1056.7 ppb	04:23:07
2	Sb 206.836†	547.7	519.5	522.51 µg/L	522.51 ppb	04:23:07
2	Se 196.026†	382.9	366.6	520.13 µg/L	520.13 ppb	04:23:07
2	SiO2†	31114.5	28674.9	5511.2 µg/L	5511.2 ppb	04:22:46
2	Si 251.611†	34097.1	33375.9	2525.3 µg/L	2525.3 ppb	04:22:46
2	Sn 189.927†	1093.4	1060.2	523.39 µg/L	523.39 ppb	04:23:07
2	Ti 334.940†	235256.9	232012.4	508.42 µg/L	508.42 ppb	04:22:40
2	Tl 190.801†	327.1	347.4	518.36 µg/L	518.36 ppb	04:23:07
2	U 409.014†	6307.7	5307.9	509.92 µg/L	509.92 ppb	04:22:46
2	V 292.402†	45964.9	45600.0	522.66 µg/L	522.66 ppb	04:22:46
2	Zn 213.857†	20478.1	19676.3	525.07 µg/L	525.07 ppb	04:22:46
3	Sc RADIAL	127177.0	127177.0	102 %		04:21:35
3	Al 396.153Radial†	10696.9	10288.3	4989.4 µg/L	4989.4 ppb	04:21:35
3	Ca 317.933Radial†	14568.2	13850.1	5052.4 µg/L	5052.4 ppb	04:21:35
3	Fe 238.204 Radial†	1050.2	1022.2	5157.0 µg/L	5157.0 ppb	04:21:55
3	K 766.490 Radial†	10599.3	9567.4	5110.2 µg/L	5110.2 ppb	04:21:35
3	Mg 279.077 IEC†	1029.3	994.3	5299.2 µg/L	5299.2 ppb	04:21:55
3	Na 589.592 Radial†	38623.1	38642.1	10015 µg/L	10015 ppb	04:21:35
3	Sr 421.552†	94378.0	92713.5	494.57 µg/L	494.57 ppb	04:21:35
3	Sc 361.383	2185340.4	2185340.4	100.22 %		04:23:14
3	Y 371.029	1322463.6	1322463.6	99.740 %		04:23:14
3	Ag 328.068†	54074.3	53874.0	491.56 µg/L	491.56 ppb	04:23:19
3	As 188.979†	242.0	240.4	451.67 µg/L	451.67 ppb	04:23:40
3	B 249.677†	11328.3	11137.0	487.39 µg/L	487.39 ppb	04:23:19
3	Ba 233.527†	19180.2	19225.1	484.80 µg/L	484.80 ppb	04:23:19
3	Be 313.107†	807127.9	801701.8	490.04 µg/L	490.04 ppb	04:23:14
3	Cd 226.502†	18576.5	18645.4	485.41 µg/L	485.41 ppb	04:23:19
3	Co 228.616†	9973.6	10027.3	481.81 µg/L	481.81 ppb	04:23:19
3	Cr 267.716†	22403.9	22490.0	472.87 µg/L	472.87 ppb	04:23:19
3	Cu 324.752†	70719.0	67159.3	467.69 µg/L	467.69 ppb	04:23:19
3	Mn 257.610†	156980.1	156854.7	491.59 µg/L	491.59 ppb	04:23:14
3	Mo 202.031†	3871.7	3864.2	439.26 µg/L	439.26 ppb	04:23:40
3	Ni 231.604†	9244.8	8890.9	481.26 µg/L	481.26 ppb	04:23:19
3	P 214.914†	1274.5	1059.8	2236.0 µg/L	2236.0 ppb	04:23:40
3	Pb 220.353†	1890.6	1834.8	465.00 µg/L	465.00 ppb	04:23:40
3	S 181.975 Axial†	210.1	183.9	930.13 µg/L	930.13 ppb	04:23:40
3	Sb 206.836†	478.7	454.8	457.59 µg/L	457.59 ppb	04:23:40
3	Se 196.026†	352.1	338.9	480.94 µg/L	480.94 ppb	04:23:40
3	SiO2†	29200.9	27009.1	5191.0 µg/L	5191.0 ppb	04:23:19
3	Si 251.611†	31853.2	31403.8	2378.3 µg/L	2378.3 ppb	04:23:19
3	Sn 189.927†	930.2	906.0	447.59 µg/L	447.59 ppb	04:23:40
3	Ti 334.940†	222387.2	221012.3	484.32 µg/L	484.32 ppb	04:23:14
3	Tl 190.801†	301.1	324.0	483.61 µg/L	483.61 ppb	04:23:40
3	U 409.014†	5818.2	4868.8	467.68 µg/L	467.68 ppb	04:23:19
3	V 292.402†	41888.0	41891.8	479.96 µg/L	479.96 ppb	04:23:19
3	Zn 213.857†	18826.3	18188.4	485.31 µg/L	485.31 ppb	04:23:19

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2194056.3	100.62	%	0.396				0.39%
Sc RADIAL	125340.1	100	%	1.4				1.43%
Y 371.029	1328032.6	100.16	%	0.380				0.38%
Ag 328.068†	55648.3	507.83	µg/L	14.127	507.83	ppb	14.127	2.78%
QC value within limits for Ag 328.068 Recovery = 101.57%								
Al 396.153Radial†	10674.0	5175.1	µg/L	161.13	5175.1	ppb	161.13	3.11%
QC value within limits for Al 396.153Radial Recovery = 103.50%								
As 188.979†	269.1	505.71	µg/L	47.153	505.71	ppb	47.153	9.32%
QC value within limits for As 188.979 Recovery = 101.14%								
B 249.677†	11560.6	505.95	µg/L	16.098	505.95	ppb	16.098	3.18%
QC value within limits for B 249.677 Recovery = 101.19%								
Ba 233.527†	20198.7	509.36	µg/L	21.300	509.36	ppb	21.300	4.18%
QC value within limits for Ba 233.527 Recovery = 101.87%								
Be 313.107†	825724.6	504.72	µg/L	12.717	504.72	ppb	12.717	2.52%
QC value within limits for Be 313.107 Recovery = 100.94%								
Ca 317.933Radial†	14337.5	5230.1	µg/L	154.05	5230.1	ppb	154.05	2.95%
QC value within limits for Ca 317.933Radial Recovery = 104.60%								
Cd 226.502†	19647.6	511.52	µg/L	22.627	511.52	ppb	22.627	4.42%
QC value within limits for Cd 226.502 Recovery = 102.30%								
Co 228.616†	10591.8	509.02	µg/L	23.584	509.02	ppb	23.584	4.63%

```
   QC value within limits for Co 228.616  Recovery = 101.80%
Cr 267.716†            24146.4      507.68 µg/L        30.192      507.68 ppb        30.192   5.95%
   QC value within limits for Cr 267.716  Recovery = 101.54%
Cu 324.752†            70818.5      493.13 µg/L        22.104      493.13 ppb        22.104   4.48%
   QC value within limits for Cu 324.752  Recovery = 98.63%
Fe 238.204 Radial†      1043.0      5263.0 µg/L        113.77      5263.0 ppb        113.77   2.16%
   QC value within limits for Fe 238.204 Radial  Recovery = 105.26%
K 766.490 Radial†       9803.9      5236.5 µg/L        110.01      5236.5 ppb        110.01   2.10%
   QC value within limits for K 766.490 Radial  Recovery = 104.73%
Mg 279.077 IEC†         1009.8      5382.8 µg/L         79.53      5382.8 ppb         79.53   1.48%
   QC value within limits for Mg 279.077 IEC  Recovery = 107.66%
Mn 257.610†           161247.8      505.36 µg/L        11.921      505.36 ppb        11.921   2.36%
   QC value within limits for Mn 257.610  Recovery = 101.07%
Mo 202.031†             4312.5      490.20 µg/L        44.176      490.20 ppb        44.176   9.01%
   QC value within limits for Mo 202.031  Recovery = 98.04%
Na 589.592 Radial†     39867.5       10332 µg/L         275.5       10332 ppb         275.5   2.67%
   QC value within limits for Na 589.592 Radial  Recovery = 103.32%
Ni 231.604†             9381.8      507.83 µg/L        23.048      507.83 ppb        23.048   4.54%
   QC value within limits for Ni 231.604  Recovery = 101.57%
P 214.914†              1160.0      2450.2 µg/L        186.09      2450.2 ppb        186.09   7.59%
   QC value within limits for P 214.914  Recovery = 98.01%
Pb 220.353†             2005.8      508.39 µg/L        37.704      508.39 ppb        37.704   7.42%
   QC value within limits for Pb 220.353  Recovery = 101.68%
S 181.975 Axial†         201.7      1020.4 µg/L         78.63      1020.4 ppb         78.63   7.71%
   QC value within limits for S 181.975 Axial  Recovery = 102.04%
Sb 206.836†              499.1      502.08 µg/L        38.577      502.08 ppb        38.577   7.68%
   QC value within limits for Sb 206.836  Recovery = 100.42%
Se 196.026†              360.0      510.72 µg/L        26.362      510.72 ppb        26.362   5.16%
   QC value within limits for Se 196.026  Recovery = 102.14%
SiO2†                  28167.4      5413.6 µg/L        193.28      5413.6 ppb        193.28   3.57%
   QC value within limits for SiO2  Recovery = 101.24%
Si 251.611†            32799.8      2482.4 µg/L         90.61      2482.4 ppb         90.61   3.65%
   QC value within limits for Si 251.611  Recovery = 99.30%
Sn 189.927†             1015.6      501.47 µg/L        46.938      501.47 ppb        46.938   9.36%
   QC value within limits for Sn 189.927  Recovery = 100.29%
Sr 421.552†            95775.8      510.91 µg/L        14.151      510.91 ppb        14.151   2.77%
   QC value within limits for Sr 421.552  Recovery = 102.18%
Ti 334.940†           228457.9      500.63 µg/L        14.135      500.63 ppb        14.135   2.82%
   QC value within limits for Ti 334.940  Recovery = 100.13%
Tl 190.801†              341.7      509.95 µg/L        23.296      509.95 ppb        23.296   4.57%
   QC value within limits for Tl 190.801  Recovery = 101.99%
U 409.014†              5201.2      499.65 µg/L        28.272      499.65 ppb        28.272   5.66%
   QC value within limits for U 409.014  Recovery = 99.93%
V 292.402†             44463.6      509.58 µg/L        25.710      509.58 ppb        25.710   5.05%
   QC value within limits for V 292.402  Recovery = 101.92%
Zn 213.857†            19217.0      512.79 µg/L        23.837      512.79 ppb        23.837   4.65%
   QC value within limits for Zn 213.857  Recovery = 102.56%
All analyte(s) passed QC.
```

Sequence No.: 14
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 12/19/2009 04:23:49
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	125483.4	125483.4	101	%			04:24:22
1	Al 396.153Radial†	244.0	35.2	17.078	µg/L	17.078	ppb	04:24:22
1	Ca 317.933Radial†	553.5	106.3	38.788	µg/L	38.788	ppb	04:24:42
1	Fe 238.204 Radial†	14.9	6.6	33.269	µg/L	33.269	ppb	04:24:42
1	K 766.490 Radial†	942.2	104.5	55.821	µg/L	55.821	ppb	04:24:22
1	Mg 279.077 IEC†	30.4	14.5	77.438	µg/L	77.438	ppb	04:24:42
1	Na 589.592 Radial†	-566.8	181.8	47.106	µg/L	47.106	ppb	04:24:22
1	Sr 421.552†	158.1	267.7	1.4283	µg/L	1.4283	ppb	04:24:22
1	Sc 361.383	2173388.1	2173388.1	99.673	%			04:25:44
1	Y 371.029	1321951.7	1321951.7	99.701	%			04:25:44
1	Ag 328.068†	68.5	-12.0	-0.0952	µg/L	-0.0952	ppb	04:25:50
1	As 188.979†	2.9	1.8	3.4175	µg/L	3.4175	ppb	04:26:10
1	B 249.677†	243.1	77.7	3.4009	µg/L	3.4009	ppb	04:25:50
1	Ba 233.527†	26.9	114.2	2.8774	µg/L	2.8774	ppb	04:26:10
1	Be 313.107†	4550.4	923.1	0.5637	µg/L	0.5637	ppb	04:25:50
1	Cd 226.502†	-20.6	89.3	2.3211	µg/L	2.3211	ppb	04:26:10
1	Co 228.616†	-41.5	34.1	1.6377	µg/L	1.6377	ppb	04:26:10
1	Cr 267.716†	74.2	210.0	4.4091	µg/L	4.4091	ppb	04:25:50
1	Cu 324.752†	3865.4	474.6	3.3043	µg/L	3.3043	ppb	04:25:50
1	Mn 257.610†	367.5	590.2	1.8514	µg/L	1.8514	ppb	04:26:10
1	Mo 202.031†	10.5	11.6	1.3239	µg/L	1.3239	ppb	04:26:10
1	Ni 231.604†	380.9	48.7	2.6388	µg/L	2.6388	ppb	04:26:10
1	P 214.914†	212.7	1.5	2.8544	µg/L	2.8544	ppb	04:26:10
1	Pb 220.353†	73.0	21.6	5.4742	µg/L	5.4742	ppb	04:26:10
1	S 181.975 Axial†	27.5	1.9	9.6487	µg/L	9.6487	ppb	04:26:10
1	Sb 206.836†	29.1	6.4	6.4578	µg/L	6.4578	ppb	04:26:10
1	Se 196.026†	12.5	0.2	0.2252	µg/L	0.2252	ppb	04:26:10
1	SiO2†	2244.8	124.8	23.986	µg/L	23.986	ppb	04:25:50
1	Si 251.611†	531.7	154.5	11.649	µg/L	11.649	ppb	04:26:10
1	Sn 189.927†	30.0	7.9	3.9025	µg/L	3.9025	ppb	04:26:10
1	Ti 334.940†	1797.7	920.2	2.0155	µg/L	2.0155	ppb	04:25:50
1	Tl 190.801†	-21.3	2.2	3.2703	µg/L	3.2703	ppb	04:26:10
1	U 409.014†	925.5	-8.0	-0.7721	µg/L	-0.7721	ppb	04:25:50
1	V 292.402†	42.4	138.9	1.5886	µg/L	1.5886	ppb	04:25:50
1	Zn 213.857†	729.7	135.8	3.6292	µg/L	3.6292	ppb	04:26:10
2	Sc RADIAL	123249.7	123249.7	98.8	%			04:24:48
2	Al 396.153Radial†	250.1	45.8	22.208	µg/L	22.208	ppb	04:24:48
2	Ca 317.933Radial†	555.1	117.9	42.996	µg/L	42.996	ppb	04:25:08
2	Fe 238.204 Radial†	15.7	7.7	38.564	µg/L	38.564	ppb	04:25:08
2	K 766.490 Radial†	899.3	78.0	41.647	µg/L	41.647	ppb	04:24:48
2	Mg 279.077 IEC†	25.8	10.5	55.714	µg/L	55.714	ppb	04:25:08
2	Na 589.592 Radial†	-593.5	144.5	37.459	µg/L	37.459	ppb	04:24:48
2	Sr 421.552†	124.2	236.2	1.2600	µg/L	1.2600	ppb	04:24:48
2	Sc 361.383	2159137.1	2159137.1	99.020	%			04:26:16
2	Y 371.029	1313297.7	1313297.7	99.048	%			04:26:16
2	Ag 328.068†	94.7	14.9	0.1482	µg/L	0.1482	ppb	04:26:22
2	As 188.979†	5.3	4.3	8.0797	µg/L	8.0797	ppb	04:26:42
2	B 249.677†	234.6	70.7	3.0927	µg/L	3.0927	ppb	04:26:22
2	Ba 233.527†	25.5	113.0	2.8468	µg/L	2.8468	ppb	04:26:42
2	Be 313.107†	4520.1	922.6	0.5633	µg/L	0.5633	ppb	04:26:22
2	Cd 226.502†	-27.9	81.7	2.1181	µg/L	2.1181	ppb	04:26:42
2	Co 228.616†	-38.1	37.3	1.7897	µg/L	1.7897	ppb	04:26:42
2	Cr 267.716†	72.1	208.4	4.3759	µg/L	4.3759	ppb	04:26:22
2	Cu 324.752†	3902.7	537.9	3.7453	µg/L	3.7453	ppb	04:26:22
2	Mn 257.610†	350.1	575.1	1.8049	µg/L	1.8049	ppb	04:26:42
2	Mo 202.031†	16.9	18.1	2.0622	µg/L	2.0622	ppb	04:26:42
2	Ni 231.604†	360.0	30.1	1.6294	µg/L	1.6294	ppb	04:26:42
2	P 214.914†	213.0	3.2	6.3958	µg/L	6.3958	ppb	04:26:42
2	Pb 220.353†	74.0	23.1	5.8584	µg/L	5.8584	ppb	04:26:42

2	S 181.975 Axial†	27.8	2.3	11.695 µg/L	11.695 ppb	04:26:42
2	Sb 206.836†	29.7	7.2	7.2589 µg/L	7.2589 ppb	04:26:42
2	Se 196.026†	16.1	3.8	5.4447 µg/L	5.4447 ppb	04:26:42
2	SiO2†	2281.0	176.3	33.876 µg/L	33.876 ppb	04:26:22
2	Si 251.611†	534.3	160.6	12.158 µg/L	12.158 ppb	04:26:42
2	Sn 189.927†	26.7	4.8	2.3944 µg/L	2.3944 ppb	04:26:42
2	Ti 334.940†	1950.5	1086.4	2.3797 µg/L	2.3797 ppb	04:26:22
2	Tl 190.801†	-15.5	7.9	11.798 µg/L	11.798 ppb	04:26:42
2	U 409.014†	840.2	-88.0	-8.4777 µg/L	-8.4777 ppb	04:26:22
2	V 292.402†	36.8	133.6	1.5207 µg/L	1.5207 ppb	04:26:22
2	Zn 213.857†	712.1	122.9	3.2848 µg/L	3.2848 ppb	04:26:42
3	Sc RADIAL	122238.1	122238.1	98.0 %		04:25:14
3	Al 396.153Radial†	284.3	82.9	40.237 µg/L	40.237 ppb	04:25:14
3	Ca 317.933Radial†	570.1	137.9	50.299 µg/L	50.299 ppb	04:25:34
3	Fe 238.204 Radial†	18.0	10.1	50.878 µg/L	50.878 ppb	04:25:34
3	K 766.490 Radial†	902.8	89.2	47.619 µg/L	47.619 ppb	04:25:14
3	Mg 279.077 IEC†	28.4	13.3	70.747 µg/L	70.747 ppb	04:25:34
3	Na 589.592 Radial†	-577.7	155.7	40.357 µg/L	40.357 ppb	04:25:14
3	Sr 421.552†	227.3	342.6	1.8273 µg/L	1.8273 ppb	04:25:14
3	Sc 361.383	2156283.3	2156283.3	98.889 %		04:26:48
3	Y 371.029	1312130.6	1312130.6	98.960 %		04:26:48
3	Ag 328.068†	99.4	19.8	0.1918 µg/L	0.1918 ppb	04:26:54
3	As 188.979†	-2.2	-3.3	-6.2045 µg/L	-6.2045 ppb	04:27:14
3	B 249.677†	240.9	77.4	3.3824 µg/L	3.3824 ppb	04:26:54
3	Ba 233.527†	12.5	99.9	2.5157 µg/L	2.5157 ppb	04:27:14
3	Be 313.107†	4527.1	935.8	0.5715 µg/L	0.5715 ppb	04:26:54
3	Cd 226.502†	-31.9	77.7	2.0173 µg/L	2.0173 ppb	04:27:14
3	Co 228.616†	-39.6	35.7	1.7137 µg/L	1.7137 ppb	04:27:14
3	Cr 267.716†	47.7	183.8	3.8590 µg/L	3.8590 ppb	04:26:54
3	Cu 324.752†	3900.7	541.1	3.7701 µg/L	3.7701 ppb	04:26:54
3	Mn 257.610†	314.8	539.8	1.6960 µg/L	1.6960 ppb	04:27:14
3	Mo 202.031†	16.8	18.1	2.0581 µg/L	2.0581 ppb	04:27:14
3	Ni 231.604†	359.9	30.6	1.6539 µg/L	1.6539 ppb	04:27:14
3	P 214.914†	211.8	2.3	4.4368 µg/L	4.4368 ppb	04:27:14
3	Pb 220.353†	75.6	24.9	6.2988 µg/L	6.2988 ppb	04:27:14
3	S 181.975 Axial†	30.1	4.7	24.024 µg/L	24.024 ppb	04:27:14
3	Sb 206.836†	27.1	4.6	4.6278 µg/L	4.6278 ppb	04:27:14
3	Se 196.026†	17.8	5.6	7.9194 µg/L	7.9194 ppb	04:27:14
3	SiO2†	2232.1	129.9	24.957 µg/L	24.957 ppb	04:26:54
3	Si 251.611†	499.6	126.2	9.5563 µg/L	9.5563 ppb	04:27:14
3	Sn 189.927†	24.8	2.9	1.4637 µg/L	1.4637 ppb	04:27:14
3	Ti 334.940†	1763.0	899.4	1.9693 µg/L	1.9693 ppb	04:26:54
3	Tl 190.801†	-17.6	5.7	8.5294 µg/L	8.5294 ppb	04:27:14
3	U 409.014†	906.3	-20.0	-1.9319 µg/L	-1.9319 ppb	04:26:54
3	V 292.402†	16.0	112.6	1.2945 µg/L	1.2945 ppb	04:26:54
3	Zn 213.857†	715.3	127.1	3.3972 µg/L	3.3972 ppb	04:27:14

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2162936.2	99.194	%	0.4202				0.42%
Sc RADIAL	123657.1	99.1	%	1.33				1.34%
Y 371.029	1315793.3	99.237	%	0.4046				0.41%
Ag 328.068†	7.6	0.0816	µg/L	0.15467	0.0816	ppb	0.15467	189.51%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	54.6	26.507	µg/L	12.1634	26.507	ppb	12.1634	45.89%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	0.9	1.7642	µg/L	7.28419	1.7642	ppb	7.28419	412.89%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	75.3	3.2920	µg/L	0.17288	3.2920	ppb	0.17288	5.25%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	109.0	2.7467	µg/L	0.20059	2.7467	ppb	0.20059	7.30%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	927.2	0.5662	µg/L	0.00461	0.5662	ppb	0.00461	0.82%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	120.7	44.028	µg/L	5.8242	44.028	ppb	5.8242	13.23%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	82.9	2.1522	µg/L	0.15474	2.1522	ppb	0.15474	7.19%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	35.7	1.7137	µg/L	0.07604	1.7137	ppb	0.07604	4.44%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              200.8      4.2146 µg/L       0.30848      4.2146 ppb        0.30848   7.32%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              517.9      3.6066 µg/L       0.26208      3.6066 ppb        0.26208   7.27%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         8.1      40.903 µg/L        9.0346     40.903 ppb         9.0346  22.09%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         90.5      48.362 µg/L        7.1161     48.362 ppb         7.1161  14.71%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           12.8      67.966 µg/L       11.1258     67.966 ppb        11.1258  16.37%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              568.4      1.7841 µg/L       0.07976      1.7841 ppb        0.07976   4.47%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               16.0      1.8147 µg/L       0.42508      1.8147 ppb        0.42508  23.42%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       160.7      41.641 µg/L        4.9499     41.641 ppb         4.9499  11.89%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               36.5      1.9740 µg/L       0.57584      1.9740 ppb        0.57584  29.17%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 2.3      4.5623 µg/L       1.77405      4.5623 ppb        1.77405  38.88%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               23.2      5.8771 µg/L       0.41265      5.8771 ppb        0.41265   7.02%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           3.0      15.123 µg/L        7.7765     15.123 ppb         7.7765  51.42%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                6.1      6.1148 µg/L       1.34866      6.1148 ppb        1.34866  22.06%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                3.2      4.5298 µg/L       3.92782      4.5298 ppb        3.92782  86.71%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    143.6      27.606 µg/L        5.4516     27.606 ppb         5.4516  19.75%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†              147.1      11.121 µg/L        1.3790     11.121 ppb         1.3790  12.40%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                5.2      2.5869 µg/L       1.23073      2.5869 ppb        1.23073  47.58%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              282.2      1.5052 µg/L       0.29140      1.5052 ppb        0.29140  19.36%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              968.7      2.1215 µg/L       0.22482      2.1215 ppb        0.22482  10.60%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                5.3      7.8660 µg/L       4.30253      7.8660 ppb        4.30253  54.70%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -38.7     -3.7272 µg/L       4.15468     -3.7272 ppb        4.15468 111.47%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               128.4      1.4679 µg/L       0.15397      1.4679 ppb        0.15397  10.49%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              128.6      3.4371 µg/L       0.17566      3.4371 ppb        0.17566   5.11%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 6
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 12/19/2009 04:49:21
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	126121.6	126121.6	101	%			04:50:01
1	Al 396.153Radial†	11155.1	10829.5	5249.4	µg/L	5249.4	ppb	04:50:01
1	Ca 317.933Radial†	15225.1	14619.6	5333.0	µg/L	5333.0	ppb	04:50:01
1	Fe 238.204 Radial†	1053.6	1034.2	5219.1	µg/L	5219.1	ppb	04:50:21
1	K 766.490 Radial†	10650.8	9705.5	5183.9	µg/L	5183.9	ppb	04:50:01
1	Mg 279.077 IEC†	1019.3	992.8	5293.3	µg/L	5293.3	ppb	04:50:21
1	Na 589.592 Radial†	40355.3	40673.1	10541	µg/L	10541	ppb	04:50:01
1	Sr 421.552†	98180.5	97250.6	518.77	µg/L	518.77	ppb	04:50:01
1	Sc 361.383	2180810.8	2180810.8	100.01	%			04:51:25
1	Y 371.029	1319254.1	1319254.1	99.498	%			04:51:25
1	Ag 328.068†	57848.9	57760.2	527.10	µg/L	527.10	ppb	04:51:31
1	As 188.979†	292.8	291.7	548.12	µg/L	548.12	ppb	04:51:51
1	B 249.677†	12019.4	11851.5	518.74	µg/L	518.74	ppb	04:51:31
1	Ba 233.527†	20749.2	20833.6	525.39	µg/L	525.39	ppb	04:51:31
1	Be 313.107†	855342.3	851582.2	520.53	µg/L	520.53	ppb	04:51:25
1	Cd 226.502†	20235.2	20342.3	529.63	µg/L	529.63	ppb	04:51:31
1	Co 228.616†	10898.9	10973.1	527.40	µg/L	527.40	ppb	04:51:31
1	Cr 267.716†	25077.1	25209.3	530.03	µg/L	530.03	ppb	04:51:31
1	Cu 324.752†	77257.0	73842.9	514.13	µg/L	514.13	ppb	04:51:31
1	Mn 257.610†	165164.7	165363.4	518.23	µg/L	518.23	ppb	04:51:25
1	Mo 202.031†	4632.6	4633.0	526.61	µg/L	526.61	ppb	04:51:51
1	Ni 231.604†	10076.3	9741.5	527.30	µg/L	527.30	ppb	04:51:31
1	P 214.914†	1445.5	1233.4	2607.0	µg/L	2607.0	ppb	04:51:51
1	Pb 220.353†	2164.5	2112.6	535.48	µg/L	535.48	ppb	04:51:51
1	S 181.975 Axial†	238.9	213.2	1078.3	µg/L	1078.3	ppb	04:51:51
1	Sb 206.836†	549.2	526.4	529.51	µg/L	529.51	ppb	04:51:51
1	Se 196.026†	398.8	386.4	548.06	µg/L	548.06	ppb	04:51:51
1	SiO2†	31275.7	29144.1	5601.4	µg/L	5601.4	ppb	04:51:31
1	Si 251.611†	34326.2	33942.5	2568.0	µg/L	2568.0	ppb	04:51:31
1	Sn 189.927†	1115.3	1093.0	539.46	µg/L	539.46	ppb	04:51:51
1	Ti 334.940†	236336.6	235420.7	515.90	µg/L	515.90	ppb	04:51:25
1	Tl 190.801†	337.3	360.9	538.41	µg/L	538.41	ppb	04:51:51
1	U 409.014†	6397.8	5460.4	524.60	µg/L	524.60	ppb	04:51:31
1	V 292.402†	46268.7	46358.8	531.39	µg/L	531.39	ppb	04:51:31
1	Zn 213.857†	20493.1	19894.0	530.87	µg/L	530.87	ppb	04:51:31
2	Sc RADIAL	124383.5	124383.5	99.7	%			04:50:27
2	Al 396.153Radial†	11001.3	10829.4	5249.5	µg/L	5249.5	ppb	04:50:27
2	Ca 317.933Radial†	15051.1	14655.6	5346.2	µg/L	5346.2	ppb	04:50:27
2	Fe 238.204 Radial†	1060.3	1055.4	5325.8	µg/L	5325.8	ppb	04:50:47
2	K 766.490 Radial†	10595.0	9796.7	5232.6	µg/L	5232.6	ppb	04:50:27
2	Mg 279.077 IEC†	1025.8	1013.4	5402.7	µg/L	5402.7	ppb	04:50:47
2	Na 589.592 Radial†	39893.9	40768.2	10566	µg/L	10566	ppb	04:50:27
2	Sr 421.552†	96901.4	97324.7	519.17	µg/L	519.17	ppb	04:50:27
2	Sc 361.383	2186149.3	2186149.3	100.26	%			04:51:58
2	Y 371.029	1322253.4	1322253.4	99.724	%			04:51:58
2	Ag 328.068†	57690.3	57460.7	524.39	µg/L	524.39	ppb	04:52:04
2	As 188.979†	284.5	282.8	531.30	µg/L	531.30	ppb	04:52:25
2	B 249.677†	11986.6	11789.5	515.98	µg/L	515.98	ppb	04:52:04
2	Ba 233.527†	20717.2	20751.0	523.30	µg/L	523.30	ppb	04:52:04
2	Be 313.107†	858238.9	852382.9	521.02	µg/L	521.02	ppb	04:51:58
2	Cd 226.502†	20126.6	20184.6	525.52	µg/L	525.52	ppb	04:52:04
2	Co 228.616†	10885.7	10933.3	525.47	µg/L	525.47	ppb	04:52:04
2	Cr 267.716†	24977.6	25048.8	526.66	µg/L	526.66	ppb	04:52:04
2	Cu 324.752†	77132.7	73530.4	511.98	µg/L	511.98	ppb	04:52:04
2	Mn 257.610†	166052.9	165846.1	519.76	µg/L	519.76	ppb	04:51:58
2	Mo 202.031†	4598.7	4587.9	521.49	µg/L	521.49	ppb	04:52:25
2	Ni 231.604†	10052.3	9692.9	524.67	µg/L	524.67	ppb	04:52:04
2	P 214.914†	1442.6	1226.9	2593.0	µg/L	2593.0	ppb	04:52:25
2	Pb 220.353†	2138.2	2081.1	527.48	µg/L	527.48	ppb	04:52:25

2	S 181.975 Axial†	239.3	213.0	1077.3 µg/L	1077.3 ppb	04:52:25
2	Sb 206.836†	549.5	525.3	528.41 µg/L	528.41 ppb	04:52:25
2	Se 196.026†	402.8	389.3	552.22 µg/L	552.22 ppb	04:52:25
2	SiO2†	31260.4	29052.4	5583.8 µg/L	5583.8 ppb	04:52:04
2	Si 251.611†	34212.0	33744.8	2553.2 µg/L	2553.2 ppb	04:52:04
2	Sn 189.927†	1096.9	1071.9	529.13 µg/L	529.13 ppb	04:52:25
2	Ti 334.940†	236993.2	235498.5	516.07 µg/L	516.07 ppb	04:51:58
2	Tl 190.801†	334.0	356.7	532.19 µg/L	532.19 ppb	04:52:25
2	U 409.014†	6439.4	5486.3	527.07 µg/L	527.07 ppb	04:52:04
2	V 292.402†	46233.7	46210.8	529.69 µg/L	529.69 ppb	04:52:04
2	Zn 213.857†	20432.7	19783.7	527.91 µg/L	527.91 ppb	04:52:04
3	Sc RADIAL	124462.2	124462.2	99.7 %		04:50:53
3	Al 396.153Radial†	10968.5	10789.6	5233.2 µg/L	5233.2 ppb	04:50:53
3	Ca 317.933Radial†	14990.6	14585.4	5320.6 µg/L	5320.6 ppb	04:50:53
3	Fe 238.204 Radial†	1061.6	1056.1	5327.7 µg/L	5327.7 ppb	04:51:13
3	K 766.490 Radial†	10602.6	9797.6	5233.1 µg/L	5233.1 ppb	04:50:53
3	Mg 279.077 IEC†	1022.4	1009.4	5379.5 µg/L	5379.5 ppb	04:51:13
3	Na 589.592 Radial†	39738.9	40587.4	10519 µg/L	10519 ppb	04:50:53
3	Sr 421.552†	96597.8	96958.9	517.22 µg/L	517.22 ppb	04:50:53
3	Sc 361.383	2183538.4	2183538.4	100.14 %		04:52:32
3	Y 371.029	1320748.4	1320748.4	99.610 %		04:52:32
3	Ag 328.068†	55138.8	54981.6	501.64 µg/L	501.64 ppb	04:52:37
3	As 188.979†	246.4	245.1	460.38 µg/L	460.38 ppb	04:52:58
3	B 249.677†	11432.6	11250.6	492.32 µg/L	492.32 ppb	04:52:37
3	Ba 233.527†	19334.6	19395.0	489.09 µg/L	489.09 ppb	04:52:37
3	Be 313.107†	814109.3	809338.1	494.71 µg/L	494.71 ppb	04:52:32
3	Cd 226.502†	18794.6	18878.5	491.47 µg/L	491.47 ppb	04:52:37
3	Co 228.616†	10059.8	10121.6	486.34 µg/L	486.34 ppb	04:52:37
3	Cr 267.716†	22522.4	22626.8	475.75 µg/L	475.75 ppb	04:52:37
3	Cu 324.752†	71791.1	68288.1	475.57 µg/L	475.57 ppb	04:52:37
3	Mn 257.610†	157725.1	157727.8	494.35 µg/L	494.35 ppb	04:52:32
3	Mo 202.031†	3888.3	3883.9	441.51 µg/L	441.51 ppb	04:52:58
3	Ni 231.604†	9321.3	8975.0	485.81 µg/L	485.81 ppb	04:52:37
3	P 214.914†	1279.7	1066.0	2248.1 µg/L	2248.1 ppb	04:52:58
3	Pb 220.353†	1876.1	1821.9	461.76 µg/L	461.76 ppb	04:52:58
3	S 181.975 Axial†	219.1	193.1	976.51 µg/L	976.51 ppb	04:52:58
3	Sb 206.836†	472.3	448.9	451.59 µg/L	451.59 ppb	04:52:58
3	Se 196.026†	357.7	344.8	489.34 µg/L	489.34 ppb	04:52:58
3	SiO2†	29484.1	27315.8	5250.0 µg/L	5250.0 ppb	04:52:37
3	Si 251.611†	32219.3	31795.6	2408.6 µg/L	2408.6 ppb	04:52:37
3	Sn 189.927†	915.0	891.6	440.60 µg/L	440.60 ppb	04:52:58
3	Ti 334.940†	224073.0	222878.9	488.40 µg/L	488.40 ppb	04:52:32
3	Tl 190.801†	297.3	320.4	478.29 µg/L	478.29 ppb	04:52:58
3	U 409.014†	5830.3	4885.7	469.28 µg/L	469.28 ppb	04:52:37
3	V 292.402†	42338.3	42376.0	485.49 µg/L	485.49 ppb	04:52:37
3	Zn 213.857†	18965.5	18342.9	489.41 µg/L	489.41 ppb	04:52:37

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2183499.5	100.14	%	0.122				0.12%
Sc RADIAL	124989.1	100	%	0.8				0.79%
Y 371.029	1320752.0	99.611	%	0.1131				0.11%
Ag 328.068†	56734.2	517.71	µg/L	13.984	517.71	ppb	13.984	2.70%
QC value within limits for Ag 328.068 Recovery = 103.54%								
Al 396.153Radial†	10816.1	5244.0	µg/L	9.38	5244.0	ppb	9.38	0.18%
QC value within limits for Al 396.153Radial Recovery = 104.88%								
As 188.979†	273.2	513.27	µg/L	46.563	513.27	ppb	46.563	9.07%
QC value within limits for As 188.979 Recovery = 102.65%								
B 249.677†	11630.5	509.01	µg/L	14.524	509.01	ppb	14.524	2.85%
QC value within limits for B 249.677 Recovery = 101.80%								
Ba 233.527†	20326.5	512.59	µg/L	20.382	512.59	ppb	20.382	3.98%
QC value within limits for Ba 233.527 Recovery = 102.52%								
Be 313.107†	837767.7	512.09	µg/L	15.051	512.09	ppb	15.051	2.94%
QC value within limits for Be 313.107 Recovery = 102.42%								
Ca 317.933Radial†	14620.2	5333.3	µg/L	12.80	5333.3	ppb	12.80	0.24%
QC value within limits for Ca 317.933Radial Recovery = 106.67%								
Cd 226.502†	19801.8	515.54	µg/L	20.950	515.54	ppb	20.950	4.06%
QC value within limits for Cd 226.502 Recovery = 103.11%								
Co 228.616†	10676.0	513.07	µg/L	23.169	513.07	ppb	23.169	4.52%

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   QC value within limits for Co 228.616  Recovery = 102.61%
Cr 267.716†            24294.9      510.81 µg/L        30.410      510.81 ppb        30.410   5.95%
   QC value within limits for Cr 267.716  Recovery = 102.16%
Cu 324.752†            71887.1      500.56 µg/L        21.674      500.56 ppb        21.674   4.33%
   QC value within limits for Cu 324.752  Recovery = 100.11%
Fe 238.204 Radial†      1048.6      5290.9 µg/L        62.14      5290.9 ppb         62.14   1.17%
   QC value within limits for Fe 238.204 Radial  Recovery = 105.82%
K 766.490 Radial†       9766.6      5216.5 µg/L        28.27      5216.5 ppb         28.27   0.54%
   QC value within limits for K 766.490 Radial  Recovery = 104.33%
Mg 279.077 IEC†         1005.2      5358.5 µg/L        57.65      5358.5 ppb         57.65   1.08%
   QC value within limits for Mg 279.077 IEC  Recovery = 107.17%
Mn 257.610†           162979.1      510.78 µg/L        14.250      510.78 ppb        14.250   2.79%
   QC value within limits for Mn 257.610  Recovery = 102.16%
Mo 202.031†             4368.3      496.54 µg/L        47.728      496.54 ppb        47.728   9.61%
   QC value within limits for Mo 202.031  Recovery = 99.31%
Na 589.592 Radial†     40676.2       10542 µg/L         23.4       10542 ppb          23.4   0.22%
   QC value within limits for Na 589.592 Radial  Recovery = 105.42%
Ni 231.604†             9469.8      512.60 µg/L        23.233      512.60 ppb        23.233   4.53%
   QC value within limits for Ni 231.604  Recovery = 102.52%
P 214.914†              1175.4      2482.7 µg/L        203.26      2482.7 ppb        203.26   8.19%
   QC value within limits for P 214.914  Recovery = 99.31%
Pb 220.353†             2005.2      508.24 µg/L        40.454      508.24 ppb        40.454   7.96%
   QC value within limits for Pb 220.353  Recovery = 101.65%
S 181.975 Axial†         206.4      1044.1 µg/L         58.50      1044.1 ppb         58.50   5.60%
   QC value within limits for S 181.975 Axial  Recovery = 104.41%
Sb 206.836†              500.2      503.17 µg/L        44.673      503.17 ppb        44.673   8.88%
   QC value within limits for Sb 206.836  Recovery = 100.63%
Se 196.026†              373.5      529.87 µg/L        35.165      529.87 ppb        35.165   6.64%
   QC value within limits for Se 196.026  Recovery = 105.97%
SiO2†                  28504.1      5478.4 µg/L        197.98      5478.4 ppb        197.98   3.61%
   QC value within limits for SiO2  Recovery = 102.45%
Si 251.611†            33161.0      2509.9 µg/L         88.05      2509.9 ppb         88.05   3.51%
   QC value within limits for Si 251.611  Recovery = 100.40%
Sn 189.927†             1018.8      503.06 µg/L        54.341      503.06 ppb        54.341  10.80%
   QC value within limits for Sn 189.927  Recovery = 100.61%
Sr 421.552†            97178.1      518.39 µg/L         1.032      518.39 ppb         1.032   0.20%
   QC value within limits for Sr 421.552  Recovery = 103.68%
Ti 334.940†           231266.0      506.79 µg/L        15.926      506.79 ppb        15.926   3.14%
   QC value within limits for Ti 334.940  Recovery = 101.36%
Tl 190.801†              346.0      516.30 µg/L        33.059      516.30 ppb        33.059   6.40%
   QC value within limits for Tl 190.801  Recovery = 103.26%
U 409.014†              5277.5      506.98 µg/L        32.677      506.98 ppb        32.677   6.45%
   QC value within limits for U 409.014  Recovery = 101.40%
V 292.402†             44981.9      515.52 µg/L        26.024      515.52 ppb        26.024   5.05%
   QC value within limits for V 292.402  Recovery = 103.10%
Zn 213.857†            19340.2      516.07 µg/L        23.129      516.07 ppb        23.129   4.48%
   QC value within limits for Zn 213.857  Recovery = 103.21%
All analyte(s) passed QC.
```

Sequence No.: 7
Sample ID: PQL
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 101
Date Collected: 12/19/2009 04:53:08
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: PQL

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	123842.5	123842.5	99.2	%			04:53:42
1	Al 396.153Radial†	609.3	406.5	197.43	µg/L	197.43	ppb	04:53:42
1	Ca 317.933Radial†	1072.0	636.0	232.02	µg/L	232.02	ppb	04:54:03
1	Fe 238.204 Radial†	29.3	21.3	107.16	µg/L	107.16	ppb	04:54:03
1	K 766.490 Radial†	1144.2	320.4	171.15	µg/L	171.15	ppb	04:53:42
1	Mg 279.077 IEC†	78.5	63.4	337.74	µg/L	337.74	ppb	04:54:03
1	Na 589.592 Radial†	553.0	1302.6	337.59	µg/L	337.59	ppb	04:53:42
1	Sr 421.552†	916.8	1034.2	5.5170	µg/L	5.5170	ppb	04:53:42
1	Sc 361.383	2187199.4	2187199.4	100.31	%			04:55:04
1	Y 371.029	1331792.6	1331792.6	100.44	%			04:55:04
1	Ag 328.068†	735.7	652.7	5.9543	µg/L	5.9543	ppb	04:55:10
1	As 188.979†	18.9	17.8	33.463	µg/L	33.463	ppb	04:55:31
1	B 249.677†	1332.9	1162.6	51.014	µg/L	51.014	ppb	04:55:10
1	Ba 233.527†	132.8	219.7	5.5387	µg/L	5.5387	ppb	04:55:31
1	Be 313.107†	12220.3	8540.7	5.2204	µg/L	5.2204	ppb	04:55:10
1	Cd 226.502†	101.8	211.4	5.5288	µg/L	5.5288	ppb	04:55:31
1	Co 228.616†	28.1	103.8	4.9971	µg/L	4.9971	ppb	04:55:31
1	Cr 267.716†	125.4	260.6	5.4783	µg/L	5.4783	ppb	04:55:10
1	Cu 324.752†	4965.2	1546.6	10.768	µg/L	10.768	ppb	04:55:10
1	Mn 257.610†	3212.3	3424.0	10.730	µg/L	10.730	ppb	04:55:10
1	Mo 202.031†	85.1	85.9	9.7651	µg/L	9.7651	ppb	04:55:31
1	Ni 231.604†	432.7	98.0	5.3029	µg/L	5.3029	ppb	04:55:31
1	P 214.914†	278.2	65.5	140.19	µg/L	140.19	ppb	04:55:31
1	Pb 220.353†	89.0	37.1	9.3834	µg/L	9.3834	ppb	04:55:31
1	S 181.975 Axial†	52.0	26.1	132.12	µg/L	132.12	ppb	04:55:31
1	Sb 206.836†	36.9	14.1	14.159	µg/L	14.159	ppb	04:55:31
1	Se 196.026†	36.0	23.5	33.211	µg/L	33.211	ppb	04:55:31
1	SiO2†	3385.2	1247.5	239.77	µg/L	239.77	ppb	04:55:10
1	Si 251.611†	1754.2	1369.8	104.81	µg/L	104.81	ppb	04:55:31
1	Sn 189.927†	45.1	22.8	11.335	µg/L	11.335	ppb	04:55:31
1	Ti 334.940†	3341.1	2447.5	5.3535	µg/L	5.3535	ppb	04:55:10
1	Tl 190.801†	-8.6	15.0	22.229	µg/L	22.229	ppb	04:55:31
1	U 409.014†	1409.8	469.0	45.116	µg/L	45.116	ppb	04:55:10
1	V 292.402†	351.0	446.4	5.2185	µg/L	5.2185	ppb	04:55:10
1	Zn 213.857†	1000.6	401.3	10.728	µg/L	10.728	ppb	04:55:31
2	Sc RADIAL	122899.7	122899.7	98.5	%			04:54:08
2	Al 396.153Radial†	646.1	448.6	217.90	µg/L	217.90	ppb	04:54:08
2	Ca 317.933Radial†	1062.1	634.3	231.37	µg/L	231.37	ppb	04:54:29
2	Fe 238.204 Radial†	31.1	23.3	117.23	µg/L	117.23	ppb	04:54:29
2	K 766.490 Radial†	1066.6	250.5	133.79	µg/L	133.79	ppb	04:54:08
2	Mg 279.077 IEC†	83.9	69.5	370.16	µg/L	370.16	ppb	04:54:29
2	Na 589.592 Radial†	576.5	1330.8	344.89	µg/L	344.89	ppb	04:54:08
2	Sr 421.552†	901.9	1026.2	5.4741	µg/L	5.4741	ppb	04:54:08
2	Sc 361.383	2192236.8	2192236.8	100.54	%			04:55:37
2	Y 371.029	1335512.5	1335512.5	100.72	%			04:55:37
2	Ag 328.068†	710.8	626.3	5.7141	µg/L	5.7141	ppb	04:55:42
2	As 188.979†	18.2	17.0	32.046	µg/L	32.046	ppb	04:56:03
2	B 249.677†	1362.7	1189.2	52.177	µg/L	52.177	ppb	04:55:42
2	Ba 233.527†	132.6	219.1	5.5243	µg/L	5.5243	ppb	04:56:03
2	Be 313.107†	12213.9	8506.4	5.1995	µg/L	5.1995	ppb	04:55:42
2	Cd 226.502†	93.5	202.9	5.3141	µg/L	5.3141	ppb	04:56:03
2	Co 228.616†	39.4	114.9	5.5329	µg/L	5.5329	ppb	04:56:03
2	Cr 267.716†	114.6	249.6	5.2460	µg/L	5.2460	ppb	04:55:42
2	Cu 324.752†	4997.6	1567.4	10.915	µg/L	10.915	ppb	04:55:42
2	Mn 257.610†	3263.1	3467.2	10.867	µg/L	10.867	ppb	04:55:42
2	Mo 202.031†	84.7	85.3	9.6930	µg/L	9.6930	ppb	04:56:03
2	Ni 231.604†	449.1	113.3	6.1332	µg/L	6.1332	ppb	04:56:03
2	P 214.914†	285.7	72.2	154.76	µg/L	154.76	ppb	04:56:03
2	Pb 220.353†	92.6	40.5	10.239	µg/L	10.239	ppb	04:56:03

2	S 181.975 Axial†	52.4	26.3	133.42 µg/L	133.42 ppb	04:56:03
2	Sb 206.836†	30.6	7.7	7.7536 µg/L	7.7536 ppb	04:56:03
2	Se 196.026†	33.8	21.2	29.868 µg/L	29.868 ppb	04:56:03
2	SiO2†	3355.5	1210.2	232.60 µg/L	232.60 ppb	04:55:42
2	Si 251.611†	1753.6	1365.3	104.56 µg/L	104.56 ppb	04:56:03
2	Sn 189.927†	41.1	18.7	9.3107 µg/L	9.3107 ppb	04:56:03
2	Ti 334.940†	3276.5	2375.6	5.1958 µg/L	5.1958 ppb	04:55:42
2	Tl 190.801†	-6.8	16.8	25.019 µg/L	25.019 ppb	04:56:03
2	U 409.014†	1508.9	564.3	54.290 µg/L	54.290 ppb	04:55:42
2	V 292.402†	331.7	426.4	5.0066 µg/L	5.0066 ppb	04:55:42
2	Zn 213.857†	1008.8	407.2	10.882 µg/L	10.882 ppb	04:56:03
3	Sc RADIAL	124001.7	124001.7	99.4 %		04:54:34
3	Al 396.153Radial†	619.4	415.9	202.02 µg/L	202.02 ppb	04:54:34
3	Ca 317.933Radial†	1055.9	618.5	225.62 µg/L	225.62 ppb	04:54:54
3	Fe 238.204 Radial†	30.0	21.9	110.40 µg/L	110.40 ppb	04:54:54
3	K 766.490 Radial†	1040.6	214.7	114.66 µg/L	114.66 ppb	04:54:34
3	Mg 279.077 IEC†	80.5	65.4	348.29 µg/L	348.29 ppb	04:54:54
3	Na 589.592 Radial†	529.7	1278.6	331.35 µg/L	331.35 ppb	04:54:34
3	Sr 421.552†	910.0	1026.2	5.4744 µg/L	5.4744 ppb	04:54:34
3	Sc 361.383	2165585.9	2165585.9	99.316 %		04:56:09
3	Y 371.029	1318550.4	1318550.4	99.444 %		04:56:09
3	Ag 328.068†	648.0	571.7	5.2162 µg/L	5.2162 ppb	04:56:14
3	As 188.979†	21.5	20.6	38.661 µg/L	38.661 ppb	04:56:35
3	B 249.677†	1300.7	1143.5	50.172 µg/L	50.172 ppb	04:56:14
3	Ba 233.527†	112.8	200.8	5.0633 µg/L	5.0633 ppb	04:56:35
3	Be 313.107†	11543.6	7980.9	4.8783 µg/L	4.8783 ppb	04:56:14
3	Cd 226.502†	63.1	173.5	4.5404 µg/L	4.5404 ppb	04:56:35
3	Co 228.616†	23.0	98.9	4.7633 µg/L	4.7633 ppb	04:56:35
3	Cr 267.716†	104.4	240.8	5.0608 µg/L	5.0608 ppb	04:56:14
3	Cu 324.752†	4852.0	1482.0	10.320 µg/L	10.320 ppb	04:56:14
3	Mn 257.610†	2949.7	3191.5	10.003 µg/L	10.003 ppb	04:56:14
3	Mo 202.031†	78.3	79.9	9.0843 µg/L	9.0843 ppb	04:56:35
3	Ni 231.604†	420.2	89.7	4.8553 µg/L	4.8553 ppb	04:56:35
3	P 214.914†	268.5	58.4	125.08 µg/L	125.08 ppb	04:56:35
3	Pb 220.353†	88.8	37.8	9.5533 µg/L	9.5533 ppb	04:56:35
3	S 181.975 Axial†	45.8	20.4	103.20 µg/L	103.20 ppb	04:56:35
3	Sb 206.836†	35.4	12.9	13.012 µg/L	13.012 ppb	04:56:35
3	Se 196.026†	36.2	24.0	33.869 µg/L	33.869 ppb	04:56:35
3	SiO2†	3235.2	1130.2	217.22 µg/L	217.22 ppb	04:56:14
3	Si 251.611†	1571.9	1203.7	92.062 µg/L	92.062 ppb	04:56:35
3	Sn 189.927†	43.9	22.1	10.973 µg/L	10.973 ppb	04:56:35
3	Ti 334.940†	3075.1	2212.9	4.8395 µg/L	4.8395 ppb	04:56:14
3	Tl 190.801†	-7.6	15.9	23.669 µg/L	23.669 ppb	04:56:35
3	U 409.014†	1382.9	455.9	43.860 µg/L	43.860 ppb	04:56:14
3	V 292.402†	284.9	383.3	4.4961 µg/L	4.4961 ppb	04:56:14
3	Zn 213.857†	955.4	365.8	9.7763 µg/L	9.7763 ppb	04:56:35

Mean Data: PQL

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2181674.0	100.05	%	0.649				0.65%
Sc RADIAL	123581.3	99.0	%	0.48				0.48%
Y 371.029	1328618.5	100.20	%	0.672				0.67%
Ag 328.068†	616.9	5.6282	µg/L	0.37650	5.6282	ppb	0.37650	6.69%
QC value within limits for Ag 328.068 Recovery = 112.56%								
Al 396.153Radial†	423.7	205.78	µg/L	10.741	205.78	ppb	10.741	5.22%
QC value within limits for Al 396.153Radial Recovery = 102.89%								
As 188.979†	18.5	34.723	µg/L	3.4832	34.723	ppb	3.4832	10.03%
QC value within limits for As 188.979 Recovery = 115.74%								
B 249.677†	1165.1	51.121	µg/L	1.0066	51.121	ppb	1.0066	1.97%
QC value within limits for B 249.677 Recovery = 102.24%								
Ba 233.527†	213.2	5.3754	µg/L	0.27039	5.3754	ppb	0.27039	5.03%
QC value within limits for Ba 233.527 Recovery = 107.51%								
Be 313.107†	8342.7	5.0994	µg/L	0.19176	5.0994	ppb	0.19176	3.76%
QC value within limits for Be 313.107 Recovery = 101.99%								
Ca 317.933Radial†	629.6	229.67	µg/L	3.523	229.67	ppb	3.523	1.53%
QC value within limits for Ca 317.933Radial Recovery = 114.84%								
Cd 226.502†	195.9	5.1278	µg/L	0.51986	5.1278	ppb	0.51986	10.14%
QC value within limits for Cd 226.502 Recovery = 102.56%								
Co 228.616†	105.9	5.0978	µg/L	0.39460	5.0978	ppb	0.39460	7.74%

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   QC value within limits for Co 228.616  Recovery = 101.96%
Cr 267.716†              250.3      5.2617 µg/L       0.20918      5.2617 ppb        0.20918   3.98%
   QC value within limits for Cr 267.716  Recovery = 105.23%
Cu 324.752†             1532.0      10.667 µg/L        0.3100      10.667 ppb         0.3100   2.91%
   QC value within limits for Cu 324.752  Recovery = 106.67%
Fe 238.204 Radial†        22.2      111.60 µg/L         5.140      111.60 ppb         5.140   4.61%
   QC value within limits for Fe 238.204 Radial  Recovery = 111.60%
K 766.490 Radial†        261.9      139.87 µg/L        28.731      139.87 ppb        28.731  20.54%
   QC value within limits for K 766.490 Radial  Recovery = 93.24%
Mg 279.077 IEC†           66.1      352.06 µg/L        16.533      352.06 ppb        16.533   4.70%
   QC value within limits for Mg 279.077 IEC  Recovery = 117.35%
Mn 257.610†             3360.9      10.533 µg/L        0.4642      10.533 ppb        0.4642   4.41%
   QC value within limits for Mn 257.610  Recovery = 105.33%
Mo 202.031†               83.7      9.5142 µg/L       0.37397      9.5142 ppb       0.37397   3.93%
   QC value within limits for Mo 202.031  Recovery = 95.14%
Na 589.592 Radial†      1304.0      337.94 µg/L         6.777      337.94 ppb         6.777   2.01%
   QC value within limits for Na 589.592 Radial  Recovery = 112.65%
Ni 231.604†              100.3      5.4305 µg/L       0.64843      5.4305 ppb       0.64843  11.94%
   QC value within limits for Ni 231.604  Recovery = 108.61%
P 214.914†                65.4      140.01 µg/L        14.840      140.01 ppb        14.840  10.60%
   QC value within limits for P 214.914  Recovery = 93.34%
Pb 220.353†               38.5      9.7251 µg/L       0.45279      9.7251 ppb       0.45279   4.66%
   QC value within limits for Pb 220.353  Recovery = 97.25%
S 181.975 Axial†          24.3      122.91 µg/L        17.085      122.91 ppb        17.085  13.90%
   QC value within limits for S 181.975 Axial  Recovery = 122.91%
Sb 206.836†               11.6      11.641 µg/L        3.4155      11.641 ppb        3.4155  29.34%
   QC value within limits for Sb 206.836  Recovery = 116.41%
Se 196.026†               22.9      32.316 µg/L        2.1453      32.316 ppb        2.1453   6.64%
   QC value within limits for Se 196.026  Recovery = 107.72%
SiO2†                   1196.0      229.86 µg/L        11.522      229.86 ppb        11.522   5.01%
   QC value within limits for SiO2  Recovery = 107.92%
Si 251.611†             1312.9      100.48 µg/L         7.288      100.48 ppb         7.288   7.25%
   QC value within limits for Si 251.611  Recovery = 100.48%
Sn 189.927†               21.2      10.540 µg/L        1.0797      10.540 ppb        1.0797  10.24%
   QC value within limits for Sn 189.927  Recovery = 105.40%
Sr 421.552†             1028.9      5.4885 µg/L       0.02467      5.4885 ppb       0.02467   0.45%
   QC value within limits for Sr 421.552  Recovery = 109.77%
Ti 334.940†             2345.3      5.1296 µg/L       0.26331      5.1296 ppb       0.26331   5.13%
   QC value within limits for Ti 334.940  Recovery = 102.59%
Tl 190.801†               15.9      23.639 µg/L        1.3951      23.639 ppb        1.3951   5.90%
   QC value within limits for Tl 190.801  Recovery = 118.20%
U 409.014†               496.4      47.755 µg/L        5.6940      47.755 ppb        5.6940  11.92%
   QC value within limits for U 409.014  Recovery = 95.51%
V 292.402†               418.7      4.9071 µg/L       0.37135      4.9071 ppb       0.37135   7.57%
   QC value within limits for V 292.402  Recovery = 98.14%
Zn 213.857†              391.4      10.462 µg/L        0.5988      10.462 ppb        0.5988   5.72%
   QC value within limits for Zn 213.857  Recovery = 104.62%
All analyte(s) passed QC.
```

Sequence No.: 8
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 12/19/2009 04:56:44
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	122499.0	122499.0	98.2	%			04:57:17
1	Al 396.153Radial†	198.8	-4.9	-2.4003	µg/L	-2.4003	ppb	04:57:17
1	Ca 317.933Radial†	469.6	34.2	12.492	µg/L	12.492	ppb	04:57:37
1	Fe 238.204 Radial†	8.5	0.4	2.1752	µg/L	2.1752	ppb	04:57:37
1	K 766.490 Radial†	808.6	-8.8	-4.6961	µg/L	-4.6961	ppb	04:57:17
1	Mg 279.077 IEC†	13.9	-1.5	-8.1386	µg/L	-8.1386	ppb	04:57:37
1	Na 589.592 Radial†	-654.6	78.6	20.368	µg/L	20.368	ppb	04:57:17
1	Sr 421.552†	-70.8	38.4	0.2048	µg/L	0.2048	ppb	04:57:17
1	Sc 361.383	2184413.0	2184413.0	100.18	%			04:58:39
1	Y 371.029	1328213.9	1328213.9	100.17	%			04:58:39
1	Ag 328.068†	74.0	-6.9	-0.0605	µg/L	-0.0605	ppb	04:58:45
1	As 188.979†	0.9	-0.2	-0.3403	µg/L	-0.3403	ppb	04:59:05
1	B 249.677†	158.4	-8.1	-0.3578	µg/L	-0.3578	ppb	04:58:45
1	Ba 233.527†	-77.1	10.3	0.2598	µg/L	0.2598	ppb	04:59:05
1	Be 313.107†	3689.2	40.4	0.0247	µg/L	0.0247	ppb	04:58:45
1	Cd 226.502†	-115.2	-5.0	-0.1327	µg/L	-0.1327	ppb	04:59:05
1	Co 228.616†	-72.2	3.7	0.1756	µg/L	0.1756	ppb	04:59:05
1	Cr 267.716†	-133.8	2.0	0.0435	µg/L	0.0435	ppb	04:58:45
1	Cu 324.752†	3337.9	-71.5	-0.4962	µg/L	-0.4962	ppb	04:58:45
1	Mn 257.610†	-234.5	-12.5	-0.0389	µg/L	-0.0389	ppb	04:58:45
1	Mo 202.031†	0.4	1.4	0.1628	µg/L	0.1628	ppb	04:59:05
1	Ni 231.604†	334.3	0.3	0.0144	µg/L	0.0144	ppb	04:59:05
1	P 214.914†	200.8	-11.5	-24.715	µg/L	-24.715	ppb	04:59:05
1	Pb 220.353†	65.4	13.7	3.4647	µg/L	3.4647	ppb	04:59:05
1	S 181.975 Axial†	32.5	6.7	33.809	µg/L	33.809	ppb	04:59:05
1	Sb 206.836†	26.4	3.6	3.6411	µg/L	3.6411	ppb	04:59:05
1	Se 196.026†	14.9	2.5	3.5106	µg/L	3.5106	ppb	04:59:05
1	SiO2†	2066.1	-64.9	-12.477	µg/L	-12.477	ppb	04:58:45
1	Si 251.611†	394.9	15.2	1.0384	µg/L	1.0384	ppb	04:59:05
1	Sn 189.927†	29.0	6.8	3.3497	µg/L	3.3497	ppb	04:59:05
1	Ti 334.940†	926.9	41.8	0.0910	µg/L	0.0910	ppb	04:58:45
1	Tl 190.801†	-20.3	3.3	4.8450	µg/L	4.8450	ppb	04:59:05
1	U 409.014†	908.8	-29.4	-2.8245	µg/L	-2.8245	ppb	04:58:45
1	V 292.402†	-72.6	24.0	0.2688	µg/L	0.2688	ppb	04:58:45
1	Zn 213.857†	602.9	5.6	0.1510	µg/L	0.1510	ppb	04:59:05
2	Sc RADIAL	122572.2	122572.2	98.2	%			04:57:43
2	Al 396.153Radial†	192.6	-11.4	-5.5418	µg/L	-5.5418	ppb	04:57:43
2	Ca 317.933Radial†	470.5	34.8	12.709	µg/L	12.709	ppb	04:58:03
2	Fe 238.204 Radial†	8.1	0.0	0.1302	µg/L	0.1302	ppb	04:58:03
2	K 766.490 Radial†	770.2	-48.3	-25.820	µg/L	-25.820	ppb	04:57:43
2	Mg 279.077 IEC†	14.7	-0.7	-3.5977	µg/L	-3.5977	ppb	04:58:03
2	Na 589.592 Radial†	-661.0	72.6	18.807	µg/L	18.807	ppb	04:57:43
2	Sr 421.552†	-98.2	10.5	0.0559	µg/L	0.0559	ppb	04:57:43
2	Sc 361.383	2185529.3	2185529.3	100.23	%			04:59:11
2	Y 371.029	1329337.9	1329337.9	100.26	%			04:59:11
2	Ag 328.068†	163.7	82.5	0.7497	µg/L	0.7497	ppb	04:59:17
2	As 188.979†	-2.7	-3.8	-7.0847	µg/L	-7.0847	ppb	04:59:38
2	B 249.677†	174.9	8.3	0.3648	µg/L	0.3648	ppb	04:59:17
2	Ba 233.527†	-83.0	4.4	0.1119	µg/L	0.1119	ppb	04:59:38
2	Be 313.107†	3689.4	38.7	0.0237	µg/L	0.0237	ppb	04:59:17
2	Cd 226.502†	-110.8	-0.6	-0.0221	µg/L	-0.0221	ppb	04:59:38
2	Co 228.616†	-76.1	-0.2	-0.0088	µg/L	-0.0088	ppb	04:59:38
2	Cr 267.716†	-116.7	19.1	0.4024	µg/L	0.4024	ppb	04:59:17
2	Cu 324.752†	3352.0	-59.2	-0.4110	µg/L	-0.4110	ppb	04:59:17
2	Mn 257.610†	-224.0	-2.0	-0.0062	µg/L	-0.0062	ppb	04:59:17
2	Mo 202.031†	-0.0	1.0	0.1190	µg/L	0.1190	ppb	04:59:38
2	Ni 231.604†	349.9	15.7	0.8483	µg/L	0.8483	ppb	04:59:38
2	P 214.914†	202.9	-9.5	-20.502	µg/L	-20.502	ppb	04:59:38
2	Pb 220.353†	56.2	4.4	1.1319	µg/L	1.1319	ppb	04:59:38

2	S 181.975 Axial†	34.0	8.1	41.282 µg/L	41.282 ppb		04:59:38
2	Sb 206.836†	22.8	-0.0	-0.0226 µg/L	-0.0226 ppb		04:59:38
2	Se 196.026†	14.0	1.5	2.1895 µg/L	2.1895 ppb		04:59:38
2	SiO2†	2134.0	1.7	0.3358 µg/L	0.3358 ppb		04:59:17
2	Si 251.611†	374.4	-5.5	-0.4373 µg/L	-0.4373 ppb		04:59:38
2	Sn 189.927†	23.6	1.3	0.6625 µg/L	0.6625 ppb		04:59:38
2	Ti 334.940†	857.9	-27.5	-0.0610 µg/L	-0.0610 ppb		04:59:17
2	Tl 190.801†	-24.8	-1.1	-1.6922 µg/L	-1.6922 ppb		04:59:38
2	U 409.014†	844.1	-94.3	-9.0773 µg/L	-9.0773 ppb		04:59:17
2	V 292.402†	-68.2	28.4	0.3089 µg/L	0.3089 ppb		04:59:17
2	Zn 213.857†	612.7	15.0	0.4009 µg/L	0.4009 ppb		04:59:38
3	Sc RADIAL	122864.2	122864.2	98.5 %			04:58:09
3	Al 396.153Radial†	181.0	-23.6	-11.499 µg/L	-11.499 ppb		04:58:09
3	Ca 317.933Radial†	479.6	43.0	15.701 µg/L	15.701 ppb		04:58:29
3	Fe 238.204 Radial†	6.8	-1.4	-6.8700 µg/L	-6.8700 ppb		04:58:29
3	K 766.490 Radial†	825.4	5.9	3.1278 µg/L	3.1278 ppb		04:58:09
3	Mg 279.077 IEC†	14.2	-1.2	-6.6317 µg/L	-6.6317 ppb		04:58:29
3	Na 589.592 Radial†	-693.4	41.2	10.672 µg/L	10.672 ppb		04:58:09
3	Sr 421.552†	-119.3	-10.7	-0.0569 µg/L	-0.0569 ppb		04:58:09
3	Sc 361.383	2189543.8	2189543.8	100.41 %			04:59:44
3	Y 371.029	1331620.1	1331620.1	100.43 %			04:59:44
3	Ag 328.068†	166.3	84.9	0.7651 µg/L	0.7651 ppb		04:59:49
3	As 188.979†	-4.4	-5.4	-10.138 µg/L	-10.138 ppb		05:00:10
3	B 249.677†	176.6	9.6	0.4242 µg/L	0.4242 ppb		04:59:49
3	Ba 233.527†	-80.1	7.5	0.1874 µg/L	0.1874 ppb		05:00:10
3	Be 313.107†	3671.5	14.2	0.0086 µg/L	0.0086 ppb		04:59:49
3	Cd 226.502†	-108.3	2.1	0.0469 µg/L	0.0469 ppb		05:00:10
3	Co 228.616†	-74.5	1.5	0.0715 µg/L	0.0715 ppb		05:00:10
3	Cr 267.716†	-161.3	-25.0	-0.5262 µg/L	-0.5262 ppb		04:59:49
3	Cu 324.752†	3310.3	-106.8	-0.7436 µg/L	-0.7436 ppb		04:59:49
3	Mn 257.610†	-225.1	-2.6	-0.0091 µg/L	-0.0091 ppb		04:59:49
3	Mo 202.031†	-0.2	0.9	0.1017 µg/L	0.1017 ppb		05:00:10
3	Ni 231.604†	347.0	12.2	0.6582 µg/L	0.6582 ppb		05:00:10
3	P 214.914†	213.9	1.1	2.5453 µg/L	2.5453 ppb		05:00:10
3	Pb 220.353†	46.3	-5.5	-1.3720 µg/L	-1.3720 ppb		05:00:10
3	S 181.975 Axial†	29.2	3.3	16.961 µg/L	16.961 ppb		05:00:10
3	Sb 206.836†	24.2	1.4	1.3920 µg/L	1.3920 ppb		05:00:10
3	Se 196.026†	12.7	0.2	0.3079 µg/L	0.3079 ppb		05:00:10
3	SiO2†	2153.8	17.6	3.3879 µg/L	3.3879 ppb		04:59:49
3	Si 251.611†	386.7	6.2	0.4119 µg/L	0.4119 ppb		05:00:10
3	Sn 189.927†	25.4	3.1	1.5218 µg/L	1.5218 ppb		05:00:10
3	Ti 334.940†	911.5	24.4	0.0525 µg/L	0.0525 ppb		04:59:49
3	Tl 190.801†	-17.5	6.2	9.1905 µg/L	9.1905 ppb		05:00:10
3	U 409.014†	821.5	-118.4	-11.387 µg/L	-11.387 ppb		04:59:49
3	V 292.402†	-135.5	-38.5	-0.4555 µg/L	-0.4555 ppb		04:59:49
3	Zn 213.857†	609.0	10.2	0.2737 µg/L	0.2737 ppb		05:00:10

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2186495.3	100.27	%	0.124				0.12%
Sc RADIAL	122645.2	98.3	%	0.15				0.16%
Y 371.029	1329724.0	100.29	%	0.131				0.13%
Ag 328.068†	53.5	0.4848	µg/L	0.47230	0.4848	ppb	0.47230	97.43%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-13.3	-6.4802	µg/L	4.62124	-6.4802	ppb	4.62124	71.31%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-3.1	-5.8543	µg/L	5.01332	-5.8543	ppb	5.01332	85.64%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	3.3	0.1437	µg/L	0.43535	0.1437	ppb	0.43535	302.94%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	7.4	0.1863	µg/L	0.07394	0.1863	ppb	0.07394	39.68%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	31.1	0.0190	µg/L	0.00899	0.0190	ppb	0.00899	47.32%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	37.4	13.634	µg/L	1.7932	13.634	ppb	1.7932	13.15%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	-1.2	-0.0360	µg/L	0.09057	-0.0360	ppb	0.09057	251.85%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	1.6	0.0794	µg/L	0.09247	0.0794	ppb	0.09247	116.45%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                -1.3     -0.0268 µg/L       0.46828     -0.0268 ppb        0.46828 >999.9%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               -79.2     -0.5502 µg/L       0.17276     -0.5502 ppb        0.17276  31.40%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -0.3     -1.5215 µg/L       4.74339     -1.5215 ppb        4.74339 311.75%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         -17.1     -9.1296 µg/L      14.97474     -9.1296 ppb       14.97474 164.02%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -1.2     -6.1227 µg/L       2.31284     -6.1227 ppb        2.31284  37.78%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                -5.7     -0.0181 µg/L       0.01807     -0.0181 ppb        0.01807  99.90%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 1.1      0.1278 µg/L       0.03147      0.1278 ppb        0.03147  24.62%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†         64.1      16.616 µg/L        5.2060      16.616 ppb         5.2060  31.33%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                 9.4      0.5070 µg/L       0.43702      0.5070 ppb        0.43702  86.20%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -6.6     -14.224 µg/L       14.6745     -14.224 ppb       14.6745 103.17%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                 4.2      1.0748 µg/L       2.41887      1.0748 ppb        2.41887 225.04%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            6.1      30.684 µg/L       12.4580      30.684 ppb        12.4580  40.60%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 1.7      1.6702 µg/L       1.84763      1.6702 ppb        1.84763 110.63%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 1.4      2.0027 µg/L       1.60955      2.0027 ppb        1.60955  80.37%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     -15.2     -2.9179 µg/L       8.41815     -2.9179 ppb        8.41815 288.51%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†                 5.3      0.3377 µg/L       0.74064      0.3377 ppb        0.74064 219.33%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 3.8      1.8446 µg/L       1.37242      1.8446 ppb        1.37242  74.40%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                12.7      0.0679 µg/L       0.13129      0.0679 ppb        0.13129 193.27%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                12.9      0.0275 µg/L       0.07902      0.0275 ppb        0.07902 286.97%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 2.8      4.1144 µg/L       5.47804      4.1144 ppb        5.47804 133.14%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                -80.7     -7.7630 µg/L       4.43004     -7.7630 ppb        4.43004  57.07%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                  4.6      0.0407 µg/L       0.43019      0.0407 ppb        0.43019 >999.9%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                10.3      0.2752 µg/L       0.12491      0.2752 ppb        0.12491  45.39%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 15
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 12/19/2009 05:23:07
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	123320.3	123320.3	98.8	%			05:23:45
1	Al 396.153Radial†	10767.2	10687.7	5180.7	µg/L	5180.7	ppb	05:23:45
1	Ca 317.933Radial†	14507.2	14235.4	5192.9	µg/L	5192.9	ppb	05:23:45
1	Fe 238.204 Radial†	1029.4	1033.4	5215.1	µg/L	5215.1	ppb	05:24:06
1	K 766.490 Radial†	10412.3	9703.4	5182.8	µg/L	5182.8	ppb	05:23:45
1	Mg 279.077 IEC†	990.7	986.9	5261.3	µg/L	5261.3	ppb	05:24:06
1	Na 589.592 Radial†	39253.3	40465.1	10487	µg/L	10487	ppb	05:23:45
1	Sr 421.552†	94155.1	95384.0	508.82	µg/L	508.82	ppb	05:23:45
1	Sc 361.383	2161997.2	2161997.2	99.151	%			05:25:10
1	Y 371.029	1309020.3	1309020.3	98.726	%			05:25:10
1	Ag 328.068†	56968.5	57375.6	523.61	µg/L	523.61	ppb	05:25:16
1	As 188.979†	278.3	279.7	525.53	µg/L	525.53	ppb	05:25:36
1	B 249.677†	11911.6	11847.3	518.56	µg/L	518.56	ppb	05:25:16
1	Ba 233.527†	20503.0	20765.8	523.68	µg/L	523.68	ppb	05:25:16
1	Be 313.107†	835293.8	838804.2	512.72	µg/L	512.72	ppb	05:25:10
1	Cd 226.502†	19902.0	20182.4	525.47	µg/L	525.47	ppb	05:25:16
1	Co 228.616†	10800.8	10969.0	527.20	µg/L	527.20	ppb	05:25:16
1	Cr 267.716†	24692.6	25039.7	526.47	µg/L	526.47	ppb	05:25:16
1	Cu 324.752†	76106.2	73354.4	510.74	µg/L	510.74	ppb	05:25:16
1	Mn 257.610†	161615.8	163221.2	511.53	µg/L	511.53	ppb	05:25:10
1	Mo 202.031†	4523.0	4562.8	518.64	µg/L	518.64	ppb	05:25:36
1	Ni 231.604†	9994.7	9746.9	527.59	µg/L	527.59	ppb	05:25:16
1	P 214.914†	1412.4	1212.6	2562.2	µg/L	2562.2	ppb	05:25:36
1	Pb 220.353†	2109.2	2075.6	526.10	µg/L	526.10	ppb	05:25:36
1	S 181.975 Axial†	236.9	213.2	1078.7	µg/L	1078.7	ppb	05:25:36
1	Sb 206.836†	538.1	520.0	523.05	µg/L	523.05	ppb	05:25:36
1	Se 196.026†	390.8	381.7	541.48	µg/L	541.48	ppb	05:25:36
1	SiO2†	30869.3	29006.3	5574.9	µg/L	5574.9	ppb	05:25:16
1	Si 251.611†	33864.5	33775.5	2555.9	µg/L	2555.9	ppb	05:25:16
1	Sn 189.927†	1083.8	1071.0	528.60	µg/L	528.60	ppb	05:25:36
1	Ti 334.940†	231015.8	232110.6	508.65	µg/L	508.65	ppb	05:25:10
1	Tl 190.801†	324.2	350.5	522.96	µg/L	522.96	ppb	05:25:36
1	U 409.014†	6238.8	5355.7	514.53	µg/L	514.53	ppb	05:25:16
1	V 292.402†	45729.8	46217.8	529.72	µg/L	529.72	ppb	05:25:16
1	Zn 213.857†	20211.4	19788.2	528.03	µg/L	528.03	ppb	05:25:16
2	Sc RADIAL	124103.2	124103.2	99.5	%			05:24:12
2	Al 396.153Radial†	10878.0	10730.4	5201.6	µg/L	5201.6	ppb	05:24:12
2	Ca 317.933Radial†	14693.0	14329.6	5227.3	µg/L	5227.3	ppb	05:24:12
2	Fe 238.204 Radial†	1023.0	1020.3	5149.4	µg/L	5149.4	ppb	05:24:32
2	K 766.490 Radial†	10499.3	9724.5	5194.1	µg/L	5194.1	ppb	05:24:12
2	Mg 279.077 IEC†	1007.6	997.5	5318.0	µg/L	5318.0	ppb	05:24:32
2	Na 589.592 Radial†	39415.3	40377.4	10464	µg/L	10464	ppb	05:24:12
2	Sr 421.552†	95128.9	95762.0	510.83	µg/L	510.83	ppb	05:24:12
2	Sc 361.383	2159832.7	2159832.7	99.052	%			05:25:43
2	Y 371.029	1307642.7	1307642.7	98.622	%			05:25:43
2	Ag 328.068†	57248.6	57716.0	526.70	µg/L	526.70	ppb	05:25:49
2	As 188.979†	274.5	276.1	518.80	µg/L	518.80	ppb	05:26:09
2	B 249.677†	11962.4	11910.7	521.36	µg/L	521.36	ppb	05:25:49
2	Ba 233.527†	20594.5	20879.0	526.53	µg/L	526.53	ppb	05:25:49
2	Be 313.107†	837197.1	841569.9	514.41	µg/L	514.41	ppb	05:25:43
2	Cd 226.502†	20092.9	20395.2	531.01	µg/L	531.01	ppb	05:25:49
2	Co 228.616†	10837.7	11017.2	529.50	µg/L	529.50	ppb	05:25:49
2	Cr 267.716†	24836.0	25209.4	530.04	µg/L	530.04	ppb	05:25:49
2	Cu 324.752†	76642.7	73973.0	515.02	µg/L	515.02	ppb	05:25:49
2	Mn 257.610†	161790.3	163560.8	512.58	µg/L	512.58	ppb	05:25:43
2	Mo 202.031†	4491.3	4535.4	515.52	µg/L	515.52	ppb	05:26:09
2	Ni 231.604†	9949.7	9711.6	525.68	µg/L	525.68	ppb	05:25:49
2	P 214.914†	1407.1	1208.6	2553.1	µg/L	2553.1	ppb	05:26:09
2	Pb 220.353†	2104.8	2073.4	525.50	µg/L	525.50	ppb	05:26:09

2	S 181.975 Axial†	233.8	210.3	1064.0 µg/L	1064.0 ppb	05:26:09
2	Sb 206.836†	536.3	518.6	521.67 µg/L	521.67 ppb	05:26:09
2	Se 196.026†	384.8	376.1	533.41 µg/L	533.41 ppb	05:26:09
2	SiO2†	31007.0	29176.5	5607.6 µg/L	5607.6 ppb	05:25:49
2	Si 251.611†	33994.9	33941.4	2569.0 µg/L	2569.0 ppb	05:25:49
2	Sn 189.927†	1068.8	1056.9	521.69 µg/L	521.69 ppb	05:26:09
2	Ti 334.940†	231244.5	232575.0	509.66 µg/L	509.66 ppb	05:25:43
2	Tl 190.801†	336.1	362.9	541.35 µg/L	541.35 ppb	05:26:09
2	U 409.014†	6298.8	5422.6	520.98 µg/L	520.98 ppb	05:25:49
2	V 292.402†	45933.9	46470.0	532.57 µg/L	532.57 ppb	05:25:49
2	Zn 213.857†	20303.8	19902.0	531.10 µg/L	531.10 ppb	05:25:49
3	Sc RADIAL	122903.4	122903.4	98.5 %		05:24:38
3	Al 396.153Radial†	10874.6	10833.7	5254.8 µg/L	5254.8 ppb	05:24:38
3	Ca 317.933Radial†	14632.8	14412.8	5257.6 µg/L	5257.6 ppb	05:24:38
3	Fe 238.204 Radial†	1025.3	1032.8	5210.4 µg/L	5210.4 ppb	05:24:58
3	K 766.490 Radial†	10471.5	9799.4	5234.0 µg/L	5234.0 ppb	05:24:38
3	Mg 279.077 IEC†	993.7	993.3	5293.6 µg/L	5293.6 ppb	05:24:58
3	Na 589.592 Radial†	39344.3	40692.1	10546 µg/L	10546 ppb	05:24:38
3	Sr 421.552†	94791.7	96353.5	513.99 µg/L	513.99 ppb	05:24:38
3	Sc 361.383	2170480.8	2170480.8	99.540 %		05:26:16
3	Y 371.029	1314554.9	1314554.9	99.143 %		05:26:16
3	Ag 328.068†	54307.1	54477.3	497.04 µg/L	497.04 ppb	05:26:22
3	As 188.979†	245.3	245.4	461.06 µg/L	461.06 ppb	05:26:43
3	B 249.677†	11232.2	11117.9	486.53 µg/L	486.53 ppb	05:26:22
3	Ba 233.527†	19046.7	19221.9	484.73 µg/L	484.73 ppb	05:26:22
3	Be 313.107†	799317.9	799369.2	488.61 µg/L	488.61 ppb	05:26:16
3	Cd 226.502†	18465.5	18660.8	485.81 µg/L	485.81 ppb	05:26:22
3	Co 228.616†	9914.2	10035.7	482.22 µg/L	482.22 ppb	05:26:22
3	Cr 267.716†	22206.2	22444.4	471.92 µg/L	471.92 ppb	05:26:22
3	Cu 324.752†	70738.0	67661.4	471.19 µg/L	471.19 ppb	05:26:22
3	Mn 257.610†	154830.6	155767.6	488.20 µg/L	488.20 ppb	05:26:16
3	Mo 202.031†	3826.3	3845.1	437.09 µg/L	437.09 ppb	05:26:43
3	Ni 231.604†	9156.0	8864.8	479.85 µg/L	479.85 ppb	05:26:22
3	P 214.914†	1249.5	1043.3	2199.8 µg/L	2199.8 ppb	05:26:43
3	Pb 220.353†	1859.0	1816.0	460.24 µg/L	460.24 ppb	05:26:43
3	S 181.975 Axial†	215.7	190.9	965.80 µg/L	965.80 ppb	05:26:43
3	Sb 206.836†	469.1	448.5	451.15 µg/L	451.15 ppb	05:26:43
3	Se 196.026†	344.7	333.9	473.85 µg/L	473.85 ppb	05:26:43
3	SiO2†	29101.4	27108.6	5210.2 µg/L	5210.2 ppb	05:26:22
3	Si 251.611†	31704.3	31471.8	2384.0 µg/L	2384.0 ppb	05:26:22
3	Sn 189.927†	904.0	886.0	437.80 µg/L	437.80 ppb	05:26:43
3	Ti 334.940†	219947.6	220080.6	482.26 µg/L	482.26 ppb	05:26:16
3	Tl 190.801†	296.4	321.3	479.59 µg/L	479.59 ppb	05:26:43
3	U 409.014†	5844.2	4934.7	474.01 µg/L	474.01 ppb	05:26:22
3	V 292.402†	41878.9	42168.8	483.10 µg/L	483.10 ppb	05:26:22
3	Zn 213.857†	18726.3	18216.5	486.07 µg/L	486.07 ppb	05:26:22

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	2164103.6	99.248	%	0.2581				0.26%
Sc RADIAL	123442.3	98.9	%	0.49				0.49%
Y 371.029	1310406.0	98.830	%	0.2759				0.28%
Ag 328.068†	56523.0	515.79	µg/L	16.304	515.79	ppb	16.304	3.16%
QC value within limits for Ag 328.068 Recovery = 103.16%								
Al 396.153Radial†	10750.6	5212.4	µg/L	38.23	5212.4	ppb	38.23	0.73%
QC value within limits for Al 396.153Radial Recovery = 104.25%								
As 188.979†	267.1	501.80	µg/L	35.440	501.80	ppb	35.440	7.06%
QC value within limits for As 188.979 Recovery = 100.36%								
B 249.677†	11625.3	508.81	µg/L	19.351	508.81	ppb	19.351	3.80%
QC value within limits for B 249.677 Recovery = 101.76%								
Ba 233.527†	20288.9	511.65	µg/L	23.354	511.65	ppb	23.354	4.56%
QC value within limits for Ba 233.527 Recovery = 102.33%								
Be 313.107†	826581.1	505.25	µg/L	14.429	505.25	ppb	14.429	2.86%
QC value within limits for Be 313.107 Recovery = 101.05%								
Ca 317.933Radial†	14325.9	5225.9	µg/L	32.37	5225.9	ppb	32.37	0.62%
QC value within limits for Ca 317.933Radial Recovery = 104.52%								
Cd 226.502†	19746.1	514.10	µg/L	24.651	514.10	ppb	24.651	4.80%
QC value within limits for Cd 226.502 Recovery = 102.82%								
Co 228.616†	10674.0	512.97	µg/L	26.661	512.97	ppb	26.661	5.20%

QC value within limits for Co 228.616 Recovery = 102.59%

Cr 267.716†	24231.2	509.48 µg/L	32.571	509.48 ppb	32.571	6.39%

QC value within limits for Cr 267.716 Recovery = 101.90%

Cu 324.752†	71663.0	498.98 µg/L	24.167	498.98 ppb	24.167	4.84%

QC value within limits for Cu 324.752 Recovery = 99.80%

Fe 238.204 Radial†	1028.8	5191.6 µg/L	36.64	5191.6 ppb	36.64	0.71%

QC value within limits for Fe 238.204 Radial Recovery = 103.83%

K 766.490 Radial†	9742.4	5203.6 µg/L	26.92	5203.6 ppb	26.92	0.52%

QC value within limits for K 766.490 Radial Recovery = 104.07%

Mg 279.077 IEC†	992.5	5291.0 µg/L	28.44	5291.0 ppb	28.44	0.54%

QC value within limits for Mg 279.077 IEC Recovery = 105.82%

Mn 257.610†	160849.9	504.10 µg/L	13.784	504.10 ppb	13.784	2.73%

QC value within limits for Mn 257.610 Recovery = 100.82%

Mo 202.031†	4314.4	490.41 µg/L	46.211	490.41 ppb	46.211	9.42%

QC value within limits for Mo 202.031 Recovery = 98.08%

Na 589.592 Radial†	40511.5	10499 µg/L	42.1	10499 ppb	42.1	0.40%

QC value within limits for Na 589.592 Radial Recovery = 104.99%

Ni 231.604†	9441.1	511.04 µg/L	27.030	511.04 ppb	27.030	5.29%

QC value within limits for Ni 231.604 Recovery = 102.21%

P 214.914†	1154.8	2438.4 µg/L	206.66	2438.4 ppb	206.66	8.48%

QC value within limits for P 214.914 Recovery = 97.54%

Pb 220.353†	1988.3	503.95 µg/L	37.852	503.95 ppb	37.852	7.51%

QC value within limits for Pb 220.353 Recovery = 100.79%

S 181.975 Axial†	204.8	1036.2 µg/L	61.40	1036.2 ppb	61.40	5.93%

QC value within limits for S 181.975 Axial Recovery = 103.62%

Sb 206.836†	495.7	498.62 µg/L	41.115	498.62 ppb	41.115	8.25%

QC value within limits for Sb 206.836 Recovery = 99.72%

Se 196.026†	363.9	516.25 µg/L	36.939	516.25 ppb	36.939	7.16%

QC value within limits for Se 196.026 Recovery = 103.25%

SiO2†	28430.5	5464.2 µg/L	220.63	5464.2 ppb	220.63	4.04%

QC value within limits for SiO2 Recovery = 102.18%

Si 251.611†	33062.9	2503.0 µg/L	103.21	2503.0 ppb	103.21	4.12%

QC value within limits for Si 251.611 Recovery = 100.12%

Sn 189.927†	1004.6	496.03 µg/L	50.549	496.03 ppb	50.549	10.19%

QC value within limits for Sn 189.927 Recovery = 99.21%

Sr 421.552†	95833.2	511.21 µg/L	2.607	511.21 ppb	2.607	0.51%

QC value within limits for Sr 421.552 Recovery = 102.24%

Ti 334.940†	228255.4	500.19 µg/L	15.533	500.19 ppb	15.533	3.11%

QC value within limits for Ti 334.940 Recovery = 100.04%

Tl 190.801†	344.9	514.63 µg/L	31.709	514.63 ppb	31.709	6.16%

QC value within limits for Tl 190.801 Recovery = 102.93%

U 409.014†	5237.7	503.17 µg/L	25.458	503.17 ppb	25.458	5.06%

QC value within limits for U 409.014 Recovery = 100.63%

V 292.402†	44952.2	515.13 µg/L	27.772	515.13 ppb	27.772	5.39%

QC value within limits for V 292.402 Recovery = 103.03%

Zn 213.857†	19302.2	515.07 µg/L	25.162	515.07 ppb	25.162	4.89%

QC value within limits for Zn 213.857 Recovery = 103.01%

All analyte(s) passed QC.

Sequence No.: 16
Sample ID: PQL
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 101
Date Collected: 12/19/2009 05:26:52
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: PQL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	121671.4	121671.4	97.5	%			05:27:26
1	Al 396.153Radial†	600.4	408.3	198.28	µg/L	198.28	ppb	05:27:26
1	Ca 317.933Radial†	1044.3	626.9	228.67	µg/L	228.67	ppb	05:27:46
1	Fe 238.204 Radial†	27.3	19.7	99.492	µg/L	99.492	ppb	05:27:46
1	K 766.490 Radial†	1103.9	299.7	160.08	µg/L	160.08	ppb	05:27:26
1	Mg 279.077 IEC†	76.6	62.9	335.20	µg/L	335.20	ppb	05:27:46
1	Na 589.592 Radial†	616.8	1378.1	357.14	µg/L	357.14	ppb	05:27:26
1	Sr 421.552†	878.4	1011.4	5.3952	µg/L	5.3952	ppb	05:27:26
1	Sc 361.383	2162156.7	2162156.7	99.158	%			05:28:48
1	Y 371.029	1317185.9	1317185.9	99.342	%			05:28:48
1	Ag 328.068†	676.8	601.8	5.4930	µg/L	5.4930	ppb	05:28:54
1	As 188.979†	18.1	17.2	32.269	µg/L	32.269	ppb	05:29:14
1	B 249.677†	1335.8	1180.9	51.819	µg/L	51.819	ppb	05:28:54
1	Ba 233.527†	143.8	232.3	5.8571	µg/L	5.8571	ppb	05:29:14
1	Be 313.107†	12303.2	8765.4	5.3579	µg/L	5.3579	ppb	05:28:54
1	Cd 226.502†	94.9	205.6	5.3868	µg/L	5.3868	ppb	05:29:14
1	Co 228.616†	27.0	102.9	4.9580	µg/L	4.9580	ppb	05:29:14
1	Cr 267.716†	117.3	253.9	5.3384	µg/L	5.3384	ppb	05:28:54
1	Cu 324.752†	4947.5	1586.1	11.040	µg/L	11.040	ppb	05:28:54
1	Mn 257.610†	3185.9	3434.5	10.762	µg/L	10.762	ppb	05:28:54
1	Mo 202.031†	89.5	91.3	10.381	µg/L	10.381	ppb	05:29:14
1	Ni 231.604†	438.6	108.9	5.8937	µg/L	5.8937	ppb	05:29:14
1	P 214.914†	276.7	67.1	143.68	µg/L	143.68	ppb	05:29:14
1	Pb 220.353†	102.9	52.2	13.189	µg/L	13.189	ppb	05:29:14
1	S 181.975 Axial†	54.5	29.2	147.97	µg/L	147.97	ppb	05:29:14
1	Sb 206.836†	36.5	14.1	14.200	µg/L	14.200	ppb	05:29:14
1	Se 196.026†	20.6	8.3	11.748	µg/L	11.748	ppb	05:29:14
1	SiO2†	3304.7	1205.5	231.68	µg/L	231.68	ppb	05:28:54
1	Si 251.611†	1774.2	1410.3	107.91	µg/L	107.91	ppb	05:28:54
1	Sn 189.927†	45.8	24.0	11.925	µg/L	11.925	ppb	05:29:14
1	Ti 334.940†	3243.9	2388.1	5.2234	µg/L	5.2234	ppb	05:28:54
1	Tl 190.801†	-9.7	13.8	20.517	µg/L	20.517	ppb	05:29:14
1	U 409.014†	1513.3	589.6	56.726	µg/L	56.726	ppb	05:28:54
1	V 292.402†	356.1	455.5	5.3452	µg/L	5.3452	ppb	05:28:54
1	Zn 213.857†	1010.4	422.7	11.303	µg/L	11.303	ppb	05:29:14
2	Sc RADIAL	120331.0	120331.0	96.4	%			05:27:52
2	Al 396.153Radial†	646.2	462.7	224.77	µg/L	224.77	ppb	05:27:52
2	Ca 317.933Radial†	1056.5	651.5	237.65	µg/L	237.65	ppb	05:28:12
2	Fe 238.204 Radial†	30.9	23.8	119.73	µg/L	119.73	ppb	05:28:12
2	K 766.490 Radial†	1049.6	255.9	136.69	µg/L	136.69	ppb	05:27:52
2	Mg 279.077 IEC†	73.8	60.9	324.24	µg/L	324.24	ppb	05:28:12
2	Na 589.592 Radial†	571.8	1338.4	346.86	µg/L	346.86	ppb	05:27:52
2	Sr 421.552†	849.9	991.8	5.2908	µg/L	5.2908	ppb	05:27:52
2	Sc 361.383	2164686.6	2164686.6	99.274	%			05:29:20
2	Y 371.029	1317877.2	1317877.2	99.394	%			05:29:20
2	Ag 328.068†	749.4	674.2	6.1482	µg/L	6.1482	ppb	05:29:26
2	As 188.979†	15.2	14.2	26.772	µg/L	26.772	ppb	05:29:46
2	B 249.677†	1325.1	1168.5	51.271	µg/L	51.271	ppb	05:29:26
2	Ba 233.527†	134.0	222.3	5.6038	µg/L	5.6038	ppb	05:29:46
2	Be 313.107†	12232.5	8679.7	5.3054	µg/L	5.3054	ppb	05:29:26
2	Cd 226.502†	94.6	205.2	5.3648	µg/L	5.3648	ppb	05:29:46
2	Co 228.616†	21.6	97.4	4.6946	µg/L	4.6946	ppb	05:29:46
2	Cr 267.716†	116.3	252.7	5.3125	µg/L	5.3125	ppb	05:29:26
2	Cu 324.752†	4926.4	1559.0	10.857	µg/L	10.857	ppb	05:29:26
2	Mn 257.610†	3161.9	3406.5	10.677	µg/L	10.677	ppb	05:29:26
2	Mo 202.031†	88.8	90.5	10.289	µg/L	10.289	ppb	05:29:46
2	Ni 231.604†	443.6	113.4	6.1400	µg/L	6.1400	ppb	05:29:46
2	P 214.914†	287.3	77.5	166.06	µg/L	166.06	ppb	05:29:46
2	Pb 220.353†	96.7	45.8	11.592	µg/L	11.592	ppb	05:29:46

2	S 181.975 Axial†	52.9	27.5	139.44 µg/L	139.44 ppb	05:29:46
2	Sb 206.836†	39.3	16.9	17.003 µg/L	17.003 ppb	05:29:46
2	Se 196.026†	43.6	31.5	44.437 µg/L	44.437 ppb	05:29:46
2	SiO2†	3271.3	1167.9	224.47 µg/L	224.47 ppb	05:29:26
2	Si 251.611†	1761.1	1395.0	106.84 µg/L	106.84 ppb	05:29:26
2	Sn 189.927†	40.5	18.6	9.2538 µg/L	9.2538 ppb	05:29:46
2	Ti 334.940†	3271.0	2411.6	5.2744 µg/L	5.2744 ppb	05:29:26
2	Tl 190.801†	-10.7	12.8	19.004 µg/L	19.004 ppb	05:29:46
2	U 409.014†	1377.1	450.7	43.352 µg/L	43.352 ppb	05:29:26
2	V 292.402†	332.0	430.8	5.0442 µg/L	5.0442 ppb	05:29:26
2	Zn 213.857†	1002.5	413.6	11.054 µg/L	11.054 ppb	05:29:46
3	Sc RADIAL	121475.4	121475.4	97.3 %		05:28:18
3	Al 396.153Radial†	618.7	428.2	208.02 µg/L	208.02 ppb	05:28:18
3	Ca 317.933Radial†	1054.8	639.4	233.24 µg/L	233.24 ppb	05:28:38
3	Fe 238.204 Radial†	31.3	23.9	120.14 µg/L	120.14 ppb	05:28:38
3	K 766.490 Radial†	1119.9	317.9	169.79 µg/L	169.79 ppb	05:28:18
3	Mg 279.077 IEC†	71.1	57.4	305.55 µg/L	305.55 ppb	05:28:38
3	Na 589.592 Radial†	607.3	1369.3	354.86 µg/L	354.86 ppb	05:28:18
3	Sr 421.552†	943.3	1079.5	5.7584 µg/L	5.7584 ppb	05:28:18
3	Sc 361.383	2138780.3	2138780.3	98.086 %		05:29:52
3	Y 371.029	1302349.6	1302349.6	98.223 %		05:29:52
3	Ag 328.068†	704.8	637.8	5.8158 µg/L	5.8158 ppb	05:29:58
3	As 188.979†	16.1	15.4	28.909 µg/L	28.909 ppb	05:30:19
3	B 249.677†	1264.8	1123.3	49.282 µg/L	49.282 ppb	05:29:58
3	Ba 233.527†	111.4	200.8	5.0633 µg/L	5.0633 ppb	05:30:19
3	Be 313.107†	11571.8	8155.3	4.9849 µg/L	4.9849 ppb	05:29:58
3	Cd 226.502†	73.1	184.5	4.8246 µg/L	4.8246 ppb	05:30:19
3	Co 228.616†	17.0	93.0	4.4777 µg/L	4.4777 ppb	05:30:19
3	Cr 267.716†	119.9	257.9	5.4202 µg/L	5.4202 ppb	05:29:58
3	Cu 324.752†	4793.3	1483.4	10.331 µg/L	10.331 ppb	05:29:58
3	Mn 257.610†	2991.6	3271.5	10.255 µg/L	10.255 ppb	05:29:58
3	Mo 202.031†	69.7	72.1	8.2006 µg/L	8.2006 ppb	05:30:19
3	Ni 231.604†	433.1	108.1	5.8536 µg/L	5.8536 ppb	05:30:19
3	P 214.914†	271.2	64.6	138.34 µg/L	138.34 ppb	05:30:19
3	Pb 220.353†	94.8	45.1	11.405 µg/L	11.405 ppb	05:30:19
3	S 181.975 Axial†	46.3	21.5	108.64 µg/L	108.64 ppb	05:30:19
3	Sb 206.836†	32.8	10.7	10.745 µg/L	10.745 ppb	05:30:19
3	Se 196.026†	34.0	22.3	31.443 µg/L	31.443 ppb	05:30:19
3	SiO2†	3232.8	1168.6	224.59 µg/L	224.59 ppb	05:29:58
3	Si 251.611†	1692.7	1346.7	103.15 µg/L	103.15 ppb	05:29:58
3	Sn 189.927†	39.7	18.3	9.0942 µg/L	9.0942 ppb	05:30:19
3	Ti 334.940†	3115.3	2292.7	5.0139 µg/L	5.0139 ppb	05:29:58
3	Tl 190.801†	-7.7	15.7	23.360 µg/L	23.360 ppb	05:30:19
3	U 409.014†	1348.4	438.2	42.149 µg/L	42.149 ppb	05:29:58
3	V 292.402†	289.3	391.3	4.5789 µg/L	4.5789 ppb	05:29:58
3	Zn 213.857†	946.5	368.8	9.8516 µg/L	9.8516 ppb	05:30:19

Mean Data: PQL

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2155207.9	98.840	%	0.6550				0.66%
Sc RADIAL	121159.3	97.1	%	0.58				0.60%
Y 371.029	1312470.9	98.986	%	0.6616				0.67%
Ag 328.068†	637.9	5.8190	µg/L	0.32764	5.8190	ppb	0.32764	5.63%
QC value within limits for Ag 328.068 Recovery = 116.38%								
Al 396.153Radial†	433.1	210.36	µg/L	13.398	210.36	ppb	13.398	6.37%
QC value within limits for Al 396.153Radial Recovery = 105.18%								
As 188.979†	15.6	29.317	µg/L	2.7709	29.317	ppb	2.7709	9.45%
QC value within limits for As 188.979 Recovery = 97.72%								
B 249.677†	1157.6	50.791	µg/L	1.3350	50.791	ppb	1.3350	2.63%
QC value within limits for B 249.677 Recovery = 101.58%								
Ba 233.527†	218.5	5.5081	µg/L	0.40547	5.5081	ppb	0.40547	7.36%
QC value within limits for Ba 233.527 Recovery = 110.16%								
Be 313.107†	8533.5	5.2161	µg/L	0.20190	5.2161	ppb	0.20190	3.87%
QC value within limits for Be 313.107 Recovery = 104.32%								
Ca 317.933Radial†	639.2	233.19	µg/L	4.488	233.19	ppb	4.488	1.92%
QC value within limits for Ca 317.933Radial Recovery = 116.59%								
Cd 226.502†	198.4	5.1921	µg/L	0.31846	5.1921	ppb	0.31846	6.13%
QC value within limits for Cd 226.502 Recovery = 103.84%								
Co 228.616†	97.8	4.7101	µg/L	0.24050	4.7101	ppb	0.24050	5.11%

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   QC value within limits for Co 228.616  Recovery = 94.20%
Cr 267.716†              254.8      5.3570 µg/L       0.05622      5.3570 ppb        0.05622   1.05%
   QC value within limits for Cr 267.716  Recovery = 107.14%
Cu 324.752†             1542.8      10.743 µg/L        0.3680      10.743 ppb         0.3680   3.43%
   QC value within limits for Cu 324.752  Recovery = 107.43%
Fe 238.204 Radial†        22.5      113.12 µg/L        11.805      113.12 ppb         11.805  10.44%
   QC value within limits for Fe 238.204 Radial  Recovery = 113.12%
K 766.490 Radial†        291.2      155.52 µg/L        17.014      155.52 ppb         17.014  10.94%
   QC value within limits for K 766.490 Radial  Recovery = 103.68%
Mg 279.077 IEC†           60.4      321.66 µg/L        14.992      321.66 ppb         14.992   4.66%
   QC value within limits for Mg 279.077 IEC  Recovery = 107.22%
Mn 257.610†             3370.8      10.565 µg/L        0.2719      10.565 ppb         0.2719   2.57%
   QC value within limits for Mn 257.610  Recovery = 105.65%
Mo 202.031†               84.7      9.6234 µg/L       1.23307      9.6234 ppb        1.23307  12.81%
   QC value within limits for Mo 202.031  Recovery = 96.23%
Na 589.592 Radial†       1361.9      352.96 µg/L         5.399      352.96 ppb          5.399   1.53%
   QC value within limits for Na 589.592 Radial  Recovery = 117.65%
Ni 231.604†              110.1      5.9624 µg/L       0.15509      5.9624 ppb        0.15509   2.60%
   QC value within limits for Ni 231.604  Recovery = 119.25%
P 214.914†                69.7      149.36 µg/L        14.706      149.36 ppb         14.706   9.85%
   QC value within limits for P 214.914  Recovery = 99.57%
Pb 220.353†               47.7      12.062 µg/L        0.9808      12.062 ppb         0.9808   8.13%
   QC value within limits for Pb 220.353  Recovery = 120.62%
S 181.975 Axial†          26.1      132.01 µg/L        20.691      132.01 ppb         20.691  15.67%
   QC value greater than the upper limit for S 181.975 Axial  Recovery = 132.01%
Sb 206.836†               13.9      13.983 µg/L        3.1346      13.983 ppb         3.1346  22.42%
   QC value greater than the upper limit for Sb 206.836  Recovery = 139.83%
Se 196.026†               20.7      29.209 µg/L       16.4585      29.209 ppb        16.4585  56.35%
   QC value within limits for Se 196.026  Recovery = 97.36%
SiO2†                   1180.7      226.92 µg/L         4.129      226.92 ppb          4.129   1.82%
   QC value within limits for SiO2  Recovery = 106.53%
Si 251.611†             1384.0      105.97 µg/L         2.496      105.97 ppb          2.496   2.36%
   QC value within limits for Si 251.611  Recovery = 105.97%
Sn 189.927†               20.3      10.091 µg/L        1.5901      10.091 ppb         1.5901  15.76%
   QC value within limits for Sn 189.927  Recovery = 100.91%
Sr 421.552†             1027.6      5.4814 µg/L       0.24545      5.4814 ppb        0.24545   4.48%
   QC value within limits for Sr 421.552  Recovery = 109.63%
Ti 334.940†             2364.1      5.1706 µg/L       0.13803      5.1706 ppb        0.13803   2.67%
   QC value within limits for Ti 334.940  Recovery = 103.41%
Tl 190.801†               14.1      20.960 µg/L        2.2116      20.960 ppb         2.2116  10.55%
   QC value within limits for Tl 190.801  Recovery = 104.80%
U 409.014†               492.8      47.409 µg/L        8.0909      47.409 ppb         8.0909  17.07%
   QC value within limits for U 409.014  Recovery = 94.82%
V 292.402†               425.9      4.9894 µg/L       0.38604      4.9894 ppb        0.38604   7.74%
   QC value within limits for V 292.402  Recovery = 99.79%
Zn 213.857†              401.7      10.736 µg/L        0.7763      10.736 ppb         0.7763   7.23%
   QC value within limits for Zn 213.857  Recovery = 107.36%
QC Failed.  Continue with analysis.
```

Sequence No.: 17
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 12/19/2009 05:30:27
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	120857.5	120857.5	96.9	%			05:31:01
1	Al 396.153Radial†	223.5	23.4	11.350	µg/L	11.350	ppb	05:31:01
1	Ca 317.933Radial†	492.6	64.5	23.543	µg/L	23.543	ppb	05:31:22
1	Fe 238.204 Radial†	9.0	1.1	5.3209	µg/L	5.3209	ppb	05:31:22
1	K 766.490 Radial†	719.2	-89.9	-48.025	µg/L	-48.025	ppb	05:31:01
1	Mg 279.077 IEC†	18.0	3.0	15.758	µg/L	15.758	ppb	05:31:22
1	Na 589.592 Radial†	-682.2	41.1	10.661	µg/L	10.661	ppb	05:31:01
1	Sr 421.552†	-88.0	19.6	0.1045	µg/L	0.1045	ppb	05:31:01
1	Sc 361.383	2155619.2	2155619.2	98.858	%			05:32:24
1	Y 371.029	1311523.1	1311523.1	98.914	%			05:32:24
1	Ag 328.068†	122.6	43.3	0.3909	µg/L	0.3909	ppb	05:32:29
1	As 188.979†	5.8	4.8	9.0168	µg/L	9.0168	ppb	05:32:50
1	B 249.677†	132.2	-32.5	-1.4305	µg/L	-1.4305	ppb	05:32:29
1	Ba 233.527†	-73.5	12.9	0.3244	µg/L	0.3244	ppb	05:32:50
1	Be 313.107†	3674.5	74.7	0.0457	µg/L	0.0457	ppb	05:32:29
1	Cd 226.502†	-114.7	-6.1	-0.1634	µg/L	-0.1634	ppb	05:32:50
1	Co 228.616†	-74.7	0.1	0.0063	µg/L	0.0063	ppb	05:32:50
1	Cr 267.716†	-150.0	-16.1	-0.3386	µg/L	-0.3386	ppb	05:32:29
1	Cu 324.752†	3373.0	8.5	0.0600	µg/L	0.0600	ppb	05:32:29
1	Mn 257.610†	-188.1	31.3	0.0986	µg/L	0.0986	ppb	05:32:29
1	Mo 202.031†	2.3	3.4	0.3883	µg/L	0.3883	ppb	05:32:50
1	Ni 231.604†	344.8	15.3	0.8286	µg/L	0.8286	ppb	05:32:50
1	P 214.914†	207.0	-2.6	-5.5352	µg/L	-5.5352	ppb	05:32:50
1	Pb 220.353†	56.4	5.5	1.3906	µg/L	1.3906	ppb	05:32:50
1	S 181.975 Axial†	31.1	5.7	29.041	µg/L	29.041	ppb	05:32:50
1	Sb 206.836†	23.9	1.5	1.4575	µg/L	1.4575	ppb	05:32:50
1	Se 196.026†	3.7	-8.7	-12.257	µg/L	-12.257	ppb	05:32:50
1	SiO2†	2069.3	-34.2	-6.5691	µg/L	-6.5691	ppb	05:32:29
1	Si 251.611†	374.1	-0.5	-0.0375	µg/L	-0.0375	ppb	05:32:50
1	Sn 189.927†	22.5	0.6	0.3220	µg/L	0.3220	ppb	05:32:50
1	Ti 334.940†	833.6	-40.2	-0.0894	µg/L	-0.0894	ppb	05:32:29
1	Tl 190.801†	-18.6	4.7	6.9991	µg/L	6.9991	ppb	05:32:50
1	U 409.014†	839.5	-87.3	-8.3989	µg/L	-8.3989	ppb	05:32:29
1	V 292.402†	-110.9	-15.7	-0.1889	µg/L	-0.1889	ppb	05:32:29
1	Zn 213.857†	609.7	20.5	0.5467	µg/L	0.5467	ppb	05:32:50
2	Sc RADIAL	122216.2	122216.2	97.9	%			05:31:27
2	Al 396.153Radial†	231.4	28.9	14.080	µg/L	14.080	ppb	05:31:27
2	Ca 317.933Radial†	477.7	43.6	15.907	µg/L	15.907	ppb	05:31:48
2	Fe 238.204 Radial†	7.9	-0.2	-1.1449	µg/L	-1.1449	ppb	05:31:48
2	K 766.490 Radial†	813.0	-2.4	-1.3071	µg/L	-1.3071	ppb	05:31:27
2	Mg 279.077 IEC†	21.2	6.0	31.960	µg/L	31.960	ppb	05:31:48
2	Na 589.592 Radial†	-661.0	70.5	18.280	µg/L	18.280	ppb	05:31:27
2	Sr 421.552†	-93.6	14.9	0.0794	µg/L	0.0794	ppb	05:31:27
2	Sc 361.383	2162267.7	2162267.7	99.163	%			05:32:56
2	Y 371.029	1315240.2	1315240.2	99.195	%			05:32:56
2	Ag 328.068†	113.2	33.4	0.3014	µg/L	0.3014	ppb	05:33:01
2	As 188.979†	4.3	3.3	6.2472	µg/L	6.2472	ppb	05:33:22
2	B 249.677†	154.0	-10.9	-0.4786	µg/L	-0.4786	ppb	05:33:01
2	Ba 233.527†	-86.4	0.1	0.0015	µg/L	0.0015	ppb	05:33:22
2	Be 313.107†	3703.3	92.3	0.0564	µg/L	0.0564	ppb	05:33:01
2	Cd 226.502†	-116.2	-7.2	-0.1885	µg/L	-0.1885	ppb	05:33:22
2	Co 228.616†	-88.5	-13.6	-0.6531	µg/L	-0.6531	ppb	05:33:22
2	Cr 267.716†	-158.1	-23.8	-0.4990	µg/L	-0.4990	ppb	05:33:01
2	Cu 324.752†	3377.1	2.1	0.0146	µg/L	0.0146	ppb	05:33:01
2	Mn 257.610†	-212.2	7.5	0.0234	µg/L	0.0234	ppb	05:33:01
2	Mo 202.031†	-5.3	-4.3	-0.4877	µg/L	-0.4877	ppb	05:33:22
2	Ni 231.604†	336.7	6.1	0.3322	µg/L	0.3322	ppb	05:33:22
2	P 214.914†	206.8	-3.4	-7.3753	µg/L	-7.3753	ppb	05:33:22
2	Pb 220.353†	51.1	-0.1	-0.0143	µg/L	-0.0143	ppb	05:33:22

2	S 181.975 Axial†	26.8	1.3	6.7818 µg/L	6.7818 ppb	05:33:22
2	Sb 206.836†	28.9	6.4	6.4272 µg/L	6.4272 ppb	05:33:22
2	Se 196.026†	20.8	8.6	12.068 µg/L	12.068 ppb	05:33:22
2	SiO2†	2047.6	-62.4	-11.995 µg/L	-11.995 ppb	05:33:01
2	Si 251.611†	377.7	2.0	0.2448 µg/L	0.2448 ppb	05:33:22
2	Sn 189.927†	17.4	-4.6	-2.2649 µg/L	-2.2649 ppb	05:33:22
2	Ti 334.940†	908.2	32.5	0.0705 µg/L	0.0705 ppb	05:33:01
2	Tl 190.801†	-20.0	3.4	5.1206 µg/L	5.1206 ppb	05:33:22
2	U 409.014†	920.4	-8.3	-0.8026 µg/L	-0.8026 ppb	05:33:01
2	V 292.402†	-103.5	-7.9	-0.0950 µg/L	-0.0950 ppb	05:33:01
2	Zn 213.857†	610.7	19.6	0.5237 µg/L	0.5237 ppb	05:33:22
3	Sc RADIAL	123044.7	123044.7	98.6 %		05:31:53
3	Al 396.153Radial†	183.3	-21.5	-10.471 µg/L	-10.471 ppb	05:31:53
3	Ca 317.933Radial†	486.3	49.1	17.903 µg/L	17.903 ppb	05:32:14
3	Fe 238.204 Radial†	6.1	-2.1	-10.624 µg/L	-10.624 ppb	05:32:14
3	K 766.490 Radial†	715.6	-106.8	-57.039 µg/L	-57.039 ppb	05:31:53
3	Mg 279.077 IEC†	18.0	2.6	13.777 µg/L	13.777 ppb	05:32:14
3	Na 589.592 Radial†	-655.7	80.5	20.858 µg/L	20.858 ppb	05:31:53
3	Sr 421.552†	-85.4	23.9	0.1277 µg/L	0.1277 ppb	05:31:53
3	Sc 361.383	2174926.7	2174926.7	99.744 %		05:33:28
3	Y 371.029	1323417.5	1323417.5	99.812 %		05:33:28
3	Ag 328.068†	147.4	67.0	0.6027 µg/L	0.6027 ppb	05:33:34
3	As 188.979†	0.2	-0.9	-1.6468 µg/L	-1.6468 ppb	05:33:54
3	B 249.677†	151.9	-14.0	-0.6095 µg/L	-0.6095 ppb	05:33:34
3	Ba 233.527†	-80.8	6.2	0.1560 µg/L	0.1560 ppb	05:33:54
3	Be 313.107†	3614.9	-18.1	-0.0110 µg/L	-0.0110 ppb	05:33:34
3	Cd 226.502†	-116.9	-7.3	-0.1851 µg/L	-0.1851 ppb	05:33:54
3	Co 228.616†	-66.8	8.8	0.4214 µg/L	0.4214 ppb	05:33:54
3	Cr 267.716†	-152.4	-17.2	-0.3610 µg/L	-0.3610 ppb	05:33:34
3	Cu 324.752†	3354.2	-40.6	-0.2845 µg/L	-0.2845 ppb	05:33:34
3	Mn 257.610†	-212.9	8.1	0.0241 µg/L	0.0241 ppb	05:33:34
3	Mo 202.031†	-3.0	-1.9	-0.2194 µg/L	-0.2194 ppb	05:33:54
3	Ni 231.604†	343.7	11.2	0.6066 µg/L	0.6066 ppb	05:33:54
3	P 214.914†	203.3	-8.1	-17.489 µg/L	-17.489 ppb	05:33:54
3	Pb 220.353†	55.9	4.5	1.1253 µg/L	1.1253 ppb	05:33:54
3	S 181.975 Axial†	32.3	6.6	33.504 µg/L	33.504 ppb	05:33:54
3	Sb 206.836†	20.8	-1.9	-1.9310 µg/L	-1.9310 ppb	05:33:54
3	Se 196.026†	13.4	1.0	1.4156 µg/L	1.4156 ppb	05:33:54
3	SiO2†	2089.5	-32.4	-6.2335 µg/L	-6.2335 ppb	05:33:34
3	Si 251.611†	373.7	-4.3	-0.2940 µg/L	-0.2940 ppb	05:33:54
3	Sn 189.927†	21.6	-0.5	-0.2431 µg/L	-0.2431 ppb	05:33:54
3	Ti 334.940†	852.9	-28.3	-0.0630 µg/L	-0.0630 ppb	05:33:34
3	Tl 190.801†	-17.7	5.8	8.6211 µg/L	8.6211 ppb	05:33:54
3	U 409.014†	963.4	29.4	2.8305 µg/L	2.8305 ppb	05:33:34
3	V 292.402†	-137.3	-41.2	-0.4656 µg/L	-0.4656 ppb	05:33:34
3	Zn 213.857†	614.3	19.6	0.5255 µg/L	0.5255 ppb	05:33:54

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2164271.2	99.255	%	0.4498				0.45%
Sc RADIAL	122039.4	97.8	%	0.88				0.90%
Y 371.029	1316726.9	99.307	%	0.4589				0.46%
Ag 328.068†	47.9	0.4317	µg/L	0.15474	0.4317	ppb	0.15474	35.84%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	10.2	4.9862	µg/L	13.45608	4.9862	ppb	13.45608	269.87%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	2.4	4.5391	µg/L	5.53318	4.5391	ppb	5.53318	121.90%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-19.1	-0.8395	µg/L	0.51597	-0.8395	ppb	0.51597	61.46%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	6.4	0.1607	µg/L	0.16150	0.1607	ppb	0.16150	100.53%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	49.7	0.0304	µg/L	0.03626	0.0304	ppb	0.03626	119.39%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	52.4	19.118	µg/L	3.9601	19.118	ppb	3.9601	20.71%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	-6.9	-0.1790	µg/L	0.01362	-0.1790	ppb	0.01362	7.61%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	-1.6	-0.0751	µg/L	0.54187	-0.0751	ppb	0.54187	721.22%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -19.0     -0.3995 µg/L       0.08686     -0.3995 ppb        0.08686  21.74%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -10.0     -0.0700 µg/L       0.18713     -0.0700 ppb        0.18713 267.46%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        -0.4     -2.1493 µg/L       8.01970     -2.1493 ppb        8.01970 373.14%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        -66.4     -35.457 µg/L       29.9162     -35.457 ppb        29.9162  84.37%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           3.8      20.498 µg/L        9.9752      20.498 ppb         9.9752  48.66%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              15.6      0.0487 µg/L       0.04321      0.0487 ppb        0.04321  88.76%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               -0.9     -0.1063 µg/L       0.44884     -0.1063 ppb        0.44884 422.30%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        64.1      16.600 µg/L        5.3022      16.600 ppb         5.3022  31.94%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               10.9      0.5891 µg/L       0.24865      0.5891 ppb        0.24865  42.21%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -4.7     -10.133 µg/L        6.4362     -10.133 ppb         6.4362  63.52%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               3.3      0.8339 µg/L       0.74642      0.8339 ppb        0.74642  89.51%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          4.6      23.109 µg/L       14.3147      23.109 ppb        14.3147  61.94%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               2.0      1.9846 µg/L       4.20392      1.9846 ppb        4.20392 211.83%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               0.3      0.4088 µg/L      12.19397      0.4088 ppb       12.19397 >999.9%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    -43.0     -8.2659 µg/L       3.23398     -8.2659 ppb        3.23398  39.12%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               -1.0     -0.0289 µg/L       0.26947     -0.0289 ppb        0.26947 932.41%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               -1.5     -0.7287 µg/L       1.36012     -0.7287 ppb        1.36012 186.66%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              19.5      0.1039 µg/L       0.02415      0.1039 ppb        0.02415  23.25%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              -12.0     -0.0273 µg/L       0.08567     -0.0273 ppb        0.08567 313.87%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               4.7      6.9136 µg/L       1.75181      6.9136 ppb        1.75181  25.34%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -22.1     -2.1237 µg/L       5.73005     -2.1237 ppb        5.73005 269.82%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               -21.6     -0.2498 µg/L       0.19266     -0.2498 ppb        0.19266  77.12%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              19.9      0.5320 µg/L       0.01279      0.5320 ppb        0.01279   2.40%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
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Sequence No.: 24
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 12/19/2009 05:56:22
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	122402.2	122402.2	98.1	%			05:57:01
1	Al 396.153Radial†	10608.2	10607.3	5141.5	µg/L	5141.5	ppb	05:57:01
1	Ca 317.933Radial†	14078.2	13908.2	5073.5	µg/L	5073.5	ppb	05:57:21
1	Fe 238.204 Radial†	1016.6	1028.2	5188.6	µg/L	5188.6	ppb	05:57:21
1	K 766.490 Radial†	10250.7	9617.8	5137.0	µg/L	5137.0	ppb	05:57:01
1	Mg 279.077 IEC†	981.9	985.4	5253.7	µg/L	5253.7	ppb	05:57:21
1	Na 589.592 Radial†	38562.6	40058.8	10382	µg/L	10382	ppb	05:57:01
1	Sr 421.552†	92778.9	94695.6	505.14	µg/L	505.14	ppb	05:57:01
1	Sc 361.383	2149316.2	2149316.2	98.569	%			05:58:25
1	Y 371.029	1300298.7	1300298.7	98.068	%			05:58:25
1	Ag 328.068†	56363.7	57101.0	521.09	µg/L	521.09	ppb	05:58:30
1	As 188.979†	282.1	285.1	535.83	µg/L	535.83	ppb	05:58:51
1	B 249.677†	11776.6	11781.3	515.66	µg/L	515.66	ppb	05:58:30
1	Ba 233.527†	20175.1	20555.2	518.37	µg/L	518.37	ppb	05:58:30
1	Be 313.107†	828461.4	836843.0	511.52	µg/L	511.52	ppb	05:58:25
1	Cd 226.502†	19625.4	20020.1	521.24	µg/L	521.24	ppb	05:58:30
1	Co 228.616†	10647.6	10877.8	522.82	µg/L	522.82	ppb	05:58:30
1	Cr 267.716†	24371.1	24860.5	522.70	µg/L	522.70	ppb	05:58:30
1	Cu 324.752†	75441.5	73133.0	509.19	µg/L	509.19	ppb	05:58:30
1	Mn 257.610†	160114.7	162660.0	509.77	µg/L	509.77	ppb	05:58:25
1	Mo 202.031†	4503.8	4570.2	519.48	µg/L	519.48	ppb	05:58:51
1	Ni 231.604†	9785.2	9593.8	519.31	µg/L	519.31	ppb	05:58:30
1	P 214.914†	1400.0	1208.4	2553.4	µg/L	2553.4	ppb	05:58:51
1	Pb 220.353†	2086.3	2065.0	523.39	µg/L	523.39	ppb	05:58:51
1	S 181.975 Axial†	228.8	206.4	1043.9	µg/L	1043.9	ppb	05:58:51
1	Sb 206.836†	539.4	524.4	527.57	µg/L	527.57	ppb	05:58:51
1	Se 196.026†	393.9	387.2	549.23	µg/L	549.23	ppb	05:58:51
1	SiO2†	30448.4	28763.0	5528.1	µg/L	5528.1	ppb	05:58:30
1	Si 251.611†	33371.0	33476.4	2533.0	µg/L	2533.0	ppb	05:58:30
1	Sn 189.927†	1073.2	1066.6	526.42	µg/L	526.42	ppb	05:58:51
1	Ti 334.940†	229218.1	231661.5	507.67	µg/L	507.67	ppb	05:58:25
1	Tl 190.801†	325.7	354.0	528.11	µg/L	528.11	ppb	05:58:51
1	U 409.014†	6236.9	5390.9	517.92	µg/L	517.92	ppb	05:58:30
1	V 292.402†	45074.5	45825.1	525.27	µg/L	525.27	ppb	05:58:30
1	Zn 213.857†	19953.0	19646.3	524.26	µg/L	524.26	ppb	05:58:30
2	Sc RADIAL	122087.8	122087.8	97.8	%			05:57:27
2	Al 396.153Radial†	10642.2	10669.9	5172.2	µg/L	5172.2	ppb	05:57:27
2	Ca 317.933Radial†	14093.9	13961.2	5092.9	µg/L	5092.9	ppb	05:57:47
2	Fe 238.204 Radial†	1019.9	1034.1	5218.6	µg/L	5218.6	ppb	05:57:47
2	K 766.490 Radial†	10390.4	9787.5	5227.7	µg/L	5227.7	ppb	05:57:27
2	Mg 279.077 IEC†	984.1	990.2	5279.0	µg/L	5279.0	ppb	05:57:47
2	Na 589.592 Radial†	38584.3	40182.3	10414	µg/L	10414	ppb	05:57:27
2	Sr 421.552†	92976.4	95141.1	507.52	µg/L	507.52	ppb	05:57:27
2	Sc 361.383	2148453.8	2148453.8	98.530	%			05:58:58
2	Y 371.029	1299753.8	1299753.8	98.027	%			05:58:58
2	Ag 328.068†	56550.6	57313.6	523.03	µg/L	523.03	ppb	05:59:03
2	As 188.979†	269.6	272.6	512.26	µg/L	512.26	ppb	05:59:24
2	B 249.677†	11814.8	11824.8	517.57	µg/L	517.57	ppb	05:59:03
2	Ba 233.527†	20294.4	20684.5	521.62	µg/L	521.62	ppb	05:59:03
2	Be 313.107†	827201.2	835901.4	510.94	µg/L	510.94	ppb	05:58:58
2	Cd 226.502†	19742.4	20146.9	524.54	µg/L	524.54	ppb	05:59:03
2	Co 228.616†	10650.0	10884.6	523.13	µg/L	523.13	ppb	05:59:03
2	Cr 267.716†	24417.3	24917.2	523.89	µg/L	523.89	ppb	05:59:03
2	Cu 324.752†	75604.5	73329.1	510.56	µg/L	510.56	ppb	05:59:03
2	Mn 257.610†	159799.6	162405.5	508.98	µg/L	508.98	ppb	05:58:58
2	Mo 202.031†	4456.5	4524.1	514.24	µg/L	514.24	ppb	05:59:24
2	Ni 231.604†	9859.3	9673.0	523.59	µg/L	523.59	ppb	05:59:03
2	P 214.914†	1406.8	1215.9	2569.4	µg/L	2569.4	ppb	05:59:24
2	Pb 220.353†	2071.4	2050.7	519.76	µg/L	519.76	ppb	05:59:24

2	S 181.975 Axial†	232.0	209.8	1061.2 µg/L	1061.2 ppb	05:59:24
2	Sb 206.836†	530.5	515.7	518.70 µg/L	518.70 ppb	05:59:24
2	Se 196.026†	380.7	374.0	530.56 µg/L	530.56 ppb	05:59:24
2	SiO2†	30633.0	28962.8	5566.5 µg/L	5566.5 ppb	05:59:03
2	Si 251.611†	33418.3	33537.9	2537.9 µg/L	2537.9 ppb	05:59:03
2	Sn 189.927†	1067.2	1061.0	523.68 µg/L	523.68 ppb	05:59:24
2	Ti 334.940†	228764.1	231294.1	506.86 µg/L	506.86 ppb	05:58:58
2	Tl 190.801†	324.3	352.7	526.20 µg/L	526.20 ppb	05:59:24
2	U 409.014†	6248.2	5404.9	519.26 µg/L	519.26 ppb	05:59:03
2	V 292.402†	45215.6	45986.7	527.07 µg/L	527.07 ppb	05:59:03
2	Zn 213.857†	20035.5	19738.2	526.71 µg/L	526.71 ppb	05:59:03
3	Sc RADIAL	122612.1	122612.1	98.3 %		05:57:53
3	Al 396.153Radial†	10731.5	10714.3	5196.6 µg/L	5196.6 ppb	05:57:53
3	Ca 317.933Radial†	14065.3	13870.5	5059.8 µg/L	5059.8 ppb	05:58:13
3	Fe 238.204 Radial†	1017.2	1026.9	5181.1 µg/L	5181.1 ppb	05:58:13
3	K 766.490 Radial†	10318.9	9669.3	5164.6 µg/L	5164.6 ppb	05:57:53
3	Mg 279.077 IEC†	985.9	987.7	5264.2 µg/L	5264.2 ppb	05:58:13
3	Na 589.592 Radial†	38869.1	40303.4	10445 µg/L	10445 ppb	05:57:53
3	Sr 421.552†	93515.1	95282.9	508.28 µg/L	508.28 ppb	05:57:53
3	Sc 361.383	2141206.2	2141206.2	98.197 %		05:59:31
3	Y 371.029	1295328.4	1295328.4	97.693 %		05:59:31
3	Ag 328.068†	54149.5	55062.7	502.37 µg/L	502.37 ppb	05:59:37
3	As 188.979†	239.7	243.1	456.70 µg/L	456.70 ppb	05:59:57
3	B 249.677†	11220.8	11260.5	492.80 µg/L	492.80 ppb	05:59:37
3	Ba 233.527†	18966.6	19402.0	489.27 µg/L	489.27 ppb	05:59:37
3	Be 313.107†	790383.2	801249.4	489.76 µg/L	489.76 ppb	05:59:31
3	Cd 226.502†	18385.0	18832.4	490.29 µg/L	490.29 ppb	05:59:37
3	Co 228.616†	9848.9	10105.4	485.57 µg/L	485.57 ppb	05:59:37
3	Cr 267.716†	22134.1	22676.0	476.79 µg/L	476.79 ppb	05:59:37
3	Cu 324.752†	70549.2	68440.8	476.59 µg/L	476.59 ppb	05:59:37
3	Mn 257.610†	152978.5	156008.1	488.95 µg/L	488.95 ppb	05:59:31
3	Mo 202.031†	3809.1	3880.0	441.06 µg/L	441.06 ppb	05:59:57
3	Ni 231.604†	9127.6	8961.7	485.09 µg/L	485.09 ppb	05:59:37
3	P 214.914†	1239.4	1050.3	2214.2 µg/L	2214.2 ppb	05:59:57
3	Pb 220.353†	1847.0	1829.3	463.60 µg/L	463.60 ppb	05:59:57
3	S 181.975 Axial†	212.9	191.1	966.43 µg/L	966.43 ppb	05:59:57
3	Sb 206.836†	471.6	457.4	460.20 µg/L	460.20 ppb	05:59:57
3	Se 196.026†	352.3	346.4	491.51 µg/L	491.51 ppb	05:59:57
3	SiO2†	28910.2	27313.5	5249.5 µg/L	5249.5 ppb	05:59:37
3	Si 251.611†	31630.8	31832.5	2411.6 µg/L	2411.6 ppb	05:59:37
3	Sn 189.927†	899.3	893.7	441.53 µg/L	441.53 ppb	05:59:57
3	Ti 334.940†	217985.7	221103.6	484.52 µg/L	484.52 ppb	05:59:31
3	Tl 190.801†	295.8	324.8	484.72 µg/L	484.72 ppb	05:59:57
3	U 409.014†	5906.2	5078.1	487.82 µg/L	487.82 ppb	05:59:37
3	V 292.402†	41675.0	42536.4	487.33 µg/L	487.33 ppb	05:59:37
3	Zn 213.857†	18667.4	18413.8	491.34 µg/L	491.34 ppb	05:59:37

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2146325.4	98.432	%	0.2043				0.21%
Sc RADIAL	122367.3	98.1	%	0.21				0.22%
Y 371.029	1298460.3	97.929	%	0.2056				0.21%
Ag 328.068†	56492.5	515.50	µg/L	11.407	515.50	ppb	11.407	2.21%
QC value within limits for Ag 328.068 Recovery = 103.10%								
Al 396.153Radial†	10663.8	5170.1	µg/L	27.56	5170.1	ppb	27.56	0.53%
QC value within limits for Al 396.153Radial Recovery = 103.40%								
As 188.979†	266.9	501.60	µg/L	40.627	501.60	ppb	40.627	8.10%
QC value within limits for As 188.979 Recovery = 100.32%								
B 249.677†	11622.2	508.68	µg/L	13.783	508.68	ppb	13.783	2.71%
QC value within limits for B 249.677 Recovery = 101.74%								
Ba 233.527†	20213.9	509.75	µg/L	17.814	509.75	ppb	17.814	3.49%
QC value within limits for Ba 233.527 Recovery = 101.95%								
Be 313.107†	824664.6	504.08	µg/L	12.398	504.08	ppb	12.398	2.46%
QC value within limits for Be 313.107 Recovery = 100.82%								
Ca 317.933Radial†	13913.3	5075.4	µg/L	16.63	5075.4	ppb	16.63	0.33%
QC value within limits for Ca 317.933Radial Recovery = 101.51%								
Cd 226.502†	19666.5	512.02	µg/L	18.894	512.02	ppb	18.894	3.69%
QC value within limits for Cd 226.502 Recovery = 102.40%								
Co 228.616†	10622.6	510.51	µg/L	21.596	510.51	ppb	21.596	4.23%

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   QC value within limits for Co 228.616  Recovery = 102.10%
Cr 267.716†            24151.2      507.79 µg/L        26.858      507.79 ppb        26.858   5.29%
   QC value within limits for Cr 267.716  Recovery = 101.56%
Cu 324.752†            71634.3      498.78 µg/L        19.229      498.78 ppb        19.229   3.86%
   QC value within limits for Cu 324.752  Recovery = 99.76%
Fe 238.204 Radial†      1029.7      5196.1 µg/L         19.83      5196.1 ppb         19.83   0.38%
   QC value within limits for Fe 238.204 Radial  Recovery = 103.92%
K 766.490 Radial†       9691.5      5176.4 µg/L         46.47      5176.4 ppb         46.47   0.90%
   QC value within limits for K 766.490 Radial  Recovery = 103.53%
Mg 279.077 IEC†          987.8      5265.6 µg/L         12.72      5265.6 ppb         12.72   0.24%
   QC value within limits for Mg 279.077 IEC  Recovery = 105.31%
Mn 257.610†           160357.9      502.56 µg/L        11.799      502.56 ppb        11.799   2.35%
   QC value within limits for Mn 257.610  Recovery = 100.51%
Mo 202.031†             4324.8      491.59 µg/L        43.840      491.59 ppb        43.840   8.92%
   QC value within limits for Mo 202.031  Recovery = 98.32%
Na 589.592 Radial†     40181.5       10413 µg/L          31.7       10413 ppb          31.7   0.30%
   QC value within limits for Na 589.592 Radial  Recovery = 104.13%
Ni 231.604†             9409.5      509.33 µg/L        21.100      509.33 ppb        21.100   4.14%
   QC value within limits for Ni 231.604  Recovery = 101.87%
P 214.914†              1158.2      2445.7 µg/L        200.58      2445.7 ppb        200.58   8.20%
   QC value within limits for P 214.914  Recovery = 97.83%
Pb 220.353†             1981.6      502.25 µg/L        33.521      502.25 ppb        33.521   6.67%
   QC value within limits for Pb 220.353  Recovery = 100.45%
S 181.975 Axial†         202.4      1023.9 µg/L         50.49      1023.9 ppb         50.49   4.93%
   QC value within limits for S 181.975 Axial  Recovery = 102.39%
Sb 206.836†              499.2      502.16 µg/L        36.603      502.16 ppb        36.603   7.29%
   QC value within limits for Sb 206.836  Recovery = 100.43%
Se 196.026†              369.2      523.77 µg/L        29.451      523.77 ppb        29.451   5.62%
   QC value within limits for Se 196.026  Recovery = 104.75%
SiO2†                  28346.4      5448.1 µg/L        172.99      5448.1 ppb        172.99   3.18%
   QC value within limits for SiO2  Recovery = 101.88%
Si 251.611†            32948.9      2494.1 µg/L         71.54      2494.1 ppb         71.54   2.87%
   QC value within limits for Si 251.611  Recovery = 99.77%
Sn 189.927†             1007.1      497.21 µg/L        48.237      497.21 ppb        48.237   9.70%
   QC value within limits for Sn 189.927  Recovery = 99.44%
Sr 421.552†            95039.9      506.98 µg/L         1.635      506.98 ppb         1.635   0.32%
   QC value within limits for Sr 421.552  Recovery = 101.40%
Ti 334.940†           228019.7      499.68 µg/L        13.138      499.68 ppb        13.138   2.63%
   QC value within limits for Ti 334.940  Recovery = 99.94%
Tl 190.801†              343.8      513.01 µg/L        24.516      513.01 ppb        24.516   4.78%
   QC value within limits for Tl 190.801  Recovery = 102.60%
U 409.014†              5291.3      508.33 µg/L        17.777      508.33 ppb        17.777   3.50%
   QC value within limits for U 409.014  Recovery = 101.67%
V 292.402†             44782.7      513.22 µg/L        22.444      513.22 ppb        22.444   4.37%
   QC value within limits for V 292.402  Recovery = 102.64%
Zn 213.857†            19266.1      514.10 µg/L        19.752      514.10 ppb        19.752   3.84%
   QC value within limits for Zn 213.857  Recovery = 102.82%
All analyte(s) passed QC.
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Sequence No.: 25
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 12/19/2009 06:00:07
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	120834.7	120834.7	96.8	%			06:00:41
1	Al 396.153Radial†	212.9	12.5	6.0581	µg/L	6.0581	ppb	06:00:41
1	Ca 317.933Radial†	479.9	51.4	18.763	µg/L	18.763	ppb	06:01:02
1	Fe 238.204 Radial†	6.0	-2.1	-10.452	µg/L	-10.452	ppb	06:01:02
1	K 766.490 Radial†	828.4	23.0	12.285	µg/L	12.285	ppb	06:00:41
1	Mg 279.077 IEC†	19.0	4.0	21.144	µg/L	21.144	ppb	06:01:02
1	Na 589.592 Radial†	-621.8	103.4	26.787	µg/L	26.787	ppb	06:00:41
1	Sr 421.552†	-53.6	55.1	0.2940	µg/L	0.2940	ppb	06:00:41
1	Sc 361.383	2147688.8	2147688.8	98.495	%			06:02:03
1	Y 371.029	1306917.4	1306917.4	98.567	%			06:02:03
1	Ag 328.068†	166.0	87.8	0.7914	µg/L	0.7914	ppb	06:02:09
1	As 188.979†	0.6	-0.5	-0.9047	µg/L	-0.9047	ppb	06:02:30
1	B 249.677†	183.2	19.8	0.8714	µg/L	0.8714	ppb	06:02:09
1	Ba 233.527†	-81.0	5.0	0.1244	µg/L	0.1244	ppb	06:02:30
1	Be 313.107†	3819.6	235.7	0.1441	µg/L	0.1441	ppb	06:02:09
1	Cd 226.502†	-109.3	-1.1	-0.0278	µg/L	-0.0278	ppb	06:02:30
1	Co 228.616†	-74.9	-0.3	-0.0142	µg/L	-0.0142	ppb	06:02:30
1	Cr 267.716†	-141.6	-8.2	-0.1727	µg/L	-0.1727	ppb	06:02:09
1	Cu 324.752†	3345.0	-7.3	-0.0527	µg/L	-0.0527	ppb	06:02:09
1	Mn 257.610†	-184.4	34.4	0.1062	µg/L	0.1062	ppb	06:02:30
1	Mo 202.031†	-0.3	0.8	0.0850	µg/L	0.0850	ppb	06:02:30
1	Ni 231.604†	350.3	22.3	1.2052	µg/L	1.2052	ppb	06:02:30
1	P 214.914†	209.6	0.9	1.8980	µg/L	1.8980	ppb	06:02:30
1	Pb 220.353†	53.6	2.8	0.7203	µg/L	0.7203	ppb	06:02:30
1	S 181.975 Axial†	26.1	0.7	3.6543	µg/L	3.6543	ppb	06:02:30
1	Sb 206.836†	18.3	-4.2	-4.2718	µg/L	-4.2718	ppb	06:02:30
1	Se 196.026†	15.8	3.7	5.1644	µg/L	5.1644	ppb	06:02:30
1	SiO2†	2113.2	18.2	3.5015	µg/L	3.5015	ppb	06:02:09
1	Si 251.611†	395.9	23.0	1.8065	µg/L	1.8065	ppb	06:02:30
1	Sn 189.927†	19.3	-2.6	-1.2521	µg/L	-1.2521	ppb	06:02:30
1	Ti 334.940†	968.6	100.0	0.2182	µg/L	0.2182	ppb	06:02:09
1	Tl 190.801†	-21.3	2.0	2.9462	µg/L	2.9462	ppb	06:02:30
1	U 409.014†	891.9	-31.0	-2.9822	µg/L	-2.9822	ppb	06:02:09
1	V 292.402†	-133.1	-38.7	-0.4446	µg/L	-0.4446	ppb	06:02:09
1	Zn 213.857†	622.7	36.0	0.9620	µg/L	0.9620	ppb	06:02:30
2	Sc RADIAL	119727.3	119727.3	95.9	%			06:01:07
2	Al 396.153Radial†	182.6	-17.1	-8.3248	µg/L	-8.3248	ppb	06:01:07
2	Ca 317.933Radial†	473.6	49.5	18.075	µg/L	18.075	ppb	06:01:28
2	Fe 238.204 Radial†	12.4	4.6	23.365	µg/L	23.365	ppb	06:01:28
2	K 766.490 Radial†	748.8	-52.0	-27.798	µg/L	-27.798	ppb	06:01:07
2	Mg 279.077 IEC†	17.7	2.7	14.597	µg/L	14.597	ppb	06:01:28
2	Na 589.592 Radial†	-627.7	91.2	23.636	µg/L	23.636	ppb	06:01:07
2	Sr 421.552†	-69.4	38.2	0.2038	µg/L	0.2038	ppb	06:01:07
2	Sc 361.383	2147425.6	2147425.6	98.483	%			06:02:36
2	Y 371.029	1307397.8	1307397.8	98.603	%			06:02:36
2	Ag 328.068†	173.5	95.4	0.8648	µg/L	0.8648	ppb	06:02:41
2	As 188.979†	-1.4	-2.4	-4.5648	µg/L	-4.5648	ppb	06:03:02
2	B 249.677†	147.9	-16.1	-0.7126	µg/L	-0.7126	ppb	06:02:41
2	Ba 233.527†	-74.5	11.6	0.2910	µg/L	0.2910	ppb	06:03:02
2	Be 313.107†	3802.8	219.2	0.1340	µg/L	0.1340	ppb	06:02:41
2	Cd 226.502†	-98.3	10.1	0.2546	µg/L	0.2546	ppb	06:03:02
2	Co 228.616†	-76.1	-1.5	-0.0737	µg/L	-0.0737	ppb	06:03:02
2	Cr 267.716†	-144.5	-11.1	-0.2326	µg/L	-0.2326	ppb	06:02:41
2	Cu 324.752†	3339.2	-12.8	-0.0839	µg/L	-0.0839	ppb	06:02:41
2	Mn 257.610†	-168.9	50.0	0.1594	µg/L	0.1594	ppb	06:03:02
2	Mo 202.031†	-3.2	-2.2	-0.2489	µg/L	-0.2489	ppb	06:03:02
2	Ni 231.604†	328.7	0.3	0.0187	µg/L	0.0187	ppb	06:03:02
2	P 214.914†	205.0	-3.8	-8.1854	µg/L	-8.1854	ppb	06:03:02
2	Pb 220.353†	50.1	-0.7	-0.1780	µg/L	-0.1780	ppb	06:03:02

2	S 181.975 Axial†	28.1	2.8	13.971 µg/L	13.971 ppb	06:03:02
2	Sb 206.836†	23.6	1.2	1.2325 µg/L	1.2325 ppb	06:03:02
2	Se 196.026†	14.8	2.6	3.6701 µg/L	3.6701 ppb	06:03:02
2	SiO2†	2125.6	31.0	5.9662 µg/L	5.9662 ppb	06:02:41
2	Si 251.611†	393.3	20.3	1.4981 µg/L	1.4981 ppb	06:03:02
2	Sn 189.927†	26.3	4.6	2.2443 µg/L	2.2443 ppb	06:03:02
2	Ti 334.940†	858.0	-12.1	-0.0277 µg/L	-0.0277 ppb	06:02:41
2	Tl 190.801†	-18.9	4.4	6.5671 µg/L	6.5671 ppb	06:03:02
2	U 409.014†	823.2	-100.6	-9.6866 µg/L	-9.6866 ppb	06:02:41
2	V 292.402†	-106.3	-11.5	-0.1463 µg/L	-0.1463 ppb	06:02:41
2	Zn 213.857†	618.2	31.5	0.8442 µg/L	0.8442 ppb	06:03:02
3	Sc RADIAL	120556.0	120556.0	96.6 %		06:01:33
3	Al 396.153Radial†	211.1	11.1	5.3898 µg/L	5.3898 ppb	06:01:33
3	Ca 317.933Radial†	479.0	51.7	18.855 µg/L	18.855 ppb	06:01:53
3	Fe 238.204 Radial†	8.3	0.4	1.8162 µg/L	1.8162 ppb	06:01:53
3	K 766.490 Radial†	844.3	41.4	22.122 µg/L	22.122 ppb	06:01:33
3	Mg 279.077 IEC†	17.7	2.6	13.952 µg/L	13.952 ppb	06:01:53
3	Na 589.592 Radial†	-630.1	93.2	24.155 µg/L	24.155 ppb	06:01:33
3	Sr 421.552†	-64.3	43.9	0.2344 µg/L	0.2344 ppb	06:01:33
3	Sc 361.383	2156000.1	2156000.1	98.876 %		06:03:08
3	Y 371.029	1312051.3	1312051.3	98.954 %		06:03:08
3	Ag 328.068†	178.5	99.8	0.9055 µg/L	0.9055 ppb	06:03:13
3	As 188.979†	3.5	2.5	4.6645 µg/L	4.6645 ppb	06:03:34
3	B 249.677†	215.0	51.2	2.2495 µg/L	2.2495 ppb	06:03:13
3	Ba 233.527†	-82.9	3.4	0.0863 µg/L	0.0863 ppb	06:03:34
3	Be 313.107†	3718.5	118.6	0.0724 µg/L	0.0724 ppb	06:03:13
3	Cd 226.502†	-89.4	19.5	0.5042 µg/L	0.5042 ppb	06:03:34
3	Co 228.616†	-77.6	-2.8	-0.1344 µg/L	-0.1344 ppb	06:03:34
3	Cr 267.716†	-139.9	-5.9	-0.1221 µg/L	-0.1221 ppb	06:03:13
3	Cu 324.752†	3387.1	22.2	0.1547 µg/L	0.1547 ppb	06:03:13
3	Mn 257.610†	-196.2	23.0	0.0724 µg/L	0.0724 ppb	06:03:34
3	Mo 202.031†	1.8	2.8	0.3226 µg/L	0.3226 ppb	06:03:34
3	Ni 231.604†	340.7	11.1	0.6016 µg/L	0.6016 ppb	06:03:34
3	P 214.914†	201.7	-7.9	-17.107 µg/L	-17.107 ppb	06:03:34
3	Pb 220.353†	55.9	4.9	1.2542 µg/L	1.2542 ppb	06:03:34
3	S 181.975 Axial†	26.9	1.5	7.6345 µg/L	7.6345 ppb	06:03:34
3	Sb 206.836†	25.2	2.8	2.7902 µg/L	2.7902 ppb	06:03:34
3	Se 196.026†	11.0	-1.3	-1.8162 µg/L	-1.8162 ppb	06:03:34
3	SiO2†	2153.6	50.7	9.7531 µg/L	9.7531 ppb	06:03:13
3	Si 251.611†	385.4	10.8	0.8040 µg/L	0.8040 ppb	06:03:34
3	Sn 189.927†	22.4	0.4	0.2241 µg/L	0.2241 ppb	06:03:34
3	Ti 334.940†	983.7	111.5	0.2434 µg/L	0.2434 ppb	06:03:13
3	Tl 190.801†	-19.0	4.3	6.4114 µg/L	6.4114 ppb	06:03:34
3	U 409.014†	862.0	-64.7	-6.2261 µg/L	-6.2261 ppb	06:03:13
3	V 292.402†	-71.4	24.2	0.2671 µg/L	0.2671 ppb	06:03:13
3	Zn 213.857†	607.7	18.4	0.4898 µg/L	0.4898 ppb	06:03:34

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2150371.5	98.618	%	0.2236				0.23%
Sc RADIAL	120372.6	96.5	%	0.46				0.48%
Y 371.029	1308788.8	98.708	%	0.2139				0.22%
Ag 328.068†	94.3	0.8539	µg/L	0.05779	0.8539	ppb	0.05779	6.77%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	2.1	1.0410	µg/L	8.11790	1.0410	ppb	8.11790	779.79%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-0.1	-0.2683	µg/L	4.64746	-0.2683	ppb	4.64746	>999.9%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	18.3	0.8028	µg/L	1.48221	0.8028	ppb	1.48221	184.64%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	6.7	0.1672	µg/L	0.10886	0.1672	ppb	0.10886	65.09%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	191.2	0.1168	µg/L	0.03880	0.1168	ppb	0.03880	33.21%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	50.9	18.564	µg/L	0.4265	18.564	ppb	0.4265	2.30%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	9.5	0.2437	µg/L	0.26617	0.2437	ppb	0.26617	109.23%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	-1.5	-0.0741	µg/L	0.06011	-0.0741	ppb	0.06011	81.13%

```
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                -8.4     -0.1758 µg/L       0.05530     -0.1758 ppb        0.05530  31.46%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†                 0.7      0.0060 µg/L       0.12967      0.0060 ppb        0.12967 >999.9%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          1.0      4.9095 µg/L      17.11933      4.9095 ppb       17.11933 348.70%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†           4.1      2.2027 µg/L      26.44310      2.2027 ppb       26.44310 >999.9%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             3.1     16.564 µg/L        3.9791     16.564 ppb         3.9791  24.02%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                35.8      0.1126 µg/L       0.04386      0.1126 ppb        0.04386  38.93%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 0.5      0.0529 µg/L       0.28708      0.0529 ppb        0.28708 542.60%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†         95.9     24.859 µg/L        1.6895     24.859 ppb         1.6895   6.80%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                11.2      0.6085 µg/L       0.59327      0.6085 ppb        0.59327  97.49%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -3.6     -7.7982 µg/L       9.50846     -7.7982 ppb        9.50846 121.93%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                 2.3      0.5988 µg/L       0.72381      0.5988 ppb        0.72381 120.87%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            1.7      8.4198 µg/L       5.20280      8.4198 ppb        5.20280  61.79%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                -0.1     -0.0830 µg/L       3.71026     -0.0830 ppb        3.71026 >999.9%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 1.7      2.3394 µg/L       3.67563      2.3394 ppb        3.67563 157.12%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                      33.3      6.4069 µg/L       3.14903      6.4069 ppb        3.14903  49.15%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†                18.0      1.3695 µg/L       0.51349      1.3695 ppb        0.51349  37.49%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 0.8      0.4054 µg/L       1.75525      0.4054 ppb        1.75525 432.93%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                45.8      0.2441 µg/L       0.04584      0.2441 ppb        0.04584  18.78%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                66.4      0.1446 µg/L       0.14973      0.1446 ppb        0.14973 103.53%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 3.6      5.3082 µg/L       2.04704      5.3082 ppb        2.04704  38.56%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                -65.4     -6.2983 µg/L       3.35280     -6.2983 ppb        3.35280  53.23%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 -8.7     -0.1080 µg/L       0.35740     -0.1080 ppb        0.35740 331.07%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                28.6      0.7653 µg/L       0.24577      0.7653 ppb        0.24577  32.11%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 32
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 12/19/2009 06:25:52
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	121919.5	121919.5	97.7	%			06:26:32
1	Al 396.153Radial†	10751.0	10796.2	5233.2	µg/L	5233.2	ppb	06:26:32
1	Ca 317.933Radial†	14224.0	14114.2	5148.7	µg/L	5148.7	ppb	06:26:52
1	Fe 238.204 Radial†	1028.4	1044.3	5270.1	µg/L	5270.1	ppb	06:26:52
1	K 766.490 Radial†	10376.0	9787.4	5227.6	µg/L	5227.6	ppb	06:26:32
1	Mg 279.077 IEC†	996.6	1004.4	5354.6	µg/L	5354.6	ppb	06:26:52
1	Na 589.592 Radial†	39136.4	40801.7	10574	µg/L	10574	ppb	06:26:32
1	Sr 421.552†	94428.2	96758.1	516.15	µg/L	516.15	ppb	06:26:32
1	Sc 361.383	2144029.0	2144029.0	98.327	%			06:27:56
1	Y 371.029	1300202.0	1300202.0	98.061	%			06:27:56
1	Ag 328.068†	56976.7	57865.4	528.07	µg/L	528.07	ppb	06:28:02
1	As 188.979†	284.7	288.5	542.12	µg/L	542.12	ppb	06:28:22
1	B 249.677†	11910.5	11946.9	522.91	µg/L	522.91	ppb	06:28:02
1	Ba 233.527†	20521.3	20957.7	528.51	µg/L	528.51	ppb	06:28:02
1	Be 313.107†	841014.2	851682.1	520.59	µg/L	520.59	ppb	06:27:56
1	Cd 226.502†	19938.6	20387.8	530.81	µg/L	530.81	ppb	06:28:02
1	Co 228.616†	10727.7	10986.0	528.02	µg/L	528.02	ppb	06:28:02
1	Cr 267.716†	24677.0	25232.5	530.52	µg/L	530.52	ppb	06:28:02
1	Cu 324.752†	76136.0	74028.1	515.43	µg/L	515.43	ppb	06:28:02
1	Mn 257.610†	162459.5	165445.3	518.50	µg/L	518.50	ppb	06:27:56
1	Mo 202.031†	4553.6	4632.2	526.52	µg/L	526.52	ppb	06:28:22
1	Ni 231.604†	9913.8	9749.0	527.71	µg/L	527.71	ppb	06:28:02
1	P 214.914†	1420.7	1233.0	2605.8	µg/L	2605.8	ppb	06:28:22
1	Pb 220.353†	2122.7	2107.2	534.10	µg/L	534.10	ppb	06:28:22
1	S 181.975 Axial†	241.5	219.9	1112.5	µg/L	1112.5	ppb	06:28:22
1	Sb 206.836†	541.7	528.2	531.28	µg/L	531.28	ppb	06:28:22
1	Se 196.026†	399.7	394.1	558.99	µg/L	558.99	ppb	06:28:22
1	SiO2†	30848.0	29245.6	5620.9	µg/L	5620.9	ppb	06:28:02
1	Si 251.611†	33809.9	34006.2	2573.1	µg/L	2573.1	ppb	06:28:02
1	Sn 189.927†	1084.1	1080.4	533.27	µg/L	533.27	ppb	06:28:22
1	Ti 334.940†	232322.8	235392.5	515.84	µg/L	515.84	ppb	06:27:56
1	Tl 190.801†	326.4	355.5	530.44	µg/L	530.44	ppb	06:28:22
1	U 409.014†	6308.8	5479.6	526.44	µg/L	526.44	ppb	06:28:02
1	V 292.402†	45627.9	46500.7	533.01	µg/L	533.01	ppb	06:28:02
1	Zn 213.857†	20203.7	19951.2	532.40	µg/L	532.40	ppb	06:28:02
2	Sc RADIAL	121730.3	121730.3	97.6	%			06:26:58
2	Al 396.153Radial†	10771.1	10833.9	5251.9	µg/L	5251.9	ppb	06:26:58
2	Ca 317.933Radial†	14150.6	14061.6	5129.5	µg/L	5129.5	ppb	06:27:18
2	Fe 238.204 Radial†	1021.0	1038.4	5240.5	µg/L	5240.5	ppb	06:27:18
2	K 766.490 Radial†	10492.1	9922.9	5300.0	µg/L	5300.0	ppb	06:26:58
2	Mg 279.077 IEC†	997.7	1007.1	5369.2	µg/L	5369.2	ppb	06:27:18
2	Na 589.592 Radial†	39200.8	40930.0	10607	µg/L	10607	ppb	06:26:58
2	Sr 421.552†	94483.2	96964.7	517.25	µg/L	517.25	ppb	06:26:58
2	Sc 361.383	2151932.9	2151932.9	98.689	%			06:28:29
2	Y 371.029	1303684.1	1303684.1	98.323	%			06:28:29
2	Ag 328.068†	57579.1	58263.0	531.70	µg/L	531.70	ppb	06:28:35
2	As 188.979†	273.4	276.0	518.60	µg/L	518.60	ppb	06:28:55
2	B 249.677†	12022.4	12015.8	525.95	µg/L	525.95	ppb	06:28:35
2	Ba 233.527†	20701.8	21063.9	531.20	µg/L	531.20	ppb	06:28:35
2	Be 313.107†	843212.8	850768.3	520.03	µg/L	520.03	ppb	06:28:29
2	Cd 226.502†	20196.3	20574.4	535.68	µg/L	535.68	ppb	06:28:35
2	Co 228.616†	10903.9	11124.4	534.65	µg/L	534.65	ppb	06:28:35
2	Cr 267.716†	24985.6	25453.0	535.16	µg/L	535.16	ppb	06:28:35
2	Cu 324.752†	77030.2	74649.7	519.74	µg/L	519.74	ppb	06:28:35
2	Mn 257.610†	162940.1	165325.5	518.12	µg/L	518.12	ppb	06:28:29
2	Mo 202.031†	4497.5	4558.3	518.12	µg/L	518.12	ppb	06:28:55
2	Ni 231.604†	10093.3	9894.0	535.55	µg/L	535.55	ppb	06:28:35
2	P 214.914†	1401.3	1208.0	2551.2	µg/L	2551.2	ppb	06:28:55
2	Pb 220.353†	2087.4	2063.5	523.01	µg/L	523.01	ppb	06:28:55

2	S 181.975 Axial†	231.8	209.1	1057.9 µg/L	1057.9 ppb	06:28:55
2	Sb 206.836†	543.6	528.0	531.16 µg/L	531.16 ppb	06:28:55
2	Se 196.026†	388.8	381.6	541.26 µg/L	541.26 ppb	06:28:55
2	SiO2†	31273.7	29561.7	5681.6 µg/L	5681.6 ppb	06:28:35
2	Si 251.611†	34172.5	34247.3	2592.0 µg/L	2592.0 ppb	06:28:35
2	Sn 189.927†	1078.7	1070.9	528.57 µg/L	528.57 ppb	06:28:55
2	Ti 334.940†	232815.1	235023.5	515.04 µg/L	515.04 ppb	06:28:29
2	Tl 190.801†	325.8	353.7	527.73 µg/L	527.73 ppb	06:28:55
2	U 409.014†	6317.5	5464.9	525.03 µg/L	525.03 ppb	06:28:35
2	V 292.402†	46218.3	46928.5	537.80 µg/L	537.80 ppb	06:28:35
2	Zn 213.857†	20449.0	20124.4	537.01 µg/L	537.01 ppb	06:28:35
3	Sc RADIAL	120814.4	120814.4	96.8 %		06:27:24
3	Al 396.153Radial†	10717.6	10862.5	5268.5 µg/L	5268.5 ppb	06:27:24
3	Ca 317.933Radial†	14219.9	14243.2	5195.7 µg/L	5195.7 ppb	06:27:44
3	Fe 238.204 Radial†	1024.3	1049.7	5296.0 µg/L	5296.0 ppb	06:27:44
3	K 766.490 Radial†	10339.5	9846.8	5259.4 µg/L	5259.4 ppb	06:27:24
3	Mg 279.077 IEC†	1000.3	1017.5	5422.9 µg/L	5422.9 ppb	06:27:44
3	Na 589.592 Radial†	38920.2	40944.8	10611 µg/L	10611 ppb	06:27:24
3	Sr 421.552†	93708.5	96898.8	516.90 µg/L	516.90 ppb	06:27:24
3	Sc 361.383	2146883.5	2146883.5	98.458 %		06:29:02
3	Y 371.029	1300005.7	1300005.7	98.046 %		06:29:02
3	Ag 328.068†	54351.2	55121.7	502.93 µg/L	502.93 ppb	06:29:08
3	As 188.979†	244.4	247.2	464.43 µg/L	464.43 ppb	06:29:28
3	B 249.677†	11294.0	11304.7	494.70 µg/L	494.70 ppb	06:29:08
3	Ba 233.527†	19094.9	19481.3	491.27 µg/L	491.27 ppb	06:29:08
3	Be 313.107†	801817.2	810733.9	495.56 µg/L	495.56 ppb	06:29:02
3	Cd 226.502†	18550.6	18951.1	493.36 µg/L	493.36 ppb	06:29:08
3	Co 228.616†	9973.2	10205.1	490.36 µg/L	490.36 ppb	06:29:08
3	Cr 267.716†	22332.2	22817.6	479.76 µg/L	479.76 ppb	06:29:08
3	Cu 324.752†	70866.5	68573.1	477.54 µg/L	477.54 ppb	06:29:08
3	Mn 257.610†	155051.3	157701.4	494.26 µg/L	494.26 ppb	06:29:02
3	Mo 202.031†	3861.7	3923.2	445.97 µg/L	445.97 ppb	06:29:28
3	Ni 231.604†	9215.6	9026.6	488.60 µg/L	488.60 ppb	06:29:08
3	P 214.914†	1261.1	1069.0	2254.5 µg/L	2254.5 ppb	06:29:28
3	Pb 220.353†	1867.2	1844.9	467.57 µg/L	467.57 ppb	06:29:28
3	S 181.975 Axial†	209.0	186.6	943.61 µg/L	943.61 ppb	06:29:28
3	Sb 206.836†	481.7	466.5	469.27 µg/L	469.27 ppb	06:29:28
3	Se 196.026†	350.3	343.4	487.25 µg/L	487.25 ppb	06:29:28
3	SiO2†	29154.5	27483.8	5282.3 µg/L	5282.3 ppb	06:29:08
3	Si 251.611†	31867.7	31987.9	2423.1 µg/L	2423.1 ppb	06:29:08
3	Sn 189.927†	911.8	903.9	446.65 µg/L	446.65 ppb	06:29:28
3	Ti 334.940†	220482.7	223052.7	488.78 µg/L	488.78 ppb	06:29:02
3	Tl 190.801†	297.6	325.8	486.33 µg/L	486.33 ppb	06:29:28
3	U 409.014†	5803.8	4958.2	476.25 µg/L	476.25 ppb	06:29:08
3	V 292.402†	41945.1	42698.5	489.19 µg/L	489.19 ppb	06:29:08
3	Zn 213.857†	18730.6	18427.7	491.68 µg/L	491.68 ppb	06:29:08

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	2147615.1	98.491	%	0.1836				0.19%
Sc RADIAL	121488.1	97.4	%	0.47				0.49%
Y 371.029	1301297.2	98.143	%	0.1561				0.16%
Ag 328.068†	57083.4	520.90	µg/L	15.669	520.90	ppb	15.669	3.01%
QC value within limits for Ag 328.068 Recovery = 104.18%								
Al 396.153Radial†	10830.9	5251.2	µg/L	17.65	5251.2	ppb	17.65	0.34%
QC value within limits for Al 396.153Radial Recovery = 105.02%								
As 188.979†	270.6	508.38	µg/L	39.837	508.38	ppb	39.837	7.84%
QC value within limits for As 188.979 Recovery = 101.68%								
B 249.677†	11755.8	514.52	µg/L	17.229	514.52	ppb	17.229	3.35%
QC value within limits for B 249.677 Recovery = 102.90%								
Ba 233.527†	20501.0	516.99	µg/L	22.319	516.99	ppb	22.319	4.32%
QC value within limits for Ba 233.527 Recovery = 103.40%								
Be 313.107†	837728.1	512.06	µg/L	14.292	512.06	ppb	14.292	2.79%
QC value within limits for Be 313.107 Recovery = 102.41%								
Ca 317.933Radial†	14139.7	5158.0	µg/L	34.08	5158.0	ppb	34.08	0.66%
QC value within limits for Ca 317.933Radial Recovery = 103.16%								
Cd 226.502†	19971.1	519.95	µg/L	23.153	519.95	ppb	23.153	4.45%
QC value within limits for Cd 226.502 Recovery = 103.99%								
Co 228.616†	10771.8	517.68	µg/L	23.884	517.68	ppb	23.884	4.61%

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   QC value within limits for Co 228.616  Recovery = 103.54%
Cr 267.716†            24501.0      515.15 µg/L        30.731      515.15 ppb        30.731   5.97%
   QC value within limits for Cr 267.716  Recovery = 103.03%
Cu 324.752†            72417.0      504.24 µg/L        23.222      504.24 ppb        23.222   4.61%
   QC value within limits for Cu 324.752  Recovery = 100.85%
Fe 238.204 Radial†      1044.2      5268.9 µg/L         27.78      5268.9 ppb         27.78   0.53%
   QC value within limits for Fe 238.204 Radial  Recovery = 105.38%
K 766.490 Radial†       9852.3      5262.3 µg/L         36.27      5262.3 ppb         36.27   0.69%
   QC value within limits for K 766.490 Radial  Recovery = 105.25%
Mg 279.077 IEC†         1009.7      5382.2 µg/L         35.92      5382.2 ppb         35.92   0.67%
   QC value within limits for Mg 279.077 IEC  Recovery = 107.64%
Mn 257.610†           162824.0      510.29 µg/L        13.884      510.29 ppb        13.884   2.72%
   QC value within limits for Mn 257.610  Recovery = 102.06%
Mo 202.031†             4371.2      496.87 µg/L        44.282      496.87 ppb        44.282   8.91%
   QC value within limits for Mo 202.031  Recovery = 99.37%
Na 589.592 Radial†     40892.1       10598 µg/L          20.4       10598 ppb          20.4   0.19%
   QC value within limits for Na 589.592 Radial  Recovery = 105.98%
Ni 231.604†             9556.5      517.29 µg/L        25.151      517.29 ppb        25.151   4.86%
   QC value within limits for Ni 231.604  Recovery = 103.46%
P 214.914†              1170.0      2470.5 µg/L        189.07      2470.5 ppb        189.07   7.65%
   QC value within limits for P 214.914  Recovery = 98.82%
Pb 220.353†             2005.2      508.23 µg/L        35.645      508.23 ppb        35.645   7.01%
   QC value within limits for Pb 220.353  Recovery = 101.65%
S 181.975 Axial†         205.2      1038.0 µg/L         86.20      1038.0 ppb         86.20   8.30%
   QC value within limits for S 181.975 Axial  Recovery = 103.80%
Sb 206.836†              507.6      510.57 µg/L        35.765      510.57 ppb        35.765   7.00%
   QC value within limits for Sb 206.836  Recovery = 102.11%
Se 196.026†              373.0      529.17 µg/L        37.370      529.17 ppb        37.370   7.06%
   QC value within limits for Se 196.026  Recovery = 105.83%
SiO2†                  28763.7      5528.3 µg/L        215.19      5528.3 ppb        215.19   3.89%
   QC value within limits for SiO2  Recovery = 103.38%
Si 251.611†            33413.8      2529.4 µg/L         92.55      2529.4 ppb         92.55   3.66%
   QC value within limits for Si 251.611  Recovery = 101.18%
Sn 189.927†             1018.4      502.83 µg/L        48.709      502.83 ppb        48.709   9.69%
   QC value within limits for Sn 189.927  Recovery = 100.57%
Sr 421.552†            96873.9      516.76 µg/L         0.563      516.76 ppb         0.563   0.11%
   QC value within limits for Sr 421.552  Recovery = 103.35%
Ti 334.940†           231156.2      506.55 µg/L        15.395      506.55 ppb        15.395   3.04%
   QC value within limits for Ti 334.940  Recovery = 101.31%
Tl 190.801†              345.0      514.83 µg/L        24.719      514.83 ppb        24.719   4.80%
   QC value within limits for Tl 190.801  Recovery = 102.97%
U 409.014†              5300.9      509.24 µg/L        28.576      509.24 ppb        28.576   5.61%
   QC value within limits for U 409.014  Recovery = 101.85%
V 292.402†             45375.9      520.00 µg/L        26.790      520.00 ppb        26.790   5.15%
   QC value within limits for V 292.402  Recovery = 104.00%
Zn 213.857†            19501.1      520.36 µg/L        24.949      520.36 ppb        24.949   4.79%
   QC value within limits for Zn 213.857  Recovery = 104.07%
All analyte(s) passed QC.
```

Sequence No.: 33
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 12/19/2009 06:29:38
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	120212.0	120212.0	96.3	%			06:30:12
1	Al 396.153Radial†	203.0	3.3	1.5964	µg/L	1.5964	ppb	06:30:12
1	Ca 317.933Radial†	463.9	37.5	13.670	µg/L	13.670	ppb	06:30:33
1	Fe 238.204 Radial†	5.7	-2.3	-11.707	µg/L	-11.707	ppb	06:30:33
1	K 766.490 Radial†	868.4	68.9	36.798	µg/L	36.798	ppb	06:30:12
1	Mg 279.077 IEC†	17.3	2.3	12.210	µg/L	12.210	ppb	06:30:33
1	Na 589.592 Radial†	-592.7	130.2	33.735	µg/L	33.735	ppb	06:30:12
1	Sr 421.552†	-90.6	16.4	0.0876	µg/L	0.0876	ppb	06:30:12
1	Sc 361.383	2137213.5	2137213.5	98.014	%			06:31:34
1	Y 371.029	1300836.6	1300836.6	98.109	%			06:31:34
1	Ag 328.068†	119.8	41.5	0.3756	µg/L	0.3756	ppb	06:31:40
1	As 188.979†	4.0	3.1	5.7709	µg/L	5.7709	ppb	06:32:01
1	B 249.677†	175.1	12.4	0.5493	µg/L	0.5493	ppb	06:31:40
1	Ba 233.527†	-74.9	10.9	0.2740	µg/L	0.2740	ppb	06:32:01
1	Be 313.107†	3716.0	149.1	0.0912	µg/L	0.0912	ppb	06:31:40
1	Cd 226.502†	-102.3	5.6	0.1428	µg/L	0.1428	ppb	06:32:01
1	Co 228.616†	-70.4	3.9	0.1884	µg/L	0.1884	ppb	06:32:01
1	Cr 267.716†	-140.9	-8.2	-0.1714	µg/L	-0.1714	ppb	06:31:40
1	Cu 324.752†	3338.6	2.8	0.0172	µg/L	0.0172	ppb	06:31:40
1	Mn 257.610†	-198.7	18.8	0.0573	µg/L	0.0573	ppb	06:32:01
1	Mo 202.031†	0.3	1.3	0.1521	µg/L	0.1521	ppb	06:32:01
1	Ni 231.604†	334.4	7.8	0.4217	µg/L	0.4217	ppb	06:32:01
1	P 214.914†	202.0	-5.8	-12.499	µg/L	-12.499	ppb	06:32:01
1	Pb 220.353†	44.6	-6.1	-1.5470	µg/L	-1.5470	ppb	06:32:01
1	S 181.975 Axial†	25.9	0.7	3.6692	µg/L	3.6692	ppb	06:32:01
1	Sb 206.836†	23.0	0.7	0.6872	µg/L	0.6872	ppb	06:32:01
1	Se 196.026†	10.5	-1.7	-2.3646	µg/L	-2.3646	ppb	06:32:01
1	SiO2†	2128.3	44.1	8.4740	µg/L	8.4740	ppb	06:31:40
1	Si 251.611†	399.9	29.0	2.2357	µg/L	2.2357	ppb	06:32:01
1	Sn 189.927†	21.1	-0.6	-0.3103	µg/L	-0.3103	ppb	06:32:01
1	Ti 334.940†	856.1	-10.0	-0.0226	µg/L	-0.0226	ppb	06:31:40
1	Tl 190.801†	-21.0	2.2	3.2470	µg/L	3.2470	ppb	06:32:01
1	U 409.014†	856.6	-62.6	-6.0171	µg/L	-6.0171	ppb	06:31:40
1	V 292.402†	-87.9	6.7	0.0666	µg/L	0.0666	ppb	06:31:40
1	Zn 213.857†	607.8	23.9	0.6409	µg/L	0.6409	ppb	06:32:01
2	Sc RADIAL	118742.0	118742.0	95.2	%			06:30:38
2	Al 396.153Radial†	209.4	12.7	6.1757	µg/L	6.1757	ppb	06:30:38
2	Ca 317.933Radial†	462.8	42.3	15.413	µg/L	15.413	ppb	06:30:59
2	Fe 238.204 Radial†	7.6	-0.3	-1.5943	µg/L	-1.5943	ppb	06:30:59
2	K 766.490 Radial†	799.7	7.9	4.2279	µg/L	4.2279	ppb	06:30:38
2	Mg 279.077 IEC†	17.8	3.1	16.284	µg/L	16.284	ppb	06:30:59
2	Na 589.592 Radial†	-642.1	70.7	18.314	µg/L	18.314	ppb	06:30:38
2	Sr 421.552†	-35.2	73.5	0.3918	µg/L	0.3918	ppb	06:30:38
2	Sc 361.383	2144292.8	2144292.8	98.339	%			06:32:07
2	Y 371.029	1305763.1	1305763.1	98.480	%			06:32:07
2	Ag 328.068†	116.7	37.9	0.3426	µg/L	0.3426	ppb	06:32:12
2	As 188.979†	4.0	3.0	5.7181	µg/L	5.7181	ppb	06:32:33
2	B 249.677†	178.4	15.1	0.6655	µg/L	0.6655	ppb	06:32:12
2	Ba 233.527†	-77.3	8.6	0.2173	µg/L	0.2173	ppb	06:32:33
2	Be 313.107†	3635.0	54.1	0.0331	µg/L	0.0331	ppb	06:32:12
2	Cd 226.502†	-112.7	-4.6	-0.1207	µg/L	-0.1207	ppb	06:32:33
2	Co 228.616†	-76.5	-2.1	-0.0993	µg/L	-0.0993	ppb	06:32:33
2	Cr 267.716†	-133.6	-0.3	-0.0063	µg/L	-0.0063	ppb	06:32:12
2	Cu 324.752†	3366.9	20.3	0.1409	µg/L	0.1409	ppb	06:32:12
2	Mn 257.610†	-198.4	19.8	0.0618	µg/L	0.0618	ppb	06:32:33
2	Mo 202.031†	-0.8	0.2	0.0250	µg/L	0.0250	ppb	06:32:33
2	Ni 231.604†	341.8	14.1	0.7648	µg/L	0.7648	ppb	06:32:33
2	P 214.914†	208.3	-0.1	-0.1877	µg/L	-0.1877	ppb	06:32:33
2	Pb 220.353†	48.5	-2.2	-0.5664	µg/L	-0.5664	ppb	06:32:33

2	S 181.975 Axial†	30.6	5.3	27.087 µg/L	27.087 ppb	06:32:33
2	Sb 206.836†	25.7	3.4	3.4057 µg/L	3.4057 ppb	06:32:33
2	Se 196.026†	16.1	3.9	5.5272 µg/L	5.5272 ppb	06:32:33
2	SiO2†	2078.4	-13.8	-2.6605 µg/L	-2.6605 ppb	06:32:12
2	Si 251.611†	411.5	39.4	2.9417 µg/L	2.9417 ppb	06:32:33
2	Sn 189.927†	26.8	5.1	2.5088 µg/L	2.5088 ppb	06:32:33
2	Ti 334.940†	876.7	8.2	0.0170 µg/L	0.0170 ppb	06:32:12
2	Tl 190.801†	-21.3	1.9	2.8350 µg/L	2.8350 ppb	06:32:33
2	U 409.014†	908.3	-12.8	-1.2323 µg/L	-1.2323 ppb	06:32:12
2	V 292.402†	-100.2	-5.4	-0.0637 µg/L	-0.0637 ppb	06:32:12
2	Zn 213.857†	616.4	30.6	0.8181 µg/L	0.8181 ppb	06:32:33
3	Sc RADIAL	114977.9	114977.9	92.1 %		06:31:04
3	Al 396.153Radial†	212.9	23.7	11.521 µg/L	11.521 ppb	06:31:04
3	Ca 317.933Radial†	458.8	53.8	19.638 µg/L	19.638 ppb	06:31:24
3	Fe 238.204 Radial†	9.7	2.3	11.426 µg/L	11.426 ppb	06:31:24
3	K 766.490 Radial†	793.2	28.3	15.123 µg/L	15.123 ppb	06:31:04
3	Mg 279.077 IEC†	16.5	2.3	12.073 µg/L	12.073 ppb	06:31:24
3	Na 589.592 Radial†	-624.0	68.2	17.672 µg/L	17.672 ppb	06:31:04
3	Sr 421.552†	-99.9	2.1	0.0111 µg/L	0.0111 ppb	06:31:04
3	Sc 361.383	2122939.6	2122939.6	97.360 %		06:32:39
3	Y 371.029	1292084.5	1292084.5	97.448 %		06:32:39
3	Ag 328.068†	158.2	81.7	0.7369 µg/L	0.7369 ppb	06:32:44
3	As 188.979†	-0.6	-1.7	-3.1303 µg/L	-3.1303 ppb	06:33:05
3	B 249.677†	173.3	11.7	0.5117 µg/L	0.5117 ppb	06:32:44
3	Ba 233.527†	-81.8	3.3	0.0810 µg/L	0.0810 ppb	06:33:05
3	Be 313.107†	3665.2	122.4	0.0749 µg/L	0.0749 ppb	06:32:44
3	Cd 226.502†	-109.1	-2.1	-0.0648 µg/L	-0.0648 ppb	06:33:05
3	Co 228.616†	-66.1	7.8	0.3736 µg/L	0.3736 ppb	06:33:05
3	Cr 267.716†	-124.7	7.5	0.1558 µg/L	0.1558 ppb	06:32:44
3	Cu 324.752†	3326.0	12.8	0.0911 µg/L	0.0911 ppb	06:32:44
3	Mn 257.610†	-206.8	9.1	0.0298 µg/L	0.0298 ppb	06:33:05
3	Mo 202.031†	0.3	1.3	0.1501 µg/L	0.1501 ppb	06:33:05
3	Ni 231.604†	344.6	20.5	1.1083 µg/L	1.1083 ppb	06:33:05
3	P 214.914†	207.0	0.7	1.5083 µg/L	1.5083 ppb	06:33:05
3	Pb 220.353†	45.6	-4.7	-1.1838 µg/L	-1.1838 ppb	06:33:05
3	S 181.975 Axial†	33.0	8.1	41.277 µg/L	41.277 ppb	06:33:05
3	Sb 206.836†	19.8	-2.4	-2.4674 µg/L	-2.4674 ppb	06:33:05
3	Se 196.026†	16.2	4.2	5.9976 µg/L	5.9976 ppb	06:33:05
3	SiO2†	2129.5	59.9	11.518 µg/L	11.518 ppb	06:32:44
3	Si 251.611†	398.8	30.6	2.3807 µg/L	2.3807 ppb	06:33:05
3	Sn 189.927†	20.2	-1.4	-0.7019 µg/L	-0.7019 ppb	06:33:05
3	Ti 334.940†	861.7	1.7	0.0025 µg/L	0.0025 ppb	06:32:44
3	Tl 190.801†	-18.6	4.4	6.5634 µg/L	6.5634 ppb	06:33:05
3	U 409.014†	779.0	-136.4	-13.124 µg/L	-13.124 ppb	06:32:44
3	V 292.402†	-145.6	-53.1	-0.6221 µg/L	-0.6221 ppb	06:32:44
3	Zn 213.857†	606.3	26.5	0.7041 µg/L	0.7041 ppb	06:33:05

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2134815.3	97.904	%	0.4988				0.51%
Sc RADIAL	117977.3	94.5	%	2.16				2.29%
Y 371.029	1299561.4	98.012	%	0.5225				0.53%
Ag 328.068†	53.7	0.4850	µg/L	0.21872	0.4850	ppb	0.21872	45.09%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	13.2	6.4311	µg/L	4.96725	6.4311	ppb	4.96725	77.24%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	1.5	2.7862	µg/L	5.12392	2.7862	ppb	5.12392	183.90%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	13.1	0.5755	µg/L	0.08018	0.5755	ppb	0.08018	13.93%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	7.6	0.1908	µg/L	0.09918	0.1908	ppb	0.09918	51.99%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	108.5	0.0664	µg/L	0.02995	0.0664	ppb	0.02995	45.13%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	44.5	16.240	µg/L	3.0692	16.240	ppb	3.0692	18.90%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	-0.4	-0.0142	µg/L	0.13883	-0.0142	ppb	0.13883	976.91%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	3.2	0.1542	µg/L	0.23831	0.1542	ppb	0.23831	154.52%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                -0.3     -0.0073 µg/L       0.16357     -0.0073 ppb        0.16357 >999.9%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†                12.0      0.0831 µg/L       0.06221      0.0831 ppb        0.06221  74.90%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -0.1     -0.6248 µg/L      11.59694     -0.6248 ppb       11.59694 >999.9%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          35.0      18.716 µg/L       16.5797      18.716 ppb        16.5797  88.58%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             2.5      13.522 µg/L        2.3925      13.522 ppb         2.3925  17.69%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                15.9      0.0496 µg/L       0.01730      0.0496 ppb        0.01730  34.87%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 1.0      0.1091 µg/L       0.07280      0.1091 ppb        0.07280  66.73%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†         89.7      23.241 µg/L        9.0946      23.241 ppb         9.0946  39.13%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                14.1      0.7649 µg/L       0.34331      0.7649 ppb        0.34331  44.88%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -1.7     -3.7260 µg/L       7.64446     -3.7260 ppb        7.64446 205.16%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -4.4     -1.0991 µg/L       0.49573     -1.0991 ppb        0.49573  45.10%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            4.7      24.011 µg/L       18.9915      24.011 ppb        18.9915  79.10%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 0.5      0.5418 µg/L       2.93926      0.5418 ppb        2.93926 542.45%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 2.2      3.0534 µg/L       4.69804      3.0534 ppb        4.69804 153.86%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                      30.1      5.7771 µg/L       7.46399      5.7771 ppb        7.46399 129.20%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†                33.0      2.5194 µg/L       0.37284      2.5194 ppb        0.37284  14.80%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 1.0      0.4988 µg/L       1.75163      0.4988 ppb        1.75163 351.13%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                30.7      0.1635 µg/L       0.20141      0.1635 ppb        0.20141 123.19%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                -0.0     -0.0010 µg/L       0.02006     -0.0010 ppb        0.02006 >999.9%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 2.8      4.2151 µg/L       2.04404      4.2151 ppb        2.04404  48.49%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                -70.6     -6.7912 µg/L       5.98362     -6.7912 ppb        5.98362  88.11%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                -17.3     -0.2064 µg/L       0.36588     -0.2064 ppb        0.36588 177.27%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                27.0      0.7210 µg/L       0.08982      0.7210 ppb        0.08982  12.46%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 7
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 12/19/2009 07:00:32
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	122442.0	122442.0	98.1	%			07:01:09
1	Al 396.153Radial†	10944.0	10946.0	5306.0	µg/L	5306.0	ppb	07:01:09
1	Ca 317.933Radial†	14239.2	14067.6	5131.7	µg/L	5131.7	ppb	07:01:30
1	Fe 238.204 Radial†	1038.1	1049.7	5297.6	µg/L	5297.6	ppb	07:01:30
1	K 766.490 Radial†	10542.4	9911.7	5294.0	µg/L	5294.0	ppb	07:01:09
1	Mg 279.077 IEC†	1008.0	1011.7	5393.6	µg/L	5393.6	ppb	07:01:30
1	Na 589.592 Radial†	39721.1	41226.7	10684	µg/L	10684	ppb	07:01:09
1	Sr 421.552†	95419.7	97356.2	519.34	µg/L	519.34	ppb	07:01:09
1	Sc 361.383	2146571.0	2146571.0	98.444	%			07:02:33
1	Y 371.029	1300773.1	1300773.1	98.104	%			07:02:33
1	Ag 328.068†	57808.0	58641.3	535.15	µg/L	535.15	ppb	07:02:39
1	As 188.979†	279.9	283.3	532.32	µg/L	532.32	ppb	07:03:00
1	B 249.677†	12063.5	12088.0	529.10	µg/L	529.10	ppb	07:02:39
1	Ba 233.527†	20761.8	21177.3	534.06	µg/L	534.06	ppb	07:02:39
1	Be 313.107†	848734.0	858511.0	524.76	µg/L	524.76	ppb	07:02:33
1	Cd 226.502†	20257.5	20687.8	538.63	µg/L	538.63	ppb	07:02:39
1	Co 228.616†	10940.7	11189.4	537.79	µg/L	537.79	ppb	07:02:39
1	Cr 267.716†	25071.1	25603.2	538.31	µg/L	538.31	ppb	07:02:39
1	Cu 324.752†	77242.9	75060.7	522.61	µg/L	522.61	ppb	07:02:39
1	Mn 257.610†	163740.3	166550.7	521.96	µg/L	521.96	ppb	07:02:33
1	Mo 202.031†	4582.6	4656.1	529.25	µg/L	529.25	ppb	07:03:00
1	Ni 231.604†	10055.6	9881.1	534.86	µg/L	534.86	ppb	07:02:39
1	P 214.914†	1423.8	1234.4	2608.1	µg/L	2608.1	ppb	07:03:00
1	Pb 220.353†	2118.9	2100.8	532.48	µg/L	532.48	ppb	07:03:00
1	S 181.975 Axial†	235.2	213.2	1078.5	µg/L	1078.5	ppb	07:03:00
1	Sb 206.836†	545.1	531.0	534.10	µg/L	534.10	ppb	07:03:00
1	Se 196.026†	393.3	387.1	549.00	µg/L	549.00	ppb	07:03:00
1	SiO2†	31256.9	29623.7	5693.6	µg/L	5693.6	ppb	07:02:39
1	Si 251.611†	34291.9	34455.1	2607.3	µg/L	2607.3	ppb	07:02:39
1	Sn 189.927†	1095.9	1091.1	538.50	µg/L	538.50	ppb	07:03:00
1	Ti 334.940†	234617.4	237443.5	520.34	µg/L	520.34	ppb	07:02:33
1	Tl 190.801†	326.5	355.2	530.09	µg/L	530.09	ppb	07:03:00
1	U 409.014†	6429.7	5594.9	537.52	µg/L	537.52	ppb	07:02:39
1	V 292.402†	46379.5	47209.3	541.10	µg/L	541.10	ppb	07:02:39
1	Zn 213.857†	20507.2	20235.2	539.99	µg/L	539.99	ppb	07:02:39
2	Sc RADIAL	121097.8	121097.8	97.0	%			07:01:35
2	Al 396.153Radial†	10857.8	10981.0	5323.1	µg/L	5323.1	ppb	07:01:35
2	Ca 317.933Radial†	14257.0	14247.0	5197.1	µg/L	5197.1	ppb	07:01:56
2	Fe 238.204 Radial†	1035.6	1058.9	5343.7	µg/L	5343.7	ppb	07:01:56
2	K 766.490 Radial†	10416.3	9901.0	5288.3	µg/L	5288.3	ppb	07:01:35
2	Mg 279.077 IEC†	1004.8	1019.7	5436.3	µg/L	5436.3	ppb	07:01:56
2	Na 589.592 Radial†	39263.0	41204.0	10678	µg/L	10678	ppb	07:01:35
2	Sr 421.552†	94567.6	97557.6	520.41	µg/L	520.41	ppb	07:01:35
2	Sc 361.383	2133366.0	2133366.0	97.838	%			07:03:07
2	Y 371.029	1293019.4	1293019.4	97.519	%			07:03:07
2	Ag 328.068†	57545.6	58736.5	536.02	µg/L	536.02	ppb	07:03:12
2	As 188.979†	277.7	282.8	531.36	µg/L	531.36	ppb	07:03:33
2	B 249.677†	12007.0	12106.1	529.88	µg/L	529.88	ppb	07:03:12
2	Ba 233.527†	20655.4	21199.1	534.60	µg/L	534.60	ppb	07:03:12
2	Be 313.107†	845637.6	860682.7	526.09	µg/L	526.09	ppb	07:03:07
2	Cd 226.502†	20128.5	20683.2	538.50	µg/L	538.50	ppb	07:03:12
2	Co 228.616†	10888.8	11205.1	538.53	µg/L	538.53	ppb	07:03:12
2	Cr 267.716†	24857.6	25542.5	537.04	µg/L	537.04	ppb	07:03:12
2	Cu 324.752†	76858.4	75153.4	523.26	µg/L	523.26	ppb	07:03:12
2	Mn 257.610†	163226.0	167054.6	523.54	µg/L	523.54	ppb	07:03:07
2	Mo 202.031†	4535.4	4636.7	527.04	µg/L	527.04	ppb	07:03:33
2	Ni 231.604†	10016.6	9904.6	536.13	µg/L	536.13	ppb	07:03:12
2	P 214.914†	1415.5	1234.9	2608.9	µg/L	2608.9	ppb	07:03:33
2	Pb 220.353†	2115.3	2110.4	534.92	µg/L	534.92	ppb	07:03:33

2	S 181.975 Axial†	233.1	212.5	1075.2 µg/L	1075.2 ppb	07:03:33
2	Sb 206.836†	540.2	529.3	532.48 µg/L	532.48 ppb	07:03:33
2	Se 196.026†	397.5	393.9	558.66 µg/L	558.66 ppb	07:03:33
2	SiO2†	31065.2	29624.3	5693.7 µg/L	5693.7 ppb	07:03:12
2	Si 251.611†	34064.5	34438.3	2606.2 µg/L	2606.2 ppb	07:03:12
2	Sn 189.927†	1078.1	1079.8	532.99 µg/L	532.99 ppb	07:03:33
2	Ti 334.940†	233856.4	238140.9	521.87 µg/L	521.87 ppb	07:03:07
2	Tl 190.801†	330.9	361.8	539.79 µg/L	539.79 ppb	07:03:33
2	U 409.014†	6296.8	5499.5	528.33 µg/L	528.33 ppb	07:03:12
2	V 292.402†	46088.4	47203.3	541.00 µg/L	541.00 ppb	07:03:12
2	Zn 213.857†	20359.1	20212.7	539.37 µg/L	539.37 ppb	07:03:12
3	Sc RADIAL	121719.5	121719.5	97.5 %		07:02:01
3	Al 396.153Radial†	10960.0	11028.7	5349.2 µg/L	5349.2 ppb	07:02:01
3	Ca 317.933Radial†	14312.7	14229.1	5190.6 µg/L	5190.6 ppb	07:02:22
3	Fe 238.204 Radial†	1031.8	1049.6	5295.2 µg/L	5295.2 ppb	07:02:22
3	K 766.490 Radial†	10468.0	9899.2	5287.4 µg/L	5287.4 ppb	07:02:01
3	Mg 279.077 IEC†	1018.0	1028.0	5478.4 µg/L	5478.4 ppb	07:02:22
3	Na 589.592 Radial†	39513.5	41254.1	10691 µg/L	10691 ppb	07:02:01
3	Sr 421.552†	95271.9	97781.8	521.61 µg/L	521.61 ppb	07:02:01
3	Sc 361.383	2145711.9	2145711.9	98.404 %		07:03:40
3	Y 371.029	1299581.0	1299581.0	98.014 %		07:03:40
3	Ag 328.068†	54878.1	55687.3	508.08 µg/L	508.08 ppb	07:03:46
3	As 188.979†	239.3	242.1	454.85 µg/L	454.85 ppb	07:04:06
3	B 249.677†	11360.1	11378.2	497.93 µg/L	497.93 ppb	07:03:46
3	Ba 233.527†	19285.7	19685.7	496.42 µg/L	496.42 ppb	07:03:46
3	Be 313.107†	806697.6	816138.1	498.86 µg/L	498.86 ppb	07:03:40
3	Cd 226.502†	18719.2	19132.7	498.10 µg/L	498.10 ppb	07:03:46
3	Co 228.616†	10007.3	10245.3	492.30 µg/L	492.30 ppb	07:03:46
3	Cr 267.716†	22437.0	22936.5	482.27 µg/L	482.27 ppb	07:03:46
3	Cu 324.752†	71383.4	69137.6	481.46 µg/L	481.46 ppb	07:03:46
3	Mn 257.610†	156271.3	159027.2	498.41 µg/L	498.41 ppb	07:03:40
3	Mo 202.031†	3894.5	3958.8	450.01 µg/L	450.01 ppb	07:04:06
3	Ni 231.604†	9271.1	9088.1	491.93 µg/L	491.93 ppb	07:03:46
3	P 214.914†	1265.7	1074.3	2265.6 µg/L	2265.6 ppb	07:04:06
3	Pb 220.353†	1891.8	1870.9	474.16 µg/L	474.16 ppb	07:04:06
3	S 181.975 Axial†	209.3	187.0	945.73 µg/L	945.73 ppb	07:04:06
3	Sb 206.836†	477.8	462.8	465.59 µg/L	465.59 ppb	07:04:06
3	Se 196.026†	352.7	346.0	491.03 µg/L	491.03 ppb	07:04:06
3	SiO2†	29324.4	27672.6	5318.6 µg/L	5318.6 ppb	07:03:46
3	Si 251.611†	32135.4	32277.6	2445.1 µg/L	2445.1 ppb	07:03:46
3	Sn 189.927†	917.7	910.4	449.84 µg/L	449.84 ppb	07:04:06
3	Ti 334.940†	222044.5	224762.2	492.53 µg/L	492.53 ppb	07:03:40
3	Tl 190.801†	300.2	328.7	490.54 µg/L	490.54 ppb	07:04:06
3	U 409.014†	5848.2	5006.6	480.91 µg/L	480.91 ppb	07:03:46
3	V 292.402†	42274.7	43056.7	493.30 µg/L	493.30 ppb	07:03:46
3	Zn 213.857†	18902.8	18613.1	496.64 µg/L	496.64 ppb	07:03:46

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2141883.0	98.229	%	0.3388				0.34%
Sc RADIAL	121753.1	97.6	%	0.54				0.55%
Y 371.029	1297791.1	97.879	%	0.3149				0.32%
Ag 328.068†	57688.4	526.42	µg/L	15.887	526.42	ppb	15.887	3.02%
QC value within limits for Ag 328.068 Recovery = 105.28%								
Al 396.153Radial†	10985.2	5326.1	µg/L	21.77	5326.1	ppb	21.77	0.41%
QC value within limits for Al 396.153Radial Recovery = 106.52%								
As 188.979†	269.4	506.18	µg/L	44.454	506.18	ppb	44.454	8.78%
QC value within limits for As 188.979 Recovery = 101.24%								
B 249.677†	11857.4	518.97	µg/L	18.224	518.97	ppb	18.224	3.51%
QC value within limits for B 249.677 Recovery = 103.79%								
Ba 233.527†	20687.4	521.69	µg/L	21.889	521.69	ppb	21.889	4.20%
QC value within limits for Ba 233.527 Recovery = 104.34%								
Be 313.107†	845110.6	516.57	µg/L	15.351	516.57	ppb	15.351	2.97%
QC value within limits for Be 313.107 Recovery = 103.31%								
Ca 317.933Radial†	14181.2	5173.1	µg/L	36.06	5173.1	ppb	36.06	0.70%
QC value within limits for Ca 317.933Radial Recovery = 103.46%								
Cd 226.502†	20167.9	525.08	µg/L	23.365	525.08	ppb	23.365	4.45%
QC value within limits for Cd 226.502 Recovery = 105.02%								
Co 228.616†	10879.9	522.87	µg/L	26.482	522.87	ppb	26.482	5.06%

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   QC value within limits for Co 228.616  Recovery = 104.57%
Cr 267.716†            24694.0      519.21 µg/L        31.998      519.21 ppb        31.998   6.16%
   QC value within limits for Cr 267.716  Recovery = 103.84%
Cu 324.752†            73117.3      509.11 µg/L        23.949      509.11 ppb        23.949   4.70%
   QC value within limits for Cu 324.752  Recovery = 101.82%
Fe 238.204 Radial†      1052.7      5312.2 µg/L         27.34      5312.2 ppb         27.34   0.51%
   QC value within limits for Fe 238.204 Radial  Recovery = 106.24%
K 766.490 Radial†       9903.9      5289.9 µg/L          3.61      5289.9 ppb          3.61   0.07%
   QC value within limits for K 766.490 Radial  Recovery = 105.80%
Mg 279.077 IEC†         1019.8      5436.1 µg/L         42.38      5436.1 ppb         42.38   0.78%
   QC value within limits for Mg 279.077 IEC  Recovery = 108.72%
Mn 257.610†           164210.8      514.64 µg/L        14.075      514.64 ppb        14.075   2.73%
   QC value within limits for Mn 257.610  Recovery = 102.93%
Mo 202.031†             4417.2      502.10 µg/L        45.124      502.10 ppb        45.124   8.99%
   QC value within limits for Mo 202.031  Recovery = 100.42%
Na 589.592 Radial†     41228.3       10685 µg/L           6.5       10685 ppb           6.5   0.06%
   QC value within limits for Na 589.592 Radial  Recovery = 106.85%
Ni 231.604†             9624.6      520.97 µg/L        25.159      520.97 ppb        25.159   4.83%
   QC value within limits for Ni 231.604  Recovery = 104.19%
P 214.914†              1181.2      2494.2 µg/L        197.99      2494.2 ppb        197.99   7.94%
   QC value within limits for P 214.914  Recovery = 99.77%
Pb 220.353†             2027.4      513.85 µg/L        34.393      513.85 ppb        34.393   6.69%
   QC value within limits for Pb 220.353  Recovery = 102.77%
S 181.975 Axial†         204.2      1033.1 µg/L         75.71      1033.1 ppb         75.71   7.33%
   QC value within limits for S 181.975 Axial  Recovery = 103.31%
Sb 206.836†              507.7      510.72 µg/L        39.092      510.72 ppb        39.092   7.65%
   QC value within limits for Sb 206.836  Recovery = 102.14%
Se 196.026†              375.7      532.90 µg/L        36.580      532.90 ppb        36.580   6.86%
   QC value within limits for Se 196.026  Recovery = 106.58%
SiO2†                  28973.6      5568.6 µg/L        216.54      5568.6 ppb        216.54   3.89%
   QC value within limits for SiO2  Recovery = 104.13%
Si 251.611†            33723.7      2552.9 µg/L         93.32      2552.9 ppb         93.32   3.66%
   QC value within limits for Si 251.611  Recovery = 102.12%
Sn 189.927†             1027.1      507.11 µg/L        49.678      507.11 ppb        49.678   9.80%
   QC value within limits for Sn 189.927  Recovery = 101.42%
Sr 421.552†            97565.2      520.45 µg/L         1.136      520.45 ppb         1.136   0.22%
   QC value within limits for Sr 421.552  Recovery = 104.09%
Ti 334.940†           233448.9      511.58 µg/L        16.514      511.58 ppb        16.514   3.23%
   QC value within limits for Ti 334.940  Recovery = 102.32%
Tl 190.801†              348.6      520.14 µg/L        26.088      520.14 ppb        26.088   5.02%
   QC value within limits for Tl 190.801  Recovery = 104.03%
U 409.014†              5367.0      515.59 µg/L        30.380      515.59 ppb        30.380   5.89%
   QC value within limits for U 409.014  Recovery = 103.12%
V 292.402†             45823.1      525.13 µg/L        27.570      525.13 ppb        27.570   5.25%
   QC value within limits for V 292.402  Recovery = 105.03%
Zn 213.857†            19687.0      525.33 µg/L        24.849      525.33 ppb        24.849   4.73%
   QC value within limits for Zn 213.857  Recovery = 105.07%
All analyte(s) passed QC.
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Sequence No.: 8
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 12/19/2009 07:04:16
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	120327.6	120327.6	96.4	%			07:04:48
1	Al 396.153Radial†	228.1	29.1	14.187	µg/L	14.187	ppb	07:04:48
1	Ca 317.933Radial†	445.6	18.0	6.5795	µg/L	6.5795	ppb	07:05:09
1	Fe 238.204 Radial†	10.3	2.5	12.374	µg/L	12.374	ppb	07:05:09
1	K 766.490 Radial†	780.2	-23.3	-12.468	µg/L	-12.468	ppb	07:04:48
1	Mg 279.077 IEC†	21.1	6.2	33.054	µg/L	33.054	ppb	07:05:09
1	Na 589.592 Radial†	-747.5	-29.8	-7.7142	µg/L	-7.7142	ppb	07:04:48
1	Sr 421.552†	-93.4	13.6	0.0725	µg/L	0.0725	ppb	07:04:48
1	Sc 361.383	2146973.6	2146973.6	98.462	%			07:06:11
1	Y 371.029	1306786.2	1306786.2	98.557	%			07:06:11
1	Ag 328.068†	155.9	77.6	0.6998	µg/L	0.6998	ppb	07:06:16
1	As 188.979†	1.9	0.9	1.6444	µg/L	1.6444	ppb	07:06:37
1	B 249.677†	167.9	4.3	0.1861	µg/L	0.1861	ppb	07:06:16
1	Ba 233.527†	-72.6	13.6	0.3403	µg/L	0.3403	ppb	07:06:37
1	Be 313.107†	3752.7	169.1	0.1034	µg/L	0.1034	ppb	07:06:16
1	Cd 226.502†	-108.5	-0.2	-0.0094	µg/L	-0.0094	ppb	07:06:37
1	Co 228.616†	-68.2	6.4	0.3072	µg/L	0.3072	ppb	07:06:37
1	Cr 267.716†	-102.9	31.2	0.6523	µg/L	0.6523	ppb	07:06:16
1	Cu 324.752†	3350.3	-0.8	-0.0028	µg/L	-0.0028	ppb	07:06:16
1	Mn 257.610†	-196.2	22.3	0.0713	µg/L	0.0713	ppb	07:06:37
1	Mo 202.031†	-3.7	-2.7	-0.3085	µg/L	-0.3085	ppb	07:06:37
1	Ni 231.604†	343.7	15.7	0.8483	µg/L	0.8483	ppb	07:06:37
1	P 214.914†	206.7	-2.0	-4.3045	µg/L	-4.3045	ppb	07:06:37
1	Pb 220.353†	54.9	4.2	1.0597	µg/L	1.0597	ppb	07:06:37
1	S 181.975 Axial†	27.9	2.6	13.267	µg/L	13.267	ppb	07:06:37
1	Sb 206.836†	25.4	3.0	3.0673	µg/L	3.0673	ppb	07:06:37
1	Se 196.026†	14.9	2.7	3.8807	µg/L	3.8807	ppb	07:06:37
1	SiO2†	2096.7	2.1	0.4086	µg/L	0.4086	ppb	07:06:16
1	Si 251.611†	401.3	28.6	2.1450	µg/L	2.1450	ppb	07:06:37
1	Sn 189.927†	25.3	3.5	1.7523	µg/L	1.7523	ppb	07:06:37
1	Ti 334.940†	893.9	24.4	0.0532	µg/L	0.0532	ppb	07:06:16
1	Tl 190.801†	-18.6	4.7	7.0265	µg/L	7.0265	ppb	07:06:37
1	U 409.014†	867.7	-55.2	-5.3175	µg/L	-5.3175	ppb	07:06:16
1	V 292.402†	-139.4	-45.2	-0.5228	µg/L	-0.5228	ppb	07:06:16
1	Zn 213.857†	615.1	28.4	0.7578	µg/L	0.7578	ppb	07:06:37
2	Sc RADIAL	120506.5	120506.5	96.6	%			07:05:14
2	Al 396.153Radial†	176.1	-25.1	-12.179	µg/L	-12.179	ppb	07:05:14
2	Ca 317.933Radial†	451.3	23.2	8.4562	µg/L	8.4562	ppb	07:05:35
2	Fe 238.204 Radial†	9.0	1.1	5.4146	µg/L	5.4146	ppb	07:05:35
2	K 766.490 Radial†	802.2	-1.8	-0.9762	µg/L	-0.9762	ppb	07:05:14
2	Mg 279.077 IEC†	15.5	0.4	2.2552	µg/L	2.2552	ppb	07:05:35
2	Na 589.592 Radial†	-731.7	-12.2	-3.1557	µg/L	-3.1557	ppb	07:05:14
2	Sr 421.552†	-71.4	36.6	0.1950	µg/L	0.1950	ppb	07:05:14
2	Sc 361.383	2139066.0	2139066.0	98.099	%			07:06:43
2	Y 371.029	1302962.1	1302962.1	98.269	%			07:06:43
2	Ag 328.068†	157.2	79.5	0.7185	µg/L	0.7185	ppb	07:06:48
2	As 188.979†	0.8	-0.2	-0.4193	µg/L	-0.4193	ppb	07:07:09
2	B 249.677†	214.3	52.3	2.2931	µg/L	2.2931	ppb	07:06:48
2	Ba 233.527†	-77.3	8.4	0.2108	µg/L	0.2108	ppb	07:07:09
2	Be 313.107†	3741.3	171.6	0.1049	µg/L	0.1049	ppb	07:06:48
2	Cd 226.502†	-102.2	5.7	0.1464	µg/L	0.1464	ppb	07:07:09
2	Co 228.616†	-69.2	5.2	0.2461	µg/L	0.2461	ppb	07:07:09
2	Cr 267.716†	-97.4	36.4	0.7620	µg/L	0.7620	ppb	07:06:48
2	Cu 324.752†	3328.2	-10.8	-0.0736	µg/L	-0.0736	ppb	07:06:48
2	Mn 257.610†	-188.4	29.5	0.0930	µg/L	0.0930	ppb	07:07:09
2	Mo 202.031†	-6.6	-5.7	-0.6486	µg/L	-0.6486	ppb	07:07:09
2	Ni 231.604†	336.4	9.5	0.5160	µg/L	0.5160	ppb	07:07:09
2	P 214.914†	199.8	-8.2	-17.759	µg/L	-17.759	ppb	07:07:09
2	Pb 220.353†	47.7	-3.0	-0.7629	µg/L	-0.7629	ppb	07:07:09

2	S 181.975 Axial†	32.0	6.8	34.660 µg/L	34.660 ppb	07:07:09
2	Sb 206.836†	29.4	7.3	7.3117 µg/L	7.3117 ppb	07:07:09
2	Se 196.026†	11.0	-1.2	-1.6542 µg/L	-1.6542 ppb	07:07:09
2	SiO2†	2150.7	65.0	12.495 µg/L	12.495 ppb	07:06:48
2	Si 251.611†	395.2	23.9	1.8631 µg/L	1.8631 ppb	07:07:09
2	Sn 189.927†	21.1	-0.7	-0.3385 µg/L	-0.3385 ppb	07:07:09
2	Ti 334.940†	936.7	71.4	0.1562 µg/L	0.1562 ppb	07:06:48
2	Tl 190.801†	-21.4	1.7	2.5418 µg/L	2.5418 ppb	07:07:09
2	U 409.014†	875.7	-43.8	-4.2192 µg/L	-4.2192 ppb	07:06:48
2	V 292.402†	-119.5	-25.4	-0.2991 µg/L	-0.2991 ppb	07:06:48
2	Zn 213.857†	614.4	30.1	0.8060 µg/L	0.8060 ppb	07:07:09
3	Sc RADIAL	119825.5	119825.5	96.0 %		07:05:40
3	Al 396.153Radial†	203.6	4.6	2.2389 µg/L	2.2389 ppb	07:05:40
3	Ca 317.933Radial†	469.2	44.5	16.249 µg/L	16.249 ppb	07:06:00
3	Fe 238.204 Radial†	9.2	1.3	6.4284 µg/L	6.4284 ppb	07:06:00
3	K 766.490 Radial†	813.6	14.8	7.8830 µg/L	7.8830 ppb	07:05:40
3	Mg 279.077 IEC†	17.8	2.9	15.224 µg/L	15.224 ppb	07:06:00
3	Na 589.592 Radial†	-682.0	35.3	9.1431 µg/L	9.1431 ppb	07:05:40
3	Sr 421.552†	-79.2	28.0	0.1493 µg/L	0.1493 ppb	07:05:40
3	Sc 361.383	2152260.3	2152260.3	98.704 %		07:07:15
3	Y 371.029	1310268.1	1310268.1	98.820 %		07:07:15
3	Ag 328.068†	158.8	80.1	0.7253 µg/L	0.7253 ppb	07:07:20
3	As 188.979†	-3.3	-4.4	-8.2632 µg/L	-8.2632 ppb	07:07:41
3	B 249.677†	171.0	7.0	0.3062 µg/L	0.3062 ppb	07:07:20
3	Ba 233.527†	-76.9	9.4	0.2352 µg/L	0.2352 ppb	07:07:41
3	Be 313.107†	3789.8	197.3	0.1207 µg/L	0.1207 ppb	07:07:20
3	Cd 226.502†	-97.5	11.1	0.2825 µg/L	0.2825 ppb	07:07:41
3	Co 228.616†	-76.6	-1.9	-0.0885 µg/L	-0.0885 ppb	07:07:41
3	Cr 267.716†	-156.1	-22.6	-0.4735 µg/L	-0.4735 ppb	07:07:20
3	Cu 324.752†	3307.1	-52.9	-0.3662 µg/L	-0.3662 ppb	07:07:20
3	Mn 257.610†	-200.8	18.0	0.0573 µg/L	0.0573 ppb	07:07:41
3	Mo 202.031†	1.9	2.9	0.3334 µg/L	0.3334 ppb	07:07:41
3	Ni 231.604†	336.4	7.4	0.3993 µg/L	0.3993 ppb	07:07:41
3	P 214.914†	206.9	-2.3	-5.0836 µg/L	-5.0836 ppb	07:07:41
3	Pb 220.353†	50.9	-0.0	-0.0019 µg/L	-0.0019 ppb	07:07:41
3	S 181.975 Axial†	26.6	1.3	6.3528 µg/L	6.3528 ppb	07:07:41
3	Sb 206.836†	25.4	3.0	2.9847 µg/L	2.9847 ppb	07:07:41
3	Se 196.026†	7.8	-4.5	-6.4027 µg/L	-6.4027 ppb	07:07:41
3	SiO2†	2119.3	19.7	3.7948 µg/L	3.7948 ppb	07:07:20
3	Si 251.611†	394.5	20.7	1.6774 µg/L	1.6774 ppb	07:07:41
3	Sn 189.927†	17.1	-4.8	-2.3499 µg/L	-2.3499 ppb	07:07:41
3	Ti 334.940†	849.5	-22.7	-0.0508 µg/L	-0.0508 ppb	07:07:20
3	Tl 190.801†	-19.1	4.2	6.2908 µg/L	6.2908 ppb	07:07:41
3	U 409.014†	824.4	-101.3	-9.7463 µg/L	-9.7463 ppb	07:07:20
3	V 292.402†	-103.8	-8.7	-0.1120 µg/L	-0.1120 ppb	07:07:20
3	Zn 213.857†	612.2	24.0	0.6423 µg/L	0.6423 ppb	07:07:41

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2146100.0	98.422	%	0.3045				0.31%
Sc RADIAL	120219.9	96.3	%	0.28				0.29%
Y 371.029	1306672.1	98.549	%	0.2756				0.28%
Ag 328.068†	79.1	0.7145	µg/L	0.01320	0.7145	ppb	0.01320	1.85%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	2.9	1.4157	µg/L	13.20261	1.4157	ppb	13.20261	932.58%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-1.2	-2.3460	µg/L	5.22727	-2.3460	ppb	5.22727	222.81%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	21.2	0.9285	µg/L	1.18335	0.9285	ppb	1.18335	127.45%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	10.4	0.2621	µg/L	0.06879	0.2621	ppb	0.06879	26.25%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	179.3	0.1096	µg/L	0.00959	0.1096	ppb	0.00959	8.75%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	28.6	10.428	µg/L	5.1275	10.428	ppb	5.1275	49.17%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	5.6	0.1398	µg/L	0.14603	0.1398	ppb	0.14603	104.43%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	3.2	0.1549	µg/L	0.21300	0.1549	ppb	0.21300	137.49%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                15.0      0.3136 µg/L       0.68385      0.3136 ppb        0.68385 218.08%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               -21.5     -0.1475 µg/L       0.19263     -0.1475 ppb        0.19263 130.59%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          1.6      8.0722 µg/L       3.75946      8.0722 ppb        3.75946  46.57%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          -3.5     -1.8537 µg/L      10.20381     -1.8537 ppb       10.20381 550.44%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             3.2      16.844 µg/L       15.4633      16.844 ppb        15.4633  91.80%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                23.3      0.0739 µg/L       0.01802      0.0739 ppb        0.01802  24.40%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                -1.8     -0.2079 µg/L       0.49866     -0.2079 ppb        0.49866 239.87%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†         -2.2     -0.5756 µg/L       8.71980     -0.5756 ppb        8.71980 >999.9%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                10.9      0.5879 µg/L       0.23294      0.5879 ppb        0.23294  39.62%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -4.2     -9.0489 µg/L       7.55286     -9.0489 ppb        7.55286  83.47%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                 0.4      0.0983 µg/L       0.91540      0.0983 ppb        0.91540 931.29%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            3.6      18.093 µg/L       14.7581      18.093 ppb        14.7581  81.57%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 4.4      4.4546 µg/L       2.47473      4.4546 ppb        2.47473  55.56%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -1.0     -1.3920 µg/L       5.14671     -1.3920 ppb        5.14671 369.72%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                      29.0      5.5663 µg/L       6.23506      5.5663 ppb        6.23506 112.02%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†                24.4      1.8952 µg/L       0.23541      1.8952 ppb        0.23541  12.42%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                -0.6     -0.3121 µg/L       2.05123     -0.3121 ppb        2.05123 657.30%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                26.0      0.1389 µg/L       0.06188      0.1389 ppb        0.06188  44.55%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                24.4      0.0529 µg/L       0.10349      0.0529 ppb        0.10349 195.73%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 3.6      5.2864 µg/L       2.40517      5.2864 ppb        2.40517  45.50%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                -66.8     -6.4277 µg/L       2.92601     -6.4277 ppb        2.92601  45.52%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                -26.4     -0.3113 µg/L       0.20568     -0.3113 ppb        0.20568  66.08%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                27.5      0.7354 µg/L       0.08412      0.7354 ppb        0.08412  11.44%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
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Sequence No.: 9
Sample ID: 1201999270|934468|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 143
Date Collected: 12/19/2009 07:07:50
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1201999270|934468|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	119527.6	119527.6	95.8	%			07:08:28
1	Al 396.153Radial†	196.8	-1.9	-0.9129	µg/L	-0.9129	ppb	07:08:28
1	Ca 317.933Radial†	483.5	60.7	22.131	µg/L	22.131	ppb	07:08:49
1	Fe 238.204 Radial†	17.3	9.8	49.474	µg/L	49.474	ppb	07:08:49
1	K 766.490 Radial†	821.8	25.4	13.584	µg/L	13.584	ppb	07:08:28
1	Mg 279.077 IEC†	11.9	-3.2	-17.362	µg/L	-17.362	ppb	07:08:49
1	Na 589.592 Radial†	-644.0	73.2	18.964	µg/L	18.964	ppb	07:08:28
1	Sr 421.552†	-66.4	41.2	0.2198	µg/L	0.2198	ppb	07:08:28
1	Sc 361.383	2118470.6	2118470.6	97.155	%			07:09:51
1	Y 371.029	1286185.1	1286185.1	97.003	%			07:09:51
1	Ag 328.068†	137.9	61.2	0.5599	µg/L	0.5599	ppb	07:09:56
1	As 188.979†	-0.6	-1.6	-3.0761	µg/L	-3.0761	ppb	07:10:17
1	B 249.677†	192.5	31.9	1.3867	µg/L	1.3867	ppb	07:09:56
1	Ba 233.527†	-73.0	12.1	0.3062	µg/L	0.3062	ppb	07:10:17
1	Be 313.107†	3813.2	282.6	0.1726	µg/L	0.1726	ppb	07:09:56
1	Cd 226.502†	-93.3	13.9	0.3581	µg/L	0.3581	ppb	07:10:17
1	Co 228.616†	-70.8	2.8	0.1347	µg/L	0.1347	ppb	07:10:17
1	Cr 267.716†	-141.6	-10.2	-0.2125	µg/L	-0.2125	ppb	07:09:56
1	Cu 324.752†	3347.6	42.2	0.3039	µg/L	0.3039	ppb	07:09:56
1	Mn 257.610†	-56.8	163.1	0.5166	µg/L	0.5166	ppb	07:09:56
1	Mo 202.031†	-5.4	-4.5	-0.5149	µg/L	-0.5149	ppb	07:10:17
1	Ni 231.604†	353.7	30.7	1.6592	µg/L	1.6592	ppb	07:10:17
1	P 214.914†	202.6	-3.3	-7.3210	µg/L	-7.3210	ppb	07:10:17
1	Pb 220.353†	54.2	4.2	1.0625	µg/L	1.0625	ppb	07:10:17
1	S 181.975 Axial†	35.8	11.1	56.186	µg/L	56.186	ppb	07:10:17
1	Sb 206.836†	23.4	1.3	1.3232	µg/L	1.3232	ppb	07:10:17
1	Se 196.026†	19.5	7.7	10.927	µg/L	10.927	ppb	07:10:17
1	SiO2†	2277.8	217.2	41.736	µg/L	41.736	ppb	07:09:56
1	Si 251.611†	596.7	235.2	18.143	µg/L	18.143	ppb	07:10:17
1	Sn 189.927†	20.8	-0.8	-0.3702	µg/L	-0.3702	ppb	07:10:17
1	Ti 334.940†	1060.0	207.7	0.4542	µg/L	0.4542	ppb	07:09:56
1	Tl 190.801†	-17.7	5.4	8.0093	µg/L	8.0093	ppb	07:10:17
1	U 409.014†	900.3	-9.9	-0.9574	µg/L	-0.9574	ppb	07:09:56
1	V 292.402†	-75.0	19.2	0.2168	µg/L	0.2168	ppb	07:09:56
1	Zn 213.857†	643.7	66.3	1.7681	µg/L	1.7681	ppb	07:10:17
2	Sc RADIAL	119406.8	119406.8	95.7	%			07:08:54
2	Al 396.153Radial†	188.2	-10.8	-5.2420	µg/L	-5.2420	ppb	07:08:54
2	Ca 317.933Radial†	471.6	48.8	17.784	µg/L	17.784	ppb	07:09:14
2	Fe 238.204 Radial†	16.0	8.4	42.373	µg/L	42.373	ppb	07:09:14
2	K 766.490 Radial†	783.3	-14.0	-7.4590	µg/L	-7.4590	ppb	07:08:54
2	Mg 279.077 IEC†	14.6	-0.4	-2.0376	µg/L	-2.0376	ppb	07:09:14
2	Na 589.592 Radial†	-667.9	47.5	12.303	µg/L	12.303	ppb	07:08:54
2	Sr 421.552†	-51.0	57.2	0.3051	µg/L	0.3051	ppb	07:08:54
2	Sc 361.383	2121188.1	2121188.1	97.279	%			07:10:23
2	Y 371.029	1287835.3	1287835.3	97.128	%			07:10:23
2	Ag 328.068†	179.3	103.6	0.9372	µg/L	0.9372	ppb	07:10:28
2	As 188.979†	3.5	2.6	4.8104	µg/L	4.8104	ppb	07:10:49
2	B 249.677†	138.8	-23.5	-1.0465	µg/L	-1.0465	ppb	07:10:28
2	Ba 233.527†	-63.3	22.2	0.5574	µg/L	0.5574	ppb	07:10:49
2	Be 313.107†	3730.0	192.0	0.1173	µg/L	0.1173	ppb	07:10:28
2	Cd 226.502†	-101.6	5.4	0.1379	µg/L	0.1379	ppb	07:10:49
2	Co 228.616†	-70.1	3.6	0.1747	µg/L	0.1747	ppb	07:10:49
2	Cr 267.716†	-138.0	-6.3	-0.1329	µg/L	-0.1329	ppb	07:10:28
2	Cu 324.752†	3352.4	42.7	0.3061	µg/L	0.3061	ppb	07:10:28
2	Mn 257.610†	-65.1	154.6	0.4893	µg/L	0.4893	ppb	07:10:28
2	Mo 202.031†	-0.8	0.2	0.0253	µg/L	0.0253	ppb	07:10:49
2	Ni 231.604†	354.8	31.3	1.6946	µg/L	1.6946	ppb	07:10:49
2	P 214.914†	201.3	-5.0	-10.847	µg/L	-10.847	ppb	07:10:49
2	Pb 220.353†	49.8	-0.4	-0.1075	µg/L	-0.1075	ppb	07:10:49

2	S 181.975 Axial†	29.2	4.3	21.713 µg/L	21.713 ppb	07:10:49
2	Sb 206.836†	24.7	2.6	2.6512 µg/L	2.6512 ppb	07:10:49
2	Se 196.026†	19.4	7.5	10.697 µg/L	10.697 ppb	07:10:49
2	SiO2†	2321.0	258.6	49.702 µg/L	49.702 ppb	07:10:28
2	Si 251.611†	602.4	240.3	18.448 µg/L	18.448 ppb	07:10:49
2	Sn 189.927†	25.7	4.3	2.1072 µg/L	2.1072 ppb	07:10:49
2	Ti 334.940†	956.9	100.3	0.2189 µg/L	0.2189 ppb	07:10:28
2	Tl 190.801†	-21.1	1.9	2.8083 µg/L	2.8083 ppb	07:10:49
2	U 409.014†	880.5	-31.4	-3.0254 µg/L	-3.0254 ppb	07:10:28
2	V 292.402†	-149.1	-56.8	-0.6466 µg/L	-0.6466 ppb	07:10:28
2	Zn 213.857†	641.8	63.6	1.6955 µg/L	1.6955 ppb	07:10:49
3	Sc RADIAL	119611.6	119611.6	95.9 %		07:09:20
3	Al 396.153Radial†	229.8	32.3	15.770 µg/L	15.770 ppb	07:09:20
3	Ca 317.933Radial†	483.0	59.8	21.801 µg/L	21.801 ppb	07:09:40
3	Fe 238.204 Radial†	16.0	8.4	42.313 µg/L	42.313 ppb	07:09:40
3	K 766.490 Radial†	854.9	59.3	31.692 µg/L	31.692 ppb	07:09:20
3	Mg 279.077 IEC†	13.1	-2.0	-10.950 µg/L	-10.950 ppb	07:09:40
3	Na 589.592 Radial†	-702.4	12.7	3.2851 µg/L	3.2851 ppb	07:09:20
3	Sr 421.552†	-64.0	43.7	0.2331 µg/L	0.2331 ppb	07:09:20
3	Sc 361.383	2104669.1	2104669.1	96.522 %		07:10:55
3	Y 371.029	1278906.7	1278906.7	96.455 %		07:10:55
3	Ag 328.068†	171.6	97.1	0.8789 µg/L	0.8789 ppb	07:11:00
3	As 188.979†	1.1	0.1	0.1774 µg/L	0.1774 ppb	07:11:21
3	B 249.677†	180.6	20.9	0.9058 µg/L	0.9058 ppb	07:11:00
3	Ba 233.527†	-70.8	13.9	0.3477 µg/L	0.3477 ppb	07:11:21
3	Be 313.107†	3738.4	230.9	0.1410 µg/L	0.1410 ppb	07:11:00
3	Cd 226.502†	-115.6	-9.8	-0.2656 µg/L	-0.2656 ppb	07:11:21
3	Co 228.616†	-76.9	-3.9	-0.1927 µg/L	-0.1927 ppb	07:11:21
3	Cr 267.716†	-172.2	-42.8	-0.8981 µg/L	-0.8981 ppb	07:11:00
3	Cu 324.752†	3362.9	80.6	0.5693 µg/L	0.5693 ppb	07:11:00
3	Mn 257.610†	-112.0	105.5	0.3356 µg/L	0.3356 ppb	07:11:00
3	Mo 202.031†	-7.9	-7.1	-0.8056 µg/L	-0.8056 ppb	07:11:21
3	Ni 231.604†	333.2	11.8	0.6381 µg/L	0.6381 ppb	07:11:21
3	P 214.914†	206.5	2.0	4.2185 µg/L	4.2185 ppb	07:11:21
3	Pb 220.353†	55.1	5.5	1.3904 µg/L	1.3904 ppb	07:11:21
3	S 181.975 Axial†	29.3	4.6	23.513 µg/L	23.513 ppb	07:11:21
3	Sb 206.836†	27.4	5.7	5.7199 µg/L	5.7199 ppb	07:11:21
3	Se 196.026†	11.2	-0.8	-1.0375 µg/L	-1.0375 ppb	07:11:21
3	SiO2†	2306.9	262.7	50.482 µg/L	50.482 ppb	07:11:00
3	Si 251.611†	584.8	226.9	17.500 µg/L	17.500 ppb	07:11:21
3	Sn 189.927†	20.4	-1.0	-0.4988 µg/L	-0.4988 ppb	07:11:21
3	Ti 334.940†	1100.2	256.5	0.5611 µg/L	0.5611 ppb	07:11:00
3	Tl 190.801†	-19.2	3.7	5.5484 µg/L	5.5484 ppb	07:11:21
3	U 409.014†	794.4	-113.5	-10.930 µg/L	-10.930 ppb	07:11:00
3	V 292.402†	-136.2	-44.7	-0.5269 µg/L	-0.5269 ppb	07:11:00
3	Zn 213.857†	636.7	63.4	1.6977 µg/L	1.6977 ppb	07:11:21

Mean Data: 1201999270|934468|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2114775.9	96.985	%	0.4062				0.42%
Sc RADIAL	119515.3	95.8	%	0.08				0.09%
Y 371.029	1284309.1	96.862	%	0.3583				0.37%
Ag 328.068†	87.3	0.7920	µg/L	0.20309	0.7920	ppb	0.20309	25.64%
Al 396.153Radial†	6.6	3.2051	µg/L	11.09493	3.2051	ppb	11.09493	346.16%
As 188.979†	0.3	0.6372	µg/L	3.96327	0.6372	ppb	3.96327	621.95%
B 249.677†	9.8	0.4154	µg/L	1.28863	0.4154	ppb	1.28863	310.25%
Ba 233.527†	16.1	0.4038	µg/L	0.13466	0.4038	ppb	0.13466	33.35%
Be 313.107†	235.2	0.1437	µg/L	0.02774	0.1437	ppb	0.02774	19.31%
Ca 317.933Radial†	56.4	20.572	µg/L	2.4198	20.572	ppb	2.4198	11.76%
Cd 226.502†	3.2	0.0768	µg/L	0.31631	0.0768	ppb	0.31631	411.89%
Co 228.616†	0.8	0.0389	µg/L	0.20160	0.0389	ppb	0.20160	518.20%
Cr 267.716†	-19.7	-0.4145	µg/L	0.42070	-0.4145	ppb	0.42070	101.50%
Cu 324.752†	55.2	0.3931	µg/L	0.15258	0.3931	ppb	0.15258	38.81%
Fe 238.204 Radial†	8.9	44.720	µg/L	4.1172	44.720	ppb	4.1172	9.21%
K 766.490 Radial†	23.6	12.605	µg/L	19.5936	12.605	ppb	19.5936	155.44%
Mg 279.077 IEC†	-1.9	-10.116	µg/L	7.6962	-10.116	ppb	7.6962	76.08%
Mn 257.610†	141.1	0.4472	µg/L	0.09755	0.4472	ppb	0.09755	21.81%
Mo 202.031†	-3.8	-0.4317	µg/L	0.42165	-0.4317	ppb	0.42165	97.67%
Na 589.592 Radial†	44.4	11.518	µg/L	7.8690	11.518	ppb	7.8690	68.32%

Ni 231.604†	24.6	1.3306	µg/L	0.60001	1.3306	ppb	0.60001 45.09%
P 214.914†	-2.1	-4.6500	µg/L	7.88012	-4.6500	ppb	7.88012 169.47%
Pb 220.353†	3.1	0.7818	µg/L	0.78740	0.7818	ppb	0.78740 100.72%
S 181.975 Axial†	6.7	33.804	µg/L	19.4044	33.804	ppb	19.4044 57.40%
Sb 206.836†	3.2	3.2314	µg/L	2.25504	3.2314	ppb	2.25504 69.78%
Se 196.026†	4.8	6.8623	µg/L	6.84240	6.8623	ppb	6.84240 99.71%
SiO2†	246.1	47.307	µg/L	4.8398	47.307	ppb	4.8398 10.23%
Si 251.611†	234.1	18.030	µg/L	0.4838	18.030	ppb	0.4838 2.68%
Sn 189.927†	0.8	0.4127	µg/L	1.46887	0.4127	ppb	1.46887 355.89%
Sr 421.552†	47.4	0.2526	µg/L	0.04590	0.2526	ppb	0.04590 18.17%
Ti 334.940†	188.2	0.4114	µg/L	0.17508	0.4114	ppb	0.17508 42.55%
Tl 190.801†	3.7	5.4553	µg/L	2.60174	5.4553	ppb	2.60174 47.69%
U 409.014†	-51.6	-4.9710	µg/L	5.26331	-4.9710	ppb	5.26331 105.88%
V 292.402†	-27.4	-0.3189	µg/L	0.46778	-0.3189	ppb	0.46778 146.68%
Zn 213.857†	64.4	1.7204	µg/L	0.04130	1.7204	ppb	0.04130 2.40%

Sequence No.: 10
Sample ID: 1201999275|934468|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 144
Date Collected: 12/19/2009 07:11:30
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1201999275|934468|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	120920.2	120920.2	96.9	%			07:12:09
1	Al 396.153Radial†	231495.0	238686.7	116120	µg/L	116120	ppb	07:12:04
1	Ca 317.933Radial†	287679.9	296430.7	108130	µg/L	108130	ppb	07:12:04
1	Fe 238.204 Radial†	43472.8	44854.0	225640	µg/L	225640	ppb	07:12:09
1	K 766.490 Radial†	88769.6	90774.4	48484	µg/L	48484	ppb	07:12:04
1	Mg 279.077 IEC†	8312.0	8562.0	45283	µg/L	45283	ppb	07:12:09
1	Na 589.592 Radial†	41344.8	43411.7	11251	µg/L	11251	ppb	07:12:09
1	Sr 421.552†	454268.6	468898.6	2501.3	µg/L	2501.3	ppb	07:12:04
1	Sc 361.383	2128152.8	2128152.8	97.599	%			07:12:44
1	Y 371.029	1308291.4	1308291.4	98.671	%			07:12:44
1	Ag 328.068†	35108.4	35891.4	352.55	µg/L	352.55	ppb	07:12:50
1	As 188.979†	616.2	630.3	1156.6	µg/L	1156.6	ppb	07:13:10
1	B 249.677†	39609.0	40417.3	1703.7	µg/L	1703.7	ppb	07:12:50
1	Ba 233.527†	82908.0	85035.0	2142.9	µg/L	2142.9	ppb	07:12:50
1	Be 313.107†	1400428.2	1431239.8	872.42	µg/L	872.42	ppb	07:12:44
1	Cd 226.502†	25624.7	26365.1	669.84	µg/L	669.84	ppb	07:12:50
1	Co 228.616†	21403.2	22005.4	1043.2	µg/L	1043.2	ppb	07:12:50
1	Cr 267.716†	126313.7	129556.9	2720.9	µg/L	2720.9	ppb	07:12:50
1	Cu 324.752†	281323.7	284841.5	2027.4	µg/L	2027.4	ppb	07:12:50
1	Mn 257.610†	1835911.8	1881301.1	5916.7	µg/L	5916.7	ppb	07:12:44
1	Mo 202.031†	4977.1	5100.6	588.40	µg/L	588.40	ppb	07:13:10
1	Ni 231.604†	27711.7	28060.1	1518.9	µg/L	1518.9	ppb	07:12:50
1	P 214.914†	4250.7	4143.3	8502.2	µg/L	8502.2	ppb	07:13:10
1	Pb 220.353†	3572.7	3609.0	919.78	µg/L	919.78	ppb	07:13:10
1	S 181.975 Axial†	868.2	863.8	4336.1	µg/L	4336.1	ppb	07:13:10
1	Sb 206.836†	2063.0	2091.0	2113.3	µg/L	2113.3	ppb	07:13:10
1	Se 196.026†	2171.4	2212.4	3279.8	µg/L	3279.8	ppb	07:13:10
1	SiO2†	103810.7	104237.4	20034	µg/L	20034	ppb	07:12:50
1	Si 251.611†	118431.6	120966.3	8993.6	µg/L	8993.6	ppb	07:12:50
1	Sn 189.927†	2204.2	2236.2	1157.3	µg/L	1157.3	ppb	07:13:10
1	Ti 334.940†	3295289.3	3375477.8	7395.2	µg/L	7395.2	ppb	07:12:44
1	Tl 190.801†	838.5	882.8	1368.7	µg/L	1368.7	ppb	07:13:10
1	U 409.014†	-17.7	-954.6	-131.42	µg/L	-131.42	ppb	07:12:50
1	V 292.402†	121682.6	124772.7	1439.2	µg/L	1439.2	ppb	07:12:50
1	Zn 213.857†	241456.6	246800.7	6601.7	µg/L	6601.7	ppb	07:12:50
2	Sc RADIAL	121440.6	121440.6	97.3	%			07:12:20
2	Al 396.153Radial†	231456.0	237622.9	115600	µg/L	115600	ppb	07:12:15
2	Ca 317.933Radial†	287098.1	294560.7	107450	µg/L	107450	ppb	07:12:15
2	Fe 238.204 Radial†	43519.5	44709.8	224910	µg/L	224910	ppb	07:12:20
2	K 766.490 Radial†	88719.1	90329.9	48247	µg/L	48247	ppb	07:12:15
2	Mg 279.077 IEC†	8306.1	8519.2	45056	µg/L	45056	ppb	07:12:20
2	Na 589.592 Radial†	41463.1	43350.5	11235	µg/L	11235	ppb	07:12:20
2	Sr 421.552†	453650.4	466254.4	2487.2	µg/L	2487.2	ppb	07:12:15
2	Sc 361.383	2132562.5	2132562.5	97.801	%			07:13:17
2	Y 371.029	1312971.5	1312971.5	99.024	%			07:13:17
2	Ag 328.068†	34807.2	35509.0	348.89	µg/L	348.89	ppb	07:13:23
2	As 188.979†	620.3	633.2	1162.0	µg/L	1162.0	ppb	07:13:44
2	B 249.677†	39181.7	39896.4	1681.1	µg/L	1681.1	ppb	07:13:23
2	Ba 233.527†	81812.4	83739.1	2110.2	µg/L	2110.2	ppb	07:13:23
2	Be 313.107†	1383959.8	1411434.0	860.35	µg/L	860.35	ppb	07:13:17
2	Cd 226.502†	25307.6	25986.5	660.04	µg/L	660.04	ppb	07:13:23
2	Co 228.616†	21140.7	21691.8	1028.4	µg/L	1028.4	ppb	07:13:23
2	Cr 267.716†	124866.8	127809.8	2684.2	µg/L	2684.2	ppb	07:13:23
2	Cu 324.752†	278512.6	281371.1	2003.1	µg/L	2003.1	ppb	07:13:23
2	Mn 257.610†	1814797.0	1855821.8	5836.9	µg/L	5836.9	ppb	07:13:17
2	Mo 202.031†	5026.0	5140.0	592.86	µg/L	592.86	ppb	07:13:44
2	Ni 231.604†	27386.2	27668.5	1497.7	µg/L	1497.7	ppb	07:13:23
2	P 214.914†	4311.4	4196.4	8620.7	µg/L	8620.7	ppb	07:13:44
2	Pb 220.353†	3613.6	3643.3	928.44	µg/L	928.44	ppb	07:13:44

2	S 181.975 Axial†	871.5	865.4	4344.1 µg/L	4344.1 ppb		07:13:44
2	Sb 206.836†	2095.7	2120.0	2142.4 µg/L	2142.4 ppb		07:13:44
2	Se 196.026†	2183.8	2220.5	3290.7 µg/L	3290.7 ppb		07:13:44
2	SiO2†	102364.1	102538.3	19707 µg/L	19707 ppb		07:13:23
2	Si 251.611†	116807.6	119054.9	8849.4 µg/L	8849.4 ppb		07:13:23
2	Sn 189.927†	2238.1	2266.2	1171.8 µg/L	1171.8 ppb		07:13:44
2	Ti 334.940†	3255366.1	3327675.4	7290.4 µg/L	7290.4 ppb		07:13:17
2	Tl 190.801†	850.6	893.3	1383.3 µg/L	1383.3 ppb		07:13:44
2	U 409.014†	145.8	-787.4	-115.21 µg/L	-115.21 ppb		07:13:23
2	V 292.402†	120240.5	123040.4	1419.5 µg/L	1419.5 ppb		07:13:23
2	Zn 213.857†	238790.9	243563.6	6514.9 µg/L	6514.9 ppb		07:13:23
3	Sc RADIAL	120198.1	120198.1	96.3 %			07:12:31
3	Al 396.153Radial†	233760.0	242473.4	117960 µg/L	117960 ppb		07:12:26
3	Ca 317.933Radial†	291014.4	301676.0	110050 µg/L	110050 ppb		07:12:26
3	Fe 238.204 Radial†	43049.8	44684.4	224780 µg/L	224780 ppb		07:12:31
3	K 766.490 Radial†	89539.6	92124.1	49205 µg/L	49205 ppb		07:12:26
3	Mg 279.077 IEC†	8241.5	8540.4	45170 µg/L	45170 ppb		07:12:31
3	Na 589.592 Radial†	41115.9	43430.5	11255 µg/L	11255 ppb		07:12:31
3	Sr 421.552†	458932.0	476556.3	2542.1 µg/L	2542.1 ppb		07:12:26
3	Sc 361.383	2135217.6	2135217.6	97.923 %			07:13:51
3	Y 371.029	1314585.1	1314585.1	99.145 %			07:13:51
3	Ag 328.068†	34820.7	35478.6	348.63 µg/L	348.63 ppb		07:13:57
3	As 188.979†	622.0	634.2	1163.5 µg/L	1163.5 ppb		07:14:17
3	B 249.677†	39294.1	39961.4	1683.9 µg/L	1683.9 ppb		07:13:57
3	Ba 233.527†	82120.3	83949.5	2115.5 µg/L	2115.5 ppb		07:13:57
3	Be 313.107†	1392744.3	1418645.2	864.75 µg/L	864.75 ppb		07:13:51
3	Cd 226.502†	25423.6	26072.8	662.30 µg/L	662.30 ppb		07:13:57
3	Co 228.616†	21280.3	21807.4	1033.9 µg/L	1033.9 ppb		07:13:57
3	Cr 267.716†	125265.5	128058.3	2689.5 µg/L	2689.5 ppb		07:13:57
3	Cu 324.752†	279290.9	281811.8	2006.1 µg/L	2006.1 ppb		07:13:57
3	Mn 257.610†	1826204.6	1865163.9	5866.1 µg/L	5866.1 ppb		07:13:51
3	Mo 202.031†	5055.2	5163.5	595.52 µg/L	595.52 ppb		07:14:17
3	Ni 231.604†	27540.0	27790.8	1504.3 µg/L	1504.3 ppb		07:13:57
3	P 214.914†	4329.7	4209.7	8650.0 µg/L	8650.0 ppb		07:14:17
3	Pb 220.353†	3640.0	3665.6	934.31 µg/L	934.31 ppb		07:14:17
3	S 181.975 Axial†	878.9	871.8	4376.6 µg/L	4376.6 ppb		07:14:17
3	Sb 206.836†	2106.9	2128.8	2151.1 µg/L	2151.1 ppb		07:14:17
3	Se 196.026†	2191.1	2225.1	3297.5 µg/L	3297.5 ppb		07:14:17
3	SiO2†	102413.1	102458.2	19692 µg/L	19692 ppb		07:13:57
3	Si 251.611†	116736.8	118834.0	8830.3 µg/L	8830.3 ppb		07:13:57
3	Sn 189.927†	2249.8	2275.3	1176.8 µg/L	1176.8 ppb		07:14:17
3	Ti 334.940†	3277387.2	3346024.5	7330.5 µg/L	7330.5 ppb		07:13:51
3	Tl 190.801†	852.2	893.9	1384.3 µg/L	1384.3 ppb		07:14:17
3	U 409.014†	135.8	-797.8	-116.13 µg/L	-116.13 ppb		07:13:57
3	V 292.402†	120660.7	123316.6	1422.7 µg/L	1422.7 ppb		07:13:57
3	Zn 213.857†	239863.4	244355.2	6536.2 µg/L	6536.2 ppb		07:13:57

Mean Data: 1201999275|934468|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2131977.6	97.774	%	0.1637				0.17%
Sc RADIAL	120853.0	96.8	%	0.50				0.52%
Y 371.029	1311949.3	98.947	%	0.2465				0.25%
Ag 328.068†	35626.3	350.02	µg/L	2.191	350.02	ppb	2.191	0.63%
Al 396.153Radial†	239594.3	116560	µg/L	1240.4	116560	ppb	1240.4	1.06%
As 188.979†	632.5	1160.7	µg/L	3.63	1160.7	ppb	3.63	0.31%
B 249.677†	40091.7	1689.6	µg/L	12.32	1689.6	ppb	12.32	0.73%
Ba 233.527†	84241.2	2122.9	µg/L	17.52	2122.9	ppb	17.52	0.83%
Be 313.107†	1420439.7	865.84	µg/L	6.110	865.84	ppb	6.110	0.71%
Ca 317.933Radial†	297555.8	108540	µg/L	1345.6	108540	ppb	1345.6	1.24%
Cd 226.502†	26141.5	664.06	µg/L	5.132	664.06	ppb	5.132	0.77%
Co 228.616†	21834.9	1035.2	µg/L	7.51	1035.2	ppb	7.51	0.73%
Cr 267.716†	128475.0	2698.2	µg/L	19.85	2698.2	ppb	19.85	0.74%
Cu 324.752†	282674.8	2012.2	µg/L	13.22	2012.2	ppb	13.22	0.66%
Fe 238.204 Radial†	44749.4	225110	µg/L	460.4	225110	ppb	460.4	0.20%
K 766.490 Radial†	91076.2	48646	µg/L	499.1	48646	ppb	499.1	1.03%
Mg 279.077 IEC†	8540.5	45170	µg/L	113.4	45170	ppb	113.4	0.25%
Mn 257.610†	1867428.9	5873.3	µg/L	40.39	5873.3	ppb	40.39	0.69%
Mo 202.031†	5134.7	592.26	µg/L	3.594	592.26	ppb	3.594	0.61%
Na 589.592 Radial†	43397.6	11247	µg/L	10.8	11247	ppb	10.8	0.10%

Ni 231.604†	27839.8	1507.0	µg/L	10.84	1507.0	ppb	10.84	0.72%
P 214.914†	4183.1	8591.0	µg/L	78.30	8591.0	ppb	78.30	0.91%
Pb 220.353†	3639.3	927.51	µg/L	7.307	927.51	ppb	7.307	0.79%
S 181.975 Axial†	867.0	4352.3	µg/L	21.47	4352.3	ppb	21.47	0.49%
Sb 206.836†	2113.3	2135.6	µg/L	19.82	2135.6	ppb	19.82	0.93%
Se 196.026†	2219.3	3289.4	µg/L	8.93	3289.4	ppb	8.93	0.27%
SiO2†	103077.9	19811	µg/L	193.1	19811	ppb	193.1	0.97%
Si 251.611†	119618.4	8891.1	µg/L	89.28	8891.1	ppb	89.28	1.00%
Sn 189.927†	2259.3	1168.6	µg/L	10.11	1168.6	ppb	10.11	0.87%
Sr 421.552†	470569.8	2510.2	µg/L	28.54	2510.2	ppb	28.54	1.14%
Ti 334.940†	3349725.9	7338.7	µg/L	52.87	7338.7	ppb	52.87	0.72%
Tl 190.801†	890.0	1378.8	µg/L	8.76	1378.8	ppb	8.76	0.64%
U 409.014†	-846.6	-120.92	µg/L	9.104	-120.92	ppb	9.104	7.53%
V 292.402†	123709.9	1427.1	µg/L	10.57	1427.1	ppb	10.57	0.74%
Zn 213.857†	244906.5	6550.9	µg/L	45.26	6550.9	ppb	45.26	0.69%

Sequence No.: 11
Sample ID: 243007002|934468|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 145
Date Collected: 12/19/2009 07:14:27
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 243007002|934468|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	123766.6	123766.6	99.2	%			07:15:00
1	Al 396.153Radial†	220329.2	221934.8	107990	µg/L	107990	ppb	07:15:00
1	Ca 317.933Radial†	57222.5	57249.2	20884	µg/L	20884	ppb	07:15:05
1	Fe 238.204 Radial†	27128.6	27343.5	137530	µg/L	137530	ppb	07:15:05
1	K 766.490 Radial†	25821.6	25201.6	13461	µg/L	13461	ppb	07:15:00
1	Mg 279.077 IEC†	3872.2	3888.4	20507	µg/L	20507	ppb	07:15:05
1	Na 589.592 Radial†	5241.6	6030.2	1562.8	µg/L	1562.8	ppb	07:15:05
1	Sr 421.552†	44253.3	44727.9	238.60	µg/L	238.60	ppb	07:15:00
1	Sc 361.383	2156098.2	2156098.2	98.880	%			07:15:40
1	Y 371.029	1367130.4	1367130.4	103.11	%			07:15:40
1	Ag 328.068†	-1121.0	-1214.5	1.2143	µg/L	1.2143	ppb	07:15:45
1	As 188.979†	20.0	19.2	24.925	µg/L	24.925	ppb	07:16:06
1	B 249.677†	2058.7	1915.8	40.872	µg/L	40.872	ppb	07:15:45
1	Ba 233.527†	46674.2	47289.9	1190.5	µg/L	1190.5	ppb	07:15:45
1	Be 313.107†	20145.5	16731.3	8.6009	µg/L	8.6009	ppb	07:15:45
1	Cd 226.502†	403.1	517.6	2.8608	µg/L	2.8608	ppb	07:15:45
1	Co 228.616†	1094.6	1182.7	47.644	µg/L	47.644	ppb	07:16:06
1	Cr 267.716†	7386.7	7605.9	160.01	µg/L	160.01	ppb	07:15:45
1	Cu 324.752†	16307.1	13088.3	120.47	µg/L	120.47	ppb	07:15:45
1	Mn 257.610†	888922.4	899208.7	2831.8	µg/L	2831.8	ppb	07:15:40
1	Mo 202.031†	40.0	41.5	10.117	µg/L	10.117	ppb	07:16:06
1	Ni 231.604†	2143.6	1834.4	99.299	µg/L	99.299	ppb	07:16:06
1	P 214.914†	735.4	531.8	1013.6	µg/L	1013.6	ppb	07:16:06
1	Pb 220.353†	723.1	679.7	179.66	µg/L	179.66	ppb	07:16:06
1	S 181.975 Axial†	127.2	102.9	497.84	µg/L	497.84	ppb	07:16:06
1	Sb 206.836†	28.2	5.7	19.477	µg/L	19.477	ppb	07:16:06
1	Se 196.026†	-37.3	-50.1	19.962	µg/L	19.962	ppb	07:16:06
1	SiO2†	97105.9	96078.0	18466	µg/L	18466	ppb	07:15:45
1	Si 251.611†	110119.3	110987.2	8399.5	µg/L	8399.5	ppb	07:15:45
1	Sn 189.927†	-93.4	-116.6	-32.359	µg/L	-32.359	ppb	07:16:06
1	Ti 334.940†	1986145.2	2007749.7	4401.1	µg/L	4401.1	ppb	07:15:40
1	Tl 190.801†	-41.0	-17.9	14.929	µg/L	14.929	ppb	07:16:06
1	U 409.014†	153.9	-780.9	-100.33	µg/L	-100.33	ppb	07:15:40
1	V 292.402†	17209.1	17500.4	209.86	µg/L	209.86	ppb	07:15:45
1	Zn 213.857†	23619.0	23290.2	610.54	µg/L	610.54	ppb	07:15:45
2	Sc RADIAL	123315.7	123315.7	98.8	%			07:15:11
2	Al 396.153Radial†	221043.9	223470.3	108740	µg/L	108740	ppb	07:15:11
2	Ca 317.933Radial†	56757.4	56989.6	20789	µg/L	20789	ppb	07:15:16
2	Fe 238.204 Radial†	26886.9	27199.0	136800	µg/L	136800	ppb	07:15:16
2	K 766.490 Radial†	25907.6	25383.9	13558	µg/L	13558	ppb	07:15:11
2	Mg 279.077 IEC†	3848.5	3878.7	20456	µg/L	20456	ppb	07:15:16
2	Na 589.592 Radial†	5248.6	6056.6	1569.6	µg/L	1569.6	ppb	07:15:16
2	Sr 421.552†	44291.5	44929.7	239.67	µg/L	239.67	ppb	07:15:11
2	Sc 361.383	2151180.8	2151180.8	98.655	%			07:16:13
2	Y 371.029	1364721.1	1364721.1	102.93	%			07:16:13
2	Ag 328.068†	-1137.1	-1233.4	0.9944	µg/L	0.9944	ppb	07:16:19
2	As 188.979†	16.5	15.7	18.431	µg/L	18.431	ppb	07:16:39
2	B 249.677†	1991.5	1852.5	38.320	µg/L	38.320	ppb	07:16:19
2	Ba 233.527†	46823.6	47549.2	1197.0	µg/L	1197.0	ppb	07:16:19
2	Be 313.107†	20235.9	16869.6	8.6831	µg/L	8.6831	ppb	07:16:19
2	Cd 226.502†	429.3	545.1	3.6324	µg/L	3.6324	ppb	07:16:19
2	Co 228.616†	1094.8	1185.5	47.761	µg/L	47.761	ppb	07:16:39
2	Cr 267.716†	7481.4	7719.0	162.38	µg/L	162.38	ppb	07:16:19
2	Cu 324.752†	16317.9	13137.0	120.65	µg/L	120.65	ppb	07:16:19
2	Mn 257.610†	888451.4	900786.2	2836.6	µg/L	2836.6	ppb	07:16:13
2	Mo 202.031†	37.6	39.1	9.8243	µg/L	9.8243	ppb	07:16:39
2	Ni 231.604†	2123.1	1818.6	98.444	µg/L	98.444	ppb	07:16:39
2	P 214.914†	745.4	543.7	1040.2	µg/L	1040.2	ppb	07:16:39
2	Pb 220.353†	722.4	680.7	179.99	µg/L	179.99	ppb	07:16:39

2	S 181.975 Axial†	127.0	103.0	498.64 µg/L	498.64 ppb	07:16:39
2	Sb 206.836†	26.4	4.0	17.753 µg/L	17.753 ppb	07:16:39
2	Se 196.026†	-45.4	-58.4	7.7207 µg/L	7.7207 ppb	07:16:39
2	SiO2†	97305.2	96504.5	18548 µg/L	18548 ppb	07:16:19
2	Si 251.611†	110455.2	111582.2	8445.1 µg/L	8445.1 ppb	07:16:19
2	Sn 189.927†	-92.2	-115.6	-31.970 µg/L	-31.970 ppb	07:16:39
2	Ti 334.940†	1984461.7	2010634.8	4407.4 µg/L	4407.4 ppb	07:16:13
2	Tl 190.801†	-40.0	-17.0	16.295 µg/L	16.295 ppb	07:16:39
2	U 409.014†	188.8	-745.1	-96.750 µg/L	-96.750 ppb	07:16:13
2	V 292.402†	17278.5	17610.5	211.06 µg/L	211.06 ppb	07:16:19
2	Zn 213.857†	23667.0	23393.5	613.40 µg/L	613.40 ppb	07:16:19
3	Sc RADIAL	123308.0	123308.0	98.8 %		07:15:22
3	Al 396.153Radial†	220566.8	223001.6	108510 µg/L	108510 ppb	07:15:22
3	Ca 317.933Radial†	57425.3	57669.1	21037 µg/L	21037 ppb	07:15:27
3	Fe 238.204 Radial†	27258.7	27577.0	138700 µg/L	138700 ppb	07:15:27
3	K 766.490 Radial†	25837.5	25314.5	13521 µg/L	13521 ppb	07:15:22
3	Mg 279.077 IEC†	3898.1	3929.1	20722 µg/L	20722 ppb	07:15:27
3	Na 589.592 Radial†	5240.0	6048.2	1567.5 µg/L	1567.5 ppb	07:15:27
3	Sr 421.552†	44104.7	44743.5	238.68 µg/L	238.68 ppb	07:15:22
3	Sc 361.383	2158592.4	2158592.4	98.995 %		07:16:47
3	Y 371.029	1368907.4	1368907.4	103.24 %		07:16:47
3	Ag 328.068†	-1076.8	-1168.5	1.7258 µg/L	1.7258 ppb	07:16:53
3	As 188.979†	14.7	13.8	14.573 µg/L	14.573 ppb	07:17:13
3	B 249.677†	1977.4	1831.3	36.790 µg/L	36.790 ppb	07:16:53
3	Ba 233.527†	46698.5	47259.9	1189.7 µg/L	1189.7 ppb	07:16:53
3	Be 313.107†	20217.0	16780.1	8.6319 µg/L	8.6319 ppb	07:16:53
3	Cd 226.502†	405.7	519.8	2.8260 µg/L	2.8260 ppb	07:16:53
3	Co 228.616†	1094.4	1181.3	47.580 µg/L	47.580 ppb	07:17:13
3	Cr 267.716†	7414.2	7625.1	160.41 µg/L	160.41 ppb	07:16:53
3	Cu 324.752†	16377.3	13140.2	121.08 µg/L	121.08 ppb	07:16:53
3	Mn 257.610†	890784.8	900051.1	2834.6 µg/L	2834.6 ppb	07:16:47
3	Mo 202.031†	38.8	40.2	10.019 µg/L	10.019 ppb	07:17:13
3	Ni 231.604†	2120.2	1808.3	97.885 µg/L	97.885 ppb	07:17:13
3	P 214.914†	731.8	527.3	1002.7 µg/L	1002.7 ppb	07:17:13
3	Pb 220.353†	722.2	677.9	179.24 µg/L	179.24 ppb	07:17:13
3	S 181.975 Axial†	130.3	105.8	512.64 µg/L	512.64 ppb	07:17:13
3	Sb 206.836†	16.3	-6.3	7.3378 µg/L	7.3378 ppb	07:17:13
3	Se 196.026†	-47.8	-60.7	5.8151 µg/L	5.8151 ppb	07:17:13
3	SiO2†	96924.8	95781.6	18409 µg/L	18409 ppb	07:16:53
3	Si 251.611†	110157.7	110897.2	8392.5 µg/L	8392.5 ppb	07:16:53
3	Sn 189.927†	-84.8	-107.8	-27.812 µg/L	-27.812 ppb	07:17:13
3	Ti 334.940†	1986948.3	2006240.0	4397.8 µg/L	4397.8 ppb	07:16:47
3	Tl 190.801†	-42.4	-19.3	12.810 µg/L	12.810 ppb	07:17:13
3	U 409.014†	185.3	-749.3	-97.504 µg/L	-97.504 ppb	07:16:47
3	V 292.402†	17255.6	17527.2	210.27 µg/L	210.27 ppb	07:16:53
3	Zn 213.857†	23635.9	23279.7	610.13 µg/L	610.13 ppb	07:16:53

Mean Data: 243007002|934468|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2155290.5	98.843	%	0.1730				0.17%
Sc RADIAL	123463.4	98.9	%	0.21				0.21%
Y 371.029	1366919.6	103.09	%	0.158				0.15%
Ag 328.068†	-1205.4	1.3115	µg/L	0.37525	1.3115	ppb	0.37525	28.61%
Al 396.153Radial†	222802.2	108410	µg/L	382.9	108410	ppb	382.9	0.35%
As 188.979†	16.2	19.309	µg/L	5.2315	19.309	ppb	5.2315	27.09%
B 249.677†	1866.5	38.661	µg/L	2.0621	38.661	ppb	2.0621	5.33%
Ba 233.527†	47366.3	1192.4	µg/L	4.01	1192.4	ppb	4.01	0.34%
Be 313.107†	16793.7	8.6386	µg/L	0.04151	8.6386	ppb	0.04151	0.48%
Ca 317.933Radial†	57302.6	20903	µg/L	125.1	20903	ppb	125.1	0.60%
Cd 226.502†	527.5	3.1064	µg/L	0.45588	3.1064	ppb	0.45588	14.68%
Co 228.616†	1183.2	47.662	µg/L	0.0921	47.662	ppb	0.0921	0.19%
Cr 267.716†	7650.0	160.94	µg/L	1.271	160.94	ppb	1.271	0.79%
Cu 324.752†	13121.8	120.74	µg/L	0.315	120.74	ppb	0.315	0.26%
Fe 238.204 Radial†	27373.2	137680	µg/L	959.3	137680	ppb	959.3	0.70%
K 766.490 Radial†	25300.0	13513	µg/L	49.1	13513	ppb	49.1	0.36%
Mg 279.077 IEC†	3898.7	20562	µg/L	141.2	20562	ppb	141.2	0.69%
Mn 257.610†	900015.3	2834.3	µg/L	2.43	2834.3	ppb	2.43	0.09%
Mo 202.031†	40.3	9.9869	µg/L	0.14907	9.9869	ppb	0.14907	1.49%
Na 589.592 Radial†	6045.0	1566.6	µg/L	3.50	1566.6	ppb	3.50	0.22%

Ni 231.604†	1820.5	98.543 µg/L	0.7117	98.543 ppb	0.7117	0.72%
P 214.914†	534.3	1018.8 µg/L	19.30	1018.8 ppb	19.30	1.89%
Pb 220.353†	679.4	179.63 µg/L	0.375	179.63 ppb	0.375	0.21%
S 181.975 Axial†	103.9	503.04 µg/L	8.327	503.04 ppb	8.327	1.66%
Sb 206.836†	1.1	14.856 µg/L	6.5676	14.856 ppb	6.5676	44.21%
Se 196.026†	-56.4	11.166 µg/L	7.6770	11.166 ppb	7.6770	68.75%
SiO2†	96121.4	18474 µg/L	69.8	18474 ppb	69.8	0.38%
Si 251.611†	111155.5	8412.4 µg/L	28.58	8412.4 ppb	28.58	0.34%
Sn 189.927†	-113.3	-30.714 µg/L	2.5203	-30.714 ppb	2.5203	8.21%
Sr 421.552†	44800.4	238.98 µg/L	0.599	238.98 ppb	0.599	0.25%
Ti 334.940†	2008208.2	4402.1 µg/L	4.90	4402.1 ppb	4.90	0.11%
Tl 190.801†	-18.1	14.678 µg/L	1.7557	14.678 ppb	1.7557	11.96%
U 409.014†	-758.4	-98.194 µg/L	1.8859	-98.194 ppb	1.8859	1.92%
V 292.402†	17546.0	210.40 µg/L	0.608	210.40 ppb	0.608	0.29%
Zn 213.857†	23321.1	611.36 µg/L	1.780	611.36 ppb	1.780	0.29%

Sequence No.: 12
Sample ID: 1201999271|934468|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 146
Date Collected: 12/19/2009 07:17:22
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1201999271|934468|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	123439.4	123439.4	98.9	%			07:17:55
1	Al 396.153Radial†	227353.0	229624.1	111730	µg/L	111730	ppb	07:17:55
1	Ca 317.933Radial†	57759.3	57944.9	21138	µg/L	21138	ppb	07:18:01
1	Fe 238.204 Radial†	29507.7	29821.1	149990	µg/L	149990	ppb	07:18:01
1	K 766.490 Radial†	26257.0	25710.8	13733	µg/L	13733	ppb	07:17:55
1	Mg 279.077 IEC†	4022.6	4050.8	21354	µg/L	21354	ppb	07:18:01
1	Na 589.592 Radial†	5220.3	6022.6	1560.8	µg/L	1560.8	ppb	07:18:01
1	Sr 421.552†	46734.2	47354.2	252.61	µg/L	252.61	ppb	07:17:55
1	Sc 361.383	2164355.7	2164355.7	99.259	%			07:18:35
1	Y 371.029	1365368.9	1365368.9	102.98	%			07:18:35
1	Ag 328.068†	-1239.4	-1329.4	1.3553	µg/L	1.3553	ppb	07:18:41
1	As 188.979†	22.0	21.2	27.364	µg/L	27.364	ppb	07:19:01
1	B 249.677†	2099.4	1948.8	38.403	µg/L	38.403	ppb	07:18:41
1	Ba 233.527†	51560.6	52032.7	1309.9	µg/L	1309.9	ppb	07:18:41
1	Be 313.107†	21764.1	18284.3	9.4627	µg/L	9.4627	ppb	07:18:41
1	Cd 226.502†	473.6	587.1	3.7133	µg/L	3.7133	ppb	07:18:41
1	Co 228.616†	1131.8	1215.9	48.744	µg/L	48.744	ppb	07:19:01
1	Cr 267.716†	7175.4	7364.6	155.02	µg/L	155.02	ppb	07:18:41
1	Cu 324.752†	18085.7	14817.2	135.16	µg/L	135.16	ppb	07:18:41
1	Mn 257.610†	992786.7	1000418.3	3150.1	µg/L	3150.1	ppb	07:18:35
1	Mo 202.031†	41.3	42.6	10.737	µg/L	10.737	ppb	07:19:01
1	Ni 231.604†	2102.8	1785.1	96.627	µg/L	96.627	ppb	07:19:01
1	P 214.914†	814.6	608.7	1165.1	µg/L	1165.1	ppb	07:19:01
1	Pb 220.353†	808.9	763.3	200.97	µg/L	200.97	ppb	07:19:01
1	S 181.975 Axial†	141.6	116.9	566.85	µg/L	566.85	ppb	07:19:01
1	Sb 206.836†	24.1	1.6	16.175	µg/L	16.175	ppb	07:19:01
1	Se 196.026†	-58.9	-71.7	-2.1606	µg/L	-2.1606	ppb	07:19:01
1	SiO2†	101049.3	99676.2	19157	µg/L	19157	ppb	07:18:41
1	Si 251.611†	114735.2	115212.6	8716.2	µg/L	8716.2	ppb	07:18:41
1	Sn 189.927†	-61.9	-84.5	-14.922	µg/L	-14.922	ppb	07:19:01
1	Ti 334.940†	2101097.6	2115896.7	4638.2	µg/L	4638.2	ppb	07:18:35
1	Tl 190.801†	-45.6	-22.4	11.202	µg/L	11.202	ppb	07:19:01
1	U 409.014†	351.3	-582.6	-83.561	µg/L	-83.561	ppb	07:18:35
1	V 292.402†	19810.9	20055.2	239.93	µg/L	239.93	ppb	07:18:41
1	Zn 213.857†	23899.5	23481.7	614.33	µg/L	614.33	ppb	07:18:41
2	Sc RADIAL	122558.3	122558.3	98.2	%			07:18:06
2	Al 396.153Radial†	226698.9	230610.4	112210	µg/L	112210	ppb	07:18:06
2	Ca 317.933Radial†	56826.7	57415.1	20944	µg/L	20944	ppb	07:18:12
2	Fe 238.204 Radial†	29050.3	29569.8	148730	µg/L	148730	ppb	07:18:12
2	K 766.490 Radial†	26118.1	25760.1	13759	µg/L	13759	ppb	07:18:06
2	Mg 279.077 IEC†	3963.7	4020.1	21192	µg/L	21192	ppb	07:18:12
2	Na 589.592 Radial†	5148.1	5987.1	1551.6	µg/L	1551.6	ppb	07:18:12
2	Sr 421.552†	46570.3	47527.0	253.53	µg/L	253.53	ppb	07:18:06
2	Sc 361.383	2164694.8	2164694.8	99.275	%			07:19:09
2	Y 371.029	1366233.1	1366233.1	103.04	%			07:19:09
2	Ag 328.068†	-1225.1	-1314.8	1.3628	µg/L	1.3628	ppb	07:19:15
2	As 188.979†	20.6	19.7	24.906	µg/L	24.906	ppb	07:19:35
2	B 249.677†	2081.9	1930.9	38.013	µg/L	38.013	ppb	07:19:15
2	Ba 233.527†	50904.9	51364.1	1293.1	µg/L	1293.1	ppb	07:19:15
2	Be 313.107†	21529.5	18044.5	9.3149	µg/L	9.3149	ppb	07:19:15
2	Cd 226.502†	461.9	575.2	3.4936	µg/L	3.4936	ppb	07:19:15
2	Co 228.616†	1143.9	1227.9	49.314	µg/L	49.314	ppb	07:19:35
2	Cr 267.716†	7081.4	7268.8	153.00	µg/L	153.00	ppb	07:19:15
2	Cu 324.752†	17827.8	14554.6	133.06	µg/L	133.06	ppb	07:19:15
2	Mn 257.610†	993295.3	1000773.9	3151.1	µg/L	3151.1	ppb	07:19:09
2	Mo 202.031†	40.6	42.0	10.614	µg/L	10.614	ppb	07:19:35
2	Ni 231.604†	2139.8	1822.0	98.624	µg/L	98.624	ppb	07:19:35
2	P 214.914†	827.8	622.0	1195.6	µg/L	1195.6	ppb	07:19:35
2	Pb 220.353†	804.4	758.7	199.87	µg/L	199.87	ppb	07:19:35

2	S 181.975 Axial†	145.6	120.9	587.42 µg/L	587.42 ppb	07:19:35
2	Sb 206.836†	25.8	3.2	17.877 µg/L	17.877 ppb	07:19:35
2	Se 196.026†	-39.7	-52.4	24.297 µg/L	24.297 ppb	07:19:35
2	SiO2†	99291.9	97890.0	18814 µg/L	18814 ppb	07:19:15
2	Si 251.611†	112715.1	113159.6	8557.7 µg/L	8557.7 ppb	07:19:15
2	Sn 189.927†	-64.3	-86.9	-16.305 µg/L	-16.305 ppb	07:19:35
2	Ti 334.940†	2102850.1	2117330.4	4641.4 µg/L	4641.4 ppb	07:19:09
2	Tl 190.801†	-42.2	-19.0	16.342 µg/L	16.342 ppb	07:19:35
2	U 409.014†	217.3	-717.7	-96.331 µg/L	-96.331 ppb	07:19:09
2	V 292.402†	19488.6	19727.4	236.08 µg/L	236.08 ppb	07:19:15
2	Zn 213.857†	23602.0	23178.2	606.30 µg/L	606.30 ppb	07:19:15
3	Sc RADIAL	122790.0	122790.0	98.4 %		07:18:18
3	Al 396.153Radial†	226641.5	230116.5	111970 µg/L	111970 ppb	07:18:18
3	Ca 317.933Radial†	57623.6	58115.7	21200 µg/L	21200 ppb	07:18:23
3	Fe 238.204 Radial†	29445.4	29915.6	150470 µg/L	150470 ppb	07:18:23
3	K 766.490 Radial†	26090.2	25681.6	13717 µg/L	13717 ppb	07:18:18
3	Mg 279.077 IEC†	4020.3	4070.0	21455 µg/L	21455 ppb	07:18:23
3	Na 589.592 Radial†	5236.4	6066.9	1572.3 µg/L	1572.3 ppb	07:18:23
3	Sr 421.552†	46651.2	47519.7	253.49 µg/L	253.49 ppb	07:18:18
3	Sc 361.383	2152478.9	2152478.9	98.714 %		07:19:42
3	Y 371.029	1358101.8	1358101.8	102.43 %		07:19:42
3	Ag 328.068†	-1209.0	-1305.5	1.6062 µg/L	1.6062 ppb	07:19:48
3	As 188.979†	18.8	18.0	21.399 µg/L	21.399 ppb	07:20:08
3	B 249.677†	2121.4	1982.8	39.744 µg/L	39.744 ppb	07:19:48
3	Ba 233.527†	51359.2	52115.3	1312.0 µg/L	1312.0 ppb	07:19:48
3	Be 313.107†	21747.3	18388.3	9.5242 µg/L	9.5242 ppb	07:19:48
3	Cd 226.502†	494.0	610.4	4.2841 µg/L	4.2841 ppb	07:19:48
3	Co 228.616†	1149.6	1240.3	49.902 µg/L	49.902 ppb	07:20:08
3	Cr 267.716†	7192.8	7422.1	156.22 µg/L	156.22 ppb	07:19:48
3	Cu 324.752†	18081.9	14913.9	135.93 µg/L	135.93 ppb	07:19:48
3	Mn 257.610†	987354.0	1000433.7	3150.2 µg/L	3150.2 ppb	07:19:42
3	Mo 202.031†	38.6	40.2	10.478 µg/L	10.478 ppb	07:20:08
3	Ni 231.604†	2138.0	1832.4	99.188 µg/L	99.188 ppb	07:20:08
3	P 214.914†	811.4	610.1	1167.5 µg/L	1167.5 ppb	07:20:08
3	Pb 220.353†	823.0	782.1	205.74 µg/L	205.74 ppb	07:20:08
3	S 181.975 Axial†	145.4	121.5	590.26 µg/L	590.26 ppb	07:20:08
3	Sb 206.836†	21.6	-0.9	13.684 µg/L	13.684 ppb	07:20:08
3	Se 196.026†	-50.4	-63.5	9.7417 µg/L	9.7417 ppb	07:20:08
3	SiO2†	100475.5	99656.7	19154 µg/L	19154 ppb	07:19:48
3	Si 251.611†	114069.2	115175.7	8713.1 µg/L	8713.1 ppb	07:19:48
3	Sn 189.927†	-57.4	-80.3	-12.757 µg/L	-12.757 ppb	07:20:08
3	Ti 334.940†	2092053.2	2118414.4	4643.7 µg/L	4643.7 ppb	07:19:42
3	Tl 190.801†	-54.2	-31.4	-2.0962 µg/L	-2.0962 ppb	07:20:08
3	U 409.014†	349.3	-582.6	-83.655 µg/L	-83.655 ppb	07:19:42
3	V 292.402†	19665.9	20018.4	239.54 µg/L	239.54 ppb	07:19:48
3	Zn 213.857†	23885.2	23600.0	617.45 µg/L	617.45 ppb	07:19:48

Mean Data: 1201999271|934468|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2160509.8	99.083	%	0.3191				0.32%
Sc RADIAL	122929.2	98.5	%	0.37				0.37%
Y 371.029	1363234.6	102.81	%	0.337				0.33%
Ag 328.068†	-1316.6	1.4414	µg/L	0.14276	1.4414	ppb	0.14276	9.90%
Al 396.153Radial†	230117.0	111970	µg/L	240.0	111970	ppb	240.0	0.21%
As 188.979†	19.6	24.556	µg/L	2.9981	24.556	ppb	2.9981	12.21%
B 249.677†	1954.2	38.720	µg/L	0.9081	38.720	ppb	0.9081	2.35%
Ba 233.527†	51837.3	1305.0	µg/L	10.37	1305.0	ppb	10.37	0.79%
Be 313.107†	18239.0	9.4339	µg/L	0.10758	9.4339	ppb	0.10758	1.14%
Ca 317.933Radial†	57825.2	21094	µg/L	133.3	21094	ppb	133.3	0.63%
Cd 226.502†	590.9	3.8303	µg/L	0.40807	3.8303	ppb	0.40807	10.65%
Co 228.616†	1228.1	49.320	µg/L	0.5794	49.320	ppb	0.5794	1.17%
Cr 267.716†	7351.8	154.74	µg/L	1.629	154.74	ppb	1.629	1.05%
Cu 324.752†	14761.9	134.72	µg/L	1.485	134.72	ppb	1.485	1.10%
Fe 238.204 Radial†	29768.8	149730	µg/L	898.7	149730	ppb	898.7	0.60%
K 766.490 Radial†	25717.5	13736	µg/L	21.2	13736	ppb	21.2	0.15%
Mg 279.077 IEC†	4046.9	21334	µg/L	132.7	21334	ppb	132.7	0.62%
Mn 257.610†	1000541.9	3150.5	µg/L	0.52	3150.5	ppb	0.52	0.02%
Mo 202.031†	41.6	10.610	µg/L	0.1298	10.610	ppb	0.1298	1.22%
Na 589.592 Radial†	6025.5	1561.6	µg/L	10.36	1561.6	ppb	10.36	0.66%

Ni 231.604†	1813.1	98.146	µg/L	1.3457	98.146	ppb	1.3457	1.37%
P 214.914†	613.6	1176.1	µg/L	16.93	1176.1	ppb	16.93	1.44%
Pb 220.353†	768.1	202.20	µg/L	3.123	202.20	ppb	3.123	1.54%
S 181.975 Axial†	119.8	581.51	µg/L	12.774	581.51	ppb	12.774	2.20%
Sb 206.836†	1.3	15.912	µg/L	2.1088	15.912	ppb	2.1088	13.25%
Se 196.026†	-62.5	10.626	µg/L	13.2508	10.626	ppb	13.2508	124.70%
SiO2†	99074.3	19042	µg/L	197.1	19042	ppb	197.1	1.04%
Si 251.611†	114516.0	8662.3	µg/L	90.59	8662.3	ppb	90.59	1.05%
Sn 189.927†	-83.9	-14.661	µg/L	1.7882	-14.661	ppb	1.7882	12.20%
Sr 421.552†	47467.0	253.21	µg/L	0.521	253.21	ppb	0.521	0.21%
Ti 334.940†	2117213.8	4641.1	µg/L	2.77	4641.1	ppb	2.77	0.06%
Tl 190.801†	-24.2	8.4825	µg/L	9.51503	8.4825	ppb	9.51503	112.17%
U 409.014†	-627.6	-87.849	µg/L	7.3456	-87.849	ppb	7.3456	8.36%
V 292.402†	19933.7	238.52	µg/L	2.120	238.52	ppb	2.120	0.89%
Zn 213.857†	23420.0	612.70	µg/L	5.750	612.70	ppb	5.750	0.94%

Sequence No.: 13
Sample ID: 1201999273|934468|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 147
Date Collected: 12/19/2009 07:20:17
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1201999273|934468|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	123272.6	123272.6	98.8	%			07:20:50
1	Al 396.153Radial†	318201.1	321897.9	156610	µg/L	156610	ppb	07:20:50
1	Ca 317.933Radial†	75668.4	76152.7	27780	µg/L	27780	ppb	07:20:56
1	Fe 238.204 Radial†	29295.5	29646.7	149130	µg/L	149130	ppb	07:20:56
1	K 766.490 Radial†	42163.7	41848.5	22352	µg/L	22352	ppb	07:20:50
1	Mg 279.077 IEC†	5525.5	5577.7	29500	µg/L	29500	ppb	07:20:56
1	Na 589.592 Radial†	24384.2	25428.9	6590.2	µg/L	6590.2	ppb	07:20:50
1	Sr 421.552†	139501.0	141323.2	753.88	µg/L	753.88	ppb	07:20:50
1	Sc 361.383	2137548.0	2137548.0	98.030	%			07:21:30
1	Y 371.029	1345165.1	1345165.1	101.45	%			07:21:30
1	Ag 328.068†	56523.3	57578.6	538.31	µg/L	538.31	ppb	07:21:36
1	As 188.979†	303.6	308.6	569.22	µg/L	569.22	ppb	07:21:56
1	B 249.677†	13771.8	13882.4	562.66	µg/L	562.66	ppb	07:21:36
1	Ba 233.527†	73243.2	74802.5	1884.0	µg/L	1884.0	ppb	07:21:36
1	Be 313.107†	861391.9	875062.7	533.04	µg/L	533.04	ppb	07:21:30
1	Cd 226.502†	19890.7	20400.4	519.98	µg/L	519.98	ppb	07:21:36
1	Co 228.616†	11298.8	11601.6	547.15	µg/L	547.15	ppb	07:21:56
1	Cr 267.716†	30929.2	31686.4	666.41	µg/L	666.41	ppb	07:21:36
1	Cu 324.752†	128474.0	127652.7	918.88	µg/L	918.88	ppb	07:21:36
1	Mn 257.610†	1115016.6	1137648.7	3579.5	µg/L	3579.5	ppb	07:21:30
1	Mo 202.031†	4373.5	4462.5	512.89	µg/L	512.89	ppb	07:21:56
1	Ni 231.604†	11146.0	11036.6	597.41	µg/L	597.41	ppb	07:21:56
1	P 214.914†	1050.3	859.5	1638.9	µg/L	1638.9	ppb	07:21:56
1	Pb 220.353†	2789.0	2793.5	718.73	µg/L	718.73	ppb	07:21:56
1	S 181.975 Axial†	1172.7	1170.5	5903.5	µg/L	5903.5	ppb	07:21:56
1	Sb 206.836†	498.9	486.1	504.74	µg/L	504.74	ppb	07:21:56
1	Se 196.026†	330.4	324.7	554.77	µg/L	554.77	ppb	07:21:56
1	SiO2†	116374.3	116586.0	22407	µg/L	22407	ppb	07:21:36
1	Si 251.611†	132753.8	135043.0	10183	µg/L	10183	ppb	07:21:36
1	Sn 189.927†	966.6	963.9	502.80	µg/L	502.80	ppb	07:21:56
1	Ti 334.940†	2457525.0	2506035.1	5493.3	µg/L	5493.3	ppb	07:21:30
1	Tl 190.801†	281.8	311.0	511.59	µg/L	511.59	ppb	07:21:56
1	U 409.014†	5003.7	4167.7	373.87	µg/L	373.87	ppb	07:21:36
1	V 292.402†	64202.0	65588.9	761.17	µg/L	761.17	ppb	07:21:36
1	Zn 213.857†	42296.9	42550.8	1123.3	µg/L	1123.3	ppb	07:21:36
2	Sc RADIAL	123210.7	123210.7	98.7	%			07:21:01
2	Al 396.153Radial†	319588.7	323465.0	157370	µg/L	157370	ppb	07:21:01
2	Ca 317.933Radial†	75643.6	76166.0	27784	µg/L	27784	ppb	07:21:07
2	Fe 238.204 Radial†	29299.5	29665.6	149230	µg/L	149230	ppb	07:21:07
2	K 766.490 Radial†	42302.1	42010.2	22438	µg/L	22438	ppb	07:21:01
2	Mg 279.077 IEC†	5575.0	5630.5	29781	µg/L	29781	ppb	07:21:07
2	Na 589.592 Radial†	24510.8	25569.5	6626.6	µg/L	6626.6	ppb	07:21:01
2	Sr 421.552†	140074.3	141974.7	757.35	µg/L	757.35	ppb	07:21:01
2	Sc 361.383	2141273.8	2141273.8	98.201	%			07:22:03
2	Y 371.029	1348027.1	1348027.1	101.67	%			07:22:03
2	Ag 328.068†	56460.1	57413.9	536.81	µg/L	536.81	ppb	07:22:09
2	As 188.979†	296.2	300.6	554.16	µg/L	554.16	ppb	07:22:30
2	B 249.677†	13743.4	13829.0	560.28	µg/L	560.28	ppb	07:22:09
2	Ba 233.527†	73152.5	74580.2	1878.4	µg/L	1878.4	ppb	07:22:09
2	Be 313.107†	864428.6	876626.1	533.99	µg/L	533.99	ppb	07:22:03
2	Cd 226.502†	19846.8	20320.4	517.90	µg/L	517.90	ppb	07:22:09
2	Co 228.616†	11305.6	11588.5	546.49	µg/L	546.49	ppb	07:22:30
2	Cr 267.716†	30835.5	31536.1	663.25	µg/L	663.25	ppb	07:22:09
2	Cu 324.752†	128236.9	127183.3	915.64	µg/L	915.64	ppb	07:22:09
2	Mn 257.610†	1119925.9	1140668.8	3589.0	µg/L	3589.0	ppb	07:22:03
2	Mo 202.031†	4385.3	4466.7	513.38	µg/L	513.38	ppb	07:22:30
2	Ni 231.604†	11149.9	11020.8	596.55	µg/L	596.55	ppb	07:22:30
2	P 214.914†	1039.9	847.0	1612.6	µg/L	1612.6	ppb	07:22:30
2	Pb 220.353†	2787.8	2787.3	717.23	µg/L	717.23	ppb	07:22:30

2	S 181.975 Axial†	1167.5	1163.2	5866.3 µg/L	5866.3 ppb	07:22:30
2	Sb 206.836†	508.0	494.5	513.22 µg/L	513.22 ppb	07:22:30
2	Se 196.026†	314.5	307.8	530.96 µg/L	530.96 ppb	07:22:30
2	SiO2†	116242.5	116245.2	22342 µg/L	22342 ppb	07:22:09
2	Si 251.611†	132595.7	134646.4	10152 µg/L	10152 ppb	07:22:09
2	Sn 189.927†	962.4	957.9	499.94 µg/L	499.94 ppb	07:22:30
2	Ti 334.940†	2467193.5	2511518.7	5505.3 µg/L	5505.3 ppb	07:22:03
2	Tl 190.801†	292.2	321.1	526.65 µg/L	526.65 ppb	07:22:30
2	U 409.014†	5095.8	4252.7	382.03 µg/L	382.03 ppb	07:22:09
2	V 292.402†	64108.7	65379.9	758.82 µg/L	758.82 ppb	07:22:09
2	Zn 213.857†	42250.2	42428.2	1120.0 µg/L	1120.0 ppb	07:22:09
3	Sc RADIAL	123442.5	123442.5	98.9 %		07:21:12
3	Al 396.153Radial†	321074.7	324359.3	157810 µg/L	157810 ppb	07:21:12
3	Ca 317.933Radial†	73890.9	74250.4	27086 µg/L	27086 ppb	07:21:18
3	Fe 238.204 Radial†	28639.9	28943.1	145590 µg/L	145590 ppb	07:21:18
3	K 766.490 Radial†	42467.9	42097.2	22485 µg/L	22485 ppb	07:21:12
3	Mg 279.077 IEC†	5431.0	5474.5	28955 µg/L	28955 ppb	07:21:18
3	Na 589.592 Radial†	24676.5	25690.3	6657.9 µg/L	6657.9 ppb	07:21:12
3	Sr 421.552†	140719.4	142360.3	759.41 µg/L	759.41 ppb	07:21:12
3	Sc 361.383	2146719.4	2146719.4	98.450 %		07:22:37
3	Y 371.029	1350783.9	1350783.9	101.88 %		07:22:37
3	Ag 328.068†	56363.0	57169.5	534.28 µg/L	534.28 ppb	07:22:43
3	As 188.979†	280.4	283.8	523.06 µg/L	523.06 ppb	07:23:03
3	B 249.677†	13737.2	13787.3	559.59 µg/L	559.59 ppb	07:22:43
3	Ba 233.527†	72996.1	74232.4	1869.6 µg/L	1869.6 ppb	07:22:43
3	Be 313.107†	868540.7	878569.9	535.18 µg/L	535.18 ppb	07:22:37
3	Cd 226.502†	19803.1	20224.8	515.68 µg/L	515.68 ppb	07:22:43
3	Co 228.616†	11323.6	11577.5	545.95 µg/L	545.95 ppb	07:23:03
3	Cr 267.716†	30775.5	31395.6	660.29 µg/L	660.29 ppb	07:22:43
3	Cu 324.752†	128087.6	126700.4	911.51 µg/L	911.51 ppb	07:22:43
3	Mn 257.610†	1123894.1	1141806.5	3592.1 µg/L	3592.1 ppb	07:22:37
3	Mo 202.031†	4401.4	4471.8	513.81 µg/L	513.81 ppb	07:23:03
3	Ni 231.604†	11187.1	11029.8	597.04 µg/L	597.04 ppb	07:23:03
3	P 214.914†	1035.8	840.1	1602.5 µg/L	1602.5 ppb	07:23:03
3	Pb 220.353†	2782.5	2774.7	714.13 µg/L	714.13 ppb	07:23:03
3	S 181.975 Axial†	1168.1	1160.8	5854.9 µg/L	5854.9 ppb	07:23:03
3	Sb 206.836†	511.5	496.8	515.65 µg/L	515.65 ppb	07:23:03
3	Se 196.026†	325.3	318.0	543.03 µg/L	543.03 ppb	07:23:03
3	SiO2†	114899.0	114580.3	22022 µg/L	22022 ppb	07:22:43
3	Si 251.611†	131039.5	132723.2	10004 µg/L	10004 ppb	07:22:43
3	Sn 189.927†	966.0	959.1	499.76 µg/L	499.76 ppb	07:23:03
3	Ti 334.940†	2476819.4	2514923.0	5512.8 µg/L	5512.8 ppb	07:22:37
3	Tl 190.801†	286.6	314.6	517.27 µg/L	517.27 ppb	07:23:03
3	U 409.014†	4978.6	4120.5	369.97 µg/L	369.97 ppb	07:22:43
3	V 292.402†	63888.6	64990.7	754.09 µg/L	754.09 ppb	07:22:43
3	Zn 213.857†	42128.0	42194.9	1114.2 µg/L	1114.2 ppb	07:22:43

Mean Data: 1201999273|934468|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2141847.1	98.227	%	0.2115				0.22%
Sc RADIAL	123308.6	98.8	%	0.10				0.10%
Y 371.029	1347992.0	101.66	%	0.212				0.21%
Ag 328.068†	57387.3	536.46	µg/L	2.037	536.46	ppb	2.037	0.38%
Al 396.153Radial†	323240.7	157260	µg/L	606.2	157260	ppb	606.2	0.39%
As 188.979†	297.7	548.81	µg/L	23.537	548.81	ppb	23.537	4.29%
B 249.677†	13832.9	560.84	µg/L	1.608	560.84	ppb	1.608	0.29%
Ba 233.527†	74538.4	1877.3	µg/L	7.24	1877.3	ppb	7.24	0.39%
Be 313.107†	876752.9	534.07	µg/L	1.071	534.07	ppb	1.071	0.20%
Ca 317.933Radial†	75523.1	27550	µg/L	402.1	27550	ppb	402.1	1.46%
Cd 226.502†	20315.2	517.85	µg/L	2.149	517.85	ppb	2.149	0.42%
Co 228.616†	11589.2	546.53	µg/L	0.599	546.53	ppb	0.599	0.11%
Cr 267.716†	31539.4	663.32	µg/L	3.059	663.32	ppb	3.059	0.46%
Cu 324.752†	127178.8	915.34	µg/L	3.697	915.34	ppb	3.697	0.40%
Fe 238.204 Radial†	29418.5	147980	µg/L	2071.1	147980	ppb	2071.1	1.40%
K 766.490 Radial†	41985.3	22425	µg/L	67.4	22425	ppb	67.4	0.30%
Mg 279.077 IEC†	5560.9	29412	µg/L	419.9	29412	ppb	419.9	1.43%
Mn 257.610†	1140041.3	3586.9	µg/L	6.55	3586.9	ppb	6.55	0.18%
Mo 202.031†	4467.0	513.36	µg/L	0.458	513.36	ppb	0.458	0.09%
Na 589.592 Radial†	25562.9	6624.9	µg/L	33.92	6624.9	ppb	33.92	0.51%

Ni 231.604†	11029.1	597.00	µg/L	0.429	597.00	ppb	0.429	0.07%
P 214.914†	848.9	1618.0	µg/L	18.77	1618.0	ppb	18.77	1.16%
Pb 220.353†	2785.2	716.70	µg/L	2.348	716.70	ppb	2.348	0.33%
S 181.975 Axial†	1164.8	5874.9	µg/L	25.40	5874.9	ppb	25.40	0.43%
Sb 206.836†	492.5	511.20	µg/L	5.730	511.20	ppb	5.730	1.12%
Se 196.026†	316.8	542.92	µg/L	11.908	542.92	ppb	11.908	2.19%
SiO2†	115803.8	22257	µg/L	206.3	22257	ppb	206.3	0.93%
Si 251.611†	134137.5	10113	µg/L	96.0	10113	ppb	96.0	0.95%
Sn 189.927†	960.3	500.83	µg/L	1.709	500.83	ppb	1.709	0.34%
Sr 421.552†	141886.0	756.88	µg/L	2.796	756.88	ppb	2.796	0.37%
Ti 334.940†	2510825.6	5503.8	µg/L	9.85	5503.8	ppb	9.85	0.18%
Tl 190.801†	315.6	518.50	µg/L	7.609	518.50	ppb	7.609	1.47%
U 409.014†	4180.3	375.29	µg/L	6.154	375.29	ppb	6.154	1.64%
V 292.402†	65319.8	758.03	µg/L	3.607	758.03	ppb	3.607	0.48%
Zn 213.857†	42391.3	1119.2	µg/L	4.64	1119.2	ppb	4.64	0.41%

Sequence No.: 14
Sample ID: 1201999274|934468|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 148
Date Collected: 12/19/2009 07:23:12
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1201999274|934468|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	123147.8	123147.8	98.7	%			07:23:46
1	Al 396.153Radial†	323725.4	327821.9	159490	µg/L	159490	ppb	07:23:46
1	Ca 317.933Radial†	70478.3	70971.2	25889	µg/L	25889	ppb	07:23:51
1	Fe 238.204 Radial†	29071.6	29449.9	148140	µg/L	148140	ppb	07:23:51
1	K 766.490 Radial†	42106.8	41834.1	22344	µg/L	22344	ppb	07:23:46
1	Mg 279.077 IEC†	5552.5	5610.7	29677	µg/L	29677	ppb	07:23:51
1	Na 589.592 Radial†	24752.6	25827.1	6693.4	µg/L	6693.4	ppb	07:23:46
1	Sr 421.552†	141073.8	143059.9	763.14	µg/L	763.14	ppb	07:23:46
1	Sc 361.383	2131230.9	2131230.9	97.740	%			07:24:26
1	Y 371.029	1341071.8	1341071.8	101.14	%			07:24:26
1	Ag 328.068†	57175.8	58417.1	545.86	µg/L	545.86	ppb	07:24:31
1	As 188.979†	294.8	300.6	554.50	µg/L	554.50	ppb	07:24:52
1	B 249.677†	13869.3	14023.8	569.18	µg/L	569.18	ppb	07:24:31
1	Ba 233.527†	67929.4	69587.3	1752.7	µg/L	1752.7	ppb	07:24:31
1	Be 313.107†	867249.1	883659.9	538.29	µg/L	538.29	ppb	07:24:26
1	Cd 226.502†	20134.1	20709.5	528.11	µg/L	528.11	ppb	07:24:31
1	Co 228.616†	11341.1	11679.0	550.84	µg/L	550.84	ppb	07:24:52
1	Cr 267.716†	30869.8	31719.2	667.11	µg/L	667.11	ppb	07:24:31
1	Cu 324.752†	93379.4	92135.1	671.92	µg/L	671.92	ppb	07:24:31
1	Mn 257.610†	1076123.1	1101227.3	3465.4	µg/L	3465.4	ppb	07:24:26
1	Mo 202.031†	4430.0	4533.5	520.92	µg/L	520.92	ppb	07:24:52
1	Ni 231.604†	11174.6	11099.6	600.82	µg/L	600.82	ppb	07:24:52
1	P 214.914†	997.3	808.4	1561.4	µg/L	1561.4	ppb	07:24:52
1	Pb 220.353†	2717.5	2728.7	702.95	µg/L	702.95	ppb	07:24:52
1	S 181.975 Axial†	1159.0	1160.0	5850.5	µg/L	5850.5	ppb	07:24:52
1	Sb 206.836†	512.9	502.0	521.02	µg/L	521.02	ppb	07:24:52
1	Se 196.026†	327.3	322.4	550.62	µg/L	550.62	ppb	07:24:52
1	SiO2†	112835.4	113317.2	21779	µg/L	21779	ppb	07:24:31
1	Si 251.611†	128692.0	131288.7	9892.4	µg/L	9892.4	ppb	07:24:31
1	Sn 189.927†	980.7	981.2	510.82	µg/L	510.82	ppb	07:24:52
1	Ti 334.940†	2460615.5	2516627.8	5516.6	µg/L	5516.6	ppb	07:24:26
1	Tl 190.801†	300.2	330.7	540.85	µg/L	540.85	ppb	07:24:52
1	U 409.014†	5067.5	4248.1	381.75	µg/L	381.75	ppb	07:24:31
1	V 292.402†	64432.9	66019.2	766.05	µg/L	766.05	ppb	07:24:31
1	Zn 213.857†	41907.3	42280.1	1116.5	µg/L	1116.5	ppb	07:24:31
2	Sc RADIAL	123552.2	123552.2	99.0	%			07:23:57
2	Al 396.153Radial†	326332.3	329381.3	160250	µg/L	160250	ppb	07:23:57
2	Ca 317.933Radial†	71191.0	71457.3	26067	µg/L	26067	ppb	07:24:02
2	Fe 238.204 Radial†	29314.5	29598.8	148890	µg/L	148890	ppb	07:24:02
2	K 766.490 Radial†	42410.6	42001.3	22434	µg/L	22434	ppb	07:23:57
2	Mg 279.077 IEC†	5605.4	5645.6	29862	µg/L	29862	ppb	07:24:02
2	Na 589.592 Radial†	24970.8	25965.4	6729.2	µg/L	6729.2	ppb	07:23:57
2	Sr 421.552†	142139.2	143668.1	766.38	µg/L	766.38	ppb	07:23:57
2	Sc 361.383	2155760.0	2155760.0	98.865	%			07:24:59
2	Y 371.029	1356808.9	1356808.9	102.33	%			07:24:59
2	Ag 328.068†	57181.2	57756.9	539.89	µg/L	539.89	ppb	07:25:05
2	As 188.979†	293.3	295.6	545.10	µg/L	545.10	ppb	07:25:25
2	B 249.677†	13841.3	13834.0	560.61	µg/L	560.61	ppb	07:25:05
2	Ba 233.527†	68094.9	68964.0	1737.0	µg/L	1737.0	ppb	07:25:05
2	Be 313.107†	878028.6	884467.0	538.78	µg/L	538.78	ppb	07:24:59
2	Cd 226.502†	20168.9	20510.4	522.86	µg/L	522.86	ppb	07:25:05
2	Co 228.616†	11396.7	11603.2	547.18	µg/L	547.18	ppb	07:25:25
2	Cr 267.716†	30904.9	31395.3	660.29	µg/L	660.29	ppb	07:25:05
2	Cu 324.752†	93251.3	90918.5	663.62	µg/L	663.62	ppb	07:25:05
2	Mn 257.610†	1088626.7	1101346.7	3465.9	µg/L	3465.9	ppb	07:24:59
2	Mo 202.031†	4449.6	4501.8	517.35	µg/L	517.35	ppb	07:25:25
2	Ni 231.604†	11214.8	11010.2	595.98	µg/L	595.98	ppb	07:25:25
2	P 214.914†	999.6	799.2	1541.8	µg/L	1541.8	ppb	07:25:25
2	Pb 220.353†	2733.3	2713.1	699.07	µg/L	699.07	ppb	07:25:25

2	S 181.975 Axial†	1162.8	1150.4	5801.8 µg/L	5801.8 ppb	07:25:25
2	Sb 206.836†	505.1	488.1	507.00 µg/L	507.00 ppb	07:25:25
2	Se 196.026†	331.2	322.6	551.37 µg/L	551.37 ppb	07:25:25
2	SiO2†	112301.5	111463.5	21423 µg/L	21423 ppb	07:25:05
2	Si 251.611†	127916.7	129006.4	9716.4 µg/L	9716.4 ppb	07:25:05
2	Sn 189.927†	983.7	972.8	506.87 µg/L	506.87 ppb	07:25:25
2	Ti 334.940†	2491211.6	2518929.9	5521.7 µg/L	5521.7 ppb	07:24:59
2	Tl 190.801†	296.4	323.4	530.03 µg/L	530.03 ppb	07:25:25
2	U 409.014†	5071.5	4193.2	376.33 µg/L	376.33 ppb	07:25:05
2	V 292.402†	64510.9	65347.9	758.45 µg/L	758.45 ppb	07:25:05
2	Zn 213.857†	41946.1	41831.5	1104.4 µg/L	1104.4 ppb	07:25:05
3	Sc RADIAL	123115.1	123115.1	98.7 %		07:24:08
3	Al 396.153Radial†	325006.6	329207.6	160170 µg/L	160170 ppb	07:24:08
3	Ca 317.933Radial†	71439.3	71964.2	26252 µg/L	26252 ppb	07:24:13
3	Fe 238.204 Radial†	29395.9	29786.3	149830 µg/L	149830 ppb	07:24:13
3	K 766.490 Radial†	42290.0	42031.2	22450 µg/L	22450 ppb	07:24:08
3	Mg 279.077 IEC†	5617.1	5677.7	30031 µg/L	30031 ppb	07:24:13
3	Na 589.592 Radial†	24887.0	25970.0	6730.4 µg/L	6730.4 ppb	07:24:08
3	Sr 421.552†	141687.0	143719.4	766.66 µg/L	766.66 ppb	07:24:08
3	Sc 361.383	2133944.6	2133944.6	97.864 %		07:25:33
3	Y 371.029	1343697.0	1343697.0	101.34 %		07:25:33
3	Ag 328.068†	59697.5	60919.4	568.88 µg/L	568.88 ppb	07:25:38
3	As 188.979†	286.8	292.0	538.04 µg/L	538.04 ppb	07:25:59
3	B 249.677†	14509.8	14660.2	596.59 µg/L	596.59 ppb	07:25:38
3	Ba 233.527†	71070.4	72708.5	1831.4 µg/L	1831.4 ppb	07:25:38
3	Be 313.107†	868909.1	884227.7	538.64 µg/L	538.64 ppb	07:25:33
3	Cd 226.502†	20989.8	21557.8	550.05 µg/L	550.05 ppb	07:25:38
3	Co 228.616†	11361.4	11685.1	551.12 µg/L	551.12 ppb	07:25:59
3	Cr 267.716†	32261.1	33100.7	696.16 µg/L	696.16 ppb	07:25:38
3	Cu 324.752†	97646.9	96374.2	701.73 µg/L	701.73 ppb	07:25:38
3	Mn 257.610†	1077431.4	1101164.0	3465.4 µg/L	3465.4 ppb	07:25:33
3	Mo 202.031†	4440.4	4538.4	521.54 µg/L	521.54 ppb	07:25:59
3	Ni 231.604†	11197.1	11108.0	601.27 µg/L	601.27 ppb	07:25:59
3	P 214.914†	999.2	809.1	1557.5 µg/L	1557.5 ppb	07:25:59
3	Pb 220.353†	2731.6	2739.6	705.70 µg/L	705.70 ppb	07:25:59
3	S 181.975 Axial†	1160.5	1160.1	5850.4 µg/L	5850.4 ppb	07:25:59
3	Sb 206.836†	506.6	494.9	513.70 µg/L	513.70 ppb	07:25:59
3	Se 196.026†	308.7	303.0	524.29 µg/L	524.29 ppb	07:25:59
3	SiO2†	120349.9	120848.8	23227 µg/L	23227 ppb	07:25:38
3	Si 251.611†	137210.3	139825.5	10551 µg/L	10551 ppb	07:25:38
3	Sn 189.927†	983.2	982.5	511.81 µg/L	511.81 ppb	07:25:59
3	Ti 334.940†	2465104.4	2518013.1	5519.6 µg/L	5519.6 ppb	07:25:33
3	Tl 190.801†	301.7	331.8	542.49 µg/L	542.49 ppb	07:25:59
3	U 409.014†	5214.7	4391.9	395.28 µg/L	395.28 ppb	07:25:38
3	V 292.402†	67402.5	68969.7	799.72 µg/L	799.72 ppb	07:25:38
3	Zn 213.857†	43678.1	44035.0	1163.5 µg/L	1163.5 ppb	07:25:38

Mean Data: 1201999274|934468|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2140311.8	98.156	%	0.6167				0.63%
Sc RADIAL	123271.7	98.8	%	0.20				0.20%
Y 371.029	1347192.6	101.60	%	0.636				0.63%
Ag 328.068†	59031.2	551.54	µg/L	15.311	551.54	ppb	15.311	2.78%
Al 396.153Radial†	328803.6	159970	µg/L	415.9	159970	ppb	415.9	0.26%
As 188.979†	296.1	545.88	µg/L	8.257	545.88	ppb	8.257	1.51%
B 249.677†	14172.6	575.46	µg/L	18.794	575.46	ppb	18.794	3.27%
Ba 233.527†	70419.9	1773.7	µg/L	50.54	1773.7	ppb	50.54	2.85%
Be 313.107†	884118.2	538.57	µg/L	0.253	538.57	ppb	0.253	0.05%
Ca 317.933Radial†	71464.2	26069	µg/L	181.1	26069	ppb	181.1	0.69%
Cd 226.502†	20925.9	533.67	µg/L	14.423	533.67	ppb	14.423	2.70%
Co 228.616†	11655.8	549.71	µg/L	2.200	549.71	ppb	2.200	0.40%
Cr 267.716†	32071.7	674.52	µg/L	19.049	674.52	ppb	19.049	2.82%
Cu 324.752†	93142.6	679.09	µg/L	20.040	679.09	ppb	20.040	2.95%
Fe 238.204 Radial†	29611.7	148960	µg/L	848.0	148960	ppb	848.0	0.57%
K 766.490 Radial†	41955.5	22409	µg/L	56.7	22409	ppb	56.7	0.25%
Mg 279.077 IEC†	5644.7	29857	µg/L	177.1	29857	ppb	177.1	0.59%
Mn 257.610†	1101246.0	3465.6	µg/L	0.27	3465.6	ppb	0.27	0.01%
Mo 202.031†	4524.5	519.94	µg/L	2.262	519.94	ppb	2.262	0.44%
Na 589.592 Radial†	25920.8	6717.7	µg/L	21.04	6717.7	ppb	21.04	0.31%

Ni 231.604†	11072.6	599.36 µg/L	2.935	599.36 ppb	2.935	0.49%
P 214.914†	805.6	1553.6 µg/L	10.37	1553.6 ppb	10.37	0.67%
Pb 220.353†	2727.2	702.57 µg/L	3.332	702.57 ppb	3.332	0.47%
S 181.975 Axial†	1156.8	5834.2 µg/L	28.12	5834.2 ppb	28.12	0.48%
Sb 206.836†	495.0	513.91 µg/L	7.012	513.91 ppb	7.012	1.36%
Se 196.026†	316.0	542.09 µg/L	15.420	542.09 ppb	15.420	2.84%
SiO2†	115209.8	22143 µg/L	955.3	22143 ppb	955.3	4.31%
Si 251.611†	133373.5	10053 µg/L	439.8	10053 ppb	439.8	4.37%
Sn 189.927†	978.9	509.83 µg/L	2.614	509.83 ppb	2.614	0.51%
Sr 421.552†	143482.4	765.39 µg/L	1.957	765.39 ppb	1.957	0.26%
Ti 334.940†	2517856.9	5519.3 µg/L	2.54	5519.3 ppb	2.54	0.05%
Tl 190.801†	328.6	537.79 µg/L	6.771	537.79 ppb	6.771	1.26%
U 409.014†	4277.8	384.45 µg/L	9.760	384.45 ppb	9.760	2.54%
V 292.402†	66778.9	774.74 µg/L	21.963	774.74 ppb	21.963	2.83%
Zn 213.857†	42715.5	1128.1 µg/L	31.21	1128.1 ppb	31.21	2.77%

Sequence No.: 15
Sample ID: 1201999272|934468|5
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 149
Date Collected: 12/19/2009 07:26:08
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1201999272|934468|5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	119797.7	119797.7	96.0	%			07:26:41
1	Al 396.153Radial†	45134.7	46806.3	22775	µg/L	22775	ppb	07:26:41
1	Ca 317.933Radial†	11868.1	11918.1	4347.6	µg/L	4347.6	ppb	07:27:01
1	Fe 238.204 Radial†	5562.6	5786.0	29102	µg/L	29102	ppb	07:27:01
1	K 766.490 Radial†	5804.8	5213.9	2784.9	µg/L	2784.9	ppb	07:26:41
1	Mg 279.077 IEC†	802.3	820.1	4324.9	µg/L	4324.9	ppb	07:27:01
1	Na 589.592 Radial†	547.5	1315.7	340.98	µg/L	340.98	ppb	07:26:41
1	Sr 421.552†	8914.3	9395.9	50.122	µg/L	50.122	ppb	07:26:41
1	Sc 361.383	2142348.8	2142348.8	98.250	%			07:28:04
1	Y 371.029	1312116.3	1312116.3	98.959	%			07:28:04
1	Ag 328.068†	-118.4	-201.3	0.7519	µg/L	0.7519	ppb	07:28:10
1	As 188.979†	2.7	1.7	0.8591	µg/L	0.8591	ppb	07:28:31
1	B 249.677†	573.3	417.3	9.1729	µg/L	9.1729	ppb	07:28:10
1	Ba 233.527†	9613.5	9872.0	248.52	µg/L	248.52	ppb	07:28:10
1	Be 313.107†	7162.4	3647.8	1.8944	µg/L	1.8944	ppb	07:28:10
1	Cd 226.502†	-1.5	108.4	0.5734	µg/L	0.5734	ppb	07:28:31
1	Co 228.616†	163.5	242.1	9.7366	µg/L	9.7366	ppb	07:28:31
1	Cr 267.716†	1436.0	1597.2	33.598	µg/L	33.598	ppb	07:28:10
1	Cu 324.752†	5759.7	2458.9	23.334	µg/L	23.334	ppb	07:28:10
1	Mn 257.610†	184181.2	187683.5	591.10	µg/L	591.10	ppb	07:28:04
1	Mo 202.031†	0.6	1.6	1.3274	µg/L	1.3274	ppb	07:28:31
1	Ni 231.604†	718.2	397.6	21.522	µg/L	21.522	ppb	07:28:31
1	P 214.914†	310.1	103.7	195.58	µg/L	195.58	ppb	07:28:31
1	Pb 220.353†	189.6	141.4	37.397	µg/L	37.397	ppb	07:28:31
1	S 181.975 Axial†	50.2	25.4	123.57	µg/L	123.57	ppb	07:28:31
1	Sb 206.836†	25.8	3.5	6.3819	µg/L	6.3819	ppb	07:28:31
1	Se 196.026†	0.6	-11.8	2.4988	µg/L	2.4988	ppb	07:28:31
1	SiO2†	21842.0	20103.7	3863.9	µg/L	3863.9	ppb	07:28:10
1	Si 251.611†	23266.3	23301.7	1764.1	µg/L	1764.1	ppb	07:28:10
1	Sn 189.927†	-3.9	-26.1	-7.5877	µg/L	-7.5877	ppb	07:28:31
1	Ti 334.940†	407664.0	414042.4	907.61	µg/L	907.61	ppb	07:28:04
1	Tl 190.801†	-25.4	-2.3	5.1559	µg/L	5.1559	ppb	07:28:31
1	U 409.014†	711.1	-212.7	-25.800	µg/L	-25.800	ppb	07:28:10
1	V 292.402†	3422.7	3580.1	42.997	µg/L	42.997	ppb	07:28:10
1	Zn 213.857†	5304.2	4802.4	125.81	µg/L	125.81	ppb	07:28:10
2	Sc RADIAL	120755.4	120755.4	96.8	%			07:27:07
2	Al 396.153Radial†	45673.1	46989.9	22864	µg/L	22864	ppb	07:27:07
2	Ca 317.933Radial†	11915.7	11869.3	4329.8	µg/L	4329.8	ppb	07:27:27
2	Fe 238.204 Radial†	5583.6	5761.7	28980	µg/L	28980	ppb	07:27:27
2	K 766.490 Radial†	5955.5	5321.8	2842.5	µg/L	2842.5	ppb	07:27:07
2	Mg 279.077 IEC†	796.8	807.7	4259.3	µg/L	4259.3	ppb	07:27:27
2	Na 589.592 Radial†	491.5	1253.4	324.82	µg/L	324.82	ppb	07:27:07
2	Sr 421.552†	8983.5	9393.8	50.110	µg/L	50.110	ppb	07:27:07
2	Sc 361.383	2153049.3	2153049.3	98.741	%			07:28:37
2	Y 371.029	1318186.5	1318186.5	99.417	%			07:28:37
2	Ag 328.068†	-124.9	-207.2	0.6856	µg/L	0.6856	ppb	07:28:43
2	As 188.979†	3.5	2.5	2.2857	µg/L	2.2857	ppb	07:29:04
2	B 249.677†	531.2	371.7	7.2087	µg/L	7.2087	ppb	07:28:43
2	Ba 233.527†	9621.7	9831.7	247.50	µg/L	247.50	ppb	07:28:43
2	Be 313.107†	7133.0	3581.7	1.8535	µg/L	1.8535	ppb	07:28:43
2	Cd 226.502†	-6.2	103.6	0.4547	µg/L	0.4547	ppb	07:29:04
2	Co 228.616†	162.4	240.2	9.6417	µg/L	9.6417	ppb	07:29:04
2	Cr 267.716†	1419.9	1573.6	33.103	µg/L	33.103	ppb	07:28:43
2	Cu 324.752†	5800.8	2471.4	23.394	µg/L	23.394	ppb	07:28:43
2	Mn 257.610†	185454.8	188041.7	592.20	µg/L	592.20	ppb	07:28:37
2	Mo 202.031†	-2.9	-1.9	0.9206	µg/L	0.9206	ppb	07:29:04
2	Ni 231.604†	719.1	394.8	21.371	µg/L	21.371	ppb	07:29:04
2	P 214.914†	305.0	97.0	181.34	µg/L	181.34	ppb	07:29:04
2	Pb 220.353†	185.9	136.7	36.228	µg/L	36.228	ppb	07:29:04

2	S 181.975 Axial†	50.9	25.8	125.86 µg/L	125.86 ppb	07:29:04
2	Sb 206.836†	22.6	0.1	2.9545 µg/L	2.9545 ppb	07:29:04
2	Se 196.026†	4.8	-7.6	8.4160 µg/L	8.4160 ppb	07:29:04
2	SiO2†	21895.4	20047.3	3853.0 µg/L	3853.0 ppb	07:28:43
2	Si 251.611†	23268.9	23186.7	1755.1 µg/L	1755.1 ppb	07:28:43
2	Sn 189.927†	-1.0	-23.2	-6.1502 µg/L	-6.1502 ppb	07:29:04
2	Ti 334.940†	410256.3	414605.6	908.84 µg/L	908.84 ppb	07:28:37
2	Tl 190.801†	-20.7	2.6	12.467 µg/L	12.467 ppb	07:29:04
2	U 409.014†	653.3	-274.9	-31.761 µg/L	-31.761 ppb	07:28:43
2	V 292.402†	3402.8	3542.6	42.549 µg/L	42.549 ppb	07:28:43
2	Zn 213.857†	5322.1	4793.7	125.59 µg/L	125.59 ppb	07:28:43
3	Sc RADIAL	119959.6	119959.6	96.1 %		07:27:33
3	Al 396.153Radial†	44898.0	46496.7	22624 µg/L	22624 ppb	07:27:33
3	Ca 317.933Radial†	11889.2	11923.4	4349.5 µg/L	4349.5 ppb	07:27:53
3	Fe 238.204 Radial†	5575.9	5791.9	29132 µg/L	29132 ppb	07:27:53
3	K 766.490 Radial†	5849.0	5251.8	2805.1 µg/L	2805.1 ppb	07:27:33
3	Mg 279.077 IEC†	804.5	821.2	4330.6 µg/L	4330.6 ppb	07:27:53
3	Na 589.592 Radial†	483.1	1248.0	323.43 µg/L	323.43 ppb	07:27:33
3	Sr 421.552†	8764.4	9227.5	49.223 µg/L	49.223 ppb	07:27:33
3	Sc 361.383	2150866.7	2150866.7	98.641 %		07:29:10
3	Y 371.029	1315656.4	1315656.4	99.226 %		07:29:10
3	Ag 328.068†	-89.7	-171.7	0.9969 µg/L	0.9969 ppb	07:29:16
3	As 188.979†	8.0	7.0	10.698 µg/L	10.698 ppb	07:29:37
3	B 249.677†	506.6	347.4	6.0931 µg/L	6.0931 ppb	07:29:16
3	Ba 233.527†	9012.0	9223.5	232.19 µg/L	232.19 ppb	07:29:16
3	Be 313.107†	6840.6	3292.7	1.6930 µg/L	1.6930 ppb	07:29:16
3	Cd 226.502†	-13.1	96.7	0.2603 µg/L	0.2603 ppb	07:29:37
3	Co 228.616†	133.9	211.4	8.3543 µg/L	8.3543 ppb	07:29:37
3	Cr 267.716†	1286.0	1439.4	30.279 µg/L	30.279 ppb	07:29:16
3	Cu 324.752†	5641.1	2315.4	22.343 µg/L	22.343 ppb	07:29:16
3	Mn 257.610†	177735.0	180406.1	568.32 µg/L	568.32 ppb	07:29:10
3	Mo 202.031†	8.2	9.4	2.2143 µg/L	2.2143 ppb	07:29:37
3	Ni 231.604†	666.4	342.2	18.522 µg/L	18.522 ppb	07:29:37
3	P 214.914†	293.0	85.1	155.54 µg/L	155.54 ppb	07:29:37
3	Pb 220.353†	172.6	123.3	32.823 µg/L	32.823 ppb	07:29:37
3	S 181.975 Axial†	46.3	21.2	102.68 µg/L	102.68 ppb	07:29:37
3	Sb 206.836†	23.7	1.3	3.9380 µg/L	3.9380 ppb	07:29:37
3	Se 196.026†	4.9	-7.5	8.6851 µg/L	8.6851 ppb	07:29:37
3	SiO2†	20246.8	18398.6	3536.1 µg/L	3536.1 ppb	07:29:16
3	Si 251.611†	21430.3	21346.6	1614.8 µg/L	1614.8 ppb	07:29:16
3	Sn 189.927†	-3.3	-25.5	-7.2522 µg/L	-7.2522 ppb	07:29:37
3	Ti 334.940†	390184.7	394678.9	865.15 µg/L	865.15 ppb	07:29:10
3	Tl 190.801†	-24.7	-1.4	6.0650 µg/L	6.0650 ppb	07:29:37
3	U 409.014†	687.5	-239.5	-28.387 µg/L	-28.387 ppb	07:29:16
3	V 292.402†	3119.6	3259.0	39.356 µg/L	39.356 ppb	07:29:16
3	Zn 213.857†	4983.4	4455.9	116.50 µg/L	116.50 ppb	07:29:16

Mean Data: 1201999272|934468|5

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2148754.9	98.544	%	0.2593				0.26%
Sc RADIAL	120170.9	96.3	%	0.41				0.43%
Y 371.029	1315319.7	99.201	%	0.2300				0.23%
Ag 328.068†	-193.4	0.8114	µg/L	0.16399	0.8114	ppb	0.16399	20.21%
Al 396.153Radial†	46764.3	22754	µg/L	121.3	22754	ppb	121.3	0.53%
As 188.979†	3.8	4.6141	µg/L	5.31656	4.6141	ppb	5.31656	115.22%
B 249.677†	378.8	7.4916	µg/L	1.55926	7.4916	ppb	1.55926	20.81%
Ba 233.527†	9642.4	242.73	µg/L	9.148	242.73	ppb	9.148	3.77%
Be 313.107†	3507.4	1.8136	µg/L	0.10646	1.8136	ppb	0.10646	5.87%
Ca 317.933Radial†	11903.6	4342.3	µg/L	10.88	4342.3	ppb	10.88	0.25%
Cd 226.502†	102.9	0.4295	µg/L	0.15805	0.4295	ppb	0.15805	36.80%
Co 228.616†	231.2	9.2442	µg/L	0.77215	9.2442	ppb	0.77215	8.35%
Cr 267.716†	1536.7	32.327	µg/L	1.7904	32.327	ppb	1.7904	5.54%
Cu 324.752†	2415.2	23.024	µg/L	0.5901	23.024	ppb	0.5901	2.56%
Fe 238.204 Radial†	5779.8	29071	µg/L	80.6	29071	ppb	80.6	0.28%
K 766.490 Radial†	5262.5	2810.8	µg/L	29.22	2810.8	ppb	29.22	1.04%
Mg 279.077 IEC†	816.3	4304.9	µg/L	39.63	4304.9	ppb	39.63	0.92%
Mn 257.610†	185377.1	583.88	µg/L	13.479	583.88	ppb	13.479	2.31%
Mo 202.031†	3.0	1.4875	µg/L	0.66152	1.4875	ppb	0.66152	44.47%
Na 589.592 Radial†	1272.4	329.74	µg/L	9.753	329.74	ppb	9.753	2.96%

Ni 231.604†	378.2	20.472 µg/L	1.6902	20.472 ppb	1.6902	8.26%
P 214.914†	95.3	177.49 µg/L	20.296	177.49 ppb	20.296	11.44%
Pb 220.353†	133.8	35.483 µg/L	2.3764	35.483 ppb	2.3764	6.70%
S 181.975 Axial†	24.1	117.37 µg/L	12.773	117.37 ppb	12.773	10.88%
Sb 206.836†	1.6	4.4248 µg/L	1.76479	4.4248 ppb	1.76479	39.88%
Se 196.026†	-9.0	6.5333 µg/L	3.49660	6.5333 ppb	3.49660	53.52%
SiO2†	19516.5	3751.0 µg/L	186.16	3751.0 ppb	186.16	4.96%
Si 251.611†	22611.7	1711.4 µg/L	83.73	1711.4 ppb	83.73	4.89%
Sn 189.927†	-24.9	-6.9967 µg/L	0.75206	-6.9967 ppb	0.75206	10.75%
Sr 421.552†	9339.0	49.818 µg/L	0.5155	49.818 ppb	0.5155	1.03%
Ti 334.940†	407775.6	893.87 µg/L	24.877	893.87 ppb	24.877	2.78%
Tl 190.801†	-0.4	7.8959 µg/L	3.98458	7.8959 ppb	3.98458	50.46%
U 409.014†	-242.4	-28.649 µg/L	2.9887	-28.649 ppb	2.9887	10.43%
V 292.402†	3460.6	41.634 µg/L	1.9859	41.634 ppb	1.9859	4.77%
Zn 213.857†	4684.0	122.63 µg/L	5.312	122.63 ppb	5.312	4.33%

Sequence No.: 16
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 12/19/2009 07:29:45
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	120352.2	120352.2	96.4	%			07:30:22
1	Al 396.153Radial†	10842.4	11034.3	5348.9	µg/L	5348.9	ppb	07:30:22
1	Ca 317.933Radial†	14443.2	14531.1	5300.8	µg/L	5300.8	ppb	07:30:22
1	Fe 238.204 Radial†	1030.6	1060.3	5350.8	µg/L	5350.8	ppb	07:30:42
1	K 766.490 Radial†	10401.5	9952.1	5315.6	µg/L	5315.6	ppb	07:30:22
1	Mg 279.077 IEC†	1003.8	1025.1	5465.0	µg/L	5465.0	ppb	07:30:42
1	Na 589.592 Radial†	39081.0	41265.9	10694	µg/L	10694	ppb	07:30:22
1	Sr 421.552†	94127.3	97704.8	521.20	µg/L	521.20	ppb	07:30:22
1	Sc 361.383	2128232.4	2128232.4	97.602	%			07:31:46
1	Y 371.029	1289964.0	1289964.0	97.289	%			07:31:46
1	Ag 328.068†	57480.9	58812.1	536.71	µg/L	536.71	ppb	07:31:51
1	As 188.979†	283.1	289.0	543.03	µg/L	543.03	ppb	07:32:12
1	B 249.677†	11992.3	12120.7	530.52	µg/L	530.52	ppb	07:31:51
1	Ba 233.527†	20665.9	21260.8	536.16	µg/L	536.16	ppb	07:31:51
1	Be 313.107†	844587.4	861691.6	526.71	µg/L	526.71	ppb	07:31:46
1	Cd 226.502†	20098.6	20702.2	539.00	µg/L	539.00	ppb	07:31:51
1	Co 228.616†	10835.3	11177.2	537.20	µg/L	537.20	ppb	07:31:51
1	Cr 267.716†	24924.8	25672.6	539.77	µg/L	539.77	ppb	07:31:51
1	Cu 324.752†	76963.2	75450.3	525.33	µg/L	525.33	ppb	07:31:51
1	Mn 257.610†	162915.0	167138.3	523.81	µg/L	523.81	ppb	07:31:46
1	Mo 202.031†	4561.0	4674.1	531.29	µg/L	531.29	ppb	07:32:12
1	Ni 231.604†	10021.9	9934.6	537.76	µg/L	537.76	ppb	07:31:51
1	P 214.914†	1427.4	1250.5	2642.5	µg/L	2642.5	ppb	07:32:12
1	Pb 220.353†	2096.8	2096.7	531.44	µg/L	531.44	ppb	07:32:12
1	S 181.975 Axial†	236.8	216.9	1097.1	µg/L	1097.1	ppb	07:32:12
1	Sb 206.836†	548.8	539.6	542.76	µg/L	542.76	ppb	07:32:12
1	Se 196.026†	399.4	396.8	562.85	µg/L	562.85	ppb	07:32:12
1	SiO2†	31183.7	29822.4	5731.7	µg/L	5731.7	ppb	07:31:51
1	Si 251.611†	34247.6	34709.9	2626.8	µg/L	2626.8	ppb	07:31:51
1	Sn 189.927†	1091.1	1095.8	540.87	µg/L	540.87	ppb	07:32:12
1	Ti 334.940†	233467.0	238318.5	522.25	µg/L	522.25	ppb	07:31:46
1	Tl 190.801†	333.3	365.0	544.62	µg/L	544.62	ppb	07:32:12
1	U 409.014†	6305.2	5523.6	530.66	µg/L	530.66	ppb	07:31:51
1	V 292.402†	46022.3	47249.2	541.56	µg/L	541.56	ppb	07:31:51
1	Zn 213.857†	20438.0	20343.8	542.88	µg/L	542.88	ppb	07:31:51
2	Sc RADIAL	120851.8	120851.8	96.8	%			07:30:48
2	Al 396.153Radial†	10841.9	10987.3	5326.1	µg/L	5326.1	ppb	07:30:48
2	Ca 317.933Radial†	14508.8	14536.9	5302.9	µg/L	5302.9	ppb	07:30:48
2	Fe 238.204 Radial†	1027.9	1053.1	5314.4	µg/L	5314.4	ppb	07:31:08
2	K 766.490 Radial†	10482.3	9991.0	5336.4	µg/L	5336.4	ppb	07:30:48
2	Mg 279.077 IEC†	1008.4	1025.5	5467.4	µg/L	5467.4	ppb	07:31:08
2	Na 589.592 Radial†	39346.5	41372.5	10722	µg/L	10722	ppb	07:30:48
2	Sr 421.552†	94780.5	97975.7	522.64	µg/L	522.64	ppb	07:30:48
2	Sc 361.383	2119788.7	2119788.7	97.215	%			07:32:19
2	Y 371.029	1284343.6	1284343.6	96.865	%			07:32:19
2	Ag 328.068†	56865.6	58413.8	533.07	µg/L	533.07	ppb	07:32:24
2	As 188.979†	275.4	282.2	530.32	µg/L	530.32	ppb	07:32:45
2	B 249.677†	11891.2	12065.6	528.11	µg/L	528.11	ppb	07:32:24
2	Ba 233.527†	20379.1	21050.1	530.85	µg/L	530.85	ppb	07:32:24
2	Be 313.107†	840301.3	860729.7	526.12	µg/L	526.12	ppb	07:32:19
2	Cd 226.502†	19816.9	20494.5	533.59	µg/L	533.59	ppb	07:32:24
2	Co 228.616†	10731.6	11114.7	534.19	µg/L	534.19	ppb	07:32:24
2	Cr 267.716†	24626.8	25467.8	535.47	µg/L	535.47	ppb	07:32:24
2	Cu 324.752†	76139.1	74916.7	521.61	µg/L	521.61	ppb	07:32:24
2	Mn 257.610†	162167.1	167034.0	523.47	µg/L	523.47	ppb	07:32:19
2	Mo 202.031†	4526.1	4656.8	529.32	µg/L	529.32	ppb	07:32:45
2	Ni 231.604†	9884.1	9833.8	532.30	µg/L	532.30	ppb	07:32:24
2	P 214.914†	1410.9	1239.4	2619.0	µg/L	2619.0	ppb	07:32:45
2	Pb 220.353†	2115.1	2124.1	538.37	µg/L	538.37	ppb	07:32:45

2	S 181.975 Axial†	233.1	214.1	1083.0 µg/L	1083.0 ppb	07:32:45
2	Sb 206.836†	544.8	537.7	540.89 µg/L	540.89 ppb	07:32:45
2	Se 196.026†	385.5	384.1	544.85 µg/L	544.85 ppb	07:32:45
2	SiO2†	30876.3	29633.4	5695.4 µg/L	5695.4 ppb	07:32:24
2	Si 251.611†	33908.6	34500.9	2610.7 µg/L	2610.7 ppb	07:32:24
2	Sn 189.927†	1083.0	1091.8	538.94 µg/L	538.94 ppb	07:32:45
2	Ti 334.940†	232421.0	238195.3	521.98 µg/L	521.98 ppb	07:32:19
2	Tl 190.801†	326.0	358.9	535.53 µg/L	535.53 ppb	07:32:45
2	U 409.014†	6291.0	5534.7	531.73 µg/L	531.73 ppb	07:32:24
2	V 292.402†	45517.7	46918.0	537.78 µg/L	537.78 ppb	07:32:24
2	Zn 213.857†	20154.1	20135.2	537.31 µg/L	537.31 ppb	07:32:24
3	Sc RADIAL	120865.4	120865.4	96.9 %		07:31:14
3	Al 396.153Radial†	10924.6	11071.4	5369.9 µg/L	5369.9 ppb	07:31:14
3	Ca 317.933Radial†	14533.9	14561.1	5311.7 µg/L	5311.7 ppb	07:31:14
3	Fe 238.204 Radial†	1022.5	1047.4	5284.5 µg/L	5284.5 ppb	07:31:34
3	K 766.490 Radial†	10537.6	10046.9	5366.2 µg/L	5366.2 ppb	07:31:14
3	Mg 279.077 IEC†	1000.9	1017.7	5423.6 µg/L	5423.6 ppb	07:31:34
3	Na 589.592 Radial†	39316.8	41337.3	10713 µg/L	10713 ppb	07:31:14
3	Sr 421.552†	94624.0	97803.2	521.72 µg/L	521.72 ppb	07:31:14
3	Sc 361.383	2125086.9	2125086.9	97.458 %		07:32:52
3	Y 371.029	1287602.1	1287602.1	97.110 %		07:32:52
3	Ag 328.068†	54719.9	56066.3	511.52 µg/L	511.52 ppb	07:32:58
3	As 188.979†	245.3	250.6	470.86 µg/L	470.86 ppb	07:33:18
3	B 249.677†	11348.8	11478.5	502.34 µg/L	502.34 ppb	07:32:58
3	Ba 233.527†	19238.8	19827.8	500.00 µg/L	500.00 ppb	07:32:58
3	Be 313.107†	802933.4	820232.2	501.37 µg/L	501.37 ppb	07:32:52
3	Cd 226.502†	18629.8	19225.6	500.52 µg/L	500.52 ppb	07:32:58
3	Co 228.616†	10009.2	10346.0	497.13 µg/L	497.13 ppb	07:32:58
3	Cr 267.716†	22397.8	23117.6	486.07 µg/L	486.07 ppb	07:32:58
3	Cu 324.752†	71196.0	69649.4	485.01 µg/L	485.01 ppb	07:32:58
3	Mn 257.610†	155257.6	159528.3	499.98 µg/L	499.98 ppb	07:32:52
3	Mo 202.031†	3878.2	3980.4	452.46 µg/L	452.46 ppb	07:33:18
3	Ni 231.604†	9243.4	9151.0	495.34 µg/L	495.34 ppb	07:32:58
3	P 214.914†	1256.6	1077.5	2272.2 µg/L	2272.2 ppb	07:33:18
3	Pb 220.353†	1879.1	1876.6	475.60 µg/L	475.60 ppb	07:33:18
3	S 181.975 Axial†	215.4	195.3	987.69 µg/L	987.69 ppb	07:33:18
3	Sb 206.836†	479.6	469.3	472.14 µg/L	472.14 ppb	07:33:18
3	Se 196.026†	349.6	346.3	491.46 µg/L	491.46 ppb	07:33:18
3	SiO2†	29320.1	27957.5	5373.3 µg/L	5373.3 ppb	07:32:58
3	Si 251.611†	32055.4	32512.5	2462.8 µg/L	2462.8 ppb	07:32:58
3	Sn 189.927†	924.1	926.0	457.51 µg/L	457.51 ppb	07:33:18
3	Ti 334.940†	221310.0	226198.5	495.68 µg/L	495.68 ppb	07:32:52
3	Tl 190.801†	299.8	331.2	494.26 µg/L	494.26 ppb	07:33:18
3	U 409.014†	5837.2	5052.9	485.38 µg/L	485.38 ppb	07:32:58
3	V 292.402†	42034.1	43226.8	495.25 µg/L	495.25 ppb	07:32:58
3	Zn 213.857†	18885.2	18781.4	501.15 µg/L	501.15 ppb	07:32:58

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2124369.3	97.425	%	0.1957				0.20%
Sc RADIAL	120689.8	96.7	%	0.23				0.24%
Y 371.029	1287303.2	97.088	%	0.2128				0.22%
Ag 328.068†	57764.0	527.10	µg/L	13.613	527.10	ppb	13.613	2.58%
QC value within limits for Ag 328.068 Recovery = 105.42%								
Al 396.153Radial†	11031.0	5348.3	µg/L	21.94	5348.3	ppb	21.94	0.41%
QC value within limits for Al 396.153Radial Recovery = 106.97%								
As 188.979†	273.9	514.74	µg/L	38.528	514.74	ppb	38.528	7.48%
QC value within limits for As 188.979 Recovery = 102.95%								
B 249.677†	11888.3	520.32	µg/L	15.619	520.32	ppb	15.619	3.00%
QC value within limits for B 249.677 Recovery = 104.06%								
Ba 233.527†	20712.9	522.34	µg/L	19.524	522.34	ppb	19.524	3.74%
QC value within limits for Ba 233.527 Recovery = 104.47%								
Be 313.107†	847551.1	518.06	µg/L	14.464	518.06	ppb	14.464	2.79%
QC value within limits for Be 313.107 Recovery = 103.61%								
Ca 317.933Radial†	14543.0	5305.1	µg/L	5.81	5305.1	ppb	5.81	0.11%
QC value within limits for Ca 317.933Radial Recovery = 106.10%								
Cd 226.502†	20140.8	524.37	µg/L	20.832	524.37	ppb	20.832	3.97%
QC value within limits for Cd 226.502 Recovery = 104.87%								
Co 228.616†	10879.3	522.84	µg/L	22.316	522.84	ppb	22.316	4.27%

```
   QC value within limits for Co 228.616  Recovery = 104.57%
Cr 267.716†            24752.7      520.44 µg/L        29.840      520.44 ppb         29.840   5.73%
   QC value within limits for Cr 267.716  Recovery = 104.09%
Cu 324.752†            73338.8      510.65 µg/L        22.281      510.65 ppb         22.281   4.36%
   QC value within limits for Cu 324.752  Recovery = 102.13%
Fe 238.204 Radial†      1053.6      5316.6 µg/L         33.20      5316.6 ppb          33.20   0.62%
   QC value within limits for Fe 238.204 Radial  Recovery = 106.33%
K 766.490 Radial†       9996.7      5339.4 µg/L         25.44      5339.4 ppb          25.44   0.48%
   QC value within limits for K 766.490 Radial  Recovery = 106.79%
Mg 279.077 IEC†         1022.8      5452.0 µg/L         24.62      5452.0 ppb          24.62   0.45%
   QC value within limits for Mg 279.077 IEC  Recovery = 109.04%
Mn 257.610†           164566.9      515.75 µg/L        13.662      515.75 ppb         13.662   2.65%
   QC value within limits for Mn 257.610  Recovery = 103.15%
Mo 202.031†             4437.1      504.36 µg/L        44.954      504.36 ppb         44.954   8.91%
   QC value within limits for Mo 202.031  Recovery = 100.87%
Na 589.592 Radial†     41325.2       10710 µg/L          14.1       10710 ppb           14.1   0.13%
   QC value within limits for Na 589.592 Radial  Recovery = 107.10%
Ni 231.604†             9639.8      521.80 µg/L        23.075      521.80 ppb         23.075   4.42%
   QC value within limits for Ni 231.604  Recovery = 104.36%
P 214.914†              1189.1      2511.2 µg/L        207.35      2511.2 ppb         207.35   8.26%
   QC value within limits for P 214.914  Recovery = 100.45%
Pb 220.353†             2032.4      515.14 µg/L        34.417      515.14 ppb         34.417   6.68%
   QC value within limits for Pb 220.353  Recovery = 103.03%
S 181.975 Axial†         208.7      1055.9 µg/L         59.53      1055.9 ppb          59.53   5.64%
   QC value within limits for S 181.975 Axial  Recovery = 105.59%
Sb 206.836†              515.5      518.60 µg/L        40.244      518.60 ppb         40.244   7.76%
   QC value within limits for Sb 206.836  Recovery = 103.72%
Se 196.026†              375.8      533.05 µg/L        37.128      533.05 ppb         37.128   6.97%
   QC value within limits for Se 196.026  Recovery = 106.61%
SiO2†                  29137.8      5600.2 µg/L        197.29      5600.2 ppb         197.29   3.52%
   QC value within limits for SiO2  Recovery = 104.72%
Si 251.611†            33907.8      2566.8 µg/L         90.42      2566.8 ppb          90.42   3.52%
   QC value within limits for Si 251.611  Recovery = 102.67%
Sn 189.927†             1037.9      512.44 µg/L        47.579      512.44 ppb         47.579   9.28%
   QC value within limits for Sn 189.927  Recovery = 102.49%
Sr 421.552†            97827.9      521.85 µg/L         0.732      521.85 ppb          0.732   0.14%
   QC value within limits for Sr 421.552  Recovery = 104.37%
Ti 334.940†           234237.5      513.30 µg/L        15.266      513.30 ppb         15.266   2.97%
   QC value within limits for Ti 334.940  Recovery = 102.66%
Tl 190.801†              351.7      524.80 µg/L        26.836      524.80 ppb         26.836   5.11%
   QC value within limits for Tl 190.801  Recovery = 104.96%
U 409.014†              5370.4      515.92 µg/L        26.456      515.92 ppb         26.456   5.13%
   QC value within limits for U 409.014  Recovery = 103.18%
V 292.402†             45798.0      524.86 µg/L        25.714      524.86 ppb         25.714   4.90%
   QC value within limits for V 292.402  Recovery = 104.97%
Zn 213.857†            19753.5      527.11 µg/L        22.658      527.11 ppb         22.658   4.30%
   QC value within limits for Zn 213.857  Recovery = 105.42%
All analyte(s) passed QC.
```

Sequence No.: 17
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 12/19/2009 07:33:27
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	118505.5	118505.5	95.0	%			07:34:00
1	Al 396.153Radial†	232.6	37.5	18.200	µg/L	18.200	ppb	07:34:00
1	Ca 317.933Radial†	451.5	31.3	11.427	µg/L	11.427	ppb	07:34:20
1	Fe 238.204 Radial†	7.1	-0.8	-3.8563	µg/L	-3.8563	ppb	07:34:20
1	K 766.490 Radial†	781.3	-9.8	-5.2227	µg/L	-5.2227	ppb	07:34:00
1	Mg 279.077 IEC†	19.5	4.8	25.784	µg/L	25.784	ppb	07:34:20
1	Na 589.592 Radial†	-710.3	-2.5	-0.6525	µg/L	-0.6525	ppb	07:34:00
1	Sr 421.552†	-57.3	50.1	0.2673	µg/L	0.2673	ppb	07:34:00
1	Sc 361.383	2142587.6	2142587.6	98.261	%			07:35:22
1	Y 371.029	1303526.6	1303526.6	98.311	%			07:35:22
1	Ag 328.068†	180.8	103.2	0.9319	µg/L	0.9319	ppb	07:35:28
1	As 188.979†	-4.0	-5.1	-9.5667	µg/L	-9.5667	ppb	07:35:48
1	B 249.677†	170.4	7.2	0.3157	µg/L	0.3157	ppb	07:35:28
1	Ba 233.527†	-75.7	10.2	0.2553	µg/L	0.2553	ppb	07:35:48
1	Be 313.107†	3761.5	185.8	0.1135	µg/L	0.1135	ppb	07:35:28
1	Cd 226.502†	-105.6	2.4	0.0611	µg/L	0.0611	ppb	07:35:48
1	Co 228.616†	-74.5	-0.1	-0.0026	µg/L	-0.0026	ppb	07:35:48
1	Cr 267.716†	-133.9	-0.6	-0.0139	µg/L	-0.0139	ppb	07:35:28
1	Cu 324.752†	3271.6	-73.9	-0.5145	µg/L	-0.5145	ppb	07:35:28
1	Mn 257.610†	-184.2	34.1	0.1063	µg/L	0.1063	ppb	07:35:48
1	Mo 202.031†	6.3	7.5	0.8482	µg/L	0.8482	ppb	07:35:48
1	Ni 231.604†	339.0	11.6	0.6288	µg/L	0.6288	ppb	07:35:48
1	P 214.914†	200.9	-7.4	-15.971	µg/L	-15.971	ppb	07:35:48
1	Pb 220.353†	56.1	5.4	1.3880	µg/L	1.3880	ppb	07:35:48
1	S 181.975 Axial†	27.8	2.5	12.798	µg/L	12.798	ppb	07:35:48
1	Sb 206.836†	17.5	-5.0	-5.0296	µg/L	-5.0296	ppb	07:35:48
1	Se 196.026†	11.0	-1.2	-1.7673	µg/L	-1.7673	ppb	07:35:48
1	SiO2†	2213.6	125.4	24.106	µg/L	24.106	ppb	07:35:28
1	Si 251.611†	480.0	109.5	8.4092	µg/L	8.4092	ppb	07:35:48
1	Sn 189.927†	22.5	0.7	0.3660	µg/L	0.3660	ppb	07:35:48
1	Ti 334.940†	1010.9	145.4	0.3181	µg/L	0.3181	ppb	07:35:28
1	Tl 190.801†	-23.2	-0.0	-0.0073	µg/L	-0.0073	ppb	07:35:48
1	U 409.014†	870.6	-50.5	-4.8598	µg/L	-4.8598	ppb	07:35:28
1	V 292.402†	-128.0	-33.8	-0.3864	µg/L	-0.3864	ppb	07:35:28
1	Zn 213.857†	620.9	35.6	0.9552	µg/L	0.9552	ppb	07:35:48
2	Sc RADIAL	119703.8	119703.8	95.9	%			07:34:26
2	Al 396.153Radial†	184.7	-14.8	-7.2171	µg/L	-7.2171	ppb	07:34:26
2	Ca 317.933Radial†	454.2	29.4	10.725	µg/L	10.725	ppb	07:34:46
2	Fe 238.204 Radial†	8.5	0.6	2.8845	µg/L	2.8845	ppb	07:34:46
2	K 766.490 Radial†	808.6	10.4	5.5705	µg/L	5.5705	ppb	07:34:26
2	Mg 279.077 IEC†	14.5	-0.6	-3.0375	µg/L	-3.0375	ppb	07:34:46
2	Na 589.592 Radial†	-749.7	-36.0	-9.3416	µg/L	-9.3416	ppb	07:34:26
2	Sr 421.552†	-54.4	53.8	0.2869	µg/L	0.2869	ppb	07:34:26
2	Sc 361.383	2132019.8	2132019.8	97.776	%			07:35:54
2	Y 371.029	1297538.0	1297538.0	97.860	%			07:35:54
2	Ag 328.068†	150.2	72.9	0.6584	µg/L	0.6584	ppb	07:36:00
2	As 188.979†	4.2	3.3	6.1514	µg/L	6.1514	ppb	07:36:21
2	B 249.677†	141.6	-21.4	-0.9399	µg/L	-0.9399	ppb	07:36:00
2	Ba 233.527†	-62.0	23.8	0.5996	µg/L	0.5996	ppb	07:36:21
2	Be 313.107†	3737.7	180.5	0.1103	µg/L	0.1103	ppb	07:36:00
2	Cd 226.502†	-105.0	2.5	0.0580	µg/L	0.0580	ppb	07:36:21
2	Co 228.616†	-67.4	6.7	0.3225	µg/L	0.3225	ppb	07:36:21
2	Cr 267.716†	-145.6	-13.3	-0.2790	µg/L	-0.2790	ppb	07:36:00
2	Cu 324.752†	3324.0	-3.8	-0.0259	µg/L	-0.0259	ppb	07:36:00
2	Mn 257.610†	-159.5	58.4	0.1831	µg/L	0.1831	ppb	07:36:21
2	Mo 202.031†	-1.5	-0.5	-0.0529	µg/L	-0.0529	ppb	07:36:21
2	Ni 231.604†	338.8	13.1	0.7066	µg/L	0.7066	ppb	07:36:21
2	P 214.914†	195.6	-11.8	-25.503	µg/L	-25.503	ppb	07:36:21
2	Pb 220.353†	56.4	6.1	1.5512	µg/L	1.5512	ppb	07:36:21

2	S 181.975 Axial†	31.0	6.0	30.364	µg/L	30.364 ppb	07:36:21
2	Sb 206.836†	28.3	6.2	6.2255	µg/L	6.2255 ppb	07:36:21
2	Se 196.026†	5.6	-6.7	-9.4821	µg/L	-9.4821 ppb	07:36:21
2	SiO2†	2144.4	65.9	12.658	µg/L	12.658 ppb	07:36:00
2	Si 251.611†	461.3	92.8	7.0493	µg/L	7.0493 ppb	07:36:21
2	Sn 189.927†	26.9	5.3	2.6211	µg/L	2.6211 ppb	07:36:21
2	Ti 334.940†	968.7	107.4	0.2349	µg/L	0.2349 ppb	07:36:00
2	Tl 190.801†	-18.5	4.7	6.9319	µg/L	6.9319 ppb	07:36:21
2	U 409.014†	805.9	-112.3	-10.804	µg/L	-10.804 ppb	07:36:00
2	V 292.402†	-116.1	-22.3	-0.2708	µg/L	-0.2708 ppb	07:36:00
2	Zn 213.857†	623.2	41.2	1.1032	µg/L	1.1032 ppb	07:36:21
3	Sc RADIAL	119573.7	119573.7	95.8	%		07:34:52
3	Al 396.153Radial†	182.3	-17.2	-8.3568	µg/L	-8.3568 ppb	07:34:52
3	Ca 317.933Radial†	457.9	33.8	12.327	µg/L	12.327 ppb	07:35:12
3	Fe 238.204 Radial†	8.6	0.7	3.6802	µg/L	3.6802 ppb	07:35:12
3	K 766.490 Radial†	708.7	-92.9	-49.639	µg/L	-49.639 ppb	07:34:52
3	Mg 279.077 IEC†	15.6	0.6	3.0388	µg/L	3.0388 ppb	07:35:12
3	Na 589.592 Radial†	-697.8	17.2	4.4625	µg/L	4.4625 ppb	07:34:52
3	Sr 421.552†	-104.4	1.5	0.0083	µg/L	0.0083 ppb	07:34:52
3	Sc 361.383	2135441.2	2135441.2	97.933	%		07:36:27
3	Y 371.029	1299623.9	1299623.9	98.017	%		07:36:27
3	Ag 328.068†	185.8	109.0	0.9855	µg/L	0.9855 ppb	07:36:32
3	As 188.979†	1.8	0.7	1.4014	µg/L	1.4014 ppb	07:36:53
3	B 249.677†	142.2	-21.1	-0.9256	µg/L	-0.9256 ppb	07:36:32
3	Ba 233.527†	-64.3	21.6	0.5418	µg/L	0.5418 ppb	07:36:53
3	Be 313.107†	3773.5	210.9	0.1289	µg/L	0.1289 ppb	07:36:32
3	Cd 226.502†	-99.1	8.7	0.2195	µg/L	0.2195 ppb	07:36:53
3	Co 228.616†	-79.8	-5.7	-0.2768	µg/L	-0.2768 ppb	07:36:53
3	Cr 267.716†	-123.1	10.0	0.2084	µg/L	0.2084 ppb	07:36:32
3	Cu 324.752†	3320.7	-12.7	-0.0871	µg/L	-0.0871 ppb	07:36:32
3	Mn 257.610†	-169.9	48.0	0.1508	µg/L	0.1508 ppb	07:36:53
3	Mo 202.031†	-3.2	-2.2	-0.2458	µg/L	-0.2458 ppb	07:36:53
3	Ni 231.604†	356.6	30.7	1.6644	µg/L	1.6644 ppb	07:36:53
3	P 214.914†	197.2	-10.5	-22.743	µg/L	-22.743 ppb	07:36:53
3	Pb 220.353†	41.4	-9.3	-2.3394	µg/L	-2.3394 ppb	07:36:53
3	S 181.975 Axial†	28.6	3.5	17.691	µg/L	17.691 ppb	07:36:53
3	Sb 206.836†	17.5	-4.9	-4.9379	µg/L	-4.9379 ppb	07:36:53
3	Se 196.026†	9.0	-3.2	-4.4832	µg/L	-4.4832 ppb	07:36:53
3	SiO2†	2164.6	83.0	15.949	µg/L	15.949 ppb	07:36:32
3	Si 251.611†	471.2	102.1	7.8478	µg/L	7.8478 ppb	07:36:53
3	Sn 189.927†	23.7	2.0	1.0001	µg/L	1.0001 ppb	07:36:53
3	Ti 334.940†	1026.8	165.1	0.3614	µg/L	0.3614 ppb	07:36:32
3	Tl 190.801†	-16.6	6.7	9.8951	µg/L	9.8951 ppb	07:36:53
3	U 409.014†	785.8	-134.2	-12.911	µg/L	-12.911 ppb	07:36:32
3	V 292.402†	-117.3	-23.3	-0.2873	µg/L	-0.2873 ppb	07:36:32
3	Zn 213.857†	618.8	35.6	0.9495	µg/L	0.9495 ppb	07:36:53

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2136682.9	97.990	%	0.2473				0.25%
Sc RADIAL	119261.0	95.6	%	0.53				0.55%
Y 371.029	1300229.5	98.063	%	0.2293				0.23%
Ag 328.068†	95.0	0.8586	µg/L	0.17547	0.8586	ppb	0.17547	20.44%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	1.8	0.8752	µg/L	15.01417	0.8752	ppb	15.01417	>999.9%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-0.4	-0.6713	µg/L	8.06144	-0.6713	ppb	8.06144	>999.9%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-11.8	-0.5166	µg/L	0.72079	-0.5166	ppb	0.72079	139.53%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	18.5	0.4656	µg/L	0.18433	0.4656	ppb	0.18433	39.59%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	192.4	0.1175	µg/L	0.00993	0.1175	ppb	0.00993	8.45%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	31.5	11.493	µg/L	0.8030	11.493	ppb	0.8030	6.99%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	4.6	0.1128	µg/L	0.09235	0.1128	ppb	0.09235	81.84%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	0.3	0.0144	µg/L	0.30001	0.0144	ppb	0.30001	>999.9%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -1.3     -0.0282 µg/L       0.24400     -0.0282 ppb        0.24400 866.37%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -30.1     -0.2092 µg/L       0.26621     -0.2092 ppb        0.26621 127.27%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       0.2      0.9028 µg/L       4.14068      0.9028 ppb        4.14068 458.66%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       -30.8     -16.430 µg/L      29.2612     -16.430 ppb       29.2612 178.09%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          1.6      8.5949 µg/L      15.19264      8.5949 ppb       15.19264 176.76%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†             46.8      0.1467 µg/L       0.03860      0.1467 ppb        0.03860  26.30%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              1.6      0.1832 µg/L       0.58396      0.1832 ppb        0.58396 318.84%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      -7.1     -1.8439 µg/L       6.97876     -1.8439 ppb        6.97876 378.49%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†             18.5      0.9999 µg/L       0.57677      0.9999 ppb        0.57677  57.68%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†              -9.9     -21.406 µg/L       4.9043     -21.406 ppb         4.9043  22.91%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              0.8      0.1999 µg/L       2.20066      0.1999 ppb        2.20066 >999.9%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         4.0      20.284 µg/L       9.0654      20.284 ppb         9.0654  44.69%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†             -1.2     -1.2473 µg/L       6.47181     -1.2473 ppb        6.47181 518.85%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†             -3.7     -5.2442 µg/L       3.91334     -5.2442 ppb        3.91334  74.62%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                   91.4      17.571 µg/L       5.8939      17.571 ppb         5.8939  33.54%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†            101.5      7.7688 µg/L       0.68337      7.7688 ppb        0.68337   8.80%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†              2.7      1.3291 µg/L       1.16297      1.3291 ppb        1.16297  87.50%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             35.1      0.1875 µg/L       0.15552      0.1875 ppb        0.15552  82.95%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†            139.3      0.3048 µg/L       0.06428      0.3048 ppb        0.06428  21.09%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              3.8      5.6066 µg/L       5.08251      5.6066 ppb        5.08251  90.65%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†             -99.0     -9.5251 µg/L       4.17538     -9.5251 ppb        4.17538  43.84%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†             -26.5     -0.3148 µg/L       0.06251     -0.3148 ppb        0.06251  19.86%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†             37.5      1.0027 µg/L       0.08715      1.0027 ppb        0.08715   8.69%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Method: Hg_ReAlign
Result: 122809

Sample ID: Hg_ReAlign

Hg 253.652

Rep: 1

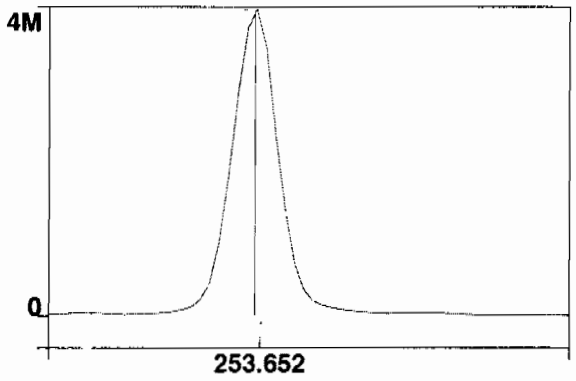

Intensity: 3462101.3 cps
Conc:

1

12/23/2009 17:02:52 Hg ReAlign... Actual peak offset (nm): -0.009
Drift (nm): -0.000 Slit adjustment: 2

Analysis Begun

Start Time: 12/23/2009 17:07:39 **Plasma On Time: 12/14/2009 06:02:42**
Logged In Analyst: Optima3 **Technique: ICP Continuous**
Spectrometer Model: Optima 5300 DV, S/N 077C7090601Autosampler Model: S10

Sample Information File: C:\pe\Optima3\Sample Information\122209A.SIF
Batch ID:
Results Data Set: 122309
Results Library: C:\pe\Optima3\Results\Results.mdb

Method Loaded
Method Name: General Eng.2AX **Method Last Saved: 12/22/2009 22:18:58**
IEC File: 101209.iec **MSF File:**
Method Description:

Analyte	Calibration Equation	Processing	View	Internal Standard	IEC
Ag 328.068	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Al 396.153Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
As 188.979	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
B 249.677	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ba 233.527	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Be 313.107	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ca 317.933Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	No
Cd 226.502	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Co 228.616	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cr 267.716	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cu 324.752	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Fe 238.204 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
K 766.490 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Mg 279.077 IEC	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Mn 257.610	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Mo 202.031	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Na 589.592 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	No
Ni 231.604	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
P 214.914	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Pb 220.353	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
S 181.975 Axial	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sb 206.836	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sc 361.383	Lin Thru 0	Peak Area	Axial	n/a	n/a
Sc Radial	Lin, Calc Int	Peak Area	Radial	n/a	n/a
Se 196.026	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Si 251.611	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sn 189.927	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sr 421.552	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Ti 334.940	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Tl 190.801	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
U 409.014	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
V 292.402	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y 371.029	Lin, Calc Int	Peak Area	Axial	n/a	n/a
Zn 213.857	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y RADIAL	Lin, Calc Int	Peak Area	Radial	n/a	n/a
SiO2	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes

Sequence No.: 1 **Autosampler Location: 8**
Sample ID: S0 **Date Collected: 12/23/2009 17:07:40**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: S0

	Net	Corrected	Calib.	Analysis

Repl#	Analyte	Intensity	Intensity	Conc.	Units	Time
1	Sc Radial	5692.0	5692.0	100	%	17:09:33
1	Y RADIAL	6277.1	6277.1	100.6	%	17:09:33
1	Al 396.153Radial†	10.5	10.4	[0.00]	ug/L	17:09:33
1	Ca 317.933Radial†	13.0	13.0	[0.00]	ug/L	17:09:53
1	Fe 238.204 Radial†	9.5	9.5	[0.00]	ug/L	17:09:53
1	K 766.490 Radial†	2855.3	2846.2	[0.00]	ug/L	17:09:33
1	Mg 279.077 IEC†	1.4	1.4	[0.00]	ug/L	17:09:53
1	Na 589.592 Radial†	-1567.2	-1562.2	[0.00]	ug/L	17:09:33
1	Sr 421.552†	-4.8	-4.7	[0.00]	ug/L	17:09:33
1	Sc 361.383	923987.5	923987.5	98.960	%	17:10:50
1	Y 371.029	795145.3	795145.3	99.050	%	17:10:50
1	Ag 328.068†	420.4	424.8	[0.00]	ug/L	17:10:55
1	As 188.979†	-25.8	-26.1	[0.00]	ug/L	17:11:15
1	B 249.677†	-790.7	-799.0	[0.00]	ug/L	17:11:15
1	Ba 233.527†	-0.7	-0.7	[0.00]	ug/L	17:11:15
1	Be 313.107†	-4833.7	-4884.5	[0.00]	ug/L	17:10:55
1	Cd 226.502†	-243.0	-245.6	[0.00]	ug/L	17:11:15
1	Co 228.616†	-87.4	-88.3	[0.00]	ug/L	17:11:15
1	Cr 267.716†	87.7	88.6	[0.00]	ug/L	17:10:55
1	Cu 324.752†	6619.4	6689.0	[0.00]	ug/L	17:10:55
1	Mn 257.610†	507.8	513.1	[0.00]	ug/L	17:11:15
1	Mo 202.031†	21.8	22.0	[0.00]	ug/L	17:11:15
1	Ni 231.604†	118.9	120.1	[0.00]	ug/L	17:11:15
1	P 214.914†	243.0	245.5	[0.00]	ug/L	17:11:15
1	Pb 220.353†	-82.0	-82.8	[0.00]	ug/L	17:11:15
1	S 181.975 Axial†	55.4	56.0	[0.00]	ug/L	17:11:15
1	Sb 206.836†	44.1	44.5	[0.00]	ug/L	17:11:15
1	Se 196.026†	-31.1	-31.4	[0.00]	ug/L	17:11:15
1	Si 251.611†	621.1	627.6	[0.00]	ug/L	17:11:15
1	Sn 189.927†	2.9	3.0	[0.00]	ug/L	17:11:15
1	Ti 334.940†	-1544.0	-1560.3	[0.00]	ug/L	17:10:55
1	Tl 190.801†	-41.0	-41.4	[0.00]	ug/L	17:11:15
1	U 409.014†	-2553.8	-2580.6	[0.00]	ug/L	17:10:50
1	V 292.402†	-1625.2	-1642.3	[0.00]	ug/L	17:10:55
1	Zn 213.857†	776.9	785.0	[0.00]	ug/L	17:11:15
1	SiO2†	666.7	673.7	[0.00]	ug/L	17:12:21
2	Sc Radial	5648.0	5648.0	99.5	%	17:09:58
2	Y RADIAL	6197.8	6197.8	99.37	%	17:09:58
2	Al 396.153Radial†	-15.6	-15.7	[0.00]	ug/L	17:09:58
2	Ca 317.933Radial†	13.5	13.5	[0.00]	ug/L	17:10:18
2	Fe 238.204 Radial†	9.3	9.4	[0.00]	ug/L	17:10:18
2	K 766.490 Radial†	2808.2	2821.1	[0.00]	ug/L	17:09:58
2	Mg 279.077 IEC†	3.3	3.3	[0.00]	ug/L	17:10:18
2	Na 589.592 Radial†	-1531.3	-1538.3	[0.00]	ug/L	17:09:58
2	Sr 421.552†	13.0	13.0	[0.00]	ug/L	17:09:58
2	Sc 361.383	939289.7	939289.7	100.60	%	17:11:20
2	Y 371.029	807308.0	807308.0	100.57	%	17:11:20
2	Ag 328.068†	267.1	265.5	[0.00]	ug/L	17:11:25
2	As 188.979†	-35.0	-34.8	[0.00]	ug/L	17:11:45
2	B 249.677†	-771.2	-766.6	[0.00]	ug/L	17:11:45
2	Ba 233.527†	-4.2	-4.1	[0.00]	ug/L	17:11:45
2	Be 313.107†	-4775.0	-4746.5	[0.00]	ug/L	17:11:25
2	Cd 226.502†	-241.3	-239.8	[0.00]	ug/L	17:11:45
2	Co 228.616†	-91.7	-91.2	[0.00]	ug/L	17:11:45
2	Cr 267.716†	31.3	31.1	[0.00]	ug/L	17:11:25
2	Cu 324.752†	6607.0	6567.7	[0.00]	ug/L	17:11:25
2	Mn 257.610†	491.3	488.4	[0.00]	ug/L	17:11:45
2	Mo 202.031†	25.6	25.5	[0.00]	ug/L	17:11:45
2	Ni 231.604†	104.0	103.4	[0.00]	ug/L	17:11:45
2	P 214.914†	247.6	246.1	[0.00]	ug/L	17:11:45
2	Pb 220.353†	-74.3	-73.8	[0.00]	ug/L	17:11:45
2	S 181.975 Axial†	54.6	54.3	[0.00]	ug/L	17:11:45
2	Sb 206.836†	32.3	32.1	[0.00]	ug/L	17:11:45
2	Se 196.026†	-30.1	-30.0	[0.00]	ug/L	17:11:45
2	Si 251.611†	620.3	616.7	[0.00]	ug/L	17:11:45
2	Sn 189.927†	4.8	4.7	[0.00]	ug/L	17:11:45
2	Ti 334.940†	-1476.2	-1467.4	[0.00]	ug/L	17:11:25
2	Tl 190.801†	-38.1	-37.9	[0.00]	ug/L	17:11:45
2	U 409.014†	-2848.7	-2831.8	[0.00]	ug/L	17:11:20
2	V 292.402†	-1571.1	-1561.8	[0.00]	ug/L	17:11:25

2	Zn 213.857†	784.0	779.4	[0.00]	ug/L	17:11:45
2	SiO2†	644.8	641.0	[0.00]	ug/L	17:12:26
3	Sc Radial	5681.6	5681.6	100	%	17:10:23
3	Y RADIAL	6236.9	6236.9	99.99	%	17:10:23
3	Al 396.153Radial†	-10.4	-10.4	[0.00]	ug/L	17:10:23
3	Ca 317.933Radial†	13.0	12.9	[0.00]	ug/L	17:10:43
3	Fe 238.204 Radial†	12.5	12.5	[0.00]	ug/L	17:10:43
3	K 766.490 Radial†	2787.4	2783.6	[0.00]	ug/L	17:10:23
3	Mg 279.077 IEC†	-1.2	-1.2	[0.00]	ug/L	17:10:43
3	Na 589.592 Radial†	-1535.1	-1533.0	[0.00]	ug/L	17:10:23
3	Sr 421.552†	-39.7	-39.6	[0.00]	ug/L	17:10:23
3	Sc 361.383	937828.3	937828.3	100.44	%	17:11:50
3	Y 371.029	805852.6	805852.6	100.38	%	17:11:50
3	Ag 328.068†	264.9	263.7	[0.00]	ug/L	17:11:56
3	As 188.979†	-34.2	-34.1	[0.00]	ug/L	17:12:16
3	B 249.677†	-783.2	-779.7	[0.00]	ug/L	17:12:16
3	Ba 233.527†	-9.3	-9.2	[0.00]	ug/L	17:12:16
3	Be 313.107†	-4780.4	-4759.4	[0.00]	ug/L	17:11:56
3	Cd 226.502†	-231.1	-230.1	[0.00]	ug/L	17:12:16
3	Co 228.616†	-95.3	-94.9	[0.00]	ug/L	17:12:16
3	Cr 267.716†	125.9	125.4	[0.00]	ug/L	17:11:56
3	Cu 324.752†	6491.1	6462.5	[0.00]	ug/L	17:11:56
3	Mn 257.610†	471.2	469.1	[0.00]	ug/L	17:12:16
3	Mo 202.031†	29.5	29.3	[0.00]	ug/L	17:12:16
3	Ni 231.604†	85.8	85.4	[0.00]	ug/L	17:12:16
3	P 214.914†	248.9	247.8	[0.00]	ug/L	17:12:16
3	Pb 220.353†	-91.6	-91.2	[0.00]	ug/L	17:12:16
3	S 181.975 Axial†	54.8	54.5	[0.00]	ug/L	17:12:16
3	Sb 206.836†	46.6	46.4	[0.00]	ug/L	17:12:16
3	Se 196.026†	-36.7	-36.6	[0.00]	ug/L	17:12:16
3	Si 251.611†	606.2	603.6	[0.00]	ug/L	17:12:16
3	Sn 189.927†	9.2	9.2	[0.00]	ug/L	17:12:16
3	Ti 334.940†	-1526.7	-1520.0	[0.00]	ug/L	17:11:56
3	Tl 190.801†	-35.2	-35.1	[0.00]	ug/L	17:12:16
3	U 409.014†	-2481.5	-2470.5	[0.00]	ug/L	17:11:50
3	V 292.402†	-1593.2	-1586.2	[0.00]	ug/L	17:11:56
3	Zn 213.857†	774.3	770.9	[0.00]	ug/L	17:12:16
3	SiO2†	634.9	632.1	[0.00]	ug/L	17:12:31

Mean Data: S0

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	933701.9	8444.57	0.90%	100.00	%
Sc Radial	5673.9	22.96	0.40%	100	%
Y 371.029	802768.6	6642.00	0.83%	100.00	%
Y RADIAL	6237.3	39.66	0.64%	100.0	%
Ag 328.068†	318.0	92.48	29.08%	[0.00]	ug/L
Al 396.153Radial†	-5.2	13.80	264.91%	[0.00]	ug/L
As 188.979†	-31.7	4.84	15.29%	[0.00]	ug/L
B 249.677†	-781.8	16.29	2.08%	[0.00]	ug/L
Ba 233.527†	-4.7	4.29	91.46%	[0.00]	ug/L
Be 313.107†	-4796.8	76.21	1.59%	[0.00]	ug/L
Ca 317.933Radial†	13.2	0.32	2.43%	[0.00]	ug/L
Cd 226.502†	-238.5	7.82	3.28%	[0.00]	ug/L
Co 228.616†	-91.5	3.29	3.60%	[0.00]	ug/L
Cr 267.716†	81.7	47.51	58.16%	[0.00]	ug/L
Cu 324.752†	6573.1	113.34	1.72%	[0.00]	ug/L
Fe 238.204 Radial†	10.5	1.76	16.87%	[0.00]	ug/L
K 766.490 Radial†	2817.0	31.54	1.12%	[0.00]	ug/L
Mg 279.077 IEC†	1.2	2.30	197.10%	[0.00]	ug/L
Mn 257.610†	490.2	22.07	4.50%	[0.00]	ug/L
Mo 202.031†	25.6	3.66	14.31%	[0.00]	ug/L
Na 589.592 Radial†	-1544.5	15.56	1.01%	[0.00]	ug/L
Ni 231.604†	103.0	17.37	16.87%	[0.00]	ug/L
P 214.914†	246.5	1.18	0.48%	[0.00]	ug/L
Pb 220.353†	-82.6	8.70	10.52%	[0.00]	ug/L
S 181.975 Axial†	54.9	0.95	1.73%	[0.00]	ug/L
Sb 206.836†	41.0	7.76	18.93%	[0.00]	ug/L
Se 196.026†	-32.6	3.48	10.66%	[0.00]	ug/L
Si 251.611†	615.9	12.03	1.95%	[0.00]	ug/L

Sn 189.927†	5.6	3.21	56.89%	[0.00]	ug/L
Sr 421.552†	-10.4	26.79	256.52%	[0.00]	ug/L
Ti 334.940†	-1515.9	46.55	3.07%	[0.00]	ug/L
Tl 190.801†	-38.1	3.18	8.34%	[0.00]	ug/L
U 409.014†	-2627.6	185.16	7.05%	[0.00]	ug/L
V 292.402†	-1596.8	41.31	2.59%	[0.00]	ug/L
Zn 213.857†	778.4	7.12	0.92%	[0.00]	ug/L
SiO2†	649.0	21.92	3.38%	[0.00]	ug/L

Sequence No.: 2
Sample ID: S0.1
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 2
Date Collected: 12/23/2009 17:14:41
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc Radial	5591.6	5591.6	98.6	%	17:16:38
1	Y RADIAL	6172.8	6172.8	98.97	%	17:16:38
1	K 766.490 Radial†	8706.7	6017.9	[1000]	ug/L	17:16:33
1	Sr 421.552†	17434.7	17701.6	[100]	ug/L	17:16:38
1	Sc 361.383	923068.5	923068.5	98.861	%	17:17:05
1	Y 371.029	790758.9	790758.9	98.504	%	17:17:05
1	Ag 328.068†	24129.9	24089.9	[100]	ug/L	17:17:05
1	As 188.979†	255.7	290.3	[100]	ug/L	17:17:25
1	B 249.677†	3982.6	4810.2	[100]	ug/L	17:17:05
1	Ba 233.527†	15161.5	15340.8	[100]	ug/L	17:17:05
1	Be 313.107†	295175.8	303372.9	[100]	ug/L	17:17:05
1	Cd 226.502†	10089.7	10444.4	[100]	ug/L	17:17:25
1	Co 228.616†	5729.6	5887.1	[100]	ug/L	17:17:25
1	Cr 267.716†	10198.6	10234.4	[100]	ug/L	17:17:05
1	Cu 324.752†	42567.1	36484.4	[100]	ug/L	17:17:05
1	Mn 257.610†	105501.1	106226.2	[100]	ug/L	17:17:05
1	Mo 202.031†	1698.2	1692.1	[100]	ug/L	17:17:25
1	Ni 231.604†	4769.6	4721.6	[100]	ug/L	17:17:25
1	P 214.914†	1248.4	1016.4	[500]	ug/L	17:17:25
1	Pb 220.353†	918.2	1011.4	[100]	ug/L	17:17:25
1	S 181.975 Axial†	219.2	166.8	[200]	ug/L	17:17:25
1	Sb 206.836†	364.1	327.3	[100]	ug/L	17:17:25
1	Se 196.026†	147.4	181.8	[100]	ug/L	17:17:25
1	Si 251.611†	18573.9	18171.9	[500]	ug/L	17:17:05
1	Sn 189.927†	680.5	682.7	[100]	ug/L	17:17:25
1	Ti 334.940†	68135.0	70435.8	[100]	ug/L	17:17:05
1	Tl 190.801†	328.2	370.1	[100]	ug/L	17:17:25
1	U 409.014†	919.0	3557.2	[100]	ug/L	17:17:05
1	V 292.402†	14302.3	16063.8	[100]	ug/L	17:17:05
1	Zn 213.857†	13233.8	12607.8	[100]	ug/L	17:17:05
1	SiO2†	18482.4	18046.4	[1069.5]	ug/L	17:18:21
2	Sc Radial	5566.0	5566.0	98.1	%	17:16:48
2	Y RADIAL	6060.8	6060.8	97.17	%	17:16:48
2	K 766.490 Radial†	8505.5	5853.5	[1000]	ug/L	17:16:43
2	Sr 421.552†	17138.7	17481.4	[100]	ug/L	17:16:48
2	Sc 361.383	924068.7	924068.7	98.968	%	17:17:30
2	Y 371.029	791817.4	791817.4	98.636	%	17:17:30
2	Ag 328.068†	23946.3	23877.9	[100]	ug/L	17:17:30
2	As 188.979†	250.9	285.2	[100]	ug/L	17:17:50
2	B 249.677†	4034.5	4858.3	[100]	ug/L	17:17:30
2	Ba 233.527†	15080.4	15242.3	[100]	ug/L	17:17:30
2	Be 313.107†	295602.8	303481.2	[100]	ug/L	17:17:30
2	Cd 226.502†	10108.9	10452.8	[100]	ug/L	17:17:50
2	Co 228.616†	5730.9	5882.1	[100]	ug/L	17:17:50
2	Cr 267.716†	10199.0	10223.7	[100]	ug/L	17:17:30
2	Cu 324.752†	42527.3	36397.6	[100]	ug/L	17:17:30
2	Mn 257.610†	105299.5	105907.0	[100]	ug/L	17:17:30
2	Mo 202.031†	1701.2	1693.3	[100]	ug/L	17:17:50
2	Ni 231.604†	4774.9	4721.7	[100]	ug/L	17:17:50
2	P 214.914†	1229.0	995.3	[500]	ug/L	17:17:50
2	Pb 220.353†	897.7	989.7	[100]	ug/L	17:17:50
2	S 181.975 Axial†	213.8	161.1	[200]	ug/L	17:17:50
2	Sb 206.836†	377.8	340.7	[100]	ug/L	17:17:50
2	Se 196.026†	150.3	184.5	[100]	ug/L	17:17:50
2	Si 251.611†	18568.9	18146.6	[500]	ug/L	17:17:30
2	Sn 189.927†	673.3	674.7	[100]	ug/L	17:17:50
2	Ti 334.940†	68159.3	70385.7	[100]	ug/L	17:17:30
2	Tl 190.801†	349.2	391.0	[100]	ug/L	17:17:50
2	U 409.014†	832.7	3469.0	[100]	ug/L	17:17:30

2	V 292.402†	14377.5	16124.2	[100]	ug/L	17:17:30
2	Zn 213.857†	13196.4	12555.5	[100]	ug/L	17:17:30
2	SiO2†	18556.5	18101.0	[1069.5]	ug/L	17:18:26
3	Sc Radial	5625.5	5625.5	99.1	%	17:16:58
3	Y RADIAL	6195.5	6195.5	99.33	%	17:16:58
3	K 766.490 Radial†	8429.8	5685.3	[1000]	ug/L	17:16:53
3	Sr 421.552†	17316.7	17476.2	[100]	ug/L	17:16:58
3	Sc 361.383	918862.2	918862.2	98.411	%	17:17:56
3	Y 371.029	787922.4	787922.4	98.151	%	17:17:56
3	Ag 328.068†	23878.0	23945.7	[100]	ug/L	17:17:56
3	As 188.979†	246.0	281.7	[100]	ug/L	17:18:16
3	B 249.677†	4047.2	4894.3	[100]	ug/L	17:17:56
3	Ba 233.527†	14987.7	15234.4	[100]	ug/L	17:17:56
3	Be 313.107†	294002.7	303547.6	[100]	ug/L	17:17:56
3	Cd 226.502†	10090.3	10491.7	[100]	ug/L	17:18:16
3	Co 228.616†	5727.5	5911.4	[100]	ug/L	17:18:16
3	Cr 267.716†	10178.4	10261.1	[100]	ug/L	17:17:56
3	Cu 324.752†	42217.7	36326.5	[100]	ug/L	17:17:56
3	Mn 257.610†	104839.7	106042.7	[100]	ug/L	17:17:56
3	Mo 202.031†	1684.4	1686.0	[100]	ug/L	17:18:16
3	Ni 231.604†	4746.4	4720.1	[100]	ug/L	17:18:16
3	P 214.914†	1239.7	1013.2	[500]	ug/L	17:18:16
3	Pb 220.353†	908.2	1005.5	[100]	ug/L	17:18:16
3	S 181.975 Axial†	214.4	163.0	[200]	ug/L	17:18:16
3	Sb 206.836†	372.2	337.2	[100]	ug/L	17:18:16
3	Se 196.026†	144.9	179.9	[100]	ug/L	17:18:16
3	Si 251.611†	18442.3	18124.2	[500]	ug/L	17:17:56
3	Sn 189.927†	678.2	683.5	[100]	ug/L	17:18:16
3	Ti 334.940†	67766.9	70377.2	[100]	ug/L	17:17:56
3	Tl 190.801†	342.0	385.7	[100]	ug/L	17:18:16
3	U 409.014†	813.0	3453.8	[100]	ug/L	17:17:56
3	V 292.402†	14296.5	16124.1	[100]	ug/L	17:17:56
3	Zn 213.857†	13192.9	12627.5	[100]	ug/L	17:17:56
3	SiO2†	18471.2	18120.5	[1069.5]	ug/L	17:18:31

Mean Data: S0.1

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	921999.8	2762.90	0.30%	98.747	%
Sc Radial	5594.3	29.85	0.53%	98.6	%
Y 371.029	790166.2	2013.96	0.25%	98.430	%
Y RADIAL	6143.0	72.13	1.17%	98.49	%
Ag 328.068†	23971.2	108.24	0.45%	[100]	ug/L
As 188.979†	285.7	4.36	1.53%	[100]	ug/L
B 249.677†	4854.3	42.18	0.87%	[100]	ug/L
Ba 233.527†	15272.5	59.31	0.39%	[100]	ug/L
Be 313.107†	303467.2	88.21	0.03%	[100]	ug/L
Cd 226.502†	10463.0	25.24	0.24%	[100]	ug/L
Co 228.616†	5893.5	15.70	0.27%	[100]	ug/L
Cr 267.716†	10239.7	19.25	0.19%	[100]	ug/L
Cu 324.752†	36402.8	79.10	0.22%	[100]	ug/L
K 766.490 Radial†	5852.2	166.27	2.84%	[1000]	ug/L
Mn 257.610†	106058.6	160.19	0.15%	[100]	ug/L
Mo 202.031†	1690.5	3.94	0.23%	[100]	ug/L
Ni 231.604†	4721.1	0.90	0.02%	[100]	ug/L
P 214.914†	1008.3	11.36	1.13%	[500]	ug/L
Pb 220.353†	1002.2	11.21	1.12%	[100]	ug/L
S 181.975 Axial†	163.6	2.88	1.76%	[200]	ug/L
Sb 206.836†	335.1	6.96	2.08%	[100]	ug/L
Se 196.026†	182.1	2.30	1.26%	[100]	ug/L
Si 251.611†	18147.6	23.85	0.13%	[500]	ug/L
Sn 189.927†	680.3	4.85	0.71%	[100]	ug/L
Sr 421.552†	17553.1	128.69	0.73%	[100]	ug/L
Ti 334.940†	70399.6	31.65	0.04%	[100]	ug/L
Tl 190.801†	382.3	10.84	2.84%	[100]	ug/L
U 409.014†	3493.3	55.85	1.60%	[100]	ug/L
V 292.402†	16104.1	34.83	0.22%	[100]	ug/L
Zn 213.857†	12596.9	37.21	0.30%	[100]	ug/L
SiO2†	18089.3	38.44	0.21%	[1069.5]	ug/L

Sequence No.: 3
Sample ID: S0.5
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 3
Date Collected: 12/23/2009 17:20:42
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc Radial	5638.3	5638.3	99.4	%	17:22:34
1	Y RADIAL	6160.2	6160.2	98.76	%	17:22:34
1	Al 396.153Radial†	7212.1	7262.9	[5000]	ug/L	17:22:34
1	Ca 317.933Radial†	3662.7	3672.6	[5000]	ug/L	17:22:54
1	K 766.490 Radial†	32428.6	29816.3	[5000]	ug/L	17:22:34
1	Mg 279.077 IEC†	179.6	179.6	[5000]	ug/L	17:22:54
1	Sr 421.552†	90198.5	90778.4	[500]	ug/L	17:22:34
1	Sc 361.383	947548.7	947548.7	101.48	%	17:23:53
1	Y 371.029	802942.8	802942.8	100.02	%	17:23:53
1	Ag 328.068†	123084.1	120967.5	[500]	ug/L	17:23:53
1	As 188.979†	1433.5	1444.3	[500]	ug/L	17:24:13
1	B 249.677†	24816.7	25235.8	[500]	ug/L	17:23:53
1	Ba 233.527†	77482.5	76354.9	[500]	ug/L	17:23:53
1	Be 313.107†	1574248.9	1556040.7	[500]	ug/L	17:23:53
1	Cd 226.502†	54551.7	53993.1	[500]	ug/L	17:23:53
1	Co 228.616†	29722.7	29379.8	[500]	ug/L	17:24:13
1	Cr 267.716†	52465.7	51617.4	[500]	ug/L	17:23:53
1	Cu 324.752†	194672.2	185254.3	[500]	ug/L	17:23:53
1	Mn 257.610†	537882.6	529532.2	[500]	ug/L	17:23:53
1	Mo 202.031†	8744.2	8590.8	[500]	ug/L	17:24:13
1	Ni 231.604†	24179.7	23723.4	[500]	ug/L	17:24:13
1	P 214.914†	5418.8	5093.2	[2500]	ug/L	17:24:13
1	Pb 220.353†	5028.5	5037.6	[500]	ug/L	17:24:13
1	S 181.975 Axial†	927.1	858.7	[1000]	ug/L	17:24:13
1	Sb 206.836†	1799.1	1731.8	[500]	ug/L	17:24:13
1	Se 196.026†	950.1	968.9	[500]	ug/L	17:24:13
1	Si 251.611†	96146.4	94125.5	[2500]	ug/L	17:23:53
1	Sn 189.927†	3529.2	3472.0	[500]	ug/L	17:24:13
1	Ti 334.940†	361490.8	357724.1	[500]	ug/L	17:23:53
1	Tl 190.801†	1959.4	1968.9	[500]	ug/L	17:24:13
1	U 409.014†	15460.8	17862.5	[500]	ug/L	17:23:53
1	V 292.402†	81508.2	81913.8	[500]	ug/L	17:23:53
1	Zn 213.857†	65641.9	63904.2	[500]	ug/L	17:23:53
1	SiO2†	95357.3	93314.9	[5347.5]	ug/L	17:25:14
2	Sc Radial	5492.4	5492.4	96.8	%	17:22:59
2	Y RADIAL	5997.8	5997.8	96.16	%	17:22:59
2	Al 396.153Radial†	6978.8	7214.5	[5000]	ug/L	17:22:59
2	Ca 317.933Radial†	3653.0	3760.5	[5000]	ug/L	17:23:19
2	K 766.490 Radial†	31465.7	29688.1	[5000]	ug/L	17:22:59
2	Mg 279.077 IEC†	178.3	183.0	[5000]	ug/L	17:23:19
2	Sr 421.552†	87464.3	90364.0	[500]	ug/L	17:22:59
2	Sc 361.383	946213.0	946213.0	101.34	%	17:24:21
2	Y 371.029	801037.0	801037.0	99.784	%	17:24:21
2	Ag 328.068†	123129.1	121183.0	[500]	ug/L	17:24:21
2	As 188.979†	1439.4	1452.0	[500]	ug/L	17:24:41
2	B 249.677†	24881.3	25334.1	[500]	ug/L	17:24:21
2	Ba 233.527†	77459.8	76440.3	[500]	ug/L	17:24:21
2	Be 313.107†	1574164.2	1558146.8	[500]	ug/L	17:24:21
2	Cd 226.502†	54521.1	54038.7	[500]	ug/L	17:24:21
2	Co 228.616†	29770.8	29468.6	[500]	ug/L	17:24:41
2	Cr 267.716†	52466.6	51691.2	[500]	ug/L	17:24:21
2	Cu 324.752†	195126.9	185973.8	[500]	ug/L	17:24:21
2	Mn 257.610†	537413.8	529817.7	[500]	ug/L	17:24:21
2	Mo 202.031†	8759.0	8617.5	[500]	ug/L	17:24:41
2	Ni 231.604†	24240.1	23816.6	[500]	ug/L	17:24:41
2	P 214.914†	5427.5	5109.2	[2500]	ug/L	17:24:41
2	Pb 220.353†	5048.9	5064.8	[500]	ug/L	17:24:41
2	S 181.975 Axial†	930.5	863.2	[1000]	ug/L	17:24:41
2	Sb 206.836†	1807.6	1742.7	[500]	ug/L	17:24:41

2	Se 196.026†	948.6	968.7	[500]	ug/L	17:24:41
2	Si 251.611†	96271.8	94382.9	[2500]	ug/L	17:24:21
2	Sn 189.927†	3547.7	3495.1	[500]	ug/L	17:24:41
2	Ti 334.940†	361374.9	358112.6	[500]	ug/L	17:24:21
2	Tl 190.801†	1986.7	1998.6	[500]	ug/L	17:24:41
2	U 409.014†	15461.8	17885.0	[500]	ug/L	17:24:21
2	V 292.402†	81452.4	81972.2	[500]	ug/L	17:24:21
2	Zn 213.857†	65656.1	64009.6	[500]	ug/L	17:24:21
2	SiO2†	95980.2	94062.2	[5347.5]	ug/L	17:25:19
3	Sc Radial	5644.1	5644.1	99.5	%	17:23:24
3	Y RADIAL	6163.3	6163.3	98.81	%	17:23:24
3	Al 396.153Radial†	7187.8	7230.9	[5000]	ug/L	17:23:24
3	Ca 317.933Radial†	3667.1	3673.3	[5000]	ug/L	17:23:44
3	K 766.490 Radial†	32421.2	29775.1	[5000]	ug/L	17:23:24
3	Mg 279.077 IEC†	185.1	184.9	[5000]	ug/L	17:23:44
3	Sr 421.552†	90100.0	90585.1	[500]	ug/L	17:23:24
3	Sc 361.383	934660.0	934660.0	100.10	%	17:24:48
3	Y 371.029	793787.9	793787.9	98.881	%	17:24:48
3	Ag 328.068†	121358.0	120915.6	[500]	ug/L	17:24:48
3	As 188.979†	1457.4	1487.6	[500]	ug/L	17:25:08
3	B 249.677†	24549.4	25306.0	[500]	ug/L	17:24:48
3	Ba 233.527†	76425.0	76351.4	[500]	ug/L	17:24:48
3	Be 313.107†	1554765.7	1557968.6	[500]	ug/L	17:24:48
3	Cd 226.502†	53805.9	53989.2	[500]	ug/L	17:24:48
3	Co 228.616†	29816.6	29877.5	[500]	ug/L	17:25:08
3	Cr 267.716†	51780.0	51645.2	[500]	ug/L	17:24:48
3	Cu 324.752†	191707.3	184937.7	[500]	ug/L	17:24:48
3	Mn 257.610†	529417.5	528384.6	[500]	ug/L	17:24:48
3	Mo 202.031†	8793.2	8758.6	[500]	ug/L	17:25:08
3	Ni 231.604†	24277.6	24149.7	[500]	ug/L	17:25:08
3	P 214.914†	5429.7	5177.6	[2500]	ug/L	17:25:08
3	Pb 220.353†	5048.9	5126.3	[500]	ug/L	17:25:08
3	S 181.975 Axial†	936.5	880.6	[1000]	ug/L	17:25:08
3	Sb 206.836†	1812.2	1769.4	[500]	ug/L	17:25:08
3	Se 196.026†	954.6	986.2	[500]	ug/L	17:25:08
3	Si 251.611†	94559.8	93846.9	[2500]	ug/L	17:24:48
3	Sn 189.927†	3543.7	3534.4	[500]	ug/L	17:25:08
3	Ti 334.940†	355928.3	357079.3	[500]	ug/L	17:24:48
3	Tl 190.801†	1991.1	2027.2	[500]	ug/L	17:25:08
3	U 409.014†	14932.7	17545.1	[500]	ug/L	17:24:48
3	V 292.402†	80405.4	81919.7	[500]	ug/L	17:24:48
3	Zn 213.857†	64699.8	63855.0	[500]	ug/L	17:24:48
3	SiO2†	95318.3	94571.6	[5347.5]	ug/L	17:25:24

Mean Data: S0.5

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	942807.3	7087.24	0.75%	100.98	%
Sc Radial	5591.6	85.94	1.54%	98.6	%
Y 371.029	799255.9	4830.36	0.60%	99.562	%
Y RADIAL	6107.1	94.64	1.55%	97.91	%
Ag 328.068†	121022.0	141.81	0.12%	[500]	ug/L
Al 396.153Radial†	7236.1	24.59	0.34%	[5000]	ug/L
As 188.979†	1461.3	23.10	1.58%	[500]	ug/L
B 249.677†	25292.0	50.66	0.20%	[500]	ug/L
Ba 233.527†	76382.2	50.37	0.07%	[500]	ug/L
Be 313.107†	1557385.4	1167.92	0.07%	[500]	ug/L
Ca 317.933Radial†	3702.1	50.52	1.36%	[5000]	ug/L
Cd 226.502†	54007.0	27.51	0.05%	[500]	ug/L
Co 228.616†	29575.3	265.44	0.90%	[500]	ug/L
Cr 267.716†	51651.2	37.27	0.07%	[500]	ug/L
Cu 324.752†	185388.6	530.91	0.29%	[500]	ug/L
K 766.490 Radial†	29759.8	65.46	0.22%	[5000]	ug/L
Mg 279.077 IEC†	182.5	2.68	1.47%	[5000]	ug/L
Mn 257.610†	529244.8	758.54	0.14%	[500]	ug/L
Mo 202.031†	8655.7	90.16	1.04%	[500]	ug/L
Ni 231.604†	23896.6	224.15	0.94%	[500]	ug/L
P 214.914†	5126.7	44.84	0.87%	[2500]	ug/L
Pb 220.353†	5076.2	45.43	0.90%	[500]	ug/L
S 181.975 Axial†	867.5	11.59	1.34%	[1000]	ug/L

Sb 206.836†	1747.9	19.33	1.11%	[500]	ug/L
Se 196.026†	974.6	10.06	1.03%	[500]	ug/L
Si 251.611†	94118.4	268.05	0.28%	[2500]	ug/L
Sn 189.927†	3500.5	31.56	0.90%	[500]	ug/L
Sr 421.552†	90575.8	207.36	0.23%	[500]	ug/L
Ti 334.940†	357638.7	521.90	0.15%	[500]	ug/L
Tl 190.801†	1998.2	29.12	1.46%	[500]	ug/L
U 409.014†	17764.2	190.12	1.07%	[500]	ug/L
V 292.402†	81935.2	32.11	0.04%	[500]	ug/L
Zn 213.857†	63922.9	78.96	0.12%	[500]	ug/L
SiO2†	93982.9	632.11	0.67%	[5347.5]	ug/L

Sequence No.: 4
Sample ID: SCAL
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 4
Date Collected: 12/23/2009 17:27:34
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: SCAL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc Radial	5464.9	5464.9	96.3	%	17:29:47
1	Y RADIAL	5928.2	5928.2	95.05	%	17:29:47
1	Al 396.153Radial†	13910.2	14447.2	[10000]	ug/L	17:29:27
1	Ca 317.933Radial†	7102.7	7361.1	[10000]	ug/L	17:29:47
1	Fe 238.204 Radial†	1303.6	1342.9	[10000]	ug/L	17:29:47
1	K 766.490 Radial†	60243.2	59729.3	[10000]	ug/L	17:29:27
1	Mg 279.077 IEC†	352.4	364.7	[10000]	ug/L	17:29:47
1	Na 589.592 Radial†	37826.3	40816.9	[10000]	ug/L	17:29:27
1	Sr 421.552†	175177.2	181884.5	[1000]	ug/L	17:29:27
1	Sc 361.383	897343.0	897343.0	96.106	%	17:30:51
1	Y 371.029	762006.3	762006.3	94.922	%	17:30:51
1	Ag 328.068†	237058.9	246346.2	[1000]	ug/L	17:30:51
1	As 188.979†	2834.6	2981.1	[1000]	ug/L	17:31:11
1	B 249.677†	49046.7	51815.7	[1000]	ug/L	17:30:51
1	Ba 233.527†	148786.8	154820.1	[1000]	ug/L	17:30:51
1	Be 313.107†	3031459.1	3159085.6	[1000]	ug/L	17:30:45
1	Cd 226.502†	104681.1	109161.1	[1000]	ug/L	17:30:51
1	Co 228.616†	57910.5	60348.4	[1000]	ug/L	17:30:51
1	Cr 267.716†	100683.5	104681.3	[1000]	ug/L	17:30:51
1	Cu 324.752†	366462.1	374737.4	[1000]	ug/L	17:30:51
1	Mn 257.610†	1032848.5	1074207.6	[1000]	ug/L	17:30:45
1	Mo 202.031†	16956.8	17618.2	[1000]	ug/L	17:31:11
1	Ni 231.604†	46752.8	48544.1	[1000]	ug/L	17:30:51
1	P 214.914†	10356.4	10529.6	[5000]	ug/L	17:31:11
1	Pb 220.353†	9795.1	10274.6	[1000]	ug/L	17:31:11
1	S 181.975 Axial†	1772.7	1789.6	[2000]	ug/L	17:31:11
1	Sb 206.836†	3515.1	3616.5	[1000]	ug/L	17:31:11
1	Se 196.026†	1900.1	2009.8	[1000]	ug/L	17:31:11
1	Si 251.611†	182090.9	188853.0	[5000]	ug/L	17:30:51
1	Sn 189.927†	6946.1	7222.0	[1000]	ug/L	17:31:11
1	Ti 334.940†	699592.4	729454.6	[1000]	ug/L	17:30:45
1	Tl 190.801†	3901.5	4097.7	[1000]	ug/L	17:31:11
1	U 409.014†	33866.1	37865.9	[1000]	ug/L	17:30:51
1	V 292.402†	158744.0	166772.8	[1000]	ug/L	17:30:51
1	Zn 213.857†	125261.4	129558.4	[1000]	ug/L	17:30:51
1	SiO2†	184435.0	191259.1	[10695]	ug/L	17:32:20
2	Sc Radial	5501.5	5501.5	97.0	%	17:30:12
2	Y RADIAL	5959.6	5959.6	95.55	%	17:30:12
2	Al 396.153Radial†	13792.3	14229.6	[10000]	ug/L	17:29:52
2	Ca 317.933Radial†	7124.9	7335.0	[10000]	ug/L	17:30:12
2	Fe 238.204 Radial†	1311.0	1341.6	[10000]	ug/L	17:30:12
2	K 766.490 Radial†	59768.5	58824.3	[10000]	ug/L	17:29:52
2	Mg 279.077 IEC†	348.2	358.0	[10000]	ug/L	17:30:12
2	Na 589.592 Radial†	37361.5	40076.6	[10000]	ug/L	17:29:52
2	Sr 421.552†	173349.8	178791.8	[1000]	ug/L	17:29:52
2	Sc 361.383	905283.2	905283.2	96.956	%	17:31:23
2	Y 371.029	769940.6	769940.6	95.911	%	17:31:23
2	Ag 328.068†	239313.6	246508.1	[1000]	ug/L	17:31:23
2	As 188.979†	2806.6	2926.4	[1000]	ug/L	17:31:43
2	B 249.677†	49641.5	51981.6	[1000]	ug/L	17:31:23
2	Ba 233.527†	149480.8	154177.9	[1000]	ug/L	17:31:23
2	Be 313.107†	3050272.7	3150823.5	[1000]	ug/L	17:31:17
2	Cd 226.502†	105104.8	108642.8	[1000]	ug/L	17:31:23
2	Co 228.616†	58069.4	59983.8	[1000]	ug/L	17:31:23
2	Cr 267.716†	101422.3	104524.4	[1000]	ug/L	17:31:23
2	Cu 324.752†	371044.1	376118.8	[1000]	ug/L	17:31:23
2	Mn 257.610†	1036792.3	1068849.0	[1000]	ug/L	17:31:17
2	Mo 202.031†	16787.0	17288.3	[1000]	ug/L	17:31:43
2	Ni 231.604†	46990.9	48363.1	[1000]	ug/L	17:31:23

2	P 214.914†	10215.3	10289.6	[5000]	ug/L	17:31:43
2	Pb 220.353†	9715.7	10103.3	[1000]	ug/L	17:31:43
2	S 181.975 Axial†	1744.5	1744.4	[2000]	ug/L	17:31:43
2	Sb 206.836†	3471.8	3539.7	[1000]	ug/L	17:31:43
2	Se 196.026†	1855.8	1946.7	[1000]	ug/L	17:31:43
2	Si 251.611†	183714.9	188866.1	[5000]	ug/L	17:31:23
2	Sn 189.927†	6854.9	7064.5	[1000]	ug/L	17:31:43
2	Ti 334.940†	702929.1	726511.3	[1000]	ug/L	17:31:17
2	Tl 190.801†	3852.0	4011.1	[1000]	ug/L	17:31:43
2	U 409.014†	34323.2	38028.3	[1000]	ug/L	17:31:23
2	V 292.402†	160270.8	166898.8	[1000]	ug/L	17:31:23
2	Zn 213.857†	125972.0	129148.0	[1000]	ug/L	17:31:23
2	SiO2†	184078.1	189207.7	[10695]	ug/L	17:32:25
3	Sc Radial	5440.0	5440.0	95.9	%	17:30:38
3	Y RADIAL	5887.9	5887.9	94.40	%	17:30:38
3	Al 396.153Radial†	13940.8	14545.3	[10000]	ug/L	17:30:18
3	Ca 317.933Radial†	7049.4	7339.3	[10000]	ug/L	17:30:38
3	Fe 238.204 Radial†	1298.6	1343.9	[10000]	ug/L	17:30:38
3	K 766.490 Radial†	60502.5	60286.4	[10000]	ug/L	17:30:18
3	Mg 279.077 IEC†	347.5	361.3	[10000]	ug/L	17:30:38
3	Na 589.592 Radial†	37725.2	40891.4	[10000]	ug/L	17:30:18
3	Sr 421.552†	174991.2	182524.2	[1000]	ug/L	17:30:18
3	Sc 361.383	908257.1	908257.1	97.275	%	17:31:55
3	Y 371.029	771455.7	771455.7	96.099	%	17:31:55
3	Ag 328.068†	240458.8	246877.2	[1000]	ug/L	17:31:55
3	As 188.979†	2823.5	2934.3	[1000]	ug/L	17:32:15
3	B 249.677†	50088.4	52273.3	[1000]	ug/L	17:31:55
3	Ba 233.527†	150768.0	154996.4	[1000]	ug/L	17:31:55
3	Be 313.107†	3065787.5	3156472.0	[1000]	ug/L	17:31:49
3	Cd 226.502†	106027.3	109236.1	[1000]	ug/L	17:31:55
3	Co 228.616†	58657.7	60392.4	[1000]	ug/L	17:31:55
3	Cr 267.716†	102246.1	105028.8	[1000]	ug/L	17:31:55
3	Cu 324.752†	373191.8	377073.7	[1000]	ug/L	17:31:55
3	Mn 257.610†	1040604.8	1069267.0	[1000]	ug/L	17:31:49
3	Mo 202.031†	16792.0	17236.8	[1000]	ug/L	17:32:15
3	Ni 231.604†	47349.6	48573.1	[1000]	ug/L	17:31:55
3	P 214.914†	10246.1	10286.7	[5000]	ug/L	17:32:15
3	Pb 220.353†	9712.0	10066.8	[1000]	ug/L	17:32:15
3	S 181.975 Axial†	1744.2	1738.1	[2000]	ug/L	17:32:15
3	Sb 206.836†	3481.9	3538.4	[1000]	ug/L	17:32:15
3	Se 196.026†	1867.6	1952.6	[1000]	ug/L	17:32:15
3	Si 251.611†	184939.9	189505.1	[5000]	ug/L	17:31:55
3	Sn 189.927†	6877.1	7064.2	[1000]	ug/L	17:32:15
3	Ti 334.940†	706265.7	727567.6	[1000]	ug/L	17:31:49
3	Tl 190.801†	3847.7	3993.6	[1000]	ug/L	17:32:15
3	U 409.014†	34357.3	37947.5	[1000]	ug/L	17:31:55
3	V 292.402†	161049.6	167158.1	[1000]	ug/L	17:31:55
3	Zn 213.857†	126895.3	129671.9	[1000]	ug/L	17:31:55
3	SiO2†	185287.0	189828.8	[10695]	ug/L	17:32:31

Mean Data: SCAL

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	903627.8	5642.25	0.62%	96.779	%
Sc Radial	5468.8	30.92	0.57%	96.4	%
Y 371.029	767800.9	5075.09	0.66%	95.644	%
Y RADIAL	5925.3	35.95	0.61%	95.00	%
Ag 328.068†	246577.2	272.17	0.11%	[1000]	ug/L
Al 396.153Radial†	14407.4	161.56	1.12%	[10000]	ug/L
As 188.979†	2947.3	29.60	1.00%	[1000]	ug/L
B 249.677†	52023.6	231.67	0.45%	[1000]	ug/L
Ba 233.527†	154664.8	430.77	0.28%	[1000]	ug/L
Be 313.107†	3155460.4	4222.91	0.13%	[1000]	ug/L
Ca 317.933Radial†	7345.1	13.98	0.19%	[10000]	ug/L
Cd 226.502†	109013.3	323.09	0.30%	[1000]	ug/L
Co 228.616†	60241.5	224.31	0.37%	[1000]	ug/L
Cr 267.716†	104744.8	258.12	0.25%	[1000]	ug/L
Cu 324.752†	375976.7	1174.62	0.31%	[1000]	ug/L
Fe 238.204 Radial†	1342.8	1.17	0.09%	[10000]	ug/L
K 766.490 Radial†	59613.3	737.94	1.24%	[10000]	ug/L

Mg 279.077 IEC†	361.3	3.36	0.93%	[10000]	ug/L
Mn 257.610†	1070774.5	2980.46	0.28%	[1000]	ug/L
Mo 202.031†	17381.1	206.94	1.19%	[1000]	ug/L
Na 589.592 Radial†	40594.9	450.45	1.11%	[10000]	ug/L
Ni 231.604†	48493.4	113.83	0.23%	[1000]	ug/L
P 214.914†	10368.6	139.41	1.34%	[5000]	ug/L
Pb 220.353†	10148.2	110.98	1.09%	[1000]	ug/L
S 181.975 Axial†	1757.4	28.08	1.60%	[2000]	ug/L
Sb 206.836†	3564.9	44.72	1.25%	[1000]	ug/L
Se 196.026†	1969.7	34.84	1.77%	[1000]	ug/L
Si 251.611†	189074.7	372.77	0.20%	[5000]	ug/L
Sn 189.927†	7116.9	91.01	1.28%	[1000]	ug/L
Sr 421.552†	181066.8	1996.04	1.10%	[1000]	ug/L
Ti 334.940†	727844.5	1491.08	0.20%	[1000]	ug/L
Tl 190.801†	4034.2	55.75	1.38%	[1000]	ug/L
U 409.014†	37947.2	81.17	0.21%	[1000]	ug/L
V 292.402†	166943.2	196.47	0.12%	[1000]	ug/L
Zn 213.857†	129459.4	275.58	0.21%	[1000]	ug/L
SiO2†	190098.5	1051.92	0.55%	[10695]	ug/L

Sequence No.: 5
Sample ID: S10
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 5
Date Collected: 12/23/2009 17:34:42
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S10

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc Radial	5402.5	5402.5	95.2	%	17:36:55
1	Y RADIAL	5902.6	5902.6	94.63	%	17:36:55
1	Al 396.153Radial†	68600.6	72051.8	[50000]	ug/L	17:36:35
1	Ca 317.933Radial†	35003.6	36748.7	[50000]	ug/L	17:36:55
1	Fe 238.204 Radial†	2572.6	2691.3	[20000]	ug/L	17:36:55
1	Mg 279.077 IEC†	1687.6	1771.2	[50000]	ug/L	17:36:55
1	Na 589.592 Radial†	76708.9	82106.6	[20000]	ug/L	17:36:35
1	Sc 361.383	922699.8	922699.8	98.822	%	17:37:52
1	Y 371.029	776560.7	776560.7	96.735	%	17:37:52
2	Sc Radial	5447.3	5447.3	96.0	%	17:37:20
2	Y RADIAL	5941.8	5941.8	95.26	%	17:37:20
2	Al 396.153Radial†	69305.2	72193.0	[50000]	ug/L	17:37:00
2	Ca 317.933Radial†	34584.5	36009.9	[50000]	ug/L	17:37:20
2	Fe 238.204 Radial†	2544.2	2639.5	[20000]	ug/L	17:37:20
2	Mg 279.077 IEC†	1672.1	1740.5	[50000]	ug/L	17:37:20
2	Na 589.592 Radial†	77373.8	82136.5	[20000]	ug/L	17:37:00
2	Sc 361.383	911744.2	911744.2	97.648	%	17:37:58
2	Y 371.029	768416.2	768416.2	95.721	%	17:37:58
3	Sc Radial	5464.9	5464.9	96.3	%	17:37:45
3	Y RADIAL	5947.1	5947.1	95.35	%	17:37:45
3	Al 396.153Radial†	69938.3	72617.7	[50000]	ug/L	17:37:25
3	Ca 317.933Radial†	34753.2	36068.9	[50000]	ug/L	17:37:45
3	Fe 238.204 Radial†	2549.3	2636.3	[20000]	ug/L	17:37:45
3	Mg 279.077 IEC†	1678.1	1741.1	[50000]	ug/L	17:37:45
3	Na 589.592 Radial†	78422.9	82966.0	[20000]	ug/L	17:37:25
3	Sc 361.383	906863.3	906863.3	97.126	%	17:38:04
3	Y 371.029	764132.9	764132.9	95.187	%	17:38:04

Mean Data: S10

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	913769.1	8110.09	0.89%	97.865	%
Sc Radial	5438.2	32.18	0.59%	95.8	%
Y 371.029	769703.3	6313.08	0.82%	95.881	%
Y RADIAL	5930.5	24.31	0.41%	95.08	%
Al 396.153Radial†	72287.5	294.56	0.41%	[50000]	ug/L
Ca 317.933Radial†	36275.8	410.60	1.13%	[50000]	ug/L
Fe 238.204 Radial†	2655.7	30.90	1.16%	[20000]	ug/L
Mg 279.077 IEC†	1750.9	17.55	1.00%	[50000]	ug/L
Na 589.592 Radial†	82403.1	487.79	0.59%	[20000]	ug/L

Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 328.068	3	Lin Thru 0	0.0	245.6	0.00000	0.999971	
Al 396.153Radial	3	Lin Thru 0	0.0	1.446	0.00000	1.000000	
As 188.979	3	Lin Thru 0	0.0	2.942	0.00000	0.999991	
B 249.677	3	Lin Thru 0	0.0	51.71	0.00000	0.999923	
Ba 233.527	3	Lin Thru 0	0.0	154.3	0.00000	0.999988	
Be 313.107	3	Lin Thru 0	0.0	3146	0.00000	0.999982	
Ca 317.933Radial	3	Lin Thru 0	0.0	0.7260	0.00000	0.999995	
Cd 226.502	3	Lin Thru 0	0.0	108.8	0.00000	0.999987	
Co 228.616	3	Lin Thru 0	0.0	60.01	0.00000	0.999972	
Cr 267.716	3	Lin Thru 0	0.0	104.4	0.00000	0.999983	
Cu 324.752	3	Lin Thru 0	0.0	374.9	0.00000	0.999981	
Fe 238.204 Radia	2	Lin Thru 0	0.0	0.1331	0.00000	0.999990	
K 766.490 Radial	3	Lin Thru 0	0.0	5.959	0.00000	0.999999	

Mg 279.077 IEC	3	Lin Thru 0	0.0	0.0351	0.00000	0.999974
Mn 257.610	3	Lin Thru 0	0.0	1068	0.00000	0.999989
Mo 202.031	3	Lin Thru 0	0.0	17.36	0.00000	0.999996
Na 589.592 Radia	2	Lin Thru 0	0.0	4.108	0.00000	0.999983
Ni 231.604	3	Lin Thru 0	0.0	48.34	0.00000	0.999981
P 214.914	3	Lin Thru 0	0.0	2.069	0.00000	0.999988
Pb 220.353	3	Lin Thru 0	0.0	10.15	0.00000	0.999999
S 181.975 Axial	3	Lin Thru 0	0.0	0.8760	0.00000	0.999970
Sb 206.836	3	Lin Thru 0	0.0	3.550	0.00000	0.999957
Se 196.026	3	Lin Thru 0	0.0	1.964	0.00000	0.999970
Si 251.611	3	Lin Thru 0	0.0	37.77	0.00000	0.999992
Sn 189.927	3	Lin Thru 0	0.0	7.091	0.00000	0.999972
Sr 421.552	3	Lin Thru 0	0.0	181.0	0.00000	0.999996
Ti 334.940	3	Lin Thru 0	0.0	725.2	0.00000	0.999973
Tl 190.801	3	Lin Thru 0	0.0	4.025	0.00000	0.999983
U 409.014	3	Lin Thru 0	0.0	37.44	0.00000	0.999651
V 292.402	3	Lin Thru 0	0.0	166.3	0.00000	0.999969
Zn 213.857	3	Lin Thru 0	0.0	129.1	0.00000	0.999985
SiO2	3	Lin Thru 0	0.0	17.73	0.00000	0.999982

Sequence No.: 6
Sample ID: ICV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 9
Date Collected: 12/23/2009 17:40:15
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5570.9	5570.9	98.2	%			17:42:08
1	Y RADIAL	6089.4	6089.4	97.63	%			17:42:08
1	Al 396.153Radial†	7293.0	7433.0	5118.9	ug/L	5118.9	ppb	17:42:08
1	Ca 317.933Radial†	3649.1	3703.4	5101.1	ug/L	5101.1	ppb	17:42:28
1	Fe 238.204 Radial†	682.8	685.0	5162.7	ug/L	5162.7	ppb	17:42:28
1	K 766.490 Radial†	17492.5	14998.9	2511.9	ug/L	2511.9	ppb	17:42:08
1	Mg 279.077 IEC†	185.1	187.4	5348.0	ug/L	5348.0	ppb	17:42:28
1	Na 589.592 Radial†	8385.6	10085.1	2455.0	ug/L	2455.0	ppb	17:42:08
1	Sr 421.552†	93925.8	95672.5	528.41	ug/L	528.41	ppb	17:42:08
1	Sc 361.383	940850.5	940850.5	100.77	%			17:43:25
1	Y 371.029	799539.7	799539.7	99.598	%			17:43:25
1	Ag 328.068†	64335.4	63528.5	261.86	ug/L	261.86	ppb	17:43:25
1	As 188.979†	1388.4	1409.5	483.43	ug/L	483.43	ppb	17:43:45
1	B 249.677†	26285.8	26867.9	517.63	ug/L	517.63	ppb	17:43:25
1	Ba 233.527†	79389.5	78791.0	512.00	ug/L	512.00	ppb	17:43:25
1	Be 313.107†	817352.9	815939.4	260.30	ug/L	260.30	ppb	17:43:25
1	Cd 226.502†	54640.0	54463.3	500.48	ug/L	500.48	ppb	17:43:25
1	Co 228.616†	30245.8	30107.4	502.00	ug/L	502.00	ppb	17:43:45
1	Cr 267.716†	51451.0	50978.4	488.94	ug/L	488.94	ppb	17:43:25
1	Cu 324.752†	198567.5	190485.7	508.43	ug/L	508.43	ppb	17:43:25
1	Mn 257.610†	553081.0	548388.5	513.76	ug/L	513.76	ppb	17:43:25
1	Mo 202.031†	9403.2	9306.2	536.45	ug/L	536.45	ppb	17:43:45
1	Ni 231.604†	24406.8	24118.4	498.57	ug/L	498.57	ppb	17:43:45
1	P 214.914†	5490.9	5202.7	2438.4	ug/L	2438.4	ppb	17:43:45
1	Pb 220.353†	5030.6	5075.0	501.74	ug/L	501.74	ppb	17:43:45
1	S 181.975 Axial†	2256.1	2184.0	2492.2	ug/L	2492.2	ppb	17:43:45
1	Sb 206.836†	1830.1	1775.1	509.08	ug/L	509.08	ppb	17:43:45
1	Se 196.026†	5038.0	5032.4	2580.2	ug/L	2580.2	ppb	17:43:45
1	Si 251.611†	183240.3	181232.1	4786.5	ug/L	4786.5	ppb	17:43:25
1	Sn 189.927†	3816.9	3782.3	533.97	ug/L	533.97	ppb	17:43:45
1	Ti 334.940†	360302.8	359081.1	495.05	ug/L	495.05	ppb	17:43:25
1	Tl 190.801†	2105.4	2127.6	531.80	ug/L	531.80	ppb	17:43:45
1	U 409.014†	16206.4	18710.9	498.12	ug/L	498.12	ppb	17:43:25
1	V 292.402†	83617.3	84578.7	515.86	ug/L	515.86	ppb	17:43:25
1	Zn 213.857†	67564.5	66272.7	509.05	ug/L	509.05	ppb	17:43:25
1	SiO2†	183258.2	181216.9	10196	ug/L	10196	ppb	17:44:43
2	Sc Radial	5482.1	5482.1	96.6	%			17:42:33
2	Y RADIAL	6053.0	6053.0	97.05	%			17:42:33
2	Al 396.153Radial†	7090.9	7344.1	5057.5	ug/L	5057.5	ppb	17:42:33
2	Ca 317.933Radial†	3648.7	3763.1	5183.4	ug/L	5183.4	ppb	17:42:53
2	Fe 238.204 Radial†	682.6	696.0	5245.5	ug/L	5245.5	ppb	17:42:53
2	K 766.490 Radial†	17379.2	15170.1	2540.6	ug/L	2540.6	ppb	17:42:33
2	Mg 279.077 IEC†	187.4	192.8	5502.5	ug/L	5502.5	ppb	17:42:53
2	Na 589.592 Radial†	8139.1	9968.2	2426.5	ug/L	2426.5	ppb	17:42:33
2	Sr 421.552†	91685.5	94902.4	524.16	ug/L	524.16	ppb	17:42:33
2	Sc 361.383	944363.7	944363.7	101.14	%			17:43:51
2	Y 371.029	803535.4	803535.4	100.10	%			17:43:51
2	Ag 328.068†	64464.5	63418.7	261.44	ug/L	261.44	ppb	17:43:51
2	As 188.979†	1377.5	1393.6	478.04	ug/L	478.04	ppb	17:44:12
2	B 249.677†	26341.9	26826.3	516.81	ug/L	516.81	ppb	17:43:51
2	Ba 233.527†	79455.2	78562.8	510.52	ug/L	510.52	ppb	17:43:51
2	Be 313.107†	820847.2	816376.6	260.43	ug/L	260.43	ppb	17:43:51
2	Cd 226.502†	54613.4	54235.3	498.37	ug/L	498.37	ppb	17:43:51
2	Co 228.616†	30305.6	30054.9	501.12	ug/L	501.12	ppb	17:44:12
2	Cr 267.716†	51506.9	50843.7	487.65	ug/L	487.65	ppb	17:43:51
2	Cu 324.752†	199716.5	190888.6	509.51	ug/L	509.51	ppb	17:43:51
2	Mn 257.610†	553920.1	547176.2	512.63	ug/L	512.63	ppb	17:43:51
2	Mo 202.031†	9431.9	9299.8	536.10	ug/L	536.10	ppb	17:44:12
2	Ni 231.604†	24439.6	24060.7	497.37	ug/L	497.37	ppb	17:44:12

2	P 214.914†	5506.9	5198.3	2436.1 ug/L	2436.1 ppb	17:44:12
2	Pb 220.353†	5059.1	5084.7	502.67 ug/L	502.67 ppb	17:44:12
2	S 181.975 Axial†	2244.0	2163.7	2469.1 ug/L	2469.1 ppb	17:44:12
2	Sb 206.836†	1838.6	1776.8	509.57 ug/L	509.57 ppb	17:44:12
2	Se 196.026†	5047.6	5023.3	2575.8 ug/L	2575.8 ppb	17:44:12
2	Si 251.611†	183799.7	181108.7	4783.2 ug/L	4783.2 ppb	17:43:51
2	Sn 189.927†	3832.5	3783.6	534.17 ug/L	534.17 ppb	17:44:12
2	Ti 334.940†	361648.1	359081.0	495.06 ug/L	495.06 ppb	17:43:51
2	Tl 190.801†	2118.1	2132.3	532.97 ug/L	532.97 ppb	17:44:12
2	U 409.014†	15896.9	18345.1	488.34 ug/L	488.34 ppb	17:43:51
2	V 292.402†	83819.1	84469.6	515.17 ug/L	515.17 ppb	17:43:51
2	Zn 213.857†	67598.2	66056.6	507.38 ug/L	507.38 ppb	17:43:51
2	SiO2†	184999.6	182262.0	10255 ug/L	10255 ppb	17:44:48
3	Sc Radial	5644.6	5644.6	99.5 %		17:42:58
3	Y RADIAL	6184.6	6184.6	99.16 %		17:42:58
3	Al 396.153Radial†	7286.2	7329.2	5047.3 ug/L	5047.3 ppb	17:42:58
3	Ca 317.933Radial†	3646.8	3652.6	5031.1 ug/L	5031.1 ppb	17:43:18
3	Fe 238.204 Radial†	681.1	674.2	5081.5 ug/L	5081.5 ppb	17:43:18
3	K 766.490 Radial†	17710.2	14985.0	2509.5 ug/L	2509.5 ppb	17:42:58
3	Mg 279.077 IEC†	193.0	192.8	5504.4 ug/L	5504.4 ppb	17:43:18
3	Na 589.592 Radial†	8332.7	9920.4	2414.9 ug/L	2414.9 ppb	17:42:58
3	Sr 421.552†	94087.5	94585.5	522.41 ug/L	522.41 ppb	17:42:58
3	Sc 361.383	951243.4	951243.4	101.88 %		17:44:17
3	Y 371.029	809280.6	809280.6	100.81 %		17:44:17
3	Ag 328.068†	64970.6	63454.5	261.54 ug/L	261.54 ppb	17:44:17
3	As 188.979†	1373.7	1380.0	473.41 ug/L	473.41 ppb	17:44:38
3	B 249.677†	26648.6	26938.9	519.02 ug/L	519.02 ppb	17:44:17
3	Ba 233.527†	80313.8	78837.4	512.30 ug/L	512.30 ppb	17:44:17
3	Be 313.107†	828518.7	818037.2	260.96 ug/L	260.96 ppb	17:44:17
3	Cd 226.502†	55241.9	54461.8	500.47 ug/L	500.47 ppb	17:44:17
3	Co 228.616†	30283.3	29816.3	497.14 ug/L	497.14 ppb	17:44:38
3	Cr 267.716†	52080.1	51038.1	489.51 ug/L	489.51 ppb	17:44:17
3	Cu 324.752†	201164.3	190881.6	509.48 ug/L	509.48 ppb	17:44:17
3	Mn 257.610†	559380.1	548574.6	513.93 ug/L	513.93 ppb	17:44:17
3	Mo 202.031†	9451.0	9251.2	533.28 ug/L	533.28 ppb	17:44:38
3	Ni 231.604†	24435.6	23882.0	493.68 ug/L	493.68 ppb	17:44:38
3	P 214.914†	5484.8	5137.2	2406.6 ug/L	2406.6 ppb	17:44:38
3	Pb 220.353†	5050.9	5040.4	498.32 ug/L	498.32 ppb	17:44:38
3	S 181.975 Axial†	2255.4	2158.9	2463.5 ug/L	2463.5 ppb	17:44:38
3	Sb 206.836†	1828.1	1753.3	502.79 ug/L	502.79 ppb	17:44:38
3	Se 196.026†	5057.6	4997.0	2561.9 ug/L	2561.9 ppb	17:44:38
3	Si 251.611†	185396.7	181361.9	4790.0 ug/L	4790.0 ppb	17:44:17
3	Sn 189.927†	3832.6	3756.3	530.29 ug/L	530.29 ppb	17:44:38
3	Ti 334.940†	364491.3	359285.8	495.33 ug/L	495.33 ppb	17:44:17
3	Tl 190.801†	2106.1	2105.4	526.32 ug/L	526.32 ppb	17:44:38
3	U 409.014†	16146.3	18476.2	491.86 ug/L	491.86 ppb	17:44:17
3	V 292.402†	84661.8	84697.3	516.53 ug/L	516.53 ppb	17:44:17
3	Zn 213.857†	68400.4	66360.6	509.76 ug/L	509.76 ppb	17:44:17
3	SiO2†	181864.1	177861.4	10007 ug/L	10007 ppb	17:44:54

Mean Data: ICV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	945485.9	101.26	%	0.566				0.56%
Sc Radial	5565.9	98.1	%	1.43				1.46%
Y 371.029	804118.6	100.17	%	0.610				0.61%
Y RADIAL	6109.0	97.94	%	1.090				1.11%
Ag 328.068†	63467.2	261.61	ug/L	0.217	261.61	ppb	0.217	0.08%
QC value within limits for Ag 328.068 Recovery = 104.65%								
Al 396.153Radial†	7368.8	5074.6	ug/L	38.77	5074.6	ppb	38.77	0.76%
QC value within limits for Al 396.153Radial Recovery = 101.49%								
As 188.979†	1394.4	478.29	ug/L	5.015	478.29	ppb	5.015	1.05%
QC value within limits for As 188.979 Recovery = 95.66%								
B 249.677†	26877.7	517.82	ug/L	1.118	517.82	ppb	1.118	0.22%
QC value within limits for B 249.677 Recovery = 103.56%								
Ba 233.527†	78730.4	511.61	ug/L	0.952	511.61	ppb	0.952	0.19%
QC value within limits for Ba 233.527 Recovery = 102.32%								
Be 313.107†	816784.4	260.56	ug/L	0.352	260.56	ppb	0.352	0.14%
QC value within limits for Be 313.107 Recovery = 104.23%								
Ca 317.933Radial†	3706.4	5105.2	ug/L	76.23	5105.2	ppb	76.23	1.49%

QC value within limits for Ca 317.933Radial Recovery = 102.10%

Cd 226.502†	54386.8	499.77 ug/L	1.213	499.77 ppb	1.213	0.24%
QC value within limits for Cd 226.502 Recovery = 99.95%						
Co 228.616†	29992.9	500.08 ug/L	2.589	500.08 ppb	2.589	0.52%
QC value within limits for Co 228.616 Recovery = 100.02%						
Cr 267.716†	50953.4	488.70 ug/L	0.952	488.70 ppb	0.952	0.19%
QC value within limits for Cr 267.716 Recovery = 97.74%						
Cu 324.752†	190752.0	509.14 ug/L	0.615	509.14 ppb	0.615	0.12%
QC value within limits for Cu 324.752 Recovery = 101.83%						
Fe 238.204 Radial†	685.0	5163.2 ug/L	81.98	5163.2 ppb	81.98	1.59%
QC value within limits for Fe 238.204 Radial Recovery = 103.26%						
K 766.490 Radial†	15051.3	2520.7 ug/L	17.30	2520.7 ppb	17.30	0.69%
QC value within limits for K 766.490 Radial Recovery = 100.83%						
Mg 279.077 IEC†	191.0	5451.6 ug/L	89.75	5451.6 ppb	89.75	1.65%
QC value within limits for Mg 279.077 IEC Recovery = 109.03%						
Mn 257.610†	548046.4	513.44 ug/L	0.704	513.44 ppb	0.704	0.14%
QC value within limits for Mn 257.610 Recovery = 102.69%						
Mo 202.031†	9285.7	535.28 ug/L	1.739	535.28 ppb	1.739	0.32%
QC value within limits for Mo 202.031 Recovery = 107.06%						
Na 589.592 Radial†	9991.3	2432.1 ug/L	20.63	2432.1 ppb	20.63	0.85%
QC value within limits for Na 589.592 Radial Recovery = 97.29%						
Ni 231.604†	24020.4	496.54 ug/L	2.548	496.54 ppb	2.548	0.51%
QC value within limits for Ni 231.604 Recovery = 99.31%						
P 214.914†	5179.4	2427.0 ug/L	17.72	2427.0 ppb	17.72	0.73%
QC value within limits for P 214.914 Recovery = 97.08%						
Pb 220.353†	5066.7	500.91 ug/L	2.293	500.91 ppb	2.293	0.46%
QC value within limits for Pb 220.353 Recovery = 100.18%						
S 181.975 Axial†	2168.9	2474.9 ug/L	15.21	2474.9 ppb	15.21	0.61%
QC value within limits for S 181.975 Axial Recovery = 99.00%						
Sb 206.836†	1768.4	507.15 ug/L	3.780	507.15 ppb	3.780	0.75%
QC value within limits for Sb 206.836 Recovery = 101.43%						
Se 196.026†	5017.5	2572.7 ug/L	9.55	2572.7 ppb	9.55	0.37%
QC value within limits for Se 196.026 Recovery = 102.91%						
Si 251.611†	181234.2	4786.6 ug/L	3.39	4786.6 ppb	3.39	0.07%
QC value within limits for Si 251.611 Recovery = 95.73%						
Sn 189.927†	3774.1	532.81 ug/L	2.180	532.81 ppb	2.180	0.41%
QC value within limits for Sn 189.927 Recovery = 106.56%						
Sr 421.552†	95053.5	524.99 ug/L	3.088	524.99 ppb	3.088	0.59%
QC value within limits for Sr 421.552 Recovery = 105.00%						
Ti 334.940†	359149.3	495.14 ug/L	0.160	495.14 ppb	0.160	0.03%
QC value within limits for Ti 334.940 Recovery = 99.03%						
Tl 190.801†	2121.8	530.37 ug/L	3.552	530.37 ppb	3.552	0.67%
QC value within limits for Tl 190.801 Recovery = 106.07%						
U 409.014†	18510.7	492.78 ug/L	4.953	492.78 ppb	4.953	1.01%
QC value within limits for U 409.014 Recovery = 98.56%						
V 292.402†	84581.9	515.86 ug/L	0.680	515.86 ppb	0.680	0.13%
QC value within limits for V 292.402 Recovery = 103.17%						
Zn 213.857†	66230.0	508.73 ug/L	1.226	508.73 ppb	1.226	0.24%
QC value within limits for Zn 213.857 Recovery = 101.75%						
SiO2†	180446.8	10153 ug/L	129.6	10153 ppb	129.6	1.28%
QC value within limits for SiO2 Recovery = 94.93%						

All analyte(s) passed QC.

Sequence No.: 7
Sample ID: ICB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 10
Date Collected: 12/23/2009 17:47:05
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5619.0	5619.0	99.0	%			17:48:57
1	Y RADIAL	6199.1	6199.1	99.39	%			17:48:57
1	Al 396.153Radial†	-33.0	-28.1	-19.482	ug/L	-19.482	ppb	17:48:57
1	Ca 317.933Radial†	17.9	4.9	6.7977	ug/L	6.7977	ppb	17:49:17
1	Fe 238.204 Radial†	14.1	3.8	28.193	ug/L	28.193	ppb	17:49:17
1	K 766.490 Radial†	2909.7	121.1	20.343	ug/L	20.343	ppb	17:48:57
1	Mg 279.077 IEC†	1.7	0.6	16.233	ug/L	16.233	ppb	17:49:17
1	Na 589.592 Radial†	-1647.6	-119.2	-29.026	ug/L	-29.026	ppb	17:48:57
1	Sr 421.552†	14.6	25.2	0.1391	ug/L	0.1391	ppb	17:48:57
1	Sc 361.383	933183.2	933183.2	99.944	%			17:50:14
1	Y 371.029	798555.6	798555.6	99.475	%			17:50:14
1	Ag 328.068†	297.5	-20.4	-0.0726	ug/L	-0.0726	ppb	17:50:19
1	As 188.979†	-39.1	-7.5	-2.5501	ug/L	-2.5501	ppb	17:50:39
1	B 249.677†	-441.7	339.8	6.5680	ug/L	6.5680	ppb	17:50:19
1	Ba 233.527†	5.0	9.7	0.0650	ug/L	0.0650	ppb	17:50:39
1	Be 313.107†	-4757.9	36.3	0.0117	ug/L	0.0117	ppb	17:50:19
1	Cd 226.502†	-236.7	1.7	0.0128	ug/L	0.0128	ppb	17:50:39
1	Co 228.616†	-94.0	-2.6	-0.0416	ug/L	-0.0416	ppb	17:50:39
1	Cr 267.716†	114.8	33.1	0.3184	ug/L	0.3184	ppb	17:50:39
1	Cu 324.752†	6503.9	-65.5	-0.1734	ug/L	-0.1734	ppb	17:50:19
1	Mn 257.610†	538.3	48.4	0.0478	ug/L	0.0478	ppb	17:50:19
1	Mo 202.031†	38.9	13.4	0.7721	ug/L	0.7721	ppb	17:50:39
1	Ni 231.604†	133.4	30.5	0.6316	ug/L	0.6316	ppb	17:50:39
1	P 214.914†	267.2	20.9	10.089	ug/L	10.089	ppb	17:50:39
1	Pb 220.353†	-89.8	-7.2	-0.7141	ug/L	-0.7141	ppb	17:50:39
1	S 181.975 Axial†	53.1	-1.8	-2.0932	ug/L	-2.0932	ppb	17:50:39
1	Sb 206.836†	36.7	-4.3	-1.1910	ug/L	-1.1910	ppb	17:50:39
1	Se 196.026†	-32.2	0.4	0.2961	ug/L	0.2961	ppb	17:50:39
1	Si 251.611†	691.5	76.0	1.9923	ug/L	1.9923	ppb	17:50:39
1	Sn 189.927†	4.1	-1.5	-0.2111	ug/L	-0.2111	ppb	17:50:39
1	Ti 334.940†	-1465.5	49.5	0.0680	ug/L	0.0680	ppb	17:50:19
1	Tl 190.801†	-42.6	-4.5	-1.1085	ug/L	-1.1085	ppb	17:50:39
1	U 409.014†	-2582.0	44.2	1.1770	ug/L	1.1770	ppb	17:50:14
1	V 292.402†	-1512.2	83.7	0.5124	ug/L	0.5124	ppb	17:50:19
1	Zn 213.857†	805.1	27.1	0.2042	ug/L	0.2042	ppb	17:50:39
1	SiO2†	652.2	3.6	0.1602	ug/L	0.1602	ppb	17:51:45
2	Sc Radial	5573.9	5573.9	98.2	%			17:49:23
2	Y RADIAL	6130.5	6130.5	98.29	%			17:49:23
2	Al 396.153Radial†	-20.5	-15.6	-10.847	ug/L	-10.847	ppb	17:49:23
2	Ca 317.933Radial†	21.4	8.6	11.835	ug/L	11.835	ppb	17:49:43
2	Fe 238.204 Radial†	11.9	1.6	12.116	ug/L	12.116	ppb	17:49:43
2	K 766.490 Radial†	2935.3	171.0	28.701	ug/L	28.701	ppb	17:49:23
2	Mg 279.077 IEC†	3.8	2.7	77.193	ug/L	77.193	ppb	17:49:43
2	Na 589.592 Radial†	-1587.4	-71.4	-17.370	ug/L	-17.370	ppb	17:49:23
2	Sr 421.552†	-12.1	-1.9	-0.0105	ug/L	-0.0105	ppb	17:49:23
2	Sc 361.383	944836.8	944836.8	101.19	%			17:50:45
2	Y 371.029	811374.2	811374.2	101.07	%			17:50:45
2	Ag 328.068†	394.5	71.8	0.3018	ug/L	0.3018	ppb	17:50:50
2	As 188.979†	-28.7	3.3	1.1311	ug/L	1.1311	ppb	17:51:10
2	B 249.677†	-421.1	365.7	7.0694	ug/L	7.0694	ppb	17:50:50
2	Ba 233.527†	0.6	5.3	0.0366	ug/L	0.0366	ppb	17:51:10
2	Be 313.107†	-4751.1	101.7	0.0325	ug/L	0.0325	ppb	17:50:50
2	Cd 226.502†	-240.9	0.4	0.0027	ug/L	0.0027	ppb	17:51:10
2	Co 228.616†	-88.1	4.4	0.0738	ug/L	0.0738	ppb	17:51:10
2	Cr 267.716†	108.5	25.5	0.2467	ug/L	0.2467	ppb	17:51:10
2	Cu 324.752†	6437.6	-211.3	-0.5632	ug/L	-0.5632	ppb	17:50:50
2	Mn 257.610†	554.5	57.8	0.0539	ug/L	0.0539	ppb	17:50:50
2	Mo 202.031†	37.8	11.7	0.6751	ug/L	0.6751	ppb	17:51:10
2	Ni 231.604†	105.8	1.5	0.0319	ug/L	0.0319	ppb	17:51:10

2	P 214.914†	257.9	8.4	4.1579 ug/L	4.1579 ppb	17:51:10
2	Pb 220.353†	-67.8	15.6	1.5362 ug/L	1.5362 ppb	17:51:10
2	S 181.975 Axial†	53.4	-2.2	-2.5237 ug/L	-2.5237 ppb	17:51:10
2	Sb 206.836†	44.4	2.8	0.8193 ug/L	0.8193 ppb	17:51:10
2	Se 196.026†	-31.2	1.8	0.9749 ug/L	0.9749 ppb	17:51:10
2	Si 251.611†	695.9	71.8	1.8770 ug/L	1.8770 ppb	17:51:10
2	Sn 189.927†	11.9	6.1	0.8632 ug/L	0.8632 ppb	17:51:10
2	Ti 334.940†	-1463.0	70.1	0.0984 ug/L	0.0984 ppb	17:50:50
2	Tl 190.801†	-50.7	-12.0	-2.9815 ug/L	-2.9815 ppb	17:51:10
2	U 409.014†	-2762.4	-102.2	-2.7320 ug/L	-2.7320 ppb	17:50:45
2	V 292.402†	-1483.1	131.2	0.7928 ug/L	0.7928 ppb	17:50:50
2	Zn 213.857†	799.1	11.3	0.0846 ug/L	0.0846 ppb	17:51:10
2	SiO2†	717.6	60.2	3.3412 ug/L	3.3412 ppb	17:51:50
3	Sc Radial	5634.0	5634.0	99.3 %		17:49:48
3	Y RADIAL	6174.1	6174.1	98.99 %		17:49:48
3	Al 396.153Radial†	-37.9	-33.0	-22.798 ug/L	-22.798 ppb	17:49:48
3	Ca 317.933Radial†	17.3	4.3	5.8822 ug/L	5.8822 ppb	17:50:08
3	Fe 238.204 Radial†	12.4	2.1	15.578 ug/L	15.578 ppb	17:50:08
3	K 766.490 Radial†	2892.3	95.8	16.065 ug/L	16.065 ppb	17:49:48
3	Mg 279.077 IEC†	2.3	1.1	32.022 ug/L	32.022 ppb	17:50:08
3	Na 589.592 Radial†	-1525.7	8.0	1.9424 ug/L	1.9424 ppb	17:49:48
3	Sr 421.552†	5.3	15.8	0.0870 ug/L	0.0870 ppb	17:49:48
3	Sc 361.383	938431.9	938431.9	100.51 %		17:51:15
3	Y 371.029	804871.3	804871.3	100.26 %		17:51:15
3	Ag 328.068†	291.2	-28.3	-0.1089 ug/L	-0.1089 ppb	17:51:20
3	As 188.979†	-26.2	5.6	1.8922 ug/L	1.8922 ppb	17:51:40
3	B 249.677†	-459.4	324.6	6.2755 ug/L	6.2755 ppb	17:51:20
3	Ba 233.527†	9.0	13.7	0.0886 ug/L	0.0886 ppb	17:51:40
3	Be 313.107†	-4745.4	75.3	0.0240 ug/L	0.0240 ppb	17:51:20
3	Cd 226.502†	-231.3	8.4	0.0754 ug/L	0.0754 ppb	17:51:40
3	Co 228.616†	-82.0	9.8	0.1633 ug/L	0.1633 ppb	17:51:40
3	Cr 267.716†	104.9	22.7	0.2182 ug/L	0.2182 ppb	17:51:40
3	Cu 324.752†	6497.7	-108.1	-0.2877 ug/L	-0.2877 ppb	17:51:20
3	Mn 257.610†	532.8	40.0	0.0384 ug/L	0.0384 ppb	17:51:20
3	Mo 202.031†	23.5	-2.3	-0.1290 ug/L	-0.1290 ppb	17:51:40
3	Ni 231.604†	108.6	5.1	0.1054 ug/L	0.1054 ppb	17:51:40
3	P 214.914†	261.6	13.8	6.7187 ug/L	6.7187 ppb	17:51:40
3	Pb 220.353†	-65.7	17.2	1.6919 ug/L	1.6919 ppb	17:51:40
3	S 181.975 Axial†	53.5	-1.7	-1.9441 ug/L	-1.9441 ppb	17:51:40
3	Sb 206.836†	37.7	-3.5	-0.9819 ug/L	-0.9819 ppb	17:51:40
3	Se 196.026†	-36.8	-3.9	-1.9551 ug/L	-1.9551 ppb	17:51:40
3	Si 251.611†	696.0	76.6	2.0233 ug/L	2.0233 ppb	17:51:40
3	Sn 189.927†	7.6	1.9	0.2749 ug/L	0.2749 ppb	17:51:40
3	Ti 334.940†	-1510.1	13.4	0.0196 ug/L	0.0196 ppb	17:51:20
3	Tl 190.801†	-43.4	-5.1	-1.2615 ug/L	-1.2615 ppb	17:51:40
3	U 409.014†	-2717.9	-76.6	-2.0470 ug/L	-2.0470 ppb	17:51:15
3	V 292.402†	-1632.3	-27.3	-0.1717 ug/L	-0.1717 ppb	17:51:20
3	Zn 213.857†	805.4	22.9	0.1749 ug/L	0.1749 ppb	17:51:40
3	SiO2†	701.9	49.4	2.7782 ug/L	2.7782 ppb	17:51:55

Mean Data: ICB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	938817.3	100.55	%	0.625				0.62%
Sc Radial	5609.0	98.9	%	0.55				0.56%
Y 371.029	804933.7	100.27	%	0.798				0.80%
Y RADIAL	6167.9	98.89	%	0.557				0.56%
Ag 328.068†	7.7	0.0401	ug/L	0.22739	0.0401	ppb	0.22739	567.37%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-25.6	-17.709	ug/L	6.1698	-17.709	ppb	6.1698	34.84%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	0.5	0.1577	ug/L	2.37575	0.1577	ppb	2.37575	>999.9%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	343.4	6.6376	ug/L	0.40152	6.6376	ppb	0.40152	6.05%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	9.6	0.0634	ug/L	0.02602	0.0634	ppb	0.02602	41.06%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	71.1	0.0227	ug/L	0.01047	0.0227	ppb	0.01047	46.08%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	5.9	8.1716	ug/L	3.20530	8.1716	ppb	3.20530	39.23%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                 3.5      0.0303 ug/L       0.03938      0.0303 ppb        0.03938 129.84%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                 3.9      0.0652 ug/L       0.10272      0.0652 ppb        0.10272 157.55%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                27.1      0.2611 ug/L       0.05164      0.2611 ppb        0.05164  19.78%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -128.3     -0.3414 ug/L       0.20038     -0.3414 ppb        0.20038  58.69%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          2.5      18.629 ug/L        8.4613      18.629 ppb         8.4613  45.42%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         129.3      21.703 ug/L        6.4267      21.703 ppb         6.4267  29.61%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             1.5      41.816 ug/L       31.6383      41.816 ppb        31.6383  75.66%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                48.7      0.0467 ug/L       0.00781      0.0467 ppb        0.00781  16.73%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 7.6      0.4394 ug/L       0.49465      0.4394 ppb        0.49465 112.57%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        -60.9     -14.818 ug/L       15.6412     -14.818 ppb       15.6412 105.56%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                12.4      0.2563 ug/L       0.32710      0.2563 ppb        0.32710 127.62%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 14.4      6.9886 ug/L       2.97487      6.9886 ppb        2.97487  42.57%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                 8.5      0.8380 ug/L       1.34644      0.8380 ppb        1.34644 160.67%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -1.9     -2.1870 ug/L       0.30098     -2.1870 ppb        0.30098  13.76%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                -1.6     -0.4512 ug/L       1.10527     -0.4512 ppb        1.10527 244.95%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -0.6     -0.2281 ug/L       1.53370     -0.2281 ppb        1.53370 672.51%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                74.8      1.9642 ug/L       0.07708      1.9642 ppb        0.07708   3.92%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 2.2      0.3090 ug/L       0.53796      0.3090 ppb        0.53796 174.11%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                13.0      0.0718 ug/L       0.07593      0.0718 ppb        0.07593 105.69%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                44.3      0.0620 ug/L       0.03975      0.0620 ppb        0.03975  64.09%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                -7.2     -1.7838 ug/L       1.04001     -1.7838 ppb        1.04001  58.30%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                -44.9     -1.2007 ug/L       2.08741     -1.2007 ppb        2.08741 173.85%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 62.5      0.3779 ug/L       0.49613      0.3779 ppb        0.49613 131.30%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                20.4      0.1545 ug/L       0.06237      0.1545 ppb        0.06237  40.36%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                      37.7      2.0932 ug/L       1.69750      2.0932 ppb        1.69750  81.10%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 8
Sample ID: PQL
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 11
Date Collected: 12/23/2009 17:54:07
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: PQL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5806.6	5806.6	102	%			17:56:00
1	Y RADIAL	6381.5	6381.5	102.3	%			17:56:00
1	Al 396.153Radial†	264.9	264.0	182.24	ug/L	182.24	ppb	17:56:00
1	Ca 317.933Radial†	163.5	146.6	201.93	ug/L	201.93	ppb	17:56:20
1	Fe 238.204 Radial†	27.7	16.6	125.21	ug/L	125.21	ppb	17:56:20
1	K 766.490 Radial†	3701.9	800.3	134.08	ug/L	134.08	ppb	17:56:00
1	Mg 279.077 IEC†	13.6	12.1	346.05	ug/L	346.05	ppb	17:56:20
1	Na 589.592 Radial†	-348.2	1204.2	293.14	ug/L	293.14	ppb	17:56:00
1	Sr 421.552†	932.6	921.7	5.0893	ug/L	5.0893	ppb	17:56:00
1	Sc 361.383	935205.5	935205.5	100.16	%			17:57:17
1	Y 371.029	802799.6	802799.6	100.00	%			17:57:17
1	Ag 328.068†	1684.3	1363.6	5.5701	ug/L	5.5701	ppb	17:57:17
1	As 188.979†	58.2	89.7	30.523	ug/L	30.523	ppb	17:57:37
1	B 249.677†	2100.6	2878.9	55.645	ug/L	55.645	ppb	17:57:17
1	Ba 233.527†	797.0	800.5	5.2032	ug/L	5.2032	ppb	17:57:37
1	Be 313.107†	11085.4	15864.4	5.0520	ug/L	5.0520	ppb	17:57:17
1	Cd 226.502†	311.0	549.0	5.0372	ug/L	5.0372	ppb	17:57:37
1	Co 228.616†	209.8	300.9	5.0277	ug/L	5.0277	ppb	17:57:37
1	Cr 267.716†	608.2	525.5	5.0274	ug/L	5.0274	ppb	17:57:37
1	Cu 324.752†	10289.1	3699.5	9.8757	ug/L	9.8757	ppb	17:57:17
1	Mn 257.610†	11760.2	11251.1	10.538	ug/L	10.538	ppb	17:57:17
1	Mo 202.031†	192.7	166.8	9.6173	ug/L	9.6173	ppb	17:57:37
1	Ni 231.604†	344.6	241.0	4.9824	ug/L	4.9824	ppb	17:57:37
1	P 214.914†	556.6	309.3	148.01	ug/L	148.01	ppb	17:57:37
1	Pb 220.353†	19.2	101.8	10.082	ug/L	10.082	ppb	17:57:37
1	S 181.975 Axial†	137.6	82.5	94.105	ug/L	94.105	ppb	17:57:37
1	Sb 206.836†	78.2	37.0	10.688	ug/L	10.688	ppb	17:57:37
1	Se 196.026†	25.0	57.6	29.764	ug/L	29.764	ppb	17:57:37
1	Si 251.611†	4505.7	3882.5	102.55	ug/L	102.55	ppb	17:57:17
1	Sn 189.927†	75.2	69.4	9.8133	ug/L	9.8133	ppb	17:57:37
1	Ti 334.940†	2152.4	3664.9	5.0417	ug/L	5.0417	ppb	17:57:17
1	Tl 190.801†	43.1	81.1	20.225	ug/L	20.225	ppb	17:57:37
1	U 409.014†	-855.0	1774.1	47.354	ug/L	47.354	ppb	17:57:17
1	V 292.402†	-751.3	846.7	5.3024	ug/L	5.3024	ppb	17:57:17
1	Zn 213.857†	2108.8	1327.0	10.216	ug/L	10.216	ppb	17:57:37
1	SiO2†	4475.3	3819.2	214.90	ug/L	214.90	ppb	17:58:33
2	Sc Radial	5700.0	5700.0	100	%			17:56:25
2	Y RADIAL	6289.4	6289.4	100.8	%			17:56:25
2	Al 396.153Radial†	263.6	267.6	184.70	ug/L	184.70	ppb	17:56:25
2	Ca 317.933Radial†	168.5	154.6	212.94	ug/L	212.94	ppb	17:56:45
2	Fe 238.204 Radial†	26.3	15.8	118.67	ug/L	118.67	ppb	17:56:45
2	K 766.490 Radial†	3596.6	763.2	127.86	ug/L	127.86	ppb	17:56:25
2	Mg 279.077 IEC†	12.2	11.0	312.76	ug/L	312.76	ppb	17:56:45
2	Na 589.592 Radial†	-430.0	1116.5	271.78	ug/L	271.78	ppb	17:56:25
2	Sr 421.552†	934.7	940.8	5.1949	ug/L	5.1949	ppb	17:56:25
2	Sc 361.383	926236.4	926236.4	99.200	%			17:57:42
2	Y 371.029	795727.4	795727.4	99.123	%			17:57:42
2	Ag 328.068†	1548.3	1242.8	5.0759	ug/L	5.0759	ppb	17:57:42
2	As 188.979†	70.3	102.5	34.868	ug/L	34.868	ppb	17:58:02
2	B 249.677†	1999.2	2797.1	54.063	ug/L	54.063	ppb	17:57:42
2	Ba 233.527†	780.5	791.4	5.1449	ug/L	5.1449	ppb	17:58:02
2	Be 313.107†	11036.6	15922.4	5.0707	ug/L	5.0707	ppb	17:57:42
2	Cd 226.502†	312.9	553.9	5.0835	ug/L	5.0835	ppb	17:58:02
2	Co 228.616†	218.5	311.7	5.2071	ug/L	5.2071	ppb	17:58:02
2	Cr 267.716†	576.5	499.4	4.7778	ug/L	4.7778	ppb	17:58:02
2	Cu 324.752†	10249.5	3759.1	10.034	ug/L	10.034	ppb	17:57:42
2	Mn 257.610†	11621.3	11224.8	10.514	ug/L	10.514	ppb	17:57:42
2	Mo 202.031†	189.5	165.4	9.5373	ug/L	9.5373	ppb	17:58:02
2	Ni 231.604†	346.7	246.5	5.0959	ug/L	5.0959	ppb	17:58:02

2	P 214.914†	543.7	301.7	144.32 ug/L	144.32 ppb	17:58:02
2	Pb 220.353†	34.3	117.2	11.600 ug/L	11.600 ppb	17:58:02
2	S 181.975 Axial†	139.7	85.9	98.002 ug/L	98.002 ppb	17:58:02
2	Sb 206.836†	70.3	29.9	8.6832 ug/L	8.6832 ppb	17:58:02
2	Se 196.026†	31.6	64.5	33.254 ug/L	33.254 ppb	17:58:02
2	Si 251.611†	4428.6	3848.4	101.65 ug/L	101.65 ppb	17:57:42
2	Sn 189.927†	78.7	73.7	10.417 ug/L	10.417 ppb	17:58:02
2	Ti 334.940†	2239.3	3773.3	5.1917 ug/L	5.1917 ppb	17:57:42
2	Tl 190.801†	43.2	81.7	20.369 ug/L	20.369 ppb	17:58:02
2	U 409.014†	-828.7	1792.2	47.841 ug/L	47.841 ppb	17:57:42
2	V 292.402†	-726.5	864.4	5.4089 ug/L	5.4089 ppb	17:57:42
2	Zn 213.857†	2099.5	1338.0	10.302 ug/L	10.302 ppb	17:58:02
2	SiO2†	4503.6	3890.9	218.95 ug/L	218.95 ppb	17:58:38
3	Sc Radial	5701.6	5701.6	100 %		17:56:50
3	Y RADIAL	6257.8	6257.8	100.3 %		17:56:50
3	Al 396.153Radial†	280.7	284.5	196.39 ug/L	196.39 ppb	17:56:50
3	Ca 317.933Radial†	169.0	155.0	213.51 ug/L	213.51 ppb	17:57:10
3	Fe 238.204 Radial†	26.3	15.8	118.55 ug/L	118.55 ppb	17:57:10
3	K 766.490 Radial†	3766.8	931.5	156.12 ug/L	156.12 ppb	17:56:50
3	Mg 279.077 IEC†	10.8	9.6	274.16 ug/L	274.16 ppb	17:57:10
3	Na 589.592 Radial†	-390.1	1156.3	281.46 ug/L	281.46 ppb	17:56:50
3	Sr 421.552†	889.1	895.2	4.9428 ug/L	4.9428 ppb	17:56:50
3	Sc 361.383	920977.8	920977.8	98.637 %		17:58:08
3	Y 371.029	790806.2	790806.2	98.510 %		17:58:08
3	Ag 328.068†	1616.4	1320.7	5.3885 ug/L	5.3885 ppb	17:58:08
3	As 188.979†	59.2	91.7	31.196 ug/L	31.196 ppb	17:58:28
3	B 249.677†	2006.0	2815.4	54.418 ug/L	54.418 ppb	17:58:08
3	Ba 233.527†	780.2	795.7	5.1715 ug/L	5.1715 ppb	17:58:28
3	Be 313.107†	10967.0	15915.3	5.0681 ug/L	5.0681 ppb	17:58:08
3	Cd 226.502†	312.7	555.5	5.0980 ug/L	5.0980 ppb	17:58:28
3	Co 228.616†	210.7	305.1	5.0983 ug/L	5.0983 ppb	17:58:28
3	Cr 267.716†	599.3	525.8	5.0288 ug/L	5.0288 ppb	17:58:28
3	Cu 324.752†	10134.1	3701.0	9.8794 ug/L	9.8794 ppb	17:58:08
3	Mn 257.610†	11651.7	11322.5	10.606 ug/L	10.606 ppb	17:58:08
3	Mo 202.031†	199.9	177.0	10.207 ug/L	10.207 ppb	17:58:28
3	Ni 231.604†	346.3	248.1	5.1284 ug/L	5.1284 ppb	17:58:28
3	P 214.914†	565.4	326.7	156.48 ug/L	156.48 ppb	17:58:28
3	Pb 220.353†	30.1	113.1	11.198 ug/L	11.198 ppb	17:58:28
3	S 181.975 Axial†	136.6	83.5	95.273 ug/L	95.273 ppb	17:58:28
3	Sb 206.836†	74.6	34.6	10.023 ug/L	10.023 ppb	17:58:28
3	Se 196.026†	27.1	60.1	31.051 ug/L	31.051 ppb	17:58:28
3	Si 251.611†	4423.6	3868.8	102.17 ug/L	102.17 ppb	17:58:08
3	Sn 189.927†	81.3	76.7	10.846 ug/L	10.846 ppb	17:58:28
3	Ti 334.940†	2100.1	3645.0	5.0133 ug/L	5.0133 ppb	17:58:08
3	Tl 190.801†	49.4	88.2	21.978 ug/L	21.978 ppb	17:58:28
3	U 409.014†	-700.9	1917.1	51.175 ug/L	51.175 ppb	17:58:08
3	V 292.402†	-794.4	791.4	4.9853 ug/L	4.9853 ppb	17:58:08
3	Zn 213.857†	2097.6	1348.1	10.381 ug/L	10.381 ppb	17:58:28
3	SiO2†	4457.9	3870.5	217.75 ug/L	217.75 ppb	17:58:43

Mean Data: PQL

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	927473.2	99.333	%	0.7705				0.78%
Sc Radial	5736.0	101	%	1.1				1.07%
Y 371.029	796444.4	99.212	%	0.7510				0.76%
Y RADIAL	6309.5	101.2	%	1.03				1.02%
Ag 328.068†	1309.1	5.3448	ug/L	0.24995	5.3448	ppb	0.24995	4.68%
QC value within limits for Ag 328.068 Recovery = 106.90%								
Al 396.153Radial†	272.0	187.77	ug/L	7.558	187.77	ppb	7.558	4.02%
QC value within limits for Al 396.153Radial Recovery = 93.89%								
As 188.979†	94.6	32.196	ug/L	2.3387	32.196	ppb	2.3387	7.26%
QC value within limits for As 188.979 Recovery = 107.32%								
B 249.677†	2830.5	54.709	ug/L	0.8303	54.709	ppb	0.8303	1.52%
QC value within limits for B 249.677 Recovery = 109.42%								
Ba 233.527†	795.9	5.1732	ug/L	0.02917	5.1732	ppb	0.02917	0.56%
QC value within limits for Ba 233.527 Recovery = 103.46%								
Be 313.107†	15900.7	5.0636	ug/L	0.01015	5.0636	ppb	0.01015	0.20%
QC value within limits for Be 313.107 Recovery = 101.27%								
Ca 317.933Radial†	152.1	209.46	ug/L	6.527	209.46	ppb	6.527	3.12%

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   QC value within limits for Ca 317.933Radial  Recovery = 104.73%
Cd 226.502†              552.8      5.0729 ug/L       0.03176      5.0729 ppb        0.03176   0.63%
   QC value within limits for Cd 226.502  Recovery = 101.46%
Co 228.616†              305.9      5.1110 ug/L       0.09034      5.1110 ppb        0.09034   1.77%
   QC value within limits for Co 228.616  Recovery = 102.22%
Cr 267.716†              516.9      4.9447 ug/L       0.14455      4.9447 ppb        0.14455   2.92%
   QC value within limits for Cr 267.716  Recovery = 98.89%
Cu 324.752†             3719.9      9.9298 ug/L       0.09051      9.9298 ppb        0.09051   0.91%
   QC value within limits for Cu 324.752  Recovery = 99.30%
Fe 238.204 Radial†        16.1      120.81 ug/L         3.809      120.81 ppb          3.809   3.15%
   QC value within limits for Fe 238.204 Radial  Recovery = 120.81%
K 766.490 Radial†        831.7      139.35 ug/L        14.846      139.35 ppb         14.846  10.65%
   QC value within limits for K 766.490 Radial  Recovery = 92.90%
Mg 279.077 IEC†           10.9      310.99 ug/L        35.981      310.99 ppb         35.981  11.57%
   QC value within limits for Mg 279.077 IEC  Recovery = 103.66%
Mn 257.610†            11266.1      10.552 ug/L        0.0477      10.552 ppb         0.0477   0.45%
   QC value within limits for Mn 257.610  Recovery = 105.52%
Mo 202.031†              169.7      9.7872 ug/L       0.36574      9.7872 ppb        0.36574   3.74%
   QC value within limits for Mo 202.031  Recovery = 97.87%
Na 589.592 Radial†      1159.0      282.13 ug/L        10.695      282.13 ppb         10.695   3.79%
   QC value within limits for Na 589.592 Radial  Recovery = 94.04%
Ni 231.604†              245.2      5.0689 ug/L       0.07664      5.0689 ppb        0.07664   1.51%
   QC value within limits for Ni 231.604  Recovery = 101.38%
P 214.914†               312.5      149.60 ug/L         6.232      149.60 ppb          6.232   4.17%
   QC value within limits for P 214.914  Recovery = 99.73%
Pb 220.353†              110.7      10.960 ug/L        0.7863      10.960 ppb         0.7863   7.17%
   QC value within limits for Pb 220.353  Recovery = 109.60%
S 181.975 Axial†          83.9      95.793 ug/L        2.0000      95.793 ppb         2.0000   2.09%
   QC value within limits for S 181.975 Axial  Recovery = 95.79%
Sb 206.836†               33.8      9.7980 ug/L       1.02098      9.7980 ppb        1.02098  10.42%
   QC value within limits for Sb 206.836  Recovery = 97.98%
Se 196.026†               60.7      31.356 ug/L        1.7651      31.356 ppb         1.7651   5.63%
   QC value within limits for Se 196.026  Recovery = 104.52%
Si 251.611†             3866.5      102.12 ug/L         0.453      102.12 ppb          0.453   0.44%
   QC value within limits for Si 251.611  Recovery = 102.12%
Sn 189.927†               73.3      10.359 ug/L        0.5188      10.359 ppb         0.5188   5.01%
   QC value within limits for Sn 189.927  Recovery = 103.59%
Sr 421.552†              919.3      5.0757 ug/L       0.12657      5.0757 ppb        0.12657   2.49%
   QC value within limits for Sr 421.552  Recovery = 101.51%
Ti 334.940†             3694.4      5.0822 ug/L       0.09587      5.0822 ppb        0.09587   1.89%
   QC value within limits for Ti 334.940  Recovery = 101.64%
Tl 190.801†               83.7      20.857 ug/L        0.9734      20.857 ppb         0.9734   4.67%
   QC value within limits for Tl 190.801  Recovery = 104.29%
U 409.014†              1827.8      48.790 ug/L        2.0797      48.790 ppb         2.0797   4.26%
   QC value within limits for U 409.014  Recovery = 97.58%
V 292.402†               834.2      5.2322 ug/L       0.22036      5.2322 ppb        0.22036   4.21%
   QC value within limits for V 292.402  Recovery = 104.64%
Zn 213.857†             1337.7      10.300 ug/L        0.0826      10.300 ppb         0.0826   0.80%
   QC value within limits for Zn 213.857  Recovery = 103.00%
SiO2†                   3860.2      217.20 ug/L         2.080      217.20 ppb          2.080   0.96%
   QC value within limits for SiO2  Recovery = 101.97%
All analyte(s) passed QC.
```

Sequence No.: 9
Sample ID: ICSA
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 13
Date Collected: 12/23/2009 18:00:54
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSA

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5023.2	5023.2	88.5	%			18:02:53
1	Y RADIAL	5511.9	5511.9	88.37	%			18:02:53
1	Al 396.153Radial†	661127.3	746773.2	516590	ug/L	516590	ppb	18:02:48
1	Ca 317.933Radial†	308198.7	348108.7	479490	ug/L	479490	ppb	18:02:48
1	Fe 238.204 Radial†	21582.3	24367.5	183100	ug/L	183100	ppb	18:02:53
1	K 766.490 Radial†	2392.5	-114.6	-3.3766	ug/L	-3.3766	ppb	18:02:48
1	Mg 279.077 IEC†	14975.8	16914.6	482090	ug/L	482090	ppb	18:02:53
1	Na 589.592 Radial†	-1304.0	71.5	17.409	ug/L	17.409	ppb	18:02:53
1	Sr 421.552†	607.4	696.5	-0.5972	ug/L	-0.5972	ppb	18:02:53
1	Sc 361.383	805366.6	805366.6	86.255	%			18:03:20
1	Y 371.029	677983.4	677983.4	84.456	%			18:03:20
1	Ag 328.068†	-10918.5	-12976.4	1.3825	ug/L	1.3825	ppb	18:03:20
1	As 188.979†	-104.7	-89.8	-2.4158	ug/L	-2.4158	ppb	18:03:40
1	B 249.677†	371.4	1212.3	-0.8484	ug/L	-0.8484	ppb	18:03:20
1	Ba 233.527†	-668.8	-770.7	-0.3406	ug/L	-0.3406	ppb	18:03:40
1	Be 313.107†	-5139.8	-1162.0	-0.4143	ug/L	-0.4143	ppb	18:03:20
1	Cd 226.502†	1416.8	1881.0	-1.0114	ug/L	-1.0114	ppb	18:03:40
1	Co 228.616†	-9.3	80.7	-1.2648	ug/L	-1.2648	ppb	18:03:40
1	Cr 267.716†	-82.9	-177.8	1.5923	ug/L	1.5923	ppb	18:03:40
1	Cu 324.752†	3315.1	-2729.7	2.0580	ug/L	2.0580	ppb	18:03:20
1	Mn 257.610†	932.5	590.9	9.8338	ug/L	9.8338	ppb	18:03:20
1	Mo 202.031†	-242.1	-306.3	-0.0908	ug/L	-0.0908	ppb	18:03:40
1	Ni 231.604†	216.2	147.7	3.0547	ug/L	3.0547	ppb	18:03:40
1	P 214.914†	194.8	-20.6	17.670	ug/L	17.670	ppb	18:03:40
1	Pb 220.353†	-968.2	-1039.8	-1.6017	ug/L	-1.6017	ppb	18:03:40
1	S 181.975 Axial†	89.7	49.1	-45.611	ug/L	-45.611	ppb	18:03:40
1	Sb 206.836†	82.9	55.0	2.9163	ug/L	2.9163	ppb	18:03:40
1	Se 196.026†	-1122.2	-1268.4	6.4533	ug/L	6.4533	ppb	18:03:40
1	Si 251.611†	490.3	-47.5	-0.7315	ug/L	-0.7315	ppb	18:03:40
1	Sn 189.927†	-414.3	-485.9	-16.006	ug/L	-16.006	ppb	18:03:40
1	Ti 334.940†	-15640.4	-16616.8	2.0824	ug/L	2.0824	ppb	18:03:20
1	Tl 190.801†	-97.8	-75.3	-4.7740	ug/L	-4.7740	ppb	18:03:40
1	U 409.014†	-1193.3	1244.2	10.195	ug/L	10.195	ppb	18:03:20
1	V 292.402†	1176.1	2960.3	0.6666	ug/L	0.6666	ppb	18:03:40
1	Zn 213.857†	3517.0	3299.0	-0.4545	ug/L	-0.4545	ppb	18:03:40
1	SiO2†	498.2	-71.4	-2.8819	ug/L	-2.8819	ppb	18:04:36
2	Sc Radial	5124.3	5124.3	90.3	%			18:03:03
2	Y RADIAL	5566.2	5566.2	89.24	%			18:03:03
2	Al 396.153Radial†	655397.9	725698.9	502020	ug/L	502020	ppb	18:02:58
2	Ca 317.933Radial†	305892.3	338688.1	466510	ug/L	466510	ppb	18:02:58
2	Fe 238.204 Radial†	21728.7	24048.8	180700	ug/L	180700	ppb	18:03:03
2	K 766.490 Radial†	2524.9	-21.2	11.723	ug/L	11.723	ppb	18:02:58
2	Mg 279.077 IEC†	15085.9	16702.7	476050	ug/L	476050	ppb	18:03:03
2	Na 589.592 Radial†	-1315.2	88.2	21.480	ug/L	21.480	ppb	18:03:03
2	Sr 421.552†	584.5	657.7	-0.6913	ug/L	-0.6913	ppb	18:03:03
2	Sc 361.383	807424.9	807424.9	86.476	%			18:03:45
2	Y 371.029	678865.2	678865.2	84.565	%			18:03:45
2	Ag 328.068†	-10979.5	-13014.6	0.6157	ug/L	0.6157	ppb	18:03:45
2	As 188.979†	-102.3	-86.7	-1.7391	ug/L	-1.7391	ppb	18:04:05
2	B 249.677†	377.5	1218.3	-0.4136	ug/L	-0.4136	ppb	18:03:45
2	Ba 233.527†	-643.7	-739.7	-0.2001	ug/L	-0.2001	ppb	18:04:05
2	Be 313.107†	-5172.8	-1185.0	-0.4223	ug/L	-0.4223	ppb	18:03:45
2	Cd 226.502†	1439.9	1903.6	-0.5638	ug/L	-0.5638	ppb	18:04:05
2	Co 228.616†	-18.4	70.2	-1.4082	ug/L	-1.4082	ppb	18:04:05
2	Cr 267.716†	99.7	33.6	3.5732	ug/L	3.5732	ppb	18:04:05
2	Cu 324.752†	3378.1	-2666.6	2.1042	ug/L	2.1042	ppb	18:03:45
2	Mn 257.610†	884.5	532.7	9.6529	ug/L	9.6529	ppb	18:03:45
2	Mo 202.031†	-255.2	-320.7	-1.1477	ug/L	-1.1477	ppb	18:04:05
2	Ni 231.604†	271.6	211.1	4.3653	ug/L	4.3653	ppb	18:04:05

2	P 214.914†	213.8	0.8	24.993 ug/L	24.993 ppb	18:04:05
2	Pb 220.353†	-948.3	-1014.0	-2.1318 ug/L	-2.1318 ppb	18:04:05
2	S 181.975 Axial†	85.4	43.8	-48.732 ug/L	-48.732 ppb	18:04:05
2	Sb 206.836†	82.1	54.0	2.9419 ug/L	2.9419 ppb	18:04:05
2	Se 196.026†	-1107.2	-1247.7	7.1968 ug/L	7.1968 ppb	18:04:05
2	Si 251.611†	458.4	-85.8	-1.7426 ug/L	-1.7426 ppb	18:04:05
2	Sn 189.927†	-402.7	-471.3	-15.338 ug/L	-15.338 ppb	18:04:05
2	Ti 334.940†	-15873.8	-16840.5	1.0958 ug/L	1.0958 ppb	18:03:45
2	Tl 190.801†	-91.6	-67.8	-3.3195 ug/L	-3.3195 ppb	18:04:05
2	U 409.014†	-1160.3	1285.9	11.606 ug/L	11.606 ppb	18:03:45
2	V 292.402†	1186.5	2968.9	0.9360 ug/L	0.9360 ppb	18:04:05
2	Zn 213.857†	3490.1	3257.5	-0.4535 ug/L	-0.4535 ppb	18:04:05
2	SiO2†	492.3	-79.7	-3.3451 ug/L	-3.3451 ppb	18:04:41
3	Sc Radial	5016.1	5016.1	88.4 %		18:03:13
3	Y RADIAL	5542.8	5542.8	88.87 %		18:03:13
3	Al 396.153Radial†	657171.5	743345.4	514220 ug/L	514220 ppb	18:03:08
3	Ca 317.933Radial†	306053.2	346169.9	476820 ug/L	476820 ppb	18:03:08
3	Fe 238.204 Radial†	21381.0	24174.1	181640 ug/L	181640 ppb	18:03:13
3	K 766.490 Radial†	2411.6	-89.2	0.8249 ug/L	0.8249 ppb	18:03:08
3	Mg 279.077 IEC†	14910.8	16864.8	480670 ug/L	480670 ppb	18:03:13
3	Na 589.592 Radial†	-1293.6	81.2	19.771 ug/L	19.771 ppb	18:03:13
3	Sr 421.552†	596.3	684.9	-0.6366 ug/L	-0.6366 ppb	18:03:13
3	Sc 361.383	804137.0	804137.0	86.124 %		18:04:11
3	Y 371.029	676163.6	676163.6	84.229 %		18:04:11
3	Ag 328.068†	-10888.0	-12960.3	1.0056 ug/L	1.0056 ppb	18:04:11
3	As 188.979†	-113.8	-100.4	-6.2646 ug/L	-6.2646 ppb	18:04:31
3	B 249.677†	329.4	1164.2	-1.5860 ug/L	-1.5860 ppb	18:04:11
3	Ba 233.527†	-656.7	-757.9	-0.2932 ug/L	-0.2932 ppb	18:04:31
3	Be 313.107†	-5360.6	-1427.5	-0.4979 ug/L	-0.4979 ppb	18:04:11
3	Cd 226.502†	1398.6	1862.5	-1.0363 ug/L	-1.0363 ppb	18:04:31
3	Co 228.616†	-2.7	88.4	-1.1177 ug/L	-1.1177 ppb	18:04:31
3	Cr 267.716†	-82.3	-177.3	1.5736 ug/L	1.5736 ppb	18:04:31
3	Cu 324.752†	3292.4	-2750.2	1.9293 ug/L	1.9293 ppb	18:04:11
3	Mn 257.610†	1097.9	784.6	9.8966 ug/L	9.8966 ppb	18:04:11
3	Mo 202.031†	-244.7	-309.8	-0.4290 ug/L	-0.4290 ppb	18:04:31
3	Ni 231.604†	233.2	167.8	3.4690 ug/L	3.4690 ppb	18:04:31
3	P 214.914†	186.1	-30.4	13.385 ug/L	13.385 ppb	18:04:31
3	Pb 220.353†	-966.9	-1040.1	-2.0448 ug/L	-2.0448 ppb	18:04:31
3	S 181.975 Axial†	98.2	59.1	-33.659 ug/L	-33.659 ppb	18:04:31
3	Sb 206.836†	68.1	38.0	-1.7789 ug/L	-1.7789 ppb	18:04:31
3	Se 196.026†	-1118.7	-1266.2	2.6603 ug/L	2.6603 ppb	18:04:31
3	Si 251.611†	482.8	-55.3	-0.9471 ug/L	-0.9471 ppb	18:04:31
3	Sn 189.927†	-392.3	-461.1	-12.812 ug/L	-12.812 ppb	18:04:31
3	Ti 334.940†	-15357.9	-16316.5	2.3588 ug/L	2.3588 ppb	18:04:11
3	Tl 190.801†	-97.8	-75.5	-4.8809 ug/L	-4.8809 ppb	18:04:31
3	U 409.014†	-1315.8	1099.9	6.5249 ug/L	6.5249 ppb	18:04:11
3	V 292.402†	1222.0	3015.7	1.1779 ug/L	1.1779 ppb	18:04:31
3	Zn 213.857†	3506.1	3292.6	-0.3830 ug/L	-0.3830 ppb	18:04:31
3	SiO2†	508.1	-59.0	-2.2023 ug/L	-2.2023 ppb	18:04:46

Mean Data: ICSA

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	805642.8	86.285	%	0.1779				0.21%
Sc Radial	5054.5	89.1	%	1.07				1.20%
Y 371.029	677670.8	84.417	%	0.1716				0.20%
Y RADIAL	5540.3	88.83	%	0.437				0.49%
Ag 328.068†	-12983.7	1.0013	ug/L	0.38342	1.0013	ppb	0.38342	38.29%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	738605.8	510940	ug/L	7822.7	510940	ppb	7822.7	1.53%
QC value within limits for Al 396.153Radial Recovery = 102.19%								
As 188.979†	-92.3	-3.4732	ug/L	2.44104	-3.4732	ppb	2.44104	70.28%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	1198.3	-0.9493	ug/L	0.59267	-0.9493	ppb	0.59267	62.43%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-756.1	-0.2779	ug/L	0.07151	-0.2779	ppb	0.07151	25.73%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-1258.2	-0.4448	ug/L	0.04614	-0.4448	ppb	0.04614	10.37%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	344322.2	474270	ug/L	6852.2	474270	ppb	6852.2	1.44%

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   QC value within limits for Ca 317.933Radial  Recovery = 94.85%
Cd 226.502†            1882.4     -0.8705 ug/L      0.26586     -0.8705 ppb       0.26586  30.54%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†              79.7     -1.2636 ug/L      0.14528     -1.2636 ppb       0.14528  11.50%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†            -107.2      2.2464 ug/L      1.14909      2.2464 ppb       1.14909  51.15%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†           -2715.5      2.0305 ug/L      0.09063      2.0305 ppb       0.09063   4.46%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†    24196.8      181810 ug/L       1206.7      181810 ppb        1206.7   0.66%
   QC value within limits for Fe 238.204 Radial  Recovery = 90.91%
K 766.490 Radial†       -75.0      3.0571 ug/L      7.79344      3.0571 ppb       7.79344 254.93%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†       16827.4      479600 ug/L       3157.1      479600 ppb        3157.1   0.66%
   QC value within limits for Mg 279.077 IEC  Recovery = 95.92%
Mn 257.610†             636.0      9.7945 ug/L      0.12652      9.7945 ppb       0.12652   1.29%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†            -312.3     -0.5558 ug/L      0.53973     -0.5558 ppb       0.53973  97.11%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       80.3      19.553 ug/L       2.0442      19.553 ppb        2.0442  10.45%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†             175.5      3.6297 ug/L      0.66991      3.6297 ppb       0.66991  18.46%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†              -16.7      18.683 ug/L       5.8700      18.683 ppb        5.8700  31.42%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†           -1031.3     -1.9261 ug/L      0.28430     -1.9261 ppb       0.28430  14.76%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         50.7     -42.667 ug/L       7.9562     -42.667 ppb        7.9562  18.65%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              49.0      1.3598 ug/L      2.71821      1.3598 ppb       2.71821 199.90%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†           -1260.8      5.4368 ug/L      2.43311      5.4368 ppb       2.43311  44.75%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†             -62.9     -1.1404 ug/L      0.53255     -1.1404 ppb       0.53255  46.70%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†            -472.8     -14.719 ug/L       1.6847     -14.719 ppb        1.6847  11.45%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             679.7     -0.6417 ug/L      0.04722     -0.6417 ppb       0.04722   7.36%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†          -16591.3      1.8457 ug/L      0.66395      1.8457 ppb       0.66395  35.97%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†             -72.9     -4.3248 ug/L      0.87227     -4.3248 ppb       0.87227  20.17%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†             1210.0      9.4421 ug/L      2.62302      9.4421 ppb       2.62302  27.78%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†             2981.6      0.9268 ug/L      0.25577      0.9268 ppb       0.25577  27.60%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†            3283.0     -0.4303 ug/L      0.04099     -0.4303 ppb       0.04099   9.53%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                   -70.1     -2.8097 ug/L      0.57479     -2.8097 ppb       0.57479  20.46%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 10
Sample ID: ICSAB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 14
Date Collected: 12/23/2009 18:06:58
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSAB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5089.5	5089.5	89.7	%			18:08:55
1	Y RADIAL	5552.3	5552.3	89.02	%			18:08:55
1	Al 396.153Radial†	663377.3	739546.0	511570	ug/L	511570	ppb	18:08:50
1	Ca 317.933Radial†	308386.8	343780.0	473530	ug/L	473530	ppb	18:08:50
1	Fe 238.204 Radial†	21843.6	24341.0	182910	ug/L	182910	ppb	18:08:55
1	K 766.490 Radial†	31231.1	31999.8	5379.7	ug/L	5379.7	ppb	18:08:50
1	Mg 279.077 IEC†	15168.2	16908.5	481920	ug/L	481920	ppb	18:08:55
1	Na 589.592 Radial†	17899.6	21499.1	5233.5	ug/L	5233.5	ppb	18:08:55
1	Sr 421.552†	80078.8	89283.2	488.78	ug/L	488.78	ppb	18:08:50
1	Sc 361.383	809165.1	809165.1	86.662	%			18:09:23
1	Y 371.029	679134.0	679134.0	84.599	%			18:09:23
1	Ag 328.068†	46019.6	52784.4	270.67	ug/L	270.67	ppb	18:09:23
1	As 188.979†	1195.9	1411.6	511.51	ug/L	511.51	ppb	18:09:28
1	B 249.677†	23489.0	27885.9	513.86	ug/L	513.86	ppb	18:09:23
1	Ba 233.527†	64323.7	74228.3	486.92	ug/L	486.92	ppb	18:09:23
1	Be 313.107†	651636.4	756725.2	241.44	ug/L	241.44	ppb	18:09:23
1	Cd 226.502†	45599.3	52855.9	467.90	ug/L	467.90	ppb	18:09:28
1	Co 228.616†	23323.9	27005.1	447.61	ug/L	447.61	ppb	18:09:28
1	Cr 267.716†	42755.7	49254.5	475.62	ug/L	475.62	ppb	18:09:28
1	Cu 324.752†	180621.8	201847.8	547.81	ug/L	547.81	ppb	18:09:23
1	Mn 257.610†	440977.6	508357.3	485.14	ug/L	485.14	ppb	18:09:23
1	Mo 202.031†	6993.5	8044.2	480.82	ug/L	480.82	ppb	18:09:28
1	Ni 231.604†	19140.7	21983.6	454.44	ug/L	454.44	ppb	18:09:28
1	P 214.914†	4669.9	5142.2	2431.1	ug/L	2431.1	ppb	18:09:28
1	Pb 220.353†	3102.8	3662.9	461.46	ug/L	461.46	ppb	18:09:28
1	S 181.975 Axial†	2084.8	2350.7	2582.9	ug/L	2582.9	ppb	18:09:28
1	Sb 206.836†	1644.6	1856.7	518.06	ug/L	518.06	ppb	18:09:28
1	Se 196.026†	3177.2	3698.9	2535.1	ug/L	2535.1	ppb	18:09:28
1	Si 251.611†	168982.3	194374.0	5135.1	ug/L	5135.1	ppb	18:09:23
1	Sn 189.927†	2610.5	3006.6	475.87	ug/L	475.87	ppb	18:09:28
1	Ti 334.940†	297727.2	345065.6	500.15	ug/L	500.15	ppb	18:09:23
1	Tl 190.801†	1504.3	1773.9	457.70	ug/L	457.70	ppb	18:09:28
1	U 409.014†	14529.1	19392.9	494.00	ug/L	494.00	ppb	18:09:23
1	V 292.402†	72814.0	85617.5	504.85	ug/L	504.85	ppb	18:09:23
1	Zn 213.857†	58261.9	66450.5	485.15	ug/L	485.15	ppb	18:09:28
1	SiO2†	168167.7	193401.1	10885	ug/L	10885	ppb	18:09:56
2	Sc Radial	4996.2	4996.2	88.1	%			18:09:06
2	Y RADIAL	5494.6	5494.6	88.09	%			18:09:06
2	Al 396.153Radial†	673617.4	764986.5	529170	ug/L	529170	ppb	18:09:01
2	Ca 317.933Radial†	313247.3	355720.4	489970	ug/L	489970	ppb	18:09:01
2	Fe 238.204 Radial†	21542.3	24453.7	183760	ug/L	183760	ppb	18:09:06
2	K 766.490 Radial†	31750.1	33239.4	5588.4	ug/L	5588.4	ppb	18:09:01
2	Mg 279.077 IEC†	14933.3	16957.5	483320	ug/L	483320	ppb	18:09:06
2	Na 589.592 Radial†	17668.0	21608.8	5260.1	ug/L	5260.1	ppb	18:09:06
2	Sr 421.552†	81490.2	92553.3	506.69	ug/L	506.69	ppb	18:09:01
2	Sc 361.383	809218.2	809218.2	86.668	%			18:09:34
2	Y 371.029	678649.0	678649.0	84.539	%			18:09:34
2	Ag 328.068†	45906.4	52650.3	270.16	ug/L	270.16	ppb	18:09:34
2	As 188.979†	1175.5	1388.0	503.60	ug/L	503.60	ppb	18:09:39
2	B 249.677†	23579.2	27988.2	515.74	ug/L	515.74	ppb	18:09:34
2	Ba 233.527†	64514.4	74443.5	488.33	ug/L	488.33	ppb	18:09:34
2	Be 313.107†	651337.0	756330.3	241.31	ug/L	241.31	ppb	18:09:34
2	Cd 226.502†	45281.1	52485.3	464.41	ug/L	464.41	ppb	18:09:39
2	Co 228.616†	23230.0	26895.0	445.78	ug/L	445.78	ppb	18:09:39
2	Cr 267.716†	42392.6	48832.3	471.59	ug/L	471.59	ppb	18:09:39
2	Cu 324.752†	180311.9	201476.6	546.86	ug/L	546.86	ppb	18:09:34
2	Mn 257.610†	440604.8	507893.8	484.76	ug/L	484.76	ppb	18:09:34
2	Mo 202.031†	7067.2	8128.8	485.77	ug/L	485.77	ppb	18:09:39
2	Ni 231.604†	19040.2	21866.2	452.01	ug/L	452.01	ppb	18:09:39

2	P 214.914†	4620.2	5084.4	2408.6 ug/L	2408.6 ppb	18:09:39
2	Pb 220.353†	3098.2	3657.4	464.81 ug/L	464.81 ppb	18:09:39
2	S 181.975 Axial†	2089.9	2356.4	2585.9 ug/L	2585.9 ppb	18:09:39
2	Sb 206.836†	1655.6	1869.2	521.29 ug/L	521.29 ppb	18:09:39
2	Se 196.026†	3156.0	3674.1	2528.1 ug/L	2528.1 ppb	18:09:39
2	Si 251.611†	168826.6	194181.6	5129.9 ug/L	5129.9 ppb	18:09:34
2	Sn 189.927†	2602.1	2996.8	476.21 ug/L	476.21 ppb	18:09:39
2	Ti 334.940†	296894.7	344082.6	499.66 ug/L	499.66 ppb	18:09:34
2	Tl 190.801†	1495.2	1763.4	455.57 ug/L	455.57 ppb	18:09:39
2	U 409.014†	14314.9	19144.6	487.27 ug/L	487.27 ppb	18:09:34
2	V 292.402†	72471.9	85217.2	502.40 ug/L	502.40 ppb	18:09:34
2	Zn 213.857†	57846.0	65966.1	481.32 ug/L	481.32 ppb	18:09:39
2	SiO2†	168559.7	193840.6	10909 ug/L	10909 ppb	18:10:01
3	Sc Radial	5025.0	5025.0	88.6 %		18:09:16
3	Y RADIAL	5528.1	5528.1	88.63 %		18:09:16
3	Al 396.153Radial†	666386.1	752441.5	520490 ug/L	520490 ppb	18:09:11
3	Ca 317.933Radial†	310198.3	350241.0	482420 ug/L	482420 ppb	18:09:11
3	Fe 238.204 Radial†	21719.4	24513.5	184210 ug/L	184210 ppb	18:09:16
3	K 766.490 Radial†	31299.4	32524.2	5467.9 ug/L	5467.9 ppb	18:09:11
3	Mg 279.077 IEC†	15094.5	17042.5	485740 ug/L	485740 ppb	18:09:16
3	Na 589.592 Radial†	17957.1	21820.4	5311.7 ug/L	5311.7 ppb	18:09:16
3	Sr 421.552†	80488.4	90892.3	497.59 ug/L	497.59 ppb	18:09:11
3	Sc 361.383	811200.5	811200.5	86.880 %		18:09:45
3	Y 371.029	680715.9	680715.9	84.796 %		18:09:45
3	Ag 328.068†	45967.9	52591.6	270.19 ug/L	270.19 ppb	18:09:45
3	As 188.979†	1165.3	1372.9	498.53 ug/L	498.53 ppb	18:09:50
3	B 249.677†	23335.9	27641.6	508.98 ug/L	508.98 ppb	18:09:45
3	Ba 233.527†	64331.3	74050.9	485.80 ug/L	485.80 ppb	18:09:45
3	Be 313.107†	652264.9	755561.9	241.06 ug/L	241.06 ppb	18:09:45
3	Cd 226.502†	45249.4	52321.1	462.85 ug/L	462.85 ppb	18:09:50
3	Co 228.616†	23221.2	26819.4	444.52 ug/L	444.52 ppb	18:09:50
3	Cr 267.716†	42554.1	48898.6	472.23 ug/L	472.23 ppb	18:09:50
3	Cu 324.752†	180324.1	200982.2	545.56 ug/L	545.56 ppb	18:09:45
3	Mn 257.610†	440424.5	506443.9	483.41 ug/L	483.41 ppb	18:09:45
3	Mo 202.031†	7090.1	8135.2	486.18 ug/L	486.18 ppb	18:09:50
3	Ni 231.604†	18998.8	21764.9	449.92 ug/L	449.92 ppb	18:09:50
3	P 214.914†	4722.0	5188.6	2455.8 ug/L	2455.8 ppb	18:09:50
3	Pb 220.353†	3133.0	3688.7	465.91 ug/L	465.91 ppb	18:09:50
3	S 181.975 Axial†	2048.2	2302.6	2526.2 ug/L	2526.2 ppb	18:09:50
3	Sb 206.836†	1665.8	1876.3	523.48 ug/L	523.48 ppb	18:09:50
3	Se 196.026†	3135.1	3641.2	2511.3 ug/L	2511.3 ppb	18:09:50
3	Si 251.611†	168870.0	193755.5	5118.6 ug/L	5118.6 ppb	18:09:45
3	Sn 189.927†	2592.8	2978.8	472.89 ug/L	472.89 ppb	18:09:50
3	Ti 334.940†	297196.7	343593.0	498.59 ug/L	498.59 ppb	18:09:45
3	Tl 190.801†	1500.7	1765.5	455.85 ug/L	455.85 ppb	18:09:50
3	U 409.014†	14534.2	19356.6	492.88 ug/L	492.88 ppb	18:09:45
3	V 292.402†	72798.3	85388.5	503.44 ug/L	503.44 ppb	18:09:45
3	Zn 213.857†	57856.7	65815.3	480.06 ug/L	480.06 ppb	18:09:50
3	SiO2†	169120.5	194010.8	10919 ug/L	10919 ppb	18:10:06

Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	809861.2	86.737	%	0.1242				0.14%
Sc Radial	5036.9	88.8	%	0.84				0.95%
Y 371.029	679499.6	84.645	%	0.1346				0.16%
Y RADIAL	5525.0	88.58	%	0.465				0.52%
Ag 328.068†	52675.4	270.34	ug/L	0.287	270.34	ppb	0.287	0.11%
QC value within limits for Ag 328.068 Recovery = 108.14%								
Al 396.153Radial†	752324.7	520410	ug/L	8799.6	520410	ppb	8799.6	1.69%
QC value within limits for Al 396.153Radial Recovery = 104.08%								
As 188.979†	1390.8	504.55	ug/L	6.542	504.55	ppb	6.542	1.30%
QC value within limits for As 188.979 Recovery = 100.91%								
B 249.677†	27838.6	512.86	ug/L	3.490	512.86	ppb	3.490	0.68%
QC value within limits for B 249.677 Recovery = 102.57%								
Ba 233.527†	74240.9	487.02	ug/L	1.268	487.02	ppb	1.268	0.26%
QC value within limits for Ba 233.527 Recovery = 97.40%								
Be 313.107†	756205.8	241.27	ug/L	0.190	241.27	ppb	0.190	0.08%
QC value within limits for Be 313.107 Recovery = 96.51%								
Ca 317.933Radial†	349913.8	481970	ug/L	8232.6	481970	ppb	8232.6	1.71%

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   QC value within limits for Ca 317.933Radial  Recovery = 96.39%
Cd 226.502†            52554.1      465.06 ug/L        2.586      465.06 ppb          2.586   0.56%
   QC value within limits for Cd 226.502  Recovery = 93.01%
Co 228.616†            26906.5      445.97 ug/L        1.556      445.97 ppb          1.556   0.35%
   QC value within limits for Co 228.616  Recovery = 89.19%
Cr 267.716†            48995.1      473.15 ug/L        2.165      473.15 ppb          2.165   0.46%
   QC value within limits for Cr 267.716  Recovery = 94.63%
Cu 324.752†           201435.5      546.74 ug/L        1.126      546.74 ppb          1.126   0.21%
   QC value within limits for Cu 324.752  Recovery = 109.35%
Fe 238.204 Radial†     24436.1      183630 ug/L        658.1      183630 ppb          658.1   0.36%
   QC value within limits for Fe 238.204 Radial  Recovery = 91.81%
K 766.490 Radial†      32587.8      5478.7 ug/L       104.76      5478.7 ppb         104.76   1.91%
   QC value within limits for K 766.490 Radial  Recovery = 109.57%
Mg 279.077 IEC†        16969.5      483660 ug/L       1931.5      483660 ppb         1931.5   0.40%
   QC value within limits for Mg 279.077 IEC  Recovery = 96.73%
Mn 257.610†           507565.0      484.44 ug/L        0.912      484.44 ppb          0.912   0.19%
   QC value within limits for Mn 257.610  Recovery = 96.89%
Mo 202.031†             8102.7      484.25 ug/L        2.984      484.25 ppb          2.984   0.62%
   QC value within limits for Mo 202.031  Recovery = 96.85%
Na 589.592 Radial†     21642.8      5268.4 ug/L       39.75      5268.4 ppb          39.75   0.75%
   QC value within limits for Na 589.592 Radial  Recovery = 105.37%
Ni 231.604†            21871.6      452.13 ug/L        2.263      452.13 ppb          2.263   0.50%
   QC value within limits for Ni 231.604  Recovery = 90.43%
P 214.914†              5138.4      2431.9 ug/L       23.63      2431.9 ppb          23.63   0.97%
   QC value within limits for P 214.914  Recovery = 97.27%
Pb 220.353†             3669.7      464.06 ug/L        2.319      464.06 ppb          2.319   0.50%
   QC value within limits for Pb 220.353  Recovery = 92.81%
S 181.975 Axial†        2336.6      2565.0 ug/L       33.64      2565.0 ppb          33.64   1.31%
   QC value within limits for S 181.975 Axial  Recovery = 102.60%
Sb 206.836†             1867.4      520.94 ug/L        2.729      520.94 ppb          2.729   0.52%
   QC value within limits for Sb 206.836  Recovery = 104.19%
Se 196.026†             3671.4      2524.8 ug/L       12.26      2524.8 ppb          12.26   0.49%
   QC value within limits for Se 196.026  Recovery = 100.99%
Si 251.611†           194103.7      5127.9 ug/L        8.42      5127.9 ppb           8.42   0.16%
   QC value within limits for Si 251.611  Recovery = 102.56%
Sn 189.927†             2994.0      474.99 ug/L        1.827      474.99 ppb          1.827   0.38%
   QC value within limits for Sn 189.927  Recovery = 95.00%
Sr 421.552†            90909.6      497.69 ug/L        8.956      497.69 ppb          8.956   1.80%
   QC value within limits for Sr 421.552  Recovery = 99.54%
Ti 334.940†           344247.0      499.47 ug/L        0.800      499.47 ppb          0.800   0.16%
   QC value within limits for Ti 334.940  Recovery = 99.89%
Tl 190.801†             1767.6      456.37 ug/L        1.160      456.37 ppb          1.160   0.25%
   QC value within limits for Tl 190.801  Recovery = 91.27%
U 409.014†             19298.0      491.39 ug/L        3.605      491.39 ppb          3.605   0.73%
   QC value within limits for U 409.014  Recovery = 98.28%
V 292.402†             85407.7      503.56 ug/L        1.227      503.56 ppb          1.227   0.24%
   QC value within limits for V 292.402  Recovery = 100.71%
Zn 213.857†            66077.3      482.18 ug/L        2.649      482.18 ppb          2.649   0.55%
   QC value within limits for Zn 213.857  Recovery = 96.44%
SiO2†                 193750.8       10904 ug/L         17.6       10904 ppb           17.6   0.16%
   QC value within limits for SiO2  Recovery = 101.96%
All analyte(s) passed QC.
```

Sequence No.: 11
Sample ID: LR1
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 15
Date Collected: 12/23/2009 18:12:16
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4928.4	4928.4	86.9	%			18:14:14
1	Y RADIAL	5461.6	5461.6	87.56	%			18:14:14
1	Al 396.153Radial†	644901.2	742453.4	513610	ug/L	513610	ppb	18:14:09
1	Ca 317.933Radial†	299584.2	344885.8	475050	ug/L	475050	ppb	18:14:09
1	Fe 238.204 Radial†	48940.8	56333.1	423290	ug/L	423290	ppb	18:14:14
1	K 766.490 Radial†	2297.4	-172.1	-219.09	ug/L	-219.09	ppb	18:14:09
1	Mg 279.077 IEC†	14383.7	16558.2	471720	ug/L	471720	ppb	18:14:14
1	Na 589.592 Radial†	1734687.4	1998618.4	486520	ug/L	486520	ppb	18:14:09
1	Sr 421.552†	825.8	961.2	0.9061	ug/L	0.9061	ppb	18:14:14
1	Sc 361.383	789221.7	789221.7	84.526	%			18:14:43
1	Y 371.029	663121.0	663121.0	82.604	%			18:14:43
1	Ag 328.068†	-25589.7	-30592.3	-2.1946	ug/L	-2.1946	ppb	18:14:43
1	As 188.979†	-232.3	-243.2	-17.347	ug/L	-17.347	ppb	18:15:03
1	B 249.677†	1617.2	2695.1	-4.0492	ug/L	-4.0492	ppb	18:14:43
1	Ba 233.527†	-1863.3	-2199.7	-3.5167	ug/L	-3.5167	ppb	18:15:03
1	Be 313.107†	-11973.6	-9368.7	-2.9983	ug/L	-2.9983	ppb	18:14:43
1	Cd 226.502†	3618.9	4519.9	-0.7641	ug/L	-0.7641	ppb	18:15:03
1	Co 228.616†	235.7	370.3	0.0588	ug/L	0.0588	ppb	18:15:03
1	Cr 267.716†	-14.0	-98.3	2.0539	ug/L	2.0539	ppb	18:15:03
1	Cu 324.752†	31.6	-6535.7	4.1572	ug/L	4.1572	ppb	18:14:43
1	Mn 257.610†	-25837.0	-31057.1	4.3497	ug/L	4.3497	ppb	18:14:43
1	Mo 202.031†	-500.7	-617.9	4.9851	ug/L	4.9851	ppb	18:14:43
1	Ni 231.604†	321.6	277.5	5.7355	ug/L	5.7355	ppb	18:15:03
1	P 214.914†	651.1	523.8	87.731	ug/L	87.731	ppb	18:15:03
1	Pb 220.353†	-722.9	-772.6	4.3062	ug/L	4.3062	ppb	18:15:03
1	S 181.975 Axial†	138.0	108.3	22.576	ug/L	22.576	ppb	18:15:03
1	Sb 206.836†	53.8	22.6	-2.7089	ug/L	-2.7089	ppb	18:15:03
1	Se 196.026†	-2547.2	-2980.9	-121.71	ug/L	-121.71	ppb	18:15:03
1	Si 251.611†	-464.1	-1165.0	-29.989	ug/L	-29.989	ppb	18:15:03
1	Sn 189.927†	-429.8	-514.1	-17.239	ug/L	-17.239	ppb	18:15:03
1	Ti 334.940†	-7755.6	-7659.5	7.8639	ug/L	7.8639	ppb	18:14:43
1	Tl 190.801†	-132.1	-118.1	-15.638	ug/L	-15.638	ppb	18:15:03
1	U 409.014†	453279.5	538887.5	14339	ug/L	14339	ppb	18:14:43
1	V 292.402†	3182.8	5362.2	5.9582	ug/L	5.9582	ppb	18:14:43
1	Zn 213.857†	6515.7	6930.1	15.567	ug/L	15.567	ppb	18:15:03
1	SiO2†	-508.9	-1251.1	-68.712	ug/L	-68.712	ppb	18:16:02
2	Sc Radial	4921.4	4921.4	86.7	%			18:14:24
2	Y RADIAL	5438.4	5438.4	87.19	%			18:14:24
2	Al 396.153Radial†	649887.1	749262.3	518320	ug/L	518320	ppb	18:14:19
2	Ca 317.933Radial†	301468.7	347551.2	478720	ug/L	478720	ppb	18:14:19
2	Fe 238.204 Radial†	49134.5	56636.9	425570	ug/L	425570	ppb	18:14:24
2	K 766.490 Radial†	2308.1	-155.9	-217.87	ug/L	-217.87	ppb	18:14:19
2	Mg 279.077 IEC†	14372.2	16568.6	472020	ug/L	472020	ppb	18:14:24
2	Na 589.592 Radial†	1746731.5	2015357.5	490590	ug/L	490590	ppb	18:14:19
2	Sr 421.552†	828.1	965.2	0.8942	ug/L	0.8942	ppb	18:14:24
2	Sc 361.383	793523.5	793523.5	84.987	%			18:15:10
2	Y 371.029	667506.6	667506.6	83.151	%			18:15:10
2	Ag 328.068†	-25268.6	-30050.4	0.9277	ug/L	0.9277	ppb	18:15:10
2	As 188.979†	-245.9	-257.7	-21.932	ug/L	-21.932	ppb	18:15:30
2	B 249.677†	1413.6	2445.0	-9.1875	ug/L	-9.1875	ppb	18:15:10
2	Ba 233.527†	-1796.3	-2108.9	-2.8735	ug/L	-2.8735	ppb	18:15:30
2	Be 313.107†	-11887.3	-9190.4	-2.9416	ug/L	-2.9416	ppb	18:15:10
2	Cd 226.502†	3661.9	4547.3	-0.7402	ug/L	-0.7402	ppb	18:15:30
2	Co 228.616†	238.1	371.6	0.0422	ug/L	0.0422	ppb	18:15:30
2	Cr 267.716†	0.9	-80.6	2.3413	ug/L	2.3413	ppb	18:15:30
2	Cu 324.752†	317.9	-6199.0	5.1717	ug/L	5.1717	ppb	18:15:10
2	Mn 257.610†	-25851.6	-30908.6	4.7108	ug/L	4.7108	ppb	18:15:10
2	Mo 202.031†	-534.9	-655.0	3.0699	ug/L	3.0699	ppb	18:15:10
2	Ni 231.604†	324.5	278.9	5.7646	ug/L	5.7646	ppb	18:15:30

2	P 214.914†	629.8	494.5	73.233	ug/L	73.233 ppb	18:15:30
2	Pb 220.353†	-699.1	-740.0	8.3824	ug/L	8.3824 ppb	18:15:30
2	S 181.975 Axial†	140.3	110.1	23.721	ug/L	23.721 ppb	18:15:30
2	Sb 206.836†	66.1	36.8	1.2079	ug/L	1.2079 ppb	18:15:30
2	Se 196.026†	-2586.4	-3010.6	-129.01	ug/L	-129.01 ppb	18:15:30
2	Si 251.611†	-548.9	-1261.8	-32.526	ug/L	-32.526 ppb	18:15:30
2	Sn 189.927†	-413.9	-492.7	-13.800	ug/L	-13.800 ppb	18:15:30
2	Ti 334.940†	-7765.6	-7621.5	8.2172	ug/L	8.2172 ppb	18:15:10
2	Tl 190.801†	-126.9	-111.1	-13.763	ug/L	-13.763 ppb	18:15:30
2	U 409.014†	447858.5	529601.8	14091	ug/L	14091 ppb	18:15:10
2	V 292.402†	3022.9	5153.7	3.8515	ug/L	3.8515 ppb	18:15:10
2	Zn 213.857†	6558.7	6938.9	15.505	ug/L	15.505 ppb	18:15:30
2	SiO2†	-572.4	-1322.4	-72.680	ug/L	-72.680 ppb	18:16:07
3	Sc Radial	4911.3	4911.3	86.6	%		18:14:35
3	Y RADIAL	5459.3	5459.3	87.53	%		18:14:35
3	Al 396.153Radial†	652434.2	753748.5	521420	ug/L	521420 ppb	18:14:30
3	Ca 317.933Radial†	303175.7	350239.3	482420	ug/L	482420 ppb	18:14:30
3	Fe 238.204 Radial†	49269.8	56909.9	427620	ug/L	427620 ppb	18:14:35
3	K 766.490 Radial†	2349.6	-102.5	-210.46	ug/L	-210.46 ppb	18:14:30
3	Mg 279.077 IEC†	14476.6	16723.4	476420	ug/L	476420 ppb	18:14:35
3	Na 589.592 Radial†	1755798.2	2029980.6	494150	ug/L	494150 ppb	18:14:30
3	Sr 421.552†	821.7	959.7	0.8297	ug/L	0.8297 ppb	18:14:35
3	Sc 361.383	799990.6	799990.6	85.679	%		18:15:36
3	Y 371.029	673484.6	673484.6	83.895	%		18:15:36
3	Ag 328.068†	-25687.1	-30298.5	0.3758	ug/L	0.3758 ppb	18:15:36
3	As 188.979†	-225.8	-231.9	-12.839	ug/L	-12.839 ppb	18:15:57
3	B 249.677†	1663.4	2723.2	-4.0809	ug/L	-4.0809 ppb	18:15:36
3	Ba 233.527†	-1841.8	-2145.0	-3.0555	ug/L	-3.0555 ppb	18:15:57
3	Be 313.107†	-12011.3	-9222.0	-2.9521	ug/L	-2.9521 ppb	18:15:36
3	Cd 226.502†	3678.6	4531.9	-1.0874	ug/L	-1.0874 ppb	18:15:57
3	Co 228.616†	236.6	367.6	-0.0510	ug/L	-0.0510 ppb	18:15:57
3	Cr 267.716†	8.4	-71.8	2.3967	ug/L	2.3967 ppb	18:15:57
3	Cu 324.752†	161.5	-6384.6	4.7813	ug/L	4.7813 ppb	18:15:36
3	Mn 257.610†	-26601.9	-31538.4	4.2436	ug/L	4.2436 ppb	18:15:36
3	Mo 202.031†	-531.5	-645.9	3.7896	ug/L	3.7896 ppb	18:15:36
3	Ni 231.604†	289.8	235.2	4.8619	ug/L	4.8619 ppb	18:15:57
3	P 214.914†	626.0	484.2	67.689	ug/L	67.689 ppb	18:15:57
3	Pb 220.353†	-722.1	-760.2	6.9239	ug/L	6.9239 ppb	18:15:57
3	S 181.975 Axial†	132.1	99.2	10.651	ug/L	10.651 ppb	18:15:57
3	Sb 206.836†	72.0	43.0	2.8999	ug/L	2.8999 ppb	18:15:57
3	Se 196.026†	-2582.6	-2981.6	-107.36	ug/L	-107.36 ppb	18:15:57
3	Si 251.611†	-479.0	-1175.0	-30.239	ug/L	-30.239 ppb	18:15:57
3	Sn 189.927†	-418.5	-494.0	-13.578	ug/L	-13.578 ppb	18:15:57
3	Ti 334.940†	-7982.1	-7800.4	8.0740	ug/L	8.0740 ppb	18:15:36
3	Tl 190.801†	-160.8	-149.6	-23.230	ug/L	-23.230 ppb	18:15:57
3	U 409.014†	458026.1	537208.7	14293	ug/L	14293 ppb	18:15:36
3	V 292.402†	3056.8	5164.5	4.1060	ug/L	4.1060 ppb	18:15:36
3	Zn 213.857†	6593.6	6917.2	15.086	ug/L	15.086 ppb	18:15:57
3	SiO2†	-644.0	-1400.6	-77.111	ug/L	-77.111 ppb	18:16:12

Mean Data: LR1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	794245.3	85.064	%	0.5806				0.68%
Sc Radial	4920.3	86.7	%	0.15				0.18%
Y 371.029	668037.4	83.217	%	0.6480				0.78%
Y RADIAL	5453.1	87.43	%	0.205				0.23%
Ag 328.068†	-30313.7	-0.2970	ug/L	1.66637	-0.2970	ppb	1.66637	560.97%
Al 396.153Radial†	748488.1	517780	ug/L	3934.3	517780	ppb	3934.3	0.76%
QC value within limits for Al 396.153Radial Recovery = 103.56%								
As 188.979†	-244.2	-17.373	ug/L	4.5464	-17.373	ppb	4.5464	26.17%
B 249.677†	2621.1	-5.7725	ug/L	2.95749	-5.7725	ppb	2.95749	51.23%
Ba 233.527†	-2151.2	-3.1486	ug/L	0.33154	-3.1486	ppb	0.33154	10.53%
Be 313.107†	-9260.4	-2.9640	ug/L	0.03020	-2.9640	ppb	0.03020	1.02%
Ca 317.933Radial†	347558.8	478730	ug/L	3687.0	478730	ppb	3687.0	0.77%
QC value within limits for Ca 317.933Radial Recovery = 95.75%								
Cd 226.502†	4533.0	-0.8639	ug/L	0.19389	-0.8639	ppb	0.19389	22.44%
Co 228.616†	369.8	0.0167	ug/L	0.05919	0.0167	ppb	0.05919	355.04%
Cr 267.716†	-83.6	2.2640	ug/L	0.18404	2.2640	ppb	0.18404	8.13%
Cu 324.752†	-6373.1	4.7034	ug/L	0.51172	4.7034	ppb	0.51172	10.88%

Fe 238.204 Radial†	56626.6	425490 ug/L	2167.9	425490 ppb	2167.9	0.51%
QC value less than the lower limit for Fe 238.204 Radial Recovery = 85.10%						
K 766.490 Radial†	-143.5	-215.81 ug/L	4.675	-215.81 ppb	4.675	2.17%
Mg 279.077 IEC†	16616.7	473390 ug/L	2635.6	473390 ppb	2635.6	0.56%
QC value within limits for Mg 279.077 IEC Recovery = 94.68%						
Mn 257.610†	-31168.0	4.4347 ug/L	0.24492	4.4347 ppb	0.24492	5.52%
Mo 202.031†	-639.6	3.9482 ug/L	0.96738	3.9482 ppb	0.96738	24.50%
Na 589.592 Radial†	2014652.2	490420 ug/L	3820.1	490420 ppb	3820.1	0.78%
QC value within limits for Na 589.592 Radial Recovery = 98.08%						
Ni 231.604†	263.9	5.4540 ug/L	0.51298	5.4540 ppb	0.51298	9.41%
P 214.914†	500.8	76.218 ug/L	10.3491	76.218 ppb	10.3491	13.58%
Pb 220.353†	-757.6	6.5375 ug/L	2.06537	6.5375 ppb	2.06537	31.59%
S 181.975 Axial†	105.8	18.983 ug/L	7.2380	18.983 ppb	7.2380	38.13%
Sb 206.836†	34.1	0.4663 ug/L	2.87703	0.4663 ppb	2.87703	616.99%
Se 196.026†	-2991.0	-119.36 ug/L	11.018	-119.36 ppb	11.018	9.23%
Si 251.611†	-1200.6	-30.918 ug/L	1.3981	-30.918 ppb	1.3981	4.52%
Sn 189.927†	-500.3	-14.872 ug/L	2.0528	-14.872 ppb	2.0528	13.80%
Sr 421.552†	962.0	0.8766 ug/L	0.04111	0.8766 ppb	0.04111	4.69%
Ti 334.940†	-7693.8	8.0517 ug/L	0.17772	8.0517 ppb	0.17772	2.21%
Tl 190.801†	-126.3	-17.544 ug/L	5.0132	-17.544 ppb	5.0132	28.58%
U 409.014†	535232.7	14241 ug/L	132.2	14241 ppb	132.2	0.93%
QC value within limits for U 409.014 Recovery = 94.94%						
V 292.402†	5226.8	4.6386 ug/L	1.14986	4.6386 ppb	1.14986	24.79%
Zn 213.857†	6928.8	15.386 ug/L	0.2616	15.386 ppb	0.2616	1.70%
SiO2†	-1324.7	-72.834 ug/L	4.2021	-72.834 ppb	4.2021	5.77%

QC Failed. Continue with analysis.

Sequence No.: 12
Sample ID: LR2
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 16
Date Collected: 12/23/2009 18:18:21
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR2

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5536.4	5536.4	97.6	%			18:20:19
1	Y RADIAL	5981.5	5981.5	95.90	%			18:20:19
1	Al 396.153Radial†	627.9	648.7	43.367	ug/L	43.367	ppb	18:20:19
1	Ca 317.933Radial†	38.6	26.4	36.421	ug/L	36.421	ppb	18:20:39
1	Fe 238.204 Radial†	-24.4	-35.4	13.805	ug/L	13.805	ppb	18:20:39
1	K 766.490 Radial†	1678042.9	1716882.5	288060	ug/L	288060	ppb	18:20:14
1	Mg 279.077 IEC†	-4.0	-5.3	40.317	ug/L	40.317	ppb	18:20:39
1	Na 589.592 Radial†	-1003.5	516.1	125.62	ug/L	125.62	ppb	18:20:19
1	Sr 421.552†	1667162.4	1708559.3	9437.5	ug/L	9437.5	ppb	18:20:14
1	Sc 361.383	913095.2	913095.2	97.793	%			18:21:56
1	Y 371.029	765233.9	765233.9	95.324	%			18:21:56
1	Ag 328.068†	-8688.7	-9202.8	0.6768	ug/L	0.6768	ppb	18:22:02
1	As 188.979†	28071.0	28736.2	9848.7	ug/L	9848.7	ppb	18:22:02
1	B 249.677†	246417.8	252760.7	4865.5	ug/L	4865.5	ppb	18:21:56
1	Ba 233.527†	2090675.1	2137861.9	13880	ug/L	13880	ppb	18:21:56
1	Be 313.107†	8591115.7	8789796.1	2812.3	ug/L	2812.3	ppb	18:21:50
1	Cd 226.502†	1006543.4	1029497.5	9470.2	ug/L	9470.2	ppb	18:21:56
1	Co 228.616†	521093.4	532944.9	8882.2	ug/L	8882.2	ppb	18:22:02
1	Cr 267.716†	2377521.5	2431095.5	23295	ug/L	23295	ppb	18:21:56
1	Cu 324.752†	7169483.0	7324710.2	19540	ug/L	19540	ppb	18:21:50
1	Mn 257.610†	9519445.7	9733789.5	9111.8	ug/L	9111.8	ppb	18:21:50
1	Mo 202.031†	160803.2	164406.6	9468.5	ug/L	9468.5	ppb	18:22:02
1	Ni 231.604†	451994.6	462092.2	9552.7	ug/L	9552.7	ppb	18:21:56
1	P 214.914†	36856.1	37441.4	15106	ug/L	15106	ppb	18:22:02
1	Pb 220.353†	235185.9	240576.2	23715	ug/L	23715	ppb	18:22:02
1	S 181.975 Axial†	43695.0	44626.1	50944	ug/L	50944	ppb	18:22:02
1	Sb 206.836†	35705.0	36469.8	10087	ug/L	10087	ppb	18:22:02
1	Se 196.026†	18992.9	19454.2	9932.5	ug/L	9932.5	ppb	18:22:02
1	Si 251.611†	1715011.4	1753099.7	46123	ug/L	46123	ppb	18:21:56
1	Sn 189.927†	70430.6	72014.5	10155	ug/L	10155	ppb	18:22:02
1	Ti 334.940†	6736117.3	6889653.3	9492.7	ug/L	9492.7	ppb	18:21:50
1	Tl 190.801†	37229.2	38107.5	9526.3	ug/L	9526.3	ppb	18:22:02
1	U 409.014†	-1398.5	1197.6	-12.944	ug/L	-12.944	ppb	18:22:02
1	V 292.402†	1582204.9	1619508.7	9855.1	ug/L	9855.1	ppb	18:21:56
1	Zn 213.857†	1733823.2	1772173.6	13641	ug/L	13641	ppb	18:21:56
1	SiO2†	1724676.3	1762949.6	98803	ug/L	98803	ppb	18:22:49
2	Sc Radial	5518.8	5518.8	97.3	%			18:20:49
2	Y RADIAL	6025.1	6025.1	96.60	%			18:20:49
2	Al 396.153Radial†	644.4	667.7	61.397	ug/L	61.397	ppb	18:20:49
2	Ca 317.933Radial†	40.9	28.9	39.762	ug/L	39.762	ppb	18:21:09
2	Fe 238.204 Radial†	-21.5	-32.6	32.555	ug/L	32.555	ppb	18:21:09
2	K 766.490 Radial†	1716945.6	1762366.1	295690	ug/L	295690	ppb	18:20:44
2	Mg 279.077 IEC†	-5.6	-6.9	-7.1973	ug/L	-7.1973	ppb	18:21:09
2	Na 589.592 Radial†	-1093.1	420.7	102.41	ug/L	102.41	ppb	18:20:49
2	Sr 421.552†	1701576.7	1749392.8	9663.0	ug/L	9663.0	ppb	18:20:44
2	Sc 361.383	920622.5	920622.5	98.599	%			18:22:16
2	Y 371.029	772313.6	772313.6	96.206	%			18:22:16
2	Ag 328.068†	-8628.9	-9069.5	1.1492	ug/L	1.1492	ppb	18:22:21
2	As 188.979†	27979.8	28409.0	9737.1	ug/L	9737.1	ppb	18:22:21
2	B 249.677†	248996.2	253315.4	4876.4	ug/L	4876.4	ppb	18:22:16
2	Ba 233.527†	2096581.0	2126372.1	13805	ug/L	13805	ppb	18:22:16
2	Be 313.107†	8614393.8	8741576.5	2796.8	ug/L	2796.8	ppb	18:22:10
2	Cd 226.502†	1008259.9	1022822.9	9408.8	ug/L	9408.8	ppb	18:22:16
2	Co 228.616†	520087.0	527567.4	8792.4	ug/L	8792.4	ppb	18:22:21
2	Cr 267.716†	2386887.1	2420716.2	23195	ug/L	23195	ppb	18:22:16
2	Cu 324.752†	7205155.1	7300946.6	19477	ug/L	19477	ppb	18:22:10
2	Mn 257.610†	9533215.1	9668164.5	9050.4	ug/L	9050.4	ppb	18:22:10
2	Mo 202.031†	160190.1	162440.3	9355.3	ug/L	9355.3	ppb	18:22:21
2	Ni 231.604†	453345.8	459683.6	9502.9	ug/L	9502.9	ppb	18:22:16

2	P 214.914†	36629.5	36903.4	14854 ug/L	14854 ppb	18:22:21
2	Pb 220.353†	234550.1	237965.0	23457 ug/L	23457 ppb	18:22:21
2	S 181.975 Axial†	43602.1	44166.6	50420 ug/L	50420 ppb	18:22:21
2	Sb 206.836†	35492.3	35955.5	9939.4 ug/L	9939.4 ppb	18:22:21
2	Se 196.026†	18893.3	19194.4	9800.0 ug/L	9800.0 ppb	18:22:21
2	Si 251.611†	1728879.8	1752826.3	46116 ug/L	46116 ppb	18:22:16
2	Sn 189.927†	70013.9	71002.9	10013 ug/L	10013 ppb	18:22:21
2	Ti 334.940†	6752960.4	6850416.5	9438.6 ug/L	9438.6 ppb	18:22:10
2	Tl 190.801†	37159.2	37725.2	9431.0 ug/L	9431.0 ppb	18:22:21
2	U 409.014†	-1616.0	988.7	-18.335 ug/L	-18.335 ppb	18:22:21
2	V 292.402†	1591815.1	1616027.0	9832.6 ug/L	9832.6 ppb	18:22:16
2	Zn 213.857†	1738899.5	1762825.8	13569 ug/L	13569 ppb	18:22:16
2	SiO2†	1746803.7	1770971.8	99255 ug/L	99255 ppb	18:22:56
3	Sc Radial	5522.5	5522.5	97.3 %		18:21:20
3	Y RADIAL	5994.3	5994.3	96.10 %		18:21:20
3	Al 396.153Radial†	621.4	643.6	37.270 ug/L	37.270 ppb	18:21:20
3	Ca 317.933Radial†	40.1	28.0	38.609 ug/L	38.609 ppb	18:21:40
3	Fe 238.204 Radial†	-25.7	-36.8	4.2578 ug/L	4.2578 ppb	18:21:40
3	K 766.490 Radial†	1671906.1	1714927.9	287730 ug/L	287730 ppb	18:21:15
3	Mg 279.077 IEC†	-8.5	-9.9	-90.326 ug/L	-90.326 ppb	18:21:40
3	Na 589.592 Radial†	-1050.2	465.5	113.32 ug/L	113.32 ppb	18:21:20
3	Sr 421.552†	1656071.7	1701486.8	9398.4 ug/L	9398.4 ppb	18:21:15
3	Sc 361.383	912380.2	912380.2	97.716 %		18:22:36
3	Y 371.029	765220.0	765220.0	95.323 %		18:22:36
3	Ag 328.068†	-8699.4	-9220.7	0.6606 ug/L	0.6606 ppb	18:22:41
3	As 188.979†	28341.3	29035.3	9951.0 ug/L	9951.0 ppb	18:22:41
3	B 249.677†	247208.5	253767.3	4884.9 ug/L	4884.9 ppb	18:22:36
3	Ba 233.527†	2089925.7	2138770.5	13886 ug/L	13886 ppb	18:22:36
3	Be 313.107†	8685136.7	8892898.8	2845.2 ug/L	2845.2 ppb	18:22:29
3	Cd 226.502†	1006386.4	1030143.4	9476.1 ug/L	9476.1 ppb	18:22:36
3	Co 228.616†	522312.3	534609.8	8909.9 ug/L	8909.9 ppb	18:22:41
3	Cr 267.716†	2378769.1	2434277.5	23325 ug/L	23325 ppb	18:22:36
3	Cu 324.752†	7249785.3	7412634.4	19775 ug/L	19775 ppb	18:22:29
3	Mn 257.610†	9585512.5	9809028.7	9182.3 ug/L	9182.3 ppb	18:22:29
3	Mo 202.031†	161708.2	165461.6	9529.3 ug/L	9529.3 ppb	18:22:41
3	Ni 231.604†	451930.5	462388.8	9558.8 ug/L	9558.8 ppb	18:22:36
3	P 214.914†	37076.8	37696.8	15192 ug/L	15192 ppb	18:22:41
3	Pb 220.353†	236378.8	241985.4	23853 ug/L	23853 ppb	18:22:41
3	S 181.975 Axial†	44181.0	45158.5	51552 ug/L	51552 ppb	18:22:41
3	Sb 206.836†	35971.0	36770.6	10173 ug/L	10173 ppb	18:22:41
3	Se 196.026†	19084.2	19562.9	9988.0 ug/L	9988.0 ppb	18:22:41
3	Si 251.611†	1717717.5	1757243.4	46232 ug/L	46232 ppb	18:22:36
3	Sn 189.927†	70687.4	72333.6	10200 ug/L	10200 ppb	18:22:41
3	Ti 334.940†	6795445.4	6955765.8	9583.8 ug/L	9583.8 ppb	18:22:29
3	Tl 190.801†	37523.3	38438.3	9609.4 ug/L	9609.4 ppb	18:22:41
3	U 409.014†	-1328.8	1267.8	-11.128 ug/L	-11.128 ppb	18:22:41
3	V 292.402†	1583517.7	1622120.1	9871.5 ug/L	9871.5 ppb	18:22:36
3	Zn 213.857†	1734328.9	1774080.5	13656 ug/L	13656 ppb	18:22:36
3	SiO2†	1744234.9	1784347.4	100010 ug/L	100010 ppb	18:23:03

Mean Data: LR2

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	915365.9	98.036	%	0.4891				0.50%
Sc Radial	5525.9	97.4	%	0.16				0.17%
Y 371.029	767589.2	95.618	%	0.5097				0.53%
Y RADIAL	6000.3	96.20	%	0.360				0.37%
Ag 328.068†	-9164.3	0.8288	ug/L	0.27752	0.8288	ppb	0.27752	33.48%
Al 396.153Radial†	653.4	47.345	ug/L	12.5455	47.345	ppb	12.5455	26.50%
As 188.979†	28726.8	9845.6	ug/L	107.02	9845.6	ppb	107.02	1.09%
QC value within limits for As 188.979 Recovery = 98.46%								
B 249.677†	253281.2	4875.6	ug/L	9.73	4875.6	ppb	9.73	0.20%
QC value within limits for B 249.677 Recovery = 97.51%								
Ba 233.527†	2134334.8	13857	ug/L	44.8	13857	ppb	44.8	0.32%
QC value within limits for Ba 233.527 Recovery = 92.38%								
Be 313.107†	8808090.5	2818.1	ug/L	24.71	2818.1	ppb	24.71	0.88%
QC value within limits for Be 313.107 Recovery = 93.94%								
Ca 317.933Radial†	27.8	38.264	ug/L	1.6973	38.264	ppb	1.6973	4.44%
Cd 226.502†	1027487.9	9451.7	ug/L	37.28	9451.7	ppb	37.28	0.39%
QC value within limits for Cd 226.502 Recovery = 94.52%								

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Co 228.616†          531707.4      8861.5 ug/L        61.41      8861.5 ppb        61.41   0.69%
   QC value less than the lower limit for Co 228.616  Recovery = 88.62%
Cr 267.716†         2428696.4       23272 ug/L         67.9       23272 ppb         67.9   0.29%
   QC value within limits for Cr 267.716  Recovery = 93.09%
Cu 324.752†         7346097.1       19597 ug/L        157.0       19597 ppb        157.0   0.80%
   QC value within limits for Cu 324.752  Recovery = 97.99%
Fe 238.204 Radial†      -35.0      16.873 ug/L      14.3959      16.873 ppb      14.3959  85.32%
K 766.490 Radial†   1731392.2      290490 ug/L       4505.2      290490 ppb       4505.2   1.55%
   QC value within limits for K 766.490 Radial  Recovery = 96.83%
Mg 279.077 IEC†         -7.4     -19.069 ug/L      66.1253     -19.069 ppb      66.1253 346.77%
Mn 257.610†         9736994.2      9114.8 ug/L        65.98      9114.8 ppb        65.98   0.72%
   QC value within limits for Mn 257.610  Recovery = 91.15%
Mo 202.031†          164102.8      9451.0 ug/L        88.31      9451.0 ppb        88.31   0.93%
   QC value within limits for Mo 202.031  Recovery = 94.51%
Na 589.592 Radial†      467.4      113.78 ug/L       11.614      113.78 ppb       11.614  10.21%
Ni 231.604†          461388.2      9538.1 ug/L        30.65      9538.1 ppb        30.65   0.32%
   QC value within limits for Ni 231.604  Recovery = 95.38%
P 214.914†            37347.2       15051 ug/L        175.8       15051 ppb        175.8   1.17%
   QC value within limits for P 214.914  Recovery = 100.34%
Pb 220.353†          240175.5       23675 ug/L        201.1       23675 ppb        201.1   0.85%
   QC value within limits for Pb 220.353  Recovery = 94.70%
S 181.975 Axial†      44650.4       50972 ug/L        566.7       50972 ppb        566.7   1.11%
   QC value within limits for S 181.975 Axial  Recovery = 101.94%
Sb 206.836†           36398.6       10066 ug/L        118.0       10066 ppb        118.0   1.17%
   QC value within limits for Sb 206.836  Recovery = 100.66%
Se 196.026†           19403.8      9906.8 ug/L        96.61      9906.8 ppb        96.61   0.98%
   QC value within limits for Se 196.026  Recovery = 99.07%
Si 251.611†         1754389.8       46157 ug/L         64.9       46157 ppb         64.9   0.14%
   QC value within limits for Si 251.611  Recovery = 92.31%
Sn 189.927†           71783.7       10123 ug/L         98.0       10123 ppb         98.0   0.97%
   QC value within limits for Sn 189.927  Recovery = 101.23%
Sr 421.552†         1719813.0      9499.6 ug/L       142.84      9499.6 ppb       142.84   1.50%
   QC value within limits for Sr 421.552  Recovery = 95.00%
Ti 334.940†         6898611.9      9505.0 ug/L        73.40      9505.0 ppb        73.40   0.77%
   QC value within limits for Ti 334.940  Recovery = 95.05%
Tl 190.801†           38090.4      9522.2 ug/L        89.25      9522.2 ppb        89.25   0.94%
   QC value within limits for Tl 190.801  Recovery = 95.22%
U 409.014†             1151.4     -14.136 ug/L       3.7481     -14.136 ppb       3.7481  26.52%
V 292.402†          1619218.6      9853.1 ug/L        19.54      9853.1 ppb        19.54   0.20%
   QC value within limits for V 292.402  Recovery = 98.53%
Zn 213.857†         1769693.3       13622 ug/L         46.3       13622 ppb         46.3   0.34%
   QC value within limits for Zn 213.857  Recovery = 90.82%
SiO2†               1772756.3       99356 ug/L        608.5       99356 ppb        608.5   0.61%
   QC value within limits for SiO2  Recovery = 92.86%
QC Failed.  Continue with analysis.
```

Sequence No.: 13
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 12/23/2009 18:25:13
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Units	Sample Conc.	Units	Analysis Time
1	Sc Radial	5445.2	5445.2	96.0	%			18:27:05
1	Y RADIAL	5960.9	5960.9	95.57	%			18:27:05
1	Al 396.153Radial†	7222.7	7531.1	5188.0	ug/L	5188.0	ppb	18:27:05
1	Ca 317.933Radial†	3565.1	3701.7	5098.7	ug/L	5098.7	ppb	18:27:25
1	Fe 238.204 Radial†	657.2	674.3	5082.8	ug/L	5082.8	ppb	18:27:25
1	K 766.490 Radial†	33249.1	31828.1	5332.8	ug/L	5332.8	ppb	18:27:05
1	Mg 279.077 IEC†	174.9	181.0	5167.2	ug/L	5167.2	ppb	18:27:25
1	Na 589.592 Radial†	38611.6	41777.3	10170	ug/L	10170	ppb	18:27:05
1	Sr 421.552†	90045.3	93836.4	518.27	ug/L	518.27	ppb	18:27:05
1	Sc 361.383	922027.5	922027.5	98.750	%			18:28:24
1	Y 371.029	779678.5	779678.5	97.124	%			18:28:24
1	Ag 328.068†	121142.4	122358.2	501.32	ug/L	501.32	ppb	18:28:24
1	As 188.979†	1474.1	1524.4	522.56	ug/L	522.56	ppb	18:28:45
1	B 249.677†	25951.0	27061.3	521.38	ug/L	521.38	ppb	18:28:24
1	Ba 233.527†	76747.3	77723.7	505.06	ug/L	505.06	ppb	18:28:24
1	Be 313.107†	1557157.5	1581670.4	503.67	ug/L	503.67	ppb	18:28:24
1	Cd 226.502†	54194.6	55119.3	506.52	ug/L	506.52	ppb	18:28:24
1	Co 228.616†	29687.9	30155.3	502.70	ug/L	502.70	ppb	18:28:45
1	Cr 267.716†	51866.4	52441.4	502.94	ug/L	502.94	ppb	18:28:24
1	Cu 324.752†	191718.7	187573.1	500.65	ug/L	500.65	ppb	18:28:24
1	Mn 257.610†	533152.2	539412.5	505.36	ug/L	505.36	ppb	18:28:24
1	Mo 202.031†	8739.0	8824.0	508.68	ug/L	508.68	ppb	18:28:45
1	Ni 231.604†	24095.8	24297.9	502.28	ug/L	502.28	ppb	18:28:45
1	P 214.914†	5423.8	5246.0	2460.3	ug/L	2460.3	ppb	18:28:45
1	Pb 220.353†	5010.4	5156.4	509.73	ug/L	509.73	ppb	18:28:45
1	S 181.975 Axial†	952.6	909.7	1037.4	ug/L	1037.4	ppb	18:28:45
1	Sb 206.836†	1812.8	1794.7	513.07	ug/L	513.07	ppb	18:28:45
1	Se 196.026†	945.0	989.6	521.91	ug/L	521.91	ppb	18:28:45
1	Si 251.611†	95279.0	95869.4	2526.1	ug/L	2526.1	ppb	18:28:24
1	Sn 189.927†	3532.9	3572.0	504.31	ug/L	504.31	ppb	18:28:45
1	Ti 334.940†	357014.4	363050.7	500.53	ug/L	500.53	ppb	18:28:24
1	Tl 190.801†	1999.6	2063.1	515.79	ug/L	515.79	ppb	18:28:45
1	U 409.014†	15194.0	18014.0	479.49	ug/L	479.49	ppb	18:28:24
1	V 292.402†	80394.1	83008.7	505.98	ug/L	505.98	ppb	18:28:24
1	Zn 213.857†	65138.8	65185.1	500.63	ug/L	500.63	ppb	18:28:24
1	SiO2†	96272.9	96842.9	5436.1	ug/L	5436.1	ppb	18:29:45
2	Sc Radial	5818.5	5818.5	103	%			18:27:31
2	Y RADIAL	6364.9	6364.9	102.0	%			18:27:31
2	Al 396.153Radial†	7025.6	6856.1	4721.3	ug/L	4721.3	ppb	18:27:31
2	Ca 317.933Radial†	3599.1	3496.5	4816.1	ug/L	4816.1	ppb	18:27:51
2	Fe 238.204 Radial†	665.7	638.7	4815.0	ug/L	4815.0	ppb	18:27:51
2	K 766.490 Radial†	32494.5	28869.7	4836.7	ug/L	4836.7	ppb	18:27:31
2	Mg 279.077 IEC†	176.6	171.1	4883.7	ug/L	4883.7	ppb	18:27:51
2	Na 589.592 Radial†	37381.0	37996.1	9249.2	ug/L	9249.2	ppb	18:27:31
2	Sr 421.552†	87316.5	85156.1	470.33	ug/L	470.33	ppb	18:27:31
2	Sc 361.383	934527.3	934527.3	100.09	%			18:28:52
2	Y 371.029	790541.5	790541.5	98.477	%			18:28:52
2	Ag 328.068†	122451.4	122025.3	499.88	ug/L	499.88	ppb	18:28:52
2	As 188.979†	1467.4	1497.8	513.48	ug/L	513.48	ppb	18:29:12
2	B 249.677†	26291.5	27050.0	521.21	ug/L	521.21	ppb	18:28:52
2	Ba 233.527†	77532.9	77469.1	503.40	ug/L	503.40	ppb	18:28:52
2	Be 313.107†	1571296.1	1574705.0	501.45	ug/L	501.45	ppb	18:28:52
2	Cd 226.502†	54507.4	54697.7	502.67	ug/L	502.67	ppb	18:28:52
2	Co 228.616†	29723.9	29789.1	496.59	ug/L	496.59	ppb	18:29:12
2	Cr 267.716†	52328.3	52200.4	500.62	ug/L	500.62	ppb	18:28:52
2	Cu 324.752†	194081.7	187337.2	500.01	ug/L	500.01	ppb	18:28:52
2	Mn 257.610†	536689.3	535725.1	501.88	ug/L	501.88	ppb	18:28:52
2	Mo 202.031†	8757.4	8724.1	502.90	ug/L	502.90	ppb	18:29:12
2	Ni 231.604†	24148.0	24023.7	496.61	ug/L	496.61	ppb	18:29:12

2	P 214.914†	5448.3	5197.0	2436.7 ug/L	2436.7 ppb	18:29:12
2	Pb 220.353†	5036.3	5114.5	505.49 ug/L	505.49 ppb	18:29:12
2	S 181.975 Axial†	944.5	888.7	1013.6 ug/L	1013.6 ppb	18:29:12
2	Sb 206.836†	1810.0	1767.3	505.25 ug/L	505.25 ppb	18:29:12
2	Se 196.026†	964.5	996.3	524.42 ug/L	524.42 ppb	18:29:12
2	Si 251.611†	96099.2	95398.4	2513.9 ug/L	2513.9 ppb	18:28:52
2	Sn 189.927†	3555.1	3546.3	500.66 ug/L	500.66 ppb	18:29:12
2	Ti 334.940†	360326.7	361524.3	498.41 ug/L	498.41 ppb	18:28:52
2	Tl 190.801†	1990.4	2026.8	506.76 ug/L	506.76 ppb	18:29:12
2	U 409.014†	15468.4	18082.4	481.36 ug/L	481.36 ppb	18:28:52
2	V 292.402†	81271.3	82796.3	504.67 ug/L	504.67 ppb	18:28:52
2	Zn 213.857†	65646.9	64810.4	497.79 ug/L	497.79 ppb	18:28:52
2	SiO2†	96487.9	95753.7	5375.3 ug/L	5375.3 ppb	18:29:50
3	Sc Radial	5581.4	5581.4	98.4 %		18:27:56
3	Y RADIAL	6104.9	6104.9	97.88 %		18:27:56
3	Al 396.153Radial†	7167.4	7291.3	5022.6 ug/L	5022.6 ppb	18:27:56
3	Ca 317.933Radial†	3614.6	3661.3	5043.2 ug/L	5043.2 ppb	18:28:16
3	Fe 238.204 Radial†	669.2	669.8	5048.3 ug/L	5048.3 ppb	18:28:16
3	K 766.490 Radial†	32788.6	30515.1	5112.7 ug/L	5112.7 ppb	18:27:56
3	Mg 279.077 IEC†	180.3	182.1	5198.9 ug/L	5198.9 ppb	18:28:16
3	Na 589.592 Radial†	37928.1	40101.1	9761.7 ug/L	9761.7 ppb	18:27:56
3	Sr 421.552†	89138.5	90626.2	500.54 ug/L	500.54 ppb	18:27:56
3	Sc 361.383	942605.0	942605.0	100.95 %		18:29:19
3	Y 371.029	797515.9	797515.9	99.346 %		18:29:19
3	Ag 328.068†	123409.1	121925.4	499.54 ug/L	499.54 ppb	18:29:19
3	As 188.979†	1487.6	1505.2	516.04 ug/L	516.04 ppb	18:29:39
3	B 249.677†	26525.6	27056.9	521.32 ug/L	521.32 ppb	18:29:19
3	Ba 233.527†	77964.8	77233.1	501.87 ug/L	501.87 ppb	18:29:19
3	Be 313.107†	1587499.6	1577302.1	502.28 ug/L	502.28 ppb	18:29:19
3	Cd 226.502†	54849.9	54570.4	501.47 ug/L	501.47 ppb	18:29:19
3	Co 228.616†	29655.2	29466.6	491.20 ug/L	491.20 ppb	18:29:39
3	Cr 267.716†	52688.2	52108.8	499.75 ug/L	499.75 ppb	18:29:19
3	Cu 324.752†	196021.3	187596.7	500.71 ug/L	500.71 ppb	18:29:19
3	Mn 257.610†	540939.3	535339.8	501.54 ug/L	501.54 ppb	18:29:19
3	Mo 202.031†	8741.7	8633.6	497.71 ug/L	497.71 ppb	18:29:39
3	Ni 231.604†	24154.8	23823.7	492.48 ug/L	492.48 ppb	18:29:39
3	P 214.914†	5416.3	5118.7	2398.6 ug/L	2398.6 ppb	18:29:39
3	Pb 220.353†	5020.3	5055.6	499.72 ug/L	499.72 ppb	18:29:39
3	S 181.975 Axial†	940.1	876.3	999.39 ug/L	999.39 ppb	18:29:39
3	Sb 206.836†	1817.0	1758.8	502.67 ug/L	502.67 ppb	18:29:39
3	Se 196.026†	953.5	977.1	515.40 ug/L	515.40 ppb	18:29:39
3	Si 251.611†	96921.6	95390.2	2513.7 ug/L	2513.7 ppb	18:29:19
3	Sn 189.927†	3561.2	3522.0	497.25 ug/L	497.25 ppb	18:29:39
3	Ti 334.940†	363427.3	361510.5	498.40 ug/L	498.40 ppb	18:29:19
3	Tl 190.801†	1983.7	2003.1	500.91 ug/L	500.91 ppb	18:29:39
3	U 409.014†	15584.9	18065.3	480.87 ug/L	480.87 ppb	18:29:19
3	V 292.402†	81865.1	82688.6	503.91 ug/L	503.91 ppb	18:29:19
3	Zn 213.857†	66078.3	64675.7	496.74 ug/L	496.74 ppb	18:29:19
3	SiO2†	96336.8	94777.9	5320.2 ug/L	5320.2 ppb	18:29:55

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	933053.3	99.931	%	1.1104				1.11%
Sc Radial	5615.0	99.0	%	3.33				3.36%
Y 371.029	789245.3	98.315	%	1.1198				1.14%
Y RADIAL	6143.5	98.50	%	3.283				3.33%
Ag 328.068†	122103.0	500.25	ug/L	0.947	500.25	ppb	0.947	0.19%
QC value within limits for Ag 328.068 Recovery = 100.05%								
Al 396.153Radial†	7226.2	4977.3	ug/L	236.63	4977.3	ppb	236.63	4.75%
QC value within limits for Al 396.153Radial Recovery = 99.55%								
As 188.979†	1509.1	517.36	ug/L	4.683	517.36	ppb	4.683	0.91%
QC value within limits for As 188.979 Recovery = 103.47%								
B 249.677†	27056.1	521.30	ug/L	0.086	521.30	ppb	0.086	0.02%
QC value within limits for B 249.677 Recovery = 104.26%								
Ba 233.527†	77475.3	503.44	ug/L	1.593	503.44	ppb	1.593	0.32%
QC value within limits for Ba 233.527 Recovery = 100.69%								
Be 313.107†	1577892.5	502.47	ug/L	1.121	502.47	ppb	1.121	0.22%
QC value within limits for Be 313.107 Recovery = 100.49%								
Ca 317.933Radial†	3619.8	4986.0	ug/L	149.72	4986.0	ppb	149.72	3.00%

```
   QC value within limits for Ca 317.933Radial  Recovery = 99.72%
Cd 226.502†            54795.8      503.55 ug/L         2.638      503.55 ppb          2.638   0.52%
   QC value within limits for Cd 226.502  Recovery = 100.71%
Co 228.616†            29803.7      496.83 ug/L         5.754      496.83 ppb          5.754   1.16%
   QC value within limits for Co 228.616  Recovery = 99.37%
Cr 267.716†            52250.2      501.10 ug/L         1.648      501.10 ppb          1.648   0.33%
   QC value within limits for Cr 267.716  Recovery = 100.22%
Cu 324.752†           187502.4      500.46 ug/L         0.390      500.46 ppb          0.390   0.08%
   QC value within limits for Cu 324.752  Recovery = 100.09%
Fe 238.204 Radial†       660.9      4982.0 ug/L        145.70      4982.0 ppb         145.70   2.92%
   QC value within limits for Fe 238.204 Radial  Recovery = 99.64%
K 766.490 Radial†      30404.3      5094.1 ug/L        248.58      5094.1 ppb         248.58   4.88%
   QC value within limits for K 766.490 Radial  Recovery = 101.88%
Mg 279.077 IEC†          178.1      5083.3 ug/L        173.54      5083.3 ppb         173.54   3.41%
   QC value within limits for Mg 279.077 IEC  Recovery = 101.67%
Mn 257.610†           536825.8      502.93 ug/L         2.111      502.93 ppb          2.111   0.42%
   QC value within limits for Mn 257.610  Recovery = 100.59%
Mo 202.031†             8727.2      503.09 ug/L         5.489      503.09 ppb          5.489   1.09%
   QC value within limits for Mo 202.031  Recovery = 100.62%
Na 589.592 Radial†     39958.2      9726.9 ug/L        461.20      9726.9 ppb         461.20   4.74%
   QC value within limits for Na 589.592 Radial  Recovery = 97.27%
Ni 231.604†            24048.4      497.12 ug/L         4.921      497.12 ppb          4.921   0.99%
   QC value within limits for Ni 231.604  Recovery = 99.42%
P 214.914†              5187.2      2431.9 ug/L        31.11      2431.9 ppb          31.11   1.28%
   QC value within limits for P 214.914  Recovery = 97.28%
Pb 220.353†             5108.8      504.98 ug/L         5.021      504.98 ppb          5.021   0.99%
   QC value within limits for Pb 220.353  Recovery = 101.00%
S 181.975 Axial†         891.6      1016.8 ug/L        19.22      1016.8 ppb          19.22   1.89%
   QC value within limits for S 181.975 Axial  Recovery = 101.68%
Sb 206.836†             1773.6      507.00 ug/L         5.417      507.00 ppb          5.417   1.07%
   QC value within limits for Sb 206.836  Recovery = 101.40%
Se 196.026†              987.7      520.58 ug/L         4.655      520.58 ppb          4.655   0.89%
   QC value within limits for Se 196.026  Recovery = 104.12%
Si 251.611†            95552.7      2517.9 ug/L         7.10      2517.9 ppb           7.10   0.28%
   QC value within limits for Si 251.611  Recovery = 100.71%
Sn 189.927†             3546.8      500.74 ug/L         3.532      500.74 ppb          3.532   0.71%
   QC value within limits for Sn 189.927  Recovery = 100.15%
Sr 421.552†            89872.9      496.38 ug/L        24.242      496.38 ppb         24.242   4.88%
   QC value within limits for Sr 421.552  Recovery = 99.28%
Ti 334.940†           362028.5      499.11 ug/L         1.226      499.11 ppb          1.226   0.25%
   QC value within limits for Ti 334.940  Recovery = 99.82%
Tl 190.801†             2031.0      507.82 ug/L         7.498      507.82 ppb          7.498   1.48%
   QC value within limits for Tl 190.801  Recovery = 101.56%
U 409.014†             18053.9      480.57 ug/L         0.967      480.57 ppb          0.967   0.20%
   QC value within limits for U 409.014  Recovery = 96.11%
V 292.402†             82831.2      504.86 ug/L         1.048      504.86 ppb          1.048   0.21%
   QC value within limits for V 292.402  Recovery = 100.97%
Zn 213.857†            64890.4      498.39 ug/L         2.009      498.39 ppb          2.009   0.40%
   QC value within limits for Zn 213.857  Recovery = 99.68%
SiO2†                  95791.5      5377.2 ug/L        57.95      5377.2 ppb          57.95   1.08%
   QC value within limits for SiO2  Recovery = 100.56%
All analyte(s) passed QC.
```

Sequence No.: 14
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 12/23/2009 18:32:04
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5573.8	5573.8	98.2	%			18:33:57
1	Y RADIAL	6133.4	6133.4	98.34	%			18:33:57
1	Al 396.153Radial†	-17.1	-12.2	-8.4607	ug/L	-8.4607	ppb	18:33:57
1	Ca 317.933Radial†	16.9	4.0	5.5183	ug/L	5.5183	ppb	18:34:17
1	Fe 238.204 Radial†	10.2	-0.0	-0.3027	ug/L	-0.3027	ppb	18:34:17
1	K 766.490 Radial†	3161.8	401.6	67.390	ug/L	67.390	ppb	18:33:57
1	Mg 279.077 IEC†	2.1	1.0	27.530	ug/L	27.530	ppb	18:34:17
1	Na 589.592 Radial†	-1435.1	83.6	20.358	ug/L	20.358	ppb	18:33:57
1	Sr 421.552†	-21.9	-11.9	-0.0655	ug/L	-0.0655	ppb	18:33:57
1	Sc 361.383	922425.6	922425.6	98.792	%			18:35:14
1	Y 371.029	791783.6	791783.6	98.632	%			18:35:14
1	Ag 328.068†	407.0	94.0	0.3860	ug/L	0.3860	ppb	18:35:14
1	As 188.979†	-10.8	20.7	7.0237	ug/L	7.0237	ppb	18:35:34
1	B 249.677†	350.8	1136.8	21.985	ug/L	21.985	ppb	18:35:14
1	Ba 233.527†	24.3	29.3	0.1903	ug/L	0.1903	ppb	18:35:34
1	Be 313.107†	-4668.9	70.8	0.0224	ug/L	0.0224	ppb	18:35:14
1	Cd 226.502†	-218.8	17.0	0.1565	ug/L	0.1565	ppb	18:35:34
1	Co 228.616†	-89.6	0.8	0.0148	ug/L	0.0148	ppb	18:35:34
1	Cr 267.716†	115.3	35.0	0.3368	ug/L	0.3368	ppb	18:35:34
1	Cu 324.752†	6493.6	-0.1	-0.0002	ug/L	-0.0002	ppb	18:35:14
1	Mn 257.610†	527.9	44.2	0.0408	ug/L	0.0408	ppb	18:35:34
1	Mo 202.031†	39.2	14.0	0.8077	ug/L	0.8077	ppb	18:35:34
1	Ni 231.604†	100.3	-1.4	-0.0292	ug/L	-0.0292	ppb	18:35:34
1	P 214.914†	270.1	27.0	13.055	ug/L	13.055	ppb	18:35:34
1	Pb 220.353†	-78.2	3.5	0.3437	ug/L	0.3437	ppb	18:35:34
1	S 181.975 Axial†	56.9	2.7	3.0570	ug/L	3.0570	ppb	18:35:34
1	Sb 206.836†	58.3	18.0	5.1101	ug/L	5.1101	ppb	18:35:34
1	Se 196.026†	-21.1	11.3	5.7388	ug/L	5.7388	ppb	18:35:34
1	Si 251.611†	731.3	124.3	3.2489	ug/L	3.2489	ppb	18:35:34
1	Sn 189.927†	19.2	13.8	1.9536	ug/L	1.9536	ppb	18:35:34
1	Ti 334.940†	-1550.5	-53.5	-0.0723	ug/L	-0.0723	ppb	18:35:14
1	Tl 190.801†	-29.3	8.5	2.1160	ug/L	2.1160	ppb	18:35:34
1	U 409.014†	-2710.2	-115.7	-3.0899	ug/L	-3.0899	ppb	18:35:14
1	V 292.402†	-1543.6	34.3	0.2122	ug/L	0.2122	ppb	18:35:14
1	Zn 213.857†	811.3	42.7	0.3303	ug/L	0.3303	ppb	18:35:34
1	SiO2†	725.7	85.6	4.7359	ug/L	4.7359	ppb	18:36:30
2	Sc Radial	5498.0	5498.0	96.9	%			18:34:22
2	Y RADIAL	6051.5	6051.5	97.02	%			18:34:22
2	Al 396.153Radial†	-34.4	-30.3	-20.974	ug/L	-20.974	ppb	18:34:22
2	Ca 317.933Radial†	22.7	10.3	14.139	ug/L	14.139	ppb	18:34:42
2	Fe 238.204 Radial†	9.4	-0.7	-5.6409	ug/L	-5.6409	ppb	18:34:42
2	K 766.490 Radial†	3078.3	359.8	60.387	ug/L	60.387	ppb	18:34:22
2	Mg 279.077 IEC†	1.6	0.5	13.835	ug/L	13.835	ppb	18:34:42
2	Na 589.592 Radial†	-1493.5	3.3	0.7918	ug/L	0.7918	ppb	18:34:22
2	Sr 421.552†	-38.7	-29.5	-0.1633	ug/L	-0.1633	ppb	18:34:22
2	Sc 361.383	922215.4	922215.4	98.770	%			18:35:39
2	Y 371.029	791631.7	791631.7	98.613	%			18:35:39
2	Ag 328.068†	340.5	26.8	0.1124	ug/L	0.1124	ppb	18:35:39
2	As 188.979†	-21.3	10.1	3.4264	ug/L	3.4264	ppb	18:35:59
2	B 249.677†	245.8	1030.6	19.932	ug/L	19.932	ppb	18:35:39
2	Ba 233.527†	27.5	32.5	0.2117	ug/L	0.2117	ppb	18:35:59
2	Be 313.107†	-4752.9	-15.2	-0.0049	ug/L	-0.0049	ppb	18:35:39
2	Cd 226.502†	-211.4	24.5	0.2263	ug/L	0.2263	ppb	18:35:59
2	Co 228.616†	-103.5	-13.4	-0.2217	ug/L	-0.2217	ppb	18:35:59
2	Cr 267.716†	135.4	55.4	0.5322	ug/L	0.5322	ppb	18:35:59
2	Cu 324.752†	6524.4	32.6	0.0867	ug/L	0.0867	ppb	18:35:39
2	Mn 257.610†	533.7	50.2	0.0461	ug/L	0.0461	ppb	18:35:59
2	Mo 202.031†	31.5	6.2	0.3592	ug/L	0.3592	ppb	18:35:59
2	Ni 231.604†	130.9	29.6	0.6116	ug/L	0.6116	ppb	18:35:59

2	P 214.914†	248.6	5.2	2.5210	ug/L	2.5210 ppb	18:35:59
2	Pb 220.353†	-55.6	26.4	2.5932	ug/L	2.5932 ppb	18:35:59
2	S 181.975 Axial†	56.6	2.4	2.6972	ug/L	2.6972 ppb	18:35:59
2	Sb 206.836†	48.8	8.4	2.4000	ug/L	2.4000 ppb	18:35:59
2	Se 196.026†	-18.0	14.5	7.3408	ug/L	7.3408 ppb	18:35:59
2	Si 251.611†	731.0	124.1	3.2524	ug/L	3.2524 ppb	18:35:59
2	Sn 189.927†	22.4	17.0	2.4038	ug/L	2.4038 ppb	18:35:59
2	Ti 334.940†	-1504.8	-7.7	-0.0082	ug/L	-0.0082 ppb	18:35:39
2	Tl 190.801†	-30.1	7.7	1.9046	ug/L	1.9046 ppb	18:35:59
2	U 409.014†	-2743.7	-150.2	-4.0124	ug/L	-4.0124 ppb	18:35:39
2	V 292.402†	-1493.0	85.2	0.5107	ug/L	0.5107 ppb	18:35:39
2	Zn 213.857†	828.1	60.0	0.4606	ug/L	0.4606 ppb	18:35:59
2	SiO2†	737.7	97.9	5.4483	ug/L	5.4483 ppb	18:36:35
3	Sc Radial	5530.9	5530.9	97.5	%		18:34:47
3	Y RADIAL	6083.6	6083.6	97.54	%		18:34:47
3	Al 396.153Radial†	-15.6	-10.8	-7.4491	ug/L	-7.4491 ppb	18:34:47
3	Ca 317.933Radial†	14.9	2.1	2.9333	ug/L	2.9333 ppb	18:35:07
3	Fe 238.204 Radial†	12.6	2.5	18.440	ug/L	18.440 ppb	18:35:07
3	K 766.490 Radial†	3026.4	287.7	48.267	ug/L	48.267 ppb	18:34:47
3	Mg 279.077 IEC†	4.8	3.8	107.17	ug/L	107.17 ppb	18:35:07
3	Na 589.592 Radial†	-1445.6	61.5	14.963	ug/L	14.963 ppb	18:34:47
3	Sr 421.552†	-6.8	3.5	0.0192	ug/L	0.0192 ppb	18:34:47
3	Sc 361.383	921333.8	921333.8	98.675	%		18:36:04
3	Y 371.029	790640.4	790640.4	98.489	%		18:36:04
3	Ag 328.068†	365.2	52.1	0.2216	ug/L	0.2216 ppb	18:36:04
3	As 188.979†	-13.4	18.1	6.1410	ug/L	6.1410 ppb	18:36:24
3	B 249.677†	300.2	1086.0	20.998	ug/L	20.998 ppb	18:36:04
3	Ba 233.527†	-0.3	4.4	0.0293	ug/L	0.0293 ppb	18:36:24
3	Be 313.107†	-4586.0	149.3	0.0477	ug/L	0.0477 ppb	18:36:04
3	Cd 226.502†	-219.4	16.2	0.1473	ug/L	0.1473 ppb	18:36:24
3	Co 228.616†	-79.2	11.2	0.1863	ug/L	0.1863 ppb	18:36:24
3	Cr 267.716†	122.7	42.7	0.4106	ug/L	0.4106 ppb	18:36:24
3	Cu 324.752†	6511.7	26.1	0.0705	ug/L	0.0705 ppb	18:36:04
3	Mn 257.610†	521.1	37.9	0.0353	ug/L	0.0353 ppb	18:36:24
3	Mo 202.031†	30.1	4.9	0.2849	ug/L	0.2849 ppb	18:36:24
3	Ni 231.604†	116.8	15.4	0.3179	ug/L	0.3179 ppb	18:36:24
3	P 214.914†	243.4	0.2	0.0902	ug/L	0.0902 ppb	18:36:24
3	Pb 220.353†	-72.1	9.6	0.9396	ug/L	0.9396 ppb	18:36:24
3	S 181.975 Axial†	60.6	6.5	7.3715	ug/L	7.3715 ppb	18:36:24
3	Sb 206.836†	48.2	7.8	2.2359	ug/L	2.2359 ppb	18:36:24
3	Se 196.026†	-23.0	9.3	4.8158	ug/L	4.8158 ppb	18:36:24
3	Si 251.611†	728.7	122.5	3.2172	ug/L	3.2172 ppb	18:36:24
3	Sn 189.927†	16.9	11.5	1.6159	ug/L	1.6159 ppb	18:36:24
3	Ti 334.940†	-1418.6	78.3	0.1095	ug/L	0.1095 ppb	18:36:04
3	Tl 190.801†	-41.4	-3.8	-0.9476	ug/L	-0.9476 ppb	18:36:24
3	U 409.014†	-2720.9	-129.7	-3.4683	ug/L	-3.4683 ppb	18:36:04
3	V 292.402†	-1551.7	24.3	0.1426	ug/L	0.1426 ppb	18:36:04
3	Zn 213.857†	807.1	39.5	0.2993	ug/L	0.2993 ppb	18:36:24
3	SiO2†	774.5	135.9	7.6108	ug/L	7.6108 ppb	18:36:40

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	921991.6	98.746	%	0.0620				0.06%
Sc Radial	5534.2	97.5	%	0.67				0.69%
Y 371.029	791351.9	98.578	%	0.0773				0.08%
Y RADIAL	6089.5	97.63	%	0.662				0.68%
Ag 328.068†	57.6	0.2400	ug/L	0.13774	0.2400	ppb	0.13774	57.39%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-17.7	-12.295	ug/L	7.5338	-12.295	ppb	7.5338	61.28%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	16.3	5.5304	ug/L	1.87479	5.5304	ppb	1.87479	33.90%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	1084.5	20.972	ug/L	1.0265	20.972	ppb	1.0265	4.89%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	22.1	0.1438	ug/L	0.09969	0.1438	ppb	0.09969	69.33%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	68.3	0.0217	ug/L	0.02627	0.0217	ppb	0.02627	120.93%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	5.5	7.5301	ug/L	5.86725	7.5301	ppb	5.86725	77.92%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                19.2      0.1767 ug/L       0.04320      0.1767 ppb        0.04320  24.45%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                -0.5     -0.0068 ug/L       0.20489     -0.0068 ppb        0.20489 >999.9%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                44.4      0.4265 ug/L       0.09866      0.4265 ppb        0.09866  23.13%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†                19.5      0.0523 ug/L       0.04618      0.0523 ppb        0.04618  88.25%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          0.6      4.1655 ug/L      12.64692      4.1655 ppb       12.64692 303.61%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         349.7      58.681 ug/L        9.6752      58.681 ppb        9.6752  16.49%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             1.7      49.513 ug/L       50.4032      49.513 ppb       50.4032 101.80%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                44.1      0.0408 ug/L       0.00541      0.0408 ppb        0.00541  13.28%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 8.4      0.4839 ug/L       0.28287      0.4839 ppb        0.28287  58.45%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†         49.5      12.038 ug/L       10.1059      12.038 ppb       10.1059  83.95%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                14.5      0.3001 ug/L       0.32074      0.3001 ppb        0.32074 106.87%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 10.8      5.2220 ug/L       6.89150      5.2220 ppb        6.89150 131.97%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                13.1      1.2921 ug/L       1.16546      1.2921 ppb        1.16546  90.20%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            3.8      4.3752 ug/L       2.60107      4.3752 ppb        2.60107  59.45%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                11.4      3.2487 ug/L       1.61413      3.2487 ppb        1.61413  49.69%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                11.7      5.9651 ug/L       1.27759      5.9651 ppb        1.27759  21.42%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†               123.6      3.2395 ug/L       0.01941      3.2395 ppb        0.01941   0.60%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                14.1      1.9911 ug/L       0.39528      1.9911 ppb        0.39528  19.85%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               -12.6     -0.0699 ug/L       0.09134     -0.0699 ppb        0.09134 130.73%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                 5.7      0.0096 ug/L       0.09218      0.0096 ppb        0.09218 955.99%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 4.1      1.0243 ug/L       1.71101      1.0243 ppb        1.71101 167.04%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -131.9     -3.5236 ug/L       0.46369     -3.5236 ppb        0.46369  13.16%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 47.9      0.2885 ug/L       0.19559      0.2885 ppb        0.19559  67.80%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                47.4      0.3634 ug/L       0.08562      0.3634 ppb        0.08562  23.56%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                     106.5      5.9317 ug/L       1.49719      5.9317 ppb        1.49719  25.24%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
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Analysis Begun

Start Time: 12/23/2009 18:49:17 **Plasma On Time: 12/14/2009 06:02:42**
Logged In Analyst: Optima3 **Technique: ICP Continuous**
Spectrometer Model: Optima 5300 DV, S/N 077C7090601Autosampler Model: S10

Sample Information File: C:\pe\Optima3\Sample Information\122209A.SIF
Batch ID:
Results Data Set: 122309
Results Library: C:\pe\Optima3\Results\Results.mdb

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Method Loaded
Method Name: General Eng.2AX **Method Last Saved: 12/23/2009 17:12:32**
IEC File: 101209.iec **MSF File:**
Method Description:

Analyte	Calibration Equation	Processing	View	Internal Standard	IEC
Ag 328.068	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Al 396.153Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
As 188.979	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
B 249.677	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ba 233.527	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Be 313.107	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ca 317.933Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	No
Cd 226.502	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Co 228.616	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cr 267.716	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cu 324.752	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Fe 238.204 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
K 766.490 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Mg 279.077 IEC	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Mn 257.610	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Mo 202.031	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Na 589.592 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	No
Ni 231.604	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
P 214.914	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Pb 220.353	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
S 181.975 Axial	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sb 206.836	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sc 361.383	Lin Thru 0	Peak Area	Axial	n/a	n/a
Sc Radial	Lin, Calc Int	Peak Area	Radial	n/a	n/a
Se 196.026	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Si 251.611	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sn 189.927	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sr 421.552	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Ti 334.940	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Tl 190.801	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
U 409.014	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
V 292.402	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y 371.029	Lin, Calc Int	Peak Area	Axial	n/a	n/a
Zn 213.857	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y RADIAL	Lin, Calc Int	Peak Area	Radial	n/a	n/a
SiO2	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes

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Sequence No.: 1 **Autosampler Location: 35**
Sample ID: LR1 **Date Collected: 12/23/2009 18:49:18**
Analyst: JWJ **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: LR1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Sample Conc.	Units	Analysis Time
1	Sc Radial	5429.7	5429.7	95.7	%			18:51:11
1	Y RADIAL	5997.4	5997.4	96.15	%			18:51:11
1	Al 396.153Radial†	-60.7	-58.2	-39.045	ug/L	-39.045	ppb	18:51:11

1	Ca 317.933Radial†	2.7	-10.4	-14.292 ug/L	-14.292 ppb	18:51:31
1	Fe 238.204 Radial†	52548.3	54900.5	412520 ug/L	412520 ppb	18:51:11
1	K 766.490 Radial†	2651.4	-46.4	5.7466 ug/L	5.7466 ppb	18:51:11
1	Mg 279.077 IEC†	13.5	13.0	16.752 ug/L	16.752 ppb	18:51:31
1	Na 589.592 Radial†	-1417.1	63.7	15.497 ug/L	15.497 ppb	18:51:11
1	Sr 421.552†	121.8	137.8	0.7611 ug/L	0.7611 ppb	18:51:11
1	Sc 361.383	927007.3	927007.3	99.283 %		18:52:29
1	Y 371.029	789112.7	789112.7	98.299 %		18:52:29
1	Ag 328.068†	-31692.6	-32239.5	6.8167 ug/L	6.8167 ppb	18:52:29
1	As 188.979†	-280.1	-250.4	-21.420 ug/L	-21.420 ppb	18:52:49
1	B 249.677†	2700.1	3501.4	12.971 ug/L	12.971 ppb	18:52:29
1	Ba 233.527†	-2281.3	-2293.1	-4.3267 ug/L	-4.3267 ppb	18:52:49
1	Be 313.107†	-4570.6	193.2	0.0614 ug/L	0.0614 ppb	18:52:29
1	Cd 226.502†	3973.6	4240.8	-2.2560 ug/L	-2.2560 ppb	18:52:49
1	Co 228.616†	296.5	390.1	0.5402 ug/L	0.5402 ppb	18:52:49
1	Cr 267.716†	-720.6	-807.5	-0.2627 ug/L	-0.2627 ppb	18:52:49
1	Cu 324.752†	-2530.5	-9121.9	-3.2912 ug/L	-3.2912 ppb	18:52:29
1	Mn 257.610†	-46174.7	-46998.4	-2.8641 ug/L	-2.8641 ppb	18:52:29
1	Mo 202.031†	-474.0	-503.1	10.569 ug/L	10.569 ppb	18:52:29
1	Ni 231.604†	173.8	72.0	1.4861 ug/L	1.4861 ppb	18:52:49
1	P 214.914†	868.6	628.4	-25.065 ug/L	-25.065 ppb	18:52:49
1	Pb 220.353†	289.8	374.6	2.9875 ug/L	2.9875 ppb	18:52:49
1	S 181.975 Axial†	68.9	14.5	16.543 ug/L	16.543 ppb	18:52:49
1	Sb 206.836†	27.4	-13.5	2.5285 ug/L	2.5285 ppb	18:52:49
1	Se 196.026†	-2549.0	-2534.7	-12.374 ug/L	-12.374 ppb	18:52:49
1	Si 251.611†	-897.0	-1519.4	-39.698 ug/L	-39.698 ppb	18:52:49
1	Sn 189.927†	-42.1	-48.0	-1.2561 ug/L	-1.2561 ppb	18:52:49
1	Ti 334.940†	-1499.3	5.8	-0.0138 ug/L	-0.0138 ppb	18:52:49
1	Tl 190.801†	-62.7	-25.1	-6.6536 ug/L	-6.6536 ppb	18:52:49
1	U 409.014†	-611.1	2012.1	1.8531 ug/L	1.8531 ppb	18:52:29
1	V 292.402†	8623.0	10282.0	-1.2148 ug/L	-1.2148 ppb	18:52:49
1	Zn 213.857†	5671.0	4933.6	16.844 ug/L	16.844 ppb	18:52:49
1	SiO2†	-995.9	-1652.0	-92.040 ug/L	-92.040 ppb	18:53:48
2	Sc Radial	5532.4	5532.4	97.5 %		18:51:37
2	Y RADIAL	6070.1	6070.1	97.32 %		18:51:37
2	Al 396.153Radial†	-64.2	-60.6	-40.798 ug/L	-40.798 ppb	18:51:37
2	Ca 317.933Radial†	0.7	-12.4	-17.092 ug/L	-17.092 ppb	18:51:57
2	Fe 238.204 Radial†	53142.0	54490.8	409440 ug/L	409440 ppb	18:51:37
2	K 766.490 Radial†	2642.5	-106.8	-4.5082 ug/L	-4.5082 ppb	18:51:37
2	Mg 279.077 IEC†	19.6	19.0	189.67 ug/L	189.67 ppb	18:51:57
2	Na 589.592 Radial†	-1401.9	106.7	25.973 ug/L	25.973 ppb	18:51:37
2	Sr 421.552†	69.7	81.9	0.4526 ug/L	0.4526 ppb	18:51:37
2	Sc 361.383	915427.2	915427.2	98.043 %		18:52:56
2	Y 371.029	779157.2	779157.2	97.059 %		18:52:56
2	Ag 328.068†	-31315.8	-32259.0	5.7157 ug/L	5.7157 ppb	18:52:56
2	As 188.979†	-275.9	-249.7	-21.649 ug/L	-21.649 ppb	18:53:16
2	B 249.677†	2605.2	3439.0	12.172 ug/L	12.172 ppb	18:52:56
2	Ba 233.527†	-2285.4	-2326.4	-4.6189 ug/L	-4.6189 ppb	18:53:16
2	Be 313.107†	-4527.7	178.7	0.0568 ug/L	0.0568 ppb	18:52:56
2	Cd 226.502†	3992.9	4311.1	-1.3013 ug/L	-1.3013 ppb	18:53:16
2	Co 228.616†	284.8	382.0	0.4544 ug/L	0.4544 ppb	18:53:16
2	Cr 267.716†	-710.2	-806.1	-0.3014 ug/L	-0.3014 ppb	18:53:16
2	Cu 324.752†	-2219.3	-8836.7	-2.6875 ug/L	-2.6875 ppb	18:52:56
2	Mn 257.610†	-44836.6	-46221.9	-2.4475 ug/L	-2.4475 ppb	18:52:56
2	Mo 202.031†	-430.5	-464.7	12.485 ug/L	12.485 ppb	18:52:56
2	Ni 231.604†	203.1	104.2	2.1519 ug/L	2.1519 ppb	18:53:16
2	P 214.914†	893.3	664.7	-5.1579 ug/L	-5.1579 ppb	18:53:16
2	Pb 220.353†	278.7	366.9	2.4922 ug/L	2.4922 ppb	18:53:16
2	S 181.975 Axial†	72.2	18.7	21.331 ug/L	21.331 ppb	18:53:16
2	Sb 206.836†	21.8	-18.8	1.0498 ug/L	1.0498 ppb	18:53:16
2	Se 196.026†	-2525.6	-2543.4	-26.330 ug/L	-26.330 ppb	18:53:16
2	Si 251.611†	-887.9	-1521.5	-39.793 ug/L	-39.793 ppb	18:53:16
2	Sn 189.927†	-35.0	-41.4	-0.3620 ug/L	-0.3620 ppb	18:53:16
2	Ti 334.940†	-1498.2	-12.2	-0.0360 ug/L	-0.0360 ppb	18:53:16
2	Tl 190.801†	-44.9	-7.6	-2.3196 ug/L	-2.3196 ppb	18:53:16
2	U 409.014†	-829.8	1781.3	-3.9254 ug/L	-3.9254 ppb	18:52:56
2	V 292.402†	8599.9	10368.4	-0.2034 ug/L	-0.2034 ppb	18:53:16
2	Zn 213.857†	5673.7	5008.5	17.573 ug/L	17.573 ppb	18:53:16
2	SiO2†	-927.7	-1595.2	-88.919 ug/L	-88.919 ppb	18:53:53
3	Sc Radial	5534.7	5534.7	97.5 %		18:52:02
3	Y RADIAL	6106.6	6106.6	97.90 %		18:52:02

3	Al 396.153Radial†	-55.1	-51.3	-34.235 ug/L	-34.235 ppb	18:52:02
3	Ca 317.933Radial†	1.3	-11.8	-16.306 ug/L	-16.306 ppb	18:52:22
3	Fe 238.204 Radial†	53264.7	54593.0	410210 ug/L	410210 ppb	18:52:02
3	K 766.490 Radial†	2713.5	-35.3	7.5208 ug/L	7.5208 ppb	18:52:02
3	Mg 279.077 IEC†	14.3	13.5	32.119 ug/L	32.119 ppb	18:52:22
3	Na 589.592 Radial†	-1416.7	92.1	22.427 ug/L	22.427 ppb	18:52:02
3	Sr 421.552†	80.4	92.9	0.5132 ug/L	0.5132 ppb	18:52:02
3	Sc 361.383	917813.6	917813.6	98.298 %		18:53:22
3	Y 371.029	781389.1	781389.1	97.337 %		18:53:22
3	Ag 328.068†	-31604.8	-32469.9	5.1115 ug/L	5.1115 ppb	18:53:22
3	As 188.979†	-280.4	-253.6	-22.844 ug/L	-22.844 ppb	18:53:42
3	B 249.677†	2546.7	3372.5	10.786 ug/L	10.786 ppb	18:53:22
3	Ba 233.527†	-2241.9	-2276.1	-4.2739 ug/L	-4.2739 ppb	18:53:42
3	Be 313.107†	-4604.3	112.8	0.0357 ug/L	0.0357 ppb	18:53:22
3	Cd 226.502†	3998.4	4306.1	-1.4244 ug/L	-1.4244 ppb	18:53:42
3	Co 228.616†	275.8	372.0	0.2702 ug/L	0.2702 ppb	18:53:42
3	Cr 267.716†	-724.9	-819.1	-0.4136 ug/L	-0.4136 ppb	18:53:42
3	Cu 324.752†	-2390.4	-9004.8	-3.0968 ug/L	-3.0968 ppb	18:53:22
3	Mn 257.610†	-45095.2	-46366.0	-2.5028 ug/L	-2.5028 ppb	18:53:22
3	Mo 202.031†	-480.5	-514.4	9.6921 ug/L	9.6921 ppb	18:53:22
3	Ni 231.604†	227.7	128.7	2.6577 ug/L	2.6577 ppb	18:53:42
3	P 214.914†	894.0	663.0	-6.5195 ug/L	-6.5195 ppb	18:53:42
3	Pb 220.353†	291.8	379.4	3.6553 ug/L	3.6553 ppb	18:53:42
3	S 181.975 Axial†	74.7	21.0	23.987 ug/L	23.987 ppb	18:53:42
3	Sb 206.836†	31.7	-8.8	3.8067 ug/L	3.8067 ppb	18:53:42
3	Se 196.026†	-2548.5	-2560.0	-32.410 ug/L	-32.410 ppb	18:53:42
3	Si 251.611†	-911.4	-1543.1	-40.319 ug/L	-40.319 ppb	18:53:42
3	Sn 189.927†	-35.9	-42.2	-0.4648 ug/L	-0.4648 ppb	18:53:42
3	Ti 334.940†	-1536.8	-47.5	-0.0855 ug/L	-0.0855 ppb	18:53:42
3	Tl 190.801†	-60.1	-23.0	-6.1394 ug/L	-6.1394 ppb	18:53:42
3	U 409.014†	-759.7	1854.8	-2.0574 ug/L	-2.0574 ppb	18:53:22
3	V 292.402†	8596.9	10342.5	-0.5168 ug/L	-0.5168 ppb	18:53:42
3	Zn 213.857†	5683.7	5003.7	17.498 ug/L	17.498 ppb	18:53:42
3	SiO2†	-868.1	-1532.0	-85.256 ug/L	-85.256 ppb	18:53:58

Mean Data: LR1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	920082.7	98.541	%	0.6549				0.66%
Sc Radial	5499.0	96.9	%	1.06				1.09%
Y 371.029	783219.7	97.565	%	0.6508				0.67%
Y RADIAL	6058.0	97.13	%	0.891				0.92%
Ag 328.068†	-32322.8	5.8813	ug/L	0.86456	5.8813	ppb	0.86456	14.70%
Al 396.153Radial†	-56.7	-38.026	ug/L	3.3982	-38.026	ppb	3.3982	8.94%
As 188.979†	-251.2	-21.971	ug/L	0.7647	-21.971	ppb	0.7647	3.48%
B 249.677†	3437.6	11.977	ug/L	1.1055	11.977	ppb	1.1055	9.23%
Ba 233.527†	-2298.5	-4.4065	ug/L	0.18581	-4.4065	ppb	0.18581	4.22%
Be 313.107†	161.6	0.0513	ug/L	0.01369	0.0513	ppb	0.01369	26.67%
Ca 317.933Radial†	-11.5	-15.897	ug/L	1.4444	-15.897	ppb	1.4444	9.09%
Cd 226.502†	4286.0	-1.6606	ug/L	0.51936	-1.6606	ppb	0.51936	31.28%
Co 228.616†	381.4	0.4216	ug/L	0.13795	0.4216	ppb	0.13795	32.72%
Cr 267.716†	-810.9	-0.3259	ug/L	0.07837	-0.3259	ppb	0.07837	24.05%
Cu 324.752†	-8987.8	-3.0251	ug/L	0.30815	-3.0251	ppb	0.30815	10.19%
Fe 238.204 Radial†	54661.4	410730	ug/L	1602.5	410730	ppb	1602.5	0.39%
K 766.490 Radial†	-62.8	2.9197	ug/L	6.49363	2.9197	ppb	6.49363	222.40%
Mg 279.077 IEC†	15.1	79.512	ug/L	95.7042	79.512	ppb	95.7042	120.36%
Mn 257.610†	-46528.8	-2.6048	ug/L	0.22627	-2.6048	ppb	0.22627	8.69%
Mo 202.031†	-494.1	10.915	ug/L	1.4283	10.915	ppb	1.4283	13.09%
Na 589.592 Radial†	87.5	21.299	ug/L	5.3284	21.299	ppb	5.3284	25.02%
Ni 231.604†	101.6	2.0986	ug/L	0.58759	2.0986	ppb	0.58759	28.00%
P 214.914†	652.0	-12.247	ug/L	11.1212	-12.247	ppb	11.1212	90.80%
Pb 220.353†	373.6	3.0450	ug/L	0.58366	3.0450	ppb	0.58366	19.17%
S 181.975 Axial†	18.1	20.621	ug/L	3.7725	20.621	ppb	3.7725	18.29%
Sb 206.836†	-13.7	2.4617	ug/L	1.37969	2.4617	ppb	1.37969	56.05%
Se 196.026†	-2546.1	-23.705	ug/L	10.2726	-23.705	ppb	10.2726	43.34%
Si 251.611†	-1528.0	-39.937	ug/L	0.3343	-39.937	ppb	0.3343	0.84%
Sn 189.927†	-43.8	-0.6943	ug/L	0.48924	-0.6943	ppb	0.48924	70.46%
Sr 421.552†	104.2	0.5756	ug/L	0.16342	0.5756	ppb	0.16342	28.39%
Ti 334.940†	-18.0	-0.0451	ug/L	0.03668	-0.0451	ppb	0.03668	81.34%
Tl 190.801†	-18.6	-5.0375	ug/L	2.36777	-5.0375	ppb	2.36777	47.00%

U 409.014†	1882.8	-1.3765	ug/L	2.94881	-1.3765	ppb	2.94881 214.22%
V 292.402†	10330.9	-0.6450	ug/L	0.51773	-0.6450	ppb	0.51773 80.27%
Zn 213.857†	4981.9	17.305	ug/L	0.4010	17.305	ppb	0.4010 2.32%
SiO2†	-1593.1	-88.738	ug/L	3.3956	-88.738	ppb	3.3956 3.83%

Sequence No.: 2
Sample ID: LR2
Analyst: JWJ
Initial Sample Wt:
Dilution:

Autosampler Location: 36
Date Collected: 12/23/2009 18:56:09
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR2

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	5617.9	5617.9	99.0	%			18:58:02
1	Y RADIAL	6274.2	6274.2	100.6	%			18:58:02
1	Al 396.153Radial†	-8.2	-3.0	-2.0734	ug/L	-2.0734	ppb	18:58:02
1	Ca 317.933Radial†	25.5	12.6	17.322	ug/L	17.322	ppb	18:58:22
1	Fe 238.204 Radial†	-20.4	-31.1	18.216	ug/L	18.216	ppb	18:58:22
1	K 766.490 Radial†	2960.0	172.5	28.930	ug/L	28.930	ppb	18:58:02
1	Mg 279.077 IEC†	2.7	1.6	46.029	ug/L	46.029	ppb	18:58:22
1	Na 589.592 Radial†	-1483.9	45.8	11.151	ug/L	11.151	ppb	18:58:02
1	Sr 421.552†	2.7	13.2	0.0726	ug/L	0.0726	ppb	18:58:02
1	Sc 361.383	941102.7	941102.7	100.79	%			18:59:19
1	Y 371.029	813055.4	813055.4	101.28	%			18:59:19
1	Ag 328.068†	288.4	-31.9	-0.2087	ug/L	-0.2087	ppb	18:59:24
1	As 188.979†	-29.1	2.8	0.8959	ug/L	0.8959	ppb	18:59:44
1	B 249.677†	1109.6	1882.6	16.166	ug/L	16.166	ppb	18:59:24
1	Ba 233.527†	-27.8	-22.9	-0.1544	ug/L	-0.1544	ppb	18:59:44
1	Be 313.107†	-4649.8	183.6	0.0589	ug/L	0.0589	ppb	18:59:24
1	Cd 226.502†	-264.4	-23.8	-0.1929	ug/L	-0.1929	ppb	18:59:44
1	Co 228.616†	482608.1	478904.3	7979.8	ug/L	7979.8	ppb	18:59:19
1	Cr 267.716†	142.7	59.9	0.5686	ug/L	0.5686	ppb	18:59:24
1	Cu 324.752†	5261.9	-1352.6	-3.6203	ug/L	-3.6203	ppb	18:59:24
1	Mn 257.610†	474.9	-19.0	-0.0420	ug/L	-0.0420	ppb	18:59:44
1	Mo 202.031†	16.1	-9.6	-0.5765	ug/L	-0.5765	ppb	18:59:44
1	Ni 231.604†	299.5	194.2	-1.0789	ug/L	-1.0789	ppb	18:59:44
1	P 214.914†	236.5	-11.8	-4.9383	ug/L	-4.9383	ppb	18:59:44
1	Pb 220.353†	-26.9	55.9	5.5289	ug/L	5.5289	ppb	18:59:44
1	S 181.975 Axial†	58.0	2.6	3.0037	ug/L	3.0037	ppb	18:59:44
1	Sb 206.836†	43.5	2.2	0.5872	ug/L	0.5872	ppb	18:59:44
1	Se 196.026†	-25.5	7.4	3.0212	ug/L	3.0212	ppb	18:59:44
1	Si 251.611†	696.2	74.8	1.9795	ug/L	1.9795	ppb	18:59:44
1	Sn 189.927†	9.8	4.1	0.5761	ug/L	0.5761	ppb	18:59:44
1	Ti 334.940†	-1310.5	215.7	0.2981	ug/L	0.2981	ppb	18:59:24
1	Tl 190.801†	120.2	157.4	-2.6209	ug/L	-2.6209	ppb	18:59:44
1	U 409.014†	-2641.9	6.5	0.2031	ug/L	0.2031	ppb	18:59:19
1	V 292.402†	-1630.8	-21.2	-0.0991	ug/L	-0.0991	ppb	18:59:24
1	Zn 213.857†	834.4	49.4	0.3719	ug/L	0.3719	ppb	18:59:44
1	SiO2†	713.0	58.4	3.2901	ug/L	3.2901	ppb	19:00:50
2	Sc Radial	5619.8	5619.8	99.0	%			18:58:27
2	Y RADIAL	6222.4	6222.4	99.76	%			18:58:27
2	Al 396.153Radial†	-39.6	-34.7	-24.017	ug/L	-24.017	ppb	18:58:27
2	Ca 317.933Radial†	17.4	4.4	6.1273	ug/L	6.1273	ppb	18:58:47
2	Fe 238.204 Radial†	-17.7	-28.3	39.588	ug/L	39.588	ppb	18:58:47
2	K 766.490 Radial†	3050.0	262.4	44.016	ug/L	44.016	ppb	18:58:27
2	Mg 279.077 IEC†	6.0	4.9	139.67	ug/L	139.67	ppb	18:58:47
2	Na 589.592 Radial†	-1439.0	91.6	22.293	ug/L	22.293	ppb	18:58:27
2	Sr 421.552†	-15.0	-4.7	-0.0261	ug/L	-0.0261	ppb	18:58:27
2	Sc 361.383	937020.4	937020.4	100.36	%			18:59:49
2	Y 371.029	808448.2	808448.2	100.71	%			18:59:49
2	Ag 328.068†	323.5	4.4	-0.0509	ug/L	-0.0509	ppb	18:59:54
2	As 188.979†	-22.4	9.4	3.1374	ug/L	3.1374	ppb	19:00:14
2	B 249.677†	1105.5	1883.4	16.147	ug/L	16.147	ppb	18:59:54
2	Ba 233.527†	-17.4	-12.7	-0.0886	ug/L	-0.0886	ppb	19:00:14
2	Be 313.107†	-4783.7	30.1	0.0101	ug/L	0.0101	ppb	18:59:54
2	Cd 226.502†	-266.2	-26.7	-0.2217	ug/L	-0.2217	ppb	19:00:14
2	Co 228.616†	481262.8	479649.8	7992.2	ug/L	7992.2	ppb	18:59:49
2	Cr 267.716†	107.0	24.9	0.2356	ug/L	0.2356	ppb	18:59:54
2	Cu 324.752†	5298.7	-1293.1	-3.4605	ug/L	-3.4605	ppb	18:59:54
2	Mn 257.610†	447.6	-44.2	-0.0652	ug/L	-0.0652	ppb	19:00:14
2	Mo 202.031†	21.6	-4.0	-0.2536	ug/L	-0.2536	ppb	19:00:14
2	Ni 231.604†	296.4	192.4	-1.1242	ug/L	-1.1242	ppb	19:00:14

2	P 214.914†	250.8	3.5	2.4131	ug/L	2.4131 ppb	19:00:14
2	Pb 220.353†	-39.9	42.9	4.2393	ug/L	4.2393 ppb	19:00:14
2	S 181.975 Axial†	60.9	5.8	6.5961	ug/L	6.5961 ppb	19:00:14
2	Sb 206.836†	49.1	7.9	2.2275	ug/L	2.2275 ppb	19:00:14
2	Se 196.026†	-24.6	8.2	3.4906	ug/L	3.4906 ppb	19:00:14
2	Si 251.611†	682.3	64.0	1.6795	ug/L	1.6795 ppb	19:00:14
2	Sn 189.927†	13.7	8.0	1.1259	ug/L	1.1259 ppb	19:00:14
2	Ti 334.940†	-1315.4	205.2	0.2853	ug/L	0.2853 ppb	18:59:54
2	Tl 190.801†	114.8	152.6	-3.8850	ug/L	-3.8850 ppb	19:00:14
2	U 409.014†	-2815.8	-178.2	-4.7325	ug/L	-4.7325 ppb	18:59:49
2	V 292.402†	-1672.0	-69.3	-0.3945	ug/L	-0.3945 ppb	18:59:54
2	Zn 213.857†	811.5	30.2	0.2190	ug/L	0.2190 ppb	19:00:14
2	SiO2†	693.3	41.9	2.3334	ug/L	2.3334 ppb	19:00:55
3	Sc Radial	5629.5	5629.5	99.2	%		18:58:52
3	Y RADIAL	6235.7	6235.7	99.97	%		18:58:52
3	Al 396.153Radial†	-34.0	-29.0	-20.098	ug/L	-20.098 ppb	18:58:52
3	Ca 317.933Radial†	21.0	8.0	11.022	ug/L	11.022 ppb	18:59:12
3	Fe 238.204 Radial†	-18.5	-29.1	31.377	ug/L	31.377 ppb	18:59:12
3	K 766.490 Radial†	3056.5	263.6	44.228	ug/L	44.228 ppb	18:58:52
3	Mg 279.077 IEC†	6.5	5.4	153.70	ug/L	153.70 ppb	18:59:12
3	Na 589.592 Radial†	-1513.7	18.8	4.5874	ug/L	4.5874 ppb	18:58:52
3	Sr 421.552†	-21.5	-11.2	-0.0621	ug/L	-0.0621 ppb	18:58:52
3	Sc 361.383	945631.9	945631.9	101.28	%		19:00:19
3	Y 371.029	815920.2	815920.2	101.64	%		19:00:19
3	Ag 328.068†	403.0	79.9	0.2571	ug/L	0.2571 ppb	19:00:24
3	As 188.979†	-27.6	4.4	1.4389	ug/L	1.4389 ppb	19:00:45
3	B 249.677†	1025.0	1793.9	14.588	ug/L	14.588 ppb	19:00:24
3	Ba 233.527†	-1.7	3.0	0.0149	ug/L	0.0149 ppb	19:00:45
3	Be 313.107†	-4690.8	165.3	0.0533	ug/L	0.0533 ppb	19:00:24
3	Cd 226.502†	-262.8	-21.0	-0.1688	ug/L	-0.1688 ppb	19:00:45
3	Co 228.616†	481601.5	475617.1	7925.0	ug/L	7925.0 ppb	19:00:19
3	Cr 267.716†	83.4	0.7	0.0045	ug/L	0.0045 ppb	19:00:24
3	Cu 324.752†	5181.5	-1456.9	-3.8978	ug/L	-3.8978 ppb	19:00:24
3	Mn 257.610†	458.3	-37.7	-0.0599	ug/L	-0.0599 ppb	19:00:45
3	Mo 202.031†	33.3	7.2	0.3961	ug/L	0.3961 ppb	19:00:45
3	Ni 231.604†	288.4	181.8	-1.3012	ug/L	-1.3012 ppb	19:00:45
3	P 214.914†	257.2	7.5	4.4061	ug/L	4.4061 ppb	19:00:45
3	Pb 220.353†	-27.3	55.7	5.5069	ug/L	5.5069 ppb	19:00:45
3	S 181.975 Axial†	52.7	-2.9	-3.3560	ug/L	-3.3560 ppb	19:00:45
3	Sb 206.836†	36.6	-4.9	-1.3638	ug/L	-1.3638 ppb	19:00:45
3	Se 196.026†	-24.0	9.0	3.8774	ug/L	3.8774 ppb	19:00:45
3	Si 251.611†	695.9	71.2	1.8627	ug/L	1.8627 ppb	19:00:45
3	Sn 189.927†	6.2	0.5	0.0673	ug/L	0.0673 ppb	19:00:45
3	Ti 334.940†	-1252.4	279.3	0.3877	ug/L	0.3877 ppb	19:00:24
3	Tl 190.801†	105.7	142.5	-6.0297	ug/L	-6.0297 ppb	19:00:45
3	U 409.014†	-2827.8	-164.5	-4.3656	ug/L	-4.3656 ppb	19:00:19
3	V 292.402†	-1560.4	56.0	0.3707	ug/L	0.3707 ppb	19:00:24
3	Zn 213.857†	822.2	33.4	0.2452	ug/L	0.2452 ppb	19:00:45
3	SiO2†	733.0	74.8	4.1691	ug/L	4.1691 ppb	19:01:00

Mean Data: LR2

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	941251.7	100.81	%	0.461				0.46%
Sc Radial	5622.4	99.1	%	0.11				0.11%
Y 371.029	812474.6	101.21	%	0.470				0.46%
Y RADIAL	6244.1	100.1	%	0.43				0.43%
Ag 328.068†	17.5	-0.0008	ug/L	0.23693	-0.0008	ppb	0.23693	>999.9%
Al 396.153Radial†	-22.3	-15.396	ug/L	11.7028	-15.396	ppb	11.7028	76.01%
As 188.979†	5.5	1.8241	ug/L	1.16930	1.8241	ppb	1.16930	64.10%
B 249.677†	1853.3	15.634	ug/L	0.9059	15.634	ppb	0.9059	5.79%
Ba 233.527†	-10.8	-0.0760	ug/L	0.08534	-0.0760	ppb	0.08534	112.25%
Be 313.107†	126.3	0.0408	ug/L	0.02670	0.0408	ppb	0.02670	65.47%
Ca 317.933Radial†	8.3	11.490	ug/L	5.6119	11.490	ppb	5.6119	48.84%
Cd 226.502†	-23.8	-0.1945	ug/L	0.02646	-0.1945	ppb	0.02646	13.61%
Co 228.616†	478057.1	7965.7	ug/L	35.75	7965.7	ppb	35.75	0.45%
Cr 267.716†	28.5	0.2696	ug/L	0.28359	0.2696	ppb	0.28359	105.19%
Cu 324.752†	-1367.5	-3.6595	ug/L	0.22132	-3.6595	ppb	0.22132	6.05%
Fe 238.204 Radial†	-29.5	29.727	ug/L	10.7810	29.727	ppb	10.7810	36.27%
K 766.490 Radial†	232.8	39.058	ug/L	8.7714	39.058	ppb	8.7714	22.46%

Mg 279.077 IEC†	4.0	113.13	ug/L	58.534	113.13	ppb	58.534 51.74%
Mn 257.610†	-33.6	-0.0557	ug/L	0.01218	-0.0557	ppb	0.01218 21.88%
Mo 202.031†	-2.1	-0.1447	ug/L	0.49537	-0.1447	ppb	0.49537 342.46%
Na 589.592 Radial†	52.1	12.677	ug/L	8.9510	12.677	ppb	8.9510 70.61%
Ni 231.604†	189.4	-1.1681	ug/L	0.11749	-1.1681	ppb	0.11749 10.06%
P 214.914†	-0.3	0.6270	ug/L	4.92163	0.6270	ppb	4.92163 785.00%
Pb 220.353†	51.5	5.0917	ug/L	0.73826	5.0917	ppb	0.73826 14.50%
S 181.975 Axial†	1.8	2.0813	ug/L	5.03974	2.0813	ppb	5.03974 242.15%
Sb 206.836†	1.7	0.4837	ug/L	1.79789	0.4837	ppb	1.79789 371.72%
Se 196.026†	8.2	3.4631	ug/L	0.42877	3.4631	ppb	0.42877 12.38%
Si 251.611†	70.0	1.8406	ug/L	0.15120	1.8406	ppb	0.15120 8.21%
Sn 189.927†	4.2	0.5897	ug/L	0.52944	0.5897	ppb	0.52944 89.77%
Sr 421.552†	-0.9	-0.0052	ug/L	0.06974	-0.0052	ppb	0.06974 >999.9%
Ti 334.940†	233.4	0.3237	ug/L	0.05579	0.3237	ppb	0.05579 17.24%
Tl 190.801†	150.8	-4.1785	ug/L	1.72324	-4.1785	ppb	1.72324 41.24%
U 409.014†	-112.0	-2.9650	ug/L	2.74977	-2.9650	ppb	2.74977 92.74%
V 292.402†	-11.5	-0.0410	ug/L	0.38587	-0.0410	ppb	0.38587 941.71%
Zn 213.857†	37.7	0.2787	ug/L	0.08177	0.2787	ppb	0.08177 29.34%
SiO2†	58.4	3.2642	ug/L	0.91811	3.2642	ppb	0.91811 28.13%

Sequence No.: 3
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 12/23/2009 19:03:11
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5648.2	5648.2	99.5	%			19:05:03
1	Y RADIAL	6178.3	6178.3	99.06	%			19:05:03
1	Al 396.153Radial†	7204.5	7242.4	4988.7	ug/L	4988.7	ppb	19:05:03
1	Ca 317.933Radial†	3652.2	3655.6	5035.3	ug/L	5035.3	ppb	19:05:23
1	Fe 238.204 Radial†	670.2	662.8	4996.0	ug/L	4996.0	ppb	19:05:23
1	K 766.490 Radial†	32624.8	29956.1	5019.0	ug/L	5019.0	ppb	19:05:03
1	Mg 279.077 IEC†	181.6	181.2	5173.1	ug/L	5173.1	ppb	19:05:23
1	Na 589.592 Radial†	37185.8	38899.3	9469.1	ug/L	9469.1	ppb	19:05:03
1	Sr 421.552†	88139.9	88551.0	489.08	ug/L	489.08	ppb	19:05:03
1	Sc 361.383	942938.2	942938.2	100.99	%			19:06:22
1	Y 371.029	798149.2	798149.2	99.425	%			19:06:22
1	Ag 328.068†	122550.3	121031.9	495.88	ug/L	495.88	ppb	19:06:22
1	As 188.979†	1454.8	1472.2	504.79	ug/L	504.79	ppb	19:06:42
1	B 249.677†	25493.1	26025.2	501.37	ug/L	501.37	ppb	19:06:22
1	Ba 233.527†	77417.7	76664.1	498.18	ug/L	498.18	ppb	19:06:22
1	Be 313.107†	1571922.2	1561321.7	497.19	ug/L	497.19	ppb	19:06:22
1	Cd 226.502†	54418.9	54124.3	497.38	ug/L	497.38	ppb	19:06:22
1	Co 228.616†	29877.7	29676.5	494.72	ug/L	494.72	ppb	19:06:42
1	Cr 267.716†	52346.1	51751.6	496.32	ug/L	496.32	ppb	19:06:22
1	Cu 324.752†	193988.4	185515.2	495.16	ug/L	495.16	ppb	19:06:22
1	Mn 257.610†	536565.0	530819.1	497.30	ug/L	497.30	ppb	19:06:22
1	Mo 202.031†	8780.8	8669.2	499.76	ug/L	499.76	ppb	19:06:42
1	Ni 231.604†	24266.9	23926.3	494.60	ug/L	494.60	ppb	19:06:42
1	P 214.914†	5443.4	5143.6	2411.6	ug/L	2411.6	ppb	19:06:42
1	Pb 220.353†	5055.2	5088.3	502.96	ug/L	502.96	ppb	19:06:42
1	S 181.975 Axial†	937.0	872.8	995.42	ug/L	995.42	ppb	19:06:42
1	Sb 206.836†	1807.8	1749.1	500.05	ug/L	500.05	ppb	19:06:42
1	Se 196.026†	961.5	984.8	519.14	ug/L	519.14	ppb	19:06:42
1	Si 251.611†	96014.5	94458.0	2489.0	ug/L	2489.0	ppb	19:06:22
1	Sn 189.927†	3548.5	3508.1	495.29	ug/L	495.29	ppb	19:06:42
1	Ti 334.940†	360159.1	358147.1	493.76	ug/L	493.76	ppb	19:06:22
1	Tl 190.801†	1997.1	2015.7	503.97	ug/L	503.97	ppb	19:06:42
1	U 409.014†	15374.9	17851.9	475.19	ug/L	475.19	ppb	19:06:22
1	V 292.402†	81243.0	82044.0	500.07	ug/L	500.07	ppb	19:06:22
1	Zn 213.857†	65479.5	64059.7	491.97	ug/L	491.97	ppb	19:06:22
1	SiO2†	96554.2	94959.5	5330.5	ug/L	5330.5	ppb	19:07:42
2	Sc Radial	5240.3	5240.3	92.4	%			19:05:28
2	Y RADIAL	5704.0	5704.0	91.45	%			19:05:28
2	Al 396.153Radial†	7338.1	7950.4	5478.8	ug/L	5478.8	ppb	19:05:28
2	Ca 317.933Radial†	3623.3	3910.0	5385.6	ug/L	5385.6	ppb	19:05:48
2	Fe 238.204 Radial†	666.1	710.7	5355.7	ug/L	5355.7	ppb	19:05:48
2	K 766.490 Radial†	33124.0	33047.6	5537.5	ug/L	5537.5	ppb	19:05:28
2	Mg 279.077 IEC†	178.2	191.7	5471.5	ug/L	5471.5	ppb	19:05:48
2	Na 589.592 Radial†	37913.7	42595.0	10369	ug/L	10369	ppb	19:05:28
2	Sr 421.552†	90154.8	97624.3	539.19	ug/L	539.19	ppb	19:05:28
2	Sc 361.383	948955.4	948955.4	101.63	%			19:06:49
2	Y 371.029	801998.8	801998.8	99.904	%			19:06:49
2	Ag 328.068†	123435.5	121133.5	496.40	ug/L	496.40	ppb	19:06:49
2	As 188.979†	1434.3	1442.9	494.89	ug/L	494.89	ppb	19:07:09
2	B 249.677†	25641.6	26011.2	501.07	ug/L	501.07	ppb	19:06:49
2	Ba 233.527†	77699.5	76455.2	496.83	ug/L	496.83	ppb	19:06:49
2	Be 313.107†	1577719.5	1557156.1	495.87	ug/L	495.87	ppb	19:06:49
2	Cd 226.502†	54706.4	54065.6	496.80	ug/L	496.80	ppb	19:06:49
2	Co 228.616†	29691.3	29305.5	488.51	ug/L	488.51	ppb	19:07:09
2	Cr 267.716†	52476.1	51551.0	494.40	ug/L	494.40	ppb	19:06:49
2	Cu 324.752†	195559.4	185843.0	496.05	ug/L	496.05	ppb	19:06:49
2	Mn 257.610†	540192.4	531019.2	497.52	ug/L	497.52	ppb	19:06:49
2	Mo 202.031†	8704.2	8538.6	492.27	ug/L	492.27	ppb	19:07:09
2	Ni 231.604†	24160.0	23668.6	489.27	ug/L	489.27	ppb	19:07:09

2	P 214.914†	5390.5	5057.4	2369.5	ug/L	2369.5	ppb	19:07:09
2	Pb 220.353†	5025.2	5027.1	496.98	ug/L	496.98	ppb	19:07:09
2	S 181.975 Axial†	920.5	850.8	970.17	ug/L	970.17	ppb	19:07:09
2	Sb 206.836†	1794.7	1724.8	493.00	ug/L	493.00	ppb	19:07:09
2	Se 196.026†	941.5	959.0	507.20	ug/L	507.20	ppb	19:07:09
2	Si 251.611†	96645.1	94475.7	2489.4	ug/L	2489.4	ppb	19:06:49
2	Sn 189.927†	3539.2	3476.7	490.90	ug/L	490.90	ppb	19:07:09
2	Ti 334.940†	362654.2	358340.8	494.05	ug/L	494.05	ppb	19:06:49
2	Tl 190.801†	1986.7	1992.9	498.37	ug/L	498.37	ppb	19:07:09
2	U 409.014†	15549.1	17926.8	477.15	ug/L	477.15	ppb	19:06:49
2	V 292.402†	81517.0	81803.5	498.47	ug/L	498.47	ppb	19:06:49
2	Zn 213.857†	65933.1	64094.9	492.25	ug/L	492.25	ppb	19:06:49
2	SiO2†	96228.8	94033.1	5278.2	ug/L	5278.2	ppb	19:07:47
3	Sc Radial	5555.3	5555.3	97.9	%			19:05:53
3	Y RADIAL	6084.2	6084.2	97.55	%			19:05:53
3	Al 396.153Radial†	7159.8	7317.8	5041.0	ug/L	5041.0	ppb	19:05:53
3	Ca 317.933Radial†	3619.1	3683.1	5073.2	ug/L	5073.2	ppb	19:06:13
3	Fe 238.204 Radial†	664.6	668.4	5037.7	ug/L	5037.7	ppb	19:06:13
3	K 766.490 Radial†	32389.2	30263.5	5070.6	ug/L	5070.6	ppb	19:05:53
3	Mg 279.077 IEC†	181.5	184.2	5256.1	ug/L	5256.1	ppb	19:06:13
3	Na 589.592 Radial†	36754.4	39083.3	9513.9	ug/L	9513.9	ppb	19:05:53
3	Sr 421.552†	87650.1	89531.1	494.49	ug/L	494.49	ppb	19:05:53
3	Sc 361.383	939055.0	939055.0	100.57	%			19:07:17
3	Y 371.029	795345.0	795345.0	99.075	%			19:07:17
3	Ag 328.068†	121937.0	120923.9	495.44	ug/L	495.44	ppb	19:07:17
3	As 188.979†	1427.4	1450.9	497.54	ug/L	497.54	ppb	19:07:37
3	B 249.677†	25313.3	25950.7	499.94	ug/L	499.94	ppb	19:07:17
3	Ba 233.527†	76811.6	76378.4	496.32	ug/L	496.32	ppb	19:07:17
3	Be 313.107†	1560273.9	1556176.2	495.55	ug/L	495.55	ppb	19:07:17
3	Cd 226.502†	54014.0	53944.6	495.72	ug/L	495.72	ppb	19:07:17
3	Co 228.616†	29531.6	29454.7	491.01	ug/L	491.01	ppb	19:07:37
3	Cr 267.716†	51872.4	51495.0	493.86	ug/L	493.86	ppb	19:07:17
3	Cu 324.752†	193380.7	185705.3	495.67	ug/L	495.67	ppb	19:07:17
3	Mn 257.610†	532944.1	529415.8	495.99	ug/L	495.99	ppb	19:07:17
3	Mo 202.031†	8678.7	8603.6	495.98	ug/L	495.98	ppb	19:07:37
3	Ni 231.604†	24026.2	23786.3	491.71	ug/L	491.71	ppb	19:07:37
3	P 214.914†	5380.1	5102.9	2391.8	ug/L	2391.8	ppb	19:07:37
3	Pb 220.353†	4968.6	5022.9	496.51	ug/L	496.51	ppb	19:07:37
3	S 181.975 Axial†	931.7	871.5	993.87	ug/L	993.87	ppb	19:07:37
3	Sb 206.836†	1780.7	1729.6	494.51	ug/L	494.51	ppb	19:07:37
3	Se 196.026†	946.0	973.2	513.39	ug/L	513.39	ppb	19:07:37
3	Si 251.611†	95237.2	94078.3	2479.0	ug/L	2479.0	ppb	19:07:17
3	Sn 189.927†	3527.0	3501.2	494.33	ug/L	494.33	ppb	19:07:37
3	Ti 334.940†	358157.5	357631.7	493.05	ug/L	493.05	ppb	19:07:17
3	Tl 190.801†	1962.6	1989.6	497.49	ug/L	497.49	ppb	19:07:37
3	U 409.014†	15533.6	18072.7	481.08	ug/L	481.08	ppb	19:07:17
3	V 292.402†	80793.8	81929.9	499.34	ug/L	499.34	ppb	19:07:17
3	Zn 213.857†	65026.9	63877.8	490.57	ug/L	490.57	ppb	19:07:17
3	SiO2†	96196.1	94998.8	5332.8	ug/L	5332.8	ppb	19:07:52

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	943649.5	101.07	%	0.534				0.53%
Sc Radial	5481.3	96.6	%	3.77				3.90%
Y 371.029	798497.7	99.468	%	0.4161				0.42%
Y RADIAL	5988.8	96.02	%	4.026				4.19%
Ag 328.068†	121029.7	495.91	ug/L	0.478	495.91	ppb	0.478	0.10%
QC value within limits for Ag 328.068 Recovery = 99.18%								
Al 396.153Radial†	7503.5	5169.5	ug/L	269.12	5169.5	ppb	269.12	5.21%
QC value within limits for Al 396.153Radial Recovery = 103.39%								
As 188.979†	1455.4	499.07	ug/L	5.123	499.07	ppb	5.123	1.03%
QC value within limits for As 188.979 Recovery = 99.81%								
B 249.677†	25995.7	500.79	ug/L	0.757	500.79	ppb	0.757	0.15%
QC value within limits for B 249.677 Recovery = 100.16%								
Ba 233.527†	76499.3	497.11	ug/L	0.958	497.11	ppb	0.958	0.19%
QC value within limits for Ba 233.527 Recovery = 99.42%								
Be 313.107†	1558218.0	496.20	ug/L	0.869	496.20	ppb	0.869	0.18%
QC value within limits for Be 313.107 Recovery = 99.24%								
Ca 317.933Radial†	3749.6	5164.7	ug/L	192.25	5164.7	ppb	192.25	3.72%

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   QC value within limits for Ca 317.933Radial  Recovery = 103.29%
Cd 226.502†            54044.8      496.63 ug/L         0.841      496.63 ppb          0.841   0.17%
   QC value within limits for Cd 226.502  Recovery = 99.33%
Co 228.616†            29478.9      491.41 ug/L         3.123      491.41 ppb          3.123   0.64%
   QC value within limits for Co 228.616  Recovery = 98.28%
Cr 267.716†            51599.2      494.86 ug/L         1.292      494.86 ppb          1.292   0.26%
   QC value within limits for Cr 267.716  Recovery = 98.97%
Cu 324.752†           185687.8      495.63 ug/L         0.448      495.63 ppb          0.448   0.09%
   QC value within limits for Cu 324.752  Recovery = 99.13%
Fe 238.204 Radial†       680.6      5129.8 ug/L       196.77      5129.8 ppb        196.77   3.84%
   QC value within limits for Fe 238.204 Radial  Recovery = 102.60%
K 766.490 Radial†      31089.1      5209.0 ug/L       285.60      5209.0 ppb        285.60   5.48%
   QC value within limits for K 766.490 Radial  Recovery = 104.18%
Mg 279.077 IEC†          185.7      5300.2 ug/L       153.99      5300.2 ppb        153.99   2.91%
   QC value within limits for Mg 279.077 IEC  Recovery = 106.00%
Mn 257.610†           530418.0      496.94 ug/L         0.827      496.94 ppb          0.827   0.17%
   QC value within limits for Mn 257.610  Recovery = 99.39%
Mo 202.031†             8603.8      496.00 ug/L         3.743      496.00 ppb          3.743   0.75%
   QC value within limits for Mo 202.031  Recovery = 99.20%
Na 589.592 Radial†     40192.5      9783.9 ug/L       506.97      9783.9 ppb        506.97   5.18%
   QC value within limits for Na 589.592 Radial  Recovery = 97.84%
Ni 231.604†            23793.7      491.86 ug/L         2.666      491.86 ppb          2.666   0.54%
   QC value within limits for Ni 231.604  Recovery = 98.37%
P 214.914†              5101.3      2391.0 ug/L        21.02      2391.0 ppb         21.02   0.88%
   QC value within limits for P 214.914  Recovery = 95.64%
Pb 220.353†             5046.1      498.82 ug/L         3.594      498.82 ppb          3.594   0.72%
   QC value within limits for Pb 220.353  Recovery = 99.76%
S 181.975 Axial†         865.0      986.48 ug/L        14.151      986.48 ppb         14.151   1.43%
   QC value within limits for S 181.975 Axial  Recovery = 98.65%
Sb 206.836†             1734.5      495.85 ug/L         3.712      495.85 ppb          3.712   0.75%
   QC value within limits for Sb 206.836  Recovery = 99.17%
Se 196.026†              972.3      513.24 ug/L         5.970      513.24 ppb          5.970   1.16%
   QC value within limits for Se 196.026  Recovery = 102.65%
Si 251.611†            94337.3      2485.8 ug/L          5.91      2485.8 ppb           5.91   0.24%
   QC value within limits for Si 251.611  Recovery = 99.43%
Sn 189.927†             3495.3      493.51 ug/L         2.307      493.51 ppb          2.307   0.47%
   QC value within limits for Sn 189.927  Recovery = 98.70%
Sr 421.552†            91902.2      507.59 ug/L        27.504      507.59 ppb         27.504   5.42%
   QC value within limits for Sr 421.552  Recovery = 101.52%
Ti 334.940†           358039.9      493.62 ug/L         0.513      493.62 ppb          0.513   0.10%
   QC value within limits for Ti 334.940  Recovery = 98.72%
Tl 190.801†             1999.4      499.94 ug/L         3.518      499.94 ppb          3.518   0.70%
   QC value within limits for Tl 190.801  Recovery = 99.99%
U 409.014†             17950.5      477.81 ug/L         3.003      477.81 ppb          3.003   0.63%
   QC value within limits for U 409.014  Recovery = 95.56%
V 292.402†             81925.8      499.29 ug/L         0.800      499.29 ppb          0.800   0.16%
   QC value within limits for V 292.402  Recovery = 99.86%
Zn 213.857†            64010.8      491.60 ug/L         0.897      491.60 ppb          0.897   0.18%
   QC value within limits for Zn 213.857  Recovery = 98.32%
SiO2†                  94663.8      5313.8 ug/L        30.91      5313.8 ppb         30.91   0.58%
   QC value within limits for SiO2  Recovery = 99.37%
All analyte(s) passed QC.
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Sequence No.: 4
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 12/23/2009 19:10:02
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5629.2	5629.2	99.2	%			19:11:55
1	Y RADIAL	6177.3	6177.3	99.04	%			19:11:55
1	Al 396.153Radial†	-16.3	-11.2	-7.7631	ug/L	-7.7631	ppb	19:11:55
1	Ca 317.933Radial†	12.1	-0.9	-1.2601	ug/L	-1.2601	ppb	19:12:15
1	Fe 238.204 Radial†	13.2	2.8	21.085	ug/L	21.085	ppb	19:12:15
1	K 766.490 Radial†	2979.9	186.6	31.304	ug/L	31.304	ppb	19:11:55
1	Mg 279.077 IEC†	3.9	2.8	79.244	ug/L	79.244	ppb	19:12:15
1	Na 589.592 Radial†	-1489.1	43.5	10.598	ug/L	10.598	ppb	19:11:55
1	Sr 421.552†	10.6	21.1	0.1168	ug/L	0.1168	ppb	19:11:55
1	Sc 361.383	939957.4	939957.4	100.67	%			19:13:12
1	Y 371.029	807041.6	807041.6	100.53	%			19:13:12
1	Ag 328.068†	448.0	127.0	0.5229	ug/L	0.5229	ppb	19:13:17
1	As 188.979†	-27.7	4.1	1.3952	ug/L	1.3952	ppb	19:13:37
1	B 249.677†	-173.7	609.2	11.779	ug/L	11.779	ppb	19:13:17
1	Ba 233.527†	-3.6	1.1	0.0081	ug/L	0.0081	ppb	19:13:37
1	Be 313.107†	-4718.0	110.2	0.0352	ug/L	0.0352	ppb	19:13:17
1	Cd 226.502†	-229.8	10.2	0.0917	ug/L	0.0917	ppb	19:13:37
1	Co 228.616†	-86.3	5.7	0.0936	ug/L	0.0936	ppb	19:13:37
1	Cr 267.716†	117.2	34.8	0.3328	ug/L	0.3328	ppb	19:13:37
1	Cu 324.752†	6546.9	-69.7	-0.1849	ug/L	-0.1849	ppb	19:13:17
1	Mn 257.610†	487.6	-5.8	-0.0048	ug/L	-0.0048	ppb	19:13:37
1	Mo 202.031†	23.1	-2.7	-0.1528	ug/L	-0.1528	ppb	19:13:37
1	Ni 231.604†	91.1	-12.4	-0.2572	ug/L	-0.2572	ppb	19:13:37
1	P 214.914†	273.0	24.7	11.950	ug/L	11.950	ppb	19:13:37
1	Pb 220.353†	-84.5	-1.3	-0.1334	ug/L	-0.1334	ppb	19:13:37
1	S 181.975 Axial†	49.7	-5.5	-6.3275	ug/L	-6.3275	ppb	19:13:37
1	Sb 206.836†	35.1	-6.1	-1.7438	ug/L	-1.7438	ppb	19:13:37
1	Se 196.026†	-23.4	9.4	4.8279	ug/L	4.8279	ppb	19:13:37
1	Si 251.611†	669.5	49.1	1.2929	ug/L	1.2929	ppb	19:13:37
1	Sn 189.927†	3.5	-2.2	-0.3064	ug/L	-0.3064	ppb	19:13:37
1	Ti 334.940†	-1467.8	57.9	0.0788	ug/L	0.0788	ppb	19:13:17
1	Tl 190.801†	-40.8	-2.3	-0.5841	ug/L	-0.5841	ppb	19:13:37
1	U 409.014†	-2577.6	67.2	1.7917	ug/L	1.7917	ppb	19:13:12
1	V 292.402†	-1593.8	13.6	0.0815	ug/L	0.0815	ppb	19:13:17
1	Zn 213.857†	791.1	7.4	0.0555	ug/L	0.0555	ppb	19:13:37
1	SiO2†	684.8	31.3	1.7486	ug/L	1.7486	ppb	19:14:43
2	Sc Radial	5551.8	5551.8	97.8	%			19:12:20
2	Y RADIAL	6132.0	6132.0	98.31	%			19:12:20
2	Al 396.153Radial†	-19.4	-14.7	-10.161	ug/L	-10.161	ppb	19:12:20
2	Ca 317.933Radial†	19.4	6.7	9.2311	ug/L	9.2311	ppb	19:12:40
2	Fe 238.204 Radial†	7.9	-2.3	-17.588	ug/L	-17.588	ppb	19:12:40
2	K 766.490 Radial†	2929.2	176.7	29.651	ug/L	29.651	ppb	19:12:20
2	Mg 279.077 IEC†	3.1	2.0	56.889	ug/L	56.889	ppb	19:12:40
2	Na 589.592 Radial†	-1527.1	-16.2	-3.9507	ug/L	-3.9507	ppb	19:12:20
2	Sr 421.552†	-31.1	-21.3	-0.1178	ug/L	-0.1178	ppb	19:12:20
2	Sc 361.383	937969.5	937969.5	100.46	%			19:13:42
2	Y 371.029	804691.9	804691.9	100.24	%			19:13:42
2	Ag 328.068†	439.9	119.9	0.4816	ug/L	0.4816	ppb	19:13:47
2	As 188.979†	-26.4	5.3	1.8039	ug/L	1.8039	ppb	19:14:07
2	B 249.677†	-70.7	711.4	13.758	ug/L	13.758	ppb	19:13:47
2	Ba 233.527†	-0.4	4.3	0.0272	ug/L	0.0272	ppb	19:14:07
2	Be 313.107†	-4780.7	37.8	0.0121	ug/L	0.0121	ppb	19:13:47
2	Cd 226.502†	-250.0	-10.3	-0.0933	ug/L	-0.0933	ppb	19:14:07
2	Co 228.616†	-80.0	11.8	0.1976	ug/L	0.1976	ppb	19:14:07
2	Cr 267.716†	111.4	29.2	0.2794	ug/L	0.2794	ppb	19:14:07
2	Cu 324.752†	6491.6	-111.0	-0.2970	ug/L	-0.2970	ppb	19:13:47
2	Mn 257.610†	508.6	16.1	0.0123	ug/L	0.0123	ppb	19:14:07
2	Mo 202.031†	34.3	8.6	0.4912	ug/L	0.4912	ppb	19:14:07
2	Ni 231.604†	98.1	-5.3	-0.1106	ug/L	-0.1106	ppb	19:14:07

2	P 214.914†	256.2	8.5	4.2000 ug/L	4.2000 ppb	19:14:07
2	Pb 220.353†	-74.9	8.1	0.7971 ug/L	0.7971 ppb	19:14:07
2	S 181.975 Axial†	52.9	-2.3	-2.6411 ug/L	-2.6411 ppb	19:14:07
2	Sb 206.836†	47.2	6.0	1.7005 ug/L	1.7005 ppb	19:14:07
2	Se 196.026†	-28.0	4.8	2.3679 ug/L	2.3679 ppb	19:14:07
2	Si 251.611†	655.2	36.3	0.9389 ug/L	0.9389 ppb	19:14:07
2	Sn 189.927†	11.4	5.7	0.8026 ug/L	0.8026 ppb	19:14:07
2	Ti 334.940†	-1477.1	45.5	0.0632 ug/L	0.0632 ppb	19:13:47
2	Tl 190.801†	-33.0	5.3	1.3139 ug/L	1.3139 ppb	19:14:07
2	U 409.014†	-2641.9	-2.2	-0.0583 ug/L	-0.0583 ppb	19:13:42
2	V 292.402†	-1623.6	-19.5	-0.1063 ug/L	-0.1063 ppb	19:13:47
2	Zn 213.857†	795.4	13.3	0.1031 ug/L	0.1031 ppb	19:14:07
2	SiO2†	699.1	47.0	2.6044 ug/L	2.6044 ppb	19:14:48
3	Sc Radial	5626.9	5626.9	99.2 %		19:12:45
3	Y RADIAL	6215.0	6215.0	99.64 %		19:12:45
3	Al 396.153Radial†	-17.9	-12.8	-8.8823 ug/L	-8.8823 ppb	19:12:45
3	Ca 317.933Radial†	22.4	9.5	13.041 ug/L	13.041 ppb	19:13:05
3	Fe 238.204 Radial†	11.4	1.0	7.7992 ug/L	7.7992 ppb	19:13:05
3	K 766.490 Radial†	3103.8	312.8	52.492 ug/L	52.492 ppb	19:12:45
3	Mg 279.077 IEC†	4.3	3.2	89.851 ug/L	89.851 ppb	19:13:05
3	Na 589.592 Radial†	-1558.8	-27.3	-6.6443 ug/L	-6.6443 ppb	19:12:45
3	Sr 421.552†	9.8	20.4	0.1124 ug/L	0.1124 ppb	19:12:45
3	Sc 361.383	926083.4	926083.4	99.184 %		19:14:12
3	Y 371.029	795693.0	795693.0	99.119 %		19:14:12
3	Ag 328.068†	505.6	191.8	0.7881 ug/L	0.7881 ppb	19:14:17
3	As 188.979†	-23.1	8.3	2.8304 ug/L	2.8304 ppb	19:14:37
3	B 249.677†	-106.6	674.3	13.039 ug/L	13.039 ppb	19:14:17
3	Ba 233.527†	10.1	14.8	0.0973 ug/L	0.0973 ppb	19:14:37
3	Be 313.107†	-4688.2	70.1	0.0222 ug/L	0.0222 ppb	19:14:17
3	Cd 226.502†	-221.8	14.9	0.1360 ug/L	0.1360 ppb	19:14:37
3	Co 228.616†	-94.6	-4.0	-0.0646 ug/L	-0.0646 ppb	19:14:37
3	Cr 267.716†	93.9	12.9	0.1260 ug/L	0.1260 ppb	19:14:37
3	Cu 324.752†	6476.1	-43.7	-0.1162 ug/L	-0.1162 ppb	19:14:17
3	Mn 257.610†	531.2	45.4	0.0416 ug/L	0.0416 ppb	19:14:37
3	Mo 202.031†	35.9	10.6	0.6102 ug/L	0.6102 ppb	19:14:37
3	Ni 231.604†	116.1	14.0	0.2905 ug/L	0.2905 ppb	19:14:37
3	P 214.914†	254.5	10.2	4.9350 ug/L	4.9350 ppb	19:14:37
3	Pb 220.353†	-84.5	-2.6	-0.2587 ug/L	-0.2587 ppb	19:14:37
3	S 181.975 Axial†	59.1	4.6	5.2538 ug/L	5.2538 ppb	19:14:37
3	Sb 206.836†	43.7	3.1	0.8938 ug/L	0.8938 ppb	19:14:37
3	Se 196.026†	-31.3	1.1	0.5644 ug/L	0.5644 ppb	19:14:37
3	Si 251.611†	653.3	42.8	1.1020 ug/L	1.1020 ppb	19:14:37
3	Sn 189.927†	10.5	5.0	0.7015 ug/L	0.7015 ppb	19:14:37
3	Ti 334.940†	-1545.7	-42.5	-0.0564 ug/L	-0.0564 ppb	19:14:17
3	Tl 190.801†	-46.3	-8.6	-2.1270 ug/L	-2.1270 ppb	19:14:37
3	U 409.014†	-2740.0	-134.9	-3.6046 ug/L	-3.6046 ppb	19:14:12
3	V 292.402†	-1513.5	70.8	0.4286 ug/L	0.4286 ppb	19:14:17
3	Zn 213.857†	800.5	28.6	0.2166 ug/L	0.2166 ppb	19:14:37
3	SiO2†	709.1	66.0	3.6550 ug/L	3.6550 ppb	19:14:53

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	934670.1	100.10	%	0.804				0.80%
Sc Radial	5602.6	98.7	%	0.78				0.79%
Y 371.029	802475.5	99.963	%	0.7462				0.75%
Y RADIAL	6174.8	99.00	%	0.666				0.67%
Ag 328.068†	146.2	0.5975	ug/L	0.16632	0.5975	ppb	0.16632	27.83%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-12.9	-8.9356	ug/L	1.20003	-8.9356	ppb	1.20003	13.43%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	5.9	2.0098	ug/L	0.73942	2.0098	ppb	0.73942	36.79%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	665.0	12.859	ug/L	1.0021	12.859	ppb	1.0021	7.79%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	6.8	0.0442	ug/L	0.04694	0.0442	ppb	0.04694	106.19%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	72.7	0.0232	ug/L	0.01155	0.0232	ppb	0.01155	49.86%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	5.1	7.0041	ug/L	7.40619	7.0041	ppb	7.40619	105.74%

```
   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                4.9      0.0448 ug/L       0.12166      0.0448 ppb        0.12166 271.43%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                4.5      0.0755 ug/L       0.13202      0.0755 ppb        0.13202 174.83%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†               25.6      0.2460 ug/L       0.10736      0.2460 ppb        0.10736  43.63%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -74.8     -0.1994 ug/L       0.09127     -0.1994 ppb        0.09127  45.78%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         0.5      3.7654 ug/L      19.64977      3.7654 ppb       19.64977 521.85%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        225.3     37.816 ug/L       12.7370      37.816 ppb        12.7370  33.68%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            2.6     75.328 ug/L       16.8260      75.328 ppb        16.8260  22.34%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               18.6      0.0164 ug/L       0.02347      0.0164 ppb        0.02347 143.52%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                5.5      0.3162 ug/L       0.41053      0.3162 ppb        0.41053 129.83%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†         0.0      0.0009 ug/L       9.27545      0.0009 ppb        9.27545 >999.9%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               -1.2     -0.0258 ug/L       0.28358     -0.0258 ppb        0.28358 >999.9%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                14.5      7.0284 ug/L       4.27826      7.0284 ppb        4.27826  60.87%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                1.4      0.1350 ug/L       0.57679      0.1350 ppb        0.57679 427.34%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          -1.1     -1.2383 ug/L       5.91674     -1.2383 ppb        5.91674 477.83%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                1.0      0.2835 ug/L       1.80144      0.2835 ppb        1.80144 635.49%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                5.1      2.5867 ug/L       2.14018      2.5867 ppb        2.14018  82.74%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†               42.7      1.1113 ug/L       0.17718      1.1113 ppb        0.17718  15.94%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                2.8      0.3993 ug/L       0.61319      0.3993 ppb        0.61319 153.58%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                6.7      0.0371 ug/L       0.13419      0.0371 ppb        0.13419 361.38%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               20.3      0.0285 ug/L       0.07394      0.0285 ppb        0.07394 259.17%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               -1.9     -0.4657 ug/L       1.72354     -0.4657 ppb        1.72354 370.08%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -23.3     -0.6237 ug/L       2.74223     -0.6237 ppb        2.74223 439.66%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                21.7      0.1346 ug/L       0.27137      0.1346 ppb        0.27137 201.60%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               16.5      0.1251 ug/L       0.08281      0.1251 ppb        0.08281  66.20%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                     48.1      2.6693 ug/L       0.95486      2.6693 ppb        0.95486  35.77%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 4
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 12/23/2009 19:37:18
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5625.2	5625.2	99.1	%			19:39:11
1	Y RADIAL	6137.2	6137.2	98.40	%			19:39:11
1	Al 396.153Radial†	7227.7	7295.5	5025.4	ug/L	5025.4	ppb	19:39:11
1	Ca 317.933Radial†	3698.2	3717.1	5119.9	ug/L	5119.9	ppb	19:39:31
1	Fe 238.204 Radial†	690.8	686.3	5172.9	ug/L	5172.9	ppb	19:39:31
1	K 766.490 Radial†	32914.9	30382.9	5090.3	ug/L	5090.3	ppb	19:39:11
1	Mg 279.077 IEC†	178.1	178.5	5094.2	ug/L	5094.2	ppb	19:39:31
1	Na 589.592 Radial†	39178.8	41062.5	9995.7	ug/L	9995.7	ppb	19:39:11
1	Sr 421.552†	90747.7	91543.7	505.61	ug/L	505.61	ppb	19:39:11
1	Sc 361.383	936979.7	936979.7	100.35	%			19:40:30
1	Y 371.029	792822.6	792822.6	98.761	%			19:40:30
1	Ag 328.068†	123449.1	122699.2	502.74	ug/L	502.74	ppb	19:40:30
1	As 188.979†	1439.0	1465.6	502.62	ug/L	502.62	ppb	19:40:50
1	B 249.677†	25501.3	26193.9	504.60	ug/L	504.60	ppb	19:40:30
1	Ba 233.527†	77897.2	77629.4	504.45	ug/L	504.45	ppb	19:40:30
1	Be 313.107†	1581830.4	1581093.5	503.49	ug/L	503.49	ppb	19:40:30
1	Cd 226.502†	54764.9	54811.8	503.68	ug/L	503.68	ppb	19:40:30
1	Co 228.616†	29819.9	29807.0	496.88	ug/L	496.88	ppb	19:40:50
1	Cr 267.716†	52474.9	52209.6	500.72	ug/L	500.72	ppb	19:40:30
1	Cu 324.752†	195319.4	188063.0	501.96	ug/L	501.96	ppb	19:40:30
1	Mn 257.610†	540164.4	537784.5	503.84	ug/L	503.84	ppb	19:40:30
1	Mo 202.031†	8748.0	8691.8	501.07	ug/L	501.07	ppb	19:40:50
1	Ni 231.604†	24207.9	24020.3	496.54	ug/L	496.54	ppb	19:40:50
1	P 214.914†	5421.5	5156.1	2416.5	ug/L	2416.5	ppb	19:40:50
1	Pb 220.353†	5045.0	5110.0	505.09	ug/L	505.09	ppb	19:40:50
1	S 181.975 Axial†	930.6	872.4	994.90	ug/L	994.90	ppb	19:40:50
1	Sb 206.836†	1810.5	1763.1	504.02	ug/L	504.02	ppb	19:40:50
1	Se 196.026†	959.9	989.2	521.95	ug/L	521.95	ppb	19:40:50
1	Si 251.611†	96499.5	95546.0	2517.7	ug/L	2517.7	ppb	19:40:30
1	Sn 189.927†	3569.2	3551.1	501.36	ug/L	501.36	ppb	19:40:50
1	Ti 334.940†	362122.0	362371.1	499.59	ug/L	499.59	ppb	19:40:30
1	Tl 190.801†	1998.6	2029.8	507.52	ug/L	507.52	ppb	19:40:50
1	U 409.014†	15529.2	18102.5	481.85	ug/L	481.85	ppb	19:40:30
1	V 292.402†	81826.4	83136.9	506.64	ug/L	506.64	ppb	19:40:30
1	Zn 213.857†	66026.8	65017.4	499.36	ug/L	499.36	ppb	19:40:30
1	SiO2†	96127.9	95142.6	5340.7	ug/L	5340.7	ppb	19:41:50
2	Sc Radial	5583.4	5583.4	98.4	%			19:39:36
2	Y RADIAL	6090.0	6090.0	97.64	%			19:39:36
2	Al 396.153Radial†	7221.3	7343.5	5058.7	ug/L	5058.7	ppb	19:39:36
2	Ca 317.933Radial†	3710.4	3757.3	5175.4	ug/L	5175.4	ppb	19:39:56
2	Fe 238.204 Radial†	691.6	692.3	5217.5	ug/L	5217.5	ppb	19:39:56
2	K 766.490 Radial†	32787.8	30501.9	5110.3	ug/L	5110.3	ppb	19:39:36
2	Mg 279.077 IEC†	180.8	182.6	5211.2	ug/L	5211.2	ppb	19:39:56
2	Na 589.592 Radial†	39309.1	41490.2	10100	ug/L	10100	ppb	19:39:36
2	Sr 421.552†	90555.9	92033.0	508.31	ug/L	508.31	ppb	19:39:36
2	Sc 361.383	939743.7	939743.7	100.65	%			19:40:57
2	Y 371.029	795680.2	795680.2	99.117	%			19:40:57
2	Ag 328.068†	123277.2	122166.6	500.58	ug/L	500.58	ppb	19:40:57
2	As 188.979†	1441.7	1464.1	502.08	ug/L	502.08	ppb	19:41:17
2	B 249.677†	25590.4	26207.7	504.88	ug/L	504.88	ppb	19:40:57
2	Ba 233.527†	78005.6	77508.8	503.67	ug/L	503.67	ppb	19:40:57
2	Be 313.107†	1580785.7	1575419.3	501.68	ug/L	501.68	ppb	19:40:57
2	Cd 226.502†	54823.1	54709.2	502.73	ug/L	502.73	ppb	19:40:57
2	Co 228.616†	29648.6	29549.5	492.58	ug/L	492.58	ppb	19:41:17
2	Cr 267.716†	52582.2	52162.4	500.26	ug/L	500.26	ppb	19:40:57
2	Cu 324.752†	195282.7	187454.1	500.34	ug/L	500.34	ppb	19:40:57
2	Mn 257.610†	540167.7	536204.6	502.37	ug/L	502.37	ppb	19:40:57
2	Mo 202.031†	8689.1	8607.6	496.23	ug/L	496.23	ppb	19:41:17
2	Ni 231.604†	24106.7	23848.7	492.99	ug/L	492.99	ppb	19:41:17

2	P 214.914†	5389.6	5108.5	2393.6 ug/L	2393.6 ppb	19:41:17
2	Pb 220.353†	4994.4	5044.9	498.67 ug/L	498.67 ppb	19:41:17
2	S 181.975 Axial†	930.4	869.5	991.57 ug/L	991.57 ppb	19:41:17
2	Sb 206.836†	1795.3	1742.7	498.13 ug/L	498.13 ppb	19:41:17
2	Se 196.026†	942.8	969.4	511.97 ug/L	511.97 ppb	19:41:17
2	Si 251.611†	96601.2	95364.1	2513.0 ug/L	2513.0 ppb	19:40:57
2	Sn 189.927†	3558.0	3529.5	498.32 ug/L	498.32 ppb	19:41:17
2	Ti 334.940†	362224.7	361411.7	498.27 ug/L	498.27 ppb	19:40:57
2	Tl 190.801†	1963.5	1989.0	497.40 ug/L	497.40 ppb	19:41:17
2	U 409.014†	15477.3	18005.5	479.25 ug/L	479.25 ppb	19:40:57
2	V 292.402†	81672.6	82744.3	504.20 ug/L	504.20 ppb	19:40:57
2	Zn 213.857†	65980.6	64778.0	497.52 ug/L	497.52 ppb	19:40:57
2	SiO2†	96738.4	95467.5	5359.2 ug/L	5359.2 ppb	19:41:55
3	Sc Radial	5545.3	5545.3	97.7 %		19:40:01
3	Y RADIAL	6047.2	6047.2	96.95 %		19:40:01
3	Al 396.153Radial†	7130.9	7301.5	5029.6 ug/L	5029.6 ppb	19:40:01
3	Ca 317.933Radial†	3669.7	3741.7	5153.8 ug/L	5153.8 ppb	19:40:21
3	Fe 238.204 Radial†	681.8	687.1	5178.8 ug/L	5178.8 ppb	19:40:21
3	K 766.490 Radial†	32581.2	30519.9	5113.3 ug/L	5113.3 ppb	19:40:01
3	Mg 279.077 IEC†	182.2	185.3	5287.5 ug/L	5287.5 ppb	19:40:21
3	Na 589.592 Radial†	38691.5	41133.4	10013 ug/L	10013 ppb	19:40:01
3	Sr 421.552†	89446.4	91531.4	505.54 ug/L	505.54 ppb	19:40:01
3	Sc 361.383	934267.7	934267.7	100.06 %		19:41:25
3	Y 371.029	789568.2	789568.2	98.356 %		19:41:25
3	Ag 328.068†	122347.3	121955.2	499.70 ug/L	499.70 ppb	19:41:25
3	As 188.979†	1447.3	1478.1	506.84 ug/L	506.84 ppb	19:41:45
3	B 249.677†	25402.3	26168.7	504.11 ug/L	504.11 ppb	19:41:25
3	Ba 233.527†	77493.2	77450.9	503.29 ug/L	503.29 ppb	19:41:25
3	Be 313.107†	1565162.4	1569011.2	499.64 ug/L	499.64 ppb	19:41:25
3	Cd 226.502†	54399.2	54604.8	501.78 ug/L	501.78 ppb	19:41:25
3	Co 228.616†	29812.4	29885.8	498.19 ug/L	498.19 ppb	19:41:45
3	Cr 267.716†	52108.5	51995.2	498.66 ug/L	498.66 ppb	19:41:25
3	Cu 324.752†	193967.5	187277.0	499.87 ug/L	499.87 ppb	19:41:25
3	Mn 257.610†	537097.5	536282.0	502.43 ug/L	502.43 ppb	19:41:25
3	Mo 202.031†	8702.6	8671.7	499.92 ug/L	499.92 ppb	19:41:45
3	Ni 231.604†	24144.0	24026.4	496.67 ug/L	496.67 ppb	19:41:45
3	P 214.914†	5426.1	5176.3	2426.6 ug/L	2426.6 ppb	19:41:45
3	Pb 220.353†	5046.6	5126.2	506.68 ug/L	506.68 ppb	19:41:45
3	S 181.975 Axial†	927.5	872.0	994.45 ug/L	994.45 ppb	19:41:45
3	Sb 206.836†	1798.1	1756.0	502.05 ug/L	502.05 ppb	19:41:45
3	Se 196.026†	946.1	978.2	516.35 ug/L	516.35 ppb	19:41:45
3	Si 251.611†	96064.7	95390.6	2513.6 ug/L	2513.6 ppb	19:41:25
3	Sn 189.927†	3560.8	3553.0	501.64 ug/L	501.64 ppb	19:41:45
3	Ti 334.940†	360121.1	361418.9	498.28 ug/L	498.28 ppb	19:41:25
3	Tl 190.801†	1987.6	2024.5	506.20 ug/L	506.20 ppb	19:41:45
3	U 409.014†	15386.1	18004.4	479.23 ug/L	479.23 ppb	19:41:25
3	V 292.402†	81067.5	82615.2	503.48 ug/L	503.48 ppb	19:41:25
3	Zn 213.857†	65586.9	64768.8	497.43 ug/L	497.43 ppb	19:41:25
3	SiO2†	96422.4	95715.1	5373.0 ug/L	5373.0 ppb	19:42:00

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	936997.1	100.35	%	0.293				0.29%
Sc Radial	5584.6	98.4	%	0.70				0.72%
Y 371.029	792690.3	98.745	%	0.3809				0.39%
Y RADIAL	6091.4	97.66	%	0.722				0.74%
Ag 328.068†	122273.7	501.01	ug/L	1.564	501.01	ppb	1.564	0.31%
QC value within limits for Ag 328.068 Recovery = 100.20%								
Al 396.153Radial†	7313.5	5037.9	ug/L	18.17	5037.9	ppb	18.17	0.36%
QC value within limits for Al 396.153Radial Recovery = 100.76%								
As 188.979†	1469.3	503.85	ug/L	2.603	503.85	ppb	2.603	0.52%
QC value within limits for As 188.979 Recovery = 100.77%								
B 249.677†	26190.1	504.53	ug/L	0.387	504.53	ppb	0.387	0.08%
QC value within limits for B 249.677 Recovery = 100.91%								
Ba 233.527†	77529.7	503.80	ug/L	0.594	503.80	ppb	0.594	0.12%
QC value within limits for Ba 233.527 Recovery = 100.76%								
Be 313.107†	1575174.7	501.60	ug/L	1.922	501.60	ppb	1.922	0.38%
QC value within limits for Be 313.107 Recovery = 100.32%								
Ca 317.933Radial†	3738.7	5149.7	ug/L	27.96	5149.7	ppb	27.96	0.54%

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   QC value within limits for Ca 317.933Radial  Recovery = 102.99%
Cd 226.502†            54708.6      502.73 ug/L         0.952      502.73 ppb          0.952   0.19%
   QC value within limits for Cd 226.502  Recovery = 100.55%
Co 228.616†            29747.4      495.88 ug/L         2.937      495.88 ppb          2.937   0.59%
   QC value within limits for Co 228.616  Recovery = 99.18%
Cr 267.716†            52122.4      499.88 ug/L         1.081      499.88 ppb          1.081   0.22%
   QC value within limits for Cr 267.716  Recovery = 99.98%
Cu 324.752†           187598.0      500.73 ug/L         1.099      500.73 ppb          1.099   0.22%
   QC value within limits for Cu 324.752  Recovery = 100.15%
Fe 238.204 Radial†       688.6      5189.7 ug/L        24.24      5189.7 ppb         24.24   0.47%
   QC value within limits for Fe 238.204 Radial  Recovery = 103.79%
K 766.490 Radial†      30468.2      5104.7 ug/L        12.48      5104.7 ppb         12.48   0.24%
   QC value within limits for K 766.490 Radial  Recovery = 102.09%
Mg 279.077 IEC†          182.1      5197.7 ug/L        97.35      5197.7 ppb         97.35   1.87%
   QC value within limits for Mg 279.077 IEC  Recovery = 103.95%
Mn 257.610†           536757.0      502.88 ug/L         0.834      502.88 ppb          0.834   0.17%
   QC value within limits for Mn 257.610  Recovery = 100.58%
Mo 202.031†             8657.1      499.07 ug/L         2.530      499.07 ppb          2.530   0.51%
   QC value within limits for Mo 202.031  Recovery = 99.81%
Na 589.592 Radial†     41228.7       10036 ug/L          55.8       10036 ppb           55.8   0.56%
   QC value within limits for Na 589.592 Radial  Recovery = 100.36%
Ni 231.604†            23965.1      495.40 ug/L         2.085      495.40 ppb          2.085   0.42%
   QC value within limits for Ni 231.604  Recovery = 99.08%
P 214.914†              5147.0      2412.2 ug/L        16.87      2412.2 ppb         16.87   0.70%
   QC value within limits for P 214.914  Recovery = 96.49%
Pb 220.353†             5093.7      503.48 ug/L         4.242      503.48 ppb          4.242   0.84%
   QC value within limits for Pb 220.353  Recovery = 100.70%
S 181.975 Axial†         871.3      993.64 ug/L         1.807      993.64 ppb          1.807   0.18%
   QC value within limits for S 181.975 Axial  Recovery = 99.36%
Sb 206.836†             1753.9      501.40 ug/L         3.000      501.40 ppb          3.000   0.60%
   QC value within limits for Sb 206.836  Recovery = 100.28%
Se 196.026†              978.9      516.76 ug/L         5.000      516.76 ppb          5.000   0.97%
   QC value within limits for Se 196.026  Recovery = 103.35%
Si 251.611†            95433.6      2514.8 ug/L          2.57      2514.8 ppb           2.57   0.10%
   QC value within limits for Si 251.611  Recovery = 100.59%
Sn 189.927†             3544.5      500.44 ug/L         1.840      500.44 ppb          1.840   0.37%
   QC value within limits for Sn 189.927  Recovery = 100.09%
Sr 421.552†            91702.7      506.49 ug/L         1.580      506.49 ppb          1.580   0.31%
   QC value within limits for Sr 421.552  Recovery = 101.30%
Ti 334.940†           361733.9      498.71 ug/L         0.759      498.71 ppb          0.759   0.15%
   QC value within limits for Ti 334.940  Recovery = 99.74%
Tl 190.801†             2014.4      503.71 ug/L         5.500      503.71 ppb          5.500   1.09%
   QC value within limits for Tl 190.801  Recovery = 100.74%
U 409.014†             18037.4      480.11 ug/L         1.505      480.11 ppb          1.505   0.31%
   QC value within limits for U 409.014  Recovery = 96.02%
V 292.402†             82832.1      504.77 ug/L         1.653      504.77 ppb          1.653   0.33%
   QC value within limits for V 292.402  Recovery = 100.95%
Zn 213.857†            64854.7      498.10 ug/L         1.088      498.10 ppb          1.088   0.22%
   QC value within limits for Zn 213.857  Recovery = 99.62%
SiO2†                  95441.7      5357.6 ug/L        16.21      5357.6 ppb         16.21   0.30%
   QC value within limits for SiO2  Recovery = 100.19%
All analyte(s) passed QC.
```

Sequence No.: 5
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 12/23/2009 19:44:11
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5405.0	5405.0	95.3	%			19:46:04
1	Y RADIAL	5944.5	5944.5	95.31	%			19:46:04
1	Al 396.153Radial†	-24.1	-20.1	-13.886	ug/L	-13.886	ppb	19:46:04
1	Ca 317.933Radial†	17.7	5.4	7.4905	ug/L	7.4905	ppb	19:46:24
1	Fe 238.204 Radial†	12.2	2.4	17.706	ug/L	17.706	ppb	19:46:24
1	K 766.490 Radial†	2836.3	160.4	26.921	ug/L	26.921	ppb	19:46:04
1	Mg 279.077 IEC†	2.6	1.6	44.556	ug/L	44.556	ppb	19:46:24
1	Na 589.592 Radial†	-1495.8	-25.7	-6.2611	ug/L	-6.2611	ppb	19:46:04
1	Sr 421.552†	-8.0	2.0	0.0111	ug/L	0.0111	ppb	19:46:04
1	Sc 361.383	899647.5	899647.5	96.353	%			19:47:20
1	Y 371.029	806269.9	806269.9	100.44	%			19:47:20
1	Ag 328.068†	473.8	173.7	0.7131	ug/L	0.7131	ppb	19:47:20
1	As 188.979†	-31.2	-0.7	-0.2347	ug/L	-0.2347	ppb	19:47:40
1	B 249.677†	-201.9	572.2	11.064	ug/L	11.064	ppb	19:47:20
1	Ba 233.527†	-1.5	3.1	0.0202	ug/L	0.0202	ppb	19:47:40
1	Be 313.107†	-4775.4	-159.3	-0.0507	ug/L	-0.0507	ppb	19:47:20
1	Cd 226.502†	-224.9	5.1	0.0451	ug/L	0.0451	ppb	19:47:40
1	Co 228.616†	-83.8	4.4	0.0743	ug/L	0.0743	ppb	19:47:40
1	Cr 267.716†	138.5	62.1	0.5944	ug/L	0.5944	ppb	19:47:20
1	Cu 324.752†	6604.2	281.2	0.7509	ug/L	0.7509	ppb	19:47:20
1	Mn 257.610†	485.9	14.1	0.0141	ug/L	0.0141	ppb	19:47:40
1	Mo 202.031†	29.7	5.2	0.2999	ug/L	0.2999	ppb	19:47:40
1	Ni 231.604†	108.9	10.1	0.2087	ug/L	0.2087	ppb	19:47:40
1	P 214.914†	245.2	8.1	3.7790	ug/L	3.7790	ppb	19:47:40
1	Pb 220.353†	-67.6	12.5	1.2291	ug/L	1.2291	ppb	19:47:40
1	S 181.975 Axial†	49.1	-4.0	-4.5825	ug/L	-4.5825	ppb	19:47:40
1	Sb 206.836†	43.3	3.9	1.1216	ug/L	1.1216	ppb	19:47:40
1	Se 196.026†	-30.1	1.4	0.7880	ug/L	0.7880	ppb	19:47:40
1	Si 251.611†	675.3	85.0	2.2298	ug/L	2.2298	ppb	19:47:40
1	Sn 189.927†	17.8	12.9	1.8146	ug/L	1.8146	ppb	19:47:40
1	Ti 334.940†	-1467.3	-6.9	-0.0090	ug/L	-0.0090	ppb	19:47:20
1	Tl 190.801†	-48.9	-12.6	-3.1224	ug/L	-3.1224	ppb	19:47:40
1	U 409.014†	-2559.9	-29.2	-0.7834	ug/L	-0.7834	ppb	19:47:20
1	V 292.402†	-1562.3	-24.7	-0.1475	ug/L	-0.1475	ppb	19:47:20
1	Zn 213.857†	798.6	50.4	0.3857	ug/L	0.3857	ppb	19:47:40
1	SiO2†	659.2	35.2	1.9441	ug/L	1.9441	ppb	19:48:37
2	Sc Radial	5737.9	5737.9	101	%			19:46:29
2	Y RADIAL	6302.3	6302.3	101.0	%			19:46:29
2	Al 396.153Radial†	-23.1	-17.7	-12.255	ug/L	-12.255	ppb	19:46:29
2	Ca 317.933Radial†	14.7	1.4	1.9224	ug/L	1.9224	ppb	19:46:49
2	Fe 238.204 Radial†	11.6	1.1	7.9666	ug/L	7.9666	ppb	19:46:49
2	K 766.490 Radial†	2880.4	31.3	5.2467	ug/L	5.2467	ppb	19:46:29
2	Mg 279.077 IEC†	4.0	2.8	79.039	ug/L	79.039	ppb	19:46:49
2	Na 589.592 Radial†	-1464.3	96.5	23.498	ug/L	23.498	ppb	19:46:29
2	Sr 421.552†	9.2	19.6	0.1080	ug/L	0.1080	ppb	19:46:29
2	Sc 361.383	897250.3	897250.3	96.096	%			19:47:46
2	Y 371.029	802208.6	802208.6	99.930	%			19:47:46
2	Ag 328.068†	322.3	17.4	0.0843	ug/L	0.0843	ppb	19:47:46
2	As 188.979†	-30.0	0.5	0.1609	ug/L	0.1609	ppb	19:48:06
2	B 249.677†	-187.0	587.1	11.353	ug/L	11.353	ppb	19:47:46
2	Ba 233.527†	-6.3	-1.9	-0.0110	ug/L	-0.0110	ppb	19:48:06
2	Be 313.107†	-4593.7	16.5	0.0054	ug/L	0.0054	ppb	19:47:46
2	Cd 226.502†	-222.8	6.7	0.0606	ug/L	0.0606	ppb	19:48:06
2	Co 228.616†	-83.6	4.5	0.0762	ug/L	0.0762	ppb	19:48:06
2	Cr 267.716†	107.8	30.5	0.2964	ug/L	0.2964	ppb	19:47:46
2	Cu 324.752†	6509.2	200.6	0.5354	ug/L	0.5354	ppb	19:47:46
2	Mn 257.610†	509.9	40.4	0.0371	ug/L	0.0371	ppb	19:48:06
2	Mo 202.031†	37.8	13.7	0.7924	ug/L	0.7924	ppb	19:48:06
2	Ni 231.604†	113.6	15.3	0.3162	ug/L	0.3162	ppb	19:48:06

2	P 214.914†	264.7	28.9	13.894 ug/L	13.894 ppb	19:48:06
2	Pb 220.353†	-79.2	0.2	0.0216 ug/L	0.0216 ppb	19:48:06
2	S 181.975 Axial†	57.9	5.3	6.0755 ug/L	6.0755 ppb	19:48:06
2	Sb 206.836†	44.6	5.4	1.5307 ug/L	1.5307 ppb	19:48:06
2	Se 196.026†	-34.7	-3.5	-1.7433 ug/L	-1.7433 ppb	19:48:06
2	Si 251.611†	661.6	72.5	1.9047 ug/L	1.9047 ppb	19:48:06
2	Sn 189.927†	6.3	1.0	0.1351 ug/L	0.1351 ppb	19:48:06
2	Ti 334.940†	-1403.7	55.2	0.0808 ug/L	0.0808 ppb	19:47:46
2	Tl 190.801†	-45.4	-9.1	-2.2687 ug/L	-2.2687 ppb	19:48:06
2	U 409.014†	-2908.8	-399.4	-10.667 ug/L	-10.667 ppb	19:47:46
2	V 292.402†	-1463.2	74.2	0.4369 ug/L	0.4369 ppb	19:47:46
2	Zn 213.857†	798.5	52.5	0.4012 ug/L	0.4012 ppb	19:48:06
2	SiO2†	693.0	72.2	4.0390 ug/L	4.0390 ppb	19:48:42
3	Sc Radial	5590.4	5590.4	98.5 %		19:46:54
3	Y RADIAL	6148.1	6148.1	98.57 %		19:46:54
3	Al 396.153Radial†	-34.5	-29.9	-20.651 ug/L	-20.651 ppb	19:46:54
3	Ca 317.933Radial†	19.1	6.2	8.5994 ug/L	8.5994 ppb	19:47:14
3	Fe 238.204 Radial†	11.5	1.2	9.0374 ug/L	9.0374 ppb	19:47:14
3	K 766.490 Radial†	2976.8	204.3	34.287 ug/L	34.287 ppb	19:46:54
3	Mg 279.077 IEC†	1.0	-0.2	-4.8945 ug/L	-4.8945 ppb	19:47:14
3	Na 589.592 Radial†	-1512.3	9.6	2.3393 ug/L	2.3393 ppb	19:46:54
3	Sr 421.552†	19.2	30.0	0.1655 ug/L	0.1655 ppb	19:46:54
3	Sc 361.383	894224.3	894224.3	95.772 %		19:48:11
3	Y 371.029	796606.9	796606.9	99.232 %		19:48:11
3	Ag 328.068†	379.4	78.1	0.3280 ug/L	0.3280 ppb	19:48:11
3	As 188.979†	-30.3	0.1	0.0144 ug/L	0.0144 ppb	19:48:31
3	B 249.677†	-229.1	542.5	10.491 ug/L	10.491 ppb	19:48:11
3	Ba 233.527†	-0.8	3.9	0.0252 ug/L	0.0252 ppb	19:48:31
3	Be 313.107†	-4770.4	-184.2	-0.0588 ug/L	-0.0588 ppb	19:48:11
3	Cd 226.502†	-237.0	-8.9	-0.0831 ug/L	-0.0831 ppb	19:48:31
3	Co 228.616†	-95.2	-8.0	-0.1327 ug/L	-0.1327 ppb	19:48:31
3	Cr 267.716†	121.0	44.7	0.4305 ug/L	0.4305 ppb	19:48:11
3	Cu 324.752†	6597.6	315.7	0.8428 ug/L	0.8428 ppb	19:48:11
3	Mn 257.610†	480.2	11.2	0.0115 ug/L	0.0115 ppb	19:48:31
3	Mo 202.031†	24.7	0.2	0.0114 ug/L	0.0114 ppb	19:48:31
3	Ni 231.604†	97.7	-1.0	-0.0196 ug/L	-0.0196 ppb	19:48:31
3	P 214.914†	276.6	42.4	20.342 ug/L	20.342 ppb	19:48:31
3	Pb 220.353†	-84.9	-6.0	-0.5953 ug/L	-0.5953 ppb	19:48:31
3	S 181.975 Axial†	58.8	6.5	7.3894 ug/L	7.3894 ppb	19:48:31
3	Sb 206.836†	45.4	6.4	1.7939 ug/L	1.7939 ppb	19:48:31
3	Se 196.026†	-29.8	1.6	0.8286 ug/L	0.8286 ppb	19:48:31
3	Si 251.611†	662.0	75.3	1.9808 ug/L	1.9808 ppb	19:48:31
3	Sn 189.927†	7.0	1.7	0.2389 ug/L	0.2389 ppb	19:48:31
3	Ti 334.940†	-1548.0	-100.4	-0.1344 ug/L	-0.1344 ppb	19:48:11
3	Tl 190.801†	-51.1	-15.2	-3.7777 ug/L	-3.7777 ppb	19:48:31
3	U 409.014†	-2825.1	-322.1	-8.6055 ug/L	-8.6055 ppb	19:48:11
3	V 292.402†	-1541.5	-12.8	-0.0948 ug/L	-0.0948 ppb	19:48:11
3	Zn 213.857†	808.7	66.0	0.5097 ug/L	0.5097 ppb	19:48:31
3	SiO2†	686.0	67.3	3.7673 ug/L	3.7673 ppb	19:48:47

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	897040.7	96.074	%	0.2911				0.30%
Sc Radial	5577.8	98.3	%	2.94				2.99%
Y 371.029	801695.1	99.866	%	0.6044				0.61%
Y RADIAL	6131.6	98.31	%	2.877				2.93%
Ag 328.068†	89.7	0.3751	ug/L	0.31702	0.3751	ppb	0.31702	84.51%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-22.5	-15.597	ug/L	4.4523	-15.597	ppb	4.4523	28.55%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-0.0	-0.0198	ug/L	0.20000	-0.0198	ppb	0.20000	>999.9%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	567.3	10.969	ug/L	0.4388	10.969	ppb	0.4388	4.00%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	1.7	0.0115	ug/L	0.01959	0.0115	ppb	0.01959	170.88%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-109.0	-0.0347	ug/L	0.03495	-0.0347	ppb	0.03495	100.75%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	4.4	6.0041	ug/L	3.57808	6.0041	ppb	3.57808	59.59%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                0.9      0.0075 ug/L       0.07888      0.0075 ppb        0.07888 >999.9%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                0.3      0.0060 ug/L       0.12004      0.0060 ppb        0.12004 >999.9%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†               45.7      0.4404 ug/L       0.14925      0.4404 ppb        0.14925  33.89%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              265.8      0.7097 ug/L       0.15777      0.7097 ppb        0.15777  22.23%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         1.5     11.570 ug/L        5.3407     11.570 ppb         5.3407  46.16%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        132.0     22.151 ug/L       15.0961     22.151 ppb        15.0961  68.15%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            1.4     39.567 ug/L       42.1888     39.567 ppb        42.1888 106.63%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               21.9      0.0209 ug/L       0.01411      0.0209 ppb        0.01411  67.48%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                6.4      0.3679 ug/L       0.39490      0.3679 ppb        0.39490 107.34%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        26.8      6.5255 ug/L      15.31505      6.5255 ppb       15.31505 234.69%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                8.1      0.1684 ug/L       0.17148      0.1684 ppb        0.17148 101.80%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                26.5     12.672 ug/L        8.3488     12.672 ppb         8.3488  65.89%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                2.3      0.2185 ug/L       0.92797      0.2185 ppb        0.92797 424.78%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           2.6      2.9608 ug/L       6.56564      2.9608 ppb        6.56564 221.75%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                5.2      1.4820 ug/L       0.33878      1.4820 ppb        0.33878  22.86%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               -0.2     -0.0422 ug/L       1.47330     -0.0422 ppb        1.47330 >999.9%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†               77.6      2.0384 ug/L       0.17004      2.0384 ppb        0.17004   8.34%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                5.2      0.7295 ug/L       0.94117      0.7295 ppb        0.94117 129.01%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               17.2      0.0949 ug/L       0.07803      0.0949 ppb        0.07803  82.26%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              -17.4     -0.0209 ug/L       0.10808     -0.0209 ppb        0.10808 518.22%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -12.3     -3.0562 ug/L       0.75666     -3.0562 ppb        0.75666  24.76%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -250.2     -6.6855 ug/L       5.21425     -6.6855 ppb        5.21425  77.99%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                12.2      0.0649 ug/L       0.32326      0.0649 ppb        0.32326 498.12%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               56.3      0.4322 ug/L       0.06756      0.4322 ppb        0.06756  15.63%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                     58.2      3.2502 ug/L       1.13916      3.2502 ppb        1.13916  35.05%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

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Analysis Begun

Start Time: 12/23/2009 19:49:26 **Plasma On Time: 12/14/2009 06:02:42**
Logged In Analyst: Optima3 **Technique: ICP Continuous**
Spectrometer Model: Optima 5300 DV, S/N 077C7090601Autosampler Model: S10

Sample Information File: C:\pe\Optima3\Sample Information\122309.SIF
Batch ID:
Results Data Set: 122309
Results Library: C:\pe\Optima3\Results\Results.mdb

==========

Sequence No.: 1 **Autosampler Location: 38**
Sample ID: 1202000827|935146|1 **Date Collected: 12/23/2009 19:49:27**
Analyst: JWJ **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: 1202000827|935146|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5641.8	5641.8	99.4	%			19:51:19
1	Y RADIAL	6183.1	6183.1	99.13	%			19:51:19
1	Al 396.153Radial†	4.3	9.5	6.5742	ug/L	6.5742	ppb	19:51:19
1	Ca 317.933Radial†	27.9	14.9	20.567	ug/L	20.567	ppb	19:51:39
1	Fe 238.204 Radial†	15.2	4.8	36.358	ug/L	36.358	ppb	19:51:39
1	K 766.490 Radial†	2856.2	55.5	9.2941	ug/L	9.2941	ppb	19:51:19
1	Mg 279.077 IEC†	1.4	0.2	6.2023	ug/L	6.2023	ppb	19:51:39
1	Na 589.592 Radial†	-1382.8	153.8	37.443	ug/L	37.443	ppb	19:51:19
1	Sr 421.552†	21.0	31.5	0.1740	ug/L	0.1740	ppb	19:51:19
1	Sc 361.383	920625.3	920625.3	98.599	%			19:52:36
1	Y 371.029	790552.2	790552.2	98.478	%			19:52:36
1	Ag 328.068†	334.2	20.9	0.0990	ug/L	0.0990	ppb	19:52:36
1	As 188.979†	-32.0	-0.8	-0.2779	ug/L	-0.2779	ppb	19:52:56
1	B 249.677†	-225.7	552.9	10.687	ug/L	10.687	ppb	19:52:36
1	Ba 233.527†	1.2	6.0	0.0402	ug/L	0.0402	ppb	19:52:56
1	Be 313.107†	-4712.4	17.5	0.0057	ug/L	0.0057	ppb	19:52:36
1	Cd 226.502†	-223.9	11.4	0.1016	ug/L	0.1016	ppb	19:52:56
1	Co 228.616†	-81.9	8.4	0.1397	ug/L	0.1397	ppb	19:52:56
1	Cr 267.716†	152.0	72.4	0.6951	ug/L	0.6951	ppb	19:52:56
1	Cu 324.752†	6662.5	184.0	0.4928	ug/L	0.4928	ppb	19:52:36
1	Mn 257.610†	866.3	388.4	0.3671	ug/L	0.3671	ppb	19:52:56
1	Mo 202.031†	32.4	7.3	0.4229	ug/L	0.4229	ppb	19:52:56
1	Ni 231.604†	114.4	13.1	0.2703	ug/L	0.2703	ppb	19:52:56
1	P 214.914†	254.0	11.1	5.2780	ug/L	5.2780	ppb	19:52:56
1	Pb 220.353†	-61.1	20.7	2.0396	ug/L	2.0396	ppb	19:52:56
1	S 181.975 Axial†	66.9	12.9	14.732	ug/L	14.732	ppb	19:52:56
1	Sb 206.836†	45.7	5.4	1.5361	ug/L	1.5361	ppb	19:52:56
1	Se 196.026†	-31.8	0.4	0.3048	ug/L	0.3048	ppb	19:52:56
1	Si 251.611†	1237.6	639.3	16.910	ug/L	16.910	ppb	19:52:56
1	Sn 189.927†	17.3	11.9	1.6812	ug/L	1.6812	ppb	19:52:56
1	Ti 334.940†	-1448.5	46.8	0.0659	ug/L	0.0659	ppb	19:52:36
1	Tl 190.801†	-41.1	-3.6	-0.8859	ug/L	-0.8859	ppb	19:52:56
1	U 409.014†	-2627.1	-36.8	-0.9882	ug/L	-0.9882	ppb	19:52:36
1	V 292.402†	-1523.8	51.3	0.3070	ug/L	0.3070	ppb	19:52:36
1	Zn 213.857†	1027.0	263.2	2.0339	ug/L	2.0339	ppb	19:52:56
1	SiO2†	1253.2	622.0	35.053	ug/L	35.053	ppb	19:53:52
2	Sc Radial	5598.5	5598.5	98.7	%			19:51:44
2	Y RADIAL	6171.2	6171.2	98.94	%			19:51:44
2	Al 396.153Radial†	-27.4	-22.6	-15.632	ug/L	-15.632	ppb	19:51:44
2	Ca 317.933Radial†	28.4	15.7	21.577	ug/L	21.577	ppb	19:52:04
2	Fe 238.204 Radial†	15.3	5.1	38.011	ug/L	38.011	ppb	19:52:04
2	K 766.490 Radial†	2979.2	202.3	33.934	ug/L	33.934	ppb	19:51:44
2	Mg 279.077 IEC†	1.6	0.4	12.285	ug/L	12.285	ppb	19:52:04
2	Na 589.592 Radial†	-1407.7	117.8	28.673	ug/L	28.673	ppb	19:51:44
2	Sr 421.552†	-22.6	-12.4	-0.0688	ug/L	-0.0688	ppb	19:51:44
2	Sc 361.383	924821.5	924821.5	99.049	%			19:53:01
2	Y 371.029	793898.3	793898.3	98.895	%			19:53:01

2	Ag 328.068†	424.4	110.4	0.4710 ug/L	0.4710 ppb	19:53:01
2	As 188.979†	-28.5	2.9	0.9761 ug/L	0.9761 ppb	19:53:21
2	B 249.677†	-222.8	556.8	10.763 ug/L	10.763 ppb	19:53:01
2	Ba 233.527†	5.0	9.7	0.0655 ug/L	0.0655 ppb	19:53:21
2	Be 313.107†	-4692.2	59.6	0.0194 ug/L	0.0194 ppb	19:53:01
2	Cd 226.502†	-230.7	5.6	0.0480 ug/L	0.0480 ppb	19:53:21
2	Co 228.616†	-87.1	3.5	0.0580 ug/L	0.0580 ppb	19:53:21
2	Cr 267.716†	136.5	56.1	0.5412 ug/L	0.5412 ppb	19:53:21
2	Cu 324.752†	6676.8	167.8	0.4497 ug/L	0.4497 ppb	19:53:01
2	Mn 257.610†	871.3	389.5	0.3682 ug/L	0.3682 ppb	19:53:21
2	Mo 202.031†	28.4	3.1	0.1827 ug/L	0.1827 ppb	19:53:21
2	Ni 231.604†	114.4	12.5	0.2582 ug/L	0.2582 ppb	19:53:21
2	P 214.914†	248.8	4.7	2.1725 ug/L	2.1725 ppb	19:53:21
2	Pb 220.353†	-81.6	0.2	0.0163 ug/L	0.0163 ppb	19:53:21
2	S 181.975 Axial†	62.2	7.9	9.0123 ug/L	9.0123 ppb	19:53:21
2	Sb 206.836†	40.8	0.1	0.0515 ug/L	0.0515 ppb	19:53:21
2	Se 196.026†	-37.9	-5.7	-2.7661 ug/L	-2.7661 ppb	19:53:21
2	Si 251.611†	1258.3	654.4	17.308 ug/L	17.308 ppb	19:53:21
2	Sn 189.927†	14.6	9.1	1.2922 ug/L	1.2922 ppb	19:53:21
2	Ti 334.940†	-1315.2	188.1	0.2636 ug/L	0.2636 ppb	19:53:01
2	Tl 190.801†	-44.4	-6.6	-1.6479 ug/L	-1.6479 ppb	19:53:21
2	U 409.014†	-2887.1	-287.2	-7.6749 ug/L	-7.6749 ppb	19:53:01
2	V 292.402†	-1479.9	102.6	0.5989 ug/L	0.5989 ppb	19:53:01
2	Zn 213.857†	1025.0	256.4	1.9813 ug/L	1.9813 ppb	19:53:21
2	SiO2†	1275.6	638.9	35.997 ug/L	35.997 ppb	19:53:57
3	Sc Radial	5650.7	5650.7	99.6 %		19:52:09
3	Y RADIAL	6168.5	6168.5	98.90 %		19:52:09
3	Al 396.153Radial†	-30.5	-25.4	-17.575 ug/L	-17.575 ppb	19:52:09
3	Ca 317.933Radial†	25.0	11.9	16.400 ug/L	16.400 ppb	19:52:29
3	Fe 238.204 Radial†	16.8	6.4	48.244 ug/L	48.244 ppb	19:52:29
3	K 766.490 Radial†	2988.6	183.9	30.827 ug/L	30.827 ppb	19:52:09
3	Mg 279.077 IEC†	2.0	0.9	24.894 ug/L	24.894 ppb	19:52:29
3	Na 589.592 Radial†	-1354.9	184.0	44.798 ug/L	44.798 ppb	19:52:09
3	Sr 421.552†	-8.3	2.1	0.0115 ug/L	0.0115 ppb	19:52:09
3	Sc 361.383	916247.4	916247.4	98.131 %		19:53:27
3	Y 371.029	786238.1	786238.1	97.941 %		19:53:27
3	Ag 328.068†	391.8	81.3	0.3520 ug/L	0.3520 ppb	19:53:27
3	As 188.979†	-21.4	9.8	3.3505 ug/L	3.3505 ppb	19:53:47
3	B 249.677†	-271.7	504.9	9.7570 ug/L	9.7570 ppb	19:53:27
3	Ba 233.527†	14.4	19.3	0.1269 ug/L	0.1269 ppb	19:53:47
3	Be 313.107†	-4720.5	-13.6	-0.0042 ug/L	-0.0042 ppb	19:53:27
3	Cd 226.502†	-225.0	9.2	0.0799 ug/L	0.0799 ppb	19:53:47
3	Co 228.616†	-83.9	6.0	0.0964 ug/L	0.0964 ppb	19:53:47
3	Cr 267.716†	149.2	70.4	0.6769 ug/L	0.6769 ppb	19:53:47
3	Cu 324.752†	6585.5	137.9	0.3703 ug/L	0.3703 ppb	19:53:27
3	Mn 257.610†	856.7	382.8	0.3627 ug/L	0.3627 ppb	19:53:47
3	Mo 202.031†	13.3	-12.0	-0.6893 ug/L	-0.6893 ppb	19:53:47
3	Ni 231.604†	124.2	23.5	0.4870 ug/L	0.4870 ppb	19:53:47
3	P 214.914†	256.0	14.4	6.9070 ug/L	6.9070 ppb	19:53:47
3	Pb 220.353†	-67.8	13.5	1.3219 ug/L	1.3219 ppb	19:53:47
3	S 181.975 Axial†	66.0	12.3	14.076 ug/L	14.076 ppb	19:53:47
3	Sb 206.836†	40.7	0.4	0.1393 ug/L	0.1393 ppb	19:53:47
3	Se 196.026†	-22.1	10.1	5.2993 ug/L	5.2993 ppb	19:53:47
3	Si 251.611†	1268.5	676.7	17.908 ug/L	17.908 ppb	19:53:47
3	Sn 189.927†	27.1	22.0	3.1039 ug/L	3.1039 ppb	19:53:47
3	Ti 334.940†	-1437.4	51.1	0.0735 ug/L	0.0735 ppb	19:53:27
3	Tl 190.801†	-48.8	-11.6	-2.8785 ug/L	-2.8785 ppb	19:53:47
3	U 409.014†	-2780.1	-205.5	-5.4946 ug/L	-5.4946 ppb	19:53:27
3	V 292.402†	-1542.3	25.1	0.1235 ug/L	0.1235 ppb	19:53:27
3	Zn 213.857†	1034.7	276.0	2.1306 ug/L	2.1306 ppb	19:53:47
3	SiO2†	1314.0	690.0	38.906 ug/L	38.906 ppb	19:54:02

Mean Data: 1202000827|935146|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	920564.8	98.593	%	0.4592				0.47%
Sc Radial	5630.4	99.2	%	0.49				0.50%
Y 371.029	790229.5	98.438	%	0.4784				0.49%
Y RADIAL	6174.3	98.99	%	0.124				0.13%
Ag 328.068†	70.9	0.3073	ug/L	0.18996	0.3073	ppb	0.18996	61.81%

Al 396.153Radial†	-12.8	-8.8779	ug/L	13.41714	-8.8779	ppb	13.41714 151.13%
As 188.979†	4.0	1.3495	ug/L	1.84279	1.3495	ppb	1.84279 136.55%
B 249.677†	538.2	10.402	ug/L	0.5601	10.402	ppb	0.5601 5.38%
Ba 233.527†	11.7	0.0775	ug/L	0.04459	0.0775	ppb	0.04459 57.51%
Be 313.107†	21.2	0.0070	ug/L	0.01187	0.0070	ppb	0.01187 170.00%
Ca 317.933Radial†	14.2	19.515	ug/L	2.7444	19.515	ppb	2.7444 14.06%
Cd 226.502†	8.7	0.0765	ug/L	0.02696	0.0765	ppb	0.02696 35.24%
Co 228.616†	6.0	0.0981	ug/L	0.04088	0.0981	ppb	0.04088 41.68%
Cr 267.716†	66.3	0.6377	ug/L	0.08407	0.6377	ppb	0.08407 13.18%
Cu 324.752†	163.3	0.4376	ug/L	0.06212	0.4376	ppb	0.06212 14.19%
Fe 238.204 Radial†	5.4	40.871	ug/L	6.4382	40.871	ppb	6.4382 15.75%
K 766.490 Radial†	147.2	24.685	ug/L	13.4193	24.685	ppb	13.4193 54.36%
Mg 279.077 IEC†	0.5	14.460	ug/L	9.5340	14.460	ppb	9.5340 65.93%
Mn 257.610†	386.9	0.3660	ug/L	0.00288	0.3660	ppb	0.00288 0.79%
Mo 202.031†	-0.6	-0.0279	ug/L	0.58525	-0.0279	ppb	0.58525 >999.9%
Na 589.592 Radial†	151.9	36.971	ug/L	8.0732	36.971	ppb	8.0732 21.84%
Ni 231.604†	16.4	0.3385	ug/L	0.12875	0.3385	ppb	0.12875 38.03%
P 214.914†	10.1	4.7858	ug/L	2.40535	4.7858	ppb	2.40535 50.26%
Pb 220.353†	11.5	1.1259	ug/L	1.02578	1.1259	ppb	1.02578 91.10%
S 181.975 Axial†	11.0	12.607	ug/L	3.1301	12.607	ppb	3.1301 24.83%
Sb 206.836†	2.0	0.5756	ug/L	0.83295	0.5756	ppb	0.83295 144.71%
Se 196.026†	1.6	0.9460	ug/L	4.07073	0.9460	ppb	4.07073 430.30%
Si 251.611†	656.8	17.375	ug/L	0.5024	17.375	ppb	0.5024 2.89%
Sn 189.927†	14.3	2.0258	ug/L	0.95375	2.0258	ppb	0.95375 47.08%
Sr 421.552†	7.1	0.0389	ug/L	0.12369	0.0389	ppb	0.12369 317.73%
Ti 334.940†	95.3	0.1343	ug/L	0.11205	0.1343	ppb	0.11205 83.40%
Tl 190.801†	-7.3	-1.8041	ug/L	1.00545	-1.8041	ppb	1.00545 55.73%
U 409.014†	-176.5	-4.7192	ug/L	3.41011	-4.7192	ppb	3.41011 72.26%
V 292.402†	59.7	0.3431	ug/L	0.23975	0.3431	ppb	0.23975 69.88%
Zn 213.857†	265.2	2.0486	ug/L	0.07571	2.0486	ppb	0.07571 3.70%
SiO2†	650.3	36.652	ug/L	2.0081	36.652	ppb	2.0081 5.48%

Sequence No.: 2
Sample ID: 1202000828|935146|2
Analyst: JWJ
Initial Sample Wt:
Dilution:

Autosampler Location: 39
Date Collected: 12/23/2009 19:56:12
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202000828|935146|2

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5698.2	5698.2	100	%			19:58:25
1	Y RADIAL	6493.3	6493.3	104.1	%			19:58:25
1	Al 396.153Radial†	66189.6	65912.1	45585	ug/L	45585	ppb	19:58:05
1	Ca 317.933Radial†	38333.2	38156.3	52557	ug/L	52557	ppb	19:58:05
1	Fe 238.204 Radial†	13883.5	13813.7	103810	ug/L	103810	ppb	19:58:05
1	K 766.490 Radial†	132932.7	129548.0	21709	ug/L	21709	ppb	19:58:05
1	Mg 279.077 IEC†	706.3	702.2	19935	ug/L	19935	ppb	19:58:25
1	Na 589.592 Radial†	19637.7	21098.3	5135.9	ug/L	5135.9	ppb	19:58:05
1	Sr 421.552†	217083.6	216166.8	1193.5	ug/L	1193.5	ppb	19:58:05
1	Sc 361.383	945100.8	945100.8	101.22	%			19:59:24
1	Y 371.029	836084.4	836084.4	104.15	%			19:59:24
1	Ag 328.068†	31759.5	31058.4	163.01	ug/L	163.01	ppb	19:59:24
1	As 188.979†	1499.3	1512.9	555.86	ug/L	555.86	ppb	19:59:44
1	B 249.677†	40071.6	40370.1	765.73	ug/L	765.73	ppb	19:59:24
1	Ba 233.527†	153611.1	151763.1	987.81	ug/L	987.81	ppb	19:59:24
1	Be 313.107†	1263955.7	1253507.9	404.37	ug/L	404.37	ppb	19:59:24
1	Cd 226.502†	33787.2	33618.2	299.11	ug/L	299.11	ppb	19:59:44
1	Co 228.616†	28655.8	28401.6	465.94	ug/L	465.94	ppb	19:59:44
1	Cr 267.716†	125665.0	124067.7	1191.0	ug/L	1191.0	ppb	19:59:24
1	Cu 324.752†	354916.6	344062.8	923.16	ug/L	923.16	ppb	19:59:24
1	Mn 257.610†	3008795.1	2972015.6	2792.1	ug/L	2792.1	ppb	19:59:24
1	Mo 202.031†	4433.5	4354.4	260.73	ug/L	260.73	ppb	19:59:44
1	Ni 231.604†	33655.2	33146.3	685.33	ug/L	685.33	ppb	19:59:24
1	P 214.914†	8940.3	8586.0	3942.2	ug/L	3942.2	ppb	19:59:44
1	Pb 220.353†	4381.9	4411.7	436.34	ug/L	436.34	ppb	19:59:44
1	S 181.975 Axial†	1729.7	1653.9	1879.1	ug/L	1879.1	ppb	19:59:44
1	Sb 206.836†	3269.2	3188.8	877.55	ug/L	877.55	ppb	19:59:44
1	Se 196.026†	2421.4	2424.8	1564.2	ug/L	1564.2	ppb	19:59:44
1	Si 251.611†	229859.6	226471.3	5982.9	ug/L	5982.9	ppb	19:59:24
1	Sn 189.927†	3766.8	3715.7	530.84	ug/L	530.84	ppb	19:59:44
1	Ti 334.940†	2230254.8	2204871.4	3042.9	ug/L	3042.9	ppb	19:59:24
1	Tl 190.801†	1811.1	1827.4	490.99	ug/L	490.99	ppb	19:59:44
1	U 409.014†	-6414.0	-3709.0	-114.41	ug/L	-114.41	ppb	19:59:24
1	V 292.402†	107784.8	108081.5	634.21	ug/L	634.21	ppb	19:59:24
1	Zn 213.857†	394178.4	388645.8	2998.6	ug/L	2998.6	ppb	19:59:24
1	SiO2†	228641.0	225234.4	12676	ug/L	12676	ppb	20:00:44
2	Sc Radial	5626.3	5626.3	99.2	%			19:58:50
2	Y RADIAL	6403.9	6403.9	102.7	%			19:58:50
2	Al 396.153Radial†	65483.6	66043.0	45676	ug/L	45676	ppb	19:58:30
2	Ca 317.933Radial†	37832.0	38139.0	52533	ug/L	52533	ppb	19:58:30
2	Fe 238.204 Radial†	13696.4	13801.8	103720	ug/L	103720	ppb	19:58:30
2	K 766.490 Radial†	131032.3	129324.2	21671	ug/L	21671	ppb	19:58:30
2	Mg 279.077 IEC†	701.6	706.3	20054	ug/L	20054	ppb	19:58:50
2	Na 589.592 Radial†	19303.7	21011.6	5114.8	ug/L	5114.8	ppb	19:58:30
2	Sr 421.552†	213351.6	215167.6	1188.0	ug/L	1188.0	ppb	19:58:30
2	Sc 361.383	944783.0	944783.0	101.19	%			19:59:51
2	Y 371.029	836466.0	836466.0	104.20	%			19:59:51
2	Ag 328.068†	31748.1	31057.8	162.97	ug/L	162.97	ppb	19:59:51
2	As 188.979†	1498.2	1512.3	555.60	ug/L	555.60	ppb	20:00:11
2	B 249.677†	39871.7	40185.8	762.18	ug/L	762.18	ppb	19:59:51
2	Ba 233.527†	153355.6	151561.6	986.50	ug/L	986.50	ppb	19:59:51
2	Be 313.107†	1263659.2	1253634.8	404.39	ug/L	404.39	ppb	19:59:51
2	Cd 226.502†	33468.9	33314.8	296.33	ug/L	296.33	ppb	20:00:11
2	Co 228.616†	28401.0	28159.3	461.92	ug/L	461.92	ppb	20:00:11
2	Cr 267.716†	125489.2	123935.7	1189.7	ug/L	1189.7	ppb	19:59:51
2	Cu 324.752†	353434.0	342715.6	919.56	ug/L	919.56	ppb	19:59:51
2	Mn 257.610†	3002822.0	2967112.3	2787.5	ug/L	2787.5	ppb	19:59:51
2	Mo 202.031†	4400.1	4322.9	258.91	ug/L	258.91	ppb	20:00:11
2	Ni 231.604†	33544.1	33047.7	683.29	ug/L	683.29	ppb	19:59:51

2	P 214.914†	8843.3	8493.1	3897.9	ug/L	3897.9 ppb	20:00:11
2	Pb 220.353†	4362.5	4394.0	434.62	ug/L	434.62 ppb	20:00:11
2	S 181.975 Axial†	1730.2	1655.0	1880.3	ug/L	1880.3 ppb	20:00:11
2	Sb 206.836†	3224.6	3145.8	865.37	ug/L	865.37 ppb	20:00:11
2	Se 196.026†	2381.5	2386.2	1544.3	ug/L	1544.3 ppb	20:00:11
2	Si 251.611†	229206.8	225902.5	5967.9	ug/L	5967.9 ppb	19:59:51
2	Sn 189.927†	3738.1	3688.6	527.02	ug/L	527.02 ppb	20:00:11
2	Ti 334.940†	2224141.1	2199570.5	3035.6	ug/L	3035.6 ppb	19:59:51
2	Tl 190.801†	1805.1	1822.1	489.61	ug/L	489.61 ppb	20:00:11
2	U 409.014†	-6328.5	-3626.7	-112.20	ug/L	-112.20 ppb	19:59:51
2	V 292.402†	107581.3	107916.3	633.22	ug/L	633.22 ppb	19:59:51
2	Zn 213.857†	393411.2	388018.6	2993.8	ug/L	2993.8 ppb	19:59:51
2	SiO2†	227438.0	224121.5	12613	ug/L	12613 ppb	20:00:49
3	Sc Radial	5558.4	5558.4	98.0	%		19:59:15
3	Y RADIAL	6335.8	6335.8	101.6	%		19:59:15
3	Al 396.153Radial†	65787.3	67159.6	46448	ug/L	46448 ppb	19:58:55
3	Ca 317.933Radial†	38054.3	38832.0	53487	ug/L	53487 ppb	19:58:55
3	Fe 238.204 Radial†	13795.2	14071.4	105750	ug/L	105750 ppb	19:58:55
3	K 766.490 Radial†	132185.5	132115.5	22140	ug/L	22140 ppb	19:58:55
3	Mg 279.077 IEC†	718.2	732.0	20784	ug/L	20784 ppb	19:59:15
3	Na 589.592 Radial†	19611.0	21563.1	5249.0	ug/L	5249.0 ppb	19:58:55
3	Sr 421.552†	215590.6	220081.3	1215.2	ug/L	1215.2 ppb	19:58:55
3	Sc 361.383	939738.0	939738.0	100.65	%		20:00:18
3	Y 371.029	832708.3	832708.3	103.73	%		20:00:18
3	Ag 328.068†	31673.0	31151.5	164.02	ug/L	164.02 ppb	20:00:18
3	As 188.979†	1505.1	1527.0	560.98	ug/L	560.98 ppb	20:00:39
3	B 249.677†	39762.9	40289.2	763.90	ug/L	763.90 ppb	20:00:18
3	Ba 233.527†	152983.9	152005.9	989.44	ug/L	989.44 ppb	20:00:18
3	Be 313.107†	1259983.3	1256686.9	405.38	ug/L	405.38 ppb	20:00:18
3	Cd 226.502†	33863.9	33884.9	301.37	ug/L	301.37 ppb	20:00:39
3	Co 228.616†	28682.2	28589.5	469.05	ug/L	469.05 ppb	20:00:39
3	Cr 267.716†	125152.7	124267.1	1192.9	ug/L	1192.9 ppb	20:00:18
3	Cu 324.752†	351733.6	342901.3	920.16	ug/L	920.16 ppb	20:00:18
3	Mn 257.610†	2995436.9	2975706.3	2795.7	ug/L	2795.7 ppb	20:00:18
3	Mo 202.031†	4418.0	4364.0	261.47	ug/L	261.47 ppb	20:00:39
3	Ni 231.604†	33468.3	33150.4	685.41	ug/L	685.41 ppb	20:00:18
3	P 214.914†	8925.1	8621.3	3958.6	ug/L	3958.6 ppb	20:00:39
3	Pb 220.353†	4403.4	4457.7	440.92	ug/L	440.92 ppb	20:00:39
3	S 181.975 Axial†	1728.0	1662.0	1888.1	ug/L	1888.1 ppb	20:00:39
3	Sb 206.836†	3277.5	3215.4	885.12	ug/L	885.12 ppb	20:00:39
3	Se 196.026†	2417.7	2434.8	1575.5	ug/L	1575.5 ppb	20:00:39
3	Si 251.611†	228656.7	226572.1	5985.4	ug/L	5985.4 ppb	20:00:18
3	Sn 189.927†	3784.1	3754.1	536.39	ug/L	536.39 ppb	20:00:39
3	Ti 334.940†	2217099.8	2204374.8	3042.3	ug/L	3042.3 ppb	20:00:18
3	Tl 190.801†	1816.7	1843.1	494.93	ug/L	494.93 ppb	20:00:39
3	U 409.014†	-6294.7	-3626.6	-112.46	ug/L	-112.46 ppb	20:00:18
3	V 292.402†	107280.2	108187.9	634.59	ug/L	634.59 ppb	20:00:18
3	Zn 213.857†	392960.2	389657.7	3006.3	ug/L	3006.3 ppb	20:00:18
3	SiO2†	230250.6	228122.7	12838	ug/L	12838 ppb	20:00:55

Mean Data: 1202000828|935146|2

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	943207.3	101.02	%	0.322				0.32%
Sc Radial	5627.6	99.2	%	1.23				1.24%
Y 371.029	835086.3	104.03	%	0.258				0.25%
Y RADIAL	6411.0	102.8	%	1.27				1.23%
Ag 328.068†	31089.2	163.33	ug/L	0.596	163.33	ppb	0.596	0.37%
Al 396.153Radial†	66371.6	45903	ug/L	474.3	45903	ppb	474.3	1.03%
As 188.979†	1517.4	557.48	ug/L	3.033	557.48	ppb	3.033	0.54%
B 249.677†	40281.7	763.94	ug/L	1.771	763.94	ppb	1.771	0.23%
Ba 233.527†	151776.9	987.92	ug/L	1.470	987.92	ppb	1.470	0.15%
Be 313.107†	1254609.9	404.71	ug/L	0.575	404.71	ppb	0.575	0.14%
Ca 317.933Radial†	38375.7	52859	ug/L	544.4	52859	ppb	544.4	1.03%
Cd 226.502†	33606.0	298.94	ug/L	2.524	298.94	ppb	2.524	0.84%
Co 228.616†	28383.5	465.64	ug/L	3.575	465.64	ppb	3.575	0.77%
Cr 267.716†	124090.1	1191.2	ug/L	1.62	1191.2	ppb	1.62	0.14%
Cu 324.752†	343226.6	920.96	ug/L	1.928	920.96	ppb	1.928	0.21%
Fe 238.204 Radial†	13895.6	104430	ug/L	1144.5	104430	ppb	1144.5	1.10%
K 766.490 Radial†	130329.2	21840	ug/L	260.3	21840	ppb	260.3	1.19%

Mg 279.077 IEC†	713.5	20258	ug/L	459.5	20258	ppb	459.5	2.27%
Mn 257.610†	2971611.4	2791.8	ug/L	4.13	2791.8	ppb	4.13	0.15%
Mo 202.031†	4347.1	260.37	ug/L	1.318	260.37	ppb	1.318	0.51%
Na 589.592 Radial†	21224.3	5166.6	ug/L	72.19	5166.6	ppb	72.19	1.40%
Ni 231.604†	33114.8	684.68	ug/L	1.201	684.68	ppb	1.201	0.18%
P 214.914†	8566.8	3932.9	ug/L	31.39	3932.9	ppb	31.39	0.80%
Pb 220.353†	4421.1	437.29	ug/L	3.255	437.29	ppb	3.255	0.74%
S 181.975 Axial†	1657.0	1882.5	ug/L	4.91	1882.5	ppb	4.91	0.26%
Sb 206.836†	3183.3	876.01	ug/L	9.961	876.01	ppb	9.961	1.14%
Se 196.026†	2415.3	1561.3	ug/L	15.77	1561.3	ppb	15.77	1.01%
Si 251.611†	226315.3	5978.7	ug/L	9.47	5978.7	ppb	9.47	0.16%
Sn 189.927†	3719.5	531.42	ug/L	4.711	531.42	ppb	4.711	0.89%
Sr 421.552†	217138.6	1198.9	ug/L	14.34	1198.9	ppb	14.34	1.20%
Ti 334.940†	2202938.9	3040.2	ug/L	4.05	3040.2	ppb	4.05	0.13%
Tl 190.801†	1830.8	491.84	ug/L	2.759	491.84	ppb	2.759	0.56%
U 409.014†	-3654.1	-113.02	ug/L	1.209	-113.02	ppb	1.209	1.07%
V 292.402†	108061.9	634.01	ug/L	0.706	634.01	ppb	0.706	0.11%
Zn 213.857†	388774.0	2999.6	ug/L	6.33	2999.6	ppb	6.33	0.21%
SiO2†	225826.2	12709	ug/L	116.2	12709	ppb	116.2	0.91%

Sequence No.: 3
Sample ID: 243007002|935146|1
Analyst: JWJ
Initial Sample Wt:
Dilution:

Autosampler Location: 40
Date Collected: 12/23/2009 20:03:05
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 243007002|935146|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5659.2	5659.2	99.7	%			20:05:18
1	Y RADIAL	7392.3	7392.3	118.5	%			20:05:18
1	Al 396.153Radial†	120151.0	120466.7	83335	ug/L	83335	ppb	20:04:58
1	Ca 317.933Radial†	16983.8	17014.6	23436	ug/L	23436	ppb	20:04:58
1	Fe 238.204 Radial†	15905.9	15936.6	119750	ug/L	119750	ppb	20:04:58
1	K 766.490 Radial†	67787.8	65146.0	10907	ug/L	10907	ppb	20:04:58
1	Mg 279.077 IEC†	608.5	608.9	17258	ug/L	17258	ppb	20:05:18
1	Na 589.592 Radial†	4461.6	6017.6	1464.8	ug/L	1464.8	ppb	20:04:58
1	Sr 421.552†	42564.7	42685.1	235.56	ug/L	235.56	ppb	20:04:58
1	Sc 361.383	955467.0	955467.0	102.33	%			20:06:16
1	Y 371.029	973942.6	973942.6	121.32	%			20:06:16
1	Ag 328.068†	-8253.3	-8383.3	6.5345	ug/L	6.5345	ppb	20:06:16
1	As 188.979†	-60.3	-27.3	37.294	ug/L	37.294	ppb	20:06:36
1	B 249.677†	1510.2	2257.5	27.631	ug/L	27.631	ppb	20:06:16
1	Ba 233.527†	191074.5	186726.6	1213.8	ug/L	1213.8	ppb	20:06:16
1	Be 313.107†	-3607.3	1271.7	6.9735	ug/L	6.9735	ppb	20:06:16
1	Cd 226.502†	1117.7	1330.8	0.3180	ug/L	0.3180	ppb	20:06:36
1	Co 228.616†	3305.0	3321.2	47.026	ug/L	47.026	ppb	20:06:36
1	Cr 267.716†	12542.9	12175.5	119.15	ug/L	119.15	ppb	20:06:36
1	Cu 324.752†	58809.2	50896.5	141.89	ug/L	141.89	ppb	20:06:16
1	Mn 257.610†	3308823.3	3232959.6	3038.0	ug/L	3038.0	ppb	20:06:16
1	Mo 202.031†	29.5	3.2	11.662	ug/L	11.662	ppb	20:06:36
1	Ni 231.604†	4441.4	4237.2	87.612	ug/L	87.612	ppb	20:06:36
1	P 214.914†	2692.9	2385.1	1062.6	ug/L	1062.6	ppb	20:06:36
1	Pb 220.353†	2083.4	2118.5	217.53	ug/L	217.53	ppb	20:06:36
1	S 181.975 Axial†	471.3	405.6	446.65	ug/L	446.65	ppb	20:06:36
1	Sb 206.836†	80.0	37.1	-1.6713	ug/L	-1.6713	ppb	20:06:36
1	Se 196.026†	-737.8	-688.4	34.285	ug/L	34.285	ppb	20:06:36
1	Si 251.611†	562146.8	548725.4	14525	ug/L	14525	ppb	20:06:16
1	Sn 189.927†	-106.9	-110.1	-11.446	ug/L	-11.446	ppb	20:06:36
1	Ti 334.940†	2478622.4	2423676.4	3343.6	ug/L	3343.6	ppb	20:06:16
1	Tl 190.801†	-228.1	-184.8	-0.9493	ug/L	-0.9493	ppb	20:06:36
1	U 409.014†	-13137.1	-10210.2	-287.97	ug/L	-287.97	ppb	20:06:16
1	V 292.402†	30988.0	31878.8	169.63	ug/L	169.63	ppb	20:06:16
1	Zn 213.857†	80625.7	78010.7	596.69	ug/L	596.69	ppb	20:06:16
1	SiO2†	559519.9	546125.3	30798	ug/L	30798	ppb	20:07:36
2	Sc Radial	5718.5	5718.5	101	%			20:05:43
2	Y RADIAL	7467.8	7467.8	119.7	%			20:05:43
2	Al 396.153Radial†	122248.5	121298.8	83910	ug/L	83910	ppb	20:05:23
2	Ca 317.933Radial†	17228.7	17081.0	23527	ug/L	23527	ppb	20:05:23
2	Fe 238.204 Radial†	16173.8	16037.0	120500	ug/L	120500	ppb	20:05:23
2	K 766.490 Radial†	68969.5	65613.8	10986	ug/L	10986	ppb	20:05:23
2	Mg 279.077 IEC†	600.7	594.8	16856	ug/L	16856	ppb	20:05:43
2	Na 589.592 Radial†	4581.1	6089.8	1482.4	ug/L	1482.4	ppb	20:05:23
2	Sr 421.552†	43305.1	42977.3	237.17	ug/L	237.17	ppb	20:05:23
2	Sc 361.383	949659.1	949659.1	101.71	%			20:06:43
2	Y 371.029	969572.5	969572.5	120.78	%			20:06:43
2	Ag 328.068†	-8409.4	-8586.1	5.9631	ug/L	5.9631	ppb	20:06:43
2	As 188.979†	-38.2	-5.9	44.772	ug/L	44.772	ppb	20:07:03
2	B 249.677†	1407.3	2165.4	25.748	ug/L	25.748	ppb	20:06:43
2	Ba 233.527†	190197.9	187006.6	1215.7	ug/L	1215.7	ppb	20:06:43
2	Be 313.107†	-3727.3	1132.2	6.9470	ug/L	6.9470	ppb	20:06:43
2	Cd 226.502†	1135.0	1354.4	0.4604	ug/L	0.4604	ppb	20:07:03
2	Co 228.616†	3312.9	3348.7	47.454	ug/L	47.454	ppb	20:07:03
2	Cr 267.716†	12571.7	12278.8	120.15	ug/L	120.15	ppb	20:07:03
2	Cu 324.752†	58634.8	51076.5	142.41	ug/L	142.41	ppb	20:06:43
2	Mn 257.610†	3290850.9	3235064.1	3040.1	ug/L	3040.1	ppb	20:06:43
2	Mo 202.031†	26.7	0.6	11.586	ug/L	11.586	ppb	20:07:03
2	Ni 231.604†	4422.8	4245.5	87.782	ug/L	87.782	ppb	20:07:03

2	P 214.914†	2664.1	2372.9	1056.3	ug/L	1056.3 ppb	20:07:03
2	Pb 220.353†	2088.3	2135.9	219.30	ug/L	219.30 ppb	20:07:03
2	S 181.975 Axial†	471.0	408.1	449.42	ug/L	449.42 ppb	20:07:03
2	Sb 206.836†	78.0	35.6	-2.1438	ug/L	-2.1438 ppb	20:07:03
2	Se 196.026†	-737.1	-692.0	34.844	ug/L	34.844 ppb	20:07:03
2	Si 251.611†	558588.0	548586.0	14521	ug/L	14521 ppb	20:06:43
2	Sn 189.927†	-103.1	-107.0	-10.983	ug/L	-10.983 ppb	20:07:03
2	Ti 334.940†	2470250.3	2430258.3	3352.6	ug/L	3352.6 ppb	20:06:43
2	Tl 190.801†	-229.0	-187.0	-1.4184	ug/L	-1.4184 ppb	20:07:03
2	U 409.014†	-13199.2	-10349.8	-291.80	ug/L	-291.80 ppb	20:06:43
2	V 292.402†	30812.9	31891.9	169.57	ug/L	169.57 ppb	20:06:43
2	Zn 213.857†	80072.6	77948.7	596.18	ug/L	596.18 ppb	20:06:43
2	SiO2†	558497.4	548463.9	30929	ug/L	30929 ppb	20:07:42
3	Sc Radial	5760.8	5760.8	102	%		20:06:08
3	Y RADIAL	7512.7	7512.7	120.4	%		20:06:08
3	Al 396.153Radial†	121675.8	119845.3	82905	ug/L	82905 ppb	20:05:48
3	Ca 317.933Radial†	17111.1	16839.8	23195	ug/L	23195 ppb	20:05:48
3	Fe 238.204 Radial†	16057.8	15805.1	118760	ug/L	118760 ppb	20:05:48
3	K 766.490 Radial†	68800.1	64945.1	10873	ug/L	10873 ppb	20:05:48
3	Mg 279.077 IEC†	611.9	601.5	17048	ug/L	17048 ppb	20:06:08
3	Na 589.592 Radial†	4698.2	6171.8	1502.4	ug/L	1502.4 ppb	20:05:48
3	Sr 421.552†	43221.2	42579.6	234.98	ug/L	234.98 ppb	20:05:48
3	Sc 361.383	954360.2	954360.2	102.21	%		20:07:10
3	Y 371.029	975065.9	975065.9	121.46	%		20:07:10
3	Ag 328.068†	-8319.3	-8457.2	5.9130	ug/L	5.9130 ppb	20:07:10
3	As 188.979†	-45.6	-12.9	42.124	ug/L	42.124 ppb	20:07:30
3	B 249.677†	1454.9	2205.1	26.748	ug/L	26.748 ppb	20:07:10
3	Ba 233.527†	191075.2	186943.8	1215.2	ug/L	1215.2 ppb	20:07:10
3	Be 313.107†	-4015.8	867.9	6.8679	ug/L	6.8679 ppb	20:07:10
3	Cd 226.502†	1146.4	1360.1	0.6861	ug/L	0.6861 ppb	20:07:30
3	Co 228.616†	3330.0	3349.3	47.484	ug/L	47.484 ppb	20:07:30
3	Cr 267.716†	12526.5	12173.7	119.11	ug/L	119.11 ppb	20:07:30
3	Cu 324.752†	59269.8	51413.7	143.22	ug/L	143.22 ppb	20:07:10
3	Mn 257.610†	3305350.8	3233311.9	3038.2	ug/L	3038.2 ppb	20:07:10
3	Mo 202.031†	26.1	-0.0	11.382	ug/L	11.382 ppb	20:07:30
3	Ni 231.604†	4424.1	4225.3	87.365	ug/L	87.365 ppb	20:07:30
3	P 214.914†	2677.2	2372.7	1057.1	ug/L	1057.1 ppb	20:07:30
3	Pb 220.353†	2102.0	2139.1	219.54	ug/L	219.54 ppb	20:07:30
3	S 181.975 Axial†	478.8	413.5	455.71	ug/L	455.71 ppb	20:07:30
3	Sb 206.836†	103.9	60.6	4.9037	ug/L	4.9037 ppb	20:07:30
3	Se 196.026†	-731.8	-683.4	33.696	ug/L	33.696 ppb	20:07:30
3	Si 251.611†	562294.2	549506.6	14545	ug/L	14545 ppb	20:07:10
3	Sn 189.927†	-106.5	-109.8	-11.447	ug/L	-11.447 ppb	20:07:30
3	Ti 334.940†	2484291.4	2432031.6	3355.1	ug/L	3355.1 ppb	20:07:10
3	Tl 190.801†	-237.6	-194.4	-3.2588	ug/L	-3.2588 ppb	20:07:30
3	U 409.014†	-13166.7	-10254.1	-289.02	ug/L	-289.02 ppb	20:07:10
3	V 292.402†	31172.9	32094.9	171.06	ug/L	171.06 ppb	20:07:10
3	Zn 213.857†	80507.7	77986.6	596.56	ug/L	596.56 ppb	20:07:10
3	SiO2†	557373.6	544659.5	30715	ug/L	30715 ppb	20:07:47

Mean Data: 243007002|935146|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	953162.1	102.08	%	0.330				0.32%
Sc Radial	5712.9	101	%	0.9				0.89%
Y 371.029	972860.3	121.19	%	0.362				0.30%
Y RADIAL	7457.6	119.6	%	0.98				0.82%
Ag 328.068†	-8475.5	6.1368	ug/L	0.34526	6.1368	ppb	0.34526	5.63%
Al 396.153Radial†	120536.9	83383	ug/L	504.5	83383	ppb	504.5	0.61%
As 188.979†	-15.4	41.397	ug/L	3.7915	41.397	ppb	3.7915	9.16%
B 249.677†	2209.4	26.709	ug/L	0.9421	26.709	ppb	0.9421	3.53%
Ba 233.527†	186892.3	1214.9	ug/L	0.96	1214.9	ppb	0.96	0.08%
Be 313.107†	1090.6	6.9295	ug/L	0.05498	6.9295	ppb	0.05498	0.79%
Ca 317.933Radial†	16978.4	23386	ug/L	171.6	23386	ppb	171.6	0.73%
Cd 226.502†	1348.4	0.4881	ug/L	0.18562	0.4881	ppb	0.18562	38.03%
Co 228.616†	3339.8	47.321	ug/L	0.2566	47.321	ppb	0.2566	0.54%
Cr 267.716†	12209.3	119.47	ug/L	0.589	119.47	ppb	0.589	0.49%
Cu 324.752†	51128.9	142.50	ug/L	0.670	142.50	ppb	0.670	0.47%
Fe 238.204 Radial†	15926.2	119670	ug/L	873.8	119670	ppb	873.8	0.73%
K 766.490 Radial†	65235.0	10922	ug/L	57.6	10922	ppb	57.6	0.53%

Mg 279.077 IEC†	601.7	17054	ug/L	201.1	17054	ppb	201.1	1.18%
Mn 257.610†	3233778.5	3038.8	ug/L	1.12	3038.8	ppb	1.12	0.04%
Mo 202.031†	1.3	11.543	ug/L	0.1448	11.543	ppb	0.1448	1.25%
Na 589.592 Radial†	6093.1	1483.2	ug/L	18.78	1483.2	ppb	18.78	1.27%
Ni 231.604†	4236.0	87.586	ug/L	0.2094	87.586	ppb	0.2094	0.24%
P 214.914†	2376.9	1058.7	ug/L	3.46	1058.7	ppb	3.46	0.33%
Pb 220.353†	2131.2	218.79	ug/L	1.099	218.79	ppb	1.099	0.50%
S 181.975 Axial†	409.1	450.59	ug/L	4.640	450.59	ppb	4.640	1.03%
Sb 206.836†	44.5	0.3629	ug/L	3.93955	0.3629	ppb	3.93955	>999.9%
Se 196.026†	-687.9	34.275	ug/L	0.5742	34.275	ppb	0.5742	1.68%
Si 251.611†	548939.3	14530	ug/L	13.2	14530	ppb	13.2	0.09%
Sn 189.927†	-109.0	-11.292	ug/L	0.2671	-11.292	ppb	0.2671	2.37%
Sr 421.552†	42747.3	235.90	ug/L	1.137	235.90	ppb	1.137	0.48%
Ti 334.940†	2428655.4	3350.4	ug/L	6.07	3350.4	ppb	6.07	0.18%
Tl 190.801†	-188.7	-1.8755	ug/L	1.22072	-1.8755	ppb	1.22072	65.09%
U 409.014†	-10271.3	-289.60	ug/L	1.977	-289.60	ppb	1.977	0.68%
V 292.402†	31955.2	170.09	ug/L	0.843	170.09	ppb	0.843	0.50%
Zn 213.857†	77982.0	596.48	ug/L	0.264	596.48	ppb	0.264	0.04%
SiO2†	546416.2	30814	ug/L	108.2	30814	ppb	108.2	0.35%

Sequence No.: 4
Sample ID: 1201999271|935146|1
Analyst: JWJ
Initial Sample Wt:
Dilution:

Autosampler Location: 41
Date Collected: 12/23/2009 20:09:57
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1201999271|935146|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5643.9	5643.9	99.5	%			20:12:10
1	Y RADIAL	7576.5	7576.5	121.5	%			20:12:10
1	Al 396.153Radial†	122425.5	123080.8	85143	ug/L	85143	ppb	20:11:50
1	Ca 317.933Radial†	15981.6	16053.3	22112	ug/L	22112	ppb	20:11:50
1	Fe 238.204 Radial†	15880.7	15954.6	119880	ug/L	119880	ppb	20:11:50
1	K 766.490 Radial†	68912.6	66461.6	11135	ug/L	11135	ppb	20:11:50
1	Mg 279.077 IEC†	589.1	591.1	16749	ug/L	16749	ppb	20:12:10
1	Na 589.592 Radial†	4452.7	6020.8	1465.6	ug/L	1465.6	ppb	20:11:50
1	Sr 421.552†	42585.4	42822.0	236.33	ug/L	236.33	ppb	20:11:50
1	Sc 361.383	958203.1	958203.1	102.62	%			20:13:09
1	Y 371.029	1001981.9	1001981.9	124.82	%			20:13:09
1	Ag 328.068†	-8363.3	-8467.5	6.2428	ug/L	6.2428	ppb	20:13:09
1	As 188.979†	-40.0	-7.3	41.592	ug/L	41.592	ppb	20:13:29
1	B 249.677†	1304.3	2052.7	23.686	ug/L	23.686	ppb	20:13:09
1	Ba 233.527†	180916.4	176295.1	1146.2	ug/L	1146.2	ppb	20:13:09
1	Be 313.107†	-785.1	4031.8	7.2346	ug/L	7.2346	ppb	20:13:09
1	Cd 226.502†	1092.4	1303.0	0.0941	ug/L	0.0941	ppb	20:13:29
1	Co 228.616†	2513.7	2540.8	34.592	ug/L	34.592	ppb	20:13:29
1	Cr 267.716†	31721.3	30828.5	297.74	ug/L	297.74	ppb	20:13:09
1	Cu 324.752†	48647.4	40830.4	115.04	ug/L	115.04	ppb	20:13:09
1	Mn 257.610†	2719848.0	2649811.3	2492.1	ug/L	2492.1	ppb	20:13:09
1	Mo 202.031†	59.5	32.4	13.357	ug/L	13.357	ppb	20:13:29
1	Ni 231.604†	7902.7	7597.7	157.13	ug/L	157.13	ppb	20:13:29
1	P 214.914†	2490.7	2180.6	968.61	ug/L	968.61	ppb	20:13:29
1	Pb 220.353†	1571.5	1614.0	168.23	ug/L	168.23	ppb	20:13:29
1	S 181.975 Axial†	447.6	381.2	418.43	ug/L	418.43	ppb	20:13:29
1	Sb 206.836†	102.4	58.8	0.9263	ug/L	0.9263	ppb	20:13:29
1	Se 196.026†	-733.1	-681.7	38.405	ug/L	38.405	ppb	20:13:29
1	Si 251.611†	531435.8	517231.1	13691	ug/L	13691	ppb	20:13:09
1	Sn 189.927†	-84.7	-88.2	-8.4887	ug/L	-8.4887	ppb	20:13:29
1	Ti 334.940†	2252420.8	2196342.4	3029.9	ug/L	3029.9	ppb	20:13:09
1	Tl 190.801†	-214.7	-171.0	-3.0175	ug/L	-3.0175	ppb	20:13:29
1	U 409.014†	-12975.2	-10015.8	-283.14	ug/L	-283.14	ppb	20:13:09
1	V 292.402†	30684.5	31496.6	167.61	ug/L	167.61	ppb	20:13:09
1	Zn 213.857†	74040.2	71368.5	544.84	ug/L	544.84	ppb	20:13:09
1	SiO2†	532070.7	517816.7	29200	ug/L	29200	ppb	20:14:29
2	Sc Radial	5695.3	5695.3	100	%			20:12:35
2	Y RADIAL	7622.6	7622.6	122.2	%			20:12:35
2	Al 396.153Radial†	120711.3	120263.2	83194	ug/L	83194	ppb	20:12:15
2	Ca 317.933Radial†	15732.7	15660.4	21571	ug/L	21571	ppb	20:12:15
2	Fe 238.204 Radial†	15627.1	15557.9	116900	ug/L	116900	ppb	20:12:15
2	K 766.490 Radial†	67936.2	64864.1	10867	ug/L	10867	ppb	20:12:15
2	Mg 279.077 IEC†	588.6	585.2	16585	ug/L	16585	ppb	20:12:35
2	Na 589.592 Radial†	4336.7	5864.9	1427.7	ug/L	1427.7	ppb	20:12:15
2	Sr 421.552†	41894.0	41747.1	230.40	ug/L	230.40	ppb	20:12:15
2	Sc 361.383	966722.7	966722.7	103.54	%			20:13:36
2	Y 371.029	1011896.3	1011896.3	126.05	%			20:13:36
2	Ag 328.068†	-8505.1	-8532.5	4.9866	ug/L	4.9866	ppb	20:13:36
2	As 188.979†	-39.1	-6.1	41.533	ug/L	41.533	ppb	20:13:56
2	B 249.677†	1284.6	2022.5	23.496	ug/L	23.496	ppb	20:13:36
2	Ba 233.527†	181928.9	175719.4	1142.4	ug/L	1142.4	ppb	20:13:36
2	Be 313.107†	-903.8	3923.9	7.1931	ug/L	7.1931	ppb	20:13:36
2	Cd 226.502†	1114.0	1314.5	0.4970	ug/L	0.4970	ppb	20:13:56
2	Co 228.616†	2536.6	2541.4	34.649	ug/L	34.649	ppb	20:13:56
2	Cr 267.716†	31959.3	30786.0	297.28	ug/L	297.28	ppb	20:13:36
2	Cu 324.752†	49185.8	40932.7	115.16	ug/L	115.16	ppb	20:13:36
2	Mn 257.610†	2738176.5	2644157.1	2486.6	ug/L	2486.6	ppb	20:13:36
2	Mo 202.031†	59.1	31.5	13.019	ug/L	13.019	ppb	20:13:56
2	Ni 231.604†	7944.9	7570.5	156.57	ug/L	156.57	ppb	20:13:56

2	P 214.914†	2513.5	2181.2	970.61	ug/L	970.61 ppb	20:13:56
2	Pb 220.353†	1595.4	1623.5	168.98	ug/L	168.98 ppb	20:13:56
2	S 181.975 Axial†	457.0	386.5	424.81	ug/L	424.81 ppb	20:13:56
2	Sb 206.836†	98.4	54.0	-0.4048	ug/L	-0.4048 ppb	20:13:56
2	Se 196.026†	-727.7	-670.2	34.689	ug/L	34.689 ppb	20:13:56
2	Si 251.611†	535239.0	516340.6	13667	ug/L	13667 ppb	20:13:36
2	Sn 189.927†	-94.1	-96.5	-9.7644	ug/L	-9.7644 ppb	20:13:56
2	Ti 334.940†	2269718.6	2193706.6	3026.3	ug/L	3026.3 ppb	20:13:36
2	Tl 190.801†	-219.5	-173.9	-3.8404	ug/L	-3.8404 ppb	20:13:56
2	U 409.014†	-12913.7	-9844.9	-278.21	ug/L	-278.21 ppb	20:13:36
2	V 292.402†	30988.5	31526.8	168.25	ug/L	168.25 ppb	20:13:36
2	Zn 213.857†	74530.1	71205.9	543.75	ug/L	543.75 ppb	20:13:36
2	SiO2†	533794.0	514912.0	29037	ug/L	29037 ppb	20:14:34
3	Sc Radial	5689.0	5689.0	100	%		20:13:00
3	Y RADIAL	7617.3	7617.3	122.1	%		20:13:00
3	Al 396.153Radial†	120771.5	120455.8	83327	ug/L	83327 ppb	20:12:40
3	Ca 317.933Radial†	15778.7	15723.6	21658	ug/L	21658 ppb	20:12:40
3	Fe 238.204 Radial†	15712.4	15660.2	117670	ug/L	117670 ppb	20:12:40
3	K 766.490 Radial†	68454.5	65455.6	10966	ug/L	10966 ppb	20:12:40
3	Mg 279.077 IEC†	591.2	588.4	16675	ug/L	16675 ppb	20:13:00
3	Na 589.592 Radial†	4551.7	6084.1	1481.0	ug/L	1481.0 ppb	20:12:40
3	Sr 421.552†	41987.3	41886.2	231.16	ug/L	231.16 ppb	20:12:40
3	Sc 361.383	959232.1	959232.1	102.73	%		20:14:03
3	Y 371.029	1004332.6	1004332.6	125.11	%		20:14:03
3	Ag 328.068†	-8374.9	-8469.9	5.4951	ug/L	5.4951 ppb	20:14:03
3	As 188.979†	-51.2	-18.2	37.631	ug/L	37.631 ppb	20:14:23
3	B 249.677†	1385.8	2130.7	25.486	ug/L	25.486 ppb	20:14:03
3	Ba 233.527†	181419.9	176596.1	1148.1	ug/L	1148.1 ppb	20:14:03
3	Be 313.107†	-917.1	3904.2	7.2105	ug/L	7.2105 ppb	20:14:03
3	Cd 226.502†	1094.1	1303.5	0.3197	ug/L	0.3197 ppb	20:14:23
3	Co 228.616†	2540.8	2564.6	35.000	ug/L	35.000 ppb	20:14:23
3	Cr 267.716†	31825.9	30897.2	298.36	ug/L	298.36 ppb	20:14:03
3	Cu 324.752†	48771.2	40900.0	115.11	ug/L	115.11 ppb	20:14:03
3	Mn 257.610†	2729431.1	2656296.3	2498.0	ug/L	2498.0 ppb	20:14:03
3	Mo 202.031†	46.4	19.6	12.405	ug/L	12.405 ppb	20:14:23
3	Ni 231.604†	7930.1	7616.0	157.51	ug/L	157.51 ppb	20:14:23
3	P 214.914†	2483.3	2170.7	964.98	ug/L	964.98 ppb	20:14:23
3	Pb 220.353†	1594.8	1635.0	170.08	ug/L	170.08 ppb	20:14:23
3	S 181.975 Axial†	464.3	397.0	436.79	ug/L	436.79 ppb	20:14:23
3	Sb 206.836†	116.8	72.7	4.7860	ug/L	4.7860 ppb	20:14:23
3	Se 196.026†	-726.4	-674.4	34.951	ug/L	34.951 ppb	20:14:23
3	Si 251.611†	532699.9	517906.0	13709	ug/L	13709 ppb	20:14:03
3	Sn 189.927†	-91.7	-94.9	-9.5121	ug/L	-9.5121 ppb	20:14:23
3	Ti 334.940†	2261105.0	2202440.9	3038.3	ug/L	3038.3 ppb	20:14:03
3	Tl 190.801†	-224.1	-180.0	-5.2018	ug/L	-5.2018 ppb	20:14:23
3	U 409.014†	-12877.7	-9907.3	-279.97	ug/L	-279.97 ppb	20:14:03
3	V 292.402†	30603.8	31386.1	167.27	ug/L	167.27 ppb	20:14:03
3	Zn 213.857†	74357.2	71599.7	546.75	ug/L	546.75 ppb	20:14:03
3	SiO2†	531408.3	516615.7	29133	ug/L	29133 ppb	20:14:40

Mean Data: 1201999271|935146|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	961386.0	102.96	%	0.498				0.48%
Sc Radial	5676.0	100	%	0.5				0.49%
Y 371.029	1006070.3	125.33	%	0.645				0.51%
Y RADIAL	7605.5	121.9	%	0.40				0.33%
Ag 328.068†	-8490.0	5.5748	ug/L	0.63190	5.5748	ppb	0.63190	11.33%
Al 396.153Radial†	121266.6	83888	ug/L	1088.9	83888	ppb	1088.9	1.30%
As 188.979†	-10.5	40.252	ug/L	2.2701	40.252	ppb	2.2701	5.64%
B 249.677†	2068.6	24.223	ug/L	1.0980	24.223	ppb	1.0980	4.53%
Ba 233.527†	176203.5	1145.6	ug/L	2.90	1145.6	ppb	2.90	0.25%
Be 313.107†	3953.3	7.2127	ug/L	0.02081	7.2127	ppb	0.02081	0.29%
Ca 317.933Radial†	15812.4	21780	ug/L	290.6	21780	ppb	290.6	1.33%
Cd 226.502†	1307.0	0.3036	ug/L	0.20192	0.3036	ppb	0.20192	66.52%
Co 228.616†	2548.9	34.747	ug/L	0.2212	34.747	ppb	0.2212	0.64%
Cr 267.716†	30837.2	297.79	ug/L	0.541	297.79	ppb	0.541	0.18%
Cu 324.752†	40887.7	115.10	ug/L	0.061	115.10	ppb	0.061	0.05%
Fe 238.204 Radial†	15724.2	118150	ug/L	1547.2	118150	ppb	1547.2	1.31%
K 766.490 Radial†	65593.8	10989	ug/L	135.7	10989	ppb	135.7	1.23%

Mg 279.077 IEC†	588.2	16670	ug/L	82.4	16670	ppb	82.4	0.49%
Mn 257.610†	2650088.3	2492.2	ug/L	5.72	2492.2	ppb	5.72	0.23%
Mo 202.031†	27.8	12.927	ug/L	0.4824	12.927	ppb	0.4824	3.73%
Na 589.592 Radial†	5989.9	1458.1	ug/L	27.45	1458.1	ppb	27.45	1.88%
Ni 231.604†	7594.7	157.07	ug/L	0.473	157.07	ppb	0.473	0.30%
P 214.914†	2177.5	968.07	ug/L	2.857	968.07	ppb	2.857	0.30%
Pb 220.353†	1624.2	169.09	ug/L	0.928	169.09	ppb	0.928	0.55%
S 181.975 Axial†	388.2	426.68	ug/L	9.323	426.68	ppb	9.323	2.19%
Sb 206.836†	61.8	1.7692	ug/L	2.69609	1.7692	ppb	2.69609	152.39%
Se 196.026†	-675.4	36.015	ug/L	2.0740	36.015	ppb	2.0740	5.76%
Si 251.611†	517159.2	13689	ug/L	20.8	13689	ppb	20.8	0.15%
Sn 189.927†	-93.2	-9.2550	ug/L	0.67558	-9.2550	ppb	0.67558	7.30%
Sr 421.552†	42151.8	232.63	ug/L	3.226	232.63	ppb	3.226	1.39%
Ti 334.940†	2197496.6	3031.5	ug/L	6.18	3031.5	ppb	6.18	0.20%
Tl 190.801†	-175.0	-4.0199	ug/L	1.10315	-4.0199	ppb	1.10315	27.44%
U 409.014†	-9922.7	-280.44	ug/L	2.503	-280.44	ppb	2.503	0.89%
V 292.402†	31469.8	167.71	ug/L	0.501	167.71	ppb	0.501	0.30%
Zn 213.857†	71391.4	545.11	ug/L	1.519	545.11	ppb	1.519	0.28%
SiO2†	516448.1	29123	ug/L	82.2	29123	ppb	82.2	0.28%

Sequence No.: 5
Sample ID: 1201999273|935146|1
Analyst: JWJ
Initial Sample Wt:
Dilution:

Autosampler Location: 42
Date Collected: 12/23/2009 20:16:50
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1201999273|935146|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5839.2	5839.2	103	%			20:19:03
1	Y RADIAL	7618.9	7618.9	122.2	%			20:19:03
1	Al 396.153Radial†	203686.2	197922.7	136900	ug/L	136900	ppb	20:18:43
1	Ca 317.933Radial†	20238.8	19652.4	27069	ug/L	27069	ppb	20:18:43
1	Fe 238.204 Radial†	17611.3	17102.0	128520	ug/L	128520	ppb	20:18:43
1	K 766.490 Radial†	115159.4	109081.0	18288	ug/L	18288	ppb	20:18:43
1	Mg 279.077 IEC†	938.1	910.4	25854	ug/L	25854	ppb	20:19:03
1	Na 589.592 Radial†	23680.2	24554.0	5977.1	ug/L	5977.1	ppb	20:18:43
1	Sr 421.552†	130757.3	127064.5	701.61	ug/L	701.61	ppb	20:18:43
1	Sc 361.383	949198.5	949198.5	101.66	%			20:20:02
1	Y 371.029	959515.3	959515.3	119.53	%			20:20:02
1	Ag 328.068†	109163.0	107062.8	480.86	ug/L	480.86	ppb	20:20:02
1	As 188.979†	1307.2	1317.5	502.96	ug/L	502.96	ppb	20:20:22
1	B 249.677†	25646.2	26009.2	484.68	ug/L	484.68	ppb	20:20:02
1	Ba 233.527†	255865.1	251692.6	1636.2	ug/L	1636.2	ppb	20:20:02
1	Be 313.107†	1511772.3	1491887.9	482.52	ug/L	482.52	ppb	20:20:02
1	Cd 226.502†	51711.1	51105.3	457.30	ug/L	457.30	ppb	20:20:02
1	Co 228.616†	29906.4	29509.6	482.48	ug/L	482.48	ppb	20:20:22
1	Cr 267.716†	63839.7	62715.7	603.90	ug/L	603.90	ppb	20:20:02
1	Cu 324.752†	233956.2	223563.6	602.96	ug/L	602.96	ppb	20:20:02
1	Mn 257.610†	3171585.9	3119316.3	2932.3	ug/L	2932.3	ppb	20:20:02
1	Mo 202.031†	7768.5	7616.0	450.94	ug/L	450.94	ppb	20:20:22
1	Ni 231.604†	26752.4	26212.7	541.89	ug/L	541.89	ppb	20:20:22
1	P 214.914†	3566.8	3262.1	1430.3	ug/L	1430.3	ppb	20:20:22
1	Pb 220.353†	5912.7	5898.8	602.05	ug/L	602.05	ppb	20:20:22
1	S 181.975 Axial†	4721.4	4589.4	5212.2	ug/L	5212.2	ppb	20:20:22
1	Sb 206.836†	1622.1	1554.6	429.08	ug/L	429.08	ppb	20:20:22
1	Se 196.026†	135.1	165.5	506.29	ug/L	506.29	ppb	20:20:22
1	Si 251.611†	354600.1	348194.9	9203.8	ug/L	9203.8	ppb	20:20:02
1	Sn 189.927†	3253.2	3194.4	455.07	ug/L	455.07	ppb	20:20:22
1	Ti 334.940†	3136508.9	3086818.1	4257.8	ug/L	4257.8	ppb	20:20:02
1	Tl 190.801†	1095.6	1115.8	326.72	ug/L	326.72	ppb	20:20:22
1	U 409.014†	6022.4	8551.7	211.06	ug/L	211.06	ppb	20:20:02
1	V 292.402†	111143.7	110926.0	649.90	ug/L	649.90	ppb	20:20:02
1	Zn 213.857†	130046.7	127145.1	973.05	ug/L	973.05	ppb	20:20:02
1	SiO2†	358829.6	352322.4	19840	ug/L	19840	ppb	20:21:22
2	Sc Radial	5772.9	5772.9	102	%			20:19:28
2	Y RADIAL	7551.6	7551.6	121.1	%			20:19:28
2	Al 396.153Radial†	206132.6	202600.2	140130	ug/L	140130	ppb	20:19:08
2	Ca 317.933Radial†	20577.2	20210.9	27839	ug/L	27839	ppb	20:19:08
2	Fe 238.204 Radial†	17876.9	17559.6	131960	ug/L	131960	ppb	20:19:08
2	K 766.490 Radial†	116726.5	111906.3	18763	ug/L	18763	ppb	20:19:08
2	Mg 279.077 IEC†	937.3	920.0	26126	ug/L	26126	ppb	20:19:28
2	Na 589.592 Radial†	23902.3	25036.6	6094.6	ug/L	6094.6	ppb	20:19:08
2	Sr 421.552†	132281.6	130021.9	717.94	ug/L	717.94	ppb	20:19:08
2	Sc 361.383	939066.8	939066.8	100.57	%			20:20:29
2	Y 371.029	951489.4	951489.4	118.53	%			20:20:29
2	Ag 328.068†	108538.3	107600.2	484.21	ug/L	484.21	ppb	20:20:29
2	As 188.979†	1304.9	1329.1	507.71	ug/L	507.71	ppb	20:20:49
2	B 249.677†	25506.3	26142.3	486.79	ug/L	486.79	ppb	20:20:29
2	Ba 233.527†	254974.1	253522.1	1648.2	ug/L	1648.2	ppb	20:20:29
2	Be 313.107†	1506712.8	1502901.6	486.08	ug/L	486.08	ppb	20:20:29
2	Cd 226.502†	51463.8	51408.3	459.75	ug/L	459.75	ppb	20:20:29
2	Co 228.616†	29854.2	29775.1	486.80	ug/L	486.80	ppb	20:20:49
2	Cr 267.716†	63773.6	63327.6	609.83	ug/L	609.83	ppb	20:20:29
2	Cu 324.752†	232546.3	224644.7	606.02	ug/L	606.02	ppb	20:20:29
2	Mn 257.610†	3157665.0	3139134.7	2951.2	ug/L	2951.2	ppb	20:20:29
2	Mo 202.031†	7743.5	7673.7	454.59	ug/L	454.59	ppb	20:20:49
2	Ni 231.604†	26766.8	26510.9	548.06	ug/L	548.06	ppb	20:20:49

2	P 214.914†	3537.1	3270.4	1432.3 ug/L	1432.3 ppb	20:20:49
2	Pb 220.353†	5896.8	5945.7	607.13 ug/L	607.13 ppb	20:20:49
2	S 181.975 Axial†	4722.9	4640.9	5270.4 ug/L	5270.4 ppb	20:20:49
2	Sb 206.836†	1612.7	1562.5	431.27 ug/L	431.27 ppb	20:20:49
2	Se 196.026†	130.4	162.3	515.82 ug/L	515.82 ppb	20:20:49
2	Si 251.611†	352546.7	349916.7	9249.1 ug/L	9249.1 ppb	20:20:29
2	Sn 189.927†	3275.7	3251.4	463.23 ug/L	463.23 ppb	20:20:49
2	Ti 334.940†	3125242.1	3108903.1	4288.3 ug/L	4288.3 ppb	20:20:29
2	Tl 190.801†	1082.0	1114.0	326.65 ug/L	326.65 ppb	20:20:49
2	U 409.014†	5886.0	8480.0	208.70 ug/L	208.70 ppb	20:20:29
2	V 292.402†	110929.6	111892.6	655.21 ug/L	655.21 ppb	20:20:29
2	Zn 213.857†	129377.0	127859.4	978.35 ug/L	978.35 ppb	20:20:29
2	SiO2†	353244.9	350577.8	19741 ug/L	19741 ppb	20:21:27
3	Sc Radial	5791.8	5791.8	102 %		20:19:53
3	Y RADIAL	7589.0	7589.0	121.7 %		20:19:53
3	Al 396.153Radial†	206683.4	202478.4	140050 ug/L	140050 ppb	20:19:33
3	Ca 317.933Radial†	20504.0	20073.2	27649 ug/L	27649 ppb	20:19:33
3	Fe 238.204 Radial†	17798.1	17425.1	130950 ug/L	130950 ppb	20:19:33
3	K 766.490 Radial†	116780.6	111584.8	18709 ug/L	18709 ppb	20:19:33
3	Mg 279.077 IEC†	937.2	917.0	26040 ug/L	26040 ppb	20:19:53
3	Na 589.592 Radial†	23961.8	25018.2	6090.1 ug/L	6090.1 ppb	20:19:33
3	Sr 421.552†	132491.6	129803.2	716.73 ug/L	716.73 ppb	20:19:33
3	Sc 361.383	952960.2	952960.2	102.06 %		20:20:57
3	Y 371.029	965454.8	965454.8	120.27 %		20:20:57
3	Ag 328.068†	109902.0	107363.0	482.90 ug/L	482.90 ppb	20:20:57
3	As 188.979†	1316.9	1322.0	505.08 ug/L	505.08 ppb	20:21:17
3	B 249.677†	25855.3	26114.6	486.40 ug/L	486.40 ppb	20:20:57
3	Ba 233.527†	258205.0	252991.7	1644.7 ug/L	1644.7 ppb	20:20:57
3	Be 313.107†	1527417.2	1501346.5	485.58 ug/L	485.58 ppb	20:20:57
3	Cd 226.502†	52147.4	51332.0	459.15 ug/L	459.15 ppb	20:20:57
3	Co 228.616†	29970.7	29456.5	481.51 ug/L	481.51 ppb	20:21:17
3	Cr 267.716†	64419.5	63035.9	607.01 ug/L	607.01 ppb	20:20:57
3	Cu 324.752†	235814.8	224476.2	605.52 ug/L	605.52 ppb	20:20:57
3	Mn 257.610†	3198918.3	3133781.3	2946.1 ug/L	2946.1 ppb	20:20:57
3	Mo 202.031†	7785.9	7602.9	450.42 ug/L	450.42 ppb	20:21:17
3	Ni 231.604†	26837.2	26191.9	541.46 ug/L	541.46 ppb	20:21:17
3	P 214.914†	3583.8	3264.9	1430.3 ug/L	1430.3 ppb	20:21:17
3	Pb 220.353†	5937.3	5899.9	602.67 ug/L	602.67 ppb	20:21:17
3	S 181.975 Axial†	4743.2	4592.4	5215.0 ug/L	5215.0 ppb	20:21:17
3	Sb 206.836†	1622.4	1548.6	427.22 ug/L	427.22 ppb	20:21:17
3	Se 196.026†	128.8	158.9	510.93 ug/L	510.93 ppb	20:21:17
3	Si 251.611†	357624.8	349781.6	9245.7 ug/L	9245.7 ppb	20:20:57
3	Sn 189.927†	3272.5	3200.7	456.06 ug/L	456.06 ppb	20:21:17
3	Ti 334.940†	3167645.9	3105147.0	4283.1 ug/L	4283.1 ppb	20:20:57
3	Tl 190.801†	1101.3	1117.2	327.42 ug/L	327.42 ppb	20:21:17
3	U 409.014†	5934.6	8442.3	207.83 ug/L	207.83 ppb	20:20:57
3	V 292.402†	112300.2	111627.5	653.71 ug/L	653.71 ppb	20:20:57
3	Zn 213.857†	131124.9	127696.6	977.18 ug/L	977.18 ppb	20:20:57
3	SiO2†	358637.1	350740.5	19751 ug/L	19751 ppb	20:21:33

Mean Data: 1201999273|935146|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	947075.2	101.43	%	0.770				0.76%
Sc Radial	5801.3	102	%	0.6				0.59%
Y 371.029	958819.8	119.44	%	0.873				0.73%
Y RADIAL	7586.5	121.6	%	0.54				0.44%
Ag 328.068†	107342.0	482.66	ug/L	1.689	482.66	ppb	1.689	0.35%
Al 396.153Radial†	201000.4	139030	ug/L	1844.3	139030	ppb	1844.3	1.33%
As 188.979†	1322.9	505.25	ug/L	2.376	505.25	ppb	2.376	0.47%
B 249.677†	26088.7	485.96	ug/L	1.121	485.96	ppb	1.121	0.23%
Ba 233.527†	252735.4	1643.0	ug/L	6.15	1643.0	ppb	6.15	0.37%
Be 313.107†	1498712.0	484.72	ug/L	1.926	484.72	ppb	1.926	0.40%
Ca 317.933Radial†	19978.8	27519	ug/L	400.7	27519	ppb	400.7	1.46%
Cd 226.502†	51281.9	458.73	ug/L	1.274	458.73	ppb	1.274	0.28%
Co 228.616†	29580.4	483.60	ug/L	2.818	483.60	ppb	2.818	0.58%
Cr 267.716†	63026.4	606.91	ug/L	2.967	606.91	ppb	2.967	0.49%
Cu 324.752†	224228.1	604.84	ug/L	1.641	604.84	ppb	1.641	0.27%
Fe 238.204 Radial†	17362.3	130480	ug/L	1767.2	130480	ppb	1767.2	1.35%
K 766.490 Radial†	110857.3	18587	ug/L	259.7	18587	ppb	259.7	1.40%

Mg 279.077 IEC†	915.8	26007	ug/L	139.4	26007	ppb	139.4	0.54%
Mn 257.610†	3130744.1	2943.2	ug/L	9.77	2943.2	ppb	9.77	0.33%
Mo 202.031†	7630.9	451.98	ug/L	2.273	451.98	ppb	2.273	0.50%
Na 589.592 Radial†	24869.6	6053.9	ug/L	66.56	6053.9	ppb	66.56	1.10%
Ni 231.604†	26305.1	543.81	ug/L	3.691	543.81	ppb	3.691	0.68%
P 214.914†	3265.8	1430.9	ug/L	1.13	1430.9	ppb	1.13	0.08%
Pb 220.353†	5914.8	603.95	ug/L	2.769	603.95	ppb	2.769	0.46%
S 181.975 Axial†	4607.6	5232.5	ug/L	32.83	5232.5	ppb	32.83	0.63%
Sb 206.836†	1555.2	429.19	ug/L	2.030	429.19	ppb	2.030	0.47%
Se 196.026†	162.2	511.01	ug/L	4.767	511.01	ppb	4.767	0.93%
Si 251.611†	349297.7	9232.9	ug/L	25.24	9232.9	ppb	25.24	0.27%
Sn 189.927†	3215.5	458.12	ug/L	4.451	458.12	ppb	4.451	0.97%
Sr 421.552†	128963.2	712.09	ug/L	9.099	712.09	ppb	9.099	1.28%
Ti 334.940†	3100289.4	4276.4	ug/L	16.32	4276.4	ppb	16.32	0.38%
Tl 190.801†	1115.7	326.93	ug/L	0.424	326.93	ppb	0.424	0.13%
U 409.014†	8491.4	209.20	ug/L	1.673	209.20	ppb	1.673	0.80%
V 292.402†	111482.0	652.94	ug/L	2.735	652.94	ppb	2.735	0.42%
Zn 213.857†	127567.0	976.19	ug/L	2.787	976.19	ppb	2.787	0.29%
SiO2†	351213.6	19778	ug/L	54.6	19778	ppb	54.6	0.28%

Sequence No.: 6
Sample ID: 1201999274|935146|1
Analyst: JWJ
Initial Sample Wt:
Dilution:

Autosampler Location: 43
Date Collected: 12/23/2009 20:23:43
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1201999274|935146|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	5729.0	5729.0	101	%			20:25:56
1	Y RADIAL	7849.0	7849.0	125.8	%			20:25:56
1	Al 396.153Radial†	205480.5	203508.1	140760	ug/L	140760	ppb	20:25:36
1	Ca 317.933Radial†	24232.6	23986.2	33039	ug/L	33039	ppb	20:25:36
1	Fe 238.204 Radial†	17701.6	17520.8	131670	ug/L	131670	ppb	20:25:36
1	K 766.490 Radial†	113974.9	110061.0	18445	ug/L	18445	ppb	20:25:36
1	Mg 279.077 IEC†	916.4	906.4	25738	ug/L	25738	ppb	20:25:56
1	Na 589.592 Radial†	23622.8	24940.0	6071.0	ug/L	6071.0	ppb	20:25:36
1	Sr 421.552†	130655.0	129408.0	714.50	ug/L	714.50	ppb	20:25:36
1	Sc 361.383	933240.0	933240.0	99.951	%			20:26:55
1	Y 371.029	986621.0	986621.0	122.90	%			20:26:55
1	Ag 328.068†	111231.6	110968.7	497.72	ug/L	497.72	ppb	20:27:00
1	As 188.979†	1336.8	1369.1	520.49	ug/L	520.49	ppb	20:27:20
1	B 249.677†	25915.9	26710.5	497.81	ug/L	497.81	ppb	20:27:00
1	Ba 233.527†	242185.9	242310.5	1575.5	ug/L	1575.5	ppb	20:27:00
1	Be 313.107†	1539380.6	1544939.2	499.27	ug/L	499.27	ppb	20:26:55
1	Cd 226.502†	52557.2	52821.7	472.77	ug/L	472.77	ppb	20:27:00
1	Co 228.616†	29806.6	29912.8	489.29	ug/L	489.29	ppb	20:27:20
1	Cr 267.716†	62311.0	62260.2	599.58	ug/L	599.58	ppb	20:27:00
1	Cu 324.752†	242710.9	236257.9	636.99	ug/L	636.99	ppb	20:27:00
1	Mn 257.610†	3777442.9	3778822.0	3550.0	ug/L	3550.0	ppb	20:26:55
1	Mo 202.031†	7901.7	7880.0	466.44	ug/L	466.44	ppb	20:27:20
1	Ni 231.604†	26671.1	26581.3	549.51	ug/L	549.51	ppb	20:27:20
1	P 214.914†	3687.5	3442.8	1511.2	ug/L	1511.2	ppb	20:27:20
1	Pb 220.353†	6365.2	6451.0	657.09	ug/L	657.09	ppb	20:27:20
1	S 181.975 Axial†	4854.5	4802.0	5454.1	ug/L	5454.1	ppb	20:27:20
1	Sb 206.836†	1607.7	1567.5	433.53	ug/L	433.53	ppb	20:27:20
1	Se 196.026†	142.3	175.0	521.54	ug/L	521.54	ppb	20:27:20
1	Si 251.611†	465025.5	464639.7	12286	ug/L	12286	ppb	20:27:00
1	Sn 189.927†	3312.0	3308.0	471.76	ug/L	471.76	ppb	20:27:20
1	Ti 334.940†	3042306.7	3045328.2	4200.9	ug/L	4200.9	ppb	20:26:55
1	Tl 190.801†	1081.9	1120.6	331.15	ug/L	331.15	ppb	20:27:20
1	U 409.014†	5571.3	8201.7	201.33	ug/L	201.33	ppb	20:27:00
1	V 292.402†	108468.9	110119.3	644.83	ug/L	644.83	ppb	20:27:00
1	Zn 213.857†	148501.5	147796.6	1132.7	ug/L	1132.7	ppb	20:27:00
1	SiO2†	480010.7	479599.3	27019	ug/L	27019	ppb	20:28:30
2	Sc Radial	5709.3	5709.3	101	%			20:26:21
2	Y RADIAL	7822.9	7822.9	125.4	%			20:26:21
2	Al 396.153Radial†	205865.6	204591.8	141510	ug/L	141510	ppb	20:26:01
2	Ca 317.933Radial†	24145.7	23982.6	33034	ug/L	33034	ppb	20:26:01
2	Fe 238.204 Radial†	17668.7	17548.5	131870	ug/L	131870	ppb	20:26:01
2	K 766.490 Radial†	113584.2	110061.6	18446	ug/L	18446	ppb	20:26:01
2	Mg 279.077 IEC†	924.7	917.8	26063	ug/L	26063	ppb	20:26:21
2	Na 589.592 Radial†	23463.3	24862.0	6052.1	ug/L	6052.1	ppb	20:26:01
2	Sr 421.552†	130537.3	129736.7	716.31	ug/L	716.31	ppb	20:26:01
2	Sc 361.383	950697.0	950697.0	101.82	%			20:27:27
2	Y 371.029	1004427.0	1004427.0	125.12	%			20:27:27
2	Ag 328.068†	112604.2	110273.2	494.94	ug/L	494.94	ppb	20:27:32
2	As 188.979†	1341.2	1348.8	513.54	ug/L	513.54	ppb	20:27:52
2	B 249.677†	26196.0	26509.5	493.92	ug/L	493.92	ppb	20:27:32
2	Ba 233.527†	244970.3	240595.7	1564.4	ug/L	1564.4	ppb	20:27:32
2	Be 313.107†	1563740.8	1540583.3	497.86	ug/L	497.86	ppb	20:27:27
2	Cd 226.502†	53266.4	52552.7	470.27	ug/L	470.27	ppb	20:27:32
2	Co 228.616†	29723.3	29283.4	478.79	ug/L	478.79	ppb	20:27:52
2	Cr 267.716†	63322.2	62108.5	598.13	ug/L	598.13	ppb	20:27:32
2	Cu 324.752†	245535.2	234572.8	632.50	ug/L	632.50	ppb	20:27:32
2	Mn 257.610†	3824046.3	3755195.3	3527.9	ug/L	3527.9	ppb	20:27:27
2	Mo 202.031†	7852.1	7686.1	455.30	ug/L	455.30	ppb	20:27:52
2	Ni 231.604†	26602.5	26023.9	537.99	ug/L	537.99	ppb	20:27:52

2	P 214.914†	3664.6	3352.6	1468.3 ug/L	1468.3 ppb	20:27:52
2	Pb 220.353†	6321.4	6291.0	641.46 ug/L	641.46 ppb	20:27:52
2	S 181.975 Axial†	4841.4	4700.0	5337.5 ug/L	5337.5 ppb	20:27:52
2	Sb 206.836†	1617.1	1547.2	427.52 ug/L	427.52 ppb	20:27:52
2	Se 196.026†	136.5	166.7	518.03 ug/L	518.03 ppb	20:27:52
2	Si 251.611†	470253.7	461231.3	12196 ug/L	12196 ppb	20:27:32
2	Sn 189.927†	3338.0	3272.7	466.77 ug/L	466.77 ppb	20:27:52
2	Ti 334.940†	3089828.7	3036109.1	4188.2 ug/L	4188.2 ppb	20:27:27
2	Tl 190.801†	1097.5	1116.0	329.88 ug/L	329.88 ppb	20:27:52
2	U 409.014†	5641.9	8168.7	200.42 ug/L	200.42 ppb	20:27:32
2	V 292.402†	109968.6	109599.5	641.54 ug/L	641.54 ppb	20:27:32
2	Zn 213.857†	150445.6	146977.7	1126.5 ug/L	1126.5 ppb	20:27:32
2	SiO2†	475109.3	465967.0	26250 ug/L	26250 ppb	20:28:36
3	Sc Radial	5756.4	5756.4	101 %		20:26:46
3	Y RADIAL	7872.3	7872.3	126.2 %		20:26:46
3	Al 396.153Radial†	204951.2	202019.7	139730 ug/L	139730 ppb	20:26:26
3	Ca 317.933Radial†	24174.0	23814.4	32802 ug/L	32802 ppb	20:26:26
3	Fe 238.204 Radial†	17626.9	17363.9	130490 ug/L	130490 ppb	20:26:26
3	K 766.490 Radial†	113621.4	109176.3	18297 ug/L	18297 ppb	20:26:26
3	Mg 279.077 IEC†	925.4	911.0	25869 ug/L	25869 ppb	20:26:46
3	Na 589.592 Radial†	23514.3	24721.9	6017.9 ug/L	6017.9 ppb	20:26:26
3	Sr 421.552†	130103.5	128249.6	708.10 ug/L	708.10 ppb	20:26:26
3	Sc 361.383	949765.7	949765.7	101.72 %		20:27:59
3	Y 371.029	1005150.4	1005150.4	125.21 %		20:27:59
3	Ag 328.068†	111968.6	109756.8	492.37 ug/L	492.37 ppb	20:28:05
3	As 188.979†	1339.6	1348.6	513.16 ug/L	513.16 ppb	20:28:25
3	B 249.677†	26069.2	26410.1	492.19 ug/L	492.19 ppb	20:28:05
3	Ba 233.527†	243618.3	239502.6	1557.2 ug/L	1557.2 ppb	20:28:05
3	Be 313.107†	1563966.9	1542311.7	498.39 ug/L	498.39 ppb	20:27:59
3	Cd 226.502†	53043.5	52384.9	468.87 ug/L	468.87 ppb	20:28:05
3	Co 228.616†	29656.0	29245.8	478.20 ug/L	478.20 ppb	20:28:25
3	Cr 267.716†	63005.9	61858.6	595.71 ug/L	595.71 ppb	20:28:05
3	Cu 324.752†	243817.9	233121.0	628.56 ug/L	628.56 ppb	20:28:05
3	Mn 257.610†	3819866.6	3754769.3	3527.4 ug/L	3527.4 ppb	20:27:59
3	Mo 202.031†	7820.6	7662.7	453.82 ug/L	453.82 ppb	20:28:25
3	Ni 231.604†	26513.8	25962.4	536.72 ug/L	536.72 ppb	20:28:25
3	P 214.914†	3665.9	3357.5	1471.8 ug/L	1471.8 ppb	20:28:25
3	Pb 220.353†	6315.9	6291.7	641.24 ug/L	641.24 ppb	20:28:25
3	S 181.975 Axial†	4811.8	4675.5	5310.0 ug/L	5310.0 ppb	20:28:25
3	Sb 206.836†	1597.3	1529.3	422.50 ug/L	422.50 ppb	20:28:25
3	Se 196.026†	135.5	165.8	513.00 ug/L	513.00 ppb	20:28:25
3	Si 251.611†	468047.4	459515.2	12151 ug/L	12151 ppb	20:28:05
3	Sn 189.927†	3314.4	3252.7	463.92 ug/L	463.92 ppb	20:28:25
3	Ti 334.940†	3080535.5	3029948.9	4179.7 ug/L	4179.7 ppb	20:27:59
3	Tl 190.801†	1089.4	1109.1	328.07 ug/L	328.07 ppb	20:28:25
3	U 409.014†	5511.5	8045.9	197.32 ug/L	197.32 ppb	20:28:05
3	V 292.402†	109148.3	108899.0	637.52 ug/L	637.52 ppb	20:28:05
3	Zn 213.857†	149488.7	146181.9	1120.4 ug/L	1120.4 ppb	20:28:05
3	SiO2†	473095.3	464444.6	26165 ug/L	26165 ppb	20:28:41

Mean Data: 1201999274|935146|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	944567.6	101.16	%	1.052				1.04%
Sc Radial	5731.6	101	%	0.4				0.41%
Y 371.029	998732.8	124.41	%	1.307				1.05%
Y RADIAL	7848.1	125.8	%	0.40				0.31%
Ag 328.068†	110332.9	495.01	ug/L	2.675	495.01	ppb	2.675	0.54%
Al 396.153Radial†	203373.2	140670	ug/L	893.3	140670	ppb	893.3	0.64%
As 188.979†	1355.5	515.73	ug/L	4.130	515.73	ppb	4.130	0.80%
B 249.677†	26543.4	494.64	ug/L	2.880	494.64	ppb	2.880	0.58%
Ba 233.527†	240802.9	1565.7	ug/L	9.20	1565.7	ppb	9.20	0.59%
Be 313.107†	1542611.4	498.51	ug/L	0.712	498.51	ppb	0.712	0.14%
Ca 317.933Radial†	23927.7	32958	ug/L	135.2	32958	ppb	135.2	0.41%
Cd 226.502†	52586.4	470.64	ug/L	1.978	470.64	ppb	1.978	0.42%
Co 228.616†	29480.7	482.10	ug/L	6.239	482.10	ppb	6.239	1.29%
Cr 267.716†	62075.8	597.81	ug/L	1.959	597.81	ppb	1.959	0.33%
Cu 324.752†	234650.6	632.68	ug/L	4.217	632.68	ppb	4.217	0.67%
Fe 238.204 Radial†	17477.7	131340	ug/L	748.0	131340	ppb	748.0	0.57%
K 766.490 Radial†	109766.3	18396	ug/L	85.8	18396	ppb	85.8	0.47%

Mg 279.077 IEC†	911.7	25890	ug/L	163.3	25890	ppb	163.3	0.63%
Mn 257.610†	3762928.9	3535.1	ug/L	12.92	3535.1	ppb	12.92	0.37%
Mo 202.031†	7742.9	458.52	ug/L	6.901	458.52	ppb	6.901	1.51%
Na 589.592 Radial†	24841.3	6047.0	ug/L	26.90	6047.0	ppb	26.90	0.44%
Ni 231.604†	26189.2	541.41	ug/L	7.048	541.41	ppb	7.048	1.30%
P 214.914†	3384.3	1483.8	ug/L	23.82	1483.8	ppb	23.82	1.61%
Pb 220.353†	6344.6	646.60	ug/L	9.090	646.60	ppb	9.090	1.41%
S 181.975 Axial†	4725.8	5367.2	ug/L	76.52	5367.2	ppb	76.52	1.43%
Sb 206.836†	1548.0	427.85	ug/L	5.523	427.85	ppb	5.523	1.29%
Se 196.026†	169.2	517.52	ug/L	4.293	517.52	ppb	4.293	0.83%
Si 251.611†	461795.4	12211	ug/L	68.9	12211	ppb	68.9	0.56%
Sn 189.927†	3277.8	467.48	ug/L	3.969	467.48	ppb	3.969	0.85%
Sr 421.552†	129131.4	712.97	ug/L	4.314	712.97	ppb	4.314	0.61%
Ti 334.940†	3037128.7	4189.6	ug/L	10.68	4189.6	ppb	10.68	0.25%
Tl 190.801†	1115.2	329.70	ug/L	1.551	329.70	ppb	1.551	0.47%
U 409.014†	8138.8	199.69	ug/L	2.101	199.69	ppb	2.101	1.05%
V 292.402†	109539.3	641.30	ug/L	3.665	641.30	ppb	3.665	0.57%
Zn 213.857†	146985.4	1126.5	ug/L	6.18	1126.5	ppb	6.18	0.55%
SiO2†	470003.7	26478	ug/L	470.4	26478	ppb	470.4	1.78%

Sequence No.: 7
Sample ID: 1201999272|935146|5
Analyst: JWJ
Initial Sample Wt:
Dilution:

Autosampler Location: 44
Date Collected: 12/23/2009 20:30:52
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1201999272|935146|5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5657.8	5657.8	99.7	%			20:32:45
1	Y RADIAL	6431.1	6431.1	103.1	%			20:32:45
1	Al 396.153Radial†	24282.5	24356.7	16849	ug/L	16849	ppb	20:32:45
1	Ca 317.933Radial†	3389.4	3385.8	4663.7	ug/L	4663.7	ppb	20:33:05
1	Fe 238.204 Radial†	3159.1	3157.6	23727	ug/L	23727	ppb	20:33:05
1	K 766.490 Radial†	15709.9	12937.6	2165.6	ug/L	2165.6	ppb	20:32:45
1	Mg 279.077 IEC†	124.4	123.6	3502.7	ug/L	3502.7	ppb	20:33:05
1	Na 589.592 Radial†	-311.7	1231.9	299.87	ug/L	299.87	ppb	20:32:45
1	Sr 421.552†	8280.1	8314.0	45.881	ug/L	45.881	ppb	20:32:45
1	Sc 361.383	920897.6	920897.6	98.629	%			20:34:02
1	Y 371.029	804471.3	804471.3	100.21	%			20:34:02
1	Ag 328.068†	-1378.2	-1715.4	1.0829	ug/L	1.0829	ppb	20:34:02
1	As 188.979†	-23.0	8.4	12.341	ug/L	12.341	ppb	20:34:22
1	B 249.677†	34.5	816.7	12.617	ug/L	12.617	ppb	20:34:02
1	Ba 233.527†	38700.8	39243.6	255.07	ug/L	255.07	ppb	20:34:02
1	Be 313.107†	-4693.7	37.8	1.3768	ug/L	1.3768	ppb	20:34:02
1	Cd 226.502†	53.3	292.6	0.3294	ug/L	0.3294	ppb	20:34:22
1	Co 228.616†	621.7	721.8	10.317	ug/L	10.317	ppb	20:34:22
1	Cr 267.716†	2564.4	2518.4	24.626	ug/L	24.626	ppb	20:34:22
1	Cu 324.752†	16593.5	10251.2	28.558	ug/L	28.558	ppb	20:34:02
1	Mn 257.610†	681213.9	690195.3	648.40	ug/L	648.40	ppb	20:34:02
1	Mo 202.031†	24.3	-0.9	2.2211	ug/L	2.2211	ppb	20:34:22
1	Ni 231.604†	981.2	891.9	18.440	ug/L	18.440	ppb	20:34:22
1	P 214.914†	741.4	505.2	226.33	ug/L	226.33	ppb	20:34:22
1	Pb 220.353†	371.9	459.7	47.107	ug/L	47.107	ppb	20:34:22
1	S 181.975 Axial†	137.4	84.3	92.960	ug/L	92.960	ppb	20:34:22
1	Sb 206.836†	36.9	-3.7	-3.6058	ug/L	-3.6058	ppb	20:34:22
1	Se 196.026†	-170.7	-140.5	4.7685	ug/L	4.7685	ppb	20:34:22
1	Si 251.611†	111384.2	112316.9	2973.0	ug/L	2973.0	ppb	20:34:02
1	Sn 189.927†	-36.1	-42.2	-5.1468	ug/L	-5.1468	ppb	20:34:22
1	Ti 334.940†	495106.0	503505.8	694.60	ug/L	694.60	ppb	20:34:02
1	Tl 190.801†	-77.8	-40.7	-0.6891	ug/L	-0.6891	ppb	20:34:22
1	U 409.014†	-4711.1	-2149.0	-60.425	ug/L	-60.425	ppb	20:34:02
1	V 292.402†	4940.1	6605.6	35.308	ug/L	35.308	ppb	20:34:02
1	Zn 213.857†	16544.1	15995.7	122.39	ug/L	122.39	ppb	20:34:02
1	SiO2†	111257.1	112155.1	6324.8	ug/L	6324.8	ppb	20:35:18
2	Sc Radial	5574.6	5574.6	98.2	%			20:33:10
2	Y RADIAL	6338.4	6338.4	101.6	%			20:33:10
2	Al 396.153Radial†	23882.9	24313.5	16819	ug/L	16819	ppb	20:33:10
2	Ca 317.933Radial†	3370.6	3417.4	4707.2	ug/L	4707.2	ppb	20:33:30
2	Fe 238.204 Radial†	3146.5	3192.1	23986	ug/L	23986	ppb	20:33:30
2	K 766.490 Radial†	15775.8	13239.9	2216.3	ug/L	2216.3	ppb	20:33:10
2	Mg 279.077 IEC†	121.2	122.2	3462.7	ug/L	3462.7	ppb	20:33:30
2	Na 589.592 Radial†	-444.0	1092.6	265.96	ug/L	265.96	ppb	20:33:10
2	Sr 421.552†	8110.1	8265.0	45.609	ug/L	45.609	ppb	20:33:10
2	Sc 361.383	924062.5	924062.5	98.968	%			20:34:27
2	Y 371.029	805871.4	805871.4	100.39	%			20:34:27
2	Ag 328.068†	-1299.7	-1631.3	1.5137	ug/L	1.5137	ppb	20:34:27
2	As 188.979†	-33.0	-1.7	8.9800	ug/L	8.9800	ppb	20:34:47
2	B 249.677†	76.9	859.5	13.409	ug/L	13.409	ppb	20:34:27
2	Ba 233.527†	38869.8	39279.9	255.31	ug/L	255.31	ppb	20:34:27
2	Be 313.107†	-4812.1	-65.5	1.3471	ug/L	1.3471	ppb	20:34:27
2	Cd 226.502†	18.0	256.7	-0.0262	ug/L	-0.0262	ppb	20:34:47
2	Co 228.616†	615.5	713.4	10.171	ug/L	10.171	ppb	20:34:47
2	Cr 267.716†	2555.8	2500.7	24.463	ug/L	24.463	ppb	20:34:47
2	Cu 324.752†	16848.1	10450.8	29.104	ug/L	29.104	ppb	20:34:27
2	Mn 257.610†	684801.0	691454.3	649.60	ug/L	649.60	ppb	20:34:27
2	Mo 202.031†	26.7	1.4	2.3782	ug/L	2.3782	ppb	20:34:47
2	Ni 231.604†	971.8	879.0	18.174	ug/L	18.174	ppb	20:34:47

2	P 214.914†	739.5	500.7	223.85 ug/L	223.85 ppb	20:34:47
2	Pb 220.353†	368.5	455.0	46.620 ug/L	46.620 ppb	20:34:47
2	S 181.975 Axial†	137.3	83.8	92.324 ug/L	92.324 ppb	20:34:47
2	Sb 206.836†	36.0	-4.6	-3.8801 ug/L	-3.8801 ppb	20:34:47
2	Se 196.026†	-178.4	-147.7	1.9129 ug/L	1.9129 ppb	20:34:47
2	Si 251.611†	112130.0	112683.7	2982.7 ug/L	2982.7 ppb	20:34:27
2	Sn 189.927†	-38.9	-45.0	-5.5238 ug/L	-5.5238 ppb	20:34:47
2	Ti 334.940†	497972.3	504682.8	696.22 ug/L	696.22 ppb	20:34:27
2	Tl 190.801†	-77.7	-40.4	-0.5892 ug/L	-0.5892 ppb	20:34:47
2	U 409.014†	-4723.3	-2145.0	-60.349 ug/L	-60.349 ppb	20:34:27
2	V 292.402†	5058.3	6707.8	35.883 ug/L	35.883 ppb	20:34:27
2	Zn 213.857†	16673.2	16068.7	122.94 ug/L	122.94 ppb	20:34:27
2	SiO2†	111634.4	112150.0	6324.5 ug/L	6324.5 ppb	20:35:23
3	Sc Radial	5647.4	5647.4	99.5 %		20:33:35
3	Y RADIAL	6440.0	6440.0	103.2 %		20:33:35
3	Al 396.153Radial†	24039.1	24156.8	16711 ug/L	16711 ppb	20:33:35
3	Ca 317.933Radial†	3365.3	3367.9	4638.9 ug/L	4638.9 ppb	20:33:55
3	Fe 238.204 Radial†	3147.6	3151.9	23684 ug/L	23684 ppb	20:33:55
3	K 766.490 Radial†	15790.9	13047.9	2184.1 ug/L	2184.1 ppb	20:33:35
3	Mg 279.077 IEC†	125.7	125.1	3546.3 ug/L	3546.3 ppb	20:33:55
3	Na 589.592 Radial†	-329.4	1213.5	295.39 ug/L	295.39 ppb	20:33:35
3	Sr 421.552†	8174.0	8222.7	45.377 ug/L	45.377 ppb	20:33:35
3	Sc 361.383	918971.9	918971.9	98.422 %		20:34:53
3	Y 371.029	802833.1	802833.1	100.01 %		20:34:53
3	Ag 328.068†	-1363.6	-1703.5	1.1180 ug/L	1.1180 ppb	20:34:53
3	As 188.979†	-45.2	-14.3	4.6297 ug/L	4.6297 ppb	20:35:13
3	B 249.677†	73.9	856.8	13.398 ug/L	13.398 ppb	20:34:53
3	Ba 233.527†	38469.6	39090.9	254.08 ug/L	254.08 ppb	20:34:53
3	Be 313.107†	-4723.1	-1.9	1.3623 ug/L	1.3623 ppb	20:34:53
3	Cd 226.502†	23.9	262.8	0.0600 ug/L	0.0600 ppb	20:35:13
3	Co 228.616†	602.9	704.1	10.026 ug/L	10.026 ppb	20:35:13
3	Cr 267.716†	2524.8	2483.6	24.292 ug/L	24.292 ppb	20:35:13
3	Cu 324.752†	16635.9	10329.4	28.764 ug/L	28.764 ppb	20:34:53
3	Mn 257.610†	679164.6	689560.6	647.80 ug/L	647.80 ppb	20:34:53
3	Mo 202.031†	39.1	14.1	3.0817 ug/L	3.0817 ppb	20:35:13
3	Ni 231.604†	964.6	877.0	18.134 ug/L	18.134 ppb	20:35:13
3	P 214.914†	727.9	493.1	220.43 ug/L	220.43 ppb	20:35:13
3	Pb 220.353†	363.2	451.7	46.295 ug/L	46.295 ppb	20:35:13
3	S 181.975 Axial†	134.7	81.9	90.235 ug/L	90.235 ppb	20:35:13
3	Sb 206.836†	48.3	8.0	-0.2652 ug/L	-0.2652 ppb	20:35:13
3	Se 196.026†	-173.5	-143.7	2.9966 ug/L	2.9966 ppb	20:35:13
3	Si 251.611†	110981.2	112144.1	2968.4 ug/L	2968.4 ppb	20:34:53
3	Sn 189.927†	-28.9	-35.0	-4.1327 ug/L	-4.1327 ppb	20:35:13
3	Ti 334.940†	493412.3	502837.0	693.67 ug/L	693.67 ppb	20:34:53
3	Tl 190.801†	-81.1	-44.3	-1.5921 ug/L	-1.5921 ppb	20:35:13
3	U 409.014†	-4665.9	-2113.0	-59.459 ug/L	-59.459 ppb	20:34:53
3	V 292.402†	4994.7	6671.5	35.727 ug/L	35.727 ppb	20:34:53
3	Zn 213.857†	16483.3	15969.0	122.19 ug/L	122.19 ppb	20:34:53
3	SiO2†	111313.5	112448.8	6341.3 ug/L	6341.3 ppb	20:35:28

Mean Data: 1201999272|935146|5

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	921310.7	98.673	%	0.2753				0.28%
Sc Radial	5626.6	99.2	%	0.80				0.81%
Y 371.029	804391.9	100.20	%	0.189				0.19%
Y RADIAL	6403.2	102.7	%	0.90				0.88%
Ag 328.068†	-1683.4	1.2382	ug/L	0.23926	1.2382	ppb	0.23926	19.32%
Al 396.153Radial†	24275.7	16793	ug/L	72.8	16793	ppb	72.8	0.43%
As 188.979†	-2.5	8.6502	ug/L	3.86612	8.6502	ppb	3.86612	44.69%
B 249.677†	844.3	13.141	ug/L	0.4543	13.141	ppb	0.4543	3.46%
Ba 233.527†	39204.8	254.82	ug/L	0.653	254.82	ppb	0.653	0.26%
Be 313.107†	-9.9	1.3621	ug/L	0.01482	1.3621	ppb	0.01482	1.09%
Ca 317.933Radial†	3390.4	4669.9	ug/L	34.57	4669.9	ppb	34.57	0.74%
Cd 226.502†	270.7	0.1211	ug/L	0.18551	0.1211	ppb	0.18551	153.21%
Co 228.616†	713.1	10.171	ug/L	0.1453	10.171	ppb	0.1453	1.43%
Cr 267.716†	2500.9	24.460	ug/L	0.1668	24.460	ppb	0.1668	0.68%
Cu 324.752†	10343.8	28.808	ug/L	0.2756	28.808	ppb	0.2756	0.96%
Fe 238.204 Radial†	3167.2	23799	ug/L	163.6	23799	ppb	163.6	0.69%
K 766.490 Radial†	13075.1	2188.6	ug/L	25.67	2188.6	ppb	25.67	1.17%

Mg 279.077 IEC†	123.6	3503.9	ug/L	41.84	3503.9	ppb	41.84	1.19%
Mn 257.610†	690403.4	648.60	ug/L	0.919	648.60	ppb	0.919	0.14%
Mo 202.031†	4.8	2.5603	ug/L	0.45834	2.5603	ppb	0.45834	17.90%
Na 589.592 Radial†	1179.3	287.08	ug/L	18.419	287.08	ppb	18.419	6.42%
Ni 231.604†	882.6	18.249	ug/L	0.1665	18.249	ppb	0.1665	0.91%
P 214.914†	499.7	223.54	ug/L	2.962	223.54	ppb	2.962	1.33%
Pb 220.353†	455.4	46.674	ug/L	0.4087	46.674	ppb	0.4087	0.88%
S 181.975 Axial†	83.3	91.839	ug/L	1.4256	91.839	ppb	1.4256	1.55%
Sb 206.836†	-0.1	-2.5837	ug/L	2.01256	-2.5837	ppb	2.01256	77.89%
Se 196.026†	-143.9	3.2260	ug/L	1.44156	3.2260	ppb	1.44156	44.69%
Si 251.611†	112381.6	2974.7	ug/L	7.30	2974.7	ppb	7.30	0.25%
Sn 189.927†	-40.8	-4.9344	ug/L	0.71948	-4.9344	ppb	0.71948	14.58%
Sr 421.552†	8267.3	45.622	ug/L	0.2523	45.622	ppb	0.2523	0.55%
Ti 334.940†	503675.2	694.83	ug/L	1.291	694.83	ppb	1.291	0.19%
Tl 190.801†	-41.8	-0.9568	ug/L	0.55246	-0.9568	ppb	0.55246	57.74%
U 409.014†	-2135.7	-60.078	ug/L	0.5374	-60.078	ppb	0.5374	0.89%
V 292.402†	6661.6	35.639	ug/L	0.2975	35.639	ppb	0.2975	0.83%
Zn 213.857†	16011.2	122.51	ug/L	0.393	122.51	ppb	0.393	0.32%
SiO2†	112251.3	6330.2	ug/L	9.63	6330.2	ppb	9.63	0.15%

Sequence No.: 8
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 12/23/2009 20:37:39
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5434.0	5434.0	95.8	%			20:39:31
1	Y RADIAL	5970.8	5970.8	95.73	%			20:39:31
1	Al 396.153Radial†	7125.7	7445.4	5129.0	ug/L	5129.0	ppb	20:39:31
1	Ca 317.933Radial†	3649.8	3797.8	5231.1	ug/L	5231.1	ppb	20:39:51
1	Fe 238.204 Radial†	656.9	675.4	5091.0	ug/L	5091.0	ppb	20:39:51
1	K 766.490 Radial†	32332.9	30943.1	5184.7	ug/L	5184.7	ppb	20:39:31
1	Mg 279.077 IEC†	181.3	188.1	5369.9	ug/L	5369.9	ppb	20:39:51
1	Na 589.592 Radial†	34705.7	37782.1	9197.1	ug/L	9197.1	ppb	20:39:31
1	Sr 421.552†	85218.6	88990.6	491.50	ug/L	491.50	ppb	20:39:31
1	Sc 361.383	937058.8	937058.8	100.36	%			20:40:50
1	Y 371.029	791050.0	791050.0	98.540	%			20:40:50
1	Ag 328.068†	124050.4	123288.0	505.12	ug/L	505.12	ppb	20:40:50
1	As 188.979†	1444.6	1471.1	504.50	ug/L	504.50	ppb	20:41:10
1	B 249.677†	25731.8	26421.4	509.01	ug/L	509.01	ppb	20:40:50
1	Ba 233.527†	78365.5	78089.5	507.44	ug/L	507.44	ppb	20:40:50
1	Be 313.107†	1591970.0	1591063.8	506.66	ug/L	506.66	ppb	20:40:50
1	Cd 226.502†	55209.3	55250.1	507.72	ug/L	507.72	ppb	20:40:50
1	Co 228.616†	29983.4	29967.5	499.55	ug/L	499.55	ppb	20:41:10
1	Cr 267.716†	52831.6	52560.7	504.08	ug/L	504.08	ppb	20:40:50
1	Cu 324.752†	197009.6	189730.8	506.41	ug/L	506.41	ppb	20:40:50
1	Mn 257.610†	544304.7	541864.6	507.65	ug/L	507.65	ppb	20:40:50
1	Mo 202.031†	8776.8	8719.8	502.68	ug/L	502.68	ppb	20:41:10
1	Ni 231.604†	24295.2	24105.2	498.30	ug/L	498.30	ppb	20:41:10
1	P 214.914†	5473.7	5207.6	2440.7	ug/L	2440.7	ppb	20:41:10
1	Pb 220.353†	5049.2	5113.8	505.49	ug/L	505.49	ppb	20:41:10
1	S 181.975 Axial†	947.5	889.1	1014.0	ug/L	1014.0	ppb	20:41:10
1	Sb 206.836†	1816.3	1768.7	505.55	ug/L	505.55	ppb	20:41:10
1	Se 196.026†	962.4	991.6	522.95	ug/L	522.95	ppb	20:41:10
1	Si 251.611†	97385.8	96421.0	2540.8	ug/L	2540.8	ppb	20:40:50
1	Sn 189.927†	3569.4	3551.0	501.36	ug/L	501.36	ppb	20:41:10
1	Ti 334.940†	365236.4	365443.9	503.83	ug/L	503.83	ppb	20:40:50
1	Tl 190.801†	1996.0	2027.0	506.86	ug/L	506.86	ppb	20:41:10
1	U 409.014†	15733.9	18305.2	487.27	ug/L	487.27	ppb	20:40:50
1	V 292.402†	82307.5	83609.4	509.53	ug/L	509.53	ppb	20:40:50
1	Zn 213.857†	66465.4	65448.9	502.68	ug/L	502.68	ppb	20:40:50
1	SiO2†	96756.5	95761.0	5375.4	ug/L	5375.4	ppb	20:42:10
2	Sc Radial	5576.5	5576.5	98.3	%			20:39:56
2	Y RADIAL	6110.9	6110.9	97.97	%			20:39:56
2	Al 396.153Radial†	7287.4	7419.8	5111.4	ug/L	5111.4	ppb	20:39:56
2	Ca 317.933Radial†	3627.6	3677.8	5065.8	ug/L	5065.8	ppb	20:40:16
2	Fe 238.204 Radial†	656.3	657.3	4954.6	ug/L	4954.6	ppb	20:40:16
2	K 766.490 Radial†	32767.0	30522.1	5114.1	ug/L	5114.1	ppb	20:39:56
2	Mg 279.077 IEC†	180.3	182.3	5202.2	ug/L	5202.2	ppb	20:40:16
2	Na 589.592 Radial†	35106.6	37264.0	9071.0	ug/L	9071.0	ppb	20:39:56
2	Sr 421.552†	86763.3	88288.7	487.63	ug/L	487.63	ppb	20:39:56
2	Sc 361.383	938194.8	938194.8	100.48	%			20:41:17
2	Y 371.029	793600.8	793600.8	98.858	%			20:41:17
2	Ag 328.068†	124432.8	123518.9	506.01	ug/L	506.01	ppb	20:41:17
2	As 188.979†	1444.1	1468.8	503.70	ug/L	503.70	ppb	20:41:38
2	B 249.677†	25831.7	26489.7	510.35	ug/L	510.35	ppb	20:41:17
2	Ba 233.527†	78214.7	77844.8	505.85	ug/L	505.85	ppb	20:41:17
2	Be 313.107†	1591502.0	1588677.3	505.91	ug/L	505.91	ppb	20:41:17
2	Cd 226.502†	54940.8	54916.2	504.66	ug/L	504.66	ppb	20:41:17
2	Co 228.616†	29852.8	29801.3	496.78	ug/L	496.78	ppb	20:41:38
2	Cr 267.716†	52694.7	52360.7	502.16	ug/L	502.16	ppb	20:41:17
2	Cu 324.752†	197753.2	190233.1	507.74	ug/L	507.74	ppb	20:41:17
2	Mn 257.610†	543145.9	540054.7	505.94	ug/L	505.94	ppb	20:41:17
2	Mo 202.031†	8745.2	8677.7	500.24	ug/L	500.24	ppb	20:41:38
2	Ni 231.604†	24228.8	24009.8	496.33	ug/L	496.33	ppb	20:41:38

2	P 214.914†	5441.3	5168.8	2421.8 ug/L	2421.8 ppb	20:41:38
2	Pb 220.353†	5046.7	5105.2	504.64 ug/L	504.64 ppb	20:41:38
2	S 181.975 Axial†	922.9	863.5	984.77 ug/L	984.77 ppb	20:41:38
2	Sb 206.836†	1808.6	1758.9	502.69 ug/L	502.69 ppb	20:41:38
2	Se 196.026†	951.9	980.0	516.61 ug/L	516.61 ppb	20:41:38
2	Si 251.611†	97417.8	96335.4	2538.6 ug/L	2538.6 ppb	20:41:17
2	Sn 189.927†	3544.2	3521.6	497.20 ug/L	497.20 ppb	20:41:38
2	Ti 334.940†	365696.0	365460.6	503.85 ug/L	503.85 ppb	20:41:17
2	Tl 190.801†	1983.4	2012.1	503.17 ug/L	503.17 ppb	20:41:38
2	U 409.014†	15616.3	18169.2	483.65 ug/L	483.65 ppb	20:41:17
2	V 292.402†	82176.5	83379.7	508.12 ug/L	508.12 ppb	20:41:17
2	Zn 213.857†	66207.0	65111.5	500.09 ug/L	500.09 ppb	20:41:17
2	SiO2†	96078.2	94969.1	5330.9 ug/L	5330.9 ppb	20:42:16
3	Sc Radial	5535.5	5535.5	97.6 %		20:40:21
3	Y RADIAL	6061.8	6061.8	97.19 %		20:40:21
3	Al 396.153Radial†	7253.0	7439.6	5124.9 ug/L	5124.9 ppb	20:40:21
3	Ca 317.933Radial†	3655.0	3733.2	5142.1 ug/L	5142.1 ppb	20:40:41
3	Fe 238.204 Radial†	663.1	669.2	5044.4 ug/L	5044.4 ppb	20:40:41
3	K 766.490 Radial†	32885.2	30890.6	5175.9 ug/L	5175.9 ppb	20:40:21
3	Mg 279.077 IEC†	185.1	188.6	5383.2 ug/L	5383.2 ppb	20:40:41
3	Na 589.592 Radial†	35402.1	37831.8	9209.3 ug/L	9209.3 ppb	20:40:21
3	Sr 421.552†	86702.3	88880.7	490.90 ug/L	490.90 ppb	20:40:21
3	Sc 361.383	938414.9	938414.9	100.50 %		20:41:45
3	Y 371.029	793890.2	793890.2	98.894 %		20:41:45
3	Ag 328.068†	124131.7	123190.3	504.70 ug/L	504.70 ppb	20:41:45
3	As 188.979†	1452.1	1476.5	506.31 ug/L	506.31 ppb	20:42:05
3	B 249.677†	25877.1	26528.9	511.10 ug/L	511.10 ppb	20:41:45
3	Ba 233.527†	78355.7	77966.9	506.64 ug/L	506.64 ppb	20:41:45
3	Be 313.107†	1593374.6	1590169.0	506.38 ug/L	506.38 ppb	20:41:45
3	Cd 226.502†	55103.8	55065.5	506.03 ug/L	506.03 ppb	20:41:45
3	Co 228.616†	30003.6	29944.3	499.17 ug/L	499.17 ppb	20:42:05
3	Cr 267.716†	52768.1	52421.4	502.74 ug/L	502.74 ppb	20:41:45
3	Cu 324.752†	197264.0	189700.2	506.33 ug/L	506.33 ppb	20:41:45
3	Mn 257.610†	543521.5	540301.6	506.18 ug/L	506.18 ppb	20:41:45
3	Mo 202.031†	8795.0	8725.3	502.99 ug/L	502.99 ppb	20:42:05
3	Ni 231.604†	24338.5	24113.3	498.46 ug/L	498.46 ppb	20:42:05
3	P 214.914†	5482.2	5208.2	2441.1 ug/L	2441.1 ppb	20:42:05
3	Pb 220.353†	5049.3	5106.6	504.78 ug/L	504.78 ppb	20:42:05
3	S 181.975 Axial†	940.3	880.6	1004.3 ug/L	1004.3 ppb	20:42:05
3	Sb 206.836†	1817.3	1767.2	505.14 ug/L	505.14 ppb	20:42:05
3	Se 196.026†	964.1	991.9	522.93 ug/L	522.93 ppb	20:42:05
3	Si 251.611†	97468.8	96363.3	2539.3 ug/L	2539.3 ppb	20:41:45
3	Sn 189.927†	3569.9	3546.4	500.70 ug/L	500.70 ppb	20:42:05
3	Ti 334.940†	365243.0	364924.5	503.11 ug/L	503.11 ppb	20:41:45
3	Tl 190.801†	1994.3	2022.4	505.73 ug/L	505.73 ppb	20:42:05
3	U 409.014†	15812.5	18360.7	488.76 ug/L	488.76 ppb	20:41:45
3	V 292.402†	82260.3	83443.9	508.55 ug/L	508.55 ppb	20:41:45
3	Zn 213.857†	66365.5	65253.8	501.17 ug/L	501.17 ppb	20:41:45
3	SiO2†	97064.2	95927.7	5384.8 ug/L	5384.8 ppb	20:42:21

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	937889.5	100.45	%	0.078				0.08%
Sc Radial	5515.3	97.2	%	1.29				1.33%
Y 371.029	792847.0	98.764	%	0.1947				0.20%
Y RADIAL	6047.9	96.96	%	1.140				1.18%
Ag 328.068†	123332.4	505.28	ug/L	0.670	505.28	ppb	0.670	0.13%
QC value within limits for Ag 328.068 Recovery = 101.06%								
Al 396.153Radial†	7435.0	5121.8	ug/L	9.21	5121.8	ppb	9.21	0.18%
QC value within limits for Al 396.153Radial Recovery = 102.44%								
As 188.979†	1472.1	504.84	ug/L	1.338	504.84	ppb	1.338	0.27%
QC value within limits for As 188.979 Recovery = 100.97%								
B 249.677†	26480.0	510.15	ug/L	1.058	510.15	ppb	1.058	0.21%
QC value within limits for B 249.677 Recovery = 102.03%								
Ba 233.527†	77967.1	506.64	ug/L	0.796	506.64	ppb	0.796	0.16%
QC value within limits for Ba 233.527 Recovery = 101.33%								
Be 313.107†	1589970.0	506.32	ug/L	0.383	506.32	ppb	0.383	0.08%
QC value within limits for Be 313.107 Recovery = 101.26%								
Ca 317.933Radial†	3736.3	5146.3	ug/L	82.73	5146.3	ppb	82.73	1.61%

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   QC value within limits for Ca 317.933Radial  Recovery = 102.93%
Cd 226.502†            55077.3      506.14 ug/L         1.531      506.14 ppb          1.531   0.30%
   QC value within limits for Cd 226.502  Recovery = 101.23%
Co 228.616†            29904.4      498.50 ug/L         1.503      498.50 ppb          1.503   0.30%
   QC value within limits for Co 228.616  Recovery = 99.70%
Cr 267.716†            52447.6      503.00 ug/L         0.984      503.00 ppb          0.984   0.20%
   QC value within limits for Cr 267.716  Recovery = 100.60%
Cu 324.752†           189888.0      506.83 ug/L         0.795      506.83 ppb          0.795   0.16%
   QC value within limits for Cu 324.752  Recovery = 101.37%
Fe 238.204 Radial†       667.3      5030.0 ug/L         69.34      5030.0 ppb          69.34   1.38%
   QC value within limits for Fe 238.204 Radial  Recovery = 100.60%
K 766.490 Radial†      30785.3      5158.2 ug/L         38.46      5158.2 ppb          38.46   0.75%
   QC value within limits for K 766.490 Radial  Recovery = 103.16%
Mg 279.077 IEC†          186.3      5318.4 ug/L        100.90      5318.4 ppb         100.90   1.90%
   QC value within limits for Mg 279.077 IEC  Recovery = 106.37%
Mn 257.610†           540740.3      506.59 ug/L         0.924      506.59 ppb          0.924   0.18%
   QC value within limits for Mn 257.610  Recovery = 101.32%
Mo 202.031†             8707.6      501.97 ug/L         1.504      501.97 ppb          1.504   0.30%
   QC value within limits for Mo 202.031  Recovery = 100.39%
Na 589.592 Radial†     37626.0      9159.1 ug/L         76.54      9159.1 ppb          76.54   0.84%
   QC value within limits for Na 589.592 Radial  Recovery = 91.59%
Ni 231.604†            24076.1      497.69 ug/L         1.189      497.69 ppb          1.189   0.24%
   QC value within limits for Ni 231.604  Recovery = 99.54%
P 214.914†              5194.8      2434.5 ug/L         11.02      2434.5 ppb          11.02   0.45%
   QC value within limits for P 214.914  Recovery = 97.38%
Pb 220.353†             5108.5      504.97 ug/L         0.454      504.97 ppb          0.454   0.09%
   QC value within limits for Pb 220.353  Recovery = 100.99%
S 181.975 Axial†         877.8      1001.0 ug/L         14.90      1001.0 ppb          14.90   1.49%
   QC value within limits for S 181.975 Axial  Recovery = 100.10%
Sb 206.836†             1764.9      504.46 ug/L         1.542      504.46 ppb          1.542   0.31%
   QC value within limits for Sb 206.836  Recovery = 100.89%
Se 196.026†              987.8      520.83 ug/L         3.658      520.83 ppb          3.658   0.70%
   QC value within limits for Se 196.026  Recovery = 104.17%
Si 251.611†            96373.2      2539.6 ug/L          1.12      2539.6 ppb           1.12   0.04%
   QC value within limits for Si 251.611  Recovery = 101.58%
Sn 189.927†             3539.6      499.75 ug/L         2.239      499.75 ppb          2.239   0.45%
   QC value within limits for Sn 189.927  Recovery = 99.95%
Sr 421.552†            88720.0      490.01 ug/L         2.085      490.01 ppb          2.085   0.43%
   QC value within limits for Sr 421.552  Recovery = 98.00%
Ti 334.940†           365276.3      503.59 ug/L         0.421      503.59 ppb          0.421   0.08%
   QC value within limits for Ti 334.940  Recovery = 100.72%
Tl 190.801†             2020.5      505.26 ug/L         1.889      505.26 ppb          1.889   0.37%
   QC value within limits for Tl 190.801  Recovery = 101.05%
U 409.014†             18278.4      486.56 ug/L         2.624      486.56 ppb          2.624   0.54%
   QC value within limits for U 409.014  Recovery = 97.31%
V 292.402†             83477.7      508.73 ug/L         0.721      508.73 ppb          0.721   0.14%
   QC value within limits for V 292.402  Recovery = 101.75%
Zn 213.857†            65271.4      501.31 ug/L         1.301      501.31 ppb          1.301   0.26%
   QC value within limits for Zn 213.857  Recovery = 100.26%
SiO2†                  95552.6      5363.7 ug/L         28.79      5363.7 ppb          28.79   0.54%
   QC value within limits for SiO2  Recovery = 100.30%
All analyte(s) passed QC.
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Sequence No.: 9
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 12/23/2009 20:44:31
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5713.9	5713.9	101	%			20:46:23
1	Y RADIAL	6279.3	6279.3	100.7	%			20:46:23
1	Al 396.153Radial†	-12.4	-7.1	-4.9066	ug/L	-4.9066	ppb	20:46:23
1	Ca 317.933Radial†	17.3	4.0	5.4749	ug/L	5.4749	ppb	20:46:43
1	Fe 238.204 Radial†	11.7	1.1	8.6266	ug/L	8.6266	ppb	20:46:43
1	K 766.490 Radial†	2923.3	85.8	14.389	ug/L	14.389	ppb	20:46:23
1	Mg 279.077 IEC†	1.5	0.3	9.6476	ug/L	9.6476	ppb	20:46:43
1	Na 589.592 Radial†	-1434.3	120.3	29.274	ug/L	29.274	ppb	20:46:23
1	Sr 421.552†	-27.0	-16.3	-0.0902	ug/L	-0.0902	ppb	20:46:23
1	Sc 361.383	935779.9	935779.9	100.22	%			20:47:40
1	Y 371.029	800648.3	800648.3	99.736	%			20:47:40
1	Ag 328.068†	363.2	44.4	0.1837	ug/L	0.1837	ppb	20:47:45
1	As 188.979†	-29.5	2.3	0.7697	ug/L	0.7697	ppb	20:48:05
1	B 249.677†	-177.5	604.6	11.692	ug/L	11.692	ppb	20:47:45
1	Ba 233.527†	-10.0	-5.2	-0.0329	ug/L	-0.0329	ppb	20:48:05
1	Be 313.107†	-4736.2	71.1	0.0228	ug/L	0.0228	ppb	20:47:45
1	Cd 226.502†	-242.6	-3.5	-0.0331	ug/L	-0.0331	ppb	20:48:05
1	Co 228.616†	-99.2	-7.5	-0.1257	ug/L	-0.1257	ppb	20:48:05
1	Cr 267.716†	112.6	30.7	0.2940	ug/L	0.2940	ppb	20:48:05
1	Cu 324.752†	6476.0	-111.5	-0.2969	ug/L	-0.2969	ppb	20:47:45
1	Mn 257.610†	518.0	26.6	0.0256	ug/L	0.0256	ppb	20:48:05
1	Mo 202.031†	26.5	0.9	0.0505	ug/L	0.0505	ppb	20:48:05
1	Ni 231.604†	105.8	2.6	0.0531	ug/L	0.0531	ppb	20:48:05
1	P 214.914†	268.2	21.1	10.240	ug/L	10.240	ppb	20:48:05
1	Pb 220.353†	-85.4	-2.6	-0.2590	ug/L	-0.2590	ppb	20:48:05
1	S 181.975 Axial†	51.0	-4.0	-4.6009	ug/L	-4.6009	ppb	20:48:05
1	Sb 206.836†	41.5	0.3	0.0956	ug/L	0.0956	ppb	20:48:05
1	Se 196.026†	-34.5	-1.8	-0.8828	ug/L	-0.8828	ppb	20:48:05
1	Si 251.611†	686.9	69.5	1.8327	ug/L	1.8327	ppb	20:48:05
1	Sn 189.927†	8.1	2.5	0.3506	ug/L	0.3506	ppb	20:48:05
1	Ti 334.940†	-1433.4	85.7	0.1176	ug/L	0.1176	ppb	20:47:45
1	Tl 190.801†	-40.4	-2.2	-0.5359	ug/L	-0.5359	ppb	20:48:05
1	U 409.014†	-2570.7	62.7	1.6719	ug/L	1.6719	ppb	20:47:40
1	V 292.402†	-1530.1	70.0	0.4239	ug/L	0.4239	ppb	20:47:45
1	Zn 213.857†	792.5	12.4	0.0949	ug/L	0.0949	ppb	20:48:05
1	SiO2†	725.5	74.9	4.2123	ug/L	4.2123	ppb	20:49:11
2	Sc Radial	5623.4	5623.4	99.1	%			20:46:48
2	Y RADIAL	6203.6	6203.6	99.46	%			20:46:48
2	Al 396.153Radial†	-42.9	-38.1	-26.331	ug/L	-26.331	ppb	20:46:48
2	Ca 317.933Radial†	12.5	-0.6	-0.7812	ug/L	-0.7812	ppb	20:47:08
2	Fe 238.204 Radial†	10.6	0.2	1.5996	ug/L	1.5996	ppb	20:47:08
2	K 766.490 Radial†	2991.9	201.8	33.859	ug/L	33.859	ppb	20:46:48
2	Mg 279.077 IEC†	3.9	2.7	77.687	ug/L	77.687	ppb	20:47:08
2	Na 589.592 Radial†	-1447.3	84.2	20.488	ug/L	20.488	ppb	20:46:48
2	Sr 421.552†	27.6	38.3	0.2113	ug/L	0.2113	ppb	20:46:48
2	Sc 361.383	940196.7	940196.7	100.70	%			20:48:10
2	Y 371.029	806257.3	806257.3	100.43	%			20:48:10
2	Ag 328.068†	421.2	100.3	0.4140	ug/L	0.4140	ppb	20:48:15
2	As 188.979†	-33.9	-2.0	-0.6883	ug/L	-0.6883	ppb	20:48:35
2	B 249.677†	-190.8	592.3	11.454	ug/L	11.454	ppb	20:48:15
2	Ba 233.527†	-5.9	-1.2	-0.0071	ug/L	-0.0071	ppb	20:48:35
2	Be 313.107†	-4753.7	76.0	0.0243	ug/L	0.0243	ppb	20:48:15
2	Cd 226.502†	-234.7	5.5	0.0501	ug/L	0.0501	ppb	20:48:35
2	Co 228.616†	-97.6	-5.5	-0.0932	ug/L	-0.0932	ppb	20:48:35
2	Cr 267.716†	110.3	27.9	0.2690	ug/L	0.2690	ppb	20:48:35
2	Cu 324.752†	6522.8	-95.4	-0.2543	ug/L	-0.2543	ppb	20:48:15
2	Mn 257.610†	500.5	6.8	0.0051	ug/L	0.0051	ppb	20:48:35
2	Mo 202.031†	20.0	-5.8	-0.3320	ug/L	-0.3320	ppb	20:48:35
2	Ni 231.604†	109.5	5.8	0.1196	ug/L	0.1196	ppb	20:48:35

2	P 214.914†	254.8	6.6	3.1918	ug/L	3.1918 ppb	20:48:35
2	Pb 220.353†	-78.9	4.3	0.4157	ug/L	0.4157 ppb	20:48:35
2	S 181.975 Axial†	52.3	-3.0	-3.4687	ug/L	-3.4687 ppb	20:48:35
2	Sb 206.836†	35.2	-6.1	-1.7372	ug/L	-1.7372 ppb	20:48:35
2	Se 196.026†	-34.0	-1.2	-0.5903	ug/L	-0.5903 ppb	20:48:35
2	Si 251.611†	695.6	74.9	1.9780	ug/L	1.9780 ppb	20:48:35
2	Sn 189.927†	2.6	-3.0	-0.4244	ug/L	-0.4244 ppb	20:48:35
2	Ti 334.940†	-1470.4	55.7	0.0788	ug/L	0.0788 ppb	20:48:15
2	Tl 190.801†	-52.4	-13.9	-3.4430	ug/L	-3.4430 ppb	20:48:35
2	U 409.014†	-2831.5	-184.3	-4.9230	ug/L	-4.9230 ppb	20:48:10
2	V 292.402†	-1569.4	38.2	0.2170	ug/L	0.2170 ppb	20:48:15
2	Zn 213.857†	775.6	-8.2	-0.0664	ug/L	-0.0664 ppb	20:48:35
2	SiO2†	723.5	69.5	3.9122	ug/L	3.9122 ppb	20:49:16
3	Sc Radial	5513.4	5513.4	97.2	%		20:47:13
3	Y RADIAL	6063.3	6063.3	97.21	%		20:47:13
3	Al 396.153Radial†	-11.3	-6.4	-4.4270	ug/L	-4.4270 ppb	20:47:13
3	Ca 317.933Radial†	18.9	6.3	8.7422	ug/L	8.7422 ppb	20:47:33
3	Fe 238.204 Radial†	10.0	-0.2	-1.1526	ug/L	-1.1526 ppb	20:47:33
3	K 766.490 Radial†	2901.3	168.8	28.325	ug/L	28.325 ppb	20:47:13
3	Mg 279.077 IEC†	3.7	2.6	74.798	ug/L	74.798 ppb	20:47:33
3	Na 589.592 Radial†	-1486.7	14.5	3.5262	ug/L	3.5262 ppb	20:47:13
3	Sr 421.552†	20.2	31.3	0.1726	ug/L	0.1726 ppb	20:47:13
3	Sc 361.383	944150.9	944150.9	101.12	%		20:48:40
3	Y 371.029	809790.9	809790.9	100.87	%		20:48:40
3	Ag 328.068†	428.8	106.1	0.4296	ug/L	0.4296 ppb	20:48:45
3	As 188.979†	-27.7	4.3	1.4494	ug/L	1.4494 ppb	20:49:05
3	B 249.677†	-267.8	516.9	9.9955	ug/L	9.9955 ppb	20:48:45
3	Ba 233.527†	-22.8	-17.8	-0.1149	ug/L	-0.1149 ppb	20:49:05
3	Be 313.107†	-4781.4	68.3	0.0219	ug/L	0.0219 ppb	20:48:45
3	Cd 226.502†	-223.5	17.5	0.1610	ug/L	0.1610 ppb	20:49:05
3	Co 228.616†	-79.9	12.4	0.2070	ug/L	0.2070 ppb	20:49:05
3	Cr 267.716†	94.4	11.7	0.1109	ug/L	0.1109 ppb	20:49:05
3	Cu 324.752†	6559.6	-86.1	-0.2297	ug/L	-0.2297 ppb	20:48:45
3	Mn 257.610†	564.1	67.6	0.0618	ug/L	0.0618 ppb	20:49:05
3	Mo 202.031†	31.6	5.6	0.3247	ug/L	0.3247 ppb	20:49:05
3	Ni 231.604†	91.3	-12.7	-0.2628	ug/L	-0.2628 ppb	20:49:05
3	P 214.914†	260.7	11.3	5.5066	ug/L	5.5066 ppb	20:49:05
3	Pb 220.353†	-76.3	7.1	0.7044	ug/L	0.7044 ppb	20:49:05
3	S 181.975 Axial†	44.3	-11.2	-12.736	ug/L	-12.736 ppb	20:49:05
3	Sb 206.836†	35.2	-6.2	-1.7517	ug/L	-1.7517 ppb	20:49:05
3	Se 196.026†	-31.7	1.3	0.6728	ug/L	0.6728 ppb	20:49:05
3	Si 251.611†	677.1	53.7	1.4062	ug/L	1.4062 ppb	20:49:05
3	Sn 189.927†	6.7	1.0	0.1470	ug/L	0.1470 ppb	20:49:05
3	Ti 334.940†	-1453.4	78.6	0.1072	ug/L	0.1072 ppb	20:48:45
3	Tl 190.801†	-42.4	-3.8	-0.9514	ug/L	-0.9514 ppb	20:49:05
3	U 409.014†	-2521.7	133.9	3.5753	ug/L	3.5753 ppb	20:48:40
3	V 292.402†	-1563.2	50.9	0.3192	ug/L	0.3192 ppb	20:48:45
3	Zn 213.857†	797.7	10.5	0.0805	ug/L	0.0805 ppb	20:49:05
3	SiO2†	691.9	35.3	1.9556	ug/L	1.9556 ppb	20:49:21

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	940042.5	100.68	%	0.448				0.45%
Sc Radial	5616.9	99.0	%	1.77				1.79%
Y 371.029	805565.5	100.35	%	0.574				0.57%
Y RADIAL	6182.1	99.12	%	1.757				1.77%
Ag 328.068†	83.6	0.3424	ug/L	0.13771	0.3424	ppb	0.13771	40.22%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-17.2	-11.888	ug/L	12.5100	-11.888	ppb	12.5100	105.23%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	1.5	0.5103	ug/L	1.09220	0.5103	ppb	1.09220	214.05%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	571.3	11.047	ug/L	0.9185	11.047	ppb	0.9185	8.31%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-8.1	-0.0516	ug/L	0.05630	-0.0516	ppb	0.05630	109.08%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	71.8	0.0230	ug/L	0.00120	0.0230	ppb	0.00120	5.21%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	3.3	4.4786	ug/L	4.83922	4.4786	ppb	4.83922	108.05%

```
   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                 6.5      0.0593 ug/L       0.09739      0.0593 ppb        0.09739 164.12%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                -0.2     -0.0040 ug/L       0.18342     -0.0040 ppb        0.18342 >999.9%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                23.4      0.2246 ug/L       0.09924      0.2246 ppb        0.09924  44.18%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               -97.6     -0.2603 ug/L       0.03399     -0.2603 ppb        0.03399  13.06%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          0.4      3.0245 ug/L       5.04292      3.0245 ppb        5.04292 166.73%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         152.2     25.524 ug/L       10.0329      25.524 ppb        10.0329  39.31%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             1.9     54.044 ug/L       38.4756      54.044 ppb        38.4756  71.19%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                33.7      0.0308 ug/L       0.02871      0.0308 ppb        0.02871  93.09%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 0.2      0.0144 ug/L       0.32988      0.0144 ppb        0.32988 >999.9%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†         73.0     17.763 ug/L       13.0884      17.763 ppb        13.0884  73.68%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                -1.5     -0.0300 ug/L       0.20430     -0.0300 ppb        0.20430 680.00%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 13.0      6.3128 ug/L       3.59264      6.3128 ppb        3.59264  56.91%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                 2.9      0.2870 ug/L       0.49445      0.2870 ppb        0.49445 172.26%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -6.1     -6.9352 ug/L       5.05547     -6.9352 ppb        5.05547  72.90%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                -4.0     -1.1311 ug/L       1.06240     -1.1311 ppb        1.06240  93.92%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -0.5     -0.2668 ug/L       0.82670     -0.2668 ppb        0.82670 309.88%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                66.0      1.7390 ug/L       0.29719      1.7390 ppb        0.29719  17.09%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 0.2      0.0244 ug/L       0.40176      0.0244 ppb        0.40176 >999.9%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                17.7      0.0979 ug/L       0.16404      0.0979 ppb        0.16404 167.56%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                73.3      0.1012 ug/L       0.02008      0.1012 ppb        0.02008  19.84%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                -6.6     -1.6434 ug/L       1.57224     -1.6434 ppb        1.57224  95.67%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                  4.1      0.1081 ug/L       4.45974      0.1081 ppb        4.45974 >999.9%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 53.1      0.3200 ug/L       0.10344      0.3200 ppb        0.10344  32.32%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                 4.9      0.0363 ug/L       0.08927      0.0363 ppb        0.08927 245.84%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                      59.9      3.3600 ug/L       1.22552      3.3600 ppb        1.22552  36.47%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

ICPMS #5 Daily Performance Report

Sample ID: Sample
Sample Date/Time: Sunday, December 20, 2009 11:52:29
Sample Description:
Method File: c:\elandata\Method\Daily2.mth
Dataset File: c:\elandata\Dataset\default2\Sample.1572
Tuning File: c:\elandata\Tuning\default2.tun
Optimization File: c:\elandata\Optimize\default.dac
Dual Detector Mode: Pulse

Acq. Dead Time(ns): 35
Current Dead Time (ns): 35

Number of Replicates: 5

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Be	9.0	6232.8	6232.760	121.551	2.0
	Mg	24.0	57272.0	57271.978	417.606	0.7
	Co	58.9	130761.4	130761.384	1494.165	1.1
	Rh	102.9	239845.5	239845.479	1133.917	0.5
	In	114.9	311512.3	311512.270	1968.737	0.6
	Pb	208.0	299156.1	299156.147	3325.827	1.1
⌈>	Ba	137.9	296479.7	296479.705	2795.772	0.9
⌊	Ba++	69.0	6994.0	0.024	0.000	1.3
⌈>	Ce	139.9	363593.5	363593.523	1445.927	0.4
⌊	CeO	155.9	8869.6	0.024	0.000	1.8
	Bkgd	220.0	25.1	25.100	1.557	6.2

Current Optimization File Data

Current Value	Description
0.88	Nebulizer Gas Flow
8.25	Lens Voltage
1450.00	ICP RF Power
-1687.50	Analog Stage Voltage
1200.00	Pulse Stage Voltage
275.00	Discriminator Threshold
-6.00	AC Rod Offset

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	13	7.5	7027.7
Co	59	13	8.0	126550.7
In	115	13	9.0	309282.8

ICPMS #5 Instrument Tuning Report

File Name: default2.tun
File Path: c:\elandata\Tuning

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Pk. Width
He	3.0	3.0	587	2055	0.640
Be	9.0	9.0	2037	2070	0.646
Mg	24.0	24.0	5685	2070	0.663
Mg	25.0	25.0	5949	2070	0.668
Mg	26.0	26.0	6165	2070	0.670
Co	58.9	59.0	14190	2105	0.642
Rh	102.9	102.9	24879	2165	0.630
In	114.9	114.9	27793	2185	0.626
Ce	139.9	139.9	33865	2200	0.642
Pb	206.0	206.0	49936	2270	0.640
Pb	207.0	207.0	50183	2235	0.691
Pb	208.0	208.0	50427	2260	0.720
U	238.1	238.1	57732	2275	0.721

ICPMS#5 - Summary Report

Sample ID: Blank
Sample Date/Time: Sunday, December 20, 2009 13:02:49
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\091220\Blank.020

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7		ug/L		65	
	Be	9		ug/L		24	
	B	11		ug/L		946	
	Na	23		ug/L		23020	
	Mg	24		ug/L		2334	
	Al	27		ug/L		8669	
	P	31		ug/L		10769	
	K	39		ug/L		744100	
	Ca	43		ug/L		552	
>	Sc	45		ug/L		873675	
	Ti	47		ug/L		503	
	V	51		ug/L		13836	
	Cr	52		ug/L		5870	
	Cr	53		ug/L		176680	
	Mn	55		ug/L		1470	
	Fe	57		ug/L		7665	
	Co	59		ug/L		140	
	Ni	60		ug/L		115	
	Cu	63		ug/L		257	
	Cu	65		ug/L		175	
	Zn	66		ug/L		438	
	Zn	67		ug/L		18871	
	Zn	68		ug/L		1486	
>	Ge	74		ug/L		688748	
	As	75		ug/L		49	
	Se	77		ug/L		13039	
	Se	82		ug/L		-21	
	Kr	83		ug/L		163	
	Sr	88		ug/L		224	
	Y	89		ug/L		61	
	Mo	98		ug/L		98	
	Ag	107		ug/L		56	
	Cd	111		ug/L		30	
	Cd	114		ug/L		48	
>	In	115		ug/L		418970	
	Sn	120		ug/L		262	
	Sb	121		ug/L		447	
	Sb	123		ug/L		347	
	Ba	135		ug/L		50	
	Ba	137		ug/L		48	
	Ho	165		ug/L		69	
>	Lu	175		ug/L		670701	
	Tl	205		ug/L		1771	
	Pb	208		ug/L		1067	
	Bi	209		ug/L		50	
	Th	232		ug/L		848	
	U	238		ug/L		239	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Simple Linear	
Be	9	Simple Linear	
B	11	Simple Linear	
Na	23	Simple Linear	
Mg	24	Simple Linear	
Al	27	Simple Linear	
P	31	Simple Linear	
K	39	Simple Linear	
Ca	43	Simple Linear	
Sc	45	Linear Thru Zero	
Ti	47	Simple Linear	
V	51	Simple Linear	
Cr	52	Linear Thru Zero	
Cr	53	Linear Thru Zero	
Mn	55	Simple Linear	
Fe	57	Simple Linear	
Co	59	Simple Linear	
Ni	60	Linear Thru Zero	
Cu	63	Simple Linear	
Cu	65	Simple Linear	
Zn	66	Simple Linear	
Zn	67	Simple Linear	
Zn	68	Simple Linear	
Ge	74	Simple Linear	
As	75	Simple Linear	
Se	77	Simple Linear	
Se	82	Simple Linear	
Kr	83	Simple Linear	
Sr	88	Simple Linear	
Y	89	Simple Linear	
Mo	98	Simple Linear	
Ag	107	Simple Linear	
Cd	111	Simple Linear	
Cd	114	Simple Linear	
In	115	Simple Linear	
Sn	120	Simple Linear	
Sb	121	Simple Linear	
Sb	123	Simple Linear	
Ba	135	Simple Linear	
Ba	137	Simple Linear	
Ho	165	Simple Linear	
Lu	175	Simple Linear	
Tl	205	Simple Linear	
Pb	208	Simple Linear	
Bi	209	Simple Linear	
Th	232	Simple Linear	
U	238	Simple Linear	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45					
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115					
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175					
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Sunday, December 20, 2009 13:08:56
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\091220\Standard 1.021

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	10.000	ug/L	2.323	26468	0.029
	Be	9	10.000	ug/L	1.554	6792	0.008
	B	11	20.000	ug/L	3.123	17050	0.018
	Na	23	1000.000	ug/L	8.565	6775059	7.493
	Mg	24	1000.000	ug/L	1.279	5498002	6.100
	Al	27	1000.000	ug/L	2.653	7400735	8.204
	P	31	1000.000	ug/L	2.119	445597	0.482
	K	39	1000.000	ug/L	5.480	9840921	10.067
	Ca	43	1000.000	ug/L	2.509	22025	0.024
>	Sc	45		ug/L		901008	901008.424
	Ti	47	10.000	ug/L	1.349	11438	0.012
	V	51	10.000	ug/L	3.514	135214	0.134
	Cr	52	10.000	ug/L	0.588	107003	0.112
	Cr	53		ug/L		178673	-0.004
	Mn	55	10.000	ug/L	1.019	161332	0.177
	Fe	57	1000.000	ug/L	1.386	331097	0.359
	Co	59	10.000	ug/L	1.889	129400	0.143
	Ni	60	10.000	ug/L	0.866	28267	0.031
	Cu	63		ug/L		67788	0.075
	Cu	65	10.000	ug/L	0.142	33840	0.037
	Zn	66	10.000	ug/L	0.822	21627	0.030
	Zn	67		ug/L		22628	0.005
	Zn	68		ug/L		17568	0.023
>	Ge	74		ug/L		694995	694994.969
	As	75	10.000	ug/L	2.877	21533	0.031
	Se	77		ug/L		13558	0.001
	Se	82	10.000	ug/L	1.287	2070	0.003
	Kr	83		ug/L		152	-0.000
	Sr	88	10.000	ug/L	1.368	249727	0.592
	Y	89		ug/L		97	0.000
	Mo	98	10.000	ug/L	1.537	59173	0.140
	Ag	107	10.000	ug/L	1.886	104202	0.247
	Cd	111	10.000	ug/L	0.212	24357	0.058
	Cd	114		ug/L		58030	0.138
>	In	115		ug/L		421332	421332.488
	Sn	120	10.000	ug/L	1.381	104319	0.247
	Sb	121	10.000	ug/L	2.247	86691	0.205
	Sb	123		ug/L		67387	0.159
	Ba	135		ug/L		25464	0.037
	Ba	137	10.000	ug/L	2.239	45106	0.066
	Ho	165		ug/L		81	0.000
>	Lu	175		ug/L		678716	678715.947
	Tl	205	10.000	ug/L	2.306	346769	0.508
	Pb	208	10.000	ug/L	0.785	529754	0.779
	Bi	209		ug/L		105	0.000
	Th	232	10.000	ug/L	1.608	631870	0.930
	U	238	10.000	ug/L	0.259	658485	0.970

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	1.0000
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
Pb	208Linear Thru Zero	1.0000
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45					
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115					
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175					
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Sunday, December 20, 2009 13:15:00
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\091220\Standard 2.022

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**100.020**	**ug/L**	4.320	259880	0.299
	Be	9	**99.989**	**ug/L**	3.924	64545	0.074
	B	11	**200.039**	**ug/L**	4.844	158967	0.182
	Na	23	**9995.661**	**ug/L**	2.777	62424254	71.787
	Mg	24	**9986.510**	**ug/L**	8.884	46553824	53.675
	Al	27	**10000.683**	**ug/L**	2.320	71812704	82.614
	P	31	**9996.220**	**ug/L**	3.292	4045627	4.645
	K	39	**10000.356**	**ug/L**	6.483	88424189	101.037
	Ca	43	**9999.671**	**ug/L**	0.928	206826	0.237
>	Sc	45		**ug/L**		869346	869345.776
	Ti	47	**100.009**	**ug/L**	4.276	106678	0.122
	V	51	**100.004**	**ug/L**	3.835	1184954	1.348
	Cr	52	**99.945**	**ug/L**	3.344	927442	1.061
	Cr	53		**ug/L**		252998	0.089
	Mn	55	**99.924**	**ug/L**	2.916	1432964	1.648
	Fe	57	**9984.362**	**ug/L**	5.573	2696219	3.097
	Co	59	**99.905**	**ug/L**	3.715	1137193	1.309
	Ni	60	**99.952**	**ug/L**	2.672	258865	0.298
	Cu	63		**ug/L**		619307	0.713
	Cu	65	**99.942**	**ug/L**	3.151	306834	0.353
	Zn	66	**99.976**	**ug/L**	1.749	197472	0.298
	Zn	67		**ug/L**		51370	0.050
	Zn	68		**ug/L**		148761	0.223
>	Ge	74		**ug/L**		661864	661864.178
	As	75	**99.997**	**ug/L**	0.477	204007	0.308
	Se	77		**ug/L**		24516	0.018
	Se	82	**100.011**	**ug/L**	1.735	20125	0.030
	Kr	83		**ug/L**		186	0.000
	Sr	88	**99.908**	**ug/L**	0.358	2175090	5.417
	Y	89		**ug/L**		294	0.001
	Mo	98	**99.995**	**ug/L**	1.179	560240	1.395
	Ag	107	**99.939**	**ug/L**	1.707	934550	2.328
	Cd	111	**100.000**	**ug/L**	1.905	231707	0.577
	Cd	114		**ug/L**		539109	1.343
>	In	115		**ug/L**		401467	401466.759
	Sn	120	**99.952**	**ug/L**	0.358	946348	2.357
	Sb	121	**99.966**	**ug/L**	1.298	795030	1.979
	Sb	123		**ug/L**		632444	1.575
	Ba	135		**ug/L**		246058	0.373
	Ba	137	**99.974**	**ug/L**	1.360	425999	0.647
	Ho	165		**ug/L**		76	0.000
>	Lu	175		**ug/L**		658756	658755.986
	Tl	205	**99.886**	**ug/L**	1.886	3003936	4.558
	Pb	208	**99.886**	**ug/L**	0.568	4599731	6.981
	Bi	209		**ug/L**		448	0.001
	Th	232	**99.864**	**ug/L**	1.875	5386912	8.177
	U	238	**99.899**	**ug/L**	1.723	5798033	8.802

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	0.9999
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45					
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115					
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175					
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Sunday, December 20, 2009 13:21:04
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\091220\QC Std 1.023

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**53.099**	ug/L	2.468	137659	0.159
	Be	9	**53.750**	ug/L	1.548	34626	0.040
	B	11	**102.222**	ug/L	4.790	81490	0.093
	Na	23	**5584.556**	ug/L	11.476	34731141	40.107
	Mg	24	**5613.589**	ug/L	6.129	26165288	30.172
	Al	27	**5020.676**	ug/L	13.040	35906352	41.475
	P	31	**4972.553**	ug/L	6.743	2011628	2.311
	K	39	**5351.368**	ug/L	7.065	47557386	54.067
	Ca	43	**5076.887**	ug/L	2.984	104925	0.120
>	Sc	45		ug/L		866533	866533.351
	Ti	47	**51.115**	ug/L	1.394	54635	0.062
	V	51	**52.915**	ug/L	4.948	631678	0.713
	Cr	52	**53.276**	ug/L	3.057	495753	0.566
	Cr	53		ug/L		204995	0.034
	Mn	55	**54.189**	ug/L	1.632	775676	0.894
	Fe	57	**5431.380**	ug/L	3.041	1467053	1.685
	Co	59	**53.677**	ug/L	3.111	609470	0.703
	Ni	60	**53.076**	ug/L	2.978	137117	0.158
	Cu	63		ug/L		323365	0.373
	Cu	65	**52.622**	ug/L	1.171	161228	0.186
	Zn	66	**53.199**	ug/L	0.548	107045	0.158
	Zn	67		ug/L		36412	0.027
	Zn	68		ug/L		80138	0.117
>	Ge	74		ug/L		672965	672965.151
	As	75	**49.461**	ug/L	2.820	102621	0.152
	Se	77		ug/L		17154	0.007
	Se	82	**50.018**	ug/L	0.951	10223	0.015
	Kr	83		ug/L		171	0.000
	Sr	88	**52.842**	ug/L	0.790	1177188	2.865
	Y	89		ug/L		137	0.000
	Mo	98	**49.614**	ug/L	1.719	284459	0.692
	Ag	107	**52.154**	ug/L	1.079	499045	1.215
	Cd	111	**50.557**	ug/L	2.910	119862	0.292
	Cd	114		ug/L		283689	0.691
>	In	115		ug/L		410790	410790.054
	Sn	120	**52.000**	ug/L	1.661	503835	1.226
	Sb	121	**51.234**	ug/L	1.265	417129	1.014
	Sb	123		ug/L		327762	0.797
	Ba	135		ug/L		126414	0.191
	Ba	137	**52.089**	ug/L	1.373	222418	0.337
	Ho	165		ug/L		111	0.000
>	Lu	175		ug/L		660100	660099.600
	Tl	205	**50.758**	ug/L	2.492	1530229	2.316
	Pb	208	**54.121**	ug/L	1.181	2497668	3.783
	Bi	209		ug/L		508	0.001
	Th	232	**52.593**	ug/L	2.690	2842718	4.306
	U	238	**54.120**	ug/L	1.047	3147651	4.769

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	0.9999
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9999
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9999
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7	106.197				
	Be	9	107.499				
	B	11	102.222				
	Na	23	111.691				
	Mg	24	112.272				
	Al	27	99.419				
	P	31	99.451				
	K	39	107.027				
	Ca	43	101.538				
>	Sc	45		99.2			
	Ti	47	102.230				
	V	51	105.829				
	Cr	52	106.552				
	Cr	53					
	Mn	55	108.378				
	Fe	57	108.628				
	Co	59	107.355				
	Ni	60	106.152				
	Cu	63					
	Cu	65	105.245				
	Zn	66	106.398				
	Zn	67					
	Zn	68					
>	Ge	74		97.7			
	As	75	98.922				
	Se	77					
	Se	82	100.036				
	Kr	83					
	Sr	88	105.684				
	Y	89					
	Mo	98	99.229				
	Ag	107	104.308				
	Cd	111	101.114				
	Cd	114					
>	In	115		98.0			
	Sn	120	104.000				
	Sb	121	102.469				
	Sb	123					
	Ba	135					
	Ba	137	104.177				
	Ho	165					
>	Lu	175		98.4			
	Tl	205	101.515				
	Pb	208	108.243				
	Bi	209					
	Th	232	105.185				
	U	238	108.241				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 1	Na	23	ICV is out of limits (+/- 10%)
QC Std 1	Mg	24	ICV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Sunday, December 20, 2009 13:27:11
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\091220\QC Std 2.024

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.014**	**ug/L**	29.172	102	0.000
	Be	9	**-0.001**	**ug/L**	856.438	24	-0.000
	B	11	**1.140**	**ug/L**	20.394	1839	0.001
	Na	23	**0.134**	**ug/L**	350.869	23687	0.001
	Mg	24	**-0.069**	**ug/L**	309.186	2000	-0.000
	Al	27	**-0.175**	**ug/L**	204.895	7335	-0.001
	P	31	**-0.811**	**ug/L**	270.550	10358	-0.000
	K	39	**-6.476**	**ug/L**	40.265	681553	-0.065
	Ca	43	**-1.314**	**ug/L**	274.949	521	-0.000
>	Sc	45		**ug/L**		866965	866965.103
	Ti	47	**-0.002**	**ug/L**	2291.795	497	-0.000
	V	51	**0.206**	**ug/L**	191.040	16133	0.003
	Cr	52	**0.364**	**ug/L**	19.551	9169	0.004
	Cr	53		**ug/L**		153754	-0.025
	Mn	55	**-0.001**	**ug/L**	410.605	1445	-0.000
	Fe	57	**1.642**	**ug/L**	28.334	8048	0.001
	Co	59	**0.003**	**ug/L**	27.074	173	0.000
	Ni	60	**-0.001**	**ug/L**	684.710	112	-0.000
	Cu	63		**ug/L**		311	0.000
	Cu	65	**0.006**	**ug/L**	29.710	192	0.000
	Zn	66	**-0.001**	**ug/L**	814.521	425	-0.000
	Zn	67		**ug/L**		18498	0.000
	Zn	68		**ug/L**		1512	0.000
>	Ge	74		**ug/L**		672357	672357.232
	As	75	**0.069**	**ug/L**	136.752	193	0.000
	Se	77		**ug/L**		10184	-0.004
	Se	82	**-0.015**	**ug/L**	412.537	-24	-0.000
	Kr	83		**ug/L**		174	0.000
	Sr	88	**0.001**	**ug/L**	63.372	249	0.000
	Y	89		**ug/L**		68	0.000
	Mo	98	**0.028**	**ug/L**	17.068	261	0.000
	Ag	107	**0.002**	**ug/L**	8.309	78	0.000
	Cd	111	**-0.002**	**ug/L**	134.862	24	-0.000
	Cd	114		**ug/L**		65	0.000
>	In	115		**ug/L**		414690	414690.111
	Sn	120	**0.023**	**ug/L**	11.922	487	0.001
	Sb	121	**0.242**	**ug/L**	15.108	2434	0.005
	Sb	123		**ug/L**		1895	0.004
	Ba	135		**ug/L**		50	0.000
	Ba	137	**0.004**	**ug/L**	37.564	64	0.000
	Ho	165		**ug/L**		71	0.000
>	Lu	175		**ug/L**		661932	661932.170
	Tl	205	**0.320**	**ug/L**	18.580	11426	0.015
	Pb	208	**0.002**	**ug/L**	46.863	1131	0.000
	Bi	209		**ug/L**		42	-0.000
	Th	232	**0.056**	**ug/L**	17.792	3870	0.005
	U	238	**0.007**	**ug/L**	20.113	646	0.001

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	0.9999
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9999
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9999
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		99.2			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		97.6			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		99.0			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		98.7			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Sunday, December 20, 2009 13:33:19
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\091220\QC Std 3.025

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**10.553**	**ug/L**	2.432	28535	0.032
	Be	9	**0.568**	**ug/L**	4.500	406	0.000
	B	11	**15.501**	**ug/L**	2.962	13696	0.014
	Na	23	**254.624**	**ug/L**	2.432	1673717	1.829
	Mg	24	**17.614**	**ug/L**	20.689	87607	0.095
	Al	27	**34.390**	**ug/L**	5.478	265107	0.284
	P	31	**54.852**	**ug/L**	4.907	34098	0.025
	K	39	**301.037**	**ug/L**	4.916	3511991	3.041
	Ca	43	**213.543**	**ug/L**	1.232	5141	0.005
>	Sc	45		**ug/L**		902014	902014.061
	Ti	47	**8.683**	**ug/L**	3.716	10089	0.011
	V	51	**10.902**	**ug/L**	6.631	146848	0.147
	Cr	52	**11.375**	**ug/L**	3.456	114953	0.121
	Cr	53		**ug/L**		169360	-0.014
	Mn	55	**5.833**	**ug/L**	4.326	88243	0.096
	Fe	57	**123.094**	**ug/L**	3.413	42346	0.038
	Co	59	**1.132**	**ug/L**	5.142	13526	0.015
	Ni	60	**2.173**	**ug/L**	1.536	5960	0.006
	Cu	63		**ug/L**		7610	0.008
	Cu	65	**1.153**	**ug/L**	2.755	3854	0.004
	Zn	66	**11.110**	**ug/L**	1.177	22965	0.033
	Zn	67		**ug/L**		22438	0.006
	Zn	68		**ug/L**		17994	0.024
>	Ge	74		**ug/L**		681023	681023.369
	As	75	**5.549**	**ug/L**	4.177	11691	0.017
	Se	77		**ug/L**		11276	-0.002
	Se	82	**5.469**	**ug/L**	5.139	1113	0.002
	Kr	83		**ug/L**		147	-0.000
	Sr	88	**11.565**	**ug/L**	1.433	262295	0.627
	Y	89		**ug/L**		72	0.000
	Mo	98	**0.546**	**ug/L**	0.772	3280	0.008
	Ag	107	**1.074**	**ug/L**	1.306	10514	0.025
	Cd	111	**1.052**	**ug/L**	1.522	2567	0.006
	Cd	114		**ug/L**		6086	0.014
>	In	115		**ug/L**		417901	417900.995
	Sn	120	**5.448**	**ug/L**	0.941	53937	0.128
	Sb	121	**3.275**	**ug/L**	0.840	27547	0.065
	Sb	123		**ug/L**		21802	0.051
	Ba	135		**ug/L**		5206	0.008
	Ba	137	**2.114**	**ug/L**	0.584	9190	0.014
	Ho	165		**ug/L**		79	0.000
>	Lu	175		**ug/L**		668538	668537.971
	Tl	205	**1.242**	**ug/L**	0.179	39660	0.057
	Pb	208	**2.361**	**ug/L**	1.838	111392	0.165
	Bi	209		**ug/L**		85	0.000
	Th	232	**1.254**	**ug/L**	1.948	69510	0.103
	U	238	**0.257**	**ug/L**	1.751	15405	0.023

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	0.9999
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9999
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9999
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7	105.535				
	Be	9	113.607				
	B	11	103.338				
	Na	23	101.850				
	Mg	24	117.424				
	Al	27	114.633				
	P	31	109.704				
	K	39	100.346				
	Ca	43	106.771				
>	Sc	45		103.2			
	Ti	47	86.826				
	V	51	109.025				
	Cr	52	113.754				
	Cr	53					
	Mn	55	116.663				
	Fe	57	123.094				
	Co	59	113.239				
	Ni	60	108.675				
	Cu	63					
	Cu	65	115.314				
	Zn	66	111.104				
	Zn	67					
	Zn	68					
>	Ge	74		98.9			
	As	75	110.979				
	Se	77					
	Se	82	109.383				
	Kr	83					
	Sr	88	115.654				
	Y	89					
	Mo	98	109.143				
	Ag	107	107.443				
	Cd	111	105.210				
	Cd	114					
>	In	115		99.7			
	Sn	120	108.953				
	Sb	121	109.174				
	Sb	123					
	Ba	135					
	Ba	137	105.719				
	Ho	165					
>	Lu	175		99.7			
	Tl	205	124.222				
	Pb	208	118.071				
	Bi	209					
	Th	232	125.447				
	U	238	128.750				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Sunday, December 20, 2009 13:39:25
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\091220\QC Std 4.026

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.136**	ug/L	12.226	384	0.000
	Be	9	**0.055**	ug/L	36.293	55	0.000
	B	11	**1.311**	ug/L	6.787	1807	0.001
	Na	23	**94897.766**	ug/L	1.484	541316204	681.539
	Mg	24	**92977.959**	ug/L	2.383	396726934	499.731
	Al	27	**93544.455**	ug/L	5.928	613576189	772.753
	P	31	**92903.862**	ug/L	0.471	34292993	43.174
	K	39	**81278.276**	ug/L	2.371	652857349	821.185
	Ca	43	**89798.564**	ug/L	2.186	1692519	2.131
>	Sc	45		ug/L		794118	794118.472
	Ti	47	**1357.126**	ug/L	1.089	1317724	1.659
	V	51	**0.170**	ug/L	292.930	14333	0.002
	Cr	52	**3.369**	ug/L	2.821	33726	0.036
	Cr	53		ug/L		115290	-0.057
	Mn	55	**6.535**	ug/L	2.951	86878	0.108
	Fe	57	**100690.170**	ug/L	3.373	24800048	31.236
	Co	59	**0.327**	ug/L	1.788	3534	0.004
	Ni	60	**3.176**	ug/L	5.796	7615	0.009
	Cu	63		ug/L		12343	0.015
	Cu	65	**2.665**	ug/L	0.803	7634	0.009
	Zn	66	**3.580**	ug/L	1.538	7128	0.011
	Zn	67		ug/L		16972	-0.000
	Zn	68		ug/L		2918	0.002
>	Ge	74		ug/L		630841	630840.989
	As	75	**-0.242**	ug/L	80.005	-424	-0.001
	Se	77		ug/L		11261	-0.001
	Se	82	**-0.850**	ug/L	18.608	-182	-0.000
	Kr	83		ug/L		473	0.001
	Sr	88	**1.264**	ug/L	2.377	26356	0.069
	Y	89		ug/L		820	0.002
	Mo	98	**1927.246**	ug/L	2.279	10263986	26.892
	Ag	107	**0.081**	ug/L	5.250	775	0.002
	Cd	111	**0.606**	ug/L	22.796	1362	0.003
	Cd	114		ug/L		16423	0.043
>	In	115		ug/L		381708	381708.131
	Sn	120	**0.101**	ug/L	3.955	1150	0.002
	Sb	121	**0.092**	ug/L	19.487	1103	0.002
	Sb	123		ug/L		842	0.001
	Ba	135		ug/L		1598	0.003
	Ba	137	**0.735**	ug/L	0.963	2844	0.005
	Ho	165		ug/L		1550	0.003
>	Lu	175		ug/L		589456	589456.126
	Tl	205	**0.076**	ug/L	13.436	3595	0.003
	Pb	208	**0.209**	ug/L	1.559	9559	0.015
	Bi	209		ug/L		1670	0.003
	Th	232	**0.072**	ug/L	26.819	4219	0.006
	U	238	**0.003**	ug/L	10.467	344	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	0.9999
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23	94.898				
	Mg	24	92.978				
	Al	27	93.544				
	P	31	92.904				
	K	39	81.278				
	Ca	43	89.799				
>	Sc	45		90.9			
	Ti	47	67.856				
	V	51					
	Cr	52	91.050				
	Cr	53					
	Mn	55	112.665				
	Fe	57	100.690				
	Co	59	130.948				
	Ni	60	117.626				
	Cu	63					
	Cu	65	91.884				
	Zn	66	99.457				
	Zn	67					
	Zn	68					
>	Ge	74		91.6			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88	105.298				
	Y	89					
	Mo	98	96.362				
	Ag	107					
	Cd	111	151.608				
	Cd	114					
>	In	115		91.1			
	Sn	120					
	Sb	121	92.044				
	Sb	123					
	Ba	135					
	Ba	137	109.693				
	Ho	165					
>	Lu	175		87.9			
	Tl	205					
	Pb	208	104.613				
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 4	Ti	47	ICSA is out of limits

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Sunday, December 20, 2009 13:45:31
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\091220\QC Std 5.027

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**20.337**	**ug/L**	2.199	49077	0.061
	Be	9	**17.918**	**ug/L**	3.003	10748	0.013
	B	11	**16.626**	**ug/L**	2.127	13062	0.015
	Na	23	**91890.292**	**ug/L**	5.354	531983166	659.940
	Mg	24	**87233.022**	**ug/L**	6.271	377527729	468.854
	Al	27	**82423.587**	**ug/L**	6.036	548451923	680.885
	P	31	**89083.651**	**ug/L**	3.469	33359635	41.398
	K	39	**86589.748**	**ug/L**	10.219	704638730	874.849
	Ca	43	**88261.924**	**ug/L**	3.368	1687990	2.095
>	Sc	45		**ug/L**		806007	806006.988
	Ti	47	**1340.216**	**ug/L**	3.274	1320259	1.638
	V	51	**21.683**	**ug/L**	4.965	248208	0.292
	Cr	52	**24.335**	**ug/L**	3.461	213531	0.258
	Cr	53		**ug/L**		141441	-0.027
	Mn	55	**28.308**	**ug/L**	2.359	377478	0.467
	Fe	57	**102374.265**	**ug/L**	2.810	25591958	31.758
	Co	59	**21.461**	**ug/L**	2.299	226726	0.281
	Ni	60	**22.852**	**ug/L**	1.112	54984	0.068
	Cu	63		**ug/L**		120752	0.150
	Cu	65	**21.207**	**ug/L**	2.192	60521	0.075
	Zn	66	**21.652**	**ug/L**	1.230	41989	0.064
	Zn	67		**ug/L**		23483	0.009
	Zn	68		**ug/L**		29433	0.043
>	Ge	74		**ug/L**		644828	644827.624
	As	75	**20.192**	**ug/L**	2.571	40172	0.062
	Se	77		**ug/L**		14726	0.004
	Se	82	**19.151**	**ug/L**	1.170	3739	0.006
	Kr	83		**ug/L**		511	0.001
	Sr	88	**23.434**	**ug/L**	0.742	491853	1.271
	Y	89		**ug/L**		828	0.002
	Mo	98	**1948.843**	**ug/L**	1.954	10521479	27.194
	Ag	107	**19.595**	**ug/L**	0.677	176648	0.456
	Cd	111	**19.255**	**ug/L**	1.527	43025	0.111
	Cd	114		**ug/L**		115045	0.297
>	In	115		**ug/L**		386914	386914.400
	Sn	120	**20.716**	**ug/L**	0.863	189224	0.488
	Sb	121	**20.627**	**ug/L**	0.784	158436	0.408
	Sb	123		**ug/L**		123635	0.319
	Ba	135		**ug/L**		47224	0.078
	Ba	137	**21.127**	**ug/L**	1.365	82413	0.137
	Ho	165		**ug/L**		1593	0.003
>	Lu	175		**ug/L**		602761	602761.436
	Tl	205	**20.561**	**ug/L**	1.347	567090	0.938
	Pb	208	**21.393**	**ug/L**	0.237	902212	1.495
	Bi	209		**ug/L**		2383	0.004
	Th	232	**22.324**	**ug/L**	0.569	1102532	1.828
	U	238	**22.614**	**ug/L**	0.980	1201239	1.993

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	0.9999
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9999
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9999
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7	101.687				
	Be	9	89.590				
	B	11	83.128				
	Na	23	91.890				
	Mg	24	87.233				
	Al	27	82.424				
	P	31	89.084				
	K	39	86.590				
	Ca	43	88.262				
>	Sc	45		92.3			
	Ti	47	67.011				
	V	51	108.416				
	Cr	52	102.680				
	Cr	53					
	Mn	55	109.721				
	Fe	57	102.374				
	Co	59	105.980				
	Ni	60	100.671				
	Cu	63					
	Cu	65	92.609				
	Zn	66	91.747				
	Zn	67					
	Zn	68					
>	Ge	74		93.6			
	As	75	100.962				
	Se	77					
	Se	82	95.754				
	Kr	83					
	Sr	88	110.538				
	Y	89					
	Mo	98	97.442				
	Ag	107	97.977				
	Cd	111	94.389				
	Cd	114					
>	In	115		92.3			
	Sn	120	103.581				
	Sb	121	102.622				
	Sb	123					
	Ba	135					
	Ba	137	102.212				
	Ho	165					
>	Lu	175		89.9			
	Tl	205	102.803				
	Pb	208	105.907				
	Bi	209					
	Th	232	111.618				
	U	238	113.070				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 5	Ti	47	ICSAB is out of limits

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Sunday, December 20, 2009 13:51:38
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\091220\QC Std 6.028

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**52.471**	**ug/L**	3.765	132535	0.157
	Be	9	**49.695**	**ug/L**	3.514	31190	0.037
	B	11	**89.287**	**ug/L**	1.527	69517	0.081
	Na	23	**4643.676**	**ug/L**	6.825	28152115	33.350
	Mg	24	**4429.334**	**ug/L**	5.318	20091203	23.806
	Al	27	**4365.349**	**ug/L**	8.146	30449994	36.061
	P	31	**4454.924**	**ug/L**	2.748	1758069	2.070
	K	39	**4721.622**	**ug/L**	5.147	41047630	47.704
	Ca	43	**4877.583**	**ug/L**	1.809	98321	0.116
>	Sc	45		**ug/L**		844606	844605.829
	Ti	47	**47.967**	**ug/L**	4.092	49975	0.059
	V	51	**51.180**	**ug/L**	3.817	595806	0.690
	Cr	52	**52.033**	**ug/L**	4.272	471858	0.552
	Cr	53		**ug/L**		201013	0.036
	Mn	55	**54.000**	**ug/L**	3.565	753054	0.891
	Fe	57	**5423.806**	**ug/L**	2.026	1427970	1.683
	Co	59	**52.278**	**ug/L**	2.715	578483	0.685
	Ni	60	**52.641**	**ug/L**	3.300	132518	0.157
	Cu	63		**ug/L**		312521	0.370
	Cu	65	**51.431**	**ug/L**	2.687	153528	0.182
	Zn	66	**50.045**	**ug/L**	1.180	101405	0.149
	Zn	67		**ug/L**		34358	0.023
	Zn	68		**ug/L**		77266	0.112
>	Ge	74		**ug/L**		677554	677553.949
	As	75	**48.348**	**ug/L**	0.824	101000	0.149
	Se	77		**ug/L**		17394	0.007
	Se	82	**49.679**	**ug/L**	0.944	10223	0.015
	Kr	83		**ug/L**		181	0.000
	Sr	88	**50.611**	**ug/L**	1.034	1151041	2.744
	Y	89		**ug/L**		147	0.000
	Mo	98	**48.514**	**ug/L**	1.228	283976	0.677
	Ag	107	**50.408**	**ug/L**	1.077	492414	1.174
	Cd	111	**48.905**	**ug/L**	0.580	118394	0.282
	Cd	114		**ug/L**		277529	0.662
>	In	115		**ug/L**		419368	419367.684
	Sn	120	**49.292**	**ug/L**	2.068	487601	1.162
	Sb	121	**49.418**	**ug/L**	1.295	410767	0.978
	Sb	123		**ug/L**		322737	0.769
	Ba	135		**ug/L**		123051	0.183
	Ba	137	**50.018**	**ug/L**	1.037	217227	0.324
	Ho	165		**ug/L**		104	0.000
>	Lu	175		**ug/L**		671337	671337.402
	Tl	205	**49.093**	**ug/L**	1.222	1505521	2.240
	Pb	208	**51.975**	**ug/L**	0.577	2439717	3.633
	Bi	209		**ug/L**		518	0.001
	Th	232	**50.896**	**ug/L**	0.272	2798632	4.167
	U	238	**52.333**	**ug/L**	2.674	3095566	4.611

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	0.9999
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7	104.942				
	Be	9	99.390				
	B	11	89.287				
	Na	23	92.874				
	Mg	24	88.587				
	Al	27	86.443				
	P	31	89.098				
	K	39	94.432				
	Ca	43	97.552				
>	Sc	45		96.7			
	Ti	47	95.934				
	V	51	102.360				
	Cr	52	104.067				
	Cr	53					
	Mn	55	108.001				
	Fe	57	108.476				
	Co	59	104.557				
	Ni	60	105.281				
	Cu	63					
	Cu	65	102.862				
	Zn	66	100.090				
	Zn	67					
	Zn	68					
>	Ge	74		98.4			
	As	75	96.697				
	Se	77					
	Se	82	99.357				
	Kr	83					
	Sr	88	101.222				
	Y	89					
	Mo	98	97.029				
	Ag	107	100.816				
	Cd	111	97.810				
	Cd	114					
>	In	115		100.1			
	Sn	120	98.583				
	Sb	121	98.836				
	Sb	123					
	Ba	135					
	Ba	137	100.036				
	Ho	165					
>	Lu	175		100.1			
	Tl	205	98.185				
	Pb	208	103.951				
	Bi	209					
	Th	232	101.792				
	U	238	104.666				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 6	B	11	CCV is out of limits (+/- 10%)
QC Std 6	Mg	24	CCV is out of limits (+/- 10%)
QC Std 6	Al	27	CCV is out of limits (+/- 10%)
QC Std 6	P	31	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Sunday, December 20, 2009 13:57:47
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\091220\QC Std 7.029

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	0.014	ug/L	49.602	99	0.000
	Be	9	0.009	ug/L	143.527	29	0.000
	B	11	0.613	ug/L	24.837	1398	0.001
	Na	23	0.592	ug/L	104.254	26024	0.004
	Mg	24	0.666	ug/L	73.745	5334	0.004
	Al	27	0.316	ug/L	156.036	10671	0.003
	P	31	-0.247	ug/L	336.969	10390	-0.000
	K	39	-5.309	ug/L	43.252	679105	-0.054
	Ca	43	6.736	ug/L	20.080	674	0.000
>	Sc	45		ug/L		851096	851095.516
	Ti	47	0.099	ug/L	35.757	593	0.000
	V	51	0.305	ug/L	79.124	16986	0.004
	Cr	52	-0.017	ug/L	492.984	5561	-0.000
	Cr	53		ug/L		163951	-0.010
	Mn	55	0.004	ug/L	84.528	1494	0.000
	Fe	57	7.665	ug/L	4.702	9490	0.002
	Co	59	0.003	ug/L	12.446	166	0.000
	Ni	60	0.005	ug/L	22.737	125	0.000
	Cu	63		ug/L		291	0.000
	Cu	65	0.016	ug/L	17.825	219	0.000
	Zn	66	-0.013	ug/L	70.544	420	-0.000
	Zn	67		ug/L		19133	-0.000
	Zn	68		ug/L		1555	0.000
>	Ge	74		ug/L		703099	703099.336
	As	75	-0.043	ug/L	634.695	-41	-0.000
	Se	77		ug/L		11160	-0.003
	Se	82	-0.039	ug/L	139.152	-29	-0.000
	Kr	83		ug/L		172	0.000
	Sr	88	0.002	ug/L	48.037	270	0.000
	Y	89		ug/L		75	0.000
	Mo	98	0.075	ug/L	21.331	549	0.001
	Ag	107	0.003	ug/L	39.412	93	0.000
	Cd	111	0.004	ug/L	84.715	39	0.000
	Cd	114		ug/L		59	0.000
>	In	115		ug/L		430433	430433.017
	Sn	120	0.020	ug/L	16.418	469	0.000
	Sb	121	0.102	ug/L	18.741	1326	0.002
	Sb	123		ug/L		1058	0.002
	Ba	135		ug/L		46	-0.000
	Ba	137	0.003	ug/L	85.852	63	0.000
	Ho	165		ug/L		76	0.000
>	Lu	175		ug/L		670388	670387.911
	Tl	205	0.335	ug/L	24.224	12028	0.015
	Pb	208	-0.000	ug/L	127.610	1054	-0.000
	Bi	209		ug/L		54	0.000
	Th	232	0.070	ug/L	20.701	4718	0.006
	U	238	0.006	ug/L	31.405	590	0.001

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	0.9999
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9999
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9999
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		97.4			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		102.1			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		102.7			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		100.0			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 10
Sample Date/Time: Sunday, December 20, 2009 14:03:53
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\091220\QC Std 10.030

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**1078.923**	ug/L	2.198	2425611	3.227
	Be	9	**962.375**	ug/L	4.218	537161	0.715
	B	11	**1.723**	ug/L	8.263	1991	0.002
	Na	23	**49114.909**	ug/L	5.978	264997079	352.735
	Mg	24	**50212.164**	ug/L	4.559	202865935	269.877
	Al	27	**43302.446**	ug/L	6.360	268593593	357.713
	P	31	**23335.024**	ug/L	3.432	8156976	10.844
	K	39	**50172.754**	ug/L	3.040	381724872	506.914
	Ca	43	**47428.263**	ug/L	2.817	846294	1.126
>	Sc	45		ug/L		751822	751822.318
	Ti	47	**38.120**	ug/L	3.269	35444	0.047
	V	51	**954.775**	ug/L	2.699	9685006	12.873
	Cr	52	**942.895**	ug/L	3.833	7525289	10.010
	Cr	53		ug/L		1060479	1.209
	Mn	55	**1013.197**	ug/L	3.744	12553806	16.709
	Fe	57	**52351.067**	ug/L	3.660	12207372	16.240
	Co	59	**940.976**	ug/L	2.677	9266228	12.331
	Ni	60	**857.747**	ug/L	4.473	1920028	2.556
	Cu	63		ug/L		4793916	6.379
	Cu	65	**941.659**	ug/L	3.264	2499414	3.326
	Zn	66	**2220.373**	ug/L	1.683	4072428	6.612
	Zn	67		ug/L		653757	1.034
	Zn	68		ug/L		2796879	4.539
>	Ge	74		ug/L		615880	615880.071
	As	75	**816.462**	ug/L	0.627	1549633	2.516
	Se	77		ug/L		75213	0.103
	Se	82	**450.996**	ug/L	1.404	84504	0.137
	Kr	83		ug/L		303	0.000
	Sr	88	**1009.051**	ug/L	0.907	20164653	54.714
	Y	89		ug/L		803	0.002
	Mo	98	**1007.562**	ug/L	1.931	5181256	14.059
	Ag	107	**221.316**	ug/L	1.851	1899648	5.155
	Cd	111	**846.378**	ug/L	2.012	1800065	4.885
	Cd	114		ug/L		4594258	12.467
>	In	115		ug/L		368559	368558.811
	Sn	120	**956.710**	ug/L	1.332	8312821	22.557
	Sb	121	**229.015**	ug/L	1.876	1671437	4.535
	Sb	123		ug/L		1345918	3.651
	Ba	135		ug/L		1940989	3.085
	Ba	137	**936.411**	ug/L	0.353	3811281	6.057
	Ho	165		ug/L		601	0.001
>	Lu	175		ug/L		629239	629238.859
	Tl	205	**473.295**	ug/L	1.756	13591435	21.597
	Pb	208	**4861.359**	ug/L	0.778	213795476	339.766
	Bi	209		ug/L		5966	0.009
	Th	232	**2510.346**	ug/L	1.052	129342379	205.550
	U	238	**5302.620**	ug/L	0.466	293988474	467.214

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	0.9999
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9999
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9999
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7	107.892				
	Be	9	96.238				
	B	11					
	Na	23	98.230				
	Mg	24	100.424				
	Al	27	86.605				
	P	31	93.340				
	K	39	100.346				
	Ca	43	94.857				
>	Sc	45		86.1			
	Ti	47					
	V	51	95.477				
	Cr	52	94.289				
	Cr	53					
	Mn	55	101.320				
	Fe	57	104.702				
	Co	59	94.098				
	Ni	60	85.775				
	Cu	63					
	Cu	65	94.166				
	Zn	66	88.815				
	Zn	67					
	Zn	68					
>	Ge	74		89.4			
	As	75	81.646				
	Se	77					
	Se	82	90.199				
	Kr	83					
	Sr	88	100.905				
	Y	89					
	Mo	98	100.756				
	Ag	107	88.526				
	Cd	111	84.638				
	Cd	114					
>	In	115		88.0			
	Sn	120	95.671				
	Sb	121	91.606				
	Sb	123					
	Ba	135					
	Ba	137	93.641				
	Ho	165					
>	Lu	175		93.8			
	Tl	205	94.659				
	Pb	208	97.227				
	Bi	209					
	Th	232	100.414				
	U	238	106.052				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 10	Al	27	LRS is out of limits (+/- 10%)
QC Std 10	Ni	60	LRS is out of limits (+/- 10%)
QC Std 10	Zn	66	LRS is out of limits (+/- 10%)
QC Std 10	As	75	LRS is out of limits (+/- 10%)
QC Std 10	Ag	107	LRS is out of limits (+/- 10%)
QC Std 10	Cd	111	LRS is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 11
Sample Date/Time: Sunday, December 20, 2009 14:09:58
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\091220\QC Std 11.031

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**52.849**	ug/L	5.249	136712	0.158
	Be	9	**50.810**	ug/L	6.708	32645	0.038
	B	11	**91.774**	ug/L	5.491	73114	0.084
	Na	23	**4967.188**	ug/L	7.013	30906126	35.673
	Mg	24	**4594.438**	ug/L	17.507	21283189	24.694
	Al	27	**4631.295**	ug/L	7.957	33090167	38.258
	P	31	**4627.569**	ug/L	3.634	1870203	2.150
	K	39	**5334.417**	ug/L	1.483	47376559	53.896
	Ca	43	**5036.032**	ug/L	2.659	103929	0.120
>	Sc	45		ug/L		865469	865469.140
	Ti	47	**48.819**	ug/L	5.388	52080	0.060
	V	51	**52.103**	ug/L	4.921	620987	0.703
	Cr	52	**52.721**	ug/L	4.225	489724	0.560
	Cr	53		ug/L		210144	0.041
	Mn	55	**54.811**	ug/L	3.956	782997	0.904
	Fe	57	**5415.132**	ug/L	3.824	1460182	1.680
	Co	59	**52.718**	ug/L	3.777	597578	0.691
	Ni	60	**53.128**	ug/L	3.602	137017	0.158
	Cu	63		ug/L		320418	0.370
	Cu	65	**52.228**	ug/L	4.390	159667	0.184
	Zn	66	**52.628**	ug/L	1.656	106080	0.157
	Zn	67		ug/L		38302	0.029
	Zn	68		ug/L		80731	0.118
>	Ge	74		ug/L		674181	674181.048
	As	75	**50.729**	ug/L	1.634	105439	0.156
	Se	77		ug/L		16831	0.006
	Se	82	**50.582**	ug/L	1.145	10357	0.015
	Kr	83		ug/L		175	0.000
	Sr	88	**52.880**	ug/L	0.518	1186656	2.867
	Y	89		ug/L		141	0.000
	Mo	98	**49.886**	ug/L	1.416	288121	0.696
	Ag	107	**52.674**	ug/L	2.392	507657	1.227
	Cd	111	**50.681**	ug/L	1.281	121047	0.292
	Cd	114		ug/L		288754	0.698
>	In	115		ug/L		413772	413771.906
	Sn	120	**52.424**	ug/L	2.276	511670	1.236
	Sb	121	**52.295**	ug/L	1.375	428852	1.035
	Sb	123		ug/L		336992	0.814
	Ba	135		ug/L		128880	0.194
	Ba	137	**52.196**	ug/L	2.269	224544	0.338
	Ho	165		ug/L		105	0.000
>	Lu	175		ug/L		665000	664999.652
	Tl	205	**51.187**	ug/L	1.115	1554907	2.336
	Pb	208	**54.176**	ug/L	0.806	2518896	3.786
	Bi	209		ug/L		514	0.001
	Th	232	**54.062**	ug/L	0.152	2944560	4.427
	U	238	**56.054**	ug/L	1.795	3284220	4.939

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	0.9999
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9999
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9999
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7	105.698				
	Be	9	101.619				
	B	11	91.774				
	Na	23	99.344				
	Mg	24	91.889				
	Al	27	91.709				
	P	31	92.551				
	K	39	106.688				
	Ca	43	100.721				
>	Sc	45		99.1			
	Ti	47	97.638				
	V	51	104.206				
	Cr	52	105.442				
	Cr	53					
	Mn	55	109.621				
	Fe	57	108.303				
	Co	59	105.436				
	Ni	60	106.255				
	Cu	63					
	Cu	65	104.455				
	Zn	66	105.256				
	Zn	67					
	Zn	68					
>	Ge	74		97.9			
	As	75	101.459				
	Se	77					
	Se	82	101.164				
	Kr	83					
	Sr	88	105.760				
	Y	89					
	Mo	98	99.772				
	Ag	107	105.348				
	Cd	111	101.362				
	Cd	114					
>	In	115		98.8			
	Sn	120	104.847				
	Sb	121	104.590				
	Sb	123					
	Ba	135					
	Ba	137	104.392				
	Ho	165					
>	Lu	175		99.2			
	Tl	205	102.374				
	Pb	208	108.352				
	Bi	209					
	Th	232	108.124				
	U	238	112.108				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 11	U	238	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 12
Sample Date/Time: Sunday, December 20, 2009 14:16:05
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\091220\QC Std 12.032

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.072**	**ug/L**	7.696	263	0.000
	Be	9	**0.012**	**ug/L**	103.246	33	0.000
	B	11	**0.607**	**ug/L**	31.198	1476	0.001
	Na	23	**-0.064**	**ug/L**	1159.664	23353	-0.000
	Mg	24	**0.263**	**ug/L**	99.381	3667	0.001
	Al	27	**0.547**	**ug/L**	93.956	13006	0.005
	P	31	**-0.932**	**ug/L**	226.072	10733	-0.000
	K	39	**-4.237**	**ug/L**	293.181	728991	-0.043
	Ca	43	**2.907**	**ug/L**	119.551	632	0.000
>	Sc	45		**ug/L**		903641	903641.301
	Ti	47	**0.019**	**ug/L**	133.291	541	0.000
	V	51	**0.183**	**ug/L**	47.943	16544	0.002
	Cr	52	**0.013**	**ug/L**	572.690	6211	0.000
	Cr	53		**ug/L**		162443	-0.022
	Mn	55	**0.003**	**ug/L**	104.978	1567	0.000
	Fe	57	**2.436**	**ug/L**	39.498	8607	0.001
	Co	59	**0.008**	**ug/L**	15.530	238	0.000
	Ni	60	**0.012**	**ug/L**	43.054	152	0.000
	Cu	63		**ug/L**		430	0.000
	Cu	65	**0.024**	**ug/L**	24.641	257	0.000
	Zn	66	**-0.004**	**ug/L**	440.154	436	-0.000
	Zn	67		**ug/L**		20448	0.002
	Zn	68		**ug/L**		1778	0.000
>	Ge	74		**ug/L**		696872	696871.528
	As	75	**0.525**	**ug/L**	44.717	1179	0.002
	Se	77		**ug/L**		10039	-0.005
	Se	82	**-0.061**	**ug/L**	208.036	-34	-0.000
	Kr	83		**ug/L**		180	0.000
	Sr	88	**0.008**	**ug/L**	12.797	416	0.000
	Y	89		**ug/L**		71	0.000
	Mo	98	**0.090**	**ug/L**	13.801	633	0.001
	Ag	107	**0.005**	**ug/L**	41.194	107	0.000
	Cd	111	**0.011**	**ug/L**	67.478	58	0.000
	Cd	114		**ug/L**		83	0.000
>	In	115		**ug/L**		423385	423384.612
	Sn	120	**0.100**	**ug/L**	14.936	1258	0.002
	Sb	121	**0.444**	**ug/L**	13.218	4171	0.009
	Sb	123		**ug/L**		3235	0.007
	Ba	135		**ug/L**		66	0.000
	Ba	137	**0.007**	**ug/L**	12.758	78	0.000
	Ho	165		**ug/L**		70	0.000
>	Lu	175		**ug/L**		659729	659729.337
	Tl	205	**0.612**	**ug/L**	16.424	20164	0.028
	Pb	208	**0.038**	**ug/L**	18.207	2811	0.003
	Bi	209		**ug/L**		44	-0.000
	Th	232	**0.114**	**ug/L**	12.199	6975	0.009
	U	238	**0.069**	**ug/L**	14.731	4250	0.006

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	0.9999
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		103.4			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		101.2			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		101.1			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		98.4			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 8
Sample Date/Time: Sunday, December 20, 2009 14:40:37
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\091220\QC Std 8.036

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**50.164**	ug/L	1.457	129853	0.150
	Be	9	**49.076**	ug/L	1.106	31560	0.036
	B	11	**91.974**	ug/L	1.898	73309	0.084
	Na	23	**5120.625**	ug/L	3.911	31824130	36.775
	Mg	24	**4897.855**	ug/L	8.027	22767199	26.325
	Al	27	**4581.621**	ug/L	6.078	32738144	37.848
	P	31	**4676.614**	ug/L	0.645	1890289	2.173
	K	39	**5298.093**	ug/L	10.131	47014906	53.529
	Ca	43	**5147.242**	ug/L	1.316	106200	0.122
>	Sc	45		ug/L		864872	864871.841
	Ti	47	**49.329**	ug/L	0.777	52652	0.060
	V	51	**51.501**	ug/L	0.490	614247	0.694
	Cr	52	**52.635**	ug/L	0.282	489088	0.559
	Cr	53		ug/L		214390	0.046
	Mn	55	**55.227**	ug/L	0.156	789149	0.911
	Fe	57	**5511.753**	ug/L	1.635	1486285	1.710
	Co	59	**53.542**	ug/L	2.460	606963	0.702
	Ni	60	**53.645**	ug/L	1.137	138368	0.160
	Cu	63		ug/L		324131	0.374
	Cu	65	**52.195**	ug/L	1.038	159624	0.184
	Zn	66	**49.951**	ug/L	2.345	105866	0.149
	Zn	67		ug/L		37686	0.026
	Zn	68		ug/L		80616	0.112
>	Ge	74		ug/L		708777	708776.506
	As	75	**48.465**	ug/L	0.707	105905	0.149
	Se	77		ug/L		17555	0.006
	Se	82	**48.897**	ug/L	2.474	10524	0.015
	Kr	83		ug/L		184	0.000
	Sr	88	**51.082**	ug/L	0.197	1188961	2.770
	Y	89		ug/L		161	0.000
	Mo	98	**47.696**	ug/L	0.940	285722	0.666
	Ag	107	**50.590**	ug/L	1.715	505754	1.178
	Cd	111	**48.725**	ug/L	0.657	120714	0.281
	Cd	114		ug/L		287057	0.669
>	In	115		ug/L		429171	429170.943
	Sn	120	**49.348**	ug/L	1.445	499591	1.163
	Sb	121	**49.960**	ug/L	0.440	424997	0.989
	Sb	123		ug/L		332593	0.774
	Ba	135		ug/L		125069	0.189
	Ba	137	**51.240**	ug/L	1.386	218746	0.331
	Ho	165		ug/L		104	0.000
>	Lu	175		ug/L		659905	659904.639
	Tl	205	**49.368**	ug/L	0.268	1488278	2.253
	Pb	208	**52.217**	ug/L	1.040	2409263	3.649
	Bi	209		ug/L		539	0.001
	Th	232	**51.225**	ug/L	1.013	2768632	4.194
	U	238	**52.306**	ug/L	0.306	3041484	4.609

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	0.9999
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈	Li	7	100.327				
|	Be	9	98.152				
|	B	11	91.974				
|	Na	23	102.413				
|	Mg	24	97.957				
|	Al	27	90.725				
|	P	31	93.532				
|	K	39	105.962				
|	Ca	43	102.945				
|>	Sc	45		99.0			
|	Ti	47	98.658				
|	V	51	103.002				
|	Cr	52	105.269				
|	Cr	53					
|	Mn	55	110.454				
|	Fe	57	110.235				
|	Co	59	107.084				
|	Ni	60	107.290				
|	Cu	63					
⌊	Cu	65	104.391				
⌈	Zn	66	99.903				
|	Zn	67					
|	Zn	68					
|>	Ge	74		102.9			
|	As	75	96.930				
|	Se	77					
|	Se	82	97.794				
⌊	Kr	83					
⌈	Sr	88	102.163				
|	Y	89					
|	Mo	98	95.392				
|	Ag	107	101.181				
|	Cd	111	97.451				
|	Cd	114					
|>	In	115		102.4			
|	Sn	120	98.695				
|	Sb	121	99.921				
⌊	Sb	123					
⌈	Ba	135					
|	Ba	137	102.479				
|	Ho	165					
|>	Lu	175		98.4			
|	Tl	205	98.735				
|	Pb	208	104.433				
|	Bi	209					
|	Th	232	102.449				
⌊	U	238	104.611				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 8	Mn	55	CCV is out of limits (+/- 10%)
QC Std 8	Fe	57	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 9
Sample Date/Time: Sunday, December 20, 2009 14:46:45
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\091220\QC Std 9.037

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	0.025	ug/L	39.241	133	0.000
	Be	9	0.001	ug/L	639.245	26	0.000
	B	11	0.764	ug/L	12.321	1584	0.001
	Na	23	-0.171	ug/L	531.160	22352	-0.001
	Mg	24	0.200	ug/L	218.691	3334	0.001
	Al	27	-0.023	ug/L	866.087	8669	-0.000
	P	31	-1.158	ug/L	190.604	10501	-0.001
	K	39	-4.709	ug/L	84.821	716207	-0.048
	Ca	43	4.539	ug/L	18.108	659	0.000
>	Sc	45		ug/L		890746	890746.066
	Ti	47	0.043	ug/L	83.401	559	0.000
	V	51	-0.069	ug/L	868.793	13300	-0.001
	Cr	52	0.231	ug/L	20.971	8169	0.002
	Cr	53		ug/L		172650	-0.008
	Mn	55	0.006	ug/L	101.057	1587	0.000
	Fe	57	5.043	ug/L	5.238	9209	0.002
	Co	59	0.004	ug/L	11.912	185	0.000
	Ni	60	0.004	ug/L	87.470	128	0.000
	Cu	63		ug/L		351	0.000
	Cu	65	0.012	ug/L	73.135	217	0.000
	Zn	66	-0.003	ug/L	510.790	452	-0.000
	Zn	67		ug/L		20759	0.001
	Zn	68		ug/L		1834	0.000
>	Ge	74		ug/L		720264	720263.681
	As	75	0.241	ug/L	80.425	584	0.001
	Se	77		ug/L		10836	-0.004
	Se	82	0.014	ug/L	920.882	-19	0.000
	Kr	83		ug/L		178	0.000
	Sr	88	0.004	ug/L	33.975	314	0.000
	Y	89		ug/L		70	0.000
	Mo	98	0.025	ug/L	22.061	255	0.000
	Ag	107	0.003	ug/L	30.682	93	0.000
	Cd	111	0.003	ug/L	74.068	38	0.000
	Cd	114		ug/L		72	0.000
>	In	115		ug/L		433652	433652.155
	Sn	120	0.028	ug/L	17.220	560	0.001
	Sb	121	0.169	ug/L	8.663	1916	0.003
	Sb	123		ug/L		1456	0.003
	Ba	135		ug/L		64	0.000
	Ba	137	0.005	ug/L	42.224	68	0.000
	Ho	165		ug/L		82	0.000
>	Lu	175		ug/L		669869	669868.834
	Tl	205	0.357	ug/L	15.700	12688	0.016
	Pb	208	0.001	ug/L	71.890	1129	0.000
	Bi	209		ug/L		47	-0.000
	Th	232	0.052	ug/L	19.097	3687	0.004
	U	238	0.010	ug/L	9.988	856	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	0.9999
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈	Li	7					
|	Be	9					
|	B	11					
|	Na	23					
|	Mg	24					
|	Al	27					
|	P	31					
|	K	39					
|	Ca	43					
|>	Sc	45		102.0			
|	Ti	47					
|	V	51					
|	Cr	52					
|	Cr	53					
|	Mn	55					
|	Fe	57					
|	Co	59					
|	Ni	60					
|	Cu	63					
⌊	Cu	65					
⌈	Zn	66					
|	Zn	67					
|	Zn	68					
|>	Ge	74		104.6			
|	As	75					
|	Se	77					
|	Se	82					
⌊	Kr	83					
⌈	Sr	88					
|	Y	89					
|	Mo	98					
|	Ag	107					
|	Cd	111					
|	Cd	114					
|>	In	115		103.5			
|	Sn	120					
|	Sb	121					
⌊	Sb	123					
⌈	Ba	135					
|	Ba	137					
|	Ho	165					
|>	Lu	175		99.9			
|	Tl	205					
|	Pb	208					
|	Bi	209					
|	Th	232					
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 8
Sample Date/Time: Sunday, December 20, 2009 15:25:39
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\091220\QC Std 8.043

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**50.121**	**ug/L**	0.525	129502	0.150
	Be	9	**48.514**	**ug/L**	3.854	31133	0.036
	B	11	**87.905**	**ug/L**	1.027	69978	0.080
	Na	23	**5428.014**	**ug/L**	9.460	33660137	38.983
	Mg	24	**4770.557**	**ug/L**	5.478	22130057	25.640
	Al	27	**4415.329**	**ug/L**	4.256	31506064	36.474
	P	31	**4561.772**	**ug/L**	3.027	1840278	2.120
	K	39	**5080.176**	**ug/L**	6.297	45025814	51.327
	Ca	43	**5065.595**	**ug/L**	3.177	104309	0.120
>	Sc	45		**ug/L**		863276	863276.463
	Ti	47	**47.675**	**ug/L**	3.294	50796	0.058
	V	51	**52.351**	**ug/L**	3.568	622858	0.706
	Cr	52	**53.114**	**ug/L**	0.798	492558	0.564
	Cr	53		**ug/L**		211761	0.043
	Mn	55	**54.860**	**ug/L**	2.529	782319	0.905
	Fe	57	**5451.663**	**ug/L**	1.099	1467408	1.691
	Co	59	**53.416**	**ug/L**	1.311	604370	0.700
	Ni	60	**54.237**	**ug/L**	2.007	139617	0.162
	Cu	63		**ug/L**		327176	0.379
	Cu	65	**53.004**	**ug/L**	2.822	161771	0.187
	Zn	66	**49.966**	**ug/L**	2.041	105963	0.149
	Zn	67		**ug/L**		35864	0.023
	Zn	68		**ug/L**		80447	0.111
>	Ge	74		**ug/L**		709140	709139.749
	As	75	**48.024**	**ug/L**	2.126	104997	0.148
	Se	77		**ug/L**		17548	0.006
	Se	82	**48.856**	**ug/L**	0.756	10522	0.015
	Kr	83		**ug/L**		175	0.000
	Sr	88	**51.724**	**ug/L**	2.689	1181079	2.805
	Y	89		**ug/L**		205	0.000
	Mo	98	**49.153**	**ug/L**	0.967	288937	0.686
	Ag	107	**51.616**	**ug/L**	3.302	506254	1.202
	Cd	111	**49.791**	**ug/L**	1.254	121032	0.287
	Cd	114		**ug/L**		283538	0.673
>	In	115		**ug/L**		421128	421127.755
	Sn	120	**50.454**	**ug/L**	1.266	501177	1.190
	Sb	121	**50.538**	**ug/L**	1.110	421836	1.001
	Sb	123		**ug/L**		330068	0.783
	Ba	135		**ug/L**		124132	0.187
	Ba	137	**50.596**	**ug/L**	0.268	217276	0.327
	Ho	165		**ug/L**		110	0.000
>	Lu	175		**ug/L**		663774	663773.910
	Tl	205	**48.670**	**ug/L**	1.108	1475852	2.221
	Pb	208	**51.897**	**ug/L**	0.028	2408684	3.627
	Bi	209		**ug/L**		524	0.001
	Th	232	**50.982**	**ug/L**	0.339	2771739	4.174
	U	238	**51.578**	**ug/L**	0.286	3016788	4.545

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	0.9999
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7	100.243				
	Be	9	97.028				
	B	11	87.905				
	Na	23	108.560				
	Mg	24	95.411				
	Al	27	87.432				
	P	31	91.235				
	K	39	101.604				
	Ca	43	101.312				
>	Sc	45		98.8			
	Ti	47	95.350				
	V	51	104.702				
	Cr	52	106.228				
	Cr	53					
	Mn	55	109.721				
	Fe	57	109.033				
	Co	59	106.831				
	Ni	60	108.474				
	Cu	63					
	Cu	65	106.009				
	Zn	66	99.932				
	Zn	67					
	Zn	68					
>	Ge	74		103.0			
	As	75	96.047				
	Se	77					
	Se	82	97.713				
	Kr	83					
	Sr	88	103.447				
	Y	89					
	Mo	98	98.305				
	Ag	107	103.232				
	Cd	111	99.583				
	Cd	114					
>	In	115		100.5			
	Sn	120	100.908				
	Sb	121	101.076				
	Sb	123					
	Ba	135					
	Ba	137	101.192				
	Ho	165					
>	Lu	175		99.0			
	Tl	205	97.339				
	Pb	208	103.795				
	Bi	209					
	Th	232	101.964				
	U	238	103.156				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 8	B	11	CCV is out of limits (+/- 10%)
QC Std 8	Al	27	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 9
Sample Date/Time: Sunday, December 20, 2009 15:31:48
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\091220\QC Std 9.044

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.058**	ug/L	18.868	224	0.000
	Be	9	**0.007**	ug/L	125.067	30	0.000
	B	11	**0.497**	ug/L	36.341	1378	0.000
	Na	23	**-0.142**	ug/L	378.652	22685	-0.001
	Mg	24	**0.198**	ug/L	167.002	3334	0.001
	Al	27	**0.011**	ug/L	2265.852	9003	0.000
	P	31	**-2.475**	ug/L	46.648	10025	-0.001
	K	39	**-6.082**	ug/L	105.691	708529	-0.061
	Ca	43	**4.080**	ug/L	19.498	654	0.000
>	Sc	45		ug/L		897290	897289.956
	Ti	47	**0.050**	ug/L	102.089	571	0.000
	V	51	**0.232**	ug/L	123.819	16981	0.003
	Cr	52	**0.310**	ug/L	10.632	8977	0.003
	Cr	53		ug/L		168802	-0.014
	Mn	55	**0.007**	ug/L	56.103	1616	0.000
	Fe	57	**9.467**	ug/L	10.815	10505	0.003
	Co	59	**0.004**	ug/L	27.014	194	0.000
	Ni	60	**0.006**	ug/L	49.535	134	0.000
	Cu	63		ug/L		340	0.000
	Cu	65	**0.016**	ug/L	12.707	231	0.000
	Zn	66	**-0.001**	ug/L	3840.714	457	-0.000
	Zn	67		ug/L		19653	-0.000
	Zn	68		ug/L		1514	-0.000
>	Ge	74		ug/L		719713	719713.027
	As	75	**0.124**	ug/L	260.863	325	0.000
	Se	77		ug/L		10875	-0.004
	Se	82	**0.086**	ug/L	14.986	-3	0.000
	Kr	83		ug/L		184	0.000
	Sr	88	**0.003**	ug/L	23.191	306	0.000
	Y	89		ug/L		84	0.000
	Mo	98	**0.025**	ug/L	24.720	252	0.000
	Ag	107	**0.004**	ug/L	25.284	102	0.000
	Cd	111	**0.001**	ug/L	100.840	34	0.000
	Cd	114		ug/L		70	0.000
>	In	115		ug/L		430108	430108.208
	Sn	120	**0.025**	ug/L	1.763	522	0.001
	Sb	121	**0.124**	ug/L	14.087	1514	0.002
	Sb	123		ug/L		1160	0.002
	Ba	135		ug/L		60	0.000
	Ba	137	**0.006**	ug/L	45.229	71	0.000
	Ho	165		ug/L		73	0.000
>	Lu	175		ug/L		663645	663644.952
	Tl	205	**0.289**	ug/L	25.358	10510	0.013
	Pb	208	**0.002**	ug/L	61.086	1163	0.000
	Bi	209		ug/L		50	-0.000
	Th	232	**0.047**	ug/L	20.550	3394	0.004
	U	238	**0.010**	ug/L	4.364	817	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	0.9999
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		102.7			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		104.5			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		102.7			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		98.9			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1201999276
Sample Date/Time: Sunday, December 20, 2009 15:37:57
Sample Type:
Sample Description: LANL 6020 MB
Number of Replicates: 3
Batch ID: 934470|2|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\091220\1201999276.045

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.034**	ug/L	15.545	161	0.000
	Be	9	**-0.007**	ug/L	234.617	21	-0.000
	B	11	**0.381**	ug/L	10.487	1300	0.000
	Na	23	**4.416**	ug/L	15.448	52764	0.032
	Mg	24	**1.006**	ug/L	42.972	7335	0.005
	Al	27	**1.997**	ug/L	24.061	24020	0.017
	P	31	**19.060**	ug/L	17.138	19252	0.009
	K	39	**-6.536**	ug/L	167.161	713572	-0.066
	Ca	43	**9.505**	ug/L	25.702	779	0.000
>	Sc	45		ug/L		909137	909136.947
	Ti	47	**0.374**	ug/L	9.007	939	0.000
	V	51	**0.241**	ug/L	163.694	17327	0.003
	Cr	52	**0.793**	ug/L	9.267	13761	0.008
	Cr	53		ug/L		125509	-0.064
	Mn	55	**0.172**	ug/L	3.774	4112	0.003
	Fe	57	**20.879**	ug/L	5.477	13863	0.006
	Co	59	**0.008**	ug/L	3.194	242	0.000
	Ni	60	**0.102**	ug/L	3.311	395	0.000
	Cu	63		ug/L		954	0.001
	Cu	65	**0.108**	ug/L	6.241	529	0.000
	Zn	66	**0.907**	ug/L	5.345	2400	0.003
	Zn	67		ug/L		14789	-0.007
	Zn	68		ug/L		2778	0.002
>	Ge	74		ug/L		718938	718938.386
	As	75	**-0.075**	ug/L	449.488	-111	-0.000
	Se	77		ug/L		7531	-0.008
	Se	82	**0.049**	ug/L	279.177	-11	0.000
	Kr	83		ug/L		168	-0.000
	Sr	88	**0.022**	ug/L	7.562	767	0.001
	Y	89		ug/L		120	0.000
	Mo	98	**0.040**	ug/L	20.614	350	0.001
	Ag	107	**0.003**	ug/L	3.440	92	0.000
	Cd	111	**0.007**	ug/L	147.926	49	0.000
	Cd	114		ug/L		60	0.000
>	In	115		ug/L		441483	441482.529
	Sn	120	**0.061**	ug/L	5.116	906	0.001
	Sb	121	**-0.007**	ug/L	6.595	411	-0.000
	Sb	123		ug/L		345	-0.000
	Ba	135		ug/L		156	0.000
	Ba	137	**0.046**	ug/L	7.833	253	0.000
	Ho	165		ug/L		75	0.000
>	Lu	175		ug/L		688532	688532.360
	Tl	205	**0.128**	ug/L	6.702	5820	0.006
	Pb	208	**0.114**	ug/L	5.541	6563	0.008
	Bi	209		ug/L		112	0.000
	Th	232	**0.055**	ug/L	46.667	3955	0.005
	U	238	**0.002**	ug/L	45.128	388	0.000

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	0.9999
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9999
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9999
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45			104.1		
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74			104.4		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115			105.4		
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175			102.7		
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1201999281
Sample Date/Time: Sunday, December 20, 2009 15:44:06
Sample Type:
Sample Description: LANL 6020 LCS
Number of Replicates: 3
Batch ID: 934470|40|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\091220\1201999281.046

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**2.629**	ug/L	2.851	7074	0.008
	Be	9	**20.102**	ug/L	0.547	13331	0.015
	B	11	**34.700**	ug/L	2.043	29089	0.032
	Na	23	**254.677**	ug/L	11.291	1653531	1.829
	Mg	24	**1016.268**	ug/L	3.351	4868825	5.462
	Al	27	**2856.353**	ug/L	6.627	21033378	23.596
	P	31	**250.313**	ug/L	1.010	114601	0.116
	K	39	**1192.513**	ug/L	2.458	11490963	12.048
	Ca	43	**2871.407**	ug/L	2.596	61269	0.068
>	Sc	45		ug/L		890830	890829.651
	Ti	47	**121.568**	ug/L	1.366	132908	0.149
	V	51	**35.876**	ug/L	0.762	445009	0.484
	Cr	52	**67.904**	ug/L	1.097	648159	0.721
	Cr	53		ug/L		230934	0.057
	Mn	55	**155.240**	ug/L	0.506	2282168	2.560
	Fe	57	**5077.191**	ug/L	1.166	1410826	1.575
	Co	59	**28.484**	ug/L	1.070	332662	0.373
	Ni	60	**40.368**	ug/L	0.809	107277	0.120
	Cu	63		ug/L		316871	0.355
	Cu	65	**50.120**	ug/L	1.303	157898	0.177
	Zn	66	**158.357**	ug/L	0.679	338789	0.472
	Zn	67		ug/L		71234	0.072
	Zn	68		ug/L		251981	0.349
>	Ge	74		ug/L		717432	717432.048
	As	75	**28.826**	ug/L	2.365	63787	0.089
	Se	77		ug/L		22669	0.013
	Se	82	**76.493**	ug/L	0.495	16679	0.023
	Kr	83		ug/L		185	0.000
	Sr	88	**62.915**	ug/L	1.257	1473757	3.411
	Y	89		ug/L		90253	0.209
	Mo	98	**13.671**	ug/L	0.404	82504	0.191
	Ag	107	**5.913**	ug/L	1.170	59551	0.138
	Cd	111	**16.370**	ug/L	0.870	40839	0.094
	Cd	114		ug/L		97627	0.226
>	In	115		ug/L		431953	431952.895
	Sn	120	**9.101**	ug/L	2.891	92943	0.215
	Sb	121	**13.842**	ug/L	1.470	118832	0.274
	Sb	123		ug/L		93159	0.215
	Ba	135		ug/L		133912	0.201
	Ba	137	**53.755**	ug/L	1.435	231368	0.348
	Ho	165		ug/L		5715	0.008
>	Lu	175		ug/L		665318	665317.876
	Tl	205	**36.180**	ug/L	1.603	1100088	1.651
	Pb	208	**26.141**	ug/L	0.509	1216603	1.827
	Bi	209		ug/L		10645	0.016
	Th	232	**3.181**	ug/L	1.094	174137	0.260
	U	238	**0.613**	ug/L	1.659	36146	0.054

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	0.9999
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		102.0			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		104.2			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		103.1			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		99.2			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Ti 47 Upper, S, EEE	Ti	47	Sample is out of limits (over linear range)

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 243007002
Sample Date/Time: Sunday, December 20, 2009 15:50:14
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 934470|2|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\091220\243007002.047

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**55.764**	**ug/L**	0.781	157134	0.167
	Be	9	**3.351**	**ug/L**	0.967	2371	0.002
	B	11	**13.482**	**ug/L**	2.874	12568	0.012
	Na	23	**667.753**	**ug/L**	8.629	4539815	4.796
	Mg	24	**8399.022**	**ug/L**	9.925	42476117	45.142
	Al	27	**52723.222**	**ug/L**	5.471	409930850	435.536
	P	31	**407.348**	**ug/L**	1.097	189838	0.189
	K	39	**6796.242**	**ug/L**	2.219	65459215	68.665
	Ca	43	**9192.480**	**ug/L**	0.975	206016	0.218
>	Sc	45		**ug/L**		941609	941609.428
	Ti	47	**895.438**	**ug/L**	0.953	1031185	1.095
	V	51	**69.892**	**ug/L**	2.838	902097	0.942
	Cr	52	**47.193**	**ug/L**	1.191	478052	0.501
	Cr	53		**ug/L**		150834	-0.042
	Mn	55	**1090.006**	**ug/L**	1.473	16925551	17.976
	Fe	57	**46284.457**	**ug/L**	3.804	13525076	14.358
	Co	59	**19.790**	**ug/L**	1.667	244328	0.259
	Ni	60	**34.429**	**ug/L**	1.934	96723	0.103
	Cu	63		**ug/L**		308359	0.327
	Cu	65	**46.703**	**ug/L**	1.141	155510	0.165
	Zn	66	**216.552**	**ug/L**	1.906	411867	0.645
	Zn	67		**ug/L**		84352	0.105
	Zn	68		**ug/L**		323484	0.505
>	Ge	74		**ug/L**		638118	638118.262
	As	75	**8.507**	**ug/L**	2.044	16776	0.026
	Se	77		**ug/L**		5323	-0.011
	Se	82	**0.181**	**ug/L**	41.377	16	0.000
	Kr	83		**ug/L**		467	0.000
	Sr	88	**111.512**	**ug/L**	0.857	2452395	6.047
	Y	89		**ug/L**		1471092	3.627
	Mo	98	**2.785**	**ug/L**	0.472	15853	0.039
	Ag	107	**0.696**	**ug/L**	2.793	6625	0.016
	Cd	111	**1.461**	**ug/L**	5.397	3450	0.008
	Cd	114		**ug/L**		2752	0.007
>	In	115		**ug/L**		405561	405560.853
	Sn	120	**0.874**	**ug/L**	3.156	8606	0.021
	Sb	121	**0.284**	**ug/L**	1.171	2712	0.006
	Sb	123		**ug/L**		2112	0.004
	Ba	135		**ug/L**		1287043	1.919
	Ba	137	**530.674**	**ug/L**	1.159	2302171	3.433
	Ho	165		**ug/L**		102210	0.152
>	Lu	175		**ug/L**		670715	670715.307
	Tl	205	**1.100**	**ug/L**	3.718	35425	0.050
	Pb	208	**81.090**	**ug/L**	0.466	3802331	5.667
	Bi	209		**ug/L**		74147	0.110
	Th	232	**30.539**	**ug/L**	1.500	1677838	2.501
	U	238	**3.907**	**ug/L**	1.297	231134	0.344

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	0.9999
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9999
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9999
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		107.8			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		92.6			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		96.8			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		100.0			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Al 27 Upper, S, EEE	Al	27	Sample is out of limits (over linear range)
Ti 47 Upper, S, EEE	Ti	47	Sample is out of limits (over linear range)
Mn 55 Upper, S, EE	Mn	55	Sample is out of limits (over linear range)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: 1201999277
Sample Date/Time: Sunday, December 20, 2009 15:56:20
Sample Type:
Sample Description: LANL 6020 DUP
Number of Replicates: 3
Batch ID: 934470|2|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\091220\1201999277.048

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**55.959**	ug/L	2.016	156941	0.167
	Be	9	**3.286**	ug/L	6.278	2313	0.002
	B	11	**12.859**	ug/L	2.519	11981	0.012
	Na	23	**691.570**	ug/L	0.546	4680863	4.967
	Mg	24	**8529.415**	ug/L	1.298	42985831	45.843
	Al	27	**48222.685**	ug/L	4.763	373672475	398.358
	P	31	**422.380**	ug/L	4.295	195444	0.196
	K	39	**6996.066**	ug/L	2.659	67086654	70.684
	Ca	43	**9311.873**	ug/L	1.749	207719	0.221
>	Sc	45		ug/L		937425	937424.601
	Ti	47	**931.531**	ug/L	2.446	1067648	1.139
	V	51	**70.256**	ug/L	1.953	902573	0.947
	Cr	52	**62.410**	ug/L	3.222	627100	0.663
	Cr	53		ug/L		164219	-0.027
	Mn	55	**1167.332**	ug/L	4.338	18035663	19.251
	Fe	57	**46391.498**	ug/L	4.102	13490437	14.391
	Co	59	**18.713**	ug/L	3.656	229905	0.245
	Ni	60	**33.784**	ug/L	3.026	94454	0.101
	Cu	63		ug/L		308430	0.329
	Cu	65	**46.804**	ug/L	2.965	155100	0.165
	Zn	66	**198.557**	ug/L	0.840	380197	0.591
	Zn	67		ug/L		78354	0.095
	Zn	68		ug/L		301362	0.467
>	Ge	74		ug/L		642319	642319.244
	As	75	**8.492**	ug/L	5.811	16851	0.026
	Se	77		ug/L		5103	-0.011
	Se	82	**0.286**	ug/L	65.001	36	0.000
	Kr	83		ug/L		463	0.000
	Sr	88	**111.075**	ug/L	2.942	2453497	6.023
	Y	89		ug/L		1576551	3.870
	Mo	98	**2.833**	ug/L	1.528	16200	0.040
	Ag	107	**0.509**	ug/L	2.836	4889	0.012
	Cd	111	**1.441**	ug/L	9.351	3417	0.008
	Cd	114		ug/L		2672	0.006
>	In	115		ug/L		407361	407360.860
	Sn	120	**0.893**	ug/L	1.664	8831	0.021
	Sb	121	**0.303**	ug/L	1.399	2881	0.006
	Sb	123		ug/L		2301	0.005
	Ba	135		ug/L		1245641	1.810
	Ba	137	**506.967**	ug/L	0.604	2257114	3.279
	Ho	165		ug/L		112262	0.163
>	Lu	175		ug/L		688301	688301.435
	Tl	205	**1.020**	ug/L	1.723	33864	0.047
	Pb	208	**145.175**	ug/L	0.822	6984766	10.146
	Bi	209		ug/L		90278	0.131
	Th	232	**30.700**	ug/L	0.631	1731056	2.514
	U	238	**3.695**	ug/L	1.191	224298	0.326

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	0.9999
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		107.3			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		93.3			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		97.2			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		102.6			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type Analyte	Mass	Out of Limits Message
Ti 47 Upper, S, EEE Ti	47	Sample is out of limits (over linear range)
Mn 55 Upper, S, EE Mn	55	Sample is out of limits (over linear range)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: 1201999279
Sample Date/Time: Sunday, December 20, 2009 16:02:27
Sample Type:
Sample Description: LANL 6020 MS
Number of Replicates: 3
Batch ID: 934470|2|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\091220\1201999279.049

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**92.430**	ug/L	1.708	267028	0.276
	Be	9	**25.282**	ug/L	1.934	18164	0.019
	B	11	**55.669**	ug/L	2.426	49947	0.051
	Na	23	**1599.046**	ug/L	6.428	11111670	11.484
	Mg	24	**10803.810**	ug/L	2.926	56068475	58.068
	Al	27	**68551.671**	ug/L	0.509	546867820	566.292
	P	31	**1192.708**	ug/L	1.760	547036	0.554
	K	39	**9128.203**	ug/L	2.002	89870801	92.226
	Ca	43	**10497.350**	ug/L	3.375	241125	0.249
>	Sc	45		ug/L		965652	965651.702
	Ti	47	**1139.727**	ug/L	1.389	1345941	1.393
	V	51	**103.761**	ug/L	2.926	1365840	1.399
	Cr	52	**71.872**	ug/L	2.135	743147	0.763
	Cr	53		ug/L		179030	-0.017
	Mn	55	**1036.560**	ug/L	0.342	16508811	17.094
	Fe	57	**54781.055**	ug/L	2.490	16415054	16.994
	Co	59	**43.668**	ug/L	2.728	552602	0.572
	Ni	60	**57.975**	ug/L	2.923	166912	0.173
	Cu	63		ug/L		686029	0.710
	Cu	65	**100.504**	ug/L	2.305	342940	0.355
	Zn	66	**242.603**	ug/L	1.014	463988	0.722
	Zn	67		ug/L		94266	0.120
	Zn	68		ug/L		368749	0.573
>	Ge	74		ug/L		641690	641690.325
	As	75	**46.156**	ug/L	1.984	91306	0.142
	Se	77		ug/L		6029	-0.010
	Se	82	**7.109**	ug/L	5.214	1368	0.002
	Kr	83		ug/L		555	0.001
	Sr	88	**157.524**	ug/L	1.502	3425000	8.542
	Y	89		ug/L		1580854	3.942
	Mo	98	**26.327**	ug/L	1.434	147388	0.367
	Ag	107	**26.302**	ug/L	0.604	245710	0.613
	Cd	111	**7.032**	ug/L	2.650	16300	0.041
	Cd	114		ug/L		30588	0.076
>	In	115		ug/L		401001	401001.282
	Sn	120	**9.951**	ug/L	2.013	94314	0.235
	Sb	121	**24.603**	ug/L	1.845	195751	0.487
	Sb	123		ug/L		153484	0.382
	Ba	135		ug/L		1448992	2.164
	Ba	137	**612.737**	ug/L	1.090	2653239	3.963
	Ho	165		ug/L		110017	0.164
>	Lu	175		ug/L		669456	669455.577
	Tl	205	**51.994**	ug/L	1.935	1590095	2.372
	Pb	208	**172.490**	ug/L	0.859	8071520	12.056
	Bi	209		ug/L		90353	0.135
	Th	232	**59.333**	ug/L	1.987	3253275	4.858
	U	238	**31.760**	ug/L	0.834	1873608	2.798

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	0.9999
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		110.5			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		93.2			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		95.7			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		99.8			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Al 27 Upper, S, EEE	Al	27	Sample is out of limits (over linear range)
Ti 47 Upper, S, EEE	Ti	47	Sample is out of limits (over linear range)
V 51 Upper, S, EEE	V	51	Sample is out of limits (over linear range)
Mn 55 Upper, S, EEE	Mn	55	Sample is out of limits (over linear range)
Fe 57 Upper, S, EEE	Fe	57	Sample is out of limits (over linear range)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: 1201999280
Sample Date/Time: Sunday, December 20, 2009 16:08:35
Sample Type:
Sample Description: LANL 6020 MSD
Number of Replicates: 3
Batch ID: 934470|2|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\091220\1201999280.050

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**90.485**	ug/L	2.961	260680	0.271
	Be	9	**23.852**	ug/L	1.766	17093	0.018
	B	11	**53.065**	ug/L	0.657	47540	0.048
	Na	23	**1607.969**	ug/L	8.946	11142748	11.548
	Mg	24	**11067.223**	ug/L	5.041	57257806	59.483
	Al	27	**62537.127**	ug/L	4.388	497584592	516.607
	P	31	**1137.483**	ug/L	1.695	520842	0.529
	K	39	**9286.956**	ug/L	6.244	91136587	93.830
	Ca	43	**9552.329**	ug/L	1.688	218931	0.227
>	Sc	45		ug/L		963014	963013.764
	Ti	47	**1111.706**	ug/L	0.937	1309227	1.359
	V	51	**97.350**	ug/L	0.569	1279343	1.313
	Cr	52	**67.727**	ug/L	1.880	698767	0.719
	Cr	53		ug/L		172209	-0.023
	Mn	55	**1226.175**	ug/L	2.376	19470713	20.221
	Fe	57	**50594.560**	ug/L	0.404	15123683	15.695
	Co	59	**45.972**	ug/L	1.215	580272	0.602
	Ni	60	**55.608**	ug/L	3.514	159668	0.166
	Cu	63		ug/L		450663	0.468
	Cu	65	**66.706**	ug/L	1.956	227066	0.236
	Zn	66	**245.899**	ug/L	1.973	463514	0.732
	Zn	67		ug/L		92504	0.119
	Zn	68		ug/L		364115	0.574
>	Ge	74		ug/L		632456	632456.015
	As	75	**43.127**	ug/L	1.496	84094	0.133
	Se	77		ug/L		5903	-0.010
	Se	82	**6.811**	ug/L	3.530	1292	0.002
	Kr	83		ug/L		509	0.001
	Sr	88	**145.855**	ug/L	1.024	3180062	7.909
	Y	89		ug/L		1523129	3.788
	Mo	98	**24.328**	ug/L	0.839	136594	0.339
	Ag	107	**24.627**	ug/L	0.857	230685	0.574
	Cd	111	**6.802**	ug/L	1.045	15813	0.039
	Cd	114		ug/L		30307	0.075
>	In	115		ug/L		402087	402086.907
	Sn	120	**9.248**	ug/L	1.283	87918	0.218
	Sb	121	**26.061**	ug/L	1.112	207914	0.516
	Sb	123		ug/L		161790	0.402
	Ba	135		ug/L		1371638	2.035
	Ba	137	**577.255**	ug/L	1.011	2516079	3.734
	Ho	165		ug/L		108097	0.160
>	Lu	175		ug/L		673918	673917.903
	Tl	205	**49.345**	ug/L	2.364	1518853	2.252
	Pb	208	**170.706**	ug/L	1.564	8040255	11.931
	Bi	209		ug/L		77811	0.115
	Th	232	**56.597**	ug/L	2.135	3123268	4.634
	U	238	**30.168**	ug/L	1.273	1791342	2.658

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	0.9999
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		110.2			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		91.8			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		96.0			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		100.5			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Al 27 Upper, S, EEE	Al	27	Sample is out of limits (over linear range)
Ti 47 Upper, S, EEE	Ti	47	Sample is out of limits (over linear range)
Mn 55 Upper, S, EEI	Mn	55	Sample is out of limits (over linear range)
Fe 57 Upper, S, EEE	Fe	57	Sample is out of limits (over linear range)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: 1201999278
Sample Date/Time: Sunday, December 20, 2009 16:14:44
Sample Type:
Sample Description: LANL 6020 SDILT
Number of Replicates: 3
Batch ID: 934470|10|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\091220\1201999278.051

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**13.231**	ug/L	3.309	32799	0.040
	Be	9	**0.832**	ug/L	5.367	534	0.001
	B	11	**3.771**	ug/L	4.489	3737	0.003
	Na	23	**163.090**	ug/L	2.286	990893	1.171
	Mg	24	**2049.999**	ug/L	3.751	9116437	11.018
	Al	27	**12205.144**	ug/L	7.584	83429465	100.824
	P	31	**101.361**	ug/L	2.621	49163	0.047
	K	39	**1588.841**	ug/L	1.096	13985804	16.053
	Ca	43	**2146.841**	ug/L	1.134	42678	0.051
>	Sc	45		ug/L		827415	827414.986
	Ti	47	**219.097**	ug/L	2.007	222065	0.268
	V	51	**16.380**	ug/L	3.225	195856	0.221
	Cr	52	**10.565**	ug/L	0.437	98357	0.112
	Cr	53		ug/L		128868	-0.046
	Mn	55	**254.555**	ug/L	0.537	3474671	4.198
	Fe	57	**10890.481**	ug/L	0.948	2802368	3.378
	Co	59	**4.715**	ug/L	0.629	51259	0.062
	Ni	60	**8.355**	ug/L	1.170	20708	0.025
	Cu	63		ug/L		68478	0.082
	Cu	65	**11.478**	ug/L	1.615	33707	0.041
	Zn	66	**49.495**	ug/L	1.933	96100	0.147
	Zn	67		ug/L		31465	0.021
	Zn	68		ug/L		74269	0.112
>	Ge	74		ug/L		649280	649279.585
	As	75	**1.879**	ug/L	3.447	3807	0.006
	Se	77		ug/L		6160	-0.009
	Se	82	**0.254**	ug/L	20.457	31	0.000
	Kr	83		ug/L		204	0.000
	Sr	88	**24.785**	ug/L	1.441	541227	1.344
	Y	89		ug/L		328428	0.816
	Mo	98	**0.567**	ug/L	3.337	3281	0.008
	Ag	107	**0.146**	ug/L	6.320	1423	0.003
	Cd	111	**0.282**	ug/L	5.399	685	0.002
	Cd	114		ug/L		600	0.001
>	In	115		ug/L		402614	402614.123
	Sn	120	**0.183**	ug/L	4.750	1988	0.004
	Sb	121	**0.068**	ug/L	12.203	972	0.001
	Sb	123		ug/L		765	0.001
	Ba	135		ug/L		282601	0.427
	Ba	137	**114.152**	ug/L	1.155	488109	0.738
	Ho	165		ug/L		21342	0.032
>	Lu	175		ug/L		660999	660998.638
	Tl	205	**0.285**	ug/L	3.363	10339	0.013
	Pb	208	**18.744**	ug/L	0.983	866944	1.310
	Bi	209		ug/L		15786	0.024
	Th	232	**7.045**	ug/L	2.246	382067	0.577
	U	238	**0.797**	ug/L	1.560	46656	0.070

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	0.9999
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		94.7			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		94.3			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		96.1			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		98.6			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Ti 47 Upper, S, EEE	Ti	47	Sample is out of limits (over linear range)

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Sunday, December 20, 2009 16:20:52
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\091220\QC Std 6.052

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**51.203**	**ug/L**	2.753	131423	0.153
	Be	9	**48.358**	**ug/L**	1.753	30841	0.036
	B	11	**88.552**	**ug/L**	0.987	70034	0.081
	Na	23	**4815.486**	**ug/L**	5.164	29682121	34.584
	Mg	24	**4653.075**	**ug/L**	14.500	21453094	25.009
	Al	27	**4197.589**	**ug/L**	5.649	29745948	34.675
	P	31	**4492.218**	**ug/L**	1.129	1801064	2.088
	K	39	**4965.572**	**ug/L**	1.655	43760028	50.169
	Ca	43	**4973.903**	**ug/L**	1.098	101789	0.118
>	Sc	45		**ug/L**		857666	857666.160
	Ti	47	**46.849**	**ug/L**	1.887	49614	0.057
	V	51	**51.115**	**ug/L**	1.087	604678	0.689
	Cr	52	**52.484**	**ug/L**	0.796	483655	0.557
	Cr	53		**ug/L**		203811	0.035
	Mn	55	**54.646**	**ug/L**	0.630	774351	0.901
	Fe	57	**5452.919**	**ug/L**	0.688	1458340	1.692
	Co	59	**52.636**	**ug/L**	0.824	591746	0.690
	Ni	60	**53.517**	**ug/L**	1.525	136891	0.159
	Cu	63		**ug/L**		322782	0.376
	Cu	65	**52.053**	**ug/L**	0.742	157869	0.184
	Zn	66	**49.260**	**ug/L**	1.007	103857	0.147
	Zn	67		**ug/L**		35104	0.022
	Zn	68		**ug/L**		78987	0.110
>	Ge	74		**ug/L**		704954	704954.328
	As	75	**48.079**	**ug/L**	1.627	104504	0.148
	Se	77		**ug/L**		16797	0.005
	Se	82	**47.781**	**ug/L**	1.157	10230	0.015
	Kr	83		**ug/L**		153	-0.000
	Sr	88	**50.884**	**ug/L**	1.425	1157783	2.759
	Y	89		**ug/L**		240	0.000
	Mo	98	**48.398**	**ug/L**	1.757	283425	0.675
	Ag	107	**50.710**	**ug/L**	1.943	495566	1.181
	Cd	111	**48.965**	**ug/L**	2.073	118582	0.283
	Cd	114		**ug/L**		278151	0.663
>	In	115		**ug/L**		419577	419577.297
	Sn	120	**49.366**	**ug/L**	1.088	488585	1.164
	Sb	121	**49.661**	**ug/L**	1.245	412983	0.983
	Sb	123		**ug/L**		323592	0.770
	Ba	135		**ug/L**		121819	0.187
	Ba	137	**50.145**	**ug/L**	2.217	211684	0.324
	Ho	165		**ug/L**		109	0.000
>	Lu	175		**ug/L**		652683	652682.529
	Tl	205	**49.156**	**ug/L**	2.619	1465201	2.243
	Pb	208	**52.468**	**ug/L**	2.331	2393787	3.667
	Bi	209		**ug/L**		529	0.001
	Th	232	**51.755**	**ug/L**	1.783	2766168	4.238
	U	238	**52.319**	**ug/L**	1.056	3008662	4.610

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	0.9999
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9999
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9999
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈	Li	7	102.406				
|	Be	9	96.717				
|	B	11	88.552				
|	Na	23	96.310				
|	Mg	24	93.062				
|	Al	27	83.121				
|	P	31	89.844				
|	K	39	99.311				
|	Ca	43	99.478				
|>	Sc	45		98.2			
|	Ti	47	93.699				
|	V	51	102.230				
|	Cr	52	104.969				
|	Cr	53					
|	Mn	55	109.292				
|	Fe	57	109.058				
|	Co	59	105.272				
|	Ni	60	107.033				
|	Cu	63					
⌊	Cu	65	104.107				
⌈	Zn	66	98.520				
|	Zn	67					
|	Zn	68					
|>	Ge	74		102.4			
|	As	75	96.159				
|	Se	77					
|	Se	82	95.562				
⌊	Kr	83					
⌈	Sr	88	101.768				
|	Y	89					
|	Mo	98	96.795				
|	Ag	107	101.419				
|	Cd	111	97.929				
|	Cd	114					
|>	In	115		100.1			
|	Sn	120	98.732				
|	Sb	121	99.322				
⌊	Sb	123					
⌈	Ba	135					
|	Ba	137	100.290				
|	Ho	165					
|>	Lu	175		97.3			
|	Tl	205	98.311				
|	Pb	208	104.936				
|	Bi	209					
|	Th	232	103.511				
⌊	U	238	104.639				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 6	B	11	CCV is out of limits (+/- 10%)
QC Std 6	Al	27	CCV is out of limits (+/- 10%)
QC Std 6	P	31	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Sunday, December 20, 2009 16:27:00
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\091220\QC Std 7.053

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.081**	ug/L	13.674	275	0.000
	Be	9	**-0.002**	ug/L	383.406	23	-0.000
	B	11	**0.482**	ug/L	35.020	1325	0.000
	Na	23	**0.072**	ug/L	1959.828	23354	0.001
	Mg	24	**0.498**	ug/L	122.450	4668	0.003
	Al	27	**0.186**	ug/L	368.423	10004	0.002
	P	31	**-3.278**	ug/L	61.089	9405	-0.002
	K	39	**-8.654**	ug/L	29.166	665492	-0.087
	Ca	43	**2.673**	ug/L	59.061	605	0.000
>	Sc	45		ug/L		870798	870798.059
	Ti	47	**0.036**	ug/L	70.230	539	0.000
	V	51	**0.047**	ug/L	1162.345	14321	0.001
	Cr	52	**0.286**	ug/L	27.285	8493	0.003
	Cr	53		ug/L		160354	-0.018
	Mn	55	**0.016**	ug/L	21.381	1688	0.000
	Fe	57	**8.560**	ug/L	8.744	9953	0.003
	Co	59	**0.005**	ug/L	18.154	200	0.000
	Ni	60	**0.002**	ug/L	129.130	121	0.000
	Cu	63		ug/L		323	0.000
	Cu	65	**0.011**	ug/L	23.773	208	0.000
	Zn	66	**-0.012**	ug/L	15.564	425	-0.000
	Zn	67		ug/L		18783	-0.001
	Zn	68		ug/L		1452	-0.000
>	Ge	74		ug/L		708827	708827.137
	As	75	**-0.176**	ug/L	132.193	-333	-0.001
	Se	77		ug/L		10015	-0.005
	Se	82	**-0.035**	ug/L	113.318	-29	-0.000
	Kr	83		ug/L		180	0.000
	Sr	88	**0.004**	ug/L	39.049	312	0.000
	Y	89		ug/L		85	0.000
	Mo	98	**0.024**	ug/L	46.395	238	0.000
	Ag	107	**0.004**	ug/L	38.621	95	0.000
	Cd	111	**-0.000**	ug/L	1117.357	29	-0.000
	Cd	114		ug/L		72	0.000
>	In	115		ug/L		417507	417506.517
	Sn	120	**0.023**	ug/L	15.127	487	0.001
	Sb	121	**0.069**	ug/L	28.899	1014	0.001
	Sb	123		ug/L		837	0.001
	Ba	135		ug/L		58	0.000
	Ba	137	**0.009**	ug/L	12.309	84	0.000
	Ho	165		ug/L		75	0.000
>	Lu	175		ug/L		652761	652761.063
	Tl	205	**0.307**	ug/L	28.915	10849	0.014
	Pb	208	**0.001**	ug/L	46.126	1107	0.000
	Bi	209		ug/L		47	-0.000
	Th	232	**0.043**	ug/L	32.366	3113	0.004
	U	238	**0.009**	ug/L	16.455	751	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	0.9999
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		99.7			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		102.9			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		99.7			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		97.3			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

==========

Analysis Begun

Logged In Analyst: Administrator **Technique: AA FIMS-MHS**
Spectrometer Model: FIMS-100, S/N B050-9550 **Autosampler Model: S10**

Sample Information File: C:\data-AA\Administrator\Sample Information\122209S1.SIF
Batch ID:
Results Data Set: 122209S1
Results Library: C:\data-AA\Administrator\Results\Results.mdb

==========

Method Loaded
Method Name: SOIL **Method Last Saved: 12/7/2009 16:18:28**
Method Description: 7471A, ILM04 ANALYST JXL1

==========

Sequence No.: 1 **Autosampler Location: 1**
Sample ID: Calib Blank **Date Collected: 12/22/2009 09:05:20**
Analyst: **Data Type: Original**

Replicate Data: Calib Blank

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.00]	0.0001	-0.0005	0.0001	09:06:11	Yes
2		[0.00]	0.0001	-0.0009	0.0001	09:06:41	Yes
Mean:		[0.00]	0.0001				
SD:		0.00	0.0000				
%RSD:		0.00	9.20				

Auto-zero performed.

==========

Sequence No.: 2 **Autosampler Location: 2**
Sample ID: S0.2 **Date Collected: 12/22/2009 09:07:00**
Analyst: **Data Type: Original**

Replicate Data: S0.2

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.2]	0.0025	0.0096	0.0026	09:07:50	Yes
2		[0.2]	0.0025	0.0091	0.0026	09:08:20	Yes
Mean:		[0.2]	0.0025				
SD:		0.0	0.0000				
%RSD:		0.0	0.71				

Standard number 1 applied. [0.2]
Correlation Coef.: 1.000000 Slope: 0.01255 Intercept: 0.00000

==========

Sequence No.: 3 **Autosampler Location: 3**
Sample ID: S0.5 **Date Collected: 12/22/2009 09:08:39**
Analyst: **Data Type: Original**

Replicate Data: S0.5

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.5]	0.0064	0.0251	0.0065	09:09:30	Yes
2		[0.5]	0.0064	0.0254	0.0064	09:10:00	Yes
Mean:		[0.5]	0.0064				
SD:		0.0	0.0000				
%RSD:		0.0	0.48				

Standard number 2 applied. [0.5]
Correlation Coef.: 0.999971 Slope: 0.01278 Intercept: -0.00002

==========

Sequence No.: 4 **Autosampler Location: 4**
Sample ID: S2.0 **Date Collected: 12/22/2009 09:10:19**
Analyst: **Data Type: Original**

Replicate Data: S2.0

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[2.0]	0.0258	0.1044	0.0259	09:11:11	Yes
2		[2.0]	0.0256	0.1033	0.0256	09:11:41	Yes
Mean:		[2.0]	0.0257				
SD:		0.0	0.0002				
%RSD:		0.0	0.62				

Standard number 3 applied. [2.0]
Correlation Coef.: 0.999998 Slope: 0.01286 Intercept: -0.00003

Sequence No.: 5 **Autosampler Location: 5**
Sample ID: S5.0 **Date Collected: 12/22/2009 09:12:01**
Analyst: **Data Type: Original**

Replicate Data: S5.0

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[5.0]	0.0627	0.2554	0.0627	09:12:53	Yes
2		[5.0]	0.0622	0.2523	0.0623	09:13:23	Yes
Mean:		[5.0]	0.0624				
SD:		0.0	0.0003				
%RSD:		0.0	0.47				

Standard number 4 applied. [5.0]
Correlation Coef.: 0.999931 Slope: 0.01250 Intercept: 0.00016

Sequence No.: 6 **Autosampler Location: 6**
Sample ID: S10.0 **Date Collected: 12/22/2009 09:13:43**
Analyst: **Data Type: Original**

Replicate Data: S10.0

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[10.0]	0.1224	0.4992	0.1225	09:14:33	Yes
2		[10.0]	0.1212	0.4934	0.1212	09:15:03	Yes
Mean:		[10.0]	0.1218				
SD:		0.0	0.0009				
%RSD:		0.0	0.71				

Standard number 5 applied. [10.0]
Correlation Coef.: 0.999890 Slope: 0.01219 Intercept: 0.00051

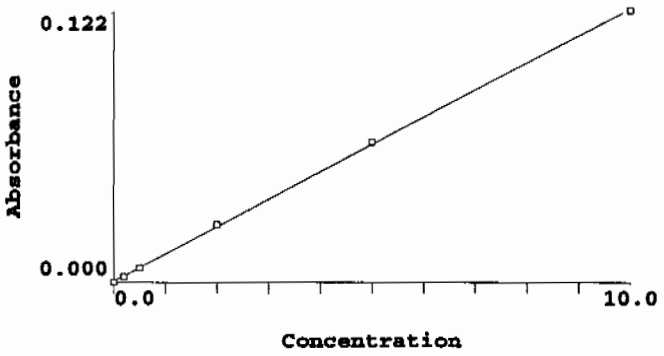

Calibration data for Hg 253.7 **Equation: Linear, Calculated Intercept**

ID	Mean Signal (Abs)	Entered Conc. ug/L	Calculated Conc. ug/L	Standard Deviation	%RSD
Calib Blank	0.0000	0	-0.042	0.00	9.2
S0.2	0.0025	0.2	0.164	0.00	0.7
S0.5	0.0064	0.5	0.482	0.00	0.5
S2.0	0.0257	2.0	2.066	0.00	0.6

S5.0	0.0624	5.0	5.081	0.00	0.5
S10.0	0.1218	10.0	9.948	0.00	0.7

Correlation Coef.: 0.999890 Slope: 0.01219 Intercept: 0.00051

==========

Sequence No.: 7 **Autosampler Location: 9**
Sample ID: ICV **Date Collected: 12/22/2009 09:15:22**
Analyst: **Data Type: Original**

Replicate Data: ICV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.177	5.177	0.0636	0.2587	0.0637	09:16:12	Yes
2	5.149	5.149	0.0633	0.2569	0.0633	09:16:42	Yes
Mean:	5.163	5.163	0.0634				
SD:	0.020	0.020	0.0002				
%RSD:	0.394	0.394	0.39				

QC value within limits for Hg 253.7 Recovery = 103.26%
All analyte(s) passed QC.

==========

Sequence No.: 8 **Autosampler Location: 10**
Sample ID: ICB **Date Collected: 12/22/2009 09:17:02**
Analyst: **Data Type: Original**

Replicate Data: ICB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.022	-0.022	0.0002	0.0006	0.0003	09:17:53	Yes
2	-0.021	-0.021	0.0003	0.0007	0.0003	09:18:23	Yes
Mean:	-0.021	-0.021	0.0002				
SD:	0.000	0.000	0.0000				
%RSD:	2.200	2.200	2.32				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

==========

Sequence No.: 9 **Autosampler Location: 11**
Sample ID: CRDL **Date Collected: 12/22/2009 09:18:43**
Analyst: **Data Type: Original**

Replicate Data: CRDL

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.187	0.187	0.0028	0.0107	0.0029	09:19:34	Yes
2	0.188	0.188	0.0028	0.0111	0.0029	09:20:04	Yes
Mean:	0.187	0.187	0.0028				
SD:	0.000	0.000	0.0000				
%RSD:	0.135	0.135	0.11				

QC value within limits for Hg 253.7 Recovery = 93.72%
All analyte(s) passed QC.

==========

Sequence No.: 10 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 12/22/2009 09:20:24**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.105	5.105	0.0627	0.2568	0.0628	09:21:15	Yes
2	5.098	5.098	0.0627	0.2548	0.0627	09:21:45	Yes
Mean:	5.102	5.102	0.0627				
SD:	0.005	0.005	0.0001				
%RSD:	0.096	0.096	0.10				

QC value within limits for Hg 253.7 Recovery = 102.04%
All analyte(s) passed QC.

Sequence No.: 11
Sample ID: CCB
Analyst:
Autosampler Location: 8
Date Collected: 12/22/2009 09:22:04
Data Type: Original

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.024	-0.024	0.0002	0.0006	0.0003	09:22:55	Yes
2	-0.022	-0.022	0.0002	0.0008	0.0003	09:23:25	Yes
Mean:	-0.023	-0.023	0.0002				
SD:	0.001	0.001	0.0000				
%RSD:	6.170	6.170	7.89				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 12
Sample ID: 1201999075|934357|1
Analyst: JXL1
Autosampler Location: 12
Date Collected: 12/22/2009 09:23:44
Data Type: Original

Replicate Data: 1201999075|934357|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.035	-0.035	0.0001	-0.0001	0.0001	09:24:36	Yes
2	-0.034	-0.034	0.0001	0.0000	0.0002	09:25:05	Yes
Mean:	-0.034	-0.034	0.0001				
SD:	0.001	0.001	0.0000				
%RSD:	2.201	2.201	10.49				

Sequence No.: 13
Sample ID: 1201999076|934357|1
Analyst: JXL1
Autosampler Location: 13
Date Collected: 12/22/2009 09:25:26
Data Type: Original

Replicate Data: 1201999076|934357|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.103	2.103	0.0261	0.1069	0.0262	09:26:17	Yes
2	2.096	2.096	0.0261	0.1055	0.0261	09:26:47	Yes
Mean:	2.100	2.100	0.0261				
SD:	0.005	0.005	0.0001				
%RSD:	0.223	0.223	0.22				

Sequence No.: 14
Sample ID: 242698001|934357|1
Analyst: JXL1
Autosampler Location: 14
Date Collected: 12/22/2009 09:27:07
Data Type: Original

Replicate Data: 242698001|934357|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.230	0.230	0.0033	0.0136	0.0034	09:27:58	Yes
2	0.227	0.227	0.0033	0.0130	0.0033	09:28:27	Yes
Mean:	0.228	0.228	0.0033				
SD:	0.002	0.002	0.0000				
%RSD:	1.056	1.056	0.89				

Sequence No.: 15
Sample ID: 1201999077|934357|1
Analyst: JXL1
Autosampler Location: 15
Date Collected: 12/22/2009 09:28:46
Data Type: Original

Replicate Data: 1201999077|934357|1

Repl	SampleConc	StndConc	BlnkCorr	Peak	Peak	Time	Peak

Replicate Data: 1201993279|931833|10

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	3.267	3.267	0.0403	0.1644	0.0404	09:37:54	Yes
2	3.243	3.243	0.0400	0.1638	0.0401	09:38:24	Yes
Mean:	3.255	3.255	0.0402				
SD:	0.017	0.017	0.0002				
%RSD:	0.512	0.512	0.51				

Sequence No.: 21 **Autosampler Location: 21**
Sample ID: 242435001|931833|1 **Date Collected: 12/22/2009 09:38:44**
Analyst: JXL1 **Data Type: Original**

Replicate Data: 242435001|931833|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.409	0.409	0.0055	0.0242	0.0056	09:39:35	Yes
2	0.414	0.414	0.0056	0.0240	0.0056	09:40:05	Yes
Mean:	0.412	0.412	0.0055				
SD:	0.004	0.004	0.0001				
%RSD:	0.999	0.999	0.91				

Sequence No.: 22 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 12/22/2009 09:40:24**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.259	5.259	0.0646	0.2638	0.0647	09:41:15	Yes
2	5.262	5.262	0.0647	0.2634	0.0647	09:41:45	Yes
Mean:	5.261	5.261	0.0646				
SD:	0.002	0.002	0.0000				
%RSD:	0.045	0.045	0.04				

QC value within limits for Hg 253.7 Recovery = 105.21%
All analyte(s) passed QC.

Sequence No.: 23 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 12/22/2009 09:42:04**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.008	-0.008	0.0004	0.0014	0.0005	09:42:54	Yes
2	-0.008	-0.008	0.0004	0.0014	0.0005	09:43:24	Yes
Mean:	-0.008	-0.008	0.0004				
SD:	0.000	0.000	0.0000				
%RSD:	2.075	2.075	0.50				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 24 **Autosampler Location: 22**
Sample ID: 1201993280|931833|1 **Date Collected: 12/22/2009 09:43:43**
Analyst: JXL1 **Data Type: Original**

Replicate Data: 1201993280|931833|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.386	0.386	0.0052	0.0209	0.0053	09:44:35	Yes
2	0.387	0.387	0.0052	0.0208	0.0053	09:45:05	Yes

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.330	0.330	0.0045	0.0208	0.0046	09:53:00	Yes
2	0.324	0.324	0.0045	0.0196	0.0045	09:53:30	Yes
Mean:	0.327	0.327	0.0045				
SD:	0.005	0.005	0.0001				
%RSD:	1.408	1.408	1.25				

Sequence No.: 30 **Autosampler Location: 28**
Sample ID: 242435004|931833|1 **Date Collected: 12/22/2009 09:53:50**
Analyst: JXL1 **Data Type: Original**

Replicate Data: 242435004|931833|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.402	0.402	0.0054	0.0251	0.0055	09:54:40	Yes
2	0.402	0.402	0.0054	0.0248	0.0055	09:55:10	Yes
Mean:	0.402	0.402	0.0054				
SD:	0.000	0.000	0.0000				
%RSD:	0.020	0.020	0.02				

Sequence No.: 31 **Autosampler Location: 29**
Sample ID: 242435005|931833|1 **Date Collected: 12/22/2009 09:55:29**
Analyst: JXL1 **Data Type: Original**

Replicate Data: 242435005|931833|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.286	0.286	0.0040	0.0166	0.0041	09:56:20	Yes
2	0.290	0.290	0.0040	0.0166	0.0041	09:56:50	Yes
Mean:	0.288	0.288	0.0040				
SD:	0.003	0.003	0.0000				
%RSD:	0.870	0.870	0.76				

Sequence No.: 32 **Autosampler Location: 30**
Sample ID: 242435006|931833|1 **Date Collected: 12/22/2009 09:57:09**
Analyst: JXL1 **Data Type: Original**

Replicate Data: 242435006|931833|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.208	0.208	0.0030	0.0123	0.0031	09:57:59	Yes
2	0.202	0.202	0.0030	0.0122	0.0030	09:58:29	Yes
Mean:	0.205	0.205	0.0030				
SD:	0.004	0.004	0.0001				
%RSD:	2.104	2.104	1.75				

Sequence No.: 33 **Autosampler Location: 31**
Sample ID: 242435007|931833|1 **Date Collected: 12/22/2009 09:58:48**
Analyst: JXL1 **Data Type: Original**

Replicate Data: 242435007|931833|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.599	0.599	0.0078	0.0321	0.0079	09:59:39	Yes
2	0.603	0.603	0.0079	0.0322	0.0079	10:00:09	Yes
Mean:	0.601	0.601	0.0078				
SD:	0.003	0.003	0.0000				
%RSD:	0.430	0.430	0.40				

Sequence No.: 34 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 12/22/2009 10:00:28**

Analyst: Data Type: Original

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.237	5.237	0.0643	0.2665	0.0644	10:01:19	Yes
2	5.266	5.266	0.0647	0.2663	0.0648	10:01:49	Yes
Mean:	5.252	5.252	0.0645				
SD:	0.021	0.021	0.0003				
%RSD:	0.391	0.391	0.39				

QC value within limits for Hg 253.7 Recovery = 105.03%
All analyte(s) passed QC.

Sequence No.: 35 Autosampler Location: 8
Sample ID: CCB Date Collected: 12/22/2009 10:02:08
Analyst: Data Type: Original

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.012	0.012	0.0007	0.0025	0.0007	10:02:59	Yes
2	0.009	0.009	0.0006	0.0025	0.0007	10:03:29	Yes
Mean:	0.011	0.011	0.0006				
SD:	0.002	0.002	0.0000				
%RSD:	23.03	23.03	4.65				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 36 Autosampler Location: 32
Sample ID: 1201999140|934389|1 Date Collected: 12/22/2009 10:03:48
Analyst: JXL1 Data Type: Original

Replicate Data: 1201999140|934389|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.031	-0.031	0.0001	0.0007	0.0002	10:04:39	Yes
2	-0.031	-0.031	0.0001	0.0007	0.0002	10:05:09	Yes
Mean:	-0.031	-0.031	0.0001				
SD:	0.000	0.000	0.0000				
%RSD:	1.474	1.474	4.24				

Sequence No.: 37 Autosampler Location: 33
Sample ID: 1201999141|934389|10 Date Collected: 12/22/2009 10:05:28
Analyst: JXL1 Data Type: Original

Replicate Data: 1201999141|934389|10

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	4.076	4.076	0.0502	0.2060	0.0503	10:06:19	Yes
2	4.072	4.072	0.0501	0.2067	0.0502	10:06:49	Yes
Mean:	4.074	4.074	0.0502				
SD:	0.003	0.003	0.0000				
%RSD:	0.062	0.062	0.06				

Sequence No.: 38 Autosampler Location: 34
Sample ID: 242791001|934389|1 Date Collected: 12/22/2009 10:07:08
Analyst: JXL1 Data Type: Original

Replicate Data: 242791001|934389|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.083	0.083	0.0015	0.0065	0.0016	10:08:00	Yes

Replicate Data: 1201999145|934389|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.212	2.212	0.0275	0.1148	0.0275	10:16:26	Yes
2	2.215	2.215	0.0275	0.1143	0.0276	10:16:56	Yes
Mean:	2.213	2.213	0.0275				
SD:	0.002	0.002	0.0000				
%RSD:	0.094	0.094	0.09				

==========

Sequence No.: 44 **Autosampler Location: 40**
Sample ID: 1201999144|934389|5 **Date Collected: 12/22/2009 10:17:15**
Analyst: JXL1 **Data Type: Original**

Replicate Data: 1201999144|934389|5

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.003	0.003	0.0005	0.0026	0.0006	10:18:06	Yes
2	0.001	0.001	0.0005	0.0025	0.0006	10:18:36	Yes
Mean:	0.002	0.002	0.0005				
SD:	0.002	0.002	0.0000				
%RSD:	104.9	104.9	4.73				

==========

Sequence No.: 45 **Autosampler Location: 41**
Sample ID: 242792002|934389|1 **Date Collected: 12/22/2009 10:18:56**
Analyst: JXL1 **Data Type: Original**

Replicate Data: 242792002|934389|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.049	0.049	0.0011	0.0047	0.0012	10:19:46	Yes
2	0.047	0.047	0.0011	0.0047	0.0011	10:20:16	Yes
Mean:	0.048	0.048	0.0011				
SD:	0.001	0.001	0.0000				
%RSD:	2.972	2.972	1.59				

==========

Sequence No.: 46 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 12/22/2009 10:20:36**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.230	5.230	0.0643	0.2688	0.0643	10:21:26	Yes
2	5.245	5.245	0.0645	0.2687	0.0645	10:21:56	Yes
Mean:	5.238	5.238	0.0644				
SD:	0.011	0.011	0.0001				
%RSD:	0.205	0.205	0.20				

QC value within limits for Hg 253.7 Recovery = 104.76%
All analyte(s) passed QC.

==========

Sequence No.: 47 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 12/22/2009 10:22:15**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.016	0.016	0.0007	0.0031	0.0008	10:23:05	Yes
2	0.012	0.012	0.0006	0.0028	0.0007	10:23:35	Yes
Mean:	0.014	0.014	0.0007				
SD:	0.003	0.003	0.0000				
%RSD:	23.31	23.31	5.81				

QC value within limits for Hg 253.7 Recovery = Not calculated

1	2.106	2.106	0.0262	0.1101	0.0262	10:31:28	Yes
2	2.115	2.115	0.0263	0.1102	0.0263	10:31:58	Yes
Mean:	2.110	2.110	0.0262				
SD:	0.006	0.006	0.0001				
%RSD:	0.276	0.276	0.27				

==========

Sequence No.: 53 **Autosampler Location: 47**
Sample ID: 1202000087|934831|1 **Date Collected: 12/22/2009 10:32:17**
Analyst: JXL1 **Data Type: Original**

Replicate Data: 1202000087|934831|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.108	2.108	0.0262	0.1101	0.0263	10:33:09	Yes
2	2.109	2.109	0.0262	0.1102	0.0263	10:33:38	Yes
Mean:	2.109	2.109	0.0262				
SD:	0.001	0.001	0.0000				
%RSD:	0.035	0.035	0.03				

==========

Sequence No.: 54 **Autosampler Location: 48**
Sample ID: 1202000086|934831|5 **Date Collected: 12/22/2009 10:33:58**
Analyst: JXL1 **Data Type: Original**

Replicate Data: 1202000086|934831|5

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.012	-0.012	0.0004	0.0016	0.0004	10:34:50	Yes
2	-0.010	-0.010	0.0004	0.0017	0.0004	10:35:20	Yes
Mean:	-0.011	-0.011	0.0004				
SD:	0.001	0.001	0.0000				
%RSD:	10.52	10.52	3.81				

==========

Sequence No.: 55 **Autosampler Location: 49**
Sample ID: 243144002|934831|1 **Date Collected: 12/22/2009 10:35:40**
Analyst: JXL1 **Data Type: Original**

Replicate Data: 243144002|934831|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.017	-0.017	0.0003	0.0007	0.0004	10:36:32	Yes
2	-0.010	-0.010	0.0004	0.0017	0.0004	10:37:02	Yes
Mean:	-0.014	-0.014	0.0003				
SD:	0.005	0.005	0.0001				
%RSD:	34.40	34.40	16.80				

==========

Sequence No.: 56 **Autosampler Location: 50**
Sample ID: 1201999115|934379|1 **Date Collected: 12/22/2009 10:37:23**
Analyst: JXL1 **Data Type: Original**

Replicate Data: 1201999115|934379|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.023	-0.023	0.0002	0.0012	0.0003	10:38:14	Yes
2	-0.027	-0.027	0.0002	0.0007	0.0002	10:38:44	Yes
Mean:	-0.025	-0.025	0.0002				
SD:	0.003	0.003	0.0000				
%RSD:	10.75	10.75	16.54				

==========

Sequence No.: 57 **Autosampler Location: 51**
Sample ID: 1201999116|934379|10 **Date Collected: 12/22/2009 10:39:04**
Analyst: JXL1 **Data Type: Original**

Replicate Data: 1201999116|934379|10

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	3.663	3.663	0.0452	0.1877	0.0452	10:39:54	Yes
2	3.655	3.655	0.0451	0.1880	0.0451	10:40:24	Yes
Mean:	3.659	3.659	0.0451				
SD:	0.006	0.006	0.0001				
%RSD:	0.151	0.151	0.15				

Sequence No.: 58 Autosampler Location: 7
Sample ID: CCV Date Collected: 12/22/2009 10:40:44
Analyst: Data Type: Original

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.160	5.160	0.0634	0.2661	0.0635	10:41:34	Yes
2	5.128	5.128	0.0630	0.2633	0.0631	10:42:04	Yes
Mean:	5.144	5.144	0.0632				
SD:	0.023	0.023	0.0003				
%RSD:	0.449	0.449	0.45				

QC value within limits for Hg 253.7 Recovery = 102.88%
All analyte(s) passed QC.

Sequence No.: 59 Autosampler Location: 8
Sample ID: CCB Date Collected: 12/22/2009 10:42:23
Analyst: Data Type: Original

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.009	-0.009	0.0004	0.0017	0.0005	10:43:13	Yes
2	-0.009	-0.009	0.0004	0.0016	0.0005	10:43:43	Yes
Mean:	-0.009	-0.009	0.0004				
SD:	0.001	0.001	0.0000				
%RSD:	5.728	5.728	1.59				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 60 Autosampler Location: 52
Sample ID: 242743002|934379|1 Date Collected: 12/22/2009 10:44:03
Analyst: JXL1 Data Type: Original

Replicate Data: 242743002|934379|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.418	0.418	0.0056	0.0236	0.0057	10:44:53	Yes
2	0.419	0.419	0.0056	0.0239	0.0057	10:45:23	Yes
Mean:	0.418	0.418	0.0056				
SD:	0.001	0.001	0.0000				
%RSD:	0.189	0.189	0.17				

Sequence No.: 61 Autosampler Location: 53
Sample ID: 242748001|934379|1 Date Collected: 12/22/2009 10:45:43
Analyst: JXL1 Data Type: Original

Replicate Data: 242748001|934379|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	1.736	1.736	0.0217	0.0917	0.0217	10:46:34	Yes
2	1.727	1.727	0.0216	0.0909	0.0216	10:47:03	Yes
Mean:	1.731	1.731	0.0216				

SD:	0.006	0.006	0.0001
%RSD:	0.343	0.343	0.34

==========

Sequence No.: 62 **Autosampler Location: 54**
Sample ID: 242748002|934379|1 **Date Collected: 12/22/2009 10:47:23**
Analyst: JXL1 **Data Type: Original**

Replicate Data: 242748002|934379|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.219	0.219	0.0032	0.0135	0.0032	10:48:14	Yes
2	0.219	0.219	0.0032	0.0136	0.0032	10:48:44	Yes
Mean:	0.219	0.219	0.0032				
SD:	0.000	0.000	0.0000				
%RSD:	0.138	0.138	0.12				

==========

Sequence No.: 63 **Autosampler Location: 55**
Sample ID: 243007002|934379|1 **Date Collected: 12/22/2009 10:49:03**
Analyst: JXL1 **Data Type: Original**

Replicate Data: 243007002|934379|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	1.014	1.014	0.0129	0.0542	0.0129	10:49:54	Yes
2	1.020	1.020	0.0129	0.0546	0.0130	10:50:24	Yes
Mean:	1.017	1.017	0.0129				
SD:	0.004	0.004	0.0000				
%RSD:	0.381	0.381	0.37				

==========

Sequence No.: 64 **Autosampler Location: 56**
Sample ID: 1201999117|934379|1 **Date Collected: 12/22/2009 10:50:44**
Analyst: JXL1 **Data Type: Original**

Replicate Data: 1201999117|934379|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.738	0.738	0.0095	0.0399	0.0096	10:51:35	Yes
2	0.736	0.736	0.0095	0.0399	0.0095	10:52:04	Yes
Mean:	0.737	0.737	0.0095				
SD:	0.001	0.001	0.0000				
%RSD:	0.193	0.193	0.18				

==========

Sequence No.: 65 **Autosampler Location: 57**
Sample ID: 1201999118|934379|1 **Date Collected: 12/22/2009 10:52:24**
Analyst: JXL1 **Data Type: Original**

Replicate Data: 1201999118|934379|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	3.150	3.150	0.0389	0.1633	0.0390	10:53:15	Yes
2	3.152	3.152	0.0389	0.1628	0.0390	10:53:45	Yes
Mean:	3.151	3.151	0.0389				
SD:	0.001	0.001	0.0000				
%RSD:	0.041	0.041	0.04				

==========

Sequence No.: 66 **Autosampler Location: 58**
Sample ID: 1201999120|934379|1 **Date Collected: 12/22/2009 10:54:05**
Analyst: JXL1 **Data Type: Original**

Replicate Data: 1201999120|934379|1

Repl	SampleConc	StndConc	BlnkCorr	Peak	Peak	Time	Peak

#	ug/L	ug/L	Signal	Area	Height		Stored
1	3.222	3.222	0.0398	0.1670	0.0398	10:54:56	Yes
2	3.215	3.215	0.0397	0.1667	0.0398	10:55:26	Yes
Mean:	3.219	3.219	0.0397				
SD:	0.005	0.005	0.0001				
%RSD:	0.148	0.148	0.15				

==========

Sequence No.: 67 **Autosampler Location: 59**
Sample ID: 1201999119|934379|5 **Date Collected: 12/22/2009 10:55:46**
Analyst: JXL1 **Data Type: Original**

Replicate Data: 1201999119|934379|5

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.187	0.187	0.0028	0.0121	0.0029	10:56:37	Yes
2	0.186	0.186	0.0028	0.0118	0.0028	10:57:07	Yes
Mean:	0.187	0.187	0.0028				
SD:	0.001	0.001	0.0000				
%RSD:	0.591	0.591	0.48				

==========

Sequence No.: 68 **Autosampler Location: 60**
Sample ID: 1201994104|932228|1 **Date Collected: 12/22/2009 10:57:27**
Analyst: JXL1 **Data Type: Original**

Replicate Data: 1201994104|932228|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.025	-0.025	0.0002	0.0012	0.0003	10:58:19	Yes
2	-0.026	-0.026	0.0002	0.0010	0.0003	10:58:48	Yes
Mean:	-0.025	-0.025	0.0002				
SD:	0.001	0.001	0.0000				
%RSD:	3.708	3.708	5.71				

==========

Sequence No.: 69 **Autosampler Location: 61**
Sample ID: 1201994105|932228|10 **Date Collected: 12/22/2009 10:59:09**
Analyst: JXL1 **Data Type: Original**

Replicate Data: 1201994105|932228|10

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	3.785	3.785	0.0466	0.1961	0.0467	11:00:01	Yes
2	3.791	3.791	0.0467	0.1954	0.0468	11:00:31	Yes
Mean:	3.788	3.788	0.0467				
SD:	0.005	0.005	0.0001				
%RSD:	0.128	0.128	0.13				

==========

Sequence No.: 70 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 12/22/2009 11:00:51**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.022	5.022	0.0617	0.2587	0.0618	11:01:41	Yes
2	5.016	5.016	0.0617	0.2577	0.0617	11:02:11	Yes
Mean:	5.019	5.019	0.0617				
SD:	0.004	0.004	0.0001				
%RSD:	0.083	0.083	0.08				

QC value within limits for Hg 253.7 Recovery = 100.37%
All analyte(s) passed QC.

==========

Sequence No.: 71 **Autosampler Location: 8**

Sample ID: CCB
Analyst:
Date Collected: 12/22/2009 11:02:30
Data Type: Original

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.005	-0.005	0.0004	0.0021	0.0005	11:03:21	Yes
2	-0.004	-0.004	0.0005	0.0024	0.0005	11:03:51	Yes
Mean:	-0.004	-0.004	0.0005				
SD:	0.001	0.001	0.0000				
%RSD:	18.22	18.22	2.04				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 72
Sample ID: 242443001|932228|1
Analyst: JXL1
Autosampler Location: 62
Date Collected: 12/22/2009 11:04:10
Data Type: Original

Replicate Data: 242443001|932228|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.321	0.321	0.0044	0.0189	0.0045	11:05:01	Yes
2	0.313	0.313	0.0043	0.0185	0.0044	11:05:31	Yes
Mean:	0.317	0.317	0.0044				
SD:	0.005	0.005	0.0001				
%RSD:	1.710	1.710	1.51				

Sequence No.: 73
Sample ID: 1201994106|932228|1
Analyst: JXL1
Autosampler Location: 63
Date Collected: 12/22/2009 11:05:51
Data Type: Original

Replicate Data: 1201994106|932228|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.219	0.219	0.0032	0.0134	0.0032	11:06:42	Yes
2	0.215	0.215	0.0031	0.0137	0.0032	11:07:11	Yes
Mean:	0.217	0.217	0.0031				
SD:	0.002	0.002	0.0000				
%RSD:	1.135	1.135	0.95				

Sequence No.: 74
Sample ID: 1201994107|932228|1
Analyst: JXL1
Autosampler Location: 64
Date Collected: 12/22/2009 11:07:31
Data Type: Original

Replicate Data: 1201994107|932228|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.313	2.313	0.0287	0.1205	0.0288	11:08:22	Yes
2	2.297	2.297	0.0285	0.1197	0.0286	11:08:52	Yes
Mean:	2.305	2.305	0.0286				
SD:	0.011	0.011	0.0001				
%RSD:	0.481	0.481	0.47				

Sequence No.: 75
Sample ID: 1201994109|932228|1
Analyst: JXL1
Autosampler Location: 65
Date Collected: 12/22/2009 11:09:12
Data Type: Original

Replicate Data: 1201994109|932228|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.322	2.322	0.0288	0.1212	0.0289	11:10:03	Yes
2	2.318	2.318	0.0288	0.1208	0.0288	11:10:33	Yes

Miscellaneous

Prep LogBook

Analyst: BCD1 Verified by:_____

Batch: 934469

Lab SOP: GL-MA-E-009 REV# 19

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1201999281	UI062540-MS	.524	g
MS	1201999279	UI091015-A	.5	mL
MS	1201999279	UI091015-B	.5	mL
MSD	1201999280	UI091015-A	.5	mL
MSD	1201999280	UI091015-B	.5	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1201999276		SW846 3050B	18-DEC-2009 10:25	0.52 g	50 mL	96.15385	SOIL
LCS	1201999281		SW846 3050B	18-DEC-2009 10:25	0.524 g	50 mL	95.41985	SOIL
SAMPLE	243007002		SW846 3050B	18-DEC-2009 10:25	0.522 g	50 mL	95.78544	SOIL
DUP	1201999277	243007002	SW846 3050B	18-DEC-2009 10:25	0.516 g	50 mL	96.89922	SOIL
SDILT	1201999278	243007002	SW846 3050B	18-DEC-2009 10:25	0.522 g	50 mL	95.78544	SOIL
MS	1201999279	243007002	SW846 3050B	18-DEC-2009 10:25	0.503 g	50 mL	99.40358	SOIL
MSD	1201999280	243007002	SW846 3050B	18-DEC-2009 10:25	0.513 g	50 mL	97.46589	SOIL

Reagent/Solvent Lot ID	Amount	Description
1203655-02	1.5 mL	Hydrogen Peroxide 30%
1238345	5 mL	Nitric Acid CONC.

Comments The QC sample is a clumpy, brown soil.

Prep LogBook

Analyst: AXG2 Verified by:_____

Batch: 935145

Lab SOP: GL-MA-E-009 REV# 19

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1202000828	UI062540-I	.518	g
MS	1201999273	UI091124-01	.25	mL
MS	1201999273	UI091124-06	.25	mL
MSD	1201999274	UI091124-01	.25	mL
MSD	1201999274	UI091124-06	.25	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1202000827		SW846 3050B	21-DEC-2009 06:50	0.505 g	50 mL	99.0099	SOIL
LCS	1202000828		SW846 3050B	21-DEC-2009 06:50	0.518 g	50 mL	96.5251	SOIL
SAMPLE	243007002		SW846 3050B	21-DEC-2009 06:50	0.513 g	50 mL	97.46589	SOIL
DUP	1201999271	243007002	SW846 3050B	21-DEC-2009 06:50	0.547 g	50 mL	91.40768	SOIL
SDILT	1201999272	243007002	SW846 3050B	21-DEC-2009 06:50	0.513 g	50 mL	97.46589	SOIL
MS	1201999273	243007002	SW846 3050B	21-DEC-2009 06:50	0.503 g	50 mL	99.40358	SOIL
MSD	1201999274	243007002	SW846 3050B	21-DEC-2009 06:50	0.519 g	50 mL	96.33911	SOIL

Reagent/Solvent Lot ID	Amount	Description
1194236	10 mL	HYDROCHLORIC ACID
1230937	1.25 mL	Nitric Acid CONC.

Comments Sample 24300702 consist of medium, brown soil with rocks.

Prep LogBook

Analyst: TXB3 Verified by:_____

Batch: 934377

Lab SOP: GL-MA-E-010 REV# 23

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1201999116	UI031809A	.201	g
MS	1201999118	WHG091221-14	.3	mL
MSD	1201999120	WHG091221-14	.3	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1201999115		SW846 7471A Prep	21-DEC-2009 15:25	0.566 g	30 mL	53.00353	SOIL
LCS	1201999116		SW846 7471A Prep	21-DEC-2009 15:25	0.201 g	30 mL	149.25373	SOIL
SAMPLE	242743002		SW846 7471A Prep	21-DEC-2009 15:25	0.534 g	30 mL	56.17978	SOIL
SAMPLE	242748001		SW846 7471A Prep	21-DEC-2009 15:25	0.527 g	30 mL	56.926	SOIL
SAMPLE	242748002		SW846 7471A Prep	21-DEC-2009 15:25	0.566 g	30 mL	53.00353	SOIL
SAMPLE	243007002		SW846 7471A Prep	21-DEC-2009 15:25	0.539 g	30 mL	55.65863	SOIL
DUP	1201999117	243007002	SW846 7471A Prep	21-DEC-2009 15:25	0.555 g	30 mL	54.05405	SOIL
MS	1201999118	243007002	SW846 7471A Prep	21-DEC-2009 15:25	0.573 g	30 mL	52.35602	SOIL
MSD	1201999120	243007002	SW846 7471A Prep	21-DEC-2009 15:25	0.504 g	30 mL	59.52381	SOIL
SDILT	1201999119	243007002	SW846 7471A Prep	21-DEC-2009 15:25	0.539 g	30 mL	55.65863	SOIL

Reagent/Solvent Lot ID	Amount	Description
1236355-A	1.125 mL	Hydrochloric Acid Conc.
1240182-1	.375 mL	NITRIC ACID
1244904-C	7.5 mL	5% KMnO4 solution
1206350-C	2 mL	Hg reducing agent
WHG091221-07	30 uL	Mercury Working Standard 1st Source CAL S 0.2/CRA
WHG091221-08	75 uL	Mercury Working Standard 1st Source CAL S 0.5
WHG091221-11	1.5 mL	Mercury Working 1st Source CAL S 10.0
WHG091221-09	300 uL	Mercury Working 1st Source CAL S 2.0
WHG091221-10	750 uL	Mercury Working 1st Source CAL S 5.0/CCV
WHG091221-12	750 uL	Mercury Working 2nd Source S 5.0/ICV

Comments: Sample 243007002 is a rocky brown soil.
Digestion Start Date: 21-DEC-09 15:25
Digestion End Date: 21-DEC-09 15:55

Prep LogBook

Analyst: BCD1 Verified by:_____

Batch: 934467

Lab SOP: GL-MA-E-009 REV# 19

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1201999275	UI062540-I	.507	g
MS	1201999273	UI091216-01	.25	mL
MS	1201999273	UI091216-06	.25	mL
MSD	1201999274	UI091216-01	.25	mL
MSD	1201999274	UI091216-06	.25	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1201999270		SW846 3050B	18-DEC-2009 10:08	0.508 g	50 mL	98.4252	SOIL
LCS	1201999275		SW846 3050B	18-DEC-2009 10:08	0.507 g	50 mL	98.61933	SOIL
SAMPLE	243007002		SW846 3050B	18-DEC-2009 10:08	0.513 g	50 mL	97.46589	SOIL
DUP	1201999271	243007002	SW846 3050B	18-DEC-2009 10:08	0.509 g	50 mL	98.23183	SOIL
SDILT	1201999272	243007002	SW846 3050B	18-DEC-2009 10:08	0.513 g	50 mL	97.46589	SOIL
MS	1201999273	243007002	SW846 3050B	18-DEC-2009 10:08	0.517 g	50 mL	96.7118	SOIL
MSD	1201999274	243007002	SW846 3050B	18-DEC-2009 10:08	0.515 g	50 mL	97.08738	SOIL

Reagent/Solvent Lot ID	Amount	Description
1238343	10 mL	HYDROCHLORIC ACID
1238345	1.25 mL	Nitric Acid CONC.

Comments The QC sample is a clumpy, brown soil.

NCR Report No.: 772648
Revision No.:

COMPANY - WIDE NONCONFORMANCE REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
20-DEC-09	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
ICP	SW846 3050B/6010B	Solid	LANL
Batch ID:	**Sample Numbers:**		
934468	See Below		

Potentially affected work order(s)(SDG): 243007(10-939)

Application Issues:

Failed Recovery for MS/PS

Failed RPD for MS/MSD, or PS/PSD

Failed Recovery for MSD/PSD

Specification and Requirements Nonconformance Description:	NRG Disposition:
1. Failed Recovery for MS/PS: QC 1201999273MS 2. Failed RPD for MS/MSD, or PS/PSD: QC 1201999274MSD 3. Failed Recovery for MSD/PSD: QC 1201999274MSD	1. The matrix spike recovery failed outside of the control limits for barium,copper and potassium due to possible matrix interferences and/or non-homogeneity. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported. 2. The matrix spike and matrix spike duplicate % RPD failed outside of the control limits for copper due to possible matrix interferences and/or sample non-homogeneity. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported. 3. The matrix spike duplicate recovery failed outside of the control limits for potassium due to possible matrix interferences and/or non-homogeneity. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported.

Originator's Name:
Helen Camello 20-DEC-09

Data Validator/Group Leader:
Jamie Johnson 20-DEC-09

COMPANY - WIDE NONCONFORMANCE REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
22-DEC-09	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
ICP/MS	SW846 3050B/6020	Solid	LANL
Batch ID:	**Sample Numbers:**		
934470	See Below		

Potentially affected work order(s)(SDG): 243007(10-939)

Application Issues:

Failed Recovery for MS/PS

Failed Recovery for MSD/PSD

Specification and Requirements Nonconformance Description:	NRG Disposition:
1. Failed Recovery for MS/PS: QC 1201999279MS 2. Failed Recovery for MSD/PSD: QC 1201999280MSD	The matrix spike and matrix spike duplicate recoveries failed outside of the control limits for Se due to possible matrix interferences and/or non-homogeneity. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported.

Originator's Name:

Elizabeth Janssen 27-DEC-09

Data Validator/Group Leader:

Jamie Johnson 28-DEC-09

COMPANY - WIDE NONCONFORMANCE REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
22-DEC-09	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
MERCURY	SW846 7471A	Solid	LANL
Batch ID:	**Sample Numbers:**		
934379	See Below		

Potentially affected work order(s)(SDG): 242743(10-883),242748(10-885),243007(10-939)

Application Issues:

Failed RPD for DUP

Specification and Requirements Nonconformance Description:	NRG Disposition:
1. Failed RPD for DUP: QC 1201999117DUP	1. The sample and sample duplicate % RPD failed outside the control limits for Hg due to possible sample non-homogeneity and/or matrix interference. Sample is a rocky brown soil. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported.

Originator's Name:

Jason Loy 22-DEC-09

Data Validator/Group Leader:

Jamie Johnson 23-DEC-09

Standard Logbook

Serial ID: UHG1167639-01 **Opened:** 13-AUG-09 **Amount :** 125 mL
Name: MHGSTOCK1 **Received:** 13-AUG-09 **Catalog Number :** PLHG4-2Y
Type: Source Material **Expires:** 13-AUG-10 **Lot Number :** 15-37HG
Employee: Bryan Davis **Solvent :** 10% HNO3
Supplier: Spex
Description: Mercury Source Standard #1 1,000 mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Mercury	1000 mg/L		

Serial ID: UHG1167641-02 **Opened:** 13-AUG-09 **Amount :** 100 mL
Name: MHGSTOCK2 **Received:** 13-AUG-09 **Catalog Number :** AHG1KN-100
Type: Source Material **Expires:** 13-AUG-10 **Lot Number :** 4905530
Employee: Bryan Davis **Solvent :** 3% HNO3
Supplier: Ricca Chemical Company
Description: Mercury Source Standard #2 1,000 mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Mercury	999.7 mg/L		

Serial ID: UI031809A **Opened:** 18-MAR-09 **Catalog Number :** 540
Name: METALSOILSRM **Received:** 18-MAR-09 **Lot Number :** D061-540
Type: Source Material **Expires:** 10-OCT-10
Employee: Jamie Johnson
Supplier: ERA
Description: Metals LCS Soil SRM
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	10600 mg/kg	Antimony	126 mg/kg
Arsenic	225 mg/kg	Barium	565 mg/kg
Beryllium	162 mg/kg	Boron	107 mg/kg
Cadmium	69.1 mg/kg	Calcium	10000 mg/kg
Chromium	124 mg/kg	Cobalt	115 mg/kg
Copper	66.7 mg/kg	Iron	17600 mg/kg
Lead	223 mg/kg	Magnesium	4260 mg/kg
Manganese	368 mg/kg	Mercury	5.15 mg/kg
Molybdenum	107 mg/kg	Nickel	172 mg/kg
Potassium	4090 mg/kg	Selenium	147 mg/kg
Silver	35.2 mg/kg	Sodium	538 mg/kg
Strontium	117 mg/kg	Thallium	173 mg/kg
Tin	164 mg/kg	Titanium	381 mg/kg
Vanadium	93.9 mg/kg	Zinc	349 mg/kg

Standard Logbook

Serial ID: UI062540-I **Opened:** 12-JUN-09 **Amount :** 80 g
Name: ICP SOIL SRM **Received:** 12-JUN-09 **Lot Number :** D062-540
Type: Source Material **Expires:** 31-JAN-12
Employee: Bryan Davis
Supplier: ERA
Description: Metals Soil LCS SRM ICP/Hg
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	10500 mg/kg	Antimony	173 mg/kg
Arsenic	104 mg/kg	Barium	198 mg/kg
Beryllium	77.6 mg/kg	Boron	141 mg/kg
Cadmium	60.7 mg/kg	Calcium	9870 mg/kg
Chromium	236 mg/kg	Cobalt	91.2 mg/kg
Copper	174 mg/kg	Iron	18000 mg/kg
Lead	86 mg/kg	Magnesium	4000 mg/kg
Manganese	558 mg/kg	Mercury	8.46 mg/kg
Molybdenum	48.6 mg/kg	Nickel	134 mg/kg
Phosphorous	736 mg/kg	Potassium	4300 mg/kg
Selenium	286 mg/kg	Silica	2591 mg/kg
Silicon	1211 mg/kg	Silver	30.1 mg/kg
Sodium	1020 mg/kg	Strontium	227 mg/kg
Sulfur	385 mg/kg	Thallium	121 mg/kg
Tin	104 mg/kg	Titanium	462 mg/kg
Vanadium	115 mg/kg	Zinc	594 mg/kg

Serial ID: UI062540-MS **Opened:** 12-JUN-09 **Lot Number :** D062-540
Name: ICPMS SOIL SRM **Received:** 12-JUN-09
Type: Source Material **Expires:** 31-JAN-12
Employee: Bryan Davis
Supplier: ERA
Description: Metals Soil LCS SRM ICPMS
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	10500 mg/kg	Antimony	67.4 mg/kg
Arsenic	104 mg/kg	Barium	198 mg/kg
Beryllium	77.6 mg/kg	Boron	141 mg/kg
Cadmium	60.6 mg/kg	Calcium	9870 mg/kg
Chromium	236 mg/kg	Cobalt	91.2 mg/kg
Copper	174 mg/kg	Iron	18000 mg/kg
Lead	86 mg/kg	Lithium	10.6 mg/kg
Magnesium	4000 mg/kg	Manganese	558 mg/kg
Mercury	8.46 mg/kg	Molybdenum	48.6 mg/kg
Nickel	134 mg/kg	Phosphorous	755 mg/kg
Potassium	4300 mg/kg	Selenium	286 mg/kg
Silver	30.1 mg/kg	Sodium	1020 mg/kg

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Strontium	227 mg/kg	Thallium	121 mg/kg
Thorium	9.84 mg/kg	Tin	104 mg/kg
Titanium	462 mg/kg	Uranium	2.13 mg/kg
Uranium-235	.0153 mg/kg	Uranium-238	2.11 mg/kg
Vanadium	92.4 mg/kg	Zinc	594 mg/kg
Zirconium	10.6 mg/kg		

Serial ID: UI090422-40 **Opened:** 04-MAY-09 **Amount :** 500 mL
Name: TRACE ICP ICSA SOLN A **Received:** 22-APR-09 **Catalog Number :** 160005-01-03
Type: Source Material **Expires:** 04-MAY-10 **Lot Number :** 1013357
Employee: Helen Camello **Solvent :** 5%HNO3
Supplier: o2si
Description: TRACE ICP ICSA SOLN A mg/L+/-0.5%IN5%HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	5000 mg/L	Calcium	5000 mg/L
Iron	2000 mg/L	Magnesium	5000 mg/L

Serial ID: UI090610-03 **Opened:** 10-JUN-09 **Catalog Number :** 060074-06-01
Name: ICPMS Tungsten - 10mg/L S **Received:** 10-JUN-09 **Lot Number :** 1016338
Type: Source Material **Expires:** 10-JUN-10 **Solvent :** 2% HNO3
Employee: Paul Boyd
Supplier: O2SI
Description: ICPMS Tungsten standard SPIKE - 10mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Tungsten	10 mg/L		

Serial ID: UI090701-09 **Opened:** 01-JUL-09 **Amount :** 250 mL
Name: ICP-MS CRDL Master #1 **Received:** 01-JUL-09 **Catalog Number :** 160044-09-02
Type: Source Material **Expires:** 01-JUL-10 **Lot Number :** 1016477
Employee: Paul Boyd **Solvent :** +/- 0.5% IN 2% HNO3
Supplier: 02SI
Description: ICPMS CRDL Master Soln #1
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	15 mg/L	Arsenic	5 mg/L
Barium	2 mg/L	Beryllium	.5 mg/L
Boron	15 mg/L	Cadmium	1 mg/L
Calcium	100 mg/L	Chromium	3 mg/L
Cobalt	1 mg/L	Copper	1 mg/L

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Iron	25 mg/L	Lead	2 mg/L
Lithium	10 mg/L	Magnesium	15 mg/L
Manganese	5 mg/L	Nickel	2 mg/L
Phosphorous	50 mg/L	Potassium	300 mg/L
Selenium	5 mg/L	Sodium	250 mg/L
Strontium	10 mg/L	Thallium	1 mg/L
Thorium	1 mg/L	Uranium	.2 mg/L
Vanadium	10 mg/L	Zinc	10 mg/L

Serial ID: UI090701-10 **Opened:** 01-JUL-09 **Amount :** 250 mL
Name: ICP-MS CRDL Master #2 **Received:** 01-JUL-09 **Catalog Number :** 160044-08-02
Type: Source Material **Expires:** 01-JUL-10 **Lot Number :** 1016476
Employee: Paul Boyd **Solvent :** +/- 0.5% IN 2% HNO3
Supplier: 02SI
Description: ICPMS CRDL Soln #2
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	2 mg/L	Molybdenum	.5 mg/L
Silver	1 mg/L	Tin	2 mg/L
Titanium	10 mg/L	Tungsten	5 mg/L
Zirconium	2 mg/L		

Serial ID: UI090701-40 **Opened:** 01-JUL-09 **Amount :** 500 mL
Name: TRACE ICP Stock PQL St **Received:** 30-JUN-09 **Catalog Number :** 160543-01-03
Type: Source Material **Expires:** 01-JUL-10 **Lot Number :** 1016475
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3+TrHF
Supplier: 02si
Description: TRACE ICP Stock PQL Standard
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	100 mg/L	Antimony	5 mg/L
Arsenic	15 mg/L	Barium	2.5 mg/L
Beryllium	2.5 mg/L	Boron	25 mg/L
Cadmium	2.5 mg/L	Calcium	100 mg/L
Chromium	2.5 mg/L	Cobalt	2.5 mg/L
Copper	5 mg/L	Iron	50 mg/L
Lead	5 mg/L	Magnesium	150 mg/L
Manganese	5 mg/L	Molybdenum	5 mg/L
Nickel	2.5 mg/L	Phosphorous	75 mg/L
Potassium	75 mg/L	Selenium	15 mg/L
Silicon	50 mg/L	Silver	2.5 mg/L
Sodium	150 mg/L	Strontium	2.5 mg/L
Sulfur	50 mg/L	Thallium	10 mg/L

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Tin	5 mg/L	Titanium	2.5 mg/L
Uranium	25 mg/L	Vanadium	2.5 mg/L
Zinc	5 mg/L		

Serial ID: UI090828-42 **Opened:** 16-SEP-09 **Amount :** 500 mL
Name: TRACE ICP Na-1000SOUR **Received:** 27-AUG-09 **Catalog Number :** 060011-02-03
Type: Source Material **Expires:** 16-SEP-10 **Lot Number :** 1017098
Employee: Helen Camello **Solvent :** 1%HNO3
Supplier: 02SI
Description: Sodium 1000 +/- 3 ug/mL in 1% HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Sodium	1000 ug/mL		

Serial ID: UI090925-40 **Opened:** 23-OCT-09 **Amount :** 500 mL
Name: SECOND SOURCE STD -1 **Received:** 25-SEP-09 **Catalog Number :** SGELMX38-500N
Type: Source Material **Expires:** 30-SEP-10 **Lot Number :** 4909129
Employee: Helen Camello **Solvent :** 5%HNO3
Supplier: SPECTRO PURE
Description: SECOND SOURCE STD #1A 5%HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Arsenic	100 mg/L
Barium	100 mg/L	Boron	100 mg/L
Cadmium	100 mg/L	Calcium	1000 mg/L
Chromium	100 mg/L	Cobalt	100 mg/L
Copper	100 mg/L	Iron	1000 mg/L
Lead	100 mg/L	Phosphorous	500 mg/L
Potassium	500 mg/L	Selenium	500 mg/L
Sodium	500 mg/L	Strontium	100 mg/L

Serial ID: UI090925-41 **Opened:** 23-OCT-09 **Amount :** 500 mL
Name: SECOND SOURCE STD -1 **Received:** 25-SEP-09 **Catalog Number :** SGELMX39-500B
Type: Source Material **Expires:** 30-SEP-10 **Lot Number :** 4909130
Employee: Helen Camello **Solvent :** 5%HNO3,TR.HF
Supplier: SPECTRO PURE
Description: SECOND SOURCE STD #1B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	100 mg/L	Beryllium	50 mg/L
Magnesium	1000 mg/L	Manganese	100 mg/L

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Molybdenum	100 mg/L	Nickel	100 mg/L
Silver	50 mg/L	Sulfur	500 mg/L
Thallium	100 mg/L	Tin	100 mg/L
Titanium	100 mg/L	Uranium	100 mg/L
Vanadium	100 mg/L	Zinc	100 mg/L

Serial ID: UI091015-42 **Opened:** 28-OCT-09 **Amount :** 500 mL
Name: SI 1000mg/L **Received:** 15-OCT-09 **Catalog Number :** 060014-02-03
Type: Source Material **Expires:** 28-OCT-10 **Lot Number :** 1017581
Employee: Helen Camello **Solvent :** 0.3%H2O(NH4)2SiF6
Supplier: o2si
Description: Silicon 1000mg/L+/-0.3%in H2O(NH4)2SiF6
Comments: None

Analyte	Concentration	Analyte	Concentration
Silica	2139 mg/L	Silicon	1000 mg/L

Serial ID: UI091015-A **Opened:** 15-OCT-09 **Catalog Number :** 160067-03
Name: ICP-MS DOE SOIL SPIKE **Received:** 15-OCT-09 **Lot Number :** 1017142
Type: Source Material **Expires:** 15-OCT-10
Employee: Francena Armstrong
Supplier: 02si
Description: ICP-MS Spike for soil products.
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	200 mg/L	Arsenic	8 mg/L
Barium	5 mg/L	Beryllium	5 mg/L
Boron	10 mg/L	Cadmium	1 mg/L
Calcium	200 mg/L	Chromium	5 mg/L
Cobalt	5 mg/L	Copper	5 mg/L
Iron	200 mg/L	Lead	20 mg/L
Lithium	5 mg/L	Magnesium	200 mg/L
Manganese	5 mg/L	Nickel	5 mg/L
Phosphorus, Total as P	200 mg/L	Potassium	200 mg/L
Selenium	2 mg/L	Sodium	200 mg/L
Strontium	5 mg/L	Thallium	10 mg/L
Thorium	5 mg/L	Uranium	5 mg/L
Uranium-235	.036 mg/L	Uranium-238	4.964 mg/L
Vanadium	5 mg/L	Zinc	5 mg/L

Standard Logbook

Serial ID: UI091015-B **Opened:** 15-OCT-09 **Catalog Number :** 160067-03
Name: ICP-MS DOE SOIL SPIKE **Received:** 15-OCT-09 **Lot Number :** 1017142
Type: Source Material **Expires:** 15-OCT-10
Employee: Francena Armstrong
Supplier: 02si
Description: ICP-MS Spike for Soil Products
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	20 mg/L	Molybdenum	5 mg/L
Silicon	200 mg/L	Silver	5 mg/L
Tin	5 mg/L	Zirconium	5 mg/L

Serial ID: UI091102-40 **Opened:** 16-NOV-09 **Amount :** 500 mL
Name: TRACE CALSTD#1A SOUF **Received:** 02-NOV-09 **Catalog Number :** HP2270-1-500
Type: Source Material **Expires:** 31-OCT-10 **Lot Number :** 0930215
Employee: Helen Camello **Solvent :** HNO3
Supplier: Environmental Express
Description: Trace Calibration Std #1A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	2000 mg/L	Arsenic	200 mg/L
Barium	200 mg/L	Beryllium	200 mg/L
Boron	200 mg/L	Cadmium	200 mg/L
Calcium	2000 mg/L	Chromium	200 mg/L
Cobalt	200 mg/L	Copper	200 mg/L
Iron	2000 mg/L	Lead	200 mg/L
Magnesium	2000 mg/L	Manganese	200 mg/L
Nickel	200 mg/L	Phosphorous	1000 mg/L
Potassium	2000 mg/L	Selenium	200 mg/L
Sodium	2000 mg/L	Strontium	200 mg/L
Thallium	200 mg/L	Uranium	200 mg/L
Vanadium	200 mg/L	Zinc	200 mg/L

Serial ID: UI091102-41 **Opened:** 16-NOV-09 **Amount :** 500 mL
Name: TRACE CALSTD#1B SOUF **Received:** 02-NOV-09 **Catalog Number :** HP2270-2-500
Type: Source Material **Expires:** 31-OCT-10 **Lot Number :** 0930216
Employee: Helen Camello **Solvent :** HNO3
Supplier: Environmental Express
Description: Trace Calibration Standard #1B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	200 mg/L	Molybdenum	200 mg/L
Silver	200 mg/L	Sulfur	400 mg/L

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Tin	200 mg/L	Titanium	200 mg/L

Serial ID: UI091102-42 **Opened:** 17-NOV-09 **Amount :** 200 mL
Name: SILICON **Received:** 02-NOV-09 **Catalog Number :** HP100050-4F
Type: Source Material **Expires:** 17-NOV-10 **Lot Number :** 0921924
Employee: Helen Camello **Solvent :** H20/tr HF
Supplier: ENVIRNMENTAL EXPRESS
Description: SILICON 1000mg/L H20/tr HF
Comments: None

Analyte	Concentration	Analyte	Concentration
Silica	2139 mg/L	Silicon	1000 mg/L

Serial ID: UI091124-01 **Opened:** 24-NOV-09 **Lot Number :** 1017642
Name: METALSPIKE-1 **Received:** 24-NOV-09
Type: Source Material **Expires:** 24-NOV-10
Employee: Francena Armstrong
Supplier: OS2I
Description: Metals Spike Mix I
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 ug/mL	Arsenic	100 ug/mL
Barium	100 ug/mL	Beryllium	100 ug/mL
Boron	100 ug/mL	Cadmium	100 ug/mL
Calcium	1000 ug/mL	Cobalt	100 ug/mL
Iron	1000 ug/mL	Lead	100 ug/mL
Magnesium	1000 ug/mL	Phosphorous	100 ug/mL
Potassium	1000 ug/mL	Silver	100 ug/mL
Sodium	1000 ug/mL	Strontium	100 ug/mL

Serial ID: UI091124-06 **Opened:** 24-NOV-09 **Lot Number :** 1017643
Name: METALSPIKE-2 **Received:** 24-NOV-09
Type: Source Material **Expires:** 24-NOV-10
Employee: Francena Armstrong
Supplier: OS2I
Description: Metals Spike Mix II
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	100 ug/mL	Chromium	100 ug/mL
Copper	100 ug/mL	Manganese	100 ug/mL
Molybdenum	100 ug/mL	Nickel	100 ug/mL
Selenium	100 ug/mL	Silica	2141 ug/mL

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Silicon	1000 ug/mL	Sulfur	1000 ug/mL
Thallium	100 ug/mL	Tin	100 ug/mL
Titanium	100 ug/mL	Uranium	100 ug/mL
Vanadium	100 ug/mL	Zinc	100 ug/mL

Serial ID: UI091130-48 **Opened:** 11-DEC-09 **Amount :** 1000 mL
Name: Trace ICP ICSA **Received:** 01-DEC-09 **Catalog Number :** 160005-02
Type: Source Material **Expires:** 11-DEC-10 **Lot Number :** 1018045
Employee: Helen Camello **Solvent :** 3% HCl + 1% HNO3
Supplier: o2si
Description: Trace ICP Interferent Check Standard A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 UG/L	Calcium	500000 UG/L
Iron	200000 UG/L	Magnesium	500000 UG/L

Serial ID: UI091211-40 **Opened:** 11-DEC-09 **Amount :** 500 mL
Name: ICP HIGH RANGE STD-A **Received:** 09-DEC-09 **Catalog Number :** 160211-05-03
Type: Source Material **Expires:** 11-DEC-10 **Lot Number :** 1017958
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3
Supplier: 02SI
Description: ICP HIGH RANGE STD SOLUTION A
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	10000 ug/L	Arsenic	10000 ug/L
Barium	15000 ug/L	Beryllium	3000 ug/L
Boron	5000 ug/L	Cadmium	10000 ug/L
Chromium	25000 ug/L	Cobalt	10000 ug/L
Copper	20000 ug/L	Lead	25000 ug/L
Manganese	10000 ug/L	Molybdenum	10000 ug/L
Nickel	10000 ug/L	Phosphorous	15000 ug/L
Potassium	300000 ug/L	Selenium	10000 ug/L
Silica	107000 ug/L	Silicon	50000 ug/L
Silver	1000 ug/L	Strontium	10000 ug/L
Sulfur	50000 ug/L	Thallium	10000 ug/L
Tin	10000 ug/L	Titanium	10000 ug/L
Vanadium	10000 ug/L	Zinc	15000 ug/L

Standard Logbook

Serial ID: UI091211-41 **Opened:** 11-DEC-09 **Amount :** 500 mL
Name: ICP HIGH RANGE STD B **Received:** 09-DEC-09 **Catalog Number :** 160211-05-03
Type: Source Material **Expires:** 11-DEC-10 **Lot Number :** 1017958
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3
Supplier: 02SI
Description: ICP HIGH RANGE STD SOLUTION B
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 ug/L	Calcium	500000 ug/L
Iron	500000 ug/L	Magnesium	500000 ug/L
Sodium	500000 ug/L	Uranium	15000 ug/L

Serial ID: UI091212-11 **Opened:** 12-DEC-09 **Amount :** 1000 mL
Name: ICP-MS ICSA Master A **Received:** 12-DEC-09 **Catalog Number :** 160013-01-01L
Type: Source Material **Expires:** 12-DEC-10 **Lot Number :** 1015303
Employee: Paul Boyd **Solvent :** 2% HNO3
Supplier: 02SI
Description: ICP-MS ICSA Master A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Calcium	1000 mg/L
Carbon	2000 mg/L	Chloride	10000 mg/L
Iron	1000 mg/L	Magnesium	1000 mg/L
Molybdenum	20 mg/L	Phosphorous	1000 mg/L
Potassium	1000 mg/L	Sodium	1000 mg/L
Sulfur	1000 mg/L	Titanium	20 mg/L

Serial ID: UI091212-60 **Opened:** 12-DEC-09 **Amount :** .5 mL
Name: ICPMS High Range Standar **Received:** 12-DEC-09 **Catalog Number :** 160212-02-01
Type: Source Material **Expires:** 12-DEC-10 **Lot Number :** 1018064
Employee: Paul Boyd **Solvent :** 2%HNO3 + Tr HF
Supplier: O2SI
Description: Linear Range Standard A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	5000 mg/L	Arsenic	100 mg/L
Barium	250 mg/L	Beryllium	100 mg/L
Cadmium	100 mg/L	Calcium	5000 mg/L
Chromium	100 mg/L	Cobalt	100 mg/L
Copper	100 mg/L	Iron	5000 mg/L
Lead	500 mg/L	Lithium	100 mg/L
Magnesium	5000 mg/L	Manganese	100 mg/L
Nickel	100 mg/L	Phosphorous	2500 mg/L

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Potassium	5000 mg/L	Selenium	50 mg/L
Sodium	5000 mg/L	Strontium	100 mg/L
Thallium	50 mg/L	Thorium	250 mg/L
Uranium	500 mg/L	Vanadium	100 mg/L
Zinc	250 mg/L		

Serial ID: UI091212-61 **Opened:** 12-DEC-09 **Amount :** .5 mL
Name: ICPMS High Range Standar **Received:** 12-DEC-09 **Catalog Number :** 160212-02-01
Type: Source Material **Expires:** 12-DEC-10 **Lot Number :** 1018064
Employee: Paul Boyd **Solvent :** 2%HNO3 + Tr HF
Supplier: O2SI
Description: Linear Range Standard B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	25 mg/L	Molybdenum	100 mg/L
Silver	25 mg/L	Tin	100 mg/L
Tungsten	100 mg/L	Zirconium	50 mg/L

Serial ID: UI091216-01 **Opened:** 16-DEC-09 **Lot Number :** 1018095
Name: METALSPIKE-1 **Received:** 16-DEC-09
Type: Source Material **Expires:** 16-DEC-10
Employee: Francena Armstrong
Supplier: OS2I
Description: Metals Spike Mix I
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 ug/mL	Arsenic	100 ug/mL
Barium	100 ug/mL	Beryllium	100 ug/mL
Boron	100 ug/mL	Cadmium	100 ug/mL
Calcium	1000 ug/mL	Cobalt	100 ug/mL
Iron	1000 ug/mL	Lead	100 ug/mL
Magnesium	1000 ug/mL	Phosphorous	100 ug/mL
Potassium	1000 ug/mL	Silver	100 ug/mL
Sodium	1000 ug/mL	Strontium	100 ug/mL

Serial ID: UI091216-06 **Opened:** 16-DEC-09 **Lot Number :** 1018096
Name: METALSPIKE-2 **Received:** 16-DEC-09
Type: Source Material **Expires:** 16-DEC-10
Employee: Francena Armstrong
Supplier: OS2I
Description: Metals Spike Mix II
Comments: None

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Antimony	100 ug/mL	Chromium	100 ug/mL
Copper	100 ug/mL	Manganese	100 ug/mL
Molybdenum	100 ug/mL	Nickel	100 ug/mL
Selenium	100 ug/mL	Silica	2141 ug/mL
Silicon	1000 ug/mL	Sulfur	1000 ug/mL
Thallium	100 ug/mL	Tin	100 ug/mL
Titanium	100 ug/mL	Uranium	100 ug/mL
Vanadium	100 ug/mL	Zinc	100 ug/mL

Serial ID: UI091217-06 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master A **Received:** 17-DEC-09 **Catalog Number :** 160055-01
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018209
Employee: Paul Boyd **Solvent :** +/- 0.5% in 5% HNO3 100 cm2
Supplier: 02SI
Description: ICPMS ICV/CCV SOLN A - 10ppm
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	2020 mg/L	Calcium	2000 mg/L
Iron	2000 mg/L	Magnesium	2000 mg/L
Phosphorous	2000 mg/L	Potassium	2000 mg/L
Sodium	2000 mg/L		

Serial ID: UI091217-07 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master B **Received:** 17-DEC-09 **Catalog Number :** 160054-02
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018210
Employee: Paul Boyd **Solvent :** +/- 0.5% in 5% HNO3 100 cm2
Supplier: 02SI
Description: ICPMS ICV/CCV Soln B - 10ppm
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	20 mg/L	Barium	20 mg/L
Beryllium	20 mg/L	Boron	40 mg/L
Cadmium	20 mg/L	Chromium	20 mg/L
Cobalt	20 mg/L	Copper	20 mg/L
Lead	20 mg/L	Lithium	20 mg/L
Manganese	20 mg/L	Nickel	20 mg/L
Selenium	20 mg/L	Strontium	20 mg/L
Thallium	20 mg/L	Thorium	20 mg/L
Uranium	20 mg/L	Vanadium	20 mg/L
Zinc	20 mg/L		

Standard Logbook

Serial ID: UI091217-08 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master C **Received:** 17-DEC-09 **Catalog Number :** 160054-03
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018211
Employee: Paul Boyd **Solvent :** +/- 0.5% in 5% HNO3 100 cm2
Supplier: 02SI
Description: ICPMS ICV/CCV Soln C - 10ppm
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	20 mg/L	Molybdenum	20 mg/L
Silver	20 mg/L	Tin	20 mg/L
Titanium	20 mg/L	Tungsten	20 mg/L
Zirconium	20 mg/L		

Serial ID: UI091217-12 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICSAB Master B **Received:** 17-DEC-09 **Catalog Number :** 160033-02
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018212
Employee: Paul Boyd **Solvent :** +/- 0.5% in 2% HNO3
Supplier: 02SI
Description: ICPMS ICSAB Master B
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	2 mg/L	Barium	2 mg/L
Beryllium	2 mg/L	Boron	2 mg/L
Cadmium	2 mg/L	Chromium	2 mg/L
Cobalt	2 mg/L	Copper	2 mg/L
Lead	2 mg/L	Lithium	2 mg/L
Manganese	2 mg/L	Nickel	2 mg/L
Selenium	2 mg/L	Strontium	2 mg/L
Thallium	2 mg/L	Thorium	2 mg/L
Uranium	2 mg/L	Vanadium	2 mg/L
Zinc	2 mg/L		

Serial ID: UI091217-13 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICSAB Master C **Received:** 17-DEC-09 **Catalog Number :** 160033-03
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1016926
Employee: Paul Boyd **Solvent :** +/- 0.5% in 2% HNO3
Supplier: 02SI
Description: ICPMS ICSAB Master C
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	2 mg/L	Silver	2 mg/L
Tin	2 mg/L	Tungsten	2 mg/L
Zirconium	2 mg/L		

Standard Logbook

Serial ID: UMS090303-01 **Opened:** 03-MAR-09 **Amount :** 250 mL
Name: ICPMSCalSPIKEB **Received:** 03-MAR-09 **Catalog Number :** ZGEL-100-250
Type: Source Material **Expires:** 28-FEB-10 **Lot Number :** 14-81JB
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution B
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	10 mg/L	Barium	10 mg/L
Beryllium	10 mg/L	Boron	20 mg/L
Cadmium	10 mg/L	Chromium	10 mg/L
Cobalt	10 mg/L	Copper	10 mg/L
Lead	10 mg/L	Lithium	10 mg/L
Manganese	10 mg/L	Nickel	10 mg/L
Selenium	10 mg/L	Silver	10 mg/L
Strontium	10 mg/L	Thallium	10 mg/L
Thorium	10 mg/L	Uranium	10 mg/L
Vanadium	10 mg/L	Zinc	10 mg/L

Serial ID: UMS090303-02 **Opened:** 03-MAR-09 **Catalog Number :** ZGEL-102-250
Name: ICPMSCalSPIKEA **Received:** 03-MAR-09 **Lot Number :** 14-83JB
Type: Source Material **Expires:** 28-FEB-10
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Calcium	1000 mg/L
Iron	1000 mg/L	Magnesium	1000 mg/L
Phosphorous	1000 mg/L	Potassium	1000 mg/L
Sodium	1000 mg/L		

Serial ID: UMS090303-03 **Opened:** 03-MAR-09 **Amount :** 250 ml
Name: ICPMSCalSPIKEC **Received:** 03-MAR-09 **Catalog Number :** ZGEL-101-250
Type: Source Material **Expires:** 28-FEB-10 **Lot Number :** 15-199JB
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution C
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	10 mg/L	Molybdenum	10 mg/L
Tin	10 mg/L	Titanium	10 mg/L
Zirconium	10 mg/L		

Standard Logbook

Serial ID: IHG091221-01 **Opened:** 21-DEC-09 **Instrument Id :** Mercury
Name: MHGINTER1 **Received:** 21-DEC-09 **Pipet Id :** Minou1
Type: Intermediate **Expires:** 22-DEC-09 **Solvent :** 1mL HNO3 + Typel H2O
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Intermediate 1st Source 200 ug/L
Comments: Prepare fresh daily

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167639-01	Mercury	1000 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: IHG091221-02 **Opened:** 21-DEC-09 **Pipet Id :** Minou1
Name: MHGINTER2 **Received:** 21-DEC-09 **Solvent :** 2% HNO3-1240182
Type: Intermediate **Expires:** 22-DEC-09
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Intermediate 2nd Source 200 ug/L
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167641-02	Mercury	999.7 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: WHG091221-07 **Opened:** 21-DEC-09 **Pipet Id :** Hg1289245
Name: MHGWORKCALS0.2CRA **Received:** 21-DEC-09 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 27-DEC-09
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working Standard 1st Source CAL S 0.2/CRA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG091221-01	Mercury	200 ug/L	30 uL	30 mL	.2 ug/L

Serial ID: WHG091221-08 **Opened:** 21-DEC-09 **Pipet Id :** Hg1289245
Name: MHGWORKCALS0.5 **Received:** 21-DEC-09 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 27-DEC-09
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working Standard 1st Source CAL S 0.5
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG091221-01	Mercury	200 ug/L	75 uL	30 mL	.5 ug/L

Standard Logbook

Serial ID: WHG091221-09 **Opened:** 21-DEC-09 **Pipet Id :** Hg1289245
Name: MHGWORKCALS2.0 **Received:** 21-DEC-09 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 27-DEC-09
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL S 2.0
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG091221-01	Mercury	200 ug/L	300 uL	30 mL	2 ug/L

Serial ID: WHG091221-10 **Opened:** 21-DEC-09 **Pipet Id :** Hg1289245
Name: MHGWORKCALS5.0CCV **Received:** 21-DEC-09 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 27-DEC-09
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL S 5.0/CCV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG091221-01	Mercury	200 ug/L	750 uL	30 mL	5 ug/L

Serial ID: WHG091221-11 **Opened:** 21-DEC-09 **Pipet Id :** Hg1289245
Name: MHGWORKCALS10.0 **Received:** 21-DEC-09 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 27-DEC-09
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working 1st Source CAL S 10.0
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG091221-01	Mercury	200 ug/L	1500 uL	30 mL	10 ug/L

Serial ID: WHG091221-12 **Opened:** 21-DEC-09 **Pipet Id :** Hg1289245
Name: MHGWORKS5.0ICV **Received:** 21-DEC-09 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 27-DEC-09
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 2nd Source S 5.0/ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG091221-02	Mercury	200 ug/L	750 uL	30 mL	5 ug/L

Standard Logbook

Serial ID: WHG091221-14 **Opened:** 21-DEC-09 **Pipet Id :** Hg1289245
Name: MHGSOILMSSPIKE **Received:** 21-DEC-09 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 27-DEC-09
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury soil working intermediate standard for MS
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167639-01	Mercury	1000 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: WI091219-43 **Opened:** 19-DEC-09 **Balance Id :** 216
Name: TRACE ICP 0.5/CCV STD. **Received:** 02-NOV-09 **Pipet Id :** 1099667
Type: Working **Expires:** 20-DEC-09 **Solvent :** 3%HCL and 1%HNO3 -1242318
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP 0.5/CCV CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090828-42	Sodium	1000 ug/mL	5 mL	1000 mL	5000 UG/L
UI091015-42	Silica	2139 mg/L	2.5 mL	1000 mL	5348.25 UG/L
UI091015-42	Silicon	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI091102-40	Aluminum	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Arsenic	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Barium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Beryllium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Boron	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Cadmium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Calcium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Chromium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Cobalt	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Copper	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Iron	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Lead	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Magnesium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Manganese	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Nickel	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Phosphorous	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI091102-40	Potassium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Selenium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Sodium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Strontium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Thallium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Uranium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Vanadium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Zinc	200 mg/L	2.5 mL	1000 mL	500 UG/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091102-41	Antimony	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Molybdenum	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Silver	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Sulfur	400 mg/L	2.5 mL	1000 mL	1000 UG/L
UI091102-41	Tin	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Titanium	200 mg/L	2.5 mL	1000 mL	500 UG/L

Serial ID: WI091223-42 **Opened:** 23-DEC-09 **Balance Id :** 216
Name: TRACE ICP 0.1 PPM STD. **Received:** 02-NOV-09 **Pipet Id :** 1099667
Type: Working **Expires:** 24-DEC-09 **Solvent :** 3%HCL and 1%HNO3 -1242318
Employee: Louise Smith
Supplier: GEL
Description: TRACE ICP 0.1 PPM CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WI091223-44	Aluminum	10000 ug/L	10 mL	100 mL	1000 ug/L
WI091223-44	Antimony	1000 ug/L	10 mL	100 mL	100 ug/L
WI091223-44	Arsenic	1000 ug/L	10 mL	100 mL	100 ug/L
WI091223-44	Barium	1000 ug/L	10 mL	100 mL	100 ug/L
WI091223-44	Beryllium	1000 ug/L	10 mL	100 mL	100 ug/L
WI091223-44	Boron	1000 ug/L	10 mL	100 mL	100 ug/L
WI091223-44	Cadmium	1000 ug/L	10 mL	100 mL	100 ug/L
WI091223-44	Calcium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI091223-44	Chromium	1000 ug/L	10 mL	100 mL	100 ug/L
WI091223-44	Cobalt	1000 ug/L	10 mL	100 mL	100 ug/L
WI091223-44	Copper	1000 ug/L	10 mL	100 mL	100 ug/L
WI091223-44	Iron	10000 ug/L	10 mL	100 mL	1000 ug/L
WI091223-44	Lead	1000 ug/L	10 mL	100 mL	100 ug/L
WI091223-44	Magnesium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI091223-44	Manganese	1000 ug/L	10 mL	100 mL	100 ug/L
WI091223-44	Molybdenum	1000 ug/L	10 mL	100 mL	100 ug/L
WI091223-44	Nickel	1000 ug/L	10 mL	100 mL	100 ug/L
WI091223-44	Phosphorous	5000 ug/L	10 mL	100 mL	500 ug/L
WI091223-44	Potassium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI091223-44	Selenium	1000 ug/L	10 mL	100 mL	100 ug/L
WI091223-44	Silica	10698 ug/L	10 mL	100 mL	1069 ug/L
WI091223-44	Silicon	5000 ug/L	10 mL	100 mL	500 ug/L
WI091223-44	Silver	1000 ug/L	10 mL	100 mL	100 ug/L
WI091223-44	Sodium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI091223-44	Strontium	1000 ug/L	10 mL	100 mL	100 ug/L
WI091223-44	Sulfur	2000 ug/L	10 mL	100 mL	200 ug/L
WI091223-44	Thallium	1000 ug/L	10 mL	100 mL	100 ug/L
WI091223-44	Tin	1000 ug/L	10 mL	100 mL	100 ug/L
WI091223-44	Titanium	1000 ug/L	10 mL	100 mL	100 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WI091223-44	Uranium	1000 ug/L	10 mL	100 mL	100 ug/L
WI091223-44	Vanadium	1000 ug/L	10 mL	100 mL	100 ug/L
WI091223-44	Zinc	1000 ug/L	10 mL	100 mL	100 ug/L

Serial ID: WI091223-43 **Opened:** 23-DEC-09 **Balance Id :** 216
Name: TRACE ICP 0.5/CCV STD. **Received:** 02-NOV-09 **Pipet Id :** 1099667
Type: Working **Expires:** 24-DEC-09 **Solvent :** 3%HCL and 1%HNO3 -1242318
Employee: Louise Smith
Supplier: GEL
Description: TRACE ICP 0.5/CCV CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090828-42	Sodium	1000 ug/mL	5 mL	1000 mL	5000 UG/L
UI091015-42	Silica	2139 mg/L	2.5 mL	1000 mL	5348.25 UG/L
UI091015-42	Silicon	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI091102-40	Aluminum	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Arsenic	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Barium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Beryllium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Boron	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Cadmium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Calcium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Chromium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Cobalt	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Copper	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Iron	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Lead	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Magnesium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Manganese	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Nickel	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Phosphorous	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI091102-40	Potassium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Selenium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Sodium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Strontium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Thallium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Uranium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Vanadium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Zinc	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Antimony	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Molybdenum	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Silver	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Sulfur	400 mg/L	2.5 mL	1000 mL	1000 UG/L
UI091102-41	Tin	200 mg/L	2.5 mL	1000 mL	500 UG/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091102-41	Titanium	200 mg/L	2.5 mL	1000 mL	500 UG/L

Serial ID: WI091223-44 **Opened:** 23-DEC-09 **Balance Id :** 216
Name: TRACE ICP SCAL 1.0 **Received:** 02-NOV-09 **Pipet Id :** 1099667
Type: Working **Expires:** 24-DEC-09 **Solvent :** 3%HCL and 1 %HNO3-1242318
Employee: Louise Smith
Supplier: o2si
Description: Trace ICP Calibration Standard 1.0ppm
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091015-42	Silica	2139 mg/L	2.5 mL	500 mL	10698 ug/L
UI091015-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI091102-40	Aluminum	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Arsenic	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Barium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Beryllium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Boron	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Cadmium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Calcium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Chromium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Cobalt	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Copper	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Iron	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Lead	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Magnesium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Manganese	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Nickel	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Phosphorous	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI091102-40	Potassium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Selenium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Sodium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Strontium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Thallium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Uranium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Vanadium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Zinc	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Antimony	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Molybdenum	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Silver	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Sulfur	400 mg/L	2.5 mL	500 mL	2000 ug/L
UI091102-41	Tin	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Titanium	200 mg/L	2.5 mL	500 mL	1000 ug/L

Standard Logbook

Serial ID: WI091223-45 **Opened:** 23-DEC-09 **Balance Id :** 216
Name: TRACE ICP S-10 STD **Received:** 22-APR-09 **Pipet Id :** 1099667
Type: Working **Expires:** 24-DEC-09 **Solvent :** 3%HCL and 1%HNO3 -1242318
Employee: Louise Smith
Supplier: GEL
Description: TRACE ICP S-10 CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090422-40	Aluminum	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Calcium	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Iron	2000 mg/L	5 mL	500 mL	20000 UG/L
UI090422-40	Magnesium	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090828-42	Sodium	1000 ug/mL	10 mL	500 mL	20000 UG/L

Serial ID: WI091223-46 **Opened:** 23-DEC-09 **Balance Id :** 216
Name: ICP TRACE ICV **Received:** 25-SEP-09 **Pipet Id :** 1099667
Type: Working **Expires:** 24-DEC-09 **Solvent :** 3%HCL AND 1%HNO3-1242318
Employee: Louise Smith
Supplier: GEL
Description: Initial Calibration Verification ICP Trace Metals
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090925-40	Aluminum	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Arsenic	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Barium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Boron	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cadmium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Calcium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Chromium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cobalt	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Copper	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Iron	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Lead	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Phosphorous	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Potassium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Selenium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Sodium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Strontium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Antimony	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Beryllium	50 mg/L	2.5 mL	500 mL	250 ug/L
UI090925-41	Magnesium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-41	Manganese	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Molybdenum	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Nickel	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Silver	50 mg/L	2.5 mL	500 mL	250 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090925-41	Sulfur	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-41	Thallium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Tin	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Titanium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Uranium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Vanadium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Zinc	100 mg/L	2.5 mL	500 mL	500 ug/L
UI091102-42	Silica	2139 mg/L	2.5 mL	500 mL	10695 ug/L
UI091102-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L

Serial ID: WI091223-47 **Opened:** 23-DEC-09 **Balance Id :** 216
Name: PQL Working Standard **Received:** 30-JUN-09 **Pipet Id :** 1099667
Type: Working **Expires:** 24-DEC-09 **Solvent :** 3%HCL &1%HNO3-1242318
Employee: Louise Smith
Supplier: 02si
Description: PQL Working Standard
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-40	Aluminum	100 mg/L	2 mL	1000 mL	200 ug/L
UI090701-40	Antimony	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Arsenic	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Barium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Beryllium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Boron	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Cadmium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Calcium	100 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Chromium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Cobalt	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Copper	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Iron	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Lead	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Magnesium	150 mg/L	2 mL	1000 mL	300 ug/L
UI090701-40	Manganese	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Molybdenum	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Nickel	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Phosphorous	75 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Potassium	75 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Selenium	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Silicon	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Silver	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sodium	150 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Strontium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sulfur	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Thallium	10 mg/L	2 mL	1000 mL	20 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-40	Tin	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Titanium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Uranium	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Vanadium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Zinc	5 mg/L	2 mL	1000 mL	10 ug/L

Serial ID: WMS091220-04 **Opened:** 20-DEC-09 **Amount :** 50 mL
Name: ICPMS Cal Standard 100 **Received:** 20-DEC-09 **Balance Id :** 4025216
Type: Working **Expires:** 21-DEC-09 **Pipet Id :** 3541598
Employee: Elizabeth Janssen **Solvent :** 2%HNO3/1%HCl-1242296
Supplier: GEL
Description: ICPMS Calibration Standard (100 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090610-03	Tungsten	10 mg/L	.5 mL	50 mL	100 ug/L
UMS090303-01	Arsenic	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Barium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Beryllium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Boron	20 mg/L	.5 mL	50 mL	200 ug/l
UMS090303-01	Cadmium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Chromium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Cobalt	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Copper	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Lead	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Lithium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Manganese	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Nickel	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Selenium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Silver	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Strontium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Thallium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Thorium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Uranium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Vanadium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Zinc	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-02	Aluminum	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Calcium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Iron	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Magnesium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Phosphorous	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Potassium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Sodium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-03	Antimony	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Molybdenum	10 mg/L	.5 mL	50 mL	100 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UMS090303-03	Tin	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Titanium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Zirconium	10 mg/L	.5 mL	50 mL	100 ug/l

Serial ID: WMS091220-04A **Opened:** 20-DEC-09 **Balance Id :** 4025216
Name: ICPMS Cal Standard 10 **Received:** 20-DEC-09 **Pipet Id :** 3541598
Type: Working **Expires:** 21-DEC-09 **Solvent :** 2%HNO3/1%HCl - 1242296
Employee: Elizabeth Janssen
Supplier: GEL
Description: ICPMS Calibration Standard (10 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS091220-04	Aluminum	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS091220-04	Antimony	100 ug/l	5 mL	50 mL	10 ug/l
WMS091220-04	Arsenic	100 ug/l	5 mL	50 mL	10 ug/l
WMS091220-04	Barium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091220-04	Beryllium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091220-04	Boron	200 ug/l	5 mL	50 mL	20 ug/l
WMS091220-04	Cadmium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091220-04	Calcium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS091220-04	Chromium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091220-04	Cobalt	100 ug/l	5 mL	50 mL	10 ug/l
WMS091220-04	Copper	100 ug/l	5 mL	50 mL	10 ug/l
WMS091220-04	Iron	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS091220-04	Lead	100 ug/l	5 mL	50 mL	10 ug/l
WMS091220-04	Lithium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091220-04	Magnesium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS091220-04	Manganese	100 ug/l	5 mL	50 mL	10 ug/l
WMS091220-04	Molybdenum	100 ug/l	5 mL	50 mL	10 ug/l
WMS091220-04	Nickel	100 ug/l	5 mL	50 mL	10 ug/l
WMS091220-04	Phosphorous	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS091220-04	Potassium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS091220-04	Selenium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091220-04	Silver	100 ug/l	5 mL	50 mL	10 ug/l
WMS091220-04	Sodium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS091220-04	Strontium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091220-04	Thallium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091220-04	Thorium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091220-04	Tin	100 ug/l	5 mL	50 mL	10 ug/l
WMS091220-04	Titanium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091220-04	Tungsten	100 ug/L	5 mL	50 mL	10 ug/L
WMS091220-04	Uranium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091220-04	Vanadium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091220-04	Zinc	100 ug/l	5 mL	50 mL	10 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS091220-04	Zirconium	100 ug/l	5 mL	50 mL	10 ug/l

Serial ID: WMS091220-05 **Opened:** 20-DEC-09 **Balance Id :** 40245216
Name: ICPMS ICV **Received:** 20-DEC-09 **Pipet Id :** 3541598
Type: Working **Expires:** 21-DEC-09 **Solvent :** 2%HNO3/1%HCl - 1242296
Employee: Elizabeth Janssen
Supplier: GEL
Description: ICPMS ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-06	Aluminum	2020 mg/L	.125 mL	50 mL	5050 ug/L
UI091217-06	Calcium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Iron	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Magnesium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Phosphorous	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Potassium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Sodium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-07	Arsenic	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Barium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Beryllium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Boron	40 mg/L	.125 mL	50 mL	100 ug/L
UI091217-07	Cadmium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Chromium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Cobalt	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Copper	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lead	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lithium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Manganese	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Nickel	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Selenium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Strontium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thallium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thorium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Uranium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Vanadium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Zinc	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Antimony	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Molybdenum	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Silver	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tin	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Titanium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tungsten	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Zirconium	20 mg/L	.125 mL	50 mL	50 ug/L

Standard Logbook

Serial ID: WMS091220-06 **Opened:** 20-DEC-09 **Balance Id :** 40245216
Name: ICPMS CRDL **Received:** 20-DEC-09 **Pipet Id :** 3820544
Type: Working **Expires:** 21-DEC-09 **Solvent :** 2%HNO3/1%HCl - 1242296
Employee: Elizabeth Janssen
Supplier: GEL
Description: ICPMS CRDL
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Aluminum	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Arsenic	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Barium	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Beryllium	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-09	Boron	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Cadmium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Calcium	100 mg/L	.05 mL	50 mL	100 ug/L
UI090701-09	Chromium	3 mg/L	.05 mL	50 mL	3 ug/L
UI090701-09	Cobalt	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Copper	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Iron	25 mg/L	.05 mL	50 mL	25 ug/L
UI090701-09	Lead	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Lithium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Magnesium	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Manganese	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Nickel	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Phosphorous	50 mg/L	.05 mL	50 mL	50 ug/L
UI090701-09	Potassium	300 mg/L	.05 mL	50 mL	300 ug/L
UI090701-09	Selenium	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Sodium	250 mg/L	.05 mL	50 mL	250 ug/L
UI090701-09	Strontium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Thallium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Thorium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Uranium	.2 mg/L	.05 mL	50 mL	.2 ug/L
UI090701-09	Vanadium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Zinc	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Antimony	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-10	Molybdenum	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-10	Silver	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-10	Tin	2 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Titanium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Tungsten	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Zirconium	2 mg/L	.05 mL	50 mL	2 ug/L

Standard Logbook

Serial ID: WMS091220-07 **Opened:** 20-DEC-09 **Balance Id :** 40245216
Name: ICPMS ICSA **Received:** 20-DEC-09 **Lot Number :** 1010773
Type: Working **Expires:** 21-DEC-09 **Pipet Id :** 3541598
Employee: Elizabeth Janssen **Solvent :** 2%HNO3/1%HCl - 1242296
Supplier: GEL
Description: ICPMS ICSA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI091212-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI091212-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: WMS091220-08 **Opened:** 20-DEC-09 **Balance Id :** 40245216
Name: ICPMS ICSAB **Received:** 20-DEC-09 **Pipet Id :** 1758088
Type: Working **Expires:** 21-DEC-09 **Solvent :** 2%HNO3/1%HCl - 1242296
Employee: Elizabeth Janssen
Supplier: GEL
Description: ICPMS ICSAB
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI091212-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI091212-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L
UI091217-12	Arsenic	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Barium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Beryllium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Boron	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Cadmium	2 mg/L	.5 mL	50 mL	20.2 ug/L
UI091217-12	Chromium	2 mg/L	.5 mL	50 mL	22.2 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-12	Cobalt	2 mg/L	.5 mL	50 mL	20.4 ug/L
UI091217-12	Copper	2 mg/L	.5 mL	50 mL	23.4 ug/L
UI091217-12	Lead	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Lithium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Manganese	2 mg/L	.5 mL	50 mL	22.7 ug/L
UI091217-12	Nickel	2 mg/L	.5 mL	50 mL	22.4 ug/L
UI091217-12	Selenium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Strontium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thallium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thorium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Uranium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Vanadium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Zinc	2 mg/L	.5 mL	50 mL	27 ug/L
UI091217-13	Antimony	2 mg/L	.5 mL	50 mL	20.5 ug/L
UI091217-13	Silver	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tin	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tungsten	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Zirconium	2 mg/L	.5 mL	50 mL	20 ug/L

Serial ID: WMS091220-70 **Opened:** 20-DEC-09 **Balance Id :** 40245216
Name: ICPMS LINEAR RANGE ST **Received:** 20-DEC-09 **Pipet Id :** 1758088
Type: Working **Expires:** 21-DEC-09 **Solvent :** 2%HNO3/1%HCl - 1242296
Employee: Elizabeth Janssen
Supplier: 02SI
Description: ICPMS LINEAR RANGE STANDARD
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-60	Aluminum	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Arsenic	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Barium	250 mg/L	.5 mL	50 mL	2500 ug/L
UI091212-60	Beryllium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Cadmium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Calcium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Chromium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Cobalt	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Copper	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Iron	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Lead	500 mg/L	.5 mL	50 mL	5000 ug/L
UI091212-60	Lithium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Magnesium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Manganese	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Nickel	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Phosphorous	2500 mg/L	.5 mL	50 mL	25000 ug/L
UI091212-60	Potassium	5000 mg/L	.5 mL	50 mL	50000 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-60	Selenium	50 mg/L	.5 mL	50 mL	500 ug/L
UI091212-60	Sodium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Strontium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Thallium	50 mg/L	.5 mL	50 mL	500 ug/L
UI091212-60	Thorium	250 mg/L	.5 mL	50 mL	2500 ug/L
UI091212-60	Uranium	500 mg/L	.5 mL	50 mL	5000 ug/L
UI091212-60	Vanadium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Zinc	250 mg/L	.5 mL	50 mL	2500 ug/L
UI091212-61	Antimony	25 mg/L	.5 mL	50 mL	250 ug/L
UI091212-61	Molybdenum	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-61	Silver	25 mg/L	.5 mL	50 mL	250 ug/L
UI091212-61	Tin	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-61	Tungsten	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-61	Zirconium	50 mg/L	.5 mL	50 mL	500 ug/L

Serial ID: 1100721TCLP **Opened:** 16-APR-09 **Lot Number :** H02026 L
Name: I-HNO3 **Received:** 02-APR-09
Type: Reagent/Solvent **Expires:** 02-APR-10
Employee: Clifford Postell
Supplier: BAKER
Description: Nitric Acid CONC.
Comments: None

Serial ID: 1156689-A **Opened:** 20-JUL-09 **Lot Number :** 41226920
Name: B-KMnO4(VWR)-MER **Received:** 20-JUL-09
Type: Reagent/Solvent **Expires:** 20-JUL-10
Employee: Tara Griffin **Verified:** 07-AUG-07
Supplier: VWR
Description: Potassium Permanganate
Comments: None

Serial ID: 1164796-A **Opened:** 06-AUG-09 **Lot Number :** 49149927
Name: B-NH2OH.HCl-MER **Received:** 06-AUG-09
Type: Reagent/Solvent **Expires:** 06-AUG-10
Employee: Tara Griffin
Supplier: Fisher Scientific
Description: Hydroxlyamine Hydrochloride
Comments: None

Standard Logbook

Serial ID: 1194236 **Opened:** 23-SEP-09 **Lot Number :** H32032
Name: I-HCL **Received:** 23-SEP-09 **Preservative_Id :** 5 none
Type: Reagent/Solvent **Expires:** 23-SEP-10
Employee: Francena Armstrong
Supplier: J.T. BAKER
Description: HYDROCHLORIC ACID
Comments: None

Serial ID: 1203655-02 **Opened:** 15-OCT-09 **Lot Number :** ZU74081198 mL
Name: B-H2O2 **Received:** 15-OCT-09
Type: Reagent/Solvent **Expires:** 15-OCT-10
Employee: Francena Armstrong
Supplier: EM SCIENCE
Description: Hydrogen Peroxide 30%
Comments: None

Serial ID: 1206350-C **Opened:** 22-OCT-09 **Balance Id :** BAL-002
Name: B-NaCl.NH2OH.HCl-MER **Received:** 22-OCT-09
Type: Reagent/Solvent **Expires:** 06-AUG-10
Employee: Tara Griffin
Supplier: GEL
Description: Hg reducing agent
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1164796-A	B-NH2OH.HCl-MER	N/A	120 g	1000 mL	N/A

Serial ID: 1207193 **Opened:** 23-OCT-09 **Lot Number :** H39037
Name: I-HCL **Received:** 23-OCT-09 **Preservative_Id :** 5 none
Type: Reagent/Solvent **Expires:** 23-OCT-10
Employee: Francena Armstrong
Supplier: J.T. BAKER
Description: HYDROCHLORIC ACID
Comments: None

Serial ID: 1230937 **Opened:** 18-NOV-09 **Lot Number :** H20053 L
Name: I-HNO3 **Received:** 18-NOV-09
Type: Reagent/Solvent **Expires:** 18-NOV-10
Employee: Anthony Green
Supplier: BAKER
Description: Nitric Acid CONC.
Comments: None

Standard Logbook

Serial ID: 1236355-A **Opened:** 01-DEC-09 **Lot Number :** 200930201
Name: B-HCl-MER **Received:** 01-DEC-09
Type: Reagent/Solvent **Expires:** 01-DEC-10
Employee: Tara Griffin
Supplier: Aristar
Description: Hydrochloric Acid Conc.
Comments: None

Serial ID: 1238343 **Opened:** 04-DEC-09 **Lot Number :** H41032
Name: I-HCL **Received:** 04-DEC-09 **Preservative_Id :** 5 none
Type: Reagent/Solvent **Expires:** 04-DEC-10
Employee: Francena Armstrong
Supplier: J.T. BAKER
Description: HYDROCHLORIC ACID
Comments: None

Serial ID: 1238345 **Opened:** 04-DEC-09 **Lot Number :** H20053 L
Name: I-HNO3 **Received:** 04-DEC-09
Type: Reagent/Solvent **Expires:** 04-DEC-10
Employee: Francena Armstrong
Supplier: BAKER
Description: Nitric Acid CONC.
Comments: None

Serial ID: 1240182-1 **Opened:** 09-DEC-09 **Instrument Id :** MERCURY
Name: B-HNO3-MER **Received:** 09-DEC-09 **Lot Number :** H34040
Type: Reagent/Solvent **Expires:** 09-DEC-10
Employee: Tara Griffin
Supplier: Mallinckrodt Chemicals
Description: NITRIC ACID
Comments: None

Serial ID: 1242296 **Opened:** 14-DEC-09 **Solvent :** Type I Water
Name: B-2%HNO3/1%HCl-ICPMS **Received:** 14-DEC-09
Type: Reagent/Solvent **Expires:** 21-DEC-09
Employee: Paul Boyd
Supplier: GEL
Description: 2%HNO3/1%HCl Solution (Type I Water)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1100721TCLP	I-HNO3	69.0-70.0	180 mL	9 l	N/A
1207193	I-HCL	36.5-38.0	90 mL	9 l	N/A

Standard Logbook

Serial ID: 1242318 **Opened:** 14-DEC-09 **Amount :** 20 L
Name: B-ICP-RINSE SOLN **Received:** 01-DEC-09 **Lot Number :** H04040+G34050
Type: Reagent/Solvent **Expires:** 20-DEC-09 **Solvent :** 3%HCL+1%HNO3
Employee: Helen Camello
Supplier: GEL
Description: 3%HCL+1%HNO3 RINSE SOLN.
Comments: None

Serial ID: 1244904-C **Opened:** 18-DEC-09 **Balance Id :** BAL-002
Name: B-KMnO4-MER **Received:** 18-DEC-09
Type: Reagent/Solvent **Expires:** 18-JUN-10
Employee: Tara Griffin
Supplier: GEL
Description: 5% KMnO4 solution
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1156689-A	B-KMnO4(VWR)-MER	Crystals	50 g	1000 mL	3%

Serial ID: 1245511 **Opened:** 21-DEC-09 **Amount :** 20 L
Name: B-ICP-RINSE SOLN **Received:** 21-DEC-09 **Lot Number :** H04040+G34050
Type: Reagent/Solvent **Expires:** 28-DEC-09 **Solvent :** 3%HCL+1%HNO3
Employee: Louise Smith
Supplier: GEL
Description: 3%HCL+1%HNO3 RINSE SOLN.
Comments: None

Metals Analysis

Case Narrative

Metals Fractional Narrative
Los Alamos National Laboratory (LANL)
SDG 10-939-1

Sample Analysis

Sample ID	Client ID
243010001	WST03-10-2147
1201999910	Tumbling Blank (TB)
1201999929	Tumbling Blank (TB)
1202000741	Method Blank (MB) **ICP-MS**
1202000742	Laboratory Control Sample (LCS)
1202000745	243010001(WST03-10-2147L) Serial Dilution (SD)
1202000743	243010001(WST03-10-2147D) Sample Duplicate (DUP)
1201999908	243010001(WST03-10-2147S) Matrix Spike (MS)
1201999913	Tumbling Blank (TB)
1202001139	Method Blank (MB) **CVAA**
1202001140	Laboratory Control Sample (LCS)
1202001144	243010001(WST03-10-2147L) Serial Dilution (SD)
1202001141	243010001(WST03-10-2147D) Sample Duplicate (DUP)
1201999911	243010001(WST03-10-2147S) Matrix Spike (MS)

The samples in this SDG were analyzed on an "as received" basis.

Method/Analysis Information

Analytical Batch:	935115 and 935282
Prep Batch :	935114 and 935279
TCLP Prep Batch :	934759 and 934760
Standard Operating Procedures:	GL-MA-E-014 REV# 20, GL-MA-E-008 REV# 13, GL-LB-E-006 REV# 13 and GL-MA-E-010 REV# 23
Analytical Method:	SW846 3010/6020 and SW846 7470A
Prep Method :	SW846 3010A and SW846 7470A Prep
TCLP Prep Method :	SW846 1311

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

System Configuration

The Metals analysis - ICPMS was performed on a Perkin Elmer ELAN 6100E inductively coupled plasma mass spectrometer (ICP-MS). The instrument is equipped with a cross-flow nebulizer, quadrupole mass spectrometer, and dual mode electron multiplier detector. Internal standards of scandium, germanium, indium, tantalum, and/or lutetium were utilized to cover the mass spectrum. Operating conditions are set at 1400W power and combined argon pressures of 360+/-7 kPa for the plasma and auxiliary gases, and 0.85 L/min carrier gas flow, and an initial lens voltage of 5.2.

The Metals analysis-Mercury was performed on a Perkin-Elmer Flow Injection Mercury System (FIMS-100) automated mercury analyzer. The instrument consists of a cold vapor atomic absorption spectrometer set to detect mercury at a wavelength of 253.7 nm. Sample introduction through the flow injection system is performed via a peristaltic pump at 9 mL/min and nitrogen carrier gas rate of 80 mL/min.

Calibration Information

Instrument Calibration
All initial calibration requirements have been met for this sample delivery group (SDG).

CRDL Requirements
All CRDL standard(s) met the referenced advisory control limits.

ICSA/ICSAB Statement
All interference check samples (ICSA and ICSAB) associated with this SDG met the established acceptance criteria.

Continuing Calibration Blank (CCB) Requirements
All continuing calibration blanks (CCB) bracketing this batch met the established acceptance criteria.

Continuing Calibration Verification (CCV) Requirements
All continuing calibration verifications (CCV) bracketing this SDG met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MBs analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

Quality Control (QC) Sample Statement
The following sample was selected as the quality control (QC) sample for this SDG: 243010001 (WST03-10-2147)-ICP-MS and CVAA.

Matrix Spike (MS) Recovery Statement
The percent recoveries (%R) obtained from the MS analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. All applicable elements met the acceptance criteria.

Duplicate Relative Percent Difference (RPD) Statement
The RPD obtained from the designated sample duplicate (DUP) is evaluated based on acceptance criteria of 20% when the sample is >5X the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control of +/-RL is used to evaluate the DUP results. All applicable analytes met these requirements.

Serial Dilution % Difference Statement
The serial dilution is used to assess matrix suppression or enhancement. Raw element concentrations that are 25X the IDL/MDL for CVAA, 50X the IDL/MDL for ICP, and 100X the IDL/MDL for ICP-MS analyses are applicable for serial dilution assessment. All applicable analytes met the acceptance criteria of less than 10% difference (%D).

Technical Information

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Sample Dilutions
Dilutions are performed to minimize matrix interferences resulting from elevated mineral element concentrations present in solid samples and/or to bring over range target analyte concentrations into the linear calibration range of the instrument. The samples in this SDG did not require dilutions.

Preparation Information
The samples and associated matrix QC were prepared at a 10x factor for ICP/ICPMS to minimize potential interferences arising from the high sodium content in the TCLP leaching solution. The samples and associated matrix QC were prepared at a 10x factor for CVAA analysis because larger volumes of this matrix consume excessive amounts of potassium permanganate.

Miscellaneous Information

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Nonconformance Documentation
Nonconformance reports (NCRs) are generated to document procedural anomalies that may deviate from referenced SOP or contractual documents. A nonconformance report (NCR) was not generated for this SDG.

Additional Comments
Barium was present in the TB as a low-level background contaminate. Barium is a common metal found in the acid-washed extraction filters. The RCRA limit for Ba is 100 mg/L, so the data is not adversely impacted.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Nik-Cole A. Elmore **Date:** 12-28-09

Sample Data Summary

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-939-1 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 243010001 **BASIS:** As Received **DATE COLLECTED** 14-DEC-09

CLIENT ID: WST03-10-2147 **LEVEL:** Low **DATE RECEIVED** 16-DEC-09

MATRIX: TCLP **%SOLIDS:** 0

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7440-38-2	Arsenic	0.0355	mg/L	J	0.016	0.05	0.05	1	MS	BAJ	12/21/09 19:27	091221-1	935115
7440-39-3	Barium	0.850	mg/L		0.006	0.02	0.02	1	MS	BAJ	12/21/09 19:27	091221-1	935115
7440-43-9	Cadmium	0.010	mg/L	U	0.0011	0.01	0.01	1	MS	BAJ	12/21/09 19:27	091221-1	935115
7440-47-3	Chromium	0.0257	mg/L	J	0.02	0.1	0.1	1	MS	BAJ	12/21/09 19:27	091221-1	935115
7439-92-1	Lead	0.020	mg/L	U	0.005	0.02	0.02	1	MS	BAJ	12/21/09 19:27	091221-1	935115
7439-97-6	Mercury	0.000808	mg/L	J	0.00066	0.002	0.002	1	AV	JXL1	12/22/09 11:38	122209W1-2	935282
7782-49-2	Selenium	0.050	mg/L	U	0.01	0.05	0.05	1	MS	BAJ	12/21/09 19:27	091221-1	935115
7440-22-4	Silver	0.010	mg/L	U	0.002	0.01	0.01	1	MS	BAJ	12/21/09 19:27	091221-1	935115

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
935115	935114	SW846 3010A	5	mL	50	mL	12/21/09	AXG2
935282	935279	SW846 7470A Prep	2	mL	20	mL	12/21/09	TXB3

Quality Control Summary

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-939-1

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS3,MER536

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
ICV01										
	Arsenic	48.9	ug/L	50	ug/L	97.7	90.0 – 110.0	MS	21-DEC-09 16:17	091221-1
	Barium	51.6	ug/L	50	ug/L	103.2	90.0 – 110.0	MS	21-DEC-09 16:17	091221-1
	Cadmium	52.1	ug/L	50	ug/L	104.2	90.0 – 110.0	MS	21-DEC-09 16:17	091221-1
	Chromium	49.8	ug/L	50	ug/L	99.5	90.0 – 110.0	MS	21-DEC-09 16:17	091221-1
	Lead	51.6	ug/L	50	ug/L	103.3	90.0 – 110.0	MS	21-DEC-09 16:17	091221-1
	Selenium	52	ug/L	50	ug/L	104.1	90.0 – 110.0	MS	21-DEC-09 16:17	091221-1
	Silver	50.8	ug/L	50	ug/L	101.6	90.0 – 110.0	MS	21-DEC-09 16:17	091221-1
	Mercury	5.12	ug/L	5	ug/L	102.5	90.0 – 110.0	AV	22-DEC-09 09:51	122209W1-2
CCV01										
	Arsenic	48.9	ug/L	50	ug/L	97.7	90.0 – 110.0	MS	21-DEC-09 16:45	091221-1
	Barium	51.8	ug/L	50	ug/L	103.5	90.0 – 110.0	MS	21-DEC-09 16:45	091221-1
	Cadmium	53.2	ug/L	50	ug/L	106.4	90.0 – 110.0	MS	21-DEC-09 16:45	091221-1
	Chromium	52.2	ug/L	50	ug/L	104.3	90.0 – 110.0	MS	21-DEC-09 16:45	091221-1
	Lead	52.6	ug/L	50	ug/L	105.2	90.0 – 110.0	MS	21-DEC-09 16:45	091221-1
	Selenium	51.3	ug/L	50	ug/L	102.6	90.0 – 110.0	MS	21-DEC-09 16:45	091221-1
	Silver	51.5	ug/L	50	ug/L	103.1	90.0 – 110.0	MS	21-DEC-09 16:45	091221-1
	Mercury	5.04	ug/L	5	ug/L	100.8	80.0 – 120.0	AV	22-DEC-09 09:57	122209W1-2
CCV02										
	Arsenic	48.7	ug/L	50	ug/L	97.4	90.0 – 110.0	MS	21-DEC-09 17:03	091221-1
	Barium	51.8	ug/L	50	ug/L	103.5	90.0 – 110.0	MS	21-DEC-09 17:03	091221-1
	Cadmium	52.4	ug/L	50	ug/L	104.9	90.0 – 110.0	MS	21-DEC-09 17:03	091221-1
	Chromium	51.9	ug/L	50	ug/L	103.9	90.0 – 110.0	MS	21-DEC-09 17:03	091221-1
	Lead	52.3	ug/L	50	ug/L	104.7	90.0 – 110.0	MS	21-DEC-09 17:03	091221-1
	Selenium	52	ug/L	50	ug/L	103.9	90.0 – 110.0	MS	21-DEC-09 17:03	091221-1
	Silver	51.4	ug/L	50	ug/L	102.7	90.0 – 110.0	MS	21-DEC-09 17:03	091221-1
	Mercury	5.09	ug/L	5	ug/L	101.8	80.0 – 120.0	AV	22-DEC-09 10:21	122209W1-2
CCV03										
	Arsenic	48.9	ug/L	50	ug/L	97.8	90.0 – 110.0	MS	21-DEC-09 18:00	091221-1
	Barium	51.9	ug/L	50	ug/L	103.8	90.0 – 110.0	MS	21-DEC-09 18:00	091221-1
	Cadmium	51.4	ug/L	50	ug/L	102.8	90.0 – 110.0	MS	21-DEC-09 18:00	091221-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-939-1

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS3,MER536

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Chromium	50.2	ug/L	50	ug/L	100.5	90.0 - 110.0	MS	21-DEC-09 18:00	091221-1
	Lead	51.9	ug/L	50	ug/L	103.8	90.0 - 110.0	MS	21-DEC-09 18:00	091221-1
	Selenium	54.7	ug/L	50	ug/L	109.4	90.0 - 110.0	MS	21-DEC-09 18:00	091221-1
	Silver	51.2	ug/L	50	ug/L	102.4	90.0 - 110.0	MS	21-DEC-09 18:00	091221-1
	Mercury	5.14	ug/L	5	ug/L	102.9	80.0 - 120.0	AV	22-DEC-09 10:45	122209W1-2
CCV04										
	Arsenic	49.9	ug/L	50	ug/L	99.8	90.0 - 110.0	MS	21-DEC-09 18:52	091221-1
	Barium	52.7	ug/L	50	ug/L	105.4	90.0 - 110.0	MS	21-DEC-09 18:52	091221-1
	Cadmium	51.5	ug/L	50	ug/L	102.9	90.0 - 110.0	MS	21-DEC-09 18:52	091221-1
	Chromium	50.2	ug/L	50	ug/L	100.4	90.0 - 110.0	MS	21-DEC-09 18:52	091221-1
	Lead	51.9	ug/L	50	ug/L	103.9	90.0 - 110.0	MS	21-DEC-09 18:52	091221-1
	Selenium	52.6	ug/L	50	ug/L	105.3	90.0 - 110.0	MS	21-DEC-09 18:52	091221-1
	Silver	51.5	ug/L	50	ug/L	102.9	90.0 - 110.0	MS	21-DEC-09 18:52	091221-1
	Mercury	5.36	ug/L	5	ug/L	107.1	80.0 - 120.0	AV	22-DEC-09 11:08	122209W1-2
CCV05										
	Arsenic	49.9	ug/L	50	ug/L	99.7	90.0 - 110.0	MS	21-DEC-09 19:50	091221-1
	Barium	52.7	ug/L	50	ug/L	105.5	90.0 - 110.0	MS	21-DEC-09 19:50	091221-1
	Cadmium	51.9	ug/L	50	ug/L	103.7	90.0 - 110.0	MS	21-DEC-09 19:50	091221-1
	Chromium	51.6	ug/L	50	ug/L	103.1	90.0 - 110.0	MS	21-DEC-09 19:50	091221-1
	Lead	52.3	ug/L	50	ug/L	104.5	90.0 - 110.0	MS	21-DEC-09 19:50	091221-1
	Selenium	50.8	ug/L	50	ug/L	101.6	90.0 - 110.0	MS	21-DEC-09 19:50	091221-1
	Silver	51.8	ug/L	50	ug/L	103.6	90.0 - 110.0	MS	21-DEC-09 19:50	091221-1
	Mercury	5.03	ug/L	5	ug/L	100.6	80.0 - 120.0	AV	22-DEC-09 11:32	122209W1-2
CCV06										
	Mercury	5.09	ug/L	5	ug/L	101.9	80.0 - 120.0	AV	22-DEC-09 11:56	122209W1-2

METALS
–2b–
CRDL Standard for AA & ICP

SDG No: 10–939–1

Contract: LANL01004 **Lab Code:** GEL

AA CRDL Standard Source: SPEX

ICP CRDL Standard Source Solutions Plus

Instrument ID: ICPMS3,MER536

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Advisory Limits (%R)	M	Analysis Date/Time	Run Number
CRDL01										
	Lead	2.19	ug/L	2	ug/L	109.4	70.0 – 130.0	MS	21–DEC–09 16:28	091221–1
	Silver	1.04	ug/L	1	ug/L	104.4	70.0 – 130.0	MS	21–DEC–09 16:28	091221–1
	Arsenic	5.95	ug/L	5	ug/L	118.9	70.0 – 130.0	MS	21–DEC–09 16:28	091221–1
	Barium	2.16	ug/L	2	ug/L	108.1	70.0 – 130.0	MS	21–DEC–09 16:28	091221–1
	Cadmium	1.08	ug/L	1	ug/L	107.6	70.0 – 130.0	MS	21–DEC–09 16:28	091221–1
	Chromium	10.8	ug/L	10	ug/L	108.4	70.0 – 130.0	MS	21–DEC–09 16:28	091221–1
	Selenium	5.18	ug/L	5	ug/L	103.6	70.0 – 130.0	MS	21–DEC–09 16:28	091221–1
	Mercury	.192	ug/L	.2	ug/L	95.9	70.0 – 130.0	AV	22–DEC–09 09:55	122209W1–2

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–939–1

Contract: LANL01004 **Lab Code: GEL**

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
ICB01										
	Arsenic	1.6	+/–5	U	1.6	5.0	LIQ	MS	21–DEC–09 16:23	091221–1
	Barium	0.6	+/–2	U	0.6	2.0	LIQ	MS	21–DEC–09 16:23	091221–1
	Cadmium	0.11	+/–1	U	0.11	1.0	LIQ	MS	21–DEC–09 16:23	091221–1
	Chromium	2.0	+/–10	U	2.0	10.0	LIQ	MS	21–DEC–09 16:23	091221–1
	Lead	0.5	+/–2	U	0.5	2.0	LIQ	MS	21–DEC–09 16:23	091221–1
	Selenium	1.0	+/–5	U	1.0	5.0	LIQ	MS	21–DEC–09 16:23	091221–1
	Silver	0.2	+/–1	U	0.2	1.0	LIQ	MS	21–DEC–09 16:23	091221–1
	Mercury	0.066	+/–.2	U	0.066	0.2	LIQ	AV	22–DEC–09 09:53	122209W1–2
CCB01										
	Arsenic	1.6	+/–5	U	1.6	5.0	LIQ	MS	21–DEC–09 16:51	091221–1
	Barium	0.6	+/–2	U	0.6	2.0	LIQ	MS	21–DEC–09 16:51	091221–1
	Cadmium	0.11	+/–1	U	0.11	1.0	LIQ	MS	21–DEC–09 16:51	091221–1
	Chromium	2.0	+/–10	U	2.0	10.0	LIQ	MS	21–DEC–09 16:51	091221–1
	Lead	0.5	+/–2	U	0.5	2.0	LIQ	MS	21–DEC–09 16:51	091221–1
	Selenium	1.0	+/–5	U	1.0	5.0	LIQ	MS	21–DEC–09 16:51	091221–1
	Silver	0.2	+/–1	U	0.2	1.0	LIQ	MS	21–DEC–09 16:51	091221–1
	Mercury	0.066	+/–.2	U	0.066	0.2	LIQ	AV	22–DEC–09 09:59	122209W1–2
CCB02										
	Arsenic	1.6	+/–5	U	1.6	5.0	LIQ	MS	21–DEC–09 17:08	091221–1
	Barium	0.6	+/–2	U	0.6	2.0	LIQ	MS	21–DEC–09 17:08	091221–1
	Cadmium	0.11	+/–1	U	0.11	1.0	LIQ	MS	21–DEC–09 17:08	091221–1
	Chromium	2.0	+/–10	U	2.0	10.0	LIQ	MS	21–DEC–09 17:08	091221–1
	Lead	0.5	+/–2	U	0.5	2.0	LIQ	MS	21–DEC–09 17:08	091221–1
	Selenium	1.0	+/–5	U	1.0	5.0	LIQ	MS	21–DEC–09 17:08	091221–1
	Silver	0.2	+/–1	U	0.2	1.0	LIQ	MS	21–DEC–09 17:08	091221–1
	Mercury	0.066	+/–.2	U	0.066	0.2	LIQ	AV	22–DEC–09 10:23	122209W1–2
CCB03										
	Arsenic	1.6	+/–5	U	1.6	5.0	LIQ	MS	21–DEC–09 18:06	091221–1
	Barium	0.6	+/–2	U	0.6	2.0	LIQ	MS	21–DEC–09 18:06	091221–1
	Cadmium	0.11	+/–1	U	0.11	1.0	LIQ	MS	21–DEC–09 18:06	091221–1
	Chromium	2.0	+/–10	U	2.0	10.0	LIQ	MS	21–DEC–09 18:06	091221–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–939–1

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Lead	0.5	+/–2	U	0.5	2.0	LIQ	MS	21–DEC–09 18:06	091221–1
	Selenium	1.0	+/–5	U	1.0	5.0	LIQ	MS	21–DEC–09 18:06	091221–1
	Silver	0.2	+/–1	U	0.2	1.0	LIQ	MS	21–DEC–09 18:06	091221–1
	Mercury	0.066	+/–.2	U	0.066	0.2	LIQ	AV	22–DEC–09 10:47	122209W1–2
CCB04										
	Arsenic	1.6	+/–5	U	1.6	5.0	LIQ	MS	21–DEC–09 18:58	091221–1
	Barium	0.6	+/–2	U	0.6	2.0	LIQ	MS	21–DEC–09 18:58	091221–1
	Cadmium	0.11	+/–1	U	0.11	1.0	LIQ	MS	21–DEC–09 18:58	091221–1
	Chromium	2.0	+/–10	U	2.0	10.0	LIQ	MS	21–DEC–09 18:58	091221–1
	Lead	0.5	+/–2	U	0.5	2.0	LIQ	MS	21–DEC–09 18:58	091221–1
	Selenium	1.0	+/–5	U	1.0	5.0	LIQ	MS	21–DEC–09 18:58	091221–1
	Silver	0.2	+/–1	U	0.2	1.0	LIQ	MS	21–DEC–09 18:58	091221–1
	Mercury	0.066	+/–.2	U	0.066	0.2	LIQ	AV	22–DEC–09 11:10	122209W1–2
CCB05										
	Arsenic	1.6	+/–5	U	1.6	5.0	LIQ	MS	21–DEC–09 19:56	091221–1
	Barium	0.6	+/–2	U	0.6	2.0	LIQ	MS	21–DEC–09 19:56	091221–1
	Cadmium	0.11	+/–1	U	0.11	1.0	LIQ	MS	21–DEC–09 19:56	091221–1
	Chromium	2.0	+/–10	U	2.0	10.0	LIQ	MS	21–DEC–09 19:56	091221–1
	Lead	0.5	+/–2	U	0.5	2.0	LIQ	MS	21–DEC–09 19:56	091221–1
	Selenium	1.0	+/–5	U	1.0	5.0	LIQ	MS	21–DEC–09 19:56	091221–1
	Silver	0.2	+/–1	U	0.2	1.0	LIQ	MS	21–DEC–09 19:56	091221–1
	Mercury	0.066	+/–.2	U	0.066	0.2	LIQ	AV	22–DEC–09 11:34	122209W1–2
CCB06										
	Mercury	0.066	+/–.2	U	0.066	0.2	LIQ	AV	22–DEC–09 11:58	122209W1–2

METALS
-3b-
PREPARATION BLANK SUMMARY

SDG NO. 10-939-1

Contract: LANL01004

Matrix: TCLP

Sample ID	Analyte	Result	Units	Acceptance Window	Conc Qual	M	MDL	RDL
1201999910								
	Arsenic	0.0264	mg/L	+/-0.05	J	MS	0.016	0.05
	Barium	0.0415	mg/L	+/-0.02		MS	0.006	0.02
	Cadmium	0.0011	mg/L	+/-0.01	U	MS	0.0011	0.01
	Chromium	0.0243	mg/L	+/-0.1	J	MS	0.02	0.1
	Silver	0.002	mg/L	+/-0.01	U	MS	0.002	0.01
	Selenium	0.01	mg/L	+/-0.05	U	MS	0.01	0.05
	Lead	0.005	mg/L	+/-0.02	U	MS	0.005	0.02
1201999913								
	Mercury	0.00066	mg/L	+/-0.002	U	AV	0.00066	0.002
1201999929								
	Arsenic	0.0293	mg/L	+/-0.05	J	MS	0.016	0.05
	Barium	0.0417	mg/L	+/-0.02		MS	0.006	0.02
	Cadmium	0.0011	mg/L	+/-0.01	U	MS	0.0011	0.01
	Chromium	0.0229	mg/L	+/-0.1	J	MS	0.02	0.1
	Lead	0.005	mg/L	+/-0.02	U	MS	0.005	0.02
	Selenium	0.01	mg/L	+/-0.05	U	MS	0.01	0.05
	Silver	0.002	mg/L	+/-0.01	U	MS	0.002	0.01
1202000741								
	Arsenic	0.0338	mg/L	+/-0.05	J	MS	0.016	0.05
	Barium	0.006	mg/L	+/-0.02	U	MS	0.006	0.02
	Cadmium	0.0011	mg/L	+/-0.01	U	MS	0.0011	0.01
	Chromium	0.02	mg/L	+/-0.1	U	MS	0.02	0.1
	Lead	0.005	mg/L	+/-0.02	U	MS	0.005	0.02
	Selenium	0.01	mg/L	+/-0.05	U	MS	0.01	0.05
	Silver	0.002	mg/L	+/-0.01	U	MS	0.002	0.01
1202001139								
	Mercury	0.00066	mg/L	+/-0.002	U	AV	0.00066	0.002

METALS
–4–
Interference Check Sample

SDG No: 10–939–1

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: ICPMS3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Arsenic	0.215	ug/L					21–DEC–09 16:34	091221–1
	Barium	0.641	ug/L					21–DEC–09 16:34	091221–1
	Cadmium	0.33	ug/L					21–DEC–09 16:34	091221–1
	Chromium	3.31	ug/L					21–DEC–09 16:34	091221–1
	Lead	0.176	ug/L					21–DEC–09 16:34	091221–1
	Selenium	–0.81	ug/L					21–DEC–09 16:34	091221–1
	Silver	0.054	ug/L					21–DEC–09 16:34	091221–1
ICSAB01									
	Arsenic	21.5	ug/L	20	ug/L	108	80.0 – 120.0	21–DEC–09 16:40	091221–1
	Barium	20.2	ug/L	20.67	ug/L	97.8	80.0 – 120.0	21–DEC–09 16:40	091221–1
	Cadmium	21.0	ug/L	20.4	ug/L	103	80.0 – 120.0	21–DEC–09 16:40	091221–1
	Chromium	23.5	ug/L	23.7	ug/L	99	80.0 – 120.0	21–DEC–09 16:40	091221–1
	Lead	19.9	ug/L	20.5	ug/L	97	80.0 – 120.0	21–DEC–09 16:40	091221–1
	Selenium	21.0	ug/L	20	ug/L	105	80.0 – 120.0	21–DEC–09 16:40	091221–1
	Silver	20.0	ug/L	20	ug/L	99.9	80.0 – 120.0	21–DEC–09 16:40	091221–1

METALS
-5a-
Matrix Spike Summary

SDG NO. 10-939-1 **Client ID** WST03-10-2147S

Contract: LANL01004 **Level:** Low

Matrix: TCLP **% Solids:**

Sample ID: 243010001 **Spike ID:** 1201999908

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Arsenic	mg/L	75-125	4.99		0.0355	J	5.26	94.2		MS
Barium	mg/L	75-125	10.6		0.85		10.5	92.3		MS
Cadmium	mg/L	75-125	1.03		0.0011	U	1.05	97.9		MS
Chromium	mg/L	75-125	5.02		0.0257	J	5.26	95		MS
Lead	mg/L	75-125	4.8		0.005	U	5.26	91.2		MS
Selenium	mg/L	75-125	1.04		0.01	U	1.05	98.3		MS
Silver	mg/L	75-125	.471		0.002	U	.526	89.5		MS

METALS
–5a–
Matrix Spike Summary

SDG NO. 10–939–1 **Client ID** WST03–10–2147S

Contract: LANL01004 **Level:** Low

Matrix: TCLP **% Solids:**

Sample ID: 243010001 **Spike ID:** 1201999911

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Mercury	mg/L	75–125	.0175		0.000808	J	.02	83.5		AV

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–939–1

Contract: LANL01004 **Lab Code:** GEL

Matrix: TCLP **Level:** Low **Client ID:** WST03–10–2147D

Sample ID: 243010001 **Duplicate ID:** 1202000743 **Percent Solids for Dup:** N/A

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Arsenic	mg/L	+/–.05	0.0355	J	0.0287	J	21.2		MS
Barium	mg/L	+/–20%	0.85		0.895		5.14		MS
Cadmium	mg/L		0.0011	U	0.0011	U			MS
Chromium	mg/L	+/–.1	0.0257	J	0.028	J	8.57		MS
Lead	mg/L		0.005	U	0.005	U			MS
Selenium	mg/L		0.01	U	0.01	U			MS
Silver	mg/L		0.002	U	0.002	U			MS

Metals
-6-
Duplicate Sample Summary

SDG No.: 10-939-1

Contract: LANL01004 **Lab Code:** GEL

Matrix: TCLP **Level:** Low **Client ID:** WST03-10-2147D

Sample ID: 243010001 **Duplicate ID:** 1202001141 **Percent Solids for Dup:** N/A

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Mercury	mg/L		0.000808	J	0.00066	U	200		AV

METALS
–7–
Laboratory Control Sample Summary

SDG NO. 10–939–1

Contract: LANL01004

Aqueous LCS Source:O2si **Solid LCS Source:**

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202000742								
	Arsenic	mg/L	.5	.519		104	80–120	MS
	Barium	mg/L	.5	.487		97.3	80–120	MS
	Cadmium	mg/L	.5	.502		100	80–120	MS
	Chromium	mg/L	.5	.513		103	80–120	MS
	Lead	mg/L	.5	.502		100	80–120	MS
	Selenium	mg/L	.5	.488		97.6	80–120	MS
	Silver	mg/L	.5	.505		101	80–120	MS

METALS
-7-
Laboratory Control Sample Summary

SDG NO. 10-939-1

Contract: LANL01004

Aqueous LCS Source: GEL **Solid LCS Source:**

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202001140								
	Mercury	mg/L	.02	.0221		111	80-120	AV

METALS
-9-
Serial Dilution Sample Summary

SDG NO. 10-939-1 **Client ID** WST03-10-2147L

Contract: LANL01004

Matrix: TCLP **Level:** Low

Sample ID: 243010001 **Serial Dilution ID:** 1202000745

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Arsenic	3.55	J	8	U	100			MS
Barium	85		88		3.53		10	MS
Cadmium	.11	U	.55	U				MS
Chromium	2.57	J	10	U	100			MS
Lead	.5	U	2.5	U				MS
Selenium	1	U	5	U				MS
Silver	.2	U	1	U				MS

METALS
–9–
Serial Dilution Sample Summary

SDG NO. 10–939–1 **Client ID** WST03–10–2147L

Contract: LANL01004

Matrix: TCLP **Level:** Low

Sample ID: 243010001 **Serial Dilution ID:** 1202001144

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Mercury	.0808	J	.33	U	100			AV

METALS
-13-
SAMPLE PREPARATION SUMMARY

SDG No: 10-939-1 **Method Type:** MS

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number	935114						
1202000741	MB for batch 935114	MB	TCLP	21-DEC-09	5mL	50mL	
1201999910	TB for batch 934759	TB	TCLP	21-DEC-09	5mL	50mL	
1201999929	TB for batch 934759	TB	TCLP	21-DEC-09	5mL	50mL	
1202000742	LCS for batch 935114	LCS	TCLP	21-DEC-09	5mL	50mL	
1201999908	WST03-10-2147S	MS	TCLP	21-DEC-09	5mL	50mL	
1202000743	WST03-10-2147D	DUP	TCLP	21-DEC-09	5mL	50mL	
243010001	WST03-10-2147	SAMPLE	TCLP	21-DEC-09	5mL	50mL	

METALS
-13-
SAMPLE PREPARATION SUMMARY

SDG No: 10-939-1 **Method Type**: AV

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number	935279						
1202001139	MB for batch 935279	MB	TCLP	21-DEC-09	2mL	20mL	
1201999913	TB for batch 934760	TB	TCLP	21-DEC-09	2mL	20mL	
1202001140	LCS for batch 935279	LCS	TCLP	21-DEC-09	2mL	20mL	
1201999911	WST03-10-2147S	MS	TCLP	21-DEC-09	2mL	20mL	
1202001141	WST03-10-2147D	DUP	TCLP	21-DEC-09	2mL	20mL	
243010001	WST03-10-2147	SAMPLE	TCLP	21-DEC-09	2mL	20mL	

Metals
-14-
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: MER536
Start Date: 22-DEC-09 **End Date:** 22-DEC-09

Client Sdg: 10-939-1
Method AV
Data File: 122209W1-2

Samp No.	D/F	Run Time	As	Ba	Cd	Cr	Pb	Hg	Se	Ag
S0.0	1	09:39						X		
S0.2	1	09:41						X		
S0.5	1	09:43						X		
S2.0	1	09:45						X		
S5.0	1	09:47						X		
S10	1	09:49						X		
ICV01	1	09:51						X		
ICB01	1	09:53						X		
CRDL01	1	09:55						X		
CCV01	1	09:57						X		
CCB01	1	09:59						X		
ZZZZZZ	1	10:01								
ZZZZZZ	1	10:03								
ZZZZZZ	1	10:05								
ZZZZZZ	1	10:07								
ZZZZZZ	1	10:09								
ZZZZZZ	5	10:11								
ZZZZZZ	1	10:13								
ZZZZZZ	1	10:15								
ZZZZZZ	1	10:17								
ZZZZZZ	1	10:19								
CCV02	1	10:21						X		
CCB02	1	10:23						X		
ZZZZZZ	1	10:25								
ZZZZZZ	5	10:27								
ZZZZZZ	1	10:29								
ZZZZZZ	1	10:31								
ZZZZZZ	1	10:33								
ZZZZZZ	1	10:35								
ZZZZZZ	1	10:37								
ZZZZZZ	1	10:39								
ZZZZZZ	1	10:41								
ZZZZZZ	1	10:43								
CCV03	1	10:45						X		
CCB03	1	10:47						X		
ZZZZZZ	1	10:49								
ZZZZZZ	1	10:51								
ZZZZZZ	1	10:53								
ZZZZZZ	5	10:55								
ZZZZZZ	1	10:57								

Metals
-14-
Analysis Run Log

Samp No.	D/F	Run Time								
ZZZZZZ	1	10:59								
ZZZZZZ	1	11:00								
ZZZZZZ	1	11:02								
ZZZZZZ	1	11:04								
ZZZZZZ	1	11:06								
CCV04	1	11:08						X		
CCB04	1	11:10						X		
ZZZZZZ	5	11:12								
ZZZZZZ	1	11:14								
ZZZZZZ	1	11:16								
ZZZZZZ	1	11:18								
ZZZZZZ	1	11:20								
ZZZZZZ	1	11:23								
ZZZZZZ	5	11:25								
1201999913	1	11:26						X		
ZZZZZZ	1	11:28								
1202001139	1	11:30						X		
CCV05	1	11:32						X		
CCB05	1	11:34						X		
1202001140	1	11:36						X		
243010001	1	11:38						X		
1201999911	1	11:40						X		
1202001141	1	11:42						X		
1202001144	5	11:44						X		
ZZZZZZ	1	11:46								
ZZZZZZ	1	11:48								
ZZZZZZ	1	11:50								
ZZZZZZ	1	11:52								
ZZZZZZ	1	11:54								
CCV06	1	11:56						X		
CCB06	1	11:58						X		

Metals
–14–
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: ICPMS3
Start Date: 21–DEC–09 **End Date:** 21–DEC–09

Client Sdg: 10–939–1
Method MS
Data File: 091221–1

Samp No.	D/F	Run Time	As	Ba	Cd	Cr	Pb	Hg	Se	Ag
S0.0	1	16:00	X	X	X	X	X		X	X
S10	1	16:05	X	X	X	X	X		X	X
S100	1	16:11	X	X	X	X	X		X	X
ICV01	1	16:17	X	X	X	X	X		X	X
ICB01	1	16:23	X	X	X	X	X		X	X
CRDL01	1	16:28	X	X	X	X	X		X	X
ICSA01	1	16:34	X	X	X	X	X		X	X
ICSAB01	1	16:40	X	X	X	X	X		X	X
CCV01	1	16:45	X	X	X	X	X		X	X
CCB01	1	16:51	X	X	X	X	X		X	X
LR01	1	16:57	X	X	X	X	X		X	X
CCV02	1	17:03	X	X	X	X	X		X	X
CCB02	1	17:08	X	X	X	X	X		X	X
ZZZZZZ	1	17:19								
ZZZZZZ	1	17:25								
ZZZZZZ	1	17:32								
ZZZZZZ	1	17:37								
ZZZZZZ	1	17:43								
ZZZZZZ	5	17:49								
ZZZZZZ	1	17:55								
CCV03	1	18:00	X	X	X	X	X		X	X
CCB03	1	18:06	X	X	X	X	X		X	X
ZZZZZZ	1	18:12								
ZZZZZZ	1	18:18								
ZZZZZZ	1	18:23								
ZZZZZZ	1	18:29								
ZZZZZZ	1	18:35								
ZZZZZZ	5	18:41								
ZZZZZZ	1	18:46								
CCV04	1	18:52	X	X	X	X	X		X	X
CCB04	1	18:58	X	X	X	X	X		X	X
1201999910	1	19:04	X	X	X	X	X		X	X
1201999929	1	19:09	X	X	X	X	X		X	X
1202000741	1	19:15	X	X	X	X	X		X	X
1202000742	1	19:21	X	X	X	X	X		X	X
243010001	1	19:27	X	X	X	X	X		X	X
1202000743	1	19:33	X	X	X	X	X		X	X
1201999908	1	19:38	X	X	X	X	X		X	X
1202000745	5	19:44	X	X	X	X	X		X	X
CCV05	1	19:50	X	X	X	X	X		X	X

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time								
CCB05	1	19:56	X	X	X	X	X		X	X

Standards

METALS
-10-
Instrument Detection Limits

SDG NO. 10-939-1

Contract: LANL01004 **Lab Code: GEL** **MDL Effective Date:** 01-JUL-09

ICP/MS	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
LIQUID	Arsenic		1.6	5
	Barium		0.6	2
	Cadmium		0.11	1
	Chromium		2.0	10
	Lead		0.5	2
	Selenium		1.0	5
	Silver		0.2	1

METALS
-10-
Instrument Detection Limits

SDG NO. 10-939-1

Contract: LANL01004 **Lab Code: GEL** **MDL Effective Date:** 01-JUL-09

MERCURY	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
LIQUID	Mercury		0.066	.2

METALS
-12-
Linear Ranges

SDG NO. 10-939-1

Contract: LANL01004 **Lab Code: GEL**

Instrument ID ICPMS3

Analyte	Integration Time (msec)	LDR	Units	Effective Date
Arsenic	1000	1000	ug/L	01-NOV-09
Barium	1000	1000	ug/L	01-NOV-09
Cadmium	1000	1000	ug/L	01-NOV-09
Chromium	1000	1000	ug/L	01-NOV-09
Lead	1000	5000	ug/L	01-NOV-09
Selenium	1000	500	ug/L	01-NOV-09
Silver	1000	250	ug/L	01-NOV-09

Raw Data

ICPMS#3 Daily Performance Report

Sample ID: Sample
Sample Date/Time: Monday, December 21, 2009 14:52:10
Sample Description:
Method File: c:\elandata\Method\daily2.mth
Dataset File: c:\elandata\Dataset\default\Sample.5249
Tuning File: c:\elandata\Tuning\default2.tun
Optimization File: c:\elandata\Optimize\default.dac
Dual Detector Mode: Pulse

Acq. Dead Time(ns): 35
Current Dead Time (ns): 35

Number of Replicates: 5

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Be	9.0	388.4	388.405	14.775	3.8
	Mg	24.0	2640.2	2640.244	56.291	2.1
	Co	58.9	11558.7	11558.674	91.832	0.8
	Rh	102.9	31628.0	31627.975	304.842	1.0
	In	114.9	45012.6	45012.606	304.729	0.7
	Pb	208.0	37600.0	37600.018	211.468	0.6
⌈>	Ba	137.9	39384.5	39384.490	492.792	1.3
⌊	Ba++	69.0	581.3	0.015	0.000	2.2
⌈>	Ce	139.9	49235.3	49235.304	478.614	1.0
⌊	CeO	155.9	727.9	0.015	0.000	1.2
	Bkgd	220.0	5.5	5.500	1.837	33.4

Current Optimization File Data

Current Value	Description
0.99	Nebulizer Gas Flow
7.50	Lens Voltage
1450.00	ICP RF Power
-1812.00	Analog Stage Voltage
950.00	Pulse Stage Voltage
70.00	Discriminator Threshold
-7.00	AC Rod Offset
60.00	Service DAC 1
0.00	Quadrupole Rod Offset

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	17	7.8	297.7
Co	59	17	9.0	11532.7
In	115	17	10.0	54488.7

ICPMS#3 Instrument Tuning Report

File Name: default2.tun
File Path: c:\elandata\Tuning

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas Peak W
He	3.0	3.0	584	2030	0.689
Be	9.0	9.0	2085	2010	0.753
Mg	24.0	24.0	5712	2090	0.658
Mg	25.0	24.9	5893	2010	0.647
Mg	26.0	26.0	6225	2110	0.690
Co	58.9	58.9	14196	2100	0.669
Rh	102.9	102.9	24914	2150	0.686
In	114.9	114.9	27824	2160	0.692
Ce	139.9	139.9	33915	2200	0.650
Pb	206.0	206.0	50016	2270	0.675
Pb	207.0	207.0	50282	2310	0.633
Pb	208.0	208.0	50498	2290	0.650
U	238.1	238.1	57844	2330	0.693

ICPMS#3 - Summary Report

Sample ID: Blank
Sample Date/Time: Monday, December 21, 2009 16:00:14
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\091220\Blank.252

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7		ug/L		7	
	Be	9		ug/L		3	
	B	11		ug/L		43	
	Na	23		ug/L		2000	
	Mg	24		ug/L		667	
	Al	27		ug/L		1000	
	P	31		ug/L		785	
	K	39		ug/L		113113	
	Ca	43		ug/L		65	
>	Sc	45		ug/L		62625	
	Ti	47		ug/L		65	
	V	51		ug/L		3651	
	Cr	52		ug/L		601	
	Cr	53		ug/L		21310	
	Mn	55		ug/L		244	
	Fe	57		ug/L		1858	
	Co	59		ug/L		124	
	Ni	60		ug/L		551	
	Cu	63		ug/L		199	
	Cu	65		ug/L		112	
	Zn	66		ug/L		60	
	Zn	67		ug/L		1156	
	Zn	68		ug/L		183	
>	Ge	74		ug/L		72691	
	As	75		ug/L		185	
	Se	77		ug/L		951	
	Se	82		ug/L		5	
	Kr	83		ug/L		25	
	Sr	88		ug/L		33	
	Y	89		ug/L		12	
	Zr	90		ug/L		175	
	Mo	98		ug/L		44	
	Ag	107		ug/L		10	
	Cd	111		ug/L		4	
	Cd	114		ug/L		8	
>	In	115		ug/L		59419	
	Sn	120		ug/L		86	
	Sb	121		ug/L		215	
	Sb	123		ug/L		166	
	Ba	135		ug/L		5	
	Ba	137		ug/L		14	
	Ho	165		ug/L		12	
>	Lu	175		ug/L		125382	
	Tl	205		ug/L		311	
	Pb	208		ug/L		67	
	Th	232		ug/L		397	
	U	238		ug/L		29	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	
Be	9	Linear Thru Zero	
B	11	Linear Thru Zero	
Na	23	Linear Thru Zero	
Mg	24	Linear Thru Zero	
Al	27	Linear Thru Zero	
P	31	Linear Thru Zero	
K	39	Linear Thru Zero	
Ca	43	Linear Thru Zero	
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	
V	51	Linear Thru Zero	
Cr	52	Linear Thru Zero	
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	
Fe	57	Linear Thru Zero	
Co	59	Linear Thru Zero	
Ni	60	Linear Thru Zero	
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	
Zn	66	Linear Thru Zero	
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	
Mo	98	Linear Thru Zero	
Ag	107	Linear Thru Zero	
Cd	111	Linear Thru Zero	
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	
Sb	121	Linear Thru Zero	
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	
Pb	208	Linear Thru Zero	
Th	232	Linear Thru Zero	
U	238	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45					
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115					
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175					
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Monday, December 21, 2009 16:05:57
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\091220\Standard 1.253

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	10.000	ug/L	8.348	443	0.007
	Be	9	10.000	ug/L	2.212	335	0.005
	B	11	20.000	ug/L	4.397	645	0.010
	Na	23	1000.000	ug/L	7.454	389592	6.298
	Mg	24	1000.000	ug/L	14.482	240026	3.890
	Al	27	1000.000	ug/L	6.855	453435	7.353
	P	31	1000.000	ug/L	1.142	31987	0.507
	K	39	1000.000	ug/L	8.291	767830	10.666
	Ca	43	1000.000	ug/L	0.342	1485	0.023
>	Sc	45		ug/L		61555	61554.614
	Ti	47	10.000	ug/L	1.029	798	0.012
	V	51	10.000	ug/L	11.992	12676	0.148
	Cr	52	10.000	ug/L	0.654	9662	0.147
	Cr	53		ug/L		22657	0.028
	Mn	55	10.000	ug/L	0.729	15425	0.247
	Fe	57	1000.000	ug/L	1.748	29759	0.454
	Co	59	10.000	ug/L	2.950	9624	0.154
	Ni	60	10.000	ug/L	2.727	2488	0.032
	Cu	63		ug/L		4521	0.070
	Cu	65	10.000	ug/L	5.138	2156	0.033
	Zn	66	10.000	ug/L	3.058	1472	0.019
	Zn	67		ug/L		1441	0.004
	Zn	68		ug/L		1329	0.016
>	Ge	74		ug/L		73203	73203.145
	As	75	10.000	ug/L	1.197	2368	0.030
	Se	77		ug/L		1047	0.001
	Se	82	10.000	ug/L	10.524	192	0.003
	Kr	83		ug/L		22	-0.000
	Sr	88	10.000	ug/L	1.263	24270	0.407
	Y	89		ug/L		12	-0.000
	Zr	90	10.000	ug/L	5.876	14732	0.244
	Mo	98	10.000	ug/L	1.969	6453	0.108
	Ag	107	10.000	ug/L	0.566	11466	0.192
	Cd	111	10.000	ug/L	1.140	2942	0.049
	Cd	114		ug/L		6908	0.116
>	In	115		ug/L		59586	59585.527
	Sn	120	10.000	ug/L	1.669	12748	0.213
	Sb	121	10.000	ug/L	5.185	11198	0.184
	Sb	123		ug/L		8554	0.141
	Ba	135		ug/L		3049	0.024
	Ba	137	10.000	ug/L	3.751	5328	0.043
	Ho	165		ug/L		13	0.000
>	Lu	175		ug/L		124918	124917.595
	Tl	205	10.000	ug/L	2.289	55517	0.442
	Pb	208	10.000	ug/L	2.331	65127	0.521
	Th	232	10.000	ug/L	2.960	76451	0.609
	U	238	10.000	ug/L	2.103	83964	0.672

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45					
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115					
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175					
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Monday, December 21, 2009 16:11:38
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\091220\Standard 2.254

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**100.056**	ug/L	2.487	4618	0.075
	Be	9	**100.040**	ug/L	4.338	3456	0.056
	B	11	**200.107**	ug/L	5.627	6392	0.103
	Na	23	**9988.466**	ug/L	14.072	3460602	56.400
	Mg	24	**10006.258**	ug/L	10.587	2549961	41.519
	Al	27	**9998.648**	ug/L	4.142	4458076	72.536
	P	31	**9999.779**	ug/L	1.936	311523	5.060
	K	39	**10003.765**	ug/L	5.703	6924174	110.879
	Ca	43	**9998.266**	ug/L	2.407	14004	0.227
>	Sc	45		ug/L		61425	61424.746
	Ti	47	**99.983**	ug/L	2.860	7262	0.117
	V	51	**99.908**	ug/L	2.970	86560	1.351
	Cr	52	**99.996**	ug/L	2.606	90736	1.468
	Cr	53		ug/L		32288	0.185
	Mn	55	**99.982**	ug/L	1.890	149047	2.423
	Fe	57	**9998.909**	ug/L	1.961	277496	4.489
	Co	59	**100.000**	ug/L	1.947	94943	1.544
	Ni	60	**99.950**	ug/L	1.415	19016	0.301
	Cu	63		ug/L		42145	0.683
	Cu	65	**99.985**	ug/L	1.011	20226	0.328
	Zn	66	**99.984**	ug/L	1.805	13969	0.190
	Zn	67		ug/L		3595	0.033
	Zn	68		ug/L		11358	0.153
>	Ge	74		ug/L		73268	73268.492
	As	75	**99.993**	ug/L	1.264	21879	0.296
	Se	77		ug/L		2245	0.018
	Se	82	**99.939**	ug/L	2.432	1768	0.024
	Kr	83		ug/L		26	0.000
	Sr	88	**99.999**	ug/L	1.329	241787	4.065
	Y	89		ug/L		27	0.000
	Zr	90	**99.921**	ug/L	2.295	134707	2.263
	Mo	98	**100.000**	ug/L	2.378	63990	1.075
	Ag	107	**99.989**	ug/L	0.574	113091	1.901
	Cd	111	**99.968**	ug/L	2.637	28406	0.478
	Cd	114		ug/L		68496	1.152
>	In	115		ug/L		59474	59474.271
	Sn	120	**100.006**	ug/L	3.218	127223	2.138
	Sb	121	**100.028**	ug/L	4.071	113025	1.897
	Sb	123		ug/L		87437	1.467
	Ba	135		ug/L		30505	0.239
	Ba	137	**99.979**	ug/L	2.175	53103	0.417
	Ho	165		ug/L		12	-0.000
>	Lu	175		ug/L		127352	127351.731
	Tl	205	**99.979**	ug/L	1.726	551402	4.327
	Pb	208	**99.975**	ug/L	0.301	647207	5.082
	Th	232	**100.004**	ug/L	1.257	778910	6.113
	U	238	**99.960**	ug/L	2.454	822530	6.459

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	0.9999
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45					
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115					
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175					
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Monday, December 21, 2009 16:17:19
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\091220\QC Std 1.255

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**50.596**	ug/L	1.750	2404	0.038
	Be	9	**50.411**	ug/L	3.324	1792	0.028
	B	11	**106.107**	ug/L	2.951	3505	0.055
	Na	23	**4664.119**	ug/L	10.426	1663336	26.336
	Mg	24	**5350.641**	ug/L	5.103	1402426	22.202
	Al	27	**4810.115**	ug/L	13.123	2202446	34.895
	P	31	**4866.292**	ug/L	3.508	156186	2.462
	K	39	**4998.430**	ug/L	5.084	3610422	55.401
	Ca	43	**4867.644**	ug/L	2.624	7040	0.111
>	Sc	45		ug/L		63119	63119.108
	Ti	47	**49.266**	ug/L	2.461	3712	0.058
	V	51	**49.645**	ug/L	2.471	46059	0.671
	Cr	52	**49.753**	ug/L	2.465	46700	0.730
	Cr	53		ug/L		27227	0.091
	Mn	55	**51.044**	ug/L	1.094	78331	1.237
	Fe	57	**4839.607**	ug/L	0.955	139005	2.173
	Co	59	**49.136**	ug/L	1.772	48006	0.759
	Ni	60	**51.210**	ug/L	1.704	10284	0.154
	Cu	63		ug/L		21839	0.343
	Cu	65	**49.773**	ug/L	1.383	10403	0.163
	Zn	66	**51.910**	ug/L	1.779	7329	0.099
	Zn	67		ug/L		2489	0.018
	Zn	68		ug/L		6099	0.080
>	Ge	74		ug/L		73751	73751.303
	As	75	**48.868**	ug/L	1.346	10859	0.145
	Se	77		ug/L		1611	0.009
	Se	82	**52.034**	ug/L	1.428	929	0.013
	Kr	83		ug/L		29	0.000
	Sr	88	**51.728**	ug/L	1.945	124490	2.103
	Y	89		ug/L		15	0.000
	Zr	90	**44.634**	ug/L	8.799	59939	1.011
	Mo	98	**50.821**	ug/L	1.991	32388	0.547
	Ag	107	**50.818**	ug/L	1.293	57207	0.966
	Cd	111	**52.089**	ug/L	2.044	14733	0.249
	Cd	114		ug/L		35095	0.593
>	In	115		ug/L		59188	59188.338
	Sn	120	**50.915**	ug/L	3.136	64495	1.089
	Sb	121	**51.005**	ug/L	7.879	57411	0.967
	Sb	123		ug/L		43951	0.740
	Ba	135		ug/L		15703	0.125
	Ba	137	**51.577**	ug/L	0.924	27028	0.215
	Ho	165		ug/L		16	0.000
>	Lu	175		ug/L		125622	125621.569
	Tl	205	**49.796**	ug/L	0.977	271042	2.155
	Pb	208	**51.631**	ug/L	0.812	329707	2.624
	Th	232	**52.685**	ug/L	0.508	404987	3.221
	U	238	**54.273**	ug/L	1.811	440480	3.507

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	0.9999
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7	101.192				
	Be	9	100.822				
	B	11	106.107				
	Na	23	93.282				
	Mg	24	107.013				
	Al	27	95.250				
	P	31	97.326				
	K	39	99.969				
	Ca	43	97.353				
>	Sc	45		100.8			
	Ti	47	98.531				
	V	51	99.289				
	Cr	52	99.505				
	Cr	53					
	Mn	55	102.088				
	Fe	57	96.792				
	Co	59	98.273				
	Ni	60	102.421				
	Cu	63					
	Cu	65	99.546				
	Zn	66	103.820				
	Zn	67					
	Zn	68					
>	Ge	74		101.5			
	As	75	97.736				
	Se	77					
	Se	82	104.068				
	Kr	83					
	Sr	88	103.456				
	Y	89					
	Zr	90	89.269				
	Mo	98	101.643				
	Ag	107	101.636				
	Cd	111	104.178				
	Cd	114					
>	In	115		99.6			
	Sn	120	101.830				
	Sb	121	102.010				
	Sb	123					
	Ba	135					
	Ba	137	103.153				
	Ho	165					
>	Lu	175		100.2			
	Tl	205	99.592				
	Pb	208	103.261				
	Th	232	105.371				
	U	238	108.546				

QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
QC Std 1	Zr	90ICV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#3 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Monday, December 21, 2009 16:23:03
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\091220\QC Std 2.256

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	0.025	ug/L	213.490	8	0.000
	Be	9	0.120	ug/L	88.756	7	0.000
	B	11	4.712	ug/L	21.959	191	0.002
	Na	23	1.144	ug/L	400.201	2334	0.006
	Mg	24	-1.223	ug/L	190.144	333	-0.005
	Al	27	-2.201	ug/L	0.000	0	-0.016
	P	31	0.741	ug/L	36.519	789	0.000
	K	39	17.267	ug/L	11.690	122187	0.191
	Ca	43	0.519	ug/L	1575.077	64	0.000
>	Sc	45		ug/L		61173	61173.014
	Ti	47	-0.124	ug/L	67.919	55	-0.000
	V	51	0.313	ug/L	181.698	3829	0.004
	Cr	52	0.062	ug/L	112.594	642	0.001
	Cr	53		ug/L		21674	0.014
	Mn	55	0.010	ug/L	46.595	254	0.000
	Fe	57	6.392	ug/L	68.042	1989	0.003
	Co	59	0.020	ug/L	44.023	140	0.000
	Ni	60	0.072	ug/L	287.918	551	0.000
	Cu	63		ug/L		183	-0.000
	Cu	65	0.003	ug/L	615.704	110	0.000
	Zn	66	-0.057	ug/L	94.921	51	-0.000
	Zn	67		ug/L		1247	0.002
	Zn	68		ug/L		198	0.000
>	Ge	74		ug/L		71629	71628.541
	As	75	0.057	ug/L	389.616	194	0.000
	Se	77		ug/L		923	-0.000
	Se	82	0.389	ug/L	136.913	12	0.000
	Kr	83		ug/L		26	0.000
	Sr	88	0.003	ug/L	95.729	40	0.000
	Y	89		ug/L		14	0.000
	Zr	90	0.141	ug/L	14.451	361	0.003
	Mo	98	0.061	ug/L	19.978	82	0.001
	Ag	107	0.001	ug/L	227.751	11	0.000
	Cd	111	0.004	ug/L	36.423	5	0.000
	Cd	114		ug/L		12	0.000
>	In	115		ug/L		58854	58853.865
	Sn	120	0.182	ug/L	9.207	315	0.004
	Sb	121	1.064	ug/L	4.510	1401	0.020
	Sb	123		ug/L		1060	0.015
	Ba	135		ug/L		8	0.000
	Ba	137	-0.007	ug/L	82.847	10	-0.000
	Ho	165		ug/L		8	-0.000
>	Lu	175		ug/L		122941	122941.111
	Tl	205	0.220	ug/L	18.321	1480	0.010
	Pb	208	0.004	ug/L	56.734	88	0.000
	Th	232	0.156	ug/L	12.320	1566	0.010
	U	238	0.009	ug/L	33.390	104	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	0.9999
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		97.7			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		98.5			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		99.0			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		98.1			
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Monday, December 21, 2009 16:28:47
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\091220\QC Std 3.257

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**11.200**	ug/L	1.910	515	0.008
	Be	9	**0.474**	ug/L	38.476	19	0.000
	B	11	**17.457**	ug/L	6.601	587	0.009
	Na	23	**269.500**	ug/L	1.039	93975	1.522
	Mg	24	**10.716**	ug/L	107.364	3334	0.044
	Al	27	**28.963**	ug/L	43.424	13674	0.210
	P	31	**53.309**	ug/L	4.878	2389	0.027
	K	39	**327.009**	ug/L	3.868	328399	3.624
	Ca	43	**226.694**	ug/L	9.895	374	0.005
>	Sc	45		ug/L		60480	60480.373
	Ti	47	**8.845**	ug/L	1.152	690	0.010
	V	51	**12.607**	ug/L	4.274	13836	0.171
	Cr	52	**10.836**	ug/L	1.741	10200	0.159
	Cr	53		ug/L		23432	0.047
	Mn	55	**5.670**	ug/L	4.772	8543	0.137
	Fe	57	**114.191**	ug/L	3.120	4894	0.051
	Co	59	**1.102**	ug/L	5.315	1148	0.017
	Ni	60	**2.235**	ug/L	5.310	939	0.007
	Cu	63		ug/L		679	0.008
	Cu	65	**1.200**	ug/L	5.073	346	0.004
	Zn	66	**11.099**	ug/L	5.955	1579	0.021
	Zn	67		ug/L		1528	0.005
	Zn	68		ug/L		1468	0.018
>	Ge	74		ug/L		72151	72150.548
	As	75	**5.945**	ug/L	3.747	1453	0.018
	Se	77		ug/L		1014	0.001
	Se	82	**5.182**	ug/L	3.830	95	0.001
	Kr	83		ug/L		25	0.000
	Sr	88	**11.213**	ug/L	0.357	26572	0.456
	Y	89		ug/L		16	0.000
	Zr	90	**1.989**	ug/L	4.644	2792	0.045
	Mo	98	**0.583**	ug/L	7.855	408	0.006
	Ag	107	**1.044**	ug/L	3.236	1166	0.020
	Cd	111	**1.076**	ug/L	3.809	303	0.005
	Cd	114		ug/L		733	0.012
>	In	115		ug/L		58216	58215.726
	Sn	120	**5.325**	ug/L	2.887	6710	0.114
	Sb	121	**3.334**	ug/L	5.039	3891	0.063
	Sb	123		ug/L		2988	0.049
	Ba	135		ug/L		627	0.005
	Ba	137	**2.161**	ug/L	1.050	1124	0.009
	Ho	165		ug/L		14	0.000
>	Lu	175		ug/L		123211	123210.958
	Tl	205	**1.123**	ug/L	2.436	6295	0.049
	Pb	208	**2.187**	ug/L	1.194	13763	0.111
	Th	232	**1.075**	ug/L	2.824	8489	0.066
	U	238	**0.234**	ug/L	3.704	1890	0.015

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	0.9999
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7	112.003				
	Be	9	94.798				
	B	11	116.378				
	Na	23	107.800				
	Mg	24	71.438				
	Al	27	96.543				
	P	31	106.618				
	K	39	109.003				
	Ca	43	113.347				
>	Sc	45			96.6		
	Ti	47	88.445				
	V	51	126.070				
	Cr	52	108.358				
	Cr	53					
	Mn	55	113.395				
	Fe	57	114.191				
	Co	59	110.164				
	Ni	60	111.752				
	Cu	63					
	Cu	65	119.999				
	Zn	66	110.992				
	Zn	67					
	Zn	68					
>	Ge	74			99.3		
	As	75	118.905				
	Se	77					
	Se	82	103.649				
	Kr	83					
	Sr	88	112.133				
	Y	89					
	Zr	90	99.432				
	Mo	98	116.647				
	Ag	107	104.392				
	Cd	111	107.568				
	Cd	114					
>	In	115			98.0		
	Sn	120	106.502				
	Sb	121	111.131				
	Sb	123					
	Ba	135					
	Ba	137	108.058				
	Ho	165					
>	Lu	175			98.3		
	Tl	205	112.315				
	Pb	208	109.363				
	Th	232	107.531				
	U	238	116.924				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Monday, December 21, 2009 16:34:29
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\091220\QC Std 4.258

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.046**	**ug/L**	92.821	8	0.000
	Be	9	**0.236**	**ug/L**	8.501	10	0.000
	B	11	**2.168**	**ug/L**	17.738	100	0.001
	Na	23	**98991.827**	**ug/L**	4.169	30859276	558.963
	Mg	24	**103185.301**	**ug/L**	0.761	23640764	428.149
	Al	27	**98511.810**	**ug/L**	5.097	39464817	714.664
	P	31	**99024.051**	**ug/L**	4.901	2765282	50.108
	K	39	**94843.325**	**ug/L**	2.342	58154854	1051.222
	Ca	43	**96793.470**	**ug/L**	4.893	121307	2.198
>	Sc	45		**ug/L**		55222	55222.469
	Ti	47	**1488.890**	**ug/L**	2.061	96425	1.746
	V	51	**0.991**	**ug/L**	47.574	3965	0.013
	Cr	52	**3.305**	**ug/L**	1.950	3209	0.049
	Cr	53		**ug/L**		20181	0.026
	Mn	55	**6.073**	**ug/L**	1.292	8342	0.147
	Fe	57	**101183.500**	**ug/L**	4.079	2508104	45.423
	Co	59	**0.266**	**ug/L**	4.001	336	0.004
	Ni	60	**2.812**	**ug/L**	12.316	952	0.008
	Cu	63		**ug/L**		882	0.013
	Cu	65	**2.640**	**ug/L**	4.342	576	0.009
	Zn	66	**2.875**	**ug/L**	2.203	423	0.005
	Zn	67		**ug/L**		1252	0.003
	Zn	68		**ug/L**		294	0.002
>	Ge	74		**ug/L**		67319	67318.591
	As	75	**0.215**	**ug/L**	141.442	214	0.001
	Se	77		**ug/L**		1102	0.003
	Se	82	**-0.810**	**ug/L**	24.146	-8	-0.000
	Kr	83		**ug/L**		45	0.000
	Sr	88	**1.182**	**ug/L**	1.746	2532	0.048
	Y	89		**ug/L**		68	0.001
	Zr	90	**6.609**	**ug/L**	59.282	7940	0.150
	Mo	98	**2068.280**	**ug/L**	0.824	1159055	22.243
	Ag	107	**0.054**	**ug/L**	33.089	62	0.001
	Cd	111	**0.330**	**ug/L**	36.978	85	0.002
	Cd	114		**ug/L**		1160	0.022
>	In	115		**ug/L**		52105	52105.057
	Sn	120	**0.176**	**ug/L**	17.040	271	0.004
	Sb	121	**0.228**	**ug/L**	19.490	414	0.004
	Sb	123		**ug/L**		330	0.004
	Ba	135		**ug/L**		198	0.002
	Ba	137	**0.641**	**ug/L**	3.177	330	0.003
	Ho	165		**ug/L**		250	0.002
>	Lu	175		**ug/L**		118522	118521.557
	Tl	205	**0.047**	**ug/L**	21.077	534	0.002
	Pb	208	**0.176**	**ug/L**	2.285	1120	0.009
	Th	232	**0.166**	**ug/L**	23.062	1575	0.010
	U	238	**0.002**	**ug/L**	26.886	45	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	0.9999
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23	98.992				
	Mg	24	103.185				
	Al	27	98.512				
	P	31	99.024				
	K	39	94.843				
	Ca	43	96.793				
>	Sc	45		88.2			
	Ti	47	74.445				
	V	51					
	Cr	52	89.333				
	Cr	53					
	Mn	55	104.713				
	Fe	57	101.183				
	Co	59	106.527				
	Ni	60	104.132				
	Cu	63					
	Cu	65	91.045				
	Zn	66	79.849				
	Zn	67					
	Zn	68					
>	Ge	74		92.6			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88	98.479				
	Y	89					
	Zr	90					
	Mo	98	103.414				
	Ag	107					
	Cd	111	82.541				
	Cd	114					
>	In	115		87.7			
	Sn	120					
	Sb	121	227.648				
	Sb	123					
	Ba	135					
	Ba	137	95.653				
	Ho	165					
>	Lu	175		94.5			
	Tl	205					
	Pb	208	87.769				
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
QC Std 4	Ti	47ICSA is out of limits
QC Std 4	Zr	90ICSA is out of limits

QC Action

QC Action Line: Continue

ICPMS#3 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Monday, December 21, 2009 16:40:12
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\091220\QC Std 5.259

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**19.695**	**ug/L**	7.988	827	0.015
	Be	9	**20.238**	**ug/L**	4.798	635	0.011
	B	11	**20.359**	**ug/L**	7.008	623	0.011
	Na	23	**99552.726**	**ug/L**	1.866	31263988	562.130
	Mg	24	**98794.817**	**ug/L**	6.453	22769215	409.932
	Al	27	**93054.376**	**ug/L**	4.768	37514521	675.073
	P	31	**98169.563**	**ug/L**	4.254	2761022	49.676
	K	39	**93297.855**	**ug/L**	7.423	57557781	1034.093
	Ca	43	**95282.820**	**ug/L**	3.295	120296	2.163
>	Sc	45		**ug/L**		55617	55617.355
	Ti	47	**1464.303**	**ug/L**	3.781	95473	1.717
	V	51	**20.738**	**ug/L**	6.282	18822	0.280
	Cr	52	**23.458**	**ug/L**	4.688	19668	0.344
	Cr	53		**ug/L**		21448	0.046
	Mn	55	**26.139**	**ug/L**	3.806	35423	0.633
	Fe	57	**101060.809**	**ug/L**	4.264	2522523	45.368
	Co	59	**19.766**	**ug/L**	3.482	17073	0.305
	Ni	60	**21.842**	**ug/L**	7.311	4141	0.066
	Cu	63		**ug/L**		8164	0.144
	Cu	65	**21.746**	**ug/L**	5.794	4056	0.071
	Zn	66	**22.038**	**ug/L**	1.813	2858	0.042
	Zn	67		**ug/L**		1684	0.009
	Zn	68		**ug/L**		2308	0.032
>	Ge	74		**ug/L**		66977	66977.323
	As	75	**21.515**	**ug/L**	6.381	4435	0.064
	Se	77		**ug/L**		1365	0.007
	Se	82	**21.031**	**ug/L**	13.914	344	0.005
	Kr	83		**ug/L**		36	0.000
	Sr	88	**22.022**	**ug/L**	1.222	47736	0.895
	Y	89		**ug/L**		58	0.001
	Zr	90	**21.686**	**ug/L**	1.091	26323	0.491
	Mo	98	**2035.594**	**ug/L**	2.223	1166503	21.892
	Ag	107	**19.984**	**ug/L**	1.724	20261	0.380
	Cd	111	**20.972**	**ug/L**	3.363	5342	0.100
	Cd	114		**ug/L**		13433	0.252
>	In	115		**ug/L**		53291	53291.405
	Sn	120	**20.747**	**ug/L**	3.190	23712	0.444
	Sb	121	**22.677**	**ug/L**	3.614	23104	0.430
	Sb	123		**ug/L**		17619	0.328
	Ba	135		**ug/L**		5760	0.048
	Ba	137	**20.221**	**ug/L**	0.521	10067	0.084
	Ho	165		**ug/L**		266	0.002
>	Lu	175		**ug/L**		119241	119241.110
	Tl	205	**19.003**	**ug/L**	0.572	98374	0.823
	Pb	208	**19.884**	**ug/L**	1.076	120576	1.011
	Th	232	**20.836**	**ug/L**	0.547	152248	1.274
	U	238	**21.882**	**ug/L**	1.183	168628	1.414

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	0.9999
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7	98.476				
	Be	9	101.188				
	B	11	101.794				
	Na	23	99.553				
	Mg	24	98.795				
	Al	27	93.054				
	P	31	98.170				
	K	39	93.298				
	Ca	43	95.283				
>	Sc	45		88.8			
	Ti	47	73.215				
	V	51	103.688				
	Cr	52	98.979				
	Cr	53					
	Mn	55	101.312				
	Fe	57	101.061				
	Co	59	97.611				
	Ni	60	96.219				
	Cu	63					
	Cu	65	94.961				
	Zn	66	93.383				
	Zn	67					
	Zn	68					
>	Ge	74		92.1			
	As	75	107.574				
	Se	77					
	Se	82	105.153				
	Kr	83					
	Sr	88	103.875				
	Y	89					
	Zr	90	108.428				
	Mo	98	101.780				
	Ag	107	99.920				
	Cd	111	102.802				
	Cd	114					
>	In	115		89.7			
	Sn	120	103.734				
	Sb	121	112.821				
	Sb	123					
	Ba	135					
	Ba	137	97.830				
	Ho	165					
>	Lu	175		95.1			
	Tl	205	95.015				
	Pb	208	98.437				
	Th	232	104.178				
	U	238	109.410				

QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
QC Std 5	Ti	47ICSAB is out of limits

QC Action

QC Action Line: Continue

ICPMS#3 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Monday, December 21, 2009 16:45:56
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\091220\QC Std 6.260

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**53.231**	**ug/L**	2.541	2427	0.040
	Be	9	**53.576**	**ug/L**	2.038	1827	0.030
	B	11	**100.974**	**ug/L**	1.341	3203	0.052
	Na	23	**4560.328**	**ug/L**	3.045	1561258	25.750
	Mg	24	**4946.460**	**ug/L**	2.652	1243550	20.524
	Al	27	**5133.465**	**ug/L**	12.169	2254507	37.241
	P	31	**4933.457**	**ug/L**	1.960	151929	2.496
	K	39	**4471.041**	**ug/L**	5.088	3112240	49.556
	Ca	43	**4883.317**	**ug/L**	1.559	6778	0.111
>	Sc	45		**ug/L**		60567	60566.747
	Ti	47	**52.193**	**ug/L**	2.217	3769	0.061
	V	51	**51.072**	**ug/L**	0.690	45373	0.691
	Cr	52	**52.172**	**ug/L**	2.365	46959	0.766
	Cr	53		**ug/L**		26882	0.104
	Mn	55	**52.119**	**ug/L**	3.180	76717	1.263
	Fe	57	**4961.429**	**ug/L**	3.152	136649	2.227
	Co	59	**49.658**	**ug/L**	2.830	46546	0.767
	Ni	60	**51.818**	**ug/L**	1.270	9978	0.156
	Cu	63		**ug/L**		21033	0.344
	Cu	65	**50.326**	**ug/L**	3.333	10089	0.165
	Zn	66	**51.613**	**ug/L**	1.131	7116	0.098
	Zn	67		**ug/L**		2503	0.019
	Zn	68		**ug/L**		5991	0.081
>	Ge	74		**ug/L**		72006	72005.746
	As	75	**48.863**	**ug/L**	2.456	10603	0.145
	Se	77		**ug/L**		1559	0.009
	Se	82	**51.310**	**ug/L**	6.028	894	0.012
	Kr	83		**ug/L**		26	0.000
	Sr	88	**52.185**	**ug/L**	0.592	121831	2.122
	Y	89		**ug/L**		20	0.000
	Zr	90	**40.311**	**ug/L**	11.807	52615	0.913
	Mo	98	**51.774**	**ug/L**	2.666	32001	0.557
	Ag	107	**51.536**	**ug/L**	2.640	56259	0.980
	Cd	111	**53.203**	**ug/L**	2.935	14594	0.254
	Cd	114		**ug/L**		34568	0.602
>	In	115		**ug/L**		57411	57411.118
	Sn	120	**51.700**	**ug/L**	3.624	63519	1.105
	Sb	121	**50.626**	**ug/L**	5.033	55340	0.960
	Sb	123		**ug/L**		42757	0.742
	Ba	135		**ug/L**		15213	0.124
	Ba	137	**51.771**	**ug/L**	1.876	26596	0.216
	Ho	165		**ug/L**		23	0.000
>	Lu	175		**ug/L**		123143	123142.760
	Tl	205	**50.511**	**ug/L**	0.430	269523	2.186
	Pb	208	**52.598**	**ug/L**	2.237	329233	2.673
	Th	232	**54.115**	**ug/L**	1.319	407793	3.308
	U	238	**54.869**	**ug/L**	0.144	436599	3.545

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	0.9999
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7	106.462				
	Be	9	107.152				
	B	11	100.974				
	Na	23	91.207				
	Mg	24	98.929				
	Al	27	101.653				
	P	31	98.669				
	K	39	89.421				
	Ca	43	97.666				
>	Sc	45		96.7			
	Ti	47	104.387				
	V	51	102.143				
	Cr	52	104.344				
	Cr	53					
	Mn	55	104.239				
	Fe	57	99.229				
	Co	59	99.317				
	Ni	60	103.636				
	Cu	63					
	Cu	65	100.651				
	Zn	66	103.226				
	Zn	67					
	Zn	68					
>	Ge	74		99.1			
	As	75	97.726				
	Se	77					
	Se	82	102.619				
	Kr	83					
	Sr	88	104.370				
	Y	89					
	Zr	90	80.622				
	Mo	98	103.549				
	Ag	107	103.071				
	Cd	111	106.405				
	Cd	114					
>	In	115		96.6			
	Sn	120	103.399				
	Sb	121	101.251				
	Sb	123					
	Ba	135					
	Ba	137	103.542				
	Ho	165					
>	Lu	175		98.2			
	Tl	205	101.021				
	Pb	208	105.195				
	Th	232	108.230				
	U	238	109.738				

QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
QC Std 6	K	39CCV is out of limits (+/- 10%)
QC Std 6	Zr	90CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#3 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Monday, December 21, 2009 16:51:41
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\091220\QC Std 7.261

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.001**	ug/L	9283.968	7	0.000
	Be	9	**0.094**	ug/L	48.461	6	0.000
	B	11	**3.463**	ug/L	10.591	147	0.002
	Na	23	**4.270**	ug/L	160.044	3334	0.024
	Mg	24	**-2.566**	ug/L	0.000	0	-0.011
	Al	27	**-2.201**	ug/L	0.000	0	-0.016
	P	31	**0.062**	ug/L	2712.952	746	0.000
	K	39	**14.133**	ug/L	141.308	116476	0.157
	Ca	43	**-2.433**	ug/L	173.485	58	-0.000
>	Sc	45		ug/L		59372	59371.724
	Ti	47	**0.303**	ug/L	34.974	83	0.000
	V	51	**2.136**	ug/L	31.573	5174	0.029
	Cr	52	**0.057**	ug/L	24.164	620	0.001
	Cr	53		ug/L		21611	0.024
	Mn	55	**-0.003**	ug/L	299.848	227	-0.000
	Fe	57	**5.680**	ug/L	40.993	1913	0.003
	Co	59	**0.007**	ug/L	228.794	124	0.000
	Ni	60	**-0.593**	ug/L	12.891	416	-0.002
	Cu	63		ug/L		176	-0.000
	Cu	65	**-0.017**	ug/L	261.062	103	-0.000
	Zn	66	**-0.083**	ug/L	47.394	47	-0.000
	Zn	67		ug/L		1258	0.002
	Zn	68		ug/L		187	0.000
>	Ge	74		ug/L		70279	70278.813
	As	75	**0.694**	ug/L	87.790	323	0.002
	Se	77		ug/L		888	-0.000
	Se	82	**-0.069**	ug/L	775.419	4	-0.000
	Kr	83		ug/L		24	0.000
	Sr	88	**0.004**	ug/L	123.458	39	0.000
	Y	89		ug/L		10	-0.000
	Zr	90	**0.124**	ug/L	12.588	323	0.003
	Mo	98	**0.127**	ug/L	3.694	118	0.001
	Ag	107	**0.004**	ug/L	72.604	13	0.000
	Cd	111	**0.008**	ug/L	244.446	6	0.000
	Cd	114		ug/L		12	0.000
>	In	115		ug/L		56110	56110.457
	Sn	120	**0.170**	ug/L	14.830	285	0.004
	Sb	121	**0.663**	ug/L	14.599	908	0.013
	Sb	123		ug/L		695	0.010
	Ba	135		ug/L		7	0.000
	Ba	137	**-0.006**	ug/L	60.690	10	-0.000
	Ho	165		ug/L		12	0.000
>	Lu	175		ug/L		120821	120820.765
	Tl	205	**0.216**	ug/L	26.451	1425	0.009
	Pb	208	**0.004**	ug/L	30.424	91	0.000
	Th	232	**0.196**	ug/L	8.483	1834	0.012
	U	238	**0.008**	ug/L	17.901	87	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	0.9999
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45			94.8		
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74			96.7		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115			94.4		
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175			96.4		
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: QC Std 10
Sample Date/Time: Monday, December 21, 2009 16:57:27
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\091220\QC Std 10.262

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**1037.670**	ug/L	1.521	43995	0.779
	Be	9	**1016.504**	ug/L	1.770	32303	0.572
	B	11	**2.223**	ug/L	18.593	104	0.001
	Na	23	**48847.514**	ug/L	16.075	15581405	275.820
	Mg	24	**48388.539**	ug/L	3.240	11345456	200.780
	Al	27	**48130.782**	ug/L	3.856	19732408	349.170
	P	31	**23710.944**	ug/L	2.103	678603	11.998
	K	39	**49029.756**	ug/L	2.765	30808937	543.435
	Ca	43	**48091.773**	ug/L	0.670	61753	1.092
>	Sc	45		ug/L		56502	56502.082
	Ti	47	**37.558**	ug/L	0.695	2547	0.044
	V	51	**979.957**	ug/L	1.100	752195	13.255
	Cr	52	**978.473**	ug/L	2.274	812150	14.365
	Cr	53		ug/L		118331	1.754
	Mn	55	**973.177**	ug/L	1.099	1332899	23.586
	Fe	57	**47622.040**	ug/L	0.716	1209576	21.378
	Co	59	**948.193**	ug/L	1.566	827318	14.640
	Ni	60	**970.097**	ug/L	1.132	165463	2.920
	Cu	63		ug/L		373836	6.613
	Cu	65	**964.923**	ug/L	0.855	178693	3.161
	Zn	66	**2385.672**	ug/L	0.350	314339	4.530
	Zn	67		ug/L		52868	0.746
	Zn	68		ug/L		249775	3.598
>	Ge	74		ug/L		69378	69378.422
	As	75	**925.862**	ug/L	0.864	190384	2.742
	Se	77		ug/L		7117	0.090
	Se	82	**490.520**	ug/L	2.126	8195	0.118
	Kr	83		ug/L		49	0.000
	Sr	88	**1066.975**	ug/L	0.976	2320058	43.377
	Y	89		ug/L		68	0.001
	Zr	90	**497.012**	ug/L	2.690	601993	11.254
	Mo	98	**1050.353**	ug/L	2.313	604087	11.296
	Ag	107	**256.313**	ug/L	2.921	260626	4.874
	Cd	111	**1044.340**	ug/L	3.095	266849	4.990
	Cd	114		ug/L		624480	11.678
>	In	115		ug/L		53490	53489.778
	Sn	120	**1008.819**	ug/L	2.141	1153469	21.568
	Sb	121	**257.020**	ug/L	3.893	260877	4.874
	Sb	123		ug/L		202317	3.779
	Ba	135		ug/L		284036	2.344
	Ba	137	**983.475**	ug/L	1.979	497054	4.101
	Ho	165		ug/L		103	0.001
>	Lu	175		ug/L		121232	121231.543
	Tl	205	**507.207**	ug/L	2.121	2661813	21.953
	Pb	208	**5330.406**	ug/L	2.062	32838935	270.933
	Th	232	**2692.105**	ug/L	1.288	19948978	164.566
	U	238	**5642.678**	ug/L	1.295	44194200	364.593

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	0.9999
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7	103.767				
	Be	9	101.650				
	B	11					
	Na	23	97.695				
	Mg	24	96.777				
	Al	27	96.262				
	P	31	94.844				
	K	39	98.060				
	Ca	43	96.184				
>	Sc	45		90.2			
	Ti	47					
	V	51	97.996				
	Cr	52	97.847				
	Cr	53					
	Mn	55	97.318				
	Fe	57	95.244				
	Co	59	94.819				
	Ni	60	97.010				
	Cu	63					
	Cu	65	96.492				
	Zn	66	95.427				
	Zn	67					
	Zn	68					
>	Ge	74		95.4			
	As	75	92.586				
	Se	77					
	Se	82	98.104				
	Kr	83					
	Sr	88	106.697				
	Y	89					
	Zr	90	99.402				
	Mo	98	105.035				
	Ag	107	102.525				
	Cd	111	104.434				
	Cd	114					
>	In	115		90.0			
	Sn	120	100.882				
	Sb	121	102.808				
	Sb	123					
	Ba	135					
	Ba	137	98.347				
	Ho	165					
>	Lu	175		96.7			
	Tl	205	101.441				
	Pb	208	106.608				
	Th	232	107.684				
	U	238	112.854				

QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
QC Std 10	U	238LRS is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#3 - Summary Report

Sample ID: QC Std 11
Sample Date/Time: Monday, December 21, 2009 17:03:11
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\091220\QC Std 11.263

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**52.777**	**ug/L**	1.830	2389	0.040
	Be	9	**50.369**	**ug/L**	5.262	1705	0.028
	B	11	**101.909**	**ug/L**	4.199	3209	0.053
	Na	23	**4480.850**	**ug/L**	6.178	1523641	25.301
	Mg	24	**5122.800**	**ug/L**	10.528	1277613	21.256
	Al	27	**4881.978**	**ug/L**	12.749	2126093	35.417
	P	31	**4984.756**	**ug/L**	4.011	152392	2.522
	K	39	**5141.565**	**ug/L**	6.551	3541386	56.988
	Ca	43	**4999.917**	**ug/L**	4.049	6887	0.114
>	Sc	45		**ug/L**		60169	60169.134
	Ti	47	**50.704**	**ug/L**	2.706	3637	0.059
	V	51	**50.943**	**ug/L**	5.097	44925	0.689
	Cr	52	**51.927**	**ug/L**	2.348	46423	0.762
	Cr	53		**ug/L**		26382	0.099
	Mn	55	**52.146**	**ug/L**	3.381	76221	1.264
	Fe	57	**4995.860**	**ug/L**	3.831	136620	2.243
	Co	59	**49.904**	**ug/L**	3.264	46454	0.771
	Ni	60	**51.337**	**ug/L**	4.727	9816	0.155
	Cu	63		**ug/L**		21190	0.349
	Cu	65	**50.828**	**ug/L**	2.965	10119	0.166
	Zn	66	**52.374**	**ug/L**	1.032	7202	0.099
	Zn	67		**ug/L**		2417	0.018
	Zn	68		**ug/L**		6004	0.081
>	Ge	74		**ug/L**		71826	71825.840
	As	75	**48.716**	**ug/L**	1.066	10544	0.144
	Se	77		**ug/L**		1466	0.007
	Se	82	**51.950**	**ug/L**	1.098	903	0.013
	Kr	83		**ug/L**		30	0.000
	Sr	88	**51.818**	**ug/L**	0.588	121087	2.107
	Y	89		**ug/L**		15	0.000
	Zr	90	**57.064**	**ug/L**	5.031	74431	1.292
	Mo	98	**52.212**	**ug/L**	1.467	32309	0.562
	Ag	107	**51.347**	**ug/L**	0.772	56121	0.976
	Cd	111	**52.444**	**ug/L**	0.753	14404	0.251
	Cd	114		**ug/L**		34274	0.596
>	In	115		**ug/L**		57465	57464.563
	Sn	120	**54.109**	**ug/L**	0.555	66561	1.157
	Sb	121	**55.394**	**ug/L**	4.724	60561	1.050
	Sb	123		**ug/L**		45944	0.797
	Ba	135		**ug/L**		15320	0.123
	Ba	137	**51.752**	**ug/L**	2.589	26776	0.216
	Ho	165		**ug/L**		17	0.000
>	Lu	175		**ug/L**		124049	124049.241
	Tl	205	**50.648**	**ug/L**	0.492	272243	2.192
	Pb	208	**52.339**	**ug/L**	1.496	330034	2.660
	Th	232	**54.669**	**ug/L**	0.902	414937	3.342
	U	238	**55.141**	**ug/L**	1.414	441945	3.563

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	0.9999
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7	105.555				
	Be	9	100.738				
	B	11	101.909				
	Na	23	89.617				
	Mg	24	102.456				
	Al	27	96.673				
	P	31	99.695				
	K	39	102.831				
	Ca	43	99.998				
>	Sc	45		96.1			
	Ti	47	101.407				
	V	51	101.886				
	Cr	52	103.853				
	Cr	53					
	Mn	55	104.292				
	Fe	57	99.917				
	Co	59	99.807				
	Ni	60	102.673				
	Cu	63					
	Cu	65	101.657				
	Zn	66	104.748				
	Zn	67					
	Zn	68					
>	Ge	74		98.8			
	As	75	97.433				
	Se	77					
	Se	82	103.900				
	Kr	83					
	Sr	88	103.636				
	Y	89					
	Zr	90	114.128				
	Mo	98	104.424				
	Ag	107	102.694				
	Cd	111	104.889				
	Cd	114					
>	In	115		96.7			
	Sn	120	108.217				
	Sb	121	110.788				
	Sb	123					
	Ba	135					
	Ba	137	103.504				
	Ho	165					
>	Lu	175		98.9			
	Tl	205	101.296				
	Pb	208	104.678				
	Th	232	109.338				
	U	238	110.282				

QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
QC Std 11	Na	23CCV is out of limits (+/- 10%)
QC Std 11	Zr	90CCV is out of limits (+/- 10%)
QC Std 11	Sb	121CCV is out of limits (+/- 10%)
QC Std 11	U	238CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#3 - Summary Report

Sample ID: QC Std 12
Sample Date/Time: Monday, December 21, 2009 17:08:57
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\091220\QC Std 12.264

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.111**	ug/L	22.620	12	0.000
	Be	9	**0.063**	ug/L	28.530	5	0.000
	B	11	**2.951**	ug/L	31.968	133	0.002
	Na	23	**1.252**	ug/L	490.355	2334	0.007
	Mg	24	**-1.236**	ug/L	186.397	333	-0.005
	Al	27	**-1.440**	ug/L	91.462	333	-0.010
	P	31	**0.580**	ug/L	62.256	769	0.000
	K	39	**14.756**	ug/L	78.644	118155	0.164
	Ca	43	**-5.245**	ug/L	196.891	55	-0.000
>	Sc	45		ug/L		59965	59964.866
	Ti	47	**-0.141**	ug/L	38.097	52	-0.000
	V	51	**0.615**	ug/L	84.661	3992	0.008
	Cr	52	**0.015**	ug/L	589.028	589	0.000
	Cr	53		ug/L		21221	0.014
	Mn	55	**0.011**	ug/L	45.976	249	0.000
	Fe	57	**4.550**	ug/L	29.279	1901	0.002
	Co	59	**0.047**	ug/L	13.620	162	0.001
	Ni	60	**-0.715**	ug/L	16.355	399	-0.002
	Cu	63		ug/L		172	-0.000
	Cu	65	**0.035**	ug/L	147.280	114	0.000
	Zn	66	**-0.093**	ug/L	28.694	45	-0.000
	Zn	67		ug/L		1236	0.002
	Zn	68		ug/L		192	0.000
>	Ge	74		ug/L		70333	70332.774
	As	75	**0.868**	ug/L	21.403	359	0.003
	Se	77		ug/L		836	-0.001
	Se	82	**-0.048**	ug/L	804.278	4	-0.000
	Kr	83		ug/L		26	0.000
	Sr	88	**0.009**	ug/L	16.913	50	0.000
	Y	89		ug/L		12	0.000
	Zr	90	**0.194**	ug/L	6.601	407	0.004
	Mo	98	**0.239**	ug/L	5.388	183	0.003
	Ag	107	**0.007**	ug/L	75.870	17	0.000
	Cd	111	**0.028**	ug/L	63.204	11	0.000
	Cd	114		ug/L		14	0.000
>	In	115		ug/L		55384	55383.508
	Sn	120	**0.923**	ug/L	9.374	1173	0.020
	Sb	121	**1.783**	ug/L	7.135	2073	0.034
	Sb	123		ug/L		1621	0.026
	Ba	135		ug/L		12	0.000
	Ba	137	**0.010**	ug/L	88.937	18	0.000
	Ho	165		ug/L		10	-0.000
>	Lu	175		ug/L		119221	119220.659
	Tl	205	**0.346**	ug/L	19.451	2076	0.015
	Pb	208	**0.049**	ug/L	4.977	358	0.002
	Th	232	**0.286**	ug/L	6.356	2461	0.017
	U	238	**0.080**	ug/L	13.967	641	0.005

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	0.9999
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45			95.8		
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74			96.8		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115			93.2		
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175			95.1		
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Monday, December 21, 2009 18:00:51
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\091220\QC Std 6.272

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**48.440**	ug/L	2.107	2247	0.036
	Be	9	**45.926**	ug/L	5.281	1595	0.026
	B	11	**123.070**	ug/L	3.452	3964	0.064
	Na	23	**4872.038**	ug/L	10.649	1697070	27.510
	Mg	24	**4987.288**	ug/L	17.193	1276625	20.694
	Al	27	**4514.067**	ug/L	11.790	2018745	32.748
	P	31	**4839.798**	ug/L	0.962	151722	2.449
	K	39	**4982.976**	ug/L	3.086	3515264	55.230
	Ca	43	**4984.887**	ug/L	2.827	7040	0.113
>	Sc	45		ug/L		61638	61637.971
	Ti	47	**50.005**	ug/L	2.275	3678	0.059
	V	51	**48.481**	ug/L	1.839	44011	0.656
	Cr	52	**50.233**	ug/L	1.078	46045	0.737
	Cr	53		ug/L		26167	0.084
	Mn	55	**51.147**	ug/L	1.436	76645	1.240
	Fe	57	**4938.274**	ug/L	1.387	138477	2.217
	Co	59	**49.734**	ug/L	1.734	47451	0.768
	Ni	60	**50.968**	ug/L	0.831	9997	0.153
	Cu	63		ug/L		21492	0.346
	Cu	65	**49.278**	ug/L	1.198	10060	0.161
	Zn	66	**52.260**	ug/L	3.141	7195	0.099
	Zn	67		ug/L		2350	0.017
	Zn	68		ug/L		5783	0.078
>	Ge	74		ug/L		71937	71937.439
	As	75	**48.910**	ug/L	3.979	10597	0.145
	Se	77		ug/L		1621	0.009
	Se	82	**54.684**	ug/L	4.235	952	0.013
	Kr	83		ug/L		29	0.000
	Sr	88	**52.757**	ug/L	0.292	126067	2.145
	Y	89		ug/L		17	0.000
	Zr	90	**41.062**	ug/L	10.343	54831	0.930
	Mo	98	**54.161**	ug/L	0.413	34272	0.582
	Ag	107	**51.176**	ug/L	1.469	57195	0.973
	Cd	111	**51.382**	ug/L	1.269	14432	0.246
	Cd	114		ug/L		34412	0.585
>	In	115		ug/L		58763	58762.966
	Sn	120	**50.791**	ug/L	0.704	63894	1.086
	Sb	121	**50.487**	ug/L	4.357	56478	0.957
	Sb	123		ug/L		43714	0.741
	Ba	135		ug/L		15210	0.122
	Ba	137	**51.876**	ug/L	1.699	26873	0.216
	Ho	165		ug/L		16	0.000
>	Lu	175		ug/L		124201	124200.574
	Tl	205	**49.857**	ug/L	0.971	268347	2.158
	Pb	208	**51.889**	ug/L	1.059	327620	2.637
	Th	232	**52.667**	ug/L	1.279	400298	3.219
	U	238	**53.880**	ug/L	0.533	432399	3.481

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	0.9999
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7	96.879				
	Be	9	91.853				
	B	11	123.070				
	Na	23	97.441				
	Mg	24	99.746				
	Al	27	89.387				
	P	31	96.796				
	K	39	99.660				
	Ca	43	99.698				
>	Sc	45		98.4			
	Ti	47	100.010				
	V	51	96.962				
	Cr	52	100.466				
	Cr	53					
	Mn	55	102.294				
	Fe	57	98.765				
	Co	59	99.467				
	Ni	60	101.936				
	Cu	63					
	Cu	65	98.556				
	Zn	66	104.519				
	Zn	67					
	Zn	68					
>	Ge	74		99.0			
	As	75	97.819				
	Se	77					
	Se	82	109.368				
	Kr	83					
	Sr	88	105.514				
	Y	89					
	Zr	90	82.125				
	Mo	98	108.323				
	Ag	107	102.352				
	Cd	111	102.765				
	Cd	114					
>	In	115		98.9			
	Sn	120	101.581				
	Sb	121	100.975				
	Sb	123					
	Ba	135					
	Ba	137	103.751				
	Ho	165					
>	Lu	175		99.1			
	Tl	205	99.714				
	Pb	208	103.777				
	Th	232	105.333				
	U	238	107.759				

QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
QC Std 6	B	11CCV is out of limits (+/- 10%)
QC Std 6	Al	27CCV is out of limits (+/- 10%)
QC Std 6	Zr	90CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#3 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Monday, December 21, 2009 18:06:36
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\091220\QC Std 7.273

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.045**	**ug/L**	126.170	9	0.000
	Be	9	**0.063**	**ug/L**	164.697	5	0.000
	B	11	**12.223**	**ug/L**	15.028	417	0.006
	Na	23	**5.201**	**ug/L**	161.966	3667	0.029
	Mg	24	**-2.566**	**ug/L**	0.000	0	-0.011
	Al	27	**-2.201**	**ug/L**	0.000	0	-0.016
	P	31	**0.583**	**ug/L**	82.514	763	0.000
	K	39	**3.811**	**ug/L**	702.987	109759	0.042
	Ca	43	**14.230**	**ug/L**	30.000	81	0.000
>	Sc	45		**ug/L**		59485	59484.872
	Ti	47	**-0.144**	**ug/L**	77.224	52	-0.000
	V	51	**1.288**	**ug/L**	31.911	4502	0.017
	Cr	52	**0.020**	**ug/L**	257.652	588	0.000
	Cr	53		**ug/L**		21644	0.024
	Mn	55	**-0.002**	**ug/L**	110.622	229	-0.000
	Fe	57	**10.316**	**ug/L**	14.192	2041	0.005
	Co	59	**0.031**	**ug/L**	18.141	146	0.000
	Ni	60	**-0.462**	**ug/L**	29.774	441	-0.001
	Cu	63		**ug/L**		192	0.000
	Cu	65	**0.015**	**ug/L**	240.914	109	0.000
	Zn	66	**-0.104**	**ug/L**	9.119	44	-0.000
	Zn	67		**ug/L**		1159	0.001
	Zn	68		**ug/L**		200	0.000
>	Ge	74		**ug/L**		70110	70109.993
	As	75	**0.764**	**ug/L**	11.939	337	0.002
	Se	77		**ug/L**		898	-0.000
	Se	82	**-0.363**	**ug/L**	68.107	-1	-0.000
	Kr	83		**ug/L**		25	0.000
	Sr	88	**0.007**	**ug/L**	24.429	47	0.000
	Y	89		**ug/L**		9	-0.000
	Zr	90	**0.149**	**ug/L**	3.725	359	0.003
	Mo	98	**0.752**	**ug/L**	2.881	501	0.008
	Ag	107	**0.004**	**ug/L**	40.507	14	0.000
	Cd	111	**0.014**	**ug/L**	146.850	7	0.000
	Cd	114		**ug/L**		7	-0.000
>	In	115		**ug/L**		56838	56837.809
	Sn	120	**0.168**	**ug/L**	10.628	287	0.004
	Sb	121	**0.608**	**ug/L**	8.620	862	0.012
	Sb	123		**ug/L**		674	0.009
	Ba	135		**ug/L**		11	0.000
	Ba	137	**-0.001**	**ug/L**	342.033	12	-0.000
	Ho	165		**ug/L**		16	0.000
>	Lu	175		**ug/L**		118315	118314.813
	Tl	205	**0.167**	**ug/L**	16.386	1151	0.007
	Pb	208	**0.010**	**ug/L**	10.786	122	0.000
	Th	232	**0.214**	**ug/L**	11.080	1925	0.013
	U	238	**0.015**	**ug/L**	14.324	140	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	0.9999
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		95.0			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		96.4			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		95.7			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		94.4			
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
QC Std 7	Mo	98CCB is out of limts (+/- PQL)

QC Action

QC Action Line: Continue

ICPMS#3 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Monday, December 21, 2009 18:52:28
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\091220\QC Std 6.281

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**50.488**	**ug/L**	0.877	2201	0.038
	Be	9	**48.567**	**ug/L**	4.214	1583	0.027
	B	11	**103.738**	**ug/L**	4.433	3144	0.054
	Na	23	**4566.333**	**ug/L**	6.506	1493640	25.784
	Mg	24	**4867.780**	**ug/L**	3.113	1169671	20.198
	Al	27	**4658.290**	**ug/L**	2.658	1957152	33.794
	P	31	**4922.615**	**ug/L**	3.150	144916	2.491
	K	39	**4801.478**	**ug/L**	4.613	3185008	53.219
	Ca	43	**4968.732**	**ug/L**	4.802	6590	0.113
>	Sc	45		**ug/L**		57911	57911.112
	Ti	47	**49.140**	**ug/L**	4.581	3394	0.058
	V	51	**49.580**	**ug/L**	7.226	42161	0.671
	Cr	52	**50.204**	**ug/L**	3.378	43215	0.737
	Cr	53		**ug/L**		26674	0.120
	Mn	55	**51.615**	**ug/L**	3.949	72623	1.251
	Fe	57	**5069.036**	**ug/L**	2.716	133434	2.276
	Co	59	**50.441**	**ug/L**	2.530	45202	0.779
	Ni	60	**51.447**	**ug/L**	2.328	9473	0.155
	Cu	63		**ug/L**		20289	0.347
	Cu	65	**50.244**	**ug/L**	4.578	9626	0.165
	Zn	66	**51.719**	**ug/L**	2.030	6866	0.098
	Zn	67		**ug/L**		2268	0.017
	Zn	68		**ug/L**		5570	0.078
>	Ge	74		**ug/L**		69346	69345.615
	As	75	**49.922**	**ug/L**	2.158	10425	0.148
	Se	77		**ug/L**		1668	0.011
	Se	82	**52.638**	**ug/L**	1.919	884	0.013
	Kr	83		**ug/L**		36	0.000
	Sr	88	**52.996**	**ug/L**	0.966	120525	2.155
	Y	89		**ug/L**		17	0.000
	Zr	90	**43.231**	**ug/L**	8.893	54940	0.979
	Mo	98	**50.078**	**ug/L**	1.347	30153	0.539
	Ag	107	**51.446**	**ug/L**	1.493	54708	0.978
	Cd	111	**51.470**	**ug/L**	1.155	13755	0.246
	Cd	114		**ug/L**		33227	0.594
>	In	115		**ug/L**		55920	55919.831
	Sn	120	**50.395**	**ug/L**	1.811	60322	1.077
	Sb	121	**50.976**	**ug/L**	2.369	54256	0.967
	Sb	123		**ug/L**		42099	0.750
	Ba	135		**ug/L**		14703	0.124
	Ba	137	**52.685**	**ug/L**	2.264	25996	0.220
	Ho	165		**ug/L**		21	0.000
>	Lu	175		**ug/L**		118295	118294.981
	Tl	205	**50.433**	**ug/L**	0.460	258523	2.183
	Pb	208	**51.943**	**ug/L**	1.489	312342	2.640
	Th	232	**53.220**	**ug/L**	2.317	385199	3.253
	U	238	**54.473**	**ug/L**	0.684	416390	3.520

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	0.9999
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7	100.976				
	Be	9	97.133				
	B	11	103.738				
	Na	23	91.327				
	Mg	24	97.356				
	Al	27	92.243				
	P	31	98.452				
	K	39	96.030				
	Ca	43	99.375				
>	Sc	45			92.5		
	Ti	47	98.279				
	V	51	99.160				
	Cr	52	100.409				
	Cr	53					
	Mn	55	103.231				
	Fe	57	101.381				
	Co	59	100.882				
	Ni	60	102.894				
	Cu	63					
	Cu	65	100.487				
	Zn	66	103.438				
	Zn	67					
	Zn	68					
>	Ge	74			95.4		
	As	75	99.843				
	Se	77					
	Se	82	105.276				
	Kr	83					
	Sr	88	105.993				
	Y	89					
	Zr	90	86.463				
	Mo	98	100.155				
	Ag	107	102.892				
	Cd	111	102.940				
	Cd	114					
>	In	115			94.1		
	Sn	120	100.790				
	Sb	121	101.952				
	Sb	123					
	Ba	135					
	Ba	137	105.371				
	Ho	165					
>	Lu	175			94.3		
	Tl	205	100.867				
	Pb	208	103.885				
	Th	232	106.441				
	U	238	108.947				

QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
QC Std 6	Zr	90CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#3 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Monday, December 21, 2009 18:58:14
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\091220\QC Std 7.282

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	0.063	ug/L	108.678	9	0.000
	Be	9	0.071	ug/L	169.616	5	0.000
	B	11	4.970	ug/L	18.993	185	0.003
	Na	23	7.835	ug/L	59.872	4334	0.044
	Mg	24	-2.566	ug/L	0.000	0	-0.011
	Al	27	-0.596	ug/L	466.451	667	-0.004
	P	31	2.132	ug/L	87.490	774	0.001
	K	39	2.722	ug/L	460.140	104381	0.030
	Ca	43	7.186	ug/L	30.410	68	0.000
>	Sc	45		ug/L		56852	56852.142
	Ti	47	0.100	ug/L	141.606	66	0.000
	V	51	1.418	ug/L	58.079	4404	0.019
	Cr	52	0.078	ug/L	61.261	611	0.001
	Cr	53		ug/L		22115	0.049
	Mn	55	0.067	ug/L	10.954	314	0.002
	Fe	57	6.903	ug/L	34.408	1863	0.003
	Co	59	0.025	ug/L	21.868	135	0.000
	Ni	60	-0.241	ug/L	14.702	459	-0.001
	Cu	63		ug/L		189	0.000
	Cu	65	-0.037	ug/L	177.478	94	-0.000
	Zn	66	-0.131	ug/L	45.564	38	-0.000
	Zn	67		ug/L		1134	0.001
	Zn	68		ug/L		188	0.000
>	Ge	74		ug/L		66996	66995.747
	As	75	1.167	ug/L	59.560	402	0.003
	Se	77		ug/L		1053	0.003
	Se	82	-0.080	ug/L	579.554	4	-0.000
	Kr	83		ug/L		25	0.000
	Sr	88	0.004	ug/L	72.585	39	0.000
	Y	89		ug/L		12	0.000
	Zr	90	0.134	ug/L	14.063	327	0.003
	Mo	98	0.088	ug/L	15.889	92	0.001
	Ag	107	0.004	ug/L	102.049	14	0.000
	Cd	111	0.020	ug/L	45.287	9	0.000
	Cd	114		ug/L		10	0.000
>	In	115		ug/L		54683	54683.410
	Sn	120	0.170	ug/L	14.250	278	0.004
	Sb	121	0.626	ug/L	13.249	847	0.012
	Sb	123		ug/L		640	0.009
	Ba	135		ug/L		9	0.000
	Ba	137	-0.000	ug/L	1598.719	12	-0.000
	Ho	165		ug/L		10	-0.000
>	Lu	175		ug/L		115291	115290.865
	Tl	205	0.151	ug/L	24.434	1039	0.007
	Pb	208	0.010	ug/L	26.088	121	0.001
	Th	232	0.182	ug/L	12.854	1646	0.011
	U	238	0.013	ug/L	11.577	126	0.001

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	0.9999
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	1.0000
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Zr	90Linear Thru Zero	1.0000
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
Pb	208Linear Thru Zero	1.0000
Th	232Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45			90.8		
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74			92.2		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115			92.0		
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175			92.0		
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: 1201999910
Sample Date/Time: Monday, December 21, 2009 19:04:01
Sample Type:
Sample Description: LANL 6020 TB
Number of Replicates: 3
Batch ID: 935115|1|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\091220\1201999910.283

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.349**	ug/L	46.420	22	0.000
	Be	9	**0.121**	ug/L	52.192	6	0.000
	B	11	**25.245**	ug/L	3.166	785	0.013
	Na	23	**178649.753**	ug/L	5.458	57671434	1008.757
	Mg	24	**19.991**	ug/L	61.514	5335	0.083
	Al	27	**0.998**	ug/L	277.592	1333	0.007
	P	31	**19.561**	ug/L	7.938	1282	0.010
	K	39	**71.378**	ug/L	34.616	148439	0.791
	Ca	43	**213.949**	ug/L	2.843	337	0.005
>	Sc	45		ug/L		57158	57158.029
	Ti	47	**1.209**	ug/L	8.288	140	0.001
	V	51	**7.344**	ug/L	13.746	9008	0.099
	Cr	52	**2.425**	ug/L	7.443	2583	0.036
	Cr	53		ug/L		48318	0.505
	Mn	55	**0.250**	ug/L	4.529	569	0.006
	Fe	57	**13.589**	ug/L	25.328	2044	0.006
	Co	59	**0.024**	ug/L	25.686	134	0.000
	Ni	60	**1.139**	ug/L	9.568	699	0.003
	Cu	63		ug/L		1961	0.031
	Cu	65	**3.714**	ug/L	4.815	797	0.012
	Zn	66	**4.588**	ug/L	6.243	626	0.009
	Zn	67		ug/L		3422	0.036
	Zn	68		ug/L		833	0.010
>	Ge	74		ug/L		65630	65630.065
	As	75	**2.644**	ug/L	55.800	680	0.008
	Se	77		ug/L		3309	0.037
	Se	82	**-0.327**	ug/L	127.674	-0	-0.000
	Kr	83		ug/L		28	0.000
	Sr	88	**0.401**	ug/L	1.495	928	0.016
	Y	89		ug/L		32	0.000
	Zr	90	**2.332**	ug/L	12.873	3065	0.053
	Mo	98	**0.105**	ug/L	5.742	103	0.001
	Ag	107	**0.005**	ug/L	16.171	15	0.000
	Cd	111	**-0.077**	ug/L	34.158	-17	-0.000
	Cd	114		ug/L		5	-0.000
>	In	115		ug/L		55047	55046.576
	Sn	120	**0.680**	ug/L	22.676	877	0.015
	Sb	121	**0.418**	ug/L	27.707	634	0.008
	Sb	123		ug/L		468	0.006
	Ba	135		ug/L		1200	0.010
	Ba	137	**4.149**	ug/L	2.673	2090	0.017
	Ho	165		ug/L		13	0.000
>	Lu	175		ug/L		120084	120083.588
	Tl	205	**0.056**	ug/L	4.509	588	0.002
	Pb	208	**0.124**	ug/L	7.030	823	0.006
	Th	232	**0.294**	ug/L	42.142	2528	0.018
	U	238	**0.004**	ug/L	46.147	60	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	0.9999
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45			91.3		
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74			90.3		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115			92.6		
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175			95.8		
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type Analyte	Mass	Out of Limits Message
Na 23 Upper, S, EEtNa	23	Sample is out of limits (over linear range)

QC Action

QC Action Line: Continue

ICPMS#3 - Summary Report

Sample ID: 1201999929
Sample Date/Time: Monday, December 21, 2009 19:09:49
Sample Type:
Sample Description: LANL 6020 TB
Number of Replicates: 3
Batch ID: 935115|1|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\091220\1201999929.284

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.197**	**ug/L**	29.439	15	0.000
	Be	9	**0.078**	**ug/L**	104.998	5	0.000
	B	11	**56.217**	**ug/L**	3.602	1721	0.029
	Na	23	**1884.899**	**ug/L**	17.756	617310	10.643
	Mg	24	**23.870**	**ug/L**	44.548	6335	0.099
	Al	27	**0.182**	**ug/L**	8.074	1000	0.001
	P	31	**20.971**	**ug/L**	5.923	1338	0.011
	K	39	**105.586**	**ug/L**	57.301	172063	1.170
	Ca	43	**250.481**	**ug/L**	11.041	389	0.006
>	Sc	45		**ug/L**		57839	57839.433
	Ti	47	**0.997**	**ug/L**	24.751	128	0.001
	V	51	**7.067**	**ug/L**	25.458	8900	0.096
	Cr	52	**2.292**	**ug/L**	6.188	2501	0.034
	Cr	53		**ug/L**		52057	0.560
	Mn	55	**0.216**	**ug/L**	9.333	529	0.005
	Fe	57	**7.167**	**ug/L**	17.745	1902	0.003
	Co	59	**0.024**	**ug/L**	12.520	136	0.000
	Ni	60	**-0.184**	**ug/L**	152.428	477	-0.001
	Cu	63		**ug/L**		233	0.001
	Cu	65	**0.216**	**ug/L**	54.214	144	0.001
	Zn	66	**2.112**	**ug/L**	7.403	329	0.004
	Zn	67		**ug/L**		3770	0.039
	Zn	68		**ug/L**		613	0.006
>	Ge	74		**ug/L**		68057	68057.439
	As	75	**2.926**	**ug/L**	10.681	762	0.009
	Se	77		**ug/L**		3122	0.033
	Se	82	**-0.384**	**ug/L**	47.212	-1	-0.000
	Kr	83		**ug/L**		24	0.000
	Sr	88	**0.260**	**ug/L**	5.258	631	0.011
	Y	89		**ug/L**		29	0.000
	Zr	90	**1.091**	**ug/L**	3.270	1567	0.025
	Mo	98	**0.042**	**ug/L**	18.466	67	0.000
	Ag	107	**0.013**	**ug/L**	32.917	23	0.000
	Cd	111	**0.002**	**ug/L**	503.032	4	0.000
	Cd	114		**ug/L**		12	0.000
>	In	115		**ug/L**		56630	56629.986
	Sn	120	**0.365**	**ug/L**	3.295	525	0.008
	Sb	121	**0.128**	**ug/L**	25.861	342	0.002
	Sb	123		**ug/L**		240	0.001
	Ba	135		**ug/L**		1222	0.010
	Ba	137	**4.172**	**ug/L**	1.907	2153	0.017
	Ho	165		**ug/L**		17	0.000
>	Lu	175		**ug/L**		123017	123017.435
	Tl	205	**0.025**	**ug/L**	7.274	438	0.001
	Pb	208	**0.082**	**ug/L**	0.613	581	0.004
	Th	232	**0.054**	**ug/L**	17.831	795	0.003
	U	238	**0.006**	**ug/L**	6.600	80	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	0.9999
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45			92.4		
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74			93.6		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115			95.3		
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175			98.1		
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: 1202000741
Sample Date/Time: Monday, December 21, 2009 19:15:38
Sample Type:
Sample Description: LANL 6020 MB
Number of Replicates: 3
Batch ID: 935115|1|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\091220\1202000741.285

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.106**	ug/L	57.678	11	0.000
	Be	9	**0.041**	ug/L	117.755	4	0.000
	B	11	**2.501**	ug/L	7.655	111	0.001
	Na	23	**9.149**	ug/L	100.759	4668	0.052
	Mg	24	**0.320**	ug/L	1563.331	667	0.001
	Al	27	**-0.571**	ug/L	494.742	667	-0.004
	P	31	**19.532**	ug/L	3.576	1253	0.010
	K	39	**-4.824**	ug/L	174.579	98002	-0.053
	Ca	43	**32.202**	ug/L	28.119	99	0.001
>	Sc	45		ug/L		55918	55918.120
	Ti	47	**0.177**	ug/L	51.102	70	0.000
	V	51	**8.636**	ug/L	14.414	9795	0.117
	Cr	52	**1.606**	ug/L	1.429	1855	0.024
	Cr	53		ug/L		52310	0.595
	Mn	55	**0.181**	ug/L	1.380	464	0.004
	Fe	57	**9.526**	ug/L	23.761	1898	0.004
	Co	59	**0.019**	ug/L	115.651	127	0.000
	Ni	60	**-0.231**	ug/L	81.752	453	-0.001
	Cu	63		ug/L		215	0.001
	Cu	65	**0.073**	ug/L	57.557	113	0.000
	Zn	66	**0.781**	ug/L	11.042	149	0.001
	Zn	67		ug/L		3819	0.043
	Zn	68		ug/L		445	0.004
>	Ge	74		ug/L		64833	64833.114
	As	75	**3.375**	ug/L	21.088	812	0.010
	Se	77		ug/L		3104	0.035
	Se	82	**-0.265**	ug/L	86.913	1	-0.000
	Kr	83		ug/L		28	0.000
	Sr	88	**0.024**	ug/L	19.679	85	0.001
	Y	89		ug/L		16	0.000
	Zr	90	**0.628**	ug/L	11.808	949	0.014
	Mo	98	**0.026**	ug/L	87.293	56	0.000
	Ag	107	**0.000**	ug/L	4368.868	9	0.000
	Cd	111	**0.004**	ug/L	99.351	4	0.000
	Cd	114		ug/L		7	-0.000
>	In	115		ug/L		55323	55323.102
	Sn	120	**0.233**	ug/L	10.597	356	0.005
	Sb	121	**0.033**	ug/L	56.396	235	0.001
	Sb	123		ug/L		185	0.001
	Ba	135		ug/L		11	0.000
	Ba	137	**0.012**	ug/L	58.013	19	0.000
	Ho	165		ug/L		12	0.000
>	Lu	175		ug/L		120557	120557.463
	Tl	205	**0.008**	ug/L	76.054	341	0.000
	Pb	208	**0.007**	ug/L	40.286	105	0.000
	Th	232	**0.013**	ug/L	22.271	479	0.001
	U	238	**-0.000**	ug/L	654.572	26	-0.000

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	0.9999
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	1.0000
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Zr	90Linear Thru Zero	1.0000
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
Pb	208Linear Thru Zero	1.0000
Th	232Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45			89.3		
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74			89.2		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115			93.1		
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175			96.2		
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: 1202000742
Sample Date/Time: Monday, December 21, 2009 19:21:27
Sample Type:
Sample Description: LANL 6020 LCS
Number of Replicates: 3
Batch ID: 935115|1|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\091220\1202000742.286

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**51.998**	**ug/L**	2.567	2213	0.039
	Be	9	**53.406**	**ug/L**	1.276	1701	0.030
	B	11	**110.759**	**ug/L**	0.586	3277	0.057
	Na	23	**2125.978**	**ug/L**	6.910	680541	12.004
	Mg	24	**2176.658**	**ug/L**	14.351	511090	9.032
	Al	27	**2057.700**	**ug/L**	4.077	844954	14.928
	P	31	**2013.205**	**ug/L**	0.561	58320	1.019
	K	39	**1886.918**	**ug/L**	4.219	1285037	20.914
	Ca	43	**2057.331**	**ug/L**	4.230	2700	0.047
>	Sc	45		**ug/L**		56554	56553.957
	Ti	47	**46.013**	**ug/L**	4.600	3110	0.054
	V	51	**58.844**	**ug/L**	1.229	48312	0.796
	Cr	52	**51.281**	**ug/L**	1.656	43116	0.753
	Cr	53		**ug/L**		58687	0.697
	Mn	55	**49.731**	**ug/L**	1.141	68382	1.205
	Fe	57	**1900.825**	**ug/L**	0.584	49935	0.853
	Co	59	**47.417**	**ug/L**	1.875	41514	0.732
	Ni	60	**47.860**	**ug/L**	2.496	8643	0.144
	Cu	63		**ug/L**		18864	0.330
	Cu	65	**47.891**	**ug/L**	3.023	8973	0.157
	Zn	66	**48.243**	**ug/L**	2.032	6192	0.092
	Zn	67		**ug/L**		5089	0.060
	Zn	68		**ug/L**		5351	0.077
>	Ge	74		**ug/L**		66995	66995.398
	As	75	**51.915**	**ug/L**	2.614	10470	0.154
	Se	77		**ug/L**		3732	0.043
	Se	82	**48.791**	**ug/L**	2.031	792	0.012
	Kr	83		**ug/L**		25	0.000
	Sr	88	**48.838**	**ug/L**	1.035	111398	1.985
	Y	89		**ug/L**		21	0.000
	Zr	90	**49.007**	**ug/L**	3.929	62377	1.110
	Mo	98	**49.344**	**ug/L**	3.276	29798	0.531
	Ag	107	**50.517**	**ug/L**	5.087	53858	0.961
	Cd	111	**50.199**	**ug/L**	1.779	13456	0.240
	Cd	114		**ug/L**		31848	0.568
>	In	115		**ug/L**		56097	56096.622
	Sn	120	**51.288**	**ug/L**	2.350	61570	1.097
	Sb	121	**55.407**	**ug/L**	2.175	59121	1.051
	Sb	123		**ug/L**		45199	0.803
	Ba	135		**ug/L**		13929	0.115
	Ba	137	**48.650**	**ug/L**	2.691	24617	0.203
	Ho	165		**ug/L**		21	0.000
>	Lu	175		**ug/L**		121344	121343.912
	Tl	205	**47.189**	**ug/L**	1.555	248124	2.042
	Pb	208	**50.174**	**ug/L**	2.254	309440	2.550
	Th	232	**50.316**	**ug/L**	1.866	373575	3.076
	U	238	**52.034**	**ug/L**	1.228	407934	3.362

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	0.9999
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	1.0000
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Zr	90Linear Thru Zero	1.0000
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
Pb	208Linear Thru Zero	1.0000
Th	232Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45			90.3		
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74			92.2		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115			94.4		
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175			96.8		
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: 243010001
Sample Date/Time: Monday, December 21, 2009 19:27:17
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 935115|1|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\091220\243010001.287

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.461**	ug/L	20.647	26	0.000
	Be	9	**0.072**	ug/L	22.303	5	0.000
	B	11	**9.492**	ug/L	4.366	315	0.005
	Na	23	**176897.102**	ug/L	3.157	56153764	998.860
	Mg	24	**831.670**	ug/L	3.333	194652	3.451
	Al	27	**75.597**	ug/L	8.903	31702	0.548
	P	31	**38.885**	ug/L	11.319	1809	0.020
	K	39	**372.071**	ug/L	18.446	333563	4.124
	Ca	43	**5259.870**	ug/L	2.193	6770	0.119
>	Sc	45		ug/L		56217	56217.313
	Ti	47	**2.829**	ug/L	9.538	245	0.003
	V	51	**9.349**	ug/L	34.373	10374	0.126
	Cr	52	**2.568**	ug/L	2.922	2659	0.038
	Cr	53		ug/L		53177	0.606
	Mn	55	**13.451**	ug/L	2.127	18544	0.326
	Fe	57	**57.468**	ug/L	2.522	3118	0.026
	Co	59	**0.045**	ug/L	19.872	151	0.001
	Ni	60	**0.623**	ug/L	23.954	600	0.002
	Cu	63		ug/L		647	0.008
	Cu	65	**0.292**	ug/L	0.715	154	0.001
	Zn	66	**2.249**	ug/L	5.210	337	0.004
	Zn	67		ug/L		4008	0.045
	Zn	68		ug/L		768	0.009
>	Ge	74		ug/L		66170	66170.282
	As	75	**3.554**	ug/L	32.827	862	0.011
	Se	77		ug/L		3441	0.039
	Se	82	**-0.275**	ug/L	262.284	0	-0.000
	Kr	83		ug/L		29	0.000
	Sr	88	**41.954**	ug/L	2.195	93074	1.706
	Y	89		ug/L		254	0.004
	Zr	90	**0.870**	ug/L	9.736	1234	0.020
	Mo	98	**0.051**	ug/L	41.017	70	0.001
	Ag	107	**0.005**	ug/L	114.953	15	0.000
	Cd	111	**-0.045**	ug/L	77.223	-8	-0.000
	Cd	114		ug/L		29	0.000
>	In	115		ug/L		54572	54571.609
	Sn	120	**0.224**	ug/L	6.799	341	0.005
	Sb	121	**0.157**	ug/L	32.131	359	0.003
	Sb	123		ug/L		281	0.002
	Ba	135		ug/L		24265	0.202
	Ba	137	**84.965**	ug/L	1.098	42508	0.354
	Ho	165		ug/L		34	0.000
>	Lu	175		ug/L		119950	119950.353
	Tl	205	**0.203**	ug/L	21.554	1353	0.009
	Pb	208	**0.141**	ug/L	5.034	921	0.007
	Th	232	**0.161**	ug/L	48.922	1555	0.010
	U	238	**0.090**	ug/L	3.232	728	0.006

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	0.9999
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45			89.8		
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74			91.0		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115			91.8		
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175			95.7		
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Na 23 Upper, S, EE	Na	23	Sample is out of limits (over linear range)

QC Action

QC Action Line: Continue

ICPMS#3 - Summary Report

Sample ID: 1202000743
Sample Date/Time: Monday, December 21, 2009 19:33:06
Sample Type:
Sample Description: LANL 6020 DUP
Number of Replicates: 3
Batch ID: 935115|1|ba|
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\091220\1202000743.288

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.556**	ug/L	26.571	30	0.000
	Be	9	**0.222**	ug/L	54.264	9	0.000
	B	11	**6.978**	ug/L	5.761	239	0.004
	Na	23	**195489.356**	ug/L	3.189	61415018	1103.842
	Mg	24	**921.865**	ug/L	11.539	213258	3.825
	Al	27	**85.264**	ug/L	28.087	35379	0.619
	P	31	**41.876**	ug/L	7.638	1876	0.021
	K	39	**373.959**	ug/L	1.753	331127	4.145
	Ca	43	**5637.798**	ug/L	1.314	7181	0.128
>	Sc	45		ug/L		55646	55646.064
	Ti	47	**3.419**	ug/L	20.696	281	0.004
	V	51	**8.001**	ug/L	7.511	9269	0.108
	Cr	52	**2.798**	ug/L	5.968	2820	0.041
	Cr	53		ug/L		54349	0.636
	Mn	55	**14.525**	ug/L	1.610	19807	0.352
	Fe	57	**62.886**	ug/L	3.374	3222	0.028
	Co	59	**0.051**	ug/L	16.410	154	0.001
	Ni	60	**0.836**	ug/L	33.739	630	0.003
	Cu	63		ug/L		625	0.008
	Cu	65	**0.324**	ug/L	29.732	158	0.001
	Zn	66	**2.270**	ug/L	12.217	333	0.004
	Zn	67		ug/L		4120	0.048
	Zn	68		ug/L		814	0.010
>	Ge	74		ug/L		64853	64852.858
	As	75	**2.872**	ug/L	21.386	717	0.009
	Se	77		ug/L		3666	0.043
	Se	82	**0.189**	ug/L	238.485	8	0.000
	Kr	83		ug/L		21	-0.000
	Sr	88	**44.137**	ug/L	0.715	99065	1.794
	Y	89		ug/L		280	0.005
	Zr	90	**0.594**	ug/L	7.838	904	0.013
	Mo	98	**0.021**	ug/L	29.149	53	0.000
	Ag	107	**0.006**	ug/L	104.316	15	0.000
	Cd	111	**-0.060**	ug/L	71.217	-12	-0.000
	Cd	114		ug/L		20	0.000
>	In	115		ug/L		55195	55195.113
	Sn	120	**0.231**	ug/L	10.606	352	0.005
	Sb	121	**0.018**	ug/L	58.007	219	0.000
	Sb	123		ug/L		182	0.001
	Ba	135		ug/L		26009	0.216
	Ba	137	**89.450**	ug/L	3.132	44990	0.373
	Ho	165		ug/L		40	0.000
>	Lu	175		ug/L		120602	120602.140
	Tl	205	**0.041**	ug/L	11.503	513	0.002
	Pb	208	**0.145**	ug/L	4.416	955	0.007
	Th	232	**0.025**	ug/L	6.840	565	0.002
	U	238	**0.083**	ug/L	3.073	673	0.005

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	0.9999
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45			88.9		
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74			89.2		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115			92.9		
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175			96.2		
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Na 23 Upper, S, EEI	Na	23	Sample is out of limits (over linear range)

QC Action

QC Action Line: Continue

ICPMS#3 - Summary Report

Sample ID: 1201999908
Sample Date/Time: Monday, December 21, 2009 19:38:54
Sample Type:
Sample Description: LANL 6020 MS
Number of Replicates: 3
Batch ID: 935115|1|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\091220\1201999908.289

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**103.174**	ug/L	2.707	4492	0.077
	Be	9	**213.556**	ug/L	2.511	6961	0.120
	B	11	**231.459**	ug/L	2.179	6974	0.120
	Na	23	**153745.688**	ug/L	5.671	50285443	868.134
	Mg	24	**1036.972**	ug/L	7.045	249837	4.303
	Al	27	**1015.687**	ug/L	10.583	427679	7.368
	P	31	**36.813**	ug/L	4.195	1805	0.019
	K	39	**888.098**	ug/L	12.235	674649	9.843
	Ca	43	**5514.728**	ug/L	2.921	7315	0.125
>	Sc	45		ug/L		57968	57968.003
	Ti	47	**2.794**	ug/L	7.271	250	0.003
	V	51	**143.003**	ug/L	6.315	115390	1.934
	Cr	52	**502.342**	ug/L	2.000	427911	7.375
	Cr	53		ug/L		103748	1.450
	Mn	55	**212.538**	ug/L	1.705	298733	5.151
	Fe	57	**260.715**	ug/L	1.709	8503	0.117
	Co	59	**192.643**	ug/L	2.251	172517	2.974
	Ni	60	**195.921**	ug/L	2.327	34680	0.590
	Cu	63		ug/L		77676	1.337
	Cu	65	**195.104**	ug/L	1.853	37139	0.639
	Zn	66	**201.279**	ug/L	4.001	25759	0.382
	Zn	67		ug/L		8893	0.116
	Zn	68		ug/L		22556	0.333
>	Ge	74		ug/L		67303	67302.922
	As	75	**499.395**	ug/L	2.097	99659	1.479
	Se	77		ug/L		4579	0.055
	Se	82	**103.501**	ug/L	4.193	1681	0.025
	Kr	83		ug/L		42	0.000
	Sr	88	**239.478**	ug/L	1.819	541858	9.736
	Y	89		ug/L		253	0.004
	Zr	90	**193.283**	ug/L	5.251	243720	4.377
	Mo	98	**209.475**	ug/L	3.447	125409	2.253
	Ag	107	**47.113**	ug/L	1.328	49872	0.896
	Cd	111	**103.074**	ug/L	2.864	27413	0.493
	Cd	114		ug/L		64113	1.152
>	In	115		ug/L		55657	55656.854
	Sn	120	**213.817**	ug/L	2.619	254490	4.571
	Sb	121	**228.226**	ug/L	2.966	241038	4.328
	Sb	123		ug/L		185328	3.327
	Ba	135		ug/L		315250	2.546
	Ba	137	**1056.816**	ug/L	1.512	545590	4.406
	Ho	165		ug/L		34	0.000
>	Lu	175		ug/L		123818	123818.190
	Tl	205	**187.110**	ug/L	1.229	1003087	8.099
	Pb	208	**479.884**	ug/L	1.681	3020289	24.391
	Th	232	**195.793**	ug/L	0.865	1482319	11.969
	U	238	**105.501**	ug/L	1.964	844048	6.817

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	0.9999
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45			92.6		
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74			92.6		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115			93.7		
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175			98.8		
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
B 11 Upper, S, EEE	B	11	Sample is out of limits (over linear range)
Na 23 Upper, S, EEE	Na	23	Sample is out of limits (over linear range)
V 51 Upper, S, EEE	V	51	Sample is out of limits (over linear range)
Ba 137 Upper, S, EEE	Ba	137	Sample is out of limits (over linear range)

QC Action

QC Action Line: Continue

ICPMS#3 - Summary Report

Sample ID: 1202000745
Sample Date/Time: Monday, December 21, 2009 19:44:43
Sample Type:
Sample Description: LANL 6020 SDILT
Number of Replicates: 3
Batch ID: 935115|5|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\091220\1202000745.290

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.183**	ug/L	73.102	14	0.000
	Be	9	**0.049**	ug/L	164.046	4	0.000
	B	11	**7.150**	ug/L	19.460	248	0.004
	Na	23	**33137.111**	ug/L	17.356	10581001	187.111
	Mg	24	**162.658**	ug/L	35.966	38723	0.675
	Al	27	**8.403**	ug/L	74.142	4334	0.061
	P	31	**9.153**	ug/L	5.821	971	0.005
	K	39	**86.560**	ug/L	22.182	156523	0.959
	Ca	43	**1064.384**	ug/L	0.681	1426	0.024
>	Sc	45		ug/L		56590	56590.446
	Ti	47	**0.271**	ug/L	53.465	77	0.000
	V	51	**2.819**	ug/L	50.042	5466	0.038
	Cr	52	**0.609**	ug/L	15.582	1049	0.009
	Cr	53		ug/L		30951	0.207
	Mn	55	**2.849**	ug/L	5.142	4127	0.069
	Fe	57	**17.191**	ug/L	8.389	2115	0.008
	Co	59	**0.019**	ug/L	97.784	128	0.000
	Ni	60	**-0.451**	ug/L	19.387	421	-0.001
	Cu	63		ug/L		254	0.001
	Cu	65	**0.010**	ug/L	304.108	103	0.000
	Zn	66	**0.482**	ug/L	4.952	115	0.001
	Zn	67		ug/L		1818	0.012
	Zn	68		ug/L		352	0.003
>	Ge	74		ug/L		66030	66029.970
	As	75	**0.884**	ug/L	70.990	341	0.003
	Se	77		ug/L		1490	0.009
	Se	82	**-0.050**	ug/L	451.788	4	-0.000
	Kr	83		ug/L		26	0.000
	Sr	88	**8.635**	ug/L	0.930	18780	0.351
	Y	89		ug/L		59	0.001
	Zr	90	**1.244**	ug/L	13.574	1662	0.028
	Mo	98	**0.135**	ug/L	10.293	117	0.001
	Ag	107	**0.008**	ug/L	52.587	17	0.000
	Cd	111	**0.019**	ug/L	44.595	8	0.000
	Cd	114		ug/L		13	0.000
>	In	115		ug/L		53417	53416.731
	Sn	120	**0.070**	ug/L	2.327	157	0.001
	Sb	121	**0.659**	ug/L	16.464	861	0.013
	Sb	123		ug/L		647	0.009
	Ba	135		ug/L		4868	0.043
	Ba	137	**17.637**	ug/L	2.882	8395	0.074
	Ho	165		ug/L		17	0.000
>	Lu	175		ug/L		114031	114030.568
	Tl	205	**0.610**	ug/L	14.939	3298	0.026
	Pb	208	**0.083**	ug/L	27.084	542	0.004
	Th	232	**0.157**	ug/L	21.017	1459	0.010
	U	238	**0.028**	ug/L	14.753	233	0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	0.9999
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45			90.4		
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74			90.8		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115			89.9		
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175			90.9		
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Monday, December 21, 2009 19:50:29
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\091220\QC Std 6.291

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**51.267**	**ug/L**	1.720	2178	0.038
	Be	9	**50.430**	**ug/L**	3.170	1603	0.028
	B	11	**102.181**	**ug/L**	2.037	3020	0.053
	Na	23	**4362.377**	**ug/L**	3.395	1392045	24.632
	Mg	24	**4819.623**	**ug/L**	1.909	1129275	19.998
	Al	27	**4745.670**	**ug/L**	6.219	1943634	34.428
	P	31	**4851.416**	**ug/L**	0.970	139270	2.455
	K	39	**4668.279**	**ug/L**	9.909	3022679	51.742
	Ca	43	**4976.141**	**ug/L**	3.529	6436	0.113
>	Sc	45		**ug/L**		56443	56443.185
	Ti	47	**50.613**	**ug/L**	0.681	3408	0.059
	V	51	**52.281**	**ug/L**	3.578	43200	0.707
	Cr	52	**51.565**	**ug/L**	1.778	43267	0.757
	Cr	53		**ug/L**		29769	0.187
	Mn	55	**52.262**	**ug/L**	0.712	71714	1.267
	Fe	57	**5023.234**	**ug/L**	0.550	128951	2.255
	Co	59	**49.858**	**ug/L**	0.710	43562	0.770
	Ni	60	**50.514**	**ug/L**	0.459	9078	0.152
	Cu	63		**ug/L**		19568	0.344
	Cu	65	**50.446**	**ug/L**	0.949	9427	0.165
	Zn	66	**51.698**	**ug/L**	1.929	6722	0.098
	Zn	67		**ug/L**		2514	0.021
	Zn	68		**ug/L**		5645	0.081
>	Ge	74		**ug/L**		67911	67910.718
	As	75	**49.869**	**ug/L**	1.932	10200	0.148
	Se	77		**ug/L**		1767	0.013
	Se	82	**50.773**	**ug/L**	4.987	835	0.012
	Kr	83		**ug/L**		31	0.000
	Sr	88	**52.429**	**ug/L**	2.099	114600	2.131
	Y	89		**ug/L**		16	0.000
	Zr	90	**51.830**	**ug/L**	3.423	63232	1.174
	Mo	98	**51.939**	**ug/L**	3.053	30065	0.559
	Ag	107	**51.808**	**ug/L**	1.304	52983	0.985
	Cd	111	**51.858**	**ug/L**	3.841	13321	0.248
	Cd	114		**ug/L**		32220	0.599
>	In	115		**ug/L**		53767	53767.407
	Sn	120	**51.184**	**ug/L**	3.693	58886	1.094
	Sb	121	**51.491**	**ug/L**	5.704	52680	0.976
	Sb	123		**ug/L**		40439	0.749
	Ba	135		**ug/L**		14454	0.125
	Ba	137	**52.725**	**ug/L**	2.003	25360	0.220
	Ho	165		**ug/L**		15	0.000
>	Lu	175		**ug/L**		115302	115301.585
	Tl	205	**51.064**	**ug/L**	1.435	255124	2.210
	Pb	208	**52.260**	**ug/L**	1.332	306328	2.656
	Th	232	**53.506**	**ug/L**	0.809	377492	3.271
	U	238	**55.317**	**ug/L**	0.365	412139	3.574

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	0.9999
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7	102.534				
	Be	9	100.860				
	B	11	102.181				
	Na	23	87.248				
	Mg	24	96.392				
	Al	27	93.974				
	P	31	97.028				
	K	39	93.366				
	Ca	43	99.523				
>	Sc	45			90.1		
	Ti	47	101.225				
	V	51	104.562				
	Cr	52	103.130				
	Cr	53					
	Mn	55	104.524				
	Fe	57	100.465				
	Co	59	99.717				
	Ni	60	101.028				
	Cu	63					
	Cu	65	100.892				
	Zn	66	103.397				
	Zn	67					
	Zn	68					
>	Ge	74			93.4		
	As	75	99.738				
	Se	77					
	Se	82	101.545				
	Kr	83					
	Sr	88	104.858				
	Y	89					
	Zr	90	103.661				
	Mo	98	103.878				
	Ag	107	103.616				
	Cd	111	103.717				
	Cd	114					
>	In	115			90.5		
	Sn	120	102.368				
	Sb	121	102.983				
	Sb	123					
	Ba	135					
	Ba	137	105.450				
	Ho	165					
>	Lu	175			92.0		
	Tl	205	102.128				
	Pb	208	104.519				
	Th	232	107.013				
	U	238	110.634				

QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
QC Std 6	Na	23CCV is out of limits (+/- 10%)
QC Std 6	U	238CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#3 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Monday, December 21, 2009 19:56:14
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\091220\QC Std 7.292

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.121**	**ug/L**	164.771	12	0.000
	Be	9	**0.219**	**ug/L**	51.750	9	0.000
	B	11	**3.500**	**ug/L**	25.283	141	0.002
	Na	23	**1.620**	**ug/L**	285.605	2334	0.009
	Mg	24	**-2.566**	**ug/L**	0.000	0	-0.011
	Al	27	**-1.379**	**ug/L**	103.294	333	-0.010
	P	31	**-0.181**	**ug/L**	467.727	701	-0.000
	K	39	**18.956**	**ug/L**	73.895	113788	0.210
	Ca	43	**7.153**	**ug/L**	53.174	67	0.000
>	Sc	45		**ug/L**		56378	56377.952
	Ti	47	**0.087**	**ug/L**	114.133	64	0.000
	V	51	**2.011**	**ug/L**	37.913	4817	0.027
	Cr	52	**0.252**	**ug/L**	46.313	748	0.004
	Cr	53		**ug/L**		23491	0.076
	Mn	55	**0.024**	**ug/L**	16.707	253	0.001
	Fe	57	**6.998**	**ug/L**	12.245	1850	0.003
	Co	59	**0.030**	**ug/L**	33.744	137	0.000
	Ni	60	**-0.726**	**ug/L**	11.611	373	-0.002
	Cu	63		**ug/L**		148	-0.001
	Cu	65	**-0.070**	**ug/L**	22.352	88	-0.000
	Zn	66	**-0.055**	**ug/L**	59.388	47	-0.000
	Zn	67		**ug/L**		1288	0.004
	Zn	68		**ug/L**		219	0.001
>	Ge	74		**ug/L**		65640	65640.468
	As	75	**1.570**	**ug/L**	36.889	472	0.005
	Se	77		**ug/L**		1075	0.003
	Se	82	**0.263**	**ug/L**	33.066	9	0.000
	Kr	83		**ug/L**		27	0.000
	Sr	88	**0.008**	**ug/L**	1.243	47	0.000
	Y	89		**ug/L**		12	0.000
	Zr	90	**0.188**	**ug/L**	4.425	375	0.004
	Mo	98	**0.079**	**ug/L**	18.081	83	0.001
	Ag	107	**0.009**	**ug/L**	22.824	17	0.000
	Cd	111	**0.018**	**ug/L**	16.549	8	0.000
	Cd	114		**ug/L**		16	0.000
>	In	115		**ug/L**		52053	52052.888
	Sn	120	**0.153**	**ug/L**	17.320	245	0.003
	Sb	121	**0.681**	**ug/L**	7.156	861	0.013
	Sb	123		**ug/L**		645	0.010
	Ba	135		**ug/L**		13	0.000
	Ba	137	**0.010**	**ug/L**	101.400	17	0.000
	Ho	165		**ug/L**		14	0.000
>	Lu	175		**ug/L**		111441	111440.898
	Tl	205	**0.219**	**ug/L**	12.529	1334	0.009
	Pb	208	**0.011**	**ug/L**	10.931	124	0.001
	Th	232	**0.159**	**ug/L**	13.428	1436	0.010
	U	238	**0.014**	**ug/L**	8.263	127	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	0.9999
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45			90.0		
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74			90.3		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115			87.6		
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175			88.9		
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

==========
Method Name: WATER
Method Description: 7470A, 245.2, ILM04 ANALYST JXL1
Element: Hg

Date: 12/22/2009
Technique:FI-MHS
Calibration Type:
Hg, Calc. Intercept : Linear
Wavelength: 253.7 nm
Sample Info Name: 122209W1.SIF Results Data Set Name: 122209W1

==========
Element: Hg Seq. No.: 1 AS Loc.: 1 Date: 12/22/2009
Sample ID: Calib Blank

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1			0.0019	0.0019	09:38:49	No
2			0.0020	0.0020	09:39:23	No
Mean:			0.0019			
SD :			0.0000			
%RSD:			0.5798			

Auto-zero performed.

==========
Element: Hg Seq. No.: 2 AS Loc.: 2 Date: 12/22/2009
Sample ID: S0.2

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1			0.0016	0.0035	09:40:47	No
2			0.0015	0.0034	09:41:22	No
Mean:			0.0015			
SD :			0.0001			
%RSD:			3.3099			

[Hg] Standard number 1 applied. [0.200]
Correlation Coefficient: 1.00000 Slope: 0.00766
Intercept : 0.00000

==========
Element: Hg Seq. No.: 3 AS Loc.: 3 Date: 12/22/2009
Sample ID: S0.5

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1			0.0036	0.0056	09:42:46	No
2			0.0037	0.0057	09:43:21	No
Mean:			0.0037			
SD :			0.0001			
%RSD:			1.5504			

[Hg] Standard number 2 applied. [0.500]
Correlation Coefficient: 0.99984 Slope: 0.00736
Intercept : 0.00002

==========
Element: Hg Seq. No.: 4 AS Loc.: 4 Date: 12/22/2009
Sample ID: S2.0

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1			0.0151	0.0170	09:44:46	No
2			0.0148	0.0168	09:45:21	No
Mean:			0.0150			
SD :			0.0002			
%RSD:			1.1621			

[Hg] Standard number 3 applied. [2.000]

Correlation Coefficient: 0.99999 Slope: 0.00748
Intercept : 0.00000

==========

Element: Hg Seq. No.: 5 AS Loc.: 5 Date: 12/22/2009
Sample ID: S5.0

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1			0.0370	0.0389	09:46:47	No
2			0.0367	0.0386	09:47:22	No
Mean:			0.0368			
SD :			0.0002			
%RSD:			0.6289			

[Hg] Standard number 4 applied. [5.000]
Correlation Coefficient: 0.99998 Slope: 0.00736
Intercept : 0.00006

==========

Element: Hg Seq. No.: 6 AS Loc.: 6 Date: 12/22/2009
Sample ID: S10

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1			0.0742	0.0761	09:48:49	No
2			0.0745	0.0765	09:49:23	No
Mean:			0.0744			
SD :			0.0003			
%RSD:			0.3649			

[Hg] Standard number 5 applied. [10.00]
Correlation Coefficient: 0.99999 Slope: 0.00742
Intercept : -0.00001

Calibration data for Hg

Standard ID	Mean Signal (Pk Height)	Entered Concentration (µg/L)	Calculated Concentration (µg/L)	Standard Deviation	%RSD
Calib Blank	0.0019	---	----	----	----
S0.2	0.0015	0.200	0.208	0.0001	3.3
S0.5	0.0037	0.500	0.498	0.0001	1.6
S2.0	0.0150	2.000	2.016	0.0002	1.2
S5.0	0.0368	5.000	4.960	0.0002	0.6
S10	0.0744	10.000	10.02	0.0003	0.4

Correlation Coefficient: 0.99999 Slope: 0.00742 Intercept: 0.0000

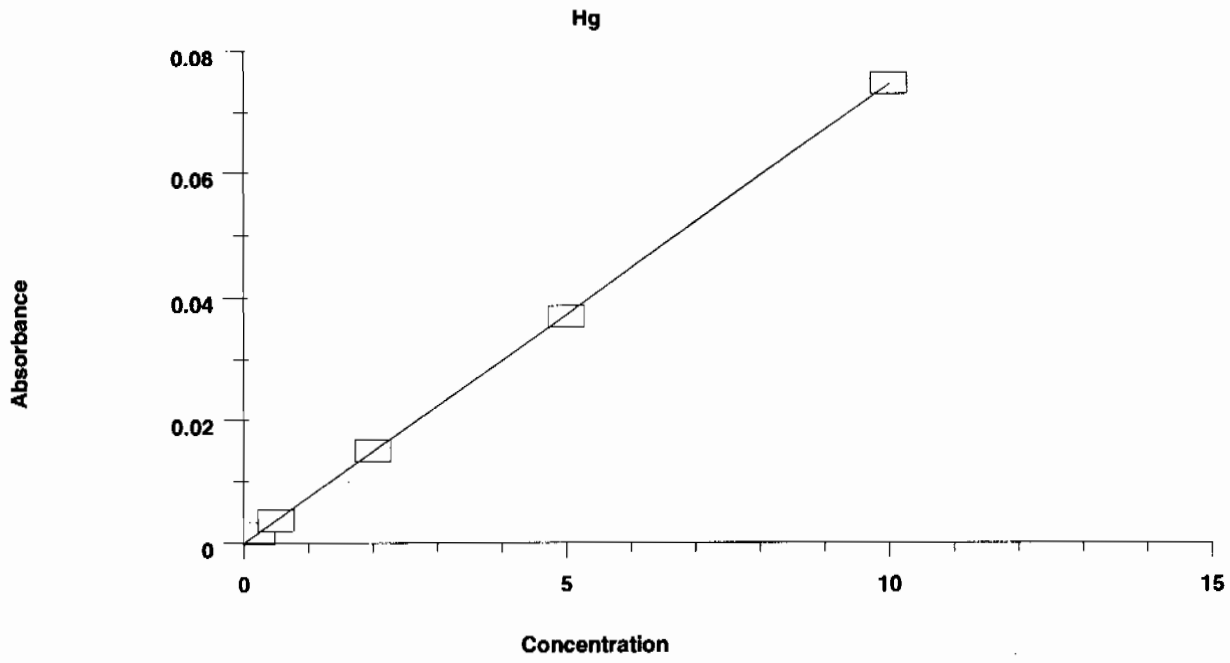

==========

Element: Hg Seq. No.: 7 AS Loc.: 9 Date: 12/22/2009

Sample ID: ICV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	5.131	5.131	0.0381	0.0400	09:50:51	No
2	5.115	5.115	0.0380	0.0399	09:51:25	No
Mean:	5.123	5.123	0.0380			
SD :	0.0117	0.0117	0.0001			
%RSD:	0.2	0.2	0.2291			

QC value within specified limits.

==========

Element: Hg Seq. No.: 8 AS Loc.: 10 Date: 12/22/2009

Sample ID: ICB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.006	-0.006	-0.0001	0.0019	09:52:47	No
2	0.000	0.000	0.0000	0.0019	09:53:23	No
Mean:	-0.003	-0.003	0.0000			
SD :	0.0047	0.0047	0.0000			
%RSD:	164.7	164.7	112.4015			

QC value within specified limits.

==========

Element: Hg Seq. No.: 9 AS Loc.: 11 Date: 12/22/2009

Sample ID: CRDL

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.205	0.205	0.0015	0.0035	09:54:45	No
2	0.178	0.178	0.0013	0.0033	09:55:20	No
Mean:	0.192	0.192	0.0014			
SD :	0.0190	0.0190	0.0001			
%RSD:	9.9	9.9	9.9864			

QC value within specified limits.

==========

Element: Hg Seq. No.: 10 AS Loc.: 7 Date: 12/22/2009
Sample ID: CCV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	5.064	5.064	0.0376	0.0395	09:56:45	No
2	5.018	5.018	0.0372	0.0392	09:57:20	No
Mean:	5.041	5.041	0.0374			
SD :	0.0324	0.0324	0.0002			
%RSD:	0.6	0.6	0.6432			

QC value within specified limits.

==========

Element: Hg Seq. No.: 11 AS Loc.: 8 Date: 12/22/2009
Sample ID: CCB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.017	0.017	0.0001	0.0021	09:58:48	No
2	0.025	0.025	0.0002	0.0021	09:59:22	No
Mean:	0.021	0.021	0.0001			
SD :	0.0061	0.0061	0.0000			
%RSD:	29.3	29.3	31.2454			

QC value within specified limits.

==========

Element: Hg Seq. No.: 12 AS Loc.: 12 Date: 12/22/2009
Sample ID: 1202000077|i||934827|MB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.008	-0.008	-0.0001	0.0019	10:00:48	No
2	-0.006	-0.006	-0.0001	0.0019	10:01:23	No
Mean:	-0.007	-0.007	-0.0001			
SD :	0.0011	0.0011	0.0000			
%RSD:	15.5	15.5	13.1032			

==========

Element: Hg Seq. No.: 13 AS Loc.: 13 Date: 12/22/2009
Sample ID: 1202000078|i|||LCS

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	2.008	2.008	0.0149	0.0168	10:02:48	No
2	2.027	2.027	0.0150	0.0170	10:03:22	No
Mean:	2.018	2.018	0.0150			
SD :	0.0137	0.0137	0.0001			
%RSD:	0.7	0.7	0.6774			

==========

Element: Hg Seq. No.: 14 AS Loc.: 14 Date: 12/22/2009
Sample ID: 243223004|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.307	0.307	0.0023	0.0042	10:04:49	No
2	0.296	0.296	0.0022	0.0041	10:05:23	No
Mean:	0.302	0.302	0.0022			
SD :	0.0077	0.0077	0.0001			
%RSD:	2.6	2.6	2.5658			

==========

Element: Hg Seq. No.: 15 AS Loc.: 15 Date: 12/22/2009
Sample ID: 1202000079|i|||DUP

%RSD: 10.6 10.6 10.8511

==========

Element: Hg Seq. No.: 21 AS Loc.: 21 Date: 12/22/2009
Sample ID: 1201987764|i|||DUP

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.082	0.082	0.0006	0.0025	10:18:37	No
2	0.054	0.054	0.0004	0.0023	10:19:12	No
Mean:	0.068	0.068	0.0005			
SD :	0.0194	0.0194	0.0001			
%RSD:	28.5	28.5	29.0324			

==========

Element: Hg Seq. No.: 22 AS Loc.: 7 Date: 12/22/2009
Sample ID: CCV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	5.096	5.096	0.0378	0.0398	10:20:38	No
2	5.085	5.085	0.0377	0.0397	10:21:12	No
Mean:	5.091	5.091	0.0378			
SD :	0.0077	0.0077	0.0001			
%RSD:	0.2	0.2	0.1519			

QC value within specified limits.

==========

Element: Hg Seq. No.: 23 AS Loc.: 8 Date: 12/22/2009
Sample ID: CCB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.023	0.023	0.0002	0.0021	10:22:40	No
2	0.002	0.002	0.0000	0.0019	10:23:15	No
Mean:	0.013	0.013	0.0001			
SD :	0.0149	0.0149	0.0001			
%RSD:	115.5	115.5	128.6544			

QC value within specified limits.

==========

Element: Hg Seq. No.: 24 AS Loc.: 22 Date: 12/22/2009
Sample ID: 1201987765|i|||MS

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	2.054	2.054	0.0152	0.0172	10:24:40	No
2	2.081	2.081	0.0154	0.0174	10:25:15	No
Mean:	2.068	2.068	0.0153			
SD :	0.0194	0.0194	0.0001			
%RSD:	0.9	0.9	0.9401			

==========

Element: Hg Seq. No.: 25 AS Loc.: 23 Date: 12/22/2009
Sample ID: 1201987766|i|||SDILT

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.020	-0.020	-0.0002	0.0018	10:26:40	No
2	-0.004	-0.004	0.0000	0.0019	10:27:15	No
Mean:	-0.012	-0.012	-0.0001			
SD :	0.0115	0.0115	0.0001			
%RSD:	94.4	94.4	85.1993			

==========

Element: Hg Seq. No.: 26 AS Loc.: 24 Date: 12/22/2009
Sample ID: 1201987725|i||929452|MB

%RSD: 60.8 60.8 54.4209

==========

Element: Hg Seq. No.: 32 AS Loc.: 30 Date: 12/22/2009
Sample ID: 242166003|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.008	-0.008	-0.0001	0.0019	10:40:41	No
2	-0.028	-0.028	-0.0002	0.0017	10:41:15	No
Mean:	-0.018	-0.018	-0.0001			
SD :	0.0144	0.0144	0.0001			
%RSD:	79.9	79.9	74.4051			

==========

Element: Hg Seq. No.: 33 AS Loc.: 31 Date: 12/22/2009
Sample ID: 242166004|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.039	-0.039	-0.0003	0.0016	10:42:42	No
2	-0.038	-0.038	-0.0003	0.0016	10:43:16	No
Mean:	-0.038	-0.038	-0.0003			
SD :	0.0003	0.0003	0.0000			
%RSD:	0.8	0.8	0.7414			

==========

Element: Hg Seq. No.: 34 AS Loc.: 7 Date: 12/22/2009
Sample ID: CCV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	5.126	5.126	0.0380	0.0400	10:44:43	No
2	5.159	5.159	0.0383	0.0402	10:45:17	No
Mean:	5.143	5.143	0.0382			
SD :	0.0235	0.0235	0.0002			
%RSD:	0.5	0.5	0.4565			

QC value within specified limits.

==========

Element: Hg Seq. No.: 35 AS Loc.: 8 Date: 12/22/2009
Sample ID: CCB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.008	0.008	0.0001	0.0020	10:46:45	No
2	-0.008	-0.008	-0.0001	0.0019	10:47:20	No
Mean:	0.000	0.000	0.0000			
SD :	0.0112	0.0112	0.0001			
%RSD:	2943	2943	1193.1708			

QC value within specified limits.

==========

Element: Hg Seq. No.: 36 AS Loc.: 32 Date: 12/22/2009
Sample ID: 242171001|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.024	-0.024	-0.0002	0.0018	10:48:45	No
2	-0.015	-0.015	-0.0001	0.0018	10:49:20	No
Mean:	-0.020	-0.020	-0.0002			
SD :	0.0059	0.0059	0.0000			
%RSD:	29.9	29.9	28.0047			

==========

Element: Hg Seq. No.: 37 AS Loc.: 33 Date: 12/22/2009
Sample ID: 1201987727|i|||DUP

%RSD: 0.5 0.5 0.5288

==========

Element: Hg Seq. No.: 43 AS Loc.: 39 Date: 12/22/2009
Sample ID: 242669004|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.088	0.088	0.0006	0.0026	11:02:22	No
2	0.068	0.068	0.0005	0.0024	11:02:57	No
Mean:	0.078	0.078	0.0006			
SD :	0.0141	0.0141	0.0001			
%RSD:	18.0	18.0	18.3447			

==========

Element: Hg Seq. No.: 44 AS Loc.: 40 Date: 12/22/2009
Sample ID: 1202000157|i|||DUP

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.089	0.089	0.0006	0.0026	11:04:20	No
2	0.093	0.093	0.0007	0.0026	11:04:55	No
Mean:	0.091	0.091	0.0007			
SD :	0.0033	0.0033	0.0000			
%RSD:	3.7	3.7	3.7208			

==========

Element: Hg Seq. No.: 45 AS Loc.: 41 Date: 12/22/2009
Sample ID: 1202000158|i|||MS

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	2.097	2.097	0.0156	0.0175	11:06:19	No
2	2.135	2.135	0.0158	0.0178	11:06:54	No
Mean:	2.116	2.116	0.0157			
SD :	0.0272	0.0272	0.0002			
%RSD:	1.3	1.3	1.2872			

==========

Element: Hg Seq. No.: 46 AS Loc.: 7 Date: 12/22/2009
Sample ID: CCV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	5.350	5.350	0.0397	0.0417	11:08:19	No
2	5.360	5.360	0.0398	0.0417	11:08:54	No
Mean:	5.355	5.355	0.0397			
SD :	0.0066	0.0066	0.0000			
%RSD:	0.1	0.1	0.1226			

QC value within specified limits.

==========

Element: Hg Seq. No.: 47 AS Loc.: 8 Date: 12/22/2009
Sample ID: CCB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.028	-0.028	-0.0002	0.0017	11:10:22	No
2	-0.011	-0.011	-0.0001	0.0019	11:10:56	No
Mean:	-0.019	-0.019	-0.0002			
SD :	0.0121	0.0121	0.0001			
%RSD:	62.2	62.2	58.2665			

QC value within specified limits.

==========

Element: Hg Seq. No.: 48 AS Loc.: 42 Date: 12/22/2009
Sample ID: 1202000159|i|||SDILT

%RSD: 0.2 0.2 0.2486

==========

Element: Hg Seq. No.: 54 AS Loc.: 48 Date: 12/22/2009
Sample ID: 1202000114|i|||SDILT

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.036	-0.036	-0.0003	0.0017	11:24:24	No
2	-0.051	-0.051	-0.0004	0.0016	11:25:00	No
Mean:	-0.043	-0.043	-0.0003			
SD :	0.0104	0.0104	0.0001			
%RSD:	23.9	23.9	23.2321			

==========

Element: Hg Seq. No.: 55 AS Loc.: 49 Date: 12/22/2009
Sample ID: 1201999913|i||935282|TB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.039	0.039	0.0003	0.0022	11:26:20	No
2	0.046	0.046	0.0003	0.0023	11:26:55	No
Mean:	0.043	0.043	0.0003			
SD :	0.0048	0.0048	0.0000			
%RSD:	11.1	11.1	11.4532			

==========

Element: Hg Seq. No.: 56 AS Loc.: 50 Date: 12/22/2009
Sample ID: 1201999928|i|||TB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.025	0.025	0.0002	0.0021	11:28:16	No
2	0.062	0.062	0.0005	0.0024	11:28:51	No
Mean:	0.044	0.044	0.0003			
SD :	0.0266	0.0266	0.0002			
%RSD:	61.1	61.1	63.0083			

==========

Element: Hg Seq. No.: 57 AS Loc.: 51 Date: 12/22/2009
Sample ID: 1202001139|i|||MB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.074	0.074	0.0005	0.0025	11:30:12	No
2	0.016	0.016	0.0001	0.0020	11:30:47	No
Mean:	0.045	0.045	0.0003			
SD :	0.0413	0.0413	0.0003			
%RSD:	92.3	92.3	95.1158			

==========

Element: Hg Seq. No.: 58 AS Loc.: 7 Date: 12/22/2009
Sample ID: CCV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	5.022	5.022	0.0373	0.0392	11:32:11	No
2	5.039	5.039	0.0374	0.0393	11:32:45	No
Mean:	5.030	5.030	0.0373			
SD :	0.0122	0.0122	0.0001			
%RSD:	0.2	0.2	0.2434			

QC value within specified limits.

==========

Element: Hg Seq. No.: 59 AS Loc.: 8 Date: 12/22/2009
Sample ID: CCB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.012	0.012	0.0001	0.0020	11:34:13	No
2	0.010	0.010	0.0001	0.0020	11:34:48	No
Mean:	0.011	0.011	0.0001			
SD :	0.0015	0.0015	0.0000			
%RSD:	13.8	13.8	15.7501			

QC value within specified limits.

==========

Element: Hg Seq. No.: 60 AS Loc.: 52 Date: 12/22/2009
Sample ID: 1202001140|i|||LCS

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	2.217	2.217	0.0164	0.0184	11:36:14	No
2	2.210	2.210	0.0164	0.0183	11:36:49	No
Mean:	2.214	2.214	0.0164			
SD :	0.0043	0.0043	0.0000			
%RSD:	0.2	0.2	0.1938			

==========

Element: Hg Seq. No.: 61 AS Loc.: 53 Date: 12/22/2009
Sample ID: 243010001|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.092	0.092	0.0007	0.0026	11:38:11	No
2	0.070	0.070	0.0005	0.0025	11:38:46	No
Mean:	0.081	0.081	0.0006			
SD :	0.0156	0.0156	0.0001			
%RSD:	19.3	19.3	19.6583			

==========

Element: Hg Seq. No.: 62 AS Loc.: 54 Date: 12/22/2009
Sample ID: 1201999911|i|||MS

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	1.751	1.751	0.0130	0.0149	11:40:09	No
2	1.753	1.753	0.0130	0.0149	11:40:44	No
Mean:	1.752	1.752	0.0130			
SD :	0.0015	0.0015	0.0000			
%RSD:						

==========

Element: Hg Seq. No.: 63 AS Loc.: 55 Date: 12/22/2009
Sample ID: 1202001141|i|||DUP

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.041	0.041	0.0003	0.0022	11:42:07	No
2	0.021	0.021	0.0001	0.0021	11:42:42	No
Mean:	0.031	0.031	0.0002			
SD :	0.0143	0.0143	0.0001			
%RSD:	46.3	46.3	48.3454			

==========

Element: Hg Seq. No.: 64 AS Loc.: 56 Date: 12/22/2009 5
Sample ID: 1202001144|i~~5~~|SDILT Typo JR 12/2/09

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.033	-0.033	-0.0003	0.0017	11:44:06	No
2	-0.054	-0.054	-0.0004	0.0015	11:44:40	No
Mean:	-0.043	-0.043	-0.0003			
SD :	0.0153	0.0153	0.0001			

%RSD: 35.2 35.2 34.2033

==========

Element: Hg Seq. No.: 65 AS Loc.: 57 Date: 12/22/2009
Sample ID: 243147001|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.050	0.050	0.0004	0.0023	11:46:04	No
2	0.041	0.041	0.0003	0.0022	11:46:38	No
Mean:	0.046	0.046	0.0003			
SD :	0.0068	0.0068	0.0001			
%RSD:	15.0	15.0	15.4250			

==========

Element: Hg Seq. No.: 66 AS Loc.: 58 Date: 12/22/2009
Sample ID: 243147002|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.123	0.123	0.0009	0.0028	11:48:03	No
2	0.083	0.083	0.0006	0.0025	11:48:38	No
Mean:	0.103	0.103	0.0008			
SD :	0.0281	0.0281	0.0002			
%RSD:	27.3	27.3	27.6308			

==========

Element: Hg Seq. No.: 67 AS Loc.: 59 Date: 12/22/2009
Sample ID: 1201998295|i||934918|TB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.062	0.062	0.0004	0.0024	11:50:02	No
2	0.081	0.081	0.0006	0.0025	11:50:37	No
Mean:	0.072	0.072	0.0005			
SD :	0.0137	0.0137	0.0001			
%RSD:	19.1	19.1	19.4683			

==========

Element: Hg Seq. No.: 68 AS Loc.: 60 Date: 12/22/2009
Sample ID: 1201998935|i|||TB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.067	0.067	0.0005	0.0024	11:52:02	No
2	0.059	0.059	0.0004	0.0024	11:52:37	No
Mean:	0.063	0.063	0.0005			
SD :	0.0060	0.0060	0.0000			
%RSD:	9.5	9.5	9.6736			

==========

Element: Hg Seq. No.: 69 AS Loc.: 61 Date: 12/22/2009
Sample ID: 1202000263|i|||MB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.118	0.118	0.0009	0.0028	11:54:03	No
2	0.105	0.105	0.0008	0.0027	11:54:38	No
Mean:	0.112	0.112	0.0008			
SD :	0.0094	0.0094	0.0001			
%RSD:	8.4	8.4	8.5022			

==========

Element: Hg Seq. No.: 70 AS Loc.: 7 Date: 12/22/2009
Sample ID: CCV

Repl	SampleConc	StndConc	BlnkCorr	Peak	Time	Peak

#	µg/L	µg/L	Signal	Height		Stored
1	5.086	5.086	0.0377	0.0397	11:56:04	No
2	5.100	5.100	0.0379	0.0398	11:56:39	No
Mean:	5.093	5.093	0.0378			
SD :	0.0102	0.0102	0.0001			
%RSD:	0.2	0.2	0.2005			

QC value within specified limits.

==========

Element: Hg Seq. No.: 71 AS Loc.: 8 Date: 12/22/2009
Sample ID: CCB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.013	0.013	0.0001	0.0020	11:58:07	No
2	0.012	0.012	0.0001	0.0020	11:58:42	No
Mean:	0.012	0.012	0.0001			
SD :	0.0007	0.0007	0.0000			
%RSD:	5.4	5.4	6.0821			

QC value within specified limits.

==========

Element: Hg Seq. No.: 72 AS Loc.: 62 Date: 12/22/2009
Sample ID: 1202000264|i|||LCS

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	2.198	2.198	0.0163	0.0183	12:00:10	No
2	2.199	2.199	0.0163	0.0183	12:00:45	No
Mean:	2.199	2.199	0.0163			
SD :	0.0005	0.0005	0.0000			
%RSD:						

==========

Element: Hg Seq. No.: 73 AS Loc.: 63 Date: 12/22/2009
Sample ID: 242976001|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.069	0.069	0.0005	0.0024	12:02:07	No
2	0.080	0.080	0.0006	0.0025	12:02:41	No
Mean:	0.075	0.075	0.0005			
SD :	0.0076	0.0076	0.0001			
%RSD:	10.1	10.1	10.3007			

==========

Element: Hg Seq. No.: 74 AS Loc.: 64 Date: 12/22/2009
Sample ID: 1201998292|i|||MS

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	1.882	1.882	0.0140	0.0159	12:04:01	No
2	1.899	1.899	0.0141	0.0160	12:04:35	No
Mean:	1.890	1.890	0.0140			
SD :	0.0121	0.0121	0.0001			
%RSD:	0.6	0.6	0.6393			

==========

Element: Hg Seq. No.: 75 AS Loc.: 65 Date: 12/22/2009
Sample ID: 1201998294|i|||MSD

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	1.849	1.849	0.0137	0.0157	12:05:55	No
2	1.810	1.810	0.0134	0.0154	12:06:30	No
Mean:	1.830	1.830	0.0136			
SD :	0.0275	0.0275	0.0002			

Miscellaneous

Prep LogBook

Analyst: AXG2 Verified by:_____

Batch: 935114

Lab SOP: GL-MA-E-008 REV# 13

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1202000742	UI091124-A00	.5	mL
LCS	1202000742	UI091124-B	.5	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Ph	Initial Wt.	Final Volume	Prep Factor	Matrix
TB	1201999910		SW846 3010A	21-DEC-2009 06:50	<2	5 mL	50 mL	10	SOIL
TB	1201999929		SW846 3010A	21-DEC-2009 06:50	<2	5 mL	50 mL	10	SOIL
MB	1202000741		SW846 3010A	21-DEC-2009 06:50	<2	5 mL	50 mL	10	SOIL
LCS	1202000742		SW846 3010A	21-DEC-2009 06:50	<2	5 mL	50 mL	10	SOIL
SAMPLE	243010001		SW846 3010A	21-DEC-2009 06:50	<2	5 mL	50 mL	10	SOIL
MS	1201999908	243010001	SW846 3010A	21-DEC-2009 06:50	<2	5 mL	50 mL	10	SOIL
DUP	1202000743	243010001	SW846 3010A	21-DEC-2009 06:50	<2	5 mL	50 mL	10	SOIL
SDILT	1202000745	243010001	SW846 3010A	21-DEC-2009 06:50	<2	5 mL	50 mL	10	SOIL
SAMPLE	243147001		SW846 3010A	21-DEC-2009 06:50	<2	5 mL	50 mL	10	SOIL
SAMPLE	243147002		SW846 3010A	21-DEC-2009 06:50	<2	5 mL	50 mL	10	SOIL

Reagent/Solvent Lot ID	Amount	Description
1194236	2.5 mL	HYDROCHLORIC ACID
1230937	3 mL	Nitric Acid CONC.

Comments:

Prep LogBook

Analyst: TXB3 Verified by:_____

Batch: 935279

Lab SOP: GL-MA-E-010 REV# 23

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1202001140	WHG091221-13	.2	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Ph	Initial Wt.	Final Volume	Prep Factor	Matrix
TB	1201999913		SW846 7470A Prep	21-DEC-2009 12:05	<2	2 mL	20 mL	10	SOIL
TB	1201999928		SW846 7470A Prep	21-DEC-2009 12:05	<2	2 mL	20 mL	10	SOIL
MB	1202001139		SW846 7470A Prep	21-DEC-2009 12:05	<2	2 mL	20 mL	10	SOIL
LCS	1202001140		SW846 7470A Prep	21-DEC-2009 12:05	<2	2 mL	20 mL	10	SOIL
SAMPLE	243010001		SW846 7470A Prep	21-DEC-2009 12:05	<2	2 mL	20 mL	10	SOIL
MS	1201999911	243010001	SW846 7470A Prep	21-DEC-2009 12:05	<2	2 mL	20 mL	10	SOIL
DUP	1202001141	243010001	SW846 7470A Prep	21-DEC-2009 12:05	<2	2 mL	20 mL	10	SOIL
SDILT	1202001144	243010001	SW846 7470A Prep	21-DEC-2009 12:05	<2	2 mL	20 mL	10	SOIL
SAMPLE	243147001		SW846 7470A Prep	21-DEC-2009 12:05	<2	2 mL	20 mL	10	SOIL
SAMPLE	243147002		SW846 7470A Prep	21-DEC-2009 12:05	<2	2 mL	20 mL	10	SOIL

Reagent/Solvent Lot ID	Amount	Description
1176183	1 mL	Sulfuric Acid, Concentrated
1240182-1	.5 mL	NITRIC ACID
1234385-C	1.5 mL	5% Potassium Persulfate
1244904-C	3 mL	5% KMnO4 solution
1206350-C	1 mL	Hg reducing agent
WHG091221-06	500 uL	Mercury Working 2nd Source 5.0/ICV
WHG091221-01	20 uL	Mercury Working 1st Source CAL 0.2/CRA
WHG091221-02	50 uL	Mercury Working 1st Source CAL 0.5
WHG091221-05	1 mL	Mercury Working 1st Source CAL 10.0
WHG091221-03	200 uL	Mercury Working 1st Source CAL 2.0
WHG091221-04	500 uL	Mercury Working 1st Source CAL 5.0/CCV

Comments: Digestion Start Date: 21-DEC-09 12:05
Digestion End Date: 21-DEC-09 14:05

Prep Logbook

Toxicity Characteristic Leaching Procedure Preparation

Batch ID: 934759.0 **Verified by:** _____
Analyst: Matthew Oswald
Method: SW846 1311

Lab SOP: GL-LB-E-006 REV# 13
Instrument: TCLP Tumbler #105

Sample ID Analysis Start Date	1201999910 TB 18-DEC-2009 16:00:00	1201999929 TB 18-DEC-2009 16:00:00	243010001 18-DEC-2009 16:00:00	1201999908 MS (243010001) 18-DEC-2009 16:00:00
100% Solid Y/N			Y	Y
(I) Sub Sample Aliquot I=G-H (g)			100	100
Initial pH (su)	4.92	2.89	7.1	7.1
pH Temperature (celsius)			50	50
Filtrate pH (su)	4.92	2.89	5	5
Final pH (su)	9.91	9.42	1.86	1.86
Tumbler Speed	28	28	28	28
Sample Properties <>/= Water	tclp#1	tclp#2	Solid	Solid
(J) 20X Wet Solid Weight 20XC (g)			2000	2000
Filtrate Volume (mL)	250	250	250	95

Type	Sample Id	Description		Spike Amt	Units
MS	1201999908	TCLP PREP SPIKE REG METALS	1017626	5	mL
MSD	1201999909	TCLP PREP SPIKE REG METALS	1017626	5	mL
RGNT	All	TCLP EXTRACTION FLUID 2	1018180	2000	mL
RGNT	All	TCLP EXTRACTION FLUID 1	1018205	2000	mL
RGNT	All	1N HCl for pH testing	1202901	3.5	mL
REGNT	All	Nitric Acid CONC.	1100721TCLP	2.5	mL
REGNT	All	1N HCl for pH testing	1202901	3.5	mL

Comments:
Extration End Date: 19-DEC-09 09:55:38
Filtration End Date: 19-DEC-09 17:22:09
Bottle Lot Number: C901201R
Filter Lot Number: 8335066
Extration Start Temperature: 23 C
Extration End Temperature: 23 C
Filtration End Temperature: 23 C

Prep Logbook

Toxicity Characteristic Leaching Procedure Preparation

Batch ID: 934759.0 **Verified by:** _____
Analyst: Matthew Oswald
Method: SW846 1311

Lab SOP: GL-LB-E-006 REV# 13
Instrument: TCLP Tumbler #105

Sample ID Analysis Start Date	1201999909 MSD (243010001) 18-DEC-2009 16:00:00	243147001 18-DEC-2009 16:00:00	243147002 18-DEC-2009 16:00:00
100% Solid Y/N	Y	Y	Y
(I) Sub Sample Aliquot I=G-H (g)	100	100	100
Initial pH (su)	7.1	12.09	12.05
pH Temperature (celsius)	50	50	50
Filtrate pH (su)	5	5	6
Final pH (su)	1.86	9.91	9.42
Tumbler Speed	28	28	28
Sample Properties <>/= Water	Solid	Solid	Solid
(J) 20X Wet Solid Weight 20XC (g)	2000	2000	2000
Filtrate Volume (mL)	95	250	250

Type	Sample Id	Description	Serial Number	Spike Amt	Units
MS	1201999908	TCLP PREP SPIKE REG METALS	1017626	5	mL
MSD	1201999909	TCLP PREP SPIKE REG METALS	1017626	5	mL
RGNT	All	TCLP EXTRACTION FLUID 2	1018180	2000	mL
RGNT	All	TCLP EXTRACTION FLUID 1	1018205	2000	mL
RGNT	All	IN HCl for pH testing	1202901	3.5	mL
REGNT	All	Nitric Acid CONC.	1100721TCLP	2.5	mL
REGNT	All	1N HCl for pH testing	1202901	3.5	mL

Comments:

Extration End Date: 19-DEC-09 09:55:38
Filtration End Date: 19-DEC-09 17:22:09
Bottle Lot Number: C901201R
Filter Lot Number: 8335066
Extration Start Temperature: 23 C
Extration End Temperature: 23 C
Filtration End Temperature: 23 C

Prep Logbook

Toxicity Characteristic Leaching Procedure Preparation

Batch ID: 934760.0 **Verified by:** _____

Analyst: Matthew Oswald

Method: SW846 1311

Lab SOP: GL-LB-E-006 REV# 13

Instrument: TCLP Tumbler #105

Sample ID Analysis Start Date	1201999913 TB 18-DEC-2009 16:00:00	1201999928 TB 18-DEC-2009 16:00:00	243010001 18-DEC-2009 16:00:00	1201999911 MS (243010001) 18-DEC-2009 16:00:00
100% Solid Y/N			Y	Y
(I) Sub Sample Aliquot I=G-H (g)			100	100
Initial pH (su)	4.92	2.89	7.1	7.1
pH Temperature (celsius)	50	50	50	50
Filtrate pH (su)	4.92	2.89	5	5
Final pH (su)	4.92	2.89	1.86	1.86
Tumbler Speed	28	28	28	28
Sample Properties <>/= Water	tclp#1	tclp#2	Solid	Solid
(J) 20X Wet Solid Weight 20XC (g)			2000	2000
Filtrate Volume (mL)	500	500	250	50

Type	Sample Id	Description		Spike Amt	Units
MS	1201999911	TCLP PREP MERCURY SPIKE	1017820	1	mL
MSD	1201999912	TCLP PREP MERCURY SPIKE	1017820	1	mL
RGNT	All	TCLP EXTRACTION FLUID 2	1018180	2000	mL
RGNT	All	TCLP EXTRACTION FLUID 1	1018205	2000	mL
RGNT	All	1N HCl for pH testing	1202901	3.5	mL
REGNT	All	Nitric Acid CONC.	1100721TCLP	2.5	mL

Comments:

Extration End Date: 19-DEC-09 09:55:38
Filtration End Date: 19-DEC-09 17:22:09
Bottle Lot Number: C901201R
Filter Lot Number: 8335066
Extration Start Temperature: 23 C
Extration End Temperature: 23 C
Filtration End Temperature: 23 C

Prep Logbook

Toxicity Characteristic Leaching Procedure Preparation

Batch ID: 934760.0 **Verified by:** _____
Analyst: Matthew Oswald
Method: SW846 1311

Lab SOP: GL-LB-E-006 REV# 13
Instrument: TCLP Tumbler #105

Sample ID Analysis Start Date	1201999912 MSD (243010001) 18-DEC-2009 16:00:00	243147001 18-DEC-2009 16:00:00	243147002 18-DEC-2009 16:00:00
100% Solid Y/N	Y	Y	Y
(I) Sub Sample Aliquot I=G-H (g)	100	100	100
Initial pH (su)	7.1	12.09	12.05
pH Temperature (celsius)	50	50	50
Filtrate pH (su)	5	5	6
Final pH (su)	1.86	9.91	9.42
Tumbler Speed	28	28	28
Sample Properties <>/= Water	Solid	Solid	Solid
(J) 20X Wet Solid Weight 20XC (g)	2000	2000	2000
Filtrate Volume (mL)	50	250	250

Type	Sample Id	Description	Serial Number	Spike Amt	Units
MS	1201999911	TCLP PREP MERCURY SPIKE	1017820	1	mL
MSD	1201999912	TCLP PREP MERCURY SPIKE	1017820	1	mL
RGNT	All	TCLP EXTRACTION FLUID 2	1018180	2000	mL
RGNT	All	TCLP EXTRACTION FLUID 1	1018205	2000	mL
RGNT	All	1N HCl for pH testing	1202901	3.5	mL
REGNT	All	Nitric Acid CONC.	1100721TCLP	2.5	mL

Comments:

Extration End Date: 19-DEC-09 09:55:38
Filtration End Date: 19-DEC-09 17:22:09
Bottle Lot Number: C901201R
Filter Lot Number: 8335066
Extration Start Temperature: 23 C
Extration End Temperature: 23 C
Filtration End Temperature: 23 C

Prep Logbook

Toxicity Characteristic Leaching Procedure Preparation

Batch ID: 934761.0 **Verified by:** _____
Analyst: Matthew Oswald
Method: SW846 1311

Lab SOP: GL-LB-E-006 REV# 13
Instrument: TCLP Tumbler #105

Sample ID	1201999914 TB	243010001
Analysis Start Date	18-DEC-2009 16:00:00	18-DEC-2009 16:00:00
100% Solid Y/N		Y
(I) Sub Sample Aliquot I=G-H (g)	0	25
Initial pH (su)	4.92	
pH Temperature (celsius)	50	
Filtrate pH (su)	4.92	
Final pH (su)	4.92	
Tumbler Speed	28	28
Sample Properties <>/= Water	tclp#1	Solid
(J) 20X Wet Solid Weight 20XC (g)		500
Filtrate Volume (mL)	40	40
VOA Positive Pressure Y/N	Y	Y
ZHE Vessle ID	26	25

Type	Sample Id	Description	Serial Number	Spike Amt	Units
RGNT	All	TCLP EXTRACTION FLUID I	1018062ZHE	500	mL

Comments:

Extration End Date: 19-DEC-09 09:55:38
Filtration End Date: 19-DEC-09 17:22:09
Bottle Lot Number: B-9-195-01VB
Filter Lot Number: 521112
Extration Start Temperature: 23 C
Extration End Temperature: 23 C
Filtration End Temperature: 23 C

Prep Logbook

Toxicity Characteristic Leaching Procedure Preparation

Batch ID: 934762.0 **Verified by:** _____
Analyst: Matthew Oswald
Method: SW846 1311

Lab SOP: GL-LB-E-006 REV# 13
Instrument: TCLP Tumbler #105

Sample ID	1201999915 TB	243010001
Analysis Start Date	18-DEC-2009 16:00:00	18-DEC-2009 16:00:00
100% Solid Y/N		Y
(I) Sub Sample Aliquot I=G-H (g)		100
Initial pH (su)	4.92	7.1
pH Temperature (celsius)	50	50
Filtrate pH (su)	4.92	5
Final pH (su)	4.92	1.86
Tumbler Speed	28	28
Sample Properties <>/= Water	tclp#1	Solid
(J) 20X Wet Solid Weight 20XC (g)	2000	2000
Filtrate Volume (mL)	1000	1000

Type	Sample Id	Description	Serial Number	Spike Amt	Units
RGNT	All	TCLP EXTRACTION FLUID 1	1018205	2000	mL
RGNT	All	1N HCl for pH testing	1202901	3.5	mL

Comments:

Extration End Date: 19-DEC-09 09:55:38
Filtration End Date: 19-DEC-09 17:22:09
Bottle Lot Number: H931601DB
Filter Lot Number: 8335066
Extration Start Temperature: 23 C
Extration End Temperature: 23 C
Filtration End Temperature: 23 C

Standard Logbook

Serial ID:	1017626	**Opened:**	21-OCT-09	**Amount :**	5 mL
Name:	TCLP PREP SPIKE	**Received:**	20-OCT-09	**Catalog Number :**	160062-01
Type:	Source Material	**Expires:**	21-OCT-10	**Lot Number :**	1017626
Employee:	Richard Dollinger	**Verified:**	02-AUG-08		
Supplier:	O2SI				

Description: TCLP PREP SPIKE REG METALS

Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	200 mg/L	Antimony	40 mg/L
Arsenic	100 mg/L	Barium	200 mg/L
Beryllium	40 mg/L	Boron	40 mg/L
Cadmium	20 mg/L	Calcium	100 mg/L
Chromium	100 mg/L	Cobalt	40 mg/L
Copper	40 mg/L	Iron	40 mg/L
Lead	100 mg/L	Lithium	20 mg/L
Magnesium	40 mg/L	Manganese	40 mg/L
Molybdenum	40 mg/L	Nickel	40 mg/L
Potassium	100 mg/L	Selenium	20 mg/L
Silver	10 mg/L	Sodium	100 mg/L
Strontium	40 mg/L	Thallium	40 mg/L
Thorium	40 mg/L	Tin	40 mg/L
Total Uranium	20 mg/L	Uranium	20 mg/L
Uranium-235	.144 mg/L	Uranium-238	19.856 mg/L
Vanadium	40 mg/L	Zinc	40 mg/L
Zirconium	40 mg/L		

Serial ID:	1017820	**Opened:**	10-NOV-09	**Amount :**	1 mg/L
Name:	TCLP PREP Hg SPIKE	**Received:**	10-NOV-09	**Catalog Number :**	160060-02
Type:	Source Material	**Expires:**	10-NOV-10	**Lot Number :**	1017820
Employee:	Monifa Morant-Basdeo	**Verified:**	10-NOV-09	**Solvent :**	mercury
Supplier:	O2S1				

Description: TCLP PREP MERCURY SPIKE

Comments: None

Analyte	Concentration	Analyte	Concentration
Mercury	1 mg/L		

Serial ID:	UHG1167639-01	**Opened:**	13-AUG-09	**Amount :**	125 mL
Name:	MHGSTOCK1	**Received:**	13-AUG-09	**Catalog Number :**	PLHG4-2Y
Type:	Source Material	**Expires:**	13-AUG-10	**Lot Number :**	15-37HG
Employee:	Bryan Davis			**Solvent :**	10% HNO3
Supplier:	Spex				

Description: Mercury Source Standard #1 1,000 mg/L

Comments: None

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Mercury	1000 mg/L		

Serial ID: UHG1167641-02 **Opened:** 13-AUG-09 **Amount :** 100 mL
Name: MHGSTOCK2 **Received:** 13-AUG-09 **Catalog Number :** AHG1KN-100
Type: Source Material **Expires:** 13-AUG-10 **Lot Number :** 4905530
Employee: Bryan Davis **Solvent :** 3% HNO3
Supplier: Ricca Chemical Company
Description: Mercury Source Standard #2 1,000 mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Mercury	999.7 mg/L		

Serial ID: UI090610-03 **Opened:** 10-JUN-09 **Catalog Number :** 060074-06-01
Name: ICPMS Tungsten - 10mg/L S **Received:** 10-JUN-09 **Lot Number :** 1016338
Type: Source Material **Expires:** 10-JUN-10 **Solvent :** 2% HNO3
Employee: Paul Boyd
Supplier: O2SI
Description: ICPMS Tungsten standard SPIKE - 10mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Tungsten	10 mg/L		

Serial ID: UI090701-09 **Opened:** 01-JUL-09 **Amount :** 250 mL
Name: ICP-MS CRDL Master #1 **Received:** 01-JUL-09 **Catalog Number :** 160044-09-02
Type: Source Material **Expires:** 01-JUL-10 **Lot Number :** 1016477
Employee: Paul Boyd **Solvent :** +/- 0.5% IN 2% HNO3
Supplier: 02SI
Description: ICPMS CRDL Master Soln #1
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	15 mg/L	Arsenic	5 mg/L
Barium	2 mg/L	Beryllium	.5 mg/L
Boron	15 mg/L	Cadmium	1 mg/L
Calcium	100 mg/L	Chromium	3 mg/L
Cobalt	1 mg/L	Copper	1 mg/L
Iron	25 mg/L	Lead	2 mg/L
Lithium	10 mg/L	Magnesium	15 mg/L
Manganese	5 mg/L	Nickel	2 mg/L
Phosphorous	50 mg/L	Potassium	300 mg/L
Selenium	5 mg/L	Sodium	250 mg/L
Strontium	10 mg/L	Thallium	1 mg/L

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Thorium	1 mg/L	Uranium	.2 mg/L
Vanadium	10 mg/L	Zinc	10 mg/L

Serial ID: UI090701-10 **Opened:** 01-JUL-09 **Amount :** 250 mL
Name: ICP-MS CRDL Master #2 **Received:** 01-JUL-09 **Catalog Number :** 160044-08-02
Type: Source Material **Expires:** 01-JUL-10 **Lot Number :** 1016476
Employee: Paul Boyd **Solvent :** +/- 0.5% IN 2% HNO3
Supplier: 02SI
Description: ICPMS CRDL Soln #2
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	2 mg/L	Molybdenum	.5 mg/L
Silver	1 mg/L	Tin	2 mg/L
Titanium	10 mg/L	Tungsten	5 mg/L
Zirconium	2 mg/L		

Serial ID: UI091124-A00 **Opened:** 24-NOV-09 **Catalog Number :** 160067-05
Name: ICP-MS ALL OTHER SPIKE **Received:** 24-NOV-09 **Lot Number :** 1017644
Type: Source Material **Expires:** 24-NOV-10
Employee: Francena Armstrong
Supplier: O2si
Description: ICP-MS SPIKE FOR ALL CLIENTS EXCEPT DOE CLIENTS (Solution A).
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	200 mg/L	Arsenic	5 mg/L
Barium	5 mg/L	Beryllium.	5 mg/L
Bismuth	5 mg/L	Boron	10 mg/L
Cadmium	5 mg/L	Calcium	200 mg/L
Cesium	5 mg/L	Chromium	5 mg/L
Cobalt	5 mg/L	Copper	5 mg/L
Iron	200 mg/L	Lead	5 mg/L
Lithium	5 mg/L	Magnesium	200 mg/L
Manganese	5 mg/L	Nickel	5 mg/L
Phosphorous	200 mg/L	Potassium	200 mg/L
Selenium	5 mg/L	Sodium	200 mg/L
Strontium	5 mg/L	Thallium	5 mg/L
Thorium	5 mg/L	Uranium	5 mg/L
Uranium-235	.036 mg/L	Uranium-238	4.964 mg/L
Vanadium	5 mg/L	Zinc	5 mg/L

Standard Logbook

Serial ID: UI091124-B **Opened:** 24-NOV-09 **Catalog Number :** 160067-05
Name: ICP-MS ALL OTHER SPIKE **Received:** 24-NOV-09 **Lot Number :** 1017644
Type: Source Material **Expires:** 24-NOV-10
Employee: Francena Armstrong
Supplier: O2si
Description: MS SPIKE FOR ALL CLIENTS EXCEPT DOE CLIENTS (Solution B).
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	5 mg/L	Molybdenum	5 mg/L
Silver	5 mg/L	Tin	5 mg/L
Titanium	5 mg/L	Zirconium	5 mg/L

Serial ID: UI091212-11 **Opened:** 12-DEC-09 **Amount :** 1000 mL
Name: ICP-MS ICSA Master A **Received:** 12-DEC-09 **Catalog Number :** 160013-01-01L
Type: Source Material **Expires:** 12-DEC-10 **Lot Number :** 1015303
Employee: Paul Boyd **Solvent :** 2% HNO3
Supplier: 02SI
Description: ICP-MS ICSA Master A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Calcium	1000 mg/L
Carbon	2000 mg/L	Chloride	10000 mg/L
Iron	1000 mg/L	Magnesium	1000 mg/L
Molybdenum	20 mg/L	Phosphorous	1000 mg/L
Potassium	1000 mg/L	Sodium	1000 mg/L
Sulfur	1000 mg/L	Titanium	20 mg/L

Serial ID: UI091212-60 **Opened:** 12-DEC-09 **Amount :** .5 mL
Name: ICPMS High Range Standar **Received:** 12-DEC-09 **Catalog Number :** 160212-02-01
Type: Source Material **Expires:** 12-DEC-10 **Lot Number :** 1018064
Employee: Paul Boyd **Solvent :** 2%HNO3 + Tr HF
Supplier: O2SI
Description: Linear Range Standard A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	5000 mg/L	Arsenic	100 mg/L
Barium	250 mg/L	Beryllium	100 mg/L
Cadmium	100 mg/L	Calcium	5000 mg/L
Chromium	100 mg/L	Cobalt	100 mg/L
Copper	100 mg/L	Iron	5000 mg/L
Lead	500 mg/L	Lithium	100 mg/L
Magnesium	5000 mg/L	Manganese	100 mg/L
Nickel	100 mg/L	Phosphorous	2500 mg/L

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Potassium	5000 mg/L	Selenium	50 mg/L
Sodium	5000 mg/L	Strontium	100 mg/L
Thallium	50 mg/L	Thorium	250 mg/L
Uranium	500 mg/L	Vanadium	100 mg/L
Zinc	250 mg/L		

Serial ID: UI091212-61 **Opened:** 12-DEC-09 **Amount :** .5 mL
Name: ICPMS High Range Standa **Received:** 12-DEC-09 **Catalog Number :** 160212-02-01
Type: Source Material **Expires:** 12-DEC-10 **Lot Number :** 1018064
Employee: Paul Boyd **Solvent :** 2%HNO3 + Tr HF
Supplier: O2SI
Description: Linear Range Standard B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	25 mg/L	Molybdenum	100 mg/L
Silver	25 mg/L	Tin	100 mg/L
Tungsten	100 mg/L	Zirconium	50 mg/L

Serial ID: UI091217-06 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master A **Received:** 17-DEC-09 **Catalog Number :** 160055-01
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018209
Employee: Paul Boyd **Solvent :** +/- 0.5% in 5% HNO3 100 cm2
Supplier: 02SI
Description: ICPMS ICV/CCV SOLN A - 10ppm
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	2020 mg/L	Calcium	2000 mg/L
Iron	2000 mg/L	Magnesium	2000 mg/L
Phosphorous	2000 mg/L	Potassium	2000 mg/L
Sodium	2000 mg/L		

Serial ID: UI091217-07 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master B **Received:** 17-DEC-09 **Catalog Number :** 160054-02
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018210
Employee: Paul Boyd **Solvent :** +/- 0.5% in 5% HNO3 100 cm2
Supplier: 02SI
Description: ICPMS ICV/CCV Soln B - 10ppm
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	20 mg/L	Barium	20 mg/L
Beryllium	20 mg/L	Boron	40 mg/L

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Cadmium	20 mg/L	Chromium	20 mg/L
Cobalt	20 mg/L	Copper	20 mg/L
Lead	20 mg/L	Lithium	20 mg/L
Manganese	20 mg/L	Nickel	20 mg/L
Selenium	20 mg/L	Strontium	20 mg/L
Thallium	20 mg/L	Thorium	20 mg/L
Uranium	20 mg/L	Vanadium	20 mg/L
Zinc	20 mg/L		

Serial ID: UI091217-08 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master C **Received:** 17-DEC-09 **Catalog Number :** 160054-03
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018211
Employee: Paul Boyd **Solvent :** +/- 0.5% in 5% HNO3 100 cm2
Supplier: 02SI
Description: ICPMS ICV/CCV Soln C - 10ppm
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	20 mg/L	Molybdenum	20 mg/L
Silver	20 mg/L	Tin	20 mg/L
Titanium	20 mg/L	Tungsten	20 mg/L
Zirconium	20 mg/L		

Serial ID: UI091217-12 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICSAB Master B **Received:** 17-DEC-09 **Catalog Number :** 160033-02
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018212
Employee: Paul Boyd **Solvent :** +/- 0.5% in 2% HNO3
Supplier: 02SI
Description: ICPMS ICSAB Master B
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	2 mg/L	Barium	2 mg/L
Beryllium	2 mg/L	Boron	2 mg/L
Cadmium	2 mg/L	Chromium	2 mg/L
Cobalt	2 mg/L	Copper	2 mg/L
Lead	2 mg/L	Lithium	2 mg/L
Manganese	2 mg/L	Nickel	2 mg/L
Selenium	2 mg/L	Strontium	2 mg/L
Thallium	2 mg/L	Thorium	2 mg/L
Uranium	2 mg/L	Vanadium	2 mg/L
Zinc	2 mg/L		

Standard Logbook

Serial ID: UI091217-13 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICSAB Master C **Received:** 17-DEC-09 **Catalog Number :** 160033-03
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1016926
Employee: Paul Boyd **Solvent :** +/- 0.5% in 2% HNO3
Supplier: 02SI
Description: ICPMS ICSAB Master C
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	2 mg/L	Silver	2 mg/L
Tin	2 mg/L	Tungsten	2 mg/L
Zirconium	2 mg/L		

Serial ID: UMS090303-01 **Opened:** 03-MAR-09 **Amount :** 250 mL
Name: ICPMSCalSPIKEB **Received:** 03-MAR-09 **Catalog Number :** ZGEL-100-250
Type: Source Material **Expires:** 28-FEB-10 **Lot Number :** 14-81JB
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution B
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	10 mg/L	Barium	10 mg/L
Beryllium	10 mg/L	Boron	20 mg/L
Cadmium	10 mg/L	Chromium	10 mg/L
Cobalt	10 mg/L	Copper	10 mg/L
Lead	10 mg/L	Lithium	10 mg/L
Manganese	10 mg/L	Nickel	10 mg/L
Selenium	10 mg/L	Silver	10 mg/L
Strontium	10 mg/L	Thallium	10 mg/L
Thorium	10 mg/L	Uranium	10 mg/L
Vanadium	10 mg/L	Zinc	10 mg/L

Serial ID: UMS090303-02 **Opened:** 03-MAR-09 **Catalog Number :** ZGEL-102-250
Name: ICPMSCalSPIKEA **Received:** 03-MAR-09 **Lot Number :** 14-83JB
Type: Source Material **Expires:** 28-FEB-10
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Calcium	1000 mg/L
Iron	1000 mg/L	Magnesium	1000 mg/L
Phosphorous	1000 mg/L	Potassium	1000 mg/L
Sodium	1000 mg/L		

Standard Logbook

Serial ID: UMS090303-03 **Opened:** 03-MAR-09 **Amount :** 250 ml
Name: ICPMSCalSPIKEC **Received:** 03-MAR-09 **Catalog Number :** ZGEL-101-250
Type: Source Material **Expires:** 28-FEB-10 **Lot Number :** 15-199JB
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution C
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	10 mg/L	Molybdenum	10 mg/L
Tin	10 mg/L	Titanium	10 mg/L
Zirconium	10 mg/L		

Serial ID: IHG091221-01 **Opened:** 21-DEC-09 **Instrument Id :** Mercury
Name: MHGINTER1 **Received:** 21-DEC-09 **Pipet Id :** Minou1
Type: Intermediate **Expires:** 22-DEC-09 **Solvent :** 1mL HNO3 + Typel H2O
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Intermediate 1st Source 200 ug/L
Comments: Prepare fresh daily

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167639-01	Mercury	1000 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: IHG091221-02 **Opened:** 21-DEC-09 **Pipet Id :** Minou1
Name: MHGINTER2 **Received:** 21-DEC-09 **Solvent :** 2% HNO3-1240182
Type: Intermediate **Expires:** 22-DEC-09
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Intermediate 2nd Source 200 ug/L
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167641-02	Mercury	999.7 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: WHG091221-01 **Opened:** 21-DEC-09 **Pipet Id :** Hg1289245
Name: MHGWORKCAL0.2CRA **Received:** 21-DEC-09 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 27-DEC-09
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working 1st Source CAL 0.2/CRA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG091221-01	Mercury	200 ug/L	20 uL	20 mL	.2 ug/L

Standard Logbook

Serial ID: WHG091221-02 **Opened:** 21-DEC-09 **Pipet Id :** Hg1289245
Name: MHGWORKCAL0.5 **Received:** 21-DEC-09 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 27-DEC-09
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working 1st Source CAL 0.5
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG091221-01	Mercury	200 ug/L	50 uL	20 mL	.5 ug/L

Serial ID: WHG091221-03 **Opened:** 21-DEC-09 **Pipet Id :** Hg1289245
Name: MHGWORKCAL2.0 **Received:** 21-DEC-09 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 27-DEC-09
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL 2.0
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG091221-01	Mercury	200 ug/L	200 uL	20 mL	2 ug/L

Serial ID: WHG091221-04 **Opened:** 21-DEC-09 **Pipet Id :** Hg1289245
Name: MHGWORKCAL5.0CCV **Received:** 21-DEC-09 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 27-DEC-09
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL 5.0/CCV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG091221-01	Mercury	200 ug/L	500 uL	20 mL	5 ug/L

Serial ID: WHG091221-05 **Opened:** 21-DEC-09 **Pipet Id :** Hg1289245
Name: MHGWORKCAL10.0 **Received:** 21-DEC-09 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 27-DEC-09
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL 10.0
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG091221-01	Mercury	200 ug/L	1 mL	20 mL	10 ug/L

Standard Logbook

Serial ID: WHG091221-06 **Opened:** 21-DEC-09 **Pipet Id :** Hg1289245
Name: MHGWORK5.0ICV **Received:** 21-DEC-09 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 27-DEC-09
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working 2nd Source 5.0/ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG091221-02	Mercury	200 ug/L	500 uL	20 mL	5 ug/L

Serial ID: WHG091221-13 **Opened:** 21-DEC-09 **Pipet Id :** Hg1289245
Name: MHGLIQLCSMSSPIKE **Received:** 21-DEC-09 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 27-DEC-09
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury working intermediate standard for LCS/MS
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167639-01	Mercury	1000 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: WMS091221-04 **Opened:** 21-DEC-09 **Amount :** 50 mL
Name: ICPMS Cal Standard 100 **Received:** 21-DEC-09 **Balance Id :** 4025216
Type: Working **Expires:** 22-DEC-09 **Pipet Id :** 3541598
Employee: Elizabeth Janssen **Solvent :** 2%HNO3/1%HCl-1245333
Supplier: GEL
Description: ICPMS Calibration Standard (100 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090610-03	Tungsten	10 mg/L	.5 mL	50 mL	100 ug/L
UMS090303-01	Arsenic	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Barium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Beryllium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Boron	20 mg/L	.5 mL	50 mL	200 ug/l
UMS090303-01	Cadmium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Chromium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Cobalt	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Copper	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Lead	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Lithium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Manganese	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Nickel	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Selenium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Silver	10 mg/L	.5 mL	50 mL	100 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UMS090303-01	Strontium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Thallium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Thorium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Uranium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Vanadium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Zinc	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-02	Aluminum	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Calcium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Iron	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Magnesium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Phosphorous	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Potassium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Sodium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-03	Antimony	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Molybdenum	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Tin	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Titanium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Zirconium	10 mg/L	.5 mL	50 mL	100 ug/l

Serial ID: WMS091221-04A **Opened:** 21-DEC-09 **Balance Id :** 4025216
Name: ICPMS Cal Standard 10 **Received:** 21-DEC-09 **Pipet Id :** 3541598
Type: Working **Expires:** 22-DEC-09 **Solvent :** 2%HNO3/1%HCl - 1245333
Employee: Elizabeth Janssen
Supplier: GEL
Description: ICPMS Calibration Standard (10 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS091221-04	Aluminum	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS091221-04	Antimony	100 ug/l	5 mL	50 mL	10 ug/l
WMS091221-04	Arsenic	100 ug/l	5 mL	50 mL	10 ug/l
WMS091221-04	Barium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091221-04	Beryllium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091221-04	Boron	200 ug/l	5 mL	50 mL	20 ug/l
WMS091221-04	Cadmium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091221-04	Calcium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS091221-04	Chromium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091221-04	Cobalt	100 ug/l	5 mL	50 mL	10 ug/l
WMS091221-04	Copper	100 ug/l	5 mL	50 mL	10 ug/l
WMS091221-04	Iron	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS091221-04	Lead	100 ug/l	5 mL	50 mL	10 ug/l
WMS091221-04	Lithium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091221-04	Magnesium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS091221-04	Manganese	100 ug/l	5 mL	50 mL	10 ug/l
WMS091221-04	Molybdenum	100 ug/l	5 mL	50 mL	10 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS091221-04	Nickel	100 ug/l	5 mL	50 mL	10 ug/l
WMS091221-04	Phosphorous	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS091221-04	Potassium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS091221-04	Selenium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091221-04	Silver	100 ug/l	5 mL	50 mL	10 ug/l
WMS091221-04	Sodium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS091221-04	Strontium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091221-04	Thallium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091221-04	Thorium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091221-04	Tin	100 ug/l	5 mL	50 mL	10 ug/l
WMS091221-04	Titanium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091221-04	Tungsten	100 ug/L	5 mL	50 mL	10 ug/L
WMS091221-04	Uranium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091221-04	Vanadium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091221-04	Zinc	100 ug/l	5 mL	50 mL	10 ug/l
WMS091221-04	Zirconium	100 ug/l	5 mL	50 mL	10 ug/l

Serial ID: WMS091221-05 **Opened:** 21-DEC-09 **Balance Id :** 40245216
Name: ICPMS ICV **Received:** 21-DEC-09 **Pipet Id :** 3541598
Type: Working **Expires:** 22-DEC-09 **Solvent :** 2%HNO3/1%HCl - 1245333
Employee: Elizabeth Janssen
Supplier: GEL
Description: ICPMS ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-06	Aluminum	2020 mg/L	.125 mL	50 mL	5050 ug/L
UI091217-06	Calcium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Iron	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Magnesium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Phosphorous	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Potassium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Sodium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-07	Arsenic	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Barium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Beryllium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Boron	40 mg/L	.125 mL	50 mL	100 ug/L
UI091217-07	Cadmium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Chromium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Cobalt	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Copper	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lead	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lithium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Manganese	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Nickel	20 mg/L	.125 mL	50 mL	50 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-07	Selenium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Strontium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thallium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thorium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Uranium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Vanadium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Zinc	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Antimony	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Molybdenum	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Silver	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tin	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Titanium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tungsten	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Zirconium	20 mg/L	.125 mL	50 mL	50 ug/L

Serial ID: WMS091221-06 **Opened:** 21-DEC-09 **Balance Id :** 40245216
Name: ICPMS CRDL **Received:** 21-DEC-09 **Pipet Id :** 3820544
Type: Working **Expires:** 22-DEC-09 **Solvent :** 2%HNO3/1%HCl - 1245333
Employee: Elizabeth Janssen
Supplier: GEL
Description: ICPMS CRDL
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Aluminum	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Arsenic	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Barium	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Beryllium	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-09	Boron	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Cadmium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Calcium	100 mg/L	.05 mL	50 mL	100 ug/L
UI090701-09	Chromium	3 mg/L	.05 mL	50 mL	3 ug/L
UI090701-09	Cobalt	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Copper	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Iron	25 mg/L	.05 mL	50 mL	25 ug/L
UI090701-09	Lead	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Lithium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Magnesium	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Manganese	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Nickel	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Phosphorous	50 mg/L	.05 mL	50 mL	50 ug/L
UI090701-09	Potassium	300 mg/L	.05 mL	50 mL	300 ug/L
UI090701-09	Selenium	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Sodium	250 mg/L	.05 mL	50 mL	250 ug/L
UI090701-09	Strontium	10 mg/L	.05 mL	50 mL	10 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Thallium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Thorium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Uranium	.2 mg/L	.05 mL	50 mL	.2 ug/L
UI090701-09	Vanadium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Zinc	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Antimony	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-10	Molybdenum	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-10	Silver	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-10	Tin	2 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Titanium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Tungsten	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Zirconium	2 mg/L	.05 mL	50 mL	2 ug/L

Serial ID: WMS091221-07 **Opened:** 21-DEC-09 **Balance Id :** 40245216
Name: ICPMS ICSA **Received:** 21-DEC-09 **Lot Number :** 1010773
Type: Working **Expires:** 22-DEC-09 **Pipet Id :** 3541598
Employee: Elizabeth Janssen **Solvent :** 2%HNO3/1%HCl - 1245333
Supplier: GEL
Description: ICPMS ICSA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI091212-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI091212-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: WMS091221-08 **Opened:** 21-DEC-09 **Balance Id :** 40245216
Name: ICPMS ICSAB **Received:** 21-DEC-09 **Pipet Id :** 1758088
Type: Working **Expires:** 22-DEC-09 **Solvent :** 2%HNO3/1%HCl - 1245333
Employee: Elizabeth Janssen
Supplier: GEL
Description: ICPMS ICSAB
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI091212-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI091212-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L
UI091217-12	Arsenic	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Barium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Beryllium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Boron	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Cadmium	2 mg/L	.5 mL	50 mL	20.2 ug/L
UI091217-12	Chromium	2 mg/L	.5 mL	50 mL	22.2 ug/L
UI091217-12	Cobalt	2 mg/L	.5 mL	50 mL	20.4 ug/L
UI091217-12	Copper	2 mg/L	.5 mL	50 mL	23.4 ug/L
UI091217-12	Lead	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Lithium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Manganese	2 mg/L	.5 mL	50 mL	22.7 ug/L
UI091217-12	Nickel	2 mg/L	.5 mL	50 mL	22.4 ug/L
UI091217-12	Selenium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Strontium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thallium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thorium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Uranium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Vanadium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Zinc	2 mg/L	.5 mL	50 mL	27 ug/L
UI091217-13	Antimony	2 mg/L	.5 mL	50 mL	20.5 ug/L
UI091217-13	Silver	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tin	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tungsten	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Zirconium	2 mg/L	.5 mL	50 mL	20 ug/L

Serial ID: WMS091221-70 **Opened:** 21-DEC-09 **Balance Id :** 40245216
Name: ICPMS LINEAR RANGE ST **Received:** 21-DEC-09 **Pipet Id :** 1758088
Type: Working **Expires:** 22-DEC-09 **Solvent :** 2%HNO3/1%HCl - 1245333
Employee: Elizabeth Janssen
Supplier: 02SI
Description: ICPMS LINEAR RANGE STANDARD
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-60	Aluminum	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Arsenic	100 mg/L	.5 mL	50 mL	1000 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-60	Barium	250 mg/L	.5 mL	50 mL	2500 ug/L
UI091212-60	Beryllium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Cadmium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Calcium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Chromium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Cobalt	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Copper	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Iron	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Lead	500 mg/L	.5 mL	50 mL	5000 ug/L
UI091212-60	Lithium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Magnesium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Manganese	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Nickel	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Phosphorous	2500 mg/L	.5 mL	50 mL	25000 ug/L
UI091212-60	Potassium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Selenium	50 mg/L	.5 mL	50 mL	500 ug/L
UI091212-60	Sodium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Strontium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Thallium	50 mg/L	.5 mL	50 mL	500 ug/L
UI091212-60	Thorium	250 mg/L	.5 mL	50 mL	2500 ug/L
UI091212-60	Uranium	500 mg/L	.5 mL	50 mL	5000 ug/L
UI091212-60	Vanadium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Zinc	250 mg/L	.5 mL	50 mL	2500 ug/L
UI091212-61	Antimony	25 mg/L	.5 mL	50 mL	250 ug/L
UI091212-61	Molybdenum	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-61	Silver	25 mg/L	.5 mL	50 mL	250 ug/L
UI091212-61	Tin	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-61	Tungsten	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-61	Zirconium	50 mg/L	.5 mL	50 mL	500 ug/L

Serial ID: 1018062ZHE **Opened:** 07-DEC-09 **Lot Number :** 1018062
Name: TCLP1 **Received:** 03-DEC-09
Type: Reagent/Solvent **Expires:** 03-DEC-10
Employee: Clifford Postell **Verified:** 08-AUG-07
Supplier: O2SI
Description: TCLP EXTRACTION FLUID 1
Comments: None

Serial ID: 1018180 **Opened:** 10-DEC-09 **Lot Number :** 1018180
Name: TCLP2 **Received:** 09-DEC-09
Type: Reagent/Solvent **Expires:** 09-DEC-10
Employee: Richard Dollinger **Verified:** 08-AUG-07
Supplier: O2SI
Description: TCLP EXTRACTION FLUID 2

Comments: None

Serial ID: 1018205 **Opened:** 15-DEC-09 **Lot Number :** 1018205
Name: TCLP1 **Received:** 14-DEC-09
Type: Reagent/Solvent **Expires:** 14-DEC-10
Employee: Monifa Morant-Basdeo **Verified:** 08-AUG-07
Supplier: O2SI
Description: TCLP EXTRACTION FLUID 1
Comments: None

Serial ID: 1100721TCLP **Opened:** 16-APR-09 **Lot Number :** H02026 L
Name: I-HNO3 **Received:** 02-APR-09
Type: Reagent/Solvent **Expires:** 02-APR-10
Employee: Clifford Postell
Supplier: BAKER
Description: Nitric Acid CONC.
Comments: None

Serial ID: 1156689-A **Opened:** 20-JUL-09 **Lot Number :** 41226920
Name: B-KMnO4(VWR)-MER **Received:** 20-JUL-09
Type: Reagent/Solvent **Expires:** 20-JUL-10
Employee: Tara Griffin **Verified:** 07-AUG-07
Supplier: VWR
Description: Potassium Permanganate
Comments: None

Serial ID: 1164796-A **Opened:** 06-AUG-09 **Lot Number :** 49149927
Name: B-NH2OH.HCl-MER **Received:** 06-AUG-09
Type: Reagent/Solvent **Expires:** 06-AUG-10
Employee: Tara Griffin
Supplier: Fisher Scientific
Description: Hydroxlyamine Hydrochloride
Comments: None

Serial ID: 1176183 **Opened:** 24-AUG-09 **Lot Number :** H20001
Name: B-H2SO4-MER **Received:** 24-AUG-09
Type: Reagent/Solvent **Expires:** 24-AUG-10
Employee: Tara Griffin
Supplier: Mallinckrodt
Description: Sulfuric Acid, Concentrated
Comments: None

Standard Logbook

Serial ID: 1194236 **Opened:** 23-SEP-09 **Lot Number :** H32032
Name: I-HCL **Received:** 23-SEP-09 **Preservative_Id :** 5 none
Type: Reagent/Solvent **Expires:** 23-SEP-10
Employee: Francena Armstrong
Supplier: J.T. BAKER
Description: HYDROCHLORIC ACID
Comments: None

Serial ID: 1202901 **Opened:** 14-OCT-09
Name: 1N HCl- TCLP **Received:** 14-OCT-09
Type: Reagent/Solvent **Expires:** 14-OCT-10
Employee: Monifa Morant-Basdeo
Supplier: GEL
Description: 1N HCl for pH testing
Comments: None

Serial ID: 1206350-C **Opened:** 22-OCT-09 **Balance Id :** BAL-002
Name: B-NaCl.NH2OH.HCl-MER **Received:** 22-OCT-09
Type: Reagent/Solvent **Expires:** 06-AUG-10
Employee: Tara Griffin
Supplier: GEL
Description: Hg reducing agent
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1164796-A	B-NH2OH.HCl-MER	N/A	120 g	1000 mL	N/A

Serial ID: 1215906 **Opened:** 06-NOV-09 **Lot Number :** H44465
Name: B-K2S2O8S-MER **Received:** 06-NOV-09
Type: Reagent/Solvent **Expires:** 06-NOV-10
Employee: Tara Griffin
Supplier: J.T BAKER
Description: Potassium Persulfate Concentrate.
Comments: None

Serial ID: 1230937 **Opened:** 18-NOV-09 **Lot Number :** H20053 L
Name: I-HNO3 **Received:** 18-NOV-09
Type: Reagent/Solvent **Expires:** 18-NOV-10
Employee: Anthony Green
Supplier: BAKER
Description: Nitric Acid CONC.
Comments: None

Standard Logbook

Serial ID: 1234385-C **Opened:** 25-NOV-09 **Balance Id :** BAL-002
Name: B-K2S2O8-MER **Received:** 25-NOV-09
Type: Reagent/Solvent **Expires:** 25-MAY-10
Employee: Tara Griffin
Supplier: GEL
Description: 5% Potassium Persulfate
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1215906	B-K2S2O8S-MER	N/A	50 g	1000 mL	N/A

Serial ID: 1238345 **Opened:** 04-DEC-09 **Lot Number :** H20053 L
Name: I-HNO3 **Received:** 04-DEC-09
Type: Reagent/Solvent **Expires:** 04-DEC-10
Employee: Francena Armstrong
Supplier: BAKER
Description: Nitric Acid CONC.
Comments: None

Serial ID: 1240182-1 **Opened:** 09-DEC-09 **Instrument Id :** MERCURY
Name: B-HNO3-MER **Received:** 09-DEC-09 **Lot Number :** H34040
Type: Reagent/Solvent **Expires:** 09-DEC-10
Employee: Tara Griffin
Supplier: Mallinckrodt Chemicals
Description: NITRIC ACID
Comments: None

Serial ID: 1244904-C **Opened:** 18-DEC-09 **Balance Id :** BAL-002
Name: B-KMnO4-MER **Received:** 18-DEC-09
Type: Reagent/Solvent **Expires:** 18-JUN-10
Employee: Tara Griffin
Supplier: GEL
Description: 5% KMnO4 solution
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1156689-A	B-KMnO4(VWR)-MER	Crystals	50 g	1000 mL	3%

Serial ID: 1244970 **Opened:** 18-DEC-09 **Lot Number :** H41032
Name: I-HCL **Received:** 18-DEC-09 **Preservative_Id :** 5 none
Type: Reagent/Solvent **Expires:** 18-DEC-10
Employee: Francena Armstrong
Supplier: J.T. BAKER
Description: HYDROCHLORIC ACID

Standard Logbook

Comments: None

Serial ID: 1245333 **Opened:** 21-DEC-09 **Solvent :** Type I Water
Name: B-2%HNO3/1%HCl-ICPMS **Received:** 21-DEC-09
Type: Reagent/Solvent **Expires:** 28-DEC-09
Employee: Elizabeth Janssen
Supplier: GEL
Description: 2%HNO3/1%HCl Solution (Type I Water)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1238345	I-HNO3	69.0-70.0	180 mL	9 l	N/A
1244970	I-HCL	36.5-38.0	90 mL	9 l	N/A

General Chemistry Analysis

Case Narrative

General Chemistry Narrative
Los Alamos National Laboratory (LANL)
SDG 10-939

Method/Analysis Information

Product:	**Cyanide, Total**		
Analytical Batch:	934285	**Method:**	SW846 9012A
Prep Batch :	934282	**Method:**	SW846 9010B Prep

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 9012A:

Sample ID	Client ID
243007002	WST03-10-2147
1201998913	Method Blank (MB)
1201998914	243030001(RE16-10-200) Sample Duplicate (DUP)
1201998915	243030002(RE16-10-186) Sample Duplicate (DUP)
1201998916	243030001(RE16-10-200) Matrix Spike (MS)
1201998917	243030002(RE16-10-186) Matrix Spike (MS)
1201998918	243030001(RE16-10-200) Matrix Spike Duplicate (MSD)
1201998919	243030002(RE16-10-186) Matrix Spike Duplicate (MSD)
1201998920	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on a "dry weight" basis.

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-095 REV# 12.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

The Flow Injection analysis was performed on a Lachat QuickChem FIA+ 8000 Series.

Initial Calibration

All initial calibration requirements have been met for this SDG.

Continuing Calibration Blanks

All continuing calibration blanks (CCBs) associated with reported data from this batch were within

acceptance limits.

Calibration Verification Information (CCV)
All continuing calibration verification standards (CCVs) associated with reported data from this batch were within acceptance limits.

Y Intercept Rule
The absolute value of the intercept is less than 3 times the MDL.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recovery met the acceptance limits.

Quality Control (QC) Designation
The following samples were selected for QC analysis: 243030001 (RE16-10-200) and 243030002 (RE16-10-186).

Matrix Spike (MS)/Post Spike (PS) Recovery Statement
The spike recovery falls outside of the established acceptance limits. Since both the spike duplicate recovery and the RPD between the spike and spike duplicate fall within acceptance limits, the data is reported. 1201998917 (RE16-10-186). The spike recovery falls outside of the client specified acceptance limits. Since both the spike duplicate recovery and the RPD between the spike and spike duplicate fall within acceptance limits, the data is reported. 1201998916 (RE16-10-200).

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recoveries for this sample set were within the required acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPDs between the spike and spike duplicate met the acceptance limits.

Duplicate Relative Percent Difference (RPD) Statement
The values for the sample and duplicate are less than the Practical Quantitation Limit (PQL); therefore, the RPD is not applicable. 1201998915 (RE16-10-186).

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times
All samples in this SDG met the specified holding time.

Sample Preservation/Integrity
All the samples from this sample group met the preservation and integrity requirements of the method.

Sample Dilutions
The following sample in this sample group was diluted due to high concentration: 1201998920 (LCS).

Sample Re-analysis
The following samples were re-analyzed due to instrument failure: 1201998917 (RE16-10-186) and 1201998919 (RE16-10-186).

Miscellaneous Information

Nonconformance (NCR) Documentation
The following NCR was generated for this SDG: 774403 1201998916 (RE16-10-200) and 1201998917 (RE16-10-186).

Additional Comments
Additional comments were not required for this SDG.

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:
Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Tom Lewis, Jr. **Date:** 29Dec09

Sample Data Summary

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis Report
for

LANL010 Los Alamos National Laboratory (72733-001-09)

Client SDG: 10-939 GEL Work Order: 243007

The Qualifiers in this report are defined as follows:

* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.

** Indicates the analyte is a surrogate compound.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the detection limit.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Valerie Davis.

Reviewed by _____

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: December 29, 2009

Client SDG: 10-939

Client Sample ID:	WST03-10-2147	Project:	LANL01004
Sample ID:	243007002	Client ID:	LANL010
Matrix:	R		
Collect Date:	14-DEC-09 12:00		
Receive Date:	16-DEC-09		
Collector:	Client		
Moisture:	13.5%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total Federal "Dry Weight Corrected"										
Cyanide, Total	J	134	74.2	273	ug/kg	1	AXC2 12/22/09	1514	934285	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	12/21/09	1327	934282

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

Quality Control Summary

GEL LABORATORIES LLC

2040 Savage Road Charleston, SC 29407 - (843) 556-8171 - www.gel.com

QC Summary

Report Date: December 29, 2009
Page 1 of 2

Los Alamos National Laboratory
PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico

Contact: Ms. Joylene Valdez

Workorder: 243007

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Flow Injection Analysis										
Batch 934285										
QC1201998914 243030001 DUP										
Cyanide, Total		989		1010	ug/kg	1.65 ^		(+/-275)	AXC2	12/22/09 15:16
QC1201998915 243030002 DUP										
Cyanide, Total	U	ND	J	298	ug/kg	200		(+/-375)		12/22/09 15:20
QC1201998920 LCS										
Cyanide, Total	67900			65800	ug/kg		96.8	(46%-145%)		12/22/09 15:14
QC1201998913 MB										
Cyanide, Total			U	250	ug/kg					12/22/09 15:13
QC1201998916 243030001 MS										
Cyanide, Total	5390	989		5000	ug/kg		74.4	(50%-130%)		12/22/09 15:17
QC1201998917 243030002 MS										
Cyanide, Total	6720 U	ND		9010	ug/kg		134*	(50%-130%)		12/22/09 15:32
QC1201998918 243030001 MSD										
Cyanide, Total	5490	989		6210	ug/kg	21.6	95	(0%-30%)		12/22/09 15:18
QC1201998919 243030002 MSD										
Cyanide, Total	7640 U	ND		7800	ug/kg	14.4	102	(0%-30%)		12/22/09 15:31

Notes:
RER is calculated at the 95% confidence level (2-sigma).
The Qualifiers in this report are defined as follows:

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
- E Organics--Concentration of the target analyte exceeds the instrument calibration range
- F Estimated Value
- H Analytical holding time was exceeded
- J Value is estimated
- M M if above MDC and less than LLD
- M Matrix Related Failure
- N Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor

QC Summary

Workorder: 243007

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time

N/A	RPD or %Recovery limits do not apply.
ND	Analyte concentration is not detected above the detection limit
NJ	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
P	Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%
R	Sample results are rejected
U	Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI	Gamma Spectroscopy--Uncertain identification
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
Z	Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d	5-day BOD--The 2:1 depletion requirement was not met for this sample
h	Preparation or preservation holding time was exceeded

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more.
^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.
* Indicates that a Quality Control parameter was not within specifications.
For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

Instrument QC Data Summary

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Report Run On: 29-DEC-2009 10:06

GEL Laboratories LLC

Contract: **LANL01004**

SDG #: **10-939**

Flow Injection Analysis

Method: SW846 9012A Concentration Units:ug/L

Instrument: Lachat QuickChem FIA+ 8000 Series

Parmname: Cyanide, Total

Sample Type	Run Date	Data File	Result	Nominal	Recovery	Limits	Within Limits
ICV	**22-DEC-2009 15:07:41**	**OM_12-22-2009_14-59-47**	**144**	**150**	**96**	**(90%-110%)**	**Yes**
CCV	22-DEC-2009 15:21:57	OM_12-22-2009_14-59-47	95.1	100	95	(90%-110%)	Yes
CCV	22-DEC-2009 15:34:19	OM_12-22-2009_14-59-47	95.6	100	96	(90%-110%)	Yes

Sample Type	Run Date	Data File	Result	Limits	Within Limits
ICB	**22-DEC-2009 15:09:31**	**OM_12-22-2009_14-59-47**	**-1.08**	**5**	**Yes**
CCB	22-DEC-2009 15:23:48	OM_12-22-2009_14-59-47	-1.51	5	Yes
CCB	22-DEC-2009 15:36:09	OM_12-22-2009_14-59-47	-1.49	5	Yes

Cyanide, Total

Prep LogBook

Analyst: AXS5 Verified by:_____

Batch: 934282

Lab SOP: GL-GC-E-067 REV# 13

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1201998920	URF1200957-01	.25	g
MS	1201998916	URF1184831-02	.025	mL
MS	1201998917	URF1184831-02	.025	mL
MSD	1201998918	URF1184831-02	.025	mL
MSD	1201998919	URF1184831-02	.025	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Ph	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1201998913		SW846 9010B Prep	21-DEC-2009 13:27	>12	0.5 g	25 mL	50	SOIL
LCS	1201998920		SW846 9010B Prep	21-DEC-2009 13:27	>12	0.25 g	25 mL	100	SOIL
SAMPLE	243007002		SW846 9010B Prep	21-DEC-2009 13:27	>12	0.53 g	25 mL	47.16981	SOIL
SAMPLE	243030001		SW846 9010B Prep	21-DEC-2009 13:27	>12	0.5 g	25 mL	50	SOIL
DUP	1201998914	243030001	SW846 9010B Prep	21-DEC-2009 13:27	>12	0.5 g	25 mL	50	SOIL
MS	1201998916	243030001	SW846 9010B Prep	21-DEC-2009 13:27	>12	0.51 g	25 mL	49.01961	SOIL
MSD	1201998918	243030001	SW846 9010B Prep	21-DEC-2009 13:27	>12	0.5 g	25 mL	50	SOIL
SAMPLE	243030002		SW846 9010B Prep	21-DEC-2009 13:27	>12	0.56 g	25 mL	44.64286	SOIL
DUP	1201998915	243030002	SW846 9010B Prep	21-DEC-2009 13:27	>12	0.52 g	25 mL	48.07692	SOIL
MS	1201998917	243030002	SW846 9010B Prep	21-DEC-2009 13:27	>12	0.58 g	25 mL	43.10345	SOIL
MSD	1201998919	243030002	SW846 9010B Prep	21-DEC-2009 13:27	>12	0.51 g	25 mL	49.01961	SOIL
SAMPLE	243030003		SW846 9010B Prep	21-DEC-2009 13:27	>12	0.53 g	25 mL	47.16981	SOIL
SAMPLE	243030004		SW846 9010B Prep	21-DEC-2009 13:27	>12	0.56 g	25 mL	44.64286	SOIL
SAMPLE	243030005		SW846 9010B Prep	21-DEC-2009 13:27	>12	0.52 g	25 mL	48.07692	SOIL
SAMPLE	243030006		SW846 9010B Prep	21-DEC-2009 13:27	>12	0.53 g	25 mL	47.16981	SOIL
SAMPLE	243030007		SW846 9010B Prep	21-DEC-2009 13:27	>12	0.56 g	25 mL	44.64286	SOIL
SAMPLE	243030008		SW846 9010B Prep	21-DEC-2009 13:27	>12	0.5 g	25 mL	50	SOIL
SAMPLE	243030009		SW846 9010B Prep	21-DEC-2009 13:27	>12	0.5 g	25 mL	50	SOIL
SAMPLE	243030010		SW846 9010B Prep	21-DEC-2009 13:27	>12	0.54 g	25 mL	46.2963	SOIL
SAMPLE	243030011		SW846 9010B Prep	21-DEC-2009 13:27	>12	0.5 g	25 mL	50	SOIL
SAMPLE	243030012		SW846 9010B Prep	21-DEC-2009 13:27	>12	0.58 g	25 mL	43.10345	SOIL
SAMPLE	243030013		SW846 9010B Prep	21-DEC-2009 13:27	>12	0.5 g	25 mL	50	SOIL
SAMPLE	243030014		SW846 9010B Prep	21-DEC-2009 13:27	>12	0.52 g	25 mL	48.07692	SOIL
SAMPLE	243030015		SW846 9010B Prep	21-DEC-2009 13:27	>12	0.55 g	25 mL	45.45455	SOIL
SAMPLE	243030016		SW846 9010B Prep	21-DEC-2009 13:27	>12	0.5 g	25 mL	50	SOIL
SAMPLE	243030017		SW846 9010B Prep	21-DEC-2009 13:27	>12	0.52 g	25 mL	48.07692	SOIL
SAMPLE	243042008		SW846 9010B Prep	21-DEC-2009 13:27	>12	0.53 g	25 mL	47.16981	SOIL
SAMPLE	243042009		SW846 9010B Prep	21-DEC-2009 13:27	>12	0.52 g	25 mL	48.07692	SOIL

Prep LogBook

Reagent/Solvent Lot ID	Amount	Description
091211-C	25 mL	0.25N Sodium Hydroxide Solution
WCN091221-07	.0375 mL	150 ppb CN Distilled ICV Standard
1176724-C	1.25 mL	0.8N H3NO3S
1238146-C	2.5 mL	50% H2SO4 CN Prep
1176778-C	1 mL	51% MgCl2 Soln
1238142-C	1.25 mL	Bismuth Nitrate Solution

Comments:

This is runlog Lachat1

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
200 ppb		1	axc2	12/22/2009 15:00:33	OM_12-22-2009_14-59-47
150 ppb		1	axc2	12/22/2009 15:01:24	OM_12-22-2009_14-59-47
100 ppb		1	axc2	12/22/2009 15:02:17	OM_12-22-2009_14-59-47
50 ppb		1	axc2	12/22/2009 15:03:10	OM_12-22-2009_14-59-47
10 ppb		1	axc2	12/22/2009 15:04:03	OM_12-22-2009_14-59-47
CRDL 5.0 ppb		1	axc2	12/22/2009 15:04:57	OM_12-22-2009_14-59-47
ICAL-00		1	axc2	12/22/2009 15:05:51	OM_12-22-2009_14-59-47
ICV		1	axc2	12/22/2009 15:07:41	OM_12-22-2009_14-59-47
ICB		1	axc2	12/22/2009 15:09:31	OM_12-22-2009_14-59-47
CRDL		1	axc2	12/22/2009 15:11:21	OM_12-22-2009_14-59-47
1201998913	934285	1	axc2	12/22/2009 15:13:10	OM_12-22-2009_14-59-47
1201998920	934285	25	axc2	12/22/2009 15:14:04	OM_12-22-2009_14-59-47
243007002	934285	1	axc2	12/22/2009 15:14:57	OM_12-22-2009_14-59-47
243030001	934285	1	axc2	12/22/2009 15:15:50	OM_12-22-2009_14-59-47
1201998914	934285	1	axc2	12/22/2009 15:16:43	OM_12-22-2009_14-59-47
1201998916	934285	1	axc2	12/22/2009 15:17:36	OM_12-22-2009_14-59-47
1201998918	934285	1	axc2	12/22/2009 15:18:28	OM_12-22-2009_14-59-47
243030002*	934285	1	axc2	12/22/2009 15:19:20	OM_12-22-2009_14-59-47
1201998915	934285	1	axc2	12/22/2009 15:20:13	OM_12-22-2009_14-59-47
1201998917*	934285	1	axc2	12/22/2009 15:21:05	OM_12-22-2009_14-59-47
CCV		1	axc2	12/22/2009 15:21:57	OM_12-22-2009_14-59-47
CCB		1	axc2	12/22/2009 15:23:48	OM_12-22-2009_14-59-47
1201998919*	934285	1	axc2	12/22/2009 15:25:36	OM_12-22-2009_14-59-47
243030003	934285	1	axc2	12/22/2009 15:26:27	OM_12-22-2009_14-59-47
243030004	934285	1	axc2	12/22/2009 15:27:20	OM_12-22-2009_14-59-47
243030005	934285	1	axc2	12/22/2009 15:28:11	OM_12-22-2009_14-59-47
243030006	934285	1	axc2	12/22/2009 15:29:03	OM_12-22-2009_14-59-47
243030007	934285	1	axc2	12/22/2009 15:29:56	OM_12-22-2009_14-59-47
243030002	934285	1	axc2	12/22/2009 15:30:49	OM_12-22-2009_14-59-47
1201998919	934285	1	axc2	12/22/2009 15:31:41	OM_12-22-2009_14-59-47
1201998917	934285	1	axc2	12/22/2009 15:32:33	OM_12-22-2009_14-59-47
243030008	934285	1	axc2	12/22/2009 15:33:27	OM_12-22-2009_14-59-47
CCV		1	axc2	12/22/2009 15:34:19	OM_12-22-2009_14-59-47
CCB		1	axc2	12/22/2009 15:36:09	OM_12-22-2009_14-59-47
243030009	934285	1	axc2	12/22/2009 15:37:59	OM_12-22-2009_14-59-47
243030010	934285	1	axc2	12/22/2009 15:38:52	OM_12-22-2009_14-59-47
243030011	934285	1	axc2	12/22/2009 15:39:45	OM_12-22-2009_14-59-47
243030012	934285	1	axc2	12/22/2009 15:40:38	OM_12-22-2009_14-59-47
243030013	934285	1	axc2	12/22/2009 15:41:31	OM_12-22-2009_14-59-47
243030014	934285	1	axc2	12/22/2009 15:42:24	OM_12-22-2009_14-59-47
243030015	934285	1	axc2	12/22/2009 15:43:17	OM_12-22-2009_14-59-47
243030016	934285	1	axc2	12/22/2009 15:44:09	OM_12-22-2009_14-59-47
243030017*	934285	1	axc2	12/22/2009 15:45:01	OM_12-22-2009_14-59-47
243042008	934285	1	axc2	12/22/2009 15:45:54	OM_12-22-2009_14-59-47
CCV		1	axc2	12/22/2009 15:46:46	OM_12-22-2009_14-59-47
CCB		1	axc2	12/22/2009 15:48:36	OM_12-22-2009_14-59-47
243042009	934285	1	axc2	12/22/2009 15:50:24	OM_12-22-2009_14-59-47
1201997980	933837	1	axc2	12/22/2009 15:51:16	OM_12-22-2009_14-59-47
1201997984	933837	25	axc2	12/22/2009 15:52:08	OM_12-22-2009_14-59-47
243030016	934285	5	axc2	12/22/2009 15:53:00	OM_12-22-2009_14-59-47
243030017	934285	1	axc2	12/22/2009 15:53:52	OM_12-22-2009_14-59-47
242938001	933837	1	axc2	12/22/2009 15:54:48	OM_12-22-2009_14-59-47
1201997981	933837	1	axc2	12/22/2009 15:55:41	OM_12-22-2009_14-59-47
1201997982	933837	1	axc2	12/22/2009 15:56:35	OM_12-22-2009_14-59-47
1201997983	933837	1	axc2	12/22/2009 15:57:28	OM_12-22-2009_14-59-47
242938002	933837	1	axc2	12/22/2009 15:58:21	OM_12-22-2009_14-59-47
CCV		1	axc2	12/22/2009 15:59:14	OM_12-22-2009_14-59-47
CCB		1	axc2	12/22/2009 16:01:03	OM_12-22-2009_14-59-47

242938003	933837	1	axc2	12/22/2009	16:02:53	OM_12-22-2009_14-59-47
242938004	933837	1	axc2	12/22/2009	16:03:46	OM_12-22-2009_14-59-47
242938005	933837	1	axc2	12/22/2009	16:04:39	OM_12-22-2009_14-59-47
242938006	933837	1	axc2	12/22/2009	16:05:31	OM_12-22-2009_14-59-47
242938007	933837	1	axc2	12/22/2009	16:06:24	OM_12-22-2009_14-59-47
242938008	933837	1	axc2	12/22/2009	16:07:16	OM_12-22-2009_14-59-47
242938009	933837	1	axc2	12/22/2009	16:08:09	OM_12-22-2009_14-59-47
1201993024	931722	1	axc2	12/22/2009	16:09:01	OM_12-22-2009_14-59-47
1201993028	931722	1	axc2	12/22/2009	16:09:53	OM_12-22-2009_14-59-47
242691002	931722	1	axc2	12/22/2009	16:10:45	OM_12-22-2009_14-59-47
CCV		1	axc2	12/22/2009	16:11:37	OM_12-22-2009_14-59-47
CCB		1	axc2	12/22/2009	16:13:27	OM_12-22-2009_14-59-47
1201993025	931722	1	axc2	12/22/2009	16:15:19	OM_12-22-2009_14-59-47
1201993026	931722	1	axc2	12/22/2009	16:16:12	OM_12-22-2009_14-59-47
1201993027	931722	1	axc2	12/22/2009	16:17:06	OM_12-22-2009_14-59-47
1201998306	933989	1	axc2	12/22/2009	16:18:00	OM_12-22-2009_14-59-47
1201998310	933989	1	axc2	12/22/2009	16:18:53	OM_12-22-2009_14-59-47
242984001	933989	1	axc2	12/22/2009	16:19:47	OM_12-22-2009_14-59-47
1201998307	933989	1	axc2	12/22/2009	16:20:40	OM_12-22-2009_14-59-47
1202001846	933989	1	axc2	12/22/2009	16:21:33	OM_12-22-2009_14-59-47
1202001847	933989	1	axc2	12/22/2009	16:22:26	OM_12-22-2009_14-59-47
242984003	933989	1	axc2	12/22/2009	16:23:18	OM_12-22-2009_14-59-47
CCV		1	axc2	12/22/2009	16:24:11	OM_12-22-2009_14-59-47
CCB		1	axc2	12/22/2009	16:26:01	OM_12-22-2009_14-59-47
1202000926	935209	1	axc2	12/22/2009	16:27:50	OM_12-22-2009_14-59-47
1202000939	935209	1	axc2	12/22/2009	16:28:43	OM_12-22-2009_14-59-47
243104002	935209	1	axc2	12/22/2009	16:29:36	OM_12-22-2009_14-59-47
1202000928	935209	1	axc2	12/22/2009	16:30:28	OM_12-22-2009_14-59-47
1202000932	935209	1	axc2	12/22/2009	16:31:19	OM_12-22-2009_14-59-47
1202000936	935209	1	axc2	12/22/2009	16:32:13	OM_12-22-2009_14-59-47
243108001	935209	1	axc2	12/22/2009	16:33:08	OM_12-22-2009_14-59-47
1202000927	935209	1	axc2	12/22/2009	16:34:02	OM_12-22-2009_14-59-47
1202000931	935209	1	axc2	12/22/2009	16:34:55	OM_12-22-2009_14-59-47
1202000935	935209	1	axc2	12/22/2009	16:35:50	OM_12-22-2009_14-59-47
CCV		1	axc2	12/22/2009	16:36:41	OM_12-22-2009_14-59-47
CCB		1	axc2	12/22/2009	16:38:31	OM_12-22-2009_14-59-47
243108002	935209	1	axc2	12/22/2009	16:40:21	OM_12-22-2009_14-59-47
243223014	935209	1	axc2	12/22/2009	16:41:14	OM_12-22-2009_14-59-47
243242001	935209	1	axc2	12/22/2009	16:42:08	OM_12-22-2009_14-59-47
243242002	935209	1	axc2	12/22/2009	16:43:01	OM_12-22-2009_14-59-47
243251001	935209	1	axc2	12/22/2009	16:43:54	OM_12-22-2009_14-59-47
243252001	935209	1	axc2	12/22/2009	16:44:46	OM_12-22-2009_14-59-47
1202000929	935209	1	axc2	12/22/2009	16:45:40	OM_12-22-2009_14-59-47
1202000933	935209	1	axc2	12/22/2009	16:46:32	OM_12-22-2009_14-59-47
1202000937	935209	1	axc2	12/22/2009	16:47:24	OM_12-22-2009_14-59-47
243255001	935209	1	axc2	12/22/2009	16:48:16	OM_12-22-2009_14-59-47
CCV		1	axc2	12/22/2009	16:49:08	OM_12-22-2009_14-59-47
CCB		1	axc2	12/22/2009	16:50:59	OM_12-22-2009_14-59-47
243255004	935209	1	axc2	12/22/2009	16:52:49	OM_12-22-2009_14-59-47
243255006	935209	1	axc2	12/22/2009	16:53:43	OM_12-22-2009_14-59-47
243257003	935209	1	axc2	12/22/2009	16:54:37	OM_12-22-2009_14-59-47
243257005	935209	1	axc2	12/22/2009	16:55:32	OM_12-22-2009_14-59-47
243272001	935209	1	axc2	12/22/2009	16:56:25	OM_12-22-2009_14-59-47
243281002	935209	1	axc2	12/22/2009	16:57:19	OM_12-22-2009_14-59-47
243281003	935209	1	axc2	12/22/2009	16:58:13	OM_12-22-2009_14-59-47
243281004	935209	1	axc2	12/22/2009	16:59:06	OM_12-22-2009_14-59-47
243281005	935209	1	axc2	12/22/2009	16:59:59	OM_12-22-2009_14-59-47
1202000930	935209	1	axc2	12/22/2009	17:00:52	OM_12-22-2009_14-59-47
CCV		1	axc2	12/22/2009	17:01:45	OM_12-22-2009_14-59-47
CCB		1	axc2	12/22/2009	17:03:34	OM_12-22-2009_14-59-47

1202000934	935209	1	axc2	12/22/2009	17:05:24 OM_12-22-2009_14-59-47
1202000938	935209	1	axc2	12/22/2009	17:06:16 OM_12-22-2009_14-59-47
243281006	935209	1	axc2	12/22/2009	17:07:09 OM_12-22-2009_14-59-47
243285001	935209	1	axc2	12/22/2009	17:08:02 OM_12-22-2009_14-59-47
1202002259	935758	1	axc2	12/22/2009	17:08:54 OM_12-22-2009_14-59-47
1202002261	935758	250	axc2	12/22/2009	17:09:49 OM_12-22-2009_14-59-47
243330001	935758	1	axc2	12/22/2009	17:10:43 OM_12-22-2009_14-59-47
1202002260	935758	1	axc2	12/22/2009	17:11:37 OM_12-22-2009_14-59-47
CCV		1	axc2	12/22/2009	17:12:30 OM_12-22-2009_14-59-47
CCB		1	axc2	12/22/2009	17:14:20 OM_12-22-2009_14-59-47

Author: axc2 Date : 12/22/2009

Original Run Filename: OM_12-22-2009_14-59-47.OMN created 12/22/2009 14:59:47
Original Run Author's Signature: [axc2]
Current Run Filename: OM_12-22-2009_14-59-47.OMN last modified 12/22/2009 17:15:25
Current Run Author's Signature: [axc2]
Description: GL-GC-E-095 EPA 335.1, 335.3, 335.4, 9012A, CLP335.2-M
Liquid LCS nominal 50 ug/L

Sample	Rep.	Cup No.	Channel 1 TCYANIDE Conc. (ug/L)	Area (Vs)	Detection Time	ADF	MDF	Description
WCN091222-01	1	S1	200	8.25	12/22/2009@15:00:33			200 ppb
WCN091222-02	1	S2	150	6.18	12/22/2009@15:01:24			150 ppb
WCN091222-03	1	S3	100	3.90	12/22/2009@15:02:17			100 ppb
WCN091222-04	1	S4	50.0	2.21	12/22/2009@15:03:10			50 ppb
WCN091222-05	1	S5	10.0	0.487	12/22/2009@15:04:03			10 ppb
WCN091222-06	1	S6	5.00	0.293	12/22/2009@15:04:57			CRDL 5.0 ppb
WCN091222-08	1	S7	0.00	0.0149	12/22/2009@15:05:51			0.0 ppb
DQM Test: Minimum Correlation Coefficient								
		Result:	0.99941 > 0.99500					
		Message	Pass					
		Action	Continue					
WCN091222-07	1	S8	144	5.91	12/22/2009@15:07:41			ICV
		Known Conc:	150					
DQM Test: > + Percent Relative Difference								
		Result:	-4.1 < 10.0					
		Message	ICV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	-4.1 < 10.0					
		Message	ICV Passed					
		Action	Continue					
		Calibration:	Table/Fig. 1					
WCN091222-08	1	S7	-1.08	0.00902	12/22/2009@15:09:31			ICB/CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.08 < 5.01					
		Message	ICB/CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.08 > -5.01					
		Message	ICB/CCB Passed					
		Action	Continue					
WCN091222-06	1	S6	6.03	0.298	12/22/2009@15:11:21			CRDL
		Known Conc:	5.00					
DQM Test: > + Concentration Limit								
		Result:	6.03 < 7.50					
		Message	CRDL Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	6.03 > 2.50					
		Message	Pass					
		Action	None					
1201998913|934285|MB	1	1	-1.36	-0.00257	12/22/2009@15:13:10			
1201998920||LCS	1	2	26.3	1.12	12/22/2009@15:14:04		25.00	
243007002	1	3	2.45	0.152	12/22/2009@15:14:57			
243030001	1	4	18.0	0.785	12/22/2009@15:15:50			
1201998914||DUP	1	5	18.3	0.796	12/22/2009@15:16:43			
1201998916||MS	1	6	92.8	3.83	12/22/2009@15:17:36			
1201998918||MSD	1	7	113	4.67	12/22/2009@15:18:28			
243030002	1	8	102	4.21	12/22/2009@15:19:20			
1201998915||DUP	1	9	3.98	0.215	12/22/2009@15:20:13			
1201998917||MS	1	10	136	5.61	12/22/2009@15:21:05			
WCN091222-03	1	S3	95.1	3.93	12/22/2009@15:21:57			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	-4.9 < 10.0					

		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Percent Relative Difference					
		Result:	-4.9 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN091222-08	1	S7	-1.51	-0.00852	12/22/2009@15:23:48			CCB
		Known Conc:	0.00					
			DQM Test: > + Concentration Limit					
		Result:	-1.51 < 5.00					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	-1.51 > -5.00					
		Message	CCB Passed					
		Action	Continue					
1201998919||MSD	1	11	66.5	2.76	12/22/2009@15:25:36			
243030003	1	12	9.08	0.422	12/22/2009@15:26:27			
243030004	1	13	0.915	0.0900	12/22/2009@15:27:20			
243030005	1	14	2.66	0.161	12/22/2009@15:28:11			
243030006	1	15	11.8	0.534	12/22/2009@15:29:03			
243030007	1	16	3.89	0.211	12/22/2009@15:29:56			
243030002	1	8	-1.87	-0.0232	12/22/2009@15:30:49			
1201998919||MSD	1	11	102	4.20	12/22/2009@15:31:41			
1201998917||MS	1	10	134	5.50	12/22/2009@15:32:33			
243030008	1	17	0.219	0.0617	12/22/2009@15:33:27			
WCN091222-03	1	S3	95.6	3.95	12/22/2009@15:34:19			CCV
		Known Conc:	100					
			DQM Test: > + Percent Relative Difference					
		Result:	-4.4 < 10.0					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Percent Relative Difference					
		Result:	-4.4 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN091222-08	1	S7	-1.49	-0.00787	12/22/2009@15:36:09			CCB
		Known Conc:	0.00					
			DQM Test: > + Concentration Limit					
		Result:	-1.49 < 5.00					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	-1.49 > -5.00					
		Message	CCB Passed					
		Action	Continue					
243030009	1	18	6.82	0.330	12/22/2009@15:37:59			
243030010	1	19	3.52	0.196	12/22/2009@15:38:52			
243030011	1	20	1.76	0.125	12/22/2009@15:39:45			
243030012	1	21	9.74	0.449	12/22/2009@15:40:38			
243030013	1	22	0.594	0.0770	12/22/2009@15:41:31			
243030014	1	23	2.05	0.136	12/22/2009@15:42:24			
243030015	1	24	9.27	0.430	12/22/2009@15:43:17			
243030016	1	25	271	11.1	12/22/2009@15:44:09			
243030017	1	26	10.7	0.487	12/22/2009@15:45:01			
243042008	1	27	1.24	0.103	12/22/2009@15:45:54			
WCN091222-03	1	S3	95.5	3.94	12/22/2009@15:46:46			CCV
		Known Conc:	100					
			DQM Test: > + Percent Relative Difference					
		Result:	-4.5 < 10.0					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Percent Relative Difference					
		Result:	-4.5 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN091222-08	1	S7	-0.654	0.0262	12/22/2009@15:48:36			CCB
		Known Conc:	0.00					

DQM Test: > + Concentration Limit								
		Result:	-0.654 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-0.654 > -5.00					
		Message	CCB Passed					
		Action	Continue					
243042009	1	28	-0.570	0.0296	12/22/2009@15:50:24			
1201997980|933837|MB	1	29	-0.506	0.0322	12/22/2009@15:51:16			
1201997984||LCS	1	30	26.2	1.12	12/22/2009@15:52:08		25.00	
243030016|934285|	1	25	56.2	2.34	12/22/2009@15:53:00		5.00	
243030017	1	26	10.6	0.484	12/22/2009@15:53:52			
242938001|933837|	1	31	0.942	0.0912	12/22/2009@15:54:48			
1201997981||DUP	1	32	1.57	0.117	12/22/2009@15:55:41			
1201997982||MS	1	33	83.1	3.44	12/22/2009@15:56:35			
1201997983||MSD	1	34	94.1	3.88	12/22/2009@15:57:28			
242938002	1	35	0.558	0.0755	12/22/2009@15:58:21			
WCN091222-03	1	S3	95.3	3.93	12/22/2009@15:59:14			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	-4.7 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	-4.7 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN091222-08	1	S7	-1.40	-0.00431	12/22/2009@16:01:03			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.40 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.40 > -5.00					
		Message	CCB Passed					
		Action	Continue					
242938003	1	36	1.73	0.123	12/22/2009@16:02:53			
242938004	1	37	0.0245	0.0538	12/22/2009@16:03:46			
242938005	1	38	0.227	0.0621	12/22/2009@16:04:39			
242938006	1	39	0.527	0.0743	12/22/2009@16:05:31			
242938007	1	40	-0.310	0.0402	12/22/2009@16:06:24			
242938008	1	41	2.90	0.171	12/22/2009@16:07:16			
242938009	1	42	-0.658	0.0260	12/22/2009@16:08:09			
1201993024|931722|MB	1	43	0.178	0.0601	12/22/2009@16:09:01			
1201993028||LCS	1	44	46.2	1.93	12/22/2009@16:09:53			
242691002	1	45	-0.488	0.0330	12/22/2009@16:10:45			
WCN091222-03	1	S3	95.6	3.94	12/22/2009@16:11:37			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	-4.4 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	-4.4 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN091222-08	1	S7	-1.29	2.32e-4	12/22/2009@16:13:27			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.29 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.29 > -5.00					
		Message	CCB Passed					
		Action	Continue					

1201993025||DUP	1	46	-0.576	0.0293	12/22/2009@16:15:19			
1201993026||MS	1	47	97.7	4.03	12/22/2009@16:16:12			
1201993027||MSD	1	48	99.3	4.09	12/22/2009@16:17:06			
1201998306|933989|MB	1	49	-0.762	0.0218	12/22/2009@16:18:00			
1201998310||LCS	1	50	47.0	1.97	12/22/2009@16:18:53			
242984001	1	51	0.125	0.0579	12/22/2009@16:19:47			
1201998307||DUP	1	52	-0.380	0.0373	12/22/2009@16:20:40			
1202001846||MS	1	53	104	4.28	12/22/2009@16:21:33			
1202001847||MSD	1	54	104	4.31	12/22/2009@16:22:26			
242984003	1	55	0.219	0.0617	12/22/2009@16:23:18			
WCN091222-03	1	S3	96.3	3.97	12/22/2009@16:24:11			CCV
	Known Conc:		100					
DQM Test: > + Percent Relative Difference								
Result:			-3.7 < 10.0					
Message			CCV Passed					
Action			Continue					
DQM Test: < - Percent Relative Difference								
Result:			-3.7 < 10.0					
Message			CCV Passed					
Action			Continue					
WCN091222-08	1	S7	-1.39	-0.00392	12/22/2009@16:26:01			CCB
	Known Conc:		0.00					
DQM Test: > + Concentration Limit								
Result:			-1.39 < 5.00					
Message			CCB Passed					
Action			Continue					
DQM Test: < - Concentration Limit								
Result:			-1.39 > -5.00					
Message			CCB Passed					
Action			Continue					
1202000926|935209|MB	1	56	-1.11	0.00754	12/22/2009@16:27:50			
1202000939||LCS	1	57	49.9	2.09	12/22/2009@16:28:43			
243104002	1	58	-0.813	0.0197	12/22/2009@16:29:36			
1202000928||DUP	1	59	-1.97	-0.0273	12/22/2009@16:30:28			
1202000932||MS	1	60	94.4	3.89	12/22/2009@16:31:19			
1202000936||MSD	1	61	96.3	3.97	12/22/2009@16:32:13			
243108001	1	62	-0.642	0.0267	12/22/2009@16:33:08			
1202000927||DUP	1	63	-0.764	0.0217	12/22/2009@16:34:02			
1202000931||MS	1	64	96.6	3.99	12/22/2009@16:34:55			
1202000935||MSD	1	65	102	4.20	12/22/2009@16:35:50			
WCN091222-03	1	S3	95.9	3.96	12/22/2009@16:36:41			CCV
	Known Conc:		100					
DQM Test: > + Percent Relative Difference								
Result:			-4.1 < 10.0					
Message			CCV Passed					
Action			Continue					
DQM Test: < - Percent Relative Difference								
Result:			-4.1 < 10.0					
Message			CCV Passed					
Action			Continue					
WCN091222-08	1	S7	-0.314	0.0400	12/22/2009@16:38:31			CCB
	Known Conc:		0.00					
DQM Test: > + Concentration Limit								
Result:			-0.314 < 5.00					
Message			CCB Passed					
Action			Continue					
DQM Test: < - Concentration Limit								
Result:			-0.314 > -5.00					
Message			CCB Passed					
Action			Continue					
243108002	1	66	-1.08	0.00876	12/22/2009@16:40:21			
243223014	1	67	3.38	0.190	12/22/2009@16:41:14			
243242001	1	68	-0.593	0.0287	12/22/2009@16:42:08			
243242002	1	69	-1.31	-3.65e-4	12/22/2009@16:43:01			
243251001	1	70	-0.958	0.0138	12/22/2009@16:43:54			
243252001	1	71	0.738	0.0829	12/22/2009@16:44:46			
1202000929||DUP	1	72	0.460	0.0715	12/22/2009@16:45:40			
1202000933||MS	1	73	88.9	3.67	12/22/2009@16:46:32			

1202000937||MSD	1	74	91.5	3.78	12/22/2009@16:47:24			
243255001	1	75	-0.788	0.0207	12/22/2009@16:48:16			
WCN091222-03	1	S3	95.7	3.95	12/22/2009@16:49:08			CCV
		Known Conc:	100					
			DQM Test: > + Percent Relative Difference					
		Result:	-4.3 < 10.0					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Percent Relative Difference					
		Result:	-4.3 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN091222-08	1	S7	-0.589	0.0288	12/22/2009@16:50:59			CCB
		Known Conc:	0.00					
			DQM Test: > + Concentration Limit					
		Result:	-0.589 < 5.00					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	-0.589 > -5.00					
		Message	CCB Passed					
		Action	Continue					
243255004	1	76	-0.456	0.0342	12/22/2009@16:52:49			
243255006	1	77	-1.35	-0.00197	12/22/2009@16:53:43			
243257003	1	78	-1.26	0.00140	12/22/2009@16:54:37			
243257005	1	79	-1.64	-0.0142	12/22/2009@16:55:32			
243272001	1	80	-0.653	0.0262	12/22/2009@16:56:25			
243281002	1	81	-1.10	0.00789	12/22/2009@16:57:19			
243281003	1	82	-1.28	5.33e-4	12/22/2009@16:58:13			
243281004	1	83	-0.514	0.0319	12/22/2009@16:59:06			
243281005	1	84	-0.685	0.0249	12/22/2009@16:59:59			
1202000930||DUP	1	85	-1.09	0.00856	12/22/2009@17:00:52			
WCN091222-03	1	S3	96.0	3.96	12/22/2009@17:01:45			CCV
		Known Conc:	100					
			DQM Test: > + Percent Relative Difference					
		Result:	-4.0 < 10.0					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Percent Relative Difference					
		Result:	-4.0 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN091222-08	1	S7	-0.817	0.0195	12/22/2009@17:03:34			CCB
		Known Conc:	0.00					
			DQM Test: > + Concentration Limit					
		Result:	-0.817 < 5.00					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	-0.817 > -5.00					
		Message	CCB Passed					
		Action	Continue					
1202000934||MS	1	86	102	4.22	12/22/2009@17:05:24			
1202000938||MSD	1	87	99.3	4.10	12/22/2009@17:06:16			
243281006	1	88	-0.651	0.0263	12/22/2009@17:07:09			
243285001	1	89	-2.29	-0.0403	12/22/2009@17:08:02			
1202002259|935758|MB	1	90	-1.06	0.00979	12/22/2009@17:08:54			
1202002261||LCS	1	91	96.7	3.99	12/22/2009@17:09:49		250.00	
243330001	1	92	-0.968	0.0134	12/22/2009@17:10:43			
1202002260||DUP	1	93	5.00	0.257	12/22/2009@17:11:37			
WCN091222-03	1	S3	95.6	3.94	12/22/2009@17:12:30			CCV
		Known Conc:	100					
			DQM Test: > + Percent Relative Difference					
		Result:	-4.4 < 10.0					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Percent Relative Difference					
		Result:	-4.4 < 10.0					

		Message	CCV Passed					
		Action	Continue					
WCN091222-08	1	S7	-1.20	0.00380	12/22/2009@17:14:20			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.20 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.20 > -5.00					
		Message	CCB Passed					
		Action	Continue					

Analyte Properties Table for OM_12-22-2009_14-59-47.OMN

Property	Channel 1
	TCYANIDE
Concentration Units	ug/L
Callibration Fit Type	First Order
Clear Calibration	True
Force Through Zero	False
Calibration Weighting	None
Auto Dilution Trigger	True
% of High Standard	100
Quik Chem Method	10-204-00-1-A
Chemistry	Direct/Bipolar
Calibration by Height	False
Inject to Peak Start	22
Peak Base Width	39

Channel 1: Current View

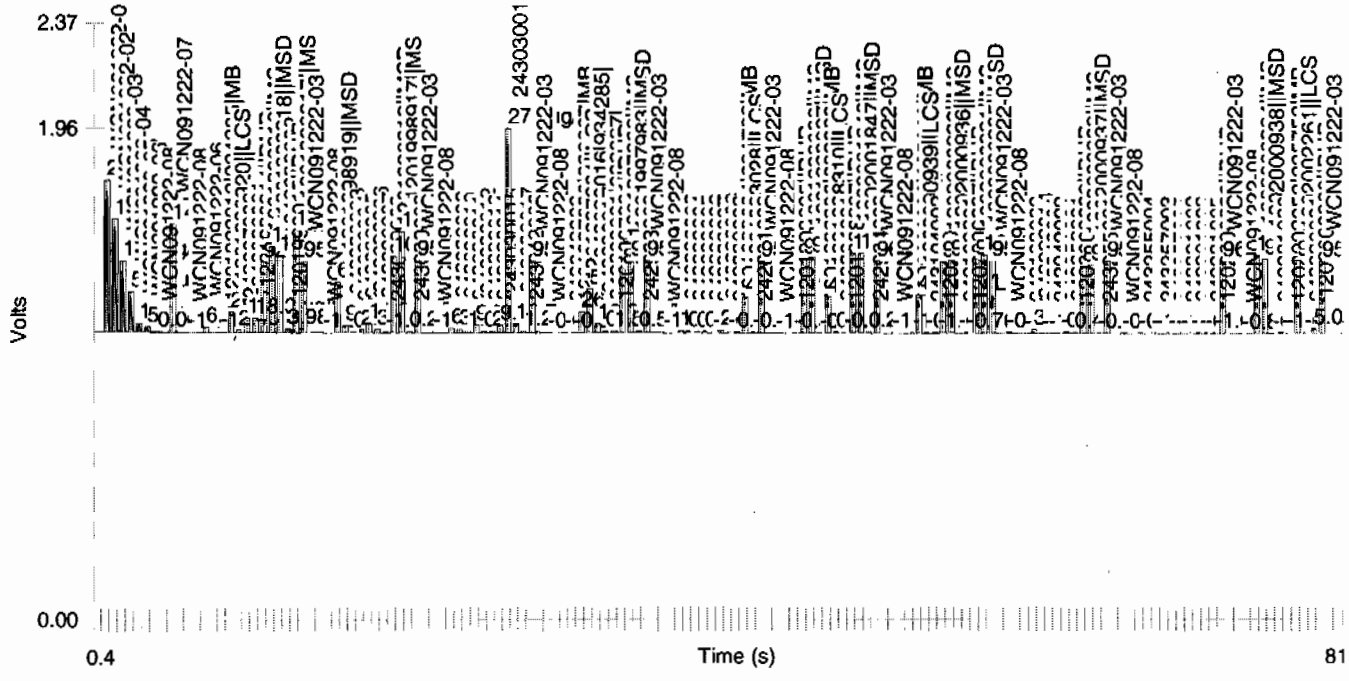

Author: axc2 Date : 12/22/2009

Table 1: TCYANIDE

	Conc. (ug/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	200	1	8.25	0.610	-0.7	12/22/2009	15:01:35
2	150	1	6.18	0.454	-0.4	12/22/2009	15:02:27
3	100	1	3.90	0.286	5.4	12/22/2009	15:03:20
4	50.0	1	2.21	0.162	-5.9	12/22/2009	15:04:12
5	10.0	1	0.487	0.0341	-5.1	12/22/2009	15:05:06
6	5.00	1	0.293	0.0212	-12.8	12/22/2009	15:05:59
7	0.00	1	0.0149	0.00280		12/22/2009	15:06:54

Figure 1: TCYANIDE

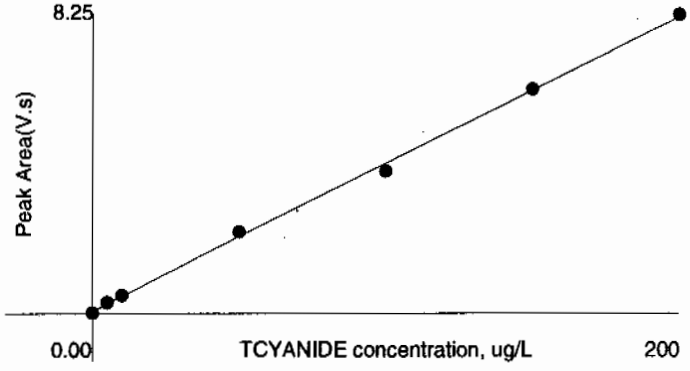

Area = 0.0407 * Conc + 0.0564
Conc = 24.6 * Area - 1.30
Correlation Coefficient (r) = 0.99941

No Weighting

Miscellaneous

COMPANY - WIDE NONCONFORMANCE REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
28-DEC-09	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
LACHAT Flow Injection Analyzer	SW846 9012A	Solid	LANL
Batch ID:	**Sample Numbers:**		
934285	See Below		

Potentially affected work order(s)(SDG): 243007(10-939),243030(10-929-1),243042(10-941)

Application Issues:

Failed Recovery for MS/PS

Failed RPD for DUP

Specification and Requirements Nonconformance Description:	NRG Disposition:
1. Failed Recovery for MS: QC 1201998917MS	1. The spike recovery falls outside of the established acceptance limits. Since both the spike duplicate recovery and the RPD between the spike and spike duplicate fall within acceptance limits, the data is reported.
2. Failed Recvoery for MS: QC 1201998916MS	2. The spike recovery falls outside of the client specified acceptance limits. Since both the spike duplicate recovery and the RPD between the spike and spike duplicate fall within acceptance limits, the data is reported.

Originator's Name:

Ashley Earl 28-DEC-09

Data Validator/Group Leader:

Julia Hamilton 28-DEC-09

RADIOLOGICAL ANALYSIS

Radiochemistry Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-939

Method/Analysis Information

Procedure:	**Dry Weight-Percent Moisture**
Analytical Method:	
Analytical Batch Number:	934299

Sample ID	Client ID
243007002	WST03-10-2147
1201998946	243007002(WST03-10-2147) Sample Duplicate (DUP)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-020 REV# 9.

Calibration Information:

Quality Control (QC) Information:

Designated QC
The following sample was used for QC: 243007002 (WST03-10-2147). The QC was from LANL work order 243007.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The blank result is less than 1.65 times the CSU. Not Applicable.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A nonconformance report (NCR) was not generated for this SDG.

Additional Comments
Additional comments were not required for this sample set.

Blank Decision Level
Not Applicable. The blank result is less than the decision level.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**AM241**
Analytical Method:	DOE EML HASL-300, Am-05-RC Modified
Prep Method:	Dry Soil Prep
Analytical Batch Number:	934644
Prep Batch Number:	934309

Sample ID	Client ID
243007002	WST03-10-2147
1201999658	Method Blank (MB)
1201999659	243019007(RE16-10-181) Sample Duplicate (DUP)
1201999660	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on a "dry weight" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-011 REV# 18.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. Calibrations are performed monthly using mixed alpha standards comprised of the following: Gd-148, Np-237, and Cm-244.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
Aliquot for sample 1201999658 (MB) was changed to 1.0 per client request.

Designated QC
The following sample was used for QC: 243019007 (RE16-10-181). The QC was from LANL work order 243019.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The blank result is less than 1.65 times the CSU.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
Sample 243007002 (WST03-10-2147) was recounted to verify activity.

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A nonconformance report (NCR) was not generated for this SDG.

Manual Integration
No manual integrations were performed on data in this batch.

Additional Comments
The MDCs are calculated using a blank population.

Blank Decision Level
The blank result is less than the decision level.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**ISOPU**
Analytical Method:	DOE EML HASL-300, Pu-11-RC Modified
Prep Method:	Dry Soil Prep
Analytical Batch Number:	934649
Prep Batch Number:	934309

Sample ID	Client ID
243007002	WST03-10-2147
1201999665	Method Blank (MB)
1201999666	243019007(RE16-10-181) Sample Duplicate (DUP)
1201999667	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on a "dry weight" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-011 REV# 18.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. Calibrations are performed monthly using mixed alpha standards comprised of the following: Gd-148, Np-237, and Cm-244.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
Aliquot for sample 1201999665 (MB) was changed to 1.0 per client request.

Designated QC
The following sample was used for QC: 243019007 (RE16-10-181). The QC was from LANL work order 243019.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The blank result is less than 1.65 times the CSU.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A nonconformance report (NCR) was not generated for this SDG.

Manual Integration
No manual integrations were performed on data in this batch.

Additional Comments
The MDCs are calculated using a blank population.

Blank Decision Level
The blank result is less than the decision level.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**ISOU**
Analytical Method:	DOE EML HASL-300, U-02-RC Modified
Prep Method:	Dry Soil Prep
Analytical Batch Number:	934652
Prep Batch Number:	934309

Sample ID	Client ID
243007002	WST03-10-2147
1201999668	Method Blank (MB)
1201999669	243019007(RE16-10-181) Sample Duplicate (DUP)
1201999670	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on a "dry weight" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-011 REV# 18.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. Calibrations are performed monthly using mixed alpha standards comprised of the following: Gd-148, Np-237, and Cm-244.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
Aliquot for sample 1201999668 (MB) was changed to 1.0 per client request.

Designated QC
The following sample was used for QC: 243019007 (RE16-10-181). The QC was from LANL work order 243019.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The U-233/234 blank result is greater than 1.65 times the CSU but less than the MDC.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
The samples were given additional clean-up steps and recounted to remove suspected interferences. Reporting second counts.

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A nonconformance report (NCR) was not generated for this SDG.

Manual Integration
No manual integrations were performed on data in this batch.

Additional Comments
The MDCs are calculated using a blank population.

Blank Decision Level
The blank result is less than the decision level.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**SR90**
Analytical Method:	EPA 905.0 Modified
Prep Method:	Dry Soil Prep
Analytical Batch Number:	934816
Prep Batch Number:	934309

Sample ID	Client ID
243007002	WST03-10-2147
1202000048	Method Blank (MB)
1202000049	243007002(WST03-10-2147) Sample Duplicate (DUP)
1202000050	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on a "dry weight" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-004 REV# 13.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. The initial Calibration was performed in January 2009.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
Aliquots for samples 1202000048 (MB) and 1202000050 (LCS) were changed to 1.0 per client request.

Designated QC
The following sample was used for QC: 243007002 (WST03-10-2147). The QC was from LANL work order 243007.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The blank result is less than 1.65 times the CSU.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Chemical Recoveries
All chemical recoveries meet the required acceptance limits for this sample set.

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A nonconformance report (NCR) was not generated for this SDG.

Additional Comments
Additional comments were not required for this sample set.

Blank Decision Level
The blank result is less than the decision level.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**H3**
Analytical Method:	GL-RAD-A-002
Analytical Batch Number:	935328

Sample ID	Client ID
243007002	WST03-10-2147
1202001324	Method Blank (MB)
1202001325	243007002(WST03-10-2147) Sample Duplicate (DUP)
1202001326	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-002 REV# 17.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. The initial Calibration was performed in August 2009.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
The blank volume is representative of the sample volume in this batch.

Designated QC
The following sample was used for QC: 243007002 (WST03-10-2147). The QC was from LANL work order 243007.

QC Information

All of the QC samples met the required acceptance limits.

CSU
The blank result is less than 1.65 times the CSU.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A nonconformance report (NCR) was not generated for this SDG.

Additional Comments
Additional comments were not required for this sample set.

Blank Decision Level
The blank result is less than the decision level.

Qualifier information

Manual qualifiers were not required.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer/Date: Kath Bluellatt 12/30/09

SAMPLE DATA SUMMARY

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis Report
for

LANL010 Los Alamos National Laboratory (72733-001-09)

Client SDG: 10-939 GEL Work Order: 243007

The Qualifiers in this report are defined as follows:

* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.

** Indicates the analyte is a surrogate compound.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the detection limit.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Valerie Davis.

Reviewed by _____

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: December 30, 2009

Client Sample ID: WST03-10-2147
Sample ID: 243007002
Matrix: R
Collect Date: 14-DEC-09
Receive Date: 16-DEC-09
Collector: Client
Moisture: 13.5%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids												
"As Received"												
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241		0.178	0.0201	+/-0.0171	0.050	pCi/g		MXE1	12/24/09	1314	934644	2
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	0.00233	0.0189	+/-0.00754	0.050	pCi/g		MXE1	12/23/09	1607	934649	4
Plutonium-239/240	U	0.00233	0.0213	+/-0.00329	0.050	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		1.02	0.173	+/-0.108	0.100	pCi/g		MXA1	12/28/09	2012	934652	5
Uranium-235/236	U	0.0777	0.105	+/-0.028	0.100	pCi/g						
Uranium-238		0.846	0.0958	+/-0.0936	0.100	pCi/g						
Rad Gas Flow Proportional Counting												
SR90 "Dry Weight Corrected"												
Strontium-90	U	0.0147	0.278	+/-0.0742	0.500	pCi/g		JXR1	12/23/09	1615	934816	7
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		755	240	+/-104	250	pCi/L		KXK2	12/23/09	1154	935328	8

The following Analytical Methods were performed

Method	Description
1	ASTM D 2216 (Modified)
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Am-05-RC Modified
4	DOE EML HASL-300, Pu-11-RC Modified
5	DOE EML HASL-300, U-02-RC Modified
6	DOE EML HASL-300, U-02-RC Modified
7	EPA 905.0 Modified
8	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery %	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	88.8	(50%-105%)

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: December 30, 2009

Client Sample ID: WST03-10-2147 Project: LANL01004
Sample ID: 243007002 Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Plutonium-242 Tracer		ISOPU "Dry Weight Corrected"		94.8	(50%-105%)							
Uranium-232 Tracer		ISOU "Dry Weight Corrected"		62.6	(50%-105%)							
Strontium Carrier		SR90 "Dry Weight Corrected"		60.5	(50%-105%)							

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
E Organics--Concentration of the target analyte exceeds the instrument calibration range
F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
P Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
Z Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d 5-day BOD--The 2:1 depletion requirement was not met for this sample
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

QUALITY CONTROL DATA

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

QC Summary

Report Date: December 30, 2009
Page 1 of 3

Client : Los Alamos National Laboratory
PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico

Contact: Ms. Joylene Valdez

Workorder: 243007

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Alpha Spec										
Batch 934644										
QC1201999659 243019007 DUP										
Americium-241	U	-0.0034	U	0.000718	pCi/g	0.192		(0-1)	MXE1	12/23/0916:07
	TPU:	+/-0.00801		+/-0.00271						
	Yield:	77.7		88.3						
QC1201999660 LCS										
Americium-241	33.2			31.1	pCi/g		93.7	(75%-125%)		
	TPU:			+/-2.05						
	Yield:			105						
QC1201999658 MB										
Americium-241			U	-0.00228	pCi/g					
	TPU:			+/-0.00284						
	Yield:			92.2						
Batch 934649										
QC1201999666 243019007 DUP										
Plutonium-238	U	-0.00595	U	-0.00364	pCi/g	0.118		(0-1)	MXE1	12/23/0916:07
	TPU:	+/-0.00619		+/-0.00364						
	Yield:	97.4		90.4						
Plutonium-239/240	U	-0.00714	U	0.00242	pCi/g	0.738		(0-1)		
	TPU:	+/-0.00476		+/-0.00172						
	Yield:	97.4		90.4						
QC1201999667 LCS										
Plutonium-238				7.16	pCi/g			(75%-125%)		
	TPU:			+/-0.500						
	Yield:			95.9						
Plutonium-239/240	41.8			37.7	pCi/g		90.2	(75%-125%)		
	TPU:			+/-2.24						
	Yield:			95.9						
QC1201999665 MB										
Plutonium-238			U	0.00303	pCi/g					
	TPU:			+/-0.00372						
	Yield:			91.0						
Plutonium-239/240			U	0.00303	pCi/g					
	TPU:			+/-0.00304						
	Yield:			91.0						
Batch 934652										
QC1201999669 243019007 DUP										
Uranium-233/234		1.12		0.905	pCi/g	0.478		(0-1)	MXA1	12/28/0920:13
	TPU:	+/-0.120		+/-0.0998						
	Yield:	55.9		61.1						
Uranium-235/236	U	0.0885	U	0.073	pCi/g	0.151		(0-1)		
	TPU:	+/-0.0275		+/-0.0237						
	Yield:	55.9		61.1						
Uranium-238		1.20		1.07	pCi/g	0.283		(0-1)		
	TPU:	+/-0.127		+/-0.112						

QC Summary

Workorder: 243007

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Alpha Spec										
Batch 934652										
	Yield:	55.9		61.1						
QC1201999670 LCS										
Uranium-233/234				6.68	pCi/g			(75%-125%)		12/28/0920:13
	TPU:			+/-0.620						
	Yield:			89.7						
Uranium-235/236				0.406	pCi/g			(75%-125%)		
	TPU:			+/-0.101						
	Yield:			89.7						
Uranium-238	5.75			5.89	pCi/g		102	(75%-125%)		
	TPU:			+/-0.558						
	Yield:			89.7						
QC1201999668 MB										
Uranium-233/234			U	0.0218	pCi/g					12/28/0920:13
	TPU:			+/-0.0074						
	Yield:			73.1						
Uranium-235/236			U	0.00295	pCi/g					
	TPU:			+/-0.00296						
	Yield:			73.1						
Uranium-238			U	0.00239	pCi/g					
	TPU:			+/-0.0024						
	Yield:			73.1						
Rad Gas Flow										
Batch 934816										
QC1202000049 243007002 DUP										
Strontium-90	U	0.0147	U	-0.0147	pCi/g	0.0717		(0-1)	JXR1	12/23/0916:16
	TPU:	+/-0.0742		+/-0.131						
	Yield:	60.5		65.0						
QC1202000050 LCS										
Strontium-90	19.3			21.8	pCi/g		113	(75%-125%)		12/23/0916:16
	TPU:			+/-2.32						
	Yield:			70.6						
QC1202000048 MB										
Strontium-90			U	0.0273	pCi/g					12/23/0916:16
	TPU:			+/-0.129						
	Yield:			71.7						
Rad Liquid Scintillation										
Batch 935328										
QC1202001325 243007002 DUP										
Tritium		755		777	pCi/L	0.0535		(0-1)	KXK2	12/23/0915:54
	TPU:	+/-104		+/-105						
QC1202001326 LCS										
Tritium	5600			5570	pCi/L		99.4	(75%-125%)		12/23/0912:07
	TPU:			+/-496						
QC1202001324 MB										
Tritium			U	-61.3	pCi/L					12/23/0914:54
	TPU:			+/-64.3						

QC Summary

Workorder: 243007

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date	Time

Notes:
The Qualifiers in this report are defined as follows:

**	Analyte is a surrogate compound
<	Result is less than value reported
>	Result is greater than value reported
A	The TIC is a suspected aldol-condensation product
B	For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD	Results are either below the MDC or tracer recovery is low
C	Analyte has been confirmed by GC/MS analysis
D	Results are reported from a diluted aliquot of the sample
E	Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
E	Organics--Concentration of the target analyte exceeds the instrument calibration range
F	Estimated Value
H	Analytical holding time was exceeded
J	Value is estimated
M	M if above MDC and less than LLD
M	Matrix Related Failure
N	Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A	RPD or %Recovery limits do not apply.
ND	Analyte concentration is not detected above the detection limit
NJ	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
P	Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%
R	Sample results are rejected
U	Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI	Gamma Spectroscopy--Uncertain identification
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
Z	Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d	5-day BOD--The 2:1 depletion requirement was not met for this sample
h	Preparation or preservation holding time was exceeded

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more.
** Indicates analyte is a surrogate compound.
^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptence criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.
For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

RAW DATA

Radiochemistry Batch Checklist, Rev 9

Batch# 934044 Product: AM Date: 12/28/09

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			N/A
Samples have been blank corrected (if required)	✓		
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.	✓		case narrative
Method blank is less than the RDL/ LLD. (If rad samples. < 5% of lowest activity)	✓		
Sample was run within hold time.	✓		
Sample was correctly preserved if required.			N/A
Smears Taken for Radioactive batches.			N/A
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initiated and dated. No transcription errors are apparent.	✓		
Aux data is correct.			N/A
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)			N/A
Batch entered into Case Narrative.	✓		
Batch non-conformances completed. if applicable.			N/A
Batch non-conformances second reviewed and disposition verified to be completed.			N/A
Aliquot Correction completed if required.			N/A
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

GEL Laboratories, LLC

revised 8/1/08

Primary Review Performed By: Denise Green 12/28/09

Secondary Review Performed By: [illegible] 12/28/09

12/31

PV

Am/Cm Que Sheet

22-DEC-09

Batch #: 934644 | Analyst: ~~MEXA1~~ | First Client Due Date: 31-DEC-09 | Internal Due Date21-DEC-09 | Comments:

Tracer(s): Am243/Cm244 | Tracer Code: 445-96-2-58 | Expiration Date: 5/11/10 | Vol: 0.1-1

LCS Isotope(s): Am241/Cm244 | LCS Code(s): SRM-0244-B / NA | Expiration Date: 4-30-10 / NA | Vol(s): — / NA

Spike Isotope(s): Am241/Cm244 | Spike Code(s): NA / NA | Expiration Date: NA / NA | Vol(s): NA / NA

Prep Date: 12/22/09 | Initials: [illegible] | Pipet ID: 2971058 | Balance ID: 1935028 | Witness: [illegible]

Sample ID	Client Description	Type	Hazard Code	Min CRDL	Matrix	Client	Collection Date	Pos.	Label #	Wet/Dry Aliquot (g / l / f)	Am/Cm Det #
243007002-1	WST03-10-2147	SAMPLE		.05 pCi/g	SOIL	LANL010	14-DEC-09	1	1	1.254	7 238
243019002-1	RE16-10-178	SAMPLE		.05 pCi/g	SOIL	LANL010	12-DEC-09	2	2	1.259	8
243019003-1	RE16-10-182	SAMPLE		.05 pCi/g	SOIL	LANL010	12-DEC-09	3	3	1.252	9
243019004-1	RE16-10-183	SAMPLE		.05 pCi/g	SOIL	LANL010	12-DEC-09	4	4	1.258	10 251
243019007-1	RE16-10-181	SAMPLE		.05 pCi/g	SOIL	LANL010	12-DEC-09	5	5	1.250	11
243019009-1	RE16-10-184	SAMPLE		.05 pCi/g	SOIL	LANL010	12-DEC-09	6	6	1.254	12
243019011-1	RE16-10-180	SAMPLE		.05 pCi/g	SOIL	LANL010	12-DEC-09	7	7	1.256	65
243019014-1	RE16-10-185	SAMPLE		.05 pCi/g	SOIL	LANL010	12-DEC-09	8	8	1.259	66
243019017-1	RE16-10-179	SAMPLE		.05 pCi/g	SOIL	LANL010	12-DEC-09	9	9	1.259	67
1201999658-1	MB for batch 934644	MB		.05 pCi/g	SOIL	QC ACCOUNT		10	10	1	68
1201999659-1	RE16-10-181(243019007DUP)	DUP		.05 pCi/g	SOIL	QC ACCOUNT	12-DEC-09	11	11	1.254	69
1201999660-1	LCS for batch 934644	LCS		.05 pCi/g	SOIL	QC ACCOUNT		12	12	0.123	70

Choose SOP Used: GL-RAD-A-011 / GL-RAD-A-036

Solid Sample Dissolution by: LEACH or DIGESTION (Circle One)

Data Reviewed By: [signature] 12/28/09

GEL Laboratories LLC, Radiochemistry Division

Blank Correction Report

Batch ID 934644

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
1201999659	DUP	Americium-241	1.25 g	0.000718	0.00271	0.025	-.001824	pCi/g	NO
1201999660	LCS	Americium-241	0.123 g	31.1	2.05	0.195	-.01853659	pCi/g	NO
1201999658	MB	Americium-241	1.00 g	-0.00228	0.00284	0.0323	-.00228	pCi/g	NO
243007002	WST03-10-2147	Americium-241	1.25 g	0.178	0.0171	0.0201	-.001824	pCi/g	NO
243019002	RE16-10-178	Americium-241	1.26 g	0.0111	0.00669	0.0255	-.00180952	pCi/g	NO
243019003	RE16-10-182	Americium-241	1.25 g	-0.000585	0.00854	0.0244	-.001824	pCi/g	NO
243019004	RE16-10-183	Americium-241	1.26 g	0.00154	0.00168	0.0361	-.00180952	pCi/g	NO
243019007	RE16-10-181	Americium-241	1.25 g	-0.0034	0.00801	0.0311	-.001824	pCi/g	NO
243019009	RE16-10-184	Americium-241	1.25 g	-0.0075	0.0107	0.0373	-.001824	pCi/g	NO
243019011	RE16-10-180	Americium-241	1.26 g	0.00701	0.0053	0.0249	-.00180952	pCi/g	NO
243019014	RE16-10-185	Americium-241	1.26 g	0.0021	0.00578	0.0257	-.00180952	pCi/g	NO
243019017	RE16-10-179	Americium-241	1.26 g	-0.00303	0.00447	0.024	-.00180952	pCi/g	NO

Alpha Spectroscopy Software Version 2.0
effective date: 09-Mar-1997

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 934644 SAMPLE DATE : 14-DEC-2009 00:00:00	SAMPLE ID : S0243007002_AM SAMPLE QTY: 1.254 G
DETECTOR NUMBER :79431 AVERAGE %EFFICIENCY :39.6197 % YIELD : 88.812	COUNT DATE:24-DEC-2009 13:14:45 ELAPSED LIVE TIME(SEC): 60000.00 ANALYST :MXE1

MS/MSD	LCS/LCSD	TRACER	
ID : 0244-B ISOTOPE : AM-241 PCI/G : 3.316E+01	ID : 0244-B ISOTOPE : AM-241 PCI/G : 3.316E+01	ID : 445-96-2-SS ISOTOPE : AM243 NOMINAL : 2.91660 dpm RESULTS : 2.59028 dpm	LIB FILE : ENV_ALPHA_AM.N BKG FILE : B238.CNF;62 BKG DATE : 20-DEC-2009 EFF FILE : W238.CNF;24 CAL DATE : 30-NOV-2009

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
CM-3/4	5795.020	10.000	10.000	0.000	4.8778	100.0000	1.02E-02	3.29E-03	1.16E-02	2.59E-02	3.23E-03
CM-5/6	5386.000	11.000	11.000	0.000	19.8796	86.09000	1.30E-02	4.01E-03	5.48E-02	1.13E-01	3.93E-03
AM-241	5479.150	177.000	174.218	1.000	3.6563	99.94000	1.78E-01	1.71E-02	8.69E-03	2.01E-02	1.36E-02
CM-242	6102.000	8.000	8.000	0.000	3.7846	100.0000	8.55E-03	3.07E-03	8.99E-03	2.07E-02	3.02E-03
AM243	5270.000	1025.000	1024.000	1.000	1.0000	99.78000	1.05E+00	6.93E-02	2.38E-03	7.53E-03	3.28E-02
CM-247	4946.000	21.000	21.000	0.000	18.5713	79.30000	2.70E-02	6.11E-03	5.56E-02	1.15E-01	5.90E-03
CM-248	5078.600	29.000	29.000	0.000	26.3889	91.00000	3.25E-02	6.33E-03	6.89E-02	1.41E-01	6.04E-03

NOTE: Sg calculated via blank population (updated 1-DEC-2009)
NOTE: Sg of AM243 calculated as sqrt(BKG AREA)
NOTE: Corrections made to AM-241 net area due to tracer impurity

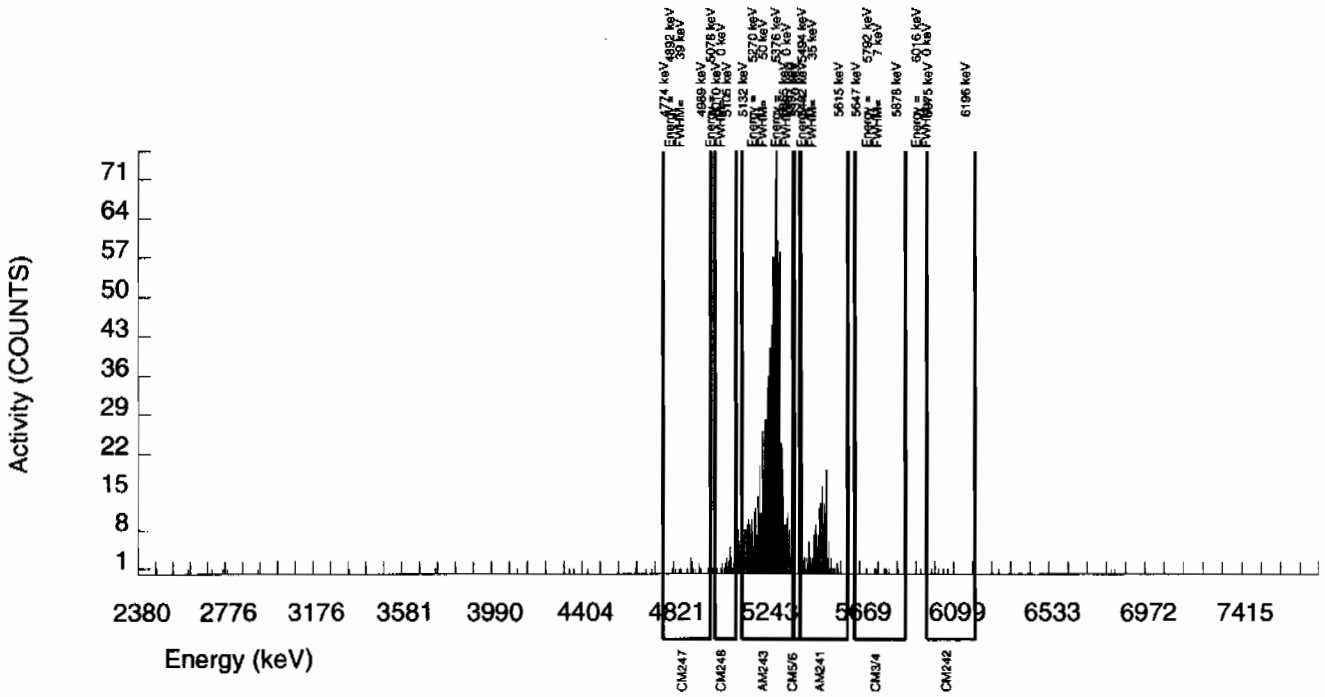

Alpha Spectroscopy Software Version 2.0
effective date: 09-Mar-1997

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 934644 SAMPLE DATE : 12-DEC-2009 00:00:00	SAMPLE ID : S0243019007_AM SAMPLE QTY: 1.250 G
DETECTOR NUMBER :72531 AVERAGE %EFFICIENCY :29.4647 % YIELD : 77.670	COUNT DATE:23-DEC-2009 16:07:35 ELAPSED LIVE TIME(SEC): 59999.99 ANALYST :MXE1

MS/MSD	LCS/LCSD	TRACER	
ID : 0244-B ISOTOPE : AM-241 PCI/G : 3.316E+01	ID : 0244-B ISOTOPE : AM-241 PCI/G : 3.316E+01	ID : 445-96-2-SS ISOTOPE : AM243 NOMINAL : 2.91660 dpm RESULTS : 2.26532 dpm	LIB FILE : ENV_ALPHA_AM.N BKG FILE : B011.CNF;1096 BKG DATE : 20-DEC-2009 EFF FILE : W011.CNF;309 CAL DATE : 4-DEC-2009

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
CM-3/4	5795.020	16.000	5.000	11.000	4.8778	100.0000	7.88E-03	8.21E-03	1.79E-02	4.00E-02	8.19E-03
CM-5/6	5386.000	5.000	4.000	1.000	19.8796	86.09000	7.32E-03	4.50E-03	8.46E-02	1.74E-01	4.48E-03
AM-241	5479.150	13.000	-2.159	14.000	3.6563	99.94000	-3.40E-03	8.01E-03	1.34E-02	3.11E-02	8.01E-03
CM-242	6102.000	12.000	7.000	5.000	3.7846	100.0000	1.16E-02	6.87E-03	1.39E-02	3.20E-02	6.83E-03
AM243	5270.000	668.000	666.000	2.000	1.4142	99.78000	1.05E+00	7.76E-02	5.19E-03	1.47E-02	4.08E-02
CM-247	4946.000	2.000	1.000	1.000	18.5713	79.30000	1.99E-03	3.44E-03	8.58E-02	1.77E-01	3.44E-03
CM-248	5078.600	12.000	12.000	0.000	26.3889	91.00000	2.08E-02	6.13E-03	1.06E-01	2.17E-01	5.99E-03

NOTE: Sg calculated via blank population (updated 1-DEC-2009)
NOTE: Sg of AM243 calculated as sqrt(BKG AREA)
NOTE: Corrections made to AM-241 net area due to tracer impurity

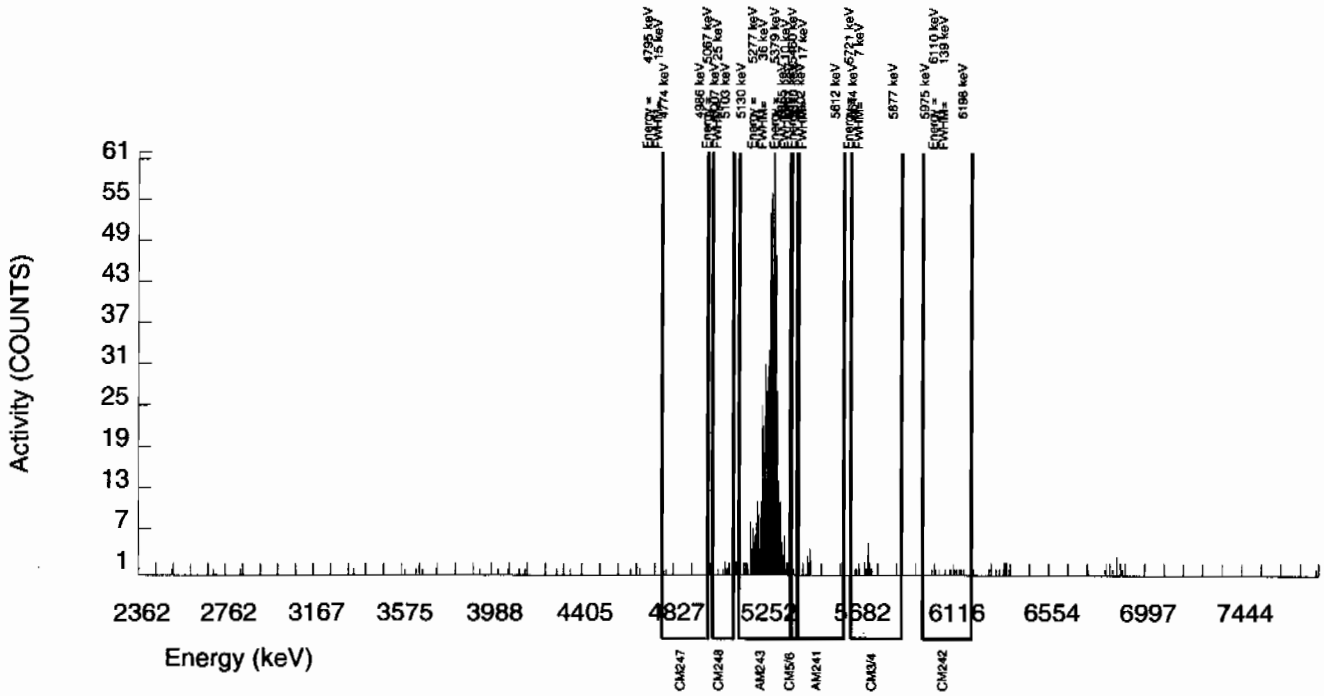

Alpha Spectroscopy Software Version 2.0
effective date: 09-Mar-1997

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 934644 SAMPLE DATE : 22-DEC-2009 00:00:00	SAMPLE ID : S1201999658_AM SAMPLE QTY: 1.000 G
DETECTOR NUMBER :78794 AVERAGE %EFFICIENCY :29.8179 % YIELD : 92.192	COUNT DATE:23-DEC-2009 16:07:40 ELAPSED LIVE TIME(SEC): 60000.00 ANALYST :MXE1

MS/MSD	LCS/LCSD	TRACER	
ID : 0244-B ISOTOPE : AM-241 PCI/G : 3.316E+01	ID : 0244-B ISOTOPE : AM-241 PCI/G : 3.316E+01	ID : 445-96-2-SS ISOTOPE : AM243 NOMINAL : 2.91659 dpm RESULTS : 2.68886 dpm	LIB FILE : ENV_ALPHA_AM.N BKG FILE : B068.CNF;1078 BKG DATE : 20-DEC-2009 EFF FILE : W068.CNF;276 CAL DATE : 10-DEC-2009

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
CM-3/4	5795.020	9.000	5.000	4.000	4.8778	100.0000	8.19E-03	5.93E-03	1.86E-02	4.16E-02	5.91E-03
CM-5/6	5386.000	5.000	5.000	0.000	19.8796	86.09000	9.52E-03	4.30E-03	8.80E-02	1.81E-01	4.26E-03
AM-241	5479.150	2.000	-1.392	2.000	3.6563	99.94000	-2.28E-03	2.84E-03	1.39E-02	3.23E-02	2.84E-03
CM-242	6102.000	4.000	4.000	0.000	3.7846	100.0000	6.61E-03	3.33E-03	1.44E-02	3.33E-02	3.31E-03
AM243	5270.000	804.000	800.000	4.000	2.0000	99.78000	1.31E+00	9.25E-02	7.64E-03	1.97E-02	4.67E-02
CM-247	4946.000	9.000	7.000	2.000	18.5713	79.30000	1.45E-02	6.91E-03	8.93E-02	1.84E-01	6.85E-03
CM-248	5078.600	10.000	9.000	1.000	26.3889	91.00000	1.62E-02	6.05E-03	1.11E-01	2.26E-01	5.97E-03

NOTE: Sg calculated via blank population (updated 1-DEC-2009)
NOTE: Sg of AM243 calculated as sqrt(BKG AREA)
NOTE: Corrections made to AM-241 net area due to tracer impurity

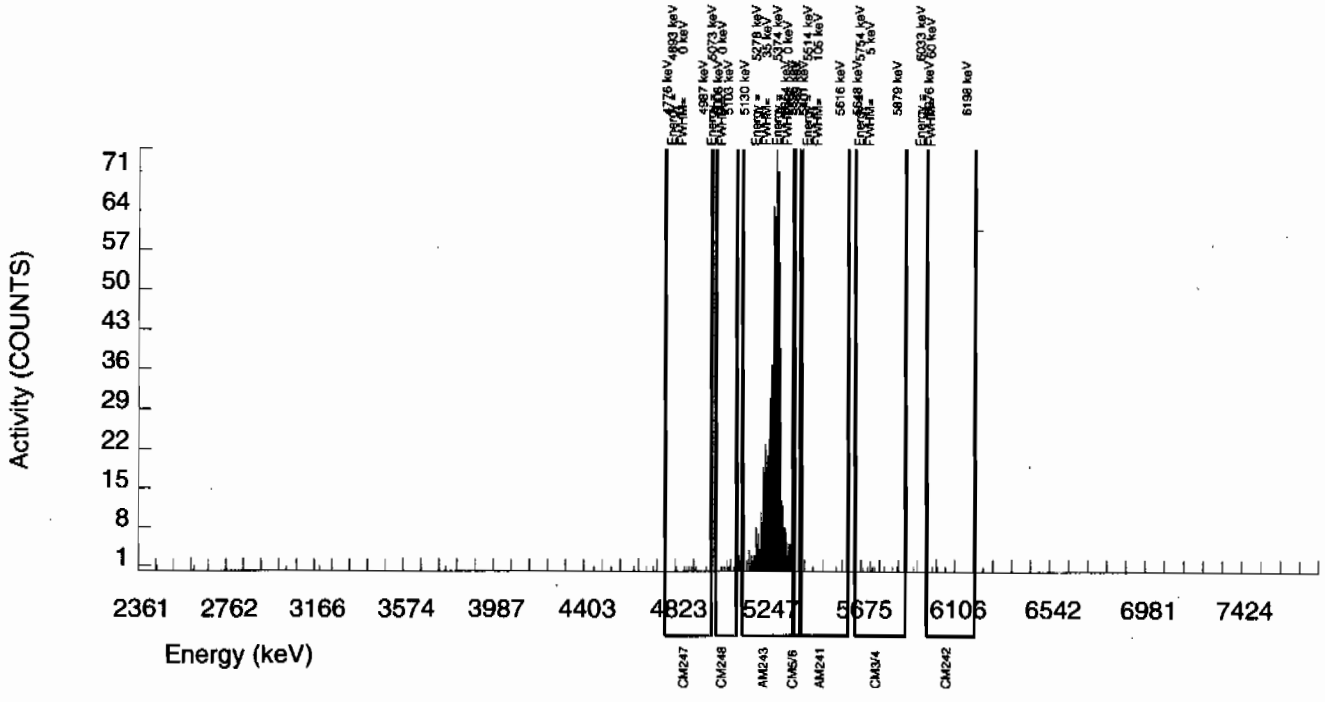

Alpha Spectroscopy Software Version 2.0
effective date: 09-Mar-1997

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 934644 SAMPLE DATE : 12-DEC-2009 00:00:00	SAMPLE ID : S1201999659_AM SAMPLE QTY: 1.254 G
DETECTOR NUMBER :78795 AVERAGE %EFFICIENCY :32.0575 % YIELD : 88.324	COUNT DATE:23-DEC-2009 16:07:40 ELAPSED LIVE TIME(SEC): 60000.00 ANALYST :MXE1

MS/MSD	LCS/LCSD	TRACER	
ID : 0244-B ISOTOPE : AM-241 PCI/G : 3.316E+01	ID : 0244-B ISOTOPE : AM-241 PCI/G : 3.316E+01	ID : 445-96-2-SS ISOTOPE : AM243 NOMINAL : 2.91660 dpm RESULTS : 2.57606 dpm	LIB FILE : ENV_ALPHA_AM.N BKG FILE : B069.CNF;1080 BKG DATE : 20-DEC-2009 EFF FILE : W069.CNF;283 CAL DATE : 10-DEC-2009

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
CM-3/4	5795.020	10.000	9.000	1.000	4.8778	100.0000	1.14E-02	4.27E-03	1.44E-02	3.22E-02	4.21E-03
CM-5/6	5386.000	9.000	9.000	0.000	19.8796	86.09000	1.33E-02	4.49E-03	6.82E-02	1.40E-01	4.42E-03
AM-241	5479.150	4.000	0.566	2.000	3.6563	99.94000	7.18E-04	2.71E-03	1.08E-02	2.50E-02	2.71E-03
CM-242	6102.000	5.000	5.000	0.000	3.7846	100.0000	6.68E-03	3.01E-03	1.12E-02	2.58E-02	2.99E-03
AM243	5270.000	828.000	824.000	4.000	2.0000	99.78000	1.05E+00	7.32E-02	5.92E-03	1.53E-02	3.67E-02
CM-247	4946.000	15.000	11.000	4.000	18.5713	79.30000	1.76E-02	7.05E-03	6.91E-02	1.43E-01	6.97E-03
CM-248	5078.600	5.000	5.000	0.000	26.3889	91.00000	6.97E-03	3.15E-03	8.56E-02	1.75E-01	3.12E-03

NOTE: Sg calculated via blank population (updated 1-DEC-2009)
NOTE: Sg of AM243 calculated as sqrt(BKG AREA)
NOTE: Corrections made to AM-241 net area due to tracer impurity

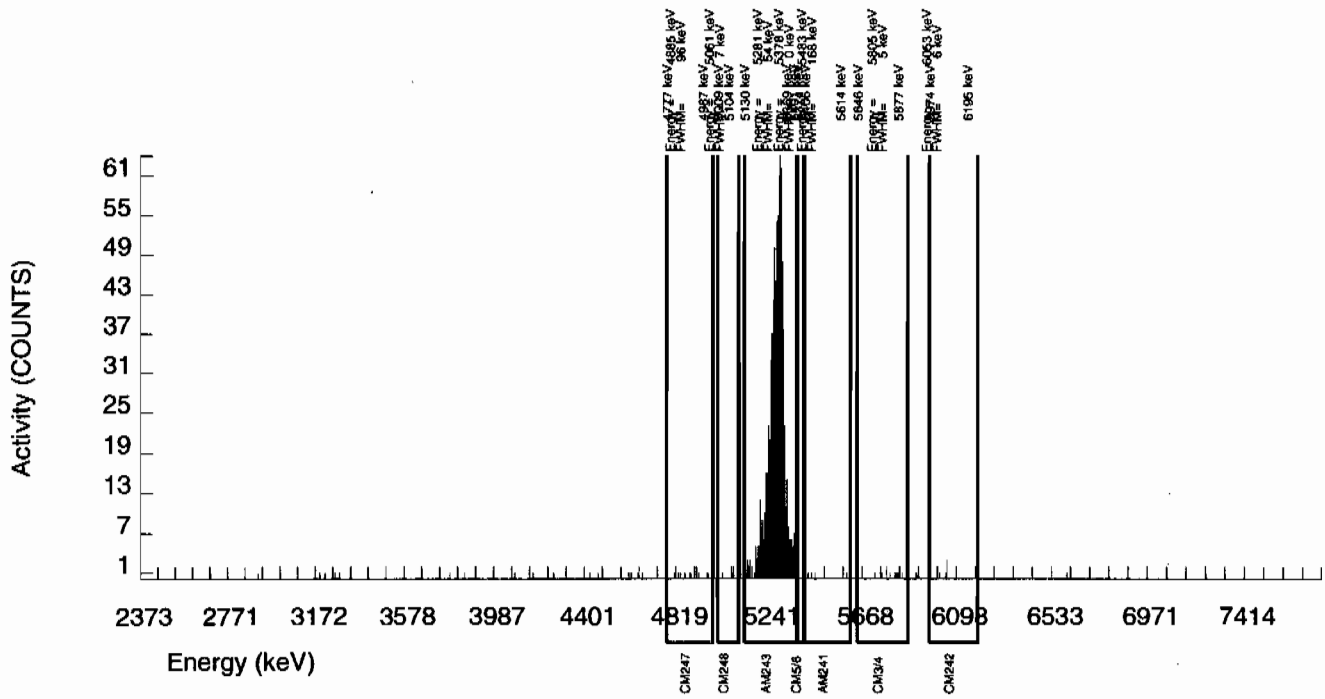

Alpha Spectroscopy Software Version 2.0
effective date: 09-Mar-1997

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 934644 SAMPLE DATE : 22-DEC-2009 00:00:00	SAMPLE ID : S1201999660_AM SAMPLE QTY: 0.123 G
DETECTOR NUMBER :46-089B2 AVERAGE %EFFICIENCY :35.4129 % YIELD : 104.504	COUNT DATE:23-DEC-2009 16:07:40 ELAPSED LIVE TIME(SEC): 60000.00 ANALYST :MXE1

MS/MSD	LCS/LCSD	TRACER	
ID : 0244-B ISOTOPE : AM-241 PCI/G : 3.316E+01	ID : 0244-B ISOTOPE : AM-241 PCI/G : 3.316E+01	ID : 445-96-2-SS ISOTOPE : AM243 NOMINAL : 2.91659 dpm RESULTS : 3.04797 dpm	LIB FILE : ENV_ALPHA_AM.N BKG FILE : B070.CNF;1090 BKG DATE : 20-DEC-2009 EFF FILE : W070.CNF;288 CAL DATE : 10-DEC-2009

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
CM-3/4	5795.020	21.000	18.000	3.000	4.8778	100.0000	1.78E-01	4.98E-02	1.12E-01	2.51E-01	4.85E-02
CM-5/6	5386.000	111.000	111.000	0.000	19.8796	86.09000	1.28E+00	1.46E-01	5.32E-01	1.09E+00	1.21E-01
AM-241	5479.150	3148.000	3137.125	9.000	3.6563	99.94000	3.11E+01	2.05E+00	8.42E-02	1.95E-01	5.56E-01
CM-242	6102.000	14.000	10.000	4.000	3.7846	100.0000	9.98E-02	4.28E-02	8.71E-02	2.01E-01	4.23E-02
AM243	5270.000	1083.000	1077.000	6.000	2.4495	99.78000	1.07E+01	7.54E-01	5.65E-02	1.40E-01	3.27E-01
CM-247	4946.000	26.000	17.000	9.000	18.5713	79.30000	2.12E-01	7.50E-02	5.39E-01	1.11E+00	7.38E-02
CM-248	5078.600	32.000	31.000	1.000	26.3889	91.00000	3.37E-01	6.60E-02	6.68E-01	1.36E+00	6.25E-02

NOTE: Sg calculated via blank population (updated 1-DEC-2009)
NOTE: Sg of AM243 calculated as sqrt(BKG AREA)
NOTE: Corrections made to AM-241 net area due to tracer impurity

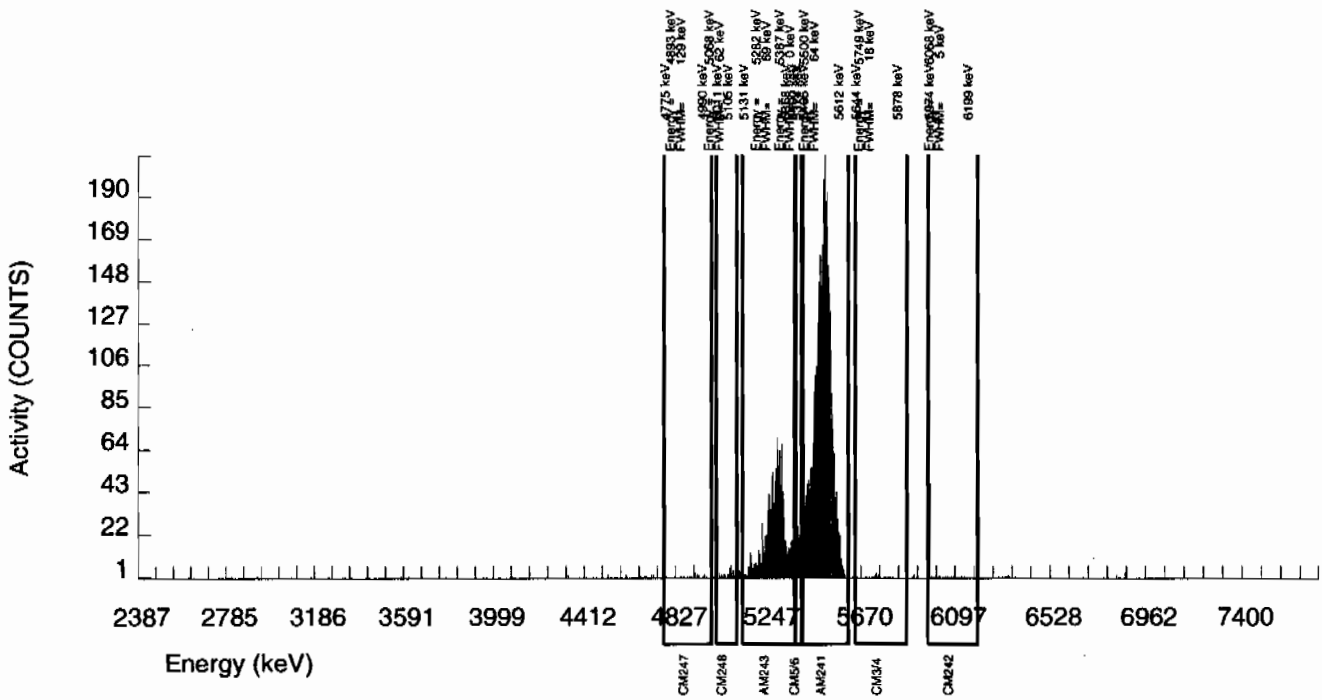

Radiochemistry Batch Checklist, Rev 9

Batch# 934649 Product: DW Date: 12/28/09

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			N/A
Samples have been blank corrected (if required)	✓		
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.	✓		
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	✓		
Sample was run within hold time.	✓		
Sample was correctly preserved if required.			N/A
Smears Taken for Radioactive batches.			N/A
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	✓		
Aux data is correct.			N/A
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)			N/A
Batch entered into Case Narrative.	✓		
Batch non-conformances completed, if applicable.			N/A
Batch non-conformances second reviewed and disposition verified to be completed.			N/A
Aliquot Correction completed if required.			N/A
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analyses.)	✓		

GEL Laboratories, LLC

revised 8/1/06

Primary Review Performed By: Denise Green 12/28/09

Secondary Review Performed By: [illegible] 12/28/09

12/31

PV

Plutonium Que Sheet

22-DEC-09

Batch #: 934649 Analyst: ~~MKAT~~ First Client Due Date:31-DEC-09 Internal Due Date:21-DEC-09

Tracer Isotope(s): Pu-242/Pu-238 Tracer Code: 1374-A Expiration Date: 12/2/10 Vol: 0.1ml

LCS Isotope(s): ~~Pu-239~~/Pu-238 LCS Code: SRM 0244-B Expiration Date: 4/20/10 Vol:

Spike Isotope(s): Pu-239/Pu-238 Spike Code: NA Expiration Date: NA Vol: NA

Prep Date: 12/22/09 Initials: MMK Pipet ID: 20241058 Balance ID: 19350208 Witness: 12/28/09

Sample ID	Client Description	Type	Hazard Code	Min CRDL	Matrix	Client	Collection Date	Pos.	Label #	Wet/Dry Aliquot (g) 1/f)	Pu Det #
243007002-1	WST03-10-2147	SAMPLE		.05 pCi/g	SOIL	LANL010	14-DEC-09	1	1	1.254	25
243019002-1	RE16-10-178	SAMPLE		.05 pCi/g	SOIL	LANL010	12-DEC-09	2	2	1.259	~~26~~ 209
243019003-1	RE16-10-182	SAMPLE		.05 pCi/g	SOIL	LANL010	12-DEC-09	3	3	1.252	27
243019004-1	RE16-10-183	SAMPLE		.05 pCi/g	SOIL	LANL010	12-DEC-09	4	4	1.258	28
243019007-1	RE16-10-181	SAMPLE		.05 pCi/g	SOIL	LANL010	12-DEC-09	5	5	1.250	29
243019009-1	RE16-10-184	SAMPLE		.05 pCi/g	SOIL	LANL010	12-DEC-09	6	6	1.254	~~30~~ 210
243019011-1	RE16-10-180	SAMPLE		.05 pCi/g	SOIL	LANL010	12-DEC-09	7	7	1.258	37
243019014-1	RE16-10-185	SAMPLE		.05 pCi/g	SOIL	LANL010	12-DEC-09	8	8	1.259	38
243019017-1	RE16-10-179	SAMPLE		.05 pCi/g	SOIL	LANL010	12-DEC-09	9	9	1.259	39
1201999665-1	MB for batch 934649	MB		.05 pCi/g	SOIL	QC ACCOUNT		10	10	1.00	40
1201999666-1	RE16-10-181(243019007DUP)	DUP		.05 pCi/g	SOIL	QC ACCOUNT	12-DEC-09	11	11	1.254	41
1201999667-1	LCS for batch 934649	LCS		.05 pCi/g	SOIL	QC ACCOUNT		12	12	0.123	42

Choose SOP Used: GL-RAD-A-011, GL-RAD-A-036, GL-RAD-A-045, GL-RAD-A-043

Solid Sample Dissolution by: LEACH or DIGESTION Circle One

Data Reviewed By: 12/28/09

GEL Laboratories LLC, , Radiochemistry Division

Blank Correction Report

Batch ID 934649

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
1201999666	DUP	Plutonium-238	1.25 g	-0.00364	0.00364	0.0197	.002424	pCi/g	YES
		Plutonium-239/240	1.25 g	0.00242	0.00172	0.0222	.002424	pCi/g	YES
1201999667	LCS	Plutonium-238	0.123 g	7.16	0.500	0.191	.024634146	pCi/g	NO
		Plutonium-239/240	0.123 g	37.7	2.24	0.215	.024634146	pCi/g	NO
1201999665	MB	Plutonium-238	1.00 g	0.00303	0.00372	0.0246	.00303	pCi/g	YES
		Plutonium-239/240	1.00 g	0.00303	0.00304	0.0278	.00303	pCi/g	YES
243007002	WST03-10-2147	Plutonium-238	1.25 g	0.00233	0.00754	0.0189	.002424	pCi/g	YES
		Plutonium-239/240	1.25 g	0.00233	0.00329	0.0213	.002424	pCi/g	YES
243019002	RE16-10-178	Plutonium-238	1.26 g	0.00213	0.00151	0.0173	.002404762	pCi/g	YES
		Plutonium-239/240	1.26 g	0.0372	0.00655	0.0194	.002404762	pCi/g	NO
243019003	RE16-10-182	Plutonium-238	1.25 g	0.00492	0.00247	0.020	.002424	pCi/g	YES
		Plutonium-239/240	1.25 g	0.0172	0.00529	0.0225	.002424	pCi/g	NO
243019004	RE16-10-183	Plutonium-238	1.26 g	-0.00126	0.00486	0.0204	.002404762	pCi/g	YES
		Plutonium-239/240	1.26 g	0.00251	0.00251	0.023	.002404762	pCi/g	YES
243019007	RE16-10-181	Plutonium-238	1.25 g	-0.00595	0.00619	0.0193	.002424	pCi/g	YES
		Plutonium-239/240	1.25 g	-0.00714	0.00476	0.0218	.002424	pCi/g	YES
243019009	RE16-10-184	Plutonium-238	1.25 g	0.000976	0.000978	0.0159	.002424	pCi/g	YES
		Plutonium-239/240	1.25 g	0.0244	0.00502	0.0179	.002424	pCi/g	NO
243019011	RE16-10-180	Plutonium-238	1.26 g	0.00676	0.00713	0.0183	.002404762	pCi/g	YES
		Plutonium-239/240	1.26 g	0.00451	0.00451	0.0206	.002404762	pCi/g	YES
243019014	RE16-10-185	Plutonium-238	1.26 g	-0.00344	0.00473	0.0186	.002404762	pCi/g	YES
		Plutonium-239/240	1.26 g	0.0103	0.00447	0.021	.002404762	pCi/g	YES
243019017	RE16-10-179	Plutonium-238	1.26 g	-0.0011	0.00686	0.0178	.002404762	pCi/g	YES
		Plutonium-239/240	1.26 g	0.0011	0.00291	0.0201	.002404762	pCi/g	YES

Alpha Spectroscopy Software Version 2.0
effective date: 09-Mar-1997

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 934649 SAMPLE DATE : 14-DEC-2009 00:00:00	SAMPLE ID : S0243007002_PU SAMPLE QTY: 1.254 G
DETECTOR NUMBER :45-149AA5 AVERAGE %EFFICIENCY :32.5832 % YIELD : 94.825	COUNT DATE:23-DEC-2009 16:07:38 ELAPSED LIVE TIME(SEC): 60000.00 ANALYST :MXE1

MS/MSD	LCS/LCSD	TRACER	
ID : 0244-B ISOTOPE : PU-9/0 PCI/G : 4.178E+01	ID : 0244-B ISOTOPE : PU-9/0 PCI/G : 4.178E+01	ID : 1374-A ISOTOPE : PU242 NOMINAL : 3.38543 dpm RESULTS : 3.21024 dpm	LIB FILE : ENV_ALPHA_PU.N BKG FILE : B025.CNF;1094 BKG DATE : 20-DEC-2009 EFF FILE : W025.CNF;324 CAL DATE : 4-DEC-2009

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-9/0	5155.000	5.000	2.000	3.000	3.3488	99.90000	2.33E-03	3.29E-03	9.07E-03	2.13E-02	3.29E-03
PU-236	5749.000	35.000	-6.000	41.000	2.0294	100.0000	-7.02E-03	1.02E-02	5.49E-03	1.41E-02	1.02E-02
PU-238	5499.000	22.000	2.000	20.000	2.9082	99.90000	2.33E-03	7.54E-03	7.87E-03	1.89E-02	7.54E-03
PU242	4890.000	1049.000	1046.000	3.000	1.7321	100.0000	1.22E+00	7.20E-02	4.68E-03	1.25E-02	3.77E-02
PU-244	4589.000	3.000	2.000	1.000	6.8218	99.90000	2.33E-03	2.33E-03	1.85E-02	4.01E-02	2.33E-03

NOTE: Sg calculated via blank population (updated 1-DEC-2009)
NOTE: Sg of PU242 calculated as sqrt(BKG AREA)

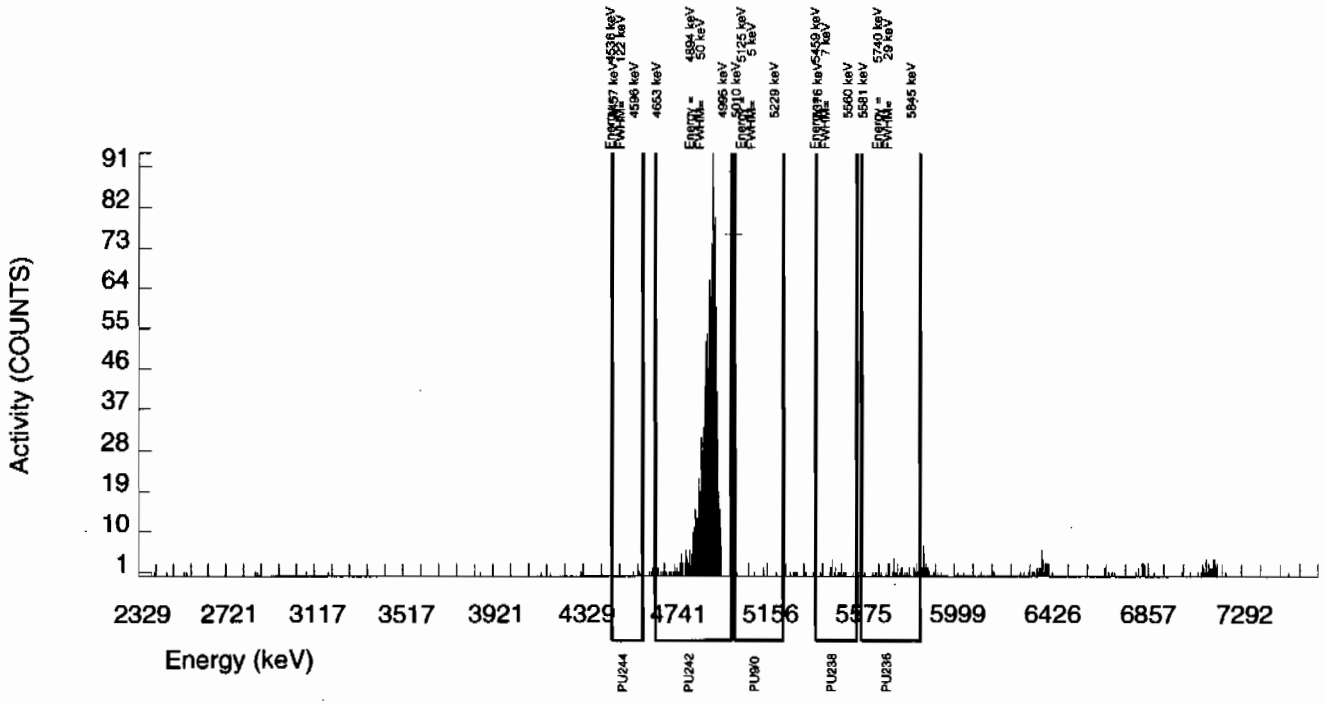

Alpha Spectroscopy Software Version 2.0
effective date: 09-Mar-1997

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 934649 SAMPLE DATE : 12-DEC-2009 00:00:00	SAMPLE ID : S0243019007_PU SAMPLE QTY: 1.250 G
DETECTOR NUMBER :33454 AVERAGE %EFFICIENCY :31.1255 % YIELD : 97.368	COUNT DATE:23-DEC-2009 16:07:38 ELAPSED LIVE TIME(SEC): 60000.00 ANALYST :MXE1

MS/MSD	LCS/LCSD	TRACER	
ID : 0244-B ISOTOPE : PU-9/0 PCI/G : 4.178E+01	ID : 0244-B ISOTOPE : PU-9/0 PCI/G : 4.178E+01	ID : 1374-A ISOTOPE : PU242 NOMINAL : 3.38543 dpm RESULTS : 3.29633 dpm	LIB FILE : ENV_ALPHA_PU.N BKG FILE : B029.CNF;1096 BKG DATE : 20-DEC-2009 EFF FILE : W029.CNF;316 CAL DATE : 4-DEC-2009

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-9/0	5155.000	5.000	-6.000	11.000	3.3488	99.90000	-7.14E-03	4.76E-03	9.27E-03	2.18E-02	4.76E-03
PU-236	5749.000	31.000	-16.000	47.000	2.0294	100.0000	-1.92E-02	1.06E-02	5.61E-03	1.44E-02	1.06E-02
PU-238	5499.000	11.000	-5.000	16.000	2.9082	99.90000	-5.95E-03	6.19E-03	8.05E-03	1.93E-02	6.19E-03
PU242	4890.000	1031.000	1026.000	5.000	2.2361	100.0000	1.22E+00	7.47E-02	6.19E-03	1.56E-02	3.83E-02
PU-244	4589.000	3.000	-1.000	4.000	6.8218	99.90000	-1.19E-03	3.15E-03	1.89E-02	4.10E-02	3.15E-03

NOTE: Sg calculated via blank population (updated 1-DEC-2009)
NOTE: Sg of PU242 calculated as sqrt(BKG AREA)

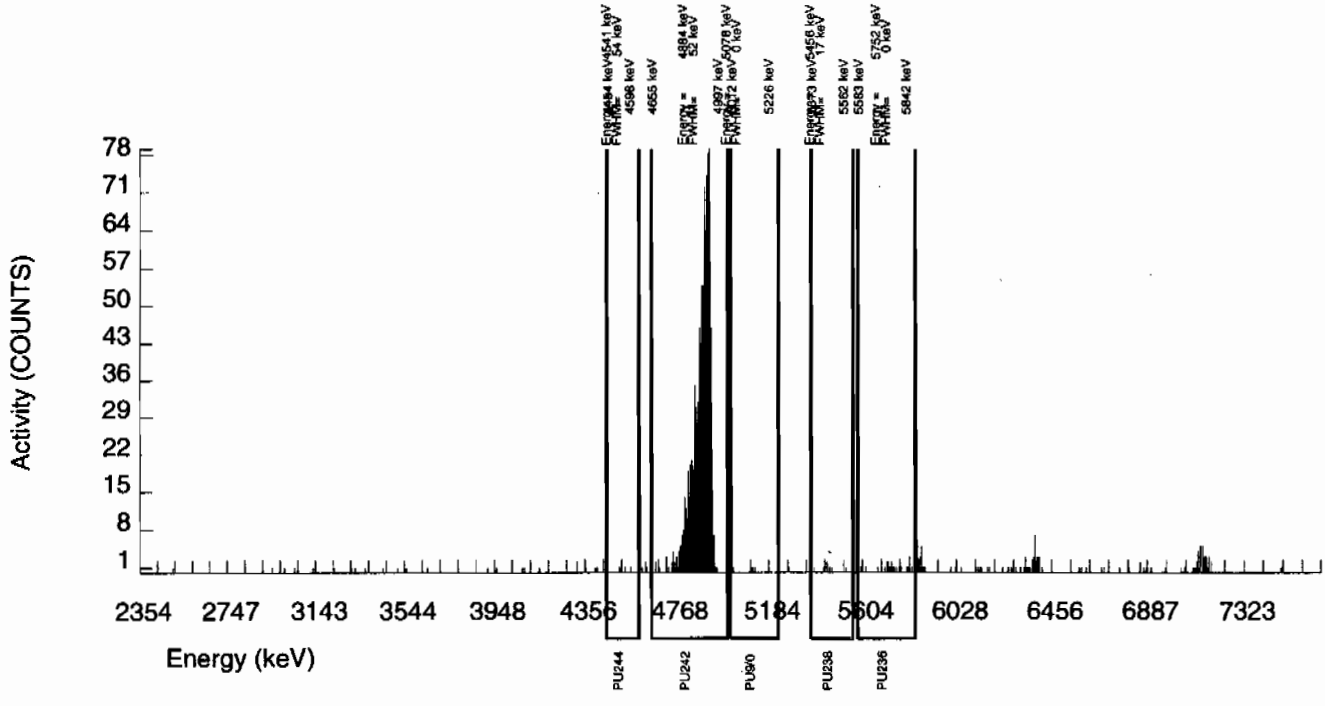

Alpha Spectroscopy Software Version 2.0
effective date: 09-Mar-1997

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 934649 SAMPLE DATE : 22-DEC-2009 00:00:00	SAMPLE ID : S1201999665_PU SAMPLE QTY: 1.000 G
DETECTOR NUMBER :78773 AVERAGE %EFFICIENCY :32.6597 % YIELD : 90.985	COUNT DATE:23-DEC-2009 16:07:39 ELAPSED LIVE TIME(SEC): 60000.00 ANALYST :MXE1

MS/MSD	LCS/LCSD	TRACER	
ID : 0244-B ISOTOPE : PU-9/0 PCI/G : 4.178E+01	ID : 0244-B ISOTOPE : PU-9/0 PCI/G : 4.178E+01	ID : 1374-A ISOTOPE : PU242 NOMINAL : 3.38543 dpm RESULTS : 3.08025 dpm	LIB FILE : ENV_ALPHA_PU.N BKG FILE : B040.CNF;1098 BKG DATE : 20-DEC-2009 EFF FILE : W040.CNF;313 CAL DATE : 4-DEC-2009

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-9/0	5155.000	3.000	2.000	1.000	3.3488	99.90000	3.03E-03	3.04E-03	1.18E-02	2.78E-02	3.03E-03
PU-236	5749.000	20.000	-12.000	32.000	2.0294	100.0000	-1.82E-02	1.09E-02	7.16E-03	1.84E-02	1.09E-02
PU-238	5499.000	4.000	2.000	2.000	2.9082	99.90000	3.03E-03	3.72E-03	1.03E-02	2.46E-02	3.72E-03
PU242	4890.000	1007.000	1006.000	1.000	1.0000	100.0000	1.52E+00	9.12E-02	3.53E-03	1.12E-02	4.81E-02
PU-244	4589.000	3.000	3.000	0.000	6.8218	99.90000	4.55E-03	2.64E-03	2.41E-02	5.23E-02	2.63E-03

NOTE: Sg calculated via blank population (updated 1-DEC-2009)
NOTE: Sg of PU242 calculated as sqrt(BKG AREA)

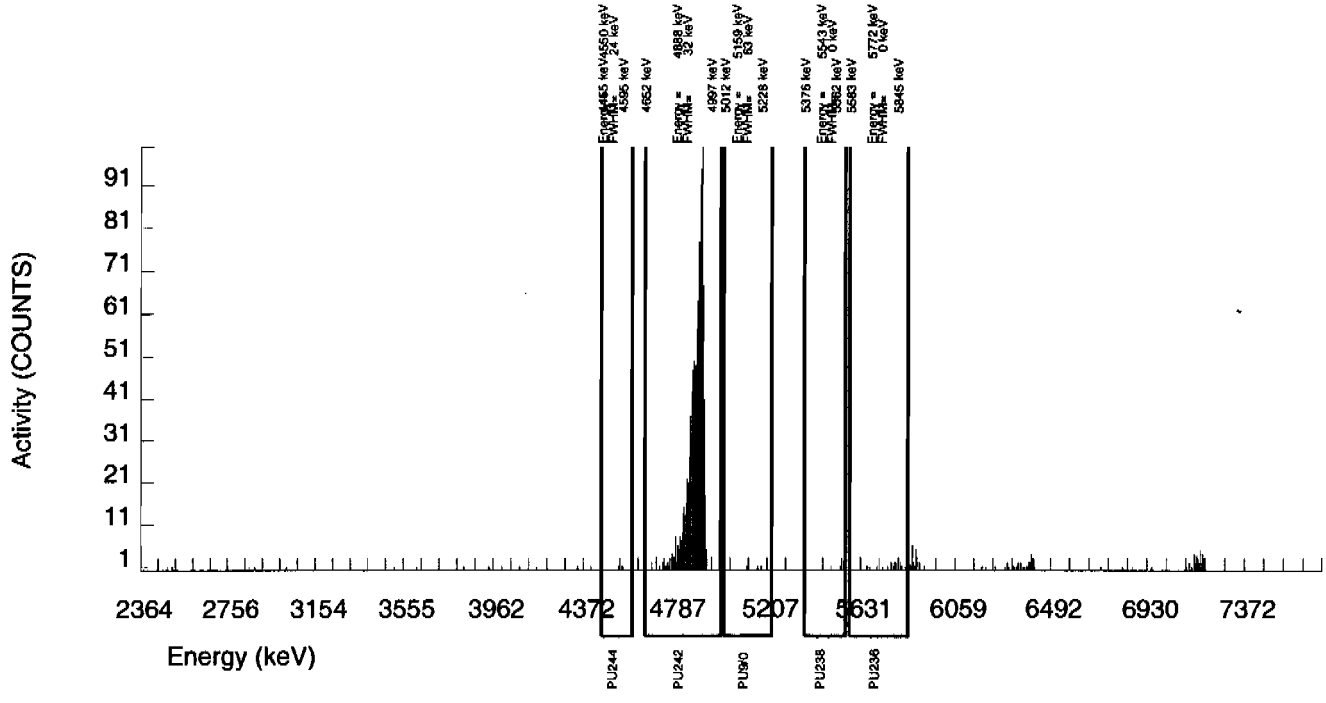

Alpha Spectroscopy Software Version 2.0
effective date: 09-Mar-1997

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 934649 SAMPLE DATE : 12-DEC-2009 00:00:00	SAMPLE ID : S1201999666_PU SAMPLE QTY: 1.254 G
DETECTOR NUMBER :78205 AVERAGE %EFFICIENCY :32.7900 % YIELD : 90.444	COUNT DATE:23-DEC-2009 16:07:39 ELAPSED LIVE TIME(SEC): 60000.00 ANALYST :MXE1

MS/MSD	LCS/LCSD	TRACER	
ID : 0244-B ISOTOPE : PU-9/0 PCI/G : 4.178E+01	ID : 0244-B ISOTOPE : PU-9/0 PCI/G : 4.178E+01	ID : 1374-A ISOTOPE : PU242 NOMINAL : 3.38543 dpm RESULTS : 3.06191 dpm	LIB FILE : ENV_ALPHA_PU.N BKG FILE : B041.CNF;1091 BKG DATE : 20-DEC-2009 EFF FILE : W041.CNF;317 CAL DATE : 4-DEC-2009

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-9/0	5155.000	2.000	2.000	0.000	3.3488	99.90000	2.42E-03	1.72E-03	9.45E-03	2.22E-02	1.71E-03
PU-236	5749.000	35.000	14.000	21.000	2.0294	100.0000	1.71E-02	9.18E-03	5.72E-03	1.47E-02	9.14E-03
PU-238	5499.000	3.000	-3.000	6.000	2.9082	99.90000	-3.64E-03	3.64E-03	8.20E-03	1.97E-02	3.64E-03
PU242	4890.000	1005.000	1004.000	1.000	1.0000	100.0000	1.22E+00	7.27E-02	2.82E-03	8.92E-03	3.84E-02
PU-244	4589.000	5.000	5.000	0.000	6.8218	99.90000	6.06E-03	2.73E-03	1.92E-02	4.18E-02	2.71E-03

NOTE: Sg calculated via blank population (updated 1-DEC-2009)
NOTE: Sg of PU242 calculated as sqrt(BKG AREA)

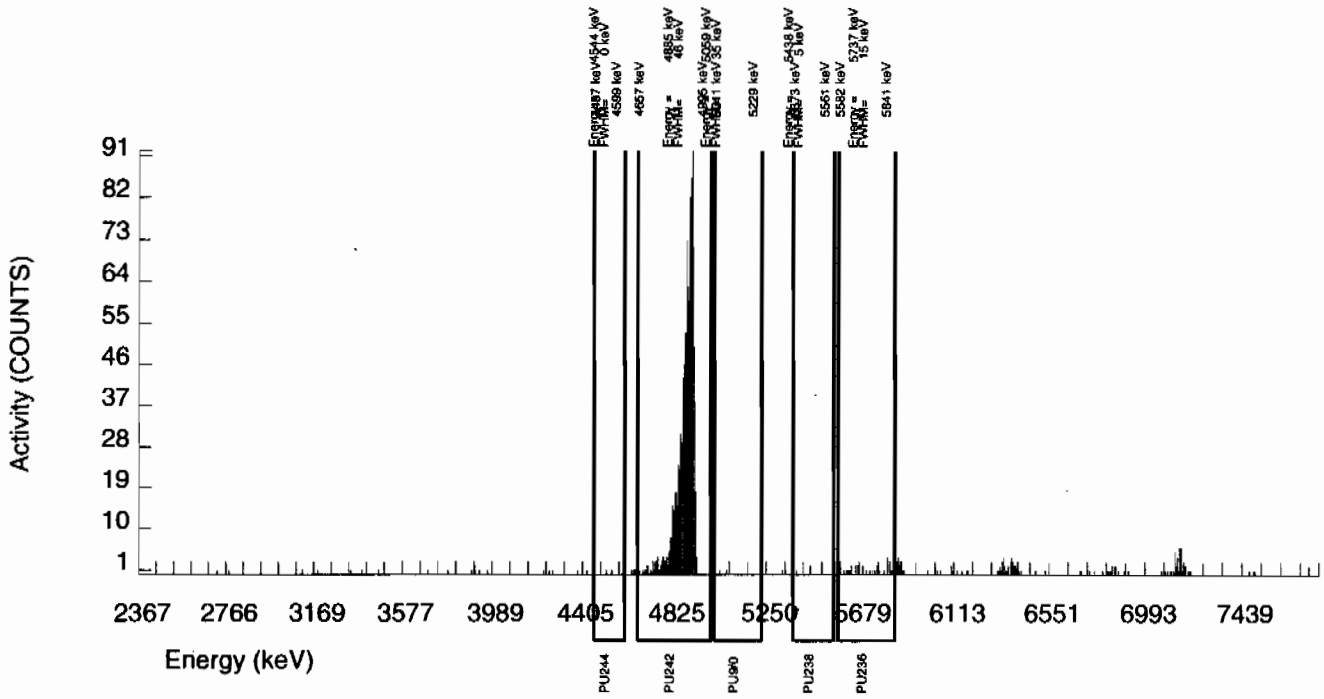

Alpha Spectroscopy Software Version 2.0
effective date: 09-Mar-1997

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 934649 SAMPLE DATE : 22-DEC-2009 00:00:00	SAMPLE ID : S1201999667_PU SAMPLE QTY: 0.123 G
DETECTOR NUMBER :78793 AVERAGE %EFFICIENCY :32.5347 % YIELD : 95.874	COUNT DATE:23-DEC-2009 16:07:39 ELAPSED LIVE TIME(SEC): 60000.00 ANALYST :MXE1

MS/MSD	LCS/LCSD	TRACER	
ID : 0244-B ISOTOPE : PU-9/0 PCI/G : 4.178E+01	ID : 0244-B ISOTOPE : PU-9/0 PCI/G : 4.178E+01	ID : 1374-A ISOTOPE : PU242 NOMINAL : 3.38543 dpm RESULTS : 3.24576 dpm	LIB FILE : ENV_ALPHA_PU.N BKG FILE : B042.CNF;1090 BKG DATE : 20-DEC-2009 EFF FILE : W042.CNF;290 CAL DATE : 4-DEC-2009

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-9/0	5155.000	3210.000	3207.000	3.000	3.3488	99.90000	3.77E+01	2.24E+00	9.16E-02	2.15E-01	6.66E-01
PU-236	5749.000	19.000	-9.000	28.000	2.0294	100.0000	-1.06E-01	8.06E-02	5.54E-02	1.43E-01	8.06E-02
PU-238	5499.000	612.000	609.000	3.000	2.9082	99.90000	7.16E+00	5.00E-01	7.95E-02	1.91E-01	2.91E-01
PU242	4890.000	1060.000	1056.000	4.000	2.0000	100.0000	1.24E+01	8.01E-01	5.46E-02	1.41E-01	3.83E-01
PU-244	4589.000	10.000	10.000	0.000	6.8218	99.90000	1.18E-01	3.78E-02	1.87E-01	4.05E-01	3.72E-02

NOTE: Sg calculated via blank population (updated 1-DEC-2009)
NOTE: Sg of PU242 calculated as sqrt(BKG AREA)

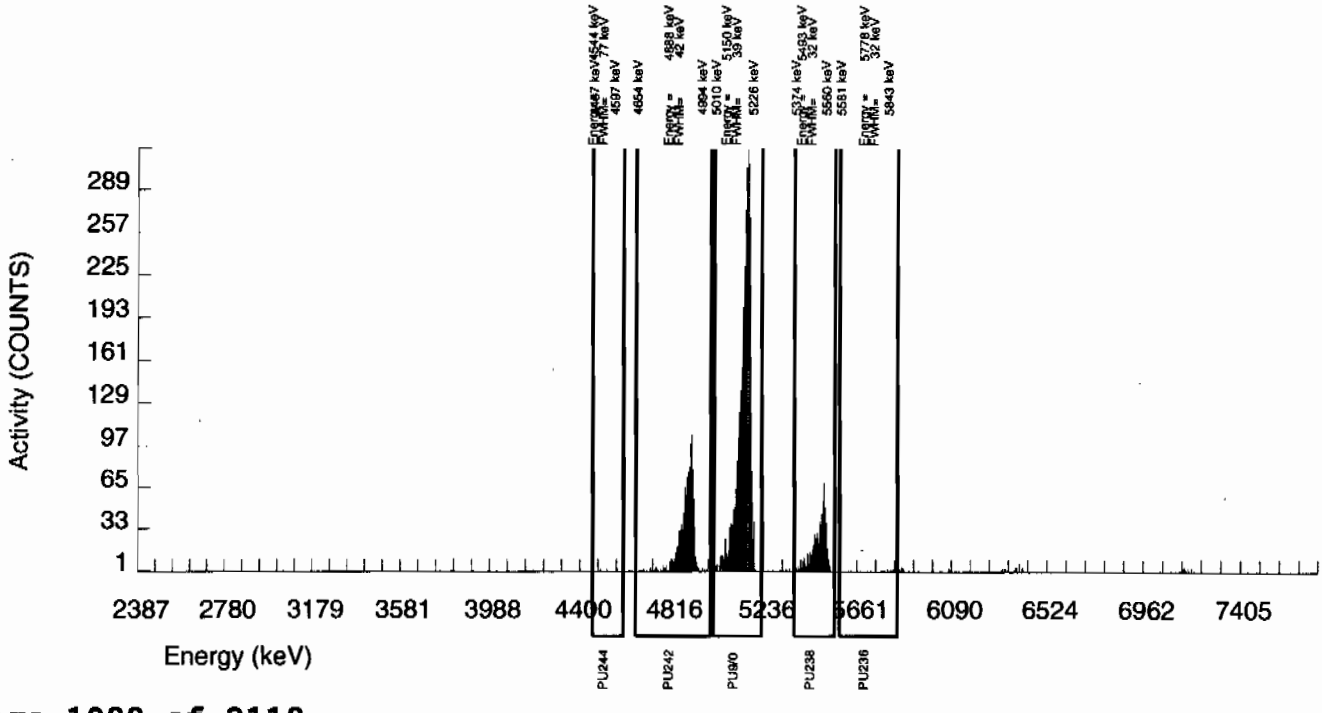

Radiochemistry Batch Checklist, Rev 9

Batch# 934652 Product: U Date: 12/29/09

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			N/A
Samples have been blank corrected (if required)	✓		
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.	✓		
Method blank is less than the RDL/ LLD. (If rad samples. < 5% of lowest activity)	✓		case narrative
Sample was run within hold time.	✓		
Sample was correctly preserved if required.	✓		
Smears Taken for Radioactive batches.			N/A
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	✓		
Aux data is correct.			N/A
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)			N/A
Batch entered into Case Narrative.	✓		
Batch non-conformances completed, if applicable.			N/A
Batch non-conformances second reviewed and disposition verified to be completed.			N/A
Aliquot Correction completed if required.			N/A
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

GEL Laboratories, LLC

revised 8/1/08

Primary Review Performed By: [signature] 12/29/09

Secondary Review Performed By: [signature] 12/30/09

LANL

12/21 – 12/31

Uranium Que Sheet

22-DEC-09

Batch #: 934652 Analyst: MXA1 First Client Due Date:31-DEC-09 Internal Due Date21-DEC-09

Tracer Isotope: U-232/U-236 Tracer Code: 1283-H Expiration Date: 12/09/10 Vol: 0.1
LCS Isotope: U-238 LCS Code: — Expiration Date: — Vol: —
Spike Isotope: U-238 Spike Code: — Expiration Date: — Vol: —
Prep Date: 12/22/09 Initials: [illegible] Pipet ID: 2971058 Balance ID: 50410272 Witness: [illegible] 12/22/9

Sample ID	Client Description	Type	Hazard Code	Min CRDL	Matrix	Client	Collection Date	Pos.	Label #	Wet/Dry Aliquot (g/l/f)	U Det #
243007002-1	WST03-10-2147	SAMPLE		.1 pCi/g	SOIL	LANL010	14-DEC-09	1	1	0.500	~~153~~ 117
243019002-1	RE16-10-178	SAMPLE		.1 pCi/g	SOIL	LANL010	12-DEC-09	2	2	0.509	154 118
243019003-1	RE16-10-182	SAMPLE		.1 pCi/g	SOIL	LANL010	12-DEC-09	3	3	0.510	155 119
243019004-1	RE16-10-183	SAMPLE		.1 pCi/g	SOIL	LANL010	12-DEC-09	4	4	0.503	156 120
243019007-1	RE16-10-181	SAMPLE		.1 pCi/g	SOIL	LANL010	12-DEC-09	5	5	0.501	157 121
243019009-1	RE16-10-184	SAMPLE		.1 pCi/g	SOIL	LANL010	12-DEC-09	6	6	0.504	158 122
243019011-1	RE16-10-180	SAMPLE		.1 pCi/g	SOIL	LANL010	12-DEC-09	7	7	0.516	159 123
243019014-1	RE16-10-185	SAMPLE		.1 pCi/g	SOIL	LANL010	12-DEC-09	8	8	0.500	160 124
243019017-1	RE16-10-179	SAMPLE		.1 pCi/g	SOIL	LANL010	12-DEC-09	9	9	0.509	163 125
1201999668-1	MB for batch 934652	MB		.1 pCi/g	SOIL	QC ACCOUNT		10	10	1	164 126
1201999669-1	RE16-10-181(243019007DUP)	DUP		.1 pCi/g	SOIL	QC ACCOUNT	12-DEC-09	11	11	0.506	165 127
1201999670-1	LCS for batch 934652	LCS		.1 pCi/g	SOIL	QC ACCOUNT		12	12	0.110	~~166~~ 128

*SRM: 0244-A exp. 10/31/20 0.110 g

ESS 12/29/09

Choose SOP used: GL-RAD-A-011 Solid Sample Dissolution by: LEACH or DIGESTION (Circle One) Data Reviewed By: [illegible] 12/29/09

GEL Laboratories LLC, Radiochemistry Division

DPM 12/30/09

Blank Correction Report

Batch ID 934652

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
1201999669	DUP	Uranium-233/234	0.506 g	0.905	0.0998	0.179	.043083004	pCi/g	NO
		Uranium-235/236	0.506 g	0.073	0.0237	0.109	.005830040	pCi/g	NO
		Uranium-238	0.506 g	1.07	0.112	0.099	.004723320	pCi/g	NO
1201999670	LCS	Uranium-233/234	0.110 g	6.68	0.620	0.554	.198181818	pCi/g	NO
		Uranium-235/236	0.110 g	0.406	0.101	0.337	.026818182	pCi/g	NO
		Uranium-238	0.110 g	5.89	0.558	0.306	.021727273	pCi/g	NO
1201999668	MB	Uranium-233/234	1.00 g	0.0218	0.0074	0.0725	.0218	pCi/g	YES
		Uranium-235/236	1.00 g	0.00295	0.00296	0.0441	.00295	pCi/g	YES
		Uranium-238	1.00 g	0.00239	0.0024	0.0401	.00239	pCi/g	YES
243007002	WST03-10-2147	Uranium-233/234	0.500 g	1.02	0.108	0.173	.0436	pCi/g	NO
		Uranium-235/236	0.500 g	0.0777	0.028	0.105	.0059	pCi/g	NO
		Uranium-238	0.500 g	0.846	0.0936	0.0958	.00478	pCi/g	NO
243019002	RE16-10-178	Uranium-233/234	0.509 g	2.85	0.248	0.176	.042829077	pCi/g	NO
		Uranium-235/236	0.509 g	0.129	0.0319	0.107	.005795678	pCi/g	NO
		Uranium-238	0.509 g	2.33	0.209	0.0971	.004695481	pCi/g	NO
243019003	RE16-10-182	Uranium-233/234	0.510 g	0.928	0.0981	0.161	.042745098	pCi/g	NO
		Uranium-235/236	0.510 g	0.0655	0.0232	0.0977	.005784314	pCi/g	NO
		Uranium-238	0.510 g	1.18	0.117	0.0888	.004686275	pCi/g	NO
243019004	RE16-10-183	Uranium-233/234	0.503 g	0.987	0.105	0.172	.043339960	pCi/g	NO
		Uranium-235/236	0.503 g	0.021	0.0157	0.104	.005864811	pCi/g	YES
		Uranium-238	0.503 g	0.867	0.0949	0.0949	.004751491	pCi/g	NO
243019007	RE16-10-181	Uranium-233/234	0.501 g	1.12	0.120	0.198	.043512974	pCi/g	NO
		Uranium-235/236	0.501 g	0.0885	0.0275	0.120	.005888224	pCi/g	NO
		Uranium-238	0.501 g	1.20	0.127	0.109	.004770459	pCi/g	NO
243019009	RE16-10-184	Uranium-233/234	0.504 g	1.73	0.185	0.187	.043253968	pCi/g	NO
		Uranium-235/236	0.504 g	0.0913	0.0272	0.114	.005853175	pCi/g	NO
		Uranium-238	0.504 g	1.67	0.161	0.103	.004742063	pCi/g	NO
243019011	RE16-10-180	Uranium-233/234	0.516 g	1.27	0.131	0.191	.042248062	pCi/g	NO
		Uranium-235/236	0.516 g	0.0936	0.0279	0.116	.005717054	pCi/g	NO
		Uranium-238	0.516 g	1.22	0.127	0.106	.004631783	pCi/g	NO
243019014	RE16-10-185	Uranium-233/234	0.500 g	0.939	0.100	0.164	.0436	pCi/g	NO
		Uranium-235/236	0.500 g	0.0804	0.0239	0.0999	.0059	pCi/g	NO
		Uranium-238	0.500 g	1.01	0.105	0.0908	.00478	pCi/g	NO
243019017	RE16-10-179	Uranium-233/234	0.509 g	0.848	0.0933	0.169	.042829077	pCi/g	NO
		Uranium-235/236	0.509 g	0.0619	0.0211	0.103	.005795678	pCi/g	NO
		Uranium-238	0.509 g	0.918	0.0989	0.0933	.004695481	pCi/g	NO

JDM 12/30/09

Alpha Spectroscopy Software Version 2.0
effective date: 09-Mar-1997

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 934652 SAMPLE DATE : 14-DEC-2009 00:00:00	SAMPLE ID : S0243007002_UU SAMPLE QTY: 0.500 G
DETECTOR NUMBER :33450 AVERAGE %EFFICIENCY :25.1810 % YIELD : 62.608	COUNT DATE:28-DEC-2009 20:12:57 ELAPSED LIVE TIME(SEC): 60000.00 ANALYST :MXA1

MS/MSD	LCS/LCSD	TRACER	
ID : 0244-A ISOTOPE : U-238 PCI/G : 5.750E+00	ID : 0244-A ISOTOPE : U-238 PCI/G : 5.750E+00	ID : 1283-H ISOTOPE : U232 NOMINAL : 4.51176 dpm RESULTS : 2.82473 dpm	LIB FILE : ENV_ALPHA_UU.N BKG FILE : B117.CNF;430 BKG DATE : 27-DEC-2009 EFF FILE : W117.CNF;117 CAL DATE : 15-DEC-2009

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U-3/4	4763.020	180.000	178.281	1.000	5.9398	100.0000	1.02E+00	1.08E-01	7.90E-02	1.73E-01	7.67E-02
U232	5302.100	718.000	711.000	7.000	2.6458	100.0000	4.06E+00	3.38E-01	3.52E-02	8.58E-02	1.54E-01
U-235	4391.000	13.000	11.000	2.000	2.6249	80.90000	7.77E-02	2.80E-02	4.31E-02	1.05E-01	2.74E-02
U-238	4184.730	148.000	148.000	0.000	3.0201	100.0000	8.46E-01	9.36E-02	4.01E-02	9.58E-02	6.95E-02

NOTE: Sg calculated via blank population (updated 1-DEC-2009)
NOTE: Sg of U232 calculated as sqrt(BKG AREA)
NOTE: Corrections made to U-3/4 net area due to tracer impurity

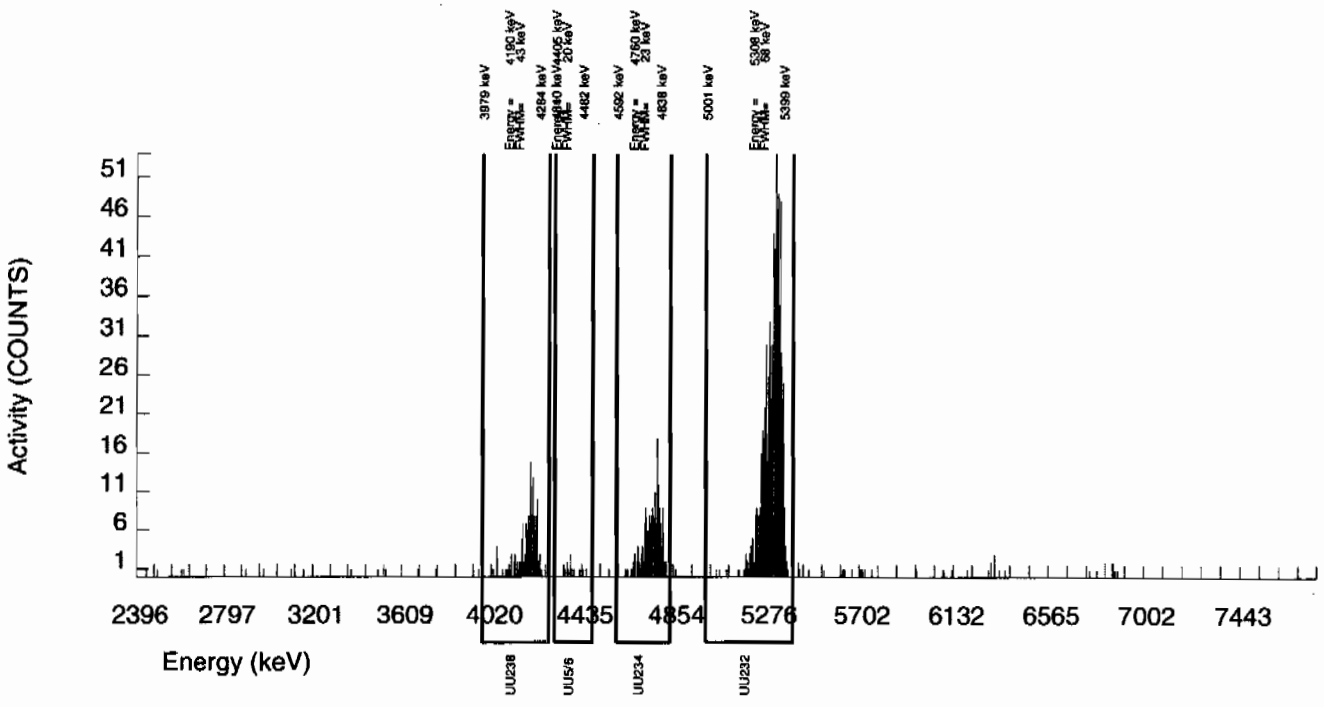

Alpha Spectroscopy Software Version 2.0
effective date: 09-Mar-1997

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 934652 SAMPLE DATE : 12-DEC-2009 00:00:00	SAMPLE ID : S0243019007_UU SAMPLE QTY: 0.501 G
DETECTOR NUMBER :75545 AVERAGE %EFFICIENCY :24.7171 % YIELD : 55.889	COUNT DATE:28-DEC-2009 20:13:07 ELAPSED LIVE TIME(SEC): 60000.00 ANALYST :MXA1

MS/MSD	LCS/LCSD	TRACER	
ID : 0244-A ISOTOPE : U-238 PCI/G : 5.750E+00	ID : 0244-A ISOTOPE : U-238 PCI/G : 5.750E+00	ID : 1283-H ISOTOPE : U232 NOMINAL : 4.51201 dpm RESULTS : 2.52171 dpm	LIB FILE : ENV_ALPHA_UU.N BKG FILE : B121.CNF;425 BKG DATE : 27-DEC-2009 EFF FILE : W121.CNF;115 CAL DATE : 15-DEC-2009

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U-3/4	4763.020	173.000	171.370	1.000	5.9398	100.0000	1.12E+00	1.20E-01	8.99E-02	1.98E-01	8.57E-02
U232	5302.100	627.000	623.000	4.000	2.0000	100.0000	4.06E+00	3.47E-01	3.03E-02	7.82E-02	1.64E-01
U-235	4391.000	11.000	11.000	0.000	2.6249	80.90000	8.85E-02	2.75E-02	4.91E-02	1.20E-01	2.67E-02
U-238	4184.730	186.000	185.000	1.000	3.0201	100.0000	1.20E+00	1.27E-01	4.57E-02	1.09E-01	8.90E-02

NOTE: Sg calculated via blank population (updated 1-DEC-2009)
NOTE: Sg of U232 calculated as sqrt(BKG AREA)
NOTE: Corrections made to U-3/4 net area due to tracer impurity

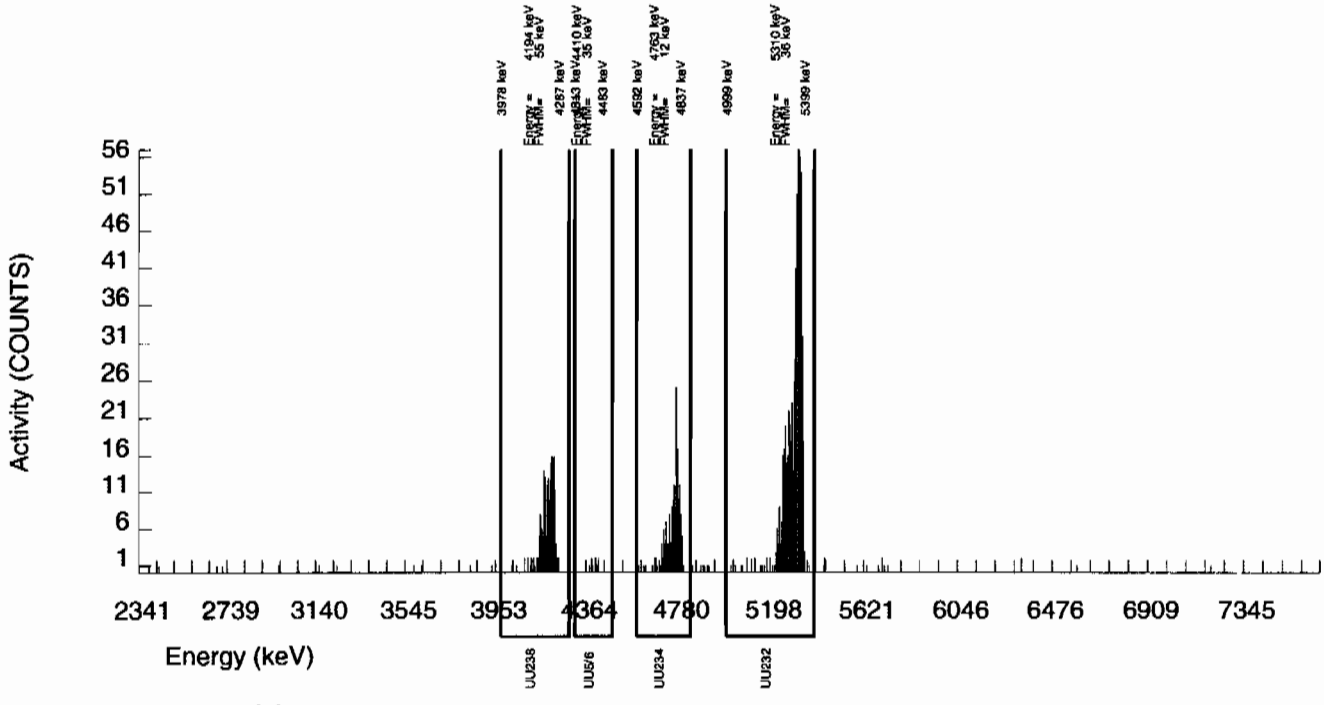

Alpha Spectroscopy Software Version 2.0
effective date: 09-Mar-1997

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 934652 SAMPLE DATE : 22-DEC-2009 00:00:00	SAMPLE ID : S1201999668_UU SAMPLE QTY: 1.000 G
DETECTOR NUMBER :75549 AVERAGE %EFFICIENCY :25.7685 % YIELD : 73.142	COUNT DATE:28-DEC-2009 20:13:23 ELAPSED LIVE TIME(SEC): 60000.00 ANALYST :MXA1

MS/MSD	LCS/LCSD	TRACER	
ID : 0244-A ISOTOPE : U-238 PCI/G : 5.750E+00	ID : 0244-A ISOTOPE : U-238 PCI/G : 5.750E+00	ID : 1283-H ISOTOPE : U232 NOMINAL : 4.51076 dpm RESULTS : 3.29925 dpm	LIB FILE : ENV_ALPHA_UU.N BKG FILE : B128.CNF;440 BKG DATE : 27-DEC-2009 EFF FILE : W128.CNF;131 CAL DATE : 15-DEC-2009

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U-3/4	4763.020	10.000	9.141	0.000	5.9398	100.0000	2.18E-02	7.40E-03	3.30E-02	7.25E-02	7.23E-03
U232	5302.100	851.000	850.000	1.000	1.0000	100.0000	2.03E+00	1.62E-01	5.56E-03	1.76E-02	6.98E-02
U-235	4391.000	1.000	1.000	0.000	2.6249	80.90000	2.95E-03	2.96E-03	1.80E-02	4.41E-02	2.95E-03
U-238	4184.730	1.000	1.000	0.000	3.0201	100.0000	2.39E-03	2.40E-03	1.68E-02	4.01E-02	2.39E-03

NOTE: Sg calculated via blank population (updated 1-DEC-2009)
NOTE: Sg of U232 calculated as sqrt(BKG AREA)
NOTE: Corrections made to U-3/4 net area due to tracer impurity

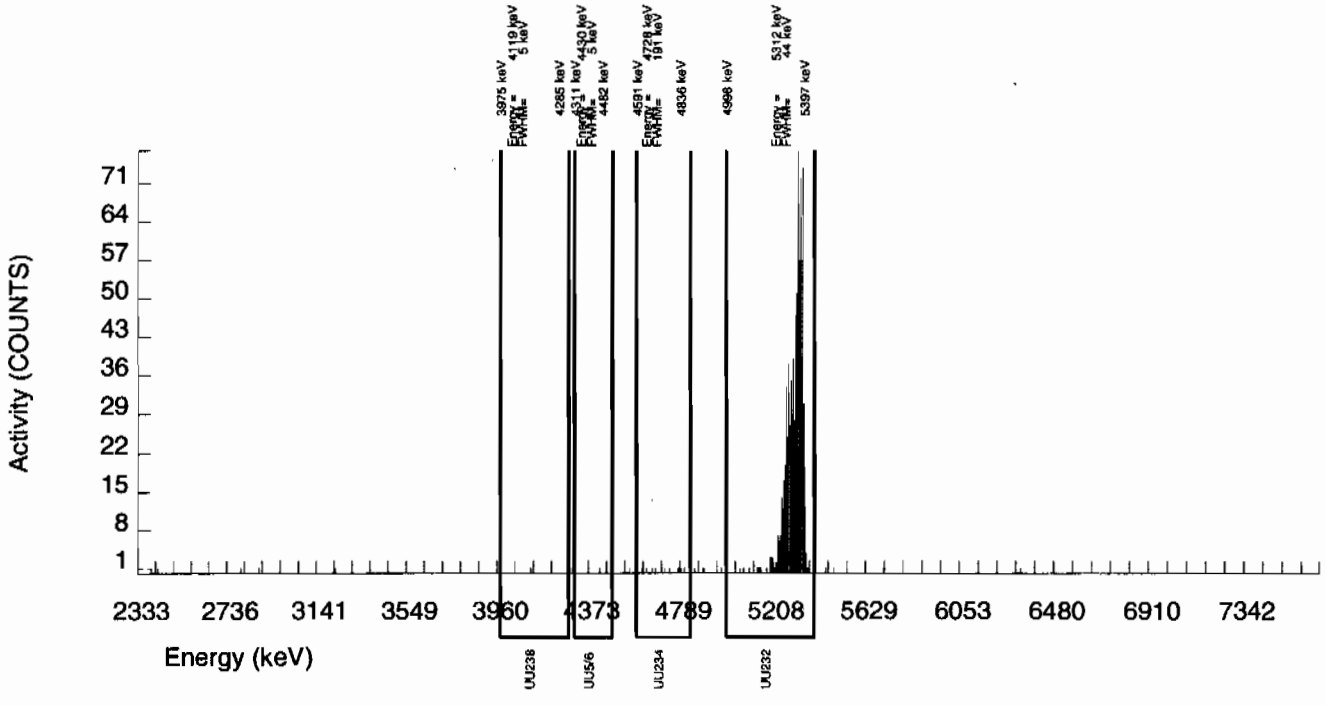

Alpha Spectroscopy Software Version 2.0
effective date: 09-Mar-1997

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 934652 SAMPLE DATE : 12-DEC-2009 00:00:00	SAMPLE ID : S1201999669_UU SAMPLE QTY: 0.506 G
DETECTOR NUMBER :78770 AVERAGE %EFFICIENCY :24.6888 % YIELD : 61.072	COUNT DATE:28-DEC-2009 20:13:21 ELAPSED LIVE TIME(SEC): 60000.00 ANALYST :MXA1

MS/MSD	LCS/LCSD	TRACER	
ID : 0244-A ISOTOPE : U-238 PCI/G : 5.750E+00	ID : 0244-A ISOTOPE : U-238 PCI/G : 5.750E+00	ID : 1283-H ISOTOPE : U232 NOMINAL : 4.51201 dpm RESULTS : 2.75558 dpm	LIB FILE : ENV_ALPHA_UU.N BKG FILE : B127.CNF;434 BKG DATE : 27-DEC-2009 EFF FILE : W127.CNF;121 CAL DATE : 15-DEC-2009

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U-3/4	4763.020	155.000	153.313	1.000	5.9398	100.0000	9.05E-01	9.98E-02	8.16E-02	1.79E-01	7.36E-02
U232	5302.100	682.000	680.000	2.000	1.4142	100.0000	4.02E+00	3.36E-01	1.94E-02	5.48E-02	1.54E-01
U-235	4391.000	10.000	10.000	0.000	2.6249	80.90000	7.30E-02	2.37E-02	4.46E-02	1.09E-01	2.31E-02
U-238	4184.730	181.000	181.000	0.000	3.0201	100.0000	1.07E+00	1.12E-01	4.15E-02	9.90E-02	7.94E-02

NOTE: Sg calculated via blank population (updated 1-DEC-2009)
NOTE: Sg of U232 calculated as sqrt(BKG AREA)
NOTE: Corrections made to U-3/4 net area due to tracer impurity

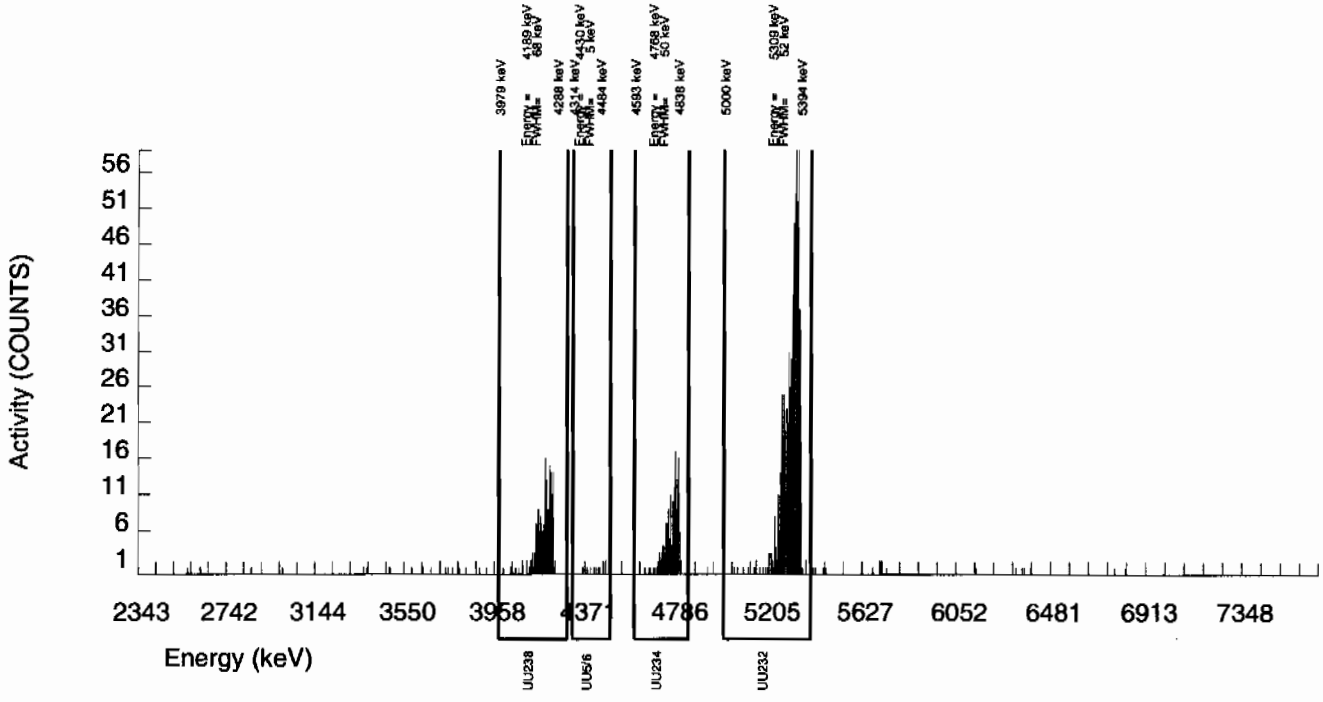

Alpha Spectroscopy Software Version 2.0
effective date: 09-Mar-1997

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 934652 SAMPLE DATE : 22-DEC-2009 00:00:00	SAMPLE ID : S1201999670_UU SAMPLE QTY: 0.110 G
DETECTOR NUMBER :75548 AVERAGE %EFFICIENCY :25.0198 % YIELD : 89.688	COUNT DATE:28-DEC-2009 20:13:19 ELAPSED LIVE TIME(SEC): 60000.00 ANALYST :MXA1

MS/MSD	LCS/LCSD	TRACER	
ID : 0244-A ISOTOPE : U-238 PCI/G : 5.750E+00	ID : 0244-A ISOTOPE : U-238 PCI/G : 5.750E+00	ID : 1283-H ISOTOPE : U232 NOMINAL : 4.51076 dpm RESULTS : 4.04559 dpm	LIB FILE : ENV_ALPHA_UU.N BKG FILE : B126.CNF;430 BKG DATE : 27-DEC-2009 EFF FILE : W126.CNF;130 CAL DATE : 15-DEC-2009

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U-3/4	4763.020	368.000	365.977	1.000	5.9398	100.0000	6.68E+00	6.20E-01	2.52E-01	5.54E-01	3.50E-01
U232	5302.100	1015.000	1012.000	3.000	1.7321	100.0000	1.85E+01	1.53E+00	7.35E-02	1.97E-01	5.82E-01
U-235	4391.000	18.000	18.000	0.000	2.6249	80.90000	4.06E-01	1.01E-01	1.38E-01	3.37E-01	9.57E-02
U-238	4184.730	323.000	323.000	0.000	3.0201	100.0000	5.89E+00	5.58E-01	1.28E-01	3.06E-01	3.28E-01

NOTE: Sg calculated via blank population (updated 1-DEC-2009)
NOTE: Sg of U232 calculated as sqrt(BKG AREA)
NOTE: Corrections made to U-3/4 net area due to tracer impurity

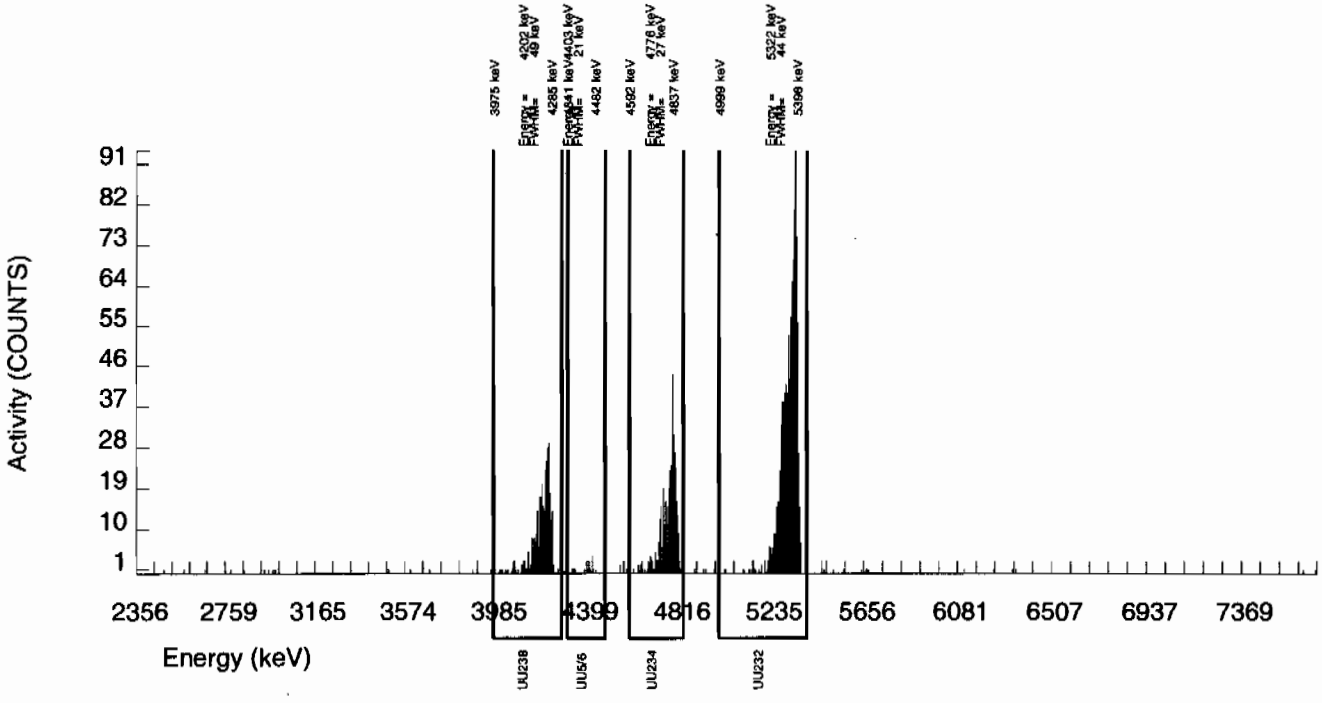

Radiochemistry Batch Checklist, Rev 9

Batch# 934816 Product: Sr-90 Date: 12.23.09

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			N/A
Samples have been blank corrected (if required)			N/A
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.	✓		
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	✓		
Sample was run within hold time.	✓		
Sample was correctly preserved if required.			N/A
Smears Taken for Radioactive batches.			N/A
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	✓		
Aux data is correct.	✓		Blank Correction Report
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)			N/A
Batch entered into Case Narrative.	✓		
Batch non-conformances completed, if applicable.			N/A
Batch non-conformances second reviewed and disposition verified to be completed.			N/A
Aliquot Correction completed if required.			N/A
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

GEL Laboratories, LLC

revised 8/1/08

Primary Review Performed By: Bryan Bradley

Secondary Review Performed By: [illegible]

LANL

12.29

Strontium 90 Que Sheet

12/18/09

Batch #: 934816 Analyst: JXR1 First Client Due Date: 12/29/2009 Internal Due Date: 12/19/2009 Comments

Sr-90 Spike Code: ~~1067-C~~ ~~Expiration Date:~~ ~~Vol:~~ Sr Sep. Date/time: 12-23-09 | 0742

Sr-90 LCS Code: 1067-C Expiration Date: 6-17-10 Vol: 0.1

Sr Carrier Code: 1194590 Exp Date: 3-19-~~09~~ 10 Vol: 0.5 Sdt Wt: 8.93

Prep Date: 12-21-09 Initials: JLR Pipet ID: 1795419 Balance #: 50410272 Analytical Scale #: 38110047 Witness: JC 12-21-09

Sample ID	Client Description	Type	RDL	Collection Date	Matrix	Client	Rad	Pos. #	Wet/Dry Aliquot (mL) or (g)	Det # 1 & 2	Initial Sr wt (g)	Final Sr wt (g)	Net Sr wt (mg)
243007002-1	WST03-10-2147	SAMPLE	.5 pCi/g	DEC-14-09 12:00 PM	SOIL	LANL010		1	2.043	7D	0.0253	0.0307	5.4
243144001-1	GW51-10-8960	SAMPLE	.5 pCi/g	DEC-15-09 12:00 PM	SOIL	LANL010		2	2.010	8B	0.0253	0.0306	5.3
243144002-1	GW51-10-8959	SAMPLE	.5 pCi/g	DEC-15-09 12:00 PM	SOIL	LANL010		3	2.021	9B	0.0253	0.0312	5.9
1202000048-1	MB for batch 934816	MB	.5 pCi/g		SOIL	QC ACCOUNT		4	~~2.043~~ 2.023	9C	0.0250	0.0314	6.4
1202000049-1	WST03-10-2147(243007002DUP)	DUP	.5 pCi/g	DEC-14-09 12:00 PM	SOIL	QC ACCOUNT		5	2.023	9D	0.0253	0.0311	5.8
1202000050-1	LCS for batch 934816	LCS	.5 pCi/g		SOIL	QC ACCOUNT		6	~~2.043~~ 1.0	10A	0.0255	0.0318	6.3

JXR 12.23.09

weights ✓

Solid Sample Dissolution by: LEACH or DIGESTION Data Reviewed By: Rhyan Brantley

Circle One

Blank Correction Report

Batch ID 934816

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
1202000049	DUP	Strontium-90	2.02 g	-0.0147	0.131	0.468	.013514851	pCi/g	YES
1202000050	LCS	Strontium-90	1.00 g	21.8	2.32	0.424	.0273	pCi/g	NO
1202000048	MB	Strontium-90	1.00 g	0.0273	0.129	0.483	.0273	pCi/g	YES
243007002	WST03-10-2147	Strontium-90	2.04 g	0.0147	0.0742	0.278	.013382353	pCi/g	YES
243144001	GW51-10-8960	Strontium-90	2.01 g	0.0526	0.123	0.435	.013582090	pCi/g	YES
243144002	GW51-10-8959	Strontium-90	2.02 g	0.0971	0.128	0.442	.013514851	pCi/g	NO

S934816

Strontium-90 Solid

Filename : SR90.XLS
File type : Excel
Version # : 1.2.9

Spike S/N : N/A
Spike Exp Date : N/A
Spike Activity (dpm/ml): N/A
Spike Volume Added: N/A

Batch : 934816
Analyst : JXR1
Prep Date : 12/21/2009

LCS S/N : 1067-C
LCS Exp Date : 6/17/2010
LCS Activity (dpm/ml): 428.85
LCS Volume Added: 0.10

Pipet, 0.1 ml Stdev : +/- 0.000701 ml
Pipet, 0.5 ml Stdev : +/- 0.002564 ml
Pipet, 1 ml Stdev : +/- 0.005480 ml

Sr-90 Abundance : 1
Method Uncertainty : 0.1005

Carrier S/N : 1194590
Carrier Exp Date : 3/19/2010
Carrier Volume Added: 0.50
Carrier Weight (mg/ml): 17.85
Carrier Weight StDev.: 0.06

Procedure Code : GFC90SRS
Parmname : Strontium-90
Required MDC : 0.5 pCi/G
Halflife of Sr-90 : 28.90 years
Halflife of Y-90 : 64.053 hours

Geometry: Tuffryn Filter

Sample Characteristics					Carrier Calculations				
Pos.	Sample ID	Sample Aliquot G	Sample Aliquot StDev. G	Sample Date/Time	Carrier Weight (mg) (Standard)	Net Weight (mg) (Sample)	Net Weight StDev. (mg)	Carrier Aliquot (mL)	Carrier Aliquot StDev. (mL)
1	243007002.1	2.0430	3.4316E-03	12/14/2009 12:00	17.85	5.40	0.030539	0.5	0.002564
2	243144001.1	2.0100	3.4282E-03	12/15/2009 12:00	17.85	5.30	0.030109	0.5	0.002564
3	243144002.1	2.0210	3.4293E-03	12/15/2009 12:00	17.85	5.90	0.032688	0.5	0.002564
4	1202000048.1	1.0000	3.3233E-03	12/21/2009 0:00	17.85	6.40	0.034837	0.5	0.002564
5	1202000049.1	2.0230	3.4295E-03	12/14/2009 12:00	17.85	5.80	0.032258	0.5	0.002564
6	1202000050.1	1.0000	3.3233E-03	12/21/2009 0:00	17.85	6.30	0.034407	0.5	0.002564

Count Raw Data

Pos.	Detector ID	Counting Time (min.)	Gross Counts Alpha	Gross Counts Beta	Gross Beta CPM	Count Start Date/Time	Strontium Separation Date/Time	Yttrium Ingrowth	Sr-90 Decay	Calculated Sample Recovery %	Sample Recovery Error %
1	7D	60	4	30	0.497	12/23/2009 16:15	12/23/2009 7:42	0.093	0.999	60.50%	1.01%
2	8B	60	2	79	1.315	12/23/2009 16:16	12/23/2009 7:42	0.093	0.999	59.38%	1.01%
3	9B	60	2	102	1.696	12/23/2009 16:16	12/23/2009 7:42	0.094	0.999	66.11%	0.99%
4	9C	60	2	30	0.496	12/23/2009 16:16	12/23/2009 7:42	0.094	1.000	71.71%	0.98%
5	9D	60	2	106	1.764	12/23/2009 16:16	12/23/2009 7:42	0.094	0.999	64.99%	1.00%
6	10A	60	2	987	16.447	12/23/2009 16:16	12/23/2009 7:42	0.094	1.000	70.59%	0.99%

Calibration Data

Pos.	Counted on	Calibration Date	Calibration Due Date	Detector Efficiency (cpm/dpm) Sr-90	Detector Efficiency (cpm/dpm) Y-90	Detector Efficiency Error (cpm/dpm)	Alpha X-Talk	Weekly Bkg CPM	Weekly Bkg Count Time (min.)
1	PIC	1/1/2009	1/31/2010	0.4208	0.5551	0.00816	0.04504	0.478	500
2	PIC	1/1/2009	1/31/2010	0.4272	0.5598	0.00816	0.05650	1.248	500
3	PIC	1/1/2009	1/31/2010	0.4166	0.5418	0.00816	0.10560	1.562	500
4	PIC	1/1/2009	1/31/2010	0.4180	0.5437	0.00816	0.10808	0.478	500
5	PIC	1/1/2009	1/31/2010	0.4253	0.5451	0.00816	0.09354	1.784	500
6	PIC	1/1/2009	1/31/2010	0.4211	0.5489	0.00816	0.09026	0.344	500

Notes:
1 - Results are decay corrected to Sample Date/Time
2 - Reference date for Spike Activity (dpm/ml) is the batch Prep Date
3 - Spike Nominals are decay corrected to Sample Date/Time

* - RPD changed to 0% due to activity below MDC for 1202000049.1

Results Pos.	Decision Level pCi/G	Critical Level pCi/G	Required MDC pCi/G	MDC pCi/G	Sample Act. Conc. pCi/G	Sample Act. Error pCi/G	Net Count Rate CPM	Net Count Rate Error CPM	1 SIGMA Counting Uncertainty pCi/G	1 SIGMA Total Prop. Uncertainty pCi/G	Sample QC	Sample Type	RPD	RER	Nominal pCi/G	Recovery
1	0.1698	0.1199	0.5	0.2783	**0.0147**	5.0597	0.0190	0.0961	0.0742	0.0742		SAMPLE				
2	0.2800	0.1977	0.5	0.4348	**0.0526**	2.3394	0.0668	0.1562	0.1230	0.1231		SAMPLE				
3	0.2872	0.2028	0.5	0.4417	**0.0971**	1.3177	0.1345	0.1772	0.1279	0.1283		SAMPLE				
4	0.2943	0.2078	0.5	0.4826	**0.0273**	4.7089	0.0204	0.0960	0.1287	0.1287		MB				
5	0.3061	0.2161	0.5	0.4681	**-0.0147**	8.8772	-0.0205	0.1816	0.1307	0.1307	243007002.1	DUP	0.0%	0.0717		
6	0.2522	0.1781	0.5	0.4237	**21.7529**	0.0351	16.1030	0.5242	0.7081	2.3227		LCS			19.3174	112.6%

934816

SampleID	Instr	Time (min.)	Alpha Counts	Beta Counts	Count Start Time	Count End Time	Machine
243007002	7D	60	4	30	12/23/2009 16:15	12/23/2009 17:15	PIC
243144001	8B	60	2	79	12/23/2009 16:16	12/23/2009 17:16	PIC
243144002	9B	60	2	102	12/23/2009 16:16	12/23/2009 17:16	PIC
1202000048	9C	60	2	30	12/23/2009 16:16	12/23/2009 17:16	PIC
1202000049	9D	60	2	106	12/23/2009 16:16	12/23/2009 17:16	PIC
1202000050	10A	60	2	987	12/23/2009 16:16	12/23/2009 17:16	PIC

Radiochemistry Batch Checklist, Rev 9

Batch# 935328 Product: H3 Date: 12-23-09

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			NA
Samples have been blank corrected (if required)			NA
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.			NA
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	✓		
Sample was run within hold time.	✓		
Sample was correctly preserved if required.	✓		
Smears Taken for Radioactive batches.			NA
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	✓		
Aux data is correct.			NA
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)			NA
Batch entered into Case Narrative.	✓		
Batch non-conformances completed, if applicable.			NA
Batch non-conformances second reviewed and disposition verified to be completed.			NA
Aliquot Correction completed if required.			NA
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

GEL Laboratories, LLC

revised 8/1/08

Primary Review Performed By: [signature]

Secondary Review Performed By: [signature] 12/23/09 LANL 12-27-09

Tritium Que Sheet

VACUUM

120

1

21-DEC-09

Batch #: 935328 **Analyst:** KXK2 **First Client Due Date** 27-DEC-09 **Internal Due Date:** 17-DEC-09

Spike Isotope: Hydrogen-3 **Spike Code:** _____ **Expiration Date:** _____ **Vol:** ___

LCS Isotope: Hydrogen-3 **LCS Code:** 0134-K **Expiration Date:** 3/27/10 **Vol:** 0.2

Prep Date: 12/21/09 **Initials:** KKJ **Pipet ID:** 2970968 **Witness:** AW 12/21/09

Sample ID	Client Samp ID	Type	Hazard Code	Min CRDL	Matrix	Client	Sample Date	Aliquot in vial (g/mL)	LSC Rack #	Dist Rig #	Vol added for Dist (mL)	Initial Sample Aliquot (g/mL)	Final Wt (g)	Total Moisture KKJ 12/22/0 Dist Vol (mL)
242786001-1	WST03-10-2145	SAMPLE		.25 pCi/mL	SOIL	LANL010	10-DEC-09	10	58-2	1		402.02	375.08	26.94
242786002-1	WST03-10-2146	SAMPLE		.25 pCi/mL	SOIL	LANL010	10-DEC-09	10	58-3	2		401.24	362.32	38.92
* 243007002-1	WST03-10-2147	SAMPLE		.25 pCi/mL	SOIL	LANL010	14-DEC-09	10	58-4	3		214.81	186.03	28.78
243144001-1	GW51-10-8960	SAMPLE		.25 pCi/mL	SOIL	LANL010	15-DEC-09	10	58-5	4		206.45	80.31	126.14
243144002-1	GW51-10-8959	SAMPLE		.25 pCi/mL	SOIL	LANL010	15-DEC-09	10	58-6	5		214.33	90.66	123.67
1202001324-1	MB for batch 935328	MB		.25 pCi/mL	SOIL	QC ACCOUNT		10	58-7	6		40.00	0	40.00
1202001325-1	WST03-10-2147(243007002DUP)	DUP		.25 pCi/mL	SOIL	QC ACCOUNT	14-DEC-09	10	58-8	8		214.81	186.03	28.78
1202001326-1	LCS for batch 935328	LCS		.25 pCi/mL	SOIL	QC ACCOUNT		10	44-2	7		40.00	0	40.00

Bkg Rack #: 58-1 / 44-1

Comments: _____

Instrument Used (circle as appropriate): *LS6000 (Red) 7065155, LS6500 (Blue) 7067083, LS6500 (Gold) 7070506, LS6500 (Green) 7067404, Wallac (Yellow) 4040127, LS6000 (Brown) 7060655, Wallac (Pink) 2200082, Wallac (White) 4140299, Purple 7069123, Silver 7060656*

Bkg prepared with dead water? Yes/No

Calibration Used : *Ultima Gold LLT (10 mL sample/13 mL LLT) poly vial; Ecoscint Ultra (10 mL sample/13 mL Econscint Ultra)*

Data Reviewed By: [signature] 12-23-09

GEL Laboratories LLC, Radiochemistry Division

DATE	12/22/2009	INITIALS	KXK2		BATCH NUMBER	935328

Sample #	Sample Wet (g)	% Moisture of Sample (Balance Interface using % Moisture Batch)	Total Moisture in Sample (mL)	Sample Dry (g)	mLs aliquoted into LSC vial	Collection Tube Number
242786001	402.02	0.067	26.94	375.08	10	1
242786002	401.24	0.097	38.92	362.32	10	11
243007002	214.81	0.134	28.78	186.03	10	24
243144001	206.45	0.611	126.14	80.31	10	49
243144002	214.33	0.577	123.67	90.66	10	55
MB	40.00	1.000	40.00	0.00	10	5
LCS	40.00	1.000	40.00	0.00	10	532

T935328r

Tritium Solid

Filename :	H3VAC.XLS	**Spike S/N :**	N/A	**LCS S/N :**	0134-K
File type :	Excel	**Spike Exp Date :**	N/A	**LCS Exp Date :**	3/27/2010
Version # :	1.2.5	**Spike Activity (dpm/ml):**	N/A	**LCS Activity (dpm/ml):**	2488.05
		Spike Volume Added:	N/A	**LCS Volume Added:**	0.20
Batch :	935328				
Analyst :	KXK2				
Prep Date :	12/21/2009				

					Procedure Code :	LSC_VH3S	
H-3 Abundance :	1	**Pipet, 0.1 ml Stdev : +/-**	0.000701	ml	**Parmname :**	Tritium	
Method Uncertainty :	0.0891	**Pipet, 0.5 ml Stdev : +/-**	0.002564	ml	**Required MDC :**	250	pCi/L
Geometry:	10mL DW/13mL	**Pipet, 1.0 ml Stdev : +/-**	0.005480	ml	**Halflife of Tritium :**	12.28	years
	Ecoscint Ultra	**Pipet, 5.0 ml Stdev : +/-**	0.025729	ml			

Sample Characteristics

Pos.	Sample ID	Wet Sample Weight (g)	Total Moisture L	Sample Aliquot in Vial L	Sample Aliquot Stdev. L	Dry Sample Weight (g)	% Moisture of Sample	Rig number	Sample Date/Time
1	242786001.1	402.02	0.0269	0.0100	2.5729E-05	375.08	6.70%	1	12/10/2009 12:00
2	242786002.1	401.24	0.0389	0.0100	2.5729E-05	362.32	9.70%	2	12/10/2009 12:00
3	243007002.1	214.81	0.0288	0.0100	2.5729E-05	186.03	13.40%	3	12/14/2009 12:00
4	243144001.1	206.45	0.1261	0.0100	2.5729E-05	80.31	61.10%	4	12/15/2009 12:00
5	243144002.1	214.33	0.1237	0.0100	2.5729E-05	90.66	57.70%	5	12/15/2009 12:00
6	1202001324.1	40.00	0.0400	0.0100	2.5729E-05	0.00	100.00%	6	12/21/2009 0:00
7	1202001325.1	214.81	0.0288	0.0100	2.5729E-05	186.03	13.40%	3	12/14/2009 12:00
8	1202001326.1	40.00	0.0400	0.0100	2.5729E-05	0.00	100.00%	7	12/21/2009 0:00

Count raw Data					Background				Calibration Data					Backgrounds	
Pos.	Rack Position #	Counting Time (min.)	Quench#	Gross cpm	cpm	Count Time (min.)	Count Start Date/Time	Sample Decay	Counted on	Calibration Date	Calibration Due Date	Detector Efficiency (cpm/dpm)	Detector Efficiency Error (cpm/dpm)	Rack Position #	Count Start Date/Time
1	58-2	60	120.3	3.75	2.92	120	12/23/2009 9:54	0.998	LSCGREEN	8/20/2009	8/31/2010	0.1823	0.00792	58-1	12/23/2009 7:06
2	58-3	60	118	3.7	2.92	120	12/23/2009 10:54	0.998	LSCGREEN	8/20/2009	8/31/2010	0.1841	0.00792	58-1	12/23/2009 7:06
3	58-4	60	127.2	5.87	2.92	120	12/23/2009 11:54	0.999	LSCGREEN	8/20/2009	8/31/2010	0.1763	0.00792	58-1	12/23/2009 7:06
4	58-5	60	117.9	3.03	2.92	120	12/23/2009 12:54	0.999	LSCGREEN	8/20/2009	8/31/2010	0.1841	0.00792	58-1	12/23/2009 7:06
5	58-6	60	117.8	2.82	2.92	120	12/23/2009 13:54	0.999	LSCGREEN	8/20/2009	8/31/2010	0.1842	0.00792	58-1	12/23/2009 7:06
6	58-7	60	118.3	2.67	2.92	120	12/23/2009 14:54	1.000	LSCGREEN	8/20/2009	8/31/2010	0.1838	0.00792	58-1	12/23/2009 7:06
7	58-8	60	126.4	5.97	2.92	120	12/23/2009 15:54	0.999	LSCGREEN	8/20/2009	8/31/2010	0.1770	0.00792	58-1	12/23/2009 7:06
8	44-2	15	114	28.2	2.47	15	12/23/2009 12:07	1.000	LSCRED	8/21/2009	8/31/2010	0.2082	0.00792	44-1	12/23/2009 11:51

Notes:
1 - Results are decay corrected to Sample Date/Time
2 - Reference date for Spike Activity (dpm/ml) is the batch Prep Date
3 - Spike Nominals are decay corrected to Sample Date/Time

Results

Pos.	Decision Level pCi/L	Critical Level pCi/L	Required MDC pCi/L	MDC pCi/L	Sample Act. Conc. pCi/L	Sample Act. Error pCi/L	Net Count Rate CPM	Net Count Rate Error CPM	1 SIGMA Counting Uncertainty pCi/L	1 SIGMA Total Prop. Uncertainty pCi/L	Sample QC	Sample Type	RPD	RER	Nominal pCi/L	Recovery
1	155.8778	110.0511	250	232.4826	**205.5157**	0.355	0.830	0.295	72.9643	74.3550		SAMPLE				
2	154.3669	108.9843	250	230.2291	**191.2632**	0.376	0.780	0.293	71.9095	73.1329		SAMPLE				
3	161.1053	113.7417	250	240.2791	**754.9437**	0.119	2.950	0.350	89.4476	103.7571		SAMPLE				
4	154.1869	108.8573	250	229.9607	**26.9416**	2.487	0.110	0.274	67.0004	67.0267		SAMPLE				
5	154.1254	108.8139	250	229.8691	**-24.4826**	2.671	-0.100	0.267	65.3888	65.3894		SAMPLE				
6	154.3100	108.9442	250	230.1443	**-61.2797**	1.049	-0.250	0.262	64.3097	64.3103		MB				
7	160.4315	113.2660	250	239.2742	**777.2704**	0.116	3.050	0.352	89.6791	104.7517	243007002.1	DUP	2.9%	0.0535		
8	289.4555	204.3580	250	452.0111	**5569.9048**	0.056	25.730	1.430	309.5418	496.2920		LCS			5603.7182	99.4%

ID: TRITIUM 23 DEC 2009 07:07

USER: 2 COMMENT:GREEN

PRESET TIME :	120.00						
DATA CALC :	CPM	H#	:YES	SAMPLE REPEATS:	1	PRINTER	: STD
COUNT BLANK :	NO	IC#	: NO	REPLICATES :	1	RS232	:EDIT
TWO PHASE :	NO	AQC	: NO	CYCLE REPEATS :	1	DISK	: OFF
SCINTILLATOR:	LIQUID	LUMEX	:YES	LOW SAMPLE REJ:	0	RWM LIST	: OFF
LOW LEVEL :	NO	HALF LIFE CORRECTION DATE:				none	

CHAN: 10.0 - 230.0 %ERROR: 2.00 FACTOR: 1.000000 BKG. SUB: 0
CHAN: 0.0 - 900.0 %ERROR: 2.00 FACTOR: 1.000000 BKG. SUB: 0

ALPHA-BETA DISCRIMINATION: NO

SAM NO	POS	TIME MIN	H#	WIND1 CPM	WIND1 %ERROR	WIND2 CPM	WIND2 %ERROR	LUMEX %	ELAPSED TIME
Bkg 1	58-1	120.00	118.7	2.92	10.96	31.74	3.25	0.42	123.08
~~2~~	~~58-2~~	~~20.35~~	~~117.1~~	~~3.88~~	~~22.78~~	~~34.74~~	~~7.53~~	~~0.45~~	~~144.82~~
3	58-3	0.05	118.1	20.00	200.00	40.00	141.42	25.30	145.62
4	58-4	0.05	116.2	20.00	200.00	60.00	115.47	25.29	146.49
5	58-5	0.05	118.0	40.00	141.42	80.00	100.00	15.14	147.35
6	58-6	0.05	119.7	40.00	141.42	40.00	141.42	47.11	148.20
7	58-7	0.05	120.0	0.00	0.00	120.00	81.65	22.94	149.12
~~8~~	~~58-8~~	~~0.05~~	~~116.2~~	~~60.00~~	~~115.47~~	~~120.00~~	~~81.65~~	~~17.50~~	~~149.79~~

BP 12-23-09

Sample Count Start Time:	23 Dec 2009 07:06:58		
Data Capture Date	23 Dec 2009 09:07:22		
User Filename	S02122358-1A.XLS		
	U02122358-1A.XLS		
Spectrum Type	Log Counts		
User Number	02		
User Id	TRITIUM		
User Comment	GREEN		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	1	58-1	120.00
H#, Total Counts:	118.7	3874	
Win1: Tritium - Start, End, Counts:	10	230	350
Win2: - Start, End, Counts:	0	990	3874

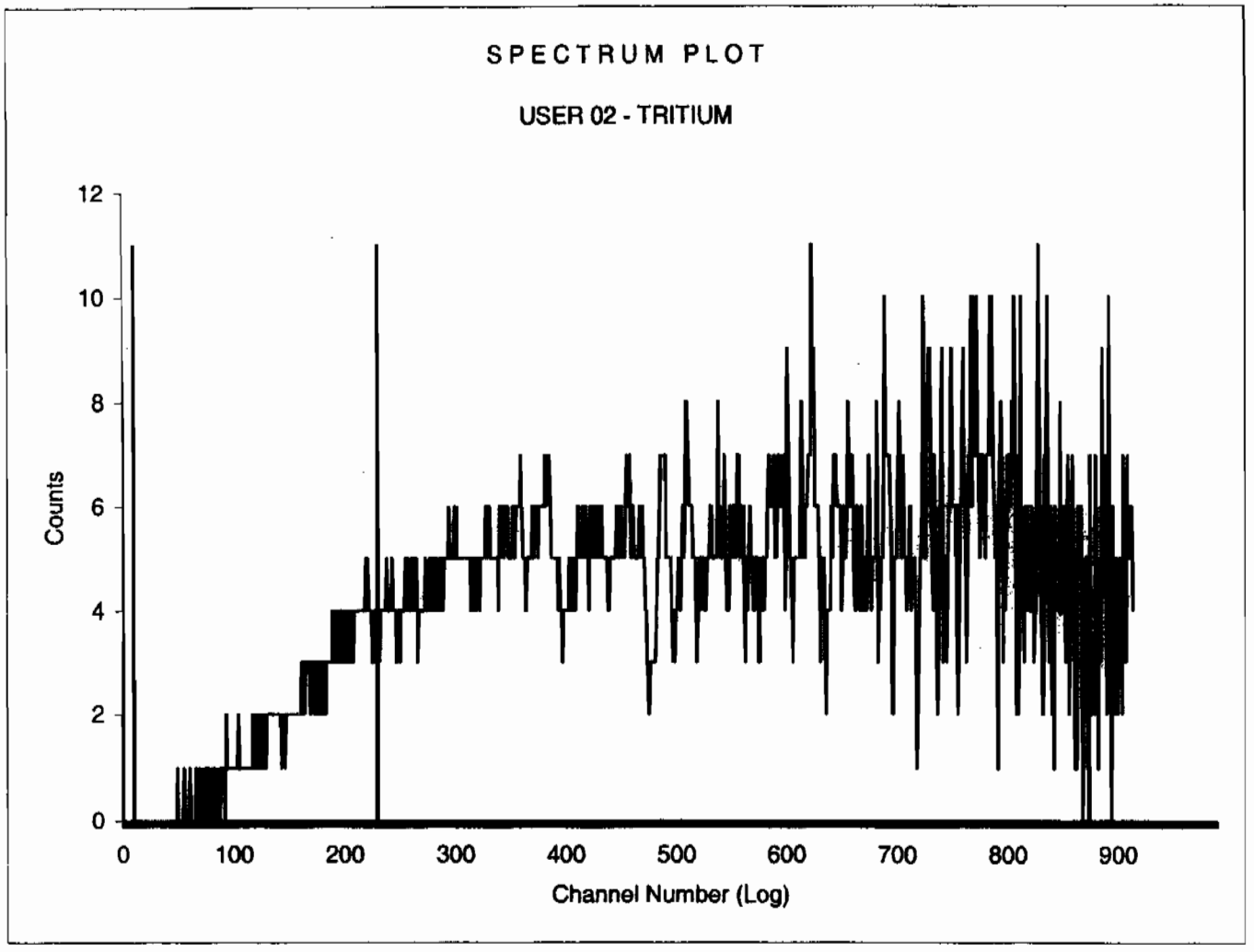

ID: TRITIUM 23 DEC 2009 09:54

USER: 2 COMMENT:GREEN

PRESET TIME :	60.00						
DATA CALC :	CPM	H#	:YES	SAMPLE REPEATS:	1	PRINTER	: STD
COUNT BLANK :	NO	IC#	: NO	REPLICATES :	1	RS232	:EDIT
TWO PHASE :	NO	AQC	: NO	CYCLE REPEATS :	1	DISK	: OFF
SCINTILLATOR:	LIQUID	LUMEX	:YES	LOW SAMPLE REJ:	0	RWM LIST	: OFF
LOW LEVEL :	NO	HALF LIFE CORRECTION DATE:				none	

CHAN: 10.0 - 230.0 %ERROR: 2.00 FACTOR: 1.000000 BKG. SUB: 0
CHAN: 0.0 - 900.0 %ERROR: 2.00 FACTOR: 1.000000 BKG. SUB: 0

ALPHA-BETA DISCRIMINATION: NO

SAM NO	POS	TIME MIN	H#	WIND1 CPM	WIND1 %ERROR	WIND2 CPM	WIND2 %ERROR	LUMEX %	ELAPSED TIME
MISSING SAMPLE									
1 2	58-2	60.00	120.3	3.75	13.83	35.10	4.38	0.69	61.85
2 3	58-3	60.00	118.0	3.70	13.72	35.40	4.35	0.44	124.15
3 4	58-4	60.00	127.2	5.87	10.81	36.72	4.27	0.43	186.41
4 5	58-5	60.00	117.9	3.03	15.70	36.37	4.30	0.91	248.79
5 6	58-6	60.00	117.8	2.82	36.01	36.40	4.97	21.84	312.57
Blank 8 7	58-7	60.00	118.3	2.67	16.11	32.97	4.50	0.31	374.77
7 8	58-8	60.00	126.4	5.97	10.72	35.88	4.32	0.44	437.05

Sample Count Start Time:	23 Dec 2009 09:53:24		
Data Capture Date	23 Dec 2009 10:53:27		
User Filename	S02122358-2B.XLS		
	U02122358-2A.XLS		
Spectrum Type	Log Counts		
User Number	02		
User Id	TRITIUM		
User Comment	GREEN		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	2	58-2	60.00
H#, Total Counts:	120.3	2146	
Win1: Tritium - Start, End, Counts:	10	230	225
Win2: - Start, End, Counts:	0	990	2146

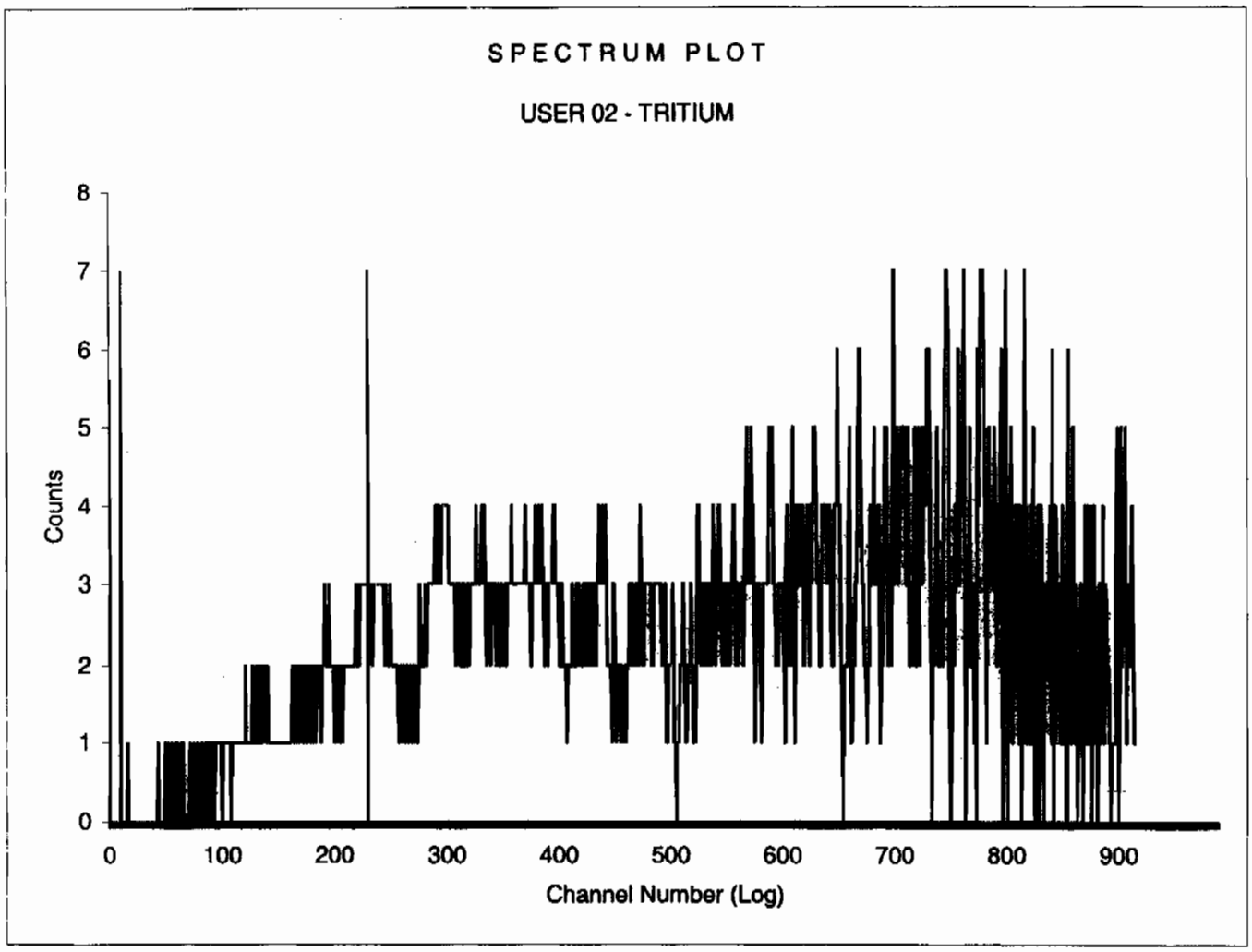

Sample Count Start Time:	23 Dec 2009 10:55:42		
Data Capture Date	23 Dec 2009 11:55:45		
User Filename	S02122358-3B.XLS		
	U02122358-2A.XLS		
Spectrum Type	Log Counts		
User Number	02		
User Id	TRITIUM		
User Comment	GREEN		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	3	58-3	60.00
H#, Total Counts:	118.0	2159	
Win1: Tritium - Start, End, Counts:	10	230	222
Win2: - Start, End, Counts:	0	990	2159

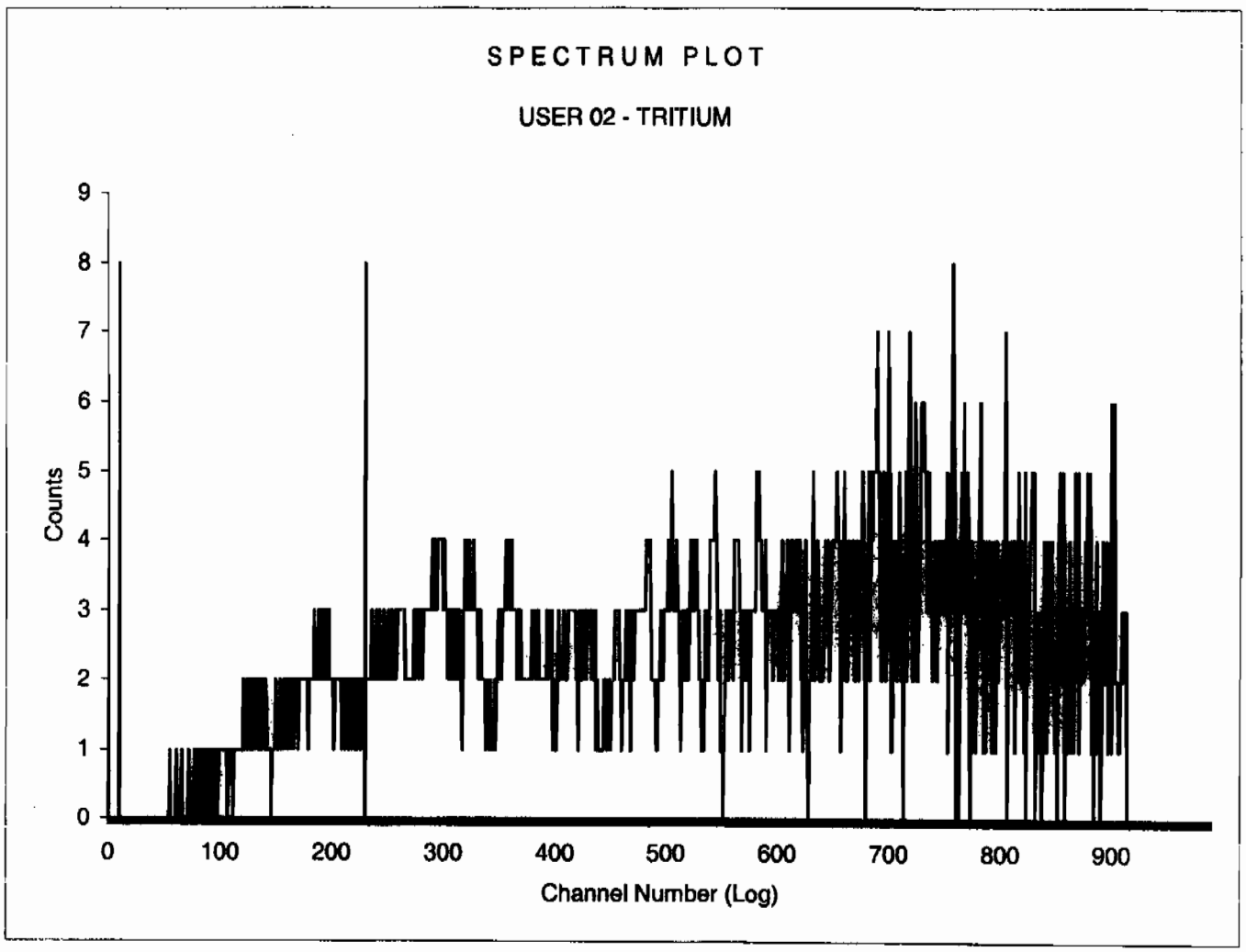

Sample Count Start Time:	23 Dec 2009 11:57:58		
Data Capture Date	23 Dec 2009 12:58:01		
User Filename	S02122358-4B.XLS		
	U02122358-2A.XLS		
Spectrum Type	Log Counts		
User Number	02		
User Id	TRITIUM		
User Comment	GREEN		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	4	58-4	60.00
H#, Total Counts:	127.2	2241	
Win1: Tritium - Start, End, Counts:	10	230	352
Win2: - Start, End, Counts:	0	990	2241

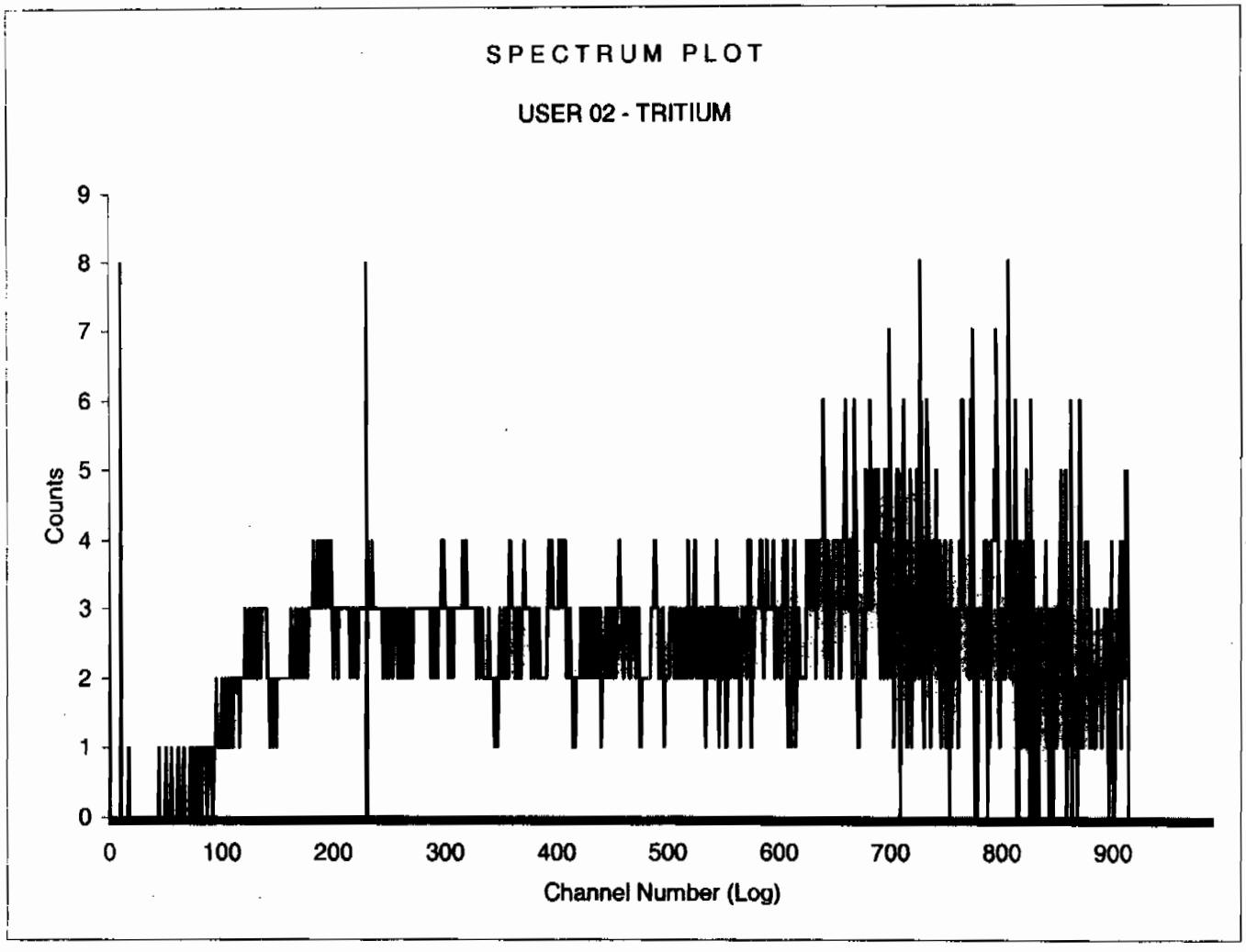

Sample Count Start Time:	23 Dec 2009 13:00:20		
Data Capture Date	23 Dec 2009 14:00:24		
User Filename	S02122358-5B.XLS		
	U02122358-2A.XLS		
Spectrum Type	Log Counts		
User Number	02		
User Id	TRITIUM		
User Comment	GREEN		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	5	58-5	60.00
H#, Total Counts:	117.9	2212	
Win1: Tritium - Start, End, Counts:	10	230	182
Win2: - Start, End, Counts:	0	990	2212

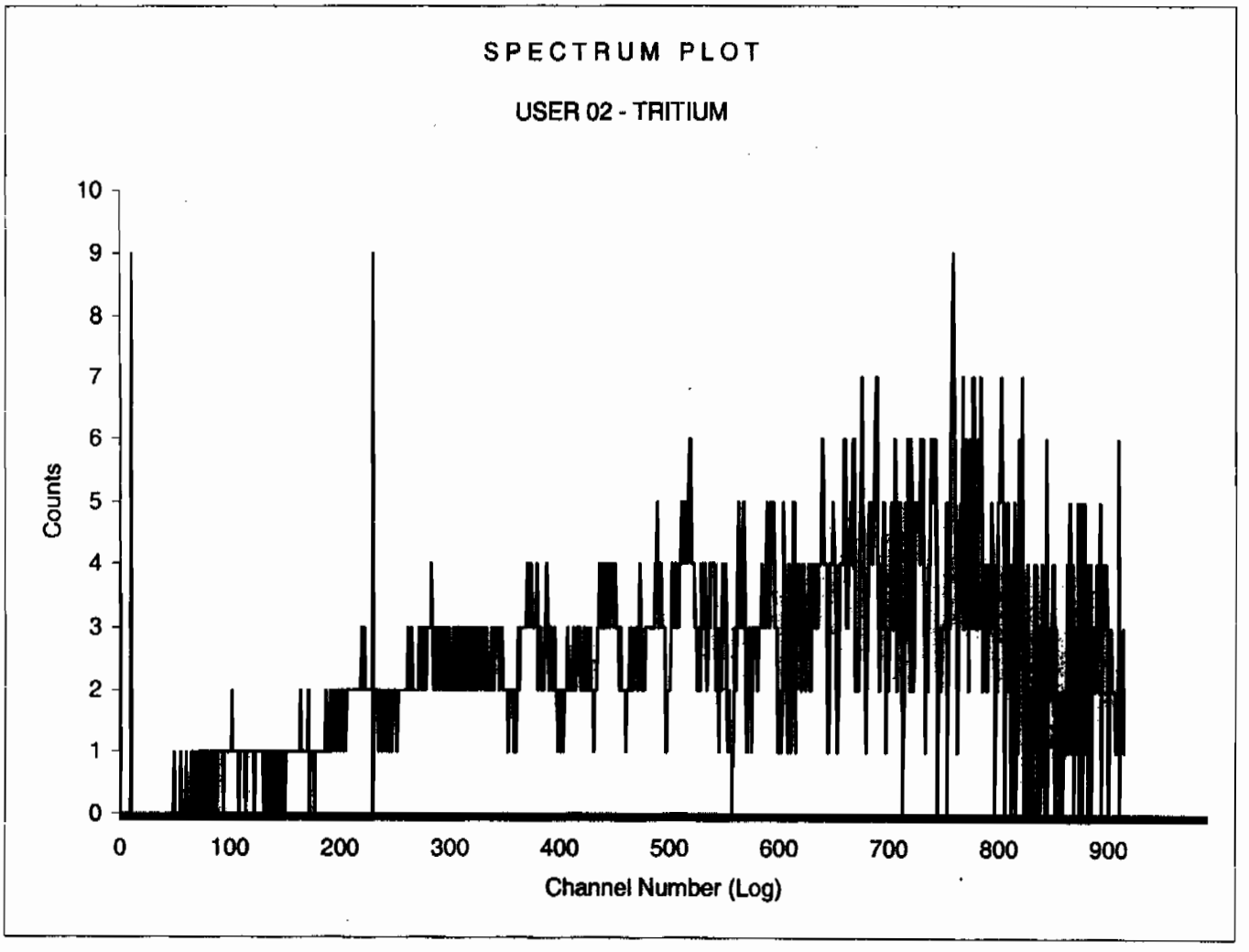

Sample Count Start Time:	23 Dec 2009 14:04:07		
Data Capture Date	23 Dec 2009 15:04:10		
User Filename	S02122358-6B.XLS		
	U02122358-2A.XLS		
Spectrum Type	Log Counts		
User Number	02		
User Id	TRITIUM		
User Comment	GREEN		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	6	58-6	60.00
H#, Total Counts:	117.8	2268	
Win1: Tritium - Start, End, Counts:	10	230	217
Win2: - Start, End, Counts:	0	990	2268

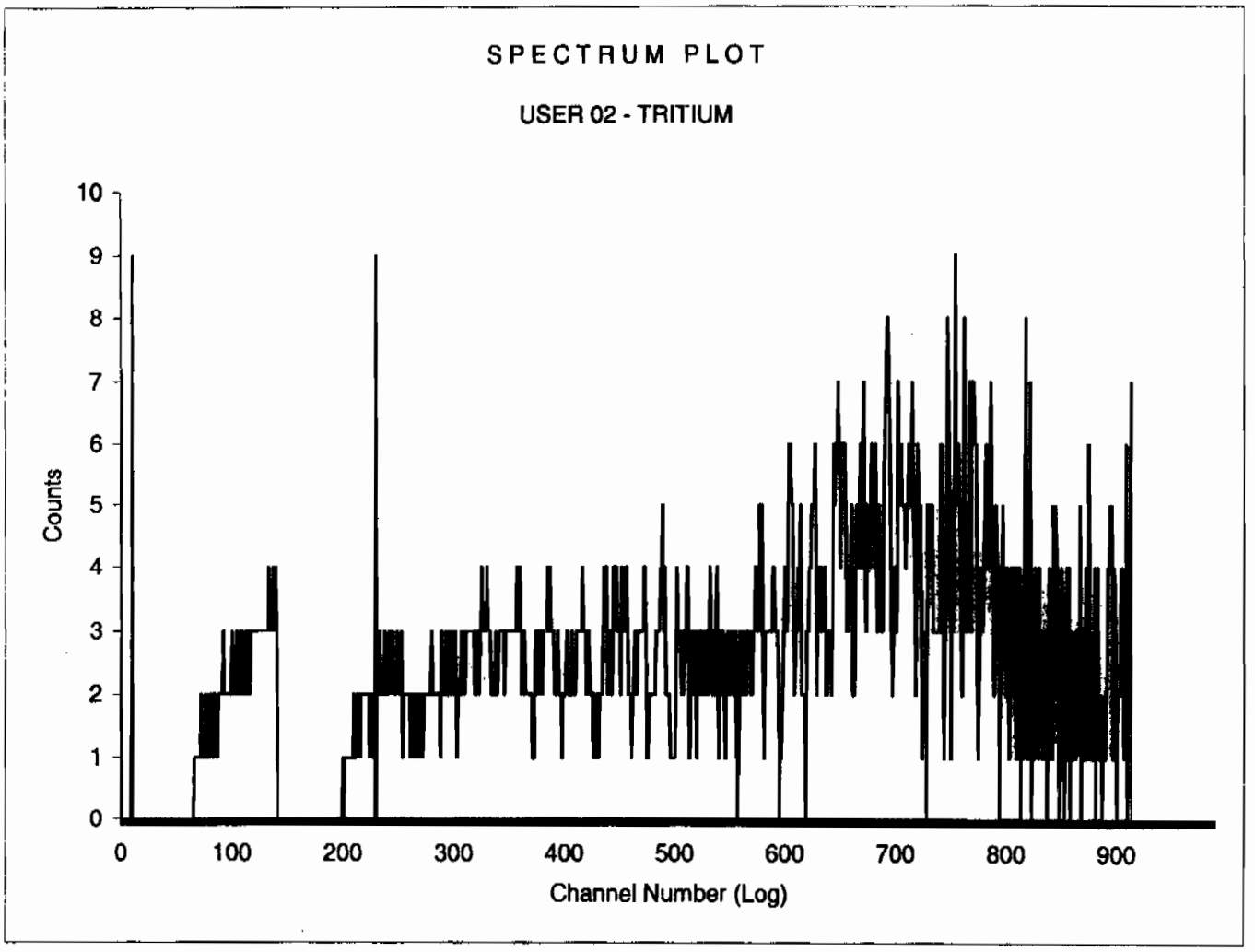

Sample Count Start Time:	23 Dec 2009 15:06:19		
Data Capture Date	23 Dec 2009 16:06:23		
User Filename	S02122358-7B.XLS		
	U02122358-2A.XLS		
Spectrum Type	Log Counts		
User Number	02		
User Id	TRITIUM		
User Comment	GREEN		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	7	58-7	60.00
H#, Total Counts:	118.3	2006	
Win1: Tritium - Start, End, Counts:	10	230	160
Win2: - Start, End, Counts:	0	990	2006

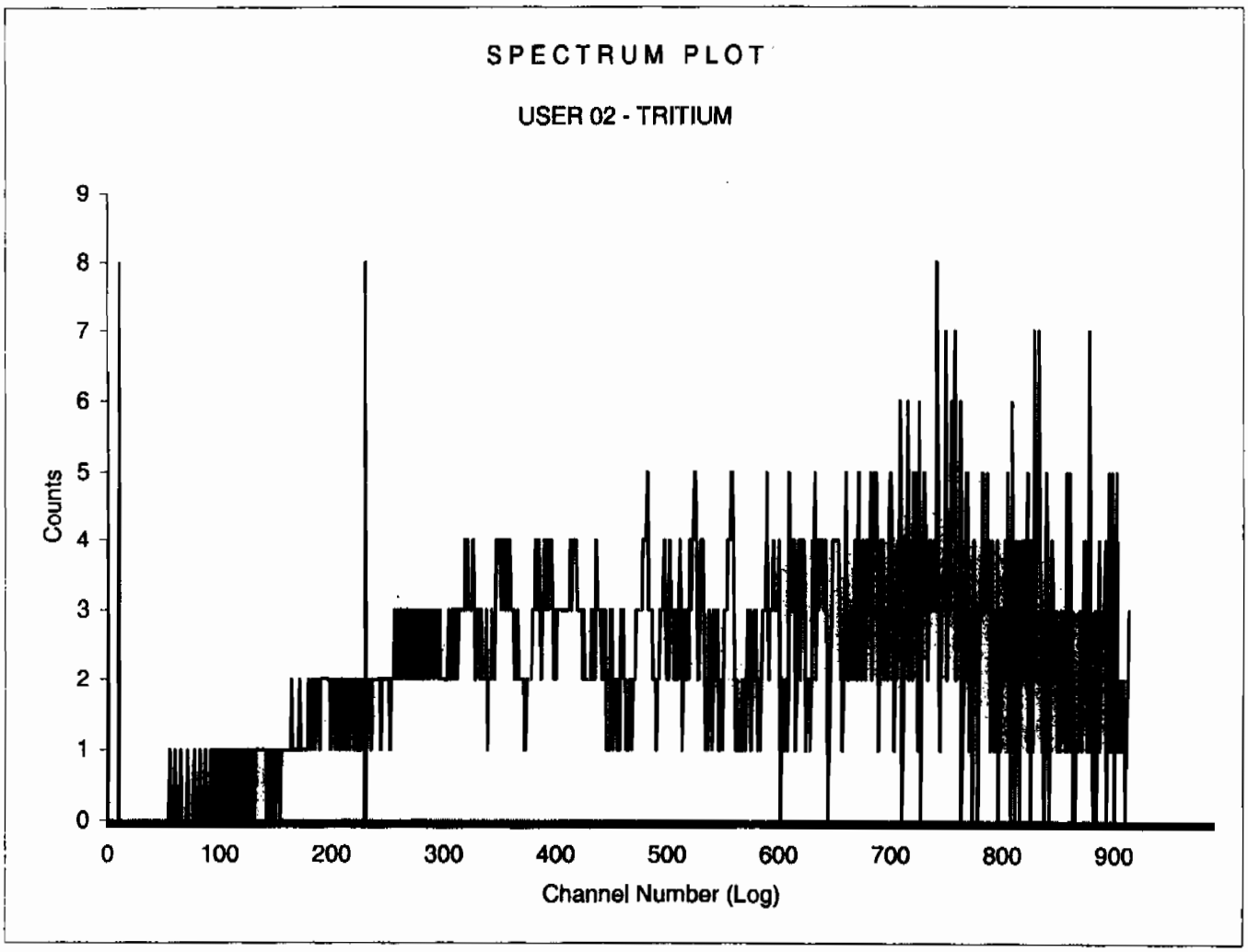

Sample Count Start Time:	23 Dec 2009 16:08:36		
Data Capture Date	23 Dec 2009 17:08:40		
User Filename	S02122358-8B.XLS		
	U02122358-2A.XLS		
Spectrum Type	Log Counts		
User Number	02		
User Id	TRITIUM		
User Comment	GREEN		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	8	58-8	60.00
H#, Total Counts:	126.4	2197	
Win1: Tritium - Start, End, Counts:	10	230	358
Win2: - Start, End, Counts:	0	990	2197

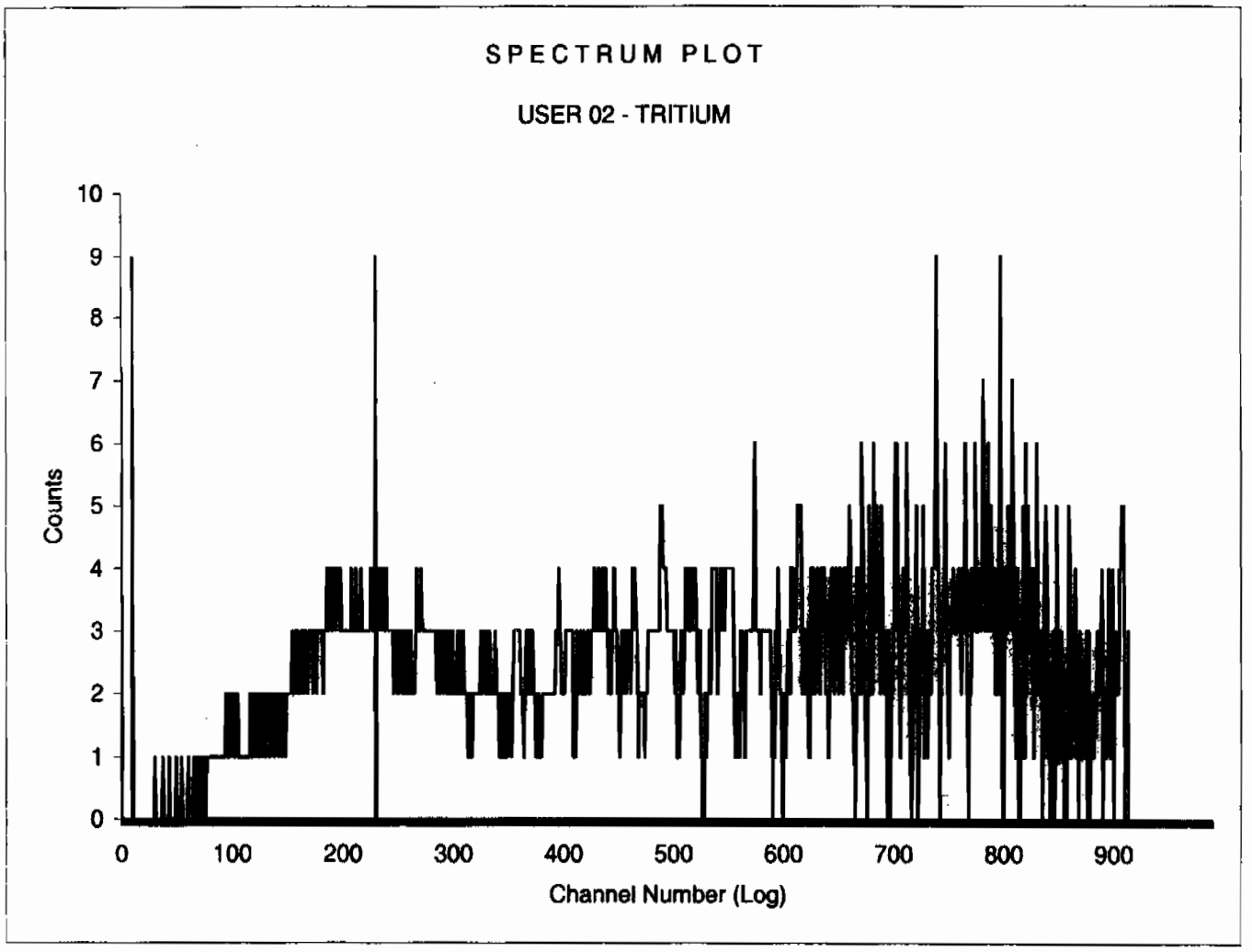

ID:TRITIUM 23 DEC 2009 11:55

USER: 3 COMMENT:RED

PRESET TIME :	15.00						
DATA CALC :	CPM	H#	:YES	SAMPLE REPEATS:	1	PRINTER	:EDIT
COUNT BLANK :	NO	IC#	: NO	REPLICATES :	1	RS232	:EDIT
TWO PHASE :	NO	AQC	: NO	CYCLE REPEATS :	1	DISK	: OFF
SCINTILLATOR:	LIQUID	LUMEX	:YES	LOW SAMPLE REJ:	0		
LOW LEVEL :	NO	HALF LIFE CORRECTION DATE:				none	

CHAN: 65.0 - 225.0 %ERROR: 0.00 FACTOR: 1.000000 BKG. SUB: 0
CHAN: 0.0 - 990.0 %ERROR: 0.00 FACTOR: 1.000000 BKG. SUB: 0

ALPHA-BETA DISCRIMINATION: NO

	SAM NO	POS	TIME MIN	H#	WIND1 CPM	WIND1 %ERROR	WIND2 CPM	WIND2 %ERROR	LUMEX %	ELAPSED TIME
BKg	1	44-1	15.00	112.4	2.47	36.26	42.20	8.01	1.48	15.86
LCS	2	44-2	15.00	114.0	28.20	9.79	77.87	5.87	0.56	32.21

Sample Count Start Time:	23 Dec 2009 11:51:20		
Data Capture Date	23 Dec 2009 12:06:20		
User Filename	S03122344-1A.XLS		
	U03122344-1A.XLS		
Spectrum Type	Log Counts		
User Number	03		
User Id	TRITIUM		
User Comment	RED		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	1	44-1	15.00
H#, Total Counts:	112.4	728	
Win1: Tritium - Start, End, Counts:	65	225	37
Win2: - Start, End, Counts:	0	990	633

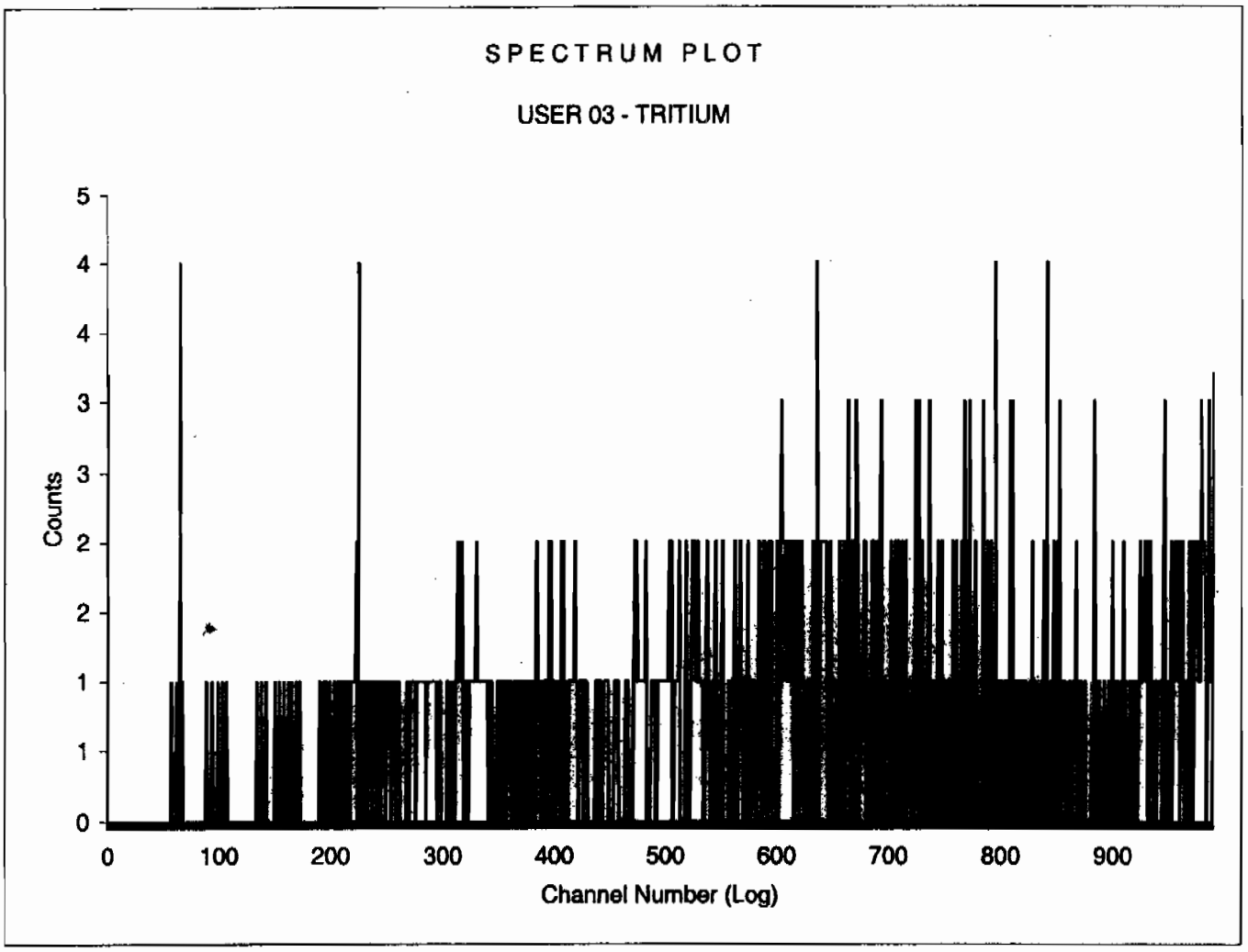

Sample Count Start Time:	23 Dec 2009 12:07:41		
Data Capture Date	23 Dec 2009 12:22:42		
User Filename	S03122344-2A.XLS		
	U03122344-1A.XLS		
Spectrum Type	Log Counts		
User Number	03		
User Id	TRITIUM		
User Comment	RED		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	2	44-2	15.00
H#, Total Counts:	114.0	1236	
Win1: Tritium - Start, End, Counts:	65	225	423
Win2: - Start, End, Counts:	0	990	1168

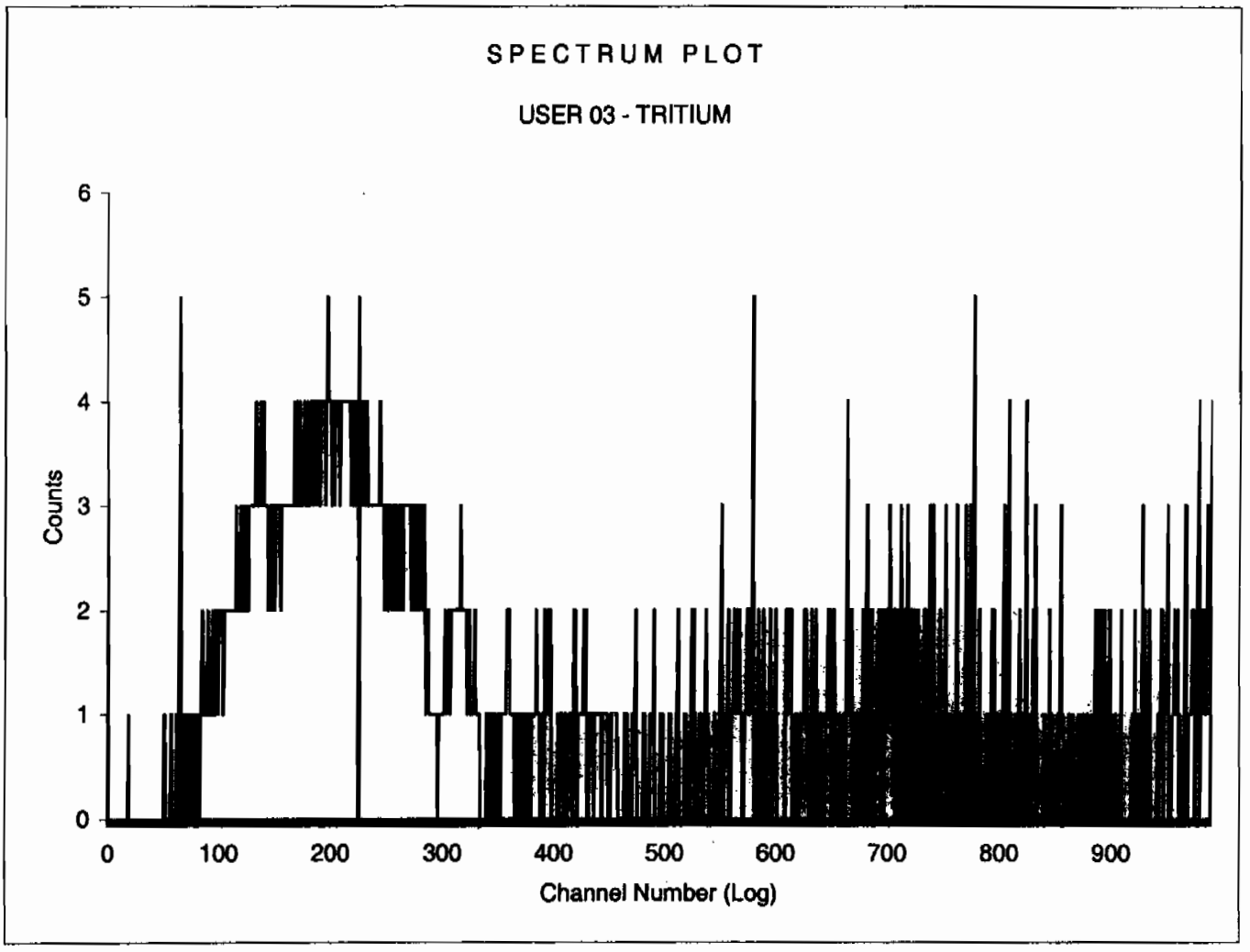

BACKGROUND AND EFFICIENCY DATA

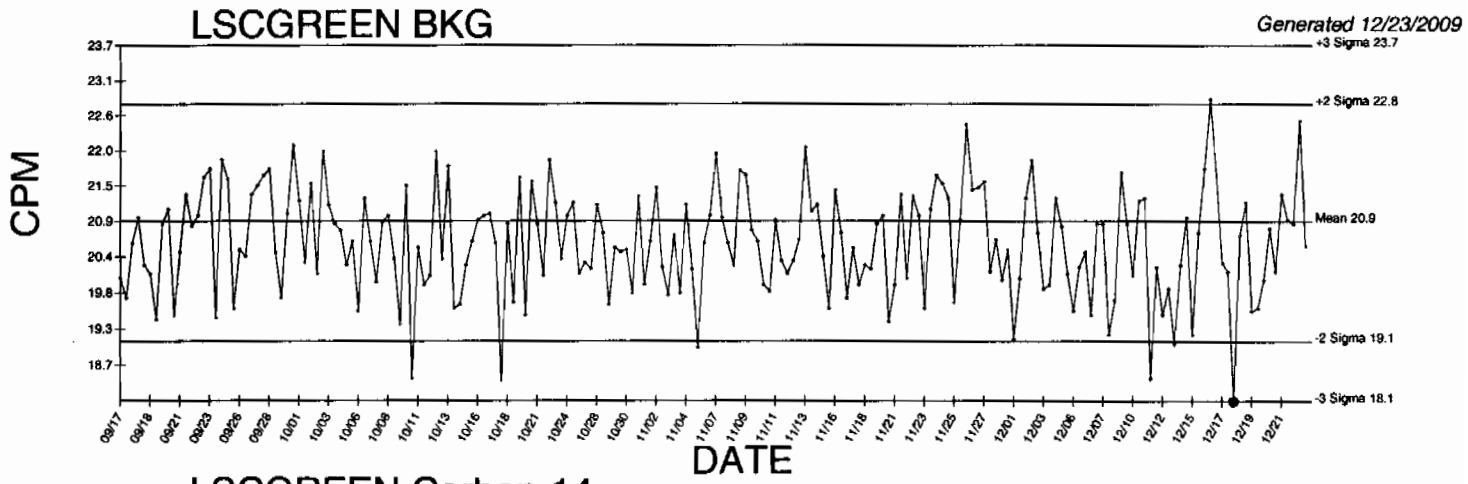

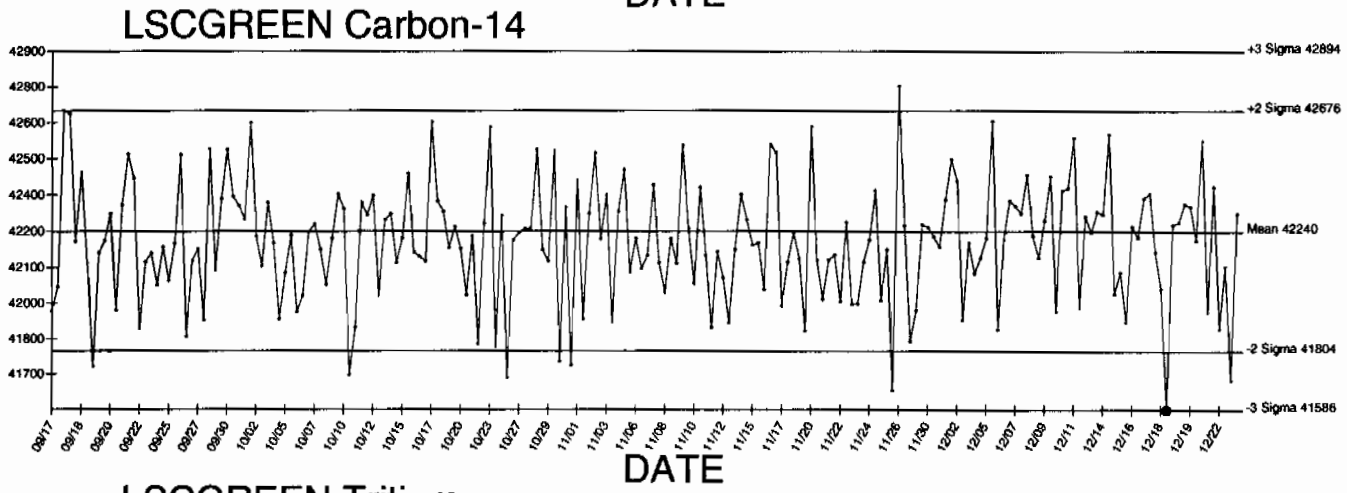

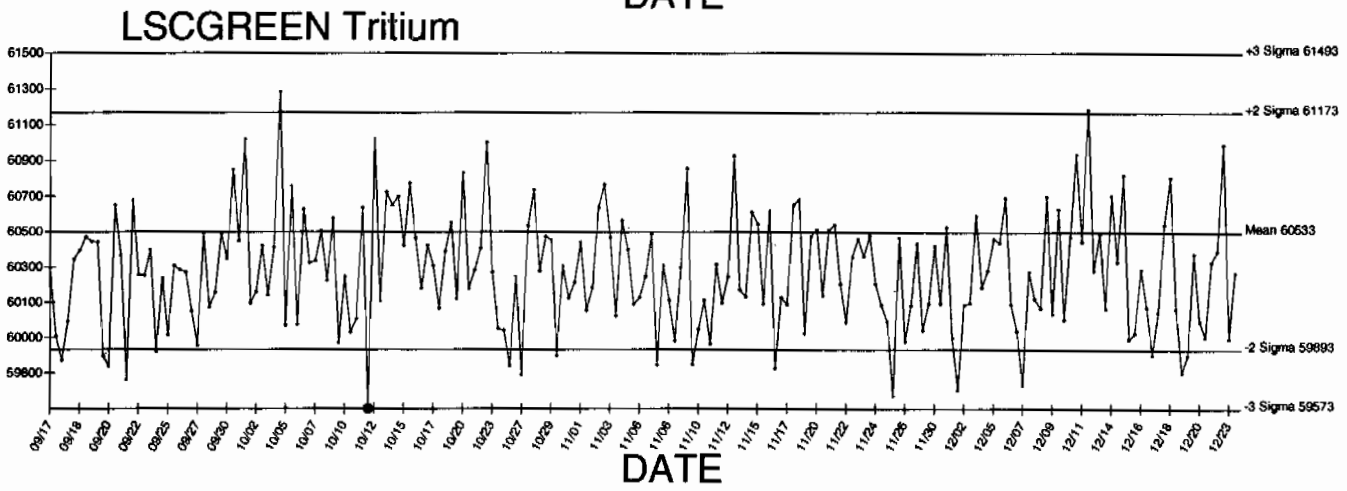

● Denotes Outlier

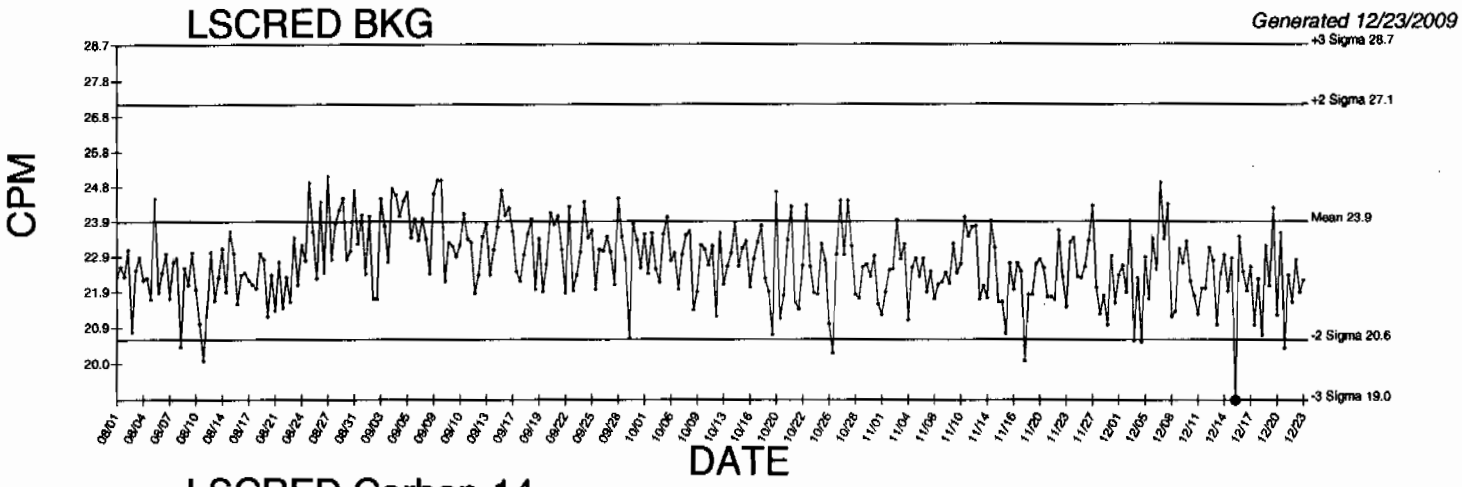

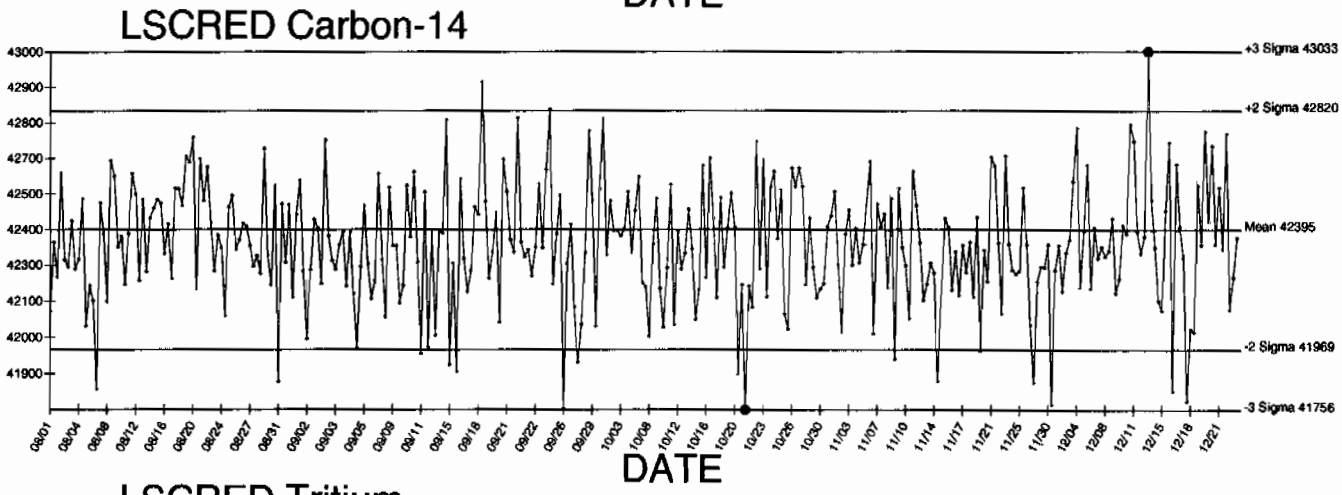

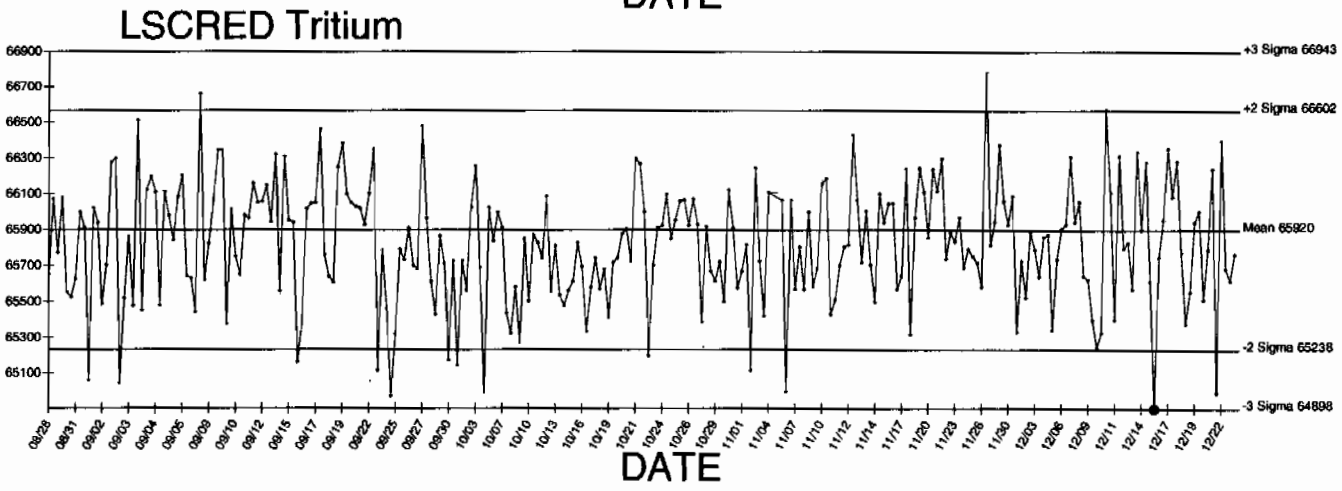

● Denotes Outlier

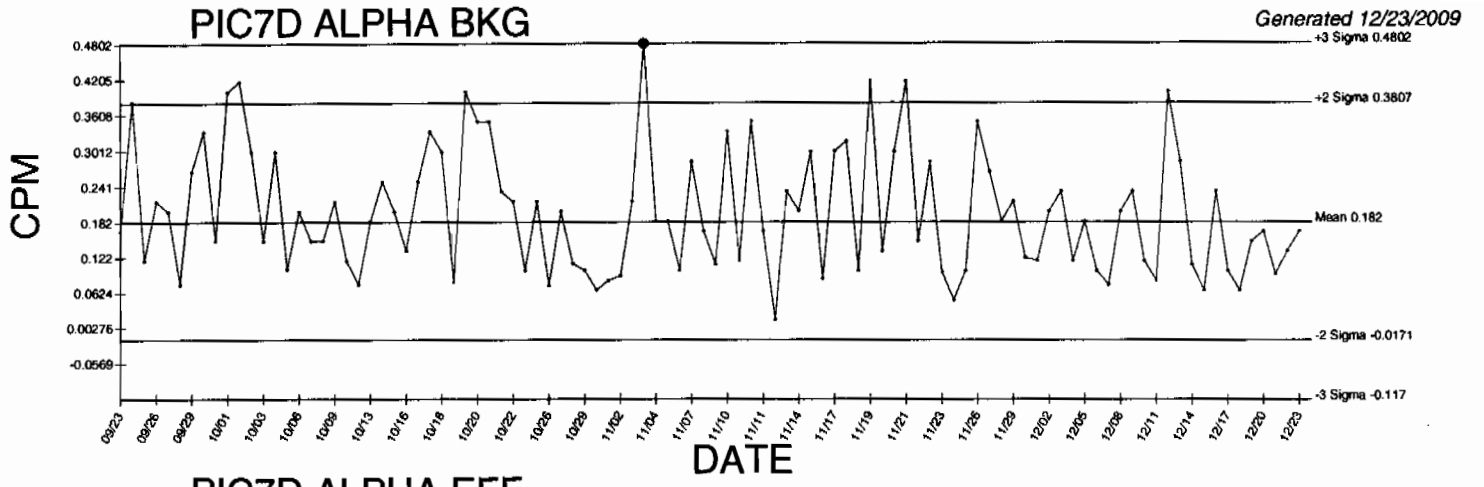
PIC7D ALPHA BKG
Generated 12/23/2009
CPM
DATE
+3 Sigma 0.4802
+2 Sigma 0.3807
Mean 0.182
-2 Sigma -0.0171
-3 Sigma -0.117

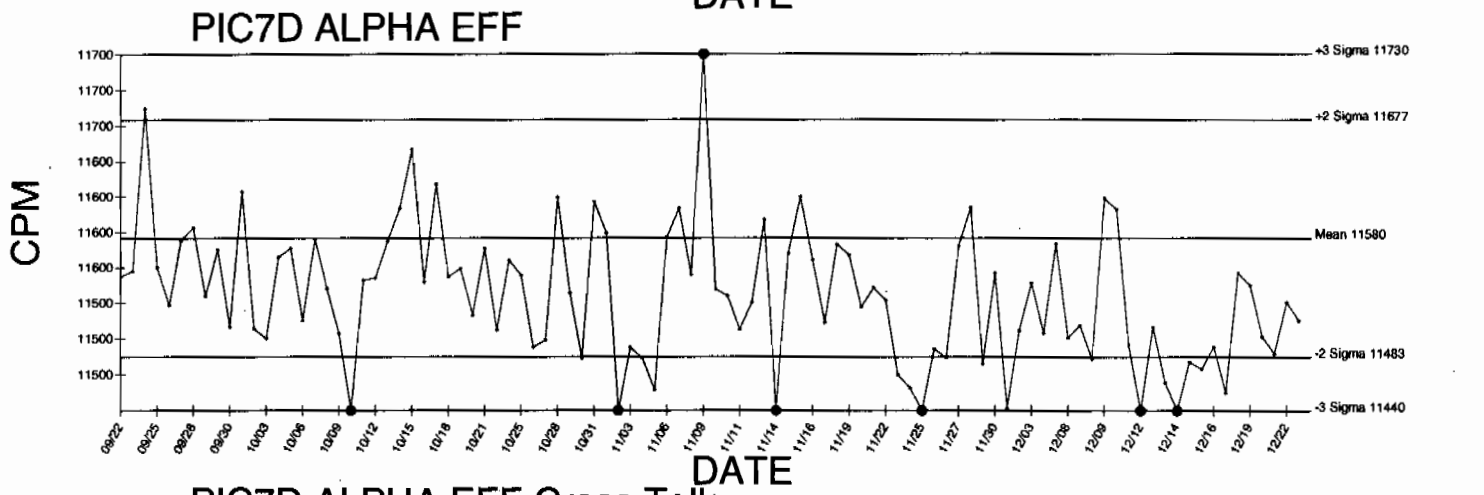
PIC7D ALPHA EFF
CPM
DATE
+3 Sigma 11730
+2 Sigma 11677
Mean 11580
-2 Sigma 11483
-3 Sigma 11440

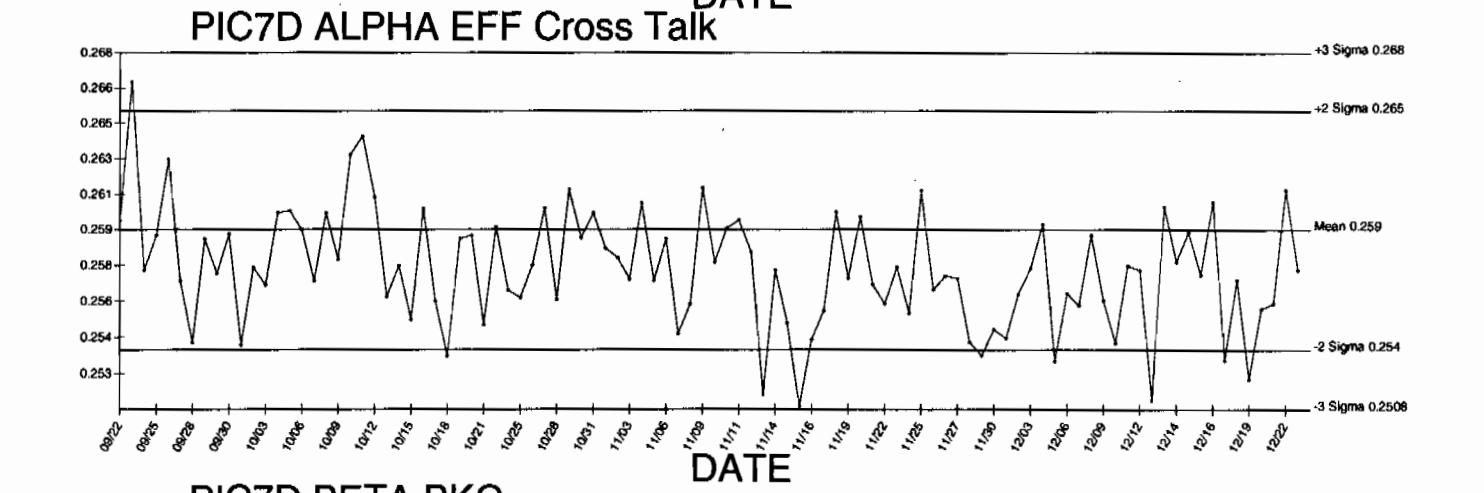
PIC7D ALPHA EFF Cross Talk
DATE
+3 Sigma 0.268
+2 Sigma 0.265
Mean 0.259
-2 Sigma 0.254
-3 Sigma 0.2508

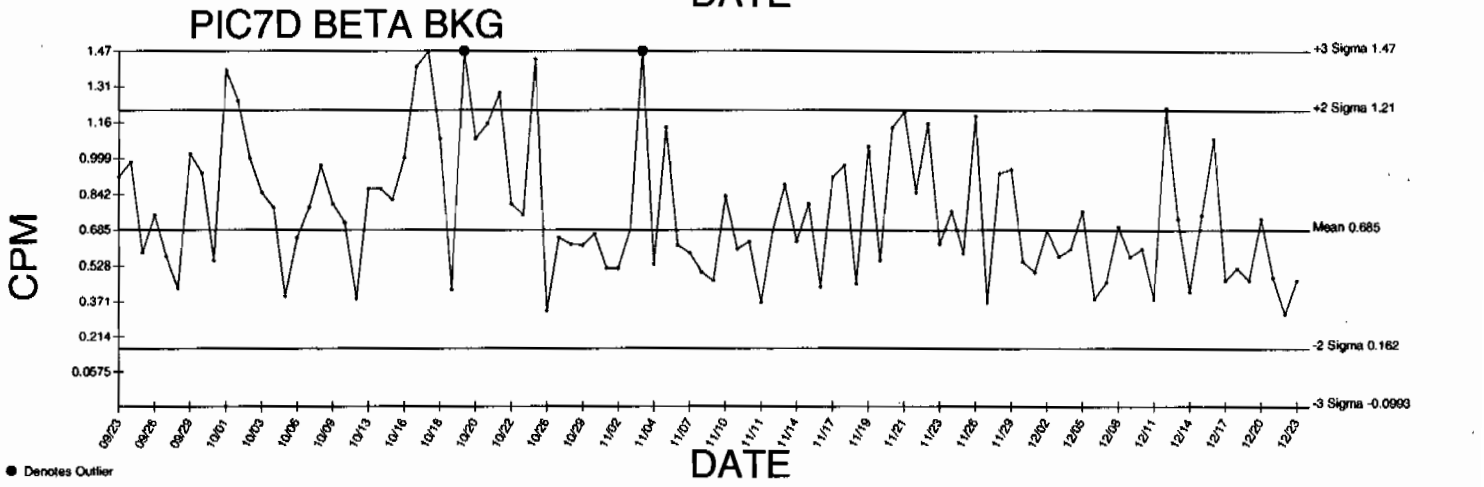
PIC7D BETA BKG
CPM
DATE
+3 Sigma 1.47
+2 Sigma 1.21
Mean 0.685
-2 Sigma 0.162
-3 Sigma -0.0993
● Denotes Outlier

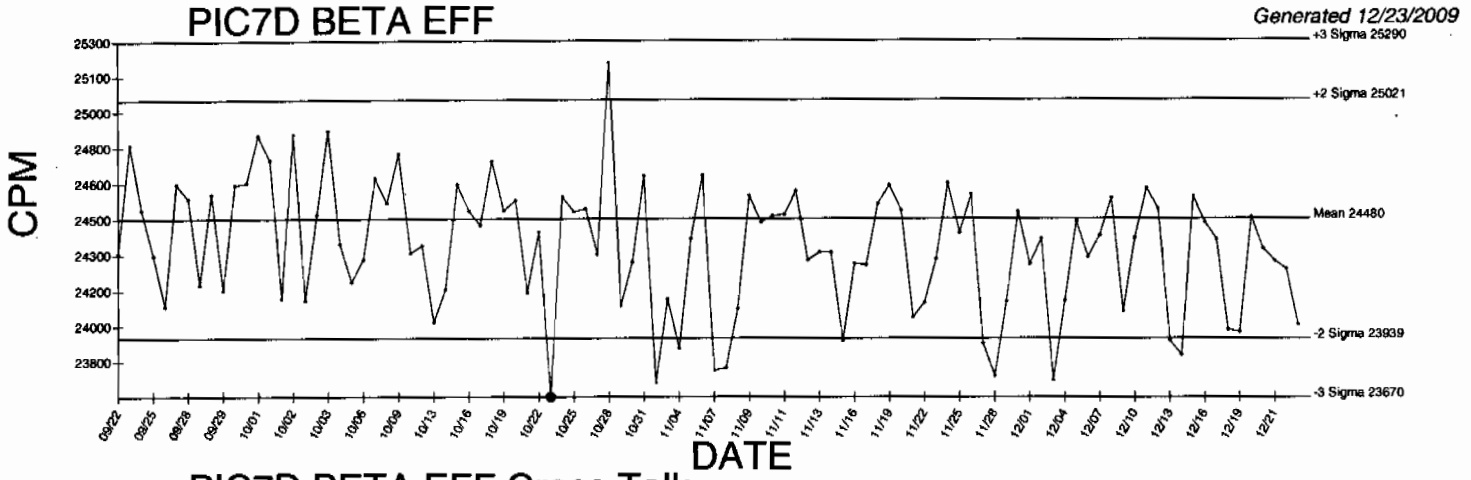

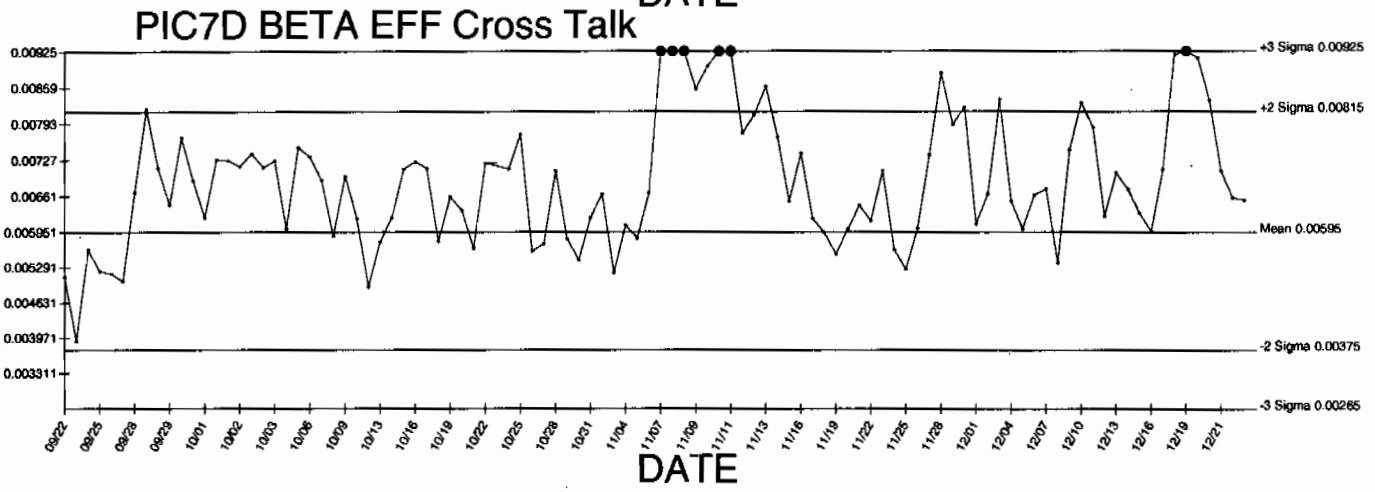

● Denotes Outlier

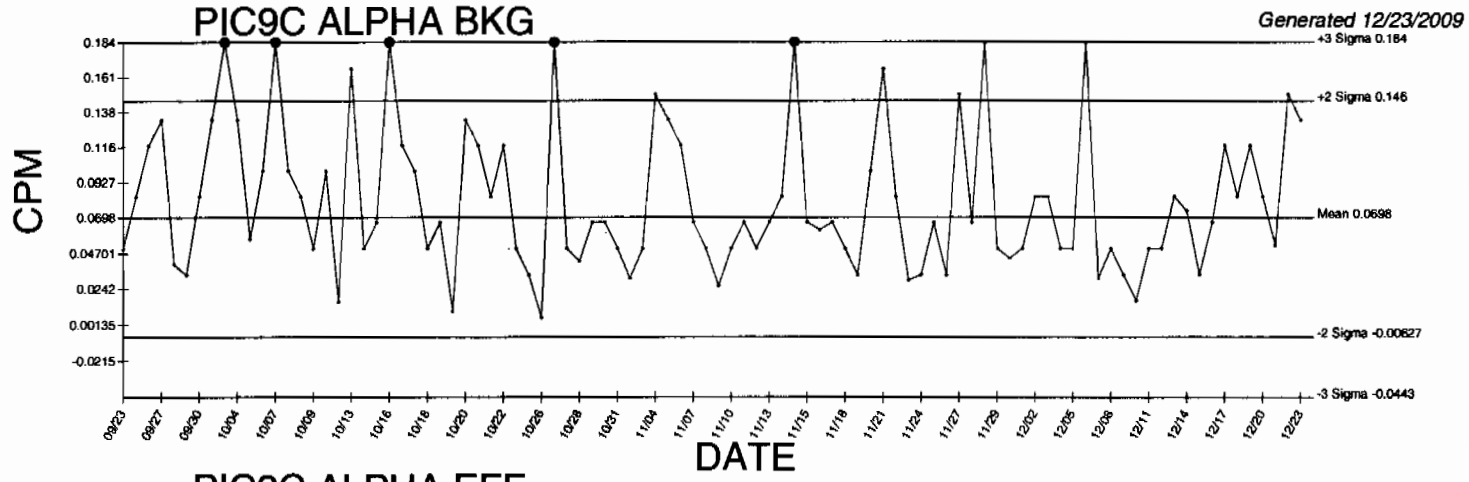
PIC9C ALPHA BKG
Generated 12/23/2009
CPM
DATE
+3 Sigma 0.184
+2 Sigma 0.146
Mean 0.0698
-2 Sigma -0.00627
-3 Sigma -0.0443

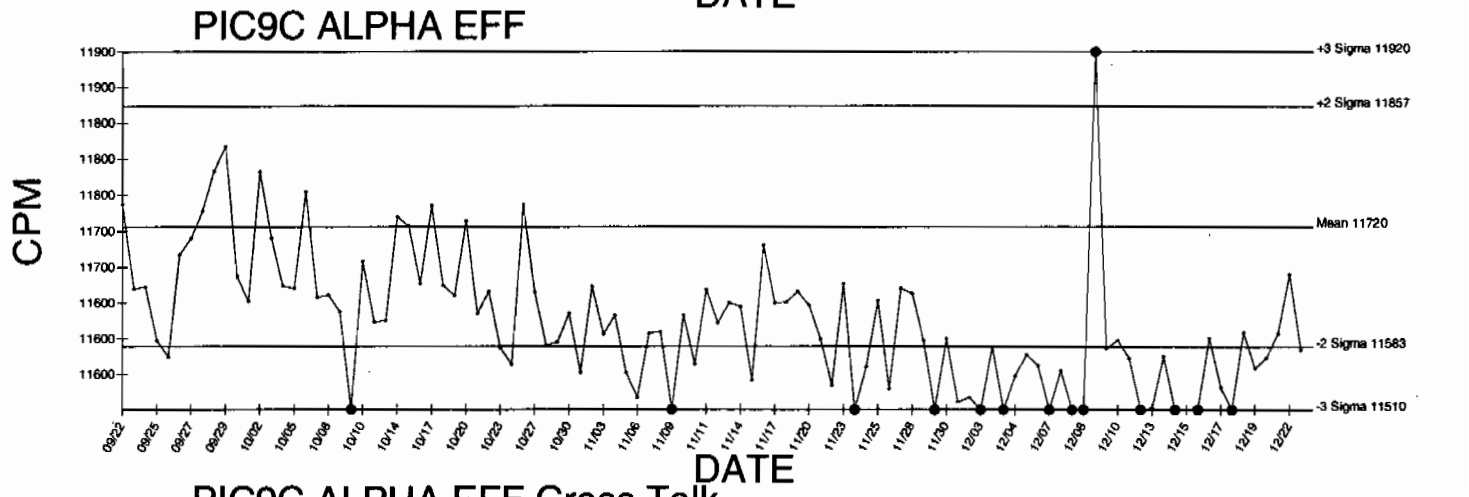
PIC9C ALPHA EFF
CPM
DATE
+3 Sigma 11920
+2 Sigma 11857
Mean 11720
-2 Sigma 11583
-3 Sigma 11510

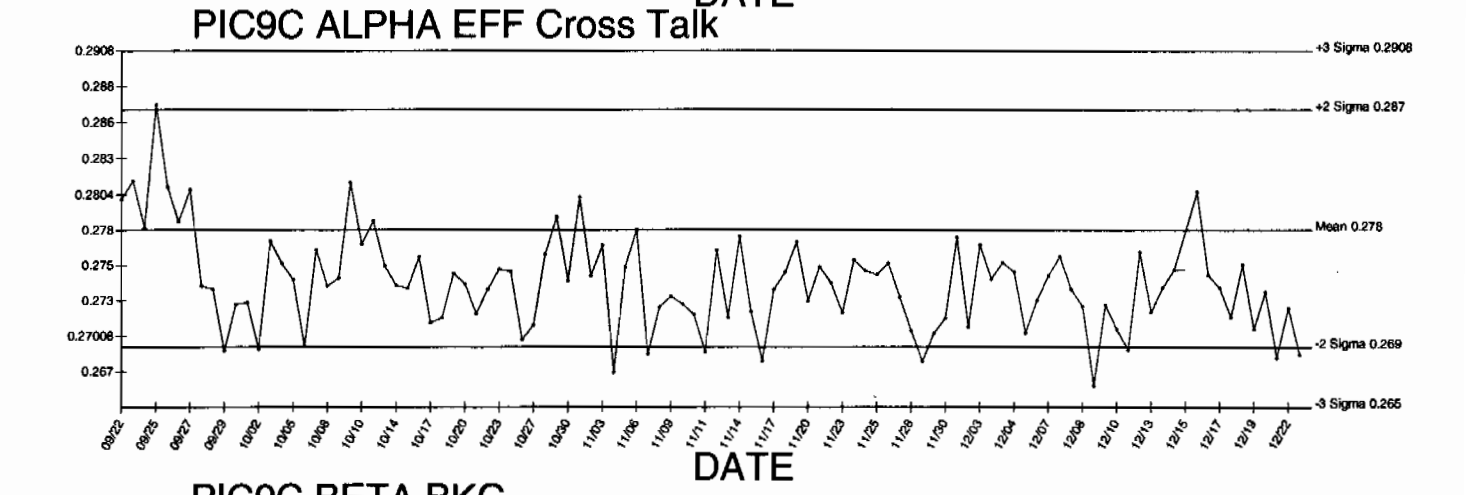
PIC9C ALPHA EFF Cross Talk
DATE
+3 Sigma 0.2908
+2 Sigma 0.287
Mean 0.278
-2 Sigma 0.269
-3 Sigma 0.265

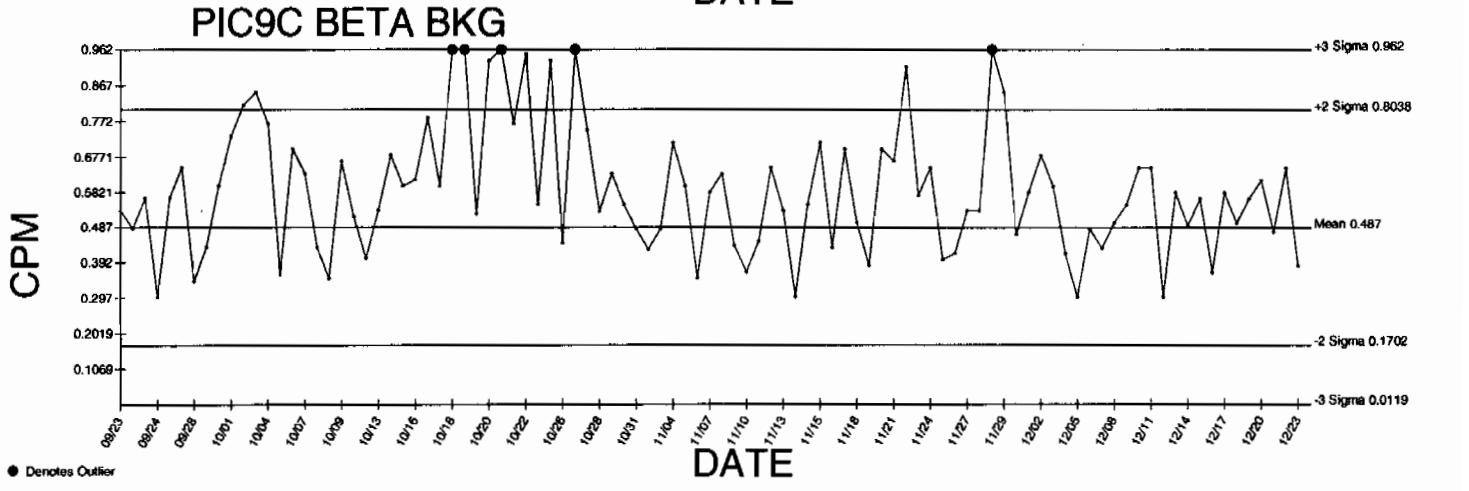
PIC9C BETA BKG
CPM
DATE
+3 Sigma 0.962
+2 Sigma 0.8038
Mean 0.487
-2 Sigma 0.1702
-3 Sigma 0.0119
● Denotes Outlier

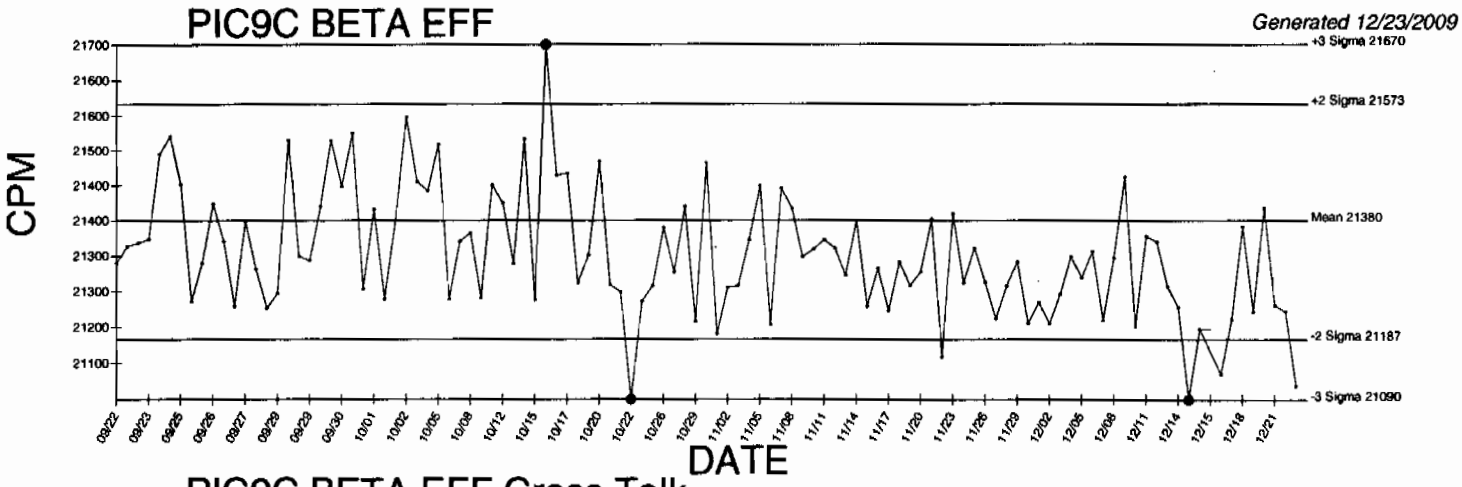

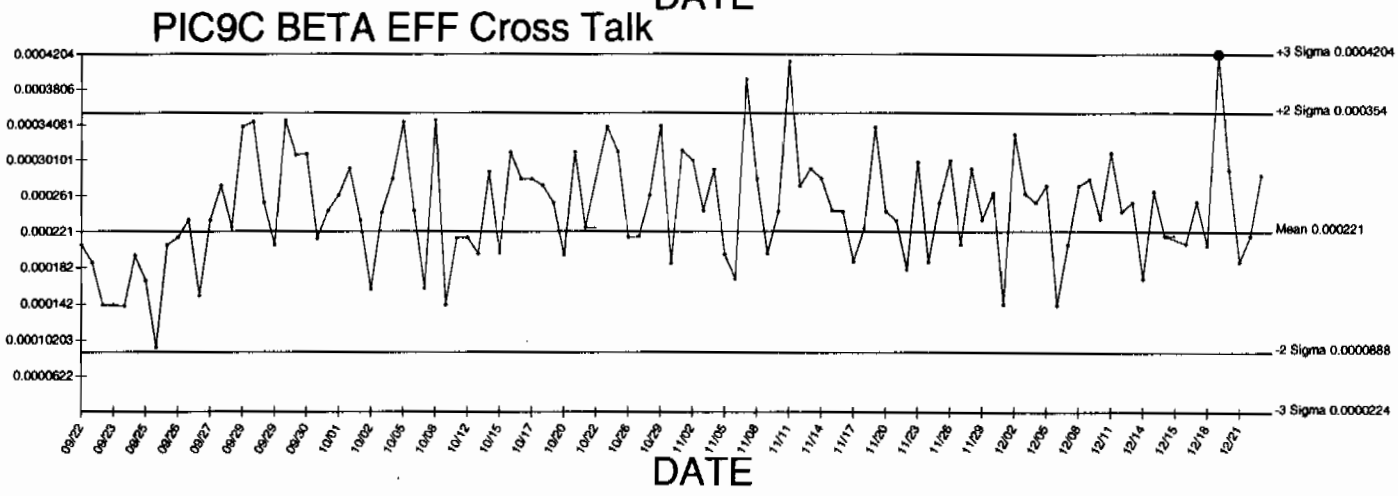

● Denotes Outlier

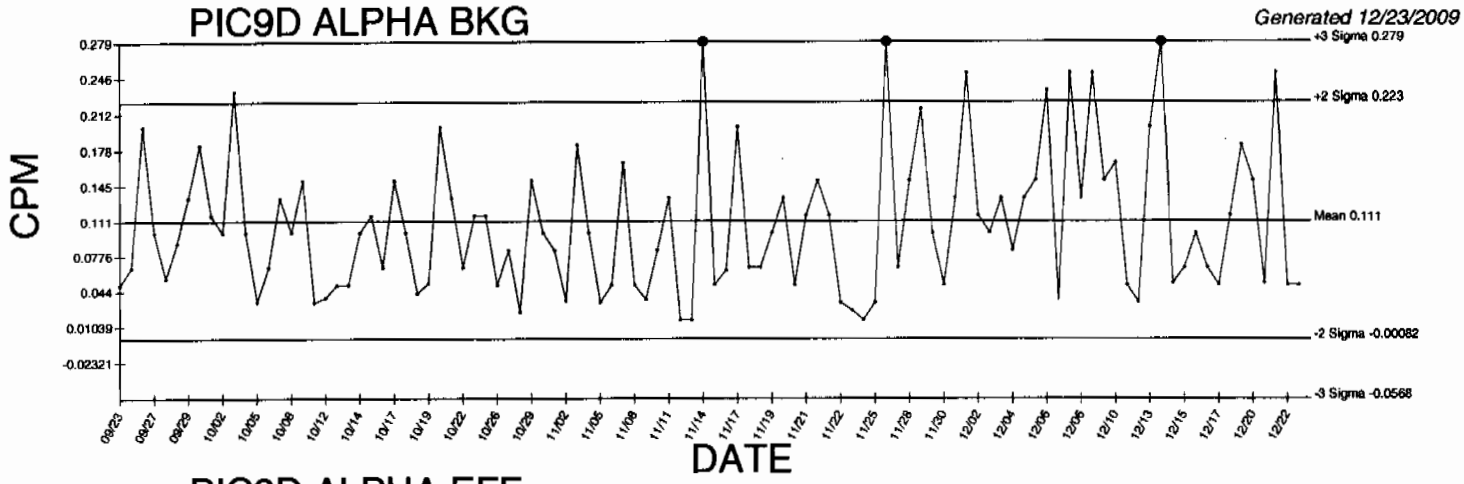
PIC9D ALPHA BKG
Generated 12/23/2009
CPM
DATE
+3 Sigma 0.279
+2 Sigma 0.223
Mean 0.111
-2 Sigma -0.00082
-3 Sigma -0.0568

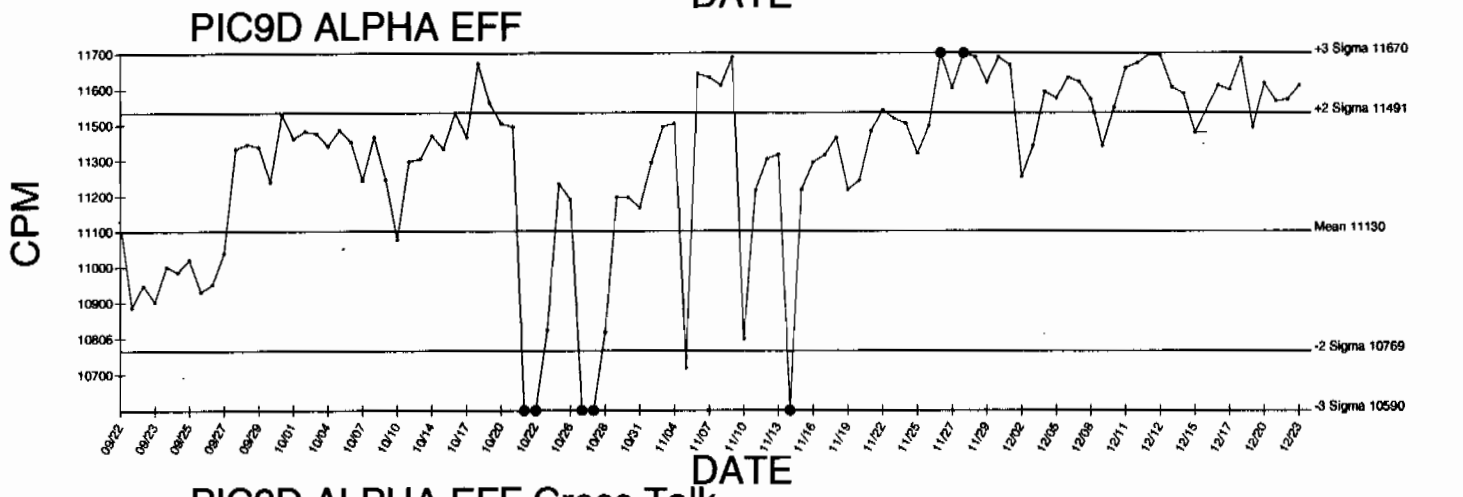
PIC9D ALPHA EFF
CPM
DATE
+3 Sigma 11670
+2 Sigma 11491
Mean 11130
-2 Sigma 10769
-3 Sigma 10590

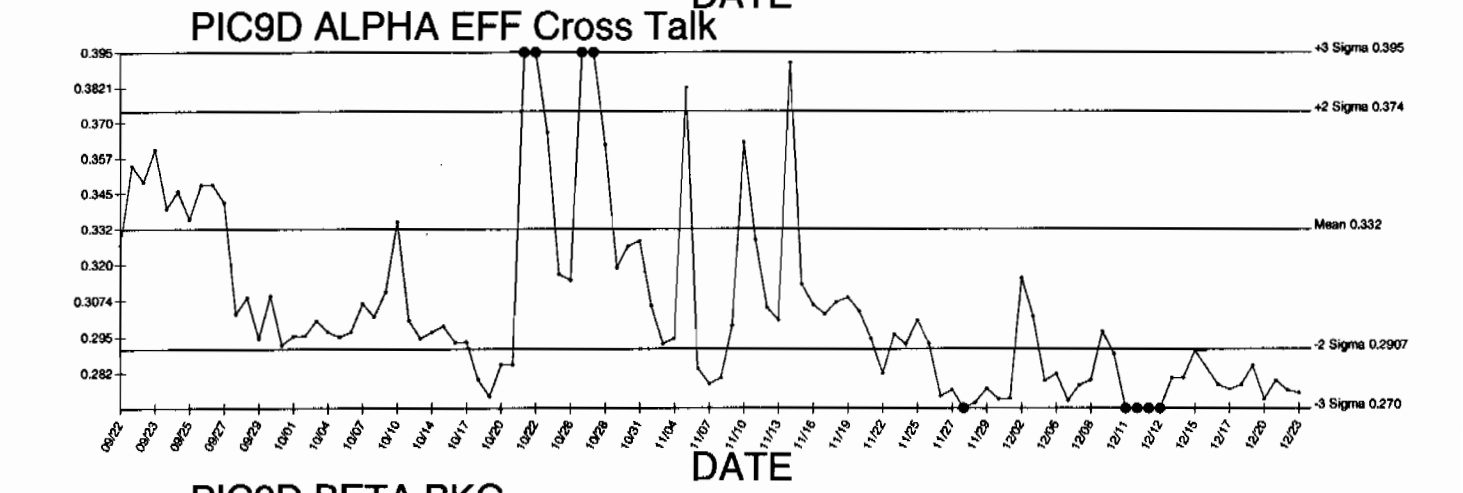
PIC9D ALPHA EFF Cross Talk
DATE
+3 Sigma 0.395
+2 Sigma 0.374
Mean 0.332
-2 Sigma 0.2907
-3 Sigma 0.270

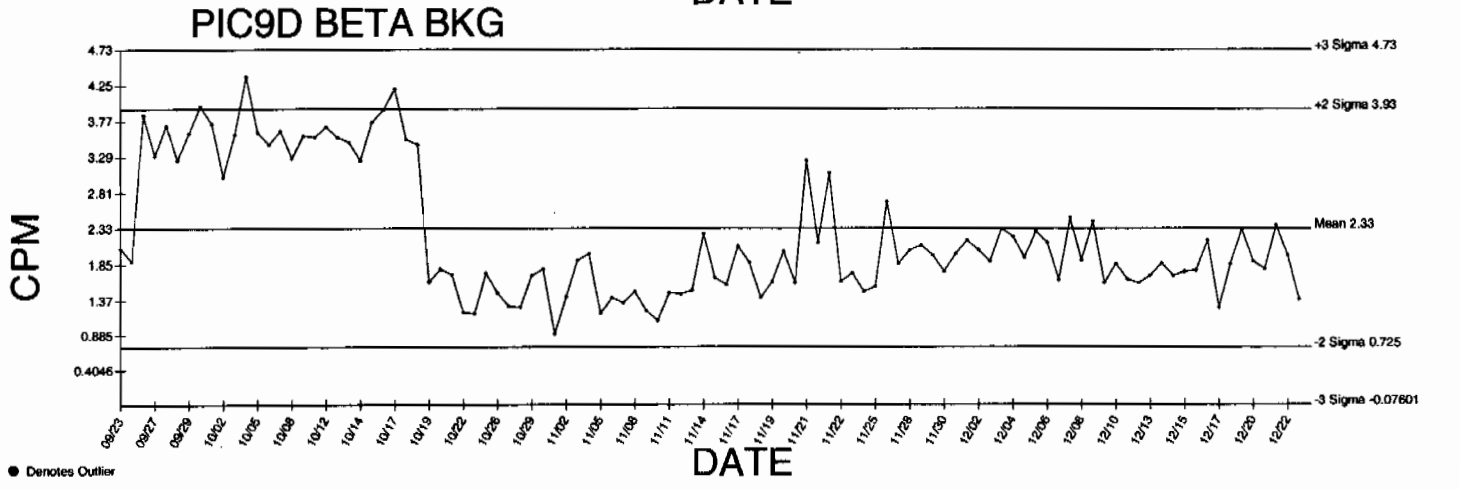
PIC9D BETA BKG
CPM
DATE
+3 Sigma 4.73
+2 Sigma 3.93
Mean 2.33
-2 Sigma 0.725
-3 Sigma -0.07601
● Denotes Outlier

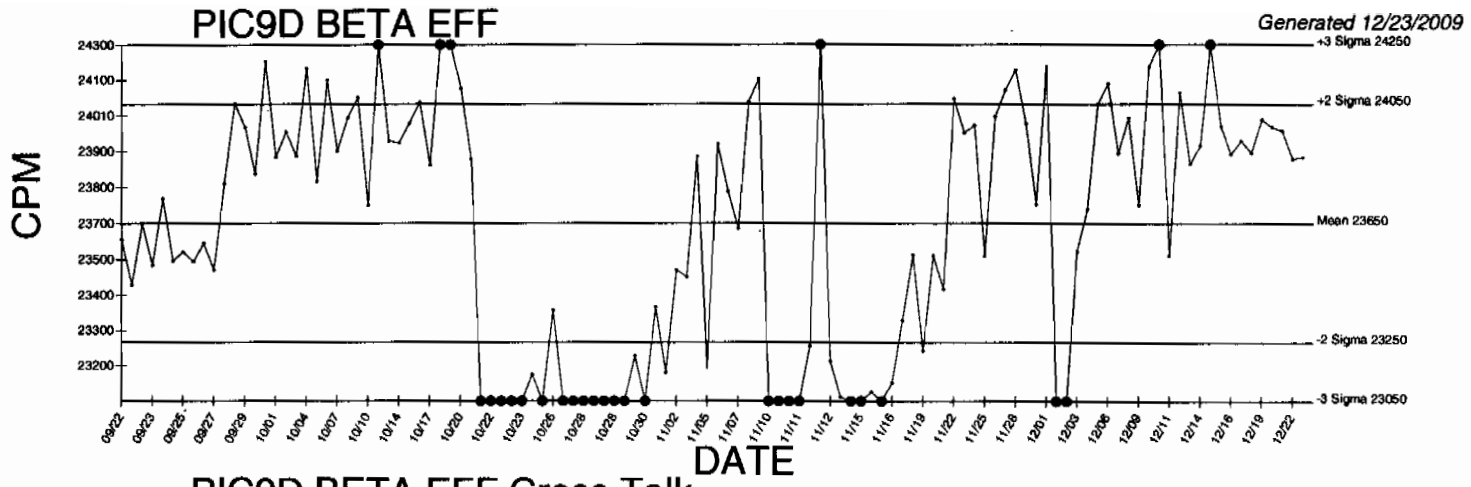

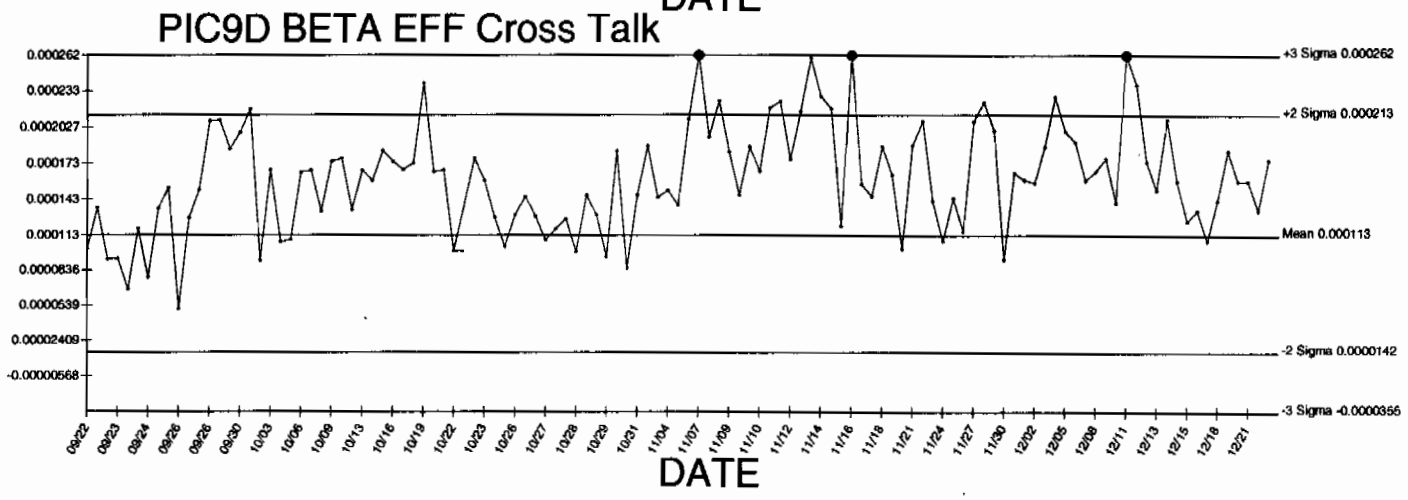

● Denotes Outlier

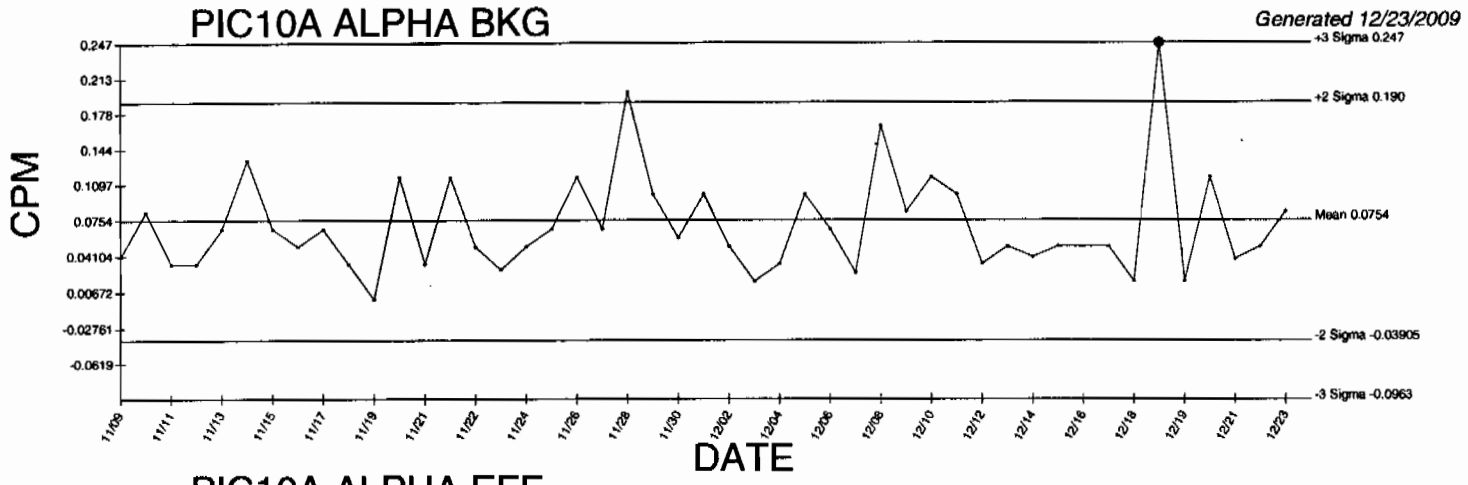
PIC10A ALPHA BKG
Generated 12/23/2009
CPM
DATE
+3 Sigma 0.247
+2 Sigma 0.190
Mean 0.0754
-2 Sigma -0.03905
-3 Sigma -0.0963

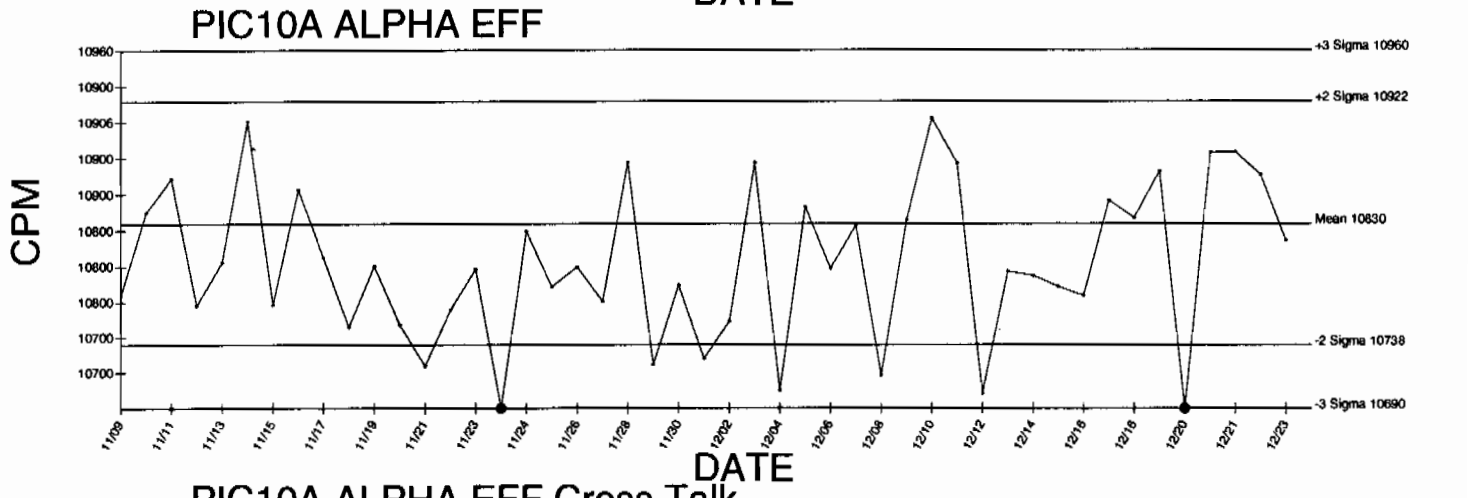
PIC10A ALPHA EFF
CPM
DATE
+3 Sigma 10960
+2 Sigma 10922
Mean 10830
-2 Sigma 10738
-3 Sigma 10690

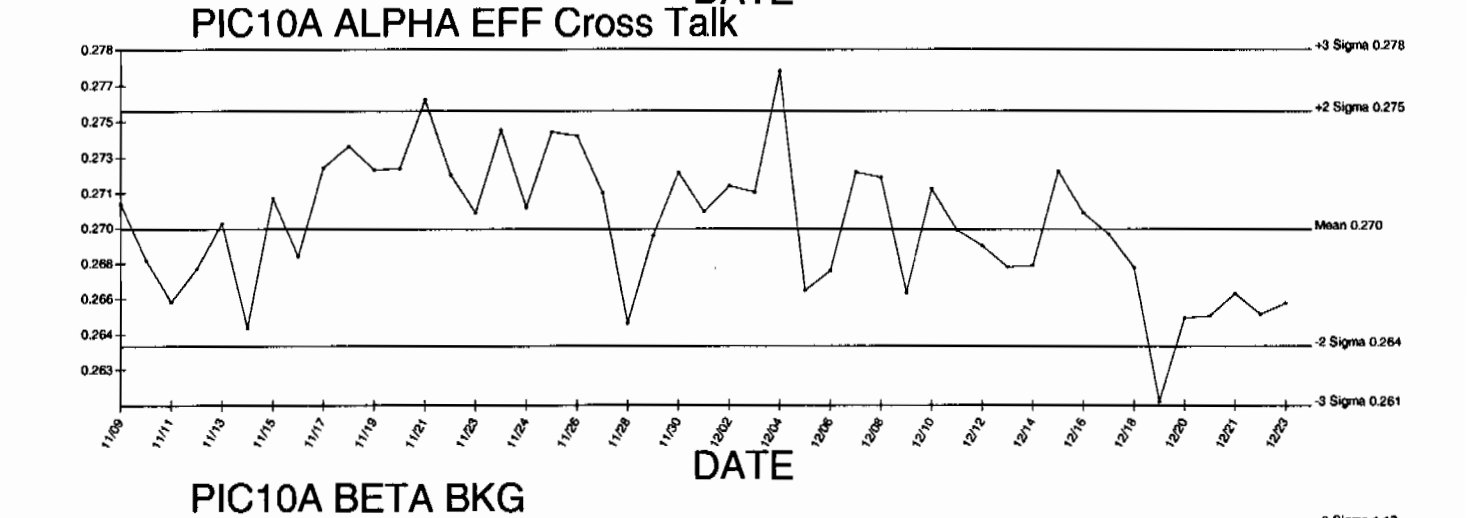
PIC10A ALPHA EFF Cross Talk
DATE
+3 Sigma 0.278
+2 Sigma 0.275
Mean 0.270
-2 Sigma 0.264
-3 Sigma 0.261

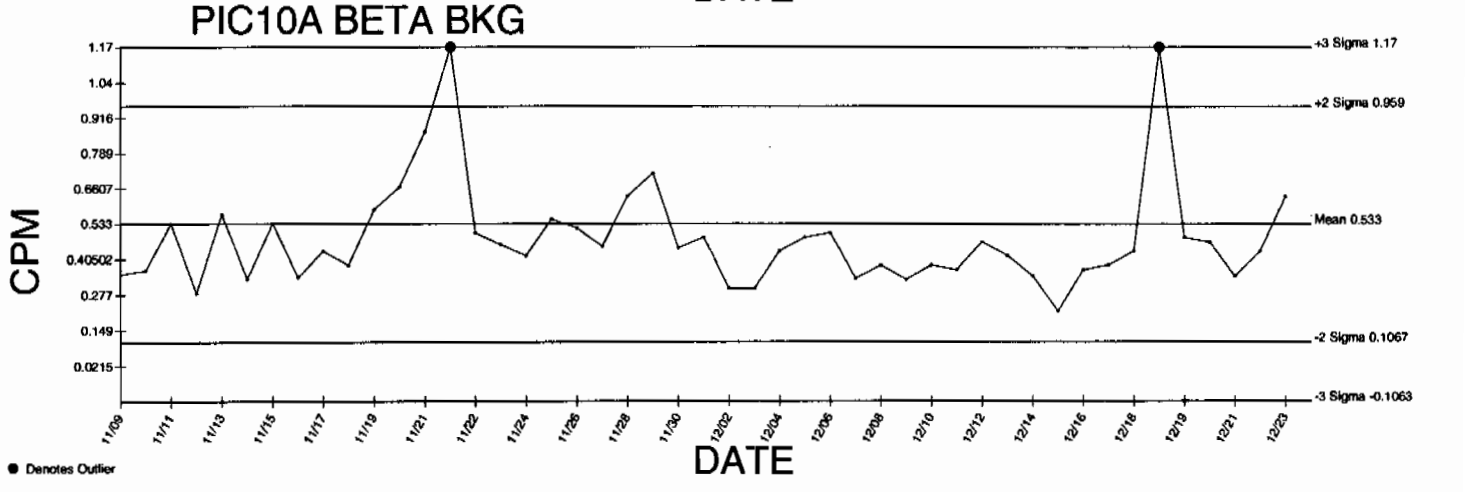
PIC10A BETA BKG
CPM
DATE
+3 Sigma 1.17
+2 Sigma 0.959
Mean 0.533
-2 Sigma 0.1067
-3 Sigma -0.1063
● Denotes Outlier

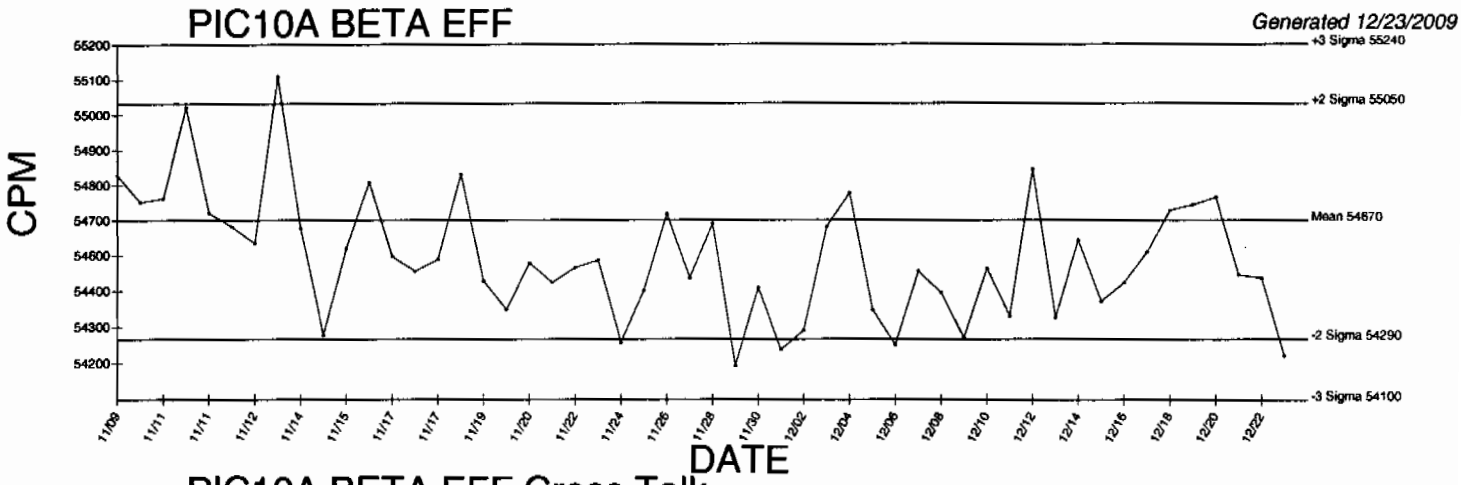

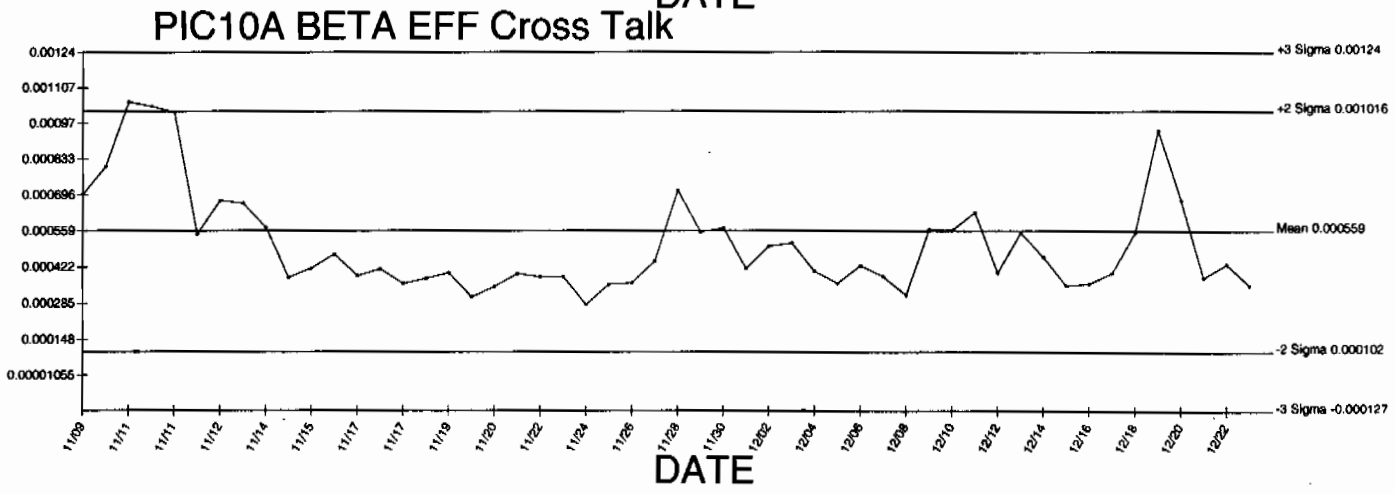

● Denotes Outlier

QA filename : DKA100:[ENV_ALPHA.QA.W]W011.QAF;4
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 8-JUN-2009 10:41:28 through 5-DEC-2009 12:00:00
Lower/Upper Lmts: 0.287129 through 0.307129

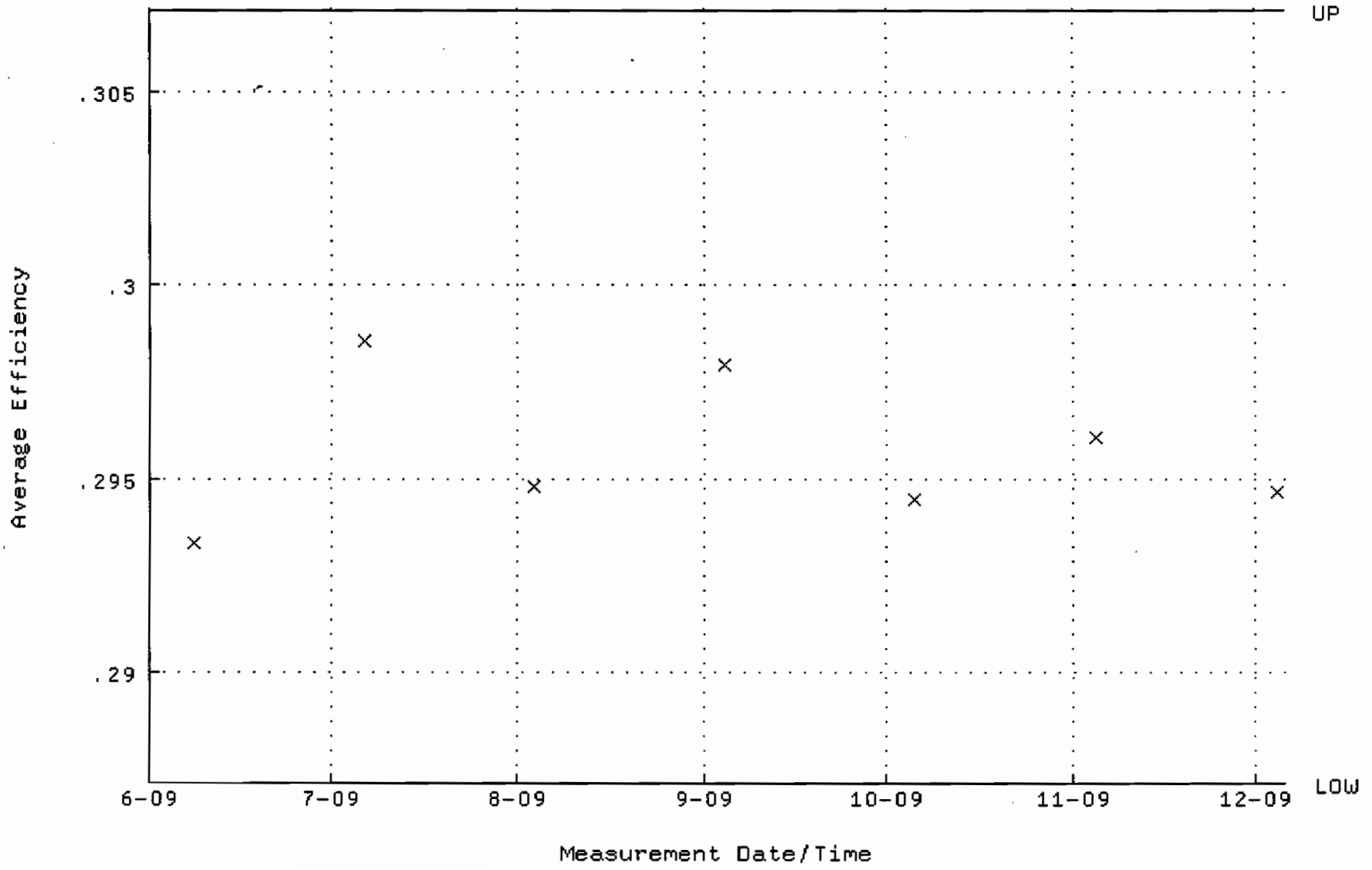

QA filename : DKA100:[ENV_ALPHA.QA.W]W011.QAF;4
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 8-JUN-2009 10:41:28 through 5-DEC-2009 12:00:00
Lower/Upper Lmts: 90.7092 through 100.258

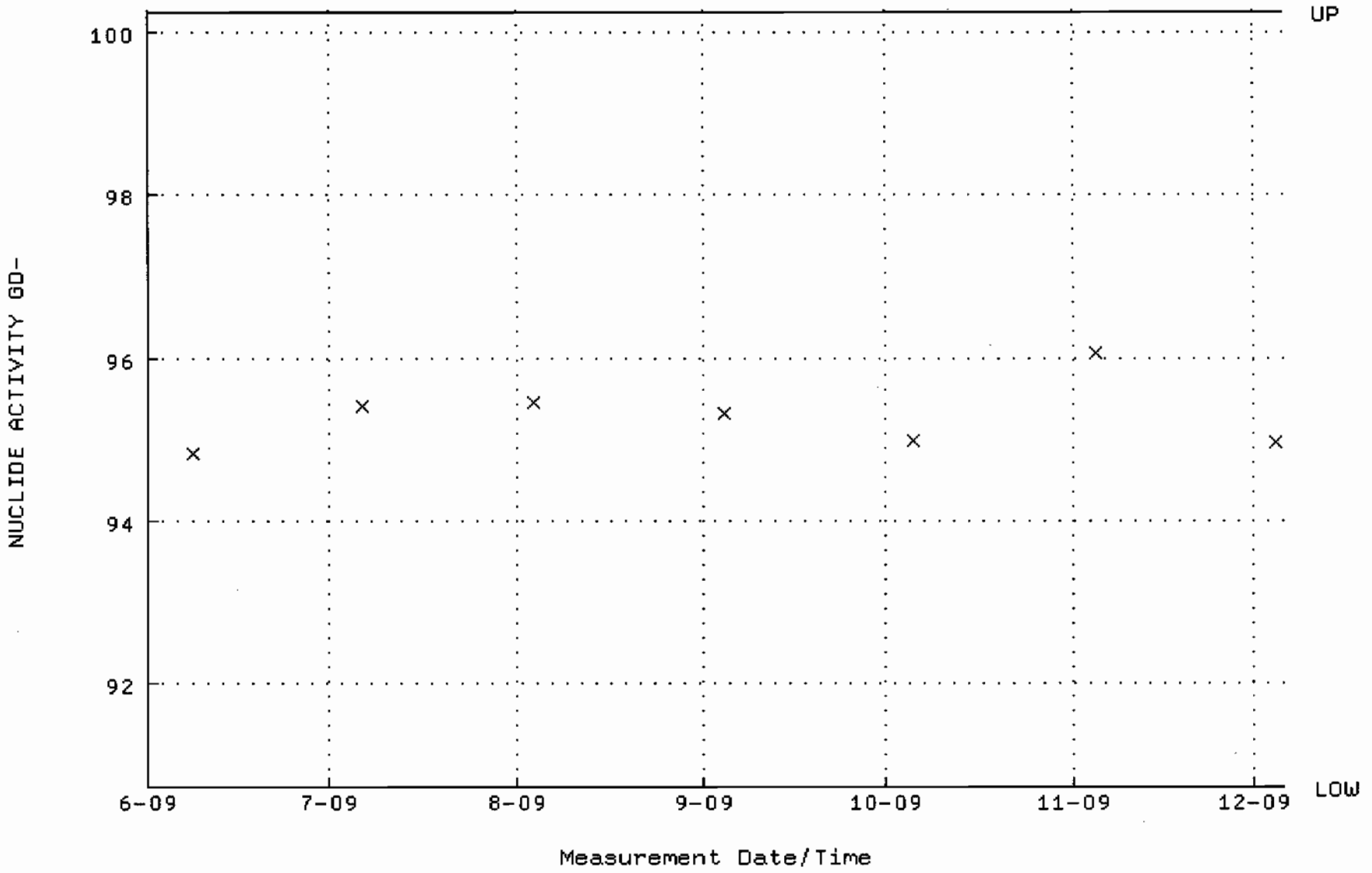

QA filename : DKA100:[ENV_ALPHA.QA.B]B011.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 7-JUN-2009 16:45:20 through 5-DEC-2009 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

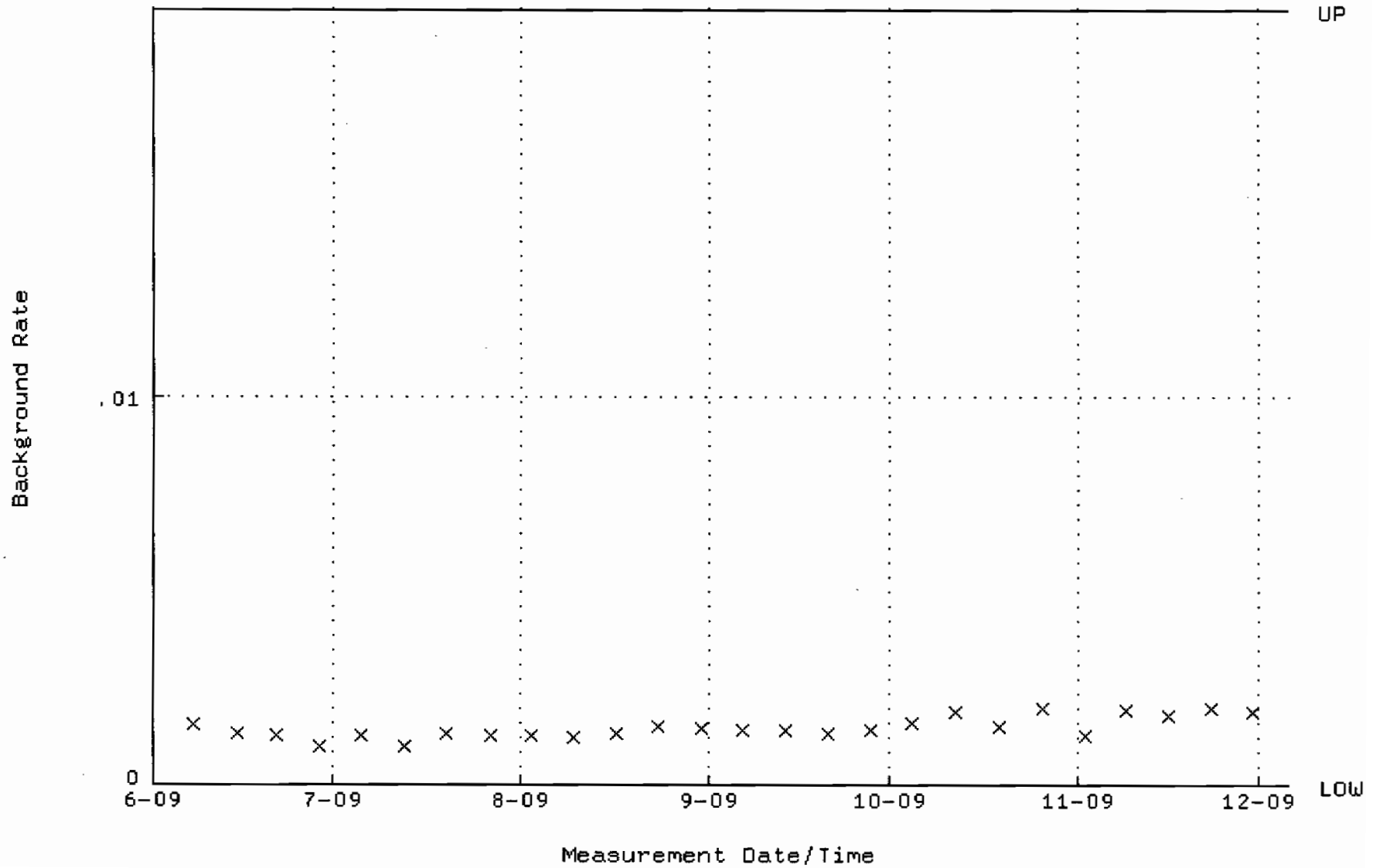

QA filename : DKA100:[ENV_ALPHA.QA.W]W025.QAF;4
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 8-JUN-2009 10:41:35 through 5-DEC-2009 12:00:00
Lower/Upper Lmts: 0.250000 through 0.450000

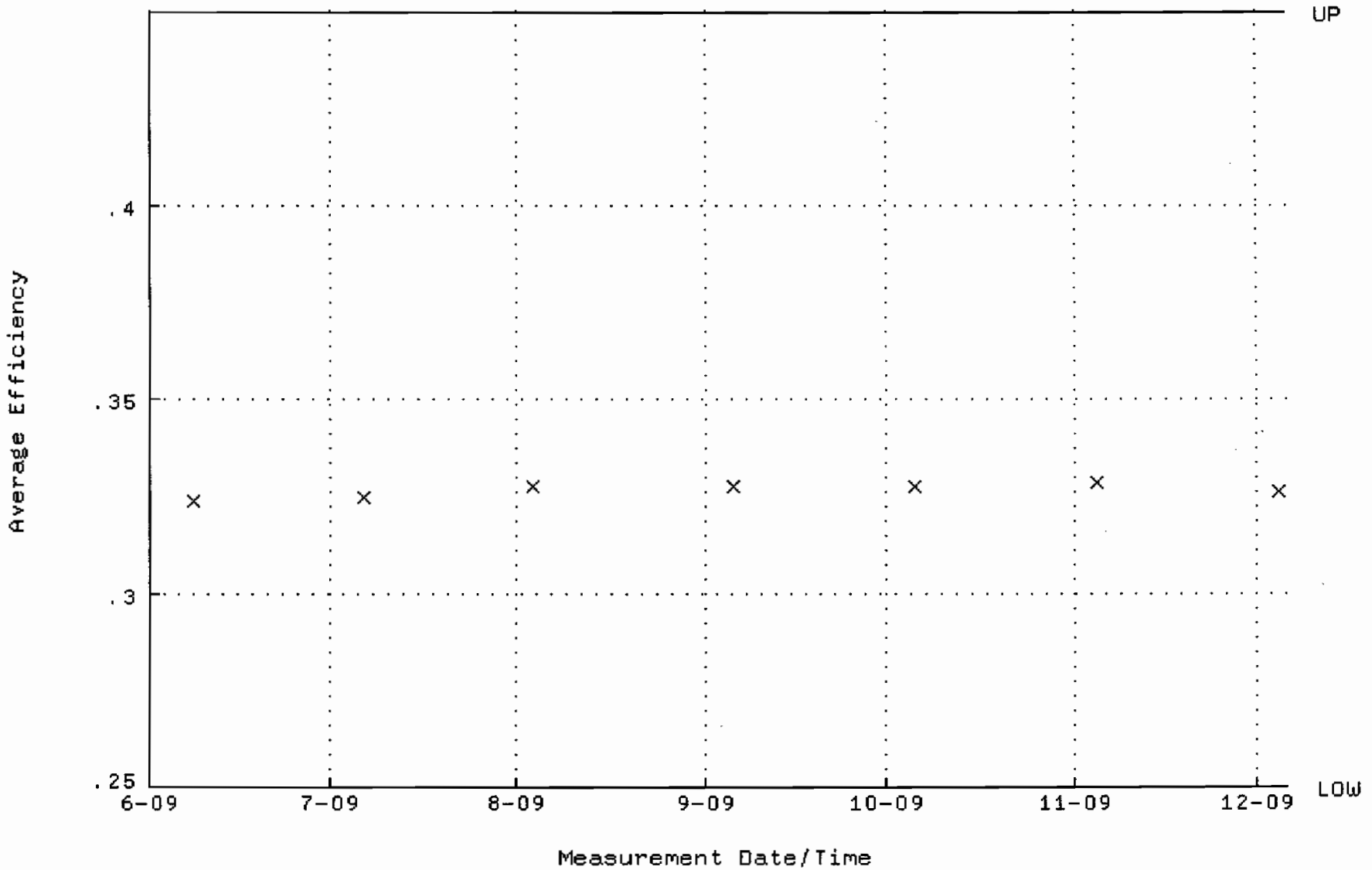

QA filename : DKA100:[ENV_ALPHA.QA.W]W025.QAF;4
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 8-JUN-2009 10:41:35 through 5-DEC-2009 12:00:00
Lower/Upper Lmts: 60.0000 through 105.000

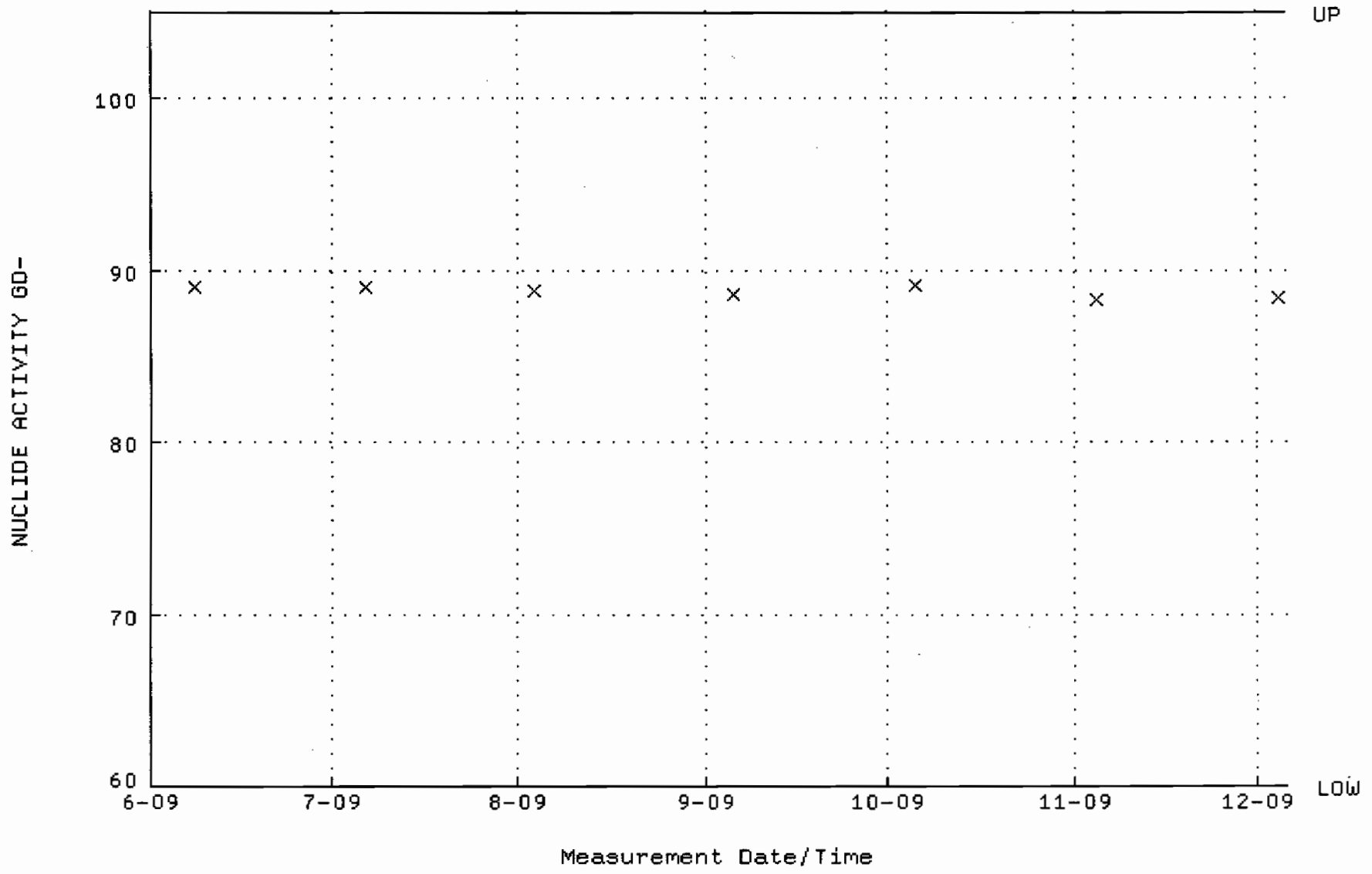

QA filename : DKA100:[ENV_ALPHA.QA.B]B025.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 7-JUN-2009 16:45:26 through 5-DEC-2009 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

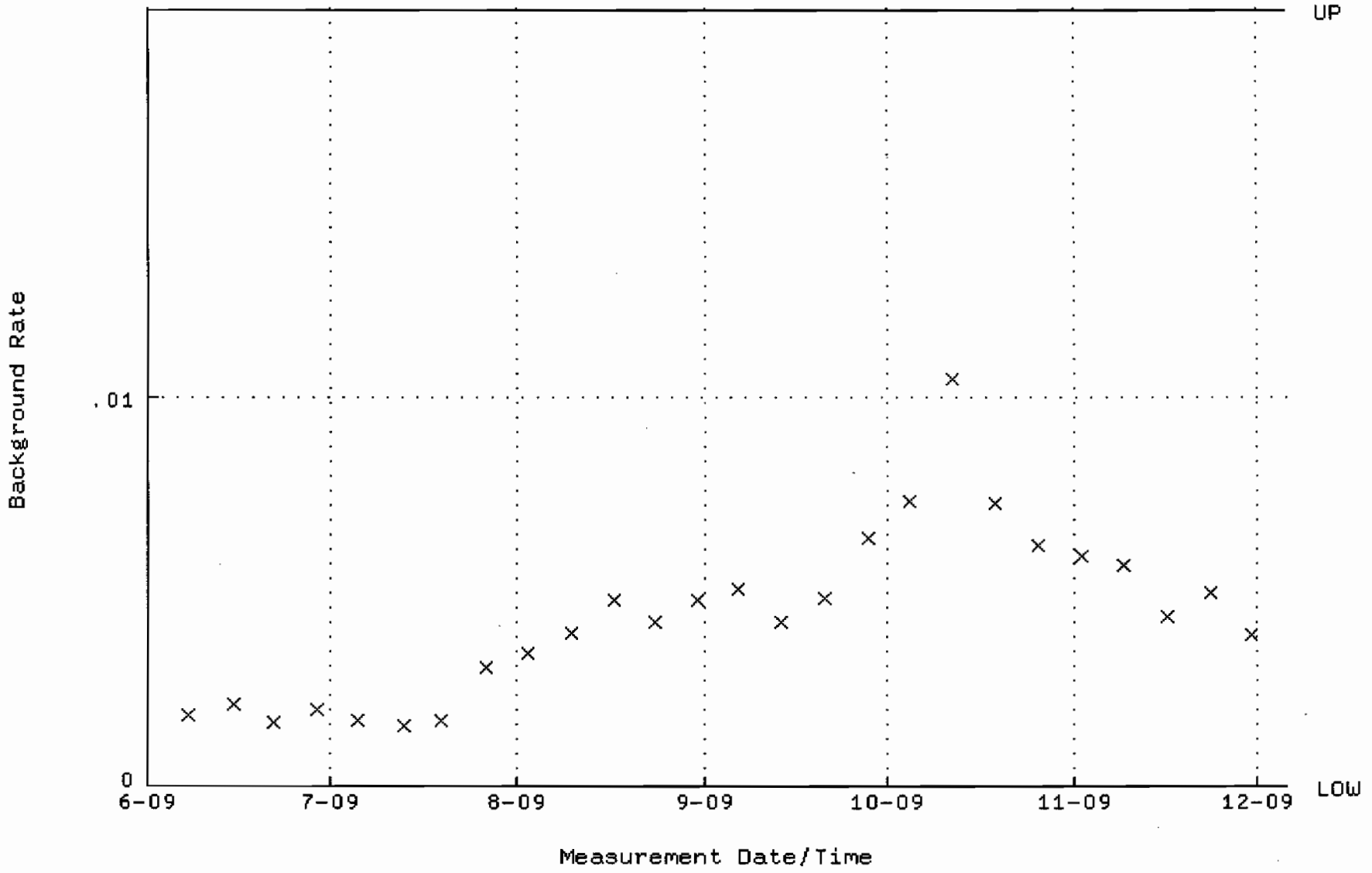

QA filename : DKA100:[ENV_ALPHA.QA.W]W029.QAF;6
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 8-JUN-2009 10:41:35 through 5-DEC-2009 12:00:00
Lower/Upper Lmts: 0.250000 through 0.450000

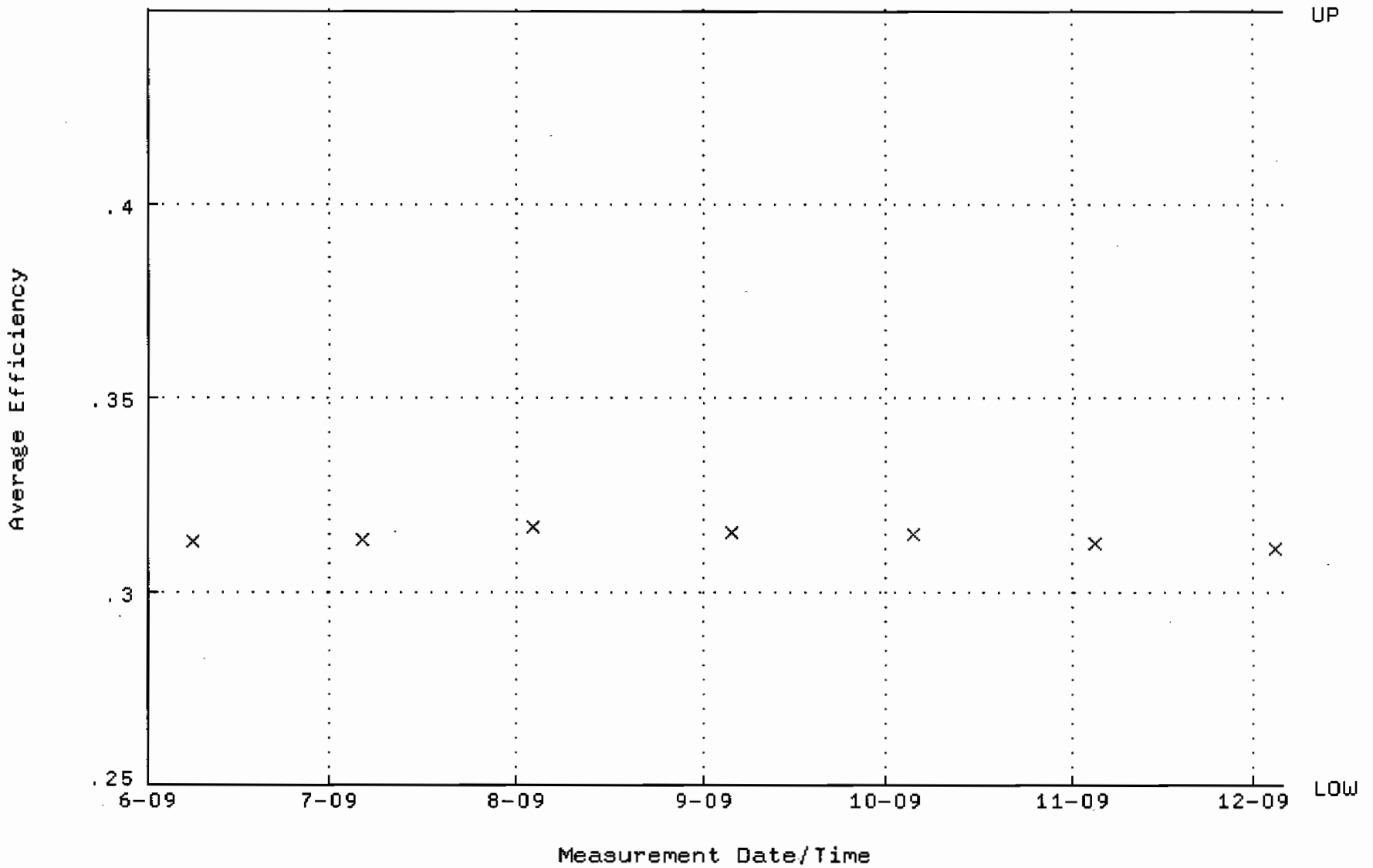

QA filename : DKA100:[ENV_ALPHA.QA.W]W029.QAF;6
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 8-JUN-2009 10:41:35 through 5-DEC-2009 12:00:00
Lower/Upper Lmts: 60.0000 through 105.000

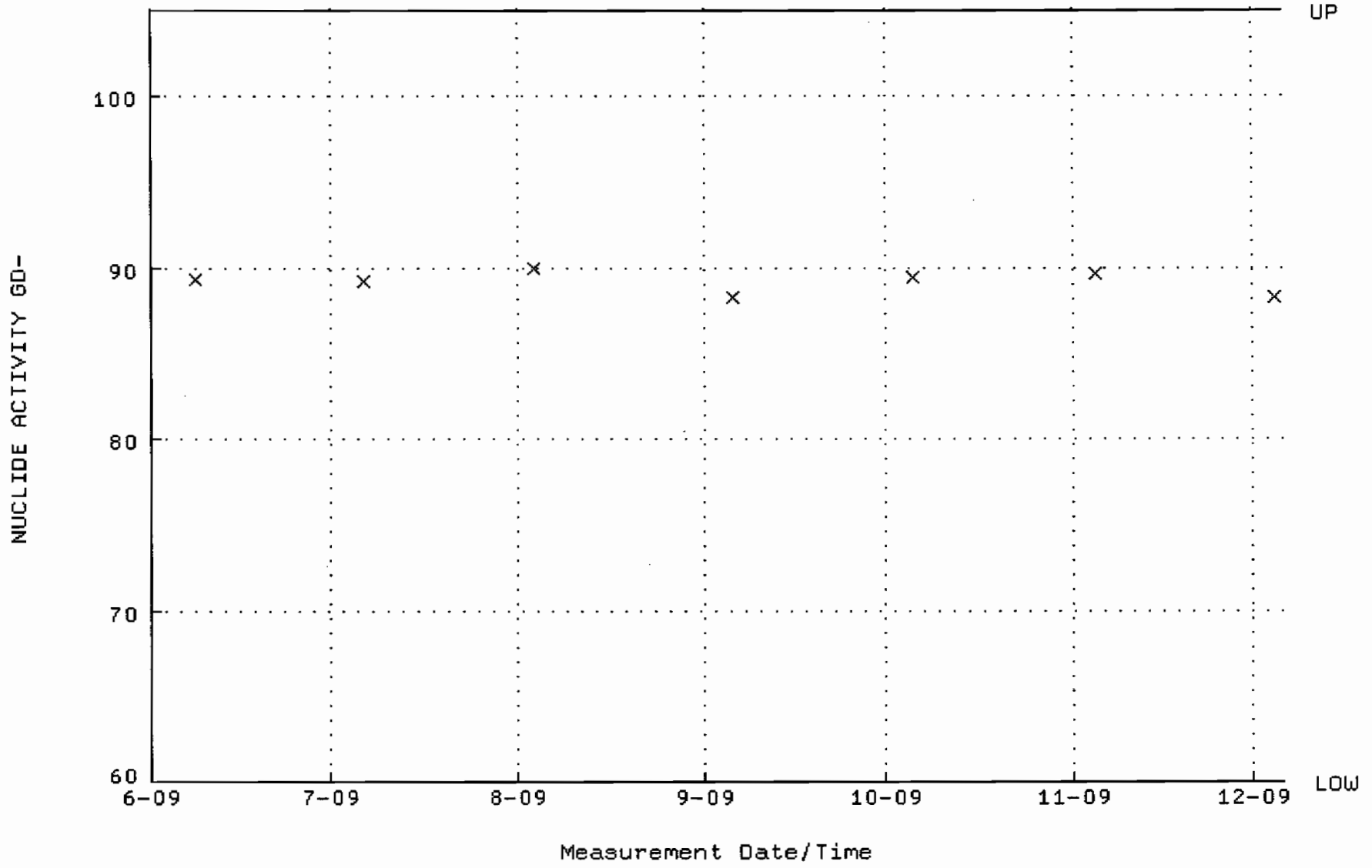

QA filename : DKA100:[ENV_ALPHA.QA.B]B029.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 7-JUN-2009 16:45:26 through 5-DEC-2009 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

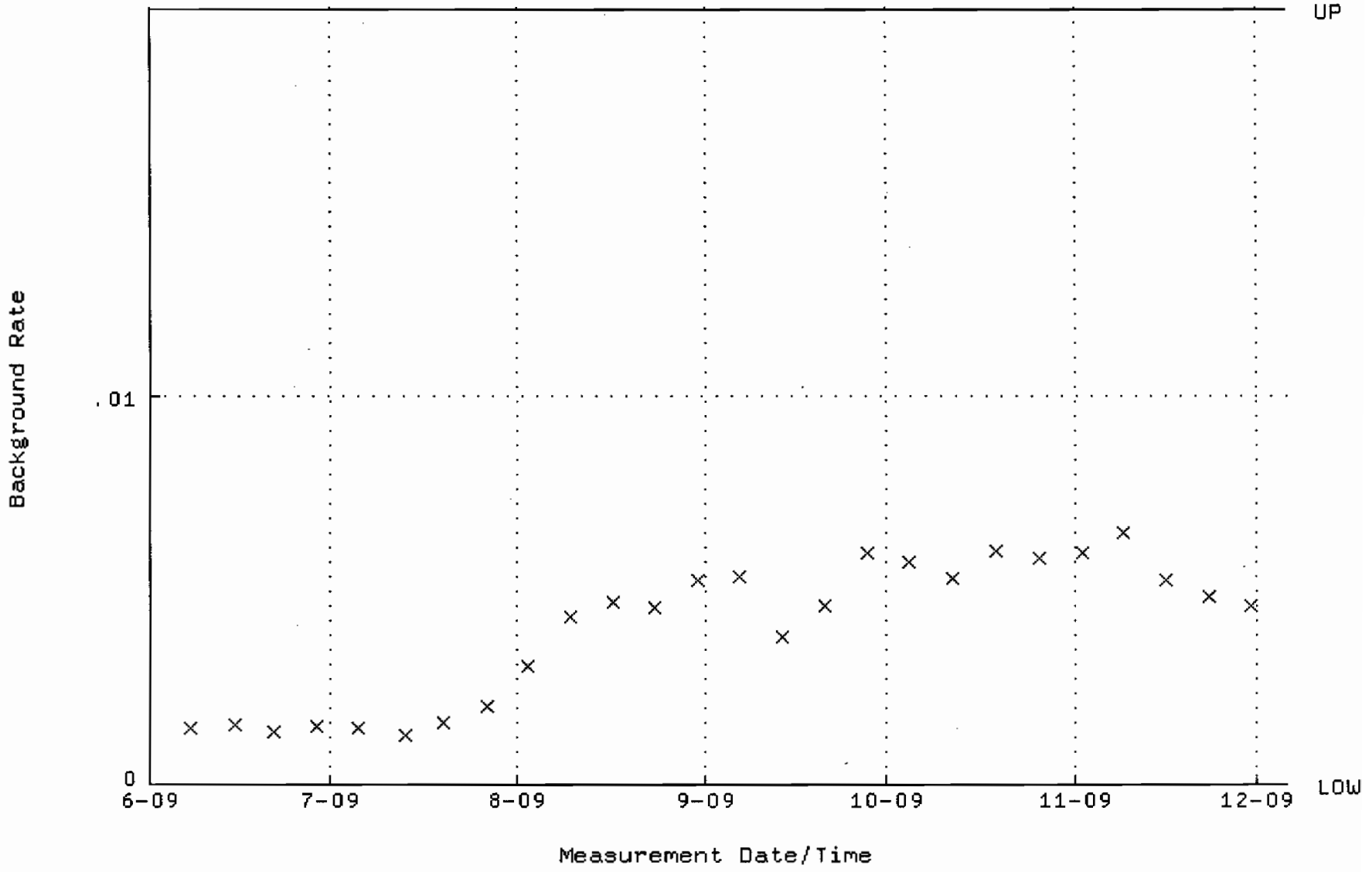

QA filename : DKA100:[ENV_ALPHA.QA.W]W040.QAF;3
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 8-JUN-2009 10:41:39 through 5-DEC-2009 12:00:00
Lower/Upper Lmts: 0.313016 through 0.333016

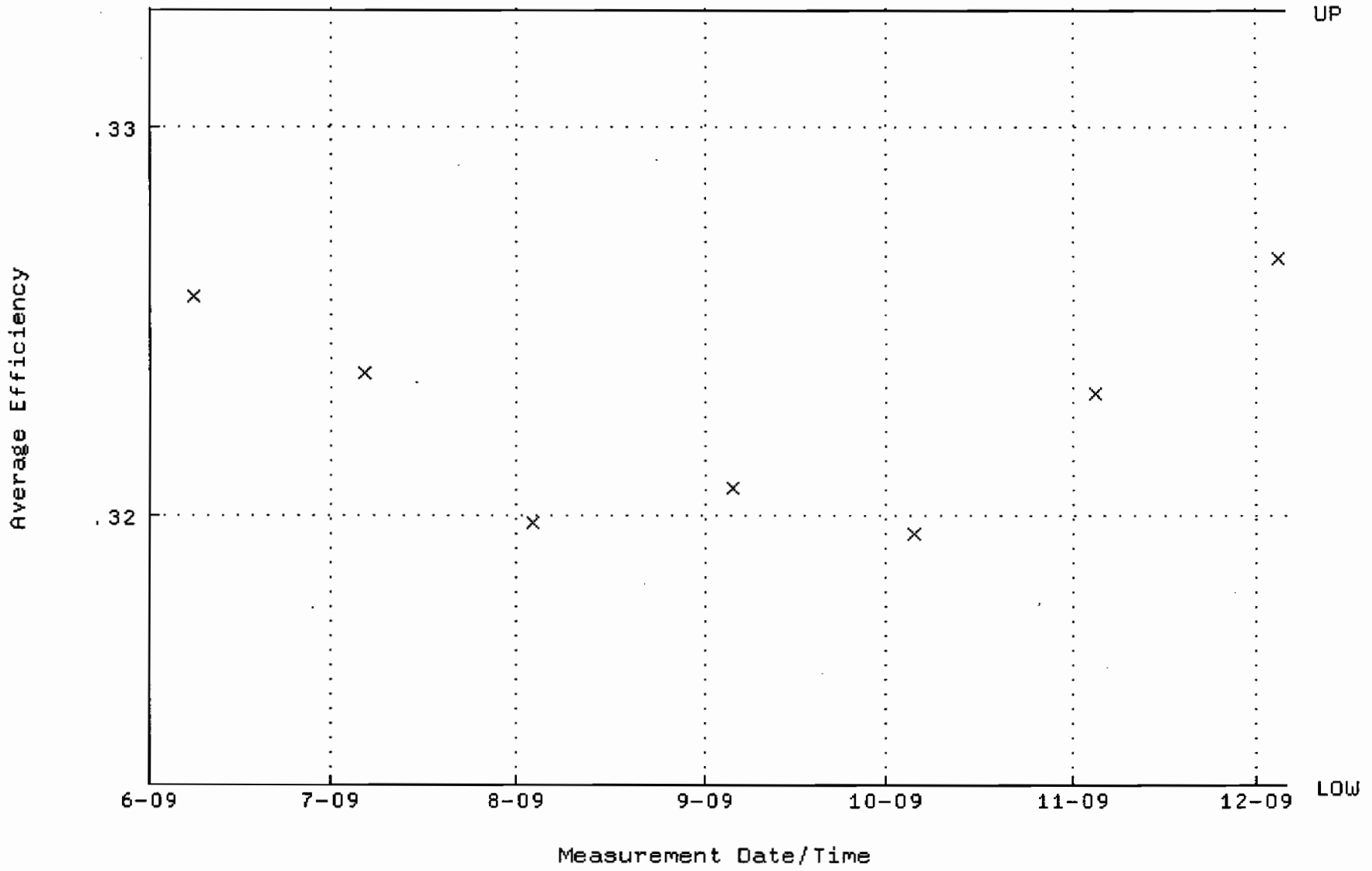

QA filename : DKA100:[ENV_ALPHA.QA.W]W040.QAF;3
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 8-JUN-2009 10:41:39 through 5-DEC-2009 12:00:00
Lower/Upper Lmts: 82.8065 through 91.5229

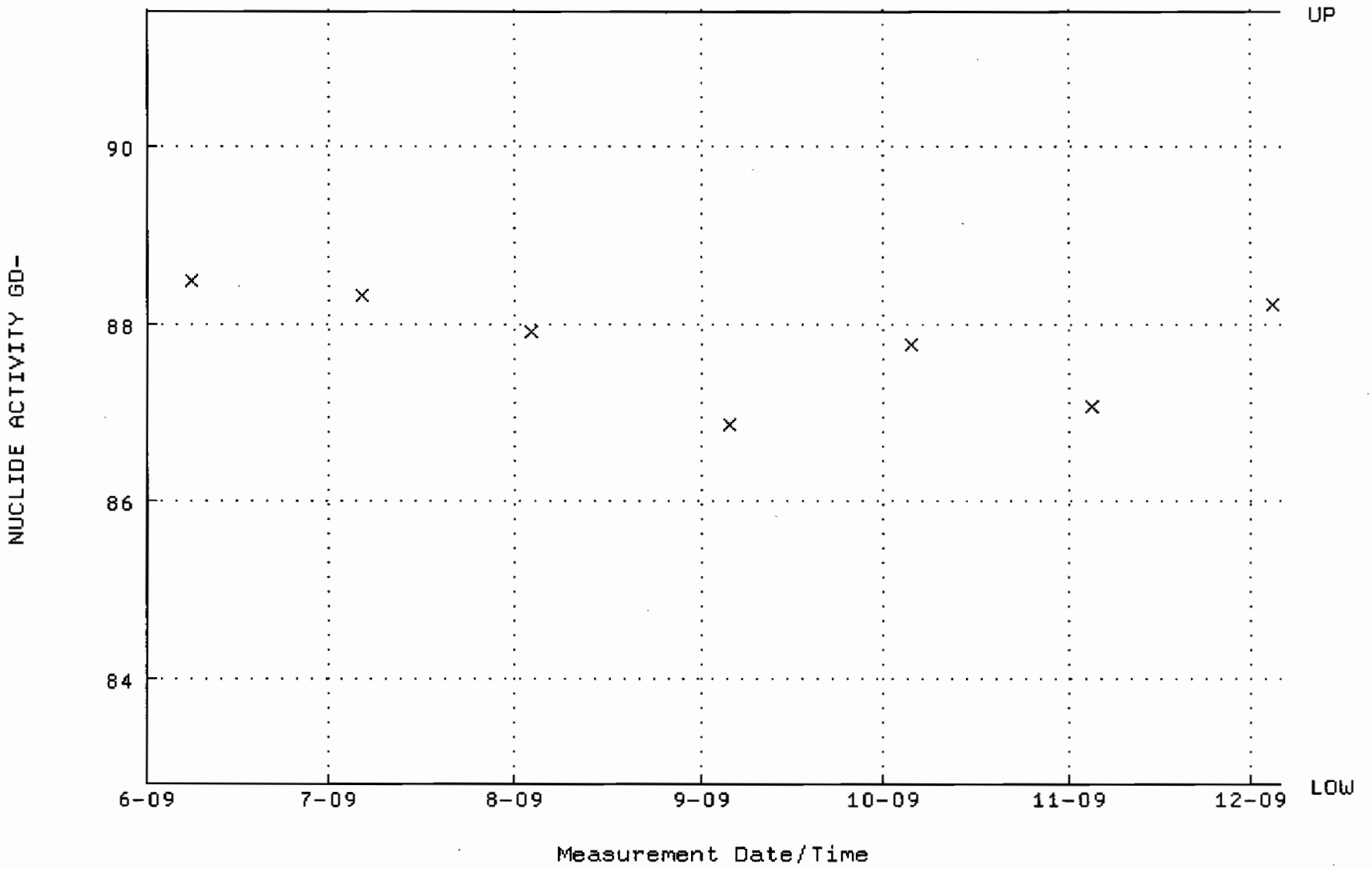

QA filename : DKA100:[ENV_ALPHA.QA.B]B040.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 7-JUN-2009 16:45:30 through 5-DEC-2009 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

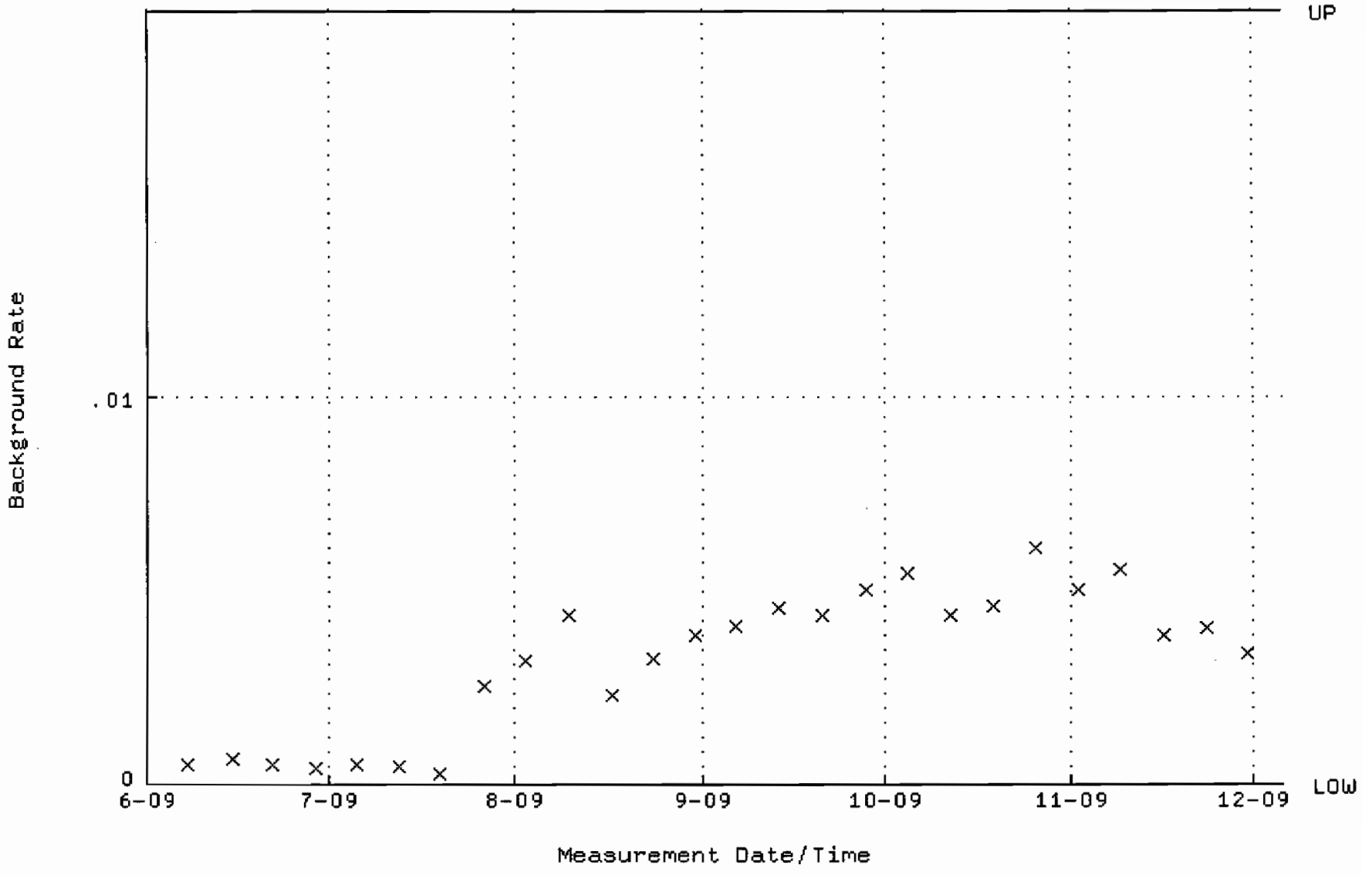

QA filename : DKA100:[ENV_ALPHA.QA.W]W041.QAF;5
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 8-JUN-2009 10:41:39 through 5-DEC-2009 12:00:00
Lower/Upper Lmts: 0.320943 through 0.340943

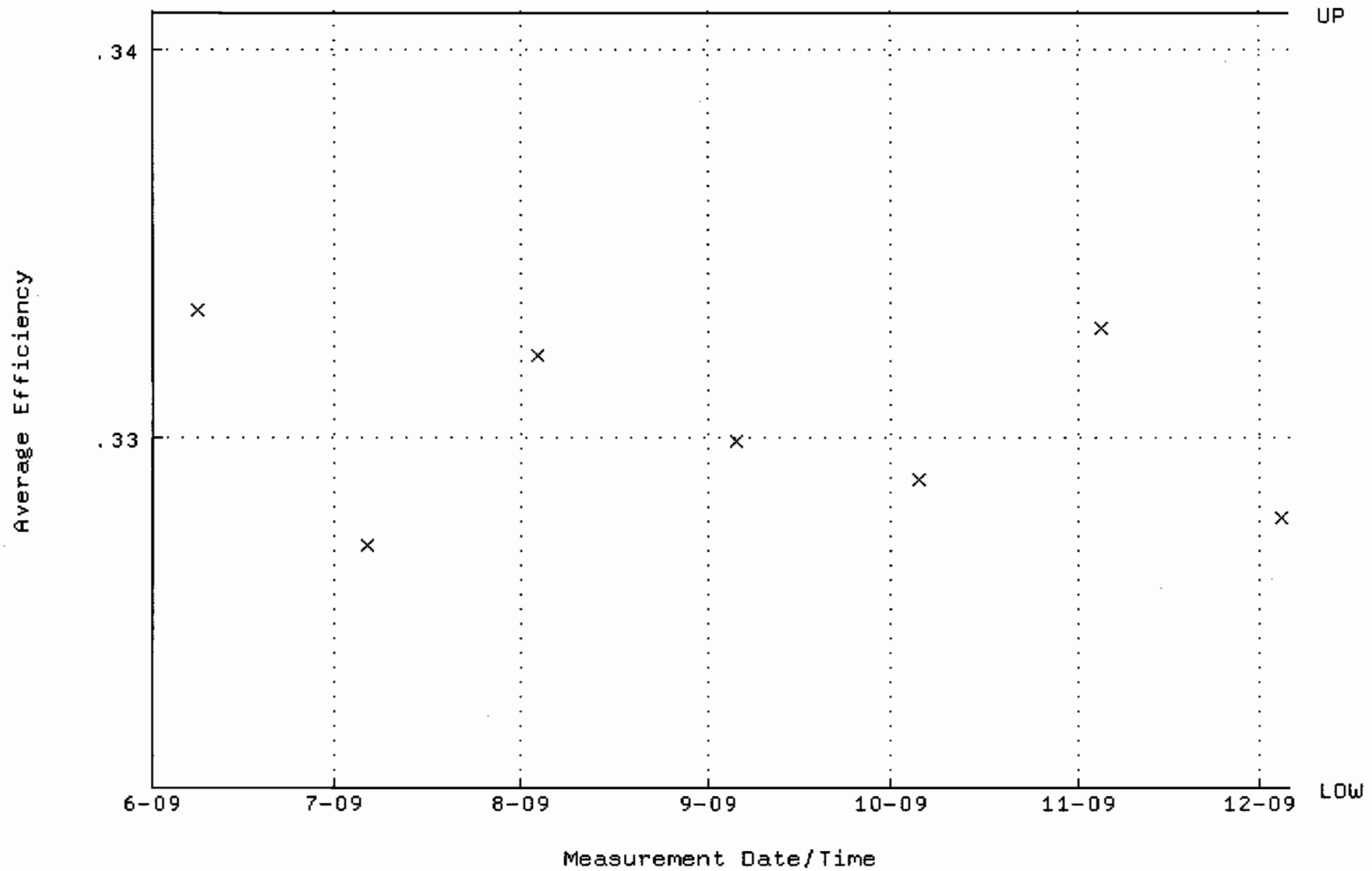

QA filename : DKA100:[ENV_ALPHA.QA.W]W041.QAF;5
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 8-JUN-2009 10:41:39 through 5-DEC-2009 12:00:00
Lower/Upper Lmts: 86.6435 through 95.7639

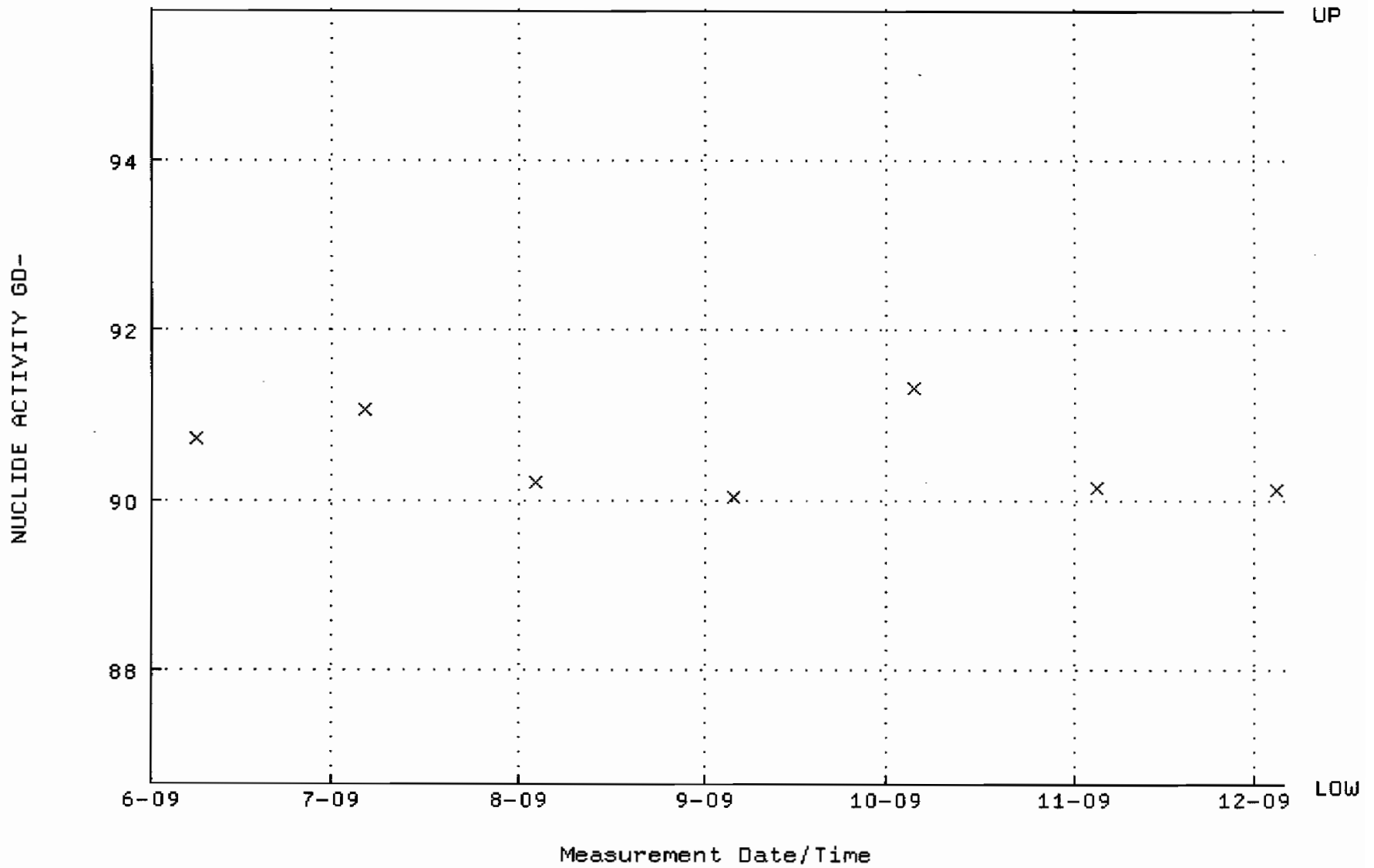

QA filename : DKA100:[ENV_ALPHA.QA.B]B041.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 7-JUN-2009 16:45:30 through 5-DEC-2009 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

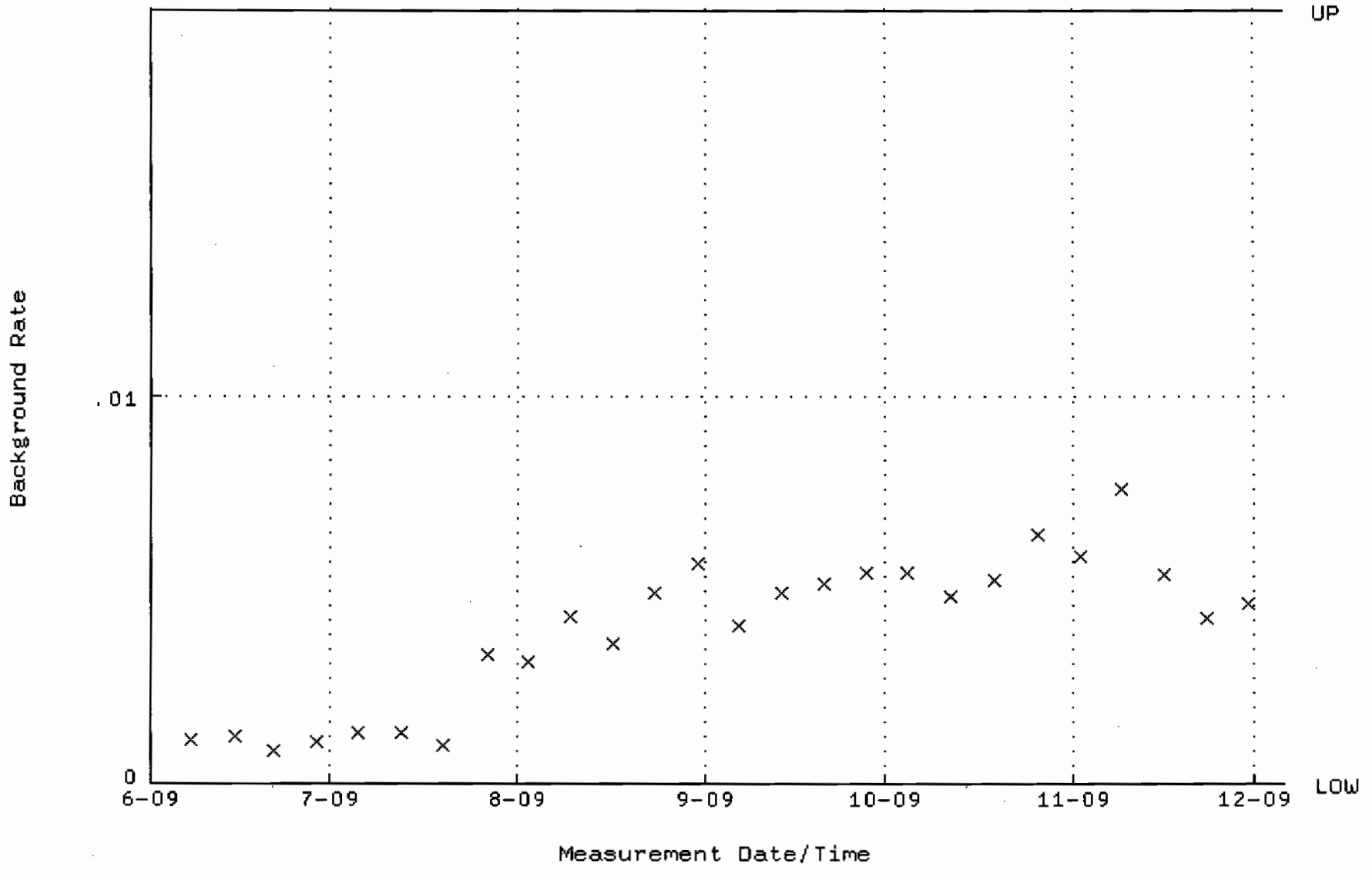

QA filename : DKA100:[ENV_ALPHA.QA.W]W042.QAF;3
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 8-JUN-2009 10:41:39 through 5-DEC-2009 12:00:00
Lower/Upper Lmts: 0.322243 through 0.342243

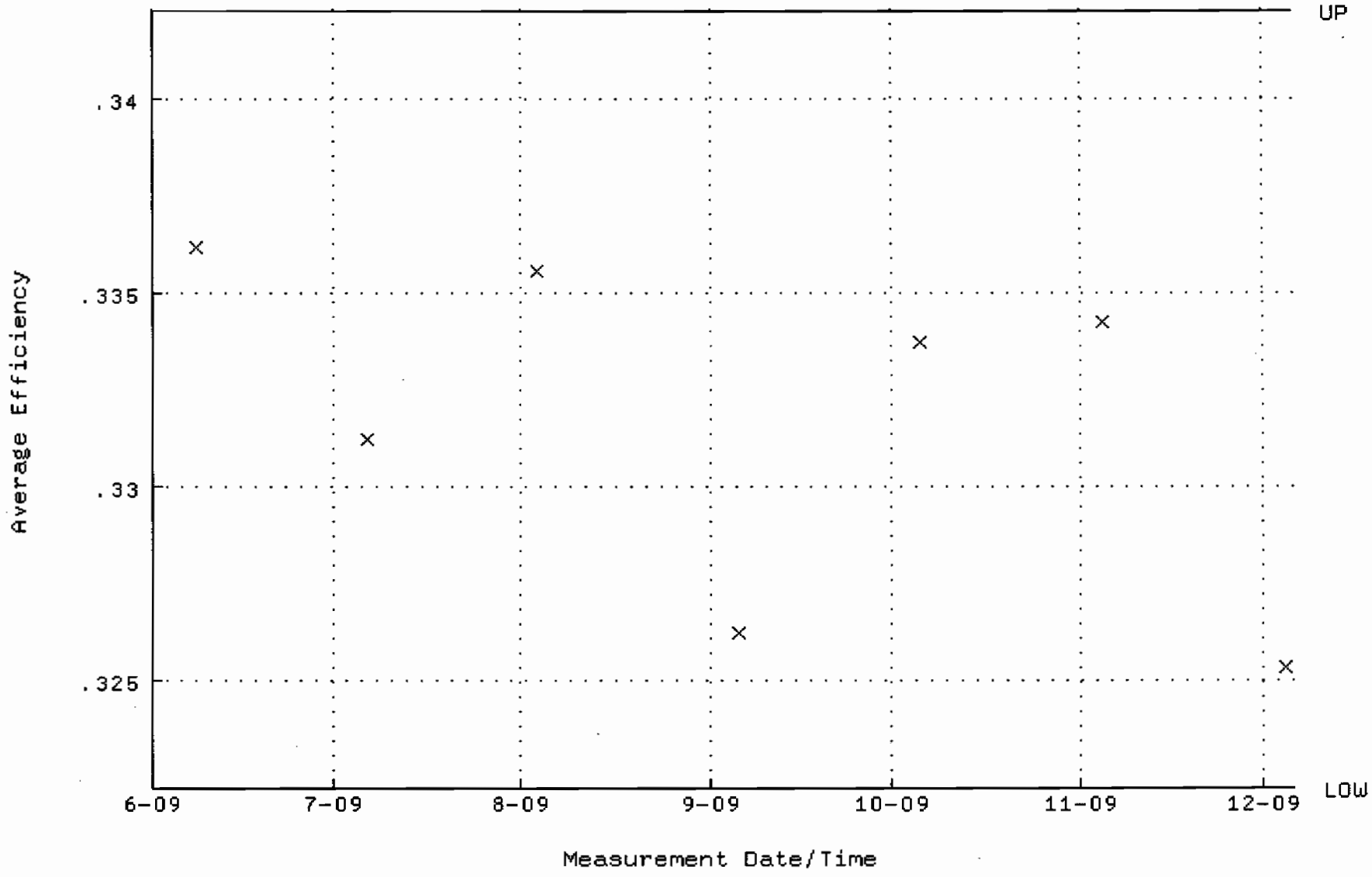

QA filename : DKA100:[ENV_ALPHA.QA.W]W042.QAF;3
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 8-JUN-2009 10:41:39 through 5-DEC-2009 12:00:00
Lower/Upper Lmts: 80.6389 through 89.1273

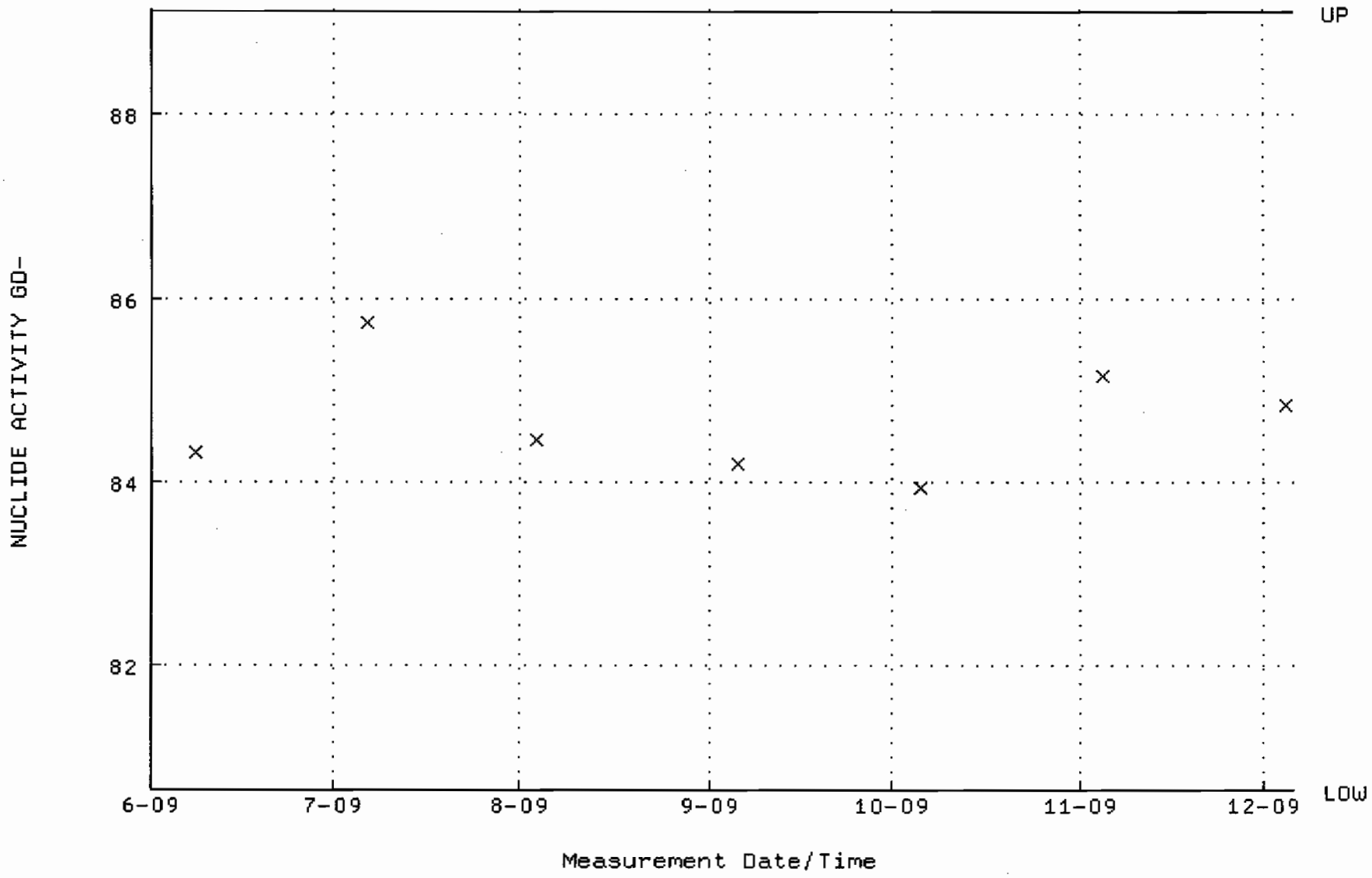

QA filename : DKA100:[ENV_ALPHA.QA.B]B042.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 7-JUN-2009 16:45:30 through 5-DEC-2009 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

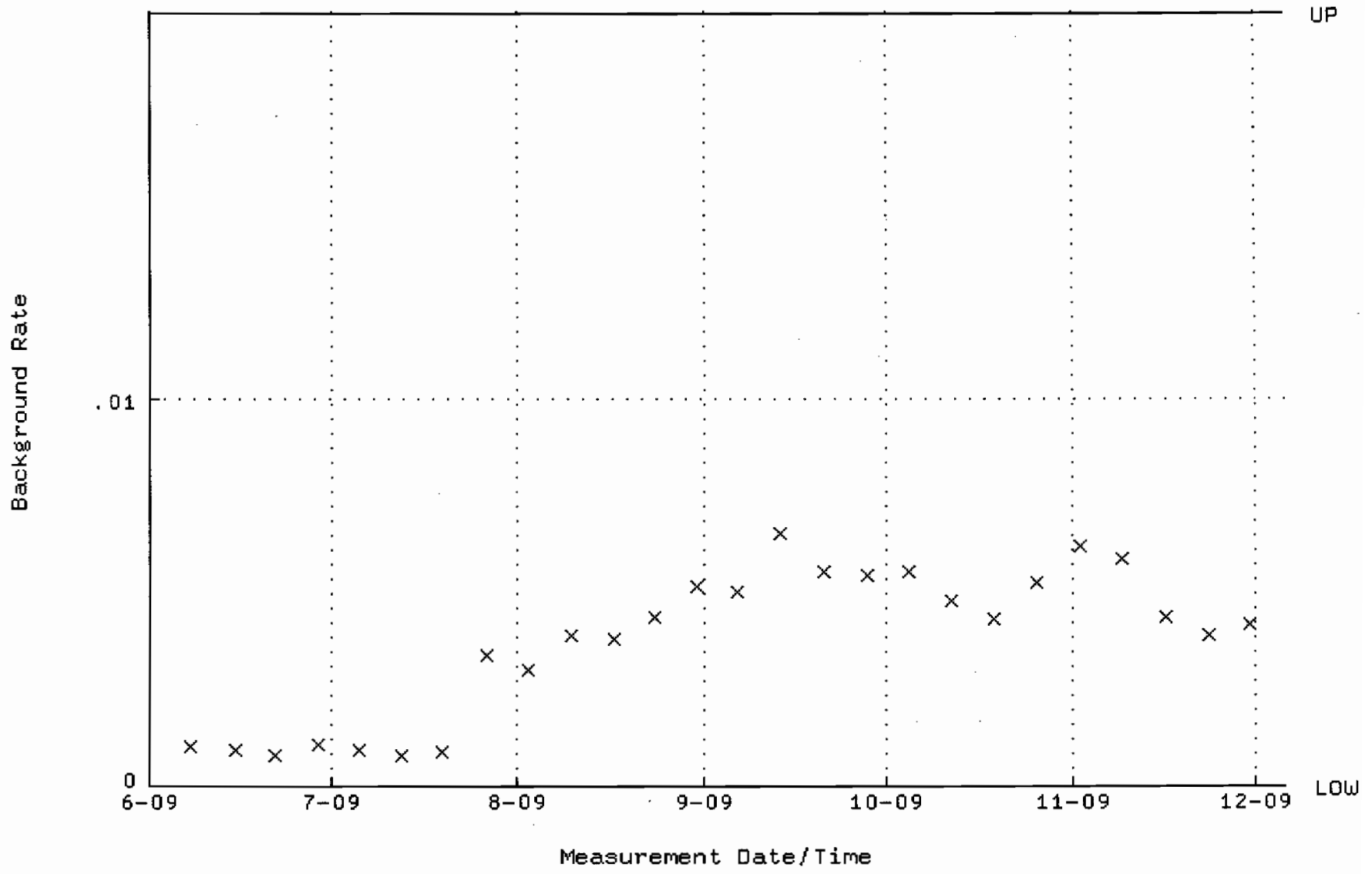

QA filename : DKA100:[ENV_ALPHA.QA.W]W068.QAF;2
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 12-JUN-2009 07:18:25 through 11-DEC-2009 12:00:00
Lower/Upper Lmts: 0.289178 through 0.309178

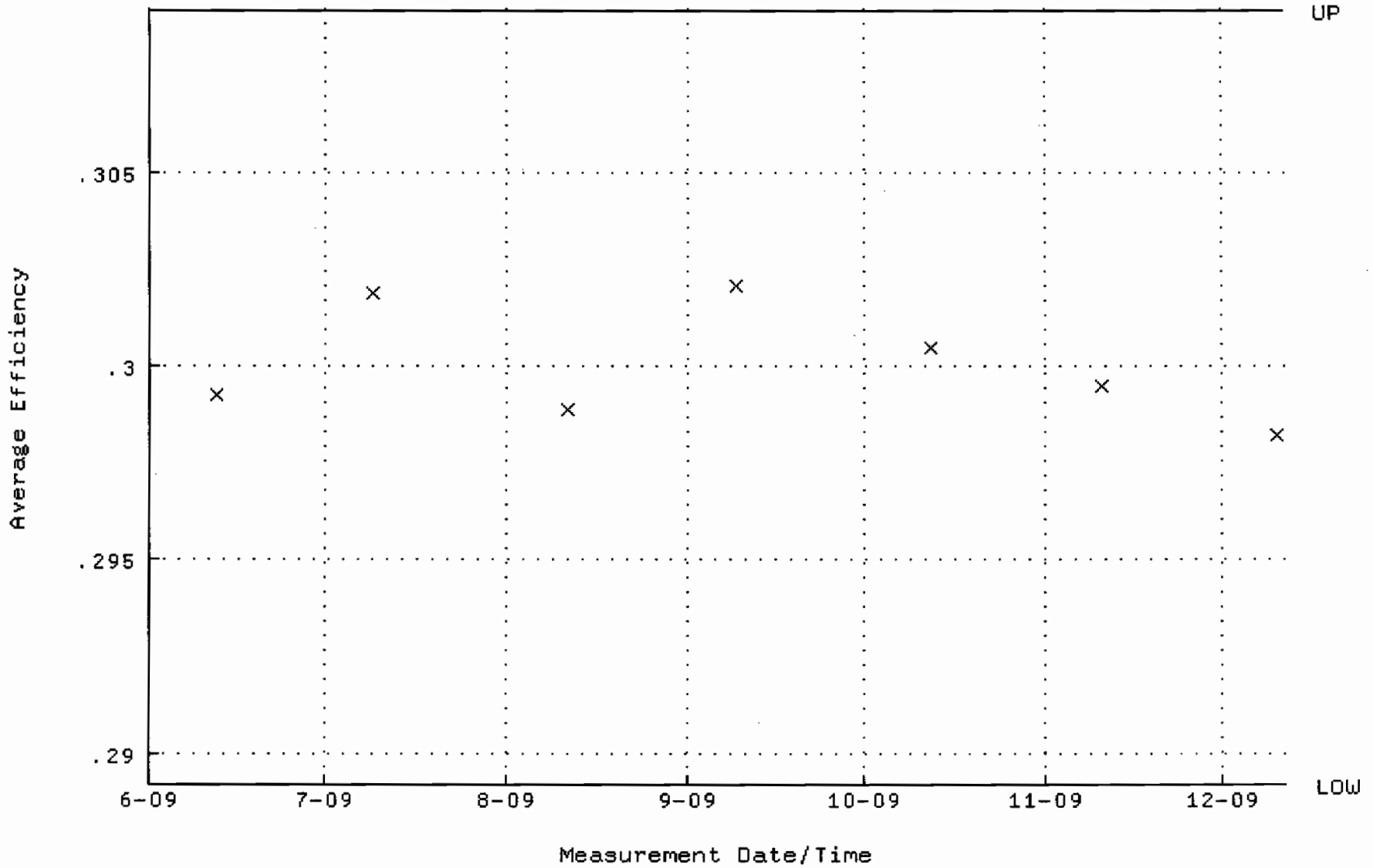

QA filename : DKA100:[ENV_ALPHA.QA.W]W068.QAF;2
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 12-JUN-2009 07:18:25 through 11-DEC-2009 12:00:00
Lower/Upper Lmts: 87.4419 through 96.6463

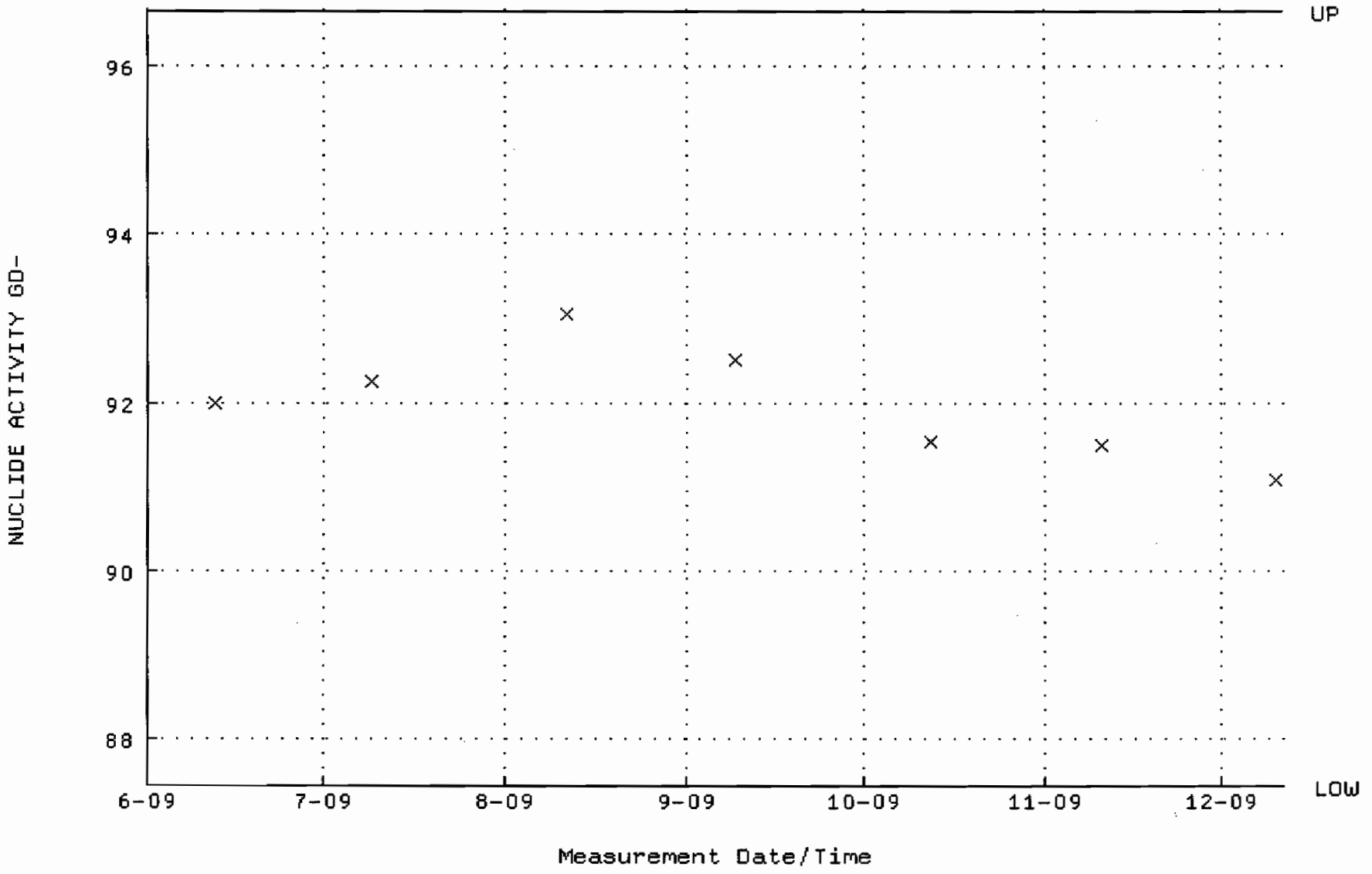

QA filename : DKA100:[ENV_ALPHA.QA.B]B068.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 7-JUN-2009 16:45:33 through 11-DEC-2009 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

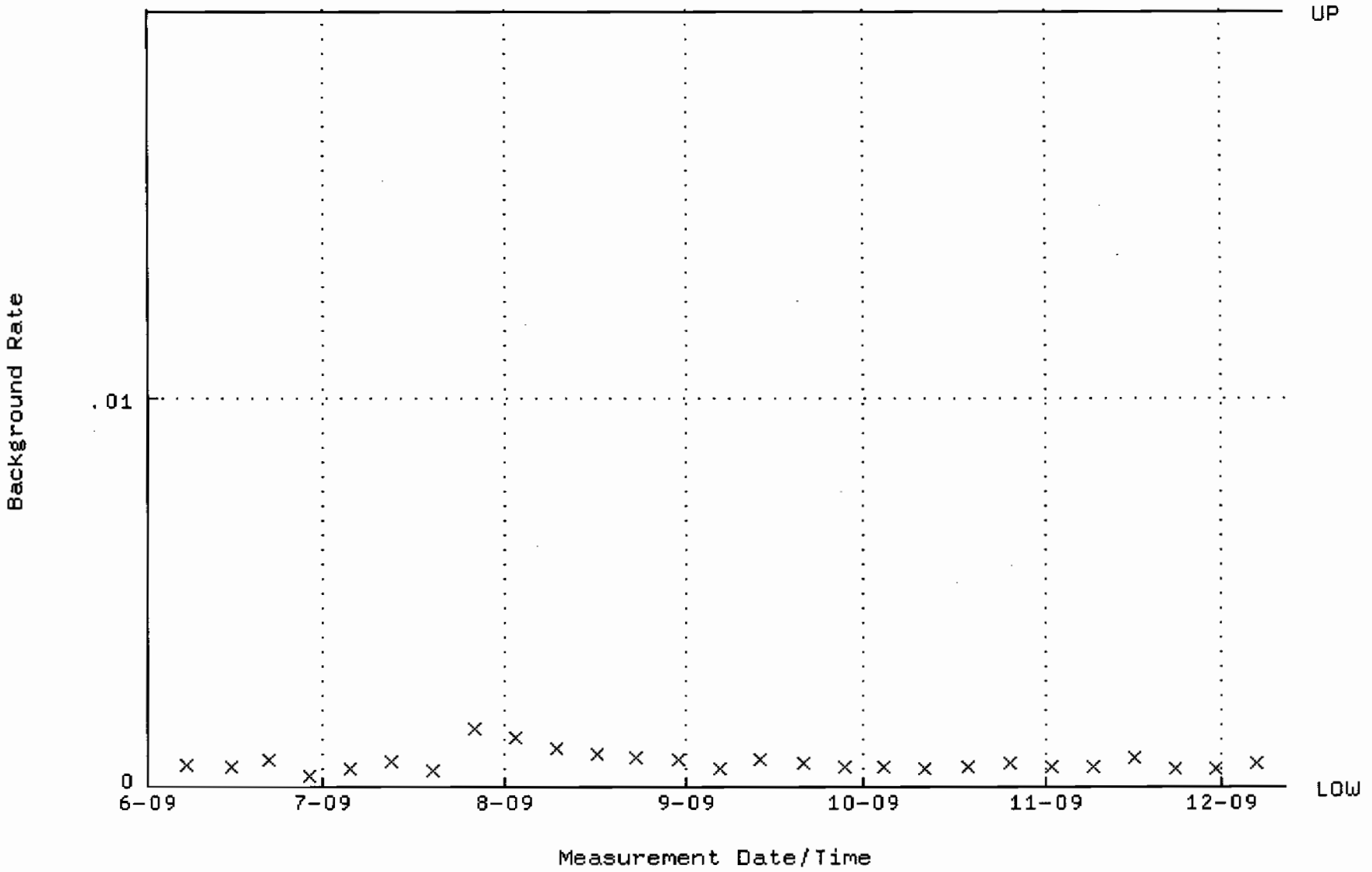

QA filename : DKA100:[ENV_ALPHA.QA.W]W069.QAF;3
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 12-JUN-2009 07:18:25 through 11-DEC-2009 12:00:00
Lower/Upper Lmts: 0.306636 through 0.326636

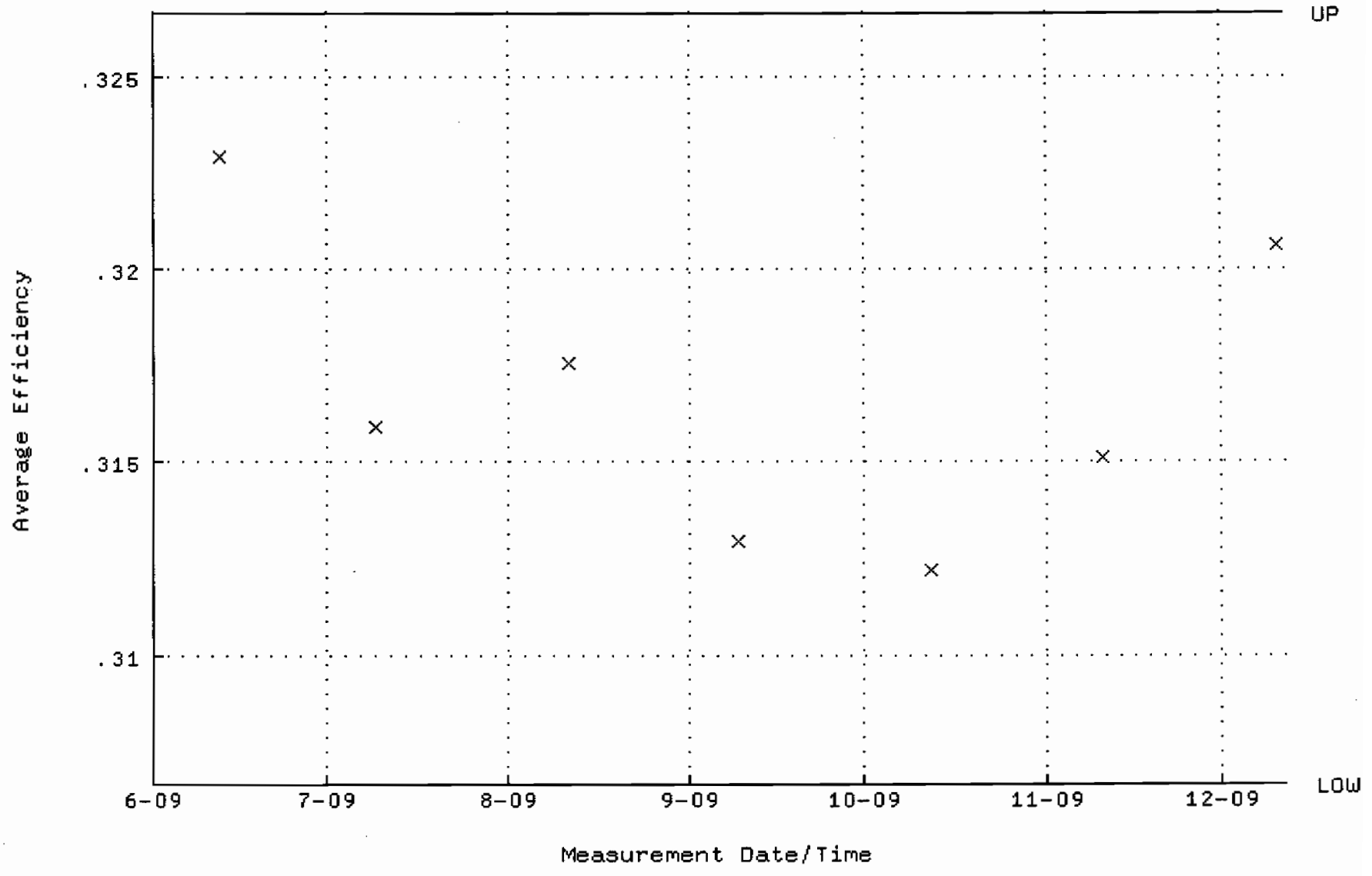

QA filename : DKA100:[ENV_ALPHA.QA.W]W069.QAF;3
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 12-JUN-2009 07:18:25 through 11-DEC-2009 12:00:00
Lower/Upper Lmts: 89.6479 through 99.0845

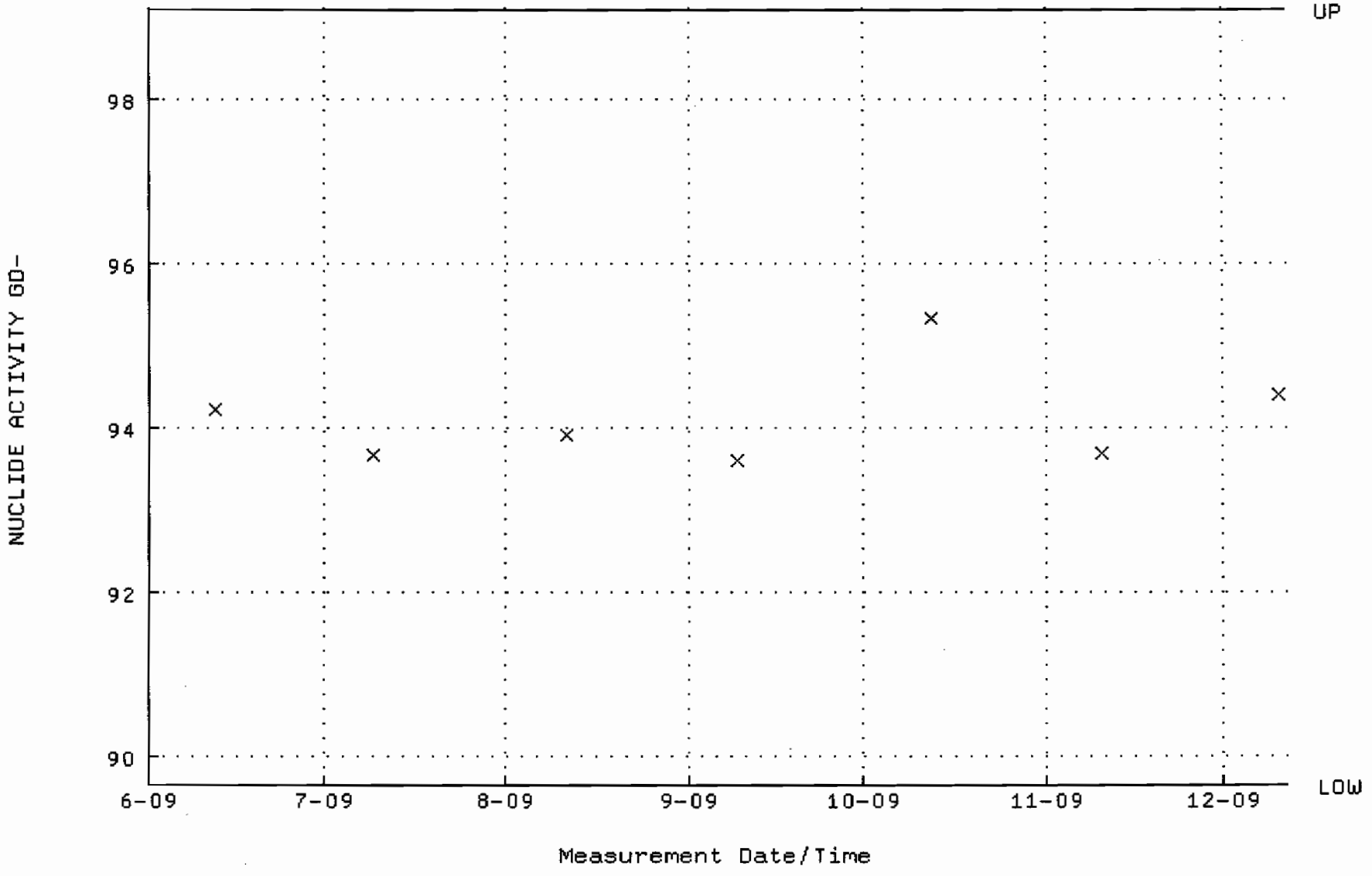

QA filename : DKA100:[ENV_ALPHA.QA.B]B069.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 7-JUN-2009 16:45:33 through 11-DEC-2009 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

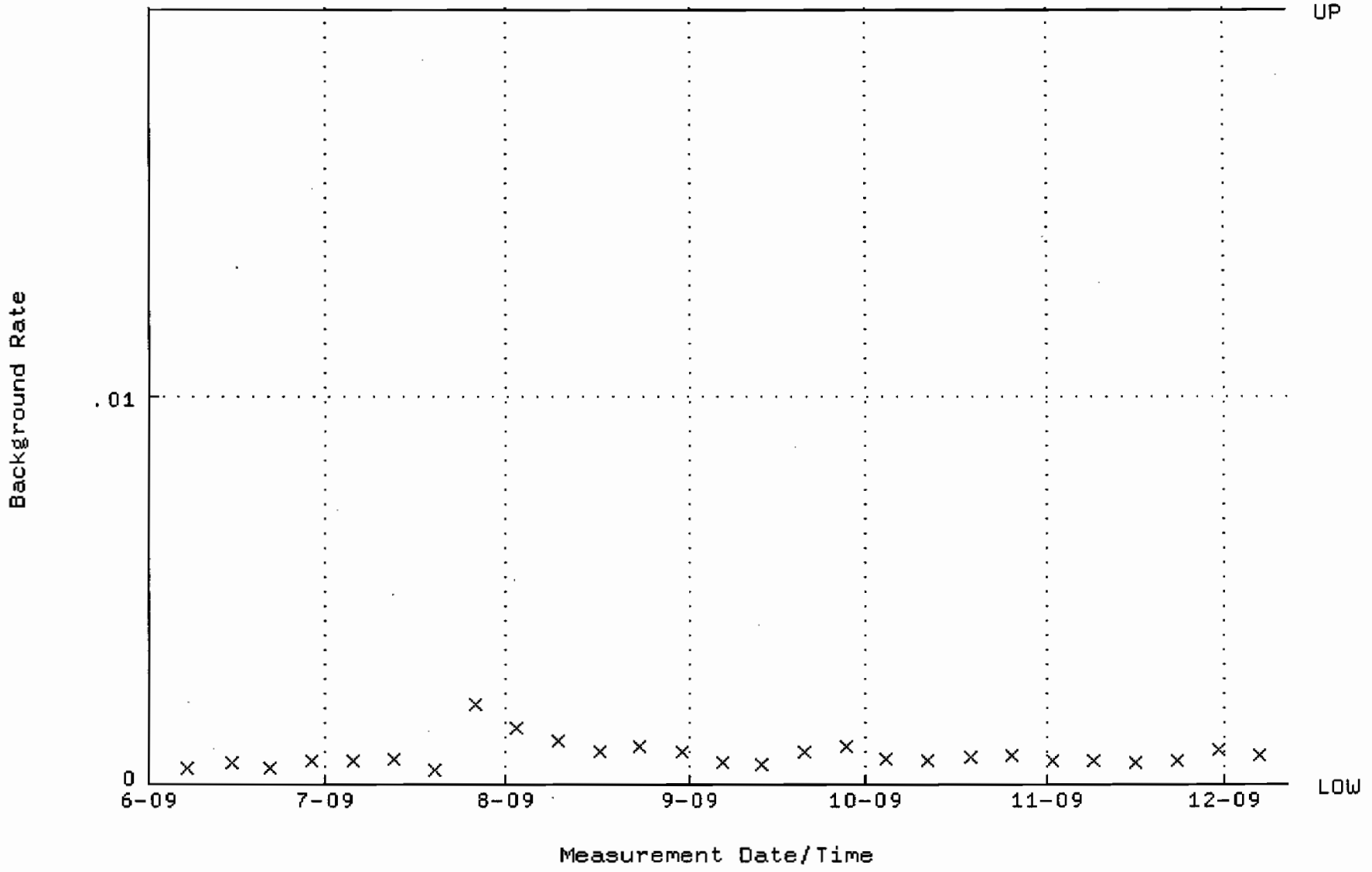

QA filename : DKA100:[ENV_ALPHA.QA.W]W070.QAF;3
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 12-JUN-2009 07:18:25 through 11-DEC-2009 12:00:00
Lower/Upper Lmts: 0.342785 through 0.362785

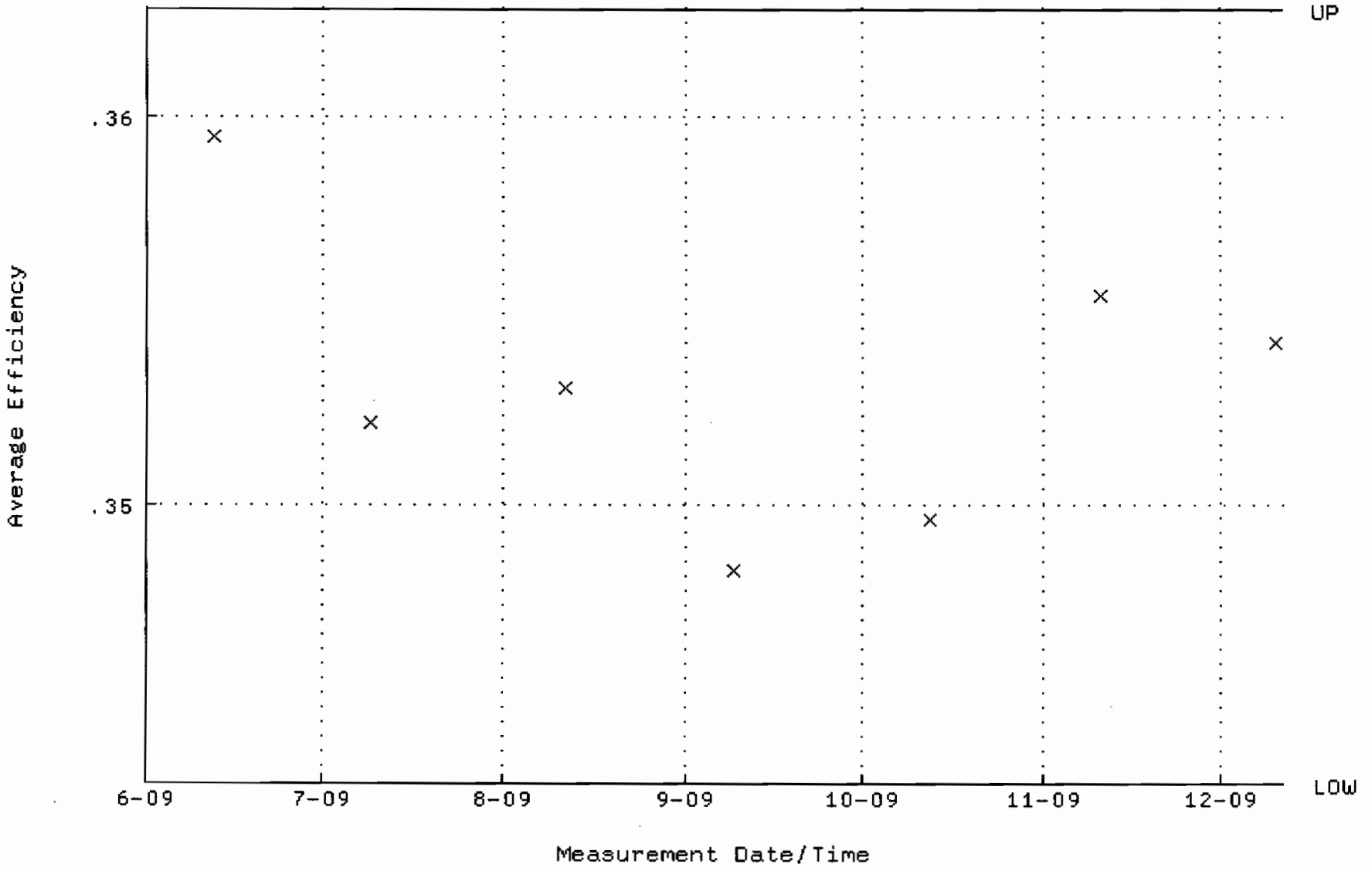

QA filename : DKA100:[ENV_ALPHA.QA.W]W070.QAF;3
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 12-JUN-2009 07:18:25 through 11-DEC-2009 12:00:00
Lower/Upper Lmts: 85.5293 through 94.5323

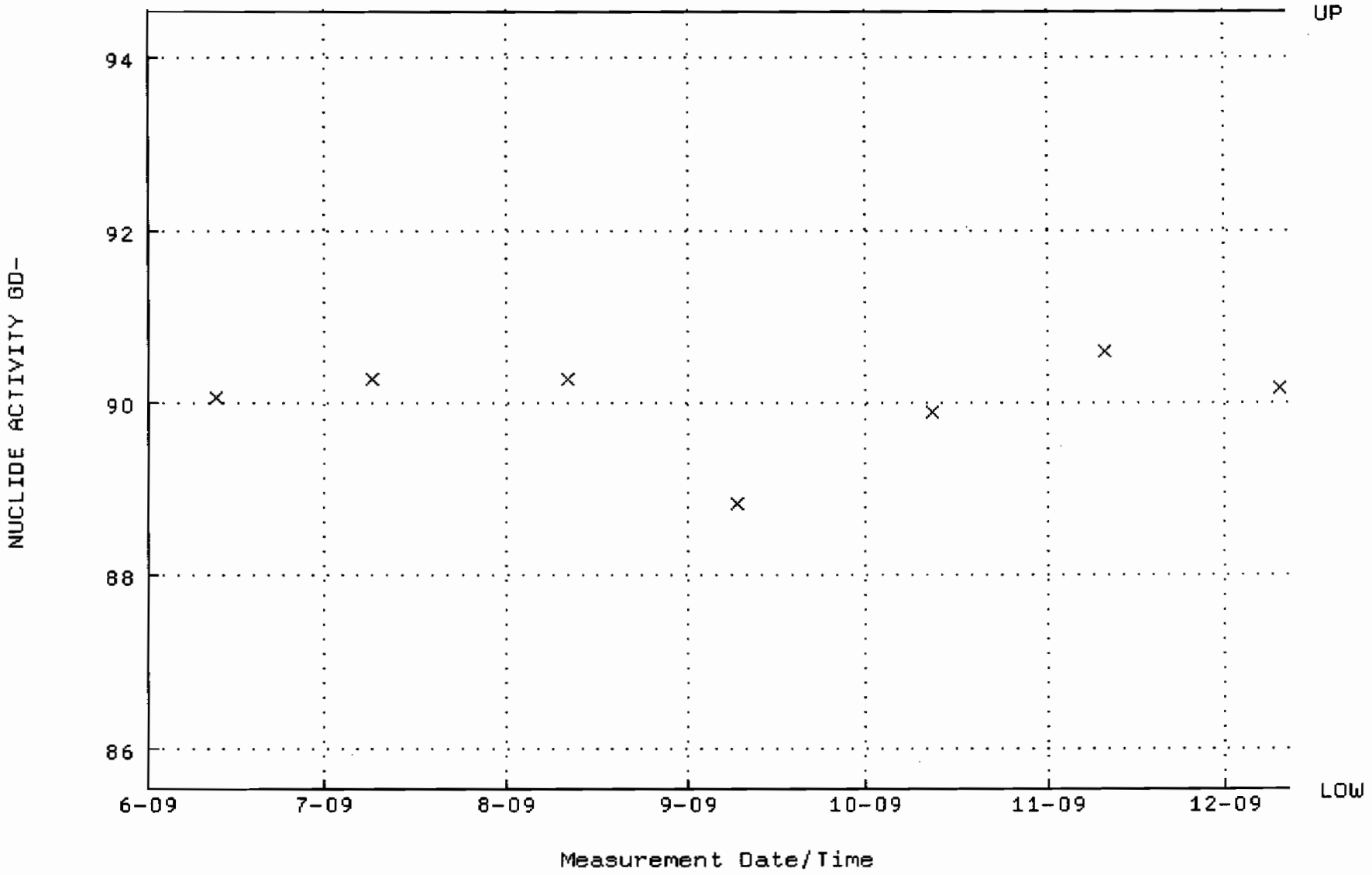

QA filename : DKA100:[ENV_ALPHA.QA.B]B070.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 7-JUN-2009 16:45:33 through 11-DEC-2009 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

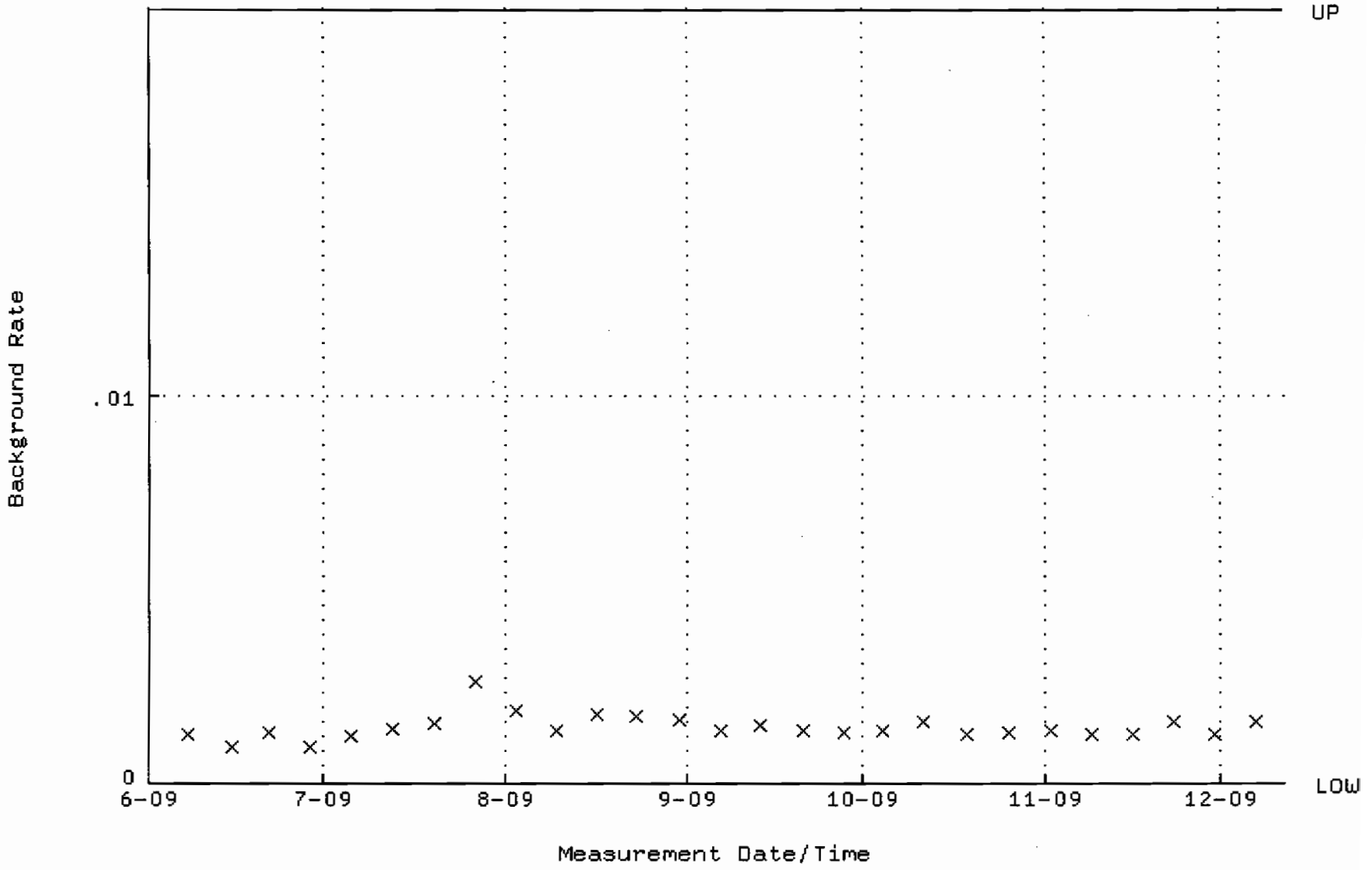

QA filename : DKA100:[ENV_ALPHA.QA.W]W117.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 15-JUN-2009 10:34:39 through 16-DEC-2009 12:00:00
Lower/Upper Lmts: 0.242940 through 0.262940

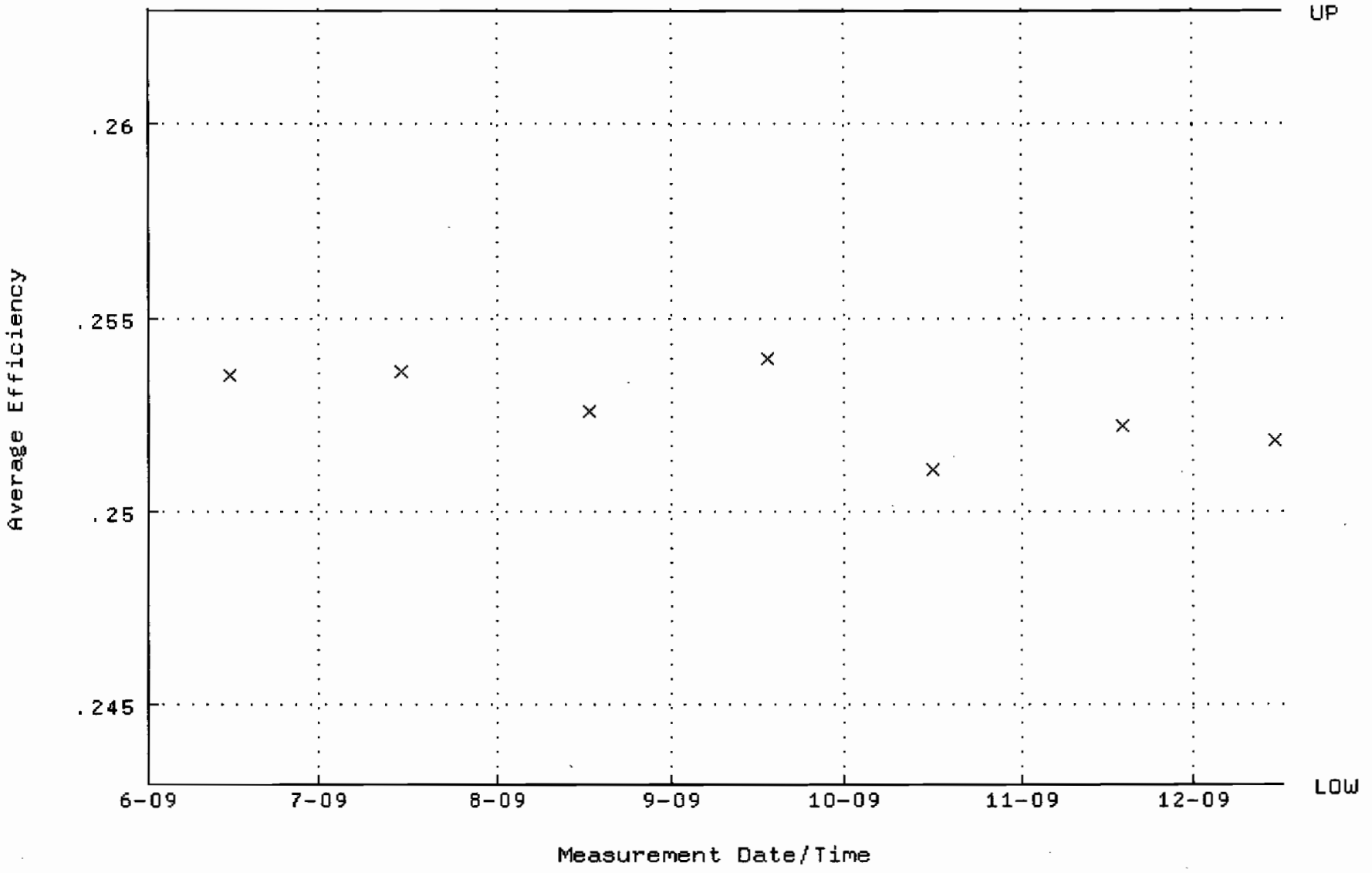

QA filename : DKA100:[ENV_ALPHA.QA.W]W117.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 15-JUN-2009 10:34:39 through 16-DEC-2009 12:00:00
Lower/Upper Lmts: 85.8693 through 94.9081

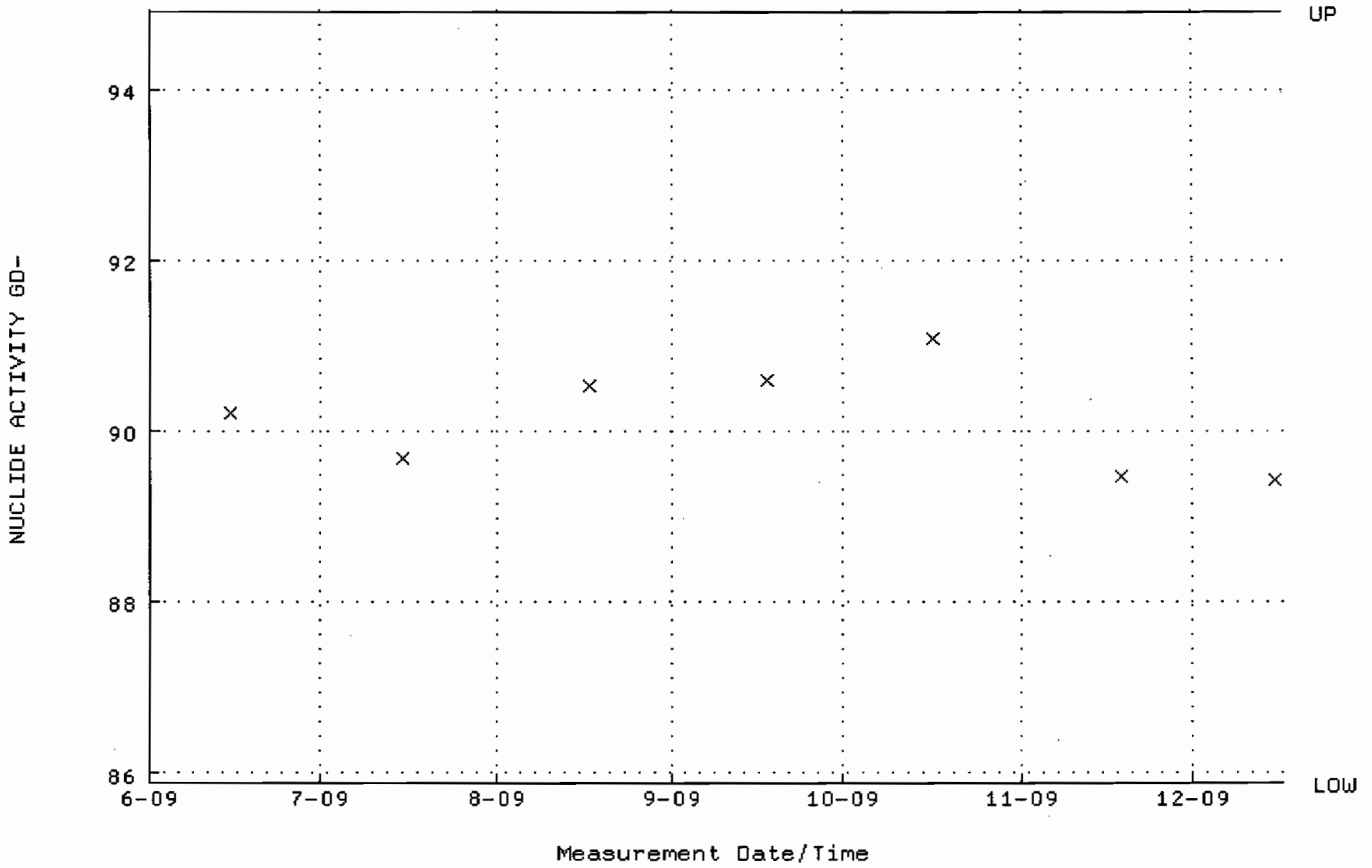

QA filename : DKA100:[ENV_ALPHA.QA.B]B117.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 7-JUN-2009 17:08:57 through 16-DEC-2009 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

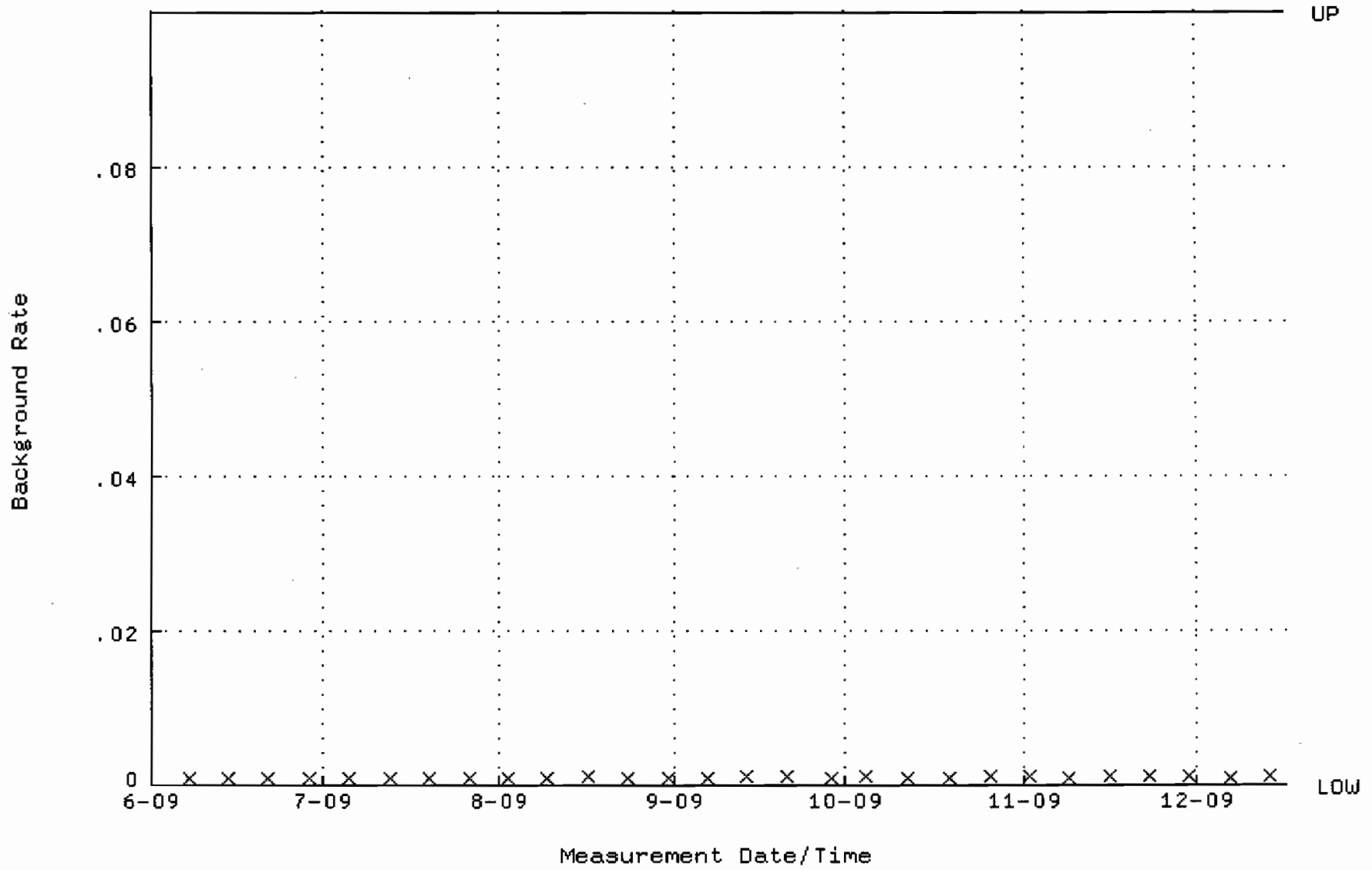

QA filename : DKA100:[ENV_ALPHA.QA.W]W121.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 15-JUN-2009 10:34:51 through 16-DEC-2009 12:00:00
Lower/Upper Lmts: 0.237686 through 0.257686

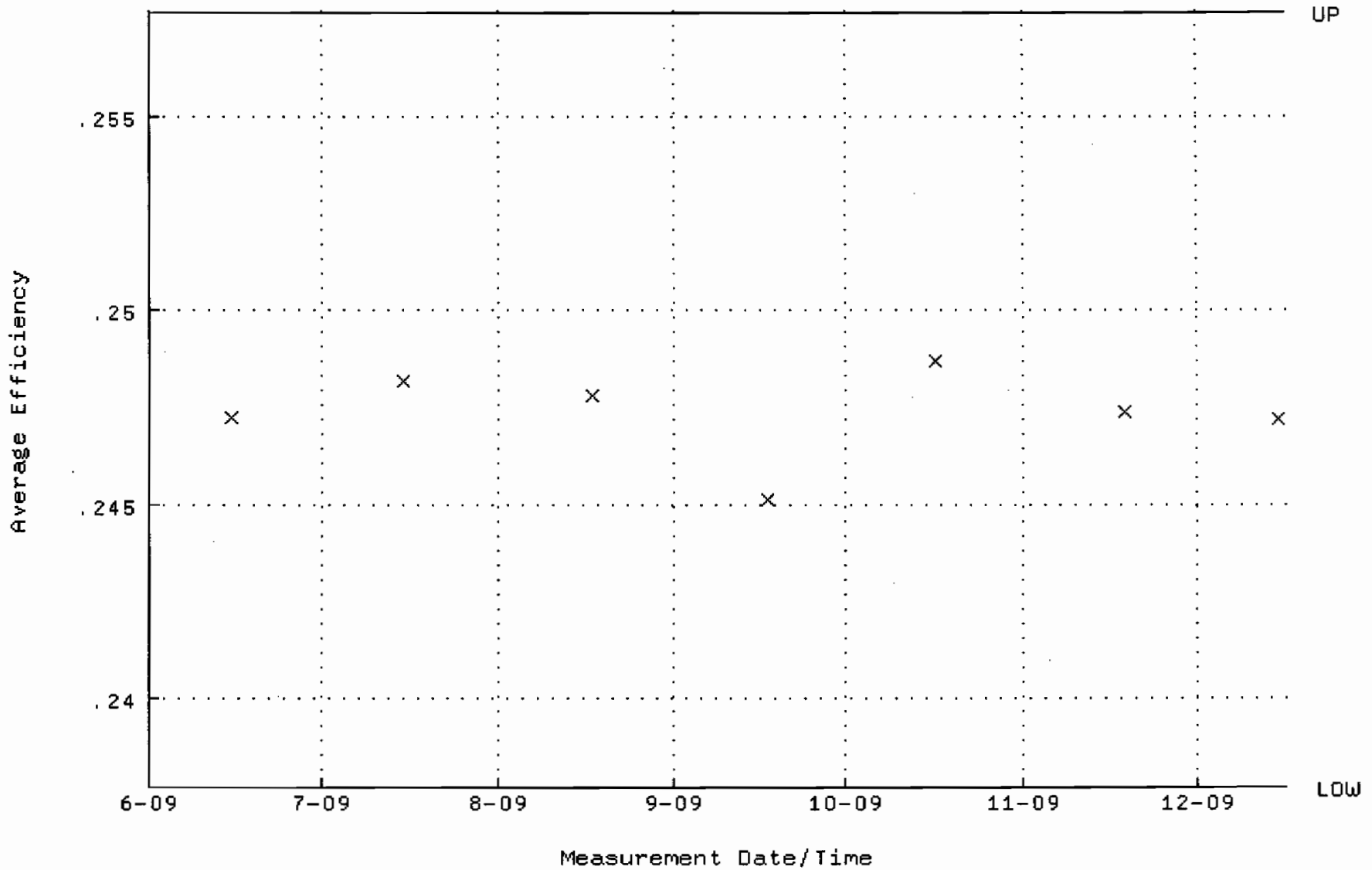

QA filename : DKA100:[ENV_ALPHA.QA.W]W121.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 15-JUN-2009 10:34:51 through 16-DEC-2009 12:00:00
Lower/Upper Lmts: 89.4263 through 98.8395

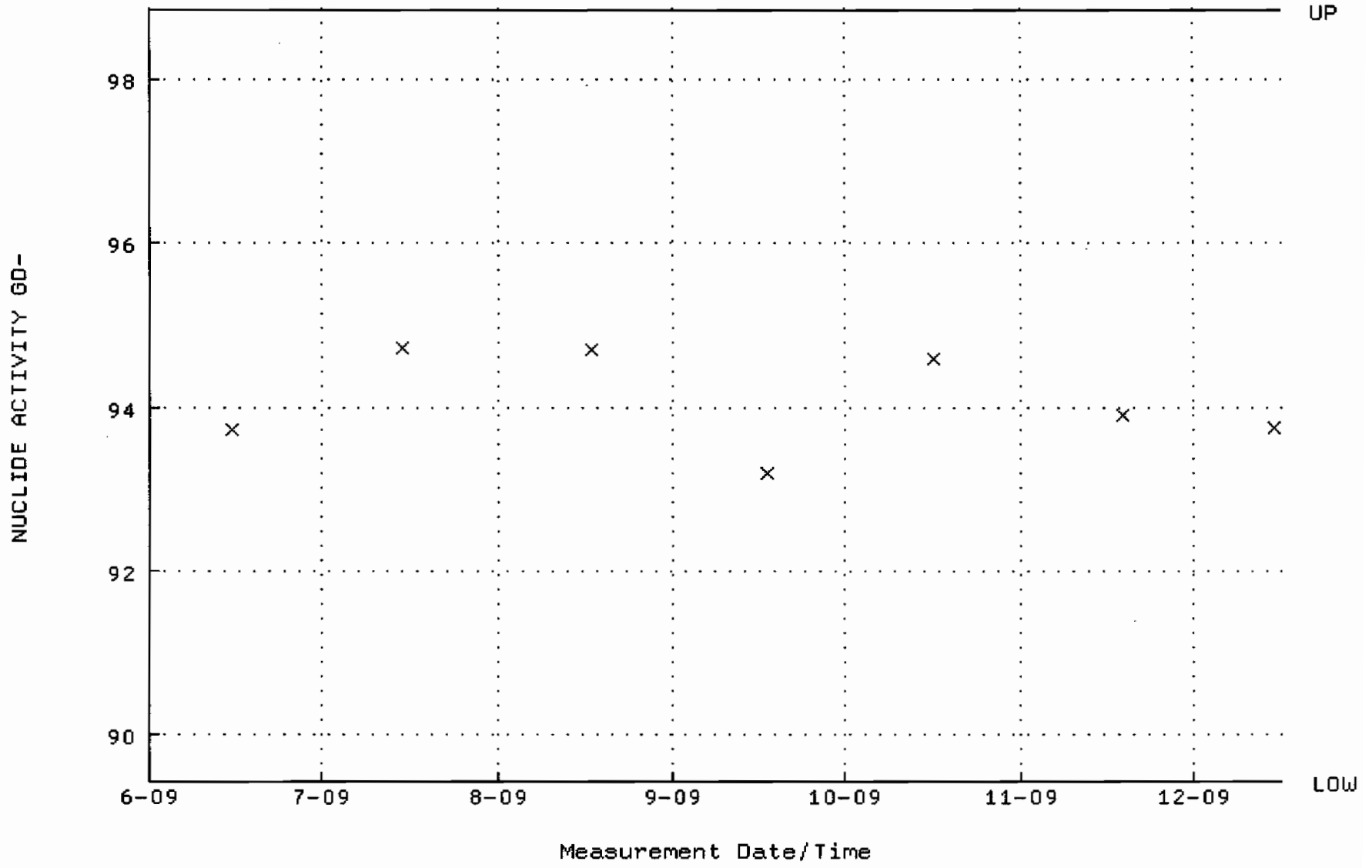

QA filename : DKA100:[ENV_ALPHA.QA.B]B121.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 7-JUN-2009 17:09:14 through 16-DEC-2009 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

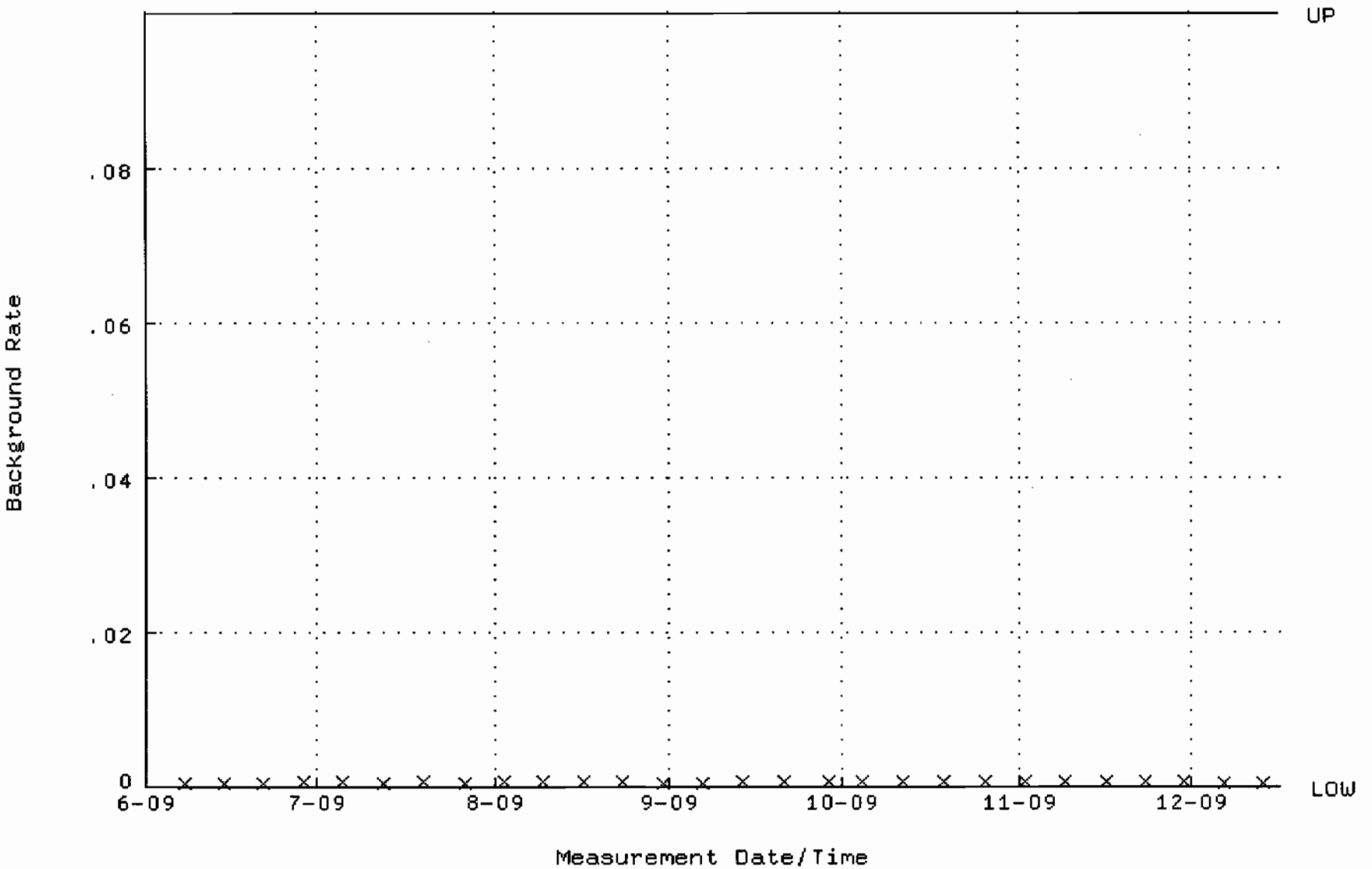

QA filename : DKA100:[ENV_ALPHA.QA.W]W126.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 15-JUN-2009 10:35:19 through 16-DEC-2009 12:00:00
Lower/Upper Lmts: 0.243156 through 0.263156

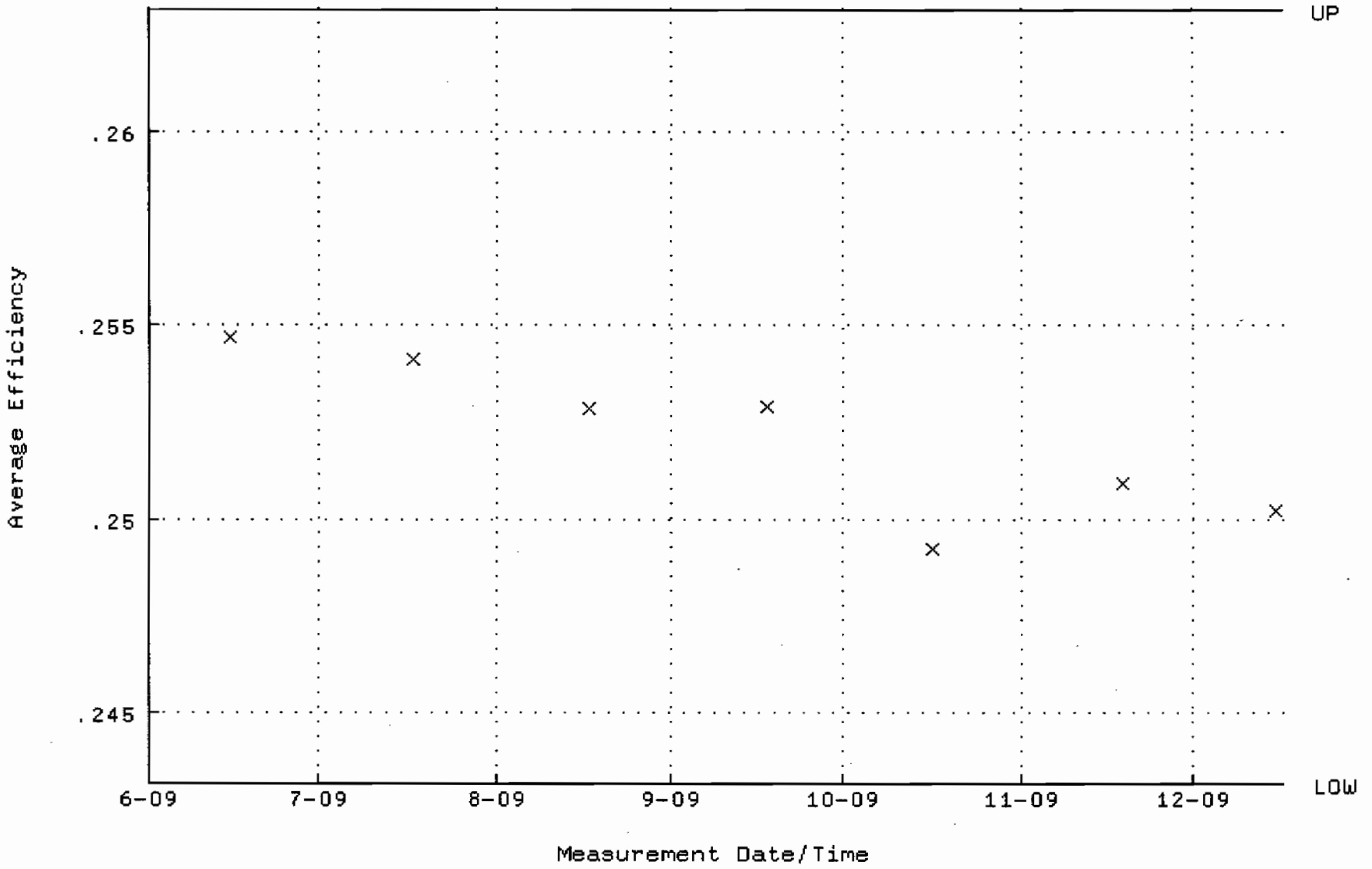

QA filename : DKA100:[ENV_ALPHA.QA.W]W126.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 15-JUN-2009 10:35:19 through 16-DEC-2009 12:00:00
Lower/Upper Lmts: 85.7449 through 94.7707

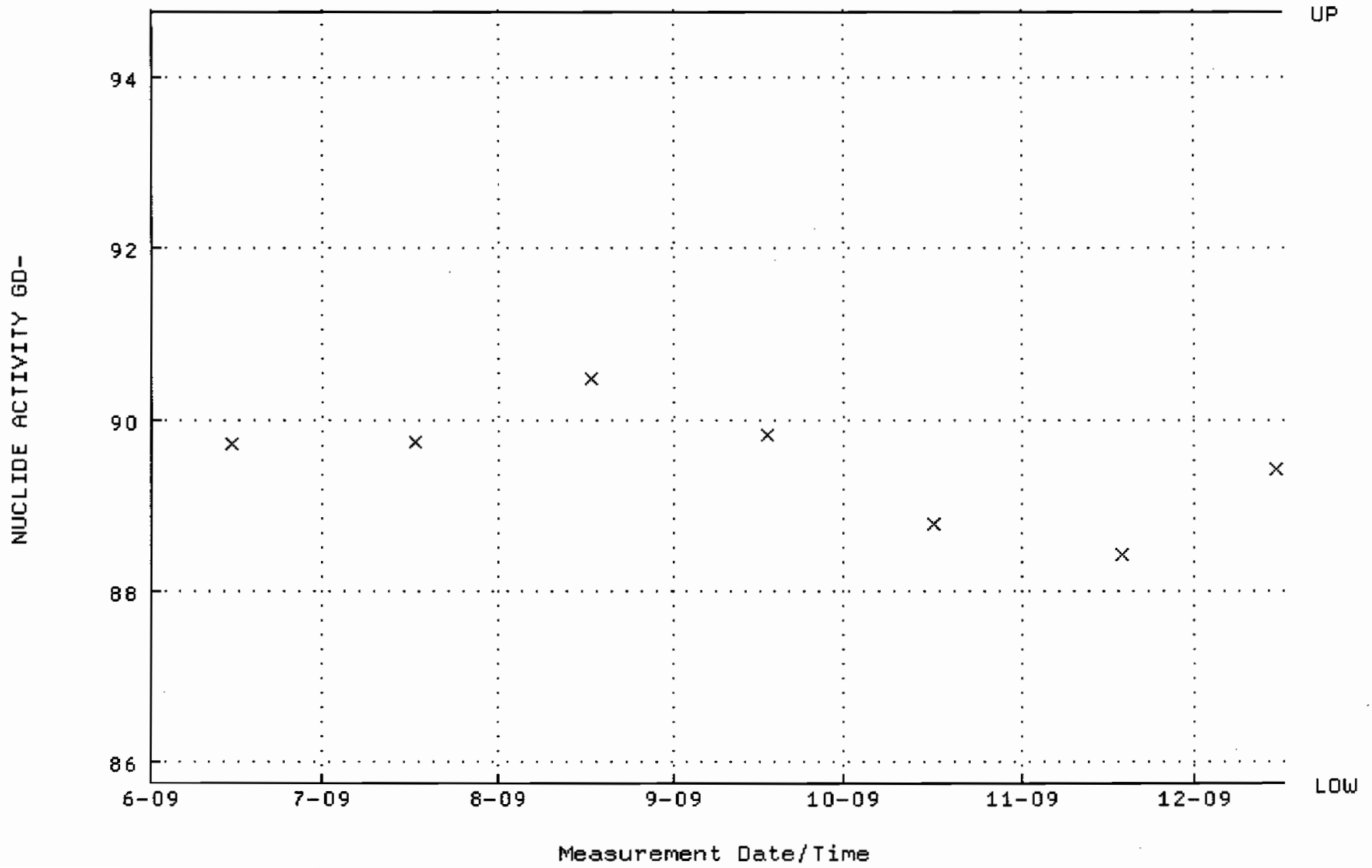

QA filename : DKA100:[ENV_ALPHA.QA.B]B126.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 7-JUN-2009 17:09:35 through 16-DEC-2009 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

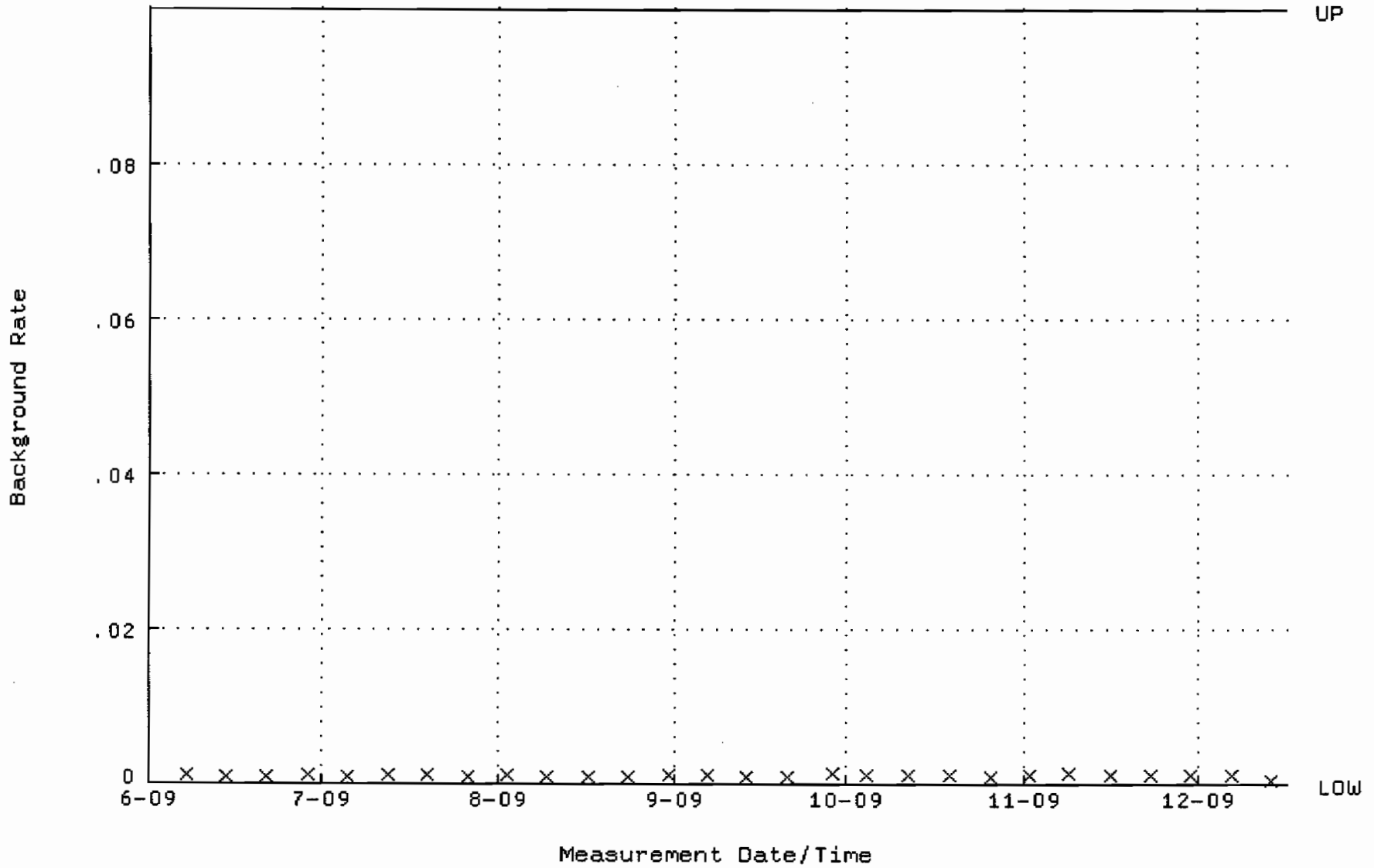

QA filename : DKA100:[ENV_ALPHA.QA.W]W127.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 15-JUN-2009 10:35:25 through 16-DEC-2009 12:00:00
Lower/Upper Lmts: 0.237773 through 0.257773

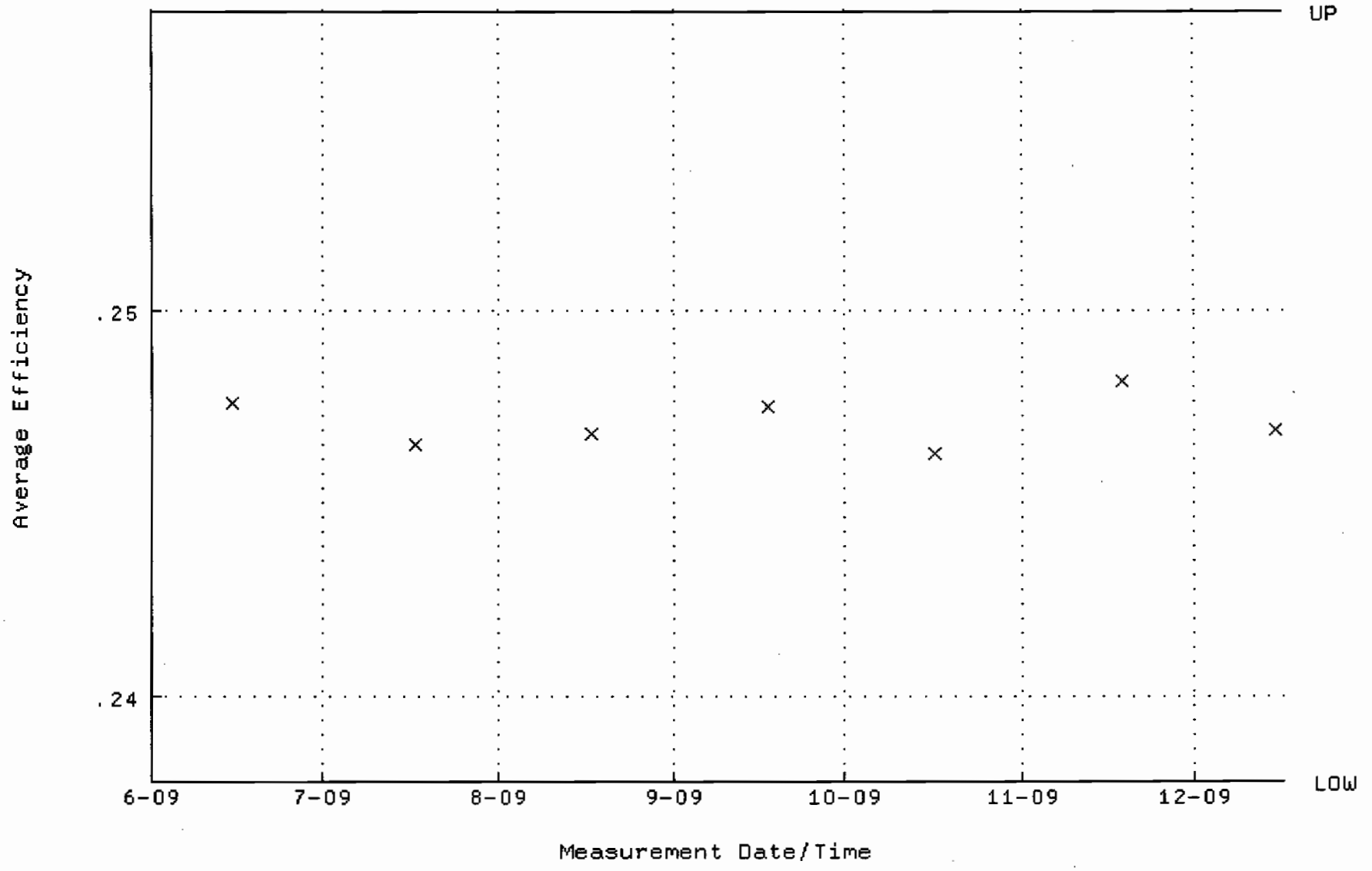

QA filename : DKA100:[ENV_ALPHA.QA.W]W127.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 15-JUN-2009 10:35:25 through 16-DEC-2009 12:00:00
Lower/Upper Lmts: 90.4503 through 99.9713

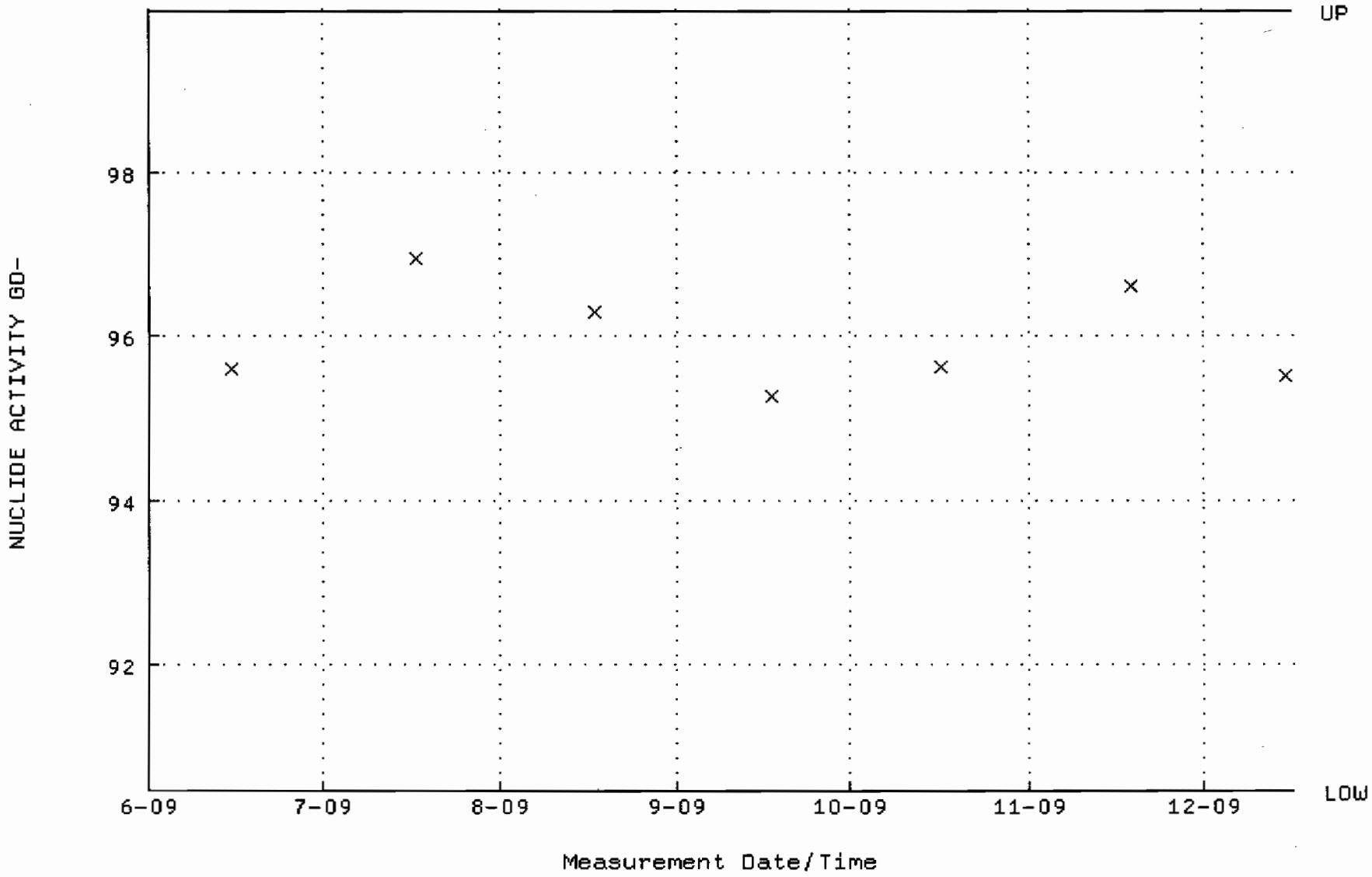

QA filename : DKA100:[ENV_ALPHA.QA.B]B127.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 7-JUN-2009 17:09:40 through 16-DEC-2009 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

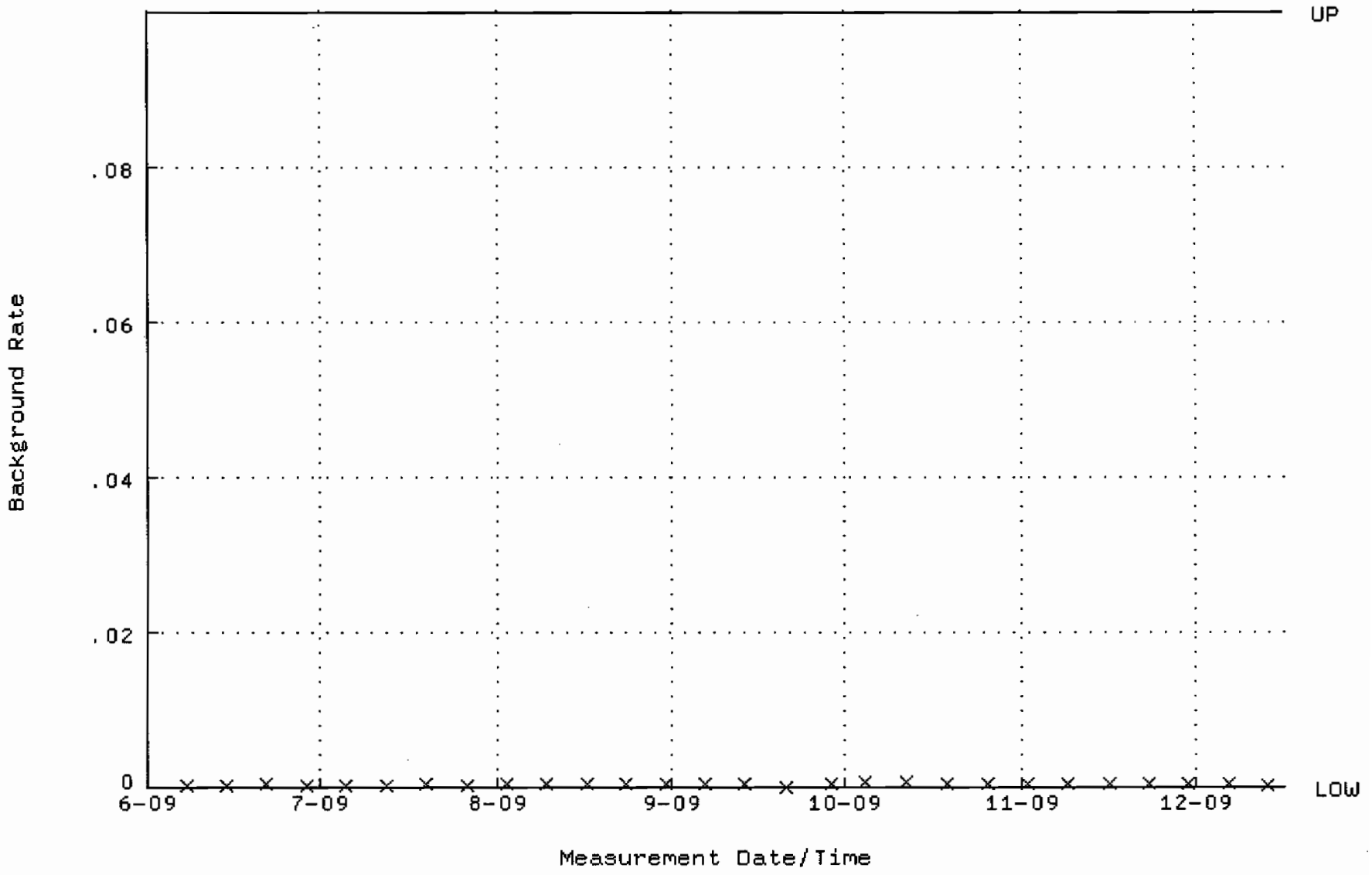

QA filename : DKA100:[ENV_ALPHA.QA.W]W128.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 15-JUN-2009 10:35:31 through 16-DEC-2009 12:00:00
Lower/Upper Lmts: 0.246062 through 0.266062

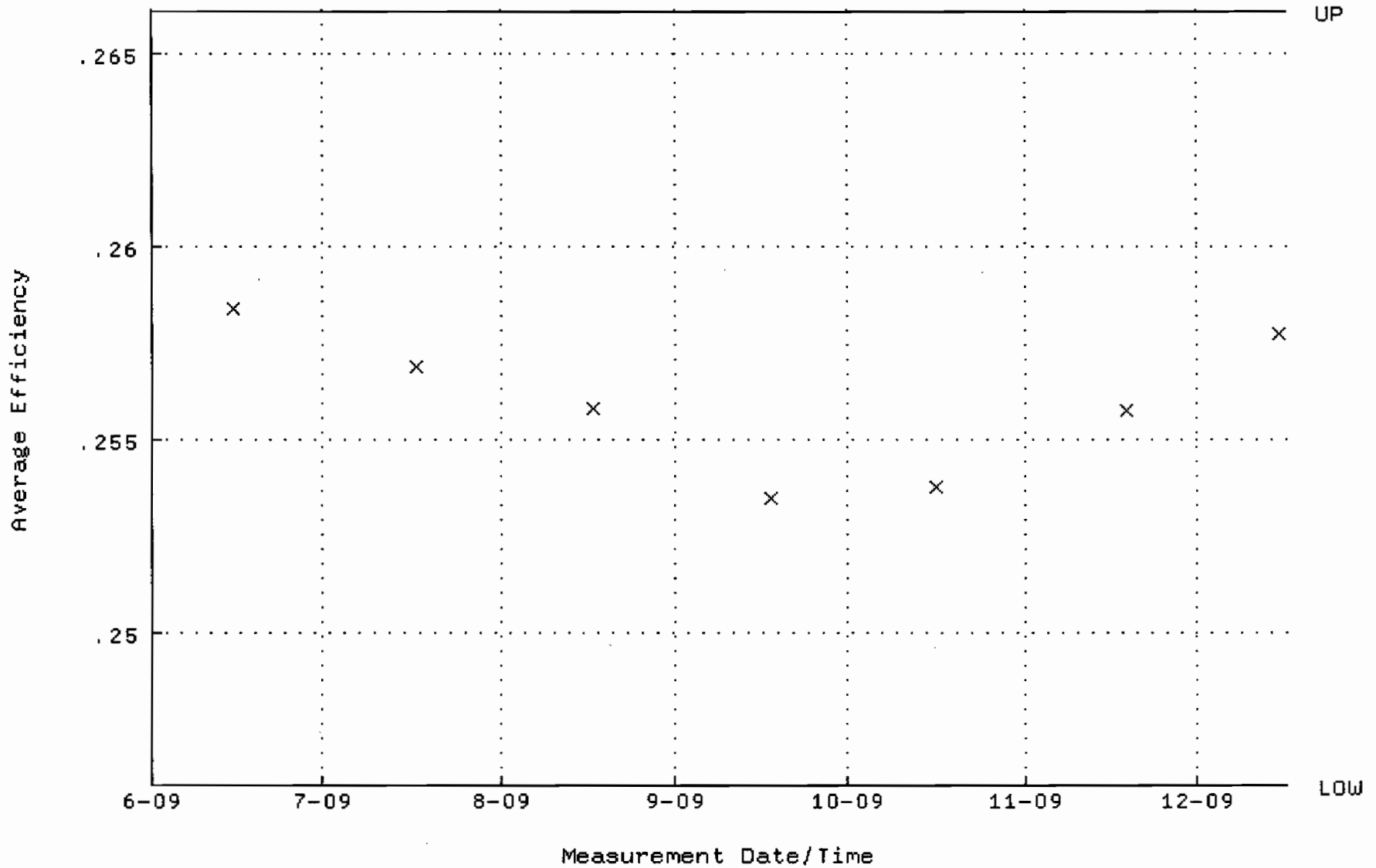

QA filename : DKA100:[ENV_ALPHA.QA.W]W128.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 15-JUN-2009 10:35:31 through 16-DEC-2009 12:00:00
Lower/Upper Lmts: 86.1964 through 95.2697

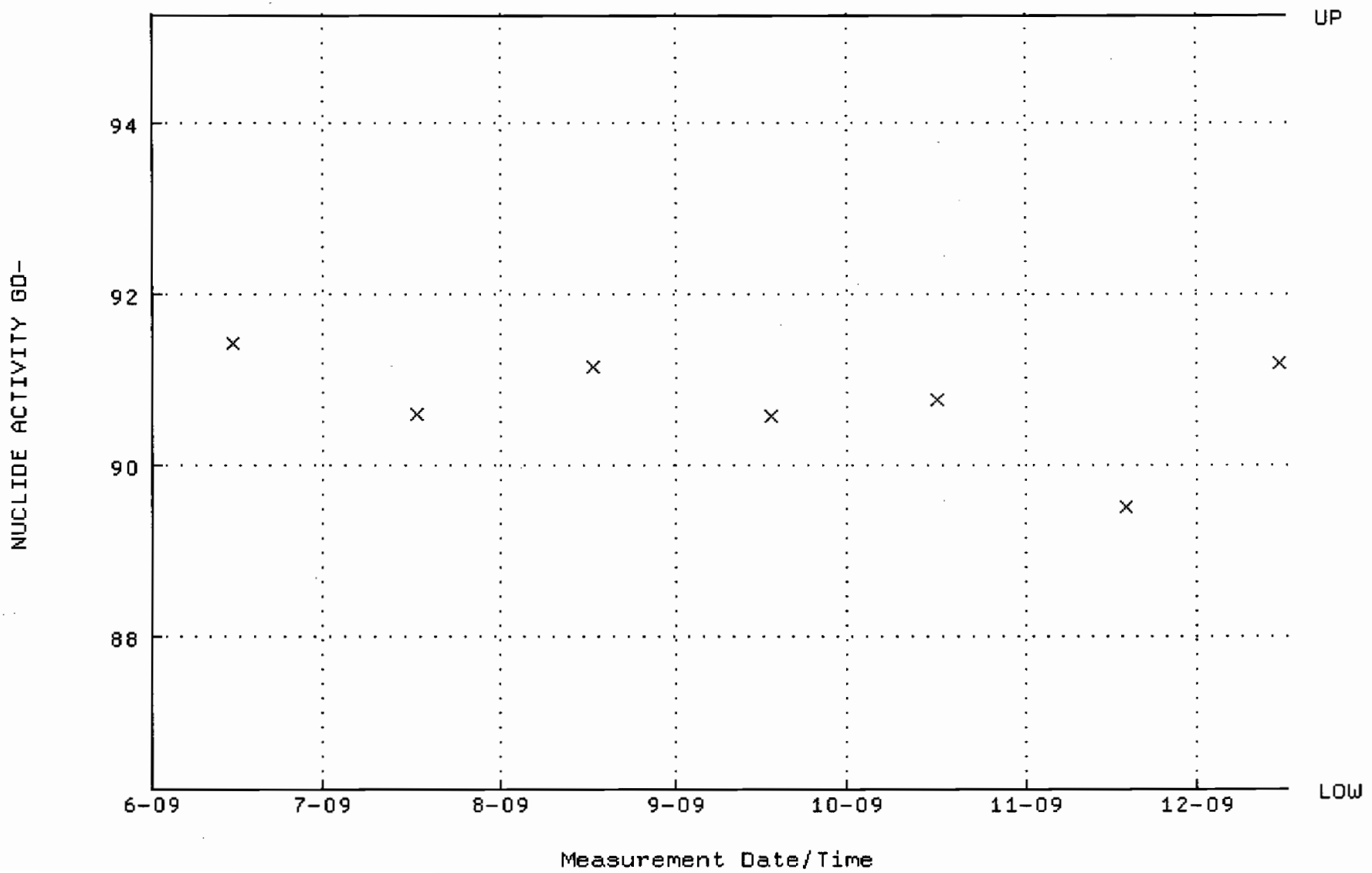

QA filename : DKA100:[ENV_ALPHA.QA.B]B128.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 7-JUN-2009 17:09:44 through 16-DEC-2009 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

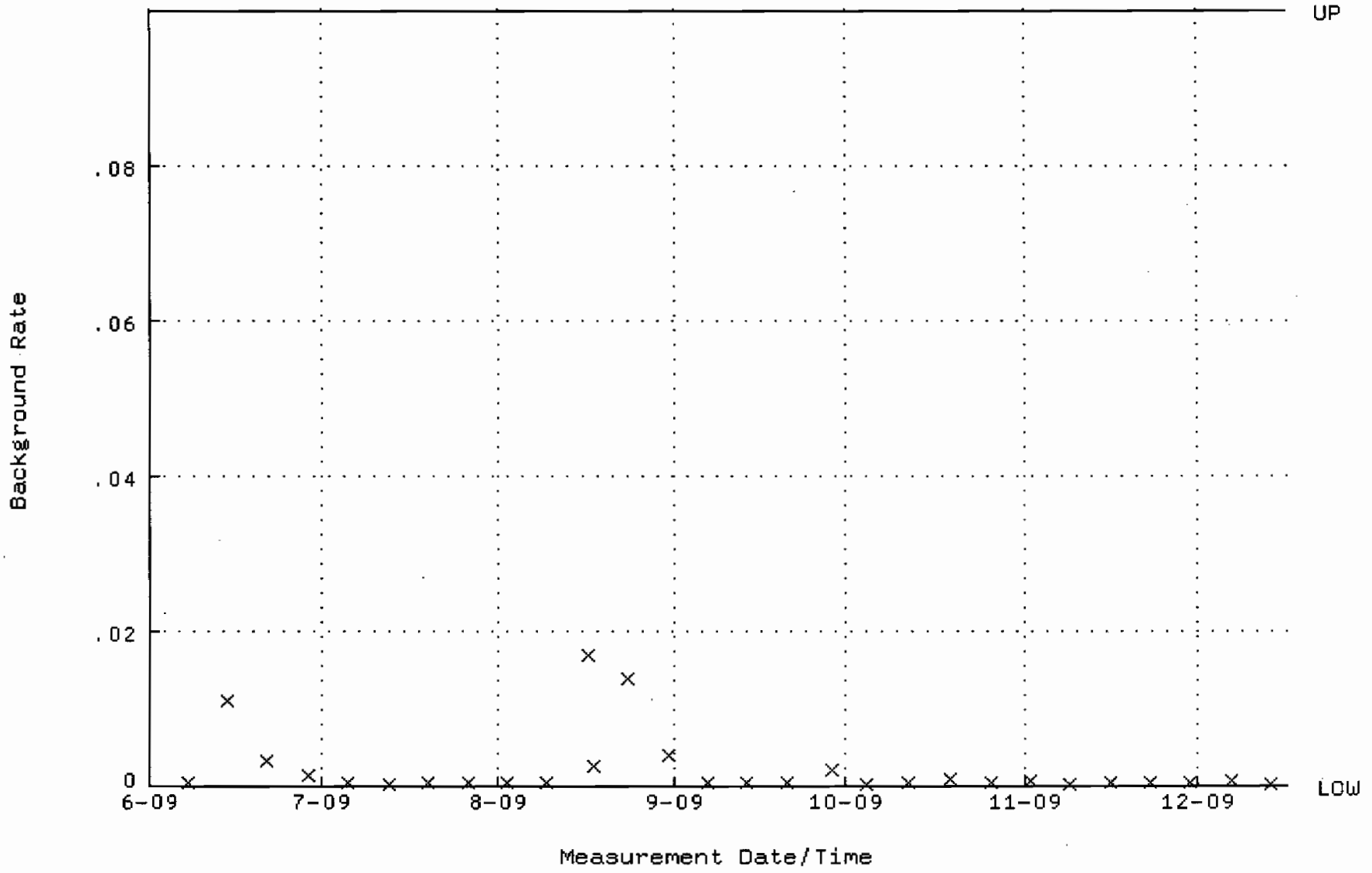

QA filename : DKA100:[ENV_ALPHA.QA.W]W238.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 2-JUN-2009 11:19:38 through 29-DEC-2009 12:00:00
Lower/Upper Lmts: 0.386660 through 0.406660

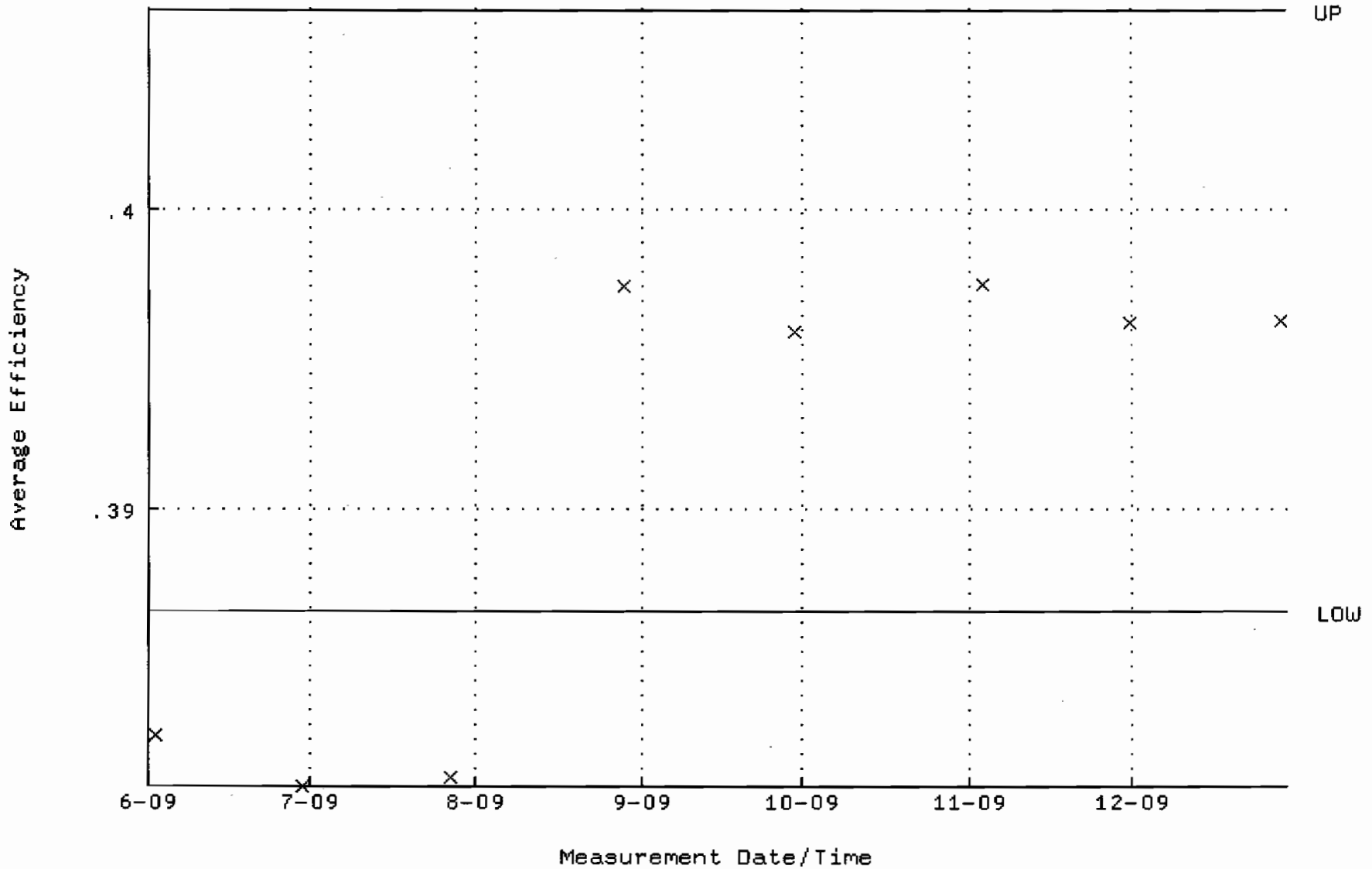

QA filename : DKA100:[ENV_ALPHA.QA.W]W238.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 2-JUN-2009 11:19:38 through 29-DEC-2009 12:00:00
Lower/Upper Lmts: 80.1146 through 88.5478

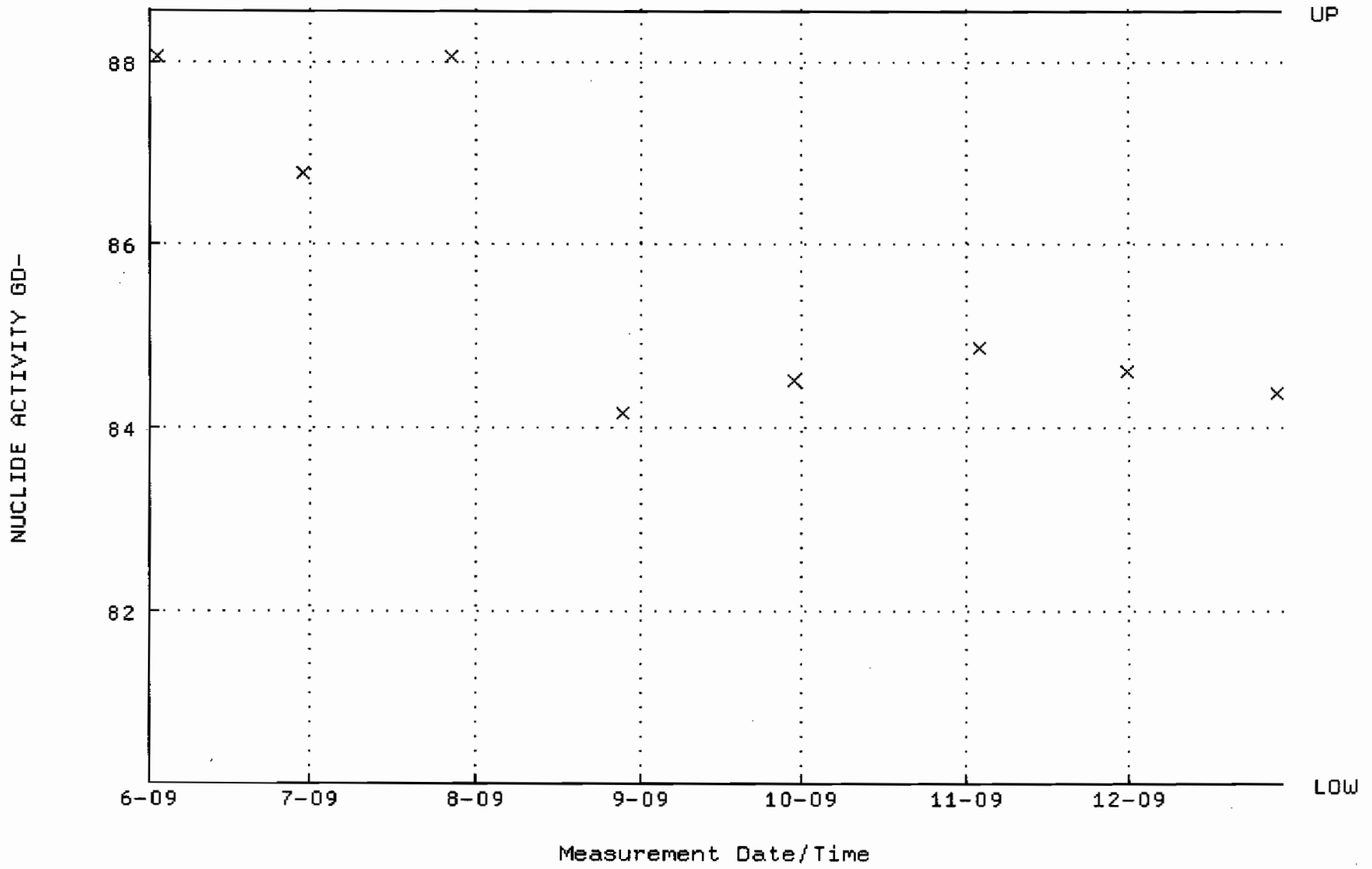

QA filename : DKA100:[ENV_ALPHA.QA.B]B238.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 1-JUN-2009 17:46:10 through 29-DEC-2009 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

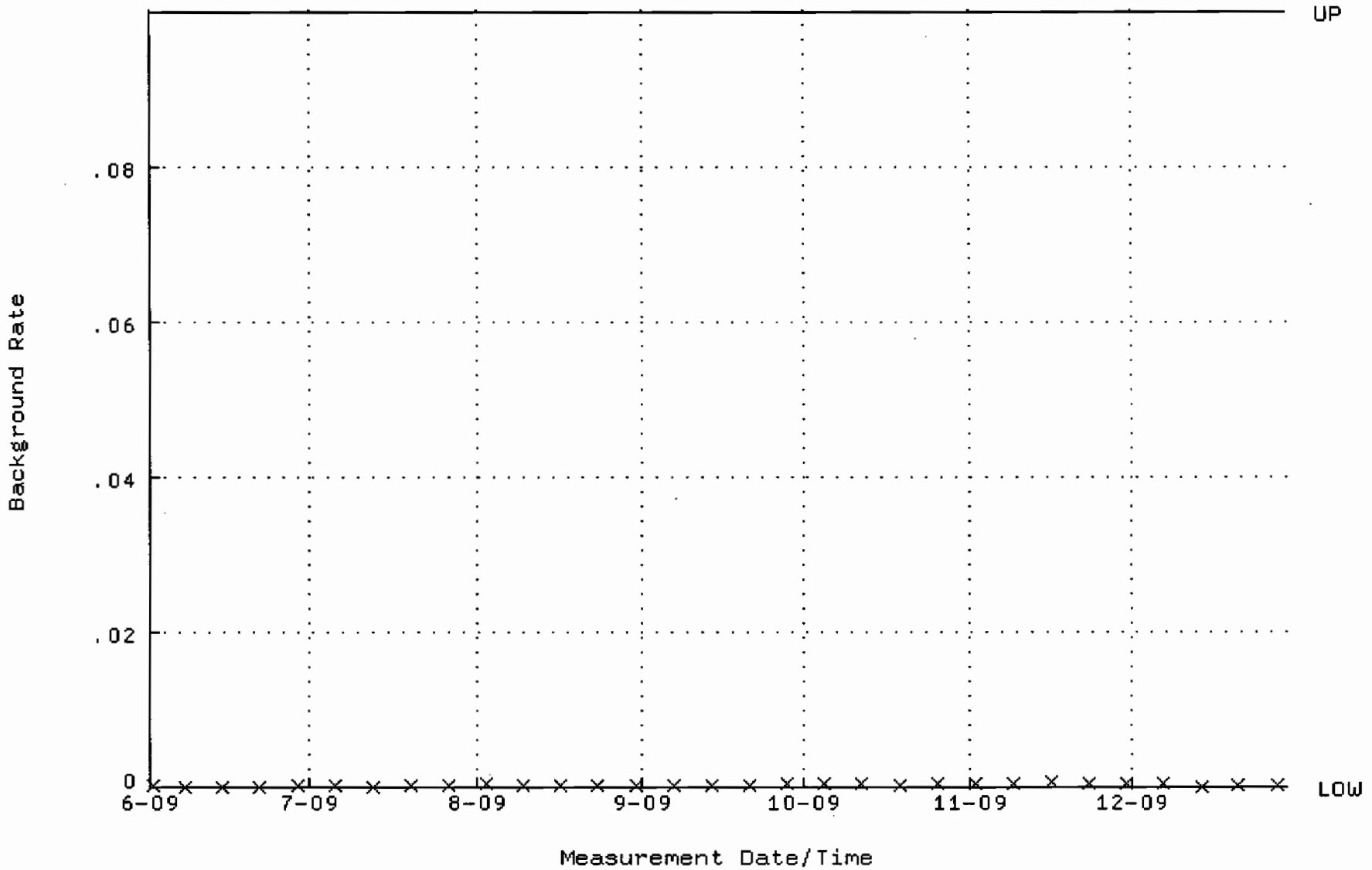

STANDARDS DATA

Amersham International plc
Amersham Laboratories

0134

NAMAS
CALIBRATION
No. 0146

[redacted]

Description Radionuclide: TRITIUM (HYDROGEN-3) Product code: TRY·64

Chemical form: water Batch: 111

Measurement Reference time: 1200 GMT on 1 March 1996

Radioactive concentration of tritium: 488.0 kilobecquerels per gram of water

which is equivalent to: 13.19 microcuries per gram of water

or: 2.93×10^7 disintegrations per minute per gram of water

Method of Measurement
This reference material was calibrated by direct comparison with a standard of tritium-labelled water obtained from the National Institute of Standards and Technology, USA.

Accuracy The OVERALL UNCERTAINTY of the result quoted above is estimated to be less than ±2.5%

This estimate of uncertainty was calculated in accordance with the recommendations of the International Commission on Radiation Units and Measurements (ICRU Report 12). The limits of uncertainty were taken as the arithmetic sum of the uncertainty due to random variations, calculated at the 99·7% confidence level, and the estimated systematic uncertainties.

Purity No radioactive impurities were detected. (Impurities with total activity greater than 0.001% of the activity of the tritium would have been detected).

Physical Data Half-life of tritium: 12·43 ± 0·11 years

Maximum beta energy of tritium: 18·6 keV

Remarks: The S.I. unit of radioactivity is the becquerel.

1 becquerel (Bq) = 1 nuclear transformation per second, therefore
1 curie (Ci) = $3{\cdot}7 \times 10^{10}$ becquerels exactly.

Useful conversion factors are:

1 microcurie (μCi) = $3{\cdot}7 \times 10^4$ Bq = 37 kilobecquerels (kBq)

1 kilobecquerel (kBq) = 27·027 nanocuries (nCi)

This product meets the quality assurance requirements of NRC Regulatory Guide 4.15 for achieving implicit NIST (NBS) traceability as defined in NCRP58 (1985).

Approved signatory

W. F. Case

RC-5-024-061

W.F. Case

Amersham
The Health Science Group

Standard Traceability Log Rad

Source Material Info	
Parent Code:	0134
Prepared By:	Angela Johnson
Carrier Conc:	DI WATER
Reference Date:	03/01/1996
Ampoule Mass (g):	5 g
Uncertainty:	+/- 2.5 %
LogBook No:	RC S 023 061

A Solution Material Info	
Isotope:	Tritium
Prepared By:	Angela Johnson
Prep Date:	02/21/2001
Verification Date:	09/10/2008
Expiration Date:	03/27/2010
Primary Code:	0134-A
Dilution(mL):	100 mL
Mass of Parent(g):	3.3659 g
Density(g/mL):	1.0004
Balance ID:	38080204

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (kBq/g)) * (conversion dpm to kBq) / (Dilution Vol) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (kBq/g)) * (conversion dpm to kBq) / Density (g/mL)/ (Dilution Vol) = Parent Activity (dpm/g)
(3.3659 g) * (488 kBq/g) * (60000 dpm/kBq) / (100 mL) = 985535.5200 dpm/mL
(3.3659 g) * (488 kBq/g) * (60000 dpm/kBq) / (1.0004 g/mL) / (100 mL) = 985180.3116 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date
07/20/2004	Amanda Fehr	5.86	1000	0134-H	5773.1566 dpm/mL	07/25/2006	07/25/2007
12/20/2005	Amanda Fehr	5.5451	1000	0134-I	5462.92 dpm/mL	12/20/2006	12/20/2007
07/11/2007	Daniel Roy	5.5863	1000	0134-J	5503.5128 dpm/ml	07/29/2008	07/29/2009
03/25/2009	Mary Aders	5.4917	1000	0134-K	5410.3147 dpm/ml	03/27/2009	03/27/2010

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for H-3 Standard 0134-K

M. Aders	Isotope	Detector CPM	BKG CPM	NET CPM	Detector Eff	Standard Mass. Used (mL)	Source DPM/mL
4/9/2009	0134-K N1	1097.2000	54.0000	1043.2000	0.380548	1.0000	2741.3099
	0134-K N2	1073.2000	54.0000	1019.2000	0.380548	1.0000	2678.242955
	0134-K N3	1085.2000	54.0000	1031.2000	0.380548	1.0000	2709.776428
						Average =	2709.776428
Mean Value (Counting) =	2709.776428		**104.954429**	**Pass**			
Stdev =	31.53347278		0.01163693	**Rule 3 (Pass/Fail)**			

Certificate Value =	2581.86	dpm/mL
Lower Limit =	2646.709482	dpm/mL
Upper Limit =	2772.843373	dpm/mL
Rule 1 Pass/Fail	**Fail**	***exception taken due to full recovery of standard**
Two sigma =	63.06694556	dpm/mL
10 % of Mean =	270.9776428	dpm/mL
Rule 2 (Pass/Fail)	**Pass**	

Verification Rules

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 10% of the certificate value.

The analyst prepared three standard verification sources for H-3 source 0134-K by transferring 0.1 mL portions of the standard into glass liquid scintillation vials. Ten mL of Ecoscint Ultra liquid scintillation cocktail was added to each vial and the vials were shaken to mix. A Blank vial was prepared in a similar fashion using 1 mL of DI water and 10 mL of Ecoscint Ultra liquid scintillation cocktail. The standard verification vials and Background source were dark adapted for two hours and counted on Silver for H-3 source standard verification. The H-3 efficiency calibration which was used for verification calculations was performed on 4/9/09 using 0020-A (H-3). Calibration data is recorded in this logbook under H-3 0020. Each verification source calculation was performed as follows:

Source dpm/g = (A - B)/(C)(D)
where:
A = Ver. source cpm,
B = BKG cpm,
C = System efficiency, (cpm/dpm), and
D = mass used for standard verification.

Reference RAD SOP M-001

Mary Fritdews 4/9/09
Amanda L. Tetu 4/9/09

0244-A Characterization

Sample #	Uranium-233/234 Result (pCi/g)	Uranium-238 Result (pCi/g)	Thorium-230 Result (pCi/g)
0244-A 1	6.59	6.12	25.3
0244-A 2	6.36	6.07	28.5
0244-A 3	5.78	5.53	26.5
0244-A 4	6.48	5.97	25.5
0244-A 5	5.65	5.59	26.2
0244-A 6	6.96	5.78	27.0
0244-A 7	5.95	5.75	24.2
0244-A 8	5.29	5.67	27.2
0244-A 9	5.51	6.05	24.3
0244-A 10	6.37	5.57	25.6
0244-A 11	6.50	5.80	25.8
0244-A 12	6.13	5.42	22.4
0244-A 13	5.49	5.24	24.7
0244-A 14	6.19	5.21	26.9
0244-A 15	6.50	6.27	27.6
0244-A 16	6.50	5.24	24.9
0244-A 17	6.25	6.05	24.7
0244-A 18	6.14	6.00	25.4
0244-A 19	6.19	6.14	26.4
0244-A 20	5.67	5.61	23.2
Mean Value	6.13	5.75	25.62
1 sigma	0.439	0.325	1.493
2 sigma	0.878	0.650	2.986
75% Limit	4.60	4.31	19.22
125% Limit	7.66	7.19	32.03
Expected Result	6.2 +/- 4.0	6.0 +/- 4.0	24.5 +/- 0.6
Achieved Results	6.13 +/- 0.439	5.75 +/- 0.325	25.62 +/- 1.493

REFERENCE DATA 4/14/2000 Jeff C Neill 12/1/04

Angela L. Johnson 12/3/04

TRM

Invoice:

5 boxes of TRM-1
10 " " TRM-2 and 3
5 " each of NRM-1 through 6
7 " baghouse dirt

Use 1/4 gm x 10 Samples WITH Together for TRM-2

Table 7. Recommended Concentrations of Tailings Reference Materials (pCi/g)

	TRM-1	TRM-2	TRM-3	TRM-4
U-238	99 ± 6	6.0 ± 4.0	19.6 ± 1.4	44.9 ± 1.6
U-234	105 ± 6	6.2 ± 4.0	19.6 ± 1.9	44.6 ± 1.2
Th-230	471 ± 11	24.5 ± 0.6	58.5 ± 2.1	44.0 ± 1.6
Ra-226	489 ± 17	25.4 ± 0.9	60.3 ± 2.3	42.9 ± 1.2
Pb-210	425 ± 24	22.1 ± 1.2	56.0 ± 2.1	38.9 ± 2.0

Attention Nancy Slater At GEL
Not For Log-In

9911627-01->0

SF 2001-COC (10-97)
Supersedes (5-97) issue

Internal Lab Batch No.

ANALYSIS REQUEST AND CHAIN OF CUSTODY

SAR/WR No. N/A

Press F1 for instructions for each field.

AR/COC- 602945

Dept. No./Mail Stop: 7132 / 1042
Project/Task Manager: PAM PUISSANT
Project Name:
Record Center Code: N/A
Logbook Ref. No.: N/A
Service Order No.:

Date Samples Shipped: 11-16-99 SMO USE
Carrier/Waybill No.: 5316749
Lab Contact: EDIE KENT
Lab Destination: G.E.L.
SMO Contact/Phone: Doug Salmi / 844-3110
Send Report to SMO: Suzi Jensen/844-3184

Contract No.: AJ-2480A
Case No.: 10204 1.3
SMO Authorization: Doug Salmi
Bill to: Sandia National Laboratories
Supplier Services, Dept.
P.O. Box 5800 MS 0154

Location — Tech Area VI
Building N/A — Room N/A

Sample No. - Fraction	ER Sample ID or Sample Location Detail	Beginning Depth in Ft.	ER Site No.	Date/Time Collected	Sample Matrix	Container Type	Container Volume	Preservative	Sample Collection Method	Sample Type	Parameter & Method Requested	LAB USE Lab Sample ID
050484 - 001	PEM-1	N/A	N/A	11/15/9 1100	S	P	1 L	4 C	G	SA	See Special	
050485 - 001	TRM-2	N/A	N/A	11/15/9 1100	S	G	1 L	4 C	G	SA	Instructions	
050486 - 001	~~NRM-2~~ NBHD	N/A	N/A	11/15/9 1100	S	G	1 L	4 C	G	SA	Below	
-												
-												
-												
-												
-												
-												
-												

Reference LOV (available at SMO)

RMMA ☐Yes ☒No Ref. No.
Sample Disposal ☐Return to Client ☒Disposal by lab
Turnaround Time ☒Normal ☐Rush Required Report Date

Sample Tracking SMO USE
Date Entered (mm/dd/yy)
Entered By
QC Initials

Sample Team Members	Name	Signature	Init	Company/Organization/Phone
	Douglas E. Perry	Douglas E. Perry	DP	Weston / 7577 / 845-0867

Special Instructions/QC Requirements
EDD ☐Yes ☒No
Raw data package ☐Yes ☒No
These "samples" are well characterized rad materials being sent to GEL on behalf of Hank Hinton
Please list as separate report.

Abnormal Conditions on Receipt LAB USE

1. Relinquished by	Org. 7577	Date 11-16-99	Time 0900	4. Relinquished by	Org.	Date	
1. Received by	Org.	Date	Time	4. Received by	Org.	Date	
2. Relinquished by	Org.	Date	Time	5. Relinquished by	Org.	Date	
2. Received by	Org.	Date	Time	5. Received by	Org.	Date	
3. Relinquished by	Org.	Date	Time	6. Relinquished by	Org.	Date	
3. Received by	Org.	Date	Time	6. Received by	Org.	Date	

Original To Accompany Samples, Laboratory Copy (White) — 1st Copy To Accompany Samples, Return to SMO (Blue) — 2nd Copy SMO Suspense Copy (Yellow) — 3rd Copy Field Copy (Pink)

0244-B Characterization

Sample #	Plutonium-239 Result (pCi/g)	Plutonium-238 Result (pCi/g)	Americium-241 Result (pCi/g)
0244-B 1	39.9	7.88	38.4
0244-B 2	44.1	7.97	40.6
0244-B 3	45.8	6.56	31.8
0244-B 4	43.6	7.69	31.5
0244-B 5	43	7.9	40.2
0244-B 6	43.5	7.84	29.4
0244-B 7	41.3	7.67	36
0244-B 8	44.3	6.95	33.2
0244-B 9	42.7	7.2	29.2
0244-B 10	44.9	7.69	30
0244-B 11	41.4	7.22	30.2
0244-B 12	41.3	7.74	36
0244-B 13	39.2	6.65	33.8
0244-B 14	39.6	7.78	31.1
0244-B 15	45.3	8.41	37.3
0244-B 16	38.1	6.74	33.6
0244-B 17	48.5	8.51	30.5
0244-B 18	36.5	7.23	38.6
0244-B 19	35.3	6.98	30.9
0244-B 20	37.4	8.55	31.3
Mean Value	41.79	7.56	33.68
1 sigma	3.418	0.596	3.724
2 sigma	6.835	1.193	7.448
75% Limit	30.75	6.02	24.38
125% Limit	51.25	10.04	40.63
Expected Result	41.0 +/- 3.0	8.03 +/- 0.37	32.5 +/- 1.1
Achieved Results	41.79 +/- 3.418	7.56 +/- .596	33.68 +/- 3.724

REFERENCE DATA 4/14/2000

Amanda L. Fehr 4/30/04
Matt L. Stokel 5/1/04

PEM-1

PREPARATION AND CHARACTERIZATION OF THE PERFORMANCE EVALUATION SOIL SAMPLE PEM-1

INTRODUCTION

Rust Geotech (Rust) was contracted by Los Alamos National Laboratory (LANL) to prepare and characterize a soil performance evaluation sample designated PEM-1. This report describes sample preparation, homogeneity assessment, and determination of the concentrations of 28 elements and radioactive isotopes in the sample.

SAMPLE PREPARATION

Rust received nine five-gallon buckets of soil from LANL. The soils were dried overnight in ovens at 103 °C. The large pieces of leaves and sticks were removed and the soils were ground with ceramic-plate grinders to a particle size that passed through a 325 mesh screen. The samples were blended at the proportions specified by LANL for 48 hours in a 3-cubic-foot cross-flow blender. The sample identifications and the amounts used are listed in Table 1.

Table 1. Sample Identifications and Amounts Used to Prepare PEM-1

LANL Sample ID	Amount Used (kg)
AAA 1592	1.7
AAA 2505-1	10.9
AAA 2505-2	12.8
AAA 2750-1	8.4
AAA 2750-2	8.4
AAA 3205	12.6
AAA 8581	4.2
AAB 3417	12.8
AAB 3475	12.6

The blended sample was transferred to three five-gallon plastic containers. While the sample was being transferred, 10 samples were taken at pre-determined time intervals to be used for homogeneity assessment and sample characterization. These samples are believed to be representative of the bulk material.

Attention Nancy Slater At GEL
Not For Log-In

9911627-01 -> 0

SF 2001-COC (10-97)
Supersedes (5-97) issue

Internal Lab Batch No.

ANALYSIS REQUEST AND CHAIN OF CUSTODY

SAR/WR No. N/A

Press F1 for instructions for each field.

AR/COC- 602945

Dept. No./Mail Stop: 7132 / 1042
Project/Task Manager: PAM PUISSANT
Project Name:
Record Center Code: N/A
Logbook Ref. No.: N/A
Service Order No.:

Date Samples Shipped: 11-16-99 SMO USE
Carrier/Waybill No.: [illegible]
Lab Contact: EDIE KENT
Lab Destination: G.E.L.
SMO Contact/Phone: Doug Salmi / 844-3110
Send Report to SMO: Suzi Jensen/844-3184

Contract No.: AJ-2480A
Case No.: 10204 1.3
SMO Authorization: Doug Salmi
Bill to: Sandia National Laboratories
Supplier Services, Dept. _____
P.O. Box 5800 MS 0154

Location — Tech Area VI — Building N/A — Room N/A

Sample No. - Fraction	ER Sample ID or Sample Location Detail	Beginning Depth in Ft.	ER Site No.	Date/Time Collected	Sample Matrix	Container Type	Container Volume	Preservative	Sample Collection Method	Sample Type	Parameter & Method Requested (See Special Instructions Below)	Lab Sample ID (LAB USE)
050484 - 001	PEM-1	N/A	N/A	11/15/9 1100	S	P	1 L	4 C	G	SA		
050485 - 001	TRM-2	N/A	N/A	11/15/9 1100	S	G	1 L	4 C	G	SA		
050486 - 001	~~NRM-2~~ NBHD	N/A	N/A	11/15/9 1100	S	G	1 L	4 C	G	SA		
-												
-												
-												
-												
-												
-												
-												

RMMA ☐ Yes ☒ No Ref. No.
Sample Disposal ☐ Return to Client ☒ Disposal by lab

Sample Tracking (SMO USE): Date Entered (mm/dd/yy): Entered by:

Special Instructions/QC Requirements
EDD ☐ Yes ☒ No
Raw data package ☐ Yes ☒ No
These "samples" are well characterized mud materials being sent to GEL on behalf of Hank Hinton
Please list as separate report.

Abnormal Conditions on Receipt (LAB USE)

Turnaround Time ☒ Normal ☐ Rush Required Report Date

QC Initials

Sample Team Members	Name	Signature	Init	Company/Organization/Phone
	Douglas E. Perry	[signature]	DEP	Weston / 7577 / 845-0867

1. Relinquished by	[signature]	Org. 7577	Date 11-16-99	Time 0900	4. Relinquished by	Org.	Date
1. Received by		Org.	Date	Time	4. Received by	Org.	Date
2. Relinquished by		Org.	Date	Time	5. Relinquished by	Org.	Date
2. Received by		Org.	Date	Time	5. Received by	Org.	Date
3. Relinquished by		Org.	Date	Time	6. Relinquished by	Org.	Date
3. Received by		Org.	Date	Time	6. Received by	Org.	Date

Original — To Accompany Samples, Laboratory Copy (White)
1st Copy — To Accompany Samples, Return to SMO (Blue)
2nd Copy — SMO Suspense Copy (Yellow)
3rd Copy — Field Copy (Pink)

CERTIFICATE OF CALIBRATION
ALPHA STANDARD SOLUTION

Radionuclide	Am-243	Customer:	GENERAL ENGINEERING LABS
Half Life:	7380 ± 40 years	P.O.No.:	9290-RAD
Catalog No.:	7243	Reference Date:	January 1 1994 12:00 PST.
Source No.:	445-96-2	Contained Radioactivity:	(Am-243) 101.2 μCi
		Contained Radioactivity:	(Am-243) 3750 kBq

Description of Solution

a. Mass of solution:	5.3739 g (in a 5 ml Flame Sealed Ampoule)	
b. Chemical form:	Am(NO3)3 in 2N HNO3	
c. Carrier content:	None added	
d. Density:	1.0651	g/ml @ 20°C.

Radioimpurities None detected

Radioactive Daughters

Np-239 (beta active) in equilibrium

Radionuclide Concentration

(Am-243) 18.84 μCi/g

Method of Calibration

Weighed aliquots of the solution were assayed using gamma spectrometry for Np-239:

Energy peak(s) intergrated under:	228, 278	keV.
Branching ratio(s) used:	0.108, 0.1420	gamma rays per decay.

Uncertainty of Measurement

a. Systematic uncertainty in instrument calibration:	±3.0%
b. Random uncertainty in assay:	±0.4%
c. Random uncertainty in weighing(s):	±0.0%
d. Total uncertainty at the 99% confidence level:	±3.0%

NIST Traceability

This calibration is implicitly traceable to the National Institute of Standards and Technology.

Leak Test(s)

See reverse side for Leak Test(s) applied to this source.

Notes

1. Nuclear data were taken from "Table of Radioactive Isotopes", edited by Virginia S. Shirley, 1986.
2. IPL participates in an NIST measurement assurance program to establish and maintain implicit traceability for a number of nuclides, based on the blind assay (and later NIST certification) of Standard Reference Materials (As in NRC Regulatory Guide 4.15).

Anna U. Kuan
QUALITY CONTROL

Jan 3, 1994
Date Signed

ISOTOPE PRODUCTS LABORATORIES
1800 North Keystone Street
Burbank, California 91504
(818) 843 - 7000

RC-S-~~004~~ 005-32

THE LEAK TEST(S) INDICATED BY THE CHECKED BOX(ES) WAS(WERE) APPLIED TO DETERMINE THE INTEGRITY OF THE SOURCE DESCRIBED ON THE FRONT SIDE

☑ 1. STANDARD WIPE TEST

The source is wiped over its entire surface with a moistened filter paper disk. After drying, the disk is checked for activity using a windowless proportional counter or end-window G.M. tube. Activity levels exceeding 0.001 μCi beta-gamma or 0.0001 μCi alpha are cause for rejection of the source.

☐ 2. SOAK TEST

The source is immersed in distilled water and maintained at 50 ± 10° C for a minimum of four hours. After removal of the source, the liquid is a) checked for activity using a liquid scintillation counter, or b) evaporated in a planchet and the residue is checked for activity using a windowless proportional counter or end-window G.M. tube. Activity levels exceeding 0.001 μCi beta-gamma or 0.0001 μCi alpha are cause for rejection of the source.

☐ 3. SOAK TEST -- BERYLLIUM WINDOW

The source is immersed in distilled water and maintained at 50 ± 10° C for 20 minutes. The entire surface of the source is then wiped with a moistened cotton swab or filter paper disk. After drying, the swab or disk is checked for activity using a windowless proportional counter or end-window G.M. tube. Activity levels exceeding 0.001 μCi beta-gamma or 0.0001 μCi alpha are cause for rejection of the source.

☐ 4. GAS SOURCE TEST (Radioactive Gas)

The source is placed in a vacuum desiccator and maintained at a pressure of less than 1 mm Hg for not less than 12 hours. The activity is checked by introducing air into the desiccator and monitoring the air with an end-window G.M. tube. Activity levels exceeding 1000 cpm are cause for rejection of the source.

☑ 5. OTHER LEAK TEST

The ampoule is kept in an inverted position on a filter paper disk for a minimum of 16 hours. The filter paper disk is then checked for activity using a windowless proportional counter or end-window G.M. tube. Activity levels exceeding 0.001 μCi beta-gamma or 0.0001 μCi alpha are cause for rejection of the source.

☐ 6. LEAK TEST NOT APPLICABLE

The active area of this source is uncovered or is protected by a very thin coating. Although the deposit is adherent, it is not designed or certified to pass a standard leak test. The inactive portions of the source have been checked using the standard wipe test. Levels of removable activity did not exceed 0.001 μCi beta-gamma or 0.0001 μCi alpha at the time of shipment.

Standard Traceability Log Rad

Source Material Info	
Parent Code:	445-96-2
Prepared By:	Genie Bost
Carrier Conc:	2M HNO3
Reference Date:	01/01/1994
Ampoule Mass (g):	5.3739 g
Uncertainty:	+/- 3 %
LogBook No:	RC S 005 032

A Solution Material Info	
Isotope:	Americium-243
Prepared By:	Angela Johnson
Prep Date;	01/05/1994
Verification Date:	05/11/2009
Expiration Date:	05/11/2010
Primary Code:	445-96-2-A
Dilution(mL):	100 mL
Mass of Parent(g):	5.3419 g
Density(g/mL):	1.0785
Balance ID:	38080204

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (uCi/g)) * (conversion dpm to uCi) / (Dilution Vol) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (uCi/g)) * (conversion dpm to uCi) / Density (g/mL)/ (Dilution Vol) = Parent Activity (dpm/g)
(5.3419 g) * (18.84 uCi/g) * (2220000 dpm/uCi) / (100 mL) = 2234238.9912 dpm/mL
(5.3419 g) * (18.84 uCi/g) * (2220000 dpm/uCi) / (1.0785 g/mL) / (100 mL) = 2071617.0528 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date
01/05/1994	Genie Bost	.0058	100	445-96-2-B	120.1 dpm/ml	01/05/1995	01/05/1996
09/10/2004	Amanda Fehr	.0325	1000	445-96-2-BB	67.328 dpm/mL	09/10/2005	09/10/2006
01/05/1994	Genie Bost	.0025	100	445-96-2-C	51.77 dpm/ml	01/05/1995	01/05/1996
05/27/2005	Brenda Burke	.000246	100	445-96-2-CC	5.10613 dpm/mL	05/31/2005	05/31/2006
03/25/1994	Genie Bost	.0064	100	445-96-2-D	132.53 dpm/ml	01/05/1995	01/05/1996
08/16/2005	Brenda Burke	.001224	500	445-96-2-DD	5.07144 dpm/mL	08/18/2007	08/18/2008
08/04/1994	Genie Bost	.0094	100	445-96-2-E	194.65 dpm/ml	01/05/1995	01/05/1996
10/13/2005	Brenda Burke	.0017	500	445-96-2-EE	7.0435 dpm/mL	11/15/2005	11/15/2006
08/04/1994	Genie Bost	.0046	100	445-96-2-F	95.25 dpm/ml	01/05/1995	01/05/1996
10/14/2005	Mary Aders	.0141	500	445-96-2-FF	58.4196 dpm/mL	10/14/2005	10/14/2006
09/01/1994	Genie Bost	.0031	100	445-96-2-G	64.19 dpm/ml	01/05/1995	01/05/1996
05/10/2006	Mary Aders	2.0753	1000	445-96-2-GG	4299.227 dpm/mL	09/30/2008	09/30/2009
10/17/1994	Genie Bost	.0969	100	445-96-2-H	2006.52 dpm/ml	01/05/1995	01/05/1996
06/07/2006	Mary Aders	.0365	1000	445-96-2-HH	75.614 dpm/mL	06/19/2006	06/19/2007
02/06/1995	Genie Bost	.0043	100	445-96-2-I	89.04 dpm/ml	01/05/1995	01/05/1996
05/11/2006	Brenda Burke	.000009739	100	445-96-2-II	.201761 dpm/mL	07/26/2006	07/26/2007
07/20/1995	Theresa Austin	.0041	100	445-96-2-J	84.9 dpm/ml	01/05/1995	01/05/1996
05/01/2007	Daniel Roy	.0352	1000	445-96-2-JJ	72.9209 dpm/ml	04/30/2008	04/30/2009
08/10/1995	Garret Ray	.0952	100	445-96-2-K	1971.32 dpm/ml	01/05/1995	01/05/1996
06/12/2007	Julie Strock	.01038	250	445-96-2-KK	22.1496 dpm/mL	05/28/2008	05/28/2009

09/11/1995	Theresa Austin	1.0525	100	445-96-2-L	21794.23 dpm/ml	01/05/1995	01/05/1996
09/11/1995	Theresa Austin	.5107	100	445-96-2-L-1	111.3 dpm/ml	01/05/1995	01/05/1996
04/28/1998	Richard Kinney	.1264	100	445-96-2-M	2617.4 dpm/ml	04/28/1998	04/28/1999
11/01/2007	Eric Williamson	.001274	500	445-96-2-MM	5.27945 dpm/mL	04/06/2008	04/06/2010
10/12/1998	Gregory Smith	.1348	100	445-96-2-N	2791.32 dpm/mL	01/05/1995	01/05/1996
01/25/1999	Gregory Smith	1.9382	100	445-96-2-N-1	50.16 dpm/ml	01/05/1995	01/05/1996
04/19/2008	Daniel Roy	.0424	1000	445-96-2-NN	87.8366 dpm/ml	04/16/2009	04/16/2010
04/21/1999	Greg Smith	.1645	100	445-96-2-O	3406.32 dpm/mL	04/21/1999	04/21/2000
07/27/1999	Gregory Smith	1.567	100	445-96-2-O-2	50.56 dpm/ml	05/13/1999	05/13/2000
10/12/1999	Richard Kinney	1.5589	100	445-96-2-O-3	50.31 dpm/mL	05/13/1999	05/13/2000
04/21/1999	Greg Smith	1.5309	100	445-96-2-O-1	49.4 dpm/mL	04/21/1999	04/21/2000
11/10/1999	Joe Davis	.1809	100	445-96-2-P	3745.92 dpm/mL	05/13/1999	05/13/2000
01/04/2008	Julie Strock	.00001005	100	445-96-2-PP	.20819 dpm/mL	12/29/2008	12/29/2009
01/28/2000	Angela Johnson	.0354	1000	445-96-2-Q	73.3 dpm/mL	02/08/2001	02/08/2002
09/29/2008	Julie Strock	.0025219	250	445-96-2-QQ	20.8977 dpm/mL	09/30/2008	09/29/2009
04/18/2000	Robert Timm	.429	250	445-96-2-R	3553.34 dpm/mL	04/18/2000	04/18/2001
04/23/2009	Tina Schoneman	.001251	500	445-96-2-RR	4.8075 dpm/mL	04/23/2009	04/23/2010
04/13/2001	Angela Johnson	.1869	100	445-96-2-S	3870.16 dpm/mL	04/13/2001	04/13/2002
05/08/2009	Mary Aders	.0141	1000	445-96-2-SS	29.2098 dpm/ml	05/11/2009	05/11/2010
07/03/2001	Lonnie Morris	2.0057	1000	445-96-2-T-103	4153.225 dpm/mL	07/03/2002	07/03/2003
07/03/2001	Lonnie Morris	2.0057	1000	445-96-2-T-203	4153.225 dpm/mL	07/03/2002	07/03/2003

07/03/2001	Lonnie Morris	2.0057	1000	445-96-2-T-303	4153.225 dpm/mL	07/03/2002	07/03/2003
06/03/2009	Julie Strock	.00000927	100	445-96-2-TT	.1923 dpm/mL	06/05/2009	06/03/2010
08/23/2001	Angela Johnson	.0194	500	445-96-2-U-103	80.34 dpm/mL	08/23/2001	08/23/2002
08/23/2001	Angela Johnson	.0194	500	445-96-2-U-203	80.34 dpm/mL	08/23/2001	08/23/2002
08/23/2001	Angela Johnson	.0194	500	445-96-2-U-303	80.34 dpm/ml	08/23/2001	08/23/2002
06/02/2009	Mary Aders	2.1177	1000	445-96-2-UU	4385.1449 dpm/ml	06/04/2009	06/04/2010
08/27/2001	Angela Johnson	.0394	1000	445-96-2-V-103	81.586 dpm/mL	08/27/2002	08/27/2003
08/27/2001	Angela Johnson	.0394	1000	445-96-2-V-203	81.586 dpm/mL	08/27/2002	08/27/2003
08/27/2001	Angela Johnson	.0394	1000	445-96-2-V-303	81.586 dpm/mL	08/27/2002	08/27/2003
03/17/2003	Angela Johnson	2.1108	1000	445-96-2-W	4370.857 dpm/mL	03/14/2006	03/14/2007
04/14/2003	Lonnie Morris	.0315	1000	445-96-2-X	65.2559 dpm/mL	04/14/2004	04/14/2005
05/03/2003	Tim Chandler	.0103	1000	445-96-2-Y	21.3376 dpm/mL	05/05/2003	05/05/2004
05/05/2003	Eric Williamson	.011	1000	445-96-2-Z	22.7877 dpm/mL	04/03/2007	04/03/2008

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for Am-243 Standard *445-96-2-SS*

M. Aders	Isotope	Value	Uncertainty
5/15/2009	445-96-2-SS #1	1.360	0.1690
	445-96-2-SS #2	1.370	0.1690
	445-96-2-SS #3	1.290	0.1590

Mean Value (Counting) =	1.340	101.99	Pass
Stdev =	0.043588989		Rule 3 (Pass/Fail)

Target =	1.314
Lower Limit =	1.252822021
Upper Limit =	1.427177979
Rule 1 Pass/Fail	Pass
Two sigma =	0.087177979
10 % of Mean =	0.134
Rule 2 (Pass/Fail)	Pass

The analyst prepared three standard verification sources for standard ***445-96-2-SS*** using 0.1 mL for each source. Each standard was combined with 0.1 mL of ***Cm-244*** standard ***0533-O*** and 50 micrograms of neodymium carrier in a disposable centrifuge tube. Each standard was diluted with 4 mL of 2 M HCl and 6 mL of DI Water. Two mL of 48% HF was added to precipitate Nd(and Americium) fluoride. After 30 minutes, each sample was filtered following routine procedures for alpha spectroscopy source preparation. Each source was counted using routine alpha spec procedures. DPM values for Am-243 were calculated by comparison to Am-241certified values.

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 5% of the certificate value.

Mary Lindsey 5/15/09
Robert Bin 007509

1374

National Institute of Standards & Technology
Certificate

Standard Reference Material 4334H
Plutonium-242 Radioactivity Standard

This Standard Reference Material (SRM) consists of radioactive plutonium-242 nitrate and nitric acid dissolved in 5 mL of distilled water. The solution is contained in a flame-sealed NIST borosilicate-glass ampoule. The SRM is intended for the calibration of alpha-particle counting instruments and for the monitoring of radiochemical procedures.

Radiological Hazard: The SRM ampoule contains plutonium-242 with a total activity of approximately 150 Bq. Plutonium-242 decays by alpha-particle emission. None of the alpha particles escape from the SRM ampoule. During the decay process, X-rays and gamma rays with energies from 10 keV to 160 keV are also emitted. Most of these photons escape from the SRM ampoule but their intensities are so small that they do not represent a radiation hazard. Approximate unshielded dose rates at several distances (as of the reference time) are given in note [a]*. The SRM should be used only by persons qualified to handle radioactive material.

Chemical Hazard: The SRM ampoule contains nitric acid (HNO_3) with a concentration of 3 moles per liter of water. The solution is corrosive and represents a health hazard if it comes in contact with eyes or skin. If the ampoule is to be opened to transfer the solution, the recommended procedure is given on page 2. The ampoule should be opened only by persons qualified to handle both radioactive material and strong acid solution.

Storage and Handling: The SRM should be stored and used at a temperature between 5 °C and 65 °C. The solution in an unopened ampoule should remain stable and homogeneous until at least January 2015. The ampoule (or any subsequent container) should always be clearly marked as containing radioactive material. If the ampoule is transported it should be packed, marked, labeled, and shipped in accordance with the applicable national, international, and carrier regulations. The solution in the ampoule is a dangerous good (hazardous material) both because of the radioactivity and because of the strong acid.

Preparation: This Standard Reference Material was prepared in the Physics Laboratory, Ionizing Radiation Division, Radioactivity Group, M.P. Unterweger, Acting Group Leader. The overall technical direction and physical measurements leading to certification were provided by L.L. Lucas of the Radioactivity Group. The support aspects involved in the preparation, certification, and issuance of this SRM were coordinated through the Standard Reference Materials Program.

RECEIVED 12/2/04

Lisa R. Karam, Acting Chief
Ionizing Radiation Division

Gaithersburg, Maryland 20899
January 2005

Robert L. Watters, Jr., Chief
Measurement Services Division

*Notes and references are on pages 5 to 7.

DC-5-057-093

Recommended Procedure for Opening the SRM Ampoule

1) If the SRM solution is to be diluted, it is recommended that the diluting solution have a composition comparable to that of the SRM solution.

2) Wear eye protection, gloves, and protective clothing and work over a tray with absorbent paper in it. Work in a fume hood. In addition to the radioactive material, the solution contains strong acid and is corrosive.

3) Shake the ampoule to wet all of the inside surface of the ampoule. Return the ampoule to the upright position.

4) Check that all of the liquid has drained out of the neck of the ampoule. If necessary, gently tap the neck to speed the process.

5) Holding the ampoule upright, score the narrowest part of the neck with a scribe or diamond pencil.

6) Lightly wet the scored line. This reduces the crack propagation velocity and makes for a cleaner break.

7) Hold the ampoule upright with a paper towel, a wiper, or a support jig. Position the scored line away from you. Using a paper towel or wiper to avoid contamination, snap off the top of the ampoule by pressing the narrowest part of the neck away from you while pulling the tip of the ampoule towards you.

8) Transfer the solution from the ampoule using a pycnometer or a pipet with dispenser handle. NEVER PIPETTE BY MOUTH.

9) Seal any unused SRM solution in a flame-sealed glass ampoule, if possible, to minimize the evaporation loss.

See also reference [4]*.

*Notes and references are on pages 5 to 7.

PROPERTIES OF SRM 4334H

Certified values

Radionuclide	**Plutonium-242**
Reference time	**1200 EST, 07 June 1994 [b]***
Massic activity of the solution [c]	**26.31 $Bq \cdot g^{-1}$**
Relative expanded uncertainty (k=2)	**0.72% [d] [e]**
Solution density	**(1.105 ± 0.002) $g \cdot mL^{-1}$ at 20 °C [f]**

Uncertified values

Physical Properties:			
Source description	Liquid in flame-sealed NIST borosilicate-glass ampoule		
Ampoule specifications	Body outside diameter Wall thickness Barium content Lead-oxide content Other heavy elements	(16.5 ± 0.5) mm (0.60 ± 0.04) mm Less than 2.5% Less than 0.02% Trace quantities	
Solution mass	Approximately 5.5 g		
Chemical Properties:			
Solution composition	Chemical Formula	Concentration ($mol \cdot L^{-1}$)	Mass Fraction ($g \cdot g^{-1}$)
	H_2O HNO_3 $^{242}Pu^{+6}$	50 3.2 8×10^{-7}	0.81 0.19 2×10^{-7}
Radiological Properties:			
Alpha-particle-emitting impurities	None detected [g] [h]. See table on page 5.		
Beta-particle-emitting impurities	Plutonium-241: (0.092 ± 0.018) $Bq \cdot g^{-1}$ [f] [h]		
Photon-emitting impurities	None detected [i]		
Half lives used	Plutonium-242: (373 500 ± 1100) a [j] [5] Plutonium-241: (14.35 ± 0.10) a [j] [5] Americium-241: (432.2 ± 0.7) a [j] [5]		
Calibration method and measuring instrument(s)	Three $4\pi\alpha$ liquid-scintillation counters, a calibrated germanium detector system, and a silicon surface-barrier detector		

*Notes and references are on pages 5 to 7.

EVALUATION OF THE UNCERTAINTY OF THE MASSIC ACTIVITY [d] [e]*

Input Quantity x_i, the source of uncertainty (and individual uncertainty components where appropriate)	Method Used To Evaluate $u(x_i)$, the standard uncertainty of x_i (A) denotes evaluation by statistical methods (B) denotes evaluation by other methods	Relative Uncertainty Of Input Quantity, $u(x_i)/x_i$, (%) [k]	Relative Sensitivity Factor, $\lvert\partial y/\partial x_i\rvert \cdot (x_i/y)$ [m]	Relative Uncertainty Of Output Quantity, $u_i(y)/y$, (%) [n]
Massic alpha-particle emission rate, corrected for background and decay	Standard deviation of the mean for 80 sets of $4\pi\alpha$ liquid-scintillation measurements (A)	0.05	1.0	0.05
Half life of Pu-242	Standard uncertainty of the half life (A)	0.32 [p]	0.00001 [q]	0.000003
Decay-scheme data	Standard uncertainty of the probability of decay by alpha-particle emission (A)	0.001	1.0	0.001
Extrapolation of alpha-particle-count-rate-versus-energy to zero energy	Estimated (B)	0.25	1.0	0.25
Gravimetric measurements	Estimated (B)	0.10	1.0	0.10
Live time [r]	Estimated (B)	0.10	1.0	0.10
Alpha-particle detection efficiency of scintillators	Estimated (B)	0.15	1.0	0.15
Alpha-particle-emitting impurities	Limit of detection (B) [s]	100.	0.001	0.10
Photon-emitting impurities	Limit of detection (B) [s]	100.	0.001	0.10
Relative Combined Standard Uncertainty of the Output Quantity, $u_c(y)/y$, (%)				0.36
Coverage Factor, k				x 2
Relative Expanded Uncertainty of the Output Quantity, U/y, (%)				0.72

*Notes and references are on pages 5 to 7.

RELATIVE ACTIVITIES OF RADIONUCLIDIC IMPURITIES AT THE REFERENCE TIME [b]

Radionuclide	Half Life (years) [j] [5]	Relative Activity As Determined By	
		LLNL	NIST
Plutonium-242	373 500 ± 1100	1.000 000	1.000 000
Plutonium-241	14.35 ± 0.10	- -	0.0035 ± 0.0004 [t]
Plutonium-240	6 564 ± 11	$^{239}Pu + ^{240}Pu$ <0.000 001 [u]	$^{239}Pu + ^{240}Pu$ 0.000 020 ± 0.000 021 [v]
Plutonium-239	24 110 ± 30		
Plutonium-238	87.7 ± 0.1	$^{238}Pu + ^{241}Am$ <0.000 016 [u]	0.000 009 ± 0.000 016 [v]
Americium-241	432.2 ± 0.7		0.000 000 assumed [t]

NOTES

[a] The Sievert is the SI unit for dose equivalent. See reference [1]. One µSv is equal to 0.1 mrem.

Distance from Ampoule (cm):	1	30	100
Approximate Dose Rate (µSv/h):	<0.1	-	-

[b] The plutonium-242 master solution was chemically purified at 1200 EST, 07 June 1994.

[c] **Massic activity** is the preferred name for the quantity activity divided by the total mass of the sample. See reference [1].

[d] The reported value, y, of massic activity (activity per unit mass) at the reference time was not measured directly but was derived from measurements and calculations of other quantities. This can be expressed as $y = f(x_1, x_2, x_3, \ldots x_n)$, where f is a mathematical function derived from the assumed model of the measurement process. The value, x_i, used for each input quantity i has a **standard uncertainty**, $u(x_i)$, that generates a corresponding uncertainty in y, $u_i(y) \equiv |\partial y/\partial x_i| \cdot u(x_i)$, called a **component of combined standard uncertainty** of y. The **combined standard uncertainty** of y, $u_c(y)$, is the positive square root of the sum of the squares of the components of combined standard uncertainty. The combined standard uncertainty is multiplied by a **coverage factor** of $k = 2$ to obtain U, the **expanded uncertainty** of y.

Since it can be assumed that the possible estimated values of the massic activity are approximately normally distributed with approximate standard deviation $u_c(y)$, the unknown value of the massic activity is believed to lie in the interval $y \pm U$ with a level of confidence of approximately 95 percent.

For further information on the expression of uncertainties, see references [2] and [3].

[e] The value of each component of combined standard uncertainty, and hence the value of the expanded uncertainty itself, is a best estimate based upon all available information, but is only approximately known. That is to say, the "uncertainty of the uncertainty" is large and not well known. This is true for uncertainties evaluated by statistical methods (e.g., the relative standard deviation of the standard deviation of the mean for the massic response is approximately 50%) and for uncertainties evaluated by other methods (which could easily be over estimated or under estimated by substantial amounts). The unknown value of the expanded uncertainty is believed to lie in the interval $U/2$ to $2U$ (i.e., within a factor of 2 of the estimated value).

[f] The stated uncertainty is two times the standard uncertainty.

[g] Estimated limits of detection for alpha-particle-emitting impurities, expressed as massic alpha-particle emission rates (numbers of alpha particles per second per gram), are:
0.003 $s^{-1} \cdot g^{-1}$ for energies less than 3.1 MeV,
0.03 $s^{-1} \cdot g^{-1}$ for energies between 3.1 and 4.4 MeV, and
0.003 $s^{-1} \cdot g^{-1}$ for energies greater than 5.0 MeV.

[h] The plutonium-242 master solution was chemically purified at 1200 EST, 07 June 1994. Americium-241, the daughter of plutonium-241, was removed but has been growing in since that time.

[i] Estimated limits of detection for photon-emitting impurities, expressed as massic photon emission rates (numbers of photons per second per gram), are:
5×10^{-5} $s^{-1} \cdot g^{-1}$ for energies between 19 and 39 keV,
7×10^{-5} $s^{-1} \cdot g^{-1}$ for energies between 49 and 92 keV,
2×10^{-5} $s^{-1} \cdot g^{-1}$ for energies between 106 and 507 keV,
1×10^{-5} $s^{-1} \cdot g^{-1}$ for energies between 515 and 1456 keV, and
5×10^{-6} $s^{-1} \cdot g^{-1}$ for energies between 1465 and 2750 keV,
provided that the photons are separated in energy by 4 keV or more from photons emitted in the decay of plutonium-242, plutonium-241, or americium-241.

[j] The stated uncertainty is the standard uncertainty.

[k] Relative standard uncertainty of the input quantity x_i.

[m] The relative change in the output quantity y divided by the relative change in the input quantity x_i. If $|\partial y/\partial x_i| \cdot (x_i/y) = 1.0$, then a 1% change in x_i results in a 1% change in y. If $|\partial y/\partial x_i| \cdot (x_i/y) = 0.05$, then a 1% change in x_i results in a 0.05% change in y.

[n] Relative component of combined standard uncertainty of output quantity y, rounded to two significant figures or less. The relative component of combined standard uncertainty of y is given by $u_i(y)/y \equiv |\partial y/\partial x_i| \cdot u(x_i)/y = |\partial y/\partial x_i| \cdot (x_i/y) \cdot u(x_i)/x_i$. The numerical values of $u(x_i)/x_i$, $|\partial y/\partial x_i| \cdot (x_i/y)$, and $u_i(y)/y$, all dimensionless quantities, are listed in columns 3, 4, and 5, respectively. Thus, the value in column 5 is equal to the value in column 4 multiplied by the value in column 3. The input quantities are independent, or very nearly so. Hence the covariances are zero or negligible.

[p] The relative standard uncertainty of $\lambda \cdot t$ is determined by the relative standard uncertainty of λ (i.e., of the half life). The relative standard uncertainty of t is negligible.

[q] $|\partial y/\partial x_i| \cdot (x_i/y) = |\lambda \cdot t|$

[r] The live time is determined by counting the pulses from a gated crystal-controlled oscillator.

[s] The standard uncertainty for each undetected impurity that might reasonably be expected to be present is estimated to be equal to the estimated limit of detection for that impurity, i.e. $u(x_i)/x_i$ = 100%. $|\partial y/\partial x_i| \cdot (x_i/y)$ = {(response per Bq of impurity)/(response per Bq of Pu-242)}·{(Bq of impurity)/(Bq of Pu-242)}. Thus $u_i(y)/y$ is the relative change in y if the impurity were present with a massic activity equal to the estimated limit of detection.

[t] The stated uncertainty is the standard uncertainty. The plutonium-241 activity was calculated from a gamma-ray measurement of the americium-241 ingrowth as of 25 November 1998, assuming that americium-241 was completely removed at the time of chemical purification.

[u] Using alpha-particle spectrometry, no alpha-particle emission was detected that could reliably be ascribed to these radionuclides. The value shown is an estimated upper limit based upon background and counting statistics. Measurements were made at the Lawrence Livermore National Laboratory (LLNL) in July of 1994.

[v] Using alpha-particle spectrometry, no alpha-particle emission was detected that could reliably be ascribed to these radionuclides. The stated uncertainty is the standard uncertainty. Measurements were made at the National Institute of Standards and Technology (NIST) in June and July of 1999.

REFERENCES

[1] International Organization for Standardization (ISO), *ISO Standards Handbook - Quantities and Units*, 1993. Available from Global Engineering Documents, 12 Inverness Way East, Englewood, CO 80112, U.S.A. Telephone 1-800-854-7179.

[2] International Organization for Standardization (ISO), *Guide to the Expression of Uncertainty in Measurement*, 1993 (corrected and reprinted, 1995). Available from Global Engineering Documents, 12 Inverness Way East, Englewood, CO 80112, U.S.A. Telephone 1-800-854-7179.

[3] B.N. Taylor and C.E. Kuyatt, *Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Results*, NIST Technical Note 1297, 1994. Available from the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20407, U.S.A.

[4] National Council on Radiation Protection and Measurements Report No. 58, *A Handbook of Radioactivity Measurements Procedures*, Second Edition, 1985. Available from the National Council on Radiation Protection and Measurements, 7910 Woodmont Avenue, Bethesda, MD 20814 U.S.A.

[5] Evaluated Nuclear Structure Data File (ENSDF), January 2005.

Standard Traceability Log Rad

Source Material Info	
Parent Code:	1374
Prepared By:	Mary Aders
Carrier Conc:	0.5M HNO3
Reference Date:	06/07/1994
Ampoule Mass (g):	5.5 g
Uncertainty:	+/- .72 %
LogBook No:	RC-S-051-093

A Solution Material Info	
Isotope:	Plutonium-242
Prepared By:	Ashley Drochter
Prep Date:	12/02/2009
Verification Date:	12/08/2009
Expiration Date:	12/08/2010
Primary Code:	1374-A
Dilution(mL):	250 mL
Mass of Parent(g):	5.3616 g
Density(g/mL):	1.0136
Balance ID:	38080204

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (Bq/g)) * (conversion dpm to Bq) / (Dilution Vol) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (Bq/g)) * (conversion dpm to Bq) / Density (g/mL)/ (Dilution Vol) = Parent Activity (dpm/g)
(5.3616 g) * (26.31 Bq/g) * (60 dpm/Bq) / (250 mL) = 33.8553 dpm/mL
(5.3616 g) * (26.31 Bq/g) * (60 dpm/Bq) / (1.0136 g/mL) / (250 mL) = 33.4010 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for Pu-242 Standard 1374-*A*

A.Drochter	**Isotope**	**Value**	**Uncertainty**
12/8/2009	1374-A	1.610	0.2480
	1374-A	1.580	0.2510
	1374-A	1.530	0.2440
Mean Value (Counting) =	1.573	103.17	**Pass**
Stdev =	0.040414519		**Rule 3 (Pass/Fail)**
Target =	1.52		
Lower Limit =	1.492504296		
Upper Limit =	1.654162371		
Rule 1 Pass/Fail	**Pass**		
Two sigma =	0.080829038		
10 % of Mean =	0.157333333		
Rule 2 (Pass/Fail)	**Pass**		

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 5% of the certificate value.

The analyst prepared three standard verification sources for standard 1374-A using 0.1 mL for each source. Each standard was combined with 0.1 mL of Pu239 standard 0338-BB and 50 micrograms of neodymium carrier in a disposable centrifuge tube containing 4 mL of 2 M HCl and 6 mL of DI water. Four drops of 25% Hydrazine dihydrochloride were added to each centrifuge tube and swirled. Two mL of 49% HF was added to precipitate neodymium(and plutonium) fluoride. After 30 minutes, each sample was filtered following routine procedures for alpha spectroscopy source preparation. Each source was counted using routine alpha spec procedures. DPM values for Pu-242 were calculated by comparison to Pu-239 certified values.

not called
12/9/09
12/9/09

Eckert & Ziegler
Analytics

1380 Seaboard Industrial Blvd.
Atlanta, Georgia 30318
Tel 404-352-8677
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CERTIFICATE OF CALIBRATION
Standard Radionuclide Source

1067

74463-278

Sr-90 5 mL Liquid in Flame Sealed Vial

This standard radionuclide source was prepared gravimetrically from a calibrated master solution. The master solution was calibrated by liquid scintillation counting.

Radionuclide purity and calibration were checked by germanium gamma-ray spectrometry and liquid scintillation counting. The nuclear decay rate and assay date for this source are given below.

ANALYTICS maintains traceability to the National Institute of Standards and Technology through Measurements Assurance Programs as described in USNRC Reg. Guide 4.15, Revision 1.

ISOTOPE:	Sr-90
ACTIVITY (Bq):	3.835 E4
HALF-LIFE:	28.79 years
CALIBRATION DATE:	February 7, 2007 12:00 EST
RELATIVE EXPANDED UNCERTAINTY (k=2):	1.7%

Impurities: γ-impurities <0.1%

5.01066 grams 0.1M HCl solution with 30 μg/g Sr carrier.

NOTE: This source also contains Y-90 in secular equilibrium with Sr-90. The Y-90 activity is equal to the Sr-90 activity. Since Sr-90 and Y-90 both decay 100% by beta emission, the total beta emission rate for the source is twice the certified Sr-90 activity. The half-life for Y-90 is 64.08 hours.

P O NUMBER 2739 RD, Item 1

RECEIVED 2/8/07

SOURCE PREPARED BY: M. Dimitrova
M. Dimitrova, Radiochemist

Q A APPROVED: 2-7-07

RC-S-045408-A

Standard Traceability Log Rad

Source Material Info

Parent Code:	1067
Prepared By:	Daniel Roy
Carrier Conc:	0.1M HCl
Reference Date:	02/07/2007
Ampoule Mass (g):	5.01066 g
Uncertainty:	+/- 1.7 %
LogBook No:	RC-S-045-108

A Solution Material Info

Isotope:	Strontium-90
Prepared By:	Julie Strock
Prep Date:	10/12/2007
Verification Date:	06/17/2009
Expiration Date:	06/23/2010
Primary Code:	1067-A
Dilution(mL):	100 mL
Mass of Parent(g):	4.9657 g
Density(g/mL):	0.9962
Balance ID:	

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (bq)) * (conversion dpm to bq) / (Ampoule Mass(g) *(Dilution Vol)) = Parent Activity (dpm/mL)

(Mass of parent(g)) * (Parm Activity (bq)) * (conversion dpm to bq) / Density / (Ampoule Mass (g) * (Dilution Vol)) = Parent Activity (dpm/g)

(4.9657 g) * (38350 bq) * (60 dpm/bq) / (5.01066 g * 100 mL) = 22803.5343 dpm/mL

(4.9657 g) * (38350 bq) * (60 dpm/bq) / (0.9962 g/mL)/ (5.01066 g * 100 mL) = 22889.8293 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date
07/23/2008	Daniel Roy	20.0611	1000	1067-B	459.1952 dpm/ml	07/23/2008	07/23/2009
06/16/2009	Mary Aders	20.0693	1000	1067-C	459.3829 dpm/mL	06/17/2009	06/17/2010

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for Sr-90 Standard 1067-C

6/18/2009	Isotope	Detector CPM	BKG CPM	NET CPM	Detector Eff	Standard Vol. Used (mL)	Source DPM/mL
M. Aders	1067-C N1	922.6000	45.1300	877.4700	2.030242	1.0000	432.1997062
	1067-C N2	905.2700	45.1300	860.1400	2.030242	1.0000	423.66378
	1067-C N3	918.2700	45.1300	873.1400	2.030242	1.0000	430.0669575
						Average =	428.6434819
Mean Value (Counting) =	428.6434819		98.7965109	% of known	Pass		
Stdev =	4.442435123		0.01036394				
Certificate Value =	433.865	dpm/mL					
Lower Limit =	419.7586117	dpm/mL					
Upper Limit =	437.5283522	dpm/mL					
Rule 1 Pass/Fail	Pass	Pass	Pass				
Two sigma =	8.884870247						
10 % of Mean =	42.86434819						
Rule 2 (Pass/Fail)	Pass						

Verification Rules

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 5% of the certificate value.

The analyst prepared three standard verification sources for Sr-90 source 1067-C by transferring 1 mL portions of the standard into glass liquid scintillation vials. Thirteen mL of Ecoscint Ultra liquid scintillation coctail was prepared in a similar fashion using 1 mL of DI water and 13 mL of Ecoscint Ultra liquid scintillation coctail. The standard verification vials and Background source were dark adapted for two hours and counted on LSC Green for Sr-90 source standard verification. The Sr-90 efficiency calibration which was used for verification calculations was performed on 6/17/09 using source 0133-A (Sr-90). Calibration data is recorded in this logbook under Sr-90 0133-A. Each verification source calculation was performed as follows:

Source dpm/g = (A - B)/(C)(D)
where:
A = Ver. source cpm,
B = BKG cpm,
C = System efficiency, (cpm/dpm), and
D = mass used for standard verification.
RAD SOP M-001

6/18/09
6/29/09

Sr Master

STANDARDIZATION OF STRONTIUM CARRIER

DATE: [redacted] EXP. DATE: [redacted]

LOT NUMBER [redacted]

STRONTIUM PRECIPITATES

	1	2	3	4
Weight of carrier added	[redacted]			
Aliquot (5.00 mL)				
Crucible + ppt.	[redacted]			
Crucible				
Wt. of ppt., g	0.0178	0.0179	0.0179	0.0178
mg Sr/mL	17.80	17.90	17.90	17.80
mg Sr/g	17.28	17.72	17.55	17.28

Must weigh carrier added

Jennifer L. Robb
9-24-09

Average	Std. Dev.	
17.85	± 0.06	0.00323446
17.46	± 0.22	0.0124023
mg Sr/ 0.5 mL		**8.93**
mg Sr/g		17.46

0.5% of Mean Value = 0.08925 Pass

A satisfactory standardization is obtained when results give a standard deviation of less than 0.5% of the mean value.

Eckert & Ziegler
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www.analyticsinc.com

CERTIFICATE OF CALIBRATION

Standard Radionuclide Source

1283

78747-278

U-232 5 mL Liquid in Flame Sealed Vial

Customer: GEL Laboratories, LLC
P.O. No.: 7319 RD, Item 1

This standard radionuclide source was prepared gravimetrically from a calibrated master solution. The master solution was calibrated using a germanium gamma spectrometer system.

Radionuclide purity and calibration were checked using a germanium gamma spectrometer system. The nuclear decay rate and assay date for this source are given below.

ANALYTICS maintains traceability to the National Institute of Standards and Technology through Measurements Assurance Programs as described in USNRC Reg. Guide 4.15, Revision 1.

Isotope:	U-232
Activity (Bq):	3.754 E3
Half-Life:	68.9 years
Calibration Date:	December 9, 2008 12:00 EST
Relative Expanded Uncertainty (k=2):	5.0%

Comments:
Impurities: U-233 <0.3%, Am-241 <0.15%
5.20453 grams 1M HNO_3 solution.

Source Prepared By: W. Mao, Radiochemist

QA Approved: D. M. Montgomery, QA Manager Date: 12-11-08

End of Certificate

RECEIVED 12/15/08
RC-S-08

Standard Traceability Log Rad

Source Material Info	
Parent Code:	1283
Prepared By:	Daniel Roy
Carrier Conc:	1M HNO3
Reference Date:	12/09/2008
Ampoule Mass (g):	5.20453 g
Uncertainty:	+/- 5 %
LogBook No:	RC-S-051-002

A Solution Material Info	
Isotope:	Uranium-232
Prepared By:	Daniel Roy
Prep Date:	12/16/2008
Verification Date:	12/30/2008
Expiration Date:	12/30/2009
Primary Code:	1283-A
Dilution(mL):	100 mL
Mass of Parent(g):	5.0245 g
Density(g/mL):	1.0285
Balance ID:	

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (Bq)) * (conversion dpm to Bq) / (Ampoule Mass(g) *(Dilution Vol)) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (Bq)) * (conversion dpm to Bq) / Density / (Ampoule Mass (g) * (Dilution Vol)) = Parent Activity (dpm/g)
(5.0245 g) * (3754 Bq) * (60 dpm/Bq) / (5.20453 g * 100 mL) = 2174.4872 dpm/mL
(5.0245 g) * (3754 Bq) * (60 dpm/Bq) / (1.0285 g/mL)/ (5.20453 g * 100 mL) = 2114.1700 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date
12/16/2008	Daniel Roy	25.1813	1000	1283-B	53.2375 dpm/ml	12/16/2008	12/16/2009
12/30/2008	Tina Schoneman	2.05	250	1283-C	17.336 dpm/mL	12/30/2008	12/30/2009
12/30/2008	Tina Schoneman	.49	250	1283-D	4.1438 dpm/mL	01/09/2009	01/09/2010
01/14/2009	Mary Aders	25.0528	1000	1283-E	52.9659 dpm/ml	01/15/2009	01/15/2010
12/02/2009	Julie Strock	2.076	250	1283-F	17.5561 dpm/mL	01/09/2009	12/30/2009
12/02/2009	Julie Strock	.517	250	1283-G	4.3721 dpm/mL	01/09/2009	12/30/2009
12/09/2009	Ashley Drochter	21.56	1000	1283-H	45.58 dpm/mL	12/09/2009	12/09/2010

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for Uranium-232 Standard *1283-H*

Analyst: A. Drochter	**Serial #**	**Value**		**Uncertainty**	
Date: 12/10/09	1283-H N1	2.020	pCi/L	0.238	pCi/L
	1283-H N2	2.000	pCi/L	0.234	pCi/L
	1283-H N3	2.060	pCi/L	0.242	pCi/L
Mean Value (Counting) =	2.027	pCi/L		**99.66904**	**Pass**
Stdev =	0.030550505	pCi/L			**Rule 3 (Pass/Fail)**
Target =	2.033	pCi/L			
Lower Limit =	1.965565657	pCi/L			
Upper Limit =	2.087767676	pCi/L			
Rule 1 Pass/Fail	**Pass**				
Two sigma =	0.061101009				
10 % of Mean =	0.202666667				
Rule 2 (Pass/Fail)	**Pass**				

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 10% of the certificate value.

The analyst prepared three standard verification sources for standard **1283-H** using 0.1 mL for each source. Each standard was combined with 0.1 mL of **U-238** standard **1163-G** and was diluted to 10 mL with DI water. 50 micrograms of neodymium carrier and 1ml of Titanium Chloride were added. The solution was allowed to sit for 30 seconds. One mL of 49% HF was then added to precipitate neodymium (and uranium) fluoride. After 30 minutes, each sample was filtered following routine procedures for alpha spectroscopy source preparation. Each source was counted using routine alpha spec procedures. DPM values for U-238 were calculated by comparison to U-232 certified values.

A. Drochter AD 12/14/09

RUNLOGS

Instrument Run Log

Instrument Type: ALPHA SPECTROMETER **Batch ID: 934644**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
243007002	SAMPLE	MXE1	1007	23-DEC-09 16:07	DUSE		
243019002	SAMPLE	MXE1	1008	23-DEC-09 16:07	DONE		
243019003	SAMPLE	MXE1	1009	23-DEC-09 16:07	DONE		
243019004	SAMPLE	MXE1	1010	23-DEC-09 16:07	DUSE		
243019007	SAMPLE	MXE1	1011	23-DEC-09 16:07	DONE		
243019009	SAMPLE	MXE1	1012	23-DEC-09 16:07	DONE		
243019011	SAMPLE	MXE1	1065	23-DEC-09 16:07	DONE		
243019014	SAMPLE	MXE1	1066	23-DEC-09 16:07	DONE		
243019017	SAMPLE	MXE1	1067	23-DEC-09 16:07	DONE		
1201999658	MB	MXE1	1068	23-DEC-09 16:07	DONE		
1201999659	DUP	MXE1	1069	23-DEC-09 16:07	DONE		
1201999660	LCS	MXE1	1070	23-DEC-09 16:07	DONE		
243019004	SAMPLE	MXE1	1237	24-DEC-09 13:14	DONE		
243007002	SAMPLE	MXE1	1238	24-DEC-09 13:14	DONE		

Instrument Run Log

Instrument Type: ALPHA SPECTROMETER **Batch ID: 934649**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
243007002	SAMPLE	MXE1	1025	23-DEC-09 16:07	DONE		
243019002	SAMPLE	MXE1	1026	23-DEC-09 16:07	DUSE		
243019003	SAMPLE	MXE1	1027	23-DEC-09 16:07	DONE		
243019004	SAMPLE	MXE1	1028	23-DEC-09 16:07	DONE		
243019007	SAMPLE	MXE1	1029	23-DEC-09 16:07	DONE		
243019009	SAMPLE	MXE1	1030	23-DEC-09 16:07	DUSE		
243019011	SAMPLE	MXE1	1037	23-DEC-09 16:07	DONE		
243019014	SAMPLE	MXE1	1038	23-DEC-09 16:07	DONE		
243019017	SAMPLE	MXE1	1039	23-DEC-09 16:07	DONE		
1201999665	MB	MXE1	1040	23-DEC-09 16:07	DONE		
1201999666	DUP	MXE1	1041	23-DEC-09 16:07	DONE		
1201999667	LCS	MXE1	1042	23-DEC-09 16:07	DONE		
243019002	SAMPLE	MXE1	1209	24-DEC-09 13:14	DONE		
243019009	SAMPLE	MXE1	1210	24-DEC-09 13:14	DONE		

Instrument Run Log

Instrument Type: ALPHA SPECTROMETER **Batch ID: 934652**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
243007002	SAMPLE	MXA1	1153	23-DEC-09 21:38	DUSE		
243019002	SAMPLE	MXA1	1154	23-DEC-09 21:38	DUSE		
243019003	SAMPLE	MXA1	1155	23-DEC-09 21:38	DUSE		
243019004	SAMPLE	MXA1	1156	23-DEC-09 21:38	DUSE		
243019007	SAMPLE	MXA1	1157	23-DEC-09 21:38	DUSE		
243019009	SAMPLE	MXA1	1158	23-DEC-09 21:38	DUSE		
243019011	SAMPLE	MXA1	1159	23-DEC-09 21:38	DUSE		
243019014	SAMPLE	MXA1	1160	23-DEC-09 21:38	DUSE		
243019017	SAMPLE	MXA1	1163	23-DEC-09 21:38	DUSE		
1201999668	MB	MXA1	1164	23-DEC-09 21:38	DUSE		
1201999669	DUP	MXA1	1165	23-DEC-09 21:38	DUSE		
1201999670	LCS	MXA1	1166	23-DEC-09 21:38	DUSE		
243007002	SAMPLE	MXA1	1117	28-DEC-09 20:12	DONE		
243019002	SAMPLE	MXA1	1118	28-DEC-09 20:12	DONE		
243019003	SAMPLE	MXA1	1119	28-DEC-09 20:13	DONE		
243019004	SAMPLE	MXA1	1120	28-DEC-09 20:13	DONE		
243019007	SAMPLE	MXA1	1121	28-DEC-09 20:13	DONE		
243019009	SAMPLE	MXA1	1122	28-DEC-09 20:13	DONE		
243019011	SAMPLE	MXA1	1123	28-DEC-09 20:13	DONE		
243019014	SAMPLE	MXA1	1124	28-DEC-09 20:13	DONE		
243019017	SAMPLE	MXA1	1125	28-DEC-09 20:13	DONE		
1201999670	LCS	MXA1	1126	28-DEC-09 20:13	DONE		
1201999669	DUP	MXA1	1127	28-DEC-09 20:13	DONE		
1201999668	MB	MXA1	1128	28-DEC-09 20:13	DONE		

Instrument Run Log

Instrument Type: GFPC **Batch ID: 934816**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
243007002	SAMPLE	JXR1	PIC7D	23-DEC-09 16:15	DONE	Tuffryn Filter	01-JAN-09 00:00
243144001	SAMPLE	JXR1	PIC8B	23-DEC-09 16:16	DONE	Tuffryn Filter	01-JAN-09 00:00
243144002	SAMPLE	JXR1	PIC9B	23-DEC-09 16:16	DONE	Tuffryn Filter	01-JAN-09 00:00
1202000048	MB	JXR1	PIC9C	23-DEC-09 16:16	DONE	Tuffryn Filter	01-JAN-09 00:00
1202000049	DUP	JXR1	PIC9D	23-DEC-09 16:16	DONE	Tuffryn Filter	01-JAN-09 00:00
1202000050	LCS	JXR1	PIC10A	23-DEC-09 16:16	DONE	Tuffryn Filter	01-JAN-09 00:00

Instrument Run Log

Instrument Type: LSC **Batch ID: 935328**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
242786001	SAMPLE	KXK2	LSCGREEN	23-DEC-09 09:54	DONE	10mL DW/13mL Ecoscint Ultra	20-AUG-09 00:00
242786002	SAMPLE	KXK2	LSCGREEN	23-DEC-09 10:54	DONE	10mL DW/13mL Ecoscint Ultra	20-AUG-09 00:00
243007002	SAMPLE	KXK2	LSCGREEN	23-DEC-09 11:54	DONE	10mL DW/13mL Ecoscint Ultra	20-AUG-09 00:00
1202001326	LCS	KXK2	LSCRED	23-DEC-09 12:07	DONE	10mL DW/13mL Ecoscint Ultra	21-AUG-09 00:00
243144001	SAMPLE	KXK2	LSCGREEN	23-DEC-09 12:54	DONE	10mL DW/13mL Ecoscint Ultra	20-AUG-09 00:00
243144002	SAMPLE	KXK2	LSCGREEN	23-DEC-09 13:54	DONE	10mL DW/13mL Ecoscint Ultra	20-AUG-09 00:00
1202001324	MB	KXK2	LSCGREEN	23-DEC-09 14:54	DONE	10mL DW/13mL Ecoscint Ultra	20-AUG-09 00:00
1202001325	DUP	KXK2	LSCGREEN	23-DEC-09 15:54	DONE	10mL DW/13mL Ecoscint Ultra	20-AUG-09 00:00

Monday, December 14, 2009

REQUEST NUMBER: 10-918

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

These Samples are on:

LANL Request Number:10-918

Per Agreement Number:126310011

Project Cost Code: MR2A054196D0

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 12/14/2009

TURNAROUND/REPORT DUE: 1/13/2010

TURNAROUND REQ'D: 30 Days

RAD SCREENING: Not Required

LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:

Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:906.0	1	RE03-09-14212	S	12/11/2009	
		1	RE03-09-14213	S	12/11/2009	
		1	RE03-09-14214	S	12/11/2009	
		1	RE03-09-14215	S	12/11/2009	
		1	RE03-09-14216	S	12/11/2009	
		1	RE03-09-14217	S	12/11/2009	
		1	RE03-09-14218	S	12/11/2009	
		1	RE03-09-14219	S	12/11/2009	
		1	RE03-10-2735	S	12/11/2009	

Monday, December 14, 2009

REQUEST NUMBER: 10-918

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:6010B	1	RE03-09-14212	S	12/11/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14213	S	12/11/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14214	S	12/11/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14215	S	12/11/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14216	S	12/11/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14217	S	12/11/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14218	S	12/11/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14219	S	12/11/2009	Plus, B, Li, Si, Ti, U
		1	RE03-10-2735	S	12/11/2009	
		1	RE03-10-2747	W	12/11/2009	
		1	RE03-10-2761	W	12/11/2009	
	SW-846:6020	1	RE03-10-2747	W	12/11/2009	
		1	RE03-10-2761	W	12/11/2009	
	SW-846:9012A	1	RE03-09-14212	S	12/11/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14213	S	12/11/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14214	S	12/11/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14215	S	12/11/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14216	S	12/11/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14217	S	12/11/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14218	S	12/11/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14219	S	12/11/2009	Plus, B, Li, Si, Ti, U
		1	RE03-10-2735	S	12/11/2009	
		1	RE03-10-2747	W	12/11/2009	
		1	RE03-10-2761	W	12/11/2009	

Final Page of REQUEST NUMBER 10-918

Monday, December 14, 2009

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-918

REQUEST NUMBER: 10-918

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 1/13/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS:

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE03-09-14213	1	POLY	H3	Ice	S
RE03-09-14213	1	POLY	Metals+CN - GEL	Ice	S
RE03-09-14215	1	POLY	H3	Ice	S
RE03-09-14215	1	POLY	Metals+CN - GEL	Ice	S
RE03-09-14212	1	POLY	H3	Ice	S
RE03-09-14212	1	POLY	Metals+CN - GEL	Ice	S
RE03-09-14219	1	POLY	H3	Ice	S
RE03-09-14219	1	POLY	Metals+CN - GEL	Ice	S
RE03-09-14218	1	POLY	H3	Ice	S
RE03-09-14218	1	POLY	Metals+CN - GEL	Ice	S
RE03-09-14216	1	POLY	H3	Ice	S
RE03-09-14216	1	POLY	Metals+CN - GEL	Ice	S
RE03-09-14214	1	POLY	H3	Ice	S
RE03-09-14214	1	POLY	Metals+CN - GEL	Ice	S
RE03-09-14217	1	POLY	H3	Ice	S
RE03-09-14217	1	POLY	Metals+CN - GEL	Ice	S
RE03-10-2735	1	POLY	H3	Ice	S
RE03-10-2735	1	POLY	Metals+CN - GEL	Ice	S
RE03-10-2747	1	POLY	METALS-GEL	Nitric Acid	W
RE03-10-2747	1	POLY	TCN	Sodium Hydroxide	W
RE03-10-2761	1	POLY	METALS-GEL	Nitric Acid	W
RE03-10-2761	1	POLY	TCN	Sodium Hydroxide	W

Relinquished By:		Date	Time	Received By:		Date	Time
		12/19/09	1400				
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

Received for DISPOSAL By: **Date** **Time** **Remarks:**

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2276 **EVENT NAME:** Soil Sampling at TA-60

SAMPLE ID: RE03-09-14212 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12-11-09	MEDIA:	NA	all H
TIME COLLECTED (HH:MM)		1342	SUB-MEDIA:	OTHER	NA
PRS ID:	60-004(f)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	03-608405	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	BH	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	1'	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	2'	SCREEN/PORT DESC:		
FIELD MATRIX:	S		EXCAVATED: YES / NO / NA	NA	

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+8082+TPH-DRO	500 ML GLASS	Ice	Y	
1		H3	500 ML POLY	Ice	Y	
1		Metals+CN - GEL	125 ML POLY	Ice	Y	

SAMPLE DESC: Brown clayey sand. (7.5 YR 4/4)

SAMPLE COMMENTS: NA

LOCATION DESC: 4(f)-2

FIELD SCREENING/MEASUREMENT RESULTS: PID = 0.7ppm BACKGROUND α: 17 β: 1561 DPM Samples: 4 MDA

COLLECTED BY (PRINT) M. Nauck **REVIEWED BY (PRINT)** M. Rains

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) M. Rains	12-11-09	(Printed Name) Sherri Sherwood	12-11-09
(Signature) [signature]	1630	(Signature) Sherri Sherwood	1630
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2276 **EVENT NAME:** Soil Sampling at TA-60

SAMPLE ID: RE03-09-14213 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12-11-09	MEDIA:	NA	all H
TIME COLLECTED (HH:MM)		1350	SUB-MEDIA:	OTHER	NA
PRS ID:	60-004(f)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	03-608405	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	BH	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	2'	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	3'	SCREEN/PORT DESC:		NA
FIELD MATRIX:	S		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+8082+TPH-DRO	500 ML GLASS	Ice	Y	
1		H3	500 ML POLY	Ice	Y	
1		Metals+CN - GEL	125 ML POLY	Ice	Y	

SAMPLE DESC: Brown sandy clay (7.5 YR 4/4)

SAMPLE COMMENTS: NA

LOCATION DESC: 4(f)-2

FIELD SCREENING/MEASUREMENT RESULTS: PID = 12.3 ppm
BACKGROUND
α: 17 DPM
β: 1561

Samples < MDA

COLLECTED BY (PRINT) L. Horne **REVIEWED BY (PRINT)** M. Rains

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) M. Rains (Signature) [signature]	12-11-09 1630	(Printed Name) Sherri Sherwood (Signature) Sherri Sherwood	12-11-09 1630
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name) (Signature)		(Printed Name) (Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2276 **EVENT NAME:** Soil Sampling at TA-60

SAMPLE ID: RE03-09-14214 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12-11-09	MEDIA:	NA	mr 12/11/09 ~~Alt~~ ~~H~~ @BT3
TIME COLLECTED (HH:MM)		1404	SUB-MEDIA:	OTHER	N/A
PRS ID:	60-004(f)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	03-608405	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	BH	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	4'	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	5'	SCREEN/PORT DESC:		NA
FIELD MATRIX:	mr 12/11/09 ~~SR~~		EXCAVATED: YES / NO (NA)		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO (NA)

BOREHOLE: YES / NO (NA) BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B mr 12/7/09	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C ~~+8082~~+TP H-DRO	500 ML GLASS	Ice	Y	
1		H3	500 ML POLY	Ice	Y	
1		Metals+CN - GEL	125 ML POLY	Ice	Y	

SAMPLE DESC: Brown silty sand (7.5 YR 4/4)

SAMPLE COMMENTS: tuff ~~fitt~~ began @ 4' mr 12/11/09

LOCATION DESC: 4(f)-2

FIELD SCREENING/MEASUREMENT RESULTS: PID = 1.3 ppm
BACKGROUND
α: 17
β: 1561 DPM

samples: < MDA

COLLECTED BY (PRINT) M. Nauck **REVIEWED BY (PRINT)** M. Rains

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) M. Rains (Signature) [signature]	12-11-09 1630	(Printed Name) Sherri Sherwood (Signature) Sherri Sherwood	12-11-09 1630
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name) (Signature)		(Printed Name) (Signature)	

Los Alamos National Laboratory

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2276 **EVENT NAME:** Soil Sampling at TA-60

SAMPLE ID: RE03-09-14215 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12-11-09	MEDIA:	NA	QBT3
TIME COLLECTED (HH:MM)		1437	SUB-MEDIA:	OTHER	NA
PRS ID:	60-004(f)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	03-608405	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	BH		FIELD PREP:	NA	
TOP DEPTH:	0	9'	SAMPLE USAGE:	INV	
BOTTOM DEPTH:	0	10'	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	mR 12/11/09 ~~S~~R		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B mR 12/7/09	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C ~~+8082+~~ TP H-DRO	500 ML GLASS	Ice	Y	
1		H3	500 ML POLY	Ice	Y	
1		Metals+CN - GEL	125 ML POLY	Ice	Y	

SAMPLE DESC: Brown tuff (7.5 YR 4/3)

SAMPLE COMMENTS: Hit tuff @ ~~6'~~ 4' mR 12/11/09

LOCATION DESC: 4 (f) - 2

FIELD SCREENING/MEASUREMENT RESULTS: PID = 0.0ppm
BACKGROUND
α: 17
β: 1561 DPM
samples: < MDA

COLLECTED BY (PRINT) L. Horne

REVIEWED BY (PRINT) M. Rains

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) M. Rains	12-11-09	(Printed Name) Sherri Sherwood	12-11-0
(Signature) [signature]	1630	(Signature) Sherri Sherwood	1630
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Tim**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

Los Alamos National Laboratory

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2276 **EVENT NAME:** Soil Sampling at TA-60

SAMPLE ID: RE03-09-14216 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12-11-09	MEDIA:	NA	all H
TIME COLLECTED (HH:MM)		1205	SUB-MEDIA:	OTHER	NA
PRS ID:	60-004(f)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	03-608406	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	BH	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	1'	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	2'	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	S		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — **COMPOSITE TIME INTERVAL:** — **WATER FLOWING:** YES / NO / NA

BOREHOLE: YES / NO / NA **BOREHOLE DECLINATION:** — **BOREHOLE DIRECTION:** —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B mr 12/7/09	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C~~+8082~~+TPH-DRO	500 ML GLASS	Ice	Y	
1		H3	500 ML POLY	Ice	Y	
1		Metals+CN - GEL	125 ML POLY	Ice	Y	

SAMPLE DESC: Dk. reddish brown clay. (5YR 3/2)

SAMPLE COMMENTS: ~~NA~~ mr 12/11/09 6" of surface asphalt

LOCATION DESC: 4(f)-3

FIELD SCREENING/MEASUREMENT RESULTS: PID= 21.8 ppm
BACKGROUND
α: 17
β: 1561 DPM
Samples: < MDA

COLLECTED BY (PRINT) L. Horne **REVIEWED BY (PRINT)** M. Rains

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) M. Rains (Signature) [signature]	12-11-09 1630	(Printed Name) Sherri Sherwood (Signature) Sherri Sherwood	12-11-09 1630
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name) (Signature)		(Printed Name) (Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2276 **EVENT NAME:** Soil Sampling at TA-60

SAMPLE ID: RE03-09-14217 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12-11-09	MEDIA:	NA	all H
TIME COLLECTED (HH:MM)		1208	SUB-MEDIA:	OTHER	NA
PRS ID:	60-004(f)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	03-608406	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	BH	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	2'	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	3'	SCREEN/PORT DESC:		
FIELD MATRIX:	S		EXCAVATED: YES / NO / NA	NA	

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B mr 12/7/09	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+~~8082~~+TPH-DRO	500 ML GLASS	Ice	Y	
1		H3	500 ML POLY	Ice	Y	
1		Metals+CN - GEL	125 ML POLY	Ice	Y	

SAMPLE DESC: Reddish brown clay (5YR 4/4)

SAMPLE COMMENTS: NA

LOCATION DESC: 4 (f)-3

FIELD SCREENING/MEASUREMENT RESULTS: PID = 0.0 ppm
BACKGROUND
α: 17
β: 1561 DPM
Samples: < MDA

COLLECTED BY (PRINT) M. Nauck **REVIEWED BY (PRINT)** M. Rains

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) M. Rains (Signature) [signature]	12-11-09 1630	(Printed Name) Sherri Sherwood (Signature) Sherri Sherwood	12-11-09 1630
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name) (Signature)		(Printed Name) (Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2276 **EVENT NAME:** Soil Sampling at TA-60

SAMPLE ID: RE03-09-14218 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12-11-09	MEDIA:	NA	All H
TIME COLLECTED (HH:MM)		1230	SUB-MEDIA:	OTHER	NA
PRS ID:	60-004(f)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	03-608406		FIELD QC TYPE:	NA	
LOCATION TYPE:	BH		FIELD PREP:	NA	
TOP DEPTH:	0	4'	SAMPLE USAGE:	INV	
BOTTOM DEPTH:	0	5'	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	S		EXCAVATED: YES / NO (NA)		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO (NA)

BOREHOLE: YES / NO (NA) BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B mg 12/7/09	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+~~8082+TP~~ H-DRO	500 ML GLASS	Ice	Y	
1		H3	500 ML POLY	Ice	Y	
1		Metals+CN - GEL	125 ML POLY	Ice	Y	

SAMPLE DESC: Reddish Brown Silty Clay. 5YR 5/4

SAMPLE COMMENTS: Hit tuff at 4.2 feet. (very soft)

LOCATION DESC: 4 (f)-3

FIELD SCREENING/MEASUREMENT RESULTS: PID: 0.5 ppm
Background:
α 17 dpm
β 1561 dpm
Samples: MDA

COLLECTED BY (PRINT) M. Rains **REVIEWED BY (PRINT)** J. Jordan

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Jason Jordan	12-11-09	(Printed Name) Sherri Sherwood	12-11-09
(Signature)	1630	(Signature) Sherri Sherwood	1630
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2276 **EVENT NAME:** Soil Sampling at TA-60

SAMPLE ID: RE03-09-14219 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12-11-09	MEDIA:	NA	AIIH
TIME COLLECTED (HH:MM)		1308	SUB-MEDIA:	OTHER	NA
PRS ID:	60-004(f)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	03-608406		FIELD QC TYPE:	NA	
LOCATION TYPE:	BH		FIELD PREP:	NA	
TOP DEPTH:	0	9'	SAMPLE USAGE:	INV	
BOTTOM DEPTH:	0	10'	SCREEN/PORT DESC:		NA
FIELD MATRIX:	S		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: _____ COMPOSITE TIME INTERVAL: _____ WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: _____ BOREHOLE DIRECTION: _____

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B me 12/7/09	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C~~+8082+~~ TP H-DRO	500 ML GLASS	Ice	Y	
1		H3	500 ML POLY	Ice	Y	
1		Metals+CN - GEL	125 ML POLY	Ice	Y	

SAMPLE DESC: Reddish Brown Clay. 5YR 6/4

SAMPLE COMMENTS: NA

LOCATION DESC: 4 (f) -3

FIELD SCREENING/MEASUREMENT RESULTS: PID: 0.0ppm Sample XMDA
Background:
α: 17
β: 1561 DPM

COLLECTED BY (PRINT) C. Horne **REVIEWED BY (PRINT)** M. Rains

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) M. Rains	12-11-09 1630	(Printed Name) Sherri Sherwood	12-11-09 1630
(Signature) [signature]		(Signature) Sherri Sherwood	
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2276 **EVENT NAME:** Soil Sampling at TA-60

SAMPLE ID: RE03-10-2735 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12-11-09	MEDIA:	ALLH	GK
TIME COLLECTED (HH:MM)		1404	SUB-MEDIA:	SOIL	
PRS ID:	60-004(f)	OK	SAMPLE TECH CODE:	HA	
LOCATION ID:	UNK	03-608405	FIELD QC TYPE:	FD	
LOCATION TYPE:	GENERIC	OK	FIELD PREP:	NA	
TOP DEPTH:	0	4'	SAMPLE USAGE:	QC	
BOTTOM DEPTH:	0	5'	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	S		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+8082+TPH-DRO	500 ML GLASS	Ice	Y	
1		H3	500 ML POLY	Ice	Y	
1		Metals+CN - GEL	125 ML POLY	Ice	Y	

SAMPLE DESC: QC Sample of RE03-09-14214

SAMPLE COMMENTS: NA

LOCATION DESC: NA

FIELD SCREENING/MEASUREMENT RESULTS: PID = 1.3ppm
BACKGROUND
α: 17
β: 1561 DPM

COLLECTED BY (PRINT) M. Naucki **REVIEWED BY (PRINT)** M. Rains

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) M. Rains (Signature)	12/11/09 1630	(Printed Name) Sherri Sherwood (Signature) Sherri Sherwood	12/11/09 1630
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name) (Signature)		(Printed Name) (Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2276 **EVENT NAME:** Soil Sampling at TA-60

SAMPLE ID: RE03-10-2747 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12-11-09	MEDIA:	NA	ok
TIME COLLECTED (HH:MM)		1520	SUB-MEDIA:	OTHER	
PRS ID:	60-004(f)	ok	SAMPLE TECH CODE:	DC	
LOCATION ID:	UNK	mr 12/11/09 03-60840	FIELD QC TYPE:	FB	
LOCATION TYPE:	GENERIC		FIELD PREP:	UF	
TOP DEPTH:	0		SAMPLE USAGE:	QC	
BOTTOM DEPTH:	0		SCREEN/PORT DESC:	NA	
FIELD MATRIX:	W		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: _____ **COMPOSITE TIME INTERVAL:** _____ **WATER FLOWING:** YES / NO / NA

BOREHOLE: YES / NO / NA **BOREHOLE DECLINATION:** _____ **BOREHOLE DIRECTION:** _____

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		METALS-GEL	1 LITER POLY	Nitric Acid	Y	
1		TCN	500 ML POLY	Sodium Hydroxide	Y	

SAMPLE DESC: QC Sample of RE03-09-14215

SAMPLE COMMENTS: NA

LOCATION DESC: NA

FIELD SCREENING/MEASUREMENT RESULTS: NA

COLLECTED BY (PRINT) L. Horne **REVIEWED BY (PRINT)** M. Rains

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) M. Rains (Signature) [signature]	12-11-09 1630	(Printed Name) Sherri Sherwood (Signature) [signature]	12-11-09 1630
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name) (Signature)		(Printed Name) (Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2276 **EVENT NAME:** Soil Sampling at TA-60

SAMPLE ID: RE03-10-2761 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12-11-09	MEDIA:	NA	ok
TIME COLLECTED (HH:MM)		1520	SUB-MEDIA:	OTHER	
PRS ID:	60-004(f)	ok	SAMPLE TECH CODE:	DC	
LOCATION ID:	UNK	03-608405	FIELD QC TYPE:	FR	
LOCATION TYPE:	GENERIC	ok	FIELD PREP:	UF	
TOP DEPTH:	0		SAMPLE USAGE:	QC	
BOTTOM DEPTH:	0		SCREEN/PORT DESC:	NA	
FIELD MATRIX:	W		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		METALS-GEL	1 LITER POLY	Nitric Acid	Y	
1		TCN	500 ML POLY	Sodium Hydroxide	Y	

SAMPLE DESC: QC Sample of RE03-09-14215

SAMPLE COMMENTS: NA

LOCATION DESC: NA

FIELD SCREENING/MEASUREMENT RESULTS: NA

COLLECTED BY (PRINT) L. Horne **REVIEWED BY (PRINT)** M. Rains

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) M. Rains (Signature) [signature]	12-11-09 1630	(Printed Name) Sherri Sherwood (Signature) Sherri Sherwood	12-11-09 1630
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name) (Signature)		(Printed Name) (Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2276 **EVENT NAME:** Soil Sampling at TA-60

SAMPLE ID: RE03-10-6968 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12-11-09	MEDIA:	NA	ok
TIME COLLECTED (HH:MM)		1520	SUB-MEDIA:	OTHER	
PRS ID:	60-007(a)	ok	SAMPLE TECH CODE:	HA	
LOCATION ID:	UNK	03-608405	FIELD QC TYPE:	FTB	
LOCATION TYPE:	GENERIC	ok	FIELD PREP:	NA	
TOP DEPTH:	0		SAMPLE USAGE:	QC	
BOTTOM DEPTH:	0		SCREEN/PORT DESC:	NA	
FIELD MATRIX:	S		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
2		8260B Trip Blank	40 ML SEPTUM AMBER GLASS	Ice	Y	

SAMPLE DESC: QC Sample of RE03-09-14215

SAMPLE COMMENTS: NA

LOCATION DESC: NA

FIELD SCREENING/MEASUREMENT RESULTS: NA

COLLECTED BY (PRINT) M. Nauck **REVIEWED BY (PRINT)** M. Rains

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) M. Rains (Signature) [signature]	12-11-09 1630	(Printed Name) Sherri Sherwood (Signature) Sherri Sherwood	12-11-09 1630
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name) (Signature)		(Printed Name) (Signature)	

DATA VALIDATION COVER SHEET

5118-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-918 VALIDATION DATE: 2/9/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Eric T. Mink ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

☐ TPH-GRO	☐ HIGH EXPLOSIVES	☐ DIOXIN FURANS	☐ LCMSMS PERCHLORATES
☐ TPH-DRO	☒ METALS	☐ PCB CONGENERS	☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
☐ GENERAL CHEMISTRY	☐ RADIOCHEMISTRY	☐ LCMSMS HIGH EXPLOSIVES	

☐ OTHER (DESCRIBE): Metals

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☐	☐	☒	8. QUANTITATION REPORTS
☐	☐	☒	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. In the soil MB, Hg and Si were detected. The associated Si sample results were detects >50X the MB concentration and, thus, were not qualified, based on professional judgment. The associated Hg sample results were detects ≤5X the greatest blank concentration and, thus, were qualified U,I4. In the aqueous MB, As was detected. All the associated sample results were NDs and, thus, were not qualified.
2. In the ICB and/or CCB associated with the aqueous samples, Tl and Sb were detected. The associated Sb sample results were NDs and, thus, were not qualified. The associated Tl sample results were detects ≤5X the greatest blank concentration and, thus, were qualified U,I4b.
3. In the FB, sample RE03-10-2747, associated with samples -09-14212 – -09-14215 and -10-2735, Ag was detected. All the associated sample results were detects ≤5X the blank concentration and, thus, were qualified U,I4d. In FR blank sample -10-2761, associated with all soil samples, Ca, Cr, Fe, Ni, Si, and Ti were detected. All associated

DATA VALIDATION COVER SHEET

5118-1

Data Validation Cover Sheet

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sample results were detects >5X the FR blank concentrations and, thus, were not qualified.

4. The soil MS %Rs were > the laboratory's UAL for Li, Ca, Ba, K and Hg. The associated Hg sample results were qualified ND and, thus, were qualified UJ,I6b. All the other associated sample results were detects and, thus, were qualified J+,I6b. The soil MS %Rs were < the laboratory's LAL but ≥10% for Se and Si. The associated Si results were detects and, thus, were qualified J-,I6a. The associated Se sample results were NDs and, thus, were qualified UJ,I6a. The soil MS %Rs were also > the laboratory's UAL for Al, Mg, Ti and Fe. However, the associated parent sample concentrations were >4X the spike concentrations. Thus, the associated sample results were not qualified, based on professional judgment.
5. It should be noted that both the Hg matrix QC analyses were performed on LANL samples from different RNs. No sample data were qualified.

Reviewed by: Monica Dymerski **Level I** **Date:** 02/09/10

VALIDATOR'S SIGNATURE: Eric T. Mik DATE: 2/9/10

Form 5118-1, Revision 0.0

LOS ALAMOS
Environmental Restoration Project

METALS ANALYTICAL DATA VALIDATION CHECKLIST

5118-2

Metals Analytical Data Validation Checklist

Records Use only

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Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, I9	J-, I9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, I9a	J-, I9a
☐	☐	☒	3. The instrument performance sample did not pass method acceptance criteria.	R, I16	R, I16
☐	☐	☒	4. The mass calibration is not within 0.1 amu or %RSD is >5% for any isotope (Be, Mg, Co, In, Pb).	UJ, I16a	J, I16a
☐	☐	☒	5. Samples were analyzed outside specific method tune time criteria.	N/A	J, I16b
☐	☐	☒	6. The required instrument performance sample information is missing. Contact the SMO or external laboratory for information.	R, I16c	R, I16c
☐	☒	☐	7. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, I7	J, I7
☐	☒	☐	8. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, I7a	J, I7a
☐	☒	☐	9. The initial Calibration Verification (ICV) and/or Continuing Calibration Verification (CCV) were recovered outside the method-specific limits.	UJ, I7c	J, I7c
☐	☒	☐	10. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, I7d	J, I7d
☐	☒	☐	11. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, I7f	R, I7f
☐	☒	☐	12. Metals interference check sample percent recover value is <50%.	R, I2	J-, I2

METALS ANALYTICAL DATA VALIDATION CHECKLIST

5118-2

Metals Analytical Data Validation Checklist

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Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	13. Metals interference check sample percent recovery value is ≥50% and <80%	UJ, I2a	J-, I2a
☐	☒	☐	14. Metals interference check sample percent recovery value is >120%.	N/A	J+, I2b
☐	☒	☐	15. Metals interference check sample was not analyzed with the samples.	R, I2c	R, I2c
☒	☐	☐	16. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, I4	N/A
☒	☐	☐	17. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X.	N/A	J, I4a
☒	☐	☐	18. The sample result is ≤5X the concentration of the related analyte in the instrument blank and continuing calibration blank.	U, I4b	N/A
☐	☒	☐	19. Continuing calibration blanks were not analyzed at the appropriate method frequency.	UJ, I4c	J, I4c
☒	☐	☐	20. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	U, I4d	N/A
☐	☒	☐	21. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, I4e	R, I4e
☐	☒	☐	22. The associated matrix spike recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I6	R, I6
☒	☐	☐	23. The associated matrix spike recovery was <the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I6a	J+, I6a
☒	☐	☐	24. The associated matrix spike recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	UJ, I6b	J+, I6b

METALS ANALYTICAL DATA VALIDATION CHECKLIST

5118-2

Metals Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	25. Required matrix spike information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. If the LCS information is present, do not Reject. Qualify data based on the LCS information.	R, I6c	R, I6c
☐	☒	☐	26. The sample and the duplicate sample results were ≥5X the RL and the duplicate RPD was >20% for water samples and >35% for soil samples.	UJ, I10a	J, I10a
☐	☒	☐	27. The duplicate sample was not prepared and/or analyzed with the samples for unspecified reasons. The duplicate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	UJ, I10d	J, I10d
☐	☒	☐	28. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I12	R, I12
☐	☒	☐	29. The LCS percent recover was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I12a	J-, I12a
☐	☒	☐	30. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, I12b
☐	☒	☐	31. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. Do not Reject if MS/MSD information is present. Qualify according to MS/MSD criteria.	R, I12c	R, I12c
☐	☐	☒	32. The quantitating IS area count is <10% for metals window in relation to the initial calibration blank. Follow the method-specific windows.	R, I1a	J, I1a

METALS ANALYTICAL DATA VALIDATION CHECKLIST

5118-2

Metals Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	33. The IS area count for the quantitating IS is <60% but >10% for metals window in relation to the initial calibration blank. Follow the method-specific windows.	UJ, I1b	J, I1b
☐	☐	☒	34. The IS area count for the quantitating IS is >125% in relation to the metals initial calibration blank. Follow method-specific windows.	UJ, I1c	J, I1c
☐	☐	☒	35. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, I1d	R, I1d
☐	☐	☒	36. Serial dilution sample RPD was >10% and the sample result was >50X the MDL (>100X the MDL for ICPMS). Qualify ONLY the sample used for the serial dilution.	UJ, I18	J, I18
☐	☐	☒	37. Serial dilution sample was not analyzed with the samples.	UJ, I18a	J, I18
☐	☐	☒	38. The sample result was reported as detected between the IDL and the EDL.	N/A	J, I1
☐	☒	☐	39. Duplicate, dilution, or reanalysis.	UJ, I88	J, I88
☒	☐	☐	40. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB, NQ, NQ
☐	☒	☐	41. The LANL project chemist identified quality deficiencies in the reported data that require further qualification. This code can ONLY be used and/or under advisement by the LANL project chemist.	UJ, R, I19	J, R, I19

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-918 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 242938001 **BASIS:** Dry Weight **DATE COLLECTED** 11-DEC-09

CLIENT ID: RE03-09-14213 **LEVEL:** Low **DATE RECEIVED** 15-DEC-09

MATRIX: SOIL **%SOLIDS:** 87

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	11600000	ug/Kg		7570	22300	22300	1	P	HSC	12/20/09 22:58	122009A-1	934060
7440-36-0	Antimony	1110	ug/Kg	U	368	1110	1110	1	P	HSC	12/20/09 22:58	122009A-1	934060
7440-38-2	Arsenic	2.21	mg/kg		0.221	1.11	1.11	2	MS	BAJ	12/30/09 00:22	091229-3	934057
7440-39-3	Barium J+,I6b	162000	ug/Kg	N	111	557	557	1	P	HSC	12/20/09 22:58	122009A-1	934060
7440-41-7	Beryllium	0.860	mg/kg		0.0221	0.111	0.111	2	MS	BAJ	12/30/09 00:22	091229-3	934057
7440-42-8	Boron	5570	ug/Kg	U	1110	5570	5570	1	P	HSC	12/20/09 22:58	122009A-1	934060
7440-43-9	Cadmium	557	ug/Kg	U	111	557	557	1	P	HSC	12/20/09 22:58	122009A-1	934060
7440-70-2	Calcium J+,I6b	1990000	ug/Kg	N	8910	27800	27800	1	P	HSC	12/20/09 22:58	122009A-1	934060
7440-47-3	Chromium	12600	ug/Kg		167	557	557	1	P	HSC	12/20/09 22:58	122009A-1	934060
7440-48-4	Cobalt	5750	ug/Kg		167	557	557	1	P	HSC	12/20/09 22:58	122009A-1	934060
7440-50-8	Copper	7490	ug/Kg		334	1110	1110	1	P	HSC	12/20/09 22:58	122009A-1	934060
7439-89-6	Iron	14800000	ug/Kg		8910	27800	27800	1	P	HSC	12/20/09 22:58	122009A-1	934060
7439-92-1	Lead	13300	ug/Kg		278	1110	1110	1	P	HSC	12/20/09 22:58	122009A-1	934060
7439-93-2	Lithium J+,I6b	15.8	mg/kg	N	0.443	2.21	2.21	2	MS	BAJ	12/30/09 00:22	091229-3	934057
7439-95-4	Magnesium	2420000	ug/Kg		9470	33400	33400	1	P	HSC	12/20/09 22:58	122009A-1	934060
7439-96-5	Manganese	319000	ug/Kg		223	1110	1110	1	P	HSC	12/20/09 22:58	122009A-1	934060
7439-97-6	Mercury U,I4	31.9	ug/kg		4.63	13.6	13.6	1	AV	JXL1	01/05/10 10:04	010510S1-5	934897
7440-02-0	Nickel	8.87	mg/kg		0.111	0.443	0.443	2	MS	BAJ	12/30/09 00:22	091229-3	934057
7440-09-7	Potassium J+,I6b	1230000	ug/Kg	N	7130	27800	27800	1	P	HSC	12/20/09 22:58	122009A-1	934060
7782-49-2	Selenium UJ,I6a	1.11	mg/kg	UN	0.554	1.11	1.11	2	MS	BAJ	12/30/09 00:22	091229-3	934057
7440-21-3	Silicon J-,I6a	1250000	ug/Kg	N	1670	11100	11100	1	P	HSC	12/20/09 22:58	122009A-1	934060
7440-22-4	Silver U,I4d	575	ug/Kg		111	557	557	1	P	HSC	12/20/09 22:58	122009A-1	934060
7440-23-5	Sodium	124000	ug/Kg		7800	27800	27800	1	P	HSC	12/20/09 22:58	122009A-1	934060
7440-28-0	Thallium	0.277	mg/kg		0.0664	0.221	0.221	2	MS	BAJ	12/30/09 10:44	091230-4	934057
7440-32-6	Titanium	516000	ug/Kg		111	557	557	1	P	HSC	12/20/09 22:58	122009A-1	934060
7440-61-1	Uranium	0.879	mg/kg		0.0146	0.0443	0.0443	2	MS	SKJ	12/30/09 12:56	091230-2	934057
7440-62-2	Vanadium	28000	ug/Kg		111	557	557	1	P	HSC	12/20/09 22:58	122009A-1	934060
7440-66-6	Zinc	30800	ug/Kg		368	1110	1110	1	P	HSC	12/20/09 22:58	122009A-1	934060

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
934057	934056	SW846 3050B	0.518	g	50	mL	12/19/09	BCD1
934060	934059	SW846 3050B	0.515	g	50	mL	12/19/09	BCD1
934897	934894	SW846 7471A Prep	0.505	g	30	mL	01/04/10	TXB3

ETM
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METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-918 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 242938002 **BASIS:** Dry Weight **DATE COLLECTED** 11-DEC-09

CLIENT ID: RE03-09-14215 **LEVEL:** Low **DATE RECEIVED** 15-DEC-09

MATRIX: SOIL **%SOLIDS:** 90

CAS No.	Analyte		Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum		4180000	ug/Kg		7260	21400	21400	1	P	HSC	12/20/09 23:46	122009A-1	934060
7440-36-0	Antimony		1070	ug/Kg	U	352	1070	1070	1	P	HSC	12/20/09 23:46	122009A-1	934060
7440-38-2	Arsenic		1.24	mg/kg		0.218	1.09	1.09	2	MS	BAJ	12/30/09 01:06	091229-3	934057
7440-39-3	Barium	J+,I6b	45200	ug/Kg	N	107	534	534	1	P	HSC	12/20/09 23:46	122009A-1	934060
7440-41-7	Beryllium		0.744	mg/kg		0.0218	0.109	0.109	2	MS	BAJ	12/30/09 01:06	091229-3	934057
7440-42-8	Boron		5340	ug/Kg	U	1070	5340	5340	1	P	HSC	12/20/09 23:46	122009A-1	934060
7440-43-9	Cadmium		534	ug/Kg	U	107	534	534	1	P	HSC	12/20/09 23:46	122009A-1	934060
7440-70-2	Calcium	J+,I6b	1030000	ug/Kg	N	8540	26700	26700	1	P	HSC	12/20/09 23:46	122009A-1	934060
7440-47-3	Chromium		3640	ug/Kg		160	534	534	1	P	HSC	12/20/09 23:46	122009A-1	934060
7440-48-4	Cobalt		785	ug/Kg		160	534	534	1	P	HSC	12/20/09 23:46	122009A-1	934060
7440-50-8	Copper		2980	ug/Kg		320	1070	1070	1	P	HSC	12/20/09 23:46	122009A-1	934060
7439-89-6	Iron		9370000	ug/Kg		8540	26700	26700	1	P	HSC	12/20/09 23:46	122009A-1	934060
7439-92-1	Lead		6070	ug/Kg		267	1070	1070	1	P	HSC	12/20/09 23:46	122009A-1	934060
7439-93-2	Lithium	J+,I6b	6.73	mg/kg	N	0.435	2.18	2.18	2	MS	BAJ	12/30/09 01:06	091229-3	934057
7439-95-4	Magnesium		846000	ug/Kg		9080	32000	32000	1	P	HSC	12/20/09 23:46	122009A-1	934060
7439-96-5	Manganese		255000	ug/Kg		214	1070	1070	1	P	HSC	12/20/09 23:46	122009A-1	934060
7439-97-6	Mercury	U,I4	10.9	ug/kg	J	4.11	12.1	12.1	1	AV	JXL1	01/05/10 10:06	010510S1-5	934897
7440-02-0	Nickel		6.25	mg/kg		0.109	0.435	0.435	2	MS	BAJ	12/30/09 01:06	091229-3	934057
7440-09-7	Potassium	J+,I6b	437000	ug/Kg	N	6830	26700	26700	1	P	HSC	12/20/09 23:46	122009A-1	934060
7782-49-2	Selenium	UJ,I6a	1.09	mg/kg	UN	0.544	1.09	1.09	2	MS	BAJ	12/30/09 01:06	091229-3	934057
7440-21-3	Silicon	J-,I6a	868000	ug/Kg	N	1600	10700	10700	1	P	HSC	12/20/09 23:46	122009A-1	934060
7440-22-4	Silver	U,I4d	502	ug/Kg	J	107	534	534	1	P	HSC	12/20/09 23:46	122009A-1	934060
7440-28-0	Thallium		0.121	mg/kg	J	0.0653	0.218	0.218	2	MS	BAJ	12/30/09 11:01	091230-4	934057
7440-32-6	Titanium		213000	ug/Kg		107	534	534	1	P	HSC	12/20/09 23:46	122009A-1	934060
7440-61-1	Uranium		0.603	mg/kg		0.0144	0.0435	0.0435	2	MS	SKJ	12/30/09 13:07	091230-2	934057
7440-62-2	Vanadium		5710	ug/Kg		107	534	534	1	P	HSC	12/20/09 23:46	122009A-1	934060
7440-66-6	Zinc		40800	ug/Kg		352	1070	1070	1	P	HSC	12/20/09 23:46	122009A-1	934060

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
934057	934056	SW846 3050B	0.512	g	50	mL	12/19/09	BCD1
934060	934059	SW846 3050B	0.522	g	50	mL	12/19/09	BCD1
934897	934894	SW846 7471A Prep	0.553	g	30	mL	01/04/10	TXB3

ETM
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METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-918 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 242938003 **BASIS:** Dry Weight **DATE COLLECTED** 11-DEC-09

CLIENT ID: RE03-09-14212 **LEVEL:** Low **DATE RECEIVED** 15-DEC-09

MATRIX: SOIL **%SOLIDS:** 87

CAS No.	Analyte		Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum		9120000	ug/Kg		7760	22800	22800	1	P	HSC	12/20/09 23:53	122009A-1	934060
7440-36-0	Antimony		1140	ug/Kg	U	376	1140	1140	1	P	HSC	12/20/09 23:53	122009A-1	934060
7440-38-2	Arsenic		2.16	mg/kg		0.222	1.11	1.11	2	MS	BAJ	12/30/09 01:12	091229-3	934057
7440-39-3	Barium	J+,I6b	162000	ug/Kg	N	114	570	570	1	P	HSC	12/20/09 23:53	122009A-1	934060
7440-41-7	Beryllium		0.939	mg/kg		0.0222	0.111	0.111	2	MS	BAJ	12/30/09 01:12	091229-3	934057
7440-42-8	Boron		5700	ug/Kg	U	1140	5700	5700	1	P	HSC	12/20/09 23:53	122009A-1	934060
7440-43-9	Cadmium		570	ug/Kg	U	114	570	570	1	P	HSC	12/20/09 23:53	122009A-1	934060
7440-70-2	Calcium	J+,I6b	2140000	ug/Kg	N	9130	28500	28500	1	P	HSC	12/20/09 23:53	122009A-1	934060
7440-47-3	Chromium		16600	ug/Kg		171	570	570	1	P	HSC	12/20/09 23:53	122009A-1	934060
7440-48-4	Cobalt		6830	ug/Kg		171	570	570	1	P	HSC	12/20/09 23:53	122009A-1	934060
7440-50-8	Copper		9870	ug/Kg		342	1140	1140	1	P	HSC	12/20/09 23:53	122009A-1	934060
7439-89-6	Iron		14400000	ug/Kg		9130	28500	28500	1	P	HSC	12/20/09 23:53	122009A-1	934060
7439-92-1	Lead		15900	ug/Kg		285	1140	1140	1	P	HSC	12/20/09 23:53	122009A-1	934060
7439-93-2	Lithium	J+,I6b	14.7	mg/kg	N	0.443	2.22	2.22	2	MS	BAJ	12/30/09 01:12	091229-3	934057
7439-95-4	Magnesium		2040000	ug/Kg		9700	34200	34200	1	P	HSC	12/20/09 23:53	122009A-1	934060
7439-96-5	Manganese		495000	ug/Kg		228	1140	1140	1	P	HSC	12/20/09 23:53	122009A-1	934060
7439-97-6	Mercury	U,I4	29.3	ug/kg		4.41	13	13	1	AV	JXL1	01/05/10 10:08	010510S1-5	934897
7440-02-0	Nickel		8.83	mg/kg		0.111	0.443	0.443	2	MS	BAJ	12/30/09 01:12	091229-3	934057
7440-09-7	Potassium	J+,I6b	1590000	ug/Kg	N	7300	28500	28500	1	P	HSC	12/20/09 23:53	122009A-1	934060
7782-49-2	Selenium	UJ,I6a	1.11	mg/kg	UN	0.554	1.11	1.11	2	MS	BAJ	12/30/09 01:12	091229-3	934057
7440-21-3	Silicon	J-,I6a	1180000	ug/Kg	N	1710	11400	11400	1	P	HSC	12/20/09 23:53	122009A-1	934060
7440-22-4	Silver	U,I4d	420	ug/Kg	J	114	570	570	1	P	HSC	12/20/09 23:53	122009A-1	934060
7440-28-0	Thallium		0.237	mg/kg		0.0665	0.222	0.222	2	MS	BAJ	12/30/09 11:11	091230-4	934057
7440-32-6	Titanium		524000	ug/Kg		114	570	570	1	P	HSC	12/20/09 23:53	122009A-1	934060
7440-61-1	Uranium		1.28	mg/kg		0.0146	0.0443	0.0443	2	MS	SKJ	12/30/09 13:14	091230-2	934057
7440-62-2	Vanadium		29600	ug/Kg		114	570	570	1	P	HSC	12/20/09 23:53	122009A-1	934060
7440-66-6	Zinc		99900	ug/Kg		376	1140	1140	1	P	HSC	12/20/09 23:53	122009A-1	934060

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
934057	934056	SW846 3050B	0.518	g	50	mL	12/19/09	BCD1
934060	934059	SW846 3050B	0.503	g	50	mL	12/19/09	BCD1
934897	934894	SW846 7471A Prep	0.531	g	30	mL	01/04/10	TXB3

ETM
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METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-918 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 242938004 **BASIS:** Dry Weight **DATE COLLECTED** 11-DEC-09

CLIENT ID: RE03-09-14219 **LEVEL:** Low **DATE RECEIVED** 15-DEC-09

MATRIX: SOIL **%SOLIDS:** 83

CAS No.	Analyte		Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum		6850000	ug/Kg		8030	23600	23600	1	P	HSC	12/21/09 00:00	122009A-1	934060
7440-36-0	Antimony		1180	ug/Kg	U	390	1180	1180	1	P	HSC	12/21/09 00:00	122009A-1	934060
7440-38-2	Arsenic		1.29	mg/kg		0.226	1.13	1.13	2	MS	BAJ	12/30/09 01:18	091229-3	934057
7440-39-3	Barium	J+,I6b	53900	ug/Kg	N	118	591	591	1	P	HSC	12/21/09 00:00	122009A-1	934060
7440-41-7	Beryllium		0.869	mg/kg		0.0226	0.113	0.113	2	MS	BAJ	12/30/09 01:18	091229-3	934057
7440-42-8	Boron		5910	ug/Kg	U	1180	5910	5910	1	P	HSC	12/21/09 00:00	122009A-1	934060
7440-43-9	Cadmium		591	ug/Kg	U	118	591	591	1	P	HSC	12/21/09 00:00	122009A-1	934060
7440-70-2	Calcium	J+,I6b	1960000	ug/Kg	N	9450	29500	29500	1	P	HSC	12/21/09 00:00	122009A-1	934060
7440-47-3	Chromium		4360	ug/Kg		177	591	591	1	P	HSC	12/21/09 00:00	122009A-1	934060
7440-48-4	Cobalt		999	ug/Kg		177	591	591	1	P	HSC	12/21/09 00:00	122009A-1	934060
7440-50-8	Copper		4620	ug/Kg		354	1180	1180	1	P	HSC	12/21/09 00:00	122009A-1	934060
7439-89-6	Iron		10500000	ug/Kg		9450	29500	29500	1	P	HSC	12/21/09 00:00	122009A-1	934060
7439-92-1	Lead		6130	ug/Kg		295	1180	1180	1	P	HSC	12/21/09 00:00	122009A-1	934060
7439-93-2	Lithium	J+,I6b	11	mg/kg	N	0.452	2.26	2.26	2	MS	BAJ	12/30/09 01:18	091229-3	934057
7439-95-4	Magnesium		1280000	ug/Kg		10000	35400	35400	1	P	HSC	12/21/09 00:00	122009A-1	934060
7439-96-5	Manganese		109000	ug/Kg		236	1180	1180	1	P	HSC	12/21/09 00:00	122009A-1	934060
7439-97-6	Mercury	U,I4	17.5	ug/kg		4.88	14.3	14.3	1	AV	JXL1	01/05/10 10:10	010510S1-5	934897
7440-02-0	Nickel		4.91	mg/kg		0.113	0.452	0.452	2	MS	BAJ	12/30/09 01:18	091229-3	934057
7440-09-7	Potassium	J+,I6b	731000	ug/Kg	N	7560	29500	29500	1	P	HSC	12/21/09 00:00	122009A-1	934060
7782-49-2	Selenium	UJ,I6a	1.13	mg/kg	UN	0.565	1.13	1.13	2	MS	BAJ	12/30/09 01:18	091229-3	934057
7440-21-3	Silicon	J-,I6a	1180000	ug/Kg	N	1770	11800	11800	1	P	HSC	12/21/09 00:00	122009A-1	934060
7440-22-4	Silver		451	ug/Kg	J	118	591	591	1	P	HSC	12/21/09 00:00	122009A-1	934060
7440-28-0	Thallium		0.139	mg/kg	J	0.0678	0.226	0.226	2	MS	BAJ	12/30/09 11:14	091230-4	934057
7440-32-6	Titanium		169000	ug/Kg		118	591	591	1	P	HSC	12/21/09 00:00	122009A-1	934060
7440-61-1	Uranium		0.515	mg/kg		0.0149	0.0452	0.0452	2	MS	SKJ	12/30/09 13:16	091230-2	934057
7440-62-2	Vanadium		9020	ug/Kg		118	591	591	1	P	HSC	12/21/09 00:00	122009A-1	934060
7440-66-6	Zinc		30400	ug/Kg		390	1180	1180	1	P	HSC	12/21/09 00:00	122009A-1	934060

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
934057	934056	SW846 3050B	0.534	g	50	mL	12/19/09	BCD1
934060	934059	SW846 3050B	0.511	g	50	mL	12/19/09	BCD1
934897	934894	SW846 7471A Prep	0.505	g	30	mL	01/04/10	TXB3

ETM
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METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10 918 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 242938005 **BASIS:** Dry Weight **DATE COLLECTED** 11-DEC-09

CLIENT ID: RE03-09-14218 **LEVEL:** Low **DATE RECEIVED** 15-DEC-09

MATRIX: SOIL **%SOLIDS:** 82

CAS No.	Analyte		Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum		10300000	ug/Kg		8170	24000	24000	1	P	HSC	12/21/09 00:07	122009A-1	934060
7440-36-0	Antimony		1200	ug/Kg	U	397	1200	1200	1	P	HSC	12/21/09 00:07	122009A-1	934060
7440-38-2	Arsenic		2	mg/kg		0.237	1.18	1.18	2	MS	BAJ	12/30/09 01:24	091229-3	934057
7440-39-3	Barium	J+,I6b	118000	ug/Kg	N	120	601	601	1	P	HSC	12/21/09 00:07	122009A-1	934060
7440-41-7	Beryllium		0.971	mg/kg		0.0237	0.118	0.118	2	MS	BAJ	12/30/09 01:24	091229-3	934057
7440-42-8	Boron		6010	ug/Kg	U	1200	6010	6010	1	P	HSC	12/21/09 00:07	122009A-1	934060
7440-43-9	Cadmium		601	ug/Kg	U	120	601	601	1	P	HSC	12/21/09 00:07	122009A-1	934060
7440-70-2	Calcium	J+,I6b	2050000	ug/Kg	N	9610	30000	30000	1	P	HSC	12/21/09 00:07	122009A-1	934060
7440-47-3	Chromium		8730	ug/Kg		180	601	601	1	P	HSC	12/21/09 00:07	122009A-1	934060
7440-48-4	Cobalt		6030	ug/Kg		180	601	601	1	P	HSC	12/21/09 00:07	122009A-1	934060
7440-50-8	Copper		5100	ug/Kg		361	1200	1200	1	P	HSC	12/21/09 00:07	122009A-1	934060
7439-89-6	Iron		14000000	ug/Kg		9610	30000	30000	1	P	HSC	12/21/09 00:07	122009A-1	934060
7439-92-1	Lead		17500	ug/Kg		300	1200	1200	1	P	HSC	12/21/09 00:07	122009A-1	934060
7439-93-2	Lithium	J+,I6b	19.2	mg/kg	N	0.473	2.37	2.37	2	MS	BAJ	12/30/09 01:24	091229-3	934057
7439-95-4	Magnesium		1990000	ug/Kg		10200	36100	36100	1	P	HSC	12/21/09 00:07	122009A-1	934060
7439-96-5	Manganese		316000	ug/Kg		240	1200	1200	1	P	HSC	12/21/09 00:07	122009A-1	934060
7439-97-6	Mercury	U,I4	15.1	ug/kg		4.37	12.8	12.8	1	AV	JXL1	01/05/10 10:12	010510S1-5	934897
7440-02-0	Nickel		8.77	mg/kg		0.118	0.473	0.473	2	MS	BAJ	12/30/09 01:24	091229-3	934057
7440-09-7	Potassium	J+,I6b	1160000	ug/Kg	N	7690	30000	30000	1	P	HSC	12/21/09 00:07	122009A-1	934060
7782-49-2	Selenium	UJ,I6a	1.18	mg/kg	UN	0.591	1.18	1.18	2	MS	BAJ	12/30/09 01:24	091229-3	934057
7440-21-3	Silicon	J-,I6a	1110000	ug/Kg	N	1800	12000	12000	1	P	HSC	12/21/09 00:07	122009A-1	934060
7440-22-4	Silver		617	ug/Kg		120	601	601	1	P	HSC	12/21/09 00:07	122009A-1	934060
7440-28-0	Thallium		0.303	mg/kg		0.071	0.237	0.237	2	MS	BAJ	12/30/09 11:18	091230-4	934057
7440-32-6	Titanium		354000	ug/Kg		120	601	601	1	P	HSC	12/21/09 00:07	122009A-1	934060
7440-61-1	Uranium		0.582	mg/kg		0.0156	0.0473	0.0473	2	MS	SKJ	12/30/09 13:18	091230-2	934057
7440-62-2	Vanadium		18200	ug/Kg		120	601	601	1	P	HSC	12/21/09 00:07	122009A-1	934060
7440-66-6	Zinc		44000	ug/Kg		397	1200	1200	1	P	HSC	12/21/09 00:07	122009A-1	934060

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
[illegible]	934056	SW846 3050B	0.513	g	50	mL	12/19/09	BCD1
[illegible]	934059	SW846 3050B	0.505	g	50	mL	12/19/09	BCD1
[illegible]	934894	SW846 7471A Prep	0.567	g	30	mL	01/04/10	TXB3

ETM
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METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-918 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 242938006 **BASIS:** Dry Weight **DATE COLLECTED** 11-DEC-09

CLIENT ID: RE03-09-14216 **LEVEL:** Low **DATE RECEIVED** 15-DEC-09

MATRIX: SOIL **%SOLIDS:** 84

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	8630000	ug/Kg		7740	22800	22800	1	P	HSC	12/21/09 00:14	122009A-1	934060
7440-36-0	Antimony	1140	ug/Kg	U	376	1140	1140	1	P	HSC	12/21/09 00:14	122009A-1	934060
7440-38-2	Arsenic	1.97	mg/kg		0.229	1.14	1.14	2	MS	BAJ	12/30/09 01:30	091229-3	934057
7440-39-3	Barium J+,I6b	220000	ug/Kg	N	114	569	569	1	P	HSC	12/21/09 00:14	122009A-1	934060
7440-41-7	Beryllium	0.993	mg/kg		0.0229	0.114	0.114	2	MS	BAJ	12/30/09 01:30	091229-3	934057
7440-42-8	Boron	5690	ug/Kg	U	1140	5690	5690	1	P	HSC	12/21/09 00:14	122009A-1	934060
7440-43-9	Cadmium	569	ug/Kg	U	114	569	569	1	P	HSC	12/21/09 00:14	122009A-1	934060
7440-70-2	Calcium J+,I6b	2350000	ug/Kg	N	9100	28400	28400	1	P	HSC	12/21/09 00:14	122009A-1	934060
7440-47-3	Chromium	9820	ug/Kg		171	569	569	1	P	HSC	12/21/09 00:14	122009A-1	934060
7440-48-4	Cobalt	9790	ug/Kg		171	569	569	1	P	HSC	12/21/09 00:14	122009A-1	934060
7440-50-8	Copper	7310	ug/Kg		341	1140	1140	1	P	HSC	12/21/09 00:14	122009A-1	934060
7439-89-6	Iron	14000000	ug/Kg		9100	28400	28400	1	P	HSC	12/21/09 00:14	122009A-1	934060
7439-92-1	Lead	15700	ug/Kg		284	1140	1140	1	P	HSC	12/21/09 00:14	122009A-1	934060
7439-93-2	Lithium J+,I6b	15.9	mg/kg	N	0.458	2.29	2.29	2	MS	BAJ	12/30/09 01:30	091229-3	934057
7439-95-4	Magnesium	2000000	ug/Kg		9670	34100	34100	1	P	HSC	12/21/09 00:14	122009A-1	934060
7439-96-5	Manganese	839000	ug/Kg		228	1140	1140	1	P	HSC	12/21/09 00:14	122009A-1	934060
7439-97-6	Mercury U,I4	9.27	ug/kg	J	4.23	12.4	12.4	1	AV	JXL1	01/05/10 10:14	010510SI-5	934897
7440-02-0	Nickel	9.09	mg/kg		0.114	0.458	0.458	2	MS	BAJ	12/30/09 01:30	091229-3	934057
7440-09-7	Potassium J+,I6b	1670000	ug/Kg	N	7280	28400	28400	1	P	HSC	12/21/09 00:14	122009A-1	934060
7782-49-2	Selenium UJ,I6a	1.14	mg/kg	UN	0.572	1.14	1.14	2	MS	BAJ	12/30/09 01:30	091229-3	934057
7440-21-3	Silicon J-,I6a	962000	ug/Kg	N	1710	11400	11400	1	P	HSC	12/21/09 00:14	122009A-1	934060
7440-22-4	Silver	640	ug/Kg		114	569	569	1	P	HSC	12/21/09 00:14	122009A-1	934060
7440-28-0	Thallium	0.260	mg/kg		0.0687	0.229	0.229	2	MS	BAJ	12/30/09 11:21	091230-4	934057
7440-32-6	Titanium	475000	ug/Kg		114	569	569	1	P	HSC	12/21/09 00:14	122009A-1	934060
7440-61-1	Uranium	1.3	mg/kg		0.0151	0.0458	0.0458	2	MS	SKJ	12/30/09 13:20	091230-2	934057
7440-62-2	Vanadium	27100	ug/Kg		114	569	569	1	P	HSC	12/21/09 00:14	122009A-1	934060
7440-66-6	Zinc	29400	ug/Kg		376	1140	1140	1	P	HSC	12/21/09 00:14	122009A-1	934060

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
934057	934056	SW846 3050B	0.519	g	50	mL	12/19/09	BCD1
934060	934059	SW846 3050B	0.522	g	50	mL	12/19/09	BCD1
934897	934894	SW846 7471A Prep	0.573	g	30	mL	01/04/10	TXB3

ETM
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METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-918 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 242938007 **BASIS:** Dry Weight **DATE COLLECTED** 11-DEC-09

CLIENT ID: RE03-09-14214 **LEVEL:** Low **DATE RECEIVED** 15-DEC-09

MATRIX: SOIL **%SOLIDS:** 86

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	5600000	ug/Kg		7370	21700	21700	1	P	HSC	12/21/09 00:22	122009A-1	934060
7440-36-0	Antimony	1080	ug/Kg	U	358	1080	1080	1	P	HSC	12/21/09 00:22	122009A-1	934060
7440-38-2	Arsenic	1.2	mg/kg		0.229	1.14	1.14	2	MS	BAJ	12/30/09 01:37	091229-3	934057
7440-39-3	Barium J+,I6b	78400	ug/Kg	N	108	542	542	1	P	HSC	12/21/09 00:22	122009A-1	934060
7440-41-7	Beryllium	0.569	mg/kg		0.0229	0.114	0.114	2	MS	BAJ	12/30/09 01:37	091229-3	934057
7440-42-8	Boron	5420	ug/Kg	U	1080	5420	5420	1	P	HSC	12/21/09 00:22	122009A-1	934060
7440-43-9	Cadmium	542	ug/Kg	U	108	542	542	1	P	HSC	12/21/09 00:22	122009A-1	934060
7440-70-2	Calcium J+,I6b	3590000	ug/Kg	N	8670	27100	27100	1	P	HSC	12/21/09 00:22	122009A-1	934060
7440-47-3	Chromium	33800	ug/Kg		163	542	542	1	P	HSC	12/21/09 00:22	122009A-1	934060
7440-48-4	Cobalt	1500	ug/Kg		163	542	542	1	P	HSC	12/21/09 00:22	122009A-1	934060
7440-50-8	Copper	2930	ug/Kg		325	1080	1080	1	P	HSC	12/21/09 00:22	122009A-1	934060
7439-89-6	Iron	11100000	ug/Kg		8670	27100	27100	1	P	HSC	12/21/09 00:22	122009A-1	934060
7439-92-1	Lead	6160	ug/Kg		271	1080	1080	1	P	HSC	12/21/09 00:22	122009A-1	934060
7439-93-2	Lithium J+,I6b	20.7	mg/kg	N	0.458	2.29	2.29	2	MS	BAJ	12/30/09 01:37	091229-3	934057
7439-95-4	Magnesium	1240000	ug/Kg		9210	32500	32500	1	P	HSC	12/21/09 00:22	122009A-1	934060
7439-96-5	Manganese	230000	ug/Kg		217	1080	1080	1	P	HSC	12/21/09 00:22	122009A-1	934060
7439-97-6	Mercury U,I4	27	ug/kg		4.59	13.5	13.5	1	AV	JXL1	01/05/10 10:16	010510S1-5	934897
7440-02-0	Nickel	6.93	mg/kg		0.114	0.458	0.458	2	MS	BAJ	12/30/09 01:37	091229-3	934057
7440-09-7	Potassium J+,I6b	634000	ug/Kg	N	6940	27100	27100	1	P	HSC	12/21/09 00:22	122009A-1	934060
7782-49-2	Selenium UJ,I6a	1.14	mg/kg	UN	0.572	1.14	1.14	2	MS	BAJ	12/30/09 01:37	091229-3	934057
7440-21-3	Silicon J-,I6a	871000	ug/Kg	N	1630	10800	10800	1	P	HSC	12/21/09 00:22	122009A-1	934060
7440-22-4	Silver U,I4d	474	ug/Kg	J	108	542	542	1	P	HSC	12/21/09 00:22	122009A-1	934060
7440-28-0	Thallium	0.101	mg/kg	J	0.0686	0.229	0.229	2	MS	BAJ	12/30/09 11:25	091230-4	934057
7440-32-6	Titanium	280000	ug/Kg		108	542	542	1	P	HSC	12/21/09 00:22	122009A-1	934060
7440-61-1	Uranium	0.434	mg/kg		0.0151	0.0458	0.0458	2	MS	SKJ	12/30/09 13:23	091230-2	934057
7440-62-2	Vanadium	8580	ug/Kg		108	542	542	1	P	HSC	12/21/09 00:22	122009A-1	934060
7440-66-6	Zinc	50200	ug/Kg		358	1080	1080	1	P	HSC	12/21/09 00:22	122009A-1	934060

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
934057	934056	SW846 3050B	0.507	g	50	mL	12/19/09	BCD1
934060	934059	SW846 3050B	0.535	g	50	mL	12/19/09	BCD1
934897	934894	SW846 7471A Prep	0.516	g	30	mL	01/04/10	TXB3

ETM
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METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-918 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 242938008 **BASIS:** Dry Weight **DATE COLLECTED** 11-DEC-09

CLIENT ID: RE03-09-14217 **LEVEL:** Low **DATE RECEIVED** 15-DEC-09

MATRIX: SOIL **%SOLIDS:** 85

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	12200000	ug/Kg		7600	22300	22300	1	P	HSC	12/21/09 00:29	122009A-1	934060
7440-36-0	Antimony	1120	ug/Kg	U	369	1120	1120	1	P	HSC	12/21/09 00:29	122009A-1	934060
7440-38-2	Arsenic	2.93	mg/kg		0.222	1.11	1.11	2	MS	BAJ	12/30/09 01:43	091229-3	934057
7440-39-3	Barium J+,I6b	167000	ug/Kg	N	112	559	559	1	P	HSC	12/21/09 00:29	122009A-1	934060
7440-41-7	Beryllium	1.11	mg/kg		0.0222	0.111	0.111	2	MS	BAJ	12/30/09 01:43	091229-3	934057
7440-42-8	Boron	5590	ug/Kg	U	1120	5590	5590	1	P	HSC	12/21/09 00:29	122009A-1	934060
7440-43-9	Cadmium	559	ug/Kg	U	112	559	559	1	P	HSC	12/21/09 00:29	122009A-1	934060
7440-70-2	Calcium J+,I6b	2300000	ug/Kg	N	8940	27900	27900	1	P	HSC	12/21/09 00:29	122009A-1	934060
7440-47-3	Chromium	11800	ug/Kg		168	559	559	1	P	HSC	12/21/09 00:29	122009A-1	934060
7440-48-4	Cobalt	6430	ug/Kg		168	559	559	1	P	HSC	12/21/09 00:29	122009A-1	934060
7440-50-8	Copper	7970	ug/Kg		335	1120	1120	1	P	HSC	12/21/09 00:29	122009A-1	934060
7439-89-6	Iron	16200000	ug/Kg		8940	27900	27900	1	P	HSC	12/21/09 00:29	122009A-1	934060
7439-92-1	Lead	14000	ug/Kg		279	1120	1120	1	P	HSC	12/21/09 00:29	122009A-1	934060
7439-93-2	Lithium J+,I6b	19	mg/kg	N	0.444	2.22	2.22	2	MS	BAJ	12/30/09 01:43	091229-3	934057
7439-95-4	Magnesium	2530000	ug/Kg		9500	33500	33500	1	P	HSC	12/21/09 00:29	122009A-1	934060
7439-96-5	Manganese	390000	ug/Kg		223	1120	1120	1	P	HSC	12/21/09 00:29	122009A-1	934060
7439-97-6	Mercury U,I4	17.1	ug/kg		4.58	13.5	13.5	1	AV	JXL1	01/05/10 10:18	010510S1-5	934897
7440-02-0	Nickel	9.07	mg/kg		0.111	0.444	0.444	2	MS	BAJ	12/30/09 01:43	091229-3	934057
7440-09-7	Potassium J+,I6b	1440000	ug/Kg	N	7150	27900	27900	1	P	HSC	12/21/09 00:29	122009A-1	934060
7782-49-2	Selenium UJ,I6a	1.11	mg/kg	UN	0.555	1.11	1.11	2	MS	BAJ	12/30/09 01:43	091229-3	934057
7440-21-3	Silicon J-,I6a	988000	ug/Kg	N	1680	11200	11200	1	P	HSC	12/21/09 00:29	122009A-1	934060
7440-22-4	Silver	580	ug/Kg		112	559	559	1	P	HSC	12/21/09 00:29	122009A-1	934060
7440-28-0	Thallium	0.244	mg/kg		0.0667	0.222	0.222	2	MS	BAJ	12/30/09 11:28	091230-4	934057
7440-32-6	Titanium	453000	ug/Kg		112	559	559	1	P	HSC	12/21/09 00:29	122009A-1	934060
7440-61-1	Uranium	1.37	mg/kg		0.0147	0.0444	0.0444	2	MS	SKJ	12/30/09 13:25	091230-2	934057
7440-62-2	Vanadium	30900	ug/Kg		112	559	559	1	P	HSC	12/21/09 00:29	122009A-1	934060
7440-66-6	Zinc	31700	ug/Kg		369	1120	1120	1	P	HSC	12/21/09 00:29	122009A-1	934060

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
934057	934056	SW846 3050B	0.531	g	50	mL	12/19/09	BCD1
934060	934059	SW846 3050B	0.528	g	50	mL	12/19/09	BCD1
934897	934894	SW846 7471A Prep	0.526	g	30	mL	01/04/10	TXB3

ETM
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METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-918 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 242938009 **BASIS:** Dry Weight **DATE COLLECTED** 11-DEC-09

CLIENT ID: RE03-10-2735 **LEVEL:** Low **DATE RECEIVED** 15-DEC-09

MATRIX: SOIL **%SOLIDS:** 86

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	5910000	ug/Kg		7740	22800	22800	1	P	HSC	12/21/09 00:36	122009A-1	934060
7440-36-0	Antimony	1140	ug/Kg	U	376	1140	1140	1	P	HSC	12/21/09 00:36	122009A-1	934060
7440-38-2	Arsenic	1.26	mg/kg		0.232	1.16	1.16	2	MS	BAJ	12/30/09 01:49	091229-3	934057
7440-39-3	Barium J+,I6b	69600	ug/Kg	N	114	569	569	1	P	HSC	12/21/09 00:36	122009A-1	934060
7440-41-7	Beryllium	0.577	mg/kg		0.0232	0.116	0.116	2	MS	BAJ	12/30/09 01:49	091229-3	934057
7440-42-8	Boron	5690	ug/Kg	U	1140	5690	5690	1	P	HSC	12/21/09 00:36	122009A-1	934060
7440-43-9	Cadmium	569	ug/Kg	U	114	569	569	1	P	HSC	12/21/09 00:36	122009A-1	934060
7440-70-2	Calcium J+,I6b	2810000	ug/Kg	N	9100	28500	28500	1	P	HSC	12/21/09 00:36	122009A-1	934060
7440-47-3	Chromium	28800	ug/Kg		171	569	569	1	P	HSC	12/21/09 00:36	122009A-1	934060
7440-48-4	Cobalt	1700	ug/Kg		171	569	569	1	P	HSC	12/21/09 00:36	122009A-1	934060
7440-50-8	Copper	2790	ug/Kg		341	1140	1140	1	P	HSC	12/21/09 00:36	122009A-1	934060
7439-89-6	Iron	11800000	ug/Kg		9100	28500	28500	1	P	HSC	12/21/09 00:36	122009A-1	934060
7439-92-1	Lead	6320	ug/Kg		285	1140	1140	1	P	HSC	12/21/09 00:36	122009A-1	934060
7439-93-2	Lithium J+,I6b	20.5	mg/kg	N	0.463	2.32	2.32	2	MS	BAJ	12/30/09 01:49	091229-3	934057
7439-95-4	Magnesium	1310000	ug/Kg		9670	34100	34100	1	P	HSC	12/21/09 00:36	122009A-1	934060
7439-96-5	Manganese	260000	ug/Kg		228	1140	1140	1	P	HSC	12/21/09 00:36	122009A-1	934060
7439-97-6	Mercury U,I4	24.6	ug/kg		4.53	13.3	13.3	1	AV	JXL1	01/05/10 10:24	010510S1-5	934897
7440-02-0	Nickel	8.09	mg/kg		0.116	0.463	0.463	2	MS	BAJ	12/30/09 01:49	091229-3	934057
7440-09-7	Potassium J+,I6b	698000	ug/Kg	N	7280	28500	28500	1	P	HSC	12/21/09 00:36	122009A-1	934060
7782-49-2	Selenium UJ,I6a	1.16	mg/kg	UN	0.579	1.16	1.16	2	MS	BAJ	12/30/09 01:49	091229-3	934057
7440-21-3	Silicon J-,I6a	960000	ug/Kg	N	1710	11400	11400	1	P	HSC	12/21/09 00:36	122009A-1	934060
7440-22-4	Silver U,I4d	578	ug/Kg		114	569	569	1	P	HSC	12/21/09 00:36	122009A-1	934060
7440-28-0	Thallium	0.118	mg/kg	J	0.0695	0.232	0.232	2	MS	BAJ	12/30/09 11:32	091230-4	934057
7440-32-6	Titanium	305000	ug/Kg		114	569	569	1	P	HSC	12/21/09 00:36	122009A-1	934060
7440-61-1	Uranium	0.260	mg/kg		0.0153	0.0463	0.0463	2	MS	SKJ	12/30/09 13:27	091230-2	934057
7440-62-2	Vanadium	9510	ug/Kg		114	569	569	1	P	HSC	12/21/09 00:36	122009A-1	934060
7440-66-6	Zinc	50600	ug/Kg		376	1140	1140	1	P	HSC	12/21/09 00:36	122009A-1	934060

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
934057	934056	SW846 3050B	0.503	g	50	mL	12/19/09	BCD1
934060	934059	SW846 3050B	0.512	g	50	mL	12/19/09	BCD1
934897	934894	SW846 7471A Prep	0.525	g	30	mL	01/04/10	TXB3

ETM
2/9/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-918-1 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 242940001 **BASIS:** As Received **DATE COLLECTED** 11-DEC-09

CLIENT ID: RE03-10-2747 **LEVEL:** Low **DATE RECEIVED** 15-DEC-09

MATRIX: WATER **%SOLIDS:** 0

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	200	ug/L	U	68	200	200	1	P	HSC	12/20/09 07:00	122009-1	934069
7440-36-0	Antimony	3	ug/L	U	1	3	3	1	MS	BAJ	12/23/09 05:26	091222-2	934063
7440-38-2	Arsenic	30	ug/L	U	5	30	30	1	P	HSC	12/20/09 07:00	122009-1	934069
7440-39-3	Barium	5	ug/L	U	1	5	5	1	P	HSC	12/20/09 07:00	122009-1	934069
7440-41-7	Beryllium	0.50	ug/L	U	0.1	0.5	0.5	1	MS	BAJ	12/23/09 05:26	091222-2	934063
7440-42-8	Boron	50	ug/L	U	15	50	50	1	P	HSC	12/20/09 07:00	122009-1	934069
7440-43-9	Cadmium	1	ug/L	U	0.11	1	1	1	MS	BAJ	12/23/09 05:26	091222-2	934063
7440-70-2	Calcium	200	ug/L	U	50	200	200	1	P	HSC	12/20/09 07:00	122009-1	934069
7440-47-3	Chromium	5	ug/L	U	1	5	5	1	P	HSC	12/20/09 07:00	122009-1	934069
7440-48-4	Cobalt	5	ug/L	U	1	5	5	1	P	HSC	12/20/09 07:00	122009-1	934069
7440-50-8	Copper	10	ug/L	U	3	10	10	1	P	HSC	12/20/09 07:00	122009-1	934069
7439-89-6	Iron	100	ug/L	U	30	100	100	1	P	HSC	12/20/09 07:00	122009-1	934069
7439-92-1	Lead	2	ug/L	U	0.5	2	2	1	MS	BAJ	12/23/09 05:26	091222-2	934063
7439-93-2	Lithium	10	ug/L	U	2	10	10	1	MS	BAJ	12/23/09 05:26	091222-2	934063
7439-95-4	Magnesium	300	ug/L	U	85	300	300	1	P	HSC	12/20/09 07:00	122009-1	934069
7439-96-5	Manganese	5	ug/L	U	1	5	5	1	MS	BAJ	12/23/09 05:26	091222-2	934063
7439-97-6	Mercury	0.20	ug/L	U	0.066	0.2	0.2	1	AV	ETL	12/23/09 08:50	122309W1-3	934864
7440-02-0	Nickel	5	ug/L	U	1.5	5	5	1	P	HSC	12/20/09 07:00	122009-1	934069
7440-09-7	Potassium	150	ug/L	U	50	150	150	1	P	HSC	12/20/09 07:00	122009-1	934069
7782-49-2	Selenium	30	ug/L	U	5	30	30	1	P	HSC	12/20/09 07:00	122009-1	934069
7440-21-3	Silicon	100	ug/L	U	25	100	100	1	P	HSC	12/20/09 07:00	122009-1	934069
7440-22-4	Silver	1.04	ug/L	J	1	5	5	1	P	HSC	12/20/09 07:00	122009-1	934069
7440-23-5	Sodium	300	ug/L	U	100	300	300	1	P	HSC	12/20/09 07:00	122009-1	934069
7440-28-0	Thallium U,I4b	0.701	ug/L	J	0.3	1	1	1	MS	BAJ	12/23/09 05:26	091222-2	934063
7440-32-6	Titanium	5	ug/L	U	1	5	5	1	P	HSC	12/20/09 07:00	122009-1	934069
7440-61-1	Uranium	0.20	ug/L	U	0.05	0.2	0.2	1	MS	BAJ	12/23/09 05:26	091222-2	934063
7440-62-2	Vanadium	5	ug/L	U	1	5	5	1	P	HSC	12/20/09 07:00	122009-1	934069
7440-66-6	Zinc	10	ug/L	U	3.3	10	10	1	P	HSC	12/20/09 07:00	122009-1	934069

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
934063	934062	SW846 3005A	50	mL	50	mL	12/19/09	BCD1
934069	934067	SW846 3005A	50	mL	50	mL	12/19/09	BCD1
934864	934863	SW846 7470A Prep	20	mL	20	mL	12/22/09	TXB3

ETM
2/9/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-918-1 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 242940002 **BASIS:** As Received **DATE COLLECTED** 11-DEC-09

CLIENT ID: RE03-10-2761 **LEVEL:** Low **DATE RECEIVED** 15-DEC-09

MATRIX: WATER **%SOLIDS:** 0

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	200	ug/L	U	68	200	200	1	P	HSC	12/20/09 07:14	122009-1	934069
7440-36-0	Antimony	3	ug/L	U	1	3	3	1	MS	BAJ	12/23/09 05:50	091222-2	934063
7440-38-2	Arsenic	30	ug/L	U	5	30	30	1	P	HSC	12/20/09 07:14	122009-1	934069
7440-39-3	Barium	5	ug/L	U	1	5	5	1	P	HSC	12/20/09 07:14	122009-1	934069
7440-41-7	Beryllium	0.50	ug/L	U	0.1	0.5	0.5	1	MS	BAJ	12/23/09 05:50	091222-2	934063
7440-42-8	Boron	50	ug/L	U	15	50	50	1	P	HSC	12/20/09 07:14	122009-1	934069
7440-43-9	Cadmium	1	ug/L	U	0.11	1	1	1	MS	BAJ	12/23/09 05:50	091222-2	934063
7440-70-2	Calcium	55.6	ug/L	J	50	200	200	1	P	HSC	12/20/09 07:14	122009-1	934069
7440-47-3	Chromium	1.22	ug/L	J	1	5	5	1	P	HSC	12/20/09 07:14	122009-1	934069
7440-48-4	Cobalt	5	ug/L	U	1	5	5	1	P	HSC	12/20/09 07:14	122009-1	934069
7440-50-8	Copper	10	ug/L	U	3	10	10	1	P	HSC	12/20/09 07:14	122009-1	934069
7439-89-6	Iron	51.2	ug/L	J	30	100	100	1	P	HSC	12/20/09 07:14	122009-1	934069
7439-92-1	Lead	2	ug/L	U	0.5	2	2	1	MS	BAJ	12/23/09 05:50	091222-2	934063
7439-93-2	Lithium	10	ug/L	U	2	10	10	1	MS	BAJ	12/23/09 05:50	091222-2	934063
7439-95-4	Magnesium	300	ug/L	U	85	300	300	1	P	HSC	12/20/09 07:14	122009-1	934069
7439-96-5	Manganese	5	ug/L	U	1	5	5	1	MS	BAJ	12/23/09 05:50	091222-2	934063
7439-97-6	Mercury	0.20	ug/L	U	0.066	0.2	0.2	1	AV	ETL	12/23/09 08:52	122309W1-3	934864
7440-02-0	Nickel	1.52	ug/L	J	1.5	5	5	1	P	HSC	12/20/09 07:14	122009-1	934069
7440-09-7	Potassium	150	ug/L	U	50	150	150	1	P	HSC	12/20/09 07:14	122009-1	934069
7782-49-2	Selenium	30	ug/L	U	5	30	30	1	P	HSC	12/20/09 07:14	122009-1	934069
7440-21-3	Silicon	101	ug/L		25	100	100	1	P	HSC	12/20/09 07:14	122009-1	934069
7440-22-4	Silver	5	ug/L	U	1	5	5	1	P	HSC	12/20/09 07:14	122009-1	934069
7440-23-5	Sodium	300	ug/L	U	100	300	300	1	P	HSC	12/20/09 07:14	122009-1	934069
7440-28-0	Thallium U,I4b	0.304	ug/L	J	0.3	1	1	1	MS	BAJ	12/23/09 05:50	091222-2	934063
7440-32-6	Titanium	1.13	ug/L	J	1	5	5	1	P	HSC	12/20/09 07:14	122009-1	934069
7440-61-1	Uranium	0.20	ug/L	U	0.05	0.2	0.2	1	MS	BAJ	12/23/09 05:50	091222-2	934063
7440-62-2	Vanadium	5	ug/L	U	1	5	5	1	P	HSC	12/20/09 07:14	122009-1	934069
7440-66-6	Zinc	10	ug/L	U	3.3	10	10	1	P	HSC	12/20/09 07:14	122009-1	934069

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
934063	934062	SW846 3005A	50	mL	50	mL	12/19/09	BCD1
934069	934067	SW846 3005A	50	mL	50	mL	12/19/09	BCD1
934864	934863	SW846 7470A Prep	20	mL	20	mL	12/22/09	TXB3

ETM
2/9/10

DATA VALIDATION COVER SHEET

5120-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-918 VALIDATION DATE: 2/9/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Eric T. Mink ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☒ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE): Total CN only

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☐	☐	☒	8. QUANTITATION REPORTS
☐	☐	☒	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

None.

Reviewed by: Monica Dymerski **Level I** **Date:** 02/09/10

VALIDATOR'S SIGNATURE: Eric T. Mink DATE: 2/9/10

GENERAL CHEMISTRY ANALYTICAL DATA VALIDATION CHECKLIST

5120-2

General Chemistry Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, I9	J-, I9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, I9a	J-, I9a
☐	☐	☒	3. The affected analytes are regarded as rejected because the analytical holding time was exceeded.	R, I9b	R, I9b
☐	☒	☐	4. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, I7	J, I7
☐	☒	☐	5. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, I7a	J, I7a
☐	☒	☐	6. The ICV and/or CCV were recovered outside the method specific limits.	UJ, I7c	J, I7c
☐	☒	☐	7. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, I7d	J, I7d
☐	☒	☐	8. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, I7f	R, I7f
☐	☐	☒	9. The interference check sample percent recovery value is <50%.	R, I2	J-, I2
☐	☐	☒	10. The interference check sample percent recovery value is ≥50% and <80%.	UJ, I2a	J-, I2a
☐	☐	☒	11. The interference check sample percent recovery value is >120%.	N/A	J+, I2b
☐	☐	☒	12. The interference check sample was not analyzed with the samples.	R, I2c	R, I2c
☐	☒	☐	13. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, I4	N/A

GENERAL CHEMISTRY ANALYTICAL DATA VALIDATION CHECKLIST

5120-2

General Chemistry Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	14. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X.	N/A	J, I4a
☐	☒	☐	15. The sample result is ≤5X the concentration of the related analyte in the instrument blank and continuing calibration blank.	U, I4b	N/A
☐	☒	☐	16. Continuing calibration blanks were not analyzed at the appropriate method frequency.	UJ, I4c	J, I4c
☐	☒	☐	17. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	U, I4d	N/A
☐	☒	☐	18. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, I4e	R, I4e
☐	☒	☐	19. The associate matrix spike recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I6	R, I6
☐	☒	☐	20. The associated matrix spike recovery was below the Lower Acceptance Limit (LAL) but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I6a	J-, I6a
☐	☒	☐	21. The associated matrix spike recovery was above the Upper Acceptance Limit (UAL). Follow the external laboratory limits located within the associated data package.	UJ, I6b	J+, I6b
☐	☒	☐	22. Required matrix spike information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. If LCS information is present, do not reject. Qualify data based on LCS information.	R, I6c	R, I6c
☐	☒	☐	23. The sample and/or the duplicate sample results RPD is not within the acceptance limits. Follow the external laboratory limits located within the associated data package.	UJ, I10b	J, I10b

GENERAL CHEMISTRY ANALYTICAL DATA VALIDATION CHECKLIST

5120-2

General Chemistry Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	24. The duplicate sample was not prepared and/or analyzed with the samples for unspecified reasons. The duplicate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	UJ, I10d	J, I10d
☐	☒	☐	25. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I12	R, I12
☐	☒	☐	26. The LCS percent recover was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I12a	J-, I12a
☐	☒	☐	27. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, I12b
☐	☒	☐	28. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. Do not Reject if MS/MSD information is present. Qualify according to MS/MSD criteria.	R, I12c	R, I12c
☐	☒	☐	29. Duplicate, dilution, or reanalysis	UJ, I88	J, I88
☐	☒	☐	30. The LANL project chemist identified quality deficiencies in the reported data that require further qualification. This code can ONLY be used and/or under advisement by the LANL project chemist.	UJ, R, I19	J, R, I19
☒	☐	☐	31. Qualification of data via data validation does not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB NQ, NQ (no qualification)

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: January 2, 2010

Client SDG: 10-918

Client Sample ID:	RE03-09-14213	Project:	LANL01004
Sample ID:	242938001	Client ID:	LANL010
Matrix:	S		
Collect Date:	11-DEC-09 12:00		
Receive Date:	15-DEC-09		
Collector:	Client		
Moisture:	12.8%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total Federal "Dry Weight Corrected"										
Cyanide, Total	U	ND	78.0	287	ug/kg	1	AXC2 12/22/09	1554	933837	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	12/21/09	1334	933835

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

ETM
2/9/10

GEL LABORATORIES LLC

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: January 2, 2010

Client SDG: 10-918

Client Sample ID:	RE03-09-14215	Project:	LANL01004
Sample ID:	242938002	Client ID:	LANL010
Matrix:	S		
Collect Date:	11-DEC-09 12:00		
Receive Date:	15-DEC-09		
Collector:	Client		
Moisture:	10.3%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total Federal "Dry Weight Corrected"										
Cyanide, Total	U	ND	74.3	273	ug/kg	1	AXC2 12/22/09	1558	933837	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	12/21/09	1334	933835

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

ETM
2/9/10

GEL LABORATORIES LLC

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: January 2, 2010

Client SDG: 10-918

Client Sample ID:	RE03-09-14212	Project:	LANL01004
Sample ID:	242938003	Client ID:	LANL010
Matrix:	S		
Collect Date:	11-DEC-09 12:00		
Receive Date:	15-DEC-09		
Collector:	Client		
Moisture:	12.9%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total Federal "Dry Weight Corrected"										
Cyanide, Total	J	95.4	75.0	276	ug/kg	1	AXC2 12/22/09	1602	933837	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	12/21/09	1334	933835

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

ETM
2/9/10

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: January 2, 2010

Client SDG: 10-918

Client Sample ID:	RE03-09-14219	Project:	LANL01004
Sample ID:	242938004	Client ID:	LANL010
Matrix:	S		
Collect Date:	11-DEC-09 12:00		
Receive Date:	15-DEC-09		
Collector:	Client		
Moisture:	17.2%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total Federal "Dry Weight Corrected"										
Cyanide, Total	U	ND	82.1	302	ug/kg	1	AXC2 12/22/09	1603	933837	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	12/21/09	1334	933835

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

ETM
2/9/10

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: January 2, 2010

Client SDG: 10-918

Client Sample ID:	RE03-09-14218	Project:	LANL01004
Sample ID:	242938005	Client ID:	LANL010
Matrix:	S		
Collect Date:	11-DEC-09 12:00		
Receive Date:	15-DEC-09		
Collector:	Client		
Moisture:	17.6%		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Flow Injection Analysis											
SW9012A Cyanide, Total Federal "Dry Weight Corrected"											
Cyanide, Total	U	ND	77.9	286	ug/kg	1	AXC2	12/22/09	1604	933837	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	12/21/09	1334	933835

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: January 2, 2010

Client SDG: 10-918

Client Sample ID:	RE03-09-14216	Project:	LANL01004
Sample ID:	242938006	Client ID:	LANL010
Matrix:	S		
Collect Date:	11-DEC-09 12:00		
Receive Date:	15-DEC-09		
Collector:	Client		
Moisture:	15.8%		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Flow Injection Analysis											
SW9012A Cyanide, Total Federal "Dry Weight Corrected"											
Cyanide, Total	U	ND	79.2	291	ug/kg	1	AXC2	12/22/09	1605	933837	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	12/21/09	1334	933835

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: January 2, 2010

Client SDG: 10-918

Client Sample ID:	RE03-09-14214	Project:	LANL01004
Sample ID:	242938007	Client ID:	LANL010
Matrix:	S		
Collect Date:	11-DEC-09 12:00		
Receive Date:	15-DEC-09		
Collector:	Client		
Moisture:	13.8%		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Flow Injection Analysis											
SW9012A Cyanide, Total Federal "Dry Weight Corrected"											
Cyanide, Total	U	ND	78.9	290	ug/kg	1	AXC2	12/22/09	1606	933837	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	12/21/09	1334	933835

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: January 2, 2010

Client SDG: 10-918

Client Sample ID:	RE03-09-14217	Project:	LANL01004
Sample ID:	242938008	Client ID:	LANL010
Matrix:	S		
Collect Date:	11-DEC-09 12:00		
Receive Date:	15-DEC-09		
Collector:	Client		
Moisture:	15.2%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total Federal "Dry Weight Corrected"										
Cyanide, Total	J	158	74.3	273	ug/kg	1	AXC2 12/22/09	1607	933837	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	12/21/09	1334	933835

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: January 2, 2010

Client SDG: 10-918

Client Sample ID:	RE03-10-2735	Project:	LANL01004
Sample ID:	242938009	Client ID:	LANL010
Matrix:	S		
Collect Date:	11-DEC-09 12:00		
Receive Date:	15-DEC-09		
Collector:	Client		
Moisture:	14.2%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total Federal "Dry Weight Corrected"										
Cyanide, Total	U	ND	73.4	270	ug/kg	1	AXC2 12/22/09	1608	933837	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	12/21/09	1334	933835

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: December 18, 2009

Client SDG: 10-918-1

Client Sample ID:	RE03-10-2747	Project:	LANL01004
Sample ID:	242940001	Client ID:	LANL010
Matrix:	W		
Collect Date:	11-DEC-09 12:00		
Receive Date:	15-DEC-09		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Flow Injection Analysis											
SW9012A Cyanide, Total "As Received"											
Cyanide, Total	U	ND	1.66	5.00	ug/L	1	AXC2	12/17/09	0932	933603	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	SXJ1	12/16/09	1340	933602

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: December 18, 2009

Client SDG: 10-918-1

Client Sample ID:	RE03-10-2761	Project:	LANL01004
Sample ID:	242940002	Client ID:	LANL010
Matrix:	W		
Collect Date:	11-DEC-09 12:00		
Receive Date:	15-DEC-09		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Flow Injection Analysis											
SW9012A Cyanide, Total "As Received"											
Cyanide, Total	U	ND	1.66	5.00	ug/L	1	AXC2	12/17/09	0936	933603	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	SXJ1	12/16/09	1340	933602

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

ETM
2/9/10

DATA VALIDATION COVER SHEET

5119-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-918 VALIDATION DATE: 2/9/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Eric T. Mink ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☒ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE):

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☐	☐	☒	8. QUANTITATION REPORTS
☐	☐	☒	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. It should be noted that no MS analysis was performed for tritium. An LCS was analyzed, met acceptance criteria and, thus, no sample data were qualified.
2. It should be noted that the duplicate analyses were performed on a LANL sample from a different RN. No sample data were qualified.

Reviewed by: Monica Dymerski **Level I** **Date:** 02/09/10

VALIDATOR'S SIGNATURE: Eric T. Mink DATE: 2/9/10

RAD ANALYTICAL DATA VALIDATION CHECKLIST

5119-2

Rad Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, R9	J-, R9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, R9a	J-, R9a
☐	☐	☒	3. The results for the affected analytes are considered not detected (U) because the associated sample concentration was less than or equal to the MDC.	U, R5	N/A
☐	☐	☒	4. The analyte should be regarded as rejected because spectral interferences prevent positive identification of the analytes.	R, R5a	R, R5a
☐	☒	☐	5. The MDC and/or TPU documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, R5b	J-, R5b
☐	☐	☒	6. The results for the affected analytes should be regarded as not detected (U) because the associated sample concentration was less than 3X the 1 sigma TPU.	U, R11	N/A
☐	☒	☐	7. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, R4	N/A
☐	☒	☐	8. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X.	N/A	J, R4a
☐	☐	☒	9. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	U, R4d	N/A
☐	☒	☐	10. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, R4e	R, R4e
☐	☐	☒	11. The tracer is <10%R. Follow the external laboratory limits located within the associated data package. Tracer%R is not applicable for Gamma Spectroscopy.	R, R3	R, R3

RAD ANALYTICAL DATA VALIDATION CHECKLIST

5119-2

Rad Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	12. The tracer is < the Lower Acceptance Level (LAL) but ≥10%R. Follow the external laboratory limits located within the associated data package. Tracer%R is not applicable for Gamma Spectroscopy.	UJ, R3a	J-, R3a
☐	☐	☒	13. The Tracer%R value is > the Upper Acceptance Limit (UAL). Follow the external laboratory limits located within the associated data package. Tracer%R is not applicable for Gamma Spectroscopy.	N/A	J+, R3b
☐	☐	☒	14. Required tracer information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. Tracer%R is not applicable for Gamma Spectroscopy.	R, R3d	R, R3d
☐	☒	☐	15. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, R12	R, R12
☐	☒	☐	16. The LCS percent recovery was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, R12a	J-, R12a
☐	☒	☐	17. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, R12b
☐	☒	☐	18. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, R12c	R, R12c
☐	☒	☐	19. Associated duplicate sample has DER or RER > the analytical laboratory's acceptance limits.	R, R10	J, J10
☐	☒	☐	20. The duplicate sample was not prepared and/or analyzed with the samples for unspecified reasons. The duplicate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, R6	R, R6

RAD ANALYTICAL DATA VALIDATION CHECKLIST

5119-2

Rad Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	21. The associated matrix spike recovery was <10%. Follow the external laboratory limits. MS/MSD is not applicable to Gamma Spectroscopy.	R, R6	R, R6
☐	☐	☒	22. The associated matrix spike recovery was <10%. Follow the external laboratory limits. MS/MSD is not applicable to Gamma Spectroscopy.	UJ, R6a	J-, R6a
☐	☐	☒	23. The associated matrix spike recovery was above the UAL. Follow the external laboratory limits. MS/MSD is not applicable to Gamma Spectroscopy.	UJ, R6b	J+, R6b
☒	☐	☐	24. Required matrix spike information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. If LCS information is present, do not Reject. Qualify data based on LCS information. MS/MSD is not applicable to Gamma Spectroscopy.	R, R6c	R, R6c
☐	☒	☐	25. Duplicate, dilution, or reanalysis.	UJ, R88	J, R88
☐	☒	☐	26. The LANL project chemist identified quality deficiencies in the reported data that require further qualification. This code can ONLY be used and/or under advisement by the LANL project chemist.	UJ, R, R19	J, R, R19
☒	☐	☐	27. Quantification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB NQ, NQ

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: January 5, 2010

Client Sample ID:	RE03-09-14213	Project:	LANL01004
Sample ID:	242938001	Client ID:	LANL010
Matrix:	S		
Collect Date:	11-DEC-09		
Receive Date:	15-DEC-09		
Collector:	Client		
Moisture:	12.8%		

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids												
"As Received"												
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		1720	199	+/-144	250	pCi/L		KXK2	01/04/10	1022	935212	2

The following Analytical Methods were performed

Method	Description
1	ASTM D 2216 (Modified)
2	GL-RAD-A-002

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
- F Estimated Value
- H Analytical holding time was exceeded
- J Value is estimated
- M M if above MDC and less than LLD
- M Matrix Related Failure
- N/A RPD or %Recovery limits do not apply.
- ND Analyte concentration is not detected above the detection limit
- NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- R Sample results are rejected
- U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: January 5, 2010

Client Sample ID:	RE03-09-14215	Project:	LANL01004
Sample ID:	242938002	Client ID:	LANL010
Matrix:	S		
Collect Date:	11-DEC-09		
Receive Date:	15-DEC-09		
Collector:	Client		
Moisture:	10.3%		

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids												
"As Received"												
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		1610	199	+/-137	250	pCi/L		KXK2	01/04/10	1200	935212	2

The following Analytical Methods were performed

Method	Description
1	ASTM D 2216 (Modified)
2	GL-RAD-A-002

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

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- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
- F Estimated Value
- H Analytical holding time was exceeded
- J Value is estimated
- M M if above MDC and less than LLD
- M Matrix Related Failure
- N/A RPD or %Recovery limits do not apply.
- ND Analyte concentration is not detected above the detection limit
- NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- R Sample results are rejected
- U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
- UI Gamma Spectroscopy--Uncertain identification

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: January 5, 2010

Client Sample ID:	RE03-09-14212	Project:	LANL01004
Sample ID:	242938003	Client ID:	LANL010
Matrix:	S		
Collect Date:	11-DEC-09		
Receive Date:	15-DEC-09		
Collector:	Client		
Moisture:	12.9%		

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids												
"As Received"												
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		1570	200	+/-135	250	pCi/L		KXK2	01/04/10	1338	935212	2

The following Analytical Methods were performed

Method	Description
1	ASTM D 2216 (Modified)
2	GL-RAD-A-002

Notes:
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- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
- F Estimated Value
- H Analytical holding time was exceeded
- J Value is estimated
- M M if above MDC and less than LLD
- M Matrix Related Failure
- N/A RPD or %Recovery limits do not apply.
- ND Analyte concentration is not detected above the detection limit
- NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- R Sample results are rejected
- U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
- UI Gamma Spectroscopy--Uncertain identification

ETM
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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: January 5, 2010

Client Sample ID:	RE03-09-14219	Project:	LANL01004
Sample ID:	242938004	Client ID:	LANL010
Matrix:	S		
Collect Date:	11-DEC-09		
Receive Date:	15-DEC-09		
Collector:	Client		
Moisture:	17.2%		

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids												
"As Received"												
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		496	201	+/-74.8	250	pCi/L		KXK2	01/04/10	1516	935212	2

The following Analytical Methods were performed

Method	Description
1	ASTM D 2216 (Modified)
2	GL-RAD-A-002

Notes:
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- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
- F Estimated Value
- H Analytical holding time was exceeded
- J Value is estimated
- M M if above MDC and less than LLD
- M Matrix Related Failure
- N/A RPD or %Recovery limits do not apply.
- ND Analyte concentration is not detected above the detection limit
- NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- R Sample results are rejected
- U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
- UI Gamma Spectroscopy--Uncertain identification

ETM
2/9/10

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: January 5, 2010

Client Sample ID:	RE03-09-14218	Project:	LANL01004
Sample ID:	242938005	Client ID:	LANL010
Matrix:	S		
Collect Date:	11-DEC-09		
Receive Date:	15-DEC-09		
Collector:	Client		
Moisture:	17.6%		

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids												
"As Received"												
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium	U	186	201	+/-63.4	250	pCi/L		KXK2	01/04/10	1654	935212	2

The following Analytical Methods were performed

Method	Description
1	ASTM D 2216 (Modified)
2	GL-RAD-A-002

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
- F Estimated Value
- H Analytical holding time was exceeded
- J Value is estimated
- M M if above MDC and less than LLD
- M Matrix Related Failure
- N/A RPD or %Recovery limits do not apply.
- ND Analyte concentration is not detected above the detection limit
- NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- R Sample results are rejected
- U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
- UI Gamma Spectroscopy--Uncertain identification

ETM
2/9/10

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: January 5, 2010

Client Sample ID:	RE03-09-14216	Project:	LANL01004
Sample ID:	242938006	Client ID:	LANL010
Matrix:	S		
Collect Date:	11-DEC-09		
Receive Date:	15-DEC-09		
Collector:	Client		
Moisture:	15.8%		

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids												
"As Received"												
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium	U	177	200	+/-63.0	250	pCi/L		KXK2	01/04/10	1832	935212	2

The following Analytical Methods were performed

Method	Description
1	ASTM D 2216 (Modified)
2	GL-RAD-A-002

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
- F Estimated Value
- H Analytical holding time was exceeded
- J Value is estimated
- M M if above MDC and less than LLD
- M Matrix Related Failure
- N/A RPD or %Recovery limits do not apply.
- ND Analyte concentration is not detected above the detection limit
- NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- R Sample results are rejected
- U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
- UI Gamma Spectroscopy--Uncertain identification

ETM
2/9/10

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: January 5, 2010

Client Sample ID:	RE03-09-14214	Project:	LANL01004
Sample ID:	242938007	Client ID:	LANL010
Matrix:	S		
Collect Date:	11-DEC-09		
Receive Date:	15-DEC-09		
Collector:	Client		
Moisture:	13.8%		

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids												
"As Received"												
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		1850	200	+/-153	250	pCi/L		KXK2	01/04/10	2010	935212	2

The following Analytical Methods were performed

Method	Description
1	ASTM D 2216 (Modified)
2	GL-RAD-A-002

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
- F Estimated Value
- H Analytical holding time was exceeded
- J Value is estimated
- M M if above MDC and less than LLD
- M Matrix Related Failure
- N/A RPD or %Recovery limits do not apply.
- ND Analyte concentration is not detected above the detection limit
- NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- R Sample results are rejected
- U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
- UI Gamma Spectroscopy--Uncertain identification

ETM
2/9/10

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: January 5, 2010

Client Sample ID:	RE03-09-14217	Project:	LANL01004
Sample ID:	242938008	Client ID:	LANL010
Matrix:	S		
Collect Date:	11-DEC-09		
Receive Date:	15-DEC-09		
Collector:	Client		
Moisture:	15.2%		

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids												
"As Received"												
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		254	197	+/-64.5	250	pCi/L		KXK2	01/04/10	2148	935212	2

The following Analytical Methods were performed

Method	Description
1	ASTM D 2216 (Modified)
2	GL-RAD-A-002

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
- F Estimated Value
- H Analytical holding time was exceeded
- J Value is estimated
- M M if above MDC and less than LLD
- M Matrix Related Failure
- N/A RPD or %Recovery limits do not apply.
- ND Analyte concentration is not detected above the detection limit
- NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- R Sample results are rejected
- U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
- UI Gamma Spectroscopy--Uncertain identification

ETM
2/9/10

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: January 5, 2010

Client Sample ID:	RE03-10-2735	Project:	LANL01004
Sample ID:	242938009	Client ID:	LANL010
Matrix:	S		
Collect Date:	11-DEC-09		
Receive Date:	15-DEC-09		
Collector:	Client		
Moisture:	14.2%		

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids												
"As Received"												
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		1720	203	+/-145	250	pCi/L		KXK2	01/04/10	2326	935212	2

The following Analytical Methods were performed

Method	Description
1	ASTM D 2216 (Modified)
2	GL-RAD-A-002

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
- F Estimated Value
- H Analytical holding time was exceeded
- J Value is estimated
- M M if above MDC and less than LLD
- M Matrix Related Failure
- N/A RPD or %Recovery limits do not apply.
- ND Analyte concentration is not detected above the detection limit
- NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- R Sample results are rejected
- U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
- UI Gamma Spectroscopy--Uncertain identification

ETM
2/9/10

Monday, December 14, 2009

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-918

REQUEST NUMBER: 10-918

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.
2040 Savage Rd
Charleston, SC 29407

TURNAROUND/REPORT DUE: 1/13/2010
TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS: 242938, 242940

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE03-09-14213	1	POLY	H3	Ice	S
RE03-09-14213	1	POLY	Metals+CN - GEL	Ice	S
RE03-09-14215	1	POLY	H3	Ice	S
RE03-09-14215	1	POLY	Metals+CN - GEL	Ice	S
RE03-09-14212	1	POLY	H3	Ice	S
RE03-09-14212	1	POLY	Metals+CN - GEL	Ice	S
RE03-09-14219	1	POLY	H3	Ice	S
RE03-09-14219	1	POLY	Metals+CN - GEL	Ice	S
RE03-09-14218	1	POLY	H3	Ice	S
RE03-09-14218	1	POLY	Metals+CN - GEL	Ice	S
RE03-09-14216	1	POLY	H3	Ice	S
RE03-09-14216	1	POLY	Metals+CN - GEL	Ice	S
RE03-09-14214	1	POLY	H3	Ice	S
RE03-09-14214	1	POLY	Metals+CN - GEL	Ice	S
RE03-09-14217	1	POLY	H3	Ice	S
RE03-09-14217	1	POLY	Metals+CN - GEL	Ice	S
RE03-10-2735	1	POLY	H3	Ice	S
RE03-10-2735	1	POLY	Metals+CN - GEL	Ice	S
RE03-10-2747	1	POLY	METALS-GEL	Nitric Acid	W
RE03-10-2747	1	POLY	TCN	Sodium Hydroxide	W
RE03-10-2761	1	POLY	METALS-GEL	Nitric Acid	W
RE03-10-2761	1	POLY	TCN	Sodium Hydroxide	W

Relinquished By:		Date	Time	Received By:		Date	Time
[illegible]	[illegible]	12/10/04	1400	Greg Tyler	[illegible]	12-15-09	0845
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

Received for DISPOSAL By: Date Time Remarks:

Monday, December 14, 2009

REQUEST NUMBER: 10-918

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis
General Engineering Laboratories, Inc., Charleston, SC.
2040 Savage Rd
Charleston, SC 29407

These Samples are on:
LANL Request Number:10-918
Per Agreement Number:126310011
Project Cost Code: MR2A054196D0

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 12/14/2009
TURNAROUND/REPORT DUE: 1/13/2010
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Not Required
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:906.0	1	RE03-09-14212	S	12/11/2009	
		1	RE03-09-14213	S	12/11/2009	
		1	RE03-09-14214	S	12/11/2009	
		1	RE03-09-14215	S	12/11/2009	
		1	RE03-09-14216	S	12/11/2009	
		1	RE03-09-14217	S	12/11/2009	
		1	RE03-09-14218	S	12/11/2009	
		1	RE03-09-14219	S	12/11/2009	
		1	RE03-10-2735	S	12/11/2009	

Monday, December 14, 2009

REQUEST NUMBER: 10-918

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:6010B	1	RE03-09-14212	S	12/11/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14213	S	12/11/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14214	S	12/11/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14215	S	12/11/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14216	S	12/11/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14217	S	12/11/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14218	S	12/11/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14219	S	12/11/2009	Plus, B, Li, Si, Ti, U
		1	RE03-10-2735	S	12/11/2009	
		1	RE03-10-2747	W	12/11/2009	
		1	RE03-10-2761	W	12/11/2009	
	SW-846:6020	1	RE03-10-2747	W	12/11/2009	
		1	RE03-10-2761	W	12/11/2009	
	SW-846:9012A	1	RE03-09-14212	S	12/11/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14213	S	12/11/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14214	S	12/11/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14215	S	12/11/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14216	S	12/11/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14217	S	12/11/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14218	S	12/11/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14219	S	12/11/2009	Plus, B, Li, Si, Ti, U
		1	RE03-10-2735	S	12/11/2009	
		1	RE03-10-2747	W	12/11/2009	
		1	RE03-10-2761	W	12/11/2009	

Final Page of REQUEST NUMBER 10-918

GEL Laboratories LLC

a member of The GEL Group INC

PO Box 30712 Charleston, SC 29417
2040 Savage Road Charleston, SC 29407
P 843.556.8171 F 843.766.1178

www.gel.com

December 19, 2009

Ms. Joylene Valdez
Los Alamos National Laboratory
PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545

Re: LANL ER Project
Work Orders: 242938 242940
SDG: 10-918

Dear Ms. Valdez:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the following analytical results for the sample(s) we received on December 15, 2009, and analyzed for General Chemistry, Metals and Radiochemistry. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 4485.

Sincerely,

for

Valerie Davis
Project Manager

Purchase Order: 72733-001-09
Chain of Custody: 10-918
Enclosures

Los Alamos National Laboratory (72733-001-09)
LANL ER Project
Work Order #: 242938 and 242940
SDG: 10-918

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- Background and Efficiency Data 956

Standards Data 959
Runlogs 963

Case Narrative

Case Narrative for
Los Alamos National Laboratory (72733-001-09)
LANL ER Project
Workorder #: 242938 and 242940
SDG # : 10-918

December 19, 2009

Laboratory Identification:

GEL Laboratories LLC
2040 Savage Road
Charleston, South Carolina 29407
(843) 556-8171

Summary

Sample receipt The samples arrived at GEL Laboratories LLC, Charleston, South Carolina on December 15, 2009 for analysis. The samples were prepared/analyzed within the required holding time. Shipping container temperatures were checked, documented, and within specifications. The samples were screened according to GEL Standard Operating Procedure. The samples were delivered with proper chain of custody documentation and signatures. All sample containers arrived without any visible signs of tampering or breakage. Containers were checked for pH, where appropriate, and matched the preservative as documented on the accompanying chain of custody. The containers for radiochemistry were received at 15C temperature. Shipping container temperature was within specification (0 - 6C).

Sample Identification The laboratory received the following samples:

Laboratory ID	Client ID
242938001	RE03-09-14213
242938002	RE03-09-14215
242938003	RE03-09-14212
242938004	RE03-09-14219
242938005	RE03-09-14218
242938006	RE03-09-14216
242938007	RE03-09-14214
242938008	RE03-09-14217
242938009	RE03-10-2735
242940001	RE03-10-2747
242940002	RE03-10-2761

Case Narrative

Sample analyses were conducted using methodology as outlined in GEL Laboratories, LLC (GEL) Standard Operating Procedures. Any technical or administrative problems during analysis, data review, and reduction are contained in the analytical case narratives in the enclosed data package.

Data Package The enclosed data package contains the following sections: Case Narrative, Chain of Custody, Cooler Receipt Checklist, Data Package Qualifier Definitions and data from the following fractions: General Chemistry, Metals and Radiochemistry.

I certify that this data report is in compliance with the terms and conditions of the subcontract and task order, both technically and for completeness, for other than the conditions detailed in the attached case narrative.

for

Valerie Davis

Project Manager

List of current GEL Certifications as of 19 December 2009

State	Certification
Arizona	AZ0668
Arkansas	88–0651
CLIA	42D0904046
California – NELAP	01151CA
Colorado	GEL
Connecticut	PH–0169
Dept. of Navy	NFESC 413
EPA Region 5	WG–15J
Florida – NELAP	E87156
Georgia	E87156 (FL/NELAP)
Georgia DW	967
Hawaii	N/A
ISO 17025	2567.01
Idaho	SC00012
Illinois – NELAP	200029
Indiana	C–SC–01
Kansas – NELAP	E–10332
Kentucky	90129
Louisiana – NELAP	03046
Maryland	270
Massachusetts	M–SC012
Nevada	SC00012
New Jersey – NELAP	SC002
New Mexico	FL NELAP E87156
New York – NELAP	11501
North Carolina	233
North Carolina DW	45709
Oklahoma	9904
Pennsylvania – NELAP	68–00485
South Carolina	10120001/10120002
Tennessee	TN 02934
Texas – NELAP	T104704235–07B–TX
U.S. Dept. of Agriculture	S–52597
Utah – NELAP	GEL
Vermont	VT87156
Virginia	00151
Washington	C1641

Chain of Custody and Supporting Documentation

Monday, December 14, 2009

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-918

REQUEST NUMBER: 10-918

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.
2040 Savage Rd
Charleston, SC 29407

TURNAROUND/REPORT DUE: 1/13/2010
TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS: 242938, 242940

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE03-09-14213	1	POLY	H3	Ice	S
RE03-09-14213	1	POLY	Metals+CN - GEL	Ice	S
RE03-09-14215	1	POLY	H3	Ice	S
RE03-09-14215	1	POLY	Metals+CN - GEL	Ice	S
RE03-09-14212	1	POLY	H3	Ice	S
RE03-09-14212	1	POLY	Metals+CN - GEL	Ice	S
RE03-09-14219	1	POLY	H3	Ice	S
RE03-09-14219	1	POLY	Metals+CN - GEL	Ice	S
RE03-09-14218	1	POLY	H3	Ice	S
RE03-09-14218	1	POLY	Metals+CN - GEL	Ice	S
RE03-09-14216	1	POLY	H3	Ice	S
RE03-09-14216	1	POLY	Metals+CN - GEL	Ice	S
RE03-09-14214	1	POLY	H3	Ice	S
RE03-09-14214	1	POLY	Metals+CN - GEL	Ice	S
RE03-09-14217	1	POLY	H3	Ice	S
RE03-09-14217	1	POLY	Metals+CN - GEL	Ice	S
RE03-10-2735	1	POLY	H3	Ice	S
RE03-10-2735	1	POLY	Metals+CN - GEL	Ice	S
RE03-10-2747	1	POLY	METALS-GEL	Nitric Acid	W
RE03-10-2747	1	POLY	TCN	Sodium Hydroxide	W
RE03-10-2761	1	POLY	METALS-GEL	Nitric Acid	W
RE03-10-2761	1	POLY	TCN	Sodium Hydroxide	W

Relinquished By:		Date	Time	Received By:		Date	Time
[illegible]	[illegible]	12/14/09	1400	Greg Tyler	[illegible]	12-15-09	0845
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

Received for DISPOSAL By: **Date** **Time** **Remarks:**

Monday, December 14, 2009

REQUEST NUMBER: 10-918

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

These Samples are on:

LANL Request Number:10-918

Per Agreement Number:126310011

Project Cost Code: MR2A054196D0

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 12/14/2009

TURNAROUND/REPORT DUE: 1/13/2010

TURNAROUND REQ'D: 30 Days

RAD SCREENING: Not Required

LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:

Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:906.0	1	RE03-09-14212	S	12/11/2009	
		1	RE03-09-14213	S	12/11/2009	
		1	RE03-09-14214	S	12/11/2009	
		1	RE03-09-14215	S	12/11/2009	
		1	RE03-09-14216	S	12/11/2009	
		1	RE03-09-14217	S	12/11/2009	
		1	RE03-09-14218	S	12/11/2009	
		1	RE03-09-14219	S	12/11/2009	
		1	RE03-10-2735	S	12/11/2009	

Monday, December 14, 2009

REQUEST NUMBER: 10-918

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:6010B	1	RE03-09-14212	S	12/11/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14213	S	12/11/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14214	S	12/11/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14215	S	12/11/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14216	S	12/11/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14217	S	12/11/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14218	S	12/11/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14219	S	12/11/2009	Plus, B, Li, Si, Ti, U
		1	RE03-10-2735	S	12/11/2009	
		1	RE03-10-2747	W	12/11/2009	
		1	RE03-10-2761	W	12/11/2009	
	SW-846:6020	1	RE03-10-2747	W	12/11/2009	
		1	RE03-10-2761	W	12/11/2009	
	SW-846:9012A	1	RE03-09-14212	S	12/11/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14213	S	12/11/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14214	S	12/11/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14215	S	12/11/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14216	S	12/11/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14217	S	12/11/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14218	S	12/11/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14219	S	12/11/2009	Plus, B, Li, Si, Ti, U
		1	RE03-10-2735	S	12/11/2009	
		1	RE03-10-2747	W	12/11/2009	
		1	RE03-10-2761	W	12/11/2009	

Final Page of REQUEST NUMBER 10-918

GEL Laboratories LLC

SAMPLE RECEIPT & REVIEW FORM

Client: LANL	**SDG/ARCOC/Work Order: 10-918**
Received By: Greg Tyler	**Date Received: 12/15/09**

Suspected Hazard Information	**Yes**	**No**	*If Counts > x2 area background on samples not marked "radioactive", contact the Radiation Safety Group of further investigation.
COC/Samples marked as radioactive?		X	Maximum Counts Observed*: **40cpm**
Classified Radioactive II by RSO?		X	
COC/Samples marked containing PCBs?		X	
Shipped as a DOT Hazardous?		X	Hazard Class Shipped: UN#:
Samples identified as Foreign Soil?		X	

	Sample Receipt Criteria	**Yes**	**NA**	**No**	**Comments/Qualifiers (Required for Non-Conforming Items)**
1	Shipping containers received intact and sealed?	X			Circle Applicable: seals broken damaged container leaking container other (describe)
2	Samples requiring cold preservation within 0 ≤ 6 deg. C?	X			Preservation Method: ice bags **blue ice** 1, 2, 3, 6C dry ice 15C **none** other
3	Chain of custody documents included with shipment?	X			
4	Sample containers intact and sealed?	X			Circle Applicable: seals broken damaged container leaking container other (describe)
5	Samples requiring chemical preservation at proper pH?	X			Sample ID's, containers affected and observed pH: If Preservation added, Lot#:
6	VOA vials free of headspace (defined as < 6mm bubble)?		X		Sample ID's and containers affected:
7	Are Encore containers present?			X	(If yes, immediately deliver to Volatiles laboratory)
8	Samples received within holding time?	X			Id's and tests affected:
9	Sample ID's on COC match ID's on bottles?	X			Sample ID's and containers affected:
10	Date & time on COC match date & time on bottles?		X		Sample ID's affected: **No time on Chain of Custody.**
11	Number of containers received match number indicated on COC?	X			Sample ID's affected:
12	COC form is properly signed in relinquished/received sections?	X			

Comments:
Fed Ex Tracking Numbers
7209 7849 2244 1C
7209 7849 2222 1C
7209 7849 2233 2C
7209 7849 2299 3C
7209 7849 2288 6C
7209 7849 2277 6C
7209 7849 2211 15C

PM (or PMA) review: Initials _____ Date 12/16/09

ORIGIN ID: SAFA (505)665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 14DEC09
ACTWGT: 51.0 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

1°

CHARLESTON SC 29407
(843)556-8171
REF: 6B010AMR1A015AGWHO

FedEx Express

CB812898212224

K# 7209 7849 2244
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PRIORITY OVERNIGHT

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CHS

LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

BILL SENDER

#2.30

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

1°

CHARLESTON SC 29407
(843)556-8171
REF: 6B010AMR1A015AGWHO

FedEx Express

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TRK# 7209 7849 2222
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PRIORITY OVERNIGHT

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CHS

Part # 1061464-434 NRIT V3 09-09

RIGIN ID: SAFA (505)665-9968
OYLENE VALDEZ
OS ALAMOS NATL LAB.
A00 BLDG 1237 DPU 03

OS ALAMOS, NM 87545
NITED STATES US

SHIP DATE: 14DEC09
ACTWGT: 53.0 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

ALERIE DAVIS
ENERAL ENGINEERING LAB
040 SAVAGE RD

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HARLESTON SC 29407
843)556-8171
EF: 6B010AMR1A015AGWHO

FedEx Express

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PRIORITY OVERNIGHT

trK# 7209 7849 2222 0201

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CHS

ORIGIN ID: SAFA (505)665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 14DEC09
ACTWGT: 47.0 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

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CHARLESTON SC 29407
(843)556-8171
REF: 6B010AMR2A054196DO

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TRK# 7209 7849 2299
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PRIORITY OVERNIGHT

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:GIN ID: SAFA (505)665-9968
'LENE VALDEZ
; ALAMOS NATL LAB.
00 BLDG 1237 DPU 03

; ALAMOS, NM 87545
ITED STATES US

SHIP DATE: 14DEC09
ACTWGT: 49.0 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

ALERIE DAVIS
ENERAL ENGINEERING LAB
040 SAVAGE RD

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HARLESTON SC 29407
843)556-8171
EF: 6B010AMR1A015AGWMO

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MPS# 0263 7209 7849 2288
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PRIORITY OVERNIGHT

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ORIGIN ID: SAFA (505)665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 14DEC09
ACTWGT: 49.0 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

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CHARLESTON SC 29407
(843)556-8171
REF: 6B010AMR1A015AGWMO

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TUE - 15DEC A1
PRIORITY OVERNIGHT

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Part # 156148-434 NRIT V3 08-09

JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

CAD: 0014176/CAFE2434

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

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(843)556-8171
REF: 6B010AAREW01105800

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MPS# 0263 7209 7849 2211
Mstr# 7209 7849 2200 0201

TUE - 15DEC A1
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Data Review Qualifier Flag Definition Sheet

Data Review Qualifier Definitions

Qualifier	Explanation
*	A quality control analyte recovery is outside of specified acceptance criteria
**	Analyte is a surrogate compound
<	Result is less than value reported
>	Result is greater than value reported
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL
A	The TIC is a suspected aldol-condensation product
B	Target analyte was detected in the associated blank
B	Metals-Either presence of analyte detected in the associated blank, or MDL/IDL < sample value < PQL
BD	Results are either below the MDC or tracer recovery is low
C	Analyte has been confirmed by GC/MS analysis
D	Results are reported from a diluted aliquot of the sample
d	5-day BOD-The 2:1 depletion requirement was not met for this sample
E	Organics-Concentration of the target analyte exceeds the instrument calibration range
E	Metals-%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
H	Analytical holding time was exceeded
h	Preparation or preservation holding time was exceeded
J	Value is estimated
N	Metals-The Matrix spike sample recovery is not within specified control limits
N	Organics-Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A	Spike recovery limits do not apply. Sample concentration exceeds spike concentration by 4X or more
ND	Analyte concentration is not detected above the reporting limit
UI	Gamma Spectroscopy-Uncertain identification
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
Z	Paint Filter Test-Particulates passed through the filter, however no free liquids were observed.

Metals Analysis

Case Narrative

Metals Fractional Narrative
Los Alamos National Laboratory (LANL)
SDG 10-918

Sample Analysis

Sample ID	Client ID
242938001	RE03-09-14213
242938002	RE03-09-14215
242938003	RE03-09-14212
242938004	RE03-09-14219
242938005	RE03-09-14218
242938006	RE03-09-14216
242938007	RE03-09-14214
242938008	RE03-09-14217
242938009	RE03-10-2735
1201998454	Method Blank (MB) **ICP**
1201998455	Laboratory Control Sample (LCS)
1201998458	242938001(RE03-09-14213L) Serial Dilution (SD)
1201998456	242938001(RE03-09-14213D) Sample Duplicate (DUP)
1201998457	242938001(RE03-09-14213S) Matrix Spike (MS)
1201998459	242938001(RE03-09-14213SD) Matrix Spike Duplicate (MSD)
1201998448	Method Blank (MB) **ICP-MS**
1201998449	Laboratory Control Sample (LCS)
1201998452	242938001(RE03-09-14213L) Serial Dilution (SD)
1201998450	242938001(RE03-09-14213D) Sample Duplicate (DUP)
1201998451	242938001(RE03-09-14213S) Matrix Spike (MS)
1201998453	242938001(RE03-09-14213SD) Matrix Spike Duplicate (MSD)
1202000228	Method Blank (MB) **CVAA**
1202000229	Laboratory Control Sample (LCS)
1202000232	243042001(RE03-09-14221L) Serial Dilution (SD)
1202000230	243042001(RE03-09-14221D) Sample Duplicate (DUP)
1202000231	243042001(RE03-09-14221S) Matrix Spike (MS)
1202000233	243042001(RE03-09-14221SD) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on a "dry weight" basis.

Method/Analysis Information

Analytical Batch:	934060, 934057 and 934897
Prep Batch :	934059, 934056 and 934894
Standard Operating Procedures:	GL-MA-E-013 REV# 20, GL-MA-E-009 REV# 19, GL-MA-E-014 REV# 21 and GL-MA-E-010 REV# 23
Analytical Method:	SW846 3050B/6010B, SW846 3050B/6020 and SW846 7471A
Prep Method :	SW846 3050B and SW846 7471A Prep

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

System Configuration

The Metals analysis-ICP was performed on a P E 5300 Optima radial/axial-viewing inductively coupled plasma atomic emission spectrometer. The instrument is equipped with a Burgener nebulizer, cyclonic spray chamber, and yttrium or scandium internal standard. Operating conditions for the ICP are set at a power level of 1500 watts. The instrument has a peristaltic pump flow rate of 1.4L/min, argon gas flows of 15 L/min and 0.2 L/min for the torch and auxiliary gases, and a flow setting of 0.65L/min for the nebulizer.

The Metals analysis - ICPMS was performed on a Perkin Elmer ELAN 6100E inductively coupled plasma mass spectrometer (ICP-MS). The instrument is equipped with a cross-flow nebulizer, quadrupole mass spectrometer, and dual mode electron multiplier detector. Internal standards of scandium, germanium, indium, tantalum, and/or lutetium were utilized to cover the mass spectrum. Operating conditions are set at 1400W power and combined argon pressures of 360+/-7 kPa for the plasma and auxiliary gases, and 0.85 L/min carrier gas flow, and an initial lens voltage of 5.2.

The Metals analysis - ICPMS was performed on a Perkin Elmer ELAN 9000 inductively coupled plasma mass spectrometer (ICP-MS). The instrument is equipped with a cross-flow nebulizer, quadrupole mass spectrometer, and dual mode electron multiplier detector. Internal standards of scandium, germanium, indium, tantalum, and/or lutetium were utilized to cover the mass spectrum. Operating conditions are set at 1400W power and combined argon pressures of 360+/-7 kPa for the plasma and auxiliary gases, and 0.85 L/min carrier gas flow, and an initial lens voltage of 5.2.

The Metals analysis-Mercury was performed on a Perkin-Elmer Flow Injection Mercury System

(FIMS-100) automated mercury analyzer. The instrument consists of a cold vapor atomic absorption spectrometer set to detect mercury at a wavelength of 253.7 nm. Sample introduction through the flow injection system is performed via a peristaltic pump at 9 mL/min and nitrogen carrier gas rate of 80 mL/min.

Calibration Information

Instrument Calibration
All initial calibration requirements have been met for this sample delivery group (SDG).

CRDL Requirements
All CRDL standard(s) met the referenced advisory control limits.

ICSA/ICSAB Statement
All interference check samples (ICSA and ICSAB) associated with this SDG met the established acceptance criteria.

Continuing Calibration Blank (CCB) Requirements
All continuing calibration blanks (CCB) bracketing this batch met the established acceptance criteria.

Continuing Calibration Verification (CCV) Requirements
All continuing calibration verifications (CCV) bracketing this SDG met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MBs analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

Quality Control (QC) Sample Statement
The following samples were selected as the quality control (QC) samples for this SDG: 242938001 (RE03-09-14213)-ICP and ICP-MS and 243042001 (RE03-09-14221)-CVAA.

Matrix Spike (MS) Recovery Statement
The percent recoveries (%R) obtained from the MS analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. The MS met the recommended quality control acceptance criteria for percent recoveries for all applicable analytes with the exceptions of lithium, selenium, calcium, barium, potassium, silicon and mercury as indicated by the "N" qualifiers.

Matrix Spike Duplicate (MSD) Recovery Statement
The percent recovery (%R) obtained from the MSD analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. The MSD met the

recommended quality control acceptance criteria for percent recoveries for all applicable analytes with the exceptions of lithium, selenium,, potassium, silicon and mercury as indicated by the "N" qualifiers.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD(s) between the MS and MSD met the acceptance limits.

Duplicate Relative Percent Difference (RPD) Statement
The RPD obtained from the designated sample duplicate (DUP) is evaluated based on acceptance criteria of 20% when the sample is >5X the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control of +/-RL is used to evaluate the DUP results. All applicable analytes met these requirements.

Serial Dilution % Difference Statement
The serial dilution is used to assess matrix suppression or enhancement. Raw element concentrations that are 25X the IDL/MDL for CVAA, 50X the IDL/MDL for ICP, and 100X the IDL/MDL for ICP-MS analyses are applicable for serial dilution assessment. All applicable analytes met the acceptance criteria of less than 10% difference (%D).

Technical Information

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Sample Dilutions
Dilutions are performed to minimize matrix interferences resulting from elevated mineral element concentrations present in solid samples and/or to bring over range target analyte concentrations into the linear calibration range of the instrument. The samples in this SDG were diluted the standard 2x for solids on the ICPMS.

Preparation Information
The samples in this SDG were prepared exactly according to the cited SOP.

Miscellaneous Information

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in

the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Nonconformance Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. The following NCR was generated for this SDG: NCR ID 772994, 775826 and 777037. A copy is included in the Miscellaneous Data section of this package.

Additional Comments
Additional comments were not required for this SDG.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Nik-Cole A. Elmore **Date:** 1·11·10

Sample Data Summary

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-918 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 242938001 **BASIS:** Dry Weight **DATE COLLECTED** 11-DEC-09

CLIENT ID: RE03-09-14213 **LEVEL:** Low **DATE RECEIVED** 15-DEC-09

MATRIX: SOIL **%SOLIDS:** 87

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	11600000	ug/Kg		7570	22300	22300	1	P	HSC	12/20/09 22:58	122009A-1	934060
7440-36-0	Antimony	1110	ug/Kg	U	368	1110	1110	1	P	HSC	12/20/09 22:58	122009A-1	934060
7440-38-2	Arsenic	2.21	mg/kg		0.221	1.11	1.11	2	MS	BAJ	12/30/09 00:22	091229-3	934057
7440-39-3	Barium	162000	ug/Kg	N	111	557	557	1	P	HSC	12/20/09 22:58	122009A-1	934060
7440-41-7	Beryllium	0.860	mg/kg		0.0221	0.111	0.111	2	MS	BAJ	12/30/09 00:22	091229-3	934057
7440-42-8	Boron	5570	ug/Kg	U	1110	5570	5570	1	P	HSC	12/20/09 22:58	122009A-1	934060
7440-43-9	Cadmium	557	ug/Kg	U	111	557	557	1	P	HSC	12/20/09 22:58	122009A-1	934060
7440-70-2	Calcium	1990000	ug/Kg	N	8910	27800	27800	1	P	HSC	12/20/09 22:58	122009A-1	934060
7440-47-3	Chromium	12600	ug/Kg		167	557	557	1	P	HSC	12/20/09 22:58	122009A-1	934060
7440-48-4	Cobalt	5750	ug/Kg		167	557	557	1	P	HSC	12/20/09 22:58	122009A-1	934060
7440-50-8	Copper	7490	ug/Kg		334	1110	1110	1	P	HSC	12/20/09 22:58	122009A-1	934060
7439-89-6	Iron	14800000	ug/Kg		8910	27800	27800	1	P	HSC	12/20/09 22:58	122009A-1	934060
7439-92-1	Lead	13300	ug/Kg		278	1110	1110	1	P	HSC	12/20/09 22:58	122009A-1	934060
7439-93-2	Lithium	15.8	mg/kg	N	0.443	2.21	2.21	2	MS	BAJ	12/30/09 00:22	091229-3	934057
7439-95-4	Magnesium	2420000	ug/Kg		9470	33400	33400	1	P	HSC	12/20/09 22:58	122009A-1	934060
7439-96-5	Manganese	319000	ug/Kg		223	1110	1110	1	P	HSC	12/20/09 22:58	122009A-1	934060
7439-97-6	Mercury	31.9	ug/kg		4.63	13.6	13.6	1	AV	JXL1	01/05/10 10:04	010510S1-5	934897
7440-02-0	Nickel	8.87	mg/kg		0.111	0.443	0.443	2	MS	BAJ	12/30/09 00:22	091229-3	934057
7440-09-7	Potassium	1230000	ug/Kg	N	7130	27800	27800	1	P	HSC	12/20/09 22:58	122009A-1	934060
7782-49-2	Selenium	1.11	mg/kg	UN	0.554	1.11	1.11	2	MS	BAJ	12/30/09 00:22	091229-3	934057
7440-21-3	Silicon	1250000	ug/Kg	N	1670	11100	11100	1	P	HSC	12/20/09 22:58	122009A-1	934060
7440-22-4	Silver	575	ug/Kg		111	557	557	1	P	HSC	12/20/09 22:58	122009A-1	934060
7440-23-5	Sodium	124000	ug/Kg		7800	27800	27800	1	P	HSC	12/20/09 22:58	122009A-1	934060
7440-28-0	Thallium	0.277	mg/kg		0.0664	0.221	0.221	2	MS	BAJ	12/30/09 10:44	091230-4	934057
7440-32-6	Titanium	516000	ug/Kg		111	557	557	1	P	HSC	12/20/09 22:58	122009A-1	934060
7440-61-1	Uranium	0.879	mg/kg		0.0146	0.0443	0.0443	2	MS	SKJ	12/30/09 12:56	091230-2	934057
7440-62-2	Vanadium	28000	ug/Kg		111	557	557	1	P	HSC	12/20/09 22:58	122009A-1	934060
7440-66-6	Zinc	30800	ug/Kg		368	1110	1110	1	P	HSC	12/20/09 22:58	122009A-1	934060

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
934057	934056	SW846 3050B	0.518	g	50	mL	12/19/09	BCD1
934060	934059	SW846 3050B	0.515	g	50	mL	12/19/09	BCD1
934897	934894	SW846 7471A Prep	0.505	g	30	mL	01/04/10	TXB3

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-918 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 242938002 **BASIS:** Dry Weight **DATE COLLECTED** 11-DEC-09

CLIENT ID: RE03-09-14215 **LEVEL:** Low **DATE RECEIVED** 15-DEC-09

MATRIX: SOIL **%SOLIDS:** 90

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	4180000	ug/Kg		7260	21400	21400	1	P	HSC	12/20/09 23:46	122009A-1	934060
7440-36-0	Antimony	1070	ug/Kg	U	352	1070	1070	1	P	HSC	12/20/09 23:46	122009A-1	934060
7440-38-2	Arsenic	1.24	mg/kg		0.218	1.09	1.09	2	MS	BAJ	12/30/09 01:06	091229-3	934057
7440-39-3	Barium	45200	ug/Kg	N	107	534	534	1	P	HSC	12/20/09 23:46	122009A-1	934060
7440-41-7	Beryllium	0.744	mg/kg		0.0218	0.109	0.109	2	MS	BAJ	12/30/09 01:06	091229-3	934057
7440-42-8	Boron	5340	ug/Kg	U	1070	5340	5340	1	P	HSC	12/20/09 23:46	122009A-1	934060
7440-43-9	Cadmium	534	ug/Kg	U	107	534	534	1	P	HSC	12/20/09 23:46	122009A-1	934060
7440-70-2	Calcium	1030000	ug/Kg	N	8540	26700	26700	1	P	HSC	12/20/09 23:46	122009A-1	934060
7440-47-3	Chromium	3640	ug/Kg		160	534	534	1	P	HSC	12/20/09 23:46	122009A-1	934060
7440-48-4	Cobalt	785	ug/Kg		160	534	534	1	P	HSC	12/20/09 23:46	122009A-1	934060
7440-50-8	Copper	2980	ug/Kg		320	1070	1070	1	P	HSC	12/20/09 23:46	122009A-1	934060
7439-89-6	Iron	9370000	ug/Kg		8540	26700	26700	1	P	HSC	12/20/09 23:46	122009A-1	934060
7439-92-1	Lead	6070	ug/Kg		267	1070	1070	1	P	HSC	12/20/09 23:46	122009A-1	934060
7439-93-2	Lithium	6.73	mg/kg	N	0.435	2.18	2.18	2	MS	BAJ	12/30/09 01:06	091229-3	934057
7439-95-4	Magnesium	846000	ug/Kg		9080	32000	32000	1	P	HSC	12/20/09 23:46	122009A-1	934060
7439-96-5	Manganese	255000	ug/Kg		214	1070	1070	1	P	HSC	12/20/09 23:46	122009A-1	934060
7439-97-6	Mercury	10.9	ug/kg	J	4.11	12.1	12.1	1	AV	JXL1	01/05/10 10:06	010510S1-5	934897
7440-02-0	Nickel	6.25	mg/kg		0.109	0.435	0.435	2	MS	BAJ	12/30/09 01:06	091229-3	934057
7440-09-7	Potassium	437000	ug/Kg	N	6830	26700	26700	1	P	HSC	12/20/09 23:46	122009A-1	934060
7782-49-2	Selenium	1.09	mg/kg	UN	0.544	1.09	1.09	2	MS	BAJ	12/30/09 01:06	091229-3	934057
7440-21-3	Silicon	868000	ug/Kg	N	1600	10700	10700	1	P	HSC	12/20/09 23:46	122009A-1	934060
7440-22-4	Silver	502	ug/Kg	J	107	534	534	1	P	HSC	12/20/09 23:46	122009A-1	934060
7440-28-0	Thallium	0.121	mg/kg	J	0.0653	0.218	0.218	2	MS	BAJ	12/30/09 11:01	091230-4	934057
7440-32-6	Titanium	213000	ug/Kg		107	534	534	1	P	HSC	12/20/09 23:46	122009A-1	934060
7440-61-1	Uranium	0.603	mg/kg		0.0144	0.0435	0.0435	2	MS	SKJ	12/30/09 13:07	091230-2	934057
7440-62-2	Vanadium	5710	ug/Kg		107	534	534	1	P	HSC	12/20/09 23:46	122009A-1	934060
7440-66-6	Zinc	40800	ug/Kg		352	1070	1070	1	P	HSC	12/20/09 23:46	122009A-1	934060

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
934057	934056	SW846 3050B	0.512	g	50	mL	12/19/09	BCD1
934060	934059	SW846 3050B	0.522	g	50	mL	12/19/09	BCD1
934897	934894	SW846 7471A Prep	0.553	g	30	mL	01/04/10	TXB3

METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-918 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 242938003 **BASIS:** Dry Weight **DATE COLLECTED** 11-DEC-09

CLIENT ID: RE03-09-14212 **LEVEL:** Low **DATE RECEIVED** 15-DEC-09

MATRIX: SOIL **%SOLIDS:** 87

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	9120000	ug/Kg		7760	22800	22800	1	P	HSC	12/20/09 23:53	122009A-1	934060
7440-36-0	Antimony	1140	ug/Kg	U	376	1140	1140	1	P	HSC	12/20/09 23:53	122009A-1	934060
7440-38-2	Arsenic	2.16	mg/kg		0.222	1.11	1.11	2	MS	BAJ	12/30/09 01:12	091229-3	934057
7440-39-3	Barium	162000	ug/Kg	N	114	570	570	1	P	HSC	12/20/09 23:53	122009A-1	934060
7440-41-7	Beryllium	0.939	mg/kg		0.0222	0.111	0.111	2	MS	BAJ	12/30/09 01:12	091229-3	934057
7440-42-8	Boron	5700	ug/Kg	U	1140	5700	5700	1	P	HSC	12/20/09 23:53	122009A-1	934060
7440-43-9	Cadmium	570	ug/Kg	U	114	570	570	1	P	HSC	12/20/09 23:53	122009A-1	934060
7440-70-2	Calcium	2140000	ug/Kg	N	9130	28500	28500	1	P	HSC	12/20/09 23:53	122009A-1	934060
7440-47-3	Chromium	16600	ug/Kg		171	570	570	1	P	HSC	12/20/09 23:53	122009A-1	934060
7440-48-4	Cobalt	6830	ug/Kg		171	570	570	1	P	HSC	12/20/09 23:53	122009A-1	934060
7440-50-8	Copper	9870	ug/Kg		342	1140	1140	1	P	HSC	12/20/09 23:53	122009A-1	934060
7439-89-6	Iron	14400000	ug/Kg		9130	28500	28500	1	P	HSC	12/20/09 23:53	122009A-1	934060
7439-92-1	Lead	15900	ug/Kg		285	1140	1140	1	P	HSC	12/20/09 23:53	122009A-1	934060
7439-93-2	Lithium	14.7	mg/kg	N	0.443	2.22	2.22	2	MS	BAJ	12/30/09 01:12	091229-3	934057
7439-95-4	Magnesium	2040000	ug/Kg		9700	34200	34200	1	P	HSC	12/20/09 23:53	122009A-1	934060
7439-96-5	Manganese	495000	ug/Kg		228	1140	1140	1	P	HSC	12/20/09 23:53	122009A-1	934060
7439-97-6	Mercury	29.3	ug/kg		4.41	13	13	1	AV	JXL1	01/05/10 10:08	010510S1-5	934897
7440-02-0	Nickel	8.83	mg/kg		0.111	0.443	0.443	2	MS	BAJ	12/30/09 01:12	091229-3	934057
7440-09-7	Potassium	1590000	ug/Kg	N	7300	28500	28500	1	P	HSC	12/20/09 23:53	122009A-1	934060
7782-49-2	Selenium	1.11	mg/kg	UN	0.554	1.11	1.11	2	MS	BAJ	12/30/09 01:12	091229-3	934057
7440-21-3	Silicon	1180000	ug/Kg	N	1710	11400	11400	1	P	HSC	12/20/09 23:53	122009A-1	934060
7440-22-4	Silver	420	ug/Kg	J	114	570	570	1	P	HSC	12/20/09 23:53	122009A-1	934060
7440-28-0	Thallium	0.237	mg/kg		0.0665	0.222	0.222	2	MS	BAJ	12/30/09 11:11	091230-4	934057
7440-32-6	Titanium	524000	ug/Kg		114	570	570	1	P	HSC	12/20/09 23:53	122009A-1	934060
7440-61-1	Uranium	1.28	mg/kg		0.0146	0.0443	0.0443	2	MS	SKJ	12/30/09 13:14	091230-2	934057
7440-62-2	Vanadium	29600	ug/Kg		114	570	570	1	P	HSC	12/20/09 23:53	122009A-1	934060
7440-66-6	Zinc	99900	ug/Kg		376	1140	1140	1	P	HSC	12/20/09 23:53	122009A-1	934060

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
934057	934056	SW846 3050B	0.518	g	50	mL	12/19/09	BCD1
934060	934059	SW846 3050B	0.503	g	50	mL	12/19/09	BCD1
934897	934894	SW846 7471A Prep	0.531	g	30	mL	01/04/10	TXB3

METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10–918 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 242938004 **BASIS:** Dry Weight **DATE COLLECTED** 11–DEC–09

CLIENT ID: RE03–09–14219 **LEVEL:** Low **DATE RECEIVED** 15–DEC–09

MATRIX: SOIL **%SOLIDS:** 83

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429–90–5	Aluminum	6850000	ug/Kg		8030	23600	23600	1	P	HSC	12/21/09 00:00	122009A–1	934060
7440–36–0	Antimony	1180	ug/Kg	U	390	1180	1180	1	P	HSC	12/21/09 00:00	122009A–1	934060
7440–38–2	Arsenic	1.29	mg/kg		0.226	1.13	1.13	2	MS	BAJ	12/30/09 01:18	091229–3	934057
7440–39–3	Barium	53900	ug/Kg	N	118	591	591	1	P	HSC	12/21/09 00:00	122009A–1	934060
7440–41–7	Beryllium	0.869	mg/kg		0.0226	0.113	0.113	2	MS	BAJ	12/30/09 01:18	091229–3	934057
7440–42–8	Boron	5910	ug/Kg	U	1180	5910	5910	1	P	HSC	12/21/09 00:00	122009A–1	934060
7440–43–9	Cadmium	591	ug/Kg	U	118	591	591	1	P	HSC	12/21/09 00:00	122009A–1	934060
7440–70–2	Calcium	1960000	ug/Kg	N	9450	29500	29500	1	P	HSC	12/21/09 00:00	122009A–1	934060
7440–47–3	Chromium	4360	ug/Kg		177	591	591	1	P	HSC	12/21/09 00:00	122009A–1	934060
7440–48–4	Cobalt	999	ug/Kg		177	591	591	1	P	HSC	12/21/09 00:00	122009A–1	934060
7440–50–8	Copper	4620	ug/Kg		354	1180	1180	1	P	HSC	12/21/09 00:00	122009A–1	934060
7439–89–6	Iron	10500000	ug/Kg		9450	29500	29500	1	P	HSC	12/21/09 00:00	122009A–1	934060
7439–92–1	Lead	6130	ug/Kg		295	1180	1180	1	P	HSC	12/21/09 00:00	122009A–1	934060
7439–93–2	Lithium	11	mg/kg	N	0.452	2.26	2.26	2	MS	BAJ	12/30/09 01:18	091229–3	934057
7439–95–4	Magnesium	1280000	ug/Kg		10000	35400	35400	1	P	HSC	12/21/09 00:00	122009A–1	934060
7439–96–5	Manganese	109000	ug/Kg		236	1180	1180	1	P	HSC	12/21/09 00:00	122009A–1	934060
7439–97–6	Mercury	17.5	ug/kg		4.88	14.3	14.3	1	AV	JXL1	01/05/10 10:10	010510S1–5	934897
7440–02–0	Nickel	4.91	mg/kg		0.113	0.452	0.452	2	MS	BAJ	12/30/09 01:18	091229–3	934057
7440–09–7	Potassium	731000	ug/Kg	N	7560	29500	29500	1	P	HSC	12/21/09 00:00	122009A–1	934060
7782–49–2	Selenium	1.13	mg/kg	UN	0.565	1.13	1.13	2	MS	BAJ	12/30/09 01:18	091229–3	934057
7440–21–3	Silicon	1180000	ug/Kg	N	1770	11800	11800	1	P	HSC	12/21/09 00:00	122009A–1	934060
7440–22–4	Silver	451	ug/Kg	J	118	591	591	1	P	HSC	12/21/09 00:00	122009A–1	934060
7440–28–0	Thallium	0.139	mg/kg	J	0.0678	0.226	0.226	2	MS	BAJ	12/30/09 11:14	091230–4	934057
7440–32–6	Titanium	169000	ug/Kg		118	591	591	1	P	HSC	12/21/09 00:00	122009A–1	934060
7440–61–1	Uranium	0.515	mg/kg		0.0149	0.0452	0.0452	2	MS	SKJ	12/30/09 13:16	091230–2	934057
7440–62–2	Vanadium	9020	ug/Kg		118	591	591	1	P	HSC	12/21/09 00:00	122009A–1	934060
7440–66–6	Zinc	30400	ug/Kg		390	1180	1180	1	P	HSC	12/21/09 00:00	122009A–1	934060

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
934057	934056	SW846 3050B	0.534	g	50	mL	12/19/09	BCD1
934060	934059	SW846 3050B	0.511	g	50	mL	12/19/09	BCD1
934897	934894	SW846 7471A Prep	0.505	g	30	mL	01/04/10	TXB3

METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-918 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 242938005 **BASIS:** Dry Weight **DATE COLLECTED** 11-DEC-09

CLIENT ID: RE03-09-14218 **LEVEL:** Low **DATE RECEIVED** 15-DEC-09

MATRIX: SOIL **%SOLIDS:** 82

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	10300000	ug/Kg		8170	24000	24000	1	P	HSC	12/21/09 00:07	122009A-1	934060
7440-36-0	Antimony	1200	ug/Kg	U	397	1200	1200	1	P	HSC	12/21/09 00:07	122009A-1	934060
7440-38-2	Arsenic	2	mg/kg		0.237	1.18	1.18	2	MS	BAJ	12/30/09 01:24	091229-3	934057
7440-39-3	Barium	118000	ug/Kg	N	120	601	601	1	P	HSC	12/21/09 00:07	122009A-1	934060
7440-41-7	Beryllium	0.971	mg/kg		0.0237	0.118	0.118	2	MS	BAJ	12/30/09 01:24	091229-3	934057
7440-42-8	Boron	6010	ug/Kg	U	1200	6010	6010	1	P	HSC	12/21/09 00:07	122009A-1	934060
7440-43-9	Cadmium	601	ug/Kg	U	120	601	601	1	P	HSC	12/21/09 00:07	122009A-1	934060
7440-70-2	Calcium	2050000	ug/Kg	N	9610	30000	30000	1	P	HSC	12/21/09 00:07	122009A-1	934060
7440-47-3	Chromium	8730	ug/Kg		180	601	601	1	P	HSC	12/21/09 00:07	122009A-1	934060
7440-48-4	Cobalt	6030	ug/Kg		180	601	601	1	P	HSC	12/21/09 00:07	122009A-1	934060
7440-50-8	Copper	5100	ug/Kg		361	1200	1200	1	P	HSC	12/21/09 00:07	122009A-1	934060
7439-89-6	Iron	14000000	ug/Kg		9610	30000	30000	1	P	HSC	12/21/09 00:07	122009A-1	934060
7439-92-1	Lead	17500	ug/Kg		300	1200	1200	1	P	HSC	12/21/09 00:07	122009A-1	934060
7439-93-2	Lithium	19.2	mg/kg	N	0.473	2.37	2.37	2	MS	BAJ	12/30/09 01:24	091229-3	934057
7439-95-4	Magnesium	1990000	ug/Kg		10200	36100	36100	1	P	HSC	12/21/09 00:07	122009A-1	934060
7439-96-5	Manganese	316000	ug/Kg		240	1200	1200	1	P	HSC	12/21/09 00:07	122009A-1	934060
7439-97-6	Mercury	15.1	ug/kg		4.37	12.8	12.8	1	AV	JXL1	01/05/10 10:12	010510S1-5	934897
7440-02-0	Nickel	8.77	mg/kg		0.118	0.473	0.473	2	MS	BAJ	12/30/09 01:24	091229-3	934057
7440-09-7	Potassium	1160000	ug/Kg	N	7690	30000	30000	1	P	HSC	12/21/09 00:07	122009A-1	934060
7782-49-2	Selenium	1.18	mg/kg	UN	0.591	1.18	1.18	2	MS	BAJ	12/30/09 01:24	091229-3	934057
7440-21-3	Silicon	1110000	ug/Kg	N	1800	12000	12000	1	P	HSC	12/21/09 00:07	122009A-1	934060
7440-22-4	Silver	617	ug/Kg		120	601	601	1	P	HSC	12/21/09 00:07	122009A-1	934060
7440-28-0	Thallium	0.303	mg/kg		0.071	0.237	0.237	2	MS	BAJ	12/30/09 11:18	091230-4	934057
7440-32-6	Titanium	354000	ug/Kg		120	601	601	1	P	HSC	12/21/09 00:07	122009A-1	934060
7440-61-1	Uranium	0.582	mg/kg		0.0156	0.0473	0.0473	2	MS	SKJ	12/30/09 13:18	091230-2	934057
7440-62-2	Vanadium	18200	ug/Kg		120	601	601	1	P	HSC	12/21/09 00:07	122009A-1	934060
7440-66-6	Zinc	44000	ug/Kg		397	1200	1200	1	P	HSC	12/21/09 00:07	122009A-1	934060

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
934057	934056	SW846 3050B	0.513	g	50	mL	12/19/09	BCD1
934060	934059	SW846 3050B	0.505	g	50	mL	12/19/09	BCD1
934897	934894	SW846 7471A Prep	0.567	g	30	mL	01/04/10	TXB3

METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-918 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 242938006 **BASIS:** Dry Weight **DATE COLLECTED** 11-DEC-09

CLIENT ID: RE03-09-14216 **LEVEL:** Low **DATE RECEIVED** 15-DEC-09

MATRIX: SOIL **%SOLIDS:** 84

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	8630000	ug/Kg		7740	22800	22800	1	P	HSC	12/21/09 00:14	122009A-1	934060
7440-36-0	Antimony	1140	ug/Kg	U	376	1140	1140	1	P	HSC	12/21/09 00:14	122009A-1	934060
7440-38-2	Arsenic	1.97	mg/kg		0.229	1.14	1.14	2	MS	BAJ	12/30/09 01:30	091229-3	934057
7440-39-3	Barium	220000	ug/Kg	N	114	569	569	1	P	HSC	12/21/09 00:14	122009A-1	934060
7440-41-7	Beryllium	0.993	mg/kg		0.0229	0.114	0.114	2	MS	BAJ	12/30/09 01:30	091229-3	934057
7440-42-8	Boron	5690	ug/Kg	U	1140	5690	5690	1	P	HSC	12/21/09 00:14	122009A-1	934060
7440-43-9	Cadmium	569	ug/Kg	U	114	569	569	1	P	HSC	12/21/09 00:14	122009A-1	934060
7440-70-2	Calcium	2350000	ug/Kg	N	9100	28400	28400	1	P	HSC	12/21/09 00:14	122009A-1	934060
7440-47-3	Chromium	9820	ug/Kg		171	569	569	1	P	HSC	12/21/09 00:14	122009A-1	934060
7440-48-4	Cobalt	9790	ug/Kg		171	569	569	1	P	HSC	12/21/09 00:14	122009A-1	934060
7440-50-8	Copper	7310	ug/Kg		341	1140	1140	1	P	HSC	12/21/09 00:14	122009A-1	934060
7439-89-6	Iron	14000000	ug/Kg		9100	28400	28400	1	P	HSC	12/21/09 00:14	122009A-1	934060
7439-92-1	Lead	15700	ug/Kg		284	1140	1140	1	P	HSC	12/21/09 00:14	122009A-1	934060
7439-93-2	Lithium	15.9	mg/kg	N	0.458	2.29	2.29	2	MS	BAJ	12/30/09 01:30	091229-3	934057
7439-95-4	Magnesium	2000000	ug/Kg		9670	34100	34100	1	P	HSC	12/21/09 00:14	122009A-1	934060
7439-96-5	Manganese	839000	ug/Kg		228	1140	1140	1	P	HSC	12/21/09 00:14	122009A-1	934060
7439-97-6	Mercury	9.27	ug/kg	J	4.23	12.4	12.4	1	AV	JXL1	01/05/10 10:14	010510S1-5	934897
7440-02-0	Nickel	9.09	mg/kg		0.114	0.458	0.458	2	MS	BAJ	12/30/09 01:30	091229-3	934057
7440-09-7	Potassium	1670000	ug/Kg	N	7280	28400	28400	1	P	HSC	12/21/09 00:14	122009A-1	934060
7782-49-2	Selenium	1.14	mg/kg	UN	0.572	1.14	1.14	2	MS	BAJ	12/30/09 01:30	091229-3	934057
7440-21-3	Silicon	962000	ug/Kg	N	1710	11400	11400	1	P	HSC	12/21/09 00:14	122009A-1	934060
7440-22-4	Silver	640	ug/Kg		114	569	569	1	P	HSC	12/21/09 00:14	122009A-1	934060
7440-28-0	Thallium	0.260	mg/kg		0.0687	0.229	0.229	2	MS	BAJ	12/30/09 11:21	091230-4	934057
7440-32-6	Titanium	475000	ug/Kg		114	569	569	1	P	HSC	12/21/09 00:14	122009A-1	934060
7440-61-1	Uranium	1.3	mg/kg		0.0151	0.0458	0.0458	2	MS	SKJ	12/30/09 13:20	091230-2	934057
7440-62-2	Vanadium	27100	ug/Kg		114	569	569	1	P	HSC	12/21/09 00:14	122009A-1	934060
7440-66-6	Zinc	29400	ug/Kg		376	1140	1140	1	P	HSC	12/21/09 00:14	122009A-1	934060

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
934057	934056	SW846 3050B	0.519	g	50	mL	12/19/09	BCD1
934060	934059	SW846 3050B	0.522	g	50	mL	12/19/09	BCD1
934897	934894	SW846 7471A Prep	0.573	g	30	mL	01/04/10	TXB3

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-918 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 242938007 **BASIS:** Dry Weight **DATE COLLECTED** 11-DEC-09

CLIENT ID: RE03-09-14214 **LEVEL:** Low **DATE RECEIVED** 15-DEC-09

MATRIX: SOIL **%SOLIDS:** 86

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	5600000	ug/Kg		7370	21700	21700	1	P	HSC	12/21/09 00:22	122009A-1	934060
7440-36-0	Antimony	1080	ug/Kg	U	358	1080	1080	1	P	HSC	12/21/09 00:22	122009A-1	934060
7440-38-2	Arsenic	1.2	mg/kg		0.229	1.14	1.14	2	MS	BAJ	12/30/09 01:37	091229-3	934057
7440-39-3	Barium	78400	ug/Kg	N	108	542	542	1	P	HSC	12/21/09 00:22	122009A-1	934060
7440-41-7	Beryllium	0.569	mg/kg		0.0229	0.114	0.114	2	MS	BAJ	12/30/09 01:37	091229-3	934057
7440-42-8	Boron	5420	ug/Kg	U	1080	5420	5420	1	P	HSC	12/21/09 00:22	122009A-1	934060
7440-43-9	Cadmium	542	ug/Kg	U	108	542	542	1	P	HSC	12/21/09 00:22	122009A-1	934060
7440-70-2	Calcium	3590000	ug/Kg	N	8670	27100	27100	1	P	HSC	12/21/09 00:22	122009A-1	934060
7440-47-3	Chromium	33800	ug/Kg		163	542	542	1	P	HSC	12/21/09 00:22	122009A-1	934060
7440-48-4	Cobalt	1500	ug/Kg		163	542	542	1	P	HSC	12/21/09 00:22	122009A-1	934060
7440-50-8	Copper	2930	ug/Kg		325	1080	1080	1	P	HSC	12/21/09 00:22	122009A-1	934060
7439-89-6	Iron	11100000	ug/Kg		8670	27100	27100	1	P	HSC	12/21/09 00:22	122009A-1	934060
7439-92-1	Lead	6160	ug/Kg		271	1080	1080	1	P	HSC	12/21/09 00:22	122009A-1	934060
7439-93-2	Lithium	20.7	mg/kg	N	0.458	2.29	2.29	2	MS	BAJ	12/30/09 01:37	091229-3	934057
7439-95-4	Magnesium	1240000	ug/Kg		9210	32500	32500	1	P	HSC	12/21/09 00:22	122009A-1	934060
7439-96-5	Manganese	230000	ug/Kg		217	1080	1080	1	P	HSC	12/21/09 00:22	122009A-1	934060
7439-97-6	Mercury	27	ug/kg		4.59	13.5	13.5	1	AV	JXL1	01/05/10 10:16	010510S1-5	934897
7440-02-0	Nickel	6.93	mg/kg		0.114	0.458	0.458	2	MS	BAJ	12/30/09 01:37	091229-3	934057
7440-09-7	Potassium	634000	ug/Kg	N	6940	27100	27100	1	P	HSC	12/21/09 00:22	122009A-1	934060
7782-49-2	Selenium	1.14	mg/kg	UN	0.572	1.14	1.14	2	MS	BAJ	12/30/09 01:37	091229-3	934057
7440-21-3	Silicon	871000	ug/Kg	N	1630	10800	10800	1	P	HSC	12/21/09 00:22	122009A-1	934060
7440-22-4	Silver	474	ug/Kg	J	108	542	542	1	P	HSC	12/21/09 00:22	122009A-1	934060
7440-28-0	Thallium	0.101	mg/kg	J	0.0686	0.229	0.229	2	MS	BAJ	12/30/09 11:25	091230-4	934057
7440-32-6	Titanium	280000	ug/Kg		108	542	542	1	P	HSC	12/21/09 00:22	122009A-1	934060
7440-61-1	Uranium	0.434	mg/kg		0.0151	0.0458	0.0458	2	MS	SKJ	12/30/09 13:23	091230-2	934057
7440-62-2	Vanadium	8580	ug/Kg		108	542	542	1	P	HSC	12/21/09 00:22	122009A-1	934060
7440-66-6	Zinc	50200	ug/Kg		358	1080	1080	1	P	HSC	12/21/09 00:22	122009A-1	934060

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
934057	934056	SW846 3050B	0.507	g	50	mL	12/19/09	BCD1
934060	934059	SW846 3050B	0.535	g	50	mL	12/19/09	BCD1
934897	934894	SW846 7471A Prep	0.516	g	30	mL	01/04/10	TXB3

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-918 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 242938008 **BASIS:** Dry Weight **DATE COLLECTED** 11-DEC-09

CLIENT ID: RE03-09-14217 **LEVEL:** Low **DATE RECEIVED** 15-DEC-09

MATRIX: SOIL **%SOLIDS:** 85

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	12200000	ug/Kg		7600	22300	22300	1	P	HSC	12/21/09 00:29	122009A-1	934060
7440-36-0	Antimony	1120	ug/Kg	U	369	1120	1120	1	P	HSC	12/21/09 00:29	122009A-1	934060
7440-38-2	Arsenic	2.93	mg/kg		0.222	1.11	1.11	2	MS	BAJ	12/30/09 01:43	091229-3	934057
7440-39-3	Barium	167000	ug/Kg	N	112	559	559	1	P	HSC	12/21/09 00:29	122009A-1	934060
7440-41-7	Beryllium	1.11	mg/kg		0.0222	0.111	0.111	2	MS	BAJ	12/30/09 01:43	091229-3	934057
7440-42-8	Boron	5590	ug/Kg	U	1120	5590	5590	1	P	HSC	12/21/09 00:29	122009A-1	934060
7440-43-9	Cadmium	559	ug/Kg	U	112	559	559	1	P	HSC	12/21/09 00:29	122009A-1	934060
7440-70-2	Calcium	2300000	ug/Kg	N	8940	27900	27900	1	P	HSC	12/21/09 00:29	122009A-1	934060
7440-47-3	Chromium	11800	ug/Kg		168	559	559	1	P	HSC	12/21/09 00:29	122009A-1	934060
7440-48-4	Cobalt	6430	ug/Kg		168	559	559	1	P	HSC	12/21/09 00:29	122009A-1	934060
7440-50-8	Copper	7970	ug/Kg		335	1120	1120	1	P	HSC	12/21/09 00:29	122009A-1	934060
7439-89-6	Iron	16200000	ug/Kg		8940	27900	27900	1	P	HSC	12/21/09 00:29	122009A-1	934060
7439-92-1	Lead	14000	ug/Kg		279	1120	1120	1	P	HSC	12/21/09 00:29	122009A-1	934060
7439-93-2	Lithium	19	mg/kg	N	0.444	2.22	2.22	2	MS	BAJ	12/30/09 01:43	091229-3	934057
7439-95-4	Magnesium	2530000	ug/Kg		9500	33500	33500	1	P	HSC	12/21/09 00:29	122009A-1	934060
7439-96-5	Manganese	390000	ug/Kg		223	1120	1120	1	P	HSC	12/21/09 00:29	122009A-1	934060
7439-97-6	Mercury	17.1	ug/kg		4.58	13.5	13.5	1	AV	JXL1	01/05/10 10:18	010510S1-5	934897
7440-02-0	Nickel	9.07	mg/kg		0.111	0.444	0.444	2	MS	BAJ	12/30/09 01:43	091229-3	934057
7440-09-7	Potassium	1440000	ug/Kg	N	7150	27900	27900	1	P	HSC	12/21/09 00:29	122009A-1	934060
7782-49-2	Selenium	1.11	mg/kg	UN	0.555	1.11	1.11	2	MS	BAJ	12/30/09 01:43	091229-3	934057
7440-21-3	Silicon	988000	ug/Kg	N	1680	11200	11200	1	P	HSC	12/21/09 00:29	122009A-1	934060
7440-22-4	Silver	580	ug/Kg		112	559	559	1	P	HSC	12/21/09 00:29	122009A-1	934060
7440-28-0	Thallium	0.244	mg/kg		0.0667	0.222	0.222	2	MS	BAJ	12/30/09 11:28	091230-4	934057
7440-32-6	Titanium	453000	ug/Kg		112	559	559	1	P	HSC	12/21/09 00:29	122009A-1	934060
7440-61-1	Uranium	1.37	mg/kg		0.0147	0.0444	0.0444	2	MS	SKJ	12/30/09 13:25	091230-2	934057
7440-62-2	Vanadium	30900	ug/Kg		112	559	559	1	P	HSC	12/21/09 00:29	122009A-1	934060
7440-66-6	Zinc	31700	ug/Kg		369	1120	1120	1	P	HSC	12/21/09 00:29	122009A-1	934060

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
934057	934056	SW846 3050B	0.531	g	50	mL	12/19/09	BCD1
934060	934059	SW846 3050B	0.528	g	50	mL	12/19/09	BCD1
934897	934894	SW846 7471A Prep	0.526	g	30	mL	01/04/10	TXB3

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-918 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 242938009 **BASIS:** Dry Weight **DATE COLLECTED** 11-DEC-09

CLIENT ID: RE03-10-2735 **LEVEL:** Low **DATE RECEIVED** 15-DEC-09

MATRIX: SOIL **%SOLIDS:** 86

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	5910000	ug/Kg		7740	22800	22800	1	P	HSC	12/21/09 00:36	122009A-1	934060
7440-36-0	Antimony	1140	ug/Kg	U	376	1140	1140	1	P	HSC	12/21/09 00:36	122009A-1	934060
7440-38-2	Arsenic	1.26	mg/kg		0.232	1.16	1.16	2	MS	BAJ	12/30/09 01:49	091229-3	934057
7440-39-3	Barium	69600	ug/Kg	N	114	569	569	1	P	HSC	12/21/09 00:36	122009A-1	934060
7440-41-7	Beryllium	0.577	mg/kg		0.0232	0.116	0.116	2	MS	BAJ	12/30/09 01:49	091229-3	934057
7440-42-8	Boron	5690	ug/Kg	U	1140	5690	5690	1	P	HSC	12/21/09 00:36	122009A-1	934060
7440-43-9	Cadmium	569	ug/Kg	U	114	569	569	1	P	HSC	12/21/09 00:36	122009A-1	934060
7440-70-2	Calcium	2810000	ug/Kg	N	9100	28500	28500	1	P	HSC	12/21/09 00:36	122009A-1	934060
7440-47-3	Chromium	28800	ug/Kg		171	569	569	1	P	HSC	12/21/09 00:36	122009A-1	934060
7440-48-4	Cobalt	1700	ug/Kg		171	569	569	1	P	HSC	12/21/09 00:36	122009A-1	934060
7440-50-8	Copper	2790	ug/Kg		341	1140	1140	1	P	HSC	12/21/09 00:36	122009A-1	934060
7439-89-6	Iron	11800000	ug/Kg		9100	28500	28500	1	P	HSC	12/21/09 00:36	122009A-1	934060
7439-92-1	Lead	6320	ug/Kg		285	1140	1140	1	P	HSC	12/21/09 00:36	122009A-1	934060
7439-93-2	Lithium	20.5	mg/kg	N	0.463	2.32	2.32	2	MS	BAJ	12/30/09 01:49	091229-3	934057
7439-95-4	Magnesium	1310000	ug/Kg		9670	34100	34100	1	P	HSC	12/21/09 00:36	122009A-1	934060
7439-96-5	Manganese	260000	ug/Kg		228	1140	1140	1	P	HSC	12/21/09 00:36	122009A-1	934060
7439-97-6	Mercury	24.6	ug/kg		4.53	13.3	13.3	1	AV	JXL1	01/05/10 10:24	010510S1-5	934897
7440-02-0	Nickel	8.09	mg/kg		0.116	0.463	0.463	2	MS	BAJ	12/30/09 01:49	091229-3	934057
7440-09-7	Potassium	698000	ug/Kg	N	7280	28500	28500	1	P	HSC	12/21/09 00:36	122009A-1	934060
7782-49-2	Selenium	1.16	mg/kg	UN	0.579	1.16	1.16	2	MS	BAJ	12/30/09 01:49	091229-3	934057
7440-21-3	Silicon	960000	ug/Kg	N	1710	11400	11400	1	P	HSC	12/21/09 00:36	122009A-1	934060
7440-22-4	Silver	578	ug/Kg		114	569	569	1	P	HSC	12/21/09 00:36	122009A-1	934060
7440-28-0	Thallium	0.118	mg/kg	J	0.0695	0.232	0.232	2	MS	BAJ	12/30/09 11:32	091230-4	934057
7440-32-6	Titanium	305000	ug/Kg		114	569	569	1	P	HSC	12/21/09 00:36	122009A-1	934060
7440-61-1	Uranium	0.260	mg/kg		0.0153	0.0463	0.0463	2	MS	SKJ	12/30/09 13:27	091230-2	934057
7440-62-2	Vanadium	9510	ug/Kg		114	569	569	1	P	HSC	12/21/09 00:36	122009A-1	934060
7440-66-6	Zinc	50600	ug/Kg		376	1140	1140	1	P	HSC	12/21/09 00:36	122009A-1	934060

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
934057	934056	SW846 3050B	0.503	g	50	mL	12/19/09	BCD1
934060	934059	SW846 3050B	0.512	g	50	mL	12/19/09	BCD1
934897	934894	SW846 7471A Prep	0.525	g	30	mL	01/04/10	TXB3

Quality Control Summary

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–918

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS4,ICPMS5,MER536,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
ICV01										
	Aluminum	4890	ug/L	5000	ug/L	97.9	90.0 – 110.0	P	20–DEC–09 08:59	122009A–1
	Antimony	502	ug/L	500	ug/L	100.4	90.0 – 110.0	P	20–DEC–09 08:59	122009A–1
	Barium	509	ug/L	500	ug/L	101.8	90.0 – 110.0	P	20–DEC–09 08:59	122009A–1
	Boron	509	ug/L	500	ug/L	101.9	90.0 – 110.0	P	20–DEC–09 08:59	122009A–1
	Cadmium	497	ug/L	500	ug/L	99.4	90.0 – 110.0	P	20–DEC–09 08:59	122009A–1
	Calcium	4920	ug/L	5000	ug/L	98.4	90.0 – 110.0	P	20–DEC–09 08:59	122009A–1
	Chromium	487	ug/L	500	ug/L	97.4	90.0 – 110.0	P	20–DEC–09 08:59	122009A–1
	Cobalt	499	ug/L	500	ug/L	99.9	90.0 – 110.0	P	20–DEC–09 08:59	122009A–1
	Copper	507	ug/L	500	ug/L	101.3	90.0 – 110.0	P	20–DEC–09 08:59	122009A–1
	Iron	5130	ug/L	5000	ug/L	102.6	90.0 – 110.0	P	20–DEC–09 08:59	122009A–1
	Lead	498	ug/L	500	ug/L	99.6	90.0 – 110.0	P	20–DEC–09 08:59	122009A–1
	Magnesium	5300	ug/L	5000	ug/L	106	90.0 – 110.0	P	20–DEC–09 08:59	122009A–1
	Manganese	511	ug/L	500	ug/L	102.1	90.0 – 110.0	P	20–DEC–09 08:59	122009A–1
	Potassium	2490	ug/L	2500	ug/L	99.8	90.0 – 110.0	P	20–DEC–09 08:59	122009A–1
	Silicon	4770	ug/L	5000	ug/L	95.5	90.0 – 110.0	P	20–DEC–09 08:59	122009A–1
	Silver	260	ug/L	250	ug/L	103.8	90.0 – 110.0	P	20–DEC–09 08:59	122009A–1
	Sodium	2440	ug/L	2500	ug/L	97.7	90.0 – 110.0	P	20–DEC–09 08:59	122009A–1
	Titanium	493	ug/L	500	ug/L	98.6	90.0 – 110.0	P	20–DEC–09 08:59	122009A–1
	Vanadium	512	ug/L	500	ug/L	102.3	90.0 – 110.0	P	20–DEC–09 08:59	122009A–1
	Zinc	505	ug/L	500	ug/L	100.9	90.0 – 110.0	P	20–DEC–09 08:59	122009A–1
	Arsenic	49	ug/L	50	ug/L	98	90.0 – 110.0	MS	29–DEC–09 23:03	091229–3
	Beryllium	51.8	ug/L	50	ug/L	103.6	90.0 – 110.0	MS	29–DEC–09 23:03	091229–3
	Lithium	52.5	ug/L	50	ug/L	105	90.0 – 110.0	MS	29–DEC–09 23:03	091229–3
	Nickel	53.1	ug/L	50	ug/L	106.2	90.0 – 110.0	MS	29–DEC–09 23:03	091229–3
	Selenium	50.4	ug/L	50	ug/L	100.8	90.0 – 110.0	MS	29–DEC–09 23:03	091229–3
	Thallium	54.2	ug/L	50	ug/L	108.5	90.0 – 110.0	MS	30–DEC–09 10:00	091230–4
	Uranium	52.8	ug/L	50	ug/L	105.6	90.0 – 110.0	MS	30–DEC–09 12:36	091230–2
	Mercury	5.18	ug/L	5	ug/L	103.6	90.0 – 110.0	AV	05–JAN–10 09:50	010510S1–5
CCV01										
	Aluminum	4810	ug/L	5000	ug/L	96.2	90.0 – 110.0	P	20–DEC–09 09:44	122009A–1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–918

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS4,ICPMS5,MER536,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Antimony	500	ug/L	500	ug/L	100	90.0 – 110.0	P	20–DEC–09 09:44	122009A–1
	Barium	495	ug/L	500	ug/L	99	90.0 – 110.0	P	20–DEC–09 09:44	122009A–1
	Boron	510	ug/L	500	ug/L	101.9	90.0 – 110.0	P	20–DEC–09 09:44	122009A–1
	Cadmium	495	ug/L	500	ug/L	99.1	90.0 – 110.0	P	20–DEC–09 09:44	122009A–1
	Calcium	4900	ug/L	5000	ug/L	98	90.0 – 110.0	P	20–DEC–09 09:44	122009A–1
	Chromium	494	ug/L	500	ug/L	98.8	90.0 – 110.0	P	20–DEC–09 09:44	122009A–1
	Cobalt	488	ug/L	500	ug/L	97.7	90.0 – 110.0	P	20–DEC–09 09:44	122009A–1
	Copper	493	ug/L	500	ug/L	98.6	90.0 – 110.0	P	20–DEC–09 09:44	122009A–1
	Iron	5090	ug/L	5000	ug/L	101.7	90.0 – 110.0	P	20–DEC–09 09:44	122009A–1
	Lead	495	ug/L	500	ug/L	98.9	90.0 – 110.0	P	20–DEC–09 09:44	122009A–1
	Magnesium	5170	ug/L	5000	ug/L	103.4	90.0 – 110.0	P	20–DEC–09 09:44	122009A–1
	Manganese	495	ug/L	500	ug/L	99	90.0 – 110.0	P	20–DEC–09 09:44	122009A–1
	Potassium	5020	ug/L	5000	ug/L	100.5	90.0 – 110.0	P	20–DEC–09 09:44	122009A–1
	Silicon	2450	ug/L	2500	ug/L	97.9	90.0 – 110.0	P	20–DEC–09 09:44	122009A–1
	Silver	491	ug/L	500	ug/L	98.2	90.0 – 110.0	P	20–DEC–09 09:44	122009A–1
	Sodium	9800	ug/L	10000	ug/L	98	90.0 – 110.0	P	20–DEC–09 09:44	122009A–1
	Titanium	490	ug/L	500	ug/L	97.9	90.0 – 110.0	P	20–DEC–09 09:44	122009A–1
	Vanadium	497	ug/L	500	ug/L	99.4	90.0 – 110.0	P	20–DEC–09 09:44	122009A–1
	Zinc	490	ug/L	500	ug/L	98.1	90.0 – 110.0	P	20–DEC–09 09:44	122009A–1
	Arsenic	48.5	ug/L	50	ug/L	97	90.0 – 110.0	MS	29–DEC–09 23:33	091229–3
	Beryllium	49.9	ug/L	50	ug/L	99.8	90.0 – 110.0	MS	29–DEC–09 23:33	091229–3
	Lithium	50.8	ug/L	50	ug/L	101.6	90.0 – 110.0	MS	29–DEC–09 23:33	091229–3
	Nickel	51.5	ug/L	50	ug/L	103.1	90.0 – 110.0	MS	29–DEC–09 23:33	091229–3
	Selenium	50.2	ug/L	50	ug/L	100.4	90.0 – 110.0	MS	29–DEC–09 23:33	091229–3
	Thallium	54.1	ug/L	50	ug/L	108.1	90.0 – 110.0	MS	30–DEC–09 10:17	091230–4
	Uranium	52.4	ug/L	50	ug/L	104.8	90.0 – 110.0	MS	30–DEC–09 12:47	091230–2
	Mercury	5.06	ug/L	5	ug/L	101.2	80.0 – 120.0	AV	05–JAN–10 09:56	010510S1–5
CCV02										
	Aluminum	4860	ug/L	5000	ug/L	97.2	90.0 – 110.0	P	20–DEC–09 10:04	122009A–1
	Antimony	497	ug/L	500	ug/L	99.4	90.0 – 110.0	P	20–DEC–09 10:04	122009A–1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–918

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS4,ICPMS5,MER536,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Barium	495	ug/L	500	ug/L	99	90.0 – 110.0	P	20–DEC–09 10:04	122009A–1
	Boron	490	ug/L	500	ug/L	98	90.0 – 110.0	P	20–DEC–09 10:04	122009A–1
	Cadmium	495	ug/L	500	ug/L	99.1	90.0 – 110.0	P	20–DEC–09 10:04	122009A–1
	Calcium	4940	ug/L	5000	ug/L	98.9	90.0 – 110.0	P	20–DEC–09 10:04	122009A–1
	Chromium	496	ug/L	500	ug/L	99.2	90.0 – 110.0	P	20–DEC–09 10:04	122009A–1
	Cobalt	497	ug/L	500	ug/L	99.5	90.0 – 110.0	P	20–DEC–09 10:04	122009A–1
	Copper	490	ug/L	500	ug/L	97.9	90.0 – 110.0	P	20–DEC–09 10:04	122009A–1
	Iron	5110	ug/L	5000	ug/L	102.3	90.0 – 110.0	P	20–DEC–09 10:04	122009A–1
	Lead	492	ug/L	500	ug/L	98.3	90.0 – 110.0	P	20–DEC–09 10:04	122009A–1
	Magnesium	5190	ug/L	5000	ug/L	103.8	90.0 – 110.0	P	20–DEC–09 10:04	122009A–1
	Manganese	500	ug/L	500	ug/L	99.9	90.0 – 110.0	P	20–DEC–09 10:04	122009A–1
	Potassium	5000	ug/L	5000	ug/L	100	90.0 – 110.0	P	20–DEC–09 10:04	122009A–1
	Silicon	2440	ug/L	2500	ug/L	97.8	90.0 – 110.0	P	20–DEC–09 10:04	122009A–1
	Silver	492	ug/L	500	ug/L	98.5	90.0 – 110.0	P	20–DEC–09 10:04	122009A–1
	Sodium	9800	ug/L	10000	ug/L	98	90.0 – 110.0	P	20–DEC–09 10:04	122009A–1
	Titanium	494	ug/L	500	ug/L	98.8	90.0 – 110.0	P	20–DEC–09 10:04	122009A–1
	Vanadium	498	ug/L	500	ug/L	99.7	90.0 – 110.0	P	20–DEC–09 10:04	122009A–1
	Zinc	491	ug/L	500	ug/L	98.2	90.0 – 110.0	P	20–DEC–09 10:04	122009A–1
	Arsenic	49.6	ug/L	50	ug/L	99.1	90.0 – 110.0	MS	29–DEC–09 23:52	091229–3
	Beryllium	51.4	ug/L	50	ug/L	102.8	90.0 – 110.0	MS	29–DEC–09 23:52	091229–3
	Lithium	51.8	ug/L	50	ug/L	103.6	90.0 – 110.0	MS	29–DEC–09 23:52	091229–3
	Nickel	51.1	ug/L	50	ug/L	102.1	90.0 – 110.0	MS	29–DEC–09 23:52	091229–3
	Selenium	51.6	ug/L	50	ug/L	103.1	90.0 – 110.0	MS	29–DEC–09 23:52	091229–3
	Thallium	54.1	ug/L	50	ug/L	108.1	90.0 – 110.0	MS	30–DEC–09 10:27	091230–4
	Uranium	52.8	ug/L	50	ug/L	105.6	90.0 – 110.0	MS	30–DEC–09 13:09	091230–2
	Mercury	5.28	ug/L	5	ug/L	105.6	80.0 – 120.0	AV	05–JAN–10 10:20	010510S1–5
CCV03										
	Aluminum	4830	ug/L	5000	ug/L	96.7	90.0 – 110.0	P	20–DEC–09 11:15	122009A–1
	Antimony	490	ug/L	500	ug/L	98.1	90.0 – 110.0	P	20–DEC–09 11:15	122009A–1
	Barium	497	ug/L	500	ug/L	99.4	90.0 – 110.0	P	20–DEC–09 11:15	122009A–1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-918

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS4,ICPMS5,MER536,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Boron	547	ug/L	500	ug/L	109.5	90.0 – 110.0	P	20-DEC-09 11:15	122009A-1
	Cadmium	498	ug/L	500	ug/L	99.6	90.0 – 110.0	P	20-DEC-09 11:15	122009A-1
	Calcium	4970	ug/L	5000	ug/L	99.4	90.0 – 110.0	P	20-DEC-09 11:15	122009A-1
	Chromium	495	ug/L	500	ug/L	99.1	90.0 – 110.0	P	20-DEC-09 11:15	122009A-1
	Cobalt	489	ug/L	500	ug/L	97.9	90.0 – 110.0	P	20-DEC-09 11:15	122009A-1
	Copper	497	ug/L	500	ug/L	99.3	90.0 – 110.0	P	20-DEC-09 11:15	122009A-1
	Iron	5150	ug/L	5000	ug/L	103.1	90.0 – 110.0	P	20-DEC-09 11:15	122009A-1
	Lead	495	ug/L	500	ug/L	99	90.0 – 110.0	P	20-DEC-09 11:15	122009A-1
	Magnesium	5220	ug/L	5000	ug/L	104.3	90.0 – 110.0	P	20-DEC-09 11:15	122009A-1
	Manganese	498	ug/L	500	ug/L	99.5	90.0 – 110.0	P	20-DEC-09 11:15	122009A-1
	Potassium	4960	ug/L	5000	ug/L	99.1	90.0 – 110.0	P	20-DEC-09 11:15	122009A-1
	Silicon	2460	ug/L	2500	ug/L	98.3	90.0 – 110.0	P	20-DEC-09 11:15	122009A-1
	Silver	494	ug/L	500	ug/L	98.8	90.0 – 110.0	P	20-DEC-09 11:15	122009A-1
	Sodium	9970	ug/L	10000	ug/L	99.7	90.0 – 110.0	P	20-DEC-09 11:15	122009A-1
	Titanium	492	ug/L	500	ug/L	98.5	90.0 – 110.0	P	20-DEC-09 11:15	122009A-1
	Vanadium	499	ug/L	500	ug/L	99.9	90.0 – 110.0	P	20-DEC-09 11:15	122009A-1
	Zinc	493	ug/L	500	ug/L	98.6	90.0 – 110.0	P	20-DEC-09 11:15	122009A-1
	Arsenic	47.7	ug/L	50	ug/L	95.4	90.0 – 110.0	MS	30-DEC-09 00:53	091229-3
	Beryllium	52.4	ug/L	50	ug/L	104.8	90.0 – 110.0	MS	30-DEC-09 00:53	091229-3
	Lithium	52.2	ug/L	50	ug/L	104.3	90.0 – 110.0	MS	30-DEC-09 00:53	091229-3
	Nickel	51	ug/L	50	ug/L	102	90.0 – 110.0	MS	30-DEC-09 00:53	091229-3
	Selenium	49.6	ug/L	50	ug/L	99.2	90.0 – 110.0	MS	30-DEC-09 00:53	091229-3
	Thallium	54.3	ug/L	50	ug/L	108.5	90.0 – 110.0	MS	30-DEC-09 11:04	091230-4
	Uranium	52.6	ug/L	50	ug/L	105.3	90.0 – 110.0	MS	30-DEC-09 13:29	091230-2
	Mercury	5.32	ug/L	5	ug/L	106.4	80.0 – 120.0	AV	05-JAN-10 10:44	010510S1-5
CCV04										
	Aluminum	4870	ug/L	5000	ug/L	97.4	90.0 – 110.0	P	20-DEC-09 12:12	122009A-1
	Antimony	501	ug/L	500	ug/L	100.3	90.0 – 110.0	P	20-DEC-09 12:12	122009A-1
	Barium	504	ug/L	500	ug/L	100.7	90.0 – 110.0	P	20-DEC-09 12:12	122009A-1
	Boron	498	ug/L	500	ug/L	99.7	90.0 – 110.0	P	20-DEC-09 12:12	122009A-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-918

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS4,ICPMS5,MER536,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Cadmium	504	ug/L	500	ug/L	100.8	90.0 – 110.0	P	20-DEC-09 12:12	122009A-1
	Calcium	4920	ug/L	5000	ug/L	98.3	90.0 – 110.0	P	20-DEC-09 12:12	122009A-1
	Chromium	502	ug/L	500	ug/L	100.5	90.0 – 110.0	P	20-DEC-09 12:12	122009A-1
	Cobalt	506	ug/L	500	ug/L	101.1	90.0 – 110.0	P	20-DEC-09 12:12	122009A-1
	Copper	499	ug/L	500	ug/L	99.8	90.0 – 110.0	P	20-DEC-09 12:12	122009A-1
	Iron	5070	ug/L	5000	ug/L	101.3	90.0 – 110.0	P	20-DEC-09 12:12	122009A-1
	Lead	496	ug/L	500	ug/L	99.2	90.0 – 110.0	P	20-DEC-09 12:12	122009A-1
	Magnesium	5090	ug/L	5000	ug/L	101.7	90.0 – 110.0	P	20-DEC-09 12:12	122009A-1
	Manganese	505	ug/L	500	ug/L	101	90.0 – 110.0	P	20-DEC-09 12:12	122009A-1
	Potassium	5000	ug/L	5000	ug/L	100	90.0 – 110.0	P	20-DEC-09 12:12	122009A-1
	Silicon	2500	ug/L	2500	ug/L	99.8	90.0 – 110.0	P	20-DEC-09 12:12	122009A-1
	Silver	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	20-DEC-09 12:12	122009A-1
	Sodium	9780	ug/L	10000	ug/L	97.8	90.0 – 110.0	P	20-DEC-09 12:12	122009A-1
	Titanium	499	ug/L	500	ug/L	99.8	90.0 – 110.0	P	20-DEC-09 12:12	122009A-1
	Vanadium	506	ug/L	500	ug/L	101.2	90.0 – 110.0	P	20-DEC-09 12:12	122009A-1
	Zinc	500	ug/L	500	ug/L	99.9	90.0 – 110.0	P	20-DEC-09 12:12	122009A-1
	Arsenic	48.5	ug/L	50	ug/L	97	90.0 – 110.0	MS	30-DEC-09 01:55	091229-3
	Beryllium	53	ug/L	50	ug/L	106	90.0 – 110.0	MS	30-DEC-09 01:55	091229-3
	Lithium	53.6	ug/L	50	ug/L	107.2	90.0 – 110.0	MS	30-DEC-09 01:55	091229-3
	Nickel	51.7	ug/L	50	ug/L	103.5	90.0 – 110.0	MS	30-DEC-09 01:55	091229-3
	Selenium	49.8	ug/L	50	ug/L	99.6	90.0 – 110.0	MS	30-DEC-09 01:55	091229-3
	Thallium	53.4	ug/L	50	ug/L	106.8	90.0 – 110.0	MS	30-DEC-09 11:35	091230-4
CCV05										
	Aluminum	4910	ug/L	5000	ug/L	98.1	90.0 – 110.0	P	20-DEC-09 12:46	122009A-1
	Antimony	496	ug/L	500	ug/L	99.2	90.0 – 110.0	P	20-DEC-09 12:46	122009A-1
	Barium	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	20-DEC-09 12:46	122009A-1
	Boron	491	ug/L	500	ug/L	98.2	90.0 – 110.0	P	20-DEC-09 12:46	122009A-1
	Cadmium	500	ug/L	500	ug/L	100.1	90.0 – 110.0	P	20-DEC-09 12:46	122009A-1
	Calcium	5130	ug/L	5000	ug/L	102.7	90.0 – 110.0	P	20-DEC-09 12:46	122009A-1
	Chromium	499	ug/L	500	ug/L	99.7	90.0 – 110.0	P	20-DEC-09 12:46	122009A-1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–918

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS4,ICPMS5,MER536,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Cobalt	495	ug/L	500	ug/L	99	90.0 – 110.0	P	20–DEC–09 12:46	122009A–1
	Copper	499	ug/L	500	ug/L	99.9	90.0 – 110.0	P	20–DEC–09 12:46	122009A–1
	Iron	5190	ug/L	5000	ug/L	103.8	90.0 – 110.0	P	20–DEC–09 12:46	122009A–1
	Lead	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	20–DEC–09 12:46	122009A–1
	Magnesium	5240	ug/L	5000	ug/L	104.9	90.0 – 110.0	P	20–DEC–09 12:46	122009A–1
	Manganese	501	ug/L	500	ug/L	100.3	90.0 – 110.0	P	20–DEC–09 12:46	122009A–1
	Potassium	5050	ug/L	5000	ug/L	101	90.0 – 110.0	P	20–DEC–09 12:46	122009A–1
	Silicon	2480	ug/L	2500	ug/L	99	90.0 – 110.0	P	20–DEC–09 12:46	122009A–1
	Silver	497	ug/L	500	ug/L	99.4	90.0 – 110.0	P	20–DEC–09 12:46	122009A–1
	Sodium	10300	ug/L	10000	ug/L	103.2	90.0 – 110.0	P	20–DEC–09 12:46	122009A–1
	Titanium	496	ug/L	500	ug/L	99.3	90.0 – 110.0	P	20–DEC–09 12:46	122009A–1
	Vanadium	503	ug/L	500	ug/L	100.6	90.0 – 110.0	P	20–DEC–09 12:46	122009A–1
	Zinc	496	ug/L	500	ug/L	99.1	90.0 – 110.0	P	20–DEC–09 12:46	122009A–1
CCV06										
	Aluminum	4870	ug/L	5000	ug/L	97.4	90.0 – 110.0	P	20–DEC–09 13:41	122009A–1
	Antimony	496	ug/L	500	ug/L	99.1	90.0 – 110.0	P	20–DEC–09 13:41	122009A–1
	Barium	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	20–DEC–09 13:41	122009A–1
	Boron	490	ug/L	500	ug/L	98	90.0 – 110.0	P	20–DEC–09 13:41	122009A–1
	Cadmium	501	ug/L	500	ug/L	100.1	90.0 – 110.0	P	20–DEC–09 13:41	122009A–1
	Calcium	4960	ug/L	5000	ug/L	99.3	90.0 – 110.0	P	20–DEC–09 13:41	122009A–1
	Chromium	498	ug/L	500	ug/L	99.6	90.0 – 110.0	P	20–DEC–09 13:41	122009A–1
	Cobalt	494	ug/L	500	ug/L	98.9	90.0 – 110.0	P	20–DEC–09 13:41	122009A–1
	Copper	502	ug/L	500	ug/L	100.5	90.0 – 110.0	P	20–DEC–09 13:41	122009A–1
	Iron	5100	ug/L	5000	ug/L	101.9	90.0 – 110.0	P	20–DEC–09 13:41	122009A–1
	Lead	498	ug/L	500	ug/L	99.6	90.0 – 110.0	P	20–DEC–09 13:41	122009A–1
	Magnesium	5180	ug/L	5000	ug/L	103.6	90.0 – 110.0	P	20–DEC–09 13:41	122009A–1
	Manganese	502	ug/L	500	ug/L	100.4	90.0 – 110.0	P	20–DEC–09 13:41	122009A–1
	Potassium	4990	ug/L	5000	ug/L	99.8	90.0 – 110.0	P	20–DEC–09 13:41	122009A–1
	Silicon	2480	ug/L	2500	ug/L	99.3	90.0 – 110.0	P	20–DEC–09 13:41	122009A–1
	Silver	499	ug/L	500	ug/L	99.8	90.0 – 110.0	P	20–DEC–09 13:41	122009A–1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-918

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS4,ICPMS5,MER536,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Sodium	9740	ug/L	10000	ug/L	97.4	90.0 – 110.0	P	20-DEC-09 13:41	122009A-1
	Titanium	497	ug/L	500	ug/L	99.5	90.0 – 110.0	P	20-DEC-09 13:41	122009A-1
	Vanadium	503	ug/L	500	ug/L	100.7	90.0 – 110.0	P	20-DEC-09 13:41	122009A-1
	Zinc	496	ug/L	500	ug/L	99.2	90.0 – 110.0	P	20-DEC-09 13:41	122009A-1
CCV07										
	Aluminum	4820	ug/L	5000	ug/L	96.4	90.0 – 110.0	P	20-DEC-09 14:51	122009A-1
	Antimony	496	ug/L	500	ug/L	99.3	90.0 – 110.0	P	20-DEC-09 14:51	122009A-1
	Barium	499	ug/L	500	ug/L	99.8	90.0 – 110.0	P	20-DEC-09 14:51	122009A-1
	Boron	484	ug/L	500	ug/L	96.9	90.0 – 110.0	P	20-DEC-09 14:51	122009A-1
	Cadmium	498	ug/L	500	ug/L	99.6	90.0 – 110.0	P	20-DEC-09 14:51	122009A-1
	Calcium	4870	ug/L	5000	ug/L	97.4	90.0 – 110.0	P	20-DEC-09 14:51	122009A-1
	Chromium	498	ug/L	500	ug/L	99.5	90.0 – 110.0	P	20-DEC-09 14:51	122009A-1
	Cobalt	501	ug/L	500	ug/L	100.1	90.0 – 110.0	P	20-DEC-09 14:51	122009A-1
	Copper	494	ug/L	500	ug/L	98.8	90.0 – 110.0	P	20-DEC-09 14:51	122009A-1
	Iron	5080	ug/L	5000	ug/L	101.6	90.0 – 110.0	P	20-DEC-09 14:51	122009A-1
	Lead	492	ug/L	500	ug/L	98.5	90.0 – 110.0	P	20-DEC-09 14:51	122009A-1
	Magnesium	5070	ug/L	5000	ug/L	101.5	90.0 – 110.0	P	20-DEC-09 14:51	122009A-1
	Manganese	497	ug/L	500	ug/L	99.5	90.0 – 110.0	P	20-DEC-09 14:51	122009A-1
	Potassium	4950	ug/L	5000	ug/L	99	90.0 – 110.0	P	20-DEC-09 14:51	122009A-1
	Silicon	2470	ug/L	2500	ug/L	98.7	90.0 – 110.0	P	20-DEC-09 14:51	122009A-1
	Silver	497	ug/L	500	ug/L	99.4	90.0 – 110.0	P	20-DEC-09 14:51	122009A-1
	Sodium	10200	ug/L	10000	ug/L	101.6	90.0 – 110.0	P	20-DEC-09 14:51	122009A-1
	Titanium	492	ug/L	500	ug/L	98.5	90.0 – 110.0	P	20-DEC-09 14:51	122009A-1
	Vanadium	502	ug/L	500	ug/L	100.4	90.0 – 110.0	P	20-DEC-09 14:51	122009A-1
	Zinc	494	ug/L	500	ug/L	98.8	90.0 – 110.0	P	20-DEC-09 14:51	122009A-1
CCV08										
	Aluminum	4750	ug/L	5000	ug/L	95	90.0 – 110.0	P	20-DEC-09 16:00	122009A-1
	Antimony	499	ug/L	500	ug/L	99.7	90.0 – 110.0	P	20-DEC-09 16:00	122009A-1
	Barium	504	ug/L	500	ug/L	100.8	90.0 – 110.0	P	20-DEC-09 16:00	122009A-1
	Boron	487	ug/L	500	ug/L	97.3	90.0 – 110.0	P	20-DEC-09 16:00	122009A-1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–918

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS4,ICPMS5,MER536,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Cadmium	504	ug/L	500	ug/L	100.8	90.0 – 110.0	P	20–DEC–09 16:00	122009A–1
	Calcium	4930	ug/L	5000	ug/L	98.7	90.0 – 110.0	P	20–DEC–09 16:00	122009A–1
	Chromium	504	ug/L	500	ug/L	100.7	90.0 – 110.0	P	20–DEC–09 16:00	122009A–1
	Cobalt	497	ug/L	500	ug/L	99.3	90.0 – 110.0	P	20–DEC–09 16:00	122009A–1
	Copper	505	ug/L	500	ug/L	101	90.0 – 110.0	P	20–DEC–09 16:00	122009A–1
	Iron	5090	ug/L	5000	ug/L	101.8	90.0 – 110.0	P	20–DEC–09 16:00	122009A–1
	Lead	503	ug/L	500	ug/L	100.6	90.0 – 110.0	P	20–DEC–09 16:00	122009A–1
	Magnesium	5180	ug/L	5000	ug/L	103.6	90.0 – 110.0	P	20–DEC–09 16:00	122009A–1
	Manganese	505	ug/L	500	ug/L	101	90.0 – 110.0	P	20–DEC–09 16:00	122009A–1
	Potassium	4870	ug/L	5000	ug/L	97.4	90.0 – 110.0	P	20–DEC–09 16:00	122009A–1
	Silicon	2500	ug/L	2500	ug/L	99.8	90.0 – 110.0	P	20–DEC–09 16:00	122009A–1
	Silver	503	ug/L	500	ug/L	100.5	90.0 – 110.0	P	20–DEC–09 16:00	122009A–1
	Sodium	10100	ug/L	10000	ug/L	100.7	90.0 – 110.0	P	20–DEC–09 16:00	122009A–1
	Titanium	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	20–DEC–09 16:00	122009A–1
	Vanadium	508	ug/L	500	ug/L	101.6	90.0 – 110.0	P	20–DEC–09 16:00	122009A–1
	Zinc	500	ug/L	500	ug/L	100	90.0 – 110.0	P	20–DEC–09 16:00	122009A–1
CCV09										
	Aluminum	4840	ug/L	5000	ug/L	96.9	90.0 – 110.0	P	20–DEC–09 17:16	122009A–1
	Antimony	495	ug/L	500	ug/L	99	90.0 – 110.0	P	20–DEC–09 17:16	122009A–1
	Barium	502	ug/L	500	ug/L	100.4	90.0 – 110.0	P	20–DEC–09 17:16	122009A–1
	Boron	482	ug/L	500	ug/L	96.4	90.0 – 110.0	P	20–DEC–09 17:16	122009A–1
	Cadmium	502	ug/L	500	ug/L	100.4	90.0 – 110.0	P	20–DEC–09 17:16	122009A–1
	Calcium	4930	ug/L	5000	ug/L	98.6	90.0 – 110.0	P	20–DEC–09 17:16	122009A–1
	Chromium	502	ug/L	500	ug/L	100.4	90.0 – 110.0	P	20–DEC–09 17:16	122009A–1
	Cobalt	503	ug/L	500	ug/L	100.7	90.0 – 110.0	P	20–DEC–09 17:16	122009A–1
	Copper	497	ug/L	500	ug/L	99.5	90.0 – 110.0	P	20–DEC–09 17:16	122009A–1
	Iron	5020	ug/L	5000	ug/L	100.4	90.0 – 110.0	P	20–DEC–09 17:16	122009A–1
	Lead	491	ug/L	500	ug/L	98.3	90.0 – 110.0	P	20–DEC–09 17:16	122009A–1
	Magnesium	5240	ug/L	5000	ug/L	104.8	90.0 – 110.0	P	20–DEC–09 17:16	122009A–1
	Manganese	501	ug/L	500	ug/L	100.3	90.0 – 110.0	P	20–DEC–09 17:16	122009A–1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-918

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS4,ICPMS5,MER536,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Potassium	4930	ug/L	5000	ug/L	98.6	90.0 – 110.0	P	20-DEC-09 17:16	122009A-1
	Silicon	2480	ug/L	2500	ug/L	99.4	90.0 – 110.0	P	20-DEC-09 17:16	122009A-1
	Silver	500	ug/L	500	ug/L	100.1	90.0 – 110.0	P	20-DEC-09 17:16	122009A-1
	Sodium	9480	ug/L	10000	ug/L	94.8	90.0 – 110.0	P	20-DEC-09 17:16	122009A-1
	Titanium	497	ug/L	500	ug/L	99.3	90.0 – 110.0	P	20-DEC-09 17:16	122009A-1
	Vanadium	507	ug/L	500	ug/L	101.5	90.0 – 110.0	P	20-DEC-09 17:16	122009A-1
	Zinc	498	ug/L	500	ug/L	99.7	90.0 – 110.0	P	20-DEC-09 17:16	122009A-1
CCV10										
	Aluminum	4930	ug/L	5000	ug/L	98.6	90.0 – 110.0	P	20-DEC-09 18:24	122009A-1
	Antimony	499	ug/L	500	ug/L	99.7	90.0 – 110.0	P	20-DEC-09 18:24	122009A-1
	Barium	504	ug/L	500	ug/L	100.9	90.0 – 110.0	P	20-DEC-09 18:24	122009A-1
	Boron	480	ug/L	500	ug/L	96	90.0 – 110.0	P	20-DEC-09 18:24	122009A-1
	Cadmium	505	ug/L	500	ug/L	101	90.0 – 110.0	P	20-DEC-09 18:24	122009A-1
	Calcium	4940	ug/L	5000	ug/L	98.9	90.0 – 110.0	P	20-DEC-09 18:24	122009A-1
	Chromium	505	ug/L	500	ug/L	100.9	90.0 – 110.0	P	20-DEC-09 18:24	122009A-1
	Cobalt	496	ug/L	500	ug/L	99.2	90.0 – 110.0	P	20-DEC-09 18:24	122009A-1
	Copper	503	ug/L	500	ug/L	100.6	90.0 – 110.0	P	20-DEC-09 18:24	122009A-1
	Iron	5090	ug/L	5000	ug/L	101.7	90.0 – 110.0	P	20-DEC-09 18:24	122009A-1
	Lead	502	ug/L	500	ug/L	100.5	90.0 – 110.0	P	20-DEC-09 18:24	122009A-1
	Magnesium	5160	ug/L	5000	ug/L	103.1	90.0 – 110.0	P	20-DEC-09 18:24	122009A-1
	Manganese	505	ug/L	500	ug/L	100.9	90.0 – 110.0	P	20-DEC-09 18:24	122009A-1
	Potassium	4990	ug/L	5000	ug/L	99.8	90.0 – 110.0	P	20-DEC-09 18:24	122009A-1
	Silicon	2490	ug/L	2500	ug/L	99.7	90.0 – 110.0	P	20-DEC-09 18:24	122009A-1
	Silver	502	ug/L	500	ug/L	100.4	90.0 – 110.0	P	20-DEC-09 18:24	122009A-1
	Sodium	9910	ug/L	10000	ug/L	99.1	90.0 – 110.0	P	20-DEC-09 18:24	122009A-1
	Titanium	499	ug/L	500	ug/L	99.8	90.0 – 110.0	P	20-DEC-09 18:24	122009A-1
	Vanadium	508	ug/L	500	ug/L	101.6	90.0 – 110.0	P	20-DEC-09 18:24	122009A-1
	Zinc	500	ug/L	500	ug/L	100.1	90.0 – 110.0	P	20-DEC-09 18:24	122009A-1
CCV11										
	Aluminum	4910	ug/L	5000	ug/L	98.3	90.0 – 110.0	P	20-DEC-09 19:40	122009A-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-918

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS4,ICPMS5,MER536,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Antimony	504	ug/L	500	ug/L	100.8	90.0 – 110.0	P	20-DEC-09 19:40	122009A-1
	Barium	501	ug/L	500	ug/L	100.3	90.0 – 110.0	P	20-DEC-09 19:40	122009A-1
	Boron	477	ug/L	500	ug/L	95.4	90.0 – 110.0	P	20-DEC-09 19:40	122009A-1
	Cadmium	504	ug/L	500	ug/L	100.7	90.0 – 110.0	P	20-DEC-09 19:40	122009A-1
	Calcium	5100	ug/L	5000	ug/L	102.1	90.0 – 110.0	P	20-DEC-09 19:40	122009A-1
	Chromium	504	ug/L	500	ug/L	100.7	90.0 – 110.0	P	20-DEC-09 19:40	122009A-1
	Cobalt	502	ug/L	500	ug/L	100.5	90.0 – 110.0	P	20-DEC-09 19:40	122009A-1
	Copper	495	ug/L	500	ug/L	98.9	90.0 – 110.0	P	20-DEC-09 19:40	122009A-1
	Iron	5250	ug/L	5000	ug/L	105	90.0 – 110.0	P	20-DEC-09 19:40	122009A-1
	Lead	498	ug/L	500	ug/L	99.5	90.0 – 110.0	P	20-DEC-09 19:40	122009A-1
	Magnesium	5310	ug/L	5000	ug/L	106.2	90.0 – 110.0	P	20-DEC-09 19:40	122009A-1
	Manganese	506	ug/L	500	ug/L	101.3	90.0 – 110.0	P	20-DEC-09 19:40	122009A-1
	Potassium	4990	ug/L	5000	ug/L	99.9	90.0 – 110.0	P	20-DEC-09 19:40	122009A-1
	Silicon	2480	ug/L	2500	ug/L	99.1	90.0 – 110.0	P	20-DEC-09 19:40	122009A-1
	Silver	499	ug/L	500	ug/L	99.9	90.0 – 110.0	P	20-DEC-09 19:40	122009A-1
	Sodium	10300	ug/L	10000	ug/L	103.1	90.0 – 110.0	P	20-DEC-09 19:40	122009A-1
	Titanium	500	ug/L	500	ug/L	100	90.0 – 110.0	P	20-DEC-09 19:40	122009A-1
	Vanadium	507	ug/L	500	ug/L	101.3	90.0 – 110.0	P	20-DEC-09 19:40	122009A-1
	Zinc	498	ug/L	500	ug/L	99.7	90.0 – 110.0	P	20-DEC-09 19:40	122009A-1
CCV12										
	Aluminum	4960	ug/L	5000	ug/L	99.2	90.0 – 110.0	P	20-DEC-09 20:27	122009A-1
	Antimony	507	ug/L	500	ug/L	101.5	90.0 – 110.0	P	20-DEC-09 20:27	122009A-1
	Barium	509	ug/L	500	ug/L	101.8	90.0 – 110.0	P	20-DEC-09 20:27	122009A-1
	Boron	483	ug/L	500	ug/L	96.6	90.0 – 110.0	P	20-DEC-09 20:27	122009A-1
	Cadmium	510	ug/L	500	ug/L	102.1	90.0 – 110.0	P	20-DEC-09 20:27	122009A-1
	Calcium	5040	ug/L	5000	ug/L	100.7	90.0 – 110.0	P	20-DEC-09 20:27	122009A-1
	Chromium	510	ug/L	500	ug/L	102.1	90.0 – 110.0	P	20-DEC-09 20:27	122009A-1
	Cobalt	502	ug/L	500	ug/L	100.4	90.0 – 110.0	P	20-DEC-09 20:27	122009A-1
	Copper	507	ug/L	500	ug/L	101.4	90.0 – 110.0	P	20-DEC-09 20:27	122009A-1
	Iron	5300	ug/L	5000	ug/L	106	90.0 – 110.0	P	20-DEC-09 20:27	122009A-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-918

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS4,ICPMS5,MER536,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Lead	511	ug/L	500	ug/L	102.2	90.0 – 110.0	P	20-DEC-09 20:27	122009A-1
	Magnesium	5380	ug/L	5000	ug/L	107.7	90.0 – 110.0	P	20-DEC-09 20:27	122009A-1
	Manganese	509	ug/L	500	ug/L	101.8	90.0 – 110.0	P	20-DEC-09 20:27	122009A-1
	Potassium	5040	ug/L	5000	ug/L	100.8	90.0 – 110.0	P	20-DEC-09 20:27	122009A-1
	Silicon	2510	ug/L	2500	ug/L	100.5	90.0 – 110.0	P	20-DEC-09 20:27	122009A-1
	Silver	506	ug/L	500	ug/L	101.2	90.0 – 110.0	P	20-DEC-09 20:27	122009A-1
	Sodium	10400	ug/L	10000	ug/L	104.3	90.0 – 110.0	P	20-DEC-09 20:27	122009A-1
	Titanium	502	ug/L	500	ug/L	100.5	90.0 – 110.0	P	20-DEC-09 20:27	122009A-1
	Vanadium	513	ug/L	500	ug/L	102.6	90.0 – 110.0	P	20-DEC-09 20:27	122009A-1
	Zinc	505	ug/L	500	ug/L	101	90.0 – 110.0	P	20-DEC-09 20:27	122009A-1
CCV13										
	Aluminum	4960	ug/L	5000	ug/L	99.1	90.0 – 110.0	P	20-DEC-09 21:29	122009A-1
	Antimony	501	ug/L	500	ug/L	100.1	90.0 – 110.0	P	20-DEC-09 21:29	122009A-1
	Barium	507	ug/L	500	ug/L	101.3	90.0 – 110.0	P	20-DEC-09 21:29	122009A-1
	Boron	481	ug/L	500	ug/L	96.3	90.0 – 110.0	P	20-DEC-09 21:29	122009A-1
	Cadmium	508	ug/L	500	ug/L	101.5	90.0 – 110.0	P	20-DEC-09 21:29	122009A-1
	Calcium	5000	ug/L	5000	ug/L	100.1	90.0 – 110.0	P	20-DEC-09 21:29	122009A-1
	Chromium	507	ug/L	500	ug/L	101.4	90.0 – 110.0	P	20-DEC-09 21:29	122009A-1
	Cobalt	498	ug/L	500	ug/L	99.6	90.0 – 110.0	P	20-DEC-09 21:29	122009A-1
	Copper	506	ug/L	500	ug/L	101.1	90.0 – 110.0	P	20-DEC-09 21:29	122009A-1
	Iron	5220	ug/L	5000	ug/L	104.4	90.0 – 110.0	P	20-DEC-09 21:29	122009A-1
	Lead	505	ug/L	500	ug/L	101.1	90.0 – 110.0	P	20-DEC-09 21:29	122009A-1
	Magnesium	5330	ug/L	5000	ug/L	106.6	90.0 – 110.0	P	20-DEC-09 21:29	122009A-1
	Manganese	507	ug/L	500	ug/L	101.3	90.0 – 110.0	P	20-DEC-09 21:29	122009A-1
	Potassium	5040	ug/L	5000	ug/L	100.7	90.0 – 110.0	P	20-DEC-09 21:29	122009A-1
	Silicon	2500	ug/L	2500	ug/L	100.1	90.0 – 110.0	P	20-DEC-09 21:29	122009A-1
	Silver	504	ug/L	500	ug/L	100.8	90.0 – 110.0	P	20-DEC-09 21:29	122009A-1
	Sodium	10400	ug/L	10000	ug/L	103.5	90.0 – 110.0	P	20-DEC-09 21:29	122009A-1
	Titanium	501	ug/L	500	ug/L	100.1	90.0 – 110.0	P	20-DEC-09 21:29	122009A-1
	Vanadium	511	ug/L	500	ug/L	102.1	90.0 – 110.0	P	20-DEC-09 21:29	122009A-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-918

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS4,ICPMS5,MER536,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Zinc	503	ug/L	500	ug/L	100.6	90.0 – 110.0	P	20-DEC-09 21:29	122009A-1
CCV14										
	Aluminum	4930	ug/L	5000	ug/L	98.7	90.0 – 110.0	P	20-DEC-09 22:31	122009A-1
	Antimony	506	ug/L	500	ug/L	101.3	90.0 – 110.0	P	20-DEC-09 22:31	122009A-1
	Barium	510	ug/L	500	ug/L	101.9	90.0 – 110.0	P	20-DEC-09 22:31	122009A-1
	Boron	487	ug/L	500	ug/L	97.5	90.0 – 110.0	P	20-DEC-09 22:31	122009A-1
	Cadmium	511	ug/L	500	ug/L	102.1	90.0 – 110.0	P	20-DEC-09 22:31	122009A-1
	Calcium	5010	ug/L	5000	ug/L	100.3	90.0 – 110.0	P	20-DEC-09 22:31	122009A-1
	Chromium	512	ug/L	500	ug/L	102.5	90.0 – 110.0	P	20-DEC-09 22:31	122009A-1
	Cobalt	510	ug/L	500	ug/L	102	90.0 – 110.0	P	20-DEC-09 22:31	122009A-1
	Copper	507	ug/L	500	ug/L	101.4	90.0 – 110.0	P	20-DEC-09 22:31	122009A-1
	Iron	5210	ug/L	5000	ug/L	104.1	90.0 – 110.0	P	20-DEC-09 22:31	122009A-1
	Lead	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	20-DEC-09 22:31	122009A-1
	Magnesium	5240	ug/L	5000	ug/L	104.8	90.0 – 110.0	P	20-DEC-09 22:31	122009A-1
	Manganese	504	ug/L	500	ug/L	100.9	90.0 – 110.0	P	20-DEC-09 22:31	122009A-1
	Potassium	5020	ug/L	5000	ug/L	100.3	90.0 – 110.0	P	20-DEC-09 22:31	122009A-1
	Silicon	2530	ug/L	2500	ug/L	101.1	90.0 – 110.0	P	20-DEC-09 22:31	122009A-1
	Silver	510	ug/L	500	ug/L	102	90.0 – 110.0	P	20-DEC-09 22:31	122009A-1
	Sodium	10200	ug/L	10000	ug/L	102.2	90.0 – 110.0	P	20-DEC-09 22:31	122009A-1
	Titanium	498	ug/L	500	ug/L	99.7	90.0 – 110.0	P	20-DEC-09 22:31	122009A-1
	Vanadium	516	ug/L	500	ug/L	103.3	90.0 – 110.0	P	20-DEC-09 22:31	122009A-1
	Zinc	507	ug/L	500	ug/L	101.5	90.0 – 110.0	P	20-DEC-09 22:31	122009A-1
CCV15										
	Aluminum	4940	ug/L	5000	ug/L	98.8	90.0 – 110.0	P	20-DEC-09 23:33	122009A-1
	Antimony	507	ug/L	500	ug/L	101.4	90.0 – 110.0	P	20-DEC-09 23:33	122009A-1
	Barium	512	ug/L	500	ug/L	102.4	90.0 – 110.0	P	20-DEC-09 23:33	122009A-1
	Boron	488	ug/L	500	ug/L	97.6	90.0 – 110.0	P	20-DEC-09 23:33	122009A-1
	Cadmium	513	ug/L	500	ug/L	102.7	90.0 – 110.0	P	20-DEC-09 23:33	122009A-1
	Calcium	5000	ug/L	5000	ug/L	100.1	90.0 – 110.0	P	20-DEC-09 23:33	122009A-1
	Chromium	513	ug/L	500	ug/L	102.5	90.0 – 110.0	P	20-DEC-09 23:33	122009A-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-918

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS4,ICPMS5,MER536,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Cobalt	504	ug/L	500	ug/L	100.9	90.0 – 110.0	P	20-DEC-09 23:33	122009A-1
	Copper	509	ug/L	500	ug/L	101.8	90.0 – 110.0	P	20-DEC-09 23:33	122009A-1
	Iron	5170	ug/L	5000	ug/L	103.3	90.0 – 110.0	P	20-DEC-09 23:33	122009A-1
	Lead	513	ug/L	500	ug/L	102.7	90.0 – 110.0	P	20-DEC-09 23:33	122009A-1
	Magnesium	5310	ug/L	5000	ug/L	106.2	90.0 – 110.0	P	20-DEC-09 23:33	122009A-1
	Manganese	512	ug/L	500	ug/L	102.3	90.0 – 110.0	P	20-DEC-09 23:33	122009A-1
	Potassium	4970	ug/L	5000	ug/L	99.5	90.0 – 110.0	P	20-DEC-09 23:33	122009A-1
	Silicon	2530	ug/L	2500	ug/L	101.2	90.0 – 110.0	P	20-DEC-09 23:33	122009A-1
	Silver	508	ug/L	500	ug/L	101.6	90.0 – 110.0	P	20-DEC-09 23:33	122009A-1
	Sodium	9840	ug/L	10000	ug/L	98.4	90.0 – 110.0	P	20-DEC-09 23:33	122009A-1
	Titanium	505	ug/L	500	ug/L	101	90.0 – 110.0	P	20-DEC-09 23:33	122009A-1
	Vanadium	515	ug/L	500	ug/L	102.9	90.0 – 110.0	P	20-DEC-09 23:33	122009A-1
	Zinc	508	ug/L	500	ug/L	101.7	90.0 – 110.0	P	20-DEC-09 23:33	122009A-1
CCV16										
	Aluminum	5060	ug/L	5000	ug/L	101.1	90.0 – 110.0	P	21-DEC-09 00:43	122009A-1
	Antimony	500	ug/L	500	ug/L	100	90.0 – 110.0	P	21-DEC-09 00:43	122009A-1
	Barium	506	ug/L	500	ug/L	101.2	90.0 – 110.0	P	21-DEC-09 00:43	122009A-1
	Boron	481	ug/L	500	ug/L	96.1	90.0 – 110.0	P	21-DEC-09 00:43	122009A-1
	Cadmium	508	ug/L	500	ug/L	101.5	90.0 – 110.0	P	21-DEC-09 00:43	122009A-1
	Calcium	5160	ug/L	5000	ug/L	103.2	90.0 – 110.0	P	21-DEC-09 00:43	122009A-1
	Chromium	507	ug/L	500	ug/L	101.4	90.0 – 110.0	P	21-DEC-09 00:43	122009A-1
	Cobalt	498	ug/L	500	ug/L	99.5	90.0 – 110.0	P	21-DEC-09 00:43	122009A-1
	Copper	504	ug/L	500	ug/L	100.7	90.0 – 110.0	P	21-DEC-09 00:43	122009A-1
	Iron	5110	ug/L	5000	ug/L	102.3	90.0 – 110.0	P	21-DEC-09 00:43	122009A-1
	Lead	507	ug/L	500	ug/L	101.5	90.0 – 110.0	P	21-DEC-09 00:43	122009A-1
	Magnesium	5290	ug/L	5000	ug/L	105.9	90.0 – 110.0	P	21-DEC-09 00:43	122009A-1
	Manganese	506	ug/L	500	ug/L	101.1	90.0 – 110.0	P	21-DEC-09 00:43	122009A-1
	Potassium	5090	ug/L	5000	ug/L	101.8	90.0 – 110.0	P	21-DEC-09 00:43	122009A-1
	Silicon	2500	ug/L	2500	ug/L	100	90.0 – 110.0	P	21-DEC-09 00:43	122009A-1
	Silver	503	ug/L	500	ug/L	100.5	90.0 – 110.0	P	21-DEC-09 00:43	122009A-1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–918

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS4,ICPMS5,MER536,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Sodium	9560	ug/L	10000	ug/L	95.6	90.0 – 110.0	P	21–DEC–09 00:43	122009A–1
	Titanium	499	ug/L	500	ug/L	99.8	90.0 – 110.0	P	21–DEC–09 00:43	122009A–1
	Vanadium	510	ug/L	500	ug/L	102	90.0 – 110.0	P	21–DEC–09 00:43	122009A–1
	Zinc	502	ug/L	500	ug/L	100.5	90.0 – 110.0	P	21–DEC–09 00:43	122009A–1

METALS
-2b-
CRDL Standard for AA & ICP

SDG No: 10-918

Contract: LANL01004 **Lab Code:** GEL

AA CRDL Standard Source: SPEX

ICP CRDL Standard Source Solutions Plus

Instrument ID: ICPMS4,ICPMS5,MER536,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Advisory Limits (%R)	M	Analysis Date/Time	Run Number
CRDL01										
	Nickel	2.26	ug/L	2	ug/L	112.9	70.0 – 130.0	MS	29-DEC-09 23:15	091229-3
	Arsenic	5.44	ug/L	5	ug/L	108.8	70.0 – 130.0	MS	29-DEC-09 23:15	091229-3
	Beryllium	.575	ug/L	.5	ug/L	115	70.0 – 130.0	MS	29-DEC-09 23:15	091229-3
	Selenium	5.65	ug/L	5	ug/L	112.9	70.0 – 130.0	MS	29-DEC-09 23:15	091229-3
	Lithium	11.4	ug/L	10	ug/L	114	70.0 – 130.0	MS	29-DEC-09 23:15	091229-3
	Thallium	1.23	ug/L	1	ug/L	122.5	70.0 – 130.0	MS	30-DEC-09 10:06	091230-4
	Uranium	.232	ug/L	.2	ug/L	116	70.0 – 130.0	MS	30-DEC-09 12:41	091230-2
	Mercury	.188	ug/L	.2	ug/L	94	70.0 – 130.0	AV	05-JAN-10 09:54	010510S1-5
PQL01										
	Aluminum	193	ug/L	200	ug/L	96.7	70.0 – 130.0	P	20-DEC-09 09:13	122009A-1
	Iron	112	ug/L	100	ug/L	111.5	70.0 – 130.0	P	20-DEC-09 09:13	122009A-1
	Lead	9.71	ug/L	10	ug/L	97.1	70.0 – 130.0	P	20-DEC-09 09:13	122009A-1
	Magnesium	342	ug/L	300	ug/L	114.1	70.0 – 130.0	P	20-DEC-09 09:13	122009A-1
	Potassium	166	ug/L	150	ug/L	110.4	70.0 – 130.0	P	20-DEC-09 09:13	122009A-1
	Sodium	283	ug/L	300	ug/L	94.4	70.0 – 130.0	P	20-DEC-09 09:13	122009A-1
	Barium	5.2	ug/L	5	ug/L	104	70.0 – 130.0	P	20-DEC-09 09:13	122009A-1
	Chromium	5.11	ug/L	5	ug/L	102.3	70.0 – 130.0	P	20-DEC-09 09:13	122009A-1
	Copper	10.5	ug/L	10	ug/L	105.4	70.0 – 130.0	P	20-DEC-09 09:13	122009A-1
	Titanium	5.1	ug/L	5	ug/L	102	70.0 – 130.0	P	20-DEC-09 09:13	122009A-1
	Silicon	102	ug/L	100	ug/L	101.5	70.0 – 130.0	P	20-DEC-09 09:13	122009A-1
	Boron	42.3	ug/L	50	ug/L	84.7	70.0 – 130.0	P	20-DEC-09 09:13	122009A-1
	Calcium	209	ug/L	200	ug/L	104.4	70.0 – 130.0	P	20-DEC-09 09:13	122009A-1
	Zinc	10.1	ug/L	10	ug/L	101.1	70.0 – 130.0	P	20-DEC-09 09:13	122009A-1
	Vanadium	4.76	ug/L	5	ug/L	95.3	70.0 – 130.0	P	20-DEC-09 09:13	122009A-1
	Cobalt	5.05	ug/L	5	ug/L	101.1	70.0 – 130.0	P	20-DEC-09 09:13	122009A-1
	Cadmium	5	ug/L	5	ug/L	100	70.0 – 130.0	P	20-DEC-09 09:13	122009A-1
	Antimony	8.67	ug/L	10	ug/L	86.7	70.0 – 130.0	P	20-DEC-09 09:13	122009A-1
	Silver	4.96	ug/L	5	ug/L	99.2	70.0 – 130.0	P	20-DEC-09 09:13	122009A-1
	Manganese	10.7	ug/L	10	ug/L	106.5	70.0 – 130.0	P	20-DEC-09 09:13	122009A-1

METALS
–2b–
CRDL Standard for AA & ICP

SDG No: 10–918

Contract: LANL01004 **Lab Code:** GEL

AA CRDL Standard Source:

ICP CRDL Standard Source

Instrument ID: ICPMS4,ICPMS5,MER536,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Advisory Limits (%R)	M	Analysis Date/Time	Run Number
PQL02										
	Silicon	102	ug/L	100	ug/L	102.3	70.0 – 130.0	P	20–DEC–09 13:48	122009A–1
	Titanium	5.03	ug/L	5	ug/L	100.7	70.0 – 130.0	P	20–DEC–09 13:48	122009A–1
	Aluminum	186	ug/L	200	ug/L	93	70.0 – 130.0	P	20–DEC–09 13:48	122009A–1
	Iron	92.3	ug/L	100	ug/L	92.3	70.0 – 130.0	P	20–DEC–09 13:48	122009A–1
	Lead	10.7	ug/L	10	ug/L	107.1	70.0 – 130.0	P	20–DEC–09 13:48	122009A–1
	Magnesium	304	ug/L	300	ug/L	101.3	70.0 – 130.0	P	20–DEC–09 13:48	122009A–1
	Manganese	10.6	ug/L	10	ug/L	105.8	70.0 – 130.0	P	20–DEC–09 13:48	122009A–1
	Potassium	162	ug/L	150	ug/L	108.3	70.0 – 130.0	P	20–DEC–09 13:48	122009A–1
	Silver	5.09	ug/L	5	ug/L	101.8	70.0 – 130.0	P	20–DEC–09 13:48	122009A–1
	Sodium	292	ug/L	300	ug/L	97.4	70.0 – 130.0	P	20–DEC–09 13:48	122009A–1
	Antimony	10.3	ug/L	10	ug/L	103	70.0 – 130.0	P	20–DEC–09 13:48	122009A–1
	Barium	5.21	ug/L	5	ug/L	104.2	70.0 – 130.0	P	20–DEC–09 13:48	122009A–1
	Cadmium	4.94	ug/L	5	ug/L	98.7	70.0 – 130.0	P	20–DEC–09 13:48	122009A–1
	Chromium	5.51	ug/L	5	ug/L	110.2	70.0 – 130.0	P	20–DEC–09 13:48	122009A–1
	Cobalt	5.16	ug/L	5	ug/L	103.3	70.0 – 130.0	P	20–DEC–09 13:48	122009A–1
	Copper	10.4	ug/L	10	ug/L	104.2	70.0 – 130.0	P	20–DEC–09 13:48	122009A–1
	Vanadium	5.08	ug/L	5	ug/L	101.6	70.0 – 130.0	P	20–DEC–09 13:48	122009A–1
	Zinc	10.1	ug/L	10	ug/L	101.4	70.0 – 130.0	P	20–DEC–09 13:48	122009A–1
	Calcium	206	ug/L	200	ug/L	102.8	70.0 – 130.0	P	20–DEC–09 13:48	122009A–1
	Boron	40.7	ug/L	50	ug/L	81.3	70.0 – 130.0	P	20–DEC–09 13:48	122009A–1
PQL03										
	Aluminum	181	ug/L	200	ug/L	90.7	70.0 – 130.0	P	20–DEC–09 14:58	122009A–1
	Titanium	4.99	ug/L	5	ug/L	99.8	70.0 – 130.0	P	20–DEC–09 14:58	122009A–1
	Silicon	100	ug/L	100	ug/L	100.1	70.0 – 130.0	P	20–DEC–09 14:58	122009A–1
	Boron	40.6	ug/L	50	ug/L	81.1	70.0 – 130.0	P	20–DEC–09 14:58	122009A–1
	Calcium	200	ug/L	200	ug/L	99.8	70.0 – 130.0	P	20–DEC–09 14:58	122009A–1
	Zinc	9.92	ug/L	10	ug/L	99.2	70.0 – 130.0	P	20–DEC–09 14:58	122009A–1
	Vanadium	4.43	ug/L	5	ug/L	88.6	70.0 – 130.0	P	20–DEC–09 14:58	122009A–1
	Copper	10.3	ug/L	10	ug/L	103.3	70.0 – 130.0	P	20–DEC–09 14:58	122009A–1
	Cobalt	4.92	ug/L	5	ug/L	98.4	70.0 – 130.0	P	20–DEC–09 14:58	122009A–1

METALS
–2b–
CRDL Standard for AA & ICP

SDG No: 10–918

Contract: LANL01004 **Lab Code:** GEL

AA CRDL Standard Source:

ICP CRDL Standard Source

Instrument ID: ICPMS4,ICPMS5,MER536,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Advisory Limits (%R)	M	Analysis Date/Time	Run Number
	Chromium	4.86	ug/L	5	ug/L	97.3	70.0 – 130.0	P	20–DEC–09 14:58	122009A–1
	Cadmium	4.96	ug/L	5	ug/L	99.2	70.0 – 130.0	P	20–DEC–09 14:58	122009A–1
	Barium	5.07	ug/L	5	ug/L	101.5	70.0 – 130.0	P	20–DEC–09 14:58	122009A–1
	Antimony	10.2	ug/L	10	ug/L	102.3	70.0 – 130.0	P	20–DEC–09 14:58	122009A–1
	Magnesium	274	ug/L	300	ug/L	91.2	70.0 – 130.0	P	20–DEC–09 14:58	122009A–1
	Manganese	10.5	ug/L	10	ug/L	105	70.0 – 130.0	P	20–DEC–09 14:58	122009A–1
	Potassium	168	ug/L	150	ug/L	112.2	70.0 – 130.0	P	20–DEC–09 14:58	122009A–1
	Sodium	276	ug/L	300	ug/L	92.1	70.0 – 130.0	P	20–DEC–09 14:58	122009A–1
	Silver	5.12	ug/L	5	ug/L	102.4	70.0 – 130.0	P	20–DEC–09 14:58	122009A–1
	Lead	9.95	ug/L	10	ug/L	99.5	70.0 – 130.0	P	20–DEC–09 14:58	122009A–1
	Iron	90.8	ug/L	100	ug/L	90.8	70.0 – 130.0	P	20–DEC–09 14:58	122009A–1
PQL04										
	Potassium	163	ug/L	150	ug/L	109	70.0 – 130.0	P	20–DEC–09 16:07	122009A–1
	Manganese	10.4	ug/L	10	ug/L	104.3	70.0 – 130.0	P	20–DEC–09 16:07	122009A–1
	Magnesium	380	ug/L	300	ug/L	126.5	70.0 – 130.0	P	20–DEC–09 16:07	122009A–1
	Lead	9.88	ug/L	10	ug/L	98.8	70.0 – 130.0	P	20–DEC–09 16:07	122009A–1
	Iron	119	ug/L	100	ug/L	118.7	70.0 – 130.0	P	20–DEC–09 16:07	122009A–1
	Aluminum	186	ug/L	200	ug/L	93.2	70.0 – 130.0	P	20–DEC–09 16:07	122009A–1
	Silver	5	ug/L	5	ug/L	100.1	70.0 – 130.0	P	20–DEC–09 16:07	122009A–1
	Sodium	272	ug/L	300	ug/L	90.6	70.0 – 130.0	P	20–DEC–09 16:07	122009A–1
	Antimony	8.9	ug/L	10	ug/L	89	70.0 – 130.0	P	20–DEC–09 16:07	122009A–1
	Barium	5.07	ug/L	5	ug/L	101.5	70.0 – 130.0	P	20–DEC–09 16:07	122009A–1
	Cadmium	4.94	ug/L	5	ug/L	98.9	70.0 – 130.0	P	20–DEC–09 16:07	122009A–1
	Chromium	4.74	ug/L	5	ug/L	94.8	70.0 – 130.0	P	20–DEC–09 16:07	122009A–1
	Cobalt	5.01	ug/L	5	ug/L	100.2	70.0 – 130.0	P	20–DEC–09 16:07	122009A–1
	Copper	10	ug/L	10	ug/L	100	70.0 – 130.0	P	20–DEC–09 16:07	122009A–1
	Vanadium	4.6	ug/L	5	ug/L	92	70.0 – 130.0	P	20–DEC–09 16:07	122009A–1
	Zinc	9.76	ug/L	10	ug/L	97.6	70.0 – 130.0	P	20–DEC–09 16:07	122009A–1
	Calcium	213	ug/L	200	ug/L	106.3	70.0 – 130.0	P	20–DEC–09 16:07	122009A–1
	Boron	35.8	ug/L	50	ug/L	71.7	70.0 – 130.0	P	20–DEC–09 16:07	122009A–1

METALS
–2b–
CRDL Standard for AA & ICP

SDG No: 10–918

Contract: LANL01004 **Lab Code:** GEL

AA CRDL Standard Source:

ICP CRDL Standard Source

Instrument ID: ICPMS4,ICPMS5,MER536,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Advisory Limits (%R)	M	Analysis Date/Time	Run Number
	Silicon	99.4	ug/L	100	ug/L	99.4	70.0 – 130.0	P	20–DEC–09 16:07	122009A–1
	Titanium	5.05	ug/L	5	ug/L	101.1	70.0 – 130.0	P	20–DEC–09 16:07	122009A–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–918

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
ICB01										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	20–DEC–09 09:06	122009A–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	20–DEC–09 09:06	122009A–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	20–DEC–09 09:06	122009A–1
	Boron	10.0	+/–50	U	10.0	50.0	SOL	P	20–DEC–09 09:06	122009A–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	20–DEC–09 09:06	122009A–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	20–DEC–09 09:06	122009A–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	20–DEC–09 09:06	122009A–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	20–DEC–09 09:06	122009A–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	20–DEC–09 09:06	122009A–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	20–DEC–09 09:06	122009A–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	20–DEC–09 09:06	122009A–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	20–DEC–09 09:06	122009A–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	20–DEC–09 09:06	122009A–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	20–DEC–09 09:06	122009A–1
	Silicon	15.0	+/–100	U	15.0	100	SOL	P	20–DEC–09 09:06	122009A–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	20–DEC–09 09:06	122009A–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	20–DEC–09 09:06	122009A–1
	Titanium	1.0	+/–5	U	1.0	5.0	SOL	P	20–DEC–09 09:06	122009A–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	20–DEC–09 09:06	122009A–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	20–DEC–09 09:06	122009A–1
	Arsenic	1.0	+/–5	U	1.0	5.0	SOL	MS	29–DEC–09 23:09	091229–3
	Beryllium	0.1	+/–.5	U	0.1	0.5	SOL	MS	29–DEC–09 23:09	091229–3
	Lithium	2.0	+/–10	U	2.0	10.0	SOL	MS	29–DEC–09 23:09	091229–3
	Nickel	0.5	+/–2	U	0.5	2.0	SOL	MS	29–DEC–09 23:09	091229–3
	Selenium	2.5	+/–5	U	2.5	5.0	SOL	MS	29–DEC–09 23:09	091229–3
	Thallium	0.3	+/–1	U	0.3	1.0	SOL	MS	30–DEC–09 10:03	091230–4
	Uranium	0.066	+/–.2	U	0.066	0.2	SOL	MS	30–DEC–09 12:38	091230–2
	Mercury	–0.108	+/–.2	J	0.068	0.2	SOL	AV	05–JAN–10 09:52	010510S1–5
CCB01										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	20–DEC–09 09:51	122009A–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	20–DEC–09 09:51	122009A–1

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-918

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	20-DEC-09 09:51	122009A-1
	Boron	10.0	+/-50	U	10.0	50.0	SOL	P	20-DEC-09 09:51	122009A-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	20-DEC-09 09:51	122009A-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	20-DEC-09 09:51	122009A-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	20-DEC-09 09:51	122009A-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	20-DEC-09 09:51	122009A-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	20-DEC-09 09:51	122009A-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	20-DEC-09 09:51	122009A-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	20-DEC-09 09:51	122009A-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	20-DEC-09 09:51	122009A-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	20-DEC-09 09:51	122009A-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	20-DEC-09 09:51	122009A-1
	Silicon	15.0	+/-100	U	15.0	100	SOL	P	20-DEC-09 09:51	122009A-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	20-DEC-09 09:51	122009A-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	20-DEC-09 09:51	122009A-1
	Titanium	1.0	+/-5	U	1.0	5.0	SOL	P	20-DEC-09 09:51	122009A-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	20-DEC-09 09:51	122009A-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	20-DEC-09 09:51	122009A-1
	Arsenic	1.0	+/-5	U	1.0	5.0	SOL	MS	29-DEC-09 23:40	091229-3
	Beryllium	0.1	+/-.5	U	0.1	0.5	SOL	MS	29-DEC-09 23:40	091229-3
	Lithium	2.0	+/-10	U	2.0	10.0	SOL	MS	29-DEC-09 23:40	091229-3
	Nickel	0.5	+/-2	U	0.5	2.0	SOL	MS	29-DEC-09 23:40	091229-3
	Selenium	2.5	+/-5	U	2.5	5.0	SOL	MS	29-DEC-09 23:40	091229-3
	Thallium	0.3	+/-1	U	0.3	1.0	SOL	MS	30-DEC-09 10:20	091230-4
	Uranium	0.066	+/-.2	U	0.066	0.2	SOL	MS	30-DEC-09 12:49	091230-2
	Mercury	0.068	+/-.2	U	0.068	0.2	SOL	AV	05-JAN-10 09:58	010510S1-5
CCB02										
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	20-DEC-09 10:11	122009A-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	20-DEC-09 10:11	122009A-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	20-DEC-09 10:11	122009A-1
	Boron	10.0	+/-50	U	10.0	50.0	SOL	P	20-DEC-09 10:11	122009A-1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10–918

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	20–DEC–09 10:11	122009A–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	20–DEC–09 10:11	122009A–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	20–DEC–09 10:11	122009A–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	20–DEC–09 10:11	122009A–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	20–DEC–09 10:11	122009A–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	20–DEC–09 10:11	122009A–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	20–DEC–09 10:11	122009A–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	20–DEC–09 10:11	122009A–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	20–DEC–09 10:11	122009A–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	20–DEC–09 10:11	122009A–1
	Silicon	15.0	+/–100	U	15.0	100	SOL	P	20–DEC–09 10:11	122009A–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	20–DEC–09 10:11	122009A–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	20–DEC–09 10:11	122009A–1
	Titanium	1.0	+/–5	U	1.0	5.0	SOL	P	20–DEC–09 10:11	122009A–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	20–DEC–09 10:11	122009A–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	20–DEC–09 10:11	122009A–1
	Arsenic	1.0	+/–5	U	1.0	5.0	SOL	MS	29–DEC–09 23:58	091229–3
	Beryllium	0.1	+/–.5	U	0.1	0.5	SOL	MS	29–DEC–09 23:58	091229–3
	Lithium	2.0	+/–10	U	2.0	10.0	SOL	MS	29–DEC–09 23:58	091229–3
	Nickel	0.5	+/–2	U	0.5	2.0	SOL	MS	29–DEC–09 23:58	091229–3
	Selenium	2.5	+/–5	U	2.5	5.0	SOL	MS	29–DEC–09 23:58	091229–3
	Thallium	0.3	+/–1	U	0.3	1.0	SOL	MS	30–DEC–09 10:30	091230–4
	Uranium	0.066	+/–.2	U	0.066	0.2	SOL	MS	30–DEC–09 13:11	091230–2
	Mercury	–0.087	+/–.2	J	0.068	0.2	SOL	AV	05–JAN–10 10:22	010510S1–5
CCB03										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	20–DEC–09 11:22	122009A–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	20–DEC–09 11:22	122009A–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	20–DEC–09 11:22	122009A–1
	Boron	29.22	+/–50	J	10.0	50.0	SOL	P	20–DEC–09 11:22	122009A–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	20–DEC–09 11:22	122009A–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	20–DEC–09 11:22	122009A–1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10-918

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	20-DEC-09 11:22	122009A-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	20-DEC-09 11:22	122009A-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	20-DEC-09 11:22	122009A-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	20-DEC-09 11:22	122009A-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	20-DEC-09 11:22	122009A-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	20-DEC-09 11:22	122009A-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	20-DEC-09 11:22	122009A-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	20-DEC-09 11:22	122009A-1
	Silicon	15.0	+/-100	U	15.0	100	SOL	P	20-DEC-09 11:22	122009A-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	20-DEC-09 11:22	122009A-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	20-DEC-09 11:22	122009A-1
	Titanium	1.0	+/-5	U	1.0	5.0	SOL	P	20-DEC-09 11:22	122009A-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	20-DEC-09 11:22	122009A-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	20-DEC-09 11:22	122009A-1
	Arsenic	1.0	+/-5	U	1.0	5.0	SOL	MS	30-DEC-09 00:59	091229-3
	Beryllium	0.1	+/-.5	U	0.1	0.5	SOL	MS	30-DEC-09 00:59	091229-3
	Lithium	2.0	+/-10	U	2.0	10.0	SOL	MS	30-DEC-09 00:59	091229-3
	Nickel	0.5	+/-2	U	0.5	2.0	SOL	MS	30-DEC-09 00:59	091229-3
	Selenium	2.5	+/-5	U	2.5	5.0	SOL	MS	30-DEC-09 00:59	091229-3
	Thallium	0.3	+/-1	U	0.3	1.0	SOL	MS	30-DEC-09 11:08	091230-4
	Uranium	0.066	+/-.2	U	0.066	0.2	SOL	MS	30-DEC-09 13:31	091230-2
	Mercury	-0.114	+/-.2	J	0.068	0.2	SOL	AV	05-JAN-10 10:46	010510S1-5
CCB04										
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	20-DEC-09 12:19	122009A-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	20-DEC-09 12:19	122009A-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	20-DEC-09 12:19	122009A-1
	Boron	10.0	+/-50	U	10.0	50.0	SOL	P	20-DEC-09 12:19	122009A-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	20-DEC-09 12:19	122009A-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	20-DEC-09 12:19	122009A-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	20-DEC-09 12:19	122009A-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	20-DEC-09 12:19	122009A-1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10–918

Contract: LANL01004 **Lab Code: GEL**

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	20–DEC–09 12:19	122009A–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	20–DEC–09 12:19	122009A–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	20–DEC–09 12:19	122009A–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	20–DEC–09 12:19	122009A–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	20–DEC–09 12:19	122009A–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	20–DEC–09 12:19	122009A–1
	Silicon	15.0	+/–100	U	15.0	100	SOL	P	20–DEC–09 12:19	122009A–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	20–DEC–09 12:19	122009A–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	20–DEC–09 12:19	122009A–1
	Titanium	1.0	+/–5	U	1.0	5.0	SOL	P	20–DEC–09 12:19	122009A–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	20–DEC–09 12:19	122009A–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	20–DEC–09 12:19	122009A–1
	Arsenic	1.0	+/–5	U	1.0	5.0	SOL	MS	30–DEC–09 02:01	091229–3
	Beryllium	0.1	+/–.5	U	0.1	0.5	SOL	MS	30–DEC–09 02:01	091229–3
	Lithium	2.0	+/–10	U	2.0	10.0	SOL	MS	30–DEC–09 02:01	091229–3
	Nickel	0.5	+/–2	U	0.5	2.0	SOL	MS	30–DEC–09 02:01	091229–3
	Selenium	2.5	+/–5	U	2.5	5.0	SOL	MS	30–DEC–09 02:01	091229–3
	Thallium	0.3	+/–1	U	0.3	1.0	SOL	MS	30–DEC–09 11:38	091230–4
CCB05										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	20–DEC–09 12:53	122009A–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	20–DEC–09 12:53	122009A–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	20–DEC–09 12:53	122009A–1
	Boron	10.0	+/–50	U	10.0	50.0	SOL	P	20–DEC–09 12:53	122009A–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	20–DEC–09 12:53	122009A–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	20–DEC–09 12:53	122009A–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	20–DEC–09 12:53	122009A–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	20–DEC–09 12:53	122009A–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	20–DEC–09 12:53	122009A–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	20–DEC–09 12:53	122009A–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	20–DEC–09 12:53	122009A–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	20–DEC–09 12:53	122009A–1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10-918

Contract: LANL01004 **Lab Code: GEL**

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	20-DEC-09 12:53	122009A-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	20-DEC-09 12:53	122009A-1
	Silicon	15.0	+/-100	U	15.0	100	SOL	P	20-DEC-09 12:53	122009A-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	20-DEC-09 12:53	122009A-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	20-DEC-09 12:53	122009A-1
	Titanium	1.0	+/-5	U	1.0	5.0	SOL	P	20-DEC-09 12:53	122009A-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	20-DEC-09 12:53	122009A-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	20-DEC-09 12:53	122009A-1
CCB06										
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	20-DEC-09 13:55	122009A-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	20-DEC-09 13:55	122009A-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	20-DEC-09 13:55	122009A-1
	Boron	10.0	+/-50	U	10.0	50.0	SOL	P	20-DEC-09 13:55	122009A-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	20-DEC-09 13:55	122009A-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	20-DEC-09 13:55	122009A-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	20-DEC-09 13:55	122009A-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	20-DEC-09 13:55	122009A-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	20-DEC-09 13:55	122009A-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	20-DEC-09 13:55	122009A-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	20-DEC-09 13:55	122009A-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	20-DEC-09 13:55	122009A-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	20-DEC-09 13:55	122009A-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	20-DEC-09 13:55	122009A-1
	Silicon	15.0	+/-100	U	15.0	100	SOL	P	20-DEC-09 13:55	122009A-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	20-DEC-09 13:55	122009A-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	20-DEC-09 13:55	122009A-1
	Titanium	1.0	+/-5	U	1.0	5.0	SOL	P	20-DEC-09 13:55	122009A-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	20-DEC-09 13:55	122009A-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	20-DEC-09 13:55	122009A-1
CCB07										
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	20-DEC-09 15:04	122009A-1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10–918

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	20–DEC–09 15:04	122009A–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	20–DEC–09 15:04	122009A–1
	Boron	–11.4	+/–50	J	10.0	50.0	SOL	P	20–DEC–09 15:04	122009A–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	20–DEC–09 15:04	122009A–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	20–DEC–09 15:04	122009A–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	20–DEC–09 15:04	122009A–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	20–DEC–09 15:04	122009A–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	20–DEC–09 15:04	122009A–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	20–DEC–09 15:04	122009A–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	20–DEC–09 15:04	122009A–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	20–DEC–09 15:04	122009A–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	20–DEC–09 15:04	122009A–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	20–DEC–09 15:04	122009A–1
	Silicon	15.0	+/–100	U	15.0	100	SOL	P	20–DEC–09 15:04	122009A–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	20–DEC–09 15:04	122009A–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	20–DEC–09 15:04	122009A–1
	Titanium	1.0	+/–5	U	1.0	5.0	SOL	P	20–DEC–09 15:04	122009A–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	20–DEC–09 15:04	122009A–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	20–DEC–09 15:04	122009A–1
CCB08										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	20–DEC–09 16:14	122009A–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	20–DEC–09 16:14	122009A–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	20–DEC–09 16:14	122009A–1
	Boron	–14.94	+/–50	J	10.0	50.0	SOL	P	20–DEC–09 16:14	122009A–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	20–DEC–09 16:14	122009A–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	20–DEC–09 16:14	122009A–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	20–DEC–09 16:14	122009A–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	20–DEC–09 16:14	122009A–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	20–DEC–09 16:14	122009A–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	20–DEC–09 16:14	122009A–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	20–DEC–09 16:14	122009A–1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10–918

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	20–DEC–09 16:14	122009A–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	20–DEC–09 16:14	122009A–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	20–DEC–09 16:14	122009A–1
	Silicon	15.0	+/–100	U	15.0	100	SOL	P	20–DEC–09 16:14	122009A–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	20–DEC–09 16:14	122009A–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	20–DEC–09 16:14	122009A–1
	Titanium	1.0	+/–5	U	1.0	5.0	SOL	P	20–DEC–09 16:14	122009A–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	20–DEC–09 16:14	122009A–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	20–DEC–09 16:14	122009A–1
CCB09										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	20–DEC–09 17:23	122009A–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	20–DEC–09 17:23	122009A–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	20–DEC–09 17:23	122009A–1
	Boron	–15.01	+/–50	J	10.0	50.0	SOL	P	20–DEC–09 17:23	122009A–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	20–DEC–09 17:23	122009A–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	20–DEC–09 17:23	122009A–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	20–DEC–09 17:23	122009A–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	20–DEC–09 17:23	122009A–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	20–DEC–09 17:23	122009A–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	20–DEC–09 17:23	122009A–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	20–DEC–09 17:23	122009A–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	20–DEC–09 17:23	122009A–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	20–DEC–09 17:23	122009A–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	20–DEC–09 17:23	122009A–1
	Silicon	15.0	+/–100	U	15.0	100	SOL	P	20–DEC–09 17:23	122009A–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	20–DEC–09 17:23	122009A–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	20–DEC–09 17:23	122009A–1
	Titanium	1.0	+/–5	U	1.0	5.0	SOL	P	20–DEC–09 17:23	122009A–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	20–DEC–09 17:23	122009A–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	20–DEC–09 17:23	122009A–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–918

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
CCB10										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	20–DEC–09 18:31	122009A–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	20–DEC–09 18:31	122009A–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	20–DEC–09 18:31	122009A–1
	Boron	–17.28	+/–50	J	10.0	50.0	SOL	P	20–DEC–09 18:31	122009A–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	20–DEC–09 18:31	122009A–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	20–DEC–09 18:31	122009A–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	20–DEC–09 18:31	122009A–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	20–DEC–09 18:31	122009A–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	20–DEC–09 18:31	122009A–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	20–DEC–09 18:31	122009A–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	20–DEC–09 18:31	122009A–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	20–DEC–09 18:31	122009A–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	20–DEC–09 18:31	122009A–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	20–DEC–09 18:31	122009A–1
	Silicon	15.0	+/–100	U	15.0	100	SOL	P	20–DEC–09 18:31	122009A–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	20–DEC–09 18:31	122009A–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	20–DEC–09 18:31	122009A–1
	Titanium	1.0	+/–5	U	1.0	5.0	SOL	P	20–DEC–09 18:31	122009A–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	20–DEC–09 18:31	122009A–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	20–DEC–09 18:31	122009A–1
CCB11										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	20–DEC–09 19:47	122009A–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	20–DEC–09 19:47	122009A–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	20–DEC–09 19:47	122009A–1
	Boron	–18.77	+/–50	J	10.0	50.0	SOL	P	20–DEC–09 19:47	122009A–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	20–DEC–09 19:47	122009A–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	20–DEC–09 19:47	122009A–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	20–DEC–09 19:47	122009A–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	20–DEC–09 19:47	122009A–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	20–DEC–09 19:47	122009A–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	20–DEC–09 19:47	122009A–1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10–918

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	20–DEC–09 19:47	122009A–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	20–DEC–09 19:47	122009A–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	20–DEC–09 19:47	122009A–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	20–DEC–09 19:47	122009A–1
	Silicon	15.0	+/–100	U	15.0	100	SOL	P	20–DEC–09 19:47	122009A–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	20–DEC–09 19:47	122009A–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	20–DEC–09 19:47	122009A–1
	Titanium	1.0	+/–5	U	1.0	5.0	SOL	P	20–DEC–09 19:47	122009A–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	20–DEC–09 19:47	122009A–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	20–DEC–09 19:47	122009A–1
CCB12										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	20–DEC–09 20:34	122009A–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	20–DEC–09 20:34	122009A–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	20–DEC–09 20:34	122009A–1
	Boron	–18.96	+/–50	J	10.0	50.0	SOL	P	20–DEC–09 20:34	122009A–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	20–DEC–09 20:34	122009A–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	20–DEC–09 20:34	122009A–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	20–DEC–09 20:34	122009A–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	20–DEC–09 20:34	122009A–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	20–DEC–09 20:34	122009A–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	20–DEC–09 20:34	122009A–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	20–DEC–09 20:34	122009A–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	20–DEC–09 20:34	122009A–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	20–DEC–09 20:34	122009A–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	20–DEC–09 20:34	122009A–1
	Silicon	15.0	+/–100	U	15.0	100	SOL	P	20–DEC–09 20:34	122009A–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	20–DEC–09 20:34	122009A–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	20–DEC–09 20:34	122009A–1
	Titanium	1.0	+/–5	U	1.0	5.0	SOL	P	20–DEC–09 20:34	122009A–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	20–DEC–09 20:34	122009A–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	20–DEC–09 20:34	122009A–1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10–918

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
CCB13										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	20–DEC–09 21:36	122009A–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	20–DEC–09 21:36	122009A–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	20–DEC–09 21:36	122009A–1
	Boron	–18.3	+/–50	J	10.0	50.0	SOL	P	20–DEC–09 21:36	122009A–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	20–DEC–09 21:36	122009A–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	20–DEC–09 21:36	122009A–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	20–DEC–09 21:36	122009A–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	20–DEC–09 21:36	122009A–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	20–DEC–09 21:36	122009A–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	20–DEC–09 21:36	122009A–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	20–DEC–09 21:36	122009A–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	20–DEC–09 21:36	122009A–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	20–DEC–09 21:36	122009A–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	20–DEC–09 21:36	122009A–1
	Silicon	15.0	+/–100	U	15.0	100	SOL	P	20–DEC–09 21:36	122009A–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	20–DEC–09 21:36	122009A–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	20–DEC–09 21:36	122009A–1
	Titanium	1.0	+/–5	U	1.0	5.0	SOL	P	20–DEC–09 21:36	122009A–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	20–DEC–09 21:36	122009A–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	20–DEC–09 21:36	122009A–1
CCB14										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	20–DEC–09 22:38	122009A–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	20–DEC–09 22:38	122009A–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	20–DEC–09 22:38	122009A–1
	Boron	–18.65	+/–50	J	10.0	50.0	SOL	P	20–DEC–09 22:38	122009A–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	20–DEC–09 22:38	122009A–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	20–DEC–09 22:38	122009A–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	20–DEC–09 22:38	122009A–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	20–DEC–09 22:38	122009A–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	20–DEC–09 22:38	122009A–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	20–DEC–09 22:38	122009A–1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10-918

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	20-DEC-09 22:38	122009A-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	20-DEC-09 22:38	122009A-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	20-DEC-09 22:38	122009A-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	20-DEC-09 22:38	122009A-1
	Silicon	15.0	+/-100	U	15.0	100	SOL	P	20-DEC-09 22:38	122009A-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	20-DEC-09 22:38	122009A-1
	Sodium	-84.93	+/-250	J	70.0	250	SOL	P	20-DEC-09 22:38	122009A-1
	Titanium	1.0	+/-5	U	1.0	5.0	SOL	P	20-DEC-09 22:38	122009A-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	20-DEC-09 22:38	122009A-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	20-DEC-09 22:38	122009A-1
CCB15										
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	20-DEC-09 23:39	122009A-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	20-DEC-09 23:39	122009A-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	20-DEC-09 23:39	122009A-1
	Boron	-17.5	+/-50	J	10.0	50.0	SOL	P	20-DEC-09 23:39	122009A-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	20-DEC-09 23:39	122009A-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	20-DEC-09 23:39	122009A-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	20-DEC-09 23:39	122009A-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	20-DEC-09 23:39	122009A-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	20-DEC-09 23:39	122009A-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	20-DEC-09 23:39	122009A-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	20-DEC-09 23:39	122009A-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	20-DEC-09 23:39	122009A-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	20-DEC-09 23:39	122009A-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	20-DEC-09 23:39	122009A-1
	Silicon	15.0	+/-100	U	15.0	100	SOL	P	20-DEC-09 23:39	122009A-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	20-DEC-09 23:39	122009A-1
	Sodium	-99.55	+/-250	J	70.0	250	SOL	P	20-DEC-09 23:39	122009A-1
	Titanium	1.0	+/-5	U	1.0	5.0	SOL	P	20-DEC-09 23:39	122009A-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	20-DEC-09 23:39	122009A-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	20-DEC-09 23:39	122009A-1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10-918

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
CCB16										
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	21-DEC-09 00:49	122009A-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	21-DEC-09 00:49	122009A-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	21-DEC-09 00:49	122009A-1
	Boron	-17.71	+/-50	J	10.0	50.0	SOL	P	21-DEC-09 00:49	122009A-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	21-DEC-09 00:49	122009A-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	21-DEC-09 00:49	122009A-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	21-DEC-09 00:49	122009A-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	21-DEC-09 00:49	122009A-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	21-DEC-09 00:49	122009A-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	21-DEC-09 00:49	122009A-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	21-DEC-09 00:49	122009A-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	21-DEC-09 00:49	122009A-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	21-DEC-09 00:49	122009A-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	21-DEC-09 00:49	122009A-1
	Silicon	15.0	+/-100	U	15.0	100	SOL	P	21-DEC-09 00:49	122009A-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	21-DEC-09 00:49	122009A-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	21-DEC-09 00:49	122009A-1
	Titanium	1.0	+/-5	U	1.0	5.0	SOL	P	21-DEC-09 00:49	122009A-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	21-DEC-09 00:49	122009A-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	21-DEC-09 00:49	122009A-1

METALS
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PREPARATION BLANK SUMMARY

SDG NO. 10–918

Contract: LANL01004

Matrix: SOIL

Sample ID	Analyte	Result	Units	Acceptance Window	Conc Qual	M	MDL	RDL
1201998448								
	Arsenic	0.195	mg/kg	+/–0.975	U	MS	0.195	0.975
	Beryllium	0.0195	mg/kg	+/–0.0975	U	MS	0.0195	0.0975
	Lithium	0.39	mg/kg	+/–1.95	U	MS	0.39	1.95
	Nickel	0.0975	mg/kg	+/–0.39	U	MS	0.0975	0.39
	Uranium	0.0129	mg/kg	+/–0.039	U	MS	0.0129	0.039
	Thallium	0.0585	mg/kg	+/–0.195	U	MS	0.0585	0.195
	Selenium	0.487	mg/kg	+/–0.975	U	MS	0.487	0.975
1201998454								
	Barium	93.3	ug/Kg	+/–466	U	P	93.3	466
	Boron	–1750	ug/Kg	+/–4660	J	P	933	4660
	Cadmium	93.3	ug/Kg	+/–466	U	P	93.3	466
	Calcium	7460	ug/Kg	+/–23300	U	P	7460	23300
	Chromium	140	ug/Kg	+/–466	U	P	140	466
	Cobalt	140	ug/Kg	+/–466	U	P	140	466
	Copper	280	ug/Kg	+/–933	U	P	280	933
	Iron	7460	ug/Kg	+/–23300	U	P	7460	23300
	Lead	233	ug/Kg	+/–933	U	P	233	933
	Magnesium	7930	ug/Kg	+/–28000	U	P	7930	28000
	Manganese	187	ug/Kg	+/–933	U	P	187	933
	Potassium	5970	ug/Kg	+/–23300	U	P	5970	23300
	Silicon	1840	ug/Kg	+/–9330	J	P	1400	9330
	Silver	93.3	ug/Kg	+/–466	U	P	93.3	466
	Sodium	6530	ug/Kg	+/–23300	U	P	6530	23300
	Titanium	93.3	ug/Kg	+/–466	U	P	93.3	466
	Vanadium	93.3	ug/Kg	+/–466	U	P	93.3	466
	Antimony	308	ug/Kg	+/–933	U	P	308	933
	Aluminum	6340	ug/Kg	+/–18700	U	P	6340	18700
	Zinc	308	ug/Kg	+/–933	U	P	308	933
1202000228								
	Mercury	10.3	ug/kg	+/–11	J	AV	3.75	11

METALS
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Interference Check Sample

SDG No: 10–918

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Aluminum	511000	ug/L	500000	ug/L	102	80.0 – 120.0	20–DEC–09 09:20	122009A–1
	Antimony	3.53	ug/L					20–DEC–09 09:20	122009A–1
	Barium	–0.302	ug/L					20–DEC–09 09:20	122009A–1
	Boron	–15.1	ug/L					20–DEC–09 09:20	122009A–1
	Cadmium	–1.1	ug/L					20–DEC–09 09:20	122009A–1
	Calcium	474000	ug/L	500000	ug/L	94.9	80.0 – 120.0	20–DEC–09 09:20	122009A–1
	Chromium	1.1	ug/L					20–DEC–09 09:20	122009A–1
	Cobalt	–1.37	ug/L					20–DEC–09 09:20	122009A–1
	Copper	1.51	ug/L					20–DEC–09 09:20	122009A–1
	Iron	188000	ug/L	200000	ug/L	93.8	80.0 – 120.0	20–DEC–09 09:20	122009A–1
	Lead	–6.82	ug/L					20–DEC–09 09:20	122009A–1
	Magnesium	490000	ug/L	500000	ug/L	98.1	80.0 – 120.0	20–DEC–09 09:20	122009A–1
	Manganese	9.65	ug/L					20–DEC–09 09:20	122009A–1
	Potassium	–9.18	ug/L					20–DEC–09 09:20	122009A–1
	Silicon	–2.86	ug/L					20–DEC–09 09:20	122009A–1
	Silver	1.82	ug/L					20–DEC–09 09:20	122009A–1
	Sodium	5.55	ug/L					20–DEC–09 09:20	122009A–1
	Titanium	0.524	ug/L					20–DEC–09 09:20	122009A–1
	Vanadium	–1.5	ug/L					20–DEC–09 09:20	122009A–1
	Zinc	–0.254	ug/L					20–DEC–09 09:20	122009A–1
ICSAB01									
	Aluminum	508000	ug/L	500000	ug/L	102	80.0 – 120.0	20–DEC–09 09:26	122009A–1
	Antimony	527	ug/L	500	ug/L	105	80.0 – 120.0	20–DEC–09 09:26	122009A–1
	Barium	493	ug/L	500	ug/L	98.6	80.0 – 120.0	20–DEC–09 09:26	122009A–1
	Boron	511	ug/L	500	ug/L	102	80.0 – 120.0	20–DEC–09 09:26	122009A–1
	Cadmium	467	ug/L	500	ug/L	93.5	80.0 – 120.0	20–DEC–09 09:26	122009A–1
	Calcium	472000	ug/L	500000	ug/L	94.3	80.0 – 120.0	20–DEC–09 09:26	122009A–1
	Chromium	477	ug/L	500	ug/L	95.5	80.0 – 120.0	20–DEC–09 09:26	122009A–1
	Cobalt	448	ug/L	500	ug/L	89.6	80.0 – 120.0	20–DEC–09 09:26	122009A–1

METALS
-4-
Interference Check Sample

SDG No: 10-918

Contract: LANL01004 **Lab Code:** GEL

ICS:

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
	Copper	552	ug/L	500	ug/L	110	80.0 – 120.0	20-DEC-09 09:26	122009A-1
	Iron	188000	ug/L	200000	ug/L	94.1	80.0 – 120.0	20-DEC-09 09:26	122009A-1
	Lead	454	ug/L	500	ug/L	90.9	80.0 – 120.0	20-DEC-09 09:26	122009A-1
	Magnesium	489000	ug/L	500000	ug/L	97.8	80.0 – 120.0	20-DEC-09 09:26	122009A-1
	Manganese	491	ug/L	500	ug/L	98.3	80.0 – 120.0	20-DEC-09 09:26	122009A-1
	Potassium	5500	ug/L	5000	ug/L	110	80.0 – 120.0	20-DEC-09 09:26	122009A-1
	Silicon	5220	ug/L	5000	ug/L	104	80.0 – 120.0	20-DEC-09 09:26	122009A-1
	Silver	275	ug/L	250	ug/L	110	80.0 – 120.0	20-DEC-09 09:26	122009A-1
	Sodium	5440	ug/L	5000	ug/L	109	80.0 – 120.0	20-DEC-09 09:26	122009A-1
	Titanium	507	ug/L	500	ug/L	101	80.0 – 120.0	20-DEC-09 09:26	122009A-1
	Vanadium	510	ug/L	500	ug/L	102	80.0 – 120.0	20-DEC-09 09:26	122009A-1
	Zinc	485	ug/L	500	ug/L	97.1	80.0 – 120.0	20-DEC-09 09:26	122009A-1

METALS
–4–
Interference Check Sample

SDG No: 10–918

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: ICPMS4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Uranium	–0.007	ug/L					30–DEC–09 12:43	091230–2
ICSAB01									
	Uranium	20.8	ug/L	20	ug/L	104	80.0 – 120.0	30–DEC–09 12:45	091230–2

METALS
-4-
Interference Check Sample

SDG No: 10-918

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: ICPMS5

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Arsenic	-0.177	ug/L					29-DEC-09 23:21	091229-3
	Beryllium	0.06	ug/L					29-DEC-09 23:21	091229-3
	Lithium	0.121	ug/L					29-DEC-09 23:21	091229-3
	Nickel	2.98	ug/L					29-DEC-09 23:21	091229-3
	Selenium	-0.976	ug/L					29-DEC-09 23:21	091229-3
ICSAB01									
	Arsenic	20.3	ug/L	20	ug/L	102	80.0 - 120.0	29-DEC-09 23:27	091229-3
	Beryllium	19.2	ug/L	20	ug/L	96.2	80.0 - 120.0	29-DEC-09 23:27	091229-3
	Lithium	20.6	ug/L	20	ug/L	103	80.0 - 120.0	29-DEC-09 23:27	091229-3
	Nickel	22.1	ug/L	22.7	ug/L	97.2	80.0 - 120.0	29-DEC-09 23:27	091229-3
	Selenium	19.1	ug/L	20	ug/L	95.5	80.0 - 120.0	29-DEC-09 23:27	091229-3

METALS
–4–
Interference Check Sample

SDG No: 10–918

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: ICPMS5

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Thallium	–0.038	ug/L					30–DEC–09 10:10	091230–4
ICSAB01									
	Thallium	22.7	ug/L	20	ug/L	114	80.0 – 120.0	30–DEC–09 10:13	091230–4

METALS
-5a-
Matrix Spike Summary

SDG NO. 10-918 **Client ID** RE03-09-14213S

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 87

Sample ID: 242938001 **Spike ID:** 1201998451

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Arsenic	mg/kg	75-125	10.1		2.21		8.84	89.4		MS
Beryllium	mg/kg	75-125	6.19		0.86		5.53	96.5		MS
Lithium	mg/kg	75-125	23.4		15.8		5.53	137	N	MS
Nickel	mg/kg	75-125	13.9		8.87		5.53	91.7		MS
Selenium	mg/kg	75-125	1.46		0.554	U	2.21	65.9	N	MS
Thallium	mg/kg	75-125	12.4		0.277		11.1	110		MS
Uranium	mg/kg	75-125	6.71		0.879		5.53	106		MS

METALS
–5a–
Matrix Spike Duplicate Summary

SDG NO. 10–918 **Client ID** RE03–09–14213SD

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 87

Sample ID: 242938001 **Spike ID:** 1201998453

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Arsenic	mg/kg	75–125	10.7		2.21		8.93	95.1		MS
Beryllium	mg/kg	75–125	6.59		0.86		5.58	103		MS
Lithium	mg/kg	75–125	25		15.8		5.58	165	N	MS
Nickel	mg/kg	75–125	15.3		8.87		5.58	115		MS
Selenium	mg/kg	75–125	1.56		0.554	U	2.23	69.9	N	MS
Thallium	mg/kg	75–125	13.2		0.277		11.2	115		MS
Uranium	mg/kg	75–125	7.06		0.879		5.58	111		MS

METALS
–5a–

Matrix Spike Summary

SDG NO. 10–918 **Client ID** RE03–09–14213S

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 87

Sample ID: 242938001 **Spike ID:** 1201998457

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Boron	ug/Kg	75–125	52800		1110	U	55900	94.4		P
Cadmium	ug/Kg	75–125	54500		111	U	55900	97.5		P
Calcium	ug/Kg	75–125	2740000		1990000		559000	133	N	P
Chromium	ug/Kg	75–125	71500		12600		55900	105		P
Cobalt	ug/Kg	75–125	60000		5750		55900	97.1		P
Copper	ug/Kg	75–125	67300		7490		55900	107		P
Aluminum	ug/Kg		18900000		11600000		559000	1300	N/A	P
Antimony	ug/Kg	75–125	51700		368	U	55900	92.2		P
Barium	ug/Kg	75–125	246000		162000		55900	151	N	P
Iron	ug/Kg		17200000		14800000		559000	435	N/A	P
Lead	ug/Kg	75–125	68500		13300		55900	98.8		P
Magnesium	ug/Kg		3610000		2420000		559000	213	N/A	P
Manganese	ug/Kg		387000		319000		55900	123	N/A	P
Potassium	ug/Kg	75–125	2170000		1230000		559000	167	N	P
Silicon	ug/Kg	75–125	1340000		1250000		559000	16.2	N	P
Silver	ug/Kg	75–125	57800		575		55900	102		P
Sodium	ug/Kg	75–125	684000		124000		559000	100		P
Titanium	ug/Kg		635000		516000		55900	213	N/A	P
Vanadium	ug/Kg	75–125	87400		28000		55900	106		P
Zinc	ug/Kg	75–125	91300		30800		55900	108		P

METALS
–5a–

Matrix Spike Duplicate Summary

SDG NO. 10–918 **Client ID** RE03–09–14213SD

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 87

Sample ID: 242938001 **Spike ID:** 1201998459

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Magnesium	ug/Kg		3590000		2420000		554000	212	N/A	P
Manganese	ug/Kg		407000		319000		55400	159	N/A	P
Potassium	ug/Kg	75–125	2140000		1230000		554000	163	N	P
Silicon	ug/Kg	75–125	1160000		1250000		554000	–16.1	N	P
Silver	ug/Kg	75–125	57300		575		55400	102		P
Sodium	ug/Kg	75–125	691000		124000		554000	102		P
Titanium	ug/Kg		631000		516000		55400	207	N/A	P
Vanadium	ug/Kg	75–125	86600		28000		55400	106		P
Zinc	ug/Kg	75–125	90600		30800		55400	108		P
Aluminum	ug/Kg		18600000		11600000		554000	1260	N/A	P
Antimony	ug/Kg	75–125	51300		368	U	55400	92.2		P
Barium	ug/Kg	75–125	227000		162000		55400	118		P
Boron	ug/Kg	75–125	52800		1110	U	55400	95.3		P
Cadmium	ug/Kg	75–125	54100		111	U	55400	97.8		P
Calcium	ug/Kg	75–125	2670000		1990000		554000	123		P
Chromium	ug/Kg	75–125	74500		12600		55400	112		P
Cobalt	ug/Kg	75–125	57800		5750		55400	94		P
Copper	ug/Kg	75–125	66800		7490		55400	107		P
Iron	ug/Kg		17100000		14800000		554000	427	N/A	P
Lead	ug/Kg	75–125	67200		13300		55400	97.4		P

METALS
–5a–

Matrix Spike Summary

SDG NO. 10–918 **Client ID** RE03–09–14221S

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 85

Sample ID: 243042001 **Spike ID:** 1202000231

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Mercury	ug/kg	75–125	244		53.4		125	153	N	AV

METALS
–5a–
Matrix Spike Duplicate Summary

SDG NO. 10–918 **Client ID** RE03–09–14221SD

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 85

Sample ID: 243042001 **Spike ID:** 1202000233

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Mercury	ug/kg	75–125	207		53.4		122	127	N	AV

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–918

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE03–09–14213D

Sample ID: 242938001 **Duplicate ID:** 1201998450 **Percent Solids for Dup:** 87

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Arsenic	mg/kg	+/–1.13	2.21		2.46		10.9		MS
Beryllium	mg/kg	+/–20%	0.86		0.887		3.08		MS
Lithium	mg/kg	+/–20%	15.8		16		1.79		MS
Nickel	mg/kg	+/–20%	8.87		9.5		6.81		MS
Selenium	mg/kg		0.554	U	0.563	U			MS
Thallium	mg/kg	+/–.225	0.277		0.256		7.96		MS
Uranium	mg/kg	+/–20%	0.879		0.983		11.2		MS

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–918

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE03–09–14213SD

Sample ID: 1201998451 **Duplicate ID:** 1201998453 **Percent Solids for Dup:** 87

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Arsenic	mg/kg	+/–20	10.1		10.7		5.59		MS
Beryllium	mg/kg	+/–20	6.19		6.59		6.28		MS
Lithium	mg/kg	+/–20	23.4		25		6.73		MS
Nickel	mg/kg	+/–20	13.9		15.3		9.15		MS
Selenium	mg/kg	+/–20	1.46		1.56		6.96		MS
Thallium	mg/kg	+/–20	12.4		13.2		5.73		MS
Uranium	mg/kg	+/–20	6.71		7.06		5.1		MS

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–918

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE03–09–14213D

Sample ID: 242938001 **Duplicate ID:** 1201998456 **Percent Solids for Dup:** 87

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	ug/Kg	+/–20%	11600000		12200000		4.62		P
Antimony	ug/Kg		368	U	362	U			P
Barium	ug/Kg	+/–20%	162000		166000		2.67		P
Boron	ug/Kg		1110	U	1100	U			P
Cadmium	ug/Kg		111	U	110	U			P
Calcium	ug/Kg	+/–20%	1990000		2090000		4.89		P
Chromium	ug/Kg	+/–20%	12600		14500		13.9		P
Cobalt	ug/Kg	+/–20%	5750		6700		15.3		P
Copper	ug/Kg	+/–20%	7490		8220		9.22		P
Iron	ug/Kg	+/–20%	14800000		15700000		6.06		P
Lead	ug/Kg	+/–20%	13300		13900		4.72		P
Magnesium	ug/Kg	+/–20%	2420000		2530000		4.35		P
Manganese	ug/Kg	+/–20%	319000		379000		17.4		P
Potassium	ug/Kg	+/–20%	1230000		1270000		3.42		P
Silicon	ug/Kg	+/–20%	1250000		1350000		7.64		P
Silver	ug/Kg	+/–548	575		511	J	11.8		P
Sodium	ug/Kg	+/–27400	124000		128000		3.85		P
Titanium	ug/Kg	+/–20%	516000		587000		12.8		P
Vanadium	ug/Kg	+/–20%	28000		30100		7.41		P
Zinc	ug/Kg	+/–20%	30800		34600		11.7		P

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–918

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE03–09–14213SD

Sample ID: 1201998457 **Duplicate ID:** 1201998459 **Percent Solids for Dup:** 87

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	ug/Kg	+/–20	18900000		18600000		1.37		P
Antimony	ug/Kg	+/–20	51700		51300		.933		P
Barium	ug/Kg	+/–20	246000		227000		8.07		P
Boron	ug/Kg	+/–20	52800		52800		.0391		P
Cadmium	ug/Kg	+/–20	54500		54100		.648		P
Calcium	ug/Kg	+/–20	2740000		2670000		2.25		P
Chromium	ug/Kg	+/–20	71500		74500		4.16		P
Cobalt	ug/Kg	+/–20	60000		57800		3.77		P
Copper	ug/Kg	+/–20	67300		66800		.855		P
Iron	ug/Kg	+/–20	17200000		17100000		.413		P
Lead	ug/Kg	+/–20	68500		67200		1.9		P
Magnesium	ug/Kg	+/–20	3610000		3590000		.469		P
Manganese	ug/Kg	+/–20	387000		407000		4.91		P
Potassium	ug/Kg	+/–20	2170000		2140000		1.34		P
Silicon	ug/Kg	+/–20	1340000		1160000		14.4		P
Silver	ug/Kg	+/–20	57800		57300		.92		P
Sodium	ug/Kg	+/–20	684000		691000		.982		P
Titanium	ug/Kg	+/–20	635000		631000		.74		P
Vanadium	ug/Kg	+/–20	87400		86600		.88		P
Zinc	ug/Kg	+/–20	91300		90600		.819		P

Metals
-6-
Duplicate Sample Summary

SDG No.: 10-918

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE03-09-14221D

Sample ID: 243042001 **Duplicate ID:** 1202000230 **Percent Solids for Dup:** 85

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Mercury	ug/kg	+/-13.8	53.4		62.4		15.6		AV

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–918

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE03–09–14221SD

Sample ID: 1202000231 **Duplicate ID:** 1202000233 **Percent Solids for Dup:** 85

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Mercury	ug/kg	+/–20	244		207		16.4		AV

METALS
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Laboratory Control Sample Summary

SDG NO. 10-918

Contract: LANL01004

Aqueous LCS Source: **Solid LCS Source:** ERA

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1201998449								
	Arsenic	mg/kg	104	110		105	83-120	MS
	Beryllium	mg/kg	77.6	81.5		105	81.2-126.8	MS
	Lithium	mg/kg	10.6	11	J	103	66.7-133.7	MS
	Nickel	mg/kg	134	144		107	83.3-121.4	MS
	Selenium	mg/kg	286	302		106	80.2-125.9	MS
	Thallium	mg/kg	121	139		115	78-123.2	MS
	Uranium	mg/kg	2.13	2.1		98.7	61.9-130.7	MS

METALS
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Laboratory Control Sample Summary

SDG NO. 10–918

Contract: LANL01004

Aqueous LCS Source: **Solid LCS Source:** ERA

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1201998455								
	Antimony	ug/Kg	173000	172000		99.1	71–130	P
	Aluminum	ug/Kg	10500000	8060000		76.8	56–144	P
	Barium	ug/Kg	198000	172000		86.7	80–120	P
	Boron	ug/Kg	141000	137000		97.2	75–125	P
	Cadmium	ug/Kg	60700	54300		89.4	81–120	P
	Calcium	ug/Kg	9870000	9100000		92.2	83–117	P
	Chromium	ug/Kg	236000	224000		94.8	80–120	P
	Cobalt	ug/Kg	91200	83400		91.4	81–120	P
	Copper	ug/Kg	174000	175000		100	81–118	P
	Iron	ug/Kg	18000000	17100000		94.8	51–149	P
	Lead	ug/Kg	86000	74700		86.9	79–121	P
	Magnesium	ug/Kg	4000000	3570000		89.3	79–122	P
	Manganese	ug/Kg	558000	484000		86.8	81–119	P
	Potassium	ug/Kg	4300000	3840000		89.2	74–127	P
	Silicon	ug/Kg	1210000	960000		79.3	10–190	P
	Silver	ug/Kg	30100	29400		97.6	66–134	P
	Sodium	ug/Kg	1020000	936000		91.8	74–127	P
	Titanium	ug/Kg	462000	525000		114	39–161	P
	Vanadium	ug/Kg	115000	113000		98.5	79–121	P
	Zinc	ug/Kg	594000	540000		91	80–121	P

METALS
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Laboratory Control Sample Summary

SDG NO. 10-918

Contract: LANL01004

Aqueous LCS Source: **Solid LCS Source:** ERA

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202000229								
	Mercury	ug/kg	5150	5260		102	71.6-128.3	AV

METALS
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Serial Dilution Sample Summary

SDG NO. 10–918 **Client ID:** RE03–09–14213L

Contract: LANL01004

Matrix: SOLID **Level:** Low

Sample ID: 242938001 **Serial Dilution ID:** 1201998452

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Arsenic	9.97		10.4	J	4.31			MS
Beryllium	3.88		4.33		11.6			MS
Lithium	71.2		74.5		4.63			MS
Nickel	40.1		43.1		7.36			MS
Selenium	2.5	U	12.5	U				MS
Thallium	1.25		1.5	U	100			MS
Uranium	3.97		4		.63			MS

METALS
–9–
Serial Dilution Sample Summary

SDG NO. 10–918 **Client ID** RE03–09–14213L

Contract: LANL01004

Matrix: SOLID **Level:** Low

Sample ID: 242938001 **Serial Dilution ID:** 1201998458

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Aluminum	104000		106000		1.92		10	P
Antimony	3.3	U	16.5	U				P
Barium	1450		1520		4.83		10	P
Boron	10	U	50	U				P
Cadmium	1	U	5	U				P
Calcium	17900		18500		3.35		10	P
Chromium	113		117		3.54		10	P
Cobalt	51.7		55		6.38			P
Copper	67.3		65		3.42			P
Iron	133000		136000		2.26		10	P
Lead	119		127		6.3			P
Magnesium	21700		22600		3.92		10	P
Manganese	2860		3050		6.64		10	P
Potassium	11100		11200		.901		10	P
Silicon	11200		11500		2.68		10	P
Silver	5.16		5	U	100			P
Sodium	1110		780	J	29.7			P
Titanium	4630		4810		3.89		10	P
Vanadium	251		255		1.59		10	P
Zinc	276		280		1.45		10	P

METALS
–9–
Serial Dilution Sample Summary

SDG NO. 10–918 **Client ID** RE03–09–14221L

Contract: LANL01004

Matrix: SOLID **Level:** Low

Sample ID: 243042001 **Serial Dilution ID:** 1202000232

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Mercury	.766		.34	U	100			AV

METALS
-13-
SAMPLE PREPARATION SUMMARY

SDG No: 10-918 **Method Type:** P

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number 934059							
1201998454	MB for batch 934059	MB	S	19-DEC-09	.536g	50mL	
1201998455	LCS for batch 934059	LCS	S	19-DEC-09	.513g	50mL	
1201998457	RE03-09-14213S	MS	S	19-DEC-09	.513g	50mL	
1201998459	RE03-09-14213SD	MSD	S	19-DEC-09	.518g	50mL	
1201998456	RE03-09-14213D	DUP	S	19-DEC-09	.523g	50mL	
242938001	RE03-09-14213	SAMPLE	S	19-DEC-09	.515g	50mL	
242938002	RE03-09-14215	SAMPLE	S	19-DEC-09	.522g	50mL	
242938003	RE03-09-14212	SAMPLE	S	19-DEC-09	.503g	50mL	
242938004	RE03-09-14219	SAMPLE	S	19-DEC-09	.511g	50mL	
242938005	RE03-09-14218	SAMPLE	S	19-DEC-09	.505g	50mL	
242938006	RE03-09-14216	SAMPLE	S	19-DEC-09	.522g	50mL	
242938007	RE03-09-14214	SAMPLE	S	19-DEC-09	.535g	50mL	
242938008	RE03-09-14217	SAMPLE	S	19-DEC-09	.528g	50mL	
242938009	RE03-10-2735	SAMPLE	S	19-DEC-09	.512g	50mL	

METALS
-13-
SAMPLE PREPARATION SUMMARY

SDG No: 10-918 **Method Type:** MS

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number	934056						
1201998448	MB for batch 934056	MB	S	19-DEC-09	.513g	50mL	
1201998449	LCS for batch 934056	LCS	S	19-DEC-09	.525g	50mL	
1201998451	RE03-09-14213S	MS	S	19-DEC-09	.519g	50mL	
1201998453	RE03-09-14213SD	MSD	S	19-DEC-09	.514g	50mL	
1201998450	RE03-09-14213D	DUP	S	19-DEC-09	.509g	50mL	
242938001	RE03-09-14213	SAMPLE	S	19-DEC-09	.518g	50mL	
242938002	RE03-09-14215	SAMPLE	S	19-DEC-09	.512g	50mL	
242938003	RE03-09-14212	SAMPLE	S	19-DEC-09	.518g	50mL	
242938004	RE03-09-14219	SAMPLE	S	19-DEC-09	.534g	50mL	
242938005	RE03-09-14218	SAMPLE	S	19-DEC-09	.513g	50mL	
242938006	RE03-09-14216	SAMPLE	S	19-DEC-09	.519g	50mL	
242938007	RE03-09-14214	SAMPLE	S	19-DEC-09	.507g	50mL	
242938008	RE03-09-14217	SAMPLE	S	19-DEC-09	.531g	50mL	
242938009	RE03-10-2735	SAMPLE	S	19-DEC-09	.503g	50mL	

METALS
-13-
SAMPLE PREPARATION SUMMARY

SDG No: 10-918 **Method Type**: AV

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number 934894							
1202000228	MB for batch 934894	MB	S	04-JAN-10	.544g	30mL	
1202000229	LCS for batch 934894	LCS	S	04-JAN-10	.2g	30mL	
1202000231	RE03-09-14221S	MS	S	04-JAN-10	.565g	30mL	
1202000233	RE03-09-14221SD	MSD	S	04-JAN-10	.579g	30mL	
1202000230	RE03-09-14221D	DUP	S	04-JAN-10	.511g	30mL	
242938001	RE03-09-14213	SAMPLE	S	04-JAN-10	.505g	30mL	
242938002	RE03-09-14215	SAMPLE	S	04-JAN-10	.553g	30mL	
242938003	RE03-09-14212	SAMPLE	S	04-JAN-10	.531g	30mL	
242938004	RE03-09-14219	SAMPLE	S	04-JAN-10	.505g	30mL	
242938005	RE03-09-14218	SAMPLE	S	04-JAN-10	.567g	30mL	
242938006	RE03-09-14216	SAMPLE	S	04-JAN-10	.573g	30mL	
242938007	RE03-09-14214	SAMPLE	S	04-JAN-10	.516g	30mL	
242938008	RE03-09-14217	SAMPLE	S	04-JAN-10	.526g	30mL	
242938009	RE03-10-2735	SAMPLE	S	04-JAN-10	.525g	30mL	

Metals
–14–
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: ICPMS5
Start Date: 29–DEC–09 **End Date:** 30–DEC–09

Client Sdg: 10–918
Method MS
Data File: 091229–3

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Li	Mg	Mn	Hg	Ni	K	Se	Si	Ag	Na	Tl	Ti	U	V	Zn
S0.0	1	22:45			X		X									X				X		X								
S10	1	22:51			X		X									X				X		X								
S100	1	22:57			X		X									X				X		X								
ICV01	1	23:03			X		X									X				X		X								
ICB01	1	23:09			X		X									X				X		X								
CRDL01	1	23:15			X		X									X				X		X								
ICSA01	1	23:21			X		X									X				X		X								
ICSAB01	1	23:27			X		X									X				X		X								
CCV01	1	23:33			X		X									X				X		X								
CCB01	1	23:40			X		X									X				X		X								
LR01	1	23:46			X		X									X				X		X								
CCV02	1	23:52			X		X									X				X		X								
CCB02	1	23:58			X		X									X				X		X								
1201998448	2	00:04			X		X									X				X		X								
1201998449	20	00:10			X		X									X				X		X								
ZZZZZZ	40	00:16																												
242938001	2	00:22			X		X									X				X		X								
1201998450	2	00:29			X		X									X				X		X								
1201998451	2	00:35			X		X									X				X		X								
1201998453	2	00:41			X		X									X				X		X								
1201998452	10	00:47			X		X									X				X		X								
CCV03	1	00:53			X		X									X				X		X								
CCB03	1	00:59			X		X									X				X		X								
242938002	2	01:06			X		X									X				X		X								
242938003	2	01:12			X		X									X				X		X								
242938004	2	01:18			X		X									X				X		X								
242938005	2	01:24			X		X									X				X		X								
242938006	2	01:30			X		X									X				X		X								
242938007	2	01:37			X		X									X				X		X								
242938008	2	01:43			X		X									X				X		X								
242938009	2	01:49			X		X									X				X		X								
CCV04	1	01:55			X		X									X				X		X								
CCB04	1	02:01			X		X									X				X		X								

Metals
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Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: ICPMS5
Start Date: 30–DEC–09 **End Date:** 30–DEC–09

Client Sdg: 10–918
Method MS
Data File: 091230–4

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Li	Mg	Mn	Hg	Ni	K	Se	Si	Ag	Na	Tl	Ti	U	V	Zn
S0.0	1	09:50																								X				
S10	1	09:53																								X				
S100	1	09:56																								X				
ICV01	1	10:00																								X				
ICB01	1	10:03																								X				
CRDL01	1	10:06																								X				
ICSA01	1	10:10																								X				
ICSAB01	1	10:13																								X				
CCV01	1	10:17																								X				
CCB01	1	10:20																								X				
LR01	1	10:23																								X				
CCV02	1	10:27																								X				
CCB02	1	10:30																								X				
1201998448	2	10:33																								X				
1201998449	20	10:37																								X				
ZZZZZZ	40	10:40																												
242938001	2	10:44																								X				
1201998450	2	10:47																								X				
1201998451	2	10:50																								X				
1201998453	2	10:54																								X				
1201998452	10	10:57																								X				
242938002	2	11:01																								X				
CCV03	1	11:04																								X				
CCB03	1	11:08																								X				
242938003	2	11:11																								X				
242938004	2	11:14																								X				
242938005	2	11:18																								X				
242938006	2	11:21																								X				
242938007	2	11:25																								X				
242938008	2	11:28																								X				
242938009	2	11:32																								X				
CCV04	1	11:35																								X				
CCB04	1	11:38																								X				

Metals
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Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: OPTIMA3
Start Date: 20–DEC–09 **End Date:** 21–DEC–09

Client Sdg: 10–918
Method P
Data File: 122009A–1

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Li	Mg	Mn	Hg	Ni	K	Se	Si	Ag	Na	Tl	Ti	U	V	Zn
S0.0	1	08:27	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
S0.1	1	08:34		X		X		X	X		X	X	X		X			X			X		X	X			X		X	X
S0.5	1	08:40	X	X		X		X	X	X	X	X	X		X		X	X			X		X	X			X		X	X
SCAL	1	08:47	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
S10	1	08:54	X							X				X			X								X					
ICV01	1	08:59	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
ICB01	1	09:06	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
PQL01	1	09:13	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
ICSA01	1	09:20	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
ICSAB01	1	09:26	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
LR01	1	09:31	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
LR02	1	09:37	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
CCV01	1	09:44	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
CCB01	1	09:51	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
LR03	1	09:57	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
CCV02	1	10:04	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
CCB02	1	10:11	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
ZZZZZZ	5	10:27																												
ZZZZZZ	5	10:34																												
ZZZZZZ	5	10:41																												
ZZZZZZ	5	10:48																												
ZZZZZZ	5	10:55																												
ZZZZZZ	5	11:02																												
ZZZZZZ	5	11:08																												
CCV03	1	11:15	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
CCB03	1	11:22	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
ZZZZZZ	5	11:30																												
ZZZZZZ	5	11:37																												
ZZZZZZ	5	11:44																												
ZZZZZZ	25	11:51																												
ZZZZZZ	5	11:58																												
ZZZZZZ	5	12:05																												
CCV04	1	12:12	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
CCB04	1	12:19	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
CCV05	1	12:46	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
CCB05	1	12:53	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
ZZZZZZ	1	13:00																												
ZZZZZZ	1	13:07																												
ZZZZZZ	1	13:14																												
ZZZZZZ	1	13:20																												

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time																												
ZZZZZZ	1	13:27																												
ZZZZZZ	5	13:35																												
CCV06	1	13:41	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
PQL02	1	13:48	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
CCB06	1	13:55	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
ZZZZZZ	1	14:02																												
ZZZZZZ	1	14:09																												
ZZZZZZ	1	14:16																												
ZZZZZZ	1	14:23																												
ZZZZZZ	1	14:30																												
ZZZZZZ	1	14:37																												
ZZZZZZ	1	14:44																												
CCV07	1	14:51	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
PQL03	1	14:58	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
CCB07	1	15:04	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
ZZZZZZ	1	15:11																												
ZZZZZZ	1	15:18																												
ZZZZZZ	1	15:25																												
ZZZZZZ	1	15:32																												
ZZZZZZ	1	15:40																												
ZZZZZZ	1	15:46																												
ZZZZZZ	1	15:53																												
CCV08	1	16:00	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
PQL04	1	16:07	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
CCB08	1	16:14	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
ZZZZZZ	1	16:21																												
ZZZZZZ	1	16:28																												
ZZZZZZ	1	16:35																												
ZZZZZZ	1	16:42																												
ZZZZZZ	1	16:48																												
ZZZZZZ	1	16:55																												
ZZZZZZ	1	17:02																												
ZZZZZZ	5	17:09																												
CCV09	1	17:16	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
CCB09	1	17:23	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
ZZZZZZ	1	17:30																												
ZZZZZZ	5	17:36																												
ZZZZZZ	5	17:43																												
ZZZZZZ	5	17:50																												
ZZZZZZ	5	17:57																												

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Li	Mg	Mn	Hg	Ni	K	Se	Si	Ag	Na	Tl	Ti	U	V	Zn
ZZZZZZ	5	18:04																												
ZZZZZZ	25	18:10																												
ZZZZZZ	5	18:17																												
CCV10	1	18:24	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
CCB10	1	18:31	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
ZZZZZZ	10	18:38																												
ZZZZZZ	10	18:45																												
ZZZZZZ	10	18:52																												
ZZZZZZ	10	18:58																												
ZZZZZZ	5	19:05																												
ZZZZZZ	5	19:12																												
ZZZZZZ	5	19:19																												
ZZZZZZ	25	19:26																												
ZZZZZZ	5	19:33																												
CCV11	1	19:40	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
CCB11	1	19:47	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
ZZZZZZ	5	19:53																												
ZZZZZZ	5	20:00																												
ZZZZZZ	5	20:07																												
ZZZZZZ	25	20:14																												
ZZZZZZ	5	20:20																												
CCV12	1	20:27	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
CCB12	1	20:34	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
ZZZZZZ	1	20:41																												
ZZZZZZ	1	20:48																												
ZZZZZZ	1	20:55																												
ZZZZZZ	1	21:02																												
ZZZZZZ	1	21:09																												
ZZZZZZ	5	21:15																												
ZZZZZZ	1	21:22																												
CCV13	1	21:29	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
CCB13	1	21:36	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
ZZZZZZ	1	21:43																												
ZZZZZZ	1	21:50																												
ZZZZZZ	1	21:56																												
ZZZZZZ	1	22:03																												
ZZZZZZ	1	22:10																												
ZZZZZZ	1	22:17																												
ZZZZZZ	1	22:24																												
CCV14	1	22:31	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X

Metals
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Analysis Run Log

Samp No.	D/F	Run Time																												
CCB14	1	22:38	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
1201998454	1	22:45	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
1201998455	1	22:52	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
242938001	1	22:58	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
1201998456	1	23:05	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
1201998457	1	23:12	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
1201998459	1	23:19	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
1201998458	5	23:26	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
CCV15	1	23:33	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
CCB15	1	23:39	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
242938002	1	23:46	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X			X		X	X
242938003	1	23:53	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X			X		X	X
242938004	1	00:00	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X			X		X	X
242938005	1	00:07	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X			X		X	X
242938006	1	00:14	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X			X		X	X
242938007	1	00:22	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X			X		X	X
242938008	1	00:29	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X			X		X	X
242938009	1	00:36	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X			X		X	X
CCV16	1	00:43	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
CCB16	1	00:49	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X

Metals
–14–
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: MER536
Start Date: 05–JAN–10 **End Date:** 05–JAN–10

Client Sdg: 10–918
Method AV
Data File: 010510S1–5

Samp No.	D/F	Rnn Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Li	Mg	Mn	Hg	Ni	K	Se	Si	Ag	Na	Tl	Ti	U	V	Zn
S0.0	1	09:38																	X											
S0.2	1	09:40																	X											
S0.5	1	09:42																	X											
S2.0	1	09:44																	X											
S5.0	1	09:46																	X											
S10	1	09:48																	X											
ICV01	1	09:50																	X											
ICB01	1	09:52																	X											
CRDL01	1	09:54																	X											
CCV01	1	09:56																	X											
CCB01	1	09:58																	X											
1202000228	1	10:00																	X											
1202000229	10	10:02																	X											
242938001	1	10:04																	X											
242938002	1	10:06																	X											
242938003	1	10:08																	X											
242938004	1	10:10																	X											
242938005	1	10:12																	X											
242938006	1	10:14																	X											
242938007	1	10:16																	X											
242938008	1	10:18																	X											
CCV02	1	10:20																	X											
CCB02	1	10:22																	X											
242938009	1	10:24																	X											
ZZZZZZ	1	10:26																												
1202000230	1	10:28																	X											
1202000231	1	10:30																	X											
1202000233	1	10:32																	X											
1202000232	5	10:34																	X											
ZZZZZZ	1	10:36																												
ZZZZZZ	1	10:38																												
ZZZZZZ	1	10:40																												
ZZZZZZ	1	10:42																												
CCV03	1	10:44																	X											
CCB03	1	10:46																	X											

Metals
–14–
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: ICPMS4
Start Date: 30–DEC–09 **End Date:** 30–DEC–09

Client Sdg: 10–918
Method MS
Data File: 091230–2

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Li	Mg	Mn	Hg	Ni	K	Se	Si	Ag	Na	Tl	Ti	U	V	Zn
S0.0	1	12:30																										X		
S10	1	12:32																										X		
S100	1	12:34																										X		
ICV01	1	12:36																										X		
ICB01	1	12:38																										X		
CRDL01	1	12:41																										X		
ICSA01	1	12:43																										X		
ICSAB01	1	12:45																										X		
CCV01	1	12:47																										X		
CCB01	1	12:49																										X		
1201998448	2	12:52																										X		
1201998449	40	12:54																										X		
242938001	2	12:56																										X		
1201998450	2	12:58																										X		
1201998451	2	13:00																										X		
1201998453	2	13:03																										X		
1201998452	10	13:05																										X		
242938002	2	13:07																										X		
CCV02	1	13:09																										X		
CCB02	1	13:11																										X		
242938003	2	13:14																										X		
242938004	2	13:16																										X		
242938005	2	13:18																										X		
242938006	2	13:20																										X		
242938007	2	13:23																										X		
242938008	2	13:25																										X		
242938009	2	13:27																										X		
CCV03	1	13:29																										X		
CCB03	1	13:31																										X		

Standards

METALS
-10-
Instrument Detection Limits

SDG NO. 10-918

Contract: LANL01004 **Lab Code: GEL** **MDL Effective Date:** 01-JUL-09

ICP/MS	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
SOLID	Aluminum		15.0	50
	Antimony		0.5	3
	Arsenic		1.0	5
	Barium		0.5	2
	Beryllium		0.1	.5
	Boron		4.0	15
	Cadmium		0.1	1
	Calcium		33.0	100
	Chromium		1.0	3
	Cobalt		0.3	1
	Copper		0.33	1
	Iron		25.0	100
	Lead		0.5	2
	Lithium		2.0	10
	Magnesium		7.5	25
	Manganese		1.0	5
	Nickel		0.5	2
	Potassium		80.0	300
	Selenium		2.5	5
	Silver		0.2	1
	Sodium		80.0	250
	Thallium		0.3	1
	Titanium		2.0	10
	Uranium		0.066	.2
	Vanadium		2.0	10
	Zinc		2.0	10

METALS
–10–
Instrument Detection Limits

SDG NO. 10–918

Contract: LANL01004 **Lab Code: GEL** **MDL Effective Date:** 15–JUN–09

MERCURY	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
SOLID	Mercury		0.068	.2

METALS
–10–
Instrument Detection Limits

SDG NO. 10–918

Contract: LANL01004 **Lab Code: GEL** **MDL Effective Date:** 01–JUL–09

ICP	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
SOLID	Aluminum	396.153	68.0	200
	Antimony	206.836	3.3	10
	Arsenic	188.979	5.0	30
	Barium	233.527	1.0	5
	Beryllium	313.107	1.0	5
	Boron	249.677	10.0	50
	Cadmium	226.502	1.0	5
	Calcium	317.933	80.0	250
	Chromium	267.716	1.5	5
	Cobalt	228.616	1.5	5
	Copper	324.752	3.0	10
	Iron	238.204	80.0	250
	Lead	220.353	2.5	10
	Magnesium	279.077	85.0	300
	Manganese	257.61	2.0	10
	Nickel	231.604	1.5	5
	Potassium	766.49	64.0	250
	Selenium	196.026	5.0	30
	Silicon	251.611	15.0	100
	Silver	328.068	1.0	5
	Sodium	589.592	70.0	250
	Thallium	190.801	5.0	20
	Titanium	334.94	1.0	5
	Uranium	409.014	10.0	50
	Vanadium	292.402	1.0	5
	Zinc	213.857	3.3	10

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA3
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-918
Effective Dates: 01-NOV-09

Parmname	Wavelength	Aluminum	Antimony	Arsenic	Barium	Beryllium
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.02738	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	-0.44940	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	-0.22121	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	-0.33886	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	-0.13648	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	-0.05571	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.19671	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	-0.02739	0.00000	0.00000	0.00000	0.00000
Tin	189.927	-0.00058	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	0.00000

METALS
–11–
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA3
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10–918
Effective Dates: 01–NOV–09

Parmname	Wavelength	Boron	Cadmium	Chromium	Cobalt	Copper
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	24.5549	0.00000	0.00000
Arsenic	188.979	0.52529	0.00000	–0.67113	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	2.54031	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.38952	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	–31.5465	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	0.78023
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.63859	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	160.41
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	5.22870	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.35099	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	1.93161	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.39273	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	1.19810

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA3
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-918
Effective Dates: 01-NOV-09

Parmname	Wavelength	Iron	Lead	Magnesium	Manganese	Molybdenum
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	42.8126
Antimony	206.836	-0.01635	0.00000	0.00000	0.00000	-22.2146
Arsenic	188.979	-0.21271	0.00000	0.00000	0.00000	1.34645
Barium	233.527	-0.03709	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.13266	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.09998	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	-0.01788	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.01425	0.00000	0.00000	0.00000	-2.64232
Copper	324.752	-0.05101	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.09069	0.00000	0.00000	0.00000	-2.44485
Magnesium	279.077	0.85543	0.00000	0.00000	0.00000	-20.2401
Manganese	257.61	-0.09972	0.00000	0.01862	0.00000	0.00000
Molybdenum	202.031	-0.07094	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.80633	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	-0.03176	0.00000	0.01823	12.4291	-3.60863
Selenium	196.026	-3.00009	0.00000	0.00000	0.00000	-3.17982
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	17.4444
Silver	328.068	-0.31825	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	-5.85948	0.00000
Tin	189.927	-0.01337	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.12581	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.15211	0.00000	-0.02256	0.00000	-14.2921
Zinc	213.857	0.09548	0.00000	0.03423	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA3
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-918
Effective Dates: 01-NOV-09

Parmname	Wavelength	Nickel	Phosphorous	Potassium	Selenium	Silicon
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	-0.64279	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	0.44040	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.33191	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	6.38465	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL **GEL Job No:** 10-918
Contract: LANL01004
Instrument: OPTIMA3 **Effective Dates:** 01-NOV-09
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Parmname	Wavelength	Silver	Strontium	Sulfur	Thallium	Tin
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	0.00000	-17.4077
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	-13.8713
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	3.10491
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA3
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-918
Effective Dates: 01-NOV-09

Parmname	Wavelength	Titanium	Uranium	Vanadium	Zinc
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	2.73145	0.00000	-2.31857	0.00000
Arsenic	188.979	-8.38419	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	-2.24883	0.00000
Beryllium	313.107	-1.96555	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.32181	-1.76281	0.00000
Cobalt	228.616	2.12623	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.85359	-3.92851	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	-7.67419	0.00000	2.18873	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.44145	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	1.10141	-1.94183	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000

METALS
–12–
Linear Ranges

SDG NO. 10–918

Contract: LANL01004 **Lab Code: GEL**

Instrument ID ICPMS5

Analyte	Integration Time (msec)	LDR	Units	Effective Date
Antimony	1000	250	ug/L	01–NOV–09
Arsenic	1000	1000	ug/L	01–NOV–09
Barium	1000	1000	ug/L	01–NOV–09
Beryllium	1000	1000	ug/L	01–NOV–09
Boron	1000	200	ug/L	01–NOV–09
Cadmium	1000	1000	ug/L	01–NOV–09
Aluminum	1	50000	ug/L	01–NOV–09
Calcium	500	50000	ug/L	01–NOV–09
Chromium	1000	1000	ug/L	01–NOV–09
Cobalt	1000	1000	ug/L	01–NOV–09
Copper	1000	1000	ug/L	01–NOV–09
Iron	500	50000	ug/L	01–NOV–09
Lead	1000	5000	ug/L	01–NOV–09
Lithium	1000	1000	ug/L	01–NOV–09
Magnesium	1	50000	ug/L	01–NOV–09
Manganese	1000	1000	ug/L	01–NOV–09
Nickel	1000	1000	ug/L	01–NOV–09
Potassium	1	50000	ug/L	01–NOV–09
Selenium	1000	500	ug/L	01–NOV–09
Silver	1000	250	ug/L	01–NOV–09
Sodium	1	50000	ug/L	01–NOV–09
Thallium	1000	500	ug/L	01–NOV–09
Titanium	1000	100	ug/L	01–NOV–09
Uranium	1000	5000	ug/L	01–NOV–09
Vanadium	1000	100	ug/L	01–NOV–09
Zinc	1000	2500	ug/L	01–NOV–09

METALS
–12–
Linear Ranges

SDG NO. 10–918

Contract: LANL01004 **Lab Code: GEL**

Instrument ID OPTIMA3

Analyte	Integration Time (sec)	LDR	Units	Effective Date
Cobalt	20	10000	ug/L	01–NOV–09
Copper	20	20000	ug/L	01–NOV–09
Iron	20	500000	ug/L	01–NOV–09
Lead	20	25000	ug/L	01–NOV–09
Magnesium	20	500000	ug/L	01–NOV–09
Manganese	20	10000	ug/L	01–NOV–09
Nickel	20	10000	ug/L	01–NOV–09
Potassium	20	300000	ug/L	01–NOV–09
Selenium	20	10000	ug/L	01–NOV–09
Silicon	20	50000	ug/L	01–NOV–09
Silver	20	1000	ug/L	01–NOV–09
Sodium	20	500000	ug/L	01–NOV–09
Thallium	20	10000	ug/L	01–NOV–09
Titanium	20	10000	ug/L	01–NOV–09
Uranium	20	15000	ug/L	01–NOV–09
Vanadium	20	10000	ug/L	01–NOV–09
Zinc	20	15000	ug/L	01–NOV–09
Chromium	20	25000	ug/L	01–NOV–09
Aluminum	20	500000	ug/L	01–NOV–09
Antimony	20	10000	ug/L	01–NOV–09
Arsenic	20	10000	ug/L	01–NOV–09
Barium	20	15000	ug/L	01–NOV–09
Beryllium	20	3000	ug/L	01–NOV–09
Boron	20	5000	ug/L	01–NOV–09
Cadmium	20	10000	ug/L	01–NOV–09
Calcium	20	500000	ug/L	01–NOV–09

METALS
–12–
Linear Ranges

SDG NO. 10–918

Contract: LANL01004 **Lab Code: GEL**

Instrument ID ICPMS4

Analyte	Integration Time (msec)	LDR	Units	Effective Date
Aluminum	1	50000	ug/L	01–NOV–09
Antimony	1000	250	ug/L	01–NOV–09
Arsenic	1000	1000	ug/L	01–NOV–09
Barium	1000	1000	ug/L	01–NOV–09
Beryllium	1000	1000	ug/L	01–NOV–09
Boron	1000	200	ug/L	01–NOV–09
Cadmium	1000	1000	ug/L	01–NOV–09
Calcium	500	50000	ug/L	01–NOV–09
Chromium	1000	1000	ug/L	01–NOV–09
Cobalt	1000	1000	ug/L	01–NOV–09
Copper	1000	1000	ug/L	01–NOV–09
Iron	500	50000	ug/L	01–NOV–09
Lead	1000	5000	ug/L	01–NOV–09
Lithium	1000	1000	ug/L	01–NOV–09
Magnesium	1	50000	ug/L	01–NOV–09
Manganese	1000	1000	ug/L	01–NOV–09
Nickel	1000	1000	ug/L	01–NOV–09
Potassium	1	50000	ug/L	01–NOV–09
Selenium	1000	500	ug/L	01–NOV–09
Silver	1000	250	ug/L	01–NOV–09
Sodium	1	50000	ug/L	01–NOV–09
Thallium	1000	500	ug/L	01–NOV–09
Titanium	1000	100	ug/L	01–NOV–09
Uranium	1000	5000	ug/L	01–NOV–09
Vanadium	1000	100	ug/L	01–NOV–09
Zinc	1000	2500	ug/L	01–NOV–09

Raw Data

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Reprocessing Begun
Logged In Analyst: Optima3 **Technique: ICP Continuous**

Results Data Set (original): 122009
Results Library (original): C:\pe\Optima3\Results\Results.mdb
Results Data Set (reprocessed): 122009A
Results Library (reprocessed): C:\pe\Optima3\Results\Results.mdb

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Method Loaded
Method Name: General Eng.2AX **Method Last Saved: 12/20/2009 10:20:40**
IEC File: 101209.iec **MSF File:**
Method Description:

Analyte	Calibration Equation	Processing	View	Internal Standard	IEC
Ag 328.068	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Al 396.153Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
As 188.979	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
B 249.677	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ba 233.527	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Be 313.107	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ca 317.933Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	No
Cd 226.502	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Co 228.616	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cr 267.716	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cu 324.752	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Fe 238.204 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
K 766.490 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Mg 279.077 IEC	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Mn 257.610	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Mo 202.031	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Na 589.592 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	No
Ni 231.604	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
P 214.914	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Pb 220.353	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
S 181.975 Axial	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sb 206.836	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sc 361.383	Lin Thru 0	Peak Area	Axial	n/a	n/a
Sc Radial	Lin, Calc Int	Peak Area	Radial	n/a	n/a
Se 196.026	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Si 251.611	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sn 189.927	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sr 421.552	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Ti 334.940	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Tl 190.801	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
U 409.014	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
V 292.402	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y 371.029	Lin, Calc Int	Peak Area	Axial	n/a	n/a
Zn 213.857	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y RADIAL	Lin, Calc Int	Peak Area	Radial	n/a	n/a
SiO2	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes

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Sequence No.: 1 **Autosampler Location: 8**
Sample ID: S0 **Date Collected: 12/20/2009 08:27:25**
Analyst: **Data Type: Reprocessed on 12/20/2009 10:23:17**
Logged In Analyst (Original) : Optima3
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: S0

Rep1#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc 361.383	906069.3	906069.3	100.74	%	08:30:35
1	Sc Radial	5636.8	5636.8	101	%	08:29:18
1	Y 371.029	747249.6	747249.6	100.59	%	08:30:35
1	Y RADIAL	5945.0	5945.0	101.4	%	08:29:18
1	Ag 328.068†	482.6	479.0	[0.00]	ug/L	08:30:35

1	Al 396.153Radial†	0.6	0.6	[0.00]	ug/L	08:29:18
1	As 188.979†	-27.2	-27.0	[0.00]	ug/L	08:30:55
1	B 249.677†	546.0	542.0	[0.00]	ug/L	08:30:35
1	Ba 233.527†	-14.5	-14.4	[0.00]	ug/L	08:30:55
1	Be 313.107†	-4640.3	-4606.2	[0.00]	ug/L	08:30:35
1	Ca 317.933Radial†	16.7	16.5	[0.00]	ug/L	08:29:38
1	Cd 226.502†	-237.4	-235.7	[0.00]	ug/L	08:30:55
1	Co 228.616†	-83.2	-82.6	[0.00]	ug/L	08:30:55
1	Cr 267.716†	91.6	90.9	[0.00]	ug/L	08:30:55
1	Cu 324.752†	6084.4	6039.8	[0.00]	ug/L	08:30:35
1	Fe 238.204 Radial†	10.7	10.6	[0.00]	ug/L	08:29:38
1	K 766.490 Radial†	2850.3	2825.4	[0.00]	ug/L	08:29:18
1	Mg 279.077 IEC†	1.6	1.5	[0.00]	ug/L	08:29:38
1	Mn 257.610†	482.1	478.5	[0.00]	ug/L	08:30:55
1	Mo 202.031†	18.7	18.6	[0.00]	ug/L	08:30:55
1	Na 589.592 Radial†	-1253.0	-1242.1	[0.00]	ug/L	08:29:18
1	Ni 231.604†	103.6	102.9	[0.00]	ug/L	08:30:55
1	P 214.914†	263.1	261.2	[0.00]	ug/L	08:30:55
1	Pb 220.353†	-81.1	-80.5	[0.00]	ug/L	08:30:55
1	S 181.975 Axial†	60.5	60.1	[0.00]	ug/L	08:30:55
1	Sb 206.836†	50.6	50.3	[0.00]	ug/L	08:30:55
1	Se 196.026†	-29.2	-29.0	[0.00]	ug/L	08:30:55
1	Si 251.611†	665.8	660.9	[0.00]	ug/L	08:30:55
1	Sn 189.927†	-2.3	-2.3	[0.00]	ug/L	08:30:55
1	Sr 421.552†	8.0	8.0	[0.00]	ug/L	08:29:18
1	Ti 334.940†	-1410.0	-1399.6	[0.00]	ug/L	08:30:35
1	Tl 190.801†	-51.2	-50.8	[0.00]	ug/L	08:30:55
1	U 409.014†	-2785.5	-2765.1	[0.00]	ug/L	08:30:35
1	V 292.402†	-1436.3	-1425.8	[0.00]	ug/L	08:30:35
1	Zn 213.857†	804.1	798.2	[0.00]	ug/L	08:30:55
1	SiO2†	632.1	627.5	[0.00]	ug/L	08:31:51
2	Sc 361.383	902659.9	902659.9	100.36	%	08:31:01
2	Sc Radial	5593.4	5593.4	100	%	08:29:43
2	Y 371.029	746227.4	746227.4	100.45	%	08:31:01
2	Y RADIAL	5858.0	5858.0	99.94	%	08:29:43
2	Ag 328.068†	345.4	344.2	[0.00]	ug/L	08:31:01
2	Al 396.153Radial†	-16.5	-16.5	[0.00]	ug/L	08:29:43
2	As 188.979†	-27.8	-27.7	[0.00]	ug/L	08:31:21
2	B 249.677†	433.1	431.6	[0.00]	ug/L	08:31:01
2	Ba 233.527†	-7.2	-7.2	[0.00]	ug/L	08:31:21
2	Be 313.107†	-4584.8	-4568.4	[0.00]	ug/L	08:31:01
2	Ca 317.933Radial†	19.8	19.8	[0.00]	ug/L	08:30:03
2	Cd 226.502†	-211.1	-210.4	[0.00]	ug/L	08:31:21
2	Co 228.616†	-82.9	-82.6	[0.00]	ug/L	08:31:21
2	Cr 267.716†	96.1	95.8	[0.00]	ug/L	08:31:21
2	Cu 324.752†	6094.1	6072.2	[0.00]	ug/L	08:31:01
2	Fe 238.204 Radial†	12.0	12.0	[0.00]	ug/L	08:30:03
2	K 766.490 Radial†	2817.8	2814.9	[0.00]	ug/L	08:29:43
2	Mg 279.077 IEC†	1.2	1.2	[0.00]	ug/L	08:30:03
2	Mn 257.610†	505.5	503.7	[0.00]	ug/L	08:31:21
2	Mo 202.031†	33.6	33.5	[0.00]	ug/L	08:31:21
2	Na 589.592 Radial†	-1265.8	-1264.5	[0.00]	ug/L	08:29:43
2	Ni 231.604†	113.4	113.0	[0.00]	ug/L	08:31:21
2	P 214.914†	248.3	247.4	[0.00]	ug/L	08:31:21
2	Pb 220.353†	-71.3	-71.1	[0.00]	ug/L	08:31:21
2	S 181.975 Axial†	60.6	60.4	[0.00]	ug/L	08:31:21
2	Sb 206.836†	38.1	38.0	[0.00]	ug/L	08:31:21
2	Se 196.026†	-28.4	-28.3	[0.00]	ug/L	08:31:21
2	Si 251.611†	653.3	651.0	[0.00]	ug/L	08:31:21
2	Sn 189.927†	5.6	5.5	[0.00]	ug/L	08:31:21
2	Sr 421.552†	-1.3	-1.3	[0.00]	ug/L	08:29:43
2	Ti 334.940†	-1478.9	-1473.6	[0.00]	ug/L	08:31:01
2	Tl 190.801†	-44.7	-44.5	[0.00]	ug/L	08:31:21
2	U 409.014†	-2712.0	-2702.3	[0.00]	ug/L	08:31:01
2	V 292.402†	-1477.6	-1472.3	[0.00]	ug/L	08:31:01
2	Zn 213.857†	824.2	821.2	[0.00]	ug/L	08:31:21
2	SiO2†	719.1	716.5	[0.00]	ug/L	08:31:56
3	Sc 361.383	889538.8	889538.8	98.901	%	08:31:26
3	Sc Radial	5532.4	5532.4	99.0	%	08:30:08
3	Y 371.029	735222.5	735222.5	98.967	%	08:31:26
3	Y RADIAL	5781.3	5781.3	98.63	%	08:30:08

3	Ag 328.068†	370.8	374.9	[0.00]	ug/L	08:31:26
3	Al 396.153Radial†	-23.7	-24.0	[0.00]	ug/L	08:30:08
3	As 188.979†	-27.3	-27.6	[0.00]	ug/L	08:31:46
3	B 249.677†	416.9	421.5	[0.00]	ug/L	08:31:26
3	Ba 233.527†	-4.2	-4.2	[0.00]	ug/L	08:31:46
3	Be 313.107†	-4560.0	-4610.7	[0.00]	ug/L	08:31:26
3	Ca 317.933Radial†	17.1	17.3	[0.00]	ug/L	08:30:29
3	Cd 226.502†	-228.7	-231.3	[0.00]	ug/L	08:31:46
3	Co 228.616†	-88.0	-88.9	[0.00]	ug/L	08:31:46
3	Cr 267.716†	109.6	110.9	[0.00]	ug/L	08:31:46
3	Cu 324.752†	6081.5	6149.0	[0.00]	ug/L	08:31:26
3	Fe 238.204 Radial†	11.0	11.1	[0.00]	ug/L	08:30:29
3	K 766.490 Radial†	2947.4	2976.8	[0.00]	ug/L	08:30:08
3	Mg 279.077 IEC†	4.0	4.1	[0.00]	ug/L	08:30:29
3	Mn 257.610†	486.9	492.3	[0.00]	ug/L	08:31:46
3	Mo 202.031†	24.3	24.6	[0.00]	ug/L	08:31:46
3	Na 589.592 Radial†	-1260.9	-1273.5	[0.00]	ug/L	08:30:08
3	Ni 231.604†	89.9	90.9	[0.00]	ug/L	08:31:46
3	P 214.914†	254.2	257.0	[0.00]	ug/L	08:31:46
3	Pb 220.353†	-81.0	-81.9	[0.00]	ug/L	08:31:46
3	S 181.975 Axial†	55.2	55.8	[0.00]	ug/L	08:31:46
3	Sb 206.836†	38.5	38.9	[0.00]	ug/L	08:31:46
3	Se 196.026†	-28.8	-29.1	[0.00]	ug/L	08:31:46
3	Si 251.611†	660.3	667.6	[0.00]	ug/L	08:31:46
3	Sn 189.927†	2.2	2.3	[0.00]	ug/L	08:31:46
3	Sr 421.552†	10.1	10.2	[0.00]	ug/L	08:30:08
3	Ti 334.940†	-1520.1	-1537.0	[0.00]	ug/L	08:31:26
3	Tl 190.801†	-41.6	-42.0	[0.00]	ug/L	08:31:46
3	U 409.014†	-2687.8	-2717.7	[0.00]	ug/L	08:31:26
3	V 292.402†	-1490.6	-1507.2	[0.00]	ug/L	08:31:26
3	Zn 213.857†	786.4	795.1	[0.00]	ug/L	08:31:46
3	SiO2†	703.0	710.9	[0.00]	ug/L	08:32:01

Mean Data: S0

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	899422.7	8727.82	0.97%	100.00	%
Sc Radial	5587.5	52.42	0.94%	100	%
Y 371.029	742899.8	6668.39	0.90%	100.00	%
Y RADIAL	5861.4	81.86	1.40%	100.0	%
Ag 328.068†	399.4	70.68	17.70%	[0.00]	ug/L
Al 396.153Radial†	-13.3	12.59	94.64%	[0.00]	ug/L
As 188.979†	-27.5	0.39	1.43%	[0.00]	ug/L
B 249.677†	465.0	66.82	14.37%	[0.00]	ug/L
Ba 233.527†	-8.6	5.22	60.67%	[0.00]	ug/L
Be 313.107†	-4595.1	23.23	0.51%	[0.00]	ug/L
Ca 317.933Radial†	17.9	1.71	9.56%	[0.00]	ug/L
Cd 226.502†	-225.8	13.51	5.99%	[0.00]	ug/L
Co 228.616†	-84.7	3.64	4.30%	[0.00]	ug/L
Cr 267.716†	99.2	10.40	10.48%	[0.00]	ug/L
Cu 324.752†	6087.0	56.09	0.92%	[0.00]	ug/L
Fe 238.204 Radial†	11.2	0.71	6.32%	[0.00]	ug/L
K 766.490 Radial†	2872.4	90.59	3.15%	[0.00]	ug/L
Mg 279.077 IEC†	2.3	1.58	69.70%	[0.00]	ug/L
Mn 257.610†	491.5	12.61	2.57%	[0.00]	ug/L
Mo 202.031†	25.6	7.53	29.43%	[0.00]	ug/L
Na 589.592 Radial†	-1260.0	16.17	1.28%	[0.00]	ug/L
Ni 231.604†	102.3	11.04	10.80%	[0.00]	ug/L
P 214.914†	255.2	7.07	2.77%	[0.00]	ug/L
Pb 220.353†	-77.8	5.89	7.57%	[0.00]	ug/L
S 181.975 Axial†	58.8	2.56	4.35%	[0.00]	ug/L
Sb 206.836†	42.4	6.83	16.11%	[0.00]	ug/L
Se 196.026†	-28.8	0.48	1.65%	[0.00]	ug/L
Si 251.611†	659.8	8.38	1.27%	[0.00]	ug/L
Sn 189.927†	1.8	3.95	216.58%	[0.00]	ug/L
Sr 421.552†	5.6	6.11	108.82%	[0.00]	ug/L
Ti 334.940†	-1470.0	68.73	4.68%	[0.00]	ug/L
Tl 190.801†	-45.8	4.53	9.89%	[0.00]	ug/L
U 409.014†	-2728.3	32.73	1.20%	[0.00]	ug/L
V 292.402†	-1468.4	40.85	2.78%	[0.00]	ug/L

Zn 213.857†	804.8	14.29	1.78%	[0.00] ug/L
SiO2†	685.0	49.85	7.28%	[0.00] ug/L

Sequence No.: 2
Sample ID: S0.1
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 2
Date Collected: 12/20/2009 08:34:12
Data Type: Reprocessed on 12/20/2009 10:23:19

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc 361.383	877769.3	877769.3	97.593	%	08:36:37
1	Sc Radial	5490.8	5490.8	98.3	%	08:36:10
1	Y 371.029	737173.8	737173.8	99.229	%	08:36:37
1	Y RADIAL	5747.8	5747.8	98.06	%	08:36:10
1	Ag 328.068†	24005.1	24197.9	[100]	ug/L	08:36:37
1	As 188.979†	244.6	278.1	[100]	ug/L	08:36:57
1	B 249.677†	5149.5	4811.5	[100]	ug/L	08:36:37
1	Ba 233.527†	15106.7	15487.9	[100]	ug/L	08:36:37
1	Be 313.107†	295900.1	307794.6	[100]	ug/L	08:36:37
1	Cd 226.502†	10125.2	10600.8	[100]	ug/L	08:36:57
1	Co 228.616†	5766.6	5993.6	[100]	ug/L	08:36:57
1	Cr 267.716†	10155.6	10307.0	[100]	ug/L	08:36:37
1	Cu 324.752†	41764.3	36707.5	[100]	ug/L	08:36:37
1	K 766.490 Radial†	8468.9	5745.7	[1000]	ug/L	08:36:05
1	Mn 257.610†	105169.3	107272.2	[100]	ug/L	08:36:37
1	Mo 202.031†	1706.2	1722.8	[100]	ug/L	08:36:57
1	Ni 231.604†	4806.2	4822.5	[100]	ug/L	08:36:57
1	P 214.914†	1220.1	995.0	[500]	ug/L	08:36:57
1	Pb 220.353†	920.4	1020.9	[100]	ug/L	08:36:57
1	S 181.975 Axial†	213.7	160.2	[200]	ug/L	08:36:57
1	Sb 206.836†	364.5	331.1	[100]	ug/L	08:36:57
1	Se 196.026†	159.3	192.0	[100]	ug/L	08:36:57
1	Si 251.611†	18467.7	18263.4	[500]	ug/L	08:36:37
1	Sn 189.927†	672.5	687.2	[100]	ug/L	08:36:57
1	Sr 421.552†	16766.0	17055.7	[100]	ug/L	08:36:10
1	Ti 334.940†	67988.4	71135.6	[100]	ug/L	08:36:37
1	Tl 190.801†	344.8	399.1	[100]	ug/L	08:36:57
1	U 409.014†	1105.4	3861.0	[100]	ug/L	08:36:37
1	V 292.402†	14243.7	16063.6	[100]	ug/L	08:36:37
1	Zn 213.857†	13274.5	12797.1	[100]	ug/L	08:36:37
1	SiO2†	18484.1	18255.1	[1069.5]	ug/L	08:37:53
2	Sc 361.383	879935.8	879935.8	97.833	%	08:37:02
2	Sc Radial	5463.7	5463.7	97.8	%	08:36:20
2	Y 371.029	738936.2	738936.2	99.466	%	08:37:02
2	Y RADIAL	5750.6	5750.6	98.11	%	08:36:20
2	Ag 328.068†	24112.9	24247.5	[100]	ug/L	08:37:02
2	As 188.979†	258.7	291.9	[100]	ug/L	08:37:22
2	B 249.677†	5066.3	4713.4	[100]	ug/L	08:37:02
2	Ba 233.527†	15142.7	15486.6	[100]	ug/L	08:37:02
2	Be 313.107†	297303.9	308483.0	[100]	ug/L	08:37:02
2	Cd 226.502†	10168.5	10619.4	[100]	ug/L	08:37:22
2	Co 228.616†	5787.4	6000.3	[100]	ug/L	08:37:22
2	Cr 267.716†	10242.4	10370.0	[100]	ug/L	08:37:02
2	Cu 324.752†	42125.9	36971.8	[100]	ug/L	08:37:02
2	K 766.490 Radial†	8461.2	5780.7	[1000]	ug/L	08:36:15
2	Mn 257.610†	105746.0	107596.3	[100]	ug/L	08:37:02
2	Mo 202.031†	1719.2	1731.7	[100]	ug/L	08:37:22
2	Ni 231.604†	4823.3	4827.9	[100]	ug/L	08:37:22
2	P 214.914†	1216.7	988.5	[500]	ug/L	08:37:22
2	Pb 220.353†	916.0	1014.1	[100]	ug/L	08:37:22
2	S 181.975 Axial†	221.9	168.0	[200]	ug/L	08:37:22
2	Sb 206.836†	369.1	334.9	[100]	ug/L	08:37:22
2	Se 196.026†	157.7	190.0	[100]	ug/L	08:37:22
2	Si 251.611†	18501.8	18251.7	[500]	ug/L	08:37:02
2	Sn 189.927†	687.4	700.8	[100]	ug/L	08:37:22
2	Sr 421.552†	16654.4	17026.3	[100]	ug/L	08:36:20
2	Ti 334.940†	68249.0	71230.5	[100]	ug/L	08:37:02
2	Tl 190.801†	347.0	400.4	[100]	ug/L	08:37:22

2	U 409.014†	974.0	3723.9	[100]	ug/L	08:37:02
2	V 292.402†	14275.5	16060.0	[100]	ug/L	08:37:02
2	Zn 213.857†	13370.6	12861.9	[100]	ug/L	08:37:02
2	SiO2†	18649.8	18377.9	[1069.5]	ug/L	08:37:58
3	Sc 361.383	875878.1	875878.1	97.382	%	08:37:28
3	Sc Radial	5467.6	5467.6	97.9	%	08:36:30
3	Y 371.029	732896.1	732896.1	98.653	%	08:37:28
3	Y RADIAL	5731.2	5731.2	97.78	%	08:36:30
3	Ag 328.068†	23890.6	24133.4	[100]	ug/L	08:37:28
3	As 188.979†	245.4	279.5	[100]	ug/L	08:37:48
3	B 249.677†	5017.9	4687.8	[100]	ug/L	08:37:28
3	Ba 233.527†	15092.4	15506.7	[100]	ug/L	08:37:28
3	Be 313.107†	294136.5	306638.3	[100]	ug/L	08:37:28
3	Cd 226.502†	10054.7	10550.8	[100]	ug/L	08:37:48
3	Co 228.616†	5718.2	5956.6	[100]	ug/L	08:37:48
3	Cr 267.716†	10147.7	10321.3	[100]	ug/L	08:37:28
3	Cu 324.752†	41635.3	36667.5	[100]	ug/L	08:37:28
3	K 766.490 Radial†	8319.2	5629.2	[1000]	ug/L	08:36:25
3	Mn 257.610†	105115.1	107449.1	[100]	ug/L	08:37:28
3	Mo 202.031†	1695.9	1716.0	[100]	ug/L	08:37:48
3	Ni 231.604†	4744.5	4769.8	[100]	ug/L	08:37:48
3	P 214.914†	1208.5	985.8	[500]	ug/L	08:37:48
3	Pb 220.353†	897.8	999.8	[100]	ug/L	08:37:48
3	S 181.975 Axial†	219.7	166.9	[200]	ug/L	08:37:48
3	Sb 206.836†	367.9	335.4	[100]	ug/L	08:37:48
3	Se 196.026†	152.5	185.4	[100]	ug/L	08:37:48
3	Si 251.611†	18394.5	18229.1	[500]	ug/L	08:37:28
3	Sn 189.927†	681.5	698.0	[100]	ug/L	08:37:48
3	Sr 421.552†	16605.6	16964.1	[100]	ug/L	08:36:30
3	Ti 334.940†	67804.0	71096.7	[100]	ug/L	08:37:28
3	Tl 190.801†	348.1	403.3	[100]	ug/L	08:37:48
3	U 409.014†	1067.1	3824.1	[100]	ug/L	08:37:28
3	V 292.402†	14193.3	16043.3	[100]	ug/L	08:37:28
3	Zn 213.857†	13268.1	12819.9	[100]	ug/L	08:37:28
3	SiO2†	18508.1	18320.6	[1069.5]	ug/L	08:38:03

Mean Data: S0.1

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	877861.1	2030.40	0.23%	97.603	%
Sc Radial	5474.0	14.66	0.27%	98.0	%
Y 371.029	736335.4	3106.12	0.42%	99.116	%
Y RADIAL	5743.2	10.49	0.18%	97.98	%
Ag 328.068†	24192.9	57.24	0.24%	[100]	ug/L
As 188.979†	283.1	7.59	2.68%	[100]	ug/L
B 249.677†	4737.6	65.31	1.38%	[100]	ug/L
Ba 233.527†	15493.8	11.25	0.07%	[100]	ug/L
Be 313.107†	307638.6	932.20	0.30%	[100]	ug/L
Cd 226.502†	10590.3	35.51	0.34%	[100]	ug/L
Co 228.616†	5983.5	23.51	0.39%	[100]	ug/L
Cr 267.716†	10332.8	33.06	0.32%	[100]	ug/L
Cu 324.752†	36782.3	165.33	0.45%	[100]	ug/L
K 766.490 Radial†	5718.5	79.30	1.39%	[1000]	ug/L
Mn 257.610†	107439.2	162.31	0.15%	[100]	ug/L
Mo 202.031†	1723.5	7.89	0.46%	[100]	ug/L
Ni 231.604†	4806.7	32.10	0.67%	[100]	ug/L
P 214.914†	989.8	4.70	0.47%	[500]	ug/L
Pb 220.353†	1011.6	10.80	1.07%	[100]	ug/L
S 181.975 Axial†	165.1	4.20	2.55%	[200]	ug/L
Sb 206.836†	333.8	2.33	0.70%	[100]	ug/L
Se 196.026†	189.1	3.39	1.79%	[100]	ug/L
Si 251.611†	18248.1	17.43	0.10%	[500]	ug/L
Sn 189.927†	695.4	7.16	1.03%	[100]	ug/L
Sr 421.552†	17015.4	46.78	0.27%	[100]	ug/L
Ti 334.940†	71154.3	68.84	0.10%	[100]	ug/L
Tl 190.801†	400.9	2.12	0.53%	[100]	ug/L
U 409.014†	3803.0	70.95	1.87%	[100]	ug/L
V 292.402†	16055.6	10.84	0.07%	[100]	ug/L
Zn 213.857†	12826.3	32.85	0.26%	[100]	ug/L
SiO2†	18317.9	61.45	0.34%	[1069.5]	ug/L

Sequence No.: 3
Sample ID: S0.5
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 3
Date Collected: 12/20/2009 08:40:14
Data Type: Reprocessed on 12/20/2009 10:23:28

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc 361.383	912534.1	912534.1	101.46	%	08:43:25
1	Sc Radial	5587.5	5587.5	100.0	%	08:42:06
1	Y 371.029	740931.5	740931.5	99.735	%	08:43:25
1	Y RADIAL	5785.2	5785.2	98.70	%	08:42:06
1	Ag 328.068†	116668.4	114592.7	[500]	ug/L	08:43:25
1	Al 396.153Radial†	6850.2	6863.6	[5000]	ug/L	08:42:06
1	As 188.979†	1363.0	1370.8	[500]	ug/L	08:43:46
1	B 249.677†	24695.1	23875.3	[500]	ug/L	08:43:25
1	Ba 233.527†	74756.6	73691.1	[500]	ug/L	08:43:25
1	Be 313.107†	1509306.4	1492215.5	[500]	ug/L	08:43:25
1	Ca 317.933Radial†	3531.4	3513.6	[5000]	ug/L	08:42:26
1	Cd 226.502†	52257.3	51732.2	[500]	ug/L	08:43:25
1	Co 228.616†	28354.2	28031.6	[500]	ug/L	08:43:46
1	Cr 267.716†	50394.2	49570.9	[500]	ug/L	08:43:25
1	Cu 324.752†	185120.7	176373.8	[500]	ug/L	08:43:25
1	K 766.490 Radial†	30656.6	27784.5	[5000]	ug/L	08:42:06
1	Mg 279.077 IEC†	171.8	169.5	[5000]	ug/L	08:42:26
1	Mn 257.610†	515189.4	507295.5	[500]	ug/L	08:43:25
1	Mo 202.031†	8318.2	8173.1	[500]	ug/L	08:43:46
1	Ni 231.604†	23057.2	22623.7	[500]	ug/L	08:43:46
1	P 214.914†	5089.9	4761.6	[2500]	ug/L	08:43:46
1	Pb 220.353†	4790.3	4799.3	[500]	ug/L	08:43:46
1	S 181.975 Axial†	867.6	796.4	[1000]	ug/L	08:43:46
1	Sb 206.836†	1692.8	1626.1	[500]	ug/L	08:43:46
1	Se 196.026†	896.4	912.3	[500]	ug/L	08:43:46
1	Si 251.611†	89976.6	88023.9	[2500]	ug/L	08:43:25
1	Sn 189.927†	3359.0	3308.9	[500]	ug/L	08:43:46
1	Sr 421.552†	87532.7	87527.9	[500]	ug/L	08:42:06
1	Ti 334.940†	344183.8	340708.6	[500]	ug/L	08:43:25
1	Tl 190.801†	1883.8	1902.6	[500]	ug/L	08:43:46
1	U 409.014†	14809.8	17325.3	[500]	ug/L	08:43:25
1	V 292.402†	78142.4	78488.1	[500]	ug/L	08:43:25
1	Zn 213.857†	62985.6	61275.7	[500]	ug/L	08:43:25
1	SiO2†	90301.7	88319.2	[5347.5]	ug/L	08:44:46
2	Sc 361.383	899552.0	899552.0	100.01	%	08:43:53
2	Sc Radial	5613.2	5613.2	100	%	08:42:32
2	Y 371.029	730040.6	730040.6	98.269	%	08:43:53
2	Y RADIAL	5836.6	5836.6	99.58	%	08:42:32
2	Ag 328.068†	115129.1	114713.1	[500]	ug/L	08:43:53
2	Al 396.153Radial†	6947.6	6929.1	[5000]	ug/L	08:42:32
2	As 188.979†	1364.7	1392.0	[500]	ug/L	08:44:13
2	B 249.677†	24249.8	23781.2	[500]	ug/L	08:43:53
2	Ba 233.527†	73706.6	73704.6	[500]	ug/L	08:43:53
2	Be 313.107†	1488193.9	1492575.0	[500]	ug/L	08:43:53
2	Ca 317.933Radial†	3491.6	3457.7	[5000]	ug/L	08:42:52
2	Cd 226.502†	51500.7	51719.0	[500]	ug/L	08:43:53
2	Co 228.616†	28442.7	28523.3	[500]	ug/L	08:44:13
2	Cr 267.716†	49692.5	49586.2	[500]	ug/L	08:43:53
2	Cu 324.752†	182290.2	176177.0	[500]	ug/L	08:43:53
2	K 766.490 Radial†	30970.1	27955.8	[5000]	ug/L	08:42:32
2	Mg 279.077 IEC†	168.7	165.6	[5000]	ug/L	08:42:52
2	Mn 257.610†	508812.7	508248.0	[500]	ug/L	08:43:53
2	Mo 202.031†	8368.6	8341.8	[500]	ug/L	08:44:13
2	Ni 231.604†	23178.8	23073.2	[500]	ug/L	08:44:13
2	P 214.914†	5123.2	4867.3	[2500]	ug/L	08:44:13
2	Pb 220.353†	4800.5	4877.6	[500]	ug/L	08:44:13
2	S 181.975 Axial†	875.0	816.2	[1000]	ug/L	08:44:13
2	Sb 206.836†	1703.0	1660.4	[500]	ug/L	08:44:13

2	Se 196.026†	896.4	925.0	[500]	ug/L	08:44:13
2	Si 251.611†	88987.1	88314.5	[2500]	ug/L	08:43:53
2	Sn 189.927†	3368.1	3365.8	[500]	ug/L	08:44:13
2	Sr 421.552†	88477.2	88066.1	[500]	ug/L	08:42:32
2	Ti 334.940†	339556.3	340977.5	[500]	ug/L	08:43:53
2	Tl 190.801†	1901.3	1946.8	[500]	ug/L	08:44:13
2	U 409.014†	14371.5	17097.8	[500]	ug/L	08:43:53
2	V 292.402†	76887.9	78345.3	[500]	ug/L	08:43:53
2	Zn 213.857†	62238.6	61424.8	[500]	ug/L	08:43:53
2	SiO2†	91435.1	90737.0	[5347.5]	ug/L	08:44:51
3	Sc 361.383	904172.0	904172.0	100.53	%	08:44:20
3	Sc Radial	5570.4	5570.4	99.7	%	08:42:57
3	Y 371.029	732689.3	732689.3	98.626	%	08:44:20
3	Y RADIAL	5769.3	5769.3	98.43	%	08:42:57
3	Ag 328.068†	115833.5	114825.7	[500]	ug/L	08:44:20
3	Al 396.153Radial†	6815.1	6849.4	[5000]	ug/L	08:42:57
3	As 188.979†	1365.0	1385.3	[500]	ug/L	08:44:40
3	B 249.677†	24540.7	23946.8	[500]	ug/L	08:44:20
3	Ba 233.527†	74230.6	73849.3	[500]	ug/L	08:44:20
3	Be 313.107†	1492313.7	1489070.2	[500]	ug/L	08:44:20
3	Ca 317.933Radial†	3495.6	3488.5	[5000]	ug/L	08:43:17
3	Cd 226.502†	51809.0	51762.6	[500]	ug/L	08:44:20
3	Co 228.616†	28466.6	28401.9	[500]	ug/L	08:44:40
3	Cr 267.716†	49993.5	49631.8	[500]	ug/L	08:44:20
3	Cu 324.752†	183547.0	176495.9	[500]	ug/L	08:44:20
3	K 766.490 Radial†	30591.2	27812.9	[5000]	ug/L	08:42:57
3	Mg 279.077 IEC†	169.6	167.9	[5000]	ug/L	08:43:17
3	Mn 257.610†	511707.6	508528.3	[500]	ug/L	08:44:20
3	Mo 202.031†	8348.9	8279.4	[500]	ug/L	08:44:40
3	Ni 231.604†	23178.1	22954.1	[500]	ug/L	08:44:40
3	P 214.914†	5116.2	4834.1	[2500]	ug/L	08:44:40
3	Pb 220.353†	4822.4	4874.9	[500]	ug/L	08:44:40
3	S 181.975 Axial†	874.2	810.8	[1000]	ug/L	08:44:40
3	Sb 206.836†	1698.8	1647.5	[500]	ug/L	08:44:40
3	Se 196.026†	893.1	917.2	[500]	ug/L	08:44:40
3	Si 251.611†	89412.0	88282.5	[2500]	ug/L	08:44:20
3	Sn 189.927†	3354.9	3335.4	[500]	ug/L	08:44:40
3	Sr 421.552†	87420.8	87684.1	[500]	ug/L	08:42:57
3	Ti 334.940†	341602.0	341277.7	[500]	ug/L	08:44:20
3	Tl 190.801†	1899.0	1934.8	[500]	ug/L	08:44:40
3	U 409.014†	14540.2	17192.2	[500]	ug/L	08:44:20
3	V 292.402†	77171.1	78234.2	[500]	ug/L	08:44:20
3	Zn 213.857†	62573.1	61439.6	[500]	ug/L	08:44:20
3	SiO2†	89675.9	88519.9	[5347.5]	ug/L	08:44:56

Mean Data: S0.5

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	905419.4	6580.34	0.73%	100.67	%
Sc Radial	5590.4	21.58	0.39%	100	%
Y 371.029	734553.8	5679.80	0.77%	98.877	%
Y RADIAL	5797.0	35.16	0.61%	98.90	%
Ag 328.068†	114710.5	116.50	0.10%	[500]	ug/L
Al 396.153Radial†	6880.7	42.50	0.62%	[5000]	ug/L
As 188.979†	1382.7	10.81	0.78%	[500]	ug/L
B 249.677†	23867.8	83.02	0.35%	[500]	ug/L
Ba 233.527†	73748.3	87.69	0.12%	[500]	ug/L
Be 313.107†	1491286.9	1928.09	0.13%	[500]	ug/L
Ca 317.933Radial†	3486.6	27.99	0.80%	[5000]	ug/L
Cd 226.502†	51737.9	22.36	0.04%	[500]	ug/L
Co 228.616†	28318.9	256.16	0.90%	[500]	ug/L
Cr 267.716†	49596.3	31.64	0.06%	[500]	ug/L
Cu 324.752†	176348.9	160.91	0.09%	[500]	ug/L
K 766.490 Radial†	27851.1	91.80	0.33%	[5000]	ug/L
Mg 279.077 IEC†	167.7	1.95	1.16%	[5000]	ug/L
Mn 257.610†	508023.9	646.21	0.13%	[500]	ug/L
Mo 202.031†	8264.8	85.33	1.03%	[500]	ug/L
Ni 231.604†	22883.7	232.91	1.02%	[500]	ug/L
P 214.914†	4821.0	54.05	1.12%	[2500]	ug/L
Pb 220.353†	4850.6	44.46	0.92%	[500]	ug/L

S 181.975 Axial†	807.8	10.22	1.27%	[1000]	ug/L
Sb 206.836†	1644.7	17.33	1.05%	[500]	ug/L
Se 196.026†	918.2	6.43	0.70%	[500]	ug/L
Si 251.611†	88207.0	159.32	0.18%	[2500]	ug/L
Sn 189.927†	3336.7	28.46	0.85%	[500]	ug/L
Sr 421.552†	87759.4	276.87	0.32%	[500]	ug/L
Ti 334.940†	340987.9	284.71	0.08%	[500]	ug/L
Tl 190.801†	1928.1	22.89	1.19%	[500]	ug/L
U 409.014†	17205.1	114.31	0.66%	[500]	ug/L
V 292.402†	78355.8	127.28	0.16%	[500]	ug/L
Zn 213.857†	61380.0	90.64	0.15%	[500]	ug/L
SiO2†	89192.1	1341.74	1.50%	[5347.5]	ug/L

Sequence No.: 4
Sample ID: SCAL
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 4
Date Collected: 12/20/2009 08:47:07
Data Type: Reprocessed on 12/20/2009 10:23:29

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: SCAL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc 361.383	880648.0	880648.0	97.913	%	08:50:24
1	Sc Radial	5487.6	5487.6	98.2	%	08:49:20
1	Y 371.029	718642.7	718642.7	96.735	%	08:50:24
1	Y RADIAL	5675.6	5675.6	96.83	%	08:49:20
1	Ag 328.068†	230844.5	235366.5	[1000]	ug/L	08:50:24
1	Al 396.153Radial†	13325.9	13581.9	[10000]	ug/L	08:49:00
1	As 188.979†	2743.9	2829.9	[1000]	ug/L	08:50:44
1	B 249.677†	48618.7	49190.1	[1000]	ug/L	08:50:24
1	Ba 233.527†	145780.7	148897.2	[1000]	ug/L	08:50:24
1	Be 313.107†	2940715.5	3008004.0	[1000]	ug/L	08:50:18
1	Ca 317.933Radial†	6949.2	7057.9	[10000]	ug/L	08:49:20
1	Cd 226.502†	101685.5	104079.2	[1000]	ug/L	08:50:24
1	Co 228.616†	56440.1	57728.1	[1000]	ug/L	08:50:24
1	Cr 267.716†	98511.2	100512.2	[1000]	ug/L	08:50:24
1	Cu 324.752†	356921.3	358443.6	[1000]	ug/L	08:50:24
1	Fe 238.204 Radial†	1274.0	1286.0	[10000]	ug/L	08:49:20
1	K 766.490 Radial†	56919.1	55083.1	[10000]	ug/L	08:49:00
1	Mg 279.077 IEC†	334.7	338.6	[10000]	ug/L	08:49:20
1	Mn 257.610†	1000733.4	1021576.7	[1000]	ug/L	08:50:18
1	Mo 202.031†	16590.0	16918.2	[1000]	ug/L	08:50:44
1	Na 589.592 Radial†	34091.9	35972.6	[10000]	ug/L	08:49:00
1	Ni 231.604†	45589.0	46458.6	[1000]	ug/L	08:50:24
1	P 214.914†	9939.1	9895.8	[5000]	ug/L	08:50:44
1	Pb 220.353†	9529.8	9810.8	[1000]	ug/L	08:50:44
1	S 181.975 Axial†	1717.1	1695.0	[2000]	ug/L	08:50:44
1	Sb 206.836†	3392.6	3422.5	[1000]	ug/L	08:50:44
1	Se 196.026†	1826.3	1894.0	[1000]	ug/L	08:50:44
1	Si 251.611†	176910.4	180022.1	[5000]	ug/L	08:50:24
1	Sn 189.927†	6748.4	6890.5	[1000]	ug/L	08:50:44
1	Sr 421.552†	170395.4	173492.3	[1000]	ug/L	08:49:00
1	Ti 334.940†	678831.8	694774.0	[1000]	ug/L	08:50:18
1	Tl 190.801†	3817.6	3944.8	[1000]	ug/L	08:50:44
1	U 409.014†	33074.2	36507.7	[1000]	ug/L	08:50:24
1	V 292.402†	154930.1	159701.5	[1000]	ug/L	08:50:24
1	Zn 213.857†	122212.4	124013.0	[1000]	ug/L	08:50:24
1	SiO2†	176184.0	179255.1	[10695]	ug/L	08:51:53
2	Sc 361.383	881244.5	881244.5	97.979	%	08:50:55
2	Sc Radial	5407.7	5407.7	96.8	%	08:49:45
2	Y 371.029	719620.9	719620.9	96.866	%	08:50:55
2	Y RADIAL	5595.2	5595.2	95.46	%	08:49:45
2	Ag 328.068†	231229.0	235599.4	[1000]	ug/L	08:50:55
2	Al 396.153Radial†	13313.6	13769.5	[10000]	ug/L	08:49:25
2	As 188.979†	2738.8	2822.8	[1000]	ug/L	08:51:15
2	B 249.677†	48862.0	49404.9	[1000]	ug/L	08:50:55
2	Ba 233.527†	146377.3	149405.3	[1000]	ug/L	08:50:55
2	Be 313.107†	2957385.7	3022985.2	[1000]	ug/L	08:50:50
2	Ca 317.933Radial†	6880.5	7091.4	[10000]	ug/L	08:49:45
2	Cd 226.502†	101852.3	104179.1	[1000]	ug/L	08:50:55
2	Co 228.616†	56717.7	57972.4	[1000]	ug/L	08:50:55
2	Cr 267.716†	98520.8	100453.8	[1000]	ug/L	08:50:55
2	Cu 324.752†	357710.8	359002.5	[1000]	ug/L	08:50:55
2	Fe 238.204 Radial†	1265.9	1296.8	[10000]	ug/L	08:49:45
2	K 766.490 Radial†	57041.5	56065.7	[10000]	ug/L	08:49:25
2	Mg 279.077 IEC†	332.7	341.5	[10000]	ug/L	08:49:45
2	Mn 257.610†	1004918.5	1025156.3	[1000]	ug/L	08:50:50
2	Mo 202.031†	16571.8	16888.1	[1000]	ug/L	08:51:15
2	Na 589.592 Radial†	34193.1	36590.0	[10000]	ug/L	08:49:25
2	Ni 231.604†	45705.4	46545.9	[1000]	ug/L	08:50:55

2	P 214.914†	9924.3	9873.8	[5000]	ug/L	08:51:15
2	Pb 220.353†	9518.0	9792.2	[1000]	ug/L	08:51:15
2	S 181.975 Axial†	1705.0	1681.4	[2000]	ug/L	08:51:15
2	Sb 206.836†	3387.7	3415.2	[1000]	ug/L	08:51:15
2	Se 196.026†	1813.6	1879.9	[1000]	ug/L	08:51:15
2	Si 251.611†	177446.6	180447.1	[5000]	ug/L	08:50:55
2	Sn 189.927†	6739.2	6876.4	[1000]	ug/L	08:51:15
2	Sr 421.552†	170342.8	176000.8	[1000]	ug/L	08:49:25
2	Ti 334.940†	681470.2	696997.4	[1000]	ug/L	08:50:50
2	Tl 190.801†	3807.5	3931.8	[1000]	ug/L	08:51:15
2	U 409.014†	32918.2	36325.5	[1000]	ug/L	08:50:55
2	V 292.402†	155267.6	159938.9	[1000]	ug/L	08:50:55
2	Zn 213.857†	122424.2	124144.7	[1000]	ug/L	08:50:55
2	SiO2†	175722.4	178662.2	[10695]	ug/L	08:51:58
3	Sc 361.383	880397.3	880397.3	97.885	%	08:51:27
3	Sc Radial	5431.5	5431.5	97.2	%	08:50:10
3	Y 371.029	717466.1	717466.1	96.576	%	08:51:27
3	Y RADIAL	5618.1	5618.1	95.85	%	08:50:10
3	Ag 328.068†	231146.5	235742.2	[1000]	ug/L	08:51:27
3	Al 396.153Radial†	13385.7	13783.6	[10000]	ug/L	08:49:50
3	As 188.979†	2736.9	2823.5	[1000]	ug/L	08:51:47
3	B 249.677†	48884.3	49475.7	[1000]	ug/L	08:51:27
3	Ba 233.527†	146266.1	149435.5	[1000]	ug/L	08:51:27
3	Be 313.107†	2960773.7	3029351.3	[1000]	ug/L	08:51:22
3	Ca 317.933Radial†	6865.0	7044.4	[10000]	ug/L	08:50:10
3	Cd 226.502†	101986.7	104416.4	[1000]	ug/L	08:51:27
3	Co 228.616†	56692.6	58002.5	[1000]	ug/L	08:51:27
3	Cr 267.716†	98578.7	100609.8	[1000]	ug/L	08:51:27
3	Cu 324.752†	357778.6	359423.2	[1000]	ug/L	08:51:27
3	Fe 238.204 Radial†	1254.4	1279.2	[10000]	ug/L	08:50:10
3	K 766.490 Radial†	57128.9	55898.0	[10000]	ug/L	08:49:50
3	Mg 279.077 IEC†	335.1	342.5	[10000]	ug/L	08:50:10
3	Mn 257.610†	1008949.1	1030261.0	[1000]	ug/L	08:51:22
3	Mo 202.031†	16540.9	16872.8	[1000]	ug/L	08:51:47
3	Na 589.592 Radial†	34489.8	36740.8	[10000]	ug/L	08:49:50
3	Ni 231.604†	45736.8	46622.9	[1000]	ug/L	08:51:27
3	P 214.914†	9904.5	9863.3	[5000]	ug/L	08:51:47
3	Pb 220.353†	9476.9	9759.5	[1000]	ug/L	08:51:47
3	S 181.975 Axial†	1694.6	1672.5	[2000]	ug/L	08:51:47
3	Sb 206.836†	3376.2	3406.8	[1000]	ug/L	08:51:47
3	Se 196.026†	1809.6	1877.5	[1000]	ug/L	08:51:47
3	Si 251.611†	177517.2	180693.5	[5000]	ug/L	08:51:27
3	Sn 189.927†	6720.2	6863.6	[1000]	ug/L	08:51:47
3	Sr 421.552†	171392.6	176311.5	[1000]	ug/L	08:49:50
3	Ti 334.940†	683900.3	700149.4	[1000]	ug/L	08:51:22
3	Tl 190.801†	3796.1	3923.9	[1000]	ug/L	08:51:47
3	U 409.014†	32966.2	36406.9	[1000]	ug/L	08:51:27
3	V 292.402†	155223.2	160046.0	[1000]	ug/L	08:51:27
3	Zn 213.857†	122759.5	124607.5	[1000]	ug/L	08:51:27
3	SiO2†	175939.3	179056.4	[10695]	ug/L	08:52:03

Mean Data: SCAL

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	880763.3	435.24	0.05%	97.925	%
Sc Radial	5442.3	41.02	0.75%	97.4	%
Y 371.029	718576.6	1078.92	0.15%	96.726	%
Y RADIAL	5629.7	41.42	0.74%	96.05	%
Ag 328.068†	235569.4	189.62	0.08%	[1000]	ug/L
Al 396.153Radial†	13711.7	112.61	0.82%	[10000]	ug/L
As 188.979†	2825.4	3.92	0.14%	[1000]	ug/L
B 249.677†	49356.9	148.70	0.30%	[1000]	ug/L
Ba 233.527†	149246.0	302.46	0.20%	[1000]	ug/L
Be 313.107†	3020113.5	10959.51	0.36%	[1000]	ug/L
Ca 317.933Radial†	7064.6	24.18	0.34%	[10000]	ug/L
Cd 226.502†	104224.9	173.25	0.17%	[1000]	ug/L
Co 228.616†	57901.0	150.48	0.26%	[1000]	ug/L
Cr 267.716†	100525.3	78.80	0.08%	[1000]	ug/L
Cu 324.752†	358956.4	491.42	0.14%	[1000]	ug/L
Fe 238.204 Radial†	1287.3	8.88	0.69%	[10000]	ug/L

K 766.490 Radial†	55682.3	525.61	0.94%	[10000]	ug/L
Mg 279.077 IEC†	340.8	2.03	0.59%	[10000]	ug/L
Mn 257.610†	1025664.7	4364.46	0.43%	[1000]	ug/L
Mo 202.031†	16893.0	23.09	0.14%	[1000]	ug/L
Na 589.592 Radial†	36434.5	407.02	1.12%	[10000]	ug/L
Ni 231.604†	46542.5	82.20	0.18%	[1000]	ug/L
P 214.914†	9877.7	16.57	0.17%	[5000]	ug/L
Pb 220.353†	9787.5	25.97	0.27%	[1000]	ug/L
S 181.975 Axial†	1683.0	11.32	0.67%	[2000]	ug/L
Sb 206.836†	3414.8	7.87	0.23%	[1000]	ug/L
Se 196.026†	1883.8	8.92	0.47%	[1000]	ug/L
Si 251.611†	180387.6	339.63	0.19%	[5000]	ug/L
Sn 189.927†	6876.8	13.46	0.20%	[1000]	ug/L
Sr 421.552†	175268.2	1545.78	0.88%	[1000]	ug/L
Ti 334.940†	697306.9	2701.08	0.39%	[1000]	ug/L
Tl 190.801†	3933.5	10.55	0.27%	[1000]	ug/L
U 409.014†	36413.4	91.25	0.25%	[1000]	ug/L
V 292.402†	159895.5	176.31	0.11%	[1000]	ug/L
Zn 213.857†	124255.0	312.23	0.25%	[1000]	ug/L
SiO2†	178991.2	301.78	0.17%	[10695]	ug/L

Sequence No.: 5
Sample ID: S10
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 5
Date Collected: 12/20/2009 08:54:15
Data Type: Reprocessed on 12/20/2009 10:23:30

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S10

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc 361.383	880730.7	880730.7	97.922	%	08:57:25
1	Sc Radial	5366.7	5366.7	96.0	%	08:56:28
1	Y 371.029	710397.7	710397.7	95.625	%	08:57:25
1	Y RADIAL	5565.2	5565.2	94.95	%	08:56:28
1	Al 396.153Radial†	68291.5	71115.3	[50000]	ug/L	08:56:08
1	Ca 317.933Radial†	34337.5	35732.8	[50000]	ug/L	08:56:08
1	Fe 238.204 Radial†	2430.9	2519.7	[20000]	ug/L	08:56:28
1	Mg 279.077 IEC†	1583.5	1646.4	[50000]	ug/L	08:56:28
1	Na 589.592 Radial†	69011.1	73111.2	[20000]	ug/L	08:56:08
2	Sc 361.383	874840.9	874840.9	97.267	%	08:57:31
2	Sc Radial	5313.4	5313.4	95.1	%	08:56:53
2	Y 371.029	706592.6	706592.6	95.113	%	08:57:31
2	Y RADIAL	5510.9	5510.9	94.02	%	08:56:53
2	Al 396.153Radial†	68122.5	71650.7	[50000]	ug/L	08:56:33
2	Ca 317.933Radial†	34297.9	36049.7	[50000]	ug/L	08:56:33
2	Fe 238.204 Radial†	2403.8	2516.6	[20000]	ug/L	08:56:53
2	Mg 279.077 IEC†	1579.9	1659.1	[50000]	ug/L	08:56:53
2	Na 589.592 Radial†	68815.1	73625.8	[20000]	ug/L	08:56:33
3	Sc 361.383	883372.1	883372.1	98.215	%	08:57:37
3	Sc Radial	5362.8	5362.8	96.0	%	08:57:18
3	Y 371.029	712569.7	712569.7	95.917	%	08:57:37
3	Y RADIAL	5554.9	5554.9	94.77	%	08:57:18
3	Al 396.153Radial†	68304.6	71180.1	[50000]	ug/L	08:56:58
3	Ca 317.933Radial†	34328.1	35748.7	[50000]	ug/L	08:56:58
3	Fe 238.204 Radial†	2420.7	2511.0	[20000]	ug/L	08:57:18
3	Mg 279.077 IEC†	1593.6	1658.1	[50000]	ug/L	08:57:18
3	Na 589.592 Radial†	68904.0	73051.3	[20000]	ug/L	08:56:58

Mean Data: S10

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	879647.9	4367.44	0.50%	97.801	%
Sc Radial	5347.6	29.72	0.56%	95.7	%
Y 371.029	709853.3	3025.52	0.43%	95.552	%
Y RADIAL	5543.7	28.87	0.52%	94.58	%
Al 396.153Radial†	71315.4	292.23	0.41%	[50000]	ug/L
Ca 317.933Radial†	35843.7	178.52	0.50%	[50000]	ug/L
Fe 238.204 Radial†	2515.8	4.43	0.18%	[20000]	ug/L
Mg 279.077 IEC†	1654.6	7.08	0.43%	[50000]	ug/L
Na 589.592 Radial†	73262.8	315.84	0.43%	[20000]	ug/L

Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 328.068	3	Lin Thru 0	0.0	234.4	0.00000	0.999941	
Al 396.153Radial	3	Lin Thru 0	0.0	1.424	0.00000	0.999967	
As 188.979	3	Lin Thru 0	0.0	2.814	0.00000	0.999964	
B 249.677	3	Lin Thru 0	0.0	49.02	0.00000	0.999909	
Ba 233.527	3	Lin Thru 0	0.0	148.9	0.00000	0.999983	
Be 313.107	3	Lin Thru 0	0.0	3013	0.00000	0.999986	
Ca 317.933Radial	3	Lin Thru 0	0.0	0.7163	0.00000	0.999993	
Cd 226.502	3	Lin Thru 0	0.0	104.1	0.00000	0.999995	
Co 228.616	3	Lin Thru 0	0.0	57.67	0.00000	0.999956	
Cr 267.716	3	Lin Thru 0	0.0	100.3	0.00000	0.999982	
Cu 324.752	3	Lin Thru 0	0.0	357.8	0.00000	0.999973	
Fe 238.204 Radia	2	Lin Thru 0	0.0	0.1264	0.00000	0.999957	

K 766.490 Radial	3	Lin Thru 0	0.0	5.570	0.00000	0.999997
Mg 279.077 IEC	3	Lin Thru 0	0.0	0.0331	0.00000	0.999983
Mn 257.610	3	Lin Thru 0	0.0	1024	0.00000	0.999983
Mo 202.031	3	Lin Thru 0	0.0	16.82	0.00000	0.999961
Na 589.592 Radia	2	Lin Thru 0	0.0	3.659	0.00000	0.999998
Ni 231.604	3	Lin Thru 0	0.0	46.40	0.00000	0.999973
P 214.914	3	Lin Thru 0	0.0	1.966	0.00000	0.999954
Pb 220.353	3	Lin Thru 0	0.0	9.773	0.00000	0.999989
S 181.975 Axial	3	Lin Thru 0	0.0	0.8347	0.00000	0.999870
Sb 206.836	3	Lin Thru 0	0.0	3.389	0.00000	0.999890
Se 196.026	3	Lin Thru 0	0.0	1.874	0.00000	0.999949
Si 251.611	3	Lin Thru 0	0.0	35.92	0.00000	0.999960
Sn 189.927	3	Lin Thru 0	0.0	6.837	0.00000	0.999929
Sr 421.552	3	Lin Thru 0	0.0	175.3	0.00000	0.999996
Ti 334.940	3	Lin Thru 0	0.0	694.4	0.00000	0.999959
Tl 190.801	3	Lin Thru 0	0.0	3.919	0.00000	0.999967
U 409.014	3	Lin Thru 0	0.0	36.03	0.00000	0.999742
V 292.402	3	Lin Thru 0	0.0	159.3	0.00000	0.999968
Zn 213.857	3	Lin Thru 0	0.0	124.0	0.00000	0.999984
SiO2	3	Lin Thru 0	0.0	16.73	0.00000	0.999997

Sequence No.: 6
Sample ID: ICV
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 9
Date Collected: 12/20/2009 08:59:48
Data Type: Reprocessed on 12/20/2009 10:23:31

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc 361.383	905964.8	905964.8	100.73	%			09:02:59
1	Sc Radial	5563.5	5563.5	99.6	%			09:01:41
1	Y 371.029	739085.0	739085.0	99.487	%			09:02:59
1	Y RADIAL	5826.0	5826.0	99.39	%			09:01:41
1	Ag 328.068†	60902.2	60063.0	259.43	ug/L	259.43	ppb	09:02:59
1	Al 396.153Radial†	6953.3	6996.7	4891.6	ug/L	4891.6	ppb	09:01:41
1	As 188.979†	1295.6	1313.8	471.20	ug/L	471.20	ppb	09:03:19
1	B 249.677†	25689.8	25039.2	508.86	ug/L	508.86	ppb	09:02:59
1	Ba 233.527†	76016.0	75475.7	508.00	ug/L	508.00	ppb	09:02:59
1	Be 313.107†	779472.0	778438.3	259.32	ug/L	259.32	ppb	09:02:59
1	Ca 317.933Radial†	3505.9	3503.2	4890.7	ug/L	4890.7	ppb	09:02:01
1	Cd 226.502†	51717.1	51569.4	495.24	ug/L	495.24	ppb	09:02:59
1	Co 228.616†	28898.2	28774.3	499.31	ug/L	499.31	ppb	09:03:19
1	Cr 267.716†	49157.5	48703.4	486.48	ug/L	486.48	ppb	09:02:59
1	Cu 324.752†	188853.3	181402.6	507.27	ug/L	507.27	ppb	09:02:59
1	Fe 238.204 Radial†	650.2	641.8	5094.6	ug/L	5094.6	ppb	09:02:01
1	K 766.490 Radial†	16729.9	13929.8	2495.7	ug/L	2495.7	ppb	09:01:41
1	Mg 279.077 IEC†	178.1	176.6	5335.3	ug/L	5335.3	ppb	09:02:01
1	Mn 257.610†	525826.7	521538.1	509.65	ug/L	509.65	ppb	09:02:59
1	Mo 202.031†	9029.4	8938.6	531.80	ug/L	531.80	ppb	09:03:19
1	Na 589.592 Radial†	7608.9	8901.8	2432.7	ug/L	2432.7	ppb	09:01:41
1	Ni 231.604†	23278.1	23007.8	495.53	ug/L	495.53	ppb	09:03:19
1	P 214.914†	5168.6	4876.1	2403.5	ug/L	2403.5	ppb	09:03:19
1	Pb 220.353†	4812.7	4855.8	498.45	ug/L	498.45	ppb	09:03:19
1	S 181.975 Axial†	2107.6	2033.7	2435.5	ug/L	2435.5	ppb	09:03:19
1	Sb 206.836†	1724.2	1669.3	501.38	ug/L	501.38	ppb	09:03:19
1	Se 196.026†	4742.2	4736.7	2545.5	ug/L	2545.5	ppb	09:03:19
1	Si 251.611†	173611.1	171697.5	4767.8	ug/L	4767.8	ppb	09:02:59
1	Sn 189.927†	3642.3	3614.1	529.19	ug/L	529.19	ppb	09:03:19
1	Sr 421.552†	91609.2	91999.6	524.83	ug/L	524.83	ppb	09:01:41
1	Ti 334.940†	342983.1	341976.4	492.36	ug/L	492.36	ppb	09:02:59
1	Tl 190.801†	2003.9	2035.2	522.52	ug/L	522.52	ppb	09:03:19
1	U 409.014†	15050.0	17669.6	488.85	ug/L	488.85	ppb	09:02:59
1	V 292.402†	79383.5	80278.7	511.20	ug/L	511.20	ppb	09:02:59
1	Zn 213.857†	64267.5	62998.6	503.87	ug/L	503.87	ppb	09:02:59
1	SiO2†	172224.8	170296.2	10155	ug/L	10155	ppb	09:04:16
2	Sc 361.383	912691.6	912691.6	101.48	%			09:03:25
2	Sc Radial	5495.5	5495.5	98.4	%			09:02:06
2	Y 371.029	744312.0	744312.0	100.19	%			09:03:25
2	Y RADIAL	5758.3	5758.3	98.24	%			09:02:06
2	Ag 328.068†	61358.4	60067.0	259.47	ug/L	259.47	ppb	09:03:25
2	Al 396.153Radial†	6900.6	7029.4	4914.8	ug/L	4914.8	ppb	09:02:06
2	As 188.979†	1307.0	1315.4	471.81	ug/L	471.81	ppb	09:03:45
2	B 249.677†	25910.8	25069.0	509.46	ug/L	509.46	ppb	09:03:25
2	Ba 233.527†	76729.8	75622.9	508.99	ug/L	508.99	ppb	09:03:25
2	Be 313.107†	787525.2	780671.0	260.06	ug/L	260.06	ppb	09:03:25
2	Ca 317.933Radial†	3501.1	3541.9	4944.8	ug/L	4944.8	ppb	09:02:26
2	Cd 226.502†	52403.4	51867.3	498.10	ug/L	498.10	ppb	09:03:25
2	Co 228.616†	29029.8	28692.5	497.88	ug/L	497.88	ppb	09:03:45
2	Cr 267.716†	49566.6	48746.8	486.92	ug/L	486.92	ppb	09:03:25
2	Cu 324.752†	189885.1	181037.4	506.26	ug/L	506.26	ppb	09:03:25
2	Fe 238.204 Radial†	650.6	650.3	5161.6	ug/L	5161.6	ppb	09:02:26
2	K 766.490 Radial†	16560.2	13965.1	2502.0	ug/L	2502.0	ppb	09:02:06
2	Mg 279.077 IEC†	175.0	175.7	5309.5	ug/L	5309.5	ppb	09:02:26
2	Mn 257.610†	531010.5	522799.0	510.89	ug/L	510.89	ppb	09:03:25
2	Mo 202.031†	9030.7	8873.9	527.96	ug/L	527.96	ppb	09:03:45
2	Na 589.592 Radial†	7609.6	8997.0	2458.7	ug/L	2458.7	ppb	09:02:06
2	Ni 231.604†	23317.5	22876.3	492.70	ug/L	492.70	ppb	09:03:45

2	P 214.914†	5194.1	4863.4	2397.2 ug/L	2397.2 ppb	09:03:45
2	Pb 220.353†	4822.1	4829.9	495.79 ug/L	495.79 ppb	09:03:45
2	S 181.975 Axial†	2121.7	2032.1	2433.7 ug/L	2433.7 ppb	09:03:45
2	Sb 206.836†	1737.9	1670.2	501.59 ug/L	501.59 ppb	09:03:45
2	Se 196.026†	4787.7	4746.8	2551.2 ug/L	2551.2 ppb	09:03:45
2	Si 251.611†	175124.6	171918.8	4774.1 ug/L	4774.1 ppb	09:03:25
2	Sn 189.927†	3689.0	3633.6	532.03 ug/L	532.03 ppb	09:03:45
2	Sr 421.552†	90723.5	92236.8	526.19 ug/L	526.19 ppb	09:02:06
2	Ti 334.940†	345840.4	342282.6	492.80 ug/L	492.80 ppb	09:03:25
2	Tl 190.801†	2026.5	2042.8	524.49 ug/L	524.49 ppb	09:03:45
2	U 409.014†	15265.6	17772.0	491.69 ug/L	491.69 ppb	09:03:25
2	V 292.402†	80087.2	80391.3	511.85 ug/L	511.85 ppb	09:03:25
2	Zn 213.857†	64887.0	63138.8	505.02 ug/L	505.02 ppb	09:03:25
2	SiO2†	174065.9	170850.3	10188 ug/L	10188 ppb	09:04:21
3	Sc 361.383	908103.1	908103.1	100.97 %		09:03:51
3	Sc Radial	5524.7	5524.7	98.9 %		09:02:31
3	Y 371.029	739274.9	739274.9	99.512 %		09:03:51
3	Y RADIAL	5750.0	5750.0	98.10 %		09:02:31
3	Ag 328.068†	61119.6	60136.0	259.75 ug/L	259.75 ppb	09:03:51
3	Al 396.153Radial†	6879.0	6970.5	4873.2 ug/L	4873.2 ppb	09:02:31
3	As 188.979†	1297.7	1312.7	470.84 ug/L	470.84 ppb	09:04:11
3	B 249.677†	25781.4	25069.9	509.48 ug/L	509.48 ppb	09:03:51
3	Ba 233.527†	76445.3	75723.2	509.66 ug/L	509.66 ppb	09:03:51
3	Be 313.107†	781435.4	778560.9	259.36 ug/L	259.36 ppb	09:03:51
3	Ca 317.933Radial†	3500.9	3522.8	4918.2 ug/L	4918.2 ppb	09:02:51
3	Cd 226.502†	52030.0	51758.4	497.06 ug/L	497.06 ppb	09:03:51
3	Co 228.616†	29079.5	28886.2	501.25 ug/L	501.25 ppb	09:04:11
3	Cr 267.716†	49396.3	48824.9	487.69 ug/L	487.69 ppb	09:03:51
3	Cu 324.752†	188868.8	180976.4	506.09 ug/L	506.09 ppb	09:03:51
3	Fe 238.204 Radial†	649.9	646.1	5128.3 ug/L	5128.3 ppb	09:02:51
3	K 766.490 Radial†	16550.2	13866.0	2484.2 ug/L	2484.2 ppb	09:02:31
3	Mg 279.077 IEC†	174.0	173.7	5248.0 ug/L	5248.0 ppb	09:02:51
3	Mn 257.610†	528856.7	523309.9	511.39 ug/L	511.39 ppb	09:03:51
3	Mo 202.031†	9073.1	8960.8	533.12 ug/L	533.12 ppb	09:04:11
3	Na 589.592 Radial†	7567.3	8913.4	2435.9 ug/L	2435.9 ppb	09:02:31
3	Ni 231.604†	23384.8	23059.0	496.63 ug/L	496.63 ppb	09:04:11
3	P 214.914†	5179.7	4875.0	2403.2 ug/L	2403.2 ppb	09:04:11
3	Pb 220.353†	4835.1	4866.7	499.57 ug/L	499.57 ppb	09:04:11
3	S 181.975 Axial†	2121.7	2042.7	2446.4 ug/L	2446.4 ppb	09:04:11
3	Sb 206.836†	1731.9	1672.9	502.49 ug/L	502.49 ppb	09:04:11
3	Se 196.026†	4782.1	4765.2	2560.8 ug/L	2560.8 ppb	09:04:11
3	Si 251.611†	174450.1	172122.7	4779.6 ug/L	4779.6 ppb	09:03:51
3	Sn 189.927†	3669.3	3632.4	531.86 ug/L	531.86 ppb	09:04:11
3	Sr 421.552†	90458.5	91481.5	521.88 ug/L	521.88 ppb	09:02:31
3	Ti 334.940†	344259.8	342439.1	493.03 ug/L	493.03 ppb	09:03:51
3	Tl 190.801†	2029.0	2055.4	527.68 ug/L	527.68 ppb	09:04:11
3	U 409.014†	15043.4	17628.0	487.69 ug/L	487.69 ppb	09:03:51
3	V 292.402†	79682.1	80388.9	511.91 ug/L	511.91 ppb	09:03:51
3	Zn 213.857†	64522.6	63101.0	504.70 ug/L	504.70 ppb	09:03:51
3	SiO2†	174821.5	172465.5	10285 ug/L	10285 ppb	09:04:27

Mean Data: ICV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	908919.9	101.06	%	0.382				0.38%
Sc Radial	5527.9	98.9	%	0.61				0.62%
Y 371.029	740890.6	99.730	%	0.3990				0.40%
Y RADIAL	5778.1	98.58	%	0.710				0.72%
Ag 328.068†	60088.7	259.55	ug/L	0.178	259.55	ppb	0.178	0.07%
QC value within limits for Ag 328.068 Recovery = 103.82%								
Al 396.153Radial†	6998.9	4893.2	ug/L	20.84	4893.2	ppb	20.84	0.43%
QC value within limits for Al 396.153Radial Recovery = 97.86%								
As 188.979†	1314.0	471.28	ug/L	0.491	471.28	ppb	0.491	0.10%
QC value within limits for As 188.979 Recovery = 94.26%								
B 249.677†	25059.4	509.27	ug/L	0.352	509.27	ppb	0.352	0.07%
QC value within limits for B 249.677 Recovery = 101.85%								
Ba 233.527†	75607.2	508.89	ug/L	0.837	508.89	ppb	0.837	0.16%
QC value within limits for Ba 233.527 Recovery = 101.78%								
Be 313.107†	779223.4	259.58	ug/L	0.417	259.58	ppb	0.417	0.16%
QC value within limits for Be 313.107 Recovery = 103.83%								

Ca 317.933Radial†	3522.6	4917.9 ug/L	27.04	4917.9 ppb	27.04	0.55%
QC value within limits for Ca 317.933Radial Recovery = 98.36%						
Cd 226.502†	51731.7	496.80 ug/L	1.444	496.80 ppb	1.444	0.29%
QC value within limits for Cd 226.502 Recovery = 99.36%						
Co 228.616†	28784.3	499.48 ug/L	1.693	499.48 ppb	1.693	0.34%
QC value within limits for Co 228.616 Recovery = 99.90%						
Cr 267.716†	48758.4	487.03 ug/L	0.615	487.03 ppb	0.615	0.13%
QC value within limits for Cr 267.716 Recovery = 97.41%						
Cu 324.752†	181138.8	506.54 ug/L	0.643	506.54 ppb	0.643	0.13%
QC value within limits for Cu 324.752 Recovery = 101.31%						
Fe 238.204 Radial†	646.1	5128.2 ug/L	33.49	5128.2 ppb	33.49	0.65%
QC value within limits for Fe 238.204 Radial Recovery = 102.56%						
K 766.490 Radial†	13920.3	2493.9 ug/L	9.01	2493.9 ppb	9.01	0.36%
QC value within limits for K 766.490 Radial Recovery = 99.76%						
Mg 279.077 IEC†	175.3	5297.6 ug/L	44.87	5297.6 ppb	44.87	0.85%
QC value within limits for Mg 279.077 IEC Recovery = 105.95%						
Mn 257.610†	522549.0	510.64 ug/L	0.894	510.64 ppb	0.894	0.17%
QC value within limits for Mn 257.610 Recovery = 102.13%						
Mo 202.031†	8924.4	530.96 ug/L	2.682	530.96 ppb	2.682	0.51%
QC value within limits for Mo 202.031 Recovery = 106.19%						
Na 589.592 Radial†	8937.4	2442.5 ug/L	14.20	2442.5 ppb	14.20	0.58%
QC value within limits for Na 589.592 Radial Recovery = 97.70%						
Ni 231.604†	22981.0	494.95 ug/L	2.030	494.95 ppb	2.030	0.41%
QC value within limits for Ni 231.604 Recovery = 98.99%						
P 214.914†	4871.5	2401.3 ug/L	3.54	2401.3 ppb	3.54	0.15%
QC value within limits for P 214.914 Recovery = 96.05%						
Pb 220.353†	4850.8	497.93 ug/L	1.942	497.93 ppb	1.942	0.39%
QC value within limits for Pb 220.353 Recovery = 99.59%						
S 181.975 Axial†	2036.2	2438.5 ug/L	6.86	2438.5 ppb	6.86	0.28%
QC value within limits for S 181.975 Axial Recovery = 97.54%						
Sb 206.836†	1670.8	501.82 ug/L	0.589	501.82 ppb	0.589	0.12%
QC value within limits for Sb 206.836 Recovery = 100.36%						
Se 196.026†	4749.6	2552.5 ug/L	7.73	2552.5 ppb	7.73	0.30%
QC value within limits for Se 196.026 Recovery = 102.10%						
Si 251.611†	171913.0	4773.8 ug/L	5.91	4773.8 ppb	5.91	0.12%
QC value within limits for Si 251.611 Recovery = 95.48%						
Sn 189.927†	3626.7	531.03 ug/L	1.597	531.03 ppb	1.597	0.30%
QC value within limits for Sn 189.927 Recovery = 106.21%						
Sr 421.552†	91906.0	524.30 ug/L	2.204	524.30 ppb	2.204	0.42%
QC value within limits for Sr 421.552 Recovery = 104.86%						
Ti 334.940†	342232.7	492.73 ug/L	0.340	492.73 ppb	0.340	0.07%
QC value within limits for Ti 334.940 Recovery = 98.55%						
Tl 190.801†	2044.4	524.90 ug/L	2.602	524.90 ppb	2.602	0.50%
QC value within limits for Tl 190.801 Recovery = 104.98%						
U 409.014†	17689.9	489.41 ug/L	2.055	489.41 ppb	2.055	0.42%
QC value within limits for U 409.014 Recovery = 97.88%						
V 292.402†	80352.9	511.65 ug/L	0.390	511.65 ppb	0.390	0.08%
QC value within limits for V 292.402 Recovery = 102.33%						
Zn 213.857†	63079.4	504.53 ug/L	0.591	504.53 ppb	0.591	0.12%
QC value within limits for Zn 213.857 Recovery = 100.91%						
SiO2†	171204.0	10209 ug/L	67.3	10209 ppb	67.3	0.66%
QC value within limits for SiO2 Recovery = 95.46%						

All analyte(s) passed QC.

Sequence No.: 7
Sample ID: ICB
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 10
Date Collected: 12/20/2009 09:06:37
Data Type: Reprocessed on 12/20/2009 10:23:33

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc 361.383	909741.1	909741.1	101.15	%			09:09:47
1	Sc Radial	5613.2	5613.2	100	%			09:08:30
1	Y 371.029	748636.7	748636.7	100.77	%			09:09:47
1	Y RADIAL	5870.2	5870.2	100.1	%			09:08:30
1	Ag 328.068†	502.2	97.1	0.4112	ug/L	0.4112	ppb	09:09:52
1	Al 396.153Radial†	-41.9	-28.4	-19.977	ug/L	-19.977	ppb	09:08:30
1	As 188.979†	-23.1	4.6	1.6332	ug/L	1.6332	ppb	09:10:12
1	B 249.677†	357.0	-112.0	-2.2868	ug/L	-2.2868	ppb	09:09:52
1	Ba 233.527†	-1.3	7.3	0.0478	ug/L	0.0478	ppb	09:10:12
1	Be 313.107†	-4458.7	186.9	0.0621	ug/L	0.0621	ppb	09:09:52
1	Ca 317.933Radial†	19.8	1.9	2.6307	ug/L	2.6307	ppb	09:08:50
1	Cd 226.502†	-222.7	5.5	0.0529	ug/L	0.0529	ppb	09:10:12
1	Co 228.616†	-72.6	13.0	0.2268	ug/L	0.2268	ppb	09:10:12
1	Cr 267.716†	86.7	-13.5	-0.1367	ug/L	-0.1367	ppb	09:10:12
1	Cu 324.752†	6177.7	20.6	0.0578	ug/L	0.0578	ppb	09:09:52
1	Fe 238.204 Radial†	12.0	0.7	5.6407	ug/L	5.6407	ppb	09:08:50
1	K 766.490 Radial†	2891.7	6.2	1.1116	ug/L	1.1116	ppb	09:08:30
1	Mg 279.077 IEC†	2.9	0.6	19.109	ug/L	19.109	ppb	09:08:50
1	Mn 257.610†	500.1	2.9	0.0030	ug/L	0.0030	ppb	09:10:12
1	Mo 202.031†	35.8	9.9	0.5864	ug/L	0.5864	ppb	09:10:12
1	Na 589.592 Radial†	-1328.4	-62.4	-17.040	ug/L	-17.040	ppb	09:08:30
1	Ni 231.604†	115.6	12.0	0.2592	ug/L	0.2592	ppb	09:10:12
1	P 214.914†	251.5	-6.5	-3.3441	ug/L	-3.3441	ppb	09:10:12
1	Pb 220.353†	-76.9	1.8	0.1773	ug/L	0.1773	ppb	09:10:12
1	S 181.975 Axial†	51.8	-7.6	-9.0691	ug/L	-9.0691	ppb	09:10:12
1	Sb 206.836†	46.0	3.1	0.9265	ug/L	0.9265	ppb	09:10:12
1	Se 196.026†	-34.0	-4.9	-2.5842	ug/L	-2.5842	ppb	09:10:12
1	Si 251.611†	692.6	24.9	0.6809	ug/L	0.6809	ppb	09:10:12
1	Sn 189.927†	4.4	2.6	0.3760	ug/L	0.3760	ppb	09:10:12
1	Sr 421.552†	-5.7	-11.3	-0.0643	ug/L	-0.0643	ppb	09:08:30
1	Ti 334.940†	-1453.8	32.8	0.0461	ug/L	0.0461	ppb	09:09:52
1	Tl 190.801†	-32.6	13.6	3.4706	ug/L	3.4706	ppb	09:10:12
1	U 409.014†	-2656.2	102.3	2.8386	ug/L	2.8386	ppb	09:09:47
1	V 292.402†	-1585.9	-99.5	-0.6110	ug/L	-0.6110	ppb	09:09:52
1	Zn 213.857†	788.8	-25.0	-0.2042	ug/L	-0.2042	ppb	09:10:12
1	SiO2†	722.4	29.3	1.7253	ug/L	1.7253	ppb	09:11:18
2	Sc 361.383	911833.9	911833.9	101.38	%			09:10:17
2	Sc Radial	5557.2	5557.2	99.5	%			09:08:55
2	Y 371.029	751406.7	751406.7	101.15	%			09:10:17
2	Y RADIAL	5830.7	5830.7	99.48	%			09:08:55
2	Ag 328.068†	382.3	-22.3	-0.0972	ug/L	-0.0972	ppb	09:10:22
2	Al 396.153Radial†	-43.6	-30.5	-21.450	ug/L	-21.450	ppb	09:08:55
2	As 188.979†	-25.0	2.8	0.9849	ug/L	0.9849	ppb	09:10:42
2	B 249.677†	254.6	-213.9	-4.3642	ug/L	-4.3642	ppb	09:10:22
2	Ba 233.527†	-1.1	7.6	0.0508	ug/L	0.0508	ppb	09:10:42
2	Be 313.107†	-4453.1	202.6	0.0673	ug/L	0.0673	ppb	09:10:22
2	Ca 317.933Radial†	17.3	-0.4	-0.6205	ug/L	-0.6205	ppb	09:09:15
2	Cd 226.502†	-219.8	9.0	0.0860	ug/L	0.0860	ppb	09:10:42
2	Co 228.616†	-75.3	10.4	0.1823	ug/L	0.1823	ppb	09:10:42
2	Cr 267.716†	107.4	6.7	0.0663	ug/L	0.0663	ppb	09:10:42
2	Cu 324.752†	6037.2	-132.0	-0.3688	ug/L	-0.3688	ppb	09:10:22
2	Fe 238.204 Radial†	11.4	0.3	2.0571	ug/L	2.0571	ppb	09:09:15
2	K 766.490 Radial†	2796.0	-61.1	-10.966	ug/L	-10.966	ppb	09:08:55
2	Mg 279.077 IEC†	0.7	-1.6	-48.211	ug/L	-48.211	ppb	09:09:15
2	Mn 257.610†	514.2	15.6	0.0164	ug/L	0.0164	ppb	09:10:42
2	Mo 202.031†	35.1	9.0	0.5372	ug/L	0.5372	ppb	09:10:42
2	Na 589.592 Radial†	-1303.5	-50.6	-13.841	ug/L	-13.841	ppb	09:08:55
2	Ni 231.604†	105.3	1.6	0.0354	ug/L	0.0354	ppb	09:10:42

2	P 214.914†	266.6	7.8	4.0143	ug/L	4.0143 ppb	09:10:42
2	Pb 220.353†	-92.7	-13.6	-1.3955	ug/L	-1.3955 ppb	09:10:42
2	S 181.975 Axial†	52.9	-6.6	-7.8931	ug/L	-7.8931 ppb	09:10:42
2	Sb 206.836†	42.7	-0.3	-0.0758	ug/L	-0.0758 ppb	09:10:42
2	Se 196.026†	-35.7	-6.4	-3.3968	ug/L	-3.3968 ppb	09:10:42
2	Si 251.611†	707.6	38.1	1.0551	ug/L	1.0551 ppb	09:10:42
2	Sn 189.927†	3.8	1.9	0.2765	ug/L	0.2765 ppb	09:10:42
2	Sr 421.552†	-11.0	-16.7	-0.0951	ug/L	-0.0951 ppb	09:08:55
2	Ti 334.940†	-1486.3	4.0	0.0042	ug/L	0.0042 ppb	09:10:22
2	Tl 190.801†	-45.0	1.4	0.3560	ug/L	0.3560 ppb	09:10:42
2	U 409.014†	-2646.0	118.4	3.2849	ug/L	3.2849 ppb	09:10:17
2	V 292.402†	-1489.8	-1.1	0.0056	ug/L	0.0056 ppb	09:10:22
2	Zn 213.857†	798.2	-17.5	-0.1390	ug/L	-0.1390 ppb	09:10:42
2	SiO2†	702.8	8.3	0.4805	ug/L	0.4805 ppb	09:11:23
3	Sc 361.383	922023.3	922023.3	102.51	%		09:10:47
3	Sc Radial	5547.4	5547.4	99.3	%		09:09:20
3	Y 371.029	758434.6	758434.6	102.09	%		09:10:47
3	Y RADIAL	5839.8	5839.8	99.63	%		09:09:20
3	Ag 328.068†	397.2	-12.0	-0.0483	ug/L	-0.0483 ppb	09:10:53
3	Al 396.153Radial†	-19.2	-6.0	-4.2143	ug/L	-4.2143 ppb	09:09:20
3	As 188.979†	-29.3	-1.2	-0.4042	ug/L	-0.4042 ppb	09:11:13
3	B 249.677†	185.3	-284.3	-5.8003	ug/L	-5.8003 ppb	09:10:53
3	Ba 233.527†	-3.6	5.1	0.0341	ug/L	0.0341 ppb	09:11:13
3	Be 313.107†	-4584.2	123.3	0.0412	ug/L	0.0412 ppb	09:10:53
3	Ca 317.933Radial†	14.2	-3.6	-5.0409	ug/L	-5.0409 ppb	09:09:40
3	Cd 226.502†	-226.1	5.2	0.0491	ug/L	0.0491 ppb	09:11:13
3	Co 228.616†	-84.7	2.1	0.0358	ug/L	0.0358 ppb	09:11:13
3	Cr 267.716†	94.9	-6.6	-0.0660	ug/L	-0.0660 ppb	09:11:13
3	Cu 324.752†	6140.1	-97.4	-0.2718	ug/L	-0.2718 ppb	09:10:53
3	Fe 238.204 Radial†	12.3	1.1	9.0835	ug/L	9.0835 ppb	09:09:40
3	K 766.490 Radial†	2876.2	24.7	4.4281	ug/L	4.4281 ppb	09:09:20
3	Mg 279.077 IEC†	2.6	0.3	9.0877	ug/L	9.0877 ppb	09:09:40
3	Mn 257.610†	517.0	12.8	0.0132	ug/L	0.0132 ppb	09:11:13
3	Mo 202.031†	23.4	-2.7	-0.1611	ug/L	-0.1611 ppb	09:11:13
3	Na 589.592 Radial†	-1230.7	20.4	5.5681	ug/L	5.5681 ppb	09:09:20
3	Ni 231.604†	117.6	12.5	0.2692	ug/L	0.2692 ppb	09:11:13
3	P 214.914†	250.0	-11.3	-5.6719	ug/L	-5.6719 ppb	09:11:13
3	Pb 220.353†	-84.7	-4.8	-0.4882	ug/L	-0.4882 ppb	09:11:13
3	S 181.975 Axial†	47.0	-12.9	-15.453	ug/L	-15.453 ppb	09:11:13
3	Sb 206.836†	48.3	4.7	1.4032	ug/L	1.4032 ppb	09:11:13
3	Se 196.026†	-24.6	4.8	2.5663	ug/L	2.5663 ppb	09:11:13
3	Si 251.611†	701.7	24.6	0.6833	ug/L	0.6833 ppb	09:11:13
3	Sn 189.927†	10.0	8.0	1.1636	ug/L	1.1636 ppb	09:11:13
3	Sr 421.552†	-2.5	-8.1	-0.0464	ug/L	-0.0464 ppb	09:09:20
3	Ti 334.940†	-1405.4	99.1	0.1429	ug/L	0.1429 ppb	09:10:53
3	Tl 190.801†	-48.0	-1.1	-0.2703	ug/L	-0.2703 ppb	09:11:13
3	U 409.014†	-2824.9	-27.3	-0.7601	ug/L	-0.7601 ppb	09:10:47
3	V 292.402†	-1548.2	-41.8	-0.2678	ug/L	-0.2678 ppb	09:10:53
3	Zn 213.857†	789.1	-35.1	-0.2854	ug/L	-0.2854 ppb	09:11:13
3	SiO2†	710.6	8.3	0.4886	ug/L	0.4886 ppb	09:11:28

Mean Data: ICB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	914532.8	101.68	%	0.731				0.72%
Sc Radial	5572.6	99.7	%	0.64				0.64%
Y 371.029	752826.0	101.34	%	0.680				0.67%
Y RADIAL	5846.9	99.75	%	0.353				0.35%
Ag 328.068†	21.0	0.0886	ug/L	0.28045	0.0886	ppb	0.28045	316.58%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-21.6	-15.214	ug/L	9.5543	-15.214	ppb	9.5543	62.80%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	2.1	0.7379	ug/L	1.04091	0.7379	ppb	1.04091	141.06%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-203.4	-4.1504	ug/L	1.76646	-4.1504	ppb	1.76646	42.56%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	6.7	0.0442	ug/L	0.00892	0.0442	ppb	0.00892	20.18%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	171.0	0.0569	ug/L	0.01381	0.0569	ppb	0.01381	24.28%
QC value within limits for Be 313.107 Recovery = Not calculated								

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Ca 317.933Radial†          -0.7     -1.0102 ug/L       3.85065     -1.0102 ppb        3.85065 381.17%
   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                 6.6      0.0626 ug/L       0.02030      0.0626 ppb        0.02030  32.41%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                 8.5      0.1483 ug/L       0.09992      0.1483 ppb        0.09992  67.36%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                -4.5     -0.0455 ug/L       0.10301     -0.0455 ppb        0.10301 226.54%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               -69.6     -0.1942 ug/L       0.22360     -0.1942 ppb        0.22360 115.12%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          0.7      5.5938 ug/L       3.51344      5.5938 ppb        3.51344  62.81%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         -10.1     -1.8089 ug/L       8.10215     -1.8089 ppb        8.10215 447.91%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -0.2     -6.6717 ug/L      36.32170     -6.6717 ppb       36.32170 544.42%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                10.4      0.0109 ug/L       0.00698      0.0109 ppb        0.00698  64.13%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 5.4      0.3208 ug/L       0.41813      0.3208 ppb        0.41813 130.32%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        -30.9     -8.4376 ug/L      12.23433     -8.4376 ppb       12.23433 145.00%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                 8.7      0.1879 ug/L       0.13219      0.1879 ppb        0.13219  70.34%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -3.3     -1.6673 ug/L       5.05616     -1.6673 ppb        5.05616 303.26%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -5.5     -0.5688 ug/L       0.78947     -0.5688 ppb        0.78947 138.79%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -9.0     -10.805 ug/L        4.0680     -10.805 ppb         4.0680  37.65%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 2.5      0.7513 ug/L       0.75490      0.7513 ppb        0.75490 100.48%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -2.2     -1.1382 ug/L       3.23384     -1.1382 ppb        3.23384 284.12%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                29.2      0.8064 ug/L       0.21539      0.8064 ppb        0.21539  26.71%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 4.1      0.6054 ug/L       0.48597      0.6054 ppb        0.48597  80.28%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               -12.0     -0.0686 ug/L       0.02461     -0.0686 ppb        0.02461  35.88%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                45.3      0.0644 ug/L       0.07111      0.0644 ppb        0.07111 110.41%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 4.6      1.1854 ug/L       2.00362      1.1854 ppb        2.00362 169.02%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 64.4      1.7878 ug/L       2.21777      1.7878 ppb        2.21777 124.05%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                -47.5     -0.2911 ug/L       0.30895     -0.2911 ppb        0.30895 106.14%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               -25.9     -0.2096 ug/L       0.07333     -0.2096 ppb        0.07333  34.99%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                      15.3      0.8981 ug/L       0.71633      0.8981 ppb        0.71633  79.76%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 8
Sample ID: PQL
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 11
Date Collected: 12/20/2009 09:13:38
Data Type: Reprocessed on 12/20/2009 10:23:34

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: PQL

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc 361.383	892200.5	892200.5	99.197	%			09:16:48
1	Sc Radial	5608.9	5608.9	100	%			09:15:31
1	Y 371.029	737792.9	737792.9	99.313	%			09:16:48
1	Y RADIAL	5891.4	5891.4	100.5	%			09:15:31
1	Ag 328.068†	1517.8	1130.7	4.8274	ug/L	4.8274	ppb	09:16:48
1	Al 396.153Radial†	257.9	270.3	189.39	ug/L	189.39	ppb	09:15:31
1	As 188.979†	43.2	71.1	25.281	ug/L	25.281	ppb	09:17:08
1	B 249.677†	2569.2	2124.9	43.323	ug/L	43.323	ppb	09:16:48
1	Ba 233.527†	751.5	766.2	5.1565	ug/L	5.1565	ppb	09:17:08
1	Be 313.107†	10605.0	15286.0	5.0835	ug/L	5.0835	ppb	09:16:48
1	Ca 317.933Radial†	168.9	150.4	209.97	ug/L	209.97	ppb	09:15:51
1	Cd 226.502†	276.8	504.8	4.8434	ug/L	4.8434	ppb	09:17:08
1	Co 228.616†	213.0	299.4	5.2068	ug/L	5.2068	ppb	09:17:08
1	Cr 267.716†	553.2	458.5	4.5656	ug/L	4.5656	ppb	09:16:48
1	Cu 324.752†	9809.6	3802.0	10.631	ug/L	10.631	ppb	09:16:48
1	Fe 238.204 Radial†	23.6	12.3	97.565	ug/L	97.565	ppb	09:15:51
1	K 766.490 Radial†	3831.0	944.1	169.29	ug/L	169.29	ppb	09:15:31
1	Mg 279.077 IEC†	13.7	11.4	342.84	ug/L	342.84	ppb	09:15:51
1	Mn 257.610†	11283.4	10883.2	10.630	ug/L	10.630	ppb	09:16:48
1	Mo 202.031†	191.9	167.8	9.9860	ug/L	9.9860	ppb	09:17:08
1	Na 589.592 Radial†	-257.5	1003.5	274.23	ug/L	274.23	ppb	09:15:31
1	Ni 231.604†	358.7	259.3	5.5853	ug/L	5.5853	ppb	09:17:08
1	P 214.914†	543.6	292.8	147.33	ug/L	147.33	ppb	09:17:08
1	Pb 220.353†	31.9	110.0	11.305	ug/L	11.305	ppb	09:17:08
1	S 181.975 Axial†	130.8	73.1	87.539	ug/L	87.539	ppb	09:17:08
1	Sb 206.836†	72.9	31.1	9.4609	ug/L	9.4609	ppb	09:17:08
1	Se 196.026†	27.4	56.4	30.464	ug/L	30.464	ppb	09:17:08
1	Si 251.611†	4253.2	3627.8	100.73	ug/L	100.73	ppb	09:16:48
1	Sn 189.927†	69.6	68.4	10.024	ug/L	10.024	ppb	09:17:08
1	Sr 421.552†	887.2	878.2	5.0084	ug/L	5.0084	ppb	09:15:31
1	Ti 334.940†	2156.8	3644.3	5.2350	ug/L	5.2350	ppb	09:16:48
1	Tl 190.801†	32.5	78.5	20.108	ug/L	20.108	ppb	09:17:08
1	U 409.014†	-875.5	1845.8	51.209	ug/L	51.209	ppb	09:16:48
1	V 292.402†	-746.5	715.9	4.7220	ug/L	4.7220	ppb	09:16:48
1	Zn 213.857†	2051.6	1263.3	10.124	ug/L	10.124	ppb	09:17:08
1	SiO2†	4305.7	3655.6	217.96	ug/L	217.96	ppb	09:18:05
2	Sc 361.383	894030.4	894030.4	99.400	%			09:17:14
2	Sc Radial	5563.1	5563.1	99.6	%			09:15:56
2	Y 371.029	740381.4	740381.4	99.661	%			09:17:14
2	Y RADIAL	5830.5	5830.5	99.47	%			09:15:56
2	Ag 328.068†	1538.1	1148.0	4.9073	ug/L	4.9073	ppb	09:17:14
2	Al 396.153Radial†	255.0	269.4	188.80	ug/L	188.80	ppb	09:15:56
2	As 188.979†	50.0	77.8	27.671	ug/L	27.671	ppb	09:17:34
2	B 249.677†	2538.0	2088.3	42.573	ug/L	42.573	ppb	09:17:14
2	Ba 233.527†	758.9	772.1	5.1962	ug/L	5.1962	ppb	09:17:34
2	Be 313.107†	10696.7	15356.3	5.1065	ug/L	5.1065	ppb	09:17:14
2	Ca 317.933Radial†	164.6	147.4	205.84	ug/L	205.84	ppb	09:16:16
2	Cd 226.502†	312.9	540.5	5.1850	ug/L	5.1850	ppb	09:17:34
2	Co 228.616†	206.9	292.9	5.0938	ug/L	5.0938	ppb	09:17:34
2	Cr 267.716†	621.4	526.0	5.2386	ug/L	5.2386	ppb	09:17:14
2	Cu 324.752†	9704.7	3676.2	10.281	ug/L	10.281	ppb	09:17:14
2	Fe 238.204 Radial†	25.6	14.5	114.57	ug/L	114.57	ppb	09:16:16
2	K 766.490 Radial†	3765.8	910.0	163.16	ug/L	163.16	ppb	09:15:56
2	Mg 279.077 IEC†	13.4	11.1	336.55	ug/L	336.55	ppb	09:16:16
2	Mn 257.610†	11318.3	10895.0	10.643	ug/L	10.643	ppb	09:17:14
2	Mo 202.031†	197.8	173.4	10.317	ug/L	10.317	ppb	09:17:34
2	Na 589.592 Radial†	-209.8	1049.2	286.74	ug/L	286.74	ppb	09:15:56
2	Ni 231.604†	352.1	252.0	5.4268	ug/L	5.4268	ppb	09:17:34

2	P 214.914†	533.2	281.3	141.51 ug/L	141.51 ppb	09:17:34
2	Pb 220.353†	15.9	93.8	9.6523 ug/L	9.6523 ppb	09:17:34
2	S 181.975 Axial†	135.7	77.8	93.185 ug/L	93.185 ppb	09:17:34
2	Sb 206.836†	68.8	26.8	8.1667 ug/L	8.1667 ppb	09:17:34
2	Se 196.026†	18.6	47.5	25.772 ug/L	25.772 ppb	09:17:34
2	Si 251.611†	4316.3	3682.5	102.25 ug/L	102.25 ppb	09:17:14
2	Sn 189.927†	66.8	65.4	9.5921 ug/L	9.5921 ppb	09:17:34
2	Sr 421.552†	895.9	894.2	5.0998 ug/L	5.0998 ppb	09:15:56
2	Ti 334.940†	2067.2	3549.7	5.0990 ug/L	5.0990 ppb	09:17:14
2	Tl 190.801†	35.2	81.2	20.802 ug/L	20.802 ppb	09:17:34
2	U 409.014†	-927.3	1795.4	49.808 ug/L	49.808 ppb	09:17:14
2	V 292.402†	-775.8	688.0	4.5462 ug/L	4.5462 ppb	09:17:14
2	Zn 213.857†	2051.6	1259.2	10.091 ug/L	10.091 ppb	09:17:34
2	SiO2†	4349.2	3690.4	220.04 ug/L	220.04 ppb	09:18:10
3	Sc 361.383	891429.0	891429.0	99.111 %		09:17:39
3	Sc Radial	5571.9	5571.9	99.7 %		09:16:21
3	Y 371.029	736861.1	736861.1	99.187 %		09:17:39
3	Y RADIAL	5863.7	5863.7	100.0 %		09:16:21
3	Ag 328.068†	1586.9	1201.7	5.1400 ug/L	5.1400 ppb	09:17:39
3	Al 396.153Radial†	273.7	287.8	201.69 ug/L	201.69 ppb	09:16:21
3	As 188.979†	53.2	81.1	28.852 ug/L	28.852 ppb	09:17:59
3	B 249.677†	2459.0	2016.1	41.099 ug/L	41.099 ppb	09:17:39
3	Ba 233.527†	763.0	778.4	5.2400 ug/L	5.2400 ppb	09:17:59
3	Be 313.107†	10620.1	15310.5	5.0911 ug/L	5.0911 ppb	09:17:39
3	Ca 317.933Radial†	168.3	150.9	210.72 ug/L	210.72 ppb	09:16:42
3	Cd 226.502†	290.2	518.6	4.9735 ug/L	4.9735 ppb	09:17:59
3	Co 228.616†	193.2	279.6	4.8634 ug/L	4.8634 ppb	09:17:59
3	Cr 267.716†	649.3	555.9	5.5380 ug/L	5.5380 ppb	09:17:39
3	Cu 324.752†	9830.8	3832.0	10.716 ug/L	10.716 ppb	09:17:39
3	Fe 238.204 Radial†	26.6	15.5	122.43 ug/L	122.43 ppb	09:16:42
3	K 766.490 Radial†	3778.9	917.1	164.43 ug/L	164.43 ppb	09:16:21
3	Mg 279.077 IEC†	13.7	11.5	347.16 ug/L	347.16 ppb	09:16:42
3	Mn 257.610†	11309.3	10919.2	10.668 ug/L	10.668 ppb	09:17:39
3	Mo 202.031†	193.7	169.9	10.108 ug/L	10.108 ppb	09:17:59
3	Na 589.592 Radial†	-203.5	1055.9	288.57 ug/L	288.57 ppb	09:16:21
3	Ni 231.604†	347.9	248.8	5.3581 ug/L	5.3581 ppb	09:17:59
3	P 214.914†	542.0	291.7	146.74 ug/L	146.74 ppb	09:17:59
3	Pb 220.353†	1.6	79.5	8.1823 ug/L	8.1823 ppb	09:17:59
3	S 181.975 Axial†	133.0	75.5	90.386 ug/L	90.386 ppb	09:17:59
3	Sb 206.836†	69.4	27.6	8.3956 ug/L	8.3956 ppb	09:17:59
3	Se 196.026†	26.5	55.5	30.075 ug/L	30.075 ppb	09:17:59
3	Si 251.611†	4279.8	3658.3	101.58 ug/L	101.58 ppb	09:17:39
3	Sn 189.927†	69.9	68.7	10.078 ug/L	10.078 ppb	09:17:59
3	Sr 421.552†	895.6	892.5	5.0901 ug/L	5.0901 ppb	09:16:21
3	Ti 334.940†	1971.4	3459.1	4.9681 ug/L	4.9681 ppb	09:17:39
3	Tl 190.801†	36.5	82.6	21.148 ug/L	21.148 ppb	09:17:59
3	U 409.014†	-885.9	1834.5	50.890 ug/L	50.890 ppb	09:17:39
3	V 292.402†	-697.5	764.7	5.0258 ug/L	5.0258 ppb	09:17:39
3	Zn 213.857†	2047.7	1261.2	10.106 ug/L	10.106 ppb	09:17:59
3	SiO2†	4240.5	3593.6	214.25 ug/L	214.25 ppb	09:18:15

Mean Data: PQL

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	892553.3	99.236	%	0.1486				0.15%
Sc Radial	5581.3	99.9	%	0.43				0.44%
Y 371.029	738345.1	99.387	%	0.2455				0.25%
Y RADIAL	5861.9	100.0	%	0.52				0.52%
Ag 328.068†	1160.2	4.9582	ug/L	0.16238	4.9582	ppb	0.16238	3.28%
QC value within limits for Ag 328.068 Recovery = 99.16%								
Al 396.153Radial†	275.8	193.30	ug/L	7.278	193.30	ppb	7.278	3.77%
QC value within limits for Al 396.153Radial Recovery = 96.65%								
As 188.979†	76.6	27.268	ug/L	1.8190	27.268	ppb	1.8190	6.67%
QC value within limits for As 188.979 Recovery = 90.89%								
B 249.677†	2076.4	42.332	ug/L	1.1313	42.332	ppb	1.1313	2.67%
QC value within limits for B 249.677 Recovery = 84.66%								
Ba 233.527†	772.2	5.1976	ug/L	0.04175	5.1976	ppb	0.04175	0.80%
QC value within limits for Ba 233.527 Recovery = 103.95%								
Be 313.107†	15317.6	5.0937	ug/L	0.01175	5.0937	ppb	0.01175	0.23%
QC value within limits for Be 313.107 Recovery = 101.87%								

Ca 317.933Radial†	149.6	208.84 ug/L	2.629	208.84 ppb	2.629	1.26%
QC value within limits for Ca 317.933Radial Recovery = 104.42%						
Cd 226.502†	521.3	5.0006 ug/L	0.17242	5.0006 ppb	0.17242	3.45%
QC value within limits for Cd 226.502 Recovery = 100.01%						
Co 228.616†	290.6	5.0547 ug/L	0.17504	5.0547 ppb	0.17504	3.46%
QC value within limits for Co 228.616 Recovery = 101.09%						
Cr 267.716†	513.5	5.1141 ug/L	0.49800	5.1141 ppb	0.49800	9.74%
QC value within limits for Cr 267.716 Recovery = 102.28%						
Cu 324.752†	3770.0	10.543 ug/L	0.2310	10.543 ppb	0.2310	2.19%
QC value within limits for Cu 324.752 Recovery = 105.43%						
Fe 238.204 Radial†	14.1	111.52 ug/L	12.711	111.52 ppb	12.711	11.40%
QC value within limits for Fe 238.204 Radial Recovery = 111.52%						
K 766.490 Radial†	923.7	165.63 ug/L	3.233	165.63 ppb	3.233	1.95%
QC value within limits for K 766.490 Radial Recovery = 110.42%						
Mg 279.077 IEC†	11.3	342.18 ug/L	5.334	342.18 ppb	5.334	1.56%
QC value within limits for Mg 279.077 IEC Recovery = 114.06%						
Mn 257.610†	10899.1	10.647 ug/L	0.0190	10.647 ppb	0.0190	0.18%
QC value within limits for Mn 257.610 Recovery = 106.47%						
Mo 202.031†	170.4	10.137 ug/L	0.1674	10.137 ppb	0.1674	1.65%
QC value within limits for Mo 202.031 Recovery = 101.37%						
Na 589.592 Radial†	1036.2	283.18 ug/L	7.802	283.18 ppb	7.802	2.76%
QC value within limits for Na 589.592 Radial Recovery = 94.39%						
Ni 231.604†	253.3	5.4567 ug/L	0.11647	5.4567 ppb	0.11647	2.13%
QC value within limits for Ni 231.604 Recovery = 109.13%						
P 214.914†	288.6	145.19 ug/L	3.204	145.19 ppb	3.204	2.21%
QC value within limits for P 214.914 Recovery = 96.80%						
Pb 220.353†	94.4	9.7131 ug/L	1.56202	9.7131 ppb	1.56202	16.08%
QC value within limits for Pb 220.353 Recovery = 97.13%						
S 181.975 Axial†	75.5	90.370 ug/L	2.8232	90.370 ppb	2.8232	3.12%
QC value within limits for S 181.975 Axial Recovery = 90.37%						
Sb 206.836†	28.5	8.6744 ug/L	0.69067	8.6744 ppb	0.69067	7.96%
QC value within limits for Sb 206.836 Recovery = 86.74%						
Se 196.026†	53.1	28.771 ug/L	2.6040	28.771 ppb	2.6040	9.05%
QC value within limits for Se 196.026 Recovery = 95.90%						
Si 251.611†	3656.2	101.52 ug/L	0.763	101.52 ppb	0.763	0.75%
QC value within limits for Si 251.611 Recovery = 101.52%						
Sn 189.927†	67.5	9.8980 ug/L	0.26629	9.8980 ppb	0.26629	2.69%
QC value within limits for Sn 189.927 Recovery = 98.98%						
Sr 421.552†	888.3	5.0661 ug/L	0.05022	5.0661 ppb	0.05022	0.99%
QC value within limits for Sr 421.552 Recovery = 101.32%						
Ti 334.940†	3551.0	5.1007 ug/L	0.13344	5.1007 ppb	0.13344	2.62%
QC value within limits for Ti 334.940 Recovery = 102.01%						
Tl 190.801†	80.8	20.686 ug/L	0.5295	20.686 ppb	0.5295	2.56%
QC value within limits for Tl 190.801 Recovery = 103.43%						
U 409.014†	1825.2	50.636 ug/L	0.7343	50.636 ppb	0.7343	1.45%
QC value within limits for U 409.014 Recovery = 101.27%						
V 292.402†	722.8	4.7647 ug/L	0.24263	4.7647 ppb	0.24263	5.09%
QC value within limits for V 292.402 Recovery = 95.29%						
Zn 213.857†	1261.2	10.107 ug/L	0.0164	10.107 ppb	0.0164	0.16%
QC value within limits for Zn 213.857 Recovery = 101.07%						
SiO2†	3646.5	217.42 ug/L	2.931	217.42 ppb	2.931	1.35%
QC value within limits for SiO2 Recovery = 102.07%						

All analyte(s) passed QC.

Sequence No.: 9
Sample ID: ICSA
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 13
Date Collected: 12/20/2009 09:20:26
Data Type: Reprocessed on 12/20/2009 10:23:35

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSA

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc 361.383	782892.7	782892.7	87.044	%			09:22:51
1	Sc Radial	4980.8	4980.8	89.1	%			09:22:24
1	Y 371.029	631140.9	631140.9	84.956	%			09:22:51
1	Y RADIAL	5237.3	5237.3	89.35	%			09:22:24
1	Ag 328.068†	-10579.3	-12553.4	2.4103	ug/L	2.4103	ppb	09:22:51
1	Al 396.153Radial†	654467.9	734198.7	515690	ug/L	515690	ppb	09:22:19
1	As 188.979†	-109.3	-98.1	-5.9554	ug/L	-5.9554	ppb	09:23:12
1	B 249.677†	747.8	394.0	-16.947	ug/L	-16.947	ppb	09:22:51
1	Ba 233.527†	-645.9	-733.5	-0.1414	ug/L	-0.1414	ppb	09:23:12
1	Be 313.107†	-5017.9	-1169.7	-0.4365	ug/L	-0.4365	ppb	09:22:51
1	Ca 317.933Radial†	305583.7	342787.5	478560	ug/L	478560	ppb	09:22:19
1	Cd 226.502†	1393.3	1826.5	-1.2775	ug/L	-1.2775	ppb	09:23:12
1	Co 228.616†	-17.2	64.9	-1.5564	ug/L	-1.5564	ppb	09:23:12
1	Cr 267.716†	-89.1	-201.5	1.3760	ug/L	1.3760	ppb	09:23:12
1	Cu 324.752†	2814.1	-2854.0	1.6297	ug/L	1.6297	ppb	09:22:51
1	Fe 238.204 Radial†	21225.5	23799.6	188320	ug/L	188320	ppb	09:22:24
1	K 766.490 Radial†	2378.0	-204.7	-20.966	ug/L	-20.966	ppb	09:22:19
1	Mg 279.077 IEC†	14589.5	16364.3	493730	ug/L	493730	ppb	09:22:24
1	Mn 257.610†	344.3	-96.0	9.4911	ug/L	9.4911	ppb	09:22:51
1	Mo 202.031†	-250.2	-313.1	-0.5566	ug/L	-0.5566	ppb	09:23:12
1	Na 589.592 Radial†	-1047.1	85.3	23.320	ug/L	23.320	ppb	09:22:24
1	Ni 231.604†	265.6	202.9	4.3725	ug/L	4.3725	ppb	09:23:12
1	P 214.914†	202.0	-23.1	11.479	ug/L	11.479	ppb	09:23:12
1	Pb 220.353†	-973.5	-1040.6	-6.2458	ug/L	-6.2458	ppb	09:23:12
1	S 181.975 Axial†	84.1	37.9	-56.080	ug/L	-56.080	ppb	09:23:12
1	Sb 206.836†	73.0	41.5	-0.2096	ug/L	-0.2096	ppb	09:23:12
1	Se 196.026†	-1129.3	-1268.6	6.9364	ug/L	6.9364	ppb	09:23:12
1	Si 251.611†	495.6	-90.5	-1.9751	ug/L	-1.9751	ppb	09:23:12
1	Sn 189.927†	-393.7	-454.1	-13.928	ug/L	-13.928	ppb	09:23:12
1	Sr 421.552†	585.5	651.2	-0.7207	ug/L	-0.7207	ppb	09:22:24
1	Ti 334.940†	-16130.9	-17061.8	0.3770	ug/L	0.3770	ppb	09:22:51
1	Tl 190.801†	-103.0	-72.6	-4.6192	ug/L	-4.6192	ppb	09:23:12
1	U 409.014†	-1316.6	1215.8	10.055	ug/L	10.055	ppb	09:22:51
1	V 292.402†	963.2	2575.0	-1.5109	ug/L	-1.5109	ppb	09:23:12
1	Zn 213.857†	3539.5	3261.6	-0.3783	ug/L	-0.3783	ppb	09:23:12
1	SiO2†	438.5	-181.2	-9.6529	ug/L	-9.6529	ppb	09:24:08
2	Sc 361.383	775026.0	775026.0	86.169	%			09:23:17
2	Sc Radial	4970.9	4970.9	89.0	%			09:22:34
2	Y 371.029	623830.9	623830.9	83.972	%			09:23:17
2	Y RADIAL	5189.5	5189.5	88.54	%			09:22:34
2	Ag 328.068†	-10570.9	-12666.9	1.8869	ug/L	1.8869	ppb	09:23:17
2	Al 396.153Radial†	650034.7	730686.4	513220	ug/L	513220	ppb	09:22:29
2	As 188.979†	-102.7	-91.8	-3.7441	ug/L	-3.7441	ppb	09:23:37
2	B 249.677†	834.9	503.9	-14.674	ug/L	-14.674	ppb	09:23:17
2	Ba 233.527†	-688.0	-789.8	-0.5251	ug/L	-0.5251	ppb	09:23:37
2	Be 313.107†	-5028.7	-1240.7	-0.4590	ug/L	-0.4590	ppb	09:23:17
2	Ca 317.933Radial†	303408.7	341029.5	476100	ug/L	476100	ppb	09:22:29
2	Cd 226.502†	1386.1	1834.4	-1.1778	ug/L	-1.1778	ppb	09:23:37
2	Co 228.616†	-20.2	61.2	-1.6199	ug/L	-1.6199	ppb	09:23:37
2	Cr 267.716†	-128.2	-248.0	0.9102	ug/L	0.9102	ppb	09:23:37
2	Cu 324.752†	2777.7	-2863.5	1.5910	ug/L	1.5910	ppb	09:23:17
2	Fe 238.204 Radial†	21155.8	23769.1	188080	ug/L	188080	ppb	09:22:34
2	K 766.490 Radial†	2585.7	34.1	21.893	ug/L	21.893	ppb	09:22:29
2	Mg 279.077 IEC†	14470.4	16263.2	490680	ug/L	490680	ppb	09:22:34
2	Mn 257.610†	521.5	113.6	9.7285	ug/L	9.7285	ppb	09:23:17
2	Mo 202.031†	-256.4	-323.1	-1.1752	ug/L	-1.1752	ppb	09:23:37
2	Na 589.592 Radial†	-1181.0	-67.6	-18.462	ug/L	-18.462	ppb	09:22:34
2	Ni 231.604†	261.7	201.4	4.3401	ug/L	4.3401	ppb	09:23:37

2	P 214.914†	216.0	-4.5	20.351	ug/L	20.351 ppb	09:23:37
2	Pb 220.353†	-956.9	-1032.7	-5.9756	ug/L	-5.9756 ppb	09:23:37
2	S 181.975 Axial†	93.4	49.6	-41.482	ug/L	-41.482 ppb	09:23:37
2	Sb 206.836†	72.4	41.6	-0.0753	ug/L	-0.0753 ppb	09:23:37
2	Se 196.026†	-1129.0	-1281.4	-1.1043	ug/L	-1.1043 ppb	09:23:37
2	Si 251.611†	458.5	-127.7	-3.0255	ug/L	-3.0255 ppb	09:23:37
2	Sn 189.927†	-373.0	-434.6	-11.345	ug/L	-11.345 ppb	09:23:37
2	Sr 421.552†	570.8	636.0	-0.7847	ug/L	-0.7847 ppb	09:22:34
2	Ti 334.940†	-15627.9	-16666.2	0.8212	ug/L	0.8212 ppb	09:23:17
2	Tl 190.801†	-106.7	-78.1	-6.0964	ug/L	-6.0964 ppb	09:23:37
2	U 409.014†	-1471.4	1020.7	4.6728	ug/L	4.6728 ppb	09:23:17
2	V 292.402†	993.0	2620.8	-1.2752	ug/L	-1.2752 ppb	09:23:37
2	Zn 213.857†	3497.0	3253.4	-0.3268	ug/L	-0.3268 ppb	09:23:37
2	SiO2†	435.6	-179.4	-9.5734	ug/L	-9.5734 ppb	09:24:13
3	Sc 361.383	782477.9	782477.9	86.998	%		09:23:42
3	Sc Radial	5073.6	5073.6	90.8	%		09:22:45
3	Y 371.029	629387.0	629387.0	84.720	%		09:23:42
3	Y RADIAL	5302.8	5302.8	90.47	%		09:22:45
3	Ag 328.068†	-10740.1	-12744.6	1.1614	ug/L	1.1614 ppb	09:23:42
3	Al 396.153Radial†	653182.9	719365.6	505270	ug/L	505270 ppb	09:22:40
3	As 188.979†	-107.0	-95.6	-5.3322	ug/L	-5.3322 ppb	09:24:02
3	B 249.677†	877.1	543.2	-13.676	ug/L	-13.676 ppb	09:23:42
3	Ba 233.527†	-652.5	-741.4	-0.2388	ug/L	-0.2388 ppb	09:24:02
3	Be 313.107†	-5051.3	-1211.1	-0.4492	ug/L	-0.4492 ppb	09:23:42
3	Ca 317.933Radial†	304742.2	335595.6	468520	ug/L	468520 ppb	09:22:40
3	Cd 226.502†	1417.2	1854.8	-0.8320	ug/L	-0.8320 ppb	09:24:02
3	Co 228.616†	12.9	99.5	-0.9319	ug/L	-0.9319 ppb	09:24:02
3	Cr 267.716†	-117.5	-234.2	1.0187	ug/L	1.0187 ppb	09:24:02
3	Cu 324.752†	2739.4	-2938.2	1.3057	ug/L	1.3057 ppb	09:23:42
3	Fe 238.204 Radial†	21421.0	23579.8	186580	ug/L	186580 ppb	09:22:45
3	K 766.490 Radial†	2385.7	-245.0	-28.470	ug/L	-28.470 ppb	09:22:40
3	Mg 279.077 IEC†	14645.9	16127.3	486580	ug/L	486580 ppb	09:22:45
3	Mn 257.610†	598.2	196.1	9.7360	ug/L	9.7360 ppb	09:23:42
3	Mo 202.031†	-242.7	-304.6	-0.2186	ug/L	-0.2186 ppb	09:24:02
3	Na 589.592 Radial†	-1104.9	43.2	11.803	ug/L	11.803 ppb	09:22:45
3	Ni 231.604†	258.8	195.3	4.2070	ug/L	4.2070 ppb	09:24:02
3	P 214.914†	214.1	-9.1	16.556	ug/L	16.556 ppb	09:24:02
3	Pb 220.353†	-971.4	-1038.7	-8.2504	ug/L	-8.2504 ppb	09:24:02
3	S 181.975 Axial†	87.3	41.6	-49.609	ug/L	-49.609 ppb	09:24:02
3	Sb 206.836†	104.8	78.0	10.878	ug/L	10.878 ppb	09:24:02
3	Se 196.026†	-1137.6	-1278.8	-5.8332	ug/L	-5.8332 ppb	09:24:02
3	Si 251.611†	445.6	-147.7	-3.5821	ug/L	-3.5821 ppb	09:24:02
3	Sn 189.927†	-379.7	-438.3	-12.686	ug/L	-12.686 ppb	09:24:02
3	Sr 421.552†	594.0	648.5	-0.6427	ug/L	-0.6427 ppb	09:22:45
3	Ti 334.940†	-15808.7	-16701.3	0.3738	ug/L	0.3738 ppb	09:23:42
3	Tl 190.801†	-100.0	-69.2	-4.0396	ug/L	-4.0396 ppb	09:24:02
3	U 409.014†	-1401.4	1117.5	7.5476	ug/L	7.5476 ppb	09:23:42
3	V 292.402†	920.5	2526.4	-1.7112	ug/L	-1.7112 ppb	09:24:02
3	Zn 213.857†	3536.1	3259.7	-0.0568	ug/L	-0.0568 ppb	09:24:02
3	SiO2†	482.6	-130.2	-6.6344	ug/L	-6.6344 ppb	09:24:18

Mean Data: ICSA

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	780132.2	86.737	%	0.4922				0.57%
Sc Radial	5008.4	89.6	%	1.01				1.13%
Y 371.029	628119.6	84.550	%	0.5137				0.61%
Y RADIAL	5243.2	89.45	%	0.971				1.08%
Ag 328.068†	-12655.0	1.8195	ug/L	0.62713	1.8195	ppb	0.62713	34.47%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	728083.6	511390	ug/L	5444.5	511390	ppb	5444.5	1.06%
QC value within limits for Al 396.153Radial Recovery = 102.28%								
As 188.979†	-95.1	-5.0106	ug/L	1.14017	-5.0106	ppb	1.14017	22.76%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	480.4	-15.099	ug/L	1.6766	-15.099	ppb	1.6766	11.10%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-754.9	-0.3018	ug/L	0.19945	-0.3018	ppb	0.19945	66.09%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-1207.2	-0.4482	ug/L	0.01126	-0.4482	ppb	0.01126	2.51%
QC value within limits for Be 313.107 Recovery = Not calculated								

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Ca 317.933Radial†     339804.2      474390 ug/L        5234.2      474390 ppb        5234.2   1.10%
   QC value within limits for Ca 317.933Radial  Recovery = 94.88%
Cd 226.502†             1838.5     -1.0958 ug/L       0.23381     -1.0958 ppb       0.23381  21.34%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†               75.2     -1.3694 ug/L       0.38020     -1.3694 ppb       0.38020  27.76%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†             -227.9      1.1016 ug/L       0.24370      1.1016 ppb       0.24370  22.12%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -2885.2      1.5088 ug/L       0.17694      1.5088 ppb       0.17694  11.73%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†     23716.2      187660 ug/L         942.3      187660 ppb         942.3   0.50%
   QC value within limits for Fe 238.204 Radial  Recovery = 93.83%
K 766.490 Radial†       -138.5     -9.1813 ug/L      27.17124     -9.1813 ppb      27.17124 295.94%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†        16251.6      490330 ug/L        3588.3      490330 ppb        3588.3   0.73%
   QC value within limits for Mg 279.077 IEC  Recovery = 98.07%
Mn 257.610†               71.2      9.6519 ug/L       0.13931      9.6519 ppb       0.13931   1.44%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†             -313.6     -0.6501 ug/L       0.48511     -0.6501 ppb       0.48511  74.61%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        20.3      5.5538 ug/L      21.58062      5.5538 ppb      21.58062 388.58%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              199.9      4.3065 ug/L       0.08767      4.3065 ppb       0.08767   2.04%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -12.3      16.129 ug/L        4.4512      16.129 ppb        4.4512  27.60%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†            -1037.3     -6.8239 ug/L       1.24270     -6.8239 ppb       1.24270  18.21%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          43.0     -49.057 ug/L        7.3147     -49.057 ppb        7.3147  14.91%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               53.7      3.5310 ug/L       6.36291      3.5310 ppb       6.36291 180.20%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†            -1276.3     -0.0004 ug/L       6.45601     -0.0004 ppb       6.45601 >999.9%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†             -122.0     -2.8609 ug/L       0.81607     -2.8609 ppb       0.81607  28.53%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†             -442.3     -12.653 ug/L        1.2917     -12.653 ppb        1.2917  10.21%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              645.2     -0.7160 ug/L       0.07111     -0.7160 ppb       0.07111   9.93%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†           -16809.8      0.5240 ug/L       0.25740      0.5240 ppb       0.25740  49.12%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -73.3     -4.9184 ug/L       1.06055     -4.9184 ppb       1.06055  21.56%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              1118.0      7.4252 ug/L       2.69318      7.4252 ppb       2.69318  36.27%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              2574.1     -1.4991 ug/L       0.21824     -1.4991 ppb       0.21824  14.56%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†             3258.2     -0.2540 ug/L       0.17268     -0.2540 ppb       0.17268  68.00%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                   -163.6     -8.6202 ug/L       1.72024     -8.6202 ppb       1.72024  19.96%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 10
Sample ID: ICSAB
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 14
Date Collected: 12/20/2009 09:26:29
Data Type: Reprocessed on 12/20/2009 10:23:36

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSAB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc 361.383	790131.1	790131.1	87.849	%			09:28:54
1	Sc Radial	5040.4	5040.4	90.2	%			09:28:27
1	Y 371.029	634358.5	634358.5	85.390	%			09:28:54
1	Y RADIAL	5279.8	5279.8	90.08	%			09:28:27
1	Ag 328.068†	45321.8	51191.3	275.82	ug/L	275.82	ppb	09:28:54
1	Al 396.153Radial†	647277.1	717550.4	503970	ug/L	503970	ppb	09:28:22
1	As 188.979†	1101.4	1281.2	487.80	ug/L	487.80	ppb	09:28:59
1	B 249.677†	23635.1	26439.2	513.33	ug/L	513.33	ppb	09:28:54
1	Ba 233.527†	63730.6	72554.5	493.03	ug/L	493.03	ppb	09:28:54
1	Be 313.107†	644327.1	738046.1	245.89	ug/L	245.89	ppb	09:28:54
1	Ca 317.933Radial†	303360.1	336271.0	469460	ug/L	469460	ppb	09:28:22
1	Cd 226.502†	44249.2	50595.6	467.62	ug/L	467.62	ppb	09:28:59
1	Co 228.616†	22694.4	25918.3	447.03	ug/L	447.03	ppb	09:28:59
1	Cr 267.716†	41694.6	47362.7	476.39	ug/L	476.39	ppb	09:28:59
1	Cu 324.752†	175809.8	194040.9	551.91	ug/L	551.91	ppb	09:28:54
1	Fe 238.204 Radial†	21396.1	23707.4	187610	ug/L	187610	ppb	09:28:27
1	K 766.490 Radial†	30088.5	30482.2	5481.4	ug/L	5481.4	ppb	09:28:22
1	Mg 279.077 IEC†	14586.9	16168.0	487820	ug/L	487820	ppb	09:28:27
1	Mn 257.610†	433756.7	493262.8	491.26	ug/L	491.26	ppb	09:28:54
1	Mo 202.031†	6964.5	7902.3	487.69	ug/L	487.69	ppb	09:28:59
1	Na 589.592 Radial†	16775.9	19856.8	5426.6	ug/L	5426.6	ppb	09:28:27
1	Ni 231.604†	18678.5	21159.8	455.74	ug/L	455.74	ppb	09:28:59
1	P 214.914†	4595.7	4976.3	2469.2	ug/L	2469.2	ppb	09:28:59
1	Pb 220.353†	2989.5	3480.8	454.59	ug/L	454.59	ppb	09:28:59
1	S 181.975 Axial†	2030.3	2252.3	2599.4	ug/L	2599.4	ppb	09:28:59
1	Sb 206.836†	1605.6	1785.2	522.00	ug/L	522.00	ppb	09:28:59
1	Se 196.026†	3013.1	3458.7	2526.1	ug/L	2526.1	ppb	09:28:59
1	Si 251.611†	165534.5	187771.5	5215.7	ug/L	5215.7	ppb	09:28:54
1	Sn 189.927†	2513.2	2859.0	469.68	ug/L	469.68	ppb	09:28:59
1	Sr 421.552†	79580.5	88213.1	498.93	ug/L	498.93	ppb	09:28:22
1	Ti 334.940†	292746.1	334709.0	506.12	ug/L	506.12	ppb	09:28:54
1	Tl 190.801†	1477.9	1728.1	457.83	ug/L	457.83	ppb	09:28:59
1	U 409.014†	14061.8	18735.2	495.49	ug/L	495.49	ppb	09:28:54
1	V 292.402†	71565.9	82933.4	510.19	ug/L	510.19	ppb	09:28:54
1	Zn 213.857†	56769.6	63817.1	484.71	ug/L	484.71	ppb	09:28:59
1	SiO2†	164029.4	186033.1	11097	ug/L	11097	ppb	09:29:27
2	Sc 361.383	792237.8	792237.8	88.083	%			09:29:05
2	Sc Radial	5052.0	5052.0	90.4	%			09:28:37
2	Y 371.029	635763.5	635763.5	85.579	%			09:29:05
2	Y RADIAL	5263.5	5263.5	89.80	%			09:28:37
2	Ag 328.068†	45254.1	50977.3	275.09	ug/L	275.09	ppb	09:29:05
2	Al 396.153Radial†	645723.2	714180.6	501610	ug/L	501610	ppb	09:28:32
2	As 188.979†	1166.3	1351.6	512.87	ug/L	512.87	ppb	09:29:10
2	B 249.677†	23645.4	26379.4	512.07	ug/L	512.07	ppb	09:29:05
2	Ba 233.527†	63983.1	72648.2	493.66	ug/L	493.66	ppb	09:29:05
2	Be 313.107†	646850.3	738960.2	246.20	ug/L	246.20	ppb	09:29:05
2	Ca 317.933Radial†	301532.7	333476.1	465560	ug/L	465560	ppb	09:28:32
2	Cd 226.502†	44060.4	50247.2	464.23	ug/L	464.23	ppb	09:29:10
2	Co 228.616†	22632.6	25779.4	444.61	ug/L	444.61	ppb	09:29:10
2	Cr 267.716†	41609.8	47140.1	474.18	ug/L	474.18	ppb	09:29:10
2	Cu 324.752†	176569.8	194371.6	552.85	ug/L	552.85	ppb	09:29:05
2	Fe 238.204 Radial†	21491.9	23758.8	188010	ug/L	188010	ppb	09:28:37
2	K 766.490 Radial†	29898.6	30195.4	5430.0	ug/L	5430.0	ppb	09:28:32
2	Mg 279.077 IEC†	14641.7	16191.4	488520	ug/L	488520	ppb	09:28:37
2	Mn 257.610†	435239.3	493633.0	491.65	ug/L	491.65	ppb	09:29:05
2	Mo 202.031†	6913.0	7822.7	483.01	ug/L	483.01	ppb	09:29:10
2	Na 589.592 Radial†	16823.0	19866.1	5429.1	ug/L	5429.1	ppb	09:28:37
2	Ni 231.604†	18694.5	21121.5	454.91	ug/L	454.91	ppb	09:29:10

2	P 214.914†	4559.5	4921.2	2439.9	ug/L	2439.9 ppb	09:29:10
2	Pb 220.353†	2967.1	3446.3	450.49	ug/L	450.49 ppb	09:29:10
2	S 181.975 Axial†	2018.5	2232.9	2576.5	ug/L	2576.5 ppb	09:29:10
2	Sb 206.836†	1621.2	1798.1	525.82	ug/L	525.82 ppb	09:29:10
2	Se 196.026†	2992.0	3425.6	2509.3	ug/L	2509.3 ppb	09:29:10
2	Si 251.611†	166482.1	188346.2	5231.8	ug/L	5231.8 ppb	09:29:05
2	Sn 189.927†	2522.0	2861.4	469.64	ug/L	469.64 ppb	09:29:10
2	Sr 421.552†	79400.6	87811.1	496.67	ug/L	496.67 ppb	09:28:32
2	Ti 334.940†	293960.3	335201.3	506.63	ug/L	506.63 ppb	09:29:05
2	Tl 190.801†	1481.5	1727.7	457.67	ug/L	457.67 ppb	09:29:10
2	U 409.014†	14111.6	18749.1	495.83	ug/L	495.83 ppb	09:29:05
2	V 292.402†	71710.5	82880.9	509.75	ug/L	509.75 ppb	09:29:05
2	Zn 213.857†	56661.7	63522.8	482.29	ug/L	482.29 ppb	09:29:10
2	SiO2†	164377.7	185932.0	11091	ug/L	11091 ppb	09:29:32
3	Sc 361.383	784048.3	784048.3	87.172	%		09:29:16
3	Sc Radial	4900.9	4900.9	87.7	%		09:28:47
3	Y 371.029	629560.7	629560.7	84.744	%		09:29:16
3	Y RADIAL	5110.1	5110.1	87.18	%		09:28:47
3	Ag 328.068†	44659.8	50832.2	274.55	ug/L	274.55 ppb	09:29:16
3	Al 396.153Radial†	646272.2	736833.4	517520	ug/L	517520 ppb	09:28:42
3	As 188.979†	1156.5	1354.1	513.90	ug/L	513.90 ppb	09:29:21
3	B 249.677†	23248.5	26204.5	508.37	ug/L	508.37 ppb	09:29:16
3	Ba 233.527†	63128.4	72426.5	492.20	ug/L	492.20 ppb	09:29:16
3	Be 313.107†	638509.6	737062.8	245.57	ug/L	245.57 ppb	09:29:16
3	Ca 317.933Radial†	301531.1	343760.1	479920	ug/L	479920 ppb	09:28:42
3	Cd 226.502†	44154.1	50877.2	470.20	ug/L	470.20 ppb	09:29:21
3	Co 228.616†	22750.4	26182.9	451.62	ug/L	451.62 ppb	09:29:21
3	Cr 267.716†	41847.9	47906.7	481.84	ug/L	481.84 ppb	09:29:21
3	Cu 324.752†	174008.2	193526.8	550.53	ug/L	550.53 ppb	09:29:16
3	Fe 238.204 Radial†	20940.5	23863.3	188840	ug/L	188840 ppb	09:28:47
3	K 766.490 Radial†	29764.8	31062.8	5586.3	ug/L	5586.3 ppb	09:28:42
3	Mg 279.077 IEC†	14267.3	16264.0	490710	ug/L	490710 ppb	09:28:47
3	Mn 257.610†	429991.8	492774.5	490.85	ug/L	490.85 ppb	09:29:16
3	Mo 202.031†	6977.8	7979.0	492.37	ug/L	492.37 ppb	09:29:21
3	Na 589.592 Radial†	16426.7	19988.2	5462.5	ug/L	5462.5 ppb	09:28:47
3	Ni 231.604†	18696.2	21345.1	459.73	ug/L	459.73 ppb	09:29:21
3	P 214.914†	4545.4	4959.1	2464.4	ug/L	2464.4 ppb	09:29:21
3	Pb 220.353†	2970.1	3484.9	457.97	ug/L	457.97 ppb	09:29:21
3	S 181.975 Axial†	2015.6	2253.4	2598.0	ug/L	2598.0 ppb	09:29:21
3	Sb 206.836†	1627.9	1825.1	533.56	ug/L	533.56 ppb	09:29:21
3	Se 196.026†	3013.9	3486.2	2547.1	ug/L	2547.1 ppb	09:29:21
3	Si 251.611†	164070.2	187553.6	5209.5	ug/L	5209.5 ppb	09:29:16
3	Sn 189.927†	2556.9	2931.4	481.38	ug/L	481.38 ppb	09:29:21
3	Sr 421.552†	79570.5	90713.3	513.09	ug/L	513.09 ppb	09:28:42
3	Ti 334.940†	290558.2	334784.5	506.77	ug/L	506.77 ppb	09:29:16
3	Tl 190.801†	1498.9	1765.3	467.65	ug/L	467.65 ppb	09:29:21
3	U 409.014†	13825.1	18587.9	491.24	ug/L	491.24 ppb	09:29:16
3	V 292.402†	71052.1	82976.0	510.39	ug/L	510.39 ppb	09:29:16
3	Zn 213.857†	56848.2	64408.7	489.29	ug/L	489.29 ppb	09:29:21
3	SiO2†	163051.4	186359.8	11116	ug/L	11116 ppb	09:29:37

Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	788805.7	87.701	%	0.4728				0.54%
Sc Radial	4997.8	89.4	%	1.51				1.68%
Y 371.029	633227.6	85.237	%	0.4378				0.51%
Y RADIAL	5217.8	89.02	%	1.597				1.79%
Ag 328.068†	51000.3	275.15	ug/L	0.636	275.15	ppb	0.636	0.23%
QC value within limits for Ag 328.068 Recovery = 110.06%								
Al 396.153Radial†	722854.8	507700	ug/L	8584.7	507700	ppb	8584.7	1.69%
QC value within limits for Al 396.153Radial Recovery = 101.54%								
As 188.979†	1329.0	504.86	ug/L	14.780	504.86	ppb	14.780	2.93%
QC value within limits for As 188.979 Recovery = 100.97%								
B 249.677†	26341.1	511.26	ug/L	2.579	511.26	ppb	2.579	0.50%
QC value within limits for B 249.677 Recovery = 102.25%								
Ba 233.527†	72543.1	492.96	ug/L	0.735	492.96	ppb	0.735	0.15%
QC value within limits for Ba 233.527 Recovery = 98.59%								
Be 313.107†	738023.0	245.89	ug/L	0.316	245.89	ppb	0.316	0.13%
QC value within limits for Be 313.107 Recovery = 98.35%								

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Ca 317.933Radial†     337835.8      471650 ug/L        7423.7      471650 ppb         7423.7   1.57%
   QC value within limits for Ca 317.933Radial  Recovery = 94.33%
Cd 226.502†            50573.3      467.35 ug/L         2.995      467.35 ppb          2.995   0.64%
   QC value within limits for Cd 226.502  Recovery = 93.47%
Co 228.616†            25960.2      447.75 ug/L         3.559      447.75 ppb          3.559   0.79%
   QC value within limits for Co 228.616  Recovery = 89.55%
Cr 267.716†            47469.8      477.47 ug/L         3.943      477.47 ppb          3.943   0.83%
   QC value within limits for Cr 267.716  Recovery = 95.49%
Cu 324.752†           193979.8      551.77 ug/L         1.166      551.77 ppb          1.166   0.21%
   QC value within limits for Cu 324.752  Recovery = 110.35%
Fe 238.204 Radial†     23776.5      188150 ug/L         628.5      188150 ppb          628.5   0.33%
   QC value within limits for Fe 238.204 Radial  Recovery = 94.08%
K 766.490 Radial†      30580.1      5499.2 ug/L         79.70      5499.2 ppb          79.70   1.45%
   QC value within limits for K 766.490 Radial  Recovery = 109.98%
Mg 279.077 IEC†        16207.8      489020 ug/L        1509.9      489020 ppb         1509.9   0.31%
   QC value within limits for Mg 279.077 IEC  Recovery = 97.80%
Mn 257.610†           493223.4      491.25 ug/L         0.398      491.25 ppb          0.398   0.08%
   QC value within limits for Mn 257.610  Recovery = 98.25%
Mo 202.031†             7901.3      487.69 ug/L         4.684      487.69 ppb          4.684   0.96%
   QC value within limits for Mo 202.031  Recovery = 97.54%
Na 589.592 Radial†     19903.7      5439.4 ug/L         20.04      5439.4 ppb          20.04   0.37%
   QC value within limits for Na 589.592 Radial  Recovery = 108.79%
Ni 231.604†            21208.8      456.79 ug/L         2.575      456.79 ppb          2.575   0.56%
   QC value within limits for Ni 231.604  Recovery = 91.36%
P 214.914†              4952.2      2457.9 ug/L         15.71      2457.9 ppb          15.71   0.64%
   QC value within limits for P 214.914  Recovery = 98.31%
Pb 220.353†             3470.7      454.35 ug/L         3.743      454.35 ppb          3.743   0.82%
   QC value within limits for Pb 220.353  Recovery = 90.87%
S 181.975 Axial†        2246.2      2591.3 ug/L         12.83      2591.3 ppb          12.83   0.50%
   QC value within limits for S 181.975 Axial  Recovery = 103.65%
Sb 206.836†             1802.8      527.13 ug/L         5.891      527.13 ppb          5.891   1.12%
   QC value within limits for Sb 206.836  Recovery = 105.43%
Se 196.026†             3456.8      2527.5 ug/L         18.94      2527.5 ppb          18.94   0.75%
   QC value within limits for Se 196.026  Recovery = 101.10%
Si 251.611†           187890.5      5219.0 ug/L         11.51      5219.0 ppb          11.51   0.22%
   QC value within limits for Si 251.611  Recovery = 104.38%
Sn 189.927†             2883.9      473.57 ug/L         6.766      473.57 ppb          6.766   1.43%
   QC value within limits for Sn 189.927  Recovery = 94.71%
Sr 421.552†            88912.5      502.90 ug/L         8.903      502.90 ppb          8.903   1.77%
   QC value within limits for Sr 421.552  Recovery = 100.58%
Ti 334.940†           334898.3      506.51 ug/L         0.343      506.51 ppb          0.343   0.07%
   QC value within limits for Ti 334.940  Recovery = 101.30%
Tl 190.801†             1740.4      461.05 ug/L         5.716      461.05 ppb          5.716   1.24%
   QC value within limits for Tl 190.801  Recovery = 92.21%
U 409.014†             18690.7      494.19 ug/L         2.560      494.19 ppb          2.560   0.52%
   QC value within limits for U 409.014  Recovery = 98.84%
V 292.402†             82930.1      510.11 ug/L         0.329      510.11 ppb          0.329   0.06%
   QC value within limits for V 292.402  Recovery = 102.02%
Zn 213.857†            63916.2      485.43 ug/L         3.555      485.43 ppb          3.555   0.73%
   QC value within limits for Zn 213.857  Recovery = 97.09%
SiO2†                 186108.3       11101 ug/L          13.1       11101 ppb           13.1   0.12%
   QC value within limits for SiO2  Recovery = 103.80%
All analyte(s) passed QC.
```

Sequence No.: 11
Sample ID: LR1
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 15
Date Collected: 12/20/2009 09:31:48
Data Type: Reprocessed on 12/20/2009 10:23:37
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc 361.383	769341.1	769341.1	85.537	%			09:34:14
1	Sc Radial	4860.0	4860.0	87.0	%			09:33:45
1	Y 371.029	620229.0	620229.0	83.488	%			09:34:14
1	Y RADIAL	5050.3	5050.3	86.16	%			09:33:45
1	Ag 328.068†	-25045.9	-29680.1	-1.5500	ug/L	-1.5500	ppb	09:34:14
1	Al 396.153Radial†	632428.8	727121.0	510720	ug/L	510720	ppb	09:33:40
1	As 188.979†	-228.8	-240.1	-18.618	ug/L	-18.618	ppb	09:34:34
1	B 249.677†	1967.7	1835.4	-19.918	ug/L	-19.918	ppb	09:34:14
1	Ba 233.527†	-1802.7	-2098.9	-3.1324	ug/L	-3.1324	ppb	09:34:34
1	Be 313.107†	-11553.5	-8911.9	-2.9808	ug/L	-2.9808	ppb	09:34:14
1	Ca 317.933Radial†	294605.3	338691.8	472840	ug/L	472840	ppb	09:33:40
1	Cd 226.502†	3652.2	4495.5	-0.0264	ug/L	-0.0264	ppb	09:34:34
1	Co 228.616†	205.0	324.3	-0.6204	ug/L	-0.6204	ppb	09:34:34
1	Cr 267.716†	0.3	-98.9	2.0459	ug/L	2.0459	ppb	09:34:34
1	Cu 324.752†	-343.3	-6488.4	3.9171	ug/L	3.9171	ppb	09:34:14
1	Fe 238.204 Radial†	47527.7	54631.7	432290	ug/L	432290	ppb	09:33:45
1	K 766.490 Radial†	2964.1	535.4	-101.63	ug/L	-101.63	ppb	09:33:40
1	Mg 279.077 IEC†	13667.6	15711.5	473820	ug/L	473820	ppb	09:33:45
1	Mn 257.610†	-27112.7	-32188.5	2.8514	ug/L	2.8514	ppb	09:34:14
1	Mo 202.031†	-535.9	-652.0	2.6796	ug/L	2.6796	ppb	09:34:14
1	Na 589.592 Radial†	1602651.5	1843839.6	503890	ug/L	503890	ppb	09:33:40
1	Ni 231.604†	299.0	247.2	5.3246	ug/L	5.3246	ppb	09:34:34
1	P 214.914†	643.1	496.6	78.999	ug/L	78.999	ppb	09:34:34
1	Pb 220.353†	-708.4	-750.3	2.2685	ug/L	2.2685	ppb	09:34:34
1	S 181.975 Axial†	107.4	66.9	-20.354	ug/L	-20.354	ppb	09:34:34
1	Sb 206.836†	77.8	48.5	5.4237	ug/L	5.4237	ppb	09:34:34
1	Se 196.026†	-2639.8	-3057.4	-181.83	ug/L	-181.83	ppb	09:34:34
1	Si 251.611†	-551.3	-1304.3	-35.444	ug/L	-35.444	ppb	09:34:34
1	Sn 189.927†	-413.8	-485.6	-15.869	ug/L	-15.869	ppb	09:34:34
1	Sr 421.552†	810.3	926.0	0.9002	ug/L	0.9002	ppb	09:33:45
1	Ti 334.940†	-8229.5	-8150.9	6.4129	ug/L	6.4129	ppb	09:34:14
1	Tl 190.801†	-111.6	-84.7	-7.9934	ug/L	-7.9934	ppb	09:34:34
1	U 409.014†	452369.6	531585.4	14700	ug/L	14700	ppb	09:34:14
1	V 292.402†	2578.9	4483.3	1.1986	ug/L	1.1986	ppb	09:34:14
1	Zn 213.857†	6505.2	6800.2	16.201	ug/L	16.201	ppb	09:34:34
1	SiO2†	-638.2	-1431.1	-83.676	ug/L	-83.676	ppb	09:35:31
2	Sc 361.383	771771.3	771771.3	85.807	%			09:34:39
2	Sc Radial	4927.7	4927.7	88.2	%			09:33:56
2	Y 371.029	622387.2	622387.2	83.778	%			09:34:39
2	Y RADIAL	5173.1	5173.1	88.26	%			09:33:56
2	Ag 328.068†	-25011.1	-29547.4	-0.1508	ug/L	-0.1508	ppb	09:34:39
2	Al 396.153Radial†	631299.7	715850.6	502800	ug/L	502800	ppb	09:33:51
2	As 188.979†	-239.6	-251.7	-22.446	ug/L	-22.446	ppb	09:34:59
2	B 249.677†	1945.6	1802.4	-20.865	ug/L	-20.865	ppb	09:34:39
2	Ba 233.527†	-1883.3	-2186.2	-3.6664	ug/L	-3.6664	ppb	09:34:59
2	Be 313.107†	-11696.9	-9036.5	-3.0237	ug/L	-3.0237	ppb	09:34:39
2	Ca 317.933Radial†	293157.3	332396.2	464050	ug/L	464050	ppb	09:33:51
2	Cd 226.502†	3613.1	4436.5	-0.7984	ug/L	-0.7984	ppb	09:34:59
2	Co 228.616†	215.0	335.3	-0.4633	ug/L	-0.4633	ppb	09:34:59
2	Cr 267.716†	-7.1	-107.5	2.0032	ug/L	2.0032	ppb	09:34:59
2	Cu 324.752†	-440.6	-6600.5	3.7086	ug/L	3.7086	ppb	09:34:39
2	Fe 238.204 Radial†	48418.8	54891.4	434350	ug/L	434350	ppb	09:33:56
2	K 766.490 Radial†	2831.2	338.0	-132.96	ug/L	-132.96	ppb	09:33:51
2	Mg 279.077 IEC†	13994.6	15866.4	478490	ug/L	478490	ppb	09:33:56
2	Mn 257.610†	-27272.3	-32274.7	2.8851	ug/L	2.8851	ppb	09:34:39
2	Mo 202.031†	-568.5	-688.0	0.7359	ug/L	0.7359	ppb	09:34:39
2	Na 589.592 Radial†	1593640.0	1808305.1	494180	ug/L	494180	ppb	09:33:51
2	Ni 231.604†	310.3	259.3	5.5855	ug/L	5.5855	ppb	09:34:59

2	P 214.914†	672.7	528.8	91.095	ug/L	91.095 ppb	09:34:59
2	Pb 220.353†	-666.0	-698.4	5.6361	ug/L	5.6361 ppb	09:34:59
2	S 181.975 Axial†	121.3	82.6	0.0822	ug/L	0.0822 ppb	09:34:59
2	Sb 206.836†	54.1	20.7	-2.5719	ug/L	-2.5719 ppb	09:34:59
2	Se 196.026†	-2638.6	-3046.2	-170.83	ug/L	-170.83 ppb	09:34:59
2	Si 251.611†	-581.2	-1337.2	-36.311	ug/L	-36.311 ppb	09:34:59
2	Sn 189.927†	-411.8	-481.7	-16.198	ug/L	-16.198 ppb	09:34:59
2	Sr 421.552†	802.0	903.8	0.8553	ug/L	0.8553 ppb	09:33:56
2	Ti 334.940†	-8734.4	-8709.0	5.1592	ug/L	5.1592 ppb	09:34:39
2	Tl 190.801†	-116.2	-89.7	-9.4799	ug/L	-9.4799 ppb	09:34:59
2	U 409.014†	453201.7	530889.8	14681	ug/L	14681 ppb	09:34:39
2	V 292.402†	2617.9	4519.3	1.1501	ug/L	1.1501 ppb	09:34:39
2	Zn 213.857†	6528.0	6802.8	15.954	ug/L	15.954 ppb	09:34:59
2	SiO2†	-624.1	-1412.3	-82.449	ug/L	-82.449 ppb	09:35:36
3	Sc 361.383	768499.4	768499.4	85.444	%		09:35:05
3	Sc Radial	4832.5	4832.5	86.5	%		09:34:06
3	Y 371.029	620371.6	620371.6	83.507	%		09:35:05
3	Y RADIAL	5082.1	5082.1	86.70	%		09:34:06
3	Ag 328.068†	-24822.0	-29450.1	1.0397	ug/L	1.0397 ppb	09:35:05
3	Al 396.153Radial†	634118.9	733203.5	514990	ug/L	514990 ppb	09:34:01
3	As 188.979†	-206.1	-213.7	-8.5120	ug/L	-8.5120 ppb	09:35:25
3	B 249.677†	1758.9	1593.5	-25.506	ug/L	-25.506 ppb	09:35:05
3	Ba 233.527†	-1854.9	-2162.3	-3.4351	ug/L	-3.4351 ppb	09:35:25
3	Be 313.107†	-11595.1	-8975.4	-3.0040	ug/L	-3.0040 ppb	09:35:05
3	Ca 317.933Radial†	294908.7	340965.8	476020	ug/L	476020 ppb	09:34:01
3	Cd 226.502†	3627.1	4470.8	-0.7547	ug/L	-0.7547 ppb	09:35:25
3	Co 228.616†	197.5	315.9	-0.8332	ug/L	-0.8332 ppb	09:35:25
3	Cr 267.716†	-10.4	-111.4	2.0132	ug/L	2.0132 ppb	09:35:25
3	Cu 324.752†	-453.5	-6617.8	3.8063	ug/L	3.8063 ppb	09:35:05
3	Fe 238.204 Radial†	47797.0	55253.3	437210	ug/L	437210 ppb	09:34:06
3	K 766.490 Radial†	2919.3	503.0	-109.47	ug/L	-109.47 ppb	09:34:01
3	Mg 279.077 IEC†	13828.8	15987.1	482130	ug/L	482130 ppb	09:34:06
3	Mn 257.610†	-27540.9	-32724.3	2.6639	ug/L	2.6639 ppb	09:35:05
3	Mo 202.031†	-526.5	-641.7	3.7626	ug/L	3.7626 ppb	09:35:05
3	Na 589.592 Radial†	1609931.6	1862718.8	509050	ug/L	509050 ppb	09:34:01
3	Ni 231.604†	325.9	279.2	6.0139	ug/L	6.0139 ppb	09:35:25
3	P 214.914†	661.8	519.3	88.017	ug/L	88.017 ppb	09:35:25
3	Pb 220.353†	-683.7	-722.3	5.6935	ug/L	5.6935 ppb	09:35:25
3	S 181.975 Axial†	121.4	83.3	-1.5016	ug/L	-1.5016 ppb	09:35:25
3	Sb 206.836†	74.1	44.3	4.0890	ug/L	4.0890 ppb	09:35:25
3	Se 196.026†	-2649.1	-3071.7	-173.24	ug/L	-173.24 ppb	09:35:25
3	Si 251.611†	-623.7	-1389.8	-37.818	ug/L	-37.818 ppb	09:35:25
3	Sn 189.927†	-441.2	-518.2	-20.239	ug/L	-20.239 ppb	09:35:25
3	Sr 421.552†	804.6	924.7	0.8635	ug/L	0.8635 ppb	09:34:06
3	Ti 334.940†	-8865.5	-8905.8	5.4981	ug/L	5.4981 ppb	09:35:05
3	Tl 190.801†	-130.9	-107.5	-13.693	ug/L	-13.693 ppb	09:35:25
3	U 409.014†	451403.0	531033.3	14684	ug/L	14684 ppb	09:35:05
3	V 292.402†	2513.6	4410.3	0.1596	ug/L	0.1596 ppb	09:35:05
3	Zn 213.857†	6520.9	6826.9	15.873	ug/L	15.873 ppb	09:35:25
3	SiO2†	-695.4	-1498.8	-87.711	ug/L	-87.711 ppb	09:35:41

Mean Data: LR1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	769870.6	85.596	%	0.1889				0.22%
Sc Radial	4873.4	87.2	%	0.88				1.00%
Y 371.029	620995.9	83.591	%	0.1625				0.19%
Y RADIAL	5101.8	87.04	%	1.088				1.25%
Ag 328.068†	-29559.2	-0.2204	ug/L	1.29624	-0.2204	ppb	1.29624	588.20%
Al 396.153Radial†	725391.7	509500	ug/L	6184.2	509500	ppb	6184.2	1.21%
QC value within limits for Al 396.153Radial Recovery = 101.90%								
As 188.979†	-235.2	-16.526	ug/L	7.1990	-16.526	ppb	7.1990	43.56%
B 249.677†	1743.8	-22.096	ug/L	2.9902	-22.096	ppb	2.9902	13.53%
Ba 233.527†	-2149.2	-3.4113	ug/L	0.26780	-3.4113	ppb	0.26780	7.85%
Be 313.107†	-8974.6	-3.0028	ug/L	0.02148	-3.0028	ppb	0.02148	0.72%
Ca 317.933Radial†	337351.3	470970	ug/L	6197.6	470970	ppb	6197.6	1.32%
QC value within limits for Ca 317.933Radial Recovery = 94.19%								
Cd 226.502†	4467.6	-0.5265	ug/L	0.43367	-0.5265	ppb	0.43367	82.37%
Co 228.616†	325.2	-0.6390	ug/L	0.18561	-0.6390	ppb	0.18561	29.05%
Cr 267.716†	-105.9	2.0208	ug/L	0.02234	2.0208	ppb	0.02234	1.11%

Cu 324.752†	-6568.9	3.8107 ug/L	0.10429	3.8107 ppb	0.10429	2.74%
Fe 238.204 Radial†	54925.5	434620 ug/L	2470.3	434620 ppb	2470.3	0.57%
QC value less than the lower limit for Fe 238.204 Radial Recovery = 86.92%						
K 766.490 Radial†	458.8	-114.69 ug/L	16.305	-114.69 ppb	16.305	14.22%
Mg 279.077 IEC†	15855.0	478150 ug/L	4166.7	478150 ppb	4166.7	0.87%
QC value within limits for Mg 279.077 IEC Recovery = 95.63%						
Mn 257.610†	-32395.8	2.8001 ug/L	0.11919	2.8001 ppb	0.11919	4.26%
Mo 202.031†	-660.6	2.3927 ug/L	1.53357	2.3927 ppb	1.53357	64.09%
Na 589.592 Radial†	1838287.8	502370 ug/L	7550.4	502370 ppb	7550.4	1.50%
QC value within limits for Na 589.592 Radial Recovery = 100.47%						
Ni 231.604†	261.9	5.6414 ug/L	0.34803	5.6414 ppb	0.34803	6.17%
P 214.914†	514.9	86.037 ug/L	6.2861	86.037 ppb	6.2861	7.31%
Pb 220.353†	-723.7	4.5327 ug/L	1.96110	4.5327 ppb	1.96110	43.27%
S 181.975 Axial†	77.6	-7.2579 ug/L	11.36942	-7.2579 ppb	11.36942	156.65%
Sb 206.836†	37.8	2.3136 ug/L	4.28323	2.3136 ppb	4.28323	185.13%
Se 196.026†	-3058.4	-175.30 ug/L	5.780	-175.30 ppb	5.780	3.30%
Si 251.611†	-1343.8	-36.524 ug/L	1.2012	-36.524 ppb	1.2012	3.29%
Sn 189.927†	-495.2	-17.435 ug/L	2.4340	-17.435 ppb	2.4340	13.96%
Sr 421.552†	918.2	0.8730 ug/L	0.02392	0.8730 ppb	0.02392	2.74%
Ti 334.940†	-8588.6	5.6901 ug/L	0.64851	5.6901 ppb	0.64851	11.40%
Tl 190.801†	-93.9	-10.389 ug/L	2.9564	-10.389 ppb	2.9564	28.46%
U 409.014†	531169.5	14688 ug/L	10.4	14688 ppb	10.4	0.07%
QC value within limits for U 409.014 Recovery = 97.92%						
V 292.402†	4471.0	0.8361 ug/L	0.58637	0.8361 ppb	0.58637	70.13%
Zn 213.857†	6810.0	16.009 ug/L	0.1708	16.009 ppb	0.1708	1.07%
SiO2†	-1447.4	-84.612 ug/L	2.7531	-84.612 ppb	2.7531	3.25%

QC Failed. Continue with analysis.

Sequence No.: 12
Sample ID: LR2
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 16
Date Collected: 12/20/2009 09:37:50
Data Type: Reprocessed on 12/20/2009 10:23:39

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR2

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc 361.383	876452.1	876452.1	97.446	%			09:41:25
1	Sc Radial	5415.2	5415.2	96.9	%			09:39:48
1	Y 371.029	703674.5	703674.5	94.720	%			09:41:25
1	Y RADIAL	5607.5	5607.5	95.67	%			09:39:48
1	Ag 328.068†	-8046.4	-8656.6	2.1638	ug/L	2.1638	ppb	09:41:30
1	Al 396.153Radial†	644.2	678.0	65.488	ug/L	65.488	ppb	09:39:48
1	As 188.979†	26953.0	27686.8	9922.8	ug/L	9922.8	ppb	09:41:30
1	B 249.677†	240043.6	245869.8	4992.6	ug/L	4992.6	ppb	09:41:25
1	Ba 233.527†	2038049.6	2091472.6	14064	ug/L	14064	ppb	09:41:25
1	Be 313.107†	8404037.0	8628889.8	2883.0	ug/L	2883.0	ppb	09:41:19
1	Ca 317.933Radial†	35.8	19.1	26.666	ug/L	26.666	ppb	09:40:08
1	Cd 226.502†	982874.9	1008860.4	9698.6	ug/L	9698.6	ppb	09:41:25
1	Co 228.616†	513129.1	526662.2	9134.6	ug/L	9134.6	ppb	09:41:30
1	Cr 267.716†	2336498.5	2397635.6	23926	ug/L	23926	ppb	09:41:25
1	Cu 324.752†	6994055.4	7171272.6	20044	ug/L	20044	ppb	09:41:19
1	Fe 238.204 Radial†	-22.6	-34.5	15.086	ug/L	15.086	ppb	09:40:08
1	K 766.490 Radial†	1607232.3	1655516.5	297150	ug/L	297150	ppb	09:39:43
1	Mg 279.077 IEC†	-2.5	-4.8	48.908	ug/L	48.908	ppb	09:40:08
1	Mn 257.610†	9322506.8	9566344.8	9340.8	ug/L	9340.8	ppb	09:41:19
1	Mo 202.031†	157293.4	161390.3	9593.1	ug/L	9593.1	ppb	09:41:30
1	Na 589.592 Radial†	-810.4	423.8	115.82	ug/L	115.82	ppb	09:39:48
1	Ni 231.604†	443313.4	454829.8	9796.4	ug/L	9796.4	ppb	09:41:25
1	P 214.914†	34996.5	35658.5	15063	ug/L	15063	ppb	09:41:30
1	Pb 220.353†	228333.4	234395.5	23992	ug/L	23992	ppb	09:41:30
1	S 181.975 Axial†	41782.3	42818.6	51300	ug/L	51300	ppb	09:41:30
1	Sb 206.836†	34385.6	35244.4	10200	ug/L	10200	ppb	09:41:30
1	Se 196.026†	18150.4	18654.9	9982.0	ug/L	9982.0	ppb	09:41:30
1	Si 251.611†	1665717.0	1708713.2	47268	ug/L	47268	ppb	09:41:25
1	Sn 189.927†	68430.1	70221.7	10271	ug/L	10271	ppb	09:41:30
1	Sr 421.552†	1638604.9	1690754.4	9646.2	ug/L	9646.2	ppb	09:39:43
1	Ti 334.940†	6599746.6	6774186.5	9747.4	ug/L	9747.4	ppb	09:41:19
1	Tl 190.801†	36206.2	37200.9	9553.0	ug/L	9553.0	ppb	09:41:30
1	U 409.014†	-1133.4	1565.3	-2.7024	ug/L	-2.7024	ppb	09:41:30
1	V 292.402†	1548153.7	1590197.0	10101	ug/L	10101	ppb	09:41:25
1	Zn 213.857†	1703841.4	1747691.8	14009	ug/L	14009	ppb	09:41:25
1	SiO2†	1672307.5	1715451.3	101900	ug/L	101900	ppb	09:42:18
2	Sc 361.383	871866.4	871866.4	96.936	%			09:41:45
2	Sc Radial	5471.9	5471.9	97.9	%			09:40:18
2	Y 371.029	700619.0	700619.0	94.309	%			09:41:45
2	Y RADIAL	5690.7	5690.7	97.09	%			09:40:18
2	Ag 328.068†	-7929.3	-8579.3	2.4916	ug/L	2.4916	ppb	09:41:50
2	Al 396.153Radial†	628.2	654.8	47.183	ug/L	47.183	ppb	09:40:18
2	As 188.979†	26972.2	27852.2	9982.5	ug/L	9982.5	ppb	09:41:50
2	B 249.677†	238641.6	245719.1	4989.4	ug/L	4989.4	ppb	09:41:45
2	Ba 233.527†	2026062.8	2090107.2	14055	ug/L	14055	ppb	09:41:45
2	Be 313.107†	8463161.9	8735243.9	2918.5	ug/L	2918.5	ppb	09:41:39
2	Ca 317.933Radial†	38.6	21.5	30.074	ug/L	30.074	ppb	09:40:38
2	Cd 226.502†	975230.1	1006279.0	9673.7	ug/L	9673.7	ppb	09:41:45
2	Co 228.616†	512353.9	528632.1	9168.7	ug/L	9168.7	ppb	09:41:50
2	Cr 267.716†	2321259.5	2394526.1	23895	ug/L	23895	ppb	09:41:45
2	Cu 324.752†	7057334.1	7274301.3	20331	ug/L	20331	ppb	09:41:39
2	Fe 238.204 Radial†	-21.6	-33.2	26.364	ug/L	26.364	ppb	09:40:38
2	K 766.490 Radial†	1609047.6	1640163.2	294390	ug/L	294390	ppb	09:40:13
2	Mg 279.077 IEC†	-5.5	-7.8	-41.468	ug/L	-41.468	ppb	09:40:38
2	Mn 257.610†	9368944.6	9664568.2	9436.7	ug/L	9436.7	ppb	09:41:39
2	Mo 202.031†	157240.7	162184.9	9640.3	ug/L	9640.3	ppb	09:41:50
2	Na 589.592 Radial†	-953.6	286.3	78.232	ug/L	78.232	ppb	09:40:18
2	Ni 231.604†	439827.6	453626.6	9770.4	ug/L	9770.4	ppb	09:41:45

2	P 214.914†	34738.5	35581.2	14979 ug/L	14979 ppb	09:41:50
2	Pb 220.353†	228419.6	235716.9	24127 ug/L	24127 ppb	09:41:50
2	S 181.975 Axial†	41878.7	43143.6	51690 ug/L	51690 ppb	09:41:50
2	Sb 206.836†	34342.1	35385.1	10244 ug/L	10244 ppb	09:41:50
2	Se 196.026†	18184.1	18787.6	10053 ug/L	10053 ppb	09:41:50
2	Si 251.611†	1654215.0	1705838.3	47188 ug/L	47188 ppb	09:41:45
2	Sn 189.927†	68389.1	70548.8	10319 ug/L	10319 ppb	09:41:50
2	Sr 421.552†	1643381.5	1678089.0	9573.9 ug/L	9573.9 ppb	09:40:13
2	Ti 334.940†	6645612.7	6857124.1	9866.8 ug/L	9866.8 ppb	09:41:39
2	Tl 190.801†	36305.4	37498.6	9630.3 ug/L	9630.3 ppb	09:41:50
2	U 409.014†	-1470.9	1211.0	-12.478 ug/L	-12.478 ppb	09:41:50
2	V 292.402†	1539505.3	1589631.3	10098 ug/L	10098 ppb	09:41:45
2	Zn 213.857†	1692031.0	1744704.5	13985 ug/L	13985 ppb	09:41:45
2	SiO2†	1683949.2	1736487.2	103160 ug/L	103160 ppb	09:42:25
3	Sc 361.383	878675.3	878675.3	97.693 %		09:42:05
3	Sc Radial	5384.2	5384.2	96.4 %		09:40:49
3	Y 371.029	706547.9	706547.9	95.107 %		09:42:05
3	Y RADIAL	5605.6	5605.6	95.63 %		09:40:49
3	Ag 328.068†	-7931.2	-8517.8	2.6994 ug/L	2.6994 ppb	09:42:10
3	Al 396.153Radial†	634.1	671.4	65.743 ug/L	65.743 ppb	09:40:49
3	As 188.979†	26620.2	27276.2	9776.3 ug/L	9776.3 ppb	09:42:10
3	B 249.677†	240656.2	245873.6	4992.9 ug/L	4992.9 ppb	09:42:05
3	Ba 233.527†	2037586.0	2085706.3	14026 ug/L	14026 ppb	09:42:05
3	Be 313.107†	8372944.8	8575242.6	2865.0 ug/L	2865.0 ppb	09:41:58
3	Ca 317.933Radial†	36.6	20.1	28.079 ug/L	28.079 ppb	09:41:09
3	Cd 226.502†	980322.0	1003695.2	9648.9 ug/L	9648.9 ppb	09:42:05
3	Co 228.616†	510063.0	522191.4	9057.0 ug/L	9057.0 ppb	09:42:10
3	Cr 267.716†	2334190.1	2389206.0	23842 ug/L	23842 ppb	09:42:05
3	Cu 324.752†	6953351.6	7111447.6	19876 ug/L	19876 ppb	09:41:58
3	Fe 238.204 Radial†	-21.7	-33.7	18.878 ug/L	18.878 ppb	09:41:09
3	K 766.490 Radial†	1569324.1	1625706.2	291800 ug/L	291800 ppb	09:40:44
3	Mg 279.077 IEC†	-2.9	-5.3	32.259 ug/L	32.259 ppb	09:41:09
3	Mn 257.610†	9264347.9	9482606.9	9259.0 ug/L	9259.0 ppb	09:41:58
3	Mo 202.031†	155815.6	159469.2	9478.9 ug/L	9478.9 ppb	09:42:10
3	Na 589.592 Radial†	-933.5	291.3	79.598 ug/L	79.598 ppb	09:40:49
3	Ni 231.604†	442236.6	452576.5	9747.9 ug/L	9747.9 ppb	09:42:05
3	P 214.914†	34355.4	34911.4	14708 ug/L	14708 ppb	09:42:10
3	Pb 220.353†	226811.5	232244.8	23772 ug/L	23772 ppb	09:42:10
3	S 181.975 Axial†	41227.8	42142.5	50490 ug/L	50490 ppb	09:42:10
3	Sb 206.836†	33999.6	34760.0	10055 ug/L	10055 ppb	09:42:10
3	Se 196.026†	17887.2	18338.4	9812.9 ug/L	9812.9 ppb	09:42:10
3	Si 251.611†	1668524.4	1707261.9	47232 ug/L	47232 ppb	09:42:05
3	Sn 189.927†	67767.2	69365.5	10145 ug/L	10145 ppb	09:42:10
3	Sr 421.552†	1595531.9	1655770.3	9446.6 ug/L	9446.6 ppb	09:40:44
3	Ti 334.940†	6563586.8	6720036.8	9669.4 ug/L	9669.4 ppb	09:41:58
3	Tl 190.801†	35983.4	36878.8	9470.2 ug/L	9470.2 ppb	09:42:10
3	U 409.014†	-1510.5	1182.2	-13.175 ug/L	-13.175 ppb	09:42:10
3	V 292.402†	1549399.8	1587452.8	10083 ug/L	10083 ppb	09:42:05
3	Zn 213.857†	1701395.2	1740763.8	13953 ug/L	13953 ppb	09:42:05
3	SiO2†	1669346.9	1708078.7	101470 ug/L	101470 ppb	09:42:32

Mean Data: LR2

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	875664.6	97.359	%	0.3860				0.40%
Sc Radial	5423.8	97.1	%	0.80				0.82%
Y 371.029	703613.8	94.712	%	0.3991				0.42%
Y RADIAL	5634.6	96.13	%	0.829				0.86%
Ag 328.068†	-8584.6	2.4516	ug/L	0.27002	2.4516	ppb	0.27002	11.01%
Al 396.153Radial†	668.0	59.471	ug/L	10.6428	59.471	ppb	10.6428	17.90%
As 188.979†	27605.1	9893.9	ug/L	106.10	9893.9	ppb	106.10	1.07%
QC value within limits for As 188.979 Recovery = 98.94%								
B 249.677†	245820.8	4991.6	ug/L	1.91	4991.6	ppb	1.91	0.04%
QC value within limits for B 249.677 Recovery = 99.83%								
Ba 233.527†	2089095.3	14048	ug/L	20.3	14048	ppb	20.3	0.14%
QC value within limits for Ba 233.527 Recovery = 93.66%								
Be 313.107†	8646458.8	2888.8	ug/L	27.22	2888.8	ppb	27.22	0.94%
QC value within limits for Be 313.107 Recovery = 96.29%								
Ca 317.933Radial†	20.3	28.273	ug/L	1.7123	28.273	ppb	1.7123	6.06%
Cd 226.502†	1006278.2	9673.7	ug/L	24.83	9673.7	ppb	24.83	0.26%

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   QC value within limits for Cd 226.502  Recovery = 96.74%
Co 228.616†          525828.6      9120.1 ug/L        57.25      9120.1 ppb        57.25   0.63%
   QC value within limits for Co 228.616  Recovery = 91.20%
Cr 267.716†         2393789.2       23888 ug/L         42.5       23888 ppb         42.5   0.18%
   QC value within limits for Cr 267.716  Recovery = 95.55%
Cu 324.752†         7185673.9       20084 ug/L        230.2       20084 ppb        230.2   1.15%
   QC value within limits for Cu 324.752  Recovery = 100.42%
Fe 238.204 Radial†       -33.8      20.109 ug/L       5.7393      20.109 ppb       5.7393  28.54%
K 766.490 Radial†    1640462.0      294450 ug/L       2676.2      294450 ppb       2676.2   0.91%
   QC value within limits for K 766.490 Radial  Recovery = 98.15%
Mg 279.077 IEC†          -6.0      13.233 ug/L      48.0985      13.233 ppb      48.0985 363.47%
Mn 257.610†         9571173.3      9345.5 ug/L        88.93      9345.5 ppb        88.93   0.95%
   QC value within limits for Mn 257.610  Recovery = 93.46%
Mo 202.031†          161014.8      9570.7 ug/L        82.99      9570.7 ppb        82.99   0.87%
   QC value within limits for Mo 202.031  Recovery = 95.71%
Na 589.592 Radial†       333.8      91.215 ug/L      21.3155      91.215 ppb      21.3155  23.37%
Ni 231.604†          453677.6      9771.5 ug/L        24.28      9771.5 ppb        24.28   0.25%
   QC value within limits for Ni 231.604  Recovery = 97.72%
P 214.914†            35383.7       14917 ug/L        185.3       14917 ppb        185.3   1.24%
   QC value within limits for P 214.914  Recovery = 99.45%
Pb 220.353†          234119.1       23964 ug/L        179.3       23964 ppb        179.3   0.75%
   QC value within limits for Pb 220.353  Recovery = 95.85%
S 181.975 Axial†      42701.6       51160 ug/L        611.8       51160 ppb        611.8   1.20%
   QC value within limits for S 181.975 Axial  Recovery = 102.32%
Sb 206.836†           35129.9       10166 ug/L         99.1       10166 ppb         99.1   0.97%
   QC value within limits for Sb 206.836  Recovery = 101.66%
Se 196.026†           18593.6      9949.3 ug/L       123.40      9949.3 ppb       123.40   1.24%
   QC value within limits for Se 196.026  Recovery = 99.49%
Si 251.611†         1707271.2       47229 ug/L         40.1       47229 ppb         40.1   0.08%
   QC value within limits for Si 251.611  Recovery = 94.46%
Sn 189.927†           70045.3       10245 ug/L         89.4       10245 ppb         89.4   0.87%
   QC value within limits for Sn 189.927  Recovery = 102.45%
Sr 421.552†         1674871.3      9555.6 ug/L       101.05      9555.6 ppb       101.05   1.06%
   QC value within limits for Sr 421.552  Recovery = 95.56%
Ti 334.940†         6783782.5      9761.2 ug/L        99.43      9761.2 ppb        99.43   1.02%
   QC value within limits for Ti 334.940  Recovery = 97.61%
Tl 190.801†           37192.8      9551.2 ug/L        80.07      9551.2 ppb        80.07   0.84%
   QC value within limits for Tl 190.801  Recovery = 95.51%
U 409.014†             1319.5     -9.4517 ug/L      5.85549     -9.4517 ppb      5.85549  61.95%
V 292.402†          1589093.7       10094 ug/L         10.1       10094 ppb         10.1   0.10%
   QC value within limits for V 292.402  Recovery = 100.94%
Zn 213.857†         1744386.7       13982 ug/L         27.8       13982 ppb         27.8   0.20%
   QC value within limits for Zn 213.857  Recovery = 93.22%
SiO2†               1720005.7      102170 ug/L        877.5      102170 ppb        877.5   0.86%
   QC value within limits for SiO2  Recovery = 95.49%
All analyte(s) passed QC.
```

Sequence No.: 13
Sample ID: CCV
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 12/20/2009 09:44:42
Data Type: Reprocessed on 12/20/2009 10:23:40

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc 361.383	911610.1	911610.1	101.36	%			09:47:53
1	Sc Radial	5589.4	5589.4	100	%			09:46:34
1	Y 371.029	738495.6	738495.6	99.407	%			09:47:53
1	Y RADIAL	5782.0	5782.0	98.64	%			09:46:34
1	Ag 328.068†	116242.2	114288.8	490.72	ug/L	490.72	ppb	09:47:53
1	Al 396.153Radial†	6849.8	6860.8	4797.8	ug/L	4797.8	ppb	09:46:34
1	As 188.979†	1424.0	1432.4	513.40	ug/L	513.40	ppb	09:48:14
1	B 249.677†	25924.6	25113.0	510.39	ug/L	510.39	ppb	09:47:53
1	Ba 233.527†	74615.7	73626.8	495.56	ug/L	495.56	ppb	09:47:53
1	Be 313.107†	1504824.3	1489301.1	495.24	ug/L	495.24	ppb	09:47:53
1	Ca 317.933Radial†	3535.4	3516.3	4909.1	ug/L	4909.1	ppb	09:46:54
1	Cd 226.502†	52113.4	51642.4	495.94	ug/L	495.94	ppb	09:47:53
1	Co 228.616†	28553.2	28256.2	490.21	ug/L	490.21	ppb	09:48:14
1	Cr 267.716†	50279.6	49508.3	494.49	ug/L	494.49	ppb	09:47:53
1	Cu 324.752†	184722.2	176165.6	492.64	ug/L	492.64	ppb	09:47:53
1	Fe 238.204 Radial†	652.5	641.0	5087.8	ug/L	5087.8	ppb	09:46:54
1	K 766.490 Radial†	30797.7	27914.9	5003.3	ug/L	5003.3	ppb	09:46:34
1	Mg 279.077 IEC†	175.0	172.6	5216.3	ug/L	5216.3	ppb	09:46:54
1	Mn 257.610†	514710.5	507337.7	495.79	ug/L	495.79	ppb	09:47:53
1	Mo 202.031†	8408.7	8270.7	492.10	ug/L	492.10	ppb	09:48:14
1	Na 589.592 Radial†	34656.7	35904.9	9812.2	ug/L	9812.2	ppb	09:46:34
1	Ni 231.604†	23215.9	22803.3	491.13	ug/L	491.13	ppb	09:48:14
1	P 214.914†	5139.2	4815.3	2374.5	ug/L	2374.5	ppb	09:48:14
1	Pb 220.353†	4818.1	4831.5	495.86	ug/L	495.86	ppb	09:48:14
1	S 181.975 Axial†	880.2	809.7	969.11	ug/L	969.11	ppb	09:48:14
1	Sb 206.836†	1745.4	1679.6	502.72	ug/L	502.72	ppb	09:48:14
1	Se 196.026†	906.9	923.5	511.06	ug/L	511.06	ppb	09:48:14
1	Si 251.611†	90345.6	88477.9	2451.2	ug/L	2451.2	ppb	09:47:53
1	Sn 189.927†	3427.1	3379.5	494.87	ug/L	494.87	ppb	09:48:14
1	Sr 421.552†	86211.5	86176.7	491.61	ug/L	491.61	ppb	09:46:34
1	Ti 334.940†	343480.9	340358.9	490.04	ug/L	490.04	ppb	09:47:53
1	Tl 190.801†	1930.9	1950.8	500.98	ug/L	500.98	ppb	09:48:14
1	U 409.014†	14652.5	17184.9	475.39	ug/L	475.39	ppb	09:47:53
1	V 292.402†	77686.3	78116.2	497.03	ug/L	497.03	ppb	09:47:53
1	Zn 213.857†	63093.4	61445.0	491.39	ug/L	491.39	ppb	09:47:53
1	SiO2†	90305.3	88413.0	5259.7	ug/L	5259.7	ppb	09:49:14
2	Sc 361.383	912438.6	912438.6	101.45	%			09:48:21
2	Sc Radial	5534.1	5534.1	99.0	%			09:46:59
2	Y 371.029	739731.1	739731.1	99.573	%			09:48:21
2	Y RADIAL	5761.3	5761.3	98.29	%			09:46:59
2	Ag 328.068†	116558.1	114496.0	491.61	ug/L	491.61	ppb	09:48:21
2	Al 396.153Radial†	6792.7	6871.6	4805.5	ug/L	4805.5	ppb	09:46:59
2	As 188.979†	1408.9	1416.3	507.68	ug/L	507.68	ppb	09:48:41
2	B 249.677†	25923.7	25088.9	509.90	ug/L	509.90	ppb	09:48:21
2	Ba 233.527†	74544.5	73489.7	494.63	ug/L	494.63	ppb	09:48:21
2	Be 313.107†	1504609.5	1487741.3	494.72	ug/L	494.72	ppb	09:48:21
2	Ca 317.933Radial†	3502.6	3518.6	4912.2	ug/L	4912.2	ppb	09:47:20
2	Cd 226.502†	52135.8	51617.9	495.71	ug/L	495.71	ppb	09:48:21
2	Co 228.616†	28400.7	28080.3	487.16	ug/L	487.16	ppb	09:48:41
2	Cr 267.716†	50247.2	49431.2	493.72	ug/L	493.72	ppb	09:48:21
2	Cu 324.752†	185055.9	176329.1	493.09	ug/L	493.09	ppb	09:48:21
2	Fe 238.204 Radial†	646.6	641.7	5092.8	ug/L	5092.8	ppb	09:47:20
2	K 766.490 Radial†	30516.3	27938.5	5007.6	ug/L	5007.6	ppb	09:46:59
2	Mg 279.077 IEC†	170.5	169.9	5132.1	ug/L	5132.1	ppb	09:47:20
2	Mn 257.610†	514453.7	506623.5	495.09	ug/L	495.09	ppb	09:48:21
2	Mo 202.031†	8370.6	8225.6	489.42	ug/L	489.42	ppb	09:48:41
2	Na 589.592 Radial†	34140.9	35730.5	9764.6	ug/L	9764.6	ppb	09:46:59
2	Ni 231.604†	23121.2	22689.1	488.67	ug/L	488.67	ppb	09:48:41

2	P 214.914†	5109.0	4780.9	2356.8 ug/L	2356.8 ppb	09:48:41
2	Pb 220.353†	4815.0	4824.1	495.10 ug/L	495.10 ppb	09:48:41
2	S 181.975 Axial†	883.6	812.3	972.22 ug/L	972.22 ppb	09:48:41
2	Sb 206.836†	1732.0	1664.9	498.23 ug/L	498.23 ppb	09:48:41
2	Se 196.026†	895.9	911.9	504.87 ug/L	504.87 ppb	09:48:41
2	Si 251.611†	90251.9	88304.6	2446.4 ug/L	2446.4 ppb	09:48:21
2	Sn 189.927†	3390.6	3340.4	489.15 ug/L	489.15 ppb	09:48:41
2	Sr 421.552†	85286.8	86104.5	491.20 ug/L	491.20 ppb	09:46:59
2	Ti 334.940†	343539.0	340108.5	489.68 ug/L	489.68 ppb	09:48:21
2	Tl 190.801†	1927.4	1945.7	499.68 ug/L	499.68 ppb	09:48:41
2	U 409.014†	14508.3	17029.7	471.08 ug/L	471.08 ppb	09:48:21
2	V 292.402†	77661.2	78021.8	496.39 ug/L	496.39 ppb	09:48:21
2	Zn 213.857†	63023.3	61319.4	490.40 ug/L	490.40 ppb	09:48:21
2	SiO2†	90392.3	88417.9	5260.2 ug/L	5260.2 ppb	09:49:19
3	Sc 361.383	912856.7	912856.7	101.49 %		09:48:48
3	Sc Radial	5584.1	5584.1	99.9 %		09:47:25
3	Y 371.029	739901.0	739901.0	99.596 %		09:48:48
3	Y RADIAL	5842.7	5842.7	99.68 %		09:47:25
3	Ag 328.068†	116278.7	114168.1	490.21 ug/L	490.21 ppb	09:48:48
3	Al 396.153Radial†	6890.1	6907.6	4830.8 ug/L	4830.8 ppb	09:47:25
3	As 188.979†	1415.2	1421.9	509.65 ug/L	509.65 ppb	09:49:08
3	B 249.677†	25873.7	25027.9	508.66 ug/L	508.66 ppb	09:48:48
3	Ba 233.527†	74489.0	73401.4	494.04 ug/L	494.04 ppb	09:48:48
3	Be 313.107†	1507975.0	1490378.0	495.59 ug/L	495.59 ppb	09:48:48
3	Ca 317.933Radial†	3515.0	3499.3	4885.3 ug/L	4885.3 ppb	09:47:45
3	Cd 226.502†	52041.3	51501.2	494.59 ug/L	494.59 ppb	09:48:48
3	Co 228.616†	28467.2	28133.0	488.08 ug/L	488.08 ppb	09:49:08
3	Cr 267.716†	50212.1	49374.0	493.15 ug/L	493.15 ppb	09:48:48
3	Cu 324.752†	185167.3	176355.3	493.17 ug/L	493.17 ppb	09:48:48
3	Fe 238.204 Radial†	650.6	639.8	5078.1 ug/L	5078.1 ppb	09:47:45
3	K 766.490 Radial†	31075.7	28222.4	5058.5 ug/L	5058.5 ppb	09:47:25
3	Mg 279.077 IEC†	173.0	170.8	5161.1 ug/L	5161.1 ppb	09:47:45
3	Mn 257.610†	514063.7	506007.0	494.49 ug/L	494.49 ppb	09:48:48
3	Mo 202.031†	8404.1	8254.9	491.16 ug/L	491.16 ppb	09:49:08
3	Na 589.592 Radial†	34671.6	35952.9	9825.3 ug/L	9825.3 ppb	09:47:25
3	Ni 231.604†	23189.6	22746.1	489.90 ug/L	489.90 ppb	09:49:08
3	P 214.914†	5136.7	4805.9	2369.5 ug/L	2369.5 ppb	09:49:08
3	Pb 220.353†	4793.0	4800.2	492.66 ug/L	492.66 ppb	09:49:08
3	S 181.975 Axial†	883.7	812.0	971.84 ug/L	971.84 ppb	09:49:08
3	Sb 206.836†	1733.8	1665.9	498.61 ug/L	498.61 ppb	09:49:08
3	Se 196.026†	902.5	918.0	508.06 ug/L	508.06 ppb	09:49:08
3	Si 251.611†	90344.8	88355.4	2447.8 ug/L	2447.8 ppb	09:48:48
3	Sn 189.927†	3401.1	3349.2	490.44 ug/L	490.44 ppb	09:49:08
3	Sr 421.552†	86553.0	86600.5	494.03 ug/L	494.03 ppb	09:47:25
3	Ti 334.940†	343473.2	339888.6	489.36 ug/L	489.36 ppb	09:48:48
3	Tl 190.801†	1918.9	1936.5	497.31 ug/L	497.31 ppb	09:49:08
3	U 409.014†	14570.1	17084.0	472.59 ug/L	472.59 ppb	09:48:48
3	V 292.402†	77772.0	78095.9	496.89 ug/L	496.89 ppb	09:48:48
3	Zn 213.857†	62948.5	61217.3	489.57 ug/L	489.57 ppb	09:48:48
3	SiO2†	89374.7	87374.5	5197.7 ug/L	5197.7 ppb	09:49:24

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	912301.8	101.43	%	0.071				0.07%
Sc Radial	5569.2	99.7	%	0.55				0.55%
Y 371.029	739375.9	99.526	%	0.1033				0.10%
Y RADIAL	5795.3	98.87	%	0.721				0.73%
Ag 328.068†	114317.6	490.85	ug/L	0.710	490.85	ppb	0.710	0.14%
QC value within limits for Ag 328.068 Recovery = 98.17%								
Al 396.153Radial†	6880.0	4811.4	ug/L	17.23	4811.4	ppb	17.23	0.36%
QC value within limits for Al 396.153Radial Recovery = 96.23%								
As 188.979†	1423.5	510.24	ug/L	2.902	510.24	ppb	2.902	0.57%
QC value within limits for As 188.979 Recovery = 102.05%								
B 249.677†	25076.6	509.65	ug/L	0.891	509.65	ppb	0.891	0.17%
QC value within limits for B 249.677 Recovery = 101.93%								
Ba 233.527†	73506.0	494.74	ug/L	0.763	494.74	ppb	0.763	0.15%
QC value within limits for Ba 233.527 Recovery = 98.95%								
Be 313.107†	1489140.2	495.18	ug/L	0.440	495.18	ppb	0.440	0.09%
QC value within limits for Be 313.107 Recovery = 99.04%								

Ca 317.933Radial†	3511.4	4902.2 ug/L	14.72	4902.2 ppb	14.72	0.30%
QC value within limits for Ca 317.933Radial Recovery = 98.04%						
Cd 226.502†	51587.2	495.41 ug/L	0.724	495.41 ppb	0.724	0.15%
QC value within limits for Cd 226.502 Recovery = 99.08%						
Co 228.616†	28156.5	488.48 ug/L	1.568	488.48 ppb	1.568	0.32%
QC value within limits for Co 228.616 Recovery = 97.70%						
Cr 267.716†	49437.8	493.78 ug/L	0.672	493.78 ppb	0.672	0.14%
QC value within limits for Cr 267.716 Recovery = 98.76%						
Cu 324.752†	176283.3	492.97 ug/L	0.287	492.97 ppb	0.287	0.06%
QC value within limits for Cu 324.752 Recovery = 98.59%						
Fe 238.204 Radial†	640.8	5086.2 ug/L	7.49	5086.2 ppb	7.49	0.15%
QC value within limits for Fe 238.204 Radial Recovery = 101.72%						
K 766.490 Radial†	28025.2	5023.1 ug/L	30.73	5023.1 ppb	30.73	0.61%
QC value within limits for K 766.490 Radial Recovery = 100.46%						
Mg 279.077 IEC†	171.1	5169.9 ug/L	42.80	5169.9 ppb	42.80	0.83%
QC value within limits for Mg 279.077 IEC Recovery = 103.40%						
Mn 257.610†	506656.1	495.12 ug/L	0.650	495.12 ppb	0.650	0.13%
QC value within limits for Mn 257.610 Recovery = 99.02%						
Mo 202.031†	8250.4	490.89 ug/L	1.359	490.89 ppb	1.359	0.28%
QC value within limits for Mo 202.031 Recovery = 98.18%						
Na 589.592 Radial†	35862.8	9800.7 ug/L	31.99	9800.7 ppb	31.99	0.33%
QC value within limits for Na 589.592 Radial Recovery = 98.01%						
Ni 231.604†	22746.2	489.90 ug/L	1.229	489.90 ppb	1.229	0.25%
QC value within limits for Ni 231.604 Recovery = 97.98%						
P 214.914†	4800.7	2366.9 ug/L	9.11	2366.9 ppb	9.11	0.38%
QC value within limits for P 214.914 Recovery = 94.68%						
Pb 220.353†	4818.6	494.54 ug/L	1.669	494.54 ppb	1.669	0.34%
QC value within limits for Pb 220.353 Recovery = 98.91%						
S 181.975 Axial†	811.3	971.06 ug/L	1.694	971.06 ppb	1.694	0.17%
QC value within limits for S 181.975 Axial Recovery = 97.11%						
Sb 206.836†	1670.2	499.85 ug/L	2.492	499.85 ppb	2.492	0.50%
QC value within limits for Sb 206.836 Recovery = 99.97%						
Se 196.026†	917.8	508.00 ug/L	3.098	508.00 ppb	3.098	0.61%
QC value within limits for Se 196.026 Recovery = 101.60%						
Si 251.611†	88379.3	2448.5 ug/L	2.45	2448.5 ppb	2.45	0.10%
QC value within limits for Si 251.611 Recovery = 97.94%						
Sn 189.927†	3356.4	491.49 ug/L	3.002	491.49 ppb	3.002	0.61%
QC value within limits for Sn 189.927 Recovery = 98.30%						
Sr 421.552†	86293.9	492.28 ug/L	1.529	492.28 ppb	1.529	0.31%
QC value within limits for Sr 421.552 Recovery = 98.46%						
Ti 334.940†	340118.6	489.69 ug/L	0.339	489.69 ppb	0.339	0.07%
QC value within limits for Ti 334.940 Recovery = 97.94%						
Tl 190.801†	1944.3	499.32 ug/L	1.859	499.32 ppb	1.859	0.37%
QC value within limits for Tl 190.801 Recovery = 99.86%						
U 409.014†	17099.5	473.02 ug/L	2.186	473.02 ppb	2.186	0.46%
QC value within limits for U 409.014 Recovery = 94.60%						
V 292.402†	78078.0	496.77 ug/L	0.336	496.77 ppb	0.336	0.07%
QC value within limits for V 292.402 Recovery = 99.35%						
Zn 213.857†	61327.2	490.45 ug/L	0.915	490.45 ppb	0.915	0.19%
QC value within limits for Zn 213.857 Recovery = 98.09%						
SiO2†	88068.5	5239.2 ug/L	35.95	5239.2 ppb	35.95	0.69%
QC value within limits for SiO2 Recovery = 97.97%						

All analyte(s) passed QC.

Sequence No.: 14
Sample ID: CCB
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 12/20/2009 09:51:34
Data Type: Reprocessed on 12/20/2009 10:23:41

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc 361.383	901297.4	901297.4	100.21	%			09:54:43
1	Sc Radial	5594.5	5594.5	100	%			09:53:26
1	Y 371.029	745622.5	745622.5	100.37	%			09:54:43
1	Y RADIAL	5831.0	5831.0	99.48	%			09:53:26
1	Ag 328.068†	426.0	25.8	0.1116	ug/L	0.1116	ppb	09:54:43
1	Al 396.153Radial†	-9.7	3.6	2.5000	ug/L	2.5000	ppb	09:53:26
1	As 188.979†	-5.9	21.6	7.6658	ug/L	7.6658	ppb	09:55:03
1	B 249.677†	852.4	385.6	7.8655	ug/L	7.8655	ppb	09:54:43
1	Ba 233.527†	-0.1	8.5	0.0562	ug/L	0.0562	ppb	09:55:03
1	Be 313.107†	-4564.4	40.2	0.0135	ug/L	0.0135	ppb	09:54:43
1	Ca 317.933Radial†	22.7	4.8	6.6790	ug/L	6.6790	ppb	09:53:46
1	Cd 226.502†	-200.5	25.7	0.2463	ug/L	0.2463	ppb	09:55:03
1	Co 228.616†	-69.9	15.0	0.2620	ug/L	0.2620	ppb	09:55:03
1	Cr 267.716†	76.2	-23.2	-0.2313	ug/L	-0.2313	ppb	09:54:43
1	Cu 324.752†	6221.9	121.9	0.3411	ug/L	0.3411	ppb	09:54:43
1	Fe 238.204 Radial†	12.2	0.9	7.4437	ug/L	7.4437	ppb	09:53:46
1	K 766.490 Radial†	3066.6	190.4	34.197	ug/L	34.197	ppb	09:53:26
1	Mg 279.077 IEC†	-0.3	-2.5	-76.009	ug/L	-76.009	ppb	09:53:46
1	Mn 257.610†	535.2	42.5	0.0437	ug/L	0.0437	ppb	09:55:03
1	Mo 202.031†	40.6	15.0	0.8907	ug/L	0.8907	ppb	09:55:03
1	Na 589.592 Radial†	-1282.2	-20.6	-5.6219	ug/L	-5.6219	ppb	09:53:26
1	Ni 231.604†	118.7	16.2	0.3493	ug/L	0.3493	ppb	09:55:03
1	P 214.914†	255.9	0.2	0.0894	ug/L	0.0894	ppb	09:55:03
1	Pb 220.353†	-75.0	3.0	0.3059	ug/L	0.3059	ppb	09:55:03
1	S 181.975 Axial†	58.5	-0.4	-0.4657	ug/L	-0.4657	ppb	09:55:03
1	Sb 206.836†	43.4	0.9	0.3785	ug/L	0.3785	ppb	09:55:03
1	Se 196.026†	-35.2	-6.3	-3.3429	ug/L	-3.3429	ppb	09:55:03
1	Si 251.611†	753.4	92.0	2.5185	ug/L	2.5185	ppb	09:55:03
1	Sn 189.927†	36.8	34.9	5.1040	ug/L	5.1040	ppb	09:55:03
1	Sr 421.552†	3.1	-2.6	-0.0147	ug/L	-0.0147	ppb	09:53:26
1	Ti 334.940†	-1407.1	65.9	0.0957	ug/L	0.0957	ppb	09:54:43
1	Tl 190.801†	-34.4	11.5	2.9358	ug/L	2.9358	ppb	09:55:03
1	U 409.014†	-2759.5	-25.4	-0.7059	ug/L	-0.7059	ppb	09:54:43
1	V 292.402†	-1527.3	-55.7	-0.3411	ug/L	-0.3411	ppb	09:54:43
1	Zn 213.857†	842.6	36.0	0.2897	ug/L	0.2897	ppb	09:55:03
1	SiO2†	757.9	71.4	4.1730	ug/L	4.1730	ppb	09:55:59
2	Sc 361.383	897860.5	897860.5	99.826	%			09:55:08
2	Sc Radial	5730.3	5730.3	103	%			09:53:51
2	Y 371.029	743726.1	743726.1	100.11	%			09:55:08
2	Y RADIAL	6026.6	6026.6	102.8	%			09:53:51
2	Ag 328.068†	354.7	-44.1	-0.1893	ug/L	-0.1893	ppb	09:55:08
2	Al 396.153Radial†	-6.0	7.5	5.2254	ug/L	5.2254	ppb	09:53:51
2	As 188.979†	-14.5	13.0	4.6098	ug/L	4.6098	ppb	09:55:28
2	B 249.677†	838.2	374.6	7.6410	ug/L	7.6410	ppb	09:55:08
2	Ba 233.527†	6.3	14.9	0.0993	ug/L	0.0993	ppb	09:55:28
2	Be 313.107†	-4478.2	109.1	0.0363	ug/L	0.0363	ppb	09:55:08
2	Ca 317.933Radial†	23.8	5.3	7.4470	ug/L	7.4470	ppb	09:54:11
2	Cd 226.502†	-215.4	10.0	0.0948	ug/L	0.0948	ppb	09:55:28
2	Co 228.616†	-86.3	-1.7	-0.0286	ug/L	-0.0286	ppb	09:55:28
2	Cr 267.716†	108.0	9.0	0.0881	ug/L	0.0881	ppb	09:55:08
2	Cu 324.752†	6201.3	125.0	0.3501	ug/L	0.3501	ppb	09:55:08
2	Fe 238.204 Radial†	13.1	1.6	12.385	ug/L	12.385	ppb	09:54:11
2	K 766.490 Radial†	3277.5	323.5	58.083	ug/L	58.083	ppb	09:53:51
2	Mg 279.077 IEC†	0.5	-1.8	-55.127	ug/L	-55.127	ppb	09:54:11
2	Mn 257.610†	526.2	35.6	0.0370	ug/L	0.0370	ppb	09:55:28
2	Mo 202.031†	35.4	9.9	0.5904	ug/L	0.5904	ppb	09:55:28
2	Na 589.592 Radial†	-1268.3	23.3	6.3769	ug/L	6.3769	ppb	09:53:51
2	Ni 231.604†	101.0	-1.0	-0.0224	ug/L	-0.0224	ppb	09:55:28

2	P 214.914†	252.8	-1.9	-0.9811 ug/L	-0.9811 ppb	09:55:28
2	Pb 220.353†	-67.9	9.8	1.0045 ug/L	1.0045 ppb	09:55:28
2	S 181.975 Axial†	54.5	-4.1	-4.9229 ug/L	-4.9229 ppb	09:55:28
2	Sb 206.836†	59.9	17.6	5.2710 ug/L	5.2710 ppb	09:55:28
2	Se 196.026†	-23.1	5.6	3.0514 ug/L	3.0514 ppb	09:55:28
2	Si 251.611†	762.5	104.0	2.8525 ug/L	2.8525 ppb	09:55:28
2	Sn 189.927†	28.5	26.7	3.9080 ug/L	3.9080 ppb	09:55:28
2	Sr 421.552†	1.8	-3.8	-0.0220 ug/L	-0.0220 ppb	09:53:51
2	Ti 334.940†	-1421.3	46.2	0.0654 ug/L	0.0654 ppb	09:55:08
2	Tl 190.801†	-28.0	17.8	4.5342 ug/L	4.5342 ppb	09:55:28
2	U 409.014†	-2597.4	126.5	3.5084 ug/L	3.5084 ppb	09:55:08
2	V 292.402†	-1558.1	-92.4	-0.5680 ug/L	-0.5680 ppb	09:55:08
2	Zn 213.857†	842.0	38.7	0.3128 ug/L	0.3128 ppb	09:55:28
2	SiO2†	767.7	84.0	4.9311 ug/L	4.9311 ppb	09:56:04
3	Sc 361.383	903037.4	903037.4	100.40 %		09:55:34
3	Sc Radial	5612.9	5612.9	100 %		09:54:16
3	Y 371.029	749045.0	749045.0	100.83 %		09:55:34
3	Y RADIAL	5918.8	5918.8	101.0 %		09:54:16
3	Ag 328.068†	417.3	16.2	0.0661 ug/L	0.0661 ppb	09:55:34
3	Al 396.153Radial†	-20.2	-6.8	-4.8072 ug/L	-4.8072 ppb	09:54:16
3	As 188.979†	-21.5	6.0	2.1442 ug/L	2.1442 ppb	09:55:54
3	B 249.677†	771.9	303.8	6.1986 ug/L	6.1986 ppb	09:55:34
3	Ba 233.527†	-1.7	6.9	0.0463 ug/L	0.0463 ppb	09:55:54
3	Be 313.107†	-4495.0	118.1	0.0391 ug/L	0.0391 ppb	09:55:34
3	Ca 317.933Radial†	18.0	0.0	0.0445 ug/L	0.0445 ppb	09:54:36
3	Cd 226.502†	-197.0	29.5	0.2841 ug/L	0.2841 ppb	09:55:54
3	Co 228.616†	-84.3	0.7	0.0151 ug/L	0.0151 ppb	09:55:54
3	Cr 267.716†	109.4	9.8	0.0971 ug/L	0.0971 ppb	09:55:34
3	Cu 324.752†	6238.6	126.6	0.3538 ug/L	0.3538 ppb	09:55:34
3	Fe 238.204 Radial†	10.8	-0.5	-3.6084 ug/L	-3.6084 ppb	09:54:36
3	K 766.490 Radial†	3206.7	319.9	57.426 ug/L	57.426 ppb	09:54:16
3	Mg 279.077 IEC†	-0.4	-2.7	-81.444 ug/L	-81.444 ppb	09:54:36
3	Mn 257.610†	556.2	62.5	0.0621 ug/L	0.0621 ppb	09:55:54
3	Mo 202.031†	40.2	14.4	0.8577 ug/L	0.8577 ppb	09:55:54
3	Na 589.592 Radial†	-1190.6	74.8	20.433 ug/L	20.433 ppb	09:54:16
3	Ni 231.604†	112.3	9.6	0.2074 ug/L	0.2074 ppb	09:55:54
3	P 214.914†	245.9	-10.3	-5.2213 ug/L	-5.2213 ppb	09:55:54
3	Pb 220.353†	-70.9	7.2	0.7381 ug/L	0.7381 ppb	09:55:54
3	S 181.975 Axial†	51.3	-7.7	-9.2271 ug/L	-9.2271 ppb	09:55:54
3	Sb 206.836†	44.2	1.6	0.5687 ug/L	0.5687 ppb	09:55:54
3	Se 196.026†	-29.3	-0.4	-0.2442 ug/L	-0.2442 ppb	09:55:54
3	Si 251.611†	736.7	73.9	2.0126 ug/L	2.0126 ppb	09:55:54
3	Sn 189.927†	27.9	25.9	3.7925 ug/L	3.7925 ppb	09:55:54
3	Sr 421.552†	-9.6	-15.2	-0.0867 ug/L	-0.0867 ppb	09:54:16
3	Ti 334.940†	-1519.1	-43.0	-0.0629 ug/L	-0.0629 ppb	09:55:34
3	Tl 190.801†	-35.1	10.9	2.7735 ug/L	2.7735 ppb	09:55:54
3	U 409.014†	-2667.6	71.4	1.9820 ug/L	1.9820 ppb	09:55:34
3	V 292.402†	-1483.3	-8.9	-0.0410 ug/L	-0.0410 ppb	09:55:34
3	Zn 213.857†	853.7	45.5	0.3678 ug/L	0.3678 ppb	09:55:54
3	SiO2†	788.9	100.7	5.9207 ug/L	5.9207 ppb	09:56:09

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	900731.7	100.15	%	0.293				0.29%
Sc Radial	5645.9	101	%	1.3				1.30%
Y 371.029	746131.2	100.43	%	0.363				0.36%
Y RADIAL	5925.4	101.1	%	1.67				1.65%
Ag 328.068†	-0.7	-0.0039	ug/L	0.16217	-0.0039	ppb	0.16217	>999.9%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	1.4	0.9728	ug/L	5.18778	0.9728	ppb	5.18778	533.31%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	13.5	4.8066	ug/L	2.76606	4.8066	ppb	2.76606	57.55%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	354.7	7.2351	ug/L	0.90459	7.2351	ppb	0.90459	12.50%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	10.1	0.0673	ug/L	0.02819	0.0673	ppb	0.02819	41.91%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	89.1	0.0296	ug/L	0.01401	0.0296	ppb	0.01401	47.27%
QC value within limits for Be 313.107 Recovery = Not calculated								

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Ca 317.933Radial†          3.4      4.7235 ug/L       4.07030      4.7235 ppb        4.07030  86.17%
   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†               21.7      0.2084 ug/L       0.10019      0.2084 ppb        0.10019  48.08%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                4.7      0.0829 ug/L       0.15671      0.0829 ppb        0.15671 189.13%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†               -1.4     -0.0154 ug/L       0.18704     -0.0154 ppb        0.18704 >999.9%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              124.5      0.3483 ug/L       0.00651      0.3483 ppb        0.00651   1.87%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         0.7      5.4067 ug/L       8.18879      5.4067 ppb        8.18879 151.46%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        277.9     49.902 ug/L       13.6049     49.902 ppb        13.6049  27.26%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           -2.3    -70.860 ug/L       13.8933    -70.860 ppb        13.8933  19.61%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               46.9      0.0476 ug/L       0.01300      0.0476 ppb        0.01300  27.31%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               13.1      0.7796 ug/L       0.16469      0.7796 ppb        0.16469  21.12%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        25.8      7.0627 ug/L      13.04094      7.0627 ppb       13.04094 184.65%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                8.3      0.1781 ug/L       0.18753      0.1781 ppb        0.18753 105.30%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -4.0     -2.0377 ug/L       2.80858     -2.0377 ppb        2.80858 137.83%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                6.7      0.6828 ug/L       0.35256      0.6828 ppb        0.35256  51.64%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          -4.1     -4.8719 ug/L       4.38095     -4.8719 ppb        4.38095  89.92%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                6.7      2.0727 ug/L       2.77141      2.0727 ppb        2.77141 133.71%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               -0.4     -0.1786 ug/L       3.19766     -0.1786 ppb        3.19766 >999.9%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†               90.0      2.4612 ug/L       0.42286      2.4612 ppb        0.42286  17.18%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               29.2      4.2682 ug/L       0.72616      4.2682 ppb        0.72616  17.01%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               -7.2     -0.0411 ug/L       0.03963     -0.0411 ppb        0.03963  96.39%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               23.1      0.0327 ug/L       0.08416      0.0327 ppb        0.08416 257.03%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               13.4      3.4145 ug/L       0.97308      3.4145 ppb        0.97308  28.50%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                57.5      1.5948 ug/L       2.13367      1.5948 ppb        2.13367 133.79%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               -52.3     -0.3167 ug/L       0.26437     -0.3167 ppb        0.26437  83.48%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               40.0      0.3234 ug/L       0.04014      0.3234 ppb        0.04014  12.41%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                     85.4      5.0083 ug/L       0.87639      5.0083 ppb        0.87639  17.50%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
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Sequence No.: 15
Sample ID: LR1
Analyst: HSC
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 37
Date Collected: 12/20/2009 09:57:38
Data Type: Reprocessed on 12/20/2009 10:23:42

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc 361.383	887208.5	887208.5	98.642	%			10:00:49
1	Sc Radial	5505.9	5505.9	98.5	%			09:59:31
1	Y 371.029	723390.8	723390.8	97.374	%			10:00:49
1	Y RADIAL	5738.0	5738.0	97.89	%			09:59:31
1	Ag 328.068†	-27869.9	-28653.0	5.2422	ug/L	5.2422	ppb	10:00:49
1	Al 396.153Radial†	-46.7	-34.1	-22.772	ug/L	-22.772	ppb	09:59:31
1	As 188.979†	-242.9	-218.8	-18.927	ug/L	-18.927	ppb	10:01:09
1	B 249.677†	2588.0	2158.6	-6.5089	ug/L	-6.5089	ppb	10:00:49
1	Ba 233.527†	-2044.0	-2063.5	-4.1325	ug/L	-4.1325	ppb	10:01:09
1	Be 313.107†	-4413.0	121.3	0.0401	ug/L	0.0401	ppb	10:00:49
1	Ca 317.933Radial†	14.2	-3.4	-4.8162	ug/L	-4.8162	ppb	09:59:51
1	Cd 226.502†	3539.2	3813.7	-1.4408	ug/L	-1.4408	ppb	10:01:09
1	Co 228.616†	216.3	304.0	-0.2334	ug/L	-0.2334	ppb	10:01:09
1	Cr 267.716†	-609.9	-717.5	-0.2629	ug/L	-0.2629	ppb	10:01:09
1	Cu 324.752†	-2414.8	-8535.1	-4.4246	ug/L	-4.4246	ppb	10:00:49
1	Fe 238.204 Radial†	47445.3	48137.8	380910	ug/L	380910	ppb	09:59:31
1	K 766.490 Radial†	2873.6	43.9	20.394	ug/L	20.394	ppb	09:59:31
1	Mg 279.077 IEC†	13.5	11.4	18.889	ug/L	18.889	ppb	09:59:51
1	Mn 257.610†	-41963.9	-43033.1	-4.0398	ug/L	-4.0398	ppb	10:00:49
1	Mo 202.031†	-433.7	-465.2	8.8573	ug/L	8.8573	ppb	10:01:09
1	Na 589.592 Radial†	-1248.8	-7.3	-2.0044	ug/L	-2.0044	ppb	09:59:31
1	Ni 231.604†	247.5	148.7	3.2011	ug/L	3.2011	ppb	10:01:09
1	P 214.914†	813.5	569.5	-13.701	ug/L	-13.701	ppb	10:01:09
1	Pb 220.353†	222.5	303.3	-0.2821	ug/L	-0.2821	ppb	10:01:09
1	S 181.975 Axial†	69.7	11.9	14.317	ug/L	14.317	ppb	10:01:09
1	Sb 206.836†	21.6	-20.5	-0.1895	ug/L	-0.1895	ppb	10:01:09
1	Se 196.026†	-2367.9	-2371.7	-68.722	ug/L	-68.722	ppb	10:01:09
1	Si 251.611†	-727.3	-1397.1	-38.402	ug/L	-38.402	ppb	10:01:09
1	Sn 189.927†	-20.9	-23.0	1.7247	ug/L	1.7247	ppb	10:01:09
1	Sr 421.552†	45.5	40.5	0.2313	ug/L	0.2313	ppb	09:59:31
1	Ti 334.940†	-1507.6	-58.3	-0.1010	ug/L	-0.1010	ppb	10:01:09
1	Tl 190.801†	-44.6	0.5	-0.2574	ug/L	-0.2574	ppb	10:01:09
1	U 409.014†	-1137.9	1574.8	-4.2000	ug/L	-4.2000	ppb	10:00:49
1	V 292.402†	6983.9	8548.5	-4.5667	ug/L	-4.5667	ppb	10:01:09
1	Zn 213.857†	5126.6	4392.3	15.685	ug/L	15.685	ppb	10:01:09
1	SiO2†	-749.4	-1444.7	-85.303	ug/L	-85.303	ppb	10:02:07
2	Sc 361.383	891661.0	891661.0	99.137	%			10:01:16
2	Sc Radial	5474.1	5474.1	98.0	%			09:59:57
2	Y 371.029	727098.7	727098.7	97.873	%			10:01:16
2	Y RADIAL	5755.3	5755.3	98.19	%			09:59:57
2	Ag 328.068†	-27864.3	-28506.3	6.4863	ug/L	6.4863	ppb	10:01:16
2	Al 396.153Radial†	-46.1	-33.8	-22.550	ug/L	-22.550	ppb	09:59:57
2	As 188.979†	-246.3	-221.0	-19.418	ug/L	-19.418	ppb	10:01:36
2	B 249.677†	2549.6	2106.7	-7.8115	ug/L	-7.8115	ppb	10:01:16
2	Ba 233.527†	-2119.9	-2129.7	-4.5291	ug/L	-4.5291	ppb	10:01:36
2	Be 313.107†	-4433.5	123.0	0.0407	ug/L	0.0407	ppb	10:01:16
2	Ca 317.933Radial†	16.8	-0.7	-0.9324	ug/L	-0.9324	ppb	10:00:17
2	Cd 226.502†	3574.0	3830.9	-1.4609	ug/L	-1.4609	ppb	10:01:36
2	Co 228.616†	220.6	307.3	-0.2030	ug/L	-0.2030	ppb	10:01:36
2	Cr 267.716†	-601.0	-705.5	-0.1093	ug/L	-0.1093	ppb	10:01:36
2	Cu 324.752†	-2401.1	-8509.0	-4.2575	ug/L	-4.2575	ppb	10:01:16
2	Fe 238.204 Radial†	47400.5	48371.6	382760	ug/L	382760	ppb	09:59:57
2	K 766.490 Radial†	2734.4	-81.3	-2.0242	ug/L	-2.0242	ppb	09:59:57
2	Mg 279.077 IEC†	13.7	11.7	26.326	ug/L	26.326	ppb	10:00:17
2	Mn 257.610†	-42160.5	-43019.0	-3.8417	ug/L	-3.8417	ppb	10:01:16
2	Mo 202.031†	-431.0	-460.3	9.3280	ug/L	9.3280	ppb	10:01:36
2	Na 589.592 Radial†	-1237.1	-2.7	-0.7511	ug/L	-0.7511	ppb	09:59:57
2	Ni 231.604†	212.1	111.7	2.4031	ug/L	2.4031	ppb	10:01:36

2	P 214.914†	821.9	573.8	-12.999 ug/L	-12.999 ppb	10:01:36
2	Pb 220.353†	256.5	336.6	2.9692 ug/L	2.9692 ppb	10:01:36
2	S 181.975 Axial†	79.0	20.9	25.088 ug/L	25.088 ppb	10:01:36
2	Sb 206.836†	26.1	-16.1	1.1648 ug/L	1.1648 ppb	10:01:36
2	Se 196.026†	-2391.6	-2383.6	-69.230 ug/L	-69.230 ppb	10:01:36
2	Si 251.611†	-764.4	-1430.9	-39.343 ug/L	-39.343 ppb	10:01:36
2	Sn 189.927†	-11.7	-13.6	3.1284 ug/L	3.1284 ppb	10:01:36
2	Sr 421.552†	84.5	80.6	0.4600 ug/L	0.4600 ppb	09:59:57
2	Ti 334.940†	-1505.8	-48.9	-0.0884 ug/L	-0.0884 ppb	10:01:36
2	Tl 190.801†	-52.2	-6.9	-2.1553 ug/L	-2.1553 ppb	10:01:36
2	U 409.014†	-1056.1	1663.1	-1.9825 ug/L	-1.9825 ppb	10:01:16
2	V 292.402†	7100.9	8631.2	-4.3198 ug/L	-4.3198 ppb	10:01:36
2	Zn 213.857†	5189.9	4430.2	15.899 ug/L	15.899 ppb	10:01:36
2	SiO2†	-755.6	-1447.1	-85.453 ug/L	-85.453 ppb	10:02:12
3	Sc 361.383	898038.0	898038.0	99.846 %		10:01:42
3	Sc Radial	5390.4	5390.4	96.5 %		10:00:22
3	Y 371.029	731380.1	731380.1	98.449 %		10:01:42
3	Y RADIAL	5639.3	5639.3	96.21 %		10:00:22
3	Ag 328.068†	-28214.3	-28657.2	5.5898 ug/L	5.5898 ppb	10:01:42
3	Al 396.153Radial†	-73.0	-62.4	-42.652 ug/L	-42.652 ppb	10:00:22
3	As 188.979†	-247.1	-220.0	-19.187 ug/L	-19.187 ppb	10:02:02
3	B 249.677†	2631.1	2170.1	-6.4203 ug/L	-6.4203 ppb	10:01:42
3	Ba 233.527†	-2085.8	-2080.4	-4.2166 ug/L	-4.2166 ppb	10:02:02
3	Be 313.107†	-4449.3	139.0	0.0461 ug/L	0.0461 ppb	10:01:42
3	Ca 317.933Radial†	8.3	-9.3	-12.923 ug/L	-12.923 ppb	10:00:42
3	Cd 226.502†	3562.1	3793.3	-1.7467 ug/L	-1.7467 ppb	10:02:02
3	Co 228.616†	243.4	328.5	0.1779 ug/L	0.1779 ppb	10:02:02
3	Cr 267.716†	-630.3	-730.5	-0.3726 ug/L	-0.3726 ppb	10:02:02
3	Cu 324.752†	-2379.2	-8469.9	-4.1865 ug/L	-4.1865 ppb	10:01:42
3	Fe 238.204 Radial†	46583.8	48276.5	382000 ug/L	382000 ppb	10:00:22
3	K 766.490 Radial†	2893.7	127.2	35.379 ug/L	35.379 ppb	10:00:22
3	Mg 279.077 IEC†	12.9	11.1	7.2562 ug/L	7.2562 ppb	10:00:42
3	Mn 257.610†	-42210.1	-42766.7	-3.6701 ug/L	-3.6701 ppb	10:01:42
3	Mo 202.031†	-423.5	-449.7	9.8845 ug/L	9.8845 ppb	10:02:02
3	Na 589.592 Radial†	-1205.8	10.1	2.7689 ug/L	2.7689 ppb	10:00:22
3	Ni 231.604†	199.1	97.1	2.0894 ug/L	2.0894 ppb	10:02:02
3	P 214.914†	813.9	560.0	-19.520 ug/L	-19.520 ppb	10:02:02
3	Pb 220.353†	243.1	321.3	1.4662 ug/L	1.4662 ppb	10:02:02
3	S 181.975 Axial†	66.5	7.9	9.4391 ug/L	9.4391 ppb	10:02:02
3	Sb 206.836†	16.6	-25.8	-1.7531 ug/L	-1.7531 ppb	10:02:02
3	Se 196.026†	-2383.0	-2357.9	-57.894 ug/L	-57.894 ppb	10:02:02
3	Si 251.611†	-708.5	-1369.5	-37.645 ug/L	-37.645 ppb	10:02:02
3	Sn 189.927†	-36.6	-38.5	-0.5293 ug/L	-0.5293 ppb	10:02:02
3	Sr 421.552†	73.5	70.6	0.4030 ug/L	0.4030 ppb	10:00:22
3	Ti 334.940†	-1484.9	-17.2	-0.0443 ug/L	-0.0443 ppb	10:02:02
3	Tl 190.801†	-63.1	-17.4	-4.8281 ug/L	-4.8281 ppb	10:02:02
3	U 409.014†	-979.0	1747.8	0.4658 ug/L	0.4658 ppb	10:01:42
3	V 292.402†	7173.1	8652.5	-4.0579 ug/L	-4.0579 ppb	10:02:02
3	Zn 213.857†	5171.0	4374.1	15.488 ug/L	15.488 ppb	10:02:02
3	SiO2†	-764.4	-1450.5	-85.682 ug/L	-85.682 ppb	10:02:17

Mean Data: LR1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	892302.5	99.208	%	0.6052				0.61%
Sc Radial	5456.8	97.7	%	1.07				1.09%
Y 371.029	727289.9	97.899	%	0.5382				0.55%
Y RADIAL	5710.9	97.43	%	1.068				1.10%
Ag 328.068†	-28605.5	5.7728	ug/L	0.64196	5.7728	ppb	0.64196	11.12%
Al 396.153Radial†	-43.4	-29.325	ug/L	11.5423	-29.325	ppb	11.5423	39.36%
As 188.979†	-219.9	-19.178	ug/L	0.2456	-19.178	ppb	0.2456	1.28%
B 249.677†	2145.1	-6.9136	ug/L	0.77887	-6.9136	ppb	0.77887	11.27%
Ba 233.527†	-2091.2	-4.2928	ug/L	0.20894	-4.2928	ppb	0.20894	4.87%
Be 313.107†	127.8	0.0423	ug/L	0.00329	0.0423	ppb	0.00329	7.78%
Ca 317.933Radial†	-4.5	-6.2240	ug/L	6.11821	-6.2240	ppb	6.11821	98.30%
Cd 226.502†	3812.6	-1.5495	ug/L	0.17111	-1.5495	ppb	0.17111	11.04%
Co 228.616†	313.3	-0.0861	ug/L	0.22921	-0.0861	ppb	0.22921	266.09%
Cr 267.716†	-717.8	-0.2483	ug/L	0.13229	-0.2483	ppb	0.13229	53.29%
Cu 324.752†	-8504.7	-4.2895	ug/L	0.12224	-4.2895	ppb	0.12224	2.85%
Fe 238.204 Radial†	48262.0	381890	ug/L	930.3	381890	ppb	930.3	0.24%

K 766.490 Radial†	29.9	17.916	ug/L	18.8241	17.916	ppb	18.8241 105.07%
Mg 279.077 IEC†	11.4	17.490	ug/L	9.6114	17.490	ppb	9.6114 54.95%
Mn 257.610†	-42939.6	-3.8505	ug/L	0.18503	-3.8505	ppb	0.18503 4.81%
Mo 202.031†	-458.4	9.3566	ug/L	0.51416	9.3566	ppb	0.51416 5.50%
Na 589.592 Radial†	0.0	0.0045	ug/L	2.47472	0.0045	ppb	2.47472 >999.9%
Ni 231.604†	119.2	2.5645	ug/L	0.57314	2.5645	ppb	0.57314 22.35%
P 214.914†	567.8	-15.407	ug/L	3.5792	-15.407	ppb	3.5792 23.23%
Pb 220.353†	320.4	1.3844	ug/L	1.62721	1.3844	ppb	1.62721 117.54%
S 181.975 Axial†	13.6	16.281	ug/L	8.0073	16.281	ppb	8.0073 49.18%
Sb 206.836†	-20.8	-0.2593	ug/L	1.46019	-0.2593	ppb	1.46019 563.18%
Se 196.026†	-2371.1	-65.282	ug/L	6.4031	-65.282	ppb	6.4031 9.81%
Si 251.611†	-1399.2	-38.464	ug/L	0.8506	-38.464	ppb	0.8506 2.21%
Sn 189.927†	-25.0	1.4413	ug/L	1.84526	1.4413	ppb	1.84526 128.03%
Sr 421.552†	63.9	0.3647	ug/L	0.11906	0.3647	ppb	0.11906 32.64%
Ti 334.940†	-41.5	-0.0779	ug/L	0.02981	-0.0779	ppb	0.02981 38.27%
Tl 190.801†	-7.9	-2.4136	ug/L	2.29626	-2.4136	ppb	2.29626 95.14%
U 409.014†	1661.9	-1.9055	ug/L	2.33382	-1.9055	ppb	2.33382 122.47%
V 292.402†	8610.7	-4.3148	ug/L	0.25447	-4.3148	ppb	0.25447 5.90%
Zn 213.857†	4398.9	15.690	ug/L	0.2054	15.690	ppb	0.2054 1.31%
SiO2†	-1447.4	-85.479	ug/L	0.1911	-85.479	ppb	0.1911 0.22%

Sequence No.: 16
Sample ID: CCV
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 12/20/2009 10:04:29
Data Type: Reprocessed on 12/20/2009 10:23:43

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc 361.383	904964.3	904964.3	100.62	%			10:07:39
1	Sc Radial	5532.6	5532.6	99.0	%			10:06:21
1	Y 371.029	734085.0	734085.0	98.813	%			10:07:39
1	Y RADIAL	5789.8	5789.8	98.78	%			10:06:21
1	Ag 328.068†	116605.5	115492.0	495.85	ug/L	495.85	ppb	10:07:44
1	Al 396.153Radial†	6865.9	6947.4	4858.8	ug/L	4858.8	ppb	10:06:21
1	As 188.979†	1367.5	1386.6	497.18	ug/L	497.18	ppb	10:08:04
1	B 249.677†	24973.7	24355.8	494.92	ug/L	494.92	ppb	10:07:44
1	Ba 233.527†	74432.0	73984.8	497.97	ug/L	497.97	ppb	10:07:44
1	Be 313.107†	1508465.6	1503823.5	500.06	ug/L	500.06	ppb	10:07:39
1	Ca 317.933Radial†	3506.6	3523.5	4919.1	ug/L	4919.1	ppb	10:06:41
1	Cd 226.502†	52035.6	51942.8	498.84	ug/L	498.84	ppb	10:07:44
1	Co 228.616†	28870.5	28778.4	499.25	ug/L	499.25	ppb	10:07:44
1	Cr 267.716†	50308.0	49900.8	498.40	ug/L	498.40	ppb	10:07:44
1	Cu 324.752†	183297.8	176088.3	492.42	ug/L	492.42	ppb	10:07:44
1	Fe 238.204 Radial†	643.9	639.1	5072.7	ug/L	5072.7	ppb	10:06:41
1	K 766.490 Radial†	30397.4	27826.9	4987.5	ug/L	4987.5	ppb	10:06:21
1	Mg 279.077 IEC†	169.8	169.2	5111.9	ug/L	5111.9	ppb	10:06:41
1	Mn 257.610†	514103.5	510463.8	498.84	ug/L	498.84	ppb	10:07:39
1	Mo 202.031†	8276.6	8200.4	487.92	ug/L	487.92	ppb	10:08:04
1	Na 589.592 Radial†	34184.0	35783.5	9779.0	ug/L	9779.0	ppb	10:06:21
1	Ni 231.604†	23489.2	23243.1	500.60	ug/L	500.60	ppb	10:07:44
1	P 214.914†	5091.6	4805.2	2369.3	ug/L	2369.3	ppb	10:08:04
1	Pb 220.353†	4705.3	4754.4	487.97	ug/L	487.97	ppb	10:08:04
1	S 181.975 Axial†	877.3	813.2	973.33	ug/L	973.33	ppb	10:08:04
1	Sb 206.836†	1705.6	1652.8	494.51	ug/L	494.51	ppb	10:08:04
1	Se 196.026†	896.6	919.9	509.07	ug/L	509.07	ppb	10:08:04
1	Si 251.611†	89866.2	88656.1	2456.3	ug/L	2456.3	ppb	10:07:44
1	Sn 189.927†	3362.3	3339.9	489.08	ug/L	489.08	ppb	10:08:04
1	Sr 421.552†	85758.8	86604.7	494.06	ug/L	494.06	ppb	10:06:21
1	Ti 334.940†	343352.8	342720.3	493.42	ug/L	493.42	ppb	10:07:39
1	Tl 190.801†	1885.9	1920.2	493.14	ug/L	493.14	ppb	10:08:04
1	U 409.014†	15449.6	18083.4	500.32	ug/L	500.32	ppb	10:07:44
1	V 292.402†	77806.0	78798.0	501.30	ug/L	501.30	ppb	10:07:44
1	Zn 213.857†	62871.0	61681.2	493.24	ug/L	493.24	ppb	10:07:44
1	SiO2†	89629.0	88395.2	5258.9	ug/L	5258.9	ppb	10:09:12
2	Sc 361.383	902750.0	902750.0	100.37	%			10:08:10
2	Sc Radial	5569.1	5569.1	99.7	%			10:06:46
2	Y 371.029	733120.6	733120.6	98.684	%			10:08:10
2	Y RADIAL	5777.5	5777.5	98.57	%			10:06:46
2	Ag 328.068†	115809.2	114983.0	493.70	ug/L	493.70	ppb	10:08:15
2	Al 396.153Radial†	6924.3	6960.5	4867.7	ug/L	4867.7	ppb	10:06:46
2	As 188.979†	1395.7	1418.0	508.34	ug/L	508.34	ppb	10:08:35
2	B 249.677†	24683.4	24127.4	490.26	ug/L	490.26	ppb	10:08:15
2	Ba 233.527†	73977.8	73713.8	496.15	ug/L	496.15	ppb	10:08:15
2	Be 313.107†	1506220.2	1505263.7	500.54	ug/L	500.54	ppb	10:08:10
2	Ca 317.933Radial†	3542.6	3536.5	4937.2	ug/L	4937.2	ppb	10:07:07
2	Cd 226.502†	51655.1	51690.5	496.41	ug/L	496.41	ppb	10:08:15
2	Co 228.616†	28744.9	28723.7	498.32	ug/L	498.32	ppb	10:08:15
2	Cr 267.716†	50036.1	49752.5	496.92	ug/L	496.92	ppb	10:08:15
2	Cu 324.752†	182439.3	175679.9	491.28	ug/L	491.28	ppb	10:08:15
2	Fe 238.204 Radial†	654.2	645.2	5121.0	ug/L	5121.0	ppb	10:07:07
2	K 766.490 Radial†	30589.1	27817.8	4985.9	ug/L	4985.9	ppb	10:06:46
2	Mg 279.077 IEC†	173.8	172.1	5200.1	ug/L	5200.1	ppb	10:07:07
2	Mn 257.610†	513150.1	510767.3	499.14	ug/L	499.14	ppb	10:08:10
2	Mo 202.031†	8384.2	8327.8	495.49	ug/L	495.49	ppb	10:08:35
2	Na 589.592 Radial†	34397.6	35771.2	9775.7	ug/L	9775.7	ppb	10:06:46
2	Ni 231.604†	23308.8	23120.6	497.96	ug/L	497.96	ppb	10:08:15

2	P 214.914†	5163.7	4889.5	2412.4	ug/L	2412.4 ppb	10:08:35
2	Pb 220.353†	4777.6	4837.8	496.53	ug/L	496.53 ppb	10:08:35
2	S 181.975 Axial†	882.4	820.4	981.96	ug/L	981.96 ppb	10:08:35
2	Sb 206.836†	1724.9	1676.1	501.73	ug/L	501.73 ppb	10:08:35
2	Se 196.026†	913.6	939.0	519.43	ug/L	519.43 ppb	10:08:35
2	Si 251.611†	89535.8	88545.9	2453.0	ug/L	2453.0 ppb	10:08:15
2	Sn 189.927†	3407.6	3393.2	496.88	ug/L	496.88 ppb	10:08:35
2	Sr 421.552†	86344.9	86624.7	494.17	ug/L	494.17 ppb	10:06:46
2	Ti 334.940†	342456.3	342664.2	493.35	ug/L	493.35 ppb	10:08:10
2	Tl 190.801†	1917.7	1956.4	502.41	ug/L	502.41 ppb	10:08:35
2	U 409.014†	14980.8	17653.9	488.39	ug/L	488.39 ppb	10:08:15
2	V 292.402†	77452.3	78635.3	500.35	ug/L	500.35 ppb	10:08:15
2	Zn 213.857†	62629.4	61593.7	492.55	ug/L	492.55 ppb	10:08:15
2	SiO2†	90134.0	89116.8	5301.7	ug/L	5301.7 ppb	10:09:17
3	Sc 361.383	911182.2	911182.2	101.31	%		10:08:41
3	Sc Radial	5496.3	5496.3	98.4	%		10:07:12
3	Y 371.029	738611.2	738611.2	99.423	%		10:08:41
3	Y RADIAL	5695.1	5695.1	97.16	%		10:07:12
3	Ag 328.068†	115461.3	113571.8	487.66	ug/L	487.66 ppb	10:08:47
3	Al 396.153Radial†	6821.9	6948.4	4859.7	ug/L	4859.7 ppb	10:07:12
3	As 188.979†	1377.2	1386.9	497.29	ug/L	497.29 ppb	10:09:07
3	B 249.677†	24652.7	23869.5	485.00	ug/L	485.00 ppb	10:08:47
3	Ba 233.527†	73893.4	72948.4	491.00	ug/L	491.00 ppb	10:08:47
3	Be 313.107†	1521514.5	1506473.2	500.95	ug/L	500.95 ppb	10:08:41
3	Ca 317.933Radial†	3524.6	3565.2	4977.3	ug/L	4977.3 ppb	10:07:32
3	Cd 226.502†	51583.3	51143.3	491.14	ug/L	491.14 ppb	10:08:47
3	Co 228.616†	28780.1	28493.4	494.30	ug/L	494.30 ppb	10:08:47
3	Cr 267.716†	50011.7	49267.0	492.07	ug/L	492.07 ppb	10:08:47
3	Cu 324.752†	181862.4	173428.3	484.99	ug/L	484.99 ppb	10:08:47
3	Fe 238.204 Radial†	649.1	648.7	5148.5	ug/L	5148.5 ppb	10:07:32
3	K 766.490 Radial†	30446.0	28078.8	5032.7	ug/L	5032.7 ppb	10:07:12
3	Mg 279.077 IEC†	173.3	173.9	5253.7	ug/L	5253.7 ppb	10:07:32
3	Mn 257.610†	519429.5	512234.4	500.57	ug/L	500.57 ppb	10:08:41
3	Mo 202.031†	8304.0	8171.3	486.20	ug/L	486.20 ppb	10:09:07
3	Na 589.592 Radial†	34202.0	36029.6	9846.3	ug/L	9846.3 ppb	10:07:12
3	Ni 231.604†	23265.3	22862.8	492.41	ug/L	492.41 ppb	10:08:47
3	P 214.914†	5093.9	4773.0	2354.1	ug/L	2354.1 ppb	10:09:07
3	Pb 220.353†	4761.6	4778.0	490.38	ug/L	490.38 ppb	10:09:07
3	S 181.975 Axial†	871.7	801.7	959.60	ug/L	959.60 ppb	10:09:07
3	Sb 206.836†	1718.1	1653.5	494.82	ug/L	494.82 ppb	10:09:07
3	Se 196.026†	897.9	915.1	506.76	ug/L	506.76 ppb	10:09:07
3	Si 251.611†	89264.9	87453.0	2422.8	ug/L	2422.8 ppb	10:08:47
3	Sn 189.927†	3389.9	3344.3	489.73	ug/L	489.73 ppb	10:09:07
3	Sr 421.552†	85551.8	86965.9	496.12	ug/L	496.12 ppb	10:07:12
3	Ti 334.940†	346929.5	343922.1	495.17	ug/L	495.17 ppb	10:08:41
3	Tl 190.801†	1895.9	1917.2	492.46	ug/L	492.46 ppb	10:09:07
3	U 409.014†	15040.1	17574.4	486.19	ug/L	486.19 ppb	10:08:47
3	V 292.402†	77142.1	77615.0	493.81	ug/L	493.81 ppb	10:08:47
3	Zn 213.857†	62549.0	60936.9	487.29	ug/L	487.29 ppb	10:08:47
3	SiO2†	89697.3	87854.7	5226.6	ug/L	5226.6 ppb	10:09:22

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	906298.8	100.76	%	0.486				0.48%
Sc Radial	5532.7	99.0	%	0.65				0.66%
Y 371.029	735272.2	98.973	%	0.3946				0.40%
Y RADIAL	5754.1	98.17	%	0.878				0.89%
Ag 328.068†	114682.3	492.40	ug/L	4.243	492.40	ppb	4.243	0.86%
QC value within limits for Ag 328.068 Recovery = 98.48%								
Al 396.153Radial†	6952.1	4862.1	ug/L	4.92	4862.1	ppb	4.92	0.10%
QC value within limits for Al 396.153Radial Recovery = 97.24%								
As 188.979†	1397.2	500.94	ug/L	6.414	500.94	ppb	6.414	1.28%
QC value within limits for As 188.979 Recovery = 100.19%								
B 249.677†	24117.5	490.06	ug/L	4.961	490.06	ppb	4.961	1.01%
QC value within limits for B 249.677 Recovery = 98.01%								
Ba 233.527†	73549.0	495.04	ug/L	3.617	495.04	ppb	3.617	0.73%
QC value within limits for Ba 233.527 Recovery = 99.01%								
Be 313.107†	1505186.8	500.52	ug/L	0.442	500.52	ppb	0.442	0.09%
QC value within limits for Be 313.107 Recovery = 100.10%								

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Ca 317.933Radial†       3541.7      4944.5 ug/L        29.79      4944.5 ppb        29.79   0.60%
   QC value within limits for Ca 317.933Radial  Recovery = 98.89%
Cd 226.502†            51592.2      495.46 ug/L        3.933      495.46 ppb        3.933   0.79%
   QC value within limits for Cd 226.502  Recovery = 99.09%
Co 228.616†            28665.2      497.29 ug/L        2.632      497.29 ppb        2.632   0.53%
   QC value within limits for Co 228.616  Recovery = 99.46%
Cr 267.716†            49640.1      495.80 ug/L        3.310      495.80 ppb        3.310   0.67%
   QC value within limits for Cr 267.716  Recovery = 99.16%
Cu 324.752†           175065.5      489.56 ug/L        4.002      489.56 ppb        4.002   0.82%
   QC value within limits for Cu 324.752  Recovery = 97.91%
Fe 238.204 Radial†       644.3      5114.1 ug/L        38.37      5114.1 ppb        38.37   0.75%
   QC value within limits for Fe 238.204 Radial  Recovery = 102.28%
K 766.490 Radial†      27907.9      5002.0 ug/L        26.56      5002.0 ppb        26.56   0.53%
   QC value within limits for K 766.490 Radial  Recovery = 100.04%
Mg 279.077 IEC†          171.7      5188.6 ug/L        71.59      5188.6 ppb        71.59   1.38%
   QC value within limits for Mg 279.077 IEC  Recovery = 103.77%
Mn 257.610†           511155.1      499.52 ug/L        0.927      499.52 ppb        0.927   0.19%
   QC value within limits for Mn 257.610  Recovery = 99.90%
Mo 202.031†             8233.1      489.87 ug/L        4.947      489.87 ppb        4.947   1.01%
   QC value within limits for Mo 202.031  Recovery = 97.97%
Na 589.592 Radial†     35861.4      9800.3 ug/L        39.83      9800.3 ppb        39.83   0.41%
   QC value within limits for Na 589.592 Radial  Recovery = 98.00%
Ni 231.604†            23075.5      496.99 ug/L        4.183      496.99 ppb        4.183   0.84%
   QC value within limits for Ni 231.604  Recovery = 99.40%
P 214.914†              4822.6      2378.6 ug/L        30.28      2378.6 ppb        30.28   1.27%
   QC value within limits for P 214.914  Recovery = 95.14%
Pb 220.353†             4790.1      491.62 ug/L        4.413      491.62 ppb        4.413   0.90%
   QC value within limits for Pb 220.353  Recovery = 98.32%
S 181.975 Axial†         811.8      971.63 ug/L       11.277      971.63 ppb       11.277   1.16%
   QC value within limits for S 181.975 Axial  Recovery = 97.16%
Sb 206.836†             1660.8      497.02 ug/L        4.079      497.02 ppb        4.079   0.82%
   QC value within limits for Sb 206.836  Recovery = 99.40%
Se 196.026†              924.7      511.75 ug/L        6.743      511.75 ppb        6.743   1.32%
   QC value within limits for Se 196.026  Recovery = 102.35%
Si 251.611†            88218.3      2444.0 ug/L        18.47      2444.0 ppb        18.47   0.76%
   QC value within limits for Si 251.611  Recovery = 97.76%
Sn 189.927†             3359.1      491.89 ug/L        4.327      491.89 ppb        4.327   0.88%
   QC value within limits for Sn 189.927  Recovery = 98.38%
Sr 421.552†            86731.8      494.78 ug/L        1.158      494.78 ppb        1.158   0.23%
   QC value within limits for Sr 421.552  Recovery = 98.96%
Ti 334.940†           343102.2      493.98 ug/L        1.028      493.98 ppb        1.028   0.21%
   QC value within limits for Ti 334.940  Recovery = 98.80%
Tl 190.801†             1931.3      496.00 ug/L        5.557      496.00 ppb        5.557   1.12%
   QC value within limits for Tl 190.801  Recovery = 99.20%
U 409.014†             17770.6      491.63 ug/L        7.600      491.63 ppb        7.600   1.55%
   QC value within limits for U 409.014  Recovery = 98.33%
V 292.402†             78349.4      498.49 ug/L        4.079      498.49 ppb        4.079   0.82%
   QC value within limits for V 292.402  Recovery = 99.70%
Zn 213.857†            61403.9      491.03 ug/L        3.254      491.03 ppb        3.254   0.66%
   QC value within limits for Zn 213.857  Recovery = 98.21%
SiO2†                  88455.6      5262.4 ug/L        37.67      5262.4 ppb        37.67   0.72%
   QC value within limits for SiO2  Recovery = 98.41%
All analyte(s) passed QC.
```

Sequence No.: 17
Sample ID: CCB
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 12/20/2009 10:11:33
Data Type: Reprocessed on 12/20/2009 10:23:44

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc 361.383	920001.4	920001.4	102.29	%			10:14:42
1	Sc Radial	5661.7	5661.7	101	%			10:13:25
1	Y 371.029	756683.9	756683.9	101.86	%			10:14:42
1	Y RADIAL	5945.8	5945.8	101.4	%			10:13:25
1	Ag 328.068†	407.1	-1.4	-0.0142	ug/L	-0.0142	ppb	10:14:47
1	Al 396.153Radial†	-30.2	-16.5	-11.600	ug/L	-11.600	ppb	10:13:25
1	As 188.979†	-25.9	2.1	0.7503	ug/L	0.7503	ppb	10:15:07
1	B 249.677†	381.0	-92.5	-1.8851	ug/L	-1.8851	ppb	10:14:47
1	Ba 233.527†	1.7	10.3	0.0674	ug/L	0.0674	ppb	10:15:07
1	Be 313.107†	-4449.2	245.4	0.0813	ug/L	0.0813	ppb	10:14:47
1	Ca 317.933Radial†	16.9	-1.2	-1.6966	ug/L	-1.6966	ppb	10:13:45
1	Cd 226.502†	-224.4	6.4	0.0634	ug/L	0.0634	ppb	10:15:07
1	Co 228.616†	-88.4	-1.7	-0.0274	ug/L	-0.0274	ppb	10:15:07
1	Cr 267.716†	101.8	0.3	0.0020	ug/L	0.0020	ppb	10:15:07
1	Cu 324.752†	6131.0	-93.2	-0.2614	ug/L	-0.2614	ppb	10:14:47
1	Fe 238.204 Radial†	8.8	-2.5	-20.055	ug/L	-20.055	ppb	10:13:45
1	K 766.490 Radial†	2828.8	-80.6	-14.478	ug/L	-14.478	ppb	10:13:25
1	Mg 279.077 IEC†	3.6	1.3	39.757	ug/L	39.757	ppb	10:13:45
1	Mn 257.610†	524.8	21.5	0.0183	ug/L	0.0183	ppb	10:15:07
1	Mo 202.031†	33.4	7.1	0.4174	ug/L	0.4174	ppb	10:15:07
1	Na 589.592 Radial†	-1290.3	-13.4	-3.6628	ug/L	-3.6628	ppb	10:13:25
1	Ni 231.604†	118.3	13.4	0.2886	ug/L	0.2886	ppb	10:15:07
1	P 214.914†	250.3	-10.5	-5.2475	ug/L	-5.2475	ppb	10:15:07
1	Pb 220.353†	-62.6	16.6	1.7026	ug/L	1.7026	ppb	10:15:07
1	S 181.975 Axial†	54.4	-5.6	-6.7006	ug/L	-6.7006	ppb	10:15:07
1	Sb 206.836†	59.8	16.1	4.7714	ug/L	4.7714	ppb	10:15:07
1	Se 196.026†	-28.6	0.8	0.3832	ug/L	0.3832	ppb	10:15:07
1	Si 251.611†	708.9	33.2	0.9171	ug/L	0.9171	ppb	10:15:07
1	Sn 189.927†	13.0	10.9	1.5899	ug/L	1.5899	ppb	10:15:07
1	Sr 421.552†	-0.9	-6.5	-0.0373	ug/L	-0.0373	ppb	10:13:25
1	Ti 334.940†	-1537.1	-32.6	-0.0467	ug/L	-0.0467	ppb	10:14:47
1	Tl 190.801†	-42.8	3.9	0.9996	ug/L	0.9996	ppb	10:15:07
1	U 409.014†	-2823.3	-31.8	-0.8800	ug/L	-0.8800	ppb	10:14:42
1	V 292.402†	-1592.3	-88.3	-0.5460	ug/L	-0.5460	ppb	10:14:47
1	Zn 213.857†	826.0	2.7	0.0199	ug/L	0.0199	ppb	10:15:07
1	SiO2†	720.8	19.7	1.1632	ug/L	1.1632	ppb	10:16:13
2	Sc 361.383	918548.4	918548.4	102.13	%			10:15:12
2	Sc Radial	5547.3	5547.3	99.3	%			10:13:50
2	Y 371.029	755205.8	755205.8	101.66	%			10:15:12
2	Y RADIAL	5820.4	5820.4	99.30	%			10:13:50
2	Ag 328.068†	403.5	-4.3	-0.0203	ug/L	-0.0203	ppb	10:15:17
2	Al 396.153Radial†	-21.3	-8.2	-5.7127	ug/L	-5.7127	ppb	10:13:50
2	As 188.979†	-25.6	2.4	0.8569	ug/L	0.8569	ppb	10:15:37
2	B 249.677†	359.0	-113.5	-2.3171	ug/L	-2.3171	ppb	10:15:17
2	Ba 233.527†	19.1	27.3	0.1838	ug/L	0.1838	ppb	10:15:37
2	Be 313.107†	-4508.2	180.8	0.0602	ug/L	0.0602	ppb	10:15:17
2	Ca 317.933Radial†	14.4	-3.3	-4.6520	ug/L	-4.6520	ppb	10:14:10
2	Cd 226.502†	-203.4	26.6	0.2558	ug/L	0.2558	ppb	10:15:37
2	Co 228.616†	-74.2	12.1	0.2083	ug/L	0.2083	ppb	10:15:37
2	Cr 267.716†	76.6	-24.2	-0.2417	ug/L	-0.2417	ppb	10:15:37
2	Cu 324.752†	6146.2	-68.7	-0.1921	ug/L	-0.1921	ppb	10:15:17
2	Fe 238.204 Radial†	11.3	0.2	1.2461	ug/L	1.2461	ppb	10:14:10
2	K 766.490 Radial†	3034.1	183.7	32.994	ug/L	32.994	ppb	10:13:50
2	Mg 279.077 IEC†	5.4	3.1	94.991	ug/L	94.991	ppb	10:14:10
2	Mn 257.610†	526.1	23.6	0.0214	ug/L	0.0214	ppb	10:15:37
2	Mo 202.031†	21.1	-4.9	-0.2894	ug/L	-0.2894	ppb	10:15:37
2	Na 589.592 Radial†	-1355.1	-104.9	-28.671	ug/L	-28.671	ppb	10:13:50
2	Ni 231.604†	121.9	17.1	0.3678	ug/L	0.3678	ppb	10:15:37

2	P 214.914†	244.4	-15.8	-8.0011 ug/L	-8.0011 ppb	10:15:37
2	Pb 220.353†	-77.4	2.1	0.2090 ug/L	0.2090 ppb	10:15:37
2	S 181.975 Axial†	57.6	-2.3	-2.7781 ug/L	-2.7781 ppb	10:15:37
2	Sb 206.836†	46.4	3.0	0.9155 ug/L	0.9155 ppb	10:15:37
2	Se 196.026†	-34.4	-4.9	-2.6241 ug/L	-2.6241 ppb	10:15:37
2	Si 251.611†	721.8	46.9	1.2950 ug/L	1.2950 ppb	10:15:37
2	Sn 189.927†	15.3	13.2	1.9289 ug/L	1.9289 ppb	10:15:37
2	Sr 421.552†	26.4	20.9	0.1195 ug/L	0.1195 ppb	10:13:50
2	Ti 334.940†	-1420.8	78.8	0.1115 ug/L	0.1115 ppb	10:15:17
2	Tl 190.801†	-46.7	0.1	0.0199 ug/L	0.0199 ppb	10:15:37
2	U 409.014†	-2632.0	151.2	4.1963 ug/L	4.1963 ppb	10:15:12
2	V 292.402†	-1457.3	41.4	0.2660 ug/L	0.2660 ppb	10:15:17
2	Zn 213.857†	819.4	-2.5	-0.0258 ug/L	-0.0258 ppb	10:15:37
2	SiO2†	745.1	44.6	2.6381 ug/L	2.6381 ppb	10:16:18
3	Sc 361.383	913228.2	913228.2	101.53 %		10:15:43
3	Sc Radial	5644.1	5644.1	101 %		10:14:15
3	Y 371.029	750802.5	750802.5	101.06 %		10:15:43
3	Y RADIAL	5917.2	5917.2	101.0 %		10:14:15
3	Ag 328.068†	415.7	10.0	0.0446 ug/L	0.0446 ppb	10:15:48
3	Al 396.153Radial†	-27.9	-14.3	-10.094 ug/L	-10.094 ppb	10:14:15
3	As 188.979†	-38.3	-10.3	-3.6471 ug/L	-3.6471 ppb	10:16:08
3	B 249.677†	322.4	-147.5	-3.0122 ug/L	-3.0122 ppb	10:15:48
3	Ba 233.527†	11.0	19.5	0.1313 ug/L	0.1313 ppb	10:16:08
3	Be 313.107†	-4495.7	167.4	0.0557 ug/L	0.0557 ppb	10:15:48
3	Ca 317.933Radial†	21.1	3.0	4.2409 ug/L	4.2409 ppb	10:14:35
3	Cd 226.502†	-212.6	16.3	0.1548 ug/L	0.1548 ppb	10:16:08
3	Co 228.616†	-88.1	-2.0	-0.0341 ug/L	-0.0341 ppb	10:16:08
3	Cr 267.716†	103.0	2.3	0.0213 ug/L	0.0213 ppb	10:16:08
3	Cu 324.752†	6179.0	-1.5	-0.0031 ug/L	-0.0031 ppb	10:15:48
3	Fe 238.204 Radial†	13.9	2.6	20.431 ug/L	20.431 ppb	10:14:35
3	K 766.490 Radial†	2953.5	51.6	9.2546 ug/L	9.2546 ppb	10:14:15
3	Mg 279.077 IEC†	3.2	0.9	26.134 ug/L	26.134 ppb	10:14:35
3	Mn 257.610†	541.1	41.4	0.0420 ug/L	0.0420 ppb	10:16:08
3	Mo 202.031†	34.3	8.2	0.4907 ug/L	0.4907 ppb	10:16:08
3	Na 589.592 Radial†	-1270.0	2.8	0.7523 ug/L	0.7523 ppb	10:14:15
3	Ni 231.604†	90.5	-13.1	-0.2819 ug/L	-0.2819 ppb	10:16:08
3	P 214.914†	240.4	-18.4	-9.3738 ug/L	-9.3738 ppb	10:16:08
3	Pb 220.353†	-60.4	18.4	1.8764 ug/L	1.8764 ppb	10:16:08
3	S 181.975 Axial†	57.0	-2.6	-3.1604 ug/L	-3.1604 ppb	10:16:08
3	Sb 206.836†	34.3	-8.6	-2.5245 ug/L	-2.5245 ppb	10:16:08
3	Se 196.026†	-32.9	-3.6	-1.8708 ug/L	-1.8708 ppb	10:16:08
3	Si 251.611†	678.7	8.6	0.2236 ug/L	0.2236 ppb	10:16:08
3	Sn 189.927†	8.4	6.4	0.9405 ug/L	0.9405 ppb	10:16:08
3	Sr 421.552†	-15.7	-21.2	-0.1210 ug/L	-0.1210 ppb	10:14:15
3	Ti 334.940†	-1433.8	57.9	0.0810 ug/L	0.0810 ppb	10:15:48
3	Tl 190.801†	-49.3	-2.8	-0.7170 ug/L	-0.7170 ppb	10:16:08
3	U 409.014†	-2553.5	213.5	5.9229 ug/L	5.9229 ppb	10:15:43
3	V 292.402†	-1490.1	0.9	0.0215 ug/L	0.0215 ppb	10:15:48
3	Zn 213.857†	837.0	19.5	0.1574 ug/L	0.1574 ppb	10:16:08
3	SiO2†	723.7	27.8	1.6272 ug/L	1.6272 ppb	10:16:23

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	917259.3	101.98	%	0.396				0.39%
Sc Radial	5617.7	101	%	1.1				1.10%
Y 371.029	754230.7	101.53	%	0.412				0.41%
Y RADIAL	5894.5	100.6	%	1.12				1.11%
Ag 328.068†	1.5	0.0034	ug/L	0.03582	0.0034	ppb	0.03582	>999.9%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-13.0	-9.1356	ug/L	3.05857	-9.1356	ppb	3.05857	33.48%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-1.9	-0.6800	ug/L	2.57016	-0.6800	ppb	2.57016	377.98%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-117.9	-2.4048	ug/L	0.56861	-2.4048	ppb	0.56861	23.64%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	19.0	0.1275	ug/L	0.05831	0.1275	ppb	0.05831	45.74%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	197.8	0.0658	ug/L	0.01368	0.0658	ppb	0.01368	20.81%
QC value within limits for Be 313.107 Recovery = Not calculated								

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Ca 317.933Radial†          -0.5     -0.7026 ug/L       4.52900     -0.7026 ppb        4.52900 644.62%
   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                16.4      0.1580 ug/L       0.09622      0.1580 ppb        0.09622  60.90%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                 2.8      0.0489 ug/L       0.13808      0.0489 ppb        0.13808 282.17%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                -7.2     -0.0728 ug/L       0.14658     -0.0728 ppb        0.14658 201.37%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               -54.5     -0.1522 ug/L       0.13371     -0.1522 ppb        0.13371  87.85%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          0.1      0.5405 ug/L      20.25239      0.5405 ppb       20.25239 >999.9%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          51.5      9.2568 ug/L      23.73610      9.2568 ppb       23.73610 256.42%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             1.8     53.627 ug/L       36.4639      53.627 ppb        36.4639  68.00%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                28.9      0.0272 ug/L       0.01290      0.0272 ppb        0.01290  47.37%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 3.5      0.2062 ug/L       0.43081      0.2062 ppb        0.43081 208.92%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        -38.5    -10.527 ug/L       15.8676    -10.527 ppb        15.8676 150.73%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                 5.8      0.1248 ug/L       0.35446      0.1248 ppb        0.35446 284.02%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -14.9     -7.5408 ug/L       2.10131     -7.5408 ppb        2.10131  27.87%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                12.4      1.2627 ug/L       0.91663      1.2627 ppb        0.91663  72.60%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -3.5     -4.2130 ug/L       2.16273     -4.2130 ppb        2.16273  51.33%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 3.5      1.0541 ug/L       3.64989      1.0541 ppb        3.64989 346.24%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -2.6     -1.3706 ug/L       1.56483     -1.3706 ppb        1.56483 114.17%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                29.6      0.8119 ug/L       0.54340      0.8119 ppb        0.54340  66.93%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                10.2      1.4864 ug/L       0.50226      1.4864 ppb        0.50226  33.79%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                -2.3     -0.0130 ug/L       0.12209     -0.0130 ppb        0.12209 942.67%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                34.7      0.0486 ug/L       0.08392      0.0486 ppb        0.08392 172.75%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 0.4      0.1008 ug/L       0.86113      0.1008 ppb        0.86113 854.07%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                111.0      3.0797 ug/L       3.53625      3.0797 ppb        3.53625 114.82%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                -15.3     -0.0862 ug/L       0.41659     -0.0862 ppb        0.41659 483.44%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                 6.6      0.0505 ug/L       0.09535      0.0505 ppb        0.09535 188.87%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                      30.7      1.8095 ug/L       0.75417      1.8095 ppb        0.75417  41.68%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
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Sequence No.: 8
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 12/20/2009 11:15:42
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5570.5	5570.5	99.7	%			11:17:34
1	Y RADIAL	5811.2	5811.2	99.14	%			11:17:34
1	Al 396.153Radial†	6881.6	6915.9	4836.6	ug/L	4836.6	ppb	11:17:34
1	Ca 317.933Radial†	3572.8	3565.8	4978.2	ug/L	4978.2	ppb	11:17:54
1	Fe 238.204 Radial†	662.6	653.4	5185.6	ug/L	5185.6	ppb	11:17:54
1	K 766.490 Radial†	30419.9	27640.4	4953.9	ug/L	4953.9	ppb	11:17:34
1	Mg 279.077 IEC†	176.2	174.5	5270.9	ug/L	5270.9	ppb	11:17:54
1	Na 589.592 Radial†	35137.3	36504.6	9976.1	ug/L	9976.1	ppb	11:17:34
1	Sr 421.552†	86765.2	87024.4	496.45	ug/L	496.45	ppb	11:17:34
1	Sc 361.383	918317.6	918317.6	102.10	%			11:18:53
1	Y 371.029	744856.2	744856.2	100.26	%			11:18:53
1	Ag 328.068†	117606.8	114787.6	492.89	ug/L	492.89	ppb	11:18:53
1	As 188.979†	1384.2	1383.2	495.91	ug/L	495.91	ppb	11:19:13
1	B 249.677†	27964.5	26924.0	547.33	ug/L	547.33	ppb	11:18:53
1	Ba 233.527†	75319.8	73778.6	496.58	ug/L	496.58	ppb	11:18:53
1	Be 313.107†	1525414.7	1498623.5	498.33	ug/L	498.33	ppb	11:18:53
1	Cd 226.502†	52573.0	51717.0	496.65	ug/L	496.65	ppb	11:18:53
1	Co 228.616†	28667.0	28161.9	488.57	ug/L	488.57	ppb	11:19:13
1	Cr 267.716†	50688.2	49546.1	494.87	ug/L	494.87	ppb	11:18:53
1	Cu 324.752†	187103.6	177166.8	495.44	ug/L	495.44	ppb	11:18:53
1	Mn 257.610†	519149.9	507976.5	496.42	ug/L	496.42	ppb	11:18:53
1	Mo 202.031†	8438.5	8239.3	490.24	ug/L	490.24	ppb	11:19:13
1	Ni 231.604†	23368.1	22785.0	490.74	ug/L	490.74	ppb	11:19:13
1	P 214.914†	5174.5	4812.9	2372.6	ug/L	2372.6	ppb	11:19:13
1	Pb 220.353†	4843.1	4821.3	494.81	ug/L	494.81	ppb	11:19:13
1	S 181.975 Axial†	903.3	825.9	988.56	ug/L	988.56	ppb	11:19:13
1	Sb 206.836†	1722.1	1644.3	492.12	ug/L	492.12	ppb	11:19:13
1	Se 196.026†	900.4	910.7	504.52	ug/L	504.52	ppb	11:19:13
1	Si 251.611†	90984.1	88452.2	2450.6	ug/L	2450.6	ppb	11:18:53
1	Sn 189.927†	3403.8	3331.9	487.92	ug/L	487.92	ppb	11:19:13
1	Ti 334.940†	347099.6	341427.9	491.58	ug/L	491.58	ppb	11:18:53
1	Tl 190.801†	1922.6	1928.9	495.39	ug/L	495.39	ppb	11:19:13
1	U 409.014†	14818.0	17241.5	476.94	ug/L	476.94	ppb	11:18:53
1	V 292.402†	78427.4	78282.1	498.03	ug/L	498.03	ppb	11:18:53
1	Zn 213.857†	63556.6	61444.0	491.38	ug/L	491.38	ppb	11:18:53
1	SiO2†	90875.2	88320.5	5254.4	ug/L	5254.4	ppb	11:20:14
2	Sc Radial	5510.0	5510.0	98.6	%			11:17:59
2	Y RADIAL	5755.9	5755.9	98.20	%			11:17:59
2	Al 396.153Radial†	6799.9	6908.8	4831.6	ug/L	4831.6	ppb	11:17:59
2	Ca 317.933Radial†	3593.1	3625.8	5061.8	ug/L	5061.8	ppb	11:18:19
2	Fe 238.204 Radial†	661.4	659.5	5233.9	ug/L	5233.9	ppb	11:18:19
2	K 766.490 Radial†	30125.8	27677.0	4960.5	ug/L	4960.5	ppb	11:17:59
2	Mg 279.077 IEC†	175.7	175.9	5315.0	ug/L	5315.0	ppb	11:18:19
2	Na 589.592 Radial†	34755.3	36504.0	9976.0	ug/L	9976.0	ppb	11:17:59
2	Sr 421.552†	85926.8	87129.5	497.05	ug/L	497.05	ppb	11:17:59
2	Sc 361.383	917417.9	917417.9	102.00	%			11:19:21
2	Y 371.029	744435.3	744435.3	100.21	%			11:19:21
2	Ag 328.068†	117770.1	115060.7	494.07	ug/L	494.07	ppb	11:19:21
2	As 188.979†	1386.5	1386.8	497.22	ug/L	497.22	ppb	11:19:41
2	B 249.677†	28004.9	26990.6	548.67	ug/L	548.67	ppb	11:19:21
2	Ba 233.527†	75257.2	73789.6	496.66	ug/L	496.66	ppb	11:19:21
2	Be 313.107†	1525660.4	1500329.6	498.90	ug/L	498.90	ppb	11:19:21
2	Cd 226.502†	52539.4	51734.6	496.81	ug/L	496.81	ppb	11:19:21
2	Co 228.616†	28764.0	28284.5	490.70	ug/L	490.70	ppb	11:19:41
2	Cr 267.716†	50658.1	49565.2	495.06	ug/L	495.06	ppb	11:19:21
2	Cu 324.752†	187311.8	177550.6	496.52	ug/L	496.52	ppb	11:19:21
2	Mn 257.610†	519691.0	509005.7	497.43	ug/L	497.43	ppb	11:19:21
2	Mo 202.031†	8451.1	8259.8	491.46	ug/L	491.46	ppb	11:19:41
2	Ni 231.604†	23421.1	22859.4	492.34	ug/L	492.34	ppb	11:19:41

2	P 214.914†	5199.7	4842.6	2387.5 ug/L	2387.5 ppb	11:19:41
2	Pb 220.353†	4854.9	4837.5	496.46 ug/L	496.46 ppb	11:19:41
2	S 181.975 Axial†	892.4	816.2	976.90 ug/L	976.90 ppb	11:19:41
2	Sb 206.836†	1715.1	1639.0	490.64 ug/L	490.64 ppb	11:19:41
2	Se 196.026†	906.5	917.5	508.33 ug/L	508.33 ppb	11:19:41
2	Si 251.611†	91052.4	88606.5	2454.8 ug/L	2454.8 ppb	11:19:21
2	Sn 189.927†	3419.0	3350.1	490.59 ug/L	490.59 ppb	11:19:41
2	Ti 334.940†	346930.7	341595.6	491.82 ug/L	491.82 ppb	11:19:21
2	Tl 190.801†	1909.3	1917.6	492.51 ug/L	492.51 ppb	11:19:41
2	U 409.014†	14730.6	17170.1	474.95 ug/L	474.95 ppb	11:19:21
2	V 292.402†	78543.3	78471.1	499.23 ug/L	499.23 ppb	11:19:21
2	Zn 213.857†	63627.1	61574.2	492.41 ug/L	492.41 ppb	11:19:21
2	SiO2†	89970.7	87520.9	5206.5 ug/L	5206.5 ppb	11:20:19
3	Sc Radial	5637.4	5637.4	101 %		11:18:24
3	Y RADIAL	5887.7	5887.7	100.4 %		11:18:24
3	Al 396.153Radial†	6960.2	6911.9	4833.8 ug/L	4833.8 ppb	11:18:24
3	Ca 317.933Radial†	3533.3	3484.1	4864.1 ug/L	4864.1 ppb	11:18:44
3	Fe 238.204 Radial†	651.8	634.8	5038.8 ug/L	5038.8 ppb	11:18:44
3	K 766.490 Radial†	30783.6	27638.8	4953.6 ug/L	4953.6 ppb	11:18:24
3	Mg 279.077 IEC†	171.3	167.5	5062.1 ug/L	5062.1 ppb	11:18:44
3	Na 589.592 Radial†	35463.6	36409.8	9950.2 ug/L	9950.2 ppb	11:18:24
3	Sr 421.552†	87691.2	86909.5	495.79 ug/L	495.79 ppb	11:18:24
3	Sc 361.383	920144.4	920144.4	102.30 %		11:19:48
3	Y 371.029	744791.7	744791.7	100.25 %		11:19:48
3	Ag 328.068†	118287.0	115223.8	494.71 ug/L	494.71 ppb	11:19:48
3	As 188.979†	1400.4	1396.3	500.59 ug/L	500.59 ppb	11:20:08
3	B 249.677†	27947.7	26853.3	545.90 ug/L	545.90 ppb	11:19:48
3	Ba 233.527†	75748.4	74051.1	498.41 ug/L	498.41 ppb	11:19:48
3	Be 313.107†	1531193.5	1501306.0	499.23 ug/L	499.23 ppb	11:19:48
3	Cd 226.502†	53018.9	52050.7	499.87 ug/L	499.87 ppb	11:19:48
3	Co 228.616†	28755.3	28192.5	489.10 ug/L	489.10 ppb	11:20:08
3	Cr 267.716†	50958.0	49711.2	496.52 ug/L	496.52 ppb	11:19:48
3	Cu 324.752†	188415.5	178085.3	498.00 ug/L	498.00 ppb	11:19:48
3	Mn 257.610†	523066.5	510795.5	499.16 ug/L	499.16 ppb	11:19:48
3	Mo 202.031†	8451.7	8235.8	490.02 ug/L	490.02 ppb	11:20:08
3	Ni 231.604†	23401.0	22771.7	490.45 ug/L	490.45 ppb	11:20:08
3	P 214.914†	5203.5	4831.1	2381.6 ug/L	2381.6 ppb	11:20:08
3	Pb 220.353†	4845.0	4813.7	494.04 ug/L	494.04 ppb	11:20:08
3	S 181.975 Axial†	892.5	813.6	973.82 ug/L	973.82 ppb	11:20:08
3	Sb 206.836†	1712.9	1631.9	488.43 ug/L	488.43 ppb	11:20:08
3	Se 196.026†	920.9	929.0	513.82 ug/L	513.82 ppb	11:20:08
3	Si 251.611†	91766.3	89039.9	2466.9 ug/L	2466.9 ppb	11:19:48
3	Sn 189.927†	3414.5	3335.8	488.47 ug/L	488.47 ppb	11:20:08
3	Ti 334.940†	349010.8	342621.2	493.29 ug/L	493.29 ppb	11:19:48
3	Tl 190.801†	1914.6	1917.3	492.46 ug/L	492.46 ppb	11:20:08
3	U 409.014†	14707.2	17104.4	473.15 ug/L	473.15 ppb	11:19:48
3	V 292.402†	78992.8	78682.3	500.55 ug/L	500.55 ppb	11:19:48
3	Zn 213.857†	64102.0	61853.6	494.70 ug/L	494.70 ppb	11:19:48
3	SiO2†	90326.7	87607.6	5211.8 ug/L	5211.8 ppb	11:20:24

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	918626.6	102.14	%	0.154				0.15%
Sc Radial	5572.7	99.7	%	1.14				1.14%
Y 371.029	744694.4	100.24	%	0.031				0.03%
Y RADIAL	5818.3	99.26	%	1.129				1.14%
Ag 328.068†	115024.1	493.89	ug/L	0.927	493.89	ppb	0.927	0.19%
QC value within limits for Ag 328.068 Recovery = 98.78%								
Al 396.153Radial†	6912.2	4834.0	ug/L	2.51	4834.0	ppb	2.51	0.05%
QC value within limits for Al 396.153Radial Recovery = 96.68%								
As 188.979†	1388.8	497.91	ug/L	2.415	497.91	ppb	2.415	0.49%
QC value within limits for As 188.979 Recovery = 99.58%								
B 249.677†	26922.6	547.30	ug/L	1.385	547.30	ppb	1.385	0.25%
QC value within limits for B 249.677 Recovery = 109.46%								
Ba 233.527†	73873.1	497.22	ug/L	1.036	497.22	ppb	1.036	0.21%
QC value within limits for Ba 233.527 Recovery = 99.44%								
Be 313.107†	1500086.4	498.82	ug/L	0.452	498.82	ppb	0.452	0.09%
QC value within limits for Be 313.107 Recovery = 99.76%								
Ca 317.933Radial†	3558.6	4968.1	ug/L	99.25	4968.1	ppb	99.25	2.00%

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   QC value within limits for Ca 317.933Radial  Recovery = 99.36%
Cd 226.502†            51834.1      497.78 ug/L         1.813      497.78 ppb          1.813   0.36%
   QC value within limits for Cd 226.502  Recovery = 99.56%
Co 228.616†            28212.9      489.45 ug/L         1.108      489.45 ppb          1.108   0.23%
   QC value within limits for Co 228.616  Recovery = 97.89%
Cr 267.716†            49607.5      495.48 ug/L         0.902      495.48 ppb          0.902   0.18%
   QC value within limits for Cr 267.716  Recovery = 99.10%
Cu 324.752†           177600.9      496.65 ug/L         1.285      496.65 ppb          1.285   0.26%
   QC value within limits for Cu 324.752  Recovery = 99.33%
Fe 238.204 Radial†       649.2      5152.8 ug/L        101.64      5152.8 ppb         101.64   1.97%
   QC value within limits for Fe 238.204 Radial  Recovery = 103.06%
K 766.490 Radial†      27652.1      4956.0 ug/L          3.88      4956.0 ppb           3.88   0.08%
   QC value within limits for K 766.490 Radial  Recovery = 99.12%
Mg 279.077 IEC†          172.6      5216.0 ug/L        135.09      5216.0 ppb         135.09   2.59%
   QC value within limits for Mg 279.077 IEC  Recovery = 104.32%
Mn 257.610†           509259.2      497.67 ug/L         1.387      497.67 ppb          1.387   0.28%
   QC value within limits for Mn 257.610  Recovery = 99.53%
Mo 202.031†             8245.0      490.58 ug/L         0.777      490.58 ppb          0.777   0.16%
   QC value within limits for Mo 202.031  Recovery = 98.12%
Na 589.592 Radial†     36472.8      9967.4 ug/L        14.92      9967.4 ppb          14.92   0.15%
   QC value within limits for Na 589.592 Radial  Recovery = 99.67%
Ni 231.604†            22805.4      491.17 ug/L         1.018      491.17 ppb          1.018   0.21%
   QC value within limits for Ni 231.604  Recovery = 98.23%
P 214.914†              4828.9      2380.6 ug/L         7.51      2380.6 ppb           7.51   0.32%
   QC value within limits for P 214.914  Recovery = 95.22%
Pb 220.353†             4824.2      495.10 ug/L         1.238      495.10 ppb          1.238   0.25%
   QC value within limits for Pb 220.353  Recovery = 99.02%
S 181.975 Axial†         818.6      979.76 ug/L         7.774      979.76 ppb          7.774   0.79%
   QC value within limits for S 181.975 Axial  Recovery = 97.98%
Sb 206.836†             1638.4      490.40 ug/L         1.854      490.40 ppb          1.854   0.38%
   QC value within limits for Sb 206.836  Recovery = 98.08%
Se 196.026†              919.1      508.89 ug/L         4.671      508.89 ppb          4.671   0.92%
   QC value within limits for Se 196.026  Recovery = 101.78%
Si 251.611†            88699.5      2457.4 ug/L         8.49      2457.4 ppb           8.49   0.35%
   QC value within limits for Si 251.611  Recovery = 98.30%
Sn 189.927†             3339.3      488.99 ug/L         1.408      488.99 ppb          1.408   0.29%
   QC value within limits for Sn 189.927  Recovery = 97.80%
Sr 421.552†            87021.1      496.43 ug/L         0.627      496.43 ppb          0.627   0.13%
   QC value within limits for Sr 421.552  Recovery = 99.29%
Ti 334.940†           341881.6      492.23 ug/L         0.926      492.23 ppb          0.926   0.19%
   QC value within limits for Ti 334.940  Recovery = 98.45%
Tl 190.801†             1921.2      493.46 ug/L         1.678      493.46 ppb          1.678   0.34%
   QC value within limits for Tl 190.801  Recovery = 98.69%
U 409.014†             17172.0      475.02 ug/L         1.896      475.02 ppb          1.896   0.40%
   QC value within limits for U 409.014  Recovery = 95.00%
V 292.402†             78478.5      499.27 ug/L         1.259      499.27 ppb          1.259   0.25%
   QC value within limits for V 292.402  Recovery = 99.85%
Zn 213.857†            61623.9      492.83 ug/L         1.697      492.83 ppb          1.697   0.34%
   QC value within limits for Zn 213.857  Recovery = 98.57%
SiO2†                  87816.3      5224.2 ug/L        26.25      5224.2 ppb          26.25   0.50%
   QC value within limits for SiO2  Recovery = 97.69%
All analyte(s) passed QC.
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Sequence No.: 9
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 12/20/2009 11:22:34
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	5650.3	5650.3	101	%			11:24:27
1	Y RADIAL	5949.1	5949.1	101.5	%			11:24:27
1	Al 396.153Radial†	-15.5	-2.0	-1.4658	ug/L	-1.4658	ppb	11:24:27
1	Ca 317.933Radial†	17.8	-0.3	-0.4224	ug/L	-0.4224	ppb	11:24:47
1	Fe 238.204 Radial†	12.4	1.0	8.2564	ug/L	8.2564	ppb	11:24:47
1	K 766.490 Radial†	3095.5	188.8	33.921	ug/L	33.921	ppb	11:24:27
1	Mg 279.077 IEC†	3.3	1.0	28.940	ug/L	28.940	ppb	11:24:47
1	Na 589.592 Radial†	-1458.3	-182.1	-49.755	ug/L	-49.755	ppb	11:24:27
1	Sr 421.552†	-22.5	-27.9	-0.1591	ug/L	-0.1591	ppb	11:24:27
1	Sc 361.383	889609.7	889609.7	98.909	%			11:25:43
1	Y 371.029	736233.4	736233.4	99.103	%			11:25:43
1	Ag 328.068†	345.6	-50.0	-0.2081	ug/L	-0.2081	ppb	11:25:43
1	As 188.979†	-31.8	-4.7	-1.6706	ug/L	-1.6706	ppb	11:26:03
1	B 249.677†	1929.2	1485.5	30.302	ug/L	30.302	ppb	11:25:43
1	Ba 233.527†	-1.6	7.0	0.0462	ug/L	0.0462	ppb	11:26:03
1	Be 313.107†	-4505.2	40.2	0.0132	ug/L	0.0132	ppb	11:25:43
1	Cd 226.502†	-220.0	3.3	0.0314	ug/L	0.0314	ppb	11:26:03
1	Co 228.616†	-69.4	14.5	0.2549	ug/L	0.2549	ppb	11:26:03
1	Cr 267.716†	95.4	-2.7	-0.0263	ug/L	-0.0263	ppb	11:26:03
1	Cu 324.752†	6111.9	92.3	0.2583	ug/L	0.2583	ppb	11:25:43
1	Mn 257.610†	543.1	57.6	0.0565	ug/L	0.0565	ppb	11:26:03
1	Mo 202.031†	42.3	17.2	1.0254	ug/L	1.0254	ppb	11:26:03
1	Ni 231.604†	131.6	30.8	0.6643	ug/L	0.6643	ppb	11:26:03
1	P 214.914†	243.5	-8.9	-4.5919	ug/L	-4.5919	ppb	11:26:03
1	Pb 220.353†	-81.7	-4.8	-0.4888	ug/L	-0.4888	ppb	11:26:03
1	S 181.975 Axial†	53.6	-4.6	-5.4701	ug/L	-5.4701	ppb	11:26:03
1	Sb 206.836†	46.3	4.4	1.3222	ug/L	1.3222	ppb	11:26:03
1	Se 196.026†	-28.3	0.2	0.1304	ug/L	0.1304	ppb	11:26:03
1	Si 251.611†	689.5	37.3	1.0077	ug/L	1.0077	ppb	11:26:03
1	Sn 189.927†	4.0	2.2	0.3256	ug/L	0.3256	ppb	11:26:03
1	Ti 334.940†	-1491.0	-37.4	-0.0518	ug/L	-0.0518	ppb	11:25:43
1	Tl 190.801†	-39.7	5.7	1.4499	ug/L	1.4499	ppb	11:26:03
1	U 409.014†	-2867.1	-170.4	-4.7309	ug/L	-4.7309	ppb	11:25:43
1	V 292.402†	-1522.3	-70.7	-0.4389	ug/L	-0.4389	ppb	11:25:43
1	Zn 213.857†	837.5	41.9	0.3316	ug/L	0.3316	ppb	11:26:03
1	SiO2†	725.0	48.0	2.8053	ug/L	2.8053	ppb	11:26:59
2	Sc Radial	5607.3	5607.3	100	%			11:24:52
2	Y RADIAL	5847.9	5847.9	99.77	%			11:24:52
2	Al 396.153Radial†	-35.3	-21.8	-15.344	ug/L	-15.344	ppb	11:24:52
2	Ca 317.933Radial†	22.0	4.0	5.6031	ug/L	5.6031	ppb	11:25:12
2	Fe 238.204 Radial†	12.7	1.5	11.829	ug/L	11.829	ppb	11:25:12
2	K 766.490 Radial†	3024.3	141.3	25.374	ug/L	25.374	ppb	11:24:52
2	Mg 279.077 IEC†	3.8	1.6	46.905	ug/L	46.905	ppb	11:25:12
2	Na 589.592 Radial†	-1349.0	-84.3	-23.028	ug/L	-23.028	ppb	11:24:52
2	Sr 421.552†	9.2	3.6	0.0202	ug/L	0.0202	ppb	11:24:52
2	Sc 361.383	890261.5	890261.5	98.981	%			11:26:09
2	Y 371.029	736919.4	736919.4	99.195	%			11:26:09
2	Ag 328.068†	297.7	-98.6	-0.4178	ug/L	-0.4178	ppb	11:26:09
2	As 188.979†	-16.4	10.9	3.8485	ug/L	3.8485	ppb	11:26:29
2	B 249.677†	1851.9	1405.9	28.680	ug/L	28.680	ppb	11:26:09
2	Ba 233.527†	-4.0	4.5	0.0286	ug/L	0.0286	ppb	11:26:29
2	Be 313.107†	-4525.2	23.3	0.0076	ug/L	0.0076	ppb	11:26:09
2	Cd 226.502†	-238.0	-14.7	-0.1421	ug/L	-0.1421	ppb	11:26:29
2	Co 228.616†	-76.8	7.1	0.1230	ug/L	0.1230	ppb	11:26:29
2	Cr 267.716†	106.5	8.4	0.0831	ug/L	0.0831	ppb	11:26:29
2	Cu 324.752†	6152.3	128.6	0.3600	ug/L	0.3600	ppb	11:26:09
2	Mn 257.610†	520.2	34.0	0.0335	ug/L	0.0335	ppb	11:26:29
2	Mo 202.031†	25.7	0.4	0.0233	ug/L	0.0233	ppb	11:26:29
2	Ni 231.604†	123.2	22.2	0.4783	ug/L	0.4783	ppb	11:26:29

2	P 214.914†	256.8	4.3	2.1196	ug/L	2.1196	ppb	11:26:29
2	Pb 220.353†	-69.7	7.4	0.7490	ug/L	0.7490	ppb	11:26:29
2	S 181.975 Axial†	54.9	-3.3	-3.9854	ug/L	-3.9854	ppb	11:26:29
2	Sb 206.836†	37.6	-4.4	-1.3202	ug/L	-1.3202	ppb	11:26:29
2	Se 196.026†	-27.3	1.2	0.6956	ug/L	0.6956	ppb	11:26:29
2	Si 251.611†	683.3	30.4	0.8401	ug/L	0.8401	ppb	11:26:29
2	Sn 189.927†	-1.2	-3.0	-0.4435	ug/L	-0.4435	ppb	11:26:29
2	Ti 334.940†	-1498.3	-43.7	-0.0614	ug/L	-0.0614	ppb	11:26:09
2	Tl 190.801†	-41.7	3.6	0.9240	ug/L	0.9240	ppb	11:26:29
2	U 409.014†	-2797.8	-98.3	-2.7287	ug/L	-2.7287	ppb	11:26:09
2	V 292.402†	-1592.6	-140.5	-0.8881	ug/L	-0.8881	ppb	11:26:09
2	Zn 213.857†	838.7	42.5	0.3371	ug/L	0.3371	ppb	11:26:29
2	SiO2†	689.2	11.3	0.6606	ug/L	0.6606	ppb	11:27:05
3	Sc Radial	5623.7	5623.7	101	%			11:25:17
3	Y RADIAL	5848.2	5848.2	99.77	%			11:25:17
3	Al 396.153Radial†	-29.9	-16.4	-11.525	ug/L	-11.525	ppb	11:25:17
3	Ca 317.933Radial†	24.8	6.8	9.4972	ug/L	9.4972	ppb	11:25:37
3	Fe 238.204 Radial†	10.2	-1.1	-8.3809	ug/L	-8.3809	ppb	11:25:37
3	K 766.490 Radial†	2937.1	45.8	8.2351	ug/L	8.2351	ppb	11:25:17
3	Mg 279.077 IEC†	0.1	-2.2	-66.850	ug/L	-66.850	ppb	11:25:37
3	Na 589.592 Radial†	-1321.8	-53.3	-14.562	ug/L	-14.562	ppb	11:25:17
3	Sr 421.552†	-27.5	-32.9	-0.1881	ug/L	-0.1881	ppb	11:25:17
3	Sc 361.383	900897.0	900897.0	100.16	%			11:26:34
3	Y 371.029	746183.9	746183.9	100.44	%			11:26:34
3	Ag 328.068†	408.8	8.7	0.0322	ug/L	0.0322	ppb	11:26:34
3	As 188.979†	-24.9	2.6	0.9242	ug/L	0.9242	ppb	11:26:54
3	B 249.677†	1874.4	1406.3	28.689	ug/L	28.689	ppb	11:26:34
3	Ba 233.527†	5.4	14.0	0.0920	ug/L	0.0920	ppb	11:26:54
3	Be 313.107†	-4522.4	80.1	0.0265	ug/L	0.0265	ppb	11:26:34
3	Cd 226.502†	-224.4	1.7	0.0175	ug/L	0.0175	ppb	11:26:54
3	Co 228.616†	-72.1	12.8	0.2225	ug/L	0.2225	ppb	11:26:54
3	Cr 267.716†	119.9	20.5	0.2036	ug/L	0.2036	ppb	11:26:54
3	Cu 324.752†	6144.7	47.6	0.1327	ug/L	0.1327	ppb	11:26:34
3	Mn 257.610†	513.7	21.3	0.0213	ug/L	0.0213	ppb	11:26:54
3	Mo 202.031†	30.8	5.2	0.3063	ug/L	0.3063	ppb	11:26:54
3	Ni 231.604†	127.2	24.7	0.5318	ug/L	0.5318	ppb	11:26:54
3	P 214.914†	251.0	-4.6	-2.3537	ug/L	-2.3537	ppb	11:26:54
3	Pb 220.353†	-79.1	-1.2	-0.1198	ug/L	-0.1198	ppb	11:26:54
3	S 181.975 Axial†	59.0	0.1	0.1643	ug/L	0.1643	ppb	11:26:54
3	Sb 206.836†	35.3	-7.2	-2.0985	ug/L	-2.0985	ppb	11:26:54
3	Se 196.026†	-20.3	8.5	4.4968	ug/L	4.4968	ppb	11:26:54
3	Si 251.611†	663.1	2.1	0.0490	ug/L	0.0490	ppb	11:26:54
3	Sn 189.927†	6.3	4.5	0.6613	ug/L	0.6613	ppb	11:26:54
3	Ti 334.940†	-1488.9	-16.4	-0.0225	ug/L	-0.0225	ppb	11:26:34
3	Tl 190.801†	-35.7	10.1	2.5848	ug/L	2.5848	ppb	11:26:54
3	U 409.014†	-2789.8	-56.9	-1.5784	ug/L	-1.5784	ppb	11:26:34
3	V 292.402†	-1613.5	-142.4	-0.8931	ug/L	-0.8931	ppb	11:26:34
3	Zn 213.857†	824.7	18.5	0.1488	ug/L	0.1488	ppb	11:26:54
3	SiO2†	676.7	-9.4	-0.5844	ug/L	-0.5844	ppb	11:27:10

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	893589.4	99.351	%	0.7046				0.71%
Sc Radial	5627.1	101	%	0.4				0.39%
Y 371.029	739778.9	99.580	%	0.7481				0.75%
Y RADIAL	5881.7	100.3	%	0.99				0.99%
Ag 328.068†	-46.6	-0.1979	ug/L	0.22515	-0.1979	ppb	0.22515	113.76%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-13.4	-9.4450	ug/L	7.16917	-9.4450	ppb	7.16917	75.90%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	3.0	1.0340	ug/L	2.76121	1.0340	ppb	2.76121	267.04%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	1432.6	29.224	ug/L	0.9343	29.224	ppb	0.9343	3.20%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	8.5	0.0556	ug/L	0.03272	0.0556	ppb	0.03272	58.86%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	47.9	0.0158	ug/L	0.00971	0.0158	ppb	0.00971	61.48%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	3.5	4.8926	ug/L	4.99786	4.8926	ppb	4.99786	102.15%

```
   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              -3.2     -0.0311 ug/L      0.09640     -0.0311 ppb      0.09640 310.38%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†              11.5      0.2001 ug/L      0.06874      0.2001 ppb      0.06874  34.35%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†               8.7      0.0868 ug/L      0.11498      0.0868 ppb      0.11498 132.49%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              89.5      0.2503 ug/L      0.11386      0.2503 ppb      0.11386  45.48%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        0.5      3.9015 ug/L     10.78579      3.9015 ppb     10.78579 276.46%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       125.3     22.510 ug/L      13.0803     22.510 ppb      13.0803  58.11%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           0.1      2.9983 ug/L     61.15358      2.9983 ppb     61.15358 >999.9%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              37.6      0.0371 ug/L      0.01789      0.0371 ppb      0.01789  48.25%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               7.6      0.4517 ug/L      0.51663      0.4517 ppb      0.51663 114.38%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†     -106.5    -29.115 ug/L      18.3688    -29.115 ppb      18.3688  63.09%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              25.9      0.5581 ug/L      0.09580      0.5581 ppb      0.09580  17.16%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -3.1     -1.6087 ug/L      3.41723     -1.6087 ppb      3.41723 212.42%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               0.5      0.0468 ug/L      0.63550      0.0468 ppb      0.63550 >999.9%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         -2.6     -3.0971 ug/L      2.92035     -3.0971 ppb      2.92035  94.29%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -2.4     -0.6988 ug/L      1.79304     -0.6988 ppb      1.79304 256.57%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               3.3      1.7743 ug/L      2.37466      1.7743 ppb      2.37466 133.84%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†              23.3      0.6323 ug/L      0.51199      0.6323 ppb      0.51199  80.98%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               1.2      0.1812 ug/L      0.56639      0.1812 ppb      0.56639 312.64%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             -19.1     -0.1090 ug/L      0.11283     -0.1090 ppb      0.11283 103.53%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             -32.5     -0.0452 ug/L      0.02027     -0.0452 ppb      0.02027  44.82%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               6.5      1.6529 ug/L      0.84879      1.6529 ppb      0.84879  51.35%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              -108.5     -3.0126 ug/L      1.59535     -3.0126 ppb      1.59535  52.96%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              -117.9     -0.7400 ug/L      0.26080     -0.7400 ppb      0.26080  35.24%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              34.3      0.2725 ug/L      0.10719      0.2725 ppb      0.10719  39.34%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                    16.7      0.9605 ug/L      1.71463      0.9605 ppb      1.71463 178.52%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 7
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 12/20/2009 12:12:01
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5488.2	5488.2	98.2	%			12:13:53
1	Y RADIAL	5716.6	5716.6	97.53	%			12:13:53
1	Al 396.153Radial†	6845.3	6982.4	4883.2	ug/L	4883.2	ppb	12:13:53
1	Ca 317.933Radial†	3504.1	3549.7	4955.6	ug/L	4955.6	ppb	12:14:13
1	Fe 238.204 Radial†	644.9	645.3	5122.3	ug/L	5122.3	ppb	12:14:13
1	K 766.490 Radial†	30397.2	28074.8	5031.9	ug/L	5031.9	ppb	12:13:53
1	Mg 279.077 IEC†	169.7	170.5	5151.6	ug/L	5151.6	ppb	12:14:13
1	Na 589.592 Radial†	34145.2	36023.0	9844.5	ug/L	9844.5	ppb	12:13:53
1	Sr 421.552†	85537.3	87079.3	496.76	ug/L	496.76	ppb	12:13:53
1	Sc 361.383	896613.6	896613.6	99.688	%			12:15:10
1	Y 371.029	726723.0	726723.0	97.822	%			12:15:10
1	Ag 328.068†	116764.4	116730.9	501.18	ug/L	501.18	ppb	12:15:16
1	As 188.979†	1366.1	1397.9	501.23	ug/L	501.23	ppb	12:15:36
1	B 249.677†	24918.9	24532.0	498.49	ug/L	498.49	ppb	12:15:16
1	Ba 233.527†	74693.3	74935.9	504.37	ug/L	504.37	ppb	12:15:16
1	Be 313.107†	1513795.7	1523133.5	506.49	ug/L	506.49	ppb	12:15:10
1	Cd 226.502†	52236.6	52626.0	505.40	ug/L	505.40	ppb	12:15:16
1	Co 228.616†	29012.9	29188.5	506.37	ug/L	506.37	ppb	12:15:16
1	Cr 267.716†	50298.5	50356.9	502.96	ug/L	502.96	ppb	12:15:16
1	Cu 324.752†	183895.4	178384.5	498.84	ug/L	498.84	ppb	12:15:16
1	Mn 257.610†	516725.7	517853.1	506.06	ug/L	506.06	ppb	12:15:10
1	Mo 202.031†	8310.3	8310.7	494.48	ug/L	494.48	ppb	12:15:36
1	Ni 231.604†	23494.4	23465.8	505.40	ug/L	505.40	ppb	12:15:16
1	P 214.914†	5143.0	4903.9	2418.6	ug/L	2418.6	ppb	12:15:36
1	Pb 220.353†	4761.6	4854.3	498.21	ug/L	498.21	ppb	12:15:36
1	S 181.975 Axial†	868.9	812.9	972.91	ug/L	972.91	ppb	12:15:36
1	Sb 206.836†	1720.0	1683.0	503.59	ug/L	503.59	ppb	12:15:36
1	Se 196.026†	907.8	939.4	519.65	ug/L	519.65	ppb	12:15:36
1	Si 251.611†	90512.7	90136.4	2497.3	ug/L	2497.3	ppb	12:15:16
1	Sn 189.927†	3381.8	3390.6	496.50	ug/L	496.50	ppb	12:15:36
1	Ti 334.940†	344881.6	347432.1	500.21	ug/L	500.21	ppb	12:15:10
1	Tl 190.801†	1906.2	1958.0	502.84	ug/L	502.84	ppb	12:15:36
1	U 409.014†	14972.6	17747.9	490.99	ug/L	490.99	ppb	12:15:16
1	V 292.402†	77882.7	79595.1	506.36	ug/L	506.36	ppb	12:15:16
1	Zn 213.857†	63116.3	62509.2	499.88	ug/L	499.88	ppb	12:15:16
1	SiO2†	90787.1	90386.6	5377.6	ug/L	5377.6	ppb	12:16:44
2	Sc Radial	5622.1	5622.1	101	%			12:14:18
2	Y RADIAL	5842.4	5842.4	99.68	%			12:14:18
2	Al 396.153Radial†	6945.0	6915.5	4836.2	ug/L	4836.2	ppb	12:14:18
2	Ca 317.933Radial†	3507.6	3468.1	4841.7	ug/L	4841.7	ppb	12:14:38
2	Fe 238.204 Radial†	642.9	627.7	4983.3	ug/L	4983.3	ppb	12:14:38
2	K 766.490 Radial†	30715.1	27653.5	4956.3	ug/L	4956.3	ppb	12:14:18
2	Mg 279.077 IEC†	170.7	167.4	5058.1	ug/L	5058.1	ppb	12:14:38
2	Na 589.592 Radial†	34540.5	35587.8	9725.6	ug/L	9725.6	ppb	12:14:18
2	Sr 421.552†	86614.2	86075.1	491.03	ug/L	491.03	ppb	12:14:18
2	Sc 361.383	897509.2	897509.2	99.787	%			12:15:42
2	Y 371.029	725542.3	725542.3	97.664	%			12:15:42
2	Ag 328.068†	117509.0	117360.2	503.82	ug/L	503.82	ppb	12:15:47
2	As 188.979†	1367.2	1397.6	501.13	ug/L	501.13	ppb	12:16:07
2	B 249.677†	25014.1	24602.4	499.94	ug/L	499.94	ppb	12:15:47
2	Ba 233.527†	75138.8	75307.6	506.87	ug/L	506.87	ppb	12:15:47
2	Be 313.107†	1519932.4	1527768.0	508.03	ug/L	508.03	ppb	12:15:42
2	Cd 226.502†	52377.2	52714.7	506.27	ug/L	506.27	ppb	12:15:47
2	Co 228.616†	29188.0	29335.0	508.90	ug/L	508.90	ppb	12:15:47
2	Cr 267.716†	50659.6	50668.4	506.07	ug/L	506.07	ppb	12:15:47
2	Cu 324.752†	185156.5	179464.2	501.85	ug/L	501.85	ppb	12:15:47
2	Mn 257.610†	520550.8	521169.1	509.28	ug/L	509.28	ppb	12:15:42
2	Mo 202.031†	8315.7	8307.9	494.30	ug/L	494.30	ppb	12:16:07
2	Ni 231.604†	23628.7	23576.8	507.79	ug/L	507.79	ppb	12:15:47

2	P 214.914†	5146.0	4901.8	2417.1 ug/L	2417.1 ppb	12:16:07
2	Pb 220.353†	4767.7	4855.7	498.35 ug/L	498.35 ppb	12:16:07
2	S 181.975 Axial†	871.8	814.9	975.41 ug/L	975.41 ppb	12:16:07
2	Sb 206.836†	1725.2	1686.5	504.56 ug/L	504.56 ppb	12:16:07
2	Se 196.026†	916.4	947.2	523.36 ug/L	523.36 ppb	12:16:07
2	Si 251.611†	91108.4	90642.8	2511.4 ug/L	2511.4 ppb	12:15:47
2	Sn 189.927†	3397.8	3403.2	498.33 ug/L	498.33 ppb	12:16:07
2	Ti 334.940†	347145.3	349355.5	502.97 ug/L	502.97 ppb	12:15:42
2	Tl 190.801†	1902.8	1952.7	501.50 ug/L	501.50 ppb	12:16:07
2	U 409.014†	15344.4	18105.4	500.93 ug/L	500.93 ppb	12:15:47
2	V 292.402†	78368.8	80004.4	508.96 ug/L	508.96 ppb	12:15:47
2	Zn 213.857†	63567.6	62898.3	503.01 ug/L	503.01 ppb	12:15:47
2	SiO2†	91119.6	90628.9	5392.1 ug/L	5392.1 ppb	12:16:49
3	Sc Radial	5509.4	5509.4	98.6 %		12:14:43
3	Y RADIAL	5717.3	5717.3	97.54 %		12:14:43
3	Al 396.153Radial†	6889.0	7000.0	4895.8 ug/L	4895.8 ppb	12:14:43
3	Ca 317.933Radial†	3516.3	3548.3	4953.7 ug/L	4953.7 ppb	12:15:03
3	Fe 238.204 Radial†	643.3	641.3	5089.9 ug/L	5089.9 ppb	12:15:03
3	K 766.490 Radial†	30421.4	27980.4	5015.0 ug/L	5015.0 ppb	12:14:43
3	Mg 279.077 IEC†	167.1	167.2	5050.5 ug/L	5050.5 ppb	12:15:03
3	Na 589.592 Radial†	34021.2	35763.6	9773.6 ug/L	9773.6 ppb	12:14:43
3	Sr 421.552†	85351.0	86555.6	493.77 ug/L	493.77 ppb	12:14:43
3	Sc 361.383	914632.4	914632.4	101.69 %		12:16:13
3	Y 371.029	740544.5	740544.5	99.683 %		12:16:13
3	Ag 328.068†	118233.1	115867.6	497.46 ug/L	497.46 ppb	12:16:18
3	As 188.979†	1391.4	1395.7	500.41 ug/L	500.41 ppb	12:16:38
3	B 249.677†	25323.1	24437.0	496.57 ug/L	496.57 ppb	12:16:18
3	Ba 233.527†	75422.4	74176.8	499.26 ug/L	499.26 ppb	12:16:18
3	Be 313.107†	1524902.4	1504139.5	500.17 ug/L	500.17 ppb	12:16:13
3	Cd 226.502†	52715.3	52064.5	500.00 ug/L	500.00 ppb	12:16:18
3	Co 228.616†	29308.3	28905.7	501.45 ug/L	501.45 ppb	12:16:18
3	Cr 267.716†	50835.5	49891.0	498.31 ug/L	498.31 ppb	12:16:18
3	Cu 324.752†	186532.4	177343.5	495.93 ug/L	495.93 ppb	12:16:18
3	Mn 257.610†	520453.3	511307.0	499.67 ug/L	499.67 ppb	12:16:13
3	Mo 202.031†	8352.2	8187.7	487.17 ug/L	487.17 ppb	12:16:38
3	Ni 231.604†	23794.6	23296.6	501.75 ug/L	501.75 ppb	12:16:18
3	P 214.914†	5159.8	4818.8	2375.7 ug/L	2375.7 ppb	12:16:38
3	Pb 220.353†	4795.2	4793.3	491.95 ug/L	491.95 ppb	12:16:38
3	S 181.975 Axial†	888.6	815.1	975.56 ug/L	975.56 ppb	12:16:38
3	Sb 206.836†	1728.8	1657.7	495.96 ug/L	495.96 ppb	12:16:38
3	Se 196.026†	917.3	930.9	514.98 ug/L	514.98 ppb	12:16:38
3	Si 251.611†	91592.9	89410.0	2477.2 ug/L	2477.2 ppb	12:16:18
3	Sn 189.927†	3406.9	3348.4	490.33 ug/L	490.33 ppb	12:16:38
3	Ti 334.940†	347654.0	343342.8	494.32 ug/L	494.32 ppb	12:16:13
3	Tl 190.801†	1912.7	1926.7	494.80 ug/L	494.80 ppb	12:16:38
3	U 409.014†	15534.1	18004.1	498.12 ug/L	498.12 ppb	12:16:18
3	V 292.402†	78872.2	79029.1	502.73 ug/L	502.73 ppb	12:16:18
3	Zn 213.857†	63876.7	62009.6	495.88 ug/L	495.88 ppb	12:16:18
3	SiO2†	90502.7	88312.7	5254.0 ug/L	5254.0 ppb	12:16:54

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	902918.4	100.39	%	1.129				1.12%
Sc Radial	5539.9	99.1	%	1.29				1.30%
Y 371.029	730936.6	98.390	%	1.1228				1.14%
Y RADIAL	5758.8	98.25	%	1.236				1.26%
Ag 328.068†	116652.9	500.82	ug/L	3.193	500.82	ppb	3.193	0.64%
QC value within limits for Ag 328.068 Recovery = 100.16%								
Al 396.153Radial†	6966.0	4871.7	ug/L	31.43	4871.7	ppb	31.43	0.65%
QC value within limits for Al 396.153Radial Recovery = 97.43%								
As 188.979†	1397.0	500.92	ug/L	0.450	500.92	ppb	0.450	0.09%
QC value within limits for As 188.979 Recovery = 100.18%								
B 249.677†	24523.8	498.33	ug/L	1.690	498.33	ppb	1.690	0.34%
QC value within limits for B 249.677 Recovery = 99.67%								
Ba 233.527†	74806.8	503.50	ug/L	3.876	503.50	ppb	3.876	0.77%
QC value within limits for Ba 233.527 Recovery = 100.70%								
Be 313.107†	1518347.0	504.89	ug/L	4.164	504.89	ppb	4.164	0.82%
QC value within limits for Be 313.107 Recovery = 100.98%								
Ca 317.933Radial†	3522.0	4917.0	ug/L	65.21	4917.0	ppb	65.21	1.33%

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   QC value within limits for Ca 317.933Radial  Recovery = 98.34%
Cd 226.502†            52468.4      503.89 ug/L         3.392      503.89 ppb          3.392   0.67%
   QC value within limits for Cd 226.502  Recovery = 100.78%
Co 228.616†            29143.0      505.57 ug/L         3.786      505.57 ppb          3.786   0.75%
   QC value within limits for Co 228.616  Recovery = 101.11%
Cr 267.716†            50305.4      502.44 ug/L         3.906      502.44 ppb          3.906   0.78%
   QC value within limits for Cr 267.716  Recovery = 100.49%
Cu 324.752†           178397.4      498.87 ug/L         2.961      498.87 ppb          2.961   0.59%
   QC value within limits for Cu 324.752  Recovery = 99.77%
Fe 238.204 Radial†       638.1      5065.2 ug/L         72.73      5065.2 ppb          72.73   1.44%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.30%
K 766.490 Radial†      27902.9      5001.1 ug/L         39.70      5001.1 ppb          39.70   0.79%
   QC value within limits for K 766.490 Radial  Recovery = 100.02%
Mg 279.077 IEC†          168.4      5086.7 ug/L         56.31      5086.7 ppb          56.31   1.11%
   QC value within limits for Mg 279.077 IEC  Recovery = 101.73%
Mn 257.610†           516776.4      505.00 ug/L         4.896      505.00 ppb          4.896   0.97%
   QC value within limits for Mn 257.610  Recovery = 101.00%
Mo 202.031†             8268.8      491.98 ug/L         4.171      491.98 ppb          4.171   0.85%
   QC value within limits for Mo 202.031  Recovery = 98.40%
Na 589.592 Radial†     35791.5      9781.2 ug/L         59.83      9781.2 ppb          59.83   0.61%
   QC value within limits for Na 589.592 Radial  Recovery = 97.81%
Ni 231.604†            23446.4      504.98 ug/L         3.038      504.98 ppb          3.038   0.60%
   QC value within limits for Ni 231.604  Recovery = 101.00%
P 214.914†              4874.9      2403.8 ug/L         24.36      2403.8 ppb          24.36   1.01%
   QC value within limits for P 214.914  Recovery = 96.15%
Pb 220.353†             4834.4      496.17 ug/L         3.653      496.17 ppb          3.653   0.74%
   QC value within limits for Pb 220.353  Recovery = 99.23%
S 181.975 Axial†         814.3      974.63 ug/L         1.487      974.63 ppb          1.487   0.15%
   QC value within limits for S 181.975 Axial  Recovery = 97.46%
Sb 206.836†             1675.7      501.37 ug/L         4.710      501.37 ppb          4.710   0.94%
   QC value within limits for Sb 206.836  Recovery = 100.27%
Se 196.026†              939.1      519.33 ug/L         4.198      519.33 ppb          4.198   0.81%
   QC value within limits for Se 196.026  Recovery = 103.87%
Si 251.611†            90063.0      2495.3 ug/L         17.18      2495.3 ppb          17.18   0.69%
   QC value within limits for Si 251.611  Recovery = 99.81%
Sn 189.927†             3380.7      495.05 ug/L         4.193      495.05 ppb          4.193   0.85%
   QC value within limits for Sn 189.927  Recovery = 99.01%
Sr 421.552†            86570.0      493.86 ug/L         2.865      493.86 ppb          2.865   0.58%
   QC value within limits for Sr 421.552  Recovery = 98.77%
Ti 334.940†           346710.1      499.17 ug/L         4.418      499.17 ppb          4.418   0.89%
   QC value within limits for Ti 334.940  Recovery = 99.83%
Tl 190.801†             1945.8      499.71 ug/L         4.308      499.71 ppb          4.308   0.86%
   QC value within limits for Tl 190.801  Recovery = 99.94%
U 409.014†             17952.5      496.68 ug/L         5.121      496.68 ppb          5.121   1.03%
   QC value within limits for U 409.014  Recovery = 99.34%
V 292.402†             79542.8      506.02 ug/L         3.132      506.02 ppb          3.132   0.62%
   QC value within limits for V 292.402  Recovery = 101.20%
Zn 213.857†            62472.4      499.59 ug/L         3.572      499.59 ppb          3.572   0.72%
   QC value within limits for Zn 213.857  Recovery = 99.92%
SiO2†                  89776.1      5341.2 ug/L         75.93      5341.2 ppb          75.93   1.42%
   QC value within limits for SiO2  Recovery = 99.88%
All analyte(s) passed QC.
```

Sequence No.: 8
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 12/20/2009 12:19:04
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	5709.4	5709.4	102	%			12:20:56
1	Y RADIAL	5957.0	5957.0	101.6	%			12:20:56
1	Al 396.153Radial†	-21.3	-7.6	-5.3377	ug/L	-5.3377	ppb	12:20:56
1	Ca 317.933Radial†	24.1	5.8	8.0319	ug/L	8.0319	ppb	12:21:16
1	Fe 238.204 Radial†	14.0	2.5	19.915	ug/L	19.915	ppb	12:21:16
1	K 766.490 Radial†	2887.5	-46.5	-8.3441	ug/L	-8.3441	ppb	12:20:56
1	Mg 279.077 IEC†	2.5	0.2	6.6401	ug/L	6.6401	ppb	12:21:16
1	Na 589.592 Radial†	-1334.1	-45.6	-12.455	ug/L	-12.455	ppb	12:20:56
1	Sr 421.552†	-2.1	-7.7	-0.0438	ug/L	-0.0438	ppb	12:20:56
1	Sc 361.383	897443.2	897443.2	99.780	%			12:22:13
1	Y 371.029	741811.7	741811.7	99.854	%			12:22:13
1	Ag 328.068†	310.4	-88.3	-0.3657	ug/L	-0.3657	ppb	12:22:13
1	As 188.979†	-25.9	1.5	0.5325	ug/L	0.5325	ppb	12:22:33
1	B 249.677†	456.5	-7.6	-0.1565	ug/L	-0.1565	ppb	12:22:13
1	Ba 233.527†	0.8	9.4	0.0630	ug/L	0.0630	ppb	12:22:33
1	Be 313.107†	-4558.1	26.9	0.0093	ug/L	0.0093	ppb	12:22:13
1	Cd 226.502†	-209.2	16.0	0.1525	ug/L	0.1525	ppb	12:22:33
1	Co 228.616†	-94.5	-10.0	-0.1738	ug/L	-0.1738	ppb	12:22:33
1	Cr 267.716†	94.8	-4.1	-0.0393	ug/L	-0.0393	ppb	12:22:33
1	Cu 324.752†	6153.2	79.8	0.2239	ug/L	0.2239	ppb	12:22:13
1	Mn 257.610†	530.4	40.1	0.0410	ug/L	0.0410	ppb	12:22:33
1	Mo 202.031†	26.5	1.0	0.0628	ug/L	0.0628	ppb	12:22:33
1	Ni 231.604†	124.8	22.8	0.4924	ug/L	0.4924	ppb	12:22:33
1	P 214.914†	264.0	9.4	4.7229	ug/L	4.7229	ppb	12:22:33
1	Pb 220.353†	-77.0	0.7	0.0681	ug/L	0.0681	ppb	12:22:33
1	S 181.975 Axial†	54.5	-4.1	-4.9437	ug/L	-4.9437	ppb	12:22:33
1	Sb 206.836†	42.3	-0.0	0.0073	ug/L	0.0073	ppb	12:22:33
1	Se 196.026†	-32.1	-3.4	-1.7301	ug/L	-1.7301	ppb	12:22:33
1	Si 251.611†	759.6	101.4	2.8225	ug/L	2.8225	ppb	12:22:33
1	Sn 189.927†	7.8	6.0	0.8734	ug/L	0.8734	ppb	12:22:33
1	Ti 334.940†	-1354.7	112.3	0.1651	ug/L	0.1651	ppb	12:22:13
1	Tl 190.801†	-36.4	9.3	2.3807	ug/L	2.3807	ppb	12:22:33
1	U 409.014†	-2959.4	-237.6	-6.5977	ug/L	-6.5977	ppb	12:22:13
1	V 292.402†	-1519.6	-54.5	-0.3573	ug/L	-0.3573	ppb	12:22:13
1	Zn 213.857†	830.4	27.4	0.2160	ug/L	0.2160	ppb	12:22:33
1	SiO2†	760.4	77.1	4.6080	ug/L	4.6080	ppb	12:23:29
2	Sc Radial	5628.4	5628.4	101	%			12:21:21
2	Y RADIAL	5904.7	5904.7	100.7	%			12:21:21
2	Al 396.153Radial†	-48.4	-34.7	-24.377	ug/L	-24.377	ppb	12:21:21
2	Ca 317.933Radial†	17.6	-0.4	-0.5676	ug/L	-0.5676	ppb	12:21:41
2	Fe 238.204 Radial†	12.6	1.3	10.537	ug/L	10.537	ppb	12:21:41
2	K 766.490 Radial†	2790.2	-102.4	-18.382	ug/L	-18.382	ppb	12:21:21
2	Mg 279.077 IEC†	1.5	-0.8	-24.541	ug/L	-24.541	ppb	12:21:41
2	Na 589.592 Radial†	-1346.6	-76.8	-20.981	ug/L	-20.981	ppb	12:21:21
2	Sr 421.552†	-26.9	-32.4	-0.1847	ug/L	-0.1847	ppb	12:21:21
2	Sc 361.383	899234.6	899234.6	99.979	%			12:22:38
2	Y 371.029	742609.9	742609.9	99.961	%			12:22:38
2	Ag 328.068†	288.8	-110.6	-0.4670	ug/L	-0.4670	ppb	12:22:38
2	As 188.979†	-25.9	1.6	0.5589	ug/L	0.5589	ppb	12:22:59
2	B 249.677†	402.9	-62.0	-1.2668	ug/L	-1.2668	ppb	12:22:38
2	Ba 233.527†	7.6	16.2	0.1086	ug/L	0.1086	ppb	12:22:59
2	Be 313.107†	-4481.9	112.3	0.0376	ug/L	0.0376	ppb	12:22:38
2	Cd 226.502†	-236.4	-10.7	-0.1035	ug/L	-0.1035	ppb	12:22:59
2	Co 228.616†	-83.7	1.0	0.0171	ug/L	0.0171	ppb	12:22:59
2	Cr 267.716†	98.5	-0.7	-0.0065	ug/L	-0.0065	ppb	12:22:59
2	Cu 324.752†	6111.3	25.5	0.0718	ug/L	0.0718	ppb	12:22:38
2	Mn 257.610†	521.7	30.2	0.0310	ug/L	0.0310	ppb	12:22:59
2	Mo 202.031†	24.8	-0.8	-0.0467	ug/L	-0.0467	ppb	12:22:59
2	Ni 231.604†	129.0	26.7	0.5761	ug/L	0.5761	ppb	12:22:59

2	P 214.914†	248.2	-6.9	-3.5370	ug/L	-3.5370	ppb	12:22:59
2	Pb 220.353†	-77.1	0.8	0.0705	ug/L	0.0705	ppb	12:22:59
2	S 181.975 Axial†	56.3	-2.4	-2.8624	ug/L	-2.8624	ppb	12:22:59
2	Sb 206.836†	24.2	-18.2	-5.3810	ug/L	-5.3810	ppb	12:22:59
2	Se 196.026†	-34.4	-5.7	-2.9919	ug/L	-2.9919	ppb	12:22:59
2	Si 251.611†	747.0	87.3	2.4373	ug/L	2.4373	ppb	12:22:59
2	Sn 189.927†	0.9	-1.0	-0.1391	ug/L	-0.1391	ppb	12:22:59
2	Ti 334.940†	-1354.5	115.3	0.1671	ug/L	0.1671	ppb	12:22:38
2	Tl 190.801†	-43.3	2.5	0.6444	ug/L	0.6444	ppb	12:22:59
2	U 409.014†	-2816.3	-88.6	-2.4599	ug/L	-2.4599	ppb	12:22:38
2	V 292.402†	-1506.1	-38.0	-0.2461	ug/L	-0.2461	ppb	12:22:38
2	Zn 213.857†	832.1	27.5	0.2179	ug/L	0.2179	ppb	12:22:59
2	SiO2†	721.3	36.5	2.1981	ug/L	2.1981	ppb	12:23:34
3	Sc Radial	5570.6	5570.6	99.7	%			12:21:46
3	Y RADIAL	5814.5	5814.5	99.20	%			12:21:46
3	Al 396.153Radial†	-20.6	-7.4	-5.2115	ug/L	-5.2115	ppb	12:21:46
3	Ca 317.933Radial†	25.1	7.3	10.141	ug/L	10.141	ppb	12:22:06
3	Fe 238.204 Radial†	10.9	-0.2	-1.8502	ug/L	-1.8502	ppb	12:22:06
3	K 766.490 Radial†	2926.4	62.9	11.299	ug/L	11.299	ppb	12:21:46
3	Mg 279.077 IEC†	1.7	-0.5	-15.553	ug/L	-15.553	ppb	12:22:06
3	Na 589.592 Radial†	-1348.2	-92.3	-25.229	ug/L	-25.229	ppb	12:21:46
3	Sr 421.552†	15.8	10.2	0.0582	ug/L	0.0582	ppb	12:21:46
3	Sc 361.383	883782.0	883782.0	98.261	%			12:23:04
3	Y 371.029	729222.6	729222.6	98.159	%			12:23:04
3	Ag 328.068†	410.3	18.2	0.0711	ug/L	0.0711	ppb	12:23:04
3	As 188.979†	-28.0	-1.0	-0.3717	ug/L	-0.3717	ppb	12:23:24
3	B 249.677†	456.4	-0.6	-0.0112	ug/L	-0.0112	ppb	12:23:04
3	Ba 233.527†	-7.0	1.5	0.0091	ug/L	0.0091	ppb	12:23:24
3	Be 313.107†	-4499.2	16.2	0.0054	ug/L	0.0054	ppb	12:23:04
3	Cd 226.502†	-232.4	-10.7	-0.1024	ug/L	-0.1024	ppb	12:23:24
3	Co 228.616†	-79.3	4.0	0.0704	ug/L	0.0704	ppb	12:23:24
3	Cr 267.716†	106.3	9.0	0.0876	ug/L	0.0876	ppb	12:23:24
3	Cu 324.752†	5999.7	18.8	0.0525	ug/L	0.0525	ppb	12:23:04
3	Mn 257.610†	531.1	49.0	0.0479	ug/L	0.0479	ppb	12:23:24
3	Mo 202.031†	29.6	4.6	0.2722	ug/L	0.2722	ppb	12:23:24
3	Ni 231.604†	122.9	22.8	0.4918	ug/L	0.4918	ppb	12:23:24
3	P 214.914†	250.9	0.1	0.0663	ug/L	0.0663	ppb	12:23:24
3	Pb 220.353†	-70.6	6.0	0.6116	ug/L	0.6116	ppb	12:23:24
3	S 181.975 Axial†	47.7	-10.3	-12.290	ug/L	-12.290	ppb	12:23:24
3	Sb 206.836†	39.4	-2.3	-0.6706	ug/L	-0.6706	ppb	12:23:24
3	Se 196.026†	-38.0	-9.9	-5.2776	ug/L	-5.2776	ppb	12:23:24
3	Si 251.611†	717.6	70.4	1.9523	ug/L	1.9523	ppb	12:23:24
3	Sn 189.927†	2.5	0.7	0.1095	ug/L	0.1095	ppb	12:23:24
3	Ti 334.940†	-1457.0	-12.7	-0.0198	ug/L	-0.0198	ppb	12:23:04
3	Tl 190.801†	-34.8	10.3	2.6409	ug/L	2.6409	ppb	12:23:24
3	U 409.014†	-2521.9	161.9	4.4924	ug/L	4.4924	ppb	12:23:04
3	V 292.402†	-1516.8	-75.2	-0.4596	ug/L	-0.4596	ppb	12:23:04
3	Zn 213.857†	832.3	42.2	0.3376	ug/L	0.3376	ppb	12:23:24
3	SiO2†	743.6	71.8	4.2737	ug/L	4.2737	ppb	12:23:39

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	893486.6	99.340	%	0.9397				0.95%
Sc Radial	5636.1	101	%	1.2				1.24%
Y 371.029	737881.4	99.324	%	1.0108				1.02%
Y RADIAL	5892.1	100.5	%	1.23				1.22%
Ag 328.068†	-60.2	-0.2539	ug/L	0.28593	-0.2539	ppb	0.28593	112.62%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-16.6	-11.642	ug/L	11.0291	-11.642	ppb	11.0291	94.73%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	0.7	0.2399	ug/L	0.52983	0.2399	ppb	0.52983	220.85%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-23.4	-0.4782	ug/L	0.68683	-0.4782	ppb	0.68683	143.64%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	9.1	0.0602	ug/L	0.04982	0.0602	ppb	0.04982	82.70%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	51.8	0.0174	ug/L	0.01759	0.0174	ppb	0.01759	101.12%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	4.2	5.8684	ug/L	5.67259	5.8684	ppb	5.67259	96.66%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                -1.8     -0.0178 ug/L       0.14750     -0.0178 ppb        0.14750 828.48%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                -1.7     -0.0288 ug/L       0.12836     -0.0288 ppb        0.12836 446.38%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                 1.4      0.0140 ug/L       0.06584      0.0140 ppb        0.06584 471.94%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†                41.4      0.1161 ug/L       0.09389      0.1161 ppb        0.09389  80.87%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          1.2      9.5339 ug/L      10.91739      9.5339 ppb       10.91739 114.51%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         -28.7     -5.1423 ug/L      15.09700     -5.1423 ppb       15.09700 293.58%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -0.4     -11.151 ug/L       16.0496     -11.151 ppb        16.0496 143.93%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                39.8      0.0400 ug/L       0.00849      0.0400 ppb        0.00849  21.23%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 1.6      0.0961 ug/L       0.16204      0.0961 ppb        0.16204 168.61%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        -71.6     -19.555 ug/L        6.5051     -19.555 ppb         6.5051  33.27%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                24.1      0.5201 ug/L       0.04851      0.5201 ppb        0.04851   9.33%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                  0.9      0.4174 ug/L       4.14111      0.4174 ppb        4.14111 992.14%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                 2.5      0.2501 ug/L       0.31311      0.2501 ppb        0.31311 125.20%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -5.6     -6.6986 ug/L       4.95252     -6.6986 ppb        4.95252  73.93%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                -6.8     -2.0148 ug/L       2.93487     -2.0148 ppb        2.93487 145.67%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -6.3     -3.3332 ug/L       1.79818     -3.3332 ppb        1.79818  53.95%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                86.4      2.4040 ug/L       0.43606      2.4040 ppb        0.43606  18.14%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 1.9      0.2813 ug/L       0.52766      0.2813 ppb        0.52766 187.60%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                -9.9     -0.0568 ug/L       0.12198     -0.0568 ppb        0.12198 214.92%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                71.6      0.1041 ug/L       0.10731      0.1041 ppb        0.10731 103.05%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 7.4      1.8887 ug/L       1.08542      1.8887 ppb        1.08542  57.47%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                -54.8     -1.5217 ug/L       5.60424     -1.5217 ppb        5.60424 368.28%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                -55.9     -0.3543 ug/L       0.10675     -0.3543 ppb        0.10675  30.13%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                32.3      0.2572 ug/L       0.06966      0.2572 ppb        0.06966  27.09%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                      61.8      3.6933 ug/L       1.30559      3.6933 ppb        1.30559  35.35%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
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Analysis Begun

Start Time: 12/20/2009 12:46:46 **Plasma On Time: 12/14/2009 06:02:42**
Logged In Analyst: Optima3 **Technique: ICP Continuous**
Spectrometer Model: Optima 5300 DV, S/N 077C7090601Autosampler Model: S10

Sample Information File: C:\pe\Optima3\Sample Information\122009A.sif
Batch ID:
Results Data Set: 122009A
Results Library: C:\pe\Optima3\Results\Results.mdb

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Sequence No.: 1 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 12/20/2009 12:46:47**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5590.7	5590.7	100	%			12:48:39
1	Y RADIAL	5764.4	5764.4	98.34	%			12:48:39
1	Al 396.153Radial†	7003.3	7012.6	4904.2	ug/L	4904.2	ppb	12:48:39
1	Ca 317.933Radial†	3691.0	3671.0	5125.0	ug/L	5125.0	ppb	12:48:39
1	Fe 238.204 Radial†	650.7	639.1	5073.0	ug/L	5073.0	ppb	12:48:59
1	K 766.490 Radial†	31143.4	28253.4	5063.8	ug/L	5063.8	ppb	12:48:39
1	Mg 279.077 IEC†	172.2	169.9	5132.9	ug/L	5132.9	ppb	12:48:59
1	Na 589.592 Radial†	36784.8	38024.0	10391	ug/L	10391	ppb	12:48:39
1	Sr 421.552†	90023.8	89967.2	513.24	ug/L	513.24	ppb	12:48:39
1	Sc 361.383	905345.8	905345.8	100.66	%			12:49:58
1	Y 371.029	733408.1	733408.1	98.722	%			12:49:58
1	Ag 328.068†	116779.7	115616.3	496.40	ug/L	496.40	ppb	12:49:58
1	As 188.979†	1386.4	1404.8	503.63	ug/L	503.63	ppb	12:50:18
1	B 249.677†	24655.5	24029.1	488.26	ug/L	488.26	ppb	12:49:58
1	Ba 233.527†	74965.9	74484.1	501.32	ug/L	501.32	ppb	12:49:58
1	Be 313.107†	1511261.3	1505969.2	500.78	ug/L	500.78	ppb	12:49:58
1	Cd 226.502†	52156.6	52041.1	499.78	ug/L	499.78	ppb	12:49:58
1	Co 228.616†	28833.1	28729.2	498.42	ug/L	498.42	ppb	12:50:18
1	Cr 267.716†	50382.7	49953.9	498.94	ug/L	498.94	ppb	12:49:58
1	Cu 324.752†	185708.3	178406.3	498.90	ug/L	498.90	ppb	12:49:58
1	Mn 257.610†	517112.9	513238.3	501.55	ug/L	501.55	ppb	12:49:58
1	Mo 202.031†	8452.8	8371.9	498.11	ug/L	498.11	ppb	12:50:18
1	Ni 231.604†	23403.6	23148.2	498.56	ug/L	498.56	ppb	12:50:18
1	P 214.914†	5189.6	4900.5	2416.8	ug/L	2416.8	ppb	12:50:18
1	Pb 220.353†	4839.1	4885.3	501.39	ug/L	501.39	ppb	12:50:18
1	S 181.975 Axial†	888.8	824.2	986.55	ug/L	986.55	ppb	12:50:18
1	Sb 206.836†	1725.2	1671.6	500.33	ug/L	500.33	ppb	12:50:18
1	Se 196.026†	913.3	936.1	517.77	ug/L	517.77	ppb	12:50:18
1	Si 251.611†	90554.4	89302.1	2474.0	ug/L	2474.0	ppb	12:49:58
1	Sn 189.927†	3393.1	3369.0	493.36	ug/L	493.36	ppb	12:50:18
1	Ti 334.940†	345233.9	344445.3	495.93	ug/L	495.93	ppb	12:49:58
1	Tl 190.801†	1907.2	1940.5	498.37	ug/L	498.37	ppb	12:50:18
1	U 409.014†	14663.0	17295.4	478.45	ug/L	478.45	ppb	12:49:58
1	V 292.402†	78080.2	79037.8	502.90	ug/L	502.90	ppb	12:49:58
1	Zn 213.857†	63169.6	61951.4	495.43	ug/L	495.43	ppb	12:49:58
1	SiO2†	91572.7	90288.7	5371.6	ug/L	5371.6	ppb	12:51:19
2	Sc Radial	5430.7	5430.7	97.2	%			12:49:04
2	Y RADIAL	5642.4	5642.4	96.26	%			12:49:04
2	Al 396.153Radial†	6755.8	6964.2	4870.3	ug/L	4870.3	ppb	12:49:04
2	Ca 317.933Radial†	3591.1	3676.9	5133.3	ug/L	5133.3	ppb	12:49:04
2	Fe 238.204 Radial†	660.8	668.6	5306.5	ug/L	5306.5	ppb	12:49:24
2	K 766.490 Radial†	30115.7	28112.8	5038.6	ug/L	5038.6	ppb	12:49:04
2	Mg 279.077 IEC†	175.2	178.0	5376.9	ug/L	5376.9	ppb	12:49:24
2	Na 589.592 Radial†	35230.3	37507.5	10250	ug/L	10250	ppb	12:49:04
2	Sr 421.552†	86463.5	88954.3	507.46	ug/L	507.46	ppb	12:49:04
2	Sc 361.383	908219.6	908219.6	100.98	%			12:50:26
2	Y 371.029	734922.3	734922.3	98.926	%			12:50:26

2	Ag 328.068†	117110.1	115576.4	496.31 ug/L	496.31 ppb	12:50:26
2	As 188.979†	1372.6	1386.7	497.26 ug/L	497.26 ppb	12:50:46
2	B 249.677†	24821.7	24116.3	490.01 ug/L	490.01 ppb	12:50:26
2	Ba 233.527†	75122.2	74403.1	500.79 ug/L	500.79 ppb	12:50:26
2	Be 313.107†	1514187.4	1504116.3	500.17 ug/L	500.17 ppb	12:50:26
2	Cd 226.502†	52472.4	52190.0	501.18 ug/L	501.18 ppb	12:50:26
2	Co 228.616†	28724.6	28531.1	494.98 ug/L	494.98 ppb	12:50:46
2	Cr 267.716†	50540.1	49951.4	498.92 ug/L	498.92 ppb	12:50:26
2	Cu 324.752†	186124.2	178234.4	498.43 ug/L	498.43 ppb	12:50:26
2	Mn 257.610†	518759.8	513243.7	501.57 ug/L	501.57 ppb	12:50:26
2	Mo 202.031†	8441.1	8333.8	495.87 ug/L	495.87 ppb	12:50:46
2	Ni 231.604†	23381.0	23052.3	496.49 ug/L	496.49 ppb	12:50:46
2	P 214.914†	5166.1	4860.9	2396.5 ug/L	2396.5 ppb	12:50:46
2	Pb 220.353†	4858.4	4889.1	501.76 ug/L	501.76 ppb	12:50:46
2	S 181.975 Axial†	884.2	816.8	977.68 ug/L	977.68 ppb	12:50:46
2	Sb 206.836†	1721.4	1662.3	497.52 ug/L	497.52 ppb	12:50:46
2	Se 196.026†	911.8	931.7	516.16 ug/L	516.16 ppb	12:50:46
2	Si 251.611†	90783.1	89243.9	2472.5 ug/L	2472.5 ppb	12:50:26
2	Sn 189.927†	3391.1	3356.4	491.52 ug/L	491.52 ppb	12:50:46
2	Ti 334.940†	346415.8	344530.5	496.05 ug/L	496.05 ppb	12:50:26
2	Tl 190.801†	1914.6	1941.8	498.72 ug/L	498.72 ppb	12:50:46
2	U 409.014†	14653.1	17239.5	476.87 ug/L	476.87 ppb	12:50:26
2	V 292.402†	78282.7	78992.9	502.55 ug/L	502.55 ppb	12:50:26
2	Zn 213.857†	63370.0	61951.3	495.42 ug/L	495.42 ppb	12:50:26
2	SiO2†	90693.4	89130.0	5302.5 ug/L	5302.5 ppb	12:51:24
3	Sc Radial	5531.7	5531.7	99.0 %		12:49:29
3	Y RADIAL	5792.7	5792.7	98.83 %		12:49:29
3	Al 396.153Radial†	6987.6	7071.4	4945.8 ug/L	4945.8 ppb	12:49:29
3	Ca 317.933Radial†	3663.1	3682.2	5140.6 ug/L	5140.6 ppb	12:49:29
3	Fe 238.204 Radial†	658.8	654.2	5192.3 ug/L	5192.3 ppb	12:49:49
3	K 766.490 Radial†	30749.8	28187.8	5052.0 ug/L	5052.0 ppb	12:49:29
3	Mg 279.077 IEC†	173.2	172.7	5217.4 ug/L	5217.4 ppb	12:49:49
3	Na 589.592 Radial†	36163.3	37788.2	10327 ug/L	10327 ppb	12:49:29
3	Sr 421.552†	88928.4	89820.3	512.40 ug/L	512.40 ppb	12:49:29
3	Sc 361.383	914578.4	914578.4	101.69 %		12:50:53
3	Y 371.029	740794.0	740794.0	99.717 %		12:50:53
3	Ag 328.068†	118304.3	115944.5	497.83 ug/L	497.83 ppb	12:50:53
3	As 188.979†	1386.8	1391.3	498.87 ug/L	498.87 ppb	12:51:13
3	B 249.677†	25189.1	24306.6	493.92 ug/L	493.92 ppb	12:50:53
3	Ba 233.527†	75651.5	74406.5	500.81 ug/L	500.81 ppb	12:50:53
3	Be 313.107†	1529766.1	1509011.1	501.79 ug/L	501.79 ppb	12:50:53
3	Cd 226.502†	52728.1	52080.1	500.14 ug/L	500.14 ppb	12:50:53
3	Co 228.616†	28764.4	28372.4	492.22 ug/L	492.22 ppb	12:51:13
3	Cr 267.716†	50832.7	49891.1	498.31 ug/L	498.31 ppb	12:50:53
3	Cu 324.752†	188318.0	179110.3	500.87 ug/L	500.87 ppb	12:50:53
3	Mn 257.610†	522175.1	513030.5	501.36 ug/L	501.36 ppb	12:50:53
3	Mo 202.031†	8443.3	8277.8	492.53 ug/L	492.53 ppb	12:51:13
3	Ni 231.604†	23407.8	22917.6	493.59 ug/L	493.59 ppb	12:51:13
3	P 214.914†	5167.4	4826.6	2378.8 ug/L	2378.8 ppb	12:51:13
3	Pb 220.353†	4866.9	4864.1	499.21 ug/L	499.21 ppb	12:51:13
3	S 181.975 Axial†	887.0	813.5	973.67 ug/L	973.67 ppb	12:51:13
3	Sb 206.836†	1708.2	1637.5	490.13 ug/L	490.13 ppb	12:51:13
3	Se 196.026†	905.3	919.1	509.07 ug/L	509.07 ppb	12:51:13
3	Si 251.611†	91745.4	89565.2	2481.5 ug/L	2481.5 ppb	12:50:53
3	Sn 189.927†	3413.1	3354.8	491.28 ug/L	491.28 ppb	12:51:13
3	Ti 334.940†	349473.0	345151.8	496.94 ug/L	496.94 ppb	12:50:53
3	Tl 190.801†	1916.8	1930.9	495.95 ug/L	495.95 ppb	12:51:13
3	U 409.014†	15076.7	17555.2	485.64 ug/L	485.64 ppb	12:50:53
3	V 292.402†	78887.3	79048.5	502.89 ug/L	502.89 ppb	12:50:53
3	Zn 213.857†	63858.3	61995.2	495.80 ug/L	495.80 ppb	12:50:53
3	SiO2†	90926.9	88735.2	5279.0 ug/L	5279.0 ppb	12:51:29

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	909381.2	101.11	%	0.525				0.52%
Sc Radial	5517.7	98.8	%	1.45				1.47%
Y 371.029	736374.8	99.122	%	0.5251				0.53%
Y RADIAL	5733.2	97.81	%	1.362				1.39%
Ag 328.068†	115712.4	496.85	ug/L	0.856	496.85	ppb	0.856	0.17%

```
   QC value within limits for Ag 328.068  Recovery = 99.37%
Al 396.153Radial†       7016.1      4906.8 ug/L        37.80      4906.8 ppb        37.80   0.77%
   QC value within limits for Al 396.153Radial  Recovery = 98.14%
As 188.979†             1394.3      499.92 ug/L        3.312      499.92 ppb        3.312   0.66%
   QC value within limits for As 188.979  Recovery = 99.98%
B 249.677†             24150.7      490.73 ug/L        2.898      490.73 ppb        2.898   0.59%
   QC value within limits for B 249.677  Recovery = 98.15%
Ba 233.527†            74431.2      500.97 ug/L        0.305      500.97 ppb        0.305   0.06%
   QC value within limits for Ba 233.527  Recovery = 100.19%
Be 313.107†          1506365.5      500.91 ug/L        0.821      500.91 ppb        0.821   0.16%
   QC value within limits for Be 313.107  Recovery = 100.18%
Ca 317.933Radial†       3676.7      5133.0 ug/L         7.80      5133.0 ppb         7.80   0.15%
   QC value within limits for Ca 317.933Radial  Recovery = 102.66%
Cd 226.502†            52103.7      500.37 ug/L        0.730      500.37 ppb        0.730   0.15%
   QC value within limits for Cd 226.502  Recovery = 100.07%
Co 228.616†            28544.3      495.20 ug/L        3.109      495.20 ppb        3.109   0.63%
   QC value within limits for Co 228.616  Recovery = 99.04%
Cr 267.716†            49932.1      498.72 ug/L        0.355      498.72 ppb        0.355   0.07%
   QC value within limits for Cr 267.716  Recovery = 99.74%
Cu 324.752†           178583.7      499.40 ug/L        1.296      499.40 ppb        1.296   0.26%
   QC value within limits for Cu 324.752  Recovery = 99.88%
Fe 238.204 Radial†       654.0      5190.6 ug/L       116.73      5190.6 ppb       116.73   2.25%
   QC value within limits for Fe 238.204 Radial  Recovery = 103.81%
K 766.490 Radial†      28184.7      5051.5 ug/L        12.60      5051.5 ppb        12.60   0.25%
   QC value within limits for K 766.490 Radial  Recovery = 101.03%
Mg 279.077 IEC†          173.5      5242.4 ug/L       123.91      5242.4 ppb       123.91   2.36%
   QC value within limits for Mg 279.077 IEC  Recovery = 104.85%
Mn 257.610†           513170.8      501.49 ug/L        0.119      501.49 ppb        0.119   0.02%
   QC value within limits for Mn 257.610  Recovery = 100.30%
Mo 202.031†             8327.8      495.50 ug/L        2.809      495.50 ppb        2.809   0.57%
   QC value within limits for Mo 202.031  Recovery = 99.10%
Na 589.592 Radial†     37773.2       10323 ug/L         70.7       10323 ppb         70.7   0.68%
   QC value within limits for Na 589.592 Radial  Recovery = 103.23%
Ni 231.604†            23039.4      496.21 ug/L        2.494      496.21 ppb        2.494   0.50%
   QC value within limits for Ni 231.604  Recovery = 99.24%
P 214.914†              4862.7      2397.4 ug/L        19.02      2397.4 ppb        19.02   0.79%
   QC value within limits for P 214.914  Recovery = 95.89%
Pb 220.353†             4879.5      500.79 ug/L        1.378      500.79 ppb        1.378   0.28%
   QC value within limits for Pb 220.353  Recovery = 100.16%
S 181.975 Axial†         818.2      979.30 ug/L        6.591      979.30 ppb        6.591   0.67%
   QC value within limits for S 181.975 Axial  Recovery = 97.93%
Sb 206.836†             1657.1      495.99 ug/L        5.266      495.99 ppb        5.266   1.06%
   QC value within limits for Sb 206.836  Recovery = 99.20%
Se 196.026†              929.0      514.33 ug/L        4.626      514.33 ppb        4.626   0.90%
   QC value within limits for Se 196.026  Recovery = 102.87%
Si 251.611†            89370.4      2476.0 ug/L         4.81      2476.0 ppb         4.81   0.19%
   QC value within limits for Si 251.611  Recovery = 99.04%
Sn 189.927†             3360.1      492.05 ug/L        1.140      492.05 ppb        1.140   0.23%
   QC value within limits for Sn 189.927  Recovery = 98.41%
Sr 421.552†            89580.6      511.03 ug/L        3.123      511.03 ppb        3.123   0.61%
   QC value within limits for Sr 421.552  Recovery = 102.21%
Ti 334.940†           344709.2      496.31 ug/L        0.554      496.31 ppb        0.554   0.11%
   QC value within limits for Ti 334.940  Recovery = 99.26%
Tl 190.801†             1937.7      497.68 ug/L        1.508      497.68 ppb        1.508   0.30%
   QC value within limits for Tl 190.801  Recovery = 99.54%
U 409.014†             17363.4      480.32 ug/L        4.679      480.32 ppb        4.679   0.97%
   QC value within limits for U 409.014  Recovery = 96.06%
V 292.402†             79026.4      502.78 ug/L        0.196      502.78 ppb        0.196   0.04%
   QC value within limits for V 292.402  Recovery = 100.56%
Zn 213.857†            61966.0      495.55 ug/L        0.218      495.55 ppb        0.218   0.04%
   QC value within limits for Zn 213.857  Recovery = 99.11%
SiO2†                  89384.6      5317.7 ug/L        48.16      5317.7 ppb        48.16   0.91%
   QC value within limits for SiO2  Recovery = 99.44%
All analyte(s) passed QC.
```

Sequence No.: 2
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 12/20/2009 12:53:39
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	5703.3	5703.3	102	%			12:55:31
1	Y RADIAL	5979.4	5979.4	102.0	%			12:55:31
1	Al 396.153Radial†	-22.3	-8.5	-6.0120	ug/L	-6.0120	ppb	12:55:31
1	Ca 317.933Radial†	22.6	4.2	5.9041	ug/L	5.9041	ppb	12:55:51
1	Fe 238.204 Radial†	12.1	0.7	5.2946	ug/L	5.2946	ppb	12:55:51
1	K 766.490 Radial†	2952.1	19.8	3.5490	ug/L	3.5490	ppb	12:55:31
1	Mg 279.077 IEC†	2.5	0.2	6.4782	ug/L	6.4782	ppb	12:55:51
1	Na 589.592 Radial†	-1221.6	63.2	17.280	ug/L	17.280	ppb	12:55:31
1	Sr 421.552†	34.5	28.2	0.1607	ug/L	0.1607	ppb	12:55:31
1	Sc 361.383	904309.2	904309.2	100.54	%			12:56:48
1	Y 371.029	747082.2	747082.2	100.56	%			12:56:48
1	Ag 328.068†	388.8	-12.7	-0.0526	ug/L	-0.0526	ppb	12:56:48
1	As 188.979†	-32.1	-4.5	-1.5839	ug/L	-1.5839	ppb	12:57:08
1	B 249.677†	47.9	-417.3	-8.5149	ug/L	-8.5149	ppb	12:56:48
1	Ba 233.527†	4.8	13.4	0.0901	ug/L	0.0901	ppb	12:57:08
1	Be 313.107†	-4509.1	110.3	0.0368	ug/L	0.0368	ppb	12:56:48
1	Cd 226.502†	-219.2	7.7	0.0738	ug/L	0.0738	ppb	12:57:08
1	Co 228.616†	-73.7	11.4	0.1991	ug/L	0.1991	ppb	12:57:08
1	Cr 267.716†	100.0	0.3	0.0033	ug/L	0.0033	ppb	12:57:08
1	Cu 324.752†	6137.0	16.8	0.0472	ug/L	0.0472	ppb	12:56:48
1	Mn 257.610†	526.4	32.0	0.0317	ug/L	0.0317	ppb	12:57:08
1	Mo 202.031†	30.9	5.2	0.3081	ug/L	0.3081	ppb	12:57:08
1	Ni 231.604†	109.6	6.8	0.1457	ug/L	0.1457	ppb	12:57:08
1	P 214.914†	251.7	-4.9	-2.4806	ug/L	-2.4806	ppb	12:57:08
1	Pb 220.353†	-76.6	1.7	0.1692	ug/L	0.1692	ppb	12:57:08
1	S 181.975 Axial†	50.7	-8.4	-10.034	ug/L	-10.034	ppb	12:57:08
1	Sb 206.836†	39.8	-2.8	-0.8031	ug/L	-0.8031	ppb	12:57:08
1	Se 196.026†	-30.8	-1.8	-0.9429	ug/L	-0.9429	ppb	12:57:08
1	Si 251.611†	693.0	29.4	0.8113	ug/L	0.8113	ppb	12:57:08
1	Sn 189.927†	5.4	3.6	0.5262	ug/L	0.5262	ppb	12:57:08
1	Ti 334.940†	-1412.6	65.1	0.0940	ug/L	0.0940	ppb	12:56:48
1	Tl 190.801†	-38.9	7.1	1.8043	ug/L	1.8043	ppb	12:57:08
1	U 409.014†	-2736.3	6.8	0.1894	ug/L	0.1894	ppb	12:56:48
1	V 292.402†	-1471.2	5.2	0.0367	ug/L	0.0367	ppb	12:56:48
1	Zn 213.857†	817.9	8.6	0.0680	ug/L	0.0680	ppb	12:57:08
1	SiO2†	680.2	-8.4	-0.5228	ug/L	-0.5228	ppb	12:58:04
2	Sc Radial	5604.5	5604.5	100	%			12:55:56
2	Y RADIAL	5859.0	5859.0	99.96	%			12:55:56
2	Al 396.153Radial†	-15.9	-2.5	-1.7810	ug/L	-1.7810	ppb	12:55:56
2	Ca 317.933Radial†	19.9	2.0	2.7722	ug/L	2.7722	ppb	12:56:16
2	Fe 238.204 Radial†	11.2	-0.0	-0.2966	ug/L	-0.2966	ppb	12:56:16
2	K 766.490 Radial†	2864.3	-16.7	-2.9887	ug/L	-2.9887	ppb	12:55:56
2	Mg 279.077 IEC†	0.2	-2.1	-62.884	ug/L	-62.884	ppb	12:56:16
2	Na 589.592 Radial†	-1345.2	-81.1	-22.173	ug/L	-22.173	ppb	12:55:56
2	Sr 421.552†	-4.1	-9.7	-0.0553	ug/L	-0.0553	ppb	12:55:56
2	Sc 361.383	891344.2	891344.2	99.102	%			12:57:14
2	Y 371.029	734216.5	734216.5	98.831	%			12:57:14
2	Ag 328.068†	477.6	82.5	0.3527	ug/L	0.3527	ppb	12:57:14
2	As 188.979†	-28.4	-1.2	-0.4349	ug/L	-0.4349	ppb	12:57:34
2	B 249.677†	25.2	-439.6	-8.9677	ug/L	-8.9677	ppb	12:57:14
2	Ba 233.527†	-3.4	5.2	0.0337	ug/L	0.0337	ppb	12:57:34
2	Be 313.107†	-4530.0	24.0	0.0079	ug/L	0.0079	ppb	12:57:14
2	Cd 226.502†	-206.4	17.5	0.1680	ug/L	0.1680	ppb	12:57:34
2	Co 228.616†	-82.2	1.8	0.0314	ug/L	0.0314	ppb	12:57:34
2	Cr 267.716†	110.7	12.5	0.1246	ug/L	0.1246	ppb	12:57:34
2	Cu 324.752†	5993.7	-39.0	-0.1090	ug/L	-0.1090	ppb	12:57:14
2	Mn 257.610†	527.8	41.0	0.0412	ug/L	0.0412	ppb	12:57:34
2	Mo 202.031†	29.5	4.2	0.2470	ug/L	0.2470	ppb	12:57:34
2	Ni 231.604†	116.7	15.5	0.3331	ug/L	0.3331	ppb	12:57:34

2	P 214.914†	258.2	5.3	2.7550 ug/L	2.7550 ppb	12:57:34
2	Pb 220.353†	-90.3	-13.3	-1.3560 ug/L	-1.3560 ppb	12:57:34
2	S 181.975 Axial†	54.2	-4.1	-4.8830 ug/L	-4.8830 ppb	12:57:34
2	Sb 206.836†	50.3	8.3	2.4846 ug/L	2.4846 ppb	12:57:34
2	Se 196.026†	-35.6	-7.2	-3.8183 ug/L	-3.8183 ppb	12:57:34
2	Si 251.611†	684.3	30.6	0.8437 ug/L	0.8437 ppb	12:57:34
2	Sn 189.927†	13.7	12.0	1.7562 ug/L	1.7562 ppb	12:57:34
2	Ti 334.940†	-1486.6	-30.0	-0.0416 ug/L	-0.0416 ppb	12:57:14
2	Tl 190.801†	-44.3	1.0	0.2663 ug/L	0.2663 ppb	12:57:34
2	U 409.014†	-2828.1	-125.4	-3.4804 ug/L	-3.4804 ppb	12:57:14
2	V 292.402†	-1542.9	-88.4	-0.5598 ug/L	-0.5598 ppb	12:57:14
2	Zn 213.857†	840.3	43.1	0.3480 ug/L	0.3480 ppb	12:57:34
2	SiO2†	701.8	23.2	1.3701 ug/L	1.3701 ppb	12:58:09
3	Sc Radial	5613.4	5613.4	100 %		12:56:21
3	Y RADIAL	5913.5	5913.5	100.9 %		12:56:21
3	Al 396.153Radial†	-11.3	2.0	1.4286 ug/L	1.4286 ppb	12:56:21
3	Ca 317.933Radial†	23.0	5.0	6.9552 ug/L	6.9552 ppb	12:56:41
3	Fe 238.204 Radial†	12.0	0.7	5.8567 ug/L	5.8567 ppb	12:56:41
3	K 766.490 Radial†	2878.7	-6.9	-1.2304 ug/L	-1.2304 ppb	12:56:21
3	Mg 279.077 IEC†	1.2	-1.0	-31.212 ug/L	-31.212 ppb	12:56:41
3	Na 589.592 Radial†	-1312.7	-46.6	-12.738 ug/L	-12.738 ppb	12:56:21
3	Sr 421.552†	7.9	2.2	0.0125 ug/L	0.0125 ppb	12:56:21
3	Sc 361.383	902918.5	902918.5	100.39 %		12:57:39
3	Y 371.029	745524.7	745524.7	100.35 %		12:57:39
3	Ag 328.068†	362.5	-38.3	-0.1633 ug/L	-0.1633 ppb	12:57:39
3	As 188.979†	-14.6	12.9	4.6003 ug/L	4.6003 ppb	12:57:59
3	B 249.677†	62.2	-403.1	-8.2239 ug/L	-8.2239 ppb	12:57:39
3	Ba 233.527†	14.2	22.7	0.1516 ug/L	0.1516 ppb	12:57:59
3	Be 313.107†	-4547.9	64.8	0.0216 ug/L	0.0216 ppb	12:57:39
3	Cd 226.502†	-233.6	-7.0	-0.0671 ug/L	-0.0671 ppb	12:57:59
3	Co 228.616†	-78.7	6.4	0.1096 ug/L	0.1096 ppb	12:57:59
3	Cr 267.716†	113.4	13.7	0.1363 ug/L	0.1363 ppb	12:57:59
3	Cu 324.752†	6088.8	-21.8	-0.0605 ug/L	-0.0605 ppb	12:57:39
3	Mn 257.610†	534.4	40.8	0.0410 ug/L	0.0410 ppb	12:57:59
3	Mo 202.031†	20.4	-5.3	-0.3139 ug/L	-0.3139 ppb	12:57:59
3	Ni 231.604†	121.5	18.8	0.4048 ug/L	0.4048 ppb	12:57:59
3	P 214.914†	241.2	-14.9	-7.5531 ug/L	-7.5531 ppb	12:57:59
3	Pb 220.353†	-75.8	2.3	0.2368 ug/L	0.2368 ppb	12:57:59
3	S 181.975 Axial†	52.9	-6.0	-7.2205 ug/L	-7.2205 ppb	12:57:59
3	Sb 206.836†	26.6	-15.9	-4.7069 ug/L	-4.7069 ppb	12:57:59
3	Se 196.026†	-29.3	-0.4	-0.1804 ug/L	-0.1804 ppb	12:57:59
3	Si 251.611†	693.8	31.3	0.8759 ug/L	0.8759 ppb	12:57:59
3	Sn 189.927†	2.3	0.5	0.0718 ug/L	0.0718 ppb	12:57:59
3	Ti 334.940†	-1431.8	43.8	0.0636 ug/L	0.0636 ppb	12:57:39
3	Tl 190.801†	-39.7	6.3	1.5968 ug/L	1.5968 ppb	12:57:59
3	U 409.014†	-2760.6	-21.6	-0.6005 ug/L	-0.6005 ppb	12:57:39
3	V 292.402†	-1564.7	-90.2	-0.5740 ug/L	-0.5740 ppb	12:57:39
3	Zn 213.857†	836.7	28.6	0.2289 ug/L	0.2289 ppb	12:57:59
3	SiO2†	693.5	5.8	0.3610 ug/L	0.3610 ppb	12:58:14

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	899524.0	100.01	%	0.791				0.79%
Sc Radial	5640.4	101	%	1.0				0.97%
Y 371.029	742274.5	99.916	%	0.9452				0.95%
Y RADIAL	5917.3	101.0	%	1.03				1.02%
Ag 328.068†	10.5	0.0456	ug/L	0.27165	0.0456	ppb	0.27165	595.97%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-3.0	-2.1215	ug/L	3.73194	-2.1215	ppb	3.73194	175.91%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	2.4	0.8605	ug/L	3.28929	0.8605	ppb	3.28929	382.25%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-420.0	-8.5688	ug/L	0.37483	-8.5688	ppb	0.37483	4.37%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	13.8	0.0918	ug/L	0.05894	0.0918	ppb	0.05894	64.21%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	66.4	0.0221	ug/L	0.01446	0.0221	ppb	0.01446	65.39%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	3.7	5.2105	ug/L	2.17608	5.2105	ppb	2.17608	41.76%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                6.1      0.0582 ug/L       0.11831      0.0582 ppb        0.11831 203.22%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                6.5      0.1134 ug/L       0.08393      0.1134 ppb        0.08393  74.04%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                8.8      0.0881 ug/L       0.07361      0.0881 ppb        0.07361  83.59%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -14.7     -0.0408 ug/L       0.07995     -0.0408 ppb        0.07995 196.11%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         0.5      3.6182 ug/L       3.40199      3.6182 ppb        3.40199  94.02%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         -1.3     -0.2234 ug/L       3.38321     -0.2234 ppb        3.38321 >999.9%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           -1.0    -29.206 ug/L       34.7245     -29.206 ppb        34.7245 118.90%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               37.9      0.0379 ug/L       0.00546      0.0379 ppb        0.00546  14.38%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                1.3      0.0804 ug/L       0.34287      0.0804 ppb        0.34287 426.47%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       -21.5     -5.8771 ug/L      20.60187     -5.8771 ppb       20.60187 350.54%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               13.7      0.2945 ug/L       0.13379      0.2945 ppb        0.13379  45.42%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -4.8     -2.4262 ug/L       5.15429     -2.4262 ppb        5.15429 212.44%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               -3.1     -0.3166 ug/L       0.90070     -0.3166 ppb        0.90070 284.45%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          -6.2     -7.3790 ug/L       2.57898     -7.3790 ppb        2.57898  34.95%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               -3.5     -1.0085 ug/L       3.60015     -1.0085 ppb        3.60015 356.98%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               -3.1     -1.6472 ug/L       1.91847     -1.6472 ppb        1.91847 116.47%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†               30.4      0.8436 ug/L       0.03233      0.8436 ppb        0.03233   3.83%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                5.4      0.7848 ug/L       0.87148      0.7848 ppb        0.87148 111.05%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                6.9      0.0393 ug/L       0.11045      0.0393 ppb        0.11045 280.91%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               26.3      0.0387 ug/L       0.07116      0.0387 ppb        0.07116 183.99%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                4.8      1.2224 ug/L       0.83452      1.2224 ppb        0.83452  68.27%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -46.7     -1.2972 ug/L       1.93153     -1.2972 ppb        1.93153 148.90%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               -57.8     -0.3657 ug/L       0.34857     -0.3657 ppb        0.34857  95.33%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               26.8      0.2150 ug/L       0.14050      0.2150 ppb        0.14050  65.36%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                      6.9      0.4028 ug/L       0.94712      0.4028 ppb        0.94712 235.15%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 9
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 12/20/2009 13:41:47
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	5506.5	5506.5	98.5	%			13:43:39
1	Y RADIAL	5690.3	5690.3	97.08	%			13:43:39
1	Al 396.153Radial†	6819.9	6933.6	4848.8	ug/L	4848.8	ppb	13:43:39
1	Ca 317.933Radial†	3525.0	3559.0	4968.7	ug/L	4968.7	ppb	13:43:59
1	Fe 238.204 Radial†	640.8	639.0	5072.2	ug/L	5072.2	ppb	13:43:59
1	K 766.490 Radial†	30183.9	27755.7	4974.7	ug/L	4974.7	ppb	13:43:39
1	Mg 279.077 IEC†	171.0	171.3	5174.7	ug/L	5174.7	ppb	13:43:59
1	Na 589.592 Radial†	33787.5	35544.7	9713.8	ug/L	9713.8	ppb	13:43:39
1	Sr 421.552†	85126.2	86373.2	492.73	ug/L	492.73	ppb	13:43:39
1	Sc 361.383	908034.3	908034.3	100.96	%			13:44:58
1	Y 371.029	735343.2	735343.2	98.983	%			13:44:58
1	Ag 328.068†	117696.4	116180.9	498.81	ug/L	498.81	ppb	13:44:58
1	As 188.979†	1383.2	1397.6	501.09	ug/L	501.09	ppb	13:45:18
1	B 249.677†	24822.7	24122.2	490.17	ug/L	490.17	ppb	13:44:58
1	Ba 233.527†	75219.6	74514.8	501.53	ug/L	501.53	ppb	13:44:58
1	Be 313.107†	1519054.6	1509243.3	501.87	ug/L	501.87	ppb	13:44:58
1	Cd 226.502†	52463.3	52191.5	501.22	ug/L	501.22	ppb	13:44:58
1	Co 228.616†	28734.7	28546.9	495.25	ug/L	495.25	ppb	13:45:18
1	Cr 267.716†	50516.4	49938.1	498.78	ug/L	498.78	ppb	13:44:58
1	Cu 324.752†	187420.1	179555.6	502.11	ug/L	502.11	ppb	13:44:58
1	Mn 257.610†	519526.4	514107.8	502.40	ug/L	502.40	ppb	13:44:58
1	Mo 202.031†	8442.9	8337.2	496.05	ug/L	496.05	ppb	13:45:18
1	Ni 231.604†	23355.6	23031.9	496.05	ug/L	496.05	ppb	13:45:18
1	P 214.914†	5177.8	4873.5	2402.6	ug/L	2402.6	ppb	13:45:18
1	Pb 220.353†	4830.5	4862.5	499.04	ug/L	499.04	ppb	13:45:18
1	S 181.975 Axial†	882.3	815.2	975.75	ug/L	975.75	ppb	13:45:18
1	Sb 206.836†	1716.6	1657.9	496.27	ug/L	496.27	ppb	13:45:18
1	Se 196.026†	909.1	929.3	514.10	ug/L	514.10	ppb	13:45:18
1	Si 251.611†	91199.0	89674.2	2484.4	ug/L	2484.4	ppb	13:44:58
1	Sn 189.927†	3407.9	3373.8	494.04	ug/L	494.04	ppb	13:45:18
1	Ti 334.940†	347236.9	345413.8	497.31	ug/L	497.31	ppb	13:44:58
1	Tl 190.801†	1907.8	1935.5	497.12	ug/L	497.12	ppb	13:45:18
1	U 409.014†	14823.2	17411.0	481.65	ug/L	481.65	ppb	13:44:58
1	V 292.402†	78438.4	79162.9	503.66	ug/L	503.66	ppb	13:44:58
1	Zn 213.857†	63489.4	62082.4	496.49	ug/L	496.49	ppb	13:44:58
1	SiO2†	91570.1	90016.7	5355.5	ug/L	5355.5	ppb	13:46:18
2	Sc Radial	5571.7	5571.7	99.7	%			13:44:04
2	Y RADIAL	5760.8	5760.8	98.28	%			13:44:04
2	Al 396.153Radial†	6913.3	6946.2	4857.7	ug/L	4857.7	ppb	13:44:04
2	Ca 317.933Radial†	3539.7	3531.8	4930.7	ug/L	4930.7	ppb	13:44:24
2	Fe 238.204 Radial†	647.0	637.6	5061.0	ug/L	5061.0	ppb	13:44:24
2	K 766.490 Radial†	30582.1	27796.4	4982.0	ug/L	4982.0	ppb	13:44:04
2	Mg 279.077 IEC†	172.5	170.7	5158.3	ug/L	5158.3	ppb	13:44:24
2	Na 589.592 Radial†	34220.0	35577.0	9722.6	ug/L	9722.6	ppb	13:44:04
2	Sr 421.552†	86333.9	86573.0	493.87	ug/L	493.87	ppb	13:44:04
2	Sc 361.383	902137.2	902137.2	100.30	%			13:45:25
2	Y 371.029	731754.9	731754.9	98.500	%			13:45:25
2	Ag 328.068†	117035.5	116284.0	499.24	ug/L	499.24	ppb	13:45:25
2	As 188.979†	1378.1	1401.4	502.46	ug/L	502.46	ppb	13:45:45
2	B 249.677†	24616.3	24077.2	489.25	ug/L	489.25	ppb	13:45:25
2	Ba 233.527†	74488.7	74273.2	499.91	ug/L	499.91	ppb	13:45:25
2	Be 313.107†	1507272.5	1507332.3	501.23	ug/L	501.23	ppb	13:45:25
2	Cd 226.502†	51943.4	52012.8	499.51	ug/L	499.51	ppb	13:45:25
2	Co 228.616†	28566.0	28564.7	495.56	ug/L	495.56	ppb	13:45:45
2	Cr 267.716†	50076.8	49826.9	497.67	ug/L	497.67	ppb	13:45:25
2	Cu 324.752†	186140.4	179493.3	501.94	ug/L	501.94	ppb	13:45:25
2	Mn 257.610†	514182.1	512143.4	500.48	ug/L	500.48	ppb	13:45:25
2	Mo 202.031†	8367.6	8316.9	494.84	ug/L	494.84	ppb	13:45:45
2	Ni 231.604†	23209.1	23037.0	496.16	ug/L	496.16	ppb	13:45:45

2	P 214.914†	5134.1	4863.5	2397.5 ug/L	2397.5 ppb	13:45:45
2	Pb 220.353†	4793.3	4856.7	498.45 ug/L	498.45 ppb	13:45:45
2	S 181.975 Axial†	878.7	817.3	978.26 ug/L	978.26 ppb	13:45:45
2	Sb 206.836†	1705.4	1657.8	496.23 ug/L	496.23 ppb	13:45:45
2	Se 196.026†	910.4	936.4	517.87 ug/L	517.87 ppb	13:45:45
2	Si 251.611†	90313.1	89381.5	2476.3 ug/L	2476.3 ppb	13:45:25
2	Sn 189.927†	3380.8	3368.8	493.31 ug/L	493.31 ppb	13:45:45
2	Ti 334.940†	344621.7	345054.8	496.80 ug/L	496.80 ppb	13:45:25
2	Tl 190.801†	1911.3	1951.3	501.14 ug/L	501.14 ppb	13:45:45
2	U 409.014†	14778.4	17462.3	483.08 ug/L	483.08 ppb	13:45:25
2	V 292.402†	77880.6	79114.7	503.35 ug/L	503.35 ppb	13:45:25
2	Zn 213.857†	62859.8	61865.8	494.75 ug/L	494.75 ppb	13:45:25
2	SiO2†	91403.6	90443.6	5381.1 ug/L	5381.1 ppb	13:46:23
3	Sc Radial	5460.8	5460.8	97.7 %		13:44:29
3	Y RADIAL	5685.4	5685.4	97.00 %		13:44:29
3	Al 396.153Radial†	6843.9	7016.0	4906.9 ug/L	4906.9 ppb	13:44:29
3	Ca 317.933Radial†	3513.7	3577.4	4994.3 ug/L	4994.3 ppb	13:44:49
3	Fe 238.204 Radial†	645.6	649.4	5153.9 ug/L	5153.9 ppb	13:44:49
3	K 766.490 Radial†	30146.0	27973.1	5013.7 ug/L	5013.7 ppb	13:44:29
3	Mg 279.077 IEC†	170.7	172.4	5207.5 ug/L	5207.5 ppb	13:44:49
3	Na 589.592 Radial†	33759.7	35803.0	9784.4 ug/L	9784.4 ppb	13:44:29
3	Sr 421.552†	84808.4	86770.6	495.00 ug/L	495.00 ppb	13:44:29
3	Sc 361.383	907046.4	907046.4	100.85 %		13:45:53
3	Y 371.029	734918.7	734918.7	98.926 %		13:45:53
3	Ag 328.068†	117704.9	116316.2	499.41 ug/L	499.41 ppb	13:45:53
3	As 188.979†	1362.2	1378.2	494.25 ug/L	494.25 ppb	13:46:13
3	B 249.677†	24820.8	24147.2	490.67 ug/L	490.67 ppb	13:45:53
3	Ba 233.527†	75236.9	74613.2	502.19 ug/L	502.19 ppb	13:45:53
3	Be 313.107†	1519580.1	1511403.2	502.59 ug/L	502.59 ppb	13:45:53
3	Cd 226.502†	52403.6	52188.9	501.19 ug/L	501.19 ppb	13:45:53
3	Co 228.616†	28519.6	28364.6	492.08 ug/L	492.08 ppb	13:46:13
3	Cr 267.716†	50400.9	49878.1	498.19 ug/L	498.19 ppb	13:45:53
3	Cu 324.752†	187485.3	179822.4	502.86 ug/L	502.86 ppb	13:45:53
3	Mn 257.610†	518895.5	514042.6	502.34 ug/L	502.34 ppb	13:45:53
3	Mo 202.031†	8352.9	8257.1	491.30 ug/L	491.30 ppb	13:46:13
3	Ni 231.604†	23139.9	22843.1	491.99 ug/L	491.99 ppb	13:46:13
3	P 214.914†	5123.5	4825.3	2377.8 ug/L	2377.8 ppb	13:46:13
3	Pb 220.353†	4799.6	4837.1	496.44 ug/L	496.44 ppb	13:46:13
3	S 181.975 Axial†	875.0	808.9	968.16 ug/L	968.16 ppb	13:46:13
3	Sb 206.836†	1709.0	1652.3	494.41 ug/L	494.41 ppb	13:46:13
3	Se 196.026†	900.0	921.2	510.06 ug/L	510.06 ppb	13:46:13
3	Si 251.611†	91165.9	89739.8	2486.4 ug/L	2486.4 ppb	13:45:53
3	Sn 189.927†	3364.3	3334.2	488.25 ug/L	488.25 ppb	13:46:13
3	Ti 334.940†	347563.3	346112.1	498.32 ug/L	498.32 ppb	13:45:53
3	Tl 190.801†	1918.8	1948.4	500.45 ug/L	500.45 ppb	13:46:13
3	U 409.014†	14757.5	17361.8	480.28 ug/L	480.28 ppb	13:45:53
3	V 292.402†	78322.2	79132.4	503.39 ug/L	503.39 ppb	13:45:53
3	Zn 213.857†	63505.5	62166.9	497.20 ug/L	497.20 ppb	13:45:53
3	SiO2†	91108.8	89658.1	5334.3 ug/L	5334.3 ppb	13:46:28

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	905739.3	100.70	%	0.351				0.35%
Sc Radial	5513.0	98.7	%	1.00				1.01%
Y 371.029	734005.6	98.803	%	0.2639				0.27%
Y RADIAL	5712.2	97.45	%	0.720				0.74%
Ag 328.068†	116260.4	499.16	ug/L	0.312	499.16	ppb	0.312	0.06%
QC value within limits for Ag 328.068 Recovery = 99.83%								
Al 396.153Radial†	6965.2	4871.1	ug/L	31.30	4871.1	ppb	31.30	0.64%
QC value within limits for Al 396.153Radial Recovery = 97.42%								
As 188.979†	1392.4	499.27	ug/L	4.399	499.27	ppb	4.399	0.88%
QC value within limits for As 188.979 Recovery = 99.85%								
B 249.677†	24115.5	490.03	ug/L	0.722	490.03	ppb	0.722	0.15%
QC value within limits for B 249.677 Recovery = 98.01%								
Ba 233.527†	74467.1	501.21	ug/L	1.176	501.21	ppb	1.176	0.23%
QC value within limits for Ba 233.527 Recovery = 100.24%								
Be 313.107†	1509326.3	501.90	ug/L	0.677	501.90	ppb	0.677	0.13%
QC value within limits for Be 313.107 Recovery = 100.38%								
Ca 317.933Radial†	3556.1	4964.6	ug/L	32.01	4964.6	ppb	32.01	0.64%

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   QC value within limits for Ca 317.933Radial  Recovery = 99.29%
Cd 226.502†            52131.1      500.64 ug/L        0.980      500.64 ppb          0.980   0.20%
   QC value within limits for Cd 226.502  Recovery = 100.13%
Co 228.616†            28492.1      494.30 ug/L        1.928      494.30 ppb          1.928   0.39%
   QC value within limits for Co 228.616  Recovery = 98.86%
Cr 267.716†            49881.0      498.21 ug/L        0.556      498.21 ppb          0.556   0.11%
   QC value within limits for Cr 267.716  Recovery = 99.64%
Cu 324.752†           179623.8      502.30 ug/L        0.491      502.30 ppb          0.491   0.10%
   QC value within limits for Cu 324.752  Recovery = 100.46%
Fe 238.204 Radial†       642.0      5095.7 ug/L        50.70      5095.7 ppb          50.70   0.99%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.91%
K 766.490 Radial†      27841.8      4990.2 ug/L        20.72      4990.2 ppb          20.72   0.42%
   QC value within limits for K 766.490 Radial  Recovery = 99.80%
Mg 279.077 IEC†          171.4      5180.2 ug/L        25.03      5180.2 ppb          25.03   0.48%
   QC value within limits for Mg 279.077 IEC  Recovery = 103.60%
Mn 257.610†           513431.3      501.74 ug/L        1.092      501.74 ppb          1.092   0.22%
   QC value within limits for Mn 257.610  Recovery = 100.35%
Mo 202.031†             8303.8      494.06 ug/L        2.470      494.06 ppb          2.470   0.50%
   QC value within limits for Mo 202.031  Recovery = 98.81%
Na 589.592 Radial†     35641.6      9740.3 ug/L        38.47      9740.3 ppb          38.47   0.39%
   QC value within limits for Na 589.592 Radial  Recovery = 97.40%
Ni 231.604†            22970.7      494.73 ug/L        2.380      494.73 ppb          2.380   0.48%
   QC value within limits for Ni 231.604  Recovery = 98.95%
P 214.914†              4854.1      2392.6 ug/L        13.09      2392.6 ppb          13.09   0.55%
   QC value within limits for P 214.914  Recovery = 95.70%
Pb 220.353†             4852.1      497.98 ug/L        1.365      497.98 ppb          1.365   0.27%
   QC value within limits for Pb 220.353  Recovery = 99.60%
S 181.975 Axial†         813.8      974.05 ug/L        5.259      974.05 ppb          5.259   0.54%
   QC value within limits for S 181.975 Axial  Recovery = 97.41%
Sb 206.836†             1656.0      495.64 ug/L        1.063      495.64 ppb          1.063   0.21%
   QC value within limits for Sb 206.836  Recovery = 99.13%
Se 196.026†              929.0      514.01 ug/L        3.906      514.01 ppb          3.906   0.76%
   QC value within limits for Se 196.026  Recovery = 102.80%
Si 251.611†            89598.5      2482.4 ug/L         5.33      2482.4 ppb           5.33   0.21%
   QC value within limits for Si 251.611  Recovery = 99.30%
Sn 189.927†             3358.9      491.87 ug/L        3.153      491.87 ppb          3.153   0.64%
   QC value within limits for Sn 189.927  Recovery = 98.37%
Sr 421.552†            86572.3      493.87 ug/L        1.133      493.87 ppb          1.133   0.23%
   QC value within limits for Sr 421.552  Recovery = 98.77%
Ti 334.940†           345526.9      497.48 ug/L        0.776      497.48 ppb          0.776   0.16%
   QC value within limits for Ti 334.940  Recovery = 99.50%
Tl 190.801†             1945.1      499.57 ug/L        2.146      499.57 ppb          2.146   0.43%
   QC value within limits for Tl 190.801  Recovery = 99.91%
U 409.014†             17411.7      481.67 ug/L        1.401      481.67 ppb          1.401   0.29%
   QC value within limits for U 409.014  Recovery = 96.33%
V 292.402†             79136.7      503.47 ug/L        0.171      503.47 ppb          0.171   0.03%
   QC value within limits for V 292.402  Recovery = 100.69%
Zn 213.857†            62038.4      496.15 ug/L        1.261      496.15 ppb          1.261   0.25%
   QC value within limits for Zn 213.857  Recovery = 99.23%
SiO2†                  90039.5      5356.9 ug/L        23.44      5356.9 ppb          23.44   0.44%
   QC value within limits for SiO2  Recovery = 100.18%
All analyte(s) passed QC.
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Sequence No.: 10
Sample ID: PQL
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 11
Date Collected: 12/20/2009 13:48:39
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: PQL

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	5790.3	5790.3	104	%			13:50:32
1	Y RADIAL	6089.0	6089.0	103.9	%			13:50:32
1	Al 396.153Radial†	234.2	239.3	167.64	ug/L	167.64	ppb	13:50:32
1	Ca 317.933Radial†	168.9	145.1	202.56	ug/L	202.56	ppb	13:50:52
1	Fe 238.204 Radial†	22.5	10.5	83.402	ug/L	83.402	ppb	13:50:52
1	K 766.490 Radial†	3802.0	796.5	142.77	ug/L	142.77	ppb	13:50:32
1	Mg 279.077 IEC†	11.0	8.3	251.20	ug/L	251.20	ppb	13:50:52
1	Na 589.592 Radial†	-183.4	1083.0	295.96	ug/L	295.96	ppb	13:50:32
1	Sr 421.552†	872.7	836.6	4.7709	ug/L	4.7709	ppb	13:50:32
1	Sc 361.383	891773.0	891773.0	99.149	%			13:51:49
1	Y 371.029	735652.0	735652.0	99.024	%			13:51:49
1	Ag 328.068†	1548.3	1162.2	4.9595	ug/L	4.9595	ppb	13:51:49
1	As 188.979†	50.0	77.9	27.709	ug/L	27.709	ppb	13:52:09
1	B 249.677†	2438.7	1994.5	40.664	ug/L	40.664	ppb	13:51:49
1	Ba 233.527†	740.4	755.4	5.0852	ug/L	5.0852	ppb	13:52:09
1	Be 313.107†	10669.2	15355.9	5.1063	ug/L	5.1063	ppb	13:51:49
1	Cd 226.502†	290.3	518.6	4.9773	ug/L	4.9773	ppb	13:52:09
1	Co 228.616†	220.2	306.8	5.3345	ug/L	5.3345	ppb	13:52:09
1	Cr 267.716†	617.8	523.9	5.2182	ug/L	5.2182	ppb	13:51:49
1	Cu 324.752†	9710.3	3706.6	10.364	ug/L	10.364	ppb	13:51:49
1	Mn 257.610†	11278.0	10883.3	10.630	ug/L	10.630	ppb	13:51:49
1	Mo 202.031†	186.2	162.2	9.6487	ug/L	9.6487	ppb	13:52:09
1	Ni 231.604†	357.1	257.9	5.5538	ug/L	5.5538	ppb	13:52:09
1	P 214.914†	535.6	285.0	143.44	ug/L	143.44	ppb	13:52:09
1	Pb 220.353†	7.4	85.3	8.7701	ug/L	8.7701	ppb	13:52:09
1	S 181.975 Axial†	139.4	81.9	98.054	ug/L	98.054	ppb	13:52:09
1	Sb 206.836†	82.1	40.4	12.193	ug/L	12.193	ppb	13:52:09
1	Se 196.026†	28.1	57.1	30.799	ug/L	30.799	ppb	13:52:09
1	Si 251.611†	4332.8	3710.1	103.03	ug/L	103.03	ppb	13:51:49
1	Sn 189.927†	78.6	77.4	11.350	ug/L	11.350	ppb	13:52:09
1	Ti 334.940†	2027.8	3515.2	5.0486	ug/L	5.0486	ppb	13:51:49
1	Tl 190.801†	32.5	78.6	20.125	ug/L	20.125	ppb	13:52:09
1	U 409.014†	-886.1	1834.7	50.901	ug/L	50.901	ppb	13:51:49
1	V 292.402†	-647.1	815.7	5.3437	ug/L	5.3437	ppb	13:51:49
1	Zn 213.857†	2054.0	1266.8	10.156	ug/L	10.156	ppb	13:52:09
1	SiO2†	4226.8	3578.1	213.35	ug/L	213.35	ppb	13:53:05
2	Sc Radial	5629.4	5629.4	101	%			13:50:57
2	Y RADIAL	5930.8	5930.8	101.2	%			13:50:57
2	Al 396.153Radial†	280.3	291.5	204.27	ug/L	204.27	ppb	13:50:57
2	Ca 317.933Radial†	163.3	144.2	201.30	ug/L	201.30	ppb	13:51:17
2	Fe 238.204 Radial†	22.3	10.9	86.320	ug/L	86.320	ppb	13:51:17
2	K 766.490 Radial†	3794.6	894.0	160.30	ug/L	160.30	ppb	13:50:57
2	Mg 279.077 IEC†	14.4	12.0	361.72	ug/L	361.72	ppb	13:51:17
2	Na 589.592 Radial†	-204.8	1056.7	288.79	ug/L	288.79	ppb	13:50:57
2	Sr 421.552†	841.1	829.2	4.7288	ug/L	4.7288	ppb	13:50:57
2	Sc 361.383	892579.5	892579.5	99.239	%			13:52:14
2	Y 371.029	738544.5	738544.5	99.414	%			13:52:14
2	Ag 328.068†	1511.9	1124.1	4.7914	ug/L	4.7914	ppb	13:52:14
2	As 188.979†	59.4	87.3	31.064	ug/L	31.064	ppb	13:52:34
2	B 249.677†	2411.8	1965.3	40.068	ug/L	40.068	ppb	13:52:14
2	Ba 233.527†	755.3	769.7	5.1803	ug/L	5.1803	ppb	13:52:34
2	Be 313.107†	10302.8	14976.9	4.9802	ug/L	4.9802	ppb	13:52:14
2	Cd 226.502†	289.3	517.3	4.9647	ug/L	4.9647	ppb	13:52:34
2	Co 228.616†	202.1	288.4	5.0166	ug/L	5.0166	ppb	13:52:34
2	Cr 267.716†	691.9	598.0	5.9550	ug/L	5.9550	ppb	13:52:14
2	Cu 324.752†	9670.6	3657.7	10.228	ug/L	10.228	ppb	13:52:14
2	Mn 257.610†	11066.6	10659.9	10.410	ug/L	10.410	ppb	13:52:14
2	Mo 202.031†	201.9	177.9	10.582	ug/L	10.582	ppb	13:52:34
2	Ni 231.604†	352.4	252.8	5.4459	ug/L	5.4459	ppb	13:52:34

2	P 214.914†	548.3	297.4	149.73 ug/L	149.73 ppb	13:52:34
2	Pb 220.353†	32.8	110.9	11.402 ug/L	11.402 ppb	13:52:34
2	S 181.975 Axial†	141.5	83.8	100.39 ug/L	100.39 ppb	13:52:34
2	Sb 206.836†	68.2	26.3	8.0145 ug/L	8.0145 ppb	13:52:34
2	Se 196.026†	12.8	41.7	22.566 ug/L	22.566 ppb	13:52:34
2	Si 251.611†	4250.4	3623.2	100.59 ug/L	100.59 ppb	13:52:14
2	Sn 189.927†	68.5	67.2	9.8485 ug/L	9.8485 ppb	13:52:34
2	Ti 334.940†	1927.8	3412.6	4.8981 ug/L	4.8981 ppb	13:52:14
2	Tl 190.801†	46.0	92.1	23.571 ug/L	23.571 ppb	13:52:34
2	U 409.014†	-681.6	2041.6	56.643 ug/L	56.643 ppb	13:52:14
2	V 292.402†	-721.6	741.3	4.9030 ug/L	4.9030 ppb	13:52:14
2	Zn 213.857†	2042.4	1253.2	10.044 ug/L	10.044 ppb	13:52:34
2	SiO2†	4253.6	3601.2	214.70 ug/L	214.70 ppb	13:53:10
3	Sc Radial	5493.8	5493.8	98.3 %		13:51:22
3	Y RADIAL	5759.5	5759.5	98.26 %		13:51:22
3	Al 396.153Radial†	247.7	265.2	185.83 ug/L	185.83 ppb	13:51:22
3	Ca 317.933Radial†	167.3	152.3	212.64 ug/L	212.64 ppb	13:51:42
3	Fe 238.204 Radial†	24.3	13.5	107.22 ug/L	107.22 ppb	13:51:42
3	K 766.490 Radial†	3835.0	1028.0	184.34 ug/L	184.34 ppb	13:51:22
3	Mg 279.077 IEC†	12.0	9.9	298.71 ug/L	298.71 ppb	13:51:42
3	Na 589.592 Radial†	-190.2	1066.5	291.46 ug/L	291.46 ppb	13:51:22
3	Sr 421.552†	867.3	876.5	4.9985 ug/L	4.9985 ppb	13:51:22
3	Sc 361.383	882599.0	882599.0	98.130 %		13:52:40
3	Y 371.029	728586.0	728586.0	98.073 %		13:52:40
3	Ag 328.068†	1658.6	1290.8	5.5120 ug/L	5.5120 ppb	13:52:40
3	As 188.979†	48.1	76.5	27.208 ug/L	27.208 ppb	13:53:00
3	B 249.677†	2442.1	2023.6	41.255 ug/L	41.255 ppb	13:52:40
3	Ba 233.527†	773.3	796.7	5.3621 ug/L	5.3621 ppb	13:53:00
3	Be 313.107†	10473.4	15268.2	5.0774 ug/L	5.0774 ppb	13:52:40
3	Cd 226.502†	276.5	507.5	4.8686 ug/L	4.8686 ppb	13:53:00
3	Co 228.616†	206.7	295.4	5.1364 ug/L	5.1364 ppb	13:53:00
3	Cr 267.716†	625.7	538.4	5.3618 ug/L	5.3618 ppb	13:52:40
3	Cu 324.752†	9718.6	3816.9	10.673 ug/L	10.673 ppb	13:52:40
3	Mn 257.610†	11213.5	10935.7	10.683 ug/L	10.683 ppb	13:52:40
3	Mo 202.031†	191.8	169.8	10.105 ug/L	10.105 ppb	13:53:00
3	Ni 231.604†	352.1	256.5	5.5249 ug/L	5.5249 ppb	13:53:00
3	P 214.914†	539.1	294.2	148.03 ug/L	148.03 ppb	13:53:00
3	Pb 220.353†	37.7	116.2	11.942 ug/L	11.942 ppb	13:53:00
3	S 181.975 Axial†	136.5	80.4	96.287 ug/L	96.287 ppb	13:53:00
3	Sb 206.836†	76.2	35.3	10.689 ug/L	10.689 ppb	13:53:00
3	Se 196.026†	38.8	68.4	36.873 ug/L	36.873 ppb	13:53:00
3	Si 251.611†	4293.5	3715.5	103.15 ug/L	103.15 ppb	13:52:40
3	Sn 189.927†	79.3	79.0	11.580 ug/L	11.580 ppb	13:53:00
3	Ti 334.940†	2080.8	3590.5	5.1562 ug/L	5.1562 ppb	13:52:40
3	Tl 190.801†	34.7	81.1	20.777 ug/L	20.777 ppb	13:53:00
3	U 409.014†	-765.4	1948.4	54.055 ug/L	54.055 ppb	13:52:40
3	V 292.402†	-697.3	757.8	4.9900 ug/L	4.9900 ppb	13:52:40
3	Zn 213.857†	2042.1	1276.2	10.229 ug/L	10.229 ppb	13:53:00
3	SiO2†	4303.0	3700.0	220.59 ug/L	220.59 ppb	13:53:15

Mean Data: PQL

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	888983.8	98.839	%	0.6164				0.62%
Sc Radial	5637.8	101	%	2.7				2.63%
Y 371.029	734260.8	98.837	%	0.6896				0.70%
Y RADIAL	5926.4	101.1	%	2.81				2.78%
Ag 328.068†	1192.3	5.0876	ug/L	0.37698	5.0876	ppb	0.37698	7.41%
QC value within limits for Ag 328.068 Recovery = 101.75%								
Al 396.153Radial†	265.3	185.91	ug/L	18.317	185.91	ppb	18.317	9.85%
QC value within limits for Al 396.153Radial Recovery = 92.96%								
As 188.979†	80.6	28.660	ug/L	2.0964	28.660	ppb	2.0964	7.31%
QC value within limits for As 188.979 Recovery = 95.53%								
B 249.677†	1994.5	40.662	ug/L	0.5933	40.662	ppb	0.5933	1.46%
QC value within limits for B 249.677 Recovery = 81.32%								
Ba 233.527†	773.9	5.2092	ug/L	0.14071	5.2092	ppb	0.14071	2.70%
QC value within limits for Ba 233.527 Recovery = 104.18%								
Be 313.107†	15200.3	5.0546	ug/L	0.06604	5.0546	ppb	0.06604	1.31%
QC value within limits for Be 313.107 Recovery = 101.09%								
Ca 317.933Radial†	147.2	205.50	ug/L	6.215	205.50	ppb	6.215	3.02%

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   QC value within limits for Ca 317.933Radial  Recovery = 102.75%
Cd 226.502†              514.5      4.9369 ug/L       0.05947      4.9369 ppb        0.05947   1.20%
   QC value within limits for Cd 226.502  Recovery = 98.74%
Co 228.616†              296.8      5.1625 ug/L       0.16055      5.1625 ppb        0.16055   3.11%
   QC value within limits for Co 228.616  Recovery = 103.25%
Cr 267.716†              553.4      5.5117 ug/L       0.39060      5.5117 ppb        0.39060   7.09%
   QC value within limits for Cr 267.716  Recovery = 110.23%
Cu 324.752†             3727.1      10.422 ug/L        0.2284      10.422 ppb         0.2284   2.19%
   QC value within limits for Cu 324.752  Recovery = 104.22%
Fe 238.204 Radial†        11.6      92.313 ug/L       12.9903      92.313 ppb        12.9903  14.07%
   QC value within limits for Fe 238.204 Radial  Recovery = 92.31%
K 766.490 Radial†        906.2      162.47 ug/L        20.870      162.47 ppb         20.870  12.85%
   QC value within limits for K 766.490 Radial  Recovery = 108.31%
Mg 279.077 IEC†           10.1      303.87 ug/L        55.442      303.87 ppb         55.442  18.24%
   QC value within limits for Mg 279.077 IEC  Recovery = 101.29%
Mn 257.610†            10826.3      10.575 ug/L        0.1446      10.575 ppb         0.1446   1.37%
   QC value within limits for Mn 257.610  Recovery = 105.75%
Mo 202.031†              170.0      10.112 ug/L        0.4665      10.112 ppb         0.4665   4.61%
   QC value within limits for Mo 202.031  Recovery = 101.12%
Na 589.592 Radial†      1068.7      292.07 ug/L         3.628      292.07 ppb          3.628   1.24%
   QC value within limits for Na 589.592 Radial  Recovery = 97.36%
Ni 231.604†              255.7      5.5082 ug/L       0.05588      5.5082 ppb        0.05588   1.01%
   QC value within limits for Ni 231.604  Recovery = 110.16%
P 214.914†               292.2      147.07 ug/L         3.251      147.07 ppb          3.251   2.21%
   QC value within limits for P 214.914  Recovery = 98.05%
Pb 220.353†              104.1      10.705 ug/L        1.6971      10.705 ppb         1.6971  15.85%
   QC value within limits for Pb 220.353  Recovery = 107.05%
S 181.975 Axial†          82.0      98.243 ug/L        2.0566      98.243 ppb         2.0566   2.09%
   QC value within limits for S 181.975 Axial  Recovery = 98.24%
Sb 206.836†               34.0      10.299 ug/L        2.1164      10.299 ppb         2.1164  20.55%
   QC value within limits for Sb 206.836  Recovery = 102.99%
Se 196.026†               55.7      30.079 ug/L        7.1811      30.079 ppb         7.1811  23.87%
   QC value within limits for Se 196.026  Recovery = 100.26%
Si 251.611†             3682.9      102.26 ug/L         1.445      102.26 ppb          1.445   1.41%
   QC value within limits for Si 251.611  Recovery = 102.26%
Sn 189.927†               74.5      10.926 ug/L        0.9403      10.926 ppb         0.9403   8.61%
   QC value within limits for Sn 189.927  Recovery = 109.26%
Sr 421.552†              847.4      4.8327 ug/L       0.14508      4.8327 ppb        0.14508   3.00%
   QC value within limits for Sr 421.552  Recovery = 96.65%
Ti 334.940†             3506.1      5.0343 ug/L       0.12966      5.0343 ppb        0.12966   2.58%
   QC value within limits for Ti 334.940  Recovery = 100.69%
Tl 190.801†               84.0      21.491 ug/L        1.8307      21.491 ppb         1.8307   8.52%
   QC value within limits for Tl 190.801  Recovery = 107.46%
U 409.014†              1941.5      53.866 ug/L        2.8753      53.866 ppb         2.8753   5.34%
   QC value within limits for U 409.014  Recovery = 107.73%
V 292.402†               771.6      5.0789 ug/L       0.23345      5.0789 ppb        0.23345   4.60%
   QC value within limits for V 292.402  Recovery = 101.58%
Zn 213.857†             1265.4      10.143 ug/L        0.0932      10.143 ppb         0.0932   0.92%
   QC value within limits for Zn 213.857  Recovery = 101.43%
SiO2†                   3626.4      216.21 ug/L         3.852      216.21 ppb          3.852   1.78%
   QC value within limits for SiO2  Recovery = 101.51%
All analyte(s) passed QC.
```

Sequence No.: 11
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 12/20/2009 13:55:26
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	5634.8	5634.8	101	%			13:57:19
1	Y RADIAL	5887.0	5887.0	100.4	%			13:57:19
1	Al 396.153Radial†	6.5	19.8	13.868	ug/L	13.868	ppb	13:57:19
1	Ca 317.933Radial†	23.3	5.2	7.3049	ug/L	7.3049	ppb	13:57:39
1	Fe 238.204 Radial†	10.5	-0.8	-6.3125	ug/L	-6.3125	ppb	13:57:39
1	K 766.490 Radial†	2852.6	-43.7	-7.8488	ug/L	-7.8488	ppb	13:57:19
1	Mg 279.077 IEC†	3.9	1.6	48.164	ug/L	48.164	ppb	13:57:39
1	Na 589.592 Radial†	-1297.8	-26.9	-7.3412	ug/L	-7.3412	ppb	13:57:19
1	Sr 421.552†	23.3	17.5	0.0998	ug/L	0.0998	ppb	13:57:19
1	Sc 361.383	940210.2	940210.2	104.53	%			13:58:36
1	Y 371.029	771393.9	771393.9	103.84	%			13:58:36
1	Ag 328.068†	446.0	27.3	0.1075	ug/L	0.1075	ppb	13:58:41
1	As 188.979†	-27.6	1.0	0.3753	ug/L	0.3753	ppb	13:59:01
1	B 249.677†	-76.2	-537.9	-10.973	ug/L	-10.973	ppb	13:58:41
1	Ba 233.527†	-9.5	-0.5	-0.0030	ug/L	-0.0030	ppb	13:59:01
1	Be 313.107†	-4606.4	188.5	0.0627	ug/L	0.0627	ppb	13:58:41
1	Cd 226.502†	-236.6	-0.6	-0.0048	ug/L	-0.0048	ppb	13:59:01
1	Co 228.616†	-83.5	4.8	0.0842	ug/L	0.0842	ppb	13:59:01
1	Cr 267.716†	102.1	-1.5	-0.0179	ug/L	-0.0179	ppb	13:59:01
1	Cu 324.752†	6110.0	-242.1	-0.6769	ug/L	-0.6769	ppb	13:58:41
1	Mn 257.610†	519.3	5.2	0.0036	ug/L	0.0036	ppb	13:59:01
1	Mo 202.031†	29.3	2.5	0.1479	ug/L	0.1479	ppb	13:59:01
1	Ni 231.604†	100.2	-6.5	-0.1392	ug/L	-0.1392	ppb	13:59:01
1	P 214.914†	262.0	-4.6	-2.2022	ug/L	-2.2022	ppb	13:59:01
1	Pb 220.353†	-86.7	-5.1	-0.5215	ug/L	-0.5215	ppb	13:59:01
1	S 181.975 Axial†	49.8	-11.1	-13.272	ug/L	-13.272	ppb	13:59:01
1	Sb 206.836†	39.6	-4.5	-1.3208	ug/L	-1.3208	ppb	13:59:01
1	Se 196.026†	-28.8	1.2	0.6327	ug/L	0.6327	ppb	13:59:01
1	Si 251.611†	684.9	-4.7	-0.1327	ug/L	-0.1327	ppb	13:59:01
1	Sn 189.927†	5.9	3.8	0.5573	ug/L	0.5573	ppb	13:59:01
1	Ti 334.940†	-1489.3	45.3	0.0620	ug/L	0.0620	ppb	13:58:41
1	Tl 190.801†	-42.5	5.1	1.2983	ug/L	1.2983	ppb	13:59:01
1	U 409.014†	-2544.1	294.6	8.1788	ug/L	8.1788	ppb	13:58:36
1	V 292.402†	-1517.5	16.8	0.1255	ug/L	0.1255	ppb	13:58:41
1	Zn 213.857†	849.4	7.8	0.0629	ug/L	0.0629	ppb	13:59:01
1	SiO2†	733.3	16.5	0.9834	ug/L	0.9834	ppb	14:00:07
2	Sc Radial	5595.6	5595.6	100	%			13:57:44
2	Y RADIAL	5850.1	5850.1	99.81	%			13:57:44
2	Al 396.153Radial†	-37.0	-23.7	-16.622	ug/L	-16.622	ppb	13:57:44
2	Ca 317.933Radial†	24.7	6.8	9.4940	ug/L	9.4940	ppb	13:58:04
2	Fe 238.204 Radial†	13.0	1.8	13.929	ug/L	13.929	ppb	13:58:04
2	K 766.490 Radial†	2843.5	-33.0	-5.9290	ug/L	-5.9290	ppb	13:57:44
2	Mg 279.077 IEC†	4.7	2.4	73.761	ug/L	73.761	ppb	13:58:04
2	Na 589.592 Radial†	-1285.0	-23.2	-6.3339	ug/L	-6.3339	ppb	13:57:44
2	Sr 421.552†	-58.2	-63.7	-0.3636	ug/L	-0.3636	ppb	13:57:44
2	Sc 361.383	937317.0	937317.0	104.21	%			13:59:06
2	Y 371.029	770267.8	770267.8	103.68	%			13:59:06
2	Ag 328.068†	422.4	5.9	0.0276	ug/L	0.0276	ppb	13:59:11
2	As 188.979†	-23.3	5.1	1.8280	ug/L	1.8280	ppb	13:59:31
2	B 249.677†	73.1	-394.9	-8.0580	ug/L	-8.0580	ppb	13:59:11
2	Ba 233.527†	-15.2	-5.9	-0.0383	ug/L	-0.0383	ppb	13:59:31
2	Be 313.107†	-4647.5	135.5	0.0453	ug/L	0.0453	ppb	13:59:11
2	Cd 226.502†	-232.5	2.7	0.0243	ug/L	0.0243	ppb	13:59:31
2	Co 228.616†	-86.8	1.4	0.0236	ug/L	0.0236	ppb	13:59:31
2	Cr 267.716†	70.0	-32.0	-0.3198	ug/L	-0.3198	ppb	13:59:31
2	Cu 324.752†	6147.8	-187.8	-0.5241	ug/L	-0.5241	ppb	13:59:11
2	Mn 257.610†	572.8	58.1	0.0567	ug/L	0.0567	ppb	13:59:31
2	Mo 202.031†	25.1	-1.5	-0.0883	ug/L	-0.0883	ppb	13:59:31
2	Ni 231.604†	120.5	13.3	0.2873	ug/L	0.2873	ppb	13:59:31

2	P 214.914†	232.4	-32.1	-16.288	ug/L	-16.288 ppb	13:59:31
2	Pb 220.353†	-79.2	1.8	0.1801	ug/L	0.1801 ppb	13:59:31
2	S 181.975 Axial†	48.4	-12.3	-14.756	ug/L	-14.756 ppb	13:59:31
2	Sb 206.836†	41.3	-2.7	-0.8112	ug/L	-0.8112 ppb	13:59:31
2	Se 196.026†	-35.0	-4.8	-2.5403	ug/L	-2.5403 ppb	13:59:31
2	Si 251.611†	688.7	1.0	0.0318	ug/L	0.0318 ppb	13:59:31
2	Sn 189.927†	-1.3	-3.1	-0.4466	ug/L	-0.4466 ppb	13:59:31
2	Ti 334.940†	-1406.0	120.8	0.1724	ug/L	0.1724 ppb	13:59:11
2	Tl 190.801†	-48.8	-1.1	-0.2757	ug/L	-0.2757 ppb	13:59:31
2	U 409.014†	-2656.3	179.5	4.9802	ug/L	4.9802 ppb	13:59:06
2	V 292.402†	-1441.3	85.4	0.5441	ug/L	0.5441 ppb	13:59:11
2	Zn 213.857†	822.6	-15.5	-0.1292	ug/L	-0.1292 ppb	13:59:31
2	SiO2†	737.6	22.8	1.3738	ug/L	1.3738 ppb	14:00:12
3	Sc Radial	5714.6	5714.6	102	%		13:58:09
3	Y RADIAL	5989.0	5989.0	102.2	%		13:58:09
3	Al 396.153Radial†	6.9	20.1	14.105	ug/L	14.105 ppb	13:58:09
3	Ca 317.933Radial†	25.6	7.1	9.9790	ug/L	9.9790 ppb	13:58:29
3	Fe 238.204 Radial†	11.8	0.3	2.2382	ug/L	2.2382 ppb	13:58:29
3	K 766.490 Radial†	2966.1	27.7	4.9707	ug/L	4.9707 ppb	13:58:09
3	Mg 279.077 IEC†	2.5	0.2	5.0191	ug/L	5.0191 ppb	13:58:29
3	Na 589.592 Radial†	-1220.4	66.8	18.246	ug/L	18.246 ppb	13:58:09
3	Sr 421.552†	-8.7	-14.1	-0.0808	ug/L	-0.0808 ppb	13:58:09
3	Sc 361.383	936879.0	936879.0	104.16	%		13:59:36
3	Y 371.029	770623.2	770623.2	103.73	%		13:59:36
3	Ag 328.068†	435.6	18.8	0.0739	ug/L	0.0739 ppb	13:59:41
3	As 188.979†	-21.8	6.5	2.3144	ug/L	2.3144 ppb	14:00:01
3	B 249.677†	-23.0	-487.1	-9.9386	ug/L	-9.9386 ppb	13:59:41
3	Ba 233.527†	-2.6	6.1	0.0410	ug/L	0.0410 ppb	14:00:01
3	Be 313.107†	-4518.5	257.3	0.0856	ug/L	0.0856 ppb	13:59:41
3	Cd 226.502†	-223.1	11.6	0.1114	ug/L	0.1114 ppb	14:00:01
3	Co 228.616†	-65.9	21.5	0.3715	ug/L	0.3715 ppb	14:00:01
3	Cr 267.716†	96.7	-6.4	-0.0661	ug/L	-0.0661 ppb	14:00:01
3	Cu 324.752†	6160.5	-172.9	-0.4830	ug/L	-0.4830 ppb	13:59:41
3	Mn 257.610†	587.0	72.0	0.0704	ug/L	0.0704 ppb	14:00:01
3	Mo 202.031†	20.1	-6.3	-0.3742	ug/L	-0.3742 ppb	14:00:01
3	Ni 231.604†	132.3	24.7	0.5325	ug/L	0.5325 ppb	14:00:01
3	P 214.914†	242.5	-22.4	-11.288	ug/L	-11.288 ppb	14:00:01
3	Pb 220.353†	-86.7	-5.4	-0.5542	ug/L	-0.5542 ppb	14:00:01
3	S 181.975 Axial†	50.9	-9.9	-11.828	ug/L	-11.828 ppb	14:00:01
3	Sb 206.836†	37.4	-6.5	-1.9204	ug/L	-1.9204 ppb	14:00:01
3	Se 196.026†	-37.9	-7.6	-4.0438	ug/L	-4.0438 ppb	14:00:01
3	Si 251.611†	678.4	-8.6	-0.2358	ug/L	-0.2358 ppb	14:00:01
3	Sn 189.927†	5.8	3.7	0.5423	ug/L	0.5423 ppb	14:00:01
3	Ti 334.940†	-1441.6	86.1	0.1211	ug/L	0.1211 ppb	13:59:41
3	Tl 190.801†	-43.5	4.0	1.0246	ug/L	1.0246 ppb	14:00:01
3	U 409.014†	-2548.9	281.4	7.8098	ug/L	7.8098 ppb	13:59:36
3	V 292.402†	-1531.5	-1.8	-0.0019	ug/L	-0.0019 ppb	13:59:41
3	Zn 213.857†	839.6	1.2	0.0066	ug/L	0.0066 ppb	14:00:01
3	SiO2†	684.5	-27.9	-1.6586	ug/L	-1.6586 ppb	14:00:17

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	938135.4	104.30	%	0.201				0.19%
Sc Radial	5648.4	101	%	1.1				1.07%
Y 371.029	770761.6	103.75	%	0.077				0.07%
Y RADIAL	5908.7	100.8	%	1.23				1.22%
Ag 328.068†	17.3	0.0697	ug/L	0.04010	0.0697	ppb	0.04010	57.53%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	5.4	3.7835	ug/L	17.67220	3.7835	ppb	17.67220	467.08%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	4.2	1.5059	ug/L	1.00886	1.5059	ppb	1.00886	66.99%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-473.3	-9.6566	ug/L	1.47791	-9.6566	ppb	1.47791	15.30%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-0.1	-0.0001	ug/L	0.03972	-0.0001	ppb	0.03972	>999.9%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	193.8	0.0645	ug/L	0.02022	0.0645	ppb	0.02022	31.33%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	6.4	8.9260	ug/L	1.42468	8.9260	ppb	1.42468	15.96%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                4.6      0.0436 ug/L       0.06048      0.0436 ppb        0.06048 138.71%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                9.2      0.1598 ug/L       0.18587      0.1598 ppb        0.18587 116.32%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -13.3     -0.1346 ug/L       0.16222     -0.1346 ppb        0.16222 120.53%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -200.9     -0.5613 ug/L       0.10219     -0.5613 ppb        0.10219  18.20%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         0.4      3.2848 ug/L      10.16110      3.2848 ppb       10.16110 309.34%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        -16.3     -2.9357 ug/L       6.91408     -2.9357 ppb        6.91408 235.52%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            1.4     42.315 ug/L       34.7423      42.315 ppb        34.7423  82.10%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               45.1      0.0436 ug/L       0.03531      0.0436 ppb        0.03531  81.03%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               -1.8     -0.1048 ug/L       0.26147     -0.1048 ppb        0.26147 249.39%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†         5.6      1.5236 ug/L      14.49066      1.5236 ppb       14.49066 951.09%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               10.5      0.2269 ug/L       0.33989      0.2269 ppb        0.33989 149.81%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -19.7     -9.9263 ug/L       7.14116     -9.9263 ppb        7.14116  71.94%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               -2.9     -0.2985 ug/L       0.41482     -0.2985 ppb        0.41482 138.97%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         -11.1     -13.285 ug/L        1.4642     -13.285 ppb         1.4642  11.02%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               -4.6     -1.3508 ug/L       0.55525     -1.3508 ppb        0.55525  41.11%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               -3.7     -1.9838 ug/L       2.38736     -1.9838 ppb        2.38736 120.34%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†               -4.1     -0.1122 ug/L       0.13494     -0.1122 ppb        0.13494 120.24%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                1.5      0.2177 ug/L       0.57532      0.2177 ppb        0.57532 264.32%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              -20.1     -0.1149 ug/L       0.23356     -0.1149 ppb        0.23356 203.33%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               84.1      0.1185 ug/L       0.05525      0.1185 ppb        0.05525  46.61%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                2.7      0.6824 ug/L       0.84097      0.6824 ppb        0.84097 123.24%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               251.8      6.9896 ug/L       1.74995      6.9896 ppb        1.74995  25.04%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                33.5      0.2225 ug/L       0.28565      0.2225 ppb        0.28565 128.36%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               -2.2     -0.0199 ug/L       0.09875     -0.0199 ppb        0.09875 495.92%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                      3.8      0.2329 ug/L       1.64964      0.2329 ppb        1.64964 708.33%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 19
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 12/20/2009 14:51:10
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	5541.1	5541.1	99.2	%			14:53:02
1	Y RADIAL	5724.8	5724.8	97.67	%			14:53:02
1	Al 396.153Radial†	6920.3	6991.6	4890.1	ug/L	4890.1	ppb	14:53:02
1	Ca 317.933Radial†	3458.8	3470.0	4844.3	ug/L	4844.3	ppb	14:53:22
1	Fe 238.204 Radial†	640.2	634.4	5035.4	ug/L	5035.4	ppb	14:53:22
1	K 766.490 Radial†	30602.4	27986.6	5015.9	ug/L	5015.9	ppb	14:53:02
1	Mg 279.077 IEC†	168.2	167.3	5056.2	ug/L	5056.2	ppb	14:53:22
1	Na 589.592 Radial†	36267.7	37831.8	10339	ug/L	10339	ppb	14:53:02
1	Sr 421.552†	88348.7	89083.8	508.20	ug/L	508.20	ppb	14:53:02
1	Sc 361.383	915498.9	915498.9	101.79	%			14:54:19
1	Y 371.029	742238.4	742238.4	99.911	%			14:54:19
1	Ag 328.068†	117548.6	115085.0	494.09	ug/L	494.09	ppb	14:54:24
1	As 188.979†	1375.1	1378.4	494.26	ug/L	494.26	ppb	14:54:44
1	B 249.677†	24632.2	23734.6	482.25	ug/L	482.25	ppb	14:54:24
1	Ba 233.527†	75165.7	73854.4	497.09	ug/L	497.09	ppb	14:54:24
1	Be 313.107†	1520736.6	1498627.5	498.34	ug/L	498.34	ppb	14:54:19
1	Cd 226.502†	52382.7	51688.6	496.40	ug/L	496.40	ppb	14:54:24
1	Co 228.616†	29235.8	28807.2	499.74	ug/L	499.74	ppb	14:54:24
1	Cr 267.716†	50627.1	49638.9	495.79	ug/L	495.79	ppb	14:54:24
1	Cu 324.752†	184773.4	175441.8	490.61	ug/L	490.61	ppb	14:54:24
1	Mn 257.610†	519695.4	510078.0	498.46	ug/L	498.46	ppb	14:54:19
1	Mo 202.031†	8315.6	8144.0	484.56	ug/L	484.56	ppb	14:54:44
1	Ni 231.604†	23611.4	23094.6	497.40	ug/L	497.40	ppb	14:54:24
1	P 214.914†	5133.0	4787.7	2360.7	ug/L	2360.7	ppb	14:54:44
1	Pb 220.353†	4756.5	4750.8	487.61	ug/L	487.61	ppb	14:54:44
1	S 181.975 Axial†	881.0	806.8	965.59	ug/L	965.59	ppb	14:54:44
1	Sb 206.836†	1717.0	1644.5	491.98	ug/L	491.98	ppb	14:54:44
1	Se 196.026†	912.7	925.5	511.92	ug/L	511.92	ppb	14:54:44
1	Si 251.611†	90935.2	88678.5	2456.9	ug/L	2456.9	ppb	14:54:24
1	Sn 189.927†	3374.4	3313.4	485.19	ug/L	485.19	ppb	14:54:44
1	Ti 334.940†	347163.2	342537.0	493.16	ug/L	493.16	ppb	14:54:19
1	Tl 190.801†	1920.2	1932.3	496.24	ug/L	496.24	ppb	14:54:44
1	U 409.014†	15527.7	17983.4	497.55	ug/L	497.55	ppb	14:54:24
1	V 292.402†	78393.8	78485.6	499.29	ug/L	499.29	ppb	14:54:24
1	Zn 213.857†	63420.7	61502.2	491.83	ug/L	491.83	ppb	14:54:24
1	SiO2†	91127.4	88842.2	5285.8	ug/L	5285.8	ppb	14:55:52
2	Sc Radial	5665.6	5665.6	101	%			14:53:27
2	Y RADIAL	5863.8	5863.8	100.0	%			14:53:27
2	Al 396.153Radial†	6904.5	6822.7	4771.1	ug/L	4771.1	ppb	14:53:27
2	Ca 317.933Radial†	3578.1	3510.9	4901.5	ug/L	4901.5	ppb	14:53:47
2	Fe 238.204 Radial†	665.1	644.8	5117.7	ug/L	5117.7	ppb	14:53:47
2	K 766.490 Radial†	30655.4	27360.6	4903.7	ug/L	4903.7	ppb	14:53:27
2	Mg 279.077 IEC†	173.3	168.6	5094.8	ug/L	5094.8	ppb	14:53:47
2	Na 589.592 Radial†	35887.9	36653.3	10017	ug/L	10017	ppb	14:53:27
2	Sr 421.552†	87464.2	86253.3	492.05	ug/L	492.05	ppb	14:53:27
2	Sc 361.383	904923.2	904923.2	100.61	%			14:54:50
2	Y 371.029	734246.3	734246.3	98.835	%			14:54:50
2	Ag 328.068†	117979.9	116863.4	501.73	ug/L	501.73	ppb	14:54:56
2	As 188.979†	1380.6	1399.6	501.80	ug/L	501.80	ppb	14:55:16
2	B 249.677†	24642.0	24027.2	488.20	ug/L	488.20	ppb	14:54:56
2	Ba 233.527†	74953.6	74506.6	501.48	ug/L	501.48	ppb	14:54:56
2	Be 313.107†	1501015.9	1496487.1	497.63	ug/L	497.63	ppb	14:54:50
2	Cd 226.502†	52256.6	52164.7	500.96	ug/L	500.96	ppb	14:54:56
2	Co 228.616†	29057.7	28965.8	502.51	ug/L	502.51	ppb	14:54:56
2	Cr 267.716†	50496.7	50090.5	500.30	ug/L	500.30	ppb	14:54:56
2	Cu 324.752†	185699.4	178483.6	499.12	ug/L	499.12	ppb	14:54:56
2	Mn 257.610†	512380.7	508774.7	497.19	ug/L	497.19	ppb	14:54:50
2	Mo 202.031†	8340.1	8263.8	491.69	ug/L	491.69	ppb	14:55:16
2	Ni 231.604†	23532.5	23287.2	501.55	ug/L	501.55	ppb	14:54:56

2	P 214.914†	5158.0	4871.5	2401.9 ug/L	2401.9 ppb	14:55:16
2	Pb 220.353†	4785.5	4834.2	496.12 ug/L	496.12 ppb	14:55:16
2	S 181.975 Axial†	888.2	824.0	986.33 ug/L	986.33 ppb	14:55:16
2	Sb 206.836†	1721.2	1668.4	499.17 ug/L	499.17 ppb	14:55:16
2	Se 196.026†	913.3	936.5	518.06 ug/L	518.06 ppb	14:55:16
2	Si 251.611†	90925.0	89712.4	2485.6 ug/L	2485.6 ppb	14:54:56
2	Sn 189.927†	3369.5	3347.2	490.15 ug/L	490.15 ppb	14:55:16
2	Ti 334.940†	342498.1	341886.3	492.22 ug/L	492.22 ppb	14:54:50
2	Tl 190.801†	1915.6	1949.7	500.63 ug/L	500.63 ppb	14:55:16
2	U 409.014†	15540.7	18174.6	502.84 ug/L	502.84 ppb	14:54:56
2	V 292.402†	78418.5	79410.3	505.19 ug/L	505.19 ppb	14:54:56
2	Zn 213.857†	63447.4	62256.9	497.87 ug/L	497.87 ppb	14:54:56
2	SiO2†	91663.9	90421.8	5380.0 ug/L	5380.0 ppb	14:55:57
3	Sc Radial	5642.5	5642.5	101 %		14:53:52
3	Y RADIAL	5853.9	5853.9	99.87 %		14:53:52
3	Al 396.153Radial†	6913.8	6859.7	4797.2 ug/L	4797.2 ppb	14:53:52
3	Ca 317.933Radial†	3532.2	3479.9	4858.2 ug/L	4858.2 ppb	14:54:12
3	Fe 238.204 Radial†	658.7	641.1	5088.7 ug/L	5088.7 ppb	14:54:12
3	K 766.490 Radial†	30680.2	27508.7	4930.2 ug/L	4930.2 ppb	14:53:52
3	Mg 279.077 IEC†	171.8	167.8	5070.8 ug/L	5070.8 ppb	14:54:12
3	Na 589.592 Radial†	36137.8	37045.5	10124 ug/L	10124 ppb	14:53:52
3	Sr 421.552†	87840.8	86978.7	496.19 ug/L	496.19 ppb	14:53:52
3	Sc 361.383	908250.6	908250.6	100.98 %		14:55:22
3	Y 371.029	736926.2	736926.2	99.196 %		14:55:22
3	Ag 328.068†	116997.1	115460.5	495.72 ug/L	495.72 ppb	14:55:27
3	As 188.979†	1365.9	1380.1	494.85 ug/L	494.85 ppb	14:55:47
3	B 249.677†	24449.7	23747.0	482.50 ug/L	482.50 ppb	14:55:27
3	Ba 233.527†	74665.9	73948.8	497.73 ug/L	497.73 ppb	14:55:27
3	Be 313.107†	1506872.4	1496821.2	497.74 ug/L	497.74 ppb	14:55:22
3	Cd 226.502†	52057.1	51776.9	497.24 ug/L	497.24 ppb	14:55:27
3	Co 228.616†	28977.1	28780.2	499.29 ug/L	499.29 ppb	14:55:27
3	Cr 267.716†	50351.6	49763.0	497.03 ug/L	497.03 ppb	14:55:27
3	Cu 324.752†	184055.8	176179.8	492.68 ug/L	492.68 ppb	14:55:27
3	Mn 257.610†	513885.6	508399.2	496.83 ug/L	496.83 ppb	14:55:22
3	Mo 202.031†	8328.9	8222.4	489.23 ug/L	489.23 ppb	14:55:47
3	Ni 231.604†	23479.4	23148.9	498.57 ug/L	498.57 ppb	14:55:27
3	P 214.914†	5132.0	4827.0	2380.3 ug/L	2380.3 ppb	14:55:47
3	Pb 220.353†	4776.7	4808.1	493.46 ug/L	493.46 ppb	14:55:47
3	S 181.975 Axial†	877.6	810.3	969.84 ug/L	969.84 ppb	14:55:47
3	Sb 206.836†	1723.6	1664.5	498.01 ug/L	498.01 ppb	14:55:47
3	Se 196.026†	901.7	921.7	510.10 ug/L	510.10 ppb	14:55:47
3	Si 251.611†	90241.9	88704.9	2457.6 ug/L	2457.6 ppb	14:55:27
3	Sn 189.927†	3367.4	3332.8	488.04 ug/L	488.04 ppb	14:55:47
3	Ti 334.940†	343177.1	341311.5	491.40 ug/L	491.40 ppb	14:55:22
3	Tl 190.801†	1903.1	1930.4	495.71 ug/L	495.71 ppb	14:55:47
3	U 409.014†	15312.9	17892.4	495.02 ug/L	495.02 ppb	14:55:27
3	V 292.402†	78011.3	78721.5	500.82 ug/L	500.82 ppb	14:55:27
3	Zn 213.857†	62996.1	61578.9	492.43 ug/L	492.43 ppb	14:55:27
3	SiO2†	90869.8	89301.6	5313.1 ug/L	5313.1 ppb	14:56:02

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	909557.6	101.13	%	0.601				0.59%
Sc Radial	5616.4	101	%	1.2				1.18%
Y 371.029	737803.6	99.314	%	0.5475				0.55%
Y RADIAL	5814.1	99.19	%	1.323				1.33%
Ag 328.068†	115803.0	497.18	ug/L	4.020	497.18	ppb	4.020	0.81%
QC value within limits for Ag 328.068 Recovery = 99.44%								
Al 396.153Radial†	6891.3	4819.4	ug/L	62.53	4819.4	ppb	62.53	1.30%
QC value within limits for Al 396.153Radial Recovery = 96.39%								
As 188.979†	1386.1	496.97	ug/L	4.194	496.97	ppb	4.194	0.84%
QC value within limits for As 188.979 Recovery = 99.39%								
B 249.677†	23836.3	484.32	ug/L	3.367	484.32	ppb	3.367	0.70%
QC value within limits for B 249.677 Recovery = 96.86%								
Ba 233.527†	74103.3	498.77	ug/L	2.374	498.77	ppb	2.374	0.48%
QC value within limits for Ba 233.527 Recovery = 99.75%								
Be 313.107†	1497311.9	497.90	ug/L	0.384	497.90	ppb	0.384	0.08%
QC value within limits for Be 313.107 Recovery = 99.58%								
Ca 317.933Radial†	3486.9	4868.0	ug/L	29.84	4868.0	ppb	29.84	0.61%

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   QC value within limits for Ca 317.933Radial  Recovery = 97.36%
Cd 226.502†            51876.7      498.20 ug/L         2.431      498.20 ppb          2.431   0.49%
   QC value within limits for Cd 226.502  Recovery = 99.64%
Co 228.616†            28851.1      500.52 ug/L         1.745      500.52 ppb          1.745   0.35%
   QC value within limits for Co 228.616  Recovery = 100.10%
Cr 267.716†            49830.8      497.70 ug/L         2.332      497.70 ppb          2.332   0.47%
   QC value within limits for Cr 267.716  Recovery = 99.54%
Cu 324.752†           176701.8      494.14 ug/L         4.437      494.14 ppb          4.437   0.90%
   QC value within limits for Cu 324.752  Recovery = 98.83%
Fe 238.204 Radial†       640.1      5080.6 ug/L        41.72      5080.6 ppb         41.72   0.82%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.61%
K 766.490 Radial†      27618.6      4949.9 ug/L        58.65      4949.9 ppb         58.65   1.18%
   QC value within limits for K 766.490 Radial  Recovery = 99.00%
Mg 279.077 IEC†          167.9      5073.9 ug/L        19.52      5073.9 ppb         19.52   0.38%
   QC value within limits for Mg 279.077 IEC  Recovery = 101.48%
Mn 257.610†           509084.0      497.49 ug/L         0.857      497.49 ppb          0.857   0.17%
   QC value within limits for Mn 257.610  Recovery = 99.50%
Mo 202.031†             8210.1      488.50 ug/L         3.621      488.50 ppb          3.621   0.74%
   QC value within limits for Mo 202.031  Recovery = 97.70%
Na 589.592 Radial†     37176.9       10160 ug/L       164.0        10160 ppb        164.0   1.61%
   QC value within limits for Na 589.592 Radial  Recovery = 101.60%
Ni 231.604†            23176.9      499.17 ug/L         2.139      499.17 ppb          2.139   0.43%
   QC value within limits for Ni 231.604  Recovery = 99.83%
P 214.914†              4828.7      2380.9 ug/L        20.62      2380.9 ppb         20.62   0.87%
   QC value within limits for P 214.914  Recovery = 95.24%
Pb 220.353†             4797.7      492.40 ug/L         4.353      492.40 ppb          4.353   0.88%
   QC value within limits for Pb 220.353  Recovery = 98.48%
S 181.975 Axial†         813.7      973.92 ug/L        10.952      973.92 ppb         10.952   1.12%
   QC value within limits for S 181.975 Axial  Recovery = 97.39%
Sb 206.836†             1659.1      496.39 ug/L         3.862      496.39 ppb          3.862   0.78%
   QC value within limits for Sb 206.836  Recovery = 99.28%
Se 196.026†              927.9      513.36 ug/L         4.170      513.36 ppb          4.170   0.81%
   QC value within limits for Se 196.026  Recovery = 102.67%
Si 251.611†            89031.9      2466.7 ug/L        16.37      2466.7 ppb         16.37   0.66%
   QC value within limits for Si 251.611  Recovery = 98.67%
Sn 189.927†             3331.1      487.79 ug/L         2.489      487.79 ppb          2.489   0.51%
   QC value within limits for Sn 189.927  Recovery = 97.56%
Sr 421.552†            87438.6      498.81 ug/L         8.388      498.81 ppb          8.388   1.68%
   QC value within limits for Sr 421.552  Recovery = 99.76%
Ti 334.940†           341911.6      492.26 ug/L         0.882      492.26 ppb          0.882   0.18%
   QC value within limits for Ti 334.940  Recovery = 98.45%
Tl 190.801†             1937.5      497.53 ug/L         2.701      497.53 ppb          2.701   0.54%
   QC value within limits for Tl 190.801  Recovery = 99.51%
U 409.014†             18016.8      498.47 ug/L         3.990      498.47 ppb          3.990   0.80%
   QC value within limits for U 409.014  Recovery = 99.69%
V 292.402†             78872.5      501.77 ug/L         3.064      501.77 ppb          3.064   0.61%
   QC value within limits for V 292.402  Recovery = 100.35%
Zn 213.857†            61779.3      494.04 ug/L         3.329      494.04 ppb          3.329   0.67%
   QC value within limits for Zn 213.857  Recovery = 98.81%
SiO2†                  89521.9      5326.3 ug/L        48.47      5326.3 ppb         48.47   0.91%
   QC value within limits for SiO2  Recovery = 99.60%
All analyte(s) passed QC.
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Sequence No.: 20
Sample ID: PQL
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 17
Date Collected: 12/20/2009 14:58:12
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: PQL

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	5418.1	5418.1	97.0	%			15:00:04
1	Y RADIAL	5699.2	5699.2	97.23	%			15:00:04
1	Al 396.153Radial†	234.2	254.9	178.60	ug/L	178.60	ppb	15:00:04
1	Ca 317.933Radial†	156.8	143.9	200.83	ug/L	200.83	ppb	15:00:24
1	Fe 238.204 Radial†	23.3	12.8	101.66	ug/L	101.66	ppb	15:00:24
1	K 766.490 Radial†	3708.9	952.5	170.80	ug/L	170.80	ppb	15:00:04
1	Mg 279.077 IEC†	11.7	9.8	294.94	ug/L	294.94	ppb	15:00:24
1	Na 589.592 Radial†	-280.8	970.5	265.21	ug/L	265.21	ppb	15:00:04
1	Sr 421.552†	846.8	867.7	4.9483	ug/L	4.9483	ppb	15:00:04
1	Sc 361.383	897851.6	897851.6	99.825	%			15:01:21
1	Y 371.029	742768.3	742768.3	99.982	%			15:01:21
1	Ag 328.068†	1496.5	1099.7	4.6949	ug/L	4.6949	ppb	15:01:21
1	As 188.979†	49.7	77.2	27.474	ug/L	27.474	ppb	15:01:41
1	B 249.677†	2426.5	1965.8	40.075	ug/L	40.075	ppb	15:01:21
1	Ba 233.527†	740.7	750.6	5.0520	ug/L	5.0520	ppb	15:01:41
1	Be 313.107†	10375.7	14989.0	4.9844	ug/L	4.9844	ppb	15:01:21
1	Cd 226.502†	283.2	509.4	4.8874	ug/L	4.8874	ppb	15:01:41
1	Co 228.616†	200.7	285.8	4.9699	ug/L	4.9699	ppb	15:01:41
1	Cr 267.716†	572.6	474.4	4.7229	ug/L	4.7229	ppb	15:01:41
1	Cu 324.752†	9778.5	3708.5	10.370	ug/L	10.370	ppb	15:01:21
1	Mn 257.610†	11211.7	10739.8	10.491	ug/L	10.491	ppb	15:01:21
1	Mo 202.031†	188.5	163.2	9.7118	ug/L	9.7118	ppb	15:01:41
1	Ni 231.604†	342.1	240.4	5.1786	ug/L	5.1786	ppb	15:01:41
1	P 214.914†	547.4	293.2	147.60	ug/L	147.60	ppb	15:01:41
1	Pb 220.353†	14.1	91.9	9.4559	ug/L	9.4559	ppb	15:01:41
1	S 181.975 Axial†	139.4	80.8	96.829	ug/L	96.829	ppb	15:01:41
1	Sb 206.836†	82.5	40.2	12.144	ug/L	12.144	ppb	15:01:41
1	Se 196.026†	24.0	52.9	28.586	ug/L	28.586	ppb	15:01:41
1	Si 251.611†	4231.9	3579.5	99.384	ug/L	99.384	ppb	15:01:21
1	Sn 189.927†	74.8	73.1	10.720	ug/L	10.720	ppb	15:01:41
1	Ti 334.940†	1993.9	3467.4	4.9793	ug/L	4.9793	ppb	15:01:21
1	Tl 190.801†	39.0	84.8	21.712	ug/L	21.712	ppb	15:01:41
1	U 409.014†	-847.3	1879.6	52.148	ug/L	52.148	ppb	15:01:21
1	V 292.402†	-785.8	681.3	4.5015	ug/L	4.5015	ppb	15:01:21
1	Zn 213.857†	2027.3	1226.0	9.8272	ug/L	9.8272	ppb	15:01:41
1	SiO2†	4277.6	3600.1	214.65	ug/L	214.65	ppb	15:02:38
2	Sc Radial	5515.9	5515.9	98.7	%			15:00:30
2	Y RADIAL	5813.7	5813.7	99.19	%			15:00:30
2	Al 396.153Radial†	253.4	270.0	189.22	ug/L	189.22	ppb	15:00:30
2	Ca 317.933Radial†	158.4	142.6	199.14	ug/L	199.14	ppb	15:00:50
2	Fe 238.204 Radial†	20.6	9.7	76.546	ug/L	76.546	ppb	15:00:50
2	K 766.490 Radial†	3754.5	931.0	166.93	ug/L	166.93	ppb	15:00:30
2	Mg 279.077 IEC†	10.2	8.1	245.02	ug/L	245.02	ppb	15:00:50
2	Na 589.592 Radial†	-247.3	1009.5	275.89	ug/L	275.89	ppb	15:00:30
2	Sr 421.552†	836.9	842.2	4.8031	ug/L	4.8031	ppb	15:00:30
2	Sc 361.383	886407.1	886407.1	98.553	%			15:01:47
2	Y 371.029	732216.9	732216.9	98.562	%			15:01:47
2	Ag 328.068†	1631.8	1256.4	5.3504	ug/L	5.3504	ppb	15:01:47
2	As 188.979†	47.1	75.2	26.755	ug/L	26.755	ppb	15:02:07
2	B 249.677†	2406.9	1977.2	40.313	ug/L	40.313	ppb	15:01:47
2	Ba 233.527†	728.0	747.3	5.0289	ug/L	5.0289	ppb	15:02:07
2	Be 313.107†	10202.5	14947.4	4.9707	ug/L	4.9707	ppb	15:01:47
2	Cd 226.502†	291.6	521.6	5.0069	ug/L	5.0069	ppb	15:02:07
2	Co 228.616†	195.2	282.8	4.9202	ug/L	4.9202	ppb	15:02:07
2	Cr 267.716†	586.4	495.8	4.9345	ug/L	4.9345	ppb	15:02:07
2	Cu 324.752†	9635.8	3690.2	10.318	ug/L	10.318	ppb	15:01:47
2	Mn 257.610†	11009.7	10679.9	10.431	ug/L	10.431	ppb	15:01:47
2	Mo 202.031†	194.1	171.4	10.195	ug/L	10.195	ppb	15:02:07
2	Ni 231.604†	348.2	251.1	5.4082	ug/L	5.4082	ppb	15:02:07

2	P 214.914†	532.2	284.9	143.38 ug/L	143.38 ppb	15:02:07
2	Pb 220.353†	21.2	99.3	10.217 ug/L	10.217 ppb	15:02:07
2	S 181.975 Axial†	138.5	81.8	97.975 ug/L	97.975 ppb	15:02:07
2	Sb 206.836†	69.3	27.9	8.5349 ug/L	8.5349 ppb	15:02:07
2	Se 196.026†	30.9	60.1	32.379 ug/L	32.379 ppb	15:02:07
2	Si 251.611†	4208.4	3610.3	100.23 ug/L	100.23 ppb	15:01:47
2	Sn 189.927†	79.8	79.2	11.599 ug/L	11.599 ppb	15:02:07
2	Ti 334.940†	2011.5	3511.1	5.0397 ug/L	5.0397 ppb	15:01:47
2	Tl 190.801†	35.5	81.8	20.942 ug/L	20.942 ppb	15:02:07
2	U 409.014†	-639.7	2079.2	57.691 ug/L	57.691 ppb	15:01:47
2	V 292.402†	-767.9	689.3	4.5717 ug/L	4.5717 ppb	15:01:47
2	Zn 213.857†	2019.4	1244.2	9.9756 ug/L	9.9756 ppb	15:02:07
2	SiO2†	4218.4	3595.4	214.35 ug/L	214.35 ppb	15:02:43
3	Sc Radial	5552.0	5552.0	99.4 %		15:00:55
3	Y RADIAL	5823.4	5823.4	99.35 %		15:00:55
3	Al 396.153Radial†	236.7	251.5	176.26 ug/L	176.26 ppb	15:00:55
3	Ca 317.933Radial†	159.4	142.5	198.97 ug/L	198.97 ppb	15:01:15
3	Fe 238.204 Radial†	22.9	11.9	94.108 ug/L	94.108 ppb	15:01:15
3	K 766.490 Radial†	3779.7	931.5	167.02 ug/L	167.02 ppb	15:00:55
3	Mg 279.077 IEC†	11.5	9.3	281.05 ug/L	281.05 ppb	15:01:15
3	Na 589.592 Radial†	-205.9	1052.7	287.70 ug/L	287.70 ppb	15:00:55
3	Sr 421.552†	872.4	872.3	4.9749 ug/L	4.9749 ppb	15:00:55
3	Sc 361.383	891107.3	891107.3	99.075 %		15:02:12
3	Y 371.029	737447.4	737447.4	99.266 %		15:02:12
3	Ag 328.068†	1630.7	1246.6	5.3172 ug/L	5.3172 ppb	15:02:12
3	As 188.979†	49.2	77.1	27.418 ug/L	27.418 ppb	15:02:32
3	B 249.677†	2465.2	2023.2	41.249 ug/L	41.249 ppb	15:02:12
3	Ba 233.527†	748.2	763.8	5.1395 ug/L	5.1395 ppb	15:02:32
3	Be 313.107†	10497.1	15190.2	5.0511 ug/L	5.0511 ppb	15:02:12
3	Cd 226.502†	290.5	519.0	4.9797 ug/L	4.9797 ppb	15:02:32
3	Co 228.616†	193.5	280.1	4.8708 ug/L	4.8708 ppb	15:02:32
3	Cr 267.716†	589.2	495.5	4.9328 ug/L	4.9328 ppb	15:02:32
3	Cu 324.752†	9684.0	3687.3	10.311 ug/L	10.311 ppb	15:02:12
3	Mn 257.610†	11225.6	10838.8	10.587 ug/L	10.587 ppb	15:02:12
3	Mo 202.031†	187.7	163.9	9.7511 ug/L	9.7511 ppb	15:02:32
3	Ni 231.604†	347.1	248.0	5.3422 ug/L	5.3422 ppb	15:02:32
3	P 214.914†	544.4	294.3	148.16 ug/L	148.16 ppb	15:02:32
3	Pb 220.353†	21.1	99.1	10.189 ug/L	10.189 ppb	15:02:32
3	S 181.975 Axial†	125.8	68.2	81.668 ug/L	81.668 ppb	15:02:32
3	Sb 206.836†	74.8	33.1	10.012 ug/L	10.012 ppb	15:02:32
3	Se 196.026†	22.0	51.0	27.583 ug/L	27.583 ppb	15:02:32
3	Si 251.611†	4244.3	3624.1	100.63 ug/L	100.63 ppb	15:02:12
3	Sn 189.927†	64.8	63.6	9.3226 ug/L	9.3226 ppb	15:02:32
3	Ti 334.940†	1960.0	3448.3	4.9514 ug/L	4.9514 ppb	15:02:12
3	Tl 190.801†	52.9	99.2	25.375 ug/L	25.375 ppb	15:02:32
3	U 409.014†	-817.8	1903.0	52.796 ug/L	52.796 ppb	15:02:12
3	V 292.402†	-824.4	636.3	4.2217 ug/L	4.2217 ppb	15:02:12
3	Zn 213.857†	2026.5	1240.6	9.9444 ug/L	9.9444 ppb	15:02:32
3	SiO2†	4234.6	3589.1	214.01 ug/L	214.01 ppb	15:02:48

Mean Data: PQL

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	891788.7	99.151	%	0.6396				0.65%
Sc Radial	5495.3	98.4	%	1.24				1.26%
Y 371.029	737477.5	99.270	%	0.7102				0.72%
Y RADIAL	5778.8	98.59	%	1.179				1.20%
Ag 328.068†	1200.9	5.1208	ug/L	0.36924	5.1208	ppb	0.36924	7.21%
QC value within limits for Ag 328.068 Recovery = 102.42%								
Al 396.153Radial†	258.8	181.36	ug/L	6.910	181.36	ppb	6.910	3.81%
QC value within limits for Al 396.153Radial Recovery = 90.68%								
As 188.979†	76.5	27.215	ug/L	0.4001	27.215	ppb	0.4001	1.47%
QC value within limits for As 188.979 Recovery = 90.72%								
B 249.677†	1988.7	40.546	ug/L	0.6206	40.546	ppb	0.6206	1.53%
QC value within limits for B 249.677 Recovery = 81.09%								
Ba 233.527†	753.9	5.0734	ug/L	0.05835	5.0734	ppb	0.05835	1.15%
QC value within limits for Ba 233.527 Recovery = 101.47%								
Be 313.107†	15042.2	5.0021	ug/L	0.04302	5.0021	ppb	0.04302	0.86%
QC value within limits for Be 313.107 Recovery = 100.04%								
Ca 317.933Radial†	143.0	199.65	ug/L	1.031	199.65	ppb	1.031	0.52%

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   QC value within limits for Ca 317.933Radial  Recovery = 99.82%
Cd 226.502†              516.7      4.9580 ug/L       0.06261      4.9580 ppb        0.06261   1.26%
   QC value within limits for Cd 226.502  Recovery = 99.16%
Co 228.616†              282.9      4.9203 ug/L       0.04950      4.9203 ppb        0.04950   1.01%
   QC value within limits for Co 228.616  Recovery = 98.41%
Cr 267.716†              488.6      4.8634 ug/L       0.12167      4.8634 ppb        0.12167   2.50%
   QC value within limits for Cr 267.716  Recovery = 97.27%
Cu 324.752†             3695.4      10.333 ug/L        0.0326      10.333 ppb         0.0326   0.32%
   QC value within limits for Cu 324.752  Recovery = 103.33%
Fe 238.204 Radial†        11.5      90.771 ug/L       12.8852      90.771 ppb        12.8852  14.20%
   QC value within limits for Fe 238.204 Radial  Recovery = 90.77%
K 766.490 Radial†        938.3      168.25 ug/L         2.208      168.25 ppb          2.208   1.31%
   QC value within limits for K 766.490 Radial  Recovery = 112.17%
Mg 279.077 IEC†           9.1      273.67 ug/L        25.762      273.67 ppb         25.762   9.41%
   QC value within limits for Mg 279.077 IEC  Recovery = 91.22%
Mn 257.610†            10752.8      10.503 ug/L        0.0788      10.503 ppb         0.0788   0.75%
   QC value within limits for Mn 257.610  Recovery = 105.03%
Mo 202.031†              166.2      9.8858 ug/L       0.26816      9.8858 ppb        0.26816   2.71%
   QC value within limits for Mo 202.031  Recovery = 98.86%
Na 589.592 Radial†      1010.9      276.27 ug/L        11.248      276.27 ppb         11.248   4.07%
   QC value within limits for Na 589.592 Radial  Recovery = 92.09%
Ni 231.604†              246.5      5.3097 ug/L       0.11822      5.3097 ppb        0.11822   2.23%
   QC value within limits for Ni 231.604  Recovery = 106.19%
P 214.914†               290.8      146.38 ug/L         2.612      146.38 ppb          2.612   1.78%
   QC value within limits for P 214.914  Recovery = 97.59%
Pb 220.353†               96.8      9.9542 ug/L       0.43177      9.9542 ppb        0.43177   4.34%
   QC value within limits for Pb 220.353  Recovery = 99.54%
S 181.975 Axial†          77.0      92.157 ug/L        9.1020      92.157 ppb         9.1020   9.88%
   QC value within limits for S 181.975 Axial  Recovery = 92.16%
Sb 206.836†               33.7      10.230 ug/L        1.8144      10.230 ppb         1.8144  17.74%
   QC value within limits for Sb 206.836  Recovery = 102.30%
Se 196.026†               54.7      29.516 ug/L        2.5299      29.516 ppb         2.5299   8.57%
   QC value within limits for Se 196.026  Recovery = 98.39%
Si 251.611†             3604.6      100.08 ug/L         0.637      100.08 ppb          0.637   0.64%
   QC value within limits for Si 251.611  Recovery = 100.08%
Sn 189.927†               72.0      10.547 ug/L        1.1479      10.547 ppb         1.1479  10.88%
   QC value within limits for Sn 189.927  Recovery = 105.47%
Sr 421.552†              860.7      4.9087 ug/L       0.09248      4.9087 ppb        0.09248   1.88%
   QC value within limits for Sr 421.552  Recovery = 98.17%
Ti 334.940†             3475.6      4.9901 ug/L       0.04511      4.9901 ppb        0.04511   0.90%
   QC value within limits for Ti 334.940  Recovery = 99.80%
Tl 190.801†               88.6      22.677 ug/L        2.3683      22.677 ppb         2.3683  10.44%
   QC value within limits for Tl 190.801  Recovery = 113.38%
U 409.014†              1953.9      54.212 ug/L        3.0308      54.212 ppb         3.0308   5.59%
   QC value within limits for U 409.014  Recovery = 108.42%
V 292.402†               669.0      4.4316 ug/L       0.18514      4.4316 ppb        0.18514   4.18%
   QC value within limits for V 292.402  Recovery = 88.63%
Zn 213.857†             1236.9      9.9158 ug/L       0.07825      9.9158 ppb        0.07825   0.79%
   QC value within limits for Zn 213.857  Recovery = 99.16%
SiO2†                   3594.9      214.33 ug/L         0.322      214.33 ppb          0.322   0.15%
   QC value within limits for SiO2  Recovery = 100.63%
All analyte(s) passed QC.
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Sequence No.: 21
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 12/20/2009 15:04:58
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	5480.0	5480.0	98.1	%			15:06:50
1	Y RADIAL	5752.1	5752.1	98.14	%			15:06:50
1	Al 396.153Radial†	-7.3	5.9	4.1390	ug/L	4.1390	ppb	15:06:50
1	Ca 317.933Radial†	21.0	3.6	5.0115	ug/L	5.0115	ppb	15:07:10
1	Fe 238.204 Radial†	11.4	0.4	3.0325	ug/L	3.0325	ppb	15:07:10
1	K 766.490 Radial†	2818.5	1.5	0.2624	ug/L	0.2624	ppb	15:06:50
1	Mg 279.077 IEC†	-0.5	-2.8	-84.302	ug/L	-84.302	ppb	15:07:10
1	Na 589.592 Radial†	-1239.4	-3.7	-1.0237	ug/L	-1.0237	ppb	15:06:50
1	Sr 421.552†	-3.1	-8.8	-0.0501	ug/L	-0.0501	ppb	15:06:50
1	Sc 361.383	887535.6	887535.6	98.678	%			15:08:07
1	Y 371.029	732370.2	732370.2	98.583	%			15:08:07
1	Ag 328.068†	374.4	-20.0	-0.0818	ug/L	-0.0818	ppb	15:08:07
1	As 188.979†	-39.3	-12.3	-4.3759	ug/L	-4.3759	ppb	15:08:27
1	B 249.677†	-69.0	-534.9	-10.913	ug/L	-10.913	ppb	15:08:07
1	Ba 233.527†	0.7	9.4	0.0619	ug/L	0.0619	ppb	15:08:27
1	Be 313.107†	-4439.5	96.1	0.0318	ug/L	0.0318	ppb	15:08:07
1	Cd 226.502†	-225.9	-3.2	-0.0303	ug/L	-0.0303	ppb	15:08:27
1	Co 228.616†	-86.3	-2.7	-0.0464	ug/L	-0.0464	ppb	15:08:27
1	Cr 267.716†	76.6	-21.5	-0.2138	ug/L	-0.2138	ppb	15:08:27
1	Cu 324.752†	6028.1	21.8	0.0610	ug/L	0.0610	ppb	15:08:07
1	Mn 257.610†	550.8	66.6	0.0669	ug/L	0.0669	ppb	15:08:27
1	Mo 202.031†	27.2	2.0	0.1199	ug/L	0.1199	ppb	15:08:27
1	Ni 231.604†	127.9	27.4	0.5901	ug/L	0.5901	ppb	15:08:27
1	P 214.914†	242.1	-9.9	-5.0060	ug/L	-5.0060	ppb	15:08:27
1	Pb 220.353†	-74.3	2.6	0.2633	ug/L	0.2633	ppb	15:08:27
1	S 181.975 Axial†	56.9	-1.1	-1.3677	ug/L	-1.3677	ppb	15:08:27
1	Sb 206.836†	42.2	0.3	0.1312	ug/L	0.1312	ppb	15:08:27
1	Se 196.026†	-32.4	-4.1	-2.1513	ug/L	-2.1513	ppb	15:08:27
1	Si 251.611†	663.7	12.7	0.3469	ug/L	0.3469	ppb	15:08:27
1	Sn 189.927†	11.2	9.6	1.4015	ug/L	1.4015	ppb	15:08:27
1	Ti 334.940†	-1468.5	-18.1	-0.0236	ug/L	-0.0236	ppb	15:08:07
1	Tl 190.801†	-40.6	4.7	1.1942	ug/L	1.1942	ppb	15:08:27
1	U 409.014†	-2863.3	-173.3	-4.8113	ug/L	-4.8113	ppb	15:08:07
1	V 292.402†	-1515.0	-66.9	-0.4300	ug/L	-0.4300	ppb	15:08:07
1	Zn 213.857†	847.3	53.8	0.4329	ug/L	0.4329	ppb	15:08:27
1	SiO2†	684.1	8.3	0.4838	ug/L	0.4838	ppb	15:09:23
2	Sc Radial	5551.4	5551.4	99.4	%			15:07:15
2	Y RADIAL	5811.9	5811.9	99.15	%			15:07:15
2	Al 396.153Radial†	-5.3	8.0	5.6061	ug/L	5.6061	ppb	15:07:15
2	Ca 317.933Radial†	19.9	2.2	3.0434	ug/L	3.0434	ppb	15:07:35
2	Fe 238.204 Radial†	10.7	-0.5	-3.8254	ug/L	-3.8254	ppb	15:07:35
2	K 766.490 Radial†	2948.0	94.8	17.017	ug/L	17.017	ppb	15:07:15
2	Mg 279.077 IEC†	3.0	0.7	22.494	ug/L	22.494	ppb	15:07:35
2	Na 589.592 Radial†	-1256.6	-4.7	-1.2930	ug/L	-1.2930	ppb	15:07:15
2	Sr 421.552†	-3.0	-8.6	-0.0492	ug/L	-0.0492	ppb	15:07:15
2	Sc 361.383	879441.5	879441.5	97.778	%			15:08:32
2	Y 371.029	725203.7	725203.7	97.618	%			15:08:32
2	Ag 328.068†	418.5	28.6	0.1205	ug/L	0.1205	ppb	15:08:32
2	As 188.979†	-27.5	-0.7	-0.2406	ug/L	-0.2406	ppb	15:08:52
2	B 249.677†	-84.1	-551.0	-11.240	ug/L	-11.240	ppb	15:08:32
2	Ba 233.527†	15.8	24.7	0.1645	ug/L	0.1645	ppb	15:08:52
2	Be 313.107†	-4549.6	-57.8	-0.0193	ug/L	-0.0193	ppb	15:08:32
2	Cd 226.502†	-238.9	-18.5	-0.1775	ug/L	-0.1775	ppb	15:08:52
2	Co 228.616†	-71.6	11.5	0.2006	ug/L	0.2006	ppb	15:08:52
2	Cr 267.716†	106.6	9.9	0.0983	ug/L	0.0983	ppb	15:08:52
2	Cu 324.752†	6032.9	82.9	0.2315	ug/L	0.2315	ppb	15:08:32
2	Mn 257.610†	564.9	86.2	0.0834	ug/L	0.0834	ppb	15:08:52
2	Mo 202.031†	33.7	8.9	0.5277	ug/L	0.5277	ppb	15:08:52
2	Ni 231.604†	101.0	1.0	0.0212	ug/L	0.0212	ppb	15:08:52

2	P 214.914†	254.8	5.4	2.7363	ug/L	2.7363	ppb	15:08:52
2	Pb 220.353†	-61.3	15.1	1.5519	ug/L	1.5519	ppb	15:08:52
2	S 181.975 Axial†	49.7	-7.9	-9.4366	ug/L	-9.4366	ppb	15:08:52
2	Sb 206.836†	31.0	-10.7	-3.1262	ug/L	-3.1262	ppb	15:08:52
2	Se 196.026†	-26.3	1.9	1.0154	ug/L	1.0154	ppb	15:08:52
2	Si 251.611†	652.9	7.9	0.2012	ug/L	0.2012	ppb	15:08:52
2	Sn 189.927†	7.8	6.2	0.9015	ug/L	0.9015	ppb	15:08:52
2	Ti 334.940†	-1467.6	-30.9	-0.0432	ug/L	-0.0432	ppb	15:08:32
2	Tl 190.801†	-43.2	1.6	0.4157	ug/L	0.4157	ppb	15:08:52
2	U 409.014†	-2763.0	-97.4	-2.7043	ug/L	-2.7043	ppb	15:08:32
2	V 292.402†	-1534.9	-101.3	-0.6328	ug/L	-0.6328	ppb	15:08:32
2	Zn 213.857†	840.0	54.3	0.4366	ug/L	0.4366	ppb	15:08:52
2	SiO2†	686.4	17.1	0.9806	ug/L	0.9806	ppb	15:09:28
3	Sc Radial	5633.0	5633.0	101	%			15:07:40
3	Y RADIAL	5917.0	5917.0	100.9	%			15:07:40
3	Al 396.153Radial†	-7.6	5.8	4.0661	ug/L	4.0661	ppb	15:07:40
3	Ca 317.933Radial†	26.2	8.1	11.282	ug/L	11.282	ppb	15:08:00
3	Fe 238.204 Radial†	12.0	0.7	5.5619	ug/L	5.5619	ppb	15:08:00
3	K 766.490 Radial†	2900.8	5.0	0.8903	ug/L	0.8903	ppb	15:07:40
3	Mg 279.077 IEC†	5.7	3.4	101.93	ug/L	101.93	ppb	15:08:00
3	Na 589.592 Radial†	-1301.4	-30.8	-8.4269	ug/L	-8.4269	ppb	15:07:40
3	Sr 421.552†	4.1	-1.5	-0.0089	ug/L	-0.0089	ppb	15:07:40
3	Sc 361.383	880525.3	880525.3	97.899	%			15:08:58
3	Y 371.029	727697.4	727697.4	97.954	%			15:08:58
3	Ag 328.068†	332.7	-59.5	-0.2522	ug/L	-0.2522	ppb	15:08:58
3	As 188.979†	-28.5	-1.7	-0.5898	ug/L	-0.5898	ppb	15:09:18
3	B 249.677†	-123.3	-590.9	-12.056	ug/L	-12.056	ppb	15:08:58
3	Ba 233.527†	9.0	17.8	0.1179	ug/L	0.1179	ppb	15:09:18
3	Be 313.107†	-4487.9	10.9	0.0039	ug/L	0.0039	ppb	15:08:58
3	Cd 226.502†	-229.7	-8.9	-0.0856	ug/L	-0.0856	ppb	15:09:18
3	Co 228.616†	-83.4	-0.5	-0.0085	ug/L	-0.0085	ppb	15:09:18
3	Cr 267.716†	110.5	13.7	0.1362	ug/L	0.1362	ppb	15:09:18
3	Cu 324.752†	6047.6	90.3	0.2527	ug/L	0.2527	ppb	15:08:58
3	Mn 257.610†	550.2	70.4	0.0674	ug/L	0.0674	ppb	15:09:18
3	Mo 202.031†	26.3	1.3	0.0756	ug/L	0.0756	ppb	15:09:18
3	Ni 231.604†	112.8	13.0	0.2800	ug/L	0.2800	ppb	15:09:18
3	P 214.914†	239.3	-10.7	-5.5048	ug/L	-5.5048	ppb	15:09:18
3	Pb 220.353†	-79.0	-2.8	-0.2889	ug/L	-0.2889	ppb	15:09:18
3	S 181.975 Axial†	50.2	-7.4	-8.9103	ug/L	-8.9103	ppb	15:09:18
3	Sb 206.836†	42.8	1.3	0.3846	ug/L	0.3846	ppb	15:09:18
3	Se 196.026†	-29.6	-1.5	-0.7689	ug/L	-0.7689	ppb	15:09:18
3	Si 251.611†	640.0	-6.1	-0.1702	ug/L	-0.1702	ppb	15:09:18
3	Sn 189.927†	0.9	-0.9	-0.1320	ug/L	-0.1320	ppb	15:09:18
3	Ti 334.940†	-1350.9	90.2	0.1319	ug/L	0.1319	ppb	15:08:58
3	Tl 190.801†	-41.4	3.5	0.8877	ug/L	0.8877	ppb	15:09:18
3	U 409.014†	-2792.5	-124.1	-3.4457	ug/L	-3.4457	ppb	15:08:58
3	V 292.402†	-1555.9	-120.9	-0.7634	ug/L	-0.7634	ppb	15:08:58
3	Zn 213.857†	828.8	41.8	0.3312	ug/L	0.3312	ppb	15:09:18
3	SiO2†	655.3	-15.6	-0.9339	ug/L	-0.9339	ppb	15:09:33

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	882500.8	98.119	%	0.4885				0.50%
Sc Radial	5554.8	99.4	%	1.37				1.38%
Y 371.029	728423.8	98.051	%	0.4897				0.50%
Y RADIAL	5827.0	99.41	%	1.424				1.43%
Ag 328.068†	-17.0	-0.0712	ug/L	0.18659	-0.0712	ppb	0.18659	262.12%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	6.6	4.6037	ug/L	0.86881	4.6037	ppb	0.86881	18.87%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-4.9	-1.7354	ug/L	2.29334	-1.7354	ppb	2.29334	132.15%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-559.0	-11.403	ug/L	0.5887	-11.403	ppb	0.5887	5.16%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	17.3	0.1148	ug/L	0.05139	0.1148	ppb	0.05139	44.77%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	16.4	0.0055	ug/L	0.02560	0.0055	ppb	0.02560	467.09%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	4.6	6.4456	ug/L	4.30239	6.4456	ppb	4.30239	66.75%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              -10.2     -0.0978 ug/L       0.07435     -0.0978 ppb        0.07435  75.99%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                2.8      0.0486 ug/L       0.13304      0.0486 ppb        0.13304 273.92%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                0.7      0.0069 ug/L       0.19205      0.0069 ppb        0.19205 >999.9%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               65.0      0.1818 ug/L       0.10509      0.1818 ppb        0.10509  57.82%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         0.2      1.5897 ug/L       4.85711      1.5897 ppb        4.85711 305.54%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         33.7      6.0567 ug/L       9.49740      6.0567 ppb        9.49740 156.81%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            0.4     13.373 ug/L       93.4489     13.373 ppb        93.4489 698.78%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               74.4      0.0726 ug/L       0.00935      0.0726 ppb        0.00935  12.88%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                4.1      0.2411 ug/L       0.24919      0.2411 ppb        0.24919 103.37%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       -13.1     -3.5812 ug/L       4.19869     -3.5812 ppb        4.19869 117.24%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               13.8      0.2971 ug/L       0.28485      0.2971 ppb        0.28485  95.88%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -5.1     -2.5915 ug/L       4.62076     -2.5915 ppb        4.62076 178.31%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                5.0      0.5088 ug/L       0.94463      0.5088 ppb        0.94463 185.67%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          -5.5     -6.5715 ug/L       4.51436     -6.5715 ppb        4.51436  68.70%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               -3.0     -0.8702 ug/L       1.95792     -0.8702 ppb        1.95792 225.01%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               -1.2     -0.6349 ug/L       1.58762     -0.6349 ppb        1.58762 250.05%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                4.8      0.1259 ug/L       0.26665      0.1259 ppb        0.26665 211.71%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                4.9      0.7237 ug/L       0.78209      0.7237 ppb        0.78209 108.07%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               -6.3     -0.0361 ug/L       0.02355     -0.0361 ppb        0.02355  65.27%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               13.7      0.0217 ug/L       0.09598      0.0217 ppb        0.09598 442.47%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                3.3      0.8326 ug/L       0.39214      0.8326 ppb        0.39214  47.10%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              -131.6     -3.6538 ug/L       1.06880     -3.6538 ppb        1.06880  29.25%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               -96.4     -0.6088 ug/L       0.16801     -0.6088 ppb        0.16801  27.60%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               49.9      0.4002 ug/L       0.05981      0.4002 ppb        0.05981  14.95%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                      3.3      0.1768 ug/L       0.99349      0.1768 ppb        0.99349 561.84%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 29
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 12/20/2009 16:00:54
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	5687.8	5687.8	102	%			16:02:46
1	Y RADIAL	5951.2	5951.2	101.5	%			16:02:46
1	Al 396.153Radial†	6764.9	6659.0	4655.8	ug/L	4655.8	ppb	16:02:46
1	Ca 317.933Radial†	3549.4	3469.0	4843.0	ug/L	4843.0	ppb	16:02:46
1	Fe 238.204 Radial†	660.2	637.3	5058.9	ug/L	5058.9	ppb	16:03:06
1	K 766.490 Radial†	30109.9	26706.8	4786.3	ug/L	4786.3	ppb	16:02:46
1	Mg 279.077 IEC†	173.0	167.7	5068.0	ug/L	5068.0	ppb	16:03:06
1	Na 589.592 Radial†	35427.2	36062.7	9855.4	ug/L	9855.4	ppb	16:02:46
1	Sr 421.552†	85778.8	84261.2	480.69	ug/L	480.69	ppb	16:02:46
1	Sc 361.383	906237.6	906237.6	100.76	%			16:04:05
1	Y 371.029	735670.0	735670.0	99.027	%			16:04:05
1	Ag 328.068†	118176.3	116888.2	501.84	ug/L	501.84	ppb	16:04:05
1	As 188.979†	1382.8	1399.9	501.94	ug/L	501.94	ppb	16:04:25
1	B 249.677†	24513.6	23864.3	484.90	ug/L	484.90	ppb	16:04:05
1	Ba 233.527†	75327.4	74769.6	503.25	ug/L	503.25	ppb	16:04:05
1	Be 313.107†	1527069.8	1520181.2	505.50	ug/L	505.50	ppb	16:04:05
1	Cd 226.502†	52734.7	52563.9	504.80	ug/L	504.80	ppb	16:04:05
1	Co 228.616†	28780.9	28649.1	497.03	ug/L	497.03	ppb	16:04:25
1	Cr 267.716†	50860.4	50378.7	503.18	ug/L	503.18	ppb	16:04:05
1	Cu 324.752†	187486.8	179989.8	503.32	ug/L	503.32	ppb	16:04:05
1	Mn 257.610†	520216.2	515812.6	504.06	ug/L	504.06	ppb	16:04:05
1	Mo 202.031†	8487.4	8398.0	499.66	ug/L	499.66	ppb	16:04:25
1	Ni 231.604†	23447.2	23168.6	499.00	ug/L	499.00	ppb	16:04:25
1	P 214.914†	5171.9	4877.9	2404.5	ug/L	2404.5	ppb	16:04:25
1	Pb 220.353†	4867.2	4908.4	503.71	ug/L	503.71	ppb	16:04:25
1	S 181.975 Axial†	887.9	822.5	984.49	ug/L	984.49	ppb	16:04:25
1	Sb 206.836†	1711.2	1656.0	495.68	ug/L	495.68	ppb	16:04:25
1	Se 196.026†	927.0	948.8	524.46	ug/L	524.46	ppb	16:04:25
1	Si 251.611†	91137.8	89792.6	2487.7	ug/L	2487.7	ppb	16:04:05
1	Sn 189.927†	3403.1	3375.7	494.31	ug/L	494.31	ppb	16:04:25
1	Ti 334.940†	348247.5	347098.7	499.73	ug/L	499.73	ppb	16:04:05
1	Tl 190.801†	1922.4	1953.8	501.79	ug/L	501.79	ppb	16:04:25
1	U 409.014†	14913.9	17530.1	484.95	ug/L	484.95	ppb	16:04:05
1	V 292.402†	78826.8	79702.4	507.10	ug/L	507.10	ppb	16:04:05
1	Zn 213.857†	63727.6	62443.5	499.39	ug/L	499.39	ppb	16:04:05
1	SiO2†	91434.5	90061.9	5358.2	ug/L	5358.2	ppb	16:05:26
2	Sc Radial	5743.5	5743.5	103	%			16:03:11
2	Y RADIAL	5938.9	5938.9	101.3	%			16:03:11
2	Al 396.153Radial†	6934.7	6759.7	4726.6	ug/L	4726.6	ppb	16:03:11
2	Ca 317.933Radial†	3627.3	3511.0	4901.6	ug/L	4901.6	ppb	16:03:11
2	Fe 238.204 Radial†	657.3	628.3	4986.9	ug/L	4986.9	ppb	16:03:31
2	K 766.490 Radial†	30762.1	27054.3	4848.6	ug/L	4848.6	ppb	16:03:11
2	Mg 279.077 IEC†	177.4	170.3	5146.5	ug/L	5146.5	ppb	16:03:31
2	Na 589.592 Radial†	36582.3	36848.7	10070	ug/L	10070	ppb	16:03:11
2	Sr 421.552†	88275.3	85872.1	489.88	ug/L	489.88	ppb	16:03:11
2	Sc 361.383	907598.6	907598.6	100.91	%			16:04:33
2	Y 371.029	736577.5	736577.5	99.149	%			16:04:33
2	Ag 328.068†	118492.8	117026.0	502.40	ug/L	502.40	ppb	16:04:33
2	As 188.979†	1381.7	1396.7	500.81	ug/L	500.81	ppb	16:04:53
2	B 249.677†	24620.8	23933.9	486.34	ug/L	486.34	ppb	16:04:33
2	Ba 233.527†	75626.1	74953.4	504.48	ug/L	504.48	ppb	16:04:33
2	Be 313.107†	1531782.6	1522578.9	506.30	ug/L	506.30	ppb	16:04:33
2	Cd 226.502†	52621.3	52373.0	502.98	ug/L	502.98	ppb	16:04:33
2	Co 228.616†	28733.3	28559.1	495.46	ug/L	495.46	ppb	16:04:53
2	Cr 267.716†	50969.8	50411.5	503.51	ug/L	503.51	ppb	16:04:33
2	Cu 324.752†	188564.0	180778.3	505.52	ug/L	505.52	ppb	16:04:33
2	Mn 257.610†	521724.3	516532.9	504.76	ug/L	504.76	ppb	16:04:33
2	Mo 202.031†	8456.5	8354.8	497.09	ug/L	497.09	ppb	16:04:53
2	Ni 231.604†	23377.5	23064.6	496.76	ug/L	496.76	ppb	16:04:53

2	P 214.914†	5195.2	4893.2	2412.0 ug/L	2412.0 ppb	16:04:53
2	Pb 220.353†	4857.7	4891.8	502.02 ug/L	502.02 ppb	16:04:53
2	S 181.975 Axial†	874.9	808.3	967.48 ug/L	967.48 ppb	16:04:53
2	Sb 206.836†	1725.0	1667.1	498.83 ug/L	498.83 ppb	16:04:53
2	Se 196.026†	904.8	925.5	511.78 ug/L	511.78 ppb	16:04:53
2	Si 251.611†	91672.2	90186.5	2498.7 ug/L	2498.7 ppb	16:04:33
2	Sn 189.927†	3388.4	3356.0	491.43 ug/L	491.43 ppb	16:04:53
2	Ti 334.940†	349510.7	347832.2	500.79 ug/L	500.79 ppb	16:04:33
2	Tl 190.801†	1912.6	1941.1	498.58 ug/L	498.58 ppb	16:04:53
2	U 409.014†	14850.9	17445.5	482.61 ug/L	482.61 ppb	16:04:33
2	V 292.402†	79042.7	79799.1	507.68 ug/L	507.68 ppb	16:04:33
2	Zn 213.857†	63903.2	62522.7	500.04 ug/L	500.04 ppb	16:04:33
2	SiO2†	91505.1	89995.9	5354.3 ug/L	5354.3 ppb	16:05:31
3	Sc Radial	5498.5	5498.5	98.4 %		16:03:36
3	Y RADIAL	5710.7	5710.7	97.43 %		16:03:36
3	Al 396.153Radial†	6839.8	6963.8	4869.9 ug/L	4869.9 ppb	16:03:36
3	Ca 317.933Radial†	3583.7	3623.8	5059.2 ug/L	5059.2 ppb	16:03:36
3	Fe 238.204 Radial†	658.8	658.2	5224.1 ug/L	5224.1 ppb	16:03:56
3	K 766.490 Radial†	30172.1	27788.1	4980.2 ug/L	4980.2 ppb	16:03:36
3	Mg 279.077 IEC†	175.7	176.3	5325.2 ug/L	5325.2 ppb	16:03:56
3	Na 589.592 Radial†	35804.9	37644.4	10288 ug/L	10288 ppb	16:03:36
3	Sr 421.552†	86649.3	88046.1	502.28 ug/L	502.28 ppb	16:03:36
3	Sc 361.383	902791.9	902791.9	100.37 %		16:05:00
3	Y 371.029	733828.0	733828.0	98.779 %		16:05:00
3	Ag 328.068†	118120.2	117280.0	503.56 ug/L	503.56 ppb	16:05:00
3	As 188.979†	1382.7	1405.0	503.79 ug/L	503.79 ppb	16:05:20
3	B 249.677†	24594.4	24037.5	488.41 ug/L	488.41 ppb	16:05:00
3	Ba 233.527†	75146.7	74874.9	503.97 ug/L	503.97 ppb	16:05:00
3	Be 313.107†	1527265.2	1526160.6	507.49 ug/L	507.49 ppb	16:05:00
3	Cd 226.502†	52496.1	52525.9	504.42 ug/L	504.42 ppb	16:05:00
3	Co 228.616†	28693.6	28671.2	497.40 ug/L	497.40 ppb	16:05:20
3	Cr 267.716†	50774.0	50485.3	504.25 ug/L	504.25 ppb	16:05:00
3	Cu 324.752†	187980.9	181192.4	506.69 ug/L	506.69 ppb	16:05:00
3	Mn 257.610†	519759.8	517328.6	505.55 ug/L	505.55 ppb	16:05:00
3	Mo 202.031†	8444.5	8387.4	499.05 ug/L	499.05 ppb	16:05:20
3	Ni 231.604†	23321.6	23132.3	498.21 ug/L	498.21 ppb	16:05:20
3	P 214.914†	5169.9	4895.5	2412.9 ug/L	2412.9 ppb	16:05:20
3	Pb 220.353†	4840.7	4900.4	502.92 ug/L	502.92 ppb	16:05:20
3	S 181.975 Axial†	876.4	814.4	974.72 ug/L	974.72 ppb	16:05:20
3	Sb 206.836†	1724.4	1675.6	501.42 ug/L	501.42 ppb	16:05:20
3	Se 196.026†	919.0	944.4	522.66 ug/L	522.66 ppb	16:05:20
3	Si 251.611†	91305.8	90305.2	2502.0 ug/L	2502.0 ppb	16:05:00
3	Sn 189.927†	3387.5	3373.0	493.94 ug/L	493.94 ppb	16:05:20
3	Ti 334.940†	348287.1	348457.4	501.70 ug/L	501.70 ppb	16:05:00
3	Tl 190.801†	1910.4	1949.1	500.61 ug/L	500.61 ppb	16:05:20
3	U 409.014†	14988.0	17660.4	488.55 ug/L	488.55 ppb	16:05:00
3	V 292.402†	78820.3	79994.6	508.92 ug/L	508.92 ppb	16:05:00
3	Zn 213.857†	63619.3	62577.0	500.45 ug/L	500.45 ppb	16:05:00
3	SiO2†	90636.3	89613.1	5331.3 ug/L	5331.3 ppb	16:05:36

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	905542.7	100.68	%	0.275				0.27%
Sc Radial	5643.3	101	%	2.3				2.28%
Y 371.029	735358.5	98.985	%	0.1886				0.19%
Y RADIAL	5866.9	100.1	%	2.31				2.31%
Ag 328.068†	117064.7	502.60	ug/L	0.881	502.60	ppb	0.881	0.18%
QC value within limits for Ag 328.068 Recovery = 100.52%								
Al 396.153Radial†	6794.2	4750.8	ug/L	109.10	4750.8	ppb	109.10	2.30%
QC value within limits for Al 396.153Radial Recovery = 95.02%								
As 188.979†	1400.5	502.18	ug/L	1.504	502.18	ppb	1.504	0.30%
QC value within limits for As 188.979 Recovery = 100.44%								
B 249.677†	23945.3	486.55	ug/L	1.766	486.55	ppb	1.766	0.36%
QC value within limits for B 249.677 Recovery = 97.31%								
Ba 233.527†	74866.0	503.90	ug/L	0.620	503.90	ppb	0.620	0.12%
QC value within limits for Ba 233.527 Recovery = 100.78%								
Be 313.107†	1522973.6	506.43	ug/L	1.001	506.43	ppb	1.001	0.20%
QC value within limits for Be 313.107 Recovery = 101.29%								
Ca 317.933Radial†	3534.6	4934.6	ug/L	111.81	4934.6	ppb	111.81	2.27%

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   QC value within limits for Ca 317.933Radial  Recovery = 98.69%
Cd 226.502†            52487.6      504.07 ug/L         0.964      504.07 ppb          0.964   0.19%
   QC value within limits for Cd 226.502  Recovery = 100.81%
Co 228.616†            28626.5      496.63 ug/L         1.031      496.63 ppb          1.031   0.21%
   QC value within limits for Co 228.616  Recovery = 99.33%
Cr 267.716†            50425.2      503.65 ug/L         0.547      503.65 ppb          0.547   0.11%
   QC value within limits for Cr 267.716  Recovery = 100.73%
Cu 324.752†           180653.5      505.18 ug/L         1.711      505.18 ppb          1.711   0.34%
   QC value within limits for Cu 324.752  Recovery = 101.04%
Fe 238.204 Radial†       641.3      5090.0 ug/L        121.60      5090.0 ppb         121.60   2.39%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.80%
K 766.490 Radial†      27183.0      4871.7 ug/L         99.01      4871.7 ppb          99.01   2.03%
   QC value within limits for K 766.490 Radial  Recovery = 97.43%
Mg 279.077 IEC†          171.4      5179.9 ug/L        131.82      5179.9 ppb         131.82   2.54%
   QC value within limits for Mg 279.077 IEC  Recovery = 103.60%
Mn 257.610†           516558.0      504.79 ug/L         0.747      504.79 ppb          0.747   0.15%
   QC value within limits for Mn 257.610  Recovery = 100.96%
Mo 202.031†             8380.1      498.60 ug/L         1.346      498.60 ppb          1.346   0.27%
   QC value within limits for Mo 202.031  Recovery = 99.72%
Na 589.592 Radial†     36852.0       10071 ug/L         216.1       10071 ppb          216.1   2.15%
   QC value within limits for Na 589.592 Radial  Recovery = 100.71%
Ni 231.604†            23121.8      497.99 ug/L         1.137      497.99 ppb          1.137   0.23%
   QC value within limits for Ni 231.604  Recovery = 99.60%
P 214.914†              4888.9      2409.8 ug/L          4.59      2409.8 ppb           4.59   0.19%
   QC value within limits for P 214.914  Recovery = 96.39%
Pb 220.353†             4900.2      502.88 ug/L         0.847      502.88 ppb          0.847   0.17%
   QC value within limits for Pb 220.353  Recovery = 100.58%
S 181.975 Axial†         815.1      975.56 ug/L         8.532      975.56 ppb          8.532   0.87%
   QC value within limits for S 181.975 Axial  Recovery = 97.56%
Sb 206.836†             1666.2      498.64 ug/L         2.878      498.64 ppb          2.878   0.58%
   QC value within limits for Sb 206.836  Recovery = 99.73%
Se 196.026†              939.6      519.63 ug/L         6.855      519.63 ppb          6.855   1.32%
   QC value within limits for Se 196.026  Recovery = 103.93%
Si 251.611†            90094.8      2496.1 ug/L          7.46      2496.1 ppb           7.46   0.30%
   QC value within limits for Si 251.611  Recovery = 99.85%
Sn 189.927†             3368.2      493.23 ug/L         1.563      493.23 ppb          1.563   0.32%
   QC value within limits for Sn 189.927  Recovery = 98.65%
Sr 421.552†            86059.8      490.95 ug/L        10.836      490.95 ppb         10.836   2.21%
   QC value within limits for Sr 421.552  Recovery = 98.19%
Ti 334.940†           347796.1      500.74 ug/L         0.984      500.74 ppb          0.984   0.20%
   QC value within limits for Ti 334.940  Recovery = 100.15%
Tl 190.801†             1948.0      500.33 ug/L         1.624      500.33 ppb          1.624   0.32%
   QC value within limits for Tl 190.801  Recovery = 100.07%
U 409.014†             17545.3      485.37 ug/L         2.989      485.37 ppb          2.989   0.62%
   QC value within limits for U 409.014  Recovery = 97.07%
V 292.402†             79832.1      507.90 ug/L         0.925      507.90 ppb          0.925   0.18%
   QC value within limits for V 292.402  Recovery = 101.58%
Zn 213.857†            62514.4      499.96 ug/L         0.535      499.96 ppb          0.535   0.11%
   QC value within limits for Zn 213.857  Recovery = 99.99%
SiO2†                  89890.3      5347.9 ug/L         14.57      5347.9 ppb          14.57   0.27%
   QC value within limits for SiO2  Recovery = 100.01%
All analyte(s) passed QC.
```

Sequence No.: 30
Sample ID: PQL
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 18
Date Collected: 12/20/2009 16:07:45
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: PQL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5579.7	5579.7	99.9	%			16:09:38
1	Y RADIAL	5828.5	5828.5	99.44	%			16:09:38
1	Al 396.153Radial†	241.2	254.8	178.55	ug/L	178.55	ppb	16:09:38
1	Ca 317.933Radial†	162.6	145.0	202.36	ug/L	202.36	ppb	16:09:58
1	Fe 238.204 Radial†	26.8	15.7	124.14	ug/L	124.14	ppb	16:09:58
1	K 766.490 Radial†	3749.3	882.2	158.18	ug/L	158.18	ppb	16:09:38
1	Mg 279.077 IEC†	14.2	11.9	360.29	ug/L	360.29	ppb	16:09:58
1	Na 589.592 Radial†	-222.8	1036.9	283.38	ug/L	283.38	ppb	16:09:38
1	Sr 421.552†	811.9	807.4	4.6044	ug/L	4.6044	ppb	16:09:38
1	Sc 361.383	904768.0	904768.0	100.59	%			16:10:55
1	Y 371.029	748672.7	748672.7	100.78	%			16:10:55
1	Ag 328.068†	1527.5	1119.1	4.7819	ug/L	4.7819	ppb	16:10:55
1	As 188.979†	58.6	85.7	30.485	ug/L	30.485	ppb	16:11:15
1	B 249.677†	2239.7	1761.5	35.904	ug/L	35.904	ppb	16:10:55
1	Ba 233.527†	750.8	754.9	5.0820	ug/L	5.0820	ppb	16:11:15
1	Be 313.107†	10679.7	15211.7	5.0585	ug/L	5.0585	ppb	16:10:55
1	Cd 226.502†	302.4	526.4	5.0479	ug/L	5.0479	ppb	16:11:15
1	Co 228.616†	214.6	298.0	5.1822	ug/L	5.1822	ppb	16:11:15
1	Cr 267.716†	578.4	475.8	4.7362	ug/L	4.7362	ppb	16:11:15
1	Cu 324.752†	9839.1	3693.9	10.331	ug/L	10.331	ppb	16:10:55
1	Mn 257.610†	11310.3	10752.0	10.504	ug/L	10.504	ppb	16:10:55
1	Mo 202.031†	193.2	166.4	9.9052	ug/L	9.9052	ppb	16:11:15
1	Ni 231.604†	348.7	244.4	5.2640	ug/L	5.2640	ppb	16:11:15
1	P 214.914†	536.9	278.6	140.11	ug/L	140.11	ppb	16:11:15
1	Pb 220.353†	12.2	90.0	9.2536	ug/L	9.2536	ppb	16:11:15
1	S 181.975 Axial†	135.1	75.5	90.463	ug/L	90.463	ppb	16:11:15
1	Sb 206.836†	76.7	33.8	10.253	ug/L	10.253	ppb	16:11:15
1	Se 196.026†	31.0	59.6	32.274	ug/L	32.274	ppb	16:11:15
1	Si 251.611†	4265.1	3580.1	99.404	ug/L	99.404	ppb	16:10:55
1	Sn 189.927†	68.6	66.4	9.7275	ug/L	9.7275	ppb	16:11:15
1	Ti 334.940†	2067.7	3525.6	5.0608	ug/L	5.0608	ppb	16:10:55
1	Tl 190.801†	33.2	78.8	20.183	ug/L	20.183	ppb	16:11:15
1	U 409.014†	-657.6	2074.7	57.559	ug/L	57.559	ppb	16:10:55
1	V 292.402†	-738.1	734.7	4.8478	ug/L	4.8478	ppb	16:10:55
1	Zn 213.857†	2023.4	1206.6	9.6669	ug/L	9.6669	ppb	16:11:15
1	SiO2†	4227.9	3517.9	209.75	ug/L	209.75	ppb	16:12:11
2	Sc Radial	5101.2	5101.2	91.3	%			16:10:03
2	Y RADIAL	5338.6	5338.6	91.08	%			16:10:03
2	Al 396.153Radial†	238.9	275.0	192.70	ug/L	192.70	ppb	16:10:03
2	Ca 317.933Radial†	166.3	164.3	229.39	ug/L	229.39	ppb	16:10:23
2	Fe 238.204 Radial†	25.0	16.1	127.71	ug/L	127.71	ppb	16:10:23
2	K 766.490 Radial†	3549.5	1015.5	182.12	ug/L	182.12	ppb	16:10:03
2	Mg 279.077 IEC†	15.5	14.7	445.14	ug/L	445.14	ppb	16:10:23
2	Na 589.592 Radial†	-362.5	862.9	235.82	ug/L	235.82	ppb	16:10:03
2	Sr 421.552†	791.7	861.6	4.9134	ug/L	4.9134	ppb	16:10:03
2	Sc 361.383	902543.6	902543.6	100.35	%			16:11:20
2	Y 371.029	748157.1	748157.1	100.71	%			16:11:20
2	Ag 328.068†	1653.0	1247.9	5.3341	ug/L	5.3341	ppb	16:11:20
2	As 188.979†	49.7	77.0	27.386	ug/L	27.386	ppb	16:11:40
2	B 249.677†	2251.3	1778.5	36.251	ug/L	36.251	ppb	16:11:20
2	Ba 233.527†	740.7	746.7	5.0260	ug/L	5.0260	ppb	16:11:40
2	Be 313.107†	10584.6	15143.1	5.0359	ug/L	5.0359	ppb	16:11:20
2	Cd 226.502†	286.8	511.6	4.9054	ug/L	4.9054	ppb	16:11:40
2	Co 228.616†	201.8	285.9	4.9718	ug/L	4.9718	ppb	16:11:40
2	Cr 267.716†	580.0	478.8	4.7674	ug/L	4.7674	ppb	16:11:40
2	Cu 324.752†	9633.6	3513.2	9.8259	ug/L	9.8259	ppb	16:11:20
2	Mn 257.610†	11197.8	10667.6	10.421	ug/L	10.421	ppb	16:11:20
2	Mo 202.031†	196.4	170.1	10.125	ug/L	10.125	ppb	16:11:40
2	Ni 231.604†	356.2	252.7	5.4428	ug/L	5.4428	ppb	16:11:40

2	P 214.914†	530.5	273.5	137.63 ug/L	137.63 ppb	16:11:40
2	Pb 220.353†	26.5	104.2	10.713 ug/L	10.713 ppb	16:11:40
2	S 181.975 Axial†	136.1	76.9	92.046 ug/L	92.046 ppb	16:11:40
2	Sb 206.836†	61.7	19.1	5.9050 ug/L	5.9050 ppb	16:11:40
2	Se 196.026†	23.7	52.4	28.425 ug/L	28.425 ppb	16:11:40
2	Si 251.611†	4266.1	3591.5	99.708 ug/L	99.708 ppb	16:11:20
2	Sn 189.927†	73.1	71.1	10.418 ug/L	10.418 ppb	16:11:40
2	Ti 334.940†	2116.4	3579.1	5.1412 ug/L	5.1412 ppb	16:11:20
2	Tl 190.801†	48.5	94.2	24.098 ug/L	24.098 ppb	16:11:40
2	U 409.014†	-806.1	1925.0	53.405 ug/L	53.405 ppb	16:11:20
2	V 292.402†	-799.9	671.3	4.4463 ug/L	4.4463 ppb	16:11:20
2	Zn 213.857†	2020.3	1208.4	9.6778 ug/L	9.6778 ppb	16:11:40
2	SiO2†	4327.9	3628.0	216.30 ug/L	216.30 ppb	16:12:16
3	Sc Radial	5613.3	5613.3	100 %		16:10:28
3	Y RADIAL	5870.6	5870.6	100.2 %		16:10:28
3	Al 396.153Radial†	255.9	268.0	187.80 ug/L	187.80 ppb	16:10:28
3	Ca 317.933Radial†	166.3	147.7	206.20 ug/L	206.20 ppb	16:10:48
3	Fe 238.204 Radial†	24.5	13.2	104.34 ug/L	104.34 ppb	16:10:48
3	K 766.490 Radial†	3727.1	837.7	150.17 ug/L	150.17 ppb	16:10:28
3	Mg 279.077 IEC†	13.4	11.0	333.42 ug/L	333.42 ppb	16:10:48
3	Na 589.592 Radial†	-176.5	1084.3	296.33 ug/L	296.33 ppb	16:10:28
3	Sr 421.552†	884.1	874.4	4.9866 ug/L	4.9866 ppb	16:10:28
3	Sc 361.383	901190.9	901190.9	100.20 %		16:11:46
3	Y 371.029	748028.0	748028.0	100.69 %		16:11:46
3	Ag 328.068†	1549.4	1147.0	4.8977 ug/L	4.8977 ppb	16:11:46
3	As 188.979†	50.5	77.8	27.696 ug/L	27.696 ppb	16:12:06
3	B 249.677†	2203.0	1733.7	35.341 ug/L	35.341 ppb	16:11:46
3	Ba 233.527†	753.1	760.2	5.1163 ug/L	5.1163 ppb	16:12:06
3	Be 313.107†	10387.1	14961.9	4.9754 ug/L	4.9754 ppb	16:11:46
3	Cd 226.502†	283.1	508.3	4.8759 ug/L	4.8759 ppb	16:12:06
3	Co 228.616†	195.5	279.9	4.8682 ug/L	4.8682 ppb	16:12:06
3	Cr 267.716†	573.8	473.5	4.7139 ug/L	4.7139 ppb	16:12:06
3	Cu 324.752†	9627.3	3521.4	9.8474 ug/L	9.8474 ppb	16:11:46
3	Mn 257.610†	11115.0	10601.7	10.356 ug/L	10.356 ppb	16:11:46
3	Mo 202.031†	194.3	168.3	10.015 ug/L	10.015 ppb	16:12:06
3	Ni 231.604†	331.1	228.2	4.9149 ug/L	4.9149 ppb	16:12:06
3	P 214.914†	537.2	281.0	141.47 ug/L	141.47 ppb	16:12:06
3	Pb 220.353†	16.2	94.0	9.6731 ug/L	9.6731 ppb	16:12:06
3	S 181.975 Axial†	131.6	72.6	86.968 ug/L	86.968 ppb	16:12:06
3	Sb 206.836†	77.3	34.7	10.529 ug/L	10.529 ppb	16:12:06
3	Se 196.026†	25.8	54.5	29.479 ug/L	29.479 ppb	16:12:06
3	Si 251.611†	4241.6	3573.4	99.217 ug/L	99.217 ppb	16:11:46
3	Sn 189.927†	72.0	70.1	10.272 ug/L	10.272 ppb	16:12:06
3	Ti 334.940†	1987.8	3453.9	4.9603 ug/L	4.9603 ppb	16:11:46
3	Tl 190.801†	41.8	87.6	22.411 ug/L	22.411 ppb	16:12:06
3	U 409.014†	-859.0	1871.0	51.909 ug/L	51.909 ppb	16:11:46
3	V 292.402†	-788.5	681.5	4.5069 ug/L	4.5069 ppb	16:11:46
3	Zn 213.857†	2046.4	1237.5	9.9210 ug/L	9.9210 ppb	16:12:06
3	SiO2†	4292.5	3599.1	214.60 ug/L	214.60 ppb	16:12:21

Mean Data: PQL

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	902834.2	100.38	%	0.201				0.20%
Sc Radial	5431.4	97.2	%	5.13				5.27%
Y 371.029	748285.9	100.73	%	0.046				0.05%
Y RADIAL	5679.3	96.89	%	5.046				5.21%
Ag 328.068†	1171.4	5.0046	ug/L	0.29123	5.0046	ppb	0.29123	5.82%
QC value within limits for Ag 328.068 Recovery = 100.09%								
Al 396.153Radial†	265.9	186.35	ug/L	7.185	186.35	ppb	7.185	3.86%
QC value within limits for Al 396.153Radial Recovery = 93.18%								
As 188.979†	80.2	28.522	ug/L	1.7071	28.522	ppb	1.7071	5.99%
QC value within limits for As 188.979 Recovery = 95.07%								
B 249.677†	1757.9	35.832	ug/L	0.4591	35.832	ppb	0.4591	1.28%
QC value within limits for B 249.677 Recovery = 71.66%								
Ba 233.527†	753.9	5.0748	ug/L	0.04556	5.0748	ppb	0.04556	0.90%
QC value within limits for Ba 233.527 Recovery = 101.50%								
Be 313.107†	15105.5	5.0232	ug/L	0.04297	5.0232	ppb	0.04297	0.86%
QC value within limits for Be 313.107 Recovery = 100.46%								
Ca 317.933Radial†	152.3	212.65	ug/L	14.620	212.65	ppb	14.620	6.87%

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   QC value within limits for Ca 317.933Radial  Recovery = 106.33%
Cd 226.502†              515.4      4.9431 ug/L       0.09196      4.9431 ppb        0.09196   1.86%
   QC value within limits for Cd 226.502  Recovery = 98.86%
Co 228.616†              287.9      5.0074 ug/L       0.15999      5.0074 ppb        0.15999   3.20%
   QC value within limits for Co 228.616  Recovery = 100.15%
Cr 267.716†              476.0      4.7392 ug/L       0.02689      4.7392 ppb        0.02689   0.57%
   QC value within limits for Cr 267.716  Recovery = 94.78%
Cu 324.752†             3576.2      10.001 ug/L        0.2855      10.001 ppb         0.2855   2.85%
   QC value within limits for Cu 324.752  Recovery = 100.01%
Fe 238.204 Radial†        15.0      118.73 ug/L        12.588      118.73 ppb         12.588  10.60%
   QC value within limits for Fe 238.204 Radial  Recovery = 118.73%
K 766.490 Radial†        911.8      163.49 ug/L        16.623      163.49 ppb         16.623  10.17%
   QC value within limits for K 766.490 Radial  Recovery = 108.99%
Mg 279.077 IEC†           12.6      379.62 ug/L        58.315      379.62 ppb         58.315  15.36%
   QC value within limits for Mg 279.077 IEC  Recovery = 126.54%
Mn 257.610†            10673.7      10.427 ug/L        0.0743      10.427 ppb         0.0743   0.71%
   QC value within limits for Mn 257.610  Recovery = 104.27%
Mo 202.031†              168.3      10.015 ug/L        0.1098      10.015 ppb         0.1098   1.10%
   QC value within limits for Mo 202.031  Recovery = 100.15%
Na 589.592 Radial†       994.7      271.84 ug/L        31.861      271.84 ppb         31.861  11.72%
   QC value within limits for Na 589.592 Radial  Recovery = 90.61%
Ni 231.604†              241.8      5.2072 ug/L       0.26851      5.2072 ppb        0.26851   5.16%
   QC value within limits for Ni 231.604  Recovery = 104.14%
P 214.914†               277.7      139.74 ug/L         1.946      139.74 ppb          1.946   1.39%
   QC value within limits for P 214.914  Recovery = 93.16%
Pb 220.353†               96.1      9.8799 ug/L       0.75140      9.8799 ppb        0.75140   7.61%
   QC value within limits for Pb 220.353  Recovery = 98.80%
S 181.975 Axial†          75.0      89.826 ug/L        2.5981      89.826 ppb         2.5981   2.89%
   QC value within limits for S 181.975 Axial  Recovery = 89.83%
Sb 206.836†               29.2      8.8955 ug/L       2.59346      8.8955 ppb        2.59346  29.15%
   QC value within limits for Sb 206.836  Recovery = 88.95%
Se 196.026†               55.5      30.059 ug/L        1.9893      30.059 ppb         1.9893   6.62%
   QC value within limits for Se 196.026  Recovery = 100.20%
Si 251.611†             3581.7      99.443 ug/L        0.2482      99.443 ppb         0.2482   0.25%
   QC value within limits for Si 251.611  Recovery = 99.44%
Sn 189.927†               69.2      10.139 ug/L        0.3638      10.139 ppb         0.3638   3.59%
   QC value within limits for Sn 189.927  Recovery = 101.39%
Sr 421.552†              847.8      4.8348 ug/L       0.20286      4.8348 ppb        0.20286   4.20%
   QC value within limits for Sr 421.552  Recovery = 96.70%
Ti 334.940†             3519.5      5.0541 ug/L       0.09060      5.0541 ppb        0.09060   1.79%
   QC value within limits for Ti 334.940  Recovery = 101.08%
Tl 190.801†               86.8      22.231 ug/L        1.9637      22.231 ppb         1.9637   8.83%
   QC value within limits for Tl 190.801  Recovery = 111.15%
U 409.014†              1956.9      54.291 ug/L        2.9273      54.291 ppb         2.9273   5.39%
   QC value within limits for U 409.014  Recovery = 108.58%
V 292.402†               695.8      4.6003 ug/L       0.21645      4.6003 ppb        0.21645   4.71%
   QC value within limits for V 292.402  Recovery = 92.01%
Zn 213.857†             1217.5      9.7552 ug/L       0.14366      9.7552 ppb        0.14366   1.47%
   QC value within limits for Zn 213.857  Recovery = 97.55%
SiO2†                   3581.7      213.55 ug/L         3.400      213.55 ppb          3.400   1.59%
   QC value within limits for SiO2  Recovery = 100.26%
All analyte(s) passed QC.
```

Sequence No.: 31
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 12/20/2009 16:14:31
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	5506.3	5506.3	98.5	%			16:16:23
1	Y RADIAL	5766.3	5766.3	98.38	%			16:16:23
1	Al 396.153Radial†	-8.7	4.5	3.1748	ug/L	3.1748	ppb	16:16:23
1	Ca 317.933Radial†	26.8	9.3	13.036	ug/L	13.036	ppb	16:16:43
1	Fe 238.204 Radial†	10.3	-0.8	-6.3719	ug/L	-6.3719	ppb	16:16:43
1	K 766.490 Radial†	2904.1	74.6	13.394	ug/L	13.394	ppb	16:16:23
1	Mg 279.077 IEC†	4.3	2.1	63.611	ug/L	63.611	ppb	16:16:43
1	Na 589.592 Radial†	-1337.4	-97.2	-26.555	ug/L	-26.555	ppb	16:16:23
1	Sr 421.552†	15.5	10.2	0.0578	ug/L	0.0578	ppb	16:16:23
1	Sc 361.383	921117.8	921117.8	102.41	%			16:17:40
1	Y 371.029	756855.7	756855.7	101.88	%			16:17:40
1	Ag 328.068†	443.3	33.5	0.1352	ug/L	0.1352	ppb	16:17:45
1	As 188.979†	-21.2	6.8	2.4080	ug/L	2.4080	ppb	16:18:05
1	B 249.677†	-280.6	-739.0	-15.076	ug/L	-15.076	ppb	16:17:45
1	Ba 233.527†	-0.2	8.4	0.0558	ug/L	0.0558	ppb	16:18:05
1	Be 313.107†	-4544.5	157.6	0.0524	ug/L	0.0524	ppb	16:17:45
1	Cd 226.502†	-225.3	5.8	0.0562	ug/L	0.0562	ppb	16:18:05
1	Co 228.616†	-71.2	15.2	0.2638	ug/L	0.2638	ppb	16:18:05
1	Cr 267.716†	98.0	-3.5	-0.0371	ug/L	-0.0371	ppb	16:18:05
1	Cu 324.752†	6158.0	-74.0	-0.2072	ug/L	-0.2072	ppb	16:17:45
1	Mn 257.610†	570.1	65.2	0.0618	ug/L	0.0618	ppb	16:18:05
1	Mo 202.031†	24.6	-1.6	-0.0950	ug/L	-0.0950	ppb	16:18:05
1	Ni 231.604†	105.6	0.8	0.0173	ug/L	0.0173	ppb	16:18:05
1	P 214.914†	260.5	-0.8	-0.3333	ug/L	-0.3333	ppb	16:18:05
1	Pb 220.353†	-76.3	3.3	0.3374	ug/L	0.3374	ppb	16:18:05
1	S 181.975 Axial†	44.2	-15.6	-18.688	ug/L	-18.688	ppb	16:18:05
1	Sb 206.836†	34.3	-8.9	-2.6136	ug/L	-2.6136	ppb	16:18:05
1	Se 196.026†	-34.3	-4.7	-2.5263	ug/L	-2.5263	ppb	16:18:05
1	Si 251.611†	656.1	-19.2	-0.5430	ug/L	-0.5430	ppb	16:18:05
1	Sn 189.927†	12.7	10.6	1.5465	ug/L	1.5465	ppb	16:18:05
1	Ti 334.940†	-1462.4	42.1	0.0592	ug/L	0.0592	ppb	16:17:45
1	Tl 190.801†	-36.4	10.3	2.6268	ug/L	2.6268	ppb	16:18:05
1	U 409.014†	-2616.3	173.7	4.8225	ug/L	4.8225	ppb	16:17:40
1	V 292.402†	-1550.9	-45.9	-0.2778	ug/L	-0.2778	ppb	16:17:45
1	Zn 213.857†	843.8	19.1	0.1521	ug/L	0.1521	ppb	16:18:05
1	SiO2†	691.8	-9.4	-0.5815	ug/L	-0.5815	ppb	16:19:11
2	Sc Radial	5596.5	5596.5	100	%			16:16:48
2	Y RADIAL	5857.2	5857.2	99.93	%			16:16:48
2	Al 396.153Radial†	-21.3	-8.0	-5.6181	ug/L	-5.6181	ppb	16:16:48
2	Ca 317.933Radial†	23.5	5.6	7.8169	ug/L	7.8169	ppb	16:17:08
2	Fe 238.204 Radial†	11.0	-0.2	-1.7104	ug/L	-1.7104	ppb	16:17:08
2	K 766.490 Radial†	2994.9	117.7	21.150	ug/L	21.150	ppb	16:16:48
2	Mg 279.077 IEC†	4.2	1.9	58.220	ug/L	58.220	ppb	16:17:08
2	Na 589.592 Radial†	-1373.3	-111.1	-30.372	ug/L	-30.372	ppb	16:16:48
2	Sr 421.552†	-3.7	-9.3	-0.0534	ug/L	-0.0534	ppb	16:16:48
2	Sc 361.383	922673.2	922673.2	102.59	%			16:18:10
2	Y 371.029	757834.3	757834.3	102.01	%			16:18:10
2	Ag 328.068†	410.7	1.0	-0.0007	ug/L	-0.0007	ppb	16:18:15
2	As 188.979†	-30.2	-2.0	-0.7005	ug/L	-0.7005	ppb	16:18:35
2	B 249.677†	-249.6	-708.4	-14.450	ug/L	-14.450	ppb	16:18:15
2	Ba 233.527†	5.5	13.9	0.0935	ug/L	0.0935	ppb	16:18:35
2	Be 313.107†	-4545.9	163.7	0.0543	ug/L	0.0543	ppb	16:18:15
2	Cd 226.502†	-237.6	-5.8	-0.0556	ug/L	-0.0556	ppb	16:18:35
2	Co 228.616†	-84.7	2.1	0.0371	ug/L	0.0371	ppb	16:18:35
2	Cr 267.716†	89.9	-11.5	-0.1164	ug/L	-0.1164	ppb	16:18:35
2	Cu 324.752†	6135.1	-106.5	-0.2978	ug/L	-0.2978	ppb	16:18:15
2	Mn 257.610†	565.9	60.1	0.0575	ug/L	0.0575	ppb	16:18:35
2	Mo 202.031†	24.6	-1.6	-0.0931	ug/L	-0.0931	ppb	16:18:35
2	Ni 231.604†	112.2	7.1	0.1539	ug/L	0.1539	ppb	16:18:35

2	P 214.914†	262.1	0.3	0.1825	ug/L	0.1825	ppb	16:18:35
2	Pb 220.353†	-70.3	9.3	0.9517	ug/L	0.9517	ppb	16:18:35
2	S 181.975 Axial†	50.1	-9.9	-11.914	ug/L	-11.914	ppb	16:18:35
2	Sb 206.836†	40.9	-2.5	-0.7480	ug/L	-0.7480	ppb	16:18:35
2	Se 196.026†	-28.2	1.3	0.6978	ug/L	0.6978	ppb	16:18:35
2	Si 251.611†	655.8	-20.6	-0.5769	ug/L	-0.5769	ppb	16:18:35
2	Sn 189.927†	-2.8	-4.6	-0.6708	ug/L	-0.6708	ppb	16:18:35
2	Ti 334.940†	-1531.5	-22.8	-0.0346	ug/L	-0.0346	ppb	16:18:15
2	Tl 190.801†	-54.2	-7.1	-1.8090	ug/L	-1.8090	ppb	16:18:35
2	U 409.014†	-2614.1	180.2	5.0009	ug/L	5.0009	ppb	16:18:10
2	V 292.402†	-1505.0	1.3	0.0183	ug/L	0.0183	ppb	16:18:15
2	Zn 213.857†	834.3	8.4	0.0656	ug/L	0.0656	ppb	16:18:35
2	SiO2†	682.3	-19.9	-1.1966	ug/L	-1.1966	ppb	16:19:16
3	Sc Radial	5577.7	5577.7	99.8	%			16:17:13
3	Y RADIAL	5857.5	5857.5	99.93	%			16:17:13
3	Al 396.153Radial†	-28.0	-14.8	-10.347	ug/L	-10.347	ppb	16:17:13
3	Ca 317.933Radial†	23.1	5.3	7.4291	ug/L	7.4291	ppb	16:17:33
3	Fe 238.204 Radial†	10.7	-0.5	-4.2077	ug/L	-4.2077	ppb	16:17:33
3	K 766.490 Radial†	2923.5	56.3	10.116	ug/L	10.116	ppb	16:17:13
3	Mg 279.077 IEC†	4.1	1.8	55.048	ug/L	55.048	ppb	16:17:33
3	Na 589.592 Radial†	-1376.0	-118.4	-32.369	ug/L	-32.369	ppb	16:17:13
3	Sr 421.552†	12.3	6.7	0.0380	ug/L	0.0380	ppb	16:17:13
3	Sc 361.383	912594.0	912594.0	101.46	%			16:18:40
3	Y 371.029	751700.5	751700.5	101.18	%			16:18:40
3	Ag 328.068†	421.3	15.8	0.0587	ug/L	0.0587	ppb	16:18:45
3	As 188.979†	-29.0	-1.2	-0.3997	ug/L	-0.3997	ppb	16:19:05
3	B 249.677†	-289.0	-749.9	-15.297	ug/L	-15.297	ppb	16:18:45
3	Ba 233.527†	8.6	17.1	0.1142	ug/L	0.1142	ppb	16:19:05
3	Be 313.107†	-4466.4	193.1	0.0645	ug/L	0.0645	ppb	16:18:45
3	Cd 226.502†	-234.4	-5.3	-0.0499	ug/L	-0.0499	ppb	16:19:05
3	Co 228.616†	-78.9	7.0	0.1190	ug/L	0.1190	ppb	16:19:05
3	Cr 267.716†	122.9	21.9	0.2159	ug/L	0.2159	ppb	16:19:05
3	Cu 324.752†	6179.3	3.1	0.0084	ug/L	0.0084	ppb	16:18:45
3	Mn 257.610†	550.3	50.9	0.0482	ug/L	0.0482	ppb	16:19:05
3	Mo 202.031†	15.8	-10.0	-0.5920	ug/L	-0.5920	ppb	16:19:05
3	Ni 231.604†	132.7	28.5	0.6144	ug/L	0.6144	ppb	16:19:05
3	P 214.914†	257.2	-1.7	-0.8410	ug/L	-0.8410	ppb	16:19:05
3	Pb 220.353†	-68.3	10.5	1.0747	ug/L	1.0747	ppb	16:19:05
3	S 181.975 Axial†	54.6	-4.9	-5.8751	ug/L	-5.8751	ppb	16:19:05
3	Sb 206.836†	48.4	5.3	1.5636	ug/L	1.5636	ppb	16:19:05
3	Se 196.026†	-23.3	5.8	3.0813	ug/L	3.0813	ppb	16:19:05
3	Si 251.611†	650.4	-18.8	-0.5173	ug/L	-0.5173	ppb	16:19:05
3	Sn 189.927†	4.7	2.8	0.4058	ug/L	0.4058	ppb	16:19:05
3	Ti 334.940†	-1335.0	154.3	0.2192	ug/L	0.2192	ppb	16:18:45
3	Tl 190.801†	-42.1	4.3	1.0967	ug/L	1.0967	ppb	16:19:05
3	U 409.014†	-2492.0	272.3	7.5577	ug/L	7.5577	ppb	16:18:40
3	V 292.402†	-1526.2	-35.7	-0.2166	ug/L	-0.2166	ppb	16:18:45
3	Zn 213.857†	854.3	37.1	0.2935	ug/L	0.2935	ppb	16:19:05
3	SiO2†	684.3	-10.6	-0.6205	ug/L	-0.6205	ppb	16:19:21

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	918795.0	102.15	%	0.603				0.59%
Sc Radial	5560.2	99.5	%	0.85				0.86%
Y 371.029	755463.5	101.69	%	0.444				0.44%
Y RADIAL	5827.0	99.41	%	0.897				0.90%
Ag 328.068†	16.8	0.0644	ug/L	0.06810	0.0644	ppb	0.06810	105.73%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-6.1	-4.2634	ug/L	6.86192	-4.2634	ppb	6.86192	160.95%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	1.2	0.4359	ug/L	1.71446	0.4359	ppb	1.71446	393.29%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-732.4	-14.941	ug/L	0.4390	-14.941	ppb	0.4390	2.94%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	13.2	0.0878	ug/L	0.02962	0.0878	ppb	0.02962	33.72%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	171.5	0.0571	ug/L	0.00651	0.0571	ppb	0.00651	11.41%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	6.8	9.4272	ug/L	3.13095	9.4272	ppb	3.13095	33.21%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                -1.8     -0.0164 ug/L       0.06295     -0.0164 ppb        0.06295 383.60%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                 8.1      0.1400 ug/L       0.11482      0.1400 ppb        0.11482  82.04%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                 2.3      0.0208 ug/L       0.17354      0.0208 ppb        0.17354 833.35%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               -59.2     -0.1655 ug/L       0.15729     -0.1655 ppb        0.15729  95.01%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -0.5     -4.0967 ug/L       2.33272     -4.0967 ppb        2.33272  56.94%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          82.9      14.887 ug/L        5.6664      14.887 ppb         5.6664  38.06%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             2.0      58.960 ug/L        4.3295      58.960 ppb         4.3295   7.34%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                58.7      0.0558 ug/L       0.00694      0.0558 ppb        0.00694  12.43%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                -4.4     -0.2600 ug/L       0.28748     -0.2600 ppb        0.28748 110.55%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       -108.9     -29.765 ug/L        2.9540     -29.765 ppb         2.9540   9.92%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                12.2      0.2619 ug/L       0.31281      0.2619 ppb        0.31281 119.45%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -0.7     -0.3306 ug/L       0.51173     -0.3306 ppb        0.51173 154.79%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                 7.7      0.7880 ug/L       0.39500      0.7880 ppb        0.39500  50.13%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          -10.1     -12.159 ug/L        6.4102     -12.159 ppb         6.4102  52.72%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                -2.0     -0.5993 ug/L       2.09254     -0.5993 ppb        2.09254 349.15%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 0.8      0.4176 ug/L       2.81430      0.4176 ppb        2.81430 673.93%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†               -19.5     -0.5457 ug/L       0.02986     -0.5457 ppb        0.02986   5.47%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 2.9      0.4271 ug/L       1.10881      0.4271 ppb        1.10881 259.59%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                 2.5      0.0142 ug/L       0.05931      0.0142 ppb        0.05931 418.93%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                57.9      0.0813 ug/L       0.12836      0.0813 ppb        0.12836 157.96%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 2.5      0.6382 ug/L       2.25316      0.6382 ppb        2.25316 353.07%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                208.7      5.7937 ug/L       1.53028      5.7937 ppb        1.53028  26.41%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                -26.8     -0.1587 ug/L       0.15634     -0.1587 ppb        0.15634  98.52%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                21.5      0.1704 ug/L       0.11506      0.1704 ppb        0.11506  67.52%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                     -13.3     -0.7995 ug/L       0.34441     -0.7995 ppb        0.34441  43.08%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
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Sequence No.: 40
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 12/20/2009 17:16:16
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5493.4	5493.4	98.3	%			17:18:08
1	Y RADIAL	5728.4	5728.4	97.73	%			17:18:08
1	Al 396.153Radial†	6852.0	6982.8	4883.6	ug/L	4883.6	ppb	17:18:08
1	Ca 317.933Radial†	3521.9	3564.4	4976.2	ug/L	4976.2	ppb	17:18:28
1	Fe 238.204 Radial†	638.6	638.3	5066.6	ug/L	5066.6	ppb	17:18:28
1	K 766.490 Radial†	29891.0	27531.0	4934.4	ug/L	4934.4	ppb	17:18:08
1	Mg 279.077 IEC†	173.0	173.7	5248.7	ug/L	5248.7	ppb	17:18:28
1	Na 589.592 Radial†	33115.0	34942.7	9549.3	ug/L	9549.3	ppb	17:18:08
1	Sr 421.552†	83717.8	85147.3	485.74	ug/L	485.74	ppb	17:18:08
1	Sc 361.383	913463.7	913463.7	101.56	%			17:19:26
1	Y 371.029	741044.3	741044.3	99.750	%			17:19:26
1	Ag 328.068†	119040.0	116810.8	501.50	ug/L	501.50	ppb	17:19:31
1	As 188.979†	1386.4	1392.5	499.31	ug/L	499.31	ppb	17:19:51
1	B 249.677†	24585.8	23742.9	482.41	ug/L	482.41	ppb	17:19:31
1	Ba 233.527†	75765.8	74609.8	502.18	ug/L	502.18	ppb	17:19:31
1	Be 313.107†	1535883.8	1516870.5	504.40	ug/L	504.40	ppb	17:19:26
1	Cd 226.502†	52889.7	52302.5	502.30	ug/L	502.30	ppb	17:19:31
1	Co 228.616†	29401.1	29033.9	503.68	ug/L	503.68	ppb	17:19:31
1	Cr 267.716†	51193.1	50307.0	502.46	ug/L	502.46	ppb	17:19:31
1	Cu 324.752†	187150.9	178187.2	498.29	ug/L	498.29	ppb	17:19:31
1	Mn 257.610†	522894.4	514365.4	502.65	ug/L	502.65	ppb	17:19:26
1	Mo 202.031†	8386.5	8232.0	489.80	ug/L	489.80	ppb	17:19:51
1	Ni 231.604†	23923.3	23453.3	505.13	ug/L	505.13	ppb	17:19:31
1	P 214.914†	5166.2	4831.7	2381.8	ug/L	2381.8	ppb	17:19:51
1	Pb 220.353†	4794.9	4799.0	492.54	ug/L	492.54	ppb	17:19:51
1	S 181.975 Axial†	887.4	815.0	975.52	ug/L	975.52	ppb	17:19:51
1	Sb 206.836†	1729.8	1660.8	496.82	ug/L	496.82	ppb	17:19:51
1	Se 196.026†	904.7	919.5	508.88	ug/L	508.88	ppb	17:19:51
1	Si 251.611†	91753.4	89683.2	2484.8	ug/L	2484.8	ppb	17:19:31
1	Sn 189.927†	3397.7	3343.7	489.64	ug/L	489.64	ppb	17:19:51
1	Ti 334.940†	349759.2	345853.1	497.94	ug/L	497.94	ppb	17:19:26
1	Tl 190.801†	1916.7	1933.1	496.45	ug/L	496.45	ppb	17:19:51
1	U 409.014†	15509.3	17999.2	497.97	ug/L	497.97	ppb	17:19:31
1	V 292.402†	79688.0	79931.6	508.43	ug/L	508.43	ppb	17:19:31
1	Zn 213.857†	64163.2	62372.1	498.78	ug/L	498.78	ppb	17:19:31
1	SiO2†	91015.8	88931.8	5290.9	ug/L	5290.9	ppb	17:20:59
2	Sc Radial	5581.8	5581.8	99.9	%			17:18:33
2	Y RADIAL	5795.1	5795.1	98.87	%			17:18:33
2	Al 396.153Radial†	6922.5	6942.9	4855.4	ug/L	4855.4	ppb	17:18:33
2	Ca 317.933Radial†	3516.9	3502.6	4890.0	ug/L	4890.0	ppb	17:18:53
2	Fe 238.204 Radial†	638.5	627.9	4984.5	ug/L	4984.5	ppb	17:18:53
2	K 766.490 Radial†	30420.7	27579.5	4943.1	ug/L	4943.1	ppb	17:18:33
2	Mg 279.077 IEC†	174.8	172.7	5218.4	ug/L	5218.4	ppb	17:18:53
2	Na 589.592 Radial†	33441.4	34735.7	9492.7	ug/L	9492.7	ppb	17:18:33
2	Sr 421.552†	84506.8	84587.9	482.55	ug/L	482.55	ppb	17:18:33
2	Sc 361.383	906086.2	906086.2	100.74	%			17:19:57
2	Y 371.029	735728.1	735728.1	99.035	%			17:19:57
2	Ag 328.068†	119151.6	117875.9	506.03	ug/L	506.03	ppb	17:20:02
2	As 188.979†	1384.5	1401.8	502.61	ug/L	502.61	ppb	17:20:22
2	B 249.677†	24674.1	24027.6	488.21	ug/L	488.21	ppb	17:20:02
2	Ba 233.527†	75940.4	75390.5	507.43	ug/L	507.43	ppb	17:20:02
2	Be 313.107†	1533742.4	1527058.2	507.79	ug/L	507.79	ppb	17:19:57
2	Cd 226.502†	52986.2	52822.3	507.30	ug/L	507.30	ppb	17:20:02
2	Co 228.616†	29482.6	29350.5	509.18	ug/L	509.18	ppb	17:20:02
2	Cr 267.716†	51352.1	50875.3	508.14	ug/L	508.14	ppb	17:20:02
2	Cu 324.752†	187627.1	180160.3	503.80	ug/L	503.80	ppb	17:20:02
2	Mn 257.610†	521351.9	517026.3	505.24	ug/L	505.24	ppb	17:19:57
2	Mo 202.031†	8395.7	8308.4	494.33	ug/L	494.33	ppb	17:20:22
2	Ni 231.604†	23965.5	23687.0	510.16	ug/L	510.16	ppb	17:20:02

2	P 214.914†	5132.8	4839.8	2385.2 ug/L	2385.2 ppb	17:20:22
2	Pb 220.353†	4797.9	4840.5	496.79 ug/L	496.79 ppb	17:20:22
2	S 181.975 Axial†	878.5	813.3	973.45 ug/L	973.45 ppb	17:20:22
2	Sb 206.836†	1722.6	1667.5	498.87 ug/L	498.87 ppb	17:20:22
2	Se 196.026†	906.9	929.0	513.67 ug/L	513.67 ppb	17:20:22
2	Si 251.611†	92197.9	90860.1	2517.5 ug/L	2517.5 ppb	17:20:02
2	Sn 189.927†	3409.4	3382.5	495.30 ug/L	495.30 ppb	17:20:22
2	Ti 334.940†	348792.8	347697.7	500.59 ug/L	500.59 ppb	17:19:57
2	Tl 190.801†	1919.1	1950.7	500.96 ug/L	500.96 ppb	17:20:22
2	U 409.014†	15448.3	18063.0	499.75 ug/L	499.75 ppb	17:20:02
2	V 292.402†	79765.5	80647.4	513.00 ug/L	513.00 ppb	17:20:02
2	Zn 213.857†	64290.9	63013.2	503.91 ug/L	503.91 ppb	17:20:02
2	SiO2†	90816.8	89464.0	5322.5 ug/L	5322.5 ppb	17:21:04
3	Sc Radial	5485.8	5485.8	98.2 %		17:18:59
3	Y RADIAL	5708.6	5708.6	97.39 %		17:18:59
3	Al 396.153Radial†	6717.7	6855.6	4794.6 ug/L	4794.6 ppb	17:18:59
3	Ca 317.933Radial†	3476.8	3523.4	4918.9 ug/L	4918.9 ppb	17:19:19
3	Fe 238.204 Radial†	630.7	631.2	5010.4 ug/L	5010.4 ppb	17:19:19
3	K 766.490 Radial†	29691.1	27369.3	4905.5 ug/L	4905.5 ppb	17:18:59
3	Mg 279.077 IEC†	172.7	173.7	5247.0 ug/L	5247.0 ppb	17:19:19
3	Na 589.592 Radial†	32546.1	34409.7	9403.6 ug/L	9403.6 ppb	17:18:59
3	Sr 421.552†	82051.5	83567.5	476.73 ug/L	476.73 ppb	17:18:59
3	Sc 361.383	924276.1	924276.1	102.76 %		17:20:28
3	Y 371.029	750358.6	750358.6	101.00 %		17:20:28
3	Ag 328.068†	118537.8	114951.0	493.52 ug/L	493.52 ppb	17:20:33
3	As 188.979†	1379.0	1369.4	491.04 ug/L	491.04 ppb	17:20:54
3	B 249.677†	24523.3	23398.8	475.41 ug/L	475.41 ppb	17:20:33
3	Ba 233.527†	75777.7	73748.7	496.38 ug/L	496.38 ppb	17:20:33
3	Be 313.107†	1535147.7	1498463.3	498.28 ug/L	498.28 ppb	17:20:28
3	Cd 226.502†	52925.9	51728.5	496.78 ug/L	496.78 ppb	17:20:33
3	Co 228.616†	29386.6	28681.2	497.56 ug/L	497.56 ppb	17:20:33
3	Cr 267.716†	51063.7	49591.4	495.32 ug/L	495.32 ppb	17:20:33
3	Cu 324.752†	186447.5	175347.0	490.35 ug/L	490.35 ppb	17:20:33
3	Mn 257.610†	522471.0	507930.4	496.36 ug/L	496.36 ppb	17:20:28
3	Mo 202.031†	8366.7	8116.2	482.91 ug/L	482.91 ppb	17:20:54
3	Ni 231.604†	23885.2	23140.7	498.40 ug/L	498.40 ppb	17:20:33
3	P 214.914†	5127.6	4734.5	2333.6 ug/L	2333.6 ppb	17:20:54
3	Pb 220.353†	4771.1	4720.7	484.50 ug/L	484.50 ppb	17:20:54
3	S 181.975 Axial†	883.4	800.9	958.63 ug/L	958.63 ppb	17:20:54
3	Sb 206.836†	1725.7	1636.9	489.68 ug/L	489.68 ppb	17:20:54
3	Se 196.026†	911.6	915.9	506.70 ug/L	506.70 ppb	17:20:54
3	Si 251.611†	91614.9	88491.6	2451.8 ug/L	2451.8 ppb	17:20:33
3	Sn 189.927†	3391.7	3298.7	483.05 ug/L	483.05 ppb	17:20:54
3	Ti 334.940†	349205.3	341285.3	491.36 ug/L	491.36 ppb	17:20:28
3	Tl 190.801†	1911.1	1905.5	489.37 ug/L	489.37 ppb	17:20:54
3	U 409.014†	15464.8	17777.3	491.84 ug/L	491.84 ppb	17:20:33
3	V 292.402†	79337.2	78672.3	500.43 ug/L	500.43 ppb	17:20:33
3	Zn 213.857†	64100.7	61572.2	492.38 ug/L	492.38 ppb	17:20:33
3	SiO2†	90601.3	87480.1	5204.5 ug/L	5204.5 ppb	17:21:09

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	914608.7	101.69	%	1.017				1.00%
Sc Radial	5520.3	98.8	%	0.96				0.97%
Y 371.029	742377.0	99.930	%	0.9969				1.00%
Y RADIAL	5744.0	98.00	%	0.773				0.79%
Ag 328.068†	116545.9	500.35	ug/L	6.334	500.35	ppb	6.334	1.27%
QC value within limits for Ag 328.068 Recovery = 100.07%								
Al 396.153Radial†	6927.1	4844.5	ug/L	45.51	4844.5	ppb	45.51	0.94%
QC value within limits for Al 396.153Radial Recovery = 96.89%								
As 188.979†	1387.9	497.65	ug/L	5.961	497.65	ppb	5.961	1.20%
QC value within limits for As 188.979 Recovery = 99.53%								
B 249.677†	23723.1	482.01	ug/L	6.410	482.01	ppb	6.410	1.33%
QC value within limits for B 249.677 Recovery = 96.40%								
Ba 233.527†	74583.0	502.00	ug/L	5.528	502.00	ppb	5.528	1.10%
QC value within limits for Ba 233.527 Recovery = 100.40%								
Be 313.107†	1514130.6	503.49	ug/L	4.819	503.49	ppb	4.819	0.96%
QC value within limits for Be 313.107 Recovery = 100.70%								
Ca 317.933Radial†	3530.1	4928.4	ug/L	43.87	4928.4	ppb	43.87	0.89%

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   QC value within limits for Ca 317.933Radial  Recovery = 98.57%
Cd 226.502†            52284.4      502.13 ug/L         5.261      502.13 ppb          5.261   1.05%
   QC value within limits for Cd 226.502  Recovery = 100.43%
Co 228.616†            29021.9      503.47 ug/L         5.812      503.47 ppb          5.812   1.15%
   QC value within limits for Co 228.616  Recovery = 100.69%
Cr 267.716†            50257.9      501.97 ug/L         6.425      501.97 ppb          6.425   1.28%
   QC value within limits for Cr 267.716  Recovery = 100.39%
Cu 324.752†           177898.1      497.48 ug/L         6.762      497.48 ppb          6.762   1.36%
   QC value within limits for Cu 324.752  Recovery = 99.50%
Fe 238.204 Radial†       632.5      5020.5 ug/L         41.99      5020.5 ppb          41.99   0.84%
   QC value within limits for Fe 238.204 Radial  Recovery = 100.41%
K 766.490 Radial†      27493.3      4927.7 ug/L         19.70      4927.7 ppb          19.70   0.40%
   QC value within limits for K 766.490 Radial  Recovery = 98.55%
Mg 279.077 IEC†          173.4      5238.0 ug/L         17.01      5238.0 ppb          17.01   0.32%
   QC value within limits for Mg 279.077 IEC  Recovery = 104.76%
Mn 257.610†           513107.4      501.41 ug/L         4.566      501.41 ppb          4.566   0.91%
   QC value within limits for Mn 257.610  Recovery = 100.28%
Mo 202.031†             8218.8      489.01 ug/L         5.752      489.01 ppb          5.752   1.18%
   QC value within limits for Mo 202.031  Recovery = 97.80%
Na 589.592 Radial†     34696.0      9481.9 ug/L         73.43      9481.9 ppb          73.43   0.77%
   QC value within limits for Na 589.592 Radial  Recovery = 94.82%
Ni 231.604†            23427.0      504.56 ug/L         5.903      504.56 ppb          5.903   1.17%
   QC value within limits for Ni 231.604  Recovery = 100.91%
P 214.914†              4802.0      2366.9 ug/L         28.87      2366.9 ppb          28.87   1.22%
   QC value within limits for P 214.914  Recovery = 94.68%
Pb 220.353†             4786.7      491.28 ug/L         6.242      491.28 ppb          6.242   1.27%
   QC value within limits for Pb 220.353  Recovery = 98.26%
S 181.975 Axial†         809.8      969.20 ug/L         9.210      969.20 ppb          9.210   0.95%
   QC value within limits for S 181.975 Axial  Recovery = 96.92%
Sb 206.836†             1655.1      495.12 ug/L         4.823      495.12 ppb          4.823   0.97%
   QC value within limits for Sb 206.836  Recovery = 99.02%
Se 196.026†              921.5      509.75 ug/L         3.564      509.75 ppb          3.564   0.70%
   QC value within limits for Se 196.026  Recovery = 101.95%
Si 251.611†            89678.3      2484.7 ug/L         32.84      2484.7 ppb          32.84   1.32%
   QC value within limits for Si 251.611  Recovery = 99.39%
Sn 189.927†             3341.6      489.33 ug/L         6.131      489.33 ppb          6.131   1.25%
   QC value within limits for Sn 189.927  Recovery = 97.87%
Sr 421.552†            84434.2      481.67 ug/L         4.570      481.67 ppb          4.570   0.95%
   QC value within limits for Sr 421.552  Recovery = 96.33%
Ti 334.940†           344945.4      496.63 ug/L         4.750      496.63 ppb          4.750   0.96%
   QC value within limits for Ti 334.940  Recovery = 99.33%
Tl 190.801†             1929.8      495.59 ug/L         5.843      495.59 ppb          5.843   1.18%
   QC value within limits for Tl 190.801  Recovery = 99.12%
U 409.014†             17946.5      496.52 ug/L         4.151      496.52 ppb          4.151   0.84%
   QC value within limits for U 409.014  Recovery = 99.30%
V 292.402†             79750.4      507.29 ug/L         6.361      507.29 ppb          6.361   1.25%
   QC value within limits for V 292.402  Recovery = 101.46%
Zn 213.857†            62319.2      498.36 ug/L         5.778      498.36 ppb          5.778   1.16%
   QC value within limits for Zn 213.857  Recovery = 99.67%
SiO2†                  88625.3      5272.7 ug/L         61.11      5272.7 ppb          61.11   1.16%
   QC value within limits for SiO2  Recovery = 98.60%
All analyte(s) passed QC.
```

Sequence No.: 41
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 12/20/2009 17:23:20
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	5685.4	5685.4	102	%			17:25:13
1	Y RADIAL	5934.7	5934.7	101.2	%			17:25:13
1	Al 396.153Radial†	-34.7	-20.8	-14.580	ug/L	-14.580	ppb	17:25:13
1	Ca 317.933Radial†	27.3	8.9	12.479	ug/L	12.479	ppb	17:25:33
1	Fe 238.204 Radial†	14.1	2.6	20.867	ug/L	20.867	ppb	17:25:33
1	K 766.490 Radial†	2866.8	-55.0	-9.8529	ug/L	-9.8529	ppb	17:25:13
1	Mg 279.077 IEC†	2.9	0.6	17.026	ug/L	17.026	ppb	17:25:33
1	Na 589.592 Radial†	-1461.3	-176.2	-48.140	ug/L	-48.140	ppb	17:25:13
1	Sr 421.552†	4.9	-0.8	-0.0047	ug/L	-0.0047	ppb	17:25:13
1	Sc 361.383	885744.1	885744.1	98.479	%			17:26:29
1	Y 371.029	733643.4	733643.4	98.754	%			17:26:29
1	Ag 328.068†	523.2	131.9	0.5667	ug/L	0.5667	ppb	17:26:29
1	As 188.979†	-33.5	-6.6	-2.3306	ug/L	-2.3306	ppb	17:26:50
1	B 249.677†	-230.1	-698.6	-14.255	ug/L	-14.255	ppb	17:26:29
1	Ba 233.527†	-17.7	-9.3	-0.0634	ug/L	-0.0634	ppb	17:26:50
1	Be 313.107†	-4484.5	41.3	0.0135	ug/L	0.0135	ppb	17:26:29
1	Cd 226.502†	-234.5	-12.4	-0.1208	ug/L	-0.1208	ppb	17:26:50
1	Co 228.616†	-86.3	-2.9	-0.0523	ug/L	-0.0523	ppb	17:26:50
1	Cr 267.716†	70.3	-27.8	-0.2784	ug/L	-0.2784	ppb	17:26:50
1	Cu 324.752†	6180.3	188.7	0.5285	ug/L	0.5285	ppb	17:26:29
1	Mn 257.610†	581.4	98.9	0.0983	ug/L	0.0983	ppb	17:26:50
1	Mo 202.031†	15.3	-10.0	-0.5931	ug/L	-0.5931	ppb	17:26:50
1	Ni 231.604†	124.8	24.5	0.5277	ug/L	0.5277	ppb	17:26:50
1	P 214.914†	253.2	1.9	0.8913	ug/L	0.8913	ppb	17:26:50
1	Pb 220.353†	-92.8	-16.4	-1.6861	ug/L	-1.6861	ppb	17:26:50
1	S 181.975 Axial†	52.6	-5.4	-6.4366	ug/L	-6.4366	ppb	17:26:50
1	Sb 206.836†	39.8	-1.9	-0.5516	ug/L	-0.5516	ppb	17:26:50
1	Se 196.026†	-35.2	-6.9	-3.6239	ug/L	-3.6239	ppb	17:26:50
1	Si 251.611†	676.0	26.6	0.7489	ug/L	0.7489	ppb	17:26:50
1	Sn 189.927†	11.9	10.2	1.4993	ug/L	1.4993	ppb	17:26:50
1	Ti 334.940†	-1514.5	-67.9	-0.0973	ug/L	-0.0973	ppb	17:26:29
1	Tl 190.801†	-35.6	9.6	2.4612	ug/L	2.4612	ppb	17:26:50
1	U 409.014†	-2662.1	25.2	0.6966	ug/L	0.6966	ppb	17:26:29
1	V 292.402†	-1538.1	-93.4	-0.5963	ug/L	-0.5963	ppb	17:26:29
1	Zn 213.857†	854.8	63.2	0.5040	ug/L	0.5040	ppb	17:26:50
1	SiO2†	708.8	34.7	2.0966	ug/L	2.0966	ppb	17:27:46
2	Sc Radial	5599.3	5599.3	100	%			17:25:38
2	Y RADIAL	5833.3	5833.3	99.52	%			17:25:38
2	Al 396.153Radial†	-29.2	-15.9	-11.166	ug/L	-11.166	ppb	17:25:38
2	Ca 317.933Radial†	33.0	15.1	21.049	ug/L	21.049	ppb	17:25:58
2	Fe 238.204 Radial†	13.4	2.1	16.718	ug/L	16.718	ppb	17:25:58
2	K 766.490 Radial†	2867.3	-11.1	-1.9678	ug/L	-1.9678	ppb	17:25:38
2	Mg 279.077 IEC†	0.8	-1.4	-43.343	ug/L	-43.343	ppb	17:25:58
2	Na 589.592 Radial†	-1473.4	-210.3	-57.476	ug/L	-57.476	ppb	17:25:38
2	Sr 421.552†	21.2	15.6	0.0886	ug/L	0.0886	ppb	17:25:38
2	Sc 361.383	890657.4	890657.4	99.025	%			17:26:55
2	Y 371.029	738788.7	738788.7	99.447	%			17:26:55
2	Ag 328.068†	487.3	92.7	0.4018	ug/L	0.4018	ppb	17:26:55
2	As 188.979†	-37.8	-10.7	-3.7811	ug/L	-3.7811	ppb	17:27:15
2	B 249.677†	-297.1	-765.1	-15.609	ug/L	-15.609	ppb	17:26:55
2	Ba 233.527†	6.9	15.6	0.1043	ug/L	0.1043	ppb	17:27:15
2	Be 313.107†	-4434.7	116.8	0.0386	ug/L	0.0386	ppb	17:26:55
2	Cd 226.502†	-218.8	4.8	0.0450	ug/L	0.0450	ppb	17:27:15
2	Co 228.616†	-87.9	-4.1	-0.0689	ug/L	-0.0689	ppb	17:27:15
2	Cr 267.716†	110.5	12.5	0.1248	ug/L	0.1248	ppb	17:27:15
2	Cu 324.752†	6108.7	81.8	0.2295	ug/L	0.2295	ppb	17:26:55
2	Mn 257.610†	529.7	43.4	0.0448	ug/L	0.0448	ppb	17:27:15
2	Mo 202.031†	35.3	10.1	0.6029	ug/L	0.6029	ppb	17:27:15
2	Ni 231.604†	121.6	20.5	0.4426	ug/L	0.4426	ppb	17:27:15

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              -6.8     -0.0669 ug/L       0.09693     -0.0669 ppb        0.09693 144.97%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†               1.0      0.0178 ug/L       0.13609      0.0178 ppb        0.13609 762.83%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -9.5     -0.0948 ug/L       0.20399     -0.0948 ppb        0.20399 215.07%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             159.4      0.4464 ug/L       0.18971      0.4464 ppb        0.18971  42.50%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        2.1      16.543 ug/L        4.4152      16.543 ppb         4.4152  26.69%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       -43.1     -7.7283 ug/L       5.04564     -7.7283 ppb        5.04564  65.29%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          -0.3     -8.2619 ug/L      31.35329     -8.2619 ppb       31.35329 379.49%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              74.0      0.0740 ug/L       0.02710      0.0740 ppb        0.02710  36.60%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               4.4      0.2614 ug/L       0.74498      0.2614 ppb        0.74498 284.97%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      -167.0     -45.633 ug/L       13.2762     -45.633 ppb        13.2762  29.09%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              20.3      0.4374 ug/L       0.09311      0.4374 ppb        0.09311  21.29%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                3.0      1.4280 ug/L       3.82601      1.4280 ppb        3.82601 267.92%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               3.6      0.3610 ug/L       1.77419      0.3610 ppb        1.77419 491.49%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         -8.2     -9.8621 ug/L       3.10936     -9.8621 ppb        3.10936  31.53%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               0.9      0.2978 ug/L       1.03767      0.2978 ppb        1.03767 348.43%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              -0.8     -0.3986 ug/L       3.93478     -0.3986 ppb        3.93478 987.17%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†              25.5      0.7035 ug/L       0.25454      0.7035 ppb        0.25454  36.18%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               6.8      0.9907 ug/L       0.72140      0.9907 ppb        0.72140  72.81%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               8.8      0.0499 ug/L       0.04868      0.0499 ppb        0.04868  97.54%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             -44.3     -0.0628 ug/L       0.03155     -0.0628 ppb        0.03155  50.23%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               4.1      1.0521 ug/L       1.35102      1.0521 ppb        1.35102 128.41%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              -22.7     -0.6310 ug/L       1.82733     -0.6310 ppb        1.82733 289.61%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              -92.1     -0.5781 ug/L       0.23178     -0.5781 ppb        0.23178  40.09%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              67.8      0.5433 ug/L       0.10647      0.5433 ppb        0.10647  19.60%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                    37.8      2.2490 ug/L       0.55485      2.2490 ppb        0.55485  24.67%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

2	P 214.914†	248.7	-4.0	-2.1013	ug/L	-2.1013	ppb	17:27:15
2	Pb 220.353†	-63.0	14.2	1.4538	ug/L	1.4538	ppb	17:27:15
2	S 181.975 Axial†	47.8	-10.4	-12.506	ug/L	-12.506	ppb	17:27:15
2	Sb 206.836†	41.9	-0.1	-0.0093	ug/L	-0.0093	ppb	17:27:15
2	Se 196.026†	-21.2	7.4	3.9854	ug/L	3.9854	ppb	17:27:15
2	Si 251.611†	669.1	15.8	0.4294	ug/L	0.4294	ppb	17:27:15
2	Sn 189.927†	2.9	1.1	0.1651	ug/L	0.1651	ppb	17:27:15
2	Ti 334.940†	-1495.6	-40.3	-0.0557	ug/L	-0.0557	ppb	17:26:55
2	Tl 190.801†	-46.2	-0.9	-0.2323	ug/L	-0.2323	ppb	17:27:15
2	U 409.014†	-2798.5	-97.7	-2.7151	ug/L	-2.7151	ppb	17:26:55
2	V 292.402†	-1507.4	-53.8	-0.3378	ug/L	-0.3378	ppb	17:26:55
2	Zn 213.857†	878.8	82.6	0.6638	ug/L	0.6638	ppb	17:27:15
2	SiO2†	726.1	48.3	2.8641	ug/L	2.8641	ppb	17:27:51
3	Sc Radial	5569.9	5569.9	99.7	%			17:26:03
3	Y RADIAL	5847.4	5847.4	99.76	%			17:26:03
3	Al 396.153Radial†	-8.4	4.8	3.3673	ug/L	3.3673	ppb	17:26:03
3	Ca 317.933Radial†	21.1	3.3	4.6008	ug/L	4.6008	ppb	17:26:23
3	Fe 238.204 Radial†	12.7	1.5	12.042	ug/L	12.042	ppb	17:26:23
3	K 766.490 Radial†	2800.1	-63.4	-11.364	ug/L	-11.364	ppb	17:26:03
3	Mg 279.077 IEC†	2.3	0.1	1.5305	ug/L	1.5305	ppb	17:26:23
3	Na 589.592 Radial†	-1370.1	-114.5	-31.282	ug/L	-31.282	ppb	17:26:03
3	Sr 421.552†	17.1	11.5	0.0658	ug/L	0.0658	ppb	17:26:03
3	Sc 361.383	888903.1	888903.1	98.830	%			17:27:20
3	Y 371.029	735944.7	735944.7	99.064	%			17:27:20
3	Ag 328.068†	471.8	78.0	0.3334	ug/L	0.3334	ppb	17:27:20
3	As 188.979†	-30.3	-3.2	-1.1192	ug/L	-1.1192	ppb	17:27:40
3	B 249.677†	-274.9	-743.1	-15.162	ug/L	-15.162	ppb	17:27:20
3	Ba 233.527†	6.3	15.0	0.0990	ug/L	0.0990	ppb	17:27:40
3	Be 313.107†	-4503.9	37.9	0.0125	ug/L	0.0125	ppb	17:27:20
3	Cd 226.502†	-235.9	-12.9	-0.1248	ug/L	-0.1248	ppb	17:27:40
3	Co 228.616†	-73.9	10.0	0.1747	ug/L	0.1747	ppb	17:27:40
3	Cr 267.716†	85.2	-13.0	-0.1309	ug/L	-0.1309	ppb	17:27:40
3	Cu 324.752†	6221.2	207.8	0.5813	ug/L	0.5813	ppb	17:27:20
3	Mn 257.610†	564.5	79.7	0.0790	ug/L	0.0790	ppb	17:27:40
3	Mo 202.031†	38.1	13.0	0.7745	ug/L	0.7745	ppb	17:27:40
3	Ni 231.604†	116.7	15.9	0.3418	ug/L	0.3418	ppb	17:27:40
3	P 214.914†	263.0	11.0	5.4941	ug/L	5.4941	ppb	17:27:40
3	Pb 220.353†	-64.2	12.8	1.3153	ug/L	1.3153	ppb	17:27:40
3	S 181.975 Axial†	49.3	-8.9	-10.644	ug/L	-10.644	ppb	17:27:40
3	Sb 206.836†	46.6	4.8	1.4544	ug/L	1.4544	ppb	17:27:40
3	Se 196.026†	-31.4	-3.0	-1.5573	ug/L	-1.5573	ppb	17:27:40
3	Si 251.611†	685.7	34.0	0.9324	ug/L	0.9324	ppb	17:27:40
3	Sn 189.927†	10.6	8.9	1.3078	ug/L	1.3078	ppb	17:27:40
3	Ti 334.940†	-1477.3	-24.7	-0.0354	ug/L	-0.0354	ppb	17:27:20
3	Tl 190.801†	-41.7	3.6	0.9275	ug/L	0.9275	ppb	17:27:40
3	U 409.014†	-2691.9	4.6	0.1256	ug/L	0.1256	ppb	17:27:20
3	V 292.402†	-1578.7	-129.0	-0.8003	ug/L	-0.8003	ppb	17:27:20
3	Zn 213.857†	852.5	57.7	0.4620	ug/L	0.4620	ppb	17:27:40
3	SiO2†	707.0	30.4	1.7863	ug/L	1.7863	ppb	17:27:56

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	888434.9	98.778	%	0.2768				0.28%
Sc Radial	5618.2	101	%	1.1				1.07%
Y 371.029	736125.6	99.088	%	0.3469				0.35%
Y RADIAL	5871.8	100.2	%	0.94				0.94%
Ag 328.068†	100.9	0.4340	ug/L	0.11991	0.4340	ppb	0.11991	27.63%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-10.6	-7.4595	ug/L	9.53031	-7.4595	ppb	9.53031	127.76%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-6.8	-2.4103	ug/L	1.33276	-2.4103	ppb	1.33276	55.29%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-735.6	-15.009	ug/L	0.6901	-15.009	ppb	0.6901	4.60%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	7.1	0.0466	ug/L	0.09536	0.0466	ppb	0.09536	204.50%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	65.3	0.0216	ug/L	0.01480	0.0216	ppb	0.01480	68.68%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	9.1	12.710	ug/L	8.2266	12.710	ppb	8.2266	64.73%

Sequence No.: 50
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 12/20/2009 18:24:41
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	5491.5	5491.5	98.3	%			18:26:33
1	Y RADIAL	5699.3	5699.3	97.23	%			18:26:33
1	Al 396.153Radial†	6994.6	7130.1	4986.9	ug/L	4986.9	ppb	18:26:33
1	Ca 317.933Radial†	3519.7	3563.4	4974.8	ug/L	4974.8	ppb	18:26:53
1	Fe 238.204 Radial†	645.8	645.8	5125.9	ug/L	5125.9	ppb	18:26:53
1	K 766.490 Radial†	30616.3	28279.0	5068.5	ug/L	5068.5	ppb	18:26:33
1	Mg 279.077 IEC†	171.6	172.4	5207.7	ug/L	5207.7	ppb	18:26:53
1	Na 589.592 Radial†	34734.7	36601.8	10003	ug/L	10003	ppb	18:26:33
1	Sr 421.552†	86252.3	87754.0	500.61	ug/L	500.61	ppb	18:26:33
1	Sc 361.383	913223.0	913223.0	101.53	%			18:27:52
1	Y 371.029	741479.3	741479.3	99.809	%			18:27:52
1	Ag 328.068†	118445.7	116256.5	499.16	ug/L	499.16	ppb	18:27:52
1	As 188.979†	1384.1	1390.6	498.63	ug/L	498.63	ppb	18:28:12
1	B 249.677†	24288.4	23456.3	476.59	ug/L	476.59	ppb	18:27:52
1	Ba 233.527†	75555.6	74422.4	500.92	ug/L	500.92	ppb	18:27:52
1	Be 313.107†	1533645.3	1515064.5	503.80	ug/L	503.80	ppb	18:27:52
1	Cd 226.502†	52810.1	52237.9	501.66	ug/L	501.66	ppb	18:27:52
1	Co 228.616†	28668.5	28320.0	491.31	ug/L	491.31	ppb	18:28:12
1	Cr 267.716†	51087.5	50216.3	501.56	ug/L	501.56	ppb	18:27:52
1	Cu 324.752†	187655.2	178732.4	499.81	ug/L	499.81	ppb	18:27:52
1	Mn 257.610†	521720.9	513345.3	501.66	ug/L	501.66	ppb	18:27:52
1	Mo 202.031†	8459.6	8306.2	494.21	ug/L	494.21	ppb	18:28:12
1	Ni 231.604†	23467.7	23010.9	495.60	ug/L	495.60	ppb	18:28:12
1	P 214.914†	5178.5	4845.0	2388.4	ug/L	2388.4	ppb	18:28:12
1	Pb 220.353†	4858.1	4862.6	499.07	ug/L	499.07	ppb	18:28:12
1	S 181.975 Axial†	879.2	807.1	966.05	ug/L	966.05	ppb	18:28:12
1	Sb 206.836†	1731.0	1662.5	497.50	ug/L	497.50	ppb	18:28:12
1	Se 196.026†	906.2	921.3	510.04	ug/L	510.04	ppb	18:28:12
1	Si 251.611†	91402.8	89361.7	2475.8	ug/L	2475.8	ppb	18:27:52
1	Sn 189.927†	3423.6	3370.0	493.49	ug/L	493.49	ppb	18:28:12
1	Ti 334.940†	347967.2	344178.9	495.54	ug/L	495.54	ppb	18:27:52
1	Tl 190.801†	1915.6	1932.5	496.35	ug/L	496.35	ppb	18:28:12
1	U 409.014†	14789.6	17294.4	478.41	ug/L	478.41	ppb	18:27:52
1	V 292.402†	79040.8	79314.8	504.58	ug/L	504.58	ppb	18:27:52
1	Zn 213.857†	63926.2	62155.3	497.08	ug/L	497.08	ppb	18:27:52
1	SiO2†	91232.7	89169.1	5304.8	ug/L	5304.8	ppb	18:29:13
2	Sc Radial	5530.6	5530.6	99.0	%			18:26:58
2	Y RADIAL	5750.9	5750.9	98.11	%			18:26:58
2	Al 396.153Radial†	6906.5	6990.9	4889.1	ug/L	4889.1	ppb	18:26:58
2	Ca 317.933Radial†	3519.7	3538.1	4939.5	ug/L	4939.5	ppb	18:27:18
2	Fe 238.204 Radial†	639.6	635.0	5039.8	ug/L	5039.8	ppb	18:27:18
2	K 766.490 Radial†	30218.9	27657.6	4957.0	ug/L	4957.0	ppb	18:26:58
2	Mg 279.077 IEC†	172.4	171.9	5192.9	ug/L	5192.9	ppb	18:27:18
2	Na 589.592 Radial†	34580.1	36196.0	9891.8	ug/L	9891.8	ppb	18:26:58
2	Sr 421.552†	85880.0	86758.3	494.93	ug/L	494.93	ppb	18:26:58
2	Sc 361.383	911677.5	911677.5	101.36	%			18:28:20
2	Y 371.029	739229.6	739229.6	99.506	%			18:28:20
2	Ag 328.068†	118864.9	116867.7	501.74	ug/L	501.74	ppb	18:28:20
2	As 188.979†	1381.2	1390.1	498.44	ug/L	498.44	ppb	18:28:40
2	B 249.677†	24500.1	23705.7	481.68	ug/L	481.68	ppb	18:28:20
2	Ba 233.527†	76007.1	74994.0	504.76	ug/L	504.76	ppb	18:28:20
2	Be 313.107†	1540028.4	1523922.4	506.74	ug/L	506.74	ppb	18:28:20
2	Cd 226.502†	53132.7	52644.3	505.58	ug/L	505.58	ppb	18:28:20
2	Co 228.616†	28748.7	28447.0	493.51	ug/L	493.51	ppb	18:28:40
2	Cr 267.716†	51284.3	50495.7	504.35	ug/L	504.35	ppb	18:28:20
2	Cu 324.752†	188394.2	179774.7	502.72	ug/L	502.72	ppb	18:28:20
2	Mn 257.610†	524091.6	516555.2	504.78	ug/L	504.78	ppb	18:28:20
2	Mo 202.031†	8468.3	8328.9	495.55	ug/L	495.55	ppb	18:28:40
2	Ni 231.604†	23480.5	23062.6	496.72	ug/L	496.72	ppb	18:28:40

2	P 214.914†	5178.1	4853.3	2392.2 ug/L	2392.2 ppb	18:28:40
2	Pb 220.353†	4854.5	4867.1	499.52 ug/L	499.52 ppb	18:28:40
2	S 181.975 Axial†	881.8	811.2	970.93 ug/L	970.93 ppb	18:28:40
2	Sb 206.836†	1708.0	1642.6	491.58 ug/L	491.58 ppb	18:28:40
2	Se 196.026†	900.1	916.8	507.34 ug/L	507.34 ppb	18:28:40
2	Si 251.611†	91889.4	89994.4	2493.4 ug/L	2493.4 ppb	18:28:20
2	Sn 189.927†	3407.9	3360.2	492.06 ug/L	492.06 ppb	18:28:40
2	Ti 334.940†	349783.6	346551.8	498.95 ug/L	498.95 ppb	18:28:20
2	Tl 190.801†	1920.6	1940.6	498.45 ug/L	498.45 ppb	18:28:40
2	U 409.014†	14874.3	17402.7	481.42 ug/L	481.42 ppb	18:28:20
2	V 292.402†	79350.1	79751.9	507.36 ug/L	507.36 ppb	18:28:20
2	Zn 213.857†	64268.1	62599.3	500.66 ug/L	500.66 ppb	18:28:20
2	SiO2†	91667.6	89750.5	5339.6 ug/L	5339.6 ppb	18:29:18
3	Sc Radial	5565.5	5565.5	99.6 %		18:27:23
3	Y RADIAL	5761.3	5761.3	98.29 %		18:27:23
3	Al 396.153Radial†	6976.4	7017.4	4907.3 ug/L	4907.3 ppb	18:27:23
3	Ca 317.933Radial†	3524.8	3520.9	4915.5 ug/L	4915.5 ppb	18:27:43
3	Fe 238.204 Radial†	650.1	641.5	5091.6 ug/L	5091.6 ppb	18:27:43
3	K 766.490 Radial†	30365.5	27613.5	4949.1 ug/L	4949.1 ppb	18:27:23
3	Mg 279.077 IEC†	169.4	167.8	5070.6 ug/L	5070.6 ppb	18:27:43
3	Na 589.592 Radial†	34573.2	35970.3	9830.1 ug/L	9830.1 ppb	18:27:23
3	Sr 421.552†	86090.8	86426.5	493.04 ug/L	493.04 ppb	18:27:23
3	Sc 361.383	900276.1	900276.1	100.09 %		18:28:47
3	Y 371.029	730902.2	730902.2	98.385 %		18:28:47
3	Ag 328.068†	118122.2	117610.8	504.95 ug/L	504.95 ppb	18:28:47
3	As 188.979†	1396.6	1422.7	510.08 ug/L	510.08 ppb	18:29:07
3	B 249.677†	24168.5	23680.5	481.13 ug/L	481.13 ppb	18:28:47
3	Ba 233.527†	75408.5	75345.6	507.13 ug/L	507.13 ppb	18:28:47
3	Be 313.107†	1531232.5	1534376.1	510.22 ug/L	510.22 ppb	18:28:47
3	Cd 226.502†	52717.9	52893.7	507.97 ug/L	507.97 ppb	18:28:47
3	Co 228.616†	28929.4	28986.7	502.89 ug/L	502.89 ppb	18:29:07
3	Cr 267.716†	50973.6	50826.1	507.65 ug/L	507.65 ppb	18:28:47
3	Cu 324.752†	187464.1	181199.3	506.71 ug/L	506.71 ppb	18:28:47
3	Mn 257.610†	520208.4	519223.7	507.40 ug/L	507.40 ppb	18:28:47
3	Mo 202.031†	8526.2	8492.6	505.29 ug/L	505.29 ppb	18:29:07
3	Ni 231.604†	23611.8	23487.2	505.86 ug/L	505.86 ppb	18:29:07
3	P 214.914†	5211.9	4951.8	2441.8 ug/L	2441.8 ppb	18:29:07
3	Pb 220.353†	4878.8	4952.0	508.23 ug/L	508.23 ppb	18:29:07
3	S 181.975 Axial†	883.3	823.8	985.96 ug/L	985.96 ppb	18:29:07
3	Sb 206.836†	1737.5	1693.4	506.91 ug/L	506.91 ppb	18:29:07
3	Se 196.026†	919.2	947.2	523.74 ug/L	523.74 ppb	18:29:07
3	Si 251.611†	91219.8	90473.5	2506.5 ug/L	2506.5 ppb	18:28:47
3	Sn 189.927†	3444.0	3438.9	503.56 ug/L	503.56 ppb	18:29:07
3	Ti 334.940†	347505.5	348646.2	501.96 ug/L	501.96 ppb	18:28:47
3	Tl 190.801†	1952.6	1996.5	512.70 ug/L	512.70 ppb	18:29:07
3	U 409.014†	14748.5	17462.9	483.08 ug/L	483.08 ppb	18:28:47
3	V 292.402†	79014.6	80408.1	511.60 ug/L	511.60 ppb	18:28:47
3	Zn 213.857†	63766.6	62901.4	503.03 ug/L	503.03 ppb	18:28:47
3	SiO2†	91763.1	90991.1	5413.4 ug/L	5413.4 ppb	18:29:23

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	908392.2	101.00	%	0.786				0.78%
Sc Radial	5529.2	99.0	%	0.66				0.67%
Y 371.029	737203.7	99.233	%	0.7500				0.76%
Y RADIAL	5737.2	97.88	%	0.567				0.58%
Ag 328.068†	116911.7	501.95	ug/L	2.901	501.95	ppb	2.901	0.58%
QC value within limits for Ag 328.068 Recovery = 100.39%								
Al 396.153Radial†	7046.1	4927.8	ug/L	52.04	4927.8	ppb	52.04	1.06%
QC value within limits for Al 396.153Radial Recovery = 98.56%								
As 188.979†	1401.1	502.38	ug/L	6.666	502.38	ppb	6.666	1.33%
QC value within limits for As 188.979 Recovery = 100.48%								
B 249.677†	23614.2	479.80	ug/L	2.797	479.80	ppb	2.797	0.58%
QC value within limits for B 249.677 Recovery = 95.96%								
Ba 233.527†	74920.7	504.27	ug/L	3.135	504.27	ppb	3.135	0.62%
QC value within limits for Ba 233.527 Recovery = 100.85%								
Be 313.107†	1524454.4	506.92	ug/L	3.215	506.92	ppb	3.215	0.63%
QC value within limits for Be 313.107 Recovery = 101.38%								
Ca 317.933Radial†	3540.8	4943.2	ug/L	29.82	4943.2	ppb	29.82	0.60%

```
   QC value within limits for Ca 317.933Radial  Recovery = 98.86%
Cd 226.502†            52591.9      505.07 ug/L         3.186      505.07 ppb          3.186   0.63%
   QC value within limits for Cd 226.502  Recovery = 101.01%
Co 228.616†            28584.6      495.91 ug/L         6.148      495.91 ppb          6.148   1.24%
   QC value within limits for Co 228.616  Recovery = 99.18%
Cr 267.716†            50512.7      504.52 ug/L         3.049      504.52 ppb          3.049   0.60%
   QC value within limits for Cr 267.716  Recovery = 100.90%
Cu 324.752†           179902.2      503.08 ug/L         3.461      503.08 ppb          3.461   0.69%
   QC value within limits for Cu 324.752  Recovery = 100.62%
Fe 238.204 Radial†       640.7      5085.8 ug/L         43.33      5085.8 ppb          43.33   0.85%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.72%
K 766.490 Radial†      27850.0      4991.6 ug/L         66.79      4991.6 ppb          66.79   1.34%
   QC value within limits for K 766.490 Radial  Recovery = 99.83%
Mg 279.077 IEC†          170.7      5157.1 ug/L         75.26      5157.1 ppb          75.26   1.46%
   QC value within limits for Mg 279.077 IEC  Recovery = 103.14%
Mn 257.610†           516374.7      504.61 ug/L         2.873      504.61 ppb          2.873   0.57%
   QC value within limits for Mn 257.610  Recovery = 100.92%
Mo 202.031†             8375.9      498.35 ug/L         6.045      498.35 ppb          6.045   1.21%
   QC value within limits for Mo 202.031  Recovery = 99.67%
Na 589.592 Radial†     36256.0      9908.2 ug/L         87.44      9908.2 ppb          87.44   0.88%
   QC value within limits for Na 589.592 Radial  Recovery = 99.08%
Ni 231.604†            23186.9      499.39 ug/L         5.628      499.39 ppb          5.628   1.13%
   QC value within limits for Ni 231.604  Recovery = 99.88%
P 214.914†              4883.4      2407.5 ug/L         29.77      2407.5 ppb          29.77   1.24%
   QC value within limits for P 214.914  Recovery = 96.30%
Pb 220.353†             4893.9      502.27 ug/L         5.160      502.27 ppb          5.160   1.03%
   QC value within limits for Pb 220.353  Recovery = 100.45%
S 181.975 Axial†         814.0      974.31 ug/L        10.379      974.31 ppb         10.379   1.07%
   QC value within limits for S 181.975 Axial  Recovery = 97.43%
Sb 206.836†             1666.2      498.67 ug/L         7.730      498.67 ppb          7.730   1.55%
   QC value within limits for Sb 206.836  Recovery = 99.73%
Se 196.026†              928.4      513.71 ug/L         8.796      513.71 ppb          8.796   1.71%
   QC value within limits for Se 196.026  Recovery = 102.74%
Si 251.611†            89943.2      2491.9 ug/L         15.44      2491.9 ppb          15.44   0.62%
   QC value within limits for Si 251.611  Recovery = 99.68%
Sn 189.927†             3389.7      496.37 ug/L         6.272      496.37 ppb          6.272   1.26%
   QC value within limits for Sn 189.927  Recovery = 99.27%
Sr 421.552†            86979.6      496.19 ug/L         3.941      496.19 ppb          3.941   0.79%
   QC value within limits for Sr 421.552  Recovery = 99.24%
Ti 334.940†           346459.0      498.82 ug/L         3.215      498.82 ppb          3.215   0.64%
   QC value within limits for Ti 334.940  Recovery = 99.76%
Tl 190.801†             1956.5      502.50 ug/L         8.898      502.50 ppb          8.898   1.77%
   QC value within limits for Tl 190.801  Recovery = 100.50%
U 409.014†             17386.7      480.97 ug/L         2.367      480.97 ppb          2.367   0.49%
   QC value within limits for U 409.014  Recovery = 96.19%
V 292.402†             79824.9      507.85 ug/L         3.538      507.85 ppb          3.538   0.70%
   QC value within limits for V 292.402  Recovery = 101.57%
Zn 213.857†            62552.0      500.26 ug/L         2.995      500.26 ppb          2.995   0.60%
   QC value within limits for Zn 213.857  Recovery = 100.05%
SiO2†                  89970.2      5352.6 ug/L         55.41      5352.6 ppb          55.41   1.04%
   QC value within limits for SiO2  Recovery = 100.10%
All analyte(s) passed QC.
```

Sequence No.: 51
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 12/20/2009 18:31:32
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5793.9	5793.9	104	%			18:33:24
1	Y RADIAL	6061.9	6061.9	103.4	%			18:33:24
1	Al 396.153Radial†	-15.9	-2.1	-1.4236	ug/L	-1.4236	ppb	18:33:24
1	Ca 317.933Radial†	18.3	-0.3	-0.3691	ug/L	-0.3691	ppb	18:33:44
1	Fe 238.204 Radial†	10.1	-1.5	-11.933	ug/L	-11.933	ppb	18:33:44
1	K 766.490 Radial†	2938.3	-38.8	-6.9463	ug/L	-6.9463	ppb	18:33:24
1	Mg 279.077 IEC†	-0.1	-2.4	-71.712	ug/L	-71.712	ppb	18:33:44
1	Na 589.592 Radial†	-1436.5	-125.4	-34.257	ug/L	-34.257	ppb	18:33:24
1	Sr 421.552†	-2.0	-7.5	-0.0431	ug/L	-0.0431	ppb	18:33:24
1	Sc 361.383	911494.1	911494.1	101.34	%			18:34:41
1	Y 371.029	750236.6	750236.6	100.99	%			18:34:41
1	Ag 328.068†	437.8	32.6	0.1315	ug/L	0.1315	ppb	18:34:46
1	As 188.979†	-26.2	1.6	0.5625	ug/L	0.5625	ppb	18:35:06
1	B 249.677†	-376.4	-836.4	-17.061	ug/L	-17.061	ppb	18:35:06
1	Ba 233.527†	6.9	15.4	0.1021	ug/L	0.1021	ppb	18:35:06
1	Be 313.107†	-4418.0	235.6	0.0778	ug/L	0.0778	ppb	18:34:46
1	Cd 226.502†	-233.5	-4.6	-0.0431	ug/L	-0.0431	ppb	18:35:06
1	Co 228.616†	-84.0	1.8	0.0307	ug/L	0.0307	ppb	18:35:06
1	Cr 267.716†	103.4	2.9	0.0267	ug/L	0.0267	ppb	18:35:06
1	Cu 324.752†	6101.8	-66.0	-0.1850	ug/L	-0.1850	ppb	18:34:46
1	Mn 257.610†	513.0	14.7	0.0145	ug/L	0.0145	ppb	18:35:06
1	Mo 202.031†	17.1	-8.7	-0.5207	ug/L	-0.5207	ppb	18:35:06
1	Ni 231.604†	113.6	9.8	0.2114	ug/L	0.2114	ppb	18:35:06
1	P 214.914†	242.4	-16.0	-8.0791	ug/L	-8.0791	ppb	18:35:06
1	Pb 220.353†	-65.3	13.4	1.3674	ug/L	1.3674	ppb	18:35:06
1	S 181.975 Axial†	53.0	-6.5	-7.7821	ug/L	-7.7821	ppb	18:35:06
1	Sb 206.836†	36.4	-6.4	-1.9160	ug/L	-1.9160	ppb	18:35:06
1	Se 196.026†	-28.4	0.7	0.3520	ug/L	0.3520	ppb	18:35:06
1	Si 251.611†	694.9	25.8	0.7309	ug/L	0.7309	ppb	18:35:06
1	Sn 189.927†	0.2	-1.6	-0.2343	ug/L	-0.2343	ppb	18:35:06
1	Ti 334.940†	-1625.5	-133.9	-0.1939	ug/L	-0.1939	ppb	18:34:46
1	Tl 190.801†	-46.8	-0.3	-0.0898	ug/L	-0.0898	ppb	18:35:06
1	U 409.014†	-2682.3	81.5	2.2646	ug/L	2.2646	ppb	18:34:41
1	V 292.402†	-1558.6	-69.5	-0.4391	ug/L	-0.4391	ppb	18:34:46
1	Zn 213.857†	786.9	-28.4	-0.2268	ug/L	-0.2268	ppb	18:35:06
1	SiO2†	709.7	15.4	0.9448	ug/L	0.9448	ppb	18:36:12
2	Sc Radial	5630.9	5630.9	101	%			18:33:49
2	Y RADIAL	5875.4	5875.4	100.2	%			18:33:49
2	Al 396.153Radial†	-5.5	7.8	5.4808	ug/L	5.4808	ppb	18:33:49
2	Ca 317.933Radial†	19.0	1.0	1.4259	ug/L	1.4259	ppb	18:34:09
2	Fe 238.204 Radial†	11.0	-0.3	-2.6681	ug/L	-2.6681	ppb	18:34:09
2	K 766.490 Radial†	2771.0	-122.7	-22.014	ug/L	-22.014	ppb	18:33:49
2	Mg 279.077 IEC†	0.3	-2.0	-59.131	ug/L	-59.131	ppb	18:34:09
2	Na 589.592 Radial†	-1393.3	-122.6	-33.507	ug/L	-33.507	ppb	18:33:49
2	Sr 421.552†	-4.6	-10.2	-0.0581	ug/L	-0.0581	ppb	18:33:49
2	Sc 361.383	907826.7	907826.7	100.93	%			18:35:11
2	Y 371.029	746737.2	746737.2	100.52	%			18:35:11
2	Ag 328.068†	420.7	17.4	0.0677	ug/L	0.0677	ppb	18:35:16
2	As 188.979†	-25.0	2.7	0.9753	ug/L	0.9753	ppb	18:35:36
2	B 249.677†	-388.2	-849.7	-17.333	ug/L	-17.333	ppb	18:35:36
2	Ba 233.527†	-4.2	4.5	0.0290	ug/L	0.0290	ppb	18:35:36
2	Be 313.107†	-4468.2	168.3	0.0559	ug/L	0.0559	ppb	18:35:16
2	Cd 226.502†	-221.8	6.0	0.0585	ug/L	0.0585	ppb	18:35:36
2	Co 228.616†	-70.6	14.8	0.2567	ug/L	0.2567	ppb	18:35:36
2	Cr 267.716†	102.0	1.9	0.0167	ug/L	0.0167	ppb	18:35:36
2	Cu 324.752†	6136.7	-7.1	-0.0201	ug/L	-0.0201	ppb	18:35:16
2	Mn 257.610†	509.9	13.6	0.0141	ug/L	0.0141	ppb	18:35:36
2	Mo 202.031†	25.1	-0.7	-0.0405	ug/L	-0.0405	ppb	18:35:36
2	Ni 231.604†	127.3	23.8	0.5132	ug/L	0.5132	ppb	18:35:36

2	P 214.914†	228.5	-28.8	-14.633 ug/L	-14.633 ppb	18:35:36
2	Pb 220.353†	-80.1	-1.5	-0.1557 ug/L	-0.1557 ppb	18:35:36
2	S 181.975 Axial†	48.0	-11.2	-13.363 ug/L	-13.363 ppb	18:35:36
2	Sb 206.836†	31.4	-11.3	-3.3209 ug/L	-3.3209 ppb	18:35:36
2	Se 196.026†	-33.5	-4.4	-2.3651 ug/L	-2.3651 ppb	18:35:36
2	Si 251.611†	697.1	30.8	0.8646 ug/L	0.8646 ppb	18:35:36
2	Sn 189.927†	3.2	1.4	0.1979 ug/L	0.1979 ppb	18:35:36
2	Ti 334.940†	-1460.0	23.6	0.0320 ug/L	0.0320 ppb	18:35:16
2	Tl 190.801†	-37.0	9.1	2.3308 ug/L	2.3308 ppb	18:35:36
2	U 409.014†	-2585.1	167.2	4.6405 ug/L	4.6405 ppb	18:35:11
2	V 292.402†	-1551.6	-68.8	-0.4246 ug/L	-0.4246 ppb	18:35:16
2	Zn 213.857†	806.3	-6.0	-0.0494 ug/L	-0.0494 ppb	18:35:36
2	SiO2†	699.5	8.1	0.4989 ug/L	0.4989 ppb	18:36:17
3	Sc Radial	5512.2	5512.2	98.7 %		18:34:14
3	Y RADIAL	5798.6	5798.6	98.93 %		18:34:14
3	Al 396.153Radial†	-28.0	-15.1	-10.636 ug/L	-10.636 ppb	18:34:14
3	Ca 317.933Radial†	18.3	0.7	0.9686 ug/L	0.9686 ppb	18:34:34
3	Fe 238.204 Radial†	9.6	-1.5	-11.763 ug/L	-11.763 ppb	18:34:34
3	K 766.490 Radial†	2927.7	95.4	17.147 ug/L	17.147 ppb	18:34:14
3	Mg 279.077 IEC†	5.3	3.1	92.244 ug/L	92.244 ppb	18:34:34
3	Na 589.592 Radial†	-1433.7	-193.3	-52.815 ug/L	-52.815 ppb	18:34:14
3	Sr 421.552†	-29.0	-35.0	-0.1996 ug/L	-0.1996 ppb	18:34:14
3	Sc 361.383	909104.4	909104.4	101.08 %		18:35:41
3	Y 371.029	748421.3	748421.3	100.74 %		18:35:41
3	Ag 328.068†	435.2	31.2	0.1282 ug/L	0.1282 ppb	18:35:46
3	As 188.979†	-38.3	-10.4	-3.6855 ug/L	-3.6855 ppb	18:36:06
3	B 249.677†	-394.2	-855.0	-17.441 ug/L	-17.441 ppb	18:36:06
3	Ba 233.527†	-7.3	1.4	0.0082 ug/L	0.0082 ppb	18:36:06
3	Be 313.107†	-4511.5	131.6	0.0438 ug/L	0.0438 ppb	18:35:46
3	Cd 226.502†	-228.9	-0.7	-0.0053 ug/L	-0.0053 ppb	18:36:06
3	Co 228.616†	-70.4	15.0	0.2644 ug/L	0.2644 ppb	18:36:06
3	Cr 267.716†	104.1	3.9	0.0378 ug/L	0.0378 ppb	18:36:06
3	Cu 324.752†	6122.7	-29.5	-0.0832 ug/L	-0.0832 ppb	18:35:46
3	Mn 257.610†	492.4	-4.4	-0.0072 ug/L	-0.0072 ppb	18:36:06
3	Mo 202.031†	48.1	22.1	1.3096 ug/L	1.3096 ppb	18:36:06
3	Ni 231.604†	127.8	24.2	0.5211 ug/L	0.5211 ppb	18:36:06
3	P 214.914†	239.7	-18.0	-9.1062 ug/L	-9.1062 ppb	18:36:06
3	Pb 220.353†	-82.5	-3.8	-0.3840 ug/L	-0.3840 ppb	18:36:06
3	S 181.975 Axial†	50.9	-8.4	-10.088 ug/L	-10.088 ppb	18:36:06
3	Sb 206.836†	46.8	3.9	1.1903 ug/L	1.1903 ppb	18:36:06
3	Se 196.026†	-26.4	2.7	1.4051 ug/L	1.4051 ppb	18:36:06
3	Si 251.611†	683.9	16.8	0.4352 ug/L	0.4352 ppb	18:36:06
3	Sn 189.927†	11.2	9.3	1.3567 ug/L	1.3567 ppb	18:36:06
3	Ti 334.940†	-1437.9	47.5	0.0688 ug/L	0.0688 ppb	18:35:46
3	Tl 190.801†	-44.5	1.7	0.4437 ug/L	0.4437 ppb	18:36:06
3	U 409.014†	-2785.0	-27.0	-0.7482 ug/L	-0.7482 ppb	18:35:41
3	V 292.402†	-1547.8	-62.9	-0.3736 ug/L	-0.3736 ppb	18:35:46
3	Zn 213.857†	798.3	-15.1	-0.1272 ug/L	-0.1272 ppb	18:36:06
3	SiO2†	709.3	16.7	0.9294 ug/L	0.9294 ppb	18:36:22

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	909475.0	101.12	%	0.207				0.20%
Sc Radial	5645.7	101	%	2.5				2.51%
Y 371.029	748465.0	100.75	%	0.236				0.23%
Y RADIAL	5912.0	100.9	%	2.31				2.29%
Ag 328.068†	27.1	0.1091	ug/L	0.03594	0.1091	ppb	0.03594	32.93%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-3.1	-2.1930	ug/L	8.08595	-2.1930	ppb	8.08595	368.72%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-2.0	-0.7159	ug/L	2.58001	-0.7159	ppb	2.58001	360.40%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-847.0	-17.279	ug/L	0.1957	-17.279	ppb	0.1957	1.13%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	7.1	0.0465	ug/L	0.04931	0.0465	ppb	0.04931	106.14%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	178.5	0.0592	ug/L	0.01723	0.0592	ppb	0.01723	29.12%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	0.5	0.6751	ug/L	0.93281	0.6751	ppb	0.93281	138.17%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                0.2      0.0034 ug/L       0.05131      0.0034 ppb        0.05131 >999.9%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†               10.6      0.1839 ug/L       0.13276      0.1839 ppb        0.13276  72.18%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                2.9      0.0271 ug/L       0.01055      0.0271 ppb        0.01055  38.97%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -34.2     -0.0961 ug/L       0.08325     -0.0961 ppb        0.08325  86.63%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        -1.1     -8.7881 ug/L       5.30072     -8.7881 ppb        5.30072  60.32%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        -22.0     -3.9377 ug/L      19.75290     -3.9377 ppb       19.75290 501.64%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           -0.4     -12.866 ug/L       91.2451     -12.866 ppb        91.2451 709.17%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                8.0      0.0071 ug/L       0.01241      0.0071 ppb        0.01241 173.96%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                4.2      0.2495 ug/L       0.94899      0.2495 ppb        0.94899 380.36%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      -147.1     -40.193 ug/L       10.9375     -40.193 ppb        10.9375  27.21%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               19.3      0.4152 ug/L       0.17659      0.4152 ppb        0.17659  42.53%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -20.9     -10.606 ug/L        3.5250     -10.606 ppb         3.5250  33.24%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                2.7      0.2759 ug/L       0.95215      0.2759 ppb        0.95215 345.13%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          -8.7     -10.411 ug/L        2.8045     -10.411 ppb         2.8045  26.94%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               -4.6     -1.3489 ug/L       2.30845     -1.3489 ppb        2.30845 171.14%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               -0.3     -0.2027 ug/L       1.94534     -0.2027 ppb        1.94534 959.91%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†               24.5      0.6769 ug/L       0.21971      0.6769 ppb        0.21971  32.46%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                3.0      0.4401 ug/L       0.82272      0.4401 ppb        0.82272 186.93%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              -17.6     -0.1003 ug/L       0.08637     -0.1003 ppb        0.08637  86.14%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              -20.9     -0.0310 ug/L       0.14221     -0.0310 ppb        0.14221 458.48%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                3.5      0.8949 ug/L       1.27180      0.8949 ppb        1.27180 142.11%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                73.9      2.0523 ug/L       2.70062      2.0523 ppb        2.70062 131.59%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               -67.1     -0.4124 ug/L       0.03439     -0.4124 ppb        0.03439   8.34%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              -16.5     -0.1345 ug/L       0.08893     -0.1345 ppb        0.08893  66.13%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                     13.4      0.7910 ug/L       0.25314      0.7910 ppb        0.25314  32.00%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 61
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 12/20/2009 19:40:01
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	5641.7	5641.7	101	%			19:41:53
1	Y RADIAL	5844.5	5844.5	99.71	%			19:41:53
1	Al 396.153Radial†	6960.1	6906.5	4830.0	ug/L	4830.0	ppb	19:41:53
1	Ca 317.933Radial†	3631.2	3578.5	4995.8	ug/L	4995.8	ppb	19:41:53
1	Fe 238.204 Radial†	661.8	644.2	5113.3	ug/L	5113.3	ppb	19:42:13
1	K 766.490 Radial†	30554.7	27388.8	4908.6	ug/L	4908.6	ppb	19:41:53
1	Mg 279.077 IEC†	172.1	168.2	5080.5	ug/L	5080.5	ppb	19:42:13
1	Na 589.592 Radial†	36137.0	37049.8	10125	ug/L	10125	ppb	19:41:53
1	Sr 421.552†	87496.5	86650.4	494.32	ug/L	494.32	ppb	19:41:53
1	Sc 361.383	920213.7	920213.7	102.31	%			19:43:10
1	Y 371.029	746679.8	746679.8	100.51	%			19:43:10
1	Ag 328.068†	118798.4	115714.9	496.82	ug/L	496.82	ppb	19:43:15
1	As 188.979†	1395.9	1391.8	499.08	ug/L	499.08	ppb	19:43:35
1	B 249.677†	24314.1	23299.7	473.37	ug/L	473.37	ppb	19:43:15
1	Ba 233.527†	75650.2	73949.6	497.74	ug/L	497.74	ppb	19:43:15
1	Be 313.107†	1560188.9	1529533.6	508.61	ug/L	508.61	ppb	19:43:10
1	Cd 226.502†	53003.2	52031.5	499.69	ug/L	499.69	ppb	19:43:15
1	Co 228.616†	29315.6	28738.0	498.54	ug/L	498.54	ppb	19:43:15
1	Cr 267.716†	51368.6	50108.8	500.48	ug/L	500.48	ppb	19:43:15
1	Cu 324.752†	186164.3	175871.2	491.82	ug/L	491.82	ppb	19:43:15
1	Mn 257.610†	529246.4	516797.3	505.03	ug/L	505.03	ppb	19:43:10
1	Mo 202.031†	8454.8	8238.2	490.17	ug/L	490.17	ppb	19:43:35
1	Ni 231.604†	24029.6	23384.5	503.65	ug/L	503.65	ppb	19:43:15
1	P 214.914†	5219.7	4846.6	2390.5	ug/L	2390.5	ppb	19:43:35
1	Pb 220.353†	4823.0	4791.8	491.80	ug/L	491.80	ppb	19:43:35
1	S 181.975 Axial†	893.6	814.6	975.03	ug/L	975.03	ppb	19:43:35
1	Sb 206.836†	1745.3	1663.5	497.75	ug/L	497.75	ppb	19:43:35
1	Se 196.026†	918.6	926.6	512.78	ug/L	512.78	ppb	19:43:35
1	Si 251.611†	91534.4	88806.5	2460.4	ug/L	2460.4	ppb	19:43:15
1	Sn 189.927†	3460.0	3380.0	494.96	ug/L	494.96	ppb	19:43:35
1	Ti 334.940†	352776.2	346275.7	498.55	ug/L	498.55	ppb	19:43:10
1	Tl 190.801†	1938.9	1940.9	498.50	ug/L	498.50	ppb	19:43:35
1	U 409.014†	15440.3	17819.8	492.99	ug/L	492.99	ppb	19:43:15
1	V 292.402†	79438.1	79111.7	503.27	ug/L	503.27	ppb	19:43:15
1	Zn 213.857†	64131.8	61878.0	494.81	ug/L	494.81	ppb	19:43:15
1	SiO2†	91870.6	89109.9	5301.6	ug/L	5301.6	ppb	19:44:43
2	Sc Radial	5381.5	5381.5	96.3	%			19:42:18
2	Y RADIAL	5614.0	5614.0	95.78	%			19:42:18
2	Al 396.153Radial†	6900.0	7177.3	5020.0	ug/L	5020.0	ppb	19:42:18
2	Ca 317.933Radial†	3618.5	3739.1	5220.0	ug/L	5220.0	ppb	19:42:18
2	Fe 238.204 Radial†	660.0	674.0	5349.1	ug/L	5349.1	ppb	19:42:38
2	K 766.490 Radial†	30179.2	28461.9	5101.1	ug/L	5101.1	ppb	19:42:18
2	Mg 279.077 IEC†	175.9	180.3	5448.3	ug/L	5448.3	ppb	19:42:38
2	Na 589.592 Radial†	35855.1	38487.5	10518	ug/L	10518	ppb	19:42:18
2	Sr 421.552†	86527.5	89833.6	512.47	ug/L	512.47	ppb	19:42:18
2	Sc 361.383	915853.8	915853.8	101.83	%			19:43:41
2	Y 371.029	743315.5	743315.5	100.06	%			19:43:41
2	Ag 328.068†	118005.3	115488.8	495.93	ug/L	495.93	ppb	19:43:47
2	As 188.979†	1414.8	1416.9	508.04	ug/L	508.04	ppb	19:44:07
2	B 249.677†	24227.6	23327.9	473.91	ug/L	473.91	ppb	19:43:47
2	Ba 233.527†	75426.1	74081.5	498.63	ug/L	498.63	ppb	19:43:47
2	Be 313.107†	1556526.2	1533196.1	509.83	ug/L	509.83	ppb	19:43:41
2	Cd 226.502†	52879.4	52156.4	500.86	ug/L	500.86	ppb	19:43:47
2	Co 228.616†	29282.0	28841.4	500.34	ug/L	500.34	ppb	19:43:47
2	Cr 267.716†	51230.4	50212.1	501.52	ug/L	501.52	ppb	19:43:47
2	Cu 324.752†	184911.2	175506.7	490.81	ug/L	490.81	ppb	19:43:47
2	Mn 257.610†	528659.6	518683.6	506.89	ug/L	506.89	ppb	19:43:41
2	Mo 202.031†	8499.0	8321.0	495.11	ug/L	495.11	ppb	19:44:07
2	Ni 231.604†	23864.9	23334.5	502.57	ug/L	502.57	ppb	19:43:47

2	P 214.914†	5239.1	4889.9	2412.6 ug/L	2412.6 ppb	19:44:07
2	Pb 220.353†	4888.8	4878.9	500.74 ug/L	500.74 ppb	19:44:07
2	S 181.975 Axial†	895.1	820.3	981.84 ug/L	981.84 ppb	19:44:07
2	Sb 206.836†	1757.0	1683.1	503.67 ug/L	503.67 ppb	19:44:07
2	Se 196.026†	925.1	937.3	519.27 ug/L	519.27 ppb	19:44:07
2	Si 251.611†	91080.1	88786.2	2459.7 ug/L	2459.7 ppb	19:43:47
2	Sn 189.927†	3460.0	3396.1	497.34 ug/L	497.34 ppb	19:44:07
2	Ti 334.940†	352528.3	347673.7	500.58 ug/L	500.58 ppb	19:43:41
2	Tl 190.801†	1951.8	1962.6	504.06 ug/L	504.06 ppb	19:44:07
2	U 409.014†	15426.9	17878.5	494.59 ug/L	494.59 ppb	19:43:47
2	V 292.402†	79071.5	79121.4	503.37 ug/L	503.37 ppb	19:43:47
2	Zn 213.857†	63909.9	61958.4	495.44 ug/L	495.44 ppb	19:43:47
2	SiO2†	91731.9	89401.2	5318.6 ug/L	5318.6 ppb	19:44:48
3	Sc Radial	5500.0	5500.0	98.4 %		19:42:43
3	Y RADIAL	5681.0	5681.0	96.92 %		19:42:43
3	Al 396.153Radial†	6868.7	6991.3	4889.3 ug/L	4889.3 ppb	19:42:43
3	Ca 317.933Radial†	3612.1	3651.7	5098.0 ug/L	5098.0 ppb	19:42:43
3	Fe 238.204 Radial†	665.8	665.2	5279.8 ug/L	5279.8 ppb	19:43:03
3	K 766.490 Radial†	30133.7	27740.7	4971.7 ug/L	4971.7 ppb	19:42:43
3	Mg 279.077 IEC†	178.1	178.7	5398.7 ug/L	5398.7 ppb	19:43:03
3	Na 589.592 Radial†	35762.6	37591.6	10273 ug/L	10273 ppb	19:42:43
3	Sr 421.552†	86640.5	88013.4	502.09 ug/L	502.09 ppb	19:42:43
3	Sc 361.383	905765.0	905765.0	100.71 %		19:44:13
3	Y 371.029	734701.6	734701.6	98.896 %		19:44:13
3	Ag 328.068†	118922.1	117690.0	505.34 ug/L	505.34 ppb	19:44:18
3	As 188.979†	1400.1	1417.7	508.32 ug/L	508.32 ppb	19:44:38
3	B 249.677†	24441.0	23804.9	483.63 ug/L	483.63 ppb	19:44:18
3	Ba 233.527†	75981.0	75457.5	507.89 ug/L	507.89 ppb	19:44:18
3	Be 313.107†	1537614.5	1531443.0	509.24 ug/L	509.24 ppb	19:44:13
3	Cd 226.502†	53247.2	53100.1	509.94 ug/L	509.94 ppb	19:44:18
3	Co 228.616†	29433.0	29311.7	508.51 ug/L	508.51 ppb	19:44:18
3	Cr 267.716†	51423.6	50964.3	509.03 ug/L	509.03 ppb	19:44:18
3	Cu 324.752†	186619.4	179225.7	501.20 ug/L	501.20 ppb	19:44:18
3	Mn 257.610†	523038.2	518884.3	507.08 ug/L	507.08 ppb	19:44:13
3	Mo 202.031†	8454.0	8369.2	497.97 ug/L	497.97 ppb	19:44:38
3	Ni 231.604†	23997.3	23727.0	511.02 ug/L	511.02 ppb	19:44:18
3	P 214.914†	5181.7	4890.3	2411.2 ug/L	2411.2 ppb	19:44:38
3	Pb 220.353†	4827.6	4871.6	499.97 ug/L	499.97 ppb	19:44:38
3	S 181.975 Axial†	895.6	830.6	994.13 ug/L	994.13 ppb	19:44:38
3	Sb 206.836†	1762.2	1707.5	510.83 ug/L	510.83 ppb	19:44:38
3	Se 196.026†	923.2	945.5	523.41 ug/L	523.41 ppb	19:44:38
3	Si 251.611†	91932.5	90628.9	2511.0 ug/L	2511.0 ppb	19:44:18
3	Sn 189.927†	3450.5	3424.5	501.48 ug/L	501.48 ppb	19:44:38
3	Ti 334.940†	348508.4	347538.1	500.37 ug/L	500.37 ppb	19:44:13
3	Tl 190.801†	1946.2	1978.3	508.01 ug/L	508.01 ppb	19:44:38
3	U 409.014†	15366.9	17987.7	497.61 ug/L	497.61 ppb	19:44:18
3	V 292.402†	79731.2	80641.3	512.97 ug/L	512.97 ppb	19:44:18
3	Zn 213.857†	64408.3	63152.5	505.01 ug/L	505.01 ppb	19:44:18
3	SiO2†	91461.3	90135.9	5362.5 ug/L	5362.5 ppb	19:44:53

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	913944.1	101.61	%	0.824				0.81%
Sc Radial	5507.8	98.6	%	2.33				2.36%
Y 371.029	741565.6	99.820	%	0.8316				0.83%
Y RADIAL	5713.1	97.47	%	2.023				2.08%
Ag 328.068†	116297.9	499.37	ug/L	5.192	499.37	ppb	5.192	1.04%
QC value within limits for Ag 328.068 Recovery = 99.87%								
Al 396.153Radial†	7025.1	4913.1	ug/L	97.23	4913.1	ppb	97.23	1.98%
QC value within limits for Al 396.153Radial Recovery = 98.26%								
As 188.979†	1408.8	505.15	ug/L	5.256	505.15	ppb	5.256	1.04%
QC value within limits for As 188.979 Recovery = 101.03%								
B 249.677†	23477.5	476.97	ug/L	5.773	476.97	ppb	5.773	1.21%
QC value within limits for B 249.677 Recovery = 95.39%								
Ba 233.527†	74496.2	501.42	ug/L	5.620	501.42	ppb	5.620	1.12%
QC value within limits for Ba 233.527 Recovery = 100.28%								
Be 313.107†	1531390.9	509.23	ug/L	0.610	509.23	ppb	0.610	0.12%
QC value within limits for Be 313.107 Recovery = 101.85%								
Ca 317.933Radial†	3656.4	5104.6	ug/L	112.27	5104.6	ppb	112.27	2.20%

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   QC value within limits for Ca 317.933Radial  Recovery = 102.09%
Cd 226.502†            52429.3      503.50 ug/L         5.612      503.50 ppb          5.612   1.11%
   QC value within limits for Cd 226.502  Recovery = 100.70%
Co 228.616†            28963.7      502.47 ug/L         5.310      502.47 ppb          5.310   1.06%
   QC value within limits for Co 228.616  Recovery = 100.49%
Cr 267.716†            50428.4      503.68 ug/L         4.666      503.68 ppb          4.666   0.93%
   QC value within limits for Cr 267.716  Recovery = 100.74%
Cu 324.752†           176867.9      494.61 ug/L         5.731      494.61 ppb          5.731   1.16%
   QC value within limits for Cu 324.752  Recovery = 98.92%
Fe 238.204 Radial†       661.1      5247.4 ug/L        121.20      5247.4 ppb         121.20   2.31%
   QC value within limits for Fe 238.204 Radial  Recovery = 104.95%
K 766.490 Radial†      27863.8      4993.8 ug/L         98.12      4993.8 ppb          98.12   1.96%
   QC value within limits for K 766.490 Radial  Recovery = 99.88%
Mg 279.077 IEC†          175.7      5309.2 ug/L        199.54      5309.2 ppb         199.54   3.76%
   QC value within limits for Mg 279.077 IEC  Recovery = 106.18%
Mn 257.610†           518121.7      506.33 ug/L         1.132      506.33 ppb          1.132   0.22%
   QC value within limits for Mn 257.610  Recovery = 101.27%
Mo 202.031†            8309.5      494.42 ug/L         3.947      494.42 ppb          3.947   0.80%
   QC value within limits for Mo 202.031  Recovery = 98.88%
Na 589.592 Radial†     37709.6       10305 ug/L         198.4       10305 ppb          198.4   1.93%
   QC value within limits for Na 589.592 Radial  Recovery = 103.05%
Ni 231.604†            23482.0      505.75 ug/L         4.601      505.75 ppb          4.601   0.91%
   QC value within limits for Ni 231.604  Recovery = 101.15%
P 214.914†             4875.6      2404.8 ug/L         12.38      2404.8 ppb          12.38   0.51%
   QC value within limits for P 214.914  Recovery = 96.19%
Pb 220.353†            4847.4      497.50 ug/L         4.956      497.50 ppb          4.956   1.00%
   QC value within limits for Pb 220.353  Recovery = 99.50%
S 181.975 Axial†         821.8      983.66 ug/L         9.680      983.66 ppb          9.680   0.98%
   QC value within limits for S 181.975 Axial  Recovery = 98.37%
Sb 206.836†            1684.7      504.08 ug/L         6.550      504.08 ppb          6.550   1.30%
   QC value within limits for Sb 206.836  Recovery = 100.82%
Se 196.026†             936.5      518.49 ug/L         5.357      518.49 ppb          5.357   1.03%
   QC value within limits for Se 196.026  Recovery = 103.70%
Si 251.611†            89407.2      2477.0 ug/L         29.40      2477.0 ppb          29.40   1.19%
   QC value within limits for Si 251.611  Recovery = 99.08%
Sn 189.927†            3400.2      497.92 ug/L         3.300      497.92 ppb          3.300   0.66%
   QC value within limits for Sn 189.927  Recovery = 99.58%
Sr 421.552†            88165.8      502.96 ug/L         9.111      502.96 ppb          9.111   1.81%
   QC value within limits for Sr 421.552  Recovery = 100.59%
Ti 334.940†           347162.5      499.83 ug/L         1.114      499.83 ppb          1.114   0.22%
   QC value within limits for Ti 334.940  Recovery = 99.97%
Tl 190.801†            1960.6      503.52 ug/L         4.778      503.52 ppb          4.778   0.95%
   QC value within limits for Tl 190.801  Recovery = 100.70%
U 409.014†             17895.3      495.07 ug/L         2.347      495.07 ppb          2.347   0.47%
   QC value within limits for U 409.014  Recovery = 99.01%
V 292.402†             79624.8      506.54 ug/L         5.571      506.54 ppb          5.571   1.10%
   QC value within limits for V 292.402  Recovery = 101.31%
Zn 213.857†            62329.6      498.42 ug/L         5.716      498.42 ppb          5.716   1.15%
   QC value within limits for Zn 213.857  Recovery = 99.68%
SiO2†                  89549.0      5327.6 ug/L         31.44      5327.6 ppb          31.44   0.59%
   QC value within limits for SiO2  Recovery = 99.63%
All analyte(s) passed QC.
```

Sequence No.: 62
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 12/20/2009 19:47:03
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5436.1	5436.1	97.3	%			19:48:55
1	Y RADIAL	5719.1	5719.1	97.57	%			19:48:55
1	Al 396.153Radial†	-16.1	-3.2	-2.2605	ug/L	-2.2605	ppb	19:48:55
1	Ca 317.933Radial†	16.6	-0.8	-1.1853	ug/L	-1.1853	ppb	19:49:15
1	Fe 238.204 Radial†	12.4	1.5	12.127	ug/L	12.127	ppb	19:49:15
1	K 766.490 Radial†	2950.8	160.7	28.887	ug/L	28.887	ppb	19:48:55
1	Mg 279.077 IEC†	4.1	2.0	59.081	ug/L	59.081	ppb	19:49:15
1	Na 589.592 Radial†	-1530.1	-312.7	-85.462	ug/L	-85.462	ppb	19:48:55
1	Sr 421.552†	-0.7	-6.3	-0.0359	ug/L	-0.0359	ppb	19:48:55
1	Sc 361.383	889496.4	889496.4	98.896	%			19:50:12
1	Y 371.029	739447.7	739447.7	99.535	%			19:50:12
1	Ag 328.068†	427.9	33.3	0.1477	ug/L	0.1477	ppb	19:50:12
1	As 188.979†	-27.5	-0.4	-0.1263	ug/L	-0.1263	ppb	19:50:32
1	B 249.677†	-439.1	-909.0	-18.545	ug/L	-18.545	ppb	19:50:32
1	Ba 233.527†	-4.2	4.4	0.0282	ug/L	0.0282	ppb	19:50:32
1	Be 313.107†	-4472.0	73.2	0.0242	ug/L	0.0242	ppb	19:50:12
1	Cd 226.502†	-235.0	-11.9	-0.1150	ug/L	-0.1150	ppb	19:50:32
1	Co 228.616†	-86.7	-2.9	-0.0504	ug/L	-0.0504	ppb	19:50:32
1	Cr 267.716†	95.4	-2.7	-0.0266	ug/L	-0.0266	ppb	19:50:32
1	Cu 324.752†	6132.3	113.7	0.3185	ug/L	0.3185	ppb	19:50:12
1	Mn 257.610†	507.2	21.4	0.0210	ug/L	0.0210	ppb	19:50:32
1	Mo 202.031†	27.9	2.6	0.1581	ug/L	0.1581	ppb	19:50:32
1	Ni 231.604†	125.1	24.2	0.5222	ug/L	0.5222	ppb	19:50:32
1	P 214.914†	241.9	-10.6	-5.4481	ug/L	-5.4481	ppb	19:50:32
1	Pb 220.353†	-89.7	-12.8	-1.3153	ug/L	-1.3153	ppb	19:50:32
1	S 181.975 Axial†	49.6	-8.6	-10.330	ug/L	-10.330	ppb	19:50:32
1	Sb 206.836†	42.3	0.4	0.1289	ug/L	0.1289	ppb	19:50:32
1	Se 196.026†	-27.5	1.0	0.5789	ug/L	0.5789	ppb	19:50:32
1	Si 251.611†	678.7	26.4	0.7213	ug/L	0.7213	ppb	19:50:32
1	Sn 189.927†	3.8	2.0	0.2899	ug/L	0.2899	ppb	19:50:32
1	Ti 334.940†	-1472.3	-18.7	-0.0248	ug/L	-0.0248	ppb	19:50:12
1	Tl 190.801†	-36.1	9.3	2.3758	ug/L	2.3758	ppb	19:50:32
1	U 409.014†	-2874.3	-178.0	-4.9423	ug/L	-4.9423	ppb	19:50:12
1	V 292.402†	-1561.7	-110.7	-0.7029	ug/L	-0.7029	ppb	19:50:12
1	Zn 213.857†	795.3	-0.7	-0.0120	ug/L	-0.0120	ppb	19:50:32
1	SiO2†	679.6	2.2	0.1026	ug/L	0.1026	ppb	19:51:28
2	Sc Radial	5669.4	5669.4	101	%			19:49:20
2	Y RADIAL	5923.4	5923.4	101.1	%			19:49:20
2	Al 396.153Radial†	-12.5	0.9	0.6621	ug/L	0.6621	ppb	19:49:20
2	Ca 317.933Radial†	23.2	5.0	6.9957	ug/L	6.9957	ppb	19:49:40
2	Fe 238.204 Radial†	11.9	0.6	4.3663	ug/L	4.3663	ppb	19:49:40
2	K 766.490 Radial†	2868.1	-45.7	-8.1692	ug/L	-8.1692	ppb	19:49:20
2	Mg 279.077 IEC†	5.7	3.4	102.30	ug/L	102.30	ppb	19:49:40
2	Na 589.592 Radial†	-1538.2	-256.0	-69.957	ug/L	-69.957	ppb	19:49:20
2	Sr 421.552†	46.9	40.6	0.2315	ug/L	0.2315	ppb	19:49:20
2	Sc 361.383	896760.9	896760.9	99.704	%			19:50:37
2	Y 371.029	744393.1	744393.1	100.20	%			19:50:37
2	Ag 328.068†	336.2	-62.2	-0.2649	ug/L	-0.2649	ppb	19:50:37
2	As 188.979†	-22.7	4.7	1.6914	ug/L	1.6914	ppb	19:50:57
2	B 249.677†	-452.4	-918.8	-18.745	ug/L	-18.745	ppb	19:50:57
2	Ba 233.527†	5.4	14.0	0.0926	ug/L	0.0926	ppb	19:50:57
2	Be 313.107†	-4429.3	152.7	0.0507	ug/L	0.0507	ppb	19:50:37
2	Cd 226.502†	-248.5	-23.5	-0.2255	ug/L	-0.2255	ppb	19:50:57
2	Co 228.616†	-69.5	15.0	0.2605	ug/L	0.2605	ppb	19:50:57
2	Cr 267.716†	113.0	14.1	0.1404	ug/L	0.1404	ppb	19:50:57
2	Cu 324.752†	6177.8	109.1	0.3051	ug/L	0.3051	ppb	19:50:37
2	Mn 257.610†	509.5	19.5	0.0176	ug/L	0.0176	ppb	19:50:57
2	Mo 202.031†	26.6	1.1	0.0642	ug/L	0.0642	ppb	19:50:57
2	Ni 231.604†	128.8	26.9	0.5802	ug/L	0.5802	ppb	19:50:57

2	P 214.914†	252.9	-1.5	-0.8014 ug/L	-0.8014 ppb	19:50:57
2	Pb 220.353†	-78.6	-1.0	-0.1000 ug/L	-0.1000 ppb	19:50:57
2	S 181.975 Axial†	55.9	-2.7	-3.2345 ug/L	-3.2345 ppb	19:50:57
2	Sb 206.836†	47.9	5.7	1.6891 ug/L	1.6891 ppb	19:50:57
2	Se 196.026†	-19.6	9.1	4.8644 ug/L	4.8644 ppb	19:50:57
2	Si 251.611†	693.3	35.6	0.9875 ug/L	0.9875 ppb	19:50:57
2	Sn 189.927†	10.2	8.4	1.2291 ug/L	1.2291 ppb	19:50:57
2	Ti 334.940†	-1443.7	22.0	0.0329 ug/L	0.0329 ppb	19:50:37
2	Tl 190.801†	-31.4	14.3	3.6600 ug/L	3.6600 ppb	19:50:57
2	U 409.014†	-2791.5	-71.4	-1.9832 ug/L	-1.9832 ppb	19:50:37
2	V 292.402†	-1574.1	-110.4	-0.6943 ug/L	-0.6943 ppb	19:50:37
2	Zn 213.857†	820.6	18.2	0.1394 ug/L	0.1394 ppb	19:50:57
2	SiO2†	715.9	33.1	1.9712 ug/L	1.9712 ppb	19:51:33
3	Sc Radial	5596.5	5596.5	100 %		19:49:45
3	Y RADIAL	5874.7	5874.7	100.2 %		19:49:45
3	Al 396.153Radial†	-19.7	-6.4	-4.4694 ug/L	-4.4694 ppb	19:49:45
3	Ca 317.933Radial†	19.2	1.3	1.8227 ug/L	1.8227 ppb	19:50:05
3	Fe 238.204 Radial†	10.1	-1.1	-8.9610 ug/L	-8.9610 ppb	19:50:05
3	K 766.490 Radial†	2799.5	-77.4	-13.876 ug/L	-13.876 ppb	19:49:45
3	Mg 279.077 IEC†	1.3	-0.9	-28.652 ug/L	-28.652 ppb	19:50:05
3	Na 589.592 Radial†	-1459.3	-196.9	-53.823 ug/L	-53.823 ppb	19:49:45
3	Sr 421.552†	10.0	4.3	0.0246 ug/L	0.0246 ppb	19:49:45
3	Sc 361.383	891449.1	891449.1	99.113 %		19:51:02
3	Y 371.029	739140.5	739140.5	99.494 %		19:51:02
3	Ag 328.068†	385.1	-10.8	-0.0466 ug/L	-0.0466 ppb	19:51:02
3	As 188.979†	-28.4	-1.2	-0.4324 ug/L	-0.4324 ppb	19:51:22
3	B 249.677†	-462.5	-931.6	-19.005 ug/L	-19.005 ppb	19:51:22
3	Ba 233.527†	2.9	11.5	0.0762 ug/L	0.0762 ppb	19:51:22
3	Be 313.107†	-4443.9	111.5	0.0369 ug/L	0.0369 ppb	19:51:02
3	Cd 226.502†	-230.9	-7.3	-0.0683 ug/L	-0.0683 ppb	19:51:22
3	Co 228.616†	-82.9	1.1	0.0185 ug/L	0.0185 ppb	19:51:22
3	Cr 267.716†	79.3	-19.2	-0.1904 ug/L	-0.1904 ppb	19:51:22
3	Cu 324.752†	6021.7	-11.5	-0.0325 ug/L	-0.0325 ppb	19:51:02
3	Mn 257.610†	528.5	41.7	0.0404 ug/L	0.0404 ppb	19:51:22
3	Mo 202.031†	20.4	-5.0	-0.2951 ug/L	-0.2951 ppb	19:51:22
3	Ni 231.604†	134.1	33.0	0.7112 ug/L	0.7112 ppb	19:51:22
3	P 214.914†	244.9	-8.1	-4.0740 ug/L	-4.0740 ppb	19:51:22
3	Pb 220.353†	-76.6	0.5	0.0514 ug/L	0.0514 ppb	19:51:22
3	S 181.975 Axial†	47.9	-10.4	-12.450 ug/L	-12.450 ppb	19:51:22
3	Sb 206.836†	38.9	-3.2	-0.9176 ug/L	-0.9176 ppb	19:51:22
3	Se 196.026†	-39.1	-10.7	-5.7270 ug/L	-5.7270 ppb	19:51:22
3	Si 251.611†	709.7	56.2	1.5692 ug/L	1.5692 ppb	19:51:22
3	Sn 189.927†	12.4	10.7	1.5688 ug/L	1.5688 ppb	19:51:22
3	Ti 334.940†	-1504.4	-47.8	-0.0665 ug/L	-0.0665 ppb	19:51:02
3	Tl 190.801†	-41.1	4.3	1.0965 ug/L	1.0965 ppb	19:51:22
3	U 409.014†	-2883.8	-181.2	-5.0279 ug/L	-5.0279 ppb	19:51:02
3	V 292.402†	-1526.8	-72.0	-0.4652 ug/L	-0.4652 ppb	19:51:02
3	Zn 213.857†	818.3	20.8	0.1649 ug/L	0.1649 ppb	19:51:22
3	SiO2†	734.9	56.5	3.3873 ug/L	3.3873 ppb	19:51:38

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	892568.8	99.238	%	0.4180				0.42%
Sc Radial	5567.3	99.6	%	2.14				2.14%
Y 371.029	740993.8	99.743	%	0.3968				0.40%
Y RADIAL	5839.0	99.62	%	1.821				1.83%
Ag 328.068†	-13.2	-0.0546	ug/L	0.20643	-0.0546	ppb	0.20643	378.26%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-2.9	-2.0226	ug/L	2.57403	-2.0226	ppb	2.57403	127.26%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	1.0	0.3776	ug/L	1.14805	0.3776	ppb	1.14805	304.08%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-919.8	-18.765	ug/L	0.2303	-18.765	ppb	0.2303	1.23%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	10.0	0.0657	ug/L	0.03344	0.0657	ppb	0.03344	50.91%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	112.5	0.0373	ug/L	0.01325	0.0373	ppb	0.01325	35.53%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	1.8	2.5444	ug/L	4.13794	2.5444	ppb	4.13794	162.63%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              -14.2     -0.1363 ug/L       0.08073     -0.1363 ppb        0.08073  59.24%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                4.4      0.0762 ug/L       0.16327      0.0762 ppb        0.16327 214.30%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†               -2.6     -0.0255 ug/L       0.16539     -0.0255 ppb        0.16539 647.92%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               70.4      0.1970 ug/L       0.19888      0.1970 ppb        0.19888 100.94%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         0.3      2.5109 ug/L      10.66588      2.5109 ppb       10.66588 424.79%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         12.5      2.2805 ug/L      23.21778      2.2805 ppb       23.21778 >999.9%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            1.5     44.244 ug/L       66.7261     44.244 ppb        66.7261 150.81%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               27.5      0.0263 ug/L       0.01228      0.0263 ppb        0.01228  46.67%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               -0.4     -0.0243 ug/L       0.23918     -0.0243 ppb        0.23918 984.69%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      -255.2     -69.747 ug/L       15.8205     -69.747 ppb        15.8205  22.68%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               28.1      0.6045 ug/L       0.09683      0.6045 ppb        0.09683  16.02%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -6.7     -3.4412 ug/L       2.38709     -3.4412 ppb        2.38709  69.37%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               -4.4     -0.4546 ug/L       0.74922     -0.4546 ppb        0.74922 164.80%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          -7.2     -8.6714 ug/L       4.82629     -8.6714 ppb        4.82629  55.66%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                1.0      0.3001 ug/L       1.31177      0.3001 ppb        1.31177 437.07%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               -0.2     -0.0946 ug/L       5.32771     -0.0946 ppb        5.32771 >999.9%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†               39.4      1.0926 ug/L       0.43364      1.0926 ppb        0.43364  39.69%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                7.0      1.0293 ug/L       0.66245      1.0293 ppb        0.66245  64.36%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               12.9      0.0734 ug/L       0.14019      0.0734 ppb        0.14019 190.95%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              -14.8     -0.0195 ug/L       0.04991     -0.0195 ppb        0.04991 256.57%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                9.3      2.3774 ug/L       1.28177      2.3774 ppb        1.28177  53.91%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              -143.5     -3.9845 ug/L       1.73365     -3.9845 ppb        1.73365  43.51%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               -97.7     -0.6208 ug/L       0.13481     -0.6208 ppb        0.13481  21.72%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               12.8      0.0974 ug/L       0.09560      0.0974 ppb        0.09560  98.11%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                     30.6      1.8203 ug/L       1.64752      1.8203 ppb        1.64752  90.51%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 68
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 12/20/2009 20:27:47
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	5498.7	5498.7	98.4	%			20:29:38
1	Y RADIAL	5703.1	5703.1	97.30	%			20:29:38
1	Al 396.153Radial†	6866.3	6990.6	4888.4	ug/L	4888.4	ppb	20:29:38
1	Ca 317.933Radial†	3465.2	3503.3	4890.9	ug/L	4890.9	ppb	20:29:58
1	Fe 238.204 Radial†	646.1	645.3	5122.0	ug/L	5122.0	ppb	20:29:58
1	K 766.490 Radial†	30048.6	27661.9	4957.6	ug/L	4957.6	ppb	20:29:38
1	Mg 279.077 IEC†	170.4	170.9	5163.6	ug/L	5163.6	ppb	20:29:58
1	Na 589.592 Radial†	35925.9	37766.6	10321	ug/L	10321	ppb	20:29:38
1	Sr 421.552†	86614.8	88009.1	502.07	ug/L	502.07	ppb	20:29:38
1	Sc 361.383	897591.6	897591.6	99.796	%			20:30:57
1	Y 371.029	728758.5	728758.5	98.096	%			20:30:57
1	Ag 328.068†	118075.6	117917.1	506.27	ug/L	506.27	ppb	20:30:57
1	As 188.979†	1397.5	1427.8	511.88	ug/L	511.88	ppb	20:31:18
1	B 249.677†	24198.5	23782.8	483.21	ug/L	483.21	ppb	20:30:57
1	Ba 233.527†	75511.2	75673.8	509.34	ug/L	509.34	ppb	20:30:57
1	Be 313.107†	1532992.3	1540714.8	512.33	ug/L	512.33	ppb	20:30:57
1	Cd 226.502†	52906.7	53240.4	511.30	ug/L	511.30	ppb	20:30:57
1	Co 228.616†	28947.6	29091.4	504.71	ug/L	504.71	ppb	20:31:18
1	Cr 267.716†	51130.5	51135.6	510.74	ug/L	510.74	ppb	20:30:57
1	Cu 324.752†	187280.6	181575.6	507.76	ug/L	507.76	ppb	20:30:57
1	Mn 257.610†	520929.0	521500.2	509.62	ug/L	509.62	ppb	20:30:57
1	Mo 202.031†	8542.3	8534.1	507.76	ug/L	507.76	ppb	20:31:18
1	Ni 231.604†	23712.5	23658.7	509.55	ug/L	509.55	ppb	20:31:18
1	P 214.914†	5208.0	4963.5	2447.6	ug/L	2447.6	ppb	20:31:18
1	Pb 220.353†	4902.9	4990.7	512.19	ug/L	512.19	ppb	20:31:18
1	S 181.975 Axial†	893.5	836.6	1001.3	ug/L	1001.3	ppb	20:31:18
1	Sb 206.836†	1740.7	1701.8	509.44	ug/L	509.44	ppb	20:31:18
1	Se 196.026†	915.2	945.8	523.13	ug/L	523.13	ppb	20:31:18
1	Si 251.611†	91316.4	90842.9	2516.7	ug/L	2516.7	ppb	20:30:57
1	Sn 189.927†	3461.4	3466.6	507.61	ug/L	507.61	ppb	20:31:18
1	Ti 334.940†	347002.8	349180.7	502.73	ug/L	502.73	ppb	20:30:57
1	Tl 190.801†	1939.8	1989.5	510.93	ug/L	510.93	ppb	20:31:18
1	U 409.014†	14767.7	17526.2	484.82	ug/L	484.82	ppb	20:30:57
1	V 292.402†	79062.4	80692.1	513.42	ug/L	513.42	ppb	20:30:57
1	Zn 213.857†	63892.8	63218.3	505.56	ug/L	505.56	ppb	20:30:57
1	SiO2†	92047.3	91550.1	5446.6	ug/L	5446.6	ppb	20:32:18
2	Sc Radial	5380.5	5380.5	96.3	%			20:30:03
2	Y RADIAL	5572.5	5572.5	95.07	%			20:30:03
2	Al 396.153Radial†	6859.5	7136.7	4991.1	ug/L	4991.1	ppb	20:30:03
2	Ca 317.933Radial†	3571.6	3691.2	5153.2	ug/L	5153.2	ppb	20:30:24
2	Fe 238.204 Radial†	668.2	682.7	5418.1	ug/L	5418.1	ppb	20:30:24
2	K 766.490 Radial†	30101.9	28387.5	5087.7	ug/L	5087.7	ppb	20:30:03
2	Mg 279.077 IEC†	181.0	185.6	5608.6	ug/L	5608.6	ppb	20:30:24
2	Na 589.592 Radial†	35760.6	38396.3	10493	ug/L	10493	ppb	20:30:03
2	Sr 421.552†	86637.0	89964.3	513.22	ug/L	513.22	ppb	20:30:03
2	Sc 361.383	899914.8	899914.8	100.05	%			20:31:25
2	Y 371.029	731023.6	731023.6	98.401	%			20:31:25
2	Ag 328.068†	118170.4	117706.4	505.47	ug/L	505.47	ppb	20:31:25
2	As 188.979†	1383.5	1410.2	505.66	ug/L	505.66	ppb	20:31:45
2	B 249.677†	24258.5	23780.2	483.13	ug/L	483.13	ppb	20:31:25
2	Ba 233.527†	75746.6	75713.8	509.61	ug/L	509.61	ppb	20:31:25
2	Be 313.107†	1535306.2	1539061.6	511.78	ug/L	511.78	ppb	20:31:25
2	Cd 226.502†	53003.3	53200.0	510.88	ug/L	510.88	ppb	20:31:25
2	Co 228.616†	28788.3	28857.3	500.64	ug/L	500.64	ppb	20:31:45
2	Cr 267.716†	51178.7	51051.5	509.91	ug/L	509.91	ppb	20:31:25
2	Cu 324.752†	187262.7	181073.2	506.37	ug/L	506.37	ppb	20:31:25
2	Mn 257.610†	521735.5	520958.6	509.11	ug/L	509.11	ppb	20:31:25
2	Mo 202.031†	8508.7	8478.4	504.48	ug/L	504.48	ppb	20:31:45
2	Ni 231.604†	23588.5	23473.4	505.56	ug/L	505.56	ppb	20:31:45

2	P 214.914†	5193.2	4935.2	2433.1 ug/L	2433.1 ppb	20:31:45
2	Pb 220.353†	4904.3	4979.4	511.03 ug/L	511.03 ppb	20:31:45
2	S 181.975 Axial†	887.9	828.7	991.83 ug/L	991.83 ppb	20:31:45
2	Sb 206.836†	1737.8	1694.4	507.14 ug/L	507.14 ppb	20:31:45
2	Se 196.026†	908.9	937.2	519.46 ug/L	519.46 ppb	20:31:45
2	Si 251.611†	91430.2	90720.4	2513.4 ug/L	2513.4 ppb	20:31:25
2	Sn 189.927†	3441.3	3437.6	503.40 ug/L	503.40 ppb	20:31:45
2	Ti 334.940†	347431.4	348711.4	502.07 ug/L	502.07 ppb	20:31:25
2	Tl 190.801†	1938.2	1982.9	509.25 ug/L	509.25 ppb	20:31:45
2	U 409.014†	14598.5	17318.8	479.03 ug/L	479.03 ppb	20:31:25
2	V 292.402†	79100.3	80525.5	512.28 ug/L	512.28 ppb	20:31:25
2	Zn 213.857†	64082.6	63242.7	505.75 ug/L	505.75 ppb	20:31:25
2	SiO2†	92481.6	91746.0	5458.4 ug/L	5458.4 ppb	20:32:23
3	Sc Radial	5401.5	5401.5	96.7 %		20:30:29
3	Y RADIAL	5607.0	5607.0	95.66 %		20:30:29
3	Al 396.153Radial†	6890.9	7141.5	4994.5 ug/L	4994.5 ppb	20:30:29
3	Ca 317.933Radial†	3523.4	3626.9	5063.4 ug/L	5063.4 ppb	20:30:49
3	Fe 238.204 Radial†	663.5	675.1	5357.9 ug/L	5357.9 ppb	20:30:49
3	K 766.490 Radial†	30139.2	28304.9	5072.9 ug/L	5072.9 ppb	20:30:29
3	Mg 279.077 IEC†	174.4	178.1	5381.5 ug/L	5381.5 ppb	20:30:49
3	Na 589.592 Radial†	35843.0	38337.4	10477 ug/L	10477 ppb	20:30:29
3	Sr 421.552†	86713.4	89694.1	511.68 ug/L	511.68 ppb	20:30:29
3	Sc 361.383	901274.2	901274.2	100.21 %		20:31:52
3	Y 371.029	732693.4	732693.4	98.626 %		20:31:52
3	Ag 328.068†	118486.5	117843.7	506.03 ug/L	506.03 ppb	20:31:52
3	As 188.979†	1401.9	1426.5	511.45 ug/L	511.45 ppb	20:32:12
3	B 249.677†	24275.6	23760.7	482.74 ug/L	482.74 ppb	20:31:52
3	Ba 233.527†	75597.4	75450.7	507.84 ug/L	507.84 ppb	20:31:52
3	Be 313.107†	1539377.4	1540810.2	512.36 ug/L	512.36 ppb	20:31:52
3	Cd 226.502†	52911.4	53028.4	509.24 ug/L	509.24 ppb	20:31:52
3	Co 228.616†	28798.3	28823.8	500.06 ug/L	500.06 ppb	20:32:12
3	Cr 267.716†	51296.8	51092.2	510.31 ug/L	510.31 ppb	20:31:52
3	Cu 324.752†	187781.0	181308.2	507.02 ug/L	507.02 ppb	20:31:52
3	Mn 257.610†	521604.4	520041.4	508.21 ug/L	508.21 ppb	20:31:52
3	Mo 202.031†	8514.5	8471.4	504.05 ug/L	504.05 ppb	20:32:12
3	Ni 231.604†	23609.4	23458.7	505.25 ug/L	505.25 ppb	20:32:12
3	P 214.914†	5224.0	4958.1	2444.7 ug/L	2444.7 ppb	20:32:12
3	Pb 220.353†	4895.8	4963.5	509.41 ug/L	509.41 ppb	20:32:12
3	S 181.975 Axial†	882.5	821.9	983.74 ug/L	983.74 ppb	20:32:12
3	Sb 206.836†	1734.7	1688.7	505.44 ug/L	505.44 ppb	20:32:12
3	Se 196.026†	909.0	935.9	518.59 ug/L	518.59 ppb	20:32:12
3	Si 251.611†	91405.7	90558.1	2508.9 ug/L	2508.9 ppb	20:31:52
3	Sn 189.927†	3447.7	3438.8	503.56 ug/L	503.56 ppb	20:32:12
3	Ti 334.940†	348037.5	348792.6	502.18 ug/L	502.18 ppb	20:31:52
3	Tl 190.801†	1936.3	1978.1	508.03 ug/L	508.03 ppb	20:32:12
3	U 409.014†	14809.8	17507.7	484.28 ug/L	484.28 ppb	20:31:52
3	V 292.402†	79271.2	80576.8	512.61 ug/L	512.61 ppb	20:31:52
3	Zn 213.857†	63979.4	63043.1	504.16 ug/L	504.16 ppb	20:31:52
3	SiO2†	92311.2	91436.6	5439.9 ug/L	5439.9 ppb	20:32:28

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	899593.5	100.02	%	0.207				0.21%
Sc Radial	5426.9	97.1	%	1.13				1.16%
Y 371.029	730825.2	98.375	%	0.2658				0.27%
Y RADIAL	5627.5	96.01	%	1.155				1.20%
Ag 328.068†	117822.4	505.92	ug/L	0.412	505.92	ppb	0.412	0.08%
QC value within limits for Ag 328.068 Recovery = 101.18%								
Al 396.153Radial†	7089.6	4958.0	ug/L	60.33	4958.0	ppb	60.33	1.22%
QC value within limits for Al 396.153Radial Recovery = 99.16%								
As 188.979†	1421.5	509.66	ug/L	3.474	509.66	ppb	3.474	0.68%
QC value within limits for As 188.979 Recovery = 101.93%								
B 249.677†	23774.6	483.03	ug/L	0.252	483.03	ppb	0.252	0.05%
QC value within limits for B 249.677 Recovery = 96.61%								
Ba 233.527†	75612.7	508.93	ug/L	0.951	508.93	ppb	0.951	0.19%
QC value within limits for Ba 233.527 Recovery = 101.79%								
Be 313.107†	1540195.5	512.15	ug/L	0.327	512.15	ppb	0.327	0.06%
QC value within limits for Be 313.107 Recovery = 102.43%								
Ca 317.933Radial†	3607.1	5035.8	ug/L	133.29	5035.8	ppb	133.29	2.65%

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   QC value within limits for Ca 317.933Radial  Recovery = 100.72%
Cd 226.502†            53156.3      510.48 ug/L         1.090      510.48 ppb          1.090   0.21%
   QC value within limits for Cd 226.502  Recovery = 102.10%
Co 228.616†            28924.2      501.80 ug/L         2.534      501.80 ppb          2.534   0.51%
   QC value within limits for Co 228.616  Recovery = 100.36%
Cr 267.716†            51093.1      510.32 ug/L         0.417      510.32 ppb          0.417   0.08%
   QC value within limits for Cr 267.716  Recovery = 102.06%
Cu 324.752†           181319.0      507.05 ug/L         0.695      507.05 ppb          0.695   0.14%
   QC value within limits for Cu 324.752  Recovery = 101.41%
Fe 238.204 Radial†       667.7      5299.3 ug/L        156.51      5299.3 ppb         156.51   2.95%
   QC value within limits for Fe 238.204 Radial  Recovery = 105.99%
K 766.490 Radial†      28118.1      5039.4 ug/L         71.28      5039.4 ppb          71.28   1.41%
   QC value within limits for K 766.490 Radial  Recovery = 100.79%
Mg 279.077 IEC†          178.2      5384.5 ug/L        222.51      5384.5 ppb         222.51   4.13%
   QC value within limits for Mg 279.077 IEC  Recovery = 107.69%
Mn 257.610†           520833.4      508.98 ug/L         0.711      508.98 ppb          0.711   0.14%
   QC value within limits for Mn 257.610  Recovery = 101.80%
Mo 202.031†             8494.7      505.43 ug/L         2.029      505.43 ppb          2.029   0.40%
   QC value within limits for Mo 202.031  Recovery = 101.09%
Na 589.592 Radial†     38166.7       10430 ug/L          95.0       10430 ppb           95.0   0.91%
   QC value within limits for Na 589.592 Radial  Recovery = 104.30%
Ni 231.604†            23530.2      506.79 ug/L         2.401      506.79 ppb          2.401   0.47%
   QC value within limits for Ni 231.604  Recovery = 101.36%
P 214.914†              4952.3      2441.8 ug/L          7.65      2441.8 ppb           7.65   0.31%
   QC value within limits for P 214.914  Recovery = 97.67%
Pb 220.353†             4977.9      510.88 ug/L         1.399      510.88 ppb          1.399   0.27%
   QC value within limits for Pb 220.353  Recovery = 102.18%
S 181.975 Axial†         829.0      992.29 ug/L         8.792      992.29 ppb          8.792   0.89%
   QC value within limits for S 181.975 Axial  Recovery = 99.23%
Sb 206.836†             1695.0      507.34 ug/L         2.011      507.34 ppb          2.011   0.40%
   QC value within limits for Sb 206.836  Recovery = 101.47%
Se 196.026†              939.6      520.39 ug/L         2.408      520.39 ppb          2.408   0.46%
   QC value within limits for Se 196.026  Recovery = 104.08%
Si 251.611†            90707.1      2513.0 ug/L          3.96      2513.0 ppb           3.96   0.16%
   QC value within limits for Si 251.611  Recovery = 100.52%
Sn 189.927†             3447.7      504.86 ug/L         2.385      504.86 ppb          2.385   0.47%
   QC value within limits for Sn 189.927  Recovery = 100.97%
Sr 421.552†            89222.5      508.99 ug/L         6.043      508.99 ppb          6.043   1.19%
   QC value within limits for Sr 421.552  Recovery = 101.80%
Ti 334.940†           348894.9      502.33 ug/L         0.353      502.33 ppb          0.353   0.07%
   QC value within limits for Ti 334.940  Recovery = 100.47%
Tl 190.801†             1983.5      509.40 ug/L         1.455      509.40 ppb          1.455   0.29%
   QC value within limits for Tl 190.801  Recovery = 101.88%
U 409.014†             17450.9      482.71 ug/L         3.198      482.71 ppb          3.198   0.66%
   QC value within limits for U 409.014  Recovery = 96.54%
V 292.402†             80598.1      512.77 ug/L         0.586      512.77 ppb          0.586   0.11%
   QC value within limits for V 292.402  Recovery = 102.55%
Zn 213.857†            63168.0      505.16 ug/L         0.872      505.16 ppb          0.872   0.17%
   QC value within limits for Zn 213.857  Recovery = 101.03%
SiO2†                  91577.6      5448.3 ug/L          9.35      5448.3 ppb           9.35   0.17%
   QC value within limits for SiO2  Recovery = 101.89%
All analyte(s) passed QC.
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Sequence No.: 69
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 12/20/2009 20:34:37
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	5680.3	5680.3	102	%			20:36:29
1	Y RADIAL	5947.2	5947.2	101.5	%			20:36:29
1	Al 396.153Radial†	-21.6	-8.0	-5.6271	ug/L	-5.6271	ppb	20:36:29
1	Ca 317.933Radial†	20.5	2.3	3.2731	ug/L	3.2731	ppb	20:36:49
1	Fe 238.204 Radial†	12.6	1.2	9.3674	ug/L	9.3674	ppb	20:36:49
1	K 766.490 Radial†	2868.7	-50.5	-9.0424	ug/L	-9.0424	ppb	20:36:29
1	Mg 279.077 IEC†	2.6	0.3	10.159	ug/L	10.159	ppb	20:36:49
1	Na 589.592 Radial†	-1484.6	-200.4	-54.758	ug/L	-54.758	ppb	20:36:29
1	Sr 421.552†	-0.3	-5.9	-0.0336	ug/L	-0.0336	ppb	20:36:29
1	Sc 361.383	885920.0	885920.0	98.499	%			20:37:46
1	Y 371.029	734560.8	734560.8	98.877	%			20:37:46
1	Ag 328.068†	447.6	55.0	0.2443	ug/L	0.2443	ppb	20:37:46
1	As 188.979†	-41.2	-14.4	-5.1140	ug/L	-5.1140	ppb	20:38:06
1	B 249.677†	-480.2	-952.5	-19.433	ug/L	-19.433	ppb	20:38:06
1	Ba 233.527†	15.9	24.7	0.1644	ug/L	0.1644	ppb	20:38:06
1	Be 313.107†	-4364.1	164.4	0.0542	ug/L	0.0542	ppb	20:37:46
1	Cd 226.502†	-221.6	0.7	0.0065	ug/L	0.0065	ppb	20:38:06
1	Co 228.616†	-72.2	11.4	0.1999	ug/L	0.1999	ppb	20:38:06
1	Cr 267.716†	58.7	-39.6	-0.3924	ug/L	-0.3924	ppb	20:37:46
1	Cu 324.752†	6181.8	189.0	0.5289	ug/L	0.5289	ppb	20:37:46
1	Mn 257.610†	509.2	25.4	0.0256	ug/L	0.0256	ppb	20:38:06
1	Mo 202.031†	31.0	5.9	0.3528	ug/L	0.3528	ppb	20:38:06
1	Ni 231.604†	123.2	22.8	0.4911	ug/L	0.4911	ppb	20:38:06
1	P 214.914†	240.2	-11.3	-5.8502	ug/L	-5.8502	ppb	20:38:06
1	Pb 220.353†	-76.3	0.3	0.0334	ug/L	0.0334	ppb	20:38:06
1	S 181.975 Axial†	55.3	-2.6	-3.1612	ug/L	-3.1612	ppb	20:38:06
1	Sb 206.836†	25.8	-16.2	-4.7605	ug/L	-4.7605	ppb	20:38:06
1	Se 196.026†	-27.8	0.6	0.3428	ug/L	0.3428	ppb	20:38:06
1	Si 251.611†	682.0	32.5	0.9001	ug/L	0.9001	ppb	20:38:06
1	Sn 189.927†	5.4	3.7	0.5356	ug/L	0.5356	ppb	20:38:06
1	Ti 334.940†	-1569.6	-123.5	-0.1723	ug/L	-0.1723	ppb	20:37:46
1	Tl 190.801†	-33.1	12.2	3.1190	ug/L	3.1190	ppb	20:38:06
1	U 409.014†	-3100.9	-419.8	-11.654	ug/L	-11.654	ppb	20:37:46
1	V 292.402†	-1583.5	-139.2	-0.8924	ug/L	-0.8924	ppb	20:37:46
1	Zn 213.857†	787.2	-5.6	-0.0500	ug/L	-0.0500	ppb	20:38:06
1	SiO2†	733.3	59.5	3.5471	ug/L	3.5471	ppb	20:39:02
2	Sc Radial	5565.5	5565.5	99.6	%			20:36:54
2	Y RADIAL	5884.4	5884.4	100.4	%			20:36:54
2	Al 396.153Radial†	-17.2	-4.0	-2.7912	ug/L	-2.7912	ppb	20:36:54
2	Ca 317.933Radial†	21.9	4.2	5.8128	ug/L	5.8128	ppb	20:37:14
2	Fe 238.204 Radial†	10.7	-0.5	-3.7804	ug/L	-3.7804	ppb	20:37:14
2	K 766.490 Radial†	2916.8	56.0	10.084	ug/L	10.084	ppb	20:36:54
2	Mg 279.077 IEC†	2.2	-0.0	-0.9803	ug/L	-0.9803	ppb	20:37:14
2	Na 589.592 Radial†	-1512.9	-258.9	-70.745	ug/L	-70.745	ppb	20:36:54
2	Sr 421.552†	4.5	-1.1	-0.0063	ug/L	-0.0063	ppb	20:36:54
2	Sc 361.383	904192.8	904192.8	100.53	%			20:38:11
2	Y 371.029	751605.7	751605.7	101.17	%			20:38:11
2	Ag 328.068†	446.0	44.3	0.1898	ug/L	0.1898	ppb	20:38:11
2	As 188.979†	-21.1	6.5	2.3242	ug/L	2.3242	ppb	20:38:31
2	B 249.677†	-456.3	-918.9	-18.745	ug/L	-18.745	ppb	20:38:31
2	Ba 233.527†	-4.0	4.6	0.0301	ug/L	0.0301	ppb	20:38:31
2	Be 313.107†	-4384.0	234.3	0.0778	ug/L	0.0778	ppb	20:38:11
2	Cd 226.502†	-241.2	-14.2	-0.1357	ug/L	-0.1357	ppb	20:38:31
2	Co 228.616†	-82.8	2.3	0.0397	ug/L	0.0397	ppb	20:38:31
2	Cr 267.716†	131.5	31.6	0.3157	ug/L	0.3157	ppb	20:38:11
2	Cu 324.752†	6179.3	59.7	0.1667	ug/L	0.1667	ppb	20:38:11
2	Mn 257.610†	517.3	23.0	0.0221	ug/L	0.0221	ppb	20:38:31
2	Mo 202.031†	20.8	-4.9	-0.2918	ug/L	-0.2918	ppb	20:38:31
2	Ni 231.604†	127.2	24.3	0.5232	ug/L	0.5232	ppb	20:38:31

2	P 214.914†	247.4	-9.1	-4.6269 ug/L	-4.6269 ppb	20:38:31
2	Pb 220.353†	-76.7	1.5	0.1510 ug/L	0.1510 ppb	20:38:31
2	S 181.975 Axial†	50.8	-8.2	-9.8487 ug/L	-9.8487 ppb	20:38:31
2	Sb 206.836†	33.5	-9.0	-2.6511 ug/L	-2.6511 ppb	20:38:31
2	Se 196.026†	-17.9	11.0	5.8323 ug/L	5.8323 ppb	20:38:31
2	Si 251.611†	685.4	22.0	0.6077 ug/L	0.6077 ppb	20:38:31
2	Sn 189.927†	13.8	11.9	1.7416 ug/L	1.7416 ppb	20:38:31
2	Ti 334.940†	-1455.1	22.6	0.0348 ug/L	0.0348 ppb	20:38:11
2	Tl 190.801†	-44.7	1.3	0.3400 ug/L	0.3400 ppb	20:38:31
2	U 409.014†	-2904.9	-161.2	-4.4755 ug/L	-4.4755 ppb	20:38:11
2	V 292.402†	-1539.7	-63.1	-0.4088 ug/L	-0.4088 ppb	20:38:11
2	Zn 213.857†	808.1	-1.0	-0.0114 ug/L	-0.0114 ppb	20:38:31
2	SiO2†	730.8	42.0	2.5005 ug/L	2.5005 ppb	20:39:07
3	Sc Radial	5549.9	5549.9	99.3 %		20:37:19
3	Y RADIAL	5814.9	5814.9	99.21 %		20:37:19
3	Al 396.153Radial†	-5.5	7.8	5.4868 ug/L	5.4868 ppb	20:37:19
3	Ca 317.933Radial†	24.8	7.1	9.9806 ug/L	9.9806 ppb	20:37:39
3	Fe 238.204 Radial†	11.5	0.4	3.0857 ug/L	3.0857 ppb	20:37:39
3	K 766.490 Radial†	2963.0	110.7	19.916 ug/L	19.916 ppb	20:37:19
3	Mg 279.077 IEC†	0.1	-2.2	-66.066 ug/L	-66.066 ppb	20:37:39
3	Na 589.592 Radial†	-1551.4	-301.9	-82.513 ug/L	-82.513 ppb	20:37:19
3	Sr 421.552†	14.8	9.2	0.0526 ug/L	0.0526 ppb	20:37:19
3	Sc 361.383	890809.0	890809.0	99.042 %		20:38:37
3	Y 371.029	739520.7	739520.7	99.545 %		20:38:37
3	Ag 328.068†	389.9	-5.7	-0.0240 ug/L	-0.0240 ppb	20:38:37
3	As 188.979†	-27.8	-0.6	-0.2108 ug/L	-0.2108 ppb	20:38:57
3	B 249.677†	-447.2	-916.5	-18.698 ug/L	-18.698 ppb	20:38:57
3	Ba 233.527†	8.8	17.5	0.1158 ug/L	0.1158 ppb	20:38:57
3	Be 313.107†	-4407.2	145.3	0.0482 ug/L	0.0482 ppb	20:38:37
3	Cd 226.502†	-209.4	14.4	0.1380 ug/L	0.1380 ppb	20:38:57
3	Co 228.616†	-79.0	4.9	0.0845 ug/L	0.0845 ppb	20:38:57
3	Cr 267.716†	109.9	11.8	0.1169 ug/L	0.1169 ppb	20:38:37
3	Cu 324.752†	6100.7	72.7	0.2033 ug/L	0.2033 ppb	20:38:37
3	Mn 257.610†	503.2	16.5	0.0177 ug/L	0.0177 ppb	20:38:57
3	Mo 202.031†	19.5	-5.9	-0.3492 ug/L	-0.3492 ppb	20:38:57
3	Ni 231.604†	118.1	17.0	0.3657 ug/L	0.3657 ppb	20:38:57
3	P 214.914†	233.9	-19.0	-9.6737 ug/L	-9.6737 ppb	20:38:57
3	Pb 220.353†	-61.0	16.2	1.6619 ug/L	1.6619 ppb	20:38:57
3	S 181.975 Axial†	47.3	-11.0	-13.131 ug/L	-13.131 ppb	20:38:57
3	Sb 206.836†	43.9	1.9	0.5520 ug/L	0.5520 ppb	20:38:57
3	Se 196.026†	-26.7	1.8	0.9903 ug/L	0.9903 ppb	20:38:57
3	Si 251.611†	705.1	52.1	1.4480 ug/L	1.4480 ppb	20:38:57
3	Sn 189.927†	5.8	4.1	0.5951 ug/L	0.5951 ppb	20:38:57
3	Ti 334.940†	-1452.4	3.6	0.0070 ug/L	0.0070 ppb	20:38:37
3	Tl 190.801†	-39.9	5.5	1.4018 ug/L	1.4018 ppb	20:38:57
3	U 409.014†	-2808.0	-106.8	-2.9652 ug/L	-2.9652 ppb	20:38:37
3	V 292.402†	-1570.2	-116.9	-0.7468 ug/L	-0.7468 ppb	20:38:37
3	Zn 213.857†	817.7	20.8	0.1670 ug/L	0.1670 ppb	20:38:57
3	SiO2†	728.6	50.7	3.0258 ug/L	3.0258 ppb	20:39:12

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	893640.6	99.357	%	1.0518				1.06%
Sc Radial	5598.5	100	%	1.3				1.27%
Y 371.029	741895.7	99.865	%	1.1801				1.18%
Y RADIAL	5882.2	100.4	%	1.13				1.13%
Ag 328.068†	31.2	0.1367	ug/L	0.14180	0.1367	ppb	0.14180	103.71%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-1.4	-0.9772	ug/L	5.77474	-0.9772	ppb	5.77474	590.96%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-2.8	-1.0002	ug/L	3.78141	-1.0002	ppb	3.78141	378.08%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-929.3	-18.959	ug/L	0.4113	-18.959	ppb	0.4113	2.17%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	15.6	0.1034	ug/L	0.06801	0.1034	ppb	0.06801	65.74%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	181.3	0.0601	ug/L	0.01564	0.0601	ppb	0.01564	26.03%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	4.6	6.3555	ug/L	3.38654	6.3555	ppb	3.38654	53.28%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                0.3      0.0029 ug/L       0.13690      0.0029 ppb        0.13690 >999.9%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                6.2      0.1081 ug/L       0.08265      0.1081 ppb        0.08265  76.49%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                1.2      0.0134 ug/L       0.36521      0.0134 ppb        0.36521 >999.9%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              107.1      0.2996 ug/L       0.19937      0.2996 ppb        0.19937  66.54%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         0.4      2.8909 ug/L       6.57608      2.8909 ppb        6.57608 227.47%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         38.7      6.9859 ug/L      14.72574      6.9859 ppb       14.72574 210.79%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           -0.6    -18.962 ug/L       41.1717     -18.962 ppb        41.1717 217.12%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               21.7      0.0218 ug/L       0.00397      0.0218 ppb        0.00397  18.20%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               -1.6     -0.0961 ug/L       0.38980     -0.0961 ppb        0.38980 405.74%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      -253.7    -69.339 ug/L       13.9311     -69.339 ppb        13.9311  20.09%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               21.3      0.4600 ug/L       0.08325      0.4600 ppb        0.08325  18.10%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -13.1     -6.7169 ug/L       2.63268     -6.7169 ppb        2.63268  39.19%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                6.0      0.6154 ug/L       0.90821      0.6154 ppb        0.90821 147.57%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          -7.3     -8.7137 ug/L       5.08103     -8.7137 ppb        5.08103  58.31%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               -7.8     -2.2865 ug/L       2.67495     -2.2865 ppb        2.67495 116.99%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                4.5      2.3885 ug/L       2.99994      2.3885 ppb        2.99994 125.60%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†               35.5      0.9853 ug/L       0.42662      0.9853 ppb        0.42662  43.30%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                6.5      0.9574 ug/L       0.67977      0.9574 ppb        0.67977  71.00%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                0.8      0.0043 ug/L       0.04406      0.0043 ppb        0.04406 >999.9%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              -32.4     -0.0435 ug/L       0.11241     -0.0435 ppb        0.11241 258.18%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                6.3      1.6203 ug/L       1.40233      1.6203 ppb        1.40233  86.55%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              -229.3     -6.3648 ug/L       4.64206     -6.3648 ppb        4.64206  72.93%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              -106.4     -0.6827 ug/L       0.24814     -0.6827 ppb        0.24814  36.35%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                4.7      0.0352 ug/L       0.11576      0.0352 ppb        0.11576 328.66%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                     50.7      3.0245 ug/L       0.52329      3.0245 ppb        0.52329  17.30%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 77
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 12/20/2009 21:29:35
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5512.8	5512.8	98.7	%			21:31:27
1	Y RADIAL	5751.4	5751.4	98.12	%			21:31:27
1	Al 396.153Radial†	6984.2	7092.2	4960.1	ug/L	4960.1	ppb	21:31:27
1	Ca 317.933Radial†	3552.3	3582.6	5001.6	ug/L	5001.6	ppb	21:31:47
1	Fe 238.204 Radial†	661.2	658.9	5229.4	ug/L	5229.4	ppb	21:31:47
1	K 766.490 Radial†	30668.4	28211.9	5056.3	ug/L	5056.3	ppb	21:31:27
1	Mg 279.077 IEC†	174.7	174.8	5280.6	ug/L	5280.6	ppb	21:31:47
1	Na 589.592 Radial†	36305.8	38058.1	10401	ug/L	10401	ppb	21:31:27
1	Sr 421.552†	87771.4	88956.0	507.47	ug/L	507.47	ppb	21:31:27
1	Sc 361.383	916728.8	916728.8	101.92	%			21:32:46
1	Y 371.029	744089.6	744089.6	100.16	%			21:32:46
1	Ag 328.068†	120110.6	117443.7	504.27	ug/L	504.27	ppb	21:32:46
1	As 188.979†	1398.7	1399.8	501.94	ug/L	501.94	ppb	21:33:06
1	B 249.677†	24672.9	23742.1	482.39	ug/L	482.39	ppb	21:32:46
1	Ba 233.527†	76568.3	75131.5	505.69	ug/L	505.69	ppb	21:32:46
1	Be 313.107†	1557566.3	1532757.5	509.68	ug/L	509.68	ppb	21:32:46
1	Cd 226.502†	53614.5	52828.1	507.33	ug/L	507.33	ppb	21:32:46
1	Co 228.616†	28976.4	28514.1	494.68	ug/L	494.68	ppb	21:33:06
1	Cr 267.716†	51770.9	50694.4	506.34	ug/L	506.34	ppb	21:32:46
1	Cu 324.752†	190578.4	180893.6	505.86	ug/L	505.86	ppb	21:32:46
1	Mn 257.610†	528708.3	518235.8	506.44	ug/L	506.44	ppb	21:32:46
1	Mo 202.031†	8548.1	8361.2	497.49	ug/L	497.49	ppb	21:33:06
1	Ni 231.604†	23728.6	23178.3	499.21	ug/L	499.21	ppb	21:33:06
1	P 214.914†	5242.3	4888.2	2409.4	ug/L	2409.4	ppb	21:33:06
1	Pb 220.353†	4902.5	4887.7	501.64	ug/L	501.64	ppb	21:33:06
1	S 181.975 Axial†	896.6	821.0	982.61	ug/L	982.61	ppb	21:33:06
1	Sb 206.836†	1735.1	1659.9	496.76	ug/L	496.76	ppb	21:33:06
1	Se 196.026†	922.0	933.4	516.83	ug/L	516.83	ppb	21:33:06
1	Si 251.611†	92770.3	90359.2	2503.5	ug/L	2503.5	ppb	21:32:46
1	Sn 189.927†	3458.5	3391.4	496.62	ug/L	496.62	ppb	21:33:06
1	Ti 334.940†	353010.9	347816.8	500.77	ug/L	500.77	ppb	21:32:46
1	Tl 190.801†	1960.3	1969.1	505.73	ug/L	505.73	ppb	21:33:06
1	U 409.014†	14955.4	17401.4	481.35	ug/L	481.35	ppb	21:32:46
1	V 292.402†	80203.3	80157.6	509.90	ug/L	509.90	ppb	21:32:46
1	Zn 213.857†	64933.3	62902.7	503.07	ug/L	503.07	ppb	21:32:46
1	SiO2†	92134.2	89709.9	5337.0	ug/L	5337.0	ppb	21:34:07
2	Sc Radial	5451.5	5451.5	97.6	%			21:31:52
2	Y RADIAL	5636.9	5636.9	96.17	%			21:31:52
2	Al 396.153Radial†	6888.7	7074.0	4947.3	ug/L	4947.3	ppb	21:31:52
2	Ca 317.933Radial†	3581.8	3653.3	5100.3	ug/L	5100.3	ppb	21:32:12
2	Fe 238.204 Radial†	666.1	671.5	5328.9	ug/L	5328.9	ppb	21:32:12
2	K 766.490 Radial†	30171.3	28051.9	5027.6	ug/L	5027.6	ppb	21:31:52
2	Mg 279.077 IEC†	178.9	181.1	5469.9	ug/L	5469.9	ppb	21:32:12
2	Na 589.592 Radial†	35658.5	37808.5	10332	ug/L	10332	ppb	21:31:52
2	Sr 421.552†	86500.0	88653.2	505.74	ug/L	505.74	ppb	21:31:52
2	Sc 361.383	913658.8	913658.8	101.58	%			21:33:14
2	Y 371.029	742416.6	742416.6	99.935	%			21:33:14
2	Ag 328.068†	119523.2	117261.4	503.53	ug/L	503.53	ppb	21:33:14
2	As 188.979†	1408.5	1414.0	506.99	ug/L	506.99	ppb	21:33:34
2	B 249.677†	24471.9	23625.6	480.00	ug/L	480.00	ppb	21:33:14
2	Ba 233.527†	76358.5	75177.4	506.00	ug/L	506.00	ppb	21:33:14
2	Be 313.107†	1549668.3	1530117.4	508.80	ug/L	508.80	ppb	21:33:14
2	Cd 226.502†	53291.7	52687.1	505.96	ug/L	505.96	ppb	21:33:14
2	Co 228.616†	28953.9	28587.5	495.95	ug/L	495.95	ppb	21:33:34
2	Cr 267.716†	51577.6	50674.8	506.14	ug/L	506.14	ppb	21:33:14
2	Cu 324.752†	189740.6	180697.2	505.32	ug/L	505.32	ppb	21:33:14
2	Mn 257.610†	525739.9	517056.6	505.30	ug/L	505.30	ppb	21:33:14
2	Mo 202.031†	8540.4	8381.7	498.72	ug/L	498.72	ppb	21:33:34
2	Ni 231.604†	23691.3	23219.9	500.10	ug/L	500.10	ppb	21:33:34

2	P 214.914†	5225.4	4888.8	2409.7 ug/L	2409.7 ppb	21:33:34
2	Pb 220.353†	4916.5	4917.8	504.70 ug/L	504.70 ppb	21:33:34
2	S 181.975 Axial†	893.9	821.3	982.97 ug/L	982.97 ppb	21:33:34
2	Sb 206.836†	1741.6	1672.1	500.41 ug/L	500.41 ppb	21:33:34
2	Se 196.026†	927.6	941.9	521.68 ug/L	521.68 ppb	21:33:34
2	Si 251.611†	92240.9	90143.8	2497.4 ug/L	2497.4 ppb	21:33:14
2	Sn 189.927†	3455.8	3400.1	497.91 ug/L	497.91 ppb	21:33:34
2	Ti 334.940†	351217.5	347215.1	499.91 ug/L	499.91 ppb	21:33:14
2	Tl 190.801†	1937.2	1952.8	501.55 ug/L	501.55 ppb	21:33:34
2	U 409.014†	14912.4	17408.3	481.53 ug/L	481.53 ppb	21:33:14
2	V 292.402†	79983.5	80205.7	510.21 ug/L	510.21 ppb	21:33:14
2	Zn 213.857†	64527.6	62717.4	501.56 ug/L	501.56 ppb	21:33:14
2	SiO2†	92461.4	90335.8	5374.4 ug/L	5374.4 ppb	21:34:12
3	Sc Radial	5590.6	5590.6	100 %		21:32:17
3	Y RADIAL	5826.9	5826.9	99.41 %		21:32:17
3	Al 396.153Radial†	7087.1	7096.5	4962.8 ug/L	4962.8 ppb	21:32:17
3	Ca 317.933Radial†	3535.7	3515.9	4908.4 ug/L	4908.4 ppb	21:32:37
3	Fe 238.204 Radial†	654.4	642.9	5102.6 ug/L	5102.6 ppb	21:32:37
3	K 766.490 Radial†	30916.6	28027.0	5023.1 ug/L	5023.1 ppb	21:32:17
3	Mg 279.077 IEC†	175.7	173.3	5237.4 ug/L	5237.4 ppb	21:32:37
3	Na 589.592 Radial†	36531.6	37771.3	10322 ug/L	10322 ppb	21:32:17
3	Sr 421.552†	88917.5	88862.4	506.94 ug/L	506.94 ppb	21:32:17
3	Sc 361.383	907560.6	907560.6	100.90 %		21:33:41
3	Y 371.029	737133.2	737133.2	99.224 %		21:33:41
3	Ag 328.068†	118954.0	117488.0	504.43 ug/L	504.43 ppb	21:33:41
3	As 188.979†	1409.3	1424.1	510.55 ug/L	510.55 ppb	21:34:01
3	B 249.677†	24372.5	23688.9	481.30 ug/L	481.30 ppb	21:33:41
3	Ba 233.527†	76198.7	75524.1	508.33 ug/L	508.33 ppb	21:33:41
3	Be 313.107†	1543529.6	1534284.2	510.19 ug/L	510.19 ppb	21:33:41
3	Cd 226.502†	53295.3	53043.2	509.41 ug/L	509.41 ppb	21:33:41
3	Co 228.616†	29147.2	28970.6	502.62 ug/L	502.62 ppb	21:34:01
3	Cr 267.716†	51509.7	50948.7	508.87 ug/L	508.87 ppb	21:33:41
3	Cu 324.752†	188477.8	180700.7	505.31 ug/L	505.31 ppb	21:33:41
3	Mn 257.610†	524951.4	519752.8	507.91 ug/L	507.91 ppb	21:33:41
3	Mo 202.031†	8605.8	8503.1	505.91 ug/L	505.91 ppb	21:34:01
3	Ni 231.604†	23832.4	23516.4	506.49 ug/L	506.49 ppb	21:34:01
3	P 214.914†	5261.4	4959.1	2445.7 ug/L	2445.7 ppb	21:34:01
3	Pb 220.353†	4934.6	4968.2	509.90 ug/L	509.90 ppb	21:34:01
3	S 181.975 Axial†	898.7	831.9	995.68 ug/L	995.68 ppb	21:34:01
3	Sb 206.836†	1744.2	1686.2	504.77 ug/L	504.77 ppb	21:34:01
3	Se 196.026†	927.2	947.6	524.04 ug/L	524.04 ppb	21:34:01
3	Si 251.611†	92006.7	90521.8	2507.8 ug/L	2507.8 ppb	21:33:41
3	Sn 189.927†	3478.0	3445.0	504.45 ug/L	504.45 ppb	21:34:01
3	Ti 334.940†	349916.9	348249.3	501.39 ug/L	501.39 ppb	21:33:41
3	Tl 190.801†	1958.9	1987.1	510.31 ug/L	510.31 ppb	21:34:01
3	U 409.014†	14679.3	17276.1	477.89 ug/L	477.89 ppb	21:33:41
3	V 292.402†	79633.1	80387.4	511.47 ug/L	511.47 ppb	21:33:41
3	Zn 213.857†	64358.0	62976.0	503.63 ug/L	503.63 ppb	21:33:41
3	SiO2†	91877.8	90368.9	5376.1 ug/L	5376.1 ppb	21:34:17

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	912649.4	101.47	%	0.519				0.51%
Sc Radial	5518.3	98.8	%	1.25				1.26%
Y 371.029	741213.1	99.773	%	0.4888				0.49%
Y RADIAL	5738.4	97.90	%	1.632				1.67%
Ag 328.068†	117397.7	504.08	ug/L	0.482	504.08	ppb	0.482	0.10%
QC value within limits for Ag 328.068 Recovery = 100.82%								
Al 396.153Radial†	7087.5	4956.7	ug/L	8.29	4956.7	ppb	8.29	0.17%
QC value within limits for Al 396.153Radial Recovery = 99.13%								
As 188.979†	1412.6	506.49	ug/L	4.323	506.49	ppb	4.323	0.85%
QC value within limits for As 188.979 Recovery = 101.30%								
B 249.677†	23685.5	481.23	ug/L	1.198	481.23	ppb	1.198	0.25%
QC value within limits for B 249.677 Recovery = 96.25%								
Ba 233.527†	75277.6	506.67	ug/L	1.440	506.67	ppb	1.440	0.28%
QC value within limits for Ba 233.527 Recovery = 101.33%								
Be 313.107†	1532386.3	509.56	ug/L	0.701	509.56	ppb	0.701	0.14%
QC value within limits for Be 313.107 Recovery = 101.91%								
Ca 317.933Radial†	3583.9	5003.5	ug/L	95.96	5003.5	ppb	95.96	1.92%

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   QC value within limits for Ca 317.933Radial  Recovery = 100.07%
Cd 226.502†            52852.8      507.57 ug/L         1.736      507.57 ppb          1.736   0.34%
   QC value within limits for Cd 226.502  Recovery = 101.51%
Co 228.616†            28690.7      497.75 ug/L         4.263      497.75 ppb          4.263   0.86%
   QC value within limits for Co 228.616  Recovery = 99.55%
Cr 267.716†            50772.6      507.12 ug/L         1.524      507.12 ppb          1.524   0.30%
   QC value within limits for Cr 267.716  Recovery = 101.42%
Cu 324.752†           180763.8      505.50 ug/L         0.314      505.50 ppb          0.314   0.06%
   QC value within limits for Cu 324.752  Recovery = 101.10%
Fe 238.204 Radial†       657.7      5220.3 ug/L        113.42      5220.3 ppb         113.42   2.17%
   QC value within limits for Fe 238.204 Radial  Recovery = 104.41%
K 766.490 Radial†      28096.9      5035.7 ug/L         17.98      5035.7 ppb          17.98   0.36%
   QC value within limits for K 766.490 Radial  Recovery = 100.71%
Mg 279.077 IEC†          176.4      5329.3 ug/L        123.67      5329.3 ppb         123.67   2.32%
   QC value within limits for Mg 279.077 IEC  Recovery = 106.59%
Mn 257.610†           518348.4      506.55 ug/L         1.311      506.55 ppb          1.311   0.26%
   QC value within limits for Mn 257.610  Recovery = 101.31%
Mo 202.031†             8415.3      500.71 ug/L         4.549      500.71 ppb          4.549   0.91%
   QC value within limits for Mo 202.031  Recovery = 100.14%
Na 589.592 Radial†     37879.3       10352 ug/L          42.6       10352 ppb           42.6   0.41%
   QC value within limits for Na 589.592 Radial  Recovery = 103.52%
Ni 231.604†            23304.9      501.93 ug/L         3.971      501.93 ppb          3.971   0.79%
   QC value within limits for Ni 231.604  Recovery = 100.39%
P 214.914†              4912.0      2421.6 ug/L         20.89      2421.6 ppb          20.89   0.86%
   QC value within limits for P 214.914  Recovery = 96.86%
Pb 220.353†             4924.6      505.41 ug/L         4.177      505.41 ppb          4.177   0.83%
   QC value within limits for Pb 220.353  Recovery = 101.08%
S 181.975 Axial†         824.7      987.08 ug/L         7.444      987.08 ppb          7.444   0.75%
   QC value within limits for S 181.975 Axial  Recovery = 98.71%
Sb 206.836†             1672.7      500.65 ug/L         4.009      500.65 ppb          4.009   0.80%
   QC value within limits for Sb 206.836  Recovery = 100.13%
Se 196.026†              941.0      520.85 ug/L         3.676      520.85 ppb          3.676   0.71%
   QC value within limits for Se 196.026  Recovery = 104.17%
Si 251.611†            90341.6      2502.9 ug/L          5.21      2502.9 ppb           5.21   0.21%
   QC value within limits for Si 251.611  Recovery = 100.12%
Sn 189.927†             3412.2      499.66 ug/L         4.199      499.66 ppb          4.199   0.84%
   QC value within limits for Sn 189.927  Recovery = 99.93%
Sr 421.552†            88823.9      506.72 ug/L         0.885      506.72 ppb          0.885   0.17%
   QC value within limits for Sr 421.552  Recovery = 101.34%
Ti 334.940†           347760.4      500.69 ug/L         0.743      500.69 ppb          0.743   0.15%
   QC value within limits for Ti 334.940  Recovery = 100.14%
Tl 190.801†             1969.7      505.86 ug/L         4.379      505.86 ppb          4.379   0.87%
   QC value within limits for Tl 190.801  Recovery = 101.17%
U 409.014†             17361.9      480.26 ug/L         2.056      480.26 ppb          2.056   0.43%
   QC value within limits for U 409.014  Recovery = 96.05%
V 292.402†             80250.2      510.53 ug/L         0.834      510.53 ppb          0.834   0.16%
   QC value within limits for V 292.402  Recovery = 102.11%
Zn 213.857†            62865.4      502.75 ug/L         1.069      502.75 ppb          1.069   0.21%
   QC value within limits for Zn 213.857  Recovery = 100.55%
SiO2†                  90138.2      5362.5 ug/L         22.08      5362.5 ppb          22.08   0.41%
   QC value within limits for SiO2  Recovery = 100.28%
All analyte(s) passed QC.
```

Sequence No.: 78
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 12/20/2009 21:36:26
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5645.3	5645.3	101	%			21:38:18
1	Y RADIAL	5943.7	5943.7	101.4	%			21:38:18
1	Al 396.153Radial†	-28.8	-15.2	-10.650	ug/L	-10.650	ppb	21:38:18
1	Ca 317.933Radial†	22.0	4.0	5.5247	ug/L	5.5247	ppb	21:38:38
1	Fe 238.204 Radial†	10.5	-0.9	-6.8157	ug/L	-6.8157	ppb	21:38:38
1	K 766.490 Radial†	2892.9	-9.0	-1.6039	ug/L	-1.6039	ppb	21:38:18
1	Mg 279.077 IEC†	2.8	0.5	14.268	ug/L	14.268	ppb	21:38:38
1	Na 589.592 Radial†	-1460.4	-185.4	-50.670	ug/L	-50.670	ppb	21:38:18
1	Sr 421.552†	-0.8	-6.4	-0.0364	ug/L	-0.0364	ppb	21:38:18
1	Sc 361.383	903623.4	903623.4	100.47	%			21:39:35
1	Y 371.029	752241.0	752241.0	101.26	%			21:39:35
1	Ag 328.068†	491.9	90.3	0.3856	ug/L	0.3856	ppb	21:39:35
1	As 188.979†	-25.7	1.8	0.6604	ug/L	0.6604	ppb	21:39:55
1	B 249.677†	-437.0	-900.0	-18.359	ug/L	-18.359	ppb	21:39:55
1	Ba 233.527†	21.1	29.6	0.1975	ug/L	0.1975	ppb	21:39:55
1	Be 313.107†	-4496.6	119.4	0.0394	ug/L	0.0394	ppb	21:39:35
1	Cd 226.502†	-224.6	2.2	0.0224	ug/L	0.0224	ppb	21:39:55
1	Co 228.616†	-76.7	8.4	0.1463	ug/L	0.1463	ppb	21:39:55
1	Cr 267.716†	99.5	-0.1	-0.0004	ug/L	-0.0004	ppb	21:39:55
1	Cu 324.752†	6143.4	27.8	0.0773	ug/L	0.0773	ppb	21:39:35
1	Mn 257.610†	515.0	21.1	0.0196	ug/L	0.0196	ppb	21:39:55
1	Mo 202.031†	26.8	1.1	0.0667	ug/L	0.0667	ppb	21:39:55
1	Ni 231.604†	115.3	12.5	0.2688	ug/L	0.2688	ppb	21:39:55
1	P 214.914†	240.6	-15.7	-7.9952	ug/L	-7.9952	ppb	21:39:55
1	Pb 220.353†	-75.3	2.8	0.2890	ug/L	0.2890	ppb	21:39:55
1	S 181.975 Axial†	50.2	-8.8	-10.482	ug/L	-10.482	ppb	21:39:55
1	Sb 206.836†	41.8	-0.8	-0.2168	ug/L	-0.2168	ppb	21:39:55
1	Se 196.026†	-43.4	-14.4	-7.6884	ug/L	-7.6884	ppb	21:39:55
1	Si 251.611†	679.4	16.4	0.4530	ug/L	0.4530	ppb	21:39:55
1	Sn 189.927†	9.4	7.5	1.1006	ug/L	1.1006	ppb	21:39:55
1	Ti 334.940†	-1548.9	-71.7	-0.1005	ug/L	-0.1005	ppb	21:39:35
1	Tl 190.801†	-40.9	5.1	1.2890	ug/L	1.2890	ppb	21:39:55
1	U 409.014†	-2939.3	-197.3	-5.4759	ug/L	-5.4759	ppb	21:39:35
1	V 292.402†	-1548.1	-72.5	-0.4632	ug/L	-0.4632	ppb	21:39:35
1	Zn 213.857†	812.3	3.7	0.0278	ug/L	0.0278	ppb	21:39:55
1	SiO2†	716.4	28.1	1.6706	ug/L	1.6706	ppb	21:40:51
2	Sc Radial	5590.7	5590.7	100	%			21:38:43
2	Y RADIAL	5870.4	5870.4	100.2	%			21:38:43
2	Al 396.153Radial†	-17.1	-3.8	-2.7138	ug/L	-2.7138	ppb	21:38:43
2	Ca 317.933Radial†	17.6	-0.2	-0.3387	ug/L	-0.3387	ppb	21:39:03
2	Fe 238.204 Radial†	13.0	1.8	14.233	ug/L	14.233	ppb	21:39:03
2	K 766.490 Radial†	2848.3	-25.6	-4.5768	ug/L	-4.5768	ppb	21:38:43
2	Mg 279.077 IEC†	4.5	2.2	66.213	ug/L	66.213	ppb	21:39:03
2	Na 589.592 Radial†	-1486.0	-225.1	-61.529	ug/L	-61.529	ppb	21:38:43
2	Sr 421.552†	18.1	12.5	0.0712	ug/L	0.0712	ppb	21:38:43
2	Sc 361.383	892706.2	892706.2	99.253	%			21:40:00
2	Y 371.029	741679.2	741679.2	99.836	%			21:40:00
2	Ag 328.068†	389.4	-7.0	-0.0247	ug/L	-0.0247	ppb	21:40:00
2	As 188.979†	-33.4	-6.2	-2.1794	ug/L	-2.1794	ppb	21:40:20
2	B 249.677†	-434.5	-902.8	-18.418	ug/L	-18.418	ppb	21:40:20
2	Ba 233.527†	14.1	22.8	0.1506	ug/L	0.1506	ppb	21:40:20
2	Be 313.107†	-4421.2	140.6	0.0466	ug/L	0.0466	ppb	21:40:00
2	Cd 226.502†	-209.9	14.3	0.1360	ug/L	0.1360	ppb	21:40:20
2	Co 228.616†	-94.0	-10.0	-0.1719	ug/L	-0.1719	ppb	21:40:20
2	Cr 267.716†	96.6	-1.8	-0.0182	ug/L	-0.0182	ppb	21:40:20
2	Cu 324.752†	6156.1	115.4	0.3234	ug/L	0.3234	ppb	21:40:00
2	Mn 257.610†	534.8	47.3	0.0463	ug/L	0.0463	ppb	21:40:20
2	Mo 202.031†	31.6	6.2	0.3723	ug/L	0.3723	ppb	21:40:20
2	Ni 231.604†	114.3	12.9	0.2790	ug/L	0.2790	ppb	21:40:20

2	P 214.914†	232.9	-20.5	-10.474 ug/L	-10.474 ppb	21:40:20
2	Pb 220.353†	-80.9	-3.7	-0.3798 ug/L	-0.3798 ppb	21:40:20
2	S 181.975 Axial†	54.6	-3.8	-4.5401 ug/L	-4.5401 ppb	21:40:20
2	Sb 206.836†	35.0	-7.1	-2.0994 ug/L	-2.0994 ppb	21:40:20
2	Se 196.026†	-29.6	-1.1	-0.5309 ug/L	-0.5309 ppb	21:40:20
2	Si 251.611†	706.8	52.3	1.4504 ug/L	1.4504 ppb	21:40:20
2	Sn 189.927†	1.7	-0.1	-0.0134 ug/L	-0.0134 ppb	21:40:20
2	Ti 334.940†	-1467.5	-8.4	-0.0095 ug/L	-0.0095 ppb	21:40:00
2	Tl 190.801†	-33.7	11.8	3.0208 ug/L	3.0208 ppb	21:40:20
2	U 409.014†	-2928.0	-221.7	-6.1539 ug/L	-6.1539 ppb	21:40:00
2	V 292.402†	-1648.3	-192.3	-1.2145 ug/L	-1.2145 ppb	21:40:00
2	Zn 213.857†	803.9	5.1	0.0362 ug/L	0.0362 ppb	21:40:20
2	SiO2†	742.6	63.2	3.7688 ug/L	3.7688 ppb	21:40:56
3	Sc Radial	5672.7	5672.7	102 %		21:39:08
3	Y RADIAL	5908.8	5908.8	100.8 %		21:39:08
3	Al 396.153Radial†	-30.6	-16.9	-11.870 ug/L	-11.870 ppb	21:39:08
3	Ca 317.933Radial†	16.1	-2.0	-2.8238 ug/L	-2.8238 ppb	21:39:28
3	Fe 238.204 Radial†	11.5	0.1	0.9697 ug/L	0.9697 ppb	21:39:28
3	K 766.490 Radial†	2903.9	-12.1	-2.1402 ug/L	-2.1402 ppb	21:39:08
3	Mg 279.077 IEC†	2.0	-0.3	-8.6734 ug/L	-8.6734 ppb	21:39:28
3	Na 589.592 Radial†	-1545.6	-262.4	-71.700 ug/L	-71.700 ppb	21:39:08
3	Sr 421.552†	19.2	13.3	0.0760 ug/L	0.0760 ppb	21:39:08
3	Sc 361.383	901447.5	901447.5	100.23 %		21:40:26
3	Y 371.029	747942.3	747942.3	100.68 %		21:40:26
3	Ag 328.068†	350.1	-50.1	-0.2143 ug/L	-0.2143 ppb	21:40:26
3	As 188.979†	-29.4	-1.8	-0.6449 ug/L	-0.6449 ppb	21:40:46
3	B 249.677†	-424.0	-888.1	-18.118 ug/L	-18.118 ppb	21:40:46
3	Ba 233.527†	8.7	17.2	0.1139 ug/L	0.1139 ppb	21:40:46
3	Be 313.107†	-4469.5	135.7	0.0449 ug/L	0.0449 ppb	21:40:26
3	Cd 226.502†	-230.4	-4.1	-0.0396 ug/L	-0.0396 ppb	21:40:46
3	Co 228.616†	-84.1	0.8	0.0141 ug/L	0.0141 ppb	21:40:46
3	Cr 267.716†	102.4	3.0	0.0296 ug/L	0.0296 ppb	21:40:46
3	Cu 324.752†	6040.4	-60.2	-0.1682 ug/L	-0.1682 ppb	21:40:26
3	Mn 257.610†	524.4	31.7	0.0312 ug/L	0.0312 ppb	21:40:46
3	Mo 202.031†	28.5	2.9	0.1704 ug/L	0.1704 ppb	21:40:46
3	Ni 231.604†	122.0	19.5	0.4205 ug/L	0.4205 ppb	21:40:46
3	P 214.914†	237.5	-18.2	-9.2245 ug/L	-9.2245 ppb	21:40:46
3	Pb 220.353†	-82.1	-4.1	-0.4241 ug/L	-0.4241 ppb	21:40:46
3	S 181.975 Axial†	53.7	-5.2	-6.2217 ug/L	-6.2217 ppb	21:40:46
3	Sb 206.836†	37.9	-4.5	-1.3298 ug/L	-1.3298 ppb	21:40:46
3	Se 196.026†	-33.5	-4.6	-2.4460 ug/L	-2.4460 ppb	21:40:46
3	Si 251.611†	696.6	35.2	0.9768 ug/L	0.9768 ppb	21:40:46
3	Sn 189.927†	4.9	3.1	0.4492 ug/L	0.4492 ppb	21:40:46
3	Ti 334.940†	-1510.8	-37.3	-0.0527 ug/L	-0.0527 ppb	21:40:26
3	Tl 190.801†	-26.8	19.1	4.8662 ug/L	4.8662 ppb	21:40:46
3	U 409.014†	-2830.6	-95.9	-2.6619 ug/L	-2.6619 ppb	21:40:26
3	V 292.402†	-1608.7	-136.7	-0.8612 ug/L	-0.8612 ppb	21:40:26
3	Zn 213.857†	819.6	13.0	0.1022 ug/L	0.1022 ppb	21:40:46
3	SiO2†	700.1	13.5	0.7998 ug/L	0.7998 ppb	21:41:01

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	899259.1	99.982	%	0.6424				0.64%
Sc Radial	5636.2	101	%	0.7				0.74%
Y 371.029	747287.5	100.59	%	0.715				0.71%
Y RADIAL	5907.6	100.8	%	0.63				0.62%
Ag 328.068†	11.1	0.0489	ug/L	0.30665	0.0489	ppb	0.30665	627.70%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-12.0	-8.4112	ug/L	4.97167	-8.4112	ppb	4.97167	59.11%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-2.1	-0.7213	ug/L	1.42145	-0.7213	ppb	1.42145	197.07%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-897.0	-18.298	ug/L	0.1589	-18.298	ppb	0.1589	0.87%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	23.2	0.1540	ug/L	0.04190	0.1540	ppb	0.04190	27.21%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	131.9	0.0437	ug/L	0.00376	0.0437	ppb	0.00376	8.61%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	0.6	0.7874	ug/L	4.28668	0.7874	ppb	4.28668	544.40%

```
   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                 4.1      0.0396 ug/L       0.08904      0.0396 ppb        0.08904 224.72%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                -0.3     -0.0038 ug/L       0.15985     -0.0038 ppb        0.15985 >999.9%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                 0.4      0.0037 ug/L       0.02419      0.0037 ppb        0.02419 659.60%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†                27.7      0.0775 ug/L       0.24579      0.0775 ppb        0.24579 317.15%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          0.4      2.7957 ug/L      10.64257      2.7957 ppb       10.64257 380.67%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         -15.6     -2.7736 ug/L       1.58444     -2.7736 ppb        1.58444  57.13%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             0.8     23.936 ug/L       38.3681      23.936 ppb        38.3681 160.29%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                33.3      0.0324 ug/L       0.01340      0.0324 ppb        0.01340  41.38%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 3.4      0.2031 ug/L       0.15541      0.2031 ppb        0.15541  76.51%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       -224.3     -61.299 ug/L       10.5170     -61.299 ppb        10.5170  17.16%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                15.0      0.3228 ug/L       0.08476      0.3228 ppb        0.08476  26.26%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -18.1     -9.2312 ug/L       1.23946     -9.2312 ppb        1.23946  13.43%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -1.7     -0.1716 ug/L       0.39953     -0.1716 ppb        0.39953 232.77%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -5.9     -7.0814 ug/L       3.06304     -7.0814 ppb        3.06304  43.25%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                -4.2     -1.2153 ug/L       0.94649     -1.2153 ppb        0.94649  77.88%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -6.7     -3.5551 ug/L       3.70542     -3.5551 ppb        3.70542 104.23%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                34.6      0.9601 ug/L       0.49889      0.9601 ppb        0.49889  51.96%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 3.5      0.5121 ug/L       0.55970      0.5121 ppb        0.55970 109.29%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                 6.5      0.0369 ug/L       0.06354      0.0369 ppb        0.06354 172.08%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               -39.2     -0.0542 ug/L       0.04555     -0.0542 ppb        0.04555  83.98%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                12.0      3.0587 ug/L       1.78892      3.0587 ppb        1.78892  58.49%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -171.6     -4.7639 ug/L       1.85170     -4.7639 ppb        1.85170  38.87%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               -133.8     -0.8463 ug/L       0.37589     -0.8463 ppb        0.37589  44.42%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                 7.3      0.0554 ug/L       0.04075      0.0554 ppb        0.04075  73.51%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                      34.9      2.0798 ug/L       1.52620      2.0798 ppb        1.52620  73.38%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 86
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 12/20/2009 22:31:17
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	5511.2	5511.2	98.6	%			22:33:09
1	Y RADIAL	5735.8	5735.8	97.86	%			22:33:09
1	Al 396.153Radial†	6941.7	7051.1	4931.1	ug/L	4931.1	ppb	22:33:09
1	Ca 317.933Radial†	3560.9	3592.4	5015.2	ug/L	5015.2	ppb	22:33:29
1	Fe 238.204 Radial†	658.5	656.4	5210.1	ug/L	5210.1	ppb	22:33:29
1	K 766.490 Radial†	30479.7	28029.3	5023.6	ug/L	5023.6	ppb	22:33:09
1	Mg 279.077 IEC†	172.1	172.2	5203.8	ug/L	5203.8	ppb	22:33:29
1	Na 589.592 Radial†	35653.5	37407.2	10223	ug/L	10223	ppb	22:33:09
1	Sr 421.552†	86956.8	88155.2	502.90	ug/L	502.90	ppb	22:33:09
1	Sc 361.383	907931.5	907931.5	100.95	%			22:34:27
1	Y 371.029	738321.3	738321.3	99.384	%			22:34:27
1	Ag 328.068†	120970.7	119437.6	512.79	ug/L	512.79	ppb	22:34:32
1	As 188.979†	1418.2	1432.4	513.50	ug/L	513.50	ppb	22:34:52
1	B 249.677†	24811.9	24114.3	489.94	ug/L	489.94	ppb	22:34:32
1	Ba 233.527†	76835.3	76123.8	512.37	ug/L	512.37	ppb	22:34:32
1	Be 313.107†	1537126.6	1527316.4	507.87	ug/L	507.87	ppb	22:34:27
1	Cd 226.502†	53702.6	53425.1	513.07	ug/L	513.07	ppb	22:34:32
1	Co 228.616†	29722.8	29529.0	512.29	ug/L	512.29	ppb	22:34:32
1	Cr 267.716†	52196.9	51608.5	515.46	ug/L	515.46	ppb	22:34:32
1	Cu 324.752†	190336.7	182465.9	510.25	ug/L	510.25	ppb	22:34:32
1	Mn 257.610†	521624.1	516244.1	504.50	ug/L	504.50	ppb	22:34:27
1	Mo 202.031†	8530.9	8425.4	501.31	ug/L	501.31	ppb	22:34:52
1	Ni 231.604†	24321.4	23991.2	516.72	ug/L	516.72	ppb	22:34:32
1	P 214.914†	5245.4	4941.0	2435.6	ug/L	2435.6	ppb	22:34:52
1	Pb 220.353†	4887.7	4919.8	504.92	ug/L	504.92	ppb	22:34:52
1	S 181.975 Axial†	895.3	828.2	991.29	ug/L	991.29	ppb	22:34:52
1	Sb 206.836†	1765.5	1706.5	510.54	ug/L	510.54	ppb	22:34:52
1	Se 196.026†	923.1	943.2	521.98	ug/L	521.98	ppb	22:34:52
1	Si 251.611†	93273.4	91739.4	2541.8	ug/L	2541.8	ppb	22:34:32
1	Sn 189.927†	3481.4	3447.0	504.75	ug/L	504.75	ppb	22:34:52
1	Ti 334.940†	347658.7	345870.6	497.96	ug/L	497.96	ppb	22:34:27
1	Tl 190.801†	1948.7	1976.2	507.41	ug/L	507.41	ppb	22:34:52
1	U 409.014†	15541.6	18124.3	501.40	ug/L	501.40	ppb	22:34:32
1	V 292.402†	80822.1	81533.1	518.63	ug/L	518.63	ppb	22:34:32
1	Zn 213.857†	65232.0	63815.8	510.33	ug/L	510.33	ppb	22:34:32
1	SiO2†	92339.0	90788.6	5401.3	ug/L	5401.3	ppb	22:36:00
2	Sc Radial	5454.6	5454.6	97.6	%			22:33:34
2	Y RADIAL	5672.6	5672.6	96.78	%			22:33:34
2	Al 396.153Radial†	6866.7	7047.4	4928.6	ug/L	4928.6	ppb	22:33:34
2	Ca 317.933Radial†	3557.7	3626.6	5063.0	ug/L	5063.0	ppb	22:33:54
2	Fe 238.204 Radial†	660.7	665.6	5282.7	ug/L	5282.7	ppb	22:33:54
2	K 766.490 Radial†	30152.6	28015.3	5021.1	ug/L	5021.1	ppb	22:33:34
2	Mg 279.077 IEC†	173.1	175.0	5288.0	ug/L	5288.0	ppb	22:33:54
2	Na 589.592 Radial†	35053.0	37167.5	10157	ug/L	10157	ppb	22:33:34
2	Sr 421.552†	85523.6	87602.8	499.75	ug/L	499.75	ppb	22:33:34
2	Sc 361.383	909082.6	909082.6	101.07	%			22:34:58
2	Y 371.029	738746.3	738746.3	99.441	%			22:34:58
2	Ag 328.068†	119732.8	118061.2	506.93	ug/L	506.93	ppb	22:35:03
2	As 188.979†	1407.3	1419.8	509.05	ug/L	509.05	ppb	22:35:23
2	B 249.677†	24519.7	23794.1	483.42	ug/L	483.42	ppb	22:35:03
2	Ba 233.527†	76024.8	75225.6	506.33	ug/L	506.33	ppb	22:35:03
2	Be 313.107†	1540174.6	1528403.7	508.23	ug/L	508.23	ppb	22:34:58
2	Cd 226.502†	53186.4	52847.0	507.51	ug/L	507.51	ppb	22:35:03
2	Co 228.616†	29414.1	29186.3	506.34	ug/L	506.34	ppb	22:35:03
2	Cr 267.716†	51672.3	51024.0	509.63	ug/L	509.63	ppb	22:35:03
2	Cu 324.752†	188057.4	179972.1	503.29	ug/L	503.29	ppb	22:35:03
2	Mn 257.610†	522329.0	516287.2	504.54	ug/L	504.54	ppb	22:34:58
2	Mo 202.031†	8525.0	8408.8	500.33	ug/L	500.33	ppb	22:35:23
2	Ni 231.604†	23992.2	23635.0	509.04	ug/L	509.04	ppb	22:35:03

2	P 214.914†	5217.2	4906.6	2419.2 ug/L	2419.2 ppb	22:35:23
2	Pb 220.353†	4861.4	4887.6	501.62 ug/L	501.62 ppb	22:35:23
2	S 181.975 Axial†	890.8	822.5	984.50 ug/L	984.50 ppb	22:35:23
2	Sb 206.836†	1754.1	1693.1	506.64 ug/L	506.64 ppb	22:35:23
2	Se 196.026†	920.0	939.0	519.97 ug/L	519.97 ppb	22:35:23
2	Si 251.611†	92107.1	90468.5	2506.4 ug/L	2506.4 ppb	22:35:03
2	Sn 189.927†	3470.7	3432.0	502.57 ug/L	502.57 ppb	22:35:23
2	Ti 334.940†	348308.4	346077.3	498.26 ug/L	498.26 ppb	22:34:58
2	Tl 190.801†	1966.2	1991.1	511.26 ug/L	511.26 ppb	22:35:23
2	U 409.014†	15436.8	18001.1	497.99 ug/L	497.99 ppb	22:35:03
2	V 292.402†	80145.2	80762.0	513.76 ug/L	513.76 ppb	22:35:03
2	Zn 213.857†	64446.9	62957.2	503.45 ug/L	503.45 ppb	22:35:03
2	SiO2†	91536.4	89878.7	5347.0 ug/L	5347.0 ppb	22:36:05
3	Sc Radial	5593.1	5593.1	100 %		22:33:59
3	Y RADIAL	5798.4	5798.4	98.92 %		22:33:59
3	Al 396.153Radial†	7054.0	7060.3	4937.8 ug/L	4937.8 ppb	22:33:59
3	Ca 317.933Radial†	3578.0	3556.6	4965.2 ug/L	4965.2 ppb	22:34:19
3	Fe 238.204 Radial†	657.9	646.1	5128.3 ug/L	5128.3 ppb	22:34:19
3	K 766.490 Radial†	30838.0	27934.9	5006.6 ug/L	5006.6 ppb	22:33:59
3	Mg 279.077 IEC†	175.7	173.3	5234.7 ug/L	5234.7 ppb	22:34:19
3	Na 589.592 Radial†	36344.1	37567.8	10267 ug/L	10267 ppb	22:33:59
3	Sr 421.552†	88195.9	88102.3	502.60 ug/L	502.60 ppb	22:33:59
3	Sc 361.383	917378.1	917378.1	102.00 %		22:35:29
3	Y 371.029	745784.1	745784.1	100.39 %		22:35:29
3	Ag 328.068†	121469.7	118692.8	509.58 ug/L	509.58 ppb	22:35:34
3	As 188.979†	1415.2	1415.0	507.31 ug/L	507.31 ppb	22:35:54
3	B 249.677†	25006.7	24052.3	488.69 ug/L	488.69 ppb	22:35:34
3	Ba 233.527†	77316.5	75811.8	510.27 ug/L	510.27 ppb	22:35:34
3	Be 313.107†	1555757.2	1529902.1	508.73 ug/L	508.73 ppb	22:35:29
3	Cd 226.502†	54086.5	53253.6	511.43 ug/L	511.43 ppb	22:35:34
3	Co 228.616†	29990.8	29488.5	511.57 ug/L	511.57 ppb	22:35:34
3	Cr 267.716†	52423.0	51297.8	512.36 ug/L	512.36 ppb	22:35:34
3	Cu 324.752†	191362.7	181530.2	507.63 ug/L	507.63 ppb	22:35:34
3	Mn 257.610†	526783.4	515981.4	504.23 ug/L	504.23 ppb	22:35:29
3	Mo 202.031†	8508.4	8316.3	494.81 ug/L	494.81 ppb	22:35:54
3	Ni 231.604†	24401.7	23821.8	513.07 ug/L	513.07 ppb	22:35:34
3	P 214.914†	5192.8	4836.0	2382.6 ug/L	2382.6 ppb	22:35:54
3	Pb 220.353†	4851.9	4834.8	496.22 ug/L	496.22 ppb	22:35:54
3	S 181.975 Axial†	890.3	814.1	974.42 ug/L	974.42 ppb	22:35:54
3	Sb 206.836†	1753.4	1676.7	501.55 ug/L	501.55 ppb	22:35:54
3	Se 196.026†	928.7	939.3	519.62 ug/L	519.62 ppb	22:35:54
3	Si 251.611†	93886.3	91388.9	2532.2 ug/L	2532.2 ppb	22:35:34
3	Sn 189.927†	3471.3	3401.5	498.10 ug/L	498.10 ppb	22:35:54
3	Ti 334.940†	351647.3	346234.7	498.48 ug/L	498.48 ppb	22:35:29
3	Tl 190.801†	1945.4	1953.1	501.53 ug/L	501.53 ppb	22:35:54
3	U 409.014†	15784.1	18203.6	503.62 ug/L	503.62 ppb	22:35:34
3	V 292.402†	81295.3	81172.6	516.29 ug/L	516.29 ppb	22:35:34
3	Zn 213.857†	65673.9	63583.7	508.48 ug/L	508.48 ppb	22:35:34
3	SiO2†	91149.2	88680.2	5275.6 ug/L	5275.6 ppb	22:36:10

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	911464.1	101.34	%	0.573				0.57%
Sc Radial	5519.6	98.8	%	1.25				1.26%
Y 371.029	740950.6	99.738	%	0.5642				0.57%
Y RADIAL	5735.6	97.85	%	1.073				1.10%
Ag 328.068†	118730.5	509.76	ug/L	2.937	509.76	ppb	2.937	0.58%
QC value within limits for Ag 328.068 Recovery = 101.95%								
Al 396.153Radial†	7052.9	4932.5	ug/L	4.79	4932.5	ppb	4.79	0.10%
QC value within limits for Al 396.153Radial Recovery = 98.65%								
As 188.979†	1422.4	509.95	ug/L	3.193	509.95	ppb	3.193	0.63%
QC value within limits for As 188.979 Recovery = 101.99%								
B 249.677†	23986.9	487.35	ug/L	3.463	487.35	ppb	3.463	0.71%
QC value within limits for B 249.677 Recovery = 97.47%								
Ba 233.527†	75720.4	509.66	ug/L	3.066	509.66	ppb	3.066	0.60%
QC value within limits for Ba 233.527 Recovery = 101.93%								
Be 313.107†	1528540.8	508.28	ug/L	0.431	508.28	ppb	0.431	0.08%
QC value within limits for Be 313.107 Recovery = 101.66%								
Ca 317.933Radial†	3591.8	5014.5	ug/L	48.89	5014.5	ppb	48.89	0.97%

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   QC value within limits for Ca 317.933Radial  Recovery = 100.29%
Cd 226.502†            53175.2      510.67 ug/L         2.860      510.67 ppb          2.860   0.56%
   QC value within limits for Cd 226.502  Recovery = 102.13%
Co 228.616†            29401.3      510.07 ug/L         3.247      510.07 ppb          3.247   0.64%
   QC value within limits for Co 228.616  Recovery = 102.01%
Cr 267.716†            51310.1      512.48 ug/L         2.919      512.48 ppb          2.919   0.57%
   QC value within limits for Cr 267.716  Recovery = 102.50%
Cu 324.752†           181322.7      507.06 ug/L         3.519      507.06 ppb          3.519   0.69%
   QC value within limits for Cu 324.752  Recovery = 101.41%
Fe 238.204 Radial†       656.0      5207.0 ug/L         77.26      5207.0 ppb          77.26   1.48%
   QC value within limits for Fe 238.204 Radial  Recovery = 104.14%
K 766.490 Radial†      27993.2      5017.1 ug/L          9.18      5017.1 ppb           9.18   0.18%
   QC value within limits for K 766.490 Radial  Recovery = 100.34%
Mg 279.077 IEC†          173.5      5242.1 ug/L         42.57      5242.1 ppb          42.57   0.81%
   QC value within limits for Mg 279.077 IEC  Recovery = 104.84%
Mn 257.610†           516170.9      504.42 ug/L         0.169      504.42 ppb          0.169   0.03%
   QC value within limits for Mn 257.610  Recovery = 100.88%
Mo 202.031†             8383.5      498.82 ug/L         3.501      498.82 ppb          3.501   0.70%
   QC value within limits for Mo 202.031  Recovery = 99.76%
Na 589.592 Radial†     37380.8       10216 ug/L          55.1       10216 ppb           55.1   0.54%
   QC value within limits for Na 589.592 Radial  Recovery = 102.16%
Ni 231.604†            23816.0      512.94 ug/L         3.838      512.94 ppb          3.838   0.75%
   QC value within limits for Ni 231.604  Recovery = 102.59%
P 214.914†              4894.5      2412.5 ug/L         27.13      2412.5 ppb          27.13   1.12%
   QC value within limits for P 214.914  Recovery = 96.50%
Pb 220.353†             4880.7      500.92 ug/L         4.392      500.92 ppb          4.392   0.88%
   QC value within limits for Pb 220.353  Recovery = 100.18%
S 181.975 Axial†         821.6      983.40 ug/L         8.487      983.40 ppb          8.487   0.86%
   QC value within limits for S 181.975 Axial  Recovery = 98.34%
Sb 206.836†             1692.1      506.25 ug/L         4.508      506.25 ppb          4.508   0.89%
   QC value within limits for Sb 206.836  Recovery = 101.25%
Se 196.026†              940.5      520.53 ug/L         1.275      520.53 ppb          1.275   0.25%
   QC value within limits for Se 196.026  Recovery = 104.11%
Si 251.611†            91198.9      2526.8 ug/L         18.28      2526.8 ppb          18.28   0.72%
   QC value within limits for Si 251.611  Recovery = 101.07%
Sn 189.927†             3426.8      501.81 ug/L         3.393      501.81 ppb          3.393   0.68%
   QC value within limits for Sn 189.927  Recovery = 100.36%
Sr 421.552†            87953.4      501.75 ug/L         1.739      501.75 ppb          1.739   0.35%
   QC value within limits for Sr 421.552  Recovery = 100.35%
Ti 334.940†           346060.9      498.24 ug/L         0.262      498.24 ppb          0.262   0.05%
   QC value within limits for Ti 334.940  Recovery = 99.65%
Tl 190.801†             1973.5      506.73 ug/L         4.899      506.73 ppb          4.899   0.97%
   QC value within limits for Tl 190.801  Recovery = 101.35%
U 409.014†             18109.6      501.00 ug/L         2.838      501.00 ppb          2.838   0.57%
   QC value within limits for U 409.014  Recovery = 100.20%
V 292.402†             81155.9      516.23 ug/L         2.435      516.23 ppb          2.435   0.47%
   QC value within limits for V 292.402  Recovery = 103.25%
Zn 213.857†            63452.2      507.42 ug/L         3.558      507.42 ppb          3.558   0.70%
   QC value within limits for Zn 213.857  Recovery = 101.48%
SiO2†                  89782.5      5341.3 ug/L         63.06      5341.3 ppb          63.06   1.18%
   QC value within limits for SiO2  Recovery = 99.88%
All analyte(s) passed QC.
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Sequence No.: 87
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 12/20/2009 22:38:19
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	5587.9	5587.9	100	%			22:40:11
1	Y RADIAL	5865.6	5865.6	100.1	%			22:40:11
1	Al 396.153Radial†	-0.6	12.7	8.8899	ug/L	8.8899	ppb	22:40:11
1	Ca 317.933Radial†	24.7	6.8	9.5466	ug/L	9.5466	ppb	22:40:31
1	Fe 238.204 Radial†	9.2	-2.0	-16.042	ug/L	-16.042	ppb	22:40:31
1	K 766.490 Radial†	2763.7	-108.8	-19.502	ug/L	-19.502	ppb	22:40:11
1	Mg 279.077 IEC†	1.9	-0.4	-11.159	ug/L	-11.159	ppb	22:40:31
1	Na 589.592 Radial†	-1536.8	-276.7	-75.623	ug/L	-75.623	ppb	22:40:11
1	Sr 421.552†	7.1	1.5	0.0084	ug/L	0.0084	ppb	22:40:11
1	Sc 361.383	923549.1	923549.1	102.68	%			22:41:28
1	Y 371.029	760987.2	760987.2	102.43	%			22:41:28
1	Ag 328.068†	440.6	29.7	0.1211	ug/L	0.1211	ppb	22:41:33
1	As 188.979†	-34.2	-5.9	-2.0742	ug/L	-2.0742	ppb	22:41:53
1	B 249.677†	-424.2	-878.2	-17.913	ug/L	-17.913	ppb	22:41:53
1	Ba 233.527†	-13.8	-4.8	-0.0327	ug/L	-0.0327	ppb	22:41:53
1	Be 313.107†	-4392.9	317.0	0.1051	ug/L	0.1051	ppb	22:41:33
1	Cd 226.502†	-222.7	8.8	0.0866	ug/L	0.0866	ppb	22:41:53
1	Co 228.616†	-76.7	10.0	0.1742	ug/L	0.1742	ppb	22:41:53
1	Cr 267.716†	147.4	44.3	0.4416	ug/L	0.4416	ppb	22:41:33
1	Cu 324.752†	6205.2	-43.9	-0.1235	ug/L	-0.1235	ppb	22:41:33
1	Mn 257.610†	533.7	28.2	0.0262	ug/L	0.0262	ppb	22:41:53
1	Mo 202.031†	26.5	0.2	0.0111	ug/L	0.0111	ppb	22:41:53
1	Ni 231.604†	104.1	-0.9	-0.0190	ug/L	-0.0190	ppb	22:41:53
1	P 214.914†	230.3	-30.9	-15.670	ug/L	-15.670	ppb	22:41:53
1	Pb 220.353†	-85.9	-5.8	-0.5944	ug/L	-0.5944	ppb	22:41:53
1	S 181.975 Axial†	43.4	-16.4	-19.707	ug/L	-19.707	ppb	22:41:53
1	Sb 206.836†	51.8	8.1	2.3722	ug/L	2.3722	ppb	22:41:53
1	Se 196.026†	-28.8	0.8	0.3624	ug/L	0.3624	ppb	22:41:53
1	Si 251.611†	697.2	19.1	0.5392	ug/L	0.5392	ppb	22:41:53
1	Sn 189.927†	-0.3	-2.2	-0.3143	ug/L	-0.3143	ppb	22:41:53
1	Ti 334.940†	-1535.9	-25.7	-0.0367	ug/L	-0.0367	ppb	22:41:33
1	Tl 190.801†	-38.6	8.2	2.1016	ug/L	2.1016	ppb	22:41:53
1	U 409.014†	-2802.2	-0.6	-0.0160	ug/L	-0.0160	ppb	22:41:28
1	V 292.402†	-1517.7	-9.7	-0.0585	ug/L	-0.0585	ppb	22:41:33
1	Zn 213.857†	832.6	6.1	0.0503	ug/L	0.0503	ppb	22:41:53
1	SiO2†	689.2	-13.8	-0.8095	ug/L	-0.8095	ppb	22:42:59
2	Sc Radial	5603.7	5603.7	100	%			22:40:36
2	Y RADIAL	5830.5	5830.5	99.47	%			22:40:36
2	Al 396.153Radial†	-10.7	2.6	1.8117	ug/L	1.8117	ppb	22:40:36
2	Ca 317.933Radial†	18.7	0.8	1.0675	ug/L	1.0675	ppb	22:40:56
2	Fe 238.204 Radial†	10.2	-1.0	-8.1897	ug/L	-8.1897	ppb	22:40:56
2	K 766.490 Radial†	2943.1	62.2	11.220	ug/L	11.220	ppb	22:40:36
2	Mg 279.077 IEC†	2.0	-0.3	-8.3121	ug/L	-8.3121	ppb	22:40:56
2	Na 589.592 Radial†	-1649.0	-384.2	-105.01	ug/L	-105.01	ppb	22:40:36
2	Sr 421.552†	23.3	17.7	0.1007	ug/L	0.1007	ppb	22:40:36
2	Sc 361.383	919971.2	919971.2	102.28	%			22:41:58
2	Y 371.029	757925.9	757925.9	102.02	%			22:41:58
2	Ag 328.068†	379.2	-28.7	-0.1308	ug/L	-0.1308	ppb	22:42:03
2	As 188.979†	-26.5	1.5	0.5526	ug/L	0.5526	ppb	22:42:23
2	B 249.677†	-458.3	-913.0	-18.625	ug/L	-18.625	ppb	22:42:23
2	Ba 233.527†	10.2	18.6	0.1237	ug/L	0.1237	ppb	22:42:23
2	Be 313.107†	-4415.8	277.9	0.0921	ug/L	0.0921	ppb	22:42:03
2	Cd 226.502†	-224.2	6.6	0.0645	ug/L	0.0645	ppb	22:42:23
2	Co 228.616†	-81.2	5.3	0.0938	ug/L	0.0938	ppb	22:42:23
2	Cr 267.716†	116.4	14.6	0.1435	ug/L	0.1435	ppb	22:42:03
2	Cu 324.752†	6160.0	-64.6	-0.1811	ug/L	-0.1811	ppb	22:42:03
2	Mn 257.610†	534.6	31.1	0.0297	ug/L	0.0297	ppb	22:42:23
2	Mo 202.031†	31.3	5.1	0.3008	ug/L	0.3008	ppb	22:42:23
2	Ni 231.604†	123.1	18.1	0.3892	ug/L	0.3892	ppb	22:42:23

2	P 214.914†	235.7	-24.8	-12.529 ug/L	-12.529 ppb	22:42:23
2	Pb 220.353†	-103.6	-23.4	-2.3949 ug/L	-2.3949 ppb	22:42:23
2	S 181.975 Axial†	50.3	-9.6	-11.519 ug/L	-11.519 ppb	22:42:23
2	Sb 206.836†	58.9	15.2	4.5198 ug/L	4.5198 ppb	22:42:23
2	Se 196.026†	-30.2	-0.7	-0.4122 ug/L	-0.4122 ppb	22:42:23
2	Si 251.611†	707.7	32.0	0.8747 ug/L	0.8747 ppb	22:42:23
2	Sn 189.927†	17.5	15.3	2.2404 ug/L	2.2404 ppb	22:42:23
2	Ti 334.940†	-1557.6	-52.8	-0.0781 ug/L	-0.0781 ppb	22:42:03
2	Tl 190.801†	-31.2	15.3	3.8995 ug/L	3.8995 ppb	22:42:23
2	U 409.014†	-2616.2	170.6	4.7347 ug/L	4.7347 ppb	22:41:58
2	V 292.402†	-1569.7	-66.2	-0.4012 ug/L	-0.4012 ppb	22:42:03
2	Zn 213.857†	815.8	-7.3	-0.0603 ug/L	-0.0603 ppb	22:42:23
2	SiO2†	725.4	24.2	1.4132 ug/L	1.4132 ppb	22:43:04
3	Sc Radial	5513.5	5513.5	98.7 %		22:41:01
3	Y RADIAL	5808.9	5808.9	99.10 %		22:41:01
3	Al 396.153Radial†	-15.3	-2.2	-1.5389 ug/L	-1.5389 ppb	22:41:01
3	Ca 317.933Radial†	20.5	2.9	4.0842 ug/L	4.0842 ppb	22:41:21
3	Fe 238.204 Radial†	12.7	1.7	13.462 ug/L	13.462 ppb	22:41:21
3	K 766.490 Radial†	2974.7	142.2	25.572 ug/L	25.572 ppb	22:41:01
3	Mg 279.077 IEC†	0.6	-1.6	-48.901 ug/L	-48.901 ppb	22:41:21
3	Na 589.592 Radial†	-1511.1	-271.4	-74.160 ug/L	-74.160 ppb	22:41:01
3	Sr 421.552†	25.0	19.7	0.1122 ug/L	0.1122 ppb	22:41:01
3	Sc 361.383	917327.5	917327.5	101.99 %		22:42:28
3	Y 371.029	755713.7	755713.7	101.72 %		22:42:28
3	Ag 328.068†	456.7	48.4	0.2092 ug/L	0.2092 ppb	22:42:33
3	As 188.979†	-33.2	-5.1	-1.7961 ug/L	-1.7961 ppb	22:42:53
3	B 249.677†	-496.3	-951.6	-19.415 ug/L	-19.415 ppb	22:42:53
3	Ba 233.527†	0.4	9.0	0.0605 ug/L	0.0605 ppb	22:42:53
3	Be 313.107†	-4501.3	181.7	0.0606 ug/L	0.0606 ppb	22:42:33
3	Cd 226.502†	-210.0	19.8	0.1894 ug/L	0.1894 ppb	22:42:53
3	Co 228.616†	-81.1	5.3	0.0917 ug/L	0.0917 ppb	22:42:53
3	Cr 267.716†	135.5	33.7	0.3354 ug/L	0.3354 ppb	22:42:33
3	Cu 324.752†	6214.2	5.8	0.0170 ug/L	0.0170 ppb	22:42:33
3	Mn 257.610†	519.7	18.1	0.0199 ug/L	0.0199 ppb	22:42:53
3	Mo 202.031†	33.9	7.6	0.4558 ug/L	0.4558 ppb	22:42:53
3	Ni 231.604†	126.5	21.7	0.4683 ug/L	0.4683 ppb	22:42:53
3	P 214.914†	239.0	-20.8	-10.588 ug/L	-10.588 ppb	22:42:53
3	Pb 220.353†	-65.4	13.7	1.4057 ug/L	1.4057 ppb	22:42:53
3	S 181.975 Axial†	52.1	-7.7	-9.1875 ug/L	-9.1875 ppb	22:42:53
3	Sb 206.836†	48.0	4.6	1.3688 ug/L	1.3688 ppb	22:42:53
3	Se 196.026†	-33.3	-3.8	-1.9982 ug/L	-1.9982 ppb	22:42:53
3	Si 251.611†	705.1	31.4	0.8591 ug/L	0.8591 ppb	22:42:53
3	Sn 189.927†	1.7	-0.1	-0.0166 ug/L	-0.0166 ppb	22:42:53
3	Ti 334.940†	-1402.3	95.1	0.1364 ug/L	0.1364 ppb	22:42:33
3	Tl 190.801†	-30.2	16.2	4.1311 ug/L	4.1311 ppb	22:42:53
3	U 409.014†	-2724.3	57.2	1.5857 ug/L	1.5857 ppb	22:42:28
3	V 292.402†	-1506.6	-8.8	-0.0490 ug/L	-0.0490 ppb	22:42:33
3	Zn 213.857†	816.8	-3.9	-0.0338 ug/L	-0.0338 ppb	22:42:53
3	SiO2†	691.9	-6.6	-0.4300 ug/L	-0.4300 ppb	22:43:09

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	920282.6	102.32	%	0.347				0.34%
Sc Radial	5568.4	99.7	%	0.86				0.86%
Y 371.029	758208.9	102.06	%	0.356				0.35%
Y RADIAL	5835.0	99.55	%	0.488				0.49%
Ag 328.068†	16.5	0.0665	ug/L	0.17644	0.0665	ppb	0.17644	265.27%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	4.4	3.0542	ug/L	5.32428	3.0542	ppb	5.32428	174.32%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-3.1	-1.1059	ug/L	1.44302	-1.1059	ppb	1.44302	130.49%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-914.3	-18.651	ug/L	0.7511	-18.651	ppb	0.7511	4.03%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	7.6	0.0505	ug/L	0.07869	0.0505	ppb	0.07869	155.93%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	258.9	0.0859	ug/L	0.02290	0.0859	ppb	0.02290	26.65%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	3.5	4.8995	ug/L	4.29794	4.8995	ppb	4.29794	87.72%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                11.8      0.1135 ug/L       0.06664      0.1135 ppb        0.06664  58.71%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                 6.9      0.1199 ug/L       0.04703      0.1199 ppb        0.04703  39.22%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                30.9      0.3068 ug/L       0.15110      0.3068 ppb        0.15110  49.25%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               -34.2     -0.0958 ug/L       0.10190     -0.0958 ppb        0.10190 106.33%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -0.5     -3.5900 ug/L      15.28060     -3.5900 ppb       15.28060 425.64%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          31.9      5.7632 ug/L      23.02734      5.7632 ppb       23.02734 399.56%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -0.8    -22.791 ug/L       22.6569    -22.791 ppb        22.6569  99.41%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                25.8      0.0253 ug/L       0.00496      0.0253 ppb        0.00496  19.63%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 4.3      0.2559 ug/L       0.22575      0.2559 ppb        0.22575  88.22%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       -310.8    -84.931 ug/L       17.4040    -84.931 ppb        17.4040  20.49%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                13.0      0.2795 ug/L       0.26154      0.2795 ppb        0.26154  93.58%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -25.5    -12.929 ug/L        2.5647    -12.929 ppb         2.5647  19.84%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -5.2     -0.5278 ug/L       1.90116     -0.5278 ppb        1.90116 360.18%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          -11.2    -13.471 ug/L        5.5250    -13.471 ppb         5.5250  41.01%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 9.3      2.7536 ug/L       1.60976      2.7536 ppb        1.60976  58.46%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -1.3     -0.6827 ug/L       1.20330     -0.6827 ppb        1.20330 176.27%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                27.5      0.7577 ug/L       0.18937      0.7577 ppb        0.18937  24.99%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 4.3      0.6365 ug/L       1.39696      0.6365 ppb        1.39696 219.48%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                12.9      0.0738 ug/L       0.05688      0.0738 ppb        0.05688  77.10%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                 5.5      0.0072 ug/L       0.11378      0.0072 ppb        0.11378 >999.9%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                13.2      3.3774 ug/L       1.11093      3.3774 ppb        1.11093  32.89%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 75.7      2.1015 ug/L       2.41700      2.1015 ppb        2.41700 115.02%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                -28.2     -0.1696 ug/L       0.20067     -0.1696 ppb        0.20067 118.35%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                -1.7     -0.0146 ug/L       0.05777     -0.0146 ppb        0.05777 395.21%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                       1.3      0.0579 ug/L       1.18897      0.0579 ppb        1.18897 >999.9%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
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Sequence No.: 88
Sample ID: 1201998454|934060|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 86
Date Collected: 12/20/2009 22:45:18
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1201998454|934060|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5630.9	5630.9	101	%			22:47:11
1	Y RADIAL	5894.6	5894.6	100.6	%			22:47:11
1	Al 396.153Radial†	-29.0	-15.5	-10.907	ug/L	-10.907	ppb	22:47:11
1	Ca 317.933Radial†	30.9	12.8	17.870	ug/L	17.870	ppb	22:47:31
1	Fe 238.204 Radial†	16.6	5.3	41.984	ug/L	41.984	ppb	22:47:31
1	K 766.490 Radial†	2873.2	-21.3	-3.8041	ug/L	-3.8041	ppb	22:47:11
1	Mg 279.077 IEC†	2.8	0.5	13.927	ug/L	13.927	ppb	22:47:31
1	Na 589.592 Radial†	-1497.3	-225.7	-61.690	ug/L	-61.690	ppb	22:47:11
1	Sr 421.552†	14.6	8.8	0.0503	ug/L	0.0503	ppb	22:47:11
1	Sc 361.383	910543.7	910543.7	101.24	%			22:48:28
1	Y 371.029	749707.1	749707.1	100.92	%			22:48:28
1	Ag 328.068†	387.4	-16.8	-0.0618	ug/L	-0.0618	ppb	22:48:33
1	As 188.979†	-24.0	3.8	1.3596	ug/L	1.3596	ppb	22:48:53
1	B 249.677†	-458.2	-917.6	-18.725	ug/L	-18.725	ppb	22:48:53
1	Ba 233.527†	37.2	45.4	0.3044	ug/L	0.3044	ppb	22:48:53
1	Be 313.107†	-4382.8	265.8	0.0890	ug/L	0.0890	ppb	22:48:33
1	Cd 226.502†	-197.7	30.5	0.2893	ug/L	0.2893	ppb	22:48:53
1	Co 228.616†	-85.6	0.2	0.0043	ug/L	0.0043	ppb	22:48:53
1	Cr 267.716†	177.1	75.8	0.7546	ug/L	0.7546	ppb	22:48:33
1	Cu 324.752†	6136.0	-25.9	-0.0703	ug/L	-0.0703	ppb	22:48:33
1	Mn 257.610†	901.7	399.1	0.3936	ug/L	0.3936	ppb	22:48:53
1	Mo 202.031†	45.2	19.0	1.1360	ug/L	1.1360	ppb	22:48:53
1	Ni 231.604†	133.8	29.9	0.6448	ug/L	0.6448	ppb	22:48:53
1	P 214.914†	240.8	-17.3	-8.8314	ug/L	-8.8314	ppb	22:48:53
1	Pb 220.353†	-94.4	-15.4	-1.5775	ug/L	-1.5775	ppb	22:48:53
1	S 181.975 Axial†	62.5	3.0	3.6164	ug/L	3.6164	ppb	22:48:53
1	Sb 206.836†	43.3	0.3	0.1245	ug/L	0.1245	ppb	22:48:53
1	Se 196.026†	-26.4	2.7	1.5820	ug/L	1.5820	ppb	22:48:53
1	Si 251.611†	1400.6	723.6	20.122	ug/L	20.122	ppb	22:48:53
1	Sn 189.927†	8.9	7.0	1.0289	ug/L	1.0289	ppb	22:48:53
1	Ti 334.940†	-1218.2	266.7	0.3838	ug/L	0.3838	ppb	22:48:33
1	Tl 190.801†	-46.1	0.2	0.0698	ug/L	0.0698	ppb	22:48:53
1	U 409.014†	-2684.2	76.9	2.1284	ug/L	2.1284	ppb	22:48:28
1	V 292.402†	-1579.5	-91.8	-0.5627	ug/L	-0.5627	ppb	22:48:33
1	Zn 213.857†	954.7	138.2	1.1076	ug/L	1.1076	ppb	22:48:53
1	SiO2†	1413.2	711.0	42.456	ug/L	42.456	ppb	22:49:59
2	Sc Radial	5499.7	5499.7	98.4	%			22:47:36
2	Y RADIAL	5760.4	5760.4	98.28	%			22:47:36
2	Al 396.153Radial†	-25.8	-12.9	-9.0365	ug/L	-9.0365	ppb	22:47:36
2	Ca 317.933Radial†	26.8	9.3	13.042	ug/L	13.042	ppb	22:47:56
2	Fe 238.204 Radial†	17.5	6.6	51.908	ug/L	51.908	ppb	22:47:56
2	K 766.490 Radial†	2791.1	-36.7	-6.5577	ug/L	-6.5577	ppb	22:47:36
2	Mg 279.077 IEC†	2.3	0.1	3.4190	ug/L	3.4190	ppb	22:47:56
2	Na 589.592 Radial†	-1515.1	-279.2	-76.314	ug/L	-76.314	ppb	22:47:36
2	Sr 421.552†	-18.7	-24.6	-0.1405	ug/L	-0.1405	ppb	22:47:36
2	Sc 361.383	914456.3	914456.3	101.67	%			22:48:58
2	Y 371.029	753954.4	753954.4	101.49	%			22:48:58
2	Ag 328.068†	441.0	34.4	0.1614	ug/L	0.1614	ppb	22:49:03
2	As 188.979†	-26.8	1.1	0.3998	ug/L	0.3998	ppb	22:49:23
2	B 249.677†	-448.7	-906.3	-18.496	ug/L	-18.496	ppb	22:49:23
2	Ba 233.527†	14.4	22.8	0.1535	ug/L	0.1535	ppb	22:49:23
2	Be 313.107†	-4394.0	273.3	0.0914	ug/L	0.0914	ppb	22:49:03
2	Cd 226.502†	-220.4	9.0	0.0816	ug/L	0.0816	ppb	22:49:23
2	Co 228.616†	-82.1	4.0	0.0667	ug/L	0.0667	ppb	22:49:23
2	Cr 267.716†	135.5	34.1	0.3396	ug/L	0.3396	ppb	22:49:03
2	Cu 324.752†	6103.2	-84.2	-0.2326	ug/L	-0.2326	ppb	22:49:03
2	Mn 257.610†	943.4	436.4	0.4312	ug/L	0.4312	ppb	22:49:23
2	Mo 202.031†	18.2	-7.6	-0.4484	ug/L	-0.4484	ppb	22:49:23
2	Ni 231.604†	131.4	27.0	0.5820	ug/L	0.5820	ppb	22:49:23

2	P 214.914†	239.0	-20.1	-10.220	ug/L	-10.220 ppb	22:49:23
2	Pb 220.353†	-64.7	14.2	1.4454	ug/L	1.4454 ppb	22:49:23
2	S 181.975 Axial†	61.3	1.5	1.7926	ug/L	1.7926 ppb	22:49:23
2	Sb 206.836†	43.9	0.8	0.2281	ug/L	0.2281 ppb	22:49:23
2	Se 196.026†	-32.0	-2.7	-1.2668	ug/L	-1.2668 ppb	22:49:23
2	Si 251.611†	1384.0	701.4	19.534	ug/L	19.534 ppb	22:49:23
2	Sn 189.927†	3.7	1.8	0.2692	ug/L	0.2692 ppb	22:49:23
2	Ti 334.940†	-1247.5	243.0	0.3499	ug/L	0.3499 ppb	22:49:03
2	Tl 190.801†	-47.8	-1.2	-0.3006	ug/L	-0.3006 ppb	22:49:23
2	U 409.014†	-2725.3	47.9	1.3219	ug/L	1.3219 ppb	22:48:58
2	V 292.402†	-1547.1	-53.2	-0.3464	ug/L	-0.3464 ppb	22:49:03
2	Zn 213.857†	956.5	136.0	1.0904	ug/L	1.0904 ppb	22:49:23
2	SiO2†	1453.1	744.3	44.514	ug/L	44.514 ppb	22:50:04
3	Sc Radial	5520.7	5520.7	98.8	%		22:48:01
3	Y RADIAL	5787.7	5787.7	98.74	%		22:48:01
3	Al 396.153Radial†	-8.6	4.6	3.2003	ug/L	3.2003 ppb	22:48:01
3	Ca 317.933Radial†	30.7	13.3	18.506	ug/L	18.506 ppb	22:48:21
3	Fe 238.204 Radial†	15.5	4.5	35.339	ug/L	35.339 ppb	22:48:21
3	K 766.490 Radial†	2888.0	50.6	9.1129	ug/L	9.1129 ppb	22:48:01
3	Mg 279.077 IEC†	3.6	1.4	40.932	ug/L	40.932 ppb	22:48:21
3	Na 589.592 Radial†	-1456.9	-214.5	-58.618	ug/L	-58.618 ppb	22:48:01
3	Sr 421.552†	-10.8	-16.5	-0.0945	ug/L	-0.0945 ppb	22:48:01
3	Sc 361.383	924257.0	924257.0	102.76	%		22:49:29
3	Y 371.029	760984.9	760984.9	102.43	%		22:49:29
3	Ag 328.068†	434.5	23.5	0.1065	ug/L	0.1065 ppb	22:49:34
3	As 188.979†	-20.7	7.3	2.6142	ug/L	2.6142 ppb	22:49:54
3	B 249.677†	-488.4	-940.3	-19.188	ug/L	-19.188 ppb	22:49:54
3	Ba 233.527†	21.0	29.1	0.1962	ug/L	0.1962 ppb	22:49:54
3	Be 313.107†	-4493.4	222.4	0.0745	ug/L	0.0745 ppb	22:49:34
3	Cd 226.502†	-230.7	1.3	0.0090	ug/L	0.0090 ppb	22:49:54
3	Co 228.616†	-90.2	-3.0	-0.0522	ug/L	-0.0522 ppb	22:49:54
3	Cr 267.716†	114.6	12.3	0.1216	ug/L	0.1216 ppb	22:49:34
3	Cu 324.752†	6179.8	-73.3	-0.2030	ug/L	-0.2030 ppb	22:49:34
3	Mn 257.610†	931.9	415.3	0.4083	ug/L	0.4083 ppb	22:49:54
3	Mo 202.031†	34.6	8.1	0.4874	ug/L	0.4874 ppb	22:49:54
3	Ni 231.604†	145.1	38.9	0.8389	ug/L	0.8389 ppb	22:49:54
3	P 214.914†	254.7	-7.3	-3.7008	ug/L	-3.7008 ppb	22:49:54
3	Pb 220.353†	-65.4	14.2	1.4487	ug/L	1.4487 ppb	22:49:54
3	S 181.975 Axial†	69.9	9.2	11.069	ug/L	11.069 ppb	22:49:54
3	Sb 206.836†	48.3	4.6	1.3829	ug/L	1.3829 ppb	22:49:54
3	Se 196.026†	-32.2	-2.5	-1.2332	ug/L	-1.2332 ppb	22:49:54
3	Si 251.611†	1397.8	700.4	19.483	ug/L	19.483 ppb	22:49:54
3	Sn 189.927†	8.3	6.3	0.9215	ug/L	0.9215 ppb	22:49:54
3	Ti 334.940†	-1258.8	245.1	0.3511	ug/L	0.3511 ppb	22:49:34
3	Tl 190.801†	-44.2	2.8	0.7196	ug/L	0.7196 ppb	22:49:54
3	U 409.014†	-2570.6	226.8	6.2901	ug/L	6.2901 ppb	22:49:29
3	V 292.402†	-1501.2	7.6	0.0618	ug/L	0.0618 ppb	22:49:34
3	Zn 213.857†	944.3	114.1	0.9121	ug/L	0.9121 ppb	22:49:54
3	SiO2†	1423.7	700.5	41.842	ug/L	41.842 ppb	22:50:09

Mean Data: 1201998454|934060|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	916419.0	101.89	%	0.785				0.77%
Sc Radial	5550.5	99.3	%	1.26				1.27%
Y 371.029	754882.1	101.61	%	0.767				0.75%
Y RADIAL	5814.2	99.19	%	1.210				1.22%
Ag 328.068†	13.7	0.0687	ug/L	0.11630	0.0687	ppb	0.11630	169.24%
Al 396.153Radial†	-7.9	-5.5811	ug/L	7.66225	-5.5811	ppb	7.66225	137.29%
As 188.979†	4.0	1.4579	ug/L	1.11047	1.4579	ppb	1.11047	76.17%
B 249.677†	-921.4	-18.803	ug/L	0.3523	-18.803	ppb	0.3523	1.87%
Ba 233.527†	32.4	0.2180	ug/L	0.07781	0.2180	ppb	0.07781	35.69%
Be 313.107†	253.8	0.0850	ug/L	0.00913	0.0850	ppb	0.00913	10.75%
Ca 317.933Radial†	11.8	16.473	ug/L	2.9883	16.473	ppb	2.9883	18.14%
Cd 226.502†	13.6	0.1267	ug/L	0.14549	0.1267	ppb	0.14549	114.87%
Co 228.616†	0.4	0.0062	ug/L	0.05948	0.0062	ppb	0.05948	952.79%
Cr 267.716†	40.7	0.4053	ug/L	0.32156	0.4053	ppb	0.32156	79.34%
Cu 324.752†	-61.1	-0.1686	ug/L	0.08645	-0.1686	ppb	0.08645	51.26%
Fe 238.204 Radial†	5.4	43.077	ug/L	8.3388	43.077	ppb	8.3388	19.36%
K 766.490 Radial†	-2.5	-0.4163	ug/L	8.36660	-0.4163	ppb	8.36660	>999.9%

Mg 279.077 IEC†	0.6	19.426	ug/L	19.3519	19.426	ppb	19.3519 99.62%
Mn 257.610†	417.0	0.4111	ug/L	0.01894	0.4111	ppb	0.01894 4.61%
Mo 202.031†	6.5	0.3917	ug/L	0.79656	0.3917	ppb	0.79656 203.36%
Na 589.592 Radial†	-239.8	-65.541	ug/L	9.4554	-65.541	ppb	9.4554 14.43%
Ni 231.604†	32.0	0.6886	ug/L	0.13394	0.6886	ppb	0.13394 19.45%
P 214.914†	-14.9	-7.5841	ug/L	3.43390	-7.5841	ppb	3.43390 45.28%
Pb 220.353†	4.3	0.4388	ug/L	1.74622	0.4388	ppb	1.74622 397.91%
S 181.975 Axial†	4.6	5.4928	ug/L	4.91472	5.4928	ppb	4.91472 89.48%
Sb 206.836†	1.9	0.5785	ug/L	0.69856	0.5785	ppb	0.69856 120.75%
Se 196.026†	-0.8	-0.3060	ug/L	1.63519	-0.3060	ppb	1.63519 534.36%
Si 251.611†	708.5	19.713	ug/L	0.3549	19.713	ppb	0.3549 1.80%
Sn 189.927†	5.0	0.7398	ug/L	0.41112	0.7398	ppb	0.41112 55.57%
Sr 421.552†	-10.8	-0.0616	ug/L	0.09957	-0.0616	ppb	0.09957 161.76%
Ti 334.940†	251.6	0.3616	ug/L	0.01922	0.3616	ppb	0.01922 5.31%
Tl 190.801†	0.6	0.1629	ug/L	0.51640	0.1629	ppb	0.51640 316.91%
U 409.014†	117.2	3.2468	ug/L	2.66624	3.2468	ppb	2.66624 82.12%
V 292.402†	-45.8	-0.2824	ug/L	0.31715	-0.2824	ppb	0.31715 112.29%
Zn 213.857†	129.4	1.0367	ug/L	0.10828	1.0367	ppb	0.10828 10.45%
SiO2†	718.6	42.937	ug/L	1.3996	42.937	ppb	1.3996 3.26%

Sequence No.: 89
Sample ID: 1201998455|934060|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 87
Date Collected: 12/20/2009 22:52:21
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1201998455|934060|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5688.4	5688.4	102	%			22:54:34
1	Y RADIAL	6526.8	6526.8	111.4	%			22:54:34
1	Al 396.153Radial†	120848.4	118717.8	83364	ug/L	83364	ppb	22:54:14
1	Ca 317.933Radial†	68723.3	67486.3	94216	ug/L	94216	ppb	22:54:14
1	Fe 238.204 Radial†	22742.6	22327.9	176700	ug/L	176700	ppb	22:54:14
1	K 766.490 Radial†	228449.3	221524.1	39714	ug/L	39714	ppb	22:54:14
1	Mg 279.077 IEC†	1244.4	1220.0	36680	ug/L	36680	ppb	22:54:34
1	Na 589.592 Radial†	34910.5	35551.1	9715.5	ug/L	9715.5	ppb	22:54:14
1	Sr 421.552†	396126.2	389093.1	2219.0	ug/L	2219.0	ppb	22:54:14
1	Sc 361.383	923794.6	923794.6	102.71	%			22:55:35
1	Y 371.029	826522.4	826522.4	111.26	%			22:55:35
1	Ag 328.068†	57914.5	55987.2	301.37	ug/L	301.37	ppb	22:55:35
1	As 188.979†	2735.7	2690.9	1029.0	ug/L	1029.0	ppb	22:55:40
1	B 249.677†	72491.7	70114.2	1404.7	ug/L	1404.7	ppb	22:55:35
1	Ba 233.527†	268732.7	261651.5	1763.8	ug/L	1763.8	ppb	22:55:35
1	Be 313.107†	2338347.8	2281251.6	767.69	ug/L	767.69	ppb	22:55:35
1	Cd 226.502†	61046.6	59661.8	556.33	ug/L	556.33	ppb	22:55:40
1	Co 228.616†	51302.4	50033.6	854.85	ug/L	854.85	ppb	22:55:40
1	Cr 267.716†	236228.0	229896.5	2297.8	ug/L	2297.8	ppb	22:55:35
1	Cu 324.752†	660902.8	637379.6	1790.5	ug/L	1790.5	ppb	22:55:35
1	Mn 257.610†	5215909.9	5077810.1	4975.0	ug/L	4975.0	ppb	22:55:35
1	Mo 202.031†	8376.6	8130.0	500.19	ug/L	500.19	ppb	22:55:40
1	Ni 231.604†	60573.8	58873.5	1268.2	ug/L	1268.2	ppb	22:55:40
1	P 214.914†	16532.0	15840.7	7670.0	ug/L	7670.0	ppb	22:55:40
1	Pb 220.353†	7596.5	7474.0	768.76	ug/L	768.76	ppb	22:55:40
1	S 181.975 Axial†	3164.5	3022.2	3604.5	ug/L	3604.5	ppb	22:55:40
1	Sb 206.836†	6312.7	6103.7	1760.9	ug/L	1760.9	ppb	22:55:40
1	Se 196.026†	4261.3	4177.6	2800.3	ug/L	2800.3	ppb	22:55:40
1	Si 251.611†	364897.4	354610.6	9846.7	ug/L	9846.7	ppb	22:55:35
1	Sn 189.927†	6819.8	6638.1	983.09	ug/L	983.09	ppb	22:55:40
1	Ti 334.940†	3839019.4	3739206.9	5389.2	ug/L	5389.2	ppb	22:55:35
1	Tl 190.801†	4283.2	4216.0	1141.4	ug/L	1141.4	ppb	22:55:40
1	U 409.014†	-10522.4	-7516.4	-235.28	ug/L	-235.28	ppb	22:55:35
1	V 292.402†	193030.4	189406.2	1162.8	ug/L	1162.8	ppb	22:55:35
1	Zn 213.857†	710515.2	690965.2	5552.1	ug/L	5552.1	ppb	22:55:35
1	SiO2†	367782.8	357394.8	21311	ug/L	21311	ppb	22:56:15
2	Sc Radial	5698.7	5698.7	102	%			22:54:59
2	Y RADIAL	6546.6	6546.6	111.7	%			22:54:59
2	Al 396.153Radial†	121765.0	119401.7	83845	ug/L	83845	ppb	22:54:39
2	Ca 317.933Radial†	69051.1	67685.4	94494	ug/L	94494	ppb	22:54:39
2	Fe 238.204 Radial†	22856.9	22399.6	177270	ug/L	177270	ppb	22:54:39
2	K 766.490 Radial†	229534.2	222181.8	39833	ug/L	39833	ppb	22:54:39
2	Mg 279.077 IEC†	1245.3	1218.7	36640	ug/L	36640	ppb	22:54:59
2	Na 589.592 Radial†	35004.1	35580.9	9723.7	ug/L	9723.7	ppb	22:54:39
2	Sr 421.552†	397790.6	390020.9	2224.3	ug/L	2224.3	ppb	22:54:39
2	Sc 361.383	926146.3	926146.3	102.97	%			22:55:50
2	Y 371.029	829551.7	829551.7	111.66	%			22:55:50
2	Ag 328.068†	58232.8	56153.1	302.26	ug/L	302.26	ppb	22:55:50
2	As 188.979†	2831.8	2777.6	1059.8	ug/L	1059.8	ppb	22:55:55
2	B 249.677†	72704.3	70141.4	1405.2	ug/L	1405.2	ppb	22:55:50
2	Ba 233.527†	269172.8	261414.5	1762.3	ug/L	1762.3	ppb	22:55:50
2	Be 313.107†	2345311.8	2282233.8	768.01	ug/L	768.01	ppb	22:55:50
2	Cd 226.502†	61291.2	59748.4	557.10	ug/L	557.10	ppb	22:55:55
2	Co 228.616†	51470.9	50070.4	855.50	ug/L	855.50	ppb	22:55:55
2	Cr 267.716†	236742.1	229811.8	2297.0	ug/L	2297.0	ppb	22:55:50
2	Cu 324.752†	662997.2	637779.6	1791.6	ug/L	1791.6	ppb	22:55:50
2	Mn 257.610†	5222819.1	5071625.1	4969.1	ug/L	4969.1	ppb	22:55:50
2	Mo 202.031†	8463.6	8193.8	504.03	ug/L	504.03	ppb	22:55:55
2	Ni 231.604†	60662.3	58809.7	1266.9	ug/L	1266.9	ppb	22:55:55

2	P 214.914†	16685.0	15948.4	7724.3 ug/L	7724.3 ppb	22:55:55
2	Pb 220.353†	7605.9	7464.2	767.83 ug/L	767.83 ppb	22:55:55
2	S 181.975 Axial†	3172.0	3021.7	3603.8 ug/L	3603.8 ppb	22:55:55
2	Sb 206.836†	6340.5	6115.1	1764.4 ug/L	1764.4 ppb	22:55:55
2	Se 196.026†	4300.6	4205.3	2816.9 ug/L	2816.9 ppb	22:55:55
2	Si 251.611†	365907.7	354689.8	9848.8 ug/L	9848.8 ppb	22:55:50
2	Sn 189.927†	6878.2	6677.9	988.94 ug/L	988.94 ppb	22:55:55
2	Ti 334.940†	3847031.7	3737497.1	5386.7 ug/L	5386.7 ppb	22:55:50
2	Tl 190.801†	4350.2	4270.5	1155.2 ug/L	1155.2 ppb	22:55:55
2	U 409.014†	-10314.9	-7288.9	-229.03 ug/L	-229.03 ppb	22:55:50
2	V 292.402†	193468.1	189354.1	1162.5 ug/L	1162.5 ppb	22:55:50
2	Zn 213.857†	711483.0	690148.6	5545.5 ug/L	5545.5 ppb	22:55:50
2	SiO2†	365928.7	354685.0	21149 ug/L	21149 ppb	22:56:20
3	Sc Radial	5739.2	5739.2	103 %		22:55:25
3	Y RADIAL	6602.0	6602.0	112.6 %		22:55:25
3	Al 396.153Radial†	118474.3	115355.8	81003 ug/L	81003 ppb	22:55:04
3	Ca 317.933Radial†	67185.5	65391.6	91292 ug/L	91292 ppb	22:55:04
3	Fe 238.204 Radial†	22248.8	21649.4	171340 ug/L	171340 ppb	22:55:04
3	K 766.490 Radial†	223576.0	214793.5	38506 ug/L	38506 ppb	22:55:04
3	Mg 279.077 IEC†	1253.5	1218.1	36628 ug/L	36628 ppb	22:55:25
3	Na 589.592 Radial†	33920.3	34283.7	9369.2 ug/L	9369.2 ppb	22:55:04
3	Sr 421.552†	386549.5	376325.5	2146.2 ug/L	2146.2 ppb	22:55:04
3	Sc 361.383	928927.9	928927.9	103.28 %		22:56:04
3	Y 371.029	832307.1	832307.1	112.03 %		22:56:04
3	Ag 328.068†	58411.6	56156.9	300.34 ug/L	300.34 ppb	22:56:04
3	As 188.979†	2798.8	2737.3	1044.6 ug/L	1044.6 ppb	22:56:09
3	B 249.677†	73040.7	70255.7	1408.3 ug/L	1408.3 ppb	22:56:04
3	Ba 233.527†	269800.8	261239.9	1760.9 ug/L	1760.9 ppb	22:56:04
3	Be 313.107†	2351903.7	2281796.1	767.86 ug/L	767.86 ppb	22:56:04
3	Cd 226.502†	61445.1	59719.2	557.42 ug/L	557.42 ppb	22:56:09
3	Co 228.616†	51628.6	50073.5	855.63 ug/L	855.63 ppb	22:56:09
3	Cr 267.716†	237101.6	229471.5	2293.5 ug/L	2293.5 ppb	22:56:04
3	Cu 324.752†	665207.8	637992.0	1791.9 ug/L	1791.9 ppb	22:56:04
3	Mn 257.610†	5232478.4	5065789.5	4962.8 ug/L	4962.8 ppb	22:56:04
3	Mo 202.031†	8420.4	8127.4	499.51 ug/L	499.51 ppb	22:56:09
3	Ni 231.604†	60797.3	58764.0	1265.9 ug/L	1265.9 ppb	22:56:09
3	P 214.914†	16665.9	15881.4	7693.9 ug/L	7693.9 ppb	22:56:09
3	Pb 220.353†	7586.5	7423.4	763.49 ug/L	763.49 ppb	22:56:09
3	S 181.975 Axial†	3179.9	3020.1	3602.4 ug/L	3602.4 ppb	22:56:09
3	Sb 206.836†	6322.9	6079.7	1753.9 ug/L	1753.9 ppb	22:56:09
3	Se 196.026†	4280.0	4172.9	2780.4 ug/L	2780.4 ppb	22:56:09
3	Si 251.611†	367311.9	354985.3	9857.6 ug/L	9857.6 ppb	22:56:04
3	Sn 189.927†	6858.5	6638.9	982.82 ug/L	982.82 ppb	22:56:09
3	Ti 334.940†	3856848.9	3735815.2	5384.1 ug/L	5384.1 ppb	22:56:04
3	Tl 190.801†	4343.5	4251.3	1150.2 ug/L	1150.2 ppb	22:56:09
3	U 409.014†	-10539.5	-7476.4	-233.49 ug/L	-233.49 ppb	22:56:04
3	V 292.402†	193866.2	189176.9	1162.2 ug/L	1162.2 ppb	22:56:04
3	Zn 213.857†	712622.0	689182.4	5538.0 ug/L	5538.0 ppb	22:56:04
3	SiO2†	364995.7	352717.5	21032 ug/L	21032 ppb	22:56:25

Mean Data: 1201998455|934060|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	926289.6	102.99	%	0.286				0.28%
Sc Radial	5708.8	102	%	0.5				0.47%
Y 371.029	829460.4	111.65	%	0.389				0.35%
Y RADIAL	6558.4	111.9	%	0.67				0.59%
Ag 328.068†	56099.1	301.32	ug/L	0.961	301.32	ppb	0.961	0.32%
Al 396.153Radial†	117825.1	82737	ug/L	1521.0	82737	ppb	1521.0	1.84%
As 188.979†	2735.3	1044.5	ug/L	15.42	1044.5	ppb	15.42	1.48%
B 249.677†	70170.4	1406.1	ug/L	1.95	1406.1	ppb	1.95	0.14%
Ba 233.527†	261435.3	1762.3	ug/L	1.45	1762.3	ppb	1.45	0.08%
Be 313.107†	2281760.5	767.86	ug/L	0.161	767.86	ppb	0.161	0.02%
Ca 317.933Radial†	66854.4	93334	ug/L	1774.1	93334	ppb	1774.1	1.90%
Cd 226.502†	59709.8	556.95	ug/L	0.559	556.95	ppb	0.559	0.10%
Co 228.616†	50059.2	855.33	ug/L	0.416	855.33	ppb	0.416	0.05%
Cr 267.716†	229726.6	2296.1	ug/L	2.30	2296.1	ppb	2.30	0.10%
Cu 324.752†	637717.1	1791.3	ug/L	0.76	1791.3	ppb	0.76	0.04%
Fe 238.204 Radial†	22125.6	175100	ug/L	3275.5	175100	ppb	3275.5	1.87%
K 766.490 Radial†	219499.8	39351	ug/L	734.1	39351	ppb	734.1	1.87%

Mg 279.077 IEC†	1219.0	36649	ug/L	27.4	36649	ppb	27.4	0.07%
Mn 257.610†	5071741.6	4969.0	ug/L	6.14	4969.0	ppb	6.14	0.12%
Mo 202.031†	8150.4	501.24	ug/L	2.439	501.24	ppb	2.439	0.49%
Na 589.592 Radial†	35138.6	9602.8	ug/L	202.37	9602.8	ppb	202.37	2.11%
Ni 231.604†	58815.7	1267.0	ug/L	1.19	1267.0	ppb	1.19	0.09%
P 214.914†	15890.2	7696.1	ug/L	27.25	7696.1	ppb	27.25	0.35%
Pb 220.353†	7453.8	766.69	ug/L	2.813	766.69	ppb	2.813	0.37%
S 181.975 Axial†	3021.3	3603.6	ug/L	1.05	3603.6	ppb	1.05	0.03%
Sb 206.836†	6099.5	1759.7	ug/L	5.38	1759.7	ppb	5.38	0.31%
Se 196.026†	4185.3	2799.2	ug/L	18.27	2799.2	ppb	18.27	0.65%
Si 251.611†	354761.9	9851.0	ug/L	5.75	9851.0	ppb	5.75	0.06%
Sn 189.927†	6651.6	984.95	ug/L	3.461	984.95	ppb	3.461	0.35%
Sr 421.552†	385146.5	2196.5	ug/L	43.65	2196.5	ppb	43.65	1.99%
Ti 334.940†	3737506.4	5386.7	ug/L	2.52	5386.7	ppb	2.52	0.05%
Tl 190.801†	4245.9	1148.9	ug/L	7.02	1148.9	ppb	7.02	0.61%
U 409.014†	-7427.2	-232.60	ug/L	3.216	-232.60	ppb	3.216	1.38%
V 292.402†	189312.4	1162.5	ug/L	0.31	1162.5	ppb	0.31	0.03%
Zn 213.857†	690098.7	5545.2	ug/L	7.05	5545.2	ppb	7.05	0.13%
SiO2†	354932.4	21164	ug/L	140.0	21164	ppb	140.0	0.66%

Sequence No.: 90
Sample ID: 242938001|934060|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 88
Date Collected: 12/20/2009 22:58:36
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 242938001|934060|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	5730.2	5730.2	103	%			23:00:49
1	Y RADIAL	6489.9	6489.9	110.7	%			23:00:49
1	Al 396.153Radial†	152198.0	148422.6	104250	ug/L	104250	ppb	23:00:29
1	Ca 317.933Radial†	12946.9	12606.8	17600	ug/L	17600	ppb	23:00:49
1	Fe 238.204 Radial†	17231.9	16791.8	132870	ug/L	132870	ppb	23:00:29
1	K 766.490 Radial†	66123.5	61605.1	11042	ug/L	11042	ppb	23:00:29
1	Mg 279.077 IEC†	733.0	712.5	21390	ug/L	21390	ppb	23:00:49
1	Na 589.592 Radial†	2847.2	4036.4	1103.1	ug/L	1103.1	ppb	23:00:29
1	Sr 421.552†	50006.9	48756.5	278.00	ug/L	278.00	ppb	23:00:29
1	Sc 361.383	962943.9	962943.9	107.06	%			23:01:47
1	Y 371.029	849398.2	849398.2	114.34	%			23:01:47
1	Ag 328.068†	-9056.1	-8858.1	7.5496	ug/L	7.5496	ppb	23:01:52
1	As 188.979†	-63.4	-31.7	46.355	ug/L	46.355	ppb	23:02:12
1	B 249.677†	1349.6	795.6	-1.5514	ug/L	-1.5514	ppb	23:01:52
1	Ba 233.527†	220714.5	206163.6	1388.1	ug/L	1388.1	ppb	23:01:52
1	Be 313.107†	-16028.0	-10375.6	5.2389	ug/L	5.2389	ppb	23:01:52
1	Cd 226.502†	1161.2	1310.3	-0.6494	ug/L	-0.6494	ppb	23:02:12
1	Co 228.616†	3664.4	3507.4	50.106	ug/L	50.106	ppb	23:02:12
1	Cr 267.716†	11540.2	10679.7	109.39	ug/L	109.39	ppb	23:02:12
1	Cu 324.752†	28386.3	20426.7	63.870	ug/L	63.870	ppb	23:01:52
1	Mn 257.610†	2978361.1	2781400.1	2728.7	ug/L	2728.7	ppb	23:01:47
1	Mo 202.031†	-47.5	-69.9	8.5810	ug/L	8.5810	ppb	23:02:12
1	Ni 231.604†	3663.0	3319.1	71.493	ug/L	71.493	ppb	23:02:12
1	P 214.914†	2326.7	1918.0	894.34	ug/L	894.34	ppb	23:02:12
1	Pb 220.353†	984.1	997.0	114.45	ug/L	114.45	ppb	23:02:12
1	S 181.975 Axial†	461.8	372.5	425.83	ug/L	425.83	ppb	23:02:12
1	Sb 206.836†	105.6	56.2	1.5040	ug/L	1.5040	ppb	23:02:12
1	Se 196.026†	-893.8	-806.0	6.0347	ug/L	6.0347	ppb	23:02:12
1	Si 251.611†	412870.4	384975.2	10713	ug/L	10713	ppb	23:01:52
1	Sn 189.927†	-97.1	-92.5	-9.8728	ug/L	-9.8728	ppb	23:02:12
1	Ti 334.940†	3282301.8	3067252.6	4418.2	ug/L	4418.2	ppb	23:01:47
1	Tl 190.801†	-231.9	-170.8	8.1814	ug/L	8.1814	ppb	23:02:12
1	U 409.014†	-9723.4	-6353.7	-193.27	ug/L	-193.27	ppb	23:01:52
1	V 292.402†	43523.2	42120.6	239.43	ug/L	239.43	ppb	23:01:52
1	Zn 213.857†	36871.1	33634.0	263.12	ug/L	263.12	ppb	23:01:52
1	SiO2†	413914.9	385925.7	23063	ug/L	23063	ppb	23:03:22
2	Sc Radial	5634.3	5634.3	101	%			23:01:14
2	Y RADIAL	6370.1	6370.1	108.7	%			23:01:14
2	Al 396.153Radial†	149748.1	148518.6	104320	ug/L	104320	ppb	23:00:54
2	Ca 317.933Radial†	13007.4	12881.6	17984	ug/L	17984	ppb	23:01:14
2	Fe 238.204 Radial†	16949.1	16797.3	132920	ug/L	132920	ppb	23:00:54
2	K 766.490 Radial†	65143.3	61730.3	11062	ug/L	11062	ppb	23:00:54
2	Mg 279.077 IEC†	739.3	730.9	21944	ug/L	21944	ppb	23:01:14
2	Na 589.592 Radial†	2846.6	4082.9	1115.8	ug/L	1115.8	ppb	23:00:54
2	Sr 421.552†	49302.1	48887.3	278.75	ug/L	278.75	ppb	23:00:54
2	Sc 361.383	909037.4	909037.4	101.07	%			23:02:19
2	Y 371.029	806916.1	806916.1	108.62	%			23:02:19
2	Ag 328.068†	-9454.7	-9754.0	3.8230	ug/L	3.8230	ppb	23:02:24
2	As 188.979†	-54.3	-26.2	51.011	ug/L	51.011	ppb	23:02:44
2	B 249.677†	1435.8	955.6	1.7001	ug/L	1.7001	ppb	23:02:24
2	Ba 233.527†	224887.1	222517.1	1498.0	ug/L	1498.0	ppb	23:02:24
2	Be 313.107†	-16097.0	-11331.6	5.5549	ug/L	5.5549	ppb	23:02:24
2	Cd 226.502†	1165.1	1378.5	0.0044	ug/L	0.0044	ppb	23:02:44
2	Co 228.616†	3648.3	3694.4	52.709	ug/L	52.709	ppb	23:02:44
2	Cr 267.716†	11535.1	11314.0	115.76	ug/L	115.76	ppb	23:02:44
2	Cu 324.752†	28978.5	22584.9	69.905	ug/L	69.905	ppb	23:02:24
2	Mn 257.610†	3015339.4	2982955.1	2925.5	ug/L	2925.5	ppb	23:02:19
2	Mo 202.031†	-55.3	-80.3	7.9691	ug/L	7.9691	ppb	23:02:44
2	Ni 231.604†	3677.0	3535.9	76.162	ug/L	76.162	ppb	23:02:44

2	P 214.914†	2321.0	2041.3	956.02 ug/L	956.02 ppb	23:02:44
2	Pb 220.353†	1013.1	1080.2	122.97 ug/L	122.97 ppb	23:02:44
2	S 181.975 Axial†	463.9	400.3	459.04 ug/L	459.04 ppb	23:02:44
2	Sb 206.836†	110.1	66.6	3.5519 ug/L	3.5519 ppb	23:02:44
2	Se 196.026†	-887.0	-848.8	-16.648 ug/L	-16.648 ppb	23:02:44
2	Si 251.611†	421003.6	415890.8	11574 ug/L	11574 ppb	23:02:24
2	Sn 189.927†	-97.7	-98.5	-10.697 ug/L	-10.697 ppb	23:02:44
2	Ti 334.940†	3324688.0	3290993.2	4740.5 ug/L	4740.5 ppb	23:02:19
2	Tl 190.801†	-245.3	-196.9	5.0881 ug/L	5.0881 ppb	23:02:44
2	U 409.014†	-9411.7	-6583.8	-199.68 ug/L	-199.68 ppb	23:02:24
2	V 292.402†	44415.7	45414.4	259.74 ug/L	259.74 ppb	23:02:24
2	Zn 213.857†	37689.2	36485.7	286.06 ug/L	286.06 ppb	23:02:24
2	SiO2†	419330.7	414210.6	24754 ug/L	24754 ppb	23:03:27
3	Sc Radial	5642.0	5642.0	101 %		23:01:39
3	Y RADIAL	6409.1	6409.1	109.3 %		23:01:39
3	Al 396.153Radial†	149906.5	148472.7	104280 ug/L	104280 ppb	23:01:19
3	Ca 317.933Radial†	13071.6	12927.6	18048 ug/L	18048 ppb	23:01:39
3	Fe 238.204 Radial†	16908.8	16734.4	132420 ug/L	132420 ppb	23:01:19
3	K 766.490 Radial†	65281.9	61779.3	11071 ug/L	11071 ppb	23:01:19
3	Mg 279.077 IEC†	737.2	727.8	21852 ug/L	21852 ppb	23:01:39
3	Na 589.592 Radial†	2834.7	4067.4	1111.5 ug/L	1111.5 ppb	23:01:19
3	Sr 421.552†	49360.9	48878.7	278.70 ug/L	278.70 ppb	23:01:19
3	Sc 361.383	919035.0	919035.0	102.18 %		23:02:51
3	Y 371.029	814802.6	814802.6	109.68 %		23:02:51
3	Ag 328.068†	-9446.2	-9644.0	4.1114 ug/L	4.1114 ppb	23:02:56
3	As 188.979†	-65.9	-37.1	47.130 ug/L	47.130 ppb	23:03:16
3	B 249.677†	1454.7	958.6	1.8285 ug/L	1.8285 ppb	23:02:56
3	Ba 233.527†	223358.0	218600.2	1471.6 ug/L	1471.6 ppb	23:02:56
3	Be 313.107†	-16036.3	-11099.0	5.6423 ug/L	5.6423 ppb	23:02:56
3	Cd 226.502†	1180.6	1381.2	0.0793 ug/L	0.0793 ppb	23:03:16
3	Co 228.616†	3655.3	3662.0	52.134 ug/L	52.134 ppb	23:03:16
3	Cr 267.716†	11585.8	11239.4	115.00 ug/L	115.00 ppb	23:03:16
3	Cu 324.752†	28639.8	21941.6	68.081 ug/L	68.081 ppb	23:02:56
3	Mn 257.610†	3050197.8	2984614.7	2927.1 ug/L	2927.1 ppb	23:02:51
3	Mo 202.031†	-46.7	-71.2	8.4587 ug/L	8.4587 ppb	23:03:16
3	Ni 231.604†	3691.8	3510.7	75.621 ug/L	75.621 ppb	23:03:16
3	P 214.914†	2329.5	2024.6	948.25 ug/L	948.25 ppb	23:03:16
3	Pb 220.353†	996.0	1052.6	120.18 ug/L	120.18 ppb	23:03:16
3	S 181.975 Axial†	456.7	388.2	444.53 ug/L	444.53 ppb	23:03:16
3	Sb 206.836†	102.4	57.8	0.9721 ug/L	0.9721 ppb	23:03:16
3	Se 196.026†	-901.9	-853.9	-20.904 ug/L	-20.904 ppb	23:03:16
3	Si 251.611†	418029.8	408449.1	11367 ug/L	11367 ppb	23:02:56
3	Sn 189.927†	-96.7	-96.5	-10.411 ug/L	-10.411 ppb	23:03:16
3	Ti 334.940†	3364922.2	3294584.4	4745.6 ug/L	4745.6 ppb	23:02:51
3	Tl 190.801†	-253.7	-202.5	3.7168 ug/L	3.7168 ppb	23:03:16
3	U 409.014†	-9751.1	-6814.7	-206.02 ug/L	-206.02 ppb	23:02:56
3	V 292.402†	44105.4	44632.6	254.89 ug/L	254.89 ppb	23:02:56
3	Zn 213.857†	37267.4	35667.2	279.49 ug/L	279.49 ppb	23:02:56
3	SiO2†	415405.0	405855.2	24254 ug/L	24254 ppb	23:03:33

Mean Data: 242938001|934060|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	930338.8	103.44	%	3.188				3.08%
Sc Radial	5668.8	101	%	1.0				0.94%
Y 371.029	823705.6	110.88	%	3.042				2.74%
Y RADIAL	6423.1	109.6	%	1.04				0.95%
Ag 328.068†	-9418.7	5.1613	ug/L	2.07334	5.1613	ppb	2.07334	40.17%
Al 396.153Radial†	148471.3	104280	ug/L	33.7	104280	ppb	33.7	0.03%
As 188.979†	-31.7	48.165	ug/L	2.4948	48.165	ppb	2.4948	5.18%
B 249.677†	903.3	0.6591	ug/L	1.91543	0.6591	ppb	1.91543	290.62%
Ba 233.527†	215760.3	1452.6	ug/L	57.35	1452.6	ppb	57.35	3.95%
Be 313.107†	-10935.4	5.4787	ug/L	0.21223	5.4787	ppb	0.21223	3.87%
Ca 317.933Radial†	12805.3	17877	ug/L	242.2	17877	ppb	242.2	1.35%
Cd 226.502†	1356.7	-0.1886	ug/L	0.40083	-0.1886	ppb	0.40083	212.54%
Co 228.616†	3621.3	51.650	ug/L	1.3673	51.650	ppb	1.3673	2.65%
Cr 267.716†	11077.7	113.38	ug/L	3.476	113.38	ppb	3.476	3.07%
Cu 324.752†	21651.1	67.285	ug/L	3.0949	67.285	ppb	3.0949	4.60%
Fe 238.204 Radial†	16774.5	132740	ug/L	275.5	132740	ppb	275.5	0.21%
K 766.490 Radial†	61704.9	11059	ug/L	14.7	11059	ppb	14.7	0.13%

Mg 279.077 IEC†	723.7	21729	ug/L	297.0	21729	ppb	297.0	1.37%
Mn 257.610†	2916323.3	2860.4	ug/L	114.08	2860.4	ppb	114.08	3.99%
Mo 202.031†	-73.8	8.3363	ug/L	0.32379	8.3363	ppb	0.32379	3.88%
Na 589.592 Radial†	4062.2	1110.1	ug/L	6.48	1110.1	ppb	6.48	0.58%
Ni 231.604†	3455.3	74.425	ug/L	2.5540	74.425	ppb	2.5540	3.43%
P 214.914†	1994.6	932.87	ug/L	33.594	932.87	ppb	33.594	3.60%
Pb 220.353†	1043.3	119.20	ug/L	4.343	119.20	ppb	4.343	3.64%
S 181.975 Axial†	387.0	443.13	ug/L	16.649	443.13	ppb	16.649	3.76%
Sb 206.836†	60.2	2.0093	ug/L	1.36213	2.0093	ppb	1.36213	67.79%
Se 196.026†	-836.2	-10.506	ug/L	14.4818	-10.506	ppb	14.4818	137.84%
Si 251.611†	403105.1	11218	ug/L	449.2	11218	ppb	449.2	4.00%
Sn 189.927†	-95.8	-10.327	ug/L	0.4186	-10.327	ppb	0.4186	4.05%
Sr 421.552†	48840.8	278.48	ug/L	0.415	278.48	ppb	0.415	0.15%
Ti 334.940†	3217610.1	4634.8	ug/L	187.56	4634.8	ppb	187.56	4.05%
Tl 190.801†	-190.1	5.6621	ug/L	2.28701	5.6621	ppb	2.28701	40.39%
U 409.014†	-6584.0	-199.66	ug/L	6.375	-199.66	ppb	6.375	3.19%
V 292.402†	44055.9	251.35	ug/L	10.606	251.35	ppb	10.606	4.22%
Zn 213.857†	35262.3	276.22	ug/L	11.815	276.22	ppb	11.815	4.28%
SiO2†	401997.2	24024	ug/L	868.7	24024	ppb	868.7	3.62%

Sequence No.: 91
Sample ID: 1201998456|934060|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 89
Date Collected: 12/20/2009 23:05:44
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1201998456|934060|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5491.1	5491.1	98.3	%			23:07:57
1	Y RADIAL	6240.0	6240.0	106.5	%			23:07:57
1	Al 396.153Radial†	157444.2	160221.6	112540	ug/L	112540	ppb	23:07:37
1	Ca 317.933Radial†	13645.8	13867.5	19360	ug/L	19360	ppb	23:07:37
1	Fe 238.204 Radial†	18065.1	18371.0	145370	ug/L	145370	ppb	23:07:37
1	K 766.490 Radial†	67569.4	65883.3	11803	ug/L	11803	ppb	23:07:37
1	Mg 279.077 IEC†	758.6	769.6	23104	ug/L	23104	ppb	23:07:57
1	Na 589.592 Radial†	3033.7	4347.0	1188.0	ug/L	1188.0	ppb	23:07:37
1	Sr 421.552†	50712.7	51597.4	294.20	ug/L	294.20	ppb	23:07:37
1	Sc 361.383	885645.7	885645.7	98.468	%			23:09:01
1	Y 371.029	812971.0	812971.0	109.43	%			23:08:55
1	Ag 328.068†	-9827.1	-10379.3	5.3894	ug/L	5.3894	ppb	23:09:01
1	As 188.979†	-50.0	-23.3	59.150	ug/L	59.150	ppb	23:09:21
1	B 249.677†	1312.7	868.1	-1.7632	ug/L	-1.7632	ppb	23:09:01
1	Ba 233.527†	221950.5	225411.8	1517.7	ug/L	1517.7	ppb	23:09:01
1	Be 313.107†	-18725.5	-14421.7	5.7382	ug/L	5.7382	ppb	23:09:01
1	Cd 226.502†	1241.2	1486.2	-0.1979	ug/L	-0.1979	ppb	23:09:21
1	Co 228.616†	4140.3	4289.5	61.545	ug/L	61.545	ppb	23:09:21
1	Cr 267.716†	12865.0	12966.0	132.49	ug/L	132.49	ppb	23:09:21
1	Cu 324.752†	29788.9	24165.2	74.957	ug/L	74.957	ppb	23:09:01
1	Mn 257.610†	3478332.7	3531949.8	3462.8	ug/L	3462.8	ppb	23:08:55
1	Mo 202.031†	-57.1	-83.6	8.9649	ug/L	8.9649	ppb	23:09:21
1	Ni 231.604†	4142.4	4104.6	88.412	ug/L	88.412	ppb	23:09:21
1	P 214.914†	2324.5	2105.5	980.68	ug/L	980.68	ppb	23:09:21
1	Pb 220.353†	1043.0	1137.0	129.60	ug/L	129.60	ppb	23:09:21
1	S 181.975 Axial†	449.2	397.4	454.01	ug/L	454.01	ppb	23:09:21
1	Sb 206.836†	108.0	67.2	1.6152	ug/L	1.6152	ppb	23:09:21
1	Se 196.026†	-936.4	-922.2	-15.192	ug/L	-15.192	ppb	23:09:21
1	Si 251.611†	436018.5	442141.3	12304	ug/L	12304	ppb	23:09:01
1	Sn 189.927†	-118.3	-122.0	-13.825	ug/L	-13.825	ppb	23:09:21
1	Ti 334.940†	3659626.9	3718025.8	5355.5	ug/L	5355.5	ppb	23:08:55
1	Tl 190.801†	-278.4	-237.0	2.8631	ug/L	2.8631	ppb	23:09:21
1	U 409.014†	-10125.1	-7554.3	-228.21	ug/L	-228.21	ppb	23:09:01
1	V 292.402†	46029.5	48214.0	274.71	ug/L	274.71	ppb	23:09:01
1	Zn 213.857†	40419.9	40243.8	315.60	ug/L	315.60	ppb	23:09:01
1	SiO2†	440510.4	446678.0	26694	ug/L	26694	ppb	23:10:30
2	Sc Radial	5530.2	5530.2	99.0	%			23:08:23
2	Y RADIAL	6262.3	6262.3	106.8	%			23:08:23
2	Al 396.153Radial†	155099.9	156721.9	110080	ug/L	110080	ppb	23:08:03
2	Ca 317.933Radial†	13398.5	13519.6	18874	ug/L	18874	ppb	23:08:03
2	Fe 238.204 Radial†	17792.2	17965.5	142160	ug/L	142160	ppb	23:08:03
2	K 766.490 Radial†	66440.8	64257.6	11511	ug/L	11511	ppb	23:08:03
2	Mg 279.077 IEC†	761.6	767.2	23033	ug/L	23033	ppb	23:08:23
2	Na 589.592 Radial†	2976.9	4267.8	1166.3	ug/L	1166.3	ppb	23:08:03
2	Sr 421.552†	49915.1	50427.2	287.52	ug/L	287.52	ppb	23:08:03
2	Sc 361.383	887246.3	887246.3	98.646	%			23:09:32
2	Y 371.029	812835.3	812835.3	109.41	%			23:09:27
2	Ag 328.068†	-9837.0	-10371.4	4.3562	ug/L	4.3562	ppb	23:09:32
2	As 188.979†	-70.1	-43.6	51.375	ug/L	51.375	ppb	23:09:53
2	B 249.677†	1288.9	841.6	-1.8764	ug/L	-1.8764	ppb	23:09:32
2	Ba 233.527†	222010.1	225065.5	1515.3	ug/L	1515.3	ppb	23:09:32
2	Be 313.107†	-18598.3	-14258.4	5.7755	ug/L	5.7755	ppb	23:09:32
2	Cd 226.502†	1227.1	1469.7	-0.0364	ug/L	-0.0364	ppb	23:09:53
2	Co 228.616†	4087.1	4227.9	60.541	ug/L	60.541	ppb	23:09:53
2	Cr 267.716†	12810.1	12886.7	131.65	ug/L	131.65	ppb	23:09:53
2	Cu 324.752†	29927.6	24251.3	75.033	ug/L	75.033	ppb	23:09:32
2	Mn 257.610†	3477489.1	3524721.9	3455.4	ug/L	3455.4	ppb	23:09:27
2	Mo 202.031†	-52.5	-78.8	8.9414	ug/L	8.9414	ppb	23:09:53
2	Ni 231.604†	4115.0	4069.2	87.650	ug/L	87.650	ppb	23:09:53

2	P 214.914†	2291.0	2067.3	962.97	ug/L	962.97 ppb	23:09:53
2	Pb 220.353†	1011.9	1103.6	125.89	ug/L	125.89 ppb	23:09:53
2	S 181.975 Axial†	440.4	387.7	442.79	ug/L	442.79 ppb	23:09:53
2	Sb 206.836†	106.0	65.0	1.0264	ug/L	1.0264 ppb	23:09:53
2	Se 196.026†	-938.3	-922.4	-25.822	ug/L	-25.822 ppb	23:09:53
2	Si 251.611†	436469.8	441799.9	12295	ug/L	12295 ppb	23:09:32
2	Sn 189.927†	-117.0	-120.5	-13.696	ug/L	-13.696 ppb	23:09:53
2	Ti 334.940†	3660387.1	3712091.5	5347.0	ug/L	5347.0 ppb	23:09:27
2	Tl 190.801†	-265.5	-223.3	6.1724	ug/L	6.1724 ppb	23:09:53
2	U 409.014†	-9982.8	-7391.5	-223.29	ug/L	-223.29 ppb	23:09:32
2	V 292.402†	46195.1	48297.5	275.74	ug/L	275.74 ppb	23:09:32
2	Zn 213.857†	40491.6	40242.4	315.76	ug/L	315.76 ppb	23:09:32
2	SiO2†	436913.8	442225.0	26428	ug/L	26428 ppb	23:10:35
3	Sc Radial	5506.3	5506.3	98.5	%		23:08:48
3	Y RADIAL	6242.3	6242.3	106.5	%		23:08:48
3	Al 396.153Radial†	154475.4	156766.3	110110	ug/L	110110 ppb	23:08:28
3	Ca 317.933Radial†	13399.1	13578.7	18957	ug/L	18957 ppb	23:08:28
3	Fe 238.204 Radial†	17716.0	17966.0	142160	ug/L	142160 ppb	23:08:28
3	K 766.490 Radial†	66390.5	64497.0	11553	ug/L	11553 ppb	23:08:28
3	Mg 279.077 IEC†	757.4	766.3	23006	ug/L	23006 ppb	23:08:48
3	Na 589.592 Radial†	2942.9	4246.3	1160.5	ug/L	1160.5 ppb	23:08:28
3	Sr 421.552†	49668.1	50394.8	287.34	ug/L	287.34 ppb	23:08:28
3	Sc 361.383	885578.8	885578.8	98.461	%		23:10:04
3	Y 371.029	813980.7	813980.7	109.57	%		23:09:59
3	Ag 328.068†	-9846.1	-10399.4	4.2323	ug/L	4.2323 ppb	23:10:04
3	As 188.979†	-58.8	-32.3	55.458	ug/L	55.458 ppb	23:10:24
3	B 249.677†	1296.4	851.7	-1.6727	ug/L	-1.6727 ppb	23:10:04
3	Ba 233.527†	221140.9	224606.5	1512.3	ug/L	1512.3 ppb	23:10:04
3	Be 313.107†	-18675.7	-14372.5	5.7534	ug/L	5.7534 ppb	23:10:04
3	Cd 226.502†	1245.5	1490.7	0.1655	ug/L	0.1655 ppb	23:10:24
3	Co 228.616†	4120.6	4269.7	61.249	ug/L	61.249 ppb	23:10:24
3	Cr 267.716†	12903.3	13005.8	132.83	ug/L	132.83 ppb	23:10:24
3	Cu 324.752†	29793.8	24172.5	74.814	ug/L	74.814 ppb	23:10:04
3	Mn 257.610†	3474811.9	3528640.5	3459.2	ug/L	3459.2 ppb	23:09:59
3	Mo 202.031†	-42.6	-68.8	9.5379	ug/L	9.5379 ppb	23:10:24
3	Ni 231.604†	4149.4	4112.0	88.572	ug/L	88.572 ppb	23:10:24
3	P 214.914†	2320.8	2101.9	980.62	ug/L	980.62 ppb	23:10:24
3	Pb 220.353†	1003.4	1096.9	125.22	ug/L	125.22 ppb	23:10:24
3	S 181.975 Axial†	441.2	389.3	444.76	ug/L	444.76 ppb	23:10:24
3	Sb 206.836†	100.5	59.7	-0.5756	ug/L	-0.5756 ppb	23:10:24
3	Se 196.026†	-953.9	-940.0	-35.192	ug/L	-35.192 ppb	23:10:24
3	Si 251.611†	435519.4	441667.8	12291	ug/L	12291 ppb	23:10:04
3	Sn 189.927†	-109.4	-112.9	-12.586	ug/L	-12.586 ppb	23:10:24
3	Ti 334.940†	3658987.7	3717657.0	5355.0	ug/L	5355.0 ppb	23:09:59
3	Tl 190.801†	-279.6	-238.2	2.4571	ug/L	2.4571 ppb	23:10:24
3	U 409.014†	-10010.5	-7438.6	-224.60	ug/L	-224.60 ppb	23:10:04
3	V 292.402†	45883.1	48068.8	274.30	ug/L	274.30 ppb	23:10:04
3	Zn 213.857†	40332.5	40158.1	315.08	ug/L	315.08 ppb	23:10:04
3	SiO2†	436239.8	442374.4	26437	ug/L	26437 ppb	23:10:40

Mean Data: 1201998456|934060|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	886156.9	98.525	%	0.1050				0.11%
Sc Radial	5509.2	98.6	%	0.35				0.36%
Y 371.029	813262.3	109.47	%	0.084				0.08%
Y RADIAL	6248.2	106.6	%	0.21				0.20%
Ag 328.068†	-10383.3	4.6593	ug/L	0.63532	4.6593	ppb	0.63532	13.64%
Al 396.153Radial†	157903.3	110910	ug/L	1410.3	110910	ppb	1410.3	1.27%
As 188.979†	-33.0	55.328	ug/L	3.8890	55.328	ppb	3.8890	7.03%
B 249.677†	853.8	-1.7708	ug/L	0.10205	-1.7708	ppb	0.10205	5.76%
Ba 233.527†	225027.9	1515.1	ug/L	2.75	1515.1	ppb	2.75	0.18%
Be 313.107†	-14350.9	5.7557	ug/L	0.01880	5.7557	ppb	0.01880	0.33%
Ca 317.933Radial†	13655.3	19064	ug/L	259.9	19064	ppb	259.9	1.36%
Cd 226.502†	1482.2	-0.0229	ug/L	0.18207	-0.0229	ppb	0.18207	793.67%
Co 228.616†	4262.4	61.112	ug/L	0.5157	61.112	ppb	0.5157	0.84%
Cr 267.716†	12952.8	132.32	ug/L	0.611	132.32	ppb	0.611	0.46%
Cu 324.752†	24196.3	74.935	ug/L	0.1116	74.935	ppb	0.1116	0.15%
Fe 238.204 Radial†	18100.8	143230	ug/L	1851.5	143230	ppb	1851.5	1.29%
K 766.490 Radial†	64879.3	11622	ug/L	157.8	11622	ppb	157.8	1.36%

Mg 279.077 IEC†	767.7	23048	ug/L	50.6	23048	ppb	50.6	0.22%
Mn 257.610†	3528437.4	3459.1	ug/L	3.69	3459.1	ppb	3.69	0.11%
Mo 202.031†	-77.1	9.1481	ug/L	0.33777	9.1481	ppb	0.33777	3.69%
Na 589.592 Radial†	4287.0	1171.6	ug/L	14.49	1171.6	ppb	14.49	1.24%
Ni 231.604†	4095.3	88.211	ug/L	0.4928	88.211	ppb	0.4928	0.56%
P 214.914†	2091.6	974.76	ug/L	10.207	974.76	ppb	10.207	1.05%
Pb 220.353†	1112.5	126.90	ug/L	2.359	126.90	ppb	2.359	1.86%
S 181.975 Axial†	391.5	447.19	ug/L	5.989	447.19	ppb	5.989	1.34%
Sb 206.836†	64.0	0.6887	ug/L	1.13376	0.6887	ppb	1.13376	164.63%
Se 196.026†	-928.2	-25.402	ug/L	10.0068	-25.402	ppb	10.0068	39.39%
Si 251.611†	441869.7	12297	ug/L	6.8	12297	ppb	6.8	0.05%
Sn 189.927†	-118.5	-13.369	ug/L	0.6811	-13.369	ppb	0.6811	5.09%
Sr 421.552†	50806.5	289.69	ug/L	3.907	289.69	ppb	3.907	1.35%
Ti 334.940†	3715924.8	5352.5	ug/L	4.80	5352.5	ppb	4.80	0.09%
Tl 190.801†	-232.8	3.8309	ug/L	2.03794	3.8309	ppb	2.03794	53.20%
U 409.014†	-7461.5	-225.37	ug/L	2.550	-225.37	ppb	2.550	1.13%
V 292.402†	48193.4	274.91	ug/L	0.742	274.91	ppb	0.742	0.27%
Zn 213.857†	40214.8	315.48	ug/L	0.358	315.48	ppb	0.358	0.11%
SiO2†	443759.1	26520	ug/L	151.1	26520	ppb	151.1	0.57%

Sequence No.: 92
Sample ID: 1201998457|934060|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 90
Date Collected: 12/20/2009 23:12:52
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1201998457|934060|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	5590.3	5590.3	100	%			23:15:06
1	Y RADIAL	6319.4	6319.4	107.8	%			23:15:06
1	Al 396.153Radial†	243874.9	243767.5	171200	ug/L	171200	ppb	23:14:46
1	Ca 317.933Radial†	17823.5	17796.8	24846	ug/L	24846	ppb	23:14:46
1	Fe 238.204 Radial†	19764.0	19743.0	156240	ug/L	156240	ppb	23:14:46
1	K 766.490 Radial†	112517.1	109589.0	19657	ug/L	19657	ppb	23:14:46
1	Mg 279.077 IEC†	1071.6	1068.8	32133	ug/L	32133	ppb	23:15:06
1	Na 589.592 Radial†	21617.5	22866.8	6249.1	ug/L	6249.1	ppb	23:14:46
1	Sr 421.552†	143755.5	143678.7	819.49	ug/L	819.49	ppb	23:14:46
1	Sc 361.383	905990.9	905990.9	100.73	%			23:16:07
1	Y 371.029	796306.8	796306.8	107.19	%			23:16:07
1	Ag 328.068†	109721.0	108526.2	517.75	ug/L	517.75	ppb	23:16:07
1	As 188.979†	1356.2	1373.8	559.58	ug/L	559.58	ppb	23:16:12
1	B 249.677†	24864.5	24219.3	471.94	ug/L	471.94	ppb	23:16:07
1	Ba 233.527†	329461.6	327081.7	2201.7	ug/L	2201.7	ppb	23:16:07
1	Be 313.107†	1552650.4	1545989.0	524.25	ug/L	524.25	ppb	23:16:07
1	Cd 226.502†	52868.5	52711.0	491.16	ug/L	491.16	ppb	23:16:12
1	Co 228.616†	32084.2	31936.3	541.49	ug/L	541.49	ppb	23:16:12
1	Cr 267.716†	64253.9	63688.9	639.20	ug/L	639.20	ppb	23:16:07
1	Cu 324.752†	220551.3	212865.3	602.92	ug/L	602.92	ppb	23:16:07
1	Mn 257.610†	3557223.9	3530943.1	3462.7	ug/L	3462.7	ppb	23:16:07
1	Mo 202.031†	8000.6	7917.0	485.56	ug/L	485.56	ppb	23:16:12
1	Ni 231.604†	27493.3	27191.8	585.67	ug/L	585.67	ppb	23:16:12
1	P 214.914†	3543.7	3262.8	1502.8	ug/L	1502.8	ppb	23:16:12
1	Pb 220.353†	5709.7	5746.2	614.25	ug/L	614.25	ppb	23:16:12
1	S 181.975 Axial†	4838.8	4744.9	5651.2	ug/L	5651.2	ppb	23:16:12
1	Sb 206.836†	1696.0	1641.3	471.81	ug/L	471.81	ppb	23:16:12
1	Se 196.026†	-105.0	-75.4	482.66	ug/L	482.66	ppb	23:16:12
1	Si 251.611†	435266.2	431450.7	11994	ug/L	11994	ppb	23:16:07
1	Sn 189.927†	3355.6	3329.5	491.74	ug/L	491.74	ppb	23:16:12
1	Ti 334.940†	3972566.6	3945236.2	5682.6	ug/L	5682.6	ppb	23:16:07
1	Tl 190.801†	1677.5	1711.2	500.50	ug/L	500.50	ppb	23:16:12
1	U 409.014†	8195.9	10864.8	280.68	ug/L	280.68	ppb	23:16:07
1	V 292.402†	127455.5	127999.9	781.44	ug/L	781.44	ppb	23:16:07
1	Zn 213.857†	104477.0	102914.7	816.37	ug/L	816.37	ppb	23:16:07
1	SiO2†	439372.4	435502.1	25999	ug/L	25999	ppb	23:16:47
2	Sc Radial	5575.3	5575.3	99.8	%			23:15:31
2	Y RADIAL	6314.4	6314.4	107.7	%			23:15:31
2	Al 396.153Radial†	236769.0	237300.1	166660	ug/L	166660	ppb	23:15:11
2	Ca 317.933Radial†	17285.2	17305.1	24159	ug/L	24159	ppb	23:15:11
2	Fe 238.204 Radial†	19187.2	19217.9	152090	ug/L	152090	ppb	23:15:11
2	K 766.490 Radial†	109297.7	106664.4	19131	ug/L	19131	ppb	23:15:11
2	Mg 279.077 IEC†	1072.5	1072.6	32251	ug/L	32251	ppb	23:15:31
2	Na 589.592 Radial†	20768.4	22073.8	6032.4	ug/L	6032.4	ppb	23:15:11
2	Sr 421.552†	138933.6	139231.8	794.13	ug/L	794.13	ppb	23:15:11
2	Sc 361.383	914023.3	914023.3	101.62	%			23:16:21
2	Y 371.029	803415.1	803415.1	108.15	%			23:16:21
2	Ag 328.068†	110807.7	108638.3	516.85	ug/L	516.85	ppb	23:16:21
2	As 188.979†	1324.7	1331.0	543.74	ug/L	543.74	ppb	23:16:27
2	B 249.677†	25094.9	24229.0	472.72	ug/L	472.72	ppb	23:16:21
2	Ba 233.527†	332208.3	326910.2	2200.5	ug/L	2200.5	ppb	23:16:21
2	Be 313.107†	1567510.2	1547065.8	524.61	ug/L	524.61	ppb	23:16:21
2	Cd 226.502†	52384.2	51773.1	482.56	ug/L	482.56	ppb	23:16:27
2	Co 228.616†	31758.9	31336.3	531.12	ug/L	531.12	ppb	23:16:27
2	Cr 267.716†	64889.2	63753.5	639.77	ug/L	639.77	ppb	23:16:21
2	Cu 324.752†	222371.5	212732.3	602.34	ug/L	602.34	ppb	23:16:21
2	Mn 257.610†	3587678.1	3529876.8	3461.2	ug/L	3461.2	ppb	23:16:21
2	Mo 202.031†	7878.2	7726.8	473.86	ug/L	473.86	ppb	23:16:27
2	Ni 231.604†	27280.6	26742.6	575.99	ug/L	575.99	ppb	23:16:27

2	P 214.914†	3513.9	3202.6	1474.0 ug/L	1474.0 ppb	23:16:27
2	Pb 220.353†	5723.6	5710.0	609.85 ug/L	609.85 ppb	23:16:27
2	S 181.975 Axial†	4811.7	4676.1	5569.6 ug/L	5569.6 ppb	23:16:27
2	Sb 206.836†	1640.9	1572.3	451.13 ug/L	451.13 ppb	23:16:27
2	Se 196.026†	-140.4	-109.3	450.67 ug/L	450.67 ppb	23:16:27
2	Si 251.611†	438589.7	430923.8	11980 ug/L	11980 ppb	23:16:21
2	Sn 189.927†	3348.9	3293.6	486.36 ug/L	486.36 ppb	23:16:27
2	Ti 334.940†	4008140.6	3945584.3	5683.1 ug/L	5683.1 ppb	23:16:21
2	Tl 190.801†	1658.2	1677.5	491.84 ug/L	491.84 ppb	23:16:27
2	U 409.014†	8233.7	10830.6	280.25 ug/L	280.25 ppb	23:16:21
2	V 292.402†	128605.8	128019.8	782.03 ug/L	782.03 ppb	23:16:21
2	Zn 213.857†	105462.6	102973.1	817.11 ug/L	817.11 ppb	23:16:21
2	SiO2†	435323.9	427685.1	25532 ug/L	25532 ppb	23:16:52
3	Sc Radial	5569.2	5569.2	99.7 %		23:15:57
3	Y RADIAL	6317.0	6317.0	107.8 %		23:15:57
3	Al 396.153Radial†	239016.6	239815.4	168420 ug/L	168420 ppb	23:15:37
3	Ca 317.933Radial†	17430.2	17469.6	24389 ug/L	24389 ppb	23:15:37
3	Fe 238.204 Radial†	19358.6	19411.0	153610 ug/L	153610 ppb	23:15:37
3	K 766.490 Radial†	110149.5	107639.1	19306 ug/L	19306 ppb	23:15:37
3	Mg 279.077 IEC†	1078.1	1079.4	32456 ug/L	32456 ppb	23:15:57
3	Na 589.592 Radial†	20885.9	22214.5	6070.9 ug/L	6070.9 ppb	23:15:37
3	Sr 421.552†	140122.8	140577.7	801.80 ug/L	801.80 ppb	23:15:37
3	Sc 361.383	914126.1	914126.1	101.63 %		23:16:36
3	Y 371.029	803356.0	803356.0	108.14 %		23:16:36
3	Ag 328.068†	110693.1	108513.2	516.82 ug/L	516.82 ppb	23:16:36
3	As 188.979†	1351.4	1357.1	553.25 ug/L	553.25 ppb	23:16:41
3	B 249.677†	25135.9	24266.6	473.27 ug/L	473.27 ppb	23:16:36
3	Ba 233.527†	332615.0	327273.6	2203.0 ug/L	2203.0 ppb	23:16:36
3	Be 313.107†	1567809.8	1547187.2	524.65 ug/L	524.65 ppb	23:16:36
3	Cd 226.502†	53008.9	52382.0	488.26 ug/L	488.26 ppb	23:16:41
3	Co 228.616†	32156.1	31723.6	537.83 ug/L	537.83 ppb	23:16:41
3	Cr 267.716†	64833.3	63691.3	639.18 ug/L	639.18 ppb	23:16:36
3	Cu 324.752†	222185.4	212524.6	601.84 ug/L	601.84 ppb	23:16:36
3	Mn 257.610†	3590075.4	3531838.6	3463.3 ug/L	3463.3 ppb	23:16:36
3	Mo 202.031†	7993.6	7839.4	480.70 ug/L	480.70 ppb	23:16:41
3	Ni 231.604†	27559.0	27013.4	581.82 ug/L	581.82 ppb	23:16:41
3	P 214.914†	3580.5	3267.7	1506.6 ug/L	1506.6 ppb	23:16:41
3	Pb 220.353†	5764.0	5749.1	614.14 ug/L	614.14 ppb	23:16:41
3	S 181.975 Axial†	4897.9	4760.3	5670.1 ug/L	5670.1 ppb	23:16:41
3	Sb 206.836†	1689.8	1620.2	465.48 ug/L	465.48 ppb	23:16:41
3	Se 196.026†	-100.1	-69.7	476.94 ug/L	476.94 ppb	23:16:41
3	Si 251.611†	438459.6	430747.3	11975 ug/L	11975 ppb	23:16:36
3	Sn 189.927†	3371.4	3315.3	489.59 ug/L	489.59 ppb	23:16:41
3	Ti 334.940†	4008820.6	3945810.1	5683.4 ug/L	5683.4 ppb	23:16:36
3	Tl 190.801†	1663.3	1682.3	493.09 ug/L	493.09 ppb	23:16:41
3	U 409.014†	8224.3	10820.4	279.77 ug/L	279.77 ppb	23:16:36
3	V 292.402†	128638.4	128037.7	782.01 ug/L	782.01 ppb	23:16:36
3	Zn 213.857†	105413.9	102913.5	816.51 ug/L	816.51 ppb	23:16:36
3	SiO2†	440070.8	432307.4	25808 ug/L	25808 ppb	23:16:57

Mean Data: 1201998457|934060|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	911380.1	101.33	%	0.519				0.51%
Sc Radial	5578.3	99.8	%	0.19				0.19%
Y 371.029	801026.0	107.82	%	0.550				0.51%
Y RADIAL	6317.0	107.8	%	0.04				0.04%
Ag 328.068†	108559.2	517.14	ug/L	0.527	517.14	ppb	0.527	0.10%
Al 396.153Radial†	240294.3	168760	ug/L	2289.7	168760	ppb	2289.7	1.36%
As 188.979†	1354.0	552.19	ug/L	7.972	552.19	ppb	7.972	1.44%
B 249.677†	24238.3	472.64	ug/L	0.665	472.64	ppb	0.665	0.14%
Ba 233.527†	327088.5	2201.7	ug/L	1.24	2201.7	ppb	1.24	0.06%
Be 313.107†	1546747.3	524.51	ug/L	0.220	524.51	ppb	0.220	0.04%
Ca 317.933Radial†	17523.8	24465	ug/L	349.4	24465	ppb	349.4	1.43%
Cd 226.502†	52288.7	487.32	ug/L	4.376	487.32	ppb	4.376	0.90%
Co 228.616†	31665.4	536.81	ug/L	5.263	536.81	ppb	5.263	0.98%
Cr 267.716†	63711.3	639.39	ug/L	0.336	639.39	ppb	0.336	0.05%
Cu 324.752†	212707.4	602.37	ug/L	0.544	602.37	ppb	0.544	0.09%
Fe 238.204 Radial†	19457.3	153980	ug/L	2101.5	153980	ppb	2101.5	1.36%
K 766.490 Radial†	107964.2	19365	ug/L	267.7	19365	ppb	267.7	1.38%

Mg 279.077 IEC†	1073.6	32280	ug/L	163.2	32280	ppb	163.2	0.51%
Mn 257.610†	3530886.2	3462.4	ug/L	1.06	3462.4	ppb	1.06	0.03%
Mo 202.031†	7827.7	480.04	ug/L	5.881	480.04	ppb	5.881	1.23%
Na 589.592 Radial†	22385.1	6117.5	ug/L	115.62	6117.5	ppb	115.62	1.89%
Ni 231.604†	26982.6	581.16	ug/L	4.871	581.16	ppb	4.871	0.84%
P 214.914†	3244.4	1494.5	ug/L	17.84	1494.5	ppb	17.84	1.19%
Pb 220.353†	5735.1	612.74	ug/L	2.509	612.74	ppb	2.509	0.41%
S 181.975 Axial†	4727.1	5630.3	ug/L	53.44	5630.3	ppb	53.44	0.95%
Sb 206.836†	1611.3	462.81	ug/L	10.596	462.81	ppb	10.596	2.29%
Se 196.026†	-84.8	470.09	ug/L	17.060	470.09	ppb	17.060	3.63%
Si 251.611†	431040.6	11983	ug/L	10.0	11983	ppb	10.0	0.08%
Sn 189.927†	3312.8	489.23	ug/L	2.705	489.23	ppb	2.705	0.55%
Sr 421.552†	141162.7	805.14	ug/L	13.007	805.14	ppb	13.007	1.62%
Ti 334.940†	3945543.5	5683.0	ug/L	0.40	5683.0	ppb	0.40	0.01%
Tl 190.801†	1690.3	495.14	ug/L	4.680	495.14	ppb	4.680	0.95%
U 409.014†	10838.6	280.23	ug/L	0.452	280.23	ppb	0.452	0.16%
V 292.402†	128019.2	781.83	ug/L	0.338	781.83	ppb	0.338	0.04%
Zn 213.857†	102933.8	816.66	ug/L	0.395	816.66	ppb	0.395	0.05%
SiO2†	431831.5	25780	ug/L	234.5	25780	ppb	234.5	0.91%

Sequence No.: 93
Sample ID: 1201998459|934060|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 91
Date Collected: 12/20/2009 23:19:09
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1201998459|934060|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5552.2	5552.2	99.4	%			23:21:22
1	Y RADIAL	6250.2	6250.2	106.6	%			23:21:22
1	Al 396.153Radial†	236331.3	237849.2	167040	ug/L	167040	ppb	23:21:02
1	Ca 317.933Radial†	17145.8	17237.1	24064	ug/L	24064	ppb	23:21:02
1	Fe 238.204 Radial†	19309.6	19421.4	153700	ug/L	153700	ppb	23:21:02
1	K 766.490 Radial†	109036.0	106857.8	19163	ug/L	19163	ppb	23:21:02
1	Mg 279.077 IEC†	1083.0	1087.6	32704	ug/L	32704	ppb	23:21:22
1	Na 589.592 Radial†	21259.6	22654.9	6191.2	ug/L	6191.2	ppb	23:21:02
1	Sr 421.552†	138322.4	139197.4	793.93	ug/L	793.93	ppb	23:21:02
1	Sc 361.383	901922.5	901922.5	100.28	%			23:22:21
1	Y 371.029	792441.3	792441.3	106.67	%			23:22:21
1	Ag 328.068†	111343.8	110635.8	525.97	ug/L	525.97	ppb	23:22:26
1	As 188.979†	1327.4	1351.2	551.79	ug/L	551.79	ppb	23:22:46
1	B 249.677†	25528.6	24992.9	488.10	ug/L	488.10	ppb	23:22:26
1	Ba 233.527†	312254.9	311398.0	2096.4	ug/L	2096.4	ppb	23:22:26
1	Be 313.107†	1550726.9	1551023.9	526.07	ug/L	526.07	ppb	23:22:21
1	Cd 226.502†	53484.8	53562.3	499.59	ug/L	499.59	ppb	23:22:26
1	Co 228.616†	31176.9	31175.2	528.11	ug/L	528.11	ppb	23:22:46
1	Cr 267.716†	69043.4	68752.9	689.69	ug/L	689.69	ppb	23:22:26
1	Cu 324.752†	224758.9	218048.9	617.28	ug/L	617.28	ppb	23:22:26
1	Mn 257.610†	3788795.3	3777802.5	3703.5	ug/L	3703.5	ppb	23:22:21
1	Mo 202.031†	7954.1	7906.5	484.70	ug/L	484.70	ppb	23:22:46
1	Ni 231.604†	27348.5	27170.4	585.21	ug/L	585.21	ppb	23:22:46
1	P 214.914†	3499.0	3234.1	1486.5	ug/L	1486.5	ppb	23:22:46
1	Pb 220.353†	5678.6	5740.6	612.95	ug/L	612.95	ppb	23:22:46
1	S 181.975 Axial†	4741.2	4669.3	5561.4	ug/L	5561.4	ppb	23:22:46
1	Sb 206.836†	1675.0	1628.0	466.52	ug/L	466.52	ppb	23:22:46
1	Se 196.026†	-133.0	-103.9	458.75	ug/L	458.75	ppb	23:22:46
1	Si 251.611†	388212.1	386476.2	10742	ug/L	10742	ppb	23:22:26
1	Sn 189.927†	3334.8	3323.7	490.78	ug/L	490.78	ppb	23:22:46
1	Ti 334.940†	4004656.1	3995026.5	5754.3	ug/L	5754.3	ppb	23:22:21
1	Tl 190.801†	1654.4	1695.6	498.40	ug/L	498.40	ppb	23:22:46
1	U 409.014†	8752.1	11456.2	297.31	ug/L	297.31	ppb	23:22:26
1	V 292.402†	130149.0	131256.7	802.21	ug/L	802.21	ppb	23:22:26
1	Zn 213.857†	106371.7	105272.0	835.48	ug/L	835.48	ppb	23:22:26
1	SiO2†	382469.6	380724.6	22725	ug/L	22725	ppb	23:23:56
2	Sc Radial	5729.1	5729.1	103	%			23:21:47
2	Y RADIAL	6424.1	6424.1	109.6	%			23:21:47
2	Al 396.153Radial†	241637.2	235677.3	165520	ug/L	165520	ppb	23:21:27
2	Ca 317.933Radial†	17497.8	17047.4	23800	ug/L	23800	ppb	23:21:27
2	Fe 238.204 Radial†	19821.2	19320.0	152890	ug/L	152890	ppb	23:21:27
2	K 766.490 Radial†	111693.9	106060.5	19020	ug/L	19020	ppb	23:21:27
2	Mg 279.077 IEC†	1075.2	1046.3	31457	ug/L	31457	ppb	23:21:47
2	Na 589.592 Radial†	21853.4	22573.2	6168.9	ug/L	6168.9	ppb	23:21:27
2	Sr 421.552†	141875.1	138362.3	789.17	ug/L	789.17	ppb	23:21:27
2	Sc 361.383	908354.0	908354.0	100.99	%			23:22:53
2	Y 371.029	795922.1	795922.1	107.14	%			23:22:53
2	Ag 328.068†	109446.2	107970.7	514.24	ug/L	514.24	ppb	23:22:58
2	As 188.979†	1325.2	1339.6	546.99	ug/L	546.99	ppb	23:23:18
2	B 249.677†	25053.5	24342.1	474.94	ug/L	474.94	ppb	23:22:58
2	Ba 233.527†	305441.3	302446.7	2036.3	ug/L	2036.3	ppb	23:22:58
2	Be 313.107†	1542939.6	1532363.9	519.74	ug/L	519.74	ppb	23:22:53
2	Cd 226.502†	52352.2	52063.2	485.27	ug/L	485.27	ppb	23:22:58
2	Co 228.616†	31128.4	30907.1	523.58	ug/L	523.58	ppb	23:23:18
2	Cr 267.716†	67323.3	66562.2	667.78	ug/L	667.78	ppb	23:22:58
2	Cu 324.752†	219554.1	211308.3	598.40	ug/L	598.40	ppb	23:22:58
2	Mn 257.610†	3780936.6	3743269.3	3669.7	ug/L	3669.7	ppb	23:22:53
2	Mo 202.031†	7912.1	7808.7	478.81	ug/L	478.81	ppb	23:23:18
2	Ni 231.604†	27307.9	26937.1	580.19	ug/L	580.19	ppb	23:23:18

2	P 214.914†	3505.6	3216.0	1480.4 ug/L	1480.4 ppb	23:23:18
2	Pb 220.353†	5677.7	5699.7	608.48 ug/L	608.48 ppb	23:23:18
2	S 181.975 Axial†	4728.7	4623.5	5506.8 ug/L	5506.8 ppb	23:23:18
2	Sb 206.836†	1692.3	1633.3	468.58 ug/L	468.58 ppb	23:23:18
2	Se 196.026†	-112.4	-82.5	467.34 ug/L	467.34 ppb	23:23:18
2	Si 251.611†	378229.9	373851.1	10391 ug/L	10391 ppb	23:22:58
2	Sn 189.927†	3330.1	3295.5	486.62 ug/L	486.62 ppb	23:23:18
2	Ti 334.940†	3986909.5	3949178.6	5688.2 ug/L	5688.2 ppb	23:22:53
2	Tl 190.801†	1641.3	1671.0	491.45 ug/L	491.45 ppb	23:23:18
2	U 409.014†	8636.9	11280.3	292.58 ug/L	292.58 ppb	23:22:58
2	V 292.402†	127071.6	127290.6	777.39 ug/L	777.39 ppb	23:22:58
2	Zn 213.857†	104289.2	102459.0	812.93 ug/L	812.93 ppb	23:22:58
2	SiO2†	378477.1	374070.8	22327 ug/L	22327 ppb	23:24:02
3	Sc Radial	5535.2	5535.2	99.1 %		23:22:12
3	Y RADIAL	6253.1	6253.1	106.7 %		23:22:12
3	Al 396.153Radial†	242152.9	244453.7	171680 ug/L	171680 ppb	23:21:52
3	Ca 317.933Radial†	17473.5	17620.7	24600 ug/L	24600 ppb	23:21:52
3	Fe 238.204 Radial†	19781.0	19956.7	157930 ug/L	157930 ppb	23:21:52
3	K 766.490 Radial†	111664.5	109847.0	19701 ug/L	19701 ppb	23:21:52
3	Mg 279.077 IEC†	1094.9	1103.0	33164 ug/L	33164 ppb	23:22:12
3	Na 589.592 Radial†	21785.3	23251.1	6354.1 ug/L	6354.1 ppb	23:21:52
3	Sr 421.552†	141924.9	143260.0	817.11 ug/L	817.11 ppb	23:21:52
3	Sc 361.383	919830.1	919830.1	102.27 %		23:23:25
3	Y 371.029	805101.3	805101.3	108.37 %		23:23:25
3	Ag 328.068†	109890.3	107052.9	511.97 ug/L	511.97 ppb	23:23:31
3	As 188.979†	1325.6	1323.6	541.74 ug/L	541.74 ppb	23:23:51
3	B 249.677†	25061.3	24040.2	468.14 ug/L	468.14 ppb	23:23:31
3	Ba 233.527†	306711.5	299915.4	2019.4 ug/L	2019.4 ppb	23:23:31
3	Be 313.107†	1550809.7	1520998.5	515.89 ug/L	515.89 ppb	23:23:25
3	Cd 226.502†	52700.8	51757.3	481.82 ug/L	481.82 ppb	23:23:31
3	Co 228.616†	30976.8	30374.3	514.33 ug/L	514.33 ppb	23:23:51
3	Cr 267.716†	67539.5	65941.9	661.68 ug/L	661.68 ppb	23:23:31
3	Cu 324.752†	220438.9	209461.2	593.49 ug/L	593.49 ppb	23:23:31
3	Mn 257.610†	3800953.2	3716133.5	3643.7 ug/L	3643.7 ppb	23:23:25
3	Mo 202.031†	7896.4	7695.6	472.57 ug/L	472.57 ppb	23:23:51
3	Ni 231.604†	27244.0	26537.3	571.58 ug/L	571.58 ppb	23:23:51
3	P 214.914†	3480.8	3148.4	1444.8 ug/L	1444.8 ppb	23:23:51
3	Pb 220.353†	5652.8	5605.2	599.77 ug/L	599.77 ppb	23:23:51
3	S 181.975 Axial†	4704.0	4540.9	5406.6 ug/L	5406.6 ppb	23:23:51
3	Sb 206.836†	1663.0	1583.7	453.85 ug/L	453.85 ppb	23:23:51
3	Se 196.026†	-119.6	-88.2	481.20 ug/L	481.20 ppb	23:23:51
3	Si 251.611†	379426.3	370348.5	10293 ug/L	10293 ppb	23:23:31
3	Sn 189.927†	3321.0	3245.5	479.45 ug/L	479.45 ppb	23:23:51
3	Ti 334.940†	4007188.6	3919754.9	5645.9 ug/L	5645.9 ppb	23:23:25
3	Tl 190.801†	1615.2	1625.2	479.51 ug/L	479.51 ppb	23:23:51
3	U 409.014†	8525.7	11064.9	285.98 ug/L	285.98 ppb	23:23:31
3	V 292.402†	127273.8	125918.5	767.99 ug/L	767.99 ppb	23:23:31
3	Zn 213.857†	104668.2	101541.2	805.27 ug/L	805.27 ppb	23:23:31
3	SiO2†	377988.6	368917.5	22019 ug/L	22019 ppb	23:24:07

Mean Data: 1201998459|934060|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	910035.5	101.18	%	1.009				1.00%
Sc Radial	5605.5	100	%	1.9				1.92%
Y 371.029	797821.6	107.39	%	0.880				0.82%
Y RADIAL	6309.1	107.6	%	1.70				1.58%
Ag 328.068†	108553.1	517.40	ug/L	7.513	517.40	ppb	7.513	1.45%
Al 396.153Radial†	239326.7	168080	ug/L	3210.8	168080	ppb	3210.8	1.91%
As 188.979†	1338.2	546.84	ug/L	5.028	546.84	ppb	5.028	0.92%
B 249.677†	24458.4	477.06	ug/L	10.147	477.06	ppb	10.147	2.13%
Ba 233.527†	304586.7	2050.7	ug/L	40.51	2050.7	ppb	40.51	1.98%
Be 313.107†	1534795.5	520.57	ug/L	5.139	520.57	ppb	5.139	0.99%
Ca 317.933Radial†	17301.7	24155	ug/L	407.7	24155	ppb	407.7	1.69%
Cd 226.502†	52461.0	488.89	ug/L	9.425	488.89	ppb	9.425	1.93%
Co 228.616†	30818.9	522.01	ug/L	7.021	522.01	ppb	7.021	1.35%
Cr 267.716†	67085.7	673.05	ug/L	14.728	673.05	ppb	14.728	2.19%
Cu 324.752†	212939.5	603.06	ug/L	12.559	603.06	ppb	12.559	2.08%
Fe 238.204 Radial†	19566.0	154840	ug/L	2706.9	154840	ppb	2706.9	1.75%
K 766.490 Radial†	107588.4	19294	ug/L	359.1	19294	ppb	359.1	1.86%

Mg 279.077 IEC†	1079.0	32442	ug/L	882.9	32442	ppb	882.9	2.72%
Mn 257.610†	3745735.1	3672.3	ug/L	29.98	3672.3	ppb	29.98	0.82%
Mo 202.031†	7803.6	478.69	ug/L	6.065	478.69	ppb	6.065	1.27%
Na 589.592 Radial†	22826.4	6238.1	ug/L	101.13	6238.1	ppb	101.13	1.62%
Ni 231.604†	26881.6	578.99	ug/L	6.896	578.99	ppb	6.896	1.19%
P 214.914†	3199.5	1470.6	ug/L	22.55	1470.6	ppb	22.55	1.53%
Pb 220.353†	5681.8	607.07	ug/L	6.703	607.07	ppb	6.703	1.10%
S 181.975 Axial†	4611.2	5491.6	ug/L	78.49	5491.6	ppb	78.49	1.43%
Sb 206.836†	1615.0	462.98	ug/L	7.980	462.98	ppb	7.980	1.72%
Se 196.026†	-91.5	469.10	ug/L	11.331	469.10	ppb	11.331	2.42%
Si 251.611†	376891.9	10476	ug/L	236.1	10476	ppb	236.1	2.25%
Sn 189.927†	3288.2	485.62	ug/L	5.731	485.62	ppb	5.731	1.18%
Sr 421.552†	140273.3	800.07	ug/L	14.945	800.07	ppb	14.945	1.87%
Ti 334.940†	3954653.3	5696.1	ug/L	54.61	5696.1	ppb	54.61	0.96%
Tl 190.801†	1663.9	489.79	ug/L	9.552	489.79	ppb	9.552	1.95%
U 409.014†	11267.1	291.96	ug/L	5.695	291.96	ppb	5.695	1.95%
V 292.402†	128155.3	782.53	ug/L	17.680	782.53	ppb	17.680	2.26%
Zn 213.857†	103090.7	817.89	ug/L	15.704	817.89	ppb	15.704	1.92%
SiO2†	374571.0	22357	ug/L	353.8	22357	ppb	353.8	1.58%

Sequence No.: 94
Sample ID: 1201998458|934060|5
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 92
Date Collected: 12/20/2009 23:26:17
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1201998458|934060|5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5526.8	5526.8	98.9	%			23:28:11
1	Y RADIAL	5871.9	5871.9	100.2	%			23:28:11
1	Al 396.153Radial†	30242.4	30588.0	21484	ug/L	21484	ppb	23:28:11
1	Ca 317.933Radial†	2660.2	2671.6	3729.8	ug/L	3729.8	ppb	23:28:31
1	Fe 238.204 Radial†	3441.8	3468.4	27445	ug/L	27445	ppb	23:28:31
1	K 766.490 Radial†	15383.8	12680.5	2272.4	ug/L	2272.4	ppb	23:28:11
1	Mg 279.077 IEC†	151.6	151.0	4532.4	ug/L	4532.4	ppb	23:28:31
1	Na 589.592 Radial†	-710.8	541.4	147.97	ug/L	147.97	ppb	23:28:11
1	Sr 421.552†	9806.5	9908.6	56.497	ug/L	56.497	ppb	23:28:11
1	Sc 361.383	911112.2	911112.2	101.30	%			23:29:28
1	Y 371.029	757414.1	757414.1	101.95	%			23:29:28
1	Ag 328.068†	-1537.3	-1916.9	1.1920	ug/L	1.1920	ppb	23:29:28
1	As 188.979†	-25.6	2.2	13.055	ug/L	13.055	ppb	23:29:48
1	B 249.677†	-135.1	-598.4	-15.882	ug/L	-15.882	ppb	23:29:28
1	Ba 233.527†	45435.1	44860.8	302.01	ug/L	302.01	ppb	23:29:28
1	Be 313.107†	-6806.3	-2123.9	1.1706	ug/L	1.1706	ppb	23:29:28
1	Cd 226.502†	65.0	290.0	0.0525	ug/L	0.0525	ppb	23:29:48
1	Co 228.616†	705.5	781.2	11.252	ug/L	11.252	ppb	23:29:48
1	Cr 267.716†	2437.7	2307.3	23.609	ug/L	23.609	ppb	23:29:48
1	Cu 324.752†	10311.8	4092.5	12.838	ug/L	12.838	ppb	23:29:28
1	Mn 257.610†	626626.6	618095.5	606.18	ug/L	606.18	ppb	23:29:28
1	Mo 202.031†	17.3	-8.5	2.1273	ug/L	2.1273	ppb	23:29:48
1	Ni 231.604†	870.8	757.4	16.314	ug/L	16.314	ppb	23:29:48
1	P 214.914†	668.5	404.8	189.13	ug/L	189.13	ppb	23:29:48
1	Pb 220.353†	156.5	232.3	26.325	ug/L	26.325	ppb	23:29:48
1	S 181.975 Axial†	142.4	81.8	93.796	ug/L	93.796	ppb	23:29:48
1	Sb 206.836†	51.4	8.4	-0.7877	ug/L	-0.7877	ppb	23:29:48
1	Se 196.026†	-209.2	-177.7	-4.7649	ug/L	-4.7649	ppb	23:29:48
1	Si 251.611†	83694.3	81960.7	2280.8	ug/L	2280.8	ppb	23:29:28
1	Sn 189.927†	-25.0	-26.5	-3.1085	ug/L	-3.1085	ppb	23:29:48
1	Ti 334.940†	669694.3	662572.2	954.40	ug/L	954.40	ppb	23:29:28
1	Tl 190.801†	-106.5	-59.3	-3.8875	ug/L	-3.8875	ppb	23:29:48
1	U 409.014†	-4130.4	-1349.0	-40.940	ug/L	-40.940	ppb	23:29:28
1	V 292.402†	7543.5	8915.1	50.763	ug/L	50.763	ppb	23:29:28
1	Zn 213.857†	8108.5	7199.6	56.370	ug/L	56.370	ppb	23:29:48
1	SiO2†	85045.8	83269.7	4976.3	ug/L	4976.3	ppb	23:30:45
2	Sc Radial	5596.7	5596.7	100	%			23:28:36
2	Y RADIAL	5878.6	5878.6	100.3	%			23:28:36
2	Al 396.153Radial†	29579.8	29544.8	20752	ug/L	20752	ppb	23:28:36
2	Ca 317.933Radial†	2647.2	2625.1	3664.8	ug/L	3664.8	ppb	23:28:56
2	Fe 238.204 Radial†	3428.4	3411.6	26996	ug/L	26996	ppb	23:28:56
2	K 766.490 Radial†	15276.9	12379.6	2218.2	ug/L	2218.2	ppb	23:28:36
2	Mg 279.077 IEC†	149.1	146.6	4401.6	ug/L	4401.6	ppb	23:28:56
2	Na 589.592 Radial†	-691.9	569.2	155.57	ug/L	155.57	ppb	23:28:36
2	Sr 421.552†	9634.6	9613.3	54.812	ug/L	54.812	ppb	23:28:36
2	Sc 361.383	923989.9	923989.9	102.73	%			23:29:54
2	Y 371.029	767418.4	767418.4	103.30	%			23:29:54
2	Ag 328.068†	-1659.0	-2014.3	0.6260	ug/L	0.6260	ppb	23:29:54
2	As 188.979†	-41.1	-12.5	7.8286	ug/L	7.8286	ppb	23:30:14
2	B 249.677†	22.2	-443.4	-12.660	ug/L	-12.660	ppb	23:29:54
2	Ba 233.527†	46539.5	45310.7	305.02	ug/L	305.02	ppb	23:29:54
2	Be 313.107†	-6857.7	-2080.3	1.2071	ug/L	1.2071	ppb	23:29:54
2	Cd 226.502†	68.5	292.4	0.1205	ug/L	0.1205	ppb	23:30:14
2	Co 228.616†	700.0	766.1	10.972	ug/L	10.972	ppb	23:30:14
2	Cr 267.716†	2426.1	2262.4	23.153	ug/L	23.153	ppb	23:30:14
2	Cu 324.752†	10553.3	4185.7	13.076	ug/L	13.076	ppb	23:29:54
2	Mn 257.610†	641853.2	624296.0	612.19	ug/L	612.19	ppb	23:29:54
2	Mo 202.031†	0.0	-25.6	1.0687	ug/L	1.0687	ppb	23:30:14
2	Ni 231.604†	841.9	717.2	15.448	ug/L	15.448	ppb	23:30:14

2	P 214.914†	668.2	395.3	184.35	ug/L	184.35 ppb	23:30:14
2	Pb 220.353†	147.4	221.3	25.077	ug/L	25.077 ppb	23:30:14
2	S 181.975 Axial†	134.5	72.2	82.371	ug/L	82.371 ppb	23:30:14
2	Sb 206.836†	59.5	15.5	1.2773	ug/L	1.2773 ppb	23:30:14
2	Se 196.026†	-208.6	-174.3	-4.4631	ug/L	-4.4631 ppb	23:30:14
2	Si 251.611†	85917.9	82973.6	2309.1	ug/L	2309.1 ppb	23:29:54
2	Sn 189.927†	-31.7	-32.7	-4.0318	ug/L	-4.0318 ppb	23:30:14
2	Ti 334.940†	687152.2	670352.1	965.60	ug/L	965.60 ppb	23:29:54
2	Tl 190.801†	-82.6	-34.6	2.5318	ug/L	2.5318 ppb	23:30:14
2	U 409.014†	-4065.8	-1229.3	-37.561	ug/L	-37.561 ppb	23:29:54
2	V 292.402†	7709.9	8973.3	51.174	ug/L	51.174 ppb	23:29:54
2	Zn 213.857†	8120.3	7099.5	55.596	ug/L	55.596 ppb	23:30:14
2	SiO2†	85254.7	82303.0	4918.6	ug/L	4918.6 ppb	23:30:50
3	Sc Radial	5593.8	5593.8	100	%		23:29:01
3	Y RADIAL	5943.9	5943.9	101.4	%		23:29:01
3	Al 396.153Radial†	30466.3	30445.6	21384	ug/L	21384 ppb	23:29:01
3	Ca 317.933Radial†	2679.5	2658.6	3711.7	ug/L	3711.7 ppb	23:29:21
3	Fe 238.204 Radial†	3464.6	3449.5	27296	ug/L	27296 ppb	23:29:21
3	K 766.490 Radial†	15343.7	12454.2	2231.7	ug/L	2231.7 ppb	23:29:01
3	Mg 279.077 IEC†	155.9	153.5	4608.1	ug/L	4608.1 ppb	23:29:21
3	Na 589.592 Radial†	-662.2	598.6	163.58	ug/L	163.58 ppb	23:29:01
3	Sr 421.552†	9899.8	9883.1	56.351	ug/L	56.351 ppb	23:29:01
3	Sc 361.383	920038.7	920038.7	102.29	%		23:30:20
3	Y 371.029	763079.3	763079.3	102.72	%		23:30:20
3	Ag 328.068†	-1635.8	-1998.5	0.7932	ug/L	0.7932 ppb	23:30:20
3	As 188.979†	-30.9	-2.7	11.370	ug/L	11.370 ppb	23:30:40
3	B 249.677†	9.2	-456.1	-12.958	ug/L	-12.958 ppb	23:30:20
3	Ba 233.527†	46318.8	45289.5	304.89	ug/L	304.89 ppb	23:30:20
3	Be 313.107†	-6959.0	-2208.0	1.1674	ug/L	1.1674 ppb	23:30:20
3	Cd 226.502†	58.1	282.5	-0.0044	ug/L	-0.0044 ppb	23:30:40
3	Co 228.616†	691.3	760.5	10.870	ug/L	10.870 ppb	23:30:40
3	Cr 267.716†	2446.9	2292.9	23.463	ug/L	23.463 ppb	23:30:40
3	Cu 324.752†	10501.7	4179.3	13.073	ug/L	13.073 ppb	23:30:20
3	Mn 257.610†	639895.3	625065.2	612.97	ug/L	612.97 ppb	23:30:20
3	Mo 202.031†	14.4	-11.5	1.9304	ug/L	1.9304 ppb	23:30:40
3	Ni 231.604†	852.7	731.3	15.752	ug/L	15.752 ppb	23:30:40
3	P 214.914†	670.1	400.0	186.74	ug/L	186.74 ppb	23:30:40
3	Pb 220.353†	140.1	214.7	24.521	ug/L	24.521 ppb	23:30:40
3	S 181.975 Axial†	136.3	74.5	85.043	ug/L	85.043 ppb	23:30:40
3	Sb 206.836†	39.8	-3.5	-4.2969	ug/L	-4.2969 ppb	23:30:40
3	Se 196.026†	-197.9	-164.7	1.7209	ug/L	1.7209 ppb	23:30:40
3	Si 251.611†	85726.9	83146.1	2313.8	ug/L	2313.8 ppb	23:30:20
3	Sn 189.927†	-18.4	-19.8	-2.1376	ug/L	-2.1376 ppb	23:30:40
3	Ti 334.940†	685183.3	671299.9	966.97	ug/L	966.97 ppb	23:30:20
3	Tl 190.801†	-81.4	-33.8	2.7601	ug/L	2.7601 ppb	23:30:40
3	U 409.014†	-4066.6	-1247.1	-38.093	ug/L	-38.093 ppb	23:30:20
3	V 292.402†	7677.5	8973.9	51.146	ug/L	51.146 ppb	23:30:20
3	Zn 213.857†	8145.9	7158.5	56.047	ug/L	56.047 ppb	23:30:40
3	SiO2†	85432.7	82833.4	4950.2	ug/L	4950.2 ppb	23:30:55

Mean Data: 1201998458|934060|5

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	918380.3	102.11	%	0.733				0.72%
Sc Radial	5572.4	99.7	%	0.71				0.71%
Y 371.029	762637.2	102.66	%	0.675				0.66%
Y RADIAL	5898.1	100.6	%	0.68				0.67%
Ag 328.068†	-1976.6	0.8704	ug/L	0.29081	0.8704	ppb	0.29081	33.41%
Al 396.153Radial†	30192.8	21207	ug/L	397.3	21207	ppb	397.3	1.87%
As 188.979†	-4.3	10.751	ug/L	2.6674	10.751	ppb	2.6674	24.81%
B 249.677†	-499.3	-13.833	ug/L	1.7805	-13.833	ppb	1.7805	12.87%
Ba 233.527†	45153.6	303.97	ug/L	1.700	303.97	ppb	1.700	0.56%
Be 313.107†	-2137.4	1.1817	ug/L	0.02205	1.1817	ppb	0.02205	1.87%
Ca 317.933Radial†	2651.8	3702.1	ug/L	33.54	3702.1	ppb	33.54	0.91%
Cd 226.502†	288.3	0.0562	ug/L	0.06249	0.0562	ppb	0.06249	111.20%
Co 228.616†	769.3	11.031	ug/L	0.1979	11.031	ppb	0.1979	1.79%
Cr 267.716†	2287.5	23.408	ug/L	0.2327	23.408	ppb	0.2327	0.99%
Cu 324.752†	4152.5	12.996	ug/L	0.1364	12.996	ppb	0.1364	1.05%
Fe 238.204 Radial†	3443.2	27246	ug/L	229.1	27246	ppb	229.1	0.84%
K 766.490 Radial†	12504.8	2240.8	ug/L	28.23	2240.8	ppb	28.23	1.26%

Mg 279.077 IEC†	150.3	4514.1	ug/L	104.46	4514.1	ppb	104.46	2.31%
Mn 257.610†	622485.5	610.44	ug/L	3.716	610.44	ppb	3.716	0.61%
Mo 202.031†	-15.2	1.7088	ug/L	0.56302	1.7088	ppb	0.56302	32.95%
Na 589.592 Radial†	569.8	155.70	ug/L	7.807	155.70	ppb	7.807	5.01%
Ni 231.604†	735.3	15.838	ug/L	0.4391	15.838	ppb	0.4391	2.77%
P 214.914†	400.0	186.74	ug/L	2.392	186.74	ppb	2.392	1.28%
Pb 220.353†	222.8	25.308	ug/L	0.9238	25.308	ppb	0.9238	3.65%
S 181.975 Axial†	76.2	87.070	ug/L	5.9762	87.070	ppb	5.9762	6.86%
Sb 206.836†	6.8	-1.2691	ug/L	2.81811	-1.2691	ppb	2.81811	222.05%
Se 196.026†	-172.2	-2.5024	ug/L	3.66057	-2.5024	ppb	3.66057	146.28%
Si 251.611†	82693.5	2301.2	ug/L	17.84	2301.2	ppb	17.84	0.78%
Sn 189.927†	-26.3	-3.0926	ug/L	0.94717	-3.0926	ppb	0.94717	30.63%
Sr 421.552†	9801.7	55.887	ug/L	0.9335	55.887	ppb	0.9335	1.67%
Ti 334.940†	668074.7	962.32	ug/L	6.895	962.32	ppb	6.895	0.72%
Tl 190.801†	-42.6	0.4681	ug/L	3.77381	0.4681	ppb	3.77381	806.21%
U 409.014†	-1275.2	-38.865	ug/L	1.8172	-38.865	ppb	1.8172	4.68%
V 292.402†	8954.1	51.028	ug/L	0.2294	51.028	ppb	0.2294	0.45%
Zn 213.857†	7152.6	56.004	ug/L	0.3889	56.004	ppb	0.3889	0.69%
SiO2†	82802.0	4948.4	ug/L	28.90	4948.4	ppb	28.90	0.58%

Sequence No.: 95
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 12/20/2009 23:33:07
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	5737.3	5737.3	103	%			23:34:59
1	Y RADIAL	5973.5	5973.5	101.9	%			23:34:59
1	Al 396.153Radial†	6907.4	6740.4	4712.6	ug/L	4712.6	ppb	23:34:59
1	Ca 317.933Radial†	3539.0	3428.8	4786.8	ug/L	4786.8	ppb	23:35:19
1	Fe 238.204 Radial†	654.2	626.0	4969.1	ug/L	4969.1	ppb	23:35:19
1	K 766.490 Radial†	30174.0	26514.1	4751.8	ug/L	4751.8	ppb	23:34:59
1	Mg 279.077 IEC†	174.3	167.5	5061.3	ug/L	5061.3	ppb	23:35:19
1	Na 589.592 Radial†	34002.8	34375.4	9394.2	ug/L	9394.2	ppb	23:34:59
1	Sr 421.552†	84474.5	82264.1	469.29	ug/L	469.29	ppb	23:34:59
1	Sc 361.383	900930.6	900930.6	100.17	%			23:36:18
1	Y 371.029	732187.6	732187.6	98.558	%			23:36:18
1	Ag 328.068†	119682.9	119083.2	511.21	ug/L	511.21	ppb	23:36:18
1	As 188.979†	1417.0	1442.1	516.99	ug/L	516.99	ppb	23:36:38
1	B 249.677†	24641.1	24134.9	490.41	ug/L	490.41	ppb	23:36:18
1	Ba 233.527†	76562.2	76442.7	514.50	ug/L	514.50	ppb	23:36:18
1	Be 313.107†	1558196.1	1560183.1	518.80	ug/L	518.80	ppb	23:36:18
1	Cd 226.502†	53610.6	53746.6	516.18	ug/L	516.18	ppb	23:36:18
1	Co 228.616†	29094.0	29130.0	505.38	ug/L	505.38	ppb	23:36:38
1	Cr 267.716†	51818.7	51632.8	515.70	ug/L	515.70	ppb	23:36:18
1	Cu 324.752†	189642.5	183238.1	512.40	ug/L	512.40	ppb	23:36:18
1	Mn 257.610†	527461.6	526087.2	514.09	ug/L	514.09	ppb	23:36:18
1	Mo 202.031†	8587.0	8547.1	508.52	ug/L	508.52	ppb	23:36:38
1	Ni 231.604†	23862.3	23720.0	510.88	ug/L	510.88	ppb	23:36:38
1	P 214.914†	5272.6	5008.6	2469.9	ug/L	2469.9	ppb	23:36:38
1	Pb 220.353†	4949.6	5019.1	515.07	ug/L	515.07	ppb	23:36:38
1	S 181.975 Axial†	890.0	829.8	993.21	ug/L	993.21	ppb	23:36:38
1	Sb 206.836†	1745.3	1700.0	508.86	ug/L	508.86	ppb	23:36:38
1	Se 196.026†	913.0	940.3	519.64	ug/L	519.64	ppb	23:36:38
1	Si 251.611†	92690.7	91875.7	2545.5	ug/L	2545.5	ppb	23:36:18
1	Sn 189.927†	3496.2	3488.5	510.80	ug/L	510.80	ppb	23:36:38
1	Ti 334.940†	351861.3	352742.4	507.85	ug/L	507.85	ppb	23:36:18
1	Tl 190.801†	1949.9	1992.4	511.71	ug/L	511.71	ppb	23:36:38
1	U 409.014†	14827.5	17531.0	484.97	ug/L	484.97	ppb	23:36:18
1	V 292.402†	80041.9	81376.4	517.74	ug/L	517.74	ppb	23:36:18
1	Zn 213.857†	64841.9	63928.5	511.29	ug/L	511.29	ppb	23:36:18
1	SiO2†	91310.2	90472.4	5382.3	ug/L	5382.3	ppb	23:37:38
2	Sc Radial	5341.3	5341.3	95.6	%			23:35:24
2	Y RADIAL	5558.7	5558.7	94.84	%			23:35:24
2	Al 396.153Radial†	6974.9	7309.7	5112.6	ug/L	5112.6	ppb	23:35:24
2	Ca 317.933Radial†	3572.7	3719.5	5192.8	ug/L	5192.8	ppb	23:35:44
2	Fe 238.204 Radial†	656.2	675.3	5359.1	ug/L	5359.1	ppb	23:35:44
2	K 766.490 Radial†	30277.7	28801.0	5162.1	ug/L	5162.1	ppb	23:35:24
2	Mg 279.077 IEC†	177.0	182.9	5526.3	ug/L	5526.3	ppb	23:35:44
2	Na 589.592 Radial†	34521.2	37372.5	10213	ug/L	10213	ppb	23:35:24
2	Sr 421.552†	85954.6	89911.1	512.92	ug/L	512.92	ppb	23:35:24
2	Sc 361.383	902992.8	902992.8	100.40	%			23:36:45
2	Y 371.029	733202.4	733202.4	98.695	%			23:36:45
2	Ag 328.068†	119043.7	118173.7	507.45	ug/L	507.45	ppb	23:36:45
2	As 188.979†	1416.9	1438.7	515.83	ug/L	515.83	ppb	23:37:05
2	B 249.677†	24562.8	24000.6	487.63	ug/L	487.63	ppb	23:36:45
2	Ba 233.527†	76406.7	76113.2	512.29	ug/L	512.29	ppb	23:36:45
2	Be 313.107†	1551570.7	1550031.4	515.42	ug/L	515.42	ppb	23:36:45
2	Cd 226.502†	53394.0	53408.6	512.90	ug/L	512.90	ppb	23:36:45
2	Co 228.616†	29057.3	29027.1	503.59	ug/L	503.59	ppb	23:37:05
2	Cr 267.716†	51623.8	51320.5	512.59	ug/L	512.59	ppb	23:36:45
2	Cu 324.752†	188632.5	181799.7	508.40	ug/L	508.40	ppb	23:36:45
2	Mn 257.610†	526100.4	523528.8	511.62	ug/L	511.62	ppb	23:36:45
2	Mo 202.031†	8558.4	8499.0	505.70	ug/L	505.70	ppb	23:37:05
2	Ni 231.604†	23798.1	23601.8	508.33	ug/L	508.33	ppb	23:37:05

2	P 214.914†	5261.1	4985.1	2458.3 ug/L	2458.3 ppb	23:37:05
2	Pb 220.353†	4925.3	4983.6	511.49 ug/L	511.49 ppb	23:37:05
2	S 181.975 Axial†	894.1	831.8	995.57 ug/L	995.57 ppb	23:37:05
2	Sb 206.836†	1734.2	1685.0	504.34 ug/L	504.34 ppb	23:37:05
2	Se 196.026†	917.7	942.9	522.33 ug/L	522.33 ppb	23:37:05
2	Si 251.611†	92332.4	91307.5	2529.6 ug/L	2529.6 ppb	23:36:45
2	Sn 189.927†	3472.3	3456.7	506.20 ug/L	506.20 ppb	23:37:05
2	Ti 334.940†	350373.6	350458.4	504.59 ug/L	504.59 ppb	23:36:45
2	Tl 190.801†	1953.4	1991.5	511.46 ug/L	511.46 ppb	23:37:05
2	U 409.014†	14620.9	17291.5	478.27 ug/L	478.27 ppb	23:36:45
2	V 292.402†	79681.1	80834.5	514.24 ug/L	514.24 ppb	23:36:45
2	Zn 213.857†	64614.4	63554.1	508.25 ug/L	508.25 ppb	23:36:45
2	SiO2†	92133.9	91084.7	5418.8 ug/L	5418.8 ppb	23:37:43
3	Sc Radial	5512.0	5512.0	98.6 %		23:35:49
3	Y RADIAL	5739.4	5739.4	97.92 %		23:35:49
3	Al 396.153Radial†	7024.4	7133.9	4989.0 ug/L	4989.0 ppb	23:35:49
3	Ca 317.933Radial†	3572.7	3603.8	5031.2 ug/L	5031.2 ppb	23:36:09
3	Fe 238.204 Radial†	653.6	651.3	5169.8 ug/L	5169.8 ppb	23:36:09
3	K 766.490 Radial†	30411.4	27955.7	5010.5 ug/L	5010.5 ppb	23:35:49
3	Mg 279.077 IEC†	176.5	176.7	5337.4 ug/L	5337.4 ppb	23:36:09
3	Na 589.592 Radial†	34555.4	36288.8	9917.1 ug/L	9917.1 ppb	23:35:49
3	Sr 421.552†	86048.0	87221.2	497.57 ug/L	497.57 ppb	23:35:49
3	Sc 361.383	901576.1	901576.1	100.24 %		23:37:13
3	Y 371.029	731711.1	731711.1	98.494 %		23:37:13
3	Ag 328.068†	118425.6	117743.3	505.54 ug/L	505.54 ppb	23:37:13
3	As 188.979†	1407.8	1431.8	513.33 ug/L	513.33 ppb	23:37:33
3	B 249.677†	24420.5	23897.2	485.54 ug/L	485.54 ppb	23:37:13
3	Ba 233.527†	75795.3	75622.8	508.99 ug/L	508.99 ppb	23:37:13
3	Be 313.107†	1538007.5	1538929.1	511.73 ug/L	511.73 ppb	23:37:13
3	Cd 226.502†	53088.8	53187.8	510.79 ug/L	510.79 ppb	23:37:13
3	Co 228.616†	29047.2	29062.6	504.21 ug/L	504.21 ppb	23:37:33
3	Cr 267.716†	51218.8	50997.3	509.36 ug/L	509.36 ppb	23:37:13
3	Cu 324.752†	187618.6	181083.5	506.39 ug/L	506.39 ppb	23:37:13
3	Mn 257.610†	522546.2	520806.6	508.94 ug/L	508.94 ppb	23:37:13
3	Mo 202.031†	8583.3	8537.3	507.95 ug/L	507.95 ppb	23:37:33
3	Ni 231.604†	23785.5	23626.4	508.86 ug/L	508.86 ppb	23:37:33
3	P 214.914†	5268.2	5000.5	2466.6 ug/L	2466.6 ppb	23:37:33
3	Pb 220.353†	4938.6	5004.6	513.63 ug/L	513.63 ppb	23:37:33
3	S 181.975 Axial†	890.7	829.8	993.18 ug/L	993.18 ppb	23:37:33
3	Sb 206.836†	1740.5	1694.0	507.14 ug/L	507.14 ppb	23:37:33
3	Se 196.026†	918.3	944.9	522.80 ug/L	522.80 ppb	23:37:33
3	Si 251.611†	91759.6	90880.6	2517.8 ug/L	2517.8 ppb	23:37:13
3	Sn 189.927†	3469.8	3459.7	506.61 ug/L	506.61 ppb	23:37:33
3	Ti 334.940†	348310.6	348948.7	502.40 ug/L	502.40 ppb	23:37:13
3	Tl 190.801†	1963.0	2004.1	514.64 ug/L	514.64 ppb	23:37:33
3	U 409.014†	14779.7	17472.7	483.34 ug/L	483.34 ppb	23:37:13
3	V 292.402†	79159.9	80439.3	511.83 ug/L	511.83 ppb	23:37:13
3	Zn 213.857†	64132.3	63174.3	505.20 ug/L	505.20 ppb	23:37:13
3	SiO2†	92996.1	92089.1	5478.8 ug/L	5478.8 ppb	23:37:48

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	901833.2	100.27	%	0.117				0.12%
Sc Radial	5530.2	99.0	%	3.55				3.59%
Y 371.029	732367.0	98.582	%	0.1025				0.10%
Y RADIAL	5757.2	98.22	%	3.548				3.61%
Ag 328.068†	118333.4	508.07	ug/L	2.887	508.07	ppb	2.887	0.57%
QC value within limits for Ag 328.068 Recovery = 101.61%								
Al 396.153Radial†	7061.4	4938.1	ug/L	204.83	4938.1	ppb	204.83	4.15%
QC value within limits for Al 396.153Radial Recovery = 98.76%								
As 188.979†	1437.6	515.38	ug/L	1.874	515.38	ppb	1.874	0.36%
QC value within limits for As 188.979 Recovery = 103.08%								
B 249.677†	24010.9	487.86	ug/L	2.444	487.86	ppb	2.444	0.50%
QC value within limits for B 249.677 Recovery = 97.57%								
Ba 233.527†	76059.6	511.93	ug/L	2.774	511.93	ppb	2.774	0.54%
QC value within limits for Ba 233.527 Recovery = 102.39%								
Be 313.107†	1549714.5	515.32	ug/L	3.533	515.32	ppb	3.533	0.69%
QC value within limits for Be 313.107 Recovery = 103.06%								
Ca 317.933Radial†	3584.0	5003.6	ug/L	204.37	5003.6	ppb	204.37	4.08%

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   QC value within limits for Ca 317.933Radial  Recovery = 100.07%
Cd 226.502†            53447.7      513.29 ug/L         2.717      513.29 ppb          2.717   0.53%
   QC value within limits for Cd 226.502  Recovery = 102.66%
Co 228.616†            29073.3      504.39 ug/L         0.908      504.39 ppb          0.908   0.18%
   QC value within limits for Co 228.616  Recovery = 100.88%
Cr 267.716†            51316.9      512.55 ug/L         3.172      512.55 ppb          3.172   0.62%
   QC value within limits for Cr 267.716  Recovery = 102.51%
Cu 324.752†           182040.4      509.06 ug/L         3.060      509.06 ppb          3.060   0.60%
   QC value within limits for Cu 324.752  Recovery = 101.81%
Fe 238.204 Radial†       650.9      5166.0 ug/L        195.07      5166.0 ppb         195.07   3.78%
   QC value within limits for Fe 238.204 Radial  Recovery = 103.32%
K 766.490 Radial†      27756.9      4974.8 ug/L        207.45      4974.8 ppb         207.45   4.17%
   QC value within limits for K 766.490 Radial  Recovery = 99.50%
Mg 279.077 IEC†          175.7      5308.3 ug/L        233.85      5308.3 ppb         233.85   4.41%
   QC value within limits for Mg 279.077 IEC  Recovery = 106.17%
Mn 257.610†           523474.2      511.55 ug/L         2.571      511.55 ppb          2.571   0.50%
   QC value within limits for Mn 257.610  Recovery = 102.31%
Mo 202.031†             8527.8      507.39 ug/L         1.491      507.39 ppb          1.491   0.29%
   QC value within limits for Mo 202.031  Recovery = 101.48%
Na 589.592 Radial†     36012.2      9841.6 ug/L        414.73      9841.6 ppb         414.73   4.21%
   QC value within limits for Na 589.592 Radial  Recovery = 98.42%
Ni 231.604†            23649.4      509.35 ug/L         1.344      509.35 ppb          1.344   0.26%
   QC value within limits for Ni 231.604  Recovery = 101.87%
P 214.914†              4998.1      2464.9 ug/L          5.94      2464.9 ppb           5.94   0.24%
   QC value within limits for P 214.914  Recovery = 98.60%
Pb 220.353†             5002.4      513.40 ug/L         1.801      513.40 ppb          1.801   0.35%
   QC value within limits for Pb 220.353  Recovery = 102.68%
S 181.975 Axial†         830.5      993.99 ug/L         1.370      993.99 ppb          1.370   0.14%
   QC value within limits for S 181.975 Axial  Recovery = 99.40%
Sb 206.836†             1693.0      506.78 ug/L         2.279      506.78 ppb          2.279   0.45%
   QC value within limits for Sb 206.836  Recovery = 101.36%
Se 196.026†              942.7      521.59 ug/L         1.703      521.59 ppb          1.703   0.33%
   QC value within limits for Se 196.026  Recovery = 104.32%
Si 251.611†            91354.6      2531.0 ug/L        13.93      2531.0 ppb         13.93   0.55%
   QC value within limits for Si 251.611  Recovery = 101.24%
Sn 189.927†             3468.3      507.87 ug/L         2.544      507.87 ppb          2.544   0.50%
   QC value within limits for Sn 189.927  Recovery = 101.57%
Sr 421.552†            86465.5      493.26 ug/L        22.129      493.26 ppb         22.129   4.49%
   QC value within limits for Sr 421.552  Recovery = 98.65%
Ti 334.940†           350716.5      504.95 ug/L         2.742      504.95 ppb          2.742   0.54%
   QC value within limits for Ti 334.940  Recovery = 100.99%
Tl 190.801†             1996.0      512.60 ug/L         1.769      512.60 ppb          1.769   0.35%
   QC value within limits for Tl 190.801  Recovery = 102.52%
U 409.014†             17431.7      482.19 ug/L         3.489      482.19 ppb          3.489   0.72%
   QC value within limits for U 409.014  Recovery = 96.44%
V 292.402†             80883.4      514.60 ug/L         2.972      514.60 ppb          2.972   0.58%
   QC value within limits for V 292.402  Recovery = 102.92%
Zn 213.857†            63552.3      508.25 ug/L         3.041      508.25 ppb          3.041   0.60%
   QC value within limits for Zn 213.857  Recovery = 101.65%
SiO2†                  91215.4      5426.6 ug/L        48.73      5426.6 ppb         48.73   0.90%
   QC value within limits for SiO2  Recovery = 101.48%
All analyte(s) passed QC.
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Sequence No.: 96
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 12/20/2009 23:39:58
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5376.9	5376.9	96.2	%			23:41:50
1	Y RADIAL	5670.9	5670.9	96.75	%			23:41:50
1	Al 396.153Radial†	-10.9	1.9	1.3573	ug/L	1.3573	ppb	23:41:50
1	Ca 317.933Radial†	17.6	0.5	0.6440	ug/L	0.6440	ppb	23:42:10
1	Fe 238.204 Radial†	10.7	-0.0	-0.3451	ug/L	-0.3451	ppb	23:42:10
1	K 766.490 Radial†	2938.4	181.1	32.563	ug/L	32.563	ppb	23:41:50
1	Mg 279.077 IEC†	3.7	1.6	47.015	ug/L	47.015	ppb	23:42:10
1	Na 589.592 Radial†	-1572.3	-373.9	-102.17	ug/L	-102.17	ppb	23:41:50
1	Sr 421.552†	-0.5	-6.1	-0.0350	ug/L	-0.0350	ppb	23:41:50
1	Sc 361.383	883947.4	883947.4	98.279	%			23:43:07
1	Y 371.029	735078.4	735078.4	98.947	%			23:43:07
1	Ag 328.068†	512.1	121.7	0.5228	ug/L	0.5228	ppb	23:43:07
1	As 188.979†	-32.2	-5.3	-1.8612	ug/L	-1.8612	ppb	23:43:27
1	B 249.677†	-399.4	-871.4	-17.777	ug/L	-17.777	ppb	23:43:07
1	Ba 233.527†	7.4	16.1	0.1070	ug/L	0.1070	ppb	23:43:27
1	Be 313.107†	-4335.6	183.6	0.0610	ug/L	0.0610	ppb	23:43:07
1	Cd 226.502†	-224.8	-3.0	-0.0283	ug/L	-0.0283	ppb	23:43:27
1	Co 228.616†	-69.5	14.0	0.2430	ug/L	0.2430	ppb	23:43:27
1	Cr 267.716†	117.7	20.6	0.2063	ug/L	0.2063	ppb	23:43:07
1	Cu 324.752†	6066.6	85.8	0.2398	ug/L	0.2398	ppb	23:43:07
1	Mn 257.610†	635.1	154.7	0.1501	ug/L	0.1501	ppb	23:43:27
1	Mo 202.031†	24.1	-1.0	-0.0608	ug/L	-0.0608	ppb	23:43:27
1	Ni 231.604†	135.5	35.6	0.7677	ug/L	0.7677	ppb	23:43:27
1	P 214.914†	243.5	-7.4	-3.7790	ug/L	-3.7790	ppb	23:43:27
1	Pb 220.353†	-93.3	-17.2	-1.7556	ug/L	-1.7556	ppb	23:43:27
1	S 181.975 Axial†	45.9	-12.0	-14.394	ug/L	-14.394	ppb	23:43:27
1	Sb 206.836†	48.4	6.8	2.0484	ug/L	2.0484	ppb	23:43:27
1	Se 196.026†	-33.6	-5.4	-2.8602	ug/L	-2.8602	ppb	23:43:27
1	Si 251.611†	856.9	212.0	5.8838	ug/L	5.8838	ppb	23:43:27
1	Sn 189.927†	19.2	17.7	2.5915	ug/L	2.5915	ppb	23:43:27
1	Ti 334.940†	-1438.8	6.1	0.0117	ug/L	0.0117	ppb	23:43:07
1	Tl 190.801†	-34.0	11.2	2.8595	ug/L	2.8595	ppb	23:43:27
1	U 409.014†	-2921.2	-244.0	-6.7715	ug/L	-6.7715	ppb	23:43:07
1	V 292.402†	-1526.9	-85.2	-0.5481	ug/L	-0.5481	ppb	23:43:07
1	Zn 213.857†	820.0	29.5	0.2312	ug/L	0.2312	ppb	23:43:27
1	SiO2†	838.0	167.7	9.9866	ug/L	9.9866	ppb	23:44:23
2	Sc Radial	5463.1	5463.1	97.8	%			23:42:15
2	Y RADIAL	5726.8	5726.8	97.70	%			23:42:15
2	Al 396.153Radial†	-37.4	-24.9	-17.509	ug/L	-17.509	ppb	23:42:15
2	Ca 317.933Radial†	16.2	-1.3	-1.8717	ug/L	-1.8717	ppb	23:42:35
2	Fe 238.204 Radial†	10.2	-0.8	-6.4347	ug/L	-6.4347	ppb	23:42:35
2	K 766.490 Radial†	2874.3	67.5	12.155	ug/L	12.155	ppb	23:42:15
2	Mg 279.077 IEC†	1.7	-0.5	-15.620	ug/L	-15.620	ppb	23:42:35
2	Na 589.592 Radial†	-1590.4	-366.6	-100.18	ug/L	-100.18	ppb	23:42:15
2	Sr 421.552†	-3.3	-9.0	-0.0516	ug/L	-0.0516	ppb	23:42:15
2	Sc 361.383	882731.7	882731.7	98.144	%			23:43:32
2	Y 371.029	733320.8	733320.8	98.711	%			23:43:32
2	Ag 328.068†	513.9	124.3	0.5316	ug/L	0.5316	ppb	23:43:32
2	As 188.979†	-38.5	-11.8	-4.1724	ug/L	-4.1724	ppb	23:43:52
2	B 249.677†	-361.2	-833.0	-16.993	ug/L	-16.993	ppb	23:43:32
2	Ba 233.527†	-3.3	5.2	0.0337	ug/L	0.0337	ppb	23:43:52
2	Be 313.107†	-4387.0	125.1	0.0412	ug/L	0.0412	ppb	23:43:32
2	Cd 226.502†	-223.6	-2.1	-0.0187	ug/L	-0.0187	ppb	23:43:52
2	Co 228.616†	-75.7	7.6	0.1324	ug/L	0.1324	ppb	23:43:52
2	Cr 267.716†	109.7	12.6	0.1264	ug/L	0.1264	ppb	23:43:32
2	Cu 324.752†	6168.0	197.6	0.5519	ug/L	0.5519	ppb	23:43:32
2	Mn 257.610†	570.6	89.9	0.0874	ug/L	0.0874	ppb	23:43:52
2	Mo 202.031†	25.6	0.5	0.0288	ug/L	0.0288	ppb	23:43:52
2	Ni 231.604†	137.1	37.5	0.8073	ug/L	0.8073	ppb	23:43:52

2	P 214.914†	232.5	-18.3	-9.3822 ug/L	-9.3822 ppb	23:43:52
2	Pb 220.353†	-78.9	-2.5	-0.2642 ug/L	-0.2642 ppb	23:43:52
2	S 181.975 Axial†	47.5	-10.4	-12.400 ug/L	-12.400 ppb	23:43:52
2	Sb 206.836†	34.4	-7.3	-2.1518 ug/L	-2.1518 ppb	23:43:52
2	Se 196.026†	-20.7	7.7	4.1085 ug/L	4.1085 ppb	23:43:52
2	Si 251.611†	810.5	166.0	4.6156 ug/L	4.6156 ppb	23:43:52
2	Sn 189.927†	3.1	1.4	0.2014 ug/L	0.2014 ppb	23:43:52
2	Ti 334.940†	-1547.9	-107.2	-0.1517 ug/L	-0.1517 ppb	23:43:32
2	Tl 190.801†	-36.8	8.3	2.1120 ug/L	2.1120 ppb	23:43:52
2	U 409.014†	-2899.1	-225.6	-6.2616 ug/L	-6.2616 ppb	23:43:32
2	V 292.402†	-1511.6	-71.8	-0.4618 ug/L	-0.4618 ppb	23:43:32
2	Zn 213.857†	813.1	23.7	0.1860 ug/L	0.1860 ppb	23:43:52
2	SiO2†	877.0	208.6	12.460 ug/L	12.460 ppb	23:44:28
3	Sc Radial	5394.4	5394.4	96.5 %		23:42:40
3	Y RADIAL	5678.2	5678.2	96.87 %		23:42:40
3	Al 396.153Radial†	-22.9	-10.4	-7.3145 ug/L	-7.3145 ppb	23:42:40
3	Ca 317.933Radial†	16.9	-0.3	-0.4659 ug/L	-0.4659 ppb	23:43:00
3	Fe 238.204 Radial†	12.4	1.6	12.861 ug/L	12.861 ppb	23:43:00
3	K 766.490 Radial†	2888.2	119.2	21.447 ug/L	21.447 ppb	23:42:40
3	Mg 279.077 IEC†	0.8	-1.5	-44.494 ug/L	-44.494 ppb	23:43:00
3	Na 589.592 Radial†	-1556.6	-352.3	-96.290 ug/L	-96.290 ppb	23:42:40
3	Sr 421.552†	31.1	26.6	0.1519 ug/L	0.1519 ppb	23:42:40
3	Sc 361.383	882118.3	882118.3	98.076 %		23:43:58
3	Y 371.029	731942.8	731942.8	98.525 %		23:43:58
3	Ag 328.068†	524.7	135.7	0.5860 ug/L	0.5860 ppb	23:43:58
3	As 188.979†	-42.5	-15.9	-5.6486 ug/L	-5.6486 ppb	23:44:18
3	B 249.677†	-396.1	-868.9	-17.727 ug/L	-17.727 ppb	23:43:58
3	Ba 233.527†	-5.3	3.2	0.0204 ug/L	0.0204 ppb	23:44:18
3	Be 313.107†	-4407.1	101.6	0.0333 ug/L	0.0333 ppb	23:43:58
3	Cd 226.502†	-213.0	8.6	0.0817 ug/L	0.0817 ppb	23:44:18
3	Co 228.616†	-85.0	-2.0	-0.0337 ug/L	-0.0337 ppb	23:44:18
3	Cr 267.716†	106.5	9.4	0.0950 ug/L	0.0950 ppb	23:43:58
3	Cu 324.752†	6144.1	177.6	0.4971 ug/L	0.4971 ppb	23:43:58
3	Mn 257.610†	578.0	97.9	0.0977 ug/L	0.0977 ppb	23:44:18
3	Mo 202.031†	27.7	2.6	0.1578 ug/L	0.1578 ppb	23:44:18
3	Ni 231.604†	129.0	29.3	0.6315 ug/L	0.6315 ppb	23:44:18
3	P 214.914†	238.3	-12.2	-6.3003 ug/L	-6.3003 ppb	23:44:18
3	Pb 220.353†	-84.9	-8.7	-0.8927 ug/L	-0.8927 ppb	23:44:18
3	S 181.975 Axial†	48.7	-9.1	-10.923 ug/L	-10.923 ppb	23:44:18
3	Sb 206.836†	41.5	-0.0	0.0013 ug/L	0.0013 ppb	23:44:18
3	Se 196.026†	-35.8	-7.7	-4.0775 ug/L	-4.0775 ppb	23:44:18
3	Si 251.611†	841.5	198.2	5.5042 ug/L	5.5042 ppb	23:44:18
3	Sn 189.927†	7.2	5.5	0.8039 ug/L	0.8039 ppb	23:44:18
3	Ti 334.940†	-1567.4	-128.1	-0.1816 ug/L	-0.1816 ppb	23:43:58
3	Tl 190.801†	-37.8	7.3	1.8538 ug/L	1.8538 ppb	23:44:18
3	U 409.014†	-2907.6	-236.3	-6.5593 ug/L	-6.5593 ppb	23:43:58
3	V 292.402†	-1545.3	-107.2	-0.6865 ug/L	-0.6865 ppb	23:43:58
3	Zn 213.857†	817.7	28.9	0.2292 ug/L	0.2292 ppb	23:44:18
3	SiO2†	845.0	176.7	10.533 ug/L	10.533 ppb	23:44:33

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	882932.4	98.167	%	0.1035				0.11%
Sc Radial	5411.5	96.8	%	0.81				0.84%
Y 371.029	733447.3	98.728	%	0.2116				0.21%
Y RADIAL	5692.0	97.11	%	0.518				0.53%
Ag 328.068†	127.2	0.5468	ug/L	0.03421	0.5468	ppb	0.03421	6.26%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-11.1	-7.8220	ug/L	9.44327	-7.8220	ppb	9.44327	120.73%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-11.0	-3.8940	ug/L	1.90896	-3.8940	ppb	1.90896	49.02%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-857.8	-17.499	ug/L	0.4384	-17.499	ppb	0.4384	2.51%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	8.2	0.0537	ug/L	0.04663	0.0537	ppb	0.04663	86.81%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	136.8	0.0452	ug/L	0.01423	0.0452	ppb	0.01423	31.50%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-0.4	-0.5645	ug/L	1.26072	-0.5645	ppb	1.26072	223.32%

```
   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                1.2      0.0116 ug/L       0.06096      0.0116 ppb        0.06096 526.53%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                6.6      0.1139 ug/L       0.13930      0.1139 ppb        0.13930 122.30%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†               14.2      0.1426 ug/L       0.05739      0.1426 ppb        0.05739  40.26%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              153.7      0.4296 ug/L       0.16662      0.4296 ppb        0.16662  38.79%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         0.3      2.0269 ug/L       9.86389      2.0269 ppb        9.86389 486.65%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        122.6      22.055 ug/L       10.2177      22.055 ppb        10.2177  46.33%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           -0.1     -4.3664 ug/L      46.78088     -4.3664 ppb       46.78088 >999.9%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              114.1      0.1117 ug/L       0.03363      0.1117 ppb        0.03363  30.10%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                0.7      0.0419 ug/L       0.10988      0.0419 ppb        0.10988 262.17%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      -364.3     -99.546 ug/L        2.9901     -99.546 ppb         2.9901   3.00%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               34.1      0.7355 ug/L       0.09221      0.7355 ppb        0.09221  12.54%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -12.6     -6.4872 ug/L       2.80627     -6.4872 ppb        2.80627  43.26%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               -9.5     -0.9708 ug/L       0.74880     -0.9708 ppb        0.74880  77.13%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         -10.5     -12.572 ug/L        1.7420     -12.572 ppb         1.7420  13.86%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               -0.2     -0.0340 ug/L       2.10034     -0.0340 ppb        2.10034 >999.9%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               -1.8     -0.9431 ug/L       4.41696     -0.9431 ppb        4.41696 468.36%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†              192.1      5.3346 ug/L       0.65093      5.3346 ppb        0.65093  12.20%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                8.2      1.1989 ug/L       1.24303      1.1989 ppb        1.24303 103.68%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                3.8      0.0218 ug/L       0.11295      0.0218 ppb        0.11295 518.63%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              -76.4     -0.1072 ug/L       0.10407     -0.1072 ppb        0.10407  97.09%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                8.9      2.2751 ug/L       0.52233      2.2751 ppb        0.52233  22.96%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              -235.3     -6.5308 ug/L       0.25614     -6.5308 ppb        0.25614   3.92%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               -88.1     -0.5655 ug/L       0.11333     -0.5655 ppb        0.11333  20.04%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               27.4      0.2155 ug/L       0.02550      0.2155 ppb        0.02550  11.84%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                    184.3      10.993 ug/L        1.2993      10.993 ppb         1.2993  11.82%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 97
Sample ID: 242938002|934060|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 93
Date Collected: 12/20/2009 23:46:43
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 242938002|934060|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5584.3	5584.3	99.9	%			23:48:56
1	Y RADIAL	8673.7	8673.7	148.0	%			23:48:36
1	Al 396.153Radial†	54788.2	54833.5	38513	ug/L	38513	ppb	23:48:36
1	Ca 317.933Radial†	6869.7	6855.9	9571.4	ug/L	9571.4	ppb	23:48:56
1	Fe 238.204 Radial†	10917.5	10912.6	86350	ug/L	86350	ppb	23:48:36
1	K 766.490 Radial†	25371.5	22513.9	4018.7	ug/L	4018.7	ppb	23:48:36
1	Mg 279.077 IEC†	268.6	266.5	7968.9	ug/L	7968.9	ppb	23:48:56
1	Na 589.592 Radial†	3688.8	4951.0	1353.0	ug/L	1353.0	ppb	23:48:36
1	Sr 421.552†	18752.3	18757.6	106.93	ug/L	106.93	ppb	23:48:36
1	Sc 361.383	931643.2	931643.2	103.58	%			23:49:54
1	Y 371.029	1120310.1	1120310.1	150.80	%			23:49:54
1	Ag 328.068†	-5717.2	-5918.8	4.0572	ug/L	4.0572	ppb	23:49:59
1	As 188.979†	-5.4	22.3	38.025	ug/L	38.025	ppb	23:50:19
1	B 249.677†	543.4	59.5	-10.273	ug/L	-10.273	ppb	23:49:59
1	Ba 233.527†	65387.9	63135.1	426.22	ug/L	426.22	ppb	23:49:59
1	Be 313.107†	2161.8	6682.2	6.1472	ug/L	6.1472	ppb	23:49:59
1	Cd 226.502†	599.3	804.3	-0.8718	ug/L	-0.8718	ppb	23:50:19
1	Co 228.616†	678.4	739.6	7.5548	ug/L	7.5548	ppb	23:50:19
1	Cr 267.716†	3456.1	3237.3	34.068	ug/L	34.068	ppb	23:50:19
1	Cu 324.752†	15058.7	8450.9	28.025	ug/L	28.025	ppb	23:49:59
1	Mn 257.610†	2532170.7	2444104.9	2394.9	ug/L	2394.9	ppb	23:49:54
1	Mo 202.031†	238.8	205.0	20.462	ug/L	20.462	ppb	23:50:19
1	Ni 231.604†	2637.4	2443.9	52.661	ug/L	52.661	ppb	23:50:19
1	P 214.914†	1862.4	1542.8	724.23	ug/L	724.23	ppb	23:50:19
1	Pb 220.353†	465.2	526.9	55.483	ug/L	55.483	ppb	23:50:19
1	S 181.975 Axial†	220.3	154.0	176.90	ug/L	176.90	ppb	23:50:19
1	Sb 206.836†	60.0	15.5	-0.9667	ug/L	-0.9667	ppb	23:50:19
1	Se 196.026†	-583.2	-534.3	-6.8321	ug/L	-6.8321	ppb	23:50:19
1	Si 251.611†	305325.4	294106.0	8185.5	ug/L	8185.5	ppb	23:49:59
1	Sn 189.927†	-27.8	-28.7	-2.0267	ug/L	-2.0267	ppb	23:50:19
1	Ti 334.940†	1436389.6	1388182.6	1999.8	ug/L	1999.8	ppb	23:49:54
1	Tl 190.801†	-173.8	-122.0	-0.9631	ug/L	-0.9631	ppb	23:50:19
1	U 409.014†	-16515.0	-13215.5	-377.73	ug/L	-377.73	ppb	23:49:54
1	V 292.402†	10027.7	11149.4	54.297	ug/L	54.297	ppb	23:49:59
1	Zn 213.857†	50960.4	48393.1	385.18	ug/L	385.18	ppb	23:49:59
1	SiO2†	309691.9	298296.4	17829	ug/L	17829	ppb	23:51:27
2	Sc Radial	5492.0	5492.0	98.3	%			23:49:22
2	Y RADIAL	8658.5	8658.5	147.7	%			23:49:02
2	Al 396.153Radial†	55047.4	56017.7	39345	ug/L	39345	ppb	23:49:02
2	Ca 317.933Radial†	6795.0	6895.3	9626.3	ug/L	9626.3	ppb	23:49:22
2	Fe 238.204 Radial†	10934.1	11113.0	87935	ug/L	87935	ppb	23:49:02
2	K 766.490 Radial†	25588.2	23160.7	4135.1	ug/L	4135.1	ppb	23:49:02
2	Mg 279.077 IEC†	261.7	264.0	7892.2	ug/L	7892.2	ppb	23:49:22
2	Na 589.592 Radial†	3609.6	4932.3	1347.9	ug/L	1347.9	ppb	23:49:02
2	Sr 421.552†	18903.1	19226.2	109.60	ug/L	109.60	ppb	23:49:02
2	Sc 361.383	938266.9	938266.9	104.32	%			23:50:25
2	Y 371.029	1127790.5	1127790.5	151.81	%			23:50:25
2	Ag 328.068†	-5689.7	-5853.5	4.8589	ug/L	4.8589	ppb	23:50:30
2	As 188.979†	-11.3	16.6	36.195	ug/L	36.195	ppb	23:50:50
2	B 249.677†	430.4	-52.5	-12.768	ug/L	-12.768	ppb	23:50:30
2	Ba 233.527†	65047.3	62362.9	421.07	ug/L	421.07	ppb	23:50:30
2	Be 313.107†	1975.0	6488.4	6.0708	ug/L	6.0708	ppb	23:50:30
2	Cd 226.502†	653.0	851.7	-0.5747	ug/L	-0.5747	ppb	23:50:50
2	Co 228.616†	671.1	728.0	7.3421	ug/L	7.3421	ppb	23:50:50
2	Cr 267.716†	3470.1	3227.2	33.993	ug/L	33.993	ppb	23:50:50
2	Cu 324.752†	14995.4	8287.6	27.649	ug/L	27.649	ppb	23:50:30
2	Mn 257.610†	2539856.1	2434214.6	2385.5	ug/L	2385.5	ppb	23:50:25
2	Mo 202.031†	240.6	205.1	20.621	ug/L	20.621	ppb	23:50:50
2	Ni 231.604†	2675.0	2462.0	53.050	ug/L	53.050	ppb	23:50:50

2	P 214.914†	1870.1	1537.5	720.63	ug/L	720.63 ppb	23:50:50
2	Pb 220.353†	477.5	535.6	56.427	ug/L	56.427 ppb	23:50:50
2	S 181.975 Axial†	205.0	137.7	157.27	ug/L	157.27 ppb	23:50:50
2	Sb 206.836†	52.6	8.0	-3.1316	ug/L	-3.1316 ppb	23:50:50
2	Se 196.026†	-587.6	-534.5	-1.8195	ug/L	-1.8195 ppb	23:50:50
2	Si 251.611†	303644.4	290413.7	8082.7	ug/L	8082.7 ppb	23:50:30
2	Sn 189.927†	-23.5	-24.3	-1.3619	ug/L	-1.3619 ppb	23:50:50
2	Ti 334.940†	1442169.9	1383934.2	1993.7	ug/L	1993.7 ppb	23:50:25
2	Tl 190.801†	-172.6	-119.6	-0.4416	ug/L	-0.4416 ppb	23:50:50
2	U 409.014†	-16628.3	-13211.5	-377.82	ug/L	-377.82 ppb	23:50:25
2	V 292.402†	9849.9	10910.6	52.562	ug/L	52.562 ppb	23:50:30
2	Zn 213.857†	50667.8	47765.3	380.04	ug/L	380.04 ppb	23:50:30
2	SiO2†	305277.2	291953.8	17450	ug/L	17450 ppb	23:51:32
3	Sc Radial	5519.3	5519.3	98.8	%		23:49:47
3	Y RADIAL	8785.6	8785.6	149.9	%		23:49:27
3	Al 396.153Radial†	55692.1	56394.2	39610	ug/L	39610 ppb	23:49:27
3	Ca 317.933Radial†	6819.4	6885.9	9613.3	ug/L	9613.3 ppb	23:49:47
3	Fe 238.204 Radial†	11123.1	11249.5	89015	ug/L	89015 ppb	23:49:27
3	K 766.490 Radial†	25737.0	23183.0	4139.2	ug/L	4139.2 ppb	23:49:27
3	Mg 279.077 IEC†	263.6	264.6	7910.1	ug/L	7910.1 ppb	23:49:47
3	Na 589.592 Radial†	3767.3	5073.9	1386.6	ug/L	1386.6 ppb	23:49:27
3	Sr 421.552†	19175.1	19406.7	110.63	ug/L	110.63 ppb	23:49:27
3	Sc 361.383	934744.9	934744.9	103.93	%		23:50:56
3	Y 371.029	1122255.1	1122255.1	151.06	%		23:50:56
3	Ag 328.068†	-5674.6	-5859.5	5.1981	ug/L	5.1981 ppb	23:51:01
3	As 188.979†	-8.5	19.3	37.331	ug/L	37.331 ppb	23:51:21
3	B 249.677†	491.9	8.3	-11.672	ug/L	-11.672 ppb	23:51:01
3	Ba 233.527†	65230.4	62774.1	423.86	ug/L	423.86 ppb	23:51:01
3	Be 313.107†	2030.8	6549.1	6.0929	ug/L	6.0929 ppb	23:51:01
3	Cd 226.502†	625.2	827.3	-0.9171	ug/L	-0.9171 ppb	23:51:21
3	Co 228.616†	658.2	718.1	7.1554	ug/L	7.1554 ppb	23:51:21
3	Cr 267.716†	3485.8	3254.9	34.289	ug/L	34.289 ppb	23:51:21
3	Cu 324.752†	15105.5	8447.7	28.152	ug/L	28.152 ppb	23:51:01
3	Mn 257.610†	2534506.7	2438241.1	2389.5	ug/L	2389.5 ppb	23:50:56
3	Mo 202.031†	255.6	220.4	21.633	ug/L	21.633 ppb	23:51:21
3	Ni 231.604†	2646.1	2443.9	52.661	ug/L	52.661 ppb	23:51:21
3	P 214.914†	1862.9	1537.4	719.74	ug/L	719.74 ppb	23:51:21
3	Pb 220.353†	498.8	557.8	58.672	ug/L	58.672 ppb	23:51:21
3	S 181.975 Axial†	202.9	136.5	155.71	ug/L	155.71 ppb	23:51:21
3	Sb 206.836†	48.0	3.8	-4.3294	ug/L	-4.3294 ppb	23:51:21
3	Se 196.026†	-575.6	-525.1	6.6330	ug/L	6.6330 ppb	23:51:21
3	Si 251.611†	304389.4	292227.2	8133.2	ug/L	8133.2 ppb	23:51:01
3	Sn 189.927†	-6.9	-8.4	0.9778	ug/L	0.9778 ppb	23:51:21
3	Ti 334.940†	1437465.9	1384616.9	1994.7	ug/L	1994.7 ppb	23:50:56
3	Tl 190.801†	-176.9	-124.4	-1.6331	ug/L	-1.6331 ppb	23:51:21
3	U 409.014†	-16520.5	-13167.9	-376.75	ug/L	-376.75 ppb	23:50:56
3	V 292.402†	10012.4	11102.5	53.617	ug/L	53.617 ppb	23:51:01
3	Zn 213.857†	50814.9	48089.9	382.60	ug/L	382.60 ppb	23:51:01
3	SiO2†	306384.5	294121.9	17579	ug/L	17579 ppb	23:51:37

Mean Data: 242938002|934060|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	934885.0	103.94	%	0.368				0.35%
Sc Radial	5531.9	99.0	%	0.85				0.86%
Y 371.029	1123451.9	151.23	%	0.522				0.35%
Internal Standard Check greater than the upper limit for Y 371.029. Recovery = 151.2%								
Y RADIAL	8705.9	148.5	%	1.18				0.80%
Ag 328.068†	-5877.3	4.7048	ug/L	0.58585	4.7048	ppb	0.58585	12.45%
Al 396.153Radial†	55748.5	39156	ug/L	572.0	39156	ppb	572.0	1.46%
As 188.979†	19.4	37.184	ug/L	0.9239	37.184	ppb	0.9239	2.48%
B 249.677†	5.1	-11.571	ug/L	1.2504	-11.571	ppb	1.2504	10.81%
Ba 233.527†	62757.4	423.72	ug/L	2.577	423.72	ppb	2.577	0.61%
Be 313.107†	6573.2	6.1036	ug/L	0.03928	6.1036	ppb	0.03928	0.64%
Ca 317.933Radial†	6879.0	9603.7	ug/L	28.71	9603.7	ppb	28.71	0.30%
Cd 226.502†	827.8	-0.7879	ug/L	0.18596	-0.7879	ppb	0.18596	23.60%
Co 228.616†	728.6	7.3508	ug/L	0.19984	7.3508	ppb	0.19984	2.72%
Cr 267.716†	3239.8	34.116	ug/L	0.1541	34.116	ppb	0.1541	0.45%
Cu 324.752†	8395.4	27.942	ug/L	0.2614	27.942	ppb	0.2614	0.94%
Fe 238.204 Radial†	11091.7	87767	ug/L	1340.6	87767	ppb	1340.6	1.53%

K 766.490 Radial†	22952.5	4097.7	ug/L	68.39	4097.7	ppb	68.39	1.67%
Mg 279.077 IEC†	265.0	7923.8	ug/L	40.12	7923.8	ppb	40.12	0.51%
Mn 257.610†	2438853.5	2390.0	ug/L	4.77	2390.0	ppb	4.77	0.20%
Mo 202.031†	210.2	20.905	ug/L	0.6353	20.905	ppb	0.6353	3.04%
Na 589.592 Radial†	4985.7	1362.5	ug/L	21.02	1362.5	ppb	21.02	1.54%
Ni 231.604†	2449.9	52.791	ug/L	0.2246	52.791	ppb	0.2246	0.43%
P 214.914†	1539.2	721.53	ug/L	2.375	721.53	ppb	2.375	0.33%
Pb 220.353†	540.1	56.860	ug/L	1.6384	56.860	ppb	1.6384	2.88%
S 181.975 Axial†	142.7	163.29	ug/L	11.809	163.29	ppb	11.809	7.23%
Sb 206.836†	9.1	-2.8092	ug/L	1.70433	-2.8092	ppb	1.70433	60.67%
Se 196.026†	-531.3	-0.6728	ug/L	6.80541	-0.6728	ppb	6.80541	>999.9%
Si 251.611†	292249.0	8133.8	ug/L	51.41	8133.8	ppb	51.41	0.63%
Sn 189.927†	-20.5	-0.8036	ug/L	1.57814	-0.8036	ppb	1.57814	196.38%
Sr 421.552†	19130.2	109.05	ug/L	1.911	109.05	ppb	1.911	1.75%
Ti 334.940†	1385577.9	1996.1	ug/L	3.28	1996.1	ppb	3.28	0.16%
Tl 190.801†	-122.0	-1.0126	ug/L	0.59727	-1.0126	ppb	0.59727	58.98%
U 409.014†	-13198.3	-377.43	ug/L	0.596	-377.43	ppb	0.596	0.16%
V 292.402†	11054.1	53.492	ug/L	0.8743	53.492	ppb	0.8743	1.63%
Zn 213.857†	48082.8	382.61	ug/L	2.572	382.61	ppb	2.572	0.67%
SiO2†	294790.7	17619	ug/L	192.8	17619	ppb	192.8	1.09%

Internal Standard Check failed. Continue with analysis.

Sequence No.: 98
Sample ID: 242938003|934060|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 94
Date Collected: 12/20/2009 23:53:48
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 242938003|934060|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	5504.5	5504.5	98.5	%			23:56:01
1	Y RADIAL	6262.7	6262.7	106.8	%			23:56:01
1	Al 396.153Radial†	113291.5	115013.8	80784	ug/L	80784	ppb	23:55:41
1	Ca 317.933Radial†	13438.2	13623.1	19019	ug/L	19019	ppb	23:55:41
1	Fe 238.204 Radial†	15938.7	16167.9	127940	ug/L	127940	ppb	23:55:41
1	K 766.490 Radial†	80155.4	78492.3	14051	ug/L	14051	ppb	23:55:41
1	Mg 279.077 IEC†	585.7	592.3	17766	ug/L	17766	ppb	23:56:01
1	Na 589.592 Radial†	2697.6	3998.3	1092.7	ug/L	1092.7	ppb	23:55:41
1	Sr 421.552†	42045.3	42674.0	243.29	ug/L	243.29	ppb	23:55:41
1	Sc 361.383	893151.1	893151.1	99.303	%			23:57:04
1	Y 371.029	790887.5	790887.5	106.46	%			23:57:04
1	Ag 328.068†	-8790.2	-9251.3	4.2735	ug/L	4.2735	ppb	23:57:04
1	As 188.979†	-65.7	-38.7	44.885	ug/L	44.885	ppb	23:57:24
1	B 249.677†	1143.3	686.3	-3.1518	ug/L	-3.1518	ppb	23:57:04
1	Ba 233.527†	210085.7	211569.5	1424.3	ug/L	1424.3	ppb	23:57:04
1	Be 313.107†	-15072.2	-10582.9	5.5781	ug/L	5.5781	ppb	23:57:04
1	Cd 226.502†	1200.5	1434.7	1.0537	ug/L	1.0537	ppb	23:57:24
1	Co 228.616†	3979.2	4091.8	59.874	ug/L	59.874	ppb	23:57:24
1	Cr 267.716†	14306.7	14308.0	145.52	ug/L	145.52	ppb	23:57:24
1	Cu 324.752†	34518.6	28674.0	86.669	ug/L	86.669	ppb	23:57:04
1	Mn 257.610†	4425723.9	4456309.3	4363.7	ug/L	4363.7	ppb	23:56:59
1	Mo 202.031†	-35.2	-61.0	8.6383	ug/L	8.6383	ppb	23:57:24
1	Ni 231.604†	4482.1	4411.3	95.024	ug/L	95.024	ppb	23:57:24
1	P 214.914†	2870.5	2635.5	1251.5	ug/L	1251.5	ppb	23:57:24
1	Pb 220.353†	1208.0	1294.3	140.00	ug/L	140.00	ppb	23:57:24
1	S 181.975 Axial†	642.4	588.2	688.82	ug/L	688.82	ppb	23:57:24
1	Sb 206.836†	107.1	65.4	3.3353	ug/L	3.3353	ppb	23:57:24
1	Se 196.026†	-840.5	-817.6	-19.843	ug/L	-19.843	ppb	23:57:24
1	Si 251.611†	370916.2	372860.8	10375	ug/L	10375	ppb	23:57:04
1	Sn 189.927†	-112.9	-115.5	-13.165	ug/L	-13.165	ppb	23:57:24
1	Ti 334.940†	3187537.8	3211390.4	4625.9	ug/L	4625.9	ppb	23:56:59
1	Tl 190.801†	-267.6	-223.7	5.1309	ug/L	5.1309	ppb	23:57:24
1	U 409.014†	-8904.6	-6238.8	-189.53	ug/L	-189.53	ppb	23:57:04
1	V 292.402†	43378.6	45151.6	258.90	ug/L	258.90	ppb	23:57:04
1	Zn 213.857†	109838.6	109805.0	877.65	ug/L	877.65	ppb	23:57:04
1	SiO2†	370705.0	372623.1	22265	ug/L	22265	ppb	23:58:33
2	Sc Radial	5555.9	5555.9	99.4	%			23:56:26
2	Y RADIAL	6323.2	6323.2	107.9	%			23:56:26
2	Al 396.153Radial†	113018.7	113674.5	79843	ug/L	79843	ppb	23:56:06
2	Ca 317.933Radial†	13316.4	13374.3	18672	ug/L	18672	ppb	23:56:06
2	Fe 238.204 Radial†	15870.2	15949.2	126210	ug/L	126210	ppb	23:56:06
2	K 766.490 Radial†	79904.0	77485.9	13870	ug/L	13870	ppb	23:56:06
2	Mg 279.077 IEC†	597.3	598.4	17952	ug/L	17952	ppb	23:56:26
2	Na 589.592 Radial†	2636.4	3911.4	1068.9	ug/L	1068.9	ppb	23:56:06
2	Sr 421.552†	41804.1	42036.1	239.65	ug/L	239.65	ppb	23:56:06
2	Sc 361.383	892475.4	892475.4	99.228	%			23:57:36
2	Y 371.029	790056.5	790056.5	106.35	%			23:57:36
2	Ag 328.068†	-8800.8	-9268.7	3.6281	ug/L	3.6281	ppb	23:57:36
2	As 188.979†	-57.0	-30.0	47.659	ug/L	47.659	ppb	23:57:56
2	B 249.677†	1192.5	736.8	-1.8914	ug/L	-1.8914	ppb	23:57:36
2	Ba 233.527†	209608.3	211248.5	1422.1	ug/L	1422.1	ppb	23:57:36
2	Be 313.107†	-15044.5	-10566.5	5.5757	ug/L	5.5757	ppb	23:57:36
2	Cd 226.502†	1160.8	1395.6	0.8514	ug/L	0.8514	ppb	23:57:56
2	Co 228.616†	3967.1	4082.7	59.747	ug/L	59.747	ppb	23:57:56
2	Cr 267.716†	14294.5	14306.6	145.48	ug/L	145.48	ppb	23:57:56
2	Cu 324.752†	34463.7	28645.0	86.500	ug/L	86.500	ppb	23:57:36
2	Mn 257.610†	4418059.7	4451959.6	4359.3	ug/L	4359.3	ppb	23:57:30
2	Mo 202.031†	-37.8	-63.7	8.3132	ug/L	8.3132	ppb	23:57:56
2	Ni 231.604†	4476.4	4409.0	94.975	ug/L	94.975	ppb	23:57:56

2	P 214.914†	2845.7	2612.6	1241.0	ug/L	1241.0 ppb	23:57:56
2	Pb 220.353†	1223.4	1310.8	141.61	ug/L	141.61 ppb	23:57:56
2	S 181.975 Axial†	629.3	575.5	673.76	ug/L	673.76 ppb	23:57:56
2	Sb 206.836†	101.9	60.3	1.7954	ug/L	1.7954 ppb	23:57:56
2	Se 196.026†	-837.3	-815.0	-24.062	ug/L	-24.062 ppb	23:57:56
2	Si 251.611†	370251.4	372473.6	10364	ug/L	10364 ppb	23:57:36
2	Sn 189.927†	-118.5	-121.3	-14.064	ug/L	-14.064 ppb	23:57:56
2	Ti 334.940†	3182393.6	3208636.3	4621.9	ug/L	4621.9 ppb	23:57:30
2	Tl 190.801†	-287.3	-243.7	-0.0607	ug/L	-0.0607 ppb	23:57:56
2	U 409.014†	-8888.2	-6229.0	-189.04	ug/L	-189.04 ppb	23:57:36
2	V 292.402†	43432.0	45238.5	259.71	ug/L	259.71 ppb	23:57:36
2	Zn 213.857†	109344.8	109391.2	874.40	ug/L	874.40 ppb	23:57:36
2	SiO2†	366537.8	368706.1	22031	ug/L	22031 ppb	23:58:38
3	Sc Radial	5573.6	5573.6	99.8	%		23:56:51
3	Y RADIAL	6350.2	6350.2	108.3	%		23:56:51
3	Al 396.153Radial†	112421.6	112716.6	79170	ug/L	79170 ppb	23:56:31
3	Ca 317.933Radial†	13250.8	13266.2	18521	ug/L	18521 ppb	23:56:31
3	Fe 238.204 Radial†	15829.6	15858.0	125480	ug/L	125480 ppb	23:56:31
3	K 766.490 Radial†	79577.5	76904.5	13766	ug/L	13766 ppb	23:56:31
3	Mg 279.077 IEC†	602.7	601.9	18060	ug/L	18060 ppb	23:56:51
3	Na 589.592 Radial†	2658.5	3925.2	1072.7	ug/L	1072.7 ppb	23:56:31
3	Sr 421.552†	41626.3	41725.0	237.88	ug/L	237.88 ppb	23:56:31
3	Sc 361.383	897905.4	897905.4	99.831	%		23:58:07
3	Y 371.029	794127.3	794127.3	106.90	%		23:58:07
3	Ag 328.068†	-8916.1	-9330.6	3.1335	ug/L	3.1335 ppb	23:58:07
3	As 188.979†	-52.2	-24.8	48.745	ug/L	48.745 ppb	23:58:27
3	B 249.677†	1236.0	773.1	-1.0559	ug/L	-1.0559 ppb	23:58:07
3	Ba 233.527†	210926.7	211291.8	1422.4	ug/L	1422.4 ppb	23:58:07
3	Be 313.107†	-15087.2	-10517.6	5.4369	ug/L	5.4369 ppb	23:58:07
3	Cd 226.502†	1165.6	1393.3	0.9021	ug/L	0.9021 ppb	23:58:27
3	Co 228.616†	3999.0	4090.5	60.063	ug/L	60.063 ppb	23:58:27
3	Cr 267.716†	14353.8	14278.9	145.19	ug/L	145.19 ppb	23:58:27
3	Cu 324.752†	34656.8	28628.3	86.416	ug/L	86.416 ppb	23:58:07
3	Mn 257.610†	4373239.4	4380138.0	4289.1	ug/L	4289.1 ppb	23:58:02
3	Mo 202.031†	-26.6	-52.3	8.9215	ug/L	8.9215 ppb	23:58:27
3	Ni 231.604†	4518.5	4423.9	95.295	ug/L	95.295 ppb	23:58:27
3	P 214.914†	2853.0	2602.6	1236.2	ug/L	1236.2 ppb	23:58:27
3	Pb 220.353†	1191.7	1271.5	137.50	ug/L	137.50 ppb	23:58:27
3	S 181.975 Axial†	635.2	577.5	676.33	ug/L	676.33 ppb	23:58:27
3	Sb 206.836†	110.2	68.0	4.3294	ug/L	4.3294 ppb	23:58:27
3	Se 196.026†	-837.0	-809.6	-23.552	ug/L	-23.552 ppb	23:58:27
3	Si 251.611†	372270.2	372239.5	10358	ug/L	10358 ppb	23:58:07
3	Sn 189.927†	-122.0	-124.0	-14.491	ug/L	-14.491 ppb	23:58:27
3	Ti 334.940†	3147089.1	3153877.2	4543.0	ug/L	4543.0 ppb	23:58:02
3	Tl 190.801†	-275.1	-229.7	2.4631	ug/L	2.4631 ppb	23:58:27
3	U 409.014†	-9112.8	-6399.9	-193.70	ug/L	-193.70 ppb	23:58:07
3	V 292.402†	43873.2	45415.7	261.03	ug/L	261.03 ppb	23:58:07
3	Zn 213.857†	110275.2	109656.7	876.57	ug/L	876.57 ppb	23:58:07
3	SiO2†	371250.8	371193.2	22180	ug/L	22180 ppb	23:58:43

Mean Data: 242938003|934060|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	894510.6	99.454	%	0.3290				0.33%
Sc Radial	5544.7	99.2	%	0.64				0.65%
Y 371.029	791690.4	106.57	%	0.290				0.27%
Y RADIAL	6312.0	107.7	%	0.76				0.71%
Ag 328.068†	-9283.5	3.6783	ug/L	0.57163	3.6783	ppb	0.57163	15.54%
Al 396.153Radial†	113801.6	79932	ug/L	810.5	79932	ppb	810.5	1.01%
As 188.979†	-31.2	47.097	ug/L	1.9906	47.097	ppb	1.9906	4.23%
B 249.677†	732.0	-2.0331	ug/L	1.05510	-2.0331	ppb	1.05510	51.90%
Ba 233.527†	211369.9	1423.0	ug/L	1.20	1423.0	ppb	1.20	0.08%
Be 313.107†	-10555.7	5.5302	ug/L	0.08081	5.5302	ppb	0.08081	1.46%
Ca 317.933Radial†	13421.2	18737	ug/L	255.5	18737	ppb	255.5	1.36%
Cd 226.502†	1407.9	0.9357	ug/L	0.10526	0.9357	ppb	0.10526	11.25%
Co 228.616†	4088.4	59.895	ug/L	0.1589	59.895	ppb	0.1589	0.27%
Cr 267.716†	14297.8	145.39	ug/L	0.179	145.39	ppb	0.179	0.12%
Cu 324.752†	28649.1	86.529	ug/L	0.1287	86.529	ppb	0.1287	0.15%
Fe 238.204 Radial†	15991.7	126540	ug/L	1260.0	126540	ppb	1260.0	1.00%
K 766.490 Radial†	77627.6	13896	ug/L	143.9	13896	ppb	143.9	1.04%

Mg 279.077 IEC†	597.5	17926	ug/L	148.6	17926	ppb	148.6	0.83%
Mn 257.610†	4429469.0	4337.3	ug/L	41.87	4337.3	ppb	41.87	0.97%
Mo 202.031†	-59.0	8.6244	ug/L	0.30443	8.6244	ppb	0.30443	3.53%
Na 589.592 Radial†	3944.9	1078.1	ug/L	12.76	1078.1	ppb	12.76	1.18%
Ni 231.604†	4414.7	95.098	ug/L	0.1725	95.098	ppb	0.1725	0.18%
P 214.914†	2616.9	1242.9	ug/L	7.84	1242.9	ppb	7.84	0.63%
Pb 220.353†	1292.2	139.70	ug/L	2.068	139.70	ppb	2.068	1.48%
S 181.975 Axial†	580.4	679.64	ug/L	8.056	679.64	ppb	8.056	1.19%
Sb 206.836†	64.6	3.1534	ug/L	1.27678	3.1534	ppb	1.27678	40.49%
Se 196.026†	-814.1	-22.485	ug/L	2.3025	-22.485	ppb	2.3025	10.24%
Si 251.611†	372524.7	10366	ug/L	8.7	10366	ppb	8.7	0.08%
Sn 189.927†	-120.3	-13.907	ug/L	0.6771	-13.907	ppb	0.6771	4.87%
Sr 421.552†	42145.0	240.27	ug/L	2.758	240.27	ppb	2.758	1.15%
Ti 334.940†	3191301.3	4596.9	ug/L	46.73	4596.9	ppb	46.73	1.02%
Tl 190.801†	-232.4	2.5111	ug/L	2.59612	2.5111	ppb	2.59612	103.39%
U 409.014†	-6289.2	-190.76	ug/L	2.556	-190.76	ppb	2.556	1.34%
V 292.402†	45268.6	259.88	ug/L	1.074	259.88	ppb	1.074	0.41%
Zn 213.857†	109617.6	876.21	ug/L	1.657	876.21	ppb	1.657	0.19%
SiO2†	370840.8	22159	ug/L	118.4	22159	ppb	118.4	0.53%

Sequence No.: 99
Sample ID: 242938004|934060|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 95
Date Collected: 12/21/2009 00:00:55
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 242938004|934060|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	5564.1	5564.1	99.6	%			00:03:08
1	Y RADIAL	6761.4	6761.4	115.4	%			00:03:08
1	Al 396.153Radial†	82034.8	82394.0	57872	ug/L	57872	ppb	00:02:48
1	Ca 317.933Radial†	11792.4	11824.2	16508	ug/L	16508	ppb	00:02:48
1	Fe 238.204 Radial†	11174.2	11210.1	88704	ug/L	88704	ppb	00:02:48
1	K 766.490 Radial†	37216.8	34501.4	6191.5	ug/L	6191.5	ppb	00:02:48
1	Mg 279.077 IEC†	361.6	360.8	10815	ug/L	10815	ppb	00:03:08
1	Na 589.592 Radial†	1584.5	2851.2	779.19	ug/L	779.19	ppb	00:02:48
1	Sr 421.552†	32593.7	32725.6	186.55	ug/L	186.55	ppb	00:02:48
1	Sc 361.383	920771.6	920771.6	102.37	%			00:04:05
1	Y 371.029	884130.7	884130.7	119.01	%			00:04:05
1	Ag 328.068†	-5860.8	-6124.3	3.7809	ug/L	3.7809	ppb	00:04:05
1	As 188.979†	-4.1	23.4	34.011	ug/L	34.011	ppb	00:04:25
1	B 249.677†	601.1	122.2	-9.3066	ug/L	-9.3066	ppb	00:04:05
1	Ba 233.527†	69079.8	67486.7	455.54	ug/L	455.54	ppb	00:04:05
1	Be 313.107†	10405.7	14759.5	7.7063	ug/L	7.7063	ppb	00:04:05
1	Cd 226.502†	626.0	837.3	-0.7966	ug/L	-0.7966	ppb	00:04:25
1	Co 228.616†	653.9	723.5	8.4638	ug/L	8.4638	ppb	00:04:25
1	Cr 267.716†	3717.9	3532.5	37.027	ug/L	37.027	ppb	00:04:25
1	Cu 324.752†	18882.8	12358.0	39.065	ug/L	39.065	ppb	00:04:05
1	Mn 257.610†	955401.3	932757.9	919.41	ug/L	919.41	ppb	00:04:05
1	Mo 202.031†	219.1	188.4	19.701	ug/L	19.701	ppb	00:04:25
1	Ni 231.604†	2155.2	2003.0	43.158	ug/L	43.158	ppb	00:04:25
1	P 214.914†	1572.7	1281.0	593.90	ug/L	593.90	ppb	00:04:25
1	Pb 220.353†	392.6	461.3	52.909	ug/L	52.909	ppb	00:04:25
1	S 181.975 Axial†	361.6	294.5	341.42	ug/L	341.42	ppb	00:04:25
1	Sb 206.836†	50.4	6.8	-2.6400	ug/L	-2.6400	ppb	00:04:25
1	Se 196.026†	-599.5	-556.8	-7.9940	ug/L	-7.9940	ppb	00:04:25
1	Si 251.611†	367307.4	358131.2	9967.2	ug/L	9967.2	ppb	00:04:05
1	Sn 189.927†	-81.4	-81.4	-8.9705	ug/L	-8.9705	ppb	00:04:25
1	Ti 334.940†	1013999.7	991959.3	1429.5	ug/L	1429.5	ppb	00:04:05
1	Tl 190.801†	-123.2	-74.6	-1.4173	ug/L	-1.4173	ppb	00:04:25
1	U 409.014†	-9056.4	-6118.1	-181.04	ug/L	-181.04	ppb	00:04:05
1	V 292.402†	13366.4	14524.9	76.193	ug/L	76.193	ppb	00:04:05
1	Zn 213.857†	34137.4	32541.0	257.16	ug/L	257.16	ppb	00:04:05
1	SiO2†	361126.9	352068.9	21042	ug/L	21042	ppb	00:05:23
2	Sc Radial	5569.0	5569.0	99.7	%			00:03:33
2	Y RADIAL	6754.9	6754.9	115.2	%			00:03:33
2	Al 396.153Radial†	81984.4	82271.1	57785	ug/L	57785	ppb	00:03:13
2	Ca 317.933Radial†	11804.3	11825.8	16510	ug/L	16510	ppb	00:03:13
2	Fe 238.204 Radial†	11172.1	11198.1	88609	ug/L	88609	ppb	00:03:13
2	K 766.490 Radial†	37068.0	34319.3	6158.7	ug/L	6158.7	ppb	00:03:13
2	Mg 279.077 IEC†	357.8	356.8	10692	ug/L	10692	ppb	00:03:33
2	Na 589.592 Radial†	1596.8	2862.1	782.18	ug/L	782.18	ppb	00:03:13
2	Sr 421.552†	32554.7	32657.6	186.17	ug/L	186.17	ppb	00:03:13
2	Sc 361.383	912240.4	912240.4	101.43	%			00:04:31
2	Y 371.029	875964.3	875964.3	117.91	%			00:04:31
2	Ag 328.068†	-5825.8	-6143.3	3.6754	ug/L	3.6754	ppb	00:04:31
2	As 188.979†	-15.9	11.8	29.879	ug/L	29.879	ppb	00:04:51
2	B 249.677†	609.4	135.8	-9.0157	ug/L	-9.0157	ppb	00:04:31
2	Ba 233.527†	68599.5	67644.2	456.60	ug/L	456.60	ppb	00:04:31
2	Be 313.107†	10385.8	14835.0	7.7351	ug/L	7.7351	ppb	00:04:31
2	Cd 226.502†	637.0	853.8	-0.6284	ug/L	-0.6284	ppb	00:04:51
2	Co 228.616†	654.4	729.9	8.5708	ug/L	8.5708	ppb	00:04:51
2	Cr 267.716†	3696.0	3544.9	37.152	ug/L	37.152	ppb	00:04:51
2	Cu 324.752†	18698.6	12348.8	39.035	ug/L	39.035	ppb	00:04:31
2	Mn 257.610†	949174.8	935346.6	921.93	ug/L	921.93	ppb	00:04:31
2	Mo 202.031†	202.2	173.8	18.822	ug/L	18.822	ppb	00:04:51
2	Ni 231.604†	2124.2	1992.1	42.924	ug/L	42.924	ppb	00:04:51

2	P 214.914†	1553.4	1276.4	591.59	ug/L	591.59 ppb	00:04:51
2	Pb 220.353†	375.3	447.8	51.517	ug/L	51.517 ppb	00:04:51
2	S 181.975 Axial†	362.3	298.5	346.23	ug/L	346.23 ppb	00:04:51
2	Sb 206.836†	42.4	-0.5	-4.8553	ug/L	-4.8553 ppb	00:04:51
2	Se 196.026†	-595.6	-558.4	-9.1617	ug/L	-9.1617 ppb	00:04:51
2	Si 251.611†	364333.2	358554.2	9979.0	ug/L	9979.0 ppb	00:04:31
2	Sn 189.927†	-88.0	-88.6	-10.023	ug/L	-10.023 ppb	00:04:51
2	Ti 334.940†	1005944.8	993280.5	1431.4	ug/L	1431.4 ppb	00:04:31
2	Tl 190.801†	-126.5	-79.0	-2.5066	ug/L	-2.5066 ppb	00:04:51
2	U 409.014†	-9308.4	-6449.3	-190.22	ug/L	-190.22 ppb	00:04:31
2	V 292.402†	13227.9	14510.5	76.082	ug/L	76.082 ppb	00:04:31
2	Zn 213.857†	33869.3	32588.6	257.56	ug/L	257.56 ppb	00:04:31
2	SiO2†	359802.5	354062.0	21161	ug/L	21161 ppb	00:05:28
3	Sc Radial	5541.8	5541.8	99.2	%		00:03:58
3	Y RADIAL	6774.1	6774.1	115.6	%		00:03:58
3	Al 396.153Radial†	82383.2	83075.5	58350	ug/L	58350 ppb	00:03:38
3	Ca 317.933Radial†	11855.0	11934.9	16662	ug/L	16662 ppb	00:03:38
3	Fe 238.204 Radial†	11238.4	11319.8	89572	ug/L	89572 ppb	00:03:38
3	K 766.490 Radial†	37196.5	34630.7	6214.7	ug/L	6214.7 ppb	00:03:38
3	Mg 279.077 IEC†	364.5	365.3	10948	ug/L	10948 ppb	00:03:58
3	Na 589.592 Radial†	1573.0	2846.0	777.76	ug/L	777.76 ppb	00:03:38
3	Sr 421.552†	32725.4	32989.6	188.06	ug/L	188.06 ppb	00:03:38
3	Sc 361.383	918666.7	918666.7	102.14	%		00:04:57
3	Y 371.029	880701.2	880701.2	118.55	%		00:04:57
3	Ag 328.068†	-5868.8	-6145.3	3.9863	ug/L	3.9863 ppb	00:04:57
3	As 188.979†	-17.1	10.7	29.660	ug/L	29.660 ppb	00:05:17
3	B 249.677†	587.5	110.1	-9.6670	ug/L	-9.6670 ppb	00:04:57
3	Ba 233.527†	69293.7	67850.7	458.01	ug/L	458.01 ppb	00:04:57
3	Be 313.107†	10512.3	14887.2	7.7551	ug/L	7.7551 ppb	00:04:57
3	Cd 226.502†	624.7	837.3	-0.8832	ug/L	-0.8832 ppb	00:05:17
3	Co 228.616†	645.7	716.9	8.3309	ug/L	8.3309 ppb	00:05:17
3	Cr 267.716†	3670.9	3494.9	36.670	ug/L	36.670 ppb	00:05:17
3	Cu 324.752†	18926.9	12443.4	39.348	ug/L	39.348 ppb	00:04:57
3	Mn 257.610†	956857.6	936322.1	922.98	ug/L	922.98 ppb	00:04:57
3	Mo 202.031†	211.2	181.2	19.359	ug/L	19.359 ppb	00:05:17
3	Ni 231.604†	2121.4	1974.7	42.550	ug/L	42.550 ppb	00:05:17
3	P 214.914†	1555.9	1268.2	586.78	ug/L	586.78 ppb	00:05:17
3	Pb 220.353†	374.9	444.9	51.261	ug/L	51.261 ppb	00:05:17
3	S 181.975 Axial†	363.0	296.6	343.90	ug/L	343.90 ppb	00:05:17
3	Sb 206.836†	64.3	20.5	1.3959	ug/L	1.3959 ppb	00:05:17
3	Se 196.026†	-599.1	-557.8	-5.6952	ug/L	-5.6952 ppb	00:05:17
3	Si 251.611†	367936.9	359569.6	10007	ug/L	10007 ppb	00:04:57
3	Sn 189.927†	-83.7	-83.8	-9.2968	ug/L	-9.2968 ppb	00:05:17
3	Ti 334.940†	1013992.1	994221.3	1432.7	ug/L	1432.7 ppb	00:04:57
3	Tl 190.801†	-115.3	-67.1	0.5532	ug/L	0.5532 ppb	00:05:17
3	U 409.014†	-9199.5	-6278.5	-185.60	ug/L	-185.60 ppb	00:04:57
3	V 292.402†	13474.8	14661.0	76.901	ug/L	76.901 ppb	00:04:57
3	Zn 213.857†	34153.4	32633.1	257.86	ug/L	257.86 ppb	00:04:57
3	SiO2†	366069.8	357716.5	21380	ug/L	21380 ppb	00:05:33

Mean Data: 242938004|934060|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	917226.2	101.98	%	0.494				0.48%
Sc Radial	5558.3	99.5	%	0.26				0.26%
Y 371.029	880265.4	118.49	%	0.552				0.47%
Y RADIAL	6763.5	115.4	%	0.17				0.14%
Ag 328.068†	-6137.6	3.8142	ug/L	0.15808	3.8142	ppb	0.15808	4.14%
Al 396.153Radial†	82580.2	58002	ug/L	304.3	58002	ppb	304.3	0.52%
As 188.979†	15.3	31.183	ug/L	2.4514	31.183	ppb	2.4514	7.86%
B 249.677†	122.7	-9.3298	ug/L	0.32627	-9.3298	ppb	0.32627	3.50%
Ba 233.527†	67660.5	456.72	ug/L	1.238	456.72	ppb	1.238	0.27%
Be 313.107†	14827.3	7.7322	ug/L	0.02452	7.7322	ppb	0.02452	0.32%
Ca 317.933Radial†	11861.6	16560	ug/L	88.5	16560	ppb	88.5	0.53%
Cd 226.502†	842.8	-0.7694	ug/L	0.12956	-0.7694	ppb	0.12956	16.84%
Co 228.616†	723.4	8.4552	ug/L	0.12019	8.4552	ppb	0.12019	1.42%
Cr 267.716†	3524.1	36.950	ug/L	0.2501	36.950	ppb	0.2501	0.68%
Cu 324.752†	12383.4	39.149	ug/L	0.1728	39.149	ppb	0.1728	0.44%
Fe 238.204 Radial†	11242.7	88962	ug/L	530.4	88962	ppb	530.4	0.60%
K 766.490 Radial†	34483.8	6188.3	ug/L	28.13	6188.3	ppb	28.13	0.45%

Mg 279.077 IEC†	361.0	10818	ug/L	128.0	10818	ppb	128.0	1.18%
Mn 257.610†	934808.9	921.44	ug/L	1.832	921.44	ppb	1.832	0.20%
Mo 202.031†	181.1	19.294	ug/L	0.4434	19.294	ppb	0.4434	2.30%
Na 589.592 Radial†	2853.1	779.71	ug/L	2.255	779.71	ppb	2.255	0.29%
Ni 231.604†	1989.9	42.877	ug/L	0.3069	42.877	ppb	0.3069	0.72%
P 214.914†	1275.2	590.76	ug/L	3.635	590.76	ppb	3.635	0.62%
Pb 220.353†	451.3	51.896	ug/L	0.8872	51.896	ppb	0.8872	1.71%
S 181.975 Axial†	296.5	343.85	ug/L	2.407	343.85	ppb	2.407	0.70%
Sb 206.836†	8.9	-2.0331	ug/L	3.16947	-2.0331	ppb	3.16947	155.89%
Se 196.026†	-557.6	-7.6169	ug/L	1.76371	-7.6169	ppb	1.76371	23.16%
Si 251.611†	358751.7	9984.4	ug/L	20.58	9984.4	ppb	20.58	0.21%
Sn 189.927†	-84.6	-9.4301	ug/L	0.53879	-9.4301	ppb	0.53879	5.71%
Sr 421.552†	32790.9	186.93	ug/L	1.000	186.93	ppb	1.000	0.53%
Ti 334.940†	993153.7	1431.2	ug/L	1.64	1431.2	ppb	1.64	0.11%
Tl 190.801†	-73.6	-1.1236	ug/L	1.55091	-1.1236	ppb	1.55091	138.03%
U 409.014†	-6281.9	-185.62	ug/L	4.590	-185.62	ppb	4.590	2.47%
V 292.402†	14565.5	76.392	ug/L	0.4441	76.392	ppb	0.4441	0.58%
Zn 213.857†	32587.6	257.53	ug/L	0.349	257.53	ppb	0.349	0.14%
SiO2†	354615.8	21194	ug/L	171.2	21194	ppb	171.2	0.81%

Sequence No.: 100
Sample ID: 242938005|934060|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 96
Date Collected: 12/21/2009 00:07:45
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 242938005|934060|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5495.1	5495.1	98.3	%			00:09:58
1	Y RADIAL	6224.2	6224.2	106.2	%			00:09:58
1	Al 396.153Radial†	119171.2	121189.3	85121	ug/L	85121	ppb	00:09:38
1	Ca 317.933Radial†	11981.0	12164.7	16983	ug/L	16983	ppb	00:09:38
1	Fe 238.204 Radial†	14348.6	14578.8	115360	ug/L	115360	ppb	00:09:38
1	K 766.490 Radial†	55403.7	53463.4	9578.7	ug/L	9578.7	ppb	00:09:38
1	Mg 279.077 IEC†	547.4	554.3	16632	ug/L	16632	ppb	00:09:58
1	Na 589.592 Radial†	4748.7	6088.6	1663.9	ug/L	1663.9	ppb	00:09:38
1	Sr 421.552†	31993.5	32526.1	185.41	ug/L	185.41	ppb	00:09:38
1	Sc 361.383	915206.0	915206.0	101.75	%			00:10:55
1	Y 371.029	813158.8	813158.8	109.46	%			00:10:55
1	Ag 328.068†	-7842.2	-8106.3	4.6301	ug/L	4.6301	ppb	00:11:01
1	As 188.979†	-45.0	-16.8	36.556	ug/L	36.556	ppb	00:11:21
1	B 249.677†	669.5	192.9	-11.516	ug/L	-11.516	ppb	00:11:01
1	Ba 233.527†	149838.7	147263.2	992.01	ug/L	992.01	ppb	00:11:01
1	Be 313.107†	-6043.5	-1344.2	5.3326	ug/L	5.3326	ppb	00:11:01
1	Cd 226.502†	921.4	1131.3	-0.6272	ug/L	-0.6272	ppb	00:11:21
1	Co 228.616†	3335.4	3362.6	50.827	ug/L	50.827	ppb	00:11:21
1	Cr 267.716†	7312.5	7087.2	73.125	ug/L	73.125	ppb	00:11:01
1	Cu 324.752†	19669.5	13243.3	42.899	ug/L	42.899	ppb	00:11:01
1	Mn 257.610†	2721490.9	2674065.3	2622.2	ug/L	2622.2	ppb	00:10:55
1	Mo 202.031†	-19.4	-44.6	8.4051	ug/L	8.4051	ppb	00:11:21
1	Ni 231.604†	2871.5	2719.7	58.577	ug/L	58.577	ppb	00:11:21
1	P 214.914†	1537.7	1256.0	568.51	ug/L	568.51	ppb	00:11:21
1	Pb 220.353†	1285.6	1341.3	146.84	ug/L	146.84	ppb	00:11:21
1	S 181.975 Axial†	323.8	259.4	294.06	ug/L	294.06	ppb	00:11:21
1	Sb 206.836†	64.8	21.3	-3.7867	ug/L	-3.7867	ppb	00:11:21
1	Se 196.026†	-770.2	-728.1	-10.839	ug/L	-10.839	ppb	00:11:21
1	Si 251.611†	340172.4	333646.1	9284.7	ug/L	9284.7	ppb	00:11:01
1	Sn 189.927†	-80.7	-81.1	-8.5132	ug/L	-8.5132	ppb	00:11:21
1	Ti 334.940†	2075810.3	2041481.6	2941.0	ug/L	2941.0	ppb	00:10:55
1	Tl 190.801†	-189.5	-140.5	3.6641	ug/L	3.6641	ppb	00:11:21
1	U 409.014†	-12378.4	-9436.5	-276.57	ug/L	-276.57	ppb	00:10:55
1	V 292.402†	26661.9	27670.5	152.75	ug/L	152.75	ppb	00:11:01
1	Zn 213.857†	48302.8	46665.0	369.39	ug/L	369.39	ppb	00:11:01
1	SiO2†	347647.7	340967.3	20376	ug/L	20376	ppb	00:12:28
2	Sc Radial	5505.6	5505.6	98.5	%			00:10:23
2	Y RADIAL	6238.1	6238.1	106.4	%			00:10:23
2	Al 396.153Radial†	121216.7	123033.7	86417	ug/L	86417	ppb	00:10:03
2	Ca 317.933Radial†	12143.8	12306.7	17181	ug/L	17181	ppb	00:10:03
2	Fe 238.204 Radial†	14616.3	14822.6	117290	ug/L	117290	ppb	00:10:03
2	K 766.490 Radial†	56181.1	54144.8	9701.2	ug/L	9701.2	ppb	00:10:03
2	Mg 279.077 IEC†	542.8	548.6	16456	ug/L	16456	ppb	00:10:23
2	Na 589.592 Radial†	4897.4	6230.3	1702.6	ug/L	1702.6	ppb	00:10:03
2	Sr 421.552†	32527.3	33005.7	188.15	ug/L	188.15	ppb	00:10:03
2	Sc 361.383	927378.4	927378.4	103.11	%			00:11:26
2	Y 371.029	823362.1	823362.1	110.83	%			00:11:26
2	Ag 328.068†	-7712.7	-7879.6	6.2188	ug/L	6.2188	ppb	00:11:32
2	As 188.979†	-56.5	-27.4	33.101	ug/L	33.101	ppb	00:11:52
2	B 249.677†	694.1	208.2	-11.456	ug/L	-11.456	ppb	00:11:32
2	Ba 233.527†	148014.8	143561.5	967.20	ug/L	967.20	ppb	00:11:32
2	Be 313.107†	-6159.4	-1378.7	5.3260	ug/L	5.3260	ppb	00:11:32
2	Cd 226.502†	873.3	1072.7	-1.3829	ug/L	-1.3829	ppb	00:11:52
2	Co 228.616†	3281.6	3267.4	49.132	ug/L	49.132	ppb	00:11:52
2	Cr 267.716†	7223.6	6906.7	71.351	ug/L	71.351	ppb	00:11:32
2	Cu 324.752†	19353.7	12683.3	41.432	ug/L	41.432	ppb	00:11:32
2	Mn 257.610†	2763452.2	2679656.9	2627.9	ug/L	2627.9	ppb	00:11:26
2	Mo 202.031†	-18.0	-43.0	8.6875	ug/L	8.6875	ppb	00:11:52
2	Ni 231.604†	2868.2	2679.5	57.710	ug/L	57.710	ppb	00:11:52

2	P 214.914†	1539.4	1237.8	558.42	ug/L	558.42 ppb	00:11:52
2	Pb 220.353†	1266.7	1306.4	143.40	ug/L	143.40 ppb	00:11:52
2	S 181.975 Axial†	324.5	256.0	289.66	ug/L	289.66 ppb	00:11:52
2	Sb 206.836†	81.7	36.8	0.8187	ug/L	0.8187 ppb	00:11:52
2	Se 196.026†	-761.8	-710.0	5.1111	ug/L	5.1111 ppb	00:11:52
2	Si 251.611†	335101.5	324340.1	9025.6	ug/L	9025.6 ppb	00:11:32
2	Sn 189.927†	-79.0	-78.4	-8.0731	ug/L	-8.0731 ppb	00:11:52
2	Ti 334.940†	2105162.1	2043172.4	2943.4	ug/L	2943.4 ppb	00:11:26
2	Tl 190.801†	-206.9	-154.8	0.1006	ug/L	0.1006 ppb	00:11:52
2	U 409.014†	-12562.7	-9455.6	-277.34	ug/L	-277.34 ppb	00:11:26
2	V 292.402†	26143.3	26823.7	147.14	ug/L	147.14 ppb	00:11:32
2	Zn 213.857†	47666.9	45425.2	359.31	ug/L	359.31 ppb	00:11:32
2	SiO2†	350172.7	338931.8	20255	ug/L	20255 ppb	00:12:33
3	Sc Radial	5546.6	5546.6	99.3	%		00:10:48
3	Y RADIAL	6275.9	6275.9	107.1	%		00:10:48
3	Al 396.153Radial†	120846.3	121750.3	85515	ug/L	85515 ppb	00:10:28
3	Ca 317.933Radial†	12169.7	12241.5	17090	ug/L	17090 ppb	00:10:28
3	Fe 238.204 Radial†	14564.9	14661.0	116010	ug/L	116010 ppb	00:10:28
3	K 766.490 Radial†	56189.7	53731.5	9626.8	ug/L	9626.8 ppb	00:10:28
3	Mg 279.077 IEC†	548.0	549.7	16493	ug/L	16493 ppb	00:10:48
3	Na 589.592 Radial†	4809.6	6105.1	1668.4	ug/L	1668.4 ppb	00:10:28
3	Sr 421.552†	32477.6	32711.4	186.47	ug/L	186.47 ppb	00:10:28
3	Sc 361.383	911381.6	911381.6	101.33	%		00:11:57
3	Y 371.029	808660.7	808660.7	108.85	%		00:11:57
3	Ag 328.068†	-7882.4	-8178.4	4.5449	ug/L	4.5449 ppb	00:12:03
3	As 188.979†	-43.5	-15.5	37.222	ug/L	37.222 ppb	00:12:23
3	B 249.677†	677.5	203.6	-11.383	ug/L	-11.383 ppb	00:12:03
3	Ba 233.527†	149888.3	147930.1	996.51	ug/L	996.51 ppb	00:12:03
3	Be 313.107†	-6008.0	-1334.0	5.3600	ug/L	5.3600 ppb	00:12:03
3	Cd 226.502†	887.5	1101.7	-0.9762	ug/L	-0.9762 ppb	00:12:23
3	Co 228.616†	3306.7	3348.1	50.540	ug/L	50.540 ppb	00:12:23
3	Cr 267.716†	7326.0	7130.7	73.573	ug/L	73.573 ppb	00:12:03
3	Cu 324.752†	19609.7	13265.4	42.994	ug/L	42.994 ppb	00:12:03
3	Mn 257.610†	2723702.5	2687471.3	2635.4	ug/L	2635.4 ppb	00:11:57
3	Mo 202.031†	-24.1	-49.3	8.1882	ug/L	8.1882 ppb	00:12:23
3	Ni 231.604†	2897.9	2757.6	59.393	ug/L	59.393 ppb	00:12:23
3	P 214.914†	1548.0	1272.5	576.50	ug/L	576.50 ppb	00:12:23
3	Pb 220.353†	1270.8	1332.0	145.92	ug/L	145.92 ppb	00:12:23
3	S 181.975 Axial†	325.2	262.2	297.31	ug/L	297.31 ppb	00:12:23
3	Sb 206.836†	77.2	33.8	-0.1340	ug/L	-0.1340 ppb	00:12:23
3	Se 196.026†	-769.8	-730.9	-10.208	ug/L	-10.208 ppb	00:12:23
3	Si 251.611†	339072.2	333963.1	9293.5	ug/L	9293.5 ppb	00:12:03
3	Sn 189.927†	-77.0	-77.8	-8.0008	ug/L	-8.0008 ppb	00:12:23
3	Ti 334.940†	2075729.3	2049962.2	2953.2	ug/L	2953.2 ppb	00:11:57
3	Tl 190.801†	-204.6	-156.1	-0.1493	ug/L	-0.1493 ppb	00:12:23
3	U 409.014†	-12471.4	-9579.4	-280.61	ug/L	-280.61 ppb	00:11:57
3	V 292.402†	26676.6	27794.9	153.41	ug/L	153.41 ppb	00:12:03
3	Zn 213.857†	48304.3	46865.6	370.98	ug/L	370.98 ppb	00:12:03
3	SiO2†	343934.6	338736.6	20243	ug/L	20243 ppb	00:12:39

Mean Data: 242938005|934060|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	917988.7	102.06	%	0.929				0.91%
Sc Radial	5515.8	98.7	%	0.49				0.49%
Y 371.029	815060.5	109.71	%	1.014				0.92%
Y RADIAL	6246.1	106.6	%	0.46				0.43%
Ag 328.068†	-8054.8	5.1312	ug/L	0.94279	5.1312	ppb	0.94279	18.37%
Al 396.153Radial†	121991.1	85684	ug/L	664.1	85684	ppb	664.1	0.78%
As 188.979†	-19.9	35.627	ug/L	2.2123	35.627	ppb	2.2123	6.21%
B 249.677†	201.6	-11.452	ug/L	0.0665	-11.452	ppb	0.0665	0.58%
Ba 233.527†	146251.6	985.24	ug/L	15.786	985.24	ppb	15.786	1.60%
Be 313.107†	-1352.3	5.3395	ug/L	0.01804	5.3395	ppb	0.01804	0.34%
Ca 317.933Radial†	12237.6	17085	ug/L	99.2	17085	ppb	99.2	0.58%
Cd 226.502†	1101.9	-0.9954	ug/L	0.37825	-0.9954	ppb	0.37825	38.00%
Co 228.616†	3326.0	50.166	ug/L	0.9072	50.166	ppb	0.9072	1.81%
Cr 267.716†	7041.5	72.683	ug/L	1.1756	72.683	ppb	1.1756	1.62%
Cu 324.752†	13064.0	42.442	ug/L	0.8756	42.442	ppb	0.8756	2.06%
Fe 238.204 Radial†	14687.5	116220	ug/L	981.3	116220	ppb	981.3	0.84%
K 766.490 Radial†	53779.9	9635.6	ug/L	61.70	9635.6	ppb	61.70	0.64%

Mg 279.077 IEC†	550.9	16527	ug/L	92.7	16527	ppb	92.7	0.56%
Mn 257.610†	2680397.8	2628.5	ug/L	6.60	2628.5	ppb	6.60	0.25%
Mo 202.031†	-45.6	8.4269	ug/L	0.25035	8.4269	ppb	0.25035	2.97%
Na 589.592 Radial†	6141.3	1678.3	ug/L	21.18	1678.3	ppb	21.18	1.26%
Ni 231.604†	2718.9	58.560	ug/L	0.8417	58.560	ppb	0.8417	1.44%
P 214.914†	1255.4	567.81	ug/L	9.058	567.81	ppb	9.058	1.60%
Pb 220.353†	1326.5	145.39	ug/L	1.780	145.39	ppb	1.780	1.22%
S 181.975 Axial†	259.2	293.68	ug/L	3.841	293.68	ppb	3.841	1.31%
Sb 206.836†	30.6	-1.0340	ug/L	2.43102	-1.0340	ppb	2.43102	235.11%
Se 196.026†	-723.0	-5.3120	ug/L	9.03214	-5.3120	ppb	9.03214	170.03%
Si 251.611†	330649.7	9201.2	ug/L	152.20	9201.2	ppb	152.20	1.65%
Sn 189.927†	-79.1	-8.1957	ug/L	0.27734	-8.1957	ppb	0.27734	3.38%
Sr 421.552†	32747.7	186.68	ug/L	1.379	186.68	ppb	1.379	0.74%
Ti 334.940†	2044872.1	2945.9	ug/L	6.47	2945.9	ppb	6.47	0.22%
Tl 190.801†	-150.5	1.2051	ug/L	2.13319	1.2051	ppb	2.13319	177.01%
U 409.014†	-9490.5	-278.17	ug/L	2.149	-278.17	ppb	2.149	0.77%
V 292.402†	27429.7	151.10	ug/L	3.447	151.10	ppb	3.447	2.28%
Zn 213.857†	46318.6	366.56	ug/L	6.330	366.56	ppb	6.330	1.73%
SiO2†	339545.2	20291	ug/L	73.9	20291	ppb	73.9	0.36%

Sequence No.: 101
Sample ID: 242938006|934060|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 97
Date Collected: 12/21/2009 00:14:50
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 242938006|934060|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	5568.6	5568.6	99.7	%			00:17:03
1	Y RADIAL	6420.0	6420.0	109.5	%			00:17:03
1	Al 396.153Radial†	107252.5	107630.7	75598	ug/L	75598	ppb	00:16:43
1	Ca 317.933Radial†	14753.6	14785.9	20642	ug/L	20642	ppb	00:16:43
1	Fe 238.204 Radial†	15514.1	15555.6	123090	ug/L	123090	ppb	00:16:43
1	K 766.490 Radial†	84816.2	82232.5	14683	ug/L	14683	ppb	00:16:43
1	Mg 279.077 IEC†	591.5	591.3	17740	ug/L	17740	ppb	00:17:03
1	Na 589.592 Radial†	11192.0	12490.1	3413.3	ug/L	3413.3	ppb	00:16:43
1	Sr 421.552†	44949.4	45096.7	257.10	ug/L	257.10	ppb	00:16:43
1	Sc 361.383	920503.7	920503.7	102.34	%			00:18:08
1	Y 371.029	831914.4	831914.4	111.98	%			00:18:08
1	Ag 328.068†	-8340.3	-8548.7	5.5670	ug/L	5.5670	ppb	00:18:08
1	As 188.979†	-48.5	-20.0	47.006	ug/L	47.006	ppb	00:18:28
1	B 249.677†	1140.0	648.9	-3.3360	ug/L	-3.3360	ppb	00:18:08
1	Ba 233.527†	294135.2	287407.6	1933.3	ug/L	1933.3	ppb	00:18:08
1	Be 313.107†	-11875.8	-7008.7	5.8861	ug/L	5.8861	ppb	00:18:08
1	Cd 226.502†	1116.0	1316.2	0.3875	ug/L	0.3875	ppb	00:18:28
1	Co 228.616†	5595.3	5551.9	86.463	ug/L	86.463	ppb	00:18:28
1	Cr 267.716†	8646.7	8349.5	85.986	ug/L	85.986	ppb	00:18:28
1	Cu 324.752†	27528.0	20810.6	64.444	ug/L	64.444	ppb	00:18:08
1	Mn 257.610†	7685611.4	7509107.0	7344.0	ug/L	7344.0	ppb	00:18:01
1	Mo 202.031†	-42.9	-67.5	7.7869	ug/L	7.7869	ppb	00:18:28
1	Ni 231.604†	3692.3	3505.5	75.487	ug/L	75.487	ppb	00:18:28
1	P 214.914†	3321.5	2990.2	1437.6	ug/L	1437.6	ppb	00:18:28
1	Pb 220.353†	1219.4	1269.3	136.69	ug/L	136.69	ppb	00:18:28
1	S 181.975 Axial†	688.0	613.5	720.19	ug/L	720.19	ppb	00:18:28
1	Sb 206.836†	67.8	23.8	-6.3070	ug/L	-6.3070	ppb	00:18:28
1	Se 196.026†	-797.9	-750.9	-0.3768	ug/L	-0.3768	ppb	00:18:28
1	Si 251.611†	311569.8	303774.5	8451.5	ug/L	8451.5	ppb	00:18:08
1	Sn 189.927†	-132.5	-131.3	-15.376	ug/L	-15.376	ppb	00:18:28
1	Ti 334.940†	2967627.2	2901133.8	4179.2	ug/L	4179.2	ppb	00:18:08
1	Tl 190.801†	-343.1	-289.5	2.1460	ug/L	2.1460	ppb	00:18:28
1	U 409.014†	-10427.5	-7460.4	-222.71	ug/L	-222.71	ppb	00:18:08
1	V 292.402†	40975.7	41505.8	237.19	ug/L	237.19	ppb	00:18:08
1	Zn 213.857†	34506.9	32911.8	257.90	ug/L	257.90	ppb	00:18:08
1	SiO2†	312943.7	305091.8	18228	ug/L	18228	ppb	00:19:40
2	Sc Radial	5566.4	5566.4	99.6	%			00:17:28
2	Y RADIAL	6411.6	6411.6	109.4	%			00:17:28
2	Al 396.153Radial†	106732.3	107151.1	75261	ug/L	75261	ppb	00:17:08
2	Ca 317.933Radial†	14658.3	14696.2	20517	ug/L	20517	ppb	00:17:08
2	Fe 238.204 Radial†	15424.7	15472.1	122430	ug/L	122430	ppb	00:17:08
2	K 766.490 Radial†	84320.1	81768.2	14599	ug/L	14599	ppb	00:17:08
2	Mg 279.077 IEC†	587.2	587.2	17616	ug/L	17616	ppb	00:17:28
2	Na 589.592 Radial†	11162.2	12464.6	3406.4	ug/L	3406.4	ppb	00:17:08
2	Sr 421.552†	44563.9	44727.6	254.99	ug/L	254.99	ppb	00:17:08
2	Sc 361.383	919516.6	919516.6	102.23	%			00:18:41
2	Y 371.029	829682.2	829682.2	111.68	%			00:18:41
2	Ag 328.068†	-8320.8	-8538.3	5.4037	ug/L	5.4037	ppb	00:18:41
2	As 188.979†	-55.0	-26.3	44.668	ug/L	44.668	ppb	00:19:01
2	B 249.677†	1138.1	648.2	-3.2599	ug/L	-3.2599	ppb	00:18:41
2	Ba 233.527†	294784.0	288350.8	1939.6	ug/L	1939.6	ppb	00:18:41
2	Be 313.107†	-11640.0	-6790.5	5.9651	ug/L	5.9651	ppb	00:18:41
2	Cd 226.502†	1106.6	1308.2	0.3760	ug/L	0.3760	ppb	00:19:01
2	Co 228.616†	5536.1	5499.9	85.566	ug/L	85.566	ppb	00:19:01
2	Cr 267.716†	8661.2	8372.8	86.212	ug/L	86.212	ppb	00:19:01
2	Cu 324.752†	27483.1	20795.5	64.368	ug/L	64.368	ppb	00:18:41
2	Mn 257.610†	7720790.6	7551578.6	7385.4	ug/L	7385.4	ppb	00:18:34
2	Mo 202.031†	-42.8	-67.4	7.7287	ug/L	7.7287	ppb	00:19:01
2	Ni 231.604†	3661.3	3479.0	74.917	ug/L	74.917	ppb	00:19:01

2	P 214.914†	3351.2	3022.8	1454.6	ug/L	1454.6 ppb	00:19:01
2	Pb 220.353†	1246.6	1297.2	139.52	ug/L	139.52 ppb	00:19:01
2	S 181.975 Axial†	688.4	614.6	721.51	ug/L	721.51 ppb	00:19:01
2	Sb 206.836†	81.5	37.4	-2.3239	ug/L	-2.3239 ppb	00:19:01
2	Se 196.026†	-809.0	-762.5	-8.7273	ug/L	-8.7273 ppb	00:19:01
2	Si 251.611†	312290.5	304806.2	8480.2	ug/L	8480.2 ppb	00:18:41
2	Sn 189.927†	-133.5	-132.4	-15.555	ug/L	-15.555 ppb	00:19:01
2	Ti 334.940†	2966838.9	2903475.4	4182.5	ug/L	4182.5 ppb	00:18:41
2	Tl 190.801†	-364.7	-310.9	-3.0562	ug/L	-3.0562 ppb	00:19:01
2	U 409.014†	-10554.9	-7595.9	-226.39	ug/L	-226.39 ppb	00:18:41
2	V 292.402†	41272.3	41838.8	239.37	ug/L	239.37 ppb	00:18:41
2	Zn 213.857†	34545.0	32985.2	258.53	ug/L	258.53 ppb	00:18:41
2	SiO2†	312555.6	305040.4	18225	ug/L	18225 ppb	00:19:45
3	Sc Radial	5526.1	5526.1	98.9	%		00:17:53
3	Y RADIAL	6361.2	6361.2	108.5	%		00:17:53
3	Al 396.153Radial†	107811.2	109022.1	76575	ug/L	76575 ppb	00:17:33
3	Ca 317.933Radial†	14794.7	14941.2	20859	ug/L	20859 ppb	00:17:33
3	Fe 238.204 Radial†	15554.5	15716.0	124360	ug/L	124360 ppb	00:17:33
3	K 766.490 Radial†	85127.7	83201.0	14856	ug/L	14856 ppb	00:17:33
3	Mg 279.077 IEC†	578.7	582.9	17486	ug/L	17486 ppb	00:17:53
3	Na 589.592 Radial†	11274.2	12659.4	3459.6	ug/L	3459.6 ppb	00:17:33
3	Sr 421.552†	45185.5	45681.8	260.43	ug/L	260.43 ppb	00:17:33
3	Sc 361.383	918949.9	918949.9	102.17	%		00:19:14
3	Y 371.029	829283.9	829283.9	111.63	%		00:19:14
3	Ag 328.068†	-8350.3	-8572.2	5.8886	ug/L	5.8886 ppb	00:19:14
3	As 188.979†	-44.3	-15.9	48.586	ug/L	48.586 ppb	00:19:34
3	B 249.677†	1135.9	646.7	-3.5476	ug/L	-3.5476 ppb	00:19:14
3	Ba 233.527†	293787.4	287553.1	1934.3	ug/L	1934.3 ppb	00:19:14
3	Be 313.107†	-11578.7	-6737.6	5.9624	ug/L	5.9624 ppb	00:19:14
3	Cd 226.502†	1072.5	1275.4	-0.1311	ug/L	-0.1311 ppb	00:19:34
3	Co 228.616†	5566.2	5532.7	86.127	ug/L	86.127 ppb	00:19:34
3	Cr 267.716†	8697.4	8413.4	86.647	ug/L	86.647 ppb	00:19:34
3	Cu 324.752†	27299.9	20632.8	64.012	ug/L	64.012 ppb	00:19:14
3	Mn 257.610†	7716811.4	7552341.5	7386.4	ug/L	7386.4 ppb	00:19:07
3	Mo 202.031†	-44.8	-69.4	7.7962	ug/L	7.7962 ppb	00:19:34
3	Ni 231.604†	3671.6	3491.3	75.182	ug/L	75.182 ppb	00:19:34
3	P 214.914†	3357.4	3030.8	1457.6	ug/L	1457.6 ppb	00:19:34
3	Pb 220.353†	1236.8	1288.3	138.74	ug/L	138.74 ppb	00:19:34
3	S 181.975 Axial†	683.9	610.6	716.47	ug/L	716.47 ppb	00:19:34
3	Sb 206.836†	88.2	43.9	-0.3748	ug/L	-0.3748 ppb	00:19:34
3	Se 196.026†	-813.6	-767.5	-5.0806	ug/L	-5.0806 ppb	00:19:34
3	Si 251.611†	310483.1	303225.6	8436.1	ug/L	8436.1 ppb	00:19:14
3	Sn 189.927†	-128.0	-127.1	-14.721	ug/L	-14.721 ppb	00:19:34
3	Ti 334.940†	2957710.7	2896330.8	4172.3	ug/L	4172.3 ppb	00:19:14
3	Tl 190.801†	-348.7	-295.5	0.8263	ug/L	0.8263 ppb	00:19:34
3	U 409.014†	-10305.3	-7358.0	-220.03	ug/L	-220.03 ppb	00:19:14
3	V 292.402†	41047.6	41643.8	237.87	ug/L	237.87 ppb	00:19:14
3	Zn 213.857†	34474.8	32937.4	258.05	ug/L	258.05 ppb	00:19:14
3	SiO2†	309287.0	302029.9	18045	ug/L	18045 ppb	00:19:50

Mean Data: 242938006|934060|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	919656.7	102.25	%	0.087				0.09%
Sc Radial	5553.7	99.4	%	0.43				0.43%
Y 371.029	830293.5	111.76	%	0.191				0.17%
Y RADIAL	6397.6	109.1	%	0.54				0.50%
Ag 328.068†	-8553.1	5.6198	ug/L	0.24674	5.6198	ppb	0.24674	4.39%
Al 396.153Radial†	107934.7	75811	ug/L	682.6	75811	ppb	682.6	0.90%
As 188.979†	-20.7	46.753	ug/L	1.9713	46.753	ppb	1.9713	4.22%
B 249.677†	647.9	-3.3812	ug/L	0.14910	-3.3812	ppb	0.14910	4.41%
Ba 233.527†	287770.5	1935.8	ug/L	3.39	1935.8	ppb	3.39	0.18%
Be 313.107†	-6845.6	5.9379	ug/L	0.04489	5.9379	ppb	0.04489	0.76%
Ca 317.933Radial†	14807.8	20673	ug/L	173.1	20673	ppb	173.1	0.84%
Cd 226.502†	1299.9	0.2108	ug/L	0.29611	0.2108	ppb	0.29611	140.48%
Co 228.616†	5528.1	86.052	ug/L	0.4531	86.052	ppb	0.4531	0.53%
Cr 267.716†	8378.5	86.282	ug/L	0.3361	86.282	ppb	0.3361	0.39%
Cu 324.752†	20746.3	64.275	ug/L	0.2307	64.275	ppb	0.2307	0.36%
Fe 238.204 Radial†	15581.3	123290	ug/L	981.0	123290	ppb	981.0	0.80%
K 766.490 Radial†	82400.5	14713	ug/L	131.3	14713	ppb	131.3	0.89%

Mg 279.077 IEC†	587.1	17614	ug/L	127.2	17614	ppb	127.2	0.72%
Mn 257.610†	7537675.7	7371.9	ug/L	24.18	7371.9	ppb	24.18	0.33%
Mo 202.031†	-68.1	7.7706	ug/L	0.03660	7.7706	ppb	0.03660	0.47%
Na 589.592 Radial†	12538.0	3426.4	ug/L	28.93	3426.4	ppb	28.93	0.84%
Ni 231.604†	3492.0	75.195	ug/L	0.2853	75.195	ppb	0.2853	0.38%
P 214.914†	3014.6	1449.9	ug/L	10.80	1449.9	ppb	10.80	0.75%
Pb 220.353†	1284.9	138.32	ug/L	1.465	138.32	ppb	1.465	1.06%
S 181.975 Axial†	612.9	719.39	ug/L	2.614	719.39	ppb	2.614	0.36%
Sb 206.836†	35.0	-3.0019	ug/L	3.02369	-3.0019	ppb	3.02369	100.73%
Se 196.026†	-760.3	-4.7282	ug/L	4.18639	-4.7282	ppb	4.18639	88.54%
Si 251.611†	303935.4	8455.9	ug/L	22.38	8455.9	ppb	22.38	0.26%
Sn 189.927†	-130.3	-15.218	ug/L	0.4392	-15.218	ppb	0.4392	2.89%
Sr 421.552†	45168.7	257.51	ug/L	2.744	257.51	ppb	2.744	1.07%
Ti 334.940†	2900313.3	4178.0	ug/L	5.24	4178.0	ppb	5.24	0.13%
Tl 190.801†	-298.7	-0.0280	ug/L	2.70431	-0.0280	ppb	2.70431	>999.9%
U 409.014†	-7471.4	-223.05	ug/L	3.193	-223.05	ppb	3.193	1.43%
V 292.402†	41662.8	238.14	ug/L	1.114	238.14	ppb	1.114	0.47%
Zn 213.857†	32944.8	258.16	ug/L	0.331	258.16	ppb	0.331	0.13%
SiO2†	304054.0	18166	ug/L	104.9	18166	ppb	104.9	0.58%

Sequence No.: 102
Sample ID: 242938007|934060|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 98
Date Collected: 12/21/2009 00:22:01
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 242938007|934060|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5620.9	5620.9	101	%			00:24:15
1	Y RADIAL	6879.8	6879.8	117.4	%			00:24:15
1	Al 396.153Radial†	73910.1	73484.3	51614	ug/L	51614	ppb	00:23:55
1	Ca 317.933Radial†	23820.8	23661.4	33033	ug/L	33033	ppb	00:23:55
1	Fe 238.204 Radial†	13066.2	12977.4	102690	ug/L	102690	ppb	00:23:55
1	K 766.490 Radial†	35776.1	32691.2	5849.0	ug/L	5849.0	ppb	00:23:55
1	Mg 279.077 IEC†	380.1	375.6	11247	ug/L	11247	ppb	00:24:15
1	Na 589.592 Radial†	4386.1	5620.0	1535.9	ug/L	1535.9	ppb	00:23:55
1	Sr 421.552†	26482.1	26319.1	149.85	ug/L	149.85	ppb	00:23:55
1	Sc 361.383	922150.4	922150.4	102.53	%			00:25:13
1	Y 371.029	889747.4	889747.4	119.77	%			00:25:13
1	Ag 328.068†	-6829.9	-7060.9	4.3952	ug/L	4.3952	ppb	00:25:18
1	As 188.979†	-43.7	-15.2	32.313	ug/L	32.313	ppb	00:25:38
1	B 249.677†	557.4	78.7	-12.069	ug/L	-12.069	ppb	00:25:18
1	Ba 233.527†	109598.3	106905.7	720.57	ug/L	720.57	ppb	00:25:18
1	Be 313.107†	-10829.8	-5967.8	3.0981	ug/L	3.0981	ppb	00:25:18
1	Cd 226.502†	778.0	984.6	-0.7059	ug/L	-0.7059	ppb	00:25:38
1	Co 228.616†	1121.3	1178.4	13.706	ug/L	13.706	ppb	00:25:38
1	Cr 267.716†	31829.2	30945.5	310.70	ug/L	310.70	ppb	00:25:18
1	Cu 324.752†	14223.3	7785.7	26.999	ug/L	26.999	ppb	00:25:18
1	Mn 257.610†	2216919.8	2161789.0	2120.9	ug/L	2120.9	ppb	00:25:13
1	Mo 202.031†	197.1	166.7	19.751	ug/L	19.751	ppb	00:25:38
1	Ni 231.604†	7577.9	7288.8	157.07	ug/L	157.07	ppb	00:25:38
1	P 214.914†	2965.5	2637.2	1272.2	ug/L	1272.2	ppb	00:25:38
1	Pb 220.353†	451.4	518.1	56.176	ug/L	56.176	ppb	00:25:38
1	S 181.975 Axial†	291.1	225.2	259.60	ug/L	259.60	ppb	00:25:38
1	Sb 206.836†	71.6	27.4	-6.2082	ug/L	-6.2082	ppb	00:25:38
1	Se 196.026†	-678.0	-632.5	-5.5505	ug/L	-5.5505	ppb	00:25:38
1	Si 251.611†	295747.8	287798.8	8009.5	ug/L	8009.5	ppb	00:25:18
1	Sn 189.927†	-147.6	-145.8	-16.491	ug/L	-16.491	ppb	00:25:38
1	Ti 334.940†	1838005.5	1794175.2	2585.6	ug/L	2585.6	ppb	00:25:13
1	Tl 190.801†	-195.9	-145.3	-3.7887	ug/L	-3.7887	ppb	00:25:38
1	U 409.014†	-15689.8	-12574.8	-362.54	ug/L	-362.54	ppb	00:25:13
1	V 292.402†	14455.1	15567.3	78.875	ug/L	78.875	ppb	00:25:18
1	Zn 213.857†	60342.7	58050.6	461.45	ug/L	461.45	ppb	00:25:18
1	SiO2†	299853.9	291778.6	17438	ug/L	17438	ppb	00:26:45
2	Sc Radial	5534.2	5534.2	99.0	%			00:24:40
2	Y RADIAL	6803.3	6803.3	116.1	%			00:24:40
2	Al 396.153Radial†	72877.0	73591.8	51689	ug/L	51689	ppb	00:24:20
2	Ca 317.933Radial†	23466.3	23674.4	33051	ug/L	33051	ppb	00:24:20
2	Fe 238.204 Radial†	12895.8	13008.8	102940	ug/L	102940	ppb	00:24:20
2	K 766.490 Radial†	35185.5	32651.9	5841.9	ug/L	5841.9	ppb	00:24:20
2	Mg 279.077 IEC†	383.9	385.4	11543	ug/L	11543	ppb	00:24:40
2	Na 589.592 Radial†	4176.8	5477.0	1496.8	ug/L	1496.8	ppb	00:24:20
2	Sr 421.552†	26170.2	26416.5	150.41	ug/L	150.41	ppb	00:24:20
2	Sc 361.383	909158.0	909158.0	101.08	%			00:25:44
2	Y 371.029	875933.1	875933.1	117.91	%			00:25:44
2	Ag 328.068†	-6853.2	-7179.2	3.9786	ug/L	3.9786	ppb	00:25:49
2	As 188.979†	-44.3	-16.4	31.992	ug/L	31.992	ppb	00:26:09
2	B 249.677†	455.5	-14.4	-14.000	ug/L	-14.000	ppb	00:25:49
2	Ba 233.527†	108798.2	107641.8	725.52	ug/L	725.52	ppb	00:25:49
2	Be 313.107†	-10686.0	-5976.5	3.1062	ug/L	3.1062	ppb	00:25:49
2	Cd 226.502†	773.9	991.4	-0.6647	ug/L	-0.6647	ppb	00:26:09
2	Co 228.616†	1112.6	1185.4	13.815	ug/L	13.815	ppb	00:26:09
2	Cr 267.716†	31498.6	31062.2	311.87	ug/L	311.87	ppb	00:25:49
2	Cu 324.752†	14046.2	7808.8	27.076	ug/L	27.076	ppb	00:25:49
2	Mn 257.610†	2195668.4	2171665.5	2130.5	ug/L	2130.5	ppb	00:25:44
2	Mo 202.031†	201.5	173.8	20.199	ug/L	20.199	ppb	00:26:09
2	Ni 231.604†	7558.9	7375.7	158.94	ug/L	158.94	ppb	00:26:09

2	P 214.914†	2949.5	2662.7	1285.0 ug/L	1285.0 ppb	00:26:09
2	Pb 220.353†	436.6	509.7	55.316 ug/L	55.316 ppb	00:26:09
2	S 181.975 Axial†	289.5	227.7	262.58 ug/L	262.58 ppb	00:26:09
2	Sb 206.836†	91.3	47.9	-0.1657 ug/L	-0.1657 ppb	00:26:09
2	Se 196.026†	-680.8	-644.7	-11.288 ug/L	-11.288 ppb	00:26:09
2	Si 251.611†	293352.5	289551.4	8058.2 ug/L	8058.2 ppb	00:25:49
2	Sn 189.927†	-133.8	-134.2	-14.796 ug/L	-14.796 ppb	00:26:09
2	Ti 334.940†	1816019.3	1798043.3	2591.2 ug/L	2591.2 ppb	00:25:44
2	Tl 190.801†	-187.9	-140.1	-2.3644 ug/L	-2.3644 ppb	00:26:09
2	U 409.014†	-15524.2	-12629.7	-364.09 ug/L	-364.09 ppb	00:25:44
2	V 292.402†	14408.9	15723.0	79.818 ug/L	79.818 ppb	00:25:49
2	Zn 213.857†	59892.1	58446.0	464.60 ug/L	464.60 ppb	00:25:49
2	SiO2†	301164.1	297254.3	17765 ug/L	17765 ppb	00:26:51
3	Sc Radial	5566.4	5566.4	99.6 %		00:25:05
3	Y RADIAL	6828.7	6828.7	116.5 %		00:25:05
3	Al 396.153Radial†	73361.4	73653.5	51732 ug/L	51732 ppb	00:24:45
3	Ca 317.933Radial†	23687.6	23759.8	33171 ug/L	33171 ppb	00:24:45
3	Fe 238.204 Radial†	12953.0	12991.1	102800 ug/L	102800 ppb	00:24:45
3	K 766.490 Radial†	35510.0	32772.7	5863.7 ug/L	5863.7 ppb	00:24:45
3	Mg 279.077 IEC†	384.7	383.9	11498 ug/L	11498 ppb	00:25:05
3	Na 589.592 Radial†	4293.5	5569.8	1522.1 ug/L	1522.1 ppb	00:24:45
3	Sr 421.552†	26276.1	26370.4	150.14 ug/L	150.14 ppb	00:24:45
3	Sc 361.383	912155.0	912155.0	101.42 %		00:26:15
3	Y 371.029	880182.1	880182.1	118.48 %		00:26:15
3	Ag 328.068†	-6683.7	-6989.8	4.7376 ug/L	4.7376 ppb	00:26:20
3	As 188.979†	-51.8	-23.6	29.352 ug/L	29.352 ppb	00:26:40
3	B 249.677†	471.3	-0.3	-13.695 ug/L	-13.695 ppb	00:26:20
3	Ba 233.527†	108751.3	107241.9	722.83 ug/L	722.83 ppb	00:26:20
3	Be 313.107†	-10831.6	-6085.3	3.0581 ug/L	3.0581 ppb	00:26:20
3	Cd 226.502†	789.8	1004.5	-0.5245 ug/L	-0.5245 ppb	00:26:40
3	Co 228.616†	1126.1	1195.1	13.996 ug/L	13.996 ppb	00:26:40
3	Cr 267.716†	31583.9	31043.9	311.69 ug/L	311.69 ppb	00:26:20
3	Cu 324.752†	14057.1	7773.8	26.971 ug/L	26.971 ppb	00:26:20
3	Mn 257.610†	2192035.6	2160946.5	2120.0 ug/L	2120.0 ppb	00:26:15
3	Mo 202.031†	195.7	167.4	19.804 ug/L	19.804 ppb	00:26:40
3	Ni 231.604†	7575.6	7367.6	158.77 ug/L	158.77 ppb	00:26:40
3	P 214.914†	2951.4	2655.0	1281.2 ug/L	1281.2 ppb	00:26:40
3	Pb 220.353†	475.6	546.8	59.131 ug/L	59.131 ppb	00:26:40
3	S 181.975 Axial†	292.0	229.2	264.39 ug/L	264.39 ppb	00:26:40
3	Sb 206.836†	85.0	41.4	-2.0928 ug/L	-2.0928 ppb	00:26:40
3	Se 196.026†	-684.0	-645.6	-12.207 ug/L	-12.207 ppb	00:26:40
3	Si 251.611†	293144.1	288392.4	8026.0 ug/L	8026.0 ppb	00:26:20
3	Sn 189.927†	-141.9	-141.7	-15.882 ug/L	-15.882 ppb	00:26:40
3	Ti 334.940†	1817716.7	1793814.0	2585.1 ug/L	2585.1 ppb	00:26:15
3	Tl 190.801†	-182.5	-134.1	-0.9416 ug/L	-0.9416 ppb	00:26:40
3	U 409.014†	-15709.9	-12762.3	-367.76 ug/L	-367.76 ppb	00:26:15
3	V 292.402†	14304.1	15572.8	78.889 ug/L	78.889 ppb	00:26:20
3	Zn 213.857†	59793.5	58154.1	462.26 ug/L	462.26 ppb	00:26:20
3	SiO2†	300606.3	295725.3	17674 ug/L	17674 ppb	00:26:56

Mean Data: 242938007|934060|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	914487.8	101.67	%	0.756				0.74%
Sc Radial	5573.8	99.8	%	0.78				0.79%
Y 371.029	881954.2	118.72	%	0.952				0.80%
Y RADIAL	6837.3	116.6	%	0.66				0.57%
Ag 328.068†	-7076.6	4.3705	ug/L	0.38010	4.3705	ppb	0.38010	8.70%
Al 396.153Radial†	73576.6	51678	ug/L	60.2	51678	ppb	60.2	0.12%
As 188.979†	-18.4	31.219	ug/L	1.6245	31.219	ppb	1.6245	5.20%
B 249.677†	21.4	-13.255	ug/L	1.0380	-13.255	ppb	1.0380	7.83%
Ba 233.527†	107263.1	722.97	ug/L	2.478	722.97	ppb	2.478	0.34%
Be 313.107†	-6009.9	3.0874	ug/L	0.02575	3.0874	ppb	0.02575	0.83%
Ca 317.933Radial†	23698.5	33085	ug/L	74.6	33085	ppb	74.6	0.23%
Cd 226.502†	993.5	-0.6317	ug/L	0.09511	-0.6317	ppb	0.09511	15.06%
Co 228.616†	1186.3	13.839	ug/L	0.1465	13.839	ppb	0.1465	1.06%
Cr 267.716†	31017.2	311.42	ug/L	0.629	311.42	ppb	0.629	0.20%
Cu 324.752†	7789.5	27.016	ug/L	0.0543	27.016	ppb	0.0543	0.20%
Fe 238.204 Radial†	12992.4	102810	ug/L	124.5	102810	ppb	124.5	0.12%
K 766.490 Radial†	32705.3	5851.5	ug/L	11.11	5851.5	ppb	11.11	0.19%

Mg 279.077 IEC†	381.6	11429	ug/L	159.4	11429	ppb	159.4	1.39%
Mn 257.610†	2164800.3	2123.8	ug/L	5.83	2123.8	ppb	5.83	0.27%
Mo 202.031†	169.3	19.918	ug/L	0.2445	19.918	ppb	0.2445	1.23%
Na 589.592 Radial†	5555.6	1518.3	ug/L	19.83	1518.3	ppb	19.83	1.31%
Ni 231.604†	7344.0	158.26	ug/L	1.034	158.26	ppb	1.034	0.65%
P 214.914†	2651.7	1279.5	ug/L	6.57	1279.5	ppb	6.57	0.51%
Pb 220.353†	524.9	56.874	ug/L	2.0011	56.874	ppb	2.0011	3.52%
S 181.975 Axial†	227.3	262.19	ug/L	2.418	262.19	ppb	2.418	0.92%
Sb 206.836†	38.9	-2.8223	ug/L	3.08660	-2.8223	ppb	3.08660	109.37%
Se 196.026†	-640.9	-9.6817	ug/L	3.60711	-9.6817	ppb	3.60711	37.26%
Si 251.611†	288580.9	8031.2	ug/L	24.81	8031.2	ppb	24.81	0.31%
Sn 189.927†	-140.6	-15.723	ug/L	0.8586	-15.723	ppb	0.8586	5.46%
Sr 421.552†	26368.7	150.13	ug/L	0.278	150.13	ppb	0.278	0.18%
Ti 334.940†	1795344.2	2587.3	ug/L	3.37	2587.3	ppb	3.37	0.13%
Tl 190.801†	-139.8	-2.3649	ug/L	1.42354	-2.3649	ppb	1.42354	60.19%
U 409.014†	-12655.6	-364.79	ug/L	2.679	-364.79	ppb	2.679	0.73%
V 292.402†	15621.0	79.194	ug/L	0.5403	79.194	ppb	0.5403	0.68%
Zn 213.857†	58216.9	462.77	ug/L	1.638	462.77	ppb	1.638	0.35%
SiO2†	294919.4	17626	ug/L	168.9	17626	ppb	168.9	0.96%

Sequence No.: 103
Sample ID: 242938008|934060|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 99
Date Collected: 12/21/2009 00:29:07
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 242938008|934060|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5689.6	5689.6	102	%			00:31:20
1	Y RADIAL	6542.0	6542.0	111.6	%			00:31:20
1	Al 396.153Radial†	155462.2	152685.1	107240	ug/L	107240	ppb	00:31:00
1	Ca 317.933Radial†	14978.9	14692.2	20511	ug/L	20511	ppb	00:31:20
1	Fe 238.204 Radial†	18439.9	18097.7	143210	ug/L	143210	ppb	00:31:00
1	K 766.490 Radial†	75248.1	71025.1	12724	ug/L	12724	ppb	00:31:00
1	Mg 279.077 IEC†	770.2	754.1	22637	ug/L	22637	ppb	00:31:20
1	Na 589.592 Radial†	10338.9	11413.3	3119.1	ug/L	3119.1	ppb	00:31:00
1	Sr 421.552†	46750.4	45905.7	261.71	ug/L	261.71	ppb	00:31:00
1	Sc 361.383	926646.9	926646.9	103.03	%			00:32:19
1	Y 371.029	831159.2	831159.2	111.88	%			00:32:19
1	Ag 328.068†	-10365.9	-10460.7	4.3004	ug/L	4.3004	ppb	00:32:19
1	As 188.979†	-32.3	-3.9	54.691	ug/L	54.691	ppb	00:32:39
1	B 249.677†	1086.8	589.8	-7.1382	ug/L	-7.1382	ppb	00:32:19
1	Ba 233.527†	228538.1	221832.4	1493.7	ug/L	1493.7	ppb	00:32:19
1	Be 313.107†	-7856.2	-3030.3	6.9366	ug/L	6.9366	ppb	00:32:19
1	Cd 226.502†	1263.3	1451.9	-0.3196	ug/L	-0.3196	ppb	00:32:39
1	Co 228.616†	3962.3	3930.6	58.145	ug/L	58.145	ppb	00:32:39
1	Cr 267.716†	10692.7	10279.4	105.66	ug/L	105.66	ppb	00:32:39
1	Cu 324.752†	29827.6	22864.3	71.210	ug/L	71.210	ppb	00:32:19
1	Mn 257.610†	3661919.2	3553843.2	3483.9	ug/L	3483.9	ppb	00:32:19
1	Mo 202.031†	-63.3	-87.0	8.5574	ug/L	8.5574	ppb	00:32:39
1	Ni 231.604†	3708.3	3497.1	75.324	ug/L	75.324	ppb	00:32:39
1	P 214.914†	3081.1	2735.4	1301.6	ug/L	1301.6	ppb	00:32:39
1	Pb 220.353†	1073.1	1119.4	126.79	ug/L	126.79	ppb	00:32:39
1	S 181.975 Axial†	515.1	441.2	507.53	ug/L	507.53	ppb	00:32:39
1	Sb 206.836†	91.3	46.2	-0.1992	ug/L	-0.1992	ppb	00:32:39
1	Se 196.026†	-959.6	-902.6	-12.512	ug/L	-12.512	ppb	00:32:39
1	Si 251.611†	327417.4	317138.3	8824.1	ug/L	8824.1	ppb	00:32:19
1	Sn 189.927†	-107.3	-105.9	-11.391	ug/L	-11.391	ppb	00:32:39
1	Ti 334.940†	2889222.0	2805808.9	4041.9	ug/L	4041.9	ppb	00:32:19
1	Tl 190.801†	-265.7	-212.1	-0.8583	ug/L	-0.8583	ppb	00:32:39
1	U 409.014†	-10501.7	-7464.9	-225.41	ug/L	-225.41	ppb	00:32:19
1	V 292.402†	48164.0	48217.4	276.51	ug/L	276.51	ppb	00:32:19
1	Zn 213.857†	38135.2	36210.0	283.28	ug/L	283.28	ppb	00:32:19
1	SiO2†	325559.4	315309.8	18840	ug/L	18840	ppb	00:33:39
2	Sc Radial	5641.1	5641.1	101	%			00:31:45
2	Y RADIAL	6510.1	6510.1	111.1	%			00:31:45
2	Al 396.153Radial†	159216.7	157717.9	110780	ug/L	110780	ppb	00:31:25
2	Ca 317.933Radial†	14952.3	14792.5	20651	ug/L	20651	ppb	00:31:45
2	Fe 238.204 Radial†	18850.9	18660.6	147660	ug/L	147660	ppb	00:31:25
2	K 766.490 Radial†	76955.5	73352.3	13142	ug/L	13142	ppb	00:31:25
2	Mg 279.077 IEC†	767.2	757.6	22740	ug/L	22740	ppb	00:31:45
2	Na 589.592 Radial†	10621.3	11780.4	3219.4	ug/L	3219.4	ppb	00:31:25
2	Sr 421.552†	47875.5	47415.2	270.32	ug/L	270.32	ppb	00:31:25
2	Sc 361.383	926913.1	926913.1	103.06	%			00:32:46
2	Y 371.029	831344.4	831344.4	111.91	%			00:32:46
2	Ag 328.068†	-10216.2	-10312.6	6.4226	ug/L	6.4226	ppb	00:32:46
2	As 188.979†	-42.9	-14.2	51.857	ug/L	51.857	ppb	00:33:06
2	B 249.677†	1117.2	619.0	-7.1312	ug/L	-7.1312	ppb	00:32:46
2	Ba 233.527†	229781.7	222975.4	1501.4	ug/L	1501.4	ppb	00:32:46
2	Be 313.107†	-7798.9	-2972.5	6.9878	ug/L	6.9878	ppb	00:32:46
2	Cd 226.502†	1253.2	1441.8	-0.8631	ug/L	-0.8631	ppb	00:33:06
2	Co 228.616†	3914.5	3883.1	57.227	ug/L	57.227	ppb	00:33:06
2	Cr 267.716†	10655.4	10240.2	105.36	ug/L	105.36	ppb	00:33:06
2	Cu 324.752†	29947.4	22972.2	71.739	ug/L	71.739	ppb	00:32:46
2	Mn 257.610†	3675638.6	3566134.7	3496.4	ug/L	3496.4	ppb	00:32:46
2	Mo 202.031†	-57.8	-81.7	9.2978	ug/L	9.2978	ppb	00:33:06
2	Ni 231.604†	3667.4	3456.4	74.447	ug/L	74.447	ppb	00:33:06

2	P 214.914†	3056.2	2710.4	1286.4	ug/L	1286.4 ppb	00:33:06
2	Pb 220.353†	1064.9	1111.2	126.37	ug/L	126.37 ppb	00:33:06
2	S 181.975 Axial†	503.5	429.8	493.19	ug/L	493.19 ppb	00:33:06
2	Sb 206.836†	100.2	54.9	2.2214	ug/L	2.2214 ppb	00:33:06
2	Se 196.026†	-952.4	-895.4	5.9950	ug/L	5.9950 ppb	00:33:06
2	Si 251.611†	329088.3	318668.4	8866.6	ug/L	8866.6 ppb	00:32:46
2	Sn 189.927†	-141.2	-138.8	-16.118	ug/L	-16.118 ppb	00:33:06
2	Ti 334.940†	2901727.0	2817137.4	4058.2	ug/L	4058.2 ppb	00:32:46
2	Tl 190.801†	-254.9	-201.6	2.1114	ug/L	2.1114 ppb	00:33:06
2	U 409.014†	-10481.0	-7441.8	-225.33	ug/L	-225.33 ppb	00:32:46
2	V 292.402†	48344.4	48379.0	276.83	ug/L	276.83 ppb	00:32:46
2	Zn 213.857†	38292.3	36351.8	284.20	ug/L	284.20 ppb	00:32:46
2	SiO2†	326885.9	316506.2	18911	ug/L	18911 ppb	00:33:44
3	Sc Radial	5682.6	5682.6	102	%		00:32:11
3	Y RADIAL	6554.9	6554.9	111.8	%		00:32:11
3	Al 396.153Radial†	157676.3	155052.0	108910	ug/L	108910 ppb	00:31:51
3	Ca 317.933Radial†	14973.2	14704.9	20529	ug/L	20529 ppb	00:32:11
3	Fe 238.204 Radial†	18600.9	18278.6	144640	ug/L	144640 ppb	00:31:51
3	K 766.490 Radial†	76244.2	72096.5	12916	ug/L	12916 ppb	00:31:51
3	Mg 279.077 IEC†	766.7	751.6	22562	ug/L	22562 ppb	00:32:11
3	Na 589.592 Radial†	10389.6	11475.8	3136.1	ug/L	3136.1 ppb	00:31:51
3	Sr 421.552†	47270.0	46473.7	264.95	ug/L	264.95 ppb	00:31:51
3	Sc 361.383	931039.0	931039.0	103.52	%		00:33:13
3	Y 371.029	835552.3	835552.3	112.47	%		00:33:13
3	Ag 328.068†	-10396.3	-10442.6	4.8517	ug/L	4.8517 ppb	00:33:13
3	As 188.979†	-32.6	-4.1	54.930	ug/L	54.930 ppb	00:33:33
3	B 249.677†	1133.7	630.2	-6.5021	ug/L	-6.5021 ppb	00:33:13
3	Ba 233.527†	230201.9	222393.2	1497.5	ug/L	1497.5 ppb	00:33:13
3	Be 313.107†	-7990.7	-3124.2	6.9259	ug/L	6.9259 ppb	00:33:13
3	Cd 226.502†	1244.5	1428.0	-0.6933	ug/L	-0.6933 ppb	00:33:33
3	Co 228.616†	3937.5	3888.5	57.370	ug/L	57.370 ppb	00:33:33
3	Cr 267.716†	10690.2	10228.0	105.18	ug/L	105.18 ppb	00:33:33
3	Cu 324.752†	29862.0	22760.9	70.994	ug/L	70.994 ppb	00:33:13
3	Mn 257.610†	3684569.8	3558957.2	3489.1	ug/L	3489.1 ppb	00:33:13
3	Mo 202.031†	-88.2	-110.7	7.2808	ug/L	7.2808 ppb	00:33:33
3	Ni 231.604†	3664.1	3437.4	74.038	ug/L	74.038 ppb	00:33:33
3	P 214.914†	3058.9	2699.8	1283.0	ug/L	1283.0 ppb	00:33:33
3	Pb 220.353†	1038.7	1081.2	123.14	ug/L	123.14 ppb	00:33:33
3	S 181.975 Axial†	513.5	437.3	502.47	ug/L	502.47 ppb	00:33:33
3	Sb 206.836†	96.5	50.8	1.0515	ug/L	1.0515 ppb	00:33:33
3	Se 196.026†	-967.2	-905.5	-9.2661	ug/L	-9.2661 ppb	00:33:33
3	Si 251.611†	329768.3	317910.2	8845.6	ug/L	8845.6 ppb	00:33:13
3	Sn 189.927†	-120.8	-118.5	-13.210	ug/L	-13.210 ppb	00:33:33
3	Ti 334.940†	2910412.3	2813050.3	4052.3	ug/L	4052.3 ppb	00:33:13
3	Tl 190.801†	-240.9	-187.0	5.7113	ug/L	5.7113 ppb	00:33:33
3	U 409.014†	-10362.0	-7281.8	-220.50	ug/L	-220.50 ppb	00:33:13
3	V 292.402†	48411.1	48235.6	276.38	ug/L	276.38 ppb	00:33:13
3	Zn 213.857†	38307.4	36201.7	283.15	ug/L	283.15 ppb	00:33:13
3	SiO2†	328401.9	316565.0	18915	ug/L	18915 ppb	00:33:49

Mean Data: 242938008|934060|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	928199.7	103.20	%	0.274				0.27%
Sc Radial	5671.1	101	%	0.5				0.46%
Y 371.029	832685.3	112.09	%	0.334				0.30%
Y RADIAL	6535.7	111.5	%	0.39				0.35%
Ag 328.068†	-10405.3	5.1916	ug/L	1.10118	5.1916	ppb	1.10118	21.21%
Al 396.153Radial†	155151.7	108980	ug/L	1768.5	108980	ppb	1768.5	1.62%
As 188.979†	-7.4	53.826	ug/L	1.7096	53.826	ppb	1.7096	3.18%
B 249.677†	613.0	-6.9238	ug/L	0.36528	-6.9238	ppb	0.36528	5.28%
Ba 233.527†	222400.4	1497.5	ug/L	3.89	1497.5	ppb	3.89	0.26%
Be 313.107†	-3042.4	6.9501	ug/L	0.03311	6.9501	ppb	0.03311	0.48%
Ca 317.933Radial†	14729.8	20564	ug/L	76.2	20564	ppb	76.2	0.37%
Cd 226.502†	1440.6	-0.6254	ug/L	0.27805	-0.6254	ppb	0.27805	44.46%
Co 228.616†	3900.7	57.581	ug/L	0.4940	57.581	ppb	0.4940	0.86%
Cr 267.716†	10249.2	105.40	ug/L	0.247	105.40	ppb	0.247	0.23%
Cu 324.752†	22865.8	71.315	ug/L	0.3832	71.315	ppb	0.3832	0.54%
Fe 238.204 Radial†	18345.6	145170	ug/L	2274.3	145170	ppb	2274.3	1.57%
K 766.490 Radial†	72158.0	12927	ug/L	209.3	12927	ppb	209.3	1.62%

Mg 279.077 IEC†	754.5	22646	ug/L	89.5	22646	ppb	89.5	0.40%
Mn 257.610†	3559645.0	3489.8	ug/L	6.25	3489.8	ppb	6.25	0.18%
Mo 202.031†	-93.1	8.3787	ug/L	1.02035	8.3787	ppb	1.02035	12.18%
Na 589.592 Radial†	11556.5	3158.2	ug/L	53.68	3158.2	ppb	53.68	1.70%
Ni 231.604†	3463.6	74.603	ug/L	0.6569	74.603	ppb	0.6569	0.88%
P 214.914†	2715.2	1290.3	ug/L	9.94	1290.3	ppb	9.94	0.77%
Pb 220.353†	1103.9	125.43	ug/L	1.998	125.43	ppb	1.998	1.59%
S 181.975 Axial†	436.1	501.06	ug/L	7.270	501.06	ppb	7.270	1.45%
Sb 206.836†	50.6	1.0245	ug/L	1.21053	1.0245	ppb	1.21053	118.15%
Se 196.026†	-901.2	-5.2611	ug/L	9.88218	-5.2611	ppb	9.88218	187.84%
Si 251.611†	317905.6	8845.5	ug/L	21.23	8845.5	ppb	21.23	0.24%
Sn 189.927†	-121.1	-13.573	ug/L	2.3843	-13.573	ppb	2.3843	17.57%
Sr 421.552†	46598.2	265.66	ug/L	4.349	265.66	ppb	4.349	1.64%
Ti 334.940†	2811998.9	4050.8	ug/L	8.27	4050.8	ppb	8.27	0.20%
Tl 190.801†	-200.2	2.3214	ug/L	3.28984	2.3214	ppb	3.28984	141.71%
U 409.014†	-7396.1	-223.75	ug/L	2.807	-223.75	ppb	2.807	1.25%
V 292.402†	48277.3	276.57	ug/L	0.234	276.57	ppb	0.234	0.08%
Zn 213.857†	36254.5	283.54	ug/L	0.569	283.54	ppb	0.569	0.20%
SiO2†	316127.0	18889	ug/L	42.2	18889	ppb	42.2	0.22%

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Sequence No.: 104
Sample ID: 242938009|934060|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 100
Date Collected: 12/21/2009 00:36:01
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 242938009|934060|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	5518.2	5518.2	98.8	%			00:38:14
1	Y RADIAL	6706.9	6706.9	114.4	%			00:38:14
1	Al 396.153Radial†	72583.9	73509.3	51631	ug/L	51631	ppb	00:37:54
1	Ca 317.933Radial†	17389.9	17590.5	24558	ug/L	24558	ppb	00:37:54
1	Fe 238.204 Radial†	12879.1	13029.7	103100	ug/L	103100	ppb	00:37:54
1	K 766.490 Radial†	36669.0	34257.4	6129.1	ug/L	6129.1	ppb	00:37:54
1	Mg 279.077 IEC†	383.6	386.2	11567	ug/L	11567	ppb	00:38:14
1	Na 589.592 Radial†	4310.7	5624.8	1537.2	ug/L	1537.2	ppb	00:37:54
1	Sr 421.552†	23015.8	23299.4	132.70	ug/L	132.70	ppb	00:37:54
1	Sc 361.383	936039.5	936039.5	104.07	%			00:39:12
1	Y 371.029	896741.6	896741.6	120.71	%			00:39:12
1	Ag 328.068†	-6738.3	-6874.1	5.4592	ug/L	5.4592	ppb	00:39:17
1	As 188.979†	-46.3	-17.0	32.442	ug/L	32.442	ppb	00:39:37
1	B 249.677†	372.2	-107.4	-15.923	ug/L	-15.923	ppb	00:39:17
1	Ba 233.527†	92819.7	89197.3	601.69	ug/L	601.69	ppb	00:39:17
1	Be 313.107†	-10797.6	-5780.1	3.3365	ug/L	3.3365	ppb	00:39:17
1	Cd 226.502†	772.2	967.7	-0.9273	ug/L	-0.9273	ppb	00:39:37
1	Co 228.616†	1220.3	1257.3	14.845	ug/L	14.845	ppb	00:39:37
1	Cr 267.716†	25839.7	24729.7	248.73	ug/L	248.73	ppb	00:39:17
1	Cu 324.752†	13331.3	6722.7	24.049	ug/L	24.049	ppb	00:39:17
1	Mn 257.610†	2423246.4	2327960.1	2283.1	ug/L	2283.1	ppb	00:39:12
1	Mo 202.031†	176.5	144.0	18.443	ug/L	18.443	ppb	00:39:37
1	Ni 231.604†	6370.0	6018.5	129.69	ug/L	129.69	ppb	00:39:37
1	P 214.914†	2510.1	2156.7	1028.1	ug/L	1028.1	ppb	00:39:37
1	Pb 220.353†	459.2	519.1	56.241	ug/L	56.241	ppb	00:39:37
1	S 181.975 Axial†	251.2	182.6	208.60	ug/L	208.60	ppb	00:39:37
1	Sb 206.836†	88.9	43.1	-0.1882	ug/L	-0.1882	ppb	00:39:37
1	Se 196.026†	-684.5	-628.9	-2.3478	ug/L	-2.3478	ppb	00:39:37
1	Si 251.611†	311173.2	298340.6	8302.8	ug/L	8302.8	ppb	00:39:17
1	Sn 189.927†	-93.0	-91.2	-9.3751	ug/L	-9.3751	ppb	00:39:37
1	Ti 334.940†	1930430.1	1856383.8	2674.8	ug/L	2674.8	ppb	00:39:12
1	Tl 190.801†	-209.3	-155.3	-4.7250	ug/L	-4.7250	ppb	00:39:37
1	U 409.014†	-15589.7	-12251.5	-353.50	ug/L	-353.50	ppb	00:39:12
1	V 292.402†	15179.7	16054.3	81.800	ug/L	81.800	ppb	00:39:17
1	Zn 213.857†	58103.2	55025.4	437.20	ug/L	437.20	ppb	00:39:17
1	SiO2†	321058.1	307813.7	18397	ug/L	18397	ppb	00:40:44
2	Sc Radial	5552.8	5552.8	99.4	%			00:38:39
2	Y RADIAL	6783.4	6783.4	115.7	%			00:38:39
2	Al 396.153Radial†	72936.5	73405.8	51559	ug/L	51559	ppb	00:38:19
2	Ca 317.933Radial†	17433.8	17525.0	24466	ug/L	24466	ppb	00:38:19
2	Fe 238.204 Radial†	12920.1	12989.6	102790	ug/L	102790	ppb	00:38:19
2	K 766.490 Radial†	36520.5	33876.5	6060.7	ug/L	6060.7	ppb	00:38:19
2	Mg 279.077 IEC†	386.7	386.8	11587	ug/L	11587	ppb	00:38:39
2	Na 589.592 Radial†	4319.5	5606.5	1532.2	ug/L	1532.2	ppb	00:38:19
2	Sr 421.552†	23222.5	23362.0	133.06	ug/L	133.06	ppb	00:38:19
2	Sc 361.383	939515.6	939515.6	104.46	%			00:39:43
2	Y 371.029	899708.6	899708.6	121.11	%			00:39:43
2	Ag 328.068†	-6948.5	-7051.3	4.6119	ug/L	4.6119	ppb	00:39:48
2	As 188.979†	-53.0	-23.2	30.219	ug/L	30.219	ppb	00:40:08
2	B 249.677†	331.4	-147.7	-16.704	ug/L	-16.704	ppb	00:39:48
2	Ba 233.527†	94652.3	90621.7	611.25	ug/L	611.25	ppb	00:39:48
2	Be 313.107†	-10896.8	-5836.7	3.3237	ug/L	3.3237	ppb	00:39:48
2	Cd 226.502†	774.4	967.1	-0.9020	ug/L	-0.9020	ppb	00:40:08
2	Co 228.616†	1220.9	1253.5	14.776	ug/L	14.776	ppb	00:40:08
2	Cr 267.716†	26342.0	25118.7	252.61	ug/L	252.61	ppb	00:39:48
2	Cu 324.752†	13482.0	6819.6	24.304	ug/L	24.304	ppb	00:39:48
2	Mn 257.610†	2432329.1	2328040.2	2283.2	ug/L	2283.2	ppb	00:39:43
2	Mo 202.031†	150.9	118.9	16.919	ug/L	16.919	ppb	00:40:08
2	Ni 231.604†	6357.1	5983.5	128.94	ug/L	128.94	ppb	00:40:08

2	P 214.914†	2507.9	2145.7	1022.6	ug/L	1022.6 ppb	00:40:08
2	Pb 220.353†	446.1	504.9	54.795	ug/L	54.795 ppb	00:40:08
2	S 181.975 Axial†	248.2	178.8	204.11	ug/L	204.11 ppb	00:40:08
2	Sb 206.836†	82.9	36.9	-2.1732	ug/L	-2.1732 ppb	00:40:08
2	Se 196.026†	-683.0	-625.1	-1.3391	ug/L	-1.3391 ppb	00:40:08
2	Si 251.611†	317058.7	302868.7	8428.9	ug/L	8428.9 ppb	00:39:48
2	Sn 189.927†	-109.3	-106.4	-11.625	ug/L	-11.625 ppb	00:40:08
2	Ti 334.940†	1939823.5	1858513.3	2677.9	ug/L	2677.9 ppb	00:39:43
2	Tl 190.801†	-201.7	-147.3	-2.6501	ug/L	-2.6501 ppb	00:40:08
2	U 409.014†	-15917.3	-12509.7	-360.63	ug/L	-360.63 ppb	00:39:43
2	V 292.402†	15547.1	16352.0	83.678	ug/L	83.678 ppb	00:39:48
2	Zn 213.857†	59243.1	55910.2	444.35	ug/L	444.35 ppb	00:39:48
2	SiO2†	317944.2	303691.3	18150	ug/L	18150 ppb	00:40:50
3	Sc Radial	5563.6	5563.6	99.6	%		00:39:04
3	Y RADIAL	6787.7	6787.7	115.8	%		00:39:04
3	Al 396.153Radial†	74510.1	74843.7	52568	ug/L	52568 ppb	00:38:44
3	Ca 317.933Radial†	17825.6	17884.4	24968	ug/L	24968 ppb	00:38:44
3	Fe 238.204 Radial†	13200.1	13245.7	104810	ug/L	104810 ppb	00:38:44
3	K 766.490 Radial†	37377.5	34665.8	6202.6	ug/L	6202.6 ppb	00:38:44
3	Mg 279.077 IEC†	384.2	383.6	11487	ug/L	11487 ppb	00:39:04
3	Na 589.592 Radial†	4397.9	5676.8	1551.4	ug/L	1551.4 ppb	00:38:44
3	Sr 421.552†	23658.7	23754.8	135.30	ug/L	135.30 ppb	00:38:44
3	Sc 361.383	922211.7	922211.7	102.53	%		00:40:14
3	Y 371.029	883695.4	883695.4	118.95	%		00:40:14
3	Ag 328.068†	-6851.4	-7081.5	5.1570	ug/L	5.1570 ppb	00:40:19
3	As 188.979†	-33.5	-5.2	36.917	ug/L	36.917 ppb	00:40:39
3	B 249.677†	360.6	-113.3	-16.272	ug/L	-16.272 ppb	00:40:19
3	Ba 233.527†	94652.7	92322.3	622.72	ug/L	622.72 ppb	00:40:19
3	Be 313.107†	-10982.7	-6116.2	3.2287	ug/L	3.2287 ppb	00:40:19
3	Cd 226.502†	775.5	982.1	-0.9586	ug/L	-0.9586 ppb	00:40:39
3	Co 228.616†	1225.9	1280.3	15.220	ug/L	15.220 ppb	00:40:39
3	Cr 267.716†	26360.3	25609.7	257.54	ug/L	257.54 ppb	00:40:19
3	Cu 324.752†	13530.5	7109.1	25.216	ug/L	25.216 ppb	00:40:19
3	Mn 257.610†	2388636.5	2329118.6	2284.4	ug/L	2284.4 ppb	00:40:14
3	Mo 202.031†	158.7	129.2	17.728	ug/L	17.728 ppb	00:40:39
3	Ni 231.604†	6352.2	6092.9	131.30	ug/L	131.30 ppb	00:40:39
3	P 214.914†	2517.3	2200.0	1048.8	ug/L	1048.8 ppb	00:40:39
3	Pb 220.353†	444.2	511.0	55.486	ug/L	55.486 ppb	00:40:39
3	S 181.975 Axial†	258.2	193.1	221.01	ug/L	221.01 ppb	00:40:39
3	Sb 206.836†	92.3	47.6	0.8498	ug/L	0.8498 ppb	00:40:39
3	Se 196.026†	-672.0	-626.6	4.4244	ug/L	4.4244 ppb	00:40:39
3	Si 251.611†	316792.9	308304.7	8580.2	ug/L	8580.2 ppb	00:40:19
3	Sn 189.927†	-119.2	-118.1	-13.253	ug/L	-13.253 ppb	00:40:39
3	Ti 334.940†	1903281.6	1857719.1	2676.7	ug/L	2676.7 ppb	00:40:14
3	Tl 190.801†	-206.4	-155.5	-4.7311	ug/L	-4.7311 ppb	00:40:39
3	U 409.014†	-15479.2	-12368.3	-356.97	ug/L	-356.97 ppb	00:40:14
3	V 292.402†	15558.9	16642.8	85.209	ug/L	85.209 ppb	00:40:19
3	Zn 213.857†	59149.4	56882.9	452.08	ug/L	452.08 ppb	00:40:19
3	SiO2†	318732.5	310171.2	18537	ug/L	18537 ppb	00:40:55

Mean Data: 242938009|934060|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	932589.0	103.69	%	1.018				0.98%
Sc Radial	5544.9	99.2	%	0.42				0.43%
Y 371.029	893381.9	120.26	%	1.147				0.95%
Y RADIAL	6759.3	115.3	%	0.78				0.67%
Ag 328.068†	-7002.3	5.0760	ug/L	0.42942	5.0760	ppb	0.42942	8.46%
Al 396.153Radial†	73919.6	51919	ug/L	563.3	51919	ppb	563.3	1.08%
As 188.979†	-15.2	33.192	ug/L	3.4114	33.192	ppb	3.4114	10.28%
B 249.677†	-122.8	-16.300	ug/L	0.3913	-16.300	ppb	0.3913	2.40%
Ba 233.527†	90713.8	611.89	ug/L	10.531	611.89	ppb	10.531	1.72%
Be 313.107†	-5911.0	3.2963	ug/L	0.05888	3.2963	ppb	0.05888	1.79%
Ca 317.933Radial†	17666.6	24664	ug/L	267.2	24664	ppb	267.2	1.08%
Cd 226.502†	972.3	-0.9293	ug/L	0.02836	-0.9293	ppb	0.02836	3.05%
Co 228.616†	1263.7	14.947	ug/L	0.2389	14.947	ppb	0.2389	1.60%
Cr 267.716†	25152.7	252.96	ug/L	4.417	252.96	ppb	4.417	1.75%
Cu 324.752†	6883.8	24.523	ug/L	0.6137	24.523	ppb	0.6137	2.50%
Fe 238.204 Radial†	13088.3	103570	ug/L	1089.9	103570	ppb	1089.9	1.05%
K 766.490 Radial†	34266.6	6130.8	ug/L	70.94	6130.8	ppb	70.94	1.16%

Mg 279.077 IEC†	385.5	11547	ug/L	52.9	11547	ppb	52.9	0.46%
Mn 257.610†	2328373.0	2283.6	ug/L	0.74	2283.6	ppb	0.74	0.03%
Mo 202.031†	130.7	17.697	ug/L	0.7627	17.697	ppb	0.7627	4.31%
Na 589.592 Radial†	5636.1	1540.2	ug/L	9.97	1540.2	ppb	9.97	0.65%
Ni 231.604†	6031.7	129.98	ug/L	1.204	129.98	ppb	1.204	0.93%
P 214.914†	2167.5	1033.1	ug/L	13.80	1033.1	ppb	13.80	1.34%
Pb 220.353†	511.6	55.507	ug/L	0.7234	55.507	ppb	0.7234	1.30%
S 181.975 Axial†	184.8	211.24	ug/L	8.752	211.24	ppb	8.752	4.14%
Sb 206.836†	42.5	-0.5039	ug/L	1.53604	-0.5039	ppb	1.53604	304.85%
Se 196.026†	-626.9	0.2458	ug/L	3.65371	0.2458	ppb	3.65371	>999.9%
Si 251.611†	303171.3	8437.3	ug/L	138.88	8437.3	ppb	138.88	1.65%
Sn 189.927†	-105.2	-11.418	ug/L	1.9472	-11.418	ppb	1.9472	17.05%
Sr 421.552†	23472.1	133.69	ug/L	1.406	133.69	ppb	1.406	1.05%
Ti 334.940†	1857538.7	2676.5	ug/L	1.55	2676.5	ppb	1.55	0.06%
Tl 190.801†	-152.7	-4.0354	ug/L	1.19970	-4.0354	ppb	1.19970	29.73%
U 409.014†	-12376.5	-357.03	ug/L	3.567	-357.03	ppb	3.567	1.00%
V 292.402†	16349.7	83.563	ug/L	1.7075	83.563	ppb	1.7075	2.04%
Zn 213.857†	55939.5	444.54	ug/L	7.444	444.54	ppb	7.444	1.67%
SiO2†	307225.4	18361	ug/L	196.0	18361	ppb	196.0	1.07%

Sequence No.: 105
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 12/21/2009 00:43:06
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5318.0	5318.0	95.2	%			00:44:58
1	Y RADIAL	5534.0	5534.0	94.41	%			00:44:58
1	Al 396.153Radial†	7038.1	7408.0	5181.8	ug/L	5181.8	ppb	00:44:58
1	Ca 317.933Radial†	3624.8	3790.7	5292.1	ug/L	5292.1	ppb	00:44:58
1	Fe 238.204 Radial†	636.7	657.7	5220.4	ug/L	5220.4	ppb	00:45:18
1	K 766.490 Radial†	30487.9	29160.7	5226.9	ug/L	5226.9	ppb	00:44:58
1	Mg 279.077 IEC†	171.4	177.9	5373.5	ug/L	5373.5	ppb	00:45:18
1	Na 589.592 Radial†	33020.5	35953.9	9825.6	ug/L	9825.6	ppb	00:44:58
1	Sr 421.552†	84222.0	88484.7	504.78	ug/L	504.78	ppb	00:44:58
1	Sc 361.383	912204.1	912204.1	101.42	%			00:46:17
1	Y 371.029	741680.9	741680.9	99.836	%			00:46:17
1	Ag 328.068†	119306.9	117235.8	503.39	ug/L	503.39	ppb	00:46:17
1	As 188.979†	1414.6	1422.2	509.89	ug/L	509.89	ppb	00:46:37
1	B 249.677†	24379.9	23573.3	478.94	ug/L	478.94	ppb	00:46:17
1	Ba 233.527†	76387.0	75325.3	506.99	ug/L	506.99	ppb	00:46:17
1	Be 313.107†	1553644.9	1536470.9	510.91	ug/L	510.91	ppb	00:46:17
1	Cd 226.502†	53611.0	53085.6	509.80	ug/L	509.80	ppb	00:46:17
1	Co 228.616†	29106.3	28783.2	499.36	ug/L	499.36	ppb	00:46:37
1	Cr 267.716†	51765.6	50941.1	508.80	ug/L	508.80	ppb	00:46:17
1	Cu 324.752†	188614.3	179884.4	503.04	ug/L	503.04	ppb	00:46:17
1	Mn 257.610†	526465.1	518596.9	506.79	ug/L	506.79	ppb	00:46:17
1	Mo 202.031†	8597.7	8451.6	502.87	ug/L	502.87	ppb	00:46:37
1	Ni 231.604†	23830.6	23394.4	503.86	ug/L	503.86	ppb	00:46:37
1	P 214.914†	5276.8	4947.7	2440.2	ug/L	2440.2	ppb	00:46:37
1	Pb 220.353†	4964.2	4972.5	510.37	ug/L	510.37	ppb	00:46:37
1	S 181.975 Axial†	891.2	819.9	981.31	ug/L	981.31	ppb	00:46:37
1	Sb 206.836†	1751.2	1684.3	504.10	ug/L	504.10	ppb	00:46:37
1	Se 196.026†	930.7	946.5	523.81	ug/L	523.81	ppb	00:46:37
1	Si 251.611†	92292.2	90339.2	2502.7	ug/L	2502.7	ppb	00:46:17
1	Sn 189.927†	3478.6	3428.0	502.01	ug/L	502.01	ppb	00:46:37
1	Ti 334.940†	350237.6	346800.2	499.33	ug/L	499.33	ppb	00:46:17
1	Tl 190.801†	1961.8	1980.1	508.51	ug/L	508.51	ppb	00:46:37
1	U 409.014†	14698.1	17220.5	476.33	ug/L	476.33	ppb	00:46:17
1	V 292.402†	79993.5	80341.1	511.12	ug/L	511.12	ppb	00:46:17
1	Zn 213.857†	64750.3	63038.2	504.14	ug/L	504.14	ppb	00:46:17
1	SiO2†	92784.8	90799.8	5401.8	ug/L	5401.8	ppb	00:47:37
2	Sc Radial	5509.5	5509.5	98.6	%			00:45:23
2	Y RADIAL	5728.1	5728.1	97.73	%			00:45:23
2	Al 396.153Radial†	7048.4	7161.6	5008.6	ug/L	5008.6	ppb	00:45:23
2	Ca 317.933Radial†	3615.3	3648.6	5093.8	ug/L	5093.8	ppb	00:45:23
2	Fe 238.204 Radial†	642.9	640.8	5086.2	ug/L	5086.2	ppb	00:45:43
2	K 766.490 Radial†	30475.8	28035.1	5025.0	ug/L	5025.0	ppb	00:45:23
2	Mg 279.077 IEC†	175.1	175.3	5297.8	ug/L	5297.8	ppb	00:45:43
2	Na 589.592 Radial†	32747.6	34471.4	9420.5	ug/L	9420.5	ppb	00:45:23
2	Sr 421.552†	83634.5	84813.3	483.83	ug/L	483.83	ppb	00:45:23
2	Sc 361.383	913558.6	913558.6	101.57	%			00:46:45
2	Y 371.029	742348.8	742348.8	99.926	%			00:46:45
2	Ag 328.068†	119125.8	116883.1	501.83	ug/L	501.83	ppb	00:46:45
2	As 188.979†	1413.0	1418.6	508.57	ug/L	508.57	ppb	00:47:05
2	B 249.677†	24505.3	23661.1	480.75	ug/L	480.75	ppb	00:46:45
2	Ba 233.527†	76399.1	75225.6	506.32	ug/L	506.32	ppb	00:46:45
2	Be 313.107†	1550870.5	1531468.2	509.25	ug/L	509.25	ppb	00:46:45
2	Cd 226.502†	53431.9	52830.9	507.37	ug/L	507.37	ppb	00:46:45
2	Co 228.616†	29148.4	28782.1	499.35	ug/L	499.35	ppb	00:47:05
2	Cr 267.716†	51571.9	50674.7	506.14	ug/L	506.14	ppb	00:46:45
2	Cu 324.752†	188943.9	179933.3	503.17	ug/L	503.17	ppb	00:46:45
2	Mn 257.610†	525840.7	517212.6	505.43	ug/L	505.43	ppb	00:46:45
2	Mo 202.031†	8606.7	8447.9	502.63	ug/L	502.63	ppb	00:47:05
2	Ni 231.604†	23863.0	23391.5	503.80	ug/L	503.80	ppb	00:47:05

2	P 214.914†	5255.8	4919.3	2425.8 ug/L	2425.8 ppb	00:47:05
2	Pb 220.353†	4955.8	4956.9	508.76 ug/L	508.76 ppb	00:47:05
2	S 181.975 Axial†	898.7	826.0	988.65 ug/L	988.65 ppb	00:47:05
2	Sb 206.836†	1740.7	1671.3	500.29 ug/L	500.29 ppb	00:47:05
2	Se 196.026†	922.4	936.9	518.26 ug/L	518.26 ppb	00:47:05
2	Si 251.611†	92328.8	90240.3	2500.1 ug/L	2500.1 ppb	00:46:45
2	Sn 189.927†	3464.6	3409.1	499.23 ug/L	499.23 ppb	00:47:05
2	Ti 334.940†	350212.6	346263.7	498.54 ug/L	498.54 ppb	00:46:45
2	Tl 190.801†	1958.4	1973.9	506.92 ug/L	506.92 ppb	00:47:05
2	U 409.014†	14860.2	17358.6	480.18 ug/L	480.18 ppb	00:46:45
2	V 292.402†	79776.0	80010.0	509.07 ug/L	509.07 ppb	00:46:45
2	Zn 213.857†	64665.0	62859.6	502.71 ug/L	502.71 ppb	00:46:45
2	SiO2†	92645.5	90527.0	5385.7 ug/L	5385.7 ppb	00:47:43
3	Sc Radial	5551.7	5551.7	99.4 %		00:45:48
3	Y RADIAL	5810.4	5810.4	99.13 %		00:45:48
3	Al 396.153Radial†	7057.0	7115.8	4976.7 ug/L	4976.7 ppb	00:45:48
3	Ca 317.933Radial†	3640.0	3645.6	5089.6 ug/L	5089.6 ppb	00:45:48
3	Fe 238.204 Radial†	640.9	633.8	5030.9 ug/L	5030.9 ppb	00:46:08
3	K 766.490 Radial†	30641.8	27967.4	5012.8 ug/L	5012.8 ppb	00:45:48
3	Mg 279.077 IEC†	173.6	172.4	5209.7 ug/L	5209.7 ppb	00:46:08
3	Na 589.592 Radial†	32997.6	34470.7	9420.3 ug/L	9420.3 ppb	00:45:48
3	Sr 421.552†	84474.7	85014.6	484.98 ug/L	484.98 ppb	00:45:48
3	Sc 361.383	922345.6	922345.6	102.55 %		00:47:12
3	Y 371.029	749720.9	749720.9	100.92 %		00:47:12
3	Ag 328.068†	120456.9	117063.8	502.59 ug/L	502.59 ppb	00:47:12
3	As 188.979†	1409.9	1402.4	502.81 ug/L	502.81 ppb	00:47:32
3	B 249.677†	24813.1	23731.4	482.20 ug/L	482.20 ppb	00:47:12
3	Ba 233.527†	76816.6	74916.1	504.24 ug/L	504.24 ppb	00:47:12
3	Be 313.107†	1566797.9	1532453.6	509.58 ug/L	509.58 ppb	00:47:12
3	Cd 226.502†	53761.4	52651.0	505.64 ug/L	505.64 ppb	00:47:12
3	Co 228.616†	29122.6	28483.5	494.16 ug/L	494.16 ppb	00:47:32
3	Cr 267.716†	51994.6	50603.2	505.43 ug/L	505.43 ppb	00:47:12
3	Cu 324.752†	191242.9	180402.9	504.48 ug/L	504.48 ppb	00:47:12
3	Mn 257.610†	529713.3	516056.9	504.29 ug/L	504.29 ppb	00:47:12
3	Mo 202.031†	8617.9	8378.2	498.48 ug/L	498.48 ppb	00:47:32
3	Ni 231.604†	23871.3	23175.8	499.15 ug/L	499.15 ppb	00:47:32
3	P 214.914†	5275.7	4889.5	2410.4 ug/L	2410.4 ppb	00:47:32
3	Pb 220.353†	4948.7	4903.5	503.28 ug/L	503.28 ppb	00:47:32
3	S 181.975 Axial†	899.6	818.5	979.63 ug/L	979.63 ppb	00:47:32
3	Sb 206.836†	1739.2	1653.6	494.94 ug/L	494.94 ppb	00:47:32
3	Se 196.026†	916.7	922.7	510.51 ug/L	510.51 ppb	00:47:32
3	Si 251.611†	93026.5	90054.7	2495.0 ug/L	2495.0 ppb	00:47:12
3	Sn 189.927†	3475.6	3387.4	496.04 ug/L	496.04 ppb	00:47:32
3	Ti 334.940†	353891.5	346566.3	498.98 ug/L	498.98 ppb	00:47:12
3	Tl 190.801†	1961.2	1958.2	502.94 ug/L	502.94 ppb	00:47:32
3	U 409.014†	14963.4	17319.9	479.12 ug/L	479.12 ppb	00:47:12
3	V 292.402†	80730.2	80192.2	510.16 ug/L	510.16 ppb	00:47:12
3	Zn 213.857†	64983.8	62564.0	500.36 ug/L	500.36 ppb	00:47:12
3	SiO2†	93412.1	90405.6	5378.6 ug/L	5378.6 ppb	00:47:48

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	916036.1	101.85	%	0.612				0.60%
Sc Radial	5459.7	97.7	%	2.23				2.28%
Y 371.029	744583.5	100.23	%	0.601				0.60%
Y RADIAL	5690.8	97.09	%	2.422				2.49%
Ag 328.068†	117060.9	502.60	ug/L	0.779	502.60	ppb	0.779	0.16%
QC value within limits for Ag 328.068 Recovery = 100.52%								
Al 396.153Radial†	7228.5	5055.7	ug/L	110.33	5055.7	ppb	110.33	2.18%
QC value within limits for Al 396.153Radial Recovery = 101.11%								
As 188.979†	1414.4	507.09	ug/L	3.765	507.09	ppb	3.765	0.74%
QC value within limits for As 188.979 Recovery = 101.42%								
B 249.677†	23655.2	480.63	ug/L	1.635	480.63	ppb	1.635	0.34%
QC value within limits for B 249.677 Recovery = 96.13%								
Ba 233.527†	75155.7	505.85	ug/L	1.435	505.85	ppb	1.435	0.28%
QC value within limits for Ba 233.527 Recovery = 101.17%								
Be 313.107†	1533464.2	509.91	ug/L	0.880	509.91	ppb	0.880	0.17%
QC value within limits for Be 313.107 Recovery = 101.98%								
Ca 317.933Radial†	3695.0	5158.5	ug/L	115.69	5158.5	ppb	115.69	2.24%

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   QC value within limits for Ca 317.933Radial  Recovery = 103.17%
Cd 226.502†            52855.8      507.61 ug/L         2.090      507.61 ppb          2.090   0.41%
   QC value within limits for Cd 226.502  Recovery = 101.52%
Co 228.616†            28683.0      497.62 ug/L         3.001      497.62 ppb          3.001   0.60%
   QC value within limits for Co 228.616  Recovery = 99.52%
Cr 267.716†            50739.7      506.79 ug/L         1.779      506.79 ppb          1.779   0.35%
   QC value within limits for Cr 267.716  Recovery = 101.36%
Cu 324.752†           180073.5      503.56 ug/L         0.796      503.56 ppb          0.796   0.16%
   QC value within limits for Cu 324.752  Recovery = 100.71%
Fe 238.204 Radial†       644.1      5112.5 ug/L        97.45      5112.5 ppb         97.45   1.91%
   QC value within limits for Fe 238.204 Radial  Recovery = 102.25%
K 766.490 Radial†      28387.7      5088.2 ug/L       120.23      5088.2 ppb        120.23   2.36%
   QC value within limits for K 766.490 Radial  Recovery = 101.76%
Mg 279.077 IEC†          175.2      5293.6 ug/L        82.01      5293.6 ppb         82.01   1.55%
   QC value within limits for Mg 279.077 IEC  Recovery = 105.87%
Mn 257.610†           517288.8      505.50 ug/L         1.250      505.50 ppb          1.250   0.25%
   QC value within limits for Mn 257.610  Recovery = 101.10%
Mo 202.031†             8425.9      501.33 ug/L         2.466      501.33 ppb          2.466   0.49%
   QC value within limits for Mo 202.031  Recovery = 100.27%
Na 589.592 Radial†     34965.3      9555.5 ug/L       233.97      9555.5 ppb        233.97   2.45%
   QC value within limits for Na 589.592 Radial  Recovery = 95.55%
Ni 231.604†            23320.6      502.27 ug/L         2.701      502.27 ppb          2.701   0.54%
   QC value within limits for Ni 231.604  Recovery = 100.45%
P 214.914†              4918.8      2425.5 ug/L        14.93      2425.5 ppb         14.93   0.62%
   QC value within limits for P 214.914  Recovery = 97.02%
Pb 220.353†             4944.3      507.47 ug/L         3.720      507.47 ppb          3.720   0.73%
   QC value within limits for Pb 220.353  Recovery = 101.49%
S 181.975 Axial†         821.5      983.20 ug/L         4.799      983.20 ppb          4.799   0.49%
   QC value within limits for S 181.975 Axial  Recovery = 98.32%
Sb 206.836†             1669.7      499.78 ug/L         4.603      499.78 ppb          4.603   0.92%
   QC value within limits for Sb 206.836  Recovery = 99.96%
Se 196.026†              935.4      517.53 ug/L         6.679      517.53 ppb          6.679   1.29%
   QC value within limits for Se 196.026  Recovery = 103.51%
Si 251.611†            90211.4      2499.3 ug/L         3.94      2499.3 ppb           3.94   0.16%
   QC value within limits for Si 251.611  Recovery = 99.97%
Sn 189.927†             3408.2      499.09 ug/L         2.987      499.09 ppb          2.987   0.60%
   QC value within limits for Sn 189.927  Recovery = 99.82%
Sr 421.552†            86104.2      491.20 ug/L        11.775      491.20 ppb         11.775   2.40%
   QC value within limits for Sr 421.552  Recovery = 98.24%
Ti 334.940†           346543.4      498.95 ug/L         0.393      498.95 ppb          0.393   0.08%
   QC value within limits for Ti 334.940  Recovery = 99.79%
Tl 190.801†             1970.7      506.13 ug/L         2.872      506.13 ppb          2.872   0.57%
   QC value within limits for Tl 190.801  Recovery = 101.23%
U 409.014†             17299.7      478.54 ug/L         1.992      478.54 ppb          1.992   0.42%
   QC value within limits for U 409.014  Recovery = 95.71%
V 292.402†             80181.1      510.12 ug/L         1.027      510.12 ppb          1.027   0.20%
   QC value within limits for V 292.402  Recovery = 102.02%
Zn 213.857†            62820.6      502.40 ug/L         1.909      502.40 ppb          1.909   0.38%
   QC value within limits for Zn 213.857  Recovery = 100.48%
SiO2†                  90577.5      5388.7 ug/L        11.89      5388.7 ppb         11.89   0.22%
   QC value within limits for SiO2  Recovery = 100.77%
All analyte(s) passed QC.
```

Sequence No.: 106
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 12/21/2009 00:49:57
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5592.1	5592.1	100	%			00:51:49
1	Y RADIAL	5857.6	5857.6	99.93	%			00:51:49
1	Al 396.153Radial†	-2.5	10.8	7.5854	ug/L	7.5854	ppb	00:51:49
1	Ca 317.933Radial†	18.8	1.0	1.3411	ug/L	1.3411	ppb	00:52:09
1	Fe 238.204 Radial†	9.7	-1.6	-12.373	ug/L	-12.373	ppb	00:52:09
1	K 766.490 Radial†	2966.8	92.0	16.544	ug/L	16.544	ppb	00:51:49
1	Mg 279.077 IEC†	1.3	-1.0	-29.452	ug/L	-29.452	ppb	00:52:09
1	Na 589.592 Radial†	-1478.6	-217.3	-59.394	ug/L	-59.394	ppb	00:51:49
1	Sr 421.552†	-23.0	-28.6	-0.1632	ug/L	-0.1632	ppb	00:51:49
1	Sc 361.383	905694.4	905694.4	100.70	%			00:53:06
1	Y 371.029	745991.5	745991.5	100.42	%			00:53:06
1	Ag 328.068†	406.8	4.6	0.0145	ug/L	0.0145	ppb	00:53:11
1	As 188.979†	-37.2	-9.5	-3.3555	ug/L	-3.3555	ppb	00:53:31
1	B 249.677†	-396.0	-858.3	-17.507	ug/L	-17.507	ppb	00:53:31
1	Ba 233.527†	21.3	29.7	0.1986	ug/L	0.1986	ppb	00:53:31
1	Be 313.107†	-4449.6	176.3	0.0581	ug/L	0.0581	ppb	00:53:11
1	Cd 226.502†	-232.8	-5.5	-0.0508	ug/L	-0.0508	ppb	00:53:31
1	Co 228.616†	-79.1	6.2	0.1068	ug/L	0.1068	ppb	00:53:31
1	Cr 267.716†	80.5	-19.2	-0.1925	ug/L	-0.1925	ppb	00:53:31
1	Cu 324.752†	6182.8	53.0	0.1475	ug/L	0.1475	ppb	00:53:11
1	Mn 257.610†	561.4	66.0	0.0637	ug/L	0.0637	ppb	00:53:31
1	Mo 202.031†	21.3	-4.4	-0.2647	ug/L	-0.2647	ppb	00:53:31
1	Ni 231.604†	126.0	22.9	0.4931	ug/L	0.4931	ppb	00:53:31
1	P 214.914†	244.6	-12.2	-6.2438	ug/L	-6.2438	ppb	00:53:31
1	Pb 220.353†	-88.6	-10.2	-1.0381	ug/L	-1.0381	ppb	00:53:31
1	S 181.975 Axial†	45.4	-13.6	-16.349	ug/L	-16.349	ppb	00:53:31
1	Sb 206.836†	38.2	-4.5	-1.3236	ug/L	-1.3236	ppb	00:53:31
1	Se 196.026†	-34.5	-5.5	-2.9569	ug/L	-2.9569	ppb	00:53:31
1	Si 251.611†	747.4	82.4	2.2930	ug/L	2.2930	ppb	00:53:31
1	Sn 189.927†	0.5	-1.4	-0.1986	ug/L	-0.1986	ppb	00:53:31
1	Ti 334.940†	-1618.1	-136.8	-0.1967	ug/L	-0.1967	ppb	00:53:11
1	Tl 190.801†	-41.0	5.0	1.2815	ug/L	1.2815	ppb	00:53:31
1	U 409.014†	-2760.2	-12.7	-0.3518	ug/L	-0.3518	ppb	00:53:06
1	V 292.402†	-1528.9	-49.8	-0.3158	ug/L	-0.3158	ppb	00:53:11
1	Zn 213.857†	832.9	22.3	0.1781	ug/L	0.1781	ppb	00:53:31
1	SiO2†	769.2	78.9	4.7148	ug/L	4.7148	ppb	00:54:37
2	Sc Radial	5549.7	5549.7	99.3	%			00:52:14
2	Y RADIAL	5809.9	5809.9	99.12	%			00:52:14
2	Al 396.153Radial†	1.7	15.0	10.515	ug/L	10.515	ppb	00:52:14
2	Ca 317.933Radial†	21.5	3.7	5.2191	ug/L	5.2191	ppb	00:52:34
2	Fe 238.204 Radial†	9.6	-1.6	-12.536	ug/L	-12.536	ppb	00:52:34
2	K 766.490 Radial†	2808.5	-44.7	-7.9866	ug/L	-7.9866	ppb	00:52:14
2	Mg 279.077 IEC†	1.8	-0.5	-13.602	ug/L	-13.602	ppb	00:52:34
2	Na 589.592 Radial†	-1564.2	-314.9	-86.059	ug/L	-86.059	ppb	00:52:14
2	Sr 421.552†	-58.9	-64.9	-0.3705	ug/L	-0.3705	ppb	00:52:14
2	Sc 361.383	919043.0	919043.0	102.18	%			00:53:36
2	Y 371.029	756360.0	756360.0	101.81	%			00:53:36
2	Ag 328.068†	481.3	71.6	0.2977	ug/L	0.2977	ppb	00:53:41
2	As 188.979†	-24.7	3.3	1.1847	ug/L	1.1847	ppb	00:54:01
2	B 249.677†	-401.9	-858.3	-17.508	ug/L	-17.508	ppb	00:54:01
2	Ba 233.527†	21.1	29.2	0.1958	ug/L	0.1958	ppb	00:54:01
2	Be 313.107†	-4473.3	217.3	0.0722	ug/L	0.0722	ppb	00:53:41
2	Cd 226.502†	-219.7	10.7	0.1046	ug/L	0.1046	ppb	00:54:01
2	Co 228.616†	-74.8	11.6	0.2023	ug/L	0.2023	ppb	00:54:01
2	Cr 267.716†	78.2	-22.6	-0.2274	ug/L	-0.2274	ppb	00:54:01
2	Cu 324.752†	6145.5	-72.7	-0.2040	ug/L	-0.2040	ppb	00:53:41
2	Mn 257.610†	574.5	70.7	0.0680	ug/L	0.0680	ppb	00:54:01
2	Mo 202.031†	36.9	10.6	0.6268	ug/L	0.6268	ppb	00:54:01
2	Ni 231.604†	113.5	8.8	0.1905	ug/L	0.1905	ppb	00:54:01

2	P 214.914†	239.1	-21.1	-10.694	ug/L	-10.694 ppb	00:54:01
2	Pb 220.353†	-65.9	13.3	1.3655	ug/L	1.3655 ppb	00:54:01
2	S 181.975 Axial†	40.8	-18.8	-22.560	ug/L	-22.560 ppb	00:54:01
2	Sb 206.836†	33.6	-9.6	-2.7852	ug/L	-2.7852 ppb	00:54:01
2	Se 196.026†	-26.0	3.4	1.7532	ug/L	1.7532 ppb	00:54:01
2	Si 251.611†	1024.1	342.4	9.5205	ug/L	9.5205 ppb	00:54:01
2	Sn 189.927†	7.8	5.8	0.8437	ug/L	0.8437 ppb	00:54:01
2	Ti 334.940†	-1469.9	31.5	0.0439	ug/L	0.0439 ppb	00:53:41
2	Tl 190.801†	-32.6	13.9	3.5427	ug/L	3.5427 ppb	00:54:01
2	U 409.014†	-2632.4	152.1	4.2243	ug/L	4.2243 ppb	00:53:36
2	V 292.402†	-1498.3	2.1	0.0320	ug/L	0.0320 ppb	00:53:41
2	Zn 213.857†	823.3	0.9	0.0071	ug/L	0.0071 ppb	00:54:01
2	SiO2†	799.2	97.2	5.7879	ug/L	5.7879 ppb	00:54:42
3	Sc Radial	5643.8	5643.8	101	%		00:52:39
3	Y RADIAL	5959.9	5959.9	101.7	%		00:52:39
3	Al 396.153Radial†	-4.2	9.2	6.4203	ug/L	6.4203 ppb	00:52:39
3	Ca 317.933Radial†	15.5	-2.5	-3.4977	ug/L	-3.4977 ppb	00:52:59
3	Fe 238.204 Radial†	11.2	-0.1	-0.6995	ug/L	-0.6995 ppb	00:52:59
3	K 766.490 Radial†	2981.1	79.0	14.216	ug/L	14.216 ppb	00:52:39
3	Mg 279.077 IEC†	4.7	2.3	70.604	ug/L	70.604 ppb	00:52:59
3	Na 589.592 Radial†	-1500.9	-225.9	-61.731	ug/L	-61.731 ppb	00:52:39
3	Sr 421.552†	-17.1	-22.5	-0.1285	ug/L	-0.1285 ppb	00:52:39
3	Sc 361.383	911341.4	911341.4	101.33	%		00:54:06
3	Y 371.029	751804.8	751804.8	101.20	%		00:54:06
3	Ag 328.068†	414.0	9.2	0.0363	ug/L	0.0363 ppb	00:54:11
3	As 188.979†	-20.0	7.7	2.7514	ug/L	2.7514 ppb	00:54:31
3	B 249.677†	-428.9	-888.3	-18.122	ug/L	-18.122 ppb	00:54:31
3	Ba 233.527†	13.8	22.2	0.1479	ug/L	0.1479 ppb	00:54:31
3	Be 313.107†	-4382.3	270.1	0.0898	ug/L	0.0898 ppb	00:54:11
3	Cd 226.502†	-248.1	-19.1	-0.1833	ug/L	-0.1833 ppb	00:54:31
3	Co 228.616†	-75.4	10.3	0.1784	ug/L	0.1784 ppb	00:54:31
3	Cr 267.716†	98.8	-1.7	-0.0180	ug/L	-0.0180 ppb	00:54:31
3	Cu 324.752†	6201.5	33.4	0.0933	ug/L	0.0933 ppb	00:54:11
3	Mn 257.610†	681.7	181.3	0.1756	ug/L	0.1756 ppb	00:54:31
3	Mo 202.031†	28.6	2.6	0.1570	ug/L	0.1570 ppb	00:54:31
3	Ni 231.604†	115.6	11.8	0.2552	ug/L	0.2552 ppb	00:54:31
3	P 214.914†	242.8	-15.5	-7.8984	ug/L	-7.8984 ppb	00:54:31
3	Pb 220.353†	-79.9	-1.0	-0.0991	ug/L	-0.0991 ppb	00:54:31
3	S 181.975 Axial†	49.9	-9.5	-11.360	ug/L	-11.360 ppb	00:54:31
3	Sb 206.836†	40.1	-2.8	-0.8284	ug/L	-0.8284 ppb	00:54:31
3	Se 196.026†	-31.4	-2.2	-1.1636	ug/L	-1.1636 ppb	00:54:31
3	Si 251.611†	756.8	87.1	2.4147	ug/L	2.4147 ppb	00:54:31
3	Sn 189.927†	5.4	3.5	0.5069	ug/L	0.5069 ppb	00:54:31
3	Ti 334.940†	-1436.4	52.4	0.0750	ug/L	0.0750 ppb	00:54:11
3	Tl 190.801†	-41.4	4.9	1.2604	ug/L	1.2604 ppb	00:54:31
3	U 409.014†	-2734.0	30.1	0.8354	ug/L	0.8354 ppb	00:54:06
3	V 292.402†	-1575.9	-86.8	-0.5396	ug/L	-0.5396 ppb	00:54:11
3	Zn 213.857†	834.8	19.1	0.1496	ug/L	0.1496 ppb	00:54:31
3	SiO2†	789.2	93.9	5.5940	ug/L	5.5940 ppb	00:54:47

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	912026.3	101.40	%	0.745				0.73%
Sc Radial	5595.2	100	%	0.8				0.84%
Y 371.029	751385.4	101.14	%	0.700				0.69%
Y RADIAL	5875.8	100.2	%	1.31				1.30%
Ag 328.068†	28.5	0.1161	ug/L	0.15760	0.1161	ppb	0.15760	135.69%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	11.6	8.1735	ug/L	2.10964	8.1735	ppb	2.10964	25.81%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	0.5	0.1936	ug/L	3.17179	0.1936	ppb	3.17179	>999.9%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-868.3	-17.713	ug/L	0.3547	-17.713	ppb	0.3547	2.00%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	27.0	0.1808	ug/L	0.02852	0.1808	ppb	0.02852	15.78%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	221.3	0.0734	ug/L	0.01587	0.0734	ppb	0.01587	21.63%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	0.7	1.0208	ug/L	4.36720	1.0208	ppb	4.36720	427.81%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                -4.6     -0.0432 ug/L       0.14413     -0.0432 ppb        0.14413 333.78%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                 9.3      0.1625 ug/L       0.04973      0.1625 ppb        0.04973  30.60%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†               -14.5     -0.1460 ug/L       0.11215     -0.1460 ppb        0.11215  76.83%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†                 4.6      0.0123 ug/L       0.18924      0.0123 ppb        0.18924 >999.9%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -1.1     -8.5360 ug/L       6.78716     -8.5360 ppb        6.78716  79.51%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          42.1      7.5912 ug/L      13.54086      7.5912 ppb       13.54086 178.38%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             0.3      9.1837 ug/L      53.77905      9.1837 ppb       53.77905 585.59%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               106.0      0.1025 ug/L       0.06341      0.1025 ppb        0.06341  61.88%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 2.9      0.1730 ug/L       0.44595      0.1730 ppb        0.44595 257.71%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       -252.7     -69.061 ug/L       14.7665     -69.061 ppb        14.7665  21.38%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                14.5      0.3129 ug/L       0.15934      0.3129 ppb        0.15934  50.92%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -16.3     -8.2788 ug/L       2.24953     -8.2788 ppb        2.24953  27.17%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                 0.7      0.0761 ug/L       1.21134      0.0761 ppb        1.21134 >999.9%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          -14.0     -16.756 ug/L        5.6109     -16.756 ppb         5.6109  33.49%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                -5.6     -1.6457 ug/L       1.01743     -1.6457 ppb        1.01743  61.82%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -1.4     -0.7891 ug/L       2.37728     -0.7891 ppb        2.37728 301.26%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†               170.6      4.7427 ug/L       4.13814      4.7427 ppb        4.13814  87.25%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 2.6      0.3840 ug/L       0.53186      0.3840 ppb        0.53186 138.51%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               -38.7     -0.2207 ug/L       0.13082     -0.2207 ppb        0.13082  59.27%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               -17.6     -0.0260 ug/L       0.14872     -0.0260 ppb        0.14872 572.94%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 7.9      2.0282 ug/L       1.31161      2.0282 ppb        1.31161  64.67%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 56.5      1.5693 ug/L       2.37466      1.5693 ppb        2.37466 151.32%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                -44.9     -0.2745 ug/L       0.28804     -0.2745 ppb        0.28804 104.93%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                14.1      0.1116 ug/L       0.09160      0.1116 ppb        0.09160  82.07%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                      90.0      5.3656 ug/L       0.57188      5.3656 ppb        0.57188  10.66%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Daily Performance Report

Sample ID: Sample
Sample Date/Time: Wednesday, December 30, 2009 10:52:28
Sample Description:
Method File: c:\elandata\Method\daily2.mth
Dataset File: c:\elandata\Dataset\090811\Sample.339
Tuning File: c:\elandata\Tuning\default2.tun
Optimization File: c:\elandata\Optimize\default.dac
Dual Detector Mode: Pulse

Acq. Dead Time(ns): 35
Current Dead Time (ns): 35

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Be	9.0	482.8	482.808	13.256	2.7
	Mg	24.0	15281.2	15281.170	209.340	1.4
	Co	58.9	52946.4	52946.352	787.353	1.5
	Rh	102.9	90138.7	90138.725	1267.467	1.4
	In	114.9	106414.9	106414.904	1048.065	1.0
	Pb	208.0	55655.2	55655.211	575.965	1.0
⌈>	Ba	137.9	92409.9	92409.939	805.257	0.9
⌊	Ba++	69.0	1870.1	0.020	0.000	1.9
⌈>	Ce	139.9	110008.8	110008.754	641.660	0.6
⌊	CeO	155.9	2602.1	0.024	0.000	1.9
	Bkgd	220.0	4.6	4.600	1.782	38.7

Current Optimization File Data

Current Value	Description
0.84	Nebulizer Gas Flow
6.00	Lens Voltage
1000.00	ICP RF Power
-1875.00	Analog Stage Voltage
1100.00	Pulse Stage Voltage
50.00	Discriminator Threshold
-2.00	AC Rod Offset

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	17	6.5	1089.0
Co	59	17	8.3	36716.1
In	115	17	9.8	80518.6

ICPMS #4 TUNING REPORT

File Name: default2.tun
File Path: c:\elandata\Tuning

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas Peak W
He	3.0	3.0	606	2060	0.612
Be	9.0	8.9	2032	2055	0.658
Mg	24.0	24.0	5673	2065	0.631
Mg	25.0	25.0	5935	2070	0.643
Mg	26.0	26.0	6159	2085	0.614
Co	58.9	58.9	14164	2120	0.670
Rh	102.9	102.9	24876	2220	0.650
In	114.9	114.8	27766	2255	0.632
Ce	139.9	139.9	33862	2300	0.634
Pb	206.0	205.9	49919	2460	0.688
Pb	207.0	207.0	50125	2380	0.661
Pb	208.0	208.0	50436	2490	0.648
U	238.1	238.1	57688	2480	0.703

ICPMS#4 - Summary Report

Sample ID: Blank
Sample Date/Time: Wednesday, December 30, 2009 12:30:08
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only no lrs.mth
Dataset File: C:\elandata\Dataset\091230\Blank.038

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		85025	
⌊	U	238		ug/L		86	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈>	Lu	175					
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Wednesday, December 30, 2009 12:32:20
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only no lrs.mth
Dataset File: C:\elandata\Dataset\091230\Standard 1.039

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		84541	84540.923
	U	238	10.000	ug/L	0.369	60255	0.712

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Lu	175					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Wednesday, December 30, 2009 12:34:29
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only no lrs.mth
Dataset File: C:\elandata\Dataset\091230\Standard 2.040

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		85646	85645.507
⌊	U	238	99.988	ug/L	1.016	602057	7.029

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈>	Lu	175					
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Wednesday, December 30, 2009 12:36:38
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only no Irs.mth
Dataset File: C:\elandata\Dataset\091230\QC Std 1.041

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		85636	85636.105
⌊	U	238	52.785	ug/L	0.828	317856	3.711

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈>	Lu	175		100.7			
⌊	U	238	105.570				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Wednesday, December 30, 2009 12:38:50
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only no Irs.mth
Dataset File: C:\elandata\Dataset\091230\QC Std 2.042

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		84296	84296.491
⌊	U	238	0.007	ug/L	14.920	125	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈>	Lu	175		99.1			
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Wednesday, December 30, 2009 12:41:03
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only no lrs.mth
Dataset File: C:\elandata\Dataset\091230\QC Std 3.043

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		85066	85065.747
⌊	U	238	0.232	ug/L	3.597	1475	0.016

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈>	Lu	175		100.0			
⌊	U	238	116.151				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Wednesday, December 30, 2009 12:43:14
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only no lrs.mth
Dataset File: C:\elandata\Dataset\091230\QC Std 4.044

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		83822	83821.730
⌊	U	238	-0.007	ug/L	5.879	42	-0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈>	Lu	175		98.6			
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Wednesday, December 30, 2009 12:45:25
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only no lrs.mth
Dataset File: C:\elandata\Dataset\091230\QC Std 5.045

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		84498	84498.402
⌊	U	238	20.814	ug/L	0.915	123716	1.463

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈>	Lu	175			99.4		
⌊	U	238	104.071				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Wednesday, December 30, 2009 12:47:37
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only no Irs.mth
Dataset File: C:\elandata\Dataset\091230\QC Std 6.046

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		85470	85470.441
⌊	U	238	52.407	ug/L	0.687	314982	3.684

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈>	Lu	175		100.5			
⌊	U	238	104.815				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Wednesday, December 30, 2009 12:49:50
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only no Irs.mth
Dataset File: C:\elandata\Dataset\091230\QC Std 7.047

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		85302	85301.774
⌊	U	238	0.003	ug/L	62.794	106	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈>	Lu	175		100.3			
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 1201998448
Sample Date/Time: Wednesday, December 30, 2009 12:52:03
Sample Type:
Sample Description: LANL 6020 MB
Number of Replicates: 3
Batch ID: 934057|2|skj
Method File: c:\elandata\Method\u only no lrs.mth
Dataset File: C:\elandata\Dataset\091230\1201998448.048

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		84605	84604.647
	U	238	0.000	ug/L	520.599	87	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Lu	175		99.5			
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 1201998449
Sample Date/Time: Wednesday, December 30, 2009 12:54:14
Sample Type:
Sample Description: LANL 6020 LCS
Number of Replicates: 3
Batch ID: 934057|40|skj
Method File: c:\elandata\Method\u only no irs.mth
Dataset File: C:\elandata\Dataset\091230\1201998449.049

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		84029	84029.276
⌊	U	238	0.552	ug/L	2.640	3348	0.039

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈>	Lu	175			98.8		
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 242938001
Sample Date/Time: Wednesday, December 30, 2009 12:56:25
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 934057|2|sk|
Method File: c:\elandata\Method\u only no lrs.mth
Dataset File: C:\elandata\Dataset\091230\242938001.050

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		85794	85793.711
⌊	U	238	3.968	ug/L	1.366	24018	0.279

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈>	Lu	175		100.9			
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 1201998450
Sample Date/Time: Wednesday, December 30, 2009 12:58:38
Sample Type:
Sample Description: LANL 6020 DUP
Number of Replicates: 3
Batch ID: 934057|2|skj
Method File: c:\elandata\Method\u only no Irs.mth
Dataset File: C:\elandata\Dataset\091230\1201998450.051

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		82164	82164.478
	U	238	4.363	ug/L	2.112	25281	0.307

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Lu	175		96.6			
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 1201998451
Sample Date/Time: Wednesday, December 30, 2009 13:00:50
Sample Type:
Sample Description: LANL 6020 MS
Number of Replicates: 3
Batch ID: 934057|2|skj
Method File: c:\elandata\Method\u only no lrs.mth
Dataset File: C:\elandata\Dataset\091230\1201998451.052

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		87224	87224.349
⌊	U	238	30.366	ug/L	0.263	186289	2.135

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈>	Lu	175		102.6			
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 1201998453
Sample Date/Time: Wednesday, December 30, 2009 13:03:04
Sample Type:
Sample Description: LANL 6020 MSD
Number of Replicates: 3
Batch ID: 934057|2|skj
Method File: c:\elandata\Method\u only no lrs.mth
Dataset File: C:\elandata\Dataset\091230\1201998453.053

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		87283	87282.725
⌊	U	238	31.647	ug/L	0.565	194269	2.225

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈>	Lu	175		102.7			
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 1201998452
Sample Date/Time: Wednesday, December 30, 2009 13:05:18
Sample Type:
Sample Description: LANL 6020 SDILT
Number of Replicates: 3
Batch ID: 934057|10|sk|
Method File: c:\elandata\Method\u only no lrs.mth
Dataset File: C:\elandata\Dataset\091230\1201998452.054

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		85170	85169.652
⌊	U	238	0.799	ug/L	1.126	4873	0.056

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈>	Lu	175		100.2			
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 242938002
Sample Date/Time: Wednesday, December 30, 2009 13:07:31
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 934057|2|sk|
Method File: c:\elandata\Method\u only no lrs.mth
Dataset File: C:\elandata\Dataset\091230\242938002.055

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		93891	93891.145
	U	238	2.770	ug/L	0.989	18379	0.195

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Lu	175		110.4			
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Wednesday, December 30, 2009 13:09:43
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only no lrs.mth
Dataset File: C:\elandata\Dataset\091230\QC Std 6.056

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		84640	84639.549
	U	238	52.776	ug/L	0.361	314122	3.710

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Lu	175		99.5			
	U	238	105.551				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Wednesday, December 30, 2009 13:11:56
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only no lrs.mth
Dataset File: C:\elandata\Dataset\091230\QC Std 7.057

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		83491	83491.478
	U	238	0.003	ug/L	11.580	101	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Lu	175		98.2			
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 242938003
Sample Date/Time: Wednesday, December 30, 2009 13:14:09
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 934057|2|skj
Method File: c:\elandata\Method\u only no lrs.mth
Dataset File: C:\elandata\Dataset\091230\242938003.058

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		86701	86701.171
	U	238	5.773	ug/L	0.662	35277	0.406

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Lu	175		102.0			
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 242938004
Sample Date/Time: Wednesday, December 30, 2009 13:16:21
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 934057|2|sk|
Method File: c:\elandata\Method\u only no lrs.mth
Dataset File: C:\elandata\Dataset\091230\242938004.059

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		88036	88035.986
⌊	U	238	**2.280**	ug/L	1.002	14202	0.160

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈>	Lu	175		103.5			
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 242938005
Sample Date/Time: Wednesday, December 30, 2009 13:18:34
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 934057|2|sk|
Method File: c:\elandata\Method\u only no lrs.mth
Dataset File: C:\elandata\Dataset\091230\242938005.060

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		87688	87687.510
	U	238	2.458	ug/L	0.234	15239	0.173

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Lu	175		103.1			
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 242938006
Sample Date/Time: Wednesday, December 30, 2009 13:20:47
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 934057|2|skj
Method File: c:\elandata\Method\u only no Irs.mth
Dataset File: C:\elandata\Dataset\091230\242938006.061

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		87752	87751.956
	U	238	5.688	ug/L	0.319	35178	0.400

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Lu	175		103.2			
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 242938007
Sample Date/Time: Wednesday, December 30, 2009 13:23:01
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 934057|2|skj
Method File: c:\elandata\Method\u only no lrs.mth
Dataset File: C:\elandata\Dataset\091230\242938007.062

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		88243	88242.612
	U	238	1.899	ug/L	1.095	11867	0.133

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Lu	175		103.8			
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 242938008
Sample Date/Time: Wednesday, December 30, 2009 13:25:16
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 934057|2|sk|
Method File: c:\elandata\Method\u only no lrs.mth
Dataset File: C:\elandata\Dataset\091230\242938008.063

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		88210	88210.388
⌊	U	238	6.158	ug/L	0.624	38280	0.433

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈>	Lu	175		103.7			
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 242938009
Sample Date/Time: Wednesday, December 30, 2009 13:27:29
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 934057|2|skj
Method File: c:\elandata\Method\u only no Irs.mth
Dataset File: C:\elandata\Dataset\091230\242938009.064

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		84757	84757.206
⌊	U	238	1.124	ug/L	0.528	6783	0.079

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈>	Lu	175		99.7			
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Wednesday, December 30, 2009 13:29:41
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only no Irs.mth
Dataset File: C:\elandata\Dataset\091230\QC Std 6.065

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		85462	85461.801
⌊	U	238	52.633	ug/L	0.418	316289	3.700

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈>	Lu	175		100.5			
⌊	U	238	105.267				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Wednesday, December 30, 2009 13:31:54
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only no lrs.mth
Dataset File: C:\elandata\Dataset\091230\QC Std 7.066

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		83591	83591.038
	U	238	0.006	ug/L	31.770	122	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Lu	175		98.3			
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS #5 Daily Performance Report

Sample ID: Sample
Sample Date/Time: Tuesday, December 29, 2009 11:38:35
Sample Description:
Method File: c:\elandata\Method\Daily2.mth
Dataset File: c:\elandata\Dataset\default2\Sample.1610
Tuning File: c:\elandata\Tuning\default2.tun
Optimization File: c:\elandata\Optimize\default.dac
Dual Detector Mode: Pulse

Acq. Dead Time(ns): 35
Current Dead Time (ns): 35

Number of Replicates: 5

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Be	9.0	6352.4	6352.412	122.235	1.9
	Mg	24.0	66816.7	66816.701	576.806	0.9
	Co	58.9	135311.2	135311.246	1300.003	1.0
	Rh	102.9	252125.1	252125.136	2337.228	0.9
	In	114.9	341336.0	341336.002	1768.651	0.5
	Pb	208.0	317999.7	317999.735	2432.059	0.8
⌈>	Ba	137.9	330734.9	330734.875	2563.738	0.8
⌊	Ba++	69.0	7017.3	0.021	0.000	2.1
⌈>	Ce	139.9	395098.8	395098.809	2147.278	0.5
⌊	CeO	155.9	9264.9	0.023	0.000	1.8
	Bkgd	220.0	15.9	15.900	3.732	23.5

Current Optimization File Data

Current Value	Description
0.88	Nebulizer Gas Flow
8.25	Lens Voltage
1450.00	ICP RF Power
-1687.50	Analog Stage Voltage
1200.00	Pulse Stage Voltage
275.00	Discriminator Threshold
-6.00	AC Rod Offset

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	17	7.3	7184.8
Co	59	17	8.0	131602.4
In	115	17	8.8	332850.0

ICPMS #5 Instrument Tuning Report

File Name: default2.tun
File Path: c:\elandata\Tuning

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Pk. Width
He	3.0	3.0	595	2065	0.625
Be	9.0	9.0	2043	2070	0.657
Mg	24.0	24.0	5671	2070	0.644
Mg	25.0	25.0	5947	2070	0.720
Mg	26.0	26.0	6143	2070	0.685
Co	58.9	59.0	14188	2105	0.652
Rh	102.9	102.9	24872	2165	0.644
In	114.9	114.9	27786	2185	0.636
Ce	139.9	139.9	33858	2200	0.665
Pb	206.0	206.0	49936	2270	0.684
Pb	207.0	206.9	50159	2235	0.718
Pb	208.0	208.0	50427	2260	0.753
U	238.1	238.0	57718	2275	0.763

ICPMS#5 - Summary Report

Sample ID: Blank
Sample Date/Time: Tuesday, December 29, 2009 22:45:07
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\091229\Blank.160

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7		ug/L		117	
	Be	9		ug/L		23	
	B	11		ug/L		1181	
	Na	23		ug/L		30033	
	Mg	24		ug/L		6335	
	Al	27		ug/L		10337	
	P	31		ug/L		7327	
	K	39		ug/L		674571	
	Ca	43		ug/L		361	
>	Sc	45		ug/L		2902969	
	Ti	47		ug/L		356	
	V	51		ug/L		16954	
	Cr	52		ug/L		2985	
	Cr	53		ug/L		126913	
	Mn	55		ug/L		1494	
	Fe	57		ug/L		7457	
	Co	59		ug/L		217	
	Ni	60		ug/L		121	
	Cu	63		ug/L		562	
	Cu	65		ug/L		303	
	Zn	66		ug/L		406	
	Zn	67		ug/L		15785	
	Zn	68		ug/L		1524	
>	Ge	74		ug/L		558562	
	As	75		ug/L		20	
	Se	77		ug/L		7694	
	Se	82		ug/L		-5	
	Kr	83		ug/L		130	
	Sr	88		ug/L		364	
	Y	89		ug/L		68	
	Mo	98		ug/L		183	
	Ag	107		ug/L		129	
	Cd	111		ug/L		34	
	Cd	114		ug/L		63	
>	In	115		ug/L		366403	
	Sn	120		ug/L		685	
	Sb	121		ug/L		1000	
	Sb	123		ug/L		816	
	Ba	135		ug/L		62	
	Ba	137		ug/L		86	
	Ho	165		ug/L		57	
>	Lu	175		ug/L		637560	
	Tl	205		ug/L		3146	
	Pb	208		ug/L		1038	
	Bi	209		ug/L		80	
	Th	232		ug/L		1375	
	U	238		ug/L		892	

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	1.0000
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	0.9999
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9997
Pb	208Linear Thru Zero	0.9998
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9997
U	238Linear Thru Zero	0.9997

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45					
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115					
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175					
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Tuesday, December 29, 2009 22:51:13
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\091229\Standard 1.161

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	10.000	ug/L	1.282	28501	0.010
	Be	9	10.000	ug/L	1.535	6235	0.002
	B	11	20.000	ug/L	1.313	13907	0.004
	Na	23	1000.000	ug/L	2.541	5171662	1.760
	Mg	24	1000.000	ug/L	7.518	3908830	1.335
	Al	27	1000.000	ug/L	2.651	5494288	1.877
	P	31	1000.000	ug/L	0.580	356224	0.119
	K	39	1000.000	ug/L	3.995	8024540	2.514
	Ca	43	1000.000	ug/L	0.883	18591	0.006
>	Sc	45		ug/L		2922543	2922543.075
	Ti	47	10.000	ug/L	2.185	8822	0.003
	V	51	10.000	ug/L	7.457	119403	0.035
	Cr	52	10.000	ug/L	1.594	80888	0.027
	Cr	53		ug/L		138258	0.004
	Mn	55	10.000	ug/L	2.677	128533	0.043
	Fe	57	1000.000	ug/L	1.288	265443	0.088
	Co	59	10.000	ug/L	2.474	100464	0.034
	Ni	60	10.000	ug/L	1.296	22113	0.008
	Cu	63		ug/L		53426	0.018
	Cu	65	10.000	ug/L	2.703	26583	0.009
	Zn	66	10.000	ug/L	1.704	17469	0.031
	Zn	67		ug/L		18503	0.005
	Zn	68		ug/L		13651	0.022
>	Ge	74		ug/L		559278	559277.976
	As	75	10.000	ug/L	1.527	15956	0.028
	Se	77		ug/L		9200	0.003
	Se	82	10.000	ug/L	3.488	1678	0.003
	Kr	83		ug/L		130	-0.000
	Sr	88	10.000	ug/L	2.430	201247	0.551
	Y	89		ug/L		92	0.000
	Mo	98	10.000	ug/L	1.323	45984	0.126
	Ag	107	10.000	ug/L	1.160	85246	0.233
	Cd	111	10.000	ug/L	0.987	20368	0.056
	Cd	114		ug/L		48560	0.133
>	In	115		ug/L		364670	364669.618
	Sn	120	10.000	ug/L	1.324	86603	0.236
	Sb	121	10.000	ug/L	2.435	68930	0.186
	Sb	123		ug/L		54595	0.147
	Ba	135		ug/L		21312	0.033
	Ba	137	10.000	ug/L	1.278	37237	0.058
	Ho	165		ug/L		71	0.000
>	Lu	175		ug/L		635648	635648.005
	Tl	205	10.000	ug/L	2.197	312752	0.487
	Pb	208	10.000	ug/L	2.169	455079	0.714
	Bi	209		ug/L		113	0.000
	Th	232	10.000	ug/L	2.762	556454	0.873
	U	238	10.000	ug/L	1.583	577121	0.907

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	1.0000
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
Pb	208Linear Thru Zero	1.0000
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
Li	7					
Be	9					
B	11					
Na	23					
Mg	24					
Al	27					
P	31					
K	39					
Ca	43					
Sc	45					
Ti	47					
V	51					
Cr	52					
Cr	53					
Mn	55					
Fe	57					
Co	59					
Ni	60					
Cu	63					
Cu	65					
Zn	66					
Zn	67					
Zn	68					
Ge	74					
As	75					
Se	77					
Se	82					
Kr	83					
Sr	88					
Y	89					
Mo	98					
Ag	107					
Cd	111					
Cd	114					
In	115					
Sn	120					
Sb	121					
Sb	123					
Ba	135					
Ba	137					
Ho	165					
Lu	175					
Tl	205					
Pb	208					
Bi	209					
Th	232					
U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Tuesday, December 29, 2009 22:57:17
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\091229\Standard 2.162

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**99.997**	**ug/L**	1.425	282369	0.097
	Be	9	**100.000**	**ug/L**	1.067	61954	0.021
	B	11	**200.031**	**ug/L**	3.165	130012	0.044
	Na	23	**10009.023**	**ug/L**	8.375	56446015	19.358
	Mg	24	**9999.196**	**ug/L**	5.188	38583572	13.238
	Al	27	**9991.628**	**ug/L**	4.616	50442357	17.304
	P	31	**9993.922**	**ug/L**	1.433	3284881	1.125
	K	39	**9995.902**	**ug/L**	6.432	71023664	24.136
	Ca	43	**9998.549**	**ug/L**	1.246	179503	0.061
>	Sc	45		**ug/L**		2914457	2914457.020
	Ti	47	**100.017**	**ug/L**	0.294	86205	0.029
	V	51	**99.927**	**ug/L**	0.306	967234	0.326
	Cr	52	**99.959**	**ug/L**	1.551	749039	0.256
	Cr	53		**ug/L**		209598	0.028
	Mn	55	**99.915**	**ug/L**	0.581	1168684	0.400
	Fe	57	**9993.722**	**ug/L**	0.707	2426418	0.830
	Co	59	**99.935**	**ug/L**	1.020	938279	0.322
	Ni	60	**99.959**	**ug/L**	1.915	210781	0.072
	Cu	63		**ug/L**		501824	0.172
	Cu	65	**99.953**	**ug/L**	1.560	250507	0.086
	Zn	66	**99.966**	**ug/L**	2.455	164609	0.295
	Zn	67		**ug/L**		41969	0.047
	Zn	68		**ug/L**		119150	0.211
>	Ge	74		**ug/L**		556844	556844.174
	As	75	**100.031**	**ug/L**	0.809	163832	0.294
	Se	77		**ug/L**		19580	0.021
	Se	82	**99.988**	**ug/L**	0.760	16543	0.030
	Kr	83		**ug/L**		148	0.000
	Sr	88	**99.893**	**ug/L**	0.629	1756035	4.969
	Y	89		**ug/L**		229	0.000
	Mo	98	**100.011**	**ug/L**	1.170	448751	1.270
	Ag	107	**99.937**	**ug/L**	0.956	775867	2.195
	Cd	111	**99.999**	**ug/L**	1.226	196923	0.557
	Cd	114		**ug/L**		459398	1.300
>	In	115		**ug/L**		353330	353330.283
	Sn	120	**99.959**	**ug/L**	1.502	800070	2.263
	Sb	121	**100.005**	**ug/L**	3.190	662654	1.873
	Sb	123		**ug/L**		524308	1.482
	Ba	135		**ug/L**		210204	0.336
	Ba	137	**99.996**	**ug/L**	1.422	364072	0.582
	Ho	165		**ug/L**		70	0.000
>	Lu	175		**ug/L**		625356	625355.786
	Tl	205	**99.779**	**ug/L**	1.971	2491834	3.980
	Pb	208	**99.848**	**ug/L**	1.679	3874300	6.195
	Bi	209		**ug/L**		409	0.001
	Th	232	**99.793**	**ug/L**	1.806	4517589	7.223
	U	238	**99.810**	**ug/L**	2.318	4756463	7.606

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	0.9999
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9998
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45					
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115					
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175					
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Tuesday, December 29, 2009 23:03:21
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\091229\QC Std 1.163

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**52.505**	**ug/L**	0.369	149281	0.051
	Be	9	**51.819**	**ug/L**	0.270	32323	0.011
	B	11	**106.449**	**ug/L**	2.586	70201	0.024
	Na	23	**4608.057**	**ug/L**	4.803	26177862	8.912
	Mg	24	**5028.760**	**ug/L**	6.285	19541346	6.658
	Al	27	**5468.563**	**ug/L**	5.546	27779849	9.470
	P	31	**4856.033**	**ug/L**	1.551	1610155	0.546
	K	39	**5246.809**	**ug/L**	7.762	37827821	12.669
	Ca	43	**5008.498**	**ug/L**	2.899	90674	0.031
>	Sc	45		**ug/L**		2933319	2933319.015
	Ti	47	**50.745**	**ug/L**	1.103	44196	0.015
	V	51	**52.026**	**ug/L**	2.244	514987	0.170
	Cr	52	**52.554**	**ug/L**	0.788	397782	0.135
	Cr	53		**ug/L**		170184	0.014
	Mn	55	**54.488**	**ug/L**	1.015	642105	0.218
	Fe	57	**4993.049**	**ug/L**	1.295	1223811	0.415
	Co	59	**51.984**	**ug/L**	0.941	491327	0.167
	Ni	60	**53.118**	**ug/L**	2.656	112775	0.038
	Cu	63		**ug/L**		263315	0.090
	Cu	65	**51.484**	**ug/L**	0.809	130016	0.044
	Zn	66	**52.809**	**ug/L**	0.820	88176	0.156
	Zn	67		**ug/L**		29394	0.024
	Zn	68		**ug/L**		63998	0.111
>	Ge	74		**ug/L**		563337	563337.066
	As	75	**48.976**	**ug/L**	1.155	81158	0.144
	Se	77		**ug/L**		13945	0.011
	Se	82	**50.418**	**ug/L**	4.014	8434	0.015
	Kr	83		**ug/L**		129	-0.000
	Sr	88	**54.658**	**ug/L**	0.442	978992	2.719
	Y	89		**ug/L**		115	0.000
	Mo	98	**50.273**	**ug/L**	0.456	229889	0.638
	Ag	107	**51.650**	**ug/L**	0.726	408532	1.135
	Cd	111	**50.943**	**ug/L**	0.526	102215	0.284
	Cd	114		**ug/L**		242332	0.673
>	In	115		**ug/L**		359933	359933.457
	Sn	120	**52.338**	**ug/L**	0.943	427093	1.185
	Sb	121	**51.414**	**ug/L**	1.855	347586	0.963
	Sb	123		**ug/L**		274973	0.762
	Ba	135		**ug/L**		109135	0.173
	Ba	137	**51.969**	**ug/L**	1.527	191153	0.303
	Ho	165		**ug/L**		86	0.000
>	Lu	175		**ug/L**		631657	631656.805
	Tl	205	**54.756**	**ug/L**	1.652	1382874	2.184
	Pb	208	**55.307**	**ug/L**	0.767	2168342	3.431
	Bi	209		**ug/L**		478	0.001
	Th	232	**52.221**	**ug/L**	0.480	2388886	3.780
	U	238	**53.163**	**ug/L**	1.427	2559617	4.051

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	1.0000
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	0.9999
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9998
U	238Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7	105.011				
	Be	9	103.637				
	B	11	106.449				
	Na	23	92.161				
	Mg	24	100.575				
	Al	27	108.288				
	P	31	97.121				
	K	39	104.936				
	Ca	43	100.170				
>	Sc	45		101.0			
	Ti	47	101.491				
	V	51	104.053				
	Cr	52	105.108				
	Cr	53					
	Mn	55	108.975				
	Fe	57	99.861				
	Co	59	103.968				
	Ni	60	106.235				
	Cu	63					
	Cu	65	102.967				
	Zn	66	105.619				
	Zn	67					
	Zn	68					
>	Ge	74		100.9			
	As	75	97.951				
	Se	77					
	Se	82	100.836				
	Kr	83					
	Sr	88	109.316				
	Y	89					
	Mo	98	100.545				
	Ag	107	103.300				
	Cd	111	101.887				
	Cd	114					
>	In	115		98.2			
	Sn	120	104.676				
	Sb	121	102.829				
	Sb	123					
	Ba	135					
	Ba	137	103.937				
	Ho	165					
>	Lu	175		99.1			
	Tl	205	109.511				
	Pb	208	110.614				
	Bi	209					
	Th	232	104.443				
	U	238	106.325				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 1	Pb	208	ICV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Tuesday, December 29, 2009 23:09:28
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\091229\QC Std 2.164

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.026**	**ug/L**	9.204	192	0.000
	Be	9	**-0.001**	**ug/L**	984.428	23	-0.000
	B	11	**2.512**	**ug/L**	21.023	2819	0.001
	Na	23	**1.201**	**ug/L**	116.175	37049	0.002
	Mg	24	**0.246**	**ug/L**	222.847	7335	0.000
	Al	27	**0.445**	**ug/L**	180.980	12673	0.001
	P	31	**2.468**	**ug/L**	33.345	8202	0.000
	K	39	**2.697**	**ug/L**	149.238	699392	0.007
	Ca	43	**-0.433**	**ug/L**	426.956	356	-0.000
>	Sc	45		**ug/L**		2928146	2928145.908
	Ti	47	**-0.027**	**ug/L**	41.473	336	-0.000
	V	51	**0.052**	**ug/L**	893.339	17573	0.000
	Cr	52	**0.081**	**ug/L**	61.038	3614	0.000
	Cr	53		**ug/L**		126088	-0.001
	Mn	55	**-0.002**	**ug/L**	354.107	1484	-0.000
	Fe	57	**0.915**	**ug/L**	71.935	7743	0.000
	Co	59	**0.002**	**ug/L**	136.348	241	0.000
	Ni	60	**0.007**	**ug/L**	83.390	137	0.000
	Cu	63		**ug/L**		588	0.000
	Cu	65	**-0.001**	**ug/L**	1061.397	304	-0.000
	Zn	66	**-0.004**	**ug/L**	227.085	403	-0.000
	Zn	67		**ug/L**		14884	-0.002
	Zn	68		**ug/L**		1428	-0.000
>	Ge	74		**ug/L**		563990	563989.551
	As	75	**-0.192**	**ug/L**	54.131	-299	-0.001
	Se	77		**ug/L**		7967	0.000
	Se	82	**0.098**	**ug/L**	55.166	11	0.000
	Kr	83		**ug/L**		128	-0.000
	Sr	88	**0.005**	**ug/L**	28.236	448	0.000
	Y	89		**ug/L**		58	-0.000
	Mo	98	**0.049**	**ug/L**	23.461	410	0.001
	Ag	107	**0.006**	**ug/L**	65.527	177	0.000
	Cd	111	**0.005**	**ug/L**	68.303	44	0.000
	Cd	114		**ug/L**		103	0.000
>	In	115		**ug/L**		366780	366780.212
	Sn	120	**0.093**	**ug/L**	11.661	1460	0.002
	Sb	121	**0.607**	**ug/L**	16.785	5171	0.011
	Sb	123		**ug/L**		4063	0.009
	Ba	135		**ug/L**		64	0.000
	Ba	137	**0.008**	**ug/L**	59.403	114	0.000
	Ho	165		**ug/L**		70	0.000
>	Lu	175		**ug/L**		629103	629103.235
	Tl	205	**0.124**	**ug/L**	24.358	6225	0.005
	Pb	208	**0.006**	**ug/L**	36.056	1257	0.000
	Bi	209		**ug/L**		69	-0.000
	Th	232	**0.064**	**ug/L**	21.219	4263	0.005
	U	238	**0.010**	**ug/L**	23.387	1376	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	0.9999
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9998
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		100.9			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		101.0			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		100.1			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		98.7			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Tuesday, December 29, 2009 23:15:36
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\091229\QC Std 3.165

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**11.399**	ug/L	0.668	32372	0.011
	Be	9	**0.575**	ug/L	4.680	381	0.000
	B	11	**16.716**	ug/L	2.470	11980	0.004
	Na	23	**257.567**	ug/L	11.808	1486113	0.498
	Mg	24	**15.374**	ug/L	15.576	65820	0.020
	Al	27	**39.882**	ug/L	9.859	212241	0.069
	P	31	**58.285**	ug/L	5.326	26534	0.007
	K	39	**325.749**	ug/L	8.837	2976408	0.787
	Ca	43	**218.387**	ug/L	1.222	4285	0.001
>	Sc	45		ug/L		2921588	2921588.494
	Ti	47	**9.358**	ug/L	1.873	8410	0.003
	V	51	**11.333**	ug/L	3.179	125087	0.037
	Cr	52	**11.507**	ug/L	2.830	89093	0.029
	Cr	53		ug/L		140192	0.004
	Mn	55	**6.136**	ug/L	1.003	73354	0.025
	Fe	57	**114.751**	ug/L	1.976	35347	0.010
	Co	59	**1.143**	ug/L	1.349	10969	0.004
	Ni	60	**2.258**	ug/L	1.947	4891	0.002
	Cu	63		ug/L		6594	0.002
	Cu	65	**1.165**	ug/L	2.216	3228	0.001
	Zn	66	**11.284**	ug/L	0.798	19163	0.033
	Zn	67		ug/L		18249	0.004
	Zn	68		ug/L		14554	0.023
>	Ge	74		ug/L		563304	563303.765
	As	75	**5.441**	ug/L	7.620	9033	0.016
	Se	77		ug/L		8948	0.002
	Se	82	**5.646**	ug/L	4.897	940	0.002
	Kr	83		ug/L		118	-0.000
	Sr	88	**12.317**	ug/L	1.576	224517	0.613
	Y	89		ug/L		68	0.000
	Mo	98	**0.553**	ug/L	3.194	2751	0.007
	Ag	107	**1.094**	ug/L	1.979	8922	0.024
	Cd	111	**1.088**	ug/L	2.267	2253	0.006
	Cd	114		ug/L		5242	0.014
>	In	115		ug/L		365847	365846.910
	Sn	120	**5.543**	ug/L	0.388	46587	0.125
	Sb	121	**3.338**	ug/L	4.183	23871	0.063
	Sb	123		ug/L		18637	0.049
	Ba	135		ug/L		4659	0.007
	Ba	137	**2.167**	ug/L	2.101	8058	0.013
	Ho	165		ug/L		68	0.000
>	Lu	175		ug/L		632229	632228.605
	Tl	205	**1.329**	ug/L	0.532	36642	0.053
	Pb	208	**2.520**	ug/L	0.928	99865	0.156
	Bi	209		ug/L		101	0.000
	Th	232	**1.387**	ug/L	1.009	64819	0.100
	U	238	**0.277**	ug/L	1.668	14210	0.021

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	0.9999
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9998
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7	113.992				
	Be	9	115.086				
	B	11	111.442				
	Na	23	103.027				
	Mg	24	102.496				
	Al	27	132.941				
	P	31	116.570				
	K	39	108.583				
	Ca	43	109.194				
>	Sc	45		100.6			
	Ti	47	93.581				
	V	51	113.331				
	Cr	52	115.071				
	Cr	53					
	Mn	55	122.715				
	Fe	57	114.751				
	Co	59	114.257				
	Ni	60	112.888				
	Cu	63					
	Cu	65	116.480				
	Zn	66	112.845				
	Zn	67					
	Zn	68					
>	Ge	74		100.8			
	As	75	108.824				
	Se	77					
	Se	82	112.919				
	Kr	83					
	Sr	88	123.171				
	Y	89					
	Mo	98	110.593				
	Ag	107	109.407				
	Cd	111	108.827				
	Cd	114					
>	In	115		99.8			
	Sn	120	110.861				
	Sb	121	111.268				
	Sb	123					
	Ba	135					
	Ba	137	108.329				
	Ho	165					
>	Lu	175		99.2			
	Tl	205	132.914				
	Pb	208	125.994				
	Bi	209					
	Th	232	138.671				
	U	238	138.294				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 3	Al	27	CRDL is out of limits
QC Std 3	Tl	205	CRDL is out of limits
QC Std 3	Th	232	CRDL is out of limits
QC Std 3	U	238	CRDL is out of limits

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Tuesday, December 29, 2009 23:21:42
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\091229\QC Std 4.166

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.121**	ug/L	1.076	408	0.000
	Be	9	**0.060**	ug/L	2.227	54	0.000
	B	11	**1.175**	ug/L	13.937	1725	0.000
	Na	23	**93646.706**	ug/L	7.916	468420121	181.120
	Mg	24	**96451.514**	ug/L	5.906	330383054	127.691
	Al	27	**99763.648**	ug/L	3.722	447036252	172.771
	P	31	**94274.209**	ug/L	2.788	27455853	10.609
	K	39	**102691.950**	ug/L	1.349	642300958	247.955
	Ca	43	**93096.848**	ug/L	2.584	1481243	0.572
>	Sc	45		ug/L		2588177	2588177.314
	Ti	47	**1432.045**	ug/L	2.583	1091564	0.422
	V	51	**-0.191**	ug/L	280.547	13461	-0.001
	Cr	52	**2.452**	ug/L	2.724	18911	0.006
	Cr	53		ug/L		96317	-0.006
	Mn	55	**6.615**	ug/L	2.090	69937	0.027
	Fe	57	**100546.184**	ug/L	3.259	21612194	8.350
	Co	59	**0.321**	ug/L	3.707	2872	0.001
	Ni	60	**2.984**	ug/L	4.106	5691	0.002
	Cu	63		ug/L		10301	0.004
	Cu	65	**2.654**	ug/L	4.144	6167	0.002
	Zn	66	**3.562**	ug/L	4.621	5593	0.011
	Zn	67		ug/L		13914	-0.000
	Zn	68		ug/L		2455	0.002
>	Ge	74		ug/L		498019	498018.958
	As	75	**-0.177**	ug/L	99.066	-245	-0.001
	Se	77		ug/L		8415	0.003
	Se	82	**-0.976**	ug/L	4.706	-149	-0.000
	Kr	83		ug/L		378	0.001
	Sr	88	**1.351**	ug/L	2.811	21739	0.067
	Y	89		ug/L		634	0.002
	Mo	98	**1950.457**	ug/L	2.456	7894565	24.761
	Ag	107	**0.074**	ug/L	9.277	629	0.002
	Cd	111	**0.557**	ug/L	14.680	1020	0.003
	Cd	114		ug/L		11828	0.037
>	In	115		ug/L		318897	318896.617
	Sn	120	**0.148**	ug/L	12.001	1665	0.003
	Sb	121	**0.179**	ug/L	24.325	1940	0.003
	Sb	123		ug/L		1601	0.003
	Ba	135		ug/L		1411	0.002
	Ba	137	**0.690**	ug/L	3.401	2321	0.004
	Ho	165		ug/L		1420	0.002
>	Lu	175		ug/L		559084	559083.896
	Tl	205	**-0.014**	ug/L	30.671	2454	-0.001
	Pb	208	**0.194**	ug/L	2.294	7621	0.012
	Bi	209		ug/L		1453	0.002
	Th	232	**0.045**	ug/L	41.873	3025	0.003
	U	238	**-0.013**	ug/L	2.433	207	-0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	0.9999
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9998
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23	93.647				
	Mg	24	96.452				
	Al	27	99.764				
	P	31	94.274				
	K	39	102.692				
	Ca	43	93.097				
>	Sc	45		89.2			
	Ti	47	71.602				
	V	51					
	Cr	52	66.277				
	Cr	53					
	Mn	55	114.043				
	Fe	57	100.546				
	Co	59	128.600				
	Ni	60	110.512				
	Cu	63					
	Cu	65	91.508				
	Zn	66	98.948				
	Zn	67					
	Zn	68					
>	Ge	74		89.2			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88	112.560				
	Y	89					
	Mo	98	97.523				
	Ag	107					
	Cd	111	139.173				
	Cd	114					
>	In	115		87.0			
	Sn	120					
	Sb	121	179.472				
	Sb	123					
	Ba	135					
	Ba	137	103.039				
	Ho	165					
>	Lu	175		87.7			
	Tl	205					
	Pb	208	96.767				
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
QC Std 4	Ti	47ICSA is out of limits

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Tuesday, December 29, 2009 23:27:48
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\091229\QC Std 5.167

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**20.578**	ug/L	0.435	51883	0.020
	Be	9	**19.241**	ug/L	1.661	10643	0.004
	B	11	**19.243**	ug/L	1.744	12104	0.004
	Na	23	**93421.956**	ug/L	5.051	469565402	180.685
	Mg	24	**99421.183**	ug/L	5.593	342047855	131.623
	Al	27	**108777.188**	ug/L	2.466	489437074	188.381
	P	31	**92904.326**	ug/L	0.633	27167785	10.455
	K	39	**97660.958**	ug/L	4.362	613158096	235.807
	Ca	43	**90065.457**	ug/L	1.133	1438799	0.554
>	Sc	45		ug/L		2598071	2598070.841
	Ti	47	**1409.565**	ug/L	1.273	1078833	0.415
	V	51	**21.673**	ug/L	1.255	198892	0.071
	Cr	52	**23.245**	ug/L	0.293	157332	0.060
	Cr	53		ug/L		110542	-0.001
	Mn	55	**28.271**	ug/L	1.350	295725	0.113
	Fe	57	**100613.471**	ug/L	0.914	21715083	8.356
	Co	59	**20.649**	ug/L	0.653	172984	0.067
	Ni	60	**22.069**	ug/L	0.744	41569	0.016
	Cu	63		ug/L		93153	0.036
	Cu	65	**21.716**	ug/L	3.976	48740	0.019
	Zn	66	**21.702**	ug/L	1.348	32619	0.064
	Zn	67		ug/L		18509	0.008
	Zn	68		ug/L		22233	0.041
>	Ge	74		ug/L		503754	503754.383
	As	75	**20.305**	ug/L	1.409	30100	0.060
	Se	77		ug/L		10156	0.006
	Se	82	**19.102**	ug/L	2.200	2855	0.006
	Kr	83		ug/L		354	0.000
	Sr	88	**24.766**	ug/L	1.027	394639	1.232
	Y	89		ug/L		634	0.002
	Mo	98	**1929.442**	ug/L	1.817	7839604	24.494
	Ag	107	**19.693**	ug/L	1.770	138573	0.433
	Cd	111	**19.732**	ug/L	1.199	35226	0.110
	Cd	114		ug/L		92262	0.288
>	In	115		ug/L		320091	320091.408
	Sn	120	**21.301**	ug/L	1.382	154919	0.482
	Sb	121	**21.910**	ug/L	1.415	132206	0.410
	Sb	123		ug/L		102755	0.319
	Ba	135		ug/L		39264	0.070
	Ba	137	**20.926**	ug/L	0.386	67957	0.122
	Ho	165		ug/L		1389	0.002
>	Lu	175		ug/L		557247	557247.275
	Tl	205	**22.824**	ug/L	0.525	510142	0.911
	Pb	208	**22.330**	ug/L	1.052	772931	1.385
	Bi	209		ug/L		2054	0.004
	Th	232	**24.168**	ug/L	0.297	976015	1.749
	U	238	**24.674**	ug/L	0.683	1048580	1.880

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	1.0000
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	0.9999
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9998
U	238Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7	102.891				
	Be	9	96.203				
	B	11	96.213				
	Na	23	93.422				
	Mg	24	99.421				
	Al	27	108.777				
	P	31	92.904				
	K	39	97.661				
	Ca	43	90.065				
>	Sc	45		89.5			
	Ti	47	70.478				
	V	51	108.363				
	Cr	52	98.080				
	Cr	53					
	Mn	55	109.577				
	Fe	57	100.613				
	Co	59	101.971				
	Ni	60	97.220				
	Cu	63					
	Cu	65	94.830				
	Zn	66	91.958				
	Zn	67					
	Zn	68					
>	Ge	74		90.2			
	As	75	101.524				
	Se	77					
	Se	82	95.510				
	Kr	83					
	Sr	88	116.821				
	Y	89					
	Mo	98	96.472				
	Ag	107	98.463				
	Cd	111	96.726				
	Cd	114					
>	In	115		87.4			
	Sn	120	106.506				
	Sb	121	109.003				
	Sb	123					
	Ba	135					
	Ba	137	101.239				
	Ho	165					
>	Lu	175		87.4			
	Tl	205	114.121				
	Pb	208	110.547				
	Bi	209					
	Th	232	120.839				
	U	238	123.370				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 5	Ti	47	ICSAB is out of limits
QC Std 5	Th	232	ICSAB is out of limits
QC Std 5	U	238	ICSAB is out of limits

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Tuesday, December 29, 2009 23:33:55
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\091229\QC Std 6.168

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**50.791**	ug/L	1.003	140178	0.049
	Be	9	**49.909**	ug/L	0.767	30219	0.011
	B	11	**97.705**	ug/L	3.308	62643	0.022
	Na	23	**4718.285**	ug/L	1.295	26014250	9.126
	Mg	24	**4631.082**	ug/L	2.911	17463553	6.131
	Al	27	**5298.374**	ug/L	3.410	26134989	9.176
	P	31	**4707.510**	ug/L	0.575	1515502	0.530
	K	39	**4958.047**	ug/L	5.782	34739835	11.971
	Ca	43	**4833.545**	ug/L	3.130	84952	0.030
>	Sc	45		ug/L		2847354	2847354.244
	Ti	47	**51.252**	ug/L	2.408	43323	0.015
	V	51	**50.330**	ug/L	1.046	484215	0.164
	Cr	52	**50.637**	ug/L	0.553	372162	0.130
	Cr	53		ug/L		162980	0.014
	Mn	55	**53.156**	ug/L	0.628	608116	0.213
	Fe	57	**4925.696**	ug/L	1.529	1172007	0.409
	Co	59	**50.927**	ug/L	0.865	467275	0.164
	Ni	60	**51.526**	ug/L	1.701	106203	0.037
	Cu	63		ug/L		250837	0.088
	Cu	65	**50.723**	ug/L	2.441	124338	0.044
	Zn	66	**51.651**	ug/L	1.456	84015	0.152
	Zn	67		ug/L		28441	0.024
	Zn	68		ug/L		61390	0.109
>	Ge	74		ug/L		548704	548704.190
	As	75	**48.519**	ug/L	0.462	78318	0.143
	Se	77		ug/L		13385	0.011
	Se	82	**50.174**	ug/L	1.341	8177	0.015
	Kr	83		ug/L		141	0.000
	Sr	88	**53.638**	ug/L	0.886	949179	2.668
	Y	89		ug/L		135	0.000
	Mo	98	**49.430**	ug/L	2.354	223289	0.628
	Ag	107	**50.435**	ug/L	1.365	394112	1.108
	Cd	111	**49.648**	ug/L	2.350	98406	0.277
	Cd	114		ug/L		234567	0.660
>	In	115		ug/L		355638	355637.751
	Sn	120	**51.172**	ug/L	2.672	412495	1.158
	Sb	121	**49.761**	ug/L	2.511	332347	0.932
	Sb	123		ug/L		261001	0.732
	Ba	135		ug/L		105450	0.168
	Ba	137	**49.991**	ug/L	1.114	182960	0.291
	Ho	165		ug/L		96	0.000
>	Lu	175		ug/L		628399	628399.391
	Tl	205	**53.038**	ug/L	1.125	1332715	2.116
	Pb	208	**54.286**	ug/L	0.810	2117421	3.368
	Bi	209		ug/L		469	0.001
	Th	232	**50.900**	ug/L	0.734	2316534	3.684
	U	238	**52.096**	ug/L	2.498	2495471	3.970

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	0.9999
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9998
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7	101.583				
	Be	9	99.819				
	B	11	97.705				
	Na	23	94.366				
	Mg	24	92.622				
	Al	27	104.918				
	P	31	94.150				
	K	39	99.161				
	Ca	43	96.671				
>	Sc	45		98.1			
	Ti	47	102.504				
	V	51	100.660				
	Cr	52	101.273				
	Cr	53					
	Mn	55	106.312				
	Fe	57	98.514				
	Co	59	101.854				
	Ni	60	103.051				
	Cu	63					
	Cu	65	101.445				
	Zn	66	103.301				
	Zn	67					
	Zn	68					
>	Ge	74		98.2			
	As	75	97.037				
	Se	77					
	Se	82	100.348				
	Kr	83					
	Sr	88	107.276				
	Y	89					
	Mo	98	98.860				
	Ag	107	100.869				
	Cd	111	99.296				
	Cd	114					
>	In	115		97.1			
	Sn	120	102.343				
	Sb	121	99.521				
	Sb	123					
	Ba	135					
	Ba	137	99.983				
	Ho	165					
>	Lu	175		98.6			
	Tl	205	106.076				
	Pb	208	108.571				
	Bi	209					
	Th	232	101.800				
	U	238	104.193				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Tuesday, December 29, 2009 23:40:04
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\091229\QC Std 7.169

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.022**	ug/L	10.732	177	0.000
	Be	9	**-0.000**	ug/L	1254.754	23	-0.000
	B	11	**1.632**	ug/L	23.984	2197	0.000
	Na	23	**4.252**	ug/L	8.248	53099	0.008
	Mg	24	**2.677**	ug/L	57.134	16343	0.004
	Al	27	**1.513**	ug/L	40.838	17678	0.003
	P	31	**2.220**	ug/L	119.942	7926	0.000
	K	39	**8.898**	ug/L	162.356	725494	0.021
	Ca	43	**0.687**	ug/L	26.730	367	0.000
>	Sc	45		ug/L		2859485	2859484.967
	Ti	47	**0.173**	ug/L	30.832	496	0.000
	V	51	**-0.190**	ug/L	290.491	14896	-0.001
	Cr	52	**-0.378**	ug/L	17.851	170	-0.001
	Cr	53		ug/L		125776	0.000
	Mn	55	**-0.012**	ug/L	35.551	1334	-0.000
	Fe	57	**2.101**	ug/L	37.962	7843	0.000
	Co	59	**0.003**	ug/L	71.296	238	0.000
	Ni	60	**0.001**	ug/L	428.799	122	0.000
	Cu	63		ug/L		636	0.000
	Cu	65	**0.012**	ug/L	87.665	329	0.000
	Zn	66	**0.002**	ug/L	1300.671	407	0.000
	Zn	67		ug/L		15181	-0.001
	Zn	68		ug/L		1411	-0.000
>	Ge	74		ug/L		557037	557036.664
	As	75	**-0.119**	ug/L	246.452	-174	-0.000
	Se	77		ug/L		7901	0.000
	Se	82	**0.174**	ug/L	23.186	24	0.000
	Kr	83		ug/L		122	-0.000
	Sr	88	**0.005**	ug/L	59.763	449	0.000
	Y	89		ug/L		54	-0.000
	Mo	98	**0.123**	ug/L	10.730	745	0.002
	Ag	107	**0.006**	ug/L	33.919	171	0.000
	Cd	111	**0.008**	ug/L	58.748	49	0.000
	Cd	114		ug/L		89	0.000
>	In	115		ug/L		362161	362160.716
	Sn	120	**0.080**	ug/L	23.066	1332	0.002
	Sb	121	**0.350**	ug/L	16.684	3363	0.007
	Sb	123		ug/L		2668	0.005
	Ba	135		ug/L		66	0.000
	Ba	137	**0.004**	ug/L	42.389	99	0.000
	Ho	165		ug/L		67	0.000
>	Lu	175		ug/L		633886	633885.940
	Tl	205	**0.151**	ug/L	25.973	6946	0.006
	Pb	208	**0.005**	ug/L	28.092	1236	0.000
	Bi	209		ug/L		69	-0.000
	Th	232	**0.076**	ug/L	15.990	4870	0.006
	U	238	**0.009**	ug/L	14.646	1336	0.001

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	1.0000
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	0.9999
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9998
U	238Linear Thru Zero	0.9998

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
Li	7					
Be	9					
B	11					
Na	23					
Mg	24					
Al	27					
P	31					
K	39					
Ca	43					
Sc	45		98.5			
Ti	47					
V	51					
Cr	52					
Cr	53					
Mn	55					
Fe	57					
Co	59					
Ni	60					
Cu	63					
Cu	65					
Zn	66					
Zn	67					
Zn	68					
Ge	74		99.7			
As	75					
Se	77					
Se	82					
Kr	83					
Sr	88					
Y	89					
Mo	98					
Ag	107					
Cd	111					
Cd	114					
In	115		98.8			
Sn	120					
Sb	121					
Sb	123					
Ba	135					
Ba	137					
Ho	165					
Lu	175		99.4			
Tl	205					
Pb	208					
Bi	209					
Th	232					
U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 10
Sample Date/Time: Tuesday, December 29, 2009 23:46:10
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\091229\QC Std 10.170

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**999.239**	**ug/L**	0.386	2536056	0.968
	Be	9	**953.462**	**ug/L**	1.852	530881	0.203
	B	11	**0.510**	**ug/L**	8.562	1362	0.000
	Na	23	**47862.599**	**ug/L**	2.926	242636060	92.570
	Mg	24	**48344.810**	**ug/L**	8.737	167793675	64.003
	Al	27	**51581.349**	**ug/L**	3.591	234118331	89.329
	P	31	**23593.875**	**ug/L**	0.452	6964064	2.655
	K	39	**49782.349**	**ug/L**	2.308	315553506	120.202
	Ca	43	**46733.609**	**ug/L**	2.421	753098	0.287
>	Sc	45		**ug/L**		2620426	2620426.405
	Ti	47	**38.470**	**ug/L**	0.995	30008	0.011
	V	51	**887.883**	**ug/L**	1.015	7606938	2.897
	Cr	52	**865.101**	**ug/L**	0.952	5808431	2.215
	Cr	53		**ug/L**		848826	0.280
	Mn	55	**935.115**	**ug/L**	1.604	9823246	3.748
	Fe	57	**48469.865**	**ug/L**	0.844	10554678	4.025
	Co	59	**848.675**	**ug/L**	0.902	7163319	2.733
	Ni	60	**815.982**	**ug/L**	0.799	1546293	0.590
	Cu	63		**ug/L**		3681223	1.405
	Cu	65	**789.711**	**ug/L**	0.882	1777639	0.678
	Zn	66	**2265.884**	**ug/L**	1.900	3343651	6.685
	Zn	67		**ug/L**		539019	1.050
	Zn	68		**ug/L**		2516061	5.028
>	Ge	74		**ug/L**		500188	500187.728
	As	75	**837.009**	**ug/L**	0.661	1231267	2.462
	Se	77		**ug/L**		58587	0.103
	Se	82	**461.892**	**ug/L**	2.063	68652	0.137
	Kr	83		**ug/L**		219	0.000
	Sr	88	**993.813**	**ug/L**	1.266	15892559	49.436
	Y	89		**ug/L**		644	0.002
	Mo	98	**973.842**	**ug/L**	2.932	3973900	12.363
	Ag	107	**216.976**	**ug/L**	1.487	1532417	4.767
	Cd	111	**844.697**	**ug/L**	1.309	1513253	4.707
	Cd	114		**ug/L**		3715748	11.559
>	In	115		**ug/L**		321497	321497.140
	Sn	120	**907.872**	**ug/L**	2.091	6606450	20.550
	Sb	121	**228.895**	**ug/L**	2.486	1378873	4.287
	Sb	123		**ug/L**		1109076	3.448
	Ba	135		**ug/L**		1653590	2.831
	Ba	137	**922.449**	**ug/L**	2.479	3136614	5.370
	Ho	165		**ug/L**		498	0.001
>	Lu	175		**ug/L**		584200	584200.233
	Tl	205	**488.213**	**ug/L**	3.483	11378103	19.476
	Pb	208	**4785.393**	**ug/L**	1.095	173434921	296.899
	Bi	209		**ug/L**		5056	0.009
	Th	232	**2592.291**	**ug/L**	3.505	109590526	187.637
	U	238	**5290.475**	**ug/L**	1.308	235511272	403.172

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	1.0000
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	0.9999
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9998
U	238Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7	99.924				
	Be	9	95.346				
	B	11					
	Na	23	95.725				
	Mg	24	96.690				
	Al	27	103.163				
	P	31	94.376				
	K	39	99.565				
	Ca	43	93.467				
>	Sc	45		90.3			
	Ti	47					
	V	51	88.788				
	Cr	52	86.510				
	Cr	53					
	Mn	55	93.511				
	Fe	57	96.940				
	Co	59	84.867				
	Ni	60	81.598				
	Cu	63					
	Cu	65	78.971				
	Zn	66	90.635				
	Zn	67					
	Zn	68					
>	Ge	74		89.5			
	As	75	83.701				
	Se	77					
	Se	82	92.378				
	Kr	83					
	Sr	88	99.381				
	Y	89					
	Mo	98	97.384				
	Ag	107	86.790				
	Cd	111	84.470				
	Cd	114					
>	In	115		87.7			
	Sn	120	90.787				
	Sb	121	91.558				
	Sb	123					
	Ba	135					
	Ba	137	92.245				
	Ho	165					
>	Lu	175		91.6			
	Tl	205	97.643				
	Pb	208	95.708				
	Bi	209					
	Th	232	103.692				
	U	238	105.809				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 10	V	51	LRS is out of limits (+/- 10%)
QC Std 10	Cr	52	LRS is out of limits (+/- 10%)
QC Std 10	Co	59	LRS is out of limits (+/- 10%)
QC Std 10	Ni	60	LRS is out of limits (+/- 10%)
QC Std 10	Cu	65	LRS is out of limits (+/- 10%)
QC Std 10	As	75	LRS is out of limits (+/- 10%)
QC Std 10	Ag	107	LRS is out of limits (+/- 10%)

QC Std 10	Cd	111LRS is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 11
Sample Date/Time: Tuesday, December 29, 2009 23:52:15
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\091229\QC Std 11.171

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**51.806**	**ug/L**	2.135	145432	0.050
	Be	9	**51.381**	**ug/L**	2.364	31642	0.011
	B	11	**100.064**	**ug/L**	1.407	65231	0.022
	Na	23	**4786.915**	**ug/L**	4.538	26832309	9.258
	Mg	24	**4832.286**	**ug/L**	7.361	18537500	6.397
	Al	27	**5494.123**	**ug/L**	5.281	27597087	9.515
	P	31	**4760.410**	**ug/L**	2.914	1558509	0.536
	K	39	**5421.311**	**ug/L**	7.761	38599817	13.090
	Ca	43	**4961.470**	**ug/L**	3.357	88684	0.031
>	Sc	45		**ug/L**		2897097	2897097.424
	Ti	47	**49.588**	**ug/L**	1.446	42657	0.015
	V	51	**50.957**	**ug/L**	3.607	498307	0.166
	Cr	52	**51.249**	**ug/L**	2.916	383049	0.131
	Cr	53		**ug/L**		163491	0.013
	Mn	55	**53.354**	**ug/L**	2.800	620778	0.214
	Fe	57	**4901.515**	**ug/L**	2.896	1186277	0.407
	Co	59	**50.720**	**ug/L**	2.527	473295	0.163
	Ni	60	**51.050**	**ug/L**	2.883	107026	0.037
	Cu	63		**ug/L**		252615	0.087
	Cu	65	**50.257**	**ug/L**	3.273	125294	0.043
	Zn	66	**53.512**	**ug/L**	0.658	85789	0.158
	Zn	67		**ug/L**		30629	0.028
	Zn	68		**ug/L**		62022	0.112
>	Ge	74		**ug/L**		540913	540913.346
	As	75	**49.552**	**ug/L**	1.770	78854	0.146
	Se	77		**ug/L**		12476	0.009
	Se	82	**51.559**	**ug/L**	0.540	8283	0.015
	Kr	83		**ug/L**		138	0.000
	Sr	88	**54.559**	**ug/L**	0.704	969896	2.714
	Y	89		**ug/L**		112	0.000
	Mo	98	**49.886**	**ug/L**	1.360	226405	0.633
	Ag	107	**50.925**	**ug/L**	1.485	399787	1.119
	Cd	111	**50.552**	**ug/L**	2.107	100668	0.282
	Cd	114		**ug/L**		240212	0.672
>	In	115		**ug/L**		357256	357256.404
	Sn	120	**53.857**	**ug/L**	0.565	436174	1.219
	Sb	121	**52.948**	**ug/L**	1.638	355221	0.992
	Sb	123		**ug/L**		280582	0.783
	Ba	135		**ug/L**		107855	0.171
	Ba	137	**51.267**	**ug/L**	2.263	188217	0.298
	Ho	165		**ug/L**		102	0.000
>	Lu	175		**ug/L**		630537	630537.123
	Tl	205	**55.143**	**ug/L**	1.259	1390026	2.200
	Pb	208	**56.157**	**ug/L**	2.026	2197410	3.484
	Bi	209		**ug/L**		482	0.001
	Th	232	**54.379**	**ug/L**	0.867	2482989	3.936
	U	238	**56.320**	**ug/L**	1.680	2706752	4.292

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	0.9999
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9998
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7	103.612				
	Be	9	102.762				
	B	11	100.064				
	Na	23	95.738				
	Mg	24	96.646				
	Al	27	108.795				
	P	31	95.208				
	K	39	108.426				
	Ca	43	99.229				
>	Sc	45		99.8			
	Ti	47	99.176				
	V	51	101.915				
	Cr	52	102.499				
	Cr	53					
	Mn	55	106.707				
	Fe	57	98.030				
	Co	59	101.441				
	Ni	60	102.100				
	Cu	63					
	Cu	65	100.514				
	Zn	66	107.024				
	Zn	67					
	Zn	68					
>	Ge	74		96.8			
	As	75	99.104				
	Se	77					
	Se	82	103.117				
	Kr	83					
	Sr	88	109.118				
	Y	89					
	Mo	98	99.771				
	Ag	107	101.850				
	Cd	111	101.104				
	Cd	114					
>	In	115		97.5			
	Sn	120	107.713				
	Sb	121	105.896				
	Sb	123					
	Ba	135					
	Ba	137	102.535				
	Ho	165					
>	Lu	175		98.9			
	Tl	205	110.286				
	Pb	208	112.314				
	Bi	209					
	Th	232	108.758				
	U	238	112.640				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 11	Tl	205	CCV is out of limits (+/- 10%)
QC Std 11	Pb	208	CCV is out of limits (+/- 10%)
QC Std 11	U	238	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 12
Sample Date/Time: Tuesday, December 29, 2009 23:58:22
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\091229\QC Std 12.172

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.078**	ug/L	10.801	331	0.000
	Be	9	**0.003**	ug/L	235.612	25	0.000
	B	11	**1.512**	ug/L	27.871	2115	0.000
	Na	23	**1.060**	ug/L	86.281	35378	0.002
	Mg	24	**0.199**	ug/L	456.801	7002	0.000
	Al	27	**0.510**	ug/L	107.413	12672	0.001
	P	31	**1.591**	ug/L	101.639	7720	0.000
	K	39	**5.601**	ug/L	211.338	701941	0.014
	Ca	43	**0.149**	ug/L	1460.596	357	0.000
>	Sc	45		ug/L		2858111	2858110.501
	Ti	47	**0.035**	ug/L	115.613	380	0.000
	V	51	**-0.302**	ug/L	254.208	13809	-0.001
	Cr	52	**-0.399**	ug/L	16.551	22	-0.001
	Cr	53		ug/L		121718	-0.001
	Mn	55	**-0.011**	ug/L	10.160	1346	-0.000
	Fe	57	**-2.190**	ug/L	10.960	6821	-0.000
	Co	59	**0.010**	ug/L	39.117	303	0.000
	Ni	60	**0.017**	ug/L	94.099	153	0.000
	Cu	63		ug/L		733	0.000
	Cu	65	**0.040**	ug/L	32.898	398	0.000
	Zn	66	**0.002**	ug/L	1637.914	399	0.000
	Zn	67		ug/L		16230	0.002
	Zn	68		ug/L		1671	0.000
>	Ge	74		ug/L		544795	544794.786
	As	75	**-0.053**	ug/L	402.565	-64	-0.000
	Se	77		ug/L		6890	-0.001
	Se	82	**0.097**	ug/L	93.107	11	0.000
	Kr	83		ug/L		124	-0.000
	Sr	88	**0.010**	ug/L	27.438	544	0.001
	Y	89		ug/L		54	-0.000
	Mo	98	**0.152**	ug/L	11.157	878	0.002
	Ag	107	**0.005**	ug/L	17.579	166	0.000
	Cd	111	**0.016**	ug/L	27.795	66	0.000
	Cd	114		ug/L		108	0.000
>	In	115		ug/L		361525	361524.715
	Sn	120	**0.420**	ug/L	12.342	4108	0.010
	Sb	121	**1.094**	ug/L	15.420	8384	0.020
	Sb	123		ug/L		6676	0.016
	Ba	135		ug/L		65	0.000
	Ba	137	**0.005**	ug/L	30.515	104	0.000
	Ho	165		ug/L		59	0.000
>	Lu	175		ug/L		634955	634954.729
	Tl	205	**0.182**	ug/L	19.873	7735	0.007
	Pb	208	**0.042**	ug/L	23.889	2699	0.003
	Bi	209		ug/L		66	-0.000
	Th	232	**0.134**	ug/L	12.326	7532	0.010
	U	238	**0.080**	ug/L	13.992	4740	0.006

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	0.9999
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9998
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		98.5			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		97.5			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		98.7			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		99.6			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1201998448
Sample Date/Time: Wednesday, December 30, 2009 00:04:31
Sample Type:
Sample Description: LANL 6020 MB
Number of Replicates: 3
Batch ID: 934057|2|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\091229\1201998448.173

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.014**	**ug/L**	60.832	157	0.000
	Be	9	**0.006**	**ug/L**	119.322	27	0.000
	B	11	**0.429**	**ug/L**	20.452	1453	0.000
	Na	23	**3.480**	**ug/L**	47.440	49421	0.007
	Mg	24	**0.783**	**ug/L**	235.742	9338	0.001
	Al	27	**9.662**	**ug/L**	23.397	58791	0.017
	P	31	**23.945**	**ug/L**	18.698	15105	0.003
	K	39	**2.312**	**ug/L**	187.894	688902	0.006
	Ca	43	**7.579**	**ug/L**	8.319	495	0.000
>	Sc	45		**ug/L**		2895523	2895522.858
	Ti	47	**0.330**	**ug/L**	11.542	637	0.000
	V	51	**-0.253**	**ug/L**	67.449	14516	-0.001
	Cr	52	**0.188**	**ug/L**	29.113	4372	0.000
	Cr	53		**ug/L**		98952	-0.010
	Mn	55	**0.266**	**ug/L**	1.225	4574	0.001
	Fe	57	**19.485**	**ug/L**	3.338	12122	0.002
	Co	59	**-0.000**	**ug/L**	1006.194	215	-0.000
	Ni	60	**0.280**	**ug/L**	6.231	706	0.000
	Cu	63		**ug/L**		1691	0.000
	Cu	65	**0.233**	**ug/L**	2.252	882	0.000
	Zn	66	**3.994**	**ug/L**	1.782	6749	0.012
	Zn	67		**ug/L**		13891	-0.003
	Zn	68		**ug/L**		5939	0.008
>	Ge	74		**ug/L**		539577	539577.228
	As	75	**0.036**	**ug/L**	134.944	75	0.000
	Se	77		**ug/L**		5150	-0.004
	Se	82	**0.029**	**ug/L**	451.048	-0	0.000
	Kr	83		**ug/L**		128	0.000
	Sr	88	**0.033**	**ug/L**	3.121	949	0.002
	Y	89		**ug/L**		105	0.000
	Mo	98	**0.088**	**ug/L**	14.903	587	0.001
	Ag	107	**-0.002**	**ug/L**	55.555	110	-0.000
	Cd	111	**0.006**	**ug/L**	196.198	46	0.000
	Cd	114		**ug/L**		67	0.000
>	In	115		**ug/L**		363026	363026.349
	Sn	120	**0.235**	**ug/L**	4.016	2610	0.005
	Sb	121	**0.296**	**ug/L**	37.375	2994	0.006
	Sb	123		**ug/L**		2251	0.004
	Ba	135		**ug/L**		410	0.001
	Ba	137	**0.164**	**ug/L**	2.150	705	0.001
	Ho	165		**ug/L**		63	0.000
>	Lu	175		**ug/L**		648394	648393.732
	Tl	205	**0.048**	**ug/L**	16.494	4450	0.002
	Pb	208	**0.019**	**ug/L**	10.963	1839	0.001
	Bi	209		**ug/L**		277	0.000
	Th	232	**0.207**	**ug/L**	29.340	11100	0.015
	U	238	**0.028**	**ug/L**	26.696	2268	0.002

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	1.0000
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	0.9999
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9998
U	238Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45			99.7		
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74			96.6		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115			99.1		
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175			101.7		
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1201998449
Sample Date/Time: Wednesday, December 30, 2009 00:10:40
Sample Type:
Sample Description: LANL 6020 LCS
Number of Replicates: 3
Batch ID: 934057|20|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\091229\1201998449.174

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**5.755**	ug/L	3.056	15913	0.006
	Be	9	**42.780**	ug/L	1.434	25791	0.009
	B	11	**80.535**	ug/L	1.351	51601	0.018
	Na	23	**531.935**	ug/L	7.621	2945009	1.029
	Mg	24	**2347.815**	ug/L	3.764	8818702	3.108
	Al	27	**7593.317**	ug/L	7.013	37283481	13.150
	P	31	**417.368**	ug/L	1.247	140290	0.047
	K	39	**2480.850**	ug/L	3.216	17638307	5.990
	Ca	43	**5535.165**	ug/L	1.443	96813	0.034
>	Sc	45		ug/L		2834820	2834820.038
	Ti	47	**246.143**	ug/L	1.324	205834	0.072
	V	51	**70.186**	ug/L	1.917	665680	0.229
	Cr	52	**128.010**	ug/L	1.385	932194	0.328
	Cr	53		ug/L		226490	0.036
	Mn	55	**293.067**	ug/L	2.499	3331170	1.175
	Fe	57	**9455.624**	ug/L	1.268	2233311	0.785
	Co	59	**53.299**	ug/L	2.089	486839	0.172
	Ni	60	**75.364**	ug/L	0.897	154611	0.054
	Cu	63		ug/L		450918	0.159
	Cu	65	**93.414**	ug/L	1.896	227734	0.080
	Zn	66	**327.484**	ug/L	0.392	519095	0.966
	Zn	67		ug/L		97065	0.153
	Zn	68		ug/L		369972	0.686
>	Ge	74		ug/L		536870	536870.273
	As	75	**57.588**	ug/L	0.646	90946	0.169
	Se	77		ug/L		25192	0.033
	Se	82	**158.663**	ug/L	0.345	25310	0.047
	Kr	83		ug/L		138	0.000
	Sr	88	**122.796**	ug/L	0.503	2168261	6.108
	Y	89		ug/L		121776	0.343
	Mo	98	**27.563**	ug/L	0.652	124360	0.350
	Ag	107	**3.607**	ug/L	0.847	28249	0.079
	Cd	111	**32.584**	ug/L	0.624	64477	0.182
	Cd	114		ug/L		154709	0.436
>	In	115		ug/L		354911	354911.245
	Sn	120	**23.822**	ug/L	0.616	192034	0.539
	Sb	121	**26.332**	ug/L	0.518	175994	0.493
	Sb	123		ug/L		138042	0.387
	Ba	135		ug/L		222756	0.352
	Ba	137	**106.171**	ug/L	1.097	390970	0.618
	Ho	165		ug/L		8621	0.014
>	Lu	175		ug/L		632460	632460.389
	Tl	205	**71.752**	ug/L	1.600	1813459	2.862
	Pb	208	**50.237**	ug/L	0.972	1972262	3.117
	Bi	209		ug/L		19993	0.031
	Th	232	**6.065**	ug/L	2.626	279028	0.439
	U	238	**1.353**	ug/L	2.587	66086	0.103

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	1.0000
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	0.9999
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9998
U	238Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		97.7			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		96.1			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		96.9			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		99.2			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Ti 47 Upper, S, EEE	Ti	47	Sample is out of limits (over linear range)

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 242938001
Sample Date/Time: Wednesday, December 30, 2009 00:22:58
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 934057|2|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\091229\242938001.176

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**71.166**	ug/L	0.727	194600	0.069
	Be	9	**3.883**	ug/L	2.289	2351	0.001
	B	11	**19.268**	ug/L	4.570	13159	0.004
	Na	23	**679.751**	ug/L	5.515	3737503	1.315
	Mg	24	**14941.792**	ug/L	6.974	55811586	19.781
	Al	27	**88073.547**	ug/L	6.144	430222133	152.526
	P	31	**491.240**	ug/L	1.787	163093	0.055
	K	39	**8828.478**	ug/L	3.420	60794712	21.317
	Ca	43	**9453.529**	ug/L	2.002	164341	0.058
>	Sc	45		ug/L		2821804	2821803.622
	Ti	47	**1585.011**	ug/L	1.673	1317490	0.467
	V	51	**116.329**	ug/L	1.496	1087385	0.380
	Cr	52	**62.652**	ug/L	1.193	455619	0.160
	Cr	53		ug/L		132033	0.003
	Mn	55	**1391.510**	ug/L	1.637	15738848	5.578
	Fe	57	**65712.454**	ug/L	2.273	15404396	5.457
	Co	59	**27.936**	ug/L	1.837	254078	0.090
	Ni	60	**40.069**	ug/L	0.390	81882	0.029
	Cu	63		ug/L		162564	0.057
	Cu	65	**33.779**	ug/L	0.121	82166	0.029
	Zn	66	**147.167**	ug/L	0.276	219618	0.434
	Zn	67		ug/L		51624	0.074
	Zn	68		ug/L		172654	0.339
>	Ge	74		ug/L		504974	504974.496
	As	75	**9.972**	ug/L	2.124	14827	0.029
	Se	77		ug/L		3904	-0.006
	Se	82	**-0.611**	ug/L	18.587	-96	-0.000
	Kr	83		ug/L		375	0.001
	Sr	88	**151.695**	ug/L	0.967	2548652	7.546
	Y	89		ug/L		824913	2.443
	Mo	98	**1.716**	ug/L	2.241	7525	0.022
	Ag	107	**0.377**	ug/L	0.728	2918	0.008
	Cd	111	**1.101**	ug/L	6.551	2103	0.006
	Cd	114		ug/L		868	0.002
>	In	115		ug/L		337715	337714.812
	Sn	120	**1.045**	ug/L	2.054	8617	0.024
	Sb	121	**0.207**	ug/L	5.256	2230	0.004
	Sb	123		ug/L		1769	0.003
	Ba	135		ug/L		1394135	2.223
	Ba	137	**688.510**	ug/L	2.213	2513329	4.008
	Ho	165		ug/L		64422	0.103
>	Lu	175		ug/L		627100	627100.033
	Tl	205	**1.208**	ug/L	0.992	33326	0.048
	Pb	208	**61.411**	ug/L	0.726	2390298	3.810
	Bi	209		ug/L		42691	0.068
	Th	232	**39.871**	ug/L	1.341	1811130	2.886
	U	238	**4.920**	ug/L	0.888	235985	0.375

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	1.0000
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	0.9999
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9998
U	238Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		97.2			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		90.4			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		92.2			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		98.4			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Al 27 Upper, S, EEE	Al	27	Sample is out of limits (over linear range)
Ti 47 Upper, S, EEE	Ti	47	Sample is out of limits (over linear range)
V 51 Upper, S, EEE	V	51	Sample is out of limits (over linear range)
Mn 55 Upper, S, EEE	Mn	55	Sample is out of limits (over linear range)
Fe 57 Upper, S, EEE	Fe	57	Sample is out of limits (over linear range)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: 1201998450
Sample Date/Time: Wednesday, December 30, 2009 00:29:09
Sample Type:
Sample Description: LANL 6020 DUP
Number of Replicates: 3
Batch ID: 934057|2|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\091229\1201998450.177

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**71.194**	ug/L	0.765	196690	0.069
	Be	9	**3.935**	ug/L	1.623	2407	0.001
	B	11	**18.293**	ug/L	1.351	12685	0.004
	Na	23	**665.673**	ug/L	7.759	3699157	1.287
	Mg	24	**14263.578**	ug/L	7.182	53837543	18.883
	Al	27	**89752.743**	ug/L	3.950	443198247	155.434
	P	31	**495.528**	ug/L	0.436	166171	0.056
	K	39	**8482.946**	ug/L	1.884	59057720	20.483
	Ca	43	**9200.838**	ug/L	2.081	161617	0.057
>	Sc	45		ug/L		2850963	2850962.625
	Ti	47	**1633.178**	ug/L	0.475	1371593	0.481
	V	51	**118.135**	ug/L	0.794	1115536	0.385
	Cr	52	**64.053**	ug/L	1.311	470578	0.164
	Cr	53		ug/L		128088	0.001
	Mn	55	**1698.807**	ug/L	1.006	19413900	6.809
	Fe	57	**65941.987**	ug/L	1.543	15620534	5.476
	Co	59	**32.379**	ug/L	0.269	297530	0.104
	Ni	60	**42.148**	ug/L	0.402	87013	0.030
	Cu	63		ug/L		165330	0.058
	Cu	65	**34.018**	ug/L	1.094	83600	0.029
	Zn	66	**144.736**	ug/L	0.781	217031	0.427
	Zn	67		ug/L		50244	0.071
	Zn	68		ug/L		171873	0.336
>	Ge	74		ug/L		507407	507406.642
	As	75	**10.933**	ug/L	3.380	16330	0.032
	Se	77		ug/L		3651	-0.007
	Se	82	**-0.518**	ug/L	37.759	-83	-0.000
	Kr	83		ug/L		384	0.001
	Sr	88	**154.805**	ug/L	0.646	2577713	7.701
	Y	89		ug/L		871759	2.605
	Mo	98	**1.904**	ug/L	1.828	8258	0.024
	Ag	107	**0.407**	ug/L	2.172	3114	0.009
	Cd	111	**1.191**	ug/L	0.570	2253	0.007
	Cd	114		ug/L		932	0.003
>	In	115		ug/L		334714	334713.822
	Sn	120	**1.253**	ug/L	1.757	10115	0.028
	Sb	121	**0.150**	ug/L	2.227	1851	0.003
	Sb	123		ug/L		1495	0.002
	Ba	135		ug/L		1455115	2.315
	Ba	137	**720.086**	ug/L	2.366	2635035	4.192
	Ho	165		ug/L		66534	0.106
>	Lu	175		ug/L		628760	628759.723
	Tl	205	**1.141**	ug/L	2.819	31720	0.046
	Pb	208	**66.859**	ug/L	1.689	2608616	4.148
	Bi	209		ug/L		44300	0.070
	Th	232	**40.267**	ug/L	3.193	1833205	2.915
	U	238	**5.021**	ug/L	2.708	241408	0.383

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	0.9999
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9998
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45			98.2		
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74			90.8		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115			91.4		
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175			98.6		
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type Analyte	Mass	Out of Limits Message
Al 27 Upper, S, EEEAl	27	Sample is out of limits (over linear range)
Ti 47 Upper, S, EEETi	47	Sample is out of limits (over linear range)
V 51 Upper, S, EEE V	51	Sample is out of limits (over linear range)
Mn 55 Upper, S, EEIMn	55	Sample is out of limits (over linear range)
Fe 57 Upper, S, EEEFe	57	Sample is out of limits (over linear range)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: 1201998451
Sample Date/Time: Wednesday, December 30, 2009 00:35:20
Sample Type:
Sample Description: LANL 6020 MS
Number of Replicates: 3
Batch ID: 934057|2|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\091229\1201998451.178

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**105.651**	ug/L	0.876	291168	0.102
	Be	9	**28.017**	ug/L	1.098	16957	0.006
	B	11	**69.532**	ug/L	3.143	44870	0.015
	Na	23	**1715.496**	ug/L	7.589	9471580	3.318
	Mg	24	**16156.072**	ug/L	5.793	60836423	21.389
	Al	27	**102990.940**	ug/L	1.007	507347766	178.360
	P	31	**1389.249**	ug/L	0.642	451885	0.156
	K	39	**11177.647**	ug/L	9.229	77392633	26.989
	Ca	43	**10422.835**	ug/L	2.837	182597	0.064
>	Sc	45		ug/L		2844628	2844628.275
	Ti	47	**1809.125**	ug/L	1.187	1516016	0.533
	V	51	**146.360**	ug/L	0.913	1374980	0.478
	Cr	52	**87.838**	ug/L	1.152	642806	0.225
	Cr	53		ug/L		148527	0.009
	Mn	55	**1417.486**	ug/L	0.578	16163881	5.682
	Fe	57	**67790.950**	ug/L	1.842	16021492	5.630
	Co	59	**52.905**	ug/L	1.060	484920	0.170
	Ni	60	**63.064**	ug/L	1.483	129836	0.046
	Cu	63		ug/L		278601	0.098
	Cu	65	**57.121**	ug/L	1.332	139854	0.049
	Zn	66	**174.242**	ug/L	0.736	260470	0.514
	Zn	67		ug/L		57749	0.086
	Zn	68		ug/L		204518	0.401
>	Ge	74		ug/L		505982	505982.190
	As	75	**45.753**	ug/L	2.127	68098	0.135
	Se	77		ug/L		4527	-0.005
	Se	82	**6.587**	ug/L	4.244	986	0.002
	Kr	83		ug/L		446	0.001
	Sr	88	**184.917**	ug/L	1.056	3096364	9.199
	Y	89		ug/L		853225	2.535
	Mo	98	**23.075**	ug/L	1.127	98764	0.293
	Ag	107	**24.837**	ug/L	0.867	183766	0.546
	Cd	111	**6.349**	ug/L	1.466	11940	0.035
	Cd	114		ug/L		22404	0.066
>	In	115		ug/L		336578	336578.286
	Sn	120	**10.045**	ug/L	1.228	77160	0.227
	Sb	121	**23.210**	ug/L	0.870	147227	0.435
	Sb	123		ug/L		115510	0.341
	Ba	135		ug/L		1528108	2.479
	Ba	137	**787.867**	ug/L	2.630	2827306	4.586
	Ho	165		ug/L		64889	0.105
>	Lu	175		ug/L		616507	616507.018
	Tl	205	**55.407**	ug/L	2.396	1365593	2.210
	Pb	208	**158.323**	ug/L	0.883	6056658	9.823
	Bi	209		ug/L		41928	0.068
	Th	232	**63.011**	ug/L	1.669	2813051	4.561
	U	238	**34.020**	ug/L	0.421	1599169	2.593

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	1.0000
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	0.9999
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9998
U	238Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		98.0			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		90.6			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		91.9			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		96.7			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Al 27 Upper, S, EEE	Al	27	Sample is out of limits (over linear range)
Ti 47 Upper, S, EEE	Ti	47	Sample is out of limits (over linear range)
V 51 Upper, S, EEE	V	51	Sample is out of limits (over linear range)
Mn 55 Upper, S, EEE	Mn	55	Sample is out of limits (over linear range)
Fe 57 Upper, S, EEE	Fe	57	Sample is out of limits (over linear range)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: 1201998453
Sample Date/Time: Wednesday, December 30, 2009 00:41:31
Sample Type:
Sample Description: LANL 6020 MSD
Number of Replicates: 3
Batch ID: 934057|2|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\091229\1201998453.179

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**111.921**	ug/L	0.260	306477	0.108
	Be	9	**29.547**	ug/L	2.022	17767	0.006
	B	11	**75.202**	ug/L	1.747	48122	0.017
	Na	23	**1745.943**	ug/L	7.745	9576394	3.377
	Mg	24	**17981.777**	ug/L	2.710	67296928	23.806
	Al	27	**113764.368**	ug/L	3.793	556876312	197.017
	P	31	**1437.953**	ug/L	1.265	464470	0.162
	K	39	**12008.877**	ug/L	3.114	82603609	28.996
	Ca	43	**10910.409**	ug/L	2.060	189914	0.067
>	Sc	45		ug/L		2826409	2826409.229
	Ti	47	**1963.232**	ug/L	1.221	1634449	0.578
	V	51	**158.276**	ug/L	1.705	1476171	0.516
	Cr	52	**96.709**	ug/L	0.560	702920	0.248
	Cr	53		ug/L		155400	0.011
	Mn	55	**1730.347**	ug/L	0.851	19603933	6.936
	Fe	57	**73551.199**	ug/L	0.372	17272252	6.108
	Co	59	**58.696**	ug/L	1.145	534566	0.189
	Ni	60	**68.444**	ug/L	0.790	140013	0.049
	Cu	63		ug/L		286554	0.101
	Cu	65	**59.641**	ug/L	1.177	145077	0.051
	Zn	66	**185.020**	ug/L	0.832	274976	0.546
	Zn	67		ug/L		60033	0.091
	Zn	68		ug/L		213915	0.423
>	Ge	74		ug/L		503066	503066.116
	As	75	**47.917**	ug/L	0.712	70913	0.141
	Se	77		ug/L		4504	-0.005
	Se	82	**6.994**	ug/L	8.368	1041	0.002
	Kr	83		ug/L		466	0.001
	Sr	88	**196.362**	ug/L	0.371	3251379	9.768
	Y	89		ug/L		880285	2.645
	Mo	98	**23.946**	ug/L	1.609	101342	0.304
	Ag	107	**25.616**	ug/L	0.558	187414	0.563
	Cd	111	**6.633**	ug/L	1.643	12334	0.037
	Cd	114		ug/L		22953	0.069
>	In	115		ug/L		332834	332834.276
	Sn	120	**11.593**	ug/L	1.004	87963	0.262
	Sb	121	**21.795**	ug/L	0.726	136770	0.408
	Sb	123		ug/L		109099	0.326
	Ba	135		ug/L		1550456	2.516
	Ba	137	**799.867**	ug/L	1.363	2869603	4.656
	Ho	165		ug/L		67356	0.109
>	Lu	175		ug/L		616261	616260.566
	Tl	205	**56.374**	ug/L	1.565	1388867	2.249
	Pb	208	**163.908**	ug/L	0.957	6267974	10.169
	Bi	209		ug/L		44414	0.072
	Th	232	**65.967**	ug/L	1.421	2943748	4.775
	U	238	**34.731**	ug/L	0.975	1631873	2.647

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	1.0000
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	0.9999
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9998
U	238Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		97.4			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		90.1			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		90.8			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		96.7			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Al 27 Upper, S, EEE	Al	27	Sample is out of limits (over linear range)
Ti 47 Upper, S, EEE	Ti	47	Sample is out of limits (over linear range)
V 51 Upper, S, EEE	V	51	Sample is out of limits (over linear range)
Mn 55 Upper, S, EEE	Mn	55	Sample is out of limits (over linear range)
Fe 57 Upper, S, EEE	Fe	57	Sample is out of limits (over linear range)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: 1201998452
Sample Date/Time: Wednesday, December 30, 2009 00:47:41
Sample Type:
Sample Description: LANL 6020 SDILT
Number of Replicates: 3
Batch ID: 934057|10|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\091229\1201998452.180

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**14.886**	ug/L	1.576	39571	0.014
	Be	9	**0.866**	ug/L	7.549	525	0.000
	B	11	**5.283**	ug/L	5.924	4308	0.001
	Na	23	**145.266**	ug/L	8.460	797039	0.281
	Mg	24	**2945.624**	ug/L	4.954	10677779	3.900
	Al	27	**18967.813**	ug/L	4.339	89918984	32.849
	P	31	**111.911**	ug/L	1.982	41376	0.013
	K	39	**1862.712**	ug/L	2.403	12946017	4.498
	Ca	43	**1954.326**	ug/L	2.147	33226	0.012
>	Sc	45		ug/L		2737207	2737206.755
	Ti	47	**352.235**	ug/L	1.457	284271	0.104
	V	51	**24.790**	ug/L	2.443	237374	0.081
	Cr	52	**12.791**	ug/L	0.928	92472	0.033
	Cr	53		ug/L		102442	-0.006
	Mn	55	**284.662**	ug/L	0.523	3124504	1.141
	Fe	57	**13572.430**	ug/L	2.191	3092037	1.127
	Co	59	**5.936**	ug/L	1.611	52532	0.019
	Ni	60	**8.614**	ug/L	1.699	17162	0.006
	Cu	63		ug/L		35407	0.013
	Cu	65	**7.483**	ug/L	1.035	17877	0.006
	Zn	66	**32.556**	ug/L	1.529	49961	0.096
	Zn	67		ug/L		21213	0.013
	Zn	68		ug/L		39498	0.074
>	Ge	74		ug/L		516307	516307.226
	As	75	**2.084**	ug/L	12.564	3181	0.006
	Se	77		ug/L		4780	-0.005
	Se	82	**-0.008**	ug/L	1012.846	-6	-0.000
	Kr	83		ug/L		154	0.000
	Sr	88	**33.946**	ug/L	0.771	575122	1.689
	Y	89		ug/L		172299	0.506
	Mo	98	**0.319**	ug/L	2.886	1551	0.004
	Ag	107	**0.063**	ug/L	2.658	589	0.001
	Cd	111	**0.218**	ug/L	13.845	444	0.001
	Cd	114		ug/L		204	0.000
>	In	115		ug/L		340405	340404.904
	Sn	120	**0.205**	ug/L	4.741	2214	0.005
	Sb	121	**-0.005**	ug/L	229.463	897	-0.000
	Sb	123		ug/L		706	-0.000
	Ba	135		ug/L		303871	0.487
	Ba	137	**144.860**	ug/L	1.491	526106	0.843
	Ho	165		ug/L		12943	0.021
>	Lu	175		ug/L		623842	623841.727
	Tl	205	**0.206**	ug/L	6.407	8198	0.008
	Pb	208	**13.334**	ug/L	1.002	517089	0.827
	Bi	209		ug/L		8792	0.014
	Th	232	**9.250**	ug/L	1.473	418991	0.670
	U	238	**0.980**	ug/L	1.150	47456	0.075

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	0.9999
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9998
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		94.3			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		92.4			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		92.9			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		97.8			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Ti 47 Upper, S, EEE	Ti	47	Sample is out of limits (over linear range)

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 8
Sample Date/Time: Wednesday, December 30, 2009 00:53:49
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\091229\QC Std 8.181

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**52.162**	**ug/L**	1.781	140468	0.051
	Be	9	**52.387**	**ug/L**	3.532	30942	0.011
	B	11	**101.942**	**ug/L**	2.626	63732	0.023
	Na	23	**4996.087**	**ug/L**	12.455	26832309	9.663
	Mg	24	**5078.297**	**ug/L**	9.460	18688918	6.723
	Al	27	**5464.356**	**ug/L**	8.136	26317752	9.463
	P	31	**4769.516**	**ug/L**	1.892	1498269	0.537
	K	39	**5105.250**	**ug/L**	6.401	34932835	12.327
	Ca	43	**4937.324**	**ug/L**	1.030	84706	0.030
>	Sc	45		**ug/L**		2779034	2779034.458
	Ti	47	**50.181**	**ug/L**	2.131	41399	0.015
	V	51	**51.037**	**ug/L**	2.147	478949	0.167
	Cr	52	**51.047**	**ug/L**	1.733	366121	0.131
	Cr	53		**ug/L**		152685	0.011
	Mn	55	**52.921**	**ug/L**	3.498	590617	0.212
	Fe	57	**4900.859**	**ug/L**	1.035	1138082	0.407
	Co	59	**50.373**	**ug/L**	2.565	450947	0.162
	Ni	60	**50.978**	**ug/L**	2.142	102529	0.037
	Cu	63		**ug/L**		244110	0.088
	Cu	65	**50.428**	**ug/L**	2.137	120623	0.043
	Zn	66	**52.323**	**ug/L**	0.291	82048	0.154
	Zn	67		**ug/L**		27500	0.024
	Zn	68		**ug/L**		59052	0.109
>	Ge	74		**ug/L**		529011	529011.371
	As	75	**47.716**	**ug/L**	1.565	74253	0.140
	Se	77		**ug/L**		12118	0.009
	Se	82	**49.592**	**ug/L**	1.268	7791	0.015
	Kr	83		**ug/L**		131	0.000
	Sr	88	**54.135**	**ug/L**	1.145	927069	2.693
	Y	89		**ug/L**		176	0.000
	Mo	98	**49.807**	**ug/L**	2.697	217737	0.632
	Ag	107	**50.508**	**ug/L**	1.245	381974	1.110
	Cd	111	**50.108**	**ug/L**	2.126	96120	0.279
	Cd	114		**ug/L**		227340	0.660
>	In	115		**ug/L**		344158	344157.678
	Sn	120	**51.181**	**ug/L**	3.045	399265	1.159
	Sb	121	**49.174**	**ug/L**	4.199	317801	0.921
	Sb	123		**ug/L**		252604	0.732
	Ba	135		**ug/L**		103747	0.166
	Ba	137	**49.420**	**ug/L**	2.250	179768	0.288
	Ho	165		**ug/L**		91	0.000
>	Lu	175		**ug/L**		624597	624597.145
	Tl	205	**53.036**	**ug/L**	1.523	1324521	2.116
	Pb	208	**54.738**	**ug/L**	1.010	2122152	3.396
	Bi	209		**ug/L**		479	0.001
	Th	232	**51.276**	**ug/L**	0.495	2319482	3.711
	U	238	**52.985**	**ug/L**	1.070	2522826	4.038

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	1.0000
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	0.9999
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9998
U	238Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
	Li	7	104.324				
	Be	9	104.775				
	B	11	101.942				
	Na	23	99.922				
	Mg	24	101.566				
	Al	27	108.205				
	P	31	95.390				
	K	39	102.105				
	Ca	43	98.746				
>	Sc	45			95.7		
	Ti	47	100.362				
	V	51	102.074				
	Cr	52	102.095				
	Cr	53					
	Mn	55	105.842				
	Fe	57	98.017				
	Co	59	100.746				
	Ni	60	101.955				
	Cu	63					
	Cu	65	100.856				
	Zn	66	104.645				
	Zn	67					
	Zn	68					
>	Ge	74			94.7		
	As	75	95.432				
	Se	77					
	Se	82	99.184				
	Kr	83					
	Sr	88	108.269				
	Y	89					
	Mo	98	99.615				
	Ag	107	101.016				
	Cd	111	100.217				
	Cd	114					
>	In	115			93.9		
	Sn	120	102.363				
	Sb	121	98.348				
	Sb	123					
	Ba	135					
	Ba	137	98.841				
	Ho	165					
>	Lu	175			98.0		
	Tl	205	106.072				
	Pb	208	109.476				
	Bi	209					
	Th	232	102.551				
	U	238	105.970				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 9
Sample Date/Time: Wednesday, December 30, 2009 00:59:58
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\091229\QC Std 9.182

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	0.047	ug/L	20.205	240	0.000
	Be	9	-0.005	ug/L	204.961	20	-0.000
	B	11	1.698	ug/L	26.914	2190	0.000
	Na	23	0.258	ug/L	90.154	30366	0.000
	Mg	24	0.504	ug/L	241.105	8003	0.001
	Al	27	0.694	ug/L	41.829	13340	0.001
	P	31	0.893	ug/L	59.866	7347	0.000
	K	39	1.087	ug/L	177.052	657805	0.003
	Ca	43	-0.148	ug/L	447.097	345	-0.000
>	Sc	45		ug/L		2799517	2799516.945
	Ti	47	0.068	ug/L	61.535	399	0.000
	V	51	-0.389	ug/L	59.524	12792	-0.001
	Cr	52	-0.176	ug/L	23.689	1618	-0.000
	Cr	53		ug/L		116171	-0.002
	Mn	55	0.000	ug/L	1028.396	1445	0.000
	Fe	57	0.528	ug/L	184.164	7313	0.000
	Co	59	0.001	ug/L	166.873	215	0.000
	Ni	60	0.001	ug/L	395.494	118	0.000
	Cu	63		ug/L		549	0.000
	Cu	65	0.004	ug/L	144.584	302	0.000
	Zn	66	-0.007	ug/L	360.918	380	-0.000
	Zn	67		ug/L		14609	-0.001
	Zn	68		ug/L		1347	-0.000
>	Ge	74		ug/L		537950	537949.801
	As	75	-0.078	ug/L	134.147	-104	-0.000
	Se	77		ug/L		6794	-0.001
	Se	82	0.099	ug/L	103.838	11	0.000
	Kr	83		ug/L		122	-0.000
	Sr	88	0.004	ug/L	34.444	413	0.000
	Y	89		ug/L		76	0.000
	Mo	98	0.049	ug/L	24.402	397	0.001
	Ag	107	0.001	ug/L	103.792	134	0.000
	Cd	111	0.007	ug/L	81.723	46	0.000
	Cd	114		ug/L		87	0.000
>	In	115		ug/L		351510	351510.228
	Sn	120	0.080	ug/L	16.211	1293	0.002
	Sb	121	0.394	ug/L	16.024	3560	0.007
	Sb	123		ug/L		2765	0.006
	Ba	135		ug/L		73	0.000
	Ba	137	0.004	ug/L	86.478	99	0.000
	Ho	165		ug/L		54	-0.000
>	Lu	175		ug/L		624845	624844.552
	Tl	205	0.131	ug/L	35.239	6352	0.005
	Pb	208	0.004	ug/L	23.867	1168	0.000
	Bi	209		ug/L		66	-0.000
	Th	232	0.050	ug/L	20.724	3602	0.004
	U	238	0.009	ug/L	13.427	1285	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	0.9999
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9998
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		96.4			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		96.3			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		95.9			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		98.0			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 242938002
Sample Date/Time: Wednesday, December 30, 2009 01:06:07
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 934057|2|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\091229\242938002.183

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**30.931**	ug/L	0.498	83230	0.030
	Be	9	**3.416**	ug/L	2.015	2036	0.001
	B	11	**9.126**	ug/L	4.001	6723	0.002
	Na	23	**668.163**	ug/L	2.898	3614795	1.292
	Mg	24	**5111.795**	ug/L	1.153	18784255	6.767
	Al	27	**33541.510**	ug/L	3.483	161196228	58.087
	P	31	**392.961**	ug/L	0.836	129705	0.044
	K	39	**3476.696**	ug/L	5.816	23931887	8.395
	Ca	43	**4400.289**	ug/L	1.809	75403	0.027
>	Sc	45		ug/L		2774744	2774743.765
	Ti	47	**720.583**	ug/L	0.790	589180	0.212
	V	51	**31.559**	ug/L	1.769	301900	0.103
	Cr	52	**19.327**	ug/L	0.727	140181	0.049
	Cr	53		ug/L		91548	-0.011
	Mn	55	**1139.040**	ug/L	3.223	12667575	4.566
	Fe	57	**38376.005**	ug/L	3.466	8849172	3.187
	Co	59	**5.120**	ug/L	1.758	45962	0.016
	Ni	60	**28.693**	ug/L	1.209	57689	0.021
	Cu	63		ug/L		69267	0.025
	Cu	65	**14.389**	ug/L	1.567	34581	0.012
	Zn	66	**152.403**	ug/L	0.779	226921	0.450
	Zn	67		ug/L		47202	0.065
	Zn	68		ug/L		166835	0.328
>	Ge	74		ug/L		503885	503884.840
	As	75	**5.685**	ug/L	3.233	8444	0.017
	Se	77		ug/L		4133	-0.006
	Se	82	**1.030**	ug/L	25.957	149	0.000
	Kr	83		ug/L		371	0.001
	Sr	88	**54.041**	ug/L	0.535	927095	2.688
	Y	89		ug/L		2548533	7.392
	Mo	98	**7.664**	ug/L	0.883	33715	0.097
	Ag	107	**0.290**	ug/L	2.545	2320	0.006
	Cd	111	**1.376**	ug/L	5.716	2677	0.008
	Cd	114		ug/L		957	0.003
>	In	115		ug/L		344747	344746.900
	Sn	120	**2.535**	ug/L	0.701	20426	0.057
	Sb	121	**0.400**	ug/L	2.768	3525	0.007
	Sb	123		ug/L		2789	0.006
	Ba	135		ug/L		461623	0.667
	Ba	137	**194.102**	ug/L	0.920	782551	1.130
	Ho	165		ug/L		207372	0.299
>	Lu	175		ug/L		692473	692472.941
	Tl	205	**0.566**	ug/L	3.515	19055	0.023
	Pb	208	**26.232**	ug/L	0.311	1128111	1.627
	Bi	209		ug/L		271011	0.391
	Th	232	**24.555**	ug/L	1.076	1232230	1.777
	U	238	**3.414**	ug/L	2.141	181111	0.260

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	1.0000
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	0.9999
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9998
U	238Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45			95.6		
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74			90.2		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115			94.1		
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175			108.6		
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type Analyte	Mass	Out of Limits Message
Ti 47 Upper, S, EEE Ti	47	Sample is out of limits (over linear range)
Mn 55 Upper, S, EEI Mn	55	Sample is out of limits (over linear range)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: 242938003
Sample Date/Time: Wednesday, December 30, 2009 01:12:17
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 934057|2|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\091229\242938003.184

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**66.140**	ug/L	1.548	175898	0.064
	Be	9	**4.240**	ug/L	1.168	2495	0.001
	B	11	**19.393**	ug/L	2.060	12877	0.004
	Na	23	**705.842**	ug/L	4.358	3775850	1.365
	Mg	24	**11951.604**	ug/L	6.436	43428951	15.823
	Al	27	**75525.789**	ug/L	3.920	358944889	130.796
	P	31	**650.454**	ug/L	0.813	207808	0.073
	K	39	**10448.171**	ug/L	2.350	69865669	25.228
	Ca	43	**9185.240**	ug/L	1.003	155321	0.056
>	Sc	45		ug/L		2744597	2744597.377
	Ti	47	**1552.664**	ug/L	0.563	1255300	0.457
	V	51	**111.340**	ug/L	2.251	1012956	0.363
	Cr	52	**53.483**	ug/L	1.428	378727	0.137
	Cr	53		ug/L		114300	-0.002
	Mn	55	**2003.533**	ug/L	1.113	22040578	8.031
	Fe	57	**60233.747**	ug/L	2.397	13734057	5.002
	Co	59	**31.524**	ug/L	2.102	278829	0.102
	Ni	60	**39.867**	ug/L	1.736	79241	0.029
	Cu	63		ug/L		188034	0.068
	Cu	65	**39.760**	ug/L	0.343	94019	0.034
	Zn	66	**155.074**	ug/L	2.083	227236	0.458
	Zn	67		ug/L		51345	0.075
	Zn	68		ug/L		177976	0.356
>	Ge	74		ug/L		495929	495929.407
	As	75	**9.757**	ug/L	2.280	14250	0.029
	Se	77		ug/L		3619	-0.006
	Se	82	**-0.461**	ug/L	31.705	-73	-0.000
	Kr	83		ug/L		368	0.001
	Sr	88	**134.600**	ug/L	0.462	2229738	6.696
	Y	89		ug/L		861199	2.586
	Mo	98	**1.731**	ug/L	2.092	7486	0.022
	Ag	107	**0.395**	ug/L	0.600	3004	0.009
	Cd	111	**1.376**	ug/L	2.548	2584	0.008
	Cd	114		ug/L		1725	0.005
>	In	115		ug/L		332970	332969.739
	Sn	120	**1.311**	ug/L	1.296	10504	0.030
	Sb	121	**0.183**	ug/L	7.151	2048	0.003
	Sb	123		ug/L		1639	0.003
	Ba	135		ug/L		1376898	2.201
	Ba	137	**683.211**	ug/L	1.689	2487488	3.977
	Ho	165		ug/L		66010	0.105
>	Lu	175		ug/L		625462	625461.950
	Tl	205	**1.094**	ug/L	2.128	30383	0.044
	Pb	208	**67.387**	ug/L	0.707	2615924	4.181
	Bi	209		ug/L		35737	0.057
	Th	232	**38.762**	ug/L	0.846	1756122	2.806
	U	238	**7.194**	ug/L	1.295	343758	0.548

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	1.0000
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	0.9999
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9998
U	238Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		94.5			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		88.8			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		90.9			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		98.1			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Al 27 Upper, S, EEE	Al	27	Sample is out of limits (over linear range)
Ti 47 Upper, S, EEE	Ti	47	Sample is out of limits (over linear range)
V 51 Upper, S, EEE	V	51	Sample is out of limits (over linear range)
Mn 55 Upper, S, EEI	Mn	55	Sample is out of limits (over linear range)
Fe 57 Upper, S, EEE	Fe	57	Sample is out of limits (over linear range)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: 242938004
Sample Date/Time: Wednesday, December 30, 2009 01:18:27
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 934057|2|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\091229\242938004.185

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**48.581**	**ug/L**	1.676	128705	0.047
	Be	9	**3.845**	**ug/L**	1.940	2255	0.001
	B	11	**13.305**	**ug/L**	3.268	9148	0.003
	Na	23	**532.625**	**ug/L**	9.104	2842752	1.030
	Mg	24	**7290.951**	**ug/L**	8.009	26380396	9.652
	Al	27	**57716.854**	**ug/L**	4.596	273229434	99.954
	P	31	**286.254**	**ug/L**	0.710	94945	0.032
	K	39	**4729.636**	**ug/L**	3.851	31844849	11.420
	Ca	43	**6305.920**	**ug/L**	1.640	106294	0.039
>	Sc	45		**ug/L**		2733398	2733398.272
	Ti	47	**670.497**	**ug/L**	1.418	540055	0.197
	V	51	**39.464**	**ug/L**	2.188	367873	0.129
	Cr	52	**26.585**	**ug/L**	0.858	188907	0.068
	Cr	53		**ug/L**		89396	-0.011
	Mn	55	**398.993**	**ug/L**	0.838	4372631	1.599
	Fe	57	**40555.695**	**ug/L**	0.466	9213231	3.368
	Co	59	**4.483**	**ug/L**	2.248	39666	0.014
	Ni	60	**21.715**	**ug/L**	1.628	43033	0.016
	Cu	63		**ug/L**		92998	0.034
	Cu	65	**19.829**	**ug/L**	1.324	46840	0.017
	Zn	66	**135.911**	**ug/L**	1.493	197897	0.401
	Zn	67		**ug/L**		41483	0.056
	Zn	68		**ug/L**		143727	0.289
>	Ge	74		**ug/L**		492667	492667.211
	As	75	**5.686**	**ug/L**	4.837	8258	0.017
	Se	77		**ug/L**		3489	-0.007
	Se	82	**0.187**	**ug/L**	54.726	23	0.000
	Kr	83		**ug/L**		322	0.000
	Sr	88	**81.031**	**ug/L**	0.933	1342069	4.031
	Y	89		**ug/L**		1411486	4.240
	Mo	98	**5.659**	**ug/L**	0.509	24079	0.072
	Ag	107	**0.346**	**ug/L**	1.023	2647	0.008
	Cd	111	**1.066**	**ug/L**	4.032	2008	0.006
	Cd	114		**ug/L**		388	0.001
>	In	115		**ug/L**		332867	332866.993
	Sn	120	**1.258**	**ug/L**	2.123	10098	0.028
	Sb	121	**0.086**	**ug/L**	0.885	1447	0.002
	Sb	123		**ug/L**		1150	0.001
	Ba	135		**ug/L**		367667	0.559
	Ba	137	**164.295**	**ug/L**	0.944	629483	0.956
	Ho	165		**ug/L**		117648	0.179
>	Lu	175		**ug/L**		658069	658068.751
	Tl	205	**0.619**	**ug/L**	1.081	19506	0.025
	Pb	208	**21.692**	**ug/L**	1.402	886679	1.346
	Bi	209		**ug/L**		35281	0.053
	Th	232	**28.769**	**ug/L**	0.286	1371750	2.082
	U	238	**2.844**	**ug/L**	1.069	143567	0.217

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	0.9999
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9998
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		94.2			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		88.2			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		90.8			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		103.2			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Al 27 Upper, S, EEE	Al	27	Sample is out of limits (over linear range)
Ti 47 Upper, S, EEE	Ti	47	Sample is out of limits (over linear range)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: 242938005
Sample Date/Time: Wednesday, December 30, 2009 01:24:38
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 934057|2|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\091229\242938005.186

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**81.317**	**ug/L**	2.443	216706	0.079
	Be	9	**4.106**	**ug/L**	0.655	2422	0.001
	B	11	**18.340**	**ug/L**	1.190	12268	0.004
	Na	23	**1091.622**	**ug/L**	4.159	5833777	2.111
	Mg	24	**12665.197**	**ug/L**	3.895	46120828	16.767
	Al	27	**88810.493**	**ug/L**	4.259	422911646	153.802
	P	31	**351.183**	**ug/L**	1.474	115632	0.040
	K	39	**8826.243**	**ug/L**	4.129	59250719	21.311
	Ca	43	**8980.433**	**ug/L**	1.679	152207	0.055
>	Sc	45		**ug/L**		2750692	2750692.261
	Ti	47	**1212.844**	**ug/L**	2.360	982645	0.357
	V	51	**84.799**	**ug/L**	0.311	777098	0.277
	Cr	52	**48.979**	**ug/L**	1.121	347822	0.125
	Cr	53		**ug/L**		106182	-0.005
	Mn	55	**1186.595**	**ug/L**	1.051	13084107	4.756
	Fe	57	**62573.459**	**ug/L**	1.531	14303367	5.197
	Co	59	**24.495**	**ug/L**	1.832	217181	0.079
	Ni	60	**37.071**	**ug/L**	2.171	73839	0.027
	Cu	63		**ug/L**		114632	0.041
	Cu	65	**24.428**	**ug/L**	1.370	57997	0.021
	Zn	66	**172.734**	**ug/L**	1.200	247506	0.510
	Zn	67		**ug/L**		53008	0.081
	Zn	68		**ug/L**		189838	0.389
>	Ge	74		**ug/L**		485017	485016.726
	As	75	**8.454**	**ug/L**	2.751	12079	0.025
	Se	77		**ug/L**		3240	-0.007
	Se	82	**-0.656**	**ug/L**	42.308	-99	-0.000
	Kr	83		**ug/L**		355	0.000
	Sr	88	**108.481**	**ug/L**	0.654	1786568	5.396
	Y	89		**ug/L**		916615	2.769
	Mo	98	**2.630**	**ug/L**	1.544	11216	0.033
	Ag	107	**0.444**	**ug/L**	4.269	3343	0.010
	Cd	111	**1.444**	**ug/L**	7.796	2694	0.008
	Cd	114		**ug/L**		700	0.002
>	In	115		**ug/L**		331024	331023.833
	Sn	120	**1.567**	**ug/L**	1.384	12362	0.035
	Sb	121	**0.154**	**ug/L**	3.637	1857	0.003
	Sb	123		**ug/L**		1490	0.002
	Ba	135		**ug/L**		1133366	1.810
	Ba	137	**506.168**	**ug/L**	2.602	1844626	2.947
	Ho	165		**ug/L**		67498	0.108
>	Lu	175		**ug/L**		626187	626187.366
	Tl	205	**1.281**	**ug/L**	1.900	35074	0.051
	Pb	208	**71.931**	**ug/L**	1.946	2794955	4.463
	Bi	209		**ug/L**		281667	0.450
	Th	232	**32.847**	**ug/L**	2.347	1489727	2.378
	U	238	**3.149**	**ug/L**	2.628	151113	0.240

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	0.9999
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9998
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		94.8			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		86.8			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		90.3			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		98.2			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type Analyte	Mass	Out of Limits Message
Al 27 Upper, S, EEEAl	27	Sample is out of limits (over linear range)
Ti 47 Upper, S, EEETi	47	Sample is out of limits (over linear range)
Mn 55 Upper, S, EEIMn	55	Sample is out of limits (over linear range)
Fe 57 Upper, S, EEEFe	57	Sample is out of limits (over linear range)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: 242938006
Sample Date/Time: Wednesday, December 30, 2009 01:30:49
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 934057|2|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\091229\242938006.187

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**69.668**	ug/L	1.385	183958	0.067
	Be	9	**4.337**	ug/L	1.302	2533	0.001
	B	11	**25.064**	ug/L	1.257	16200	0.006
	Na	23	**1908.407**	ug/L	4.629	10087680	3.691
	Mg	24	**12684.363**	ug/L	2.008	45761911	16.793
	Al	27	**85012.128**	ug/L	4.563	401162949	147.224
	P	31	**800.090**	ug/L	0.567	252200	0.090
	K	39	**12665.381**	ug/L	4.749	83954602	30.581
	Ca	43	**10181.819**	ug/L	0.268	170895	0.063
>	Sc	45		ug/L		2724791	2724790.642
	Ti	47	**1765.024**	ug/L	0.825	1416698	0.520
	V	51	**112.034**	ug/L	1.918	1011871	0.366
	Cr	52	**53.132**	ug/L	1.146	373542	0.136
	Cr	53		ug/L		108583	-0.004
	Mn	55	**2224.092**	ug/L	1.165	24291247	8.915
	Fe	57	**61944.773**	ug/L	2.057	14024028	5.144
	Co	59	**34.036**	ug/L	0.735	298901	0.110
	Ni	60	**39.694**	ug/L	0.853	78327	0.029
	Cu	63		ug/L		155085	0.057
	Cu	65	**33.533**	ug/L	1.333	78762	0.029
	Zn	66	**155.252**	ug/L	1.328	221702	0.458
	Zn	67		ug/L		50214	0.076
	Zn	68		ug/L		175003	0.359
>	Ge	74		ug/L		483259	483259.022
	As	75	**8.598**	ug/L	2.210	12237	0.025
	Se	77		ug/L		3348	-0.007
	Se	82	**-0.539**	ug/L	10.412	-82	-0.000
	Kr	83		ug/L		368	0.001
	Sr	88	**144.302**	ug/L	1.863	2332428	7.178
	Y	89		ug/L		921980	2.838
	Mo	98	**1.727**	ug/L	1.468	7286	0.022
	Ag	107	**0.400**	ug/L	3.051	2969	0.009
	Cd	111	**1.312**	ug/L	6.344	2406	0.007
	Cd	114		ug/L		1804	0.005
>	In	115		ug/L		324906	324905.798
	Sn	120	**1.142**	ug/L	0.730	9007	0.026
	Sb	121	**0.163**	ug/L	5.857	1876	0.003
	Sb	123		ug/L		1435	0.002
	Ba	135		ug/L		1552623	2.482
	Ba	137	**780.934**	ug/L	2.087	2843035	4.546
	Ho	165		ug/L		70547	0.113
>	Lu	175		ug/L		625499	625499.410
	Tl	205	**1.140**	ug/L	1.003	31544	0.045
	Pb	208	**63.358**	ug/L	1.690	2459432	3.931
	Bi	209		ug/L		35300	0.056
	Th	232	**39.909**	ug/L	1.489	1808027	2.889
	U	238	**7.101**	ug/L	0.583	339383	0.541

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	0.9999
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9998
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈	Li	7					
|	Be	9					
|	B	11					
|	Na	23					
|	Mg	24					
|	Al	27					
|	P	31					
|	K	39					
|	Ca	43					
|>	Sc	45		93.9			
|	Ti	47					
|	V	51					
|	Cr	52					
|	Cr	53					
|	Mn	55					
|	Fe	57					
|	Co	59					
|	Ni	60					
|	Cu	63					
⌊	Cu	65					
⌈	Zn	66					
|	Zn	67					
|	Zn	68					
|>	Ge	74		86.5			
|	As	75					
|	Se	77					
|	Se	82					
⌊	Kr	83					
⌈	Sr	88					
|	Y	89					
|	Mo	98					
|	Ag	107					
|	Cd	111					
|	Cd	114					
|>	In	115		88.7			
|	Sn	120					
|	Sb	121					
⌊	Sb	123					
⌈	Ba	135					
|	Ba	137					
|	Ho	165					
|>	Lu	175		98.1			
|	Tl	205					
|	Pb	208					
|	Bi	209					
|	Th	232					
⌊	U	238					

QC Out Of Limits

Measurement Type Analyte	Mass	Out of Limits Message
Al 27 Upper, S, EEEAl	27	Sample is out of limits (over linear range)
Ti 47 Upper, S, EEETi	47	Sample is out of limits (over linear range)
V 51 Upper, S, EEE V	51	Sample is out of limits (over linear range)
Mn 55 Upper, S, EEIMn	55	Sample is out of limits (over linear range)
Fe 57 Upper, S, EEEFe	57	Sample is out of limits (over linear range)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: 242938007
Sample Date/Time: Wednesday, December 30, 2009 01:37:01
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 934057|2|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\091229\242938007.188

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**90.642**	ug/L	1.010	241800	0.088
	Be	9	**2.489**	ug/L	1.300	1478	0.001
	B	11	**9.419**	ug/L	3.551	6850	0.002
	Na	23	**939.432**	ug/L	7.231	5028501	1.817
	Mg	24	**7977.204**	ug/L	9.072	29072273	10.561
	Al	27	**42354.527**	ug/L	3.002	201952191	73.350
	P	31	**532.369**	ug/L	0.344	171892	0.060
	K	39	**5040.309**	ug/L	5.085	34160838	12.170
	Ca	43	**11505.941**	ug/L	1.392	195119	0.071
>	Sc	45		ug/L		2753349	2753349.342
	Ti	47	**915.539**	ug/L	1.107	742667	0.270
	V	51	**43.736**	ug/L	2.124	408928	0.143
	Cr	52	**49.567**	ug/L	1.600	352295	0.127
	Cr	53		ug/L		109244	-0.004
	Mn	55	**853.996**	ug/L	2.995	9424390	3.423
	Fe	57	**47234.453**	ug/L	1.757	10806532	3.923
	Co	59	**7.268**	ug/L	2.188	64653	0.023
	Ni	60	**30.281**	ug/L	1.835	60397	0.022
	Cu	63		ug/L		60299	0.022
	Cu	65	**12.841**	ug/L	2.789	30652	0.011
	Zn	66	**183.831**	ug/L	1.876	265697	0.542
	Zn	67		ug/L		51984	0.078
	Zn	68		ug/L		194355	0.395
>	Ge	74		ug/L		489308	489308.163
	As	75	**5.266**	ug/L	0.552	7595	0.015
	Se	77		ug/L		3625	-0.006
	Se	82	**0.172**	ug/L	53.130	21	0.000
	Kr	83		ug/L		313	0.000
	Sr	88	**74.615**	ug/L	0.827	1223380	3.712
	Y	89		ug/L		1405499	4.266
	Mo	98	**5.691**	ug/L	2.343	23969	0.072
	Ag	107	**0.363**	ug/L	2.726	2745	0.008
	Cd	111	**1.300**	ug/L	6.372	2420	0.007
	Cd	114		ug/L		399	0.001
>	In	115		ug/L		329540	329540.415
	Sn	120	**3.392**	ug/L	3.094	25914	0.077
	Sb	121	**0.232**	ug/L	6.909	2332	0.004
	Sb	123		ug/L		1835	0.003
	Ba	135		ug/L		570107	0.871
	Ba	137	**251.925**	ug/L	1.843	959678	1.467
	Ho	165		ug/L		114193	0.174
>	Lu	175		ug/L		654418	654418.348
	Tl	205	**0.436**	ug/L	2.429	14601	0.017
	Pb	208	**27.682**	ug/L	1.470	1124870	1.717
	Bi	209		ug/L		22447	0.034
	Th	232	**27.605**	ug/L	2.354	1308830	1.998
	U	238	**2.369**	ug/L	1.785	119037	0.181

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	0.9999
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9998
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		94.8			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		87.6			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		89.9			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		102.6			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Ti 47 Upper, S, EEE	Ti	47	Sample is out of limits (over linear range)

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 242938008
Sample Date/Time: Wednesday, December 30, 2009 01:43:12
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 934057|2|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\091229\242938008.189

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**85.678**	**ug/L**	0.666	224645	0.083
	Be	9	**4.988**	**ug/L**	1.787	2890	0.001
	B	11	**21.925**	**ug/L**	1.435	14210	0.005
	Na	23	**1706.855**	**ug/L**	3.444	8957737	3.301
	Mg	24	**15720.372**	**ug/L**	8.614	56349961	20.812
	Al	27	**110347.424**	**ug/L**	6.537	517034161	191.100
	P	31	**686.131**	**ug/L**	2.700	215695	0.077
	K	39	**10800.591**	**ug/L**	6.097	71216663	26.079
	Ca	43	**10510.573**	**ug/L**	1.410	175163	0.065
>	Sc	45		**ug/L**		2705830	2705830.237
	Ti	47	**1616.036**	**ug/L**	1.478	1287941	0.476
	V	51	**129.507**	**ug/L**	1.149	1159033	0.423
	Cr	52	**63.289**	**ug/L**	1.685	441276	0.162
	Cr	53		**ug/L**		117297	-0.000
	Mn	55	**1469.188**	**ug/L**	0.600	15935598	5.889
	Fe	57	**72584.945**	**ug/L**	1.089	16317472	6.028
	Co	59	**28.604**	**ug/L**	1.442	249459	0.092
	Ni	60	**40.815**	**ug/L**	0.823	79970	0.030
	Cu	63		**ug/L**		168354	0.062
	Cu	65	**36.490**	**ug/L**	1.419	85085	0.031
	Zn	66	**156.597**	**ug/L**	0.957	223817	0.462
	Zn	67		**ug/L**		50783	0.077
	Zn	68		**ug/L**		175838	0.361
>	Ge	74		**ug/L**		483703	483703.385
	As	75	**13.189**	**ug/L**	0.676	18780	0.039
	Se	77		**ug/L**		3490	-0.007
	Se	82	**-0.712**	**ug/L**	39.499	-107	-0.000
	Kr	83		**ug/L**		421	0.001
	Sr	88	**144.996**	**ug/L**	1.281	2307937	7.213
	Y	89		**ug/L**		1058789	3.309
	Mo	98	**1.752**	**ug/L**	1.520	7278	0.022
	Ag	107	**0.455**	**ug/L**	2.869	3313	0.010
	Cd	111	**1.384**	**ug/L**	2.143	2498	0.008
	Cd	114		**ug/L**		787	0.002
>	In	115		**ug/L**		319958	319958.495
	Sn	120	**1.178**	**ug/L**	1.741	9128	0.027
	Sb	121	**0.094**	**ug/L**	4.745	1435	0.002
	Sb	123		**ug/L**		1162	0.001
	Ba	135		**ug/L**		1386361	2.281
	Ba	137	**705.531**	**ug/L**	1.658	2496125	4.107
	Ho	165		**ug/L**		84694	0.139
>	Lu	175		**ug/L**		607805	607804.531
	Tl	205	**1.125**	**ug/L**	1.031	30272	0.045
	Pb	208	**67.576**	**ug/L**	1.395	2549027	4.193
	Bi	209		**ug/L**		41730	0.069
	Th	232	**44.245**	**ug/L**	1.284	1947710	3.203
	U	238	**7.724**	**ug/L**	0.601	358652	0.589

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	1.0000
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	0.9999
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9998
U	238Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		93.2			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		86.6			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		87.3			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		95.3			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type Analyte	Mass	Out of Limits Message
Al 27 Upper, S, EEEAl	27	Sample is out of limits (over linear range)
Ti 47 Upper, S, EEE Ti	47	Sample is out of limits (over linear range)
V 51 Upper, S, EEE V	51	Sample is out of limits (over linear range)
Mn 55 Upper, S, EEIMn	55	Sample is out of limits (over linear range)
Fe 57 Upper, S, EEEFe	57	Sample is out of limits (over linear range)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: 242938009
Sample Date/Time: Wednesday, December 30, 2009 01:49:22
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 934057|2|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\091229\242938009.190

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**88.326**	ug/L	1.705	232007	0.086
	Be	9	**2.491**	ug/L	3.074	1456	0.001
	B	11	**8.997**	ug/L	1.778	6493	0.002
	Na	23	**955.844**	ug/L	10.032	5036171	1.849
	Mg	24	**8200.034**	ug/L	4.661	29431190	10.856
	Al	27	**41066.706**	ug/L	4.044	192814083	71.119
	P	31	**671.016**	ug/L	2.720	211523	0.076
	K	39	**4916.904**	ug/L	5.828	32809845	11.872
	Ca	43	**10980.006**	ug/L	2.310	183317	0.068
>	Sc	45		ug/L		2711341	2711341.220
	Ti	47	**940.971**	ug/L	0.975	751664	0.277
	V	51	**47.417**	ug/L	2.200	435224	0.155
	Cr	52	**59.624**	ug/L	2.113	416705	0.153
	Cr	53		ug/L		115268	-0.001
	Mn	55	**1130.891**	ug/L	2.279	12289010	4.533
	Fe	57	**47132.348**	ug/L	3.331	10616944	3.914
	Co	59	**9.325**	ug/L	3.031	81613	0.030
	Ni	60	**34.898**	ug/L	2.877	68518	0.025
	Cu	63		ug/L		66284	0.024
	Cu	65	**14.363**	ug/L	0.738	33731	0.012
	Zn	66	**179.623**	ug/L	0.684	256077	0.530
	Zn	67		ug/L		53035	0.082
	Zn	68		ug/L		195853	0.403
>	Ge	74		ug/L		482574	482573.905
	As	75	**5.423**	ug/L	3.115	7712	0.016
	Se	77		ug/L		3626	-0.006
	Se	82	**0.379**	ug/L	77.419	50	0.000
	Kr	83		ug/L		275	0.000
	Sr	88	**80.551**	ug/L	0.952	1315024	4.007
	Y	89		ug/L		1347089	4.105
	Mo	98	**5.600**	ug/L	1.861	23489	0.071
	Ag	107	**0.363**	ug/L	3.443	2729	0.008
	Cd	111	**1.300**	ug/L	8.391	2408	0.007
	Cd	114		ug/L		448	0.001
>	In	115		ug/L		328114	328114.308
	Sn	120	**3.477**	ug/L	0.482	26434	0.079
	Sb	121	**0.202**	ug/L	9.797	2136	0.004
	Sb	123		ug/L		1665	0.003
	Ba	135		ug/L		1251097	1.940
	Ba	137	**576.288**	ug/L	7.148	2163328	3.355
	Ho	165		ug/L		110626	0.171
>	Lu	175		ug/L		644863	644862.874
	Tl	205	**0.508**	ug/L	1.219	16251	0.020
	Pb	208	**29.080**	ug/L	0.450	1164509	1.804
	Bi	209		ug/L		18886	0.029
	Th	232	**26.842**	ug/L	0.278	1254319	1.943
	U	238	**2.355**	ug/L	2.180	116618	0.179

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	1.0000
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	0.9999
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9998
U	238Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45			93.4		
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74			86.4		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115			89.6		
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175			101.1		
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Ti 47 Upper, S, EEE	Ti	47	Sample is out of limits (over linear range)
Mn 55 Upper, S, EEI	Mn	55	Sample is out of limits (over linear range)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 8
Sample Date/Time: Wednesday, December 30, 2009 01:55:30
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\091229\QC Std 8.191

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**53.579**	**ug/L**	2.256	136836	0.052
	Be	9	**53.000**	**ug/L**	3.196	29692	0.011
	B	11	**103.023**	**ug/L**	2.809	61050	0.023
	Na	23	**4909.893**	**ug/L**	8.511	25032581	9.496
	Mg	24	**5274.784**	**ug/L**	1.943	18405710	6.983
	Al	27	**5245.026**	**ug/L**	2.382	23941843	9.083
	P	31	**4832.876**	**ug/L**	1.052	1439728	0.544
	K	39	**5059.542**	**ug/L**	2.925	32809845	12.217
	Ca	43	**4884.370**	**ug/L**	1.117	79451	0.030
>	Sc	45		**ug/L**		2635283	2635283.096
	Ti	47	**49.733**	**ug/L**	1.601	38917	0.015
	V	51	**50.994**	**ug/L**	3.547	453706	0.166
	Cr	52	**51.450**	**ug/L**	2.200	349864	0.132
	Cr	53		**ug/L**		139434	0.009
	Mn	55	**53.608**	**ug/L**	0.764	567569	0.215
	Fe	57	**4946.857**	**ug/L**	2.750	1089147	0.411
	Co	59	**51.327**	**ug/L**	2.407	435754	0.165
	Ni	60	**51.740**	**ug/L**	3.476	98678	0.037
	Cu	63		**ug/L**		230651	0.087
	Cu	65	**50.502**	**ug/L**	1.365	114578	0.043
	Zn	66	**52.452**	**ug/L**	2.542	77896	0.155
	Zn	67		**ug/L**		25036	0.022
	Zn	68		**ug/L**		56102	0.109
>	Ge	74		**ug/L**		501103	501103.179
	As	75	**48.488**	**ug/L**	1.457	71485	0.143
	Se	77		**ug/L**		11010	0.008
	Se	82	**49.807**	**ug/L**	2.097	7412	0.015
	Kr	83		**ug/L**		129	0.000
	Sr	88	**54.720**	**ug/L**	1.114	886399	2.722
	Y	89		**ug/L**		226	0.001
	Mo	98	**49.518**	**ug/L**	0.168	204811	0.629
	Ag	107	**50.443**	**ug/L**	1.876	360824	1.108
	Cd	111	**50.249**	**ug/L**	1.616	91181	0.280
	Cd	114		**ug/L**		215577	0.662
>	In	115		**ug/L**		325558	325558.105
	Sn	120	**52.092**	**ug/L**	2.297	384417	1.179
	Sb	121	**49.984**	**ug/L**	1.675	305671	0.936
	Sb	123		**ug/L**		243450	0.746
	Ba	135		**ug/L**		98168	0.161
	Ba	137	**48.427**	**ug/L**	1.542	171350	0.282
	Ho	165		**ug/L**		93	0.000
>	Lu	175		**ug/L**		607532	607531.988
	Tl	205	**54.194**	**ug/L**	1.655	1316481	2.162
	Pb	208	**55.108**	**ug/L**	2.072	2078155	3.419
	Bi	209		**ug/L**		475	0.001
	Th	232	**52.126**	**ug/L**	0.225	2293530	3.773
	U	238	**53.011**	**ug/L**	1.253	2455139	4.040

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	0.9999
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9998
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7	107.159				
	Be	9	106.001				
	B	11	103.023				
	Na	23	98.198				
	Mg	24	105.496				
	Al	27	103.862				
	P	31	96.658				
	K	39	101.191				
	Ca	43	97.687				
>	Sc	45		90.8			
	Ti	47	99.466				
	V	51	101.988				
	Cr	52	102.900				
	Cr	53					
	Mn	55	107.215				
	Fe	57	98.937				
	Co	59	102.654				
	Ni	60	103.481				
	Cu	63					
	Cu	65	101.005				
	Zn	66	104.904				
	Zn	67					
	Zn	68					
>	Ge	74		89.7			
	As	75	96.975				
	Se	77					
	Se	82	99.614				
	Kr	83					
	Sr	88	109.441				
	Y	89					
	Mo	98	99.035				
	Ag	107	100.885				
	Cd	111	100.497				
	Cd	114					
>	In	115		88.9			
	Sn	120	104.185				
	Sb	121	99.968				
	Sb	123					
	Ba	135					
	Ba	137	96.855				
	Ho	165					
>	Lu	175		95.3			
	Tl	205	108.389				
	Pb	208	110.217				
	Bi	209					
	Th	232	104.251				
	U	238	106.021				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 8	Pb	208	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 9
Sample Date/Time: Wednesday, December 30, 2009 02:01:39
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\091229\QC Std 9.192

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.064**	**ug/L**	12.841	274	0.000
	Be	9	**0.006**	**ug/L**	123.398	25	0.000
	B	11	**1.370**	**ug/L**	33.653	1896	0.000
	Na	23	**0.463**	**ug/L**	344.640	30033	0.001
	Mg	24	**0.047**	**ug/L**	1192.769	6001	0.000
	Al	27	**0.899**	**ug/L**	100.584	13674	0.002
	P	31	**1.045**	**ug/L**	148.912	7060	0.000
	K	39	**-1.209**	**ug/L**	424.603	613245	-0.003
	Ca	43	**-1.950**	**ug/L**	90.712	300	-0.000
>	Sc	45		**ug/L**		2672459	2672459.268
	Ti	47	**0.097**	**ug/L**	22.437	404	0.000
	V	51	**-0.506**	**ug/L**	54.434	11195	-0.002
	Cr	52	**-0.151**	**ug/L**	24.970	1714	-0.000
	Cr	53		**ug/L**		104874	-0.004
	Mn	55	**0.021**	**ug/L**	31.110	1600	0.000
	Fe	57	**-0.376**	**ug/L**	104.046	6781	-0.000
	Co	59	**0.002**	**ug/L**	55.670	215	0.000
	Ni	60	**0.009**	**ug/L**	32.062	129	0.000
	Cu	63		**ug/L**		505	-0.000
	Cu	65	**-0.001**	**ug/L**	282.739	278	-0.000
	Zn	66	**-0.016**	**ug/L**	35.632	345	-0.000
	Zn	67		**ug/L**		13212	-0.002
	Zn	68		**ug/L**		1270	-0.000
>	Ge	74		**ug/L**		508015	508015.271
	As	75	**-0.040**	**ug/L**	659.831	-43	-0.000
	Se	77		**ug/L**		5955	-0.002
	Se	82	**0.155**	**ug/L**	98.972	19	0.000
	Kr	83		**ug/L**		122	0.000
	Sr	88	**0.003**	**ug/L**	59.478	384	0.000
	Y	89		**ug/L**		80	0.000
	Mo	98	**0.046**	**ug/L**	14.250	361	0.001
	Ag	107	**0.003**	**ug/L**	63.906	140	0.000
	Cd	111	**0.008**	**ug/L**	55.975	46	0.000
	Cd	114		**ug/L**		81	0.000
>	In	115		**ug/L**		333919	333919.141
	Sn	120	**0.067**	**ug/L**	21.579	1133	0.002
	Sb	121	**0.379**	**ug/L**	25.331	3281	0.007
	Sb	123		**ug/L**		2586	0.006
	Ba	135		**ug/L**		63	0.000
	Ba	137	**0.007**	**ug/L**	74.805	108	0.000
	Ho	165		**ug/L**		60	0.000
>	Lu	175		**ug/L**		620784	620783.563
	Tl	205	**0.096**	**ug/L**	43.177	5433	0.004
	Pb	208	**0.005**	**ug/L**	20.387	1188	0.000
	Bi	209		**ug/L**		60	-0.000
	Th	232	**0.045**	**ug/L**	23.583	3384	0.003
	U	238	**0.009**	**ug/L**	28.969	1306	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	0.9999
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9998
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		92.1			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		91.0			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		91.1			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		97.4			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS #5 Daily Performance Report

Sample ID: Sample
Sample Date/Time: Wednesday, December 30, 2009 09:25:03
Sample Description:
Method File: c:\elandata\Method\Daily2.mth
Dataset File: c:\elandata\Dataset\default2\Sample.1613
Tuning File: c:\elandata\Tuning\default2.tun
Optimization File: c:\elandata\Optimize\default.dac
Dual Detector Mode: Pulse

Acq. Dead Time(ns): 35
Current Dead Time (ns): 35

Number of Replicates: 5

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Be	9.0	4840.6	4840.621	140.653	2.9
	Mg	24.0	52202.0	52202.014	629.724	1.2
	Co	58.9	96998.8	96998.818	949.986	1.0
	Rh	102.9	164270.7	164270.686	732.826	0.4
	In	114.9	254694.4	254694.377	730.645	0.3
	Pb	208.0	295985.0	295985.029	2833.423	1.0
⌈>	Ba	137.9	233886.2	233886.227	202.104	0.1
⌊	Ba++	69.0	3282.7	0.014	0.000	1.3
⌈>	Ce	139.9	279561.7	279561.683	2523.275	0.9
⌊	CeO	155.9	7310.5	0.026	0.000	1.7
	Bkgd	220.0	13.0	13.000	1.620	12.5

Current Optimization File Data

Current Value	Description
0.88	Nebulizer Gas Flow
8.25	Lens Voltage
1450.00	ICP RF Power
-1687.50	Analog Stage Voltage
1200.00	Pulse Stage Voltage
275.00	Discriminator Threshold
-6.00	AC Rod Offset

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	13	6.3	6693.6
Co	59	13	7.0	97020.7
In	115	13	8.3	241797.8

ICPMS #5 Instrument Tuning Report

File Name: default2.tun
File Path: c:\elandata\Tuning

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Pk. Width
He	3.0	3.0	599	2065	0.573
Be	9.0	9.0	2050	2070	0.605
Mg	24.0	24.0	5691	2070	0.610
Mg	25.0	25.0	5955	2070	0.636
Mg	26.0	26.0	6152	2070	0.639
Co	58.9	58.9	14184	2105	0.611
Rh	102.9	102.9	24870	2165	0.604
In	114.9	114.9	27796	2185	0.599
Ce	139.9	139.9	33868	2200	0.626
Pb	206.0	206.0	49948	2270	0.653
Pb	207.0	207.0	50171	2235	0.676
Pb	208.0	208.0	50439	2260	0.705
U	238.1	238.1	57730	2275	0.710

ICPMS#5 - Summary Report

Sample ID: Blank
Sample Date/Time: Wednesday, December 30, 2009 09:50:14
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li be tl and u.mth
Dataset File: C:\elandata\Dataset\091230\Blank.005

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7		ug/L		71	
	Be	9		ug/L		15	
>	Sc	45		ug/L		1801242	
>	Lu	175		ug/L		598479	
	Tl	205		ug/L		2319	
	U	238		ug/L		378	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	
Be	9	Linear Thru Zero	
Sc	45	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	
U	238	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
>	Sc	45					
>	Lu	175					
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Wednesday, December 30, 2009 09:53:35
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li be tl and u.mth
Dataset File: C:\elandata\Dataset\091230\Standard 1.006

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	10.000	ug/L	3.795	16744	0.010
	Be	9	10.000	ug/L	2.940	4999	0.003
>	Sc	45		ug/L		1752339	1752338.932
>	Lu	175		ug/L		592691	592691.062
	Tl	205	10.000	ug/L	1.173	285615	0.478
	U	238	10.000	ug/L	1.111	587599	0.991

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
>	Sc	45					
>	Lu	175					
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Wednesday, December 30, 2009 09:56:54
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li be tl and u.mth
Dataset File: C:\elandata\Dataset\091230\Standard 2.007

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**99.948**	**ug/L**	3.988	158703	0.090
	Be	9	**99.949**	**ug/L**	3.575	47449	0.027
>	Sc	45		**ug/L**		1754891	1754891.005
>	Lu	175		**ug/L**		573658	573657.805
	Tl	205	**99.739**	**ug/L**	1.733	2170321	3.780
	U	238	**99.763**	**ug/L**	1.938	4582347	7.988

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9997
U	238	Linear Thru Zero	0.9997

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
>	Sc	45					
>	Lu	175					
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Wednesday, December 30, 2009 10:00:14
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li be tl and u.mth
Dataset File: C:\elandata\Dataset\091230\QC Std 1.008

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**49.844**	**ug/L**	5.556	82184	0.045
	Be	9	**49.643**	**ug/L**	4.668	24470	0.013
>	Sc	45		**ug/L**		1821914	1821914.071
>	Lu	175		**ug/L**		586215	586215.200
	Tl	205	**54.226**	**ug/L**	1.120	1206845	2.055
	U	238	**51.316**	**ug/L**	1.890	2408991	4.109

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9997
U	238	Linear Thru Zero	0.9997

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7	99.688				
	Be	9	99.286				
>	Sc	45		101.1			
>	Lu	175		98.0			
	Tl	205	108.452				
	U	238	102.633				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Wednesday, December 30, 2009 10:03:36
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li be tl and u.mth
Dataset File: C:\elandata\Dataset\091230\QC Std 2.009

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Li	7	**0.001**	**ug/L**	474.937	76	0.000
|	Be	9	**-0.003**	**ug/L**	341.620	14	-0.000
⌊>	Sc	45		**ug/L**		1879719	1879719.497
⌈>	Lu	175		**ug/L**		591725	591724.728
|	Tl	205	**-0.012**	**ug/L**	16.164	2034	-0.000
⌊	U	238	**-0.003**	**ug/L**	17.380	238	-0.000

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9997
U	238Linear Thru Zero	0.9997

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
>	Sc	45		104.4			
>	Lu	175		98.9			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Wednesday, December 30, 2009 10:06:59
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li be tl and u.mth
Dataset File: C:\elandata\Dataset\091230\QC Std 3.010

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**10.327**	**ug/L**	1.035	18361	0.009
	Be	9	**0.515**	**ug/L**	5.154	289	0.000
>	Sc	45		**ug/L**		1955918	1955917.560
>	Lu	175		**ug/L**		596996	596995.796
	Tl	205	**1.225**	**ug/L**	1.290	30034	0.046
	U	238	**0.278**	**ug/L**	2.314	13668	0.022

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9997
U	238Linear Thru Zero	0.9997

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7	103.271				
	Be	9	102.935				
>	Sc	45		108.6			
>	Lu	175		99.8			
	Tl	205	122.536				
	U	238	139.025				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 3	U	238	CRDL is out of limits

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Wednesday, December 30, 2009 10:10:20
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li be tl and u.mth
Dataset File: C:\elandata\Dataset\091230\QC Std 4.011

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.109**	**ug/L**	13.378	236	0.000
	Be	9	**0.063**	**ug/L**	37.288	43	0.000
>	Sc	45		**ug/L**		1711545	1711545.135
>	Lu	175		**ug/L**		490058	490057.564
	Tl	205	**-0.038**	**ug/L**	4.553	1190	-0.001
	U	238	**-0.004**	**ug/L**	9.517	145	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9997
U	238	Linear Thru Zero	0.9997

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
>	Sc	45		95.0			
>	Lu	175		81.9			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Wednesday, December 30, 2009 10:13:41
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li be tl and u.mth
Dataset File: C:\elandata\Dataset\091230\QC Std 5.012

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**21.048**	**ug/L**	3.333	32157	0.019
	Be	9	**19.424**	**ug/L**	4.568	8866	0.005
>	Sc	45		**ug/L**		1685037	1685037.040
>	Lu	175		**ug/L**		492084	492083.765
	Tl	205	**22.714**	**ug/L**	0.420	425469	0.861
	U	238	**25.290**	**ug/L**	0.821	996733	2.025

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9997
U	238	Linear Thru Zero	0.9997

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7	105.242				
	Be	9	97.118				
>	Sc	45			93.5		
>	Lu	175			82.2		
	Tl	205	113.571				
	U	238	126.448				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 5	U	238	ICSAB is out of limits

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Wednesday, December 30, 2009 10:17:04
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li be tl and u.mth
Dataset File: C:\elandata\Dataset\091230\QC Std 6.013

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**47.369**	**ug/L**	7.549	85255	0.043
	Be	9	**46.240**	**ug/L**	5.179	24886	0.013
>	Sc	45		**ug/L**		1989114	1989114.184
>	Lu	175		**ug/L**		579895	579894.755
	Tl	205	**54.072**	**ug/L**	0.789	1190523	2.049
	U	238	**50.618**	**ug/L**	0.504	2350796	4.053

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9997
U	238	Linear Thru Zero	0.9997

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7	94.739				
	Be	9	92.480				
>	Sc	45		110.4			
>	Lu	175		96.9			
	Tl	205	108.145				
	U	238	101.236				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Wednesday, December 30, 2009 10:20:27
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li be tl and u.mth
Dataset File: C:\elandata\Dataset\091230\QC Std 7.014

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**-0.002**	**ug/L**	294.068	73	-0.000
	Be	9	**0.003**	**ug/L**	404.076	18	0.000
>	Sc	45		**ug/L**		1909160	1909160.180
>	Lu	175		**ug/L**		569298	569297.594
	Tl	205	**-0.013**	**ug/L**	14.633	1918	-0.001
	U	238	**-0.003**	**ug/L**	8.898	240	-0.000

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9997
U	238Linear Thru Zero	0.9997

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
>	Sc	45		106.0			
>	Lu	175		95.1			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 10
Sample Date/Time: Wednesday, December 30, 2009 10:23:49
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li be tl and u.mth
Dataset File: C:\elandata\Dataset\091230\QC Std 10.015

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**835.878**	**ug/L**	9.784	1465041	0.757
	Be	9	**842.003**	**ug/L**	9.701	441272	0.228
>	Sc	45		**ug/L**		1948849	1948848.516
>	Lu	175		**ug/L**		517182	517182.133
	Tl	205	**470.504**	**ug/L**	1.801	9222969	17.830
	U	238	**5207.733**	**ug/L**	3.013	215635393	416.999

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9997
U	238	Linear Thru Zero	0.9997

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7	83.588				
	Be	9	84.200				
>	Sc	45		108.2			
>	Lu	175		86.4			
	Tl	205	94.101				
	U	238	104.155				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 10	Li	7	LRS is out of limits (+/- 10%)
QC Std 10	Be	9	LRS is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 11
Sample Date/Time: Wednesday, December 30, 2009 10:27:09
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li be tl and u.mth
Dataset File: C:\elandata\Dataset\091230\QC Std 11.016

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**47.390**	**ug/L**	1.084	81862	0.043
	Be	9	**47.669**	**ug/L**	1.295	24610	0.013
>	Sc	45		**ug/L**		1906211	1906211.191
>	Lu	175		**ug/L**		574139	574138.507
	Tl	205	**54.066**	**ug/L**	0.699	1178497	2.049
	U	238	**51.699**	**ug/L**	1.799	2376815	4.140

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9997
U	238Linear Thru Zero	0.9997

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7	94.780				
	Be	9	95.338				
>	Sc	45		105.8			
>	Lu	175		95.9			
	Tl	205	108.132				
	U	238	103.399				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 12
Sample Date/Time: Wednesday, December 30, 2009 10:30:31
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li be tl and u.mth
Dataset File: C:\elandata\Dataset\091230\QC Std 12.017

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.022**	**ug/L**	19.430	120	0.000
	Be	9	**-0.011**	**ug/L**	71.475	11	-0.000
>	Sc	45		**ug/L**		2023751	2023750.860
>	Lu	175		**ug/L**		585665	585664.951
	Tl	205	**0.017**	**ug/L**	11.590	2651	0.001
	U	238	**0.031**	**ug/L**	6.586	1844	0.003

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9997
U	238Linear Thru Zero	0.9997

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
>	Sc	45		112.4			
>	Lu	175		97.9			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1201998448
Sample Date/Time: Wednesday, December 30, 2009 10:33:55
Sample Type:
Sample Description: LANL 6020 MB
Number of Replicates: 3
Batch ID: 934057|2|baj
Method File: c:\elandata\Method\li be tl and u.mth
Dataset File: C:\elandata\Dataset\091230\1201998448.018

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.005**	**ug/L**	96.674	88	0.000
	Be	9	**-0.004**	**ug/L**	158.118	15	-0.000
>	Sc	45		**ug/L**		1991663	1991662.976
>	Lu	175		**ug/L**		598264	598264.481
	Tl	205	**-0.021**	**ug/L**	6.273	1838	-0.001
	U	238	**0.030**	**ug/L**	10.882	1822	0.002

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9997
U	238Linear Thru Zero	0.9997

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
>	Sc	45		110.6			
>	Lu	175		100.0			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1201998449
Sample Date/Time: Wednesday, December 30, 2009 10:37:18
Sample Type:
Sample Description: LANL 6020 LCS
Number of Replicates: 3
Batch ID: 934057|20|baj
Method File: c:\elandata\Method\li be tl and u.mth
Dataset File: C:\elandata\Dataset\091230\1201998449.019

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	5.465	ug/L	6.162	10102	0.005
	Be	9	39.445	ug/L	2.167	21664	0.011
>	Sc	45		ug/L		2028520	2028520.414
>	Lu	175		ug/L		597795	597795.135
	Tl	205	72.944	ug/L	0.760	1654709	2.764
	U	238	1.367	ug/L	0.557	65822	0.109

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9997
U	238Linear Thru Zero	0.9997

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
>	Sc	45		112.6			
>	Lu	175		99.9			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 242938001
Sample Date/Time: Wednesday, December 30, 2009 10:44:07
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 934057|2|baj
Method File: c:\elandata\Method\li be tl and u.mth
Dataset File: C:\elandata\Dataset\091230\242938001.021

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**64.774**	**ug/L**	4.320	123466	0.059
	Be	9	**3.529**	**ug/L**	2.788	2029	0.001
>	Sc	45		**ug/L**		2106109	2106109.323
>	Lu	175		**ug/L**		557467	557467.216
	Tl	205	**1.253**	**ug/L**	2.577	28632	0.047
	U	238	**5.070**	**ug/L**	2.954	226579	0.406

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9997
U	238	Linear Thru Zero	0.9997

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
>	Sc	45		116.9			
>	Lu	175		93.1			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1201998450
Sample Date/Time: Wednesday, December 30, 2009 10:47:33
Sample Type:
Sample Description: LANL 6020 DUP
Number of Replicates: 3
Batch ID: 934057|2|baj
Method File: c:\elandata\Method\li be tl and u.mth
Dataset File: C:\elandata\Dataset\091230\1201998450.022

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**68.367**	**ug/L**	4.994	126544	0.062
	Be	9	**3.708**	**ug/L**	7.009	2068	0.001
>	Sc	45		**ug/L**		2045473	2045472.999
>	Lu	175		**ug/L**		561283	561282.541
	Tl	205	**1.137**	**ug/L**	1.392	26356	0.043
	U	238	**5.165**	**ug/L**	2.107	232429	0.414

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9997
U	238	Linear Thru Zero	0.9997

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
>	Sc	45		113.6			
>	Lu	175		93.8			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1201998451
Sample Date/Time: Wednesday, December 30, 2009 10:50:59
Sample Type:
Sample Description: LANL 6020 MS
Number of Replicates: 3
Batch ID: 934057|2|baj
Method File: c:\elandata\Method\li be tl and u.mth
Dataset File: C:\elandata\Dataset\091230\1201998451.023

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**99.564**	**ug/L**	2.012	186463	0.090
	Be	9	**25.345**	**ug/L**	3.044	14201	0.007
>	Sc	45		**ug/L**		2068556	2068556.462
>	Lu	175		**ug/L**		553885	553884.852
	Tl	205	**56.209**	**ug/L**	2.200	1181518	2.130
	U	238	**34.526**	**ug/L**	3.045	1530875	2.765

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9997
U	238	Linear Thru Zero	0.9997

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
>	Sc	45		114.8			
>	Lu	175		92.5			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1201998453
Sample Date/Time: Wednesday, December 30, 2009 10:54:25
Sample Type:
Sample Description: LANL 6020 MSD
Number of Replicates: 3
Batch ID: 934057|2|baj
Method File: c:\elandata\Method\li be tl and u.mth
Dataset File: C:\elandata\Dataset\091230\1201998453.024

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**104.065**	**ug/L**	2.828	196899	0.094
	Be	9	**25.901**	**ug/L**	3.624	14662	0.007
>	Sc	45		**ug/L**		2090344	2090344.207
>	Lu	175		**ug/L**		545047	545047.271
	Tl	205	**58.950**	**ug/L**	1.767	1219538	2.234
	U	238	**36.340**	**ug/L**	2.446	1586013	2.910

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9997
U	238	Linear Thru Zero	0.9997

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
>	Sc	45			116.1		
>	Lu	175			91.1		
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1201998452
Sample Date/Time: Wednesday, December 30, 2009 10:57:50
Sample Type:
Sample Description: LANL 6020 SDILT
Number of Replicates: 3
Batch ID: 934057|10|baj
Method File: c:\elandata\Method\li be tl and u.mth
Dataset File: C:\elandata\Dataset\091230\1201998452.025

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**13.059**	**ug/L**	3.595	24865	0.012
	Be	9	**0.730**	**ug/L**	2.840	432	0.000
>	Sc	45		**ug/L**		2097745	2097744.561
>	Lu	175		**ug/L**		577791	577791.411
	Tl	205	**0.263**	**ug/L**	2.941	7998	0.010
	U	238	**0.977**	**ug/L**	1.052	45575	0.078

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9997
U	238	Linear Thru Zero	0.9997

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
>	Sc	45		116.5			
>	Lu	175		96.5			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 242938002
Sample Date/Time: Wednesday, December 30, 2009 11:01:15
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 934057|2|baj
Method File: c:\elandata\Method\li be tl and u.mth
Dataset File: C:\elandata\Dataset\091230\242938002.026

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**28.209**	**ug/L**	2.175	53016	0.026
	Be	9	**3.084**	**ug/L**	0.894	1748	0.001
>	Sc	45		**ug/L**		2073356	2073355.539
>	Lu	175		**ug/L**		626378	626377.576
	Tl	205	**0.554**	**ug/L**	2.562	15585	0.021
	U	238	**3.393**	**ug/L**	1.694	170572	0.272

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9997
U	238	Linear Thru Zero	0.9997

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
>	Sc	45		115.1			
>	Lu	175		104.7			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Wednesday, December 30, 2009 11:04:38
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li be tl and u.mth
Dataset File: C:\elandata\Dataset\091230\QC Std 6.027

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**45.406**	**ug/L**	4.363	84785	0.041
	Be	9	**43.841**	**ug/L**	4.655	24465	0.012
>	Sc	45		**ug/L**		2062360	2062359.978
>	Lu	175		**ug/L**		572960	572960.422
	Tl	205	**54.249**	**ug/L**	0.928	1180008	2.056
	U	238	**50.355**	**ug/L**	2.141	2310167	4.032

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9997
U	238	Linear Thru Zero	0.9997

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
Li	7	90.812				
Be	9	87.682				
Sc	45		114.5			
Lu	175		95.7			
Tl	205	108.498				
U	238	100.709				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 6	Be	9	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Wednesday, December 30, 2009 11:08:01
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li be tl and u.mth
Dataset File: C:\elandata\Dataset\091230\QC Std 7.028

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.003**	**ug/L**	260.348	86	0.000
	Be	9	**0.003**	**ug/L**	217.221	19	0.000
>	Sc	45		**ug/L**		2032017	2032017.213
>	Lu	175		**ug/L**		580800	580800.284
	Tl	205	**-0.021**	**ug/L**	3.180	1787	-0.001
	U	238	**0.002**	**ug/L**	58.815	447	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9997
U	238	Linear Thru Zero	0.9997

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
>	Sc	45		112.8			
>	Lu	175		97.0			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 242938003
Sample Date/Time: Wednesday, December 30, 2009 11:11:26
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 934057|2|baj
Method File: c:\elandata\Method\li be tl and u.mth
Dataset File: C:\elandata\Dataset\091230\242938003.029

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**58.757**	**ug/L**	4.055	111997	0.053
	Be	9	**3.484**	**ug/L**	4.142	2002	0.001
>	Sc	45		**ug/L**		2105191	2105190.840
>	Lu	175		**ug/L**		566269	566268.795
	Tl	205	**1.070**	**ug/L**	0.702	25165	0.041
	U	238	**7.224**	**ug/L**	1.463	327901	0.578

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9997
U	238Linear Thru Zero	0.9997

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
>	Sc	45		116.9			
>	Lu	175		94.6			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 242938004
Sample Date/Time: Wednesday, December 30, 2009 11:14:51
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 934057|2|baj
Method File: c:\elandata\Method\li be tl and u.mth
Dataset File: C:\elandata\Dataset\091230\242938004.030

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**42.645**	**ug/L**	1.399	83368	0.039
	Be	9	**3.134**	**ug/L**	2.676	1848	0.001
>	Sc	45		**ug/L**		2157361	2157360.713
>	Lu	175		**ug/L**		600853	600852.731
	Tl	205	**0.616**	**ug/L**	3.787	16348	0.023
	U	238	**2.829**	**ug/L**	2.495	136433	0.227

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9997
U	238Linear Thru Zero	0.9997

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
Li	7					
Be	9					
Sc	45		119.8			
Lu	175		100.4			
Tl	205					
U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 242938005
Sample Date/Time: Wednesday, December 30, 2009 11:18:17
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 934057|2|baj
Method File: c:\elandata\Method\li be tl and u.mth
Dataset File: C:\elandata\Dataset\091230\242938005.031

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**70.905**	**ug/L**	6.176	136136	0.064
	Be	9	**3.396**	**ug/L**	6.857	1966	0.001
>	Sc	45		**ug/L**		2123702	2123701.566
>	Lu	175		**ug/L**		559354	559354.338
	Tl	205	**1.281**	**ug/L**	1.124	29320	0.049
	U	238	**3.178**	**ug/L**	1.484	142664	0.254

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9997
U	238	Linear Thru Zero	0.9997

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
>	Sc	45		117.9			
>	Lu	175		93.5			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 242938006
Sample Date/Time: Wednesday, December 30, 2009 11:21:44
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 934057|2|baj
Method File: c:\elandata\Method\li be tl and u.mth
Dataset File: C:\elandata\Dataset\091230\242938006.032

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**60.420**	**ug/L**	2.425	117206	0.055
	Be	9	**3.577**	**ug/L**	1.573	2092	0.001
>	Sc	45		**ug/L**		2141845	2141844.899
>	Lu	175		**ug/L**		560305	560305.218
	Tl	205	**1.134**	**ug/L**	1.399	26252	0.043
	U	238	**7.147**	**ug/L**	1.550	320960	0.572

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9997
U	238Linear Thru Zero	0.9997

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
>	Sc	45		118.9			
>	Lu	175		93.6			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 242938007
Sample Date/Time: Wednesday, December 30, 2009 11:25:11
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 934057|2|baj
Method File: c:\elandata\Method\li be tl and u.mth
Dataset File: C:\elandata\Dataset\091230\242938007.033

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**75.928**	**ug/L**	4.654	152390	0.069
	Be	9	**1.991**	**ug/L**	2.664	1214	0.001
>	Sc	45		**ug/L**		2217797	2217796.939
>	Lu	175		**ug/L**		590700	590700.423
	Tl	205	**0.443**	**ug/L**	1.859	12193	0.017
	U	238	**2.359**	**ug/L**	1.264	111937	0.189

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9997
U	238	Linear Thru Zero	0.9997

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
>	Sc	45		123.1			
>	Lu	175		98.7			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Sc 45 Int Std for sam	Sc	45	

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: 242938008
Sample Date/Time: Wednesday, December 30, 2009 11:28:37
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 934057|2|baj
Method File: c:\elandata\Method\li be tl and u.mth
Dataset File: C:\elandata\Dataset\091230\242938008.034

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**70.491**	**ug/L**	2.793	138814	0.064
	Be	9	**3.999**	**ug/L**	3.971	2372	0.001
>	Sc	45		**ug/L**		2175055	2175054.645
>	Lu	175		**ug/L**		552045	552044.763
	Tl	205	**1.098**	**ug/L**	1.019	25114	0.042
	U	238	**7.742**	**ug/L**	2.140	342522	0.620

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9997
U	238	Linear Thru Zero	0.9997

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
>	Sc	45		120.8			
>	Lu	175		92.2			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Sc 45 Int Std for sam	Sc	45	

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: 242938009
Sample Date/Time: Wednesday, December 30, 2009 11:32:02
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 934057|2|baj
Method File: c:\elandata\Method\li be tl and u.mth
Dataset File: C:\elandata\Dataset\091230\242938009.035

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**73.641**	**ug/L**	5.374	143042	0.067
	Be	9	**2.022**	**ug/L**	2.483	1193	0.001
>	Sc	45		**ug/L**		2146713	2146712.863
>	Lu	175		**ug/L**		582883	582882.540
	Tl	205	**0.509**	**ug/L**	0.727	13498	0.019
	U	238	**2.325**	**ug/L**	0.919	108899	0.186

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9997
U	238Linear Thru Zero	0.9997

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
	Li	7					
	Be	9					
>	Sc	45		119.2			
>	Lu	175		97.4			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Wednesday, December 30, 2009 11:35:25
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li be tl and u.mth
Dataset File: C:\elandata\Dataset\091230\QC Std 6.036

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**41.832**	**ug/L**	4.880	81067	0.038
	Be	9	**40.226**	**ug/L**	2.562	23310	0.011
>	Sc	45		**ug/L**		2139998	2139998.091
>	Lu	175		**ug/L**		570905	570904.529
	Tl	205	**53.421**	**ug/L**	2.915	1157458	2.024
	U	238	**49.563**	**ug/L**	3.581	2264822	3.969

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9997
U	238	Linear Thru Zero	0.9997

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7	83.663				
	Be	9	80.452				
>	Sc	45		118.8			
>	Lu	175		95.4			
	Tl	205	106.842				
	U	238	99.125				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 6	Li	7	CCV is out of limits (+/- 10%)
QC Std 6	Be	9	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Wednesday, December 30, 2009 11:38:49
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li be tl and u.mth
Dataset File: C:\elandata\Dataset\091230\QC Std 7.037

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.013**	**ug/L**	63.400	109	0.000
	Be	9	**-0.006**	**ug/L**	40.734	15	-0.000
>	Sc	45		**ug/L**		2145594	2145594.281
>	Lu	175		**ug/L**		571365	571364.807
	Tl	205	**-0.042**	**ug/L**	7.504	1298	-0.002
	U	238	**0.001**	**ug/L**	32.549	428	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9997
U	238	Linear Thru Zero	0.9997

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
>	Sc	45		119.1			
>	Lu	175		95.5			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

==========
Method Name: SOIL
Method Description: 7471A, ILM04 ANALYST JXL1
Element: Hg

Date: 01/05/2010
Technique:FI-MHS
Calibration Type:
Hg, Calc. Intercept : Linear
Wavelength: 253.7 nm
Sample Info Name: 010510S1.SIF Results Data Set Name: 010510S1

==========
Element: Hg Seq. No.: 1 AS Loc.: 1 Date: 01/05/2010
Sample ID: Calib Blank

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1			0.0048	0.0048	09:37:42	No
2			0.0045	0.0045	09:38:18	No
Mean:			0.0047			
SD :			0.0002			
%RSD:			3.8005			

Auto-zero performed.

==========
Element: Hg Seq. No.: 2 AS Loc.: 2 Date: 01/05/2010
Sample ID: S0.2

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1			0.0014	0.0061	09:39:41	No
2			0.0014	0.0060	09:40:16	No
Mean:			0.0014			
SD :			0.0000			
%RSD:			2.0677			

[Hg] Standard number 1 applied. [0.200]
Correlation Coefficient: 1.00000 Slope: 0.00697
Intercept : 0.00000

==========
Element: Hg Seq. No.: 3 AS Loc.: 3 Date: 01/05/2010
Sample ID: S0.5

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1			0.0041	0.0088	09:41:39	No
2			0.0039	0.0085	09:42:14	No
Mean:			0.0040			
SD :			0.0002			
%RSD:			4.4163			

[Hg] Standard number 2 applied. [0.500]
Correlation Coefficient: 0.99826 Slope: 0.00807
Intercept : -0.00008

==========
Element: Hg Seq. No.: 4 AS Loc.: 4 Date: 01/05/2010
Sample ID: S2.0

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1			0.0169	0.0216	09:43:39	No
2			0.0168	0.0214	09:44:14	No
Mean:			0.0168			
SD :			0.0001			
%RSD:			0.4922			

[Hg] Standard number 3 applied. [2.000]

Correlation Coefficient: 0.99985 Slope: 0.00849
Intercept : -0.00017

==========

Element: Hg Seq. No.: 5 AS Loc.: 5 Date: 01/05/2010
Sample ID: S5.0

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1			0.0428	0.0475	09:45:39	No
2			0.0440	0.0486	09:46:14	No
Mean:			0.0434			
SD :			0.0008			
%RSD:			1.8382			

[Hg] Standard number 4 applied. [5.000]
Correlation Coefficient: 0.99993 Slope: 0.00871
Intercept : -0.00029

==========

Element: Hg Seq. No.: 6 AS Loc.: 6 Date: 01/05/2010
Sample ID: S10

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1			0.0843	0.0890	09:47:40	No
2			0.0853	0.0900	09:48:15	No
Mean:			0.0848			
SD :			0.0007			
%RSD:			0.8188			

[Hg] Standard number 5 applied. [10.00]
Correlation Coefficient: 0.99992 Slope: 0.00853
Intercept : -0.00008

Calibration data for Hg

Standard ID	Mean Signal (Pk Height)	Entered Concentration (µg/L)	Calculated Concentration (µg/L)	Standard Deviation	%RSD
Calib Blank	0.0047	---	----	----	----
S0.2	0.0014	0.200	0.173	0.0000	2.1
S0.5	0.0040	0.500	0.479	0.0002	4.4
S2.0	0.0168	2.000	1.985	0.0001	0.5
S5.0	0.0434	5.000	5.098	0.0008	1.8
S10	0.0848	10.000	9.956	0.0007	0.8

Correlation Coefficient: 0.99992 Slope: 0.00853 Intercept: -0.0001

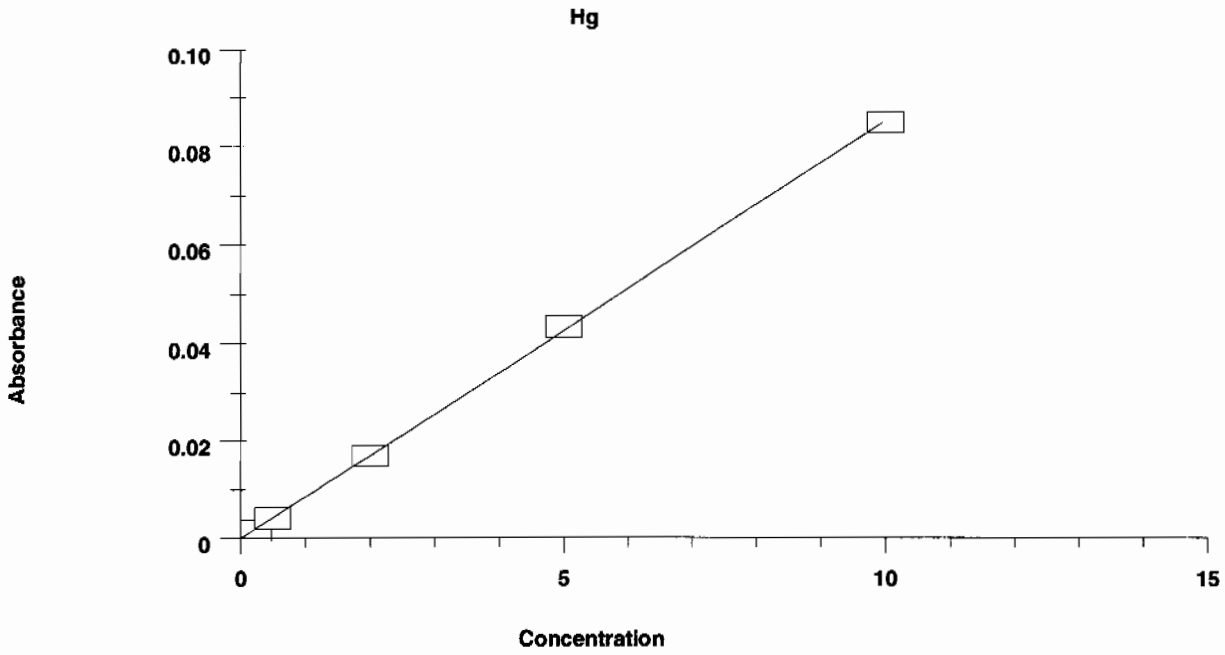

==========

Element: Hg Seq. No.: 7 AS Loc.: 9 Date: 01/05/2010
Sample ID: ICV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	5.119	5.119	0.0436	0.0482	09:49:44	No
2	5.240	5.240	0.0446	0.0493	09:50:19	No
Mean:	5.180	5.180	0.0441			
SD :	0.0855	0.0855	0.0007			
%RSD:	1.7	1.7	1.6531			

QC value within specified limits.

==========

Element: Hg Seq. No.: 8 AS Loc.: 10 Date: 01/05/2010
Sample ID: ICB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.106	-0.106	-0.0010	0.0037	09:51:41	No
2	-0.110	-0.110	-0.0010	0.0036	09:52:16	No
Mean:	-0.108	-0.108	-0.0010			
SD :	0.0031	0.0031	0.0000			
%RSD:	2.9	2.9	2.6727			

QC value within specified limits.

==========

Element: Hg Seq. No.: 9 AS Loc.: 11 Date: 01/05/2010
Sample ID: CRDL

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.202	0.202	0.0016	0.0063	09:53:38	No
2	0.174	0.174	0.0014	0.0061	09:54:13	No
Mean:	0.188	0.188	0.0015			
SD :	0.0194	0.0194	0.0002			
%RSD:	10.3	10.3	10.8749			

QC value within specified limits.

==========

Element: Hg Seq. No.: 10 AS Loc.: 7 Date: 01/05/2010
Sample ID: CCV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	5.078	5.078	0.0432	0.0479	09:55:38	No
2	5.044	5.044	0.0429	0.0476	09:56:13	No
Mean:	5.061	5.061	0.0431			
SD :	0.0243	0.0243	0.0002			
%RSD:	0.5	0.5	0.4803			

QC value within specified limits.

==========

Element: Hg Seq. No.: 11 AS Loc.: 8 Date: 01/05/2010
Sample ID: CCB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.070	-0.070	-0.0007	0.0040	09:57:41	No
2	-0.048	-0.048	-0.0005	0.0042	09:58:16	No
Mean:	-0.059	-0.059	-0.0006			
SD :	0.0157	0.0157	0.0001			
%RSD:	26.7	26.7	22.9902			

QC value within specified limits.

==========

Element: Hg Seq. No.: 12 AS Loc.: 12 Date: 01/05/2010
Sample ID: 1202000228|i||934897|MB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.189	0.189	0.0015	0.0062	09:59:42	No
2	0.184	0.184	0.0015	0.0061	10:00:18	No
Mean:	0.187	0.187	0.0015			
SD :	0.0039	0.0039	0.0000			
%RSD:	2.1	2.1	2.1994			

==========

Element: Hg Seq. No.: 13 AS Loc.: 13 Date: 01/05/2010
Sample ID: 1202000229|i|10||LCS

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	3.559	3.559	0.0303	0.0349	10:01:43	No
2	3.451	3.451	0.0293	0.0340	10:02:18	No
Mean:	3.505	3.505	0.0298			
SD :	0.0760	0.0760	0.0006			
%RSD:	2.2	2.2	2.1750			

==========

Element: Hg Seq. No.: 14 AS Loc.: 14 Date: 01/05/2010
Sample ID: 242938001|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.517	0.517	0.0043	0.0090	10:03:44	No
2	0.420	0.420	0.0035	0.0082	10:04:18	No
Mean:	0.469	0.469	0.0039			
SD :	0.0685	0.0685	0.0006			
%RSD:	14.6	14.6	14.9158			

==========

Element: Hg Seq. No.: 15 AS Loc.: 15 Date: 01/05/2010
Sample ID: 242938002|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.194	0.194	0.0016	0.0062	10:05:44	No
2	0.165	0.165	0.0013	0.0060	10:06:18	No
Mean:	0.180	0.180	0.0014			
SD :	0.0199	0.0199	0.0002			
%RSD:	11.1	11.1	11.6930			

Element: Hg Seq. No.: 16 AS Loc.: 16 Date: 01/05/2010
Sample ID: 242938003|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.445	0.445	0.0037	0.0084	10:07:46	No
2	0.460	0.460	0.0038	0.0085	10:08:20	No
Mean:	0.452	0.452	0.0038			
SD :	0.0107	0.0107	0.0001			
%RSD:	2.4	2.4	2.4146			

Element: Hg Seq. No.: 17 AS Loc.: 17 Date: 01/05/2010
Sample ID: 242938004|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.259	0.259	0.0021	0.0068	10:09:44	No
2	0.230	0.230	0.0019	0.0065	10:10:19	No
Mean:	0.245	0.245	0.0020			
SD :	0.0200	0.0200	0.0002			
%RSD:	8.2	8.2	8.4917			

Element: Hg Seq. No.: 18 AS Loc.: 18 Date: 01/05/2010
Sample ID: 242938005|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.243	0.243	0.0020	0.0066	10:11:40	No
2	0.226	0.226	0.0018	0.0065	10:12:16	No
Mean:	0.234	0.234	0.0019			
SD :	0.0120	0.0120	0.0001			
%RSD:	5.1	5.1	5.3585			

Element: Hg Seq. No.: 19 AS Loc.: 19 Date: 01/05/2010
Sample ID: 242938006|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.162	0.162	0.0013	0.0060	10:13:37	No
2	0.137	0.137	0.0011	0.0057	10:14:12	No
Mean:	0.149	0.149	0.0012			
SD :	0.0176	0.0176	0.0002			
%RSD:	11.8	11.8	12.6431			

Element: Hg Seq. No.: 20 AS Loc.: 20 Date: 01/05/2010
Sample ID: 242938007|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.401	0.401	0.0033	0.0080	10:15:34	No
2	0.400	0.400	0.0033	0.0080	10:16:09	No
Mean:	0.401	0.401	0.0033			
SD :	0.0007	0.0007	0.0000			

```
%RSD:        0.2        0.2    0.1680

==========================================================================================
Element: Hg    Seq. No.: 21       AS Loc.: 21   Date: 01/05/2010
Sample ID: 242938008|i|||
------------------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time    Peak
 #     µg/L        µg/L       Signal     Height            Stored
 1        0.272     0.272    0.0022     0.0069   10:17:31  No
 2        0.236     0.236    0.0019     0.0066   10:18:06  No
Mean:     0.254     0.254    0.0021
SD  :    0.0258    0.0258    0.0002
%RSD:      10.1      10.1   10.5405

==========================================================================================
Element: Hg    Seq. No.: 22       AS Loc.: 7    Date: 01/05/2010
Sample ID: CCV
------------------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time    Peak
 #     µg/L        µg/L       Signal     Height            Stored
 1        5.244     5.244    0.0446     0.0493   10:19:30  No
 2        5.319     5.319    0.0453     0.0499   10:20:05  No
Mean:     5.282     5.282    0.0450
SD  :    0.0531    0.0531    0.0005
%RSD:       1.0       1.0    1.0066
QC value within specified limits.

==========================================================================================
Element: Hg    Seq. No.: 23       AS Loc.: 8    Date: 01/05/2010
Sample ID: CCB
------------------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time    Peak
 #     µg/L        µg/L       Signal     Height            Stored
 1       -0.075    -0.075   -0.0007     0.0039   10:21:33  No
 2       -0.100    -0.100   -0.0009     0.0037   10:22:08  No
Mean:    -0.087    -0.087   -0.0008
SD  :    0.0177    0.0177    0.0002
%RSD:      20.3      20.3   18.2868
QC value within specified limits.

==========================================================================================
Element: Hg    Seq. No.: 24       AS Loc.: 22   Date: 01/05/2010
Sample ID: 242938009|i|||
------------------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time    Peak
 #     µg/L        µg/L       Signal     Height            Stored
 1        0.371     0.371    0.0031     0.0077   10:23:33  No
 2        0.367     0.367    0.0030     0.0077   10:24:07  No
Mean:     0.369     0.369    0.0031
SD  :    0.0033    0.0033    0.0000
%RSD:       0.9       0.9    0.9072

==========================================================================================
Element: Hg    Seq. No.: 25       AS Loc.: 23   Date: 01/05/2010
Sample ID: 243042001|i|||
------------------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time    Peak
 #     µg/L        µg/L       Signal     Height            Stored
 1        0.762     0.762    0.0064     0.0111   10:25:32  No
 2        0.770     0.770    0.0065     0.0111   10:26:07  No
Mean:     0.766     0.766    0.0065
SD  :    0.0059    0.0059    0.0000
%RSD:       0.8       0.8    0.7738

==========================================================================================
Element: Hg    Seq. No.: 26       AS Loc.: 24   Date: 01/05/2010
Sample ID: 1202000230|i|||DUP
```

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.926	0.926	0.0078	0.0125	10:27:31	No
2	0.887	0.887	0.0075	0.0121	10:28:06	No
Mean:	0.906	0.906	0.0076			
SD :	0.0275	0.0275	0.0002			
%RSD:	3.0	3.0	3.0702			

Element: Hg Seq. No.: 27 AS Loc.: 25 Date: 01/05/2010
Sample ID: 1202000231|i|||MS

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	3.913	3.913	0.0333	0.0379	10:29:30	No
2	3.936	3.936	0.0335	0.0381	10:30:05	No
Mean:	3.924	3.924	0.0334			
SD :	0.0168	0.0168	0.0001			
%RSD:	0.4	0.4	0.4297			

Element: Hg Seq. No.: 28 AS Loc.: 26 Date: 01/05/2010
Sample ID: 1202000233|i|||MSD

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	3.440	3.440	0.0292	0.0339	10:31:30	No
2	3.383	3.383	0.0288	0.0334	10:32:05	No
Mean:	3.411	3.411	0.0290			
SD :	0.0397	0.0397	0.0003			
%RSD:	1.2	1.2	1.1679			

Element: Hg Seq. No.: 29 AS Loc.: 27 Date: 01/05/2010
Sample ID: 1202000232|i|5||SDILT

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.012	-0.012	-0.0002	0.0045	10:33:30	No
2	-0.021	-0.021	-0.0003	0.0044	10:34:05	No
Mean:	-0.017	-0.017	-0.0002			
SD :	0.0062	0.0062	0.0001			
%RSD:	37.3	37.3	23.6900			

Element: Hg Seq. No.: 30 AS Loc.: 28 Date: 01/05/2010
Sample ID: 243042002|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.023	0.023	0.0001	0.0048	10:35:31	No
2	0.018	0.018	0.0001	0.0047	10:36:06	No
Mean:	0.021	0.021	0.0001			
SD :	0.0036	0.0036	0.0000			
%RSD:	17.4	17.4	32.1176			

Element: Hg Seq. No.: 31 AS Loc.: 29 Date: 01/05/2010
Sample ID: 243042003|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.119	0.119	0.0009	0.0056	10:37:32	No
2	0.102	0.102	0.0008	0.0054	10:38:07	No
Mean:	0.110	0.110	0.0009			
SD :	0.0119	0.0119	0.0001			

%RSD: 10.8 10.8 11.8279

==========

Element: Hg Seq. No.: 32 AS Loc.: 30 Date: 01/05/2010
Sample ID: 243042004|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.235	0.235	0.0019	0.0066	10:39:34	No
2	0.227	0.227	0.0019	0.0065	10:40:08	No
Mean:	0.231	0.231	0.0019			
SD :	0.0055	0.0055	0.0000			
%RSD:	2.4	2.4	2.4637			

==========

Element: Hg Seq. No.: 33 AS Loc.: 31 Date: 01/05/2010
Sample ID: 243042005|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.127	0.127	0.0010	0.0057	10:41:35	No
2	0.122	0.122	0.0010	0.0056	10:42:09	No
Mean:	0.125	0.125	0.0010			
SD :	0.0035	0.0035	0.0000			
%RSD:	2.8	2.8	3.0182			

==========

Element: Hg Seq. No.: 34 AS Loc.: 7 Date: 01/05/2010
Sample ID: CCV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	5.317	5.317	0.0453	0.0499	10:43:36	No
2	5.320	5.320	0.0453	0.0499	10:44:11	No
Mean:	5.318	5.318	0.0453			
SD :	0.0021	0.0021	0.0000			
%RSD:						

QC value within specified limits.

==========

Element: Hg Seq. No.: 35 AS Loc.: 8 Date: 01/05/2010
Sample ID: CCB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.112	-0.112	-0.0010	0.0036	10:45:39	No
2	-0.116	-0.116	-0.0011	0.0036	10:46:14	No
Mean:	-0.114	-0.114	-0.0011			
SD :	0.0022	0.0022	0.0000			
%RSD:	1.9	1.9	1.7579			

QC value within specified limits.

==========

Element: Hg Seq. No.: 36 AS Loc.: 32 Date: 01/05/2010
Sample ID: 243042006|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.297	0.297	0.0025	0.0071	10:47:39	No
2	0.306	0.306	0.0025	0.0072	10:48:14	No
Mean:	0.302	0.302	0.0025			
SD :	0.0061	0.0061	0.0001			
%RSD:	2.0	2.0	2.1015			

==========

Element: Hg Seq. No.: 37 AS Loc.: 33 Date: 01/05/2010
Sample ID: 243042007|i|||

Miscellaneous

Prep LogBook

Analyst: BCD1 Verified by:_____

Batch: 934059

Lab SOP: GL-MA-E-009 REV# 19

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1201998455	UI062540-I	.513	g
MS	1201998457	UI091216-01	.25	mL
MS	1201998457	UI091216-06	.25	mL
MSD	1201998459	UI091216-01	.25	mL
MSD	1201998459	UI091216-06	.25	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1201998454		SW846 3050B	19-DEC-2009 12:03	0.536 g	50 mL	93.28358	SOIL
LCS	1201998455		SW846 3050B	19-DEC-2009 12:03	0.513 g	50 mL	97.46589	SOIL
SAMPLE	242938001		SW846 3050B	19-DEC-2009 12:03	0.515 g	50 mL	97.08738	SOIL
DUP	1201998456	242938001	SW846 3050B	19-DEC-2009 12:03	0.523 g	50 mL	95.60229	SOIL
MS	1201998457	242938001	SW846 3050B	19-DEC-2009 12:03	0.513 g	50 mL	97.46589	SOIL
MSD	1201998459	242938001	SW846 3050B	19-DEC-2009 12:03	0.518 g	50 mL	96.5251	SOIL
SDILT	1201998458	242938001	SW846 3050B	19-DEC-2009 12:03	0.515 g	50 mL	97.08738	SOIL
SAMPLE	242938002		SW846 3050B	19-DEC-2009 12:03	0.522 g	50 mL	95.78544	SOIL
SAMPLE	242938003		SW846 3050B	19-DEC-2009 12:03	0.503 g	50 mL	99.40358	SOIL
SAMPLE	242938004		SW846 3050B	19-DEC-2009 12:03	0.511 g	50 mL	97.84736	SOIL
SAMPLE	242938005		SW846 3050B	19-DEC-2009 12:03	0.505 g	50 mL	99.0099	SOIL
SAMPLE	242938006		SW846 3050B	19-DEC-2009 12:03	0.522 g	50 mL	95.78544	SOIL
SAMPLE	242938007		SW846 3050B	19-DEC-2009 12:03	0.535 g	50 mL	93.45794	SOIL
SAMPLE	242938008		SW846 3050B	19-DEC-2009 12:03	0.528 g	50 mL	94.69697	SOIL
SAMPLE	242938009		SW846 3050B	19-DEC-2009 12:03	0.512 g	50 mL	97.65625	SOIL

Reagent/Solvent Lot ID	Amount	Description
1244970	10 mL	HYDROCHLORIC ACID
1238345	1.25 mL	Nitric Acid CONC.

Comments: The QC sample is a brown, clumpy soil.

Prep LogBook

Analyst: BCD1 Verified by:_____

Batch: 934056

Lab SOP: GL-MA-E-009 REV# 19

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1201998449	UI062540-MS	.525	g
MS	1201998451	UI091015-A	.5	mL
MS	1201998451	UI091015-B	.5	mL
MSD	1201998453	UI091015-A	.5	mL
MSD	1201998453	UI091015-B	.5	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1201998448		SW846 3050B	19-DEC-2009 12:22	0.513 g	50 mL	97.46589	SOIL
LCS	1201998449		SW846 3050B	19-DEC-2009 12:22	0.525 g	50 mL	95.2381	SOIL
SAMPLE	242938001		SW846 3050B	19-DEC-2009 12:22	0.518 g	50 mL	96.5251	SOIL
DUP	1201998450	242938001	SW846 3050B	19-DEC-2009 12:22	0.509 g	50 mL	98.23183	SOIL
MS	1201998451	242938001	SW846 3050B	19-DEC-2009 12:22	0.519 g	50 mL	96.33911	SOIL
MSD	1201998453	242938001	SW846 3050B	19-DEC-2009 12:22	0.514 g	50 mL	97.27626	SOIL
SDILT	1201998452	242938001	SW846 3050B	19-DEC-2009 12:22	0.518 g	50 mL	96.5251	SOIL
SAMPLE	242938002		SW846 3050B	19-DEC-2009 12:22	0.512 g	50 mL	97.65625	SOIL
SAMPLE	242938003		SW846 3050B	19-DEC-2009 12:22	0.518 g	50 mL	96.5251	SOIL
SAMPLE	242938004		SW846 3050B	19-DEC-2009 12:22	0.534 g	50 mL	93.63296	SOIL
SAMPLE	242938005		SW846 3050B	19-DEC-2009 12:22	0.513 g	50 mL	97.46589	SOIL
SAMPLE	242938006		SW846 3050B	19-DEC-2009 12:22	0.519 g	50 mL	96.33911	SOIL
SAMPLE	242938007		SW846 3050B	19-DEC-2009 12:22	0.507 g	50 mL	98.61933	SOIL
SAMPLE	242938008		SW846 3050B	19-DEC-2009 12:22	0.531 g	50 mL	94.16196	SOIL
SAMPLE	242938009		SW846 3050B	19-DEC-2009 12:22	0.503 g	50 mL	99.40358	SOIL

Reagent/Solvent Lot ID	Amount	Description
1203655-02	1.5 mL	Hydrogen Peroxide 30%
1238345	5 mL	Nitric Acid CONC.

Comments The QC sample is a brown, clumpy soil.

Prep LogBook

Analyst: TXB3 Verified by:_____

Batch: 934894

Lab SOP: GL-MA-E-010 REV# 23

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1202000229	UI031809A	.2	g
MS	1202000231	WHG100104-14	.3	mL
MSD	1202000233	WHG100104-14	.3	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1202000228		SW846 7471A Prep	04-JAN-2010 14:35	0.544 g	30 mL	55.14706	SOIL
LCS	1202000229		SW846 7471A Prep	04-JAN-2010 14:35	0.2 g	30 mL	150	SOIL
SAMPLE	242938001		SW846 7471A Prep	04-JAN-2010 14:35	0.505 g	30 mL	59.40594	SOIL
SAMPLE	242938002		SW846 7471A Prep	04-JAN-2010 14:35	0.553 g	30 mL	54.24955	SOIL
SAMPLE	242938003		SW846 7471A Prep	04-JAN-2010 14:35	0.531 g	30 mL	56.49718	SOIL
SAMPLE	242938004		SW846 7471A Prep	04-JAN-2010 14:35	0.505 g	30 mL	59.40594	SOIL
SAMPLE	242938005		SW846 7471A Prep	04-JAN-2010 14:35	0.567 g	30 mL	52.91005	SOIL
SAMPLE	242938006		SW846 7471A Prep	04-JAN-2010 14:35	0.573 g	30 mL	52.35602	SOIL
SAMPLE	242938007		SW846 7471A Prep	04-JAN-2010 14:35	0.516 g	30 mL	58.13953	SOIL
SAMPLE	242938008		SW846 7471A Prep	04-JAN-2010 14:35	0.526 g	30 mL	57.03422	SOIL
SAMPLE	242938009		SW846 7471A Prep	04-JAN-2010 14:35	0.525 g	30 mL	57.14286	SOIL
SAMPLE	243042001		SW846 7471A Prep	04-JAN-2010 14:35	0.505 g	30 mL	59.40594	SOIL
DUP	1202000230	243042001	SW846 7471A Prep	04-JAN-2010 14:35	0.511 g	30 mL	58.70841	SOIL
MS	1202000231	243042001	SW846 7471A Prep	04-JAN-2010 14:35	0.565 g	30 mL	53.09735	SOIL
MSD	1202000233	243042001	SW846 7471A Prep	04-JAN-2010 14:35	0.579 g	30 mL	51.81347	SOIL
SDILT	1202000232	243042001	SW846 7471A Prep	04-JAN-2010 14:35	0.505 g	30 mL	59.40594	SOIL
SAMPLE	243042002		SW846 7471A Prep	04-JAN-2010 14:35	0.567 g	30 mL	52.91005	SOIL
SAMPLE	243042003		SW846 7471A Prep	04-JAN-2010 14:35	0.504 g	30 mL	59.52381	SOIL
SAMPLE	243042004		SW846 7471A Prep	04-JAN-2010 14:35	0.552 g	30 mL	54.34783	SOIL
SAMPLE	243042005		SW846 7471A Prep	04-JAN-2010 14:35	0.532 g	30 mL	56.39098	SOIL
SAMPLE	243042006		SW846 7471A Prep	04-JAN-2010 14:35	0.576 g	30 mL	52.08333	SOIL
SAMPLE	243042007		SW846 7471A Prep	04-JAN-2010 14:35	0.552 g	30 mL	54.34783	SOIL
SAMPLE	243042008		SW846 7471A Prep	04-JAN-2010 14:35	0.54 g	30 mL	55.55556	SOIL
SAMPLE	243042009		SW846 7471A Prep	04-JAN-2010 14:35	0.549 g	30 mL	54.64481	SOIL

Reagent/Solvent Lot ID	Amount	Description
1236355-A	1.125 mL	Hydrochloric Acid Conc.
1240182-1	.375 mL	NITRIC ACID
1244904-C	7.5 mL	5% KMnO4 solution
1206350-C	2 mL	Hg reducing agent
WHG100104-07	30 uL	Mercury Working Standard 1st Source CAL S 0.2/CRA
WHG100104-08	75 uL	Mercury Working Standard 1st Source CAL S 0.5

Comments: Sample 243042001 is a rocky brown soil.
Digestion Start Date: 04-JAN-10 14:35
Digestion End Date: 04-JAN-10 15:05

Prep LogBook

WHG100104-11	1.5 mL	Mercury Working 1st Source CAL S 10.0
WHG100104-09	300 uL	Mercury Working 1st Source CAL S 2.0
WHG100104-10	750 uL	Mercury Working 1st Source CAL S 5.0/CCV
WHG100104-12	750 uL	Mercury Working 2nd Source S 5.0/ICV

COMPANY - WIDE NONCONFORMANCE REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
21-DEC-09	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
ICP	SW846 3050B/6010B	Solid	LANL
Batch ID:	**Sample Numbers:**		
934060	See Below		

Potentially affected work order(s)(SDG): 242938(10-918)

Application Issues:

Failed Recovery for MS/PS

Failed Recovery for MSD/PSD

Specification and Requirements Nonconformance Description:	NRG Disposition:
1. Failed Recovery for MS/PS: QC 1201998457MS 2. Failed Recovery for MSD/PSD: QC 1201998459MSD	1. The matrix spike recovery failed outside of the control limits for barium,calcium,potassium and silicon due to possible matrix interferences and/or non-homogeneity. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported. 2. The matrix spike duplicate recovery failed outside of the control limits for potassium and silicon due to possible matrix interferences and/or non-homogeneity. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported.

Originator's Name:

Helen Camello 07-JAN-10

Data Validator/Group Leader:

Louise Smith 07-JAN-10

COMPANY - WIDE NONCONFORMANCE REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
31-DEC-09	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
ICP/MS	SW846 3050B/6020	Solid	LANL
Batch ID:	**Sample Numbers:**		
934057	See Below		

Potentially affected work order(s)(SDG): 242938(10-918)

Application Issues:

Failed Recovery for MS/PS

Failed Recovery for MSD/PSD

Specification and Requirements Nonconformance Description:	NRG Disposition:
1. Failed Recovery for MS/PS: QC 1201998451MS 2. Failed Recovery for MSD/PSD: QC 1201998453MSD	The matrix spike and matrix spike duplicate recoveries failed outside of the control limits for Li and Se due to possible matrix interferences and/or non-homogeneity. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported.

Originator's Name:

Elizabeth Janssen 05-JAN-10

Data Validator/Group Leader:

Samantha Jacobs 06-JAN-10

COMPANY - WIDE NONCONFORMANCE REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
05-JAN-10	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
MERCURY	SW846 7471A	Solid	LANL
Batch ID:	**Sample Numbers:**		
934897	See Below		

Potentially affected work order(s)(SDG): 242938(10-918),243042(10-941)

Application Issues:

Failed Recovery for MS/PS

Failed Recovery for MSD/PSD

Specification and Requirements Nonconformance Description:	NRG Disposition:
1. Failed Recovery for MS/PS: QC 1202000231MS 2. Failed Recovery for MSD/PSD: QC 1202000233MSD	1/2. The matrix spike recovery failed outside of the control limits for Hg due to possible matrix interferences and/or non-homogeneity. Sample is a rocky, brown soil. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported.

Originator's Name:

Jason Loy 05-JAN-10

Data Validator/Group Leader:

Eric Lawson 06-JAN-10

Standard Logbook

Serial ID: UHG1167639-01 **Opened:** 13-AUG-09 **Amount :** 125 mL
Name: MHGSTOCK1 **Received:** 13-AUG-09 **Catalog Number :** PLHG4-2Y
Type: Source Material **Expires:** 13-AUG-10 **Lot Number :** 15-37HG
Employee: Bryan Davis **Solvent :** 10% HNO3
Supplier: Spex
Description: Mercury Source Standard #1 1,000 mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Mercury	1000 mg/L		

Serial ID: UHG1167641-02 **Opened:** 13-AUG-09 **Amount :** 100 mL
Name: MHGSTOCK2 **Received:** 13-AUG-09 **Catalog Number :** AHG1KN-100
Type: Source Material **Expires:** 13-AUG-10 **Lot Number :** 4905530
Employee: Bryan Davis **Solvent :** 3% HNO3
Supplier: Ricca Chemical Company
Description: Mercury Source Standard #2 1,000 mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Mercury	999.7 mg/L		

Serial ID: UI031809A **Opened:** 18-MAR-09 **Catalog Number :** 540
Name: METALSOILSRM **Received:** 18-MAR-09 **Lot Number :** D061-540
Type: Source Material **Expires:** 10-OCT-10
Employee: Jamie Johnson
Supplier: ERA
Description: Metals LCS Soil SRM
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	10600 mg/kg	Antimony	126 mg/kg
Arsenic	225 mg/kg	Barium	565 mg/kg
Beryllium	162 mg/kg	Boron	107 mg/kg
Cadmium	69.1 mg/kg	Calcium	10000 mg/kg
Chromium	124 mg/kg	Cobalt	115 mg/kg
Copper	66.7 mg/kg	Iron	17600 mg/kg
Lead	223 mg/kg	Magnesium	4260 mg/kg
Manganese	368 mg/kg	Mercury	5.15 mg/kg
Molybdenum	107 mg/kg	Nickel	172 mg/kg
Potassium	4090 mg/kg	Selenium	147 mg/kg
Silver	35.2 mg/kg	Sodium	538 mg/kg
Strontium	117 mg/kg	Thallium	173 mg/kg
Tin	164 mg/kg	Titanium	381 mg/kg
Vanadium	93.9 mg/kg	Zinc	349 mg/kg

Standard Logbook

Serial ID: UI062540-I **Opened:** 12-JUN-09 **Amount :** 80 g
Name: ICP SOIL SRM **Received:** 12-JUN-09 **Lot Number :** D062-540
Type: Source Material **Expires:** 31-JAN-12
Employee: Bryan Davis
Supplier: ERA
Description: Metals Soil LCS SRM ICP/Hg
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	10500 mg/kg	Antimony	173 mg/kg
Arsenic	104 mg/kg	Barium	198 mg/kg
Beryllium	77.6 mg/kg	Boron	141 mg/kg
Cadmium	60.7 mg/kg	Calcium	9870 mg/kg
Chromium	236 mg/kg	Cobalt	91.2 mg/kg
Copper	174 mg/kg	Iron	18000 mg/kg
Lead	86 mg/kg	Magnesium	4000 mg/kg
Manganese	558 mg/kg	Mercury	8.46 mg/kg
Molybdenum	48.6 mg/kg	Nickel	134 mg/kg
Phosphorous	736 mg/kg	Potassium	4300 mg/kg
Selenium	286 mg/kg	Silica	2591 mg/kg
Silicon	1211 mg/kg	Silver	30.1 mg/kg
Sodium	1020 mg/kg	Strontium	227 mg/kg
Sulfur	385 mg/kg	Thallium	121 mg/kg
Tin	104 mg/kg	Titanium	462 mg/kg
Vanadium	115 mg/kg	Zinc	594 mg/kg

Serial ID: UI062540-MS **Opened:** 12-JUN-09 **Lot Number :** D062-540
Name: ICPMS SOIL SRM **Received:** 12-JUN-09
Type: Source Material **Expires:** 31-JAN-12
Employee: Bryan Davis
Supplier: ERA
Description: Metals Soil LCS SRM ICPMS
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	10500 mg/kg	Antimony	67.4 mg/kg
Arsenic	104 mg/kg	Barium	198 mg/kg
Beryllium	77.6 mg/kg	Boron	141 mg/kg
Cadmium	60.6 mg/kg	Calcium	9870 mg/kg
Chromium	236 mg/kg	Cobalt	91.2 mg/kg
Copper	174 mg/kg	Iron	18000 mg/kg
Lead	86 mg/kg	Lithium	10.6 mg/kg
Magnesium	4000 mg/kg	Manganese	558 mg/kg
Mercury	8.46 mg/kg	Molybdenum	48.6 mg/kg
Nickel	134 mg/kg	Phosphorous	755 mg/kg
Potassium	4300 mg/kg	Selenium	286 mg/kg
Silver	30.1 mg/kg	Sodium	1020 mg/kg

Analyte	Concentration	Analyte	Concentration
Strontium	227 mg/kg	Thallium	121 mg/kg
Thorium	9.84 mg/kg	Tin	104 mg/kg
Titanium	462 mg/kg	Uranium	2.13 mg/kg
Uranium-235	.0153 mg/kg	Uranium-238	2.11 mg/kg
Vanadium	92.4 mg/kg	Zinc	594 mg/kg
Zirconium	10.6 mg/kg		

Serial ID: UI090422-40 **Opened:** 04-MAY-09 **Amount :** 500 mL
Name: TRACE ICP ICSA SOLN A **Received:** 22-APR-09 **Catalog Number :** 160005-01-03
Type: Source Material **Expires:** 04-MAY-10 **Lot Number :** 1013357
Employee: Helen Camello **Solvent :** 5%HNO3
Supplier: o2si
Description: TRACE ICP ICSA SOLN A mg/L+/-0.5%IN5%HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	5000 mg/L	Calcium	5000 mg/L
Iron	2000 mg/L	Magnesium	5000 mg/L

Serial ID: UI090610-03 **Opened:** 10-JUN-09 **Catalog Number :** 060074-06-01
Name: ICPMS Tungsten - 10mg/L S **Received:** 10-JUN-09 **Lot Number :** 1016338
Type: Source Material **Expires:** 10-JUN-10 **Solvent :** 2% HNO3
Employee: Paul Boyd
Supplier: O2SI
Description: ICPMS Tungsten standard SPIKE - 10mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Tungsten	10 mg/L		

Serial ID: UI090701-09 **Opened:** 01-JUL-09 **Amount :** 250 mL
Name: ICP-MS CRDL Master #1 **Received:** 01-JUL-09 **Catalog Number :** 160044-09-02
Type: Source Material **Expires:** 01-JUL-10 **Lot Number :** 1016477
Employee: Paul Boyd **Solvent :** +/- 0.5% IN 2% HNO3
Supplier: 02SI
Description: ICPMS CRDL Master Soln #1
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	15 mg/L	Arsenic	5 mg/L
Barium	2 mg/L	Beryllium	.5 mg/L
Boron	15 mg/L	Cadmium	1 mg/L
Calcium	100 mg/L	Chromium	3 mg/L
Cobalt	1 mg/L	Copper	1 mg/L

Analyte	Concentration	Analyte	Concentration
Iron	25 mg/L	Lead	2 mg/L
Lithium	10 mg/L	Magnesium	15 mg/L
Manganese	5 mg/L	Nickel	2 mg/L
Phosphorous	50 mg/L	Potassium	300 mg/L
Selenium	5 mg/L	Sodium	250 mg/L
Strontium	10 mg/L	Thallium	1 mg/L
Thorium	1 mg/L	Uranium	.2 mg/L
Vanadium	10 mg/L	Zinc	10 mg/L

Serial ID: UI090701-10 **Opened:** 01-JUL-09 **Amount :** 250 mL
Name: ICP-MS CRDL Master #2 **Received:** 01-JUL-09 **Catalog Number :** 160044-08-02
Type: Source Material **Expires:** 01-JUL-10 **Lot Number :** 1016476
Employee: Paul Boyd **Solvent :** +/- 0.5% IN 2% HNO3
Supplier: 02SI
Description: ICPMS CRDL Soln #2
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	2 mg/L	Molybdenum	.5 mg/L
Silver	1 mg/L	Tin	2 mg/L
Titanium	10 mg/L	Tungsten	5 mg/L
Zirconium	2 mg/L		

Serial ID: UI090701-40 **Opened:** 01-JUL-09 **Amount :** 500 mL
Name: TRACE ICP Stock PQL St **Received:** 30-JUN-09 **Catalog Number :** 160543-01-03
Type: Source Material **Expires:** 01-JUL-10 **Lot Number :** 1016475
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3+TrHF
Supplier: 02si
Description: TRACE ICP Stock PQL Standard
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	100 mg/L	Antimony	5 mg/L
Arsenic	15 mg/L	Barium	2.5 mg/L
Beryllium	2.5 mg/L	Boron	25 mg/L
Cadmium	2.5 mg/L	Calcium	100 mg/L
Chromium	2.5 mg/L	Cobalt	2.5 mg/L
Copper	5 mg/L	Iron	50 mg/L
Lead	5 mg/L	Magnesium	150 mg/L
Manganese	5 mg/L	Molybdenum	5 mg/L
Nickel	2.5 mg/L	Phosphorous	75 mg/L
Potassium	75 mg/L	Selenium	15 mg/L
Silicon	50 mg/L	Silver	2.5 mg/L
Sodium	150 mg/L	Strontium	2.5 mg/L
Sulfur	50 mg/L	Thallium	10 mg/L

Analyte	Concentration	Analyte	Concentration
Tin	5 mg/L	Titanium	2.5 mg/L
Uranium	25 mg/L	Vanadium	2.5 mg/L
Zinc	5 mg/L		

Serial ID: UI090828-42 **Opened:** 16-SEP-09 **Amount :** 500 mL
Name: TRACE ICP Na-1000SOUR **Received:** 27-AUG-09 **Catalog Number :** 060011-02-03
Type: Source Material **Expires:** 16-SEP-10 **Lot Number :** 1017098
Employee: Helen Camello **Solvent :** 1%HNO3
Supplier: 02SI
Description: Sodium 1000 +/- 3 ug/mL in 1% HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Sodium	1000 ug/mL		

Serial ID: UI090925-40 **Opened:** 23-OCT-09 **Amount :** 500 mL
Name: SECOND SOURCE STD -1 **Received:** 25-SEP-09 **Catalog Number :** SGELMX38-500N
Type: Source Material **Expires:** 30-SEP-10 **Lot Number :** 4909129
Employee: Helen Camello **Solvent :** 5%HNO3
Supplier: SPECTRO PURE
Description: SECOND SOURCE STD #1A 5%HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Arsenic	100 mg/L
Barium	100 mg/L	Boron	100 mg/L
Cadmium	100 mg/L	Calcium	1000 mg/L
Chromium	100 mg/L	Cobalt	100 mg/L
Copper	100 mg/L	Iron	1000 mg/L
Lead	100 mg/L	Phosphorous	500 mg/L
Potassium	500 mg/L	Selenium	500 mg/L
Sodium	500 mg/L	Strontium	100 mg/L

Serial ID: UI090925-41 **Opened:** 23-OCT-09 **Amount :** 500 mL
Name: SECOND SOURCE STD -1 **Received:** 25-SEP-09 **Catalog Number :** SGELMX39-500B
Type: Source Material **Expires:** 30-SEP-10 **Lot Number :** 4909130
Employee: Helen Camello **Solvent :** 5%HNO3,TR.HF
Supplier: SPECTRO PURE
Description: SECOND SOURCE STD #1B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	100 mg/L	Beryllium	50 mg/L
Magnesium	1000 mg/L	Manganese	100 mg/L

Analyte	Concentration	Analyte	Concentration
Molybdenum	100 mg/L	Nickel	100 mg/L
Silver	50 mg/L	Sulfur	500 mg/L
Thallium	100 mg/L	Tin	100 mg/L
Titanium	100 mg/L	Uranium	100 mg/L
Vanadium	100 mg/L	Zinc	100 mg/L

Serial ID: UI091015-42 **Opened:** 28-OCT-09 **Amount :** 500 mL
Name: SI 1000mg/L **Received:** 15-OCT-09 **Catalog Number :** 060014-02-03
Type: Source Material **Expires:** 28-OCT-10 **Lot Number :** 1017581
Employee: Helen Camello **Solvent :** 0.3%H2O(NH4)2SiF6
Supplier: o2si
Description: Silicon 1000mg/L+/-0.3%in H2O(NH4)2SiF6
Comments: None

Analyte	Concentration	Analyte	Concentration
Silica	2139 mg/L	Silicon	1000 mg/L

Serial ID: UI091015-A **Opened:** 15-OCT-09 **Catalog Number :** 160067-03
Name: ICP-MS DOE SOIL SPIKE **Received:** 15-OCT-09 **Lot Number :** 1017142
Type: Source Material **Expires:** 15-OCT-10
Employee: Francena Armstrong
Supplier: 02si
Description: ICP-MS Spike for soil products.
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	200 mg/L	Arsenic	8 mg/L
Barium	5 mg/L	Beryllium	5 mg/L
Boron	10 mg/L	Cadmium	1 mg/L
Calcium	200 mg/L	Chromium	5 mg/L
Cobalt	5 mg/L	Copper	5 mg/L
Iron	200 mg/L	Lead	20 mg/L
Lithium	5 mg/L	Magnesium	200 mg/L
Manganese	5 mg/L	Nickel	5 mg/L
Phosphorus, Total as P	200 mg/L	Potassium	200 mg/L
Selenium	2 mg/L	Sodium	200 mg/L
Strontium	5 mg/L	Thallium	10 mg/L
Thorium	5 mg/L	Uranium	5 mg/L
Uranium-235	.036 mg/L	Uranium-238	4.964 mg/L
Vanadium	5 mg/L	Zinc	5 mg/L

Standard Logbook

Serial ID: UI091015-B **Opened:** 15-OCT-09 **Catalog Number :** 160067-03
Name: ICP-MS DOE SOIL SPIKE **Received:** 15-OCT-09 **Lot Number :** 1017142
Type: Source Material **Expires:** 15-OCT-10
Employee: Francena Armstrong
Supplier: 02si
Description: ICP-MS Spike for Soil Products
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	20 mg/L	Molybdenum	5 mg/L
Silicon	200 mg/L	Silver	5 mg/L
Tin	5 mg/L	Zirconium	5 mg/L

Serial ID: UI091102-40 **Opened:** 16-NOV-09 **Amount :** 500 mL
Name: TRACE CALSTD#1A SOUF **Received:** 02-NOV-09 **Catalog Number :** HP2270-1-500
Type: Source Material **Expires:** 31-OCT-10 **Lot Number :** 0930215
Employee: Helen Camello **Solvent :** HNO3
Supplier: Environmental Express
Description: Trace Calibration Std #1A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	2000 mg/L	Arsenic	200 mg/L
Barium	200 mg/L	Beryllium	200 mg/L
Boron	200 mg/L	Cadmium	200 mg/L
Calcium	2000 mg/L	Chromium	200 mg/L
Cobalt	200 mg/L	Copper	200 mg/L
Iron	2000 mg/L	Lead	200 mg/L
Magnesium	2000 mg/L	Manganese	200 mg/L
Nickel	200 mg/L	Phosphorous	1000 mg/L
Potassium	2000 mg/L	Selenium	200 mg/L
Sodium	2000 mg/L	Strontium	200 mg/L
Thallium	200 mg/L	Uranium	200 mg/L
Vanadium	200 mg/L	Zinc	200 mg/L

Serial ID: UI091102-41 **Opened:** 16-NOV-09 **Amount :** 500 mL
Name: TRACE CALSTD#1B SOUF **Received:** 02-NOV-09 **Catalog Number :** HP2270-2-500
Type: Source Material **Expires:** 31-OCT-10 **Lot Number :** 0930216
Employee: Helen Camello **Solvent :** HNO3
Supplier: Environmental Express
Description: Trace Calibration Standard #1B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	200 mg/L	Molybdenum	200 mg/L
Silver	200 mg/L	Sulfur	400 mg/L

Analyte	Concentration	Analyte	Concentration
Tin	200 mg/L	Titanium	200 mg/L

Serial ID: UI091102-42 **Opened:** 17-NOV-09 **Amount :** 200 mL
Name: SILICON **Received:** 02-NOV-09 **Catalog Number :** HP100050-4F
Type: Source Material **Expires:** 17-NOV-10 **Lot Number :** 0921924
Employee: Helen Camello **Solvent :** H20/tr HF
Supplier: ENVIRNMENTAL EXPRESS
Description: SILICON 1000mg/L H20/tr HF
Comments: None

Analyte	Concentration	Analyte	Concentration
Silica	2139 mg/L	Silicon	1000 mg/L

Serial ID: UI091130-48 **Opened:** 11-DEC-09 **Amount :** 1000 mL
Name: Trace ICP ICSA **Received:** 01-DEC-09 **Catalog Number :** 160005-02
Type: Source Material **Expires:** 01-JAN-10 **Lot Number :** 1018045
Employee: Helen Camello **Solvent :** 3% HCl + 1% HNO3
Supplier: o2si
Description: Trace ICP Interferent Check Standard A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 UG/L	Calcium	500000 UG/L
Iron	200000 UG/L	Magnesium	500000 UG/L

Serial ID: UI091211-40 **Opened:** 11-DEC-09 **Amount :** 500 mL
Name: ICP HIGH RANGE STD-A **Received:** 09-DEC-09 **Catalog Number :** 160211-05-03
Type: Source Material **Expires:** 11-DEC-10 **Lot Number :** 1017958
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3
Supplier: 02SI
Description: ICP HIGH RANGE STD SOLUTION A
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	10000 ug/L	Arsenic	10000 ug/L
Barium	15000 ug/L	Beryllium	3000 ug/L
Boron	5000 ug/L	Cadmium	10000 ug/L
Chromium	25000 ug/L	Cobalt	10000 ug/L
Copper	20000 ug/L	Lead	25000 ug/L
Manganese	10000 ug/L	Molybdenum	10000 ug/L
Nickel	10000 ug/L	Phosphorous	15000 ug/L
Potassium	300000 ug/L	Selenium	10000 ug/L
Silica	107000 ug/L	Silicon	50000 ug/L
Silver	1000 ug/L	Strontium	10000 ug/L

Analyte	Concentration	Analyte	Concentration
Sulfur	50000 ug/L	Thallium	10000 ug/L
Tin	10000 ug/L	Titanium	10000 ug/L
Vanadium	10000 ug/L	Zinc	15000 ug/L

Serial ID: UI091211-41 **Opened:** 11-DEC-09 **Amount :** 500 mL
Name: ICP HIGH RANGE STD B **Received:** 09-DEC-09 **Catalog Number :** 160211-05-03
Type: Source Material **Expires:** 11-DEC-10 **Lot Number :** 1017958
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3
Supplier: 02SI
Description: ICP HIGH RANGE STD SOLUTION B
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 ug/L	Calcium	500000 ug/L
Iron	500000 ug/L	Magnesium	500000 ug/L
Sodium	500000 ug/L	Uranium	15000 ug/L

Serial ID: UI091212-11 **Opened:** 12-DEC-09 **Amount :** 1000 mL
Name: ICP-MS ICSA Master A **Received:** 12-DEC-09 **Catalog Number :** 160013-01-01L
Type: Source Material **Expires:** 12-DEC-10 **Lot Number :** 1015303
Employee: Paul Boyd **Solvent :** 2% HNO3
Supplier: 02SI
Description: ICP-MS ICSA Master A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Calcium	1000 mg/L
Carbon	2000 mg/L	Chloride	10000 mg/L
Iron	1000 mg/L	Magnesium	1000 mg/L
Molybdenum	20 mg/L	Phosphorous	1000 mg/L
Potassium	1000 mg/L	Sodium	1000 mg/L
Sulfur	1000 mg/L	Titanium	20 mg/L

Serial ID: UI091212-60 **Opened:** 12-DEC-09 **Amount :** .5 mL
Name: ICPMS High Range Standar **Received:** 12-DEC-09 **Catalog Number :** 160212-02-01
Type: Source Material **Expires:** 12-DEC-10 **Lot Number :** 1018064
Employee: Paul Boyd **Solvent :** 2%HNO3 + Tr HF
Supplier: O2SI
Description: Linear Range Standard A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	5000 mg/L	Arsenic	100 mg/L
Barium	250 mg/L	Beryllium	100 mg/L

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Cadmium	100 mg/L	Calcium	5000 mg/L
Chromium	100 mg/L	Cobalt	100 mg/L
Copper	100 mg/L	Iron	5000 mg/L
Lead	500 mg/L	Lithium	100 mg/L
Magnesium	5000 mg/L	Manganese	100 mg/L
Nickel	100 mg/L	Phosphorous	2500 mg/L
Potassium	5000 mg/L	Selenium	50 mg/L
Sodium	5000 mg/L	Strontium	100 mg/L
Thallium	50 mg/L	Thorium	250 mg/L
Uranium	500 mg/L	Vanadium	100 mg/L
Zinc	250 mg/L		

Serial ID: UI091212-61 **Opened:** 12-DEC-09 **Amount :** .5 mL
Name: ICPMS High Range Standa **Received:** 12-DEC-09 **Catalog Number :** 160212-02-01
Type: Source Material **Expires:** 12-DEC-10 **Lot Number :** 1018064
Employee: Paul Boyd **Solvent :** 2%HNO3 + Tr HF
Supplier: O2SI
Description: Linear Range Standard B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	25 mg/L	Molybdenum	100 mg/L
Silver	25 mg/L	Tin	100 mg/L
Tungsten	100 mg/L	Zirconium	50 mg/L

Serial ID: UI091216-01 **Opened:** 16-DEC-09 **Lot Number :** 1018095
Name: METALSPIKE-1 **Received:** 16-DEC-09
Type: Source Material **Expires:** 16-DEC-10
Employee: Francena Armstrong
Supplier: OS2I
Description: Metals Spike Mix I
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 ug/mL	Arsenic	100 ug/mL
Barium	100 ug/mL	Beryllium	100 ug/mL
Boron	100 ug/mL	Cadmium	100 ug/mL
Calcium	1000 ug/mL	Cobalt	100 ug/mL
Iron	1000 ug/mL	Lead	100 ug/mL
Magnesium	1000 ug/mL	Phosphorous	100 ug/mL
Potassium	1000 ug/mL	Silver	100 ug/mL
Sodium	1000 ug/mL	Strontium	100 ug/mL

Standard Logbook

Serial ID: UI091216-06 **Opened:** 16-DEC-09 **Lot Number :** 1018096
Name: METALSPIKE-2 **Received:** 16-DEC-09
Type: Source Material **Expires:** 16-DEC-10
Employee: Francena Armstrong
Supplier: OS2I
Description: Metals Spike Mix II
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	100 ug/mL	Chromium	100 ug/mL
Copper	100 ug/mL	Manganese	100 ug/mL
Molybdenum	100 ug/mL	Nickel	100 ug/mL
Selenium	100 ug/mL	Silica	2141 ug/mL
Silicon	1000 ug/mL	Sulfur	1000 ug/mL
Thallium	100 ug/mL	Tin	100 ug/mL
Titanium	100 ug/mL	Uranium	100 ug/mL
Vanadium	100 ug/mL	Zinc	100 ug/mL

Serial ID: UI091217-06 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master A **Received:** 17-DEC-09 **Catalog Number :** 160055-01
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018209
Employee: Paul Boyd **Solvent :** +/- 0.5% in 5% HNO3 100 cm2
Supplier: 02SI
Description: ICPMS ICV/CCV SOLN A - 10ppm
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	2020 mg/L	Calcium	2000 mg/L
Iron	2000 mg/L	Magnesium	2000 mg/L
Phosphorous	2000 mg/L	Potassium	2000 mg/L
Sodium	2000 mg/L		

Serial ID: UI091217-07 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master B **Received:** 17-DEC-09 **Catalog Number :** 160054-02
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018210
Employee: Paul Boyd **Solvent :** +/- 0.5% in 5% HNO3 100 cm2
Supplier: 02SI
Description: ICPMS ICV/CCV Soln B - 10ppm
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	20 mg/L	Barium	20 mg/L
Beryllium	20 mg/L	Boron	40 mg/L
Cadmium	20 mg/L	Chromium	20 mg/L
Cobalt	20 mg/L	Copper	20 mg/L
Lead	20 mg/L	Lithium	20 mg/L

Analyte	Concentration	Analyte	Concentration
Manganese	20 mg/L	Nickel	20 mg/L
Selenium	20 mg/L	Strontium	20 mg/L
Thallium	20 mg/L	Thorium	20 mg/L
Uranium	20 mg/L	Vanadium	20 mg/L
Zinc	20 mg/L		

Serial ID: UI091217-08 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master C **Received:** 17-DEC-09 **Catalog Number :** 160054-03
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018211
Employee: Paul Boyd **Solvent :** +/- 0.5% in 5% HNO3 100 cm2
Supplier: 02SI
Description: ICPMS ICV/CCV Soln C - 10ppm
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	20 mg/L	Molybdenum	20 mg/L
Silver	20 mg/L	Tin	20 mg/L
Titanium	20 mg/L	Tungsten	20 mg/L
Zirconium	20 mg/L		

Serial ID: UI091217-12 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICSAB Master B **Received:** 17-DEC-09 **Catalog Number :** 160033-02
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018212
Employee: Paul Boyd **Solvent :** +/- 0.5% in 2% HNO3
Supplier: 02SI
Description: ICPMS ICSAB Master B
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	2 mg/L	Barium	2 mg/L
Beryllium	2 mg/L	Boron	2 mg/L
Cadmium	2 mg/L	Chromium	2 mg/L
Cobalt	2 mg/L	Copper	2 mg/L
Lead	2 mg/L	Lithium	2 mg/L
Manganese	2 mg/L	Nickel	2 mg/L
Selenium	2 mg/L	Strontium	2 mg/L
Thallium	2 mg/L	Thorium	2 mg/L
Uranium	2 mg/L	Vanadium	2 mg/L
Zinc	2 mg/L		

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Serial ID: UI091217-13 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICSAB Master C **Received:** 17-DEC-09 **Catalog Number :** 160033-03
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1016926
Employee: Paul Boyd **Solvent :** +/- 0.5% in 2% HNO3
Supplier: 02SI
Description: ICPMS ICSAB Master C
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	2 mg/L	Silver	2 mg/L
Tin	2 mg/L	Tungsten	2 mg/L
Zirconium	2 mg/L		

Serial ID: UMS090303-01 **Opened:** 03-MAR-09 **Amount :** 250 mL
Name: ICPMSCalSPIKEB **Received:** 03-MAR-09 **Catalog Number :** ZGEL-100-250
Type: Source Material **Expires:** 28-FEB-10 **Lot Number :** 14-81JB
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution B
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	10 mg/L	Barium	10 mg/L
Beryllium	10 mg/L	Boron	20 mg/L
Cadmium	10 mg/L	Chromium	10 mg/L
Cobalt	10 mg/L	Copper	10 mg/L
Lead	10 mg/L	Lithium	10 mg/L
Manganese	10 mg/L	Nickel	10 mg/L
Selenium	10 mg/L	Silver	10 mg/L
Strontium	10 mg/L	Thallium	10 mg/L
Thorium	10 mg/L	Uranium	10 mg/L
Vanadium	10 mg/L	Zinc	10 mg/L

Serial ID: UMS090303-02 **Opened:** 03-MAR-09 **Catalog Number :** ZGEL-102-250
Name: ICPMSCalSPIKEA **Received:** 03-MAR-09 **Lot Number :** 14-83JB
Type: Source Material **Expires:** 28-FEB-10
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Calcium	1000 mg/L
Iron	1000 mg/L	Magnesium	1000 mg/L
Phosphorous	1000 mg/L	Potassium	1000 mg/L
Sodium	1000 mg/L		

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Serial ID: UMS090303-03 **Opened:** 03-MAR-09 **Amount :** 250 ml
Name: ICPMSCalSPIKEC **Received:** 03-MAR-09 **Catalog Number :** ZGEL-101-250
Type: Source Material **Expires:** 28-FEB-10 **Lot Number :** 15-199JB
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution C
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	10 mg/L	Molybdenum	10 mg/L
Tin	10 mg/L	Titanium	10 mg/L
Zirconium	10 mg/L		

Serial ID: IHG100104-01 **Opened:** 04-JAN-10 **Instrument Id :** Mercury
Name: MHGINTER1 **Received:** 04-JAN-10 **Pipet Id :** Minou1
Type: Intermediate **Expires:** 05-JAN-10 **Solvent :** 1mL HNO3 + Typel H2O
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Intermediate 1st Source 200 ug/L
Comments: Prepare fresh daily

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167639-01	Mercury	1000 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: IHG100104-02 **Opened:** 04-JAN-10 **Pipet Id :** Minou1
Name: MHGINTER2 **Received:** 04-JAN-10 **Solvent :** 2% HNO3-1240182
Type: Intermediate **Expires:** 05-JAN-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Intermediate 2nd Source 200 ug/L
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167641-02	Mercury	999.7 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: WHG100104-07 **Opened:** 04-JAN-10 **Pipet Id :** Hg1289245
Name: MHGWORKCALS0.2CRA **Received:** 04-JAN-10 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 09-JAN-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working Standard 1st Source CAL S 0.2/CRA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100104-01	Mercury	200 ug/L	30 uL	30 mL	.2 ug/L

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Serial ID: WHG100104-08 **Opened:** 04-JAN-10 **Pipet Id :** Hg1289245
Name: MHGWORKCALS0.5 **Received:** 04-JAN-10 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 09-JAN-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working Standard 1st Source CAL S 0.5
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100104-01	Mercury	200 ug/L	75 uL	30 mL	.5 ug/L

Serial ID: WHG100104-09 **Opened:** 04-JAN-10 **Pipet Id :** Hg1289245
Name: MHGWORKCALS2.0 **Received:** 04-JAN-10 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 09-JAN-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL S 2.0
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100104-01	Mercury	200 ug/L	300 uL	30 mL	2 ug/L

Serial ID: WHG100104-10 **Opened:** 04-JAN-10 **Pipet Id :** Hg1289245
Name: MHGWORKCALS5.0CCV **Received:** 04-JAN-10 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 09-JAN-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL S 5.0/CCV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100104-01	Mercury	200 ug/L	750 uL	30 mL	5 ug/L

Serial ID: WHG100104-11 **Opened:** 04-JAN-10 **Pipet Id :** Hg1289245
Name: MHGWORKCALS10.0 **Received:** 04-JAN-10 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 09-JAN-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working 1st Source CAL S 10.0
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100104-01	Mercury	200 ug/L	1.5 mL	30 mL	10 ug/L

Standard Logbook

Serial ID: WHG100104-12 **Opened:** 04-JAN-10 **Pipet Id :** Hg1289245
Name: MHGWORKS5.0ICV **Received:** 04-JAN-10 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 09-JAN-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 2nd Source S 5.0/ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100104-02	Mercury	200 ug/L	750 uL	30 mL	5 ug/L

Serial ID: WHG100104-14 **Opened:** 04-JAN-10 **Pipet Id :** Hg1289245
Name: MHGSOILMSSPIKE **Received:** 04-JAN-10 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 09-JAN-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury soil working intermediate standard for MS
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167639-01	Mercury	1000 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: WI091220-42 **Opened:** 20-DEC-09 **Balance Id :** 216
Name: TRACE ICP 0.1 PPM STD. **Received:** 02-NOV-09 **Pipet Id :** 1099667
Type: Working **Expires:** 21-DEC-09 **Solvent :** 3%HCL and 1%HNO3 -1242318
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP 0.1 PPM CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WI091220-44	Aluminum	10000 ug/L	10 mL	100 mL	1000 ug/L
WI091220-44	Antimony	1000 ug/L	10 mL	100 mL	100 ug/L
WI091220-44	Arsenic	1000 ug/L	10 mL	100 mL	100 ug/L
WI091220-44	Barium	1000 ug/L	10 mL	100 mL	100 ug/L
WI091220-44	Beryllium	1000 ug/L	10 mL	100 mL	100 ug/L
WI091220-44	Boron	1000 ug/L	10 mL	100 mL	100 ug/L
WI091220-44	Cadmium	1000 ug/L	10 mL	100 mL	100 ug/L
WI091220-44	Calcium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI091220-44	Chromium	1000 ug/L	10 mL	100 mL	100 ug/L
WI091220-44	Cobalt	1000 ug/L	10 mL	100 mL	100 ug/L
WI091220-44	Copper	1000 ug/L	10 mL	100 mL	100 ug/L
WI091220-44	Iron	10000 ug/L	10 mL	100 mL	1000 ug/L
WI091220-44	Lead	1000 ug/L	10 mL	100 mL	100 ug/L
WI091220-44	Magnesium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI091220-44	Manganese	1000 ug/L	10 mL	100 mL	100 ug/L

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WI091220-44	Molybdenum	1000 ug/L	10 mL	100 mL	100 ug/L
WI091220-44	Nickel	1000 ug/L	10 mL	100 mL	100 ug/L
WI091220-44	Phosphorous	5000 ug/L	10 mL	100 mL	500 ug/L
WI091220-44	Potassium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI091220-44	Selenium	1000 ug/L	10 mL	100 mL	100 ug/L
WI091220-44	Silica	10698 ug/L	10 mL	100 mL	1069 ug/L
WI091220-44	Silicon	5000 ug/L	10 mL	100 mL	500 ug/L
WI091220-44	Silver	1000 ug/L	10 mL	100 mL	100 ug/L
WI091220-44	Sodium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI091220-44	Strontium	1000 ug/L	10 mL	100 mL	100 ug/L
WI091220-44	Sulfur	2000 ug/L	10 mL	100 mL	200 ug/L
WI091220-44	Thallium	1000 ug/L	10 mL	100 mL	100 ug/L
WI091220-44	Tin	1000 ug/L	10 mL	100 mL	100 ug/L
WI091220-44	Titanium	1000 ug/L	10 mL	100 mL	100 ug/L
WI091220-44	Uranium	1000 ug/L	10 mL	100 mL	100 ug/L
WI091220-44	Vanadium	1000 ug/L	10 mL	100 mL	100 ug/L
WI091220-44	Zinc	1000 ug/L	10 mL	100 mL	100 ug/L

Serial ID: WI091220-43 **Opened:** 20-DEC-09 **Balance Id :** 216
Name: TRACE ICP 0.5/CCV STD. **Received:** 02-NOV-09 **Pipet Id :** 1099667
Type: Working **Expires:** 21-DEC-09 **Solvent :** 3%HCL and 1%HNO3 -1242318
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP 0.5/CCV CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090828-42	Sodium	1000 ug/mL	5 mL	1000 mL	5000 UG/L
UI091015-42	Silica	2139 mg/L	2.5 mL	1000 mL	5348.25 UG/L
UI091015-42	Silicon	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI091102-40	Aluminum	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Arsenic	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Barium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Beryllium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Boron	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Cadmium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Calcium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Chromium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Cobalt	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Copper	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Iron	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Lead	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Magnesium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Manganese	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Nickel	200 mg/L	2.5 mL	1000 mL	500 UG/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091102-40	Phosphorous	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI091102-40	Potassium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Selenium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Sodium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Strontium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Thallium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Uranium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Vanadium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Zinc	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Antimony	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Molybdenum	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Silver	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Sulfur	400 mg/L	2.5 mL	1000 mL	1000 UG/L
UI091102-41	Tin	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Titanium	200 mg/L	2.5 mL	1000 mL	500 UG/L

Serial ID: WI091220-44 **Opened:** 20-DEC-09 **Balance Id :** 216
Name: TRACE ICP SCAL 1.0 **Received:** 02-NOV-09 **Pipet Id :** 1099667
Type: Working **Expires:** 21-DEC-09 **Solvent :** 3%HCL and 1 %HNO3-1242318
Employee: Helen Camello
Supplier: o2si
Description: Trace ICP Calibration Standard 1.0ppm
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091015-42	Silica	2139 mg/L	2.5 mL	500 mL	10698 ug/L
UI091015-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI091102-40	Aluminum	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Arsenic	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Barium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Beryllium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Boron	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Cadmium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Calcium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Chromium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Cobalt	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Copper	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Iron	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Lead	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Magnesium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Manganese	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Nickel	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Phosphorous	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI091102-40	Potassium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Selenium	200 mg/L	2.5 mL	500 mL	1000 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091102-40	Sodium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Strontium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Thallium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Uranium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Vanadium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Zinc	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Antimony	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Molybdenum	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Silver	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Sulfur	400 mg/L	2.5 mL	500 mL	2000 ug/L
UI091102-41	Tin	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Titanium	200 mg/L	2.5 mL	500 mL	1000 ug/L

Serial ID: WI091220-45 **Opened:** 20-DEC-09 **Balance Id :** 216
Name: TRACE ICP S-10 STD **Received:** 22-APR-09 **Pipet Id :** 1099667
Type: Working **Expires:** 21-DEC-09 **Solvent :** 3%HCL and 1%HNO3 -1242318
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP S-10 CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090422-40	Aluminum	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Calcium	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Iron	2000 mg/L	5 mL	500 mL	20000 UG/L
UI090422-40	Magnesium	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090828-42	Sodium	1000 ug/mL	10 mL	500 mL	20000 UG/L

Serial ID: WI091220-46 **Opened:** 20-DEC-09 **Balance Id :** 216
Name: ICP TRACE ICV **Received:** 25-SEP-09 **Pipet Id :** 1099667
Type: Working **Expires:** 21-DEC-09 **Solvent :** 3%HCL AND 1%HNO3-1242318
Employee: Helen Camello
Supplier: GEL
Description: Initial Calibration Verification ICP Trace Metals
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090925-40	Aluminum	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Arsenic	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Barium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Boron	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cadmium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Calcium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Chromium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cobalt	100 mg/L	2.5 mL	500 mL	500 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090925-40	Copper	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Iron	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Lead	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Phosphorous	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Potassium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Selenium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Sodium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Strontium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Antimony	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Beryllium	50 mg/L	2.5 mL	500 mL	250 ug/L
UI090925-41	Magnesium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-41	Manganese	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Molybdenum	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Nickel	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Silver	50 mg/L	2.5 mL	500 mL	250 ug/L
UI090925-41	Sulfur	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-41	Thallium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Tin	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Titanium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Uranium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Vanadium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Zinc	100 mg/L	2.5 mL	500 mL	500 ug/L
UI091102-42	Silica	2139 mg/L	2.5 mL	500 mL	10695 ug/L
UI091102-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L

Serial ID: WI091220-47 **Opened:** 20-DEC-09 **Balance Id :** 216
Name: PQL Working Standard **Received:** 30-JUN-09 **Pipet Id :** 1099667
Type: Working **Expires:** 21-DEC-09 **Solvent :** 3%HCL &1%HNO3-1242318
Employee: Helen Camello
Supplier: 02si
Description: PQL Working Standard
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-40	Aluminum	100 mg/L	2 mL	1000 mL	200 ug/L
UI090701-40	Antimony	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Arsenic	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Barium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Beryllium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Boron	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Cadmium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Calcium	100 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Chromium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Cobalt	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Copper	5 mg/L	2 mL	1000 mL	10 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-40	Iron	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Lead	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Magnesium	150 mg/L	2 mL	1000 mL	300 ug/L
UI090701-40	Manganese	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Molybdenum	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Nickel	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Phosphorous	75 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Potassium	75 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Selenium	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Silicon	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Silver	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sodium	150 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Strontium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sulfur	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Thallium	10 mg/L	2 mL	1000 mL	20 ug/L
UI090701-40	Tin	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Titanium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Uranium	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Vanadium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Zinc	5 mg/L	2 mL	1000 mL	10 ug/L

Serial ID: WMS091229-04 **Opened:** 29-DEC-09 **Amount :** 50 mL
Name: ICPMS Cal Standard 100 **Received:** 29-DEC-09 **Balance Id :** 4025216
Type: Working **Expires:** 30-DEC-09 **Pipet Id :** 3541598
Employee: Elizabeth Janssen **Solvent :** 2%HNO3/1%HCl-1247304
Supplier: GEL
Description: ICPMS Calibration Standard (100 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090610-03	Tungsten	10 mg/L	.5 mL	50 mL	100 ug/L
UMS090303-01	Arsenic	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Barium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Beryllium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Boron	20 mg/L	.5 mL	50 mL	200 ug/l
UMS090303-01	Cadmium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Chromium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Cobalt	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Copper	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Lead	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Lithium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Manganese	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Nickel	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Selenium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Silver	10 mg/L	.5 mL	50 mL	100 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UMS090303-01	Strontium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Thallium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Thorium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Uranium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Vanadium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Zinc	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-02	Aluminum	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Calcium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Iron	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Magnesium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Phosphorous	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Potassium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Sodium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-03	Antimony	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Molybdenum	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Tin	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Titanium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Zirconium	10 mg/L	.5 mL	50 mL	100 ug/l

Serial ID: WMS091229-04A **Opened:** 29-DEC-09 **Balance Id :** 4025216
Name: ICPMS Cal Standard 10 **Received:** 29-DEC-09 **Pipet Id :** 3541598
Type: Working **Expires:** 30-DEC-09 **Solvent :** 2%HNO3/1%HCl - 1247304
Employee: Elizabeth Janssen
Supplier: GEL
Description: ICPMS Calibration Standard (10 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS091229-04	Aluminum	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS091229-04	Antimony	100 ug/l	5 mL	50 mL	10 ug/l
WMS091229-04	Arsenic	100 ug/l	5 mL	50 mL	10 ug/l
WMS091229-04	Barium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091229-04	Beryllium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091229-04	Boron	200 ug/l	5 mL	50 mL	20 ug/l
WMS091229-04	Cadmium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091229-04	Calcium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS091229-04	Chromium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091229-04	Cobalt	100 ug/l	5 mL	50 mL	10 ug/l
WMS091229-04	Copper	100 ug/l	5 mL	50 mL	10 ug/l
WMS091229-04	Iron	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS091229-04	Lead	100 ug/l	5 mL	50 mL	10 ug/l
WMS091229-04	Lithium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091229-04	Magnesium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS091229-04	Manganese	100 ug/l	5 mL	50 mL	10 ug/l
WMS091229-04	Molybdenum	100 ug/l	5 mL	50 mL	10 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS091229-04	Nickel	100 ug/l	5 mL	50 mL	10 ug/l
WMS091229-04	Phosphorous	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS091229-04	Potassium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS091229-04	Selenium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091229-04	Silver	100 ug/l	5 mL	50 mL	10 ug/l
WMS091229-04	Sodium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS091229-04	Strontium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091229-04	Thallium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091229-04	Thorium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091229-04	Tin	100 ug/l	5 mL	50 mL	10 ug/l
WMS091229-04	Titanium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091229-04	Tungsten	100 ug/L	5 mL	50 mL	10 ug/L
WMS091229-04	Uranium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091229-04	Vanadium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091229-04	Zinc	100 ug/l	5 mL	50 mL	10 ug/l
WMS091229-04	Zirconium	100 ug/l	5 mL	50 mL	10 ug/l

Serial ID: WMS091229-05 **Opened:** 29-DEC-09 **Balance Id :** 40245216
Name: ICPMS ICV **Received:** 29-DEC-09 **Pipet Id :** 3541598
Type: Working **Expires:** 30-DEC-09 **Solvent :** 2%HNO3/1%HCl - 1247304
Employee: Elizabeth Janssen
Supplier: GEL
Description: ICPMS ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-06	Aluminum	2020 mg/L	.125 mL	50 mL	5050 ug/L
UI091217-06	Calcium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Iron	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Magnesium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Phosphorous	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Potassium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Sodium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-07	Arsenic	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Barium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Beryllium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Boron	40 mg/L	.125 mL	50 mL	100 ug/L
UI091217-07	Cadmium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Chromium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Cobalt	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Copper	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lead	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lithium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Manganese	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Nickel	20 mg/L	.125 mL	50 mL	50 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-07	Selenium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Strontium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thallium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thorium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Uranium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Vanadium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Zinc	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Antimony	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Molybdenum	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Silver	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tin	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Titanium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tungsten	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Zirconium	20 mg/L	.125 mL	50 mL	50 ug/L

Serial ID: WMS091229-06 **Opened:** 29-DEC-09 **Balance Id :** 40245216
Name: ICPMS CRDL **Received:** 29-DEC-09 **Pipet Id :** 3820544
Type: Working **Expires:** 30-DEC-09 **Solvent :** 2%HNO3/1%HCl - 1247304
Employee: Elizabeth Janssen
Supplier: GEL
Description: ICPMS CRDL
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Aluminum	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Arsenic	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Barium	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Beryllium	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-09	Boron	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Cadmium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Calcium	100 mg/L	.05 mL	50 mL	100 ug/L
UI090701-09	Chromium	3 mg/L	.05 mL	50 mL	3 ug/L
UI090701-09	Cobalt	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Copper	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Iron	25 mg/L	.05 mL	50 mL	25 ug/L
UI090701-09	Lead	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Lithium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Magnesium	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Manganese	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Nickel	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Phosphorous	50 mg/L	.05 mL	50 mL	50 ug/L
UI090701-09	Potassium	300 mg/L	.05 mL	50 mL	300 ug/L
UI090701-09	Selenium	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Sodium	250 mg/L	.05 mL	50 mL	250 ug/L
UI090701-09	Strontium	10 mg/L	.05 mL	50 mL	10 ug/L

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Thallium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Thorium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Uranium	.2 mg/L	.05 mL	50 mL	.2 ug/L
UI090701-09	Vanadium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Zinc	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Antimony	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-10	Molybdenum	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-10	Silver	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-10	Tin	2 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Titanium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Tungsten	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Zirconium	2 mg/L	.05 mL	50 mL	2 ug/L

Serial ID: WMS091229-07 **Opened:** 29-DEC-09 **Balance Id :** 40245216
Name: ICPMS ICSA **Received:** 29-DEC-09 **Lot Number :** 1010773
Type: Working **Expires:** 30-DEC-09 **Pipet Id :** 3541598
Employee: Elizabeth Janssen **Solvent :** 2%HNO3/1%HCl - 1247304
Supplier: GEL
Description: ICPMS ICSA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI091212-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI091212-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: WMS091229-08 **Opened:** 29-DEC-09 **Balance Id :** 40245216
Name: ICPMS ICSAB **Received:** 29-DEC-09 **Pipet Id :** 1758088
Type: Working **Expires:** 30-DEC-09 **Solvent :** 2%HNO3/1%HCl - 1247304
Employee: Elizabeth Janssen
Supplier: GEL
Description: ICPMS ICSAB
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI091212-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI091212-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L
UI091217-12	Arsenic	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Barium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Beryllium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Boron	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Cadmium	2 mg/L	.5 mL	50 mL	20.2 ug/L
UI091217-12	Chromium	2 mg/L	.5 mL	50 mL	22.2 ug/L
UI091217-12	Cobalt	2 mg/L	.5 mL	50 mL	20.4 ug/L
UI091217-12	Copper	2 mg/L	.5 mL	50 mL	23.4 ug/L
UI091217-12	Lead	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Lithium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Manganese	2 mg/L	.5 mL	50 mL	22.7 ug/L
UI091217-12	Nickel	2 mg/L	.5 mL	50 mL	22.4 ug/L
UI091217-12	Selenium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Strontium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thallium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thorium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Uranium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Vanadium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Zinc	2 mg/L	.5 mL	50 mL	27 ug/L
UI091217-13	Antimony	2 mg/L	.5 mL	50 mL	20.5 ug/L
UI091217-13	Silver	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tin	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tungsten	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Zirconium	2 mg/L	.5 mL	50 mL	20 ug/L

Serial ID: WMS091229-70 **Opened:** 29-DEC-09 **Balance Id :** 40245216
Name: ICPMS LINEAR RANGE ST **Received:** 29-DEC-09 **Pipet Id :** 1758088
Type: Working **Expires:** 30-DEC-09 **Solvent :** 2%HNO3/1%HCl - 1247304
Employee: Elizabeth Janssen
Supplier: 02SI
Description: ICPMS LINEAR RANGE STANDARD
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-60	Aluminum	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Arsenic	100 mg/L	.5 mL	50 mL	1000 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-60	Barium	250 mg/L	.5 mL	50 mL	2500 ug/L
UI091212-60	Beryllium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Cadmium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Calcium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Chromium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Cobalt	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Copper	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Iron	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Lead	500 mg/L	.5 mL	50 mL	5000 ug/L
UI091212-60	Lithium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Magnesium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Manganese	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Nickel	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Phosphorous	2500 mg/L	.5 mL	50 mL	25000 ug/L
UI091212-60	Potassium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Selenium	50 mg/L	.5 mL	50 mL	500 ug/L
UI091212-60	Sodium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Strontium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Thallium	50 mg/L	.5 mL	50 mL	500 ug/L
UI091212-60	Thorium	250 mg/L	.5 mL	50 mL	2500 ug/L
UI091212-60	Uranium	500 mg/L	.5 mL	50 mL	5000 ug/L
UI091212-60	Vanadium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Zinc	250 mg/L	.5 mL	50 mL	2500 ug/L
UI091212-61	Antimony	25 mg/L	.5 mL	50 mL	250 ug/L
UI091212-61	Molybdenum	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-61	Silver	25 mg/L	.5 mL	50 mL	250 ug/L
UI091212-61	Tin	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-61	Tungsten	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-61	Zirconium	50 mg/L	.5 mL	50 mL	500 ug/L

Serial ID: WMS091230-04 **Opened:** 30-DEC-09 **Amount :** 50 mL
Name: ICPMS Cal Standard 100 **Received:** 30-DEC-09 **Balance Id :** 4025216
Type: Working **Expires:** 31-DEC-09 **Pipet Id :** 3541598
Employee: Elizabeth Janssen **Solvent :** 2%HNO3/1%HCl-1247304
Supplier: GEL
Description: ICPMS Calibration Standard (100 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090610-03	Tungsten	10 mg/L	.5 mL	50 mL	100 ug/L
UMS090303-01	Arsenic	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Barium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Beryllium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Boron	20 mg/L	.5 mL	50 mL	200 ug/l
UMS090303-01	Cadmium	10 mg/L	.5 mL	50 mL	100 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UMS090303-01	Chromium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Cobalt	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Copper	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Lead	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Lithium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Manganese	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Nickel	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Selenium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Silver	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Strontium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Thallium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Thorium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Uranium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Vanadium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Zinc	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-02	Aluminum	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Calcium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Iron	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Magnesium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Phosphorous	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Potassium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Sodium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-03	Antimony	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Molybdenum	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Tin	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Titanium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Zirconium	10 mg/L	.5 mL	50 mL	100 ug/l

Serial ID: WMS091230-04A **Opened:** 30-DEC-09 **Balance Id :** 4025216
Name: ICPMS Cal Standard 10 **Received:** 30-DEC-09 **Pipet Id :** 3541598
Type: Working **Expires:** 31-DEC-09 **Solvent :** 2%HNO3/1%HCl - 1247304
Employee: Elizabeth Janssen
Supplier: GEL
Description: ICPMS Calibration Standard (10 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS091230-04	Aluminum	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS091230-04	Antimony	100 ug/l	5 mL	50 mL	10 ug/l
WMS091230-04	Arsenic	100 ug/l	5 mL	50 mL	10 ug/l
WMS091230-04	Barium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091230-04	Beryllium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091230-04	Boron	200 ug/l	5 mL	50 mL	20 ug/l
WMS091230-04	Cadmium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091230-04	Calcium	10000 ug/l	5 mL	50 mL	1000 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS091230-04	Chromium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091230-04	Cobalt	100 ug/l	5 mL	50 mL	10 ug/l
WMS091230-04	Copper	100 ug/l	5 mL	50 mL	10 ug/l
WMS091230-04	Iron	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS091230-04	Lead	100 ug/l	5 mL	50 mL	10 ug/l
WMS091230-04	Lithium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091230-04	Magnesium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS091230-04	Manganese	100 ug/l	5 mL	50 mL	10 ug/l
WMS091230-04	Molybdenum	100 ug/l	5 mL	50 mL	10 ug/l
WMS091230-04	Nickel	100 ug/l	5 mL	50 mL	10 ug/l
WMS091230-04	Phosphorous	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS091230-04	Potassium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS091230-04	Selenium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091230-04	Silver	100 ug/l	5 mL	50 mL	10 ug/l
WMS091230-04	Sodium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS091230-04	Strontium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091230-04	Thallium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091230-04	Thorium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091230-04	Tin	100 ug/l	5 mL	50 mL	10 ug/l
WMS091230-04	Titanium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091230-04	Tungsten	100 ug/L	5 mL	50 mL	10 ug/L
WMS091230-04	Uranium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091230-04	Vanadium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091230-04	Zinc	100 ug/l	5 mL	50 mL	10 ug/l
WMS091230-04	Zirconium	100 ug/l	5 mL	50 mL	10 ug/l

Serial ID: WMS091230-05 **Opened:** 30-DEC-09 **Balance Id :** 40245216
Name: ICPMS ICV **Received:** 30-DEC-09 **Pipet Id :** 3541598
Type: Working **Expires:** 31-DEC-09 **Solvent :** 2%HNO3/1%HCl - 1247304
Employee: Elizabeth Janssen
Supplier: GEL
Description: ICPMS ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-06	Aluminum	2020 mg/L	.125 mL	50 mL	5050 ug/L
UI091217-06	Calcium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Iron	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Magnesium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Phosphorous	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Potassium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Sodium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-07	Arsenic	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Barium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Beryllium	20 mg/L	.125 mL	50 mL	50 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-07	Boron	40 mg/L	.125 mL	50 mL	100 ug/L
UI091217-07	Cadmium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Chromium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Cobalt	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Copper	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lead	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lithium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Manganese	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Nickel	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Selenium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Strontium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thallium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thorium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Uranium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Vanadium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Zinc	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Antimony	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Molybdenum	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Silver	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tin	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Titanium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tungsten	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Zirconium	20 mg/L	.125 mL	50 mL	50 ug/L

Serial ID: WMS091230-06 **Opened:** 30-DEC-09 **Balance Id :** 40245216
Name: ICPMS CRDL **Received:** 30-DEC-09 **Pipet Id :** 3820544
Type: Working **Expires:** 31-DEC-09 **Solvent :** 2%HNO3/1%HCl - 1247304
Employee: Elizabeth Janssen
Supplier: GEL
Description: ICPMS CRDL
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Aluminum	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Arsenic	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Barium	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Beryllium	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-09	Boron	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Cadmium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Calcium	100 mg/L	.05 mL	50 mL	100 ug/L
UI090701-09	Chromium	3 mg/L	.05 mL	50 mL	3 ug/L
UI090701-09	Cobalt	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Copper	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Iron	25 mg/L	.05 mL	50 mL	25 ug/L
UI090701-09	Lead	2 mg/L	.05 mL	50 mL	2 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Lithium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Magnesium	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Manganese	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Nickel	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Phosphorous	50 mg/L	.05 mL	50 mL	50 ug/L
UI090701-09	Potassium	300 mg/L	.05 mL	50 mL	300 ug/L
UI090701-09	Selenium	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Sodium	250 mg/L	.05 mL	50 mL	250 ug/L
UI090701-09	Strontium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Thallium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Thorium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Uranium	.2 mg/L	.05 mL	50 mL	.2 ug/L
UI090701-09	Vanadium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Zinc	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Antimony	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-10	Molybdenum	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-10	Silver	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-10	Tin	2 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Titanium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Tungsten	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Zirconium	2 mg/L	.05 mL	50 mL	2 ug/L

Serial ID: WMS091230-07 **Opened:** 30-DEC-09 **Balance Id :** 40245216
Name: ICPMS ICSA **Received:** 30-DEC-09 **Lot Number :** 1010773
Type: Working **Expires:** 31-DEC-09 **Pipet Id :** 3541598
Employee: Elizabeth Janssen **Solvent :** 2%HNO3/1%HCl - 1247304
Supplier: GEL
Description: ICPMS ICSA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI091212-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI091212-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Standard Logbook

Serial ID: WMS091230-08 **Opened:** 30-DEC-09 **Balance Id :** 40245216
Name: ICPMS ICSAB **Received:** 30-DEC-09 **Pipet Id :** 1758088
Type: Working **Expires:** 31-DEC-09 **Solvent :** 2%HNO3/1%HCl - 1247304
Employee: Elizabeth Janssen
Supplier: GEL
Description: ICPMS ICSAB
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI091212-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI091212-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L
UI091217-12	Arsenic	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Barium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Beryllium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Boron	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Cadmium	2 mg/L	.5 mL	50 mL	20.2 ug/L
UI091217-12	Chromium	2 mg/L	.5 mL	50 mL	22.2 ug/L
UI091217-12	Cobalt	2 mg/L	.5 mL	50 mL	20.4 ug/L
UI091217-12	Copper	2 mg/L	.5 mL	50 mL	23.4 ug/L
UI091217-12	Lead	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Lithium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Manganese	2 mg/L	.5 mL	50 mL	22.7 ug/L
UI091217-12	Nickel	2 mg/L	.5 mL	50 mL	22.4 ug/L
UI091217-12	Selenium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Strontium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thallium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thorium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Uranium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Vanadium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Zinc	2 mg/L	.5 mL	50 mL	27 ug/L
UI091217-13	Antimony	2 mg/L	.5 mL	50 mL	20.5 ug/L
UI091217-13	Silver	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tin	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tungsten	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Zirconium	2 mg/L	.5 mL	50 mL	20 ug/L

Standard Logbook

Serial ID: WMS091230-70 **Opened:** 30-DEC-09 **Balance Id :** 40245216
Name: ICPMS LINEAR RANGE ST **Received:** 30-DEC-09 **Pipet Id :** 1758088
Type: Working **Expires:** 31-DEC-09 **Solvent :** 2%HNO3/1%HCl - 1247304
Employee: Elizabeth Janssen
Supplier: 02SI
Description: ICPMS LINEAR RANGE STANDARD
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-60	Aluminum	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Arsenic	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Barium	250 mg/L	.5 mL	50 mL	2500 ug/L
UI091212-60	Beryllium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Cadmium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Calcium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Chromium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Cobalt	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Copper	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Iron	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Lead	500 mg/L	.5 mL	50 mL	5000 ug/L
UI091212-60	Lithium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Magnesium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Manganese	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Nickel	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Phosphorous	2500 mg/L	.5 mL	50 mL	25000 ug/L
UI091212-60	Potassium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Selenium	50 mg/L	.5 mL	50 mL	500 ug/L
UI091212-60	Sodium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Strontium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Thallium	50 mg/L	.5 mL	50 mL	500 ug/L
UI091212-60	Thorium	250 mg/L	.5 mL	50 mL	2500 ug/L
UI091212-60	Uranium	500 mg/L	.5 mL	50 mL	5000 ug/L
UI091212-60	Vanadium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Zinc	250 mg/L	.5 mL	50 mL	2500 ug/L
UI091212-61	Antimony	25 mg/L	.5 mL	50 mL	250 ug/L
UI091212-61	Molybdenum	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-61	Silver	25 mg/L	.5 mL	50 mL	250 ug/L
UI091212-61	Tin	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-61	Tungsten	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-61	Zirconium	50 mg/L	.5 mL	50 mL	500 ug/L

Serial ID: 1156689-A **Opened:** 20-JUL-09 **Lot Number :** 41226920
Name: B-KMnO4(VWR)-MER **Received:** 20-JUL-09
Type: Reagent/Solvent **Expires:** 20-JUL-10
Employee: Tara Griffin **Verified:** 07-AUG-07
Supplier: VWR

Description: Potassium Permanganate
Comments: None

Serial ID: 1164796-A **Opened:** 06-AUG-09 **Lot Number :** 49149927
Name: B-NH2OH.HCl-MER **Received:** 06-AUG-09
Type: Reagent/Solvent **Expires:** 06-AUG-10
Employee: Tara Griffin
Supplier: Fisher Scientific
Description: Hydroxlyamine Hydrochloride
Comments: None

Serial ID: 1203655-02 **Opened:** 15-OCT-09 **Lot Number :** ZU74081198 mL
Name: B-H2O2 **Received:** 15-OCT-09
Type: Reagent/Solvent **Expires:** 15-OCT-10
Employee: Francena Armstrong
Supplier: EM SCIENCE
Description: Hydrogen Peroxide 30%
Comments: None

Serial ID: 1206350-C **Opened:** 22-OCT-09 **Balance Id :** BAL-002
Name: B-NaCl.NH2OH.HCl-MER **Received:** 22-OCT-09
Type: Reagent/Solvent **Expires:** 06-AUG-10
Employee: Tara Griffin
Supplier: GEL
Description: Hg reducing agent
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1164796-A	B-NH2OH.HCl-MER	N/A	120 g	1000 mL	N/A

Serial ID: 1236355-A **Opened:** 01-DEC-09 **Lot Number :** 200930201
Name: B-HCl-MER **Received:** 01-DEC-09
Type: Reagent/Solvent **Expires:** 01-DEC-10
Employee: Tara Griffin
Supplier: Aristar
Description: Hydrochloric Acid Conc.
Comments: None

Standard Logbook

Serial ID: 1238345 **Opened:** 04-DEC-09 **Lot Number :** H20053 L
Name: I-HNO3 **Received:** 04-DEC-09
Type: Reagent/Solvent **Expires:** 04-DEC-10
Employee: Francena Armstrong
Supplier: BAKER
Description: Nitric Acid CONC.
Comments: None

Serial ID: 1240182-1 **Opened:** 09-DEC-09 **Instrument Id :** MERCURY
Name: B-HNO3-MER **Received:** 09-DEC-09 **Lot Number :** H34040
Type: Reagent/Solvent **Expires:** 09-DEC-10
Employee: Tara Griffin
Supplier: Mallinckrodt Chemicals
Description: NITRIC ACID
Comments: None

Serial ID: 1242318 **Opened:** 14-DEC-09 **Amount :** 20 L
Name: B-ICP-RINSE SOLN **Received:** 01-DEC-09 **Lot Number :** H04040+G34050
Type: Reagent/Solvent **Expires:** 20-DEC-09 **Solvent :** 3%HCL+1%HNO3
Employee: Helen Camello
Supplier: GEL
Description: 3%HCL+1%HNO3 RINSE SOLN.
Comments: None

Serial ID: 1244904-C **Opened:** 18-DEC-09 **Balance Id :** BAL-002
Name: B-KMnO4-MER **Received:** 18-DEC-09
Type: Reagent/Solvent **Expires:** 18-JUN-10
Employee: Tara Griffin
Supplier: GEL
Description: 5% KMnO4 solution
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1156689-A	B-KMnO4(VWR)-MER	Crystals	50 g	1000 mL	3%

Serial ID: 1244970 **Opened:** 18-DEC-09 **Lot Number :** H41032
Name: I-HCL **Received:** 18-DEC-09 **Preservative_Id :** 5 none
Type: Reagent/Solvent **Expires:** 18-DEC-10
Employee: Francena Armstrong
Supplier: J.T. BAKER
Description: HYDROCHLORIC ACID
Comments: None

Standard Logbook

Serial ID: 1247304 **Opened:** 28-DEC-09 **Solvent :** Type I Water
Name: B-2%HNO3/1%HCl-ICPMS **Received:** 28-DEC-09
Type: Reagent/Solvent **Expires:** 04-JAN-10
Employee: Elizabeth Janssen
Supplier: GEL
Description: 2%HNO3/1%HCl Solution (Type I Water)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1238345	I-HNO3	69.0-70.0	180 mL	9 l	N/A
1244970	I-HCL	36.5-38.0	90 mL	9 l	N/A

Metals Analysis

Case Narrative

Metals Fractional Narrative
Los Alamos National Laboratory (LANL)
SDG 10-918-1

Sample Analysis

Sample ID	Client ID
242940001	RE03-10-2747
242940002	RE03-10-2761
1201998469	Method Blank (MB) **ICP**
1201998470	Laboratory Control Sample (LCS)
1201998473	242940001(RE03-10-2747L) Serial Dilution (SD)
1201998471	242940001(RE03-10-2747D) Sample Duplicate (DUP)
1201998472	242940001(RE03-10-2747S) Matrix Spike (MS)
1201998460	Method Blank (MB) **ICP-MS**
1201998461	Laboratory Control Sample (LCS)
1201998464	242940001(RE03-10-2747L) Serial Dilution (SD)
1201998462	242940001(RE03-10-2747D) Sample Duplicate (DUP)
1201998463	242940001(RE03-10-2747S) Matrix Spike (MS)
1202000160	Method Blank (MB) **CVAA**
1202000161	Laboratory Control Sample (LCS)
1202000164	243108001(RE16-10-225L) Serial Dilution (SD)
1202000162	243108001(RE16-10-225D) Sample Duplicate (DUP)
1202000163	243108001(RE16-10-225S) Matrix Spike (MS)

The samples in this SDG were analyzed on an "as received" basis.

Method/Analysis Information

Analytical Batch:	934069, 934063 and 934864
Prep Batch :	934067, 934062 and 934863
Standard Operating Procedures:	GL-MA-E-013 REV# 20, GL-MA-E-006 REV# 9, GL-MA-E-014 REV# 21 and GL-MA-E-010 REV# 23
Analytical Method:	SW846 3005/6010B, SW846 3005/6020 and SW846 7470A
Prep Method :	SW846 3005A and SW846 7470A Prep

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

System Configuration

The Metals analysis-ICP was performed on a P E 4300 Optima radial/axial-viewing inductively coupled plasma atomic emission spectrometer. The instrument is equipped with a Burgener nebulizer, cyclonic spray chamber, and yttrium or scandium internal standard. Operating conditions for the ICP are set at a power level of 1500 watts. The instrument has a peristaltic pump flow rate of 1.4L/min, argon gas flows of 15 L/min and 0.2 L/min for the torch and auxiliary gases, and a flow setting of 0.65L/min for the nebulizer.

The Metals analysis - ICPMS was performed on a Perkin Elmer ELAN 6100E inductively coupled plasma mass spectrometer (ICP-MS). The instrument is equipped with a cross-flow nebulizer, quadrupole mass spectrometer, and dual mode electron multiplier detector. Internal standards of scandium, germanium, indium, tantalum, and/or lutetium were utilized to cover the mass spectrum. Operating conditions are set at 1400W power and combined argon pressures of 360+/-7 kPa for the plasma and auxiliary gases, and 0.85 L/min carrier gas flow, and an initial lens voltage of 5.2.

The Metals analysis-Mercury was performed on a Perkin-Elmer Flow Injection Mercury System (FIMS-100) automated mercury analyzer. The instrument consists of a cold vapor atomic absorption spectrometer set to detect mercury at a wavelength of 253.7 nm. Sample introduction through the flow injection system is performed via a peristaltic pump at 9 mL/min and nitrogen carrier gas rate of 80 mL/min.

Calibration Information

Instrument Calibration
All initial calibration requirements have been met for this sample delivery group (SDG).

CRDL Requirements
All CRDL standard(s) met the referenced advisory control limits with the exception of iron that recovered outside of the advisory control limit of 70-130%.

ICSA/ICSAB Statement
All interference check samples (ICSA and ICSAB) associated with this SDG met the established acceptance criteria.

Continuing Calibration Blank (CCB) Requirements
All continuing calibration blanks (CCB) bracketing this batch met the established acceptance criteria.

Continuing Calibration Verification (CCV) Requirements
All continuing calibration verifications (CCV) bracketing this SDG met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MBs analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

Quality Control (QC) Sample Statement
The following samples were selected as the quality control (QC) samples for this SDG: 242940001 (RE03-10-2747)-ICP and ICP-MS and 243108001 (RE16-10-225)-CVAA.

Matrix Spike (MS) Recovery Statement
The percent recoveries (%R) obtained from the MS analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. All applicable elements met the acceptance criteria.

Duplicate Relative Percent Difference (RPD) Statement
The RPD obtained from the designated sample duplicate (DUP) is evaluated based on acceptance criteria of 20% when the sample is >5X the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control of +/-RL is used to evaluate the DUP results. All applicable analytes met these requirements.

Serial Dilution % Difference Statement
The serial dilution is used to assess matrix suppression or enhancement. Raw element concentrations that are 25X the IDL/MDL for CVAA, 50X the IDL/MDL for ICP, and 100X the IDL/MDL for ICP-MS analyses are applicable for serial dilution assessment. All applicable analytes met the acceptance criteria of less than 10% difference (%D).

Technical Information

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Sample Dilutions
Dilutions are performed to minimize matrix interferences resulting from elevated mineral element concentrations present in solid samples and/or to bring over range target analyte concentrations into the linear calibration range of the instrument. The samples in this SDG did not require dilutions.

Preparation Information
The samples in this SDG were prepared exactly according to the cited SOP.

Miscellaneous Information

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Nonconformance Documentation
Nonconformance reports (NCRs) are generated to document procedural anomalies that may deviate from referenced SOP or contractual documents. A nonconformance report (NCR) was not generated for this SDG.

Additional Comments
Additional comments were not required for this SDG.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Nik-Cole A. Elmore **Date:** 1·11·10

Sample Data Summary

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-918-1 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 242940001 **BASIS:** As Received **DATE COLLECTED** 11-DEC-09

CLIENT ID: RE03-10-2747 **LEVEL:** Low **DATE RECEIVED** 15-DEC-09

MATRIX: WATER **%SOLIDS:** 0

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	200	ug/L	U	68	200	200	1	P	HSC	12/20/09 07:00	122009-1	934069
7440-36-0	Antimony	3	ug/L	U	1	3	3	1	MS	BAJ	12/23/09 05:26	091222-2	934063
7440-38-2	Arsenic	30	ug/L	U	5	30	30	1	P	HSC	12/20/09 07:00	122009-1	934069
7440-39-3	Barium	5	ug/L	U	1	5	5	1	P	HSC	12/20/09 07:00	122009-1	934069
7440-41-7	Beryllium	0.50	ug/L	U	0.1	0.5	0.5	1	MS	BAJ	12/23/09 05:26	091222-2	934063
7440-42-8	Boron	50	ug/L	U	15	50	50	1	P	HSC	12/20/09 07:00	122009-1	934069
7440-43-9	Cadmium	1	ug/L	U	0.11	1	1	1	MS	BAJ	12/23/09 05:26	091222-2	934063
7440-70-2	Calcium	200	ug/L	U	50	200	200	1	P	HSC	12/20/09 07:00	122009-1	934069
7440-47-3	Chromium	5	ug/L	U	1	5	5	1	P	HSC	12/20/09 07:00	122009-1	934069
7440-48-4	Cobalt	5	ug/L	U	1	5	5	1	P	HSC	12/20/09 07:00	122009-1	934069
7440-50-8	Copper	10	ug/L	U	3	10	10	1	P	HSC	12/20/09 07:00	122009-1	934069
7439-89-6	Iron	100	ug/L	U	30	100	100	1	P	HSC	12/20/09 07:00	122009-1	934069
7439-92-1	Lead	2	ug/L	U	0.5	2	2	1	MS	BAJ	12/23/09 05:26	091222-2	934063
7439-93-2	Lithium	10	ug/L	U	2	10	10	1	MS	BAJ	12/23/09 05:26	091222-2	934063
7439-95-4	Magnesium	300	ug/L	U	85	300	300	1	P	HSC	12/20/09 07:00	122009-1	934069
7439-96-5	Manganese	5	ug/L	U	1	5	5	1	MS	BAJ	12/23/09 05:26	091222-2	934063
7439-97-6	Mercury	0.20	ug/L	U	0.066	0.2	0.2	1	AV	ETL	12/23/09 08:50	122309W1-3	934864
7440-02-0	Nickel	5	ug/L	U	1.5	5	5	1	P	HSC	12/20/09 07:00	122009-1	934069
7440-09-7	Potassium	150	ug/L	U	50	150	150	1	P	HSC	12/20/09 07:00	122009-1	934069
7782-49-2	Selenium	30	ug/L	U	5	30	30	1	P	HSC	12/20/09 07:00	122009-1	934069
7440-21-3	Silicon	100	ug/L	U	25	100	100	1	P	HSC	12/20/09 07:00	122009-1	934069
7440-22-4	Silver	1.04	ug/L	J	1	5	5	1	P	HSC	12/20/09 07:00	122009-1	934069
7440-23-5	Sodium	300	ug/L	U	100	300	300	1	P	HSC	12/20/09 07:00	122009-1	934069
7440-28-0	Thallium	0.701	ug/L	J	0.3	1	1	1	MS	BAJ	12/23/09 05:26	091222-2	934063
7440-32-6	Titanium	5	ug/L	U	1	5	5	1	P	HSC	12/20/09 07:00	122009-1	934069
7440-61-1	Uranium	0.20	ug/L	U	0.05	0.2	0.2	1	MS	BAJ	12/23/09 05:26	091222-2	934063
7440-62-2	Vanadium	5	ug/L	U	1	5	5	1	P	HSC	12/20/09 07:00	122009-1	934069
7440-66-6	Zinc	10	ug/L	U	3.3	10	10	1	P	HSC	12/20/09 07:00	122009-1	934069

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
934063	934062	SW846 3005A	50	mL	50	mL	12/19/09	BCD1
934069	934067	SW846 3005A	50	mL	50	mL	12/19/09	BCD1
934864	934863	SW846 7470A Prep	20	mL	20	mL	12/22/09	TXB3

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-918-1 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 242940002 **BASIS:** As Received **DATE COLLECTED** 11-DEC-09

CLIENT ID: RE03-10-2761 **LEVEL:** Low **DATE RECEIVED** 15-DEC-09

MATRIX: WATER **%SOLIDS:** 0

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	200	ug/L	U	68	200	200	1	P	HSC	12/20/09 07:14	122009-1	934069
7440-36-0	Antimony	3	ug/L	U	1	3	3	1	MS	BAJ	12/23/09 05:50	091222-2	934063
7440-38-2	Arsenic	30	ug/L	U	5	30	30	1	P	HSC	12/20/09 07:14	122009-1	934069
7440-39-3	Barium	5	ug/L	U	1	5	5	1	P	HSC	12/20/09 07:14	122009-1	934069
7440-41-7	Beryllium	0.50	ug/L	U	0.1	0.5	0.5	1	MS	BAJ	12/23/09 05:50	091222-2	934063
7440-42-8	Boron	50	ug/L	U	15	50	50	1	P	HSC	12/20/09 07:14	122009-1	934069
7440-43-9	Cadmium	1	ug/L	U	0.11	1	1	1	MS	BAJ	12/23/09 05:50	091222-2	934063
7440-70-2	Calcium	55.6	ug/L	J	50	200	200	1	P	HSC	12/20/09 07:14	122009-1	934069
7440-47-3	Chromium	1.22	ug/L	J	1	5	5	1	P	HSC	12/20/09 07:14	122009-1	934069
7440-48-4	Cobalt	5	ug/L	U	1	5	5	1	P	HSC	12/20/09 07:14	122009-1	934069
7440-50-8	Copper	10	ug/L	U	3	10	10	1	P	HSC	12/20/09 07:14	122009-1	934069
7439-89-6	Iron	51.2	ug/L	J	30	100	100	1	P	HSC	12/20/09 07:14	122009-1	934069
7439-92-1	Lead	2	ug/L	U	0.5	2	2	1	MS	BAJ	12/23/09 05:50	091222-2	934063
7439-93-2	Lithium	10	ug/L	U	2	10	10	1	MS	BAJ	12/23/09 05:50	091222-2	934063
7439-95-4	Magnesium	300	ug/L	U	85	300	300	1	P	HSC	12/20/09 07:14	122009-1	934069
7439-96-5	Manganese	5	ug/L	U	1	5	5	1	MS	BAJ	12/23/09 05:50	091222-2	934063
7439-97-6	Mercury	0.20	ug/L	U	0.066	0.2	0.2	1	AV	ETL	12/23/09 08:52	122309W1-3	934864
7440-02-0	Nickel	1.52	ug/L	J	1.5	5	5	1	P	HSC	12/20/09 07:14	122009-1	934069
7440-09-7	Potassium	150	ug/L	U	50	150	150	1	P	HSC	12/20/09 07:14	122009-1	934069
7782-49-2	Selenium	30	ug/L	U	5	30	30	1	P	HSC	12/20/09 07:14	122009-1	934069
7440-21-3	Silicon	101	ug/L		25	100	100	1	P	HSC	12/20/09 07:14	122009-1	934069
7440-22-4	Silver	5	ug/L	U	1	5	5	1	P	HSC	12/20/09 07:14	122009-1	934069
7440-23-5	Sodium	300	ug/L	U	100	300	300	1	P	HSC	12/20/09 07:14	122009-1	934069
7440-28-0	Thallium	0.304	ug/L	J	0.3	1	1	1	MS	BAJ	12/23/09 05:50	091222-2	934063
7440-32-6	Titanium	1.13	ug/L	J	1	5	5	1	P	HSC	12/20/09 07:14	122009-1	934069
7440-61-1	Uranium	0.20	ug/L	U	0.05	0.2	0.2	1	MS	BAJ	12/23/09 05:50	091222-2	934063
7440-62-2	Vanadium	5	ug/L	U	1	5	5	1	P	HSC	12/20/09 07:14	122009-1	934069
7440-66-6	Zinc	10	ug/L	U	3.3	10	10	1	P	HSC	12/20/09 07:14	122009-1	934069

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
934063	934062	SW846 3005A	50	mL	50	mL	12/19/09	BCD1
934069	934067	SW846 3005A	50	mL	50	mL	12/19/09	BCD1
934864	934863	SW846 7470A Prep	20	mL	20	mL	12/22/09	TXB3

Quality Control Summary

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–918–1

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS3,MER536,OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
ICV01										
	Aluminum	5060	ug/L	5000	ug/L	101.2	90.0 – 110.0	P	20–DEC–09 05:35	122009–1
	Arsenic	477	ug/L	500	ug/L	95.5	90.0 – 110.0	P	20–DEC–09 05:35	122009–1
	Barium	517	ug/L	500	ug/L	103.5	90.0 – 110.0	P	20–DEC–09 05:35	122009–1
	Boron	521	ug/L	500	ug/L	104.3	90.0 – 110.0	P	20–DEC–09 05:35	122009–1
	Calcium	4930	ug/L	5000	ug/L	98.6	90.0 – 110.0	P	20–DEC–09 05:35	122009–1
	Chromium	500	ug/L	500	ug/L	100	90.0 – 110.0	P	20–DEC–09 05:35	122009–1
	Cobalt	518	ug/L	500	ug/L	103.6	90.0 – 110.0	P	20–DEC–09 05:35	122009–1
	Copper	500	ug/L	500	ug/L	99.9	90.0 – 110.0	P	20–DEC–09 05:35	122009–1
	Iron	5090	ug/L	5000	ug/L	101.7	90.0 – 110.0	P	20–DEC–09 05:35	122009–1
	Magnesium	5280	ug/L	5000	ug/L	105.6	90.0 – 110.0	P	20–DEC–09 05:35	122009–1
	Nickel	513	ug/L	500	ug/L	102.6	90.0 – 110.0	P	20–DEC–09 05:35	122009–1
	Potassium	2450	ug/L	2500	ug/L	97.9	90.0 – 110.0	P	20–DEC–09 05:35	122009–1
	Selenium	2520	ug/L	2500	ug/L	101	90.0 – 110.0	P	20–DEC–09 05:35	122009–1
	Silicon	4820	ug/L	5000	ug/L	96.4	90.0 – 110.0	P	20–DEC–09 05:35	122009–1
	Silver	267	ug/L	250	ug/L	107	90.0 – 110.0	P	20–DEC–09 05:35	122009–1
	Sodium	2500	ug/L	2500	ug/L	100.1	90.0 – 110.0	P	20–DEC–09 05:35	122009–1
	Titanium	497	ug/L	500	ug/L	99.3	90.0 – 110.0	P	20–DEC–09 05:35	122009–1
	Vanadium	523	ug/L	500	ug/L	104.7	90.0 – 110.0	P	20–DEC–09 05:35	122009–1
	Zinc	517	ug/L	500	ug/L	103.4	90.0 – 110.0	P	20–DEC–09 05:35	122009–1
	Antimony	50.4	ug/L	50	ug/L	100.8	90.0 – 110.0	MS	23–DEC–09 03:02	091222–2
	Beryllium	52	ug/L	50	ug/L	103.9	90.0 – 110.0	MS	23–DEC–09 03:02	091222–2
	Cadmium	51.6	ug/L	50	ug/L	103.2	90.0 – 110.0	MS	23–DEC–09 03:02	091222–2
	Lead	51.2	ug/L	50	ug/L	102.5	90.0 – 110.0	MS	23–DEC–09 03:02	091222–2
	Lithium	52	ug/L	50	ug/L	104.1	90.0 – 110.0	MS	23–DEC–09 03:02	091222–2
	Manganese	52.5	ug/L	50	ug/L	105	90.0 – 110.0	MS	23–DEC–09 03:02	091222–2
	Thallium	48.8	ug/L	50	ug/L	97.6	90.0 – 110.0	MS	23–DEC–09 03:02	091222–2
	Uranium	52.9	ug/L	50	ug/L	105.9	90.0 – 110.0	MS	23–DEC–09 03:02	091222–2
	Mercury	5	ug/L	5	ug/L	100	90.0 – 110.0	AV	23–DEC–09 08:29	122309W1–3
CCV01										
	Aluminum	4960	ug/L	5000	ug/L	99.1	90.0 – 110.0	P	20–DEC–09 05:58	122009–1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-918-1

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS3,MER536,OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Arsenic	507	ug/L	500	ug/L	101.4	90.0 – 110.0	P	20-DEC-09 05:58	122009-1
	Barium	511	ug/L	500	ug/L	102.2	90.0 – 110.0	P	20-DEC-09 05:58	122009-1
	Boron	505	ug/L	500	ug/L	101.1	90.0 – 110.0	P	20-DEC-09 05:58	122009-1
	Calcium	4960	ug/L	5000	ug/L	99.2	90.0 – 110.0	P	20-DEC-09 05:58	122009-1
	Chromium	512	ug/L	500	ug/L	102.4	90.0 – 110.0	P	20-DEC-09 05:58	122009-1
	Cobalt	511	ug/L	500	ug/L	102.2	90.0 – 110.0	P	20-DEC-09 05:58	122009-1
	Copper	493	ug/L	500	ug/L	98.6	90.0 – 110.0	P	20-DEC-09 05:58	122009-1
	Iron	5100	ug/L	5000	ug/L	101.9	90.0 – 110.0	P	20-DEC-09 05:58	122009-1
	Magnesium	5160	ug/L	5000	ug/L	103.1	90.0 – 110.0	P	20-DEC-09 05:58	122009-1
	Nickel	511	ug/L	500	ug/L	102.1	90.0 – 110.0	P	20-DEC-09 05:58	122009-1
	Potassium	5010	ug/L	5000	ug/L	100.1	90.0 – 110.0	P	20-DEC-09 05:58	122009-1
	Selenium	500	ug/L	500	ug/L	100.1	90.0 – 110.0	P	20-DEC-09 05:58	122009-1
	Silicon	2490	ug/L	2500	ug/L	99.4	90.0 – 110.0	P	20-DEC-09 05:58	122009-1
	Silver	504	ug/L	500	ug/L	100.9	90.0 – 110.0	P	20-DEC-09 05:58	122009-1
	Sodium	9940	ug/L	10000	ug/L	99.4	90.0 – 110.0	P	20-DEC-09 05:58	122009-1
	Titanium	500	ug/L	500	ug/L	100	90.0 – 110.0	P	20-DEC-09 05:58	122009-1
	Vanadium	512	ug/L	500	ug/L	102.4	90.0 – 110.0	P	20-DEC-09 05:58	122009-1
	Zinc	510	ug/L	500	ug/L	101.9	90.0 – 110.0	P	20-DEC-09 05:58	122009-1
	Antimony	49.7	ug/L	50	ug/L	99.3	90.0 – 110.0	MS	23-DEC-09 03:31	091222-2
	Beryllium	48.1	ug/L	50	ug/L	96.2	90.0 – 110.0	MS	23-DEC-09 03:31	091222-2
	Cadmium	51.2	ug/L	50	ug/L	102.4	90.0 – 110.0	MS	23-DEC-09 03:31	091222-2
	Lead	51.4	ug/L	50	ug/L	102.8	90.0 – 110.0	MS	23-DEC-09 03:31	091222-2
	Lithium	51.2	ug/L	50	ug/L	102.4	90.0 – 110.0	MS	23-DEC-09 03:31	091222-2
	Manganese	52.5	ug/L	50	ug/L	105	90.0 – 110.0	MS	23-DEC-09 03:31	091222-2
	Thallium	48.5	ug/L	50	ug/L	97	90.0 – 110.0	MS	23-DEC-09 03:31	091222-2
	Uranium	53.4	ug/L	50	ug/L	106.9	90.0 – 110.0	MS	23-DEC-09 03:31	091222-2
	Mercury	4.89	ug/L	5	ug/L	97.9	80.0 – 120.0	AV	23-DEC-09 08:34	122309W1-3
CCV02										
	Aluminum	4910	ug/L	5000	ug/L	98.3	90.0 – 110.0	P	20-DEC-09 06:45	122009-1
	Arsenic	502	ug/L	500	ug/L	100.5	90.0 – 110.0	P	20-DEC-09 06:45	122009-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-918-1

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS3,MER536,OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Barium	507	ug/L	500	ug/L	101.3	90.0 – 110.0	P	20-DEC-09 06:45	122009-1
	Boron	498	ug/L	500	ug/L	99.5	90.0 – 110.0	P	20-DEC-09 06:45	122009-1
	Calcium	4910	ug/L	5000	ug/L	98.1	90.0 – 110.0	P	20-DEC-09 06:45	122009-1
	Chromium	504	ug/L	500	ug/L	100.9	90.0 – 110.0	P	20-DEC-09 06:45	122009-1
	Cobalt	507	ug/L	500	ug/L	101.4	90.0 – 110.0	P	20-DEC-09 06:45	122009-1
	Copper	487	ug/L	500	ug/L	97.4	90.0 – 110.0	P	20-DEC-09 06:45	122009-1
	Iron	5050	ug/L	5000	ug/L	101	90.0 – 110.0	P	20-DEC-09 06:45	122009-1
	Magnesium	5100	ug/L	5000	ug/L	102	90.0 – 110.0	P	20-DEC-09 06:45	122009-1
	Nickel	507	ug/L	500	ug/L	101.5	90.0 – 110.0	P	20-DEC-09 06:45	122009-1
	Potassium	4920	ug/L	5000	ug/L	98.4	90.0 – 110.0	P	20-DEC-09 06:45	122009-1
	Selenium	504	ug/L	500	ug/L	100.8	90.0 – 110.0	P	20-DEC-09 06:45	122009-1
	Silicon	2460	ug/L	2500	ug/L	98.3	90.0 – 110.0	P	20-DEC-09 06:45	122009-1
	Silver	502	ug/L	500	ug/L	100.4	90.0 – 110.0	P	20-DEC-09 06:45	122009-1
	Sodium	9890	ug/L	10000	ug/L	98.9	90.0 – 110.0	P	20-DEC-09 06:45	122009-1
	Titanium	494	ug/L	500	ug/L	98.9	90.0 – 110.0	P	20-DEC-09 06:45	122009-1
	Vanadium	507	ug/L	500	ug/L	101.5	90.0 – 110.0	P	20-DEC-09 06:45	122009-1
	Zinc	503	ug/L	500	ug/L	100.6	90.0 – 110.0	P	20-DEC-09 06:45	122009-1
	Antimony	52.1	ug/L	50	ug/L	104.1	90.0 – 110.0	MS	23-DEC-09 03:48	091222-2
	Beryllium	48.1	ug/L	50	ug/L	96.2	90.0 – 110.0	MS	23-DEC-09 03:48	091222-2
	Cadmium	51	ug/L	50	ug/L	101.9	90.0 – 110.0	MS	23-DEC-09 03:48	091222-2
	Lead	52.6	ug/L	50	ug/L	105.3	90.0 – 110.0	MS	23-DEC-09 03:48	091222-2
	Lithium	50.9	ug/L	50	ug/L	101.9	90.0 – 110.0	MS	23-DEC-09 03:48	091222-2
	Manganese	52.2	ug/L	50	ug/L	104.5	90.0 – 110.0	MS	23-DEC-09 03:48	091222-2
	Thallium	49.7	ug/L	50	ug/L	99.4	90.0 – 110.0	MS	23-DEC-09 03:48	091222-2
	Uranium	54.3	ug/L	50	ug/L	108.6	90.0 – 110.0	MS	23-DEC-09 03:48	091222-2
	Mercury	5.01	ug/L	5	ug/L	100.2	80.0 – 120.0	AV	23-DEC-09 08:58	122309W1-3
CCV03										
	Aluminum	4920	ug/L	5000	ug/L	98.4	90.0 – 110.0	P	20-DEC-09 07:18	122009-1
	Arsenic	510	ug/L	500	ug/L	102	90.0 – 110.0	P	20-DEC-09 07:18	122009-1
	Barium	508	ug/L	500	ug/L	101.5	90.0 – 110.0	P	20-DEC-09 07:18	122009-1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–918–1

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS3,MER536,OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Boron	500	ug/L	500	ug/L	100	90.0 – 110.0	P	20–DEC–09 07:18	122009–1
	Calcium	4930	ug/L	5000	ug/L	98.6	90.0 – 110.0	P	20–DEC–09 07:18	122009–1
	Chromium	507	ug/L	500	ug/L	101.4	90.0 – 110.0	P	20–DEC–09 07:18	122009–1
	Cobalt	509	ug/L	500	ug/L	101.8	90.0 – 110.0	P	20–DEC–09 07:18	122009–1
	Copper	489	ug/L	500	ug/L	97.8	90.0 – 110.0	P	20–DEC–09 07:18	122009–1
	Iron	5090	ug/L	5000	ug/L	101.8	90.0 – 110.0	P	20–DEC–09 07:18	122009–1
	Magnesium	5150	ug/L	5000	ug/L	103.1	90.0 – 110.0	P	20–DEC–09 07:18	122009–1
	Nickel	509	ug/L	500	ug/L	101.9	90.0 – 110.0	P	20–DEC–09 07:18	122009–1
	Potassium	4900	ug/L	5000	ug/L	98	90.0 – 110.0	P	20–DEC–09 07:18	122009–1
	Selenium	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	20–DEC–09 07:18	122009–1
	Silicon	2470	ug/L	2500	ug/L	98.7	90.0 – 110.0	P	20–DEC–09 07:18	122009–1
	Silver	504	ug/L	500	ug/L	100.7	90.0 – 110.0	P	20–DEC–09 07:18	122009–1
	Sodium	9880	ug/L	10000	ug/L	98.8	90.0 – 110.0	P	20–DEC–09 07:18	122009–1
	Titanium	497	ug/L	500	ug/L	99.3	90.0 – 110.0	P	20–DEC–09 07:18	122009–1
	Vanadium	509	ug/L	500	ug/L	101.8	90.0 – 110.0	P	20–DEC–09 07:18	122009–1
	Zinc	505	ug/L	500	ug/L	101	90.0 – 110.0	P	20–DEC–09 07:18	122009–1
	Antimony	49.3	ug/L	50	ug/L	98.6	90.0 – 110.0	MS	23–DEC–09 04:34	091222–2
	Beryllium	47.3	ug/L	50	ug/L	94.7	90.0 – 110.0	MS	23–DEC–09 04:34	091222–2
	Cadmium	50.6	ug/L	50	ug/L	101.2	90.0 – 110.0	MS	23–DEC–09 04:34	091222–2
	Lead	51.2	ug/L	50	ug/L	102.4	90.0 – 110.0	MS	23–DEC–09 04:34	091222–2
	Lithium	50.4	ug/L	50	ug/L	100.8	90.0 – 110.0	MS	23–DEC–09 04:34	091222–2
	Manganese	51.6	ug/L	50	ug/L	103.1	90.0 – 110.0	MS	23–DEC–09 04:34	091222–2
	Thallium	47.7	ug/L	50	ug/L	95.3	90.0 – 110.0	MS	23–DEC–09 04:34	091222–2
	Uranium	52.9	ug/L	50	ug/L	105.9	90.0 – 110.0	MS	23–DEC–09 04:34	091222–2
	Mercury	5.84	ug/L	5	ug/L	116.8	80.0 – 120.0	AV	23–DEC–09 09:22	122309W1–3
CCV04										
	Aluminum	4940	ug/L	5000	ug/L	98.9	90.0 – 110.0	P	20–DEC–09 07:55	122009–1
	Arsenic	509	ug/L	500	ug/L	101.7	90.0 – 110.0	P	20–DEC–09 07:55	122009–1
	Barium	509	ug/L	500	ug/L	101.7	90.0 – 110.0	P	20–DEC–09 07:55	122009–1
	Boron	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	20–DEC–09 07:55	122009–1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-918-1

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS3,MER536,OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Calcium	4960	ug/L	5000	ug/L	99.2	90.0 – 110.0	P	20-DEC-09 07:55	122009-1
	Chromium	508	ug/L	500	ug/L	101.6	90.0 – 110.0	P	20-DEC-09 07:55	122009-1
	Cobalt	510	ug/L	500	ug/L	102	90.0 – 110.0	P	20-DEC-09 07:55	122009-1
	Copper	489	ug/L	500	ug/L	97.9	90.0 – 110.0	P	20-DEC-09 07:55	122009-1
	Iron	5110	ug/L	5000	ug/L	102.3	90.0 – 110.0	P	20-DEC-09 07:55	122009-1
	Magnesium	5190	ug/L	5000	ug/L	103.8	90.0 – 110.0	P	20-DEC-09 07:55	122009-1
	Nickel	511	ug/L	500	ug/L	102.1	90.0 – 110.0	P	20-DEC-09 07:55	122009-1
	Potassium	4940	ug/L	5000	ug/L	98.9	90.0 – 110.0	P	20-DEC-09 07:55	122009-1
	Selenium	502	ug/L	500	ug/L	100.5	90.0 – 110.0	P	20-DEC-09 07:55	122009-1
	Silicon	2480	ug/L	2500	ug/L	99.4	90.0 – 110.0	P	20-DEC-09 07:55	122009-1
	Silver	504	ug/L	500	ug/L	100.8	90.0 – 110.0	P	20-DEC-09 07:55	122009-1
	Sodium	9980	ug/L	10000	ug/L	99.8	90.0 – 110.0	P	20-DEC-09 07:55	122009-1
	Titanium	497	ug/L	500	ug/L	99.3	90.0 – 110.0	P	20-DEC-09 07:55	122009-1
	Vanadium	509	ug/L	500	ug/L	101.9	90.0 – 110.0	P	20-DEC-09 07:55	122009-1
	Zinc	506	ug/L	500	ug/L	101.1	90.0 – 110.0	P	20-DEC-09 07:55	122009-1
	Antimony	48.9	ug/L	50	ug/L	97.8	90.0 – 110.0	MS	23-DEC-09 05:03	091222-2
	Beryllium	49.1	ug/L	50	ug/L	98.2	90.0 – 110.0	MS	23-DEC-09 05:03	091222-2
	Cadmium	51	ug/L	50	ug/L	102	90.0 – 110.0	MS	23-DEC-09 05:03	091222-2
	Lead	51.2	ug/L	50	ug/L	102.5	90.0 – 110.0	MS	23-DEC-09 05:03	091222-2
	Lithium	51.2	ug/L	50	ug/L	102.3	90.0 – 110.0	MS	23-DEC-09 05:03	091222-2
	Manganese	52.2	ug/L	50	ug/L	104.4	90.0 – 110.0	MS	23-DEC-09 05:03	091222-2
	Thallium	47	ug/L	50	ug/L	94.1	90.0 – 110.0	MS	23-DEC-09 05:03	091222-2
	Uranium	52.5	ug/L	50	ug/L	104.9	90.0 – 110.0	MS	23-DEC-09 05:03	091222-2
CCV05										
	Antimony	48.2	ug/L	50	ug/L	96.4	90.0 – 110.0	MS	23-DEC-09 05:55	091222-2
	Beryllium	50.8	ug/L	50	ug/L	101.6	90.0 – 110.0	MS	23-DEC-09 05:55	091222-2
	Cadmium	49.6	ug/L	50	ug/L	99.2	90.0 – 110.0	MS	23-DEC-09 05:55	091222-2
	Lead	51.6	ug/L	50	ug/L	103.2	90.0 – 110.0	MS	23-DEC-09 05:55	091222-2
	Lithium	51.2	ug/L	50	ug/L	102.4	90.0 – 110.0	MS	23-DEC-09 05:55	091222-2
	Manganese	51.8	ug/L	50	ug/L	103.5	90.0 – 110.0	MS	23-DEC-09 05:55	091222-2

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–918–1

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS3,MER536,OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Thallium	48.1	ug/L	50	ug/L	96.2	90.0 – 110.0	MS	23–DEC–09 05:55	091222–2
	Uranium	53.3	ug/L	50	ug/L	106.5	90.0 – 110.0	MS	23–DEC–09 05:55	091222–2

METALS
–2b–
CRDL Standard for AA & ICP

SDG No: 10–918–1

Contract: LANL01004 **Lab Code:** GEL

AA CRDL Standard Source: SPEX

ICP CRDL Standard Source Solutions Plus

Instrument ID: ICPMS3,MER536,OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Advisory Limits (%R)	M	Analysis Date/Time	Run Number
CRDL01										
	Lead	2.15	ug/L	2	ug/L	107.4	70.0 – 130.0	MS	23–DEC–09 03:14	091222–2
	Manganese	5.15	ug/L	5	ug/L	103	70.0 – 130.0	MS	23–DEC–09 03:14	091222–2
	Antimony	3.24	ug/L	3	ug/L	107.8	70.0 – 130.0	MS	23–DEC–09 03:14	091222–2
	Thallium	1.07	ug/L	1	ug/L	106.9	70.0 – 130.0	MS	23–DEC–09 03:14	091222–2
	Uranium	.223	ug/L	.2	ug/L	111.5	70.0 – 130.0	MS	23–DEC–09 03:14	091222–2
	Lithium	11.3	ug/L	10	ug/L	113.4	70.0 – 130.0	MS	23–DEC–09 03:14	091222–2
	Cadmium	1.06	ug/L	1	ug/L	106.4	70.0 – 130.0	MS	23–DEC–09 03:14	091222–2
	Beryllium	.541	ug/L	.5	ug/L	108.2	70.0 – 130.0	MS	23–DEC–09 03:14	091222–2
	Mercury	.143	ug/L	.2	ug/L	71.5	70.0 – 130.0	AV	23–DEC–09 08:32	122309W1–3
PQL01										
	Magnesium	318	ug/L	300	ug/L	106	70.0 – 130.0	P	20–DEC–09 05:42	122009–1
	Nickel	5.76	ug/L	5	ug/L	115.2	70.0 – 130.0	P	20–DEC–09 05:42	122009–1
	Potassium	138	ug/L	150	ug/L	91.8	70.0 – 130.0	P	20–DEC–09 05:42	122009–1
	Silver	5.77	ug/L	5	ug/L	115.4	70.0 – 130.0	P	20–DEC–09 05:42	122009–1
	Sodium	307	ug/L	300	ug/L	102.3	70.0 – 130.0	P	20–DEC–09 05:42	122009–1
	Arsenic	33	ug/L	30	ug/L	109.9	70.0 – 130.0	P	20–DEC–09 05:42	122009–1
	Barium	5.11	ug/L	5	ug/L	102.2	70.0 – 130.0	P	20–DEC–09 05:42	122009–1
	Chromium	4.86	ug/L	5	ug/L	97.2	70.0 – 130.0	P	20–DEC–09 05:42	122009–1
	Cobalt	5.36	ug/L	5	ug/L	107.1	70.0 – 130.0	P	20–DEC–09 05:42	122009–1
	Iron	132	ug/L	100	ug/L	132.1	70.0 – 130.0	P	20–DEC–09 05:42	122009–1
	Aluminum	209	ug/L	200	ug/L	104.6	70.0 – 130.0	P	20–DEC–09 05:42	122009–1
	Copper	9.83	ug/L	10	ug/L	98.3	70.0 – 130.0	P	20–DEC–09 05:42	122009–1
	Vanadium	5.52	ug/L	5	ug/L	110.4	70.0 – 130.0	P	20–DEC–09 05:42	122009–1
	Zinc	10.2	ug/L	10	ug/L	101.7	70.0 – 130.0	P	20–DEC–09 05:42	122009–1
	Calcium	204	ug/L	200	ug/L	102.2	70.0 – 130.0	P	20–DEC–09 05:42	122009–1
	Selenium	24.1	ug/L	30	ug/L	80.3	70.0 – 130.0	P	20–DEC–09 05:42	122009–1
	Boron	51.1	ug/L	50	ug/L	102.2	70.0 – 130.0	P	20–DEC–09 05:42	122009–1
	Silicon	98.6	ug/L	100	ug/L	98.6	70.0 – 130.0	P	20–DEC–09 05:42	122009–1
	Titanium	4.97	ug/L	5	ug/L	99.4	70.0 – 130.0	P	20–DEC–09 05:42	122009–1

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-918-1

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
ICB01										
	Aluminum	68.0	+/-200	U	68.0	200	LIQ	P	20-DEC-09 05:38	122009-1
	Arsenic	5.0	+/-30	U	5.0	30.0	LIQ	P	20-DEC-09 05:38	122009-1
	Barium	1.0	+/-5	U	1.0	5.0	LIQ	P	20-DEC-09 05:38	122009-1
	Boron	15.0	+/-50	U	15.0	50.0	LIQ	P	20-DEC-09 05:38	122009-1
	Calcium	50.0	+/-200	U	50.0	200	LIQ	P	20-DEC-09 05:38	122009-1
	Chromium	1.0	+/-5	U	1.0	5.0	LIQ	P	20-DEC-09 05:38	122009-1
	Cobalt	1.0	+/-5	U	1.0	5.0	LIQ	P	20-DEC-09 05:38	122009-1
	Copper	3.0	+/-10	U	3.0	10.0	LIQ	P	20-DEC-09 05:38	122009-1
	Iron	30.0	+/-100	U	30.0	100	LIQ	P	20-DEC-09 05:38	122009-1
	Magnesium	85.0	+/-300	U	85.0	300	LIQ	P	20-DEC-09 05:38	122009-1
	Nickel	1.5	+/-5	U	1.5	5.0	LIQ	P	20-DEC-09 05:38	122009-1
	Potassium	50.0	+/-150	U	50.0	150	LIQ	P	20-DEC-09 05:38	122009-1
	Selenium	-8.37	+/-30	J	5.0	30.0	LIQ	P	20-DEC-09 05:38	122009-1
	Silicon	25.0	+/-100	U	25.0	100	LIQ	P	20-DEC-09 05:38	122009-1
	Silver	1.0	+/-5	U	1.0	5.0	LIQ	P	20-DEC-09 05:38	122009-1
	Sodium	100	+/-300	U	100	300	LIQ	P	20-DEC-09 05:38	122009-1
	Titanium	1.0	+/-5	U	1.0	5.0	LIQ	P	20-DEC-09 05:38	122009-1
	Vanadium	1.0	+/-5	U	1.0	5.0	LIQ	P	20-DEC-09 05:38	122009-1
	Zinc	3.3	+/-10	U	3.3	10.0	LIQ	P	20-DEC-09 05:38	122009-1
	Antimony	1.0	+/-3	U	1.0	3.0	LIQ	MS	23-DEC-09 03:08	091222-2
	Beryllium	0.1	+/-.5	U	0.1	0.5	LIQ	MS	23-DEC-09 03:08	091222-2
	Cadmium	0.11	+/-1	U	0.11	1.0	LIQ	MS	23-DEC-09 03:08	091222-2
	Lead	0.5	+/-2	U	0.5	2.0	LIQ	MS	23-DEC-09 03:08	091222-2
	Lithium	2.0	+/-10	U	2.0	10.0	LIQ	MS	23-DEC-09 03:08	091222-2
	Manganese	1.0	+/-5	U	1.0	5.0	LIQ	MS	23-DEC-09 03:08	091222-2
	Thallium	0.3	+/-1	U	0.3	1.0	LIQ	MS	23-DEC-09 03:08	091222-2
	Uranium	0.05	+/-.2	U	0.05	0.2	LIQ	MS	23-DEC-09 03:08	091222-2
	Mercury	0.066	+/-.2	U	0.066	0.2	LIQ	AV	23-DEC-09 08:30	122309W1-3
CCB01										
	Aluminum	68.0	+/-200	U	68.0	200	LIQ	P	20-DEC-09 06:02	122009-1
	Arsenic	5.0	+/-30	U	5.0	30.0	LIQ	P	20-DEC-09 06:02	122009-1

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-918-1

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Barium	1.78	+/-5	J	1.0	5.0	LIQ	P	20-DEC-09 06:02	122009-1
	Boron	15.0	+/-50	U	15.0	50.0	LIQ	P	20-DEC-09 06:02	122009-1
	Calcium	50.0	+/-200	U	50.0	200	LIQ	P	20-DEC-09 06:02	122009-1
	Chromium	1.89	+/-5	J	1.0	5.0	LIQ	P	20-DEC-09 06:02	122009-1
	Cobalt	1.14	+/-5	J	1.0	5.0	LIQ	P	20-DEC-09 06:02	122009-1
	Copper	3.0	+/-10	U	3.0	10.0	LIQ	P	20-DEC-09 06:02	122009-1
	Iron	49.58	+/-100	J	30.0	100	LIQ	P	20-DEC-09 06:02	122009-1
	Magnesium	85.0	+/-300	U	85.0	300	LIQ	P	20-DEC-09 06:02	122009-1
	Nickel	2.09	+/-5	J	1.5	5.0	LIQ	P	20-DEC-09 06:02	122009-1
	Potassium	50.0	+/-150	U	50.0	150	LIQ	P	20-DEC-09 06:02	122009-1
	Selenium	-7.36	+/-30	J	5.0	30.0	LIQ	P	20-DEC-09 06:02	122009-1
	Silicon	25.0	+/-100	U	25.0	100	LIQ	P	20-DEC-09 06:02	122009-1
	Silver	1.0	+/-5	U	1.0	5.0	LIQ	P	20-DEC-09 06:02	122009-1
	Sodium	100	+/-300	U	100	300	LIQ	P	20-DEC-09 06:02	122009-1
	Titanium	1.16	+/-5	J	1.0	5.0	LIQ	P	20-DEC-09 06:02	122009-1
	Vanadium	1.0	+/-5	U	1.0	5.0	LIQ	P	20-DEC-09 06:02	122009-1
	Zinc	3.3	+/-10	U	3.3	10.0	LIQ	P	20-DEC-09 06:02	122009-1
	Antimony	1.0	+/-3	U	1.0	3.0	LIQ	MS	23-DEC-09 03:36	091222-2
	Beryllium	0.1	+/-.5	U	0.1	0.5	LIQ	MS	23-DEC-09 03:36	091222-2
	Cadmium	0.11	+/-1	U	0.11	1.0	LIQ	MS	23-DEC-09 03:36	091222-2
	Lead	0.5	+/-2	U	0.5	2.0	LIQ	MS	23-DEC-09 03:36	091222-2
	Lithium	2.0	+/-10	U	2.0	10.0	LIQ	MS	23-DEC-09 03:36	091222-2
	Manganese	1.0	+/-5	U	1.0	5.0	LIQ	MS	23-DEC-09 03:36	091222-2
	Thallium	0.3	+/-1	U	0.3	1.0	LIQ	MS	23-DEC-09 03:36	091222-2
	Uranium	0.05	+/-.2	U	0.05	0.2	LIQ	MS	23-DEC-09 03:36	091222-2
	Mercury	0.066	+/-.2	U	0.066	0.2	LIQ	AV	23-DEC-09 08:36	122309W1-3
CCB02										
	Aluminum	68.0	+/-200	U	68.0	200	LIQ	P	20-DEC-09 06:49	122009-1
	Arsenic	5.0	+/-30	U	5.0	30.0	LIQ	P	20-DEC-09 06:49	122009-1
	Barium	1.0	+/-5	U	1.0	5.0	LIQ	P	20-DEC-09 06:49	122009-1
	Boron	15.0	+/-50	U	15.0	50.0	LIQ	P	20-DEC-09 06:49	122009-1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–918–1

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	20–DEC–09 06:49	122009–1
	Chromium	1.0	+/–5	U	1.0	5.0	LIQ	P	20–DEC–09 06:49	122009–1
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	20–DEC–09 06:49	122009–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	20–DEC–09 06:49	122009–1
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	20–DEC–09 06:49	122009–1
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	20–DEC–09 06:49	122009–1
	Nickel	1.5	+/–5	U	1.5	5.0	LIQ	P	20–DEC–09 06:49	122009–1
	Potassium	50.0	+/–150	U	50.0	150	LIQ	P	20–DEC–09 06:49	122009–1
	Selenium	–11.28	+/–30	J	5.0	30.0	LIQ	P	20–DEC–09 06:49	122009–1
	Silicon	25.0	+/–100	U	25.0	100	LIQ	P	20–DEC–09 06:49	122009–1
	Silver	1.0	+/–5	U	1.0	5.0	LIQ	P	20–DEC–09 06:49	122009–1
	Sodium	100	+/–300	U	100	300	LIQ	P	20–DEC–09 06:49	122009–1
	Titanium	1.0	+/–5	U	1.0	5.0	LIQ	P	20–DEC–09 06:49	122009–1
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	20–DEC–09 06:49	122009–1
	Zinc	3.3	+/–10	U	3.3	10.0	LIQ	P	20–DEC–09 06:49	122009–1
	Antimony	1.03	+/–3	J	1.0	3.0	LIQ	MS	23–DEC–09 03:54	091222–2
	Beryllium	0.1	+/–.5	U	0.1	0.5	LIQ	MS	23–DEC–09 03:54	091222–2
	Cadmium	0.11	+/–1	U	0.11	1.0	LIQ	MS	23–DEC–09 03:54	091222–2
	Lead	0.5	+/–2	U	0.5	2.0	LIQ	MS	23–DEC–09 03:54	091222–2
	Lithium	2.0	+/–10	U	2.0	10.0	LIQ	MS	23–DEC–09 03:54	091222–2
	Manganese	1.0	+/–5	U	1.0	5.0	LIQ	MS	23–DEC–09 03:54	091222–2
	Thallium	0.368	+/–1	J	0.3	1.0	LIQ	MS	23–DEC–09 03:54	091222–2
	Uranium	0.067	+/–.2	J	0.05	0.2	LIQ	MS	23–DEC–09 03:54	091222–2
	Mercury	–0.097	+/–.2	J	0.066	0.2	LIQ	AV	23–DEC–09 09:00	122309W1–3
CCB03										
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	20–DEC–09 07:22	122009–1
	Arsenic	5.0	+/–30	U	5.0	30.0	LIQ	P	20–DEC–09 07:22	122009–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	20–DEC–09 07:22	122009–1
	Boron	15.0	+/–50	U	15.0	50.0	LIQ	P	20–DEC–09 07:22	122009–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	20–DEC–09 07:22	122009–1
	Chromium	1.0	+/–5	U	1.0	5.0	LIQ	P	20–DEC–09 07:22	122009–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–918–1

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	20–DEC–09 07:22	122009–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	20–DEC–09 07:22	122009–1
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	20–DEC–09 07:22	122009–1
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	20–DEC–09 07:22	122009–1
	Nickel	1.5	+/–5	U	1.5	5.0	LIQ	P	20–DEC–09 07:22	122009–1
	Potassium	50.0	+/–150	U	50.0	150	LIQ	P	20–DEC–09 07:22	122009–1
	Selenium	5.0	+/–30	U	5.0	30.0	LIQ	P	20–DEC–09 07:22	122009–1
	Silicon	25.0	+/–100	U	25.0	100	LIQ	P	20–DEC–09 07:22	122009–1
	Silver	1.0	+/–5	U	1.0	5.0	LIQ	P	20–DEC–09 07:22	122009–1
	Sodium	100	+/–300	U	100	300	LIQ	P	20–DEC–09 07:22	122009–1
	Titanium	1.0	+/–5	U	1.0	5.0	LIQ	P	20–DEC–09 07:22	122009–1
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	20–DEC–09 07:22	122009–1
	Zinc	3.3	+/–10	U	3.3	10.0	LIQ	P	20–DEC–09 07:22	122009–1
	Antimony	1.0	+/–3	U	1.0	3.0	LIQ	MS	23–DEC–09 04:40	091222–2
	Beryllium	0.1	+/–.5	U	0.1	0.5	LIQ	MS	23–DEC–09 04:40	091222–2
	Cadmium	0.11	+/–1	U	0.11	1.0	LIQ	MS	23–DEC–09 04:40	091222–2
	Lead	0.5	+/–2	U	0.5	2.0	LIQ	MS	23–DEC–09 04:40	091222–2
	Lithium	2.0	+/–10	U	2.0	10.0	LIQ	MS	23–DEC–09 04:40	091222–2
	Manganese	1.0	+/–5	U	1.0	5.0	LIQ	MS	23–DEC–09 04:40	091222–2
	Thallium	0.702	+/–1	J	0.3	1.0	LIQ	MS	23–DEC–09 04:40	091222–2
	Uranium	0.05	+/–.2	U	0.05	0.2	LIQ	MS	23–DEC–09 04:40	091222–2
	Mercury	–0.104	+/–.2	J	0.066	0.2	LIQ	AV	23–DEC–09 09:24	122309W1–3
CCB04										
	Antimony	1.0	+/–3	U	1.0	3.0	LIQ	MS	23–DEC–09 05:09	091222–2
	Beryllium	0.1	+/–.5	U	0.1	0.5	LIQ	MS	23–DEC–09 05:09	091222–2
	Cadmium	0.11	+/–1	U	0.11	1.0	LIQ	MS	23–DEC–09 05:09	091222–2
	Lead	0.5	+/–2	U	0.5	2.0	LIQ	MS	23–DEC–09 05:09	091222–2
	Lithium	2.0	+/–10	U	2.0	10.0	LIQ	MS	23–DEC–09 05:09	091222–2
	Manganese	1.0	+/–5	U	1.0	5.0	LIQ	MS	23–DEC–09 05:09	091222–2
	Thallium	0.398	+/–1	J	0.3	1.0	LIQ	MS	23–DEC–09 05:09	091222–2
	Uranium	0.05	+/–.2	U	0.05	0.2	LIQ	MS	23–DEC–09 05:09	091222–2

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-918-1

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
CCB05										
	Antimony	1.0	+/-3	U	1.0	3.0	LIQ	MS	23-DEC-09 06:01	091222-2
	Beryllium	0.1	+/-.5	U	0.1	0.5	LIQ	MS	23-DEC-09 06:01	091222-2
	Cadmium	0.11	+/-1	U	0.11	1.0	LIQ	MS	23-DEC-09 06:01	091222-2
	Lead	0.5	+/-2	U	0.5	2.0	LIQ	MS	23-DEC-09 06:01	091222-2
	Lithium	2.0	+/-10	U	2.0	10.0	LIQ	MS	23-DEC-09 06:01	091222-2
	Manganese	1.0	+/-5	U	1.0	5.0	LIQ	MS	23-DEC-09 06:01	091222-2
	Thallium	0.36	+/-1	J	0.3	1.0	LIQ	MS	23-DEC-09 06:01	091222-2
	Uranium	0.05	+/-.2	U	0.05	0.2	LIQ	MS	23-DEC-09 06:01	091222-2

METALS
-3b-
PREPARATION BLANK SUMMARY

SDG NO. 10-918-1

Contract: LANL01004

Matrix: WATER

Sample ID	Analyte	Result	Units	Acceptance Window	Conc Qual	M	MDL	RDL
1201998460								
	Antimony	1	ug/L	+/-3	U	MS	1	3
	Beryllium	0.1	ug/L	+/-0.5	U	MS	0.1	0.5
	Cadmium	0.11	ug/L	+/-1	U	MS	0.11	1
	Lead	0.5	ug/L	+/-2	U	MS	0.5	2
	Uranium	0.05	ug/L	+/-0.2	U	MS	0.05	0.2
	Thallium	0.3	ug/L	+/-1	U	MS	0.3	1
	Manganese	1	ug/L	+/-5	U	MS	1	5
	Lithium	2	ug/L	+/-10	U	MS	2	10
1201998469								
	Aluminum	68	ug/L	+/-200	U	P	68	200
	Arsenic	6.55	ug/L	+/-30	J	P	5	30
	Barium	1	ug/L	+/-5	U	P	1	5
	Boron	15	ug/L	+/-50	U	P	15	50
	Calcium	50	ug/L	+/-200	U	P	50	200
	Chromium	1	ug/L	+/-5	U	P	1	5
	Cobalt	1	ug/L	+/-5	U	P	1	5
	Copper	3	ug/L	+/-10	U	P	3	10
	Iron	30	ug/L	+/-100	U	P	30	100
	Magnesium	85	ug/L	+/-300	U	P	85	300
	Nickel	1.5	ug/L	+/-5	U	P	1.5	5
	Potassium	50	ug/L	+/-150	U	P	50	150
	Selenium	-9.35	ug/L	+/-30	J	P	5	30
	Silicon	25	ug/L	+/-100	U	P	25	100
	Silver	1	ug/L	+/-5	U	P	1	5
	Sodium	100	ug/L	+/-300	U	P	100	300
	Titanium	1	ug/L	+/-5	U	P	1	5
	Vanadium	1	ug/L	+/-5	U	P	1	5
	Zinc	3.3	ug/L	+/-10	U	P	3.3	10
1202000160								
	Mercury	0.066	ug/L	+/-0.2	U	AV	0.066	0.2

METALS
–4–
Interference Check Sample

SDG No: 10–918–1

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Aluminum	493000	ug/L	500000	ug/L	98.7	80.0 – 120.0	20–DEC–09 05:46	122009–1
	Arsenic	–28.9	ug/L					20–DEC–09 05:46	122009–1
	Barium	5.74	ug/L					20–DEC–09 05:46	122009–1
	Boron	23.7	ug/L					20–DEC–09 05:46	122009–1
	Calcium	474000	ug/L	500000	ug/L	94.8	80.0 – 120.0	20–DEC–09 05:46	122009–1
	Chromium	–3.23	ug/L					20–DEC–09 05:46	122009–1
	Cobalt	–1.15	ug/L					20–DEC–09 05:46	122009–1
	Copper	7.27	ug/L					20–DEC–09 05:46	122009–1
	Iron	186000	ug/L	200000	ug/L	93.2	80.0 – 120.0	20–DEC–09 05:46	122009–1
	Magnesium	480000	ug/L	500000	ug/L	96	80.0 – 120.0	20–DEC–09 05:46	122009–1
	Nickel	–0.119	ug/L					20–DEC–09 05:46	122009–1
	Potassium	–85.8	ug/L					20–DEC–09 05:46	122009–1
	Selenium	12.3	ug/L					20–DEC–09 05:46	122009–1
	Silicon	16.7	ug/L					20–DEC–09 05:46	122009–1
	Silver	–4.19	ug/L					20–DEC–09 05:46	122009–1
	Sodium	15.3	ug/L					20–DEC–09 05:46	122009–1
	Titanium	–1.1	ug/L					20–DEC–09 05:46	122009–1
	Vanadium	–2.35	ug/L					20–DEC–09 05:46	122009–1
	Zinc	4.2	ug/L					20–DEC–09 05:46	122009–1
ICSAB01									
	Aluminum	498000	ug/L	500000	ug/L	99.7	80.0 – 120.0	20–DEC–09 05:49	122009–1
	Arsenic	482	ug/L	500	ug/L	96.5	80.0 – 120.0	20–DEC–09 05:49	122009–1
	Barium	509	ug/L	500	ug/L	102	80.0 – 120.0	20–DEC–09 05:49	122009–1
	Boron	549	ug/L	500	ug/L	110	80.0 – 120.0	20–DEC–09 05:49	122009–1
	Calcium	478000	ug/L	500000	ug/L	95.7	80.0 – 120.0	20–DEC–09 05:49	122009–1
	Chromium	494	ug/L	500	ug/L	98.8	80.0 – 120.0	20–DEC–09 05:49	122009–1
	Cobalt	444	ug/L	500	ug/L	88.8	80.0 – 120.0	20–DEC–09 05:49	122009–1
	Copper	553	ug/L	500	ug/L	111	80.0 – 120.0	20–DEC–09 05:49	122009–1
	Iron	188000	ug/L	200000	ug/L	93.8	80.0 – 120.0	20–DEC–09 05:49	122009–1

METALS
-4-
Interference Check Sample

SDG No: 10-918-1

Contract: LANL01004 **Lab Code:** GEL

ICS:

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
	Magnesium	485000	ug/L	500000	ug/L	97	80.0 – 120.0	20-DEC-09 05:49	122009-1
	Nickel	447	ug/L	500	ug/L	89.3	80.0 – 120.0	20-DEC-09 05:49	122009-1
	Potassium	5080	ug/L	5000	ug/L	102	80.0 – 120.0	20-DEC-09 05:49	122009-1
	Selenium	2390	ug/L	2500	ug/L	95.5	80.0 – 120.0	20-DEC-09 05:49	122009-1
	Silicon	5210	ug/L	5000	ug/L	104	80.0 – 120.0	20-DEC-09 05:49	122009-1
	Silver	265	ug/L	250	ug/L	106	80.0 – 120.0	20-DEC-09 05:49	122009-1
	Sodium	5060	ug/L	5000	ug/L	101	80.0 – 120.0	20-DEC-09 05:49	122009-1
	Titanium	501	ug/L	500	ug/L	100	80.0 – 120.0	20-DEC-09 05:49	122009-1
	Vanadium	524	ug/L	500	ug/L	105	80.0 – 120.0	20-DEC-09 05:49	122009-1
	Zinc	489	ug/L	500	ug/L	97.8	80.0 – 120.0	20-DEC-09 05:49	122009-1

METALS
–4–
Interference Check Sample

SDG No: 10–918–1

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: ICPMS3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Antimony	0.162	ug/L					23–DEC–09 03:19	091222–2
	Beryllium	0.11	ug/L					23–DEC–09 03:19	091222–2
	Cadmium	0.306	ug/L					23–DEC–09 03:19	091222–2
	Lead	0.176	ug/L					23–DEC–09 03:19	091222–2
	Lithium	0.028	ug/L					23–DEC–09 03:19	091222–2
	Manganese	5.51	ug/L					23–DEC–09 03:19	091222–2
	Thallium	0.023	ug/L					23–DEC–09 03:19	091222–2
	Uranium	–0.008	ug/L					23–DEC–09 03:19	091222–2
ICSAB01									
	Antimony	21.4	ug/L	20.1	ug/L	107	80.0 – 120.0	23–DEC–09 03:25	091222–2
	Beryllium	18.8	ug/L	20	ug/L	94	80.0 – 120.0	23–DEC–09 03:25	091222–2
	Cadmium	20.5	ug/L	20.4	ug/L	100	80.0 – 120.0	23–DEC–09 03:25	091222–2
	Lead	20.0	ug/L	20.5	ug/L	97.7	80.0 – 120.0	23–DEC–09 03:25	091222–2
	Lithium	19.7	ug/L	20	ug/L	98.6	80.0 – 120.0	23–DEC–09 03:25	091222–2
	Manganese	26.2	ug/L	25.8	ug/L	102	80.0 – 120.0	23–DEC–09 03:25	091222–2
	Thallium	18.9	ug/L	20	ug/L	94.4	80.0 – 120.0	23–DEC–09 03:25	091222–2
	Uranium	21.6	ug/L	20	ug/L	108	80.0 – 120.0	23–DEC–09 03:25	091222–2

METALS
-5a-
Matrix Spike Summary

SDG NO. 10-918-1 **Client ID** RE03-10-2747S

Contract: LANL01004 **Level:** Low

Matrix: WATER **% Solids:**

Sample ID: 242940001 **Spike ID:** 1201998463

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Antimony	ug/L	75-125	218		1	U	200	109		MS
Beryllium	ug/L	75-125	54.5		0.1	U	50	109		MS
Cadmium	ug/L	75-125	10.5		0.11	U	10	105		MS
Lead	ug/L	75-125	42.6		0.5	U	40	106		MS
Lithium	ug/L	75-125	51.4		2	U	50	103		MS
Manganese	ug/L	75-125	52.3		1	U	50	105		MS
Thallium	ug/L	75-125	95.1		0.701	J	100	94.4		MS
Uranium	ug/L	75-125	54.1		0.05	U	50	108		MS

METALS
-5a-

Matrix Spike Summary

SDG NO. 10-918-1 **Client ID** RE03-10-2747S

Contract: LANL01004 **Level:** Low

Matrix: WATER **% Solids:**

Sample ID: 242940001 **Spike ID:** 1201998472

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Aluminum	ug/L	75-125	5100		68	U	5000	102		P
Arsenic	ug/L	75-125	525		5	U	500	105		P
Barium	ug/L	75-125	532		1	U	500	106		P
Boron	ug/L	75-125	512		15	U	500	102		P
Calcium	ug/L	75-125	5070		50	U	5000	101		P
Chromium	ug/L	75-125	526		1	U	500	105		P
Cobalt	ug/L	75-125	519		1	U	500	104		P
Copper	ug/L	75-125	509		3	U	500	102		P
Iron	ug/L	75-125	5290		30	U	5000	105		P
Magnesium	ug/L	75-125	5320		85	U	5000	106		P
Nickel	ug/L	75-125	530		1.5	U	500	106		P
Potassium	ug/L	75-125	5060		50	U	5000	101		P
Selenium	ug/L	75-125	497		5	U	500	99.4		P
Silicon	ug/L	75-125	5040		25	U	5000	101		P
Silver	ug/L	75-125	514		1.04	J	500	103		P
Sodium	ug/L	75-125	5130		100	U	5000	102		P
Titanium	ug/L	75-125	516		1	U	500	103		P
Vanadium	ug/L	75-125	529		1	U	500	106		P
Zinc	ug/L	75-125	509		3.3	U	500	101		P

METALS
-5a-
Matrix Spike Summary

SDG NO. 10-918-1 **Client ID** RE16-10-225S

Contract: LANL01004 **Level:** Low

Matrix: WATER **% Solids:**

Sample ID: 243108001 **Spike ID:** 1202000163

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Mercury	ug/L	75-125	2.07		0.066	U	2	104		AV

Metals
-6-
Duplicate Sample Summary

SDG No.: 10-918-1

Contract: LANL01004 **Lab Code:** GEL

Matrix: LIQUID **Level:** Low **Client ID:** RE03-10-2747D

Sample ID: 242940001 **Duplicate ID:** 1201998462 **Percent Solids for Dup:** N/A

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Antimony	ug/L		1	U	1	U			MS
Beryllium	ug/L		0.1	U	0.1	U			MS
Cadmium	ug/L		0.11	U	0.11	U			MS
Lead	ug/L		0.5	U	0.5	U			MS
Lithium	ug/L		2	U	2	U			MS
Manganese	ug/L		1	U	1	U			MS
Thallium	ug/L		0.701	J	0.3	U	200		MS
Uranium	ug/L		0.05	U	0.05	U			MS

Metals
-6-
Duplicate Sample Summary

SDG No.: 10-918-1

Contract: LANL01004 **Lab Code:** GEL

Matrix: LIQUID **Level:** Low **Client ID:** RE03-10-2747D

Sample ID: 242940001 **Duplicate ID:** 1201998471 **Percent Solids for Dup:** N/A

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	ug/L		68	U	68	U			P
Arsenic	ug/L		5	U	5	U			P
Barium	ug/L		1	U	1	U			P
Boron	ug/L		15	U	15	U			P
Calcium	ug/L		50	U	50	U			P
Chromium	ug/L		1	U	1	U			P
Cobalt	ug/L		1	U	1	U			P
Copper	ug/L		3	U	3	U			P
Iron	ug/L		30	U	30	U			P
Magnesium	ug/L		85	U	85	U			P
Nickel	ug/L		1.5	U	1.5	U			P
Potassium	ug/L		50	U	50	U			P
Selenium	ug/L		5	U	5	U			P
Silicon	ug/L		25	U	25	U			P
Silver	ug/L		1.04	J	1	U	200		P
Sodium	ug/L		100	U	100	U			P
Titanium	ug/L		1	U	1	U			P
Vanadium	ug/L		1	U	1	U			P
Zinc	ug/L		3.3	U	3.3	U			P

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–918–1

Contract: LANL01004 **Lab Code:** GEL

Matrix: LIQUID **Level:** Low **Client ID:** RE16–10–225D

Sample ID: 243108001 **Duplicate ID:** 1202000162 **Percent Solids for Dup:** N/A

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Mercury	ug/L		0.066	U	0.066	U			AV

METALS
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Laboratory Control Sample Summary

SDG NO. 10–918–1

Contract: LANL01004

Aqueous LCS Source:O2si **Solid LCS Source:**

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1201998461								
	Antimony	ug/L	50	54.3		109	80–120	MS
	Beryllium	ug/L	50	55		110	80–120	MS
	Cadmium	ug/L	50	51.9		104	80–120	MS
	Lead	ug/L	50	53.8		108	80–120	MS
	Lithium	ug/L	50	51.9		104	80–120	MS
	Manganese	ug/L	50	53.4		107	80–120	MS
	Thallium	ug/L	50	47.8		95.6	80–120	MS
	Uranium	ug/L	50	55.3		111	80–120	MS

METALS
-7-
Laboratory Control Sample Summary

SDG NO. 10-918-1

Contract: LANL01004

Aqueous LCS Source: OS2I **Solid LCS Source:**

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1201998470								
	Nickel	ug/L	500	529		106	80-120	P
	Potassium	ug/L	5000	5070		101	80-120	P
	Selenium	ug/L	500	499		99.8	80-120	P
	Silicon	ug/L	5000	5030		101	80-120	P
	Silver	ug/L	500	516		103	80-120	P
	Sodium	ug/L	5000	5110		102	80-120	P
	Titanium	ug/L	500	513		103	80-120	P
	Vanadium	ug/L	500	527		105	80-120	P
	Zinc	ug/L	500	509		102	80-120	P
	Aluminum	ug/L	5000	5080		102	80-120	P
	Arsenic	ug/L	500	525		105	80-120	P
	Barium	ug/L	500	533		107	80-120	P
	Boron	ug/L	500	513		103	80-120	P
	Calcium	ug/L	5000	5180		104	80-120	P
	Chromium	ug/L	500	523		105	80-120	P
	Cobalt	ug/L	500	519		104	80-120	P
	Copper	ug/L	500	506		101	80-120	P
	Iron	ug/L	5000	5270		105	80-120	P
	Magnesium	ug/L	5000	5290		106	80-120	P

METALS
-7-
Laboratory Control Sample Summary

SDG NO. 10-918-1

Contract: LANL01004

Aqueous LCS Source:GEL **Solid LCS Source:**

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202000161								
	Mercury	ug/L	2	2.02		101	80-120	AV

METALS
-9-
Serial Dilution Sample Summary

SDG NO. 10-918-1 **Client ID** RE03-10-2747L

Contract: LANL01004

Matrix: LIQUID **Level:** Low

Sample ID: 242940001 **Serial Dilution ID:** 1201998464

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Antimony	1	U	5	U				MS
Beryllium	.1	U	.5	U				MS
Cadmium	.11	U	.55	U				MS
Lead	.5	U	2.5	U				MS
Lithium	2	U	10	U				MS
Manganese	1	U	5	U				MS
Thallium	.701	J	4.32	J	516			MS
Uranium	.05	U	.25	U				MS

METALS
-9-
Serial Dilution Sample Summary

SDG NO. 10-918-1 **Client ID** RE03-10-2747L

Contract: LANL01004

Matrix: LIQUID **Level:** Low

Sample ID: 242940001 **Serial Dilution ID:** 1201998473

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Aluminum	68	U	340	U				P
Arsenic	5	U	25	U				P
Barium	1	U	5	U				P
Boron	15	U	75	U				P
Calcium	50	U	250	U				P
Chromium	1	U	5	U				P
Cobalt	1	U	5	U				P
Copper	3	U	15	U				P
Iron	30	U	150	U				P
Magnesium	85	U	425	U				P
Nickel	1.5	U	7.5	U				P
Potassium	50	U	250	U				P
Selenium	5	U	25	U				P
Silicon	25	U	125	U				P
Silver	1.04	J	5	U	100			P
Sodium	100	U	500	U				P
Titanium	1	U	5	U				P
Vanadium	1	U	5	U				P
Zinc	3.3	U	16.5	U				P

METALS
–9–
Serial Dilution Sample Summary

SDG NO. 10–918–1 **Client ID** RE16–10–225L

Contract: LANL01004

Matrix: LIQUID **Level:** Low

Sample ID: 243108001 **Serial Dilution ID:** 1202000164

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Mercury	.066	U	.33	U				AV

METALS
–13–
SAMPLE PREPARATION SUMMARY

SDG No: 10–918–1 **Method Type:** P

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number	934067						
1201998469	MB for batch 934067	MB	W	19–DEC–09	50mL	50mL	
1201998470	LCS for batch 934067	LCS	W	19–DEC–09	50mL	50mL	
1201998472	RE03–10–2747S	MS	W	19–DEC–09	50mL	50mL	
1201998471	RE03–10–2747D	DUP	W	19–DEC–09	50mL	50mL	
242940001	RE03–10–2747	SAMPLE	W	19–DEC–09	50mL	50mL	
242940002	RE03–10–2761	SAMPLE	W	19–DEC–09	50mL	50mL	

METALS
–13–
SAMPLE PREPARATION SUMMARY

SDG No: 10–918–1 **Method Type**: MS

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number	934062						
1201998460	MB for batch 934062	MB	W	19–DEC–09	50mL	50mL	
1201998461	LCS for batch 934062	LCS	W	19–DEC–09	50mL	50mL	
1201998463	RE03–10–2747S	MS	W	19–DEC–09	50mL	50mL	
1201998462	RE03–10–2747D	DUP	W	19–DEC–09	50mL	50mL	
242940001	RE03–10–2747	SAMPLE	W	19–DEC–09	50mL	50mL	
242940002	RE03–10–2761	SAMPLE	W	19–DEC–09	50mL	50mL	

METALS
-13-
SAMPLE PREPARATION SUMMARY

SDG No: 10-918-1 **Method Type:** AV

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number	934863						
1202000160	MB for batch 934863	MB	W	22-DEC-09	20mL	20mL	
1202000161	LCS for batch 934863	LCS	W	22-DEC-09	20mL	20mL	
1202000163	RE16-10-225S	MS	W	22-DEC-09	20mL	20mL	
1202000162	RE16-10-225D	DUP	W	22-DEC-09	20mL	20mL	
242940001	RE03-10-2747	SAMPLE	W	22-DEC-09	20mL	20mL	
242940002	RE03-10-2761	SAMPLE	W	22-DEC-09	20mL	20mL	

Metals
-14-
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: MER536
Start Date: 23-DEC-09 **End Date:** 23-DEC-09

Client Sdg: 10-918-1
Method AV
Data File: 122309W1-3

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Li	Mg	Mn	Hg	Ni	K	Se	Si	Ag	Na	Tl	Ti	U	V	Zn
S0.0	1	08:17																	X											
S0.2	1	08:19																	X											
S0.5	1	08:20																	X											
S2.0	1	08:22																	X											
S5.0	1	08:24																	X											
S10	1	08:26																	X											
ICV01	1	08:29																	X											
ICB01	1	08:30																	X											
CRDL01	1	08:32																	X											
CCV01	1	08:34																	X											
CCB01	1	08:36																	X											
1202000160	1	08:38																	X											
1202000161	1	08:40																	X											
ZZZZZZ	1	08:42																												
ZZZZZZ	1	08:44																												
ZZZZZZ	1	08:47																												
ZZZZZZ	1	08:49																												
242940001	1	08:50																	X											
242940002	1	08:52																	X											
ZZZZZZ	1	08:54																												
ZZZZZZ	1	08:56																												
CCV02	1	08:58																	X											
CCB02	1	09:00																	X											
1202000162	1	09:02																	X											
1202000163	1	09:04																	X											
1202000164	5	09:06																	X											
ZZZZZZ	1	09:08																												
ZZZZZZ	1	09:10																												
ZZZZZZ	1	09:12																												
ZZZZZZ	1	09:14																												
ZZZZZZ	1	09:16																												
ZZZZZZ	1	09:18																												
ZZZZZZ	5	09:20																												
CCV03	1	09:22																	X											
CCB03	1	09:24																	X											

Metals
-14-
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: ICPMS3
Start Date: 23-DEC-09 **End Date:** 23-DEC-09

Client Sdg: 10-918-1
Method MS
Data File: 091222-2

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Li	Mg	Mn	Hg	Ni	K	Se	Si	Ag	Na	Tl	Ti	U	V	Zn
S0.0	1	02:45		X			X		X						X	X		X								X		X		
S10	1	02:51		X			X		X						X	X		X								X		X		
S100	1	02:56		X			X		X						X	X		X								X		X		
ICV01	1	03:02		X			X		X						X	X		X								X		X		
ICB01	1	03:08		X			X		X						X	X		X								X		X		
CRDL01	1	03:14		X			X		X						X	X		X								X		X		
ICSA01	1	03:19		X			X		X						X	X		X								X		X		
ICSAB01	1	03:25		X			X		X						X	X		X								X		X		
CCV01	1	03:31		X			X		X						X	X		X								X		X		
CCB01	1	03:36		X			X		X						X	X		X								X		X		
LR01	1	03:42		X			X		X						X	X		X								X		X		
CCV02	1	03:48		X			X		X						X	X		X								X		X		
CCB02	1	03:54		X			X		X						X	X		X								X		X		
ZZZZZZ	1	03:59																												
ZZZZZZ	1	04:05																												
ZZZZZZ	1	04:11																												
ZZZZZZ	1	04:17																												
ZZZZZZ	1	04:23																												
ZZZZZZ	5	04:28																												
CCV03	1	04:34		X			X		X						X	X		X								X		X		
CCB03	1	04:40		X			X		X						X	X		X								X		X		
ZZZZZZ	1	04:46																												
ZZZZZZ	1	04:52																												
ZZZZZZ	1	04:57																												
CCV04	1	05:03		X			X		X						X	X		X								X		X		
CCB04	1	05:09		X			X		X						X	X		X								X		X		
1201998460	1	05:15		X			X		X						X	X		X								X		X		
1201998461	1	05:21		X			X		X						X	X		X								X		X		
242940001	1	05:26		X			X		X						X	X		X								X		X		
1201998462	1	05:32		X			X		X						X	X		X								X		X		
1201998463	1	05:38		X			X		X						X	X		X								X		X		
1201998464	5	05:44		X			X		X						X	X		X								X		X		
242940002	1	05:50		X			X		X						X	X		X								X		X		
CCV05	1	05:55		X			X		X						X	X		X								X		X		
CCB05	1	06:01		X			X		X						X	X		X								X		X		

Metals
–14–
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: OPTIMA1
Start Date: 20–DEC–09 **End Date:** 20–DEC–09

Client Sdg: 10–918–1
Method P
Data File: 122009–1

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Li	Mg	Mn	Hg	Ni	K	Se	Si	Ag	Na	Tl	Ti	U	V	Zn
S0.0	1	05:19	X		X	X		X		X	X	X	X	X			X			X	X	X	X	X	X		X		X	X
S0.1	1	05:23			X	X		X			X	X	X							X	X	X	X	X			X		X	X
S0.5	1	05:25	X		X	X		X		X	X	X	X				X			X	X	X	X	X			X		X	X
SCAL	1	05:29	X		X	X		X		X	X	X	X	X			X			X	X	X	X	X	X		X		X	X
S10	1	05:32	X							X				X			X								X					
ICV01	1	05:35	X		X	X		X		X	X	X	X	X			X			X	X	X	X	X	X		X		X	X
ICB01	1	05:38	X		X	X		X		X	X	X	X	X			X			X	X	X	X	X	X		X		X	X
PQL01	1	05:42	X		X	X		X		X	X	X	X	X			X			X	X	X	X	X	X		X		X	X
ICSA01	1	05:46	X		X	X		X		X	X	X	X	X			X			X	X	X	X	X	X		X		X	X
ICSAB01	1	05:49	X		X	X		X		X	X	X	X	X			X			X	X	X	X	X	X		X		X	X
LR01	1	05:51	X		X	X		X		X	X	X	X	X			X			X	X	X	X	X	X		X		X	X
LR02	1	05:54	X		X	X		X		X	X	X	X	X			X			X	X	X	X	X	X		X		X	X
CCV01	1	05:58	X		X	X		X		X	X	X	X	X			X			X	X	X	X	X	X		X		X	X
CCB01	1	06:02	X		X	X		X		X	X	X	X	X			X			X	X	X	X	X	X		X		X	X
ZZZZZZ	1	06:20																												
ZZZZZZ	1	06:24																												
ZZZZZZ	1	06:27																												
ZZZZZZ	1	06:31																												
ZZZZZZ	1	06:34																												
ZZZZZZ	5	06:38																												
ZZZZZZ	1	06:42																												
CCV02	1	06:45	X		X	X		X		X	X	X	X	X			X			X	X	X	X	X	X		X		X	X
CCB02	1	06:49	X		X	X		X		X	X	X	X	X			X			X	X	X	X	X	X		X		X	X
1201998469	1	06:53	X		X	X		X		X	X	X	X	X			X			X	X	X	X	X	X		X		X	X
1201998470	1	06:56	X		X	X		X		X	X	X	X	X			X			X	X	X	X	X	X		X		X	X
242940001	1	07:00	X		X	X		X		X	X	X	X	X			X			X	X	X	X	X	X		X		X	X
1201998471	1	07:03	X		X	X		X		X	X	X	X	X			X			X	X	X	X	X	X		X		X	X
1201998472	1	07:07	X		X	X		X		X	X	X	X	X			X			X	X	X	X	X	X		X		X	X
1201998473	5	07:11	X		X	X		X		X	X	X	X	X			X			X	X	X	X	X	X		X		X	X
242940002	1	07:14	X		X	X		X		X	X	X	X	X			X			X	X	X	X	X	X		X		X	X
CCV03	1	07:18	X		X	X		X		X	X	X	X	X			X			X	X	X	X	X	X		X		X	X
CCB03	1	07:22	X		X	X		X		X	X	X	X	X			X			X	X	X	X	X	X		X		X	X

Standards

METALS
-10-
Instrument Detection Limits

SDG NO. 10-918-1

Contract: LANL01004 **Lab Code: GEL** **MDL Effective Date:** 01-JUL-09

ICP/MS	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
LIQUID	Aluminum		15.0	30
	Antimony		1.0	3
	Arsenic		1.6	5
	Barium		0.6	2
	Beryllium		0.1	.5
	Boron		4.0	15
	Cadmium		0.11	1
	Calcium		65.0	200
	Chromium		2.0	10
	Cobalt		0.1	1
	Copper		0.33	1
	Iron		33.0	100
	Lead		0.5	2
	Lithium		2.0	10
	Magnesium		5.2	15
	Manganese		1.0	5
	Nickel		0.5	2
	Potassium		80.0	300
	Selenium		1.0	5
	Silver		0.2	1
	Sodium		80.0	250
	Thallium		0.3	1
	Titanium		2.0	10
	Uranium		0.05	.2
	Vanadium		3.0	10
	Zinc		3.0	10

METALS
–10–
Instrument Detection Limits

SDG NO. 10–918–1

Contract: LANL01004 **Lab Code: GEL** **MDL Effective Date:** 01–JUL–09

MERCURY	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
LIQUID	Mercury		0.066	.2

METALS
–10–
Instrument Detection Limits

SDG NO. 10–918–1

Contract: LANL01004 **Lab Code: GEL** **MDL Effective Date:** 01–JUL–09

ICP	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
LIQUID	Aluminum	396.153	68.0	200
	Antimony	206.836	3.0	10
	Arsenic	188.979	5.0	30
	Barium	233.527	1.0	5
	Beryllium	313.107	1.0	5
	Boron	249.677	15.0	50
	Cadmium	226.502	1.0	5
	Calcium	317.933	50.0	200
	Chromium	267.716	1.0	5
	Cobalt	228.616	1.0	5
	Copper	324.752	3.0	10
	Iron	238.204	30.0	100
	Lead	220.353	3.3	10
	Magnesium	279.077	85.0	300
	Manganese	257.61	2.0	10
	Nickel	231.604	1.5	5
	Potassium	766.49	50.0	150
	Selenium	196.026	5.0	30
	Silicon	251.611	25.0	100
	Silver	328.068	1.0	5
	Sodium	589.592	100	300
	Thallium	190.801	5.0	20
	Titanium	334.94	1.0	5
	Uranium	409.014	10.0	50
	Vanadium	292.402	1.0	5
	Zinc	213.857	3.3	10

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA1
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-918-1
Effective Dates: 01-NOV-09

Parmname	Wavelength	Aluminum	Antimony	Arsenic	Barium	Beryllium
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	-0.08714	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	-0.36980	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	-0.02864	0.00000	0.00000	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	0.00000

METALS
–11–
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA1
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10–918–1
Effective Dates: 01–NOV–09

Parmname	Wavelength	Boron	Cadmium	Chromium	Cobalt	Copper
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	4.75140	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	–33.0980	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	1.36057
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.03970	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	122.96
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	4.07230	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	1.45160

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA1
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-918-1
Effective Dates: 01-NOV-09

Parmname	Wavelength	Iron	Lead	Magnesium	Manganese	Molybdenum
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	38.0301
Antimony	206.836	0.00000	0.00000	0.00000	0.00000	1.47380
Arsenic	188.979	-0.82061	0.00000	0.00000	0.00000	1.83900
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.31446	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.07749	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	-2.33110
Copper	324.752	-0.24488	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.01248	0.00000	0.00000	0.00000	-2.95230
Magnesium	279.077	1.47510	0.00000	0.00000	0.00000	-24.9658
Manganese	257.61	-0.12666	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	-0.03930	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	1.17810	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	-0.61937	0.00000	0.41160	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	17.0660
Silver	328.068	-0.07890	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.14830	0.00000	0.14260	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	-4.63400	0.00000
Tin	189.927	-0.09214	0.00000	-0.16050	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.18670	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	-0.08158	0.00000	0.00000	0.00000	-6.97050
Zinc	213.857	0.06940	0.00000	0.02727	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA1
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-918-1
Effective Dates: 01-NOV-09

Parmname	Wavelength	Nickel	Phosphorous	Selenium	Silicon	Silver
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	-1.09390	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	5.19130	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA1
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-918-1
Effective Dates: 01-NOV-09

Parmname	Wavelength	Sulfur	Thallium	Tin	Titanium	Uranium
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	-3.74360	-0.55870
Arsenic	188.979	0.00000	0.00000	0.00000	-2.71110	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.37024	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	-0.71290
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	2.08900	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	0.84100
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	-21.8313	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	38.5869	36.0710	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	-7.24690	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	-1.61770
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA1
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-918-1
Effective Dates: 01-NOV-09

Parmname	Wavelength	Vanadium	Zinc
Aluminum	396.153	0.00000	0.00000
Antimony	206.836	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000
Barium	233.527	-2.10080	0.00000
Beryllium	313.107	0.00000	0.00000
Boron	249.677	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000
Chromium	267.716	-2.34600	0.00000
Cobalt	228.616	0.00000	0.00000
Copper	324.752	0.00000	0.00000
Iron	238.204	0.00000	0.00000
Lead	220.353	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000
Manganese	257.61	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000
Nickel	231.604	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000
Selenium	196.026	0.00000	0.00000
Silicon	251.611	0.00000	0.00000
Silver	328.068	-6.85200	0.00000
Sulfur	181.975	0.00000	0.00000
Thallium	190.801	0.00000	0.00000
Tin	189.927	0.00000	0.00000
Titanium	334.94	0.00000	0.00000
Uranium	409.014	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000
Zinc	213.857	0.00000	0.00000

METALS
-12-
Linear Ranges

SDG NO. 10-918-1

Contract: LANL01004 **Lab Code: GEL**

Instrument ID ICPMS3

Analyte	Integration Time (msec)	LDR	Units	Effective Date
Aluminum	1	50000	ug/L	01-NOV-09
Antimony	1000	250	ug/L	01-NOV-09
Arsenic	1000	1000	ug/L	01-NOV-09
Barium	1000	1000	ug/L	01-NOV-09
Beryllium	1000	1000	ug/L	01-NOV-09
Boron	1000	200	ug/L	01-NOV-09
Cadmium	1000	1000	ug/L	01-NOV-09
Calcium	500	50000	ug/L	01-NOV-09
Chromium	1000	1000	ug/L	01-NOV-09
Cobalt	1000	1000	ug/L	01-NOV-09
Copper	1000	1000	ug/L	01-NOV-09
Iron	500	50000	ug/L	01-NOV-09
Lead	1000	5000	ug/L	01-NOV-09
Lithium	1000	1000	ug/L	01-NOV-09
Magnesium	1	50000	ug/L	01-NOV-09
Manganese	1000	1000	ug/L	01-NOV-09
Nickel	1000	1000	ug/L	01-NOV-09
Potassium	1	50000	ug/L	01-NOV-09
Selenium	1000	500	ug/L	01-NOV-09
Silver	1000	250	ug/L	01-NOV-09
Sodium	1	50000	ug/L	01-NOV-09
Thallium	1000	500	ug/L	01-NOV-09
Titanium	1000	100	ug/L	01-NOV-09
Uranium	1000	5000	ug/L	01-NOV-09
Vanadium	1000	100	ug/L	01-NOV-09
Zinc	1000	2500	ug/L	01-NOV-09

METALS
–12–
Linear Ranges

SDG NO. 10–918–1

Contract: LANL01004 **Lab Code: GEL**

Instrument ID OPTIMA1

Analyte	Integration Time (sec)	LDR	Units	Effective Date
Aluminum	20	500000	ug/L	01–NOV–09
Antimony	20	10000	ug/L	01–NOV–09
Arsenic	20	10000	ug/L	01–NOV–09
Barium	20	15000	ug/L	01–NOV–09
Beryllium	20	3000	ug/L	01–NOV–09
Boron	20	5000	ug/L	01–NOV–09
Cadmium	20	10000	ug/L	01–NOV–09
Calcium	20	500000	ug/L	01–NOV–09
Chromium	20	25000	ug/L	01–NOV–09
Cobalt	20	10000	ug/L	01–NOV–09
Copper	20	20000	ug/L	01–NOV–09
Iron	20	500000	ug/L	01–NOV–09
Lead	20	25000	ug/L	01–NOV–09
Magnesium	20	500000	ug/L	01–NOV–09
Manganese	20	10000	ug/L	01–NOV–09
Nickel	20	10000	ug/L	01–NOV–09
Potassium	20	300000	ug/L	01–NOV–09
Selenium	20	10000	ug/L	01–NOV–09
Silicon	20	50000	ug/L	01–NOV–09
Silver	20	1000	ug/L	01–NOV–09
Sodium	20	500000	ug/L	01–NOV–09
Thallium	20	10000	ug/L	01–NOV–09
Titanium	20	10000	ug/L	01–NOV–09
Uranium	20	15000	ug/L	01–NOV–09
Vanadium	20	10000	ug/L	01–NOV–09
Zinc	20	15000	ug/L	01–NOV–09

Raw Data

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12/20/2009 05:11:51 Hg ReAlign... Actual peak offset (nm): 0.005
Drift (nm): 0.000 Slit adjustment: 2

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Analysis Begun

Start Time: 12/20/2009 05:19:24 **Plasma On Time: 12/19/2009 15:28:13**
Logged In Analyst: optima **Technique: ICP Continuous**
Spectrometer Model: Optima 4300 DV, S/N 077N1030502Autosampler Model: AS-93plus

Sample Information File: C:\pe\optima1\Sample Information\122009.sif
Batch ID:
Results Data Set: 122009
Results Library: c:\pe\optima1\Results\Results.mdb

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Method Loaded
Method Name: Gen Eng fast_new Si **Method Last Saved: 12/19/2009 17:48:38**
IEC File: 101509.iec **MSF File:**
Method Description:

Analyte	Calibration Equation	Processing	View	Internal Standard	IEC
Ag 328.068	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Al 396.153Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
As 188.979	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
B 249.677	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ba 233.527	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Be 313.107	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ca 317.933Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
Cd 226.502	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Co 228.616	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cr 267.716	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cu 324.752	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Fe 238.204 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
K 766.490 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
Mg 279.077 IEC	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
Mn 257.610	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Mo 202.031	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Na 589.592 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
Ni 231.604	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
P 214.914	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Pb 220.353	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
S 181.975 Axial	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sb 206.836	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sc 361.383	Lin Thru 0	Peak Area	Axial	n/a	n/a
Sc RADIAL	Lin, Calc Int	Peak Area	Radial	n/a	n/a
Se 196.026	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
SiO2	Lin Thru 0	Peak Area	Axial	Sc 361.383	No
Si 251.611	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sn 189.927	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sr 421.552	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
Ti 334.940	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Tl 190.801	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
U 409.014	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
V 292.402	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y 371.029	Lin, Calc Int	Peak Area	Axial	n/a	n/a
Zn 213.857	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes

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Sequence No.: 1 **Autosampler Location: 8**
Sample ID: S0 **Date Collected: 12/20/2009 05:19:27**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: S0

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time

1	Sc RADIAL	113820.3	113820.3	101	%	05:20:01
1	Al 396.153Radial†	188.8	187.8	[0.00]	µg/L	05:20:01
1	Ca 317.933Radial†	406.8	404.6	[0.00]	µg/L	05:20:21
1	Fe 238.204 Radial†	5.1	5.1	[0.00]	µg/L	05:20:21
1	K 766.490 Radial†	762.6	758.6	[0.00]	µg/L	05:20:01
1	Mg 279.077 IEC†	15.5	15.4	[0.00]	µg/L	05:20:21
1	Na 589.592 Radial†	-739.4	-735.5	[0.00]	µg/L	05:20:01
1	Sr 421.552†	-82.0	-81.5	[0.00]	µg/L	05:20:01
1	Sc 361.383	2093368.7	2093368.7	100.42	%	05:21:23
1	Y 371.029	1287129.7	1287129.7	100.31	%	05:21:23
1	Ag 328.068†	50.0	49.8	[0.00]	µg/L	05:21:29
1	As 188.979†	-0.9	-0.9	[0.00]	µg/L	05:21:50
1	B 249.677†	114.2	113.7	[0.00]	µg/L	05:21:29
1	Ba 233.527†	-81.5	-81.2	[0.00]	µg/L	05:21:50
1	Be 313.107†	3518.6	3504.0	[0.00]	µg/L	05:21:29
1	Cd 226.502†	-101.5	-101.0	[0.00]	µg/L	05:21:50
1	Co 228.616†	-84.3	-83.9	[0.00]	µg/L	05:21:50
1	Cr 267.716†	-105.5	-105.1	[0.00]	µg/L	05:21:29
1	Cu 324.752†	3602.9	3587.9	[0.00]	µg/L	05:21:29
1	Mn 257.610†	-218.7	-217.8	[0.00]	µg/L	05:21:50
1	Mo 202.031†	1.6	1.6	[0.00]	µg/L	05:21:50
1	Ni 231.604†	311.1	309.8	[0.00]	µg/L	05:21:50
1	P 214.914†	214.0	213.1	[0.00]	µg/L	05:21:50
1	Pb 220.353†	52.9	52.7	[0.00]	µg/L	05:21:50
1	S 181.975 Axial†	24.5	24.4	[0.00]	µg/L	05:21:50
1	Sb 206.836†	22.5	22.4	[0.00]	µg/L	05:21:50
1	Se 196.026†	21.9	21.8	[0.00]	µg/L	05:21:50
1	SiO2†	2292.9	2283.4	[0.00]	µg/L	05:21:29
1	Si 251.611†	344.6	343.1	[0.00]	µg/L	05:21:50
1	Sn 189.927†	23.5	23.4	[0.00]	µg/L	05:21:50
1	Ti 334.940†	866.8	863.2	[0.00]	µg/L	05:21:29
1	Tl 190.801†	-20.2	-20.1	[0.00]	µg/L	05:21:50
1	U 409.014†	690.9	688.0	[0.00]	µg/L	05:21:29
1	V 292.402†	-117.0	-116.6	[0.00]	µg/L	05:21:29
1	Zn 213.857†	592.2	589.8	[0.00]	µg/L	05:21:50
2	Sc RADIAL	112066.3	112066.3	99.0	%	05:20:27
2	Al 396.153Radial†	177.7	179.5	[0.00]	µg/L	05:20:27
2	Ca 317.933Radial†	401.1	405.2	[0.00]	µg/L	05:20:47
2	Fe 238.204 Radial†	8.3	8.4	[0.00]	µg/L	05:20:47
2	K 766.490 Radial†	796.5	804.7	[0.00]	µg/L	05:20:27
2	Mg 279.077 IEC†	16.9	17.1	[0.00]	µg/L	05:20:47
2	Na 589.592 Radial†	-770.8	-778.7	[0.00]	µg/L	05:20:27
2	Sr 421.552†	-113.9	-115.0	[0.00]	µg/L	05:20:27
2	Sc 361.383	2078644.3	2078644.3	99.712	%	05:21:56
2	Y 371.029	1278245.3	1278245.3	99.616	%	05:21:56
2	Ag 328.068†	63.6	63.8	[0.00]	µg/L	05:22:01
2	As 188.979†	-0.3	-0.3	[0.00]	µg/L	05:22:22
2	B 249.677†	112.5	112.8	[0.00]	µg/L	05:22:01
2	Ba 233.527†	-81.4	-81.6	[0.00]	µg/L	05:22:22
2	Be 313.107†	3549.1	3559.4	[0.00]	µg/L	05:22:01
2	Cd 226.502†	-107.7	-108.0	[0.00]	µg/L	05:22:22
2	Co 228.616†	-89.3	-89.6	[0.00]	µg/L	05:22:22
2	Cr 267.716†	-124.8	-125.2	[0.00]	µg/L	05:22:01
2	Cu 324.752†	3532.3	3542.5	[0.00]	µg/L	05:22:01
2	Mn 257.610†	-239.9	-240.6	[0.00]	µg/L	05:22:22
2	Mo 202.031†	-1.7	-1.7	[0.00]	µg/L	05:22:22
2	Ni 231.604†	340.3	341.3	[0.00]	µg/L	05:22:22
2	P 214.914†	208.3	208.9	[0.00]	µg/L	05:22:22
2	Pb 220.353†	61.5	61.6	[0.00]	µg/L	05:22:22
2	S 181.975 Axial†	28.4	28.5	[0.00]	µg/L	05:22:22
2	Sb 206.836†	20.4	20.4	[0.00]	µg/L	05:22:22
2	Se 196.026†	16.7	16.7	[0.00]	µg/L	05:22:22
2	SiO2†	2255.5	2262.0	[0.00]	µg/L	05:22:01
2	Si 251.611†	372.3	373.4	[0.00]	µg/L	05:22:22
2	Sn 189.927†	27.8	27.9	[0.00]	µg/L	05:22:22
2	Ti 334.940†	877.6	880.1	[0.00]	µg/L	05:22:01
2	Tl 190.801†	-20.5	-20.5	[0.00]	µg/L	05:22:22
2	U 409.014†	807.2	809.5	[0.00]	µg/L	05:22:01
2	V 292.402†	-144.7	-145.1	[0.00]	µg/L	05:22:01
2	Zn 213.857†	577.8	579.5	[0.00]	µg/L	05:22:22
3	Sc RADIAL	113754.6	113754.6	100	%	05:20:53

3	Al 396.153Radial†	175.3	174.5	[0.00]	µg/L	05:20:53
3	Ca 317.933Radial†	402.2	400.3	[0.00]	µg/L	05:21:13
3	Fe 238.204 Radial†	6.1	6.1	[0.00]	µg/L	05:21:13
3	K 766.490 Radial†	805.5	801.7	[0.00]	µg/L	05:20:53
3	Mg 279.077 IEC†	13.5	13.5	[0.00]	µg/L	05:21:13
3	Na 589.592 Radial†	-746.6	-743.0	[0.00]	µg/L	05:20:53
3	Sr 421.552†	-113.2	-112.7	[0.00]	µg/L	05:20:53
3	Sc 361.383	2081960.0	2081960.0	99.871	%	05:22:28
3	Y 371.029	1284147.9	1284147.9	100.08	%	05:22:28
3	Ag 328.068†	106.1	106.2	[0.00]	µg/L	05:22:33
3	As 188.979†	3.0	3.0	[0.00]	µg/L	05:22:54
3	B 249.677†	122.8	122.9	[0.00]	µg/L	05:22:33
3	Ba 233.527†	-81.5	-81.6	[0.00]	µg/L	05:22:54
3	Be 313.107†	3447.0	3451.4	[0.00]	µg/L	05:22:33
3	Cd 226.502†	-113.2	-113.3	[0.00]	µg/L	05:22:54
3	Co 228.616†	-82.9	-83.0	[0.00]	µg/L	05:22:54
3	Cr 267.716†	-150.5	-150.7	[0.00]	µg/L	05:22:33
3	Cu 324.752†	3602.5	3607.2	[0.00]	µg/L	05:22:33
3	Mn 257.610†	-226.1	-226.4	[0.00]	µg/L	05:22:54
3	Mo 202.031†	-1.9	-1.9	[0.00]	µg/L	05:22:54
3	Ni 231.604†	330.8	331.2	[0.00]	µg/L	05:22:54
3	P 214.914†	212.9	213.2	[0.00]	µg/L	05:22:54
3	Pb 220.353†	42.7	42.7	[0.00]	µg/L	05:22:54
3	S 181.975 Axial†	28.5	28.5	[0.00]	µg/L	05:22:54
3	Sb 206.836†	24.6	24.6	[0.00]	µg/L	05:22:54
3	Se 196.026†	16.7	16.7	[0.00]	µg/L	05:22:54
3	SiO2†	2260.1	2263.0	[0.00]	µg/L	05:22:33
3	Si 251.611†	352.7	353.2	[0.00]	µg/L	05:22:54
3	Sn 189.927†	20.4	20.5	[0.00]	µg/L	05:22:54
3	Ti 334.940†	836.1	837.1	[0.00]	µg/L	05:22:33
3	Tl 190.801†	-19.8	-19.8	[0.00]	µg/L	05:22:54
3	U 409.014†	783.9	784.9	[0.00]	µg/L	05:22:33
3	V 292.402†	-115.4	-115.6	[0.00]	µg/L	05:22:33
3	Zn 213.857†	583.7	584.5	[0.00]	µg/L	05:22:54

Mean Data: S0

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	2084657.7	7723.97	0.37%	100.000	%
Sc RADIAL	113213.7	994.23	0.88%	100	%
Y 371.029	1283174.3	4521.50	0.35%	100.00	%
Ag 328.068†	73.3	29.35	40.06%	[0.00]	µg/L
Al 396.153Radial†	180.6	6.75	3.74%	[0.00]	µg/L
As 188.979†	0.6	2.13	360.53%	[0.00]	µg/L
B 249.677†	116.5	5.59	4.80%	[0.00]	µg/L
Ba 233.527†	-81.5	0.24	0.29%	[0.00]	µg/L
Be 313.107†	3504.9	53.98	1.54%	[0.00]	µg/L
Ca 317.933Radial†	403.4	2.68	0.66%	[0.00]	µg/L
Cd 226.502†	-107.5	6.17	5.74%	[0.00]	µg/L
Co 228.616†	-85.5	3.54	4.14%	[0.00]	µg/L
Cr 267.716†	-127.0	22.84	17.98%	[0.00]	µg/L
Cu 324.752†	3579.2	33.20	0.93%	[0.00]	µg/L
Fe 238.204 Radial†	6.5	1.70	26.16%	[0.00]	µg/L
K 766.490 Radial†	788.3	25.79	3.27%	[0.00]	µg/L
Mg 279.077 IEC†	15.3	1.82	11.90%	[0.00]	µg/L
Mn 257.610†	-228.3	11.52	5.04%	[0.00]	µg/L
Mo 202.031†	-0.7	1.93	292.58%	[0.00]	µg/L
Na 589.592 Radial†	-752.4	23.08	3.07%	[0.00]	µg/L
Ni 231.604†	327.4	16.06	4.91%	[0.00]	µg/L
P 214.914†	211.7	2.43	1.15%	[0.00]	µg/L
Pb 220.353†	52.4	9.45	18.05%	[0.00]	µg/L
S 181.975 Axial†	27.1	2.35	8.65%	[0.00]	µg/L
Sb 206.836†	22.5	2.08	9.27%	[0.00]	µg/L
Se 196.026†	18.4	2.93	15.92%	[0.00]	µg/L
SiO2†	2269.5	12.06	0.53%	[0.00]	µg/L
Si 251.611†	356.6	15.41	4.32%	[0.00]	µg/L
Sn 189.927†	23.9	3.76	15.73%	[0.00]	µg/L
Sr 421.552†	-103.1	18.70	18.13%	[0.00]	µg/L
Ti 334.940†	860.2	21.65	2.52%	[0.00]	µg/L
Tl 190.801†	-20.2	0.36	1.77%	[0.00]	µg/L

U 409.014†	760.8	64.24	8.44%	[0.00] µg/L
V 292.402†	-125.7	16.76	13.33%	[0.00] µg/L
Zn 213.857†	584.6	5.13	0.88%	[0.00] µg/L

Sequence No.: 2
Sample ID: S0.1
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 2
Date Collected: 12/20/2009 05:23:03
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	117104.0	117104.0	103	%	05:23:38
1	K 766.490 Radial†	2674.7	1797.6	[1000]	µg/L	05:23:38
1	Sr 421.552†	18324.6	17818.9	[100]	µg/L	05:23:38
1	Sc 361.383	2092872.7	2092872.7	100.39	%	05:24:00
1	Y 371.029	1286930.7	1286930.7	100.29	%	05:24:00
1	Ag 328.068†	11445.5	11327.3	[100]	µg/L	05:24:06
1	As 188.979†	53.1	52.3	[100]	µg/L	05:24:26
1	B 249.677†	2343.1	2217.4	[100]	µg/L	05:24:06
1	Ba 233.527†	3948.4	4014.4	[100]	µg/L	05:24:06
1	Be 313.107†	163855.7	159707.6	[100]	µg/L	05:24:00
1	Cd 226.502†	3864.8	3957.1	[100]	µg/L	05:24:06
1	Co 228.616†	2024.3	2101.8	[100]	µg/L	05:24:26
1	Cr 267.716†	4820.1	4928.1	[100]	µg/L	05:24:06
1	Cu 324.752†	18169.7	14519.2	[100]	µg/L	05:24:06
1	Mn 257.610†	31844.7	31948.0	[100]	µg/L	05:24:06
1	Mo 202.031†	898.2	895.4	[100]	µg/L	05:24:26
1	Ni 231.604†	2229.9	1893.8	[100]	µg/L	05:24:06
1	P 214.914†	439.1	225.7	[500]	µg/L	05:24:26
1	Pb 220.353†	448.5	394.3	[100]	µg/L	05:24:26
1	S 181.975 Axial†	66.2	38.8	[200]	µg/L	05:24:26
1	Sb 206.836†	119.3	96.4	[100]	µg/L	05:24:26
1	Se 196.026†	87.8	69.1	[100]	µg/L	05:24:26
1	SiO2†	8047.9	5746.9	[1069.5]	µg/L	05:24:06
1	Si 251.611†	7007.2	6623.1	[500]	µg/L	05:24:06
1	Sn 189.927†	231.2	206.4	[100]	µg/L	05:24:26
1	Ti 334.940†	45318.9	44280.8	[100]	µg/L	05:24:06
1	Tl 190.801†	43.5	63.5	[100]	µg/L	05:24:26
1	U 409.014†	1862.3	1094.1	[100]	µg/L	05:24:06
1	V 292.402†	8940.8	9031.5	[100]	µg/L	05:24:06
1	Zn 213.857†	4498.5	3896.3	[100]	µg/L	05:24:06
2	Sc RADIAL	118363.6	118363.6	105	%	05:23:44
2	K 766.490 Radial†	2672.2	1767.6	[1000]	µg/L	05:23:44
2	Sr 421.552†	18306.8	17613.4	[100]	µg/L	05:23:44
2	Sc 361.383	1988145.9	1988145.9	95.370	%	05:24:32
2	Y 371.029	1240928.7	1240928.7	96.708	%	05:24:32
2	Ag 328.068†	11448.4	11930.8	[100]	µg/L	05:24:38
2	As 188.979†	54.5	56.6	[100]	µg/L	05:24:58
2	B 249.677†	2344.8	2342.1	[100]	µg/L	05:24:38
2	Ba 233.527†	3962.1	4236.0	[100]	µg/L	05:24:38
2	Be 313.107†	169517.6	174241.7	[100]	µg/L	05:24:32
2	Cd 226.502†	3864.3	4159.3	[100]	µg/L	05:24:38
2	Co 228.616†	2010.6	2193.7	[100]	µg/L	05:24:58
2	Cr 267.716†	4786.9	5146.2	[100]	µg/L	05:24:38
2	Cu 324.752†	18109.7	15409.6	[100]	µg/L	05:24:38
2	Mn 257.610†	31675.6	33441.6	[100]	µg/L	05:24:38
2	Mo 202.031†	900.1	944.4	[100]	µg/L	05:24:58
2	Ni 231.604†	2246.3	2028.0	[100]	µg/L	05:24:38
2	P 214.914†	440.2	249.8	[500]	µg/L	05:24:58
2	Pb 220.353†	455.2	424.9	[100]	µg/L	05:24:58
2	S 181.975 Axial†	67.9	44.0	[200]	µg/L	05:24:58
2	Sb 206.836†	123.9	107.4	[100]	µg/L	05:24:58
2	Se 196.026†	93.9	80.1	[100]	µg/L	05:24:58
2	SiO2†	7974.7	6092.3	[1069.5]	µg/L	05:24:38
2	Si 251.611†	7009.4	6993.1	[500]	µg/L	05:24:38
2	Sn 189.927†	236.5	224.1	[100]	µg/L	05:24:58
2	Ti 334.940†	45386.4	46729.4	[100]	µg/L	05:24:38
2	Tl 190.801†	48.8	71.4	[100]	µg/L	05:24:58
2	U 409.014†	1932.8	1265.8	[100]	µg/L	05:24:38
2	V 292.402†	8905.2	9463.2	[100]	µg/L	05:24:38

2	Zn 213.857†	4486.1	4119.3	[100]	µg/L	05:24:38
3	Sc RADIAL	116556.8	116556.8	103	%	05:23:50
3	K 766.490 Radial†	2671.4	1806.4	[1000]	µg/L	05:23:50
3	Sr 421.552†	18311.4	17889.3	[100]	µg/L	05:23:50
3	Sc 361.383	2093417.4	2093417.4	100.42	%	05:25:05
3	Y 371.029	1289352.7	1289352.7	100.48	%	05:25:05
3	Ag 328.068†	11383.8	11262.9	[100]	µg/L	05:25:10
3	As 188.979†	56.4	55.5	[100]	µg/L	05:25:31
3	B 249.677†	2351.0	2224.7	[100]	µg/L	05:25:10
3	Ba 233.527†	3947.5	4012.4	[100]	µg/L	05:25:10
3	Be 313.107†	165223.0	161026.7	[100]	µg/L	05:25:05
3	Cd 226.502†	3831.2	3922.7	[100]	µg/L	05:25:10
3	Co 228.616†	1989.8	2067.0	[100]	µg/L	05:25:31
3	Cr 267.716†	4756.5	4863.5	[100]	µg/L	05:25:10
3	Cu 324.752†	17983.0	14328.6	[100]	µg/L	05:25:10
3	Mn 257.610†	31380.9	31477.9	[100]	µg/L	05:25:10
3	Mo 202.031†	887.6	884.6	[100]	µg/L	05:25:31
3	Ni 231.604†	2205.7	1869.0	[100]	µg/L	05:25:10
3	P 214.914†	442.2	228.6	[500]	µg/L	05:25:31
3	Pb 220.353†	455.4	401.2	[100]	µg/L	05:25:31
3	S 181.975 Axial†	65.8	38.4	[200]	µg/L	05:25:31
3	Sb 206.836†	122.9	99.9	[100]	µg/L	05:25:31
3	Se 196.026†	91.8	73.0	[100]	µg/L	05:25:31
3	SiO2†	7912.0	5609.5	[1069.5]	µg/L	05:25:10
3	Si 251.611†	6926.7	6541.2	[500]	µg/L	05:25:10
3	Sn 189.927†	228.4	203.5	[100]	µg/L	05:25:31
3	Ti 334.940†	44985.7	43937.3	[100]	µg/L	05:25:10
3	Tl 190.801†	49.8	69.8	[100]	µg/L	05:25:31
3	U 409.014†	1913.3	1144.4	[100]	µg/L	05:25:10
3	V 292.402†	8831.7	8920.5	[100]	µg/L	05:25:10
3	Zn 213.857†	4439.3	3836.1	[100]	µg/L	05:25:10

Mean Data: S0.1

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	2058145.4	60621.89	2.95%	98.728	%
Sc RADIAL	117341.5	926.50	0.79%	104	%
Y 371.029	1272404.0	27285.32	2.14%	99.161	%
Ag 328.068†	11507.0	368.47	3.20%	[100]	µg/L
As 188.979†	54.8	2.22	4.04%	[100]	µg/L
B 249.677†	2261.4	69.99	3.10%	[100]	µg/L
Ba 233.527†	4087.6	128.48	3.14%	[100]	µg/L
Be 313.107†	164992.0	8037.59	4.87%	[100]	µg/L
Cd 226.502†	4013.0	127.86	3.19%	[100]	µg/L
Co 228.616†	2120.8	65.46	3.09%	[100]	µg/L
Cr 267.716†	4979.3	148.14	2.98%	[100]	µg/L
Cu 324.752†	14752.4	577.03	3.91%	[100]	µg/L
K 766.490 Radial†	1790.5	20.34	1.14%	[1000]	µg/L
Mn 257.610†	32289.1	1025.33	3.18%	[100]	µg/L
Mo 202.031†	908.1	31.90	3.51%	[100]	µg/L
Ni 231.604†	1930.3	85.52	4.43%	[100]	µg/L
P 214.914†	234.7	13.18	5.62%	[500]	µg/L
Pb 220.353†	406.8	16.04	3.94%	[100]	µg/L
S 181.975 Axial†	40.4	3.15	7.81%	[200]	µg/L
Sb 206.836†	101.2	5.64	5.57%	[100]	µg/L
Se 196.026†	74.0	5.57	7.52%	[100]	µg/L
SiO2†	5816.2	248.80	4.28%	[1069.5]	µg/L
Si 251.611†	6719.1	240.75	3.58%	[500]	µg/L
Sn 189.927†	211.3	11.16	5.28%	[100]	µg/L
Sr 421.552†	17773.9	143.37	0.81%	[100]	µg/L
Ti 334.940†	44982.5	1522.60	3.38%	[100]	µg/L
Tl 190.801†	68.2	4.19	6.14%	[100]	µg/L
U 409.014†	1168.1	88.26	7.56%	[100]	µg/L
V 292.402†	9138.4	286.70	3.14%	[100]	µg/L
Zn 213.857†	3950.6	149.20	3.78%	[100]	µg/L

Sequence No.: 3
Sample ID: S0.5
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 3
Date Collected: 12/20/2009 05:25:40
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	115930.5	115930.5	102	%	05:26:13
1	Al 396.153Radial†	10150.2	9731.8	[5000]	µg/L	05:26:13
1	Ca 317.933Radial†	12971.8	12264.4	[5000]	µg/L	05:26:33
1	K 766.490 Radial†	9885.4	8865.4	[5000]	µg/L	05:26:13
1	Mg 279.077 IEC†	908.0	871.4	[5000]	µg/L	05:26:33
1	Sr 421.552†	89850.8	87848.3	[500]	µg/L	05:26:13
1	Sc 361.383	2094675.3	2094675.3	100.48	%	05:27:37
1	Y 371.029	1281731.6	1281731.6	99.888	%	05:27:37
1	Ag 328.068†	53712.6	53382.4	[500]	µg/L	05:27:42
1	As 188.979†	268.8	266.9	[500]	µg/L	05:28:03
1	B 249.677†	10940.4	10771.6	[500]	µg/L	05:27:42
1	Ba 233.527†	19089.6	19079.8	[500]	µg/L	05:27:42
1	Be 313.107†	794931.0	787624.4	[500]	µg/L	05:27:37
1	Cd 226.502†	18523.5	18542.3	[500]	µg/L	05:27:42
1	Co 228.616†	9983.5	10021.2	[500]	µg/L	05:27:42
1	Cr 267.716†	23156.4	23172.6	[500]	µg/L	05:27:42
1	Cu 324.752†	71914.6	67991.5	[500]	µg/L	05:27:42
1	Mn 257.610†	154166.5	153657.5	[500]	µg/L	05:27:37
1	Mo 202.031†	4385.0	4364.6	[500]	µg/L	05:28:03
1	Ni 231.604†	9256.7	8885.0	[500]	µg/L	05:27:42
1	P 214.914†	1384.2	1165.8	[2500]	µg/L	05:28:03
1	Pb 220.353†	2022.5	1960.4	[500]	µg/L	05:28:03
1	S 181.975 Axial†	221.2	193.0	[1000]	µg/L	05:28:03
1	Sb 206.836†	522.7	497.7	[500]	µg/L	05:28:03
1	Se 196.026†	383.4	363.2	[500]	µg/L	05:28:03
1	SiO2†	29427.7	27017.5	[5347.5]	µg/L	05:27:42
1	Si 251.611†	31966.3	31456.8	[2500]	µg/L	05:27:42
1	Sn 189.927†	1047.4	1018.5	[500]	µg/L	05:28:03
1	Ti 334.940†	220751.1	218835.2	[500]	µg/L	05:27:37
1	Tl 190.801†	309.5	328.2	[500]	µg/L	05:28:03
1	U 409.014†	5967.1	5177.7	[500]	µg/L	05:27:42
1	V 292.402†	42986.1	42906.3	[500]	µg/L	05:27:42
1	Zn 213.857†	18799.6	18125.1	[500]	µg/L	05:27:42
2	Sc RADIAL	116766.0	116766.0	103	%	05:26:39
2	Al 396.153Radial†	10142.1	9653.0	[5000]	µg/L	05:26:39
2	Ca 317.933Radial†	12968.6	12170.7	[5000]	µg/L	05:26:59
2	K 766.490 Radial†	10063.7	8969.3	[5000]	µg/L	05:26:39
2	Mg 279.077 IEC†	912.7	869.6	[5000]	µg/L	05:26:59
2	Sr 421.552†	90307.1	87662.9	[500]	µg/L	05:26:39
2	Sc 361.383	2102215.9	2102215.9	100.84	%	05:28:10
2	Y 371.029	1285477.6	1285477.6	100.18	%	05:28:10
2	Ag 328.068†	55247.1	54712.4	[500]	µg/L	05:28:16
2	As 188.979†	261.0	258.2	[500]	µg/L	05:28:36
2	B 249.677†	11335.6	11124.4	[500]	µg/L	05:28:16
2	Ba 233.527†	19667.9	19585.1	[500]	µg/L	05:28:16
2	Be 313.107†	801826.7	791624.7	[500]	µg/L	05:28:10
2	Cd 226.502†	19084.4	19032.5	[500]	µg/L	05:28:16
2	Co 228.616†	10259.4	10259.2	[500]	µg/L	05:28:16
2	Cr 267.716†	23872.3	23799.9	[500]	µg/L	05:28:16
2	Cu 324.752†	73815.2	69619.5	[500]	µg/L	05:28:16
2	Mn 257.610†	155418.4	154348.6	[500]	µg/L	05:28:10
2	Mo 202.031†	4331.2	4295.7	[500]	µg/L	05:28:36
2	Ni 231.604†	9543.2	9136.1	[500]	µg/L	05:28:16
2	P 214.914†	1365.1	1141.9	[2500]	µg/L	05:28:36
2	Pb 220.353†	2005.7	1936.6	[500]	µg/L	05:28:36
2	S 181.975 Axial†	216.7	187.7	[1000]	µg/L	05:28:36
2	Sb 206.836†	525.2	498.3	[500]	µg/L	05:28:36
2	Se 196.026†	380.2	358.6	[500]	µg/L	05:28:36
2	SiO2†	30225.7	27703.8	[5347.5]	µg/L	05:28:16

2	Si 251.611†	32840.8	32210.0	[2500]	µg/L	05:28:16
2	Sn 189.927†	1029.8	997.3	[500]	µg/L	05:28:36
2	Ti 334.940†	222453.7	219735.6	[500]	µg/L	05:28:10
2	Tl 190.801†	307.6	325.2	[500]	µg/L	05:28:36
2	U 409.014†	6089.1	5277.4	[500]	µg/L	05:28:16
2	V 292.402†	44201.5	43958.0	[500]	µg/L	05:28:16
2	Zn 213.857†	19437.8	18690.8	[500]	µg/L	05:28:16
3	Sc RADIAL	114954.2	114954.2	102	%	05:27:05
3	Al 396.153Radial†	10079.2	9746.0	[5000]	µg/L	05:27:05
3	Ca 317.933Radial†	12984.2	12384.2	[5000]	µg/L	05:27:25
3	K 766.490 Radial†	10010.4	9070.5	[5000]	µg/L	05:27:05
3	Mg 279.077 IEC†	910.5	881.3	[5000]	µg/L	05:27:25
3	Sr 421.552†	89300.4	88051.4	[500]	µg/L	05:27:05
3	Sc 361.383	2074108.9	2074108.9	99.494	%	05:28:43
3	Y 371.029	1268584.3	1268584.3	98.863	%	05:28:43
3	Ag 328.068†	53316.9	53514.8	[500]	µg/L	05:28:49
3	As 188.979†	236.0	236.6	[500]	µg/L	05:29:09
3	B 249.677†	10875.9	10814.7	[500]	µg/L	05:28:49
3	Ba 233.527†	18673.8	18850.3	[500]	µg/L	05:28:49
3	Be 313.107†	766867.9	767263.2	[500]	µg/L	05:28:43
3	Cd 226.502†	18078.1	18277.5	[500]	µg/L	05:28:49
3	Co 228.616†	9666.2	9800.9	[500]	µg/L	05:28:49
3	Cr 267.716†	22049.0	22288.1	[500]	µg/L	05:28:49
3	Cu 324.752†	69790.7	66566.5	[500]	µg/L	05:28:49
3	Mn 257.610†	148608.4	149592.5	[500]	µg/L	05:28:43
3	Mo 202.031†	3766.9	3786.7	[500]	µg/L	05:29:09
3	Ni 231.604†	9030.9	8749.4	[500]	µg/L	05:28:49
3	P 214.914†	1222.7	1017.2	[2500]	µg/L	05:29:09
3	Pb 220.353†	1803.2	1760.0	[500]	µg/L	05:29:09
3	S 181.975 Axial†	200.3	174.1	[1000]	µg/L	05:29:09
3	Sb 206.836†	471.3	451.3	[500]	µg/L	05:29:09
3	Se 196.026†	347.4	330.8	[500]	µg/L	05:29:09
3	SiO2†	28966.2	26844.0	[5347.5]	µg/L	05:28:49
3	Si 251.611†	31303.9	31106.6	[2500]	µg/L	05:28:49
3	Sn 189.927†	879.5	860.0	[500]	µg/L	05:29:09
3	Ti 334.940†	212401.1	212621.2	[500]	µg/L	05:28:43
3	Tl 190.801†	291.6	313.2	[500]	µg/L	05:29:09
3	U 409.014†	5726.7	4995.0	[500]	µg/L	05:28:49
3	V 292.402†	41548.5	41885.5	[500]	µg/L	05:28:49
3	Zn 213.857†	18356.3	17865.0	[500]	µg/L	05:28:49

Mean Data: S0.5

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	2090333.4	14547.88	0.70%	100.27	%
Sc RADIAL	115883.6	906.83	0.78%	102	%
Y 371.029	1278597.8	8871.93	0.69%	99.643	%
Ag 328.068†	53869.9	732.63	1.36%	[500]	µg/L
Al 396.153Radial†	9710.3	50.12	0.52%	[5000]	µg/L
As 188.979†	253.9	15.60	6.15%	[500]	µg/L
B 249.677†	10903.6	192.49	1.77%	[500]	µg/L
Ba 233.527†	19171.7	375.95	1.96%	[500]	µg/L
Be 313.107†	782170.8	13064.35	1.67%	[500]	µg/L
Ca 317.933Radial†	12273.1	107.04	0.87%	[5000]	µg/L
Cd 226.502†	18617.4	383.06	2.06%	[500]	µg/L
Co 228.616†	10027.1	229.21	2.29%	[500]	µg/L
Cr 267.716†	23086.9	759.55	3.29%	[500]	µg/L
Cu 324.752†	68059.1	1527.63	2.24%	[500]	µg/L
K 766.490 Radial†	8968.4	102.56	1.14%	[5000]	µg/L
Mg 279.077 IEC†	874.1	6.32	0.72%	[5000]	µg/L
Mn 257.610†	152532.8	2569.78	1.68%	[500]	µg/L
Mo 202.031†	4149.0	315.67	7.61%	[500]	µg/L
Ni 231.604†	8923.5	196.17	2.20%	[500]	µg/L
P 214.914†	1108.3	79.82	7.20%	[2500]	µg/L
Pb 220.353†	1885.7	109.47	5.81%	[500]	µg/L
S 181.975 Axial†	184.9	9.71	5.25%	[1000]	µg/L
Sb 206.836†	482.4	27.00	5.60%	[500]	µg/L
Se 196.026†	350.9	17.53	5.00%	[500]	µg/L
SiO2†	27188.4	454.65	1.67%	[5347.5]	µg/L
Si 251.611†	31591.1	563.83	1.78%	[2500]	µg/L

Sn 189.927†	958.6	86.04	8.98%	[500] µg/L
Sr 421.552†	87854.2	194.35	0.22%	[500] µg/L
Ti 334.940†	217064.0	3873.80	1.78%	[500] µg/L
Tl 190.801†	322.2	7.94	2.46%	[500] µg/L
U 409.014†	5150.0	143.24	2.78%	[500] µg/L
V 292.402†	42916.6	1036.27	2.41%	[500] µg/L
Zn 213.857†	18227.0	422.22	2.32%	[500] µg/L

Sequence No.: 4
Sample ID: SCAL
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 4
Date Collected: 12/20/2009 05:29:18
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: SCAL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	115108.2	115108.2	102	%	05:29:51
1	Al 396.153Radial†	20460.0	19942.7	[10000]	µg/L	05:29:51
1	Ca 317.933Radial†	26126.2	25292.8	[10000]	µg/L	05:30:11
1	Fe 238.204 Radial†	1871.7	1834.4	[10000]	µg/L	05:30:11
1	K 766.490 Radial†	19521.3	18411.7	[10000]	µg/L	05:29:51
1	Mg 279.077 IEC†	1848.1	1802.4	[10000]	µg/L	05:30:11
1	Na 589.592 Radial†	37635.4	37768.4	[10000]	µg/L	05:29:51
1	Sr 421.552†	182153.8	179259.0	[1000]	µg/L	05:29:51
1	Sc 361.383	2091898.8	2091898.8	100.35	%	05:31:16
1	Y 371.029	1277129.0	1277129.0	99.529	%	05:31:16
1	Ag 328.068†	110234.5	109779.6	[1000]	µg/L	05:31:21
1	As 188.979†	540.1	537.7	[1000]	µg/L	05:31:42
1	B 249.677†	22608.3	22413.6	[1000]	µg/L	05:31:21
1	Ba 233.527†	39104.8	39050.9	[1000]	µg/L	05:31:21
1	Be 313.107†	1612903.2	1603815.2	[1000]	µg/L	05:31:16
1	Cd 226.502†	37900.6	37876.8	[1000]	µg/L	05:31:21
1	Co 228.616†	20420.5	20435.4	[1000]	µg/L	05:31:21
1	Cr 267.716†	47636.1	47598.1	[1000]	µg/L	05:31:21
1	Cu 324.752†	148259.2	144166.8	[1000]	µg/L	05:31:16
1	Mn 257.610†	312847.0	311992.4	[1000]	µg/L	05:31:16
1	Mo 202.031†	8878.2	8848.2	[1000]	µg/L	05:31:21
1	Ni 231.604†	18529.0	18137.4	[1000]	µg/L	05:31:21
1	P 214.914†	2566.6	2345.9	[5000]	µg/L	05:31:42
1	Pb 220.353†	4006.7	3940.5	[1000]	µg/L	05:31:42
1	S 181.975 Axial†	419.3	390.7	[2000]	µg/L	05:31:42
1	Sb 206.836†	1040.1	1014.0	[1000]	µg/L	05:31:42
1	Se 196.026†	767.2	746.1	[1000]	µg/L	05:31:42
1	SiO2†	57998.7	55528.5	[10695]	µg/L	05:31:21
1	Si 251.611†	64991.7	64410.1	[5000]	µg/L	05:31:21
1	Sn 189.927†	2086.9	2055.7	[1000]	µg/L	05:31:42
1	Ti 334.940†	452937.6	450509.6	[1000]	µg/L	05:31:16
1	Tl 190.801†	648.2	666.1	[1000]	µg/L	05:31:42
1	U 409.014†	11419.0	10618.7	[1000]	µg/L	05:31:21
1	V 292.402†	87948.3	87769.6	[1000]	µg/L	05:31:21
1	Zn 213.857†	37722.0	37006.8	[1000]	µg/L	05:31:21
2	Sc RADIAL	115537.0	115537.0	102	%	05:30:17
2	Al 396.153Radial†	20510.1	19917.1	[10000]	µg/L	05:30:17
2	Ca 317.933Radial†	26242.3	25311.3	[10000]	µg/L	05:30:37
2	Fe 238.204 Radial†	1881.9	1837.6	[10000]	µg/L	05:30:37
2	K 766.490 Radial†	19528.3	18347.3	[10000]	µg/L	05:30:17
2	Mg 279.077 IEC†	1852.1	1799.6	[10000]	µg/L	05:30:37
2	Na 589.592 Radial†	37870.6	37861.5	[10000]	µg/L	05:30:17
2	Sr 421.552†	182537.6	178970.1	[1000]	µg/L	05:30:17
2	Sc 361.383	2085647.0	2085647.0	100.05	%	05:31:49
2	Y 371.029	1274249.7	1274249.7	99.304	%	05:31:49
2	Ag 328.068†	111672.4	111546.1	[1000]	µg/L	05:31:54
2	As 188.979†	530.8	530.0	[1000]	µg/L	05:32:15
2	B 249.677†	22918.4	22791.1	[1000]	µg/L	05:31:54
2	Ba 233.527†	39585.4	39648.1	[1000]	µg/L	05:31:54
2	Be 313.107†	1607700.9	1603433.4	[1000]	µg/L	05:31:49
2	Cd 226.502†	38230.8	38320.2	[1000]	µg/L	05:31:54
2	Co 228.616†	20655.0	20730.7	[1000]	µg/L	05:31:54
2	Cr 267.716†	48174.6	48278.7	[1000]	µg/L	05:31:54
2	Cu 324.752†	147640.0	143990.8	[1000]	µg/L	05:31:49
2	Mn 257.610†	311924.2	312004.6	[1000]	µg/L	05:31:49
2	Mo 202.031†	8963.8	8960.2	[1000]	µg/L	05:31:54
2	Ni 231.604†	18732.1	18395.8	[1000]	µg/L	05:31:54
2	P 214.914†	2572.4	2359.4	[5000]	µg/L	05:32:15
2	Pb 220.353†	4005.3	3951.0	[1000]	µg/L	05:32:15

2	S 181.975 Axial†	421.2	393.8	[2000]	µg/L	05:32:15
2	Sb 206.836†	1046.3	1023.3	[1000]	µg/L	05:32:15
2	Se 196.026†	760.9	742.1	[1000]	µg/L	05:32:15
2	SiO2†	58567.9	56270.7	[10695]	µg/L	05:31:54
2	Si 251.611†	65845.0	65457.2	[5000]	µg/L	05:31:54
2	Sn 189.927†	2085.3	2060.4	[1000]	µg/L	05:32:15
2	Ti 334.940†	451386.2	450311.9	[1000]	µg/L	05:31:49
2	Tl 190.801†	652.7	672.6	[1000]	µg/L	05:32:15
2	U 409.014†	11556.2	10789.9	[1000]	µg/L	05:31:54
2	V 292.402†	89074.9	89158.4	[1000]	µg/L	05:31:54
2	Zn 213.857†	38203.0	37600.3	[1000]	µg/L	05:31:54
3	Sc RADIAL	114160.3	114160.3	101	%	05:30:43
3	Al 396.153Radial†	20285.0	19936.3	[10000]	µg/L	05:30:43
3	Ca 317.933Radial†	26165.2	25544.9	[10000]	µg/L	05:31:03
3	Fe 238.204 Radial†	1875.7	1853.7	[10000]	µg/L	05:31:03
3	K 766.490 Radial†	19411.1	18461.8	[10000]	µg/L	05:30:43
3	Mg 279.077 IEC†	1848.0	1817.4	[10000]	µg/L	05:31:03
3	Na 589.592 Radial†	37451.5	37893.4	[10000]	µg/L	05:30:43
3	Sr 421.552†	180201.5	178810.5	[1000]	µg/L	05:30:43
3	Sc 361.383	2082196.1	2082196.1	99.882	%	05:32:22
3	Y 371.029	1270563.7	1270563.7	99.017	%	05:32:22
3	Ag 328.068†	106702.6	106755.5	[1000]	µg/L	05:32:28
3	As 188.979†	470.2	470.2	[1000]	µg/L	05:32:48
3	B 249.677†	21814.4	21723.7	[1000]	µg/L	05:32:28
3	Ba 233.527†	37032.6	37157.8	[1000]	µg/L	05:32:28
3	Be 313.107†	1530725.1	1529029.8	[1000]	µg/L	05:32:22
3	Cd 226.502†	35699.1	35848.7	[1000]	µg/L	05:32:28
3	Co 228.616†	19170.2	19278.4	[1000]	µg/L	05:32:28
3	Cr 267.716†	43797.6	43976.4	[1000]	µg/L	05:32:28
3	Cu 324.752†	141422.6	138010.6	[1000]	µg/L	05:32:22
3	Mn 257.610†	297642.8	298222.9	[1000]	µg/L	05:32:22
3	Mo 202.031†	8295.1	8305.6	[1000]	µg/L	05:32:28
3	Ni 231.604†	17301.6	16994.6	[1000]	µg/L	05:32:28
3	P 214.914†	2280.3	2071.3	[5000]	µg/L	05:32:48
3	Pb 220.353†	3583.5	3535.4	[1000]	µg/L	05:32:48
3	S 181.975 Axial†	384.0	357.3	[2000]	µg/L	05:32:48
3	Sb 206.836†	928.6	907.2	[1000]	µg/L	05:32:48
3	Se 196.026†	696.8	679.2	[1000]	µg/L	05:32:48
3	SiO2†	55293.2	53089.2	[10695]	µg/L	05:32:28
3	Si 251.611†	62162.2	61879.1	[5000]	µg/L	05:32:28
3	Sn 189.927†	1788.1	1766.3	[1000]	µg/L	05:32:48
3	Ti 334.940†	428544.7	428191.1	[1000]	µg/L	05:32:22
3	Tl 190.801†	596.4	617.3	[1000]	µg/L	05:32:48
3	U 409.014†	10581.1	9832.8	[1000]	µg/L	05:32:28
3	V 292.402†	82168.2	82391.1	[1000]	µg/L	05:32:28
3	Zn 213.857†	35486.5	34943.9	[1000]	µg/L	05:32:28

Mean Data: SCAL

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	2086580.6	4918.25	0.24%	100.09	%
Sc RADIAL	114935.2	704.51	0.61%	102	%
Y 371.029	1273980.8	3290.89	0.26%	99.284	%
Ag 328.068†	109360.4	2422.67	2.22%	[1000]	µg/L
Al 396.153Radial†	19932.0	13.32	0.07%	[10000]	µg/L
As 188.979†	512.6	36.95	7.21%	[1000]	µg/L
B 249.677†	22309.4	541.27	2.43%	[1000]	µg/L
Ba 233.527†	38618.9	1300.12	3.37%	[1000]	µg/L
Be 313.107†	1578759.5	43067.56	2.73%	[1000]	µg/L
Ca 317.933Radial†	25383.0	140.48	0.55%	[10000]	µg/L
Cd 226.502†	37348.6	1317.67	3.53%	[1000]	µg/L
Co 228.616†	20148.2	767.59	3.81%	[1000]	µg/L
Cr 267.716†	46617.7	2312.65	4.96%	[1000]	µg/L
Cu 324.752†	142056.1	3504.58	2.47%	[1000]	µg/L
Fe 238.204 Radial†	1841.9	10.34	0.56%	[10000]	µg/L
K 766.490 Radial†	18407.0	57.39	0.31%	[10000]	µg/L
Mg 279.077 IEC†	1806.4	9.56	0.53%	[10000]	µg/L
Mn 257.610†	307406.6	7953.33	2.59%	[1000]	µg/L
Mo 202.031†	8704.7	350.10	4.02%	[1000]	µg/L
Na 589.592 Radial†	37841.1	64.92	0.17%	[10000]	µg/L

Ni 231.604†	17842.6	745.66	4.18%	[1000]	µg/L
P 214.914†	2258.9	162.63	7.20%	[5000]	µg/L
Pb 220.353†	3809.0	237.00	6.22%	[1000]	µg/L
S 181.975 Axial†	380.6	20.25	5.32%	[2000]	µg/L
Sb 206.836†	981.5	64.51	6.57%	[1000]	µg/L
Se 196.026†	722.5	37.54	5.20%	[1000]	µg/L
SiO2†	54962.8	1664.50	3.03%	[10695]	µg/L
Si 251.611†	63915.5	1839.61	2.88%	[5000]	µg/L
Sn 189.927†	1960.8	168.47	8.59%	[1000]	µg/L
Sr 421.552†	179013.2	227.33	0.13%	[1000]	µg/L
Ti 334.940†	443004.2	12828.90	2.90%	[1000]	µg/L
Tl 190.801†	652.0	30.23	4.64%	[1000]	µg/L
U 409.014†	10413.8	510.37	4.90%	[1000]	µg/L
V 292.402†	86439.7	3574.28	4.13%	[1000]	µg/L
Zn 213.857†	36517.0	1394.30	3.82%	[1000]	µg/L

Sequence No.: 5
Sample ID: S10
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 5
Date Collected: 12/20/2009 05:32:58
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S10

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	115472.6	115472.6	102	%	05:33:30
1	Al 396.153Radial†	101072.1	98914.3	[50000]	µg/L	05:33:30
1	Ca 317.933Radial†	130236.4	127285.3	[50000]	µg/L	05:33:30
1	Fe 238.204 Radial†	3731.2	3651.8	[20000]	µg/L	05:33:50
1	Mg 279.077 IEC†	8963.0	8772.3	[50000]	µg/L	05:33:50
1	Na 589.592 Radial†	75560.6	74834.8	[20000]	µg/L	05:33:30
1	Sc 361.383	2101325.8	2101325.8	100.80	%	05:34:54
1	Y 371.029	1273115.4	1273115.4	99.216	%	05:34:54
2	Sc RADIAL	115444.5	115444.5	102	%	05:33:56
2	Al 396.153Radial†	101343.5	99204.6	[50000]	µg/L	05:33:56
2	Ca 317.933Radial†	130381.0	127458.3	[50000]	µg/L	05:33:56
2	Fe 238.204 Radial†	3756.6	3677.5	[20000]	µg/L	05:34:16
2	Mg 279.077 IEC†	8997.4	8808.2	[50000]	µg/L	05:34:16
2	Na 589.592 Radial†	75824.5	75111.7	[20000]	µg/L	05:33:56
2	Sc 361.383	2111789.6	2111789.6	101.30	%	05:35:02
2	Y 371.029	1280063.5	1280063.5	99.758	%	05:35:02
3	Sc RADIAL	115019.8	115019.8	102	%	05:34:22
3	Al 396.153Radial†	100996.0	99229.5	[50000]	µg/L	05:34:22
3	Ca 317.933Radial†	129745.6	127304.9	[50000]	µg/L	05:34:22
3	Fe 238.204 Radial†	3702.0	3637.4	[20000]	µg/L	05:34:42
3	Mg 279.077 IEC†	8896.9	8741.9	[50000]	µg/L	05:34:42
3	Na 589.592 Radial†	75419.9	74988.0	[20000]	µg/L	05:34:22
3	Sc 361.383	2088146.6	2088146.6	100.17	%	05:35:10
3	Y 371.029	1265384.0	1265384.0	98.614	%	05:35:10

Mean Data: S10

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	2100420.7	11847.46	0.56%	100.76	%
Sc RADIAL	115312.3	253.68	0.22%	102	%
Y 371.029	1272854.3	7343.23	0.58%	99.196	%
Al 396.153Radial†	99116.2	175.22	0.18%	[50000]	µg/L
Ca 317.933Radial†	127349.5	94.74	0.07%	[50000]	µg/L
Fe 238.204 Radial†	3655.5	20.32	0.56%	[20000]	µg/L
Mg 279.077 IEC†	8774.1	33.20	0.38%	[50000]	µg/L
Na 589.592 Radial†	74978.2	138.71	0.19%	[20000]	µg/L

Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 328.068	3	Lin Thru 0	0.0	109.1	0.00000	0.999970	
Al 396.153Radial	3	Lin Thru 0	0.0	1.982	0.00000	0.999997	
As 188.979	3	Lin Thru 0	0.0	0.5119	0.00000	0.999973	
B 249.677	3	Lin Thru 0	0.0	22.21	0.00000	0.999958	
Ba 233.527	3	Lin Thru 0	0.0	38.58	0.00000	0.999982	
Be 313.107	3	Lin Thru 0	0.0	1576	0.00000	0.999985	
Ca 317.933Radial	3	Lin Thru 0	0.0	2.546	0.00000	0.999994	
Cd 226.502	3	Lin Thru 0	0.0	37.35	0.00000	0.999977	
Co 228.616	3	Lin Thru 0	0.0	20.14	0.00000	0.999987	
Cr 267.716	3	Lin Thru 0	0.0	46.55	0.00000	0.999973	
Cu 324.752	3	Lin Thru 0	0.0	140.9	0.00000	0.999850	
Fe 238.204 Radia	2	Lin Thru 0	0.0	0.1831	0.00000	0.999995	
K 766.490 Radial	3	Lin Thru 0	0.0	1.831	0.00000	0.999946	
Mg 279.077 IEC	3	Lin Thru 0	0.0	0.1757	0.00000	0.999984	
Mn 257.610	3	Lin Thru 0	0.0	307.1	0.00000	0.999985	
Mo 202.031	3	Lin Thru 0	0.0	8.627	0.00000	0.999813	
Na 589.592 Radia	2	Lin Thru 0	0.0	3.756	0.00000	0.999993	

Ni 231.604	3	Lin Thru 0	0.0	17.86	0.00000	0.999974
P 214.914	3	Lin Thru 0	0.0	0.4502	0.00000	0.999965
Pb 220.353	3	Lin Thru 0	0.0	3.804	0.00000	0.999973
S 181.975 Axial	3	Lin Thru 0	0.0	0.1893	0.00000	0.999918
Sb 206.836	3	Lin Thru 0	0.0	0.9784	0.00000	0.999972
Se 196.026	3	Lin Thru 0	0.0	0.7185	0.00000	0.999930
SiO2	3	Lin Thru 0	0.0	5.131	0.00000	0.999977
Si 251.611	3	Lin Thru 0	0.0	12.76	0.00000	0.999978
Sn 189.927	3	Lin Thru 0	0.0	1.953	0.00000	0.999934
Sr 421.552	3	Lin Thru 0	0.0	178.3	0.00000	0.999973
Ti 334.940	3	Lin Thru 0	0.0	441.3	0.00000	0.999966
Tl 190.801	3	Lin Thru 0	0.0	0.6507	0.00000	0.999980
U 409.014	3	Lin Thru 0	0.0	10.40	0.00000	0.999930
V 292.402	3	Lin Thru 0	0.0	86.36	0.00000	0.999983
Zn 213.857	3	Lin Thru 0	0.0	36.53	0.00000	0.999973

Sequence No.: 6
Sample ID: ICV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 9
Date Collected: 12/20/2009 05:35:18
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	116625.3	116625.3	103	%			05:35:52
1	Al 396.153Radial†	10587.8	10097.5	5072.7	µg/L	5072.7	ppb	05:35:52
1	Ca 317.933Radial†	13308.2	12515.5	4916.2	µg/L	4916.2	ppb	05:36:12
1	Fe 238.204 Radial†	957.7	923.2	5060.8	µg/L	5060.8	ppb	05:36:12
1	K 766.490 Radial†	5450.9	4503.2	2459.4	µg/L	2459.4	ppb	05:35:52
1	Mg 279.077 IEC†	969.8	926.1	5278.0	µg/L	5278.0	ppb	05:36:12
1	Na 589.592 Radial†	8904.0	9395.9	2501.6	µg/L	2501.6	ppb	05:35:52
1	Sr 421.552†	96671.9	93947.2	526.77	µg/L	526.77	ppb	05:35:52
1	Sc 361.383	2090973.0	2090973.0	100.30	%			05:37:16
1	Y 371.029	1279315.0	1279315.0	99.699	%			05:37:16
1	Ag 328.068†	29451.9	29289.6	272.56	µg/L	272.56	ppb	05:37:22
1	As 188.979†	256.9	255.6	498.08	µg/L	498.08	ppb	05:37:42
1	B 249.677†	12032.4	11879.6	533.24	µg/L	533.24	ppb	05:37:22
1	Ba 233.527†	20396.0	20415.9	530.28	µg/L	530.28	ppb	05:37:22
1	Be 313.107†	427218.6	422423.4	267.77	µg/L	267.77	ppb	05:37:16
1	Cd 226.502†	19444.6	19493.4	522.49	µg/L	522.49	ppb	05:37:22
1	Co 228.616†	10627.4	10680.8	530.61	µg/L	530.61	ppb	05:37:22
1	Cr 267.716†	23922.1	23976.8	516.28	µg/L	516.28	ppb	05:37:22
1	Cu 324.752†	75920.6	72112.1	512.80	µg/L	512.80	ppb	05:37:22
1	Mn 257.610†	161507.1	161247.5	525.76	µg/L	525.76	ppb	05:37:16
1	Mo 202.031†	4779.2	4765.4	552.59	µg/L	552.59	ppb	05:37:42
1	Ni 231.604†	9761.8	9404.9	526.71	µg/L	526.71	ppb	05:37:22
1	P 214.914†	1392.2	1176.3	2558.0	µg/L	2558.0	ppb	05:37:42
1	Pb 220.353†	2044.9	1986.4	523.13	µg/L	523.13	ppb	05:37:42
1	S 181.975 Axial†	530.3	501.6	2647.8	µg/L	2647.8	ppb	05:37:42
1	Sb 206.836†	538.6	514.5	524.35	µg/L	524.35	ppb	05:37:42
1	Se 196.026†	1901.1	1876.9	2614.4	µg/L	2614.4	ppb	05:37:42
1	SiO2†	57275.1	54832.6	10687	µg/L	10687	ppb	05:37:22
1	Si 251.611†	64136.6	63586.3	4932.8	µg/L	4932.8	ppb	05:37:22
1	Sn 189.927†	1145.2	1117.9	575.01	µg/L	575.01	ppb	05:37:42
1	Ti 334.940†	226036.4	224493.6	508.44	µg/L	508.44	ppb	05:37:16
1	Tl 190.801†	330.3	349.4	539.39	µg/L	539.39	ppb	05:37:42
1	U 409.014†	6077.4	5298.3	508.56	µg/L	508.56	ppb	05:37:22
1	V 292.402†	46129.4	46115.8	539.09	µg/L	539.09	ppb	05:37:22
1	Zn 213.857†	20232.6	19586.9	532.05	µg/L	532.05	ppb	05:37:22
2	Sc RADIAL	116528.4	116528.4	103	%			05:36:18
2	Al 396.153Radial†	10515.5	10035.8	5041.8	µg/L	5041.8	ppb	05:36:18
2	Ca 317.933Radial†	13343.1	12560.1	4933.7	µg/L	4933.7	ppb	05:36:38
2	Fe 238.204 Radial†	958.7	925.0	5070.0	µg/L	5070.0	ppb	05:36:38
2	K 766.490 Radial†	5392.1	4450.4	2430.6	µg/L	2430.6	ppb	05:36:18
2	Mg 279.077 IEC†	969.5	926.6	5280.6	µg/L	5280.6	ppb	05:36:38
2	Na 589.592 Radial†	8902.3	9401.5	2503.1	µg/L	2503.1	ppb	05:36:18
2	Sr 421.552†	96970.7	94315.5	528.83	µg/L	528.83	ppb	05:36:18
2	Sc 361.383	2132121.5	2132121.5	102.28	%			05:37:49
2	Y 371.029	1306663.9	1306663.9	101.83	%			05:37:49
2	Ag 328.068†	29412.1	28684.0	266.92	µg/L	266.92	ppb	05:37:55
2	As 188.979†	258.4	252.0	491.17	µg/L	491.17	ppb	05:38:15
2	B 249.677†	11923.1	11541.2	518.00	µg/L	518.00	ppb	05:37:55
2	Ba 233.527†	20304.6	19934.1	517.76	µg/L	517.76	ppb	05:37:55
2	Be 313.107†	418740.4	405913.8	257.30	µg/L	257.30	ppb	05:37:49
2	Cd 226.502†	19395.8	19071.5	511.17	µg/L	511.17	ppb	05:37:55
2	Co 228.616†	10636.1	10484.8	520.90	µg/L	520.90	ppb	05:37:55
2	Cr 267.716†	23856.8	23452.7	504.99	µg/L	504.99	ppb	05:37:55
2	Cu 324.752†	75846.9	70579.2	501.93	µg/L	501.93	ppb	05:37:55
2	Mn 257.610†	158601.1	155298.7	506.39	µg/L	506.39	ppb	05:37:49
2	Mo 202.031†	4807.5	4701.1	545.13	µg/L	545.13	ppb	05:38:15
2	Ni 231.604†	9745.8	9201.4	515.32	µg/L	515.32	ppb	05:37:55
2	P 214.914†	1402.8	1159.9	2522.7	µg/L	2522.7	ppb	05:38:15
2	Pb 220.353†	2055.3	1957.2	515.45	µg/L	515.45	ppb	05:38:15

2	S 181.975 Axial†	526.0	487.1	2571.4 µg/L	2571.4 ppb	05:38:15
2	Sb 206.836†	536.7	502.3	511.81 µg/L	511.81 ppb	05:38:15
2	Se 196.026†	1913.7	1852.7	2580.7 µg/L	2580.7 ppb	05:38:15
2	SiO2†	56974.5	53436.7	10415 µg/L	10415 ppb	05:37:55
2	Si 251.611†	63818.4	62041.1	4812.8 µg/L	4812.8 ppb	05:37:55
2	Sn 189.927†	1150.1	1100.6	566.19 µg/L	566.19 ppb	05:38:15
2	Ti 334.940†	222213.2	216406.2	490.11 µg/L	490.11 ppb	05:37:49
2	Tl 190.801†	333.9	346.7	534.95 µg/L	534.95 ppb	05:38:15
2	U 409.014†	6088.1	5191.8	498.32 µg/L	498.32 ppb	05:37:55
2	V 292.402†	45896.3	45000.4	526.11 µg/L	526.11 ppb	05:37:55
2	Zn 213.857†	20114.4	19082.0	518.31 µg/L	518.31 ppb	05:37:55
3	Sc RADIAL	116090.3	116090.3	103 %		05:36:44
3	Al 396.153Radial†	10516.9	10075.7	5064.5 µg/L	5064.5 ppb	05:36:44
3	Ca 317.933Radial†	13314.1	12580.8	4941.8 µg/L	4941.8 ppb	05:37:04
3	Fe 238.204 Radial†	966.6	936.1	5130.5 µg/L	5130.5 ppb	05:37:04
3	K 766.490 Radial†	5411.7	4489.3	2451.9 µg/L	2451.9 ppb	05:36:44
3	Mg 279.077 IEC†	966.0	926.7	5279.5 µg/L	5279.5 ppb	05:37:04
3	Na 589.592 Radial†	8871.6	9404.2	2503.8 µg/L	2503.8 ppb	05:36:44
3	Sr 421.552†	96673.0	94380.7	529.20 µg/L	529.20 ppb	05:36:44
3	Sc 361.383	2102783.4	2102783.4	100.87 %		05:38:22
3	Y 371.029	1286148.7	1286148.7	100.23 %		05:38:22
3	Ag 328.068†	28586.1	28266.4	262.96 µg/L	262.96 ppb	05:38:28
3	As 188.979†	229.6	227.1	442.48 µg/L	442.48 ppb	05:38:48
3	B 249.677†	11637.7	11420.9	512.56 µg/L	512.56 ppb	05:38:28
3	Ba 233.527†	19487.6	19401.1	503.90 µg/L	503.90 ppb	05:38:28
3	Be 313.107†	416054.5	408963.3	259.24 µg/L	259.24 ppb	05:38:22
3	Cd 226.502†	18539.5	18487.2	495.48 µg/L	495.48 ppb	05:38:28
3	Co 228.616†	10122.5	10120.7	502.66 µg/L	502.66 ppb	05:38:28
3	Cr 267.716†	22297.5	22232.2	478.72 µg/L	478.72 ppb	05:38:28
3	Cu 324.752†	72228.0	68026.2	483.82 µg/L	483.82 ppb	05:38:28
3	Mn 257.610†	157224.0	156097.0	508.99 µg/L	508.99 ppb	05:38:22
3	Mo 202.031†	4170.1	4134.8	479.49 µg/L	479.49 ppb	05:38:48
3	Ni 231.604†	9274.2	8866.8	496.58 µg/L	496.58 ppb	05:38:28
3	P 214.914†	1257.8	1035.2	2246.5 µg/L	2246.5 ppb	05:38:48
3	Pb 220.353†	1854.8	1786.4	470.41 µg/L	470.41 ppb	05:38:48
3	S 181.975 Axial†	477.4	446.2	2355.1 µg/L	2355.1 ppb	05:38:48
3	Sb 206.836†	490.5	463.8	472.65 µg/L	472.65 ppb	05:38:48
3	Se 196.026†	1741.6	1708.2	2379.6 µg/L	2379.6 ppb	05:38:48
3	SiO2†	55078.2	52334.0	10200 µg/L	10200 ppb	05:38:28
3	Si 251.611†	61638.9	60751.0	4715.5 µg/L	4715.5 ppb	05:38:28
3	Sn 189.927†	993.8	961.3	494.89 µg/L	494.89 ppb	05:38:48
3	Ti 334.940†	219657.3	216903.7	491.24 µg/L	491.24 ppb	05:38:22
3	Tl 190.801†	316.4	333.9	515.44 µg/L	515.44 ppb	05:38:48
3	U 409.014†	5725.0	4914.8	471.68 µg/L	471.68 ppb	05:38:28
3	V 292.402†	43489.6	43240.5	505.23 µg/L	505.23 ppb	05:38:28
3	Zn 213.857†	19205.4	18455.3	501.27 µg/L	501.27 ppb	05:38:28

Mean Data: ICV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2108626.0	101.15	%	1.016				1.00%
Sc RADIAL	116414.6	103	%	0.3				0.24%
Y 371.029	1290709.2	100.59	%	1.109				1.10%
Ag 328.068†	28746.7	267.48	µg/L	4.826	267.48	ppb	4.826	1.80%
QC value within limits for Ag 328.068 Recovery = 106.99%								
Al 396.153Radial†	10069.7	5059.7	µg/L	15.98	5059.7	ppb	15.98	0.32%
QC value within limits for Al 396.153Radial Recovery = 101.19%								
As 188.979†	244.9	477.24	µg/L	30.301	477.24	ppb	30.301	6.35%
QC value within limits for As 188.979 Recovery = 95.45%								
B 249.677†	11613.9	521.27	µg/L	10.717	521.27	ppb	10.717	2.06%
QC value within limits for B 249.677 Recovery = 104.25%								
Ba 233.527†	19917.0	517.31	µg/L	13.192	517.31	ppb	13.192	2.55%
QC value within limits for Ba 233.527 Recovery = 103.46%								
Be 313.107†	412433.5	261.44	µg/L	5.569	261.44	ppb	5.569	2.13%
QC value within limits for Be 313.107 Recovery = 104.57%								
Ca 317.933Radial†	12552.2	4930.6	µg/L	13.11	4930.6	ppb	13.11	0.27%
QC value within limits for Ca 317.933Radial Recovery = 98.61%								
Cd 226.502†	19017.4	509.71	µg/L	13.562	509.71	ppb	13.562	2.66%
QC value within limits for Cd 226.502 Recovery = 101.94%								
Co 228.616†	10428.8	518.05	µg/L	14.188	518.05	ppb	14.188	2.74%

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   QC value within limits for Co 228.616  Recovery = 103.61%
Cr 267.716†            23220.6      500.00 µg/L        19.267      500.00 ppb        19.267   3.85%
   QC value within limits for Cr 267.716  Recovery = 100.00%
Cu 324.752†            70239.2      499.52 µg/L        14.639      499.52 ppb        14.639   2.93%
   QC value within limits for Cu 324.752  Recovery = 99.90%
Fe 238.204 Radial†       928.1      5087.1 µg/L         37.85      5087.1 ppb         37.85   0.74%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.74%
K 766.490 Radial†       4481.0      2447.3 µg/L         14.93      2447.3 ppb         14.93   0.61%
   QC value within limits for K 766.490 Radial  Recovery = 97.89%
Mg 279.077 IEC†          926.4      5279.4 µg/L          1.32      5279.4 ppb          1.32   0.02%
   QC value within limits for Mg 279.077 IEC  Recovery = 105.59%
Mn 257.610†           157547.8      513.71 µg/L        10.513      513.71 ppb        10.513   2.05%
   QC value within limits for Mn 257.610  Recovery = 102.74%
Mo 202.031†             4533.8      525.74 µg/L        40.225      525.74 ppb        40.225   7.65%
   QC value within limits for Mo 202.031  Recovery = 105.15%
Na 589.592 Radial†      9400.5      2502.8 µg/L          1.13      2502.8 ppb          1.13   0.05%
   QC value within limits for Na 589.592 Radial  Recovery = 100.11%
Ni 231.604†             9157.7      512.87 µg/L        15.215      512.87 ppb        15.215   2.97%
   QC value within limits for Ni 231.604  Recovery = 102.57%
P 214.914†              1123.8      2442.4 µg/L        170.61      2442.4 ppb        170.61   6.99%
   QC value within limits for P 214.914  Recovery = 97.70%
Pb 220.353†             1910.0      502.99 µg/L        28.482      502.99 ppb        28.482   5.66%
   QC value within limits for Pb 220.353  Recovery = 100.60%
S 181.975 Axial†         478.3      2524.8 µg/L        151.79      2524.8 ppb        151.79   6.01%
   QC value within limits for S 181.975 Axial  Recovery = 100.99%
Sb 206.836†              493.5      502.93 µg/L        26.968      502.93 ppb        26.968   5.36%
   QC value within limits for Sb 206.836  Recovery = 100.59%
Se 196.026†             1812.6      2524.9 µg/L        126.97      2524.9 ppb        126.97   5.03%
   QC value within limits for Se 196.026  Recovery = 101.00%
SiO2†                  53534.4       10434 µg/L         244.1       10434 ppb         244.1   2.34%
   QC value within limits for SiO2  Recovery = 97.56%
Si 251.611†            62126.1      4820.4 µg/L        108.82      4820.4 ppb        108.82   2.26%
   QC value within limits for Si 251.611  Recovery = 96.41%
Sn 189.927†             1059.9      545.36 µg/L        43.934      545.36 ppb        43.934   8.06%
   QC value within limits for Sn 189.927  Recovery = 109.07%
Sr 421.552†            94214.5      528.26 µg/L         1.311      528.26 ppb         1.311   0.25%
   QC value within limits for Sr 421.552  Recovery = 105.65%
Ti 334.940†           219267.8      496.59 µg/L        10.271      496.59 ppb        10.271   2.07%
   QC value within limits for Ti 334.940  Recovery = 99.32%
Tl 190.801†              343.3      529.93 µg/L        12.745      529.93 ppb        12.745   2.40%
   QC value within limits for Tl 190.801  Recovery = 105.99%
U 409.014†              5135.0      492.85 µg/L        19.037      492.85 ppb        19.037   3.86%
   QC value within limits for U 409.014  Recovery = 98.57%
V 292.402†             44785.5      523.48 µg/L        17.082      523.48 ppb        17.082   3.26%
   QC value within limits for V 292.402  Recovery = 104.70%
Zn 213.857†            19041.4      517.21 µg/L        15.423      517.21 ppb        15.423   2.98%
   QC value within limits for Zn 213.857  Recovery = 103.44%
All analyte(s) passed QC.
```

Sequence No.: 7
Sample ID: ICB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 10
Date Collected: 12/20/2009 05:38:57
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	114659.5	114659.5	101	%			05:39:30
1	Al 396.153Radial†	227.3	43.8	22.092	µg/L	22.092	ppb	05:39:30
1	Ca 317.933Radial†	417.3	8.7	3.4071	µg/L	3.4071	ppb	05:39:50
1	Fe 238.204 Radial†	9.8	3.2	17.467	µg/L	17.467	ppb	05:39:50
1	K 766.490 Radial†	718.3	-79.1	-43.176	µg/L	-43.176	ppb	05:39:30
1	Mg 279.077 IEC†	17.9	2.3	13.140	µg/L	13.140	ppb	05:39:50
1	Na 589.592 Radial†	-753.4	8.5	2.2605	µg/L	2.2605	ppb	05:39:30
1	Sr 421.552†	-59.4	44.4	0.2491	µg/L	0.2491	ppb	05:39:30
1	Sc 361.383	2078145.1	2078145.1	99.688	%			05:40:52
1	Y 371.029	1277609.5	1277609.5	99.566	%			05:40:52
1	Ag 328.068†	137.2	64.4	0.5914	µg/L	0.5914	ppb	05:40:58
1	As 188.979†	0.6	-0.0	-0.0347	µg/L	-0.0347	ppb	05:41:18
1	B 249.677†	147.7	31.7	1.4213	µg/L	1.4213	ppb	05:40:58
1	Ba 233.527†	-72.4	8.9	0.2296	µg/L	0.2296	ppb	05:41:18
1	Be 313.107†	3699.1	205.8	0.1305	µg/L	0.1305	ppb	05:40:58
1	Cd 226.502†	-102.9	4.2	0.1104	µg/L	0.1104	ppb	05:41:18
1	Co 228.616†	-78.1	7.2	0.3577	µg/L	0.3577	ppb	05:41:18
1	Cr 267.716†	-145.2	-18.7	-0.4007	µg/L	-0.4007	ppb	05:40:58
1	Cu 324.752†	3510.7	-57.5	-0.4041	µg/L	-0.4041	ppb	05:40:58
1	Mn 257.610†	-174.8	53.0	0.1746	µg/L	0.1746	ppb	05:41:18
1	Mo 202.031†	2.5	3.2	0.3680	µg/L	0.3680	ppb	05:41:18
1	Ni 231.604†	352.5	26.1	1.4632	µg/L	1.4632	ppb	05:41:18
1	P 214.914†	193.5	-17.6	-39.153	µg/L	-39.153	ppb	05:41:18
1	Pb 220.353†	52.6	0.4	0.1020	µg/L	0.1020	ppb	05:41:18
1	S 181.975 Axial†	26.2	-0.8	-4.4548	µg/L	-4.4548	ppb	05:41:18
1	Sb 206.836†	20.0	-2.4	-2.4057	µg/L	-2.4057	ppb	05:41:18
1	Se 196.026†	7.0	-11.4	-15.881	µg/L	-15.881	ppb	05:41:18
1	SiO2†	2262.0	-0.3	-0.0677	µg/L	-0.0677	ppb	05:40:58
1	Si 251.611†	414.2	58.9	4.6997	µg/L	4.6997	ppb	05:41:18
1	Sn 189.927†	20.0	-3.9	-1.9949	µg/L	-1.9949	ppb	05:41:18
1	Ti 334.940†	903.5	46.2	0.1044	µg/L	0.1044	ppb	05:40:58
1	Tl 190.801†	-16.9	3.2	4.8909	µg/L	4.8909	ppb	05:41:18
1	U 409.014†	713.7	-44.8	-4.3150	µg/L	-4.3150	ppb	05:40:58
1	V 292.402†	-124.1	1.3	0.0118	µg/L	0.0118	ppb	05:40:58
1	Zn 213.857†	596.7	14.0	0.3735	µg/L	0.3735	ppb	05:41:18
2	Sc RADIAL	113340.9	113340.9	100	%			05:39:56
2	Al 396.153Radial†	155.7	-25.0	-12.656	µg/L	-12.656	ppb	05:39:56
2	Ca 317.933Radial†	413.6	9.7	3.8251	µg/L	3.8251	ppb	05:40:16
2	Fe 238.204 Radial†	13.2	6.6	36.322	µg/L	36.322	ppb	05:40:16
2	K 766.490 Radial†	767.7	-21.5	-11.732	µg/L	-11.732	ppb	05:39:56
2	Mg 279.077 IEC†	16.6	1.3	7.2784	µg/L	7.2784	ppb	05:40:16
2	Na 589.592 Radial†	-765.9	-12.6	-3.3637	µg/L	-3.3637	ppb	05:39:56
2	Sr 421.552†	-91.8	11.4	0.0640	µg/L	0.0640	ppb	05:39:56
2	Sc 361.383	2097973.6	2097973.6	100.64	%			05:41:24
2	Y 371.029	1289984.8	1289984.8	100.53	%			05:41:24
2	Ag 328.068†	156.5	82.3	0.7529	µg/L	0.7529	ppb	05:41:30
2	As 188.979†	0.3	-0.2	-0.4815	µg/L	-0.4815	ppb	05:41:50
2	B 249.677†	174.7	57.1	2.5614	µg/L	2.5614	ppb	05:41:30
2	Ba 233.527†	-68.7	13.2	0.3415	µg/L	0.3415	ppb	05:41:50
2	Be 313.107†	3716.2	187.7	0.1190	µg/L	0.1190	ppb	05:41:30
2	Cd 226.502†	-101.9	6.2	0.1624	µg/L	0.1624	ppb	05:41:50
2	Co 228.616†	-87.1	-1.0	-0.0488	µg/L	-0.0488	ppb	05:41:50
2	Cr 267.716†	-125.2	2.6	0.0548	µg/L	0.0548	ppb	05:41:30
2	Cu 324.752†	3467.5	-133.7	-0.9409	µg/L	-0.9409	ppb	05:41:30
2	Mn 257.610†	-180.2	49.2	0.1648	µg/L	0.1648	ppb	05:41:50
2	Mo 202.031†	5.2	5.9	0.6808	µg/L	0.6808	ppb	05:41:50
2	Ni 231.604†	334.5	5.0	0.2787	µg/L	0.2787	ppb	05:41:50
2	P 214.914†	199.6	-13.4	-29.611	µg/L	-29.611	ppb	05:41:50
2	Pb 220.353†	45.0	-7.7	-2.0090	µg/L	-2.0090	ppb	05:41:50

2	S 181.975 Axial†	26.2	-1.2	-6.0954 µg/L	-6.0954 ppb	05:41:50
2	Sb 206.836†	22.1	-0.5	-0.5573 µg/L	-0.5573 ppb	05:41:50
2	Se 196.026†	14.6	-3.9	-5.4576 µg/L	-5.4576 ppb	05:41:50
2	SiO2†	2270.3	-13.5	-2.6360 µg/L	-2.6360 ppb	05:41:30
2	Si 251.611†	415.4	56.2	4.4377 µg/L	4.4377 ppb	05:41:50
2	Sn 189.927†	22.0	-2.1	-1.0653 µg/L	-1.0653 ppb	05:41:50
2	Ti 334.940†	924.1	58.1	0.1314 µg/L	0.1314 ppb	05:41:30
2	Tl 190.801†	-19.1	1.2	1.7807 µg/L	1.7807 ppb	05:41:50
2	U 409.014†	732.0	-33.5	-3.2256 µg/L	-3.2256 ppb	05:41:30
2	V 292.402†	-178.0	-51.2	-0.5899 µg/L	-0.5899 ppb	05:41:30
2	Zn 213.857†	596.9	8.5	0.2283 µg/L	0.2283 ppb	05:41:50
3	Sc RADIAL	113267.5	113267.5	100 %		05:40:22
3	Al 396.153Radial†	220.0	39.3	19.798 µg/L	19.798 ppb	05:40:22
3	Ca 317.933Radial†	413.0	9.4	3.6922 µg/L	3.6922 ppb	05:40:42
3	Fe 238.204 Radial†	12.2	5.7	31.025 µg/L	31.025 ppb	05:40:42
3	K 766.490 Radial†	758.6	-30.1	-16.424 µg/L	-16.424 ppb	05:40:22
3	Mg 279.077 IEC†	17.4	2.0	11.563 µg/L	11.563 ppb	05:40:42
3	Na 589.592 Radial†	-745.9	6.9	1.8290 µg/L	1.8290 ppb	05:40:22
3	Sr 421.552†	-47.1	56.1	0.3143 µg/L	0.3143 ppb	05:40:22
3	Sc 361.383	2078202.9	2078202.9	99.690 %		05:41:56
3	Y 371.029	1277524.0	1277524.0	99.560 %		05:41:56
3	Ag 328.068†	142.7	69.8	0.6426 µg/L	0.6426 ppb	05:42:02
3	As 188.979†	-2.4	-3.0	-5.8513 µg/L	-5.8513 ppb	05:42:22
3	B 249.677†	155.7	39.7	1.7782 µg/L	1.7782 ppb	05:42:02
3	Ba 233.527†	-67.5	13.8	0.3568 µg/L	0.3568 ppb	05:42:22
3	Be 313.107†	3885.3	392.5	0.2489 µg/L	0.2489 ppb	05:42:02
3	Cd 226.502†	-94.3	12.8	0.3428 µg/L	0.3428 ppb	05:42:22
3	Co 228.616†	-77.4	7.9	0.3898 µg/L	0.3898 ppb	05:42:22
3	Cr 267.716†	-126.6	0.0	0.0006 µg/L	0.0006 ppb	05:42:02
3	Cu 324.752†	3559.0	-9.2	-0.0585 µg/L	-0.0585 ppb	05:42:02
3	Mn 257.610†	-172.3	55.4	0.1844 µg/L	0.1844 ppb	05:42:22
3	Mo 202.031†	1.1	1.8	0.2048 µg/L	0.2048 ppb	05:42:22
3	Ni 231.604†	340.6	14.2	0.7951 µg/L	0.7951 ppb	05:42:22
3	P 214.914†	204.3	-6.8	-15.066 µg/L	-15.066 ppb	05:42:22
3	Pb 220.353†	55.4	3.2	0.8543 µg/L	0.8543 ppb	05:42:22
3	S 181.975 Axial†	30.5	3.5	18.391 µg/L	18.391 ppb	05:42:22
3	Sb 206.836†	23.3	0.9	0.9201 µg/L	0.9201 ppb	05:42:22
3	Se 196.026†	15.6	-2.7	-3.7712 µg/L	-3.7712 ppb	05:42:22
3	SiO2†	2252.6	-9.9	-1.9221 µg/L	-1.9221 ppb	05:42:02
3	Si 251.611†	410.0	54.7	4.3435 µg/L	4.3435 ppb	05:42:22
3	Sn 189.927†	20.5	-3.3	-1.6985 µg/L	-1.6985 ppb	05:42:22
3	Ti 334.940†	972.3	115.1	0.2607 µg/L	0.2607 ppb	05:42:02
3	Tl 190.801†	-19.5	0.6	0.8565 µg/L	0.8565 ppb	05:42:22
3	U 409.014†	767.4	9.0	0.8591 µg/L	0.8591 ppb	05:42:02
3	V 292.402†	-125.4	-0.0	0.0050 µg/L	0.0050 ppb	05:42:02
3	Zn 213.857†	609.8	27.1	0.7351 µg/L	0.7351 ppb	05:42:22

Mean Data: ICB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2084773.9	100.01	%	0.548				0.55%
Sc RADIAL	113756.0	100	%	0.7				0.69%
Y 371.029	1281706.1	99.886	%	0.5587				0.56%
Ag 328.068†	72.1	0.6623	µg/L	0.08254	0.6623	ppb	0.08254	12.46%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	19.3	9.7445	µg/L	19.43333	9.7445	ppb	19.43333	199.43%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-1.1	-2.1225	µg/L	3.23696	-2.1225	ppb	3.23696	152.51%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	42.9	1.9203	µg/L	0.58319	1.9203	ppb	0.58319	30.37%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	11.9	0.3093	µg/L	0.06946	0.3093	ppb	0.06946	22.46%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	262.0	0.1661	µg/L	0.07187	0.1661	ppb	0.07187	43.26%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	9.3	3.6414	µg/L	0.21358	3.6414	ppb	0.21358	5.87%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	7.8	0.2052	µg/L	0.12194	0.2052	ppb	0.12194	59.42%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	4.7	0.2329	µg/L	0.24449	0.2329	ppb	0.24449	104.97%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -5.3     -0.1151 µg/L       0.24877     -0.1151 ppb        0.24877 216.12%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -66.8     -0.4678 µg/L       0.44462     -0.4678 ppb        0.44462  95.04%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        5.2      28.272 µg/L        9.7244      28.272 ppb         9.7244  34.40%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       -43.5     -23.777 µg/L       16.9628     -23.777 ppb        16.9628  71.34%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           1.9      10.661 µg/L        3.0333      10.661 ppb         3.0333  28.45%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              52.5      0.1746 µg/L       0.00980      0.1746 ppb        0.00980   5.61%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               3.6      0.4178 µg/L       0.24188      0.4178 ppb        0.24188  57.89%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        0.9      0.2419 µg/L       3.13004      0.2419 ppb        3.13004 >999.9%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              15.1      0.8457 µg/L       0.59384      0.8457 ppb        0.59384  70.22%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†              -12.6     -27.943 µg/L       12.1295     -27.943 ppb        12.1295  43.41%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -1.4     -0.3509 µg/L       1.48444     -0.3509 ppb        1.48444 423.04%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          0.5      2.6134 µg/L      13.68799      2.6134 ppb       13.68799 523.75%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -0.7     -0.6810 µg/L       1.66636     -0.6810 ppb        1.66636 244.70%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              -6.0     -8.3699 µg/L       6.55913     -8.3699 ppb        6.55913  78.37%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    -7.9     -1.5419 µg/L       1.32569     -1.5419 ppb        1.32569  85.97%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†              56.6      4.4936 µg/L       0.18459      4.4936 ppb        0.18459   4.11%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†              -3.1     -1.5862 µg/L       0.47486     -1.5862 ppb        0.47486  29.94%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              37.3      0.2091 µg/L       0.12986      0.2091 ppb        0.12986  62.10%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              73.1      0.1655 µg/L       0.08352      0.1655 ppb        0.08352  50.46%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               1.6      2.5094 µg/L       2.11357      2.5094 ppb        2.11357  84.23%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              -23.1     -2.2271 µg/L       2.72773     -2.2271 ppb        2.72773 122.48%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              -16.6     -0.1911 µg/L       0.34544     -0.1911 ppb        0.34544 180.81%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              16.5      0.4456 µg/L       0.26096      0.4456 ppb        0.26096  58.56%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 8
Sample ID: PQL
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 101
Date Collected: 12/20/2009 05:42:32
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: PQL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	114105.5	114105.5	101	%			05:43:04
1	Al 396.153Radial†	594.6	409.4	206.11	µg/L	206.11	ppb	05:43:04
1	Ca 317.933Radial†	928.0	517.4	203.24	µg/L	203.24	ppb	05:43:25
1	Fe 238.204 Radial†	29.6	22.9	125.18	µg/L	125.18	ppb	05:43:25
1	K 766.490 Radial†	1112.3	315.3	172.18	µg/L	172.18	ppb	05:43:04
1	Mg 279.077 IEC†	74.7	58.8	334.67	µg/L	334.67	ppb	05:43:25
1	Na 589.592 Radial†	363.0	1112.6	296.21	µg/L	296.21	ppb	05:43:04
1	Sr 421.552†	847.0	943.5	5.2900	µg/L	5.2900	ppb	05:43:04
1	Sc 361.383	2081564.0	2081564.0	99.852	%			05:44:27
1	Y 371.029	1280935.2	1280935.2	99.825	%			05:44:27
1	Ag 328.068†	670.9	598.6	5.5384	µg/L	5.5384	ppb	05:44:32
1	As 188.979†	17.9	17.3	33.779	µg/L	33.779	ppb	05:44:53
1	B 249.677†	1281.1	1166.5	52.477	µg/L	52.477	ppb	05:44:32
1	Ba 233.527†	130.7	212.4	5.5169	µg/L	5.5169	ppb	05:44:53
1	Be 313.107†	11482.5	7994.7	5.0694	µg/L	5.0694	ppb	05:44:32
1	Cd 226.502†	85.4	193.0	5.2035	µg/L	5.2035	ppb	05:44:53
1	Co 228.616†	24.9	110.4	5.4994	µg/L	5.4994	ppb	05:44:53
1	Cr 267.716†	117.8	244.9	5.2754	µg/L	5.2754	ppb	05:44:32
1	Cu 324.752†	4970.7	1398.9	9.9533	µg/L	9.9533	ppb	05:44:32
1	Mn 257.610†	3015.0	3247.8	10.592	µg/L	10.592	ppb	05:44:32
1	Mo 202.031†	94.2	95.0	11.018	µg/L	11.018	ppb	05:44:53
1	Ni 231.604†	436.1	109.3	6.1218	µg/L	6.1218	ppb	05:44:53
1	P 214.914†	275.1	63.8	140.59	µg/L	140.59	ppb	05:44:53
1	Pb 220.353†	88.3	36.1	9.4832	µg/L	9.4832	ppb	05:44:53
1	S 181.975 Axial†	45.1	18.0	95.092	µg/L	95.092	ppb	05:44:53
1	Sb 206.836†	30.5	8.1	8.2798	µg/L	8.2798	ppb	05:44:53
1	Se 196.026†	37.3	18.9	26.334	µg/L	26.334	ppb	05:44:53
1	SiO2†	3337.2	1072.7	209.07	µg/L	209.07	ppb	05:44:32
1	Si 251.611†	1671.6	1317.5	102.53	µg/L	102.53	ppb	05:44:53
1	Sn 189.927†	38.5	14.6	7.6144	µg/L	7.6144	ppb	05:44:53
1	Ti 334.940†	3105.5	2249.9	5.0870	µg/L	5.0870	ppb	05:44:32
1	Tl 190.801†	-9.6	10.6	16.291	µg/L	16.291	ppb	05:44:53
1	U 409.014†	1319.5	560.6	53.881	µg/L	53.881	ppb	05:44:32
1	V 292.402†	390.5	516.8	6.1589	µg/L	6.1589	ppb	05:44:32
1	Zn 213.857†	973.5	390.4	10.619	µg/L	10.619	ppb	05:44:53
2	Sc RADIAL	113645.1	113645.1	100	%			05:43:30
2	Al 396.153Radial†	588.2	405.4	204.09	µg/L	204.09	ppb	05:43:30
2	Ca 317.933Radial†	943.1	536.1	210.60	µg/L	210.60	ppb	05:43:51
2	Fe 238.204 Radial†	30.6	24.0	131.05	µg/L	131.05	ppb	05:43:51
2	K 766.490 Radial†	1030.2	238.0	129.97	µg/L	129.97	ppb	05:43:30
2	Mg 279.077 IEC†	75.0	59.4	338.05	µg/L	338.05	ppb	05:43:51
2	Na 589.592 Radial†	423.8	1174.6	312.72	µg/L	312.72	ppb	05:43:30
2	Sr 421.552†	820.8	920.7	5.1626	µg/L	5.1626	ppb	05:43:30
2	Sc 361.383	2096752.9	2096752.9	100.58	%			05:44:59
2	Y 371.029	1287744.6	1287744.6	100.36	%			05:44:59
2	Ag 328.068†	762.8	685.1	6.3267	µg/L	6.3267	ppb	05:45:05
2	As 188.979†	14.4	13.7	26.693	µg/L	26.693	ppb	05:45:25
2	B 249.677†	1276.5	1152.7	51.853	µg/L	51.853	ppb	05:45:05
2	Ba 233.527†	115.7	196.5	5.1033	µg/L	5.1033	ppb	05:45:25
2	Be 313.107†	11615.7	8043.7	5.1005	µg/L	5.1005	ppb	05:45:05
2	Cd 226.502†	81.7	188.7	5.0869	µg/L	5.0869	ppb	05:45:25
2	Co 228.616†	21.1	106.5	5.3031	µg/L	5.3031	ppb	05:45:25
2	Cr 267.716†	90.0	216.5	4.6627	µg/L	4.6627	ppb	05:45:05
2	Cu 324.752†	5040.3	1432.0	10.190	µg/L	10.190	ppb	05:45:05
2	Mn 257.610†	2967.2	3178.4	10.367	µg/L	10.367	ppb	05:45:05
2	Mo 202.031†	88.7	88.8	10.303	µg/L	10.303	ppb	05:45:25
2	Ni 231.604†	441.6	111.6	6.2524	µg/L	6.2524	ppb	05:45:25
2	P 214.914†	270.3	57.1	125.58	µg/L	125.58	ppb	05:45:25
2	Pb 220.353†	81.3	28.5	7.4834	µg/L	7.4834	ppb	05:45:25

2	S 181.975 Axial†	46.5	19.1	100.84	µg/L	100.84 ppb	05:45:25
2	Sb 206.836†	28.1	5.5	5.5699	µg/L	5.5699 ppb	05:45:25
2	Se 196.026†	36.7	18.0	25.088	µg/L	25.088 ppb	05:45:25
2	SiO2†	3361.9	1073.1	209.15	µg/L	209.15 ppb	05:45:05
2	Si 251.611†	1672.6	1306.4	101.63	µg/L	101.63 ppb	05:45:25
2	Sn 189.927†	41.6	17.5	9.0763	µg/L	9.0763 ppb	05:45:25
2	Ti 334.940†	3135.7	2257.5	5.1037	µg/L	5.1037 ppb	05:45:05
2	Tl 190.801†	-3.6	16.6	25.486	µg/L	25.486 ppb	05:45:25
2	U 409.014†	1329.5	561.0	53.917	µg/L	53.917 ppb	05:45:05
2	V 292.402†	330.7	454.6	5.4335	µg/L	5.4335 ppb	05:45:05
2	Zn 213.857†	976.4	386.2	10.502	µg/L	10.502 ppb	05:45:25
3	Sc RADIAL	114885.6	114885.6	101	%		05:43:56
3	Al 396.153Radial†	620.9	431.3	217.20	µg/L	217.20 ppb	05:43:56
3	Ca 317.933Radial†	924.0	507.1	199.21	µg/L	199.21 ppb	05:44:17
3	Fe 238.204 Radial†	32.6	25.6	139.99	µg/L	139.99 ppb	05:44:17
3	K 766.490 Radial†	1006.3	203.4	111.08	µg/L	111.08 ppb	05:43:56
3	Mg 279.077 IEC†	65.8	49.5	281.63	µg/L	281.63 ppb	05:44:17
3	Na 589.592 Radial†	424.2	1170.4	311.61	µg/L	311.61 ppb	05:43:56
3	Sr 421.552†	841.6	932.4	5.2281	µg/L	5.2281 ppb	05:43:56
3	Sc 361.383	2105762.9	2105762.9	101.01	%		05:45:31
3	Y 371.029	1294687.0	1294687.0	100.90	%		05:45:31
3	Ag 328.068†	669.8	589.8	5.4508	µg/L	5.4508 ppb	05:45:37
3	As 188.979†	20.5	19.7	38.440	µg/L	38.440 ppb	05:45:57
3	B 249.677†	1216.8	1088.2	48.945	µg/L	48.945 ppb	05:45:37
3	Ba 233.527†	101.0	181.5	4.7142	µg/L	4.7142 ppb	05:45:57
3	Be 313.107†	11057.1	7441.4	4.7185	µg/L	4.7185 ppb	05:45:37
3	Cd 226.502†	68.7	175.4	4.7272	µg/L	4.7272 ppb	05:45:57
3	Co 228.616†	20.5	105.9	5.2683	µg/L	5.2683 ppb	05:45:57
3	Cr 267.716†	89.5	215.6	4.6427	µg/L	4.6427 ppb	05:45:37
3	Cu 324.752†	4940.2	1311.5	9.3366	µg/L	9.3366 ppb	05:45:37
3	Mn 257.610†	2818.4	3018.5	9.8476	µg/L	9.8476 ppb	05:45:37
3	Mo 202.031†	79.6	79.5	9.2169	µg/L	9.2169 ppb	05:45:57
3	Ni 231.604†	419.2	87.5	4.9015	µg/L	4.9015 ppb	05:45:57
3	P 214.914†	273.3	58.8	129.55	µg/L	129.55 ppb	05:45:57
3	Pb 220.353†	83.6	30.4	7.9827	µg/L	7.9827 ppb	05:45:57
3	S 181.975 Axial†	42.4	14.8	78.138	µg/L	78.138 ppb	05:45:57
3	Sb 206.836†	31.6	8.8	9.0036	µg/L	9.0036 ppb	05:45:57
3	Se 196.026†	33.7	15.0	20.853	µg/L	20.853 ppb	05:45:57
3	SiO2†	3277.5	975.2	190.07	µg/L	190.07 ppb	05:45:37
3	Si 251.611†	1548.5	1176.4	91.508	µg/L	91.508 ppb	05:45:57
3	Sn 189.927†	40.7	16.3	8.4867	µg/L	8.4867 ppb	05:45:57
3	Ti 334.940†	2978.9	2088.9	4.7223	µg/L	4.7223 ppb	05:45:37
3	Tl 190.801†	-3.6	16.6	25.587	µg/L	25.587 ppb	05:45:57
3	U 409.014†	1286.8	513.1	49.305	µg/L	49.305 ppb	05:45:37
3	V 292.402†	292.8	415.6	4.9681	µg/L	4.9681 ppb	05:45:37
3	Zn 213.857†	938.6	344.6	9.3723	µg/L	9.3723 ppb	05:45:57

Mean Data: PQL

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2094693.3	100.48	%	0.587				0.58%
Sc RADIAL	114212.1	101	%	0.6				0.55%
Y 371.029	1287788.9	100.36	%	0.536				0.53%
Ag 328.068†	624.5	5.7720	µg/L	0.48241	5.7720	ppb	0.48241	8.36%
QC value within limits for Ag 328.068 Recovery = 115.44%								
Al 396.153Radial†	415.3	209.13	µg/L	7.061	209.13	ppb	7.061	3.38%
QC value within limits for Al 396.153Radial Recovery = 104.57%								
As 188.979†	16.9	32.971	µg/L	5.9151	32.971	ppb	5.9151	17.94%
QC value within limits for As 188.979 Recovery = 109.90%								
B 249.677†	1135.8	51.092	µg/L	1.8851	51.092	ppb	1.8851	3.69%
QC value within limits for B 249.677 Recovery = 102.18%								
Ba 233.527†	196.8	5.1115	µg/L	0.40142	5.1115	ppb	0.40142	7.85%
QC value within limits for Ba 233.527 Recovery = 102.23%								
Be 313.107†	7826.6	4.9628	µg/L	0.21211	4.9628	ppb	0.21211	4.27%
QC value within limits for Be 313.107 Recovery = 99.26%								
Ca 317.933Radial†	520.2	204.35	µg/L	5.773	204.35	ppb	5.773	2.83%
QC value within limits for Ca 317.933Radial Recovery = 102.17%								
Cd 226.502†	185.7	5.0058	µg/L	0.24823	5.0058	ppb	0.24823	4.96%
QC value within limits for Cd 226.502 Recovery = 100.12%								
Co 228.616†	107.6	5.3569	µg/L	0.12459	5.3569	ppb	0.12459	2.33%

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   QC value within limits for Co 228.616  Recovery = 107.14%
Cr 267.716†              225.7      4.8602 µg/L       0.35968      4.8602 ppb        0.35968   7.40%
   QC value within limits for Cr 267.716  Recovery = 97.20%
Cu 324.752†             1380.8      9.8266 µg/L       0.44057      9.8266 ppb        0.44057   4.48%
   QC value within limits for Cu 324.752  Recovery = 98.27%
Fe 238.204 Radial†        24.1      132.07 µg/L         7.458      132.07 ppb          7.458   5.65%
   QC value greater than the upper limit for Fe 238.204 Radial  Recovery = 132.07%
K 766.490 Radial†        252.2      137.74 µg/L        31.282      137.74 ppb         31.282  22.71%
   QC value within limits for K 766.490 Radial  Recovery = 91.83%
Mg 279.077 IEC†           55.9      318.12 µg/L        31.641      318.12 ppb         31.641   9.95%
   QC value within limits for Mg 279.077 IEC  Recovery = 106.04%
Mn 257.610†             3148.2      10.269 µg/L        0.3820      10.269 ppb         0.3820   3.72%
   QC value within limits for Mn 257.610  Recovery = 102.69%
Mo 202.031†               87.8      10.179 µg/L        0.9071      10.179 ppb         0.9071   8.91%
   QC value within limits for Mo 202.031  Recovery = 101.79%
Na 589.592 Radial†      1152.5      306.85 µg/L         9.227      306.85 ppb          9.227   3.01%
   QC value within limits for Na 589.592 Radial  Recovery = 102.28%
Ni 231.604†              102.8      5.7586 µg/L       0.74510      5.7586 ppb        0.74510  12.94%
   QC value within limits for Ni 231.604  Recovery = 115.17%
P 214.914†                59.9      131.91 µg/L         7.777      131.91 ppb          7.777   5.90%
   QC value within limits for P 214.914  Recovery = 87.94%
Pb 220.353†               31.7      8.3164 µg/L       1.04085      8.3164 ppb        1.04085  12.52%
   QC value within limits for Pb 220.353  Recovery = 83.16%
S 181.975 Axial†          17.3      91.357 µg/L       11.8033      91.357 ppb        11.8033  12.92%
   QC value within limits for S 181.975 Axial  Recovery = 91.36%
Sb 206.836†                7.5      7.6178 µg/L       1.81004      7.6178 ppb        1.81004  23.76%
   QC value within limits for Sb 206.836  Recovery = 76.18%
Se 196.026†               17.3      24.092 µg/L        2.8729      24.092 ppb         2.8729  11.92%
   QC value within limits for Se 196.026  Recovery = 80.31%
SiO2†                   1040.3      202.76 µg/L        10.990      202.76 ppb         10.990   5.42%
   QC value within limits for SiO2  Recovery = 95.19%
Si 251.611†             1266.8      98.558 µg/L        6.1218      98.558 ppb         6.1218   6.21%
   QC value within limits for Si 251.611  Recovery = 98.56%
Sn 189.927†               16.2      8.3925 µg/L       0.73547      8.3925 ppb        0.73547   8.76%
   QC value within limits for Sn 189.927  Recovery = 83.92%
Sr 421.552†              932.2      5.2269 µg/L       0.06371      5.2269 ppb        0.06371   1.22%
   QC value within limits for Sr 421.552  Recovery = 104.54%
Ti 334.940†             2198.8      4.9710 µg/L       0.21558      4.9710 ppb        0.21558   4.34%
   QC value within limits for Ti 334.940  Recovery = 99.42%
Tl 190.801†               14.6      22.455 µg/L        5.3380      22.455 ppb         5.3380  23.77%
   QC value within limits for Tl 190.801  Recovery = 112.27%
U 409.014†               544.9      52.368 µg/L        2.6524      52.368 ppb         2.6524   5.06%
   QC value within limits for U 409.014  Recovery = 104.74%
V 292.402†               462.3      5.5202 µg/L       0.60011      5.5202 ppb        0.60011  10.87%
   QC value within limits for V 292.402  Recovery = 110.40%
Zn 213.857†              373.7      10.165 µg/L        0.6886      10.165 ppb         0.6886   6.77%
   QC value within limits for Zn 213.857  Recovery = 101.65%
QC Failed.  Continue with analysis.
```

Sequence No.: 9
Sample ID: ICSA
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 103
Date Collected: 12/20/2009 05:46:07
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSA

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	111650.1	111650.1	98.6	%			05:46:48
1	Al 396.153Radial†	967319.5	980686.1	494710	µg/L	494710	ppb	05:46:42
1	Ca 317.933Radial†	1195146.4	1211480.9	475880	µg/L	475880	ppb	05:46:42
1	Fe 238.204 Radial†	33581.8	34045.7	185980	µg/L	185980	ppb	05:46:48
1	K 766.490 Radial†	598.9	-181.0	-98.842	µg/L	-98.842	ppb	05:46:48
1	Mg 279.077 IEC†	82975.9	84122.6	478580	µg/L	478580	ppb	05:46:48
1	Na 589.592 Radial†	-689.0	53.8	14.319	µg/L	14.319	ppb	05:46:48
1	Sr 421.552†	589.9	701.2	3.9318	µg/L	3.9318	ppb	05:46:48
1	Sc 361.383	1945522.0	1945522.0	93.326	%			05:47:21
1	Y 371.029	1175885.2	1175885.2	91.639	%			05:47:21
1	Ag 328.068†	-1870.5	-2077.6	-4.4891	µg/L	-4.4891	ppb	05:47:27
1	As 188.979†	29.0	30.4	-39.761	µg/L	-39.761	ppb	05:47:48
1	B 249.677†	1792.5	1804.2	22.741	µg/L	22.741	ppb	05:47:27
1	Ba 233.527†	125.1	215.5	5.5493	µg/L	5.5493	ppb	05:47:48
1	Be 313.107†	2549.4	-773.2	-0.4999	µg/L	-0.4999	ppb	05:47:27
1	Cd 226.502†	508.5	652.3	3.0486	µg/L	3.0486	ppb	05:47:48
1	Co 228.616†	-103.5	-25.3	-1.3389	µg/L	-1.3389	ppb	05:47:48
1	Cr 267.716†	-260.0	-151.6	-3.2968	µg/L	-3.2968	ppb	05:47:48
1	Cu 324.752†	-921.6	-4566.7	7.5428	µg/L	7.5428	ppb	05:47:27
1	Mn 257.610†	-2097.9	-2019.6	16.801	µg/L	16.801	ppb	05:47:27
1	Mo 202.031†	-97.0	-103.2	-4.6585	µg/L	-4.6585	ppb	05:47:48
1	Ni 231.604†	307.1	1.6	0.0897	µg/L	0.0897	ppb	05:47:48
1	P 214.914†	217.9	21.7	11.165	µg/L	11.165	ppb	05:47:48
1	Pb 220.353†	-72.4	-129.9	6.6454	µg/L	6.6454	ppb	05:47:48
1	S 181.975 Axial†	62.9	40.2	116.47	µg/L	116.47	ppb	05:47:48
1	Sb 206.836†	69.0	51.4	8.0020	µg/L	8.0020	ppb	05:47:48
1	Se 196.026†	29.9	13.7	18.614	µg/L	18.614	ppb	05:47:48
1	SiO2†	1988.6	-138.6	-27.019	µg/L	-27.019	ppb	05:47:48
1	Si 251.611†	429.2	103.3	16.192	µg/L	16.192	ppb	05:47:48
1	Sn 189.927†	-392.0	-443.9	-4.0944	µg/L	-4.0944	ppb	05:47:48
1	Ti 334.940†	11260.0	11205.1	-1.3674	µg/L	-1.3674	ppb	05:47:27
1	Tl 190.801†	8.9	29.7	-18.021	µg/L	-18.021	ppb	05:47:48
1	U 409.014†	622.7	-93.6	-32.444	µg/L	-32.444	ppb	05:47:27
1	V 292.402†	-1500.0	-1481.5	-2.0808	µg/L	-2.0808	ppb	05:47:27
1	Zn 213.857†	1807.6	1352.3	4.2055	µg/L	4.2055	ppb	05:47:48
2	Sc RADIAL	110924.1	110924.1	98.0	%			05:47:00
2	Al 396.153Radial†	960634.1	980282.4	494500	µg/L	494500	ppb	05:46:54
2	Ca 317.933Radial†	1186327.1	1210411.2	475460	µg/L	475460	ppb	05:46:54
2	Fe 238.204 Radial†	33369.3	34051.6	186010	µg/L	186010	ppb	05:47:00
2	K 766.490 Radial†	552.8	-224.1	-122.40	µg/L	-122.40	ppb	05:47:00
2	Mg 279.077 IEC†	82682.4	84373.7	480010	µg/L	480010	ppb	05:47:00
2	Na 589.592 Radial†	-696.1	41.9	11.161	µg/L	11.161	ppb	05:47:00
2	Sr 421.552†	597.2	712.6	3.9957	µg/L	3.9957	ppb	05:47:00
2	Sc 361.383	1939472.5	1939472.5	93.036	%			05:47:54
2	Y 371.029	1172792.5	1172792.5	91.398	%			05:47:54
2	Ag 328.068†	-1819.5	-2029.0	-4.0407	µg/L	-4.0407	ppb	05:48:00
2	As 188.979†	32.2	34.0	-32.665	µg/L	-32.665	ppb	05:48:20
2	B 249.677†	1829.7	1850.1	24.799	µg/L	24.799	ppb	05:48:00
2	Ba 233.527†	131.0	222.3	5.7268	µg/L	5.7268	ppb	05:48:20
2	Be 313.107†	2542.2	-772.5	-0.4995	µg/L	-0.4995	ppb	05:48:00
2	Cd 226.502†	519.4	665.8	3.4071	µg/L	3.4071	ppb	05:48:20
2	Co 228.616†	-101.3	-23.4	-1.2436	µg/L	-1.2436	ppb	05:48:20
2	Cr 267.716†	-246.1	-137.6	-2.9957	µg/L	-2.9957	ppb	05:48:20
2	Cu 324.752†	-1018.2	-4673.6	6.7915	µg/L	6.7915	ppb	05:48:00
2	Mn 257.610†	-2113.1	-2043.1	16.729	µg/L	16.729	ppb	05:48:00
2	Mo 202.031†	-101.7	-108.6	-5.2815	µg/L	-5.2815	ppb	05:48:20
2	Ni 231.604†	277.5	-29.2	-1.6348	µg/L	-1.6348	ppb	05:48:20
2	P 214.914†	204.2	7.7	-20.144	µg/L	-20.144	ppb	05:48:20
2	Pb 220.353†	-80.5	-138.9	4.2612	µg/L	4.2612	ppb	05:48:20

2	S 181.975 Axial†	56.6	33.7	82.073	µg/L	82.073 ppb	05:48:20
2	Sb 206.836†	69.4	52.1	8.7311	µg/L	8.7311 ppb	05:48:20
2	Se 196.026†	19.4	2.5	2.4183	µg/L	2.4183 ppb	05:48:20
2	SiO2†	1975.6	-146.0	-28.453	µg/L	-28.453 ppb	05:48:20
2	Si 251.611†	440.9	117.3	17.561	µg/L	17.561 ppb	05:48:20
2	Sn 189.927†	-403.2	-457.3	-10.734	µg/L	-10.734 ppb	05:48:20
2	Ti 334.940†	11353.1	11342.8	-1.0318	µg/L	-1.0318 ppb	05:48:00
2	Tl 190.801†	22.0	43.8	3.7643	µg/L	3.7643 ppb	05:48:20
2	U 409.014†	662.6	-48.6	-28.139	µg/L	-28.139 ppb	05:48:00
2	V 292.402†	-1490.9	-1476.7	-2.0202	µg/L	-2.0202 ppb	05:48:00
2	Zn 213.857†	1805.3	1355.8	4.2695	µg/L	4.2695 ppb	05:48:20
3	Sc RADIAL	111681.8	111681.8	98.6	%		05:47:11
3	Al 396.153Radial†	959315.5	972293.7	490470	µg/L	490470 ppb	05:47:06
3	Ca 317.933Radial†	1183013.3	1198837.1	470910	µg/L	470910 ppb	05:47:06
3	Fe 238.204 Radial†	33773.0	34229.8	186990	µg/L	186990 ppb	05:47:11
3	K 766.490 Radial†	712.4	-66.2	-36.144	µg/L	-36.144 ppb	05:47:11
3	Mg 279.077 IEC†	83464.4	84593.9	481270	µg/L	481270 ppb	05:47:11
3	Na 589.592 Radial†	-666.5	76.8	20.438	µg/L	20.438 ppb	05:47:11
3	Sr 421.552†	601.3	712.6	3.9957	µg/L	3.9957 ppb	05:47:11
3	Sc 361.383	1932798.3	1932798.3	92.715	%		05:48:26
3	Y 371.029	1168521.4	1168521.4	91.065	%		05:48:26
3	Ag 328.068†	-1820.5	-2036.9	-4.0428	µg/L	-4.0428 ppb	05:48:32
3	As 188.979†	40.6	43.2	-14.304	µg/L	-14.304 ppb	05:48:53
3	B 249.677†	1806.1	1831.5	23.655	µg/L	23.655 ppb	05:48:32
3	Ba 233.527†	138.0	230.3	5.9316	µg/L	5.9316 ppb	05:48:53
3	Be 313.107†	2493.8	-815.2	-0.5266	µg/L	-0.5266 ppb	05:48:32
3	Cd 226.502†	503.8	650.8	2.9236	µg/L	2.9236 ppb	05:48:53
3	Co 228.616†	-93.8	-15.7	-0.8624	µg/L	-0.8624 ppb	05:48:53
3	Cr 267.716†	-263.1	-156.8	-3.4098	µg/L	-3.4098 ppb	05:48:53
3	Cu 324.752†	-953.3	-4607.5	7.4698	µg/L	7.4698 ppb	05:48:32
3	Mn 257.610†	-2103.3	-2040.3	16.860	µg/L	16.860 ppb	05:48:32
3	Mo 202.031†	-108.2	-116.0	-6.0990	µg/L	-6.0990 ppb	05:48:53
3	Ni 231.604†	323.2	21.2	1.1882	µg/L	1.1882 ppb	05:48:53
3	P 214.914†	203.7	8.0	-22.336	µg/L	-22.336 ppb	05:48:53
3	Pb 220.353†	-79.0	-137.5	4.2712	µg/L	4.2712 ppb	05:48:53
3	S 181.975 Axial†	73.3	51.9	177.70	µg/L	177.70 ppb	05:48:53
3	Sb 206.836†	55.1	37.0	-6.3179	µg/L	-6.3179 ppb	05:48:53
3	Se 196.026†	28.7	12.5	15.880	µg/L	15.880 ppb	05:48:53
3	SiO2†	1970.3	-144.3	-28.131	µg/L	-28.131 ppb	05:48:53
3	Si 251.611†	424.9	101.7	16.475	µg/L	16.475 ppb	05:48:53
3	Sn 189.927†	-408.8	-464.9	-15.256	µg/L	-15.256 ppb	05:48:53
3	Ti 334.940†	11266.9	11292.0	-0.8911	µg/L	-0.8911 ppb	05:48:32
3	Tl 190.801†	18.8	40.4	-0.7506	µg/L	-0.7506 ppb	05:48:53
3	U 409.014†	521.0	-198.8	-42.871	µg/L	-42.871 ppb	05:48:32
3	V 292.402†	-1563.3	-1560.4	-2.9393	µg/L	-2.9393 ppb	05:48:32
3	Zn 213.857†	1798.9	1355.7	4.1121	µg/L	4.1121 ppb	05:48:53

Mean Data: ICSA

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1939264.2	93.026	%	0.3053				0.33%
Sc RADIAL	111418.7	98.4	%	0.38				0.38%
Y 371.029	1172399.7	91.367	%	0.2882				0.32%
Ag 328.068†	-2047.8	-4.1909	µg/L	0.25827	-4.1909	ppb	0.25827	6.16%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	977754.1	493230	µg/L	2387.6	493230	ppb	2387.6	0.48%
QC value within limits for Al 396.153Radial Recovery = 98.65%								
As 188.979†	35.9	-28.910	µg/L	13.1375	-28.910	ppb	13.1375	45.44%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	1828.6	23.732	µg/L	1.0315	23.732	ppb	1.0315	4.35%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	222.7	5.7359	µg/L	0.19133	5.7359	ppb	0.19133	3.34%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-786.9	-0.5086	µg/L	0.01552	-0.5086	ppb	0.01552	3.05%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	1206909.7	474080	µg/L	2754.2	474080	ppb	2754.2	0.58%
QC value within limits for Ca 317.933Radial Recovery = 94.82%								
Cd 226.502†	656.3	3.1264	µg/L	0.25097	3.1264	ppb	0.25097	8.03%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	-21.5	-1.1483	µg/L	0.25214	-1.1483	ppb	0.25214	21.96%

```
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†            -148.7     -3.2341 µg/L      0.21405     -3.2341 ppb       0.21405   6.62%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†           -4615.9      7.2680 µg/L      0.41432      7.2680 ppb       0.41432   5.70%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†    34109.0      186330 µg/L        571.5      186330 ppb         571.5   0.31%
   QC value within limits for Fe 238.204 Radial  Recovery = 93.16%
K 766.490 Radial†       -157.1     -85.795 µg/L      44.5829     -85.795 ppb       44.5829  51.96%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†        84363.4      479950 µg/L       1341.7      479950 ppb        1341.7   0.28%
   QC value within limits for Mg 279.077 IEC  Recovery = 95.99%
Mn 257.610†           -2034.3      16.796 µg/L       0.0658      16.796 ppb        0.0658   0.39%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†            -109.3     -5.3463 µg/L      0.72243     -5.3463 ppb       0.72243  13.51%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       57.5      15.306 µg/L       4.7168      15.306 ppb        4.7168  30.82%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              -2.1     -0.1190 µg/L      1.42304     -0.1190 ppb       1.42304 >999.9%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               12.5     -10.438 µg/L      18.7410     -10.438 ppb       18.7410 179.54%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†            -135.5      5.0593 µg/L      1.37366      5.0593 ppb       1.37366  27.15%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         41.9      125.41 µg/L       48.436      125.41 ppb        48.436  38.62%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              46.8      3.4717 µg/L      8.48591      3.4717 ppb       8.48591 244.43%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               9.5      12.304 µg/L       8.6700      12.304 ppb        8.6700  70.46%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                  -143.0     -27.868 µg/L      0.7525     -27.868 ppb        0.7525   2.70%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             107.4      16.743 µg/L      0.7225      16.743 ppb        0.7225   4.32%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†            -455.4     -10.028 µg/L      5.6142     -10.028 ppb        5.6142  55.98%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             708.8      3.9744 µg/L     0.03688      3.9744 ppb       0.03688   0.93%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†           11280.0     -1.0968 µg/L     0.24470     -1.0968 ppb       0.24470  22.31%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              38.0     -5.0025 µg/L    11.49835     -5.0025 ppb      11.49835 229.85%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†             -113.7     -34.485 µg/L      7.5753     -34.485 ppb        7.5753  21.97%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†            -1506.2     -2.3468 µg/L     0.51406     -2.3468 ppb       0.51406  21.91%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†            1354.6      4.1957 µg/L     0.07912      4.1957 ppb       0.07912   1.89%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 10
Sample ID: ICSAB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 104
Date Collected: 12/20/2009 05:49:01
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSAB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	110483.2	110483.2	97.6	%			05:49:41
1	Al 396.153Radial†	962159.7	985758.7	497250	µg/L	497250	ppb	05:49:35
1	Ca 317.933Radial†	1183477.0	1212323.0	476210	µg/L	476210	ppb	05:49:35
1	Fe 238.204 Radial†	33386.1	34204.7	186870	µg/L	186870	ppb	05:49:41
1	K 766.490 Radial†	9753.6	9206.3	5028.1	µg/L	5028.1	ppb	05:49:41
1	Mg 279.077 IEC†	82888.2	84921.5	483140	µg/L	483140	ppb	05:49:41
1	Na 589.592 Radial†	17741.5	18932.4	5040.6	µg/L	5040.6	ppb	05:49:41
1	Sr 421.552†	86282.0	88517.5	496.32	µg/L	496.32	ppb	05:49:41
1	Sc 361.383	1928684.1	1928684.1	92.518	%			05:50:15
1	Y 371.029	1168197.4	1168197.4	91.040	%			05:50:15
1	Ag 328.068†	24808.4	26741.4	263.31	µg/L	263.31	ppb	05:50:21
1	As 188.979†	277.2	299.0	485.09	µg/L	485.09	ppb	05:50:41
1	B 249.677†	12468.3	13360.1	542.72	µg/L	542.72	ppb	05:50:21
1	Ba 233.527†	17904.6	19434.1	504.76	µg/L	504.76	ppb	05:50:21
1	Be 313.107†	358565.8	384058.2	243.43	µg/L	243.43	ppb	05:50:15
1	Cd 226.502†	16797.8	18263.7	475.36	µg/L	475.36	ppb	05:50:21
1	Co 228.616†	8137.9	8881.5	441.07	µg/L	441.07	ppb	05:50:41
1	Cr 267.716†	20927.0	22746.4	489.77	µg/L	489.77	ppb	05:50:21
1	Cu 324.752†	69555.4	71601.2	548.23	µg/L	548.23	ppb	05:50:21
1	Mn 257.610†	131043.4	141869.2	485.50	µg/L	485.50	ppb	05:50:21
1	Mo 202.031†	3866.4	4179.7	491.84	µg/L	491.84	ppb	05:50:41
1	Ni 231.604†	7634.9	7924.9	443.83	µg/L	443.83	ppb	05:50:41
1	P 214.914†	1301.0	1194.4	2560.4	µg/L	2560.4	ppb	05:50:41
1	Pb 220.353†	1640.2	1720.4	493.66	µg/L	493.66	ppb	05:50:41
1	S 181.975 Axial†	529.8	545.5	2784.7	µg/L	2784.7	ppb	05:50:41
1	Sb 206.836†	520.9	540.6	506.97	µg/L	506.97	ppb	05:50:41
1	Se 196.026†	1596.0	1706.6	2373.7	µg/L	2373.7	ppb	05:50:41
1	SiO2†	54717.2	56872.7	11085	µg/L	11085	ppb	05:50:21
1	Si 251.611†	61657.4	66287.1	5155.2	µg/L	5155.2	ppb	05:50:21
1	Sn 189.927†	536.1	555.6	508.69	µg/L	508.69	ppb	05:50:41
1	Ti 334.940†	214553.1	231044.0	496.78	µg/L	496.78	ppb	05:50:21
1	Tl 190.801†	299.5	343.8	467.99	µg/L	467.99	ppb	05:50:41
1	U 409.014†	5286.7	4953.4	452.63	µg/L	452.63	ppb	05:50:21
1	V 292.402†	39804.0	43148.7	519.04	µg/L	519.04	ppb	05:50:21
1	Zn 213.857†	18110.8	18990.9	483.78	µg/L	483.78	ppb	05:50:21
2	Sc RADIAL	110876.0	110876.0	97.9	%			05:49:52
2	Al 396.153Radial†	972996.9	993330.9	501070	µg/L	501070	ppb	05:49:47
2	Ca 317.933Radial†	1201626.1	1226557.7	481800	µg/L	481800	ppb	05:49:47
2	Fe 238.204 Radial†	33625.7	34328.1	187540	µg/L	187540	ppb	05:49:52
2	K 766.490 Radial†	9947.0	9368.5	5116.7	µg/L	5116.7	ppb	05:49:52
2	Mg 279.077 IEC†	83550.7	85297.0	485280	µg/L	485280	ppb	05:49:52
2	Na 589.592 Radial†	17886.9	19016.4	5063.0	µg/L	5063.0	ppb	05:49:52
2	Sr 421.552†	86909.1	88844.6	498.15	µg/L	498.15	ppb	05:49:52
2	Sc 361.383	1914321.0	1914321.0	91.829	%			05:50:48
2	Y 371.029	1160807.7	1160807.7	90.464	%			05:50:48
2	Ag 328.068†	24916.8	27060.7	266.34	µg/L	266.34	ppb	05:50:54
2	As 188.979†	274.0	297.8	481.79	µg/L	481.79	ppb	05:51:14
2	B 249.677†	12542.2	13541.7	550.68	µg/L	550.68	ppb	05:50:54
2	Ba 233.527†	17968.8	19649.1	510.35	µg/L	510.35	ppb	05:50:54
2	Be 313.107†	356002.7	384174.9	243.50	µg/L	243.50	ppb	05:50:48
2	Cd 226.502†	16948.1	18563.6	483.35	µg/L	483.35	ppb	05:50:54
2	Co 228.616†	8173.0	8985.8	446.25	µg/L	446.25	ppb	05:51:14
2	Cr 267.716†	21051.8	23052.0	496.35	µg/L	496.35	ppb	05:50:54
2	Cu 324.752†	69889.7	72529.3	554.96	µg/L	554.96	ppb	05:50:54
2	Mn 257.610†	132096.6	144078.9	492.78	µg/L	492.78	ppb	05:50:54
2	Mo 202.031†	3885.4	4231.8	497.90	µg/L	497.90	ppb	05:51:14
2	Ni 231.604†	7666.6	8021.3	449.23	µg/L	449.23	ppb	05:51:14
2	P 214.914†	1315.8	1221.2	2619.8	µg/L	2619.8	ppb	05:51:14
2	Pb 220.353†	1635.0	1728.2	496.01	µg/L	496.01	ppb	05:51:14

2	S 181.975 Axial†	538.6	559.4	2857.5 µg/L	2857.5 ppb	05:51:14
2	Sb 206.836†	523.5	547.6	513.66 µg/L	513.66 ppb	05:51:14
2	Se 196.026†	1595.5	1719.1	2391.4 µg/L	2391.4 ppb	05:51:14
2	SiO2†	55103.0	57736.6	11253 µg/L	11253 ppb	05:50:54
2	Si 251.611†	62151.8	67325.5	5235.8 µg/L	5235.8 ppb	05:50:54
2	Sn 189.927†	552.9	578.2	522.00 µg/L	522.00 ppb	05:51:14
2	Ti 334.940†	215714.1	234048.2	503.27 µg/L	503.27 ppb	05:50:54
2	Tl 190.801†	297.9	344.5	468.33 µg/L	468.33 ppb	05:51:14
2	U 409.014†	5352.0	5067.4	463.60 µg/L	463.60 ppb	05:50:54
2	V 292.402†	40108.7	43803.3	526.73 µg/L	526.73 ppb	05:50:54
2	Zn 213.857†	18252.3	19291.8	491.85 µg/L	491.85 ppb	05:50:54
3	Sc RADIAL	110836.0	110836.0	97.9 %		05:50:04
3	Al 396.153Radial†	963770.7	984265.5	496490 µg/L	496490 ppb	05:49:58
3	Ca 317.933Radial†	1188872.9	1213973.9	476860 µg/L	476860 ppb	05:49:58
3	Fe 238.204 Radial†	33754.5	34472.2	188330 µg/L	188330 ppb	05:50:04
3	K 766.490 Radial†	9922.3	9346.9	5104.9 µg/L	5104.9 ppb	05:50:04
3	Mg 279.077 IEC†	83798.7	85581.1	486890 µg/L	486890 ppb	05:50:04
3	Na 589.592 Radial†	17917.1	19053.8	5073.0 µg/L	5073.0 ppb	05:50:04
3	Sr 421.552†	87044.0	89014.4	499.11 µg/L	499.11 ppb	05:50:04
3	Sc 361.383	1920134.8	1920134.8	92.108 %		05:51:20
3	Y 371.029	1163536.8	1163536.8	90.676 %		05:51:20
3	Ag 328.068†	24988.2	27056.0	266.36 µg/L	266.36 ppb	05:51:26
3	As 188.979†	273.8	296.6	480.19 µg/L	480.19 ppb	05:51:47
3	B 249.677†	12623.4	13588.5	552.54 µg/L	552.54 ppb	05:51:26
3	Ba 233.527†	18083.9	19714.9	512.05 µg/L	512.05 ppb	05:51:26
3	Be 313.107†	356294.7	383318.2	242.95 µg/L	242.95 ppb	05:51:20
3	Cd 226.502†	17058.9	18628.0	485.01 µg/L	485.01 ppb	05:51:26
3	Co 228.616†	8179.5	8965.8	445.26 µg/L	445.26 ppb	05:51:47
3	Cr 267.716†	21108.9	23044.5	496.19 µg/L	496.19 ppb	05:51:26
3	Cu 324.752†	70086.6	72512.6	555.01 µg/L	555.01 ppb	05:51:26
3	Mn 257.610†	132462.9	144041.0	492.76 µg/L	492.76 ppb	05:51:26
3	Mo 202.031†	3890.5	4224.5	497.08 µg/L	497.08 ppb	05:51:47
3	Ni 231.604†	7650.5	7978.6	446.84 µg/L	446.84 ppb	05:51:47
3	P 214.914†	1302.5	1202.4	2575.3 µg/L	2575.3 ppb	05:51:47
3	Pb 220.353†	1645.4	1734.0	497.13 µg/L	497.13 ppb	05:51:47
3	S 181.975 Axial†	535.4	554.2	2829.6 µg/L	2829.6 ppb	05:51:47
3	Sb 206.836†	527.4	550.1	516.64 µg/L	516.64 ppb	05:51:47
3	Se 196.026†	1603.6	1722.6	2395.4 µg/L	2395.4 ppb	05:51:47
3	SiO2†	55226.9	57689.4	11244 µg/L	11244 ppb	05:51:26
3	Si 251.611†	62247.2	67224.1	5228.0 µg/L	5228.0 ppb	05:51:26
3	Sn 189.927†	547.1	570.1	517.19 µg/L	517.19 ppb	05:51:47
3	Ti 334.940†	216331.8	234007.6	503.46 µg/L	503.46 ppb	05:51:26
3	Tl 190.801†	306.3	352.7	481.51 µg/L	481.51 ppb	05:51:47
3	U 409.014†	5427.8	5132.0	469.54 µg/L	469.54 ppb	05:51:26
3	V 292.402†	40202.5	43772.9	526.45 µg/L	526.45 ppb	05:51:26
3	Zn 213.857†	18276.6	19258.0	490.81 µg/L	490.81 ppb	05:51:26

Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1921046.6	92.152	%	0.3466				0.38%
Sc RADIAL	110731.8	97.8	%	0.19				0.20%
Y 371.029	1164180.6	90.727	%	0.2912				0.32%
Ag 328.068†	26952.7	265.34	µg/L	1.755	265.34	ppb	1.755	0.66%
QC value within limits for Ag 328.068 Recovery = 106.14%								
Al 396.153Radial†	987785.0	498270	µg/L	2451.8	498270	ppb	2451.8	0.49%
QC value within limits for Al 396.153Radial Recovery = 99.65%								
As 188.979†	297.8	482.36	µg/L	2.496	482.36	ppb	2.496	0.52%
QC value within limits for As 188.979 Recovery = 96.47%								
B 249.677†	13496.8	548.65	µg/L	5.217	548.65	ppb	5.217	0.95%
QC value within limits for B 249.677 Recovery = 109.73%								
Ba 233.527†	19599.4	509.05	µg/L	3.815	509.05	ppb	3.815	0.75%
QC value within limits for Ba 233.527 Recovery = 101.81%								
Be 313.107†	383850.4	243.29	µg/L	0.295	243.29	ppb	0.295	0.12%
QC value within limits for Be 313.107 Recovery = 97.32%								
Ca 317.933Radial†	1217618.2	478290	µg/L	3058.3	478290	ppb	3058.3	0.64%
QC value within limits for Ca 317.933Radial Recovery = 95.66%								
Cd 226.502†	18485.1	481.24	µg/L	5.161	481.24	ppb	5.161	1.07%
QC value within limits for Cd 226.502 Recovery = 96.25%								
Co 228.616†	8944.4	444.19	µg/L	2.747	444.19	ppb	2.747	0.62%

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   QC value within limits for Co 228.616  Recovery = 88.84%
Cr 267.716†            22947.6      494.10 µg/L        3.754      494.10 ppb        3.754   0.76%
   QC value within limits for Cr 267.716  Recovery = 98.82%
Cu 324.752†            72214.4      552.73 µg/L        3.901      552.73 ppb        3.901   0.71%
   QC value within limits for Cu 324.752  Recovery = 110.55%
Fe 238.204 Radial†     34335.0      187580 µg/L        731.2      187580 ppb        731.2   0.39%
   QC value within limits for Fe 238.204 Radial  Recovery = 93.79%
K 766.490 Radial†       9307.2      5083.2 µg/L        48.08      5083.2 ppb        48.08   0.95%
   QC value within limits for K 766.490 Radial  Recovery = 101.66%
Mg 279.077 IEC†        85266.5      485110 µg/L       1882.4      485110 ppb       1882.4   0.39%
   QC value within limits for Mg 279.077 IEC  Recovery = 97.02%
Mn 257.610†           143329.7      490.35 µg/L        4.197      490.35 ppb        4.197   0.86%
   QC value within limits for Mn 257.610  Recovery = 98.07%
Mo 202.031†             4212.0      495.61 µg/L        3.288      495.61 ppb        3.288   0.66%
   QC value within limits for Mo 202.031  Recovery = 99.12%
Na 589.592 Radial†     19000.9      5058.9 µg/L        16.55      5058.9 ppb        16.55   0.33%
   QC value within limits for Na 589.592 Radial  Recovery = 101.18%
Ni 231.604†             7974.9      446.63 µg/L        2.706      446.63 ppb        2.706   0.61%
   QC value within limits for Ni 231.604  Recovery = 89.33%
P 214.914†              1206.0      2585.2 µg/L        30.92      2585.2 ppb        30.92   1.20%
   QC value within limits for P 214.914  Recovery = 103.41%
Pb 220.353†             1727.5      495.60 µg/L        1.772      495.60 ppb        1.772   0.36%
   QC value within limits for Pb 220.353  Recovery = 99.12%
S 181.975 Axial†         553.0      2823.9 µg/L        36.72      2823.9 ppb        36.72   1.30%
   QC value within limits for S 181.975 Axial  Recovery = 112.96%
Sb 206.836†              546.1      512.42 µg/L        4.952      512.42 ppb        4.952   0.97%
   QC value within limits for Sb 206.836  Recovery = 102.48%
Se 196.026†             1716.1      2386.8 µg/L        11.59      2386.8 ppb        11.59   0.49%
   QC value within limits for Se 196.026  Recovery = 95.47%
SiO2†                  57432.9       11194 µg/L         94.7       11194 ppb         94.7   0.85%
   QC value within limits for SiO2  Recovery = 104.67%
Si 251.611†            66945.6      5206.3 µg/L        44.44      5206.3 ppb        44.44   0.85%
   QC value within limits for Si 251.611  Recovery = 104.13%
Sn 189.927†              568.0      515.96 µg/L        6.739      515.96 ppb        6.739   1.31%
   QC value within limits for Sn 189.927  Recovery = 103.19%
Sr 421.552†            88792.2      497.86 µg/L        1.416      497.86 ppb        1.416   0.28%
   QC value within limits for Sr 421.552  Recovery = 99.57%
Ti 334.940†           233033.3      501.17 µg/L        3.804      501.17 ppb        3.804   0.76%
   QC value within limits for Ti 334.940  Recovery = 100.23%
Tl 190.801†              347.0      472.61 µg/L        7.707      472.61 ppb        7.707   1.63%
   QC value within limits for Tl 190.801  Recovery = 94.52%
U 409.014†              5051.0      461.92 µg/L        8.583      461.92 ppb        8.583   1.86%
   QC value within limits for U 409.014  Recovery = 92.38%
V 292.402†             43575.0      524.07 µg/L        4.363      524.07 ppb        4.363   0.83%
   QC value within limits for V 292.402  Recovery = 104.81%
Zn 213.857†            19180.2      488.81 µg/L        4.390      488.81 ppb        4.390   0.90%
   QC value within limits for Zn 213.857  Recovery = 97.76%
All analyte(s) passed QC.
```

Sequence No.: 11
Sample ID: LR1
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 105
Date Collected: 12/20/2009 05:51:56
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	110481.2	110481.2	97.6	%			05:52:37
1	Al 396.153Radial†	960927.9	984514.0	496640	µg/L	496640	ppb	05:52:32
1	Ca 317.933Radial†	1195640.0	1224808.5	481110	µg/L	481110	ppb	05:52:32
1	Fe 238.204 Radial†	82443.7	84476.2	461470	µg/L	461470	ppb	05:52:37
1	K 766.490 Radial†	746.8	-23.0	-12.574	µg/L	-12.574	ppb	05:52:37
1	Mg 279.077 IEC†	83396.6	85444.0	485700	µg/L	485700	ppb	05:52:37
1	Na 589.592 Radial†	1764941.3	1809346.0	481730	µg/L	481730	ppb	05:52:32
1	Sr 421.552†	996.7	1124.4	6.3046	µg/L	6.3046	ppb	05:52:37
1	Sc 361.383	1902268.9	1902268.9	91.251	%			05:53:13
1	Y 371.029	1141103.3	1141103.3	88.928	%			05:53:13
1	Ag 328.068†	-3603.2	-4021.9	-0.8850	µg/L	-0.8850	ppb	05:53:19
1	As 188.979†	25.9	27.8	-85.717	µg/L	-85.717	ppb	05:53:39
1	B 249.677†	4257.7	4549.5	59.705	µg/L	59.705	ppb	05:53:19
1	Ba 233.527†	277.3	385.4	9.8578	µg/L	9.8578	ppb	05:53:39
1	Be 313.107†	-2027.0	-5726.3	-3.6492	µg/L	-3.6492	ppb	05:53:19
1	Cd 226.502†	1334.3	1569.6	16.765	µg/L	16.765	ppb	05:53:19
1	Co 228.616†	32.0	120.6	5.8343	µg/L	5.8343	ppb	05:53:39
1	Cr 267.716†	-262.6	-160.8	-3.6003	µg/L	-3.6003	ppb	05:53:39
1	Cu 324.752†	-8085.3	-12439.7	10.850	µg/L	10.850	ppb	05:53:19
1	Mn 257.610†	-13005.9	-14024.6	12.334	µg/L	12.334	ppb	05:53:19
1	Mo 202.031†	-195.1	-213.2	-6.5751	µg/L	-6.5751	ppb	05:53:39
1	Ni 231.604†	281.4	-19.0	-1.0665	µg/L	-1.0665	ppb	05:53:39
1	P 214.914†	374.3	198.4	85.875	µg/L	85.875	ppb	05:53:39
1	Pb 220.353†	11.2	-40.1	14.648	µg/L	14.648	ppb	05:53:39
1	S 181.975 Axial†	73.0	52.9	141.59	µg/L	141.59	ppb	05:53:39
1	Sb 206.836†	49.8	32.1	-3.8815	µg/L	-3.8815	ppb	05:53:39
1	Se 196.026†	-104.4	-132.8	5.4098	µg/L	5.4098	ppb	05:53:39
1	SiO2†	1730.3	-373.3	-72.750	µg/L	-72.750	ppb	05:53:39
1	Si 251.611†	-231.5	-610.2	-38.933	µg/L	-38.933	ppb	05:53:39
1	Sn 189.927†	-444.7	-511.3	-3.6261	µg/L	-3.6261	ppb	05:53:39
1	Ti 334.940†	19018.4	19981.7	18.226	µg/L	18.226	ppb	05:53:19
1	Tl 190.801†	2.0	22.3	-30.053	µg/L	-30.053	ppb	05:53:39
1	U 409.014†	140454.3	153160.1	14650	µg/L	14650	ppb	05:53:19
1	V 292.402†	-5006.3	-5360.6	-0.7781	µg/L	-0.7781	ppb	05:53:19
1	Zn 213.857†	3050.0	2757.9	13.232	µg/L	13.232	ppb	05:53:39
2	Sc RADIAL	110694.0	110694.0	97.8	%			05:52:50
2	Al 396.153Radial†	959280.6	980936.2	494830	µg/L	494830	ppb	05:52:45
2	Ca 317.933Radial†	1191963.1	1218692.4	478710	µg/L	478710	ppb	05:52:45
2	Fe 238.204 Radial†	82955.3	84837.1	463440	µg/L	463440	ppb	05:52:50
2	K 766.490 Radial†	726.4	-45.4	-24.778	µg/L	-24.778	ppb	05:52:50
2	Mg 279.077 IEC†	83784.3	85676.2	487020	µg/L	487020	ppb	05:52:50
2	Na 589.592 Radial†	1754938.7	1795638.9	478080	µg/L	478080	ppb	05:52:45
2	Sr 421.552†	982.3	1107.8	6.2113	µg/L	6.2113	ppb	05:52:50
2	Sc 361.383	1909027.4	1909027.4	91.575	%			05:53:45
2	Y 371.029	1145120.5	1145120.5	89.241	%			05:53:45
2	Ag 328.068†	-3643.5	-4052.0	-0.9916	µg/L	-0.9916	ppb	05:53:51
2	As 188.979†	21.5	22.8	-95.322	µg/L	-95.322	ppb	05:54:12
2	B 249.677†	4280.6	4557.9	59.465	µg/L	59.465	ppb	05:53:51
2	Ba 233.527†	304.8	414.3	10.612	µg/L	10.612	ppb	05:54:12
2	Be 313.107†	-1960.0	-5645.2	-3.5972	µg/L	-3.5972	ppb	05:53:51
2	Cd 226.502†	1359.7	1592.3	17.177	µg/L	17.177	ppb	05:53:51
2	Co 228.616†	40.1	129.3	6.2737	µg/L	6.2737	ppb	05:54:12
2	Cr 267.716†	-248.2	-144.1	-3.2359	µg/L	-3.2359	ppb	05:54:12
2	Cu 324.752†	-8113.6	-12439.2	11.277	µg/L	11.277	ppb	05:53:51
2	Mn 257.610†	-13154.3	-14136.2	12.218	µg/L	12.218	ppb	05:53:51
2	Mo 202.031†	-195.7	-213.0	-6.4806	µg/L	-6.4806	ppb	05:54:12
2	Ni 231.604†	298.0	-2.0	-0.1121	µg/L	-0.1121	ppb	05:54:12
2	P 214.914†	380.3	203.6	94.408	µg/L	94.408	ppb	05:54:12
2	Pb 220.353†	13.4	-37.7	15.126	µg/L	15.126	ppb	05:54:12

2	S 181.975 Axial†	62.5	41.1	78.810 µg/L	78.810 ppb	05:54:12
2	Sb 206.836†	50.1	32.2	-3.5788 µg/L	-3.5788 ppb	05:54:12
2	Se 196.026†	-103.5	-131.4	7.8109 µg/L	7.8109 ppb	05:54:12
2	SiO2†	1766.3	-340.7	-66.404 µg/L	-66.404 ppb	05:54:12
2	Si 251.611†	-251.3	-631.0	-40.572 µg/L	-40.572 ppb	05:54:12
2	Sn 189.927†	-443.5	-508.2	-2.0985 µg/L	-2.0985 ppb	05:54:12
2	Ti 334.940†	18565.0	19412.8	17.072 µg/L	17.072 ppb	05:53:51
2	Tl 190.801†	7.9	28.8	-19.776 µg/L	-19.776 ppb	05:54:12
2	U 409.014†	140394.7	152550.1	14591 µg/L	14591 ppb	05:53:51
2	V 292.402†	-4868.0	-5190.1	1.2615 µg/L	1.2615 ppb	05:53:51
2	Zn 213.857†	3050.6	2746.6	12.674 µg/L	12.674 ppb	05:54:12
3	Sc RADIAL	110863.7	110863.7	97.9 %		05:53:03
3	Al 396.153Radial†	963023.6	983257.2	496010 µg/L	496010 ppb	05:52:57
3	Ca 317.933Radial†	1197085.4	1222057.8	480030 µg/L	480030 ppb	05:52:57
3	Fe 238.204 Radial†	82856.6	84606.5	462180 µg/L	462180 ppb	05:53:03
3	K 766.490 Radial†	726.0	-46.9	-25.601 µg/L	-25.601 ppb	05:53:03
3	Mg 279.077 IEC†	83871.9	85634.4	486780 µg/L	486780 ppb	05:53:03
3	Na 589.592 Radial†	1762933.6	1801056.6	479520 µg/L	479520 ppb	05:52:57
3	Sr 421.552†	957.8	1081.2	6.0621 µg/L	6.0621 ppb	05:53:03
3	Sc 361.383	1912022.4	1912022.4	91.719 %		05:54:18
3	Y 371.029	1147499.5	1147499.5	89.427 %		05:54:18
3	Ag 328.068†	-3605.5	-4004.3	-0.6690 µg/L	-0.6690 ppb	05:54:23
3	As 188.979†	31.2	33.4	-74.689 µg/L	-74.689 ppb	05:54:44
3	B 249.677†	4333.4	4608.1	62.122 µg/L	62.122 ppb	05:54:23
3	Ba 233.527†	289.3	396.9	10.157 µg/L	10.157 ppb	05:54:44
3	Be 313.107†	-2061.9	-5752.9	-3.6659 µg/L	-3.6659 ppb	05:54:23
3	Cd 226.502†	1367.5	1598.4	17.475 µg/L	17.475 ppb	05:54:23
3	Co 228.616†	31.9	120.3	5.8208 µg/L	5.8208 ppb	05:54:44
3	Cr 267.716†	-258.0	-154.3	-3.4600 µg/L	-3.4600 ppb	05:54:44
3	Cu 324.752†	-8176.9	-12494.4	10.614 µg/L	10.614 ppb	05:54:23
3	Mn 257.610†	-13114.4	-14070.2	12.275 µg/L	12.275 ppb	05:54:23
3	Mo 202.031†	-207.8	-225.8	-8.0157 µg/L	-8.0157 ppb	05:54:44
3	Ni 231.604†	289.0	-12.3	-0.6910 µg/L	-0.6910 ppb	05:54:44
3	P 214.914†	387.2	210.4	111.38 µg/L	111.38 ppb	05:54:44
3	Pb 220.353†	-6.9	-59.9	9.3808 µg/L	9.3808 ppb	05:54:44
3	S 181.975 Axial†	69.4	48.5	117.99 µg/L	117.99 ppb	05:54:44
3	Sb 206.836†	50.9	33.0	-2.8449 µg/L	-2.8449 ppb	05:54:44
3	Se 196.026†	-130.6	-160.8	-33.628 µg/L	-33.628 ppb	05:54:44
3	SiO2†	1741.8	-370.4	-72.201 µg/L	-72.201 ppb	05:54:44
3	Si 251.611†	-248.0	-627.0	-40.096 µg/L	-40.096 ppb	05:54:44
3	Sn 189.927†	-451.7	-516.4	-6.1977 µg/L	-6.1977 ppb	05:54:44
3	Ti 334.940†	18933.0	19782.3	17.835 µg/L	17.835 ppb	05:54:23
3	Tl 190.801†	3.0	23.5	-28.171 µg/L	-28.171 ppb	05:54:44
3	U 409.014†	141093.9	153072.4	14642 µg/L	14642 ppb	05:54:23
3	V 292.402†	-5050.1	-5380.3	-0.9728 µg/L	-0.9728 ppb	05:54:23
3	Zn 213.857†	3045.3	2735.6	12.517 µg/L	12.517 ppb	05:54:44

Mean Data: LR1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1907772.9	91.515	%	0.2397				0.26%
Sc RADIAL	110679.6	97.8	%	0.17				0.17%
Y 371.029	1144574.4	89.199	%	0.2519				0.28%
Ag 328.068†	-4026.1	-0.8485	µg/L	0.16436	-0.8485	ppb	0.16436	19.37%
Al 396.153Radial†	982902.4	495830	µg/L	915.6	495830	ppb	915.6	0.18%
QC value within limits for Al 396.153Radial Recovery = 99.17%								
As 188.979†	28.0	-85.242	µg/L	10.3247	-85.242	ppb	10.3247	12.11%
B 249.677†	4571.8	60.431	µg/L	1.4695	60.431	ppb	1.4695	2.43%
Ba 233.527†	398.9	10.209	µg/L	0.3799	10.209	ppb	0.3799	3.72%
Be 313.107†	-5708.2	-3.6374	µg/L	0.03580	-3.6374	ppb	0.03580	0.98%
Ca 317.933Radial†	1221852.9	479950	µg/L	1203.2	479950	ppb	1203.2	0.25%
QC value within limits for Ca 317.933Radial Recovery = 95.99%								
Cd 226.502†	1586.8	17.139	µg/L	0.3567	17.139	ppb	0.3567	2.08%
Co 228.616†	123.4	5.9763	µg/L	0.25767	5.9763	ppb	0.25767	4.31%
Cr 267.716†	-153.1	-3.4321	µg/L	0.18382	-3.4321	ppb	0.18382	5.36%
Cu 324.752†	-12457.8	10.914	µg/L	0.3358	10.914	ppb	0.3358	3.08%
Fe 238.204 Radial†	84639.9	462370	µg/L	998.3	462370	ppb	998.3	0.22%
QC value within limits for Fe 238.204 Radial Recovery = 92.47%								
K 766.490 Radial†	-38.4	-20.985	µg/L	7.2953	-20.985	ppb	7.2953	34.77%
Mg 279.077 IEC†	85584.9	486500	µg/L	703.4	486500	ppb	703.4	0.14%

QC value within limits for Mg 279.077 IEC Recovery = 97.30%

Mn 257.610†	-14077.0	12.276 µg/L	0.0579	12.276 ppb	0.0579	0.47%
Mo 202.031†	-217.4	-7.0238 µg/L	0.86029	-7.0238 ppb	0.86029	12.25%
Na 589.592 Radial†	1802013.8	479780 µg/L	1838.0	479780 ppb	1838.0	0.38%

QC value within limits for Na 589.592 Radial Recovery = 95.96%

Ni 231.604†	-11.1	-0.6232 µg/L	0.48083	-0.6232 ppb	0.48083	77.16%
P 214.914†	204.2	97.219 µg/L	12.9807	97.219 ppb	12.9807	13.35%
Pb 220.353†	-45.9	13.052 µg/L	3.1881	13.052 ppb	3.1881	24.43%
S 181.975 Axial†	47.5	112.80 µg/L	31.709	112.80 ppb	31.709	28.11%
Sb 206.836†	32.5	-3.4351 µg/L	0.53305	-3.4351 ppb	0.53305	15.52%
Se 196.026†	-141.7	-6.8023 µg/L	23.26238	-6.8023 ppb	23.26238	341.98%
SiO2†	-361.5	-70.452 µg/L	3.5160	-70.452 ppb	3.5160	4.99%
Si 251.611†	-622.7	-39.867 µg/L	0.8434	-39.867 ppb	0.8434	2.12%
Sn 189.927†	-512.0	-3.9741 µg/L	2.07164	-3.9741 ppb	2.07164	52.13%
Sr 421.552†	1104.4	6.1926 µg/L	0.12233	6.1926 ppb	0.12233	1.98%
Ti 334.940†	19725.6	17.711 µg/L	0.5869	17.711 ppb	0.5869	3.31%
Tl 190.801†	24.9	-26.000 µg/L	5.4718	-26.000 ppb	5.4718	21.05%
U 409.014†	152927.5	14628 µg/L	31.9	14628 ppb	31.9	0.22%

QC value within limits for U 409.014 Recovery = 97.52%

V 292.402†	-5310.4	-0.1632 µg/L	1.23759	-0.1632 ppb	1.23759	758.50%
Zn 213.857†	2746.7	12.808 µg/L	0.3761	12.808 ppb	0.3761	2.94%

All analyte(s) passed QC.

Sequence No.: 12
Sample ID: LR2
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 108
Date Collected: 12/20/2009 05:54:53
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR2

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	115491.6	115491.6	102	%			05:55:36
1	Al 396.153Radial†	1005.4	805.0	25.298	µg/L	25.298	ppb	05:55:36
1	Ca 317.933Radial†	764.1	345.7	135.79	µg/L	135.79	ppb	05:55:56
1	Fe 238.204 Radial†	13.3	6.6	361.67	µg/L	361.67	ppb	05:55:56
1	K 766.490 Radial†	550584.6	538936.8	294350	µg/L	294350	ppb	05:55:30
1	Mg 279.077 IEC†	-24.1	-39.0	28.097	µg/L	28.097	ppb	05:55:56
1	Na 589.592 Radial†	78.4	829.2	220.78	µg/L	220.78	ppb	05:55:36
1	Sr 421.552†	1762234.6	1727580.4	9686.6	µg/L	9686.6	ppb	05:55:30
1	Sc 361.383	2050185.5	2050185.5	98.346	%			05:57:28
1	Y 371.029	1237955.8	1237955.8	96.476	%			05:57:28
1	Ag 328.068†	-6897.3	-7086.5	5.6242	µg/L	5.6242	ppb	05:57:28
1	As 188.979†	5182.5	5269.1	10301	µg/L	10301	ppb	05:57:33
1	B 249.677†	109318.6	111040.2	4999.1	µg/L	4999.1	ppb	05:57:28
1	Ba 233.527†	550806.0	560148.9	14540	µg/L	14540	ppb	05:57:28
1	Be 313.107†	4565135.8	4638389.9	2938.6	µg/L	2938.6	ppb	05:57:17
1	Cd 226.502†	366440.0	372708.8	9990.3	µg/L	9990.3	ppb	05:57:28
1	Co 228.616†	194862.3	198224.3	9845.9	µg/L	9845.9	ppb	05:57:28
1	Cr 267.716†	1145012.4	1164391.9	25035	µg/L	25035	ppb	05:57:28
1	Cu 324.752†	2840655.4	2884839.5	20471	µg/L	20471	ppb	05:57:28
1	Mn 257.610†	2874506.1	2923066.8	9519.4	µg/L	9519.4	ppb	05:57:28
1	Mo 202.031†	84950.8	86379.8	10013	µg/L	10013	ppb	05:57:28
1	Ni 231.604†	175897.7	178527.9	9998.3	µg/L	9998.3	ppb	05:57:28
1	P 214.914†	8236.4	8163.2	15856	µg/L	15856	ppb	05:57:33
1	Pb 220.353†	96777.0	98351.9	25859	µg/L	25859	ppb	05:57:28
1	S 181.975 Axial†	9912.1	10051.6	53091	µg/L	53091	ppb	05:57:33
1	Sb 206.836†	10062.6	10209.3	10338	µg/L	10338	ppb	05:57:33
1	Se 196.026†	6982.5	7081.5	9856.3	µg/L	9856.3	ppb	05:57:33
1	SiO2†	513055.7	519412.8	101240	µg/L	101240	ppb	05:57:28
1	Si 251.611†	591072.6	600654.4	46009	µg/L	46009	ppb	05:57:28
1	Sn 189.927†	21300.2	21634.5	11075	µg/L	11075	ppb	05:57:33
1	Ti 334.940†	4317569.2	4389305.4	9946.4	µg/L	9946.4	ppb	05:57:17
1	Tl 190.801†	6321.6	6448.0	9968.8	µg/L	9968.8	ppb	05:57:33
1	U 409.014†	1877.9	1148.6	110.43	µg/L	110.43	ppb	05:57:28
1	V 292.402†	874779.4	889613.8	10371	µg/L	10371	ppb	05:57:28
1	Zn 213.857†	545308.5	553892.8	15082	µg/L	15082	ppb	05:57:28
2	Sc RADIAL	114121.3	114121.3	101	%			05:56:07
2	Al 396.153Radial†	822.1	634.9	-58.745	µg/L	-58.745	ppb	05:56:07
2	Ca 317.933Radial†	635.4	226.9	89.138	µg/L	89.138	ppb	05:56:28
2	Fe 238.204 Radial†	4.5	-2.0	313.81	µg/L	313.81	ppb	05:56:28
2	K 766.490 Radial†	548452.3	543302.3	296730	µg/L	296730	ppb	05:56:02
2	Mg 279.077 IEC†	-38.2	-53.2	-53.906	µg/L	-53.906	ppb	05:56:28
2	Na 589.592 Radial†	-344.8	410.3	109.25	µg/L	109.25	ppb	05:56:07
2	Sr 421.552†	1754768.2	1740916.2	9761.4	µg/L	9761.4	ppb	05:56:02
2	Sc 361.383	2055121.3	2055121.3	98.583	%			05:57:53
2	Y 371.029	1241371.7	1241371.7	96.742	%			05:57:53
2	Ag 328.068†	-6924.8	-7097.6	5.1421	µg/L	5.1421	ppb	05:57:53
2	As 188.979†	5126.9	5200.0	10166	µg/L	10166	ppb	05:57:58
2	B 249.677†	109411.8	110867.8	4991.3	µg/L	4991.3	ppb	05:57:53
2	Ba 233.527†	550486.0	558479.1	14497	µg/L	14497	ppb	05:57:53
2	Be 313.107†	4578560.9	4640859.5	2940.2	µg/L	2940.2	ppb	05:57:42
2	Cd 226.502†	366600.7	371977.0	9970.7	µg/L	9970.7	ppb	05:57:53
2	Co 228.616†	194630.4	197513.1	9810.5	µg/L	9810.5	ppb	05:57:53
2	Cr 267.716†	1139883.7	1156393.2	24863	µg/L	24863	ppb	05:57:53
2	Cu 324.752†	2827240.7	2864294.8	20325	µg/L	20325	ppb	05:57:53
2	Mn 257.610†	2867494.0	2908934.2	9473.3	µg/L	9473.3	ppb	05:57:53
2	Mo 202.031†	84765.8	85984.8	9967.0	µg/L	9967.0	ppb	05:57:53
2	Ni 231.604†	175600.4	177796.8	9957.4	µg/L	9957.4	ppb	05:57:53
2	P 214.914†	8076.3	7980.6	15462	µg/L	15462	ppb	05:57:58
2	Pb 220.353†	96854.5	98194.1	25818	µg/L	25818	ppb	05:57:53

2	S 181.975 Axial†	9841.6	9955.9	52585	µg/L	52585	ppb	05:57:58
2	Sb 206.836†	9977.9	10098.8	10226	µg/L	10226	ppb	05:57:58
2	Se 196.026†	6940.8	7022.2	9773.7	µg/L	9773.7	ppb	05:57:58
2	SiO2†	512645.3	517743.7	100910	µg/L	100910	ppb	05:57:53
2	Si 251.611†	591156.2	599295.8	45913	µg/L	45913	ppb	05:57:53
2	Sn 189.927†	20859.8	21135.7	10820	µg/L	10820	ppb	05:57:58
2	Ti 334.940†	4325720.6	4387030.1	9941.2	µg/L	9941.2	ppb	05:57:42
2	Tl 190.801†	6285.9	6396.4	9889.5	µg/L	9889.5	ppb	05:57:58
2	U 409.014†	1846.1	1111.8	106.90	µg/L	106.90	ppb	05:57:53
2	V 292.402†	872207.8	884869.0	10316	µg/L	10316	ppb	05:57:53
2	Zn 213.857†	543836.1	551067.6	15005	µg/L	15005	ppb	05:57:53
3	Sc RADIAL	115286.3	115286.3	102	%			05:56:40
3	Al 396.153Radial†	1123.5	922.7	124.77	µg/L	124.77	ppb	05:56:40
3	Ca 317.933Radial†	779.0	361.6	142.03	µg/L	142.03	ppb	05:57:00
3	Fe 238.204 Radial†	8.6	2.0	301.51	µg/L	301.51	ppb	05:57:00
3	K 766.490 Radial†	544174.5	533603.2	291430	µg/L	291430	ppb	05:56:34
3	Mg 279.077 IEC†	-29.1	-43.9	-26.335	µg/L	-26.335	ppb	05:57:00
3	Na 589.592 Radial†	-27.0	725.9	193.26	µg/L	193.26	ppb	05:56:40
3	Sr 421.552†	1742136.5	1710920.1	9593.2	µg/L	9593.2	ppb	05:56:34
3	Sc 361.383	2060702.3	2060702.3	98.851	%			05:58:18
3	Y 371.029	1247014.9	1247014.9	97.182	%			05:58:18
3	Ag 328.068†	-6114.7	-6259.0	5.5987	µg/L	5.5987	ppb	05:58:18
3	As 188.979†	4587.6	4640.4	9073.2	µg/L	9073.2	ppb	05:58:23
3	B 249.677†	102625.9	103702.5	4668.7	µg/L	4668.7	ppb	05:58:18
3	Ba 233.527†	502215.1	508134.8	13189	µg/L	13189	ppb	05:58:18
3	Be 313.107†	4315894.7	4362561.6	2763.8	µg/L	2763.8	ppb	05:58:07
3	Cd 226.502†	332349.7	336320.7	9014.9	µg/L	9014.9	ppb	05:58:18
3	Co 228.616†	174751.2	176868.2	8784.2	µg/L	8784.2	ppb	05:58:18
3	Cr 267.716†	1002933.1	1014719.0	21818	µg/L	21818	ppb	05:58:18
3	Cu 324.752†	2557328.9	2583478.3	18333	µg/L	18333	ppb	05:58:18
3	Mn 257.610†	2585535.4	2615820.3	8518.8	µg/L	8518.8	ppb	05:58:18
3	Mo 202.031†	76395.1	77283.8	8958.4	µg/L	8958.4	ppb	05:58:18
3	Ni 231.604†	157848.2	159355.8	8924.6	µg/L	8924.6	ppb	05:58:18
3	P 214.914†	7124.5	6995.6	13486	µg/L	13486	ppb	05:58:23
3	Pb 220.353†	89215.8	90200.6	23716	µg/L	23716	ppb	05:58:18
3	S 181.975 Axial†	8811.0	8886.3	46936	µg/L	46936	ppb	05:58:23
3	Sb 206.836†	8857.2	8937.7	9053.0	µg/L	9053.0	ppb	05:58:23
3	Se 196.026†	6224.3	6278.3	8738.4	µg/L	8738.4	ppb	05:58:23
3	SiO2†	474243.0	477486.5	93066	µg/L	93066	ppb	05:58:18
3	Si 251.611†	546414.2	552409.6	42337	µg/L	42337	ppb	05:58:18
3	Sn 189.927†	17935.1	18119.7	9276.1	µg/L	9276.1	ppb	05:58:23
3	Ti 334.940†	4085837.6	4132474.8	9364.4	µg/L	9364.4	ppb	05:58:07
3	Tl 190.801†	5810.8	5898.5	9121.5	µg/L	9121.5	ppb	05:58:23
3	U 409.014†	1817.9	1078.2	103.66	µg/L	103.66	ppb	05:58:18
3	V 292.402†	784465.8	793710.9	9253.5	µg/L	9253.5	ppb	05:58:18
3	Zn 213.857†	492240.1	497377.7	13543	µg/L	13543	ppb	05:58:18

Mean Data: LR2

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2055336.3	98.593	%	0.2524				0.26%
Sc RADIAL	114966.4	102	%	0.7				0.64%
Y 371.029	1242114.2	96.800	%	0.3565				0.37%
Ag 328.068†	-6814.4	5.4550	µg/L	0.27128	5.4550	ppb	0.27128	4.97%
Al 396.153Radial†	787.5	30.439	µg/L	91.8632	30.439	ppb	91.8632	301.79%
As 188.979†	5036.5	9846.7	µg/L	673.30	9846.7	ppb	673.30	6.84%
QC value within limits for As 188.979 Recovery = 98.47%								
B 249.677†	108536.8	4886.4	µg/L	188.52	4886.4	ppb	188.52	3.86%
QC value within limits for B 249.677 Recovery = 97.73%								
Ba 233.527†	542254.3	14075	µg/L	767.5	14075	ppb	767.5	5.45%
QC value within limits for Ba 233.527 Recovery = 93.84%								
Be 313.107†	4547270.3	2880.9	µg/L	101.35	2880.9	ppb	101.35	3.52%
QC value within limits for Be 313.107 Recovery = 96.03%								
Ca 317.933Radial†	311.4	122.32	µg/L	28.903	122.32	ppb	28.903	23.63%
Cd 226.502†	360335.5	9658.6	µg/L	557.61	9658.6	ppb	557.61	5.77%
QC value within limits for Cd 226.502 Recovery = 96.59%								
Co 228.616†	190868.5	9480.2	µg/L	603.03	9480.2	ppb	603.03	6.36%
QC value within limits for Co 228.616 Recovery = 94.80%								
Cr 267.716†	1111834.7	23906	µg/L	1810.1	23906	ppb	1810.1	7.57%
QC value within limits for Cr 267.716 Recovery = 95.62%								

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Cu 324.752†          2777537.5       19710 µg/L        1194.8       19710 ppb         1194.8   6.06%
   QC value within limits for Cu 324.752  Recovery = 98.55%
Fe 238.204 Radial†         2.2      325.66 µg/L        31.787      325.66 ppb         31.787   9.76%
K 766.490 Radial†     538614.1      294170 µg/L        2653.0      294170 ppb         2653.0   0.90%
   QC value within limits for K 766.490 Radial  Recovery = 98.06%
Mg 279.077 IEC†          -45.4     -17.381 µg/L       41.7285     -17.381 ppb        41.7285 240.08%
Mn 257.610†          2815940.4      9170.5 µg/L        564.87      9170.5 ppb         564.87   6.16%
   QC value within limits for Mn 257.610  Recovery = 91.71%
Mo 202.031†            83216.1      9646.0 µg/L        595.96      9646.0 ppb         595.96   6.18%
   QC value within limits for Mo 202.031  Recovery = 96.46%
Na 589.592 Radial†       655.1      174.43 µg/L        58.102      174.43 ppb         58.102  33.31%
Ni 231.604†          171893.5      9626.8 µg/L        608.44      9626.8 ppb         608.44   6.32%
   QC value within limits for Ni 231.604  Recovery = 96.27%
P 214.914†             7713.1      14935 µg/L        1269.8       14935 ppb         1269.8   8.50%
   QC value within limits for P 214.914  Recovery = 99.56%
Pb 220.353†            95582.2      25131 µg/L        1225.6       25131 ppb         1225.6   4.88%
   QC value within limits for Pb 220.353  Recovery = 100.53%
S 181.975 Axial†        9631.3      50870 µg/L        3416.9       50870 ppb         3416.9   6.72%
   QC value within limits for S 181.975 Axial  Recovery = 101.74%
Sb 206.836†             9748.6      9872.2 µg/L        711.74      9872.2 ppb         711.74   7.21%
   QC value within limits for Sb 206.836  Recovery = 98.72%
Se 196.026†             6794.0      9456.1 µg/L        622.97      9456.1 ppb         622.97   6.59%
   QC value within limits for Se 196.026  Recovery = 94.56%
SiO2†                 504881.0      98406 µg/L        4626.9       98406 ppb         4626.9   4.70%
   QC value within limits for SiO2  Recovery = 91.97%
Si 251.611†           584119.9      44753 µg/L        2092.5       44753 ppb         2092.5   4.68%
   QC value less than the lower limit for Si 251.611  Recovery = 89.51%
Sn 189.927†            20296.6      10391 µg/L         973.5       10391 ppb          973.5   9.37%
   QC value within limits for Sn 189.927  Recovery = 103.91%
Sr 421.552†          1726472.2      9680.4 µg/L         84.27      9680.4 ppb          84.27   0.87%
   QC value within limits for Sr 421.552  Recovery = 96.80%
Ti 334.940†          4302936.8      9750.6 µg/L        334.53      9750.6 ppb         334.53   3.43%
   QC value within limits for Ti 334.940  Recovery = 97.51%
Tl 190.801†             6247.6      9659.9 µg/L        467.97      9659.9 ppb         467.97   4.84%
   QC value within limits for Tl 190.801  Recovery = 96.60%
U 409.014†              1112.9      107.00 µg/L         3.385      107.00 ppb         3.385   3.16%
V 292.402†            856064.6      9980.3 µg/L        630.06      9980.3 ppb         630.06   6.31%
   QC value within limits for V 292.402  Recovery = 99.80%
Zn 213.857†           534112.7      14543 µg/L         866.9       14543 ppb          866.9   5.96%
   QC value within limits for Zn 213.857  Recovery = 96.96%
QC Failed.  Continue with analysis.
```

Sequence No.: 13
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 12/20/2009 05:58:32
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	117437.1	117437.1	104	%			05:59:10
1	Al 396.153Radial†	10405.8	9851.0	4949.7	µg/L	4949.7	ppb	05:59:10
1	Ca 317.933Radial†	13482.4	12594.1	4947.1	µg/L	4947.1	ppb	05:59:30
1	Fe 238.204 Radial†	970.3	928.9	5091.6	µg/L	5091.6	ppb	05:59:30
1	K 766.490 Radial†	10423.7	9260.6	5057.7	µg/L	5057.7	ppb	05:59:10
1	Mg 279.077 IEC†	955.2	905.5	5159.8	µg/L	5159.8	ppb	05:59:30
1	Na 589.592 Radial†	37904.6	37293.9	9929.3	µg/L	9929.3	ppb	05:59:10
1	Sr 421.552†	91999.2	88793.7	497.87	µg/L	497.87	ppb	05:59:10
1	Sc 361.383	2108184.3	2108184.3	101.13	%			06:00:34
1	Y 371.029	1289674.2	1289674.2	100.51	%			06:00:34
1	Ag 328.068†	56249.0	55548.0	513.19	µg/L	513.19	ppb	06:00:40
1	As 188.979†	277.8	274.1	534.29	µg/L	534.29	ppb	06:01:00
1	B 249.677†	11756.2	11508.6	516.52	µg/L	516.52	ppb	06:00:40
1	Ba 233.527†	20261.9	20117.3	522.51	µg/L	522.51	ppb	06:00:40
1	Be 313.107†	815219.9	802617.4	508.94	µg/L	508.94	ppb	06:00:34
1	Cd 226.502†	19736.0	19623.2	525.96	µg/L	525.96	ppb	06:00:40
1	Co 228.616†	10590.0	10557.3	524.39	µg/L	524.39	ppb	06:00:40
1	Cr 267.716†	24684.8	24536.3	528.26	µg/L	528.26	ppb	06:00:40
1	Cu 324.752†	75532.5	71110.4	505.70	µg/L	505.70	ppb	06:00:40
1	Mn 257.610†	158018.6	156483.4	510.25	µg/L	510.25	ppb	06:00:34
1	Mo 202.031†	4502.9	4453.3	516.41	µg/L	516.41	ppb	06:01:00
1	Ni 231.604†	9818.3	9381.3	525.39	µg/L	525.39	ppb	06:00:40
1	P 214.914†	1398.8	1171.5	2547.3	µg/L	2547.3	ppb	06:01:00
1	Pb 220.353†	2100.8	2025.0	533.16	µg/L	533.16	ppb	06:01:00
1	S 181.975 Axial†	234.4	204.7	1079.6	µg/L	1079.6	ppb	06:01:00
1	Sb 206.836†	537.0	508.6	518.25	µg/L	518.25	ppb	06:01:00
1	Se 196.026†	392.7	370.0	517.03	µg/L	517.03	ppb	06:01:00
1	SiO2†	30951.6	28336.7	5523.1	µg/L	5523.1	ppb	06:00:40
1	Si 251.611†	33787.8	33054.2	2541.1	µg/L	2541.1	ppb	06:00:40
1	Sn 189.927†	1076.8	1040.8	535.57	µg/L	535.57	ppb	06:01:00
1	Ti 334.940†	227134.8	223739.9	506.73	µg/L	506.73	ppb	06:00:34
1	Tl 190.801†	326.3	342.8	529.19	µg/L	529.19	ppb	06:01:00
1	U 409.014†	6177.9	5348.1	513.35	µg/L	513.35	ppb	06:00:40
1	V 292.402†	45384.6	45003.8	525.97	µg/L	525.97	ppb	06:00:40
1	Zn 213.857†	20082.4	19273.7	523.50	µg/L	523.50	ppb	06:00:40
2	Sc RADIAL	117292.6	117292.6	104	%			05:59:36
2	Al 396.153Radial†	10420.9	9877.9	4963.5	µg/L	4963.5	ppb	05:59:36
2	Ca 317.933Radial†	13456.5	12585.1	4943.5	µg/L	4943.5	ppb	05:59:56
2	Fe 238.204 Radial†	962.4	922.4	5056.2	µg/L	5056.2	ppb	05:59:56
2	K 766.490 Radial†	10259.6	9114.6	4978.0	µg/L	4978.0	ppb	05:59:36
2	Mg 279.077 IEC†	946.8	898.6	5120.4	µg/L	5120.4	ppb	05:59:56
2	Na 589.592 Radial†	37876.7	37312.0	9934.1	µg/L	9934.1	ppb	05:59:36
2	Sr 421.552†	91759.7	88671.9	497.19	µg/L	497.19	ppb	05:59:36
2	Sc 361.383	2137881.9	2137881.9	102.55	%			06:01:07
2	Y 371.029	1306418.1	1306418.1	101.81	%			06:01:07
2	Ag 328.068†	56589.7	55107.6	509.12	µg/L	509.12	ppb	06:01:13
2	As 188.979†	277.7	270.2	526.64	µg/L	526.64	ppb	06:01:33
2	B 249.677†	11792.8	11382.7	510.87	µg/L	510.87	ppb	06:01:13
2	Ba 233.527†	20393.0	19966.8	518.60	µg/L	518.60	ppb	06:01:13
2	Be 313.107†	823380.4	799376.8	506.88	µg/L	506.88	ppb	06:01:07
2	Cd 226.502†	19933.3	19544.5	523.85	µg/L	523.85	ppb	06:01:13
2	Co 228.616†	10668.2	10488.1	520.95	µg/L	520.95	ppb	06:01:13
2	Cr 267.716†	24820.3	24329.4	523.81	µg/L	523.81	ppb	06:01:13
2	Cu 324.752†	75948.7	70478.7	501.21	µg/L	501.21	ppb	06:01:13
2	Mn 257.610†	159381.9	155642.2	507.50	µg/L	507.50	ppb	06:01:07
2	Mo 202.031†	4519.8	4407.9	511.14	µg/L	511.14	ppb	06:01:33
2	Ni 231.604†	9843.2	9270.8	519.20	µg/L	519.20	ppb	06:01:13
2	P 214.914†	1405.9	1159.2	2520.5	µg/L	2520.5	ppb	06:01:33
2	Pb 220.353†	2094.9	1990.4	524.07	µg/L	524.07	ppb	06:01:33

2	S 181.975 Axial†	232.8	199.8	1053.9 µg/L	1053.9 ppb	06:01:33
2	Sb 206.836†	541.1	505.2	514.77 µg/L	514.77 ppb	06:01:33
2	Se 196.026†	393.8	365.6	510.92 µg/L	510.92 ppb	06:01:33
2	SiO2†	31151.3	28106.3	5478.2 µg/L	5478.2 ppb	06:01:13
2	Si 251.611†	33959.3	32757.3	2518.3 µg/L	2518.3 ppb	06:01:13
2	Sn 189.927†	1080.2	1029.4	529.71 µg/L	529.71 ppb	06:01:33
2	Ti 334.940†	228832.6	222275.5	503.41 µg/L	503.41 ppb	06:01:07
2	Tl 190.801†	326.3	338.4	522.38 µg/L	522.38 ppb	06:01:33
2	U 409.014†	6234.0	5318.0	510.46 µg/L	510.46 ppb	06:01:13
2	V 292.402†	45613.5	44603.6	521.29 µg/L	521.29 ppb	06:01:13
2	Zn 213.857†	20165.9	19079.2	518.22 µg/L	518.22 ppb	06:01:13
3	Sc RADIAL	116300.5	116300.5	103 %		06:00:02
3	Al 396.153Radial†	10315.7	9861.3	4957.6 µg/L	4957.6 ppb	06:00:02
3	Ca 317.933Radial†	13472.3	12711.4	4993.1 µg/L	4993.1 ppb	06:00:22
3	Fe 238.204 Radial†	970.2	938.0	5140.1 µg/L	5140.1 ppb	06:00:22
3	K 766.490 Radial†	10184.9	9126.3	4984.4 µg/L	4984.4 ppb	06:00:02
3	Mg 279.077 IEC†	951.8	911.2	5190.6 µg/L	5190.6 ppb	06:00:22
3	Na 589.592 Radial†	37662.7	37415.5	9961.7 µg/L	9961.7 ppb	06:00:02
3	Sr 421.552†	90705.0	88400.7	495.67 µg/L	495.67 ppb	06:00:02
3	Sc 361.383	2117932.5	2117932.5	101.60 %		06:01:40
3	Y 371.029	1294966.6	1294966.6	100.92 %		06:01:40
3	Ag 328.068†	54053.0	53130.5	490.78 µg/L	490.78 ppb	06:01:46
3	As 188.979†	240.6	236.3	460.49 µg/L	460.49 ppb	06:02:07
3	B 249.677†	11191.8	10899.4	489.09 µg/L	489.09 ppb	06:01:46
3	Ba 233.527†	19131.2	18912.1	491.19 µg/L	491.19 ppb	06:01:46
3	Be 313.107†	793689.3	777714.8	493.15 µg/L	493.15 ppb	06:01:40
3	Cd 226.502†	18578.9	18394.4	492.99 µg/L	492.99 ppb	06:01:46
3	Co 228.616†	9882.5	9812.8	487.29 µg/L	487.29 ppb	06:01:46
3	Cr 267.716†	22706.2	22476.5	483.93 µg/L	483.93 ppb	06:01:46
3	Cu 324.752†	71082.9	66386.9	472.19 µg/L	472.19 ppb	06:01:46
3	Mn 257.610†	154136.7	151943.3	495.47 µg/L	495.47 ppb	06:01:40
3	Mo 202.031†	3900.0	3839.4	445.25 µg/L	445.25 ppb	06:02:07
3	Ni 231.604†	9174.3	8702.7	487.39 µg/L	487.39 ppb	06:01:46
3	P 214.914†	1260.2	1028.7	2232.5 µg/L	2232.5 ppb	06:02:07
3	Pb 220.353†	1881.2	1799.3	473.69 µg/L	473.69 ppb	06:02:07
3	S 181.975 Axial†	210.8	180.4	951.26 µg/L	951.26 ppb	06:02:07
3	Sb 206.836†	481.4	451.4	459.99 µg/L	459.99 ppb	06:02:07
3	Se 196.026†	362.4	338.3	472.94 µg/L	472.94 ppb	06:02:07
3	SiO2†	29462.7	26730.3	5210.0 µg/L	5210.0 ppb	06:01:46
3	Si 251.611†	31999.3	31140.0	2396.2 µg/L	2396.2 ppb	06:01:46
3	Sn 189.927†	915.2	876.9	451.67 µg/L	451.67 ppb	06:02:07
3	Ti 334.940†	220319.3	215997.7	489.18 µg/L	489.18 ppb	06:01:40
3	Tl 190.801†	296.9	312.4	482.42 µg/L	482.42 ppb	06:02:07
3	U 409.014†	5844.1	4991.4	479.05 µg/L	479.05 ppb	06:01:46
3	V 292.402†	42316.2	41777.1	488.06 µg/L	488.06 ppb	06:01:46
3	Zn 213.857†	18828.7	17948.3	487.45 µg/L	487.45 ppb	06:01:46

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2121332.9	101.76	%	0.726				0.71%
Sc RADIAL	117010.0	103	%	0.5				0.53%
Y 371.029	1297019.6	101.08	%	0.667				0.66%
Ag 328.068†	54595.4	504.36	µg/L	11.940	504.36	ppb	11.940	2.37%
QC value within limits for Ag 328.068 Recovery = 100.87%								
Al 396.153Radial†	9863.4	4956.9	µg/L	6.91	4956.9	ppb	6.91	0.14%
QC value within limits for Al 396.153Radial Recovery = 99.14%								
As 188.979†	260.2	507.14	µg/L	40.580	507.14	ppb	40.580	8.00%
QC value within limits for As 188.979 Recovery = 101.43%								
B 249.677†	11263.6	505.49	µg/L	14.488	505.49	ppb	14.488	2.87%
QC value within limits for B 249.677 Recovery = 101.10%								
Ba 233.527†	19665.4	510.77	µg/L	17.064	510.77	ppb	17.064	3.34%
QC value within limits for Ba 233.527 Recovery = 102.15%								
Be 313.107†	793236.3	502.99	µg/L	8.585	502.99	ppb	8.585	1.71%
QC value within limits for Be 313.107 Recovery = 100.60%								
Ca 317.933Radial†	12630.2	4961.2	µg/L	27.67	4961.2	ppb	27.67	0.56%
QC value within limits for Ca 317.933Radial Recovery = 99.22%								
Cd 226.502†	19187.4	514.27	µg/L	18.455	514.27	ppb	18.455	3.59%
QC value within limits for Cd 226.502 Recovery = 102.85%								
Co 228.616†	10286.1	510.88	µg/L	20.498	510.88	ppb	20.498	4.01%

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   QC value within limits for Co 228.616  Recovery = 102.18%
Cr 267.716†            23780.7      512.00 µg/L        24.411      512.00 ppb        24.411   4.77%
   QC value within limits for Cr 267.716  Recovery = 102.40%
Cu 324.752†            69325.3      493.03 µg/L        18.189      493.03 ppb        18.189   3.69%
   QC value within limits for Cu 324.752  Recovery = 98.61%
Fe 238.204 Radial†       929.8      5096.0 µg/L         42.12      5096.0 ppb         42.12   0.83%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.92%
K 766.490 Radial†       9167.1      5006.7 µg/L         44.31      5006.7 ppb         44.31   0.88%
   QC value within limits for K 766.490 Radial  Recovery = 100.13%
Mg 279.077 IEC†          905.1      5156.9 µg/L         35.19      5156.9 ppb         35.19   0.68%
   QC value within limits for Mg 279.077 IEC  Recovery = 103.14%
Mn 257.610†           154689.7      504.41 µg/L         7.861      504.41 ppb         7.861   1.56%
   QC value within limits for Mn 257.610  Recovery = 100.88%
Mo 202.031†            4233.6      490.93 µg/L        39.653      490.93 ppb        39.653   8.08%
   QC value within limits for Mo 202.031  Recovery = 98.19%
Na 589.592 Radial†    37340.4      9941.7 µg/L         17.47      9941.7 ppb         17.47   0.18%
   QC value within limits for Na 589.592 Radial  Recovery = 99.42%
Ni 231.604†            9118.2      510.66 µg/L        20.390      510.66 ppb        20.390   3.99%
   QC value within limits for Ni 231.604  Recovery = 102.13%
P 214.914†             1119.8      2433.4 µg/L        174.54      2433.4 ppb        174.54   7.17%
   QC value within limits for P 214.914  Recovery = 97.34%
Pb 220.353†            1938.2      510.31 µg/L        32.036      510.31 ppb        32.036   6.28%
   QC value within limits for Pb 220.353  Recovery = 102.06%
S 181.975 Axial†         195.0      1028.3 µg/L         67.92      1028.3 ppb         67.92   6.60%
   QC value within limits for S 181.975 Axial  Recovery = 102.83%
Sb 206.836†              488.4      497.67 µg/L        32.682      497.67 ppb        32.682   6.57%
   QC value within limits for Sb 206.836  Recovery = 99.53%
Se 196.026†              357.9      500.30 µg/L        23.886      500.30 ppb        23.886   4.77%
   QC value within limits for Se 196.026  Recovery = 100.06%
SiO2†                  27724.5      5403.7 µg/L        169.30      5403.7 ppb        169.30   3.13%
   QC value within limits for SiO2  Recovery = 101.05%
Si 251.611†            32317.2      2485.2 µg/L         77.92      2485.2 ppb         77.92   3.14%
   QC value within limits for Si 251.611  Recovery = 99.41%
Sn 189.927†              982.4      505.65 µg/L        46.839      505.65 ppb        46.839   9.26%
   QC value within limits for Sn 189.927  Recovery = 101.13%
Sr 421.552†            88622.1      496.91 µg/L         1.128      496.91 ppb         1.128   0.23%
   QC value within limits for Sr 421.552  Recovery = 99.38%
Ti 334.940†           220671.0      499.77 µg/L         9.322      499.77 ppb         9.322   1.87%
   QC value within limits for Ti 334.940  Recovery = 99.95%
Tl 190.801†              331.2      511.33 µg/L        25.268      511.33 ppb        25.268   4.94%
   QC value within limits for Tl 190.801  Recovery = 102.27%
U 409.014†              5219.2      500.95 µg/L        19.026      500.95 ppb        19.026   3.80%
   QC value within limits for U 409.014  Recovery = 100.19%
V 292.402†             43794.9      511.77 µg/L        20.671      511.77 ppb        20.671   4.04%
   QC value within limits for V 292.402  Recovery = 102.35%
Zn 213.857†            18767.1      509.72 µg/L        19.466      509.72 ppb        19.466   3.82%
   QC value within limits for Zn 213.857  Recovery = 101.94%
All analyte(s) passed QC.
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Sequence No.: 14
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 12/20/2009 06:02:16
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	115845.2	115845.2	102	%			06:02:49
1	Al 396.153Radial†	195.2	10.2	5.1257	µg/L	5.1257	ppb	06:02:49
1	Ca 317.933Radial†	507.6	92.7	36.417	µg/L	36.417	ppb	06:03:09
1	Fe 238.204 Radial†	18.2	11.3	61.657	µg/L	61.657	ppb	06:03:09
1	K 766.490 Radial†	878.3	70.0	38.238	µg/L	38.238	ppb	06:02:49
1	Mg 279.077 IEC†	27.3	11.3	64.322	µg/L	64.322	ppb	06:03:09
1	Na 589.592 Radial†	-674.8	93.0	24.748	µg/L	24.748	ppb	06:02:49
1	Sr 421.552†	-14.2	89.2	0.5001	µg/L	0.5001	ppb	06:02:49
1	Sc 361.383	2136628.0	2136628.0	102.49	%			06:04:11
1	Y 371.029	1313462.4	1313462.4	102.36	%			06:04:11
1	Ag 328.068†	168.7	91.3	0.8416	µg/L	0.8416	ppb	06:04:16
1	As 188.979†	0.7	0.1	0.1142	µg/L	0.1142	ppb	06:04:37
1	B 249.677†	204.3	82.9	3.7113	µg/L	3.7113	ppb	06:04:16
1	Ba 233.527†	-26.4	55.8	1.4449	µg/L	1.4449	ppb	06:04:37
1	Be 313.107†	3754.1	157.8	0.0998	µg/L	0.0998	ppb	06:04:16
1	Cd 226.502†	-65.2	43.8	1.1662	µg/L	1.1662	ppb	06:04:37
1	Co 228.616†	-65.8	21.3	1.0588	µg/L	1.0588	ppb	06:04:37
1	Cr 267.716†	-52.5	75.7	1.6265	µg/L	1.6265	ppb	06:04:16
1	Cu 324.752†	3580.5	-85.8	-0.5955	µg/L	-0.5955	ppb	06:04:16
1	Mn 257.610†	123.8	349.0	1.1445	µg/L	1.1445	ppb	06:04:37
1	Mo 202.031†	6.1	6.6	0.7725	µg/L	0.7725	ppb	06:04:37
1	Ni 231.604†	368.9	32.5	1.8220	µg/L	1.8220	ppb	06:04:37
1	P 214.914†	199.7	-16.8	-37.422	µg/L	-37.422	ppb	06:04:37
1	Pb 220.353†	59.0	5.2	1.3647	µg/L	1.3647	ppb	06:04:37
1	S 181.975 Axial†	33.0	5.0	26.518	µg/L	26.518	ppb	06:04:37
1	Sb 206.836†	22.0	-1.0	-1.0054	µg/L	-1.0054	ppb	06:04:37
1	Se 196.026†	13.8	-4.9	-6.8526	µg/L	-6.8526	ppb	06:04:37
1	SiO2†	2294.9	-30.3	-5.9119	µg/L	-5.9119	ppb	06:04:16
1	Si 251.611†	494.8	126.2	9.8353	µg/L	9.8353	ppb	06:04:37
1	Sn 189.927†	24.1	-0.4	-0.1985	µg/L	-0.1985	ppb	06:04:37
1	Ti 334.940†	1316.4	424.2	0.9593	µg/L	0.9593	ppb	06:04:16
1	Tl 190.801†	-24.7	-3.9	-6.0194	µg/L	-6.0194	ppb	06:04:37
1	U 409.014†	715.6	-62.6	-6.0334	µg/L	-6.0334	ppb	06:04:16
1	V 292.402†	-135.3	-6.3	-0.0721	µg/L	-0.0721	ppb	06:04:16
1	Zn 213.857†	690.9	89.5	2.4339	µg/L	2.4339	ppb	06:04:37
2	Sc RADIAL	115450.7	115450.7	102	%			06:03:15
2	Al 396.153Radial†	244.9	59.6	29.989	µg/L	29.989	ppb	06:03:15
2	Ca 317.933Radial†	478.3	65.6	25.783	µg/L	25.783	ppb	06:03:35
2	Fe 238.204 Radial†	13.9	7.2	39.272	µg/L	39.272	ppb	06:03:35
2	K 766.490 Radial†	857.5	52.6	28.731	µg/L	28.731	ppb	06:03:15
2	Mg 279.077 IEC†	17.7	2.0	11.257	µg/L	11.257	ppb	06:03:35
2	Na 589.592 Radial†	-639.2	125.6	33.442	µg/L	33.442	ppb	06:03:15
2	Sr 421.552†	74.0	175.7	0.9851	µg/L	0.9851	ppb	06:03:15
2	Sc 361.383	2122620.9	2122620.9	101.82	%			06:04:43
2	Y 371.029	1302241.6	1302241.6	101.49	%			06:04:43
2	Ag 328.068†	97.7	22.7	0.2200	µg/L	0.2200	ppb	06:04:48
2	As 188.979†	-1.9	-2.4	-4.7577	µg/L	-4.7577	ppb	06:05:09
2	B 249.677†	218.0	97.6	4.3808	µg/L	4.3808	ppb	06:04:48
2	Ba 233.527†	-2.6	79.0	2.0494	µg/L	2.0494	ppb	06:05:09
2	Be 313.107†	4071.5	493.7	0.3127	µg/L	0.3127	ppb	06:04:48
2	Cd 226.502†	-52.3	56.1	1.5083	µg/L	1.5083	ppb	06:05:09
2	Co 228.616†	-60.0	26.6	1.3201	µg/L	1.3201	ppb	06:05:09
2	Cr 267.716†	-34.7	92.9	1.9982	µg/L	1.9982	ppb	06:04:48
2	Cu 324.752†	3828.5	180.9	1.2919	µg/L	1.2919	ppb	06:04:48
2	Mn 257.610†	177.9	403.0	1.3173	µg/L	1.3173	ppb	06:05:09
2	Mo 202.031†	12.0	12.5	1.4447	µg/L	1.4447	ppb	06:05:09
2	Ni 231.604†	371.5	37.4	2.0962	µg/L	2.0962	ppb	06:05:09
2	P 214.914†	207.7	-7.7	-17.344	µg/L	-17.344	ppb	06:05:09
2	Pb 220.353†	61.5	8.0	2.1045	µg/L	2.1045	ppb	06:05:09

2	S 181.975 Axial†	29.9	2.2	11.488 µg/L	11.488 ppb	06:05:09
2	Sb 206.836†	20.8	-2.0	-2.0595 µg/L	-2.0595 ppb	06:05:09
2	Se 196.026†	18.6	-0.2	-0.1958 µg/L	-0.1958 ppb	06:05:09
2	SiO2†	2333.7	22.5	4.3806 µg/L	4.3806 ppb	06:04:48
2	Si 251.611†	488.8	123.5	9.6372 µg/L	9.6372 ppb	06:05:09
2	Sn 189.927†	22.5	-1.8	-0.9043 µg/L	-0.9043 ppb	06:05:09
2	Ti 334.940†	1429.8	544.1	1.2314 µg/L	1.2314 ppb	06:04:48
2	Tl 190.801†	-23.2	-2.6	-4.0401 µg/L	-4.0401 ppb	06:05:09
2	U 409.014†	862.6	86.3	8.2950 µg/L	8.2950 ppb	06:04:48
2	V 292.402†	-15.8	110.2	1.3027 µg/L	1.3027 ppb	06:04:48
2	Zn 213.857†	694.9	97.9	2.6635 µg/L	2.6635 ppb	06:05:09
3	Sc RADIAL	115472.4	115472.4	102 %		06:03:40
3	Al 396.153Radial†	271.1	85.2	42.957 µg/L	42.957 ppb	06:03:40
3	Ca 317.933Radial†	490.8	77.8	30.551 µg/L	30.551 ppb	06:04:01
3	Fe 238.204 Radial†	15.5	8.7	47.810 µg/L	47.810 ppb	06:04:01
3	K 766.490 Radial†	754.8	-48.3	-26.382 µg/L	-26.382 ppb	06:03:40
3	Mg 279.077 IEC†	23.7	7.9	44.733 µg/L	44.733 ppb	06:04:01
3	Na 589.592 Radial†	-558.5	204.9	54.543 µg/L	54.543 ppb	06:03:40
3	Sr 421.552†	116.6	217.4	1.2190 µg/L	1.2190 ppb	06:03:40
3	Sc 361.383	2117253.9	2117253.9	101.56 %		06:05:15
3	Y 371.029	1299882.2	1299882.2	101.30 %		06:05:15
3	Ag 328.068†	226.3	149.5	1.3806 µg/L	1.3806 ppb	06:05:21
3	As 188.979†	-0.9	-1.5	-2.9368 µg/L	-2.9368 ppb	06:05:41
3	B 249.677†	227.9	107.9	4.8430 µg/L	4.8430 ppb	06:05:21
3	Ba 233.527†	-10.8	70.9	1.8395 µg/L	1.8395 ppb	06:05:41
3	Be 313.107†	4011.7	445.0	0.2818 µg/L	0.2818 ppb	06:05:21
3	Cd 226.502†	-61.8	46.6	1.2414 µg/L	1.2414 ppb	06:05:41
3	Co 228.616†	-65.5	21.0	1.0439 µg/L	1.0439 ppb	06:05:41
3	Cr 267.716†	-32.2	95.3	2.0489 µg/L	2.0489 ppb	06:05:21
3	Cu 324.752†	3732.9	96.3	0.6934 µg/L	0.6934 ppb	06:05:21
3	Mn 257.610†	141.2	367.3	1.2023 µg/L	1.2023 ppb	06:05:41
3	Mo 202.031†	6.4	7.0	0.8100 µg/L	0.8100 ppb	06:05:41
3	Ni 231.604†	375.0	41.8	2.3413 µg/L	2.3413 ppb	06:05:41
3	P 214.914†	206.9	-8.0	-17.912 µg/L	-17.912 ppb	06:05:41
3	Pb 220.353†	76.1	22.6	5.9443 µg/L	5.9443 ppb	06:05:41
3	S 181.975 Axial†	27.8	0.2	1.2806 µg/L	1.2806 ppb	06:05:41
3	Sb 206.836†	25.1	2.3	2.2978 µg/L	2.2978 ppb	06:05:41
3	Se 196.026†	7.7	-10.8	-15.027 µg/L	-15.027 ppb	06:05:41
3	SiO2†	2361.9	56.1	10.933 µg/L	10.933 ppb	06:05:21
3	Si 251.611†	485.4	121.4	9.5489 µg/L	9.5489 ppb	06:05:41
3	Sn 189.927†	19.8	-4.4	-2.2558 µg/L	-2.2558 ppb	06:05:41
3	Ti 334.940†	1450.0	567.5	1.2842 µg/L	1.2842 ppb	06:05:21
3	Tl 190.801†	-19.7	0.8	1.2042 µg/L	1.2042 ppb	06:05:41
3	U 409.014†	709.3	-62.5	-6.0130 µg/L	-6.0130 ppb	06:05:21
3	V 292.402†	-48.2	78.2	0.9057 µg/L	0.9057 ppb	06:05:21
3	Zn 213.857†	693.8	98.6	2.6785 µg/L	2.6785 ppb	06:05:41

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2125500.9	101.96	%	0.480				0.47%
Sc RADIAL	115589.4	102	%	0.2				0.19%
Y 371.029	1305195.4	101.72	%	0.565				0.56%
Ag 328.068†	87.9	0.8141	µg/L	0.58082	0.8141	ppb	0.58082	71.35%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	51.7	26.024	µg/L	19.2247	26.024	ppb	19.2247	73.87%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-1.3	-2.5268	µg/L	2.46173	-2.5268	ppb	2.46173	97.43%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	96.1	4.3117	µg/L	0.56905	4.3117	ppb	0.56905	13.20%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	68.5	1.7779	µg/L	0.30688	1.7779	ppb	0.30688	17.26%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	365.5	0.2314	µg/L	0.11507	0.2314	ppb	0.11507	49.72%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	78.7	30.917	µg/L	5.3265	30.917	ppb	5.3265	17.23%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	48.8	1.3053	µg/L	0.17977	1.3053	ppb	0.17977	13.77%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	23.0	1.1409	µg/L	0.15534	1.1409	ppb	0.15534	13.62%

```
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              88.0      1.8912 µg/L       0.23062      1.8912 ppb        0.23062  12.19%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              63.8      0.4633 µg/L       0.96450      0.4633 ppb        0.96450 208.20%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        9.1     49.580 µg/L       11.2972     49.580 ppb        11.2972  22.79%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        24.8     13.529 µg/L       34.8892     13.529 ppb        34.8892 257.88%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           7.1     40.104 µg/L       26.8336     40.104 ppb        26.8336  66.91%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†             373.1      1.2213 µg/L       0.08798      1.2213 ppb        0.08798   7.20%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               8.7      1.0091 µg/L       0.37776      1.0091 ppb        0.37776  37.44%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       141.1     37.578 µg/L       15.3223     37.578 ppb        15.3223  40.77%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              37.3      2.0865 µg/L       0.25979      2.0865 ppb        0.25979  12.45%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†              -10.8    -24.226 µg/L       11.4318    -24.226 ppb        11.4318  47.19%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              11.9      3.1378 µg/L       2.45850      3.1378 ppb        2.45850  78.35%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          2.5     13.096 µg/L       12.6950     13.096 ppb        12.6950  96.94%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -0.2     -0.2557 µg/L       2.27331    -0.2557 ppb        2.27331 889.14%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              -5.3     -7.3585 µg/L       7.42871    -7.3585 ppb        7.42871 100.95%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    16.1      3.1338 µg/L       8.49118      3.1338 ppb        8.49118 270.96%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             123.7      9.6738 µg/L       0.14669      9.6738 ppb        0.14669   1.52%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†              -2.2     -1.1195 µg/L       1.04540    -1.1195 ppb        1.04540  93.38%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             160.8      0.9014 µg/L       0.36669      0.9014 ppb        0.36669  40.68%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             511.9      1.1583 µg/L       0.17434      1.1583 ppb        0.17434  15.05%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -1.9     -2.9518 µg/L       3.73277    -2.9518 ppb        3.73277 126.46%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              -12.9     -1.2505 µg/L       8.26664    -1.2505 ppb        8.26664 661.09%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               60.7      0.7121 µg/L       0.70758      0.7121 ppb        0.70758  99.36%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              95.3      2.5920 µg/L       0.13710      2.5920 ppb        0.13710   5.29%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 8
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 12/20/2009 06:45:42
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	118438.2	118438.2	105	%			06:46:20
1	Al 396.153Radial†	10421.1	9780.8	4914.5	µg/L	4914.5	ppb	06:46:20
1	Ca 317.933Radial†	13523.0	12523.1	4919.1	µg/L	4919.1	ppb	06:46:41
1	Fe 238.204 Radial†	969.0	919.8	5041.6	µg/L	5041.6	ppb	06:46:41
1	K 766.490 Radial†	10225.8	8986.5	4908.0	µg/L	4908.0	ppb	06:46:20
1	Mg 279.077 IEC†	953.5	896.1	5106.5	µg/L	5106.5	ppb	06:46:41
1	Na 589.592 Radial†	38109.0	37180.4	9899.1	µg/L	9899.1	ppb	06:46:20
1	Sr 421.552†	91561.4	87625.6	491.32	µg/L	491.32	ppb	06:46:20
1	Sc 361.383	2130583.3	2130583.3	102.20	%			06:47:44
1	Y 371.029	1301185.9	1301185.9	101.40	%			06:47:44
1	Ag 328.068†	56293.9	55007.2	508.17	µg/L	508.17	ppb	06:47:50
1	As 188.979†	276.2	269.6	525.66	µg/L	525.66	ppb	06:48:10
1	B 249.677†	11565.7	11200.0	502.65	µg/L	502.65	ppb	06:47:50
1	Ba 233.527†	20213.2	19859.0	515.80	µg/L	515.80	ppb	06:47:50
1	Be 313.107†	819969.3	798789.6	506.51	µg/L	506.51	ppb	06:47:44
1	Cd 226.502†	19657.9	19341.6	518.40	µg/L	518.40	ppb	06:47:50
1	Co 228.616†	10522.2	10380.9	515.63	µg/L	515.63	ppb	06:47:50
1	Cr 267.716†	24374.4	23976.0	516.21	µg/L	516.21	ppb	06:47:50
1	Cu 324.752†	74966.5	69771.4	496.19	µg/L	496.19	ppb	06:47:50
1	Mn 257.610†	158384.9	155199.2	506.06	µg/L	506.06	ppb	06:47:44
1	Mo 202.031†	4501.0	4404.7	510.77	µg/L	510.77	ppb	06:48:10
1	Ni 231.604†	9749.0	9211.4	515.88	µg/L	515.88	ppb	06:47:50
1	P 214.914†	1415.6	1173.3	2552.6	µg/L	2552.6	ppb	06:48:10
1	Pb 220.353†	2086.1	1988.7	523.64	µg/L	523.64	ppb	06:48:10
1	S 181.975 Axial†	233.3	201.1	1060.6	µg/L	1060.6	ppb	06:48:10
1	Sb 206.836†	540.5	506.4	516.05	µg/L	516.05	ppb	06:48:10
1	Se 196.026†	398.9	371.9	519.71	µg/L	519.71	ppb	06:48:10
1	SiO2†	30768.3	27835.6	5425.4	µg/L	5425.4	ppb	06:47:50
1	Si 251.611†	33463.0	32385.1	2489.2	µg/L	2489.2	ppb	06:47:50
1	Sn 189.927†	1078.0	1030.8	530.42	µg/L	530.42	ppb	06:48:10
1	Ti 334.940†	226437.1	220696.0	499.83	µg/L	499.83	ppb	06:47:44
1	Tl 190.801†	322.4	335.6	518.17	µg/L	518.17	ppb	06:48:10
1	U 409.014†	6098.2	5205.9	499.69	µg/L	499.69	ppb	06:47:50
1	V 292.402†	45134.6	44287.4	517.61	µg/L	517.61	ppb	06:47:50
1	Zn 213.857†	19871.2	18858.2	512.19	µg/L	512.19	ppb	06:47:50
2	Sc RADIAL	118555.2	118555.2	105	%			06:46:46
2	Al 396.153Radial†	10461.7	9809.8	4929.1	µg/L	4929.1	ppb	06:46:46
2	Ca 317.933Radial†	13497.6	12486.1	4904.6	µg/L	4904.6	ppb	06:47:07
2	Fe 238.204 Radial†	972.7	922.3	5055.7	µg/L	5055.7	ppb	06:47:07
2	K 766.490 Radial†	10268.0	9017.1	4924.8	µg/L	4924.8	ppb	06:46:46
2	Mg 279.077 IEC†	954.2	895.9	5105.0	µg/L	5105.0	ppb	06:47:07
2	Na 589.592 Radial†	38048.3	37086.4	9874.0	µg/L	9874.0	ppb	06:46:46
2	Sr 421.552†	91894.7	87857.5	492.62	µg/L	492.62	ppb	06:46:46
2	Sc 361.383	2129749.9	2129749.9	102.16	%			06:48:18
2	Y 371.029	1301364.1	1301364.1	101.42	%			06:48:18
2	Ag 328.068†	56317.3	55051.7	508.60	µg/L	508.60	ppb	06:48:23
2	As 188.979†	276.2	269.7	525.83	µg/L	525.83	ppb	06:48:44
2	B 249.677†	11629.1	11266.4	505.63	µg/L	505.63	ppb	06:48:23
2	Ba 233.527†	20252.8	19905.5	517.00	µg/L	517.00	ppb	06:48:23
2	Be 313.107†	819858.7	798995.3	506.64	µg/L	506.64	ppb	06:48:18
2	Cd 226.502†	19750.2	19439.5	521.04	µg/L	521.04	ppb	06:48:23
2	Co 228.616†	10598.5	10459.7	519.54	µg/L	519.54	ppb	06:48:23
2	Cr 267.716†	24507.5	24115.6	519.21	µg/L	519.21	ppb	06:48:23
2	Cu 324.752†	75076.0	69907.3	497.16	µg/L	497.16	ppb	06:48:23
2	Mn 257.610†	158360.0	155235.4	506.18	µg/L	506.18	ppb	06:48:18
2	Mo 202.031†	4496.2	4401.7	510.42	µg/L	510.42	ppb	06:48:44
2	Ni 231.604†	9798.4	9263.5	518.79	µg/L	518.79	ppb	06:48:23
2	P 214.914†	1404.6	1163.2	2529.8	µg/L	2529.8	ppb	06:48:44
2	Pb 220.353†	2077.3	1981.0	521.58	µg/L	521.58	ppb	06:48:44

2	S 181.975 Axial†	228.7	196.7	1037.7 µg/L	1037.7 ppb		06:48:44
2	Sb 206.836†	535.5	501.7	511.22 µg/L	511.22 ppb		06:48:44
2	Se 196.026†	401.4	374.5	523.36 µg/L	523.36 ppb		06:48:44
2	SiO2†	30864.0	27941.1	5446.0 µg/L	5446.0 ppb		06:48:23
2	Si 251.611†	33679.1	32609.5	2506.9 µg/L	2506.9 ppb		06:48:23
2	Sn 189.927†	1074.5	1027.8	528.87 µg/L	528.87 ppb		06:48:44
2	Ti 334.940†	226524.1	220867.9	500.22 µg/L	500.22 ppb		06:48:18
2	Tl 190.801†	325.6	338.8	523.04 µg/L	523.04 ppb		06:48:44
2	U 409.014†	6291.1	5397.1	518.07 µg/L	518.07 ppb		06:48:23
2	V 292.402†	45284.8	44451.8	519.54 µg/L	519.54 ppb		06:48:23
2	Zn 213.857†	19965.1	18957.8	514.90 µg/L	514.90 ppb		06:48:23
3	Sc RADIAL	118770.8	118770.8	105 %			06:47:12
3	Al 396.153Radial†	10414.1	9746.2	4899.6 µg/L	4899.6 ppb		06:47:12
3	Ca 317.933Radial†	13501.4	12466.3	4896.8 µg/L	4896.8 ppb		06:47:33
3	Fe 238.204 Radial†	975.2	923.1	5058.6 µg/L	5058.6 ppb		06:47:33
3	K 766.490 Radial†	10301.1	9030.8	4932.3 µg/L	4932.3 ppb		06:47:12
3	Mg 279.077 IEC†	951.8	891.9	5080.7 µg/L	5080.7 ppb		06:47:33
3	Na 589.592 Radial†	38258.7	37221.0	9909.9 µg/L	9909.9 ppb		06:47:12
3	Sr 421.552†	91968.1	87768.1	492.12 µg/L	492.12 ppb		06:47:12
3	Sc 361.383	2129416.9	2129416.9	102.15 %			06:48:51
3	Y 371.029	1301366.4	1301366.4	101.42 %			06:48:51
3	Ag 328.068†	54188.4	52976.1	489.34 µg/L	489.34 ppb		06:48:57
3	As 188.979†	239.3	233.7	455.55 µg/L	455.55 ppb		06:49:17
3	B 249.677†	11156.3	10805.3	484.87 µg/L	484.87 ppb		06:48:57
3	Ba 233.527†	19072.6	18753.2	487.07 µg/L	487.07 ppb		06:48:57
3	Be 313.107†	794479.0	774274.6	490.97 µg/L	490.97 ppb		06:48:51
3	Cd 226.502†	18553.8	18271.2	489.70 µg/L	489.70 ppb		06:48:57
3	Co 228.616†	9893.9	9771.4	485.25 µg/L	485.25 ppb		06:48:57
3	Cr 267.716†	22536.7	22189.9	477.77 µg/L	477.77 ppb		06:48:57
3	Cu 324.752†	70895.0	65825.7	468.19 µg/L	468.19 ppb		06:48:57
3	Mn 257.610†	153598.4	150598.1	491.08 µg/L	491.08 ppb		06:48:51
3	Mo 202.031†	3916.2	3834.6	444.69 µg/L	444.69 ppb		06:49:17
3	Ni 231.604†	9222.8	8701.5	487.32 µg/L	487.32 ppb		06:48:57
3	P 214.914†	1271.2	1032.7	2242.0 µg/L	2242.0 ppb		06:49:17
3	Pb 220.353†	1879.7	1787.8	470.69 µg/L	470.69 ppb		06:49:17
3	S 181.975 Axial†	207.4	175.9	927.77 µg/L	927.77 ppb		06:49:17
3	Sb 206.836†	482.7	450.1	458.71 µg/L	458.71 ppb		06:49:17
3	Se 196.026†	361.1	335.1	468.59 µg/L	468.59 ppb		06:49:17
3	SiO2†	29415.5	26527.7	5170.5 µg/L	5170.5 ppb		06:48:57
3	Si 251.611†	31891.7	30864.8	2374.8 µg/L	2374.8 ppb		06:48:57
3	Sn 189.927†	924.4	881.0	453.73 µg/L	453.73 ppb		06:49:17
3	Ti 334.940†	218747.0	213288.9	483.05 µg/L	483.05 ppb		06:48:51
3	Tl 190.801†	295.5	309.5	477.95 µg/L	477.95 ppb		06:49:17
3	U 409.014†	5843.3	4959.7	476.01 µg/L	476.01 ppb		06:48:57
3	V 292.402†	42280.2	41517.2	485.03 µg/L	485.03 ppb		06:48:57
3	Zn 213.857†	18713.0	17735.1	481.63 µg/L	481.63 ppb		06:48:57

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	2129916.7	102.17	%	0.029				0.03%
Sc RADIAL	118588.1	105	%	0.1				0.14%
Y 371.029	1301305.5	101.41	%	0.008				0.01%
Ag 328.068†	54345.0	502.04	µg/L	11.000	502.04	ppb	11.000	2.19%
QC value within limits for Ag 328.068 Recovery = 100.41%								
Al 396.153Radial†	9778.9	4914.4	µg/L	14.77	4914.4	ppb	14.77	0.30%
QC value within limits for Al 396.153Radial Recovery = 98.29%								
As 188.979†	257.7	502.34	µg/L	40.526	502.34	ppb	40.526	8.07%
QC value within limits for As 188.979 Recovery = 100.47%								
B 249.677†	11090.6	497.72	µg/L	11.224	497.72	ppb	11.224	2.26%
QC value within limits for B 249.677 Recovery = 99.54%								
Ba 233.527†	19505.9	506.62	µg/L	16.945	506.62	ppb	16.945	3.34%
QC value within limits for Ba 233.527 Recovery = 101.32%								
Be 313.107†	790686.5	501.37	µg/L	9.012	501.37	ppb	9.012	1.80%
QC value within limits for Be 313.107 Recovery = 100.27%								
Ca 317.933Radial†	12491.8	4906.9	µg/L	11.32	4906.9	ppb	11.32	0.23%
QC value within limits for Ca 317.933Radial Recovery = 98.14%								
Cd 226.502†	19017.4	509.71	µg/L	17.386	509.71	ppb	17.386	3.41%
QC value within limits for Cd 226.502 Recovery = 101.94%								
Co 228.616†	10204.0	506.81	µg/L	18.773	506.81	ppb	18.773	3.70%

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   QC value within limits for Co 228.616  Recovery = 101.36%
Cr 267.716†            23427.2      504.40 µg/L        23.109      504.40 ppb        23.109   4.58%
   QC value within limits for Cr 267.716  Recovery = 100.88%
Cu 324.752†            68501.4      487.18 µg/L        16.450      487.18 ppb        16.450   3.38%
   QC value within limits for Cu 324.752  Recovery = 97.44%
Fe 238.204 Radial†       921.7      5052.0 µg/L         9.10      5052.0 ppb         9.10   0.18%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.04%
K 766.490 Radial†       9011.5      4921.7 µg/L        12.41      4921.7 ppb        12.41   0.25%
   QC value within limits for K 766.490 Radial  Recovery = 98.43%
Mg 279.077 IEC†          894.6      5097.4 µg/L        14.45      5097.4 ppb        14.45   0.28%
   QC value within limits for Mg 279.077 IEC  Recovery = 101.95%
Mn 257.610†           153677.5      501.11 µg/L         8.684      501.11 ppb         8.684   1.73%
   QC value within limits for Mn 257.610  Recovery = 100.22%
Mo 202.031†            4213.6      488.63 µg/L        38.053      488.63 ppb        38.053   7.79%
   QC value within limits for Mo 202.031  Recovery = 97.73%
Na 589.592 Radial†    37162.6      9894.3 µg/L        18.38      9894.3 ppb        18.38   0.19%
   QC value within limits for Na 589.592 Radial  Recovery = 98.94%
Ni 231.604†            9058.8      507.33 µg/L        17.391      507.33 ppb        17.391   3.43%
   QC value within limits for Ni 231.604  Recovery = 101.47%
P 214.914†             1123.1      2441.5 µg/L       173.12      2441.5 ppb       173.12   7.09%
   QC value within limits for P 214.914  Recovery = 97.66%
Pb 220.353†            1919.2      505.30 µg/L        29.995      505.30 ppb        29.995   5.94%
   QC value within limits for Pb 220.353  Recovery = 101.06%
S 181.975 Axial†        191.3      1008.7 µg/L        71.01      1008.7 ppb        71.01   7.04%
   QC value within limits for S 181.975 Axial  Recovery = 100.87%
Sb 206.836†             486.1      495.33 µg/L        31.806      495.33 ppb        31.806   6.42%
   QC value within limits for Sb 206.836  Recovery = 99.07%
Se 196.026†             360.5      503.89 µg/L        30.624      503.89 ppb        30.624   6.08%
   QC value within limits for Se 196.026  Recovery = 100.78%
SiO2†                  27434.8      5347.3 µg/L       153.46      5347.3 ppb       153.46   2.87%
   QC value within limits for SiO2  Recovery = 100.00%
Si 251.611†            31953.1      2456.9 µg/L        71.73      2456.9 ppb        71.73   2.92%
   QC value within limits for Si 251.611  Recovery = 98.28%
Sn 189.927†             979.9      504.34 µg/L        43.841      504.34 ppb        43.841   8.69%
   QC value within limits for Sn 189.927  Recovery = 100.87%
Sr 421.552†            87750.4      492.02 µg/L         0.656      492.02 ppb         0.656   0.13%
   QC value within limits for Sr 421.552  Recovery = 98.40%
Ti 334.940†           218284.3      494.37 µg/L         9.805      494.37 ppb         9.805   1.98%
   QC value within limits for Ti 334.940  Recovery = 98.87%
Tl 190.801†             328.0      506.39 µg/L        24.746      506.39 ppb        24.746   4.89%
   QC value within limits for Tl 190.801  Recovery = 101.28%
U 409.014†             5187.6      497.92 µg/L        21.084      497.92 ppb        21.084   4.23%
   QC value within limits for U 409.014  Recovery = 99.58%
V 292.402†            43418.8      507.40 µg/L        19.389      507.40 ppb        19.389   3.82%
   QC value within limits for V 292.402  Recovery = 101.48%
Zn 213.857†           18517.0      502.91 µg/L        18.475      502.91 ppb        18.475   3.67%
   QC value within limits for Zn 213.857  Recovery = 100.58%
All analyte(s) passed QC.
```

Sequence No.: 9
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 12/20/2009 06:49:26
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	116152.9	116152.9	103	%			06:49:59
1	Al 396.153Radial†	216.4	30.3	15.282	µg/L	15.282	ppb	06:49:59
1	Ca 317.933Radial†	413.3	-0.6	-0.2246	µg/L	-0.2246	ppb	06:50:19
1	Fe 238.204 Radial†	11.2	4.4	23.943	µg/L	23.943	ppb	06:50:19
1	K 766.490 Radial†	751.6	-55.7	-30.443	µg/L	-30.443	ppb	06:49:59
1	Mg 279.077 IEC†	19.6	3.8	21.471	µg/L	21.471	ppb	06:50:19
1	Na 589.592 Radial†	-773.2	-1.2	-0.3209	µg/L	-0.3209	ppb	06:49:59
1	Sr 421.552†	-57.7	46.9	0.2627	µg/L	0.2627	ppb	06:49:59
1	Sc 361.383	2120893.7	2120893.7	101.74	%			06:51:21
1	Y 371.029	1301997.5	1301997.5	101.47	%			06:51:21
1	Ag 328.068†	182.3	105.9	0.9763	µg/L	0.9763	ppb	06:51:27
1	As 188.979†	-0.8	-1.4	-2.7182	µg/L	-2.7182	ppb	06:51:48
1	B 249.677†	141.4	22.5	1.0071	µg/L	1.0071	ppb	06:51:27
1	Ba 233.527†	-70.5	12.2	0.3166	µg/L	0.3166	ppb	06:51:48
1	Be 313.107†	3828.2	257.8	0.1635	µg/L	0.1635	ppb	06:51:27
1	Cd 226.502†	-95.4	13.6	0.3660	µg/L	0.3660	ppb	06:51:48
1	Co 228.616†	-78.2	8.6	0.4298	µg/L	0.4298	ppb	06:51:48
1	Cr 267.716†	-108.7	20.2	0.4342	µg/L	0.4342	ppb	06:51:27
1	Cu 324.752†	3600.0	-40.7	-0.2838	µg/L	-0.2838	ppb	06:51:27
1	Mn 257.610†	-199.0	32.7	0.1094	µg/L	0.1094	ppb	06:51:48
1	Mo 202.031†	2.0	2.7	0.3109	µg/L	0.3109	ppb	06:51:48
1	Ni 231.604†	342.3	9.0	0.5062	µg/L	0.5062	ppb	06:51:48
1	P 214.914†	201.5	-13.7	-30.250	µg/L	-30.250	ppb	06:51:48
1	Pb 220.353†	48.1	-5.1	-1.3455	µg/L	-1.3455	ppb	06:51:48
1	S 181.975 Axial†	28.1	0.5	2.5544	µg/L	2.5544	ppb	06:51:48
1	Sb 206.836†	18.5	-4.3	-4.3980	µg/L	-4.3980	ppb	06:51:48
1	Se 196.026†	13.9	-4.8	-6.6244	µg/L	-6.6244	ppb	06:51:48
1	SiO2†	2290.1	-18.4	-3.5943	µg/L	-3.5943	ppb	06:51:27
1	Si 251.611†	398.7	35.3	2.6475	µg/L	2.6475	ppb	06:51:48
1	Sn 189.927†	30.7	6.2	3.2008	µg/L	3.2008	ppb	06:51:48
1	Ti 334.940†	931.6	55.5	0.1257	µg/L	0.1257	ppb	06:51:27
1	Tl 190.801†	-17.2	3.2	4.9439	µg/L	4.9439	ppb	06:51:48
1	U 409.014†	805.1	30.5	2.9301	µg/L	2.9301	ppb	06:51:27
1	V 292.402†	-78.6	48.5	0.5705	µg/L	0.5705	ppb	06:51:27
1	Zn 213.857†	606.9	12.0	0.3221	µg/L	0.3221	ppb	06:51:48
2	Sc RADIAL	116123.1	116123.1	103	%			06:50:25
2	Al 396.153Radial†	158.8	-25.8	-13.011	µg/L	-13.011	ppb	06:50:25
2	Ca 317.933Radial†	423.9	9.9	3.8956	µg/L	3.8956	ppb	06:50:45
2	Fe 238.204 Radial†	10.3	3.5	19.363	µg/L	19.363	ppb	06:50:45
2	K 766.490 Radial†	820.3	11.5	6.2711	µg/L	6.2711	ppb	06:50:25
2	Mg 279.077 IEC†	17.9	2.1	12.124	µg/L	12.124	ppb	06:50:45
2	Na 589.592 Radial†	-725.7	44.9	11.952	µg/L	11.952	ppb	06:50:25
2	Sr 421.552†	-60.5	44.2	0.2476	µg/L	0.2476	ppb	06:50:25
2	Sc 361.383	2126030.2	2126030.2	101.98	%			06:51:54
2	Y 371.029	1305210.2	1305210.2	101.72	%			06:51:54
2	Ag 328.068†	210.8	133.5	1.2252	µg/L	1.2252	ppb	06:51:59
2	As 188.979†	2.9	2.3	4.4855	µg/L	4.4855	ppb	06:52:20
2	B 249.677†	150.4	31.0	1.3886	µg/L	1.3886	ppb	06:51:59
2	Ba 233.527†	-66.7	16.1	0.4162	µg/L	0.4162	ppb	06:52:20
2	Be 313.107†	3731.0	153.5	0.0973	µg/L	0.0973	ppb	06:51:59
2	Cd 226.502†	-106.5	3.1	0.0783	µg/L	0.0783	ppb	06:52:20
2	Co 228.616†	-78.4	8.7	0.4311	µg/L	0.4311	ppb	06:52:20
2	Cr 267.716†	-129.3	0.2	0.0037	µg/L	0.0037	ppb	06:51:59
2	Cu 324.752†	3540.7	-107.4	-0.7579	µg/L	-0.7579	ppb	06:51:59
2	Mn 257.610†	-189.6	42.4	0.1405	µg/L	0.1405	ppb	06:52:20
2	Mo 202.031†	-1.0	-0.3	-0.0352	µg/L	-0.0352	ppb	06:52:20
2	Ni 231.604†	343.6	9.5	0.5313	µg/L	0.5313	ppb	06:52:20
2	P 214.914†	195.7	-19.9	-43.986	µg/L	-43.986	ppb	06:52:20
2	Pb 220.353†	57.2	3.7	0.9829	µg/L	0.9829	ppb	06:52:20

2	S 181.975 Axial†	21.5	-6.0	-31.933 µg/L	-31.933 ppb	06:52:20
2	Sb 206.836†	22.6	-0.3	-0.2639 µg/L	-0.2639 ppb	06:52:20
2	Se 196.026†	6.2	-12.3	-17.176 µg/L	-17.176 ppb	06:52:20
2	SiO2†	2248.8	-64.4	-12.547 µg/L	-12.547 ppb	06:51:59
2	Si 251.611†	421.6	56.8	4.3744 µg/L	4.3744 ppb	06:52:20
2	Sn 189.927†	28.1	3.6	1.8404 µg/L	1.8404 ppb	06:52:20
2	Ti 334.940†	948.4	69.8	0.1580 µg/L	0.1580 ppb	06:51:59
2	Tl 190.801†	-17.5	3.0	4.6733 µg/L	4.6733 ppb	06:52:20
2	U 409.014†	729.1	-45.9	-4.4203 µg/L	-4.4203 ppb	06:51:59
2	V 292.402†	-126.0	2.1	0.0190 µg/L	0.0190 ppb	06:51:59
2	Zn 213.857†	617.8	21.2	0.5767 µg/L	0.5767 ppb	06:52:20
3	Sc RADIAL	115948.9	115948.9	102 %		06:50:51
3	Al 396.153Radial†	155.3	-29.0	-14.629 µg/L	-14.629 ppb	06:50:51
3	Ca 317.933Radial†	428.1	14.6	5.7460 µg/L	5.7460 ppb	06:51:11
3	Fe 238.204 Radial†	11.8	5.1	27.707 µg/L	27.707 ppb	06:51:11
3	K 766.490 Radial†	847.8	39.5	21.567 µg/L	21.567 ppb	06:50:51
3	Mg 279.077 IEC†	12.9	-2.7	-15.351 µg/L	-15.351 ppb	06:51:11
3	Na 589.592 Radial†	-782.6	-11.7	-3.1282 µg/L	-3.1282 ppb	06:50:51
3	Sr 421.552†	-40.7	63.3	0.3550 µg/L	0.3550 ppb	06:50:51
3	Sc 361.383	2132668.3	2132668.3	102.30 %		06:52:26
3	Y 371.029	1309518.9	1309518.9	102.05 %		06:52:26
3	Ag 328.068†	139.4	63.0	0.5825 µg/L	0.5825 ppb	06:52:31
3	As 188.979†	0.8	0.2	0.4435 µg/L	0.4435 ppb	06:52:52
3	B 249.677†	154.1	34.2	1.5306 µg/L	1.5306 ppb	06:52:31
3	Ba 233.527†	-87.9	-4.4	-0.1139 µg/L	-0.1139 ppb	06:52:52
3	Be 313.107†	3694.7	106.6	0.0676 µg/L	0.0676 ppb	06:52:31
3	Cd 226.502†	-101.0	8.7	0.2268 µg/L	0.2268 ppb	06:52:52
3	Co 228.616†	-83.9	3.5	0.1727 µg/L	0.1727 ppb	06:52:52
3	Cr 267.716†	-118.2	11.4	0.2469 µg/L	0.2469 ppb	06:52:31
3	Cu 324.752†	3555.0	-104.2	-0.7335 µg/L	-0.7335 ppb	06:52:31
3	Mn 257.610†	-206.8	26.1	0.0884 µg/L	0.0884 ppb	06:52:52
3	Mo 202.031†	3.5	4.1	0.4771 µg/L	0.4771 ppb	06:52:52
3	Ni 231.604†	353.9	18.5	1.0387 µg/L	1.0387 ppb	06:52:52
3	P 214.914†	197.1	-19.1	-42.245 µg/L	-42.245 ppb	06:52:52
3	Pb 220.353†	37.2	-16.0	-4.1935 µg/L	-4.1935 ppb	06:52:52
3	S 181.975 Axial†	29.4	1.6	8.6362 µg/L	8.6362 ppb	06:52:52
3	Sb 206.836†	21.4	-1.6	-1.5985 µg/L	-1.5985 ppb	06:52:52
3	Se 196.026†	11.4	-7.2	-10.050 µg/L	-10.050 ppb	06:52:52
3	SiO2†	2281.1	-39.7	-7.7475 µg/L	-7.7475 ppb	06:52:31
3	Si 251.611†	418.2	52.2	4.0222 µg/L	4.0222 ppb	06:52:52
3	Sn 189.927†	27.0	2.5	1.2690 µg/L	1.2690 ppb	06:52:52
3	Ti 334.940†	943.9	62.5	0.1412 µg/L	0.1412 ppb	06:52:31
3	Tl 190.801†	-23.6	-2.9	-4.5245 µg/L	-4.5245 ppb	06:52:52
3	U 409.014†	691.5	-84.9	-8.1686 µg/L	-8.1686 ppb	06:52:31
3	V 292.402†	-91.2	36.6	0.4161 µg/L	0.4161 ppb	06:52:31
3	Zn 213.857†	630.8	32.0	0.8685 µg/L	0.8685 ppb	06:52:52

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2126530.7	102.01	%	0.283				0.28%
Sc RADIAL	116075.0	103	%	0.1				0.09%
Y 371.029	1305575.5	101.75	%	0.294				0.29%
Ag 328.068†	100.8	0.9280	µg/L	0.32404	0.9280	ppb	0.32404	34.92%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-8.1	-4.1196	µg/L	16.82132	-4.1196	ppb	16.82132	408.33%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	0.4	0.7370	µg/L	3.61081	0.7370	ppb	3.61081	489.96%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	29.2	1.3088	µg/L	0.27072	1.3088	ppb	0.27072	20.69%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	7.9	0.2063	µg/L	0.28175	0.2063	ppb	0.28175	136.59%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	172.7	0.1095	µg/L	0.04911	0.1095	ppb	0.04911	44.86%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	8.0	3.1390	µg/L	3.05641	3.1390	ppb	3.05641	97.37%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	8.5	0.2237	µg/L	0.14387	0.2237	ppb	0.14387	64.32%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	6.9	0.3445	µg/L	0.14883	0.3445	ppb	0.14883	43.20%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              10.6      0.2283 µg/L       0.21585      0.2283 ppb        0.21585  94.55%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -84.1     -0.5918 µg/L       0.26695     -0.5918 ppb        0.26695  45.11%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        4.3      23.671 µg/L        4.1787      23.671 ppb         4.1787  17.65%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        -1.6     -0.8682 µg/L      26.73005     -0.8682 ppb       26.73005 >999.9%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           1.1      6.0813 µg/L      19.14022      6.0813 ppb       19.14022 314.74%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              33.7      0.1128 µg/L       0.02620      0.1128 ppb        0.02620  23.23%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               2.2      0.2509 µg/L       0.26136      0.2509 ppb        0.26136 104.16%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       10.6      2.8342 µg/L       8.01981      2.8342 ppb        8.01981 282.97%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              12.4      0.6921 µg/L       0.30042      0.6921 ppb        0.30042  43.41%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†              -17.5     -38.827 µg/L        7.4787     -38.827 ppb         7.4787  19.26%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -5.8     -1.5187 µg/L       2.59255     -1.5187 ppb        2.59255 170.71%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         -1.3     -6.9143 µg/L      21.87955     -6.9143 ppb       21.87955 316.44%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -2.0     -2.0868 µg/L       2.10987     -2.0868 ppb        2.10987 101.10%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              -8.1     -11.283 µg/L        5.3829     -11.283 ppb         5.3829  47.71%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                   -40.9     -7.9628 µg/L       4.48002     -7.9628 ppb        4.48002  56.26%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†              48.1      3.6814 µg/L       0.91254      3.6814 ppb        0.91254  24.79%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               4.1      2.1034 µg/L       0.99239      2.1034 ppb        0.99239  47.18%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              51.4      0.2884 µg/L       0.05815      0.2884 ppb        0.05815  20.16%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              62.6      0.1417 µg/L       0.01615      0.1417 ppb        0.01615  11.40%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               1.1      1.6976 µg/L       5.39019      1.6976 ppb        5.39019 317.53%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              -33.4     -3.2196 µg/L       5.64588     -3.2196 ppb        5.64588 175.36%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               29.1      0.3352 µg/L       0.28454      0.3352 ppb        0.28454  84.89%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              21.7      0.5891 µg/L       0.27342      0.5891 ppb        0.27342  46.41%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 10
Sample ID: 1201998469|934069|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 308
Date Collected: 12/20/2009 06:53:01
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1201998469|934069|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	116654.2	116654.2	103	%			06:53:40
1	Al 396.153Radial†	207.1	20.4	10.253	µg/L	10.253	ppb	06:53:40
1	Ca 317.933Radial†	437.3	21.1	8.2699	µg/L	8.2699	ppb	06:54:00
1	Fe 238.204 Radial†	9.4	2.7	14.670	µg/L	14.670	ppb	06:54:00
1	K 766.490 Radial†	811.7	-0.5	-0.2781	µg/L	-0.2781	ppb	06:53:40
1	Mg 279.077 IEC†	16.3	0.4	2.5416	µg/L	2.5416	ppb	06:54:00
1	Na 589.592 Radial†	-737.2	37.0	9.8462	µg/L	9.8462	ppb	06:53:40
1	Sr 421.552†	-88.1	17.6	0.0988	µg/L	0.0988	ppb	06:53:40
1	Sc 361.383	2151245.3	2151245.3	103.19	%			06:55:02
1	Y 371.029	1317173.0	1317173.0	102.65	%			06:55:02
1	Ag 328.068†	144.3	66.6	0.6146	µg/L	0.6146	ppb	06:55:07
1	As 188.979†	1.3	0.7	1.3870	µg/L	1.3870	ppb	06:55:28
1	B 249.677†	134.9	14.2	0.6351	µg/L	0.6351	ppb	06:55:07
1	Ba 233.527†	-71.0	12.7	0.3297	µg/L	0.3297	ppb	06:55:28
1	Be 313.107†	3612.0	-4.8	-0.0030	µg/L	-0.0030	ppb	06:55:07
1	Cd 226.502†	-118.5	-7.3	-0.1952	µg/L	-0.1952	ppb	06:55:28
1	Co 228.616†	-77.5	10.4	0.5173	µg/L	0.5173	ppb	06:55:28
1	Cr 267.716†	-155.3	-23.6	-0.5048	µg/L	-0.5048	ppb	06:55:07
1	Cu 324.752†	3578.9	-111.1	-0.7850	µg/L	-0.7850	ppb	06:55:07
1	Mn 257.610†	-200.5	34.0	0.1126	µg/L	0.1126	ppb	06:55:28
1	Mo 202.031†	3.3	3.8	0.4438	µg/L	0.4438	ppb	06:55:28
1	Ni 231.604†	349.9	11.7	0.6535	µg/L	0.6535	ppb	06:55:28
1	P 214.914†	212.2	-6.1	-13.431	µg/L	-13.431	ppb	06:55:28
1	Pb 220.353†	53.2	-0.8	-0.2094	µg/L	-0.2094	ppb	06:55:28
1	S 181.975 Axial†	24.7	-3.2	-17.163	µg/L	-17.163	ppb	06:55:28
1	Sb 206.836†	24.0	0.8	0.7728	µg/L	0.7728	ppb	06:55:28
1	Se 196.026†	11.6	-7.1	-9.9168	µg/L	-9.9168	ppb	06:55:28
1	SiO2†	2384.2	40.9	7.9763	µg/L	7.9763	ppb	06:55:07
1	Si 251.611†	501.6	129.5	10.252	µg/L	10.252	ppb	06:55:28
1	Sn 189.927†	18.7	-5.8	-2.9800	µg/L	-2.9800	ppb	06:55:28
1	Ti 334.940†	923.7	35.0	0.0788	µg/L	0.0788	ppb	06:55:07
1	Tl 190.801†	-22.5	-1.7	-2.5846	µg/L	-2.5846	ppb	06:55:28
1	U 409.014†	809.4	23.5	2.2615	µg/L	2.2615	ppb	06:55:07
1	V 292.402†	-88.3	40.2	0.4732	µg/L	0.4732	ppb	06:55:07
1	Zn 213.857†	644.1	39.6	1.0803	µg/L	1.0803	ppb	06:55:28
2	Sc RADIAL	116072.2	116072.2	103	%			06:54:05
2	Al 396.153Radial†	205.1	19.5	9.8423	µg/L	9.8423	ppb	06:54:05
2	Ca 317.933Radial†	433.5	19.4	7.6392	µg/L	7.6392	ppb	06:54:26
2	Fe 238.204 Radial†	11.1	4.4	23.862	µg/L	23.862	ppb	06:54:26
2	K 766.490 Radial†	742.2	-64.4	-35.155	µg/L	-35.155	ppb	06:54:05
2	Mg 279.077 IEC†	17.6	1.8	10.428	µg/L	10.428	ppb	06:54:26
2	Na 589.592 Radial†	-747.6	23.2	6.1760	µg/L	6.1760	ppb	06:54:05
2	Sr 421.552†	-81.2	23.9	0.1339	µg/L	0.1339	ppb	06:54:05
2	Sc 361.383	2130183.6	2130183.6	102.18	%			06:55:34
2	Y 371.029	1302548.0	1302548.0	101.51	%			06:55:34
2	Ag 328.068†	150.4	73.9	0.6815	µg/L	0.6815	ppb	06:55:39
2	As 188.979†	2.3	1.7	3.3075	µg/L	3.3075	ppb	06:56:00
2	B 249.677†	137.9	18.5	0.8235	µg/L	0.8235	ppb	06:55:39
2	Ba 233.527†	-75.8	7.3	0.1890	µg/L	0.1890	ppb	06:56:00
2	Be 313.107†	3721.4	136.9	0.0867	µg/L	0.0867	ppb	06:55:39
2	Cd 226.502†	-109.0	0.8	0.0118	µg/L	0.0118	ppb	06:56:00
2	Co 228.616†	-80.4	6.8	0.3377	µg/L	0.3377	ppb	06:56:00
2	Cr 267.716†	-154.1	-23.8	-0.5111	µg/L	-0.5111	ppb	06:55:39
2	Cu 324.752†	3571.4	-84.1	-0.5916	µg/L	-0.5916	ppb	06:55:39
2	Mn 257.610†	-187.7	44.5	0.1481	µg/L	0.1481	ppb	06:56:00
2	Mo 202.031†	-3.6	-2.9	-0.3320	µg/L	-0.3320	ppb	06:56:00
2	Ni 231.604†	353.4	18.4	1.0297	µg/L	1.0297	ppb	06:56:00
2	P 214.914†	203.1	-13.0	-28.721	µg/L	-28.721	ppb	06:56:00
2	Pb 220.353†	48.3	-5.1	-1.3365	µg/L	-1.3365	ppb	06:56:00

2	S 181.975 Axial†	25.0	-2.7	-14.258 µg/L	-14.258 ppb	06:56:00
2	Sb 206.836†	22.3	-0.6	-0.6155 µg/L	-0.6155 ppb	06:56:00
2	Se 196.026†	8.5	-10.1	-14.032 µg/L	-14.032 ppb	06:56:00
2	SiO2†	2395.2	74.6	14.538 µg/L	14.538 ppb	06:55:39
2	Si 251.611†	484.5	117.6	9.1983 µg/L	9.1983 ppb	06:56:00
2	Sn 189.927†	25.6	1.1	0.5748 µg/L	0.5748 ppb	06:56:00
2	Ti 334.940†	1045.7	163.2	0.3694 µg/L	0.3694 ppb	06:55:39
2	Tl 190.801†	-19.6	0.9	1.4485 µg/L	1.4485 ppb	06:56:00
2	U 409.014†	658.9	-116.0	-11.156 µg/L	-11.156 ppb	06:55:39
2	V 292.402†	-96.8	31.0	0.3401 µg/L	0.3401 ppb	06:55:39
2	Zn 213.857†	636.3	38.1	1.0361 µg/L	1.0361 ppb	06:56:00
3	Sc RADIAL	114700.3	114700.3	101 %		06:54:31
3	Al 396.153Radial†	202.5	19.3	9.7315 µg/L	9.7315 ppb	06:54:31
3	Ca 317.933Radial†	429.7	20.8	8.1607 µg/L	8.1607 ppb	06:54:52
3	Fe 238.204 Radial†	13.8	7.1	39.070 µg/L	39.070 ppb	06:54:52
3	K 766.490 Radial†	769.7	-28.6	-15.616 µg/L	-15.616 ppb	06:54:31
3	Mg 279.077 IEC†	22.5	6.9	39.077 µg/L	39.077 ppb	06:54:52
3	Na 589.592 Radial†	-714.2	47.4	12.627 µg/L	12.627 ppb	06:54:31
3	Sr 421.552†	-56.2	47.6	0.2671 µg/L	0.2671 ppb	06:54:31
3	Sc 361.383	2125739.3	2125739.3	101.97 %		06:56:06
3	Y 371.029	1301850.1	1301850.1	101.46 %		06:56:06
3	Ag 328.068†	192.8	115.8	1.0645 µg/L	1.0645 ppb	06:56:12
3	As 188.979†	8.4	7.7	14.966 µg/L	14.966 ppb	06:56:32
3	B 249.677†	160.6	41.0	1.8350 µg/L	1.8350 ppb	06:56:12
3	Ba 233.527†	-68.8	14.0	0.3636 µg/L	0.3636 ppb	06:56:32
3	Be 313.107†	3653.1	77.6	0.0492 µg/L	0.0492 ppb	06:56:12
3	Cd 226.502†	-99.1	10.2	0.2711 µg/L	0.2711 ppb	06:56:32
3	Co 228.616†	-78.2	8.8	0.4380 µg/L	0.4380 ppb	06:56:32
3	Cr 267.716†	-155.0	-25.0	-0.5375 µg/L	-0.5375 ppb	06:56:12
3	Cu 324.752†	3565.1	-83.0	-0.5808 µg/L	-0.5808 ppb	06:56:12
3	Mn 257.610†	-177.0	54.7	0.1830 µg/L	0.1830 ppb	06:56:32
3	Mo 202.031†	0.5	1.2	0.1396 µg/L	0.1396 ppb	06:56:32
3	Ni 231.604†	329.2	-4.6	-0.2555 µg/L	-0.2555 ppb	06:56:32
3	P 214.914†	208.4	-7.4	-16.402 µg/L	-16.402 ppb	06:56:32
3	Pb 220.353†	42.7	-10.5	-2.7629 µg/L	-2.7629 ppb	06:56:32
3	S 181.975 Axial†	28.4	0.7	3.5127 µg/L	3.5127 ppb	06:56:32
3	Sb 206.836†	19.2	-3.6	-3.7270 µg/L	-3.7270 ppb	06:56:32
3	Se 196.026†	15.8	-3.0	-4.1106 µg/L	-4.1106 ppb	06:56:32
3	SiO2†	2365.4	50.2	9.7843 µg/L	9.7843 ppb	06:56:12
3	Si 251.611†	484.2	118.3	9.2773 µg/L	9.2773 ppb	06:56:32
3	Sn 189.927†	24.0	-0.3	-0.1632 µg/L	-0.1632 ppb	06:56:32
3	Ti 334.940†	954.3	75.7	0.1711 µg/L	0.1711 ppb	06:56:12
3	Tl 190.801†	-24.1	-3.5	-5.3099 µg/L	-5.3099 ppb	06:56:32
3	U 409.014†	777.7	1.9	0.1738 µg/L	0.1738 ppb	06:56:12
3	V 292.402†	-135.3	-6.9	-0.0756 µg/L	-0.0756 ppb	06:56:12
3	Zn 213.857†	637.3	40.4	1.1023 µg/L	1.1023 ppb	06:56:32

Mean Data: 1201998469|934069|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2135722.7	102.45	%	0.654				0.64%
Sc RADIAL	115808.9	102	%	0.9				0.87%
Y 371.029	1307190.4	101.87	%	0.674				0.66%
Ag 328.068†	85.4	0.7869	µg/L	0.24275	0.7869	ppb	0.24275	30.85%
Al 396.153Radial†	19.7	9.9422	µg/L	0.27470	9.9422	ppb	0.27470	2.76%
As 188.979†	3.4	6.5536	µg/L	7.34867	6.5536	ppb	7.34867	112.13%
B 249.677†	24.6	1.0979	µg/L	0.64528	1.0979	ppb	0.64528	58.78%
Ba 233.527†	11.3	0.2941	µg/L	0.09260	0.2941	ppb	0.09260	31.49%
Be 313.107†	69.9	0.0443	µg/L	0.04508	0.0443	ppb	0.04508	101.81%
Ca 317.933Radial†	20.4	8.0232	µg/L	0.33705	8.0232	ppb	0.33705	4.20%
Cd 226.502†	1.2	0.0292	µg/L	0.23366	0.0292	ppb	0.23366	799.17%
Co 228.616†	8.7	0.4310	µg/L	0.09003	0.4310	ppb	0.09003	20.89%
Cr 267.716†	-24.1	-0.5178	µg/L	0.01734	-0.5178	ppb	0.01734	3.35%
Cu 324.752†	-92.7	-0.6525	µg/L	0.11492	-0.6525	ppb	0.11492	17.61%
Fe 238.204 Radial†	4.7	25.867	µg/L	12.3228	25.867	ppb	12.3228	47.64%
K 766.490 Radial†	-31.2	-17.016	µg/L	17.4806	-17.016	ppb	17.4806	102.73%
Mg 279.077 IEC†	3.1	17.349	µg/L	19.2257	17.349	ppb	19.2257	110.82%
Mn 257.610†	44.4	0.1479	µg/L	0.03519	0.1479	ppb	0.03519	23.79%
Mo 202.031†	0.7	0.0838	µg/L	0.39087	0.0838	ppb	0.39087	466.43%
Na 589.592 Radial†	35.9	9.5497	µg/L	3.23563	9.5497	ppb	3.23563	33.88%

Ni 231.604†	8.5	0.4759	µg/L	0.66074	0.4759	ppb	0.66074 138.83%
P 214.914†	-8.8	-19.518	µg/L	8.1074	-19.518	ppb	8.1074 41.54%
Pb 220.353†	-5.5	-1.4363	µg/L	1.27967	-1.4363	ppb	1.27967 89.10%
S 181.975 Axial†	-1.8	-9.3027	µg/L	11.19305	-9.3027	ppb	11.19305 120.32%
Sb 206.836†	-1.2	-1.1899	µg/L	2.30427	-1.1899	ppb	2.30427 193.65%
Se 196.026†	-6.7	-9.3530	µg/L	4.98450	-9.3530	ppb	4.98450 53.29%
SiO2†	55.2	10.766	µg/L	3.3890	10.766	ppb	3.3890 31.48%
Si 251.611†	121.8	9.5758	µg/L	0.58674	9.5758	ppb	0.58674 6.13%
Sn 189.927†	-1.7	-0.8561	µg/L	1.87596	-0.8561	ppb	1.87596 219.12%
Sr 421.552†	29.7	0.1666	µg/L	0.08880	0.1666	ppb	0.08880 53.30%
Ti 334.940†	91.3	0.2064	µg/L	0.14851	0.2064	ppb	0.14851 71.94%
Tl 190.801†	-1.4	-2.1486	µg/L	3.40020	-2.1486	ppb	3.40020 158.25%
U 409.014†	-30.2	-2.9068	µg/L	7.21967	-2.9068	ppb	7.21967 248.37%
V 292.402†	21.4	0.2459	µg/L	0.28627	0.2459	ppb	0.28627 116.40%
Zn 213.857†	39.4	1.0729	µg/L	0.03368	1.0729	ppb	0.03368 3.14%

Sequence No.: 11
Sample ID: 1201998470|934069|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 309
Date Collected: 12/20/2009 06:56:41
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1201998470|934069|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	118119.7	118119.7	104	%			06:57:14
1	Al 396.153Radial†	10685.8	10061.4	5056.0	µg/L	5056.0	ppb	06:57:14
1	Ca 317.933Radial†	14092.7	13104.0	5147.4	µg/L	5147.4	ppb	06:57:14
1	Fe 238.204 Radial†	1009.1	960.7	5265.7	µg/L	5265.7	ppb	06:57:34
1	K 766.490 Radial†	10409.5	9188.9	5018.6	µg/L	5018.6	ppb	06:57:14
1	Mg 279.077 IEC†	991.3	934.7	5326.0	µg/L	5326.0	ppb	06:57:34
1	Na 589.592 Radial†	19148.6	19105.7	5086.8	µg/L	5086.8	ppb	06:57:14
1	Sr 421.552†	93267.1	89496.5	501.81	µg/L	501.81	ppb	06:57:14
1	Sc 361.383	2134117.1	2134117.1	102.37	%			06:58:38
1	Y 371.029	1301721.1	1301721.1	101.45	%			06:58:38
1	Ag 328.068†	57637.8	56228.7	519.50	µg/L	519.50	ppb	06:58:44
1	As 188.979†	277.9	270.9	528.05	µg/L	528.05	ppb	06:59:04
1	B 249.677†	11912.6	11520.1	516.99	µg/L	516.99	ppb	06:58:44
1	Ba 233.527†	21157.6	20748.8	538.89	µg/L	538.89	ppb	06:58:44
1	Be 313.107†	845959.9	822849.4	521.77	µg/L	521.77	ppb	06:58:38
1	Cd 226.502†	20054.8	19697.5	527.97	µg/L	527.97	ppb	06:58:44
1	Co 228.616†	10783.1	10618.8	527.42	µg/L	527.42	ppb	06:58:44
1	Cr 267.716†	25111.3	24656.3	530.86	µg/L	530.86	ppb	06:58:44
1	Cu 324.752†	77598.6	72221.0	513.62	µg/L	513.62	ppb	06:58:44
1	Mn 257.610†	164378.8	160797.5	524.32	µg/L	524.32	ppb	06:58:38
1	Mo 202.031†	4529.2	4424.9	513.12	µg/L	513.12	ppb	06:59:04
1	Ni 231.604†	10129.2	9567.0	535.79	µg/L	535.79	ppb	06:58:44
1	P 214.914†	475.4	252.6	505.89	µg/L	505.89	ppb	06:59:04
1	Pb 220.353†	2132.7	2030.9	534.68	µg/L	534.68	ppb	06:59:04
1	S 181.975 Axial†	1055.3	1003.7	5299.7	µg/L	5299.7	ppb	06:59:04
1	Sb 206.836†	554.8	519.5	529.43	µg/L	529.43	ppb	06:59:04
1	Se 196.026†	389.6	362.2	506.32	µg/L	506.32	ppb	06:59:04
1	SiO2†	60127.0	56464.0	11005	µg/L	11005	ppb	06:58:44
1	Si 251.611†	67425.7	65506.5	5083.3	µg/L	5083.3	ppb	06:58:44
1	Sn 189.927†	1135.4	1085.2	558.36	µg/L	558.36	ppb	06:59:04
1	Ti 334.940†	234556.5	228260.3	516.96	µg/L	516.96	ppb	06:58:38
1	Tl 190.801†	329.8	342.3	528.54	µg/L	528.54	ppb	06:59:04
1	U 409.014†	6540.9	5628.5	540.27	µg/L	540.27	ppb	06:58:44
1	V 292.402†	46636.3	45681.3	533.85	µg/L	533.85	ppb	06:58:44
1	Zn 213.857†	19995.6	18947.6	514.48	µg/L	514.48	ppb	06:58:44
2	Sc RADIAL	118117.2	118117.2	104	%			06:57:40
2	Al 396.153Radial†	10768.7	10141.0	5096.1	µg/L	5096.1	ppb	06:57:40
2	Ca 317.933Radial†	14217.3	13223.7	5194.4	µg/L	5194.4	ppb	06:57:40
2	Fe 238.204 Radial†	1010.2	961.8	5271.2	µg/L	5271.2	ppb	06:58:01
2	K 766.490 Radial†	10536.8	9311.1	5085.3	µg/L	5085.3	ppb	06:57:40
2	Mg 279.077 IEC†	987.2	930.9	5304.2	µg/L	5304.2	ppb	06:58:01
2	Na 589.592 Radial†	19270.5	19222.9	5118.0	µg/L	5118.0	ppb	06:57:40
2	Sr 421.552†	94158.2	90352.5	506.61	µg/L	506.61	ppb	06:57:40
2	Sc 361.383	2150733.8	2150733.8	103.17	%			06:59:12
2	Y 371.029	1312356.0	1312356.0	102.27	%			06:59:12
2	Ag 328.068†	57680.3	55834.9	515.86	µg/L	515.86	ppb	06:59:17
2	As 188.979†	281.8	272.5	531.26	µg/L	531.26	ppb	06:59:38
2	B 249.677†	11947.1	11463.6	514.44	µg/L	514.44	ppb	06:59:17
2	Ba 233.527†	21165.9	20597.2	534.95	µg/L	534.95	ppb	06:59:17
2	Be 313.107†	849343.1	819744.2	519.80	µg/L	519.80	ppb	06:59:12
2	Cd 226.502†	20120.8	19610.1	525.62	µg/L	525.62	ppb	06:59:17
2	Co 228.616†	10753.5	10508.6	521.96	µg/L	521.96	ppb	06:59:17
2	Cr 267.716†	25080.6	24437.1	526.14	µg/L	526.14	ppb	06:59:17
2	Cu 324.752†	77393.3	71436.4	508.05	µg/L	508.05	ppb	06:59:17
2	Mn 257.610†	165056.8	160214.1	522.42	µg/L	522.42	ppb	06:59:12
2	Mo 202.031†	4576.5	4436.6	514.47	µg/L	514.47	ppb	06:59:38
2	Ni 231.604†	10134.4	9495.6	531.79	µg/L	531.79	ppb	06:59:17
2	P 214.914†	475.7	249.4	499.52	µg/L	499.52	ppb	06:59:38
2	Pb 220.353†	2147.3	2029.0	534.21	µg/L	534.21	ppb	06:59:38

2	S 181.975 Axial†	1068.5	1008.5	5325.2 µg/L	5325.2 ppb	06:59:38
2	Sb 206.836†	558.6	518.9	528.85 µg/L	528.85 ppb	06:59:38
2	Se 196.026†	394.1	363.6	508.30 µg/L	508.30 ppb	06:59:38
2	SiO2†	60032.7	55918.9	10899 µg/L	10899 ppb	06:59:17
2	Si 251.611†	67422.7	64994.8	5042.9 µg/L	5042.9 ppb	06:59:17
2	Sn 189.927†	1162.5	1102.9	567.42 µg/L	567.42 ppb	06:59:38
2	Ti 334.940†	235294.2	227205.2	514.57 µg/L	514.57 ppb	06:59:12
2	Tl 190.801†	329.7	339.7	524.49 µg/L	524.49 ppb	06:59:38
2	U 409.014†	6492.9	5532.6	531.05 µg/L	531.05 ppb	06:59:17
2	V 292.402†	46597.8	45292.0	529.34 µg/L	529.34 ppb	06:59:17
2	Zn 213.857†	20014.3	18814.8	510.88 µg/L	510.88 ppb	06:59:17
3	Sc RADIAL	118168.2	118168.2	104 %		06:58:06
3	Al 396.153Radial†	10755.7	10124.2	5088.7 µg/L	5088.7 ppb	06:58:06
3	Ca 317.933Radial†	14237.5	13237.2	5199.7 µg/L	5199.7 ppb	06:58:06
3	Fe 238.204 Radial†	1012.3	963.4	5279.4 µg/L	5279.4 ppb	06:58:26
3	K 766.490 Radial†	10566.0	9334.7	5098.3 µg/L	5098.3 ppb	06:58:06
3	Mg 279.077 IEC†	975.8	919.6	5238.8 µg/L	5238.8 ppb	06:58:26
3	Na 589.592 Radial†	19323.0	19265.3	5129.3 µg/L	5129.3 ppb	06:58:06
3	Sr 421.552†	94262.4	90413.3	506.95 µg/L	506.95 ppb	06:58:06
3	Sc 361.383	2141964.6	2141964.6	102.75 %		06:59:45
3	Y 371.029	1307109.2	1307109.2	101.87 %		06:59:45
3	Ag 328.068†	57028.4	55429.3	512.06 µg/L	512.06 ppb	06:59:51
3	As 188.979†	271.8	264.0	514.54 µg/L	514.54 ppb	07:00:11
3	B 249.677†	11727.5	11297.2	506.95 µg/L	506.95 ppb	06:59:51
3	Ba 233.527†	20657.7	20186.5	524.28 µg/L	524.28 ppb	06:59:51
3	Be 313.107†	836150.2	810274.6	513.79 µg/L	513.79 ppb	06:59:45
3	Cd 226.502†	19676.7	19257.7	516.16 µg/L	516.16 ppb	06:59:51
3	Co 228.616†	10435.7	10242.1	508.66 µg/L	508.66 ppb	06:59:51
3	Cr 267.716†	24245.0	23723.3	510.78 µg/L	510.78 ppb	06:59:51
3	Cu 324.752†	75526.1	69926.3	497.34 µg/L	497.34 ppb	06:59:51
3	Mn 257.610†	162693.5	158569.0	517.06 µg/L	517.06 ppb	06:59:45
3	Mo 202.031†	4295.6	4181.4	484.89 µg/L	484.89 ppb	07:00:11
3	Ni 231.604†	9868.2	9276.8	519.54 µg/L	519.54 ppb	06:59:51
3	P 214.914†	472.4	248.0	497.00 µg/L	497.00 ppb	07:00:11
3	Pb 220.353†	2068.6	1960.8	516.23 µg/L	516.23 ppb	07:00:11
3	S 181.975 Axial†	1026.9	972.3	5133.8 µg/L	5133.8 ppb	07:00:11
3	Sb 206.836†	537.5	500.6	510.24 µg/L	510.24 ppb	07:00:11
3	Se 196.026†	373.1	344.7	481.97 µg/L	481.97 ppb	07:00:11
3	SiO2†	58959.6	55112.7	10742 µg/L	10742 ppb	06:59:51
3	Si 251.611†	66186.9	64059.6	4971.9 µg/L	4971.9 ppb	06:59:51
3	Sn 189.927†	1076.8	1024.0	527.05 µg/L	527.05 ppb	07:00:11
3	Ti 334.940†	231616.7	224559.8	508.57 µg/L	508.57 ppb	06:59:45
3	Tl 190.801†	316.5	328.2	506.87 µg/L	506.87 ppb	07:00:11
3	U 409.014†	6299.9	5370.5	515.47 µg/L	515.47 ppb	06:59:51
3	V 292.402†	45385.8	44297.3	517.59 µg/L	517.59 ppb	06:59:51
3	Zn 213.857†	19532.9	18425.7	500.30 µg/L	500.30 ppb	06:59:51

Mean Data: 1201998470|934069|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2142271.8	102.76	%	0.399				0.39%
Sc RADIAL	118135.0	104	%	0.0				0.02%
Y 371.029	1307062.1	101.86	%	0.414				0.41%
Ag 328.068†	55831.0	515.81	µg/L	3.719	515.81	ppb	3.719	0.72%
Al 396.153Radial†	10108.9	5080.3	µg/L	21.35	5080.3	ppb	21.35	0.42%
As 188.979†	269.1	524.62	µg/L	8.871	524.62	ppb	8.871	1.69%
B 249.677†	11426.9	512.79	µg/L	5.217	512.79	ppb	5.217	1.02%
Ba 233.527†	20510.8	532.71	µg/L	7.558	532.71	ppb	7.558	1.42%
Be 313.107†	817622.7	518.45	µg/L	4.153	518.45	ppb	4.153	0.80%
Ca 317.933Radial†	13188.3	5180.5	µg/L	28.79	5180.5	ppb	28.79	0.56%
Cd 226.502†	19521.8	523.25	µg/L	6.251	523.25	ppb	6.251	1.19%
Co 228.616†	10456.5	519.35	µg/L	9.646	519.35	ppb	9.646	1.86%
Cr 267.716†	24272.2	522.59	µg/L	10.498	522.59	ppb	10.498	2.01%
Cu 324.752†	71194.6	506.34	µg/L	8.275	506.34	ppb	8.275	1.63%
Fe 238.204 Radial†	962.0	5272.1	µg/L	6.92	5272.1	ppb	6.92	0.13%
K 766.490 Radial†	9278.2	5067.4	µg/L	42.75	5067.4	ppb	42.75	0.84%
Mg 279.077 IEC†	928.4	5289.6	µg/L	45.38	5289.6	ppb	45.38	0.86%
Mn 257.610†	159860.2	521.27	µg/L	3.763	521.27	ppb	3.763	0.72%
Mo 202.031†	4347.6	504.16	µg/L	16.703	504.16	ppb	16.703	3.31%
Na 589.592 Radial†	19198.0	5111.3	µg/L	22.00	5111.3	ppb	22.00	0.43%

Ni 231.604†	9446.5	529.04	µg/L	8.469	529.04	ppb	8.469	1.60%
P 214.914†	250.0	500.80	µg/L	4.583	500.80	ppb	4.583	0.92%
Pb 220.353†	2006.9	528.37	µg/L	10.519	528.37	ppb	10.519	1.99%
S 181.975 Axial†	994.8	5252.9	µg/L	103.92	5252.9	ppb	103.92	1.98%
Sb 206.836†	513.0	522.84	µg/L	10.913	522.84	ppb	10.913	2.09%
Se 196.026†	356.8	498.86	µg/L	14.664	498.86	ppb	14.664	2.94%
SiO2†	55831.9	10882	µg/L	132.5	10882	ppb	132.5	1.22%
Si 251.611†	64853.6	5032.7	µg/L	56.41	5032.7	ppb	56.41	1.12%
Sn 189.927†	1070.7	550.94	µg/L	21.179	550.94	ppb	21.179	3.84%
Sr 421.552†	90087.4	505.12	µg/L	2.875	505.12	ppb	2.875	0.57%
Ti 334.940†	226675.1	513.37	µg/L	4.321	513.37	ppb	4.321	0.84%
Tl 190.801†	336.7	519.97	µg/L	11.524	519.97	ppb	11.524	2.22%
U 409.014†	5510.5	528.93	µg/L	12.536	528.93	ppb	12.536	2.37%
V 292.402†	45090.2	526.93	µg/L	8.395	526.93	ppb	8.395	1.59%
Zn 213.857†	18729.4	508.55	µg/L	7.370	508.55	ppb	7.370	1.45%

Sequence No.: 12
Sample ID: 242940001|934069|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 310
Date Collected: 12/20/2009 07:00:21
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 242940001|934069|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	115245.8	115245.8	102	%			07:00:53
1	Al 396.153Radial†	184.9	1.0	0.5299	µg/L	0.5299	ppb	07:00:53
1	Ca 317.933Radial†	462.5	51.0	20.017	µg/L	20.017	ppb	07:01:14
1	Fe 238.204 Radial†	13.8	7.1	38.842	µg/L	38.842	ppb	07:01:14
1	K 766.490 Radial†	871.0	67.4	36.799	µg/L	36.799	ppb	07:00:53
1	Mg 279.077 IEC†	17.4	1.7	9.8780	µg/L	9.8780	ppb	07:01:14
1	Na 589.592 Radial†	-686.6	77.9	20.748	µg/L	20.748	ppb	07:00:53
1	Sr 421.552†	-6.9	96.3	0.5401	µg/L	0.5401	ppb	07:00:53
1	Sc 361.383	2162564.1	2162564.1	103.74	%			07:02:16
1	Y 371.029	1324707.4	1324707.4	103.24	%			07:02:16
1	Ag 328.068†	223.0	141.7	1.3045	µg/L	1.3045	ppb	07:02:21
1	As 188.979†	-5.9	-6.3	-12.276	µg/L	-12.276	ppb	07:02:42
1	B 249.677†	137.0	15.5	0.6874	µg/L	0.6874	ppb	07:02:21
1	Ba 233.527†	-66.8	17.1	0.4442	µg/L	0.4442	ppb	07:02:42
1	Be 313.107†	3879.8	235.1	0.1489	µg/L	0.1489	ppb	07:02:21
1	Cd 226.502†	-105.2	6.0	0.1566	µg/L	0.1566	ppb	07:02:42
1	Co 228.616†	-74.6	13.6	0.6745	µg/L	0.6745	ppb	07:02:42
1	Cr 267.716†	-134.6	-2.8	-0.0584	µg/L	-0.0584	ppb	07:02:21
1	Cu 324.752†	3640.5	-69.9	-0.4876	µg/L	-0.4876	ppb	07:02:21
1	Mn 257.610†	-184.0	50.9	0.1706	µg/L	0.1706	ppb	07:02:42
1	Mo 202.031†	-0.8	-0.1	-0.0059	µg/L	-0.0059	ppb	07:02:42
1	Ni 231.604†	363.6	23.1	1.2929	µg/L	1.2929	ppb	07:02:42
1	P 214.914†	206.7	-12.5	-27.698	µg/L	-27.698	ppb	07:02:42
1	Pb 220.353†	49.5	-4.7	-1.2209	µg/L	-1.2209	ppb	07:02:42
1	S 181.975 Axial†	24.3	-3.7	-19.588	µg/L	-19.588	ppb	07:02:42
1	Sb 206.836†	26.8	3.4	3.4589	µg/L	3.4589	ppb	07:02:42
1	Se 196.026†	18.4	-0.6	-0.8491	µg/L	-0.8491	ppb	07:02:42
1	SiO2†	2377.4	22.3	4.3504	µg/L	4.3504	ppb	07:02:21
1	Si 251.611†	491.4	117.1	9.0856	µg/L	9.0856	ppb	07:02:42
1	Sn 189.927†	27.9	3.0	1.5454	µg/L	1.5454	ppb	07:02:42
1	Ti 334.940†	1131.5	230.6	0.5214	µg/L	0.5214	ppb	07:02:21
1	Tl 190.801†	-20.7	0.2	0.3160	µg/L	0.3160	ppb	07:02:42
1	U 409.014†	743.8	-43.8	-4.2163	µg/L	-4.2163	ppb	07:02:21
1	V 292.402†	-96.0	33.2	0.3807	µg/L	0.3807	ppb	07:02:21
1	Zn 213.857†	685.7	76.4	2.0806	µg/L	2.0806	ppb	07:02:42
2	Sc RADIAL	116090.2	116090.2	103	%			07:01:19
2	Al 396.153Radial†	173.8	-11.1	-5.6112	µg/L	-5.6112	ppb	07:01:19
2	Ca 317.933Radial†	440.8	26.5	10.427	µg/L	10.427	ppb	07:01:40
2	Fe 238.204 Radial†	10.0	3.3	17.943	µg/L	17.943	ppb	07:01:40
2	K 766.490 Radial†	739.2	-67.5	-36.844	µg/L	-36.844	ppb	07:01:19
2	Mg 279.077 IEC†	14.0	-1.7	-9.4333	µg/L	-9.4333	ppb	07:01:40
2	Na 589.592 Radial†	-752.2	18.9	5.0252	µg/L	5.0252	ppb	07:01:19
2	Sr 421.552†	-75.5	29.4	0.1650	µg/L	0.1650	ppb	07:01:19
2	Sc 361.383	2155367.9	2155367.9	103.39	%			07:02:48
2	Y 371.029	1320565.7	1320565.7	102.91	%			07:02:48
2	Ag 328.068†	199.9	120.1	1.1032	µg/L	1.1032	ppb	07:02:54
2	As 188.979†	-0.2	-0.8	-1.5947	µg/L	-1.5947	ppb	07:03:14
2	B 249.677†	145.9	24.7	1.1055	µg/L	1.1055	ppb	07:02:54
2	Ba 233.527†	-58.9	24.5	0.6365	µg/L	0.6365	ppb	07:03:14
2	Be 313.107†	3787.6	158.4	0.1003	µg/L	0.1003	ppb	07:02:54
2	Cd 226.502†	-104.0	6.9	0.1845	µg/L	0.1845	ppb	07:03:14
2	Co 228.616†	-83.1	5.1	0.2538	µg/L	0.2538	ppb	07:03:14
2	Cr 267.716†	-123.8	7.2	0.1554	µg/L	0.1554	ppb	07:02:54
2	Cu 324.752†	3548.4	-147.2	-1.0406	µg/L	-1.0406	ppb	07:02:54
2	Mn 257.610†	-163.1	70.5	0.2319	µg/L	0.2319	ppb	07:03:14
2	Mo 202.031†	3.2	3.7	0.4323	µg/L	0.4323	ppb	07:03:14
2	Ni 231.604†	361.3	22.0	1.2337	µg/L	1.2337	ppb	07:03:14
2	P 214.914†	209.5	-9.1	-20.102	µg/L	-20.102	ppb	07:03:14
2	Pb 220.353†	58.0	3.7	0.9829	µg/L	0.9829	ppb	07:03:14

2	S 181.975 Axial†	29.0	0.9	4.8853 µg/L	4.8853 ppb	07:03:14
2	Sb 206.836†	21.9	-1.3	-1.2990 µg/L	-1.2990 ppb	07:03:14
2	Se 196.026†	13.7	-5.1	-7.1262 µg/L	-7.1262 ppb	07:03:14
2	SiO2†	2349.2	2.7	0.5217 µg/L	0.5217 ppb	07:02:54
2	Si 251.611†	486.3	113.7	9.0120 µg/L	9.0120 ppb	07:03:14
2	Sn 189.927†	19.3	-5.3	-2.6999 µg/L	-2.6999 ppb	07:03:14
2	Ti 334.940†	1048.2	153.7	0.3476 µg/L	0.3476 ppb	07:02:54
2	Tl 190.801†	-18.6	2.1	3.2680 µg/L	3.2680 ppb	07:03:14
2	U 409.014†	788.4	1.7	0.1651 µg/L	0.1651 ppb	07:02:54
2	V 292.402†	-116.4	13.1	0.1568 µg/L	0.1568 ppb	07:02:54
2	Zn 213.857†	687.8	80.6	2.2001 µg/L	2.2001 ppb	07:03:14
3	Sc RADIAL	115625.3	115625.3	102 %		07:01:45
3	Al 396.153Radial†	223.7	38.4	19.383 µg/L	19.383 ppb	07:01:45
3	Ca 317.933Radial†	455.3	42.5	16.676 µg/L	16.676 ppb	07:02:06
3	Fe 238.204 Radial†	10.1	3.4	18.672 µg/L	18.672 ppb	07:02:06
3	K 766.490 Radial†	838.0	32.2	17.589 µg/L	17.589 ppb	07:01:45
3	Mg 279.077 IEC†	14.9	-0.7	-4.2298 µg/L	-4.2298 ppb	07:02:06
3	Na 589.592 Radial†	-739.7	28.1	7.4900 µg/L	7.4900 ppb	07:01:45
3	Sr 421.552†	-48.9	55.2	0.3094 µg/L	0.3094 ppb	07:01:45
3	Sc 361.383	2158828.7	2158828.7	103.56 %		07:03:20
3	Y 371.029	1322805.6	1322805.6	103.09 %		07:03:20
3	Ag 328.068†	157.3	78.6	0.7227 µg/L	0.7227 ppb	07:03:26
3	As 188.979†	5.1	4.3	8.4320 µg/L	8.4320 ppb	07:03:46
3	B 249.677†	163.8	41.7	1.8722 µg/L	1.8722 ppb	07:03:26
3	Ba 233.527†	-60.9	22.7	0.5888 µg/L	0.5888 ppb	07:03:46
3	Be 313.107†	3695.6	63.7	0.0403 µg/L	0.0403 ppb	07:03:26
3	Cd 226.502†	-119.4	-7.8	-0.2106 µg/L	-0.2106 ppb	07:03:46
3	Co 228.616†	-73.2	14.9	0.7392 µg/L	0.7392 ppb	07:03:46
3	Cr 267.716†	-155.0	-22.7	-0.4865 µg/L	-0.4865 ppb	07:03:26
3	Cu 324.752†	3536.6	-164.1	-1.1607 µg/L	-1.1607 ppb	07:03:26
3	Mn 257.610†	-173.3	60.9	0.2007 µg/L	0.2007 ppb	07:03:46
3	Mo 202.031†	2.3	2.9	0.3355 µg/L	0.3355 ppb	07:03:46
3	Ni 231.604†	354.4	14.8	0.8285 µg/L	0.8285 ppb	07:03:46
3	P 214.914†	210.2	-8.7	-19.261 µg/L	-19.261 ppb	07:03:46
3	Pb 220.353†	46.9	-7.0	-1.8452 µg/L	-1.8452 ppb	07:03:46
3	S 181.975 Axial†	28.4	0.3	1.6796 µg/L	1.6796 ppb	07:03:46
3	Sb 206.836†	23.9	0.7	0.6652 µg/L	0.6652 ppb	07:03:46
3	Se 196.026†	18.4	-0.7	-0.9255 µg/L	-0.9255 ppb	07:03:46
3	SiO2†	2346.0	-4.1	-0.7992 µg/L	-0.7992 ppb	07:03:26
3	Si 251.611†	481.4	108.3	8.3987 µg/L	8.3987 ppb	07:03:46
3	Sn 189.927†	28.1	3.2	1.6338 µg/L	1.6338 ppb	07:03:46
3	Ti 334.940†	1046.1	150.0	0.3390 µg/L	0.3390 ppb	07:03:26
3	Tl 190.801†	-19.9	1.0	1.4792 µg/L	1.4792 ppb	07:03:46
3	U 409.014†	773.9	-13.5	-1.3034 µg/L	-1.3034 ppb	07:03:26
3	V 292.402†	-119.9	10.0	0.1173 µg/L	0.1173 ppb	07:03:26
3	Zn 213.857†	667.9	60.3	1.6473 µg/L	1.6473 ppb	07:03:46

Mean Data: 242940001|934069|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2158920.2	103.56	%	0.173				0.17%
Sc RADIAL	115653.8	102	%	0.4				0.37%
Y 371.029	1322692.9	103.08	%	0.162				0.16%
Ag 328.068†	113.4	1.0435	µg/L	0.29547	1.0435	ppb	0.29547	28.32%
Al 396.153Radial†	9.5	4.7672	µg/L	13.02474	4.7672	ppb	13.02474	273.21%
As 188.979†	-0.9	-1.8129	µg/L	10.35569	-1.8129	ppb	10.35569	571.24%
B 249.677†	27.3	1.2217	µg/L	0.60093	1.2217	ppb	0.60093	49.19%
Ba 233.527†	21.5	0.5565	µg/L	0.10014	0.5565	ppb	0.10014	17.99%
Be 313.107†	152.4	0.0965	µg/L	0.05441	0.0965	ppb	0.05441	56.36%
Ca 317.933Radial†	40.0	15.707	µg/L	4.8676	15.707	ppb	4.8676	30.99%
Cd 226.502†	1.7	0.0435	µg/L	0.22052	0.0435	ppb	0.22052	507.02%
Co 228.616†	11.2	0.5558	µg/L	0.26356	0.5558	ppb	0.26356	47.42%
Cr 267.716†	-6.1	-0.1298	µg/L	0.32688	-0.1298	ppb	0.32688	251.74%
Cu 324.752†	-127.1	-0.8963	µg/L	0.35899	-0.8963	ppb	0.35899	40.05%
Fe 238.204 Radial†	4.6	25.152	µg/L	11.8610	25.152	ppb	11.8610	47.16%
K 766.490 Radial†	10.7	5.8480	µg/L	38.19964	5.8480	ppb	38.19964	653.21%
Mg 279.077 IEC†	-0.2	-1.2617	µg/L	9.99192	-1.2617	ppb	9.99192	791.93%
Mn 257.610†	60.8	0.2010	µg/L	0.03065	0.2010	ppb	0.03065	15.24%
Mo 202.031†	2.2	0.2540	µg/L	0.23021	0.2540	ppb	0.23021	90.64%
Na 589.592 Radial†	41.6	11.088	µg/L	8.4564	11.088	ppb	8.4564	76.27%

Ni 231.604†	20.0	1.1184	µg/L	0.25273	1.1184	ppb	0.25273 22.60%
P 214.914†	-10.1	-22.354	µg/L	4.6474	-22.354	ppb	4.6474 20.79%
Pb 220.353†	-2.7	-0.6944	µg/L	1.48573	-0.6944	ppb	1.48573 213.96%
S 181.975 Axial†	-0.8	-4.3409	µg/L	13.30099	-4.3409	ppb	13.30099 306.41%
Sb 206.836†	0.9	0.9417	µg/L	2.39094	0.9417	ppb	2.39094 253.89%
Se 196.026†	-2.1	-2.9670	µg/L	3.60224	-2.9670	ppb	3.60224 121.41%
SiO2†	7.0	1.3576	µg/L	2.67467	1.3576	ppb	2.67467 197.01%
Si 251.611†	113.0	8.8321	µg/L	0.37714	8.8321	ppb	0.37714 4.27%
Sn 189.927†	0.3	0.1598	µg/L	2.47694	0.1598	ppb	2.47694 >999.9%
Sr 421.552†	60.3	0.3382	µg/L	0.18921	0.3382	ppb	0.18921 55.95%
Ti 334.940†	178.1	0.4027	µg/L	0.10294	0.4027	ppb	0.10294 25.56%
Tl 190.801†	1.1	1.6877	µg/L	1.48700	1.6877	ppb	1.48700 88.11%
U 409.014†	-18.5	-1.7849	µg/L	2.23002	-1.7849	ppb	2.23002 124.94%
V 292.402†	18.8	0.2182	µg/L	0.14205	0.2182	ppb	0.14205 65.09%
Zn 213.857†	72.4	1.9760	µg/L	0.29088	1.9760	ppb	0.29088 14.72%

Sequence No.: 13
Sample ID: 1201998471|934069|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 311
Date Collected: 12/20/2009 07:03:55
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1201998471|934069|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	115947.2	115947.2	102	%			07:04:28
1	Al 396.153Radial†	209.0	23.4	11.837	µg/L	11.837	ppb	07:04:28
1	Ca 317.933Radial†	437.9	24.2	9.5149	µg/L	9.5149	ppb	07:04:48
1	Fe 238.204 Radial†	9.4	2.7	14.609	µg/L	14.609	ppb	07:04:48
1	K 766.490 Radial†	794.0	-13.0	-7.1027	µg/L	-7.1027	ppb	07:04:28
1	Mg 279.077 IEC†	16.1	0.4	2.1000	µg/L	2.1000	ppb	07:04:48
1	Na 589.592 Radial†	-741.7	28.2	7.5177	µg/L	7.5177	ppb	07:04:28
1	Sr 421.552†	-129.9	-23.7	-0.1330	µg/L	-0.1330	ppb	07:04:28
1	Sc 361.383	2143327.7	2143327.7	102.81	%			07:05:50
1	Y 371.029	1315278.6	1315278.6	102.50	%			07:05:50
1	Ag 328.068†	133.5	56.6	0.5193	µg/L	0.5193	ppb	07:05:56
1	As 188.979†	3.1	2.4	4.7025	µg/L	4.7025	ppb	07:06:16
1	B 249.677†	152.7	32.0	1.4374	µg/L	1.4374	ppb	07:05:56
1	Ba 233.527†	-71.4	12.0	0.3109	µg/L	0.3109	ppb	07:06:16
1	Be 313.107†	3642.5	37.8	0.0240	µg/L	0.0240	ppb	07:05:56
1	Cd 226.502†	-116.9	-6.3	-0.1669	µg/L	-0.1669	ppb	07:06:16
1	Co 228.616†	-86.7	1.2	0.0587	µg/L	0.0587	ppb	07:06:16
1	Cr 267.716†	-100.4	29.3	0.6303	µg/L	0.6303	ppb	07:05:56
1	Cu 324.752†	3578.2	-99.0	-0.6991	µg/L	-0.6991	ppb	07:05:56
1	Mn 257.610†	-188.9	44.5	0.1469	µg/L	0.1469	ppb	07:05:56
1	Mo 202.031†	-2.7	-2.0	-0.2256	µg/L	-0.2256	ppb	07:06:16
1	Ni 231.604†	363.3	25.9	1.4513	µg/L	1.4513	ppb	07:06:16
1	P 214.914†	199.4	-17.8	-39.482	µg/L	-39.482	ppb	07:06:16
1	Pb 220.353†	49.3	-4.4	-1.1598	µg/L	-1.1598	ppb	07:06:16
1	S 181.975 Axial†	28.6	0.7	3.5992	µg/L	3.5992	ppb	07:06:16
1	Sb 206.836†	23.9	0.8	0.7996	µg/L	0.7996	ppb	07:06:16
1	Se 196.026†	11.9	-6.8	-9.5021	µg/L	-9.5021	ppb	07:06:16
1	SiO2†	2365.1	30.9	6.0269	µg/L	6.0269	ppb	07:05:56
1	Si 251.611†	448.8	79.9	6.2032	µg/L	6.2032	ppb	07:06:16
1	Sn 189.927†	27.9	3.2	1.6642	µg/L	1.6642	ppb	07:06:16
1	Ti 334.940†	924.1	38.7	0.0871	µg/L	0.0871	ppb	07:05:56
1	Tl 190.801†	-24.8	-3.9	-6.0667	µg/L	-6.0667	ppb	07:06:16
1	U 409.014†	784.4	2.1	0.2028	µg/L	0.2028	ppb	07:05:56
1	V 292.402†	-133.0	-3.6	-0.0419	µg/L	-0.0419	ppb	07:05:56
1	Zn 213.857†	677.1	74.0	2.0166	µg/L	2.0166	ppb	07:06:16
2	Sc RADIAL	116417.0	116417.0	103	%			07:04:54
2	Al 396.153Radial†	213.1	26.7	13.476	µg/L	13.476	ppb	07:04:54
2	Ca 317.933Radial†	436.9	21.5	8.4513	µg/L	8.4513	ppb	07:05:14
2	Fe 238.204 Radial†	7.5	0.8	4.5524	µg/L	4.5524	ppb	07:05:14
2	K 766.490 Radial†	800.2	-10.1	-5.5402	µg/L	-5.5402	ppb	07:04:54
2	Mg 279.077 IEC†	14.8	-1.0	-5.5185	µg/L	-5.5185	ppb	07:05:14
2	Na 589.592 Radial†	-744.4	28.5	7.5839	µg/L	7.5839	ppb	07:04:54
2	Sr 421.552†	-103.6	2.4	0.0134	µg/L	0.0134	ppb	07:04:54
2	Sc 361.383	2146742.8	2146742.8	102.98	%			07:06:22
2	Y 371.029	1316861.5	1316861.5	102.63	%			07:06:22
2	Ag 328.068†	175.2	96.9	0.8879	µg/L	0.8879	ppb	07:06:28
2	As 188.979†	-3.9	-4.4	-8.5851	µg/L	-8.5851	ppb	07:06:49
2	B 249.677†	139.9	19.4	0.8726	µg/L	0.8726	ppb	07:06:28
2	Ba 233.527†	-82.4	1.5	0.0378	µg/L	0.0378	ppb	07:06:49
2	Be 313.107†	3688.8	77.2	0.0490	µg/L	0.0490	ppb	07:06:28
2	Cd 226.502†	-112.5	-1.8	-0.0481	µg/L	-0.0481	ppb	07:06:49
2	Co 228.616†	-77.9	9.9	0.4877	µg/L	0.4877	ppb	07:06:49
2	Cr 267.716†	-158.4	-26.9	-0.5772	µg/L	-0.5772	ppb	07:06:28
2	Cu 324.752†	3606.4	-77.1	-0.5458	µg/L	-0.5458	ppb	07:06:28
2	Mn 257.610†	-170.1	63.1	0.2061	µg/L	0.2061	ppb	07:06:28
2	Mo 202.031†	-7.8	-6.9	-0.7979	µg/L	-0.7979	ppb	07:06:49
2	Ni 231.604†	358.9	21.1	1.1791	µg/L	1.1791	ppb	07:06:49
2	P 214.914†	204.6	-13.0	-28.862	µg/L	-28.862	ppb	07:06:49
2	Pb 220.353†	52.7	-1.2	-0.3123	µg/L	-0.3123	ppb	07:06:49

2	S 181.975 Axial†	28.3	0.3	1.5611 µg/L	1.5611 ppb	07:06:49
2	Sb 206.836†	21.7	-1.4	-1.4338 µg/L	-1.4338 ppb	07:06:49
2	Se 196.026†	8.4	-10.3	-14.291 µg/L	-14.291 ppb	07:06:49
2	SiO2†	2339.9	2.8	0.5450 µg/L	0.5450 ppb	07:06:28
2	Si 251.611†	452.3	82.6	6.5707 µg/L	6.5707 ppb	07:06:49
2	Sn 189.927†	20.4	-4.1	-2.1057 µg/L	-2.1057 ppb	07:06:49
2	Ti 334.940†	894.7	8.6	0.0191 µg/L	0.0191 ppb	07:06:28
2	Tl 190.801†	-27.1	-6.2	-9.4674 µg/L	-9.4674 ppb	07:06:49
2	U 409.014†	754.8	-27.9	-2.6798 µg/L	-2.6798 ppb	07:06:28
2	V 292.402†	-140.0	-10.2	-0.1277 µg/L	-0.1277 ppb	07:06:28
2	Zn 213.857†	679.1	74.9	2.0443 µg/L	2.0443 ppb	07:06:49
3	Sc RADIAL	116186.7	116186.7	103 %		07:05:20
3	Al 396.153Radial†	218.1	32.0	16.137 µg/L	16.137 ppb	07:05:20
3	Ca 317.933Radial†	445.0	30.3	11.893 µg/L	11.893 ppb	07:05:40
3	Fe 238.204 Radial†	10.9	4.2	22.761 µg/L	22.761 ppb	07:05:40
3	K 766.490 Radial†	810.1	1.0	0.5579 µg/L	0.5579 ppb	07:05:20
3	Mg 279.077 IEC†	15.4	-0.3	-1.9544 µg/L	-1.9544 ppb	07:05:40
3	Na 589.592 Radial†	-691.9	78.2	20.816 µg/L	20.816 ppb	07:05:20
3	Sr 421.552†	-64.2	40.5	0.2270 µg/L	0.2270 ppb	07:05:20
3	Sc 361.383	2148620.7	2148620.7	103.07 %		07:06:55
3	Y 371.029	1318843.9	1318843.9	102.78 %		07:06:55
3	Ag 328.068†	110.5	34.0	0.3130 µg/L	0.3130 ppb	07:07:00
3	As 188.979†	-3.3	-3.8	-7.3821 µg/L	-7.3821 ppb	07:07:21
3	B 249.677†	188.4	66.3	2.9794 µg/L	2.9794 ppb	07:07:00
3	Ba 233.527†	-71.0	12.6	0.3273 µg/L	0.3273 ppb	07:07:21
3	Be 313.107†	3725.6	109.7	0.0695 µg/L	0.0695 ppb	07:07:00
3	Cd 226.502†	-107.3	3.4	0.0881 µg/L	0.0881 ppb	07:07:21
3	Co 228.616†	-81.9	6.0	0.2979 µg/L	0.2979 ppb	07:07:21
3	Cr 267.716†	-149.2	-17.8	-0.3824 µg/L	-0.3824 ppb	07:07:00
3	Cu 324.752†	3578.1	-107.6	-0.7584 µg/L	-0.7584 ppb	07:07:00
3	Mn 257.610†	-183.9	49.8	0.1652 µg/L	0.1652 ppb	07:07:00
3	Mo 202.031†	-3.7	-2.9	-0.3406 µg/L	-0.3406 ppb	07:07:21
3	Ni 231.604†	337.8	0.3	0.0163 µg/L	0.0163 ppb	07:07:21
3	P 214.914†	205.5	-12.4	-27.334 µg/L	-27.334 ppb	07:07:21
3	Pb 220.353†	43.9	-9.7	-2.5567 µg/L	-2.5567 ppb	07:07:21
3	S 181.975 Axial†	31.6	3.5	18.338 µg/L	18.338 ppb	07:07:21
3	Sb 206.836†	17.0	-5.9	-6.0588 µg/L	-6.0588 ppb	07:07:21
3	Se 196.026†	16.3	-2.6	-3.5881 µg/L	-3.5881 ppb	07:07:21
3	SiO2†	2358.2	18.6	3.6190 µg/L	3.6190 ppb	07:07:00
3	Si 251.611†	451.6	81.5	6.3289 µg/L	6.3289 ppb	07:07:21
3	Sn 189.927†	27.5	2.7	1.4054 µg/L	1.4054 ppb	07:07:21
3	Ti 334.940†	1060.4	168.6	0.3815 µg/L	0.3815 ppb	07:07:00
3	Tl 190.801†	-22.2	-1.4	-2.1386 µg/L	-2.1386 ppb	07:07:21
3	U 409.014†	772.5	-11.3	-1.0948 µg/L	-1.0948 ppb	07:07:00
3	V 292.402†	-132.8	-3.1	-0.0380 µg/L	-0.0380 ppb	07:07:00
3	Zn 213.857†	677.9	73.2	2.0017 µg/L	2.0017 ppb	07:07:21

Mean Data: 1201998471|934069|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2146230.4	102.95	%	0.129				0.13%
Sc RADIAL	116183.6	103	%	0.2				0.20%
Y 371.029	1316994.7	102.64	%	0.139				0.14%
Ag 328.068†	62.5	0.5734	µg/L	0.29122	0.5734	ppb	0.29122	50.79%
Al 396.153Radial†	27.4	13.817	µg/L	2.1704	13.817	ppb	2.1704	15.71%
As 188.979†	-1.9	-3.7549	µg/L	7.34899	-3.7549	ppb	7.34899	195.72%
B 249.677†	39.3	1.7631	µg/L	1.09049	1.7631	ppb	1.09049	61.85%
Ba 233.527†	8.7	0.2253	µg/L	0.16260	0.2253	ppb	0.16260	72.17%
Be 313.107†	74.9	0.0475	µg/L	0.02279	0.0475	ppb	0.02279	48.01%
Ca 317.933Radial†	25.3	9.9529	µg/L	1.76199	9.9529	ppb	1.76199	17.70%
Cd 226.502†	-1.5	-0.0423	µg/L	0.12761	-0.0423	ppb	0.12761	301.58%
Co 228.616†	5.7	0.2815	µg/L	0.21501	0.2815	ppb	0.21501	76.39%
Cr 267.716†	-5.1	-0.1098	µg/L	0.64832	-0.1098	ppb	0.64832	590.59%
Cu 324.752†	-94.5	-0.6678	µg/L	0.10971	-0.6678	ppb	0.10971	16.43%
Fe 238.204 Radial†	2.6	13.974	µg/L	9.1209	13.974	ppb	9.1209	65.27%
K 766.490 Radial†	-7.4	-4.0283	µg/L	4.04787	-4.0283	ppb	4.04787	100.48%
Mg 279.077 IEC†	-0.3	-1.7910	µg/L	3.81191	-1.7910	ppb	3.81191	212.84%
Mn 257.610†	52.5	0.1727	µg/L	0.03030	0.1727	ppb	0.03030	17.55%
Mo 202.031†	-3.9	-0.4547	µg/L	0.30274	-0.4547	ppb	0.30274	66.58%
Na 589.592 Radial†	45.0	11.972	µg/L	7.6585	11.972	ppb	7.6585	63.97%

Ni 231.604†	15.8	0.8822	µg/L	0.76217	0.8822	ppb	0.76217 86.39%
P 214.914†	-14.4	-31.893	µg/L	6.6166	-31.893	ppb	6.6166 20.75%
Pb 220.353†	-5.1	-1.3430	µg/L	1.13337	-1.3430	ppb	1.13337 84.39%
S 181.975 Axial†	1.5	7.8327	µg/L	9.15457	7.8327	ppb	9.15457 116.88%
Sb 206.836†	-2.2	-2.2310	µg/L	3.49800	-2.2310	ppb	3.49800 156.79%
Se 196.026†	-6.6	-9.1270	µg/L	5.36125	-9.1270	ppb	5.36125 58.74%
SiO2†	17.4	3.3970	µg/L	2.74768	3.3970	ppb	2.74768 80.89%
Si 251.611†	81.4	6.3676	µg/L	0.18681	6.3676	ppb	0.18681 2.93%
Sn 189.927†	0.6	0.3213	µg/L	2.10578	0.3213	ppb	2.10578 655.41%
Sr 421.552†	6.4	0.0358	µg/L	0.18107	0.0358	ppb	0.18107 505.79%
Ti 334.940†	72.0	0.1625	µg/L	0.19264	0.1625	ppb	0.19264 118.52%
Tl 190.801†	-3.8	-5.8909	µg/L	3.66756	-5.8909	ppb	3.66756 62.26%
U 409.014†	-12.4	-1.1906	µg/L	1.44371	-1.1906	ppb	1.44371 121.26%
V 292.402†	-5.6	-0.0692	µg/L	0.05067	-0.0692	ppb	0.05067 73.22%
Zn 213.857†	74.0	2.0209	µg/L	0.02163	2.0209	ppb	0.02163 1.07%

Sequence No.: 14
Sample ID: 1201998472|934069|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 312
Date Collected: 12/20/2009 07:07:30
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1201998472|934069|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	117026.1	117026.1	103	%			07:08:03
1	Al 396.153Radial†	10661.5	10133.6	5092.2	µg/L	5092.2	ppb	07:08:03
1	Ca 317.933Radial†	13711.2	12861.2	5052.0	µg/L	5052.0	ppb	07:08:23
1	Fe 238.204 Radial†	1001.0	961.9	5271.4	µg/L	5271.4	ppb	07:08:23
1	K 766.490 Radial†	10452.9	9324.0	5092.4	µg/L	5092.4	ppb	07:08:03
1	Mg 279.077 IEC†	975.3	928.2	5288.8	µg/L	5288.8	ppb	07:08:23
1	Na 589.592 Radial†	19062.7	19194.1	5110.3	µg/L	5110.3	ppb	07:08:03
1	Sr 421.552†	92997.3	90070.8	505.03	µg/L	505.03	ppb	07:08:03
1	Sc 361.383	2133923.2	2133923.2	102.36	%			07:09:27
1	Y 371.029	1303304.7	1303304.7	101.57	%			07:09:27
1	Ag 328.068†	56036.4	54669.5	505.13	µg/L	505.13	ppb	07:09:33
1	As 188.979†	282.6	275.5	537.08	µg/L	537.08	ppb	07:09:53
1	B 249.677†	11580.3	11196.5	502.42	µg/L	502.42	ppb	07:09:33
1	Ba 233.527†	20571.9	20178.5	524.09	µg/L	524.09	ppb	07:09:33
1	Be 313.107†	842917.9	819952.7	519.93	µg/L	519.93	ppb	07:09:27
1	Cd 226.502†	19508.9	19166.0	513.71	µg/L	513.71	ppb	07:09:33
1	Co 228.616†	10460.6	10304.6	511.83	µg/L	511.83	ppb	07:09:33
1	Cr 267.716†	24580.1	24139.6	519.73	µg/L	519.73	ppb	07:09:33
1	Cu 324.752†	75956.5	70623.7	502.29	µg/L	502.29	ppb	07:09:33
1	Mn 257.610†	164710.2	161135.8	525.42	µg/L	525.42	ppb	07:09:27
1	Mo 202.031†	4581.2	4476.1	519.06	µg/L	519.06	ppb	07:09:53
1	Ni 231.604†	9867.1	9311.9	521.51	µg/L	521.51	ppb	07:09:33
1	P 214.914†	471.6	249.0	499.32	µg/L	499.32	ppb	07:09:53
1	Pb 220.353†	2148.1	2046.1	538.73	µg/L	538.73	ppb	07:09:53
1	S 181.975 Axial†	1067.2	1015.4	5361.6	µg/L	5361.6	ppb	07:09:53
1	Sb 206.836†	559.2	523.8	533.87	µg/L	533.87	ppb	07:09:53
1	Se 196.026†	385.8	358.5	501.19	µg/L	501.19	ppb	07:09:53
1	SiO2†	58649.7	55026.2	10725	µg/L	10725	ppb	07:09:33
1	Si 251.611†	65797.0	63921.3	4958.6	µg/L	4958.6	ppb	07:09:33
1	Sn 189.927†	1151.9	1101.4	566.62	µg/L	566.62	ppb	07:09:53
1	Ti 334.940†	235264.2	228972.5	518.58	µg/L	518.58	ppb	07:09:27
1	Tl 190.801†	333.8	346.2	534.66	µg/L	534.66	ppb	07:09:53
1	U 409.014†	6372.7	5464.8	524.53	µg/L	524.53	ppb	07:09:33
1	V 292.402†	45590.8	44664.0	522.09	µg/L	522.09	ppb	07:09:33
1	Zn 213.857†	19518.6	18483.3	501.86	µg/L	501.86	ppb	07:09:33
2	Sc RADIAL	116542.1	116542.1	103	%			07:08:29
2	Al 396.153Radial†	10628.3	10144.2	5097.6	µg/L	5097.6	ppb	07:08:29
2	Ca 317.933Radial†	13888.0	13088.0	5141.1	µg/L	5141.1	ppb	07:08:49
2	Fe 238.204 Radial†	1014.5	979.0	5365.6	µg/L	5365.6	ppb	07:08:49
2	K 766.490 Radial†	10312.9	9230.0	5041.1	µg/L	5041.1	ppb	07:08:29
2	Mg 279.077 IEC†	982.1	938.8	5348.8	µg/L	5348.8	ppb	07:08:49
2	Na 589.592 Radial†	19082.1	19289.5	5135.7	µg/L	5135.7	ppb	07:08:29
2	Sr 421.552†	92551.0	90010.9	504.69	µg/L	504.69	ppb	07:08:29
2	Sc 361.383	2137957.1	2137957.1	102.56	%			07:10:01
2	Y 371.029	1305477.8	1305477.8	101.74	%			07:10:01
2	Ag 328.068†	57995.2	56476.1	521.81	µg/L	521.81	ppb	07:10:06
2	As 188.979†	278.3	270.7	527.73	µg/L	527.73	ppb	07:10:27
2	B 249.677†	12041.2	11624.5	521.66	µg/L	521.66	ppb	07:10:06
2	Ba 233.527†	21311.6	20861.8	541.83	µg/L	541.83	ppb	07:10:06
2	Be 313.107†	841706.3	817217.6	518.19	µg/L	518.19	ppb	07:10:01
2	Cd 226.502†	20242.3	19845.1	531.92	µg/L	531.92	ppb	07:10:06
2	Co 228.616†	10857.3	10672.2	530.08	µg/L	530.08	ppb	07:10:06
2	Cr 267.716†	25442.3	24935.0	536.86	µg/L	536.86	ppb	07:10:06
2	Cu 324.752†	78686.3	73145.4	520.20	µg/L	520.20	ppb	07:10:06
2	Mn 257.610†	164763.9	160884.6	524.62	µg/L	524.62	ppb	07:10:01
2	Mo 202.031†	4578.9	4465.4	517.82	µg/L	517.82	ppb	07:10:27
2	Ni 231.604†	10212.7	9630.6	539.36	µg/L	539.36	ppb	07:10:06
2	P 214.914†	479.5	255.8	512.28	µg/L	512.28	ppb	07:10:27
2	Pb 220.353†	2148.1	2042.2	537.67	µg/L	537.67	ppb	07:10:27

2	S 181.975 Axial†	1069.4	1015.6	5362.5 µg/L	5362.5 ppb	07:10:27
2	Sb 206.836†	564.2	527.7	537.80 µg/L	537.80 ppb	07:10:27
2	Se 196.026†	387.7	359.6	502.78 µg/L	502.78 ppb	07:10:27
2	SiO2†	60755.2	56971.1	11104 µg/L	11104 ppb	07:10:06
2	Si 251.611†	68276.4	66217.7	5138.7 µg/L	5138.7 ppb	07:10:06
2	Sn 189.927†	1152.1	1099.5	565.70 µg/L	565.70 ppb	07:10:27
2	Ti 334.940†	235293.2	228567.2	517.65 µg/L	517.65 ppb	07:10:01
2	Tl 190.801†	338.0	349.7	539.90 µg/L	539.90 ppb	07:10:27
2	U 409.014†	6583.1	5658.2	543.11 µg/L	543.11 ppb	07:10:06
2	V 292.402†	47220.9	46169.4	539.55 µg/L	539.55 ppb	07:10:06
2	Zn 213.857†	20213.4	19124.9	519.30 µg/L	519.30 ppb	07:10:06
3	Sc RADIAL	117713.7	117713.7	104 %		07:08:55
3	Al 396.153Radial†	10753.4	10161.7	5107.3 µg/L	5107.3 ppb	07:08:55
3	Ca 317.933Radial†	13722.5	12794.5	5025.8 µg/L	5025.8 ppb	07:09:15
3	Fe 238.204 Radial†	1000.7	956.0	5239.4 µg/L	5239.4 ppb	07:09:15
3	K 766.490 Radial†	10444.0	9256.5	5055.5 µg/L	5055.5 ppb	07:08:55
3	Mg 279.077 IEC†	986.4	933.4	5317.6 µg/L	5317.6 ppb	07:09:15
3	Na 589.592 Radial†	19345.3	19358.1	5154.0 µg/L	5154.0 ppb	07:08:55
3	Sr 421.552†	93540.3	90067.6	505.01 µg/L	505.01 ppb	07:08:55
3	Sc 361.383	2144472.4	2144472.4	102.87 %		07:10:34
3	Y 371.029	1309397.4	1309397.4	102.04 %		07:10:34
3	Ag 328.068†	57363.6	55690.3	514.51 µg/L	514.51 ppb	07:10:39
3	As 188.979†	269.4	261.3	509.35 µg/L	509.35 ppb	07:11:00
3	B 249.677†	11832.0	11385.5	510.94 µg/L	510.94 ppb	07:10:39
3	Ba 233.527†	20869.0	20368.4	529.02 µg/L	529.02 ppb	07:10:39
3	Be 313.107†	836556.6	809718.0	513.44 µg/L	513.44 ppb	07:10:34
3	Cd 226.502†	19848.3	19402.1	520.05 µg/L	520.05 ppb	07:10:39
3	Co 228.616†	10605.6	10395.3	516.29 µg/L	516.29 ppb	07:10:39
3	Cr 267.716†	24736.0	24173.1	520.46 µg/L	520.46 ppb	07:10:39
3	Cu 324.752†	76831.7	71109.5	505.73 µg/L	505.73 ppb	07:10:39
3	Mn 257.610†	163579.8	159245.5	519.26 µg/L	519.26 ppb	07:10:34
3	Mo 202.031†	4376.1	4254.7	493.39 µg/L	493.39 ppb	07:11:00
3	Ni 231.604†	10029.4	9422.2	527.69 µg/L	527.69 ppb	07:10:39
3	P 214.914†	462.3	237.7	473.32 µg/L	473.32 ppb	07:11:00
3	Pb 220.353†	2076.8	1966.5	517.73 µg/L	517.73 ppb	07:11:00
3	S 181.975 Axial†	1039.3	983.1	5191.1 µg/L	5191.1 ppb	07:11:00
3	Sb 206.836†	538.9	501.4	510.98 µg/L	510.98 ppb	07:11:00
3	Se 196.026†	377.5	348.6	487.31 µg/L	487.31 ppb	07:11:00
3	SiO2†	59706.0	55771.2	10870 µg/L	10870 ppb	07:10:39
3	Si 251.611†	67084.9	64857.1	5033.8 µg/L	5033.8 ppb	07:10:39
3	Sn 189.927†	1098.3	1043.8	537.13 µg/L	537.13 ppb	07:11:00
3	Ti 334.940†	233346.3	225977.6	511.79 µg/L	511.79 ppb	07:10:34
3	Tl 190.801†	319.6	330.8	510.86 µg/L	510.86 ppb	07:11:00
3	U 409.014†	6516.1	5573.5	534.99 µg/L	534.99 ppb	07:10:39
3	V 292.402†	46124.0	44963.3	525.39 µg/L	525.39 ppb	07:10:39
3	Zn 213.857†	19736.2	18601.1	505.05 µg/L	505.05 ppb	07:10:39

Mean Data: 1201998472|934069|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2138784.3	102.60	%	0.255				0.25%
Sc RADIAL	117094.0	103	%	0.5				0.50%
Y 371.029	1306060.0	101.78	%	0.241				0.24%
Ag 328.068†	55612.0	513.82	µg/L	8.366	513.82	ppb	8.366	1.63%
Al 396.153Radial†	10146.5	5099.0	µg/L	7.68	5099.0	ppb	7.68	0.15%
As 188.979†	269.2	524.72	µg/L	14.109	524.72	ppb	14.109	2.69%
B 249.677†	11402.2	511.67	µg/L	9.642	511.67	ppb	9.642	1.88%
Ba 233.527†	20469.5	531.65	µg/L	9.161	531.65	ppb	9.161	1.72%
Be 313.107†	815629.4	517.19	µg/L	3.360	517.19	ppb	3.360	0.65%
Ca 317.933Radial†	12914.6	5072.9	µg/L	60.45	5072.9	ppb	60.45	1.19%
Cd 226.502†	19471.1	521.89	µg/L	9.244	521.89	ppb	9.244	1.77%
Co 228.616†	10457.4	519.40	µg/L	9.515	519.40	ppb	9.515	1.83%
Cr 267.716†	24415.9	525.68	µg/L	9.685	525.68	ppb	9.685	1.84%
Cu 324.752†	71626.2	509.40	µg/L	9.507	509.40	ppb	9.507	1.87%
Fe 238.204 Radial†	965.6	5292.1	µg/L	65.62	5292.1	ppb	65.62	1.24%
K 766.490 Radial†	9270.2	5063.0	µg/L	26.47	5063.0	ppb	26.47	0.52%
Mg 279.077 IEC†	933.4	5318.4	µg/L	29.99	5318.4	ppb	29.99	0.56%
Mn 257.610†	160422.0	523.10	µg/L	3.348	523.10	ppb	3.348	0.64%
Mo 202.031†	4398.8	510.09	µg/L	14.473	510.09	ppb	14.473	2.84%
Na 589.592 Radial†	19280.6	5133.3	µg/L	21.94	5133.3	ppb	21.94	0.43%

Ni 231.604†	9454.9	529.52 µg/L	9.065	529.52 ppb	9.065	1.71%
P 214.914†	247.5	494.97 µg/L	19.837	494.97 ppb	19.837	4.01%
Pb 220.353†	2018.3	531.38 µg/L	11.831	531.38 ppb	11.831	2.23%
S 181.975 Axial†	1004.7	5305.1 µg/L	98.71	5305.1 ppb	98.71	1.86%
Sb 206.836†	517.6	527.55 µg/L	14.481	527.55 ppb	14.481	2.75%
Se 196.026†	355.6	497.09 µg/L	8.505	497.09 ppb	8.505	1.71%
SiO2†	55922.8	10900 µg/L	191.3	10900 ppb	191.3	1.75%
Si 251.611†	64998.7	5043.7 µg/L	90.45	5043.7 ppb	90.45	1.79%
Sn 189.927†	1081.5	556.48 µg/L	16.765	556.48 ppb	16.765	3.01%
Sr 421.552†	90049.8	504.91 µg/L	0.189	504.91 ppb	0.189	0.04%
Ti 334.940†	227839.1	516.01 µg/L	3.680	516.01 ppb	3.680	0.71%
Tl 190.801†	342.3	528.47 µg/L	15.478	528.47 ppb	15.478	2.93%
U 409.014†	5565.5	534.21 µg/L	9.314	534.21 ppb	9.314	1.74%
V 292.402†	45265.5	529.01 µg/L	9.276	529.01 ppb	9.276	1.75%
Zn 213.857†	18736.4	508.74 µg/L	9.282	508.74 ppb	9.282	1.82%

Sequence No.: 15
Sample ID: 1201998473|934069|5
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 313
Date Collected: 12/20/2009 07:11:09
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1201998473|934069|5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	115256.2	115256.2	102	%			07:11:42
1	Al 396.153Radial†	226.6	42.0	21.169	µg/L	21.169	ppb	07:11:42
1	Ca 317.933Radial†	436.4	25.3	9.9517	µg/L	9.9517	ppb	07:12:02
1	Fe 238.204 Radial†	11.5	4.8	26.036	µg/L	26.036	ppb	07:12:02
1	K 766.490 Radial†	780.2	-21.9	-11.966	µg/L	-11.966	ppb	07:11:42
1	Mg 279.077 IEC†	16.7	1.0	5.9269	µg/L	5.9269	ppb	07:12:02
1	Na 589.592 Radial†	-731.3	34.0	9.0593	µg/L	9.0593	ppb	07:11:42
1	Sr 421.552†	-35.9	67.8	0.3802	µg/L	0.3802	ppb	07:11:42
1	Sc 361.383	2143487.3	2143487.3	102.82	%			07:13:04
1	Y 371.029	1317034.5	1317034.5	102.64	%			07:13:04
1	Ag 328.068†	207.4	128.4	1.1779	µg/L	1.1779	ppb	07:13:10
1	As 188.979†	-1.9	-2.5	-4.8062	µg/L	-4.8062	ppb	07:13:30
1	B 249.677†	145.6	25.1	1.1220	µg/L	1.1220	ppb	07:13:10
1	Ba 233.527†	-69.8	13.6	0.3515	µg/L	0.3515	ppb	07:13:30
1	Be 313.107†	3730.0	122.7	0.0777	µg/L	0.0777	ppb	07:13:10
1	Cd 226.502†	-100.5	9.7	0.2592	µg/L	0.2592	ppb	07:13:30
1	Co 228.616†	-79.1	8.6	0.4258	µg/L	0.4258	ppb	07:13:30
1	Cr 267.716†	-105.5	24.4	0.5226	µg/L	0.5226	ppb	07:13:10
1	Cu 324.752†	3603.7	-74.4	-0.5222	µg/L	-0.5222	ppb	07:13:10
1	Mn 257.610†	-177.0	56.1	0.1861	µg/L	0.1861	ppb	07:13:10
1	Mo 202.031†	-1.0	-0.3	-0.0347	µg/L	-0.0347	ppb	07:13:30
1	Ni 231.604†	346.3	9.3	0.5229	µg/L	0.5229	ppb	07:13:30
1	P 214.914†	198.5	-18.7	-41.444	µg/L	-41.444	ppb	07:13:30
1	Pb 220.353†	52.3	-1.5	-0.3943	µg/L	-0.3943	ppb	07:13:30
1	S 181.975 Axial†	25.9	-2.0	-10.428	µg/L	-10.428	ppb	07:13:30
1	Sb 206.836†	26.0	2.9	2.9202	µg/L	2.9202	ppb	07:13:30
1	Se 196.026†	14.4	-4.4	-6.1178	µg/L	-6.1178	ppb	07:13:30
1	SiO2†	2283.0	-49.2	-9.5801	µg/L	-9.5801	ppb	07:13:10
1	Si 251.611†	438.2	69.6	5.4775	µg/L	5.4775	ppb	07:13:30
1	Sn 189.927†	23.0	-1.6	-0.7993	µg/L	-0.7993	ppb	07:13:30
1	Ti 334.940†	1021.6	133.4	0.3017	µg/L	0.3017	ppb	07:13:10
1	Tl 190.801†	-18.2	2.5	3.8577	µg/L	3.8577	ppb	07:13:30
1	U 409.014†	779.9	-2.3	-0.2294	µg/L	-0.2294	ppb	07:13:10
1	V 292.402†	-148.5	-18.7	-0.2153	µg/L	-0.2153	ppb	07:13:10
1	Zn 213.857†	640.3	38.1	1.0384	µg/L	1.0384	ppb	07:13:30
2	Sc RADIAL	115845.9	115845.9	102	%			07:12:08
2	Al 396.153Radial†	199.5	14.3	7.2229	µg/L	7.2229	ppb	07:12:08
2	Ca 317.933Radial†	444.0	30.6	12.012	µg/L	12.012	ppb	07:12:28
2	Fe 238.204 Radial†	11.8	5.1	27.761	µg/L	27.761	ppb	07:12:28
2	K 766.490 Radial†	769.9	-35.9	-19.587	µg/L	-19.587	ppb	07:12:08
2	Mg 279.077 IEC†	21.1	5.3	30.007	µg/L	30.007	ppb	07:12:28
2	Na 589.592 Radial†	-728.5	40.4	10.762	µg/L	10.762	ppb	07:12:08
2	Sr 421.552†	-70.8	33.9	0.1901	µg/L	0.1901	ppb	07:12:08
2	Sc 361.383	2164138.0	2164138.0	103.81	%			07:13:36
2	Y 371.029	1328557.2	1328557.2	103.54	%			07:13:36
2	Ag 328.068†	172.0	92.4	0.8500	µg/L	0.8500	ppb	07:13:42
2	As 188.979†	1.1	0.4	0.8215	µg/L	0.8215	ppb	07:14:02
2	B 249.677†	161.0	38.6	1.7312	µg/L	1.7312	ppb	07:13:42
2	Ba 233.527†	-79.1	5.3	0.1366	µg/L	0.1366	ppb	07:14:02
2	Be 313.107†	3762.7	119.6	0.0758	µg/L	0.0758	ppb	07:13:42
2	Cd 226.502†	-100.6	10.6	0.2793	µg/L	0.2793	ppb	07:14:02
2	Co 228.616†	-83.9	4.7	0.2322	µg/L	0.2322	ppb	07:14:02
2	Cr 267.716†	-117.5	13.8	0.2958	µg/L	0.2958	ppb	07:13:42
2	Cu 324.752†	3546.6	-162.8	-1.1494	µg/L	-1.1494	ppb	07:13:42
2	Mn 257.610†	-142.9	90.6	0.2986	µg/L	0.2986	ppb	07:13:42
2	Mo 202.031†	1.2	1.8	0.2084	µg/L	0.2084	ppb	07:14:02
2	Ni 231.604†	344.2	4.2	0.2333	µg/L	0.2333	ppb	07:14:02
2	P 214.914†	196.4	-22.5	-49.910	µg/L	-49.910	ppb	07:14:02
2	Pb 220.353†	45.6	-8.4	-2.2130	µg/L	-2.2130	ppb	07:14:02

2	S 181.975 Axial†	30.8	2.5	13.267 µg/L	13.267 ppb	07:14:02
2	Sb 206.836†	24.0	0.6	0.6198 µg/L	0.6198 ppb	07:14:02
2	Se 196.026†	14.3	-4.6	-6.4480 µg/L	-6.4480 ppb	07:14:02
2	SiO2†	2312.7	-41.6	-8.1178 µg/L	-8.1178 ppb	07:13:42
2	Si 251.611†	418.5	46.6	3.7302 µg/L	3.7302 ppb	07:14:02
2	Sn 189.927†	20.6	-4.1	-2.0694 µg/L	-2.0694 ppb	07:14:02
2	Ti 334.940†	943.8	49.0	0.1104 µg/L	0.1104 ppb	07:13:42
2	Tl 190.801†	-16.5	4.3	6.5667 µg/L	6.5667 ppb	07:14:02
2	U 409.014†	763.0	-25.8	-2.4875 µg/L	-2.4875 ppb	07:13:42
2	V 292.402†	-125.1	5.2	0.0599 µg/L	0.0599 ppb	07:13:42
2	Zn 213.857†	634.1	26.2	0.7136 µg/L	0.7136 ppb	07:14:02
3	Sc RADIAL	114797.8	114797.8	101 %		07:12:34
3	Al 396.153Radial†	208.9	25.4	12.813 µg/L	12.813 ppb	07:12:34
3	Ca 317.933Radial†	435.2	25.8	10.154 µg/L	10.154 ppb	07:12:54
3	Fe 238.204 Radial†	11.0	4.4	23.917 µg/L	23.917 ppb	07:12:54
3	K 766.490 Radial†	845.1	45.1	24.634 µg/L	24.634 ppb	07:12:34
3	Mg 279.077 IEC†	16.3	0.7	4.2153 µg/L	4.2153 ppb	07:12:54
3	Na 589.592 Radial†	-740.8	21.9	5.8232 µg/L	5.8232 ppb	07:12:34
3	Sr 421.552†	-51.9	51.9	0.2909 µg/L	0.2909 ppb	07:12:34
3	Sc 361.383	2138242.4	2138242.4	102.57 %		07:14:08
3	Y 371.029	1313120.9	1313120.9	102.33 %		07:14:08
3	Ag 328.068†	179.9	102.1	0.9399 µg/L	0.9399 ppb	07:14:14
3	As 188.979†	-0.3	-0.9	-1.7038 µg/L	-1.7038 ppb	07:14:35
3	B 249.677†	128.5	8.8	0.3902 µg/L	0.3902 ppb	07:14:14
3	Ba 233.527†	-66.3	16.8	0.4372 µg/L	0.4372 ppb	07:14:35
3	Be 313.107†	3723.1	124.9	0.0791 µg/L	0.0791 ppb	07:14:14
3	Cd 226.502†	-104.5	5.6	0.1485 µg/L	0.1485 ppb	07:14:35
3	Co 228.616†	-79.3	8.2	0.4060 µg/L	0.4060 ppb	07:14:35
3	Cr 267.716†	-144.4	-13.8	-0.2962 µg/L	-0.2962 ppb	07:14:14
3	Cu 324.752†	3613.2	-56.6	-0.3964 µg/L	-0.3964 ppb	07:14:14
3	Mn 257.610†	-137.8	93.9	0.3088 µg/L	0.3088 ppb	07:14:14
3	Mo 202.031†	4.7	5.3	0.6097 µg/L	0.6097 ppb	07:14:35
3	Ni 231.604†	340.0	4.1	0.2288 µg/L	0.2288 ppb	07:14:35
3	P 214.914†	206.1	-10.7	-23.893 µg/L	-23.893 ppb	07:14:35
3	Pb 220.353†	53.1	-0.6	-0.1557 µg/L	-0.1557 ppb	07:14:35
3	S 181.975 Axial†	24.5	-3.3	-17.439 µg/L	-17.439 ppb	07:14:35
3	Sb 206.836†	29.1	5.9	6.0069 µg/L	6.0069 ppb	07:14:35
3	Se 196.026†	22.9	3.9	5.4356 µg/L	5.4356 ppb	07:14:35
3	SiO2†	2357.6	29.0	5.6574 µg/L	5.6574 ppb	07:14:14
3	Si 251.611†	423.3	56.1	4.4661 µg/L	4.4661 ppb	07:14:35
3	Sn 189.927†	19.4	-5.0	-2.5397 µg/L	-2.5397 ppb	07:14:35
3	Ti 334.940†	1011.1	125.6	0.2841 µg/L	0.2841 ppb	07:14:14
3	Tl 190.801†	-21.4	-0.7	-1.1086 µg/L	-1.1086 ppb	07:14:35
3	U 409.014†	783.4	2.9	0.2778 µg/L	0.2778 ppb	07:14:14
3	V 292.402†	-102.5	25.8	0.3056 µg/L	0.3056 ppb	07:14:14
3	Zn 213.857†	623.2	23.0	0.6273 µg/L	0.6273 ppb	07:14:35

Mean Data: 1201998473|934069|5

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2148622.6	103.07	%	0.657				0.64%
Sc RADIAL	115299.9	102	%	0.5				0.46%
Y 371.029	1319570.9	102.84	%	0.625				0.61%
Ag 328.068†	107.7	0.9892	µg/L	0.16945	0.9892	ppb	0.16945	17.13%
Al 396.153Radial†	27.2	13.735	µg/L	7.0185	13.735	ppb	7.0185	51.10%
As 188.979†	-1.0	-1.8962	µg/L	2.81877	-1.8962	ppb	2.81877	148.66%
B 249.677†	24.2	1.0811	µg/L	0.67140	1.0811	ppb	0.67140	62.10%
Ba 233.527†	11.9	0.3084	µg/L	0.15486	0.3084	ppb	0.15486	50.21%
Be 313.107†	122.4	0.0776	µg/L	0.00165	0.0776	ppb	0.00165	2.12%
Ca 317.933Radial†	27.3	10.706	µg/L	1.1358	10.706	ppb	1.1358	10.61%
Cd 226.502†	8.6	0.2290	µg/L	0.07039	0.2290	ppb	0.07039	30.74%
Co 228.616†	7.1	0.3547	µg/L	0.10650	0.3547	ppb	0.10650	30.03%
Cr 267.716†	8.1	0.1741	µg/L	0.42280	0.1741	ppb	0.42280	242.88%
Cu 324.752†	-97.9	-0.6893	µg/L	0.40339	-0.6893	ppb	0.40339	58.52%
Fe 238.204 Radial†	4.7	25.905	µg/L	1.9251	25.905	ppb	1.9251	7.43%
K 766.490 Radial†	-4.2	-2.3063	µg/L	23.64054	-2.3063	ppb	23.64054	>999.9%
Mg 279.077 IEC†	2.4	13.383	µg/L	14.4222	13.383	ppb	14.4222	107.76%
Mn 257.610†	80.2	0.2645	µg/L	0.06811	0.2645	ppb	0.06811	25.75%
Mo 202.031†	2.2	0.2611	µg/L	0.32540	0.2611	ppb	0.32540	124.60%
Na 589.592 Radial†	32.1	8.5481	µg/L	2.50868	8.5481	ppb	2.50868	29.35%

Ni 231.604†	5.9	0.3283 µg/L	0.16854	0.3283 ppb	0.16854	51.33%
P 214.914†	-17.3	-38.416 µg/L	13.2699	-38.416 ppb	13.2699	34.54%
Pb 220.353†	-3.5	-0.9210 µg/L	1.12526	-0.9210 ppb	1.12526	122.17%
S 181.975 Axial†	-0.9	-4.8669 µg/L	16.09096	-4.8669 ppb	16.09096	330.62%
Sb 206.836†	3.1	3.1823 µg/L	2.70306	3.1823 ppb	2.70306	84.94%
Se 196.026†	-1.7	-2.3768 µg/L	6.76769	-2.3768 ppb	6.76769	284.74%
SiO2†	-20.6	-4.0135 µg/L	8.40709	-4.0135 ppb	8.40709	209.47%
Si 251.611†	57.4	4.5579 µg/L	0.87728	4.5579 ppb	0.87728	19.25%
Sn 189.927†	-3.5	-1.8028 µg/L	0.90029	-1.8028 ppb	0.90029	49.94%
Sr 421.552†	51.2	0.2871 µg/L	0.09511	0.2871 ppb	0.09511	33.13%
Ti 334.940†	102.7	0.2321 µg/L	0.10575	0.2321 ppb	0.10575	45.57%
Tl 190.801†	2.0	3.1053 µg/L	3.89254	3.1053 ppb	3.89254	125.35%
U 409.014†	-8.4	-0.8130 µg/L	1.47210	-0.8130 ppb	1.47210	181.06%
V 292.402†	4.1	0.0500 µg/L	0.26058	0.0500 ppb	0.26058	520.65%
Zn 213.857†	29.1	0.7931 µg/L	0.21675	0.7931 ppb	0.21675	27.33%

Sequence No.: 16
Sample ID: 242940002|934069|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 314
Date Collected: 12/20/2009 07:14:43
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 242940002|934069|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	114974.3	114974.3	102	%			07:15:16
1	Al 396.153Radial†	242.5	58.2	29.404	µg/L	29.404	ppb	07:15:16
1	Ca 317.933Radial†	551.2	139.4	54.741	µg/L	54.741	ppb	07:15:36
1	Fe 238.204 Radial†	14.7	8.0	43.504	µg/L	43.504	ppb	07:15:36
1	K 766.490 Radial†	865.6	64.0	34.977	µg/L	34.977	ppb	07:15:16
1	Mg 279.077 IEC†	20.0	4.3	24.477	µg/L	24.477	ppb	07:15:36
1	Na 589.592 Radial†	-521.1	239.3	63.713	µg/L	63.713	ppb	07:15:16
1	Sr 421.552†	-43.2	60.6	0.3398	µg/L	0.3398	ppb	07:15:16
1	Sc 361.383	2148244.8	2148244.8	103.05	%			07:16:38
1	Y 371.029	1316441.6	1316441.6	102.59	%			07:16:38
1	Ag 328.068†	137.1	59.8	0.5498	µg/L	0.5498	ppb	07:16:44
1	As 188.979†	0.9	0.2	0.4561	µg/L	0.4561	ppb	07:17:04
1	B 249.677†	154.4	33.3	1.4866	µg/L	1.4866	ppb	07:16:44
1	Ba 233.527†	-46.7	36.1	0.9365	µg/L	0.9365	ppb	07:17:04
1	Be 313.107†	3648.6	35.6	0.0222	µg/L	0.0222	ppb	07:16:44
1	Cd 226.502†	-109.8	0.9	0.0227	µg/L	0.0227	ppb	07:17:04
1	Co 228.616†	-76.2	11.6	0.5725	µg/L	0.5725	ppb	07:17:04
1	Cr 267.716†	-72.3	56.8	1.2196	µg/L	1.2196	ppb	07:16:44
1	Cu 324.752†	3621.7	-64.7	-0.4499	µg/L	-0.4499	ppb	07:16:44
1	Mn 257.610†	57.5	284.1	0.9307	µg/L	0.9307	ppb	07:16:44
1	Mo 202.031†	-6.0	-5.2	-0.5961	µg/L	-0.5961	ppb	07:17:04
1	Ni 231.604†	360.6	22.5	1.2609	µg/L	1.2609	ppb	07:17:04
1	P 214.914†	199.8	-17.9	-39.704	µg/L	-39.704	ppb	07:17:04
1	Pb 220.353†	48.9	-4.9	-1.2988	µg/L	-1.2988	ppb	07:17:04
1	S 181.975 Axial†	30.2	2.1	11.290	µg/L	11.290	ppb	07:17:04
1	Sb 206.836†	27.3	4.1	4.1437	µg/L	4.1437	ppb	07:17:04
1	Se 196.026†	13.7	-5.1	-7.0843	µg/L	-7.0843	ppb	07:17:04
1	SiO2†	3423.4	1052.6	205.16	µg/L	205.16	ppb	07:16:44
1	Si 251.611†	1698.0	1291.2	101.22	µg/L	101.22	ppb	07:17:04
1	Sn 189.927†	21.1	-3.4	-1.7208	µg/L	-1.7208	ppb	07:17:04
1	Ti 334.940†	1406.1	504.3	1.1397	µg/L	1.1397	ppb	07:16:44
1	Tl 190.801†	-18.4	2.4	3.6215	µg/L	3.6215	ppb	07:17:04
1	U 409.014†	779.1	-4.8	-0.4706	µg/L	-0.4706	ppb	07:16:44
1	V 292.402†	-149.3	-19.1	-0.2226	µg/L	-0.2226	ppb	07:16:44
1	Zn 213.857†	698.3	93.1	2.5372	µg/L	2.5372	ppb	07:17:04
2	Sc RADIAL	114923.5	114923.5	102	%			07:15:42
2	Al 396.153Radial†	257.8	73.4	37.048	µg/L	37.048	ppb	07:15:42
2	Ca 317.933Radial†	556.9	145.2	57.051	µg/L	57.051	ppb	07:16:02
2	Fe 238.204 Radial†	17.3	10.5	57.578	µg/L	57.578	ppb	07:16:02
2	K 766.490 Radial†	941.2	138.9	75.868	µg/L	75.868	ppb	07:15:42
2	Mg 279.077 IEC†	14.6	-0.9	-5.4673	µg/L	-5.4673	ppb	07:16:02
2	Na 589.592 Radial†	-535.0	225.4	60.002	µg/L	60.002	ppb	07:15:42
2	Sr 421.552†	-41.7	62.0	0.3479	µg/L	0.3479	ppb	07:15:42
2	Sc 361.383	2123401.9	2123401.9	101.86	%			07:17:11
2	Y 371.029	1301325.2	1301325.2	101.41	%			07:17:11
2	Ag 328.068†	155.8	79.7	0.7372	µg/L	0.7372	ppb	07:17:16
2	As 188.979†	-0.6	-1.2	-2.2655	µg/L	-2.2655	ppb	07:17:37
2	B 249.677†	143.1	24.0	1.0636	µg/L	1.0636	ppb	07:17:16
2	Ba 233.527†	-51.7	30.8	0.7979	µg/L	0.7979	ppb	07:17:37
2	Be 313.107†	3590.6	20.1	0.0124	µg/L	0.0124	ppb	07:17:16
2	Cd 226.502†	-108.8	0.6	0.0159	µg/L	0.0159	ppb	07:17:37
2	Co 228.616†	-67.0	19.7	0.9771	µg/L	0.9771	ppb	07:17:37
2	Cr 267.716†	-81.3	47.1	1.0126	µg/L	1.0126	ppb	07:17:16
2	Cu 324.752†	3629.7	-15.7	-0.0989	µg/L	-0.0989	ppb	07:17:16
2	Mn 257.610†	51.7	279.0	0.9160	µg/L	0.9160	ppb	07:17:16
2	Mo 202.031†	-5.2	-4.4	-0.5123	µg/L	-0.5123	ppb	07:17:37
2	Ni 231.604†	364.8	30.7	1.7173	µg/L	1.7173	ppb	07:17:37
2	P 214.914†	201.8	-13.6	-30.222	µg/L	-30.222	ppb	07:17:37
2	Pb 220.353†	47.3	-5.9	-1.5457	µg/L	-1.5457	ppb	07:17:37

2	S 181.975 Axial†	28.7	1.0	5.2157 µg/L	5.2157 ppb	07:17:37
2	Sb 206.836†	21.4	-1.5	-1.4914 µg/L	-1.4914 ppb	07:17:37
2	Se 196.026†	9.2	-9.3	-12.947 µg/L	-12.947 ppb	07:17:37
2	SiO2†	3455.8	1123.3	218.93 µg/L	218.93 ppb	07:17:16
2	Si 251.611†	1728.2	1340.1	104.96 µg/L	104.96 ppb	07:17:37
2	Sn 189.927†	25.2	0.8	0.4333 µg/L	0.4333 ppb	07:17:37
2	Ti 334.940†	1378.0	492.7	1.1133 µg/L	1.1133 ppb	07:17:16
2	Tl 190.801†	-23.6	-3.0	-4.5699 µg/L	-4.5699 ppb	07:17:37
2	U 409.014†	794.4	19.1	1.8232 µg/L	1.8232 ppb	07:17:16
2	V 292.402†	-104.3	23.4	0.2746 µg/L	0.2746 ppb	07:17:16
2	Zn 213.857†	692.1	94.8	2.5817 µg/L	2.5817 ppb	07:17:37
3	Sc RADIAL	115448.7	115448.7	102 %		07:16:08
3	Al 396.153Radial†	303.0	116.5	58.800 µg/L	58.800 ppb	07:16:08
3	Ca 317.933Radial†	554.4	140.2	55.089 µg/L	55.089 ppb	07:16:28
3	Fe 238.204 Radial†	16.4	9.6	52.523 µg/L	52.523 ppb	07:16:28
3	K 766.490 Radial†	875.0	69.7	38.086 µg/L	38.086 ppb	07:16:08
3	Mg 279.077 IEC†	18.1	2.4	13.689 µg/L	13.689 ppb	07:16:28
3	Na 589.592 Radial†	-467.5	293.9	78.257 µg/L	78.257 ppb	07:16:08
3	Sr 421.552†	-28.7	74.9	0.4201 µg/L	0.4201 ppb	07:16:08
3	Sc 361.383	2135951.1	2135951.1	102.46 %		07:17:43
3	Y 371.029	1309418.4	1309418.4	102.05 %		07:17:43
3	Ag 328.068†	93.7	18.2	0.1721 µg/L	0.1721 ppb	07:17:48
3	As 188.979†	7.0	6.2	12.107 µg/L	12.107 ppb	07:18:09
3	B 249.677†	153.7	33.5	1.4912 µg/L	1.4912 ppb	07:17:48
3	Ba 233.527†	-54.1	28.7	0.7438 µg/L	0.7438 ppb	07:18:09
3	Be 313.107†	3679.4	86.1	0.0542 µg/L	0.0542 ppb	07:17:48
3	Cd 226.502†	-112.2	-2.1	-0.0599 µg/L	-0.0599 ppb	07:18:09
3	Co 228.616†	-77.1	10.3	0.5081 µg/L	0.5081 ppb	07:18:09
3	Cr 267.716†	-62.3	66.1	1.4211 µg/L	1.4211 ppb	07:17:48
3	Cu 324.752†	3659.7	-7.4	-0.0411 µg/L	-0.0411 ppb	07:17:48
3	Mn 257.610†	35.4	262.8	0.8624 µg/L	0.8624 ppb	07:17:48
3	Mo 202.031†	-4.5	-3.7	-0.4279 µg/L	-0.4279 ppb	07:18:09
3	Ni 231.604†	364.2	28.0	1.5690 µg/L	1.5690 ppb	07:18:09
3	P 214.914†	208.5	-8.2	-18.316 µg/L	-18.316 ppb	07:18:09
3	Pb 220.353†	52.3	-1.3	-0.3422 µg/L	-0.3422 ppb	07:18:09
3	S 181.975 Axial†	31.0	3.1	16.608 µg/L	16.608 ppb	07:18:09
3	Sb 206.836†	20.4	-2.6	-2.6226 µg/L	-2.6226 ppb	07:18:09
3	Se 196.026†	14.3	-4.4	-6.1428 µg/L	-6.1428 ppb	07:18:09
3	SiO2†	3467.1	1114.4	217.21 µg/L	217.21 ppb	07:17:48
3	Si 251.611†	1649.7	1253.5	98.226 µg/L	98.226 ppb	07:18:09
3	Sn 189.927†	23.1	-1.4	-0.6994 µg/L	-0.6994 ppb	07:18:09
3	Ti 334.940†	1391.2	497.6	1.1245 µg/L	1.1245 ppb	07:17:48
3	Tl 190.801†	-21.8	-1.2	-1.7818 µg/L	-1.7818 ppb	07:18:09
3	U 409.014†	756.6	-22.4	-2.1591 µg/L	-2.1591 ppb	07:17:48
3	V 292.402†	-112.3	16.2	0.1849 µg/L	0.1849 ppb	07:17:48
3	Zn 213.857†	690.6	89.5	2.4353 µg/L	2.4353 ppb	07:18:09

Mean Data: 242940002|934069|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2135865.9	102.46	%	0.596				0.58%
Sc RADIAL	115115.5	102	%	0.3				0.25%
Y 371.029	1309061.8	102.02	%	0.590				0.58%
Ag 328.068†	52.6	0.4864	µg/L	0.28781	0.4864	ppb	0.28781	59.18%
Al 396.153Radial†	82.7	41.751	µg/L	15.2516	41.751	ppb	15.2516	36.53%
As 188.979†	1.8	3.4324	µg/L	7.63438	3.4324	ppb	7.63438	222.42%
B 249.677†	30.3	1.3471	µg/L	0.24558	1.3471	ppb	0.24558	18.23%
Ba 233.527†	31.9	0.8261	µg/L	0.09937	0.8261	ppb	0.09937	12.03%
Be 313.107†	47.3	0.0296	µg/L	0.02187	0.0296	ppb	0.02187	73.93%
Ca 317.933Radial†	141.6	55.627	µg/L	1.2456	55.627	ppb	1.2456	2.24%
Cd 226.502†	-0.2	-0.0071	µg/L	0.04585	-0.0071	ppb	0.04585	644.01%
Co 228.616†	13.9	0.6859	µg/L	0.25422	0.6859	ppb	0.25422	37.07%
Cr 267.716†	56.7	1.2178	µg/L	0.20423	1.2178	ppb	0.20423	16.77%
Cu 324.752†	-29.3	-0.1966	µg/L	0.22126	-0.1966	ppb	0.22126	112.52%
Fe 238.204 Radial†	9.4	51.202	µg/L	7.1295	51.202	ppb	7.1295	13.92%
K 766.490 Radial†	90.9	49.644	µg/L	22.7640	49.644	ppb	22.7640	45.85%
Mg 279.077 IEC†	1.9	10.900	µg/L	15.1657	10.900	ppb	15.1657	139.14%
Mn 257.610†	275.3	0.9030	µg/L	0.03591	0.9030	ppb	0.03591	3.98%
Mo 202.031†	-4.4	-0.5121	µg/L	0.08409	-0.5121	ppb	0.08409	16.42%
Na 589.592 Radial†	252.9	67.324	µg/L	9.6484	67.324	ppb	9.6484	14.33%

Ni 231.604†	27.1	1.5157	µg/L	0.23283	1.5157	ppb	0.23283 15.36%
P 214.914†	-13.2	-29.414	µg/L	10.7170	-29.414	ppb	10.7170 36.44%
Pb 220.353†	-4.0	-1.0623	µg/L	0.63567	-1.0623	ppb	0.63567 59.84%
S 181.975 Axial†	2.1	11.038	µg/L	5.7003	11.038	ppb	5.7003 51.64%
Sb 206.836†	0.0	0.0099	µg/L	3.62439	0.0099	ppb	3.62439 >999.9%
Se 196.026†	-6.3	-8.7247	µg/L	3.68682	-8.7247	ppb	3.68682 42.26%
SiO2†	1096.8	213.77	µg/L	7.505	213.77	ppb	7.505 3.51%
Si 251.611†	1294.9	101.47	µg/L	3.372	101.47	ppb	3.372 3.32%
Sn 189.927†	-1.3	-0.6623	µg/L	1.07755	-0.6623	ppb	1.07755 162.70%
Sr 421.552†	65.9	0.3693	µg/L	0.04421	0.3693	ppb	0.04421 11.97%
Ti 334.940†	498.2	1.1258	µg/L	0.01325	1.1258	ppb	0.01325 1.18%
Tl 190.801†	-0.6	-0.9100	µg/L	4.16469	-0.9100	ppb	4.16469 457.64%
U 409.014†	-2.7	-0.2688	µg/L	1.99882	-0.2688	ppb	1.99882 743.54%
V 292.402†	6.8	0.0790	µg/L	0.26501	0.0790	ppb	0.26501 335.61%
Zn 213.857†	92.5	2.5181	µg/L	0.07503	2.5181	ppb	0.07503 2.98%

Sequence No.: 17
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 12/20/2009 07:18:18
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	116570.2	116570.2	103	%			07:18:55
1	Al 396.153Radial†	10259.9	9783.9	4915.9	µg/L	4915.9	ppb	07:18:55
1	Ca 317.933Radial†	13339.4	12551.9	4930.5	µg/L	4930.5	ppb	07:19:15
1	Fe 238.204 Radial†	965.0	930.7	5101.6	µg/L	5101.6	ppb	07:19:15
1	K 766.490 Radial†	9977.7	8902.2	4862.0	µg/L	4862.0	ppb	07:18:55
1	Mg 279.077 IEC†	947.8	905.1	5157.7	µg/L	5157.7	ppb	07:19:15
1	Na 589.592 Radial†	37316.7	36994.6	9849.6	µg/L	9849.6	ppb	07:18:55
1	Sr 421.552†	89350.0	86880.4	487.14	µg/L	487.14	ppb	07:18:55
1	Sc 361.383	2110006.0	2110006.0	101.22	%			07:20:19
1	Y 371.029	1289053.7	1289053.7	100.46	%			07:20:19
1	Ag 328.068†	55968.8	55223.1	510.17	µg/L	510.17	ppb	07:20:25
1	As 188.979†	279.3	275.4	536.88	µg/L	536.88	ppb	07:20:45
1	B 249.677†	11508.6	11253.9	505.05	µg/L	505.05	ppb	07:20:25
1	Ba 233.527†	20045.5	19886.2	516.51	µg/L	516.51	ppb	07:20:25
1	Be 313.107†	815447.2	802146.0	508.64	µg/L	508.64	ppb	07:20:19
1	Cd 226.502†	19532.8	19405.6	520.13	µg/L	520.13	ppb	07:20:25
1	Co 228.616†	10493.2	10452.6	519.20	µg/L	519.20	ppb	07:20:25
1	Cr 267.716†	24300.7	24135.7	519.64	µg/L	519.64	ppb	07:20:25
1	Cu 324.752†	74475.2	70001.3	497.83	µg/L	497.83	ppb	07:20:25
1	Mn 257.610†	157226.8	155566.3	507.26	µg/L	507.26	ppb	07:20:19
1	Mo 202.031†	4491.0	4437.7	514.60	µg/L	514.60	ppb	07:20:45
1	Ni 231.604†	9709.3	9265.2	518.89	µg/L	518.89	ppb	07:20:25
1	P 214.914†	1408.5	1179.8	2566.8	µg/L	2566.8	ppb	07:20:45
1	Pb 220.353†	2068.9	1991.7	524.42	µg/L	524.42	ppb	07:20:45
1	S 181.975 Axial†	230.0	200.1	1055.3	µg/L	1055.3	ppb	07:20:45
1	Sb 206.836†	540.5	511.5	521.30	µg/L	521.30	ppb	07:20:45
1	Se 196.026†	395.6	372.4	520.45	µg/L	520.45	ppb	07:20:45
1	SiO2†	30688.4	28050.3	5467.2	µg/L	5467.2	ppb	07:20:25
1	Si 251.611†	33328.9	32571.9	2503.6	µg/L	2503.6	ppb	07:20:25
1	Sn 189.927†	1075.4	1038.5	534.38	µg/L	534.38	ppb	07:20:45
1	Ti 334.940†	225084.8	221520.6	501.70	µg/L	501.70	ppb	07:20:19
1	Tl 190.801†	322.9	339.2	523.61	µg/L	523.61	ppb	07:20:45
1	U 409.014†	6183.1	5348.0	513.34	µg/L	513.34	ppb	07:20:25
1	V 292.402†	44882.7	44469.3	519.77	µg/L	519.77	ppb	07:20:25
1	Zn 213.857†	19772.6	18950.5	514.69	µg/L	514.69	ppb	07:20:25
2	Sc RADIAL	115996.8	115996.8	102	%			07:19:21
2	Al 396.153Radial†	10180.3	9755.5	4901.7	µg/L	4901.7	ppb	07:19:21
2	Ca 317.933Radial†	13289.1	12566.9	4936.4	µg/L	4936.4	ppb	07:19:41
2	Fe 238.204 Radial†	957.4	928.0	5086.6	µg/L	5086.6	ppb	07:19:41
2	K 766.490 Radial†	10023.8	8995.0	4912.7	µg/L	4912.7	ppb	07:19:21
2	Mg 279.077 IEC†	941.8	903.9	5150.6	µg/L	5150.6	ppb	07:19:41
2	Na 589.592 Radial†	37276.7	37134.7	9886.9	µg/L	9886.9	ppb	07:19:21
2	Sr 421.552†	89201.2	87164.1	488.73	µg/L	488.73	ppb	07:19:21
2	Sc 361.383	2111948.3	2111948.3	101.31	%			07:20:52
2	Y 371.029	1289999.8	1289999.8	100.53	%			07:20:52
2	Ag 328.068†	56388.0	55586.1	513.52	µg/L	513.52	ppb	07:20:58
2	As 188.979†	277.6	273.4	533.04	µg/L	533.04	ppb	07:21:18
2	B 249.677†	11633.5	11366.7	510.14	µg/L	510.14	ppb	07:20:58
2	Ba 233.527†	20187.3	20007.9	519.67	µg/L	519.67	ppb	07:20:58
2	Be 313.107†	817796.2	803723.7	509.64	µg/L	509.64	ppb	07:20:52
2	Cd 226.502†	19718.3	19570.9	524.56	µg/L	524.56	ppb	07:20:58
2	Co 228.616†	10569.9	10518.9	522.48	µg/L	522.48	ppb	07:20:58
2	Cr 267.716†	24557.5	24367.1	524.62	µg/L	524.62	ppb	07:20:58
2	Cu 324.752†	75147.3	70597.0	502.06	µg/L	502.06	ppb	07:20:58
2	Mn 257.610†	157890.2	156078.2	508.93	µg/L	508.93	ppb	07:20:52
2	Mo 202.031†	4469.9	4412.8	511.71	µg/L	511.71	ppb	07:21:18
2	Ni 231.604†	9811.7	9357.5	524.06	µg/L	524.06	ppb	07:20:58
2	P 214.914†	1399.8	1170.0	2544.4	µg/L	2544.4	ppb	07:21:18
2	Pb 220.353†	2070.5	1991.4	524.32	µg/L	524.32	ppb	07:21:18

2	S 181.975 Axial†	231.5	201.4	1062.1 µg/L	1062.1 ppb	07:21:18
2	Sb 206.836†	539.5	510.0	519.75 µg/L	519.75 ppb	07:21:18
2	Se 196.026†	392.4	368.9	515.59 µg/L	515.59 ppb	07:21:18
2	SiO2†	30889.4	28220.8	5500.5 µg/L	5500.5 ppb	07:20:58
2	Si 251.611†	33576.5	32786.1	2520.4 µg/L	2520.4 ppb	07:20:58
2	Sn 189.927†	1072.9	1035.1	532.64 µg/L	532.64 ppb	07:21:18
2	Ti 334.940†	225731.9	221954.9	502.68 µg/L	502.68 ppb	07:20:52
2	Tl 190.801†	319.9	335.9	518.62 µg/L	518.62 ppb	07:21:18
2	U 409.014†	6217.6	5376.4	516.07 µg/L	516.07 ppb	07:20:58
2	V 292.402†	45235.2	44776.4	523.31 µg/L	523.31 ppb	07:20:58
2	Zn 213.857†	19928.1	19086.0	518.37 µg/L	518.37 ppb	07:20:58
3	Sc RADIAL	115826.1	115826.1	102 %		07:19:47
3	Al 396.153Radial†	10238.5	9827.0	4940.5 µg/L	4940.5 ppb	07:19:47
3	Ca 317.933Radial†	13234.5	12532.7	4922.9 µg/L	4922.9 ppb	07:20:07
3	Fe 238.204 Radial†	956.4	928.3	5087.2 µg/L	5087.2 ppb	07:20:07
3	K 766.490 Radial†	10023.9	9009.5	4920.6 µg/L	4920.6 ppb	07:19:47
3	Mg 279.077 IEC†	941.3	904.7	5153.5 µg/L	5153.5 ppb	07:20:07
3	Na 589.592 Radial†	37292.1	37203.5	9905.2 µg/L	9905.2 ppb	07:19:47
3	Sr 421.552†	89118.8	87211.9	489.00 µg/L	489.00 ppb	07:19:47
3	Sc 361.383	2127861.2	2127861.2	102.07 %		07:21:25
3	Y 371.029	1300482.9	1300482.9	101.35 %		07:21:25
3	Ag 328.068†	53908.1	52740.3	487.17 µg/L	487.17 ppb	07:21:31
3	As 188.979†	241.4	235.9	459.78 µg/L	459.78 ppb	07:21:52
3	B 249.677†	11132.5	10790.0	484.18 µg/L	484.18 ppb	07:21:31
3	Ba 233.527†	19051.6	18746.2	486.88 µg/L	486.88 ppb	07:21:31
3	Be 313.107†	798171.0	778460.2	493.62 µg/L	493.62 ppb	07:21:25
3	Cd 226.502†	18554.1	18284.8	490.05 µg/L	490.05 ppb	07:21:31
3	Co 228.616†	9893.4	9778.1	485.57 µg/L	485.57 ppb	07:21:31
3	Cr 267.716†	22465.3	22136.2	476.61 µg/L	476.61 ppb	07:21:31
3	Cu 324.752†	70723.6	65708.4	467.37 µg/L	467.37 ppb	07:21:31
3	Mn 257.610†	154115.3	151214.5	493.09 µg/L	493.09 ppb	07:21:25
3	Mo 202.031†	3871.4	3793.4	439.92 µg/L	439.92 ppb	07:21:52
3	Ni 231.604†	9183.1	8669.2	485.51 µg/L	485.51 ppb	07:21:31
3	P 214.914†	1262.0	1024.6	2223.9 µg/L	2223.9 ppb	07:21:52
3	Pb 220.353†	1868.9	1778.6	468.24 µg/L	468.24 ppb	07:21:52
3	S 181.975 Axial†	215.3	183.8	969.31 µg/L	969.31 ppb	07:21:52
3	Sb 206.836†	478.3	446.1	454.67 µg/L	454.67 ppb	07:21:52
3	Se 196.026†	359.9	334.1	467.18 µg/L	467.18 ppb	07:21:52
3	SiO2†	29376.5	26510.6	5167.1 µg/L	5167.1 ppb	07:21:31
3	Si 251.611†	31897.6	30893.4	2377.2 µg/L	2377.2 ppb	07:21:31
3	Sn 189.927†	914.3	871.9	449.05 µg/L	449.05 ppb	07:21:52
3	Ti 334.940†	219722.7	214401.4	485.57 µg/L	485.57 ppb	07:21:25
3	Tl 190.801†	298.8	312.9	483.26 µg/L	483.26 ppb	07:21:52
3	U 409.014†	5790.2	4911.9	471.40 µg/L	471.40 ppb	07:21:31
3	V 292.402†	42113.7	41384.4	483.46 µg/L	483.46 ppb	07:21:31
3	Zn 213.857†	18710.0	17745.5	481.93 µg/L	481.93 ppb	07:21:31

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2116605.1	101.53	%	0.470				0.46%
Sc RADIAL	116131.0	103	%	0.3				0.34%
Y 371.029	1293178.8	100.78	%	0.494				0.49%
Ag 328.068†	54516.5	503.62	µg/L	14.348	503.62	ppb	14.348	2.85%
QC value within limits for Ag 328.068 Recovery = 100.72%								
Al 396.153Radial†	9788.8	4919.4	µg/L	19.63	4919.4	ppb	19.63	0.40%
QC value within limits for Al 396.153Radial Recovery = 98.39%								
As 188.979†	261.6	509.90	µg/L	43.449	509.90	ppb	43.449	8.52%
QC value within limits for As 188.979 Recovery = 101.98%								
B 249.677†	11136.9	499.79	µg/L	13.758	499.79	ppb	13.758	2.75%
QC value within limits for B 249.677 Recovery = 99.96%								
Ba 233.527†	19546.8	507.69	µg/L	18.084	507.69	ppb	18.084	3.56%
QC value within limits for Ba 233.527 Recovery = 101.54%								
Be 313.107†	794776.7	503.97	µg/L	8.974	503.97	ppb	8.974	1.78%
QC value within limits for Be 313.107 Recovery = 100.79%								
Ca 317.933Radial†	12550.5	4929.9	µg/L	6.73	4929.9	ppb	6.73	0.14%
QC value within limits for Ca 317.933Radial Recovery = 98.60%								
Cd 226.502†	19087.1	511.58	µg/L	18.775	511.58	ppb	18.775	3.67%
QC value within limits for Cd 226.502 Recovery = 102.32%								
Co 228.616†	10249.9	509.08	µg/L	20.433	509.08	ppb	20.433	4.01%

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   QC value within limits for Co 228.616  Recovery = 101.82%
Cr 267.716†            23546.3      506.96 µg/L        26.400      506.96 ppb        26.400   5.21%
   QC value within limits for Cr 267.716  Recovery = 101.39%
Cu 324.752†            68768.9      489.09 µg/L        18.927      489.09 ppb        18.927   3.87%
   QC value within limits for Cu 324.752  Recovery = 97.82%
Fe 238.204 Radial†       929.0      5091.8 µg/L         8.48      5091.8 ppb          8.48   0.17%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.84%
K 766.490 Radial†       8968.9      4898.4 µg/L        31.81      4898.4 ppb         31.81   0.65%
   QC value within limits for K 766.490 Radial  Recovery = 97.97%
Mg 279.077 IEC†         904.6      5153.9 µg/L         3.58      5153.9 ppb          3.58   0.07%
   QC value within limits for Mg 279.077 IEC  Recovery = 103.08%
Mn 257.610†           154286.3      503.09 µg/L         8.704     503.09 ppb         8.704   1.73%
   QC value within limits for Mn 257.610  Recovery = 100.62%
Mo 202.031†            4214.7      488.74 µg/L        42.312      488.74 ppb        42.312   8.66%
   QC value within limits for Mo 202.031  Recovery = 97.75%
Na 589.592 Radial†    37110.9      9880.6 µg/L        28.34      9880.6 ppb         28.34   0.29%
   QC value within limits for Na 589.592 Radial  Recovery = 98.81%
Ni 231.604†            9097.3      509.49 µg/L        20.924      509.49 ppb        20.924   4.11%
   QC value within limits for Ni 231.604  Recovery = 101.90%
P 214.914†             1124.8      2445.0 µg/L       191.80      2445.0 ppb       191.80   7.84%
   QC value within limits for P 214.914  Recovery = 97.80%
Pb 220.353†            1920.6      505.66 µg/L        32.405      505.66 ppb        32.405   6.41%
   QC value within limits for Pb 220.353  Recovery = 101.13%
S 181.975 Axial†        195.1      1028.9 µg/L        51.70      1028.9 ppb         51.70   5.03%
   QC value within limits for S 181.975 Axial  Recovery = 102.89%
Sb 206.836†             489.2      498.57 µg/L        38.027      498.57 ppb        38.027   7.63%
   QC value within limits for Sb 206.836  Recovery = 99.71%
Se 196.026†             358.5      501.08 µg/L        29.452      501.08 ppb        29.452   5.88%
   QC value within limits for Se 196.026  Recovery = 100.22%
SiO2†                  27593.9      5378.3 µg/L       183.61      5378.3 ppb       183.61   3.41%
   QC value within limits for SiO2  Recovery = 100.58%
Si 251.611†            32083.8      2467.1 µg/L        78.31      2467.1 ppb         78.31   3.17%
   QC value within limits for Si 251.611  Recovery = 98.68%
Sn 189.927†             981.8      505.35 µg/L        48.768      505.35 ppb        48.768   9.65%
   QC value within limits for Sn 189.927  Recovery = 101.07%
Sr 421.552†            87085.5      488.29 µg/L         1.005      488.29 ppb         1.005   0.21%
   QC value within limits for Sr 421.552  Recovery = 97.66%
Ti 334.940†           219292.3      496.65 µg/L         9.610      496.65 ppb         9.610   1.94%
   QC value within limits for Ti 334.940  Recovery = 99.33%
Tl 190.801†             329.3      508.50 µg/L        21.996      508.50 ppb        21.996   4.33%
   QC value within limits for Tl 190.801  Recovery = 101.70%
U 409.014†              5212.1      500.27 µg/L        25.036      500.27 ppb        25.036   5.00%
   QC value within limits for U 409.014  Recovery = 100.05%
V 292.402†             43543.4      508.85 µg/L        22.057      508.85 ppb        22.057   4.33%
   QC value within limits for V 292.402  Recovery = 101.77%
Zn 213.857†            18594.0      505.00 µg/L        20.066      505.00 ppb        20.066   3.97%
   QC value within limits for Zn 213.857  Recovery = 101.00%
All analyte(s) passed QC.
```

Sequence No.: 18
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 12/20/2009 07:22:00
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	114909.9	114909.9	101	%			07:22:33
1	Al 396.153Radial†	197.9	14.4	7.2628	µg/L	7.2628	ppb	07:22:33
1	Ca 317.933Radial†	415.5	6.0	2.3394	µg/L	2.3394	ppb	07:22:54
1	Fe 238.204 Radial†	11.6	4.9	26.771	µg/L	26.771	ppb	07:22:54
1	K 766.490 Radial†	769.5	-30.2	-16.471	µg/L	-16.471	ppb	07:22:33
1	Mg 279.077 IEC†	15.4	-0.1	-0.7867	µg/L	-0.7867	ppb	07:22:54
1	Na 589.592 Radial†	-768.1	-4.4	-1.1587	µg/L	-1.1587	ppb	07:22:33
1	Sr 421.552†	-66.4	37.7	0.2112	µg/L	0.2112	ppb	07:22:33
1	Sc 361.383	2123996.9	2123996.9	101.89	%			07:23:55
1	Y 371.029	1308848.0	1308848.0	102.00	%			07:23:55
1	Ag 328.068†	238.4	160.7	1.4764	µg/L	1.4764	ppb	07:24:01
1	As 188.979†	3.4	2.7	5.3531	µg/L	5.3531	ppb	07:24:22
1	B 249.677†	140.8	21.7	0.9702	µg/L	0.9702	ppb	07:24:01
1	Ba 233.527†	-70.8	12.0	0.3101	µg/L	0.3101	ppb	07:24:22
1	Be 313.107†	3723.2	149.4	0.0946	µg/L	0.0946	ppb	07:24:01
1	Cd 226.502†	-101.0	8.3	0.2149	µg/L	0.2149	ppb	07:24:22
1	Co 228.616†	-75.4	11.5	0.5714	µg/L	0.5714	ppb	07:24:22
1	Cr 267.716†	-148.1	-18.4	-0.3942	µg/L	-0.3942	ppb	07:24:01
1	Cu 324.752†	3592.4	-53.3	-0.3724	µg/L	-0.3724	ppb	07:24:01
1	Mn 257.610†	-178.2	53.3	0.1771	µg/L	0.1771	ppb	07:24:01
1	Mo 202.031†	-0.1	0.6	0.0682	µg/L	0.0682	ppb	07:24:22
1	Ni 231.604†	356.7	22.7	1.2703	µg/L	1.2703	ppb	07:24:22
1	P 214.914†	204.4	-11.1	-24.740	µg/L	-24.740	ppb	07:24:22
1	Pb 220.353†	46.6	-6.6	-1.7199	µg/L	-1.7199	ppb	07:24:22
1	S 181.975 Axial†	21.9	-5.6	-29.731	µg/L	-29.731	ppb	07:24:22
1	Sb 206.836†	23.4	0.5	0.5439	µg/L	0.5439	ppb	07:24:22
1	Se 196.026†	11.4	-7.2	-10.062	µg/L	-10.062	ppb	07:24:22
1	SiO2†	2333.7	21.1	4.1033	µg/L	4.1033	ppb	07:24:01
1	Si 251.611†	404.0	39.9	3.1424	µg/L	3.1424	ppb	07:24:22
1	Sn 189.927†	23.3	-1.0	-0.5221	µg/L	-0.5221	ppb	07:24:22
1	Ti 334.940†	1018.2	139.2	0.3154	µg/L	0.3154	ppb	07:24:01
1	Tl 190.801†	-26.1	-5.5	-8.4115	µg/L	-8.4115	ppb	07:24:22
1	U 409.014†	657.5	-115.5	-11.109	µg/L	-11.109	ppb	07:24:01
1	V 292.402†	-112.6	15.2	0.1611	µg/L	0.1611	ppb	07:24:01
1	Zn 213.857†	627.0	30.8	0.8343	µg/L	0.8343	ppb	07:24:22
2	Sc RADIAL	114361.2	114361.2	101	%			07:22:59
2	Al 396.153Radial†	259.3	76.1	38.352	µg/L	38.352	ppb	07:22:59
2	Ca 317.933Radial†	416.6	9.1	3.5594	µg/L	3.5594	ppb	07:23:19
2	Fe 238.204 Radial†	11.6	5.0	27.194	µg/L	27.194	ppb	07:23:19
2	K 766.490 Radial†	791.5	-4.7	-2.5655	µg/L	-2.5655	ppb	07:22:59
2	Mg 279.077 IEC†	19.0	3.4	19.503	µg/L	19.503	ppb	07:23:19
2	Na 589.592 Radial†	-775.8	-15.6	-4.1583	µg/L	-4.1583	ppb	07:22:59
2	Sr 421.552†	-61.8	42.0	0.2352	µg/L	0.2352	ppb	07:22:59
2	Sc 361.383	2125771.9	2125771.9	101.97	%			07:24:28
2	Y 371.029	1307362.0	1307362.0	101.88	%			07:24:28
2	Ag 328.068†	155.8	79.5	0.7336	µg/L	0.7336	ppb	07:24:33
2	As 188.979†	2.2	1.6	3.0691	µg/L	3.0691	ppb	07:24:54
2	B 249.677†	164.5	44.9	2.0118	µg/L	2.0118	ppb	07:24:33
2	Ba 233.527†	-71.6	11.3	0.2929	µg/L	0.2929	ppb	07:24:54
2	Be 313.107†	3652.9	77.3	0.0490	µg/L	0.0490	ppb	07:24:33
2	Cd 226.502†	-95.9	13.4	0.3562	µg/L	0.3562	ppb	07:24:54
2	Co 228.616†	-71.2	15.7	0.7787	µg/L	0.7787	ppb	07:24:54
2	Cr 267.716†	-126.6	2.8	0.0607	µg/L	0.0607	ppb	07:24:33
2	Cu 324.752†	3525.4	-122.0	-0.8597	µg/L	-0.8597	ppb	07:24:33
2	Mn 257.610†	-234.1	-1.3	-0.0009	µg/L	-0.0009	ppb	07:24:33
2	Mo 202.031†	4.2	4.8	0.5533	µg/L	0.5533	ppb	07:24:54
2	Ni 231.604†	355.6	21.3	1.1932	µg/L	1.1932	ppb	07:24:54
2	P 214.914†	200.4	-15.2	-33.626	µg/L	-33.626	ppb	07:24:54
2	Pb 220.353†	43.9	-9.3	-2.4301	µg/L	-2.4301	ppb	07:24:54

2	S 181.975 Axial†	25.8	-1.8	-9.6617 µg/L	-9.6617 ppb	07:24:54
2	Sb 206.836†	23.7	0.8	0.7731 µg/L	0.7731 ppb	07:24:54
2	Se 196.026†	23.8	5.0	6.9332 µg/L	6.9332 ppb	07:24:54
2	SiO2†	2273.6	-39.8	-7.7650 µg/L	-7.7650 ppb	07:24:33
2	Si 251.611†	412.5	47.9	3.7981 µg/L	3.7981 ppb	07:24:54
2	Sn 189.927†	21.7	-2.6	-1.3204 µg/L	-1.3204 ppb	07:24:54
2	Ti 334.940†	880.9	3.7	0.0081 µg/L	0.0081 ppb	07:24:33
2	Tl 190.801†	-20.1	0.5	0.7512 µg/L	0.7512 ppb	07:24:54
2	U 409.014†	755.4	-20.0	-1.9316 µg/L	-1.9316 ppb	07:24:33
2	V 292.402†	-94.4	33.1	0.3868 µg/L	0.3868 ppb	07:24:33
2	Zn 213.857†	612.2	15.7	0.4226 µg/L	0.4226 ppb	07:24:54
3	Sc RADIAL	113375.3	113375.3	100 %		07:23:25
3	Al 396.153Radial†	199.4	18.5	9.3585 µg/L	9.3585 ppb	07:23:25
3	Ca 317.933Radial†	419.8	15.8	6.2091 µg/L	6.2091 ppb	07:23:45
3	Fe 238.204 Radial†	9.6	3.1	16.988 µg/L	16.988 ppb	07:23:45
3	K 766.490 Radial†	821.9	32.5	17.733 µg/L	17.733 ppb	07:23:25
3	Mg 279.077 IEC†	17.3	2.0	11.136 µg/L	11.136 ppb	07:23:45
3	Na 589.592 Radial†	-727.4	26.1	6.9446 µg/L	6.9446 ppb	07:23:25
3	Sr 421.552†	-63.3	39.9	0.2237 µg/L	0.2237 ppb	07:23:25
3	Sc 361.383	2112449.1	2112449.1	101.33 %		07:25:00
3	Y 371.029	1298366.1	1298366.1	101.18 %		07:25:00
3	Ag 328.068†	143.6	68.4	0.6277 µg/L	0.6277 ppb	07:25:05
3	As 188.979†	2.6	2.0	3.9028 µg/L	3.9028 ppb	07:25:26
3	B 249.677†	141.8	23.5	1.0516 µg/L	1.0516 ppb	07:25:05
3	Ba 233.527†	-76.1	6.4	0.1651 µg/L	0.1651 ppb	07:25:26
3	Be 313.107†	3692.9	139.4	0.0883 µg/L	0.0883 ppb	07:25:05
3	Cd 226.502†	-111.5	-2.6	-0.0761 µg/L	-0.0761 ppb	07:25:26
3	Co 228.616†	-76.1	10.4	0.5145 µg/L	0.5145 ppb	07:25:26
3	Cr 267.716†	-155.2	-26.2	-0.5631 µg/L	-0.5631 ppb	07:25:05
3	Cu 324.752†	3495.7	-129.5	-0.9155 µg/L	-0.9155 ppb	07:25:05
3	Mn 257.610†	-190.7	40.1	0.1328 µg/L	0.1328 ppb	07:25:05
3	Mo 202.031†	-6.7	-6.0	-0.6923 µg/L	-0.6923 ppb	07:25:26
3	Ni 231.604†	352.0	20.0	1.1174 µg/L	1.1174 ppb	07:25:26
3	P 214.914†	200.9	-13.5	-29.945 µg/L	-29.945 ppb	07:25:26
3	Pb 220.353†	50.4	-2.6	-0.6894 µg/L	-0.6894 ppb	07:25:26
3	S 181.975 Axial†	29.1	1.6	8.3013 µg/L	8.3013 ppb	07:25:26
3	Sb 206.836†	19.4	-3.3	-3.3529 µg/L	-3.3529 ppb	07:25:26
3	Se 196.026†	12.1	-6.4	-8.9559 µg/L	-8.9559 ppb	07:25:26
3	SiO2†	2273.4	-26.0	-5.0586 µg/L	-5.0586 ppb	07:25:05
3	Si 251.611†	401.6	39.8	3.1524 µg/L	3.1524 ppb	07:25:26
3	Sn 189.927†	22.2	-2.1	-1.0452 µg/L	-1.0452 ppb	07:25:26
3	Ti 334.940†	995.7	122.5	0.2771 µg/L	0.2771 ppb	07:25:05
3	Tl 190.801†	-17.1	3.2	4.9885 µg/L	4.9885 ppb	07:25:26
3	U 409.014†	682.6	-87.2	-8.3871 µg/L	-8.3871 ppb	07:25:05
3	V 292.402†	-138.1	-10.6	-0.1395 µg/L	-0.1395 ppb	07:25:05
3	Zn 213.857†	604.6	12.1	0.3241 µg/L	0.3241 ppb	07:25:26

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2120739.3	101.73	%	0.347				0.34%
Sc RADIAL	114215.5	101	%	0.7				0.68%
Y 371.029	1304858.7	101.69	%	0.442				0.43%
Ag 328.068†	102.9	0.9459	µg/L	0.46250	0.9459	ppb	0.46250	48.90%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	36.3	18.324	µg/L	17.3760	18.324	ppb	17.3760	94.82%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	2.1	4.1083	µg/L	1.15578	4.1083	ppb	1.15578	28.13%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	30.0	1.3445	µg/L	0.57931	1.3445	ppb	0.57931	43.09%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	9.9	0.2560	µg/L	0.07923	0.2560	ppb	0.07923	30.95%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	122.0	0.0773	µg/L	0.02471	0.0773	ppb	0.02471	31.96%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	10.3	4.0360	µg/L	1.97837	4.0360	ppb	1.97837	49.02%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	6.4	0.1650	µg/L	0.22044	0.1650	ppb	0.22044	133.61%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	12.5	0.6215	µg/L	0.13906	0.6215	ppb	0.13906	22.37%

```
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -13.9     -0.2989 µg/L       0.32264     -0.2989 ppb        0.32264 107.94%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -101.6     -0.7159 µg/L       0.29874     -0.7159 ppb        0.29874  41.73%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         4.3      23.651 µg/L        5.7739      23.651 ppb         5.7739  24.41%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         -0.8     -0.4342 µg/L      17.20135     -0.4342 ppb       17.20135 >999.9%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            1.8      9.9507 µg/L      10.19648      9.9507 ppb       10.19648 102.47%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               30.7      0.1030 µg/L       0.09265      0.1030 ppb        0.09265  89.96%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               -0.2     -0.0236 µg/L       0.62787     -0.0236 ppb        0.62787 >999.9%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†         2.0      0.5425 µg/L       5.74361      0.5425 ppb        5.74361 >999.9%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               21.3      1.1936 µg/L       0.07641      1.1936 ppb        0.07641   6.40%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -13.3     -29.437 µg/L        4.4643     -29.437 ppb         4.4643  15.17%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               -6.2     -1.6131 µg/L       0.87526     -1.6131 ppb        0.87526  54.26%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          -2.0     -10.364 µg/L       19.0257     -10.364 ppb        19.0257 183.58%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               -0.7     -0.6786 µg/L       2.31881     -0.6786 ppb        2.31881 341.70%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               -2.9     -4.0282 µg/L       9.50895     -4.0282 ppb        9.50895 236.06%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    -14.9     -2.9068 µg/L       6.21985     -2.9068 ppb        6.21985 213.98%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               42.5      3.3643 µg/L       0.37568      3.3643 ppb        0.37568  11.17%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               -1.9     -0.9626 µg/L       0.40553     -0.9626 ppb        0.40553  42.13%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               39.8      0.2234 µg/L       0.01199      0.2234 ppb        0.01199   5.37%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               88.5      0.2002 µg/L       0.16745      0.2002 ppb        0.16745  83.64%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               -0.6     -0.8906 µg/L       6.84921     -0.8906 ppb        6.84921 769.07%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -74.2     -7.1425 µg/L       4.71346     -7.1425 ppb        4.71346  65.99%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                12.6      0.1361 µg/L       0.26402      0.1361 ppb        0.26402 193.96%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               19.5      0.5270 µg/L       0.27065      0.5270 ppb        0.27065  51.36%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

ICPMS#3 Daily Performance Report

Sample ID: Sample
Sample Date/Time: Tuesday, December 22, 2009 18:13:18
Sample Description:
Method File: c:\elandata\Method\daily2.mth
Dataset File: c:\elandata\Dataset\default\Sample.5254
Tuning File: c:\elandata\Tuning\default2.tun
Optimization File: c:\elandata\Optimize\default.dac
Dual Detector Mode: Pulse

Acq. Dead Time(ns): 35
Current Dead Time (ns): 35

Number of Replicates: 5

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Be	9.0	347.0	347.004	14.934	4.3
	Mg	24.0	2236.8	2236.775	12.014	0.5
	Co	58.9	12680.8	12680.826	71.574	0.6
	Rh	102.9	34833.0	34833.017	270.281	0.8
	In	114.9	47522.9	47522.925	645.248	1.4
	Pb	208.0	37452.4	37452.434	409.042	1.1
⌈>	Ba	137.9	42149.1	42149.109	517.583	1.2
⌊	Ba++	69.0	693.8	0.016	0.001	3.7
⌈>	Ce	139.9	52177.5	52177.515	250.879	0.5
⌊	CeO	155.9	821.5	0.016	0.000	3.1
	Bkgd	220.0	5.4	5.400	1.636	30.3

Current Optimization File Data

Current Value	Description
0.99	Nebulizer Gas Flow
7.50	Lens Voltage
1450.00	ICP RF Power
-1812.00	Analog Stage Voltage
950.00	Pulse Stage Voltage
70.00	Discriminator Threshold
-7.00	AC Rod Offset
60.00	Service DAC 1
0.00	Quadrupole Rod Offset

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	17	6.8	303.0
Co	59	17	7.8	11968.7
In	115	17	8.8	57502.8

ICPMS#3 Instrument Tuning Report

File Name: default2.tun
File Path: c:\elandata\Tuning

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas Peak W
He	3.0	3.0	578	2030	0.688
Be	9.0	9.1	2080	2010	0.736
Mg	24.0	23.9	5708	2090	0.686
Mg	25.0	25.0	5901	2010	0.706
Mg	26.0	26.0	6222	2110	0.667
Co	58.9	58.9	14204	2100	0.676
Rh	102.9	102.9	24912	2150	0.682
In	114.9	114.9	27822	2160	0.690
Ce	139.9	139.9	33913	2200	0.646
Pb	206.0	206.0	50004	2270	0.664
Pb	207.0	207.0	50270	2310	0.647
Pb	208.0	208.0	50486	2290	0.620
U	238.1	238.1	57843	2330	0.658

ICPMS#3 - Summary Report

Sample ID: Blank
Sample Date/Time: Wednesday, December 23, 2009 02:45:27
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\091220\Blank.518

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7		ug/L		8	
	Be	9		ug/L		7	
	B	11		ug/L		52	
	Na	23		ug/L		3000	
	Mg	24		ug/L		333	
	Al	27		ug/L		667	
	P	31		ug/L		881	
	K	39		ug/L		118827	
	Ca	43		ug/L		56	
>	Sc	45		ug/L		60909	
	Ti	47		ug/L		44	
	V	51		ug/L		2490	
	Cr	52		ug/L		1036	
	Cr	53		ug/L		30683	
	Mn	55		ug/L		1625	
	Fe	57		ug/L		1899	
	Co	59		ug/L		125	
	Ni	60		ug/L		85	
	Cu	63		ug/L		127	
	Cu	65		ug/L		95	
	Zn	66		ug/L		39	
	Zn	67		ug/L		1244	
	Zn	68		ug/L		236	
>	Ge	74		ug/L		81733	
	As	75		ug/L		690	
	Se	77		ug/L		1917	
	Se	82		ug/L		10	
	Kr	83		ug/L		20	
	Sr	88		ug/L		53	
	Y	89		ug/L		14	
	Zr	90		ug/L		225	
	Mo	98		ug/L		25	
	Ag	107		ug/L		9	
	Cd	111		ug/L		5	
	Cd	114		ug/L		12	
>	In	115		ug/L		59324	
	Sn	120		ug/L		90	
	Sb	121		ug/L		132	
	Sb	123		ug/L		107	
	Ba	135		ug/L		10	
	Ba	137		ug/L		15	
	Ho	165		ug/L		8	
>	Lu	175		ug/L		119002	
	Tl	205		ug/L		716	
	Pb	208		ug/L		142	
	Th	232		ug/L		351	
	U	238		ug/L		108	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	0.9997
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45					
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115					
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175					
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Wednesday, December 23, 2009 02:51:10
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\091220\Standard 1.519

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**10.000**	**ug/L**	1.986	346	0.006
	Be	9	**10.000**	**ug/L**	2.539	306	0.005
	B	11	**20.000**	**ug/L**	12.713	453	0.007
	Na	23	**1000.000**	**ug/L**	12.006	281432	4.546
	Mg	24	**1000.000**	**ug/L**	6.048	208180	3.386
	Al	27	**1000.000**	**ug/L**	6.112	421821	6.869
	P	31	**1000.000**	**ug/L**	3.285	33529	0.533
	K	39	**1000.000**	**ug/L**	7.448	717993	9.757
	Ca	43	**1000.000**	**ug/L**	4.019	1388	0.022
>	Sc	45		**ug/L**		61317	61317.342
	Ti	47	**10.000**	**ug/L**	9.365	707	0.011
	V	51	**10.000**	**ug/L**	23.057	9637	0.117
	Cr	52	**10.000**	**ug/L**	5.136	10409	0.153
	Cr	53		**ug/L**		31421	0.009
	Mn	55	**10.000**	**ug/L**	4.805	17261	0.255
	Fe	57	**1000.000**	**ug/L**	5.958	32005	0.491
	Co	59	**10.000**	**ug/L**	6.658	10265	0.166
	Ni	60	**10.000**	**ug/L**	4.854	2106	0.033
	Cu	63		**ug/L**		4646	0.074
	Cu	65	**10.000**	**ug/L**	1.956	2214	0.035
	Zn	66	**10.000**	**ug/L**	0.900	1550	0.018
	Zn	67		**ug/L**		1474	0.003
	Zn	68		**ug/L**		1512	0.016
>	Ge	74		**ug/L**		82100	82099.764
	As	75	**10.000**	**ug/L**	9.033	3111	0.029
	Se	77		**ug/L**		2048	0.001
	Se	82	**10.000**	**ug/L**	7.414	177	0.002
	Kr	83		**ug/L**		32	0.000
	Sr	88	**10.000**	**ug/L**	1.359	25023	0.417
	Y	89		**ug/L**		17	0.000
	Zr	90	**10.000**	**ug/L**	4.145	15790	0.260
	Mo	98	**10.000**	**ug/L**	0.832	6914	0.115
	Ag	107	**10.000**	**ug/L**	3.957	12055	0.201
	Cd	111	**10.000**	**ug/L**	1.387	2990	0.050
	Cd	114		**ug/L**		7092	0.118
>	In	115		**ug/L**		59889	59888.735
	Sn	120	**10.000**	**ug/L**	1.101	12929	0.214
	Sb	121	**10.000**	**ug/L**	2.627	12344	0.204
	Sb	123		**ug/L**		9458	0.156
	Ba	135		**ug/L**		3060	0.025
	Ba	137	**10.000**	**ug/L**	3.391	5454	0.045
	Ho	165		**ug/L**		14	0.000
>	Lu	175		**ug/L**		119927	119926.554
	Tl	205	**10.000**	**ug/L**	3.057	53686	0.442
	Pb	208	**10.000**	**ug/L**	1.796	63597	0.529
	Th	232	**10.000**	**ug/L**	3.272	74121	0.615
	U	238	**10.000**	**ug/L**	1.447	79582	0.663

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Li	7					
Be	9					
B	11					
Na	23					
Mg	24					
Al	27					
P	31					
K	39					
Ca	43					
Sc	45					
Ti	47					
V	51					
Cr	52					
Cr	53					
Mn	55					
Fe	57					
Co	59					
Ni	60					
Cu	63					
Cu	65					
Zn	66					
Zn	67					
Zn	68					
Ge	74					
As	75					
Se	77					
Se	82					
Kr	83					
Sr	88					
Y	89					
Zr	90					
Mo	98					
Ag	107					
Cd	111					
Cd	114					
In	115					
Sn	120					
Sb	121					
Sb	123					
Ba	135					
Ba	137					
Ho	165					
Lu	175					
Tl	205					
Pb	208					
Th	232					
U	238					

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Wednesday, December 23, 2009 02:56:51
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\091220\Standard 2.520

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**100.002**	**ug/L**	0.398	3392	0.055
	Be	9	**100.037**	**ug/L**	3.205	3107	0.051
	B	11	**200.062**	**ug/L**	1.617	4200	0.068
	Na	23	**9999.254**	**ug/L**	1.957	2768166	45.118
	Mg	24	**9993.006**	**ug/L**	9.719	1940390	31.623
	Al	27	**9992.128**	**ug/L**	4.814	3897214	63.631
	P	31	**10000.299**	**ug/L**	1.305	328223	5.343
	K	39	**10007.316**	**ug/L**	7.813	6569538	105.352
	Ca	43	**9999.246**	**ug/L**	4.704	13265	0.216
>	Sc	45		**ug/L**		61272	61272.442
	Ti	47	**100.021**	**ug/L**	1.238	6830	0.111
	V	51	**100.149**	**ug/L**	1.553	86775	1.376
	Cr	52	**100.003**	**ug/L**	0.701	95060	1.535
	Cr	53		**ug/L**		40483	0.157
	Mn	55	**100.024**	**ug/L**	1.988	161691	2.613
	Fe	57	**10000.749**	**ug/L**	0.801	305234	4.951
	Co	59	**99.991**	**ug/L**	2.149	100611	1.640
	Ni	60	**99.998**	**ug/L**	1.016	20249	0.329
	Cu	63		**ug/L**		44679	0.727
	Cu	65	**99.994**	**ug/L**	2.360	21134	0.343
	Zn	66	**99.989**	**ug/L**	1.133	15224	0.182
	Zn	67		**ug/L**		3736	0.030
	Zn	68		**ug/L**		13075	0.154
>	Ge	74		**ug/L**		83447	83446.871
	As	75	**99.997**	**ug/L**	3.290	25182	0.293
	Se	77		**ug/L**		3378	0.017
	Se	82	**100.124**	**ug/L**	1.910	1944	0.023
	Kr	83		**ug/L**		26	0.000
	Sr	88	**100.014**	**ug/L**	0.913	252817	4.232
	Y	89		**ug/L**		33	0.000
	Zr	90	**99.900**	**ug/L**	1.600	141184	2.360
	Mo	98	**100.021**	**ug/L**	2.643	70272	1.176
	Ag	107	**100.002**	**ug/L**	2.583	120375	2.015
	Cd	111	**100.018**	**ug/L**	1.192	30335	0.508
	Cd	114		**ug/L**		70538	1.181
>	In	115		**ug/L**		59737	59737.339
	Sn	120	**100.021**	**ug/L**	1.168	130978	2.191
	Sb	121	**100.017**	**ug/L**	3.888	124047	2.074
	Sb	123		**ug/L**		95706	1.600
	Ba	135		**ug/L**		31230	0.256
	Ba	137	**99.995**	**ug/L**	0.975	55143	0.451
	Ho	165		**ug/L**		11	0.000
>	Lu	175		**ug/L**		122162	122162.322
	Tl	205	**100.020**	**ug/L**	0.690	551521	4.509
	Pb	208	**99.980**	**ug/L**	2.108	634130	5.190
	Th	232	**100.012**	**ug/L**	1.220	761092	6.227
	U	238	**99.990**	**ug/L**	0.784	801711	6.562

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	0.9999
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	0.9999
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45					
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115					
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175					
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Wednesday, December 23, 2009 03:02:33
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\091220\QC Std 1.521

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**52.031**	ug/L	4.887	1774	0.029
	Be	9	**51.954**	ug/L	4.443	1623	0.026
	B	11	**108.096**	ug/L	2.553	2302	0.037
	Na	23	**4737.734**	ug/L	5.776	1317470	21.377
	Mg	24	**5159.516**	ug/L	1.871	1005198	16.327
	Al	27	**4875.119**	ug/L	2.228	1911294	31.045
	P	31	**5059.731**	ug/L	2.687	167166	2.704
	K	39	**5067.326**	ug/L	2.006	3403249	53.346
	Ca	43	**5047.174**	ug/L	2.745	6752	0.109
>	Sc	45		ug/L		61528	61527.872
	Ti	47	**51.772**	ug/L	0.925	3572	0.057
	V	51	**50.327**	ug/L	3.836	45035	0.691
	Cr	52	**52.830**	ug/L	3.432	50902	0.811
	Cr	53		ug/L		35456	0.073
	Mn	55	**52.512**	ug/L	3.909	86000	1.372
	Fe	57	**5054.865**	ug/L	2.469	155835	2.502
	Co	59	**51.434**	ug/L	1.199	52032	0.844
	Ni	60	**52.265**	ug/L	1.993	10669	0.172
	Cu	63		ug/L		23481	0.380
	Cu	65	**52.328**	ug/L	1.562	11153	0.180
	Zn	66	**51.752**	ug/L	1.330	7960	0.094
	Zn	67		ug/L		2578	0.015
	Zn	68		ug/L		7129	0.082
>	Ge	74		ug/L		84086	84085.579
	As	75	**48.856**	ug/L	2.183	12764	0.143
	Se	77		ug/L		2672	0.008
	Se	82	**53.182**	ug/L	5.029	1046	0.012
	Kr	83		ug/L		21	0.000
	Sr	88	**52.228**	ug/L	0.800	132127	2.210
	Y	89		ug/L		16	0.000
	Zr	90	**44.719**	ug/L	5.440	63382	1.056
	Mo	98	**50.927**	ug/L	3.262	35800	0.599
	Ag	107	**51.032**	ug/L	1.793	61465	1.028
	Cd	111	**51.577**	ug/L	4.068	15645	0.262
	Cd	114		ug/L		36658	0.613
>	In	115		ug/L		59777	59776.694
	Sn	120	**51.556**	ug/L	2.393	67566	1.129
	Sb	121	**50.412**	ug/L	3.362	62624	1.045
	Sb	123		ug/L		48682	0.812
	Ba	135		ug/L		16211	0.132
	Ba	137	**51.638**	ug/L	2.111	28584	0.233
	Ho	165		ug/L		13	0.000
>	Lu	175		ug/L		122608	122608.193
	Tl	205	**48.784**	ug/L	0.465	270357	2.199
	Pb	208	**51.225**	ug/L	1.476	326101	2.659
	Th	232	**52.438**	ug/L	0.514	400699	3.265
	U	238	**52.934**	ug/L	1.211	425986	3.474

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	0.9999
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	0.9999
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7	104.062				
	Be	9	103.909				
	B	11	108.096				
	Na	23	94.755				
	Mg	24	103.190				
	Al	27	96.537				
	P	31	101.195				
	K	39	101.347				
	Ca	43	100.943				
>	Sc	45		101.0			
	Ti	47	103.544				
	V	51	100.654				
	Cr	52	105.660				
	Cr	53					
	Mn	55	105.024				
	Fe	57	101.097				
	Co	59	102.869				
	Ni	60	104.530				
	Cu	63					
	Cu	65	104.656				
	Zn	66	103.505				
	Zn	67					
	Zn	68					
>	Ge	74		102.9			
	As	75	97.713				
	Se	77					
	Se	82	106.365				
	Kr	83					
	Sr	88	104.455				
	Y	89					
	Zr	90	89.437				
	Mo	98	101.854				
	Ag	107	102.064				
	Cd	111	103.154				
	Cd	114					
>	In	115		100.8			
	Sn	120	103.111				
	Sb	121	100.823				
	Sb	123					
	Ba	135					
	Ba	137	103.275				
	Ho	165					
>	Lu	175		103.0			
	Tl	205	97.569				
	Pb	208	102.450				
	Th	232	104.875				
	U	238	105.868				

QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
QC Std 1	Zr	90ICV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#3 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Wednesday, December 23, 2009 03:08:17
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\091220\QC Std 2.522

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**-0.070**	**ug/L**	61.375	5	-0.000
	Be	9	**-0.023**	**ug/L**	233.741	6	-0.000
	B	11	**4.334**	**ug/L**	21.227	141	0.001
	Na	23	**-4.860**	**ug/L**	44.300	1667	-0.022
	Mg	24	**-1.729**	**ug/L**		0	-0.005
	Al	27	**-0.023**	**ug/L**	12735.215	667	-0.000
	P	31	**-0.105**	**ug/L**	834.410	881	-0.000
	K	39	**9.269**	**ug/L**	106.349	125213	0.098
	Ca	43	**10.824**	**ug/L**	134.825	71	0.000
>	Sc	45		**ug/L**		61166	61166.311
	Ti	47	**-0.032**	**ug/L**	238.987	42	-0.000
	V	51	**-0.761**	**ug/L**	198.279	1844	-0.010
	Cr	52	**-0.075**	**ug/L**	157.652	971	-0.001
	Cr	53		**ug/L**		29863	-0.015
	Mn	55	**-0.458**	**ug/L**	6.443	901	-0.012
	Fe	57	**1.317**	**ug/L**	110.627	1947	0.001
	Co	59	**0.022**	**ug/L**	79.464	147	0.000
	Ni	60	**0.051**	**ug/L**	99.052	96	0.000
	Cu	63		**ug/L**		137	0.000
	Cu	65	**0.014**	**ug/L**	159.391	98	0.000
	Zn	66	**0.029**	**ug/L**	198.942	43	0.000
	Zn	67		**ug/L**		1208	-0.000
	Zn	68		**ug/L**		201	-0.000
>	Ge	74		**ug/L**		81148	81147.638
	As	75	**0.017**	**ug/L**	2728.631	689	0.000
	Se	77		**ug/L**		1845	-0.001
	Se	82	**-0.300**	**ug/L**	208.820	5	-0.000
	Kr	83		**ug/L**		25	0.000
	Sr	88	**0.002**	**ug/L**	144.153	57	0.000
	Y	89		**ug/L**		11	-0.000
	Zr	90	**0.171**	**ug/L**	5.630	458	0.004
	Mo	98	**0.084**	**ug/L**	6.762	83	0.001
	Ag	107	**0.006**	**ug/L**	38.087	16	0.000
	Cd	111	**-0.005**	**ug/L**	226.926	3	-0.000
	Cd	114		**ug/L**		13	0.000
>	In	115		**ug/L**		58499	58498.725
	Sn	120	**0.232**	**ug/L**	10.001	386	0.005
	Sb	121	**0.627**	**ug/L**	8.276	891	0.013
	Sb	123		**ug/L**		692	0.010
	Ba	135		**ug/L**		11	0.000
	Ba	137	**0.003**	**ug/L**	220.973	17	0.000
	Ho	165		**ug/L**		17	0.000
>	Lu	175		**ug/L**		121521	121520.980
	Tl	205	**0.272**	**ug/L**	20.259	2217	0.012
	Pb	208	**0.008**	**ug/L**	23.964	198	0.000
	Th	232	**0.182**	**ug/L**	9.537	1739	0.011
	U	238	**0.012**	**ug/L**	18.579	210	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	0.9999
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	0.9999
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		100.4			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		99.3			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		98.6			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		102.1			
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Wednesday, December 23, 2009 03:14:01
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\091220\QC Std 3.523

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**11.339**	ug/L	13.678	389	0.006
	Be	9	**0.541**	ug/L	31.844	23	0.000
	B	11	**17.051**	ug/L	3.694	404	0.006
	Na	23	**263.138**	ug/L	8.943	75534	1.187
	Mg	24	**12.122**	ug/L	26.572	2667	0.038
	Al	27	**36.086**	ug/L	16.154	14674	0.230
	P	31	**53.628**	ug/L	3.063	2631	0.029
	K	39	**291.429**	ug/L	3.361	306249	3.068
	Ca	43	**252.483**	ug/L	11.180	388	0.005
>	Sc	45		ug/L		61027	61026.714
	Ti	47	**9.062**	ug/L	8.839	656	0.010
	V	51	**10.551**	ug/L	5.739	11335	0.145
	Cr	52	**10.773**	ug/L	2.708	11124	0.165
	Cr	53		ug/L		31118	0.006
	Mn	55	**5.151**	ug/L	4.050	9835	0.135
	Fe	57	**106.918**	ug/L	5.050	5132	0.053
	Co	59	**1.091**	ug/L	3.532	1217	0.018
	Ni	60	**2.227**	ug/L	2.901	533	0.007
	Cu	63		ug/L		647	0.009
	Cu	65	**1.231**	ug/L	10.373	353	0.004
	Zn	66	**11.095**	ug/L	5.215	1692	0.020
	Zn	67		ug/L		1471	0.003
	Zn	68		ug/L		1676	0.018
>	Ge	74		ug/L		81887	81886.520
	As	75	**5.840**	ug/L	3.274	2095	0.017
	Se	77		ug/L		1944	0.000
	Se	82	**5.592**	ug/L	9.377	116	0.001
	Kr	83		ug/L		26	0.000
	Sr	88	**11.129**	ug/L	1.451	27990	0.471
	Y	89		ug/L		12	-0.000
	Zr	90	**2.049**	ug/L	4.318	3096	0.048
	Mo	98	**0.561**	ug/L	4.016	416	0.007
	Ag	107	**1.056**	ug/L	1.463	1272	0.021
	Cd	111	**1.064**	ug/L	6.923	325	0.005
	Cd	114		ug/L		758	0.013
>	In	115		ug/L		59341	59341.420
	Sn	120	**5.411**	ug/L	1.786	7123	0.119
	Sb	121	**3.235**	ug/L	3.920	4113	0.067
	Sb	123		ug/L		3208	0.052
	Ba	135		ug/L		676	0.006
	Ba	137	**2.098**	ug/L	1.636	1157	0.009
	Ho	165		ug/L		14	0.000
>	Lu	175		ug/L		120560	120559.848
	Tl	205	**1.069**	ug/L	1.518	6533	0.048
	Pb	208	**2.148**	ug/L	0.289	13586	0.112
	Th	232	**1.097**	ug/L	3.143	8595	0.068
	U	238	**0.223**	ug/L	4.090	1870	0.015

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	0.9999
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	0.9999
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7	113.391				
	Be	9	108.214				
	B	11	113.672				
	Na	23	105.255				
	Mg	24	80.811				
	Al	27	120.287				
	P	31	107.256				
	K	39	97.143				
	Ca	43	126.242				
>	Sc	45			100.2		
	Ti	47	90.618				
	V	51	105.505				
	Cr	52	107.735				
	Cr	53					
	Mn	55	103.012				
	Fe	57	106.918				
	Co	59	109.143				
	Ni	60	111.354				
	Cu	63					
	Cu	65	123.097				
	Zn	66	110.946				
	Zn	67					
	Zn	68					
>	Ge	74			100.2		
	As	75	116.796				
	Se	77					
	Se	82	111.838				
	Kr	83					
	Sr	88	111.285				
	Y	89					
	Zr	90	102.432				
	Mo	98	112.129				
	Ag	107	105.577				
	Cd	111	106.409				
	Cd	114					
>	In	115			100.0		
	Sn	120	108.229				
	Sb	121	107.845				
	Sb	123					
	Ba	135					
	Ba	137	104.921				
	Ho	165					
>	Lu	175			101.3		
	Tl	205	106.863				
	Pb	208	107.407				
	Th	232	109.731				
	U	238	111.259				

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Wednesday, December 23, 2009 03:19:44
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\091220\QC Std 4.524

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.028**	**ug/L**	592.297	8	0.000
	Be	9	**0.110**	**ug/L**	48.835	9	0.000
	B	11	**1.323**	**ug/L**	26.417	73	0.000
	Na	23	**94684.035**	**ug/L**	0.647	24181531	427.229
	Mg	24	**105841.454**	**ug/L**	8.033	18954410	334.937
	Al	27	**96459.203**	**ug/L**	6.263	34763009	614.261
	P	31	**99099.278**	**ug/L**	1.909	2997462	52.951
	K	39	**99230.663**	**ug/L**	5.358	59228466	1044.648
	Ca	43	**98708.197**	**ug/L**	1.569	120542	2.129
>	Sc	45		**ug/L**		56594	56594.111
	Ti	47	**1498.943**	**ug/L**	2.273	93995	1.660
	V	51	**-1.936**	**ug/L**	40.939	808	-0.027
	Cr	52	**2.135**	**ug/L**	4.296	2817	0.033
	Cr	53		**ug/L**		23763	-0.084
	Mn	55	**5.510**	**ug/L**	0.696	9656	0.144
	Fe	57	**104090.400**	**ug/L**	3.310	2918039	51.530
	Co	59	**0.257**	**ug/L**	2.517	354	0.004
	Ni	60	**2.568**	**ug/L**	4.832	558	0.008
	Cu	63		**ug/L**		991	0.015
	Cu	65	**2.750**	**ug/L**	7.285	623	0.009
	Zn	66	**2.828**	**ug/L**	3.318	442	0.005
	Zn	67		**ug/L**		1154	-0.001
	Zn	68		**ug/L**		299	0.001
>	Ge	74		**ug/L**		78629	78628.924
	As	75	**-0.735**	**ug/L**	117.956	495	-0.002
	Se	77		**ug/L**		1688	-0.002
	Se	82	**-0.350**	**ug/L**	211.319	4	-0.000
	Kr	83		**ug/L**		40	0.000
	Sr	88	**1.197**	**ug/L**	1.304	2816	0.051
	Y	89		**ug/L**		77	0.001
	Zr	90	**7.352**	**ug/L**	62.143	9628	0.174
	Mo	98	**2004.565**	**ug/L**	3.206	1287027	23.565
	Ag	107	**0.053**	**ug/L**	21.693	67	0.001
	Cd	111	**0.306**	**ug/L**	8.883	89	0.002
	Cd	114		**ug/L**		1128	0.020
>	In	115		**ug/L**		54635	54635.459
	Sn	120	**0.201**	**ug/L**	5.458	324	0.004
	Sb	121	**0.162**	**ug/L**	8.984	305	0.003
	Sb	123		**ug/L**		235	0.002
	Ba	135		**ug/L**		220	0.002
	Ba	137	**0.662**	**ug/L**	0.322	361	0.003
	Ho	165		**ug/L**		271	0.002
>	Lu	175		**ug/L**		116007	116006.678
	Tl	205	**0.023**	**ug/L**	48.789	816	0.001
	Pb	208	**0.176**	**ug/L**	2.687	1201	0.009
	Th	232	**0.161**	**ug/L**	27.212	1500	0.010
	U	238	**-0.008**	**ug/L**	14.227	46	-0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	0.9999
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	0.9999
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23	94.684				
	Mg	24	105.841				
	Al	27	96.459				
	P	31	99.099				
	K	39	99.231				
	Ca	43	98.708				
>	Sc	45			92.9		
	Ti	47	74.947				
	V	51					
	Cr	52	57.700				
	Cr	53					
	Mn	55	94.995				
	Fe	57	104.090				
	Co	59	102.616				
	Ni	60	95.129				
	Cu	63					
	Cu	65	94.845				
	Zn	66	78.564				
	Zn	67					
	Zn	68					
>	Ge	74			96.2		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88	99.784				
	Y	89					
	Zr	90					
	Mo	98	100.228				
	Ag	107					
	Cd	111	76.584				
	Cd	114					
>	In	115			92.1		
	Sn	120					
	Sb	121	161.793				
	Sb	123					
	Ba	135					
	Ba	137	98.849				
	Ho	165					
>	Lu	175			97.5		
	Tl	205					
	Pb	208	88.209				
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
QC Std 4	Ti	47ICSA is out of limits
QC Std 4	Zr	90ICSA is out of limits

QC Action

QC Action Line: Continue

ICPMS#3 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Wednesday, December 23, 2009 03:25:27
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\091220\QC Std 5.525

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**19.716**	**ug/L**	4.068	624	0.011
	Be	9	**18.792**	**ug/L**	2.317	545	0.010
	B	11	**18.647**	**ug/L**	4.795	406	0.006
	Na	23	**96889.690**	**ug/L**	5.430	24788599	437.182
	Mg	24	**104430.906**	**ug/L**	3.387	18736544	330.474
	Al	27	**99472.633**	**ug/L**	4.866	35910303	633.451
	P	31	**98632.265**	**ug/L**	2.992	2988400	52.701
	K	39	**105483.547**	**ug/L**	5.000	63049657	1110.475
	Ca	43	**96942.474**	**ug/L**	0.691	118633	2.091
>	Sc	45		**ug/L**		56709	56708.922
	Ti	47	**1482.595**	**ug/L**	3.460	93128	1.642
	V	51	**18.189**	**ug/L**	5.538	16477	0.250
	Cr	52	**22.214**	**ug/L**	1.947	20291	0.341
	Cr	53		**ug/L**		26163	-0.042
	Mn	55	**26.202**	**ug/L**	4.068	40323	0.684
	Fe	57	**105507.246**	**ug/L**	3.646	2963108	52.231
	Co	59	**21.039**	**ug/L**	2.593	19683	0.345
	Ni	60	**23.070**	**ug/L**	1.155	4385	0.076
	Cu	63		**ug/L**		9287	0.162
	Cu	65	**22.631**	**ug/L**	2.736	4496	0.078
	Zn	66	**22.006**	**ug/L**	3.714	3229	0.040
	Zn	67		**ug/L**		1646	0.005
	Zn	68		**ug/L**		2609	0.030
>	Ge	74		**ug/L**		79701	79701.232
	As	75	**19.575**	**ug/L**	5.516	5248	0.057
	Se	77		**ug/L**		1917	0.001
	Se	82	**19.914**	**ug/L**	1.678	378	0.005
	Kr	83		**ug/L**		47	0.000
	Sr	88	**22.464**	**ug/L**	0.600	53180	0.950
	Y	89		**ug/L**		76	0.001
	Zr	90	**21.867**	**ug/L**	2.423	29085	0.517
	Mo	98	**1981.049**	**ug/L**	1.491	1301821	23.289
	Ag	107	**20.250**	**ug/L**	0.758	22820	0.408
	Cd	111	**20.477**	**ug/L**	0.972	5816	0.104
	Cd	114		**ug/L**		14596	0.261
>	In	115		**ug/L**		55899	55899.147
	Sn	120	**20.675**	**ug/L**	1.686	25397	0.453
	Sb	121	**21.411**	**ug/L**	2.454	24943	0.444
	Sb	123		**ug/L**		19132	0.340
	Ba	135		**ug/L**		6201	0.053
	Ba	137	**20.564**	**ug/L**	2.427	10812	0.093
	Ho	165		**ug/L**		265	0.002
>	Lu	175		**ug/L**		116374	116374.343
	Tl	205	**18.879**	**ug/L**	1.852	99747	0.851
	Pb	208	**20.023**	**ug/L**	0.612	121085	1.039
	Th	232	**20.922**	**ug/L**	1.556	151947	1.303
	U	238	**21.562**	**ug/L**	2.500	164749	1.415

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	0.9999
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	0.9999
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7	98.581				
	Be	9	93.959				
	B	11	93.236				
	Na	23	96.890				
	Mg	24	104.431				
	Al	27	99.473				
	P	31	98.632				
	K	39	105.484				
	Ca	43	96.942				
>	Sc	45		93.1			
	Ti	47	74.130				
	V	51	90.944				
	Cr	52	93.728				
	Cr	53					
	Mn	55	101.559				
	Fe	57	105.507				
	Co	59	103.898				
	Ni	60	101.630				
	Cu	63					
	Cu	65	98.827				
	Zn	66	93.245				
	Zn	67					
	Zn	68					
>	Ge	74		97.5			
	As	75	97.877				
	Se	77					
	Se	82	99.572				
	Kr	83					
	Sr	88	105.964				
	Y	89					
	Zr	90	109.337				
	Mo	98	99.052				
	Ag	107	101.248				
	Cd	111	100.378				
	Cd	114					
>	In	115		94.2			
	Sn	120	103.377				
	Sb	121	106.521				
	Sb	123					
	Ba	135					
	Ba	137	99.485				
	Ho	165					
>	Lu	175		97.8			
	Tl	205	94.394				
	Pb	208	99.126				
	Th	232	104.608				
	U	238	107.810				

QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
QC Std 5	Ti	47ICSAB is out of limits

QC Action

QC Action Line: Continue

ICPMS#3 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Wednesday, December 23, 2009 03:31:11
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\091220\QC Std 6.526

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**51.181**	**ug/L**	0.286	1758	0.028
	Be	9	**48.088**	**ug/L**	2.453	1514	0.024
	B	11	**98.324**	**ug/L**	2.097	2113	0.033
	Na	23	**4962.487**	**ug/L**	3.008	1389448	22.392
	Mg	24	**4847.290**	**ug/L**	7.561	949617	15.339
	Al	27	**4815.698**	**ug/L**	13.467	1897865	30.667
	P	31	**4902.086**	**ug/L**	3.552	163056	2.619
	K	39	**5047.177**	**ug/L**	9.641	3414443	53.134
	Ca	43	**4890.046**	**ug/L**	3.136	6588	0.105
>	Sc	45		**ug/L**		61934	61934.273
	Ti	47	**52.128**	**ug/L**	3.216	3620	0.058
	V	51	**48.946**	**ug/L**	2.878	44158	0.672
	Cr	52	**51.739**	**ug/L**	2.113	50215	0.794
	Cr	53		**ug/L**		33649	0.040
	Mn	55	**52.503**	**ug/L**	1.868	86585	1.372
	Fe	57	**5093.273**	**ug/L**	3.171	158069	2.521
	Co	59	**51.665**	**ug/L**	2.794	52618	0.848
	Ni	60	**52.655**	**ug/L**	1.093	10819	0.173
	Cu	63		**ug/L**		23748	0.381
	Cu	65	**51.984**	**ug/L**	1.404	11158	0.179
	Zn	66	**51.808**	**ug/L**	1.002	8077	0.094
	Zn	67		**ug/L**		2485	0.014
	Zn	68		**ug/L**		7073	0.080
>	Ge	74		**ug/L**		85230	85230.013
	As	75	**48.603**	**ug/L**	2.132	12876	0.143
	Se	77		**ug/L**		2291	0.003
	Se	82	**51.447**	**ug/L**	3.358	1026	0.012
	Kr	83		**ug/L**		25	0.000
	Sr	88	**51.351**	**ug/L**	0.140	132806	2.173
	Y	89		**ug/L**		20	0.000
	Zr	90	**38.313**	**ug/L**	10.850	55587	0.905
	Mo	98	**50.565**	**ug/L**	2.029	36341	0.594
	Ag	107	**51.411**	**ug/L**	0.583	63314	1.036
	Cd	111	**51.175**	**ug/L**	0.565	15878	0.260
	Cd	114		**ug/L**		36631	0.599
>	In	115		**ug/L**		61103	61102.840
	Sn	120	**50.650**	**ug/L**	2.829	67865	1.109
	Sb	121	**49.646**	**ug/L**	1.335	63044	1.029
	Sb	123		**ug/L**		48506	0.792
	Ba	135		**ug/L**		16365	0.133
	Ba	137	**51.200**	**ug/L**	2.669	28438	0.231
	Ho	165		**ug/L**		16	0.000
>	Lu	175		**ug/L**		123045	123044.664
	Tl	205	**48.509**	**ug/L**	1.023	269777	2.187
	Pb	208	**51.378**	**ug/L**	2.125	328199	2.667
	Th	232	**52.766**	**ug/L**	0.381	404639	3.285
	U	238	**53.438**	**ug/L**	2.024	431525	3.507

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	0.9999
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	0.9999
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7	102.362				
	Be	9	96.175				
	B	11	98.324				
	Na	23	99.250				
	Mg	24	96.946				
	Al	27	95.360				
	P	31	98.042				
	K	39	100.944				
	Ca	43	97.801				
>	Sc	45		101.7			
	Ti	47	104.257				
	V	51	97.892				
	Cr	52	103.478				
	Cr	53					
	Mn	55	105.006				
	Fe	57	101.865				
	Co	59	103.330				
	Ni	60	105.309				
	Cu	63					
	Cu	65	103.969				
	Zn	66	103.616				
	Zn	67					
	Zn	68					
>	Ge	74		104.3			
	As	75	97.206				
	Se	77					
	Se	82	102.895				
	Kr	83					
	Sr	88	102.701				
	Y	89					
	Zr	90	76.626				
	Mo	98	101.130				
	Ag	107	102.822				
	Cd	111	102.351				
	Cd	114					
>	In	115		103.0			
	Sn	120	101.299				
	Sb	121	99.292				
	Sb	123					
	Ba	135					
	Ba	137	102.400				
	Ho	165					
>	Lu	175		103.4			
	Tl	205	97.017				
	Pb	208	102.757				
	Th	232	105.531				
	U	238	106.877				

QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
QC Std 6	Zr	90CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#3 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Wednesday, December 23, 2009 03:36:56
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\091220\QC Std 7.527

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.092**	ug/L	78.412	11	0.000
	Be	9	**0.002**	ug/L	4904.454	7	0.000
	B	11	**2.453**	ug/L	28.816	102	0.001
	Na	23	**2.560**	ug/L	333.514	3667	0.012
	Mg	24	**3.505**	ug/L	258.675	1000	0.011
	Al	27	**-0.864**	ug/L	171.396	333	-0.006
	P	31	**-1.694**	ug/L	23.336	821	-0.001
	K	39	**12.116**	ug/L	158.940	125889	0.128
	Ca	43	**5.337**	ug/L	155.365	63	0.000
>	Sc	45		ug/L		60556	60555.686
	Ti	47	**0.477**	ug/L	36.406	75	0.001
	V	51	**-0.657**	ug/L	95.474	1928	-0.009
	Cr	52	**-0.283**	ug/L	20.929	768	-0.004
	Cr	53		ug/L		28201	-0.038
	Mn	55	**-0.687**	ug/L	2.831	529	-0.018
	Fe	57	**3.312**	ug/L	46.699	1987	0.002
	Co	59	**0.008**	ug/L	160.061	132	0.000
	Ni	60	**-0.036**	ug/L	66.251	78	-0.000
	Cu	63		ug/L		144	0.000
	Cu	65	**0.056**	ug/L	31.166	106	0.000
	Zn	66	**-0.065**	ug/L	30.877	30	-0.000
	Zn	67		ug/L		1147	-0.001
	Zn	68		ug/L		200	-0.000
>	Ge	74		ug/L		82706	82705.591
	As	75	**-0.380**	ug/L	63.072	606	-0.001
	Se	77		ug/L		1546	-0.005
	Se	82	**-0.532**	ug/L	28.590	0	-0.000
	Kr	83		ug/L		28	0.000
	Sr	88	**-0.000**	ug/L	1957.653	53	-0.000
	Y	89		ug/L		14	-0.000
	Zr	90	**0.100**	ug/L	16.956	366	0.002
	Mo	98	**0.145**	ug/L	19.053	126	0.002
	Ag	107	**0.007**	ug/L	41.080	18	0.000
	Cd	111	**-0.002**	ug/L	1355.595	4	-0.000
	Cd	114		ug/L		14	0.000
>	In	115		ug/L		59380	59380.205
	Sn	120	**0.169**	ug/L	18.442	310	0.004
	Sb	121	**0.454**	ug/L	2.651	692	0.009
	Sb	123		ug/L		551	0.007
	Ba	135		ug/L		9	-0.000
	Ba	137	**-0.009**	ug/L	70.277	10	-0.000
	Ho	165		ug/L		16	0.000
>	Lu	175		ug/L		118684	118683.526
	Tl	205	**0.199**	ug/L	11.946	1779	0.009
	Pb	208	**0.002**	ug/L	47.138	156	0.000
	Th	232	**0.227**	ug/L	6.059	2030	0.014
	U	238	**0.008**	ug/L	40.793	171	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	0.9999
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	0.9999
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		99.4			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		101.2			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		100.1			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		99.7			
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: QC Std 10
Sample Date/Time: Wednesday, December 23, 2009 03:42:41
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\091220\QC Std 10.528

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**987.467**	**ug/L**	0.844	31651	0.545
	Be	9	**936.480**	**ug/L**	0.751	27505	0.474
	B	11	**2.144**	**ug/L**	12.414	91	0.001
	Na	23	**44532.649**	**ug/L**	10.946	11660759	200.938
	Mg	24	**52006.507**	**ug/L**	4.269	9550395	164.576
	Al	27	**48117.005**	**ug/L**	5.805	17783058	306.414
	P	31	**24098.935**	**ug/L**	0.381	748000	12.877
	K	39	**49274.326**	**ug/L**	2.085	30211294	518.734
	Ca	43	**48143.011**	**ug/L**	1.554	60304	1.038
>	Sc	45		**ug/L**		58026	58025.523
	Ti	47	**33.992**	**ug/L**	3.489	2226	0.038
	V	51	**974.577**	**ug/L**	1.461	779159	13.387
	Cr	52	**981.145**	**ug/L**	0.529	874613	15.056
	Cr	53		**ug/L**		131934	1.770
	Mn	55	**975.419**	**ug/L**	1.961	1479917	25.480
	Fe	57	**48713.277**	**ug/L**	0.658	1401076	24.115
	Co	59	**981.985**	**ug/L**	1.107	934903	16.109
	Ni	60	**1011.952**	**ug/L**	1.832	193324	3.331
	Cu	63		**ug/L**		415117	7.152
	Cu	65	**980.744**	**ug/L**	1.396	195562	3.369
	Zn	66	**2353.873**	**ug/L**	1.141	347748	4.284
	Zn	67		**ug/L**		58134	0.701
	Zn	68		**ug/L**		282007	3.471
>	Ge	74		**ug/L**		81170	81169.767
	As	75	**953.238**	**ug/L**	1.313	227701	2.797
	Se	77		**ug/L**		9155	0.089
	Se	82	**504.010**	**ug/L**	1.642	9479	0.117
	Kr	83		**ug/L**		39	0.000
	Sr	88	**1042.190**	**ug/L**	2.474	2573480	44.094
	Y	89		**ug/L**		82	0.001
	Zr	90	**482.103**	**ug/L**	3.662	664881	11.389
	Mo	98	**1005.407**	**ug/L**	2.880	689813	11.819
	Ag	107	**252.962**	**ug/L**	0.605	297597	5.098
	Cd	111	**1005.120**	**ug/L**	4.481	297730	5.102
	Cd	114		**ug/L**		677011	11.599
>	In	115		**ug/L**		58376	58376.228
	Sn	120	**978.276**	**ug/L**	3.224	1250613	21.428
	Sb	121	**248.422**	**ug/L**	5.454	300694	5.151
	Sb	123		**ug/L**		232635	3.985
	Ba	135		**ug/L**		315072	2.579
	Ba	137	**983.254**	**ug/L**	1.880	542214	4.437
	Ho	165		**ug/L**		97	0.001
>	Lu	175		**ug/L**		122218	122217.915
	Tl	205	**492.287**	**ug/L**	2.935	2711912	22.191
	Pb	208	**5193.110**	**ug/L**	2.164	32935601	269.554
	Th	232	**2618.875**	**ug/L**	1.391	19926312	163.063
	U	238	**5483.182**	**ug/L**	3.569	43960411	359.831

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	0.9999
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	0.9999
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Li	7	98.747				
Be	9	93.648				
B	11					
Na	23	89.065				
Mg	24	104.013				
Al	27	96.234				
P	31	96.396				
K	39	98.549				
Ca	43	96.286				
> Sc	45		95.3			
Ti	47					
V	51	97.458				
Cr	52	98.114				
Cr	53					
Mn	55	97.542				
Fe	57	97.427				
Co	59	98.198				
Ni	60	101.195				
Cu	63					
Cu	65	98.074				
Zn	66	94.155				
Zn	67					
Zn	68					
> Ge	74		99.3			
As	75	95.324				
Se	77					
Se	82	100.802				
Kr	83					
Sr	88	104.219				
Y	89					
Zr	90	96.421				
Mo	98	100.541				
Ag	107	101.185				
Cd	111	100.512				
Cd	114					
> In	115		98.4			
Sn	120	97.828				
Sb	121	99.369				
Sb	123					
Ba	135					
Ba	137	98.325				
Ho	165					
> Lu	175		102.7			
Tl	205	98.457				
Pb	208	103.862				
Th	232	104.755				
U	238	109.664				

QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
QC Std 10	Na	23LRS is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#3 - Summary Report

Sample ID: QC Std 11
Sample Date/Time: Wednesday, December 23, 2009 03:48:26
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\091220\QC Std 11.529

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**50.944**	ug/L	1.624	1764	0.028
	Be	9	**48.120**	ug/L	1.181	1527	0.024
	B	11	**97.620**	ug/L	5.213	2115	0.033
	Na	23	**4789.420**	ug/L	17.347	1352200	21.611
	Mg	24	**5545.962**	ug/L	10.441	1095715	17.550
	Al	27	**5065.104**	ug/L	13.806	2014106	32.255
	P	31	**4831.598**	ug/L	2.382	162070	2.582
	K	39	**4683.319**	ug/L	1.432	3199875	49.304
	Ca	43	**4888.150**	ug/L	3.832	6639	0.105
>	Sc	45		ug/L		62435	62434.763
	Ti	47	**49.679**	ug/L	2.692	3480	0.055
	V	51	**48.240**	ug/L	5.082	43915	0.663
	Cr	52	**51.053**	ug/L	2.096	49970	0.783
	Cr	53		ug/L		33442	0.032
	Mn	55	**52.232**	ug/L	2.284	86847	1.364
	Fe	57	**5024.491**	ug/L	2.865	157225	2.487
	Co	59	**51.214**	ug/L	1.776	52578	0.840
	Ni	60	**52.547**	ug/L	0.991	10885	0.173
	Cu	63		ug/L		23650	0.377
	Cu	65	**50.692**	ug/L	0.584	10969	0.174
	Zn	66	**52.393**	ug/L	1.502	8041	0.095
	Zn	67		ug/L		2500	0.015
	Zn	68		ug/L		6994	0.080
>	Ge	74		ug/L		83913	83912.906
	As	75	**48.718**	ug/L	2.520	12703	0.143
	Se	77		ug/L		2294	0.004
	Se	82	**52.855**	ug/L	5.765	1037	0.012
	Kr	83		ug/L		28	0.000
	Sr	88	**50.759**	ug/L	1.618	132788	2.148
	Y	89		ug/L		16	0.000
	Zr	90	**55.662**	ug/L	7.543	81499	1.315
	Mo	98	**50.143**	ug/L	2.297	36462	0.589
	Ag	107	**50.516**	ug/L	1.307	62940	1.018
	Cd	111	**50.955**	ug/L	0.950	15994	0.259
	Cd	114		ug/L		37542	0.607
>	In	115		ug/L		61814	61814.169
	Sn	120	**53.295**	ug/L	1.066	72249	1.167
	Sb	121	**52.046**	ug/L	1.932	66844	1.079
	Sb	123		ug/L		50829	0.821
	Ba	135		ug/L		16400	0.134
	Ba	137	**51.639**	ug/L	2.219	28506	0.233
	Ho	165		ug/L		16	0.000
>	Lu	175		ug/L		122280	122280.072
	Tl	205	**49.704**	ug/L	3.529	274646	2.241
	Pb	208	**52.629**	ug/L	1.543	334131	2.732
	Th	232	**54.154**	ug/L	0.604	412654	3.372
	U	238	**54.286**	ug/L	2.597	435655	3.562

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	0.9999
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	0.9999
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7	101.888				
	Be	9	96.240				
	B	11	97.620				
	Na	23	95.788				
	Mg	24	110.919				
	Al	27	100.299				
	P	31	96.632				
	K	39	93.666				
	Ca	43	97.763				
>	Sc	45			102.5		
	Ti	47	99.358				
	V	51	96.480				
	Cr	52	102.106				
	Cr	53					
	Mn	55	104.464				
	Fe	57	100.490				
	Co	59	102.427				
	Ni	60	105.094				
	Cu	63					
	Cu	65	101.383				
	Zn	66	104.787				
	Zn	67					
	Zn	68					
>	Ge	74			102.7		
	As	75	97.437				
	Se	77					
	Se	82	105.710				
	Kr	83					
	Sr	88	101.517				
	Y	89					
	Zr	90	111.323				
	Mo	98	100.285				
	Ag	107	101.032				
	Cd	111	101.911				
	Cd	114					
>	In	115			104.2		
	Sn	120	106.591				
	Sb	121	104.091				
	Sb	123					
	Ba	135					
	Ba	137	103.278				
	Ho	165					
>	Lu	175			102.8		
	Tl	205	99.408				
	Pb	208	105.257				
	Th	232	108.308				
	U	238	108.572				

QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
QC Std 11	Mg	24CCV is out of limits (+/- 10%)
QC Std 11	Zr	90CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#3 - Summary Report

Sample ID: QC Std 12
Sample Date/Time: Wednesday, December 23, 2009 03:54:11
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\091220\QC Std 12.530

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**-0.029**	**ug/L**	261.170	7	-0.000
	Be	9	**-0.086**	**ug/L**	40.512	4	-0.000
	B	11	**2.320**	**ug/L**	31.093	99	0.001
	Na	23	**0.028**	**ug/L**	22923.679	3000	0.000
	Mg	24	**1.769**	**ug/L**	171.271	667	0.006
	Al	27	**-0.002**	**ug/L**	93823.499	667	-0.000
	P	31	**-1.774**	**ug/L**	83.948	822	-0.001
	K	39	**4.288**	**ug/L**	228.457	121516	0.045
	Ca	43	**10.964**	**ug/L**	180.999	71	0.000
>	Sc	45		**ug/L**		60854	60853.975
	Ti	47	**0.089**	**ug/L**	41.430	50	0.000
	V	51	**-1.437**	**ug/L**	23.329	1283	-0.020
	Cr	52	**-0.295**	**ug/L**	22.500	759	-0.005
	Cr	53		**ug/L**		28321	-0.038
	Mn	55	**-0.686**	**ug/L**	2.051	534	-0.018
	Fe	57	**1.011**	**ug/L**	92.357	1928	0.001
	Co	59	**0.059**	**ug/L**	39.537	184	0.001
	Ni	60	**-0.066**	**ug/L**	55.687	72	-0.000
	Cu	63		**ug/L**		152	0.000
	Cu	65	**0.109**	**ug/L**	31.137	118	0.000
	Zn	66	**0.045**	**ug/L**	68.813	46	0.000
	Zn	67		**ug/L**		1140	-0.001
	Zn	68		**ug/L**		224	-0.000
>	Ge	74		**ug/L**		82832	82832.275
	As	75	**0.591**	**ug/L**	141.655	843	0.002
	Se	77		**ug/L**		1508	-0.005
	Se	82	**-0.693**	**ug/L**	70.453	-3	-0.000
	Kr	83		**ug/L**		34	0.000
	Sr	88	**0.005**	**ug/L**	31.821	66	0.000
	Y	89		**ug/L**		15	0.000
	Zr	90	**0.240**	**ug/L**	3.961	572	0.006
	Mo	98	**0.236**	**ug/L**	11.196	193	0.003
	Ag	107	**0.010**	**ug/L**	31.858	22	0.000
	Cd	111	**0.009**	**ug/L**	235.948	8	0.000
	Cd	114		**ug/L**		13	0.000
>	In	115		**ug/L**		60434	60434.172
	Sn	120	**0.974**	**ug/L**	8.097	1380	0.021
	Sb	121	**1.027**	**ug/L**	10.510	1421	0.021
	Sb	123		**ug/L**		1123	0.017
	Ba	135		**ug/L**		12	0.000
	Ba	137	**0.002**	**ug/L**	117.775	16	0.000
	Ho	165		**ug/L**		14	0.000
>	Lu	175		**ug/L**		118711	118711.110
	Tl	205	**0.368**	**ug/L**	13.856	2686	0.017
	Pb	208	**0.034**	**ug/L**	13.967	350	0.002
	Th	232	**0.327**	**ug/L**	6.959	2768	0.020
	U	238	**0.067**	**ug/L**	9.941	629	0.004

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	0.9999
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	0.9999
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45			99.9		
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74			101.3		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115			101.9		
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175			99.8		
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Wednesday, December 23, 2009 04:34:44
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\091220\QC Std 6.537

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**50.394**	**ug/L**	2.902	1752	0.028
	Be	9	**47.341**	**ug/L**	1.892	1508	0.024
	B	11	**97.402**	**ug/L**	5.960	2119	0.033
	Na	23	**4846.335**	**ug/L**	9.342	1373316	21.867
	Mg	24	**5227.361**	**ug/L**	2.970	1037019	16.542
	Al	27	**5011.476**	**ug/L**	7.830	1999852	31.914
	P	31	**4843.308**	**ug/L**	2.193	163040	2.588
	K	39	**4992.693**	**ug/L**	14.231	3412578	52.560
	Ca	43	**4775.944**	**ug/L**	3.413	6511	0.103
>	Sc	45		**ug/L**		62661	62661.428
	Ti	47	**49.398**	**ug/L**	2.064	3473	0.055
	V	51	**48.890**	**ug/L**	4.149	44637	0.672
	Cr	52	**50.500**	**ug/L**	2.607	49621	0.775
	Cr	53		**ug/L**		37350	0.093
	Mn	55	**51.565**	**ug/L**	1.285	86086	1.347
	Fe	57	**4990.642**	**ug/L**	0.988	156764	2.471
	Co	59	**50.418**	**ug/L**	1.402	51957	0.827
	Ni	60	**51.510**	**ug/L**	1.537	10710	0.170
	Cu	63		**ug/L**		23358	0.371
	Cu	65	**50.458**	**ug/L**	0.188	10959	0.173
	Zn	66	**51.799**	**ug/L**	1.207	8093	0.094
	Zn	67		**ug/L**		2650	0.016
	Zn	68		**ug/L**		7029	0.079
>	Ge	74		**ug/L**		85421	85420.510
	As	75	**46.959**	**ug/L**	1.668	12490	0.138
	Se	77		**ug/L**		2476	0.006
	Se	82	**50.308**	**ug/L**	3.203	1005	0.012
	Kr	83		**ug/L**		25	0.000
	Sr	88	**51.878**	**ug/L**	1.464	133342	2.195
	Y	89		**ug/L**		21	0.000
	Zr	90	**40.443**	**ug/L**	10.322	58313	0.955
	Mo	98	**50.063**	**ug/L**	1.882	35761	0.589
	Ag	107	**50.956**	**ug/L**	0.409	62371	1.027
	Cd	111	**50.599**	**ug/L**	1.761	15603	0.257
	Cd	114		**ug/L**		36656	0.603
>	In	115		**ug/L**		60733	60733.198
	Sn	120	**50.482**	**ug/L**	2.285	67229	1.106
	Sb	121	**49.280**	**ug/L**	1.265	62199	1.022
	Sb	123		**ug/L**		47740	0.784
	Ba	135		**ug/L**		16185	0.132
	Ba	137	**51.072**	**ug/L**	1.369	28276	0.230
	Ho	165		**ug/L**		19	0.000
>	Lu	175		**ug/L**		122624	122623.958
	Tl	205	**47.657**	**ug/L**	2.983	264214	2.148
	Pb	208	**51.202**	**ug/L**	0.796	326044	2.658
	Th	232	**51.610**	**ug/L**	2.304	394472	3.213
	U	238	**52.941**	**ug/L**	0.664	426151	3.474

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	0.9999
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	0.9999
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7	100.789				
	Be	9	94.682				
	B	11	97.402				
	Na	23	96.927				
	Mg	24	104.547				
	Al	27	99.237				
	P	31	96.866				
	K	39	99.854				
	Ca	43	95.519				
>	Sc	45		102.9			
	Ti	47	98.796				
	V	51	97.780				
	Cr	52	101.000				
	Cr	53					
	Mn	55	103.131				
	Fe	57	99.813				
	Co	59	100.836				
	Ni	60	103.021				
	Cu	63					
	Cu	65	100.917				
	Zn	66	103.599				
	Zn	67					
	Zn	68					
>	Ge	74		104.5			
	As	75	93.918				
	Se	77					
	Se	82	100.615				
	Kr	83					
	Sr	88	103.756				
	Y	89					
	Zr	90	80.886				
	Mo	98	100.126				
	Ag	107	101.913				
	Cd	111	101.199				
	Cd	114					
>	In	115		102.4			
	Sn	120	100.964				
	Sb	121	98.560				
	Sb	123					
	Ba	135					
	Ba	137	102.144				
	Ho	165					
>	Lu	175		103.0			
	Tl	205	95.314				
	Pb	208	102.405				
	Th	232	103.220				
	U	238	105.883				

QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
QC Std 6	Zr	90CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#3 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Wednesday, December 23, 2009 04:40:29
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\091220\QC Std 7.538

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	0.028	ug/L	529.142	9	0.000
	Be	9	0.010	ug/L	920.390	7	0.000
	B	11	2.782	ug/L	55.986	110	0.001
	Na	23	-3.689	ug/L	99.338	2000	-0.017
	Mg	24	1.723	ug/L	173.529	667	0.005
	Al	27	-0.857	ug/L	174.049	333	-0.005
	P	31	-1.914	ug/L	80.827	825	-0.001
	K	39	5.395	ug/L	573.980	123204	0.057
	Ca	43	-0.859	ug/L	868.516	55	-0.000
>	Sc	45		ug/L		61422	61422.387
	Ti	47	0.190	ug/L	27.717	57	0.000
	V	51	-1.340	ug/L	86.168	1386	-0.018
	Cr	52	-0.321	ug/L	15.638	743	-0.005
	Cr	53		ug/L		29939	-0.016
	Mn	55	-0.742	ug/L	1.279	448	-0.019
	Fe	57	-1.601	ug/L	197.393	1866	-0.001
	Co	59	0.029	ug/L	19.973	155	0.000
	Ni	60	-0.039	ug/L	116.798	78	-0.000
	Cu	63		ug/L		153	0.000
	Cu	65	0.042	ug/L	101.979	105	0.000
	Zn	66	-0.030	ug/L	102.568	35	-0.000
	Zn	67		ug/L		1262	0.000
	Zn	68		ug/L		215	-0.000
>	Ge	74		ug/L		82813	82813.171
	As	75	0.458	ug/L	59.802	811	0.001
	Se	77		ug/L		1604	-0.004
	Se	82	-0.236	ug/L	191.405	6	-0.000
	Kr	83		ug/L		28	0.000
	Sr	88	0.002	ug/L	78.127	57	0.000
	Y	89		ug/L		12	-0.000
	Zr	90	0.129	ug/L	6.643	405	0.003
	Mo	98	0.079	ug/L	12.438	80	0.001
	Ag	107	0.003	ug/L	132.804	13	0.000
	Cd	111	-0.006	ug/L	137.373	3	-0.000
	Cd	114		ug/L		15	0.000
>	In	115		ug/L		59166	59166.359
	Sn	120	0.166	ug/L	18.664	304	0.004
	Sb	121	0.514	ug/L	13.986	761	0.011
	Sb	123		ug/L		581	0.008
	Ba	135		ug/L		11	0.000
	Ba	137	0.000	ug/L	3550.195	15	0.000
	Ho	165		ug/L		12	0.000
>	Lu	175		ug/L		118109	118108.558
	Tl	205	0.702	ug/L	9.195	4444	0.032
	Pb	208	0.012	ug/L	15.491	217	0.001
	Th	232	0.205	ug/L	11.755	1857	0.013
	U	238	0.013	ug/L	23.356	210	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	0.9999
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	0.9999
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		100.8			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		101.3			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		99.7			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		99.2			
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Wednesday, December 23, 2009 05:03:42
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\091220\QC Std 6.542

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**51.162**	**ug/L**	2.584	1760	0.028
	Be	9	**49.118**	**ug/L**	2.457	1548	0.025
	B	11	**96.441**	**ug/L**	2.550	2076	0.033
	Na	23	**5089.676**	**ug/L**	4.821	1427349	22.965
	Mg	24	**5351.190**	**ug/L**	3.946	1050643	16.934
	Al	27	**4920.182**	**ug/L**	3.609	1943954	31.332
	P	31	**4893.272**	**ug/L**	2.009	163034	2.615
	K	39	**4889.196**	**ug/L**	10.729	3311824	51.471
	Ca	43	**4922.215**	**ug/L**	2.203	6641	0.106
>	Sc	45		**ug/L**		62017	62016.611
	Ti	47	**49.709**	**ug/L**	2.610	3459	0.055
	V	51	**50.159**	**ug/L**	3.047	45257	0.689
	Cr	52	**51.354**	**ug/L**	2.040	49922	0.788
	Cr	53		**ug/L**		39220	0.129
	Mn	55	**52.221**	**ug/L**	1.136	86253	1.364
	Fe	57	**4973.856**	**ug/L**	0.653	154634	2.462
	Co	59	**51.597**	**ug/L**	2.066	52616	0.846
	Ni	60	**52.407**	**ug/L**	3.266	10782	0.172
	Cu	63		**ug/L**		23284	0.373
	Cu	65	**51.364**	**ug/L**	1.014	11039	0.176
	Zn	66	**51.522**	**ug/L**	1.447	8125	0.094
	Zn	67		**ug/L**		2876	0.018
	Zn	68		**ug/L**		7283	0.082
>	Ge	74		**ug/L**		86216	86215.592
	As	75	**47.749**	**ug/L**	2.601	12807	0.140
	Se	77		**ug/L**		2616	0.007
	Se	82	**51.494**	**ug/L**	1.212	1038	0.012
	Kr	83		**ug/L**		28	0.000
	Sr	88	**51.707**	**ug/L**	0.303	132057	2.188
	Y	89		**ug/L**		20	0.000
	Zr	90	**44.794**	**ug/L**	8.332	64076	1.058
	Mo	98	**50.008**	**ug/L**	2.127	35498	0.588
	Ag	107	**50.925**	**ug/L**	1.453	61931	1.026
	Cd	111	**50.985**	**ug/L**	1.524	15622	0.259
	Cd	114		**ug/L**		36300	0.601
>	In	115		**ug/L**		60340	60339.864
	Sn	120	**50.843**	**ug/L**	2.840	67286	1.114
	Sb	121	**48.879**	**ug/L**	5.182	61290	1.014
	Sb	123		**ug/L**		46966	0.777
	Ba	135		**ug/L**		16071	0.131
	Ba	137	**51.491**	**ug/L**	1.054	28506	0.232
	Ho	165		**ug/L**		14	0.000
>	Lu	175		**ug/L**		122603	122602.770
	Tl	205	**47.038**	**ug/L**	0.511	260690	2.120
	Pb	208	**51.231**	**ug/L**	0.473	326179	2.659
	Th	232	**51.325**	**ug/L**	1.180	392193	3.196
	U	238	**52.471**	**ug/L**	0.970	422251	3.443

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	0.9999
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	0.9999
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7	102.324				
	Be	9	98.236				
	B	11	96.441				
	Na	23	101.794				
	Mg	24	107.024				
	Al	27	97.429				
	P	31	97.865				
	K	39	97.784				
	Ca	43	98.444				
>	Sc	45		101.8			
	Ti	47	99.417				
	V	51	100.319				
	Cr	52	102.708				
	Cr	53					
	Mn	55	104.443				
	Fe	57	99.477				
	Co	59	103.194				
	Ni	60	104.813				
	Cu	63					
	Cu	65	102.728				
	Zn	66	103.043				
	Zn	67					
	Zn	68					
>	Ge	74		105.5			
	As	75	95.498				
	Se	77					
	Se	82	102.988				
	Kr	83					
	Sr	88	103.413				
	Y	89					
	Zr	90	89.588				
	Mo	98	100.016				
	Ag	107	101.851				
	Cd	111	101.969				
	Cd	114					
>	In	115		101.7			
	Sn	120	101.687				
	Sb	121	97.757				
	Sb	123					
	Ba	135					
	Ba	137	102.983				
	Ho	165					
>	Lu	175		103.0			
	Tl	205	94.075				
	Pb	208	102.462				
	Th	232	102.650				
	U	238	104.941				

QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
QC Std 6	Zr	90CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#3 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Wednesday, December 23, 2009 05:09:28
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\091220\QC Std 7.543

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.040**	**ug/L**	212.391	9	0.000
	Be	9	**-0.001**	**ug/L**	4530.102	7	-0.000
	B	11	**2.231**	**ug/L**	62.206	97	0.001
	Na	23	**-4.913**	**ug/L**	82.227	1667	-0.022
	Mg	24	**-1.729**	**ug/L**		0	-0.005
	Al	27	**0.004**	**ug/L**	38302.981	667	0.000
	P	31	**-2.806**	**ug/L**	53.706	790	-0.001
	K	39	**-7.915**	**ug/L**	270.486	114126	-0.083
	Ca	43	**10.577**	**ug/L**	38.991	70	0.000
>	Sc	45		**ug/L**		61023	61022.720
	Ti	47	**0.231**	**ug/L**	26.462	59	0.000
	V	51	**-0.682**	**ug/L**	73.818	1930	-0.009
	Cr	52	**-0.281**	**ug/L**	23.769	775	-0.004
	Cr	53		**ug/L**		30099	-0.010
	Mn	55	**-0.752**	**ug/L**	1.064	430	-0.020
	Fe	57	**-2.314**	**ug/L**	95.008	1832	-0.001
	Co	59	**0.033**	**ug/L**	21.300	158	0.001
	Ni	60	**0.017**	**ug/L**	216.705	89	0.000
	Cu	63		**ug/L**		159	0.001
	Cu	65	**0.056**	**ug/L**	78.857	107	0.000
	Zn	66	**-0.019**	**ug/L**	189.755	37	-0.000
	Zn	67		**ug/L**		1317	0.001
	Zn	68		**ug/L**		209	-0.000
>	Ge	74		**ug/L**		82934	82933.561
	As	75	**0.060**	**ug/L**	800.952	714	0.000
	Se	77		**ug/L**		1597	-0.004
	Se	82	**0.184**	**ug/L**	164.009	14	0.000
	Kr	83		**ug/L**		23	0.000
	Sr	88	**0.002**	**ug/L**	160.412	57	0.000
	Y	89		**ug/L**		12	-0.000
	Zr	90	**0.150**	**ug/L**	10.030	432	0.004
	Mo	98	**0.080**	**ug/L**	33.722	81	0.001
	Ag	107	**0.011**	**ug/L**	35.521	23	0.000
	Cd	111	**-0.005**	**ug/L**	514.259	3	-0.000
	Cd	114		**ug/L**		12	-0.000
>	In	115		**ug/L**		58936	58935.836
	Sn	120	**0.154**	**ug/L**	14.394	288	0.003
	Sb	121	**0.468**	**ug/L**	11.149	703	0.010
	Sb	123		**ug/L**		524	0.007
	Ba	135		**ug/L**		11	0.000
	Ba	137	**-0.000**	**ug/L**	918.686	15	-0.000
	Ho	165		**ug/L**		11	0.000
>	Lu	175		**ug/L**		119831	119831.011
	Tl	205	**0.398**	**ug/L**	13.889	2869	0.018
	Pb	208	**0.011**	**ug/L**	16.539	214	0.001
	Th	232	**0.169**	**ug/L**	11.642	1612	0.011
	U	238	**0.012**	**ug/L**	17.166	206	0.001

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	0.9999
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	1.0000
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	0.9999
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Zr	90Linear Thru Zero	1.0000
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
Pb	208Linear Thru Zero	1.0000
Th	232Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		100.2			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		101.5			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		99.3			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		100.7			
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: 1201998460
Sample Date/Time: Wednesday, December 23, 2009 05:15:14
Sample Type:
Sample Description: LANL 6020 MB
Number of Replicates: 3
Batch ID: 934063|1|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\091220\1201998460.544

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.114**	**ug/L**	102.365	12	0.000
	Be	9	**-0.056**	**ug/L**	203.996	5	-0.000
	B	11	**0.868**	**ug/L**	41.587	70	0.000
	Na	23	**1.086**	**ug/L**	188.965	3334	0.005
	Mg	24	**1.630**	**ug/L**	356.981	667	0.005
	Al	27	**-0.049**	**ug/L**	5849.277	667	-0.000
	P	31	**-1.636**	**ug/L**	31.909	836	-0.001
	K	39	**11.089**	**ug/L**	207.110	127236	0.117
	Ca	43	**23.728**	**ug/L**	22.124	88	0.001
>	Sc	45		**ug/L**		61549	61548.622
	Ti	47	**0.306**	**ug/L**	39.315	65	0.000
	V	51	**-2.462**	**ug/L**	24.947	427	-0.034
	Cr	52	**1.111**	**ug/L**	12.938	2095	0.017
	Cr	53		**ug/L**		62742	0.516
	Mn	55	**-0.677**	**ug/L**	2.912	553	-0.018
	Fe	57	**8.446**	**ug/L**	41.732	2175	0.004
	Co	59	**0.038**	**ug/L**	15.619	164	0.001
	Ni	60	**0.042**	**ug/L**	95.254	95	0.000
	Cu	63		**ug/L**		251	0.002
	Cu	65	**0.207**	**ug/L**	15.926	140	0.001
	Zn	66	**0.754**	**ug/L**	4.333	156	0.001
	Zn	67		**ug/L**		3213	0.023
	Zn	68		**ug/L**		502	0.003
>	Ge	74		**ug/L**		84200	84199.917
	As	75	**3.986**	**ug/L**	21.228	1696	0.012
	Se	77		**ug/L**		4677	0.032
	Se	82	**0.102**	**ug/L**	132.779	13	0.000
	Kr	83		**ug/L**		22	0.000
	Sr	88	**0.027**	**ug/L**	6.390	118	0.001
	Y	89		**ug/L**		12	-0.000
	Zr	90	**1.737**	**ug/L**	12.559	2582	0.041
	Mo	98	**0.016**	**ug/L**	77.192	35	0.000
	Ag	107	**0.007**	**ug/L**	40.388	17	0.000
	Cd	111	**-0.007**	**ug/L**	154.227	3	-0.000
	Cd	114		**ug/L**		8	-0.000
>	In	115		**ug/L**		57676	57675.702
	Sn	120	**0.705**	**ug/L**	9.566	976	0.015
	Sb	121	**0.198**	**ug/L**	30.478	365	0.004
	Sb	123		**ug/L**		291	0.003
	Ba	135		**ug/L**		12	0.000
	Ba	137	**0.023**	**ug/L**	65.591	27	0.000
	Ho	165		**ug/L**		14	0.000
>	Lu	175		**ug/L**		118419	118418.969
	Tl	205	**0.143**	**ug/L**	8.758	1478	0.006
	Pb	208	**-0.003**	**ug/L**	88.049	124	-0.000
	Th	232	**0.108**	**ug/L**	22.197	1147	0.007
	U	238	**-0.009**	**ug/L**	6.929	40	-0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	0.9999
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	0.9999
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		101.0			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		103.0			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		97.2			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		99.5			
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: 1201998461
Sample Date/Time: Wednesday, December 23, 2009 05:21:02
Sample Type:
Sample Description: LANL 6020 LCS
Number of Replicates: 3
Batch ID: 934063|1|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\091220\1201998461.545

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**51.907**	ug/L	4.992	1809	0.029
	Be	9	**54.973**	ug/L	5.588	1755	0.028
	B	11	**110.513**	ug/L	2.014	2403	0.037
	Na	23	**2164.013**	ug/L	1.333	616698	9.764
	Mg	24	**2318.037**	ug/L	3.698	461338	7.335
	Al	27	**2223.410**	ug/L	8.324	890352	14.159
	P	31	**2120.743**	ug/L	1.691	72119	1.133
	K	39	**2042.196**	ug/L	1.358	1473615	21.499
	Ca	43	**2135.011**	ug/L	0.895	2952	0.046
>	Sc	45		ug/L		62842	62841.542
	Ti	47	**49.670**	ug/L	2.911	3502	0.055
	V	51	**51.743**	ug/L	3.175	47231	0.711
	Cr	52	**54.230**	ug/L	0.554	53364	0.832
	Cr	53		ug/L		72066	0.643
	Mn	55	**53.421**	ug/L	1.361	89374	1.396
	Fe	57	**2143.146**	ug/L	1.000	68632	1.061
	Co	59	**53.542**	ug/L	1.248	55324	0.878
	Ni	60	**54.283**	ug/L	1.440	11315	0.179
	Cu	63		ug/L		24922	0.394
	Cu	65	**53.325**	ug/L	1.690	11609	0.183
	Zn	66	**51.767**	ug/L	2.356	8159	0.094
	Zn	67		ug/L		4824	0.041
	Zn	68		ug/L		7434	0.083
>	Ge	74		ug/L		86204	86203.640
	As	75	**55.642**	ug/L	2.171	14805	0.163
	Se	77		ug/L		5633	0.042
	Se	82	**51.279**	ug/L	2.217	1034	0.012
	Kr	83		ug/L		30	0.000
	Sr	88	**52.916**	ug/L	2.123	132327	2.239
	Y	89		ug/L		17	0.000
	Zr	90	**54.960**	ug/L	1.386	76933	1.298
	Mo	98	**51.771**	ug/L	2.931	35972	0.609
	Ag	107	**53.465**	ug/L	1.668	63655	1.077
	Cd	111	**51.912**	ug/L	1.476	15573	0.264
	Cd	114		ug/L		36657	0.620
>	In	115		ug/L		59088	59088.203
	Sn	120	**53.529**	ug/L	3.021	69338	1.172
	Sb	121	**54.340**	ug/L	3.920	66676	1.127
	Sb	123		ug/L		51612	0.872
	Ba	135		ug/L		15997	0.132
	Ba	137	**52.072**	ug/L	3.111	28442	0.235
	Ho	165		ug/L		18	0.000
>	Lu	175		ug/L		120996	120995.945
	Tl	205	**47.783**	ug/L	1.162	261378	2.154
	Pb	208	**53.799**	ug/L	2.952	337882	2.792
	Th	232	**53.438**	ug/L	0.215	402961	3.327
	U	238	**55.348**	ug/L	1.166	439515	3.632

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	0.9999
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	1.0000
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	0.9999
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Zr	90Linear Thru Zero	1.0000
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
Pb	208Linear Thru Zero	1.0000
Th	232Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		103.2			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		105.5			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		99.6			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		101.7			
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: 242940001
Sample Date/Time: Wednesday, December 23, 2009 05:26:50
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 934063|1|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\091220\242940001.546

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	-0.070	ug/L	98.759	5	-0.000
	Be	9	-0.097	ug/L	83.800	4	-0.000
	B	11	3.453	ug/L	15.461	123	0.001
	Na	23	13.304	ug/L	56.562	6668	0.060
	Mg	24	-0.001	ug/L	338939.807	333	-0.000
	Al	27	6.005	ug/L	0.198	3000	0.038
	P	31	2.100	ug/L	98.183	950	0.001
	K	39	40.103	ug/L	65.533	144736	0.422
	Ca	43	22.742	ug/L	17.833	86	0.000
>	Sc	45		ug/L		60998	60997.556
	Ti	47	0.562	ug/L	12.889	82	0.001
	V	51	0.501	ug/L	392.323	2915	0.007
	Cr	52	0.762	ug/L	8.766	1751	0.012
	Cr	53		ug/L		58727	0.459
	Mn	55	-0.580	ug/L	2.945	703	-0.015
	Fe	57	19.228	ug/L	9.237	2483	0.010
	Co	59	0.040	ug/L	59.492	165	0.001
	Ni	60	0.049	ug/L	33.463	95	0.000
	Cu	63		ug/L		225	0.002
	Cu	65	0.200	ug/L	36.006	137	0.001
	Zn	66	1.215	ug/L	5.964	225	0.002
	Zn	67		ug/L		2966	0.020
	Zn	68		ug/L		532	0.003
>	Ge	74		ug/L		83790	83790.191
	As	75	3.527	ug/L	11.620	1575	0.010
	Se	77		ug/L		4021	0.025
	Se	82	-0.516	ug/L	20.430	1	-0.000
	Kr	83		ug/L		29	0.000
	Sr	88	0.027	ug/L	2.884	119	0.001
	Y	89		ug/L		15	0.000
	Zr	90	0.668	ug/L	9.942	1143	0.016
	Mo	98	0.040	ug/L	55.790	52	0.000
	Ag	107	0.007	ug/L	78.011	17	0.000
	Cd	111	-0.000	ug/L	3388.576	5	-0.000
	Cd	114		ug/L		9	-0.000
>	In	115		ug/L		58444	58444.435
	Sn	120	0.201	ug/L	1.399	346	0.004
	Sb	121	0.160	ug/L	16.590	324	0.003
	Sb	123		ug/L		277	0.003
	Ba	135		ug/L		35	0.000
	Ba	137	0.071	ug/L	16.371	52	0.000
	Ho	165		ug/L		16	0.000
>	Lu	175		ug/L		117821	117821.044
	Tl	205	0.701	ug/L	14.915	4434	0.032
	Pb	208	0.005	ug/L	35.149	171	0.000
	Th	232	0.151	ug/L	39.778	1454	0.009
	U	238	-0.006	ug/L	17.771	59	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	0.9999
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	0.9999
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45			100.1		
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74			102.5		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115			98.5		
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175			99.0		
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: 1201998462
Sample Date/Time: Wednesday, December 23, 2009 05:32:38
Sample Type:
Sample Description: LANL 6020 DUP
Number of Replicates: 3
Batch ID: 934063|1|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\091220\1201998462.547

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	-0.032	ug/L	186.561	7	-0.000
	Be	9	-0.045	ug/L	181.047	5	-0.000
	B	11	1.012	ug/L	28.822	73	0.000
	Na	23	-3.686	ug/L	2.538	2000	-0.017
	Mg	24	-0.034	ug/L	8746.424	333	-0.000
	Al	27	2.529	ug/L	114.308	1667	0.016
	P	31	0.430	ug/L	466.550	900	0.000
	K	39	19.072	ug/L	51.714	131941	0.201
	Ca	43	27.985	ug/L	13.816	93	0.001
>	Sc	45		ug/L		61306	61305.554
	Ti	47	0.615	ug/L	19.453	86	0.001
	V	51	1.186	ug/L	185.378	3489	0.016
	Cr	52	1.067	ug/L	7.281	2046	0.016
	Cr	53		ug/L		65441	0.564
	Mn	55	-0.653	ug/L	1.123	591	-0.017
	Fe	57	8.481	ug/L	13.837	2169	0.004
	Co	59	0.030	ug/L	35.092	156	0.000
	Ni	60	0.133	ug/L	43.112	113	0.000
	Cu	63		ug/L		210	0.001
	Cu	65	0.157	ug/L	15.830	129	0.001
	Zn	66	0.961	ug/L	3.871	185	0.002
	Zn	67		ug/L		3465	0.026
	Zn	68		ug/L		552	0.004
>	Ge	74		ug/L		83116	83115.942
	As	75	4.126	ug/L	26.640	1709	0.012
	Se	77		ug/L		4658	0.033
	Se	82	-0.043	ug/L	867.757	10	-0.000
	Kr	83		ug/L		24	0.000
	Sr	88	0.022	ug/L	6.084	106	0.001
	Y	89		ug/L		16	0.000
	Zr	90	0.535	ug/L	11.369	952	0.013
	Mo	98	0.006	ug/L	96.749	29	0.000
	Ag	107	0.004	ug/L	113.407	13	0.000
	Cd	111	0.001	ug/L	2671.612	5	0.000
	Cd	114		ug/L		7	-0.000
>	In	115		ug/L		58020	58020.191
	Sn	120	0.121	ug/L	6.994	241	0.003
	Sb	121	0.052	ug/L	9.094	192	0.001
	Sb	123		ug/L		148	0.001
	Ba	135		ug/L		22	0.000
	Ba	137	0.043	ug/L	20.872	38	0.000
	Ho	165		ug/L		16	0.000
>	Lu	175		ug/L		117780	117780.375
	Tl	205	0.216	ug/L	2.150	1856	0.010
	Pb	208	-0.001	ug/L	74.869	136	-0.000
	Th	232	0.027	ug/L	24.866	544	0.002
	U	238	-0.011	ug/L	1.238	24	-0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	0.9999
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	0.9999
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		100.7			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		101.7			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		97.8			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		99.0			
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: 1201998463
Sample Date/Time: Wednesday, December 23, 2009 05:38:27
Sample Type:
Sample Description: LANL 6020 MS
Number of Replicates: 3
Batch ID: 934063|1|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\091220\1201998463.548

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**51.443**	ug/L	1.976	1802	0.028
	Be	9	**54.521**	ug/L	4.288	1749	0.028
	B	11	**108.997**	ug/L	3.311	2382	0.037
	Na	23	**2335.572**	ug/L	3.613	668636	10.538
	Mg	24	**2256.647**	ug/L	6.722	451376	7.141
	Al	27	**2212.885**	ug/L	13.037	890534	14.092
	P	31	**2050.284**	ug/L	1.874	70095	1.096
	K	39	**1963.650**	ug/L	2.571	1428738	20.672
	Ca	43	**2094.551**	ug/L	1.663	2911	0.045
>	Sc	45		ug/L		63151	63150.904
	Ti	47	**47.272**	ug/L	4.211	3351	0.052
	V	51	**51.336**	ug/L	3.037	47111	0.705
	Cr	52	**54.857**	ug/L	1.297	54234	0.842
	Cr	53		ug/L		72919	0.651
	Mn	55	**52.274**	ug/L	2.914	87916	1.366
	Fe	57	**2113.632**	ug/L	1.896	68046	1.046
	Co	59	**52.502**	ug/L	1.374	54520	0.861
	Ni	60	**52.871**	ug/L	2.698	11077	0.174
	Cu	63		ug/L		24090	0.379
	Cu	65	**52.330**	ug/L	2.473	11450	0.180
	Zn	66	**54.627**	ug/L	3.404	8493	0.099
	Zn	67		ug/L		4952	0.043
	Zn	68		ug/L		7715	0.088
>	Ge	74		ug/L		85055	85055.384
	As	75	**85.305**	ug/L	1.989	22003	0.250
	Se	77		ug/L		5254	0.038
	Se	82	**19.550**	ug/L	4.851	396	0.005
	Kr	83		ug/L		31	0.000
	Sr	88	**53.105**	ug/L	1.568	130510	2.247
	Y	89		ug/L		19	0.000
	Zr	90	**56.469**	ug/L	6.248	77632	1.334
	Mo	98	**51.632**	ug/L	1.111	35270	0.607
	Ag	107	**53.048**	ug/L	1.410	62075	1.069
	Cd	111	**10.499**	ug/L	2.378	3099	0.053
	Cd	114		ug/L		7185	0.124
>	In	115		ug/L		58067	58066.832
	Sn	120	**53.440**	ug/L	2.178	68050	1.171
	Sb	121	**218.236**	ug/L	1.672	262873	4.525
	Sb	123		ug/L		200964	3.459
	Ba	135		ug/L		16074	0.133
	Ba	137	**51.056**	ug/L	2.035	27935	0.230
	Ho	165		ug/L		66	0.000
>	Lu	175		ug/L		121186	121186.170
	Tl	205	**95.106**	ug/L	0.825	520312	4.287
	Pb	208	**42.591**	ug/L	2.381	267986	2.211
	Th	232	**53.572**	ug/L	1.267	404649	3.336
	U	238	**54.081**	ug/L	1.613	430114	3.549

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	0.9999
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	0.9999
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		103.7			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		104.1			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		97.9			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		101.8			
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: 1201998464
Sample Date/Time: Wednesday, December 23, 2009 05:44:17
Sample Type:
Sample Description: LANL 6020 SDILT
Number of Replicates: 3
Batch ID: 934063|5|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\091220\1201998464.549

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	-0.039	ug/L	318.664	6	-0.000
	Be	9	0.021	ug/L	224.904	7	0.000
	B	11	2.226	ug/L	29.310	98	0.001
	Na	23	4.721	ug/L	317.420	4334	0.021
	Mg	24	1.698	ug/L	349.661	667	0.005
	Al	27	-0.867	ug/L	170.031	333	-0.006
	P	31	-0.760	ug/L	112.290	858	-0.000
	K	39	-0.401	ug/L	2797.459	118826	-0.004
	Ca	43	11.937	ug/L	76.846	72	0.000
>	Sc	45		ug/L		61076	61075.577
	Ti	47	0.259	ug/L	20.901	61	0.000
	V	51	-1.564	ug/L	77.825	1183	-0.021
	Cr	52	-0.055	ug/L	69.190	987	-0.001
	Cr	53		ug/L		39290	0.140
	Mn	55	-0.718	ug/L	0.618	484	-0.019
	Fe	57	1.244	ug/L	213.069	1941	0.001
	Co	59	0.031	ug/L	73.704	156	0.001
	Ni	60	0.006	ug/L	460.768	87	0.000
	Cu	63		ug/L		201	0.001
	Cu	65	0.118	ug/L	44.341	120	0.000
	Zn	66	0.783	ug/L	7.363	154	0.001
	Zn	67		ug/L		1729	0.006
	Zn	68		ug/L		383	0.002
>	Ge	74		ug/L		81001	81001.151
	As	75	0.677	ug/L	155.428	844	0.002
	Se	77		ug/L		2323	0.005
	Se	82	-0.066	ug/L	367.279	9	-0.000
	Kr	83		ug/L		21	0.000
	Sr	88	0.010	ug/L	20.312	75	0.000
	Y	89		ug/L		11	-0.000
	Zr	90	-0.094	ug/L	5.064	90	-0.002
	Mo	98	0.029	ug/L	16.608	45	0.000
	Ag	107	0.000	ug/L	575.141	10	0.000
	Cd	111	-0.028	ug/L	2.392	-3	-0.000
	Cd	114		ug/L		11	-0.000
>	In	115		ug/L		57819	57819.013
	Sn	120	0.054	ug/L	23.387	156	0.001
	Sb	121	0.340	ug/L	19.056	537	0.007
	Sb	123		ug/L		408	0.005
	Ba	135		ug/L		20	0.000
	Ba	137	0.025	ug/L	52.640	28	0.000
	Ho	165		ug/L		11	0.000
>	Lu	175		ug/L		117929	117929.296
	Tl	205	0.864	ug/L	15.776	5299	0.039
	Pb	208	0.014	ug/L	12.780	225	0.001
	Th	232	0.071	ug/L	19.805	867	0.004
	U	238	-0.007	ug/L	6.513	52	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	0.9999
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	0.9999
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		100.3			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		99.1			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		97.5			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		99.1			
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: 242940002
Sample Date/Time: Wednesday, December 23, 2009 05:50:07
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 934063|1|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\091220\242940002.550

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**-0.022**	**ug/L**	355.930	7	-0.000
	Be	9	**-0.023**	**ug/L**	277.552	6	-0.000
	B	11	**0.539**	**ug/L**	110.084	63	0.000
	Na	23	**66.065**	**ug/L**	47.955	21351	0.298
	Mg	24	**17.098**	**ug/L**	16.792	3667	0.054
	Al	27	**52.759**	**ug/L**	35.460	21351	0.336
	P	31	**0.830**	**ug/L**	66.691	917	0.000
	K	39	**56.791**	**ug/L**	60.793	156869	0.598
	Ca	43	**71.870**	**ug/L**	22.781	152	0.002
>	Sc	45		**ug/L**		61515	61515.111
	Ti	47	**1.456**	**ug/L**	1.521	143	0.002
	V	51	**0.361**	**ug/L**	321.037	2824	0.005
	Cr	52	**2.434**	**ug/L**	8.587	3343	0.037
	Cr	53		**ug/L**		65082	0.554
	Mn	55	**0.202**	**ug/L**	9.012	1965	0.005
	Fe	57	**42.899**	**ug/L**	14.865	3225	0.021
	Co	59	**0.133**	**ug/L**	9.935	260	0.002
	Ni	60	**0.878**	**ug/L**	5.708	264	0.003
	Cu	63		**ug/L**		406	0.005
	Cu	65	**0.622**	**ug/L**	8.552	227	0.002
	Zn	66	**2.336**	**ug/L**	1.708	399	0.004
	Zn	67		**ug/L**		3357	0.025
	Zn	68		**ug/L**		711	0.006
>	Ge	74		**ug/L**		84448	84448.099
	As	75	**4.441**	**ug/L**	19.015	1816	0.013
	Se	77		**ug/L**		4812	0.034
	Se	82	**-0.655**	**ug/L**	113.607	-2	-0.000
	Kr	83		**ug/L**		31	0.000
	Sr	88	**0.325**	**ug/L**	4.828	849	0.014
	Y	89		**ug/L**		99	0.001
	Zr	90	**0.099**	**ug/L**	8.366	356	0.002
	Mo	98	**0.051**	**ug/L**	19.083	59	0.001
	Ag	107	**0.002**	**ug/L**	34.918	12	0.000
	Cd	111	**0.016**	**ug/L**	90.979	9	0.000
	Cd	114		**ug/L**		19	0.000
>	In	115		**ug/L**		57923	57922.885
	Sn	120	**0.183**	**ug/L**	8.443	319	0.004
	Sb	121	**0.096**	**ug/L**	22.310	245	0.002
	Sb	123		**ug/L**		205	0.002
	Ba	135		**ug/L**		184	0.001
	Ba	137	**0.594**	**ug/L**	7.406	329	0.003
	Ho	165		**ug/L**		24	0.000
>	Lu	175		**ug/L**		117467	117466.615
	Tl	205	**0.304**	**ug/L**	3.939	2317	0.014
	Pb	208	**0.062**	**ug/L**	5.718	517	0.003
	Th	232	**0.073**	**ug/L**	24.155	879	0.005
	U	238	**-0.006**	**ug/L**	12.873	57	-0.000

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	0.9999
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	1.0000
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	0.9999
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Zr	90Linear Thru Zero	1.0000
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
Pb	208Linear Thru Zero	1.0000
Th	232Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		101.0			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		103.3			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		97.6			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		98.7			
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Wednesday, December 23, 2009 05:55:54
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\091220\QC Std 6.551

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**51.186**	**ug/L**	2.632	1743	0.028
	Be	9	**50.774**	**ug/L**	4.251	1584	0.026
	B	11	**99.853**	**ug/L**	5.532	2127	0.034
	Na	23	**5173.268**	**ug/L**	11.277	1437465	23.343
	Mg	24	**5252.456**	**ug/L**	4.074	1021677	16.622
	Al	27	**5010.742**	**ug/L**	10.655	1958754	31.909
	P	31	**4889.077**	**ug/L**	1.621	161318	2.612
	K	39	**4716.769**	**ug/L**	6.647	3168156	49.656
	Ca	43	**4947.613**	**ug/L**	3.589	6614	0.107
>	Sc	45		**ug/L**		61423	61422.741
	Ti	47	**50.179**	**ug/L**	2.224	3457	0.056
	V	51	**49.674**	**ug/L**	2.527	44424	0.682
	Cr	52	**51.037**	**ug/L**	1.845	49140	0.783
	Cr	53		**ug/L**		38793	0.128
	Mn	55	**51.769**	**ug/L**	2.755	84675	1.352
	Fe	57	**4920.765**	**ug/L**	1.151	151522	2.436
	Co	59	**50.300**	**ug/L**	2.169	50796	0.825
	Ni	60	**52.057**	**ug/L**	0.925	10610	0.171
	Cu	63		**ug/L**		23015	0.373
	Cu	65	**51.145**	**ug/L**	1.001	10886	0.176
	Zn	66	**51.993**	**ug/L**	1.189	7953	0.095
	Zn	67		**ug/L**		2813	0.018
	Zn	68		**ug/L**		6992	0.081
>	Ge	74		**ug/L**		83618	83617.538
	As	75	**48.240**	**ug/L**	4.580	12538	0.142
	Se	77		**ug/L**		2599	0.008
	Se	82	**48.719**	**ug/L**	4.075	954	0.011
	Kr	83		**ug/L**		27	0.000
	Sr	88	**51.107**	**ug/L**	0.946	130853	2.162
	Y	89		**ug/L**		17	0.000
	Zr	90	**40.029**	**ug/L**	11.762	57426	0.946
	Mo	98	**48.790**	**ug/L**	2.631	34720	0.574
	Ag	107	**49.768**	**ug/L**	2.101	60676	1.003
	Cd	111	**49.600**	**ug/L**	2.992	15235	0.252
	Cd	114		**ug/L**		35778	0.591
>	In	115		**ug/L**		60491	60490.849
	Sn	120	**49.570**	**ug/L**	1.647	65770	1.086
	Sb	121	**48.215**	**ug/L**	4.783	60608	1.000
	Sb	123		**ug/L**		46571	0.768
	Ba	135		**ug/L**		15661	0.130
	Ba	137	**51.284**	**ug/L**	1.116	27937	0.231
	Ho	165		**ug/L**		18	0.000
>	Lu	175		**ug/L**		120645	120644.835
	Tl	205	**48.089**	**ug/L**	2.408	262227	2.168
	Pb	208	**51.574**	**ug/L**	2.609	323082	2.677
	Th	232	**52.078**	**ug/L**	1.443	391540	3.243
	U	238	**53.253**	**ug/L**	2.409	421715	3.495

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	0.9999
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	0.9999
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7	102.371				
	Be	9	101.548				
	B	11	99.853				
	Na	23	103.465				
	Mg	24	105.049				
	Al	27	99.223				
	P	31	97.782				
	K	39	94.335				
	Ca	43	98.952				
>	Sc	45		100.8			
	Ti	47	100.358				
	V	51	99.349				
	Cr	52	102.075				
	Cr	53					
	Mn	55	103.538				
	Fe	57	98.415				
	Co	59	100.600				
	Ni	60	104.113				
	Cu	63					
	Cu	65	102.289				
	Zn	66	103.985				
	Zn	67					
	Zn	68					
>	Ge	74		102.3			
	As	75	96.480				
	Se	77					
	Se	82	97.438				
	Kr	83					
	Sr	88	102.213				
	Y	89					
	Zr	90	80.057				
	Mo	98	97.581				
	Ag	107	99.536				
	Cd	111	99.200				
	Cd	114					
>	In	115		102.0			
	Sn	120	99.140				
	Sb	121	96.430				
	Sb	123					
	Ba	135					
	Ba	137	102.567				
	Ho	165					
>	Lu	175		101.4			
	Tl	205	96.177				
	Pb	208	103.147				
	Th	232	104.155				
	U	238	106.507				

QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
QC Std 6	Zr	90CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#3 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Wednesday, December 23, 2009 06:01:40
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\091220\QC Std 7.552

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	-0.039	ug/L	50.240	6	-0.000
	Be	9	-0.086	ug/L	3.083	4	-0.000
	B	11	1.974	ug/L	42.890	92	0.001
	Na	23	-7.314	ug/L	48.658	1000	-0.033
	Mg	24	0.026	ug/L	11897.036	333	0.000
	Al	27	-0.847	ug/L	178.400	333	-0.005
	P	31	-1.907	ug/L	81.227	817	-0.001
	K	39	12.931	ug/L	137.843	126897	0.136
	Ca	43	1.164	ug/L	658.627	57	0.000
>	Sc	45		ug/L		60840	60840.256
	Ti	47	0.348	ug/L	20.222	67	0.000
	V	51	-0.192	ug/L	446.325	2319	-0.003
	Cr	52	-0.326	ug/L	9.429	731	-0.005
	Cr	53		ug/L		30344	-0.005
	Mn	55	-0.777	ug/L	2.031	388	-0.020
	Fe	57	-2.181	ug/L	170.413	1830	-0.001
	Co	59	0.033	ug/L	47.166	157	0.001
	Ni	60	-0.023	ug/L	64.733	81	-0.000
	Cu	63		ug/L		159	0.001
	Cu	65	0.014	ug/L	271.807	98	0.000
	Zn	66	-0.013	ug/L	281.588	38	-0.000
	Zn	67		ug/L		1282	0.000
	Zn	68		ug/L		216	-0.000
>	Ge	74		ug/L		82909	82908.792
	As	75	-0.452	ug/L	152.711	592	-0.001
	Se	77		ug/L		1619	-0.004
	Se	82	-0.493	ug/L	125.603	1	-0.000
	Kr	83		ug/L		27	0.000
	Sr	88	0.005	ug/L	13.881	64	0.000
	Y	89		ug/L		10	-0.000
	Zr	90	0.125	ug/L	3.064	397	0.003
	Mo	98	0.065	ug/L	34.911	70	0.001
	Ag	107	0.008	ug/L	44.557	18	0.000
	Cd	111	0.003	ug/L	884.504	6	0.000
	Cd	114		ug/L		9	-0.000
>	In	115		ug/L		58744	58744.336
	Sn	120	0.141	ug/L	7.482	271	0.003
	Sb	121	0.455	ug/L	15.528	685	0.009
	Sb	123		ug/L		526	0.007
	Ba	135		ug/L		12	0.000
	Ba	137	-0.002	ug/L	282.698	14	-0.000
	Ho	165		ug/L		13	0.000
>	Lu	175		ug/L		117911	117911.209
	Tl	205	0.360	ug/L	12.343	2624	0.016
	Pb	208	0.011	ug/L	9.487	207	0.001
	Th	232	0.207	ug/L	9.019	1863	0.013
	U	238	0.012	ug/L	26.067	202	0.001

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	0.9999
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	1.0000
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	0.9999
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Zr	90Linear Thru Zero	1.0000
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
Pb	208Linear Thru Zero	1.0000
Th	232Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		99.9			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		101.4			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		99.0			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		99.1			
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

==========
Method Name: WATER
Method Description: 7470A, 245.2, ILM04 ANALYST ETL
Element: Hg

Date: 12/23/2009
Technique:FI-MHS
Calibration Type:
Hg, Calc. Intercept : Linear
Wavelength: 253.7 nm
Sample Info Name: 122309W1.SIF Results Data Set Name: 122309W1

==========
Element: Hg Seq. No.: 1 AS Loc.: 1 Date: 12/23/2009
Sample ID: Calib Blank

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1			0.0033	0.0033	08:16:29	No
2			0.0031	0.0031	08:17:04	No
Mean:			0.0032			
SD :			0.0002			
%RSD:			5.1163			

Auto-zero performed.

==========
Element: Hg Seq. No.: 2 AS Loc.: 2 Date: 12/23/2009
Sample ID: S0.2

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1			0.0023	0.0055	08:18:26	No
2			0.0021	0.0053	08:19:00	No
Mean:			0.0022			
SD :			0.0001			
%RSD:			6.5442			

[Hg] Standard number 1 applied. [0.200]
Correlation Coefficient: 1.00000 Slope: 0.01091
Intercept : 0.00000

==========
Element: Hg Seq. No.: 3 AS Loc.: 3 Date: 12/23/2009
Sample ID: S0.5

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1			0.0035	0.0067	08:20:23	No
2			0.0034	0.0066	08:20:58	No
Mean:			0.0034			
SD :			0.0000			
%RSD:			0.6613			

[Hg] Standard number 2 applied. [0.500]
Correlation Coefficient: 0.96456 Slope: 0.00669
Intercept : 0.00032

==========
Element: Hg Seq. No.: 4 AS Loc.: 4 Date: 12/23/2009
Sample ID: S2.0

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1			0.0157	0.0189	08:22:22	No
2			0.0155	0.0187	08:22:57	No
Mean:			0.0156			
SD :			0.0001			
%RSD:			0.7915			

[Hg] Standard number 3 applied. [2.000]

Correlation Coefficient: 0.99808 Slope: 0.00772
Intercept : 0.00010

==========
Element: Hg Seq. No.: 5 AS Loc.: 5 Date: 12/23/2009
Sample ID: S5.0

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1			0.0401	0.0433	08:24:22	No
2			0.0399	0.0431	08:24:57	No
Mean:			0.0400			
SD :			0.0001			
%RSD:			0.3724			

[Hg] Standard number 4 applied. [5.000]
Correlation Coefficient: 0.99966 Slope: 0.00798
Intercept : -0.00004

==========
Element: Hg Seq. No.: 6 AS Loc.: 6 Date: 12/23/2009
Sample ID: S10

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1			0.0777	0.0809	08:26:24	No
2			0.0774	0.0806	08:26:59	No
Mean:			0.0775			
SD :			0.0002			
%RSD:			0.2896			

[Hg] Standard number 5 applied. [10.00]
Correlation Coefficient: 0.99982 Slope: 0.00778
Intercept : 0.00019

Calibration data for Hg

Standard ID	Mean Signal (Pk Height)	Entered Concentration (µg/L)	Calculated Concentration (µg/L)	Standard Deviation	%RSD
Calib Blank	0.0032	---	----	----	----
S0.2	0.0022	0.200	0.256	0.0001	6.5
S0.5	0.0034	0.500	0.419	0.0000	0.7
S2.0	0.0156	2.000	1.983	0.0001	0.8
S5.0	0.0400	5.000	5.120	0.0001	0.4
S10	0.0775	10.000	9.946	0.0002	0.3

Correlation Coefficient: 0.99982 Slope: 0.00778 Intercept: 0.0002

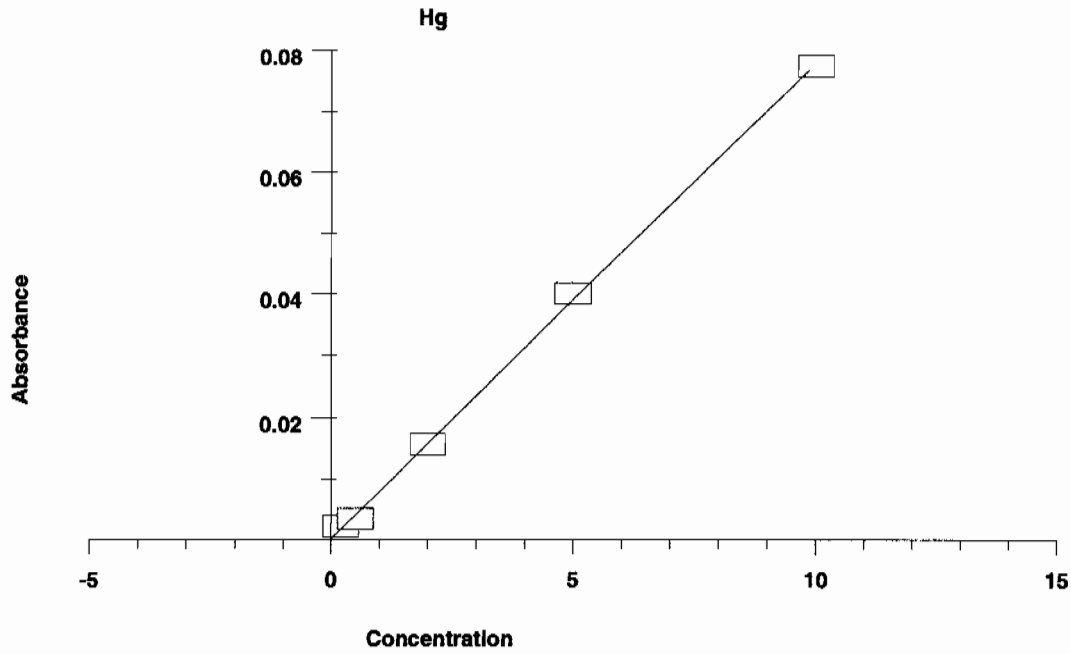

Element: Hg Seq. No.: 7 AS Loc.: 9 Date: 12/23/2009
Sample ID: ICV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	5.032	5.032	0.0393	0.0425	08:28:27	No
2	4.968	4.968	0.0388	0.0420	08:29:02	No
Mean:	5.000	5.000	0.0391			
SD :	0.0455	0.0455	0.0004			
%RSD:	0.9	0.9	0.9052			

QC value within specified limits.

Element: Hg Seq. No.: 8 AS Loc.: 10 Date: 12/23/2009
Sample ID: ICB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.059	-0.059	-0.0003	0.0029	08:30:24	No
2	-0.058	-0.058	-0.0003	0.0029	08:30:59	No
Mean:	-0.058	-0.058	-0.0003			
SD :	0.0009	0.0009	0.0000			
%RSD:	1.6	1.6	2.7603			

QC value within specified limits.

Element: Hg Seq. No.: 9 AS Loc.: 11 Date: 12/23/2009
Sample ID: CRDL

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.144	0.144	0.0013	0.0045	08:32:22	No
2	0.142	0.142	0.0013	0.0045	08:32:57	No
Mean:	0.143	0.143	0.0013			
SD :	0.0013	0.0013	0.0000			
%RSD:	0.9	0.9	0.7879			

QC value within specified limits.

Element: Hg Seq. No.: 10 AS Loc.: 7 Date: 12/23/2009
Sample ID: CCV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	4.908	4.908	0.0384	0.0416	08:34:22	No
2	4.882	4.882	0.0382	0.0414	08:34:56	No
Mean:	4.895	4.895	0.0383			
SD :	0.0183	0.0183	0.0001			
%RSD:	0.4	0.4	0.3719			

QC value within specified limits.

Element: Hg Seq. No.: 11 AS Loc.: 8 Date: 12/23/2009
Sample ID: CCB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.044	-0.044	-0.0002	0.0031	08:36:24	No
2	-0.050	-0.050	-0.0002	0.0030	08:36:59	No
Mean:	-0.047	-0.047	-0.0002			
SD :	0.0044	0.0044	0.0000			
%RSD:	9.4	9.4	19.6610			

QC value within specified limits.

Element: Hg Seq. No.: 12 AS Loc.: 12 Date: 12/23/2009
Sample ID: 1202000160|i||934864|MB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.047	-0.047	-0.0002	0.0030	08:38:25	No
2	-0.075	-0.075	-0.0004	0.0028	08:38:59	No
Mean:	-0.061	-0.061	-0.0003			
SD :	0.0192	0.0192	0.0001			
%RSD:	31.4	31.4	52.6281			

Element: Hg Seq. No.: 13 AS Loc.: 13 Date: 12/23/2009
Sample ID: 1202000161|i|||LCS

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	2.025	2.025	0.0159	0.0191	08:40:23	No
2	2.019	2.019	0.0159	0.0191	08:40:57	No
Mean:	2.022	2.022	0.0159			
SD :	0.0038	0.0038	0.0000			
%RSD:	0.2	0.2	0.1836			

Element: Hg Seq. No.: 14 AS Loc.: 14 Date: 12/23/2009
Sample ID: 242751001|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.052	-0.052	-0.0002	0.0030	08:42:23	No
2	-0.053	-0.053	-0.0002	0.0030	08:42:58	No
Mean:	-0.053	-0.053	-0.0002			
SD :	0.0009	0.0009	0.0000			
%RSD:	1.7	1.7	3.1256			

Element: Hg Seq. No.: 15 AS Loc.: 15 Date: 12/23/2009
Sample ID: 242751002|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.061	-0.061	-0.0003	0.0029	08:44:24	No
2	-0.058	-0.058	-0.0003	0.0029	08:44:59	No
Mean:	-0.059	-0.059	-0.0003			
SD :	0.0017	0.0017	0.0000			
%RSD:	2.9	2.9	5.0043			

Element: Hg Seq. No.: 16 AS Loc.: 16 Date: 12/23/2009
Sample ID: 242782001|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.113	-0.113	-0.0007	0.0025	08:46:26	No
2	-0.127	-0.127	-0.0008	0.0024	08:47:01	No
Mean:	-0.120	-0.120	-0.0007			
SD :	0.0096	0.0096	0.0001			
%RSD:	8.0	8.0	10.0226			

Element: Hg Seq. No.: 17 AS Loc.: 17 Date: 12/23/2009
Sample ID: 242782002|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.095	-0.095	-0.0005	0.0027	08:48:26	No
2	-0.111	-0.111	-0.0007	0.0025	08:49:01	No
Mean:	-0.103	-0.103	-0.0006			
SD :	0.0113	0.0113	0.0001			
%RSD:	11.0	11.0	14.4762			

Element: Hg Seq. No.: 18 AS Loc.: 18 Date: 12/23/2009
Sample ID: 242940001|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.084	-0.084	-0.0005	0.0027	08:50:22	No
2	-0.102	-0.102	-0.0006	0.0026	08:50:57	No
Mean:	-0.093	-0.093	-0.0005			
SD :	0.0126	0.0126	0.0001			
%RSD:	13.5	13.5	18.3806			

Element: Hg Seq. No.: 19 AS Loc.: 19 Date: 12/23/2009
Sample ID: 242940002|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.073	-0.073	-0.0004	0.0028	08:52:18	No
2	-0.099	-0.099	-0.0006	0.0026	08:52:52	No
Mean:	-0.086	-0.086	-0.0005			
SD :	0.0177	0.0177	0.0001			
%RSD:	20.6	20.6	28.9240			

Element: Hg Seq. No.: 20 AS Loc.: 20 Date: 12/23/2009
Sample ID: 243085001|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.078	-0.078	-0.0004	0.0028	08:54:14	No
2	-0.090	-0.090	-0.0005	0.0027	08:54:49	No
Mean:	-0.084	-0.084	-0.0005			
SD :	0.0084	0.0084	0.0001			

%RSD: 10.1 10.1 14.2857

==========

Element: Hg Seq. No.: 21 AS Loc.: 21 Date: 12/23/2009
Sample ID: 243108001|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.108	-0.108	-0.0006	0.0026	08:56:11	No
2	-0.097	-0.097	-0.0006	0.0026	08:56:46	No
Mean:	-0.102	-0.102	-0.0006			
SD :	0.0078	0.0078	0.0001			
%RSD:	7.7	7.7	10.0946			

==========

Element: Hg Seq. No.: 22 AS Loc.: 7 Date: 12/23/2009
Sample ID: CCV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	5.012	5.012	0.0392	0.0424	08:58:10	No
2	5.012	5.012	0.0392	0.0424	08:58:46	No
Mean:	5.012	5.012	0.0392			
SD :	0.0004	0.0004	0.0000			
%RSD:						

QC value within specified limits.

==========

Element: Hg Seq. No.: 23 AS Loc.: 8 Date: 12/23/2009
Sample ID: CCB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.091	-0.091	-0.0005	0.0027	09:00:14	No
2	-0.103	-0.103	-0.0006	0.0026	09:00:49	No
Mean:	-0.097	-0.097	-0.0006			
SD :	0.0079	0.0079	0.0001			
%RSD:	8.2	8.2	10.9631			

QC value within specified limits.

==========

Element: Hg Seq. No.: 24 AS Loc.: 22 Date: 12/23/2009
Sample ID: 1202000162|i|||DUP

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.097	-0.097	-0.0006	0.0026	09:02:14	No
2	-0.106	-0.106	-0.0006	0.0026	09:02:49	No
Mean:	-0.102	-0.102	-0.0006			
SD :	0.0063	0.0063	0.0000			
%RSD:	6.2	6.2	8.2058			

==========

Element: Hg Seq. No.: 25 AS Loc.: 23 Date: 12/23/2009
Sample ID: 1202000163|i|||MS

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	2.075	2.075	0.0163	0.0195	09:04:13	No
2	2.071	2.071	0.0163	0.0195	09:04:48	No
Mean:	2.073	2.073	0.0163			
SD :	0.0027	0.0027	0.0000			
%RSD:	0.1	0.1	0.1303			

==========

Element: Hg Seq. No.: 26 AS Loc.: 24 Date: 12/23/2009
Sample ID: 1202000164|5||SDILT

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.157	-0.157	-0.0010	0.0022	09:06:12	No
2	-0.159	-0.159	-0.0010	0.0022	09:06:47	No
Mean:	-0.158	-0.158	-0.0010			
SD :	0.0016	0.0016	0.0000			
%RSD:	1.0	1.0	1.1798			

Element: Hg Seq. No.: 27 AS Loc.: 25 Date: 12/23/2009
Sample ID: 243108002|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.117	-0.117	-0.0007	0.0025	09:08:11	No
2	-0.128	-0.128	-0.0008	0.0024	09:08:46	No
Mean:	-0.122	-0.122	-0.0008			
SD :	0.0078	0.0078	0.0001			
%RSD:	6.4	6.4	7.9708			

Element: Hg Seq. No.: 28 AS Loc.: 26 Date: 12/23/2009
Sample ID: 1202000186|i||934874|MB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.130	-0.130	-0.0008	0.0024	09:10:10	No
2	-0.133	-0.133	-0.0008	0.0024	09:10:44	No
Mean:	-0.131	-0.131	-0.0008			
SD :	0.0019	0.0019	0.0000			
%RSD:	1.4	1.4	1.7375			

Element: Hg Seq. No.: 29 AS Loc.: 27 Date: 12/23/2009
Sample ID: 1202000187|i|||LCS

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	2.071	2.071	0.0163	0.0195	09:12:11	No
2	2.054	2.054	0.0162	0.0194	09:12:45	No
Mean:	2.063	2.063	0.0162			
SD :	0.0125	0.0125	0.0001			
%RSD:	0.6	0.6	0.6001			

Element: Hg Seq. No.: 30 AS Loc.: 28 Date: 12/23/2009
Sample ID: 242538001|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	1.931	1.931	0.0152	0.0184	09:14:11	No
2	1.724	1.724	0.0136	0.0168	09:14:46	No
Mean:	1.827	1.827	0.0144			
SD :	0.1464	0.1464	0.0011			
%RSD:	8.0	8.0	7.9026			

Element: Hg Seq. No.: 31 AS Loc.: 29 Date: 12/23/2009
Sample ID: 1202000188|i|||DUP

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	1.687	1.687	0.0133	0.0165	09:16:12	No
2	1.648	1.648	0.0130	0.0162	09:16:47	No
Mean:	1.668	1.668	0.0132			
SD :	0.0274	0.0274	0.0002			

%RSD: 1.6 1.6 1.6209

==========

Element: Hg Seq. No.: 32 AS Loc.: 30 Date: 12/23/2009
Sample ID: 1202000189|i|||MS

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	3.546	3.546	0.0278	0.0310	09:18:14	No
2	3.522	3.522	0.0276	0.0308	09:18:49	No
Mean:	3.534	3.534	0.0277			
SD :	0.0169	0.0169	0.0001			
%RSD:	0.5	0.5	0.4751			

==========

Element: Hg Seq. No.: 33 AS Loc.: 31 Date: 12/23/2009
Sample ID: 1202000190|i|5||SDILT

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.250	0.250	0.0021	0.0053	09:20:16	No
2	0.239	0.239	0.0020	0.0053	09:20:51	No
Mean:	0.245	0.245	0.0021			
SD :	0.0081	0.0081	0.0001			
%RSD:	3.3	3.3	3.0045			

==========

Element: Hg Seq. No.: 34 AS Loc.: 7 Date: 12/23/2009
Sample ID: CCV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	5.839	5.839	0.0456	0.0488	09:22:18	No
2	5.843	5.843	0.0456	0.0488	09:22:54	No
Mean:	5.841	5.841	0.0456			
SD :	0.0033	0.0033	0.0000			
%RSD:						

QC failed, value greater than upper limit for Hg.
Current analysis method being continued.

==========

Element: Hg Seq. No.: 35 AS Loc.: 8 Date: 12/23/2009
Sample ID: CCB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.101	-0.101	-0.0006	0.0026	09:24:22	No
2	-0.108	-0.108	-0.0006	0.0026	09:24:56	No
Mean:	-0.104	-0.104	-0.0006			
SD :	0.0053	0.0053	0.0000			
%RSD:	5.1	5.1	6.6100			

QC value within specified limits.

==========

Element: Hg Seq. No.: 36 AS Loc.: 32 Date: 12/23/2009
Sample ID: 242538002|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.013	-0.013	0.0001	0.0033	09:26:19	No
2	-0.042	-0.042	-0.0001	0.0031	09:26:54	No
Mean:	-0.027	-0.027	0.0000			
SD :	0.0206	0.0206	0.0002			
%RSD:	75.3	75.3	757.1831			

==========

Element: Hg Seq. No.: 37 AS Loc.: 33 Date: 12/23/2009

Miscellaneous

Prep LogBook

Analyst: TXB3 Verified by:_____

Batch: 934863

Lab SOP: GL-MA-E-010 REV# 23

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1202000161	WHG091222-13	.2	mL
MS	1202000163	WHG091222-13	.2	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Ph	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1202000160		SW846 7470A Prep	22-DEC-2009 15:05	<2	20 mL	20 mL	1	WATER
LCS	1202000161		SW846 7470A Prep	22-DEC-2009 15:05	<2	20 mL	20 mL	1	WATER
SAMPLE	242751001		SW846 7470A Prep	22-DEC-2009 15:05	<2	20 mL	20 mL	1	WATER
SAMPLE	242751002		SW846 7470A Prep	22-DEC-2009 15:05	<2	20 mL	20 mL	1	WATER
SAMPLE	242782001		SW846 7470A Prep	22-DEC-2009 15:05	<2	20 mL	20 mL	1	WATER
SAMPLE	242782002		SW846 7470A Prep	22-DEC-2009 15:05	<2	20 mL	20 mL	1	WATER
SAMPLE	242940001		SW846 7470A Prep	22-DEC-2009 15:05	<2	20 mL	20 mL	1	WATER
SAMPLE	242940002		SW846 7470A Prep	22-DEC-2009 15:05	<2	20 mL	20 mL	1	WATER
SAMPLE	243085001		SW846 7470A Prep	22-DEC-2009 15:05	<2	20 mL	20 mL	1	WATER
SAMPLE	243108001		SW846 7470A Prep	22-DEC-2009 15:05	<2	20 mL	20 mL	1	WATER
DUP	1202000162	243108001	SW846 7470A Prep	22-DEC-2009 15:05	<2	20 mL	20 mL	1	WATER
MS	1202000163	243108001	SW846 7470A Prep	22-DEC-2009 15:05	<2	20 mL	20 mL	1	WATER
SDILT	1202000164	243108001	SW846 7470A Prep	22-DEC-2009 15:05	<2	20 mL	20 mL	1	WATER
SAMPLE	243108002		SW846 7470A Prep	22-DEC-2009 15:05	<2	20 mL	20 mL	1	WATER

Reagent/Solvent Lot ID	Amount	Description
1176183	1 mL	Sulfuric Acid, Concentrated
1240182-1	.5 mL	NITRIC ACID
1234385-C	1.5 mL	5% Potassium Persulfate
1244904-C	3 mL	5% KMnO4 solution
1206350-C	1 mL	Hg reducing agent
WHG091222-06	500 uL	Mercury Working 2nd Source 5.0/ICV
WHG091222-01	20 uL	Mercury Working 1st Source CAL 0.2/CRA
WHG091222-02	50 uL	Mercury Working 1st Source CAL 0.5
WHG091222-05	1 mL	Mercury Working 1st Source CAL 10.0
WHG091222-03	200 uL	Mercury Working 1st Source CAL 2.0
WHG091222-04	500 uL	Mercury Working 1st Source CAL 5.0/CCV

Comments: Digestion Start Date: 22-DEC-09 15:05
Digestion End Date: 22-DEC-09 17:05

Prep LogBook

Analyst: BCD1 Verified by:_____

Batch: 934067

Lab SOP: GL-MA-E-006 REV# 9

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1201998470	UI091216-01	.25	mL
LCS	1201998470	UI091216-06	.25	mL
MS	1201998472	UI091216-01	.25	mL
MS	1201998472	UI091216-06	.25	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Ph	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1201998469		SW846 3005A	19-DEC-2009 12:34	<2	50 mL	50 mL	1	WATER
LCS	1201998470		SW846 3005A	19-DEC-2009 12:34	<2	50 mL	50 mL	1	WATER
SAMPLE	242940001		SW846 3005A	19-DEC-2009 12:34	<2	50 mL	50 mL	1	WATER
DUP	1201998471	242940001	SW846 3005A	19-DEC-2009 12:34	<2	50 mL	50 mL	1	WATER
MS	1201998472	242940001	SW846 3005A	19-DEC-2009 12:34	<2	50 mL	50 mL	1	WATER
SDILT	1201998473	242940001	SW846 3005A	19-DEC-2009 12:34	<2	50 mL	50 mL	1	WATER
SAMPLE	242940002		SW846 3005A	19-DEC-2009 12:34	<2	50 mL	50 mL	1	WATER

Reagent/Solvent Lot ID	Amount	Description
1244970	2.5 mL	HYDROCHLORIC ACID
1238345	1 mL	Nitric Acid CONC.

Comments

Prep LogBook

Analyst: BCD1 Verified by:_____

Batch: 934062

Lab SOP: GL-MA-E-006 REV# 9

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1201998461	UI091124-A00	.5	mL
LCS	1201998461	UI091124-B	.5	mL
MS	1201998463	UI090930-A	.5	mL
MS	1201998463	UI090930-B	.5	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Ph	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1201998460		SW846 3005A	19-DEC-2009 12:44	<2	50 mL	50 mL	1	WATER
LCS	1201998461		SW846 3005A	19-DEC-2009 12:44	<2	50 mL	50 mL	1	WATER
SAMPLE	242940001		SW846 3005A	19-DEC-2009 12:44	<2	50 mL	50 mL	1	WATER
DUP	1201998462	242940001	SW846 3005A	19-DEC-2009 12:44	<2	50 mL	50 mL	1	WATER
MS	1201998463	242940001	SW846 3005A	19-DEC-2009 12:44	<2	50 mL	50 mL	1	WATER
SDILT	1201998464	242940001	SW846 3005A	19-DEC-2009 12:44	<2	50 mL	50 mL	1	WATER
SAMPLE	242940002		SW846 3005A	19-DEC-2009 12:44	<2	50 mL	50 mL	1	WATER

Reagent/Solvent Lot ID	Amount	Description
1244970	2.5 mL	HYDROCHLORIC ACID
1238345	1 mL	Nitric Acid CONC.

Comments.

Standard Logbook

Serial ID: UHG1167639-01 **Opened:** 13-AUG-09 **Amount :** 125 mL
Name: MHGSTOCK1 **Received:** 13-AUG-09 **Catalog Number :** PLHG4-2Y
Type: Source Material **Expires:** 13-AUG-10 **Lot Number :** 15-37HG
Employee: Bryan Davis **Solvent :** 10% HNO3
Supplier: Spex
Description: Mercury Source Standard #1 1,000 mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Mercury	1000 mg/L		

Serial ID: UHG1167641-02 **Opened:** 13-AUG-09 **Amount :** 100 mL
Name: MHGSTOCK2 **Received:** 13-AUG-09 **Catalog Number :** AHG1KN-100
Type: Source Material **Expires:** 13-AUG-10 **Lot Number :** 4905530
Employee: Bryan Davis **Solvent :** 3% HNO3
Supplier: Ricca Chemical Company
Description: Mercury Source Standard #2 1,000 mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Mercury	999.7 mg/L		

Serial ID: UI090610-03 **Opened:** 10-JUN-09 **Catalog Number :** 060074-06-01
Name: ICPMS Tungsten - 10mg/L S **Received:** 10-JUN-09 **Lot Number :** 1016338
Type: Source Material **Expires:** 10-JUN-10 **Solvent :** 2% HNO3
Employee: Paul Boyd
Supplier: O2SI
Description: ICPMS Tungsten standard SPIKE - 10mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Tungsten	10 mg/L		

Serial ID: UI090701-09 **Opened:** 01-JUL-09 **Amount :** 250 mL
Name: ICP-MS CRDL Master #1 **Received:** 01-JUL-09 **Catalog Number :** 160044-09-02
Type: Source Material **Expires:** 01-JUL-10 **Lot Number :** 1016477
Employee: Paul Boyd **Solvent :** +/- 0.5% IN 2% HNO3
Supplier: 02SI
Description: ICPMS CRDL Master Soln #1
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	15 mg/L	Arsenic	5 mg/L
Barium	2 mg/L	Beryllium	.5 mg/L
Boron	15 mg/L	Cadmium	1 mg/L
Calcium	100 mg/L	Chromium	3 mg/L

Analyte	Concentration	Analyte	Concentration
Cobalt	1 mg/L	Copper	1 mg/L
Iron	25 mg/L	Lead	2 mg/L
Lithium	10 mg/L	Magnesium	15 mg/L
Manganese	5 mg/L	Nickel	2 mg/L
Phosphorous	50 mg/L	Potassium	300 mg/L
Selenium	5 mg/L	Sodium	250 mg/L
Strontium	10 mg/L	Thallium	1 mg/L
Thorium	1 mg/L	Uranium	.2 mg/L
Vanadium	10 mg/L	Zinc	10 mg/L

Serial ID: UI090701-10 **Opened:** 01-JUL-09 **Amount :** 250 mL
Name: ICP-MS CRDL Master #2 **Received:** 01-JUL-09 **Catalog Number :** 160044-08-02
Type: Source Material **Expires:** 01-JUL-10 **Lot Number :** 1016476
Employee: Paul Boyd **Solvent :** +/- 0.5% IN 2% HNO3
Supplier: 02SI
Description: ICPMS CRDL Soln #2
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	2 mg/L	Molybdenum	.5 mg/L
Silver	1 mg/L	Tin	2 mg/L
Titanium	10 mg/L	Tungsten	5 mg/L
Zirconium	2 mg/L		

Serial ID: UI090828-42 **Opened:** 16-SEP-09 **Amount :** 500 mL
Name: TRACE ICP Na-1000SOUR **Received:** 27-AUG-09 **Catalog Number :** 060011-02-03
Type: Source Material **Expires:** 16-SEP-10 **Lot Number :** 1017098
Employee: Helen Camello **Solvent :** 1%HNO3
Supplier: 02SI
Description: Sodium 1000 +/- 3 ug/mL in 1% HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Sodium	1000 ug/mL		

Serial ID: UI090930-A **Opened:** 30-SEP-09 **Catalog Number :** 160067-02
Name: ICP-MS DOE Liquid SPIKE **Received:** 28-SEP-09 **Lot Number :** 1017141
Type: Source Material **Expires:** 30-SEP-10
Employee: Francena Armstrong **Verified:** 21-NOV-08
Supplier: O2Si
Description: ICP-MS DOE liquid Spike Solution A
Comments: None

Analyte	Concentration	Analyte	Concentration

Analyte	Concentration	Analyte	Concentration
Aluminum	200 mg/L	Arsenic	8 mg/L
Barium	5 mg/L	Beryllium	5 mg/L
Boron	10 mg/L	Cadmium	1 mg/L
Calcium	200 mg/L	Chromium	5 mg/L
Cobalt	5 mg/L	Copper	5 mg/L
Iron	200 mg/L	Lead	4 mg/L
Lithium	5 mg/L	Magnesium	200 mg/L
Manganese	5 mg/L	Nickel	5 mg/L
Phosphorus, Total as P	200 mg/L	Potassium	200 mg/L
Selenium	2 mg/L	Silicon	200 mg/L
Sodium	200 mg/L	Strontium	5 mg/L
Thallium	10 mg/L	Thorium	5 mg/L
Total Uranium	5 mg/L	Uranium	5 mg/L
Uranium-235	.0364 mg/L	Uranium-238	4.96 mg/L
Vanadium	5 mg/L	Zinc	5 mg/L

Serial ID: UI090930-B **Opened:** 30-SEP-09 **Catalog Number :** 160067-02
Name: ICP-MS DOE Liquid SPIKE **Received:** 28-SEP-09 **Lot Number :** 1017141
Type: Source Material **Expires:** 30-SEP-10
Employee: Francena Armstrong **Verified:** 21-NOV-08
Supplier: O2Si
Description: ICP-MS DOE Liquid Spike Solution B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	20 mg/L	Molybdenum	5 mg/L
Silver	5 mg/L	Tin	5 mg/L
Titanium	5 mg/L	Zirconium	5 mg/L

Serial ID: UI091015-42 **Opened:** 28-OCT-09 **Amount :** 500 mL
Name: SI 1000mg/L **Received:** 15-OCT-09 **Catalog Number :** 060014-02-03
Type: Source Material **Expires:** 28-OCT-10 **Lot Number :** 1017581
Employee: Helen Camello **Solvent :** 0.3%H2O(NH4)2SiF6
Supplier: o2si
Description: Silicon 1000mg/L+/-0.3%in H2O(NH4)2SiF6
Comments: None

Analyte	Concentration	Analyte	Concentration
Silica	2139 mg/L	Silicon	1000 mg/L

Standard Logbook

Serial ID: UI091102-40 **Opened:** 16-NOV-09 **Amount :** 500 mL
Name: TRACE CALSTD#1A SOUF **Received:** 02-NOV-09 **Catalog Number :** HP2270-1-500
Type: Source Material **Expires:** 31-OCT-10 **Lot Number :** 0930215
Employee: Helen Camello **Solvent :** HNO3
Supplier: Environmental Express
Description: Trace Calibration Std #1A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	2000 mg/L	Arsenic	200 mg/L
Barium	200 mg/L	Beryllium	200 mg/L
Boron	200 mg/L	Cadmium	200 mg/L
Calcium	2000 mg/L	Chromium	200 mg/L
Cobalt	200 mg/L	Copper	200 mg/L
Iron	2000 mg/L	Lead	200 mg/L
Magnesium	2000 mg/L	Manganese	200 mg/L
Nickel	200 mg/L	Phosphorous	1000 mg/L
Potassium	2000 mg/L	Selenium	200 mg/L
Sodium	2000 mg/L	Strontium	200 mg/L
Thallium	200 mg/L	Uranium	200 mg/L
Vanadium	200 mg/L	Zinc	200 mg/L

Serial ID: UI091102-41 **Opened:** 16-NOV-09 **Amount :** 500 mL
Name: TRACE CALSTD#1B SOUF **Received:** 02-NOV-09 **Catalog Number :** HP2270-2-500
Type: Source Material **Expires:** 31-OCT-10 **Lot Number :** 0930216
Employee: Helen Camello **Solvent :** HNO3
Supplier: Environmental Express
Description: Trace Calibration Standard #1B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	200 mg/L	Molybdenum	200 mg/L
Silver	200 mg/L	Sulfur	400 mg/L
Tin	200 mg/L	Titanium	200 mg/L

Serial ID: UI091124-A00 **Opened:** 24-NOV-09 **Catalog Number :** 160067-05
Name: ICP-MS ALL OTHER SPIKE **Received:** 24-NOV-09 **Lot Number :** 1017644
Type: Source Material **Expires:** 24-NOV-10
Employee: Francena Armstrong
Supplier: O2si
Description: ICP-MS SPIKE FOR ALL CLIENTS EXCEPT DOE CLIENTS (Solution A).
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	200 mg/L	Arsenic	5 mg/L
Barium	5 mg/L	Beryllium	5 mg/L

Analyte	Concentration	Analyte	Concentration
Bismuth	5 mg/L	Boron	10 mg/L
Cadmium	5 mg/L	Calcium	200 mg/L
Cesium	5 mg/L	Chromium	5 mg/L
Cobalt	5 mg/L	Copper	5 mg/L
Iron	200 mg/L	Lead	5 mg/L
Lithium	5 mg/L	Magnesium	200 mg/L
Manganese	5 mg/L	Nickel	5 mg/L
Phosphorous	200 mg/L	Potassium	200 mg/L
Selenium	5 mg/L	Sodium	200 mg/L
Strontium	5 mg/L	Thallium	5 mg/L
Thorium	5 mg/L	Uranium	5 mg/L
Uranium-235	.036 mg/L	Uranium-238	4.964 mg/L
Vanadium	5 mg/L	Zinc	5 mg/L

Serial ID: UI091124-B **Opened:** 24-NOV-09 **Catalog Number :** 160067-05
Name: ICP-MS ALL OTHER SPIKE **Received:** 24-NOV-09 **Lot Number :** 1017644
Type: Source Material **Expires:** 24-NOV-10
Employee: Francena Armstrong
Supplier: O2si
Description: MS SPIKE FOR ALL CLIENTS EXCEPT DOE CLIENTS (Solution B).
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	5 mg/L	Molybdenum	5 mg/L
Silver	5 mg/L	Tin	5 mg/L
Titanium	5 mg/L	Zirconium	5 mg/L

Serial ID: UI091130-48 **Opened:** 11-DEC-09 **Amount :** 1000 mL
Name: Trace ICP ICSA **Received:** 01-DEC-09 **Catalog Number :** 160005-02
Type: Source Material **Expires:** 01-JAN-10 **Lot Number :** 1018045
Employee: Helen Camello **Solvent :** 3% HCl + 1% HNO3
Supplier: o2si
Description: Trace ICP Interferent Check Standard A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 UG/L	Calcium	500000 UG/L
Iron	200000 UG/L	Magnesium	500000 UG/L

Serial ID: UI091211-40 **Opened:** 11-DEC-09 **Amount :** 500 mL
Name: ICP HIGH RANGE STD-A **Received:** 09-DEC-09 **Catalog Number :** 160211-05-03
Type: Source Material **Expires:** 11-DEC-10 **Lot Number :** 1017958
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3
Supplier: 02SI

Description: ICP HIGH RANGE STD SOLUTION A
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	10000 ug/L	Arsenic	10000 ug/L
Barium	15000 ug/L	Beryllium	3000 ug/L
Boron	5000 ug/L	Cadmium	10000 ug/L
Chromium	25000 ug/L	Cobalt	10000 ug/L
Copper	20000 ug/L	Lead	25000 ug/L
Manganese	10000 ug/L	Molybdenum	10000 ug/L
Nickel	10000 ug/L	Phosphorous	15000 ug/L
Potassium	300000 ug/L	Selenium	10000 ug/L
Silica	107000 ug/L	Silicon	50000 ug/L
Silver	1000 ug/L	Strontium	10000 ug/L
Sulfur	50000 ug/L	Thallium	10000 ug/L
Tin	10000 ug/L	Titanium	10000 ug/L
Vanadium	10000 ug/L	Zinc	15000 ug/L

Serial ID: UI091211-41 **Opened:** 11-DEC-09 **Amount :** 500 mL
Name: ICP HIGH RANGE STD B **Received:** 09-DEC-09 **Catalog Number :** 160211-05-03
Type: Source Material **Expires:** 11-DEC-10 **Lot Number :** 1017958
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3
Supplier: 02SI
Description: ICP HIGH RANGE STD SOLUTION B
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 ug/L	Calcium	500000 ug/L
Iron	500000 ug/L	Magnesium	500000 ug/L
Sodium	500000 ug/L	Uranium	15000 ug/L

Serial ID: UI091212-11 **Opened:** 12-DEC-09 **Amount :** 1000 mL
Name: ICP-MS ICSA Master A **Received:** 12-DEC-09 **Catalog Number :** 160013-01-01L
Type: Source Material **Expires:** 12-DEC-10 **Lot Number :** 1015303
Employee: Paul Boyd **Solvent :** 2% HNO3
Supplier: 02SI
Description: ICP-MS ICSA Master A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Calcium	1000 mg/L
Carbon	2000 mg/L	Chloride	10000 mg/L
Iron	1000 mg/L	Magnesium	1000 mg/L
Molybdenum	20 mg/L	Phosphorous	1000 mg/L
Potassium	1000 mg/L	Sodium	1000 mg/L
Sulfur	1000 mg/L	Titanium	20 mg/L

Standard Logbook

Serial ID: UI091212-60 **Opened:** 12-DEC-09 **Amount :** .5 mL
Name: ICPMS High Range Standa **Received:** 12-DEC-09 **Catalog Number :** 160212-02-01
Type: Source Material **Expires:** 12-DEC-10 **Lot Number :** 1018064
Employee: Paul Boyd **Solvent :** 2%HNO3 + Tr HF
Supplier: O2SI
Description: Linear Range Standard A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	5000 mg/L	Arsenic	100 mg/L
Barium	250 mg/L	Beryllium	100 mg/L
Cadmium	100 mg/L	Calcium	5000 mg/L
Chromium	100 mg/L	Cobalt	100 mg/L
Copper	100 mg/L	Iron	5000 mg/L
Lead	500 mg/L	Lithium	100 mg/L
Magnesium	5000 mg/L	Manganese	100 mg/L
Nickel	100 mg/L	Phosphorous	2500 mg/L
Potassium	5000 mg/L	Selenium	50 mg/L
Sodium	5000 mg/L	Strontium	100 mg/L
Thallium	50 mg/L	Thorium	250 mg/L
Uranium	500 mg/L	Vanadium	100 mg/L
Zinc	250 mg/L		

Serial ID: UI091212-61 **Opened:** 12-DEC-09 **Amount :** .5 mL
Name: ICPMS High Range Standa **Received:** 12-DEC-09 **Catalog Number :** 160212-02-01
Type: Source Material **Expires:** 12-DEC-10 **Lot Number :** 1018064
Employee: Paul Boyd **Solvent :** 2%HNO3 + Tr HF
Supplier: O2SI
Description: Linear Range Standard B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	25 mg/L	Molybdenum	100 mg/L
Silver	25 mg/L	Tin	100 mg/L
Tungsten	100 mg/L	Zirconium	50 mg/L

Serial ID: UI091216-01 **Opened:** 16-DEC-09 **Lot Number :** 1018095
Name: METALSPIKE-1 **Received:** 16-DEC-09
Type: Source Material **Expires:** 16-DEC-10
Employee: Francena Armstrong
Supplier: OS2I
Description: Metals Spike Mix I
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 ug/mL	Arsenic	100 ug/mL

Analyte	Concentration	Analyte	Concentration
Barium	100 ug/mL	Beryllium	100 ug/mL
Boron	100 ug/mL	Cadmium	100 ug/mL
Calcium	1000 ug/mL	Cobalt	100 ug/mL
Iron	1000 ug/mL	Lead	100 ug/mL
Magnesium	1000 ug/mL	Phosphorous	100 ug/mL
Potassium	1000 ug/mL	Silver	100 ug/mL
Sodium	1000 ug/mL	Strontium	100 ug/mL

Serial ID: UI091216-06 **Opened:** 16-DEC-09 **Lot Number :** 1018096
Name: METALSPIKE-2 **Received:** 16-DEC-09
Type: Source Material **Expires:** 16-DEC-10
Employee: Francena Armstrong
Supplier: OS2I
Description: Metals Spike Mix II
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	100 ug/mL	Chromium	100 ug/mL
Copper	100 ug/mL	Manganese	100 ug/mL
Molybdenum	100 ug/mL	Nickel	100 ug/mL
Selenium	100 ug/mL	Silica	2141 ug/mL
Silicon	1000 ug/mL	Sulfur	1000 ug/mL
Thallium	100 ug/mL	Tin	100 ug/mL
Titanium	100 ug/mL	Uranium	100 ug/mL
Vanadium	100 ug/mL	Zinc	100 ug/mL

Serial ID: UI091217-06 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master A **Received:** 17-DEC-09 **Catalog Number :** 160055-01
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018209
Employee: Paul Boyd **Solvent :** +/- 0.5% in 5% HNO3 100 cm2
Supplier: 02SI
Description: ICPMS ICV/CCV SOLN A - 10ppm
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	2020 mg/L	Calcium	2000 mg/L
Iron	2000 mg/L	Magnesium	2000 mg/L
Phosphorous	2000 mg/L	Potassium	2000 mg/L
Sodium	2000 mg/L		

Standard Logbook

Serial ID: UI091217-07 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master B **Received:** 17-DEC-09 **Catalog Number :** 160054-02
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018210
Employee: Paul Boyd **Solvent :** +/- 0.5% in 5% HNO3 100 cm2
Supplier: 02SI
Description: ICPMS ICV/CCV Soln B - 10ppm
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	20 mg/L	Barium	20 mg/L
Beryllium	20 mg/L	Boron	40 mg/L
Cadmium	20 mg/L	Chromium	20 mg/L
Cobalt	20 mg/L	Copper	20 mg/L
Lead	20 mg/L	Lithium	20 mg/L
Manganese	20 mg/L	Nickel	20 mg/L
Selenium	20 mg/L	Strontium	20 mg/L
Thallium	20 mg/L	Thorium	20 mg/L
Uranium	20 mg/L	Vanadium	20 mg/L
Zinc	20 mg/L		

Serial ID: UI091217-08 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master C **Received:** 17-DEC-09 **Catalog Number :** 160054-03
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018211
Employee: Paul Boyd **Solvent :** +/- 0.5% in 5% HNO3 100 cm2
Supplier: 02SI
Description: ICPMS ICV/CCV Soln C - 10ppm
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	20 mg/L	Molybdenum	20 mg/L
Silver	20 mg/L	Tin	20 mg/L
Titanium	20 mg/L	Tungsten	20 mg/L
Zirconium	20 mg/L		

Serial ID: UI091217-12 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICSAB Master B **Received:** 17-DEC-09 **Catalog Number :** 160033-02
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018212
Employee: Paul Boyd **Solvent :** +/- 0.5% in 2% HNO3
Supplier: 02SI
Description: ICPMS ICSAB Master B
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	2 mg/L	Barium	2 mg/L
Beryllium	2 mg/L	Boron	2 mg/L
Cadmium	2 mg/L	Chromium	2 mg/L

Analyte	Concentration	Analyte	Concentration
Cobalt	2 mg/L	Copper	2 mg/L
Lead	2 mg/L	Lithium	2 mg/L
Manganese	2 mg/L	Nickel	2 mg/L
Selenium	2 mg/L	Strontium	2 mg/L
Thallium	2 mg/L	Thorium	2 mg/L
Uranium	2 mg/L	Vanadium	2 mg/L
Zinc	2 mg/L		

Serial ID: UI091217-13 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICSAB Master C **Received:** 17-DEC-09 **Catalog Number :** 160033-03
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1016926
Employee: Paul Boyd **Solvent :** +/- 0.5% in 2% HNO3
Supplier: 02SI
Description: ICPMS ICSAB Master C
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	2 mg/L	Silver	2 mg/L
Tin	2 mg/L	Tungsten	2 mg/L
Zirconium	2 mg/L		

Serial ID: UMS090303-01 **Opened:** 03-MAR-09 **Amount :** 250 mL
Name: ICPMSCalSPIKEB **Received:** 03-MAR-09 **Catalog Number :** ZGEL-100-250
Type: Source Material **Expires:** 28-FEB-10 **Lot Number :** 14-81JB
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution B
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	10 mg/L	Barium	10 mg/L
Beryllium	10 mg/L	Boron	20 mg/L
Cadmium	10 mg/L	Chromium	10 mg/L
Cobalt	10 mg/L	Copper	10 mg/L
Lead	10 mg/L	Lithium	10 mg/L
Manganese	10 mg/L	Nickel	10 mg/L
Selenium	10 mg/L	Silver	10 mg/L
Strontium	10 mg/L	Thallium	10 mg/L
Thorium	10 mg/L	Uranium	10 mg/L
Vanadium	10 mg/L	Zinc	10 mg/L

Standard Logbook

Serial ID: UMS090303-02 **Opened:** 03-MAR-09 **Catalog Number :** ZGEL-102-250
Name: ICPMSCalSPIKEA **Received:** 03-MAR-09 **Lot Number :** 14-83JB
Type: Source Material **Expires:** 28-FEB-10
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Calcium	1000 mg/L
Iron	1000 mg/L	Magnesium	1000 mg/L
Phosphorous	1000 mg/L	Potassium	1000 mg/L
Sodium	1000 mg/L		

Serial ID: UMS090303-03 **Opened:** 03-MAR-09 **Amount :** 250 ml
Name: ICPMSCalSPIKEC **Received:** 03-MAR-09 **Catalog Number :** ZGEL-101-250
Type: Source Material **Expires:** 28-FEB-10 **Lot Number :** 15-199JB
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution C
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	10 mg/L	Molybdenum	10 mg/L
Tin	10 mg/L	Titanium	10 mg/L
Zirconium	10 mg/L		

Serial ID: IHG091222-01 **Opened:** 22-DEC-09 **Instrument Id :** Mercury
Name: MHGINTER1 **Received:** 22-DEC-09 **Pipet Id :** Minou1
Type: Intermediate **Expires:** 23-DEC-09 **Solvent :** 1mL HNO3 + Typel H2O
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Intermediate 1st Source 200 ug/L
Comments: Prepare fresh daily

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167639-01	Mercury	1000 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: IHG091222-02 **Opened:** 22-DEC-09 **Pipet Id :** Minou1
Name: MHGINTER2 **Received:** 22-DEC-09 **Solvent :** 2% HNO3-1240182
Type: Intermediate **Expires:** 23-DEC-09
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Intermediate 2nd Source 200 ug/L
Comments: None

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167641-02	Mercury	999.7 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: WHG091222-01 **Opened:** 22-DEC-09 **Pipet Id :** Hg1289245
Name: MHGWORKCAL0.2CRA **Received:** 22-DEC-09 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 28-DEC-09
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working 1st Source CAL 0.2/CRA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG091222-01	Mercury	200 ug/L	20 uL	20 mL	.2 ug/L

Serial ID: WHG091222-02 **Opened:** 22-DEC-09 **Pipet Id :** Hg1289245
Name: MHGWORKCAL0.5 **Received:** 22-DEC-09 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 28-DEC-09
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working 1st Source CAL 0.5
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG091222-01	Mercury	200 ug/L	50 uL	20 mL	.5 ug/L

Serial ID: WHG091222-03 **Opened:** 22-DEC-09 **Pipet Id :** Hg1289245
Name: MHGWORKCAL2.0 **Received:** 22-DEC-09 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 28-DEC-09
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL 2.0
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG091222-01	Mercury	200 ug/L	200 uL	20 mL	2 ug/L

Serial ID: WHG091222-04 **Opened:** 22-DEC-09 **Pipet Id :** Hg1289245
Name: MHGWORKCAL5.0CCV **Received:** 22-DEC-09 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 28-DEC-09
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL 5.0/CCV
Comments: None

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG091222-01	Mercury	200 ug/L	500 uL	20 mL	5 ug/L

Serial ID: WHG091222-05 **Opened:** 22-DEC-09 **Pipet Id :** Hg1289245
Name: MHGWORKCAL10.0 **Received:** 22-DEC-09 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 28-DEC-09
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL 10.0
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG091222-01	Mercury	200 ug/L	1 mL	20 mL	10 ug/L

Serial ID: WHG091222-06 **Opened:** 22-DEC-09 **Pipet Id :** Hg1289245
Name: MHGWORK5.0ICV **Received:** 22-DEC-09 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 28-DEC-09
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working 2nd Source 5.0/ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG091222-02	Mercury	200 ug/L	500 uL	20 mL	5 ug/L

Serial ID: WHG091222-13 **Opened:** 22-DEC-09 **Pipet Id :** Hg1289245
Name: MHGLIQLCSMSSPIKE **Received:** 22-DEC-09 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 28-DEC-09
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury working intermediate standard for LCS/MS
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167639-01	Mercury	1000 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: WI091220-43 **Opened:** 20-DEC-09 **Balance Id :** 216
Name: TRACE ICP 0.5/CCV STD. **Received:** 02-NOV-09 **Pipet Id :** 1099667
Type: Working **Expires:** 21-DEC-09 **Solvent :** 3%HCL and 1%HNO3 -1242318
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP O.5/CCV CALIBRATION STD.
Comments: None

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090828-42	Sodium	1000 ug/mL	5 mL	1000 mL	5000 UG/L
UI091015-42	Silica	2139 mg/L	2.5 mL	1000 mL	5348.25 UG/L
UI091015-42	Silicon	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI091102-40	Aluminum	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Arsenic	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Barium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Beryllium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Boron	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Cadmium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Calcium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Chromium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Cobalt	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Copper	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Iron	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Lead	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Magnesium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Manganese	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Nickel	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Phosphorous	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI091102-40	Potassium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Selenium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Sodium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Strontium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Thallium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Uranium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Vanadium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Zinc	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Antimony	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Molybdenum	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Silver	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Sulfur	400 mg/L	2.5 mL	1000 mL	1000 UG/L
UI091102-41	Tin	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Titanium	200 mg/L	2.5 mL	1000 mL	500 UG/L

Serial ID: WMS091222-04 **Opened:** 22-DEC-09 **Amount :** 50 mL
Name: ICPMS Cal Standard 100 **Received:** 22-DEC-09 **Balance Id :** 4025216
Type: Working **Expires:** 23-DEC-09 **Pipet Id :** 3541598
Employee: Elizabeth Janssen **Solvent :** 2%HNO3/1%HCl-1245333
Supplier: GEL
Description: ICPMS Calibration Standard (100 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090610-03	Tungsten	10 mg/L	.5 mL	50 mL	100 ug/L
UMS090303-01	Arsenic	10 mg/L	.5 mL	50 mL	100 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UMS090303-01	Barium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Beryllium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Boron	20 mg/L	.5 mL	50 mL	200 ug/l
UMS090303-01	Cadmium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Chromium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Cobalt	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Copper	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Lead	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Lithium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Manganese	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Nickel	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Selenium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Silver	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Strontium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Thallium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Thorium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Uranium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Vanadium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Zinc	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-02	Aluminum	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Calcium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Iron	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Magnesium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Phosphorous	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Potassium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Sodium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-03	Antimony	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Molybdenum	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Tin	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Titanium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Zirconium	10 mg/L	.5 mL	50 mL	100 ug/l

Serial ID: WMS091222-04A **Opened:** 22-DEC-09 **Balance Id :** 4025216
Name: ICPMS Cal Standard 10 **Received:** 22-DEC-09 **Pipet Id :** 3541598
Type: Working **Expires:** 23-DEC-09 **Solvent :** 2%HNO3/1%HCl - 1245333
Employee: Elizabeth Janssen
Supplier: GEL
Description: ICPMS Calibration Standard (10 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS091222-04	Aluminum	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS091222-04	Antimony	100 ug/l	5 mL	50 mL	10 ug/l
WMS091222-04	Arsenic	100 ug/l	5 mL	50 mL	10 ug/l
WMS091222-04	Barium	100 ug/l	5 mL	50 mL	10 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS091222-04	Beryllium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091222-04	Boron	200 ug/l	5 mL	50 mL	20 ug/l
WMS091222-04	Cadmium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091222-04	Calcium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS091222-04	Chromium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091222-04	Cobalt	100 ug/l	5 mL	50 mL	10 ug/l
WMS091222-04	Copper	100 ug/l	5 mL	50 mL	10 ug/l
WMS091222-04	Iron	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS091222-04	Lead	100 ug/l	5 mL	50 mL	10 ug/l
WMS091222-04	Lithium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091222-04	Magnesium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS091222-04	Manganese	100 ug/l	5 mL	50 mL	10 ug/l
WMS091222-04	Molybdenum	100 ug/l	5 mL	50 mL	10 ug/l
WMS091222-04	Nickel	100 ug/l	5 mL	50 mL	10 ug/l
WMS091222-04	Phosphorous	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS091222-04	Potassium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS091222-04	Selenium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091222-04	Silver	100 ug/l	5 mL	50 mL	10 ug/l
WMS091222-04	Sodium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS091222-04	Strontium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091222-04	Thallium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091222-04	Thorium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091222-04	Tin	100 ug/l	5 mL	50 mL	10 ug/l
WMS091222-04	Titanium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091222-04	Tungsten	100 ug/L	5 mL	50 mL	10 ug/L
WMS091222-04	Uranium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091222-04	Vanadium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091222-04	Zinc	100 ug/l	5 mL	50 mL	10 ug/l
WMS091222-04	Zirconium	100 ug/l	5 mL	50 mL	10 ug/l

Serial ID: WMS091222-05 **Opened:** 22-DEC-09 **Balance Id :** 40245216
Name: ICPMS ICV **Received:** 22-DEC-09 **Pipet Id :** 3541598
Type: Working **Expires:** 23-DEC-09 **Solvent :** 2%HNO3/1%HCl - 1245333
Employee: Elizabeth Janssen
Supplier: GEL
Description: ICPMS ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-06	Aluminum	2020 mg/L	.125 mL	50 mL	5050 ug/L
UI091217-06	Calcium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Iron	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Magnesium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Phosphorous	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Potassium	2000 mg/L	.125 mL	50 mL	5000 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-06	Sodium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-07	Arsenic	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Barium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Beryllium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Boron	40 mg/L	.125 mL	50 mL	100 ug/L
UI091217-07	Cadmium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Chromium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Cobalt	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Copper	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lead	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lithium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Manganese	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Nickel	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Selenium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Strontium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thallium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thorium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Uranium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Vanadium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Zinc	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Antimony	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Molybdenum	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Silver	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tin	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Titanium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tungsten	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Zirconium	20 mg/L	.125 mL	50 mL	50 ug/L

Serial ID: WMS091222-06 **Opened:** 22-DEC-09 **Balance Id :** 40245216
Name: ICPMS CRDL **Received:** 22-DEC-09 **Pipet Id :** 3820544
Type: Working **Expires:** 23-DEC-09 **Solvent :** 2%HNO3/1%HCl - 1245333
Employee: Elizabeth Janssen
Supplier: GEL
Description: ICPMS CRDL
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Aluminum	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Arsenic	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Barium	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Beryllium	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-09	Boron	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Cadmium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Calcium	100 mg/L	.05 mL	50 mL	100 ug/L
UI090701-09	Chromium	3 mg/L	.05 mL	50 mL	3 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Cobalt	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Copper	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Iron	25 mg/L	.05 mL	50 mL	25 ug/L
UI090701-09	Lead	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Lithium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Magnesium	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Manganese	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Nickel	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Phosphorous	50 mg/L	.05 mL	50 mL	50 ug/L
UI090701-09	Potassium	300 mg/L	.05 mL	50 mL	300 ug/L
UI090701-09	Selenium	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Sodium	250 mg/L	.05 mL	50 mL	250 ug/L
UI090701-09	Strontium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Thallium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Thorium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Uranium	.2 mg/L	.05 mL	50 mL	.2 ug/L
UI090701-09	Vanadium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Zinc	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Antimony	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-10	Molybdenum	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-10	Silver	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-10	Tin	2 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Titanium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Tungsten	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Zirconium	2 mg/L	.05 mL	50 mL	2 ug/L

Serial ID: WMS091222-07 **Opened:** 22-DEC-09 **Balance Id :** 40245216
Name: ICPMS ICSA **Received:** 22-DEC-09 **Lot Number :** 1010773
Type: Working **Expires:** 23-DEC-09 **Pipet Id :** 3541598
Employee: Elizabeth Janssen **Solvent :** 2%HNO3/1%HCl - 1245333
Supplier: GEL
Description: ICPMS ICSA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI091212-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI091212-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: WMS091222-08 **Opened:** 22-DEC-09 **Balance Id :** 40245216
Name: ICPMS ICSAB **Received:** 22-DEC-09 **Pipet Id :** 1758088
Type: Working **Expires:** 23-DEC-09 **Solvent :** 2%HNO3/1%HCl - 1245333
Employee: Elizabeth Janssen
Supplier: GEL
Description: ICPMS ICSAB
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI091212-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI091212-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L
UI091217-12	Arsenic	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Barium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Beryllium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Boron	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Cadmium	2 mg/L	.5 mL	50 mL	20.2 ug/L
UI091217-12	Chromium	2 mg/L	.5 mL	50 mL	22.2 ug/L
UI091217-12	Cobalt	2 mg/L	.5 mL	50 mL	20.4 ug/L
UI091217-12	Copper	2 mg/L	.5 mL	50 mL	23.4 ug/L
UI091217-12	Lead	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Lithium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Manganese	2 mg/L	.5 mL	50 mL	22.7 ug/L
UI091217-12	Nickel	2 mg/L	.5 mL	50 mL	22.4 ug/L
UI091217-12	Selenium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Strontium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thallium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thorium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Uranium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Vanadium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Zinc	2 mg/L	.5 mL	50 mL	27 ug/L
UI091217-13	Antimony	2 mg/L	.5 mL	50 mL	20.5 ug/L
UI091217-13	Silver	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tin	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tungsten	2 mg/L	.5 mL	50 mL	20 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-13	Zirconium	2 mg/L	.5 mL	50 mL	20 ug/L

Serial ID: WMS091222-70 **Opened:** 22-DEC-09 **Balance Id :** 40245216
Name: ICPMS LINEAR RANGE ST **Received:** 22-DEC-09 **Pipet Id :** 1758088
Type: Working **Expires:** 23-DEC-09 **Solvent :** 2%HNO3/1%HCl - 1245333
Employee: Elizabeth Janssen
Supplier: 02SI
Description: ICPMS LINEAR RANGE STANDARD
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-60	Aluminum	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Arsenic	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Barium	250 mg/L	.5 mL	50 mL	2500 ug/L
UI091212-60	Beryllium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Cadmium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Calcium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Chromium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Cobalt	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Copper	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Iron	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Lead	500 mg/L	.5 mL	50 mL	5000 ug/L
UI091212-60	Lithium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Magnesium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Manganese	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Nickel	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Phosphorous	2500 mg/L	.5 mL	50 mL	25000 ug/L
UI091212-60	Potassium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Selenium	50 mg/L	.5 mL	50 mL	500 ug/L
UI091212-60	Sodium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Strontium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Thallium	50 mg/L	.5 mL	50 mL	500 ug/L
UI091212-60	Thorium	250 mg/L	.5 mL	50 mL	2500 ug/L
UI091212-60	Uranium	500 mg/L	.5 mL	50 mL	5000 ug/L
UI091212-60	Vanadium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Zinc	250 mg/L	.5 mL	50 mL	2500 ug/L
UI091212-61	Antimony	25 mg/L	.5 mL	50 mL	250 ug/L
UI091212-61	Molybdenum	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-61	Silver	25 mg/L	.5 mL	50 mL	250 ug/L
UI091212-61	Tin	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-61	Tungsten	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-61	Zirconium	50 mg/L	.5 mL	50 mL	500 ug/L

Standard Logbook

Serial ID: 1156689-A **Opened:** 20-JUL-09 **Lot Number :** 41226920
Name: B-KMnO4(VWR)-MER **Received:** 20-JUL-09
Type: Reagent/Solvent **Expires:** 20-JUL-10
Employee: Tara Griffin **Verified:** 07-AUG-07
Supplier: VWR
Description: Potassium Permanganate
Comments: None

Serial ID: 1164796-A **Opened:** 06-AUG-09 **Lot Number :** 49149927
Name: B-NH2OH.HCl-MER **Received:** 06-AUG-09
Type: Reagent/Solvent **Expires:** 06-AUG-10
Employee: Tara Griffin
Supplier: Fisher Scientific
Description: Hydroxlyamine Hydrochloride
Comments: None

Serial ID: 1176183 **Opened:** 24-AUG-09 **Lot Number :** H20001
Name: B-H2SO4-MER **Received:** 24-AUG-09
Type: Reagent/Solvent **Expires:** 24-AUG-10
Employee: Tara Griffin
Supplier: Mallinckrodt
Description: Sulfuric Acid, Concentrated
Comments: None

Serial ID: 1206350-C **Opened:** 22-OCT-09 **Balance Id :** BAL-002
Name: B-NaCl.NH2OH.HCl-MER **Received:** 22-OCT-09
Type: Reagent/Solvent **Expires:** 06-AUG-10
Employee: Tara Griffin
Supplier: GEL
Description: Hg reducing agent
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1164796-A	B-NH2OH.HCl-MER	N/A	120 g	1000 mL	N/A

Serial ID: 1215906 **Opened:** 06-NOV-09 **Lot Number :** H44465
Name: B-K2S2O8S-MER **Received:** 06-NOV-09
Type: Reagent/Solvent **Expires:** 06-NOV-10
Employee: Tara Griffin
Supplier: J.T BAKER
Description: Potassium Persulfate Concentrate.
Comments: None

Standard Logbook

Serial ID: 1234385-C **Opened:** 25-NOV-09 **Balance Id :** BAL-002
Name: B-K2S2O8-MER **Received:** 25-NOV-09
Type: Reagent/Solvent **Expires:** 25-MAY-10
Employee: Tara Griffin
Supplier: GEL
Description: 5% Potassium Persulfate
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1215906	B-K2S2O8S-MER	N/A	50 g	1000 mL	N/A

Serial ID: 1238345 **Opened:** 04-DEC-09 **Lot Number :** H20053 L
Name: I-HNO3 **Received:** 04-DEC-09
Type: Reagent/Solvent **Expires:** 04-DEC-10
Employee: Francena Armstrong
Supplier: BAKER
Description: Nitric Acid CONC.
Comments: None

Serial ID: 1240182-1 **Opened:** 09-DEC-09 **Instrument Id :** MERCURY
Name: B-HNO3-MER **Received:** 09-DEC-09 **Lot Number :** H34040
Type: Reagent/Solvent **Expires:** 09-DEC-10
Employee: Tara Griffin
Supplier: Mallinckrodt Chemicals
Description: NITRIC ACID
Comments: None

Serial ID: 1242318 **Opened:** 14-DEC-09 **Amount :** 20 L
Name: B-ICP-RINSE SOLN **Received:** 01-DEC-09 **Lot Number :** H04040+G34050
Type: Reagent/Solvent **Expires:** 20-DEC-09 **Solvent :** 3%HCL+1%HNO3
Employee: Helen Camello
Supplier: GEL
Description: 3%HCL+1%HNO3 RINSE SOLN.
Comments: None

Serial ID: 1244904-C **Opened:** 18-DEC-09 **Balance Id :** BAL-002
Name: B-KMnO4-MER **Received:** 18-DEC-09
Type: Reagent/Solvent **Expires:** 18-JUN-10
Employee: Tara Griffin
Supplier: GEL
Description: 5% KMnO4 solution
Comments: None

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1156689-A	B-KMnO4(VWR)-MER	Crystals	50 g	1000 mL	3%

Serial ID: 1244970 **Opened:** 18-DEC-09 **Lot Number :** H41032
Name: I-HCL **Received:** 18-DEC-09 **Preservative_Id :** 5 none
Type: Reagent/Solvent **Expires:** 18-DEC-10
Employee: Francena Armstrong
Supplier: J.T. BAKER
Description: HYDROCHLORIC ACID
Comments: None

Serial ID: 1245333 **Opened:** 21-DEC-09 **Solvent :** Type I Water
Name: B-2%HNO3/1%HCl-ICPMS **Received:** 21-DEC-09
Type: Reagent/Solvent **Expires:** 28-DEC-09
Employee: Elizabeth Janssen
Supplier: GEL
Description: 2%HNO3/1%HCl Solution (Type I Water)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1238345	I-HNO3	69.0-70.0	180 mL	9 l	N/A
1244970	I-HCL	36.5-38.0	90 mL	9 l	N/A

General Chemistry Analysis

Case Narrative

General Chemistry Narrative
Los Alamos National Laboratory (LANL)
SDG 10-918

Method/Analysis Information

Product:	**Cyanide, Total**		
Analytical Batch:	933837	**Method:**	SW846 9012A
Prep Batch :	933835	**Method:**	SW846 9010B Prep

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 9012A:

Sample ID	Client ID
242938001	RE03-09-14213
242938002	RE03-09-14215
242938003	RE03-09-14212
242938004	RE03-09-14219
242938005	RE03-09-14218
242938006	RE03-09-14216
242938007	RE03-09-14214
242938008	RE03-09-14217
242938009	RE03-10-2735
1201997980	Method Blank (MB)
1201997981	242938001(RE03-09-14213) Sample Duplicate (DUP)
1201997982	242938001(RE03-09-14213) Matrix Spike (MS)
1201997983	242938001(RE03-09-14213) Matrix Spike Duplicate (MSD)
1201997984	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on a "dry weight" basis.

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-095 REV# 12.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

The Flow Injection analysis was performed on a Lachat QuickChem FIA+ 8000 Series.

Initial Calibration
All initial calibration requirements have been met for this SDG.

Continuing Calibration Blanks
All continuing calibration blanks (CCBs) associated with reported data from this batch were within acceptance limits.

Calibration Verification Information (CCV)
All continuing calibration verification standards (CCVs) associated with reported data from this batch were within acceptance limits.

Y Intercept Rule
The absolute value of the intercept is less than 3 times the MDL.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recovery met the acceptance limits.

Quality Control (QC) Designation
The following sample was selected for QC analysis: 242938001 (RE03-09-14213).

Matrix Spike (MS)/Post Spike (PS) Recovery Statement
The MS/PS recovery for this sample set was within the required acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recovery for this sample set was within the required acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD between the spike and spike duplicate met the acceptance limits.

Duplicate Relative Percent Difference (RPD) Statement
The values for the sample and duplicate are less than the Practical Quantitation Limit (PQL); therefore, the RPD is not applicable. 1201997981 (RE03-09-14213) and 242938001 (RE03-09-14213).

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times
All samples in this SDG met the specified holding time.

Sample Preservation/Integrity
All the samples from this sample group met the preservation and integrity requirements of the method.

Sample Dilutions
The following sample in this sample group was diluted due to high concentration: 1201997984 (LCS).

Sample Re-analysis
The samples in this SDG did not require re-analysis.

Miscellaneous Information

Nonconformance (NCR) Documentation
An NCR was not required for this SDG.

Additional Comments
Additional comments were not required for this SDG.

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:
Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Tom Lewis, Jr. **Date:** 09Jan10

Sample Data Summary

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis Report
for

LANL010 Los Alamos National Laboratory (72733-001-09)

Client SDG: 10-918 GEL Work Order: 242938

The Qualifiers in this report are defined as follows:

* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.

** Indicates the analyte is a surrogate compound.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the detection limit.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Valerie Davis.

Reviewed by _____

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: January 2, 2010

Client SDG: 10-918

Client Sample ID:	RE03-09-14213	Project:	LANL01004
Sample ID:	242938001	Client ID:	LANL010
Matrix:	S		
Collect Date:	11-DEC-09 12:00		
Receive Date:	15-DEC-09		
Collector:	Client		
Moisture:	12.8%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total Federal "Dry Weight Corrected"										
Cyanide, Total	U	ND	78.0	287	ug/kg	1	AXC2 12/22/09	1554	933837	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	12/21/09	1334	933835

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Certificate of Analysis

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: January 2, 2010

Client SDG: 10-918

Client Sample ID:	RE03-09-14215	Project:	LANL01004
Sample ID:	242938002	Client ID:	LANL010
Matrix:	S		
Collect Date:	11-DEC-09 12:00		
Receive Date:	15-DEC-09		
Collector:	Client		
Moisture:	10.3%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total Federal "Dry Weight Corrected"										
Cyanide, Total	U	ND	74.3	273	ug/kg	1	AXC2 12/22/09	1558	933837	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	12/21/09	1334	933835

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: January 2, 2010

Client SDG: 10-918

Client Sample ID:	RE03-09-14212	Project:	LANL01004
Sample ID:	242938003	Client ID:	LANL010
Matrix:	S		
Collect Date:	11-DEC-09 12:00		
Receive Date:	15-DEC-09		
Collector:	Client		
Moisture:	12.9%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total Federal "Dry Weight Corrected"										
Cyanide, Total	J	95.4	75.0	276	ug/kg	1	AXC2 12/22/09	1602	933837	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	12/21/09	1334	933835

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: January 2, 2010

Client SDG: 10-918

Client Sample ID:	RE03-09-14219	Project:	LANL01004
Sample ID:	242938004	Client ID:	LANL010
Matrix:	S		
Collect Date:	11-DEC-09 12:00		
Receive Date:	15-DEC-09		
Collector:	Client		
Moisture:	17.2%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total Federal "Dry Weight Corrected"										
Cyanide, Total	U	ND	82.1	302	ug/kg	1	AXC2 12/22/09	1603	933837	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	12/21/09	1334	933835

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: January 2, 2010

Client SDG: 10-918

Client Sample ID:	RE03-09-14218	Project:	LANL01004
Sample ID:	242938005	Client ID:	LANL010
Matrix:	S		
Collect Date:	11-DEC-09 12:00		
Receive Date:	15-DEC-09		
Collector:	Client		
Moisture:	17.6%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total Federal "Dry Weight Corrected"										
Cyanide, Total	U	ND	77.9	286	ug/kg	1	AXC2 12/22/09	1604	933837	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	12/21/09	1334	933835

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: January 2, 2010

Client SDG: 10-918

Client Sample ID:	RE03-09-14216	Project:	LANL01004
Sample ID:	242938006	Client ID:	LANL010
Matrix:	S		
Collect Date:	11-DEC-09 12:00		
Receive Date:	15-DEC-09		
Collector:	Client		
Moisture:	15.8%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total Federal "Dry Weight Corrected"										
Cyanide, Total	U	ND	79.2	291	ug/kg	1	AXC2 12/22/09	1605	933837	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	12/21/09	1334	933835

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: January 2, 2010

Client SDG: 10-918

Client Sample ID:	RE03-09-14214	Project:	LANL01004
Sample ID:	242938007	Client ID:	LANL010
Matrix:	S		
Collect Date:	11-DEC-09 12:00		
Receive Date:	15-DEC-09		
Collector:	Client		
Moisture:	13.8%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total Federal "Dry Weight Corrected"										
Cyanide, Total	U	ND	78.9	290	ug/kg	1	AXC2 12/22/09	1606	933837	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	12/21/09	1334	933835

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: January 2, 2010

Client SDG: 10-918

Client Sample ID:	RE03-09-14217	Project:	LANL01004
Sample ID:	242938008	Client ID:	LANL010
Matrix:	S		
Collect Date:	11-DEC-09 12:00		
Receive Date:	15-DEC-09		
Collector:	Client		
Moisture:	15.2%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total Federal "Dry Weight Corrected"										
Cyanide, Total	J	158	74.3	273	ug/kg	1	AXC2 12/22/09	1607	933837	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	12/21/09	1334	933835

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: January 2, 2010

Client SDG: 10-918

Client Sample ID:	RE03-10-2735	Project:	LANL01004
Sample ID:	242938009	Client ID:	LANL010
Matrix:	S		
Collect Date:	11-DEC-09 12:00		
Receive Date:	15-DEC-09		
Collector:	Client		
Moisture:	14.2%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total Federal "Dry Weight Corrected"										
Cyanide, Total	U	ND	73.4	270	ug/kg	1	AXC2 12/22/09	1608	933837	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	12/21/09	1334	933835

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

Quality Control Summary

GEL LABORATORIES LLC

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QC Summary

Report Date: January 2, 2010
Page 1 of 2

Los Alamos National Laboratory
PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico

Contact: Ms. Joylene Valdez

Workorder: 242938

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Flow Injection Analysis										
Batch 933837										
QC1201997981 242938001 DUP										
Cyanide, Total	U	ND	J	86.6	ug/kg	200		(+/-276)	AXC2	12/22/09 15:55
QC1201997984 LCS										
Cyanide, Total	67900			65500	ug/kg		96.5	(46%-145%)		12/22/09 15:52
QC1201997980 MB										
Cyanide, Total			U	250	ug/kg					12/22/09 15:51
QC1201997982 242938001 MS										
Cyanide, Total	5030 U	ND		4180	ug/kg		82	(50%-130%)		12/22/09 15:56
QC1201997983 242938001 MSD										
Cyanide, Total	5030 U	ND		4730	ug/kg	12.4	93	(0%-30%)		12/22/09 15:57

Notes:
RER is calculated at the 95% confidence level (2-sigma).
The Qualifiers in this report are defined as follows:

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
- F Estimated Value
- H Analytical holding time was exceeded
- J Value is estimated
- M M if above MDC and less than LLD
- M Matrix Related Failure
- N/A RPD or %Recovery limits do not apply.
- ND Analyte concentration is not detected above the detection limit
- NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- R Sample results are rejected
- U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
- UI Gamma Spectroscopy--Uncertain identification
- X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier

QC Summary

Workorder: **242938**

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time

Y	QC Samples were not spiked with this compound
Z	Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d	5-day BOD--The 2:1 depletion requirement was not met for this sample
h	Preparation or preservation holding time was exceeded

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more.
^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.
* Indicates that a Quality Control parameter was not within specifications.
For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

Instrument QC Data Summary

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Report Run On: 02-JAN-2010 14:35

GEL Laboratories LLC
Contract: LANL01004
SDG #: 10-918

Flow Injection Analysis
Method: SW846 9012A Concentration Units:ug/L
Instrument: Lachat QuickChem FIA+ 8000 Series

Parmname: Cyanide, Total

Sample Type	Run Date	Data File	Result	Nominal	Recovery	Limits	Within Limits
ICV	**22-DEC-2009 15:07:41**	**OM_12-22-2009_14-59-47**	**144**	**150**	**96**	**(90%-110%)**	**Yes**
CCV	22-DEC-2009 15:46:46	OM_12-22-2009_14-59-47	95.5	100	96	(90%-110%)	Yes
CCV	22-DEC-2009 15:59:14	OM_12-22-2009_14-59-47	95.3	100	95	(90%-110%)	Yes
CCV	22-DEC-2009 16:11:37	OM_12-22-2009_14-59-47	95.6	100	96	(90%-110%)	Yes

Sample Type	Run Date	Data File	Result	Limits	Within Limits
ICB	**22-DEC-2009 15:09:31**	**OM_12-22-2009_14-59-47**	**-1.08**	**5**	**Yes**
CCB	22-DEC-2009 15:48:36	OM_12-22-2009_14-59-47	-0.654	5	Yes
CCB	22-DEC-2009 16:01:03	OM_12-22-2009_14-59-47	-1.4	5	Yes
CCB	22-DEC-2009 16:13:27	OM_12-22-2009_14-59-47	-1.29	5	Yes

Cyanide, Total

Prep LogBook

Analyst: AXS5 Verified by:_____

Batch: 933835

Lab SOP: GL-GC-E-067 REV# 13

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1201997984	URF1200957-01	.25	g
MS	1201997982	URF1184831-02	.025	mL
MSD	1201997983	URF1184831-02	.025	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Ph	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1201997980		SW846 9010B Prep	21-DEC-2009 13:34	> 12	0.5 g	25 mL	50	SOIL
LCS	1201997984		SW846 9010B Prep	21-DEC-2009 13:34	> 12	0.25 g	25 mL	100	SOIL
SAMPLE	242938001		SW846 9010B Prep	21-DEC-2009 13:34	> 12	0.5 g	25 mL	50	SOIL
DUP	1201997981	242938001	SW846 9010B Prep	21-DEC-2009 13:34	> 12	0.52 g	25 mL	48.07692	SOIL
MS	1201997982	242938001	SW846 9010B Prep	21-DEC-2009 13:34	> 12	0.57 g	25 mL	43.85965	SOIL
MSD	1201997983	242938001	SW846 9010B Prep	21-DEC-2009 13:34	> 12	0.57 g	25 mL	43.85965	SOIL
SAMPLE	242938002		SW846 9010B Prep	21-DEC-2009 13:34	> 12	0.51 g	25 mL	49.01961	SOIL
SAMPLE	242938003		SW846 9010B Prep	21-DEC-2009 13:34	> 12	0.52 g	25 mL	48.07692	SOIL
SAMPLE	242938004		SW846 9010B Prep	21-DEC-2009 13:34	> 12	0.5 g	25 mL	50	SOIL
SAMPLE	242938005		SW846 9010B Prep	21-DEC-2009 13:34	> 12	0.53 g	25 mL	47.16981	SOIL
SAMPLE	242938006		SW846 9010B Prep	21-DEC-2009 13:34	> 12	0.51 g	25 mL	49.01961	SOIL
SAMPLE	242938007		SW846 9010B Prep	21-DEC-2009 13:34	> 12	0.5 g	25 mL	50	SOIL
SAMPLE	242938008		SW846 9010B Prep	21-DEC-2009 13:34	> 12	0.54 g	25 mL	46.2963	SOIL
SAMPLE	242938009		SW846 9010B Prep	21-DEC-2009 13:34	> 12	0.54 g	25 mL	46.2963	SOIL

Reagent/Solvent Lot ID	Amount	Description
091211-C	25 mL	0.25N Sodium Hydroxide Solution
WCN091221-07	.0375 mL	150 ppb CN Distilled ICV Standard
1176724-C	1.25 mL	0.8N H3NO3S
1238146-C	2.5 mL	50% H2SO4 CN Prep
1176778-C	1 mL	51% MgCl2 Soln
1238142-C	1.25 mL	Bismuth Nitrate Solution

Comments:

This is runlog Lachat1

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
200 ppb		1	axc2	12/22/2009 15:00:33	OM_12-22-2009_14-59-47
150 ppb		1	axc2	12/22/2009 15:01:24	OM_12-22-2009_14-59-47
100 ppb		1	axc2	12/22/2009 15:02:17	OM_12-22-2009_14-59-47
50 ppb		1	axc2	12/22/2009 15:03:10	OM_12-22-2009_14-59-47
10 ppb		1	axc2	12/22/2009 15:04:03	OM_12-22-2009_14-59-47
CRDL 5.0 ppb		1	axc2	12/22/2009 15:04:57	OM_12-22-2009_14-59-47
ICAL-00		1	axc2	12/22/2009 15:05:51	OM_12-22-2009_14-59-47
ICV		1	axc2	12/22/2009 15:07:41	OM_12-22-2009_14-59-47
ICB		1	axc2	12/22/2009 15:09:31	OM_12-22-2009_14-59-47
CRDL		1	axc2	12/22/2009 15:11:21	OM_12-22-2009_14-59-47
1201998913	934285	1	axc2	12/22/2009 15:13:10	OM_12-22-2009_14-59-47
1201998920	934285	25	axc2	12/22/2009 15:14:04	OM_12-22-2009_14-59-47
243007002	934285	1	axc2	12/22/2009 15:14:57	OM_12-22-2009_14-59-47
243030001	934285	1	axc2	12/22/2009 15:15:50	OM_12-22-2009_14-59-47
1201998914	934285	1	axc2	12/22/2009 15:16:43	OM_12-22-2009_14-59-47
1201998916	934285	1	axc2	12/22/2009 15:17:36	OM_12-22-2009_14-59-47
1201998918	934285	1	axc2	12/22/2009 15:18:28	OM_12-22-2009_14-59-47
243030002*	934285	1	axc2	12/22/2009 15:19:20	OM_12-22-2009_14-59-47
1201998915	934285	1	axc2	12/22/2009 15:20:13	OM_12-22-2009_14-59-47
1201998917*	934285	1	axc2	12/22/2009 15:21:05	OM_12-22-2009_14-59-47
CCV		1	axc2	12/22/2009 15:21:57	OM_12-22-2009_14-59-47
CCB		1	axc2	12/22/2009 15:23:48	OM_12-22-2009_14-59-47
1201998919*	934285	1	axc2	12/22/2009 15:25:36	OM_12-22-2009_14-59-47
243030003	934285	1	axc2	12/22/2009 15:26:27	OM_12-22-2009_14-59-47
243030004	934285	1	axc2	12/22/2009 15:27:20	OM_12-22-2009_14-59-47
243030005	934285	1	axc2	12/22/2009 15:28:11	OM_12-22-2009_14-59-47
243030006	934285	1	axc2	12/22/2009 15:29:03	OM_12-22-2009_14-59-47
243030007	934285	1	axc2	12/22/2009 15:29:56	OM_12-22-2009_14-59-47
243030002	934285	1	axc2	12/22/2009 15:30:49	OM_12-22-2009_14-59-47
1201998919	934285	1	axc2	12/22/2009 15:31:41	OM_12-22-2009_14-59-47
1201998917	934285	1	axc2	12/22/2009 15:32:33	OM_12-22-2009_14-59-47
243030008	934285	1	axc2	12/22/2009 15:33:27	OM_12-22-2009_14-59-47
CCV		1	axc2	12/22/2009 15:34:19	OM_12-22-2009_14-59-47
CCB		1	axc2	12/22/2009 15:36:09	OM_12-22-2009_14-59-47
243030009	934285	1	axc2	12/22/2009 15:37:59	OM_12-22-2009_14-59-47
243030010	934285	1	axc2	12/22/2009 15:38:52	OM_12-22-2009_14-59-47
243030011	934285	1	axc2	12/22/2009 15:39:45	OM_12-22-2009_14-59-47
243030012	934285	1	axc2	12/22/2009 15:40:38	OM_12-22-2009_14-59-47
243030013	934285	1	axc2	12/22/2009 15:41:31	OM_12-22-2009_14-59-47
243030014	934285	1	axc2	12/22/2009 15:42:24	OM_12-22-2009_14-59-47
243030015	934285	1	axc2	12/22/2009 15:43:17	OM_12-22-2009_14-59-47
243030016	934285	1	axc2	12/22/2009 15:44:09	OM_12-22-2009_14-59-47
243030017*	934285	1	axc2	12/22/2009 15:45:01	OM_12-22-2009_14-59-47
243042008	934285	1	axc2	12/22/2009 15:45:54	OM_12-22-2009_14-59-47
CCV		1	axc2	12/22/2009 15:46:46	OM_12-22-2009_14-59-47
CCB		1	axc2	12/22/2009 15:48:36	OM_12-22-2009_14-59-47
243042009	934285	1	axc2	12/22/2009 15:50:24	OM_12-22-2009_14-59-47
1201997980	933837	1	axc2	12/22/2009 15:51:16	OM_12-22-2009_14-59-47
1201997984	933837	25	axc2	12/22/2009 15:52:08	OM_12-22-2009_14-59-47
243030016	934285	5	axc2	12/22/2009 15:53:00	OM_12-22-2009_14-59-47
243030017	934285	1	axc2	12/22/2009 15:53:52	OM_12-22-2009_14-59-47
242938001	933837	1	axc2	12/22/2009 15:54:48	OM_12-22-2009_14-59-47
1201997981	933837	1	axc2	12/22/2009 15:55:41	OM_12-22-2009_14-59-47
1201997982	933837	1	axc2	12/22/2009 15:56:35	OM_12-22-2009_14-59-47
1201997983	933837	1	axc2	12/22/2009 15:57:28	OM_12-22-2009_14-59-47
242938002	933837	1	axc2	12/22/2009 15:58:21	OM_12-22-2009_14-59-47
CCV		1	axc2	12/22/2009 15:59:14	OM_12-22-2009_14-59-47
CCB		1	axc2	12/22/2009 16:01:03	OM_12-22-2009_14-59-47

242938003	933837	1	axc2	12/22/2009	16:02:53	OM_12-22-2009_14-59-47
242938004	933837	1	axc2	12/22/2009	16:03:46	OM_12-22-2009_14-59-47
242938005	933837	1	axc2	12/22/2009	16:04:39	OM_12-22-2009_14-59-47
242938006	933837	1	axc2	12/22/2009	16:05:31	OM_12-22-2009_14-59-47
242938007	933837	1	axc2	12/22/2009	16:06:24	OM_12-22-2009_14-59-47
242938008	933837	1	axc2	12/22/2009	16:07:16	OM_12-22-2009_14-59-47
242938009	933837	1	axc2	12/22/2009	16:08:09	OM_12-22-2009_14-59-47
1201993024	931722	1	axc2	12/22/2009	16:09:01	OM_12-22-2009_14-59-47
1201993028	931722	1	axc2	12/22/2009	16:09:53	OM_12-22-2009_14-59-47
242691002	931722	1	axc2	12/22/2009	16:10:45	OM_12-22-2009_14-59-47
CCV		1	axc2	12/22/2009	16:11:37	OM_12-22-2009_14-59-47
CCB		1	axc2	12/22/2009	16:13:27	OM_12-22-2009_14-59-47
1201993025	931722	1	axc2	12/22/2009	16:15:19	OM_12-22-2009_14-59-47
1201993026	931722	1	axc2	12/22/2009	16:16:12	OM_12-22-2009_14-59-47
1201993027	931722	1	axc2	12/22/2009	16:17:06	OM_12-22-2009_14-59-47
1201998306	933989	1	axc2	12/22/2009	16:18:00	OM_12-22-2009_14-59-47
1201998310	933989	1	axc2	12/22/2009	16:18:53	OM_12-22-2009_14-59-47
242984001	933989	1	axc2	12/22/2009	16:19:47	OM_12-22-2009_14-59-47
1201998307	933989	1	axc2	12/22/2009	16:20:40	OM_12-22-2009_14-59-47
1202001846	933989	1	axc2	12/22/2009	16:21:33	OM_12-22-2009_14-59-47
1202001847	933989	1	axc2	12/22/2009	16:22:26	OM_12-22-2009_14-59-47
242984003	933989	1	axc2	12/22/2009	16:23:18	OM_12-22-2009_14-59-47
CCV		1	axc2	12/22/2009	16:24:11	OM_12-22-2009_14-59-47
CCB		1	axc2	12/22/2009	16:26:01	OM_12-22-2009_14-59-47
1202000926	935209	1	axc2	12/22/2009	16:27:50	OM_12-22-2009_14-59-47
1202000939	935209	1	axc2	12/22/2009	16:28:43	OM_12-22-2009_14-59-47
243104002	935209	1	axc2	12/22/2009	16:29:36	OM_12-22-2009_14-59-47
1202000928	935209	1	axc2	12/22/2009	16:30:28	OM_12-22-2009_14-59-47
1202000932	935209	1	axc2	12/22/2009	16:31:19	OM_12-22-2009_14-59-47
1202000936	935209	1	axc2	12/22/2009	16:32:13	OM_12-22-2009_14-59-47
243108001	935209	1	axc2	12/22/2009	16:33:08	OM_12-22-2009_14-59-47
1202000927	935209	1	axc2	12/22/2009	16:34:02	OM_12-22-2009_14-59-47
1202000931	935209	1	axc2	12/22/2009	16:34:55	OM_12-22-2009_14-59-47
1202000935	935209	1	axc2	12/22/2009	16:35:50	OM_12-22-2009_14-59-47
CCV		1	axc2	12/22/2009	16:36:41	OM_12-22-2009_14-59-47
CCB		1	axc2	12/22/2009	16:38:31	OM_12-22-2009_14-59-47
243108002	935209	1	axc2	12/22/2009	16:40:21	OM_12-22-2009_14-59-47
243223014	935209	1	axc2	12/22/2009	16:41:14	OM_12-22-2009_14-59-47
243242001	935209	1	axc2	12/22/2009	16:42:08	OM_12-22-2009_14-59-47
243242002	935209	1	axc2	12/22/2009	16:43:01	OM_12-22-2009_14-59-47
243251001	935209	1	axc2	12/22/2009	16:43:54	OM_12-22-2009_14-59-47
243252001	935209	1	axc2	12/22/2009	16:44:46	OM_12-22-2009_14-59-47
1202000929	935209	1	axc2	12/22/2009	16:45:40	OM_12-22-2009_14-59-47
1202000933	935209	1	axc2	12/22/2009	16:46:32	OM_12-22-2009_14-59-47
1202000937	935209	1	axc2	12/22/2009	16:47:24	OM_12-22-2009_14-59-47
243255001	935209	1	axc2	12/22/2009	16:48:16	OM_12-22-2009_14-59-47
CCV		1	axc2	12/22/2009	16:49:08	OM_12-22-2009_14-59-47
CCB		1	axc2	12/22/2009	16:50:59	OM_12-22-2009_14-59-47
243255004	935209	1	axc2	12/22/2009	16:52:49	OM_12-22-2009_14-59-47
243255006	935209	1	axc2	12/22/2009	16:53:43	OM_12-22-2009_14-59-47
243257003	935209	1	axc2	12/22/2009	16:54:37	OM_12-22-2009_14-59-47
243257005	935209	1	axc2	12/22/2009	16:55:32	OM_12-22-2009_14-59-47
243272001	935209	1	axc2	12/22/2009	16:56:25	OM_12-22-2009_14-59-47
243281002	935209	1	axc2	12/22/2009	16:57:19	OM_12-22-2009_14-59-47
243281003	935209	1	axc2	12/22/2009	16:58:13	OM_12-22-2009_14-59-47
243281004	935209	1	axc2	12/22/2009	16:59:06	OM_12-22-2009_14-59-47
243281005	935209	1	axc2	12/22/2009	16:59:59	OM_12-22-2009_14-59-47
1202000930	935209	1	axc2	12/22/2009	17:00:52	OM_12-22-2009_14-59-47
CCV		1	axc2	12/22/2009	17:01:45	OM_12-22-2009_14-59-47
CCB		1	axc2	12/22/2009	17:03:34	OM_12-22-2009_14-59-47

1202000934	935209	1	axc2	12/22/2009	17:05:24 OM_12-22-2009_14-59-47
1202000938	935209	1	axc2	12/22/2009	17:06:16 OM_12-22-2009_14-59-47
243281006	935209	1	axc2	12/22/2009	17:07:09 OM_12-22-2009_14-59-47
243285001	935209	1	axc2	12/22/2009	17:08:02 OM_12-22-2009_14-59-47
1202002259	935758	1	axc2	12/22/2009	17:08:54 OM_12-22-2009_14-59-47
1202002261	935758	250	axc2	12/22/2009	17:09:49 OM_12-22-2009_14-59-47
243330001	935758	1	axc2	12/22/2009	17:10:43 OM_12-22-2009_14-59-47
1202002260	935758	1	axc2	12/22/2009	17:11:37 OM_12-22-2009_14-59-47
CCV		1	axc2	12/22/2009	17:12:30 OM_12-22-2009_14-59-47
CCB		1	axc2	12/22/2009	17:14:20 OM_12-22-2009_14-59-47

Author: axc2 Date : 12/22/2009

Original Run Filename: OM_12-22-2009_14-59-47.OMN created 12/22/2009 14:59:47
Original Run Author's Signature: [axc2]
Current Run Filename: OM_12-22-2009_14-59-47.OMN last modified 12/22/2009 17:15:25
Current Run Author's Signature: [axc2]
Description: GL-GC-E-095 EPA 335.1, 335.3, 335.4, 9012A, CLP335.2-M
Liquid LCS nominal 50 ug/L

Sample	Rep.	Cup No.	Channel 1 TCYANIDE Conc. (ug/L)	Area (Vs)	Detection Time	ADF	MDF	Description
WCN091222-01	1	S1	200	8.25	12/22/2009@15:00:33			200 ppb
WCN091222-02	1	S2	150	6.18	12/22/2009@15:01:24			150 ppb
WCN091222-03	1	S3	100	3.90	12/22/2009@15:02:17			100 ppb
WCN091222-04	1	S4	50.0	2.21	12/22/2009@15:03:10			50 ppb
WCN091222-05	1	S5	10.0	0.487	12/22/2009@15:04:03			10 ppb
WCN091222-06	1	S6	5.00	0.293	12/22/2009@15:04:57			CRDL 5.0 ppb
WCN091222-08	1	S7	0.00	0.0149	12/22/2009@15:05:51			0.0 ppb
DQM Test: Minimum Correlation Coefficient								
		Result:	0.99941 > 0.99500					
		Message	Pass					
		Action	Continue					
WCN091222-07	1	S8	144	5.91	12/22/2009@15:07:41			ICV
		Known Conc:	150					
DQM Test: > + Percent Relative Difference								
		Result:	-4.1 < 10.0					
		Message	ICV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	-4.1 < 10.0					
		Message	ICV Passed					
		Action	Continue					
		Calibration:	Table/Fig. 1					
WCN091222-08	1	S7	-1.08	0.00902	12/22/2009@15:09:31			ICB/CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.08 < 5.01					
		Message	ICB/CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.08 > -5.01					
		Message	ICB/CCB Passed					
		Action	Continue					
WCN091222-06	1	S6	6.03	0.298	12/22/2009@15:11:21			CRDL
		Known Conc:	5.00					
DQM Test: > + Concentration Limit								
		Result:	6.03 < 7.50					
		Message	CRDL Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	6.03 > 2.50					
		Message	Pass					
		Action	None					
1201998913|934285|MB	1	1	-1.36	-0.00257	12/22/2009@15:13:10			
1201998920||LCS	1	2	26.3	1.12	12/22/2009@15:14:04		25.00	
243007002	1	3	2.45	0.152	12/22/2009@15:14:57			
243030001	1	4	18.0	0.785	12/22/2009@15:15:50			
1201998914||DUP	1	5	18.3	0.796	12/22/2009@15:16:43			
1201998916||MS	1	6	92.8	3.83	12/22/2009@15:17:36			
1201998918||MSD	1	7	113	4.67	12/22/2009@15:18:28			
243030002	1	8	102	4.21	12/22/2009@15:19:20			
1201998915||DUP	1	9	3.98	0.215	12/22/2009@15:20:13			
1201998917||MS	1	10	136	5.61	12/22/2009@15:21:05			
WCN091222-03	1	S3	95.1	3.93	12/22/2009@15:21:57			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	-4.9 < 10.0					

		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Percent Relative Difference					
		Result:	-4.9 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN091222-08	1	S7	-1.51	-0.00852	12/22/2009@15:23:48			CCB
		Known Conc:	0.00					
			DQM Test: > + Concentration Limit					
		Result:	-1.51 < 5.00					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	-1.51 > -5.00					
		Message	CCB Passed					
		Action	Continue					
1201998919||MSD	1	11	66.5	2.76	12/22/2009@15:25:36			
243030003	1	12	9.08	0.422	12/22/2009@15:26:27			
243030004	1	13	0.915	0.0900	12/22/2009@15:27:20			
243030005	1	14	2.66	0.161	12/22/2009@15:28:11			
243030006	1	15	11.8	0.534	12/22/2009@15:29:03			
243030007	1	16	3.89	0.211	12/22/2009@15:29:56			
243030002	1	8	-1.87	-0.0232	12/22/2009@15:30:49			
1201998919||MSD	1	11	102	4.20	12/22/2009@15:31:41			
1201998917||MS	1	10	134	5.50	12/22/2009@15:32:33			
243030008	1	17	0.219	0.0617	12/22/2009@15:33:27			
WCN091222-03	1	S3	95.6	3.95	12/22/2009@15:34:19			CCV
		Known Conc:	100					
			DQM Test: > + Percent Relative Difference					
		Result:	-4.4 < 10.0					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Percent Relative Difference					
		Result:	-4.4 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN091222-08	1	S7	-1.49	-0.00787	12/22/2009@15:36:09			CCB
		Known Conc:	0.00					
			DQM Test: > + Concentration Limit					
		Result:	-1.49 < 5.00					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	-1.49 > -5.00					
		Message	CCB Passed					
		Action	Continue					
243030009	1	18	6.82	0.330	12/22/2009@15:37:59			
243030010	1	19	3.52	0.196	12/22/2009@15:38:52			
243030011	1	20	1.76	0.125	12/22/2009@15:39:45			
243030012	1	21	9.74	0.449	12/22/2009@15:40:38			
243030013	1	22	0.594	0.0770	12/22/2009@15:41:31			
243030014	1	23	2.05	0.136	12/22/2009@15:42:24			
243030015	1	24	9.27	0.430	12/22/2009@15:43:17			
243030016	1	25	271	11.1	12/22/2009@15:44:09			
243030017	1	26	10.7	0.487	12/22/2009@15:45:01			
243042008	1	27	1.24	0.103	12/22/2009@15:45:54			
WCN091222-03	1	S3	95.5	3.94	12/22/2009@15:46:46			CCV
		Known Conc:	100					
			DQM Test: > + Percent Relative Difference					
		Result:	-4.5 < 10.0					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Percent Relative Difference					
		Result:	-4.5 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN091222-08	1	S7	-0.654	0.0262	12/22/2009@15:48:36			CCB
		Known Conc:	0.00					

DQM Test: > + Concentration Limit								
Result:			-0.654 < 5.00					
Message			CCB Passed					
Action			Continue					
DQM Test: < - Concentration Limit								
Result:			-0.654 > -5.00					
Message			CCB Passed					
Action			Continue					
243042009	1	28	-0.570	0.0296	12/22/2009@15:50:24			
1201997980|933837|MB	1	29	-0.506	0.0322	12/22/2009@15:51:16			
1201997984||LCS	1	30	26.2	1.12	12/22/2009@15:52:08		25.00	
243030016|934285|	1	25	56.2	2.34	12/22/2009@15:53:00		5.00	
243030017	1	26	10.6	0.484	12/22/2009@15:53:52			
242938001|933837|	1	31	0.942	0.0912	12/22/2009@15:54:48			
1201997981||DUP	1	32	1.57	0.117	12/22/2009@15:55:41			
1201997982||MS	1	33	83.1	3.44	12/22/2009@15:56:35			
1201997983||MSD	1	34	94.1	3.88	12/22/2009@15:57:28			
242938002	1	35	0.558	0.0755	12/22/2009@15:58:21			
WCN091222-03	1	S3	95.3	3.93	12/22/2009@15:59:14			CCV
	Known Conc:		100					
DQM Test: > + Percent Relative Difference								
Result:			-4.7 < 10.0					
Message			CCV Passed					
Action			Continue					
DQM Test: < - Percent Relative Difference								
Result:			-4.7 < 10.0					
Message			CCV Passed					
Action			Continue					
WCN091222-08	1	S7	-1.40	-0.00431	12/22/2009@16:01:03			CCB
	Known Conc:		0.00					
DQM Test: > + Concentration Limit								
Result:			-1.40 < 5.00					
Message			CCB Passed					
Action			Continue					
DQM Test: < - Concentration Limit								
Result:			-1.40 > -5.00					
Message			CCB Passed					
Action			Continue					
242938003	1	36	1.73	0.123	12/22/2009@16:02:53			
242938004	1	37	0.0245	0.0538	12/22/2009@16:03:46			
242938005	1	38	0.227	0.0621	12/22/2009@16:04:39			
242938006	1	39	0.527	0.0743	12/22/2009@16:05:31			
242938007	1	40	-0.310	0.0402	12/22/2009@16:06:24			
242938008	1	41	2.90	0.171	12/22/2009@16:07:16			
242938009	1	42	-0.658	0.0260	12/22/2009@16:08:09			
1201993024|931722|MB	1	43	0.178	0.0601	12/22/2009@16:09:01			
1201993028||LCS	1	44	46.2	1.93	12/22/2009@16:09:53			
242691002	1	45	-0.488	0.0330	12/22/2009@16:10:45			
WCN091222-03	1	S3	95.6	3.94	12/22/2009@16:11:37			CCV
	Known Conc:		100					
DQM Test: > + Percent Relative Difference								
Result:			-4.4 < 10.0					
Message			CCV Passed					
Action			Continue					
DQM Test: < - Percent Relative Difference								
Result:			-4.4 < 10.0					
Message			CCV Passed					
Action			Continue					
WCN091222-08	1	S7	-1.29	2.32e-4	12/22/2009@16:13:27			CCB
	Known Conc:		0.00					
DQM Test: > + Concentration Limit								
Result:			-1.29 < 5.00					
Message			CCB Passed					
Action			Continue					
DQM Test: < - Concentration Limit								
Result:			-1.29 > -5.00					
Message			CCB Passed					
Action			Continue					

1201993025||DUP	1	46	-0.576	0.0293	12/22/2009@16:15:19			
1201993026||MS	1	47	97.7	4.03	12/22/2009@16:16:12			
1201993027||MSD	1	48	99.3	4.09	12/22/2009@16:17:06			
1201998306|933989|MB	1	49	-0.762	0.0218	12/22/2009@16:18:00			
1201998310||LCS	1	50	47.0	1.97	12/22/2009@16:18:53			
242984001	1	51	0.125	0.0579	12/22/2009@16:19:47			
1201998307||DUP	1	52	-0.380	0.0373	12/22/2009@16:20:40			
1202001846||MS	1	53	104	4.28	12/22/2009@16:21:33			
1202001847||MSD	1	54	104	4.31	12/22/2009@16:22:26			
242984003	1	55	0.219	0.0617	12/22/2009@16:23:18			
WCN091222-03	1	S3	96.3	3.97	12/22/2009@16:24:11			CCV
	Known Conc:		100					
DQM Test: > + Percent Relative Difference								
	Result:		-3.7 < 10.0					
	Message		CCV Passed					
	Action		Continue					
DQM Test: < - Percent Relative Difference								
	Result:		-3.7 < 10.0					
	Message		CCV Passed					
	Action		Continue					
WCN091222-08	1	S7	-1.39	-0.00392	12/22/2009@16:26:01			CCB
	Known Conc:		0.00					
DQM Test: > + Concentration Limit								
	Result:		-1.39 < 5.00					
	Message		CCB Passed					
	Action		Continue					
DQM Test: < - Concentration Limit								
	Result:		-1.39 > -5.00					
	Message		CCB Passed					
	Action		Continue					
1202000926|935209|MB	1	56	-1.11	0.00754	12/22/2009@16:27:50			
1202000939||LCS	1	57	49.9	2.09	12/22/2009@16:28:43			
243104002	1	58	-0.813	0.0197	12/22/2009@16:29:36			
1202000928||DUP	1	59	-1.97	-0.0273	12/22/2009@16:30:28			
1202000932||MS	1	60	94.4	3.89	12/22/2009@16:31:19			
1202000936||MSD	1	61	96.3	3.97	12/22/2009@16:32:13			
243108001	1	62	-0.642	0.0267	12/22/2009@16:33:08			
1202000927||DUP	1	63	-0.764	0.0217	12/22/2009@16:34:02			
1202000931||MS	1	64	96.6	3.99	12/22/2009@16:34:55			
1202000935||MSD	1	65	102	4.20	12/22/2009@16:35:50			
WCN091222-03	1	S3	95.9	3.96	12/22/2009@16:36:41			CCV
	Known Conc:		100					
DQM Test: > + Percent Relative Difference								
	Result:		-4.1 < 10.0					
	Message		CCV Passed					
	Action		Continue					
DQM Test: < - Percent Relative Difference								
	Result:		-4.1 < 10.0					
	Message		CCV Passed					
	Action		Continue					
WCN091222-08	1	S7	-0.314	0.0400	12/22/2009@16:38:31			CCB
	Known Conc:		0.00					
DQM Test: > + Concentration Limit								
	Result:		-0.314 < 5.00					
	Message		CCB Passed					
	Action		Continue					
DQM Test: < - Concentration Limit								
	Result:		-0.314 > -5.00					
	Message		CCB Passed					
	Action		Continue					
243108002	1	66	-1.08	0.00876	12/22/2009@16:40:21			
243223014	1	67	3.38	0.190	12/22/2009@16:41:14			
243242001	1	68	-0.593	0.0287	12/22/2009@16:42:08			
243242002	1	69	-1.31	-3.65e-4	12/22/2009@16:43:01			
243251001	1	70	-0.958	0.0138	12/22/2009@16:43:54			
243252001	1	71	0.738	0.0829	12/22/2009@16:44:46			
1202000929||DUP	1	72	0.460	0.0715	12/22/2009@16:45:40			
1202000933||MS	1	73	88.9	3.67	12/22/2009@16:46:32			

1202000937||MSD	1	74	91.5	3.78	12/22/2009@16:47:24			
243255001	1	75	-0.788	0.0207	12/22/2009@16:48:16			
WCN091222-03	1	S3	95.7	3.95	12/22/2009@16:49:08			CCV
		Known Conc:	100					
			DQM Test: > + Percent Relative Difference					
		Result:	-4.3 < 10.0					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Percent Relative Difference					
		Result:	-4.3 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN091222-08	1	S7	-0.589	0.0288	12/22/2009@16:50:59			CCB
		Known Conc:	0.00					
			DQM Test: > + Concentration Limit					
		Result:	-0.589 < 5.00					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	-0.589 > -5.00					
		Message	CCB Passed					
		Action	Continue					
243255004	1	76	-0.456	0.0342	12/22/2009@16:52:49			
243255006	1	77	-1.35	-0.00197	12/22/2009@16:53:43			
243257003	1	78	-1.26	0.00140	12/22/2009@16:54:37			
243257005	1	79	-1.64	-0.0142	12/22/2009@16:55:32			
243272001	1	80	-0.653	0.0262	12/22/2009@16:56:25			
243281002	1	81	-1.10	0.00789	12/22/2009@16:57:19			
243281003	1	82	-1.28	5.33e-4	12/22/2009@16:58:13			
243281004	1	83	-0.514	0.0319	12/22/2009@16:59:06			
243281005	1	84	-0.685	0.0249	12/22/2009@16:59:59			
1202000930||DUP	1	85	-1.09	0.00856	12/22/2009@17:00:52			
WCN091222-03	1	S3	96.0	3.96	12/22/2009@17:01:45			CCV
		Known Conc:	100					
			DQM Test: > + Percent Relative Difference					
		Result:	-4.0 < 10.0					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Percent Relative Difference					
		Result:	-4.0 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN091222-08	1	S7	-0.817	0.0195	12/22/2009@17:03:34			CCB
		Known Conc:	0.00					
			DQM Test: > + Concentration Limit					
		Result:	-0.817 < 5.00					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	-0.817 > -5.00					
		Message	CCB Passed					
		Action	Continue					
1202000934||MS	1	86	102	4.22	12/22/2009@17:05:24			
1202000938||MSD	1	87	99.3	4.10	12/22/2009@17:06:16			
243281006	1	88	-0.651	0.0263	12/22/2009@17:07:09			
243285001	1	89	-2.29	-0.0403	12/22/2009@17:08:02			
1202002259|935758|MB	1	90	-1.06	0.00979	12/22/2009@17:08:54			
1202002261||LCS	1	91	96.7	3.99	12/22/2009@17:09:49		250.00	
243330001	1	92	-0.968	0.0134	12/22/2009@17:10:43			
1202002260||DUP	1	93	5.00	0.257	12/22/2009@17:11:37			
WCN091222-03	1	S3	95.6	3.94	12/22/2009@17:12:30			CCV
		Known Conc:	100					
			DQM Test: > + Percent Relative Difference					
		Result:	-4.4 < 10.0					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Percent Relative Difference					
		Result:	-4.4 < 10.0					

		Message	CCV Passed					
		Action	Continue					
WCN091222-08	1	S7	-1.20	0.00380	12/22/2009@17:14:20			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.20 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.20 > -5.00					
		Message	CCB Passed					
		Action	Continue					

Analyte Properties Table for OM_12-22-2009_14-59-47.OMN

Property	Channel 1
	TCYANIDE
Concentration Units	ug/L
Callibration Fit Type	First Order
Clear Calibration	True
Force Through Zero	False
Calibration Weighting	None
Auto Dilution Trigger	True
% of High Standard	100
Quik Chem Method	10-204-00-1-A
Chemistry	Direct/Bipolar
Calibration by Height	False
Inject to Peak Start	22
Peak Base Width	39

Channel 1: Current View

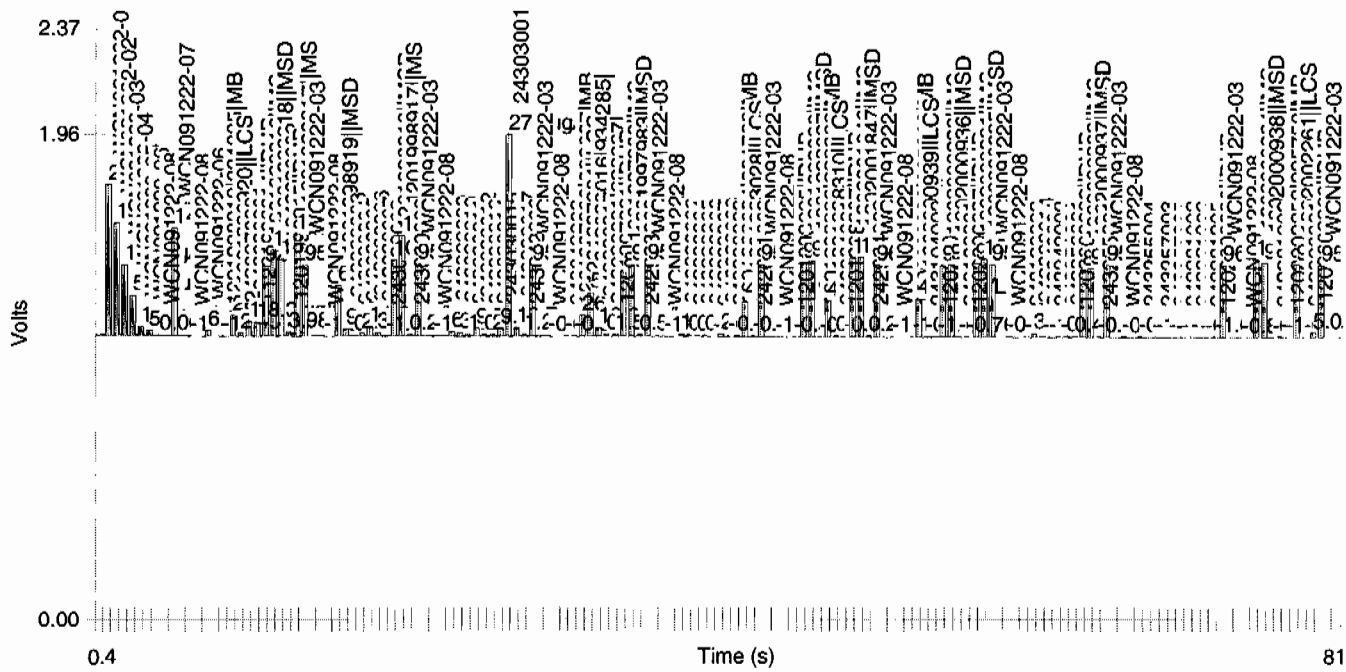

Table 1: TCYANIDE

	Conc. (ug/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	200	1	8.25	0.610	-0.7	12/22/2009	15:01:35
2	150	1	6.18	0.454	-0.4	12/22/2009	15:02:27
3	100	1	3.90	0.286	5.4	12/22/2009	15:03:20
4	50.0	1	2.21	0.162	-5.9	12/22/2009	15:04:12
5	10.0	1	0.487	0.0341	-5.1	12/22/2009	15:05:06
6	5.00	1	0.293	0.0212	-12.8	12/22/2009	15:05:59
7	0.00	1	0.0149	0.00280		12/22/2009	15:06:54

Figure 1: TCYANIDE

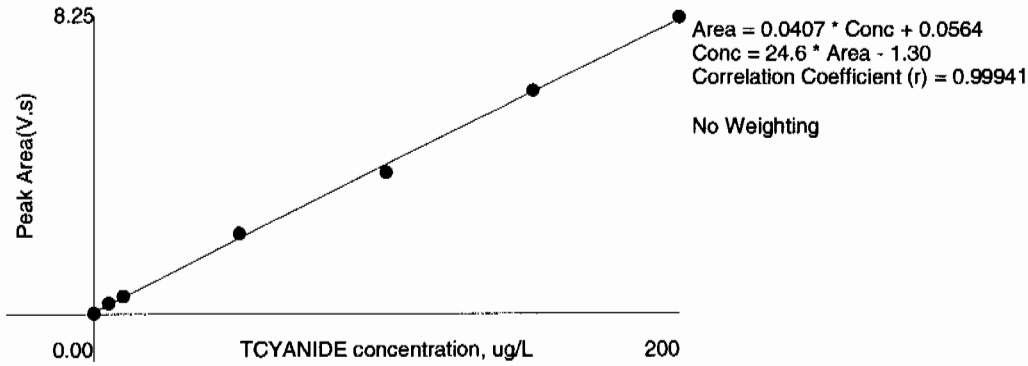

General Chemistry Analysis

Case Narrative

General Chemistry Narrative
Los Alamos National Laboratory (LANL)
SDG 10-918-1

Method/Analysis Information

Product:	**Cyanide, Total**		
Analytical Batch:	933603	**Method:**	SW846 9012A
Prep Batch :	933602	**Method:**	SW846 9010B Prep

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 9012A:

Sample ID	Client ID
242940001	RE03-10-2747
242940002	RE03-10-2761
1201997429	Method Blank (MB)
1201997433	Laboratory Control Sample (LCS)
1201997545	242934001(CAPA-10-6749) Sample Duplicate (DUP)
1201997546	242940001(RE03-10-2747) Sample Duplicate (DUP)
1201997547	242934001(CAPA-10-6749) Matrix Spike (MS)
1201997548	242940001(RE03-10-2747) Matrix Spike (MS)
1201997549	242934001(CAPA-10-6749) Matrix Spike Duplicate (MSD)
1201997550	242940001(RE03-10-2747) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-095 REV# 12.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

The Flow Injection analysis was performed on a Lachat QuickChem FIA+ 8000 Series.

Initial Calibration

All initial calibration requirements have been met for this SDG.

Continuing Calibration Blanks

All continuing calibration blanks (CCBs) associated with reported data from this batch were within acceptance limits.

Calibration Verification Information (CCV)
All continuing calibration verification standards (CCVs) associated with reported data from this batch were within acceptance limits.

Y Intercept Rule
The absolute value of the intercept is less than 3 times the MDL.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recovery met the acceptance limits.

Quality Control (QC) Designation
The following samples were selected for QC analysis: 242934001 (CAPA-10-6749) and 242940001 (RE03-10-2747).

Matrix Spike (MS)/Post Spike (PS) Recovery Statement
The MS/PS recoveries for this sample set were within the required acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recoveries for this sample set were within the required acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPDs between the spike and spike duplicate met the acceptance limits.

Duplicate Relative Percent Difference (RPD) Statement
The values for the sample and duplicate are less than the Practical Quantitation Limit (PQL); therefore, the RPD is not applicable. 1201997545 (CAPA-10-6749), 1201997546 (RE03-10-2747) and 242940001 (RE03-10-2747).

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times
All samples in this SDG met the specified holding time.

Sample Preservation/Integrity
All the samples from this sample group met the preservation and integrity requirements of the method.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-analysis
The samples in this SDG did not require re-analysis.

Miscellaneous Information

Nonconformance (NCR) Documentation
An NCR was not required for this SDG.

Additional Comments
Additional comments were not required for this SDG.

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:
Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Tom Lewis, Jr. **Date:** 09Jan10

Sample Data Summary

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis Report
for

LANL010 Los Alamos National Laboratory (72733-001-09)

Client SDG: 10-918-1 GEL Work Order: 242940

The Qualifiers in this report are defined as follows:

* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.

** Indicates the analyte is a surrogate compound.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the detection limit.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Valerie Davis.

Reviewed by _____

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: December 18, 2009

Client SDG: 10-918-1

Client Sample ID: RE03-10-2747
Sample ID: 242940001
Matrix: W
Collect Date: 11-DEC-09 12:00
Receive Date: 15-DEC-09
Collector: Client

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "As Received"										
Cyanide, Total	U	ND	1.66	5.00	ug/L	1	AXC2 12/17/09	0932	933603	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	SXJ1	12/16/09	1340	933602

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

GEL LABORATORIES LLC
2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: December 18, 2009

Client SDG: 10-918-1

Client Sample ID:	RE03-10-2761	Project:	LANL01004
Sample ID:	242940002	Client ID:	LANL010
Matrix:	W		
Collect Date:	11-DEC-09 12:00		
Receive Date:	15-DEC-09		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "As Received"										
Cyanide, Total	U	ND	1.66	5.00	ug/L	1	AXC2 12/17/09	0936	933603	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	SXJ1	12/16/09	1340	933602

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

Quality Control Summary

GEL LABORATORIES LLC

2040 Savage Road Charleston, SC 29407 - (843) 556-8171 - www.gel.com

QC Summary

Report Date: December 18, 2009
Page 1 of 2

Los Alamos National Laboratory
PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico

Contact: Ms. Joylene Valdez

Workorder: 242940

Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Flow Injection Analysis											
Batch 933603											
QC1201997545 242934001 DUP											
Cyanide, Total		U	ND	U	ND	ug/L	N/A			AXC2	12/17/09 09:25
QC1201997546 242940001 DUP											
Cyanide, Total		U	ND	U	ND	ug/L	N/A				12/17/09 09:33
QC1201997433 LCS											
Cyanide, Total	50.0				51.1	ug/L		102	(90%-110%)		12/17/09 09:19
QC1201997429 MB											
Cyanide, Total				U	5.00	ug/L					12/17/09 09:18
QC1201997547 242934001 MS											
Cyanide, Total	100	U	ND		96.7	ug/L		96.7	(60%-127%)		12/17/09 09:26
QC1201997548 242940001 MS											
Cyanide, Total	100	U	ND		103	ug/L		103	(60%-127%)		12/17/09 09:34
QC1201997549 242934001 MSD											
Cyanide, Total	100	U	ND		98.7	ug/L	2.05	98.7	(0%-20%)		12/17/09 09:30
QC1201997550 242940001 MSD											
Cyanide, Total	100	U	ND		101	ug/L	1.96	101	(0%-20%)		12/17/09 09:35

Notes:
RER is calculated at the 95% confidence level (2-sigma).
The Qualifiers in this report are defined as follows:

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
- F Estimated Value
- H Analytical holding time was exceeded
- J Value is estimated
- M Matrix Related Failure
- N/A RPD or %Recovery limits do not apply.
- ND Analyte concentration is not detected above the detection limit
- NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- R Sample results are rejected
- U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

QC Summary

Workorder: 242940

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time

X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier

Y QC Samples were not spiked with this compound

Z Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.

^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.

d 5-day BOD--The 2:1 depletion requirement was not met for this sample

h Preparation or preservation holding time was exceeded

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more.
^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.
* Indicates that a Quality Control parameter was not within specifications.
For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

Instrument QC Data Summary

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Report Run On: 18-DEC-2009 18:20

GEL Laboratories LLC
Contract: LANL01004
SDG #: 10-918-1

Flow Injection Analysis
Method: SW846 9012A Concentration Units:ug/L
Instrument: Lachat QuickChem FIA+ 8000 Series

Parmname: Cyanide, Total

Sample Type	Run Date	Data File	Result	Nominal	Recovery	Limits	Within Limits
ICV	**17-DEC-2009 09:12:57**	**OM_12-17-2009_09-04-52**	**141**	**150**	**94**	**(90%-110%)**	**Yes**
CCV	17-DEC-2009 09:27:16	OM_12-17-2009_09-04-52	96.3	100	96	(90%-110%)	Yes
CCV	17-DEC-2009 09:39:42	OM_12-17-2009_09-04-52	97.5	100	98	(90%-110%)	Yes

Sample Type	Run Date	Data File	Result	Limits	Within Limits
ICB	**17-DEC-2009 09:14:48**	**OM_12-17-2009_09-04-52**	**-0.0961**	**5**	**Yes**
CCB	17-DEC-2009 09:29:07	OM_12-17-2009_09-04-52	-0.252	5	Yes
CCB	17-DEC-2009 09:41:32	OM_12-17-2009_09-04-52	-0.749	5	Yes

Cyanide, Total

Prep LogBook

Analyst: SXJ1 Verified by:_____

Batch: 933602

Lab SOP: GL-GC-E-067 REV# 13

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1201997433	URF1184831-02	.0125	mL
MS	1201997431	URF1184831-02	.025	mL
MS	1201997547	URF1184831-02	.025	mL
MS	1201997548	URF1184831-02	.025	mL
MSD	1201997432	URF1184831-02	.025	mL
MSD	1201997549	URF1184831-02	.025	mL
MSD	1201997550	URF1184831-02	.025	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Ph	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1201997429		SW846 9010C Distillation	16-DEC-2009 13:40	>12	25 mL	25 mL	1	WATER
LCS	1201997433		SW846 9010C Distillation	16-DEC-2009 13:40	>12	25 mL	25 mL	1	WATER
SAMPLE	242779001		SW846 9010C Distillation	16-DEC-2009 13:40	>12	25 mL	25 mL	1	MISC LIQUID
SAMPLE	242927007		EPA 335.4	16-DEC-2009 13:40	>12	25 mL	25 mL	1	WATER
DUP	1201997430	242927007	EPA 335.4	16-DEC-2009 13:40	>12	25 mL	25 mL	1	WATER
MS	1201997431	242927007	EPA 335.4	16-DEC-2009 13:40	>12	25 mL	25 mL	1	WATER
MSD	1201997432	242927007	EPA 335.4	16-DEC-2009 13:40	>12	25 mL	25 mL	1	WATER
SAMPLE	242934001		EPA 335.4	16-DEC-2009 13:40	>12	25 mL	25 mL	1	GROUND WATER
DUP	1201997545	242934001	EPA 335.4	16-DEC-2009 13:40	>12	25 mL	25 mL	1	GROUND WATER
MS	1201997547	242934001	EPA 335.4	16-DEC-2009 13:40	>12	25 mL	25 mL	1	GROUND WATER
MSD	1201997549	242934001	EPA 335.4	16-DEC-2009 13:40	>12	25 mL	25 mL	1	GROUND WATER
SAMPLE	242936001		EPA 335.4	16-DEC-2009 13:40	>12	25 mL	25 mL	1	GROUND WATER
SAMPLE	242940001		SW846 9010B Prep	16-DEC-2009 13:40	>12	25 mL	25 mL	1	WATER
DUP	1201997546	242940001	SW846 9010B Prep	16-DEC-2009 13:40	>12	25 mL	25 mL	1	WATER
MS	1201997548	242940001	SW846 9010B Prep	16-DEC-2009 13:40	>12	25 mL	25 mL	1	WATER
MSD	1201997550	242940001	SW846 9010B Prep	16-DEC-2009 13:40	>12	25 mL	25 mL	1	WATER
SAMPLE	242940002		SW846 9010B Prep	16-DEC-2009 13:40	>12	25 mL	25 mL	1	WATER
SAMPLE	242954002		EPA 335.4	16-DEC-2009 13:40	>12	25 mL	25 mL	1	WASTE WATER

Reagent/Solvent Lot ID	Amount	Description
091211-C	25 mL	0.25N Sodium Hydroxide Solution
1176724-C	1.25 mL	0.8N H3NO3S
1238146-C	2.5 mL	50% H2SO4 CN Prep
1176778-C	1 mL	51% MgCl2 Soln
1238142-C	1.25 mL	Bismuth Nitrate Solution

Comments

This is runlog Lachat1

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
200 ppb		1	axc2	12/17/2009 9:05:48	OM_12-17-2009_09-04-52
150 ppb		1	axc2	12/17/2009 9:06:40	OM_12-17-2009_09-04-52
100 ppb		1	axc2	12/17/2009 9:07:33	OM_12-17-2009_09-04-52
50 ppb		1	axc2	12/17/2009 9:08:26	OM_12-17-2009_09-04-52
10 ppb		1	axc2	12/17/2009 9:09:19	OM_12-17-2009_09-04-52
CRDL 5.0 ppb		1	axc2	12/17/2009 9:10:12	OM_12-17-2009_09-04-52
ICAL-00		1	axc2	12/17/2009 9:11:07	OM_12-17-2009_09-04-52
ICV		1	axc2	12/17/2009 9:12:57	OM_12-17-2009_09-04-52
ICB		1	axc2	12/17/2009 9:14:48	OM_12-17-2009_09-04-52
CRDL		1	axc2	12/17/2009 9:16:38	OM_12-17-2009_09-04-52
1201997429	933603	1	axc2	12/17/2009 9:18:29	OM_12-17-2009_09-04-52
1201997433	933603	1	axc2	12/17/2009 9:19:22	OM_12-17-2009_09-04-52
242779001	933603	1	axc2	12/17/2009 9:20:15	OM_12-17-2009_09-04-52
242927007	933603	1	axc2	12/17/2009 9:21:08	OM_12-17-2009_09-04-52
1201997430	933603	1	axc2	12/17/2009 9:22:01	OM_12-17-2009_09-04-52
1201997431	933603	1	axc2	12/17/2009 9:22:54	OM_12-17-2009_09-04-52
1201997432	933603	1	axc2	12/17/2009 9:23:46	OM_12-17-2009_09-04-52
242934001	933603	1	axc2	12/17/2009 9:24:39	OM_12-17-2009_09-04-52
1201997545	933603	1	axc2	12/17/2009 9:25:31	OM_12-17-2009_09-04-52
1201997547	933603	1	axc2	12/17/2009 9:26:24	OM_12-17-2009_09-04-52
CCV		1	axc2	12/17/2009 9:27:16	OM_12-17-2009_09-04-52
CCB		1	axc2	12/17/2009 9:29:07	OM_12-17-2009_09-04-52
1201997549	933603	1	axc2	12/17/2009 9:30:55	OM_12-17-2009_09-04-52
242936001	933603	1	axc2	12/17/2009 9:31:47	OM_12-17-2009_09-04-52
242940001	933603	1	axc2	12/17/2009 9:32:40	OM_12-17-2009_09-04-52
1201997546	933603	1	axc2	12/17/2009 9:33:31	OM_12-17-2009_09-04-52
1201997548	933603	1	axc2	12/17/2009 9:34:22	OM_12-17-2009_09-04-52
1201997550	933603	1	axc2	12/17/2009 9:35:16	OM_12-17-2009_09-04-52
242940002	933603	1	axc2	12/17/2009 9:36:10	OM_12-17-2009_09-04-52
242954002	933603	1	axc2	12/17/2009 9:37:03	OM_12-17-2009_09-04-52
1201994740	932527	1	axc2	12/17/2009 9:37:57	OM_12-17-2009_09-04-52
1201994747	932527	25	axc2	12/17/2009 9:38:50	OM_12-17-2009_09-04-52
CCV		1	axc2	12/17/2009 9:39:42	OM_12-17-2009_09-04-52
CCB		1	axc2	12/17/2009 9:41:32	OM_12-17-2009_09-04-52
242750002	932527	1	axc2	12/17/2009 9:43:21	OM_12-17-2009_09-04-52
1201994741	932527	1	axc2	12/17/2009 9:44:15	OM_12-17-2009_09-04-52
1201994743	932527	1	axc2	12/17/2009 9:45:07	OM_12-17-2009_09-04-52
1201994745	932527	1	axc2	12/17/2009 9:46:00	OM_12-17-2009_09-04-52
242750003	932527	1	axc2	12/17/2009 9:46:53	OM_12-17-2009_09-04-52
1201994742	932527	1	axc2	12/17/2009 9:47:45	OM_12-17-2009_09-04-52
1201994744	932527	1	axc2	12/17/2009 9:48:37	OM_12-17-2009_09-04-52
1201994746	932527	1	axc2	12/17/2009 9:49:29	OM_12-17-2009_09-04-52
242750004	932527	1	axc2	12/17/2009 9:50:21	OM_12-17-2009_09-04-52
242781001	932527	1	axc2	12/17/2009 9:51:13	OM_12-17-2009_09-04-52
CCV		1	axc2	12/17/2009 9:52:05	OM_12-17-2009_09-04-52
CCB		1	axc2	12/17/2009 9:53:56	OM_12-17-2009_09-04-52
242781002	932527	1	axc2	12/17/2009 9:55:46	OM_12-17-2009_09-04-52
242781003	932527	1	axc2	12/17/2009 9:56:40	OM_12-17-2009_09-04-52
242781004	932527	1	axc2	12/17/2009 9:57:34	OM_12-17-2009_09-04-52
242781005	932527	1	axc2	12/17/2009 9:58:27	OM_12-17-2009_09-04-52
242781006	932527	1	axc2	12/17/2009 9:59:20	OM_12-17-2009_09-04-52
242781007	932527	1	axc2	12/17/2009 10:00:14	OM_12-17-2009_09-04-52
242786001	932527	1	axc2	12/17/2009 10:01:07	OM_12-17-2009_09-04-52
242786002*	932527	1	axc2	12/17/2009 10:02:00	OM_12-17-2009_09-04-52
242791001	932527	1	axc2	12/17/2009 10:02:52	OM_12-17-2009_09-04-52
242791002	932527	1	axc2	12/17/2009 10:03:44	OM_12-17-2009_09-04-52
CCV		1	axc2	12/17/2009 10:04:37	OM_12-17-2009_09-04-52
CCB		1	axc2	12/17/2009 10:06:27	OM_12-17-2009_09-04-52

242792002	932527	1	axc2	12/17/2009	10:08:17	OM_12-17-2009_09-04-52
242794001*	932527	1	axc2	12/17/2009	10:09:09	OM_12-17-2009_09-04-52
242794002	932527	1	axc2	12/17/2009	10:10:02	OM_12-17-2009_09-04-52
242794003	932527	1	axc2	12/17/2009	10:10:53	OM_12-17-2009_09-04-52
242794004	932527	1	axc2	12/17/2009	10:11:45	OM_12-17-2009_09-04-52
1201996318	933146	1	axc2	12/17/2009	10:12:39	OM_12-17-2009_09-04-52
1201996322	933146	25	axc2	12/17/2009	10:13:33	OM_12-17-2009_09-04-52
242817001	933146	1	axc2	12/17/2009	10:14:28	OM_12-17-2009_09-04-52
1201996319	933146	1	axc2	12/17/2009	10:15:21	OM_12-17-2009_09-04-52
1201996320	933146	1	axc2	12/17/2009	10:16:14	OM_12-17-2009_09-04-52
CCV		1	axc2	12/17/2009	10:17:07	OM_12-17-2009_09-04-52
CCB		1	axc2	12/17/2009	10:18:57	OM_12-17-2009_09-04-52
1201996321	933146	1	axc2	12/17/2009	10:20:46	OM_12-17-2009_09-04-52
242817002	933146	1	axc2	12/17/2009	10:21:39	OM_12-17-2009_09-04-52
242817003*	933146	1	axc2	12/17/2009	10:22:33	OM_12-17-2009_09-04-52
242817004	933146	1	axc2	12/17/2009	10:23:27	OM_12-17-2009_09-04-52
242817005	933146	1	axc2	12/17/2009	10:24:19	OM_12-17-2009_09-04-52
242817006	933146	1	axc2	12/17/2009	10:25:11	OM_12-17-2009_09-04-52
242786002	932527	1	axc2	12/17/2009	10:26:05	OM_12-17-2009_09-04-52
242794001	932527	1	axc2	12/17/2009	10:26:57	OM_12-17-2009_09-04-52
242817002*	933146	10	axc2	12/17/2009	10:27:50	OM_12-17-2009_09-04-52
242817006*	933146	10	axc2	12/17/2009	10:28:44	OM_12-17-2009_09-04-52
CCV		1	axc2	12/17/2009	10:29:35	OM_12-17-2009_09-04-52
CCB		1	axc2	12/17/2009	10:31:26	OM_12-17-2009_09-04-52

Author: axc2 Date : 12/17/2009

Original Run Filename: OM_12-17-2009_09-04-52.OMN created 12/17/2009 09:04:52
Original Run Author's Signature: [axc2]
Current Run Filename: OM_12-17-2009_09-04-52.OMN last modified 12/17/2009 10:32:30
Current Run Author's Signature: [axc2]
Description: GL-GC-E-095 EPA 335.1, 335.3, 335.4, 9012A, CLP335.2-M
Liquid LCS nominal 50 ug/L

Sample	Rep.	Cup No.	Channel 1 TCYANIDE Conc. (ug/L)	Area (Vs)	Detection Time	ADF	MDF	Description
WCN091217-01	1	S1	200	8.92	12/17/2009@09:05:48			200 ppb
WCN091217-02	1	S2	150	6.63	12/17/2009@09:06:40			150 ppb
WCN091217-03	1	S3	100	4.19	12/17/2009@09:07:33			100 ppb
WCN091217-04	1	S4	50.0	2.28	12/17/2009@09:08:26			50 ppb
WCN091217-05	1	S5	10.0	0.532	12/17/2009@09:09:19			10 ppb
WCN091217-06	1	S6	5.00	0.294	12/17/2009@09:10:12			CRDL 5.0 ppb
WCN091217-08	1	S7	0.00	0.0339	12/17/2009@09:11:07			0.0 ppb
DQM Test: Minimum Correlation Coefficient								
		Result:	0.99949 > 0.99500					
		Message	Pass					
		Action	Continue					
WCN091217-07	1	S8	141	6.22	12/17/2009@09:12:57			ICV
		Known Conc:	150					
DQM Test: > + Percent Relative Difference								
		Result:	-6.2 < 10.0					
		Message	ICV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	-6.2 < 10.0					
		Message	ICV Passed					
		Action	Continue					
		Calibration:	Table/Fig. 1					
WCN091217-08	1	S7	-0.0961	0.0296	12/17/2009@09:14:48			ICB/CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-0.0961 < 5.01					
		Message	ICB/CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-0.0961 > -5.01					
		Message	ICB/CCB Passed					
		Action	Continue					
WCN091217-06	1	S6	5.68	0.284	12/17/2009@09:16:38			CRDL
		Known Conc:	5.00					
DQM Test: > + Concentration Limit								
		Result:	5.68 < 7.50					
		Message	CRDL Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	5.68 > 2.50					
		Message	Pass					
		Action	None					
1201997429|933603|MB	1	1	-0.0867	0.0300	12/17/2009@09:18:29			
1201997433||LCS	1	2	51.1	2.28	12/17/2009@09:19:22			
242779001	1	3	3.20	0.175	12/17/2009@09:20:15			
242927007	1	4	-0.763	2.59e-4	12/17/2009@09:21:08			
1201997430||DUP	1	5	0.209	0.0430	12/17/2009@09:22:01			
1201997431||MS	1	6	69.5	3.09	12/17/2009@09:22:54			
1201997432||MSD	1	7	78.7	3.49	12/17/2009@09:23:46			
242934001	1	8	-0.0322	0.0324	12/17/2009@09:24:39			
1201997545||DUP	1	9	-0.625	0.00630	12/17/2009@09:25:31			
1201997547||MS	1	10	96.7	4.29	12/17/2009@09:26:24			
WCN091217-03	1	S3	96.3	4.27	12/17/2009@09:27:16			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	-3.7 < 10.0					

		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Percent Relative Difference					
		Result:	-3.7 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN091217-08	1	S7	-0.252	0.0227	12/17/2009@09:29:07			CCB
		Known Conc:	0.00					
			DQM Test: > + Concentration Limit					
		Result:	-0.252 < 5.00					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	-0.252 > -5.00					
		Message	CCB Passed					
		Action	Continue					
1201997549||MSD	1	11	98.7	4.37	12/17/2009@09:30:55			
242936001	1	12	0.295	0.0468	12/17/2009@09:31:47			
242940001	1	13	0.160	0.0408	12/17/2009@09:32:40			
1201997546||DUP	1	14	-2.02	-0.0549	12/17/2009@09:33:31			
1201997548||MS	1	15	103	4.57	12/17/2009@09:34:22			
1201997550||MSD	1	16	101	4.47	12/17/2009@09:35:16			
242940002	1	17	-0.0515	0.0315	12/17/2009@09:36:10			
242954002	1	18	1.94	0.119	12/17/2009@09:37:03			
1201994740|932527|MB	1	19	-0.0260	0.0327	12/17/2009@09:37:57			
1201994747||LCS	1	20	31.8	1.43	12/17/2009@09:38:50		25.00	
WCN091217-03	1	S3	97.5	4.32	12/17/2009@09:39:42			CCV
		Known Conc:	100					
			DQM Test: > + Percent Relative Difference					
		Result:	-2.5 < 10.0					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Percent Relative Difference					
		Result:	-2.5 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN091217-08	1	S7	-0.749	8.61e-4	12/17/2009@09:41:32			CCB
		Known Conc:	0.00					
			DQM Test: > + Concentration Limit					
		Result:	-0.749 < 5.00					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	-0.749 > -5.00					
		Message	CCB Passed					
		Action	Continue					
242750002	1	21	0.121	0.0391	12/17/2009@09:43:21			
1201994741||DUP	1	22	-0.116	0.0287	12/17/2009@09:44:15			
1201994743||MS	1	23	93.7	4.16	12/17/2009@09:45:07			
1201994745||MSD	1	24	87.3	3.87	12/17/2009@09:46:00			
242750003	1	25	-0.120	0.0285	12/17/2009@09:46:53			
1201994742||DUP	1	26	0.0762	0.0371	12/17/2009@09:47:45			
1201994744||MS	1	27	102	4.51	12/17/2009@09:48:37			
1201994746||MSD	1	28	99.5	4.41	12/17/2009@09:49:29			
242750004	1	29	0.0863	0.0376	12/17/2009@09:50:21			
242781001	1	30	4.92	0.250	12/17/2009@09:51:13			
WCN091217-03	1	S3	97.4	4.32	12/17/2009@09:52:05			CCV
		Known Conc:	100					
			DQM Test: > + Percent Relative Difference					
		Result:	-2.6 < 10.0					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Percent Relative Difference					
		Result:	-2.6 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN091217-08	1	S7	-0.638	0.00575	12/17/2009@09:53:56			CCB
		Known Conc:	0.00					

DQM Test: > + Concentration Limit								
		Result:	-0.638 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-0.638 > -5.00					
		Message	CCB Passed					
		Action	Continue					
242781002	1	31	2.76	0.155	12/17/2009@09:55:46			
242781003	1	32	0.849	0.0711	12/17/2009@09:56:40			
242781004	1	33	0.204	0.0428	12/17/2009@09:57:34			
242781005	1	34	-0.302	0.0205	12/17/2009@09:58:27			
242781006	1	35	3.92	0.206	12/17/2009@09:59:20			
242781007	1	36	21.0	0.956	12/17/2009@10:00:14			
242786001	1	37	-0.149	0.0272	12/17/2009@10:01:07			
242786002	1	38	5.62	0.281	12/17/2009@10:02:00			
242791001	1	39	2.06	0.124	12/17/2009@10:02:52			
242791002	1	40	0.902	0.0735	12/17/2009@10:03:44			
WCN091217-03	1	S3	97.2	4.31	12/17/2009@10:04:37			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	-2.8 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	-2.8 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN091217-08	1	S7	-0.0716	0.0307	12/17/2009@10:06:27			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-0.0716 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-0.0716 > -5.00					
		Message	CCB Passed					
		Action	Continue					
242792002	1	41	5.12	0.259	12/17/2009@10:08:17			
242794001	1	42	4.47	0.230	12/17/2009@10:09:09			
242794002	1	43	0.0223	0.0348	12/17/2009@10:10:02			
242794003	1	44	-0.0868	0.0300	12/17/2009@10:10:53			
242794004	1	45	0.203	0.0427	12/17/2009@10:11:45			
1201996318|933146|MB	1	46	0.585	0.0595	12/17/2009@10:12:39			
1201996322||LCS	1	47	37.0	1.66	12/17/2009@10:13:33		25.00	
242817001	1	48	18.9	0.865	12/17/2009@10:14:28			
1201996319||DUP	1	49	13.4	0.623	12/17/2009@10:15:21			
1201996320||MS	1	50	96.0	4.26	12/17/2009@10:16:14			
WCN091217-03	1	S3	97.4	4.32	12/17/2009@10:17:07			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	-2.6 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	-2.6 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN091217-08	1	S7	-0.772	-1.56e-4	12/17/2009@10:18:57			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-0.772 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-0.772 > -5.00					
		Message	CCB Passed					
		Action	Continue					

1201996321||MSD	1	51	98.7	4.37	12/17/2009@10:20:46			
242817002	1	52	313	13.8	12/17/2009@10:21:39			
242817003	1	53	27.0	1.22	12/17/2009@10:22:33			
242817004	1	54	1.78	0.112	12/17/2009@10:23:27			
242817005	1	55	145	6.40	12/17/2009@10:24:19			
242817006	1	56	522	23.0	12/17/2009@10:25:11			
242786002|932527|	1	38	1.50	0.0998	12/17/2009@10:26:05			
242794001	1	42	-0.567	0.00887	12/17/2009@10:26:57			
242817002	1	52	493	21.7	12/17/2009@10:27:50		10.00	
242817006	1	56	526	23.2	12/17/2009@10:28:44		10.00	
WCN091217-03	1	S3	100	4.43	12/17/2009@10:29:35			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	0.0 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	0.0 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN091217-08	1	S7	0.0318	0.0352	12/17/2009@10:31:26			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	0.0318 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	0.0318 > -5.00					
		Message	CCB Passed					
		Action	Continue					

Analyte Properties Table for OM_12-17-2009_09-04-52.OMN

Property	Channel 1
	TCYANIDE
Concentration Units	ug/L
Callibration Fit Type	First Order
Clear Calibration	True
Force Through Zero	False
Calibration Weighting	None
Auto Dilution Trigger	True
% of High Standard	100
Quik Chem Method	10-204-00-1-A
Chemistry	Direct/Bipolar
Calibration by Height	False
Inject to Peak Start	22
Peak Base Width	39

Author: axc2 Date : 12/17/2009

Channel 1: Current View

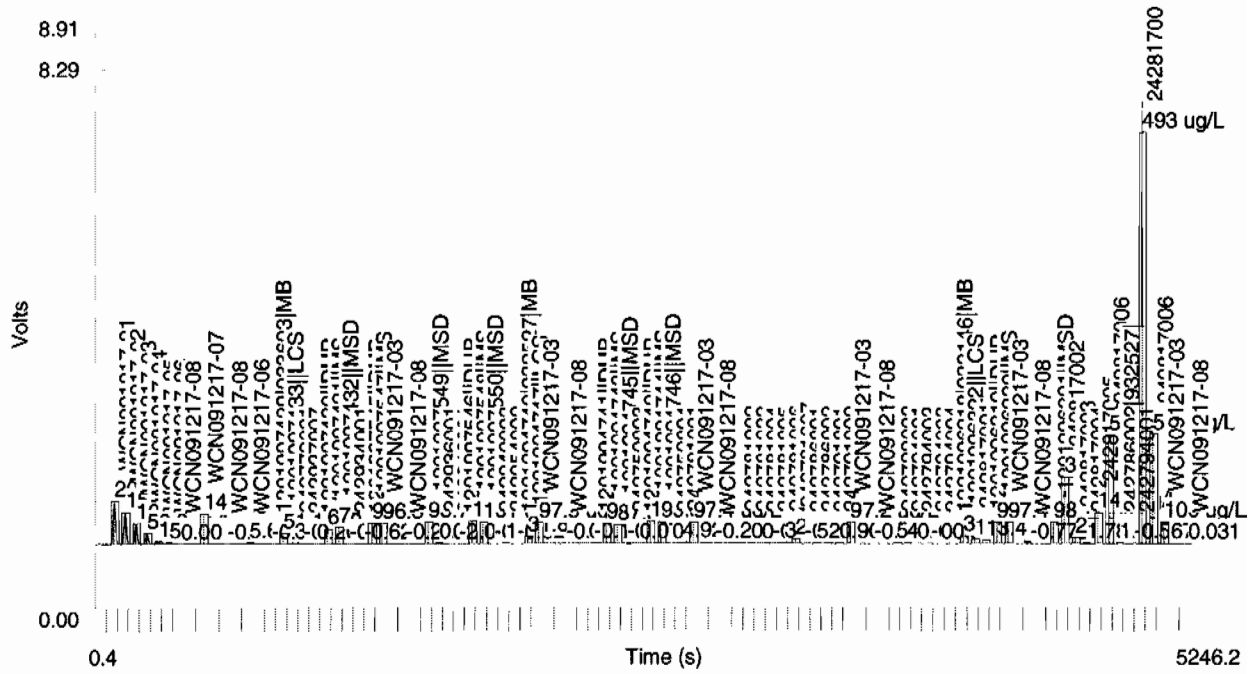

Table 1: TCYANIDE

	Conc. (ug/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	200	1	8.92	0.647	-1.2	12/17/2009	09:06:51
2	150	1	6.63	0.482	-0.1	12/17/2009	09:07:43
3	100	1	4.19	0.305	5.4	12/17/2009	09:08:36
4	50.0	1	2.28	0.164	-1.9	12/17/2009	09:09:29
5	10.0	1	0.532	0.0379	-11.6	12/17/2009	09:10:22
6	5.00	1	0.294	0.0216	-14.6	12/17/2009	09:11:16
7	0.00	1	0.0339	0.00143		12/17/2009	09:12:10

Figure 1: TCYANIDE

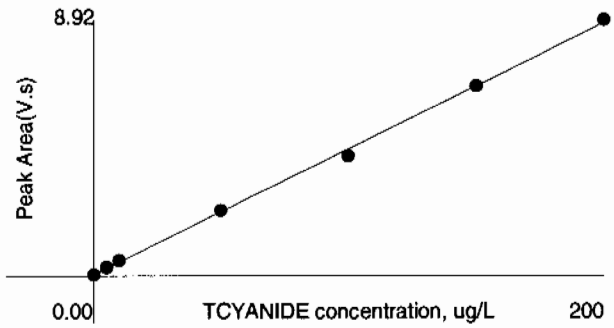

Area = 0.0439 * Conc + 0.0371
Conc = 22.7 * Area - 0.769
Correlation Coefficient (r) = 0.99949

No Weighting

RADIOLOGICAL ANALYSIS

Radiochemistry Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-918
Work Order 242938

Method/Analysis Information

Procedure:	**Dry Weight-Percent Moisture**
Analytical Method:	
Analytical Batch Number:	933761

Sample ID	Client ID
242938001	RE03-09-14213
242938002	RE03-09-14215
242938003	RE03-09-14212
242938004	RE03-09-14219
242938005	RE03-09-14218
242938006	RE03-09-14216
242938007	RE03-09-14214
242938008	RE03-09-14217
242938009	RE03-10-2735
1201997835	242938001(RE03-09-14213) Sample Duplicate (DUP)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-020 REV# 9.

Calibration Information:

Quality Control (QC) Information:

Designated QC
The following sample was used for QC: 242938001 (RE03-09-14213). The QC was from LANL work order 242938.

QC Information
All of the QC samples met the required acceptance limits.

CSU

The blank result is less than 1.65 times the CSU. Not Applicable.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A nonconformance report (NCR) was not generated for this SDG.

Additional Comments
data transfered from batch 933760

Blank Decision Level
Not Applicable. The blank result is less than the decision level.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**H3**
Analytical Method:	GL-RAD-A-002
Analytical Batch Number:	935212

Sample ID	Client ID
242938001	RE03-09-14213
242938002	RE03-09-14215
242938003	RE03-09-14212
242938004	RE03-09-14219
242938005	RE03-09-14218
242938006	RE03-09-14216
242938007	RE03-09-14214
242938008	RE03-09-14217
242938009	RE03-10-2735
1202000958	Method Blank (MB)
1202000959	243042001(RE03-09-14221) Sample Duplicate (DUP)
1202000960	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-002 REV# 18.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. The initial Calibration was performed in August 2009.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
The blank volume is representative of the sample volume in this batch.

Designated QC
The following sample was used for QC: 243042001 (RE03-09-14221). The QC was from LANL work order 243042.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The blank result is less than 1.65 times the CSU.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A nonconformance report (NCR) was not generated for this SDG.

Additional Comments
Additional comments were not required for this sample set.

Blank Decision Level
The blank result is less than the decision level.

Qualifier information

Manual qualifiers were not required.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer/Date: 1/5/10

SAMPLE DATA SUMMARY

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis Report
for

LANL010 Los Alamos National Laboratory (72733-001-09)

Client SDG: 10-918 GEL Work Order: 242938

The Qualifiers in this report are defined as follows:

* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.

** Indicates the analyte is a surrogate compound.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the detection limit.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Valerie Davis.

Reviewed by _____

GEL LABORATORIES LLC

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: January 5, 2010

Client Sample ID:	RE03-09-14213	Project:	LANL01004
Sample ID:	242938001	Client ID:	LANL010
Matrix:	S		
Collect Date:	11-DEC-09		
Receive Date:	15-DEC-09		
Collector:	Client		
Moisture:	12.8%		

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids												
"As Received"												
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		1720	199	+/-144	250	pCi/L		KXK2	01/04/10	1022	935212	2

The following Analytical Methods were performed

Method	Description
1	ASTM D 2216 (Modified)
2	GL-RAD-A-002

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
- F Estimated Value
- H Analytical holding time was exceeded
- J Value is estimated
- M M if above MDC and less than LLD
- M Matrix Related Failure
- N/A RPD or %Recovery limits do not apply.
- ND Analyte concentration is not detected above the detection limit
- NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- R Sample results are rejected
- U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: January 5, 2010

Client Sample ID: RE03-09-14213
Sample ID: 242938001
Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

UI Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
Z Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d 5-day BOD--The 2:1 depletion requirement was not met for this sample
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: January 5, 2010

Client Sample ID: RE03-09-14215
Sample ID: 242938002
Matrix: S
Collect Date: 11-DEC-09
Receive Date: 15-DEC-09
Collector: Client
Moisture: 10.3%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids												
"As Received"												
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		1610	199	+/-137	250	pCi/L		KXK2	01/04/10	1200	935212	2

The following Analytical Methods were performed

Method	Description
1	ASTM D 2216 (Modified)
2	GL-RAD-A-002

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

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- > Result is greater than value reported
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- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
- F Estimated Value
- H Analytical holding time was exceeded
- J Value is estimated
- M M if above MDC and less than LLD
- M Matrix Related Failure
- N/A RPD or %Recovery limits do not apply.
- ND Analyte concentration is not detected above the detection limit
- NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- R Sample results are rejected
- U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
- UI Gamma Spectroscopy--Uncertain identification

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: January 5, 2010

Client Sample ID: RE03-09-14215
Sample ID: 242938002
Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
Z Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d 5-day BOD--The 2:1 depletion requirement was not met for this sample
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: January 5, 2010

Client Sample ID:	RE03-09-14212	Project:	LANL01004
Sample ID:	242938003	Client ID:	LANL010
Matrix:	S		
Collect Date:	11-DEC-09		
Receive Date:	15-DEC-09		
Collector:	Client		
Moisture:	12.9%		

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids												
"As Received"												
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		1570	200	+/-135	250	pCi/L		KXK2	01/04/10	1338	935212	2

The following Analytical Methods were performed

Method	Description
1	ASTM D 2216 (Modified)
2	GL-RAD-A-002

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

- ** Analyte is a surrogate compound
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- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
- F Estimated Value
- H Analytical holding time was exceeded
- J Value is estimated
- M M if above MDC and less than LLD
- M Matrix Related Failure
- N/A RPD or %Recovery limits do not apply.
- ND Analyte concentration is not detected above the detection limit
- NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- R Sample results are rejected
- U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
- UI Gamma Spectroscopy--Uncertain identification

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: January 5, 2010

Client Sample ID: RE03-09-14212
Sample ID: 242938003
Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
Z Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d 5-day BOD--The 2:1 depletion requirement was not met for this sample
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: January 5, 2010

Client Sample ID:	RE03-09-14219	Project:	LANL01004
Sample ID:	242938004	Client ID:	LANL010
Matrix:	S		
Collect Date:	11-DEC-09		
Receive Date:	15-DEC-09		
Collector:	Client		
Moisture:	17.2%		

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids												
"As Received"												
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		496	201	+/-74.8	250	pCi/L		KXK2	01/04/10	1516	935212	2

The following Analytical Methods were performed

Method	Description
1	ASTM D 2216 (Modified)
2	GL-RAD-A-002

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

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- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
- F Estimated Value
- H Analytical holding time was exceeded
- J Value is estimated
- M M if above MDC and less than LLD
- M Matrix Related Failure
- N/A RPD or %Recovery limits do not apply.
- ND Analyte concentration is not detected above the detection limit
- NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- R Sample results are rejected
- U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
- UI Gamma Spectroscopy--Uncertain identification

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: January 5, 2010

Client Sample ID: RE03-09-14219 Project: LANL01004
Sample ID: 242938004 Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
Z Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d 5-day BOD--The 2:1 depletion requirement was not met for this sample
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: January 5, 2010

Client Sample ID:	RE03-09-14218	Project:	LANL01004
Sample ID:	242938005	Client ID:	LANL010
Matrix:	S		
Collect Date:	11-DEC-09		
Receive Date:	15-DEC-09		
Collector:	Client		
Moisture:	17.6%		

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids												
"As Received"												
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium	U	186	201	+/-63.4	250	pCi/L		KXK2	01/04/10	1654	935212	2

The following Analytical Methods were performed

Method	Description
1	ASTM D 2216 (Modified)
2	GL-RAD-A-002

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

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- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
- F Estimated Value
- H Analytical holding time was exceeded
- J Value is estimated
- M M if above MDC and less than LLD
- M Matrix Related Failure
- N/A RPD or %Recovery limits do not apply.
- ND Analyte concentration is not detected above the detection limit
- NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- R Sample results are rejected
- U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
- UI Gamma Spectroscopy--Uncertain identification

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: January 5, 2010

Client Sample ID: RE03-09-14218
Sample ID: 242938005
Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
Z Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d 5-day BOD--The 2:1 depletion requirement was not met for this sample
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: January 5, 2010

Client Sample ID:	RE03-09-14216	Project:	LANL01004
Sample ID:	242938006	Client ID:	LANL010
Matrix:	S		
Collect Date:	11-DEC-09		
Receive Date:	15-DEC-09		
Collector:	Client		
Moisture:	15.8%		

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids												
"As Received"												
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium	U	177	200	+/-63.0	250	pCi/L		KXK2	01/04/10	1832	935212	2

The following Analytical Methods were performed

Method	Description
1	ASTM D 2216 (Modified)
2	GL-RAD-A-002

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

- ** Analyte is a surrogate compound
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- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
- F Estimated Value
- H Analytical holding time was exceeded
- J Value is estimated
- M M if above MDC and less than LLD
- M Matrix Related Failure
- N/A RPD or %Recovery limits do not apply.
- ND Analyte concentration is not detected above the detection limit
- NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- R Sample results are rejected
- U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
- UI Gamma Spectroscopy--Uncertain identification

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: January 5, 2010

Client Sample ID: RE03-09-14216 Project: LANL01004
Sample ID: 242938006 Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
Z Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d 5-day BOD--The 2:1 depletion requirement was not met for this sample
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: January 5, 2010

Client Sample ID: RE03-09-14214
Sample ID: 242938007
Matrix: S
Collect Date: 11-DEC-09
Receive Date: 15-DEC-09
Collector: Client
Moisture: 13.8%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids												
"As Received"												
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		1850	200	+/-153	250	pCi/L		KXK2	01/04/10	2010	935212	2

The following Analytical Methods were performed

Method	Description
1	ASTM D 2216 (Modified)
2	GL-RAD-A-002

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
- F Estimated Value
- H Analytical holding time was exceeded
- J Value is estimated
- M M if above MDC and less than LLD
- M Matrix Related Failure
- N/A RPD or %Recovery limits do not apply.
- ND Analyte concentration is not detected above the detection limit
- NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- R Sample results are rejected
- U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
- UI Gamma Spectroscopy--Uncertain identification

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: January 5, 2010

Client Sample ID: RE03-09-14214 Project: LANL01004
Sample ID: 242938007 Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
Z Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d 5-day BOD--The 2:1 depletion requirement was not met for this sample
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: January 5, 2010

Client Sample ID:	RE03-09-14217	Project:	LANL01004
Sample ID:	242938008	Client ID:	LANL010
Matrix:	S		
Collect Date:	11-DEC-09		
Receive Date:	15-DEC-09		
Collector:	Client		
Moisture:	15.2%		

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids												
"As Received"												
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		254	197	+/-64.5	250	pCi/L		KXK2	01/04/10	2148	935212	2

The following Analytical Methods were performed

Method	Description
1	ASTM D 2216 (Modified)
2	GL-RAD-A-002

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

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- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
- F Estimated Value
- H Analytical holding time was exceeded
- J Value is estimated
- M M if above MDC and less than LLD
- M Matrix Related Failure
- N/A RPD or %Recovery limits do not apply.
- ND Analyte concentration is not detected above the detection limit
- NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- R Sample results are rejected
- U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
- UI Gamma Spectroscopy--Uncertain identification

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: January 5, 2010

Client Sample ID: RE03-09-14217
Sample ID: 242938008
Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
Z Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d 5-day BOD--The 2:1 depletion requirement was not met for this sample
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Certificate of Analysis

Company : Los Alamos National Laboratory
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TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: January 5, 2010

Client Sample ID:	RE03-10-2735	Project:	LANL01004
Sample ID:	242938009	Client ID:	LANL010
Matrix:	S		
Collect Date:	11-DEC-09		
Receive Date:	15-DEC-09		
Collector:	Client		
Moisture:	14.2%		

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids												
"As Received"												
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		1720	203	+/-145	250	pCi/L		KXK2	01/04/10	2326	935212	2

The following Analytical Methods were performed

Method	Description
1	ASTM D 2216 (Modified)
2	GL-RAD-A-002

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

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- > Result is greater than value reported
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- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
- F Estimated Value
- H Analytical holding time was exceeded
- J Value is estimated
- M M if above MDC and less than LLD
- M Matrix Related Failure
- N/A RPD or %Recovery limits do not apply.
- ND Analyte concentration is not detected above the detection limit
- NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- R Sample results are rejected
- U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
- UI Gamma Spectroscopy--Uncertain identification

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: January 5, 2010

Client Sample ID: RE03-10-2735 Project: LANL01004
Sample ID: 242938009 Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
Z Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d 5-day BOD--The 2:1 depletion requirement was not met for this sample
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

QUALITY CONTROL DATA

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

QC Summary

Report Date: January 5, 2010

Client : Los Alamos National Laboratory
PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico

Contact: Ms. Joylene Valdez

Workorder: 242938

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Liquid Scintillation										
Batch 935212										
QC1202000959 243042001 DUP										
Tritium		658		785	pCi/L	0.363		(0-1)	KXK2	01/04/1022:56
	TPU:	+/-81.7		+/-93.0						
QC1202000960 LCS										
Tritium	5600			5650	pCi/L		101	(75%-125%)		01/05/1000:33
	TPU:			+/-512						
QC1202000958 MB										
Tritium			U	-52.5	pCi/L					01/04/1021:18
	TPU:			+/-58.8						

Notes:
The Qualifiers in this report are defined as follows:

**	Analyte is a surrogate compound
<	Result is less than value reported
>	Result is greater than value reported
A	The TIC is a suspected aldol-condensation product
B	For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD	Results are either below the MDC or tracer recovery is low
C	Analyte has been confirmed by GC/MS analysis
D	Results are reported from a diluted aliquot of the sample
E	Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
F	Estimated Value
H	Analytical holding time was exceeded
J	Value is estimated
M	M if above MDC and less than LLD
M	Matrix Related Failure
N/A	RPD or %Recovery limits do not apply.
ND	Analyte concentration is not detected above the detection limit
NJ	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R	Sample results are rejected
U	Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI	Gamma Spectroscopy--Uncertain identification
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
Z	Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d	5-day BOD--The 2:1 depletion requirement was not met for this sample
h	Preparation or preservation holding time was exceeded

QC Summary

Workorder: 242938

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date	Time

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more.
** Indicates analyte is a surrogate compound.
^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptence criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.
For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

RAW DATA

Radiochemistry Batch Checklist, Rev 9

Batch# 935212 Product: Tritium Date: 1/5/10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			NA
Samples have been blank corrected (if required)			NA
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.			NA
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	✓		
Sample was run within hold time.	✓		
Sample was correctly preserved if required.	✓		
Smears Taken for Radioactive batches.			NA
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	✓		
Aux data is correct.			NA
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)			NA
Batch entered into Case Narrative.	✓		
Batch non-conformances completed, if applicable.			NA
Batch non-conformances second reviewed and disposition verified to be completed.			NA
Aliquot Correction completed if required.			NA
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

GEL Laboratories, LLC

revised 8/1/08

Primary Review Performed By: Kimberly Pore LANL 1/12/10

Secondary Review Performed By: [illegible] 1/5/10

Tritium Que Sheet

21-DEC-09

Batch #: 935212 **Analyst:** KXK2 **First Client Due Date** 12-JAN-10 **Internal Due Date:** 01-JAN-10

Spike Isotope: Hydrogen-3 **Spike Code:** ——— **Expiration Date:** ——— **Vol:** ——

LCS Isotope: Hydrogen-3 **LCS Code:** 0134-K **Expiration Date:** 3/27/10 **Vol:** 0.1

Prep Date: 12/23/09 **Initials:** KJKJ **Pipet ID:** 29709168 **Witness:** AW 12/29/09

Sample ID	Client Samp ID	Type	Hazard Code	Min CRDL	Matrix	Client	Sample Date	Aliquot in vial (g/mL)	LSC Rack #	Dist Rig #	Vol added for Dist (mL)	Initial Sample Aliquot (g/mL)	Final Wt (g)	Total moisture Dist Vol (mL) KJKJ 12/24/09
242938001-1	RE03-09-14213	SAMPLE		.25 pCi/mL	SOIL	LANL010	11-DEC-09	10	15-2	1		500.91	436.79	64.12
242938002-1	RE03-09-14215	SAMPLE		.25 pCi/mL	SOIL	LANL010	11-DEC-09	10	15-3	2		563.03	505.60	57.43
242938003-1	RE03-09-14212	SAMPLE		.25 pCi/mL	SOIL	LANL010	11-DEC-09	10	15-4	3		508.26	443.20	65.06
242938004-1	RE03-09-14219	SAMPLE		.25 pCi/mL	SOIL	LANL010	11-DEC-09	10	15-5	4		525.83	435.91	89.92
242938005-1	RE03-09-14218	SAMPLE		.25 pCi/mL	SOIL	LANL010	11-DEC-09	10	15-6	5		508.10	418.67	89.43
242938006-1	RE03-09-14216	SAMPLE		.25 pCi/mL	SOIL	LANL010	11-DEC-09	10	15-7	6		477.68	402.21	75.47
242938007-1	RE03-09-14214	SAMPLE		.25 pCi/mL	SOIL	LANL010	11-DEC-09	10	15-8	7		498.04	429.81	68.23
242938008-1	RE03-09-14217	SAMPLE		.25 pCi/mL	SOIL	LANL010	11-DEC-09	10	15-9	8		562.06	476.63	85.43
242938009-1	RE03-10-2735	SAMPLE		.25 pCi/mL	SOIL	LANL010	11-DEC-09	10	15-10	9		502.58	431.72	70.86
243042001-1	RE03-09-14221	SAMPLE		.25 pCi/mL	SOIL	LANL010	14-DEC-09	10	15-11	10		667.24	569.16	98.08
243042002-1	RE03-09-14211	SAMPLE		.25 pCi/mL	SOIL	LANL010	14-DEC-09	10	15-12	11		446.89	382.98	63.91
243042003-1	RE03-09-14210	SAMPLE		.25 pCi/mL	SOIL	LANL010	14-DEC-09	10	30-2	12		400.12	345.70	54.42
243042004-1	RE03-09-14209	SAMPLE		.25 pCi/mL	SOIL	LANL010	14-DEC-09	10	30-3	13		492.16	435.56	56.60
243042005-1	RE03-09-14208	SAMPLE		.25 pCi/mL	SOIL	LANL010	14-DEC-09	10	30-4	14		434.61	379.41	55.20
243042006-1	RE03-09-14222	SAMPLE		.25 pCi/mL	SOIL	LANL010	14-DEC-09	10	30-5	15		494.46	398.53	95.93
243042007-1	RE03-09-14223	SAMPLE		.25 pCi/mL	SOIL	LANL010	14-DEC-09	10	30-6	16		588.16	524.64	63.52
243042008-1	RE03-09-14220	SAMPLE		.25 pCi/mL	SOIL	LANL010	14-DEC-09	10	30-7	17		481.52	406.88	74.64
243042009-1	RE03-10-2734	SAMPLE		.25 pCi/mL	SOIL	LANL010	14-DEC-09	10	30-8	18		475.20	383.49	91.71
1202000958-1	MB for batch 935212	MB		.25 pCi/mL	SOIL	QC ACCOUNT		10	30-9	19		20.00	0	20.00
1202000959-1	RE03-09-14221(243042001DUP)	DUP		.25 pCi/mL	SOIL	QC ACCOUNT	14-DEC-09	10	30-10	10		667.24	569.16	98.08
1202000960-1	LCS for batch 935212	LCS		.25 pCi/mL	SOIL	QC ACCOUNT		10	29-1	20		20.00	0	20.00

21

KJKJ 12/24/09

Bkg Rack #: 15-1 / 30-1

Dailies ✓

Comments:

Instrument Used (circle as appropriate): *LS6000 (Red) 7065155, LS6500 (Blue) 7067083, LS6500 (Gold) 7070506, LS6500 (Green) 7067404, Wallac (Yellow) 4040127, LS6000 (Brown) 7060655, Wallac (Pink) 2200082, Wallac (White) 4140299, Purple 7069123, Silver 7060656*

Bkg prepared with dead water? Yes/No

Calibration Used : *Ultima Gold LLT (10 mL sample/13 mL LLT) poly vial; Ecoscint Ultra (10 mL sample/13 mL Ecoscint Ultra)*

Data Reviewed By: [signature]

GEL Laboratories LLC, Radiochemistry Division

DATE	12/23/2009	INITIALS	KXK2		BATCH NUMBER	935212

Sample #	Sample Wet (g)	% Moisture of Sample (Balance Interface using % Moisture Batch)	Total Moisture in Sample (mL)	Sample Dry (g)	mLs aliquoted into LSC vial	Collection Tube Number
242938001	500.91	0.128	64.12	436.79	10	11
242938002	563.03	0.102	57.43	505.60	10	610
242938003	508.26	0.128	65.06	443.20	10	106
242938004	525.83	0.171	89.92	435.91	10	706
242938005	508.10	0.176	89.43	418.67	10	55
242938006	477.68	0.158	75.47	402.21	10	151
242938007	498.04	0.137	68.23	429.81	10	32
242938008	562.06	0.152	85.43	476.63	10	62
242938009	502.58	0.141	70.86	431.72	10	136
243042001	667.24	0.147	98.08	569.16	10	49
243042002	446.89	0.143	63.91	382.98	10	8
243042003	400.12	0.136	54.42	345.70	10	203
243042004	492.16	0.115	56.60	435.56	10	722
243042005	434.61	0.127	55.20	379.41	10	10
243042006	494.46	0.194	95.93	398.53	10	603
243042007	588.16	0.108	63.52	524.64	10	761
243042008	481.52	0.155	74.64	406.88	10	732
243042009	475.20	0.193	91.71	383.49	10	73
MB	20.00	1	20.00	0.00	10	1
LCS	20.00	1	20.00	0.00	10	2

T935212

Tritium Solid

Filename : H3VAC.XLS
File type : Excel
Version # : 1.2.5

Batch : 935212
Analyst : KXK2
Prep Date : 12/23/2009

Spike S/N : N/A
Spike Exp Date : N/A
Spike Activity (dpm/ml): N/A
Spike Volume Added: N/A

LCS S/N : 0134-K
LCS Exp Date : 3/27/2010
LCS Activity (dpm/ml): 2487.28
LCS Volume Added: 0.10

H-3 Abundance : 1
Method Uncertainty : 0.0691
Geometry: 10mL DW/13mL Ecoscint Ultra

Pipet, 0.1 ml Stdev : +/- 0.000701 ml
Pipet, 0.5 ml Stdev : +/- 0.002564 ml
Pipet, 1.0 ml Stdev : +/- 0.005480 ml
Pipet, 5.0 ml Stdev : +/- 0.025729 ml

Procedure Code : LSC_VH3S
Parmname : Tritium
Required MDC : 250 pCi/L
Halflife of Tritium : 12.28 years

Sample Characteristics

Pos.	Sample ID	Wet Sample Weight (g)	Total Moisture L	Sample Aliquot in Vial L	Sample Aliquot Stdev. L	Dry Sample Weight (g)	% Moisture of Sample	Rig number	Sample Date/Time
1	242938001.1	500.91	0.0641	0.0100	2.5729E-05	436.79	12.80%	1	12/11/2009 12:00
2	242938002.1	563.03	0.0574	0.0100	2.5729E-05	505.60	10.20%	2	12/11/2009 12:00
3	242938003.1	508.26	0.0651	0.0100	2.5729E-05	443.20	12.80%	3	12/11/2009 12:00
4	242938004.1	525.83	0.0899	0.0100	2.5729E-05	435.91	17.10%	4	12/11/2009 12:00
5	242938005.1	508.10	0.0894	0.0100	2.5729E-05	418.67	17.60%	5	12/11/2009 12:00
6	242938006.1	477.68	0.0755	0.0100	2.5729E-05	402.21	15.80%	6	12/11/2009 12:00
7	242938007.1	498.04	0.0682	0.0100	2.5729E-05	429.81	13.70%	7	12/11/2009 12:00
8	242938008.1	562.06	0.0854	0.0100	2.5729E-05	476.63	15.20%	8	12/11/2009 12:00
9	242938009.1	502.58	0.0709	0.0100	2.5729E-05	431.72	14.10%	9	12/11/2009 12:00
10	243042001.1	667.24	0.0981	0.0100	2.5729E-05	569.16	14.70%	10	12/14/2009 12:00
11	243042002.1	446.89	0.0639	0.0100	2.5729E-05	382.98	14.30%	11	12/14/2009 12:00
12	243042003.1	400.12	0.0544	0.0100	2.5729E-05	345.70	13.60%	12	12/14/2009 12:00
13	243042004.1	492.16	0.0566	0.0100	2.5729E-05	435.56	11.50%	13	12/14/2009 12:00
14	243042005.1	434.61	0.0552	0.0100	2.5729E-05	379.41	12.70%	14	12/14/2009 12:00
15	243042006.1	494.46	0.0959	0.0100	2.5729E-05	398.53	19.40%	15	12/14/2009 12:00
16	243042007.1	588.16	0.0635	0.0100	2.5729E-05	524.64	10.80%	16	12/14/2009 12:00
17	243042008.1	481.52	0.0746	0.0100	2.5729E-05	406.88	15.50%	17	12/14/2009 12:00
18	243042009.1	475.20	0.0917	0.0100	2.5729E-05	383.49	19.30%	18	12/14/2009 12:00
19	1202000958.1	20.00	0.0200	0.0100	2.5729E-05	0.00	100.00%	19	12/23/2009 0:00
20	1202000959.1	667.24	0.0981	0.0100	2.5729E-05	569.16	14.70%	10	12/14/2009 12:00
21	1202000960.1	20.00	0.0200	0.0100	2.5729E-05	0.00	100.00%	20	12/23/2009 0:00

T935212

Count raw Data					Background				Calibration Data					Backgrounds	
Pos.	Rack Position #	Counting Time (min.)	Quench#	Gross cpm	cpm	Count Time (min.)	Count Start Date/Time	Sample Decay	Counted on	Calibration Date	Calibration Due Date	Detector Efficiency (cpm/dpm)	Detector Efficiency Error (cpm/dpm)	Rack Position #	Count Start Date/Time
1	15-2	95	126	16.47	6.05	95	1/4/2010 10:22	0.996	LSCSILVER	8/21/2009	8/31/2010	0.2739	0.00792	15-1	1/4/2010 8:44
2	15-3	95	126.1	15.8	6.05	95	1/4/2010 12:00	0.996	LSCSILVER	8/21/2009	8/31/2010	0.2738	0.00792	15-1	1/4/2010 8:44
3	15-4	95	126.5	15.56	6.05	95	1/4/2010 13:38	0.996	LSCSILVER	8/21/2009	8/31/2010	0.2730	0.00792	15-1	1/4/2010 8:44
4	15-5	95	127.4	9.03	6.05	95	1/4/2010 15:16	0.996	LSCSILVER	8/21/2009	8/31/2010	0.2714	0.00792	15-1	1/4/2010 8:44
5	15-6	95	127.3	7.17	6.05	95	1/4/2010 16:54	0.996	LSCSILVER	8/21/2009	8/31/2010	0.2716	0.00792	15-1	1/4/2010 8:44
6	15-7	95	126.7	7.12	6.05	95	1/4/2010 18:32	0.996	LSCSILVER	8/21/2009	8/31/2010	0.2727	0.00792	15-1	1/4/2010 8:44
7	15-8	95	126.6	17.21	6.05	95	1/4/2010 20:10	0.996	LSCSILVER	8/21/2009	8/31/2010	0.2729	0.00792	15-1	1/4/2010 8:44
8	15-9	95	124.7	7.6	6.05	95	1/4/2010 21:48	0.996	LSCSILVER	8/21/2009	8/31/2010	0.2763	0.00792	15-1	1/4/2010 8:44
9	15-10	95	128.8	16.27	6.05	95	1/4/2010 23:26	0.996	LSCSILVER	8/21/2009	8/31/2010	0.2688	0.00792	15-1	1/4/2010 8:44
10	15-11	95	125.2	10.06	6.05	95	1/5/2010 1:05	0.997	LSCSILVER	8/21/2009	8/31/2010	0.2754	0.00792	15-1	1/4/2010 8:44
11	15-12	95	130	11.46	6.05	95	1/5/2010 2:43	0.997	LSCSILVER	8/21/2009	8/31/2010	0.2666	0.00792	15-1	1/4/2010 8:44
12	30-2	95	118.8	4.53	2.73	95	1/4/2010 9:52	0.997	LSCGOLD	8/20/2009	8/31/2010	0.1801	0.00792	30-1	1/4/2010 8:14
13	30-3	95	117.9	3.69	2.73	95	1/4/2010 11:30	0.997	LSCGOLD	8/20/2009	8/31/2010	0.1807	0.00792	30-1	1/4/2010 8:14
14	30-4	95	115.2	3.81	2.73	95	1/4/2010 13:08	0.997	LSCGOLD	8/20/2009	8/31/2010	0.1824	0.00792	30-1	1/4/2010 8:14
15	30-5	95	117.3	7.66	2.73	95	1/4/2010 14:46	0.997	LSCGOLD	8/20/2009	8/31/2010	0.1811	0.00792	30-1	1/4/2010 8:14
16	30-6	95	118.2	6.98	2.73	95	1/4/2010 16:24	0.997	LSCGOLD	8/20/2009	8/31/2010	0.1805	0.00792	30-1	1/4/2010 8:14
17	30-7	95	118.5	4.62	2.73	95	1/4/2010 18:02	0.997	LSCGOLD	8/20/2009	8/31/2010	0.1803	0.00792	30-1	1/4/2010 8:14
18	30-8	95	117.6	7.13	2.73	95	1/4/2010 19:40	0.997	LSCGOLD	8/20/2009	8/31/2010	0.1809	0.00792	30-1	1/4/2010 8:14
19	30-9	95	118.3	2.52	2.73	95	1/4/2010 21:18	0.998	LSCGOLD	8/20/2009	8/31/2010	0.1805	0.00792	30-1	1/4/2010 8:14
20	30-10	95	117.8	5.87	2.73	95	1/4/2010 22:56	0.997	LSCGOLD	8/20/2009	8/31/2010	0.1808	0.00792	30-1	1/4/2010 8:14
21	29-1	15	119.6	25.2	2.73	95	1/5/2010 0:33	0.998	LSCGOLD	8/20/2009	8/31/2010	0.1796	0.00792	30-1	1/4/2010 8:14

Notes:
1 - Results are decay corrected to Sample Date/Time
2 - Reference date for Spike Activity (dpm/ml) is the batch Prep Date
3 - Spike Nominals are decay corrected to Sample Date/Time

Results

Pos.	Decision Level pCi/L	Critical Level pCi/L	Required MDC pCi/L	MDC pCi/L	Sample Act. Conc. pCi/L	Sample Act. Error pCi/L	Net Count Rate CPM	Net Count Rate Error CPM	1 SIGMA Counting Uncertainty pCi/L	1 SIGMA Total Prop. Uncertainty pCi/L	Sample QC	Sample Type	RPD	RER	Nominal pCi/L	Recovery
1	137.2392	96.8920	250	198.9959	**1719.7252**	0.048	10.420	0.487	80.3552	144.2321		SAMPLE				
2	137.3315	96.9572	250	199.1297	**1610.2299**	0.050	9.750	0.480	79.2040	137.2974		SAMPLE				
3	137.6984	97.2162	250	199.6617	**1574.7895**	0.051	9.510	0.477	78.9783	135.1566		SAMPLE				
4	138.5343	97.8064	250	200.8737	**496.4627**	0.134	2.980	0.398	66.3757	74.8420		SAMPLE				
5	138.4422	97.7414	250	200.7402	**186.4660**	0.333	1.120	0.373	62.1063	63.4496		SAMPLE				
6	137.8867	97.3492	250	199.9348	**177.4268**	0.348	1.070	0.372	61.7400	62.9645		SAMPLE				
7	137.7960	97.2852	250	199.8034	**1849.3289**	0.045	11.160	0.495	81.9961	152.6863		SAMPLE				
8	136.0870	96.0786	250	197.3253	**253.6656**	0.245	1.550	0.379	62.0347	64.5014		SAMPLE				
9	139.8734	98.7518	250	202.8155	**1719.0924**	0.048	10.220	0.485	81.5330	144.8552		SAMPLE				
10	136.4695	96.3487	250	197.8799	**658.1021**	0.103	4.010	0.412	67.5826	81.6595		SAMPLE				
11	140.9857	99.5371	250	204.4283	**917.2452**	0.080	5.410	0.429	72.7896	96.8477		SAMPLE				
12	140.1296	98.9327	250	205.7875	**451.5564**	0.154	1.800	0.276	69.3499	76.1479		SAMPLE				
13	139.6667	98.6059	250	205.1077	**240.0346**	0.271	0.960	0.260	64.9992	67.1147		SAMPLE				
14	138.4028	97.7136	250	203.2516	**267.5952**	0.243	1.080	0.262	65.0102	67.6290		SAMPLE				
15	139.3719	98.3977	250	204.6747	**1230.0750**	0.068	4.930	0.331	82.5146	118.9466		SAMPLE				
16	139.8236	98.7166	250	205.3380	**1063.8464**	0.076	4.250	0.320	80.0272	109.0611		SAMPLE				
17	139.9799	98.8270	250	205.5675	**473.6275**	0.147	1.890	0.278	69.7039	77.1153		SAMPLE				
18	139.5240	98.5051	250	204.8981	**1099.0340**	0.074	4.400	0.322	80.4702	111.0612		SAMPLE				
19	139.6957	98.6264	250	205.1502	**-52.5185**	1.119	-0.210	0.235	58.7909	58.7912		MB				
20	139.6267	98.5777	250	205.0489	**784.8881**	0.096	3.140	0.301	75.2083	92.9763	243042001.1	DUP	17.6%	0.3630		
21	268.8231	189.7914	250	429.8483	**5647.3334**	0.059	22.470	1.307	328.5322	512.4804		LCS			5601.9921	100.8%

ID:TRITIUM 4 JAN 2010 08:40

USER: 4 COMMENT:SILVER

PRESET TIME : 95.00

DATA CALC : CPM H# :YES SAMPLE REPEATS: 1 PRINTER : STD

COUNT BLANK : NO IC# : NO REPLICATES : 1 RS232 :EDIT

TWO PHASE : NO AQC : NO CYCLE REPEATS : 1 DISK : OFF

SCINTILLATOR: LIQUID LUMEX:YES LOW SAMPLE REJ: 0

LOW LEVEL : NO HALF LIFE CORRECTION DATE: none

CHAN: 20.0 - 280.0 %ERROR: 0.00 FACTOR: 1.000000 BKG. SUB: 0

CHAN: 0.0 - 1000.0 %ERROR: 0.00 FACTOR: 1.000000 BKG. SUB: 0

SAM NO	POS	TIME MIN	H#	WIND1 CPM	WIND1 %ERROR	WIND2 CPM	WIND2 %ERROR	LUMEX %	ELAPSED TIME
1	15-1	95.00	126.4	6.05	8.43	45.56	3.04	0.38	97.53
2	15-2	95.00	126.0	16.47	5.08	56.04	2.75	0.34	195.60
3	15-3	95.00	126.1	15.80	5.19	54.61	2.78	0.40	293.69
4	15-4	95.00	126.5	15.56	5.23	54.58	2.78	0.40	391.79
5	15-5	95.00	127.4	9.03	6.90	48.85	2.94	0.43	489.86
6	15-6	95.00	127.3	7.17	7.76	46.74	3.01	0.45	587.94
7	15-7	95.00	126.7	7.12	7.79	46.13	3.03	0.44	686.03
8	15-8	95.00	126.6	17.21	4.97	56.81	2.73	0.33	784.10
9	15-9	95.00	124.7	7.60	7.53	47.56	2.98	0.41	882.17
10	15-10	95.00	128.8	16.27	5.11	55.43	2.76	0.29	980.24
11	15-11	95.00	125.2	10.06	6.52	49.80	2.91	0.35	1078.30
12	15-12	95.00	130.0	11.46	6.09	49.86	2.91	0.28	1176.34

QP

INSTRUMENT CALIBRATION: Maxi 5 JAN 2010 04:19
Calibration successful

QP

Calibrating Auto DPM
Counting Standard for 14C
Calibration Complete: 14C
Counting Standard for 3H
Calibration Complete: 3H
Calibration Successful

Sample Count Start Time:	4 Jan 2010 08:44:16		
Data Capture Date	04 Jan 2010 10:19:42		
User Filename	S04010415-1A.XLS		
	U04010415-1A.XLS		
Spectrum Type	Log Counts		
User Number	04		
User Id	TRITIUM		
User Comment	SILVER		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	1	15-1	95.00
H#, Total Counts:	126.4	4328	
Win1: Tritium - Start, End, Counts:	20	280	575
Win2: - Start, End, Counts:	0	990	3990

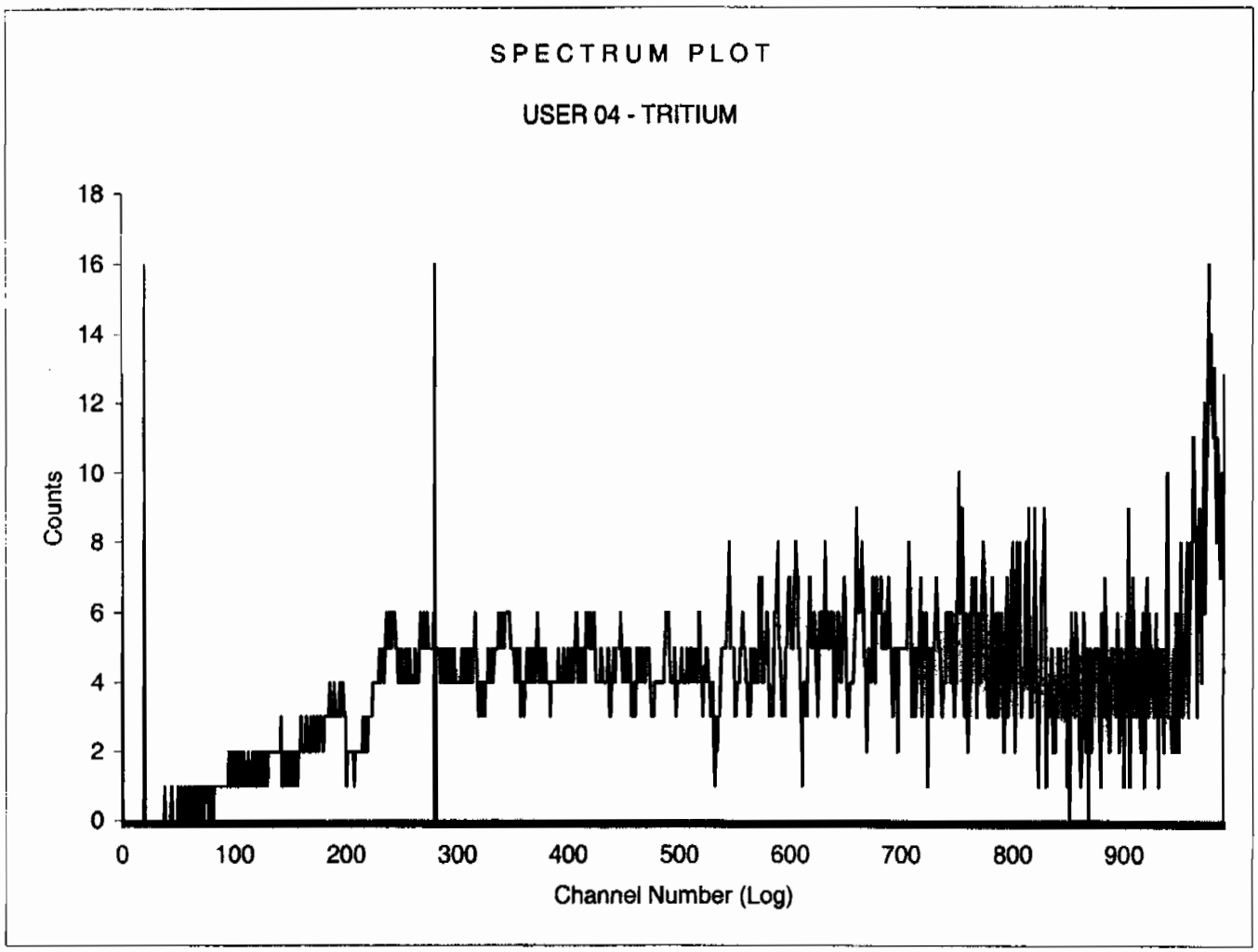

Sample Count Start Time:	4 Jan 2010 10:22:20		
Data Capture Date	04 Jan 2010 11:57:46		
User Filename	S04010415-2A.XLS		
	U04010415-1A.XLS		
Spectrum Type	Log Counts		
User Number	04		
User Id	TRITIUM		
User Comment	SILVER		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	2	15-2	95.00
H#, Total Counts:	126.0	5324	
Win1: Tritium - Start, End, Counts:	20	280	1565
Win2: - Start, End, Counts:	0	990	4972

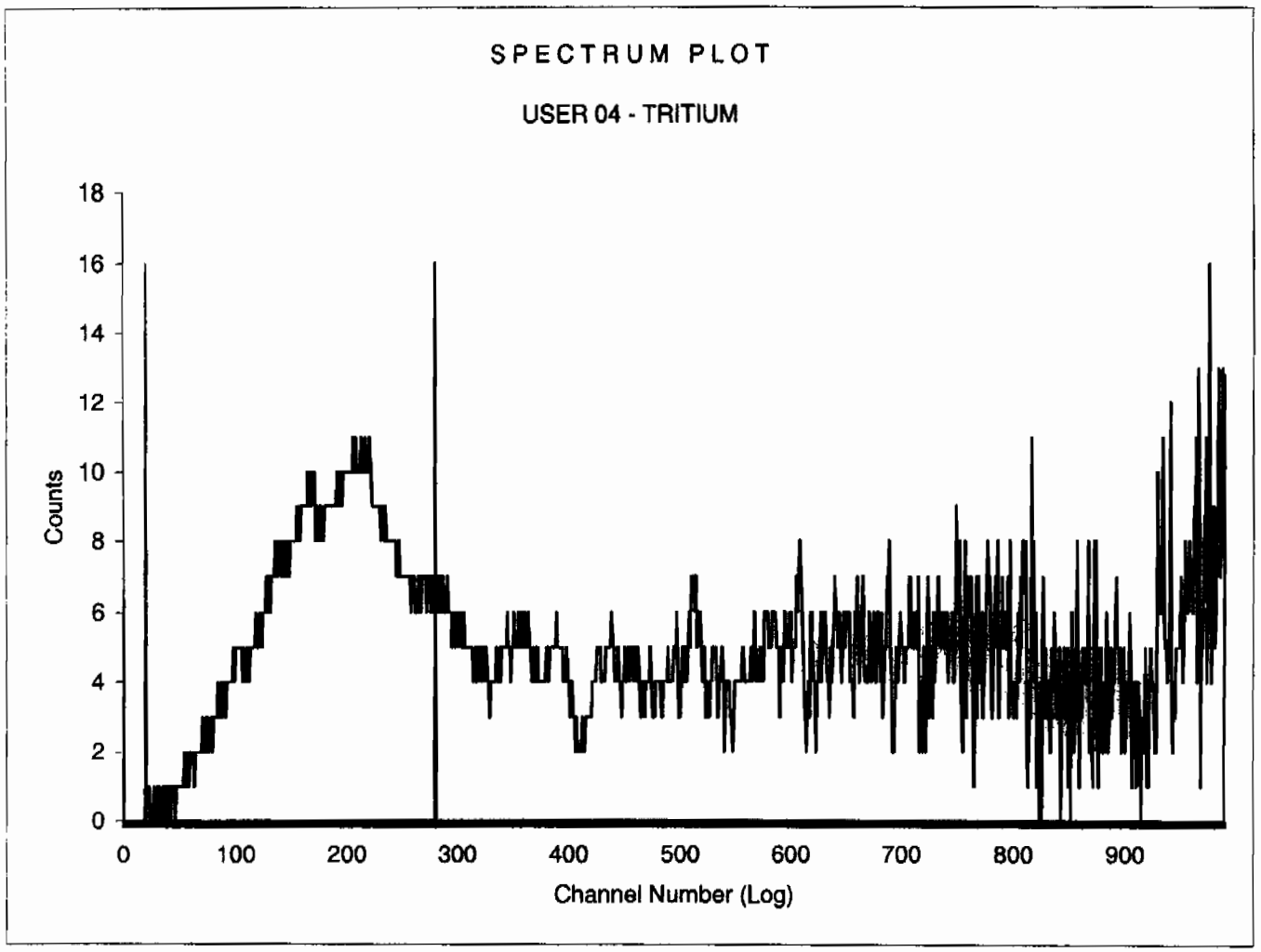

Sample Count Start Time:	4 Jan 2010 12:00:25		
Data Capture Date	04 Jan 2010 13:35:51		
User Filename	S04010415-3A.XLS		
	U04010415-1A.XLS		
Spectrum Type	Log Counts		
User Number	04		
User Id	TRITIUM		
User Comment	SILVER		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	3	15-3	95.00
H#, Total Counts:	126.1	5188	
Win1: Tritium - Start, End, Counts:	20	280	1501
Win2: - Start, End, Counts:	0	990	4820

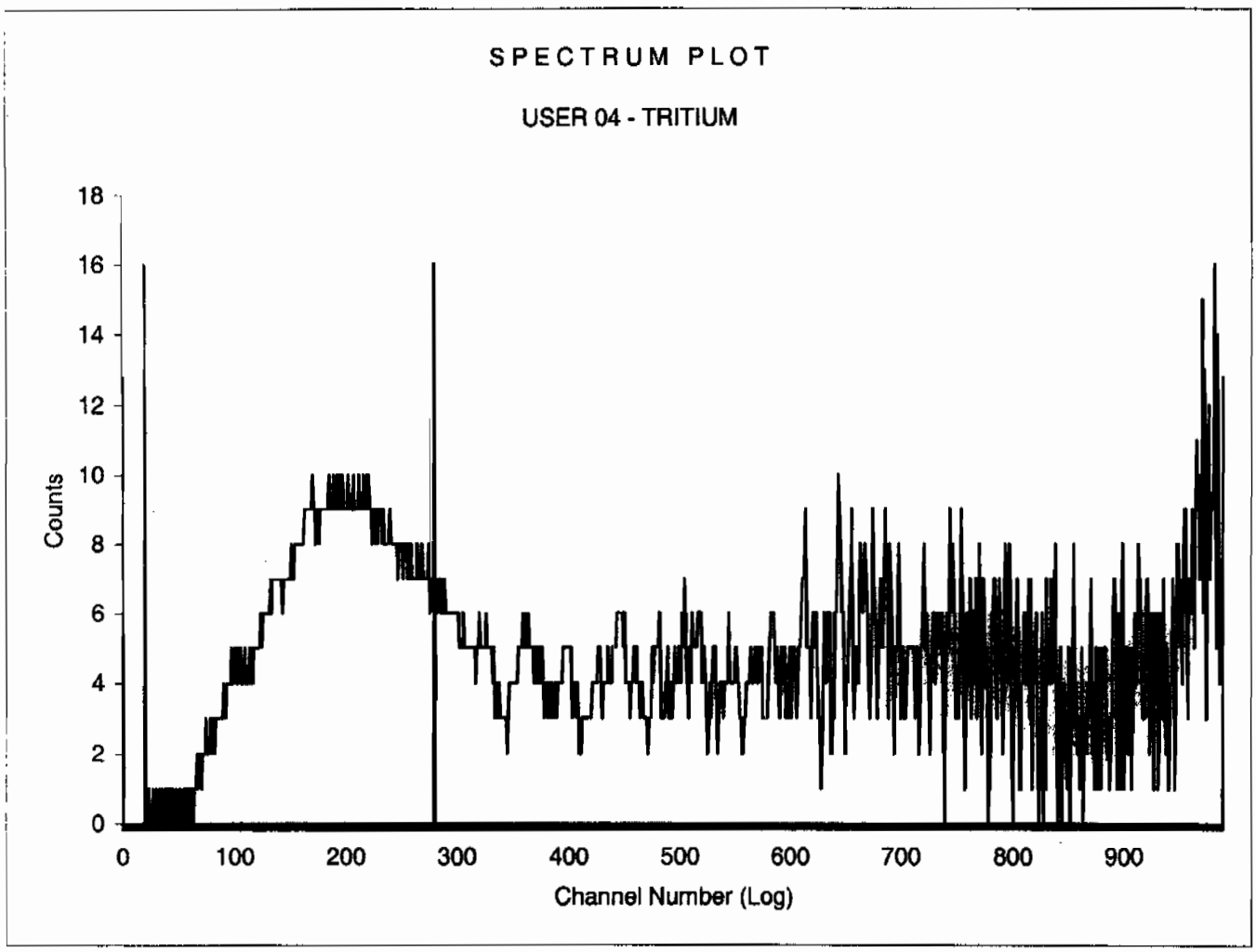

Sample Count Start Time:	4 Jan 2010 13:38:31		
Data Capture Date	04 Jan 2010 15:13:58		
User Filename	S04010415-4A.XLS		
	U04010415-1A.XLS		
Spectrum Type	Log Counts		
User Number	04		
User Id	TRITIUM		
User Comment	SILVER		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	4	15-4	95.00
H#, Total Counts:	126.5	5185	
Win1: Tritium - Start, End, Counts:	20	280	1478
Win2: - Start, End, Counts:	0	990	4841

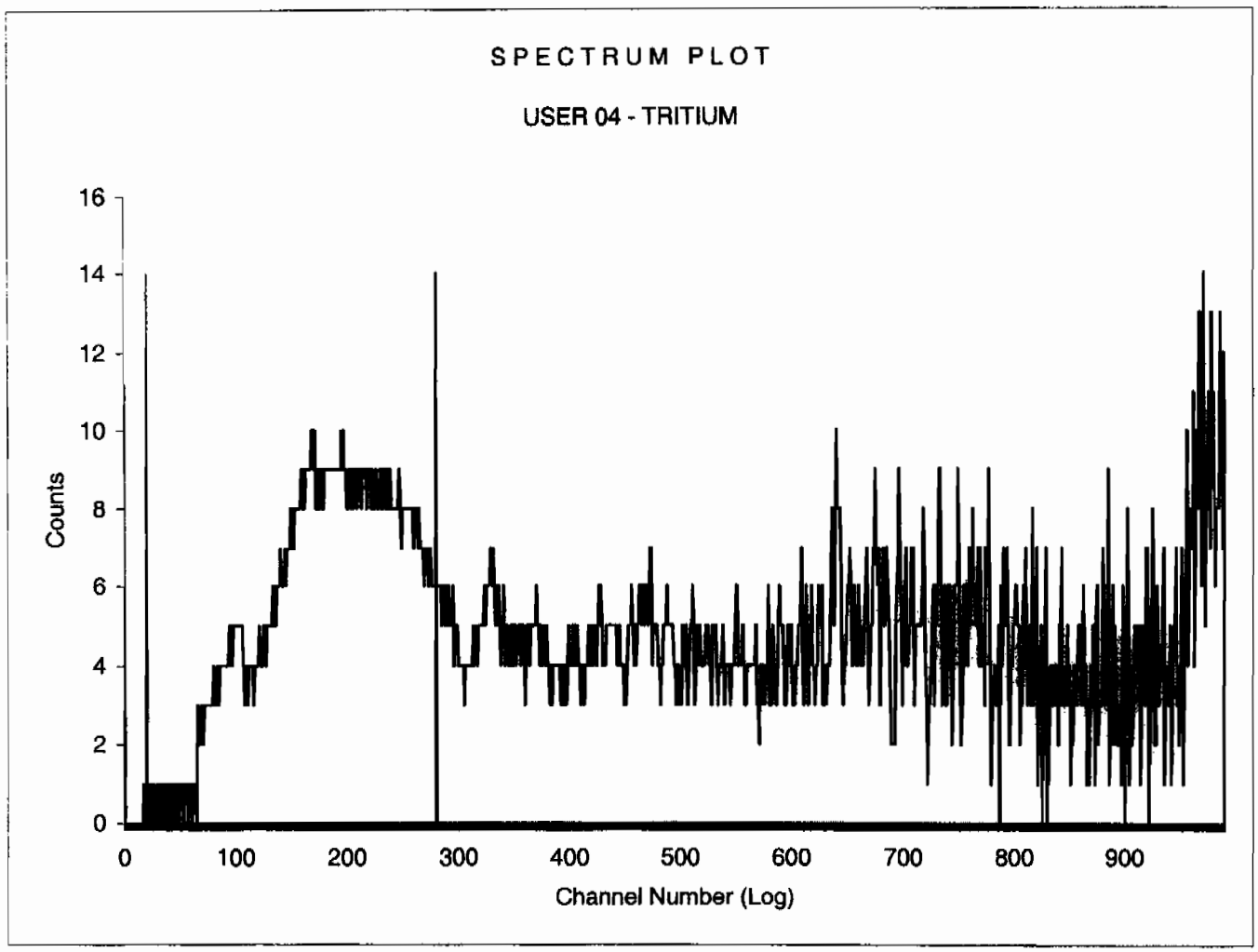

Sample Count Start Time:	4 Jan 2010 15:16:36		
Data Capture Date	04 Jan 2010 16:52:03		
User Filename	S04010415-5A.XLS		
	U04010415-1A.XLS		
Spectrum Type	Log Counts		
User Number	04		
User Id	TRITIUM		
User Comment	SILVER		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	5	15-5	95.00
H#, Total Counts:	127.4	4641	
Win1: Tritium - Start, End, Counts:	20	280	858
Win2: - Start, End, Counts:	0	990	4295

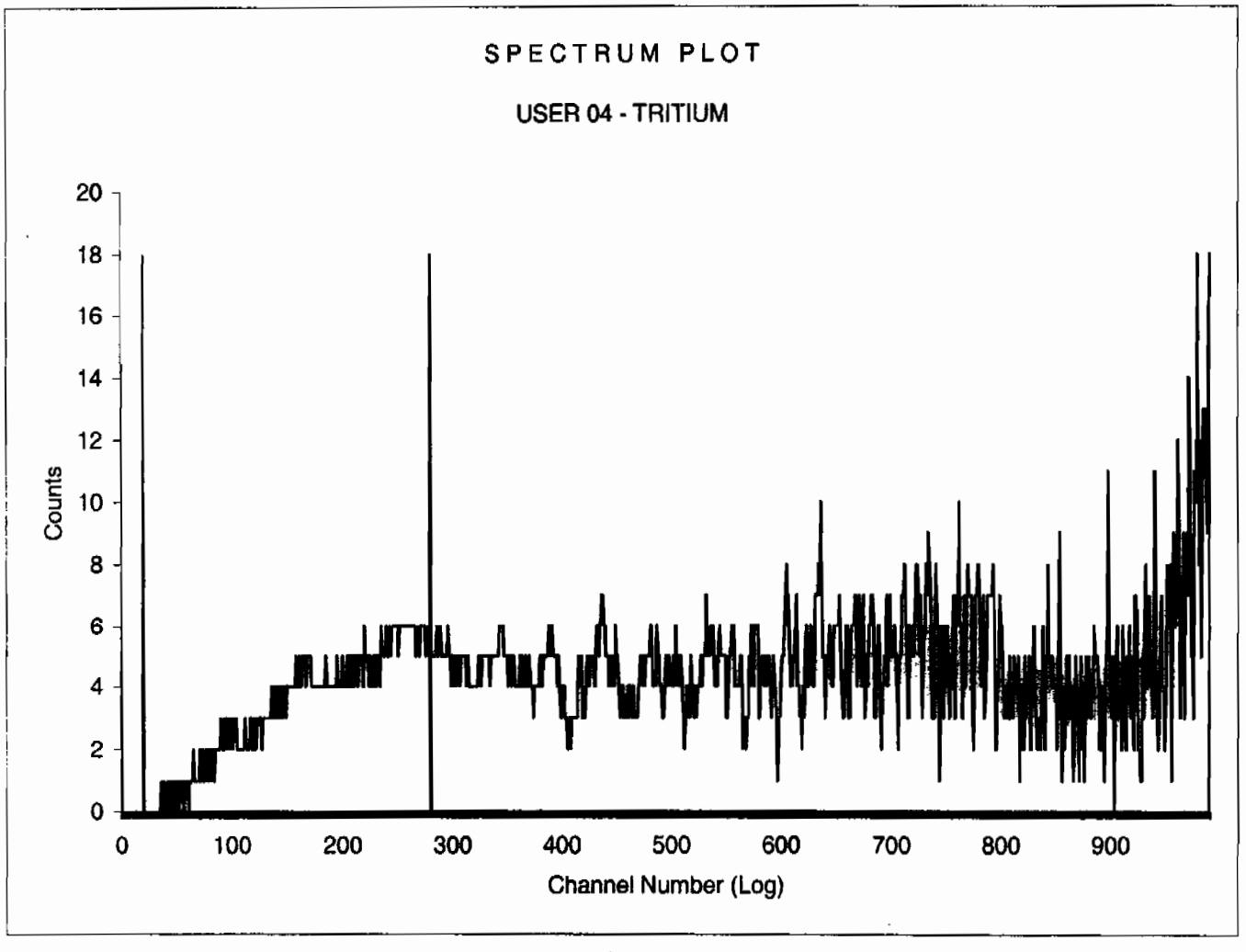

Sample Count Start Time:	4 Jan 2010 16:54:40		
Data Capture Date	04 Jan 2010 18:30:07		
User Filename	S04010415-6A.XLS		
	U04010415-1A.XLS		
Spectrum Type	Log Counts		
User Number	04		
User Id	TRITIUM		
User Comment	SILVER		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	6	15-6	95.00
H#, Total Counts:	127.3	4440	
Win1: Tritium - Start, End, Counts:	20	280	681
Win2: - Start, End, Counts:	0	990	4081

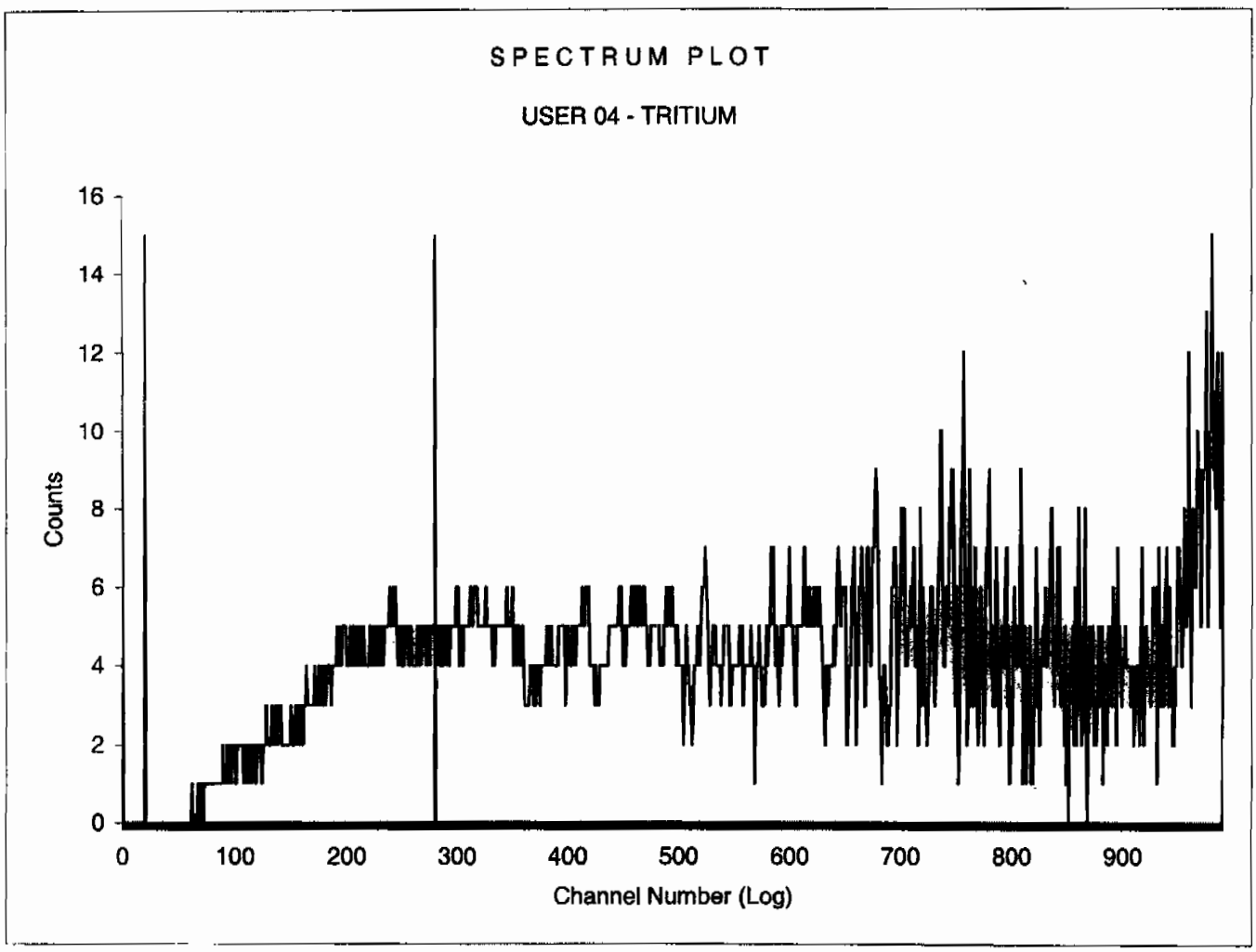

Sample Count Start Time:	4 Jan 2010 18:32:46		
Data Capture Date	04 Jan 2010 20:08:13		
User Filename	S04010415-7A.XLS		
	U04010415-1A.XLS		
Spectrum Type	Log Counts		
User Number	04		
User Id	TRITIUM		
User Comment	SILVER		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	7	15-7	95.00
H#, Total Counts:	126.7	4382	
Win1: Tritium - Start, End, Counts:	20	280	676
Win2: - Start, End, Counts:	0	990	4017

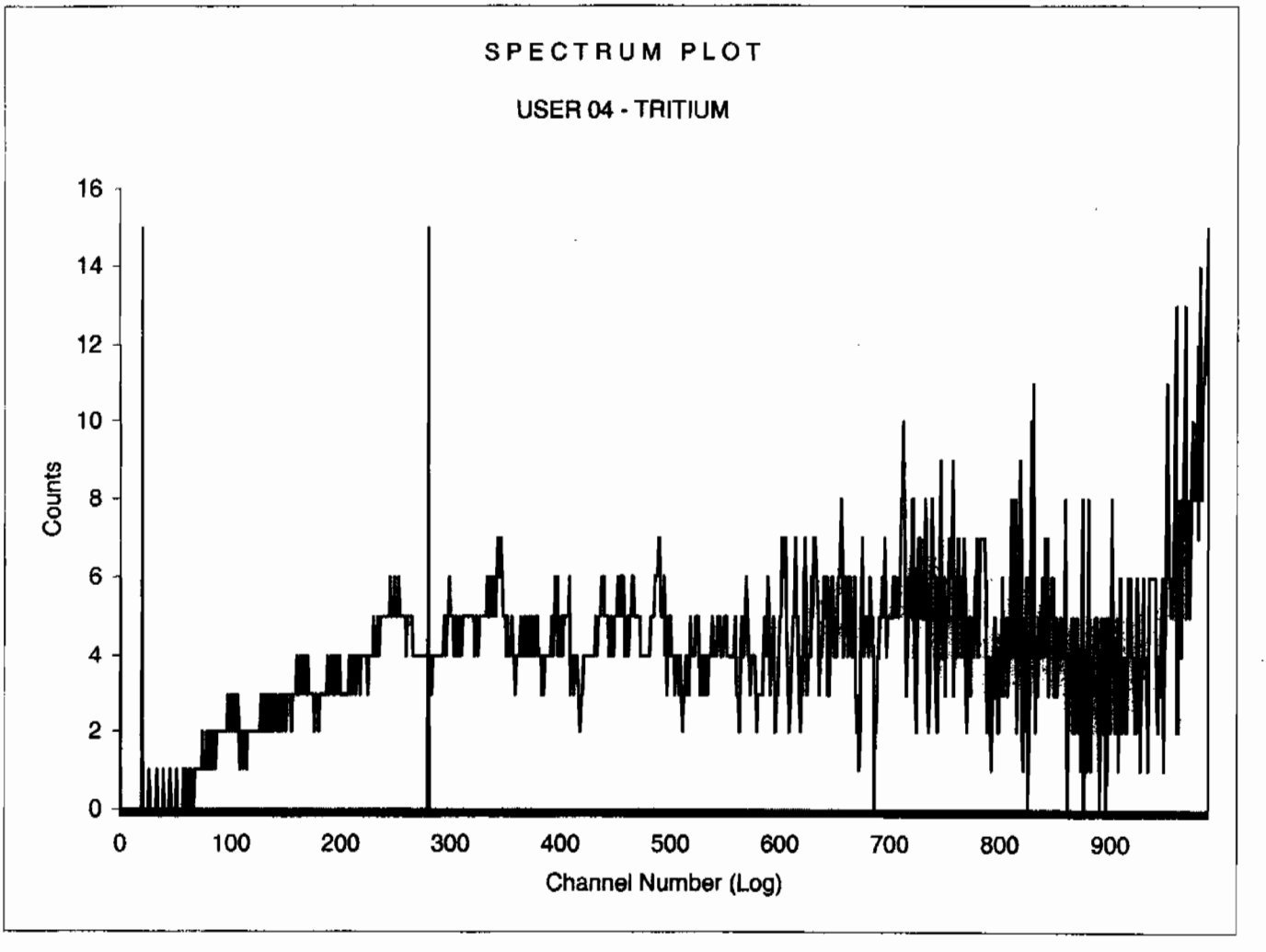

Sample Count Start Time:	4 Jan 2010 20:10:50		
Data Capture Date	04 Jan 2010 21:46:17		
User Filename	S04010415-8A.XLS		
	U04010415-1A.XLS		
Spectrum Type	Log Counts		
User Number	04		
User Id	TRITIUM		
User Comment	SILVER		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	8	15-8	95.00
H#, Total Counts:	126.6	5397	
Win1: Tritium - Start, End, Counts:	20	280	1635
Win2: - Start, End, Counts:	0	990	5028

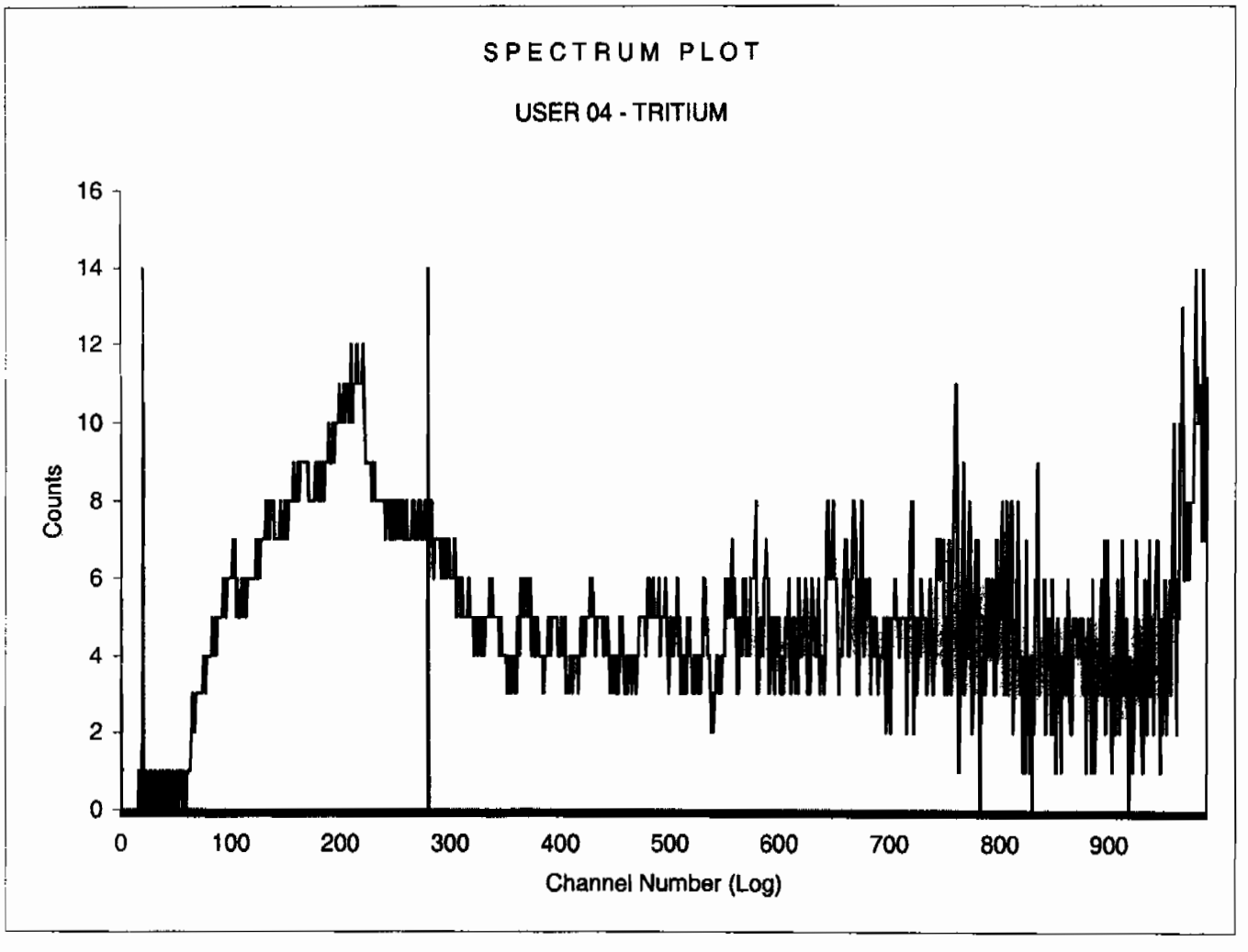

Sample Count Start Time:	4 Jan 2010 21:48:54		
Data Capture Date	04 Jan 2010 23:24:22		
User Filename	S04010415-9A.XLS		
	U04010415-1A.XLS		
Spectrum Type	Log Counts		
User Number	04		
User Id	TRITIUM		
User Comment	SILVER		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	9	15-9	95.00
H#, Total Counts:	124.7	4518	
Win1: Tritium - Start, End, Counts:	20	280	722
Win2: - Start, End, Counts:	0	990	4148

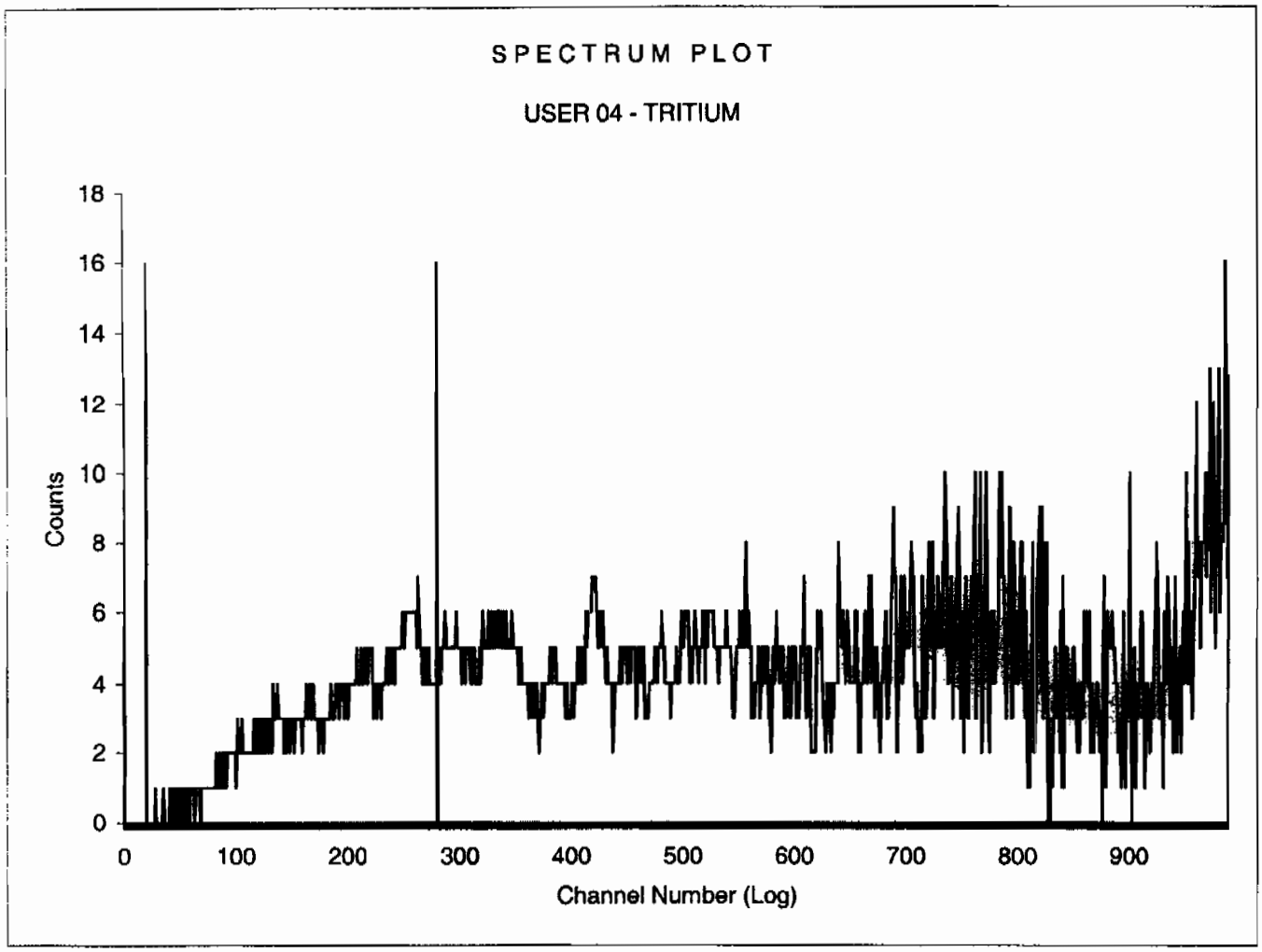

Sample Count Start Time:	4 Jan 2010 23:26:58		
Data Capture Date	05 Jan 2010 01:02:25		
User Filename	S04010515-10A.XLS		
	U04010415-1A.XLS		
Spectrum Type	Log Counts		
User Number	04		
User Id	TRITIUM		
User Comment	SILVER		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	10	15-10	95.00
H#, Total Counts:	128.8	5266	
Win1: Tritium - Start, End, Counts:	20	280	1546
Win2: - Start, End, Counts:	0	990	4891

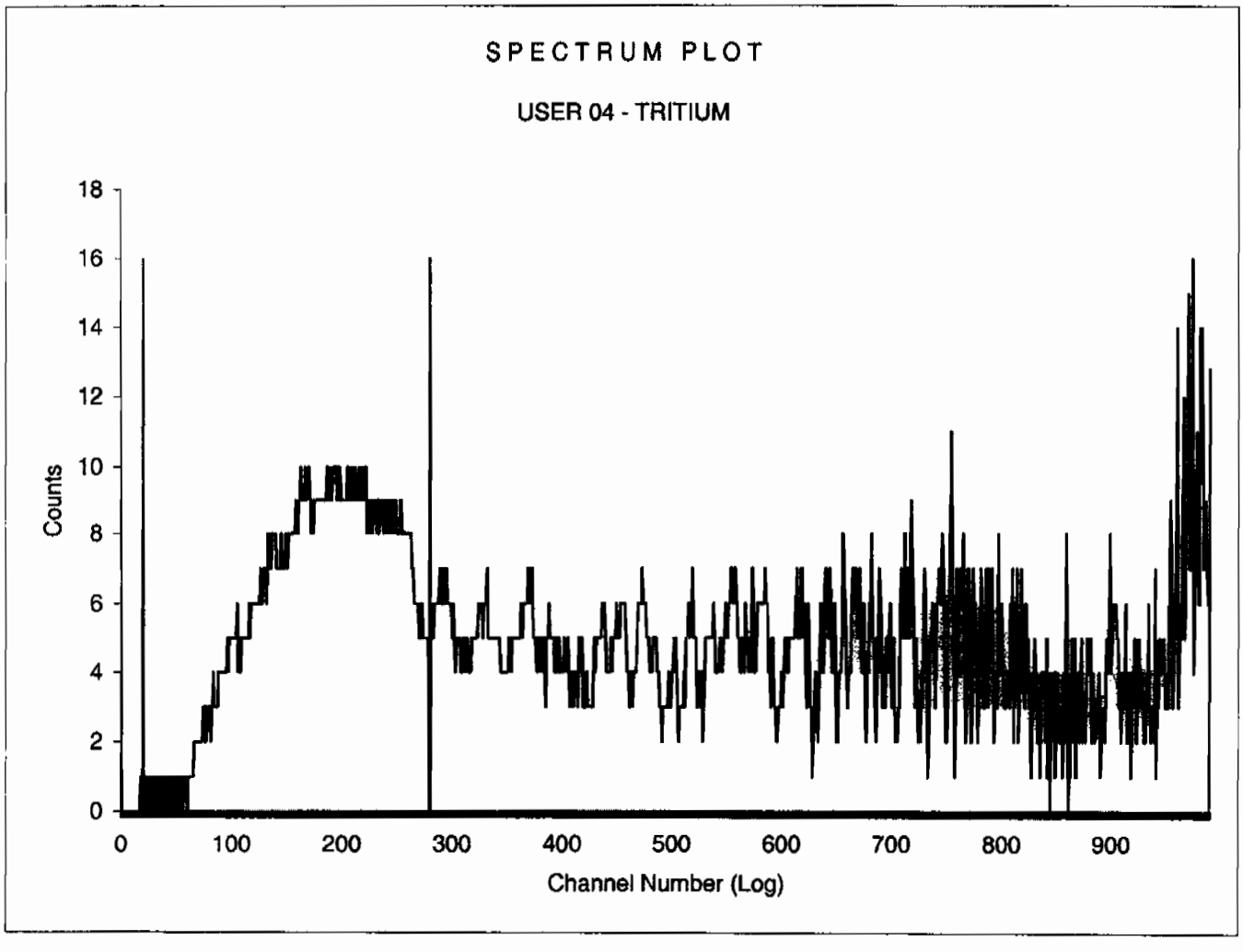

Sample Count Start Time:	5 Jan 2010 01:05:02		
Data Capture Date	05 Jan 2010 02:40:28		
User Filename	S04010515-11A.XLS		
	U04010415-1A.XLS		
Spectrum Type	Log Counts		
User Number	04		
User Id	TRITIUM		
User Comment	SILVER		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	11	15-11	95.00
H#, Total Counts:	125.2	4731	
Win1: Tritium - Start, End, Counts:	20	280	956
Win2: - Start, End, Counts:	0	990	4367

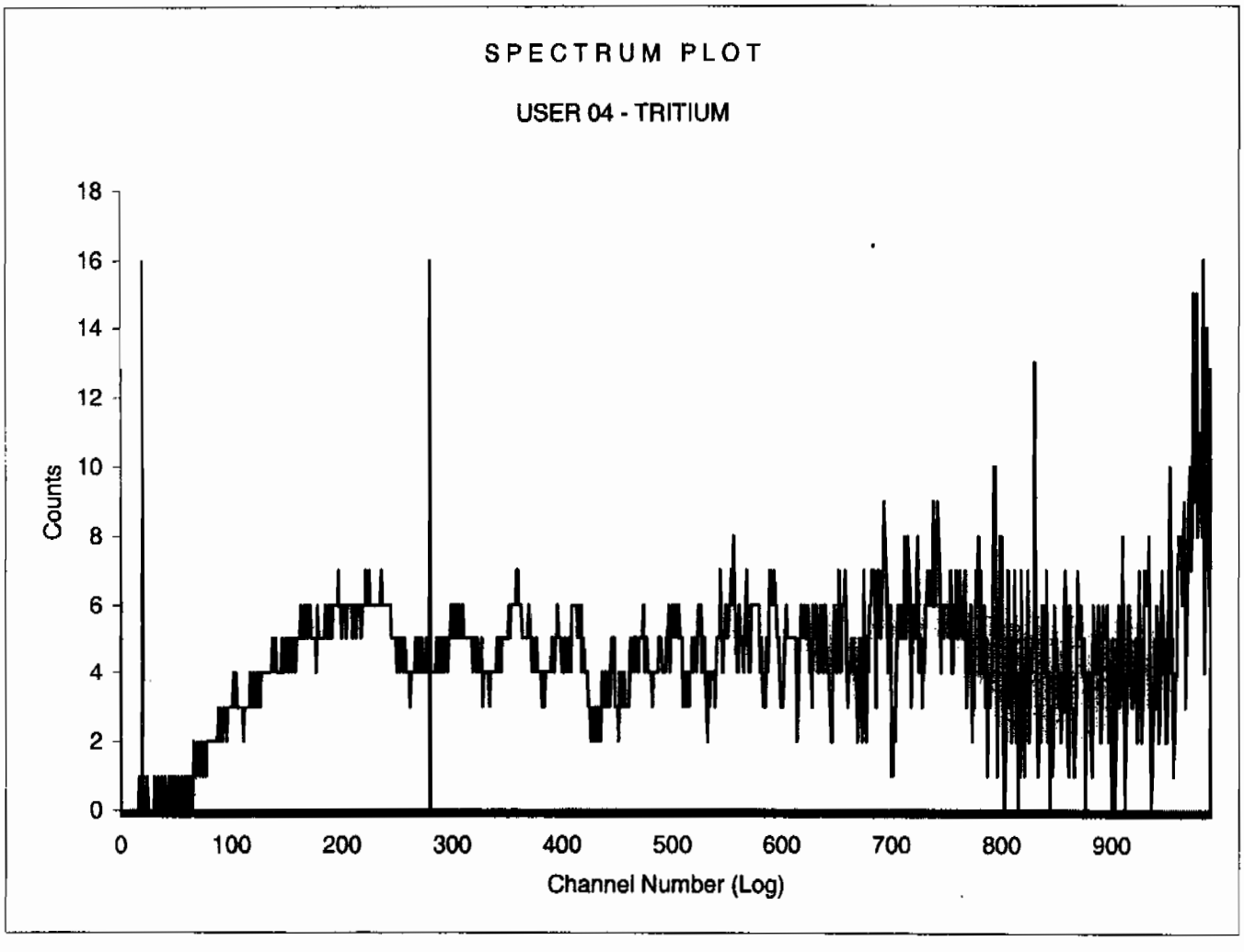

Sample Count Start Time:	5 Jan 2010 02:43:04		
Data Capture Date	05 Jan 2010 04:18:31		
User Filename	S04010515-12A.XLS		
	U04010415-1A.XLS		
Spectrum Type	Log Counts		
User Number	04		
User Id	TRITIUM		
User Comment	SILVER		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	12	15-12	95.00
H#, Total Counts:	130.0	4737	
Win1: Tritium - Start, End, Counts:	20	280	1089
Win2: - Start, End, Counts:	0	990	4428

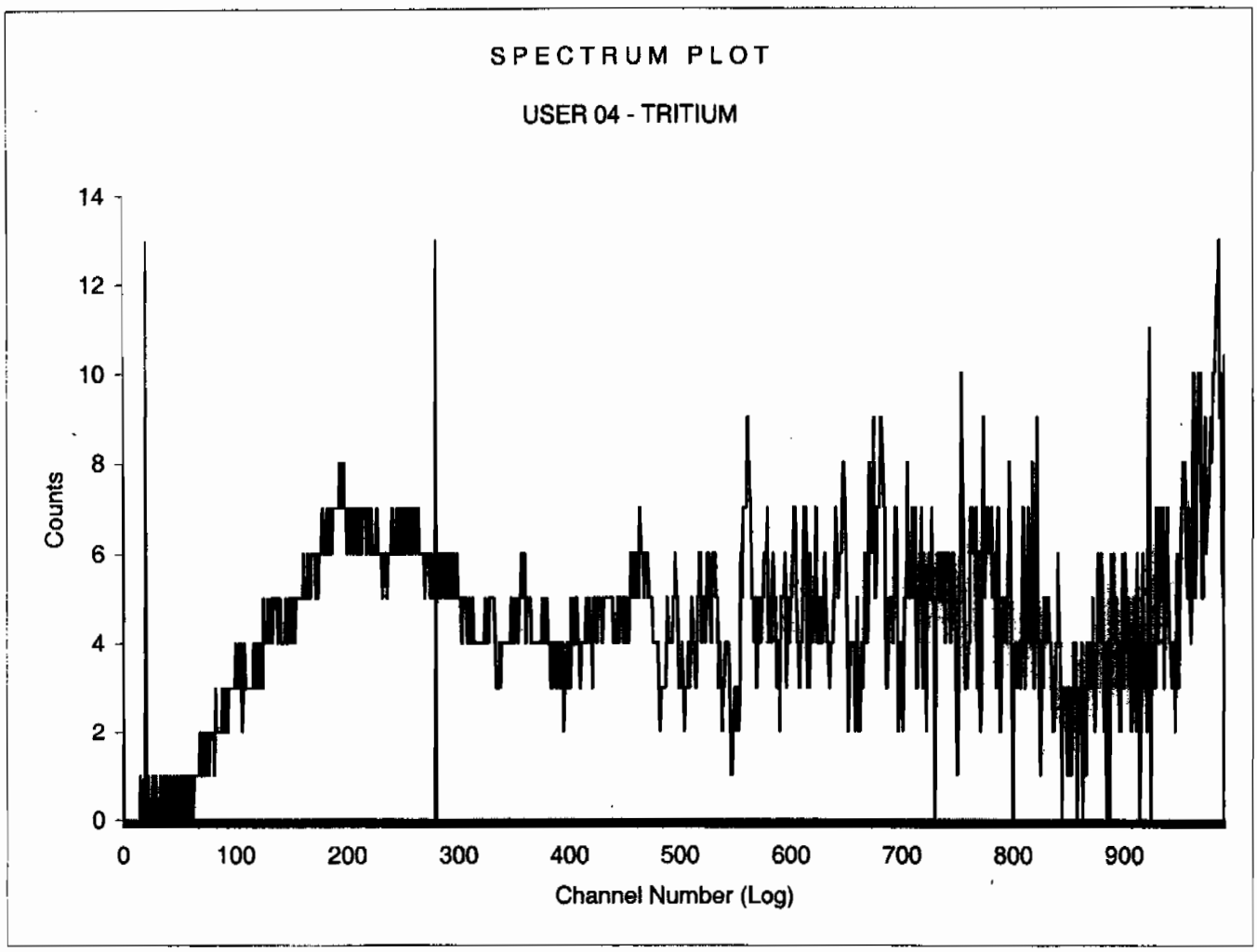

Filename: 12:34 PMab

Instrument Type	LS 6000
Data Capture Date	04 Jan 2010 08:12:02
User Filename	C:\LSCCAPTURE\GOLD\USER03\UN010401.BSF
User Number	3
User Id	TRITIUM
User Comments	GOLD
Scintillator Choice:	LIQUID

Sam	Rack	Time	H#	Raw CPM1	Raw CPM2	CPM Iso1	%Err1	CPM Iso2	%Err2	LumEx	ElTime
1	30-1	95.00	118.2	2.77	43.23	2.73	12.52	43.19	3.12	0.17	97.41
2	30-2	95.00	118.8	4.57	46.40	4.53	9.69	46.36	3.02	0.14	195.36
3	30-3	95.00	117.9	3.76	44.44	3.69	10.77	44.38	3.08	0.21	293.35
4	30-4	95.00	115.2	3.89	45.96	3.81	10.63	45.87	3.03	0.25	391.31
5	30-5	95.00	117.3	7.73	49.95	7.66	7.44	49.88	2.91	0.18	489.26
6	30-6	95.00	118.2	7.03	49.41	6.98	7.80	49.36	2.92	0.17	587.23
7	30-7	95.00	118.5	4.67	45.29	4.62	9.60	45.24	3.05	0.18	685.21
8	30-8	95.00	117.6	7.22	49.84	7.13	7.74	49.75	2.91	0.24	783.20
9	30-9	95.00	118.3	2.55	42.92	2.52	13.02	42.88	3.13	0.15	881.16
10	30-10	95.00	117.8	5.92	49.00	5.87	8.50	48.96	2.93	0.14	979.10

Sample Count Start Time:	4 Jan 2010 08:14:28		
Data Capture Date	04 Jan 2010 09:49:52		
User Filename	s03010430-1a.xls		
Spectrum Type	Log Counts		
User Number	03		
User Id	TRITIUM		
User Comment	GOLD		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	1	30-1	95.00
H#, Total Counts:	118.2	4383	
Win1: Tritium - Start, End, Counts:	0	235	259
Win2: - Start, End, Counts:	0	990	3676

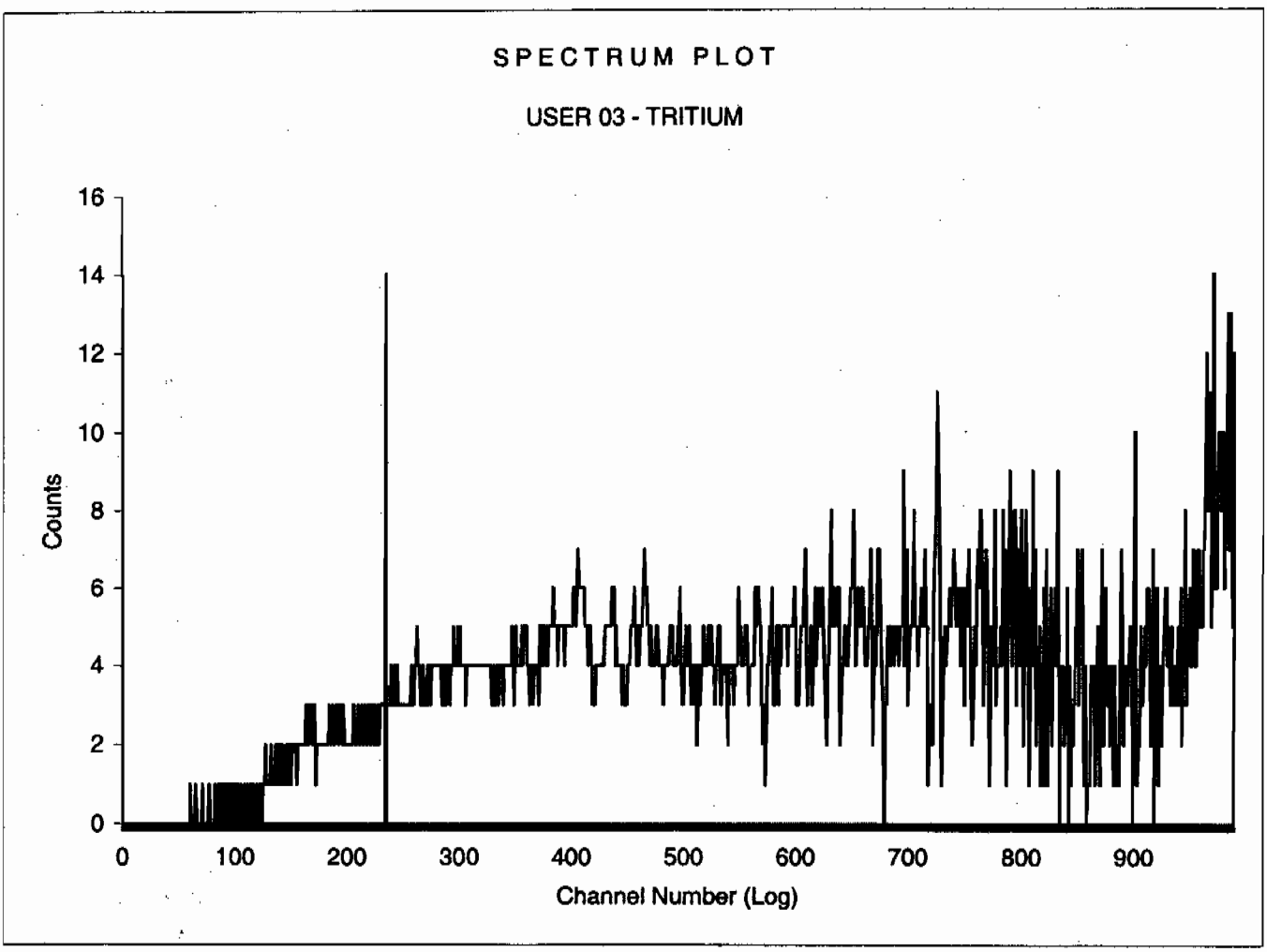

Sample Count Start Time:	4 Jan 2010 09:52:24		
Data Capture Date	04 Jan 2010 11:27:49		
User Filename	S03010430-2A.XLS		
	U03010430-1A.XLS		
Spectrum Type	Log Counts		
User Number	03		
User Id	TRITIUM		
User Comment	GOLD		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	2	30-2	95.00
H#, Total Counts:	118.8	4716	
Win1: Tritium - Start, End, Counts:	0	235	430
Win2: - Start, End, Counts:	0	990	3986

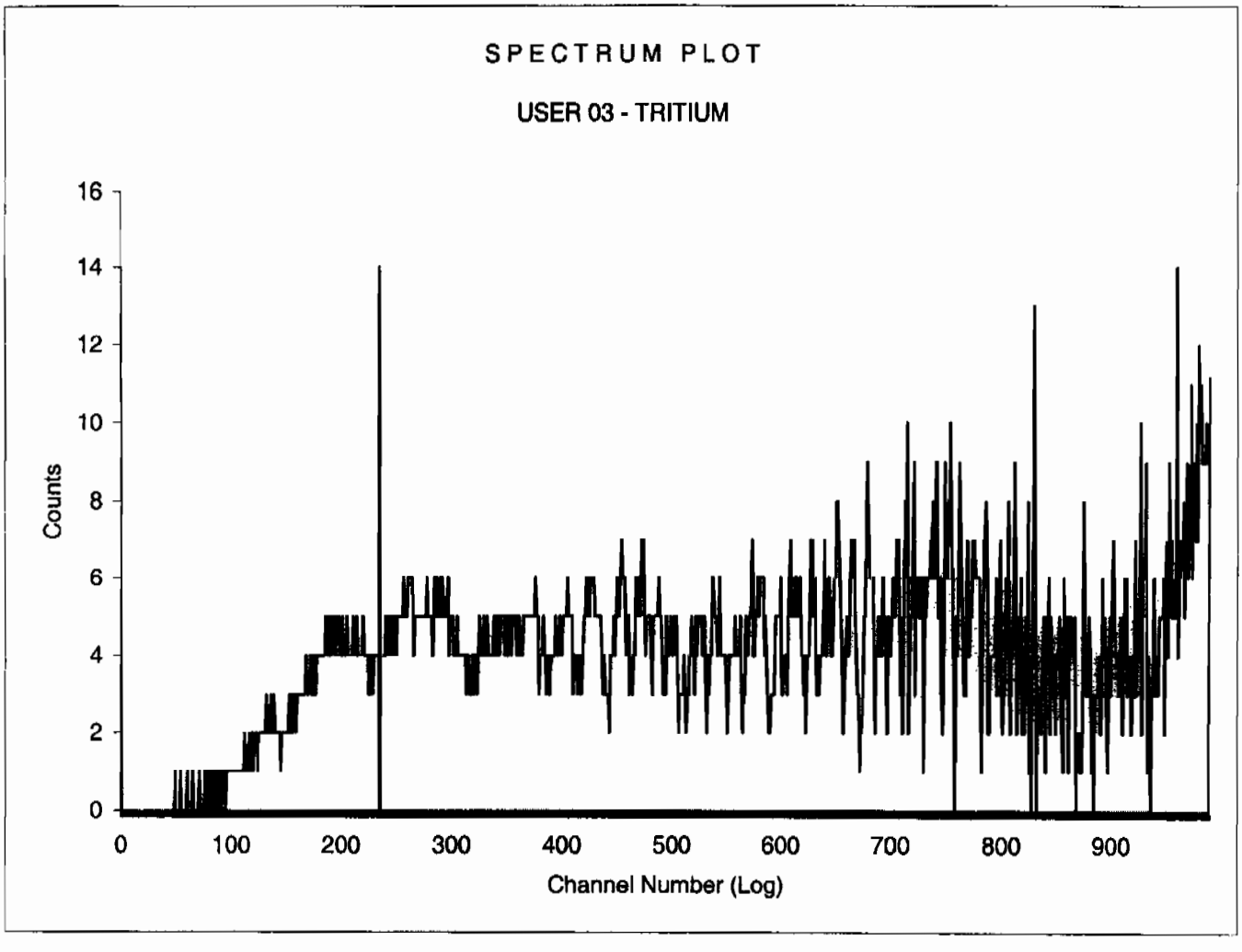

Sample Count Start Time:	4 Jan 2010 11:30:23		
Data Capture Date	04 Jan 2010 13:05:48		
User Filename	S03010430-3A.XLS		
	U03010430-1A.XLS		
Spectrum Type	Log Counts		
User Number	03		
User Id	TRITIUM		
User Comment	GOLD		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	3	30-3	95.00
H#, Total Counts:	117.9	4632	
Win1: Tritium - Start, End, Counts:	0	235	351
Win2: - Start, End, Counts:	0	990	3828

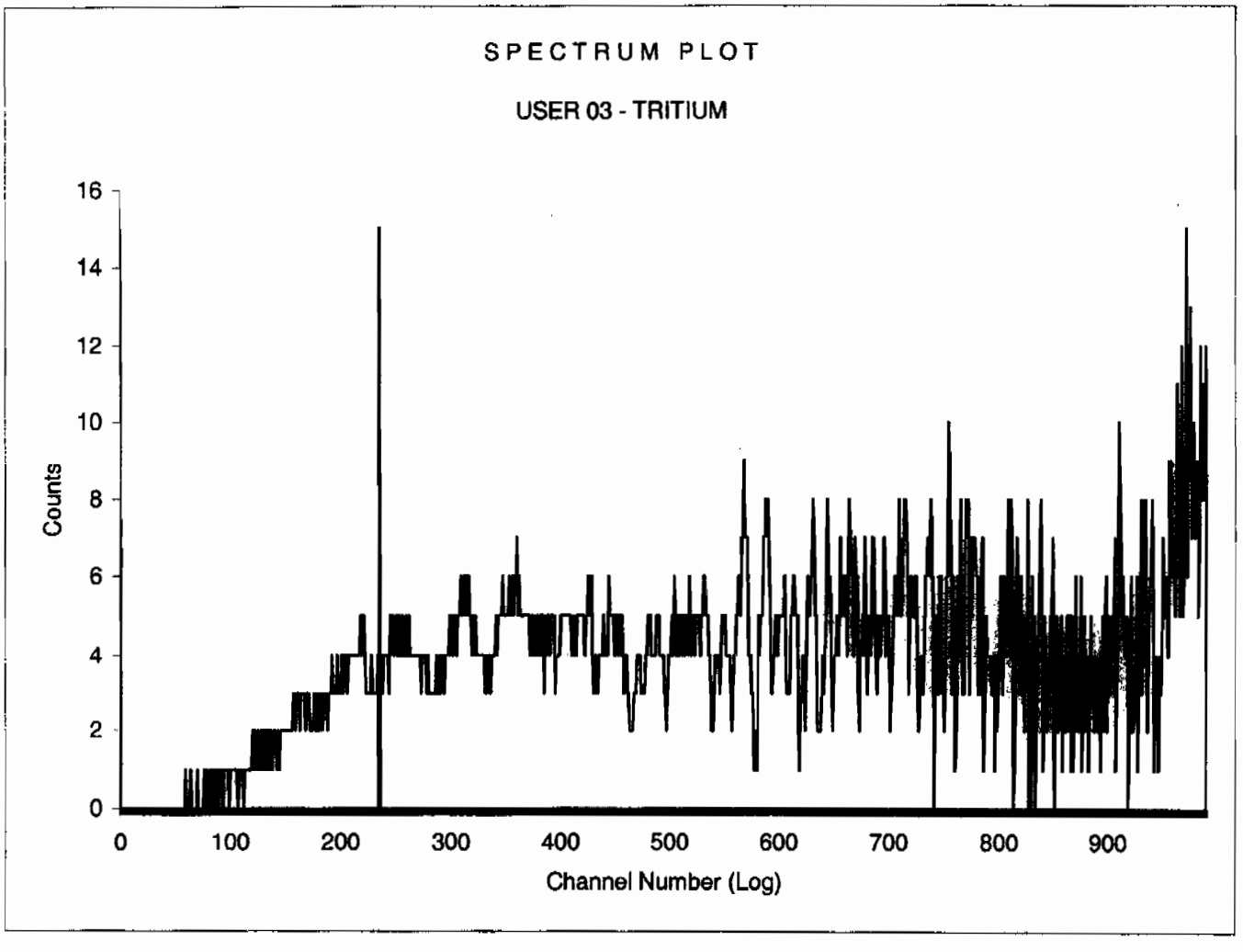

Sample Count Start Time:	4 Jan 2010 13:08:21		
Data Capture Date	04 Jan 2010 14:43:47		
User Filename	S03010430-4A.XLS		
	U03010430-1A.XLS		
Spectrum Type	Log Counts		
User Number	03		
User Id	TRITIUM		
User Comment	GOLD		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	4	30-4	95.00
H#, Total Counts:	115.2	4734	
Win1: Tritium - Start, End, Counts:	0	235	362
Win2: - Start, End, Counts:	0	990	3962

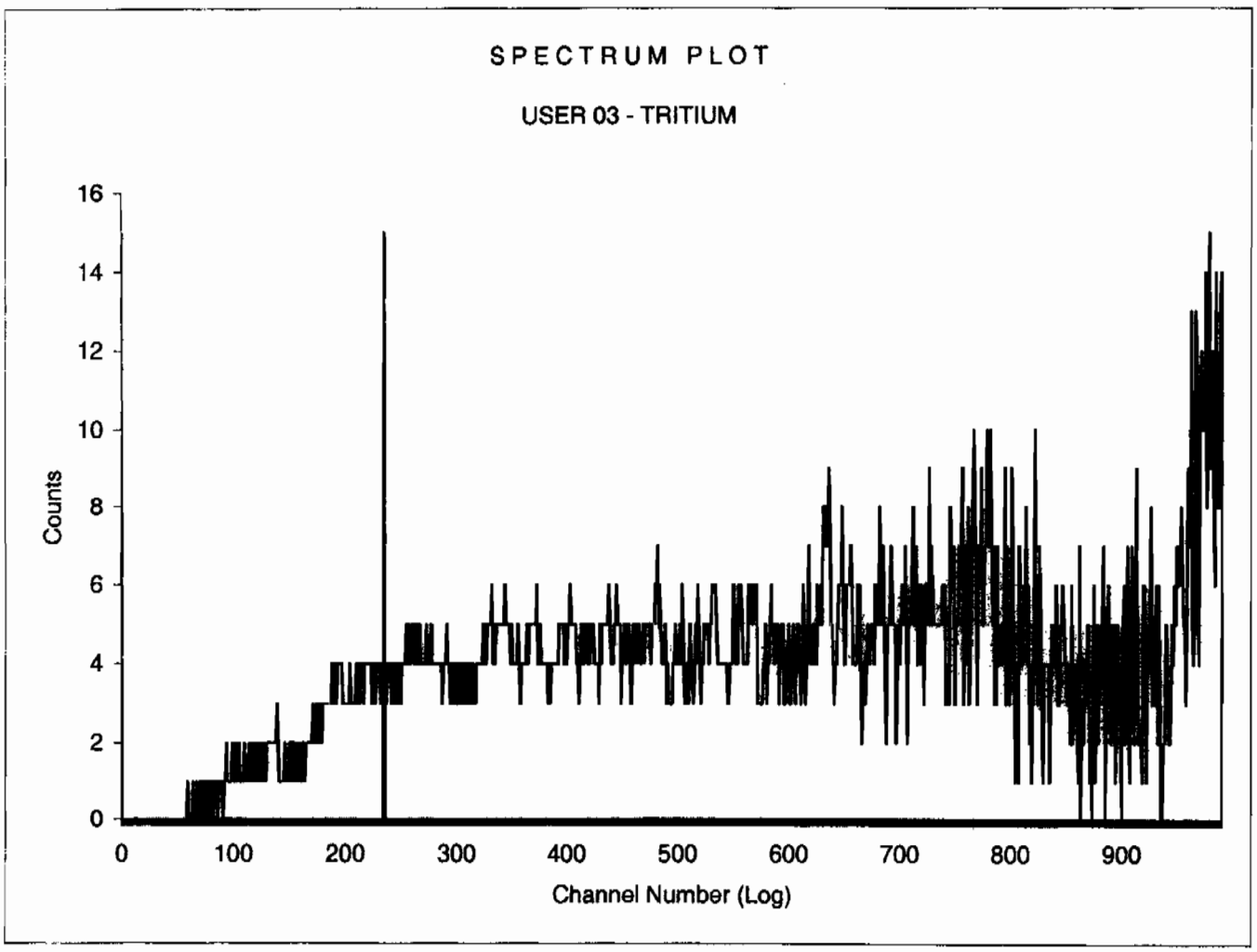

Sample Count Start Time:	4 Jan 2010 14:46:18		
Data Capture Date	04 Jan 2010 16:21:44		
User Filename	S03010430-5A.XLS		
	U03010430-1A.XLS		
Spectrum Type	Log Counts		
User Number	03		
User Id	TRITIUM		
User Comment	GOLD		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	5	30-5	95.00
H#, Total Counts:	117.3	4987	
Win1: Tritium - Start, End, Counts:	0	235	728
Win2: - Start, End, Counts:	0	990	4345

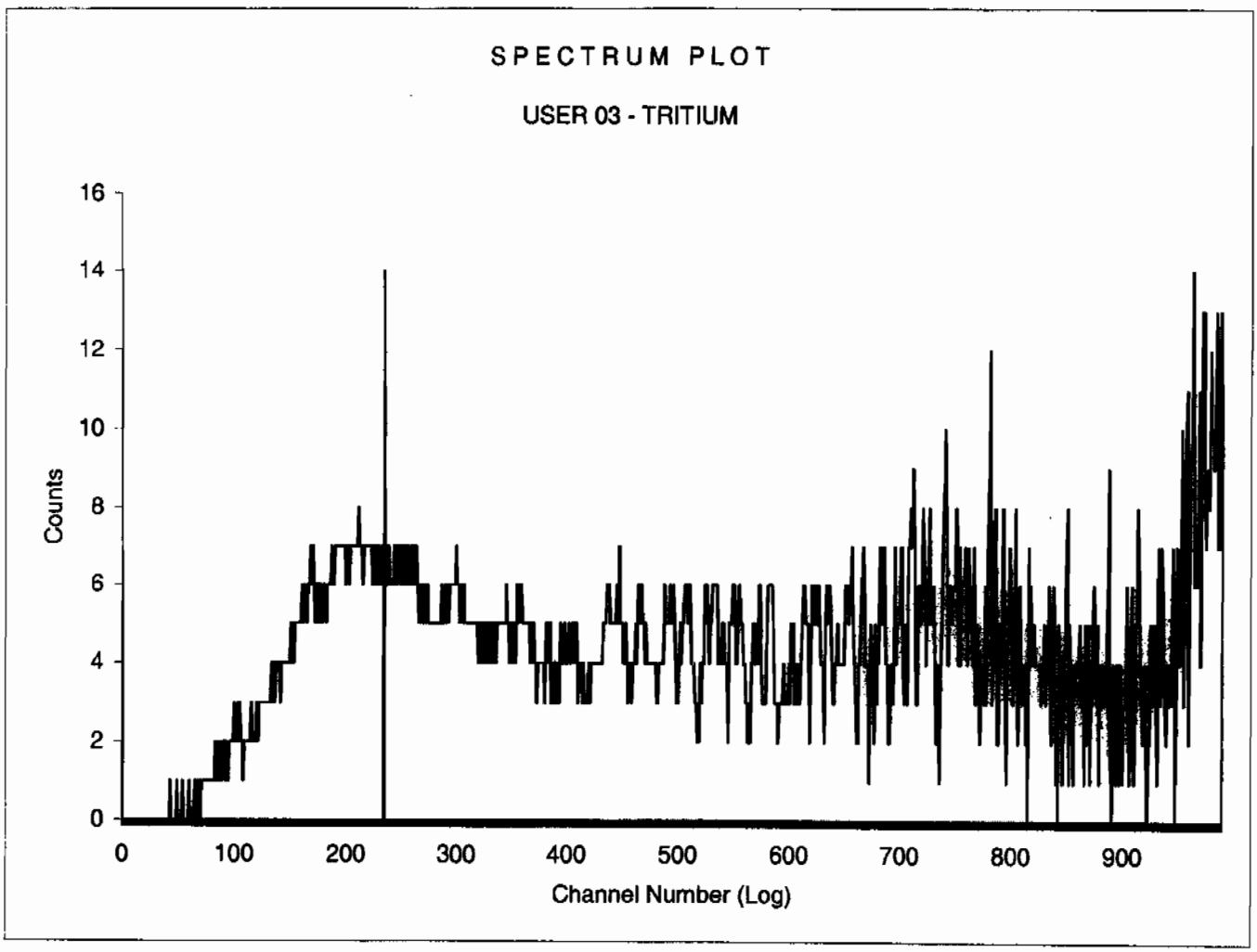

Sample Count Start Time:	4 Jan 2010 16:24:16		
Data Capture Date	04 Jan 2010 17:59:42		
User Filename	S03010430-6A.XLS		
	U03010430-1A.XLS		
Spectrum Type	Log Counts		
User Number	03		
User Id	TRITIUM		
User Comment	GOLD		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	6	30-6	95.00
H#, Total Counts:	118.2	5137	
Win1: Tritium - Start, End, Counts:	0	235	663
Win2: - Start, End, Counts:	0	990	4293

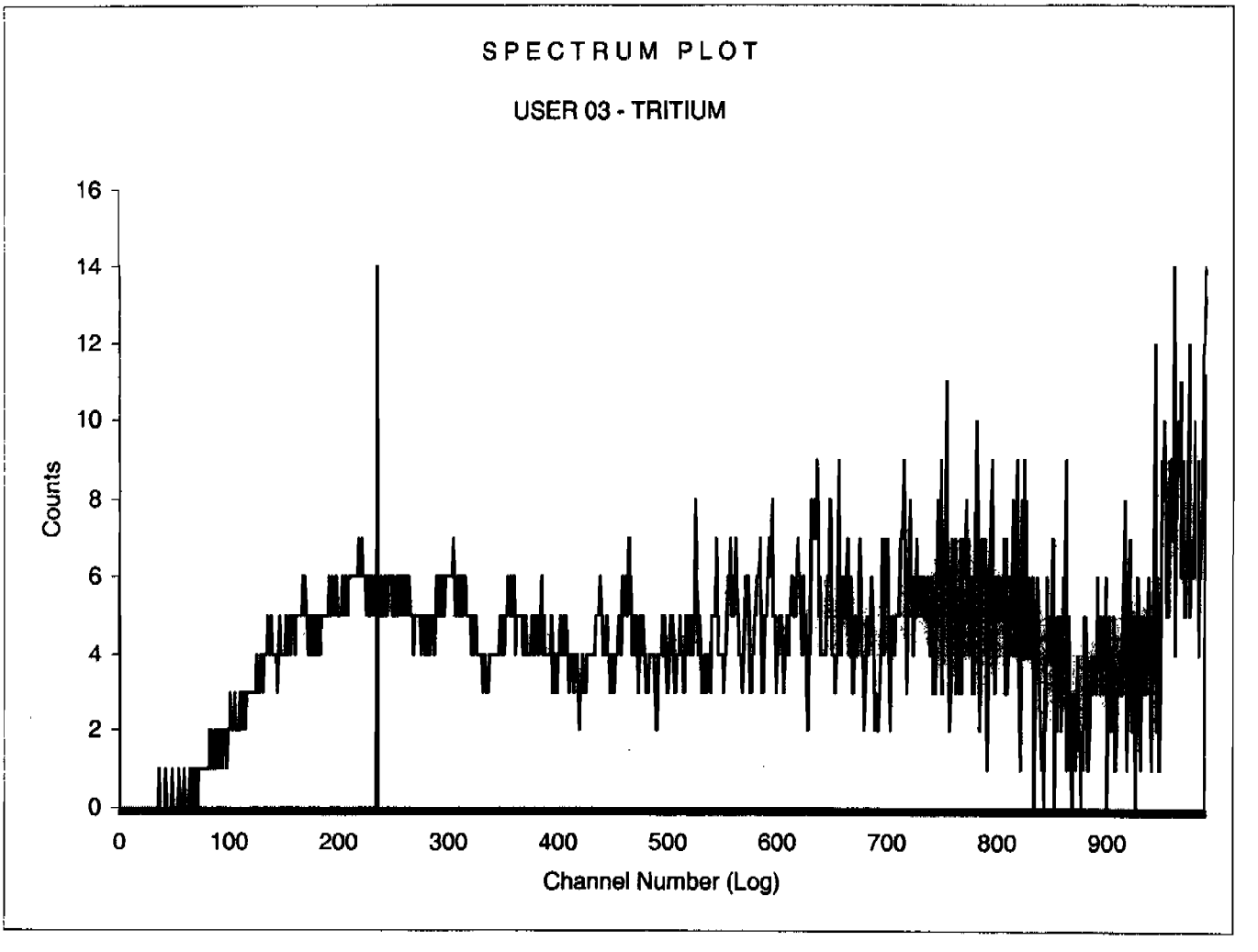

Sample Count Start Time:	4 Jan 2010 18:02:15		
Data Capture Date	04 Jan 2010 19:37:40		
User Filename	S03010430-7A.XLS		
	U03010430-1A.XLS		
Spectrum Type	Log Counts		
User Number	03		
User Id	TRITIUM		
User Comment	GOLD		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	7	30-7	95.00
H#, Total Counts:	118.5	4586	
Win1: Tritium - Start, End, Counts:	0	235	439
Win2: - Start, End, Counts:	0	990	3899

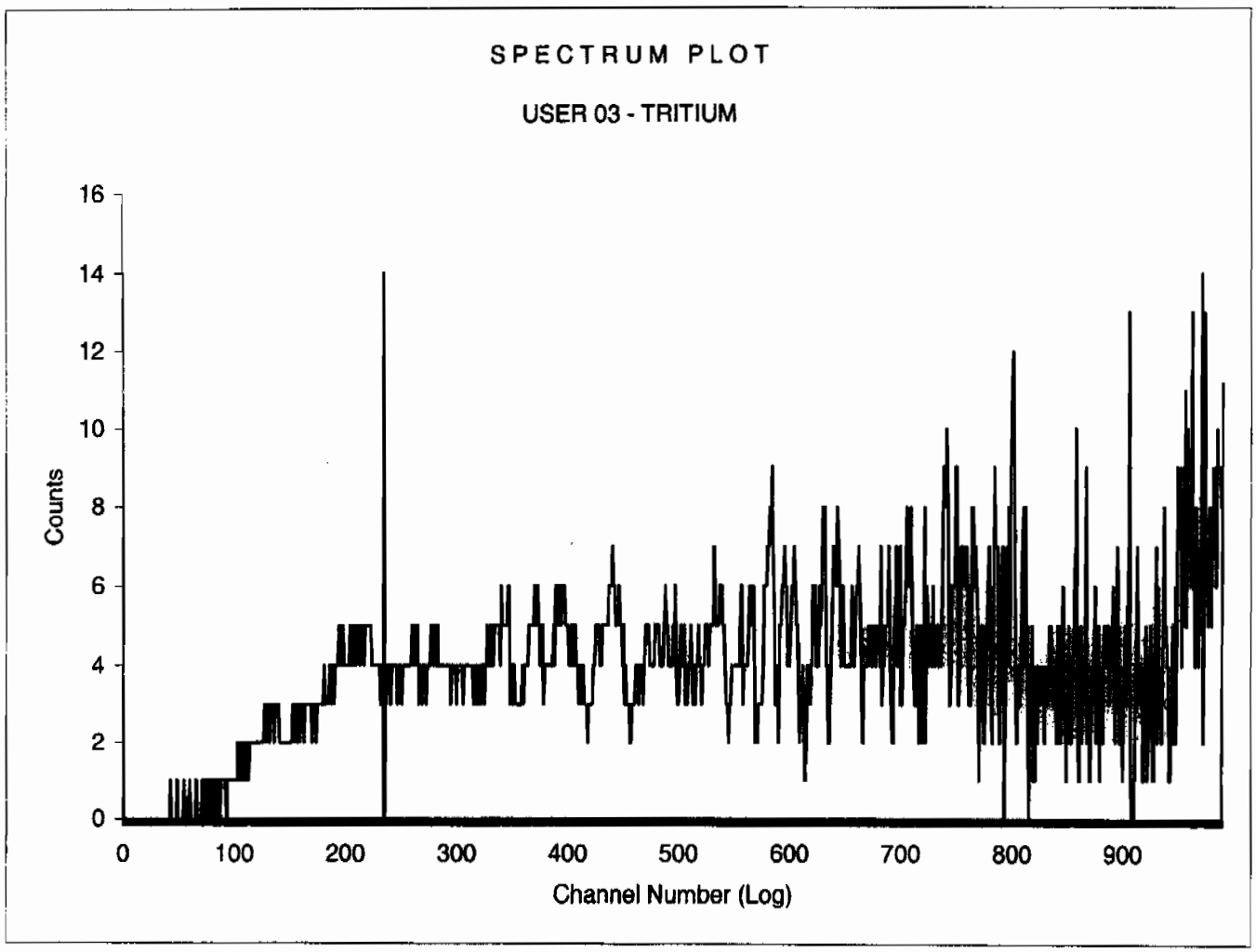

Sample Count Start Time:	4 Jan 2010 19:40:14		
Data Capture Date	04 Jan 2010 21:15:40		
User Filename	S03010430-8A.XLS		
	U03010430-1A.XLS		
Spectrum Type	Log Counts		
User Number	03		
User Id	TRITIUM		
User Comment	GOLD		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	8	30-8	95.00
H#, Total Counts:	117.6	5110	
Win1: Tritium - Start, End, Counts:	0	235	677
Win2: - Start, End, Counts:	0	990	4329

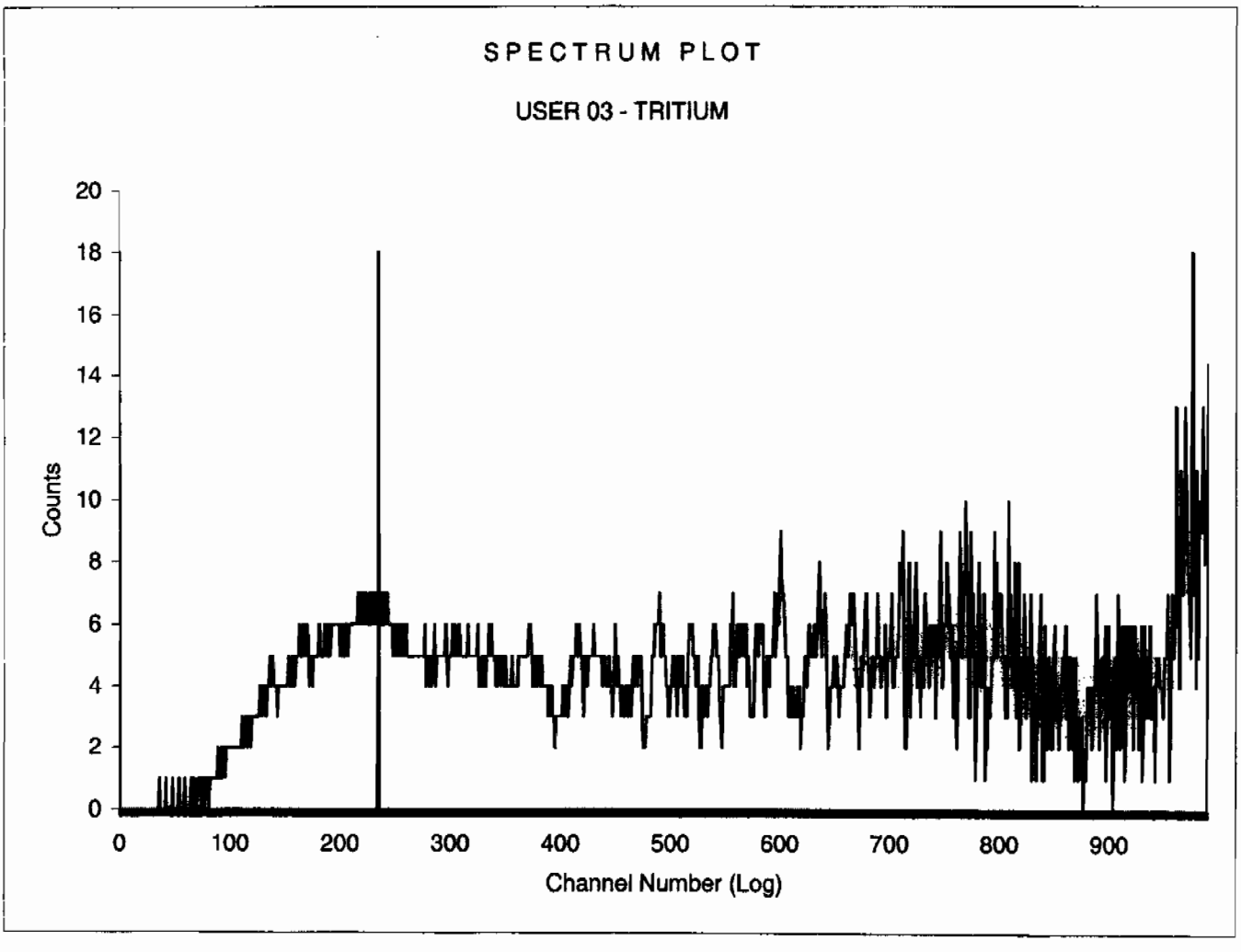

Sample Count Start Time:	4 Jan 2010 21:18:12		
Data Capture Date	04 Jan 2010 22:53:37		
User Filename	S03010430-9A.XLS		
	U03010430-1A.XLS		
Spectrum Type	Log Counts		
User Number	03		
User Id	TRITIUM		
User Comment	GOLD		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	9	30-9	95.00
H#, Total Counts:	118.3	4426	
Win1: Tritium - Start, End, Counts:	0	235	239
Win2: - Start, End, Counts:	0	990	3676

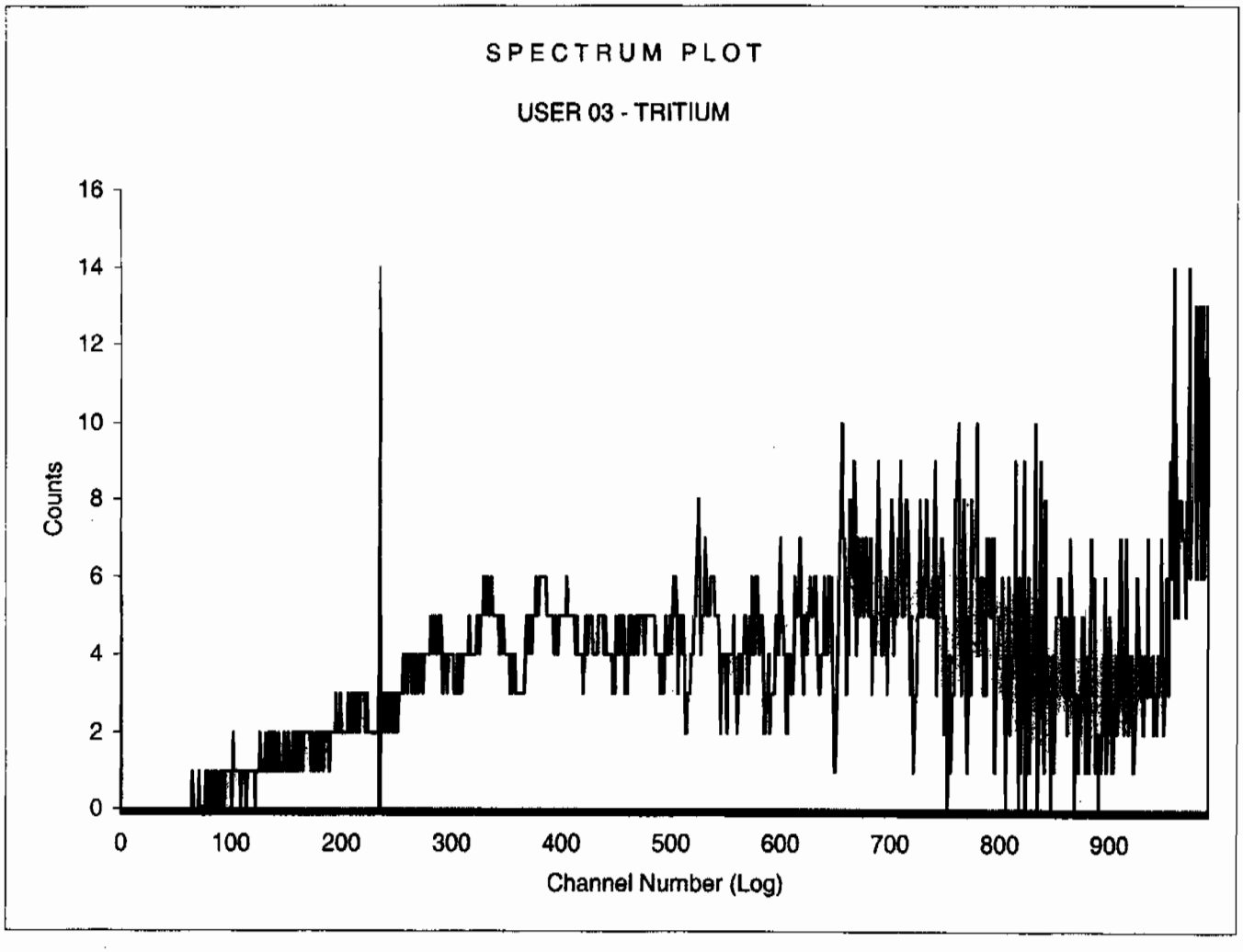

Sample Count Start Time:	4 Jan 2010 22:56:08		
Data Capture Date	05 Jan 2010 00:31:34		
User Filename	S03010530-10A.XLS		
	U03010430-1A.XLS		
Spectrum Type	Log Counts		
User Number	03		
User Id	TRITIUM		
User Comment	GOLD		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	10	30-10	95.00
H#, Total Counts:	117.8	4971	
Win1: Tritium - Start, End, Counts:	0	235	558
Win2: - Start, End, Counts:	0	990	4245

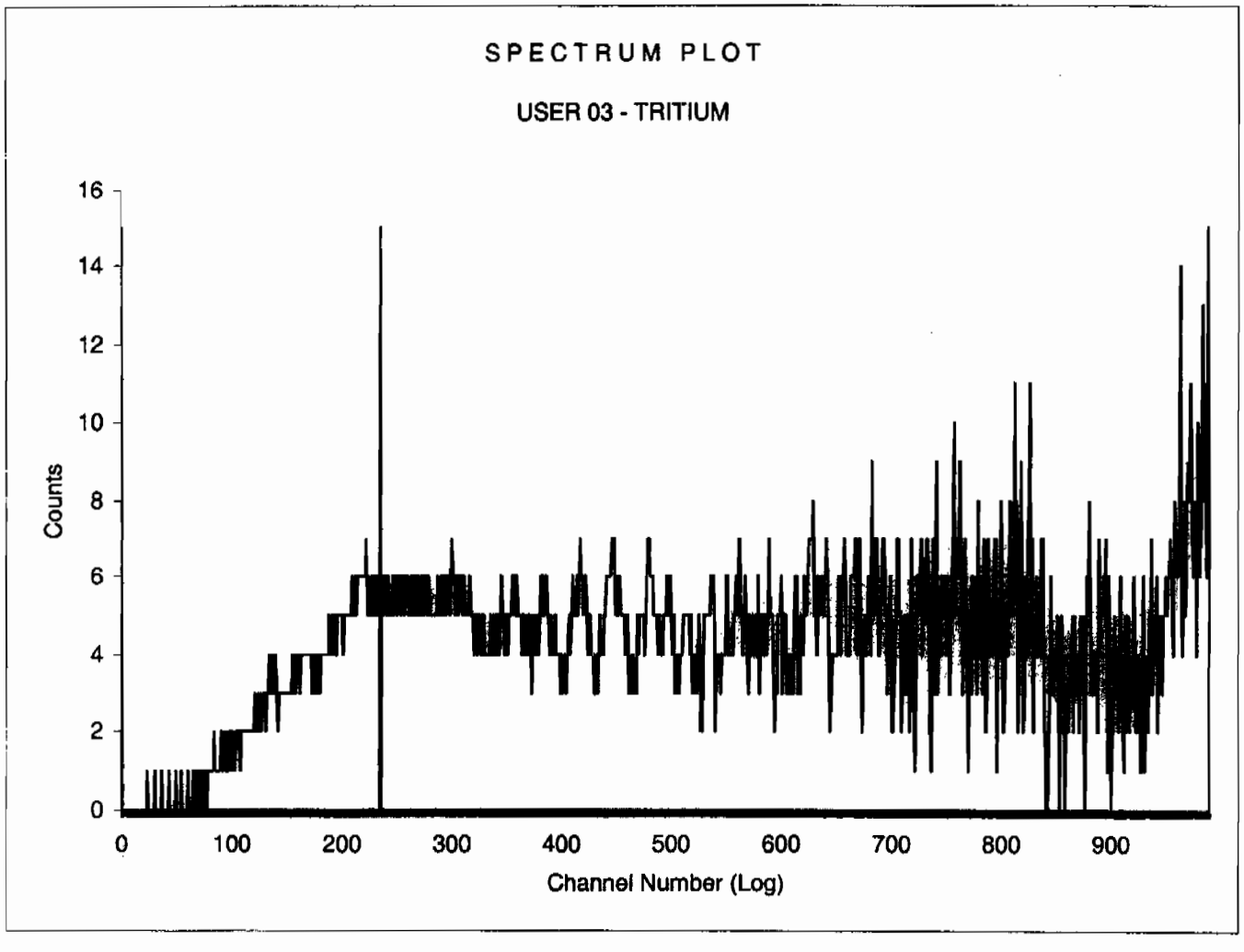

Filename: 12:35 PMab

Instrument Type	LS 6000
Data Capture Date	05 Jan 2010 00:32:24
User Filename	C:\LSCCAPTURE\GOLD\USER04\UN010501.BSF
User Number	4
User Id	TRITIUM
User Comments	GOLD
Scintillator Choice:	LIQUID

Sam	Rack	Time	H#	Raw CPM1	Raw CPM2	CPM Iso1	%Err1	CPM Iso2	%Err2	LumEx	ElTime
1	29-1	15.00	119.6	25.20	74.00	25.20	10.29	74.00	6.00	0.08	15.79

Sample Count Start Time:	5 Jan 2010 00:33:11		
Data Capture Date	05 Jan 2010 00:48:03		
User Filename	S04010529-1A.XLS		
	U04010529-1A.XLS		
Spectrum Type	Log Counts		
User Number	04		
User Id	TRITIUM		
User Comment	GOLD		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	1	29-1	15.00
H#, Total Counts:	119.6	1110	
Win1: Tritium - Start, End, Counts:	0	235	378
Win2: - Start, End, Counts:	0	990	1039

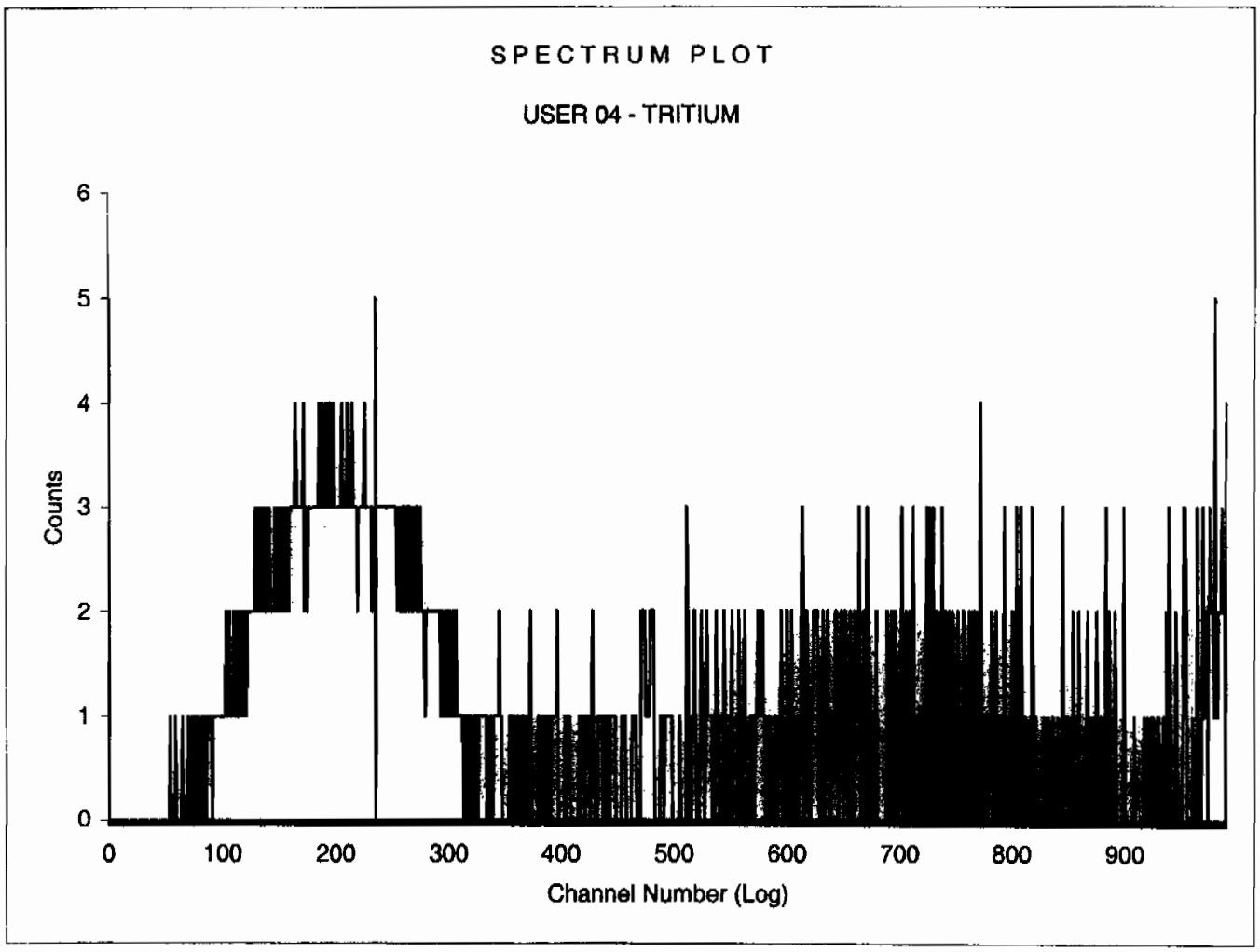

BACKGROUND AND EFFICIENCY DATA

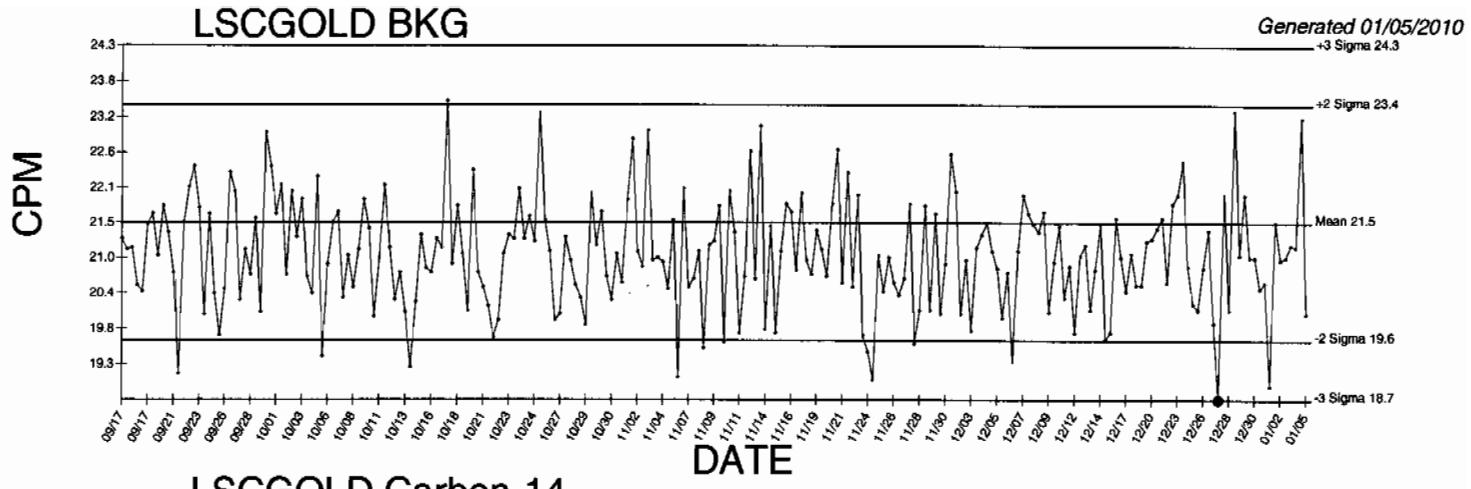

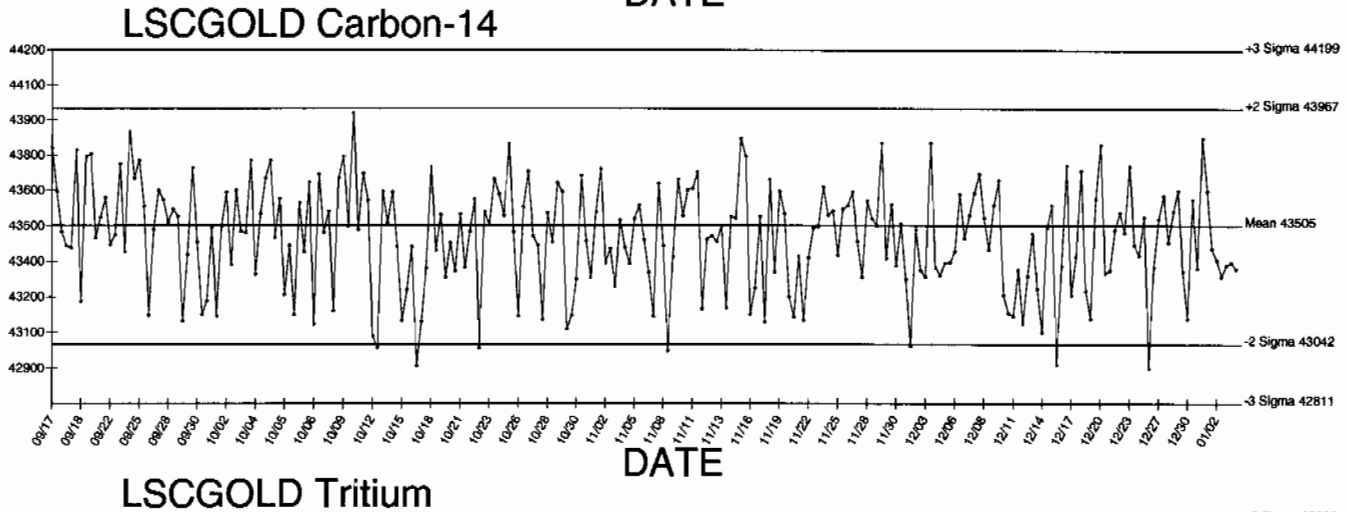

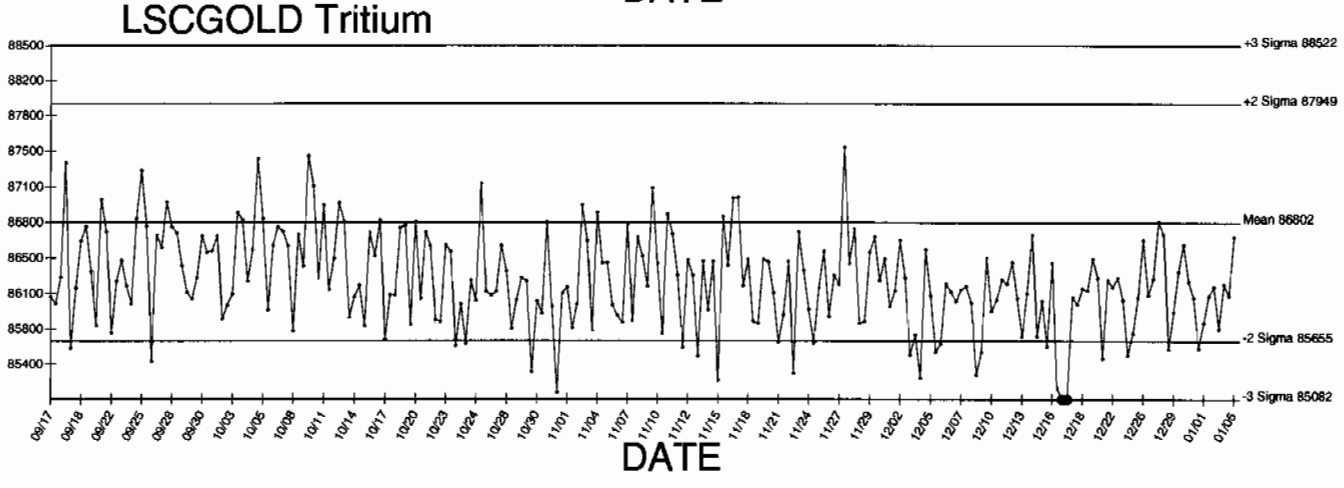

● Denotes Outlier

LSCSILVER BKG

Generated 01/05/2010

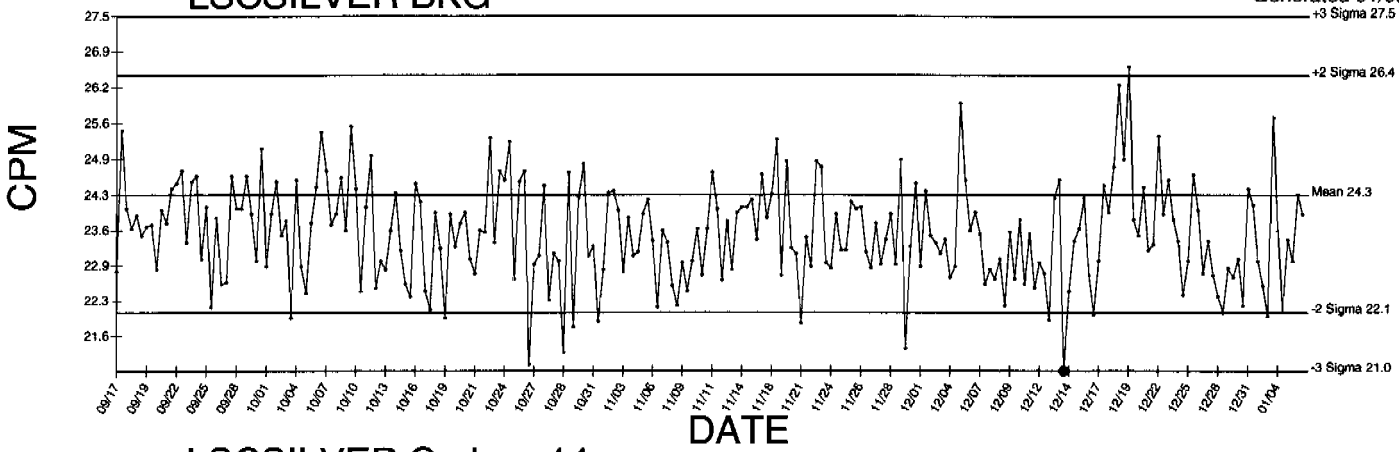

LSCSILVER Carbon-14

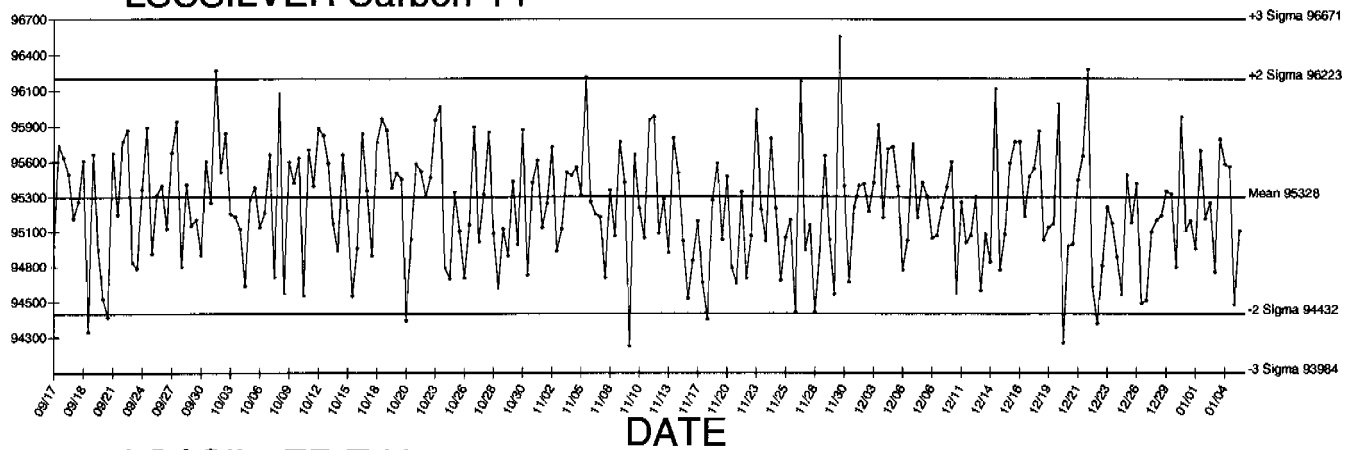

LSCSILVER Tritium

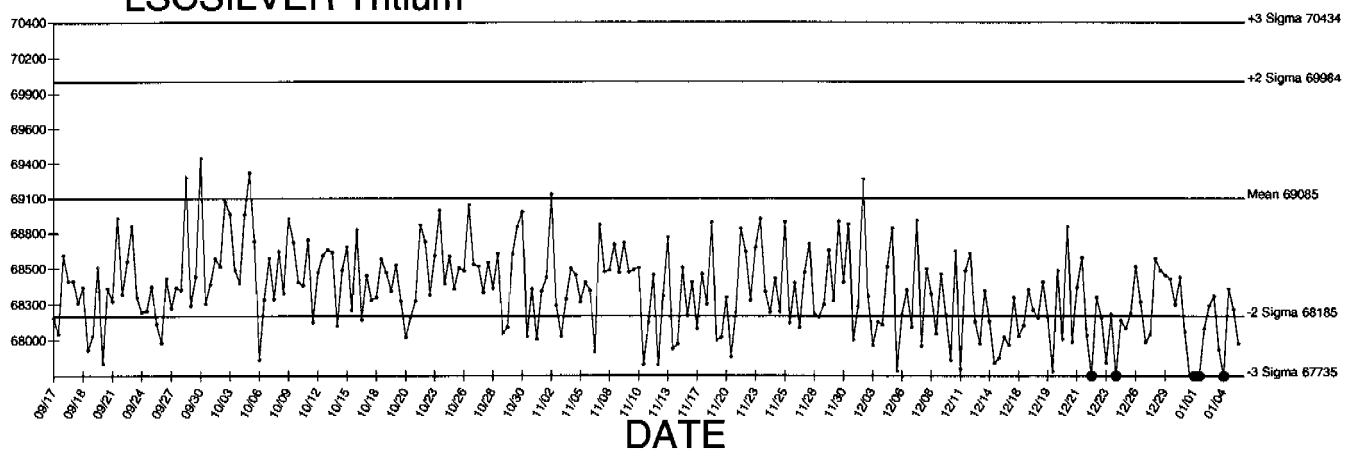

● Denotes Outlier

STANDARDS DATA

Amersham International plc
Amersham Laboratories

0134

NAMAS
CALIBRATION
No. 0146

Certificate of calibration of standardised tritium labelled water

Description

Radionuclide: TRITIUM (HYDROGEN-3) Product code: TRY·64

Chemical form: water Batch: 111

Measurement

Reference time: 1200 GMT on 1 March 1996

Radioactive concentration of tritium: 488.0 kilobecquerels per gram of water

which is equivalent to: 13.19 microcuries per gram of water

or: 2.93×10^7 disintegrations per minute per gram of water

Method of Measurement
This reference material was calibrated by direct comparison with a standard of tritium-labelled water obtained from the National Institute of Standards and Technology, USA.

Accuracy

The OVERALL UNCERTAINTY of the result quoted above is estimated to be less than ±2.5%

This estimate of uncertainty was calculated in accordance with the recommendations of the International Commission on Radiation Units and Measurements (ICRU Report 12). The limits of uncertainty were taken as the arithmetic sum of the uncertainty due to random variations, calculated at the 99·7% confidence level, and the estimated systematic uncertainties.

Purity

No radioactive impurities were detected. (Impurities with total activity greater than 0.001% of the activity of the tritium would have been detected).

Physical Data

Half-life of tritium: 12·43 ± 0·11 years

Maximum beta energy of tritium: 18·6 keV

Remarks:

The S.I. unit of radioactivity is the becquerel.

1 becquerel (Bq) = 1 nuclear transformation per second, therefore
1 curie (Ci) = $3{\cdot}7 \times 10^{10}$ becquerels exactly.

Useful conversion factors are:

1 microcurie (μCi) = $3{\cdot}7 \times 10^4$ Bq = 37 kilobecquerels (kBq)

1 kilobecquerel (kBq) = 27·027 nanocuries (nCi)

This product meets the quality assurance requirements of NRC Regulatory Guide 4.15 for achieving implicit NIST (NBS) traceability as defined in NCRP58 (1985).

Approved signatory

W. F. Case

RC-5-024-061

W.F. Case

Amersham
The Health Science Group

Standard Traceability Log Rad

Source Material Info	
Parent Code:	0134
Prepared By:	Angela Johnson
Carrier Conc:	DI WATER
Reference Date:	03/01/1996
Ampoule Mass (g):	5 g
Uncertainty:	+/- 2.5 %
LogBook No:	RC S 023 061

A Solution Material Info	
Isotope:	Tritium
Prepared By:	Angela Johnson
Prep Date:	02/21/2001
Verification Date:	09/10/2008
Expiration Date:	03/27/2010
Primary Code:	0134-A
Dilution(mL):	100 mL
Mass of Parent(g):	3.3659 g
Density(g/mL):	1.0004
Balance ID:	38080204

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (kBq/g)) * (conversion dpm to kBq) / (Dilution Vol) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (kBq/g)) * (conversion dpm to kBq) / Density (g/mL)/ (Dilution Vol) = Parent Activity (dpm/g)
(3.3659 g) * (488 kBq/g) * (60000 dpm/kBq) / (100 mL) = 985535.5200 dpm/mL
(3.3659 g) * (488 kBq/g) * (60000 dpm/kBq) / (1.0004 g/mL) / (100 mL) = 985180.3116 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date
07/20/2004	Amanda Fehr	5.86	1000	0134-H	5773.1566 dpm/mL	07/25/2006	07/25/2007
12/20/2005	Amanda Fehr	5.5451	1000	0134-I	5462.92 dpm/mL	12/20/2006	12/20/2007
07/11/2007	Daniel Roy	5.5863	1000	0134-J	5503.5128 dpm/ml	07/29/2008	07/29/2009
03/25/2009	Mary Aders	5.4917	1000	0134-K	5410.3147 dpm/ml	03/27/2009	03/27/2010

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for H-3 Standard 0134-K

M. Aders	Isotope	Detector CPM	BKG CPM	NET CPM	Detector Eff	Standard Mass. Used (mL)	Source DPM/mL
4/9/2009	0134-K N1	1097.2000	54.0000	1043.2000	0.380548	1.0000	2741.3099
	0134-K N2	1073.2000	54.0000	1019.2000	0.380548	1.0000	2678.242955
	0134-K N3	1085.2000	54.0000	1031.2000	0.380548	1.0000	2709.776428
						Average =	2709.776428
Mean Value (Counting) =	2709.776428		**104.954429**	**Pass**			
Stdev =	31.53347278		0.01163693	**Rule 3 (Pass/Fail)**			

Certificate Value =	2581.86	dpm/mL
Lower Limit =	2646.709482	dpm/mL
Upper Limit =	2772.843373	dpm/mL
Rule 1 Pass/Fail	**Fail**	***exception taken due to full recovery of standard**
Two sigma =	63.06694556	dpm/mL
10 % of Mean =	270.9776428	dpm/mL
Rule 2 (Pass/Fail)	**Pass**	

Verification Rules

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 10% of the certificate value.

The analyst prepared three standard verification sources for H-3 source 0134-K by transferring 0.1 mL portions of the standard into glass liquid scintillation vials. Ten mL of Ecoscint Ultra liquid scintillation cocktail was added to each vial and the vials were shaken to mix. A Blank vial was prepared in a similar fashion using 1 mL of DI water and 10 mL of Ecoscint Ultra liquid scintillation cocktail. The standard verification vials and Background source were dark adapted for two hours and counted on Silver for H-3 source standard verification. The H-3 efficiency calibration which was used for verification calculations was performed on 4/9/09 using 0020-A (H-3). Calibration data is recorded in this logbook under H-3 0020. Each verification source calculation was performed as follows:

Source dpm/g = (A - B)/(C)(D)
where:
A = Ver. source cpm,
B = BKG cpm,
C = System efficiency, (cpm/dpm), and
D = mass used for standard verification.

Reference RAD SOP M-001

[illegible] 4/9/09
Amanda L. Teh 4/9/09

RUNLOGS

Instrument Run Log

Instrument Type: LSC **Batch ID:935212**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
243042003	SAMPLE	KXK2	LSCGOLD	04-JAN-10 09:52	DONE	10mL DW/13mL Ecoscint Ultra	20-AUG-09 00:00
242938001	SAMPLE	KXK2	LSCSILVER	04-JAN-10 10:22	DONE	10mL DW/13mL Ecoscint Ultra	21-AUG-09 00:00
243042004	SAMPLE	KXK2	LSCGOLD	04-JAN-10 11:30	DONE	10mL DW/13mL Ecoscint Ultra	20-AUG-09 00:00
242938002	SAMPLE	KXK2	LSCSILVER	04-JAN-10 12:00	DONE	10mL DW/13mL Ecoscint Ultra	21-AUG-09 00:00
243042005	SAMPLE	KXK2	LSCGOLD	04-JAN-10 13:08	DONE	10mL DW/13mL Ecoscint Ultra	20-AUG-09 00:00
242938003	SAMPLE	KXK2	LSCSILVER	04-JAN-10 13:38	DONE	10mL DW/13mL Ecoscint Ultra	21-AUG-09 00:00
243042006	SAMPLE	KXK2	LSCGOLD	04-JAN-10 14:46	DONE	10mL DW/13mL Ecoscint Ultra	20-AUG-09 00:00
242938004	SAMPLE	KXK2	LSCSILVER	04-JAN-10 15:16	DONE	10mL DW/13mL Ecoscint Ultra	21-AUG-09 00:00
243042007	SAMPLE	KXK2	LSCGOLD	04-JAN-10 16:24	DONE	10mL DW/13mL Ecoscint Ultra	20-AUG-09 00:00
242938005	SAMPLE	KXK2	LSCSILVER	04-JAN-10 16:54	DONE	10mL DW/13mL Ecoscint Ultra	21-AUG-09 00:00
243042008	SAMPLE	KXK2	LSCGOLD	04-JAN-10 18:02	DONE	10mL DW/13mL Ecoscint Ultra	20-AUG-09 00:00
242938006	SAMPLE	KXK2	LSCSILVER	04-JAN-10 18:32	DONE	10mL DW/13mL Ecoscint Ultra	21-AUG-09 00:00
243042009	SAMPLE	KXK2	LSCGOLD	04-JAN-10 19:40	DONE	10mL DW/13mL Ecoscint Ultra	20-AUG-09 00:00
242938007	SAMPLE	KXK2	LSCSILVER	04-JAN-10 20:10	DONE	10mL DW/13mL Ecoscint Ultra	21-AUG-09 00:00
1202000958	MB	KXK2	LSCGOLD	04-JAN-10 21:18	DONE	10mL DW/13mL Ecoscint Ultra	20-AUG-09 00:00
242938008	SAMPLE	KXK2	LSCSILVER	04-JAN-10 21:48	DONE	10mL DW/13mL Ecoscint Ultra	21-AUG-09 00:00
1202000959	DUP	KXK2	LSCGOLD	04-JAN-10 22:56	DONE	10mL DW/13mL Ecoscint Ultra	20-AUG-09 00:00
242938009	SAMPLE	KXK2	LSCSILVER	04-JAN-10 23:26	DONE	10mL DW/13mL Ecoscint Ultra	21-AUG-09 00:00
1202000960	LCS	KXK2	LSCGOLD	05-JAN-10 00:33	DONE	10mL DW/13mL Ecoscint Ultra	20-AUG-09 00:00
243042001	SAMPLE	KXK2	LSCSILVER	05-JAN-10 01:05	DONE	10mL DW/13mL Ecoscint Ultra	21-AUG-09 00:00
243042002	SAMPLE	KXK2	LSCSILVER	05-JAN-10 02:43	DONE	10mL DW/13mL Ecoscint Ultra	21-AUG-09 00:00

Monday, December 14, 2009

REQUEST NUMBER: 10-917

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

These Samples are on:

LANL Request Number:10-917

Per Agreement Number:126310011

Project Cost Code: MR2A054196D0

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 12/14/2009

TURNAROUND/REPORT DUE: 1/13/2010

TURNAROUND REQ'D: 30 Days

RAD SCREENING: Not Required

LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:

Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8015M_EXTRACTABLE	1	RE03-09-14212	S	12/11/2009	
		1	RE03-09-14213	S	12/11/2009	
		1	RE03-09-14214	S	12/11/2009	
		1	RE03-09-14215	S	12/11/2009	

Monday, December 14, 2009

REQUEST NUMBER: 10-917

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8015M_EXTRACTABLE	1	RE03-09-14216	S	12/11/2009	
		1	RE03-09-14217	S	12/11/2009	
		1	RE03-09-14218	S	12/11/2009	
		1	RE03-09-14219	S	12/11/2009	
		1	RE03-10-2735	S	12/11/2009	
	SW-846:8082	1	RE03-09-14212	S	12/11/2009	
		1	RE03-09-14213	S	12/11/2009	
		1	RE03-10-2735	S	12/11/2009	
	SW-846:8260B	1	RE03-09-14212	S	12/11/2009	
		1	RE03-09-14213	S	12/11/2009	
		1	RE03-09-14214	S	12/11/2009	
		1	RE03-09-14215	S	12/11/2009	
		1	RE03-09-14216	S	12/11/2009	
		1	RE03-09-14217	S	12/11/2009	
		1	RE03-09-14218	S	12/11/2009	
		1	RE03-09-14219	S	12/11/2009	
		1	RE03-10-2735	S	12/11/2009	
		1	RE03-10-6968	S	12/11/2009	
		2	RE03-10-6968	S	12/11/2009	
	SW-846:8270C	1	RE03-09-14212	S	12/11/2009	
		1	RE03-09-14213	S	12/11/2009	
		1	RE03-09-14214	S	12/11/2009	
		1	RE03-09-14215	S	12/11/2009	

Monday, December 14, 2009

REQUEST NUMBER: 10-917

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8270C	1	RE03-09-14216	S	12/11/2009	
		1	RE03-09-14217	S	12/11/2009	
		1	RE03-09-14218	S	12/11/2009	
		1	RE03-09-14219	S	12/11/2009	
		1	RE03-10-2735	S	12/11/2009	

Final Page of REQUEST NUMBER 10-917

Monday, December 14, 2009

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-917

REQUEST NUMBER: 10-917

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Valerie Davis

TURNAROUND/REPORT DUE: 1/13/2010

TURNAROUND REQ'D: 30

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

LAB REQUEST COMMENTS:

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE03-09-14213	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-09-14213	1	GLASS	8270C+8082+TPH-DRO	Ice	S
RE03-09-14215	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-09-14215	1	GLASS	8270C+8082+TPH-DRO	Ice	S
RE03-09-14212	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-09-14212	1	GLASS	8270C+8082+TPH-DRO	Ice	S
RE03-09-14219	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-09-14219	1	GLASS	8270C+8082+TPH-DRO	Ice	S
RE03-09-14218	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-09-14218	1	GLASS	8270C+8082+TPH-DRO	Ice	S
RE03-09-14216	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-09-14216	1	GLASS	8270C+8082+TPH-DRO	Ice	S
RE03-09-14214	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-09-14214	1	GLASS	8270C+8082+TPH-DRO	Ice	S
RE03-09-14217	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-09-14217	1	GLASS	8270C+8082+TPH-DRO	Ice	S
RE03-10-2735	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-10-2735	1	GLASS	8270C+8082+TPH-DRO	Ice	S
RE03-10-6968	1	SEPTUM AMBER GLASS	8260B Trip Blank	Ice	S
RE03-10-6968	2	SEPTUM AMBER GLASS	8260B Trip Blank	Ice	S

Relinquished By:		Date	Time	Received By:		Date	Time
		12/14/09	1400				
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

Received for DISPOSAL By: **Date** **Time** **Remarks:**

Printed Name Signature

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2276 **EVENT NAME:** Soil Sampling at TA-60

SAMPLE ID: RE03-09-14212 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12-11-09	MEDIA:	NA	all H
TIME COLLECTED (HH:MM)		1342	SUB-MEDIA:	OTHER	NA
PRS ID:	60-004(f)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	03-608405	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	BH	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	1'	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	2'	SCREEN/PORT DESC:		
FIELD MATRIX:	S		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+8082+TPH-DRO	500 ML GLASS	Ice	Y	
1		H3	500 ML POLY	Ice	Y	
1		Metals+CN - GEL	125 ML POLY	Ice	Y	

SAMPLE DESC: Brown clayey sand. (7.5 YR 4/4)

SAMPLE COMMENTS: NA

LOCATION DESC: 4(f)-2

FIELD SCREENING/MEASUREMENT RESULTS: PID = 0.7ppm BACKGROUND
α: 17 DPM
β: 1561
Samples: 4 MDA

COLLECTED BY (PRINT) M. Nauck **REVIEWED BY (PRINT)** M. Bains

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) M. Bains	12-11-09	(Printed Name) Sheri Sherwood	12-11-09
(Signature) [signature]	1630	(Signature) Sheri Sherwood	1630
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2276 **EVENT NAME:** Soil Sampling at TA-60

SAMPLE ID: RE03-09-14213 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12-11-09	MEDIA:	NA	all H
TIME COLLECTED (HH:MM)		1350	SUB-MEDIA:	OTHER	NA
PRS ID:	60-004(f)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	03-608405	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	BH	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	2'	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	3'	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	S		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+8082+TPH-DRO	500 ML GLASS	Ice	Y	
1		H3	500 ML POLY	Ice	Y	
1		Metals+CN - GEL	125 ML POLY	Ice	Y	

SAMPLE DESC: Brown sandy clay (7.5 YR 4/4)

SAMPLE COMMENTS: NA

LOCATION DESC: 4(f)-2

FIELD SCREENING/MEASUREMENT RESULTS: PID= 12.3 ppm
BACKGROUND
α: 17 DPM
β: 1561

Samples < MDA

COLLECTED BY (PRINT) L. Horne

REVIEWED BY (PRINT) M. Rains

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) M. Rains (Signature) [signature]	12-11-09 1630	(Printed Name) Sherri Sherwood (Signature) Sherri Sherwood	12-11-09 1630
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name) (Signature)		(Printed Name) (Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2276 **EVENT NAME:** Soil Sampling at TA-60

SAMPLE ID: RE03-09-14214 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12-11-09	MEDIA:	NA	mr 12/11/09 ~~Alt H~~ @BT3
TIME COLLECTED (HH:MM)		1404	SUB-MEDIA:	OTHER	NA
PRS ID:	60-004(f)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	03-608405	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	BH	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	4'	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	5'	SCREEN/PORT DESC:		
FIELD MATRIX:	mr 12/11/09 R		EXCAVATED: YES / NO (NA)		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO (NA)

BOREHOLE: YES / NO (NA) BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B mr 12/7/09	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+~~8082~~+TP H-DRO	500 ML GLASS	Ice	Y	
1		H3	500 ML POLY	Ice	Y	
1		Metals+CN - GEL	125 ML POLY	Ice	Y	

SAMPLE DESC: Brown silty sand (7.5 YR 4/4)

SAMPLE COMMENTS: tuff ~~fitt~~ began @ 4' mr 12/11/09

LOCATION DESC: 4(f)-2

FIELD SCREENING/MEASUREMENT RESULTS: PID = 1.3 ppm
BACKGROUND
α: 17
β: 1561 DPM

samples: < MDA

COLLECTED BY (PRINT) M. Nauck **REVIEWED BY (PRINT)** M. Rains

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) M. Rains (Signature) [signature]	12-11-09 1630	(Printed Name) Sherri Sherwood (Signature) Sherri Sherwood	12-11-09 1630
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name) (Signature)		(Printed Name) (Signature)	

Los Alamos National Laboratory

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2276 **EVENT NAME:** Soil Sampling at TA-60

SAMPLE ID: RE03-09-14215 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12-11-09	MEDIA:	NA	QBT3
TIME COLLECTED (HH:MM)		1437	SUB-MEDIA:	OTHER	NA
PRS ID:	60-004(f)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	03-608405	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	BH	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	9'	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	10'	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	~~SR~~ mR 12/11/09		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B mR 12/7/09	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C ~~+8082+~~ TP H-DRO	500 ML GLASS	Ice	Y	
1		H3	500 ML POLY	Ice	Y	
1		Metals+CN - GEL	125 ML POLY	Ice	Y	

SAMPLE DESC: Brown tuff (7.5 YR 4/3)

SAMPLE COMMENTS: Hit tuff @ ~~6'~~ mR 12/11/09 4'

LOCATION DESC: 4 (f) - 2

FIELD SCREENING/MEASUREMENT RESULTS: PID = 0.0ppm
BACKGROUND
α: 17
β: 1561 DPM

samples: < MDA

COLLECTED BY (PRINT) L. Horne **REVIEWED BY (PRINT)** M. Rains

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) M. Rains	12-11-09	(Printed Name) Sherri Sherwood	12-11-0
(Signature) [signature]	1630	(Signature) Sherri Sherwood	1630
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Tim**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2276 **EVENT NAME:** Soil Sampling at TA-60

SAMPLE ID: RE03-09-14216 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12-11-09	MEDIA:	NA	all H
TIME COLLECTED (HH:MM)		1205	SUB-MEDIA:	OTHER	NA
PRS ID:	60-004(f)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	03-608406	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	BH	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	1'	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	2'	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	S		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B mR 12/7/09	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C~~+8082~~+TP H-DRO	500 ML GLASS	Ice	Y	
1		H3	500 ML POLY	Ice	Y	
1		Metals+CN - GEL	125 ML POLY	Ice	Y	

SAMPLE DESC: Dk. reddish brown clay. (5 YR 3/2)

SAMPLE COMMENTS: mR 12/11/09 ~~NA~~ 6" of surface asphalt

LOCATION DESC: 4 (f) - 3

FIELD SCREENING/MEASUREMENT RESULTS: PID= 21.8 ppm
BACKGROUND
α: 17
β: 1561 DPM
samples: < MDA

COLLECTED BY (PRINT) L. Horne **REVIEWED BY (PRINT)** M. Rains

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) M. Rains (Signature) [signature]	12-11-09 1630	(Printed Name) Sherri Sherwood (Signature) Sherri Sherwood	12-11-09 1630
RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) (Signature)		(Printed Name) (Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2276 **EVENT NAME:** Soil Sampling at TA-60

SAMPLE ID: RE03-09-14217 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12-11-09	MEDIA:	NA	all H
TIME COLLECTED (HH:MM)		1208	SUB-MEDIA:	OTHER	NA
PRS ID:	60-004(f)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	03-608406	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	BH	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	2'	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	3'	SCREEN/PORT DESC:		
FIELD MATRIX:	S		EXCAVATED: YES / NO / NA	NA	

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+~~8082~~+TPH-DRO mt 12/7/09	500 ML GLASS	Ice	Y	
1		H3	500 ML POLY	Ice	Y	
1		Metals+CN - GEL	125 ML POLY	Ice	Y	

SAMPLE DESC: Reddish brown clay (5YR 4/4)

SAMPLE COMMENTS: NA

LOCATION DESC: 4 (f)-3

FIELD SCREENING/MEASUREMENT RESULTS: PID = 0.0 ppm
BACKGROUND
α: 17
β: 1561 DPM
Samples: < MDA

COLLECTED BY (PRINT) M. Nauck **REVIEWED BY (PRINT)** M. Rains

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) M. Rains (Signature) [signature]	12-11-09 1630	(Printed Name) Sherri Sherwood (Signature) Sherri Sherwood	12-11-09 1630
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name) (Signature)		(Printed Name) (Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2276 **EVENT NAME:** Soil Sampling at TA-60

SAMPLE ID: RE03-09-14218 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12-11-09	MEDIA:	NA	All H
TIME COLLECTED (HH:MM)		1230	SUB-MEDIA:	OTHER	NA
PRS ID:	60-004(f)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	03-608406		FIELD QC TYPE:	NA	
LOCATION TYPE:	BH		FIELD PREP:	NA	
TOP DEPTH:	0	4'	SAMPLE USAGE:	INV	
BOTTOM DEPTH:	0	5'	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	S		EXCAVATED: YES / NO (NA)		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO (NA)

BOREHOLE: YES / NO (NA) BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B me 12/7/09	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+~~8082+~~TPH-DRO	500 ML GLASS	Ice	Y	
1		H3	500 ML POLY	Ice	Y	
1		Metals+CN - GEL	125 ML POLY	Ice	Y	

SAMPLE DESC: Reddish Brown Silty Clay. 5YR 5/4

SAMPLE COMMENTS: Hit tuff at 4.2 feet. (very soft)

LOCATION DESC: 4 (f)-3

FIELD SCREENING/MEASUREMENT RESULTS: PID: 0.5 ppm
Background:
α 17 dpm
β 1561 dpm
Samples: MDA

COLLECTED BY (PRINT) M. Rains **REVIEWED BY (PRINT)** J. Jordan

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) J. Jordan	12-11-09	(Printed Name) Sherri Sherwood	12-11-09
(Signature)	1630	(Signature) Sherri Sherwood	1630
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2276 **EVENT NAME:** Soil Sampling at TA-60

SAMPLE ID: RE03-09-14219 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12-11-09	MEDIA:	NA	AIIH
TIME COLLECTED (HH:MM)		1308	SUB-MEDIA:	OTHER	NA
PRS ID:	60-004(f)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	03-608406		FIELD QC TYPE:	NA	
LOCATION TYPE:	BH		FIELD PREP:	NA	
TOP DEPTH:	0	9'	SAMPLE USAGE:	INV	
BOTTOM DEPTH:	0	10'	SCREEN/PORT DESC:		NA
FIELD MATRIX:	S		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: ____ COMPOSITE TIME INTERVAL: ____ WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: ____ BOREHOLE DIRECTION: ____

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B me 12/7/09	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C~~+8082+~~TP H-DRO	500 ML GLASS	Ice	Y	
1		H3	500 ML POLY	Ice	Y	
1		Metals+CN - GEL	125 ML POLY	Ice	Y	

SAMPLE DESC: Reddish Brown Clay. 5YR 6/4

SAMPLE COMMENTS: NA

LOCATION DESC: 4 (f) -3

FIELD SCREENING/MEASUREMENT RESULTS: PID: 0.0ppm Sample ZMDA
Background:
α: 17
β: 1561 DPM

COLLECTED BY (PRINT) C. Horne **REVIEWED BY (PRINT)** M. Rains

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) M. Rains	12-11-09	(Printed Name) Sherri Sherwood	12-11-09
(Signature) [signature]	1630	(Signature) Sherri Sherwood	1630
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2276 **EVENT NAME:** Soil Sampling at TA-60

SAMPLE ID: RE03-10-2735 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12-11-09	MEDIA:	ALLH	GK
TIME COLLECTED (HH:MM)		1404	SUB-MEDIA:	SOIL	
PRS ID:	60-004(f)	OK	SAMPLE TECH CODE:	HA	
LOCATION ID:	UNK	03-608405	FIELD QC TYPE:	FD	
LOCATION TYPE:	GENERIC	OK	FIELD PREP:	NA	
TOP DEPTH:	0	4'	SAMPLE USAGE:	QC	
BOTTOM DEPTH:	0	5'	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	S		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+8082+TPH-DRO	500 ML GLASS	Ice	Y	
1		H3	500 ML POLY	Ice	Y	
1		Metals+CN - GEL	125 ML POLY	Ice	Y	

SAMPLE DESC: QC Sample of RE03-09-14214

SAMPLE COMMENTS: NA

LOCATION DESC: NA

FIELD SCREENING/MEASUREMENT RESULTS: PID= 1.3ppm
BACKGROUND
α: 17
β: 1561 DPM

COLLECTED BY (PRINT) M. Nauck **REVIEWED BY (PRINT)** M. Rains

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) M. Rains (Signature)	12/11/09 1630	(Printed Name) Sherri Sherwood (Signature) Sherri Sherwood	12/11/09 1630
RELINQUISHED BY (Printed Name) (Signature)	**Date/Time**	**RECEIVED BY** (Printed Name) (Signature)	**Date/Time**

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2276 **EVENT NAME:** Soil Sampling at TA-60

SAMPLE ID: RE03-10-2747 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12-11-09	MEDIA:	NA	ok
TIME COLLECTED (HH:MM)		1520	SUB-MEDIA:	OTHER	
PRS ID:	60-004(f)	ok	SAMPLE TECH CODE:	DC	
LOCATION ID:	UNK	mr 12/11/09 + 03-608405	FIELD QC TYPE:	FB	
LOCATION TYPE:	GENERIC		FIELD PREP:	UF	
TOP DEPTH:	0		SAMPLE USAGE:	QC	
BOTTOM DEPTH:	0		SCREEN/PORT DESC:	NA	
FIELD MATRIX:	W		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: _____ COMPOSITE TIME INTERVAL: _____ WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: _____ BOREHOLE DIRECTION: _____

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		METALS-GEL	1 LITER POLY	Nitric Acid	Y	
1		TCN	500 ML POLY	Sodium Hydroxide	Y	

SAMPLE DESC: QC Sample of RE03-09-14215

SAMPLE COMMENTS: NA

LOCATION DESC: NA

FIELD SCREENING/MEASUREMENT RESULTS: NA

COLLECTED BY (PRINT) L. Horne **REVIEWED BY (PRINT)** M. Rains

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) M. Rains	12-11-09	(Printed Name) Sherri Sherwood	12-11-09
(Signature) [signature]	1630	(Signature) Sherri Sherwood	1630
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2276 **EVENT NAME:** Soil Sampling at TA-60

SAMPLE ID: RE03-10-2761 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12-11-09	MEDIA:	NA	ok
TIME COLLECTED (HH:MM)		1520	SUB-MEDIA:	OTHER	
PRS ID:	60-004(f)	ok	SAMPLE TECH CODE:	DC	
LOCATION ID:	UNK	03-608405	FIELD QC TYPE:	FR	
LOCATION TYPE:	GENERIC	ok	FIELD PREP:	UF	
TOP DEPTH:	0		SAMPLE USAGE:	QC	
BOTTOM DEPTH:	0		SCREEN/PORT DESC:	NA	
FIELD MATRIX:	W		EXCAVATED: YES / NO (NA)		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / (NA)

BOREHOLE: YES / NO / (NA) BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		METALS-GEL	1 LITER POLY	Nitric Acid	Y	
1		TCN	500 ML POLY	Sodium Hydroxide	Y	

SAMPLE DESC: QC Sample of RE03-09-14215

SAMPLE COMMENTS: NA

LOCATION DESC: NA

FIELD SCREENING/MEASUREMENT RESULTS: NA

COLLECTED BY (PRINT) L. Horne **REVIEWED BY (PRINT)** M. Rains

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) M. Rains (Signature) [signature]	12-11-09 1630	(Printed Name) Sherri Sherwood (Signature) Sherri Sherwood	12-11-09 1630
RELINQUISHED BY (Printed Name) (Signature)	**Date/Time**	**RECEIVED BY** (Printed Name) (Signature)	**Date/Time**

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2276 **EVENT NAME:** Soil Sampling at TA-60

SAMPLE ID: RE03-10-6968 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12-11-09	MEDIA:	NA	ok
TIME COLLECTED (HH:MM)		1520	SUB-MEDIA:	OTHER	
PRS ID:	60-007(a)	ok	SAMPLE TECH CODE:	HA	
LOCATION ID:	UNK	03-608405	FIELD QC TYPE:	FTB	
LOCATION TYPE:	GENERIC	ok	FIELD PREP:	NA	
TOP DEPTH:	0		SAMPLE USAGE:	QC	
BOTTOM DEPTH:	0		SCREEN/PORT DESC:	NA	
FIELD MATRIX:	S		EXCAVATED: YES / NO (NA)		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO (NA)

BOREHOLE: YES / NO (NA) BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
2		8260B Trip Blank	40 ML SEPTUM AMBER GLASS	Ice	Y	

SAMPLE DESC: QC Sample of RE03-09-14215

SAMPLE COMMENTS: NA

LOCATION DESC: NA

FIELD SCREENING/MEASUREMENT RESULTS: NA

COLLECTED BY (PRINT) M. Nauck **REVIEWED BY (PRINT)** M. Rains

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) M. Rains (Signature) [signature]	12-11-09 1630	(Printed Name) Sherri Sherwood (Signature) Sherri Sherwood	12-11-09 1630
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name) (Signature)		(Printed Name) (Signature)	

DATA VALIDATION COVER SHEET

5114-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY

Section I.

REQUEST NUMBER: 10-917 VALIDATION DATE: 2/9/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Eric T. Mink ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☒ OTHER (DESCRIBE): VOCs

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☒	☐	☐	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☒	☐	☐	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. In the FTB, samples RE03-10-6968, associated with samples -09-14212 — -09-14215 and -2735, acetone was detected. The associated sample results were detects ≤10X the blank concentration and, thus, were qualified U,I4d.
2. The %Ds were >20% for bromodichloromethane and trichlorotrifluoroethane. All the associated sample results were NDs and, thus, were qualified UJ,V7c.
3. It should be noted that the MS/MSD analyses were performed on a LANL sample from a different RN. Also, the raw data for the parent sample was not provided in the data package. However, MS/MSD analyses are not required for these analyses and, thus, no sample data were qualified.

Reviewed by: Mary Donivan Level: I Date: 02/09/10

VALIDATOR'S SIGNATURE: Eric T. Mink DATE: 2/9/10

DATA VALIDATION COVER SHEET

5114-1 **Data Validation Cover Sheet**	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943
Form 5114-1, Revision 0.0	LOS ALAMOS Environmental Restoration Project

VOLATILE ORGANIC COMPOUND (VOC) ANALYTICAL DATA VALIDATION CHECKLIST

5114-2

Volatile Organic Compound (VOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, V9	J-, V9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, V9a	J-, V9a
☐	☐	☒	3. The instrument performance sample did not pass method acceptance criteria.	R, V16	R, V16
☐	☐	☒	4. Samples were analyzed outside specific method tune time criteria.	N/A	J, V16b
☐	☐	☒	5. The required instrument performance sample information is missing. Contact the SMO or external laboratory for information.	R, V16c	R, V16c
☐	☒	☐	6. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ or R, V7	J, V7
☐	☒	☐	7. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, V7a	J, V7a
☐	☒	☐	8. The affected analytes were analyzed with an RRF of <0.05 in the initial calibration and/or CCV.	R, V7b	J, V7b
☒	☐	☐	9. The Initial Calibration Verification (ICV) and/or Continuing Calibration Verification (CCV) were recovered outside the method-specific limits.	UJ, V7c	J, V7c
☐	☒	☐	10. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, V7d	J, V7d
☐	☒	☐	11. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, V7f	R, V7f

VOLATILE ORGANIC COMPOUND (VOC) ANALYTICAL DATA VALIDATION CHECKLIST

5114-2 Volatile Organic Compound (VOC) Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	12. The sample result is ≤5X (10X for common organic laboratory contaminants) the concentration of the related analyte in the method blank.	U, V4	N/A
☐	☒	☐	13. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X (10X for common laboratory contaminants).	N/A	J, V4a
☒	☐	☐	14. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, and/or equipment blank.	U, V4d	N/A
☐	☒	☐	15. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V4e	R, V4e
☐	☒	☐	16. The IS retention time has shifted by more than 30 seconds.	UJ, V0	J, V0
☐	☐	☒	17. Analyte is positively confirmed but outside the IS retention time window; however, spectral matches must be provided.	N/A	J, V0a
☐	☒	☐	18. Required IS retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V0b	R, V0b
☐	☐	☒	19. The quantitating IS are count is <10% of the expected value, which indicates increased potential for false negative results and other possible problems with sample quantitation. Follow method-specific windows.	R, V1a	J, V1a
☐	☐	☒	20. The IS area count for the quantitating IS is <50% but >10% for organics window relation to the previous continuing calibration. Follow the method-specific windows.	UJ, V1b	J, V1b

VOLATILE ORGANIC COMPOUND (VOC) ANALYTICAL DATA VALIDATION CHECKLIST

5114-2

Volatile Organic Compound (VOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	21. The IS area count for the quantitating IS is >200% of the area count for the previous organic continuing calibration. Follow the method-specific windows.	UJ, V1c	J, V1c
☐	☐	☒	22. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V1d	R, V1d
☐	☒	☐	23. The surrogate is <10%R. Follow the external laboratory limits located within the associated data package.	R, V3	J-, V3
☐	☒	☐	24. The surrogate is < the Lower Acceptance Limit (LAL) but ≥10%R. Follow the external laboratory limits located within the associated data package.	UJ, V3a	J-, V3a
☐	☒	☐	25. The surrogate %R is > the Upper Acceptance Limit (UAL) Follow the external laboratory limits located within the associated data package.	N/A	J+, V3b
☐	☒	☐	26. At least one surrogate is > the UAL and one surrogate is < the LAL. Follow the external laboratory limits located within the associated data package.	UJ, V3c	J, V3c
☐	☒	☐	27. Required surrogate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V3d	R, V3d
☐	☒	☐	28. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, V12	J-, V12
☐	☒	☐	29. The LCS percent recovery was < the LAL but > 10%. Follow the external laboratory limits located within the associated data package.	UV, V12a	J-, V12a
☐	☒	☐	30. The LCS percent recover was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, V12b

VOLATILE ORGANIC COMPOUND (VOC) ANALYTICAL DATA VALIDATION CHECKLIST

5114-2 Volatile Organic Compound (VOC) Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	31. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V12c	R, V12c
☐	☒	☐	32. The affected analyte is considered not detected because mass spectrum did not meet specifications.	N/A	U, V8
☐	☒	☐	33. The mass spectrum column documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V8a	R, V8a
☐	☒	☐	34. Duplicate, dilution, or reanalysis.	UJ, V88	J, V88
☐	☐	☒	35. The affected analytes have elevated detection limits and may not meet project DQOs because the sample was diluted without any target analytees identified due to matrix interference. Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.	UJ, R, V15	R, V15
☒	☐	☐	36. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB, NQ, NQ
☐	☒	☐	37. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.	UJ, R, V19	J, R, V19

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-917	**Date Collected:**	12/11/2009 12:00	**Matrix:**	S
Lab Sample ID:	242937003	**Date Received:**	12/15/2009 08:45	**%Moisture:**	12.9
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14212	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	934728	**Inst:**	VOA1.I	**Dilution:**	1
Run Date:	12/19/2009 04:25	**Analyst:**	RXM4	**Purge Vol:**	5 mL
Prep Date:	12/18/2009 14:10	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	1r536.d	**Column:**	RTX-Volatiles	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
75-71-8	Dichlorodifluoromethane	U	1.15	ug/kg	0.390	1.15	
74-87-3	Chloromethane	U	1.15	ug/kg	0.344	1.15	
75-01-4	Vinyl chloride	U	1.15	ug/kg	0.344	1.15	
74-83-9	Bromomethane	U	1.15	ug/kg	0.344	1.15	
75-00-3	Chloroethane	U	1.15	ug/kg	0.344	1.15	
75-69-4	Trichlorofluoromethane	U	1.15	ug/kg	0.344	1.15	
67-64-1	Acetone	J	4.70	ug/kg	1.90	5.74	U,V4d
75-35-4	1,1-Dichloroethylene	U	1.15	ug/kg	0.344	1.15	
74-88-4	Iodomethane	U	5.74	ug/kg	1.84	5.74	
75-09-2	Methylene chloride	J	2.55	ug/kg	2.29	5.74	
75-15-0	Carbon disulfide	U	5.74	ug/kg	1.43	5.74	
156-60-5	trans-1,2-Dichloroethylene	U	1.15	ug/kg	0.344	1.15	
75-34-3	1,1-Dichloroethane	U	1.15	ug/kg	0.344	1.15	
78-93-3	2-Butanone	U	5.74	ug/kg	1.72	5.74	
156-59-2	cis-1,2-Dichloroethylene	U	1.15	ug/kg	0.344	1.15	
594-20-7	2,2-Dichloropropane	U	1.15	ug/kg	0.344	1.15	
67-66-3	Chloroform	U	1.15	ug/kg	0.344	1.15	
74-97-5	Bromochloromethane	U	1.15	ug/kg	0.379	1.15	
71-55-6	1,1,1-Trichloroethane	U	1.15	ug/kg	0.344	1.15	
563-58-6	1,1-Dichloropropene	U	1.15	ug/kg	0.344	1.15	
56-23-5	Carbon tetrachloride	U	1.15	ug/kg	0.344	1.15	
107-06-2	1,2-Dichloroethane	U	1.15	ug/kg	0.344	1.15	
71-43-2	Benzene	U	1.15	ug/kg	0.344	1.15	
79-01-6	Trichloroethylene	U	1.15	ug/kg	0.379	1.15	
78-87-5	1,2-Dichloropropane	U	1.15	ug/kg	0.344	1.15	
75-27-4	Bromodichloromethane	U	1.15	ug/kg	0.344	1.15	UJ,V7c
74-95-3	Dibromomethane	U	1.15	ug/kg	0.344	1.15	
108-10-1	4-Methyl-2-pentanone	U	5.74	ug/kg	1.43	5.74	
10061-01-5	cis-1,3-Dichloropropylene	U	1.15	ug/kg	0.344	1.15	
108-88-3	Toluene	U	1.15	ug/kg	0.344	1.15	
10061-02-6	trans-1,3-Dichloropropylene	U	1.15	ug/kg	0.344	1.15	
79-00-5	1,1,2-Trichloroethane	U	1.15	ug/kg	0.344	1.15	
591-78-6	2-Hexanone	U	5.74	ug/kg	1.72	5.74	
142-28-9	1,3-Dichloropropane	U	1.15	ug/kg	0.344	1.15	
127-18-4	Tetrachloroethylene	U	1.15	ug/kg	0.344	1.15	
124-48-1	Dibromochloromethane	U	1.15	ug/kg	0.344	1.15	
106-93-4	1,2-Dibromoethane	U	1.15	ug/kg	0.344	1.15	
108-90-7	Chlorobenzene	U	1.15	ug/kg	0.344	1.15	

ETM
2/9/10

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-917**	**Date Collected:**	**12/11/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242937003**	**Date Received:**	**12/15/2009 08:45**	**%Moisture:**	**12.9**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14212**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**934728**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**12/19/2009 04:25**	**Analyst:**	**RXM4**	**Purge Vol:**	**5 mL**
Prep Date:	**12/18/2009 14:10**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1r536.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
100-41-4	Ethylbenzene	U	1.15	ug/kg	0.344	1.15	
179601-23-1	m,p-Xylenes	U	2.29	ug/kg	0.344	2.29	
95-47-6	o-Xylene	U	1.15	ug/kg	0.344	1.15	
100-42-5	Styrene	U	1.15	ug/kg	0.344	1.15	
75-25-2	Bromoform	U	1.15	ug/kg	0.344	1.15	
79-34-5	1,1,2,2-Tetrachloroethane	U	1.15	ug/kg	0.344	1.15	
96-18-4	1,2,3-Trichloropropane	U	1.15	ug/kg	0.344	1.15	
108-86-1	Bromobenzene	U	1.15	ug/kg	0.344	1.15	
103-65-1	n-Propylbenzene	U	1.15	ug/kg	0.344	1.15	
95-49-8	2-Chlorotoluene	U	1.15	ug/kg	0.344	1.15	
98-82-8	Isopropylbenzene	U	1.15	ug/kg	0.344	1.15	
108-67-8	1,3,5-Trimethylbenzene	J	0.621	ug/kg	0.344	1.15	
106-43-4	4-Chlorotoluene	U	1.15	ug/kg	0.344	1.15	
98-06-6	tert-Butylbenzene	U	1.15	ug/kg	0.344	1.15	
95-63-6	1,2,4-Trimethylbenzene	J	1.02	ug/kg	0.344	1.15	
135-98-8	sec-Butylbenzene	U	1.15	ug/kg	0.344	1.15	
99-87-6	4-Isopropyltoluene	U	1.15	ug/kg	0.344	1.15	
541-73-1	1,3-Dichlorobenzene	U	1.15	ug/kg	0.344	1.15	
106-46-7	1,4-Dichlorobenzene	U	1.15	ug/kg	0.344	1.15	
104-51-8	n-Butylbenzene	U	1.15	ug/kg	0.344	1.15	
96-12-8	1,2-Dibromo-3-chloropropane	U	1.15	ug/kg	0.344	1.15	
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.74	ug/kg	1.84	5.74	UJ,V7c
630-20-6	1,1,1,2-Tetrachloroethane	U	1.15	ug/kg	0.344	1.15	
95-50-1	1,2-Dichlorobenzene	U	1.15	ug/kg	0.344	1.15	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Hydrocarbon	18.07	12.5	ug/kg		J
1120-21-4	Undecane	19.75	7.68	ug/kg	89	NJ
	Unknown Hydrocarbon	19.98	7.27	ug/kg		J
	Unknown Hydrocarbon	20.4	6.64	ug/kg		J
	Unknown Hydrocarbon	20.66	7.48	ug/kg		J
527-84-4	Benzene, 1-methyl-2-(1-methylethyl)-	20.82	9.4	ug/kg	95	NJ
112-40-3	Dodecane	20.97	8.38	ug/kg	93	NJ
	Unknown Hydrocarbon	21.15	8.56	ug/kg		J
933-98-2	Benzene, 1-ethyl-2,3-dimethyl-	21.36	13.2	ug/kg	94	NJ
	Unknown Hydrocarbon	21.8	8.04	ug/kg		J

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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-917**	**Date Collected:**	**12/11/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242937003**	**Date Received:**	**12/15/2009 08:45**	**%Moisture:**	**12.9**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14212**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**934728**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**12/19/2009 04:25**	**Analyst:**	**RXM4**	**Purge Vol:**	**5 mL**
Prep Date:	**12/18/2009 14:10**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1r536.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Flt	Qual
	Unknown Hydrocarbon	21.94	10.4	ug/kg		J
	Unknown Hydrocarbon	22.03	5.82	ug/kg		J

ETM
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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-917	**Date Collected:**	12/11/2009 12:00	**Matrix:**	S
Lab Sample ID:	242937001	**Date Received:**	12/15/2009 08:45	**%Moisture:**	12.8
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14213	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	934728	**Inst:**	VOA1.I	**Dilution:**	1
Run Date:	12/19/2009 03:23	**Analyst:**	RXM4	**Purge Vol:**	5 mL
Prep Date:	12/18/2009 14:08	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	1r534.d	**Column:**	RTX-Volatiles	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
75-71-8	Dichlorodifluoromethane	U	1.15	ug/kg	0.390	1.15	
74-87-3	Chloromethane	U	1.15	ug/kg	0.344	1.15	
75-01-4	Vinyl chloride	U	1.15	ug/kg	0.344	1.15	
74-83-9	Bromomethane	U	1.15	ug/kg	0.344	1.15	
75-00-3	Chloroethane	U	1.15	ug/kg	0.344	1.15	
75-69-4	Trichlorofluoromethane	U	1.15	ug/kg	0.344	1.15	
67-64-1	Acetone		7.14	ug/kg	1.90	5.74	U,V4d
75-35-4	1,1-Dichloroethylene	U	1.15	ug/kg	0.344	1.15	
74-88-4	Iodomethane	U	5.74	ug/kg	1.84	5.74	
75-09-2	Methylene chloride	J	2.65	ug/kg	2.29	5.74	
75-15-0	Carbon disulfide	U	5.74	ug/kg	1.43	5.74	
156-60-5	trans-1,2-Dichloroethylene	U	1.15	ug/kg	0.344	1.15	
75-34-3	1,1-Dichloroethane	U	1.15	ug/kg	0.344	1.15	
78-93-3	2-Butanone	U	5.74	ug/kg	1.72	5.74	
156-59-2	cis-1,2-Dichloroethylene	U	1.15	ug/kg	0.344	1.15	
594-20-7	2,2-Dichloropropane	U	1.15	ug/kg	0.344	1.15	
67-66-3	Chloroform	U	1.15	ug/kg	0.344	1.15	
74-97-5	Bromochloromethane	U	1.15	ug/kg	0.379	1.15	
71-55-6	1,1,1-Trichloroethane	U	1.15	ug/kg	0.344	1.15	
563-58-6	1,1-Dichloropropene	U	1.15	ug/kg	0.344	1.15	
56-23-5	Carbon tetrachloride	U	1.15	ug/kg	0.344	1.15	
107-06-2	1,2-Dichloroethane	U	1.15	ug/kg	0.344	1.15	
71-43-2	Benzene	U	1.15	ug/kg	0.344	1.15	
79-01-6	Trichloroethylene	U	1.15	ug/kg	0.379	1.15	
78-87-5	1,2-Dichloropropane	U	1.15	ug/kg	0.344	1.15	
75-27-4	Bromodichloromethane	U	1.15	ug/kg	0.344	1.15	UJ,V7c
74-95-3	Dibromomethane	U	1.15	ug/kg	0.344	1.15	
108-10-1	4-Methyl-2-pentanone	U	5.74	ug/kg	1.43	5.74	
10061-01-5	cis-1,3-Dichloropropylene	U	1.15	ug/kg	0.344	1.15	
108-88-3	Toluene	U	1.15	ug/kg	0.344	1.15	
10061-02-6	trans-1,3-Dichloropropylene	U	1.15	ug/kg	0.344	1.15	
79-00-5	1,1,2-Trichloroethane	U	1.15	ug/kg	0.344	1.15	
591-78-6	2-Hexanone	U	5.74	ug/kg	1.72	5.74	
142-28-9	1,3-Dichloropropane	U	1.15	ug/kg	0.344	1.15	
127-18-4	Tetrachloroethylene	U	1.15	ug/kg	0.344	1.15	
124-48-1	Dibromochloromethane	U	1.15	ug/kg	0.344	1.15	
106-93-4	1,2-Dibromoethane	U	1.15	ug/kg	0.344	1.15	
108-90-7	Chlorobenzene	U	1.15	ug/kg	0.344	1.15	

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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-917	Date Collected:	12/11/2009 12:00	Matrix:	S
Lab Sample ID:	242937001	Date Received:	12/15/2009 08:45	%Moisture:	12.8
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14213	Method:	SW846 8260B	SOP Ref:	GL-OA-E-038
Batch ID:	934728	Inst:	VOA1.I	Dilution:	1
Run Date:	12/19/2009 03:23	Analyst:	RXM4	Purge Vol:	5 mL
Prep Date:	12/18/2009 14:08	Aliquot:	5 g	Final Volume:	5 mL
Data File:	1r534.d	Column:	RTX-Volatiles	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
100-41-4	Ethylbenzene	U	1.15	ug/kg	0.344	1.15	
179601-23-1	m,p-Xylenes	U	2.29	ug/kg	0.344	2.29	
95-47-6	o-Xylene	U	1.15	ug/kg	0.344	1.15	
100-42-5	Styrene	U	1.15	ug/kg	0.344	1.15	
75-25-2	Bromoform	U	1.15	ug/kg	0.344	1.15	
79-34-5	1,1,2,2-Tetrachloroethane	U	1.15	ug/kg	0.344	1.15	
96-18-4	1,2,3-Trichloropropane	U	1.15	ug/kg	0.344	1.15	
108-86-1	Bromobenzene	U	1.15	ug/kg	0.344	1.15	
103-65-1	n-Propylbenzene	U	1.15	ug/kg	0.344	1.15	
95-49-8	2-Chlorotoluene	U	1.15	ug/kg	0.344	1.15	
98-82-8	Isopropylbenzene	U	1.15	ug/kg	0.344	1.15	
108-67-8	1,3,5-Trimethylbenzene	U	1.15	ug/kg	0.344	1.15	
106-43-4	4-Chlorotoluene	U	1.15	ug/kg	0.344	1.15	
98-06-6	tert-Butylbenzene	U	1.15	ug/kg	0.344	1.15	
95-63-6	1,2,4-Trimethylbenzene	J	0.983	ug/kg	0.344	1.15	
135-98-8	sec-Butylbenzene	U	1.15	ug/kg	0.344	1.15	
99-87-6	4-Isopropyltoluene	U	1.15	ug/kg	0.344	1.15	
541-73-1	1,3-Dichlorobenzene	U	1.15	ug/kg	0.344	1.15	
106-46-7	1,4-Dichlorobenzene	U	1.15	ug/kg	0.344	1.15	
104-51-8	n-Butylbenzene	U	1.15	ug/kg	0.344	1.15	
96-12-8	1,2-Dibromo-3-chloropropane	U	1.15	ug/kg	0.344	1.15	
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.74	ug/kg	1.84	5.74	UJ,V7c
630-20-6	1,1,1,2-Tetrachloroethane	U	1.15	ug/kg	0.344	1.15	
95-50-1	1,2-Dichlorobenzene	U	1.15	ug/kg	0.344	1.15	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Hydrocarbon	19.75	11.8	ug/kg		J
	Unknown Hydrocarbon	19.98	12.3	ug/kg		J
	Unknown Hydrocarbon	20.4	11.9	ug/kg		J
1758-88-9	Benzene, 2-ethyl-1,4-dimethyl-	20.66	13.2	ug/kg	87	NJ
934-80-5	Benzene, 4-ethyl-1,2-dimethyl-	20.82	12.2	ug/kg	96	NJ
112-40-3	Dodecane	20.97	16	ug/kg	94	NJ
	Unknown Hydrocarbon	21.15	14.5	ug/kg		J
	Unknown Hydrocarbon	21.2	10.5	ug/kg		J
527-84-4	Benzene, 1-methyl-2-(1-methylethyl)-	21.36	18.4	ug/kg	94	NJ
	Unknown Hydrocarbon	21.8	17.8	ug/kg		J

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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-917	**Date Collected:**	12/11/2009 12:00	**Matrix:**	S
Lab Sample ID:	242937001	**Date Received:**	12/15/2009 08:45	**%Moisture:**	12.8
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14213	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	934728	**Inst:**	VOA1.I	**Dilution:**	1
Run Date:	12/19/2009 03:23	**Analyst:**	RXM4	**Purge Vol:**	5 mL
Prep Date:	12/18/2009 14:08	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	1r534.d	**Column:**	RTX-Volatiles	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Hydrocarbon	21.94	16.4	ug/kg		J
	Unknown Hydrocarbon	22.49	9.58	ug/kg		J

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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-917	Date Collected:	12/11/2009 12:00	Matrix:	S
Lab Sample ID:	242937007	Date Received:	12/15/2009 08:45	%Moisture:	13.8
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14214	Method:	SW846 8260B	SOP Ref:	GL-OA-E-038
Batch ID:	934728	Inst:	VOA1.I	Dilution:	1
Run Date:	12/19/2009 06:26	Analyst:	RXM4	Purge Vol:	5 mL
Prep Date:	12/18/2009 14:14	Aliquot:	5 g	Final Volume:	5 mL
Data File:	1r540.d	Column:	RTX-Volatiles	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
75-71-8	Dichlorodifluoromethane	U	1.16	ug/kg	0.394	1.16	
74-87-3	Chloromethane	U	1.16	ug/kg	0.348	1.16	
75-01-4	Vinyl chloride	U	1.16	ug/kg	0.348	1.16	
74-83-9	Bromomethane	U	1.16	ug/kg	0.348	1.16	
75-00-3	Chloroethane	U	1.16	ug/kg	0.348	1.16	
75-69-4	Trichlorofluoromethane	U	1.16	ug/kg	0.348	1.16	
67-64-1	Acetone	J	4.18	ug/kg	1.93	5.80	U,V4d
75-35-4	1,1-Dichloroethylene	U	1.16	ug/kg	0.348	1.16	
74-88-4	Iodomethane	U	5.80	ug/kg	1.86	5.80	
75-09-2	Methylene chloride	U	5.80	ug/kg	2.32	5.80	
75-15-0	Carbon disulfide	U	5.80	ug/kg	1.45	5.80	
156-60-5	trans-1,2-Dichloroethylene	U	1.16	ug/kg	0.348	1.16	
75-34-3	1,1-Dichloroethane	U	1.16	ug/kg	0.348	1.16	
78-93-3	2-Butanone	U	5.80	ug/kg	1.74	5.80	
156-59-2	cis-1,2-Dichloroethylene	U	1.16	ug/kg	0.348	1.16	
594-20-7	2,2-Dichloropropane	U	1.16	ug/kg	0.348	1.16	
67-66-3	Chloroform	U	1.16	ug/kg	0.348	1.16	
74-97-5	Bromochloromethane	U	1.16	ug/kg	0.383	1.16	
71-55-6	1,1,1-Trichloroethane	U	1.16	ug/kg	0.348	1.16	
563-58-6	1,1-Dichloropropene	U	1.16	ug/kg	0.348	1.16	
56-23-5	Carbon tetrachloride	U	1.16	ug/kg	0.348	1.16	
107-06-2	1,2-Dichloroethane	U	1.16	ug/kg	0.348	1.16	
71-43-2	Benzene	U	1.16	ug/kg	0.348	1.16	
79-01-6	Trichloroethylene	U	1.16	ug/kg	0.383	1.16	
78-87-5	1,2-Dichloropropane	U	1.16	ug/kg	0.348	1.16	
75-27-4	Bromodichloromethane	U	1.16	ug/kg	0.348	1.16	UJ,V7c
74-95-3	Dibromomethane	U	1.16	ug/kg	0.348	1.16	
108-10-1	4-Methyl-2-pentanone	U	5.80	ug/kg	1.45	5.80	
10061-01-5	cis-1,3-Dichloropropylene	U	1.16	ug/kg	0.348	1.16	
108-88-3	Toluene	U	1.16	ug/kg	0.348	1.16	
10061-02-6	trans-1,3-Dichloropropylene	U	1.16	ug/kg	0.348	1.16	
79-00-5	1,1,2-Trichloroethane	U	1.16	ug/kg	0.348	1.16	
591-78-6	2-Hexanone	U	5.80	ug/kg	1.74	5.80	
142-28-9	1,3-Dichloropropane	U	1.16	ug/kg	0.348	1.16	
127-18-4	Tetrachloroethylene	U	1.16	ug/kg	0.348	1.16	
124-48-1	Dibromochloromethane	U	1.16	ug/kg	0.348	1.16	
106-93-4	1,2-Dibromoethane	U	1.16	ug/kg	0.348	1.16	
108-90-7	Chlorobenzene	U	1.16	ug/kg	0.348	1.16	

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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-917	**Date Collected:**	12/11/2009 12:00	**Matrix:**	S
Lab Sample ID:	242937007	**Date Received:**	12/15/2009 08:45	**%Moisture:**	13.8
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14214	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	934728	**Inst:**	VOA1.I	**Dilution:**	1
Run Date:	12/19/2009 06:26	**Analyst:**	RXM4	**Purge Vol:**	5 mL
Prep Date:	12/18/2009 14:14	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	1r540.d	**Column:**	RTX-Volatiles	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
100-41-4	Ethylbenzene	U	1.16	ug/kg	0.348	1.16	
179601-23-1	m,p-Xylenes	U	2.32	ug/kg	0.348	2.32	
95-47-6	o-Xylene	U	1.16	ug/kg	0.348	1.16	
100-42-5	Styrene	U	1.16	ug/kg	0.348	1.16	
75-25-2	Bromoform	U	1.16	ug/kg	0.348	1.16	
79-34-5	1,1,2,2-Tetrachloroethane	U	1.16	ug/kg	0.348	1.16	
96-18-4	1,2,3-Trichloropropane	U	1.16	ug/kg	0.348	1.16	
108-86-1	Bromobenzene	U	1.16	ug/kg	0.348	1.16	
103-65-1	n-Propylbenzene	U	1.16	ug/kg	0.348	1.16	
95-49-8	2-Chlorotoluene	U	1.16	ug/kg	0.348	1.16	
98-82-8	Isopropylbenzene	U	1.16	ug/kg	0.348	1.16	
108-67-8	1,3,5-Trimethylbenzene	U	1.16	ug/kg	0.348	1.16	
106-43-4	4-Chlorotoluene	U	1.16	ug/kg	0.348	1.16	
98-06-6	tert-Butylbenzene	U	1.16	ug/kg	0.348	1.16	
95-63-6	1,2,4-Trimethylbenzene	U	1.16	ug/kg	0.348	1.16	
135-98-8	sec-Butylbenzene	U	1.16	ug/kg	0.348	1.16	
99-87-6	4-Isopropyltoluene	U	1.16	ug/kg	0.348	1.16	
541-73-1	1,3-Dichlorobenzene	U	1.16	ug/kg	0.348	1.16	
106-46-7	1,4-Dichlorobenzene	U	1.16	ug/kg	0.348	1.16	
104-51-8	n-Butylbenzene	U	1.16	ug/kg	0.348	1.16	
96-12-8	1,2-Dibromo-3-chloropropane	U	1.16	ug/kg	0.348	1.16	
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.80	ug/kg	1.86	5.80	UJ,V7c
630-20-6	1,1,1,2-Tetrachloroethane	U	1.16	ug/kg	0.348	1.16	
95-50-1	1,2-Dichlorobenzene	U	1.16	ug/kg	0.348	1.16	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Hydrocarbon	18.07	6.2	ug/kg		J

ETM
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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-917**	**Date Collected:**	**12/11/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242937002**	**Date Received:**	**12/15/2009 08:45**	**%Moisture:**	**10.3**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14215**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**934728**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**12/19/2009 03:54**	**Analyst:**	**RXM4**	**Purge Vol:**	**5 mL**
Prep Date:	**12/18/2009 14:09**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1r535.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
75-71-8	Dichlorodifluoromethane	U	1.11	ug/kg	0.379	1.11	
74-87-3	Chloromethane	U	1.11	ug/kg	0.334	1.11	
75-01-4	Vinyl chloride	U	1.11	ug/kg	0.334	1.11	
74-83-9	Bromomethane	U	1.11	ug/kg	0.334	1.11	
75-00-3	Chloroethane	U	1.11	ug/kg	0.334	1.11	
75-69-4	Trichlorofluoromethane	U	1.11	ug/kg	0.334	1.11	
67-64-1	Acetone	J	4.39	ug/kg	1.85	5.57	U,V4d
75-35-4	1,1-Dichloroethylene	U	1.11	ug/kg	0.334	1.11	
74-88-4	Iodomethane	U	5.57	ug/kg	1.78	5.57	
75-09-2	Methylene chloride	J	2.34	ug/kg	2.23	5.57	
75-15-0	Carbon disulfide	U	5.57	ug/kg	1.39	5.57	
156-60-5	trans-1,2-Dichloroethylene	U	1.11	ug/kg	0.334	1.11	
75-34-3	1,1-Dichloroethane	U	1.11	ug/kg	0.334	1.11	
78-93-3	2-Butanone	U	5.57	ug/kg	1.67	5.57	
156-59-2	cis-1,2-Dichloroethylene	U	1.11	ug/kg	0.334	1.11	
594-20-7	2,2-Dichloropropane	U	1.11	ug/kg	0.334	1.11	
67-66-3	Chloroform	U	1.11	ug/kg	0.334	1.11	
74-97-5	Bromochloromethane	U	1.11	ug/kg	0.368	1.11	
71-55-6	1,1,1-Trichloroethane	U	1.11	ug/kg	0.334	1.11	
563-58-6	1,1-Dichloropropene	U	1.11	ug/kg	0.334	1.11	
56-23-5	Carbon tetrachloride	U	1.11	ug/kg	0.334	1.11	
107-06-2	1,2-Dichloroethane	U	1.11	ug/kg	0.334	1.11	
71-43-2	Benzene	U	1.11	ug/kg	0.334	1.11	
79-01-6	Trichloroethylene	U	1.11	ug/kg	0.368	1.11	
78-87-5	1,2-Dichloropropane	U	1.11	ug/kg	0.334	1.11	
75-27-4	Bromodichloromethane	U	1.11	ug/kg	0.334	1.11	UJ,V7c
74-95-3	Dibromomethane	U	1.11	ug/kg	0.334	1.11	
108-10-1	4-Methyl-2-pentanone	U	5.57	ug/kg	1.39	5.57	
10061-01-5	cis-1,3-Dichloropropylene	U	1.11	ug/kg	0.334	1.11	
108-88-3	Toluene	U	1.11	ug/kg	0.334	1.11	
10061-02-6	trans-1,3-Dichloropropylene	U	1.11	ug/kg	0.334	1.11	
79-00-5	1,1,2-Trichloroethane	U	1.11	ug/kg	0.334	1.11	
591-78-6	2-Hexanone	U	5.57	ug/kg	1.67	5.57	
142-28-9	1,3-Dichloropropane	U	1.11	ug/kg	0.334	1.11	
127-18-4	Tetrachloroethylene	U	1.11	ug/kg	0.334	1.11	
124-48-1	Dibromochloromethane	U	1.11	ug/kg	0.334	1.11	
106-93-4	1,2-Dibromoethane	U	1.11	ug/kg	0.334	1.11	
108-90-7	Chlorobenzene	U	1.11	ug/kg	0.334	1.11	

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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-917**	**Date Collected:**	**12/11/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242937002**	**Date Received:**	**12/15/2009 08:45**	**%Moisture:**	**10.3**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14215**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**934728**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**12/19/2009 03:54**	**Analyst:**	**RXM4**	**Purge Vol:**	**5 mL**
Prep Date:	**12/18/2009 14:09**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1r535.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
100-41-4	Ethylbenzene	U	1.11	ug/kg	0.334	1.11	
179601-23-1	m,p-Xylenes	U	2.23	ug/kg	0.334	2.23	
95-47-6	o-Xylene	U	1.11	ug/kg	0.334	1.11	
100-42-5	Styrene	U	1.11	ug/kg	0.334	1.11	
75-25-2	Bromoform	U	1.11	ug/kg	0.334	1.11	
79-34-5	1,1,2,2-Tetrachloroethane	U	1.11	ug/kg	0.334	1.11	
96-18-4	1,2,3-Trichloropropane	U	1.11	ug/kg	0.334	1.11	
108-86-1	Bromobenzene	U	1.11	ug/kg	0.334	1.11	
103-65-1	n-Propylbenzene	U	1.11	ug/kg	0.334	1.11	
95-49-8	2-Chlorotoluene	U	1.11	ug/kg	0.334	1.11	
98-82-8	Isopropylbenzene	U	1.11	ug/kg	0.334	1.11	
108-67-8	1,3,5-Trimethylbenzene	U	1.11	ug/kg	0.334	1.11	
106-43-4	4-Chlorotoluene	U	1.11	ug/kg	0.334	1.11	
98-06-6	tert-Butylbenzene	U	1.11	ug/kg	0.334	1.11	
95-63-6	1,2,4-Trimethylbenzene	U	1.11	ug/kg	0.334	1.11	
135-98-8	sec-Butylbenzene	U	1.11	ug/kg	0.334	1.11	
99-87-6	4-Isopropyltoluene	U	1.11	ug/kg	0.334	1.11	
541-73-1	1,3-Dichlorobenzene	U	1.11	ug/kg	0.334	1.11	
106-46-7	1,4-Dichlorobenzene	U	1.11	ug/kg	0.334	1.11	
104-51-8	n-Butylbenzene	U	1.11	ug/kg	0.334	1.11	
96-12-8	1,2-Dibromo-3-chloropropane	U	1.11	ug/kg	0.334	1.11	
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.57	ug/kg	1.78	5.57	UJ,V7c
630-20-6	1,1,1,2-Tetrachloroethane	U	1.11	ug/kg	0.334	1.11	
95-50-1	1,2-Dichlorobenzene	U	1.11	ug/kg	0.334	1.11	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Hydrocarbon	18.07	5.97	ug/kg		J
112-40-3	Dodecane	20.97	7.96	ug/kg	87	NJ
934-74-7	Benzene, 1-ethyl-3,5-dimethyl-	21.36	5.75	ug/kg	95	NJ
	Unknown Hydrocarbon	21.8	6.16	ug/kg		J
	Unknown Hydrocarbon	21.94	6.14	ug/kg		J

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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-917**	**Date Collected:**	**12/11/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242937006**	**Date Received:**	**12/15/2009 08:45**	**%Moisture:**	**15.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14216**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**934728**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**12/19/2009 05:56**	**Analyst:**	**RXM4**	**Purge Vol:**	**5 mL**
Prep Date:	**12/18/2009 14:13**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1r539.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
75-71-8	Dichlorodifluoromethane	U	1.19	ug/kg	0.404	1.19	
74-87-3	Chloromethane	U	1.19	ug/kg	0.356	1.19	
75-01-4	Vinyl chloride	U	1.19	ug/kg	0.356	1.19	
74-83-9	Bromomethane	U	1.19	ug/kg	0.356	1.19	
75-00-3	Chloroethane	U	1.19	ug/kg	0.356	1.19	
75-69-4	Trichlorofluoromethane	U	1.19	ug/kg	0.356	1.19	
67-64-1	Acetone		7.03	ug/kg	1.97	5.94	
75-35-4	1,1-Dichloroethylene	U	1.19	ug/kg	0.356	1.19	
74-88-4	Iodomethane	U	5.94	ug/kg	1.90	5.94	
75-09-2	Methylene chloride	J	2.84	ug/kg	2.38	5.94	
75-15-0	Carbon disulfide	U	5.94	ug/kg	1.49	5.94	
156-60-5	trans-1,2-Dichloroethylene	U	1.19	ug/kg	0.356	1.19	
75-34-3	1,1-Dichloroethane	U	1.19	ug/kg	0.356	1.19	
78-93-3	2-Butanone	U	5.94	ug/kg	1.78	5.94	
156-59-2	cis-1,2-Dichloroethylene	U	1.19	ug/kg	0.356	1.19	
594-20-7	2,2-Dichloropropane	U	1.19	ug/kg	0.356	1.19	
67-66-3	Chloroform	U	1.19	ug/kg	0.356	1.19	
74-97-5	Bromochloromethane	U	1.19	ug/kg	0.392	1.19	
71-55-6	1,1,1-Trichloroethane	U	1.19	ug/kg	0.356	1.19	
563-58-6	1,1-Dichloropropene	U	1.19	ug/kg	0.356	1.19	
56-23-5	Carbon tetrachloride	U	1.19	ug/kg	0.356	1.19	
107-06-2	1,2-Dichloroethane	U	1.19	ug/kg	0.356	1.19	
71-43-2	Benzene	U	1.19	ug/kg	0.356	1.19	
79-01-6	Trichloroethylene	U	1.19	ug/kg	0.392	1.19	
78-87-5	1,2-Dichloropropane	U	1.19	ug/kg	0.356	1.19	
75-27-4	Bromodichloromethane	U	1.19	ug/kg	0.356	1.19	UJ,V7c
74-95-3	Dibromomethane	U	1.19	ug/kg	0.356	1.19	
108-10-1	4-Methyl-2-pentanone	U	5.94	ug/kg	1.49	5.94	
10061-01-5	cis-1,3-Dichloropropylene	U	1.19	ug/kg	0.356	1.19	
108-88-3	Toluene	U	1.19	ug/kg	0.356	1.19	
10061-02-6	trans-1,3-Dichloropropylene	U	1.19	ug/kg	0.356	1.19	
79-00-5	1,1,2-Trichloroethane	U	1.19	ug/kg	0.356	1.19	
591-78-6	2-Hexanone	U	5.94	ug/kg	1.78	5.94	
142-28-9	1,3-Dichloropropane	U	1.19	ug/kg	0.356	1.19	
127-18-4	Tetrachloroethylene	U	1.19	ug/kg	0.356	1.19	
124-48-1	Dibromochloromethane	U	1.19	ug/kg	0.356	1.19	
106-93-4	1,2-Dibromoethane	U	1.19	ug/kg	0.356	1.19	
108-90-7	Chlorobenzene	U	1.19	ug/kg	0.356	1.19	

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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-917**	**Date Collected:**	**12/11/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242937006**	**Date Received:**	**12/15/2009 08:45**	**%Moisture:**	**15.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14216**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**934728**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**12/19/2009 05:56**	**Analyst:**	**RXM4**	**Purge Vol:**	**5 mL**
Prep Date:	**12/18/2009 14:13**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1r539.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
100-41-4	Ethylbenzene	U	1.19	ug/kg	0.356	1.19	
179601-23-1	m,p-Xylenes	U	2.38	ug/kg	0.356	2.38	
95-47-6	o-Xylene	U	1.19	ug/kg	0.356	1.19	
100-42-5	Styrene	U	1.19	ug/kg	0.356	1.19	
75-25-2	Bromoform	U	1.19	ug/kg	0.356	1.19	
79-34-5	1,1,2,2-Tetrachloroethane	U	1.19	ug/kg	0.356	1.19	
96-18-4	1,2,3-Trichloropropane	U	1.19	ug/kg	0.356	1.19	
108-86-1	Bromobenzene	U	1.19	ug/kg	0.356	1.19	
103-65-1	n-Propylbenzene	U	1.19	ug/kg	0.356	1.19	
95-49-8	2-Chlorotoluene	U	1.19	ug/kg	0.356	1.19	
98-82-8	Isopropylbenzene	U	1.19	ug/kg	0.356	1.19	
108-67-8	1,3,5-Trimethylbenzene	U	1.19	ug/kg	0.356	1.19	
106-43-4	4-Chlorotoluene	U	1.19	ug/kg	0.356	1.19	
98-06-6	tert-Butylbenzene	U	1.19	ug/kg	0.356	1.19	
95-63-6	1,2,4-Trimethylbenzene	U	1.19	ug/kg	0.356	1.19	
135-98-8	sec-Butylbenzene	U	1.19	ug/kg	0.356	1.19	
99-87-6	4-Isopropyltoluene	U	1.19	ug/kg	0.356	1.19	
541-73-1	1,3-Dichlorobenzene	U	1.19	ug/kg	0.356	1.19	
106-46-7	1,4-Dichlorobenzene	U	1.19	ug/kg	0.356	1.19	
104-51-8	n-Butylbenzene	U	1.19	ug/kg	0.356	1.19	
96-12-8	1,2-Dibromo-3-chloropropane	U	1.19	ug/kg	0.356	1.19	
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.94	ug/kg	1.90	5.94	UJ,V7c
630-20-6	1,1,1,2-Tetrachloroethane	U	1.19	ug/kg	0.356	1.19	
95-50-1	1,2-Dichlorobenzene	U	1.19	ug/kg	0.356	1.19	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated Units	Fit	Qual
	No Tentatively Identified Compounds Found		ug/kg		

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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-917	**Date Collected:**	12/11/2009 12:00	**Matrix:**	S
Lab Sample ID:	242937008	**Date Received:**	12/15/2009 08:45	**%Moisture:**	15.2
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14217	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	934728	**Inst:**	VOA1.I	**Dilution:**	1
Run Date:	12/19/2009 06:56	**Analyst:**	RXM4	**Purge Vol:**	5 mL
Prep Date:	12/18/2009 14:15	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	1r541.d	**Column:**	RTX-Volatiles	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
75-71-8	Dichlorodifluoromethane	U	1.18	ug/kg	0.401	1.18	
74-87-3	Chloromethane	U	1.18	ug/kg	0.354	1.18	
75-01-4	Vinyl chloride	U	1.18	ug/kg	0.354	1.18	
74-83-9	Bromomethane	U	1.18	ug/kg	0.354	1.18	
75-00-3	Chloroethane	U	1.18	ug/kg	0.354	1.18	
75-69-4	Trichlorofluoromethane	U	1.18	ug/kg	0.354	1.18	
67-64-1	Acetone	J	5.10	ug/kg	1.96	5.90	
75-35-4	1,1-Dichloroethylene	U	1.18	ug/kg	0.354	1.18	
74-88-4	Iodomethane	U	5.90	ug/kg	1.89	5.90	
75-09-2	Methylene chloride	J	2.60	ug/kg	2.36	5.90	
75-15-0	Carbon disulfide	U	5.90	ug/kg	1.47	5.90	
156-60-5	trans-1,2-Dichloroethylene	U	1.18	ug/kg	0.354	1.18	
75-34-3	1,1-Dichloroethane	U	1.18	ug/kg	0.354	1.18	
78-93-3	2-Butanone	U	5.90	ug/kg	1.77	5.90	
156-59-2	cis-1,2-Dichloroethylene	U	1.18	ug/kg	0.354	1.18	
594-20-7	2,2-Dichloropropane	U	1.18	ug/kg	0.354	1.18	
67-66-3	Chloroform	U	1.18	ug/kg	0.354	1.18	
74-97-5	Bromochloromethane	U	1.18	ug/kg	0.389	1.18	
71-55-6	1,1,1-Trichloroethane	U	1.18	ug/kg	0.354	1.18	
563-58-6	1,1-Dichloropropene	U	1.18	ug/kg	0.354	1.18	
56-23-5	Carbon tetrachloride	U	1.18	ug/kg	0.354	1.18	
107-06-2	1,2-Dichloroethane	U	1.18	ug/kg	0.354	1.18	
71-43-2	Benzene	U	1.18	ug/kg	0.354	1.18	
79-01-6	Trichloroethylene	U	1.18	ug/kg	0.389	1.18	
78-87-5	1,2-Dichloropropane	U	1.18	ug/kg	0.354	1.18	
75-27-4	Bromodichloromethane	U	1.18	ug/kg	0.354	1.18	UJ,V7c
74-95-3	Dibromomethane	U	1.18	ug/kg	0.354	1.18	
108-10-1	4-Methyl-2-pentanone	U	5.90	ug/kg	1.47	5.90	
10061-01-5	cis-1,3-Dichloropropylene	U	1.18	ug/kg	0.354	1.18	
108-88-3	Toluene	U	1.18	ug/kg	0.354	1.18	
10061-02-6	trans-1,3-Dichloropropylene	U	1.18	ug/kg	0.354	1.18	
79-00-5	1,1,2-Trichloroethane	U	1.18	ug/kg	0.354	1.18	
591-78-6	2-Hexanone	U	5.90	ug/kg	1.77	5.90	
142-28-9	1,3-Dichloropropane	U	1.18	ug/kg	0.354	1.18	
127-18-4	Tetrachloroethylene	U	1.18	ug/kg	0.354	1.18	
124-48-1	Dibromochloromethane	U	1.18	ug/kg	0.354	1.18	
106-93-4	1,2-Dibromoethane	U	1.18	ug/kg	0.354	1.18	
108-90-7	Chlorobenzene	U	1.18	ug/kg	0.354	1.18	

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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-917	**Date Collected:**	12/11/2009 12:00	**Matrix:**	S
Lab Sample ID:	242937008	**Date Received:**	12/15/2009 08:45	**%Moisture:**	15.2
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14217	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	934728	**Inst:**	VOA1.I	**Dilution:**	1
Run Date:	12/19/2009 06:56	**Analyst:**	RXM4	**Purge Vol:**	5 mL
Prep Date:	12/18/2009 14:15	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	1r541.d	**Column:**	RTX-Volatiles	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
100-41-4	Ethylbenzene	U	1.18	ug/kg	0.354	1.18	
179601-23-1	m,p-Xylenes	U	2.36	ug/kg	0.354	2.36	
95-47-6	o-Xylene	U	1.18	ug/kg	0.354	1.18	
100-42-5	Styrene	U	1.18	ug/kg	0.354	1.18	
75-25-2	Bromoform	U	1.18	ug/kg	0.354	1.18	
79-34-5	1,1,2,2-Tetrachloroethane	U	1.18	ug/kg	0.354	1.18	
96-18-4	1,2,3-Trichloropropane	U	1.18	ug/kg	0.354	1.18	
108-86-1	Bromobenzene	U	1.18	ug/kg	0.354	1.18	
103-65-1	n-Propylbenzene	U	1.18	ug/kg	0.354	1.18	
95-49-8	2-Chlorotoluene	U	1.18	ug/kg	0.354	1.18	
98-82-8	Isopropylbenzene	U	1.18	ug/kg	0.354	1.18	
108-67-8	1,3,5-Trimethylbenzene	U	1.18	ug/kg	0.354	1.18	
106-43-4	4-Chlorotoluene	U	1.18	ug/kg	0.354	1.18	
98-06-6	tert-Butylbenzene	U	1.18	ug/kg	0.354	1.18	
95-63-6	1,2,4-Trimethylbenzene	U	1.18	ug/kg	0.354	1.18	
135-98-8	sec-Butylbenzene	U	1.18	ug/kg	0.354	1.18	
99-87-6	4-Isopropyltoluene	U	1.18	ug/kg	0.354	1.18	
541-73-1	1,3-Dichlorobenzene	U	1.18	ug/kg	0.354	1.18	
106-46-7	1,4-Dichlorobenzene	U	1.18	ug/kg	0.354	1.18	
104-51-8	n-Butylbenzene	U	1.18	ug/kg	0.354	1.18	
96-12-8	1,2-Dibromo-3-chloropropane	U	1.18	ug/kg	0.354	1.18	
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.90	ug/kg	1.89	5.90	UJ,V7c
630-20-6	1,1,1,2-Tetrachloroethane	U	1.18	ug/kg	0.354	1.18	
95-50-1	1,2-Dichlorobenzene	U	1.18	ug/kg	0.354	1.18	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	No Tentatively Identified Compounds Found			ug/kg		

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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-917**	**Date Collected:**	**12/11/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242937005**	**Date Received:**	**12/15/2009 08:45**	**%Moisture:**	**17.6**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14218**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**934728**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**12/19/2009 05:25**	**Analyst:**	**RXM4**	**Purge Vol:**	**5 mL**
Prep Date:	**12/18/2009 14:12**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1r538.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
75-71-8	Dichlorodifluoromethane	U	1.21	ug/kg	0.413	1.21	
74-87-3	Chloromethane	U	1.21	ug/kg	0.364	1.21	
75-01-4	Vinyl chloride	U	1.21	ug/kg	0.364	1.21	
74-83-9	Bromomethane	U	1.21	ug/kg	0.364	1.21	
75-00-3	Chloroethane	U	1.21	ug/kg	0.364	1.21	
75-69-4	Trichlorofluoromethane	U	1.21	ug/kg	0.364	1.21	
67-64-1	Acetone	J	4.82	ug/kg	2.01	6.07	
75-35-4	1,1-Dichloroethylene	U	1.21	ug/kg	0.364	1.21	
74-88-4	Iodomethane	U	6.07	ug/kg	1.94	6.07	
75-09-2	Methylene chloride	J	2.91	ug/kg	2.43	6.07	
75-15-0	Carbon disulfide	U	6.07	ug/kg	1.52	6.07	
156-60-5	trans-1,2-Dichloroethylene	U	1.21	ug/kg	0.364	1.21	
75-34-3	1,1-Dichloroethane	U	1.21	ug/kg	0.364	1.21	
78-93-3	2-Butanone	U	6.07	ug/kg	1.82	6.07	
156-59-2	cis-1,2-Dichloroethylene	U	1.21	ug/kg	0.364	1.21	
594-20-7	2,2-Dichloropropane	U	1.21	ug/kg	0.364	1.21	
67-66-3	Chloroform	U	1.21	ug/kg	0.364	1.21	
74-97-5	Bromochloromethane	U	1.21	ug/kg	0.401	1.21	
71-55-6	1,1,1-Trichloroethane	U	1.21	ug/kg	0.364	1.21	
563-58-6	1,1-Dichloropropene	U	1.21	ug/kg	0.364	1.21	
56-23-5	Carbon tetrachloride	U	1.21	ug/kg	0.364	1.21	
107-06-2	1,2-Dichloroethane	U	1.21	ug/kg	0.364	1.21	
71-43-2	Benzene	U	1.21	ug/kg	0.364	1.21	
79-01-6	Trichloroethylene	U	1.21	ug/kg	0.401	1.21	
78-87-5	1,2-Dichloropropane	U	1.21	ug/kg	0.364	1.21	
75-27-4	Bromodichloromethane	U	1.21	ug/kg	0.364	1.21	UJ,V7c
74-95-3	Dibromomethane	U	1.21	ug/kg	0.364	1.21	
108-10-1	4-Methyl-2-pentanone	U	6.07	ug/kg	1.52	6.07	
10061-01-5	cis-1,3-Dichloropropylene	U	1.21	ug/kg	0.364	1.21	
108-88-3	Toluene	U	1.21	ug/kg	0.364	1.21	
10061-02-6	trans-1,3-Dichloropropylene	U	1.21	ug/kg	0.364	1.21	
79-00-5	1,1,2-Trichloroethane	U	1.21	ug/kg	0.364	1.21	
591-78-6	2-Hexanone	U	6.07	ug/kg	1.82	6.07	
142-28-9	1,3-Dichloropropane	U	1.21	ug/kg	0.364	1.21	
127-18-4	Tetrachloroethylene	U	1.21	ug/kg	0.364	1.21	
124-48-1	Dibromochloromethane	U	1.21	ug/kg	0.364	1.21	
106-93-4	1,2-Dibromoethane	U	1.21	ug/kg	0.364	1.21	
108-90-7	Chlorobenzene	U	1.21	ug/kg	0.364	1.21	

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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-917**	**Date Collected:**	**12/11/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242937005**	**Date Received:**	**12/15/2009 08:45**	**%Moisture:**	**17.6**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14218**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**934728**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**12/19/2009 05:25**	**Analyst:**	**RXM4**	**Purge Vol:**	**5 mL**
Prep Date:	**12/18/2009 14:12**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1r538.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
100-41-4	Ethylbenzene	U	1.21	ug/kg	0.364	1.21	
179601-23-1	m,p-Xylenes	U	2.43	ug/kg	0.364	2.43	
95-47-6	o-Xylene	U	1.21	ug/kg	0.364	1.21	
100-42-5	Styrene	U	1.21	ug/kg	0.364	1.21	
75-25-2	Bromoform	U	1.21	ug/kg	0.364	1.21	
79-34-5	1,1,2,2-Tetrachloroethane	U	1.21	ug/kg	0.364	1.21	
96-18-4	1,2,3-Trichloropropane	U	1.21	ug/kg	0.364	1.21	
108-86-1	Bromobenzene	U	1.21	ug/kg	0.364	1.21	
103-65-1	n-Propylbenzene	U	1.21	ug/kg	0.364	1.21	
95-49-8	2-Chlorotoluene	U	1.21	ug/kg	0.364	1.21	
98-82-8	Isopropylbenzene	U	1.21	ug/kg	0.364	1.21	
108-67-8	1,3,5-Trimethylbenzene	U	1.21	ug/kg	0.364	1.21	
106-43-4	4-Chlorotoluene	U	1.21	ug/kg	0.364	1.21	
98-06-6	tert-Butylbenzene	U	1.21	ug/kg	0.364	1.21	
95-63-6	1,2,4-Trimethylbenzene	U	1.21	ug/kg	0.364	1.21	
135-98-8	sec-Butylbenzene	U	1.21	ug/kg	0.364	1.21	
99-87-6	4-Isopropyltoluene	U	1.21	ug/kg	0.364	1.21	
541-73-1	1,3-Dichlorobenzene	U	1.21	ug/kg	0.364	1.21	
106-46-7	1,4-Dichlorobenzene	U	1.21	ug/kg	0.364	1.21	
104-51-8	n-Butylbenzene	U	1.21	ug/kg	0.364	1.21	
96-12-8	1,2-Dibromo-3-chloropropane	U	1.21	ug/kg	0.364	1.21	
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	6.07	ug/kg	1.94	6.07	UJ,V7c
630-20-6	1,1,1,2-Tetrachloroethane	U	1.21	ug/kg	0.364	1.21	
95-50-1	1,2-Dichlorobenzene	U	1.21	ug/kg	0.364	1.21	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated Units	Fit	Qual
	No Tentatively Identified Compounds Found		ug/kg		

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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-917	**Date Collected:**	12/11/2009 12:00	**Matrix:**	S
Lab Sample ID:	242937004	**Date Received:**	12/15/2009 08:45	**%Moisture:**	17.2
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14219	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	934728	**Inst:**	VOA1.I	**Dilution:**	1
Run Date:	12/19/2009 04:55	**Analyst:**	RXM4	**Purge Vol:**	5 mL
Prep Date:	12/18/2009 14:11	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	1r537.d	**Column:**	RTX-Volatiles	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
75-71-8	Dichlorodifluoromethane	U	1.21	ug/kg	0.410	1.21	
74-87-3	Chloromethane	U	1.21	ug/kg	0.362	1.21	
75-01-4	Vinyl chloride	U	1.21	ug/kg	0.362	1.21	
74-83-9	Bromomethane	U	1.21	ug/kg	0.362	1.21	
75-00-3	Chloroethane	U	1.21	ug/kg	0.362	1.21	
75-69-4	Trichlorofluoromethane	U	1.21	ug/kg	0.362	1.21	
67-64-1	Acetone	J	4.48	ug/kg	2.00	6.04	
75-35-4	1,1-Dichloroethylene	U	1.21	ug/kg	0.362	1.21	
74-88-4	Iodomethane	U	6.04	ug/kg	1.93	6.04	
75-09-2	Methylene chloride	J	2.92	ug/kg	2.41	6.04	
75-15-0	Carbon disulfide	U	6.04	ug/kg	1.51	6.04	
156-60-5	trans-1,2-Dichloroethylene	U	1.21	ug/kg	0.362	1.21	
75-34-3	1,1-Dichloroethane	U	1.21	ug/kg	0.362	1.21	
78-93-3	2-Butanone	U	6.04	ug/kg	1.81	6.04	
156-59-2	cis-1,2-Dichloroethylene	U	1.21	ug/kg	0.362	1.21	
594-20-7	2,2-Dichloropropane	U	1.21	ug/kg	0.362	1.21	
67-66-3	Chloroform	U	1.21	ug/kg	0.362	1.21	
74-97-5	Bromochloromethane	U	1.21	ug/kg	0.398	1.21	
71-55-6	1,1,1-Trichloroethane	U	1.21	ug/kg	0.362	1.21	
563-58-6	1,1-Dichloropropene	U	1.21	ug/kg	0.362	1.21	
56-23-5	Carbon tetrachloride	U	1.21	ug/kg	0.362	1.21	
107-06-2	1,2-Dichloroethane	U	1.21	ug/kg	0.362	1.21	
71-43-2	Benzene	U	1.21	ug/kg	0.362	1.21	
79-01-6	Trichloroethylene	U	1.21	ug/kg	0.398	1.21	
78-87-5	1,2-Dichloropropane	U	1.21	ug/kg	0.362	1.21	
75-27-4	Bromodichloromethane	U	1.21	ug/kg	0.362	1.21	UJ,V7c
74-95-3	Dibromomethane	U	1.21	ug/kg	0.362	1.21	
108-10-1	4-Methyl-2-pentanone	U	6.04	ug/kg	1.51	6.04	
10061-01-5	cis-1,3-Dichloropropylene	U	1.21	ug/kg	0.362	1.21	
108-88-3	Toluene	U	1.21	ug/kg	0.362	1.21	
10061-02-6	trans-1,3-Dichloropropylene	U	1.21	ug/kg	0.362	1.21	
79-00-5	1,1,2-Trichloroethane	U	1.21	ug/kg	0.362	1.21	
591-78-6	2-Hexanone	U	6.04	ug/kg	1.81	6.04	
142-28-9	1,3-Dichloropropane	U	1.21	ug/kg	0.362	1.21	
127-18-4	Tetrachloroethylene	U	1.21	ug/kg	0.362	1.21	
124-48-1	Dibromochloromethane	U	1.21	ug/kg	0.362	1.21	
106-93-4	1,2-Dibromoethane	U	1.21	ug/kg	0.362	1.21	
108-90-7	Chlorobenzene	U	1.21	ug/kg	0.362	1.21	

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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-917**	**Date Collected:**	**12/11/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242937004**	**Date Received:**	**12/15/2009 08:45**	**%Moisture:**	**17.2**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14219**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**934728**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**12/19/2009 04:55**	**Analyst:**	**RXM4**	**Purge Vol:**	**5 mL**
Prep Date:	**12/18/2009 14:11**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1r537.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
100-41-4	Ethylbenzene	U	1.21	ug/kg	0.362	1.21	
179601-23-1	m,p-Xylenes	U	2.41	ug/kg	0.362	2.41	
95-47-6	o-Xylene	U	1.21	ug/kg	0.362	1.21	
100-42-5	Styrene	U	1.21	ug/kg	0.362	1.21	
75-25-2	Bromoform	U	1.21	ug/kg	0.362	1.21	
79-34-5	1,1,2,2-Tetrachloroethane	U	1.21	ug/kg	0.362	1.21	
96-18-4	1,2,3-Trichloropropane	U	1.21	ug/kg	0.362	1.21	
108-86-1	Bromobenzene	U	1.21	ug/kg	0.362	1.21	
103-65-1	n-Propylbenzene	U	1.21	ug/kg	0.362	1.21	
95-49-8	2-Chlorotoluene	U	1.21	ug/kg	0.362	1.21	
98-82-8	Isopropylbenzene	U	1.21	ug/kg	0.362	1.21	
108-67-8	1,3,5-Trimethylbenzene	U	1.21	ug/kg	0.362	1.21	
106-43-4	4-Chlorotoluene	U	1.21	ug/kg	0.362	1.21	
98-06-6	tert-Butylbenzene	U	1.21	ug/kg	0.362	1.21	
95-63-6	1,2,4-Trimethylbenzene	U	1.21	ug/kg	0.362	1.21	
135-98-8	sec-Butylbenzene	U	1.21	ug/kg	0.362	1.21	
99-87-6	4-Isopropyltoluene	U	1.21	ug/kg	0.362	1.21	
541-73-1	1,3-Dichlorobenzene	U	1.21	ug/kg	0.362	1.21	
106-46-7	1,4-Dichlorobenzene	U	1.21	ug/kg	0.362	1.21	
104-51-8	n-Butylbenzene	U	1.21	ug/kg	0.362	1.21	
96-12-8	1,2-Dibromo-3-chloropropane	U	1.21	ug/kg	0.362	1.21	
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	6.04	ug/kg	1.93	6.04	UJ,V7c
630-20-6	1,1,1,2-Tetrachloroethane	U	1.21	ug/kg	0.362	1.21	
95-50-1	1,2-Dichlorobenzene	U	1.21	ug/kg	0.362	1.21	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated Units	Fit	Qual
	No Tentatively Identified Compounds Found		ug/kg		

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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-917	**Date Collected:**	12/11/2009 12:00	**Matrix:**	S
Lab Sample ID:	242937009	**Date Received:**	12/15/2009 08:45	**%Moisture:**	14.2
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-10-2735	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	934728	**Inst:**	VOA1.I	**Dilution:**	1
Run Date:	12/19/2009 07:26	**Analyst:**	RXM4	**Purge Vol:**	5 mL
Prep Date:	12/18/2009 14:16	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	1r542.d	**Column:**	RTX-Volatiles	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
75-71-8	Dichlorodifluoromethane	U	1.17	ug/kg	0.396	1.17	
74-87-3	Chloromethane	U	1.17	ug/kg	0.350	1.17	
75-01-4	Vinyl chloride	U	1.17	ug/kg	0.350	1.17	
74-83-9	Bromomethane	U	1.17	ug/kg	0.350	1.17	
75-00-3	Chloroethane	U	1.17	ug/kg	0.350	1.17	
75-69-4	Trichlorofluoromethane	U	1.17	ug/kg	0.350	1.17	
67-64-1	Acetone		6.12	ug/kg	1.93	5.83	U,V4d
75-35-4	1,1-Dichloroethylene	U	1.17	ug/kg	0.350	1.17	
74-88-4	Iodomethane	U	5.83	ug/kg	1.86	5.83	
75-09-2	Methylene chloride	U	5.83	ug/kg	2.33	5.83	
75-15-0	Carbon disulfide	U	5.83	ug/kg	1.46	5.83	
156-60-5	trans-1,2-Dichloroethylene	U	1.17	ug/kg	0.350	1.17	
75-34-3	1,1-Dichloroethane	U	1.17	ug/kg	0.350	1.17	
78-93-3	2-Butanone	U	5.83	ug/kg	1.75	5.83	
156-59-2	cis-1,2-Dichloroethylene	U	1.17	ug/kg	0.350	1.17	
594-20-7	2,2-Dichloropropane	U	1.17	ug/kg	0.350	1.17	
67-66-3	Chloroform	U	1.17	ug/kg	0.350	1.17	
74-97-5	Bromochloromethane	U	1.17	ug/kg	0.385	1.17	
71-55-6	1,1,1-Trichloroethane	U	1.17	ug/kg	0.350	1.17	
563-58-6	1,1-Dichloropropene	U	1.17	ug/kg	0.350	1.17	
56-23-5	Carbon tetrachloride	U	1.17	ug/kg	0.350	1.17	
107-06-2	1,2-Dichloroethane	U	1.17	ug/kg	0.350	1.17	
71-43-2	Benzene	U	1.17	ug/kg	0.350	1.17	
79-01-6	Trichloroethylene	U	1.17	ug/kg	0.385	1.17	
78-87-5	1,2-Dichloropropane	U	1.17	ug/kg	0.350	1.17	
75-27-4	Bromodichloromethane	U	1.17	ug/kg	0.350	1.17	UJ,V7c
74-95-3	Dibromomethane	U	1.17	ug/kg	0.350	1.17	
108-10-1	4-Methyl-2-pentanone	U	5.83	ug/kg	1.46	5.83	
10061-01-5	cis-1,3-Dichloropropylene	U	1.17	ug/kg	0.350	1.17	
108-88-3	Toluene	U	1.17	ug/kg	0.350	1.17	
10061-02-6	trans-1,3-Dichloropropylene	U	1.17	ug/kg	0.350	1.17	
79-00-5	1,1,2-Trichloroethane	U	1.17	ug/kg	0.350	1.17	
591-78-6	2-Hexanone	U	5.83	ug/kg	1.75	5.83	
142-28-9	1,3-Dichloropropane	U	1.17	ug/kg	0.350	1.17	
127-18-4	Tetrachloroethylene	U	1.17	ug/kg	0.350	1.17	
124-48-1	Dibromochloromethane	U	1.17	ug/kg	0.350	1.17	
106-93-4	1,2-Dibromoethane	U	1.17	ug/kg	0.350	1.17	
108-90-7	Chlorobenzene	U	1.17	ug/kg	0.350	1.17	

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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-917**	**Date Collected:**	**12/11/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242937009**	**Date Received:**	**12/15/2009 08:45**	**%Moisture:**	**14.2**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-10-2735**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**934728**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**12/19/2009 07:26**	**Analyst:**	**RXM4**	**Purge Vol:**	**5 mL**
Prep Date:	**12/18/2009 14:16**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1r542.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
100-41-4	Ethylbenzene	U	1.17	ug/kg	0.350	1.17	
179601-23-1	m,p-Xylenes	U	2.33	ug/kg	0.350	2.33	
95-47-6	o-Xylene	U	1.17	ug/kg	0.350	1.17	
100-42-5	Styrene	U	1.17	ug/kg	0.350	1.17	
75-25-2	Bromoform	U	1.17	ug/kg	0.350	1.17	
79-34-5	1,1,2,2-Tetrachloroethane	U	1.17	ug/kg	0.350	1.17	
96-18-4	1,2,3-Trichloropropane	U	1.17	ug/kg	0.350	1.17	
108-86-1	Bromobenzene	U	1.17	ug/kg	0.350	1.17	
103-65-1	n-Propylbenzene	U	1.17	ug/kg	0.350	1.17	
95-49-8	2-Chlorotoluene	U	1.17	ug/kg	0.350	1.17	
98-82-8	Isopropylbenzene	U	1.17	ug/kg	0.350	1.17	
108-67-8	1,3,5-Trimethylbenzene	U	1.17	ug/kg	0.350	1.17	
106-43-4	4-Chlorotoluene	U	1.17	ug/kg	0.350	1.17	
98-06-6	tert-Butylbenzene	U	1.17	ug/kg	0.350	1.17	
95-63-6	1,2,4-Trimethylbenzene	U	1.17	ug/kg	0.350	1.17	
135-98-8	sec-Butylbenzene	U	1.17	ug/kg	0.350	1.17	
99-87-6	4-Isopropyltoluene	U	1.17	ug/kg	0.350	1.17	
541-73-1	1,3-Dichlorobenzene	U	1.17	ug/kg	0.350	1.17	
106-46-7	1,4-Dichlorobenzene	U	1.17	ug/kg	0.350	1.17	
104-51-8	n-Butylbenzene	U	1.17	ug/kg	0.350	1.17	
96-12-8	1,2-Dibromo-3-chloropropane	U	1.17	ug/kg	0.350	1.17	
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.83	ug/kg	1.86	5.83	UJ,V7c
630-20-6	1,1,1,2-Tetrachloroethane	U	1.17	ug/kg	0.350	1.17	
95-50-1	1,2-Dichlorobenzene	U	1.17	ug/kg	0.350	1.17	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Hydrocarbon	18.07	14.1	ug/kg		J

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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-917**	**Date Collected:**	**12/11/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242937010**	**Date Received:**	**12/15/2009 08:45**		
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-10-6968**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**934728**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**12/19/2009 07:57**	**Analyst:**	**RXM4**	**Purge Vol:**	**5 mL**
Prep Date:	**12/18/2009 14:17**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1r543.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
75-71-8	Dichlorodifluoromethane	U	1.00	ug/kg	0.340	1.00	
74-87-3	Chloromethane	U	1.00	ug/kg	0.300	1.00	
75-01-4	Vinyl chloride	U	1.00	ug/kg	0.300	1.00	
74-83-9	Bromomethane	U	1.00	ug/kg	0.300	1.00	
75-00-3	Chloroethane	U	1.00	ug/kg	0.300	1.00	
75-69-4	Trichlorofluoromethane	U	1.00	ug/kg	0.300	1.00	
67-64-1	Acetone	J	2.92	ug/kg	1.66	5.00	
75-35-4	1,1-Dichloroethylene	U	1.00	ug/kg	0.300	1.00	
74-88-4	Iodomethane	U	5.00	ug/kg	1.60	5.00	
75-09-2	Methylene chloride	U	5.00	ug/kg	2.00	5.00	
75-15-0	Carbon disulfide	U	5.00	ug/kg	1.25	5.00	
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00	
75-34-3	1,1-Dichloroethane	U	1.00	ug/kg	0.300	1.00	
78-93-3	2-Butanone	U	5.00	ug/kg	1.50	5.00	
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00	
594-20-7	2,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00	
67-66-3	Chloroform	U	1.00	ug/kg	0.300	1.00	
74-97-5	Bromochloromethane	U	1.00	ug/kg	0.330	1.00	
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/kg	0.300	1.00	
563-58-6	1,1-Dichloropropene	U	1.00	ug/kg	0.300	1.00	
56-23-5	Carbon tetrachloride	U	1.00	ug/kg	0.300	1.00	
107-06-2	1,2-Dichloroethane	U	1.00	ug/kg	0.300	1.00	
71-43-2	Benzene	U	1.00	ug/kg	0.300	1.00	
79-01-6	Trichloroethylene	U	1.00	ug/kg	0.330	1.00	
78-87-5	1,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00	
75-27-4	Bromodichloromethane	U	1.00	ug/kg	0.300	1.00	UJ,V7c
74-95-3	Dibromomethane	U	1.00	ug/kg	0.300	1.00	
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/kg	1.25	5.00	
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00	
108-88-3	Toluene	U	1.00	ug/kg	0.300	1.00	
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00	
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/kg	0.300	1.00	
591-78-6	2-Hexanone	U	5.00	ug/kg	1.50	5.00	
142-28-9	1,3-Dichloropropane	U	1.00	ug/kg	0.300	1.00	
127-18-4	Tetrachloroethylene	U	1.00	ug/kg	0.300	1.00	
124-48-1	Dibromochloromethane	U	1.00	ug/kg	0.300	1.00	
106-93-4	1,2-Dibromoethane	U	1.00	ug/kg	0.300	1.00	
108-90-7	Chlorobenzene	U	1.00	ug/kg	0.300	1.00	

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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-917	**Date Collected:**	12/11/2009 12:00	**Matrix:**	S
Lab Sample ID:	242937010	**Date Received:**	12/15/2009 08:45		
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-10-6968	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	934728	**Inst:**	VOA1.I	**Dilution:**	1
Run Date:	12/19/2009 07:57	**Analyst:**	RXM4	**Purge Vol:**	5 mL
Prep Date:	12/18/2009 14:17	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	1r543.d	**Column:**	RTX-Volatiles	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
100-41-4	Ethylbenzene	U	1.00	ug/kg	0.300	1.00	
179601-23-1	m,p-Xylenes	U	2.00	ug/kg	0.300	2.00	
95-47-6	o-Xylene	U	1.00	ug/kg	0.300	1.00	
100-42-5	Styrene	U	1.00	ug/kg	0.300	1.00	
75-25-2	Bromoform	U	1.00	ug/kg	0.300	1.00	
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00	
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/kg	0.300	1.00	
108-86-1	Bromobenzene	U	1.00	ug/kg	0.300	1.00	
103-65-1	n-Propylbenzene	U	1.00	ug/kg	0.300	1.00	
95-49-8	2-Chlorotoluene	U	1.00	ug/kg	0.300	1.00	
98-82-8	Isopropylbenzene	U	1.00	ug/kg	0.300	1.00	
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00	
106-43-4	4-Chlorotoluene	U	1.00	ug/kg	0.300	1.00	
98-06-6	tert-Butylbenzene	U	1.00	ug/kg	0.300	1.00	
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00	
135-98-8	sec-Butylbenzene	U	1.00	ug/kg	0.300	1.00	
99-87-6	4-Isopropyltoluene	U	1.00	ug/kg	0.300	1.00	
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00	
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00	
104-51-8	n-Butylbenzene	U	1.00	ug/kg	0.300	1.00	
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/kg	0.300	1.00	
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.00	ug/kg	1.60	5.00	UJ,V7c
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00	
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated Units	Flt	Qual
	No Tentatively Identified Compounds Found		ug/kg		

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DATA VALIDATION COVER SHEET

5115-1

Data Validation Cover Sheet

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Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-917 VALIDATION DATE: 2/9/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Eric T. Mink ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☒ OTHER (DESCRIBE): SVOCs

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☒	☐	☐	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☒	☐	☐	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. The ICV and/or CCV %Ds were >20% for hexachlorocyclopentadiene and benzo(g,h,i)perylene. All the associated sample results were NDs and, thus, were qualified UJ,SV7c.
2. It should be noted that a few MS/MSD %Rs were not within the laboratory's QC limits. However, MS/MSD analyses are not required for this analysis and, thus, no sample data were qualified.

Reviewed by: Mary Donivan Level: I Date: 02/09/10

VALIDATOR'S SIGNATURE: Eric T. Mink DATE: 2/9/10

SEMIVOLATILE ORGANIC COMPOUND (SVOC) ANALYTICAL DATA VALIDATION CHECKLIST

5115-2

Semivolatile Organic Compound (SVOC) Analytical Data Validation Checklist

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Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, SV9	J-, SV9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, SV9a	J-, SV9a
☐	☒	☐	3. The affected analytes are regarded as rejected because the analytical holding time was exceeded.	R, SV9b	R, SV9b
☐	☐	☒	4. The instrument performance sample did not pass method acceptance criteria.	R, SV16	R, SV16
☐	☐	☒	5. Samples were analyzed outside specific method tune time criteria.	N/A	J, SV16b
☐	☐	☒	6. The required instrument performance sample information is missing. Contact the SMO or external laboratory for information.	R, SV16c	R, SV16c
☐	☒	☐	7. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, SV7	J, SV7
☐	☒	☐	8. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, SV7a	J, SV7a
☐	☒	☐	9. The affected analytes were analyzed with an RRF of <0.05 in the initial calibration and/or Continuing Calibration Verification (CCV).	R, SV7b	J, SV7b
☒	☐	☐	10. The Initial Calibration Verification (ICV) and/or CCV were recovered outside the method-specific limits.	UJ, SV7c	J, SV7c
☐	☒	☐	11. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, SV7d	J, SV7d

SEMIVOLATILE ORGANIC COMPOUND (SVOC) ANALYTICAL DATA VALIDATION CHECKLIST

5115-2 Semivolatile Organic Compound (SVOC) Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	12. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, SV7f	R, SV7f
☐	☒	☐	13. The sample result is ≤5X (10X for common organic laboratory contaminates) the concentration of the related analyte in the method blank.	U, SV4	J, V4a
☐	☒	☐	14. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was greater than 5X (10X for common laboratory contaminates).	N/A	J, SV4a
☐	☐	☒	15. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	UJ, SV4d	N/A
☐	☒	☐	16. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV4e	R, SV4e
☐	☒	☐	17. The IS retention time has shifted by more than 30 seconds.	UJ, SV0	J, SV0
☐	☐	☒	18. Analyte is positively confirmed but outside the IS retention time window; however, spectral matches must be provided.	N/A	J, SV0a
☐	☒	☐	19. Required IS retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV0b	R, SV0b
☐	☐	☒	20. The quantitating IS area count is <10% of the expected value, which indicates increased potential for false negative results and other possible problems with sample quantitation. Follow method-specific windows.	R, SV1a	J, SV1a

SEMIVOLATILE ORGANIC COMPOUND (SVOC) ANALYTICAL DATA VALIDATION CHECKLIST

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Semivolatile Organic Compound (SVOC) Analytical Data Validation Checklist

Records Use only

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Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	21. The IS area count for the quantitating IS is <50% but >10% for organics window relation to the previous continuing calibration. Follow method-specific windows.	UJ, SV1b	J, SV1b
☐	☐	☒	22. The IS area count for the quantitating IS is >200% of the area count for the previous continuing calibration. Follow method-specific windows.	UJ, SV1c	J, SV1c
☐	☐	☒	23. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV1d	R, SV1d
☐	☒	☐	24. The surrogate is <10%R. Follow the external laboratory limits located within the associated data package.	R, SV3	J-, SV3
☐	☒	☐	25. The surrogate is < the Lower Acceptance Level (LAL) but ≥10%R. Follow the external laboratory limits located within the associated data package.	UJ, SV3a	J-, SV3a
☐	☒	☐	26. The surrogate %R value is > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, SV3b
☐	☒	☐	27. At least one surrogate is > the Upper Acceptance Limit (UAL) and one surrogate is < the LAL. Follow the external laboratory limits located within the associated data package.	UJ, SV3c	J, SV3c
☐	☒	☐	28. Required surrogate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV3d	R, SV3d
☐	☒	☐	29. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, SV12	J-, SV12

SEMIVOLATILE ORGANIC COMPOUND (SVOC) ANALYTICAL DATA VALIDATION CHECKLIST

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Semivolatile Organic Compound (SVOC) Analytical Data Validation Checklist

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Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	30. The LCS percent recovery was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, SV12a	J-, SV12a
☐	☒	☐	31. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, SV12b
☐	☒	☐	32. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV12c	R, SV12c
☐	☒	☐	33. The affected analyte is considered not detected because mass spectrum did not meet specifications.	N/A	U, SV8
☐	☒	☐	34. The mass spectrum column documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV8a	R, SV8a
☐	☒	☐	35. Duplicate, dilution, or reanalysis.	UJ, SV88	J, SV88
☐	☐	☒	36. The affected analytes have elevated detection limits and may not meet project DQOs because the sample was diluted without any target analytees identified due to matrix interference. Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.	UJ, R, SV15	R, SV15
☒	☐	☐	37. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB, NQ, NQ
☐	☒	☐	38. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.	UJ, R, SV19	J, R, SV19

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-917	**Date Collected:**	12/11/2009 12:00	**Matrix:**	S
Lab Sample ID:	242937003	**Date Received:**	12/15/2009 08:45	**%Moisture:**	12.9
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14212	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	933806	**Inst:**	MSD6.I	**Dilution:**	1
Run Date:	12/21/2009 18:48	**Analyst:**	NAG1	**Inj. Vol:**	.5 uL
Prep Date:	12/18/2009 09:12	**Aliquot:**	30 g	**Final Volume:**	1 mL
Data File:	s6l2118.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
62-75-9	N-Methyl-N-nitrosomethylamine	U	382	ug/kg	76.5	382	
108-95-2	Phenol	U	382	ug/kg	76.5	382	
95-57-8	2-Chlorophenol	U	382	ug/kg	76.5	382	
106-46-7	1,4-Dichlorobenzene	U	382	ug/kg	76.5	382	
621-64-7	N-Nitrosodipropylamine	U	382	ug/kg	76.5	382	
59-50-7	4-Chloro-3-methylphenol	U	382	ug/kg	76.5	382	
83-32-9	Acenaphthene	U	38.2	ug/kg	12.6	38.2	
121-14-2	2,4-Dinitrotoluene	U	382	ug/kg	38.2	382	
100-02-7	4-Nitrophenol	U	382	ug/kg	126	382	
87-86-5	Pentachlorophenol	U	382	ug/kg	95.6	382	
129-00-0	Pyrene	U	38.2	ug/kg	11.5	38.2	
110-86-1	Pyridine	U	382	ug/kg	76.5	382	
62-53-3	Aniline	U	382	ug/kg	115	382	
111-44-4	bis(2-Chloroethyl) ether	U	382	ug/kg	76.5	382	
541-73-1	1,3-Dichlorobenzene	U	382	ug/kg	76.5	382	
100-51-6	Benzyl alcohol	U	382	ug/kg	115	382	
95-50-1	1,2-Dichlorobenzene	U	382	ug/kg	76.5	382	
108-60-1	bis(2-Chloroisopropyl)ether	U	382	ug/kg	76.5	382	
95-48-7	o-Cresol	U	382	ug/kg	76.5	382	
65794-96-9	m,p-Cresols	U	382	ug/kg	115	382	
67-72-1	Hexachloroethane	U	382	ug/kg	76.5	382	
98-95-3	Nitrobenzene	U	382	ug/kg	76.5	382	
78-59-1	Isophorone	U	382	ug/kg	76.5	382	
88-75-5	2-Nitrophenol	U	382	ug/kg	76.5	382	
105-67-9	2,4-Dimethylphenol	U	382	ug/kg	134	382	
111-91-1	bis(2-Chloroethoxy)methane	U	382	ug/kg	76.5	382	
120-83-2	2,4-Dichlorophenol	U	382	ug/kg	76.5	382	
65-85-0	Benzoic acid	U	765	ug/kg	191	765	
91-20-3	Naphthalene	U	38.2	ug/kg	11.5	38.2	
106-47-8	4-Chloroaniline	U	382	ug/kg	76.5	382	
87-68-3	Hexachlorobutadiene	U	382	ug/kg	76.5	382	
91-57-6	2-Methylnaphthalene	U	38.2	ug/kg	7.65	38.2	
77-47-4	Hexachlorocyclopentadiene	U	382	ug/kg	76.5	382	UJ,SV7c
88-06-2	2,4,6-Trichlorophenol	U	382	ug/kg	76.5	382	
95-95-4	2,4,5-Trichlorophenol	U	382	ug/kg	76.5	382	
91-58-7	2-Chloronaphthalene	U	38.2	ug/kg	12.6	38.2	
88-74-4	2-Nitroaniline	U	382	ug/kg	76.5	382	
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	382	ug/kg	76.5	382	

ETM
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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-917	**Date Collected:**	12/11/2009 12:00	**Matrix:**	S
Lab Sample ID:	242937003	**Date Received:**	12/15/2009 08:45	**%Moisture:**	12.9
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14212	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	933806	**Inst:**	MSD6.I	**Dilution:**	1
Run Date:	12/21/2009 18:48	**Analyst:**	NAG1	**Inj. Vol:**	.5 uL
Prep Date:	12/18/2009 09:12	**Aliquot:**	30 g	**Final Volume:**	1 mL
Data File:	s612118.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
	m-Nitroaniline						
131-11-3	Dimethylphthalate	U	382	ug/kg	76.5	382	
606-20-2	2,6-Dinitrotoluene	U	382	ug/kg	38.2	382	
208-96-8	Acenaphthylene	U	38.2	ug/kg	11.5	38.2	
51-28-5	2,4-Dinitrophenol	U	765	ug/kg	145	765	
132-64-9	Dibenzofuran	U	382	ug/kg	76.5	382	
84-66-2	Diethylphthalate	U	382	ug/kg	76.5	382	
86-73-7	Fluorene	U	38.2	ug/kg	11.5	38.2	
7005-72-3	4-Chlorophenylphenylether	U	382	ug/kg	76.5	382	
534-52-1	2-Methyl-4,6-dinitrophenol	U	382	ug/kg	76.5	382	
100-01-6	4-Nitroaniline	U	382	ug/kg	115	382	
	p-Nitroaniline						
122-39-4	Diphenylamine	U	382	ug/kg	76.5	382	
122-66-7	Azobenzene	U	382	ug/kg	76.5	382	
	1,2-Diphenylhydrazine						
101-55-3	4-Bromophenylphenylether	U	382	ug/kg	76.5	382	
118-74-1	Hexachlorobenzene	U	382	ug/kg	76.5	382	
85-01-8	Phenanthrene	U	38.2	ug/kg	11.5	38.2	
120-12-7	Anthracene	U	38.2	ug/kg	7.65	38.2	
84-74-2	Di-n-butylphthalate	U	382	ug/kg	76.5	382	
206-44-0	Fluoranthene	U	38.2	ug/kg	11.5	38.2	
85-68-7	Butylbenzylphthalate	U	382	ug/kg	76.5	382	
56-55-3	Benzo(a)anthracene	U	38.2	ug/kg	11.5	38.2	
91-94-1	3,3'-Dichlorobenzidine	U	382	ug/kg	115	382	
218-01-9	Chrysene	U	38.2	ug/kg	11.5	38.2	
117-81-7	bis(2-Ethylhexyl)phthalate	U	382	ug/kg	76.5	382	
117-84-0	Di-n-octylphthalate	U	382	ug/kg	76.5	382	
205-99-2	Benzo(b)fluoranthene	U	38.2	ug/kg	11.5	38.2	
207-08-9	Benzo(k)fluoranthene	U	38.2	ug/kg	11.5	38.2	
50-32-8	Benzo(a)pyrene	U	38.2	ug/kg	11.5	38.2	
193-39-5	Indeno(1,2,3-cd)pyrene	U	38.2	ug/kg	11.5	38.2	
53-70-3	Dibenzo(a,h)anthracene	U	38.2	ug/kg	11.5	38.2	
191-24-2	Benzo(ghi)perylene	U	38.2	ug/kg	11.5	38.2	UJ,SV7c
120-82-1	1,2,4-Trichlorobenzene	U	382	ug/kg	76.5	382	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	3.61	530	ug/kg		JA

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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-917**	**Date Collected:**	**12/11/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242937001**	**Date Received:**	**12/15/2009 08:45**	**%Moisture:**	**12.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14213**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**933806**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**12/21/2009 16:57**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/18/2009 09:12**	**Aliquot:**	**30.02 g**	**Final Volume:**	**1 mL**
Data File:	**s6l2114.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
62-75-9	N-Methyl-N-nitrosomethylamine	U	382	ug/kg	76.4	382	
108-95-2	Phenol	U	382	ug/kg	76.4	382	
95-57-8	2-Chlorophenol	U	382	ug/kg	76.4	382	
106-46-7	1,4-Dichlorobenzene	U	382	ug/kg	76.4	382	
621-64-7	N-Nitrosodipropylamine	U	382	ug/kg	76.4	382	
59-50-7	4-Chloro-3-methylphenol	U	382	ug/kg	76.4	382	
83-32-9	Acenaphthene	U	38.2	ug/kg	12.6	38.2	
121-14-2	2,4-Dinitrotoluene	U	382	ug/kg	38.2	382	
100-02-7	4-Nitrophenol	U	382	ug/kg	126	382	
87-86-5	Pentachlorophenol	U	382	ug/kg	95.5	382	
129-00-0	Pyrene	U	38.2	ug/kg	11.5	38.2	
110-86-1	Pyridine	U	382	ug/kg	76.4	382	
62-53-3	Aniline	U	382	ug/kg	115	382	
111-44-4	bis(2-Chloroethyl) ether	U	382	ug/kg	76.4	382	
541-73-1	1,3-Dichlorobenzene	U	382	ug/kg	76.4	382	
100-51-6	Benzyl alcohol	U	382	ug/kg	115	382	
95-50-1	1,2-Dichlorobenzene	U	382	ug/kg	76.4	382	
108-60-1	bis(2-Chloroisopropyl)ether	U	382	ug/kg	76.4	382	
95-48-7	o-Cresol	U	382	ug/kg	76.4	382	
65794-96-9	m,p-Cresols	U	382	ug/kg	115	382	
67-72-1	Hexachloroethane	U	382	ug/kg	76.4	382	
98-95-3	Nitrobenzene	U	382	ug/kg	76.4	382	
78-59-1	Isophorone	U	382	ug/kg	76.4	382	
88-75-5	2-Nitrophenol	U	382	ug/kg	76.4	382	
105-67-9	2,4-Dimethylphenol	U	382	ug/kg	134	382	
111-91-1	bis(2-Chloroethoxy)methane	U	382	ug/kg	76.4	382	
120-83-2	2,4-Dichlorophenol	U	382	ug/kg	76.4	382	
65-85-0	Benzoic acid	U	764	ug/kg	191	764	
91-20-3	Naphthalene	U	38.2	ug/kg	11.5	38.2	
106-47-8	4-Chloroaniline	U	382	ug/kg	76.4	382	
87-68-3	Hexachlorobutadiene	U	382	ug/kg	76.4	382	
91-57-6	2-Methylnaphthalene	J	10.4	ug/kg	7.64	38.2	
77-47-4	Hexachlorocyclopentadiene	U	382	ug/kg	76.4	382	UJ,SV7c
88-06-2	2,4,6-Trichlorophenol	U	382	ug/kg	76.4	382	
95-95-4	2,4,5-Trichlorophenol	U	382	ug/kg	76.4	382	
91-58-7	2-Chloronaphthalene	U	38.2	ug/kg	12.6	38.2	
88-74-4	2-Nitroaniline	U	382	ug/kg	76.4	382	
	o-Nitroaniline						
99-09-2	3-Nitroaniline	U	382	ug/kg	76.4	382	

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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-917**	**Date Collected:**	**12/11/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242937001**	**Date Received:**	**12/15/2009 08:45**	**%Moisture:**	**12.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14213**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**933806**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**12/21/2009 16:57**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/18/2009 09:12**	**Aliquot:**	**30.02 g**	**Final Volume:**	**1 mL**
Data File:	**s6l2114.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
	m-Nitroaniline						
131-11-3	Dimethylphthalate	U	382	ug/kg	76.4	382	
606-20-2	2,6-Dinitrotoluene	U	382	ug/kg	38.2	382	
208-96-8	Acenaphthylene	U	38.2	ug/kg	11.5	38.2	
51-28-5	2,4-Dinitrophenol	U	764	ug/kg	145	764	
132-64-9	Dibenzofuran	U	382	ug/kg	76.4	382	
84-66-2	Diethylphthalate	U	382	ug/kg	76.4	382	
86-73-7	Fluorene	U	38.2	ug/kg	11.5	38.2	
7005-72-3	4-Chlorophenylphenylether	U	382	ug/kg	76.4	382	
534-52-1	2-Methyl-4,6-dinitrophenol	U	382	ug/kg	76.4	382	
100-01-6	4-Nitroaniline	U	382	ug/kg	115	382	
	p-Nitroaniline						
122-39-4	Diphenylamine	U	382	ug/kg	76.4	382	
122-66-7	Azobenzene	U	382	ug/kg	76.4	382	
	1,2-Diphenylhydrazine						
101-55-3	4-Bromophenylphenylether	U	382	ug/kg	76.4	382	
118-74-1	Hexachlorobenzene	U	382	ug/kg	76.4	382	
85-01-8	Phenanthrene	U	38.2	ug/kg	11.5	38.2	
120-12-7	Anthracene	U	38.2	ug/kg	7.64	38.2	
84-74-2	Di-n-butylphthalate	U	382	ug/kg	76.4	382	
206-44-0	Fluoranthene	U	38.2	ug/kg	11.5	38.2	
85-68-7	Butylbenzylphthalate	U	382	ug/kg	76.4	382	
56-55-3	Benzo(a)anthracene	U	38.2	ug/kg	11.5	38.2	
91-94-1	3,3'-Dichlorobenzidine	U	382	ug/kg	115	382	
218-01-9	Chrysene	U	38.2	ug/kg	11.5	38.2	
117-81-7	bis(2-Ethylhexyl)phthalate	U	382	ug/kg	76.4	382	
117-84-0	Di-n-octylphthalate	U	382	ug/kg	76.4	382	
205-99-2	Benzo(b)fluoranthene	U	38.2	ug/kg	11.5	38.2	
207-08-9	Benzo(k)fluoranthene	U	38.2	ug/kg	11.5	38.2	
50-32-8	Benzo(a)pyrene	U	38.2	ug/kg	11.5	38.2	
193-39-5	Indeno(1,2,3-cd)pyrene	U	38.2	ug/kg	11.5	38.2	
53-70-3	Dibenzo(a,h)anthracene	U	38.2	ug/kg	11.5	38.2	
191-24-2	Benzo(ghi)perylene	U	38.2	ug/kg	11.5	38.2	UJ,SV7c
120-82-1	1,2,4-Trichlorobenzene	U	382	ug/kg	76.4	382	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	3.62	570	ug/kg		JA
	Unknown	17.58	162	ug/kg		J

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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-917	Date Collected:	12/11/2009 12:00	Matrix:	S
Lab Sample ID:	242937007	Date Received:	12/15/2009 08:45	%Moisture:	13.8
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14214	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	933806	Inst:	MSD6.I	Dilution:	1
Run Date:	12/21/2009 20:38	Analyst:	NAG1	Inj. Vol:	.5 uL
Prep Date:	12/18/2009 09:12	Aliquot:	30.02 g	Final Volume:	1 mL
Data File:	s6l2122.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
62-75-9	N-Methyl-N-nitrosomethylamine	U	386	ug/kg	77.3	386	
108-95-2	Phenol	U	386	ug/kg	77.3	386	
95-57-8	2-Chlorophenol	U	386	ug/kg	77.3	386	
106-46-7	1,4-Dichlorobenzene	U	386	ug/kg	77.3	386	
621-64-7	N-Nitrosodipropylamine	U	386	ug/kg	77.3	386	
59-50-7	4-Chloro-3-methylphenol	U	386	ug/kg	77.3	386	
83-32-9	Acenaphthene	U	38.6	ug/kg	12.7	38.6	
121-14-2	2,4-Dinitrotoluene	U	386	ug/kg	38.6	386	
100-02-7	4-Nitrophenol	U	386	ug/kg	127	386	
87-86-5	Pentachlorophenol	U	386	ug/kg	96.6	386	
129-00-0	Pyrene	U	38.6	ug/kg	11.6	38.6	
110-86-1	Pyridine	U	386	ug/kg	77.3	386	
62-53-3	Aniline	U	386	ug/kg	116	386	
111-44-4	bis(2-Chloroethyl) ether	U	386	ug/kg	77.3	386	
541-73-1	1,3-Dichlorobenzene	U	386	ug/kg	77.3	386	
100-51-6	Benzyl alcohol	U	386	ug/kg	116	386	
95-50-1	1,2-Dichlorobenzene	U	386	ug/kg	77.3	386	
108-60-1	bis(2-Chloroisopropyl)ether	U	386	ug/kg	77.3	386	
95-48-7	o-Cresol	U	386	ug/kg	77.3	386	
65794-96-9	m,p-Cresols	U	386	ug/kg	116	386	
67-72-1	Hexachloroethane	U	386	ug/kg	77.3	386	
98-95-3	Nitrobenzene	U	386	ug/kg	77.3	386	
78-59-1	Isophorone	U	386	ug/kg	77.3	386	
88-75-5	2-Nitrophenol	U	386	ug/kg	77.3	386	
105-67-9	2,4-Dimethylphenol	U	386	ug/kg	135	386	
111-91-1	bis(2-Chloroethoxy)methane	U	386	ug/kg	77.3	386	
120-83-2	2,4-Dichlorophenol	U	386	ug/kg	77.3	386	
65-85-0	Benzoic acid	U	773	ug/kg	193	773	
91-20-3	Naphthalene	U	38.6	ug/kg	11.6	38.6	
106-47-8	4-Chloroaniline	U	386	ug/kg	77.3	386	
87-68-3	Hexachlorobutadiene	U	386	ug/kg	77.3	386	
91-57-6	2-Methylnaphthalene	U	38.6	ug/kg	7.73	38.6	
77-47-4	Hexachlorocyclopentadiene	U	386	ug/kg	77.3	386	UJ,SV7c
88-06-2	2,4,6-Trichlorophenol	U	386	ug/kg	77.3	386	
95-95-4	2,4,5-Trichlorophenol	U	386	ug/kg	77.3	386	
91-58-7	2-Chloronaphthalene	U	38.6	ug/kg	12.7	38.6	
88-74-4	2-Nitroaniline	U	386	ug/kg	77.3	386	
	o-Nitroaniline						
99-09-2	3-Nitroaniline	U	386	ug/kg	77.3	386	

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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-917	Date Collected:	12/11/2009 12:00	Matrix:	S
Lab Sample ID:	242937007	Date Received:	12/15/2009 08:45	%Moisture:	13.8
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14214	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	933806	Inst:	MSD6.I	Dilution:	1
Run Date:	12/21/2009 20:38	Analyst:	NAG1	Inj. Vol:	.5 uL
Prep Date:	12/18/2009 09:12	Aliquot:	30.02 g	Final Volume:	1 mL
Data File:	s612122.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
	m-Nitroaniline						
131-11-3	Dimethylphthalate	U	386	ug/kg	77.3	386	
606-20-2	2,6-Dinitrotoluene	U	386	ug/kg	38.6	386	
208-96-8	Acenaphthylene	U	38.6	ug/kg	11.6	38.6	
51-28-5	2,4-Dinitrophenol	U	773	ug/kg	147	773	
132-64-9	Dibenzofuran	U	386	ug/kg	77.3	386	
84-66-2	Diethylphthalate	U	386	ug/kg	77.3	386	
86-73-7	Fluorene	U	38.6	ug/kg	11.6	38.6	
7005-72-3	4-Chlorophenylphenylether	U	386	ug/kg	77.3	386	
534-52-1	2-Methyl-4,6-dinitrophenol	U	386	ug/kg	77.3	386	
100-01-6	4-Nitroaniline	U	386	ug/kg	116	386	
	p-Nitroaniline						
122-39-4	Diphenylamine	U	386	ug/kg	77.3	386	
122-66-7	Azobenzene	U	386	ug/kg	77.3	386	
	1,2-Diphenylhydrazine						
101-55-3	4-Bromophenylphenylether	U	386	ug/kg	77.3	386	
118-74-1	Hexachlorobenzene	U	386	ug/kg	77.3	386	
85-01-8	Phenanthrene	U	38.6	ug/kg	11.6	38.6	
120-12-7	Anthracene	U	38.6	ug/kg	7.73	38.6	
84-74-2	Di-n-butylphthalate	U	386	ug/kg	77.3	386	
206-44-0	Fluoranthene	U	38.6	ug/kg	11.6	38.6	
85-68-7	Butylbenzylphthalate	U	386	ug/kg	77.3	386	
56-55-3	Benzo(a)anthracene	U	38.6	ug/kg	11.6	38.6	
91-94-1	3,3'-Dichlorobenzidine	U	386	ug/kg	116	386	
218-01-9	Chrysene	U	38.6	ug/kg	11.6	38.6	
117-81-7	bis(2-Ethylhexyl)phthalate	U	386	ug/kg	77.3	386	
117-84-0	Di-n-octylphthalate	U	386	ug/kg	77.3	386	
205-99-2	Benzo(b)fluoranthene	U	38.6	ug/kg	11.6	38.6	
207-08-9	Benzo(k)fluoranthene	U	38.6	ug/kg	11.6	38.6	
50-32-8	Benzo(a)pyrene	U	38.6	ug/kg	11.6	38.6	
193-39-5	Indeno(1,2,3-cd)pyrene	U	38.6	ug/kg	11.6	38.6	
53-70-3	Dibenzo(a,h)anthracene	U	38.6	ug/kg	11.6	38.6	
191-24-2	Benzo(ghi)perylene	U	38.6	ug/kg	11.6	38.6	UJ,SV7c
120-82-1	1,2,4-Trichlorobenzene	U	386	ug/kg	77.3	386	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	3.61	447	ug/kg		JA

ETM
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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-917**	**Date Collected:**	**12/11/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242937002**	**Date Received:**	**12/15/2009 08:45**	**%Moisture:**	**10.3**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14215**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**933806**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**12/21/2009 18:20**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/18/2009 09:12**	**Aliquot:**	**30.04 g**	**Final Volume:**	**1 mL**
Data File:	**s612117.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
62-75-9	N-Methyl-N-nitrosomethylamine	U	371	ug/kg	74.2	371	
108-95-2	Phenol	U	371	ug/kg	74.2	371	
95-57-8	2-Chlorophenol	U	371	ug/kg	74.2	371	
106-46-7	1,4-Dichlorobenzene	U	371	ug/kg	74.2	371	
621-64-7	N-Nitrosodipropylamine	U	371	ug/kg	74.2	371	
59-50-7	4-Chloro-3-methylphenol	U	371	ug/kg	74.2	371	
83-32-9	Acenaphthene	U	37.1	ug/kg	12.2	37.1	
121-14-2	2,4-Dinitrotoluene	U	371	ug/kg	37.1	371	
100-02-7	4-Nitrophenol	U	371	ug/kg	122	371	
87-86-5	Pentachlorophenol	U	371	ug/kg	92.8	371	
129-00-0	Pyrene	U	37.1	ug/kg	11.1	37.1	
110-86-1	Pyridine	U	371	ug/kg	74.2	371	
62-53-3	Aniline	U	371	ug/kg	111	371	
111-44-4	bis(2-Chloroethyl) ether	U	371	ug/kg	74.2	371	
541-73-1	1,3-Dichlorobenzene	U	371	ug/kg	74.2	371	
100-51-6	Benzyl alcohol	U	371	ug/kg	111	371	
95-50-1	1,2-Dichlorobenzene	U	371	ug/kg	74.2	371	
108-60-1	bis(2-Chloroisopropyl)ether	U	371	ug/kg	74.2	371	
95-48-7	o-Cresol	U	371	ug/kg	74.2	371	
65794-96-9	m,p-Cresols	U	371	ug/kg	111	371	
67-72-1	Hexachloroethane	U	371	ug/kg	74.2	371	
98-95-3	Nitrobenzene	U	371	ug/kg	74.2	371	
78-59-1	Isophorone	U	371	ug/kg	74.2	371	
88-75-5	2-Nitrophenol	U	371	ug/kg	74.2	371	
105-67-9	2,4-Dimethylphenol	U	371	ug/kg	130	371	
111-91-1	bis(2-Chloroethoxy)methane	U	371	ug/kg	74.2	371	
120-83-2	2,4-Dichlorophenol	U	371	ug/kg	74.2	371	
65-85-0	Benzoic acid	U	742	ug/kg	186	742	
91-20-3	Naphthalene	U	37.1	ug/kg	11.1	37.1	
106-47-8	4-Chloroaniline	U	371	ug/kg	74.2	371	
87-68-3	Hexachlorobutadiene	U	371	ug/kg	74.2	371	
91-57-6	2-Methylnaphthalene	U	37.1	ug/kg	7.42	37.1	
77-47-4	Hexachlorocyclopentadiene	U	371	ug/kg	74.2	371	UJ,SV7c
88-06-2	2,4,6-Trichlorophenol	U	371	ug/kg	74.2	371	
95-95-4	2,4,5-Trichlorophenol	U	371	ug/kg	74.2	371	
91-58-7	2-Chloronaphthalene	U	37.1	ug/kg	12.2	37.1	
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	371	ug/kg	74.2	371	
99-09-2	3-Nitroaniline	U	371	ug/kg	74.2	371	

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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-917**	**Date Collected:**	**12/11/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242937002**	**Date Received:**	**12/15/2009 08:45**	**%Moisture:**	**10.3**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14215**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**933806**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**12/21/2009 18:20**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/18/2009 09:12**	**Aliquot:**	**30.04 g**	**Final Volume:**	**1 mL**
Data File:	**s612117.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
	m-Nitroaniline						
131-11-3	Dimethylphthalate	U	371	ug/kg	74.2	371	
606-20-2	2,6-Dinitrotoluene	U	371	ug/kg	37.1	371	
208-96-8	Acenaphthylene	U	37.1	ug/kg	11.1	37.1	
51-28-5	2,4-Dinitrophenol	U	742	ug/kg	141	742	
132-64-9	Dibenzofuran	U	371	ug/kg	74.2	371	
84-66-2	Diethylphthalate	U	371	ug/kg	74.2	371	
86-73-7	Fluorene	U	37.1	ug/kg	11.1	37.1	
7005-72-3	4-Chlorophenylphenylether	U	371	ug/kg	74.2	371	
534-52-1	2-Methyl-4,6-dinitrophenol	U	371	ug/kg	74.2	371	
100-01-6	4-Nitroaniline	U	371	ug/kg	111	371	
	p-Nitroaniline						
122-39-4	Diphenylamine	U	371	ug/kg	74.2	371	
122-66-7	Azobenzene	U	371	ug/kg	74.2	371	
	1,2-Diphenylhydrazine						
101-55-3	4-Bromophenylphenylether	U	371	ug/kg	74.2	371	
118-74-1	Hexachlorobenzene	U	371	ug/kg	74.2	371	
85-01-8	Phenanthrene	U	37.1	ug/kg	11.1	37.1	
120-12-7	Anthracene	U	37.1	ug/kg	7.42	37.1	
84-74-2	Di-n-butylphthalate	U	371	ug/kg	74.2	371	
206-44-0	Fluoranthene	U	37.1	ug/kg	11.1	37.1	
85-68-7	Butylbenzylphthalate	U	371	ug/kg	74.2	371	
56-55-3	Benzo(a)anthracene	U	37.1	ug/kg	11.1	37.1	
91-94-1	3,3'-Dichlorobenzidine	U	371	ug/kg	111	371	
218-01-9	Chrysene	U	37.1	ug/kg	11.1	37.1	
117-81-7	bis(2-Ethylhexyl)phthalate	U	371	ug/kg	74.2	371	
117-84-0	Di-n-octylphthalate	U	371	ug/kg	74.2	371	
205-99-2	Benzo(b)fluoranthene	U	37.1	ug/kg	11.1	37.1	
207-08-9	Benzo(k)fluoranthene	U	37.1	ug/kg	11.1	37.1	
50-32-8	Benzo(a)pyrene	U	37.1	ug/kg	11.1	37.1	
193-39-5	Indeno(1,2,3-cd)pyrene	U	37.1	ug/kg	11.1	37.1	
53-70-3	Dibenzo(a,h)anthracene	U	37.1	ug/kg	11.1	37.1	
191-24-2	Benzo(ghi)perylene	U	37.1	ug/kg	11.1	37.1	UJ,SV7c
120-82-1	1,2,4-Trichlorobenzene	U	371	ug/kg	74.2	371	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Flt	Qual
	Unknown Aldol Condensate	3.61	521	ug/kg		JA

ETM
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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-917**	**Date Collected:**	**12/11/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242937006**	**Date Received:**	**12/15/2009 08:45**	**%Moisture:**	**15.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14216**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**933806**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**12/21/2009 20:10**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/18/2009 09:12**	**Aliquot:**	**30.08 g**	**Final Volume:**	**1 mL**
Data File:	**s6l2121.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
62-75-9	N-Methyl-N-nitrosomethylamine	U	395	ug/kg	79.0	395	
108-95-2	Phenol	U	395	ug/kg	79.0	395	
95-57-8	2-Chlorophenol	U	395	ug/kg	79.0	395	
106-46-7	1,4-Dichlorobenzene	U	395	ug/kg	79.0	395	
621-64-7	N-Nitrosodipropylamine	U	395	ug/kg	79.0	395	
59-50-7	4-Chloro-3-methylphenol	U	395	ug/kg	79.0	395	
83-32-9	Acenaphthene	U	39.5	ug/kg	13.0	39.5	
121-14-2	2,4-Dinitrotoluene	U	395	ug/kg	39.5	395	
100-02-7	4-Nitrophenol	U	395	ug/kg	130	395	
87-86-5	Pentachlorophenol	U	395	ug/kg	98.7	395	
129-00-0	Pyrene	U	39.5	ug/kg	11.8	39.5	
110-86-1	Pyridine	U	395	ug/kg	79.0	395	
62-53-3	Aniline	U	395	ug/kg	118	395	
111-44-4	bis(2-Chloroethyl) ether	U	395	ug/kg	79.0	395	
541-73-1	1,3-Dichlorobenzene	U	395	ug/kg	79.0	395	
100-51-6	Benzyl alcohol	U	395	ug/kg	118	395	
95-50-1	1,2-Dichlorobenzene	U	395	ug/kg	79.0	395	
108-60-1	bis(2-Chloroisopropyl)ether	U	395	ug/kg	79.0	395	
95-48-7	o-Cresol	U	395	ug/kg	79.0	395	
65794-96-9	m,p-Cresols	U	395	ug/kg	118	395	
67-72-1	Hexachloroethane	U	395	ug/kg	79.0	395	
98-95-3	Nitrobenzene	U	395	ug/kg	79.0	395	
78-59-1	Isophorone	U	395	ug/kg	79.0	395	
88-75-5	2-Nitrophenol	U	395	ug/kg	79.0	395	
105-67-9	2,4-Dimethylphenol	U	395	ug/kg	138	395	
111-91-1	bis(2-Chloroethoxy)methane	U	395	ug/kg	79.0	395	
120-83-2	2,4-Dichlorophenol	U	395	ug/kg	79.0	395	
65-85-0	Benzoic acid	U	790	ug/kg	197	790	
91-20-3	Naphthalene	U	39.5	ug/kg	11.8	39.5	
106-47-8	4-Chloroaniline	U	395	ug/kg	79.0	395	
87-68-3	Hexachlorobutadiene	U	395	ug/kg	79.0	395	
91-57-6	2-Methylnaphthalene	U	39.5	ug/kg	7.90	39.5	
77-47-4	Hexachlorocyclopentadiene	U	395	ug/kg	79.0	395	UJ,SV7c
88-06-2	2,4,6-Trichlorophenol	U	395	ug/kg	79.0	395	
95-95-4	2,4,5-Trichlorophenol	U	395	ug/kg	79.0	395	
91-58-7	2-Chloronaphthalene	U	39.5	ug/kg	13.0	39.5	
88-74-4	2-Nitroaniline	U	395	ug/kg	79.0	395	
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	395	ug/kg	79.0	395	

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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-917	**Date Collected:**	12/11/2009 12:00	**Matrix:**	S
Lab Sample ID:	242937006	**Date Received:**	12/15/2009 08:45	**%Moisture:**	15.8
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14216	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	933806	**Inst:**	MSD6.I	**Dilution:**	1
Run Date:	12/21/2009 20:10	**Analyst:**	NAG1	**Inj. Vol:**	.5 uL
Prep Date:	12/18/2009 09:12	**Aliquot:**	30.08 g	**Final Volume:**	1 mL
Data File:	s6l2121.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
	m-Nitroaniline						
131-11-3	Dimethylphthalate	U	395	ug/kg	79.0	395	
606-20-2	2,6-Dinitrotoluene	U	395	ug/kg	39.5	395	
208-96-8	Acenaphthylene	U	39.5	ug/kg	11.8	39.5	
51-28-5	2,4-Dinitrophenol	U	790	ug/kg	150	790	
132-64-9	Dibenzofuran	U	395	ug/kg	79.0	395	
84-66-2	Diethylphthalate	U	395	ug/kg	79.0	395	
86-73-7	Fluorene	U	39.5	ug/kg	11.8	39.5	
7005-72-3	4-Chlorophenylphenylether	U	395	ug/kg	79.0	395	
534-52-1	2-Methyl-4,6-dinitrophenol	U	395	ug/kg	79.0	395	
100-01-6	4-Nitroaniline	U	395	ug/kg	118	395	
	p-Nitroaniline						
122-39-4	Diphenylamine	U	395	ug/kg	79.0	395	
122-66-7	Azobenzene	U	395	ug/kg	79.0	395	
	1,2-Diphenylhydrazine						
101-55-3	4-Bromophenylphenylether	U	395	ug/kg	79.0	395	
118-74-1	Hexachlorobenzene	U	395	ug/kg	79.0	395	
85-01-8	Phenanthrene	U	39.5	ug/kg	11.8	39.5	
120-12-7	Anthracene	U	39.5	ug/kg	7.90	39.5	
84-74-2	Di-n-butylphthalate	U	395	ug/kg	79.0	395	
206-44-0	Fluoranthene	U	39.5	ug/kg	11.8	39.5	
85-68-7	Butylbenzylphthalate	U	395	ug/kg	79.0	395	
56-55-3	Benzo(a)anthracene	U	39.5	ug/kg	11.8	39.5	
91-94-1	3,3'-Dichlorobenzidine	U	395	ug/kg	118	395	
218-01-9	Chrysene	U	39.5	ug/kg	11.8	39.5	
117-81-7	bis(2-Ethylhexyl)phthalate	U	395	ug/kg	79.0	395	
117-84-0	Di-n-octylphthalate	U	395	ug/kg	79.0	395	
205-99-2	Benzo(b)fluoranthene	U	39.5	ug/kg	11.8	39.5	
207-08-9	Benzo(k)fluoranthene	U	39.5	ug/kg	11.8	39.5	
50-32-8	Benzo(a)pyrene	U	39.5	ug/kg	11.8	39.5	
193-39-5	Indeno(1,2,3-cd)pyrene	U	39.5	ug/kg	11.8	39.5	
53-70-3	Dibenzo(a,h)anthracene	U	39.5	ug/kg	11.8	39.5	
191-24-2	Benzo(ghi)perylene	U	39.5	ug/kg	11.8	39.5	UJ,SV7c
120-82-1	1,2,4-Trichlorobenzene	U	395	ug/kg	79.0	395	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	3.61	538	ug/kg		JA

ETM
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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-917	Date Collected:	12/11/2009 12:00	Matrix:	S
Lab Sample ID:	242937008	Date Received:	12/15/2009 08:45	%Moisture:	15.2
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14217	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	933806	Inst:	MSD6.I	Dilution:	1
Run Date:	12/21/2009 21:05	Analyst:	NAG1	Inj. Vol:	.5 uL
Prep Date:	12/18/2009 09:12	Aliquot:	30.07 g	Final Volume:	1 mL
Data File:	s6l2123.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
62-75-9	N-Methyl-N-nitrosomethylamine	U	392	ug/kg	78.5	392	
108-95-2	Phenol	U	392	ug/kg	78.5	392	
95-57-8	2-Chlorophenol	U	392	ug/kg	78.5	392	
106-46-7	1,4-Dichlorobenzene	U	392	ug/kg	78.5	392	
621-64-7	N-Nitrosodipropylamine	U	392	ug/kg	78.5	392	
59-50-7	4-Chloro-3-methylphenol	U	392	ug/kg	78.5	392	
83-32-9	Acenaphthene	U	39.2	ug/kg	12.9	39.2	
121-14-2	2,4-Dinitrotoluene	U	392	ug/kg	39.2	392	
100-02-7	4-Nitrophenol	U	392	ug/kg	129	392	
87-86-5	Pentachlorophenol	U	392	ug/kg	98.1	392	
129-00-0	Pyrene	U	39.2	ug/kg	11.8	39.2	
110-86-1	Pyridine	U	392	ug/kg	78.5	392	
62-53-3	Aniline	U	392	ug/kg	118	392	
111-44-4	bis(2-Chloroethyl) ether	U	392	ug/kg	78.5	392	
541-73-1	1,3-Dichlorobenzene	U	392	ug/kg	78.5	392	
100-51-6	Benzyl alcohol	U	392	ug/kg	118	392	
95-50-1	1,2-Dichlorobenzene	U	392	ug/kg	78.5	392	
108-60-1	bis(2-Chloroisopropyl)ether	U	392	ug/kg	78.5	392	
95-48-7	o-Cresol	U	392	ug/kg	78.5	392	
65794-96-9	m,p-Cresols	U	392	ug/kg	118	392	
67-72-1	Hexachloroethane	U	392	ug/kg	78.5	392	
98-95-3	Nitrobenzene	U	392	ug/kg	78.5	392	
78-59-1	Isophorone	U	392	ug/kg	78.5	392	
88-75-5	2-Nitrophenol	U	392	ug/kg	78.5	392	
105-67-9	2,4-Dimethylphenol	U	392	ug/kg	137	392	
111-91-1	bis(2-Chloroethoxy)methane	U	392	ug/kg	78.5	392	
120-83-2	2,4-Dichlorophenol	U	392	ug/kg	78.5	392	
65-85-0	Benzoic acid	U	785	ug/kg	196	785	
91-20-3	Naphthalene	U	39.2	ug/kg	11.8	39.2	
106-47-8	4-Chloroaniline	U	392	ug/kg	78.5	392	
87-68-3	Hexachlorobutadiene	U	392	ug/kg	78.5	392	
91-57-6	2-Methylnaphthalene	U	39.2	ug/kg	7.85	39.2	
77-47-4	Hexachlorocyclopentadiene	U	392	ug/kg	78.5	392	UJ,SV7c
88-06-2	2,4,6-Trichlorophenol	U	392	ug/kg	78.5	392	
95-95-4	2,4,5-Trichlorophenol	U	392	ug/kg	78.5	392	
91-58-7	2-Chloronaphthalene	U	39.2	ug/kg	12.9	39.2	
88-74-4	2-Nitroaniline	U	392	ug/kg	78.5	392	
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	392	ug/kg	78.5	392	

ETM
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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-917	Date Collected:	12/11/2009 12:00	Matrix:	S
Lab Sample ID:	242937008	Date Received:	12/15/2009 08:45	%Moisture:	15.2
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14217	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	933806	Inst:	MSD6.I	Dilution:	1
Run Date:	12/21/2009 21:05	Analyst:	NAG1	Inj. Vol:	.5 uL
Prep Date:	12/18/2009 09:12	Aliquot:	30.07 g	Final Volume:	1 mL
Data File:	s612123.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
	m-Nitroaniline						
131-11-3	Dimethylphthalate	U	392	ug/kg	78.5	392	
606-20-2	2,6-Dinitrotoluene	U	392	ug/kg	39.2	392	
208-96-8	Acenaphthylene	U	39.2	ug/kg	11.8	39.2	
51-28-5	2,4-Dinitrophenol	U	785	ug/kg	149	785	
132-64-9	Dibenzofuran	U	392	ug/kg	78.5	392	
84-66-2	Diethylphthalate	U	392	ug/kg	78.5	392	
86-73-7	Fluorene	U	39.2	ug/kg	11.8	39.2	
7005-72-3	4-Chlorophenylphenylether	U	392	ug/kg	78.5	392	
534-52-1	2-Methyl-4,6-dinitrophenol	U	392	ug/kg	78.5	392	
100-01-6	4-Nitroaniline	U	392	ug/kg	118	392	
	p-Nitroaniline						
122-39-4	Diphenylamine	U	392	ug/kg	78.5	392	
122-66-7	Azobenzene	U	392	ug/kg	78.5	392	
	1,2-Diphenylhydrazine						
101-55-3	4-Bromophenylphenylether	U	392	ug/kg	78.5	392	
118-74-1	Hexachlorobenzene	U	392	ug/kg	78.5	392	
85-01-8	Phenanthrene	U	39.2	ug/kg	11.8	39.2	
120-12-7	Anthracene	U	39.2	ug/kg	7.85	39.2	
84-74-2	Di-n-butylphthalate	U	392	ug/kg	78.5	392	
206-44-0	Fluoranthene	U	39.2	ug/kg	11.8	39.2	
85-68-7	Butylbenzylphthalate	U	392	ug/kg	78.5	392	
56-55-3	Benzo(a)anthracene	U	39.2	ug/kg	11.8	39.2	
91-94-1	3,3'-Dichlorobenzidine	U	392	ug/kg	118	392	
218-01-9	Chrysene	U	39.2	ug/kg	11.8	39.2	
117-81-7	bis(2-Ethylhexyl)phthalate	U	392	ug/kg	78.5	392	
117-84-0	Di-n-octylphthalate	U	392	ug/kg	78.5	392	
205-99-2	Benzo(b)fluoranthene	U	39.2	ug/kg	11.8	39.2	
207-08-9	Benzo(k)fluoranthene	U	39.2	ug/kg	11.8	39.2	
50-32-8	Benzo(a)pyrene	U	39.2	ug/kg	11.8	39.2	
193-39-5	Indeno(1,2,3-cd)pyrene	U	39.2	ug/kg	11.8	39.2	
53-70-3	Dibenzo(a,h)anthracene	U	39.2	ug/kg	11.8	39.2	
191-24-2	Benzo(ghi)perylene	U	39.2	ug/kg	11.8	39.2	UJ,SV7c
120-82-1	1,2,4-Trichlorobenzene	U	392	ug/kg	78.5	392	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	3.61	434	ug/kg		JA

ETM
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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-917**	**Date Collected:**	**12/11/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242937005**	**Date Received:**	**12/15/2009 08:45**	**%Moisture:**	**17.6**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14218**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**933806**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**12/21/2009 19:43**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/18/2009 09:12**	**Aliquot:**	**30.09 g**	**Final Volume:**	**1 mL**
Data File:	**s6l2120.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
62-75-9	N-Methyl-N-nitrosomethylamine	U	403	ug/kg	80.7	403	
108-95-2	Phenol	U	403	ug/kg	80.7	403	
95-57-8	2-Chlorophenol	U	403	ug/kg	80.7	403	
106-46-7	1,4-Dichlorobenzene	U	403	ug/kg	80.7	403	
621-64-7	N-Nitrosodipropylamine	U	403	ug/kg	80.7	403	
59-50-7	4-Chloro-3-methylphenol	U	403	ug/kg	80.7	403	
83-32-9	Acenaphthene	U	40.3	ug/kg	13.3	40.3	
121-14-2	2,4-Dinitrotoluene	U	403	ug/kg	40.3	403	
100-02-7	4-Nitrophenol	U	403	ug/kg	133	403	
87-86-5	Pentachlorophenol	U	403	ug/kg	101	403	
129-00-0	Pyrene	U	40.3	ug/kg	12.1	40.3	
110-86-1	Pyridine	U	403	ug/kg	80.7	403	
62-53-3	Aniline	U	403	ug/kg	121	403	
111-44-4	bis(2-Chloroethyl) ether	U	403	ug/kg	80.7	403	
541-73-1	1,3-Dichlorobenzene	U	403	ug/kg	80.7	403	
100-51-6	Benzyl alcohol	U	403	ug/kg	121	403	
95-50-1	1,2-Dichlorobenzene	U	403	ug/kg	80.7	403	
108-60-1	bis(2-Chloroisopropyl)ether	U	403	ug/kg	80.7	403	
95-48-7	o-Cresol	U	403	ug/kg	80.7	403	
65794-96-9	m,p-Cresols	U	403	ug/kg	121	403	
67-72-1	Hexachloroethane	U	403	ug/kg	80.7	403	
98-95-3	Nitrobenzene	U	403	ug/kg	80.7	403	
78-59-1	Isophorone	U	403	ug/kg	80.7	403	
88-75-5	2-Nitrophenol	U	403	ug/kg	80.7	403	
105-67-9	2,4-Dimethylphenol	U	403	ug/kg	141	403	
111-91-1	bis(2-Chloroethoxy)methane	U	403	ug/kg	80.7	403	
120-83-2	2,4-Dichlorophenol	U	403	ug/kg	80.7	403	
65-85-0	Benzoic acid	U	807	ug/kg	202	807	
91-20-3	Naphthalene	U	40.3	ug/kg	12.1	40.3	
106-47-8	4-Chloroaniline	U	403	ug/kg	80.7	403	
87-68-3	Hexachlorobutadiene	U	403	ug/kg	80.7	403	
91-57-6	2-Methylnaphthalene	U	40.3	ug/kg	8.07	40.3	
77-47-4	Hexachlorocyclopentadiene	U	403	ug/kg	80.7	403	UJ,SV7c
88-06-2	2,4,6-Trichlorophenol	U	403	ug/kg	80.7	403	
95-95-4	2,4,5-Trichlorophenol	U	403	ug/kg	80.7	403	
91-58-7	2-Chloronaphthalene	U	40.3	ug/kg	13.3	40.3	
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	403	ug/kg	80.7	403	
99-09-2	3-Nitroaniline	U	403	ug/kg	80.7	403	

ETM
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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-917**	**Date Collected:**	**12/11/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242937005**	**Date Received:**	**12/15/2009 08:45**	**%Moisture:**	**17.6**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14218**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**933806**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**12/21/2009 19:43**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/18/2009 09:12**	**Aliquot:**	**30.09 g**	**Final Volume:**	**1 mL**
Data File:	**s612120.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
	m-Nitroaniline						
131-11-3	Dimethylphthalate	U	403	ug/kg	80.7	403	
606-20-2	2,6-Dinitrotoluene	U	403	ug/kg	40.3	403	
208-96-8	Acenaphthylene	U	40.3	ug/kg	12.1	40.3	
51-28-5	2,4-Dinitrophenol	U	807	ug/kg	153	807	
132-64-9	Dibenzofuran	U	403	ug/kg	80.7	403	
84-66-2	Diethylphthalate	U	403	ug/kg	80.7	403	
86-73-7	Fluorene	U	40.3	ug/kg	12.1	40.3	
7005-72-3	4-Chlorophenylphenylether	U	403	ug/kg	80.7	403	
534-52-1	2-Methyl-4,6-dinitrophenol	U	403	ug/kg	80.7	403	
100-01-6	4-Nitroaniline	U	403	ug/kg	121	403	
	p-Nitroaniline						
122-39-4	Diphenylamine	U	403	ug/kg	80.7	403	
122-66-7	Azobenzene	U	403	ug/kg	80.7	403	
	1,2-Diphenylhydrazine						
101-55-3	4-Bromophenylphenylether	U	403	ug/kg	80.7	403	
118-74-1	Hexachlorobenzene	U	403	ug/kg	80.7	403	
85-01-8	Phenanthrene	U	40.3	ug/kg	12.1	40.3	
120-12-7	Anthracene	U	40.3	ug/kg	8.07	40.3	
84-74-2	Di-n-butylphthalate	U	403	ug/kg	80.7	403	
206-44-0	Fluoranthene	U	40.3	ug/kg	12.1	40.3	
85-68-7	Butylbenzylphthalate	U	403	ug/kg	80.7	403	
56-55-3	Benzo(a)anthracene	U	40.3	ug/kg	12.1	40.3	
91-94-1	3,3'-Dichlorobenzidine	U	403	ug/kg	121	403	
218-01-9	Chrysene	U	40.3	ug/kg	12.1	40.3	
117-81-7	bis(2-Ethylhexyl)phthalate	U	403	ug/kg	80.7	403	
117-84-0	Di-n-octylphthalate	U	403	ug/kg	80.7	403	
205-99-2	Benzo(b)fluoranthene	U	40.3	ug/kg	12.1	40.3	
207-08-9	Benzo(k)fluoranthene	U	40.3	ug/kg	12.1	40.3	
50-32-8	Benzo(a)pyrene	U	40.3	ug/kg	12.1	40.3	
193-39-5	Indeno(1,2,3-cd)pyrene	U	40.3	ug/kg	12.1	40.3	
53-70-3	Dibenzo(a,h)anthracene	U	40.3	ug/kg	12.1	40.3	
191-24-2	Benzo(ghi)perylene	U	40.3	ug/kg	12.1	40.3	UJ,SV7c
120-82-1	1,2,4-Trichlorobenzene	U	403	ug/kg	80.7	403	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Flt	Qual
	Unknown	2.36	305	ug/kg		J
	Unknown Aldol Condensate	3.61	429	ug/kg		JA

ETM
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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-917**	**Date Collected:**	**12/11/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242937004**	**Date Received:**	**12/15/2009 08:45**	**%Moisture:**	**17.2**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14219**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**933806**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**12/21/2009 19:16**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/18/2009 09:12**	**Aliquot:**	**30.04 g**	**Final Volume:**	**1 mL**
Data File:	**s6l2119.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
62-75-9	N-Methyl-N-nitrosomethylamine	U	402	ug/kg	80.4	402	
108-95-2	Phenol	U	402	ug/kg	80.4	402	
95-57-8	2-Chlorophenol	U	402	ug/kg	80.4	402	
106-46-7	1,4-Dichlorobenzene	U	402	ug/kg	80.4	402	
621-64-7	N-Nitrosodipropylamine	U	402	ug/kg	80.4	402	
59-50-7	4-Chloro-3-methylphenol	U	402	ug/kg	80.4	402	
83-32-9	Acenaphthene	U	40.2	ug/kg	13.3	40.2	
121-14-2	2,4-Dinitrotoluene	U	402	ug/kg	40.2	402	
100-02-7	4-Nitrophenol	U	402	ug/kg	133	402	
87-86-5	Pentachlorophenol	U	402	ug/kg	100	402	
129-00-0	Pyrene	U	40.2	ug/kg	12.1	40.2	
110-86-1	Pyridine	U	402	ug/kg	80.4	402	
62-53-3	Aniline	U	402	ug/kg	121	402	
111-44-4	bis(2-Chloroethyl) ether	U	402	ug/kg	80.4	402	
541-73-1	1,3-Dichlorobenzene	U	402	ug/kg	80.4	402	
100-51-6	Benzyl alcohol	U	402	ug/kg	121	402	
95-50-1	1,2-Dichlorobenzene	U	402	ug/kg	80.4	402	
108-60-1	bis(2-Chloroisopropyl)ether	U	402	ug/kg	80.4	402	
95-48-7	o-Cresol	U	402	ug/kg	80.4	402	
65794-96-9	m,p-Cresols	U	402	ug/kg	121	402	
67-72-1	Hexachloroethane	U	402	ug/kg	80.4	402	
98-95-3	Nitrobenzene	U	402	ug/kg	80.4	402	
78-59-1	Isophorone	U	402	ug/kg	80.4	402	
88-75-5	2-Nitrophenol	U	402	ug/kg	80.4	402	
105-67-9	2,4-Dimethylphenol	U	402	ug/kg	141	402	
111-91-1	bis(2-Chloroethoxy)methane	U	402	ug/kg	80.4	402	
120-83-2	2,4-Dichlorophenol	U	402	ug/kg	80.4	402	
65-85-0	Benzoic acid	U	804	ug/kg	201	804	
91-20-3	Naphthalene	U	40.2	ug/kg	12.1	40.2	
106-47-8	4-Chloroaniline	U	402	ug/kg	80.4	402	
87-68-3	Hexachlorobutadiene	U	402	ug/kg	80.4	402	
91-57-6	2-Methylnaphthalene	U	40.2	ug/kg	8.04	40.2	
77-47-4	Hexachlorocyclopentadiene	U	402	ug/kg	80.4	402	UJ,SV7c
88-06-2	2,4,6-Trichlorophenol	U	402	ug/kg	80.4	402	
95-95-4	2,4,5-Trichlorophenol	U	402	ug/kg	80.4	402	
91-58-7	2-Chloronaphthalene	U	40.2	ug/kg	13.3	40.2	
88-74-4	2-Nitroaniline	U	402	ug/kg	80.4	402	
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	402	ug/kg	80.4	402	

ETM
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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-917**	**Date Collected:**	**12/11/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242937004**	**Date Received:**	**12/15/2009 08:45**	**%Moisture:**	**17.2**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14219**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**933806**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**12/21/2009 19:16**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/18/2009 09:12**	**Aliquot:**	**30.04 g**	**Final Volume:**	**1 mL**
Data File:	**s612119.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
	m-Nitroaniline						
131-11-3	Dimethylphthalate	U	402	ug/kg	80.4	402	
606-20-2	2,6-Dinitrotoluene	U	402	ug/kg	40.2	402	
208-96-8	Acenaphthylene	U	40.2	ug/kg	12.1	40.2	
51-28-5	2,4-Dinitrophenol	U	804	ug/kg	153	804	
132-64-9	Dibenzofuran	U	402	ug/kg	80.4	402	
84-66-2	Diethylphthalate	U	402	ug/kg	80.4	402	
86-73-7	Fluorene	U	40.2	ug/kg	12.1	40.2	
7005-72-3	4-Chlorophenylphenylether	U	402	ug/kg	80.4	402	
534-52-1	2-Methyl-4,6-dinitrophenol	U	402	ug/kg	80.4	402	
100-01-6	4-Nitroaniline	U	402	ug/kg	121	402	
	p-Nitroaniline						
122-39-4	Diphenylamine	U	402	ug/kg	80.4	402	
122-66-7	Azobenzene	U	402	ug/kg	80.4	402	
	1,2-Diphenylhydrazine						
101-55-3	4-Bromophenylphenylether	U	402	ug/kg	80.4	402	
118-74-1	Hexachlorobenzene	U	402	ug/kg	80.4	402	
85-01-8	Phenanthrene	U	40.2	ug/kg	12.1	40.2	
120-12-7	Anthracene	U	40.2	ug/kg	8.04	40.2	
84-74-2	Di-n-butylphthalate	U	402	ug/kg	80.4	402	
206-44-0	Fluoranthene	U	40.2	ug/kg	12.1	40.2	
85-68-7	Butylbenzylphthalate	U	402	ug/kg	80.4	402	
56-55-3	Benzo(a)anthracene	U	40.2	ug/kg	12.1	40.2	
91-94-1	3,3'-Dichlorobenzidine	U	402	ug/kg	121	402	
218-01-9	Chrysene	U	40.2	ug/kg	12.1	40.2	
117-81-7	bis(2-Ethylhexyl)phthalate	U	402	ug/kg	80.4	402	
117-84-0	Di-n-octylphthalate	U	402	ug/kg	80.4	402	
205-99-2	Benzo(b)fluoranthene	U	40.2	ug/kg	12.1	40.2	
207-08-9	Benzo(k)fluoranthene	U	40.2	ug/kg	12.1	40.2	
50-32-8	Benzo(a)pyrene	U	40.2	ug/kg	12.1	40.2	
193-39-5	Indeno(1,2,3-cd)pyrene	U	40.2	ug/kg	12.1	40.2	
53-70-3	Dibenzo(a,h)anthracene	U	40.2	ug/kg	12.1	40.2	
191-24-2	Benzo(ghi)perylene	U	40.2	ug/kg	12.1	40.2	UJ,SV7c
120-82-1	1,2,4-Trichlorobenzene	U	402	ug/kg	80.4	402	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	3.61	504	ug/kg		JA

ETM
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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-917	Date Collected:	12/11/2009 12:00	Matrix:	S
Lab Sample ID:	242937009	Date Received:	12/15/2009 08:45	%Moisture:	14.2
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-10-2735	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	933806	Inst:	MSD6.I	Dilution:	1
Run Date:	12/21/2009 21:33	Analyst:	NAG1	Inj. Vol:	.5 uL
Prep Date:	12/18/2009 09:12	Aliquot:	30.04 g	Final Volume:	1 mL
Data File:	s6l2124.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
62-75-9	N-Methyl-N-nitrosomethylamine	U	388	ug/kg	77.6	388	
108-95-2	Phenol	U	388	ug/kg	77.6	388	
95-57-8	2-Chlorophenol	U	388	ug/kg	77.6	388	
106-46-7	1,4-Dichlorobenzene	U	388	ug/kg	77.6	388	
621-64-7	N-Nitrosodipropylamine	U	388	ug/kg	77.6	388	
59-50-7	4-Chloro-3-methylphenol	U	388	ug/kg	77.6	388	
83-32-9	Acenaphthene	U	38.8	ug/kg	12.8	38.8	
121-14-2	2,4-Dinitrotoluene	U	388	ug/kg	38.8	388	
100-02-7	4-Nitrophenol	U	388	ug/kg	128	388	
87-86-5	Pentachlorophenol	U	388	ug/kg	97.0	388	
129-00-0	Pyrene	U	38.8	ug/kg	11.6	38.8	
110-86-1	Pyridine	U	388	ug/kg	77.6	388	
62-53-3	Aniline	U	388	ug/kg	116	388	
111-44-4	bis(2-Chloroethyl) ether	U	388	ug/kg	77.6	388	
541-73-1	1,3-Dichlorobenzene	U	388	ug/kg	77.6	388	
100-51-6	Benzyl alcohol	U	388	ug/kg	116	388	
95-50-1	1,2-Dichlorobenzene	U	388	ug/kg	77.6	388	
108-60-1	bis(2-Chloroisopropyl)ether	U	388	ug/kg	77.6	388	
95-48-7	o-Cresol	U	388	ug/kg	77.6	388	
65794-96-9	m,p-Cresols	U	388	ug/kg	116	388	
67-72-1	Hexachloroethane	U	388	ug/kg	77.6	388	
98-95-3	Nitrobenzene	U	388	ug/kg	77.6	388	
78-59-1	Isophorone	U	388	ug/kg	77.6	388	
88-75-5	2-Nitrophenol	U	388	ug/kg	77.6	388	
105-67-9	2,4-Dimethylphenol	U	388	ug/kg	136	388	
111-91-1	bis(2-Chloroethoxy)methane	U	388	ug/kg	77.6	388	
120-83-2	2,4-Dichlorophenol	U	388	ug/kg	77.6	388	
65-85-0	Benzoic acid	U	776	ug/kg	194	776	
91-20-3	Naphthalene	U	38.8	ug/kg	11.6	38.8	
106-47-8	4-Chloroaniline	U	388	ug/kg	77.6	388	
87-68-3	Hexachlorobutadiene	U	388	ug/kg	77.6	388	
91-57-6	2-Methylnaphthalene	U	38.8	ug/kg	7.76	38.8	
77-47-4	Hexachlorocyclopentadiene	U	388	ug/kg	77.6	388	UJ,SV7c
88-06-2	2,4,6-Trichlorophenol	U	388	ug/kg	77.6	388	
95-95-4	2,4,5-Trichlorophenol	U	388	ug/kg	77.6	388	
91-58-7	2-Chloronaphthalene	U	38.8	ug/kg	12.8	38.8	
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	388	ug/kg	77.6	388	
99-09-2	3-Nitroaniline	U	388	ug/kg	77.6	388	

ETM
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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-917**	**Date Collected:**	**12/11/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242937009**	**Date Received:**	**12/15/2009 08:45**	**%Moisture:**	**14.2**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-10-2735**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**933806**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**12/21/2009 21:33**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/18/2009 09:12**	**Aliquot:**	**30.04 g**	**Final Volume:**	**1 mL**
Data File:	**s6l2124.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
	m-Nitroaniline						
131-11-3	Dimethylphthalate	U	388	ug/kg	77.6	388	
606-20-2	2,6-Dinitrotoluene	U	388	ug/kg	38.8	388	
208-96-8	Acenaphthylene	U	38.8	ug/kg	11.6	38.8	
51-28-5	2,4-Dinitrophenol	U	776	ug/kg	147	776	
132-64-9	Dibenzofuran	U	388	ug/kg	77.6	388	
84-66-2	Diethylphthalate	U	388	ug/kg	77.6	388	
86-73-7	Fluorene	U	38.8	ug/kg	11.6	38.8	
7005-72-3	4-Chlorophenylphenylether	U	388	ug/kg	77.6	388	
534-52-1	2-Methyl-4,6-dinitrophenol	U	388	ug/kg	77.6	388	
100-01-6	4-Nitroaniline	U	388	ug/kg	116	388	
	p-Nitroaniline						
122-39-4	Diphenylamine	U	388	ug/kg	77.6	388	
122-66-7	Azobenzene	U	388	ug/kg	77.6	388	
	1,2-Diphenylhydrazine						
101-55-3	4-Bromophenylphenylether	U	388	ug/kg	77.6	388	
118-74-1	Hexachlorobenzene	U	388	ug/kg	77.6	388	
85-01-8	Phenanthrene	U	38.8	ug/kg	11.6	38.8	
120-12-7	Anthracene	U	38.8	ug/kg	7.76	38.8	
84-74-2	Di-n-butylphthalate	U	388	ug/kg	77.6	388	
206-44-0	Fluoranthene	U	38.8	ug/kg	11.6	38.8	
85-68-7	Butylbenzylphthalate	U	388	ug/kg	77.6	388	
56-55-3	Benzo(a)anthracene	U	38.8	ug/kg	11.6	38.8	
91-94-1	3,3'-Dichlorobenzidine	U	388	ug/kg	116	388	
218-01-9	Chrysene	U	38.8	ug/kg	11.6	38.8	
117-81-7	bis(2-Ethylhexyl)phthalate	U	388	ug/kg	77.6	388	
117-84-0	Di-n-octylphthalate	U	388	ug/kg	77.6	388	
205-99-2	Benzo(b)fluoranthene	U	38.8	ug/kg	11.6	38.8	
207-08-9	Benzo(k)fluoranthene	U	38.8	ug/kg	11.6	38.8	
50-32-8	Benzo(a)pyrene	U	38.8	ug/kg	11.6	38.8	
193-39-5	Indeno(1,2,3-cd)pyrene	U	38.8	ug/kg	11.6	38.8	
53-70-3	Dibenzo(a,h)anthracene	U	38.8	ug/kg	11.6	38.8	
191-24-2	Benzo(ghi)perylene	U	38.8	ug/kg	11.6	38.8	UJ,SV7c
120-82-1	1,2,4-Trichlorobenzene	U	388	ug/kg	77.6	388	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	3.61	478	ug/kg		JA

ETM
2/9/10

DATA VALIDATION COVER SHEET

5130-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-917 VALIDATION DATE: 2/9/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Eric T. Mink ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☒ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE):

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

None.

Reviewed by: Mary Donivan Level: I Date: 02/09/10

VALIDATOR'S SIGNATURE: Eric T. Mink DATE: 2/9/10

TPH GRO AND DRO ANALYTICAL DATA VALIDATION CHECKLIST

5130-2 TPH GRO and DRO Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The retention time criteria were not met.	R, DR0 or GR0	R, DR0 or GR0
☐	☒	☐	2. Required retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, DR0b	R, GR0b
☐	☒	☐	3. The surrogate is less than 10%R. Follow external laboratory limits.	R, DR3 or GR3	J-, DR3 or GR3
☐	☒	☐	4. The surrogate is less than the Lower Acceptance Limit, but greater than or equal to 10%R. Follow external laboratory limits.	UJ, DR3a or GR3a	J-, DR3a or GR3a
☐	☒	☐	5. The surrogate %R value is greater than the Upper Acceptance Limit. Follow external laboratory limits.	N/A	J+, DR3b or GR3b
☐	☒	☐	6. Required surrogate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, DR3d or GR3d	R, DR3d or GR3d
☐	☒	☐	7. The sample result is less than or equal to 5 times the concentration of the related analyte in the method blank.	U, DR4 or GR4	N/A
☐	☒	☐	8. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank, but was greater than 5x.	N/A	J+, DR4a or GR4a
☐	☐	☒	9. The sample result is less than or equal to 5 times the concentration of the related analyte in the trip blank, rinsate blank or equipment blank.	U, DR4d or GR4d	N/A
☐	☒	☐	10. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, DR4e or GR4e	R, DR4e or GR4e
☐	☒	☐	11. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ or R, DR7 or GR7	J, DR7 or GR7

TPH GRO AND DRO ANALYTICAL DATA VALIDATION CHECKLIST

5130-2

TPH GRO and DRO Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	12. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is less than 0.995.	UJ, DR7a or GR7a	J, DR7a or GR7a
☐	☒	☐	13. The ICV and/or CCV were recovered outside the method specific limits.	UJ, DR7c or GR7c	J, DR7c or GR7c
☐	☒	☐	14. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, DR7d or GR7d	J, DR7d or GR7d
☐	☒	☐	15. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, DR7f or GR7f	R, DR7f or GR7f
☐	☒	☐	16. The holding time was greater than 1 and less than or equal to 2 times the applicable holding time requirement.	UJ, DR9 or GR9	J-, DR9 or GR9
☐	☒	☐	17. The holding time was greater than 2 times the applicable holding time requirement.	R, DR9a or GR9a	J-, DR9a or GR9a
☐	☒	☐	18. The LCS percent recovery was less than 10%. Follow the external laboratory limits.	R, DR12 or GR12	J-, DR12 or GR12
☐	☒	☐	19. The LCS percent recovery was less than the Lower Acceptance Limit, but greater than 10%. Follow the external laboratory limits.	UJ, DR12a or GR12a	J-, DR12a or GR12a
☐	☒	☐	20. The LCS percent recovery was greater than the Upper Acceptance Limit. Follow the external laboratory limits.	N/A	J+, DR12b or GR12b
☐	☒	☐	21. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or the external laboratory for information.	R, DR12c or GR12c	R, DR12c or GR12c
☐	☒	☐	22. The MS/MSD percent recovery was less than 10%.	R, DR12d or GR12d	R, DR12d or Gr12d
☐	☒	☐	23. The MS/MSD percent recovery was greater than 10%, but less than 70%.	UJ, DR12e or GR12e	J, DR12e or GR12e

TPH GRO AND DRO ANALYTICAL DATA VALIDATION CHECKLIST

5130-2 TPH GRO and DRO Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	24. The MS/MSD percent recovery was greater than 70%.	N/A	J+, DR12f or GR12f
☐	☒	☐	25. The MS/MSD relative percent difference was greater than 30%.	UJ, DR12g or GR12g	J, DR12g or GR12g
☐	☐	☒	26. The affected analytes have elevated detection limits and may not meet project DQOs because the sample was diluted without any target analytes identified due to matrix interference. (Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.)	UJ, R, DR15 or GR15	R, DR15 or GR15
☐	☒	☐	27. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.	UJ, R, DR19 or GR19	J, R, DR19 or GR19
☐	☒	☐	28. Duplicate, dilution, or reanalysis.	UJ, DR88 or GR88	J, DR88 or GR88

Flame Ionization Detector
Certificate of Analysis
Sample Summary

SDG Number:	10-917	Date Collected:	12/11/2009 12:00	Matrix:	S
Lab Sample ID:	242937001	Date Received:	12/15/2009 08:45	%Moisture:	12.8
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14213	Method:	SW846 8015A/B SVOC	SOP Ref:	GL-OA-E-003
Batch ID:	933843	Inst:	FID7.I	Dilution:	1
Run Date:	12/18/2009 07:16	Analyst:	KXR2	Inj. Vol:	1 uL
Prep Date:	12/17/2009 18:54	Aliquot:	30.01 g	Final Volume:	1 mL
Data File:	013f1301.d	Column:	DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics		11.6	mg/kg	2.48	7.64

ETM
2/9/10

Flame Ionization Detector
Certificate of Analysis
Sample Summary

SDG Number:	10-917	Date Collected:	12/11/2009 12:00	Matrix:	S
Lab Sample ID:	242937002	Date Received:	12/15/2009 08:45	%Moisture:	10.3
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14215	Method:	SW846 8015A/B SVOC	SOP Ref:	GL-OA-E-003
Batch ID:	933843	Inst:	FID7.I	Dilution:	1
Run Date:	12/18/2009 10:21	Analyst:	KXR2	Inj. Vol:	1 uL
Prep Date:	12/17/2009 18:54	Aliquot:	30.01 g	Final Volume:	1 mL
Data File:	018f1801.d	Column:	DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics	J	3.37	mg/kg	2.41	7.43

ETM
2/9/10

Flame Ionization Detector
Certificate of Analysis
Sample Summary

SDG Number:	10-917	Date Collected:	12/11/2009 12:00	Matrix:	S
Lab Sample ID:	242937003	Date Received:	12/15/2009 08:45	%Moisture:	12.9
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14212	Method:	SW846 8015A/B SVOC	SOP Ref:	GL-OA-E-003
Batch ID:	933843	Inst:	FID7.I	Dilution:	1
Run Date:	12/18/2009 10:58	Analyst:	KXR2	Inj. Vol:	1 uL
Prep Date:	12/17/2009 18:54	Aliquot:	30.03 g	Final Volume:	1 mL
Data File:	019f1901.d	Column:	DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics	J	6.03	mg/kg	2.48	7.64

ETM
2/9/10

Flame Ionization Detector
Certificate of Analysis
Sample Summary

SDG Number:	10–917	Date Collected:	12/11/2009 12:00	Matrix:	S
Lab Sample ID:	242937004	Date Received:	12/15/2009 08:45	%Moisture:	17.2
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03–09–14219	Method:	SW846 8015A/B SVOC	SOP Ref:	GL–OA–E–003
Batch ID:	933843	Inst:	FID7.I	Dilution:	1
Run Date:	12/18/2009 11:35	Analyst:	KXR2	Inj. Vol:	1 uL
Prep Date:	12/17/2009 18:54	Aliquot:	30.09 g	Final Volume:	1 mL
Data File:	020f2001.d	Column:	DB–5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics	U	8.02	mg/kg	2.61	8.02

ETM
2/9/10

Flame Ionization Detector
Certificate of Analysis
Sample Summary

SDG Number:	10-917	Date Collected:	12/11/2009 12:00	Matrix:	S
Lab Sample ID:	242937005	Date Received:	12/15/2009 08:45	%Moisture:	17.6
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14218	Method:	SW846 8015A/B SVOC	SOP Ref:	GL-OA-E-003
Batch ID:	933843	Inst:	FID7.I	Dilution:	1
Run Date:	12/18/2009 12:12	Analyst:	KXR2	Inj. Vol:	1 uL
Prep Date:	12/17/2009 18:54	Aliquot:	30.05 g	Final Volume:	1 mL
Data File:	021f2101.d	Column:	DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics	U	8.08	mg/kg	2.63	8.08

ETM
2/9/10

Flame Ionization Detector
Certificate of Analysis
Sample Summary

SDG Number:	10–917	Date Collected:	12/11/2009 12:00	Matrix:	S
Lab Sample ID:	242937006	Date Received:	12/15/2009 08:45	%Moisture:	15.8
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03–09–14216	Method:	SW846 8015A/B SVOC	SOP Ref:	GL–OA–E–003
Batch ID:	933843	Inst:	FID7.I	Dilution:	1
Run Date:	12/18/2009 12:49	Analyst:	KXR2	Inj. Vol:	1 uL
Prep Date:	12/17/2009 18:54	Aliquot:	30.02 g	Final Volume:	1 mL
Data File:	022f2201.d	Column:	DB–5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics	J	4.09	mg/kg	2.57	7.92

ETM
2/9/10

Flame Ionization Detector
Certificate of Analysis
Sample Summary

SDG Number:	10-917	Date Collected:	12/11/2009 12:00	Matrix:	S
Lab Sample ID:	242937007	Date Received:	12/15/2009 08:45	%Moisture:	13.8
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14214	Method:	SW846 8015A/B SVOC	SOP Ref:	GL-OA-E-003
Batch ID:	933843	Inst:	FID7.I	Dilution:	1
Run Date:	12/18/2009 13:27	Analyst:	KXR2	Inj. Vol:	1 uL
Prep Date:	12/17/2009 18:54	Aliquot:	30.05 g	Final Volume:	1 mL
Data File:	023f2301.d	Column:	DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics	J	5.19	mg/kg	2.51	7.72

ETM
2/9/10

Flame Ionization Detector
Certificate of Analysis
Sample Summary

SDG Number:	10–917	Date Collected:	12/11/2009 12:00	Matrix:	S
Lab Sample ID:	242937008	Date Received:	12/15/2009 08:45	%Moisture:	15.2
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03–09–14217	Method:	SW846 8015A/B SVOC	SOP Ref:	GL–OA–E–003
Batch ID:	933843	Inst:	FID7.I	Dilution:	1
Run Date:	12/18/2009 14:04	Analyst:	KXR2	Inj. Vol:	1 uL
Prep Date:	12/17/2009 18:54	Aliquot:	30.04 g	Final Volume:	1 mL
Data File:	024f2401.d	Column:	DB–5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics	J	2.82	mg/kg	2.55	7.86

ETM
2/9/10

Flame Ionization Detector
Certificate of Analysis
Sample Summary

SDG Number:	10-917	Date Collected:	12/11/2009 12:00	Matrix:	S
Lab Sample ID:	242937009	Date Received:	12/15/2009 08:45	%Moisture:	14.2
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-10-2735	Method:	SW846 8015A/B SVOC	SOP Ref:	GL-OA-E-003
Batch ID:	933843	Inst:	FID7.I	Dilution:	1
Run Date:	12/18/2009 14:42	Analyst:	KXR2	Inj. Vol:	1 uL
Prep Date:	12/17/2009 18:54	Aliquot:	30.03 g	Final Volume:	1 mL
Data File:	025f2501.d	Column:	DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics	J	7.49	mg/kg	2.52	7.76

ETM
2/9/10

DATA VALIDATION COVER SHEET

5116-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-917 VALIDATION DATE: 2/9/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Eric T. Mink ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☒ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE): PCBs

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. It should be noted that the MS %Rs and MS/MSD RPDs were outside the laboratory's acceptance limits for aroclor-1016 and aroclor-1260. However, MS/MSD analyses are not required for PCBs and, thus, no sample data were qualified.

Reviewed by: Mary Donivan Level: I Date: 02/09/10

VALIDATOR'S SIGNATURE: Eric T. Mink DATE: 2/9/10

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2

Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, P9	J-, P9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, P9	J-, P9a
☐	☒	☐	3. The affected analytes are regarded as rejected because the analytical holding time was exceeded.	R, P9b	R, P9b
☐	☒	☐	4. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, P7	J, P7
☐	☒	☐	5. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, P7a	J, P7a
☐	☒	☐	6. The Initial Calibration Verification (ICV) and/or Continuing Calibration Verification (CCV) were recovered outside the method-specific limits.	UJ, P7c	J, P7c
☐	☒	☐	7. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, P7d	J, P7d
☐	☒	☐	8. The multicomponent standard was not analyzed within 72 hours of the initial analysis.	R, P7e	J, P7e
☐	☒	☐	9. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, P7f	R, P7f
☐	☐	☒	10. The breakdown criteria have been exceeded. This can cause low bias in reported results. If compound is detected, qualify J-. If compound is not present, but breakdown products are present, qualify R. If no compounds or breakdown products are present, qualify UJ (4,4' DDT and Endrin).	UJ, R, P13	J-, P13

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2

Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	11. The breakdown criteria have been exceeded. This can cause high bias in the reported results and potential false positive results for the breakdown products Endrin ketone, Endrin aldehyde, DDD, and DDE.	UJ, P13a	J+, P13a
☐	☐	☒	12. The breakdown documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P13b	R, P13b
☐	☒	☐	13. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, P4	N/A
☐	☒	☐	14. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was greater than 5X.	N/A	J, P4a
☐	☐	☒	15. The sample result is ≤5X the concentration of the related analyte in the instrument blank and continuing calibration blank.	UJ, P4b	N/A
☐	☐	☒	16. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	UJ, P4d	N/A
☐	☒	☐	17. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P4e	R, P4e
☐	☒	☐	18. The analyte RT shifted by more than 0.05 minutes from the mid-level standard of the initial calibration.	R, P0	J, P0
☐	☒	☐	19. Required retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P0b	R, P0b
☐	☒	☐	20. The surrogate is <10%R. Follow the external laboratory limits located within the associated data package.	R, P3	J-, P3

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2

Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	21. The surrogate is < the Lower Acceptance Level (LAL) but ≥10%R. Follow the external laboratory limits located within the associated data package.	UJ, P3a	J-, P3a
☐	☒	☐	22. The surrogate %R value is > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, P3b
☐	☒	☐	23. At least one surrogate is > the Upper Acceptance Limit (UAL) and one surrogate is < the LAL. Follow the external laboratory limits located within the associated data package.	UJ, P3c	J, P3c
☐	☒	☐	24. Required surrogate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P3d	R, P3d
☐	☒	☐	25. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, P12	J-, P12
☐	☒	☐	26. The LCS percent recovery was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, P12a	J-, P12a
☐	☒	☐	27. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, P12b
☐	☒	☐	28. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P12c	R, P12c
☐	☒	☐	29. The analyte was not confirmed on a second dissimilar column.	N/A	R, P8
☐	☒	☐	30. The second dissimilar column documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P8a	R, P8a
☐	☒	☐	31. Duplicate, Dilution, or reanalysis.	UJ, P88	J, P88

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2 Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	32. The affected analytes have elevated detection limits and may not meet project DQOs because the sample was diluted without any target analytees identified due to matrix interference. Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.	UJ, R, P15	R, P15
☒	☐	☐	33. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB, NQ, NQ
☐	☒	☐	34. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.	UJ, R, P19	J, R, P19

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10-917	**Date Collected:**	12/11/2009 12:00	**Matrix:**	S
Lab Sample ID:	242937003	**Date Received:**	12/15/2009 08:45	**%Moisture:**	12.9
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14212	**Method:**	SW846 8082	**SOP Ref:**	GL-OA-E-040
Batch ID:	933817	**Inst:**	ECD1A.I	**Dilution:**	1
Run Date:	12/18/2009 15:20	**Analyst:**	YS1	**Inj. Vol:**	1 uL
Prep Date:	12/17/2009 10:38	**Aliquot:**	30.05 g	**Final Volume:**	1 mL
Data File:	050f5001.d	**Column:**	1 CLP1	**Level:**	LOW
	050b5001.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.82	ug/kg	1.27	3.82	1
11104-28-2	Aroclor-1221	U	3.82	ug/kg	1.27	3.82	1
11141-16-5	Aroclor-1232	U	3.82	ug/kg	1.27	3.82	1
53469-21-9	Aroclor-1242	U	3.82	ug/kg	1.27	3.82	1
12672-29-6	Aroclor-1248	U	3.82	ug/kg	1.27	3.82	1
11097-69-1	Aroclor-1254	P	10.6	ug/kg	1.27	3.82	1
11096-82-5	Aroclor-1260		10.0	ug/kg	1.27	3.82	2

ETM
2/9/10

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10-917	**Date Collected:**	12/11/2009 12:00	**Matrix:**	S
Lab Sample ID:	242937001	**Date Received:**	12/15/2009 08:45	**%Moisture:**	12.8
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14213	**Method:**	SW846 8082	**SOP Ref:**	GL-OA-E-040
Batch ID:	933817	**Inst:**	ECD1A.I	**Dilution:**	1
Run Date:	12/18/2009 14:29	**Analyst:**	YS1	**Inj. Vol:**	1 uL
Prep Date:	12/17/2009 10:38	**Aliquot:**	30.01 g	**Final Volume:**	1 mL
Data File:	046f4601.d	**Column:**	1 CLP1	**Level:**	LOW
	046b4601.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.82	ug/kg	1.27	3.82	1
11104-28-2	Aroclor-1221	U	3.82	ug/kg	1.27	3.82	1
11141-16-5	Aroclor-1232	U	3.82	ug/kg	1.27	3.82	1
53469-21-9	Aroclor-1242	U	3.82	ug/kg	1.27	3.82	1
12672-29-6	Aroclor-1248	U	3.82	ug/kg	1.27	3.82	1
11097-69-1	Aroclor-1254	U	3.82	ug/kg	1.27	3.82	1
11096-82-5	Aroclor-1260	U	3.82	ug/kg	1.27	3.82	1

ETM
2/9/10

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10-917	**Date Collected:**	12/11/2009 12:00	**Matrix:**	S
Lab Sample ID:	242937007	**Date Received:**	12/15/2009 08:45	**%Moisture:**	13.8
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14214	**Method:**	SW846 8082	**SOP Ref:**	GL-OA-E-040
Batch ID:	933817	**Inst:**	ECD1A.I	**Dilution:**	1
Run Date:	12/18/2009 16:31	**Analyst:**	YS1	**Inj. Vol:**	1 uL
Prep Date:	12/17/2009 10:38	**Aliquot:**	30.03 g	**Final Volume:**	1 mL
Data File:	056f5601.d	**Column:**	1 CLP1	**Level:**	LOW
	056b5601.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.86	ug/kg	1.29	3.86	1
11104-28-2	Aroclor-1221	U	3.86	ug/kg	1.29	3.86	1
11141-16-5	Aroclor-1232	U	3.86	ug/kg	1.29	3.86	1
53469-21-9	Aroclor-1242	U	3.86	ug/kg	1.29	3.86	1
12672-29-6	Aroclor-1248	U	3.86	ug/kg	1.29	3.86	1
11097-69-1	Aroclor-1254	J	2.10	ug/kg	1.29	3.86	1
11096-82-5	Aroclor-1260	U	3.86	ug/kg	1.29	3.86	1

ETM
2/9/10

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10–917	**Date Collected:**	12/11/2009 12:00	**Matrix:**	S
Lab Sample ID:	242937002	**Date Received:**	12/15/2009 08:45	**%Moisture:**	10.3
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03–09–14215	**Method:**	SW846 8082	**SOP Ref:**	GL–OA–E–040
Batch ID:	933817	**Inst:**	ECD1A.I	**Dilution:**	1
Run Date:	12/18/2009 15:07	**Analyst:**	YS1	**Inj. Vol:**	1 uL
Prep Date:	12/17/2009 10:38	**Aliquot:**	30.01 g	**Final Volume:**	1 mL
Data File:	049f4901.d	**Column:**	1 CLP1	**Level:**	LOW
	049b4901.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	3.71	ug/kg	1.24	3.71	1
11104–28–2	Aroclor–1221	U	3.71	ug/kg	1.24	3.71	1
11141–16–5	Aroclor–1232	U	3.71	ug/kg	1.24	3.71	1
53469–21–9	Aroclor–1242	U	3.71	ug/kg	1.24	3.71	1
12672–29–6	Aroclor–1248	U	3.71	ug/kg	1.24	3.71	1
11097–69–1	Aroclor–1254	U	3.71	ug/kg	1.24	3.71	1
11096–82–5	Aroclor–1260	U	3.71	ug/kg	1.24	3.71	1

ETM
2/9/10

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10–917	**Date Collected:**	12/11/2009 12:00	**Matrix:**	S
Lab Sample ID:	242937006	**Date Received:**	12/15/2009 08:45	**%Moisture:**	15.8
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03–09–14216	**Method:**	SW846 8082	**SOP Ref:**	GL–OA–E–040
Batch ID:	933817	**Inst:**	ECD1A.I	**Dilution:**	1
Run Date:	12/18/2009 16:19	**Analyst:**	YS1	**Inj. Vol:**	1 uL
Prep Date:	12/17/2009 10:38	**Aliquot:**	30.09 g	**Final Volume:**	1 mL
Data File:	055f5501.d	**Column:**	1 CLP1	**Level:**	LOW
	055b5501.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	3.95	ug/kg	1.31	3.95	1
11104–28–2	Aroclor–1221	U	3.95	ug/kg	1.31	3.95	1
11141–16–5	Aroclor–1232	U	3.95	ug/kg	1.31	3.95	1
53469–21–9	Aroclor–1242	U	3.95	ug/kg	1.31	3.95	1
12672–29–6	Aroclor–1248	U	3.95	ug/kg	1.31	3.95	1
11097–69–1	Aroclor–1254	U	3.95	ug/kg	1.31	3.95	1
11096–82–5	Aroclor–1260	U	3.95	ug/kg	1.31	3.95	1

ETM
2/9/10

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–917**	**Date Collected:**	**12/11/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242937008**	**Date Received:**	**12/15/2009 08:45**	**%Moisture:**	**15.2**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03–09–14217**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**933817**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**12/18/2009 16:44**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**12/17/2009 10:38**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**057f5701.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	057b5701.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	3.93	ug/kg	1.31	3.93	1
11104–28–2	Aroclor–1221	U	3.93	ug/kg	1.31	3.93	1
11141–16–5	Aroclor–1232	U	3.93	ug/kg	1.31	3.93	1
53469–21–9	Aroclor–1242	U	3.93	ug/kg	1.31	3.93	1
12672–29–6	Aroclor–1248	U	3.93	ug/kg	1.31	3.93	1
11097–69–1	Aroclor–1254	U	3.93	ug/kg	1.31	3.93	1
11096–82–5	Aroclor–1260	U	3.93	ug/kg	1.31	3.93	1

ETM
2/9/10

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10–917	**Date Collected:**	12/11/2009 12:00	**Matrix:**	S
Lab Sample ID:	242937005	**Date Received:**	12/15/2009 08:45	**%Moisture:**	17.6
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03–09–14218	**Method:**	SW846 8082	**SOP Ref:**	GL–OA–E–040
Batch ID:	933817	**Inst:**	ECD1A.I	**Dilution:**	1
Run Date:	12/18/2009 16:06	**Analyst:**	YS1	**Inj. Vol:**	1 uL
Prep Date:	12/17/2009 10:38	**Aliquot:**	30.09 g	**Final Volume:**	1 mL
Data File:	054f5401.d	**Column:**	1 CLP1	**Level:**	LOW
	054b5401.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	4.03	ug/kg	1.34	4.03	1
11104–28–2	Aroclor–1221	U	4.03	ug/kg	1.34	4.03	1
11141–16–5	Aroclor–1232	U	4.03	ug/kg	1.34	4.03	1
53469–21–9	Aroclor–1242	U	4.03	ug/kg	1.34	4.03	1
12672–29–6	Aroclor–1248	U	4.03	ug/kg	1.34	4.03	1
11097–69–1	Aroclor–1254	U	4.03	ug/kg	1.34	4.03	1
11096–82–5	Aroclor–1260	U	4.03	ug/kg	1.34	4.03	1

ETM
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PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–917**	**Date Collected:**	**12/11/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242937004**	**Date Received:**	**12/15/2009 08:45**	**%Moisture:**	**17.2**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03–09–14219**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**933817**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**12/18/2009 15:53**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**12/17/2009 10:38**	**Aliquot:**	**30.05 g**	**Final Volume:**	**1 mL**
Data File:	**053f5301.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	053b5301.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	4.02	ug/kg	1.34	4.02	1
11104–28–2	Aroclor–1221	U	4.02	ug/kg	1.34	4.02	1
11141–16–5	Aroclor–1232	U	4.02	ug/kg	1.34	4.02	1
53469–21–9	Aroclor–1242	U	4.02	ug/kg	1.34	4.02	1
12672–29–6	Aroclor–1248	U	4.02	ug/kg	1.34	4.02	1
11097–69–1	Aroclor–1254	U	4.02	ug/kg	1.34	4.02	1
11096–82–5	Aroclor–1260	U	4.02	ug/kg	1.34	4.02	1

ETM
2/9/10

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10–917	**Date Collected:**	12/11/2009 12:00	**Matrix:**	S
Lab Sample ID:	242937009	**Date Received:**	12/15/2009 08:45	**%Moisture:**	14.2
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03–10–2735	**Method:**	SW846 8082	**SOP Ref:**	GL–OA–E–040
Batch ID:	933817	**Inst:**	ECD1A.I	**Dilution:**	1
Run Date:	12/18/2009 16:57	**Analyst:**	YS1	**Inj. Vol:**	1 uL
Prep Date:	12/17/2009 10:38	**Aliquot:**	30.03 g	**Final Volume:**	1 mL
Data File:	058f5801.d	**Column:**	1 CLP1	**Level:**	LOW
	058b5801.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	3.88	ug/kg	1.29	3.88	1
11104–28–2	Aroclor–1221	U	3.88	ug/kg	1.29	3.88	1
11141–16–5	Aroclor–1232	U	3.88	ug/kg	1.29	3.88	1
53469–21–9	Aroclor–1242	U	3.88	ug/kg	1.29	3.88	1
12672–29–6	Aroclor–1248	U	3.88	ug/kg	1.29	3.88	1
11097–69–1	Aroclor–1254	U	3.88	ug/kg	1.29	3.88	1
11096–82–5	Aroclor–1260	U	3.88	ug/kg	1.29	3.88	1

ETM
2/9/10

Monday, December 14, 2009

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-917

REQUEST NUMBER: 10-917

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 1/13/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS: 242937

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE03-09-14213	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-09-14213	1	GLASS	8270C+8082+TPH-DRO	Ice	S
RE03-09-14215	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-09-14215	1	GLASS	8270C+8082+TPH-DRO	Ice	S
RE03-09-14212	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-09-14212	1	GLASS	8270C+8082+TPH-DRO	Ice	S
RE03-09-14219	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-09-14219	1	GLASS	8270C+8082+TPH-DRO	Ice	S
RE03-09-14218	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-09-14218	1	GLASS	8270C+8082+TPH-DRO	Ice	S
RE03-09-14216	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-09-14216	1	GLASS	8270C+8082+TPH-DRO	Ice	S
RE03-09-14214	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-09-14214	1	GLASS	8270C+8082+TPH-DRO	Ice	S
RE03-09-14217	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-09-14217	1	GLASS	8270C+8082+TPH-DRO	Ice	S
RE03-10-2735	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-10-2735	1	GLASS	8270C+8082+TPH-DRO	Ice	S
RE03-10-6968	1	SEPTUM AMBER GLASS	8260B Trip Blank	Ice	S
RE03-10-6968	2	SEPTUM AMBER GLASS	8260B Trip Blank	Ice	S

Relinquished By:	Date	Time	Received By:	Date	Time
Printed Name / Signature	12/14/09	1400	Greg Tyler / Signature	12-15-09	0845
Printed Name / Signature			Printed Name / Signature		
Printed Name / Signature			Printed Name / Signature		

Received for DISPOSAL By: Date Time

Printed Name Signature

Remarks:

Monday, December 14, 2009

REQUEST NUMBER: 10-917

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis
General Engineering Laboratories, Inc., Charleston, SC.
2040 Savage Rd
Charleston, SC 29407

These Samples are on:
LANL Request Number:10-917
Per Agreement Number:126310011
Project Cost Code: MR2A054196D0

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 12/14/2009
TURNAROUND/REPORT DUE: 1/13/2010
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Not Required
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8015M_EXTRACTABLE	1	RE03-09-14212	S	12/11/2009	
		1	RE03-09-14213	S	12/11/2009	
		1	RE03-09-14214	S	12/11/2009	
		1	RE03-09-14215	S	12/11/2009	

Monday, December 14, 2009

REQUEST NUMBER: 10-917

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8015M_EXTRACTABLE	1	RE03-09-14216	S	12/11/2009	
		1	RE03-09-14217	S	12/11/2009	
		1	RE03-09-14218	S	12/11/2009	
		1	RE03-09-14219	S	12/11/2009	
		1	RE03-10-2735	S	12/11/2009	
	SW-846:8082	1	RE03-09-14212	S	12/11/2009	
		1	RE03-09-14213	S	12/11/2009	
		1	RE03-10-2735	S	12/11/2009	
	SW-846:8260B	1	RE03-09-14212	S	12/11/2009	
		1	RE03-09-14213	S	12/11/2009	
		1	RE03-09-14214	S	12/11/2009	
		1	RE03-09-14215	S	12/11/2009	
		1	RE03-09-14216	S	12/11/2009	
		1	RE03-09-14217	S	12/11/2009	
		1	RE03-09-14218	S	12/11/2009	
		1	RE03-09-14219	S	12/11/2009	
		1	RE03-10-2735	S	12/11/2009	
		1	RE03-10-6968	S	12/11/2009	
		2	RE03-10-6968	S	12/11/2009	
	SW-846:8270C	1	RE03-09-14212	S	12/11/2009	
		1	RE03-09-14213	S	12/11/2009	
		1	RE03-09-14214	S	12/11/2009	
		1	RE03-09-14215	S	12/11/2009	

Monday, December 14, 2009

REQUEST NUMBER: 10-917

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8270C	1	RE03-09-14216	S	12/11/2009	
		1	RE03-09-14217	S	12/11/2009	
		1	RE03-09-14218	S	12/11/2009	
		1	RE03-09-14219	S	12/11/2009	
		1	RE03-10-2735	S	12/11/2009	

Final Page of REQUEST NUMBER 10-917

GEL Laboratories LLC

a member of The GEL Group INC

PO Box 30712 Charleston, SC 29417
2040 Savage Road Charleston, SC 29407

P 843.556.8171 F 843.766.1178

www.gel.com

December 19, 2009

Ms. Joylene Valdez
Los Alamos National Laboratory
PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545

Re: LANL ER Project
Work Order: 242937
SDG: 10-917

Dear Ms. Valdez:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the following analytical results for the sample(s) we received on December 15, 2009, and analyzed for FID Flame Ionization Detector, GC Semivolatile PCB, GC/MS Semivolatile and GC/MS Volatile. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 4485.

Sincerely,

for

Valerie Davis
Project Manager

Purchase Order: 72733-001-09
Chain of Custody: 10-917
Enclosures

problem solved

Los Alamos National Laboratory (72733-001-09)
LANL ER Project
Work Order #: 242937
SDG: 10-917

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Case Narrative

Case Narrative for
Los Alamos National Laboratory (72733-001-09)
LANL ER Project
Workorder #: 242937
SDG # : 10-917

December 19, 2009

Laboratory Identification:

GEL Laboratories LLC
2040 Savage Road
Charleston, South Carolina 29407
(843) 556-8171

Summary

Sample receipt The samples arrived at GEL Laboratories LLC, Charleston, South Carolina on December 15, 2009 for analysis. The samples were prepared/analyzed within the required holding time. Shipping container temperatures were checked, documented, and within specifications. The samples were screened according to GEL Standard Operating Procedure. The lab received (1) 40ml vial 8260B container for sample RE03-09-6968 instead of (2) as indicated on the COC. All sample containers arrived without any visible signs of tampering or breakage. Containers were checked for pH, where appropriate, and matched the preservative as documented on the accompanying chain of custody. Shipping container temperature was within specification (0 - 6C).

Sample Identification The laboratory received the following samples:

Laboratory ID	Client ID
242937001	RE03-09-14213
242937002	RE03-09-14215
242937003	RE03-09-14212
242937004	RE03-09-14219
242937005	RE03-09-14218
242937006	RE03-09-14216
242937007	RE03-09-14214
242937008	RE03-09-14217
242937009	RE03-10-2735
242937010	RE03-10-6968

Case Narrative

Sample analyses were conducted using methodology as outlined in GEL Laboratories, LLC (GEL) Standard Operating Procedures. Any technical or administrative problems during analysis, data review, and reduction are contained in the analytical case narratives in the enclosed data package.

Data Package The enclosed data package contains the following sections: Case Narrative, Chain of Custody, Cooler Receipt Checklist, Data Package Qualifier Definitions and data from the following fractions: FID Flame Ionization Detector, GC Semivolatile PCB, GC/MS Semivolatile and GC/MS Volatile.

I certify that this data report is in compliance with the terms and conditions of the subcontract and task order, both technically and for completeness, for other than the conditions detailed in the attached case narrative.

for

Valerie Davis
Project Manager

List of current GEL Certifications as of 19 December 2009

State	Certification
Arizona	AZ0668
Arkansas	88–0651
CLIA	42D0904046
California – NELAP	01151CA
Colorado	GEL
Connecticut	PH–0169
Dept. of Navy	NFESC 413
EPA Region 5	WG–15J
Florida – NELAP	E87156
Georgia	E87156 (FL/NELAP)
Georgia DW	967
Hawaii	N/A
ISO 17025	2567.01
Idaho	SC00012
Illinois – NELAP	200029
Indiana	C–SC–01
Kansas – NELAP	E–10332
Kentucky	90129
Louisiana – NELAP	03046
Maryland	270
Massachusetts	M–SC012
Nevada	SC00012
New Jersey – NELAP	SC002
New Mexico	FL NELAP E87156
New York – NELAP	11501
North Carolina	233
North Carolina DW	45709
Oklahoma	9904
Pennsylvania – NELAP	68–00485
South Carolina	10120001/10120002
Tennessee	TN 02934
Texas – NELAP	T104704235–07B–TX
U.S. Dept. of Agriculture	S–52597
Utah – NELAP	GEL
Vermont	VT87156
Virginia	00151
Washington	C1641

Chain of Custody and Supporting Documentation

Monday, December 14, 2009

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-917

REQUEST NUMBER: 10-917

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

TURNAROUND/REPORT DUE: 1/13/2010

TURNAROUND REQ'D: 30

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

LAB REQUEST COMMENTS: 242937

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE03-09-14213	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-09-14213	1	GLASS	8270C+8082+TPH-DRO	Ice	S
RE03-09-14215	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-09-14215	1	GLASS	8270C+8082+TPH-DRO	Ice	S
RE03-09-14212	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-09-14212	1	GLASS	8270C+8082+TPH-DRO	Ice	S
RE03-09-14219	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-09-14219	1	GLASS	8270C+8082+TPH-DRO	Ice	S
RE03-09-14218	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-09-14218	1	GLASS	8270C+8082+TPH-DRO	Ice	S
RE03-09-14216	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-09-14216	1	GLASS	8270C+8082+TPH-DRO	Ice	S
RE03-09-14214	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-09-14214	1	GLASS	8270C+8082+TPH-DRO	Ice	S
RE03-09-14217	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-09-14217	1	GLASS	8270C+8082+TPH-DRO	Ice	S
RE03-10-2735	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-10-2735	1	GLASS	8270C+8082+TPH-DRO	Ice	S
RE03-10-6968	1	SEPTUM AMBER GLASS	8260B Trip Blank	Ice	S
RE03-10-6968	2	SEPTUM AMBER GLASS	8260B Trip Blank	Ice	S

Relinquished By:		Date	Time	Received By:		Date	Time
[illegible]	[illegible]	12/14/09	1400	Greg Tyler	[illegible]	12-15-09	0845
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

Received for DISPOSAL By: **Date** **Time** **Remarks:**

Printed Name Signature

Monday, December 14, 2009

REQUEST NUMBER: 10-917

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis
General Engineering Laboratories, Inc., Charleston, SC.
2040 Savage Rd
Charleston, SC 29407

These Samples are on:
LANL Request Number:10-917
Per Agreement Number:126310011
Project Cost Code: MR2A054196D0

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 12/14/2009
TURNAROUND/REPORT DUE: 1/13/2010
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Not Required
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8015M_EXTRACTABLE	1	RE03-09-14212	S	12/11/2009	
		1	RE03-09-14213	S	12/11/2009	
		1	RE03-09-14214	S	12/11/2009	
		1	RE03-09-14215	S	12/11/2009	

Monday, December 14, 2009

REQUEST NUMBER: 10-917

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8015M_EXTRACTABLE	1	RE03-09-14216	S	12/11/2009	
		1	RE03-09-14217	S	12/11/2009	
		1	RE03-09-14218	S	12/11/2009	
		1	RE03-09-14219	S	12/11/2009	
		1	RE03-10-2735	S	12/11/2009	
	SW-846:8082	1	RE03-09-14212	S	12/11/2009	
		1	RE03-09-14213	S	12/11/2009	
		1	RE03-10-2735	S	12/11/2009	
	SW-846:8260B	1	RE03-09-14212	S	12/11/2009	
		1	RE03-09-14213	S	12/11/2009	
		1	RE03-09-14214	S	12/11/2009	
		1	RE03-09-14215	S	12/11/2009	
		1	RE03-09-14216	S	12/11/2009	
		1	RE03-09-14217	S	12/11/2009	
		1	RE03-09-14218	S	12/11/2009	
		1	RE03-09-14219	S	12/11/2009	
		1	RE03-10-2735	S	12/11/2009	
		1	RE03-10-6968	S	12/11/2009	
		2	RE03-10-6968	S	12/11/2009	
	SW-846:8270C	1	RE03-09-14212	S	12/11/2009	
		1	RE03-09-14213	S	12/11/2009	
		1	RE03-09-14214	S	12/11/2009	
		1	RE03-09-14215	S	12/11/2009	

Monday, December 14, 2009

REQUEST NUMBER: 10-917

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8270C	1	RE03-09-14216	S	12/11/2009	
		1	RE03-09-14217	S	12/11/2009	
		1	RE03-09-14218	S	12/11/2009	
		1	RE03-09-14219	S	12/11/2009	
		1	RE03-10-2735	S	12/11/2009	

Final Page of REQUEST NUMBER 10-917

GEL Laboratories LLC

SAMPLE RECEIPT & REVIEW FORM

Client: LANL	**SDG/ARCOC/Work Order: 10-917**
Received By: Greg Tyler	**Date Received: 12/15/09**

Suspected Hazard Information	**Yes**	**No**	*If Counts > x2 area background on samples not marked "radioactive", contact the Radiation Safety Group of further investigation.
COC/Samples marked as radioactive?		X	Maximum Counts Observed*: **40cpm**
Classified Radioactive II by RSO?		X	
COC/Samples marked containing PCBs?		X	
Shipped as a DOT Hazardous?		X	Hazard Class Shipped: UN#:
Samples identified as Foreign Soil?		X	

	Sample Receipt Criteria	**Yes**	**NA**	**No**	**Comments/Qualifiers (Required for Non-Conforming Items)**
1	Shipping containers received intact and sealed?	X			Circle Applicable: seals broken damaged container leaking container other (describe)
2	Samples requiring cold preservation within 0 ≤ 6 deg. C?	X			Preservation Method: ice bags **blue ice** dry ice **none** other **1, 2, 3, 6C** **15C**
3	Chain of custody documents included with shipment?	X			
4	Sample containers intact and sealed?	X			Circle Applicable: seals broken damaged container leaking container other (describe)
5	Samples requiring chemical preservation at proper pH?		X		Sample ID's, containers affected and observed pH: If Preservation added, Lot#:
6	VOA vials free of headspace (defined as < 6mm bubble)?		X		Sample ID's and containers affected:
7	Are Encore containers present?			X	(If yes, immediately deliver to Volatiles laboratory)
8	Samples received within holding time?	X			Id's and tests affected:
9	Sample ID's on COC match ID's on bottles?	X			Sample ID's and containers affected:
10	Date & time on COC match date & time on bottles?		X		Sample ID's affected: **No time on Chain of Custody.**
11	Number of containers received match number indicated on COC?			X	Sample ID's affected: **RE03-10-6968** **The lab rec'd (1) 40ML vial 8260B Trip Blank instead of (2) as indicated on the Chain of Custody.**
12	COC form is properly signed in relinquished/received sections?	X			

Comments:
Fed Ex Tracking Numbers
7209 7849 2244 1C
7209 7849 2222 1C
7209 7849 2233 2C
7209 7849 2299 3C
7209 7849 2288 6C
7209 7849 2277 6C
7209 7849 2211 15C

PM (of PMA) review: Initials TF Date 12/16/09

Subject: Sample Receipt for 12/15/09
From: Dionne Francis <Dionne.Francis@gel.com>
Date: Wed, 16 Dec 2009 12:55:02 -0500
To: "Keith R. Greene" <kgreene@lanl.gov>, Joylene Valdez <joylenev@lanl.gov>, Valerie Davis <vsd@gel.com>

Keith,

RN 10-917: the lab rec'd (1) 40ml vial 8260B container for sample RE03-10-6968 instead of (2) as indicated on the COC.

RN 10-916 and 911: the Gross A/B containers were preserved prior to analysis.

Thanks,
Dionne

--
Dionne Francis
Project Manager Assistant
GEL Laboratories, LLC
2040 Savage Road
Charleston, SC (USA) 29407
Direct: 843.769.7376 Ext. 4432
Main: 843.556.8171
Fax: 843.766.1178
E-mail: daf@gel.com
Web: www.gel.com

Let the Bible fill the memory, rule the heart, and guide the feet.

ORIGIN ID: SAFA (505)665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 14DEC09
ACTWGT: 51.0 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

1°

CHARLESTON SC 29407
(843)556-8171
REF: 6B010AMR1A015AGWH0

FedEx Express

TRK# 0201 7209 7849 2244

TUE - 15DEC A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

ORIGIN ID: SAFA (505)665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 14DEC09
ACTWGT: 53.0 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

2°

CHARLESTON SC 29407
(843)556-8171
REF: 6B010AMR1A015AGWH0

FedEx Express

2 of 2

TRK# 0201 7209 7849 2233

TUE - 15DEC A1
PRIORITY OVERNIGHT

MASTER 7209 7849 2222 0201

XX CHSA

29407
SC-US
CHS

LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

1°

CHARLESTON SC 29407
(843)556-8171
REF: 6B010AMR1A015AGWH0

FedEx Express

1 of 2

TRK# 0201 7209 7849 2222

TUE - 15DEC A1
PRIORITY OVERNIGHT

MASTER

XX CHSA

29407
SC-US
CHS

ORIGIN ID: SAFA (505)665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 14DEC09
ACTWGT: 47.0 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

3°

CHARLESTON SC 29407
(843)556-8171
REF: 6B010AMR2A054196D0

FedEx Express

TRK# 0201 7209 7849 2299

TUE - 15DEC A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

GIN ID: SAFA (505)665-9968
LENE VALDEZ
ALAMOS NATL LAB
00 BLDG 1237 DPU 03

ALAMOS, NM 87545
ITED STATES US

SHIP DATE: 14DEC09
ACTWGT: 49.0 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

ALERIE DAVIS
ENERAL ENGINEERING LAB
040 SAVAGE RD

HARLESTON SC 29407
843)556-8171
EF: 6B010AMR1A015AGWM0

6°

FedEx Express

C9812898212224

2 of 2
MPS# 0263 7209 7849 2288
Mstr# 7209 7849 2277 0201

TUE - 15DEC A1
PRIORITY OVERNIGHT

29407
SC-US
CHS

XX CHSA

ORIGIN ID: SAFA (505)665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 14DEC09
ACTWGT: 49.0 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843)556-8171
REF: 6B010AMR1A015AGWM0

6°

FedEx Express

C9812898212224

1 of 2
TRK# 0201 7209 7849 2277
MASTER

TUE - 15DEC A1
PRIORITY OVERNIGHT

29407
SC-US
CHS

XX CHSA

Part # 156148-434 NRIT V3 09-09

JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

CAD: 0014176/CAFE2434

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843)556-8171
REF: 6B010AAREW01105800

15°

FedEx Express

C9812898212224

2 of 2
MPS# 0263 7209 7849 2211
Mstr# 7209 7849 2200 0201

TUE - 15DEC A1
PRIORITY OVERNIGHT

29407
SC-US
CHS

XX CHSA

3 09-09

Data Review Qualifier Flag Definition Sheet

Data Review Qualifier Definitions

Qualifier	Explanation
*	A quality control analyte recovery is outside of specified acceptance criteria
**	Analyte is a surrogate compound
<	Result is less than value reported
>	Result is greater than value reported
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL
A	The TIC is a suspected aldol-condensation product
B	Target analyte was detected in the associated blank
B	Metals-Either presence of analyte detected in the associated blank, or MDL/IDL < sample value < PQL
BD	Results are either below the MDC or tracer recovery is low
C	Analyte has been confirmed by GC/MS analysis
D	Results are reported from a diluted aliquot of the sample
d	5-day BOD-The 2:1 depletion requirement was not met for this sample
E	Organics-Concentration of the target analyte exceeds the instrument calibration range
E	Metals-%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
H	Analytical holding time was exceeded
h	Preparation or preservation holding time was exceeded
J	Value is estimated
N	Metals-The Matrix spike sample recovery is not within specified control limits
N	Organics-Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A	Spike recovery limits do not apply. Sample concentration exceeds spike concentration by 4X or more
ND	Analyte concentration is not detected above the reporting limit
UI	Gamma Spectroscopy-Uncertain identification
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
Z	Paint Filter Test-Particulates passed through the filter, however no free liquids were observed.

GC/MS Volatile Analysis

GC/MS Volatile Organics
Los Alamos National Laboratory (LANL)
SDG 10-917

Method/Analysis Information

Procedure:	Volatile Organic Compounds (VOC) by Gas Chromatograph/Mass Spectrometer
Analytical Method:	SW846 8260B
Prep Method:	SW846 5030
Analytical Batch Number:	934728
Prep Batch Number:	934727

Sample Analysis

The following client and quality control samples were analyzed to complete this SDG using the methods referenced in the Analysis Information section:

Sample ID	Client ID
242937001	RE03-09-14213
242937002	RE03-09-14215
242937003	RE03-09-14212
242937004	RE03-09-14219
242937005	RE03-09-14218
242937006	RE03-09-14216
242937007	RE03-09-14214
242937008	RE03-09-14217
242937009	RE03-10-2735
242937010	RE03-10-6968
1201999844	Method Blank (MB)
1201999847	Laboratory Control Sample (LCS)
1201999848	Laboratory Control Sample (LCS)
1201999845	242794001(RE03-09-13470) Post Spike (PS)
1201999846	242794001(RE03-09-13470) Post Spike Duplicate (PSD)

NOTE: For volatile organic analyses the matrix spike designations may be indicated as "PS" or "PSD". The "PS" designation (post spike) indicates that the matrix was fortified prior to analysis but after applying any prep factors, such as a dilution. The laboratory considers the MS/MSD and PS/PSD designations interchangeable.
Samples 242937 001, 002, 003, 004, 005, 006, 007, 008 and 009 in this SDG were analyzed on an "dry weight" basis. Samples 242937 010 in this SDG were analyzed on a "as received" basis.

Preparation/Analytical Method Verification

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-038 REV# 13.

Raw data reports are processed and reviewed by the analyst using the Target software package. False positives have been removed from the Target quantitation reports per standard operating procedures (SOP) section 19.1.2.

Calibration Information

Please note that the 'Cal Date' indicated on each quantitation report reflects the date and time of the most recent calibrated analyte(s) in the Target processing method. Since the laboratory may calibrate with multiple solutions on different days using the same processing method, the Target software will update the 'Cal Date' to the last calibration file, date and time. The correct dates and times for all calibration files are located on the Calibration History report in the Standard Data section in the data package.

The surrogate compounds were calibrated using a minimum five-point calibration curve. The surrogates were added by the auto sampler at a concentration of 50 ug/L. GEL Laboratories LLC will not have surrogate recoveries reported for Dibromofluoromethane. This is due to increased regulations for this analyte and an industry shortage.

Due to software limitations, the Calibration Summary Form 6 may not indicate all the calibration files comprising the initial calibration. A complete list of the initial calibration data files are shown in the Calibration History report located in the Standard Data section of the data package.

The linear equation used in Target and indicated on the initial calibration summary form is not a conventional linear equation (slope intercept formula) and does not match the equation found in SW-846 method 8000B. The x and y axes are inversed in Target, so that the instrument response is treated as the independent variable (x) and the concentration ratio is treated as the dependent variable (y). The equation used in Target to calculate sample results is adjusted to account for the linear equation inversion and reciprocal slope. The adjusted calculation has been independently verified to produce valid results.

Initial Calibration

All initial calibration requirements have been met for this sample delivery groups (SDG). A second source initial calibration verification (ICV) was included in the standard section directly behind the initial calibration.

Continuing Calibration Verification Requirements

All associated calibration verification standard(s) (ICV or CCV) met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement

The MB analyzed with this SDG met the acceptance criteria.

Surrogate Recoveries

Surrogate recoveries in all client and quality control samples were within the acceptance limits.

Laboratory Control Sample (LCS) Recovery

The LCS spike recoveries met the acceptance limits.

QC Sample Designation

Sample 242794001 (RE03-09-13470) was designated for spike analysis in this SDG.

Matrix Spike (PS) Recovery Statement

The spike recoveries for this SDG were within the required acceptance limits.

Matrix Spike Duplicate (PSD) Recovery Statement

The spike duplicate recoveries for this SDG were within the required acceptance limits.

Relative Percent Difference (RPD) Statement
The RPD(s) between the matrix spike pair met the acceptance limits.

Internal Standard (ISTD) Acceptance
The internal standard responses in all client and quality control samples met the required acceptance criteria.

Technical Information

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection or sample receipt. Those holding times expressed in hours are calculated in the ALPHALIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Sample Preservation and Integrity
All samples met the sample preservation and integrity requirements.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-extraction/Re-analysis
The samples in this SDG were re-analyzed due to unacceptable recoveries in the initial analysis: 1201999845 (RE03-09-13470) and 1201999846 (RE03-09-13470).

Miscellaneous Information

Electronic Package Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. An electronic signature page inserted after the case narrative of each electronic package will indicate the analyst, reviewer, and report specialist names associated with the generation of the data and package. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Nonconformance (NCR) Documentation
The following NCR was generated for this SDG: 773454

Manual Integrations
Data files associated with the initial calibration, continuing calibration check, and samples did not require manual integrations.

TIC Comment
Tentatively identified compounds (TIC) were required for this SDG.

Additional Comments
The samples were not in the analyst's custody in LIMS. However, the analyst did maintain custody of the samples during analysis. See NCR# 773454.

Residual Chlorine
Residual Chlorine was not detected in any of the samples in this SDG.

System Configuration

The Volatile-GC/MS analysis was performed on the following instrument configuration:

Instrument ID	Instrument	System Configuration	Column ID	Column Description	P & T Trap
VOA1.I	Gas Chromatograph/Mass Spectrometer	HP6890/HP5973	RTX-624	Restek, 60m x 0.25mm x 1.4um	Trap 10

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis Report
for

LANL010 Los Alamos National Laboratory (72733-001-09)

Client SDG: 10-917 GEL Work Order: 242937

The Qualifiers in this report are defined as follows:

* A quality control analyte recovery is outside of specified acceptance criteria

** Analyte is a surrogate compound

J Value is estimated

U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

Review/Validation

GEL requires all analytical data to be verified by a qualified data reviewer. In addition, all CLP-like deliverables receive a third level review of the fractional data package.

The following data validator verified the information presented in this case narrative:

Signature: Stacy Calloway **Name: Stacy Calloway**

Date: 11 JAN 2010 **Title: Data Validator**

Roadmap for LANL 10-917 VOA

This roadmap was analyzed by ron01469 on 12-22-2009, 13:50.
This roadmap was reviewed by eh1 on 12-24-2009, 09:42.

Sample

exclude	manual	datafile	smpid	clientid	injdate	injtime	sublist	dilution	batchid	comment
☐	N	/chem/VOA1.i/121809v1/1r534.d	242937001	RE03-09-14213	19-DEC-2009	03:23	10-917.sub	1	934728	
☐	N	/chem/VOA1.i/121809v1/1r535.d	242937002	RE03-09-14215	19-DEC-2009	03:54	10-917.sub	1	934728	
☐	N	/chem/VOA1.i/121809v1/1r536.d	242937003	RE03-09-14212	19-DEC-2009	04:25	10-917.sub	1	934728	
☐	N	/chem/VOA1.i/121809v1/1r537.d	242937004	RE03-09-14219	19-DEC-2009	04:55	10-917.sub	1	934728	
☐	N	/chem/VOA1.i/121809v1/1r538.d	242937005	RE03-09-14218	19-DEC-2009	05:25	10-917.sub	1	934728	
☐	N	/chem/VOA1.i/121809v1/1r539.d	242937006	RE03-09-14216	19-DEC-2009	05:56	10-917.sub	1	934728	
☐	N	/chem/VOA1.i/121809v1/1r540.d	242937007	RE03-09-14214	19-DEC-2009	06:26	10-917.sub	1	934728	
☐	N	/chem/VOA1.i/121809v1/1r541.d	242937008	RE03-09-14217	19-DEC-2009	06:56	10-917.sub	1	934728	
☐	N	/chem/VOA1.i/121809v1/1r542.d	242937009	RE03-10-2735	19-DEC-2009	07:26	10-917.sub	1	934728	
☐	N	/chem/VOA1.i/121809v1/1r543.d	242937010	RE03-10-6968	19-DEC-2009	07:57	10-917.sub	1	934728	

QC Sample

exclude	manual	datafile	smpid	clientid	sampletype	injdate	injtime	sublist	dilution	batchid	comment
☐	N	/chem/VOA1.i/121809v1/1r524LA.d	1201999847	LCS	lcs	18-DEC-2009	22:20	all.sub	1	934728	
☐	N	/chem/VOA1.i/121809v1/1r525sLA.d	1201999848	LCS	lcs	18-DEC-2009	22:51	all.sub	1	934728	
☐	N	/chem/VOA1.i/121809v1/1r527BA.d	1201999844	BLANK	mb	18-DEC-2009	23:51	all.sub	1	934728	
■	N	/chem/VOA1.i/121809v1/1r544.d	1201999845	RE03-09-13470MS	ms	19-DEC-2009	08:27	CALsubL+.sub	1	934728	
■	N	/chem/VOA1.i/121809v1/1r545.d	1201999846	RE03-09-13470MSD	msd	19-DEC-2009	08:57	CALsubL+.sub	1	934728	
■	N	/chem/VOA1.i/122109v1/1s115.d	1201999845	RE03-09-13470MS	ms	21-DEC-2009	17:21	10-901.sub	1	934728	
■	N	/chem/VOA1.i/122109v1/1s116.d	1201999846	RE03-09-13470MSD	msd	21-DEC-2009	17:51	10-901.sub	1	934728	

Sample Data Summary

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-917**	**Date Collected:**	**12/11/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242937003**	**Date Received:**	**12/15/2009 08:45**	**%Moisture:**	**12.9**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14212**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**934728**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**12/19/2009 04:25**	**Analyst:**	**RXM4**	**Purge Vol:**	**5 mL**
Prep Date:	**12/18/2009 14:10**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1r536.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.15	ug/kg	0.390	1.15
74-87-3	Chloromethane	U	1.15	ug/kg	0.344	1.15
75-01-4	Vinyl chloride	U	1.15	ug/kg	0.344	1.15
74-83-9	Bromomethane	U	1.15	ug/kg	0.344	1.15
75-00-3	Chloroethane	U	1.15	ug/kg	0.344	1.15
75-69-4	Trichlorofluoromethane	U	1.15	ug/kg	0.344	1.15
67-64-1	Acetone	J	4.70	ug/kg	1.90	5.74
75-35-4	1,1-Dichloroethylene	U	1.15	ug/kg	0.344	1.15
74-88-4	Iodomethane	U	5.74	ug/kg	1.84	5.74
75-09-2	Methylene chloride	J	2.55	ug/kg	2.29	5.74
75-15-0	Carbon disulfide	U	5.74	ug/kg	1.43	5.74
156-60-5	trans-1,2-Dichloroethylene	U	1.15	ug/kg	0.344	1.15
75-34-3	1,1-Dichloroethane	U	1.15	ug/kg	0.344	1.15
78-93-3	2-Butanone	U	5.74	ug/kg	1.72	5.74
156-59-2	cis-1,2-Dichloroethylene	U	1.15	ug/kg	0.344	1.15
594-20-7	2,2-Dichloropropane	U	1.15	ug/kg	0.344	1.15
67-66-3	Chloroform	U	1.15	ug/kg	0.344	1.15
74-97-5	Bromochloromethane	U	1.15	ug/kg	0.379	1.15
71-55-6	1,1,1-Trichloroethane	U	1.15	ug/kg	0.344	1.15
563-58-6	1,1-Dichloropropene	U	1.15	ug/kg	0.344	1.15
56-23-5	Carbon tetrachloride	U	1.15	ug/kg	0.344	1.15
107-06-2	1,2-Dichloroethane	U	1.15	ug/kg	0.344	1.15
71-43-2	Benzene	U	1.15	ug/kg	0.344	1.15
79-01-6	Trichloroethylene	U	1.15	ug/kg	0.379	1.15
78-87-5	1,2-Dichloropropane	U	1.15	ug/kg	0.344	1.15
75-27-4	Bromodichloromethane	U	1.15	ug/kg	0.344	1.15
74-95-3	Dibromomethane	U	1.15	ug/kg	0.344	1.15
108-10-1	4-Methyl-2-pentanone	U	5.74	ug/kg	1.43	5.74
10061-01-5	cis-1,3-Dichloropropylene	U	1.15	ug/kg	0.344	1.15
108-88-3	Toluene	U	1.15	ug/kg	0.344	1.15
10061-02-6	trans-1,3-Dichloropropylene	U	1.15	ug/kg	0.344	1.15
79-00-5	1,1,2-Trichloroethane	U	1.15	ug/kg	0.344	1.15
591-78-6	2-Hexanone	U	5.74	ug/kg	1.72	5.74
142-28-9	1,3-Dichloropropane	U	1.15	ug/kg	0.344	1.15
127-18-4	Tetrachloroethylene	U	1.15	ug/kg	0.344	1.15
124-48-1	Dibromochloromethane	U	1.15	ug/kg	0.344	1.15
106-93-4	1,2-Dibromoethane	U	1.15	ug/kg	0.344	1.15
108-90-7	Chlorobenzene	U	1.15	ug/kg	0.344	1.15

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-917**	**Date Collected:**	**12/11/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242937003**	**Date Received:**	**12/15/2009 08:45**	**%Moisture:**	**12.9**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14212**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**934728**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**12/19/2009 04:25**	**Analyst:**	**RXM4**	**Purge Vol:**	**5 mL**
Prep Date:	**12/18/2009 14:10**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1r536.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.15	ug/kg	0.344	1.15
179601-23-1	m,p-Xylenes	U	2.29	ug/kg	0.344	2.29
95-47-6	o-Xylene	U	1.15	ug/kg	0.344	1.15
100-42-5	Styrene	U	1.15	ug/kg	0.344	1.15
75-25-2	Bromoform	U	1.15	ug/kg	0.344	1.15
79-34-5	1,1,2,2-Tetrachloroethane	U	1.15	ug/kg	0.344	1.15
96-18-4	1,2,3-Trichloropropane	U	1.15	ug/kg	0.344	1.15
108-86-1	Bromobenzene	U	1.15	ug/kg	0.344	1.15
103-65-1	n-Propylbenzene	U	1.15	ug/kg	0.344	1.15
95-49-8	2-Chlorotoluene	U	1.15	ug/kg	0.344	1.15
98-82-8	Isopropylbenzene	U	1.15	ug/kg	0.344	1.15
108-67-8	1,3,5-Trimethylbenzene	J	0.621	ug/kg	0.344	1.15
106-43-4	4-Chlorotoluene	U	1.15	ug/kg	0.344	1.15
98-06-6	tert-Butylbenzene	U	1.15	ug/kg	0.344	1.15
95-63-6	1,2,4-Trimethylbenzene	J	1.02	ug/kg	0.344	1.15
135-98-8	sec-Butylbenzene	U	1.15	ug/kg	0.344	1.15
99-87-6	4-Isopropyltoluene	U	1.15	ug/kg	0.344	1.15
541-73-1	1,3-Dichlorobenzene	U	1.15	ug/kg	0.344	1.15
106-46-7	1,4-Dichlorobenzene	U	1.15	ug/kg	0.344	1.15
104-51-8	n-Butylbenzene	U	1.15	ug/kg	0.344	1.15
96-12-8	1,2-Dibromo-3-chloropropane	U	1.15	ug/kg	0.344	1.15
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.74	ug/kg	1.84	5.74
630-20-6	1,1,1,2-Tetrachloroethane	U	1.15	ug/kg	0.344	1.15
95-50-1	1,2-Dichlorobenzene	U	1.15	ug/kg	0.344	1.15

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Hydrocarbon	18.07	12.5	ug/kg		J
1120-21-4	Undecane	19.75	7.68	ug/kg	89	NJ
	Unknown Hydrocarbon	19.98	7.27	ug/kg		J
	Unknown Hydrocarbon	20.4	6.64	ug/kg		J
	Unknown Hydrocarbon	20.66	7.48	ug/kg		J
527-84-4	Benzene, 1-methyl-2-(1-methylethyl)-	20.82	9.4	ug/kg	95	NJ
112-40-3	Dodecane	20.97	8.38	ug/kg	93	NJ
	Unknown Hydrocarbon	21.15	8.56	ug/kg		J
933-98-2	Benzene, 1-ethyl-2,3-dimethyl-	21.36	13.2	ug/kg	94	NJ
	Unknown Hydrocarbon	21.8	8.04	ug/kg		J

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-917	**Date Collected:**	12/11/2009 12:00	**Matrix:**	S
Lab Sample ID:	242937003	**Date Received:**	12/15/2009 08:45	**%Moisture:**	12.9
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14212	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	934728	**Inst:**	VOA1.I	**Dilution:**	1
Run Date:	12/19/2009 04:25	**Analyst:**	RXM4	**Purge Vol:**	5 mL
Prep Date:	12/18/2009 14:10	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	1r536.d	**Column:**	RTX-Volatiles	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Hydrocarbon	21.94	10.4	ug/kg		J
	Unknown Hydrocarbon	22.03	5.82	ug/kg		J

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-917**	**Date Collected:**	**12/11/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242937001**	**Date Received:**	**12/15/2009 08:45**	**%Moisture:**	**12.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14213**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**934728**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**12/19/2009 03:23**	**Analyst:**	**RXM4**	**Purge Vol:**	**5 mL**
Prep Date:	**12/18/2009 14:08**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1r534.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.15	ug/kg	0.390	1.15
74-87-3	Chloromethane	U	1.15	ug/kg	0.344	1.15
75-01-4	Vinyl chloride	U	1.15	ug/kg	0.344	1.15
74-83-9	Bromomethane	U	1.15	ug/kg	0.344	1.15
75-00-3	Chloroethane	U	1.15	ug/kg	0.344	1.15
75-69-4	Trichlorofluoromethane	U	1.15	ug/kg	0.344	1.15
67-64-1	Acetone		7.14	ug/kg	1.90	5.74
75-35-4	1,1-Dichloroethylene	U	1.15	ug/kg	0.344	1.15
74-88-4	Iodomethane	U	5.74	ug/kg	1.84	5.74
75-09-2	Methylene chloride	J	2.65	ug/kg	2.29	5.74
75-15-0	Carbon disulfide	U	5.74	ug/kg	1.43	5.74
156-60-5	trans-1,2-Dichloroethylene	U	1.15	ug/kg	0.344	1.15
75-34-3	1,1-Dichloroethane	U	1.15	ug/kg	0.344	1.15
78-93-3	2-Butanone	U	5.74	ug/kg	1.72	5.74
156-59-2	cis-1,2-Dichloroethylene	U	1.15	ug/kg	0.344	1.15
594-20-7	2,2-Dichloropropane	U	1.15	ug/kg	0.344	1.15
67-66-3	Chloroform	U	1.15	ug/kg	0.344	1.15
74-97-5	Bromochloromethane	U	1.15	ug/kg	0.379	1.15
71-55-6	1,1,1-Trichloroethane	U	1.15	ug/kg	0.344	1.15
563-58-6	1,1-Dichloropropene	U	1.15	ug/kg	0.344	1.15
56-23-5	Carbon tetrachloride	U	1.15	ug/kg	0.344	1.15
107-06-2	1,2-Dichloroethane	U	1.15	ug/kg	0.344	1.15
71-43-2	Benzene	U	1.15	ug/kg	0.344	1.15
79-01-6	Trichloroethylene	U	1.15	ug/kg	0.379	1.15
78-87-5	1,2-Dichloropropane	U	1.15	ug/kg	0.344	1.15
75-27-4	Bromodichloromethane	U	1.15	ug/kg	0.344	1.15
74-95-3	Dibromomethane	U	1.15	ug/kg	0.344	1.15
108-10-1	4-Methyl-2-pentanone	U	5.74	ug/kg	1.43	5.74
10061-01-5	cis-1,3-Dichloropropylene	U	1.15	ug/kg	0.344	1.15
108-88-3	Toluene	U	1.15	ug/kg	0.344	1.15
10061-02-6	trans-1,3-Dichloropropylene	U	1.15	ug/kg	0.344	1.15
79-00-5	1,1,2-Trichloroethane	U	1.15	ug/kg	0.344	1.15
591-78-6	2-Hexanone	U	5.74	ug/kg	1.72	5.74
142-28-9	1,3-Dichloropropane	U	1.15	ug/kg	0.344	1.15
127-18-4	Tetrachloroethylene	U	1.15	ug/kg	0.344	1.15
124-48-1	Dibromochloromethane	U	1.15	ug/kg	0.344	1.15
106-93-4	1,2-Dibromoethane	U	1.15	ug/kg	0.344	1.15
108-90-7	Chlorobenzene	U	1.15	ug/kg	0.344	1.15

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-917	Date Collected:	12/11/2009 12:00	Matrix:	S
Lab Sample ID:	242937001	Date Received:	12/15/2009 08:45	%Moisture:	12.8
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14213	Method:	SW846 8260B	SOP Ref:	GL-OA-E-038
Batch ID:	934728	Inst:	VOA1.I	Dilution:	1
Run Date:	12/19/2009 03:23	Analyst:	RXM4	Purge Vol:	5 mL
Prep Date:	12/18/2009 14:08	Aliquot:	5 g	Final Volume:	5 mL
Data File:	1r534.d	Column:	RTX-Volatiles	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.15	ug/kg	0.344	1.15
179601-23-1	m,p-Xylenes	U	2.29	ug/kg	0.344	2.29
95-47-6	o-Xylene	U	1.15	ug/kg	0.344	1.15
100-42-5	Styrene	U	1.15	ug/kg	0.344	1.15
75-25-2	Bromoform	U	1.15	ug/kg	0.344	1.15
79-34-5	1,1,2,2-Tetrachloroethane	U	1.15	ug/kg	0.344	1.15
96-18-4	1,2,3-Trichloropropane	U	1.15	ug/kg	0.344	1.15
108-86-1	Bromobenzene	U	1.15	ug/kg	0.344	1.15
103-65-1	n-Propylbenzene	U	1.15	ug/kg	0.344	1.15
95-49-8	2-Chlorotoluene	U	1.15	ug/kg	0.344	1.15
98-82-8	Isopropylbenzene	U	1.15	ug/kg	0.344	1.15
108-67-8	1,3,5-Trimethylbenzene	U	1.15	ug/kg	0.344	1.15
106-43-4	4-Chlorotoluene	U	1.15	ug/kg	0.344	1.15
98-06-6	tert-Butylbenzene	U	1.15	ug/kg	0.344	1.15
95-63-6	1,2,4-Trimethylbenzene	J	0.983	ug/kg	0.344	1.15
135-98-8	sec-Butylbenzene	U	1.15	ug/kg	0.344	1.15
99-87-6	4-Isopropyltoluene	U	1.15	ug/kg	0.344	1.15
541-73-1	1,3-Dichlorobenzene	U	1.15	ug/kg	0.344	1.15
106-46-7	1,4-Dichlorobenzene	U	1.15	ug/kg	0.344	1.15
104-51-8	n-Butylbenzene	U	1.15	ug/kg	0.344	1.15
96-12-8	1,2-Dibromo-3-chloropropane	U	1.15	ug/kg	0.344	1.15
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.74	ug/kg	1.84	5.74
630-20-6	1,1,1,2-Tetrachloroethane	U	1.15	ug/kg	0.344	1.15
95-50-1	1,2-Dichlorobenzene	U	1.15	ug/kg	0.344	1.15

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Hydrocarbon	19.75	11.8	ug/kg		J
	Unknown Hydrocarbon	19.98	12.3	ug/kg		J
	Unknown Hydrocarbon	20.4	11.9	ug/kg		J
1758-88-9	Benzene, 2-ethyl-1,4-dimethyl-	20.66	13.2	ug/kg	87	NJ
934-80-5	Benzene, 4-ethyl-1,2-dimethyl-	20.82	12.2	ug/kg	96	NJ
112-40-3	Dodecane	20.97	16	ug/kg	94	NJ
	Unknown Hydrocarbon	21.15	14.5	ug/kg		J
	Unknown Hydrocarbon	21.2	10.5	ug/kg		J
527-84-4	Benzene, 1-methyl-2-(1-methylethyl)-	21.36	18.4	ug/kg	94	NJ
	Unknown Hydrocarbon	21.8	17.8	ug/kg		J

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-917	**Date Collected:**	12/11/2009 12:00	**Matrix:**	S
Lab Sample ID:	242937001	**Date Received:**	12/15/2009 08:45	**%Moisture:**	12.8
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14213	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	934728	**Inst:**	VOA1.I	**Dilution:**	1
Run Date:	12/19/2009 03:23	**Analyst:**	RXM4	**Purge Vol:**	5 mL
Prep Date:	12/18/2009 14:08	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	1r534.d	**Column:**	RTX-Volatiles	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Hydrocarbon	21.94	16.4	ug/kg		J
	Unknown Hydrocarbon	22.49	9.58	ug/kg		J

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-917	**Date Collected:**	12/11/2009 12:00	**Matrix:**	S
Lab Sample ID:	242937007	**Date Received:**	12/15/2009 08:45	**%Moisture:**	13.8
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14214	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	934728	**Inst:**	VOA1.I	**Dilution:**	1
Run Date:	12/19/2009 06:26	**Analyst:**	RXM4	**Purge Vol:**	5 mL
Prep Date:	12/18/2009 14:14	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	1r540.d	**Column:**	RTX-Volatiles	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.16	ug/kg	0.394	1.16
74-87-3	Chloromethane	U	1.16	ug/kg	0.348	1.16
75-01-4	Vinyl chloride	U	1.16	ug/kg	0.348	1.16
74-83-9	Bromomethane	U	1.16	ug/kg	0.348	1.16
75-00-3	Chloroethane	U	1.16	ug/kg	0.348	1.16
75-69-4	Trichlorofluoromethane	U	1.16	ug/kg	0.348	1.16
67-64-1	Acetone	J	4.18	ug/kg	1.93	5.80
75-35-4	1,1-Dichloroethylene	U	1.16	ug/kg	0.348	1.16
74-88-4	Iodomethane	U	5.80	ug/kg	1.86	5.80
75-09-2	Methylene chloride	U	5.80	ug/kg	2.32	5.80
75-15-0	Carbon disulfide	U	5.80	ug/kg	1.45	5.80
156-60-5	trans-1,2-Dichloroethylene	U	1.16	ug/kg	0.348	1.16
75-34-3	1,1-Dichloroethane	U	1.16	ug/kg	0.348	1.16
78-93-3	2-Butanone	U	5.80	ug/kg	1.74	5.80
156-59-2	cis-1,2-Dichloroethylene	U	1.16	ug/kg	0.348	1.16
594-20-7	2,2-Dichloropropane	U	1.16	ug/kg	0.348	1.16
67-66-3	Chloroform	U	1.16	ug/kg	0.348	1.16
74-97-5	Bromochloromethane	U	1.16	ug/kg	0.383	1.16
71-55-6	1,1,1-Trichloroethane	U	1.16	ug/kg	0.348	1.16
563-58-6	1,1-Dichloropropene	U	1.16	ug/kg	0.348	1.16
56-23-5	Carbon tetrachloride	U	1.16	ug/kg	0.348	1.16
107-06-2	1,2-Dichloroethane	U	1.16	ug/kg	0.348	1.16
71-43-2	Benzene	U	1.16	ug/kg	0.348	1.16
79-01-6	Trichloroethylene	U	1.16	ug/kg	0.383	1.16
78-87-5	1,2-Dichloropropane	U	1.16	ug/kg	0.348	1.16
75-27-4	Bromodichloromethane	U	1.16	ug/kg	0.348	1.16
74-95-3	Dibromomethane	U	1.16	ug/kg	0.348	1.16
108-10-1	4-Methyl-2-pentanone	U	5.80	ug/kg	1.45	5.80
10061-01-5	cis-1,3-Dichloropropylene	U	1.16	ug/kg	0.348	1.16
108-88-3	Toluene	U	1.16	ug/kg	0.348	1.16
10061-02-6	trans-1,3-Dichloropropylene	U	1.16	ug/kg	0.348	1.16
79-00-5	1,1,2-Trichloroethane	U	1.16	ug/kg	0.348	1.16
591-78-6	2-Hexanone	U	5.80	ug/kg	1.74	5.80
142-28-9	1,3-Dichloropropane	U	1.16	ug/kg	0.348	1.16
127-18-4	Tetrachloroethylene	U	1.16	ug/kg	0.348	1.16
124-48-1	Dibromochloromethane	U	1.16	ug/kg	0.348	1.16
106-93-4	1,2-Dibromoethane	U	1.16	ug/kg	0.348	1.16
108-90-7	Chlorobenzene	U	1.16	ug/kg	0.348	1.16

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-917	Date Collected:	12/11/2009 12:00	Matrix:	S
Lab Sample ID:	242937007	Date Received:	12/15/2009 08:45	%Moisture:	13.8
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14214	Method:	SW846 8260B	SOP Ref:	GL-OA-E-038
Batch ID:	934728	Inst:	VOA1.I	Dilution:	1
Run Date:	12/19/2009 06:26	Analyst:	RXM4	Purge Vol:	5 mL
Prep Date:	12/18/2009 14:14	Aliquot:	5 g	Final Volume:	5 mL
Data File:	1r540.d	Column:	RTX-Volatiles	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.16	ug/kg	0.348	1.16
179601-23-1	m,p-Xylenes	U	2.32	ug/kg	0.348	2.32
95-47-6	o-Xylene	U	1.16	ug/kg	0.348	1.16
100-42-5	Styrene	U	1.16	ug/kg	0.348	1.16
75-25-2	Bromoform	U	1.16	ug/kg	0.348	1.16
79-34-5	1,1,2,2-Tetrachloroethane	U	1.16	ug/kg	0.348	1.16
96-18-4	1,2,3-Trichloropropane	U	1.16	ug/kg	0.348	1.16
108-86-1	Bromobenzene	U	1.16	ug/kg	0.348	1.16
103-65-1	n-Propylbenzene	U	1.16	ug/kg	0.348	1.16
95-49-8	2-Chlorotoluene	U	1.16	ug/kg	0.348	1.16
98-82-8	Isopropylbenzene	U	1.16	ug/kg	0.348	1.16
108-67-8	1,3,5-Trimethylbenzene	U	1.16	ug/kg	0.348	1.16
106-43-4	4-Chlorotoluene	U	1.16	ug/kg	0.348	1.16
98-06-6	tert-Butylbenzene	U	1.16	ug/kg	0.348	1.16
95-63-6	1,2,4-Trimethylbenzene	U	1.16	ug/kg	0.348	1.16
135-98-8	sec-Butylbenzene	U	1.16	ug/kg	0.348	1.16
99-87-6	4-Isopropyltoluene	U	1.16	ug/kg	0.348	1.16
541-73-1	1,3-Dichlorobenzene	U	1.16	ug/kg	0.348	1.16
106-46-7	1,4-Dichlorobenzene	U	1.16	ug/kg	0.348	1.16
104-51-8	n-Butylbenzene	U	1.16	ug/kg	0.348	1.16
96-12-8	1,2-Dibromo-3-chloropropane	U	1.16	ug/kg	0.348	1.16
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.80	ug/kg	1.86	5.80
630-20-6	1,1,1,2-Tetrachloroethane	U	1.16	ug/kg	0.348	1.16
95-50-1	1,2-Dichlorobenzene	U	1.16	ug/kg	0.348	1.16

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Hydrocarbon	18.07	6.2	ug/kg		J

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-917	Date Collected:	12/11/2009 12:00	Matrix:	S
Lab Sample ID:	242937002	Date Received:	12/15/2009 08:45	%Moisture:	10.3
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14215	Method:	SW846 8260B	SOP Ref:	GL-OA-E-038
Batch ID:	934728	Inst:	VOA1.I	Dilution:	1
Run Date:	12/19/2009 03:54	Analyst:	RXM4	Purge Vol:	5 mL
Prep Date:	12/18/2009 14:09	Aliquot:	5 g	Final Volume:	5 mL
Data File:	1r535.d	Column:	RTX-Volatiles	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.11	ug/kg	0.379	1.11
74-87-3	Chloromethane	U	1.11	ug/kg	0.334	1.11
75-01-4	Vinyl chloride	U	1.11	ug/kg	0.334	1.11
74-83-9	Bromomethane	U	1.11	ug/kg	0.334	1.11
75-00-3	Chloroethane	U	1.11	ug/kg	0.334	1.11
75-69-4	Trichlorofluoromethane	U	1.11	ug/kg	0.334	1.11
67-64-1	Acetone	J	4.39	ug/kg	1.85	5.57
75-35-4	1,1-Dichloroethylene	U	1.11	ug/kg	0.334	1.11
74-88-4	Iodomethane	U	5.57	ug/kg	1.78	5.57
75-09-2	Methylene chloride	J	2.34	ug/kg	2.23	5.57
75-15-0	Carbon disulfide	U	5.57	ug/kg	1.39	5.57
156-60-5	trans-1,2-Dichloroethylene	U	1.11	ug/kg	0.334	1.11
75-34-3	1,1-Dichloroethane	U	1.11	ug/kg	0.334	1.11
78-93-3	2-Butanone	U	5.57	ug/kg	1.67	5.57
156-59-2	cis-1,2-Dichloroethylene	U	1.11	ug/kg	0.334	1.11
594-20-7	2,2-Dichloropropane	U	1.11	ug/kg	0.334	1.11
67-66-3	Chloroform	U	1.11	ug/kg	0.334	1.11
74-97-5	Bromochloromethane	U	1.11	ug/kg	0.368	1.11
71-55-6	1,1,1-Trichloroethane	U	1.11	ug/kg	0.334	1.11
563-58-6	1,1-Dichloropropene	U	1.11	ug/kg	0.334	1.11
56-23-5	Carbon tetrachloride	U	1.11	ug/kg	0.334	1.11
107-06-2	1,2-Dichloroethane	U	1.11	ug/kg	0.334	1.11
71-43-2	Benzene	U	1.11	ug/kg	0.334	1.11
79-01-6	Trichloroethylene	U	1.11	ug/kg	0.368	1.11
78-87-5	1,2-Dichloropropane	U	1.11	ug/kg	0.334	1.11
75-27-4	Bromodichloromethane	U	1.11	ug/kg	0.334	1.11
74-95-3	Dibromomethane	U	1.11	ug/kg	0.334	1.11
108-10-1	4-Methyl-2-pentanone	U	5.57	ug/kg	1.39	5.57
10061-01-5	cis-1,3-Dichloropropylene	U	1.11	ug/kg	0.334	1.11
108-88-3	Toluene	U	1.11	ug/kg	0.334	1.11
10061-02-6	trans-1,3-Dichloropropylene	U	1.11	ug/kg	0.334	1.11
79-00-5	1,1,2-Trichloroethane	U	1.11	ug/kg	0.334	1.11
591-78-6	2-Hexanone	U	5.57	ug/kg	1.67	5.57
142-28-9	1,3-Dichloropropane	U	1.11	ug/kg	0.334	1.11
127-18-4	Tetrachloroethylene	U	1.11	ug/kg	0.334	1.11
124-48-1	Dibromochloromethane	U	1.11	ug/kg	0.334	1.11
106-93-4	1,2-Dibromoethane	U	1.11	ug/kg	0.334	1.11
108-90-7	Chlorobenzene	U	1.11	ug/kg	0.334	1.11

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-917	Date Collected:	12/11/2009 12:00	Matrix:	S
Lab Sample ID:	242937002	Date Received:	12/15/2009 08:45	%Moisture:	10.3
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14215	Method:	SW846 8260B	SOP Ref:	GL-OA-E-038
Batch ID:	934728	Inst:	VOA1.I	Dilution:	1
Run Date:	12/19/2009 03:54	Analyst:	RXM4	Purge Vol:	5 mL
Prep Date:	12/18/2009 14:09	Aliquot:	5 g	Final Volume:	5 mL
Data File:	1r535.d	Column:	RTX-Volatiles	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.11	ug/kg	0.334	1.11
179601-23-1	m,p-Xylenes	U	2.23	ug/kg	0.334	2.23
95-47-6	o-Xylene	U	1.11	ug/kg	0.334	1.11
100-42-5	Styrene	U	1.11	ug/kg	0.334	1.11
75-25-2	Bromoform	U	1.11	ug/kg	0.334	1.11
79-34-5	1,1,2,2-Tetrachloroethane	U	1.11	ug/kg	0.334	1.11
96-18-4	1,2,3-Trichloropropane	U	1.11	ug/kg	0.334	1.11
108-86-1	Bromobenzene	U	1.11	ug/kg	0.334	1.11
103-65-1	n-Propylbenzene	U	1.11	ug/kg	0.334	1.11
95-49-8	2-Chlorotoluene	U	1.11	ug/kg	0.334	1.11
98-82-8	Isopropylbenzene	U	1.11	ug/kg	0.334	1.11
108-67-8	1,3,5-Trimethylbenzene	U	1.11	ug/kg	0.334	1.11
106-43-4	4-Chlorotoluene	U	1.11	ug/kg	0.334	1.11
98-06-6	tert-Butylbenzene	U	1.11	ug/kg	0.334	1.11
95-63-6	1,2,4-Trimethylbenzene	U	1.11	ug/kg	0.334	1.11
135-98-8	sec-Butylbenzene	U	1.11	ug/kg	0.334	1.11
99-87-6	4-Isopropyltoluene	U	1.11	ug/kg	0.334	1.11
541-73-1	1,3-Dichlorobenzene	U	1.11	ug/kg	0.334	1.11
106-46-7	1,4-Dichlorobenzene	U	1.11	ug/kg	0.334	1.11
104-51-8	n-Butylbenzene	U	1.11	ug/kg	0.334	1.11
96-12-8	1,2-Dibromo-3-chloropropane	U	1.11	ug/kg	0.334	1.11
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.57	ug/kg	1.78	5.57
630-20-6	1,1,1,2-Tetrachloroethane	U	1.11	ug/kg	0.334	1.11
95-50-1	1,2-Dichlorobenzene	U	1.11	ug/kg	0.334	1.11

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Hydrocarbon	18.07	5.97	ug/kg		J
112-40-3	Dodecane	20.97	7.96	ug/kg	87	NJ
934-74-7	Benzene, 1-ethyl-3,5-dimethyl-	21.36	5.75	ug/kg	95	NJ
	Unknown Hydrocarbon	21.8	6.16	ug/kg		J
	Unknown Hydrocarbon	21.94	6.14	ug/kg		J

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-917**	**Date Collected:**	**12/11/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242937006**	**Date Received:**	**12/15/2009 08:45**	**%Moisture:**	**15.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14216**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**934728**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**12/19/2009 05:56**	**Analyst:**	**RXM4**	**Purge Vol:**	**5 mL**
Prep Date:	**12/18/2009 14:13**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1r539.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.19	ug/kg	0.404	1.19
74-87-3	Chloromethane	U	1.19	ug/kg	0.356	1.19
75-01-4	Vinyl chloride	U	1.19	ug/kg	0.356	1.19
74-83-9	Bromomethane	U	1.19	ug/kg	0.356	1.19
75-00-3	Chloroethane	U	1.19	ug/kg	0.356	1.19
75-69-4	Trichlorofluoromethane	U	1.19	ug/kg	0.356	1.19
67-64-1	Acetone		7.03	ug/kg	1.97	5.94
75-35-4	1,1-Dichloroethylene	U	1.19	ug/kg	0.356	1.19
74-88-4	Iodomethane	U	5.94	ug/kg	1.90	5.94
75-09-2	Methylene chloride	J	2.84	ug/kg	2.38	5.94
75-15-0	Carbon disulfide	U	5.94	ug/kg	1.49	5.94
156-60-5	trans-1,2-Dichloroethylene	U	1.19	ug/kg	0.356	1.19
75-34-3	1,1-Dichloroethane	U	1.19	ug/kg	0.356	1.19
78-93-3	2-Butanone	U	5.94	ug/kg	1.78	5.94
156-59-2	cis-1,2-Dichloroethylene	U	1.19	ug/kg	0.356	1.19
594-20-7	2,2-Dichloropropane	U	1.19	ug/kg	0.356	1.19
67-66-3	Chloroform	U	1.19	ug/kg	0.356	1.19
74-97-5	Bromochloromethane	U	1.19	ug/kg	0.392	1.19
71-55-6	1,1,1-Trichloroethane	U	1.19	ug/kg	0.356	1.19
563-58-6	1,1-Dichloropropene	U	1.19	ug/kg	0.356	1.19
56-23-5	Carbon tetrachloride	U	1.19	ug/kg	0.356	1.19
107-06-2	1,2-Dichloroethane	U	1.19	ug/kg	0.356	1.19
71-43-2	Benzene	U	1.19	ug/kg	0.356	1.19
79-01-6	Trichloroethylene	U	1.19	ug/kg	0.392	1.19
78-87-5	1,2-Dichloropropane	U	1.19	ug/kg	0.356	1.19
75-27-4	Bromodichloromethane	U	1.19	ug/kg	0.356	1.19
74-95-3	Dibromomethane	U	1.19	ug/kg	0.356	1.19
108-10-1	4-Methyl-2-pentanone	U	5.94	ug/kg	1.49	5.94
10061-01-5	cis-1,3-Dichloropropylene	U	1.19	ug/kg	0.356	1.19
108-88-3	Toluene	U	1.19	ug/kg	0.356	1.19
10061-02-6	trans-1,3-Dichloropropylene	U	1.19	ug/kg	0.356	1.19
79-00-5	1,1,2-Trichloroethane	U	1.19	ug/kg	0.356	1.19
591-78-6	2-Hexanone	U	5.94	ug/kg	1.78	5.94
142-28-9	1,3-Dichloropropane	U	1.19	ug/kg	0.356	1.19
127-18-4	Tetrachloroethylene	U	1.19	ug/kg	0.356	1.19
124-48-1	Dibromochloromethane	U	1.19	ug/kg	0.356	1.19
106-93-4	1,2-Dibromoethane	U	1.19	ug/kg	0.356	1.19
108-90-7	Chlorobenzene	U	1.19	ug/kg	0.356	1.19

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-917**	**Date Collected:**	**12/11/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242937006**	**Date Received:**	**12/15/2009 08:45**	**%Moisture:**	**15.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14216**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**934728**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**12/19/2009 05:56**	**Analyst:**	**RXM4**	**Purge Vol:**	**5 mL**
Prep Date:	**12/18/2009 14:13**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1r539.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.19	ug/kg	0.356	1.19
179601-23-1	m,p-Xylenes	U	2.38	ug/kg	0.356	2.38
95-47-6	o-Xylene	U	1.19	ug/kg	0.356	1.19
100-42-5	Styrene	U	1.19	ug/kg	0.356	1.19
75-25-2	Bromoform	U	1.19	ug/kg	0.356	1.19
79-34-5	1,1,2,2-Tetrachloroethane	U	1.19	ug/kg	0.356	1.19
96-18-4	1,2,3-Trichloropropane	U	1.19	ug/kg	0.356	1.19
108-86-1	Bromobenzene	U	1.19	ug/kg	0.356	1.19
103-65-1	n-Propylbenzene	U	1.19	ug/kg	0.356	1.19
95-49-8	2-Chlorotoluene	U	1.19	ug/kg	0.356	1.19
98-82-8	Isopropylbenzene	U	1.19	ug/kg	0.356	1.19
108-67-8	1,3,5-Trimethylbenzene	U	1.19	ug/kg	0.356	1.19
106-43-4	4-Chlorotoluene	U	1.19	ug/kg	0.356	1.19
98-06-6	tert-Butylbenzene	U	1.19	ug/kg	0.356	1.19
95-63-6	1,2,4-Trimethylbenzene	U	1.19	ug/kg	0.356	1.19
135-98-8	sec-Butylbenzene	U	1.19	ug/kg	0.356	1.19
99-87-6	4-Isopropyltoluene	U	1.19	ug/kg	0.356	1.19
541-73-1	1,3-Dichlorobenzene	U	1.19	ug/kg	0.356	1.19
106-46-7	1,4-Dichlorobenzene	U	1.19	ug/kg	0.356	1.19
104-51-8	n-Butylbenzene	U	1.19	ug/kg	0.356	1.19
96-12-8	1,2-Dibromo-3-chloropropane	U	1.19	ug/kg	0.356	1.19
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.94	ug/kg	1.90	5.94
630-20-6	1,1,1,2-Tetrachloroethane	U	1.19	ug/kg	0.356	1.19
95-50-1	1,2-Dichlorobenzene	U	1.19	ug/kg	0.356	1.19

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	No Tentatively Identified Compounds Found			ug/kg		

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-917**	**Date Collected:**	**12/11/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242937008**	**Date Received:**	**12/15/2009 08:45**	**%Moisture:**	**15.2**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14217**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**934728**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**12/19/2009 06:56**	**Analyst:**	**RXM4**	**Purge Vol:**	**5 mL**
Prep Date:	**12/18/2009 14:15**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1r541.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.18	ug/kg	0.401	1.18
74-87-3	Chloromethane	U	1.18	ug/kg	0.354	1.18
75-01-4	Vinyl chloride	U	1.18	ug/kg	0.354	1.18
74-83-9	Bromomethane	U	1.18	ug/kg	0.354	1.18
75-00-3	Chloroethane	U	1.18	ug/kg	0.354	1.18
75-69-4	Trichlorofluoromethane	U	1.18	ug/kg	0.354	1.18
67-64-1	Acetone	J	5.10	ug/kg	1.96	5.90
75-35-4	1,1-Dichloroethylene	U	1.18	ug/kg	0.354	1.18
74-88-4	Iodomethane	U	5.90	ug/kg	1.89	5.90
75-09-2	Methylene chloride	J	2.60	ug/kg	2.36	5.90
75-15-0	Carbon disulfide	U	5.90	ug/kg	1.47	5.90
156-60-5	trans-1,2-Dichloroethylene	U	1.18	ug/kg	0.354	1.18
75-34-3	1,1-Dichloroethane	U	1.18	ug/kg	0.354	1.18
78-93-3	2-Butanone	U	5.90	ug/kg	1.77	5.90
156-59-2	cis-1,2-Dichloroethylene	U	1.18	ug/kg	0.354	1.18
594-20-7	2,2-Dichloropropane	U	1.18	ug/kg	0.354	1.18
67-66-3	Chloroform	U	1.18	ug/kg	0.354	1.18
74-97-5	Bromochloromethane	U	1.18	ug/kg	0.389	1.18
71-55-6	1,1,1-Trichloroethane	U	1.18	ug/kg	0.354	1.18
563-58-6	1,1-Dichloropropene	U	1.18	ug/kg	0.354	1.18
56-23-5	Carbon tetrachloride	U	1.18	ug/kg	0.354	1.18
107-06-2	1,2-Dichloroethane	U	1.18	ug/kg	0.354	1.18
71-43-2	Benzene	U	1.18	ug/kg	0.354	1.18
79-01-6	Trichloroethylene	U	1.18	ug/kg	0.389	1.18
78-87-5	1,2-Dichloropropane	U	1.18	ug/kg	0.354	1.18
75-27-4	Bromodichloromethane	U	1.18	ug/kg	0.354	1.18
74-95-3	Dibromomethane	U	1.18	ug/kg	0.354	1.18
108-10-1	4-Methyl-2-pentanone	U	5.90	ug/kg	1.47	5.90
10061-01-5	cis-1,3-Dichloropropylene	U	1.18	ug/kg	0.354	1.18
108-88-3	Toluene	U	1.18	ug/kg	0.354	1.18
10061-02-6	trans-1,3-Dichloropropylene	U	1.18	ug/kg	0.354	1.18
79-00-5	1,1,2-Trichloroethane	U	1.18	ug/kg	0.354	1.18
591-78-6	2-Hexanone	U	5.90	ug/kg	1.77	5.90
142-28-9	1,3-Dichloropropane	U	1.18	ug/kg	0.354	1.18
127-18-4	Tetrachloroethylene	U	1.18	ug/kg	0.354	1.18
124-48-1	Dibromochloromethane	U	1.18	ug/kg	0.354	1.18
106-93-4	1,2-Dibromoethane	U	1.18	ug/kg	0.354	1.18
108-90-7	Chlorobenzene	U	1.18	ug/kg	0.354	1.18

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-917**	**Date Collected:**	**12/11/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242937008**	**Date Received:**	**12/15/2009 08:45**	**%Moisture:**	**15.2**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14217**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**934728**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**12/19/2009 06:56**	**Analyst:**	**RXM4**	**Purge Vol:**	**5 mL**
Prep Date:	**12/18/2009 14:15**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1r541.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.18	ug/kg	0.354	1.18
179601-23-1	m,p-Xylenes	U	2.36	ug/kg	0.354	2.36
95-47-6	o-Xylene	U	1.18	ug/kg	0.354	1.18
100-42-5	Styrene	U	1.18	ug/kg	0.354	1.18
75-25-2	Bromoform	U	1.18	ug/kg	0.354	1.18
79-34-5	1,1,2,2-Tetrachloroethane	U	1.18	ug/kg	0.354	1.18
96-18-4	1,2,3-Trichloropropane	U	1.18	ug/kg	0.354	1.18
108-86-1	Bromobenzene	U	1.18	ug/kg	0.354	1.18
103-65-1	n-Propylbenzene	U	1.18	ug/kg	0.354	1.18
95-49-8	2-Chlorotoluene	U	1.18	ug/kg	0.354	1.18
98-82-8	Isopropylbenzene	U	1.18	ug/kg	0.354	1.18
108-67-8	1,3,5-Trimethylbenzene	U	1.18	ug/kg	0.354	1.18
106-43-4	4-Chlorotoluene	U	1.18	ug/kg	0.354	1.18
98-06-6	tert-Butylbenzene	U	1.18	ug/kg	0.354	1.18
95-63-6	1,2,4-Trimethylbenzene	U	1.18	ug/kg	0.354	1.18
135-98-8	sec-Butylbenzene	U	1.18	ug/kg	0.354	1.18
99-87-6	4-Isopropyltoluene	U	1.18	ug/kg	0.354	1.18
541-73-1	1,3-Dichlorobenzene	U	1.18	ug/kg	0.354	1.18
106-46-7	1,4-Dichlorobenzene	U	1.18	ug/kg	0.354	1.18
104-51-8	n-Butylbenzene	U	1.18	ug/kg	0.354	1.18
96-12-8	1,2-Dibromo-3-chloropropane	U	1.18	ug/kg	0.354	1.18
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.90	ug/kg	1.89	5.90
630-20-6	1,1,1,2-Tetrachloroethane	U	1.18	ug/kg	0.354	1.18
95-50-1	1,2-Dichlorobenzene	U	1.18	ug/kg	0.354	1.18

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated Units	Fit	Qual
	No Tentatively Identified Compounds Found		ug/kg		

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-917**	**Date Collected:**	**12/11/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242937005**	**Date Received:**	**12/15/2009 08:45**	**%Moisture:**	**17.6**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14218**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**934728**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**12/19/2009 05:25**	**Analyst:**	**RXM4**	**Purge Vol:**	**5 mL**
Prep Date:	**12/18/2009 14:12**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1r538.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.21	ug/kg	0.413	1.21
74-87-3	Chloromethane	U	1.21	ug/kg	0.364	1.21
75-01-4	Vinyl chloride	U	1.21	ug/kg	0.364	1.21
74-83-9	Bromomethane	U	1.21	ug/kg	0.364	1.21
75-00-3	Chloroethane	U	1.21	ug/kg	0.364	1.21
75-69-4	Trichlorofluoromethane	U	1.21	ug/kg	0.364	1.21
67-64-1	Acetone	J	4.82	ug/kg	2.01	6.07
75-35-4	1,1-Dichloroethylene	U	1.21	ug/kg	0.364	1.21
74-88-4	Iodomethane	U	6.07	ug/kg	1.94	6.07
75-09-2	Methylene chloride	J	2.91	ug/kg	2.43	6.07
75-15-0	Carbon disulfide	U	6.07	ug/kg	1.52	6.07
156-60-5	trans-1,2-Dichloroethylene	U	1.21	ug/kg	0.364	1.21
75-34-3	1,1-Dichloroethane	U	1.21	ug/kg	0.364	1.21
78-93-3	2-Butanone	U	6.07	ug/kg	1.82	6.07
156-59-2	cis-1,2-Dichloroethylene	U	1.21	ug/kg	0.364	1.21
594-20-7	2,2-Dichloropropane	U	1.21	ug/kg	0.364	1.21
67-66-3	Chloroform	U	1.21	ug/kg	0.364	1.21
74-97-5	Bromochloromethane	U	1.21	ug/kg	0.401	1.21
71-55-6	1,1,1-Trichloroethane	U	1.21	ug/kg	0.364	1.21
563-58-6	1,1-Dichloropropene	U	1.21	ug/kg	0.364	1.21
56-23-5	Carbon tetrachloride	U	1.21	ug/kg	0.364	1.21
107-06-2	1,2-Dichloroethane	U	1.21	ug/kg	0.364	1.21
71-43-2	Benzene	U	1.21	ug/kg	0.364	1.21
79-01-6	Trichloroethylene	U	1.21	ug/kg	0.401	1.21
78-87-5	1,2-Dichloropropane	U	1.21	ug/kg	0.364	1.21
75-27-4	Bromodichloromethane	U	1.21	ug/kg	0.364	1.21
74-95-3	Dibromomethane	U	1.21	ug/kg	0.364	1.21
108-10-1	4-Methyl-2-pentanone	U	6.07	ug/kg	1.52	6.07
10061-01-5	cis-1,3-Dichloropropylene	U	1.21	ug/kg	0.364	1.21
108-88-3	Toluene	U	1.21	ug/kg	0.364	1.21
10061-02-6	trans-1,3-Dichloropropylene	U	1.21	ug/kg	0.364	1.21
79-00-5	1,1,2-Trichloroethane	U	1.21	ug/kg	0.364	1.21
591-78-6	2-Hexanone	U	6.07	ug/kg	1.82	6.07
142-28-9	1,3-Dichloropropane	U	1.21	ug/kg	0.364	1.21
127-18-4	Tetrachloroethylene	U	1.21	ug/kg	0.364	1.21
124-48-1	Dibromochloromethane	U	1.21	ug/kg	0.364	1.21
106-93-4	1,2-Dibromoethane	U	1.21	ug/kg	0.364	1.21
108-90-7	Chlorobenzene	U	1.21	ug/kg	0.364	1.21

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-917**	**Date Collected:**	**12/11/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242937005**	**Date Received:**	**12/15/2009 08:45**	**%Moisture:**	**17.6**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14218**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**934728**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**12/19/2009 05:25**	**Analyst:**	**RXM4**	**Purge Vol:**	**5 mL**
Prep Date:	**12/18/2009 14:12**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1r538.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.21	ug/kg	0.364	1.21
179601-23-1	m,p-Xylenes	U	2.43	ug/kg	0.364	2.43
95-47-6	o-Xylene	U	1.21	ug/kg	0.364	1.21
100-42-5	Styrene	U	1.21	ug/kg	0.364	1.21
75-25-2	Bromoform	U	1.21	ug/kg	0.364	1.21
79-34-5	1,1,2,2-Tetrachloroethane	U	1.21	ug/kg	0.364	1.21
96-18-4	1,2,3-Trichloropropane	U	1.21	ug/kg	0.364	1.21
108-86-1	Bromobenzene	U	1.21	ug/kg	0.364	1.21
103-65-1	n-Propylbenzene	U	1.21	ug/kg	0.364	1.21
95-49-8	2-Chlorotoluene	U	1.21	ug/kg	0.364	1.21
98-82-8	Isopropylbenzene	U	1.21	ug/kg	0.364	1.21
108-67-8	1,3,5-Trimethylbenzene	U	1.21	ug/kg	0.364	1.21
106-43-4	4-Chlorotoluene	U	1.21	ug/kg	0.364	1.21
98-06-6	tert-Butylbenzene	U	1.21	ug/kg	0.364	1.21
95-63-6	1,2,4-Trimethylbenzene	U	1.21	ug/kg	0.364	1.21
135-98-8	sec-Butylbenzene	U	1.21	ug/kg	0.364	1.21
99-87-6	4-Isopropyltoluene	U	1.21	ug/kg	0.364	1.21
541-73-1	1,3-Dichlorobenzene	U	1.21	ug/kg	0.364	1.21
106-46-7	1,4-Dichlorobenzene	U	1.21	ug/kg	0.364	1.21
104-51-8	n-Butylbenzene	U	1.21	ug/kg	0.364	1.21
96-12-8	1,2-Dibromo-3-chloropropane	U	1.21	ug/kg	0.364	1.21
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	6.07	ug/kg	1.94	6.07
630-20-6	1,1,1,2-Tetrachloroethane	U	1.21	ug/kg	0.364	1.21
95-50-1	1,2-Dichlorobenzene	U	1.21	ug/kg	0.364	1.21

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated Units	Fit	Qual
	No Tentatively Identified Compounds Found		ug/kg		

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-917	**Date Collected:**	12/11/2009 12:00	**Matrix:**	S
Lab Sample ID:	242937004	**Date Received:**	12/15/2009 08:45	**%Moisture:**	17.2
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14219	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	934728	**Inst:**	VOA1.I	**Dilution:**	1
Run Date:	12/19/2009 04:55	**Analyst:**	RXM4	**Purge Vol:**	5 mL
Prep Date:	12/18/2009 14:11	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	1r537.d	**Column:**	RTX-Volatiles	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.21	ug/kg	0.410	1.21
74-87-3	Chloromethane	U	1.21	ug/kg	0.362	1.21
75-01-4	Vinyl chloride	U	1.21	ug/kg	0.362	1.21
74-83-9	Bromomethane	U	1.21	ug/kg	0.362	1.21
75-00-3	Chloroethane	U	1.21	ug/kg	0.362	1.21
75-69-4	Trichlorofluoromethane	U	1.21	ug/kg	0.362	1.21
67-64-1	Acetone	J	4.48	ug/kg	2.00	6.04
75-35-4	1,1-Dichloroethylene	U	1.21	ug/kg	0.362	1.21
74-88-4	Iodomethane	U	6.04	ug/kg	1.93	6.04
75-09-2	Methylene chloride	J	2.92	ug/kg	2.41	6.04
75-15-0	Carbon disulfide	U	6.04	ug/kg	1.51	6.04
156-60-5	trans-1,2-Dichloroethylene	U	1.21	ug/kg	0.362	1.21
75-34-3	1,1-Dichloroethane	U	1.21	ug/kg	0.362	1.21
78-93-3	2-Butanone	U	6.04	ug/kg	1.81	6.04
156-59-2	cis-1,2-Dichloroethylene	U	1.21	ug/kg	0.362	1.21
594-20-7	2,2-Dichloropropane	U	1.21	ug/kg	0.362	1.21
67-66-3	Chloroform	U	1.21	ug/kg	0.362	1.21
74-97-5	Bromochloromethane	U	1.21	ug/kg	0.398	1.21
71-55-6	1,1,1-Trichloroethane	U	1.21	ug/kg	0.362	1.21
563-58-6	1,1-Dichloropropene	U	1.21	ug/kg	0.362	1.21
56-23-5	Carbon tetrachloride	U	1.21	ug/kg	0.362	1.21
107-06-2	1,2-Dichloroethane	U	1.21	ug/kg	0.362	1.21
71-43-2	Benzene	U	1.21	ug/kg	0.362	1.21
79-01-6	Trichloroethylene	U	1.21	ug/kg	0.398	1.21
78-87-5	1,2-Dichloropropane	U	1.21	ug/kg	0.362	1.21
75-27-4	Bromodichloromethane	U	1.21	ug/kg	0.362	1.21
74-95-3	Dibromomethane	U	1.21	ug/kg	0.362	1.21
108-10-1	4-Methyl-2-pentanone	U	6.04	ug/kg	1.51	6.04
10061-01-5	cis-1,3-Dichloropropylene	U	1.21	ug/kg	0.362	1.21
108-88-3	Toluene	U	1.21	ug/kg	0.362	1.21
10061-02-6	trans-1,3-Dichloropropylene	U	1.21	ug/kg	0.362	1.21
79-00-5	1,1,2-Trichloroethane	U	1.21	ug/kg	0.362	1.21
591-78-6	2-Hexanone	U	6.04	ug/kg	1.81	6.04
142-28-9	1,3-Dichloropropane	U	1.21	ug/kg	0.362	1.21
127-18-4	Tetrachloroethylene	U	1.21	ug/kg	0.362	1.21
124-48-1	Dibromochloromethane	U	1.21	ug/kg	0.362	1.21
106-93-4	1,2-Dibromoethane	U	1.21	ug/kg	0.362	1.21
108-90-7	Chlorobenzene	U	1.21	ug/kg	0.362	1.21

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-917**	**Date Collected:**	**12/11/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242937004**	**Date Received:**	**12/15/2009 08:45**	**%Moisture:**	**17.2**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14219**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**934728**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**12/19/2009 04:55**	**Analyst:**	**RXM4**	**Purge Vol:**	**5 mL**
Prep Date:	**12/18/2009 14:11**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1r537.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.21	ug/kg	0.362	1.21
179601-23-1	m,p-Xylenes	U	2.41	ug/kg	0.362	2.41
95-47-6	o-Xylene	U	1.21	ug/kg	0.362	1.21
100-42-5	Styrene	U	1.21	ug/kg	0.362	1.21
75-25-2	Bromoform	U	1.21	ug/kg	0.362	1.21
79-34-5	1,1,2,2-Tetrachloroethane	U	1.21	ug/kg	0.362	1.21
96-18-4	1,2,3-Trichloropropane	U	1.21	ug/kg	0.362	1.21
108-86-1	Bromobenzene	U	1.21	ug/kg	0.362	1.21
103-65-1	n-Propylbenzene	U	1.21	ug/kg	0.362	1.21
95-49-8	2-Chlorotoluene	U	1.21	ug/kg	0.362	1.21
98-82-8	Isopropylbenzene	U	1.21	ug/kg	0.362	1.21
108-67-8	1,3,5-Trimethylbenzene	U	1.21	ug/kg	0.362	1.21
106-43-4	4-Chlorotoluene	U	1.21	ug/kg	0.362	1.21
98-06-6	tert-Butylbenzene	U	1.21	ug/kg	0.362	1.21
95-63-6	1,2,4-Trimethylbenzene	U	1.21	ug/kg	0.362	1.21
135-98-8	sec-Butylbenzene	U	1.21	ug/kg	0.362	1.21
99-87-6	4-Isopropyltoluene	U	1.21	ug/kg	0.362	1.21
541-73-1	1,3-Dichlorobenzene	U	1.21	ug/kg	0.362	1.21
106-46-7	1,4-Dichlorobenzene	U	1.21	ug/kg	0.362	1.21
104-51-8	n-Butylbenzene	U	1.21	ug/kg	0.362	1.21
96-12-8	1,2-Dibromo-3-chloropropane	U	1.21	ug/kg	0.362	1.21
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	6.04	ug/kg	1.93	6.04
630-20-6	1,1,1,2-Tetrachloroethane	U	1.21	ug/kg	0.362	1.21
95-50-1	1,2-Dichlorobenzene	U	1.21	ug/kg	0.362	1.21

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	No Tentatively Identified Compounds Found			ug/kg		

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-917**	**Date Collected:**	**12/11/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242937009**	**Date Received:**	**12/15/2009 08:45**	**%Moisture:**	**14.2**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-10-2735**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**934728**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**12/19/2009 07:26**	**Analyst:**	**RXM4**	**Purge Vol:**	**5 mL**
Prep Date:	**12/18/2009 14:16**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1r542.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.17	ug/kg	0.396	1.17
74-87-3	Chloromethane	U	1.17	ug/kg	0.350	1.17
75-01-4	Vinyl chloride	U	1.17	ug/kg	0.350	1.17
74-83-9	Bromomethane	U	1.17	ug/kg	0.350	1.17
75-00-3	Chloroethane	U	1.17	ug/kg	0.350	1.17
75-69-4	Trichlorofluoromethane	U	1.17	ug/kg	0.350	1.17
67-64-1	Acetone		6.12	ug/kg	1.93	5.83
75-35-4	1,1-Dichloroethylene	U	1.17	ug/kg	0.350	1.17
74-88-4	Iodomethane	U	5.83	ug/kg	1.86	5.83
75-09-2	Methylene chloride	U	5.83	ug/kg	2.33	5.83
75-15-0	Carbon disulfide	U	5.83	ug/kg	1.46	5.83
156-60-5	trans-1,2-Dichloroethylene	U	1.17	ug/kg	0.350	1.17
75-34-3	1,1-Dichloroethane	U	1.17	ug/kg	0.350	1.17
78-93-3	2-Butanone	U	5.83	ug/kg	1.75	5.83
156-59-2	cis-1,2-Dichloroethylene	U	1.17	ug/kg	0.350	1.17
594-20-7	2,2-Dichloropropane	U	1.17	ug/kg	0.350	1.17
67-66-3	Chloroform	U	1.17	ug/kg	0.350	1.17
74-97-5	Bromochloromethane	U	1.17	ug/kg	0.385	1.17
71-55-6	1,1,1-Trichloroethane	U	1.17	ug/kg	0.350	1.17
563-58-6	1,1-Dichloropropene	U	1.17	ug/kg	0.350	1.17
56-23-5	Carbon tetrachloride	U	1.17	ug/kg	0.350	1.17
107-06-2	1,2-Dichloroethane	U	1.17	ug/kg	0.350	1.17
71-43-2	Benzene	U	1.17	ug/kg	0.350	1.17
79-01-6	Trichloroethylene	U	1.17	ug/kg	0.385	1.17
78-87-5	1,2-Dichloropropane	U	1.17	ug/kg	0.350	1.17
75-27-4	Bromodichloromethane	U	1.17	ug/kg	0.350	1.17
74-95-3	Dibromomethane	U	1.17	ug/kg	0.350	1.17
108-10-1	4-Methyl-2-pentanone	U	5.83	ug/kg	1.46	5.83
10061-01-5	cis-1,3-Dichloropropylene	U	1.17	ug/kg	0.350	1.17
108-88-3	Toluene	U	1.17	ug/kg	0.350	1.17
10061-02-6	trans-1,3-Dichloropropylene	U	1.17	ug/kg	0.350	1.17
79-00-5	1,1,2-Trichloroethane	U	1.17	ug/kg	0.350	1.17
591-78-6	2-Hexanone	U	5.83	ug/kg	1.75	5.83
142-28-9	1,3-Dichloropropane	U	1.17	ug/kg	0.350	1.17
127-18-4	Tetrachloroethylene	U	1.17	ug/kg	0.350	1.17
124-48-1	Dibromochloromethane	U	1.17	ug/kg	0.350	1.17
106-93-4	1,2-Dibromoethane	U	1.17	ug/kg	0.350	1.17
108-90-7	Chlorobenzene	U	1.17	ug/kg	0.350	1.17

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-917	**Date Collected:**	12/11/2009 12:00	**Matrix:**	S
Lab Sample ID:	242937009	**Date Received:**	12/15/2009 08:45	**%Moisture:**	14.2
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-10-2735	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	934728	**Inst:**	VOA1.I	**Dilution:**	1
Run Date:	12/19/2009 07:26	**Analyst:**	RXM4	**Purge Vol:**	5 mL
Prep Date:	12/18/2009 14:16	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	1r542.d	**Column:**	RTX-Volatiles	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.17	ug/kg	0.350	1.17
179601-23-1	m,p-Xylenes	U	2.33	ug/kg	0.350	2.33
95-47-6	o-Xylene	U	1.17	ug/kg	0.350	1.17
100-42-5	Styrene	U	1.17	ug/kg	0.350	1.17
75-25-2	Bromoform	U	1.17	ug/kg	0.350	1.17
79-34-5	1,1,2,2-Tetrachloroethane	U	1.17	ug/kg	0.350	1.17
96-18-4	1,2,3-Trichloropropane	U	1.17	ug/kg	0.350	1.17
108-86-1	Bromobenzene	U	1.17	ug/kg	0.350	1.17
103-65-1	n-Propylbenzene	U	1.17	ug/kg	0.350	1.17
95-49-8	2-Chlorotoluene	U	1.17	ug/kg	0.350	1.17
98-82-8	Isopropylbenzene	U	1.17	ug/kg	0.350	1.17
108-67-8	1,3,5-Trimethylbenzene	U	1.17	ug/kg	0.350	1.17
106-43-4	4-Chlorotoluene	U	1.17	ug/kg	0.350	1.17
98-06-6	tert-Butylbenzene	U	1.17	ug/kg	0.350	1.17
95-63-6	1,2,4-Trimethylbenzene	U	1.17	ug/kg	0.350	1.17
135-98-8	sec-Butylbenzene	U	1.17	ug/kg	0.350	1.17
99-87-6	4-Isopropyltoluene	U	1.17	ug/kg	0.350	1.17
541-73-1	1,3-Dichlorobenzene	U	1.17	ug/kg	0.350	1.17
106-46-7	1,4-Dichlorobenzene	U	1.17	ug/kg	0.350	1.17
104-51-8	n-Butylbenzene	U	1.17	ug/kg	0.350	1.17
96-12-8	1,2-Dibromo-3-chloropropane	U	1.17	ug/kg	0.350	1.17
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.83	ug/kg	1.86	5.83
630-20-6	1,1,1,2-Tetrachloroethane	U	1.17	ug/kg	0.350	1.17
95-50-1	1,2-Dichlorobenzene	U	1.17	ug/kg	0.350	1.17

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Hydrocarbon	18.07	14.1	ug/kg		J

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-917**	**Date Collected:**	**12/11/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242937010**	**Date Received:**	**12/15/2009 08:45**		
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-10-6968**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**934728**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**12/19/2009 07:57**	**Analyst:**	**RXM4**	**Purge Vol:**	**5 mL**
Prep Date:	**12/18/2009 14:17**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1r543.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/kg	0.340	1.00
74-87-3	Chloromethane	U	1.00	ug/kg	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/kg	0.300	1.00
74-83-9	Bromomethane	U	1.00	ug/kg	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/kg	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/kg	0.300	1.00
67-64-1	Acetone	J	2.92	ug/kg	1.66	5.00
75-35-4	1,1-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/kg	1.60	5.00
75-09-2	Methylene chloride	U	5.00	ug/kg	2.00	5.00
75-15-0	Carbon disulfide	U	5.00	ug/kg	1.25	5.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/kg	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/kg	1.50	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/kg	0.300	1.00
74-97-5	Bromochloromethane	U	1.00	ug/kg	0.330	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/kg	0.300	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/kg	0.300	1.00
56-23-5	Carbon tetrachloride	U	1.00	ug/kg	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/kg	0.300	1.00
71-43-2	Benzene	U	1.00	ug/kg	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/kg	0.330	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/kg	0.300	1.00
74-95-3	Dibromomethane	U	1.00	ug/kg	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/kg	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
108-88-3	Toluene	U	1.00	ug/kg	0.300	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/kg	0.300	1.00
591-78-6	2-Hexanone	U	5.00	ug/kg	1.50	5.00
142-28-9	1,3-Dichloropropane	U	1.00	ug/kg	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/kg	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/kg	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/kg	0.300	1.00
108-90-7	Chlorobenzene	U	1.00	ug/kg	0.300	1.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-917**	**Date Collected:**	**12/11/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242937010**	**Date Received:**	**12/15/2009 08:45**		
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-10-6968**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**934728**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**12/19/2009 07:57**	**Analyst:**	**RXM4**	**Purge Vol:**	**5 mL**
Prep Date:	**12/18/2009 14:17**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1r543.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.00	ug/kg	0.300	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/kg	0.300	2.00
95-47-6	o-Xylene	U	1.00	ug/kg	0.300	1.00
100-42-5	Styrene	U	1.00	ug/kg	0.300	1.00
75-25-2	Bromoform	U	1.00	ug/kg	0.300	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/kg	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/kg	0.300	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/kg	0.300	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/kg	0.300	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/kg	0.300	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/kg	0.300	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/kg	0.300	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/kg	0.300	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/kg	0.300	1.00
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.00	ug/kg	1.60	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated Units	Fit	Qual
	No Tentatively Identified Compounds Found		ug/kg		

QC Summary

Volatile

Surrogate Recovery Report

SDG Number: 10-917

Matrix Type: SOLID

CAP Column (1) : RTX-Volatiles

Sample ID	Client ID	DCED4 %REC	TOL %REC	BFB %REC
1201999847	LCS for batch 934727	115	100	97
1201999848	LCS for batch 934727	115	105	105
1201999844	MB for batch 934727	125	109	112
242937001	RE03-09-14213	118	104	103
242937002	RE03-09-14215	123	111	113
242937003	RE03-09-14212	112	103	110
242937004	RE03-09-14219	118	111	113
242937005	RE03-09-14218	110	103	107
242937006	RE03-09-14216	121	112	118
242937007	RE03-09-14214	112	105	106
242937008	RE03-09-14217	121	115	118
242937009	RE03-10-2735	130	112	116
242937010	RE03-10-6968	126	114	117

Surrogate		Acceptance Limits
DCED4	= 1,2-Dichloroethane-d4	(68%-131%)
TOL	= Toluene-d8	(75%-129%)
BFB	= Bromofluorobenzene	(68%-133%)

* Recovery outside Acceptance Limits

\# Column to be used to flag recovery values

D Sample Diluted

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-917
Client ID: RE03-09-13470PS
Lab Sample ID: 1201999845
Instrument: VOA1.I
Analyst: RXM4
Purge Vol: 5 mL

Sample Type: Post Spike
Matrix: S
%Moisture: 4.4
Analysis Date: 12/21/2009 17:21
Prep Batch ID: 934727
Batch ID: 934728
Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
75-71-8	PS	Dichlorodifluoromethane	50.0	0.00	U	29.0	58	25-149
74-87-3	PS	Chloromethane	50.0	0.00	U	36.3	73	39-140
75-01-4	PS	Vinyl chloride	50.0	0.00	U	37.9	76	47-129
74-83-9	PS	Bromomethane	50.0	0.00	U	37.7	75	31-135
75-00-3	PS	Chloroethane	50.0	0.00	U	40.5	81	53-128
75-69-4	PS	Trichlorofluoromethane	50.0	0.00	U	44.3	89	51-151
67-64-1	PS	Acetone	250	0.00	U	181	72	21-153
75-35-4	PS	1,1-Dichloroethylene	50.0	0.00	U	38.5	77	61-125
74-88-4	PS	Iodomethane	250	0.00	U	191	76	53-142
75-09-2	PS	Methylene chloride	50.0	2.10	J	37.3	70	59-136
75-15-0	PS	Carbon disulfide	250	0.00	U	205	82	46-129
156-60-5	PS	trans-1,2-Dichloroethylene	50.0	0.00	U	41.1	82	56-126
75-34-3	PS	1,1-Dichloroethane	50.0	0.00	U	43.4	87	62-125
78-93-3	PS	2-Butanone	250	0.00	U	198	79	26-152
156-59-2	PS	cis-1,2-Dichloroethylene	50.0	0.00	U	43.6	87	60-130
594-20-7	PS	2,2-Dichloropropane	50.0	0.00	U	54.8	110	55-135
67-66-3	PS	Chloroform	50.0	0.00	U	45.1	90	60-127
74-97-5	PS	Bromochloromethane	50.0	0.00	U	44.3	89	61-131
71-55-6	PS	1,1,1-Trichloroethane	50.0	0.00	U	52.3	105	59-131
563-58-6	PS	1,1-Dichloropropene	50.0	0.00	U	48.3	97	57-128
56-23-5	PS	Carbon tetrachloride	50.0	0.00	U	50.4	101	58-136
107-06-2	PS	1,2-Dichloroethane	50.0	0.00	U	46.4	93	58-126

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-917
Client ID: RE03-09-13470PS
Lab Sample ID: 1201999845
Instrument: VOA1.I
Analyst: RXM4
Purge Vol: 5 mL

Sample Type: Post Spike
Matrix: S
%Moisture: 4.4
Analysis Date: 12/21/2009 17:21
Prep Batch ID: 934727
Batch ID: 934728
Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
71-43-2	PS	Benzene	50.0	0.00	U	45.5	91	56-123
79-01-6	PS	Trichloroethylene	50.0	0.00	U	45.1	90	51-137
78-87-5	PS	1,2-Dichloropropane	50.0	0.00	U	45.7	91	60-126
75-27-4	PS	Bromodichloromethane	50.0	0.00	U	46.7	93	55-138
74-95-3	PS	Dibromomethane	50.0	0.00	U	45.1	90	60-132
108-10-1	PS	4-Methyl-2-pentanone	250	0.00	U	244	98	58-136
10061-01-5	PS	cis-1,3-Dichloropropylene	50.0	0.00	U	47.1	94	54-133
108-88-3	PS	Toluene	50.0	0.00	U	44.7	89	52-128
10061-02-6	PS	trans-1,3-Dichloropropylene	50.0	0.00	U	49.4	99	53-137
79-00-5	PS	1,1,2-Trichloroethane	50.0	0.00	U	46.9	94	59-130
591-78-6	PS	2-Hexanone	250	0.00	U	203	81	31-148
142-28-9	PS	1,3-Dichloropropane	50.0	0.00	U	45.5	91	57-127
127-18-4	PS	Tetrachloroethylene	50.0	0.00	U	43.9	88	51-128
124-48-1	PS	Dibromochloromethane	50.0	0.00	U	48.5	97	59-139
106-93-4	PS	1,2-Dibromoethane	50.0	0.00	U	47.9	96	57-133
108-90-7	PS	Chlorobenzene	50.0	0.00	U	45.1	90	53-122
100-41-4	PS	Ethylbenzene	50.0	0.00	U	46.0	92	51-125
179601-23-1	PS	m,p-Xylenes	100	0.00	U	89.9	90	50-126
95-47-6	PS	o-Xylene	50.0	0.00	U	45.7	91	52-127
100-42-5	PS	Styrene	50.0	0.00	U	46.0	92	49-135
75-25-2	PS	Bromoform	50.0	0.00	U	44.1	88	57-149
79-34-5	PS	1,1,2,2-Tetrachloroethane	50.0	0.00	U	48.6	97	63-127

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-917
Client ID: RE03-09-13470PS
Lab Sample ID: 1201999845
Instrument: VOA1.I
Analyst: RXM4
Purge Vol: 5 mL

Sample Type: Post Spike
Matrix: S
%Moisture: 4.4
Analysis Date: 12/21/2009 17:21
Prep Batch ID: 934727
Batch ID: 934728
Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
96-18-4	PS	1,2,3-Trichloropropane	50.0	0.00	U	49.3	99	57-149
108-86-1	PS	Bromobenzene	50.0	0.00	U	45.3	91	49-131
103-65-1	PS	n-Propylbenzene	50.0	0.00	U	45.9	92	40-136
95-49-8	PS	2-Chlorotoluene	50.0	0.00	U	45.5	91	44-135
98-82-8	PS	Isopropylbenzene	50.0	0.00	U	47.8	96	44-140
108-67-8	PS	1,3,5-Trimethylbenzene	50.0	0.00	U	45.4	91	42-140
106-43-4	PS	4-Chlorotoluene	50.0	0.00	U	45.1	90	44-132
98-06-6	PS	tert-Butylbenzene	50.0	0.00	U	43.6	87	42-142
95-63-6	PS	1,2,4-Trimethylbenzene	50.0	0.00	U	43.5	87	43-137
135-98-8	PS	sec-Butylbenzene	50.0	0.00	U	44.3	89	39-139
99-87-6	PS	4-Isopropyltoluene	50.0	0.00	U	42.8	86	38-145
541-73-1	PS	1,3-Dichlorobenzene	50.0	0.00	U	42.1	84	43-129
106-46-7	PS	1,4-Dichlorobenzene	50.0	0.00	U	41.5	83	44-125
104-51-8	PS	n-Butylbenzene	50.0	0.00	U	42.1	84	36-141
96-12-8	PS	1,2-Dibromo-3-chloropropane	50.0	0.00	U	39.8	80	47-151
630-20-6	PS	1,1,1,2-Tetrachloroethane	50.0	0.00	U	46.6	93	59-131
95-50-1	PS	1,2-Dichlorobenzene	50.0	0.00	U	42.0	84	43-129

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-917
Client ID: RE03-09-13470PSD
Lab Sample ID: 1201999846
Instrument: VOA1.I
Analyst: RXM4
Purge Vol: 5 mL

Sample Type: Post Spike Duplicate
Matrix: S
%Moisture: 4.4
Analysis Date: 12/21/2009 17:51
Dilution: 1
Prep Batch ID: 934727
Batch ID: 934728

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
75-71-8	PSD	Dichlorodifluoromethane	50.0	0.00	U	31.0	62	25-149	7	0-25
74-87-3	PSD	Chloromethane	50.0	0.00	U	37.7	75	39-140	4	0-25
75-01-4	PSD	Vinyl chloride	50.0	0.00	U	38.7	77	47-129	2	0-25
74-83-9	PSD	Bromomethane	50.0	0.00	U	39.8	80	31-135	6	0-25
75-00-3	PSD	Chloroethane	50.0	0.00	U	41.4	83	53-128	2	0-25
75-69-4	PSD	Trichlorofluoromethane	50.0	0.00	U	44.9	90	51-151	1	0-25
67-64-1	PSD	Acetone	250	0.00	U	181	72	21-153	0	0-25
75-35-4	PSD	1,1-Dichloroethylene	50.0	0.00	U	40.5	81	61-125	5	0-25
74-88-4	PSD	Iodomethane	250	0.00	U	199	80	53-142	4	0-25
75-09-2	PSD	Methylene chloride	50.0	2.10	J	39.3	74	59-136	5	0-25
75-15-0	PSD	Carbon disulfide	250	0.00	U	212	85	46-129	4	0-25
156-60-5	PSD	trans-1,2-Dichloroethylene	50.0	0.00	U	42.1	84	56-126	2	0-25
75-34-3	PSD	1,1-Dichloroethane	50.0	0.00	U	44.8	90	62-125	3	0-25
78-93-3	PSD	2-Butanone	250	0.00	U	195	78	26-152	2	0-25
156-59-2	PSD	cis-1,2-Dichloroethylene	50.0	0.00	U	44.4	89	60-130	2	0-25
594-20-7	PSD	2,2-Dichloropropane	50.0	0.00	U	55.3	111	55-135	1	0-25
67-66-3	PSD	Chloroform	50.0	0.00	U	45.6	91	60-127	1	0-25
74-97-5	PSD	Bromochloromethane	50.0	0.00	U	43.9	88	61-131	1	0-25
71-55-6	PSD	1,1,1-Trichloroethane	50.0	0.00	U	53.3	107	59-131	2	0-25
563-58-6	PSD	1,1-Dichloropropene	50.0	0.00	U	49.3	99	57-128	2	0-25
56-23-5	PSD	Carbon tetrachloride	50.0	0.00	U	51.1	102	58-136	1	0-25
107-06-2	PSD	1,2-Dichloroethane	50.0	0.00	U	47.0	94	58-126	1	0-25

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-917
Client ID: RE03-09-13470PSD
Lab Sample ID: 1201999846
Instrument: VOA1.I
Analyst: RXM4
Purge Vol: 5 mL

Sample Type: Post Spike Duplicate
Matrix: S
%Moisture: 4.4
Analysis Date: 12/21/2009 17:51
Prep Batch ID: 934727
Batch ID: 934728
Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
71-43-2	PSD	Benzene	50.0	0.00	U	47.0	94	56-123	3	0-25
79-01-6	PSD	Trichloroethylene	50.0	0.00	U	46.2	92	51-137	3	0-25
78-87-5	PSD	1,2-Dichloropropane	50.0	0.00	U	47.4	95	60-126	4	0-25
75-27-4	PSD	Bromodichloromethane	50.0	0.00	U	48.8	98	55-138	4	0-25
74-95-3	PSD	Dibromomethane	50.0	0.00	U	46.7	93	60-132	3	0-25
108-10-1	PSD	4-Methyl-2-pentanone	250	0.00	U	243	97	58-136	0	0-25
10061-01-5	PSD	cis-1,3-Dichloropropylene	50.0	0.00	U	49.3	99	54-133	5	0-25
108-88-3	PSD	Toluene	50.0	0.00	U	45.2	90	52-128	1	0-25
10061-02-6	PSD	trans-1,3-Dichloropropylene	50.0	0.00	U	50.3	101	53-137	2	0-25
79-00-5	PSD	1,1,2-Trichloroethane	50.0	0.00	U	47.6	95	59-130	2	0-25
591-78-6	PSD	2-Hexanone	250	0.00	U	199	80	31-148	2	0-25
142-28-9	PSD	1,3-Dichloropropane	50.0	0.00	U	46.0	92	57-127	1	0-25
127-18-4	PSD	Tetrachloroethylene	50.0	0.00	U	45.0	90	51-128	2	0-25
124-48-1	PSD	Dibromochloromethane	50.0	0.00	U	48.8	98	59-139	0	0-25
106-93-4	PSD	1,2-Dibromoethane	50.0	0.00	U	48.7	97	57-133	1	0-25
108-90-7	PSD	Chlorobenzene	50.0	0.00	U	45.5	91	53-122	1	0-25
100-41-4	PSD	Ethylbenzene	50.0	0.00	U	46.6	93	51-125	1	0-25
179601-23-1	PSD	m,p-Xylenes	100	0.00	U	90.8	91	50-126	1	0-25
95-47-6	PSD	o-Xylene	50.0	0.00	U	45.4	91	52-127	1	0-25
100-42-5	PSD	Styrene	50.0	0.00	U	47.1	94	49-135	2	0-25
75-25-2	PSD	Bromoform	50.0	0.00	U	45.8	92	57-149	4	0-25
79-34-5	PSD	1,1,2,2-Tetrachloroethane	50.0	0.00	U	49.7	99	63-127	2	0-25

Quality Control Summary
Spike Recovery Report

SDG Number: 10-917
Client ID: RE03-09-13470PSD
Lab Sample ID: 1201999846
Instrument: VOA1.I
Analyst: RXM4
Purge Vol: 5 mL

Sample Type: Post Spike Duplicate
Matrix: S
%Moisture: 4.4
Analysis Date: 12/21/2009 17:51
Dilution: 1
Prep Batch ID: 934727
Batch ID: 934728

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
96-18-4	PSD	1,2,3-Trichloropropane	50.0	0.00	U	48.5	97	57-149	2	0-25
108-86-1	PSD	Bromobenzene	50.0	0.00	U	46.4	93	49-131	2	0-25
103-65-1	PSD	n-Propylbenzene	50.0	0.00	U	47.1	94	40-136	3	0-25
95-49-8	PSD	2-Chlorotoluene	50.0	0.00	U	47.0	94	44-135	3	0-25
98-82-8	PSD	Isopropylbenzene	50.0	0.00	U	49.5	99	44-140	3	0-25
108-67-8	PSD	1,3,5-Trimethylbenzene	50.0	0.00	U	47.4	95	42-140	4	0-25
106-43-4	PSD	4-Chlorotoluene	50.0	0.00	U	46.8	94	44-132	4	0-25
98-06-6	PSD	tert-Butylbenzene	50.0	0.00	U	44.4	89	42-142	2	0-25
95-63-6	PSD	1,2,4-Trimethylbenzene	50.0	0.00	U	46.0	92	43-137	6	0-25
135-98-8	PSD	sec-Butylbenzene	50.0	0.00	U	45.3	91	39-139	2	0-25
99-87-6	PSD	4-Isopropyltoluene	50.0	0.00	U	44.8	90	38-145	4	0-25
541-73-1	PSD	1,3-Dichlorobenzene	50.0	0.00	U	43.9	88	43-129	4	0-25
106-46-7	PSD	1,4-Dichlorobenzene	50.0	0.00	U	43.7	87	44-125	5	0-25
104-51-8	PSD	n-Butylbenzene	50.0	0.00	U	44.2	88	36-141	5	0-25
96-12-8	PSD	1,2-Dibromo-3-chloropropane	50.0	0.00	U	43.5	87	47-151	9	0-25
630-20-6	PSD	1,1,1,2-Tetrachloroethane	50.0	0.00	U	45.8	92	59-131	2	0-25
95-50-1	PSD	1,2-Dichlorobenzene	50.0	0.00	U	43.6	87	43-129	4	0-25

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-917
Client ID: LCS for batch 934727
Lab Sample ID: 1201999847
Instrument: VOA1.I
Analyst: RXM4
Purge Vol: 5 mL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 12/18/2009 22:20
Dilution: 1
Prep Batch ID: 934727
Batch ID: 934728

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
75-71-8	LCS	Dichlorodifluoromethane	50.0	0.0	51.3	103	33-155
74-87-3	LCS	Chloromethane	50.0	0.0	48.5	97	53-132
75-01-4	LCS	Vinyl chloride	50.0	0.0	47.0	94	61-128
74-83-9	LCS	Bromomethane	50.0	0.0	47.9	96	63-126
75-00-3	LCS	Chloroethane	50.0	0.0	50.3	101	67-124
75-69-4	LCS	Trichlorofluoromethane	50.0	0.0	55.0	110	67-151
67-64-1	LCS	Acetone	250	0.0	203	81	29-160
75-35-4	LCS	1,1-Dichloroethylene	50.0	0.0	49.4	99	70-125
74-88-4	LCS	Iodomethane	250	0.0	228	91	74-131
75-09-2	LCS	Methylene chloride	50.0	0.0	45.9	92	72-127
75-15-0	LCS	Carbon disulfide	250	0.0	248	99	64-127
156-60-5	LCS	trans-1,2-Dichloroethylene	50.0	0.0	47.3	95	71-122
75-34-3	LCS	1,1-Dichloroethane	50.0	0.0	49.2	98	75-120
78-93-3	LCS	2-Butanone	250	0.0	206	82	35-162
156-59-2	LCS	cis-1,2-Dichloroethylene	50.0	0.0	48.2	96	76-122
594-20-7	LCS	2,2-Dichloropropane	50.0	0.0	51.7	103	74-135
67-66-3	LCS	Chloroform	50.0	0.0	50.3	101	77-120
74-97-5	LCS	Bromochloromethane	50.0	0.0	49.0	98	76-122
71-55-6	LCS	1,1,1-Trichloroethane	50.0	0.0	52.0	104	75-128
563-58-6	LCS	1,1-Dichloropropene	50.0	0.0	51.7	103	77-125
56-23-5	LCS	Carbon tetrachloride	50.0	0.0	54.4	109	77-134
107-06-2	LCS	1,2-Dichloroethane	50.0	0.0	53.5	107	72-120

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-917
Client ID: LCS for batch 934727
Lab Sample ID: 1201999847
Instrument: VOA1.I
Analyst: RXM4
Purge Vol: 5 mL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 12/18/2009 22:20
Dilution: 1
Prep Batch ID: 934727
Batch ID: 934728

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
71-43-2	LCS	Benzene	50.0	0.0	48.8	98	72-120
79-01-6	LCS	Trichloroethylene	50.0	0.0	50.1	100	78-121
78-87-5	LCS	1,2-Dichloropropane	50.0	0.0	50.2	100	74-120
75-27-4	LCS	Bromodichloromethane	50.0	0.0	61.5	123	79-125
74-95-3	LCS	Dibromomethane	50.0	0.0	50.4	101	78-122
108-10-1	LCS	4-Methyl-2-pentanone	250	0.0	256	103	71-134
10061-01-5	LCS	cis-1,3-Dichloropropylene	50.0	0.0	54.0	108	80-125
108-88-3	LCS	Toluene	50.0	0.0	47.5	95	65-124
10061-02-6	LCS	trans-1,3-Dichloropropylene	50.0	0.0	55.8	112	71-134
79-00-5	LCS	1,1,2-Trichloroethane	50.0	0.0	50.2	100	76-120
591-78-6	LCS	2-Hexanone	250	0.0	213	85	42-159
142-28-9	LCS	1,3-Dichloropropane	50.0	0.0	50.3	101	72-120
127-18-4	LCS	Tetrachloroethylene	50.0	0.0	46.5	93	74-123
124-48-1	LCS	Dibromochloromethane	50.0	0.0	53.5	107	83-128
106-93-4	LCS	1,2-Dibromoethane	50.0	0.0	51.7	103	79-121
108-90-7	LCS	Chlorobenzene	50.0	0.0	48.7	97	75-120
100-41-4	LCS	Ethylbenzene	50.0	0.0	49.2	98	74-120
179601-23-1	LCS	m,p-Xylenes	100	0.0	97.1	97	74-120
95-47-6	LCS	o-Xylene	50.0	0.0	49.6	99	74-120
100-42-5	LCS	Styrene	50.0	0.0	50.8	102	76-125
75-25-2	LCS	Bromoform	50.0	0.0	45.3	91	77-138
79-34-5	LCS	1,1,2,2-Tetrachloroethane	50.0	0.0	48.2	96	72-122

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-917
Client ID: LCS for batch 934727
Lab Sample ID: 1201999847
Instrument: VOA1.I
Analyst: RXM4
Purge Vol: 5 mL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 12/18/2009 22:20
Dilution: 1
Prep Batch ID: 934727
Batch ID: 934728

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
96-18-4	LCS	1,2,3-Trichloropropane	50.0	0.0	50.2	100	75-135
108-86-1	LCS	Bromobenzene	50.0	0.0	46.4	93	73-120
103-65-1	LCS	n-Propylbenzene	50.0	0.0	47.9	96	68-121
95-49-8	LCS	2-Chlorotoluene	50.0	0.0	48.2	96	69-120
98-82-8	LCS	Isopropylbenzene	50.0	0.0	48.5	97	66-127
108-67-8	LCS	1,3,5-Trimethylbenzene	50.0	0.0	48.5	97	67-126
106-43-4	LCS	4-Chlorotoluene	50.0	0.0	48.3	97	72-120
98-06-6	LCS	tert-Butylbenzene	50.0	0.0	46.8	94	72-124
95-63-6	LCS	1,2,4-Trimethylbenzene	50.0	0.0	47.9	96	72-122
135-98-8	LCS	sec-Butylbenzene	50.0	0.0	47.8	96	71-124
99-87-6	LCS	4-Isopropyltoluene	50.0	0.0	47.7	95	72-130
541-73-1	LCS	1,3-Dichlorobenzene	50.0	0.0	45.8	92	73-120
106-46-7	LCS	1,4-Dichlorobenzene	50.0	0.0	45.7	91	73-120
104-51-8	LCS	n-Butylbenzene	50.0	0.0	49.6	99	72-128
96-12-8	LCS	1,2-Dibromo-3-chloropropane	50.0	0.0	44.3	89	68-145
630-20-6	LCS	1,1,1,2-Tetrachloroethane	50.0	0.0	51.1	102	78-121
95-50-1	LCS	1,2-Dichlorobenzene	50.0	0.0	46.6	93	74-120

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-917
Client ID: LCS for batch 934727
Lab Sample ID: 1201999848
Instrument: VOA1.I
Analyst: RXM4
Purge Vol: 5 mL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 12/18/2009 22:51
Dilution: 1
Prep Batch ID: 934727
Batch ID: 934728

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
76-13-1	LCS	1,1,2-Trichloro-1,2,2-Trifluor *Trichlorotrifluoroethane*	250	0.0	322	129	52-139

Method Blank Summary

SDG Number:	10-917	Client:	LANL010	Matrix:	SOIL
Client ID:	MB for batch 934727	Instrument ID:	VOA1.I	Data File:	1r527BA.d
Lab Sample ID:	1201999844	Prep Date:	12/18/2009 08:00	Analyzed:	12/18/09 23:51
Column:	RTX-Volatiles	Heated Purge:	Yes		

This method blank applies to the following samples and quality control samples:

	Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01	LCS for batch 934727	1201999847	1r524LA.d	12/18/09	2220
02	LCS for batch 934727	1201999848	1r525sLA.d	12/18/09	2251
03	RE03-09-14213	242937001	1r534.d	12/19/09	0323
04	RE03-09-14215	242937002	1r535.d	12/19/09	0354
05	RE03-09-14212	242937003	1r536.d	12/19/09	0425
06	RE03-09-14219	242937004	1r537.d	12/19/09	0455
07	RE03-09-14218	242937005	1r538.d	12/19/09	0525
08	RE03-09-14216	242937006	1r539.d	12/19/09	0556
09	RE03-09-14214	242937007	1r540.d	12/19/09	0626
10	RE03-09-14217	242937008	1r541.d	12/19/09	0656
11	RE03-10-2735	242937009	1r542.d	12/19/09	0726
12	RE03-10-6968	242937010	1r543.d	12/19/09	0757

Instrument Performance Check

BFB

Lab Name GEL Laboratories LLC **Client SDG:** 10-917

Instrument ID: VOA1.I **Injection Date/Time:** 17-DEC-09 12:56

Column Description: RTX-Volatiles **Lab File ID** /121709v1/1r408.d

m/e	Ion Abundance Criteria	% Relative Abundance
95	Base Peak, 100% Relative Abundance	100
50	15.0 - 40.0% of mass 95	19.2
75	30.0 - 60.0% of mass 95	51.4
96	5.0 - 9.0% of mass 95	6.9
173	Less than 2.0% of mass 174	0.8
174	50.0 - 100.0% of mass 95	74.1
175	5.0 -9.0% of mass 174	7.6
176	95.0 - 101.0% of mass 174	95.5
177	5.0 - 9.0% of mass 176	6.5

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
VSTD0005	W1VM091217-04	/121709v1/1r409.d	17-DEC-09 13:26
VSTD001	W1VM091217-06	/121709v1/1r411.d	17-DEC-09 14:26
VSTD002	W1VM091217-08	/121709v1/1r413.d	17-DEC-09 15:27
VSTD005	W1VM091217-09	/121709v1/1r414.d	17-DEC-09 15:57
VSTD010	W1VM091217-10	/121709v1/1r415.d	17-DEC-09 16:26
VSTD020	W1VM091217-11	/121709v1/1r416.d	17-DEC-09 16:56
VSTD050	W1VM091217-12	/121709v1/1r417.d	17-DEC-09 17:26
VSTD100	W1VM091217-13	/121709v1/1r418.d	17-DEC-09 17:56
VSTD005S	W1VM091217-14	/121709v1/1r420.d	17-DEC-09 18:56
VSTD010S	W1VM091217-15	/121709v1/1r421.d	17-DEC-09 19:26
VSTD025S	W1VM091217-16	/121709v1/1r422.d	17-DEC-09 19:56
VSTD050S	W1VM091217-17	/121709v1/1r423.d	17-DEC-09 20:27
VSTD100S	W1VM091217-18	/121709v1/1r424.d	17-DEC-09 20:57
VSTD250S	W1VM091217-19	/121709v1/1r425.d	17-DEC-09 21:27
VSTD500S	W1VM091217-20	/121709v1/1r426.d	17-DEC-09 21:57
ICV	W1VM091217-18	/121709v1/1r428.d	17-DEC-09 22:57
SHORT ICV	W1VM091217-20	/121709v1/1r430.d	17-DEC-09 23:58

Instrument Performance Check

BFB

Lab Name GEL Laboratories LLC **Client SDG:** 10-917

Instrument ID: VOA1.I **Injection Date/Time:** 18-DEC-09 21:19

Column Description: RTX-Volatiles **Lab File ID** /121809v1/1r522.d

m/e	Ion Abundance Criteria	% Relative Abundance
95	Base Peak, 100% Relative Abundance	100
50	15.0 - 40.0% of mass 95	19.7
75	30.0 - 60.0% of mass 95	53.3
96	5.0 - 9.0% of mass 95	6.4
173	Less than 2.0% of mass 174	0.9
174	50.0 - 100.0% of mass 95	74.3
175	5.0 -9.0% of mass 174	7.4
176	95.0 - 101.0% of mass 174	96.1
177	5.0 - 9.0% of mass 176	6.6

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
VSTD050	W1VM091218-06	/121809v1/1r524.d	18-DEC-09 22:20
LCS	1201999847	/121809v1/1r524LA.d	18-DEC-09 22:20
VSTD250S	W1VM091218-07	/121809v1/1r525.d	18-DEC-09 22:51
LCS	1201999848	/121809v1/1r525sLA.d	18-DEC-09 22:51
BLANK	1201999844	/121809v1/1r527BA.d	18-DEC-09 23:51
RE03-09-14213	242937001	/121809v1/1r534.d	19-DEC-09 03:23
RE03-09-14215	242937002	/121809v1/1r535.d	19-DEC-09 03:54
RE03-09-14212	242937003	/121809v1/1r536.d	19-DEC-09 04:25
RE03-09-14219	242937004	/121809v1/1r537.d	19-DEC-09 04:55
RE03-09-14218	242937005	/121809v1/1r538.d	19-DEC-09 05:25
RE03-09-14216	242937006	/121809v1/1r539.d	19-DEC-09 05:56
RE03-09-14214	242937007	/121809v1/1r540.d	19-DEC-09 06:26
RE03-09-14217	242937008	/121809v1/1r541.d	19-DEC-09 06:56
RE03-10-2735	242937009	/121809v1/1r542.d	19-DEC-09 07:26
RE03-10-6968	242937010	/121809v1/1r543.d	19-DEC-09 07:57

Internal Standard
Area and RT Summary

Lab Name : GEL Laboratories LLC

Instrument: VOA1.I

GC Column: RTX-Volatiles

Client SDG: 10-917

STD Analysis Time: 18-DEC-09 22:20

Data File: 1r524.d

	Fluorobenzene			Chlorobenzene-d5			1,4-Dichlorobenzene-d4		
	Area	#	RT #	Area	#	RT #	Area	#	RT #
12 Hour STD	757064		13.7	542799		17.2	304968		19.6
Upper Limit	1514128		14.2	1085598		17.7	609936		20.1
Lower Limit	378532		13.2	271400		16.7	152484		19.1
Sample ID									
BLK01LCS	757064		13.7	542799		17.2	304968		19.6
BLK01SLCS	765419		13.7	535148		17.2	289952		19.6
BLK01	690536		13.7	483549		17.2	251846		19.6
RE03-09-14213	663892		13.7	460157		17.2	249764		19.6
RE03-09-14215	658732		13.7	458601		17.2	239765		19.6
RE03-09-14212	751374		13.7	507685		17.2	248464		19.6
RE03-09-14219	706896		13.7	489155		17.2	249134		19.6
RE03-09-14218	674429		13.7	466770		17.2	232122		19.6
RE03-09-14216	667352		13.7	460203		17.2	223805		19.6
RE03-09-14214	742680		13.7	508004		17.2	265726		19.6
RE03-09-14217	622464		13.7	424807		17.2	210755		19.6
RE03-10-2735	675326		13.7	473533		17.2	251945		19.6
RE03-10-6968	656054		13.7	454680		17.2	235691		19.6

Area Upper Limit = +100% of internal standard area
Area Lower Limit = - 50% of internal standard area

RT Upper Limit = + 0.50 minutes of internal standard RT
RT Lower Limit = - 0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Value outside of QC Limits

Sample Data

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-917**	**Date Collected:**	**12/11/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242937003**	**Date Received:**	**12/15/2009 08:45**	**%Moisture:**	**12.9**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14212**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**934728**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**12/19/2009 04:25**	**Analyst:**	**RXM4**	**Purge Vol:**	**5 mL**
Prep Date:	**12/18/2009 14:10**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1r536.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.15	ug/kg	0.390	1.15
74-87-3	Chloromethane	U	1.15	ug/kg	0.344	1.15
75-01-4	Vinyl chloride	U	1.15	ug/kg	0.344	1.15
74-83-9	Bromomethane	U	1.15	ug/kg	0.344	1.15
75-00-3	Chloroethane	U	1.15	ug/kg	0.344	1.15
75-69-4	Trichlorofluoromethane	U	1.15	ug/kg	0.344	1.15
67-64-1	Acetone	J	4.70	ug/kg	1.90	5.74
75-35-4	1,1-Dichloroethylene	U	1.15	ug/kg	0.344	1.15
74-88-4	Iodomethane	U	5.74	ug/kg	1.84	5.74
75-09-2	Methylene chloride	J	2.55	ug/kg	2.29	5.74
75-15-0	Carbon disulfide	U	5.74	ug/kg	1.43	5.74
156-60-5	trans-1,2-Dichloroethylene	U	1.15	ug/kg	0.344	1.15
75-34-3	1,1-Dichloroethane	U	1.15	ug/kg	0.344	1.15
78-93-3	2-Butanone	U	5.74	ug/kg	1.72	5.74
156-59-2	cis-1,2-Dichloroethylene	U	1.15	ug/kg	0.344	1.15
594-20-7	2,2-Dichloropropane	U	1.15	ug/kg	0.344	1.15
67-66-3	Chloroform	U	1.15	ug/kg	0.344	1.15
74-97-5	Bromochloromethane	U	1.15	ug/kg	0.379	1.15
71-55-6	1,1,1-Trichloroethane	U	1.15	ug/kg	0.344	1.15
563-58-6	1,1-Dichloropropene	U	1.15	ug/kg	0.344	1.15
56-23-5	Carbon tetrachloride	U	1.15	ug/kg	0.344	1.15
107-06-2	1,2-Dichloroethane	U	1.15	ug/kg	0.344	1.15
71-43-2	Benzene	U	1.15	ug/kg	0.344	1.15
79-01-6	Trichloroethylene	U	1.15	ug/kg	0.379	1.15
78-87-5	1,2-Dichloropropane	U	1.15	ug/kg	0.344	1.15
75-27-4	Bromodichloromethane	U	1.15	ug/kg	0.344	1.15
74-95-3	Dibromomethane	U	1.15	ug/kg	0.344	1.15
108-10-1	4-Methyl-2-pentanone	U	5.74	ug/kg	1.43	5.74
10061-01-5	cis-1,3-Dichloropropylene	U	1.15	ug/kg	0.344	1.15
108-88-3	Toluene	U	1.15	ug/kg	0.344	1.15
10061-02-6	trans-1,3-Dichloropropylene	U	1.15	ug/kg	0.344	1.15
79-00-5	1,1,2-Trichloroethane	U	1.15	ug/kg	0.344	1.15
591-78-6	2-Hexanone	U	5.74	ug/kg	1.72	5.74
142-28-9	1,3-Dichloropropane	U	1.15	ug/kg	0.344	1.15
127-18-4	Tetrachloroethylene	U	1.15	ug/kg	0.344	1.15
124-48-1	Dibromochloromethane	U	1.15	ug/kg	0.344	1.15
106-93-4	1,2-Dibromoethane	U	1.15	ug/kg	0.344	1.15
108-90-7	Chlorobenzene	U	1.15	ug/kg	0.344	1.15

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-917	**Date Collected:**	12/11/2009 12:00	**Matrix:**	S
Lab Sample ID:	242937003	**Date Received:**	12/15/2009 08:45	**%Moisture:**	12.9
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14212	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	934728	**Inst:**	VOA1.I	**Dilution:**	1
Run Date:	12/19/2009 04:25	**Analyst:**	RXM4	**Purge Vol:**	5 mL
Prep Date:	12/18/2009 14:10	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	1r536.d	**Column:**	RTX-Volatiles	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.15	ug/kg	0.344	1.15
179601-23-1	m,p-Xylenes	U	2.29	ug/kg	0.344	2.29
95-47-6	o-Xylene	U	1.15	ug/kg	0.344	1.15
100-42-5	Styrene	U	1.15	ug/kg	0.344	1.15
75-25-2	Bromoform	U	1.15	ug/kg	0.344	1.15
79-34-5	1,1,2,2-Tetrachloroethane	U	1.15	ug/kg	0.344	1.15
96-18-4	1,2,3-Trichloropropane	U	1.15	ug/kg	0.344	1.15
108-86-1	Bromobenzene	U	1.15	ug/kg	0.344	1.15
103-65-1	n-Propylbenzene	U	1.15	ug/kg	0.344	1.15
95-49-8	2-Chlorotoluene	U	1.15	ug/kg	0.344	1.15
98-82-8	Isopropylbenzene	U	1.15	ug/kg	0.344	1.15
108-67-8	1,3,5-Trimethylbenzene	J	0.621	ug/kg	0.344	1.15
106-43-4	4-Chlorotoluene	U	1.15	ug/kg	0.344	1.15
98-06-6	tert-Butylbenzene	U	1.15	ug/kg	0.344	1.15
95-63-6	1,2,4-Trimethylbenzene	J	1.02	ug/kg	0.344	1.15
135-98-8	sec-Butylbenzene	U	1.15	ug/kg	0.344	1.15
99-87-6	4-Isopropyltoluene	U	1.15	ug/kg	0.344	1.15
541-73-1	1,3-Dichlorobenzene	U	1.15	ug/kg	0.344	1.15
106-46-7	1,4-Dichlorobenzene	U	1.15	ug/kg	0.344	1.15
104-51-8	n-Butylbenzene	U	1.15	ug/kg	0.344	1.15
96-12-8	1,2-Dibromo-3-chloropropane	U	1.15	ug/kg	0.344	1.15
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.74	ug/kg	1.84	5.74
630-20-6	1,1,1,2-Tetrachloroethane	U	1.15	ug/kg	0.344	1.15
95-50-1	1,2-Dichlorobenzene	U	1.15	ug/kg	0.344	1.15

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Hydrocarbon	18.07	12.5	ug/kg		J
1120-21-4	Undecane	19.75	7.68	ug/kg	89	NJ
	Unknown Hydrocarbon	19.98	7.27	ug/kg		J
	Unknown Hydrocarbon	20.4	6.64	ug/kg		J
	Unknown Hydrocarbon	20.66	7.48	ug/kg		J
527-84-4	Benzene, 1-methyl-2-(1-methylethyl)-	20.82	9.4	ug/kg	95	NJ
112-40-3	Dodecane	20.97	8.38	ug/kg	93	NJ
	Unknown Hydrocarbon	21.15	8.56	ug/kg		J
933-98-2	Benzene, 1-ethyl-2,3-dimethyl-	21.36	13.2	ug/kg	94	NJ
	Unknown Hydrocarbon	21.8	8.04	ug/kg		J

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-917	**Date Collected:**	12/11/2009 12:00	**Matrix:**	S
Lab Sample ID:	242937003	**Date Received:**	12/15/2009 08:45	**%Moisture:**	12.9
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14212	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	934728	**Inst:**	VOA1.I	**Dilution:**	1
Run Date:	12/19/2009 04:25	**Analyst:**	RXM4	**Purge Vol:**	5 mL
Prep Date:	12/18/2009 14:10	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	1r536.d	**Column:**	RTX-Volatiles	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Hydrocarbon	21.94	10.4	ug/kg		J
	Unknown Hydrocarbon	22.03	5.82	ug/kg		J

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/121809v1/1r536.d
Lab Smp Id: 242937003 Client Smp ID: RE03-09-14212
Inj Date : 19-DEC-2009 04:25
Operator : RXM4 Inst ID: VOA1.i
Smp Info : |242937003|934728|1|VOAF|1|
Misc Info : LANL 5G N/A
Comment :
Method : /chem/VOA1.i/121809v1/VOA1-8260ox-121709PM.m
Meth Date : 19-Dec-2009 14:30 ron01469 Quant Type: ISTD
Cal Date : 17-DEC-2009 21:57 Cal File: 1r426.d
Als bottle: 36
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-917.sub
Target Version: 3.50

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	12.85170	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
* 52 Fluorobenzene	96	13.686	13.686	(1.000)	751374	50.0000	
* 76 Chlorobenzene-d5	117	17.157	17.162	(1.000)	507685	50.0000	
* 102 1,4-Dichlorobenzene-d4	152	19.610	19.610	(1.000)	248464	50.0000	
$ 48 1,2-Dichloroethane-d4	65	13.341	13.341	(0.975)	508721	55.8774	64.1
$ 65 Toluene-d8	98	15.518	15.518	(0.904)	1493100	51.4982	59.1
$ 87 Bromofluorobenzene	95	18.386	18.386	(0.938)	559727	54.8081	62.9
16 Acetone	43	9.267	9.258	(0.677)	18608	4.09371	4.7(a)
23 Methylene chloride	84	10.137	10.147	(0.741)	15800	2.21855	2.5(a)
93 1,3,5-Trimethylbenzene	105	18.635	18.717	(0.950)	11517	0.54101	0.62(a)
97 1,2,4-Trimethylbenzene	105	19.136	19.132	(0.976)	19470	0.88558	1.0(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

ION RATIO REPORT

VOA REPORT

Data file: 1r536.d
Report Date: 12/19/2009 14:34
Lab. ID: 242937003 SampleType: SAMPLE
Injection Date: 19-DEC-2009 04:25
Operator: RXM4 Instrument: VOA1.i
Sample Info: |242937003|934728|1|VOAF|1|
Miscellaneous Info: LANL 5G N/A
Comment:
Method used: /chem/VOA1.i/121809v1/VOA1-8260ox-121709PM.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-917
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
16 Acetone			CAS#: 67-64-1			
43	18608	9.27	9.26	80-120	100	( )
58	5880	9.27	9.26	3- 63	32	( )
23 Methylene chloride			CAS#: 75-09-2			
84	15800	10.14	10.15	80-120	100	( )
86	10671	10.14	10.14	35- 95	68	( )
49	24556	10.14	10.15	121-181	155	( )
51 1,2-Dichloroethane			CAS#: 107-06-2			
62	12035	13.69	13.44	80-120	100	(T)
64	1931	13.68	13.44	2- 62	16	(T)
54 Trichloroethylene			CAS#: 79-01-6			
95	64737	13.69	14.12	80-120	100	(T)
97	49126	13.68	14.12	35- 95	76	(T)
130	144	14.11	14.12	57-117	0	(Q)
64 4-Methyl-2-pentanone			CAS#: 108-10-1			
58	13916	15.52	15.36	80-120	100	(T)
43	7354	15.51	15.36	206-266	53	(QT)
100	948946	15.52	15.36	0- 59	6819	(QT)
93 1,3,5-Trimethylbenzene			CAS#: 108-67-8			
105	11517	18.63	18.72	80-120	100	(T)
120	3203	18.63	18.72	13- 73	28	(T)

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
97 1,2,4-Trimethylbenzene				CAS#: 95-63-6		
105	19470	19.14	19.13	80-120	100	( )
120	7901	19.14	19.13	10- 70	41	( )
96 tert-Butylbenzene				CAS#: 98-06-6		
119	5392	19.36	19.08	80-120	100	(T)
91	2069	19.36	19.08	49-109	38	(QT)
134	1373	19.36	19.08	0- 52	25	(T)
99 sec-Butylbenzene				CAS#: 135-98-8		
105	19470	19.14	19.30	80-120	100	(T)
134	643	19.26	19.30	0- 47	3	( )
100 4-Isopropyltoluene				CAS#: 99-87-6		
119	22816	19.81	19.42	80-120	100	(T)
134	9537	19.82	19.42	0- 55	42	(T)
91	5638	19.82	19.42	0- 58	25	(T)
105 n-Butylbenzene				CAS#: 104-51-8		
91	13380	19.87	19.87	80-120	100	( )
92	6895	19.87	19.87	25- 85	52	( )
134	9537	19.82	19.87	0- 52	71	(Q)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/121809v1/1r536.d
Lab Smp Id: 242937003 Client Smp ID: RE03-09-14212
Inj Date : 19-DEC-2009 04:25
Operator : RXM4 Inst ID: VOA1.i
Smp Info : |242937003|934728|1|VOAF|1|
Misc Info : LANL 5G N/A
Comment :
Method : /chem/VOA1.i/121809v1/VOA1-8260ox-121709PM.m
Meth Date : 19-Dec-2009 14:30 ron01469 Quant Type: ISTD
Cal Date : 17-DEC-2009 21:57 Cal File: 1r426.d
Als bottle: 36
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-917.sub
Target Version: 3.50

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	12.85170	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 76 Chlorobenzene-d5	17.157	1675250	50.000
* 102 1,4-Dichlorobenzene-d4	19.610	1656671	50.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ug/l)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown Hydrocarbon				CAS #:			
18.068	365792	10.9175316	12.5	0		0	76

RT	AREA	CONCENTRATIONS ON-COL(ug/l)	FINAL(ug/Kg)	QUAL	QUANT LIBRARY	LIB ENTRY	CPND #
Undecane				CAS #: 1120-21-4			
19.753	221748	6.69257081	7.7	89	NIST05.L	27237	102
Unknown Hydrocarbon				CAS #:			
19.979	209900	6.33500166	7.3	0		0	102
Unknown Hydrocarbon				CAS #:			
20.402	191864	5.79063903	6.6	0		0	102
Unknown Hydrocarbon				CAS #:			
20.660	215965	6.51803523	7.5	0		0	102
Benzene, 1-methyl-2-(1-methylethyl)-				CAS #: 527-84-4			
20.816	271408	8.19137076	9.4	95	NIST05.L	14429	102
Dodecane				CAS #: 112-40-3			
20.968	241898	7.30072043	8.4	93	NIST05.L	36431	102
Unknown Hydrocarbon				CAS #:			
21.148	247050	7.45620917	8.6	0		0	102
Benzene, 1-ethyl-2,3-dimethyl-				CAS #: 933-98-2			
21.364	382488	11.5438569	13.2	94	NIST05.L	14393	102
Unknown Hydrocarbon				CAS #:			
21.797	232126	7.00578200	8.0	0		0	102
Unknown Hydrocarbon				CAS #:			
21.940	299784	9.04778297	10.4	0		0	102
Unknown Hydrocarbon				CAS #:			
22.027	167957	5.06910688	5.8	0		0	102

Data File: /chem/VOA1.i/121809v1/1r536.d
Date : 19-DEC-2009 04:25
Client ID: RE03-09-14212
Sample Info: |2429370031934728|1|VOAF|1|

Column phase: RTX-Volatiles

Instrument: VOA1.i

Operator: RXM4
Column diameter: 0.25

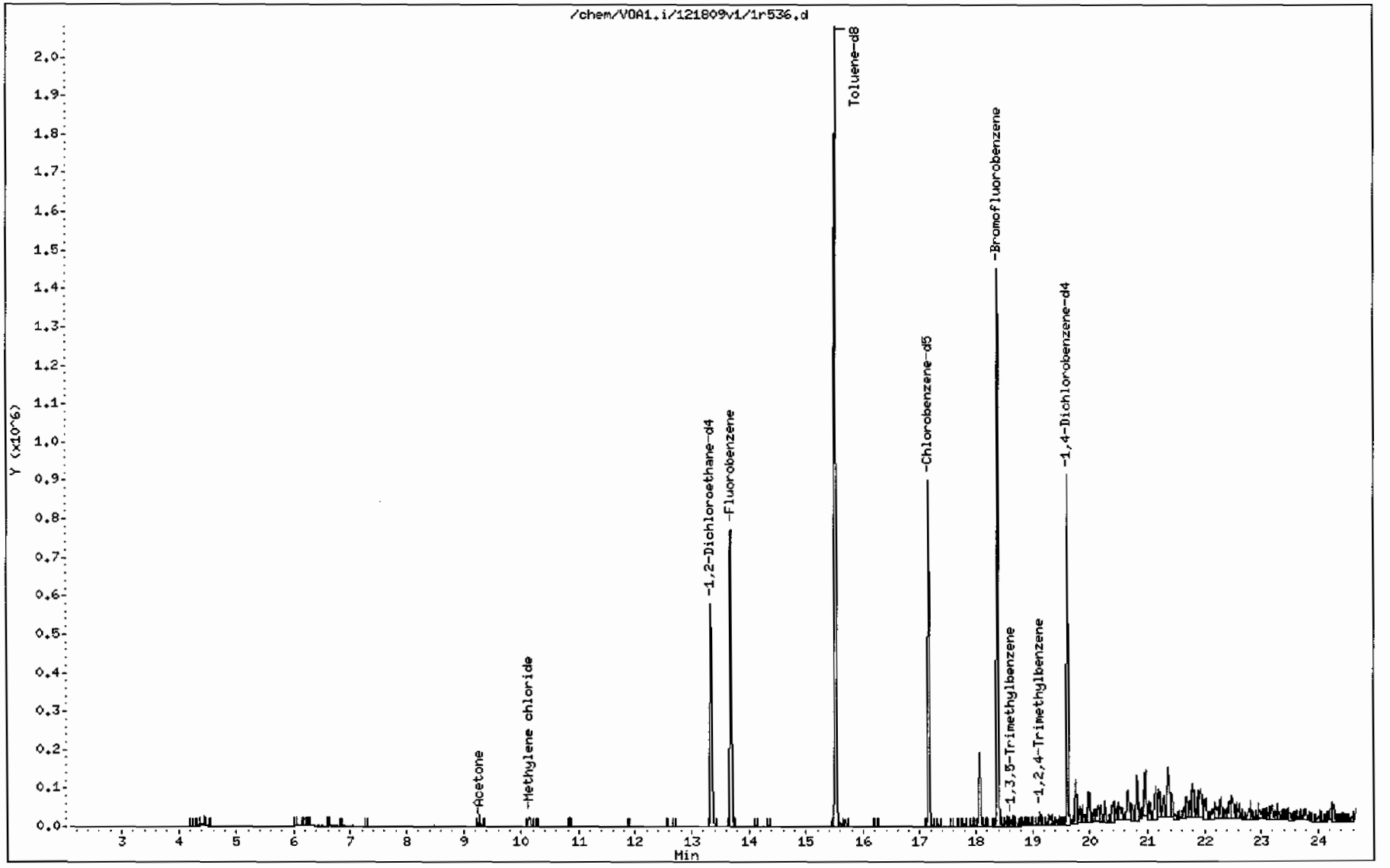

Data File: /chem/VOA1.i/121809v1/1r536.d

Date : 19-DEC-2009 04:25

Client ID: RE03-09-14212

Instrument: VOA1.i

Sample Info: |2429370031934728|1|VOAF|1|

Operator: RXM4

Column phase: RTX-Volatiles

Column diameter: 0.25

16 Acetone

Concentration: 4.7 ug/Kg

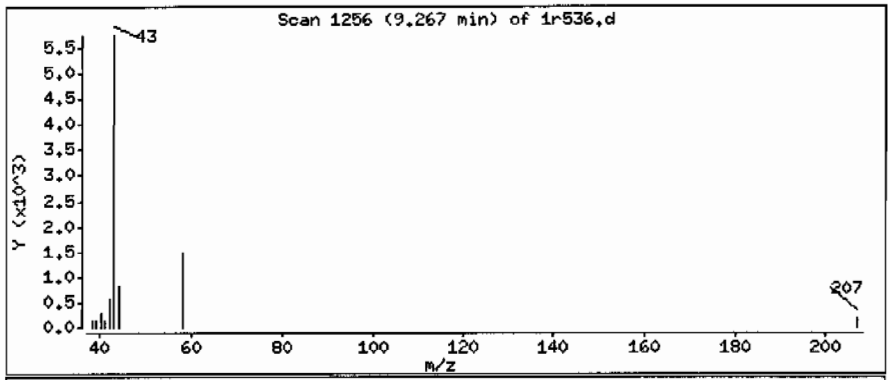

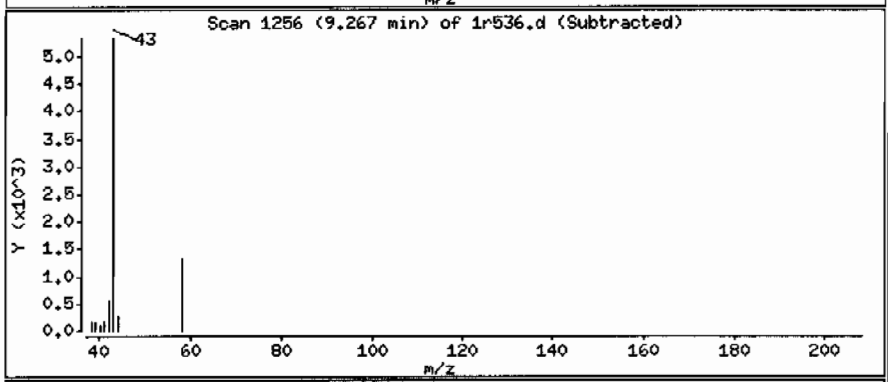

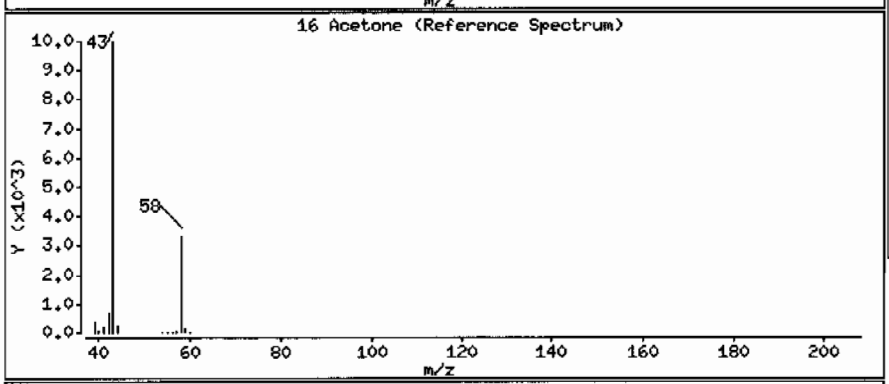

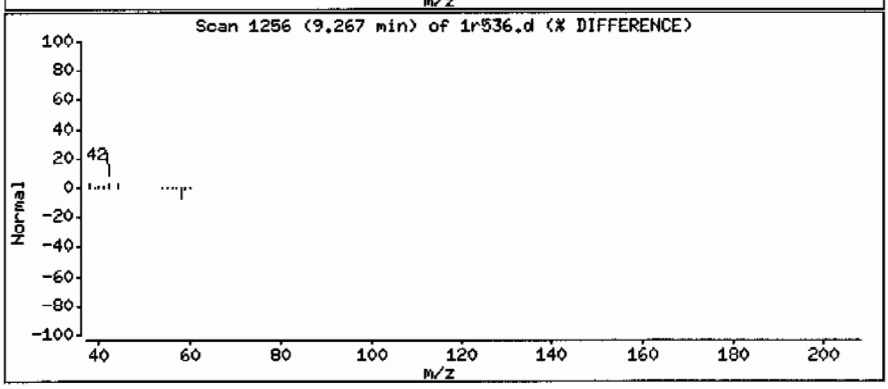

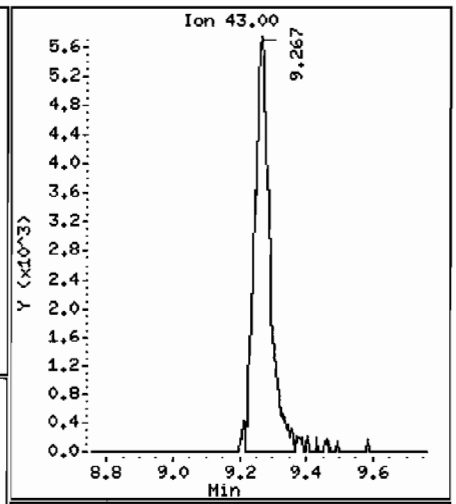

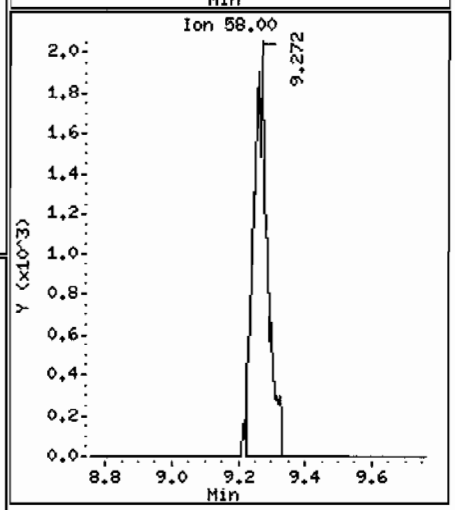

Data File: /chem/VOA1.i/121809v1/1r536.d

Date : 19-DEC-2009 04:25

Client ID: RE03-09-14212

Instrument: VOA1.i

Sample Info: |2429370031934728|1|VOAF|1|

Operator: RXM4

Column phase: RTX-Volatiles

Column diameter: 0.25

23 Methylene chloride

Concentration: 2.5 ug/Kg

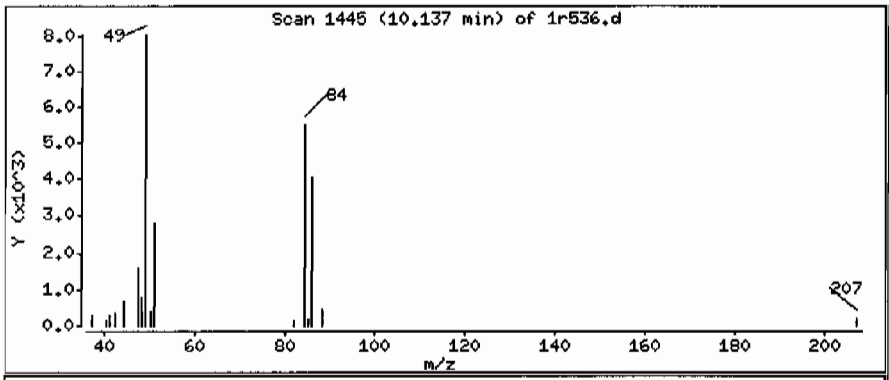

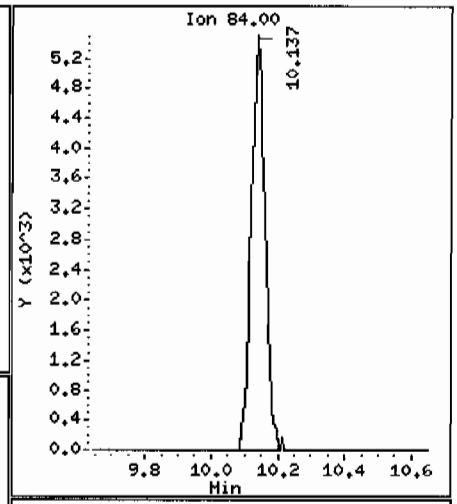

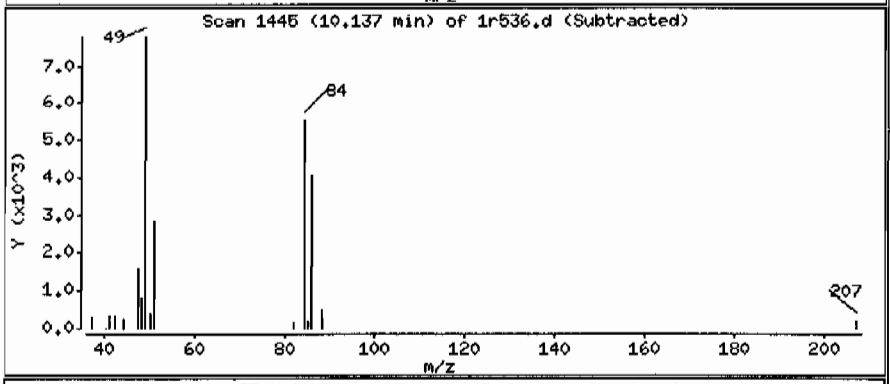

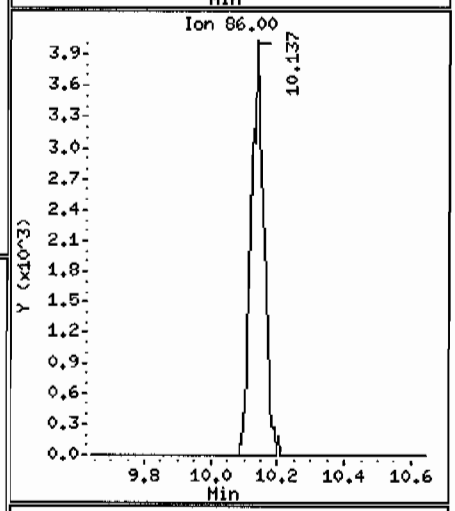

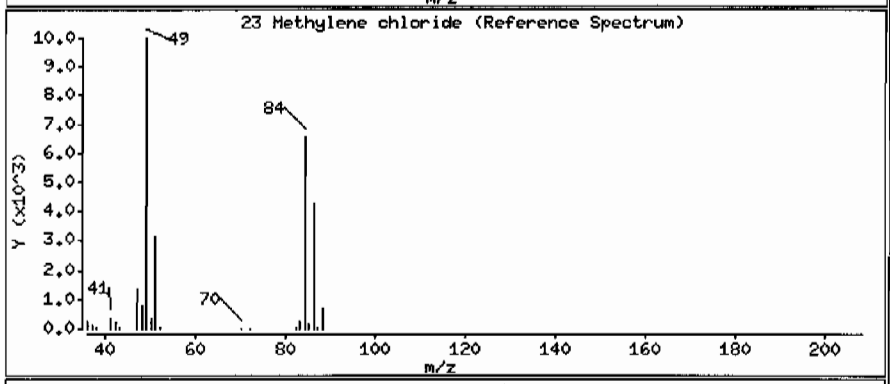

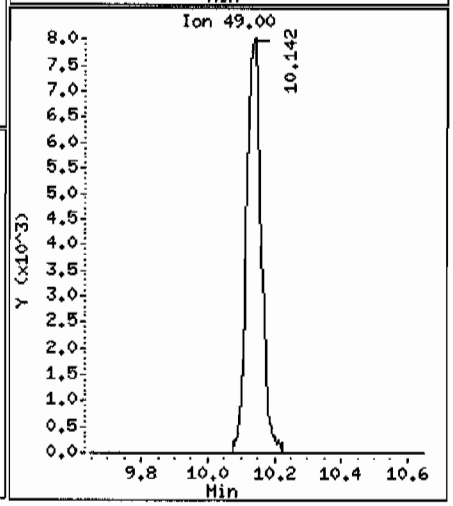

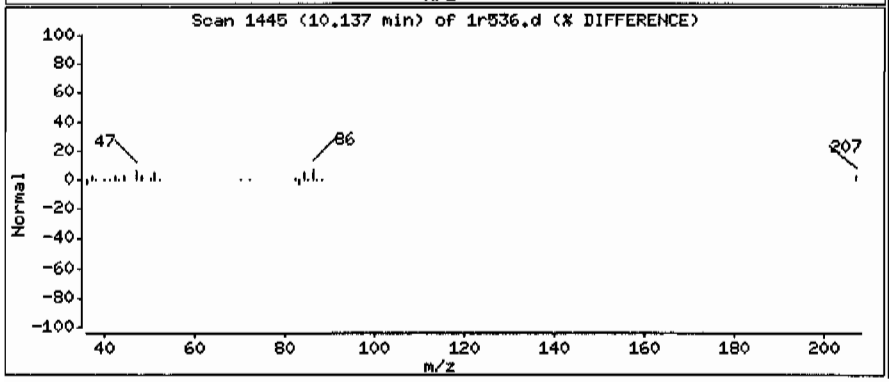

Data File: /chem/VOA1.i/121809v1/1r536.d

Date : 19-DEC-2009 04:25

Client ID: RE03-09-14212

Instrument: VOA1.i

Sample Info: |2429370031934728|1|VOAF|1|

Operator: RXM4

Column phase: RTX-Volatiles

Column diameter: 0.25

93 1,3,5-Trimethylbenzene

Concentration: 0.62 ug/Kg

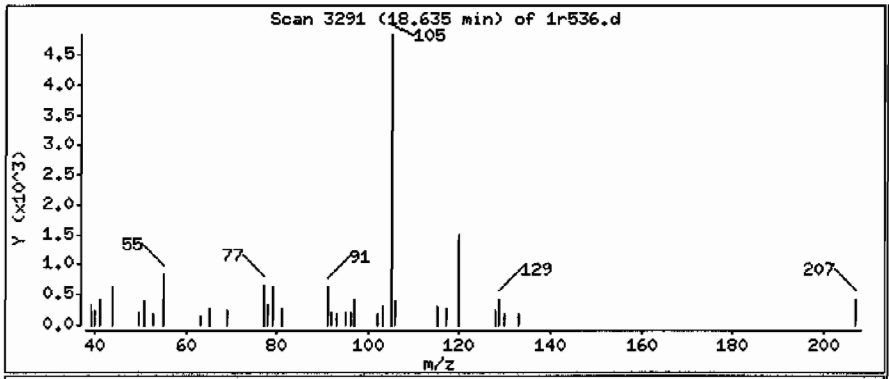

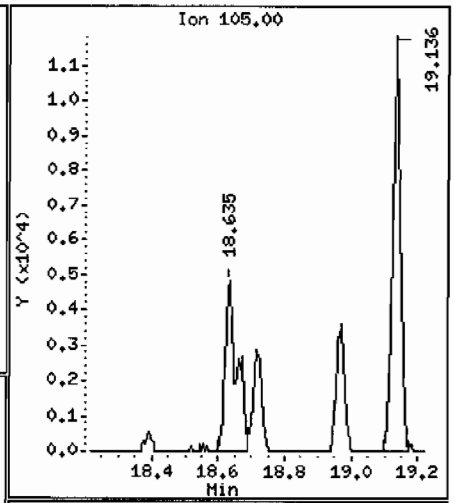

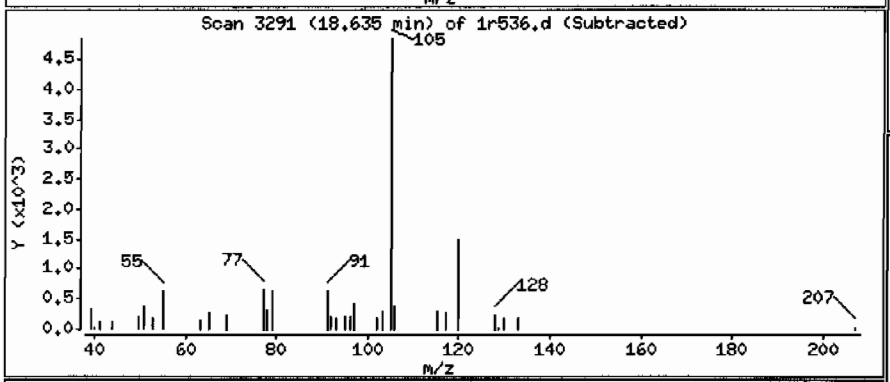

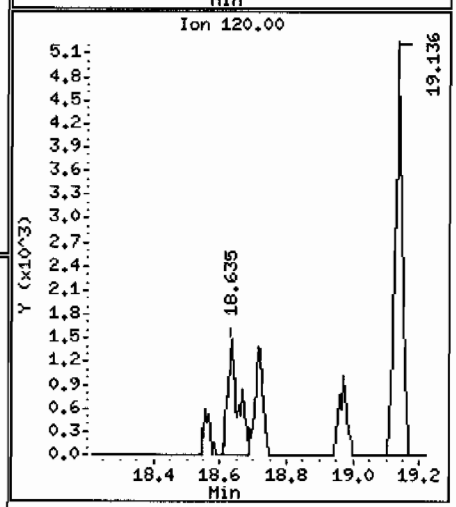

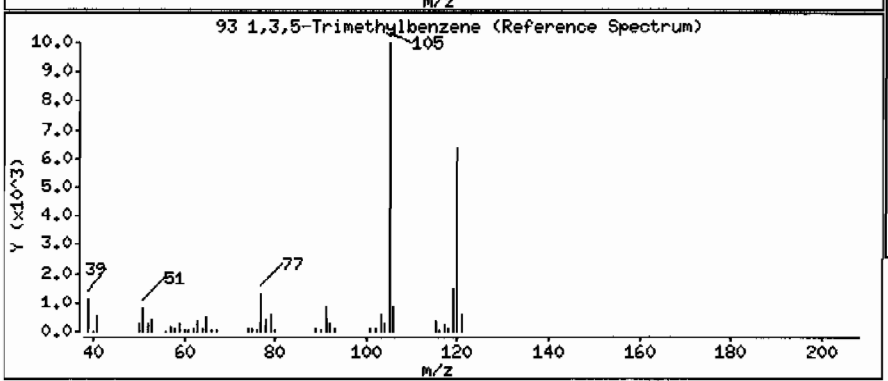

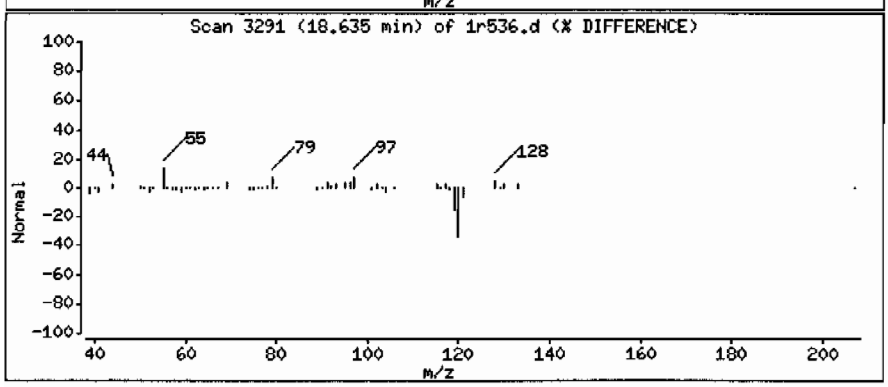

Data File: /chem/VOA1.i/121809v1/1r536.d

Date : 19-DEC-2009 04:25

Client ID: RE03-09-14212

Instrument: VOA1.i

Sample Info: |2429370031934728|1|VOAF|1|

Operator: RXM4

Column phase: RTX-Volatiles

Column diameter: 0.25

97 1,2,4-Trimethylbenzene

Concentration: 1.0 ug/Kg

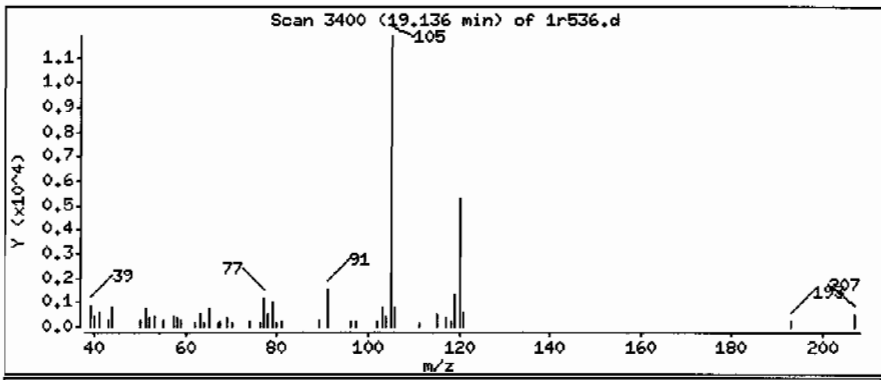

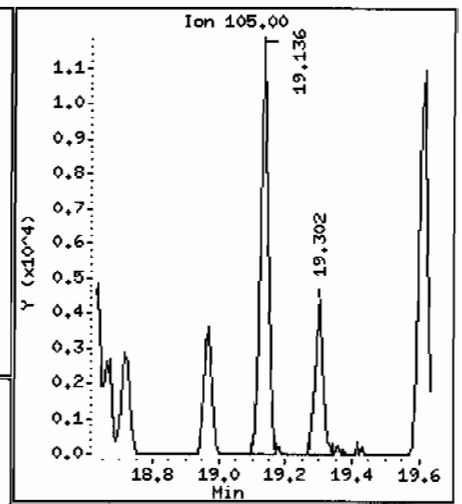

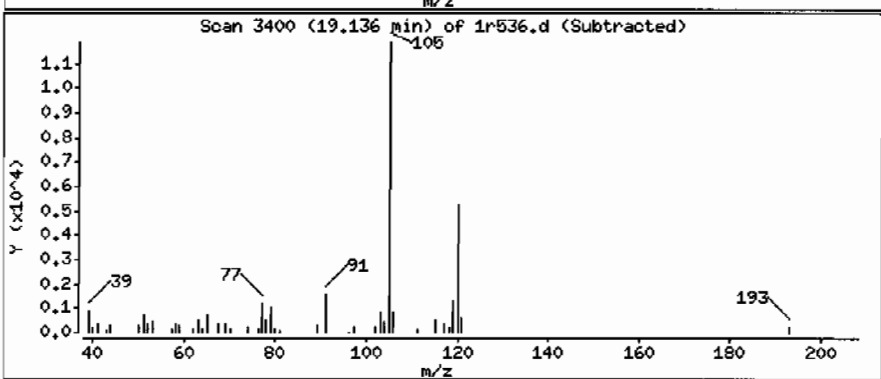

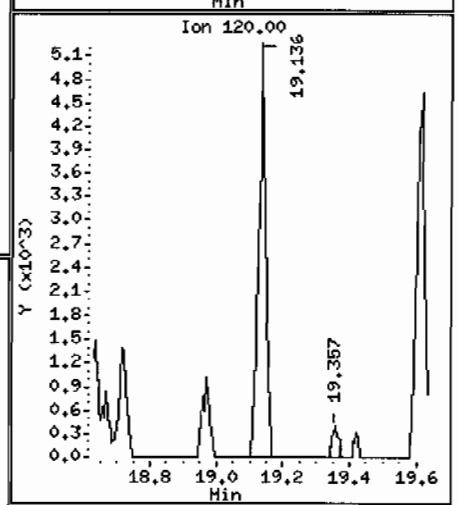

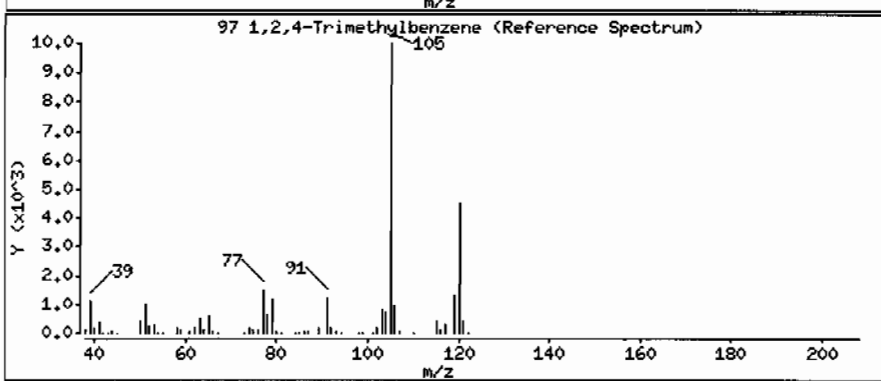

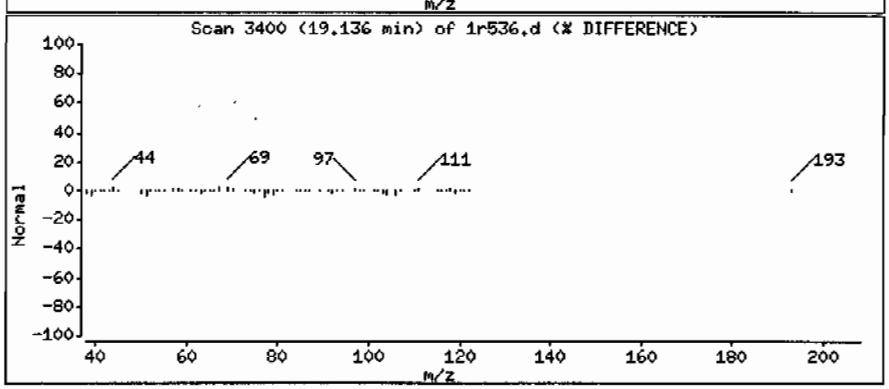

Data File: /chem/VOA1.i/121809v1/1r536.d

Date : 19-DEC-2009 04:25

Client ID: RE03-09-14212

Instrument: VOA1.i

Sample Info: |2429370031934728|1|VOAF|1|

Operator: RXM4

Column phase: RTX-Volatiles

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Hydrocarbon						
6-Methylphenanthridine	3955-65-5	NIST05.L	52077	25	C14H11N	193
Anthracene, 9,10-dihydro-9,10-dimethyl-	22566-43-4	NIST05.L	63100	25	C16H16	208
2-Anthracenamine	613-13-8	NIST05.L	52057	18	C14H11N	193

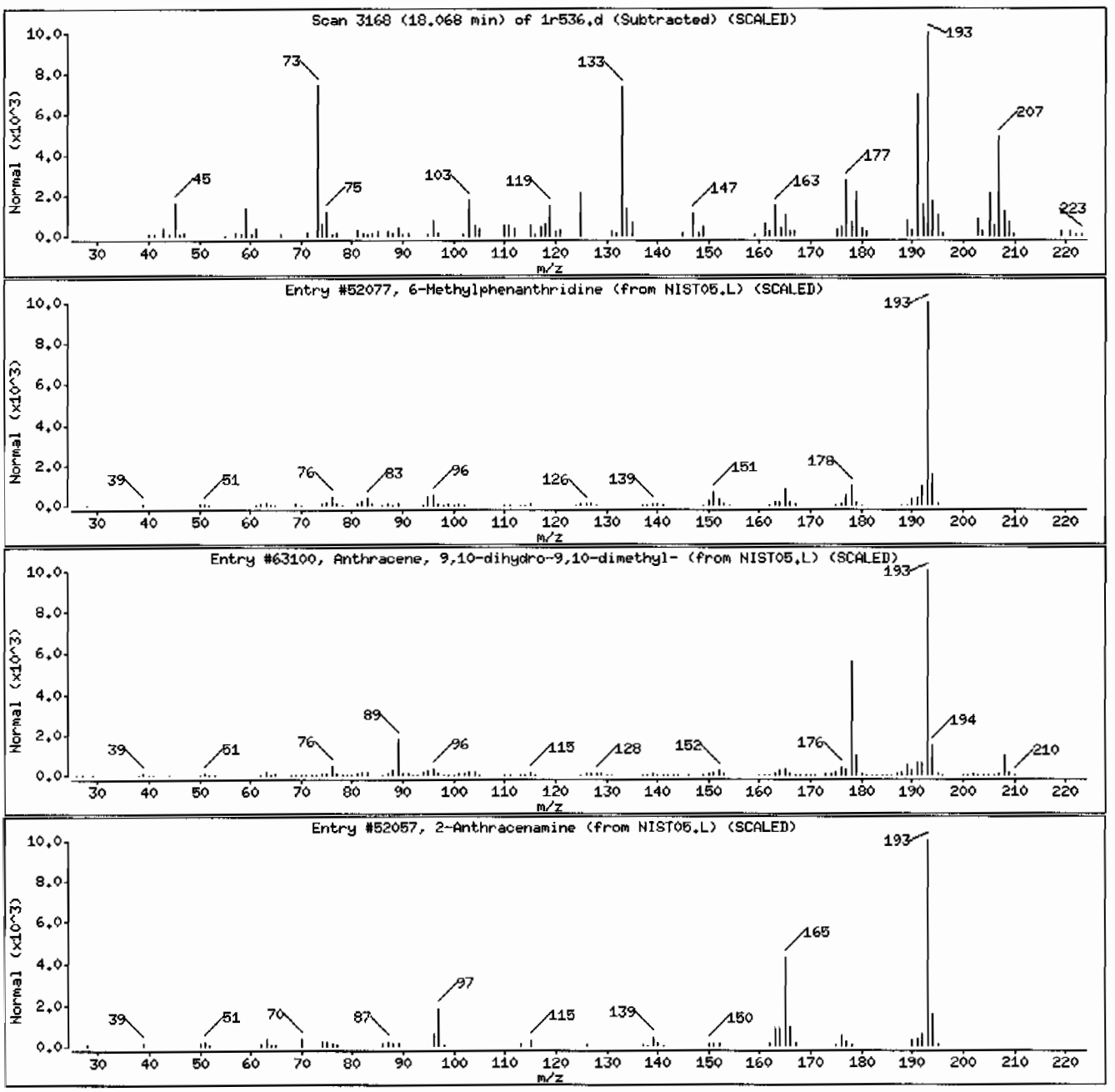

Data File: /chem/VOA1.i/121809v1/1r536.d

Date : 19-DEC-2009 04:25

Client ID: RE03-09-14212

Instrument: VOA1.i

Sample Info: |2429370031934728|1|VOAF|1|

Operator: RXM4

Column phase: RTX-Volatiles

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Undecane	1120-21-4	NIST05.L	27237	89	C11H24	156
Undecane	1120-21-4	NIST05.L	27236	64	C11H24	156
Undecane	1120-21-4	NIST05.L	27240	64	C11H24	156

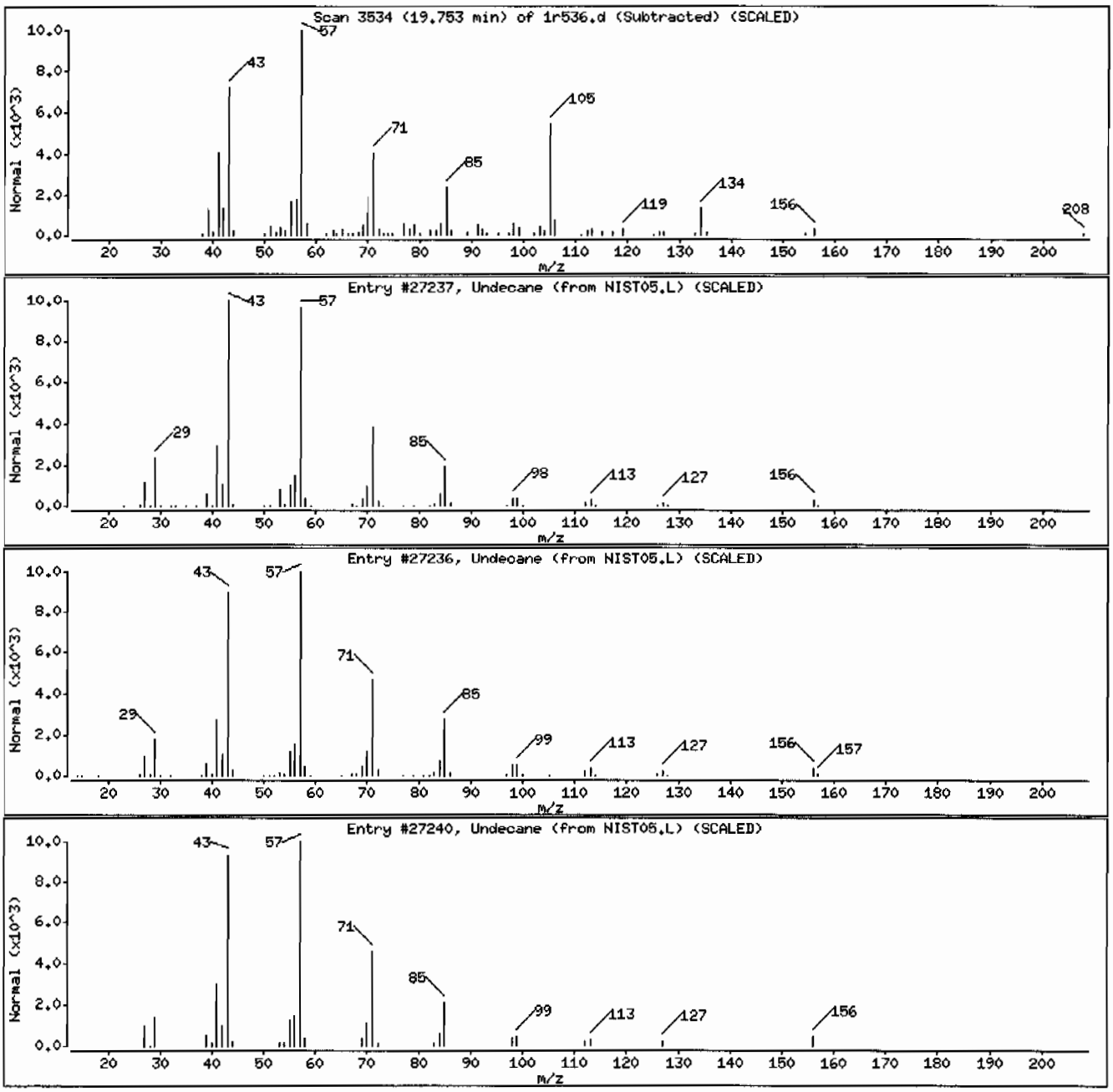

Data File: /chem/VOA1.i/121809v1/1r536.d

Date : 19-DEC-2009 04:25

Client ID: RE03-09-14212

Instrument: VOA1.i

Sample Info: |2429370031934728|1|VOAF|1|

Operator: RXH4

Column phase: RTX-Volatiles

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Hydrocarbon						
1-Propene-1-thiol	925-89-3	NIST05,L	811	38	C3H6S	74
1,6-Octadiene, 3,8-bis(trimethylsilyl)-	1000149-30-5	NIST05,L	94544	32	C14H30Si2	254
2,6-Octadiene, 1,8-bis(trimethylsilyl)-	1000149-32-8	NIST05,L	94545	23	C14H30Si2	254

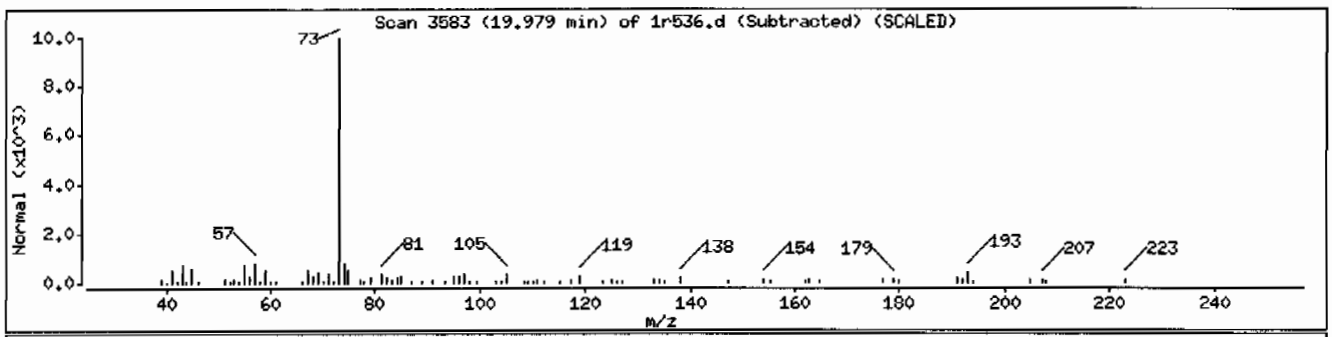

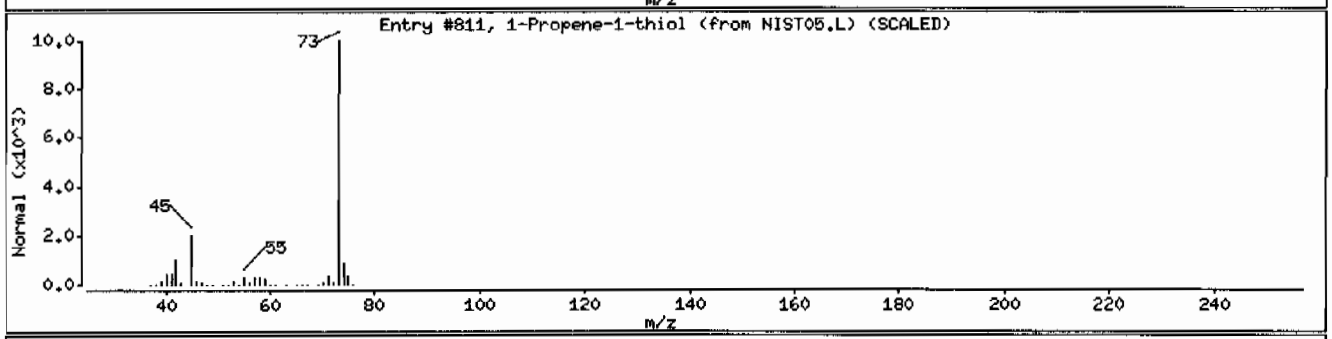

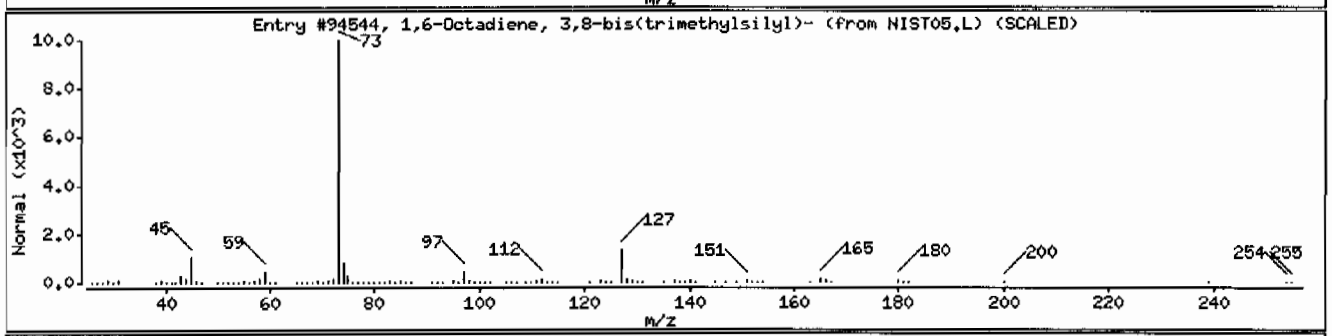

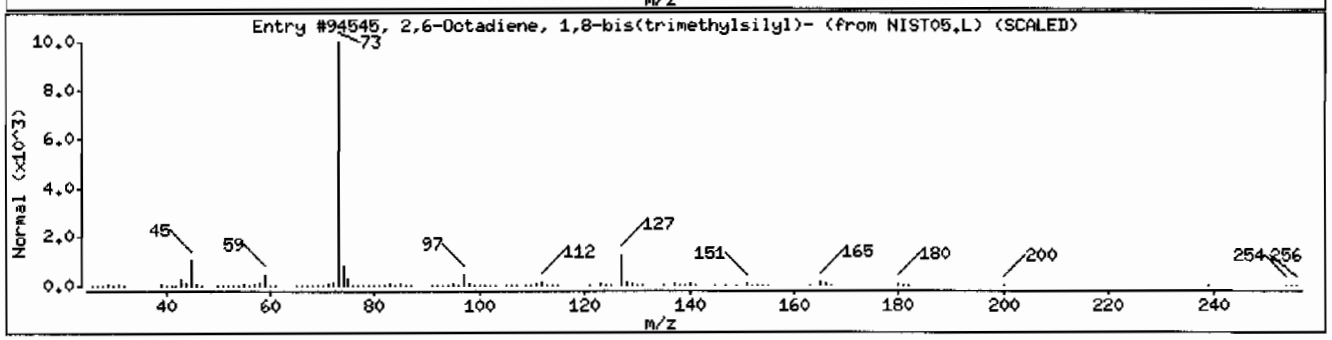

Data File: /chem/VOA1.i/121809v1/1r536.d

Date : 19-DEC-2009 04:25

Client ID: RE03-09-14212

Instrument: VOA1.i

Sample Info: |2429370031934728|1|VOAF|1|

Operator: RXH4

Column phase: RTX-Volatiles

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Hydrocarbon						
Benzene, 1-methyl-4-(1-methylpropyl)-	1595-16-0	NIST05.L	21930	62	C11H16	148
Benzene, (1,1-dimethylpropyl)-	2049-95-8	NIST05.L	21913	53	C11H16	148
4'-Methylpropiophenone	5337-93-9	NIST05.L	21749	53	C10H12O	148

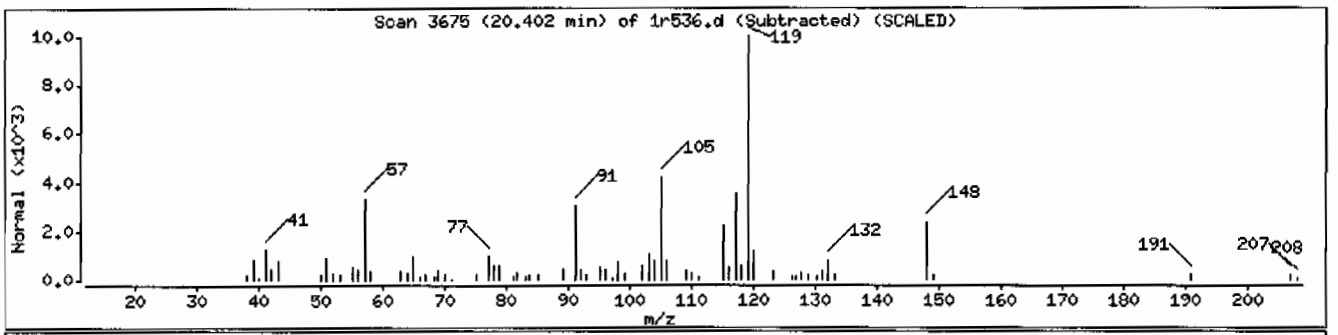

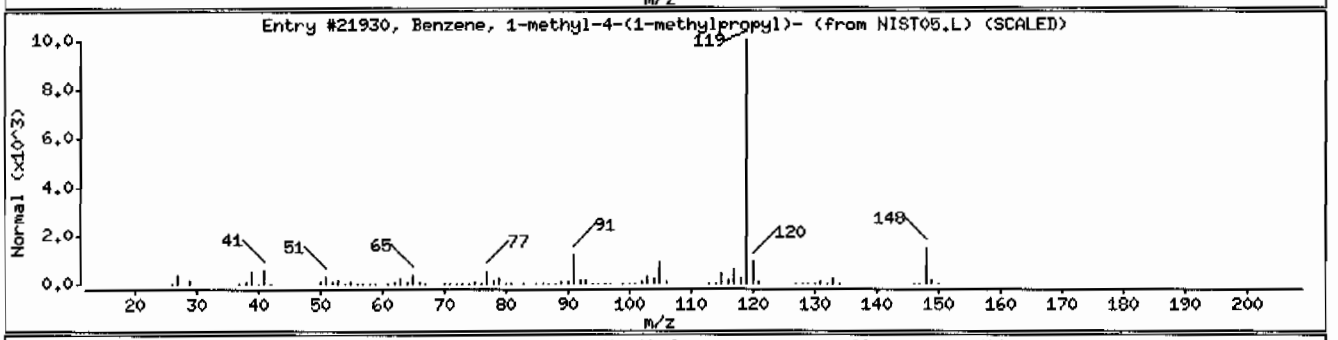

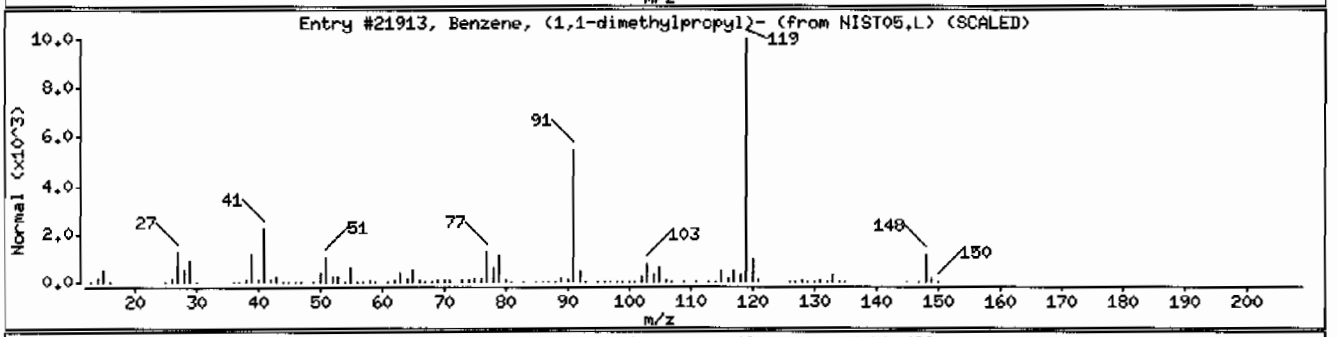

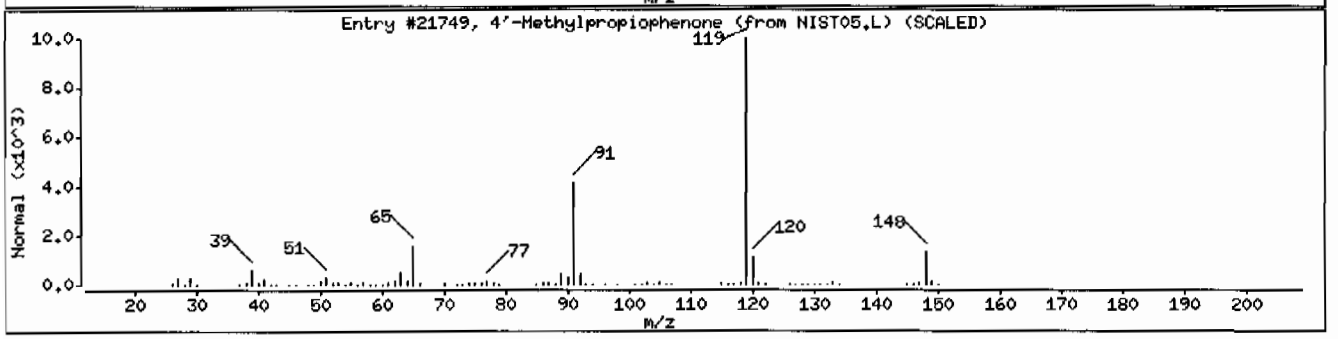

Data File: /chem/VOA1.i/121809v1/1r536.d

Date : 19-DEC-2009 04:25

Client ID: RE03-09-14212

Instrument: VOA1.i

Sample Info: |2429370031934728|1|VOAF|1|

Operator: RXM4

Column phase: RTX-Volatiles

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Hydrocarbon						
Benzene, 1-ethyl-2,4-dimethyl-	874-41-9	NIST05.L	14394	60	C10H14	134
Benzene, 1,2,3,4-tetramethyl-	488-23-3	NIST05.L	14377	60	C10H14	134
Benzene, 1,2,4,5-tetramethyl-	95-93-2	NIST05.L	14384	60	C10H14	134

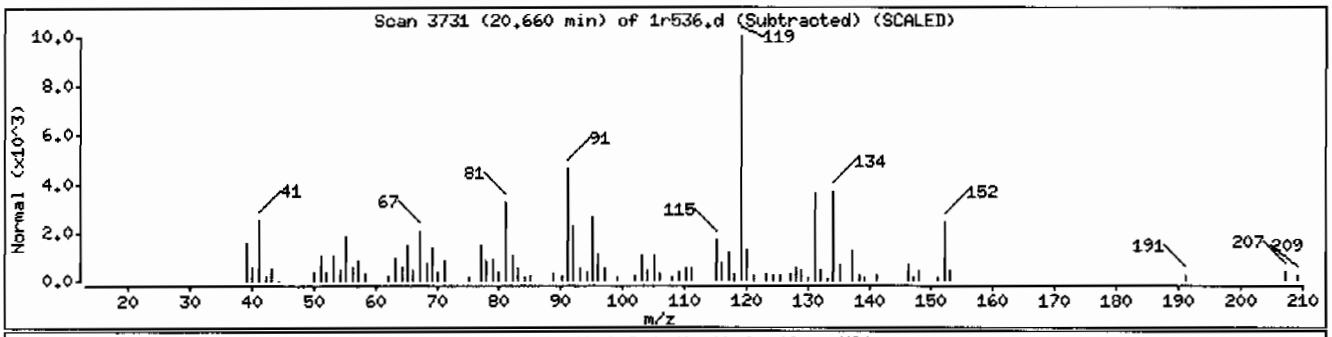

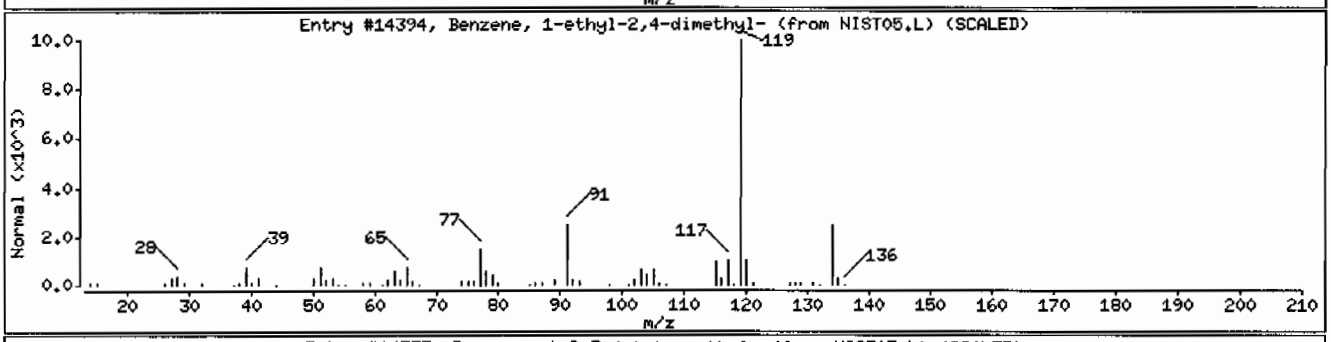

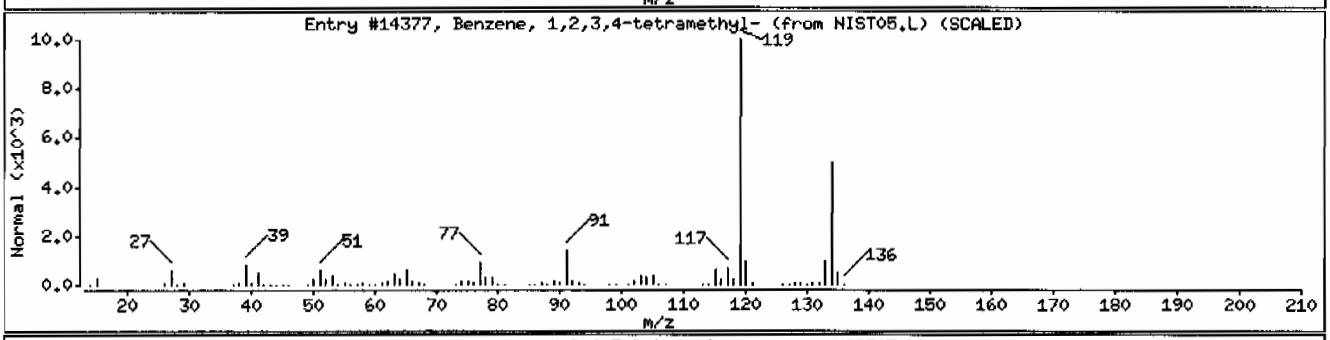

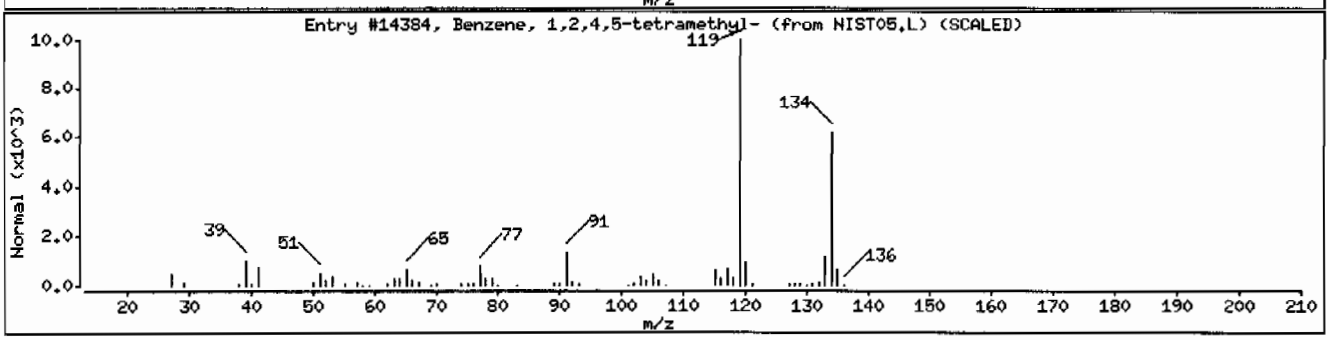

Data File: /chem/VOA1.i/121809v1/1r536.d

Date : 19-DEC-2009 04:25

Client ID: RE03-09-14212

Instrument: VOA1.i

Sample Info: |2429370031934728|1|VOAF|1|

Operator: RXM4

Column phase: RTX-Volatiles

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Benzene, 1-methyl-2-(1-methylethyl)-	527-84-4	NIST05.L	14429	95	C10H14	134
Benzene, 2-ethyl-1,3-dimethyl-	2870-04-4	NIST05.L	14386	95	C10H14	134
Benzene, 4-ethyl-1,2-dimethyl-	934-80-5	NIST05.L	14401	95	C10H14	134

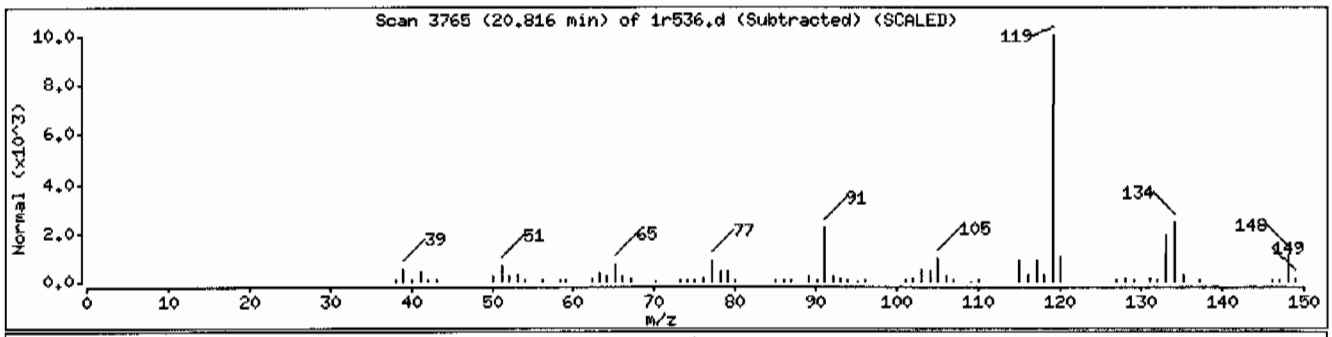

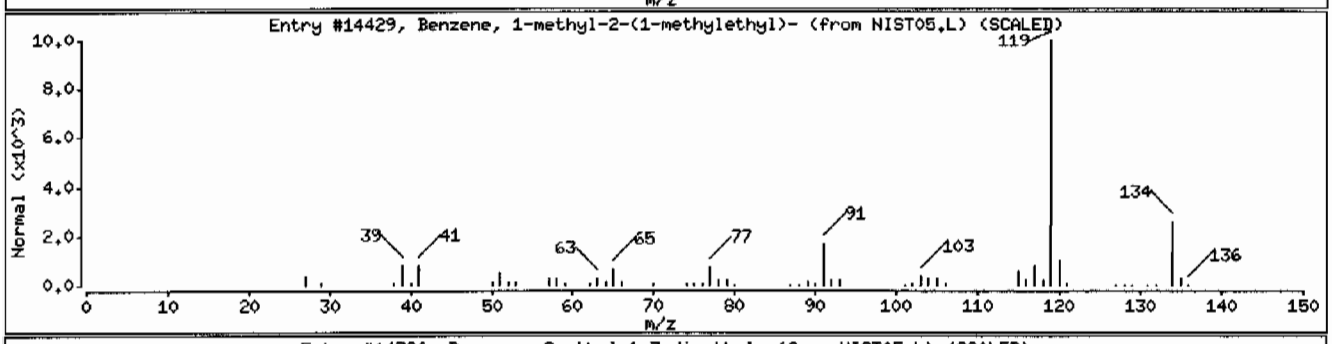

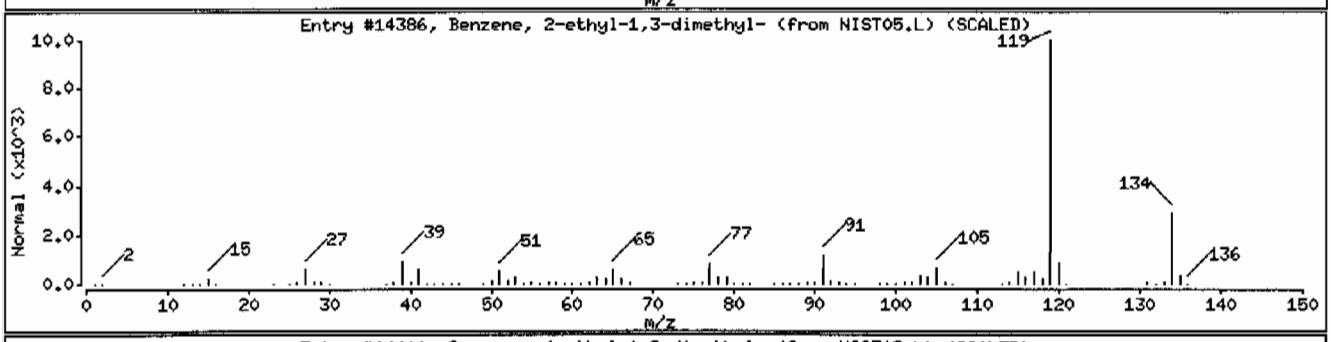

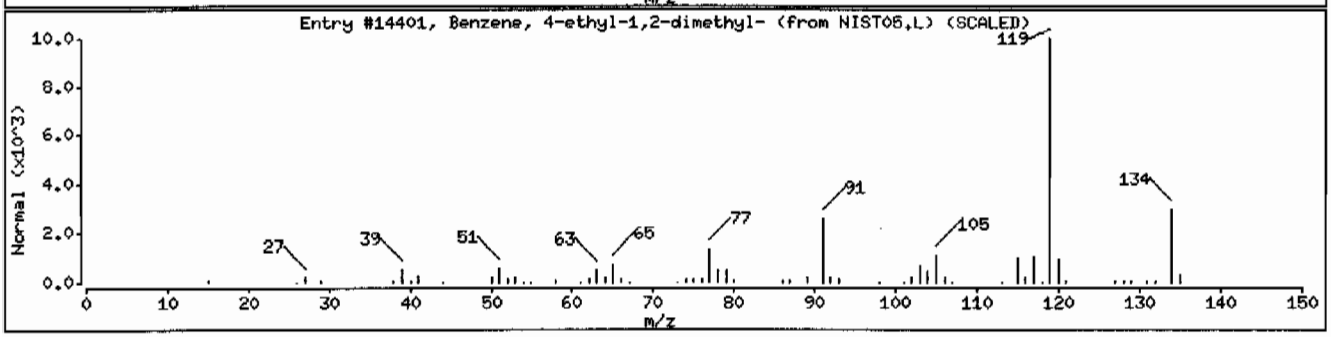

Data File: /chem/VOA1.i/121809v1/1r536.d

Date : 19-DEC-2009 04:25

Client ID: RE03-09-14212

Instrument: VOA1.i

Sample Info: |2429370031934728|1|VOAF|1|

Operator: RXM4

Column phase: RTX-Volatiles

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Dodecane	112-40-3	NIST05.L	36431	93	C12H26	170
Dodecane	112-40-3	NIST05.L	36428	87	C12H26	170
Tritetracontane	7098-21-7	NIST05.L	188549	64	C43H88	605

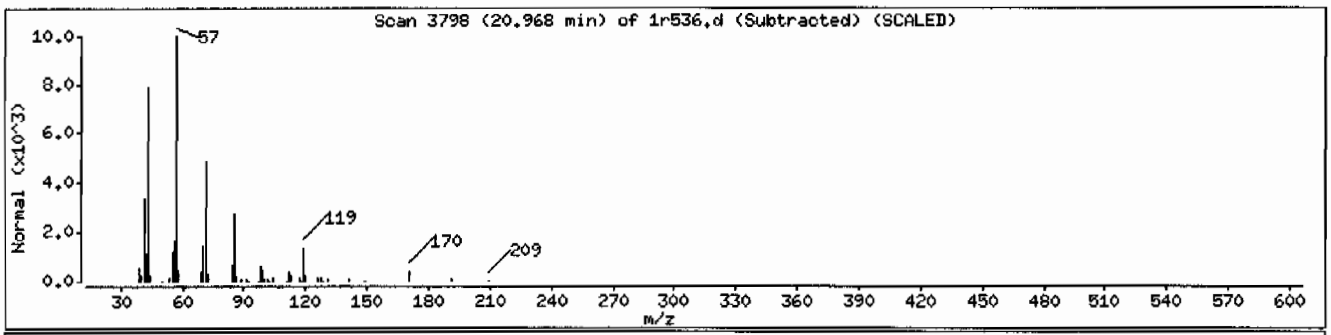

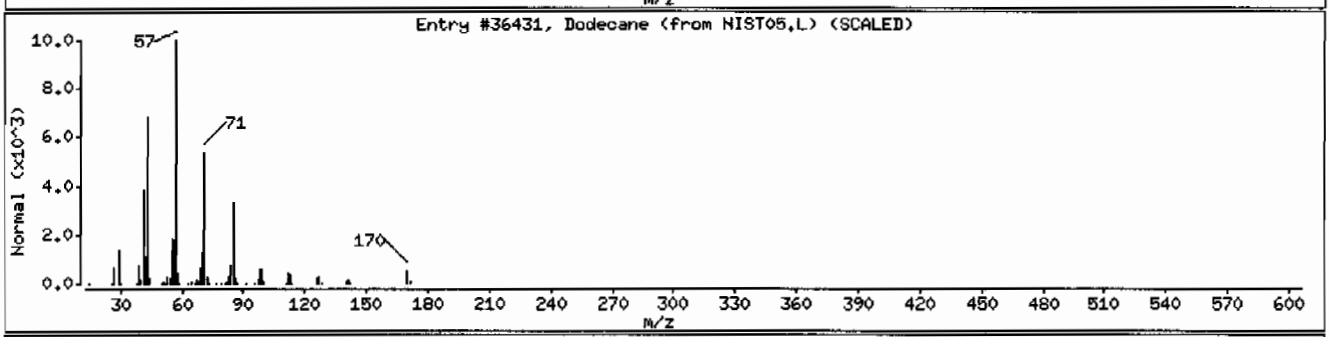

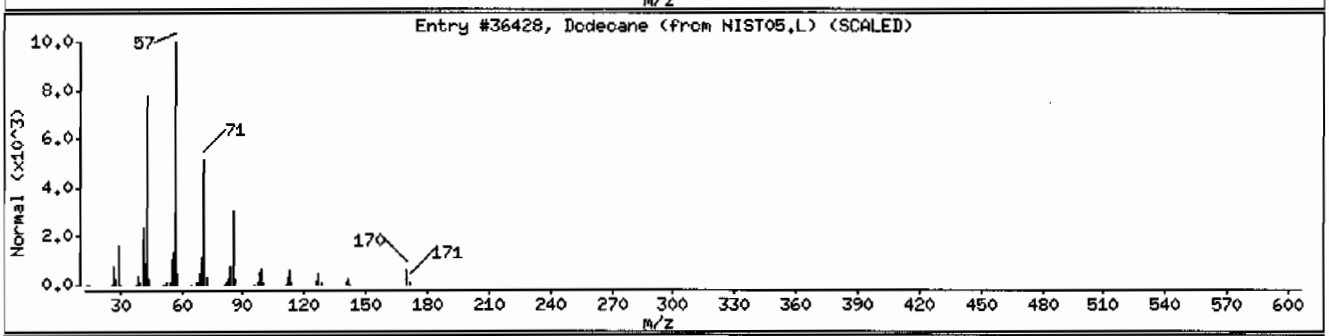

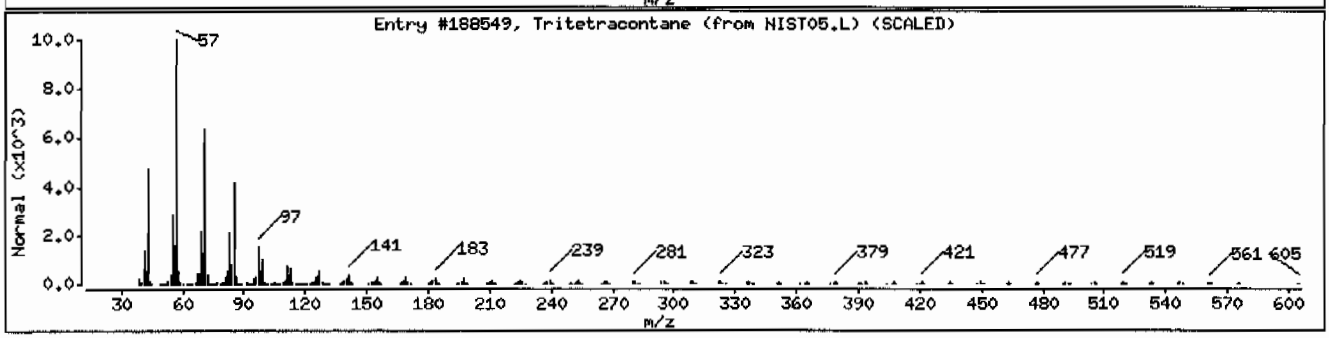

Data File: /chem/VOA1.i/121809v1/1r536.d

Date : 19-DEC-2009 04:25

Client ID: RE03-09-14212

Instrument: VOA1.i

Sample Info: |2429370031934728|1|VOAF|1|

Operator: RXM4

Column phase: RTX-Volatiles

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Hydrocarbon						
Tridecane, 6-methyl-	13287-21-3	NIST05.L	55981	47	C14H30	198
Dodecane, 6-methyl-	6044-71-9	NIST05.L	46099	47	C13H28	184
Undecane, 2,6-dimethyl-	17301-23-4	NIST05.L	46134	38	C13H28	184

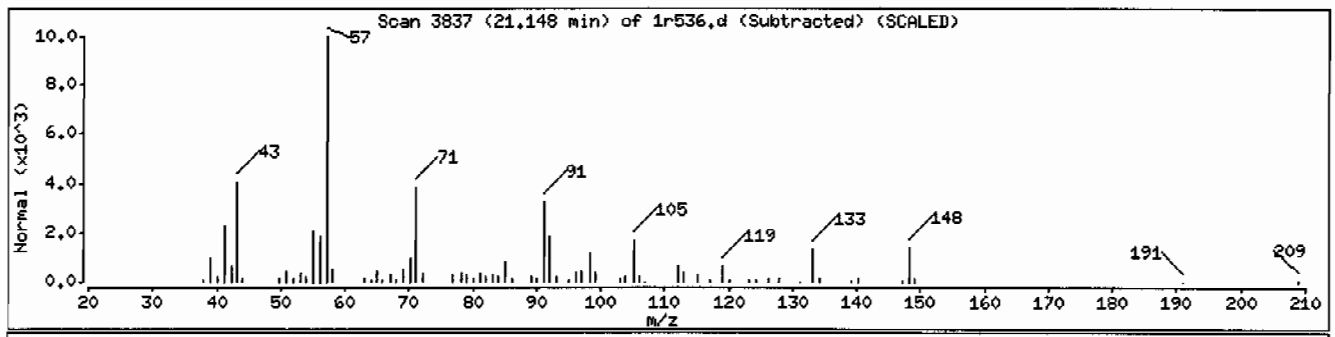

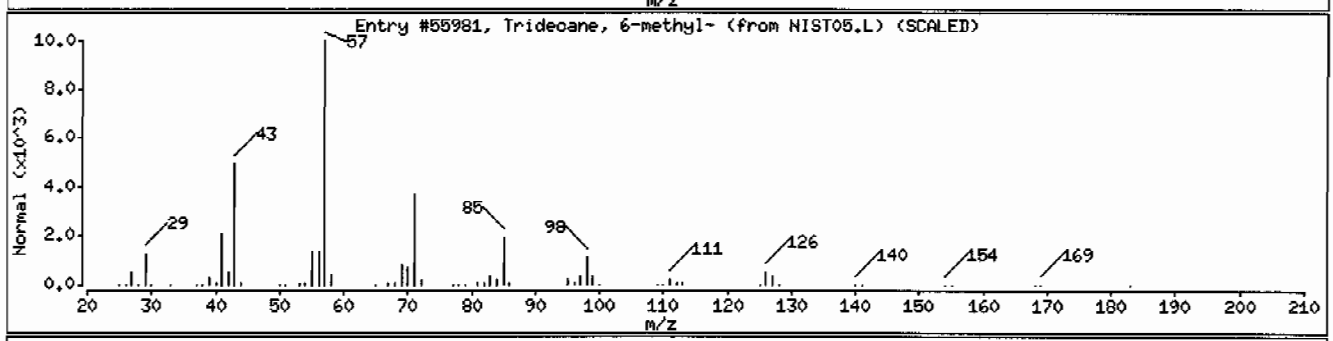

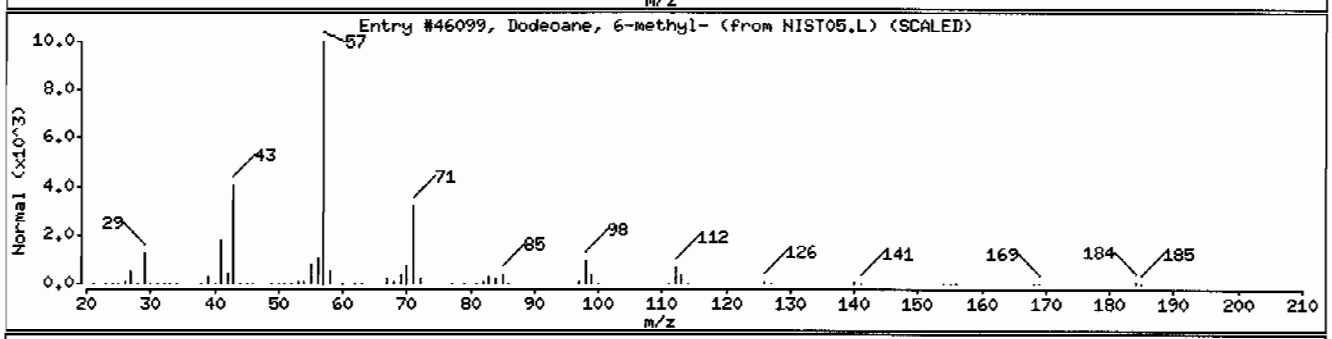

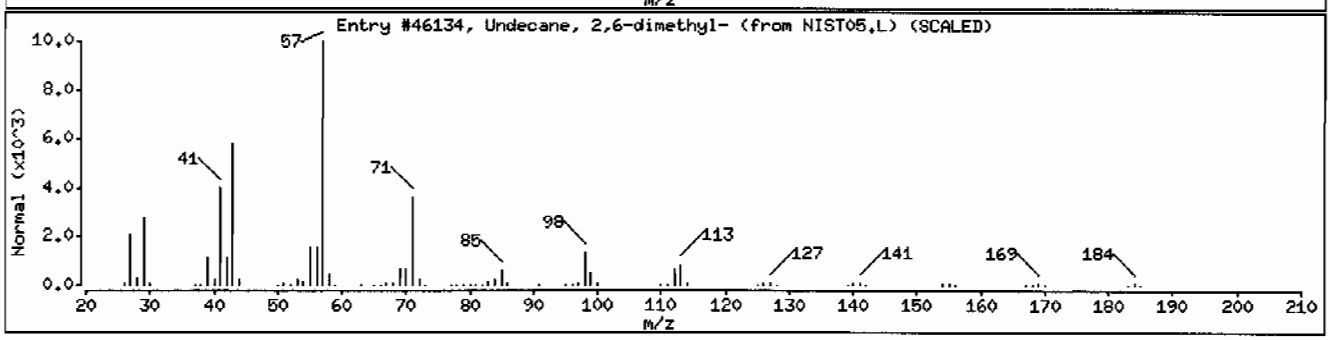

Data File: /chem/VOA1.i/121809v1/1r536.d

Date : 19-DEC-2009 04:25

Client ID: RE03-09-14212

Instrument: VOA1.i

Sample Info: |2429370031934728|1|VOAF|1|

Operator: RXM4

Column phase: RTX-Volatiles

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Benzene, 1-ethyl-2,3-dimethyl-	933-98-2	NIST05.L	14393	94	C10H14	134
Benzene, 1-ethyl-2,4-dimethyl-	874-41-9	NIST05.L	14394	94	C10H14	134
Benzene, 2-ethyl-1,4-dimethyl-	1758-88-9	NIST05.L	14403	93	C10H14	134

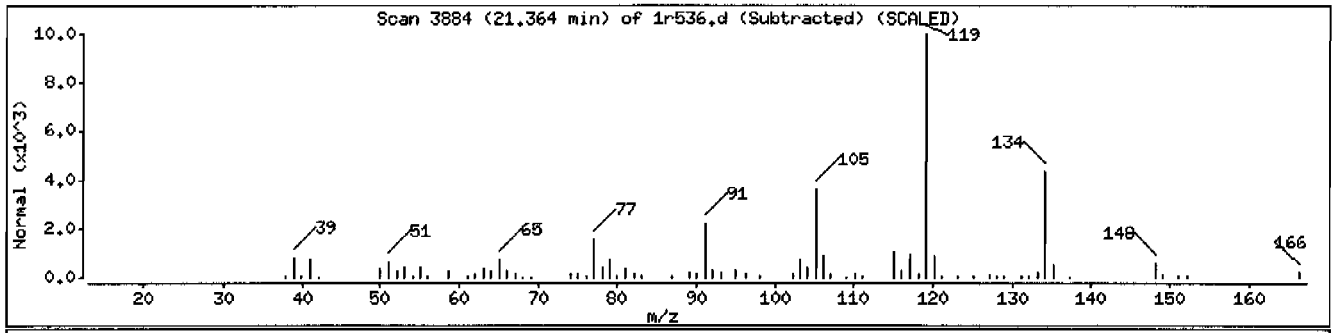

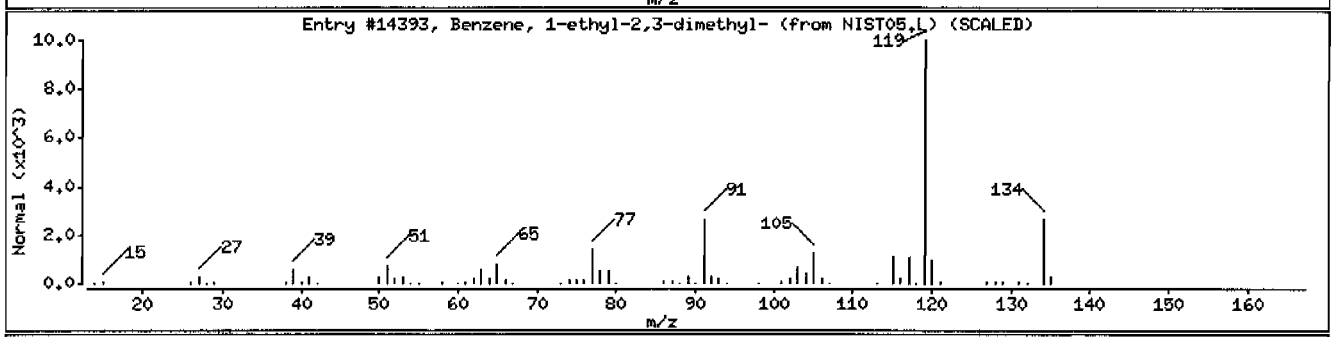

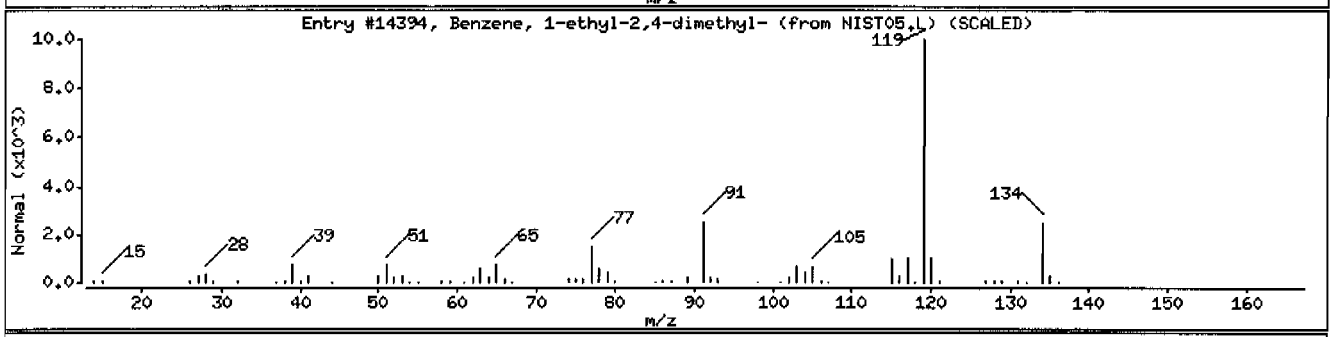

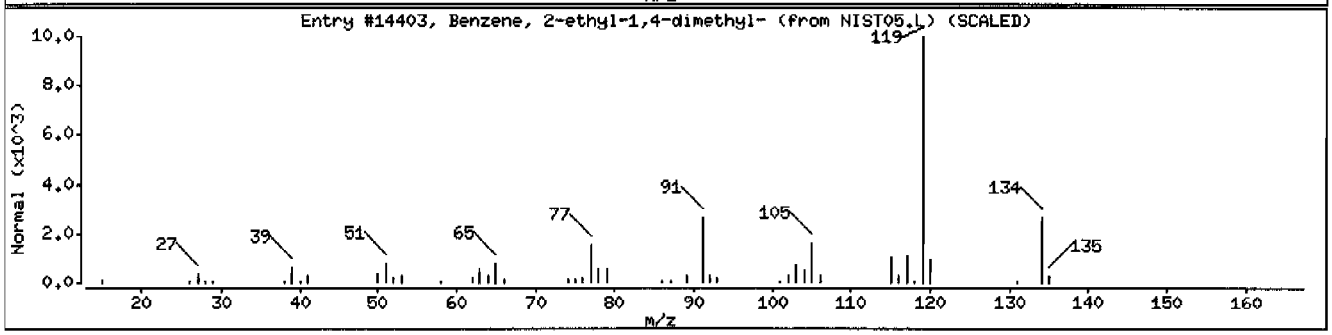

Data File: /chem/VOA1.i/121809v1/1r536.d

Date : 19-DEC-2009 04:25

Client ID: RE03-09-14212 Instrument: VOA1.i

Sample Info: |2429370031934728|1|VOAF|1|

Operator: RXM4

Column phase: RTX-Volatiles Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Hydrocarbon						
Benzene, (1,1-dimethylpropyl)-	2049-95-8	NIST05.L	21914	43	C11H16	148
Benzene, (1,1-dimethylpropyl)-	2049-95-8	NIST05.L	21915	38	C11H16	148
Benzene, 1,3-diethyl-5-methyl-	2050-24-0	NIST05.L	21905	38	C11H16	148

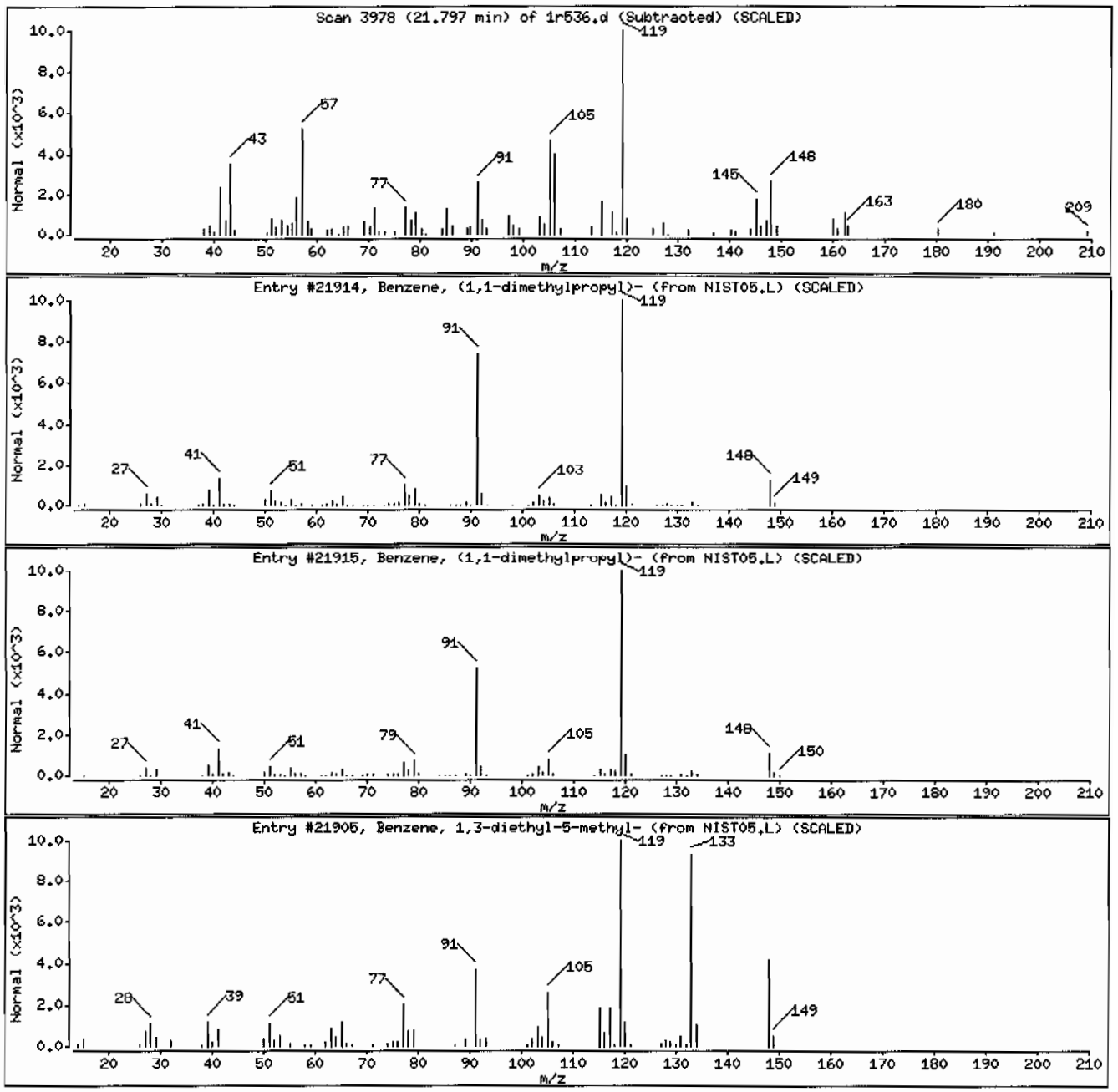

Data File: /chem/VOA1.i/121809v1/1r536.d

Date : 19-DEC-2009 04:25

Client ID: RE03-09-14212

Instrument: VOA1.i

Sample Info: |242937003|934728|1|VOAF|1|

Operator: RXM4

Column phase: RTX-Volatiles

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Hydrocarbon						
Octane, 1,1'-oxybis-	629-82-3	NIST05.L	86868	27	C16H340	242
2-Undecene, 5-methyl-	56851-34-4	NIST05.L	34996	25	C12H24	168
Nonane, 3-methyl-	5911-04-6	NIST05.L	18496	22	C10H22	142

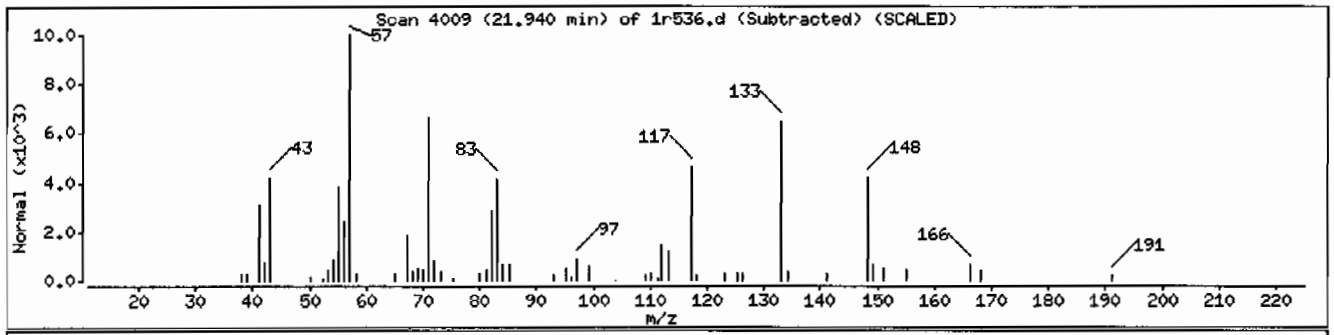

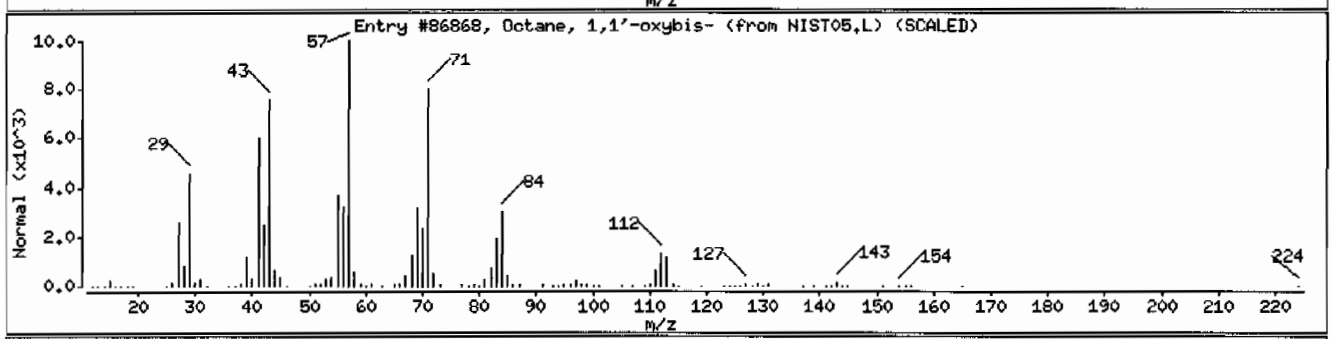

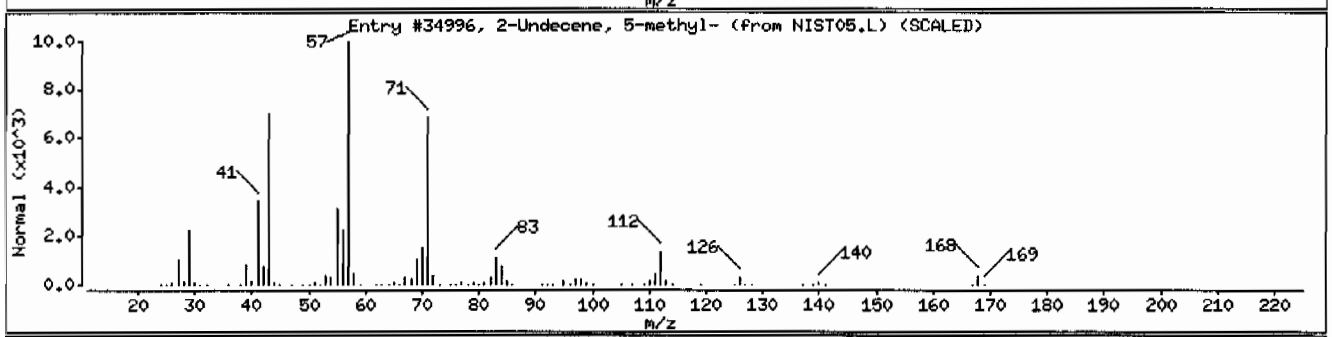

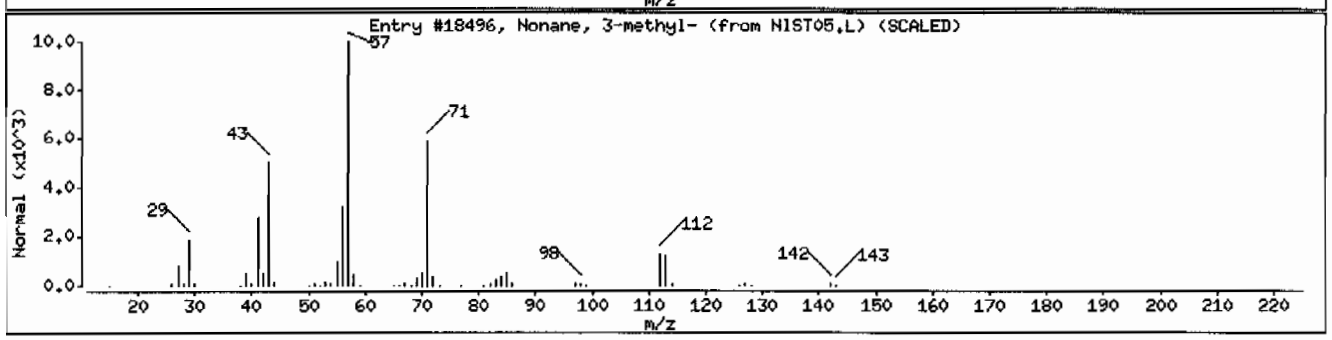

Data File: /chem/VOA1.i/121809v1/1r536.d

Date : 19-DEC-2009 04:25

Client ID: RE03-09-14212

Instrument: VOA1.i

Sample Info: |2429370031934728|1|VOAF|1|

Operator: RXH4

Column phase: RTX-Volatiles

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Hydrocarbon						
Bicyclo[4.2.0]octa-1,3,5-triene, 7-isopr	27087-54-3	NIST05.L	20862	76	C11H14	146
Benzene, 1-methyl-3-(1-methyl-2-propenyl	52161-57-6	NIST05.L	20856	72	C11H14	146
1H-Indene, 2,3-dihydro-1,3-dimethyl-	4175-53-5	NIST05.L	20825	68	C11H14	146

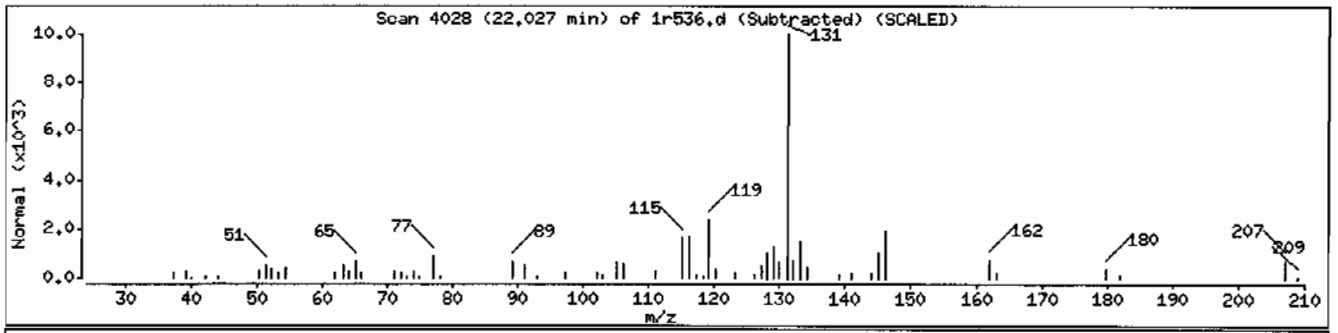

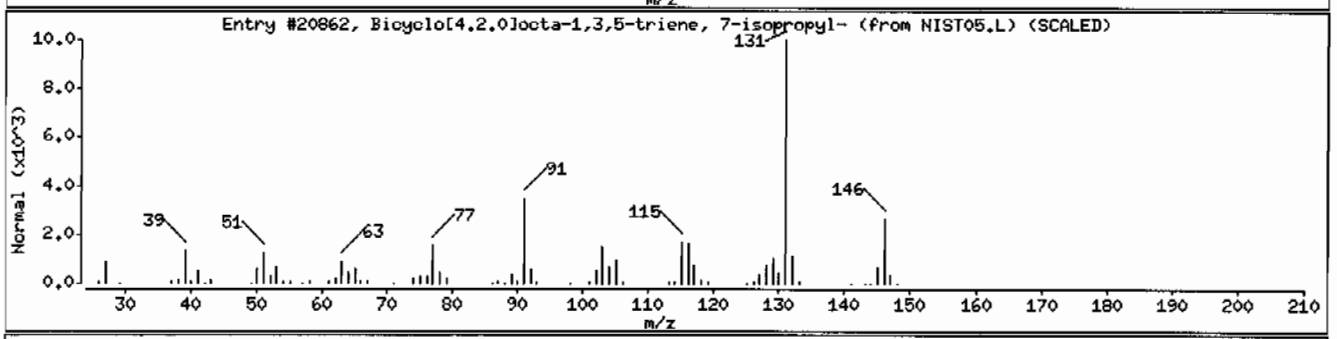

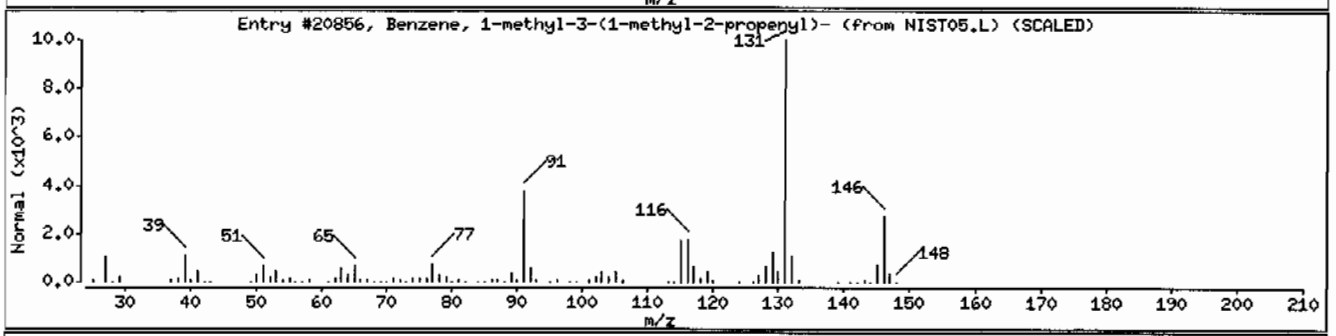

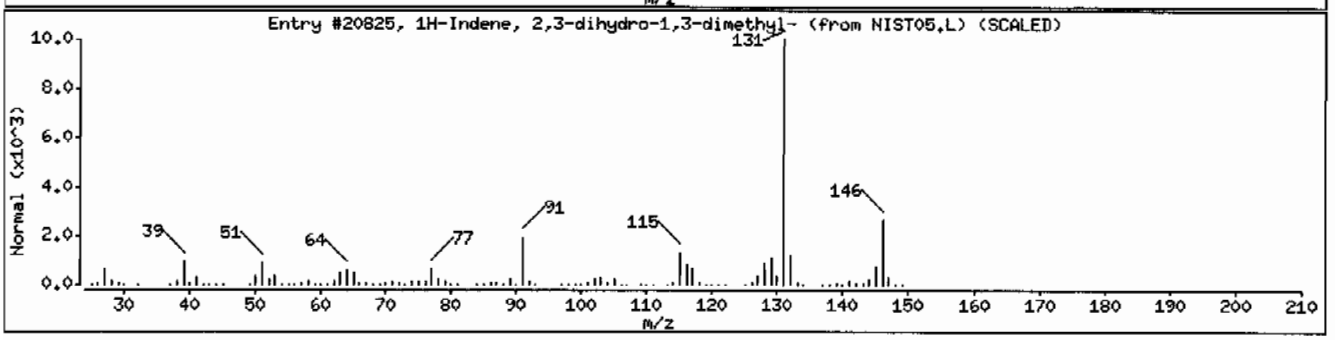

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-917	Date Collected:	12/11/2009 12:00	Matrix:	S
Lab Sample ID:	242937001	Date Received:	12/15/2009 08:45	%Moisture:	12.8
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14213	Method:	SW846 8260B	SOP Ref:	GL-OA-E-038
Batch ID:	934728	Inst:	VOA1.I	Dilution:	1
Run Date:	12/19/2009 03:23	Analyst:	RXM4	Purge Vol:	5 mL
Prep Date:	12/18/2009 14:08	Aliquot:	5 g	Final Volume:	5 mL
Data File:	1r534.d	Column:	RTX-Volatiles	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.15	ug/kg	0.390	1.15
74-87-3	Chloromethane	U	1.15	ug/kg	0.344	1.15
75-01-4	Vinyl chloride	U	1.15	ug/kg	0.344	1.15
74-83-9	Bromomethane	U	1.15	ug/kg	0.344	1.15
75-00-3	Chloroethane	U	1.15	ug/kg	0.344	1.15
75-69-4	Trichlorofluoromethane	U	1.15	ug/kg	0.344	1.15
67-64-1	Acetone		7.14	ug/kg	1.90	5.74
75-35-4	1,1-Dichloroethylene	U	1.15	ug/kg	0.344	1.15
74-88-4	Iodomethane	U	5.74	ug/kg	1.84	5.74
75-09-2	Methylene chloride	J	2.65	ug/kg	2.29	5.74
75-15-0	Carbon disulfide	U	5.74	ug/kg	1.43	5.74
156-60-5	trans-1,2-Dichloroethylene	U	1.15	ug/kg	0.344	1.15
75-34-3	1,1-Dichloroethane	U	1.15	ug/kg	0.344	1.15
78-93-3	2-Butanone	U	5.74	ug/kg	1.72	5.74
156-59-2	cis-1,2-Dichloroethylene	U	1.15	ug/kg	0.344	1.15
594-20-7	2,2-Dichloropropane	U	1.15	ug/kg	0.344	1.15
67-66-3	Chloroform	U	1.15	ug/kg	0.344	1.15
74-97-5	Bromochloromethane	U	1.15	ug/kg	0.379	1.15
71-55-6	1,1,1-Trichloroethane	U	1.15	ug/kg	0.344	1.15
563-58-6	1,1-Dichloropropene	U	1.15	ug/kg	0.344	1.15
56-23-5	Carbon tetrachloride	U	1.15	ug/kg	0.344	1.15
107-06-2	1,2-Dichloroethane	U	1.15	ug/kg	0.344	1.15
71-43-2	Benzene	U	1.15	ug/kg	0.344	1.15
79-01-6	Trichloroethylene	U	1.15	ug/kg	0.379	1.15
78-87-5	1,2-Dichloropropane	U	1.15	ug/kg	0.344	1.15
75-27-4	Bromodichloromethane	U	1.15	ug/kg	0.344	1.15
74-95-3	Dibromomethane	U	1.15	ug/kg	0.344	1.15
108-10-1	4-Methyl-2-pentanone	U	5.74	ug/kg	1.43	5.74
10061-01-5	cis-1,3-Dichloropropylene	U	1.15	ug/kg	0.344	1.15
108-88-3	Toluene	U	1.15	ug/kg	0.344	1.15
10061-02-6	trans-1,3-Dichloropropylene	U	1.15	ug/kg	0.344	1.15
79-00-5	1,1,2-Trichloroethane	U	1.15	ug/kg	0.344	1.15
591-78-6	2-Hexanone	U	5.74	ug/kg	1.72	5.74
142-28-9	1,3-Dichloropropane	U	1.15	ug/kg	0.344	1.15
127-18-4	Tetrachloroethylene	U	1.15	ug/kg	0.344	1.15
124-48-1	Dibromochloromethane	U	1.15	ug/kg	0.344	1.15
106-93-4	1,2-Dibromoethane	U	1.15	ug/kg	0.344	1.15
108-90-7	Chlorobenzene	U	1.15	ug/kg	0.344	1.15

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-917	Date Collected:	12/11/2009 12:00	Matrix:	S
Lab Sample ID:	242937001	Date Received:	12/15/2009 08:45	%Moisture:	12.8
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14213	Method:	SW846 8260B	SOP Ref:	GL-OA-E-038
Batch ID:	934728	Inst:	VOA1.I	Dilution:	1
Run Date:	12/19/2009 03:23	Analyst:	RXM4	Purge Vol:	5 mL
Prep Date:	12/18/2009 14:08	Aliquot:	5 g	Final Volume:	5 mL
Data File:	1r534.d	Column:	RTX-Volatiles	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.15	ug/kg	0.344	1.15
179601-23-1	m,p-Xylenes	U	2.29	ug/kg	0.344	2.29
95-47-6	o-Xylene	U	1.15	ug/kg	0.344	1.15
100-42-5	Styrene	U	1.15	ug/kg	0.344	1.15
75-25-2	Bromoform	U	1.15	ug/kg	0.344	1.15
79-34-5	1,1,2,2-Tetrachloroethane	U	1.15	ug/kg	0.344	1.15
96-18-4	1,2,3-Trichloropropane	U	1.15	ug/kg	0.344	1.15
108-86-1	Bromobenzene	U	1.15	ug/kg	0.344	1.15
103-65-1	n-Propylbenzene	U	1.15	ug/kg	0.344	1.15
95-49-8	2-Chlorotoluene	U	1.15	ug/kg	0.344	1.15
98-82-8	Isopropylbenzene	U	1.15	ug/kg	0.344	1.15
108-67-8	1,3,5-Trimethylbenzene	U	1.15	ug/kg	0.344	1.15
106-43-4	4-Chlorotoluene	U	1.15	ug/kg	0.344	1.15
98-06-6	tert-Butylbenzene	U	1.15	ug/kg	0.344	1.15
95-63-6	1,2,4-Trimethylbenzene	J	0.983	ug/kg	0.344	1.15
135-98-8	sec-Butylbenzene	U	1.15	ug/kg	0.344	1.15
99-87-6	4-Isopropyltoluene	U	1.15	ug/kg	0.344	1.15
541-73-1	1,3-Dichlorobenzene	U	1.15	ug/kg	0.344	1.15
106-46-7	1,4-Dichlorobenzene	U	1.15	ug/kg	0.344	1.15
104-51-8	n-Butylbenzene	U	1.15	ug/kg	0.344	1.15
96-12-8	1,2-Dibromo-3-chloropropane	U	1.15	ug/kg	0.344	1.15
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.74	ug/kg	1.84	5.74
630-20-6	1,1,1,2-Tetrachloroethane	U	1.15	ug/kg	0.344	1.15
95-50-1	1,2-Dichlorobenzene	U	1.15	ug/kg	0.344	1.15

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Hydrocarbon	19.75	11.8	ug/kg		J
	Unknown Hydrocarbon	19.98	12.3	ug/kg		J
	Unknown Hydrocarbon	20.4	11.9	ug/kg		J
1758-88-9	Benzene, 2-ethyl-1,4-dimethyl-	20.66	13.2	ug/kg	87	NJ
934-80-5	Benzene, 4-ethyl-1,2-dimethyl-	20.82	12.2	ug/kg	96	NJ
112-40-3	Dodecane	20.97	16	ug/kg	94	NJ
	Unknown Hydrocarbon	21.15	14.5	ug/kg		J
	Unknown Hydrocarbon	21.2	10.5	ug/kg		J
527-84-4	Benzene, 1-methyl-2-(1-methylethyl)-	21.36	18.4	ug/kg	94	NJ
	Unknown Hydrocarbon	21.8	17.8	ug/kg		J

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-917	**Date Collected:**	12/11/2009 12:00	**Matrix:**	S
Lab Sample ID:	242937001	**Date Received:**	12/15/2009 08:45	**%Moisture:**	12.8
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14213	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	934728	**Inst:**	VOA1.1	**Dilution:**	1
Run Date:	12/19/2009 03:23	**Analyst:**	RXM4	**Purge Vol:**	5 mL
Prep Date:	12/18/2009 14:08	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	1r534.d	**Column:**	RTX-Volatiles	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Hydrocarbon	21.94	16.4	ug/kg		J
	Unknown Hydrocarbon	22.49	9.58	ug/kg		J

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/121809v1/1r534.d
Lab Smp Id: 242937001 Client Smp ID: RE03-09-14213
Inj Date : 19-DEC-2009 03:23
Operator : RXM4 Inst ID: VOA1.i
Smp Info : |242937001|934728|1|VOAF|1|
Misc Info : LANL 5G N/A
Comment :
Method : /chem/VOA1.i/121809v1/VOA1-8260ox-121709PM.m
Meth Date : 19-Dec-2009 14:30 ron01469 Quant Type: ISTD
Cal Date : 17-DEC-2009 21:57 Cal File: 1r426.d
Als bottle: 34
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-917.sub
Target Version: 3.50

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	12.82530	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
* 52 Fluorobenzene	96	13.686	13.686	(1.000)	663892	50.0000	
* 76 Chlorobenzene-d5	117	17.162	17.162	(1.000)	460157	50.0000	
* 102 1,4-Dichlorobenzene-d4	152	19.610	19.610	(1.000)	249764	50.0000	
$ 48 1,2-Dichloroethane-d4	65	13.341	13.341	(0.975)	476191	59.1965	67.9
$ 65 Toluene-d8	98	15.518	15.518	(0.904)	1365142	51.9481	59.6
$ 87 Bromofluorobenzene	95	18.391	18.386	(0.938)	528390	51.4703	59.0
16 Acetone	43	9.263	9.258	(0.677)	25009	6.22691	7.1
23 Methylene chloride	84	10.142	10.147	(0.741)	14510	2.30961	2.6(a)
97 1,2,4-Trimethylbenzene	105	19.136	19.132	(0.976)	18939	0.85694	0.98(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

ION RATIO REPORT

VOA REPORT

Data file: 1r534.d
Report Date: 12/19/2009 14:33
Lab. ID: 242937001 SampleType: SAMPLE
Injection Date: 19-DEC-2009 03:23
Operator: RXM4 Instrument: VOA1.i
Sample Info: |242937001|934728|1|VOAF|1|
Miscellaneous Info: LANL 5G N/A
Comment:
Method used: /chem/VOA1.i/121809v1/VOA1-8260ox-121709PM.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-917
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
16 Acetone			CAS#: 67-64-1			
43	25009	9.26	9.26	80-120	100	( )
58	7906	9.26	9.26	3- 63	32	( )
23 Methylene chloride			CAS#: 75-09-2			
84	14510	10.14	10.15	80-120	100	( )
86	9358	10.14	10.14	35- 95	64	( )
49	22438	10.13	10.15	121-181	155	( )
51 1,2-Dichloroethane			CAS#: 107-06-2			
62	11372	13.68	13.44	80-120	100	(T)
64	1908	13.68	13.44	2- 62	17	(T)
64 4-Methyl-2-pentanone			CAS#: 108-10-1			
58	13472	15.52	15.36	80-120	100	(T)
43	6763	15.51	15.36	206-266	50	(QT)
100	866188	15.52	15.36	0- 59	6429	(QT)
93 1,3,5-Trimethylbenzene			CAS#: 108-67-8			
105	10508	18.64	18.72	80-120	100	(T)
120	2690	18.63	18.72	13- 73	26	(T)
97 1,2,4-Trimethylbenzene			CAS#: 95-63-6			
105	18939	19.14	19.13	80-120	100	( )
120	7770	19.14	19.13	10- 70	41	( )

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
96 tert-Butylbenzene			CAS#: 98-06-6			
119	6254	19.36	19.08	80-120	100	(T)
91	1980	19.36	19.08	49-109	32	(QT)
134	1661	19.36	19.08	0- 52	27	(T)
99 sec-Butylbenzene			CAS#: 135-98-8			
105	18939	19.14	19.30	80-120	100	(T)
134	596	19.27	19.30	0- 47	3	( )
100 4-Isopropyltoluene			CAS#: 99-87-6			
119	6476	19.73	19.42	80-120	100	(T)
134	8402	19.76	19.42	0- 55	130	(QT)
91	5396	19.76	19.42	0- 58	83	(QT)
105 n-Butylbenzene			CAS#: 104-51-8			
91	15051	19.87	19.87	80-120	100	( )
92	7922	19.87	19.87	25- 85	53	( )
134	10419	19.81	19.87	0- 52	69	(Q)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/121809v1/1r534.d
Lab Smp Id: 242937001 Client Smp ID: RE03-09-14213
Inj Date : 19-DEC-2009 03:23
Operator : RXM4 Inst ID: VOA1.i
Smp Info : |242937001|934728|1|VOAF|1|
Misc Info : LANL 5G N/A
Comment :
Method : /chem/VOA1.i/121809v1/VOA1-8260ox-121709PM.m
Meth Date : 19-Dec-2009 14:30 ron01469 Quant Type: ISTD
Cal Date : 17-DEC-2009 21:57 Cal File: 1r426.d
Als bottle: 34
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-917.sub
Target Version: 3.50

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	12.82530	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 102 1,4-Dichlorobenzene-d4	19.610	1690259	50.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ug/l)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown Hydrocarbon					CAS #:		
19.753	347585	10.2820179	11.8	0		0	102
Unknown Hydrocarbon					CAS #:		
19.979	363879	10.7640124	12.3	0		0	102

RT	AREA	CONCENTRATIONS ON-COL(ug/l)	FINAL(ug/Kg)	QUANT QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown Hydrocarbon				CAS #:			
20.402	350069	10.3554805	11.9	0		0	102
Benzene, 2-ethyl-1,4-dimethyl-				CAS #: 1758-88-9			
20.655	387930	11.4754459	13.2	87	NIST05.L	14403	102(L)
Benzene, 4-ethyl-1,2-dimethyl-				CAS #: 934-80-5			
20.816	359865	10.6452568	12.2	96	NIST05.L	14401	102
Dodecane				CAS #: 112-40-3			
20.968	472195	13.9681152	16.0	94	NIST05.L	36431	102
Unknown Hydrocarbon				CAS #:			
21.148	428680	12.6809024	14.5	0		0	102
Unknown Hydrocarbon				CAS #:			
21.198	310290	9.17878428	10.5	0		0	102
Benzene, 1-methyl-2-(1-methylethyl)-				CAS #: 527-84-4			
21.364	542381	16.0443189	18.4	94	NIST05.L	14429	102
Unknown Hydrocarbon				CAS #:			
21.797	524534	15.5163675	17.8	0		0	102
Unknown Hydrocarbon				CAS #:			
21.940	483359	14.2983790	16.4	0		0	102
Unknown Hydrocarbon				CAS #:			
22.492	282414	8.35415505	9.6	0		0	102

QC Flag Legend

L - Operator selected an alternate library search match.

Data File: /chem/VOA1.i/121809v1/1r534.d
Date : 19-DEC-2009 03:23
Client ID: RE03-09-14213
Sample Info: |2429370011934728|1|VOAF|1|

Column phase: RTX-Volatiles

Instrument: VOA1.i

Operator: RXM4
Column diameter: 0.25

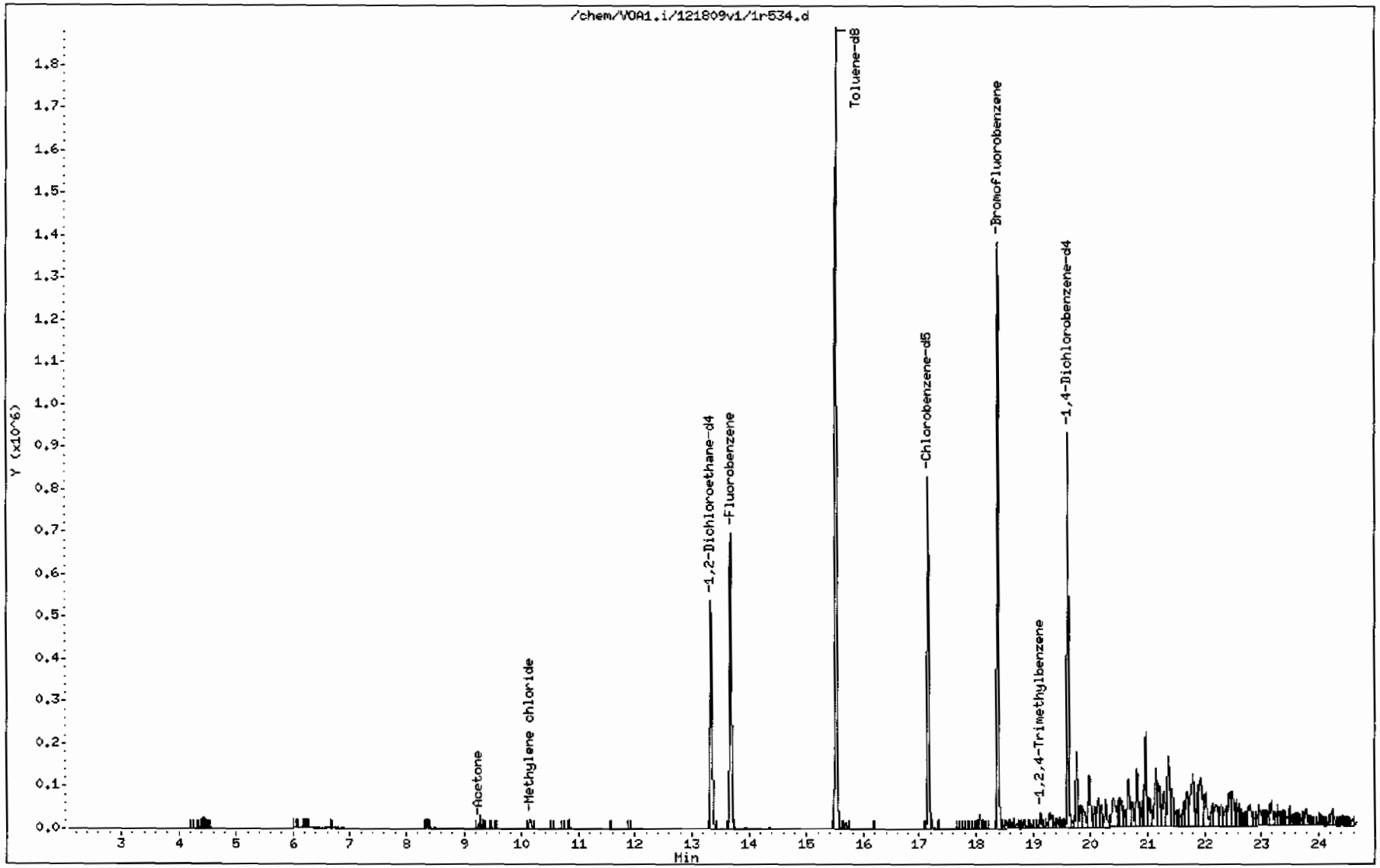

Data File: /chem/VOA1.i/121809v1/1r534.d

Date : 19-DEC-2009 03:23

Client ID: RE03-09-14213

Instrument: VOA1.i

Sample Info: |2429370011934728|1|VOAF|1|

Operator: RXM4

Column phase: RTX-Volatiles

Column diameter: 0.25

16 Acetone

Concentration: 7.1 ug/Kg

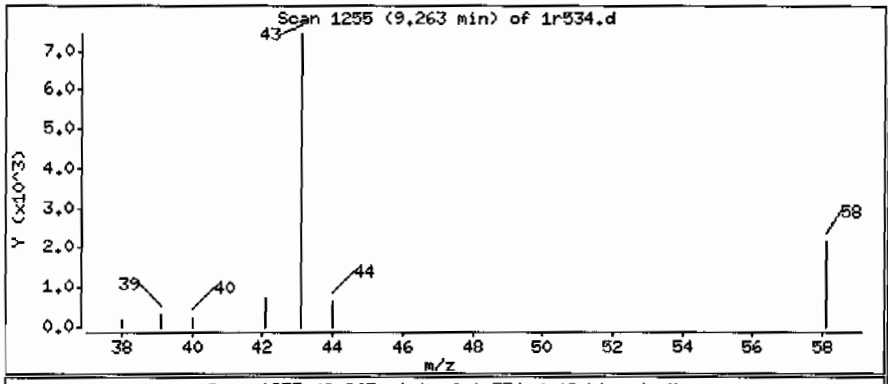

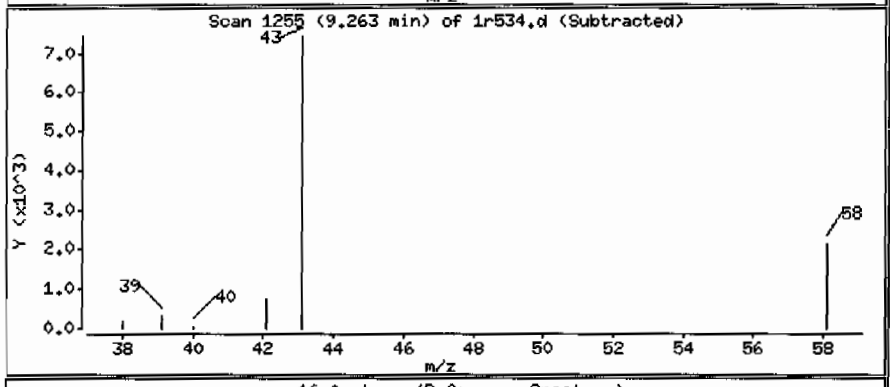

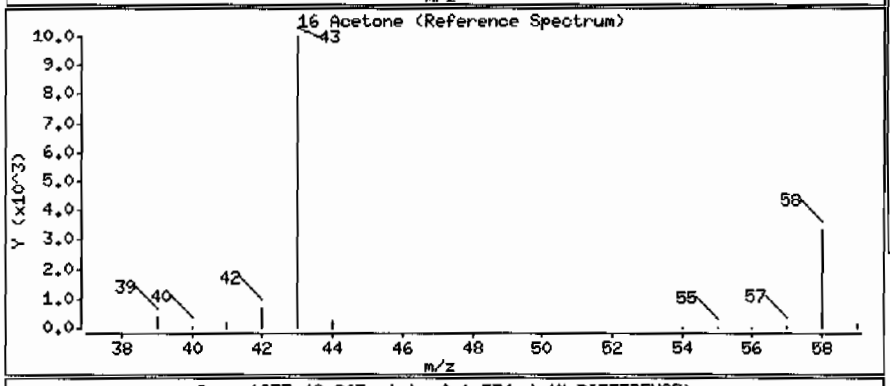

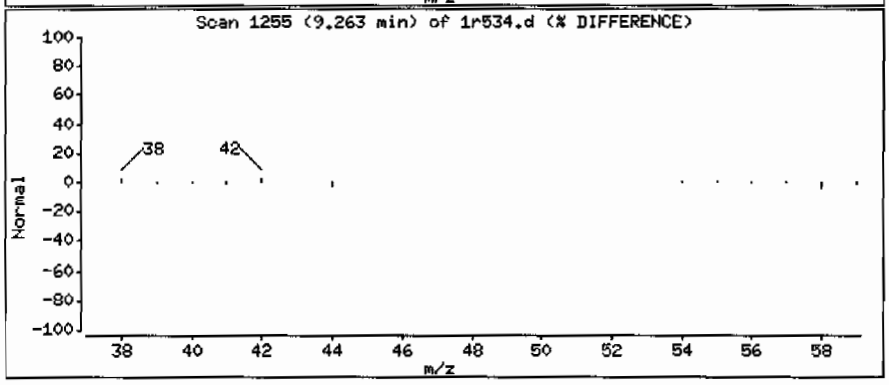

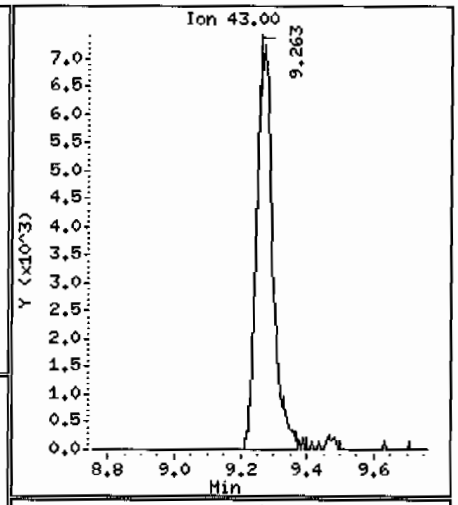

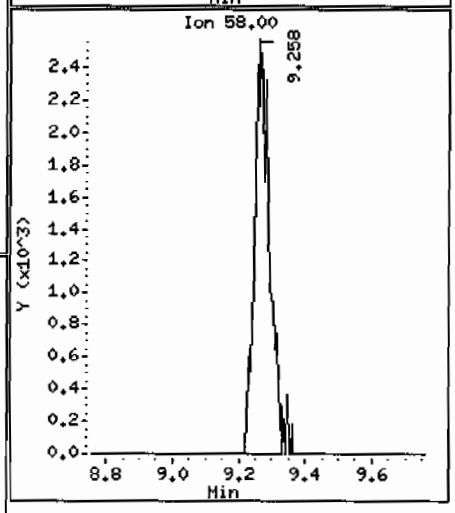

Data File: /chem/VOA1.i/121809v1/1r534.d

Date : 19-DEC-2009 03:23

Client ID: RE03-09-14213

Instrument: VOA1.i

Sample Info: |242937001|934728|1|VOAF|1|

Operator: RXM4

Column phase: RTX-Volatiles

Column diameter: 0.25

23 Methylene chloride

Concentration: 2.6 ug/Kg

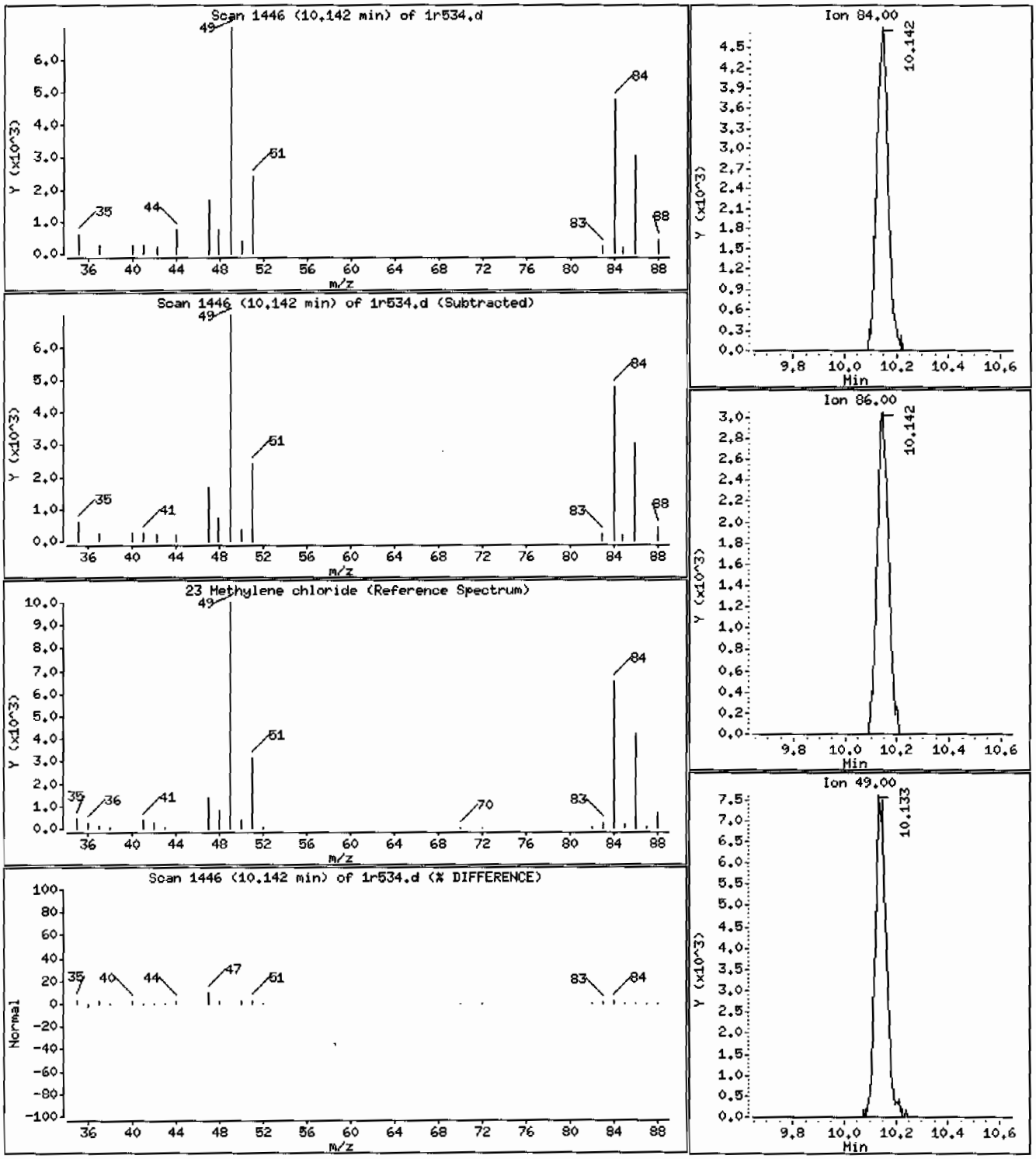

Data File: /chem/VOA1.i/121809v1/1r534.d

Date : 19-DEC-2009 03:23

Client ID: RE03-09-14213 Instrument: VOA1.i

Sample Info: |2429370011934728|1|VOAF|1|

Operator: RXM4

Column phase: RTX-Volatiles Column diameter: 0.25

97 1,2,4-Trimethylbenzene Concentration: 0.98 ug/Kg

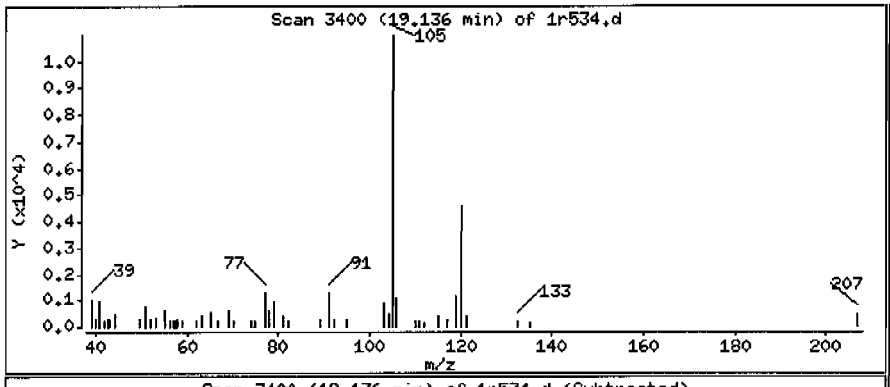

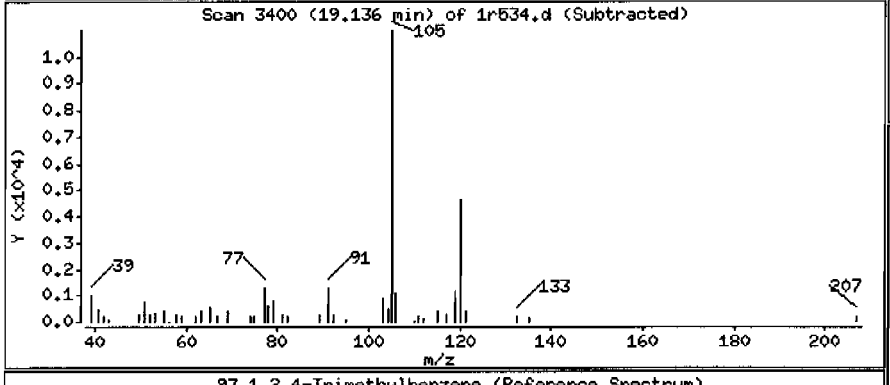

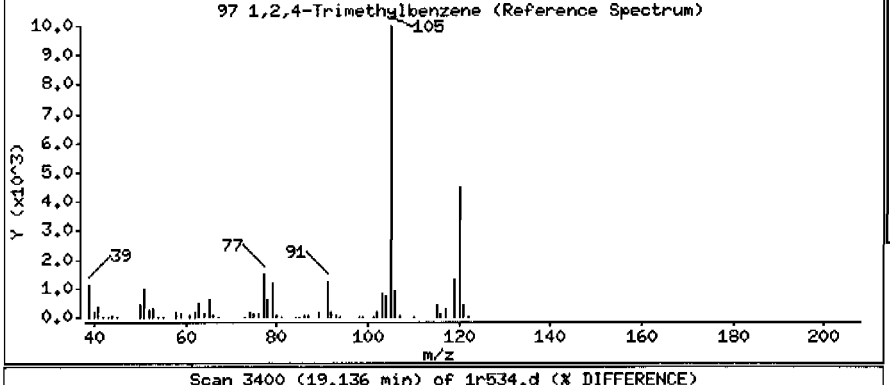

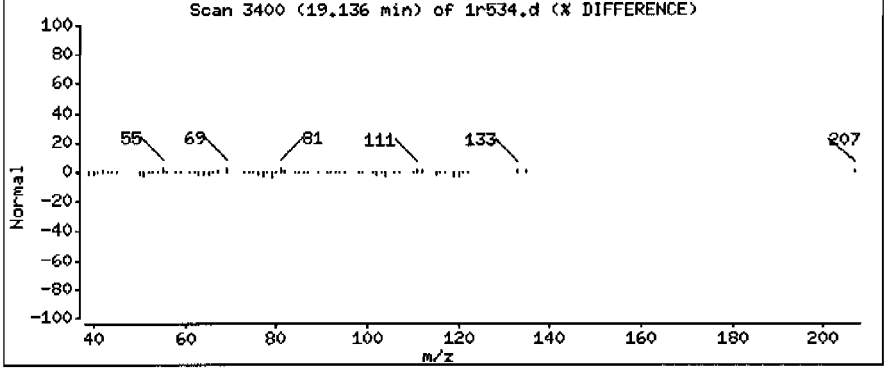

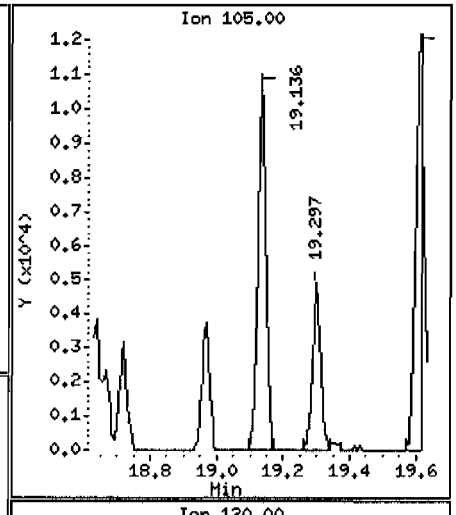

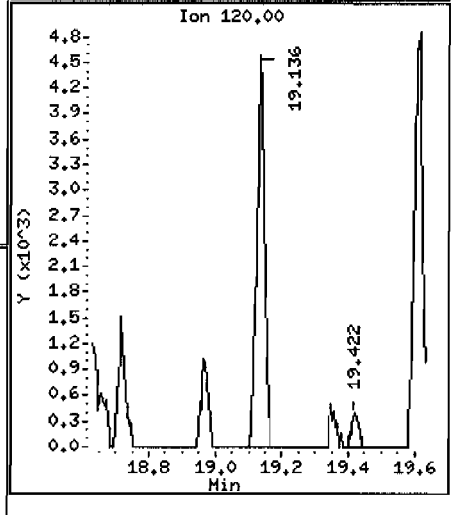

Data File: /chem/VOA1.i/121809v1/1r534.d

Date : 19-DEC-2009 03:23

Client ID: RE03-09-14213

Instrument: VOA1.i

Sample Info: |2429370011934728|1|VOAF|1|

Operator: RXM4

Column phase: RTX-Volatiles

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Hydrocarbon						
Undecane	1120-21-4	NIST05.L	27240	76	C11H24	156
Dodecane	112-40-3	NIST05.L	36431	64	C12H26	170
Tridecane	629-50-5	NIST05.L	46086	64	C13H28	184

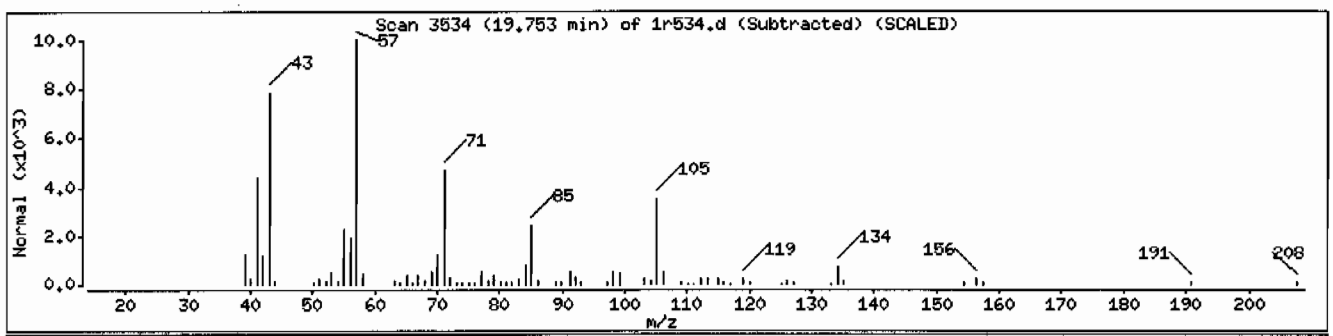

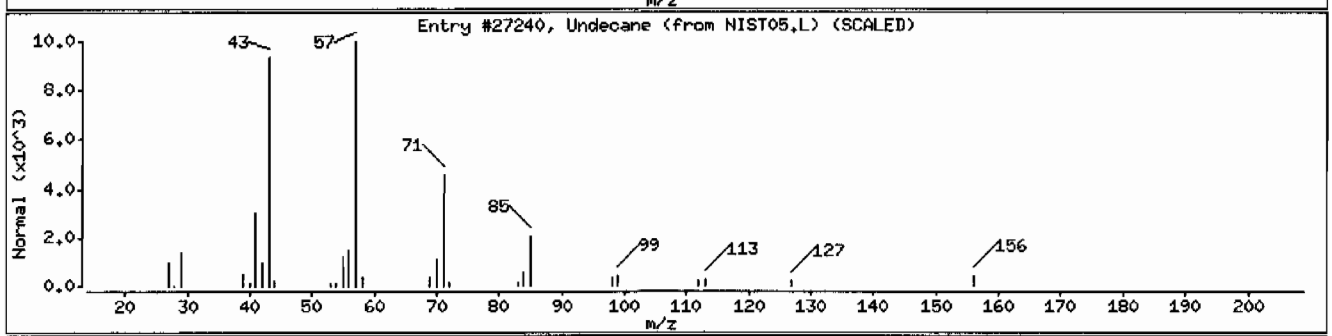

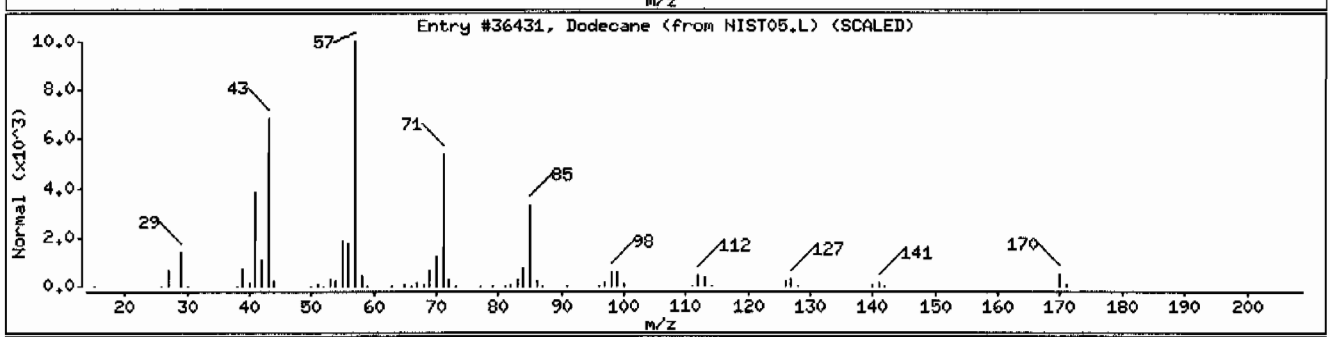

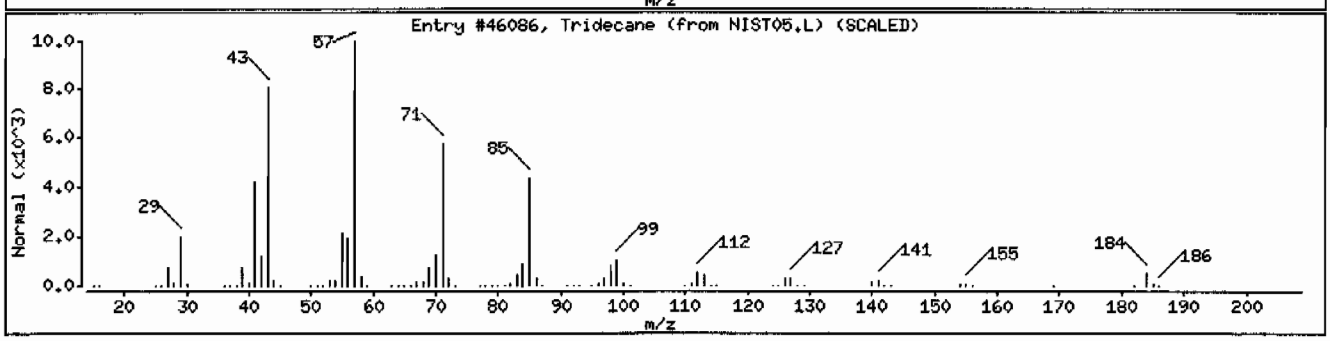

Data File: /chem/VOA1.i/121809v1/1r534.d

Date : 19-DEC-2009 03:23

Client ID: RE03-09-14213 Instrument: VOA1.i

Sample Info: |2429370011934728|1|VOAF|1|

Operator: RXM4

Column phase: RTX-Volatiles Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Hydrocarbon						
1,4-Cyclohexadiene, 1,3,6-tris(trimethyl	1000150-10-8	NIST05.L	121967	33	C15H32Si3	296
Silane, (2-ethyl-3,3-dimethyl-4-methylen	95798-13-3	NIST05.L	62897	32	C13H24Si	208
1-Propene-1-thiol	925-89-3	NIST05.L	811	25	C3H6S	74

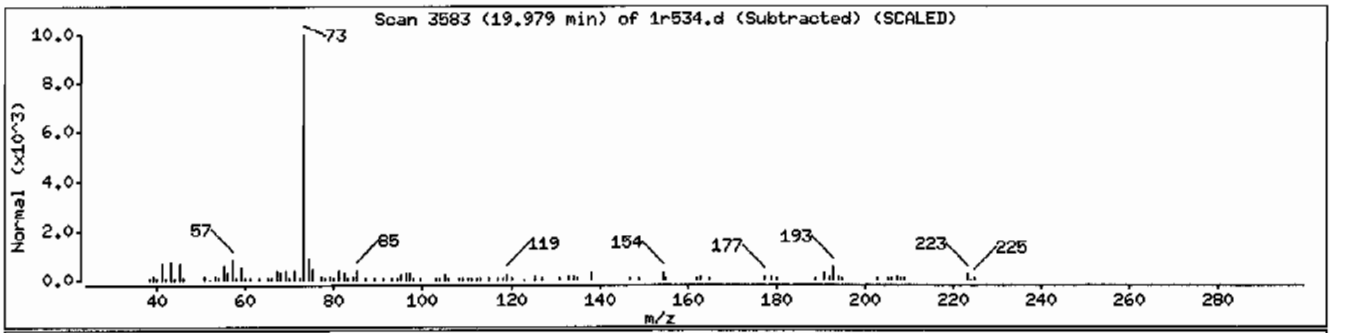

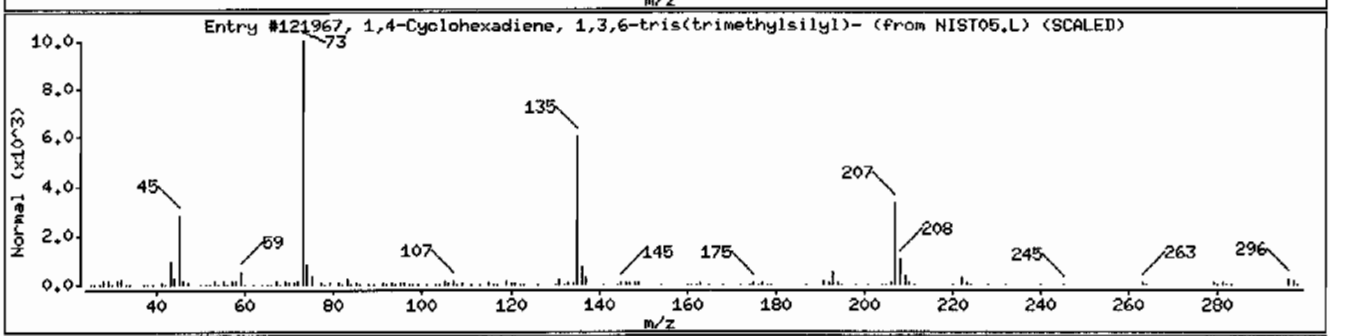

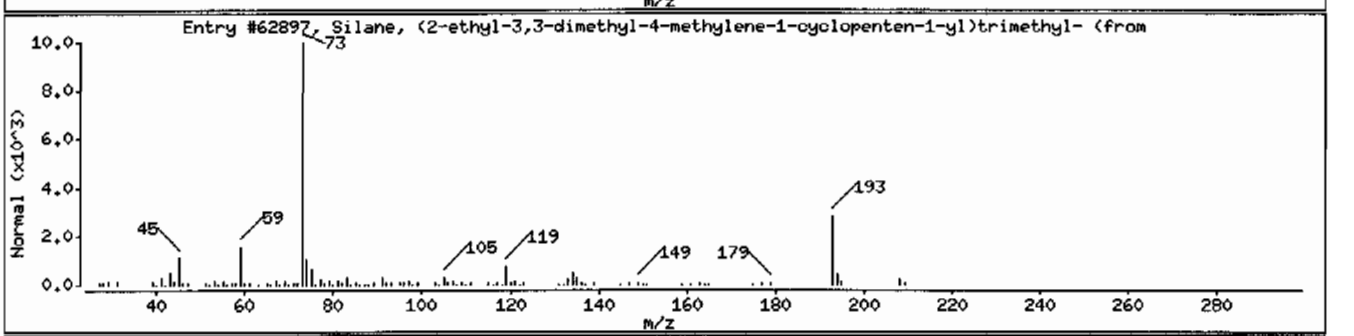

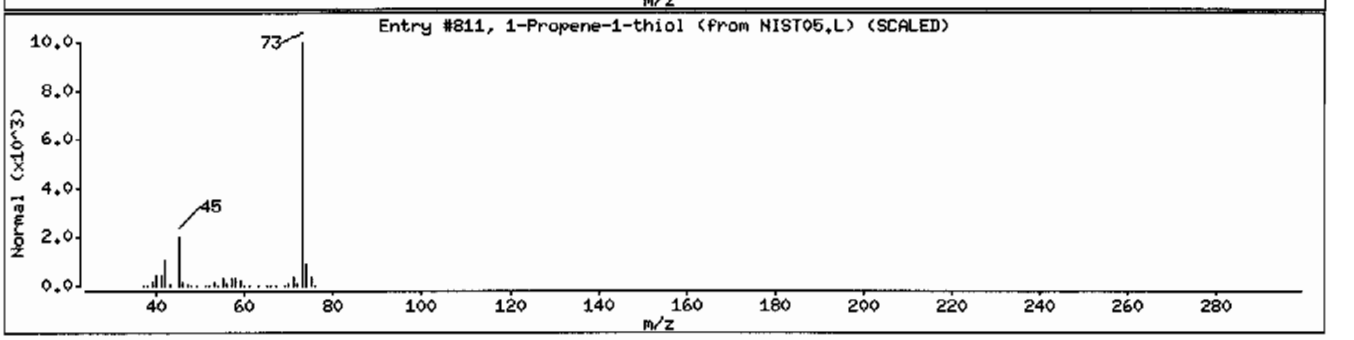

Data File: /chem/VOA1.i/121809v1/1r534.d

Date : 19-DEC-2009 03:23

Client ID: RE03-09-14213

Instrument: VOA1.i

Sample Info: |242937001|934728|1|VOAF|1|

Operator: RXM4

Column phase: RTX-Volatiles

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Hydrocarbon						
Benzene, 1-methyl-4-(1-methylpropyl)-	1595-16-0	NIST05.L	21930	76	C11H16	148
4'-Methylpropiophenone	5337-93-9	NIST05.L	21749	70	C10H12O	148
Benzene, (1,1-dimethylpropyl)-	2049-95-8	NIST05.L	21913	64	C11H16	148

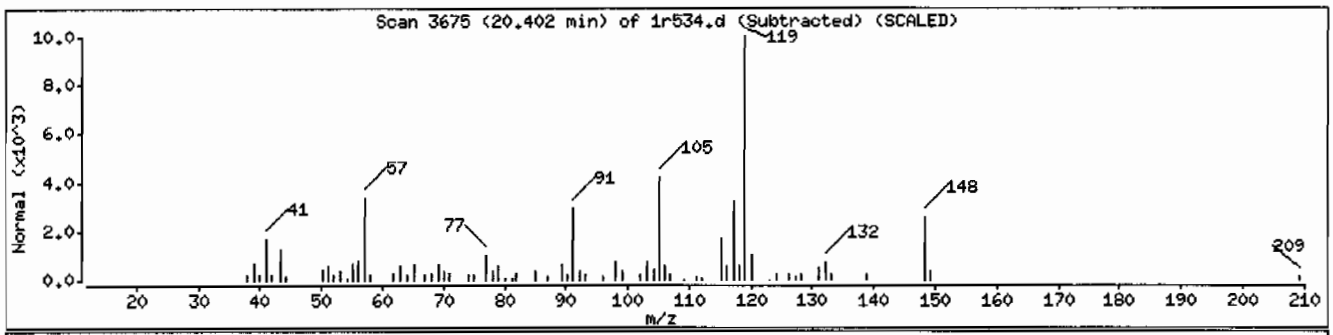

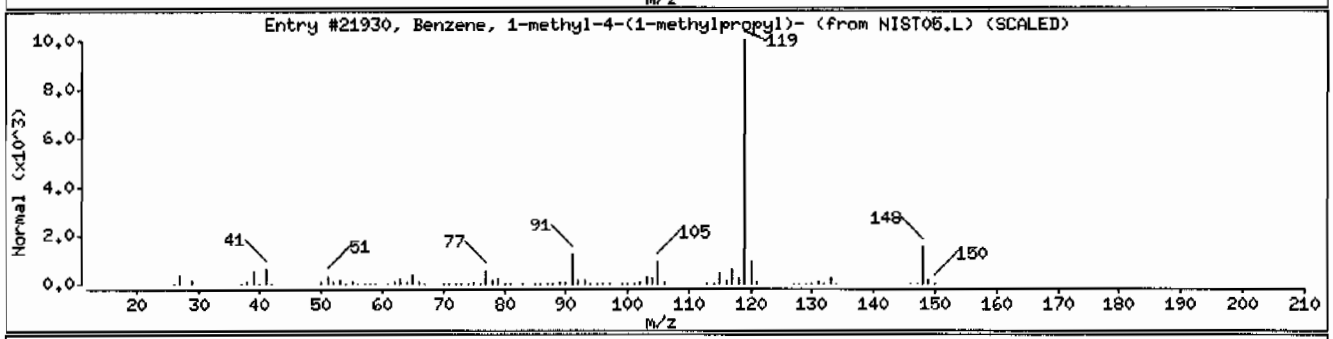

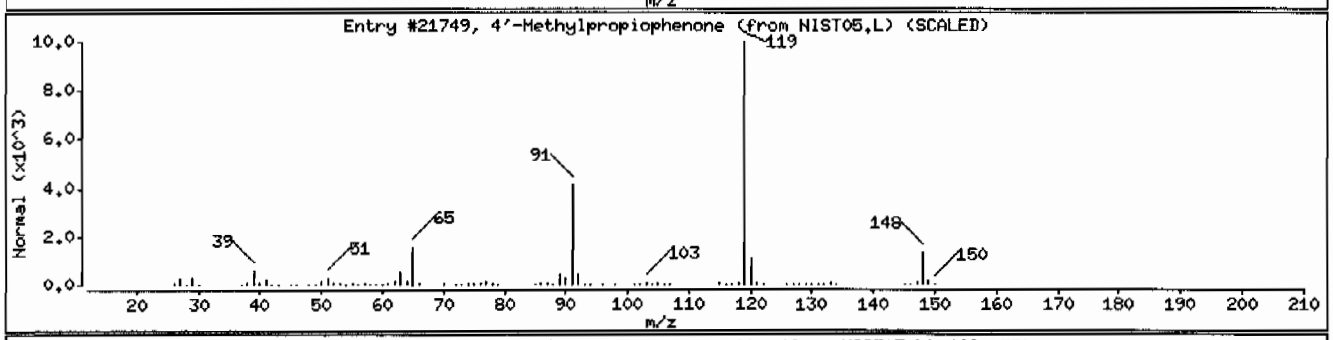

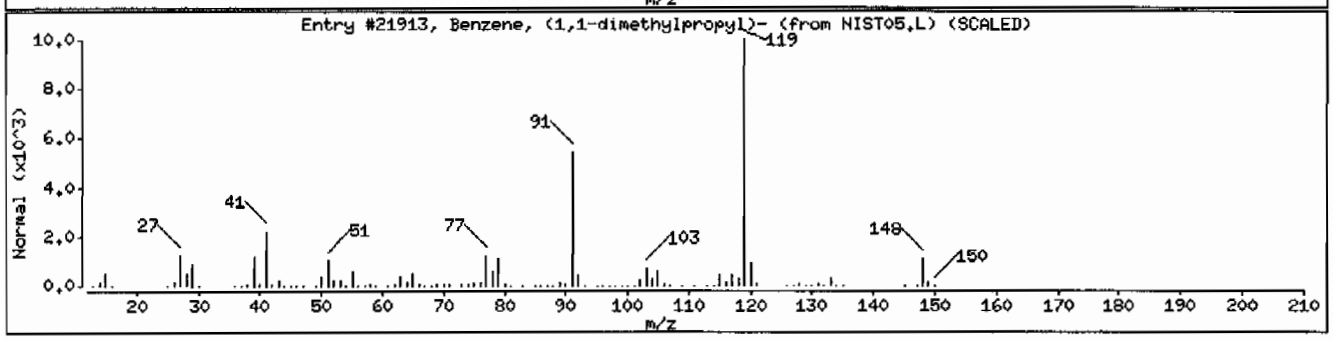

Data File: /chem/VOA1.i/121809v1/1r534.d

Date : 19-DEC-2009 03:23

Client ID: RE03-09-14213 Instrument: VOA1.i

Sample Info: |2429370011934728|1|VOAF|1|

Operator: RXM4

Column phase: RTX-Volatiles Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Benzene, 2-ethyl-1,4-dimethyl-	1758-88-9	NIST05.L	14403	87	C10H14	134
Benzene, 4-ethyl-1,2-dimethyl-	934-80-5	NIST05.L	14401	87	C10H14	134
Benzene, 1,2,3,4-tetramethyl-	488-23-3	NIST05.L	14381	78	C10H14	134

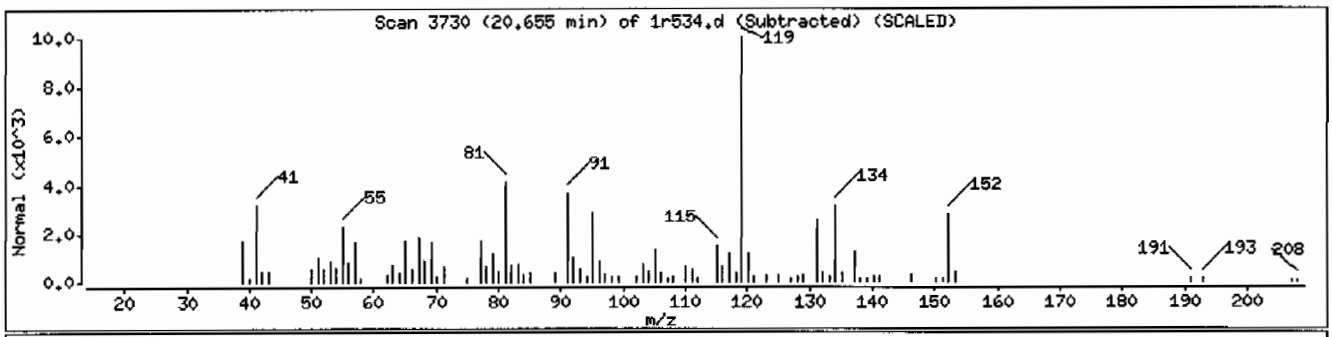

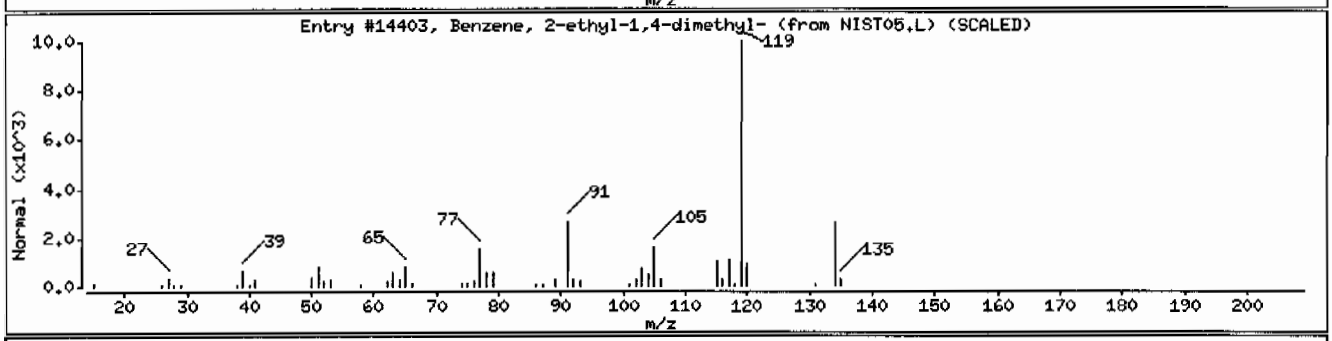

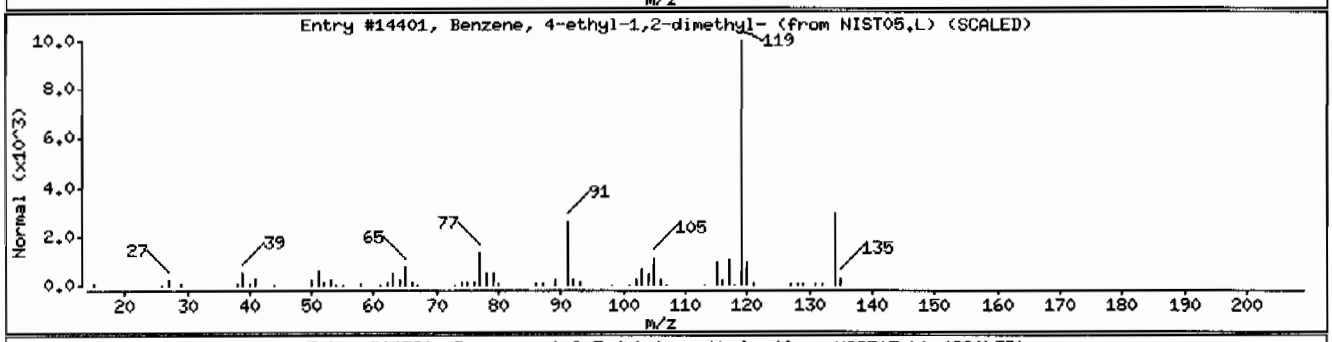

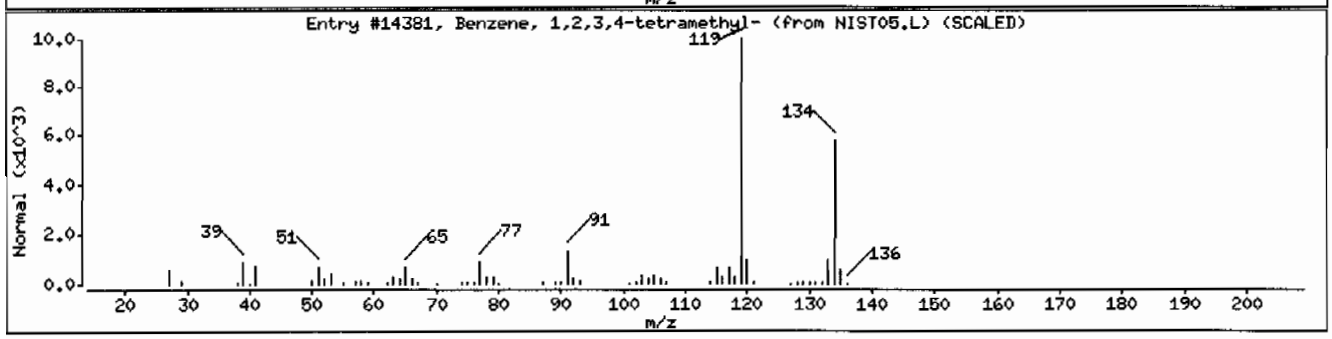

Data File: /chem/VOA1.i/121809v1/1r534.d

Date : 19-DEC-2009 03:23

Client ID: RE03-09-14213

Instrument: VOA1.i

Sample Info: |242937001|934728|1|VOAF|1|

Operator: RXM4

Column phase: RTX-Volatiles

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Benzene, 4-ethyl-1,2-dimethyl-	934-80-5	NIST05.L	14401	96	C10H14	134
Benzene, 1-methyl-2-(1-methylethyl)-	527-84-4	NIST05.L	14429	95	C10H14	134
Benzene, 1-methyl-2-(1-methylethyl)-	527-84-4	NIST05.L	14428	93	C10H14	134

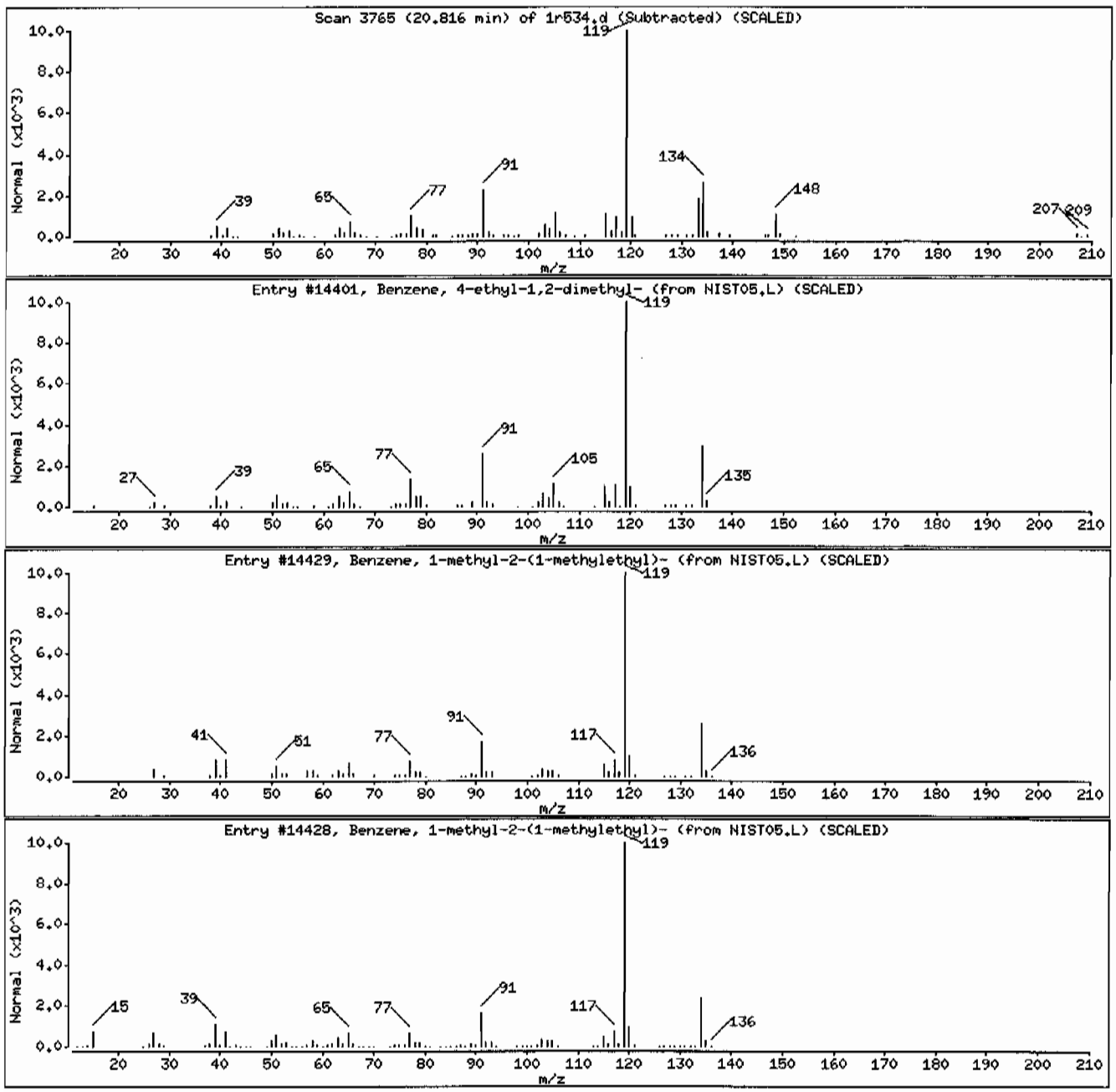

Data File: /chem/VOA1.i/121809v1/1r534.d

Date : 19-DEC-2009 03:23

Client ID: RE03-09-14213

Instrument: VOA1.i

Sample Info: |2429370011934728|1|VOAF|1|

Operator: RXM4

Column phase: RTX-Volatiles

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Dodecane	112-40-3	NIST05.L	36431	94	C12H26	170
Dodecane	112-40-3	NIST05.L	36428	90	C12H26	170
Tridecane	629-50-5	NIST05.L	46086	86	C13H28	184

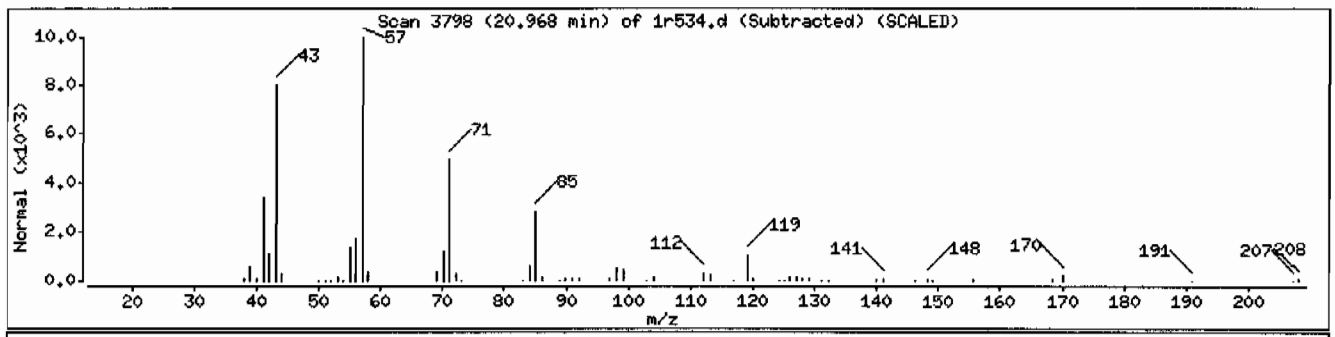

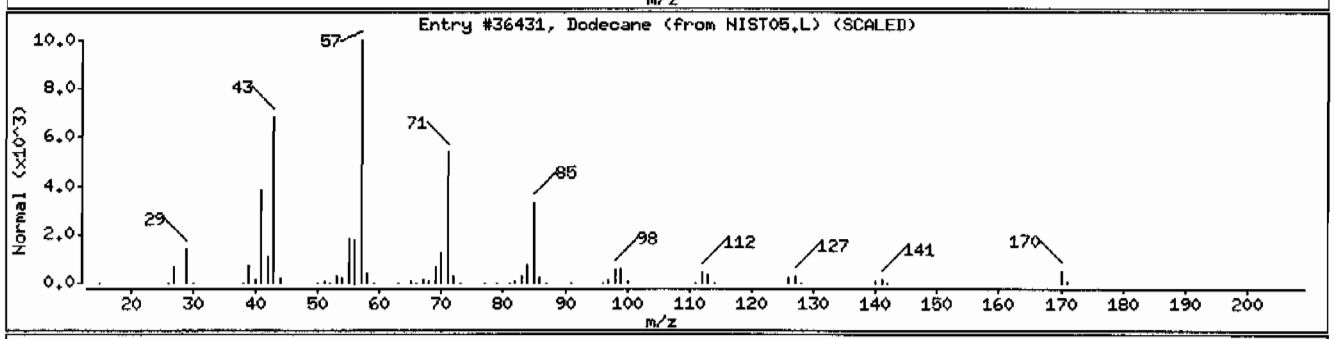

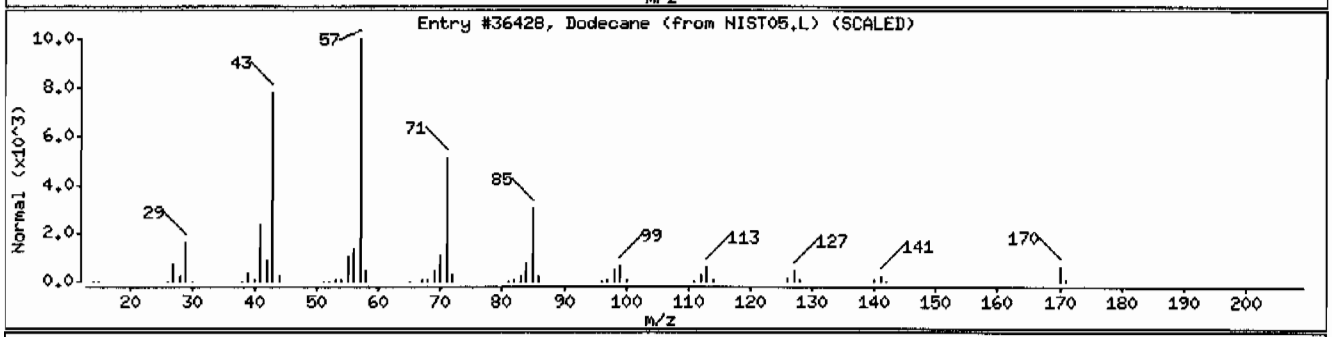

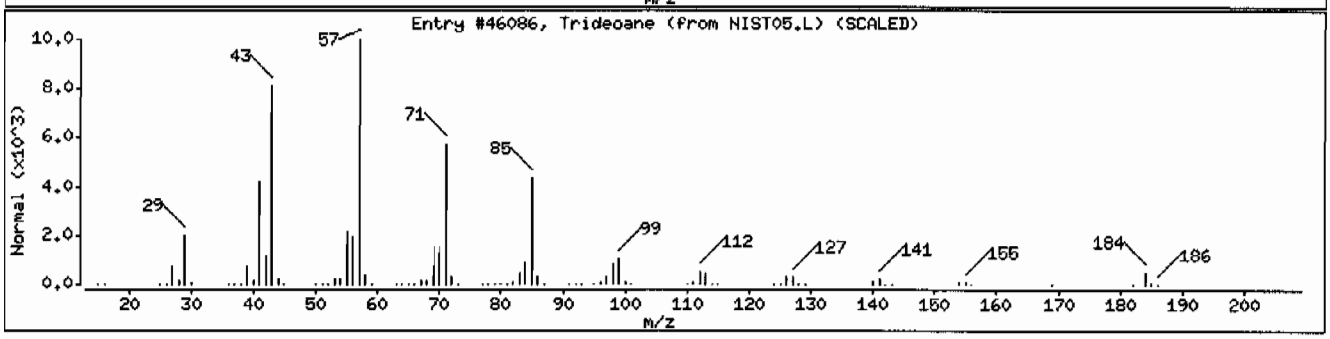

Data File: /chem/VOA1.i/121809v1/1r534.d

Date : 19-DEC-2009 03:23

Client ID: RE03-09-14213 Instrument: VOA1.i

Sample Info: |2429370011934728|1|VOAF|1|

Operator: RXM4

Column phase: RTX-Volatiles Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Hydrocarbon						
Undecane, 2,6-dimethyl-	17301-23-4	NIST05.L	46136	49	C13H28	184
Undecane, 2,6-dimethyl-	17301-23-4	NIST05.L	46134	47	C13H28	184
Dodecane, 6-methyl-	6044-71-9	NIST05.L	46099	43	C13H28	184

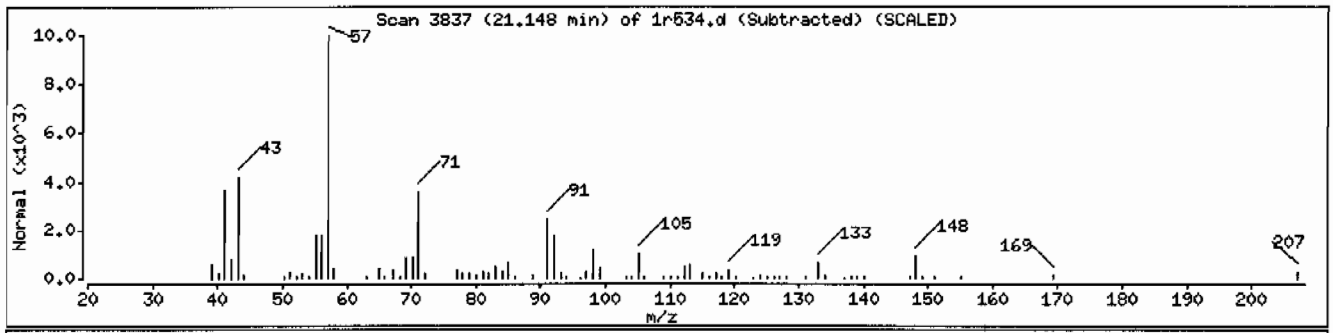

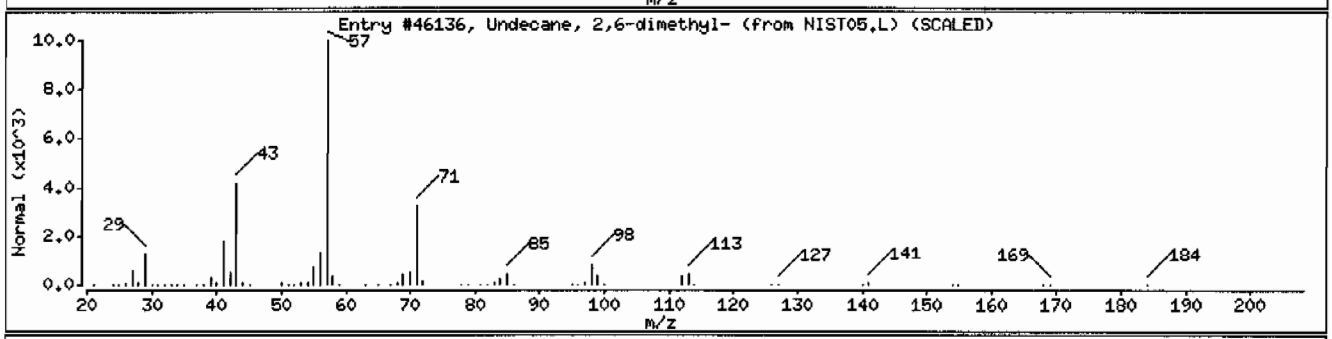

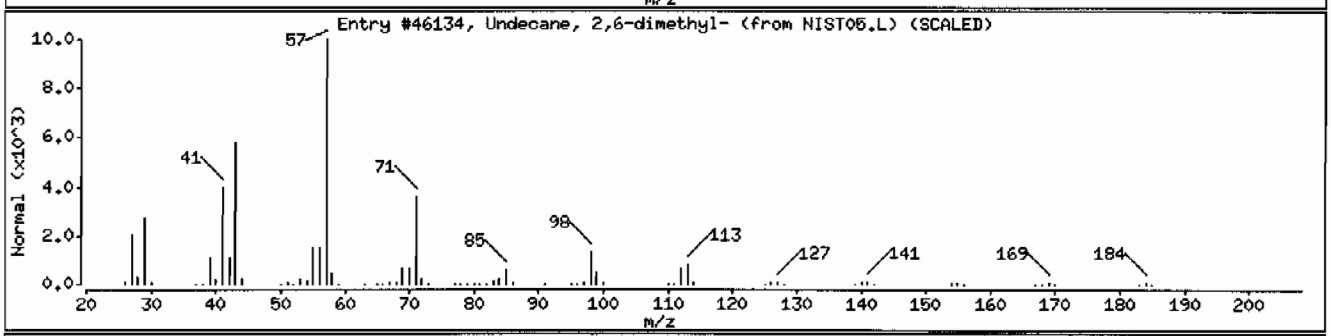

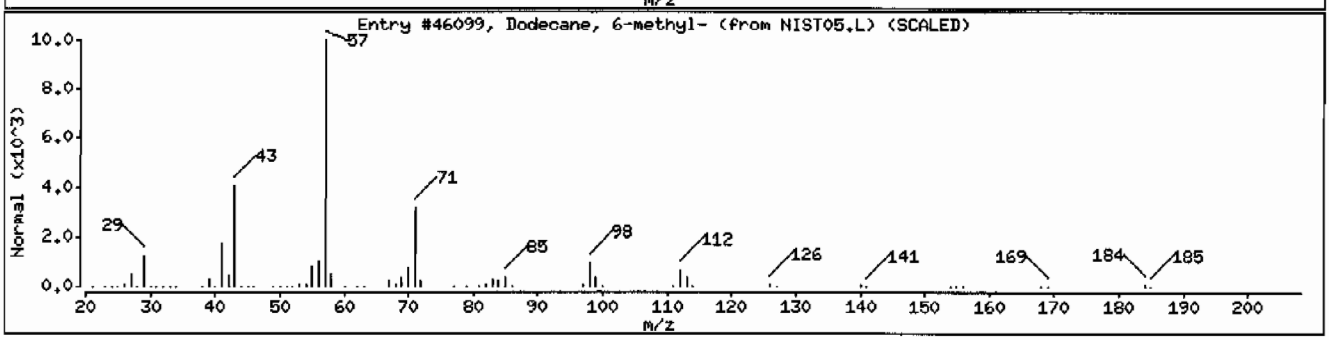

Data File: /chem/VOA1.i/121809v1/1r534.d

Date : 19-DEC-2009 03:23

Client ID: RE03-09-14213

Instrument: VOA1.i

Sample Info: |2429370011934728111VOAF11|

Operator: RXM4

Column phase: RTX-Volatiles

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Hydrocarbon						
Benzene, 1-methyl-4-(1-methylethyl)-	99-87-6	NIST05.L	14423	70	C10H14	134
Benzoic acid, 2,5-dimethyl-, (2,4-dimeth	55000-48-1	NIST05.L	104213	59	C18H2002	268
Benzene, 1-methyl-4-(1-methylpropyl)-	1595-16-0	NIST05.L	21930	58	C11H16	148

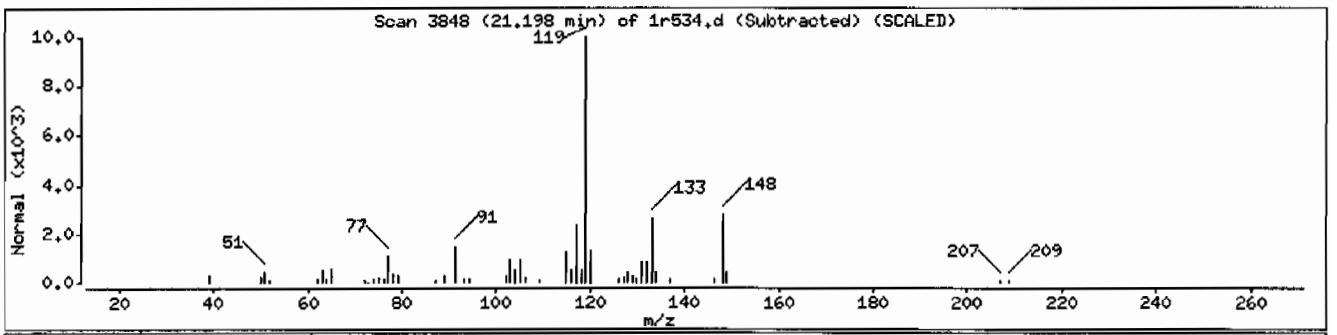

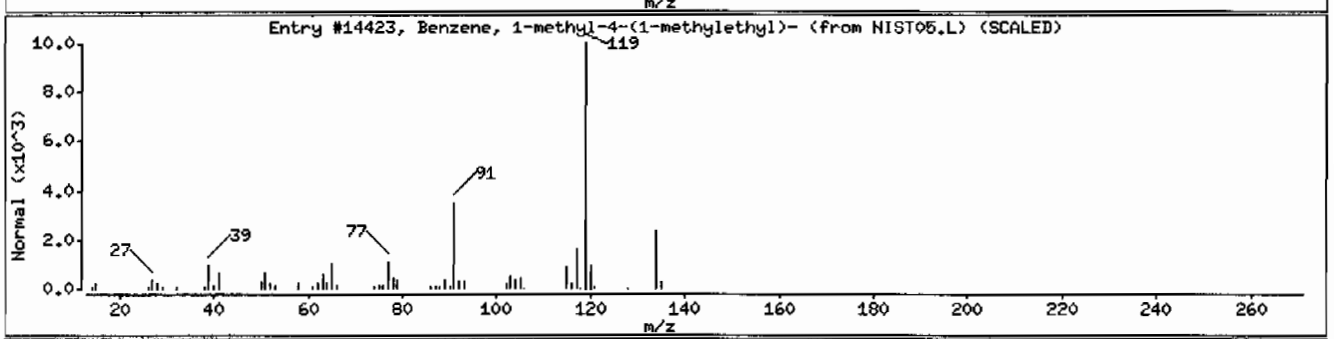

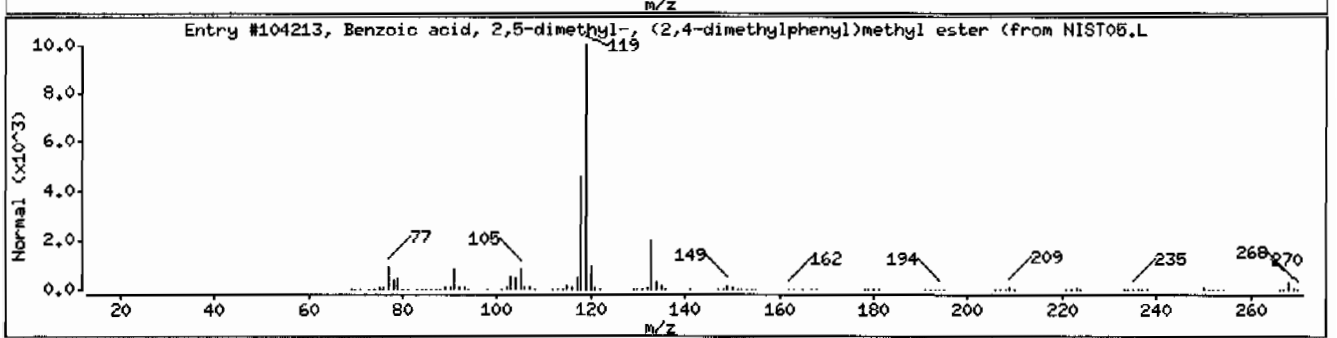

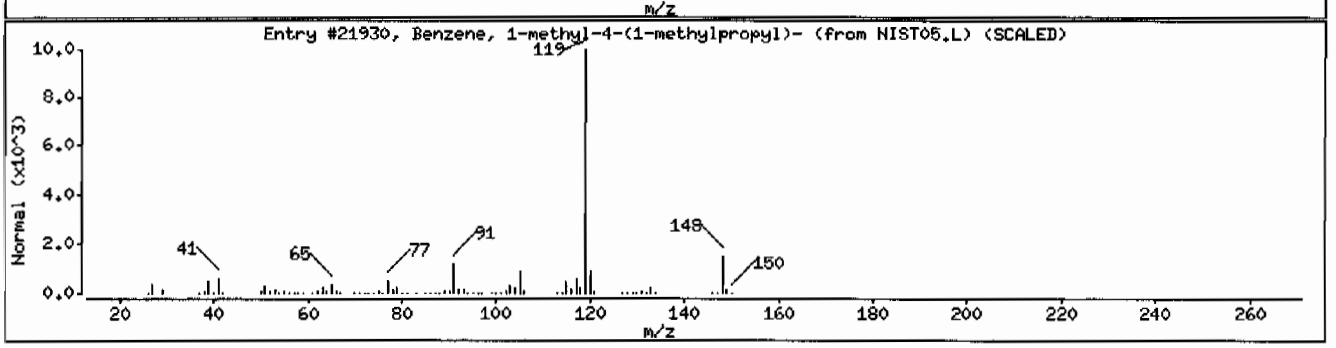

Data File: /chem/VOA1.i/121809v1/1r534.d

Date : 19-DEC-2009 03:23

Client ID: RE03-09-14213 Instrument: VOA1.i

Sample Info: |2429370011934728|1|VOAF|1|

Operator: RXM4

Column phase: RTX-Volatiles Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Benzene, 1-methyl-2-(1-methylethyl)-	527-84-4	NIST05.L	14429	94	C10H14	134
Benzene, 4-ethyl-1,2-dimethyl-	934-80-5	NIST05.L	14401	93	C10H14	134
Benzene, 1-methyl-3-(1-methylethyl)-	535-77-3	NIST05.L	14427	93	C10H14	134

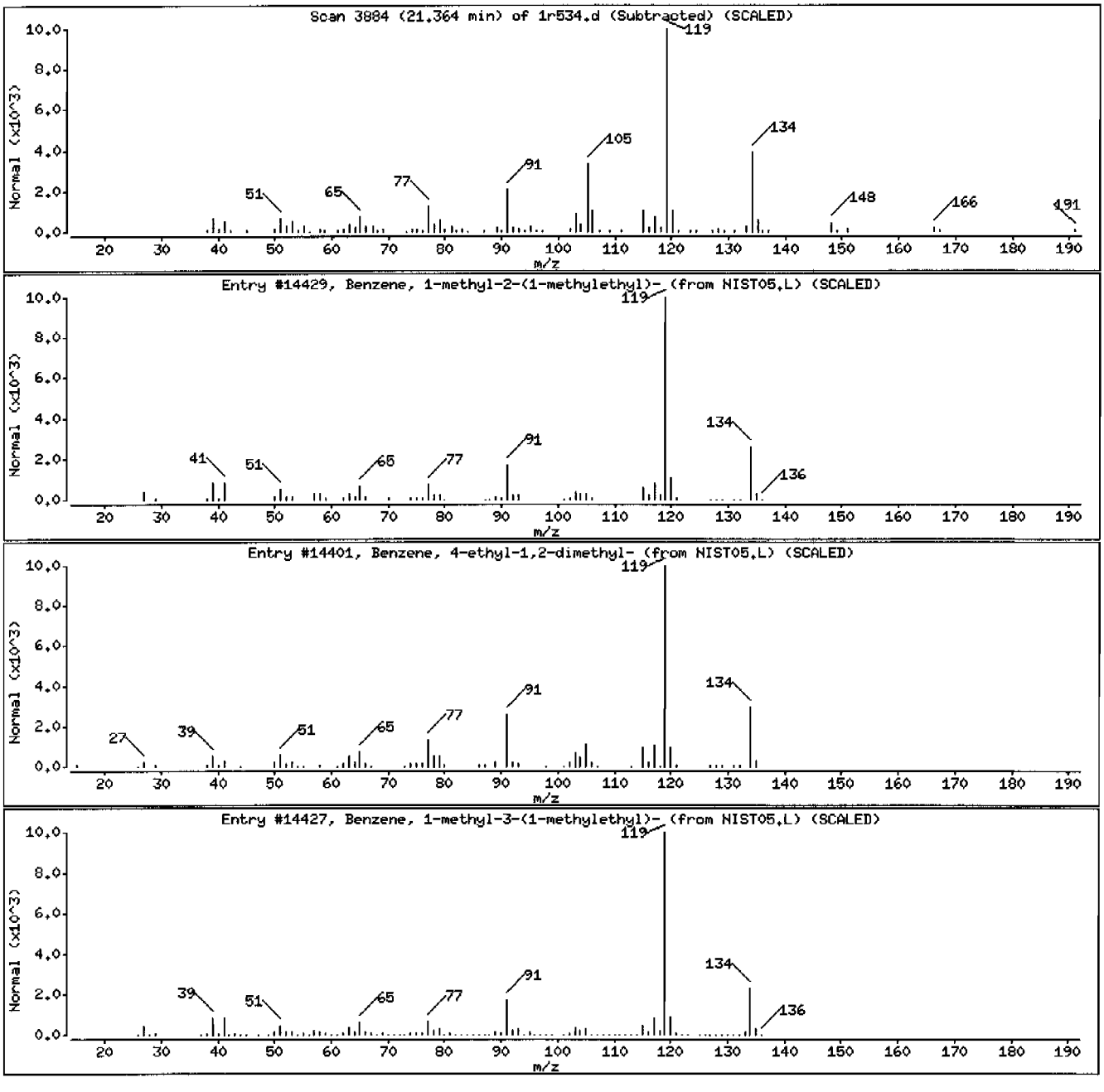

Data File: /chem/VOA1.i/121809v1/1r534.d

Date : 19-DEC-2009 03:23

Client ID: RE03-09-14213

Instrument: VOA1.i

Sample Info: |242937001|934728|1|VOAF|1|

Operator: RXM4

Column phase: RTX-Volatiles

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Hydrocarbon						
2-Ethyl-2-methyl-1,3-dithiolane	6008-81-7	NIST05.L	22115	38	C6H12S2	148
Benzene, (1,1-dimethylpropyl)-	2049-95-8	NIST05.L	21915	38	C11H16	148
Benzene, 1-ethyl-2,3-dimethyl-	933-98-2	NIST05.L	14387	30	C10H14	134

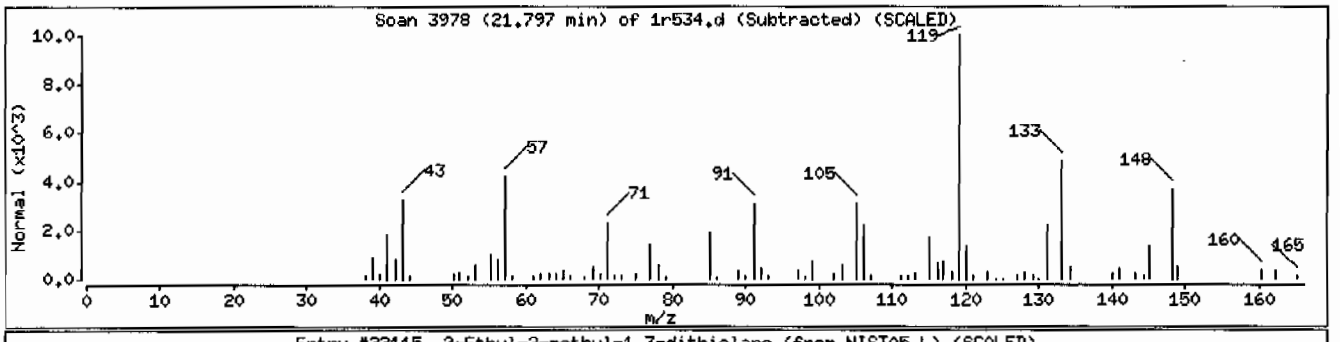

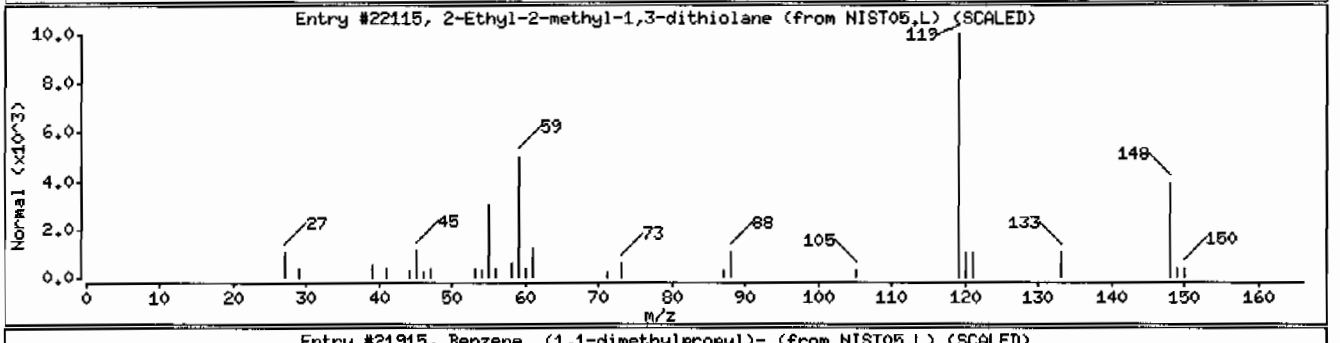

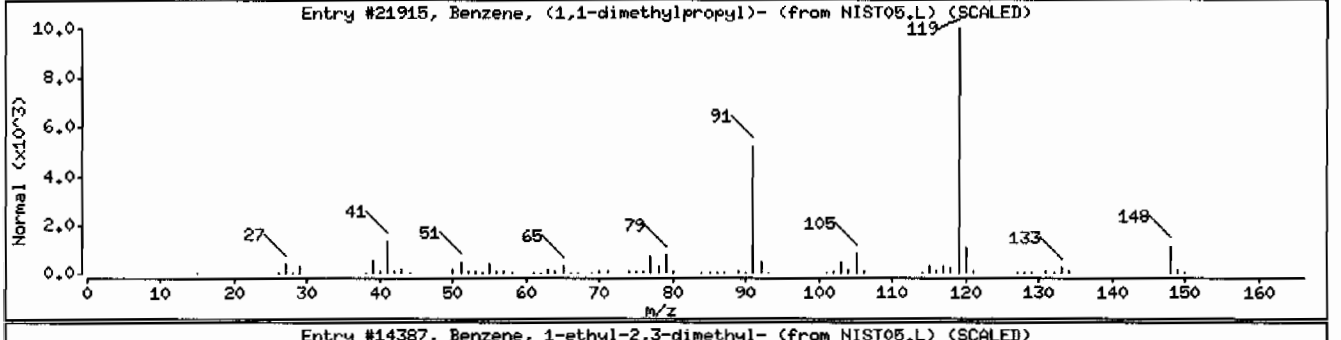

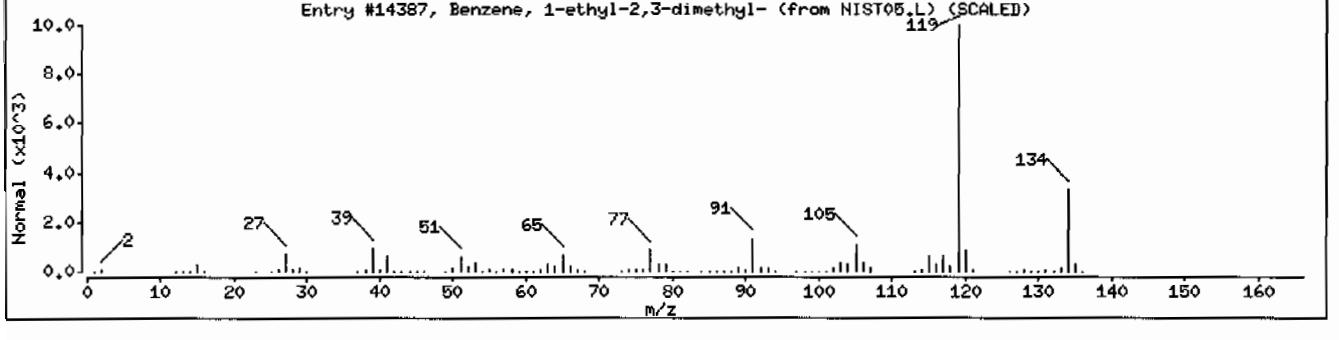

Data File: /chem/VOA1.i/121809v1/1r534.d

Date : 19-DEC-2009 03:23

Client ID: RE03-09-14213

Instrument: VOA1.i

Sample Info: |2429370011934728|1|VOAF|1|

Operator: RXH4

Column phase: RTX-Volatiles

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Hydrocarbon						
Oxalic acid, 2-ethylhexyl nonyl ester	1000309-39-2	NIST05.L	141292	35	C19H3604	328
Nonane, 3-methyl-	5911-04-6	NIST05.L	18496	27	C10H22	142
Pentanoic acid, 2-methyl-, 1-methylpropy	57983-17-2	NIST05.L	37631	27	C10H2002	172

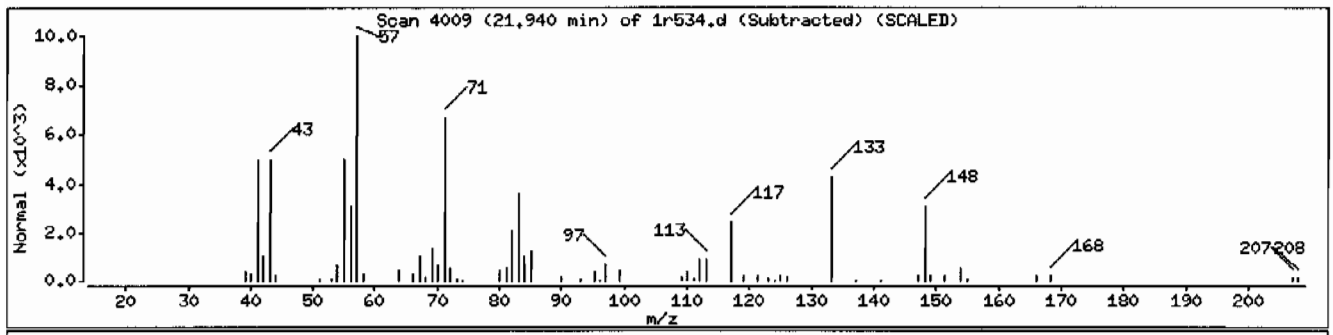

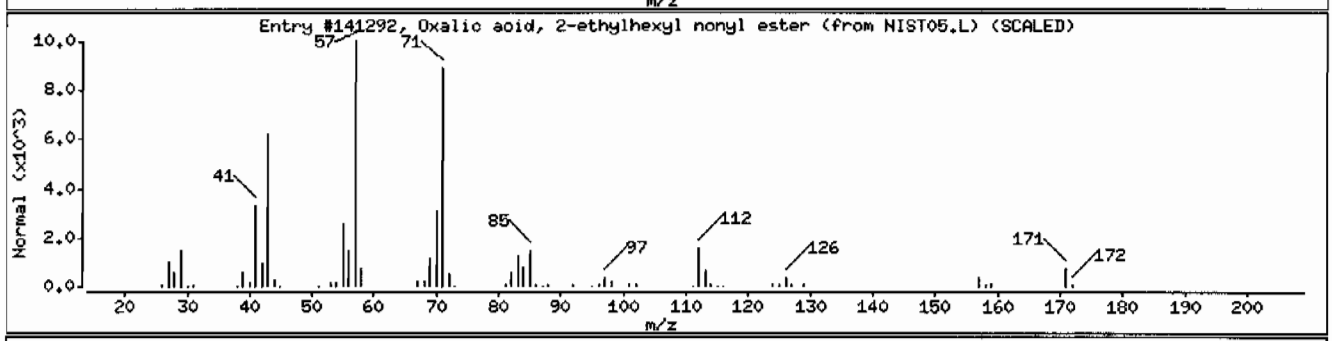

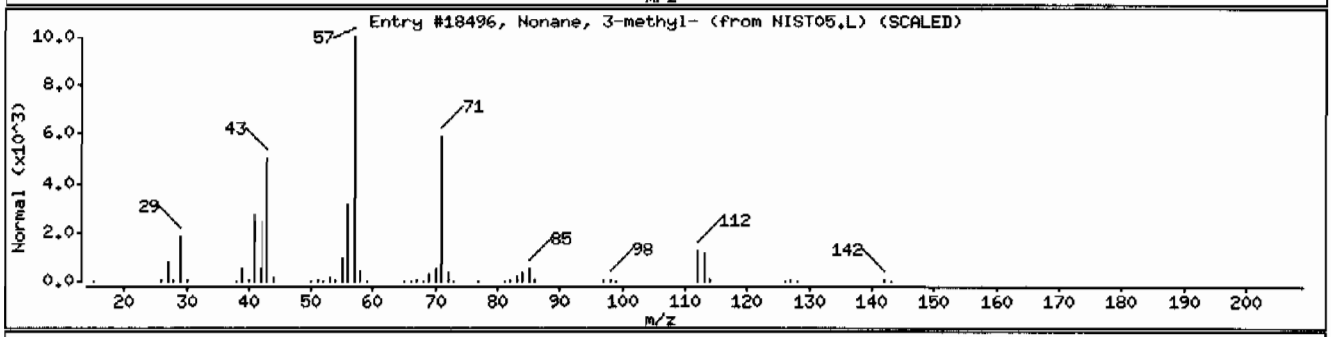

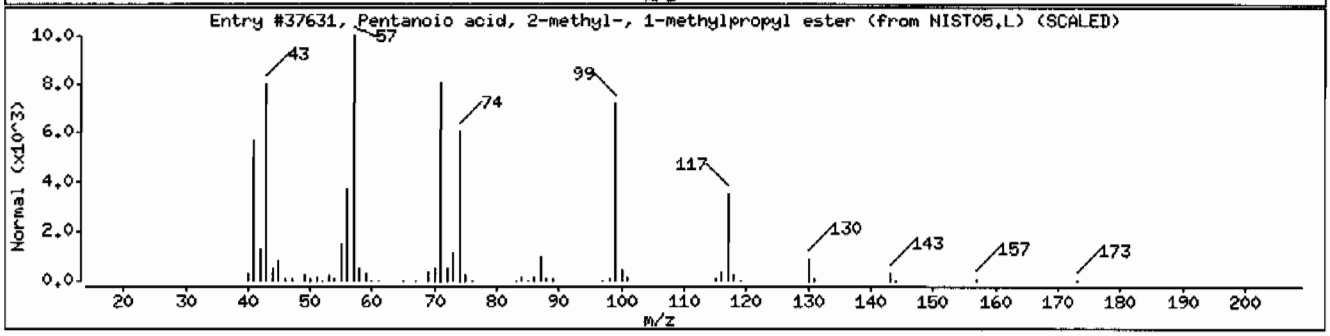

Data File: /chem/VOA1.i/121809v1/1r534.d

Date : 19-DEC-2009 03:23

Client ID: RE03-09-14213 Instrument: VOA1.i

Sample Info: |2429370011934728|1|VOAF|1|

Operator: RXM4

Column phase: RTX-Volatiles Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Hydrocarbon						
Benzene, 1-(1,1-dimethylethyl)-3-methyl-	1075-38-3	NIST05.L	21940	49	C11H16	148
Benzene, 1-ethyl-3-(1-methylethyl)-	4920-99-4	NIST05.L	21921	46	C11H16	148
Phenol, 2-(2-methyl-2-propenyl)-	20944-88-1	NIST05.L	21797	46	C10H12O	148

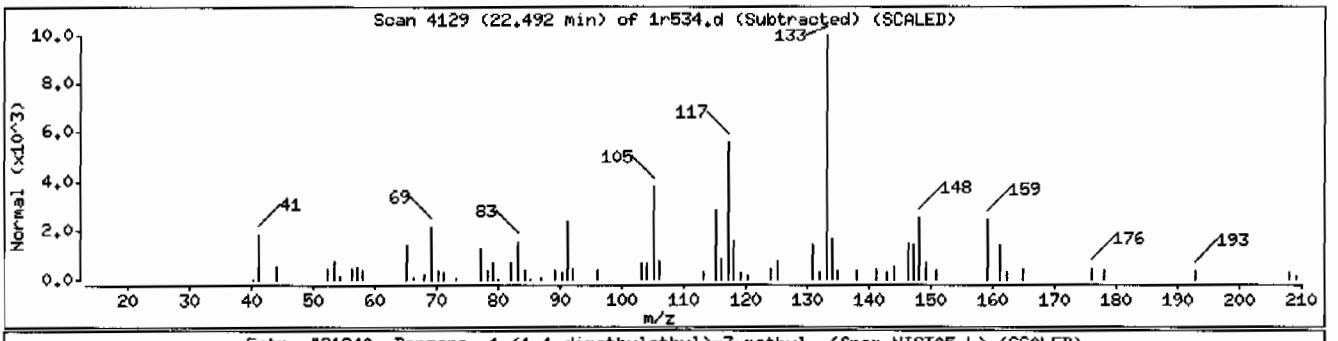

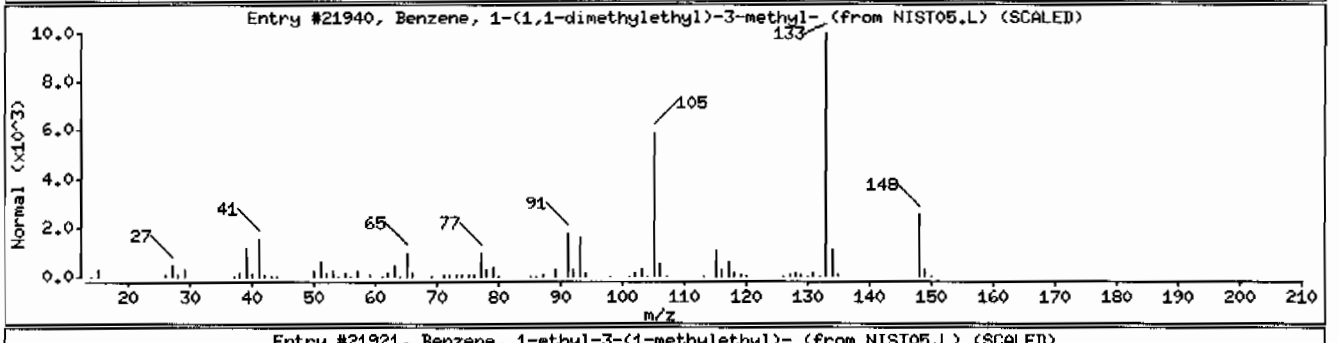

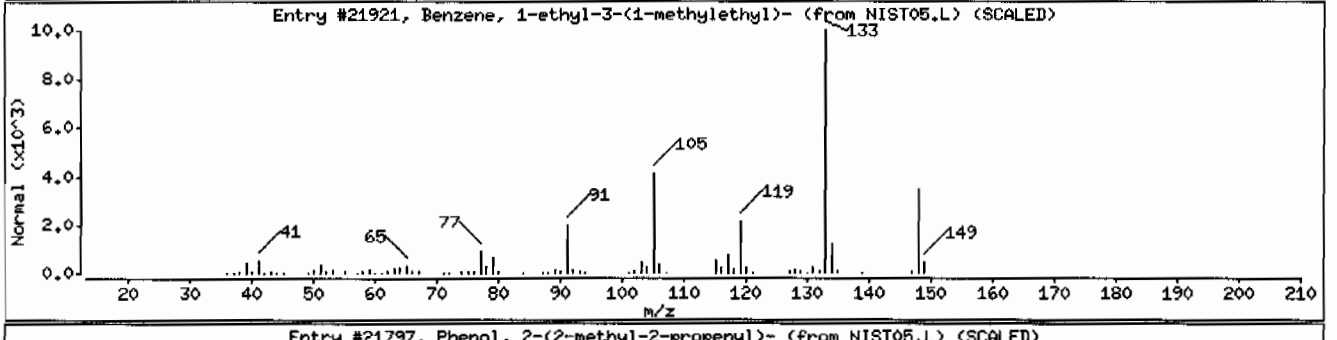

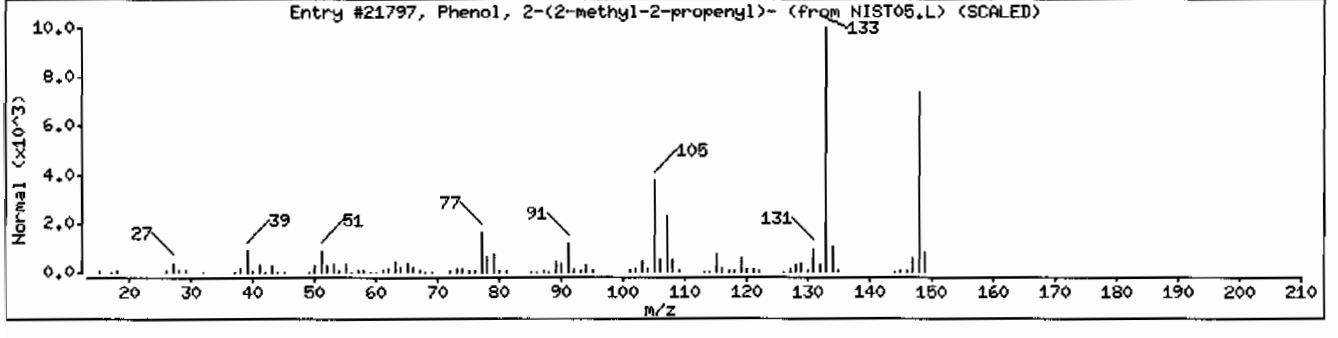

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-917**	**Date Collected:**	**12/11/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242937007**	**Date Received:**	**12/15/2009 08:45**	**%Moisture:**	**13.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14214**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**934728**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**12/19/2009 06:26**	**Analyst:**	**RXM4**	**Purge Vol:**	**5 mL**
Prep Date:	**12/18/2009 14:14**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1r540.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.16	ug/kg	0.394	1.16
74-87-3	Chloromethane	U	1.16	ug/kg	0.348	1.16
75-01-4	Vinyl chloride	U	1.16	ug/kg	0.348	1.16
74-83-9	Bromomethane	U	1.16	ug/kg	0.348	1.16
75-00-3	Chloroethane	U	1.16	ug/kg	0.348	1.16
75-69-4	Trichlorofluoromethane	U	1.16	ug/kg	0.348	1.16
67-64-1	Acetone	J	4.18	ug/kg	1.93	5.80
75-35-4	1,1-Dichloroethylene	U	1.16	ug/kg	0.348	1.16
74-88-4	Iodomethane	U	5.80	ug/kg	1.86	5.80
75-09-2	Methylene chloride	U	5.80	ug/kg	2.32	5.80
75-15-0	Carbon disulfide	U	5.80	ug/kg	1.45	5.80
156-60-5	trans-1,2-Dichloroethylene	U	1.16	ug/kg	0.348	1.16
75-34-3	1,1-Dichloroethane	U	1.16	ug/kg	0.348	1.16
78-93-3	2-Butanone	U	5.80	ug/kg	1.74	5.80
156-59-2	cis-1,2-Dichloroethylene	U	1.16	ug/kg	0.348	1.16
594-20-7	2,2-Dichloropropane	U	1.16	ug/kg	0.348	1.16
67-66-3	Chloroform	U	1.16	ug/kg	0.348	1.16
74-97-5	Bromochloromethane	U	1.16	ug/kg	0.383	1.16
71-55-6	1,1,1-Trichloroethane	U	1.16	ug/kg	0.348	1.16
563-58-6	1,1-Dichloropropene	U	1.16	ug/kg	0.348	1.16
56-23-5	Carbon tetrachloride	U	1.16	ug/kg	0.348	1.16
107-06-2	1,2-Dichloroethane	U	1.16	ug/kg	0.348	1.16
71-43-2	Benzene	U	1.16	ug/kg	0.348	1.16
79-01-6	Trichloroethylene	U	1.16	ug/kg	0.383	1.16
78-87-5	1,2-Dichloropropane	U	1.16	ug/kg	0.348	1.16
75-27-4	Bromodichloromethane	U	1.16	ug/kg	0.348	1.16
74-95-3	Dibromomethane	U	1.16	ug/kg	0.348	1.16
108-10-1	4-Methyl-2-pentanone	U	5.80	ug/kg	1.45	5.80
10061-01-5	cis-1,3-Dichloropropylene	U	1.16	ug/kg	0.348	1.16
108-88-3	Toluene	U	1.16	ug/kg	0.348	1.16
10061-02-6	trans-1,3-Dichloropropylene	U	1.16	ug/kg	0.348	1.16
79-00-5	1,1,2-Trichloroethane	U	1.16	ug/kg	0.348	1.16
591-78-6	2-Hexanone	U	5.80	ug/kg	1.74	5.80
142-28-9	1,3-Dichloropropane	U	1.16	ug/kg	0.348	1.16
127-18-4	Tetrachloroethylene	U	1.16	ug/kg	0.348	1.16
124-48-1	Dibromochloromethane	U	1.16	ug/kg	0.348	1.16
106-93-4	1,2-Dibromoethane	U	1.16	ug/kg	0.348	1.16
108-90-7	Chlorobenzene	U	1.16	ug/kg	0.348	1.16

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-917**	**Date Collected:**	**12/11/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242937007**	**Date Received:**	**12/15/2009 08:45**	**%Moisture:**	**13.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14214**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**934728**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**12/19/2009 06:26**	**Analyst:**	**RXM4**	**Purge Vol:**	**5 mL**
Prep Date:	**12/18/2009 14:14**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1r540.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.16	ug/kg	0.348	1.16
179601-23-1	m,p-Xylenes	U	2.32	ug/kg	0.348	2.32
95-47-6	o-Xylene	U	1.16	ug/kg	0.348	1.16
100-42-5	Styrene	U	1.16	ug/kg	0.348	1.16
75-25-2	Bromoform	U	1.16	ug/kg	0.348	1.16
79-34-5	1,1,2,2-Tetrachloroethane	U	1.16	ug/kg	0.348	1.16
96-18-4	1,2,3-Trichloropropane	U	1.16	ug/kg	0.348	1.16
108-86-1	Bromobenzene	U	1.16	ug/kg	0.348	1.16
103-65-1	n-Propylbenzene	U	1.16	ug/kg	0.348	1.16
95-49-8	2-Chlorotoluene	U	1.16	ug/kg	0.348	1.16
98-82-8	Isopropylbenzene	U	1.16	ug/kg	0.348	1.16
108-67-8	1,3,5-Trimethylbenzene	U	1.16	ug/kg	0.348	1.16
106-43-4	4-Chlorotoluene	U	1.16	ug/kg	0.348	1.16
98-06-6	tert-Butylbenzene	U	1.16	ug/kg	0.348	1.16
95-63-6	1,2,4-Trimethylbenzene	U	1.16	ug/kg	0.348	1.16
135-98-8	sec-Butylbenzene	U	1.16	ug/kg	0.348	1.16
99-87-6	4-Isopropyltoluene	U	1.16	ug/kg	0.348	1.16
541-73-1	1,3-Dichlorobenzene	U	1.16	ug/kg	0.348	1.16
106-46-7	1,4-Dichlorobenzene	U	1.16	ug/kg	0.348	1.16
104-51-8	n-Butylbenzene	U	1.16	ug/kg	0.348	1.16
96-12-8	1,2-Dibromo-3-chloropropane	U	1.16	ug/kg	0.348	1.16
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.80	ug/kg	1.86	5.80
630-20-6	1,1,1,2-Tetrachloroethane	U	1.16	ug/kg	0.348	1.16
95-50-1	1,2-Dichlorobenzene	U	1.16	ug/kg	0.348	1.16

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Hydrocarbon	18.07	6.2	ug/kg		J

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/121809v1/1r540.d
Lab Smp Id: 242937007 Client Smp ID: RE03-09-14214
Inj Date : 19-DEC-2009 06:26
Operator : RXM4 Inst ID: VOA1.i
Smp Info : |242937007|934728|1|VOAF|1|
Misc Info : LANL 5G N/A
Comment :
Method : /chem/VOA1.i/121809v1/VOA1-8260ox-121709PM.m
Meth Date : 19-Dec-2009 14:30 ron01469 Quant Type: ISTD
Cal Date : 17-DEC-2009 21:57 Cal File: 1r426.d
Als bottle: 40
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-917.sub
Target Version: 3.50

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	13.78090	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
* 52 Fluorobenzene	96	13.686	13.686	(1.000)	742680	50.0000	
* 76 Chlorobenzene-d5	117	17.157	17.162	(1.000)	508004	50.0000	
* 102 1,4-Dichlorobenzene-d4	152	19.610	19.610	(1.000)	265726	50.0000	
$ 48 1,2-Dichloroethane-d4	65	13.341	13.341	(0.975)	506135	56.2441	65.2
$ 65 Toluene-d8	98	15.518	15.518	(0.904)	1518937	52.3565	60.7
$ 87 Bromofluorobenzene	95	18.386	18.386	(0.938)	578492	52.9658	61.4
16 Acetone	43	9.267	9.258	(0.677)	16186	3.60256	4.2(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

ION RATIO REPORT

VOA REPORT

Data file: 1r540.d
Report Date: 12/19/2009 14:34
Lab. ID: 242937007 SampleType: SAMPLE
Injection Date: 19-DEC-2009 06:26
Operator: RXM4 Instrument: VOA1.i
Sample Info: |242937007|934728|1|VOAF|1|
Miscellaneous Info: LANL 5G N/A
Comment:
Method used: /chem/VOA1.i/121809v1/VOA1-8260ox-121709PM.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-917
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
16 Acetone			CAS#: 67-64-1			
43	16186	9.27	9.26	80-120	100	( )
58	4679	9.26	9.26	3- 63	29	( )
51 1,2-Dichloroethane			CAS#: 107-06-2			
62	12686	13.69	13.44	80-120	100	(T)
64	1928	13.69	13.44	2- 62	15	(T)
64 4-Methyl-2-pentanone			CAS#: 108-10-1			
58	14678	15.51	15.36	80-120	100	(T)
43	7510	15.52	15.36	206-266	51	(QT)
100	963169	15.52	15.36	0- 59	6562	(QT)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/121809v1/1r540.d
Lab Smp Id: 242937007 Client Smp ID: RE03-09-14214
Inj Date : 19-DEC-2009 06:26
Operator : RXM4 Inst ID: VOA1.i
Smp Info : |242937007|934728|1|VOAF|1|
Misc Info : LANL 5G N/A
Comment :
Method : /chem/VOA1.i/121809v1/VOA1-8260ox-121709PM.m
Meth Date : 19-Dec-2009 14:30 ron01469 Quant Type: ISTD
Cal Date : 17-DEC-2009 21:57 Cal File: 1r426.d
Als bottle: 40
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-917.sub
Target Version: 3.50

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	13.78090	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 76 Chlorobenzene-d5	17.157	1683273	50.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ug/l)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown Hydrocarbon					CAS #:		
18.068	179955	5.34537457	6.2	0		0	76

Data File: /chem/VOA1.i/121809v1/1r540.d
Date : 19-DEC-2009 06:26
Client ID: RE03-09-14214
Sample Info: |2429370071934728|1|VOAF|1|

Column phase: RTX-Volatiles

Instrument: VOA1.i

Operator: RXM4
Column diameter: 0.25

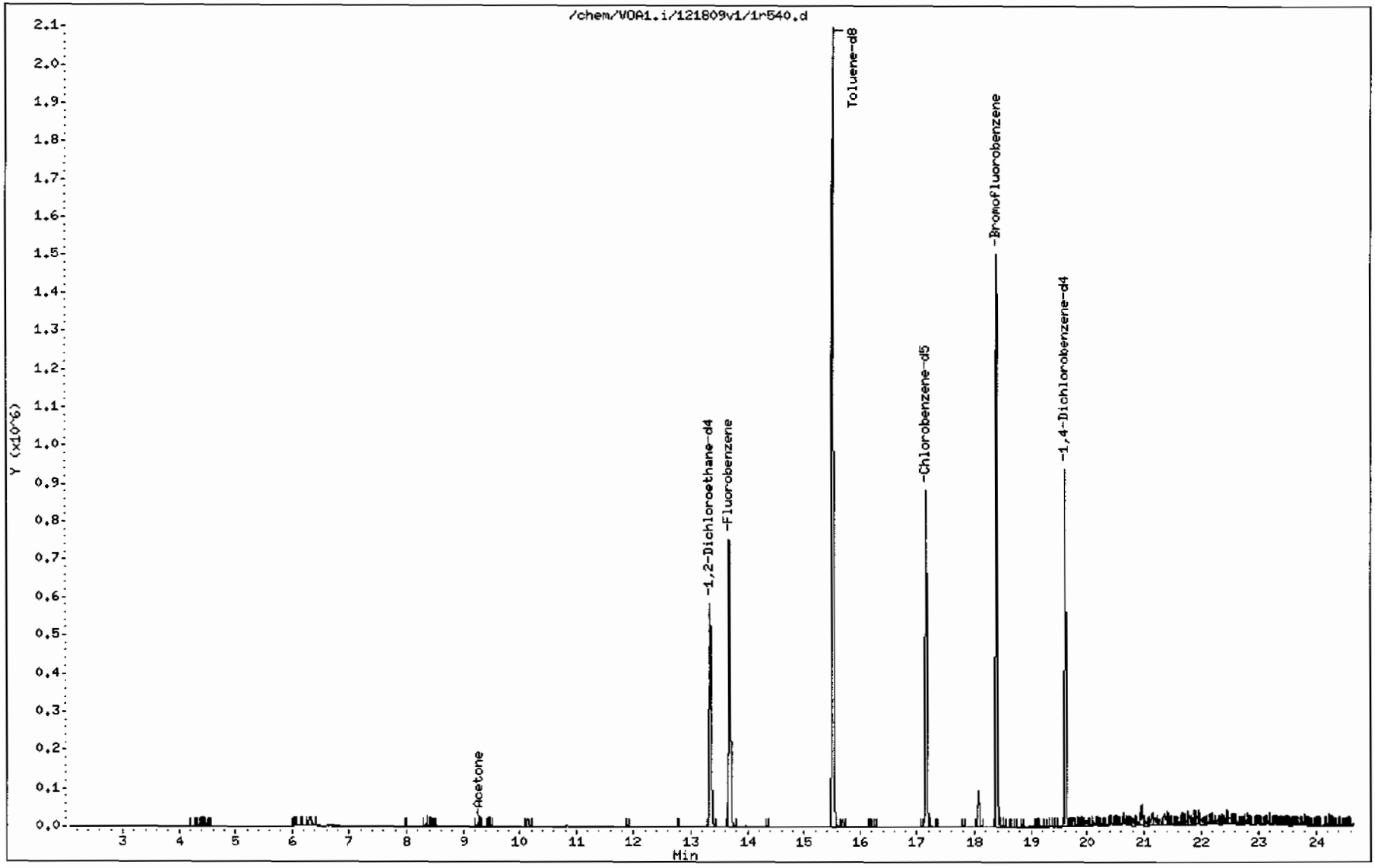

Data File: /chem/VOA1.i/121809v1/1r540.d

Date : 19-DEC-2009 06:26

Client ID: RE03-09-14214

Instrument: VOA1.i

Sample Info: |2429370071934728|1|VOAF|1|

Operator: RXM4

Column phase: RTX-Volatiles

Column diameter: 0.25

16 Acetone

Concentration: 4.2 ug/Kg

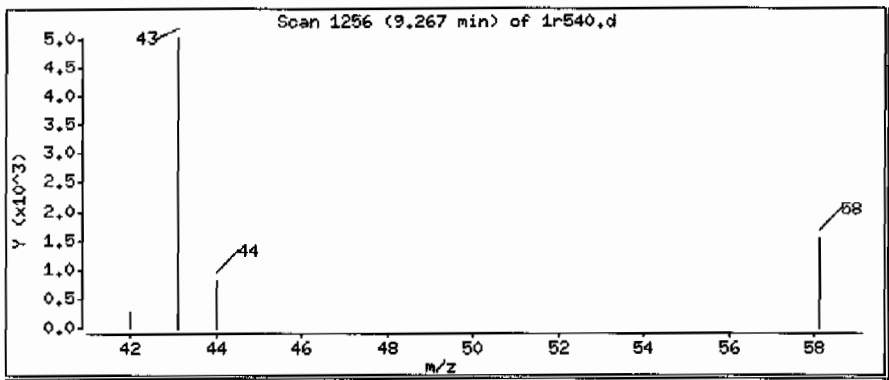

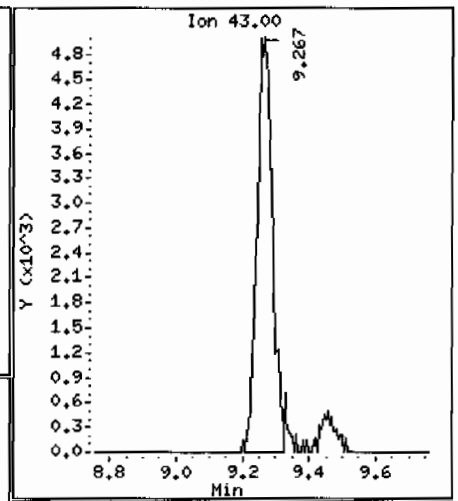

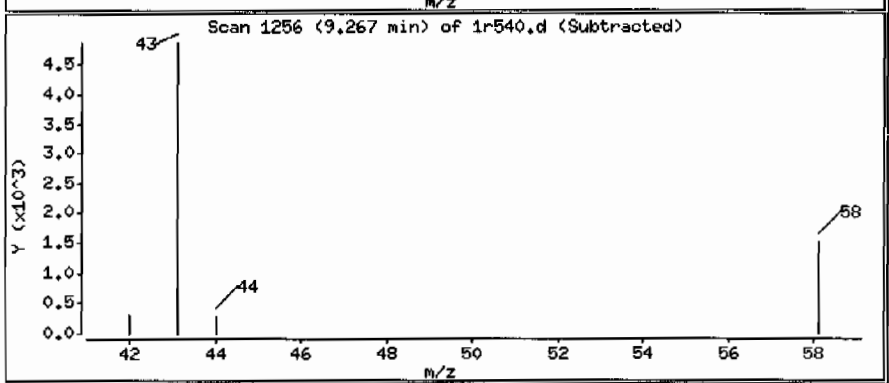

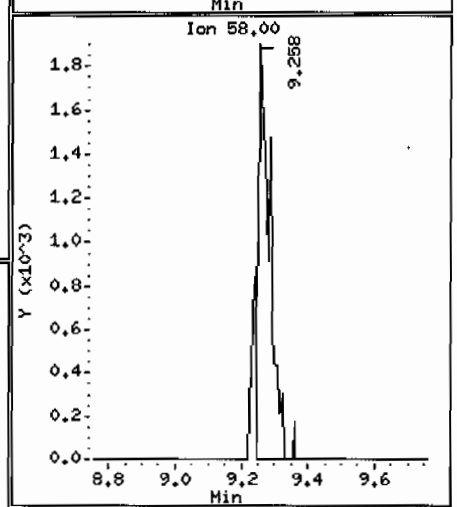

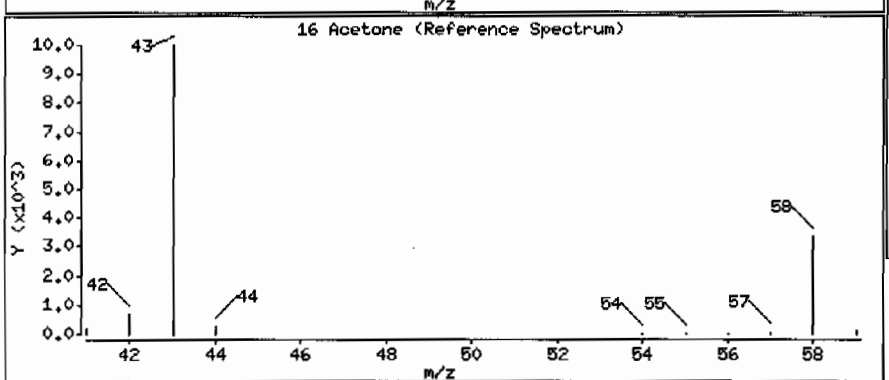

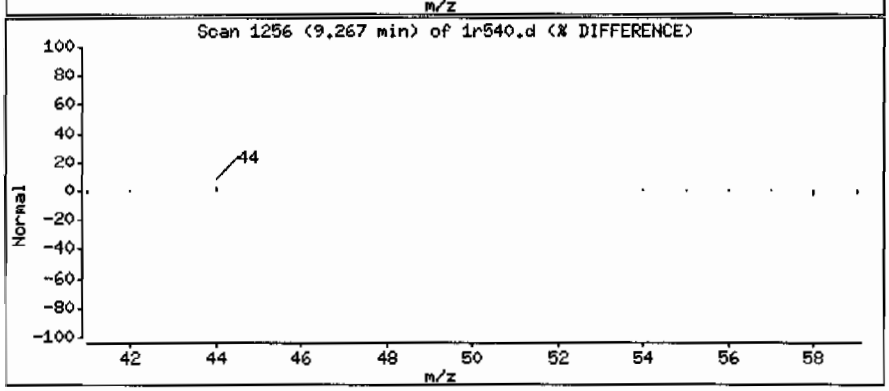

Data File: /chem/VOA1.i/121809v1/1r540.d

Date : 19-DEC-2009 06:26

Client ID: RE03-09-14214

Instrument: VOA1.i

Sample Info: |2429370071934728|1|VOAF|1|

Operator: RXM4

Column phase: RTX-Volatiles

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Hydrocarbon						
Cyclotrisiloxane, hexamethyl-	541-05-9	NIST05.L	73123	38	C6H18O3Si3	222
4-Pyridinecarboxylic acid, 2,6-dichloro-	5398-44-7	NIST05.L	50668	30	C6H3Cl2NO2	191
Anthracene, 9,10-dihydro-9,10-dimethyl-	22566-43-4	NIST05.L	63100	25	C16H16	208

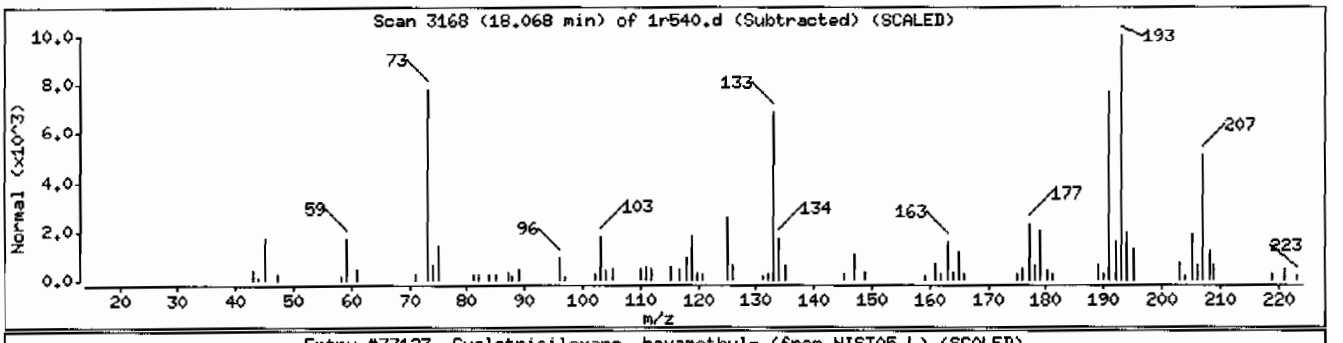

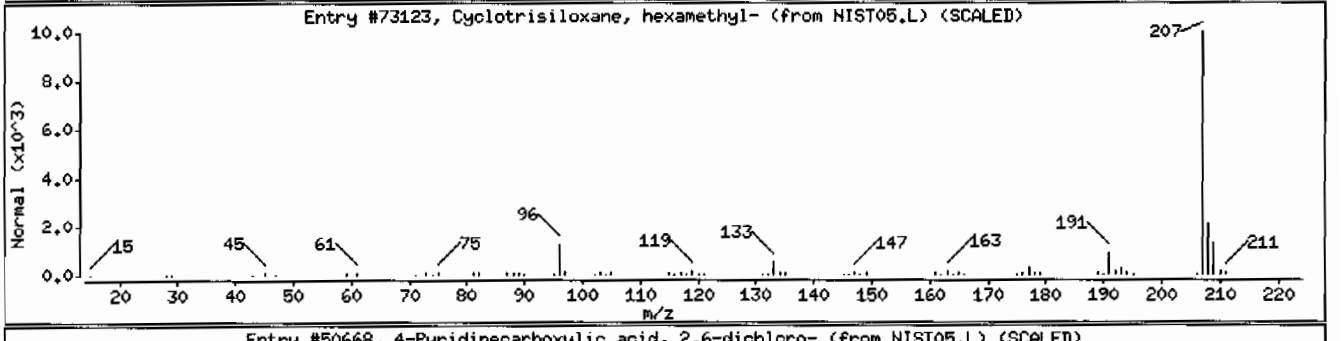

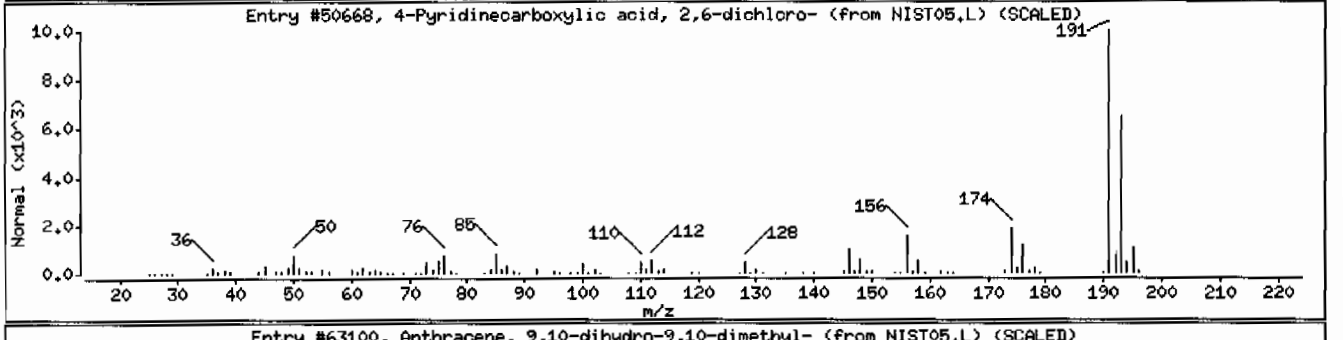

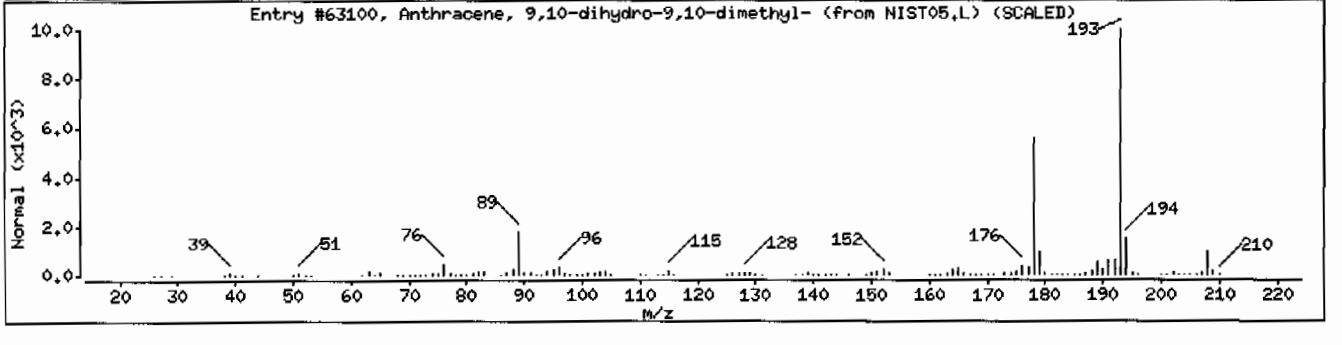

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-917	**Date Collected:**	12/11/2009 12:00	**Matrix:**	S
Lab Sample ID:	242937002	**Date Received:**	12/15/2009 08:45	**%Moisture:**	10.3
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14215	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	934728	**Inst:**	VOA1.I	**Dilution:**	1
Run Date:	12/19/2009 03:54	**Analyst:**	RXM4	**Purge Vol:**	5 mL
Prep Date:	12/18/2009 14:09	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	1r535.d	**Column:**	RTX-Volatiles	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.11	ug/kg	0.379	1.11
74-87-3	Chloromethane	U	1.11	ug/kg	0.334	1.11
75-01-4	Vinyl chloride	U	1.11	ug/kg	0.334	1.11
74-83-9	Bromomethane	U	1.11	ug/kg	0.334	1.11
75-00-3	Chloroethane	U	1.11	ug/kg	0.334	1.11
75-69-4	Trichlorofluoromethane	U	1.11	ug/kg	0.334	1.11
67-64-1	Acetone	J	4.39	ug/kg	1.85	5.57
75-35-4	1,1-Dichloroethylene	U	1.11	ug/kg	0.334	1.11
74-88-4	Iodomethane	U	5.57	ug/kg	1.78	5.57
75-09-2	Methylene chloride	J	2.34	ug/kg	2.23	5.57
75-15-0	Carbon disulfide	U	5.57	ug/kg	1.39	5.57
156-60-5	trans-1,2-Dichloroethylene	U	1.11	ug/kg	0.334	1.11
75-34-3	1,1-Dichloroethane	U	1.11	ug/kg	0.334	1.11
78-93-3	2-Butanone	U	5.57	ug/kg	1.67	5.57
156-59-2	cis-1,2-Dichloroethylene	U	1.11	ug/kg	0.334	1.11
594-20-7	2,2-Dichloropropane	U	1.11	ug/kg	0.334	1.11
67-66-3	Chloroform	U	1.11	ug/kg	0.334	1.11
74-97-5	Bromochloromethane	U	1.11	ug/kg	0.368	1.11
71-55-6	1,1,1-Trichloroethane	U	1.11	ug/kg	0.334	1.11
563-58-6	1,1-Dichloropropene	U	1.11	ug/kg	0.334	1.11
56-23-5	Carbon tetrachloride	U	1.11	ug/kg	0.334	1.11
107-06-2	1,2-Dichloroethane	U	1.11	ug/kg	0.334	1.11
71-43-2	Benzene	U	1.11	ug/kg	0.334	1.11
79-01-6	Trichloroethylene	U	1.11	ug/kg	0.368	1.11
78-87-5	1,2-Dichloropropane	U	1.11	ug/kg	0.334	1.11
75-27-4	Bromodichloromethane	U	1.11	ug/kg	0.334	1.11
74-95-3	Dibromomethane	U	1.11	ug/kg	0.334	1.11
108-10-1	4-Methyl-2-pentanone	U	5.57	ug/kg	1.39	5.57
10061-01-5	cis-1,3-Dichloropropylene	U	1.11	ug/kg	0.334	1.11
108-88-3	Toluene	U	1.11	ug/kg	0.334	1.11
10061-02-6	trans-1,3-Dichloropropylene	U	1.11	ug/kg	0.334	1.11
79-00-5	1,1,2-Trichloroethane	U	1.11	ug/kg	0.334	1.11
591-78-6	2-Hexanone	U	5.57	ug/kg	1.67	5.57
142-28-9	1,3-Dichloropropane	U	1.11	ug/kg	0.334	1.11
127-18-4	Tetrachloroethylene	U	1.11	ug/kg	0.334	1.11
124-48-1	Dibromochloromethane	U	1.11	ug/kg	0.334	1.11
106-93-4	1,2-Dibromoethane	U	1.11	ug/kg	0.334	1.11
108-90-7	Chlorobenzene	U	1.11	ug/kg	0.334	1.11

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-917**	**Date Collected:**	**12/11/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242937002**	**Date Received:**	**12/15/2009 08:45**	**%Moisture:**	**10.3**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14215**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**934728**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**12/19/2009 03:54**	**Analyst:**	**RXM4**	**Purge Vol:**	**5 mL**
Prep Date:	**12/18/2009 14:09**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1r535.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.11	ug/kg	0.334	1.11
179601-23-1	m,p-Xylenes	U	2.23	ug/kg	0.334	2.23
95-47-6	o-Xylene	U	1.11	ug/kg	0.334	1.11
100-42-5	Styrene	U	1.11	ug/kg	0.334	1.11
75-25-2	Bromoform	U	1.11	ug/kg	0.334	1.11
79-34-5	1,1,2,2-Tetrachloroethane	U	1.11	ug/kg	0.334	1.11
96-18-4	1,2,3-Trichloropropane	U	1.11	ug/kg	0.334	1.11
108-86-1	Bromobenzene	U	1.11	ug/kg	0.334	1.11
103-65-1	n-Propylbenzene	U	1.11	ug/kg	0.334	1.11
95-49-8	2-Chlorotoluene	U	1.11	ug/kg	0.334	1.11
98-82-8	Isopropylbenzene	U	1.11	ug/kg	0.334	1.11
108-67-8	1,3,5-Trimethylbenzene	U	1.11	ug/kg	0.334	1.11
106-43-4	4-Chlorotoluene	U	1.11	ug/kg	0.334	1.11
98-06-6	tert-Butylbenzene	U	1.11	ug/kg	0.334	1.11
95-63-6	1,2,4-Trimethylbenzene	U	1.11	ug/kg	0.334	1.11
135-98-8	sec-Butylbenzene	U	1.11	ug/kg	0.334	1.11
99-87-6	4-Isopropyltoluene	U	1.11	ug/kg	0.334	1.11
541-73-1	1,3-Dichlorobenzene	U	1.11	ug/kg	0.334	1.11
106-46-7	1,4-Dichlorobenzene	U	1.11	ug/kg	0.334	1.11
104-51-8	n-Butylbenzene	U	1.11	ug/kg	0.334	1.11
96-12-8	1,2-Dibromo-3-chloropropane	U	1.11	ug/kg	0.334	1.11
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.57	ug/kg	1.78	5.57
630-20-6	1,1,1,2-Tetrachloroethane	U	1.11	ug/kg	0.334	1.11
95-50-1	1,2-Dichlorobenzene	U	1.11	ug/kg	0.334	1.11

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Hydrocarbon	18.07	5.97	ug/kg		J
112-40-3	Dodecane	20.97	7.96	ug/kg	87	NJ
934-74-7	Benzene, 1-ethyl-3,5-dimethyl-	21.36	5.75	ug/kg	95	NJ
	Unknown Hydrocarbon	21.8	6.16	ug/kg		J
	Unknown Hydrocarbon	21.94	6.14	ug/kg		J

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/121809v1/1r535.d
Lab Smp Id: 242937002 Client Smp ID: RE03-09-14215
Inj Date : 19-DEC-2009 03:54
Operator : RXM4 Inst ID: VOA1.i
Smp Info : |242937002|934728|1|VOAF|1|
Misc Info : LANL 5G N/A
Comment :
Method : /chem/VOA1.i/121809v1/VOA1-8260ox-121709PM.m
Meth Date : 19-Dec-2009 14:30 ron01469 Quant Type: ISTD
Cal Date : 17-DEC-2009 21:57 Cal File: 1r426.d
Als bottle: 35
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-917.sub
Target Version: 3.50

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	10.28450	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
* 52 Fluorobenzene	96	13.686	13.686	(1.000)	658732	50.0000	
* 76 Chlorobenzene-d5	117	17.157	17.162	(1.000)	458601	50.0000	
* 102 1,4-Dichlorobenzene-d4	152	19.611	19.610	(1.000)	239765	50.0000	
$ 48 1,2-Dichloroethane-d4	65	13.341	13.341	(0.975)	492704	61.7291	68.8
$ 65 Toluene-d8	98	15.518	15.518	(0.904)	1459658	55.7332	62.1
$ 87 Bromofluorobenzene	95	18.391	18.386	(0.938)	557634	56.5843	63.1
16 Acetone	43	9.268	9.258	(0.677)	15687	3.93645	4.4(a)
23 Methylene chloride	84	10.151	10.147	(0.742)	13162	2.10333	2.3(a)

QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).

ION RATIO REPORT

VOA REPORT

Data file: 1r535.d
Report Date: 12/19/2009 14:33
Lab. ID: 242937002 SampleType: SAMPLE
Injection Date: 19-DEC-2009 03:54
Operator: RXM4 Instrument: VOA1.i
Sample Info: |242937002|934728|1|VOAF|1|
Miscellaneous Info: LANL 5G N/A
Comment:
Method used: /chem/VOA1.i/121809v1/VOA1-8260ox-121709PM.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-917
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
16 Acetone			CAS#: 67-64-1			
43	15687	9.27	9.26	80-120	100	( )
58	4572	9.27	9.26	3- 63	29	( )
23 Methylene chloride			CAS#: 75-09-2			
84	13162	10.15	10.15	80-120	100	( )
86	8352	10.14	10.14	35- 95	63	( )
49	20612	10.14	10.15	121-181	157	( )
51 1,2-Dichloroethane			CAS#: 107-06-2			
62	10943	13.68	13.44	80-120	100	(T)
64	1818	13.68	13.44	2- 62	17	(T)
64 4-Methyl-2-pentanone			CAS#: 108-10-1			
58	14097	15.52	15.36	80-120	100	(T)
43	7152	15.51	15.36	206-266	51	(QT)
100	926083	15.52	15.36	0- 59	6569	(QT)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/121809v1/1r535.d
Lab Smp Id: 242937002 Client Smp ID: RE03-09-14215
Inj Date : 19-DEC-2009 03:54
Operator : RXM4 Inst ID: VOA1.i
Smp Info : |242937002|934728|1|VOAF|1|
Misc Info : LANL 5G N/A
Comment :
Method : /chem/VOA1.i/121809v1/VOA1-8260ox-121709PM.m
Meth Date : 19-Dec-2009 14:30 ron01469 Quant Type: ISTD
Cal Date : 17-DEC-2009 21:57 Cal File: 1r426.d
Als bottle: 35
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-917.sub
Target Version: 3.50

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	10.28450	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 76 Chlorobenzene-d5	17.157	1515961	50.000
* 102 1,4-Dichlorobenzene-d4	19.611	1547270	50.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ug/l)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown Hydrocarbon				CAS #:			
18.069	162393	5.35610549	6.0	0		0	76

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ug/l)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Dodecane				CAS #: 112-40-3			
20.968	221023	7.14236278	8.0	87	NIST05.L	36431	102
Benzene, 1-ethyl-3,5-dimethyl-				CAS #: 934-74-7			
21.364	159513	5.15465681	5.7	95	NIST05.L	14398	102
Unknown Hydrocarbon				CAS #:			
21.802	171030	5.52683301	6.2	0		0	102
Unknown Hydrocarbon				CAS #:			
21.935	170427	5.50735898	6.1	0		0	102

Data File: /chem/VOA1.i/121809v1/1r535.d
Date : 19-DEC-2009 03:54
Client ID: RE03-09-14215
Sample Info: |2429370021934728|1|VOAF|1|

Column phase: RTX-Volatiles

Instrument: VOA1.i

Operator: RXM4
Column diameter: 0.25

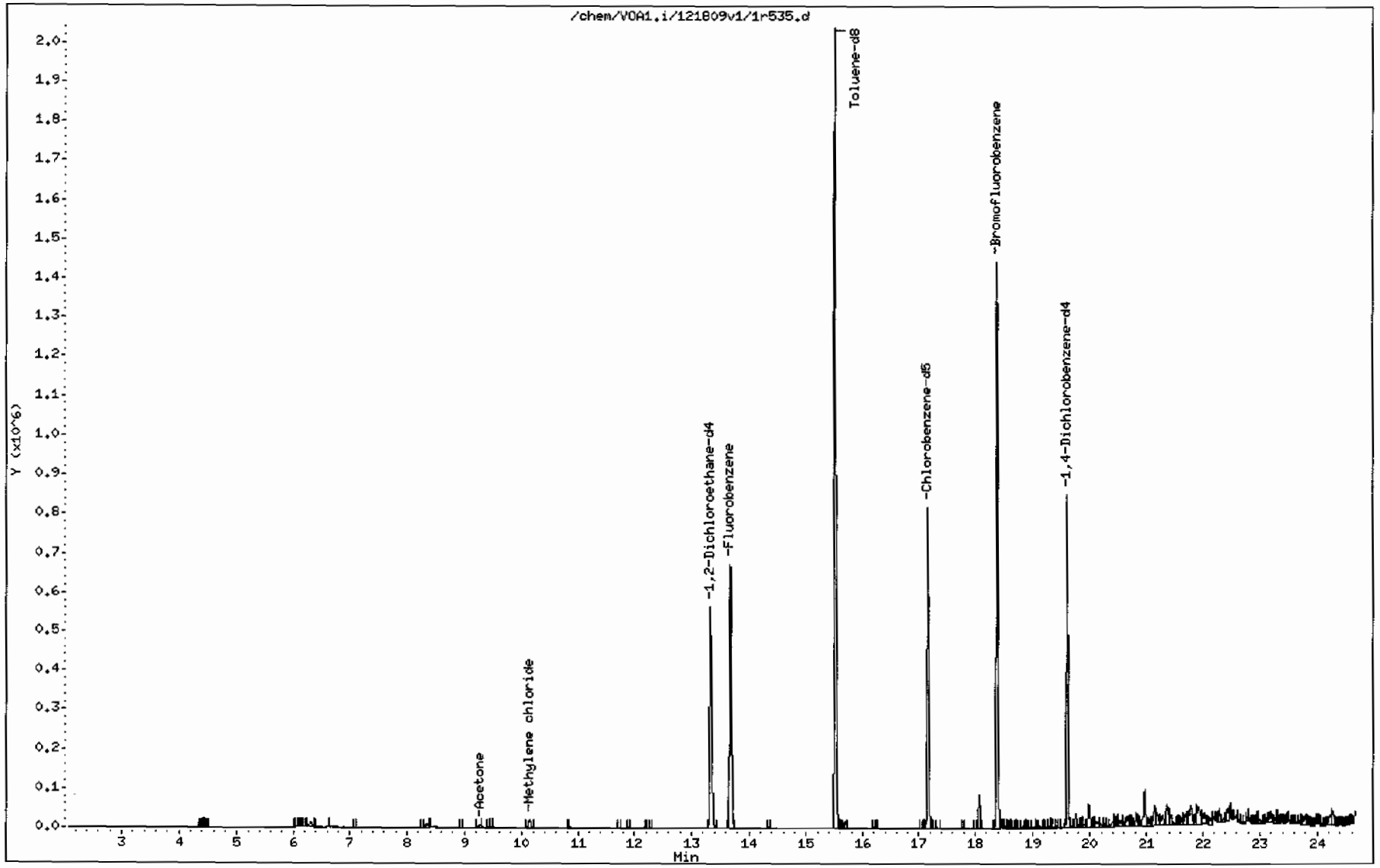

Data File: /chem/VOA1.i/121809v1/1r535.d

Date : 19-DEC-2009 03:54

Client ID: RE03-09-14215

Instrument: VOA1.i

Sample Info: |2429370021934728|1|VOAF|1|

Operator: RXM4

Column phase: RTX-Volatiles

Column diameter: 0.25

16 Acetone

Concentration: 4.4 ug/Kg

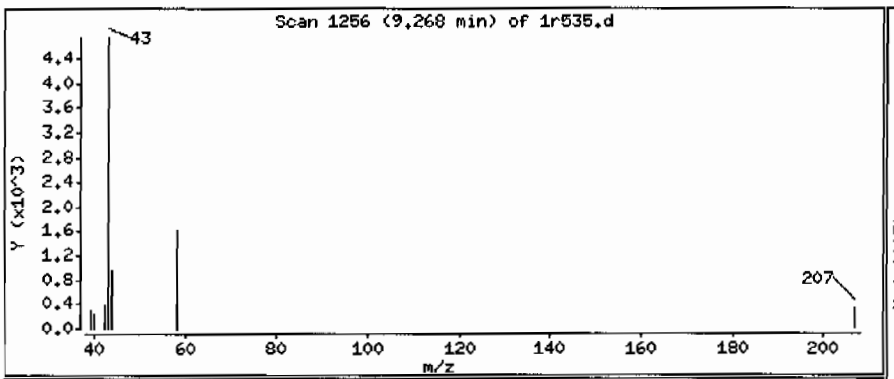

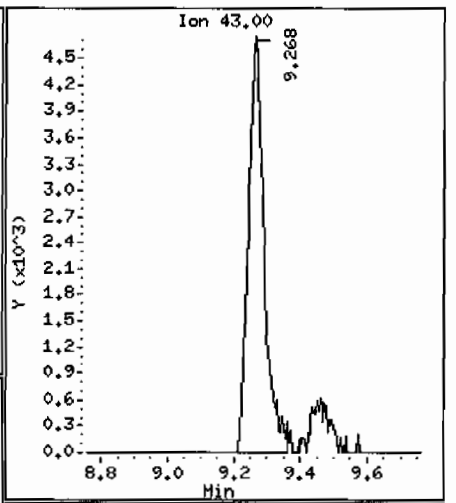

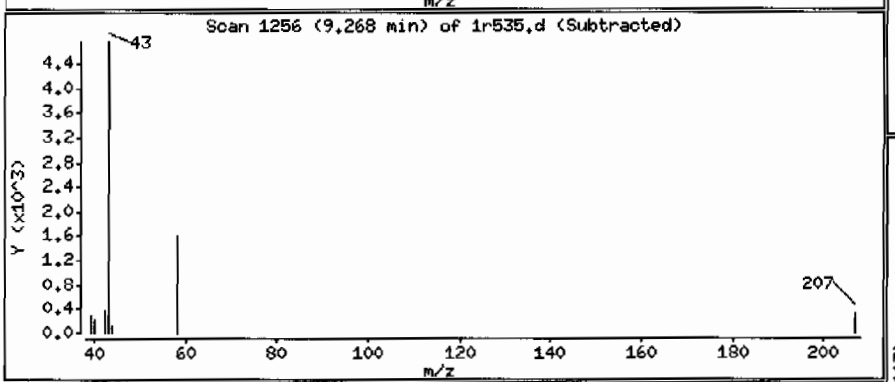

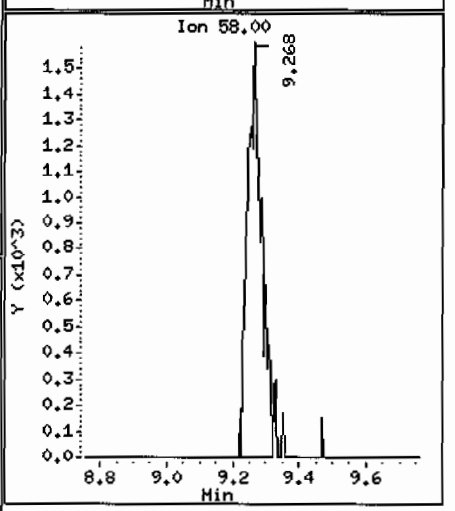

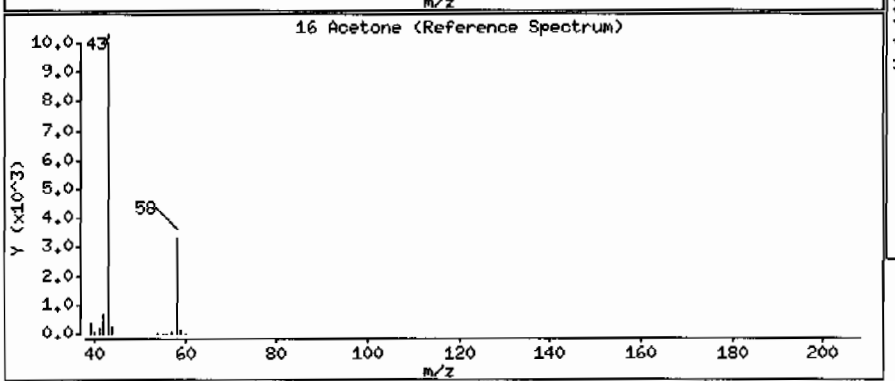

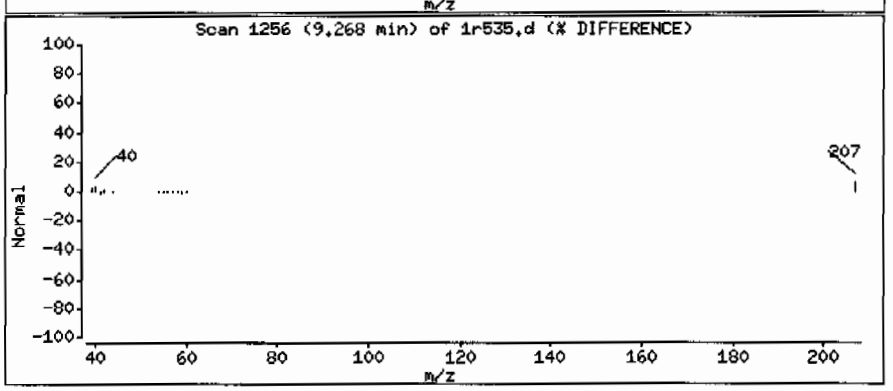

Data File: /chem/VOA1.i/121809v1/1r535.d

Date : 19-DEC-2009 03:54

Client ID: RE03-09-14215

Instrument: VOA1.i

Sample Info: |2429370021934728|1|VOAF|1|

Operator: RXM4

Column phase: RTX-Volatiles

Column diameter: 0.25

23 Methylene chloride

Concentration: 2.3 ug/Kg

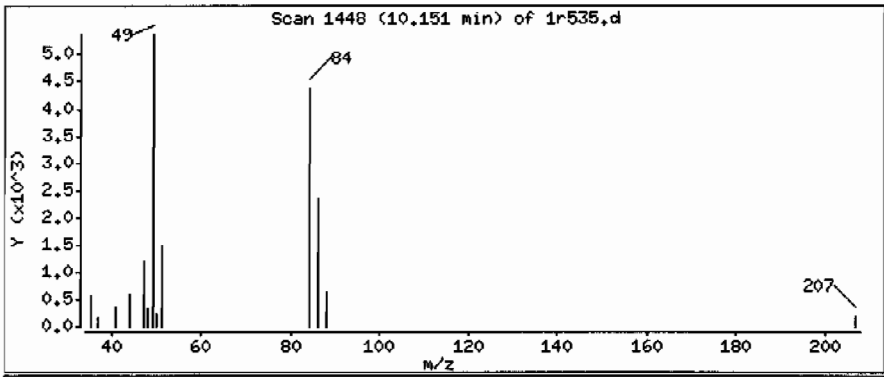

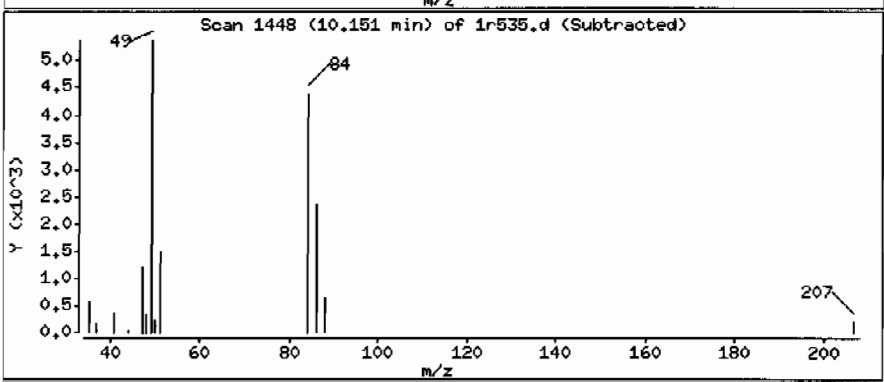

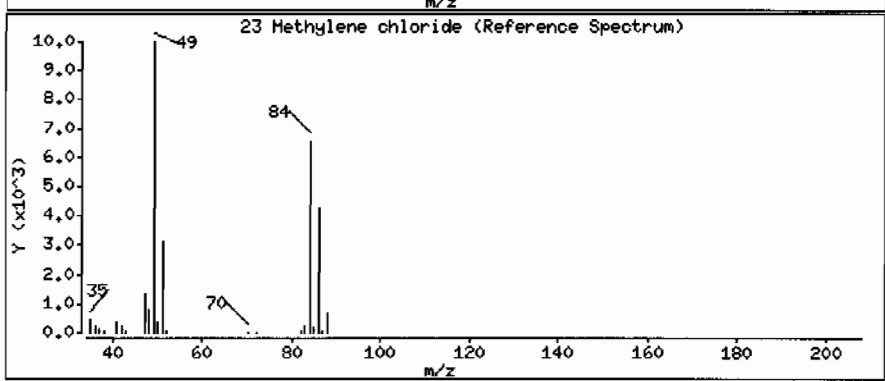

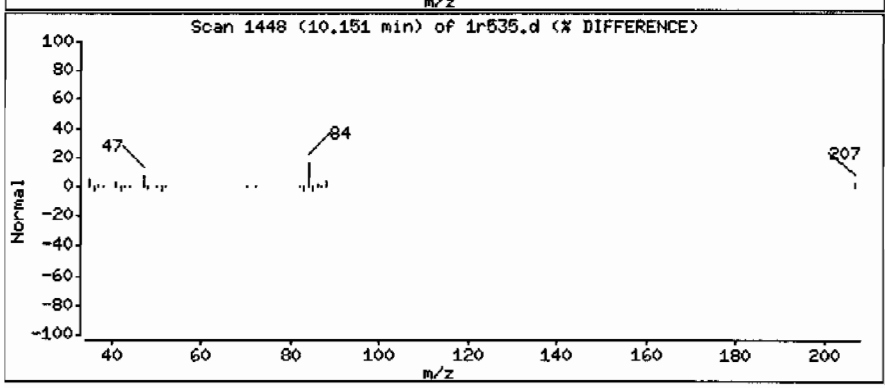

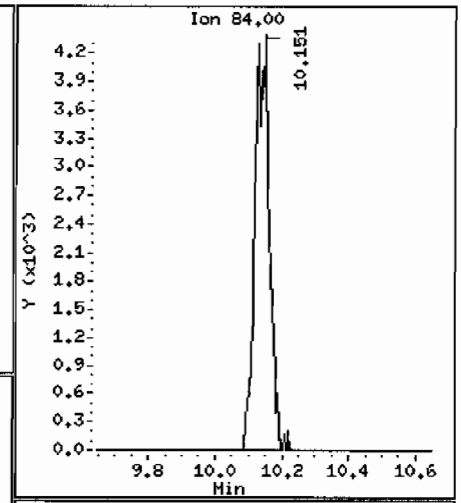

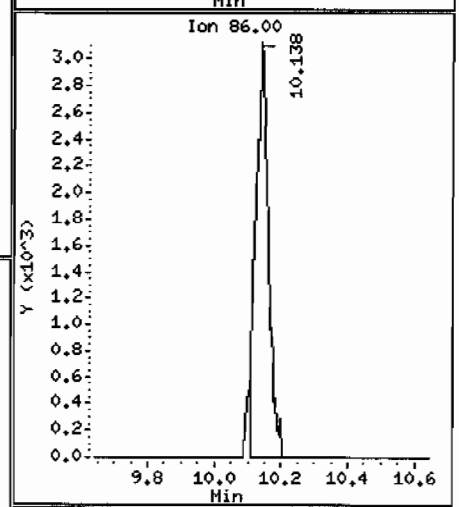

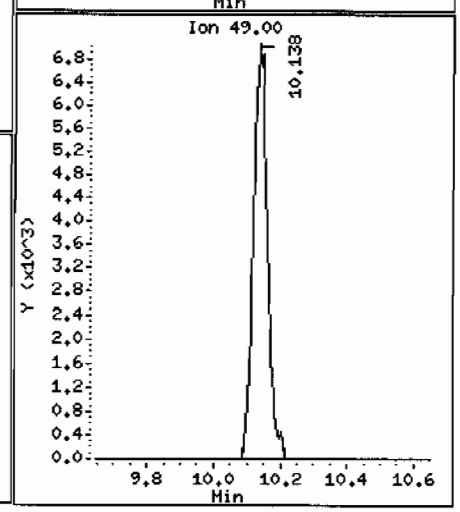

Data File: /chem/VOA1.i/121809v1/1r535.d

Date : 19-DEC-2009 03:54

Client ID: RE03-09-14215

Instrument: VOA1.i

Sample Info: |2429370021934728|1|VOAF|1|

Operator: RXM4

Column phase: RTX-Volatiles

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Hydrocarbon						
Anthracene, 9,10-dihydro-9,10-dimethyl-	22566-43-4	NIST05.L	63100	25	C16H16	208
1-Anthracenamine	610-49-1	NIST05.L	52055	25	C14H11N	193
Diisopropylcarbamic acid, 1,3-diphenylal	1000192-89-6	NIST05.L	146295	22	C22H27NO2	337

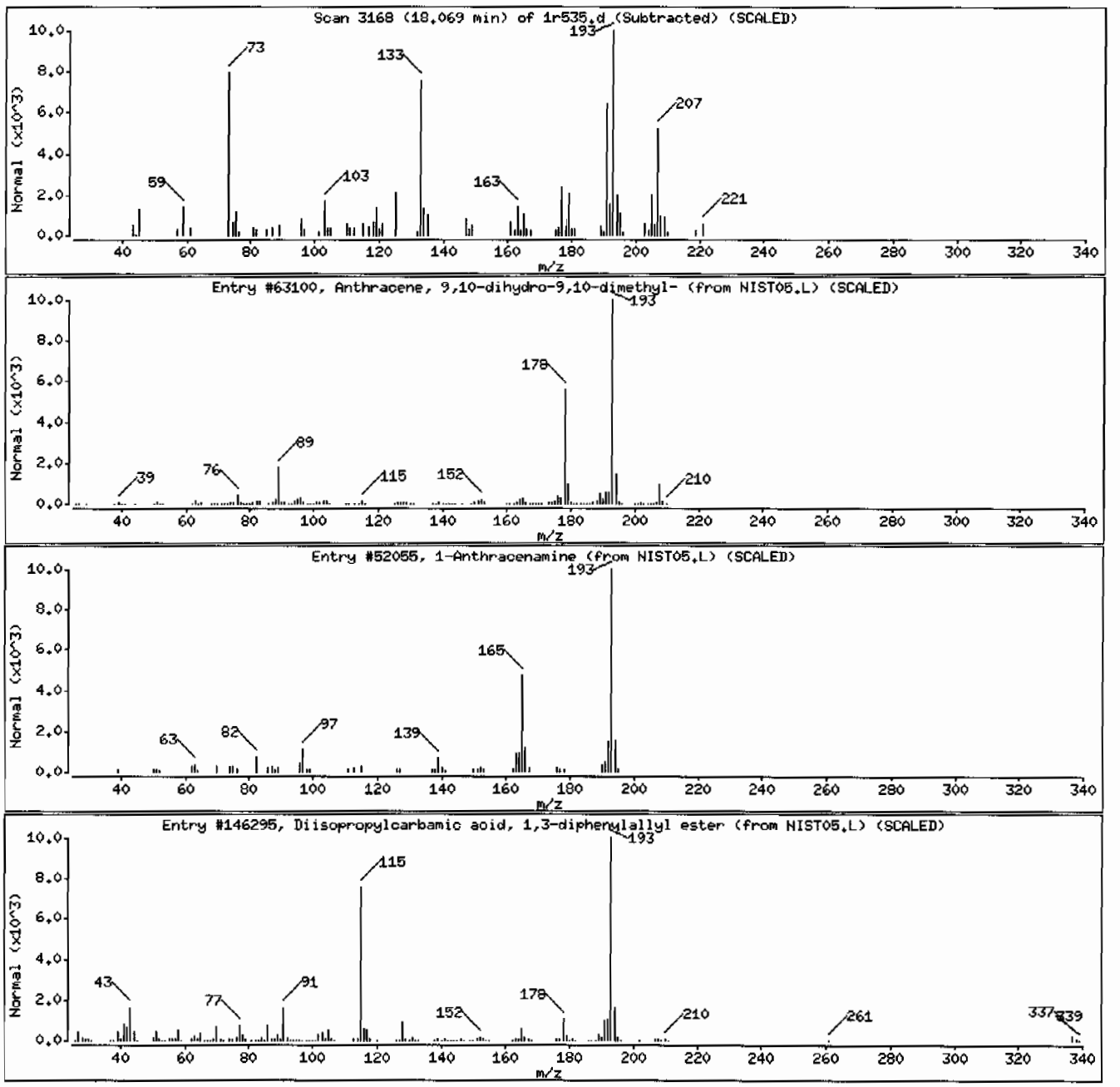

Data File: /chem/VOA1.i/121809v1/1r535.d

Date : 19-DEC-2009 03:54

Client ID: RE03-09-14215

Instrument: VOA1.i

Sample Info: |2429370021934728|1|VOAF|1|

Operator: RXM4

Column phase: RTX-Volatiles

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Dodecane	112-40-3	NIST05.L	36431	87	C12H26	170
Decane	124-18-5	NIST05.L	18486	83	C10H22	142
Dodecane	112-40-3	NIST05.L	36429	80	C12H26	170

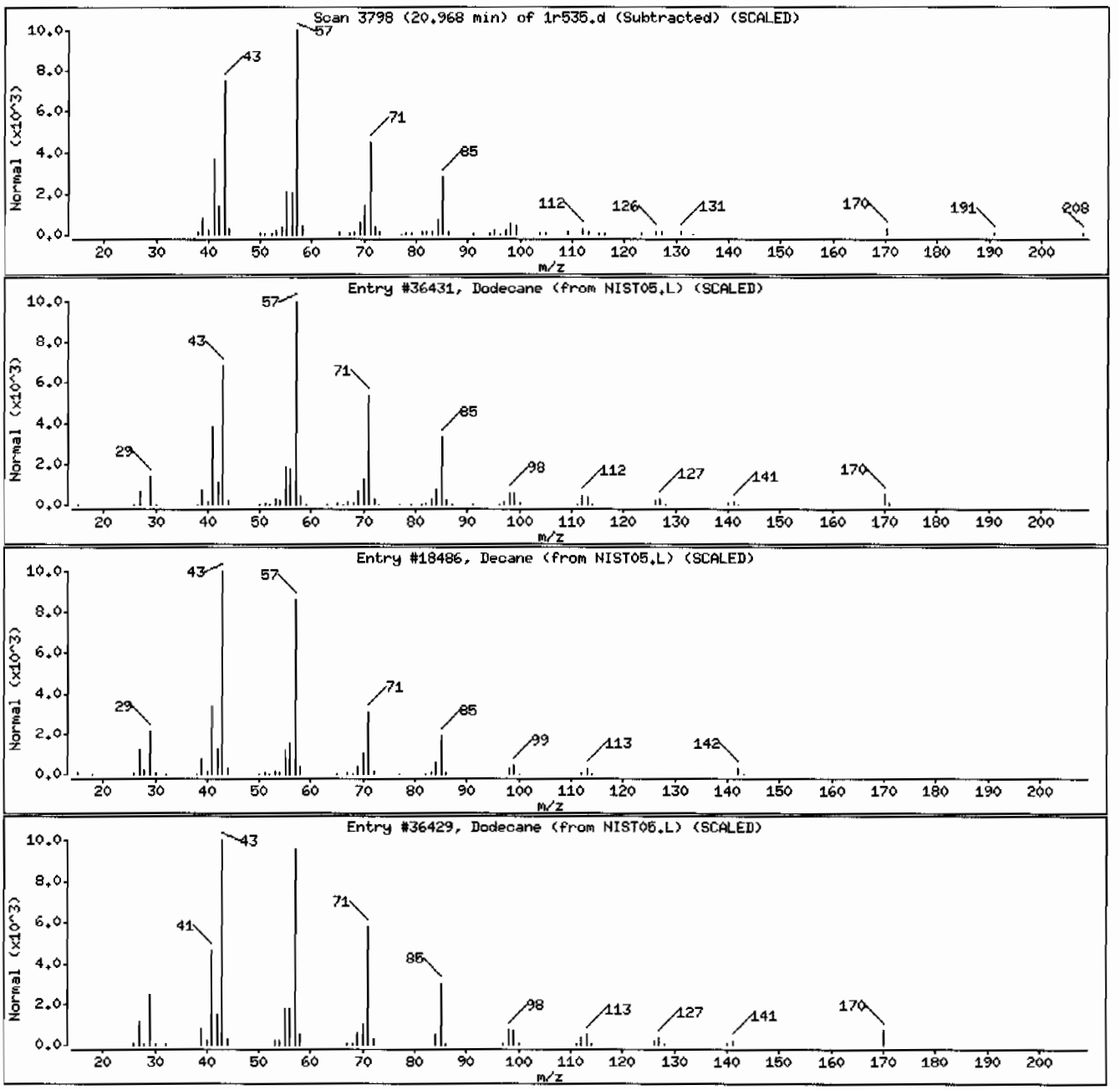

Data File: /chem/VOA1.i/121809v1/1r535.d

Date : 19-DEC-2009 03:54

Client ID: RE03-09-14215 Instrument: VOA1.i

Sample Info: |2429370021934728|1|VOAF|1|

Operator: RXM4

Column phase: RTX-Volatiles Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Benzene, 1-ethyl-3,5-dimethyl-	934-74-7	NIST05.L	14398	95	C10H14	134
Benzene, 1-ethyl-3,5-dimethyl-	934-74-7	NIST05.L	14396	95	C10H14	134
Benzene, 1-methyl-2-(1-methylethyl)-	527-84-4	NIST05.L	14430	94	C10H14	134

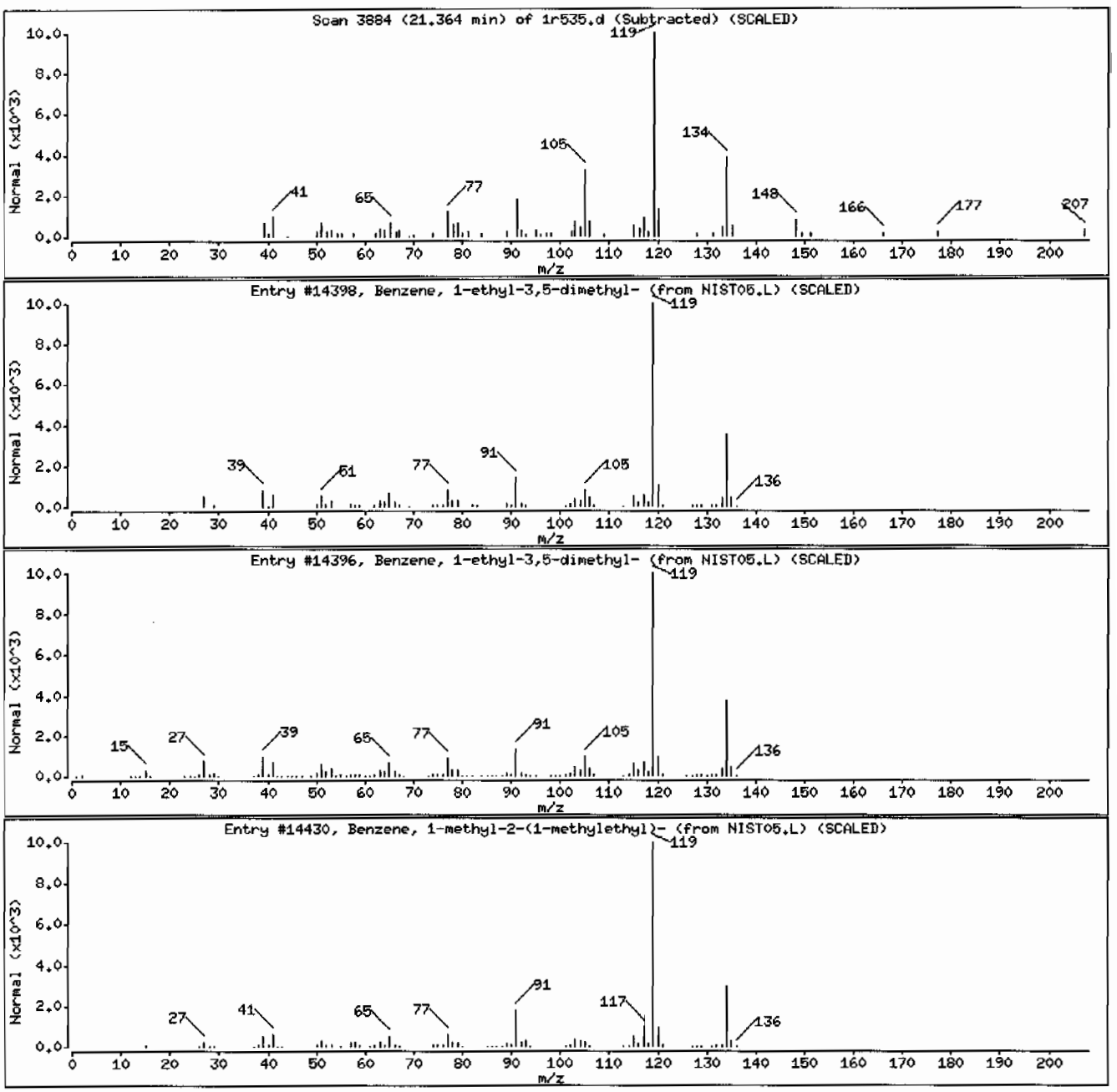

Data File: /chem/VOA1.i/121809v1/1r535.d

Date : 19-DEC-2009 03:54

Client ID: RE03-09-14215 Instrument: VOA1.i

Sample Info: |2429370021934728|1|VOAF|1|

Operator: RXM4

Column phase: RTX-Volatiles Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Hydrocarbon						
Benzene, 1,3-diethyl-5-methyl-	2050-24-0	NIST05.L	21905	45	C11H16	148
Benzene, 1,3-diethyl-5-methyl-	2050-24-0	NIST05.L	21916	43	C11H16	148
Benzene, pentamethyl-	700-12-9	NIST05.L	21881	42	C11H16	148

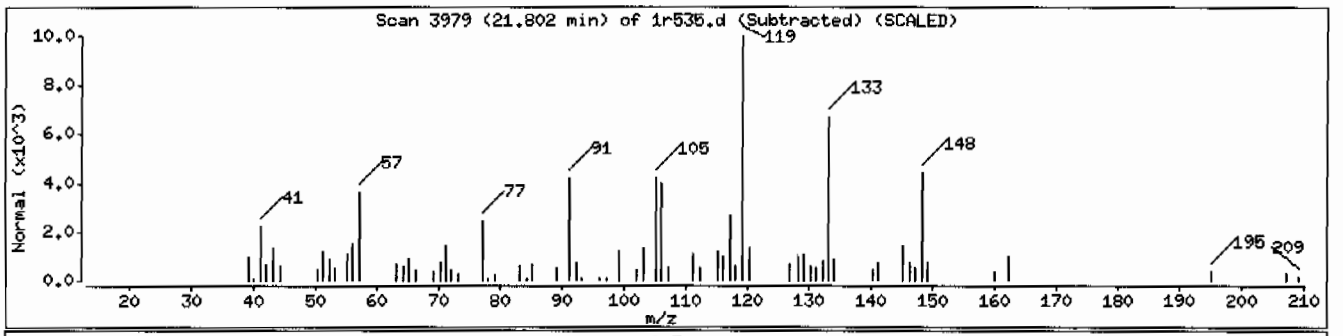

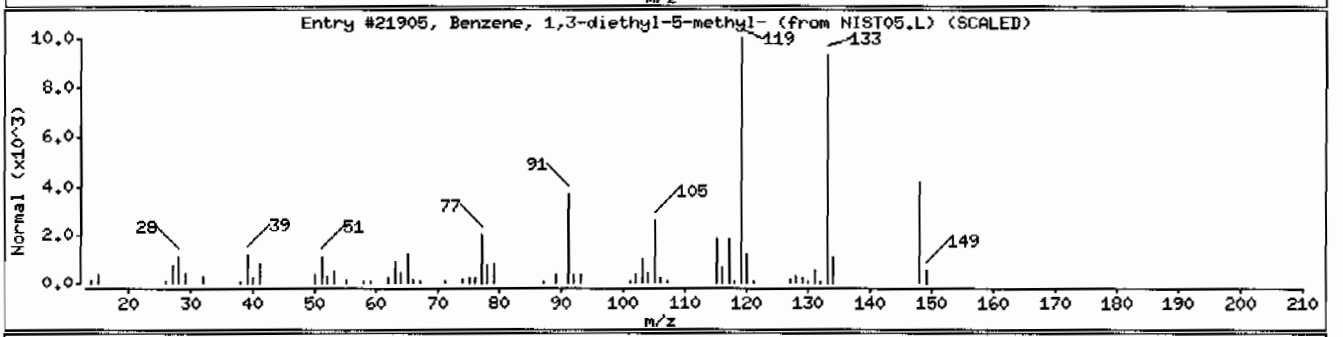

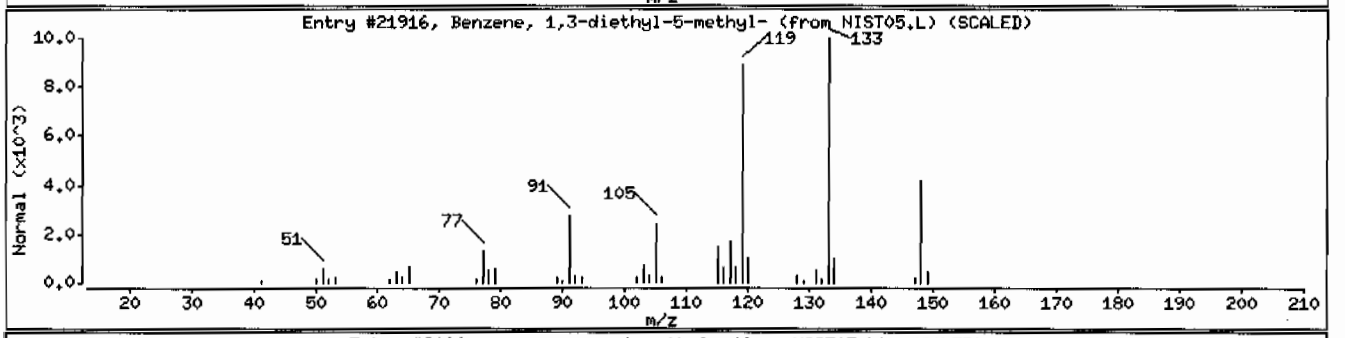

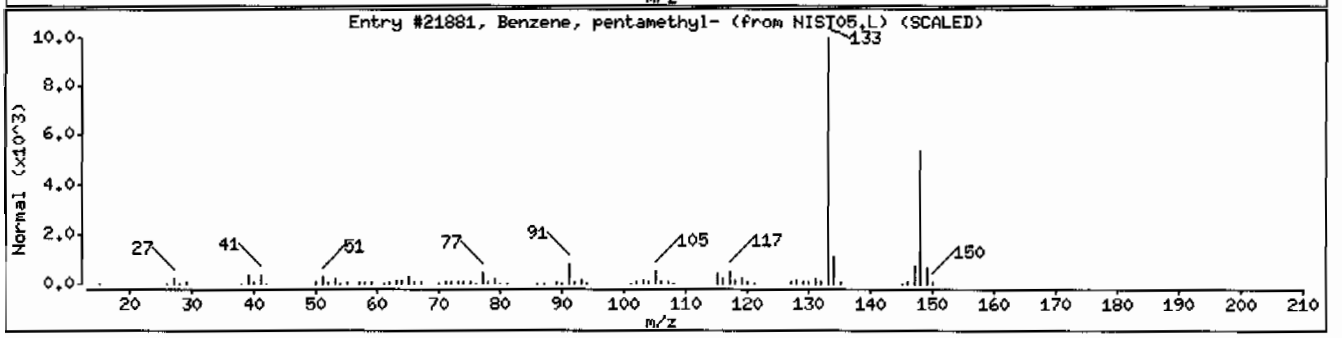

Data File: /chem/VOA1.i/121809v1/1r535.d

Date : 19-DEC-2009 03:54

Client ID: RE03-09-14215 Instrument: VOA1.i

Sample Info: |2429370021934728|1|VOAF|1|

Operator: RXH4

Column phase: RTX-Volatiles Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Hydrocarbon						
Sulfurous acid, 2-ethylhexyl heptadecyl	1000309-20-0	NIST05.L	177565	50	C25H52O3S	432
Undecane, 6-ethyl-	17312-60-6	NIST05.L	46095	50	C13H28	184
Decane, 3,4-dimethyl-	17312-45-7	NIST05.L	36458	50	C12H26	170

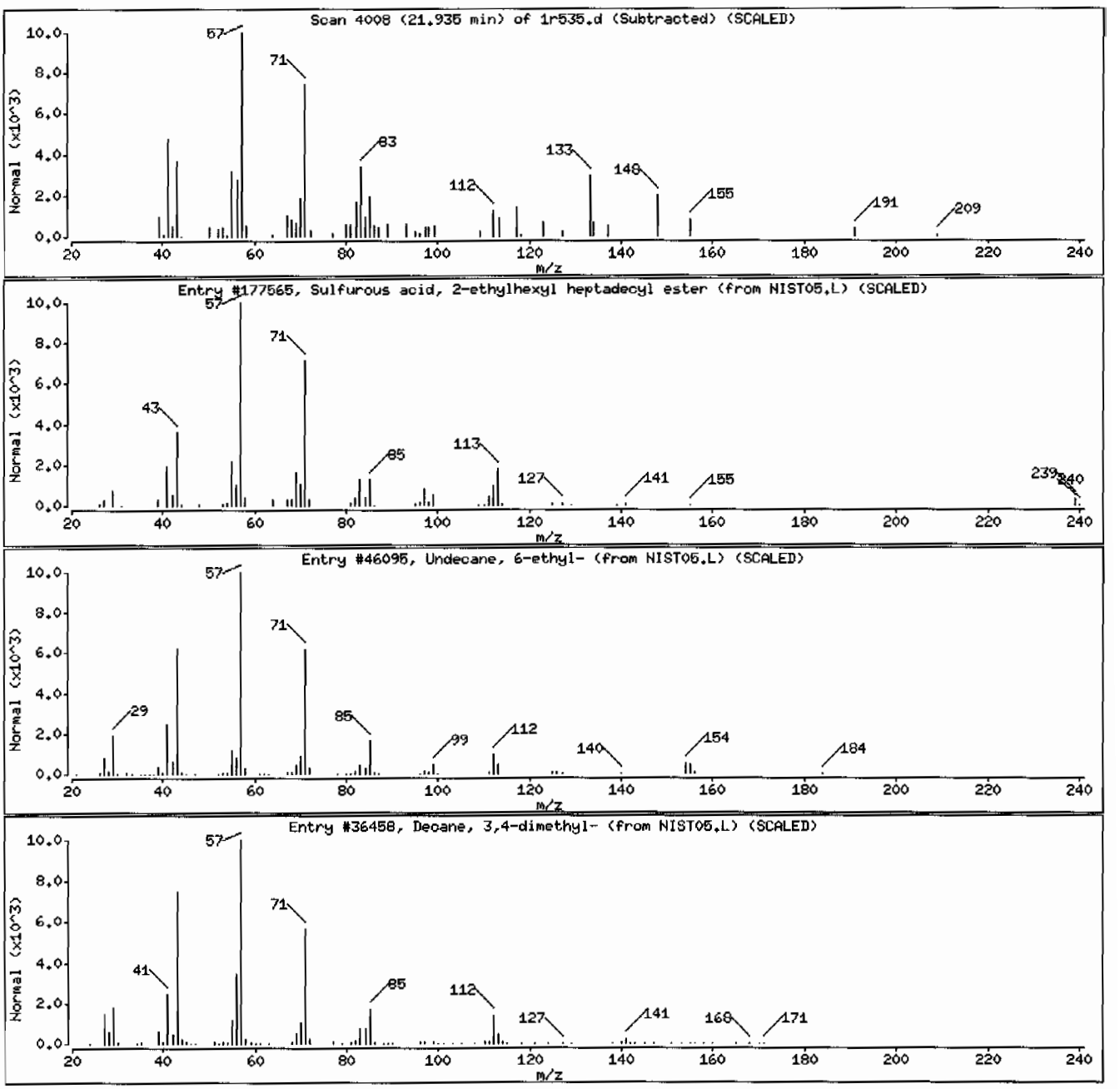

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-917	**Date Collected:**	12/11/2009 12:00	**Matrix:**	S
Lab Sample ID:	242937006	**Date Received:**	12/15/2009 08:45	**%Moisture:**	15.8
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14216	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	934728	**Inst:**	VOA1.I	**Dilution:**	1
Run Date:	12/19/2009 05:56	**Analyst:**	RXM4	**Purge Vol:**	5 mL
Prep Date:	12/18/2009 14:13	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	1r539.d	**Column:**	RTX-Volatiles	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.19	ug/kg	0.404	1.19
74-87-3	Chloromethane	U	1.19	ug/kg	0.356	1.19
75-01-4	Vinyl chloride	U	1.19	ug/kg	0.356	1.19
74-83-9	Bromomethane	U	1.19	ug/kg	0.356	1.19
75-00-3	Chloroethane	U	1.19	ug/kg	0.356	1.19
75-69-4	Trichlorofluoromethane	U	1.19	ug/kg	0.356	1.19
67-64-1	Acetone		7.03	ug/kg	1.97	5.94
75-35-4	1,1-Dichloroethylene	U	1.19	ug/kg	0.356	1.19
74-88-4	Iodomethane	U	5.94	ug/kg	1.90	5.94
75-09-2	Methylene chloride	J	2.84	ug/kg	2.38	5.94
75-15-0	Carbon disulfide	U	5.94	ug/kg	1.49	5.94
156-60-5	trans-1,2-Dichloroethylene	U	1.19	ug/kg	0.356	1.19
75-34-3	1,1-Dichloroethane	U	1.19	ug/kg	0.356	1.19
78-93-3	2-Butanone	U	5.94	ug/kg	1.78	5.94
156-59-2	cis-1,2-Dichloroethylene	U	1.19	ug/kg	0.356	1.19
594-20-7	2,2-Dichloropropane	U	1.19	ug/kg	0.356	1.19
67-66-3	Chloroform	U	1.19	ug/kg	0.356	1.19
74-97-5	Bromochloromethane	U	1.19	ug/kg	0.392	1.19
71-55-6	1,1,1-Trichloroethane	U	1.19	ug/kg	0.356	1.19
563-58-6	1,1-Dichloropropene	U	1.19	ug/kg	0.356	1.19
56-23-5	Carbon tetrachloride	U	1.19	ug/kg	0.356	1.19
107-06-2	1,2-Dichloroethane	U	1.19	ug/kg	0.356	1.19
71-43-2	Benzene	U	1.19	ug/kg	0.356	1.19
79-01-6	Trichloroethylene	U	1.19	ug/kg	0.392	1.19
78-87-5	1,2-Dichloropropane	U	1.19	ug/kg	0.356	1.19
75-27-4	Bromodichloromethane	U	1.19	ug/kg	0.356	1.19
74-95-3	Dibromomethane	U	1.19	ug/kg	0.356	1.19
108-10-1	4-Methyl-2-pentanone	U	5.94	ug/kg	1.49	5.94
10061-01-5	cis-1,3-Dichloropropylene	U	1.19	ug/kg	0.356	1.19
108-88-3	Toluene	U	1.19	ug/kg	0.356	1.19
10061-02-6	trans-1,3-Dichloropropylene	U	1.19	ug/kg	0.356	1.19
79-00-5	1,1,2-Trichloroethane	U	1.19	ug/kg	0.356	1.19
591-78-6	2-Hexanone	U	5.94	ug/kg	1.78	5.94
142-28-9	1,3-Dichloropropane	U	1.19	ug/kg	0.356	1.19
127-18-4	Tetrachloroethylene	U	1.19	ug/kg	0.356	1.19
124-48-1	Dibromochloromethane	U	1.19	ug/kg	0.356	1.19
106-93-4	1,2-Dibromoethane	U	1.19	ug/kg	0.356	1.19
108-90-7	Chlorobenzene	U	1.19	ug/kg	0.356	1.19

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-917	**Date Collected:**	12/11/2009 12:00	**Matrix:**	S
Lab Sample ID:	242937006	**Date Received:**	12/15/2009 08:45	**%Moisture:**	15.8
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14216	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	934728	**Inst:**	VOA1.I	**Dilution:**	1
Run Date:	12/19/2009 05:56	**Analyst:**	RXM4	**Purge Vol:**	5 mL
Prep Date:	12/18/2009 14:13	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	1r539.d	**Column:**	RTX-Volatiles	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.19	ug/kg	0.356	1.19
179601-23-1	m,p-Xylenes	U	2.38	ug/kg	0.356	2.38
95-47-6	o-Xylene	U	1.19	ug/kg	0.356	1.19
100-42-5	Styrene	U	1.19	ug/kg	0.356	1.19
75-25-2	Bromoform	U	1.19	ug/kg	0.356	1.19
79-34-5	1,1,2,2-Tetrachloroethane	U	1.19	ug/kg	0.356	1.19
96-18-4	1,2,3-Trichloropropane	U	1.19	ug/kg	0.356	1.19
108-86-1	Bromobenzene	U	1.19	ug/kg	0.356	1.19
103-65-1	n-Propylbenzene	U	1.19	ug/kg	0.356	1.19
95-49-8	2-Chlorotoluene	U	1.19	ug/kg	0.356	1.19
98-82-8	Isopropylbenzene	U	1.19	ug/kg	0.356	1.19
108-67-8	1,3,5-Trimethylbenzene	U	1.19	ug/kg	0.356	1.19
106-43-4	4-Chlorotoluene	U	1.19	ug/kg	0.356	1.19
98-06-6	tert-Butylbenzene	U	1.19	ug/kg	0.356	1.19
95-63-6	1,2,4-Trimethylbenzene	U	1.19	ug/kg	0.356	1.19
135-98-8	sec-Butylbenzene	U	1.19	ug/kg	0.356	1.19
99-87-6	4-Isopropyltoluene	U	1.19	ug/kg	0.356	1.19
541-73-1	1,3-Dichlorobenzene	U	1.19	ug/kg	0.356	1.19
106-46-7	1,4-Dichlorobenzene	U	1.19	ug/kg	0.356	1.19
104-51-8	n-Butylbenzene	U	1.19	ug/kg	0.356	1.19
96-12-8	1,2-Dibromo-3-chloropropane	U	1.19	ug/kg	0.356	1.19
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.94	ug/kg	1.90	5.94
630-20-6	1,1,1,2-Tetrachloroethane	U	1.19	ug/kg	0.356	1.19
95-50-1	1,2-Dichlorobenzene	U	1.19	ug/kg	0.356	1.19

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	No Tentatively Identified Compounds Found			ug/kg		

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/121809v1/1r539.d
Lab Smp Id: 242937006 Client Smp ID: RE03-09-14216
Inj Date : 19-DEC-2009 05:56
Operator : RXM4 Inst ID: VOA1.i
Smp Info : |242937006|934728|1|VOAF|1|
Misc Info : LANL 5G N/A
Comment :
Method : /chem/VOA1.i/121809v1/VOA1-8260ox-121709PM.m
Meth Date : 19-Dec-2009 14:30 ron01469 Quant Type: ISTD
Cal Date : 17-DEC-2009 21:57 Cal File: 1r426.d
Als bottle: 39
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-917.sub
Target Version: 3.50

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	15.82920	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
* 52 Fluorobenzene	96	13.686	13.686	(1.000)	667352	50.0000	
* 76 Chlorobenzene-d5	117	17.157	17.162	(1.000)	460203	50.0000	
* 102 1,4-Dichlorobenzene-d4	152	19.611	19.610	(1.000)	223805	50.0000	
$ 48 1,2-Dichloroethane-d4	65	13.341	13.341	(0.975)	487770	60.3216	71.7
$ 65 Toluene-d8	98	15.518	15.518	(0.904)	1467259	55.8284	66.3
$ 87 Bromofluorobenzene	95	18.386	18.386	(0.938)	542928	59.0207	70.1
16 Acetone	43	9.263	9.258	(0.677)	23876	5.91398	7.0
23 Methylene chloride	84	10.142	10.147	(0.741)	15100	2.39440	2.8(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

ION RATIO REPORT

VOA REPORT

Data file: 1r539.d
Report Date: 12/19/2009 14:34
Lab. ID: 242937006 SampleType: SAMPLE
Injection Date: 19-DEC-2009 05:56
Operator: RXM4 Instrument: VOA1.i
Sample Info: |242937006|934728|1|VOAF|1|
Miscellaneous Info: LANL 5G N/A
Comment:
Method used: /chem/VOA1.i/121809v1/VOA1-8260ox-121709PM.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-917
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
16 Acetone			CAS#: 67-64-1			
43	23876	9.26	9.26	80-120	100	( )
58	8025	9.26	9.26	3- 63	34	( )
23 Methylene chloride			CAS#: 75-09-2			
84	15100	10.14	10.15	80-120	100	( )
86	10050	10.14	10.14	35- 95	67	( )
49	22401	10.14	10.15	121-181	148	( )
51 1,2-Dichloroethane			CAS#: 107-06-2			
62	11048	13.68	13.44	80-120	100	(T)
64	1806	13.69	13.44	2- 62	16	(T)
54 Trichloroethylene			CAS#: 79-01-6			
95	58027	13.68	14.12	80-120	100	(T)
97	43416	13.69	14.12	35- 95	75	(T)
130	244	14.12	14.12	57-117	0	(Q)
64 4-Methyl-2-pentanone			CAS#: 108-10-1			
58	13965	15.51	15.36	80-120	100	(T)
43	6666	15.52	15.36	206-266	48	(QT)
100	938517	15.52	15.36	0- 59	6720	(QT)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/121809v1/1r539.d
Lab Smp Id: 242937006 Client Smp ID: RE03-09-14216
Inj Date : 19-DEC-2009 05:56
Operator : RXM4 Inst ID: VOA1.i
Smp Info : |242937006|934728|1|VOAF|1|
Misc Info : LANL 5G N/A
Comment :
Method : /chem/VOA1.i/121809v1/VOA1-8260ox-121709PM.m
Meth Date : 19-Dec-2009 14:30 ron01469 Quant Type: ISTD
Cal Date : 17-DEC-2009 21:57 Cal File: 1r426.d
Als bottle: 39
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-917.sub
Target Version: 3.50

- NO TENTATIVELY IDENTIFIED COMPOUNDS -

Data File: /chem/VOA1.i/121809v1/1r539.d
Date : 19-DEC-2009 05:56
Client ID: RE03-09-14216
Sample Info: |2429370061934728|1|VOAF|1|

Column phase: RTX-Volatiles

Instrument: VOA1.i

Operator: RXM4
Column diameter: 0.25

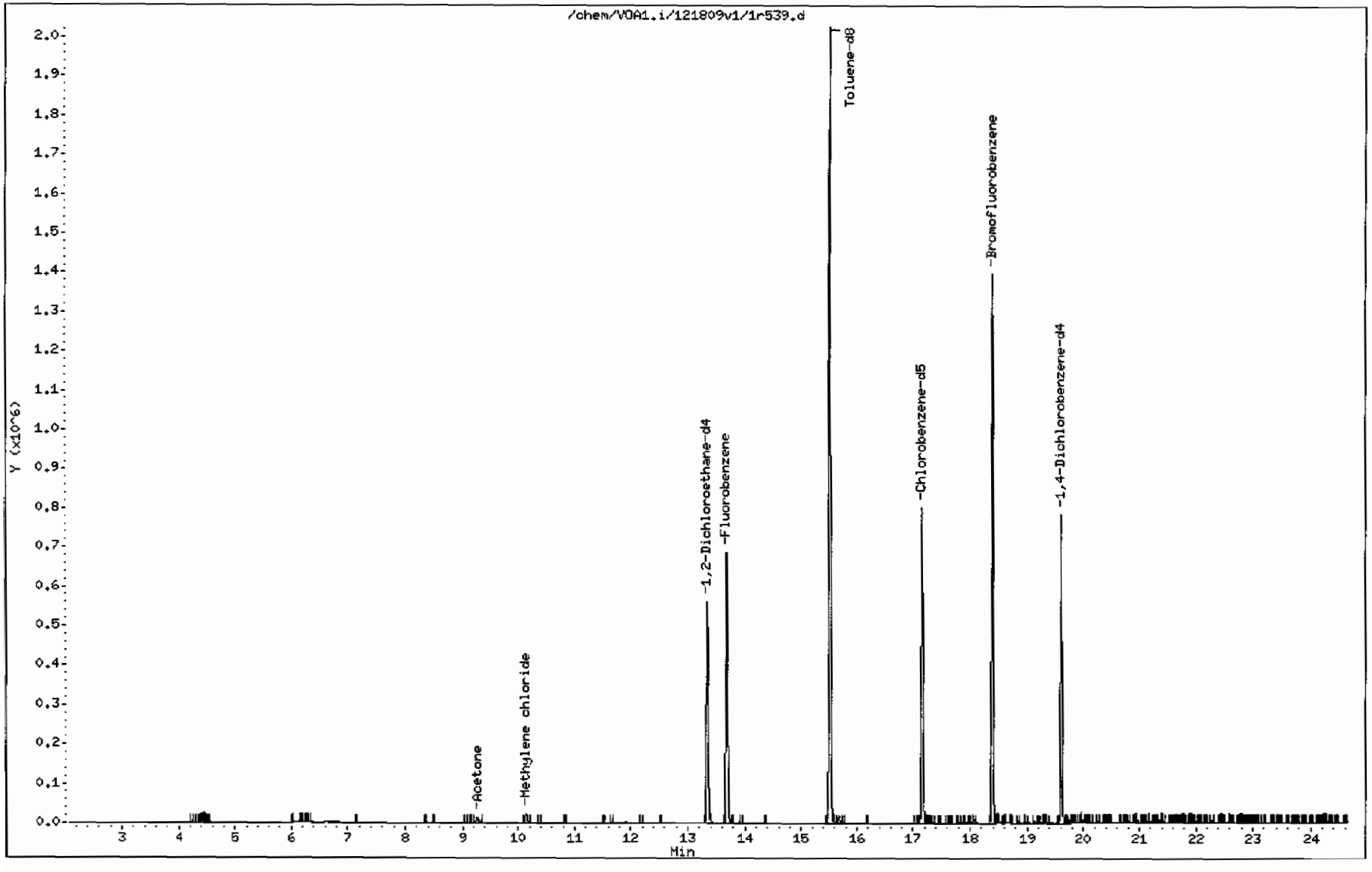

Data File: /chem/VOA1.i/121809v1/1r539.d

Date : 19-DEC-2009 05:56

Client ID: RE03-09-14216

Instrument: VOA1.i

Sample Info: |2429370061934728|1|VOAF|1|

Operator: RXM4

Column phase: RTX-Volatiles

Column diameter: 0.25

16 Acetone

Concentration: 7.0 ug/Kg

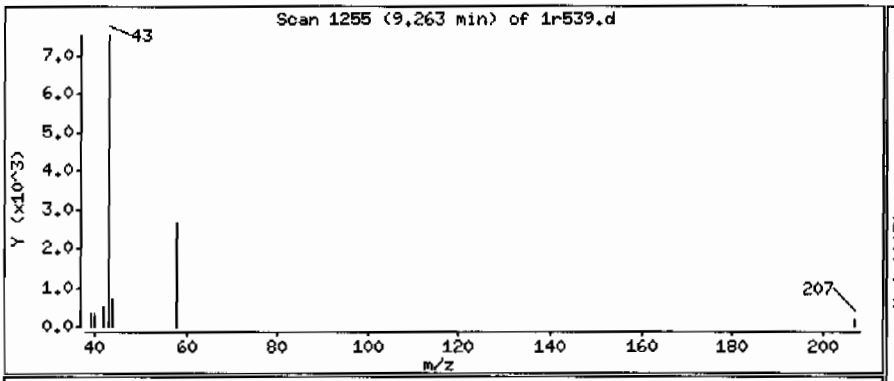

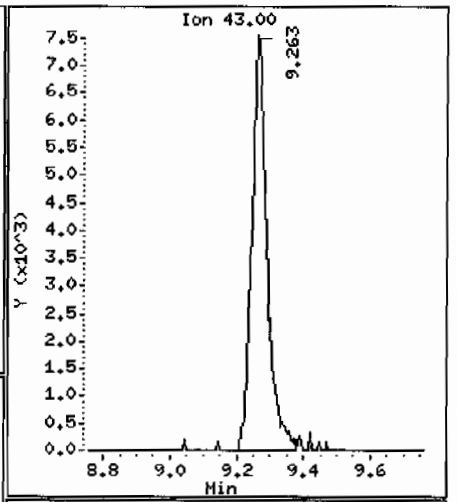

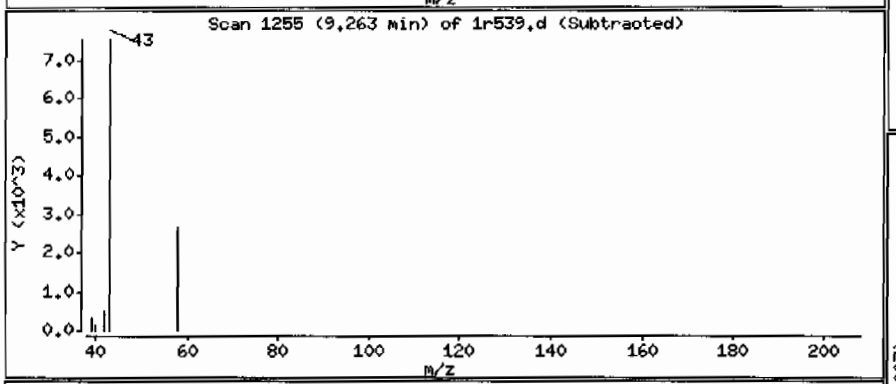

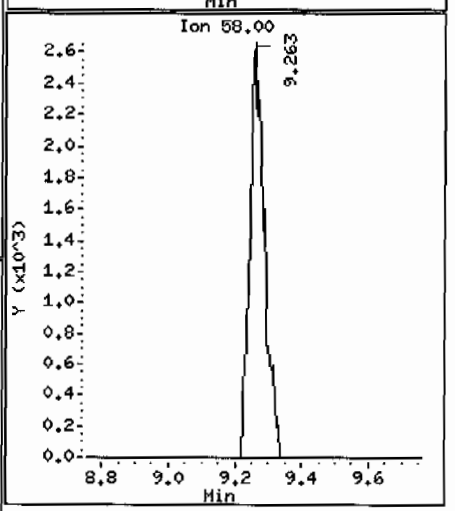

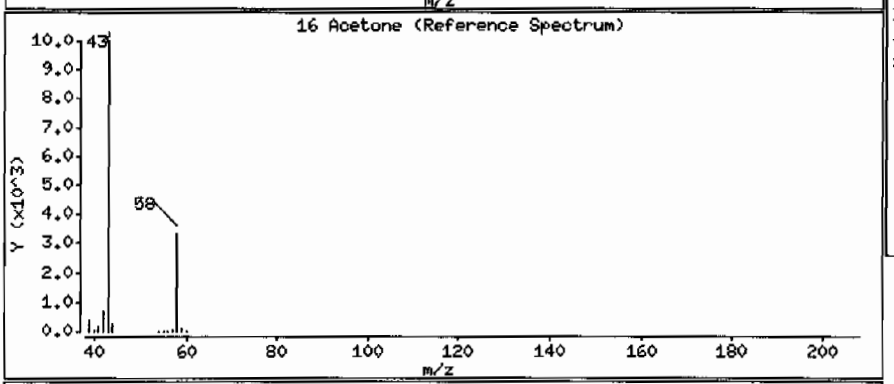

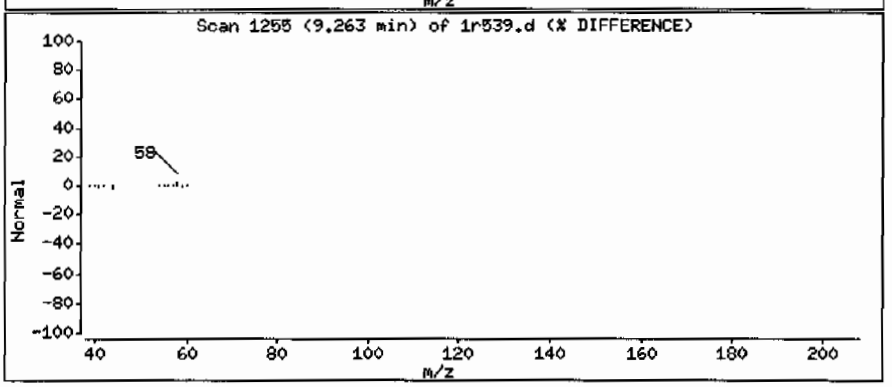

Data File: /chem/VOA1.i/121809v1/1r539.d

Date : 19-DEC-2009 05:56

Client ID: RE03-09-14216

Instrument: VOA1.i

Sample Info: |2429370061934728|1|VOAF|1|

Operator: RXM4

Column phase: RTX-Volatiles

Column diameter: 0.25

23 Methylene chloride

Concentration: 2.8 ug/Kg

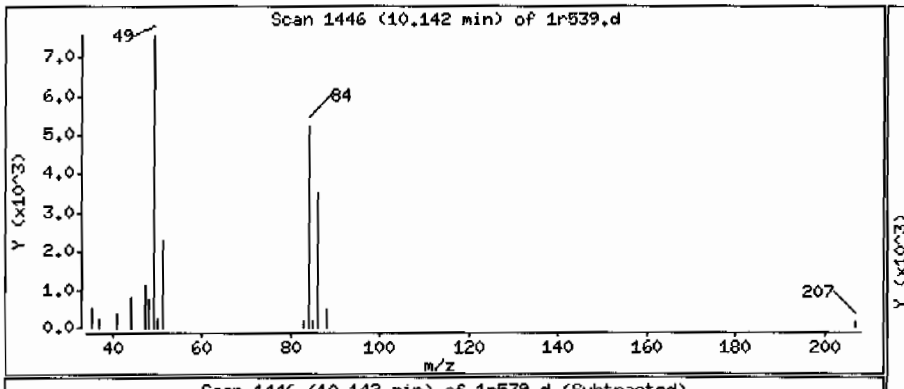

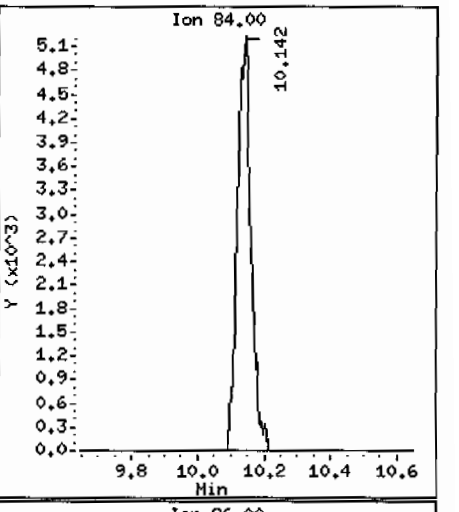

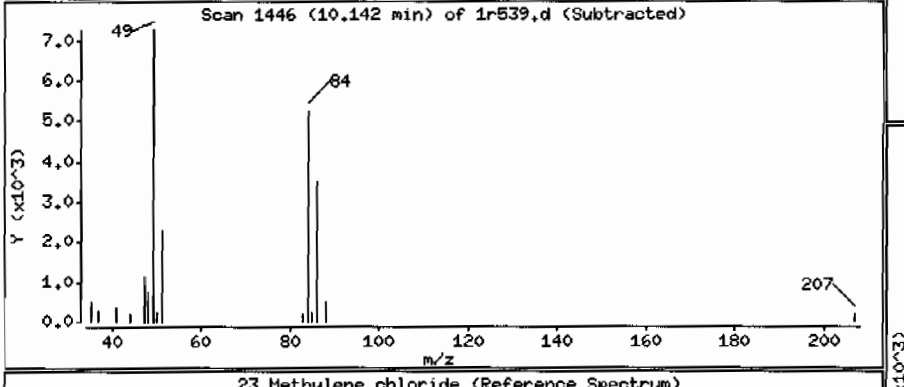

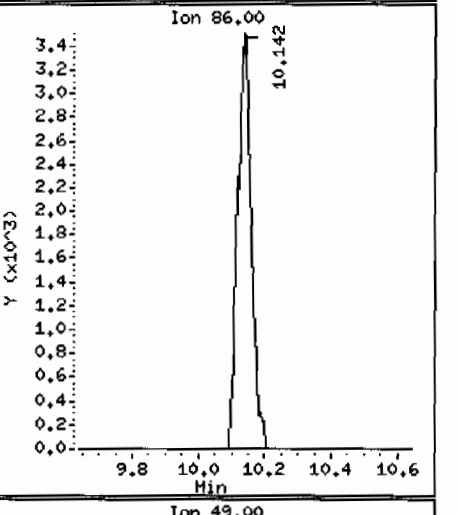

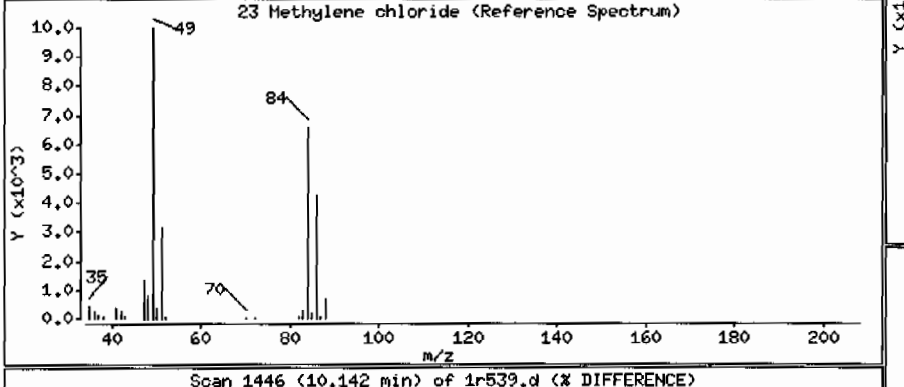

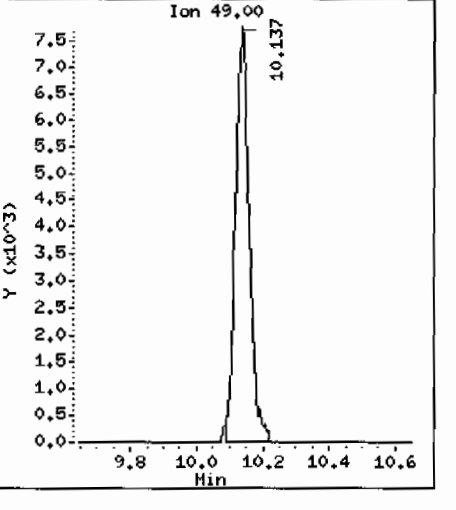

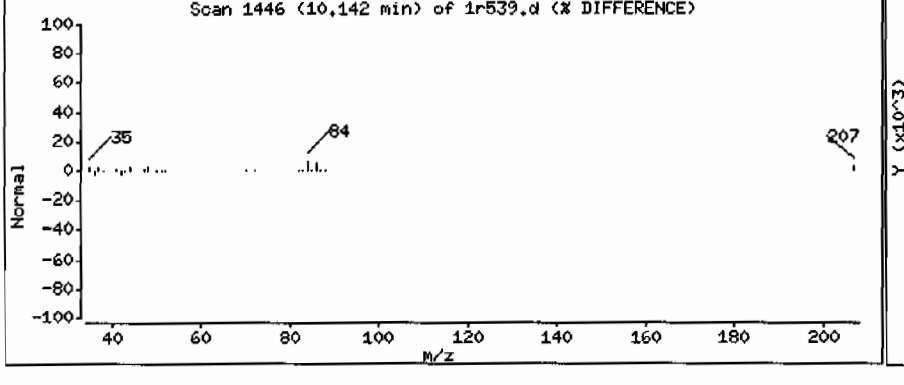

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-917	**Date Collected:**	12/11/2009 12:00	**Matrix:**	S
Lab Sample ID:	242937008	**Date Received:**	12/15/2009 08:45	**%Moisture:**	15.2
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14217	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	934728	**Inst:**	VOA1.I	**Dilution:**	1
Run Date:	12/19/2009 06:56	**Analyst:**	RXM4	**Purge Vol:**	5 mL
Prep Date:	12/18/2009 14:15	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	1r541.d	**Column:**	RTX-Volatiles	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.18	ug/kg	0.401	1.18
74-87-3	Chloromethane	U	1.18	ug/kg	0.354	1.18
75-01-4	Vinyl chloride	U	1.18	ug/kg	0.354	1.18
74-83-9	Bromomethane	U	1.18	ug/kg	0.354	1.18
75-00-3	Chloroethane	U	1.18	ug/kg	0.354	1.18
75-69-4	Trichlorofluoromethane	U	1.18	ug/kg	0.354	1.18
67-64-1	Acetone	J	5.10	ug/kg	1.96	5.90
75-35-4	1,1-Dichloroethylene	U	1.18	ug/kg	0.354	1.18
74-88-4	Iodomethane	U	5.90	ug/kg	1.89	5.90
75-09-2	Methylene chloride	J	2.60	ug/kg	2.36	5.90
75-15-0	Carbon disulfide	U	5.90	ug/kg	1.47	5.90
156-60-5	trans-1,2-Dichloroethylene	U	1.18	ug/kg	0.354	1.18
75-34-3	1,1-Dichloroethane	U	1.18	ug/kg	0.354	1.18
78-93-3	2-Butanone	U	5.90	ug/kg	1.77	5.90
156-59-2	cis-1,2-Dichloroethylene	U	1.18	ug/kg	0.354	1.18
594-20-7	2,2-Dichloropropane	U	1.18	ug/kg	0.354	1.18
67-66-3	Chloroform	U	1.18	ug/kg	0.354	1.18
74-97-5	Bromochloromethane	U	1.18	ug/kg	0.389	1.18
71-55-6	1,1,1-Trichloroethane	U	1.18	ug/kg	0.354	1.18
563-58-6	1,1-Dichloropropene	U	1.18	ug/kg	0.354	1.18
56-23-5	Carbon tetrachloride	U	1.18	ug/kg	0.354	1.18
107-06-2	1,2-Dichloroethane	U	1.18	ug/kg	0.354	1.18
71-43-2	Benzene	U	1.18	ug/kg	0.354	1.18
79-01-6	Trichloroethylene	U	1.18	ug/kg	0.389	1.18
78-87-5	1,2-Dichloropropane	U	1.18	ug/kg	0.354	1.18
75-27-4	Bromodichloromethane	U	1.18	ug/kg	0.354	1.18
74-95-3	Dibromomethane	U	1.18	ug/kg	0.354	1.18
108-10-1	4-Methyl-2-pentanone	U	5.90	ug/kg	1.47	5.90
10061-01-5	cis-1,3-Dichloropropylene	U	1.18	ug/kg	0.354	1.18
108-88-3	Toluene	U	1.18	ug/kg	0.354	1.18
10061-02-6	trans-1,3-Dichloropropylene	U	1.18	ug/kg	0.354	1.18
79-00-5	1,1,2-Trichloroethane	U	1.18	ug/kg	0.354	1.18
591-78-6	2-Hexanone	U	5.90	ug/kg	1.77	5.90
142-28-9	1,3-Dichloropropane	U	1.18	ug/kg	0.354	1.18
127-18-4	Tetrachloroethylene	U	1.18	ug/kg	0.354	1.18
124-48-1	Dibromochloromethane	U	1.18	ug/kg	0.354	1.18
106-93-4	1,2-Dibromoethane	U	1.18	ug/kg	0.354	1.18
108-90-7	Chlorobenzene	U	1.18	ug/kg	0.354	1.18

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-917	**Date Collected:**	12/11/2009 12:00	**Matrix:**	S
Lab Sample ID:	242937008	**Date Received:**	12/15/2009 08:45	**%Moisture:**	15.2
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14217	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	934728	**Inst:**	VOA1.I	**Dilution:**	1
Run Date:	12/19/2009 06:56	**Analyst:**	RXM4	**Purge Vol:**	5 mL
Prep Date:	12/18/2009 14:15	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	1r541.d	**Column:**	RTX-Volatiles	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.18	ug/kg	0.354	1.18
179601-23-1	m,p-Xylenes	U	2.36	ug/kg	0.354	2.36
95-47-6	o-Xylene	U	1.18	ug/kg	0.354	1.18
100-42-5	Styrene	U	1.18	ug/kg	0.354	1.18
75-25-2	Bromoform	U	1.18	ug/kg	0.354	1.18
79-34-5	1,1,2,2-Tetrachloroethane	U	1.18	ug/kg	0.354	1.18
96-18-4	1,2,3-Trichloropropane	U	1.18	ug/kg	0.354	1.18
108-86-1	Bromobenzene	U	1.18	ug/kg	0.354	1.18
103-65-1	n-Propylbenzene	U	1.18	ug/kg	0.354	1.18
95-49-8	2-Chlorotoluene	U	1.18	ug/kg	0.354	1.18
98-82-8	Isopropylbenzene	U	1.18	ug/kg	0.354	1.18
108-67-8	1,3,5-Trimethylbenzene	U	1.18	ug/kg	0.354	1.18
106-43-4	4-Chlorotoluene	U	1.18	ug/kg	0.354	1.18
98-06-6	tert-Butylbenzene	U	1.18	ug/kg	0.354	1.18
95-63-6	1,2,4-Trimethylbenzene	U	1.18	ug/kg	0.354	1.18
135-98-8	sec-Butylbenzene	U	1.18	ug/kg	0.354	1.18
99-87-6	4-Isopropyltoluene	U	1.18	ug/kg	0.354	1.18
541-73-1	1,3-Dichlorobenzene	U	1.18	ug/kg	0.354	1.18
106-46-7	1,4-Dichlorobenzene	U	1.18	ug/kg	0.354	1.18
104-51-8	n-Butylbenzene	U	1.18	ug/kg	0.354	1.18
96-12-8	1,2-Dibromo-3-chloropropane	U	1.18	ug/kg	0.354	1.18
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.90	ug/kg	1.89	5.90
630-20-6	1,1,1,2-Tetrachloroethane	U	1.18	ug/kg	0.354	1.18
95-50-1	1,2-Dichlorobenzene	U	1.18	ug/kg	0.354	1.18

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	No Tentatively Identified Compounds Found			ug/kg		

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/121809v1/1r541.d
Lab Smp Id: 242937008 Client Smp ID: RE03-09-14217
Inj Date : 19-DEC-2009 06:56
Operator : RXM4 Inst ID: VOA1.i
Smp Info : |242937008|934728|1|VOAF|1|
Misc Info : LANL 5G N/A
Comment :
Method : /chem/VOA1.i/121809v1/VOA1-8260ox-121709PM.m
Meth Date : 19-Dec-2009 14:30 ron01469 Quant Type: ISTD
Cal Date : 17-DEC-2009 21:57 Cal File: 1r426.d
Als bottle: 41
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-917.sub
Target Version: 3.50

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	15.24500	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
* 52 Fluorobenzene	96	13.686	13.686	(1.000)	622464	50.0000	
* 76 Chlorobenzene-d5	117	17.162	17.162	(1.000)	424807	50.0000	
* 102 1,4-Dichlorobenzene-d4	152	19.610	19.610	(1.000)	210755	50.0000	
$ 48 1,2-Dichloroethane-d4	65	13.341	13.341	(0.975)	457447	60.6511	71.6
$ 65 Toluene-d8	98	15.518	15.518	(0.904)	1394190	57.4683	67.8
$ 87 Bromofluorobenzene	95	18.386	18.386	(0.938)	509914	58.8642	69.4
16 Acetone	43	9.263	9.258	(0.677)	16276	4.32222	5.1(a)
23 Methylene chloride	84	10.142	10.147	(0.741)	13002	2.20312	2.6(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

ION RATIO REPORT

VOA REPORT

Data file: 1r541.d
Report Date: 12/19/2009 14:34
Lab. ID: 242937008 SampleType: SAMPLE
Injection Date: 19-DEC-2009 06:56
Operator: RXM4 Instrument: VOA1.i
Sample Info: |242937008|934728|1|VOAF|1|
Miscellaneous Info: LANL 5G N/A
Comment:
Method used: /chem/VOA1.i/121809v1/VOA1-8260ox-121709PM.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-917
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
16 Acetone			CAS#: 67-64-1			
43	16276	9.26	9.26	80-120	100	( )
58	5399	9.27	9.26	3- 63	33	( )
23 Methylene chloride			CAS#: 75-09-2			
84	13002	10.14	10.15	80-120	100	( )
86	8219	10.14	10.14	35- 95	63	( )
49	19339	10.14	10.15	121-181	149	( )
51 1,2-Dichloroethane			CAS#: 107-06-2			
62	9819	13.69	13.44	80-120	100	(T)
64	1532	13.69	13.44	2- 62	16	(T)
64 4-Methyl-2-pentanone			CAS#: 108-10-1			
58	13186	15.52	15.36	80-120	100	(T)
43	6957	15.51	15.36	206-266	53	(QT)
100	884458	15.52	15.36	0- 59	6708	(QT)
83 Bromoform			CAS#: 75-25-2			
173	408	18.37	18.11	80-120	100	(T)
171	155	18.40	18.11	22- 82	38	(T)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/121809v1/1r541.d
Lab Smp Id: 242937008 Client Smp ID: RE03-09-14217
Inj Date : 19-DEC-2009 06:56
Operator : RXM4 Inst ID: VOA1.i
Smp Info : |242937008|934728|1|VOAF|1|
Misc Info : LANL 5G N/A
Comment :
Method : /chem/VOA1.i/121809v1/VOA1-8260ox-121709PM.m
Meth Date : 19-Dec-2009 14:30 ron01469 Quant Type: ISTD
Cal Date : 17-DEC-2009 21:57 Cal File: 1r426.d
Als bottle: 41
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-917.sub
Target Version: 3.50

- NO TENTATIVELY IDENTIFIED COMPOUNDS -

Data File: /chem/VOA1.i/121809v1/1r541.d
Date : 19-DEC-2009 06:56
Client ID: RE03-09-14217
Sample Info: |2429370081934728|1|VOAF|1|

Column phase: RTX-Volatiles

Instrument: VOA1.i

Operator: RXM4
Column diameter: 0.25

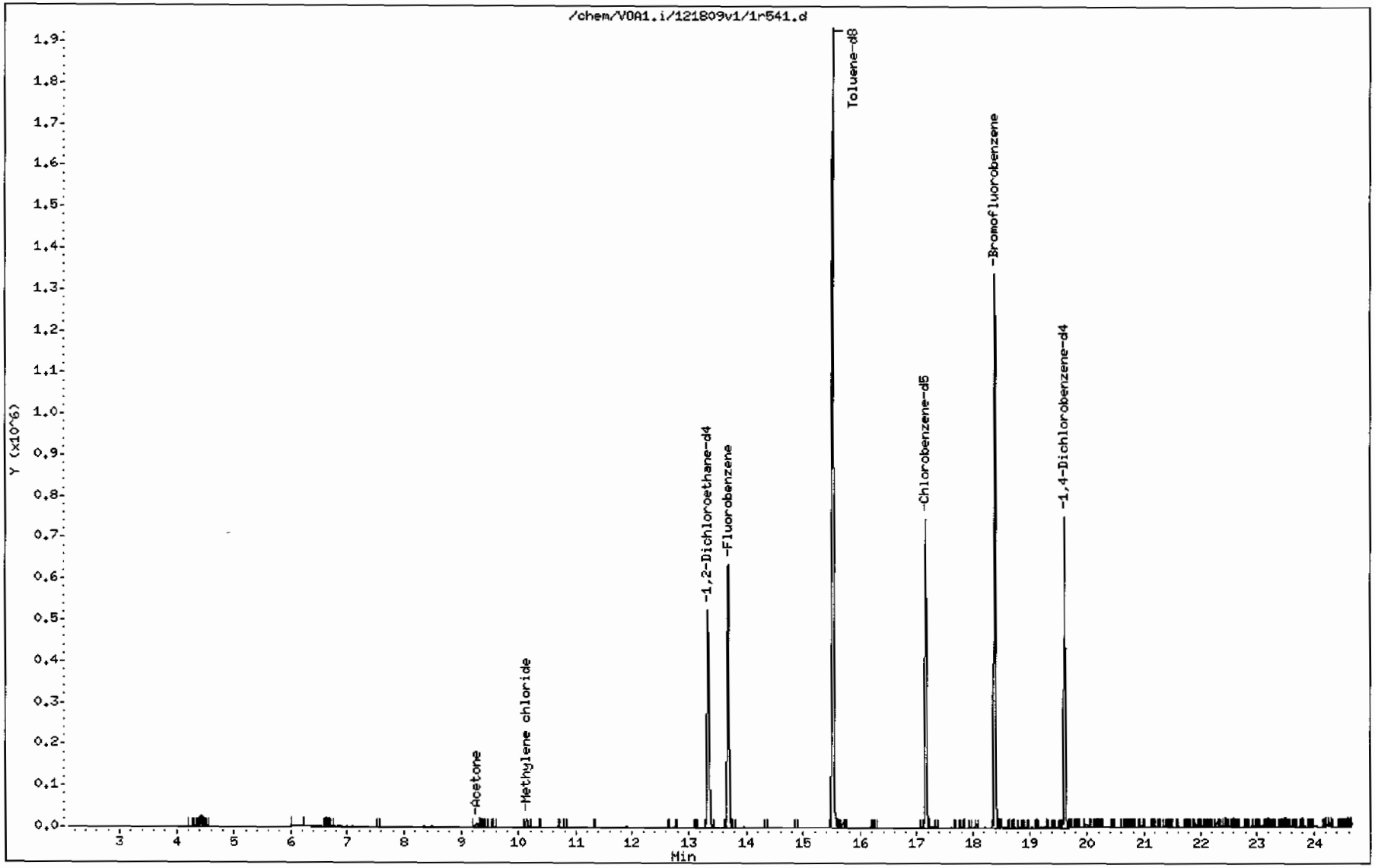

Data File: /chem/VOA1.i/121809v1/1r541.d

Date : 19-DEC-2009 06:56

Client ID: RE03-09-14217

Instrument: VOA1.i

Sample Info: |2429370081934728|1|VOAF|1|

Operator: RXM4

Column phase: RTX-Volatiles

Column diameter: 0.25

16 Acetone

Concentration: 5.1 ug/Kg

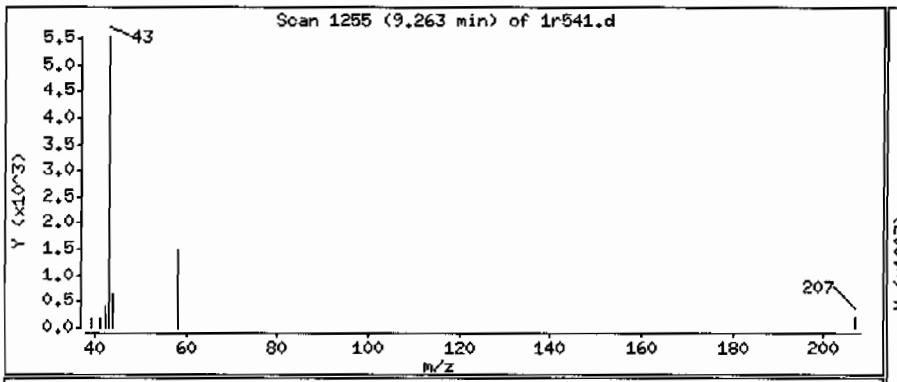

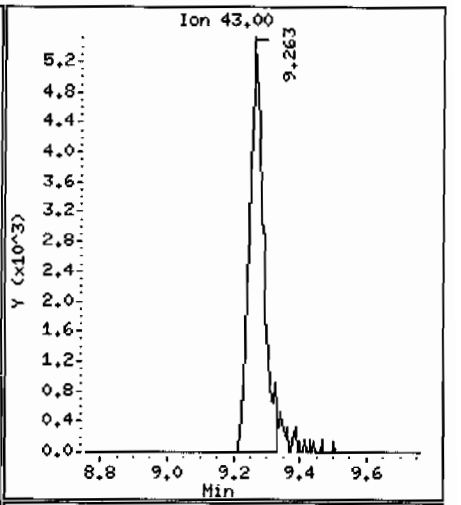

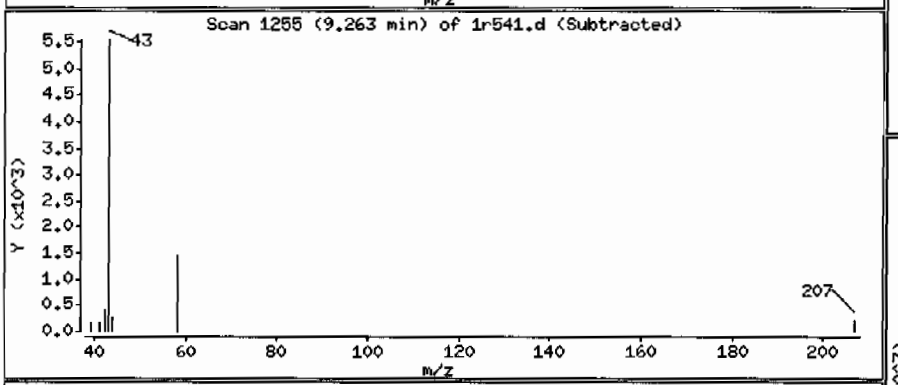

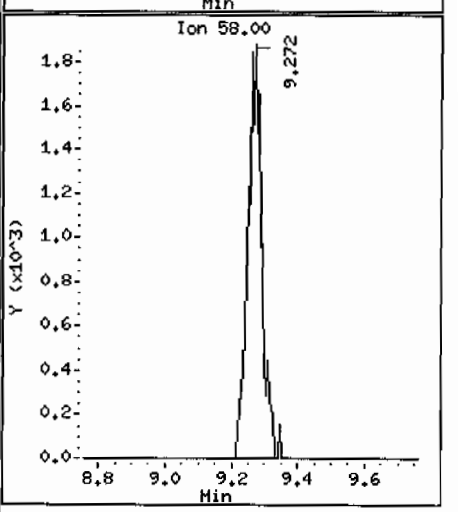

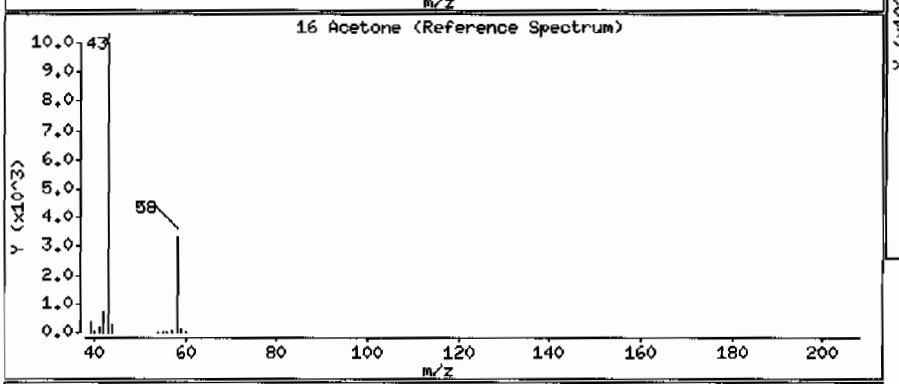

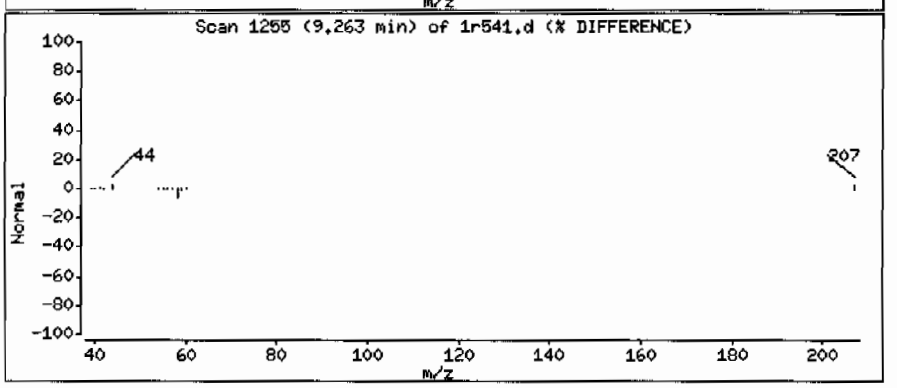

Data File: /chem/VOA1.i/121809v1/1r541.d

Date : 19-DEC-2009 06:56

Client ID: RE03-09-14217

Instrument: VOA1.i

Sample Info: |2429370081934728|1|VOAF|1|

Operator: RXM4

Column phase: RTX-Volatiles

Column diameter: 0.25

23 Methylene chloride

Concentration: 2.6 ug/Kg

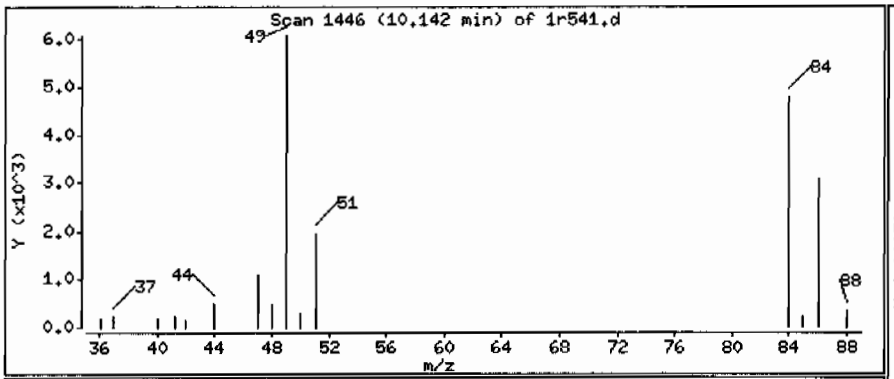

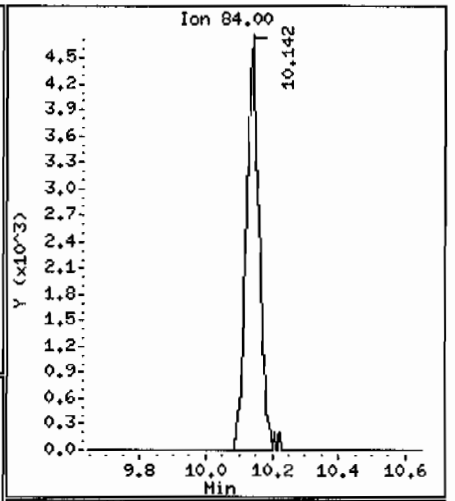

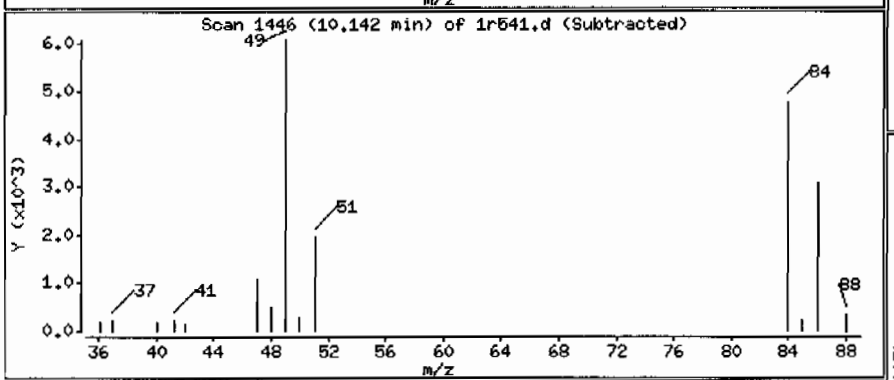

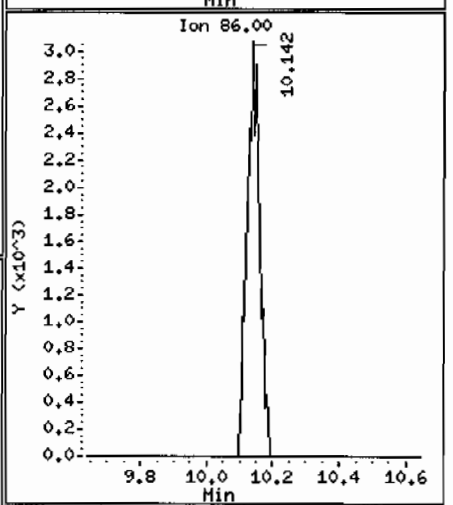

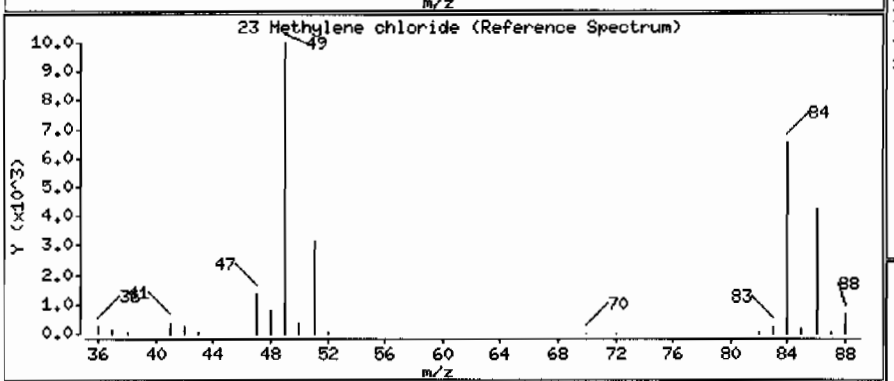

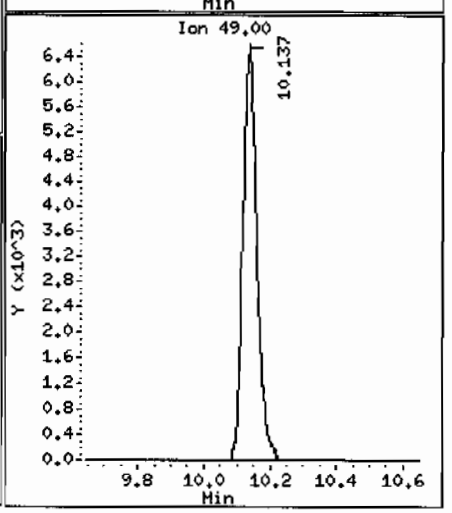

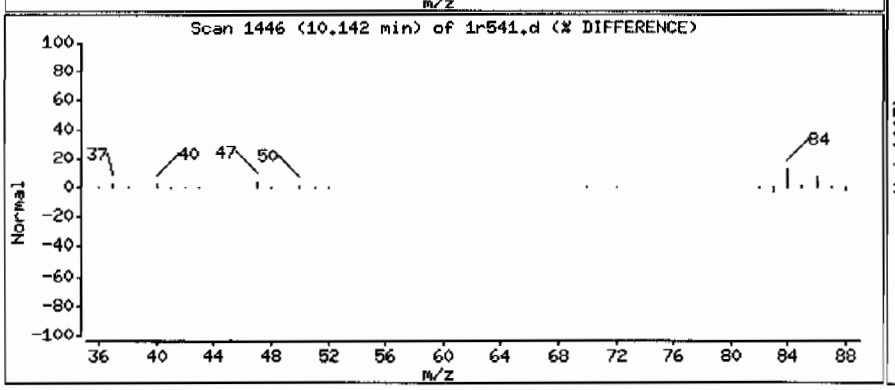

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-917	**Date Collected:**	12/11/2009 12:00	**Matrix:**	S
Lab Sample ID:	242937005	**Date Received:**	12/15/2009 08:45	**%Moisture:**	17.6
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14218	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	934728	**Inst:**	VOA1.I	**Dilution:**	1
Run Date:	12/19/2009 05:25	**Analyst:**	RXM4	**Purge Vol:**	5 mL
Prep Date:	12/18/2009 14:12	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	1r538.d	**Column:**	RTX-Volatiles	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.21	ug/kg	0.413	1.21
74-87-3	Chloromethane	U	1.21	ug/kg	0.364	1.21
75-01-4	Vinyl chloride	U	1.21	ug/kg	0.364	1.21
74-83-9	Bromomethane	U	1.21	ug/kg	0.364	1.21
75-00-3	Chloroethane	U	1.21	ug/kg	0.364	1.21
75-69-4	Trichlorofluoromethane	U	1.21	ug/kg	0.364	1.21
67-64-1	Acetone	J	4.82	ug/kg	2.01	6.07
75-35-4	1,1-Dichloroethylene	U	1.21	ug/kg	0.364	1.21
74-88-4	Iodomethane	U	6.07	ug/kg	1.94	6.07
75-09-2	Methylene chloride	J	2.91	ug/kg	2.43	6.07
75-15-0	Carbon disulfide	U	6.07	ug/kg	1.52	6.07
156-60-5	trans-1,2-Dichloroethylene	U	1.21	ug/kg	0.364	1.21
75-34-3	1,1-Dichloroethane	U	1.21	ug/kg	0.364	1.21
78-93-3	2-Butanone	U	6.07	ug/kg	1.82	6.07
156-59-2	cis-1,2-Dichloroethylene	U	1.21	ug/kg	0.364	1.21
594-20-7	2,2-Dichloropropane	U	1.21	ug/kg	0.364	1.21
67-66-3	Chloroform	U	1.21	ug/kg	0.364	1.21
74-97-5	Bromochloromethane	U	1.21	ug/kg	0.401	1.21
71-55-6	1,1,1-Trichloroethane	U	1.21	ug/kg	0.364	1.21
563-58-6	1,1-Dichloropropene	U	1.21	ug/kg	0.364	1.21
56-23-5	Carbon tetrachloride	U	1.21	ug/kg	0.364	1.21
107-06-2	1,2-Dichloroethane	U	1.21	ug/kg	0.364	1.21
71-43-2	Benzene	U	1.21	ug/kg	0.364	1.21
79-01-6	Trichloroethylene	U	1.21	ug/kg	0.401	1.21
78-87-5	1,2-Dichloropropane	U	1.21	ug/kg	0.364	1.21
75-27-4	Bromodichloromethane	U	1.21	ug/kg	0.364	1.21
74-95-3	Dibromomethane	U	1.21	ug/kg	0.364	1.21
108-10-1	4-Methyl-2-pentanone	U	6.07	ug/kg	1.52	6.07
10061-01-5	cis-1,3-Dichloropropylene	U	1.21	ug/kg	0.364	1.21
108-88-3	Toluene	U	1.21	ug/kg	0.364	1.21
10061-02-6	trans-1,3-Dichloropropylene	U	1.21	ug/kg	0.364	1.21
79-00-5	1,1,2-Trichloroethane	U	1.21	ug/kg	0.364	1.21
591-78-6	2-Hexanone	U	6.07	ug/kg	1.82	6.07
142-28-9	1,3-Dichloropropane	U	1.21	ug/kg	0.364	1.21
127-18-4	Tetrachloroethylene	U	1.21	ug/kg	0.364	1.21
124-48-1	Dibromochloromethane	U	1.21	ug/kg	0.364	1.21
106-93-4	1,2-Dibromoethane	U	1.21	ug/kg	0.364	1.21
108-90-7	Chlorobenzene	U	1.21	ug/kg	0.364	1.21

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-917**	**Date Collected:**	**12/11/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242937005**	**Date Received:**	**12/15/2009 08:45**	**%Moisture:**	**17.6**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14218**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**934728**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**12/19/2009 05:25**	**Analyst:**	**RXM4**	**Purge Vol:**	**5 mL**
Prep Date:	**12/18/2009 14:12**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1r538.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.21	ug/kg	0.364	1.21
179601-23-1	m,p-Xylenes	U	2.43	ug/kg	0.364	2.43
95-47-6	o-Xylene	U	1.21	ug/kg	0.364	1.21
100-42-5	Styrene	U	1.21	ug/kg	0.364	1.21
75-25-2	Bromoform	U	1.21	ug/kg	0.364	1.21
79-34-5	1,1,2,2-Tetrachloroethane	U	1.21	ug/kg	0.364	1.21
96-18-4	1,2,3-Trichloropropane	U	1.21	ug/kg	0.364	1.21
108-86-1	Bromobenzene	U	1.21	ug/kg	0.364	1.21
103-65-1	n-Propylbenzene	U	1.21	ug/kg	0.364	1.21
95-49-8	2-Chlorotoluene	U	1.21	ug/kg	0.364	1.21
98-82-8	Isopropylbenzene	U	1.21	ug/kg	0.364	1.21
108-67-8	1,3,5-Trimethylbenzene	U	1.21	ug/kg	0.364	1.21
106-43-4	4-Chlorotoluene	U	1.21	ug/kg	0.364	1.21
98-06-6	tert-Butylbenzene	U	1.21	ug/kg	0.364	1.21
95-63-6	1,2,4-Trimethylbenzene	U	1.21	ug/kg	0.364	1.21
135-98-8	sec-Butylbenzene	U	1.21	ug/kg	0.364	1.21
99-87-6	4-Isopropyltoluene	U	1.21	ug/kg	0.364	1.21
541-73-1	1,3-Dichlorobenzene	U	1.21	ug/kg	0.364	1.21
106-46-7	1,4-Dichlorobenzene	U	1.21	ug/kg	0.364	1.21
104-51-8	n-Butylbenzene	U	1.21	ug/kg	0.364	1.21
96-12-8	1,2-Dibromo-3-chloropropane	U	1.21	ug/kg	0.364	1.21
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	6.07	ug/kg	1.94	6.07
630-20-6	1,1,1,2-Tetrachloroethane	U	1.21	ug/kg	0.364	1.21
95-50-1	1,2-Dichlorobenzene	U	1.21	ug/kg	0.364	1.21

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	No Tentatively Identified Compounds Found			ug/kg		

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/121809v1/1r538.d
Lab Smp Id: 242937005 Client Smp ID: RE03-09-14218
Inj Date : 19-DEC-2009 05:25
Operator : RXM4 Inst ID: VOA1.i
Smp Info : |242937005|934728|1|VOAF|1|
Misc Info : LANL 5G N/A
Comment :
Method : /chem/VOA1.i/121809v1/VOA1-8260ox-121709PM.m
Meth Date : 19-Dec-2009 14:30 ron01469 Quant Type: ISTD
Cal Date : 17-DEC-2009 21:57 Cal File: 1r426.d
Als bottle: 38
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-917.sub
Target Version: 3.50

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	17.60770	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
* 52 Fluorobenzene	96	13.686	13.686	(1.000)	674429	50.0000	
* 76 Chlorobenzene-d5	117	17.157	17.162	(1.000)	466770	50.0000	
* 102 1,4-Dichlorobenzene-d4	152	19.610	19.610	(1.000)	232122	50.0000	
$ 48 1,2-Dichloroethane-d4	65	13.341	13.341	(0.975)	448880	54.9296	66.7
$ 65 Toluene-d8	98	15.518	15.518	(0.904)	1373774	51.5359	62.5
$ 87 Bromofluorobenzene	95	18.386	18.386	(0.938)	510089	53.4641	64.9
16 Acetone	43	9.258	9.258	(0.676)	16206	3.97203	4.8(a)
23 Methylene chloride	84	10.142	10.147	(0.741)	15275	2.39683	2.9(a)

QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).

ION RATIO REPORT

VOA REPORT

Data file: 1r538.d
Report Date: 12/19/2009 14:34
Lab. ID: 242937005 SampleType: SAMPLE
Injection Date: 19-DEC-2009 05:25
Operator: RXM4 Instrument: VOA1.i
Sample Info: |242937005|934728|1|VOAF|1|
Miscellaneous Info: LANL 5G N/A
Comment:
Method used: /chem/VOA1.i/121809v1/VOA1-8260ox-121709PM.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-917
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
16 Acetone			CAS#: 67-64-1			
43	16206	9.26	9.26	80-120	100	( )
58	5397	9.26	9.26	3- 63	33	( )
23 Methylene chloride			CAS#: 75-09-2			
84	15275	10.14	10.15	80-120	100	( )
86	9512	10.14	10.14	35- 95	62	( )
49	21614	10.14	10.15	121-181	142	( )
51 1,2-Dichloroethane			CAS#: 107-06-2			
62	10661	13.68	13.44	80-120	100	(T)
64	1864	13.69	13.44	2- 62	17	(T)
64 4-Methyl-2-pentanone			CAS#: 108-10-1			
58	12812	15.52	15.36	80-120	100	(T)
43	6410	15.52	15.36	206-266	50	(QT)
100	876762	15.52	15.36	0- 59	6843	(QT)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/121809v1/1r538.d
Lab Smp Id: 242937005 Client Smp ID: RE03-09-14218
Inj Date : 19-DEC-2009 05:25
Operator : RXM4 Inst ID: VOA1.i
Smp Info : |242937005|934728|1|VOAF|1|
Misc Info : LANL 5G N/A
Comment :
Method : /chem/VOA1.i/121809v1/VOA1-8260ox-121709PM.m
Meth Date : 19-Dec-2009 14:30 ron01469 Quant Type: ISTD
Cal Date : 17-DEC-2009 21:57 Cal File: 1r426.d
Als bottle: 38
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-917.sub
Target Version: 3.50

- NO TENTATIVELY IDENTIFIED COMPOUNDS -

Data File: /chem/VOA1.i/121809v1/1r538.d
Date : 19-DEC-2009 05:25
Client ID: RE03-09-14218
Sample Info: |2429370051934728|1|VOAF|1|

Column phase: RTX-Volatiles

Instrument: VOA1.i

Operator: RXM4
Column diameter: 0.25

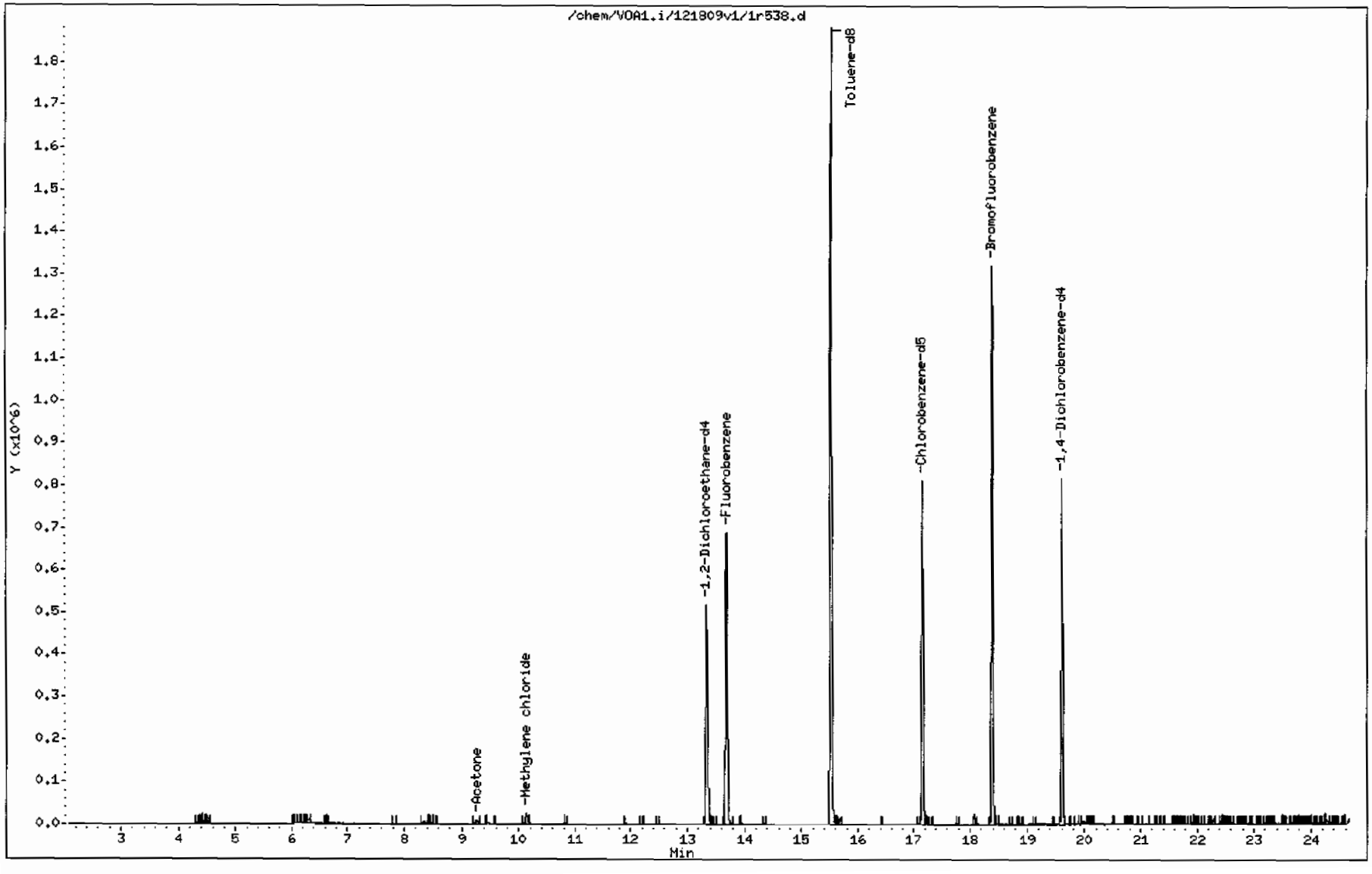

Data File: /chem/VOA1.i/121809v1/1r538.d

Date : 19-DEC-2009 05:25

Client ID: RE03-09-14218

Instrument: VOA1.i

Sample Info: |2429370051934728|1|VOAF|1|

Operator: RXM4

Column phase: RTX-Volatiles

Column diameter: 0.25

16 Acetone

Concentration: 4.8 ug/Kg

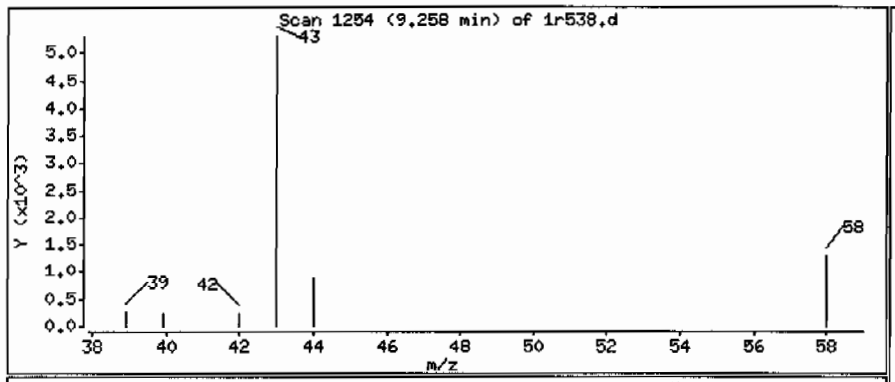

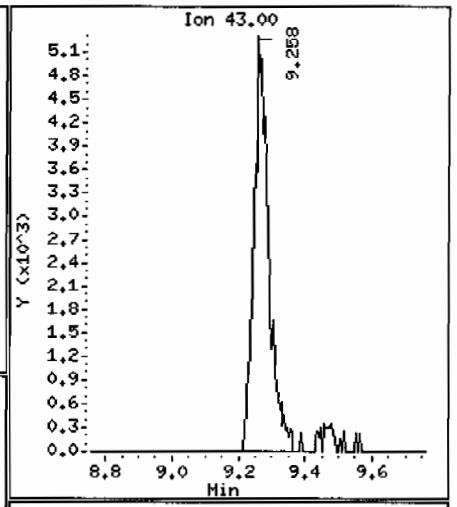

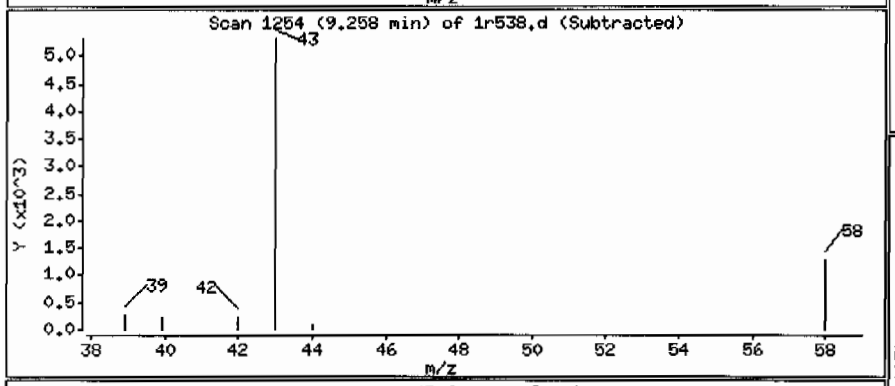

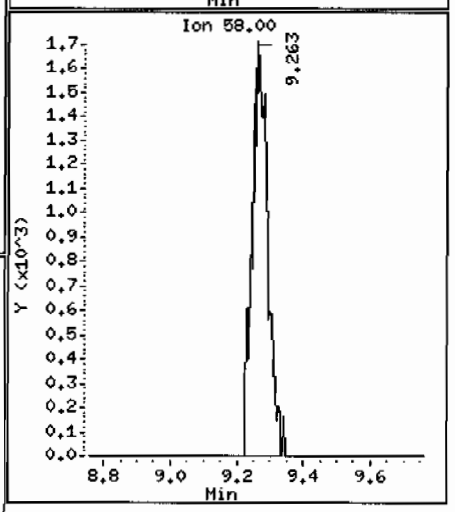

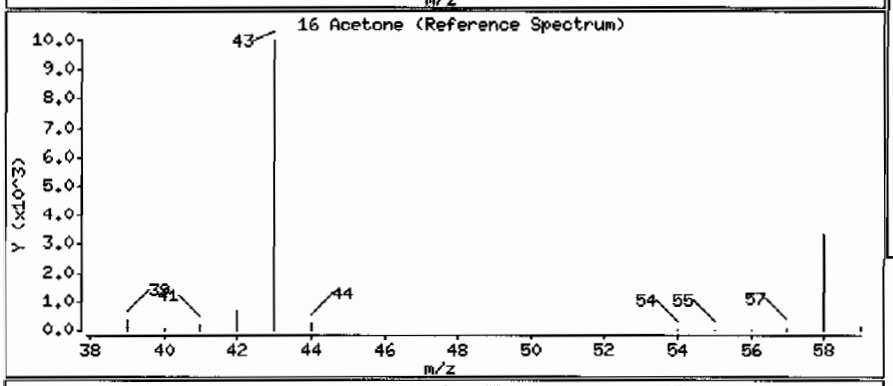

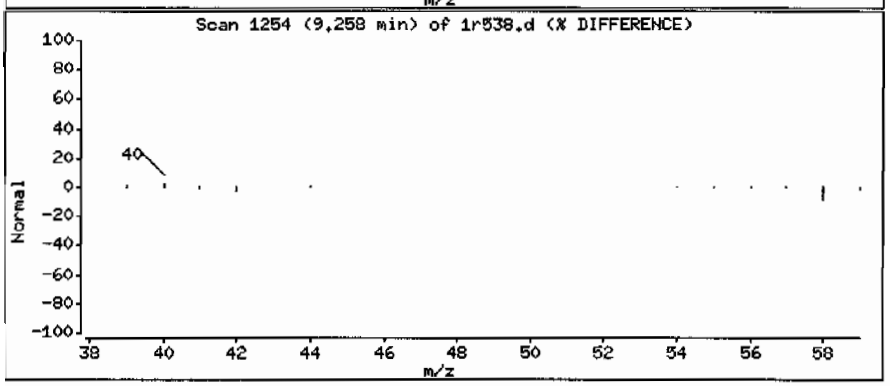

Data File: /chem/VOA1.i/121809v1/1r538.d

Date : 19-DEC-2009 05:25

Client ID: RE03-09-14218

Instrument: VOA1.i

Sample Info: |1242937005|934728|1|VOAF|1|

Operator: RXM4

Column phase: RTX-Volatiles

Column diameter: 0.25

23 Methylene chloride

Concentration: 2.9 ug/Kg

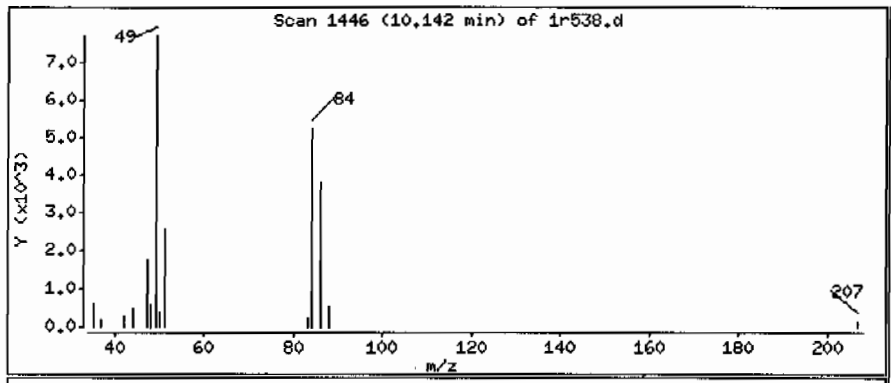

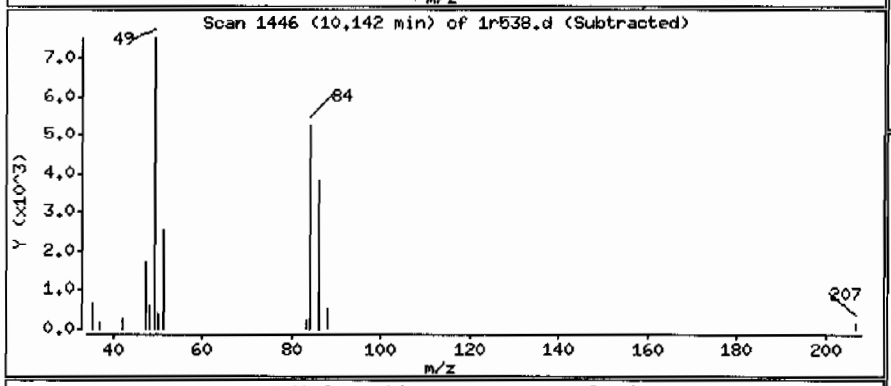

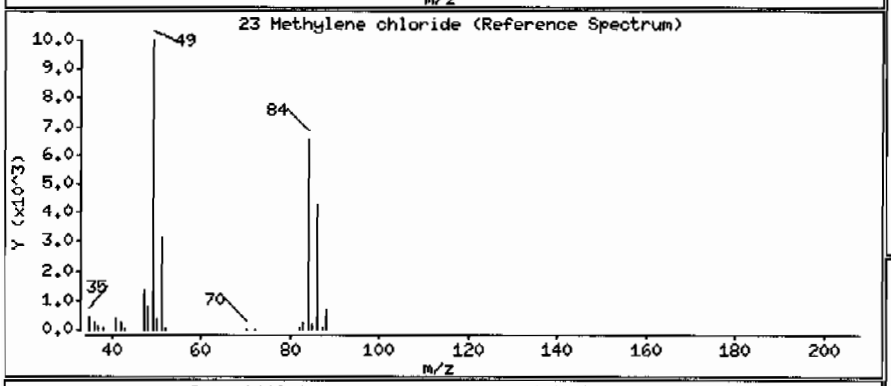

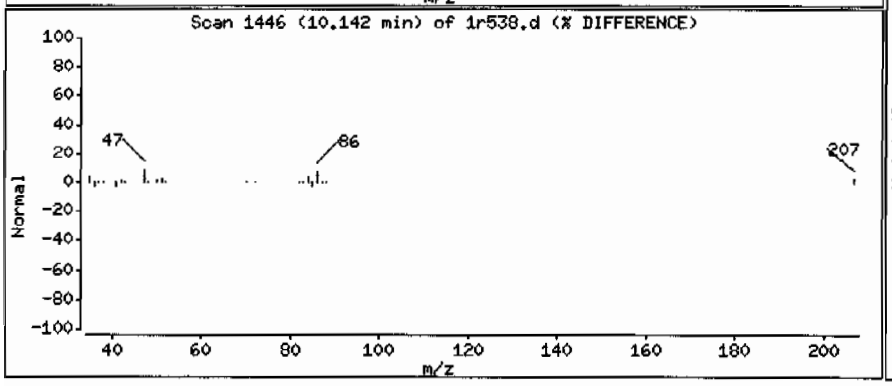

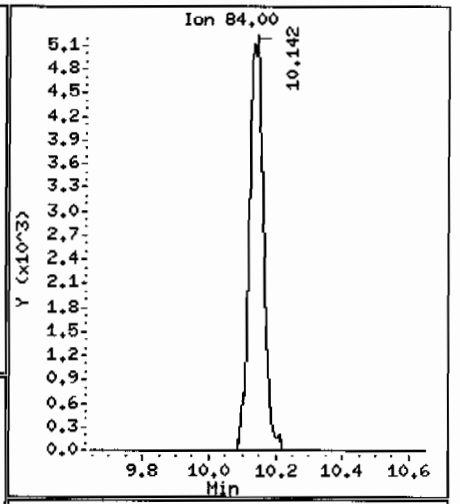

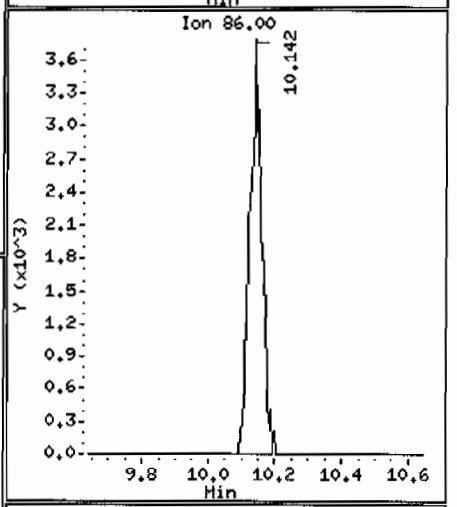

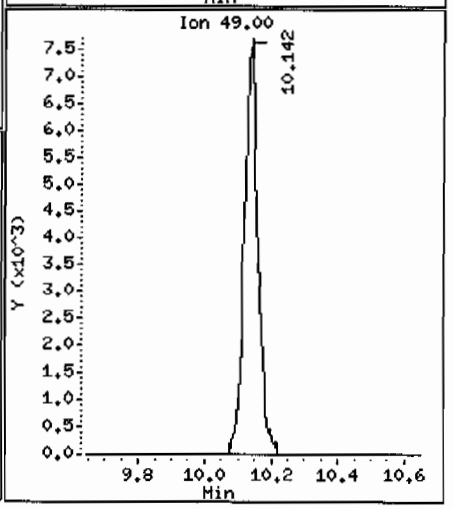

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-917**	**Date Collected:**	**12/11/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242937004**	**Date Received:**	**12/15/2009 08:45**	**%Moisture:**	**17.2**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14219**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**934728**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**12/19/2009 04:55**	**Analyst:**	**RXM4**	**Purge Vol:**	**5 mL**
Prep Date:	**12/18/2009 14:11**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1r537.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.21	ug/kg	0.410	1.21
74-87-3	Chloromethane	U	1.21	ug/kg	0.362	1.21
75-01-4	Vinyl chloride	U	1.21	ug/kg	0.362	1.21
74-83-9	Bromomethane	U	1.21	ug/kg	0.362	1.21
75-00-3	Chloroethane	U	1.21	ug/kg	0.362	1.21
75-69-4	Trichlorofluoromethane	U	1.21	ug/kg	0.362	1.21
67-64-1	Acetone	J	4.48	ug/kg	2.00	6.04
75-35-4	1,1-Dichloroethylene	U	1.21	ug/kg	0.362	1.21
74-88-4	Iodomethane	U	6.04	ug/kg	1.93	6.04
75-09-2	Methylene chloride	J	2.92	ug/kg	2.41	6.04
75-15-0	Carbon disulfide	U	6.04	ug/kg	1.51	6.04
156-60-5	trans-1,2-Dichloroethylene	U	1.21	ug/kg	0.362	1.21
75-34-3	1,1-Dichloroethane	U	1.21	ug/kg	0.362	1.21
78-93-3	2-Butanone	U	6.04	ug/kg	1.81	6.04
156-59-2	cis-1,2-Dichloroethylene	U	1.21	ug/kg	0.362	1.21
594-20-7	2,2-Dichloropropane	U	1.21	ug/kg	0.362	1.21
67-66-3	Chloroform	U	1.21	ug/kg	0.362	1.21
74-97-5	Bromochloromethane	U	1.21	ug/kg	0.398	1.21
71-55-6	1,1,1-Trichloroethane	U	1.21	ug/kg	0.362	1.21
563-58-6	1,1-Dichloropropene	U	1.21	ug/kg	0.362	1.21
56-23-5	Carbon tetrachloride	U	1.21	ug/kg	0.362	1.21
107-06-2	1,2-Dichloroethane	U	1.21	ug/kg	0.362	1.21
71-43-2	Benzene	U	1.21	ug/kg	0.362	1.21
79-01-6	Trichloroethylene	U	1.21	ug/kg	0.398	1.21
78-87-5	1,2-Dichloropropane	U	1.21	ug/kg	0.362	1.21
75-27-4	Bromodichloromethane	U	1.21	ug/kg	0.362	1.21
74-95-3	Dibromomethane	U	1.21	ug/kg	0.362	1.21
108-10-1	4-Methyl-2-pentanone	U	6.04	ug/kg	1.51	6.04
10061-01-5	cis-1,3-Dichloropropylene	U	1.21	ug/kg	0.362	1.21
108-88-3	Toluene	U	1.21	ug/kg	0.362	1.21
10061-02-6	trans-1,3-Dichloropropylene	U	1.21	ug/kg	0.362	1.21
79-00-5	1,1,2-Trichloroethane	U	1.21	ug/kg	0.362	1.21
591-78-6	2-Hexanone	U	6.04	ug/kg	1.81	6.04
142-28-9	1,3-Dichloropropane	U	1.21	ug/kg	0.362	1.21
127-18-4	Tetrachloroethylene	U	1.21	ug/kg	0.362	1.21
124-48-1	Dibromochloromethane	U	1.21	ug/kg	0.362	1.21
106-93-4	1,2-Dibromoethane	U	1.21	ug/kg	0.362	1.21
108-90-7	Chlorobenzene	U	1.21	ug/kg	0.362	1.21

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-917	**Date Collected:**	12/11/2009 12:00	**Matrix:**	S
Lab Sample ID:	242937004	**Date Received:**	12/15/2009 08:45	**%Moisture:**	17.2
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14219	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	934728	**Inst:**	VOA1.I	**Dilution:**	1
Run Date:	12/19/2009 04:55	**Analyst:**	RXM4	**Purge Vol:**	5 mL
Prep Date:	12/18/2009 14:11	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	1r537.d	**Column:**	RTX-Volatiles	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.21	ug/kg	0.362	1.21
179601-23-1	m,p-Xylenes	U	2.41	ug/kg	0.362	2.41
95-47-6	o-Xylene	U	1.21	ug/kg	0.362	1.21
100-42-5	Styrene	U	1.21	ug/kg	0.362	1.21
75-25-2	Bromoform	U	1.21	ug/kg	0.362	1.21
79-34-5	1,1,2,2-Tetrachloroethane	U	1.21	ug/kg	0.362	1.21
96-18-4	1,2,3-Trichloropropane	U	1.21	ug/kg	0.362	1.21
108-86-1	Bromobenzene	U	1.21	ug/kg	0.362	1.21
103-65-1	n-Propylbenzene	U	1.21	ug/kg	0.362	1.21
95-49-8	2-Chlorotoluene	U	1.21	ug/kg	0.362	1.21
98-82-8	Isopropylbenzene	U	1.21	ug/kg	0.362	1.21
108-67-8	1,3,5-Trimethylbenzene	U	1.21	ug/kg	0.362	1.21
106-43-4	4-Chlorotoluene	U	1.21	ug/kg	0.362	1.21
98-06-6	tert-Butylbenzene	U	1.21	ug/kg	0.362	1.21
95-63-6	1,2,4-Trimethylbenzene	U	1.21	ug/kg	0.362	1.21
135-98-8	sec-Butylbenzene	U	1.21	ug/kg	0.362	1.21
99-87-6	4-Isopropyltoluene	U	1.21	ug/kg	0.362	1.21
541-73-1	1,3-Dichlorobenzene	U	1.21	ug/kg	0.362	1.21
106-46-7	1,4-Dichlorobenzene	U	1.21	ug/kg	0.362	1.21
104-51-8	n-Butylbenzene	U	1.21	ug/kg	0.362	1.21
96-12-8	1,2-Dibromo-3-chloropropane	U	1.21	ug/kg	0.362	1.21
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	6.04	ug/kg	1.93	6.04
630-20-6	1,1,1,2-Tetrachloroethane	U	1.21	ug/kg	0.362	1.21
95-50-1	1,2-Dichlorobenzene	U	1.21	ug/kg	0.362	1.21

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	No Tentatively Identified Compounds Found			ug/kg		

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/121809v1/1r537.d
Lab Smp Id: 242937004 Client Smp ID: RE03-09-14219
Inj Date : 19-DEC-2009 04:55
Operator : RXM4 Inst ID: VOA1.i
Smp Info : |242937004|934728|1|VOAF|1|
Misc Info : LANL 5G N/A
Comment :
Method : /chem/VOA1.i/121809v1/VOA1-8260ox-121709PM.m
Meth Date : 19-Dec-2009 14:30 ron01469 Quant Type: ISTD
Cal Date : 17-DEC-2009 21:57 Cal File: 1r426.d
Als bottle: 37
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-917.sub
Target Version: 3.50

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	17.16580	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
* 52 Fluorobenzene	96	13.686	13.686	(1.000)	706896	50.0000	
* 76 Chlorobenzene-d5	117	17.162	17.162	(1.000)	489155	50.0000	
* 102 1,4-Dichlorobenzene-d4	152	19.610	19.610	(1.000)	249134	50.0000	
$ 48 1,2-Dichloroethane-d4	65	13.341	13.341	(0.975)	505884	59.0620	71.3
$ 65 Toluene-d8	98	15.518	15.518	(0.904)	1544533	55.2902	66.7
$ 87 Bromofluorobenzene	95	18.386	18.386	(0.938)	577523	56.3986	68.1
16 Acetone	43	9.263	9.258	(0.677)	15874	3.71197	4.5(a)
23 Methylene chloride	84	10.142	10.147	(0.741)	16154	2.41919	2.9(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

ION RATIO REPORT

VOA REPORT

Data file: 1r537.d
Report Date: 12/19/2009 14:34
Lab. ID: 242937004 SampleType: SAMPLE
Injection Date: 19-DEC-2009 04:55
Operator: RXM4 Instrument: VOA1.i
Sample Info: |242937004|934728|1|VOAF|1|
Miscellaneous Info: LANL 5G N/A
Comment:
Method used: /chem/VOA1.i/121809v1/VOA1-8260ox-121709PM.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-917
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
16 Acetone			CAS#: 67-64-1			
43	15874	9.26	9.26	80-120	100	( )
58	5303	9.27	9.26	3- 63	33	( )
23 Methylene chloride			CAS#: 75-09-2			
84	16154	10.14	10.15	80-120	100	( )
86	10427	10.15	10.14	35- 95	65	( )
49	23889	10.14	10.15	121-181	148	( )
51 1,2-Dichloroethane			CAS#: 107-06-2			
62	11242	13.69	13.44	80-120	100	(T)
64	2028	13.68	13.44	2- 62	18	(T)
64 4-Methyl-2-pentanone			CAS#: 108-10-1			
58	14612	15.52	15.36	80-120	100	(T)
43	7389	15.52	15.36	206-266	51	(QT)
100	985926	15.52	15.36	0- 59	6747	(QT)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/121809v1/1r537.d
Lab Smp Id: 242937004 Client Smp ID: RE03-09-14219
Inj Date : 19-DEC-2009 04:55
Operator : RXM4 Inst ID: VOA1.i
Smp Info : |242937004|934728|1|VOAF|1|
Misc Info : LANL 5G N/A
Comment :
Method : /chem/VOA1.i/121809v1/VOA1-8260ox-121709PM.m
Meth Date : 19-Dec-2009 14:30 ron01469 Quant Type: ISTD
Cal Date : 17-DEC-2009 21:57 Cal File: 1r426.d
Als bottle: 37
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-917.sub
Target Version: 3.50

- NO TENTATIVELY IDENTIFIED COMPOUNDS -

Data File: /chem/VOA1.i/121809v1/1r537.d
Date : 19-DEC-2009 04:55
Client ID: RE03-09-14219
Sample Info: |2429370041934728|1|VOAF|1|

Column phase: RTX-Volatiles

Instrument: VOA1.i

Operator: RXM4
Column diameter: 0.25

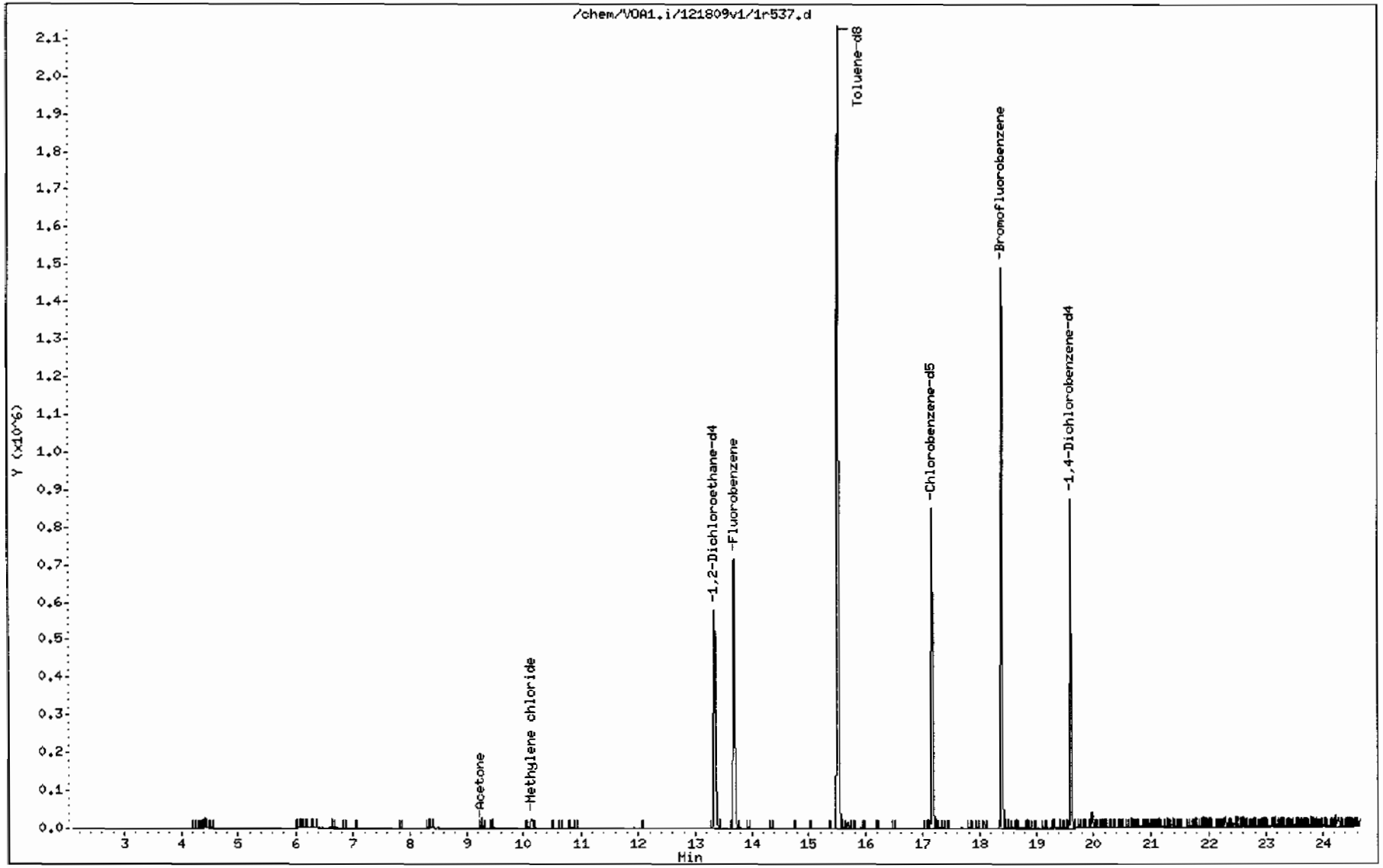

Data File: /chem/VOA1.i/121809v1/1r537.d

Date : 19-DEC-2009 04:55

Client ID: RE03-09-14219

Instrument: VOA1.i

Sample Info: |2429370041934728111VOAF111

Operator: RXM4

Column phase: RTX-Volatiles

Column diameter: 0.25

16 Acetone

Concentration: 4.5 ug/Kg

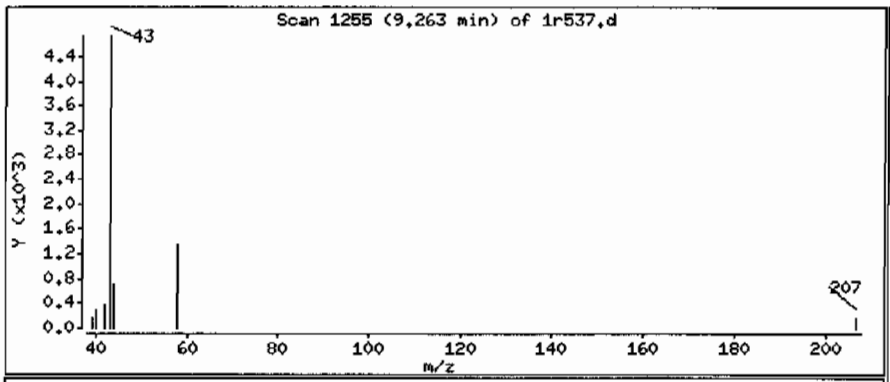

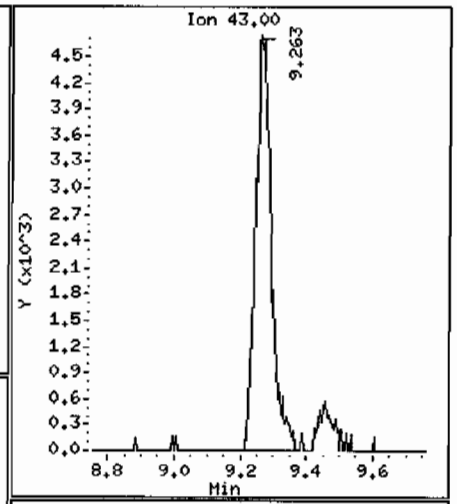

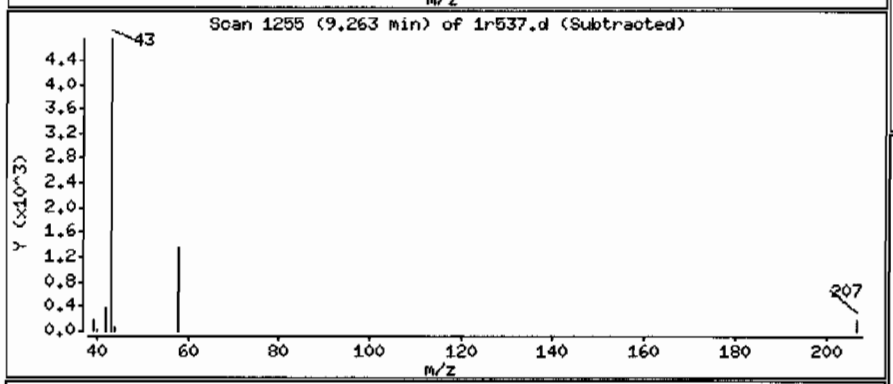

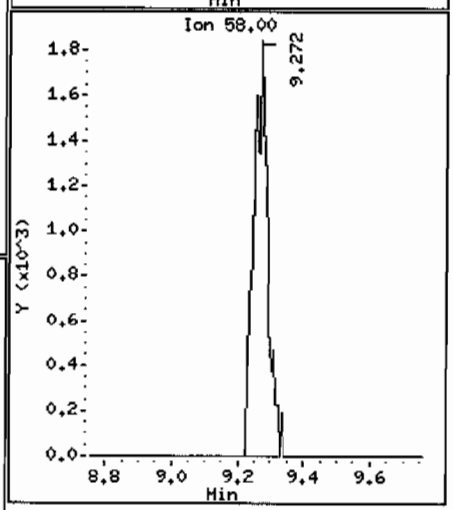

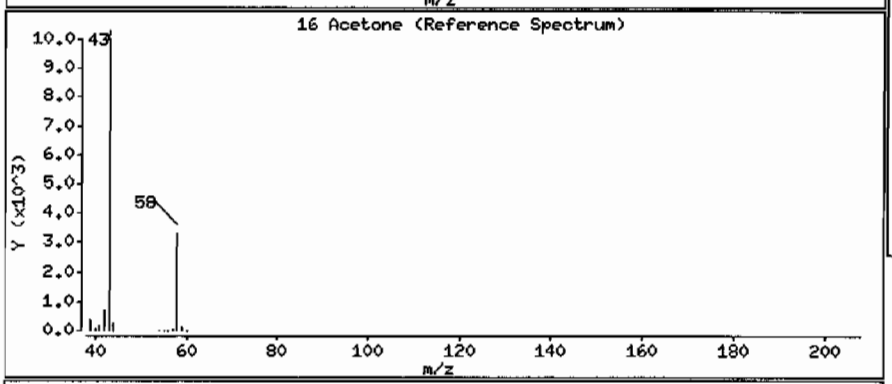

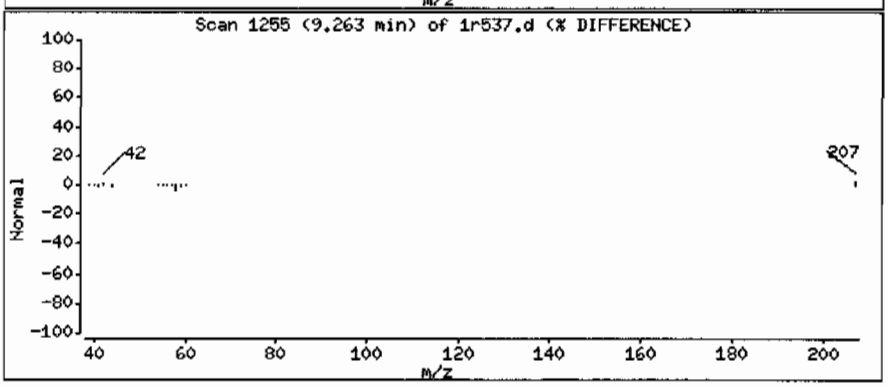

Data File: /chem/VOA1.i/121809v1/1r537.d

Date : 19-DEC-2009 04:55

Client ID: RE03-09-14219

Instrument: VOA1.i

Sample Info: |2429370041934728|1|VOAF|1|

Operator: RXH4

Column phase: RTX-Volatiles

Column diameter: 0.25

23 Methylene chloride

Concentration: 2.9 ug/Kg

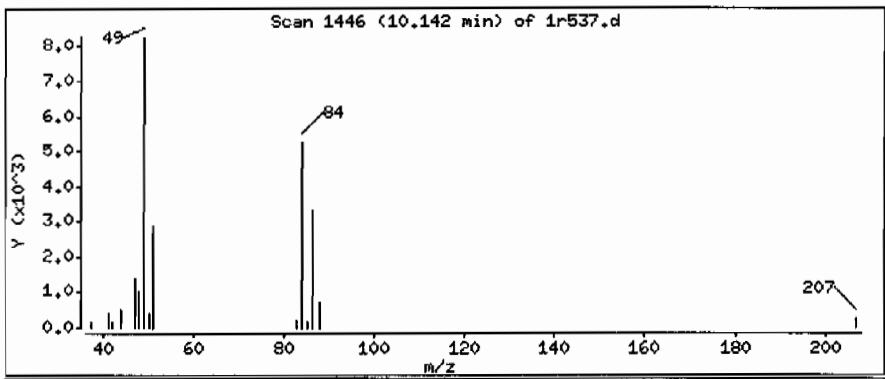

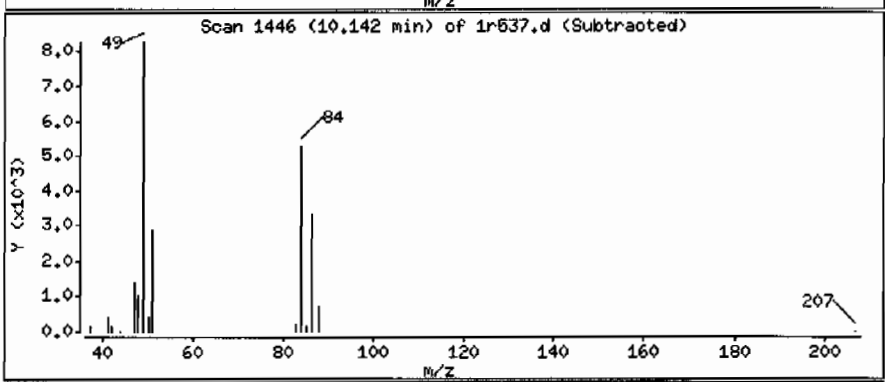

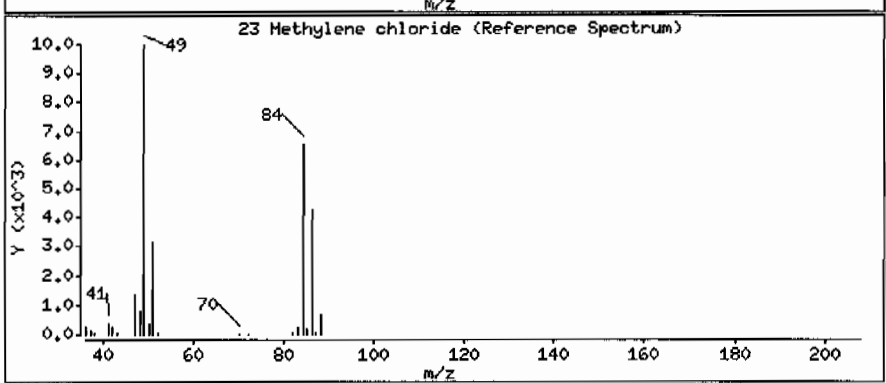

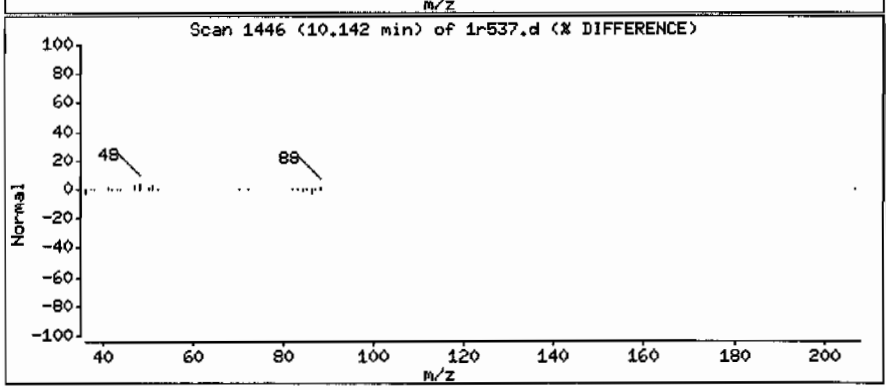

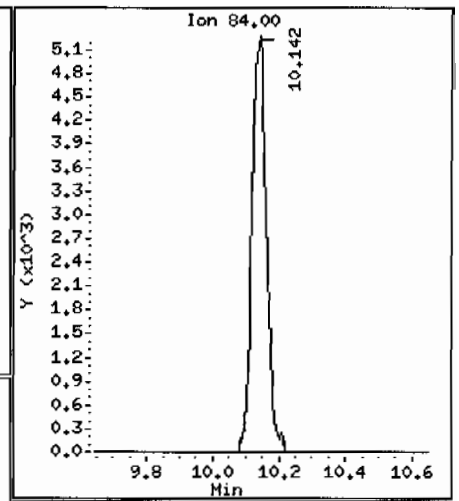

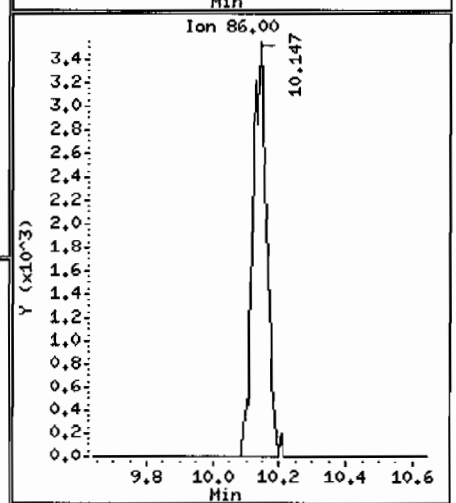

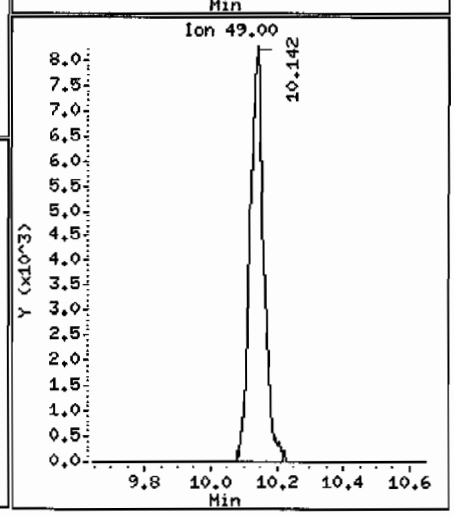

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-917**	**Date Collected:**	**12/11/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242937009**	**Date Received:**	**12/15/2009 08:45**	**%Moisture:**	**14.2**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-10-2735**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**934728**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**12/19/2009 07:26**	**Analyst:**	**RXM4**	**Purge Vol:**	**5 mL**
Prep Date:	**12/18/2009 14:16**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1r542.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.17	ug/kg	0.396	1.17
74-87-3	Chloromethane	U	1.17	ug/kg	0.350	1.17
75-01-4	Vinyl chloride	U	1.17	ug/kg	0.350	1.17
74-83-9	Bromomethane	U	1.17	ug/kg	0.350	1.17
75-00-3	Chloroethane	U	1.17	ug/kg	0.350	1.17
75-69-4	Trichlorofluoromethane	U	1.17	ug/kg	0.350	1.17
67-64-1	Acetone		6.12	ug/kg	1.93	5.83
75-35-4	1,1-Dichloroethylene	U	1.17	ug/kg	0.350	1.17
74-88-4	Iodomethane	U	5.83	ug/kg	1.86	5.83
75-09-2	Methylene chloride	U	5.83	ug/kg	2.33	5.83
75-15-0	Carbon disulfide	U	5.83	ug/kg	1.46	5.83
156-60-5	trans-1,2-Dichloroethylene	U	1.17	ug/kg	0.350	1.17
75-34-3	1,1-Dichloroethane	U	1.17	ug/kg	0.350	1.17
78-93-3	2-Butanone	U	5.83	ug/kg	1.75	5.83
156-59-2	cis-1,2-Dichloroethylene	U	1.17	ug/kg	0.350	1.17
594-20-7	2,2-Dichloropropane	U	1.17	ug/kg	0.350	1.17
67-66-3	Chloroform	U	1.17	ug/kg	0.350	1.17
74-97-5	Bromochloromethane	U	1.17	ug/kg	0.385	1.17
71-55-6	1,1,1-Trichloroethane	U	1.17	ug/kg	0.350	1.17
563-58-6	1,1-Dichloropropene	U	1.17	ug/kg	0.350	1.17
56-23-5	Carbon tetrachloride	U	1.17	ug/kg	0.350	1.17
107-06-2	1,2-Dichloroethane	U	1.17	ug/kg	0.350	1.17
71-43-2	Benzene	U	1.17	ug/kg	0.350	1.17
79-01-6	Trichloroethylene	U	1.17	ug/kg	0.385	1.17
78-87-5	1,2-Dichloropropane	U	1.17	ug/kg	0.350	1.17
75-27-4	Bromodichloromethane	U	1.17	ug/kg	0.350	1.17
74-95-3	Dibromomethane	U	1.17	ug/kg	0.350	1.17
108-10-1	4-Methyl-2-pentanone	U	5.83	ug/kg	1.46	5.83
10061-01-5	cis-1,3-Dichloropropylene	U	1.17	ug/kg	0.350	1.17
108-88-3	Toluene	U	1.17	ug/kg	0.350	1.17
10061-02-6	trans-1,3-Dichloropropylene	U	1.17	ug/kg	0.350	1.17
79-00-5	1,1,2-Trichloroethane	U	1.17	ug/kg	0.350	1.17
591-78-6	2-Hexanone	U	5.83	ug/kg	1.75	5.83
142-28-9	1,3-Dichloropropane	U	1.17	ug/kg	0.350	1.17
127-18-4	Tetrachloroethylene	U	1.17	ug/kg	0.350	1.17
124-48-1	Dibromochloromethane	U	1.17	ug/kg	0.350	1.17
106-93-4	1,2-Dibromoethane	U	1.17	ug/kg	0.350	1.17
108-90-7	Chlorobenzene	U	1.17	ug/kg	0.350	1.17

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-917**	**Date Collected:**	**12/11/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242937009**	**Date Received:**	**12/15/2009 08:45**	**%Moisture:**	**14.2**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-10-2735**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**934728**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**12/19/2009 07:26**	**Analyst:**	**RXM4**	**Purge Vol:**	**5 mL**
Prep Date:	**12/18/2009 14:16**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1r542.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.17	ug/kg	0.350	1.17
179601-23-1	m,p-Xylenes	U	2.33	ug/kg	0.350	2.33
95-47-6	o-Xylene	U	1.17	ug/kg	0.350	1.17
100-42-5	Styrene	U	1.17	ug/kg	0.350	1.17
75-25-2	Bromoform	U	1.17	ug/kg	0.350	1.17
79-34-5	1,1,2,2-Tetrachloroethane	U	1.17	ug/kg	0.350	1.17
96-18-4	1,2,3-Trichloropropane	U	1.17	ug/kg	0.350	1.17
108-86-1	Bromobenzene	U	1.17	ug/kg	0.350	1.17
103-65-1	n-Propylbenzene	U	1.17	ug/kg	0.350	1.17
95-49-8	2-Chlorotoluene	U	1.17	ug/kg	0.350	1.17
98-82-8	Isopropylbenzene	U	1.17	ug/kg	0.350	1.17
108-67-8	1,3,5-Trimethylbenzene	U	1.17	ug/kg	0.350	1.17
106-43-4	4-Chlorotoluene	U	1.17	ug/kg	0.350	1.17
98-06-6	tert-Butylbenzene	U	1.17	ug/kg	0.350	1.17
95-63-6	1,2,4-Trimethylbenzene	U	1.17	ug/kg	0.350	1.17
135-98-8	sec-Butylbenzene	U	1.17	ug/kg	0.350	1.17
99-87-6	4-Isopropyltoluene	U	1.17	ug/kg	0.350	1.17
541-73-1	1,3-Dichlorobenzene	U	1.17	ug/kg	0.350	1.17
106-46-7	1,4-Dichlorobenzene	U	1.17	ug/kg	0.350	1.17
104-51-8	n-Butylbenzene	U	1.17	ug/kg	0.350	1.17
96-12-8	1,2-Dibromo-3-chloropropane	U	1.17	ug/kg	0.350	1.17
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.83	ug/kg	1.86	5.83
630-20-6	1,1,1,2-Tetrachloroethane	U	1.17	ug/kg	0.350	1.17
95-50-1	1,2-Dichlorobenzene	U	1.17	ug/kg	0.350	1.17

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Hydrocarbon	18.07	14.1	ug/kg		J

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/121809v1/1r542.d
Lab Smp Id: 242937009 Client Smp ID: RE03-10-2735
Inj Date : 19-DEC-2009 07:26
Operator : RXM4 Inst ID: VOA1.i
Smp Info : |242937009|934728|1|VOAF|1|
Misc Info : LANL 5G N/A
Comment :
Method : /chem/VOA1.i/121809v1/VOA1-8260ox-121709PM.m
Meth Date : 19-Dec-2009 14:30 ron01469 Quant Type: ISTD
Cal Date : 17-DEC-2009 21:57 Cal File: 1r426.d
Als bottle: 42
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-917.sub
Target Version: 3.50

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	14.19430	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
* 52 Fluorobenzene	96	13.686	13.686	(1.000)	675326	50.0000	
* 76 Chlorobenzene-d5	117	17.157	17.162	(1.000)	473533	50.0000	
* 102 1,4-Dichlorobenzene-d4	152	19.610	19.610	(1.000)	251945	50.0000	
$ 48 1,2-Dichloroethane-d4	65	13.341	13.341	(0.975)	530755	64.8624	75.6
$ 65 Toluene-d8	98	15.518	15.518	(0.904)	1514082	55.9883	65.2
$ 87 Bromofluorobenzene	95	18.386	18.386	(0.938)	598910	57.8346	67.4
16 Acetone	43	9.267	9.258	(0.677)	21463	5.25352	6.1

ION RATIO REPORT

VOA REPORT

Data file: 1r542.d
Report Date: 12/19/2009 14:34
Lab. ID: 242937009 SampleType: SAMPLE
Injection Date: 19-DEC-2009 07:26
Operator: RXM4 Instrument: VOA1.i
Sample Info: |242937009|934728|1|VOAF|1|
Miscellaneous Info: LANL 5G N/A
Comment:
Method used: /chem/VOA1.i/121809v1/VOA1-8260ox-121709PM.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-917
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
16 Acetone			CAS#: 67-64-1			
43	21463	9.27	9.26	80-120	100	( )
58	6932	9.26	9.26	3- 63	32	( )
51 1,2-Dichloroethane			CAS#: 107-06-2			
62	10386	13.68	13.44	80-120	100	(T)
64	1780	13.68	13.44	2- 62	17	(T)
64 4-Methyl-2-pentanone			CAS#: 108-10-1			
58	14483	15.51	15.36	80-120	100	(T)
43	6729	15.51	15.36	206-266	46	(QT)
100	969741	15.52	15.36	0- 59	6695	(QT)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/121809v1/1r542.d
Lab Smp Id: 242937009 Client Smp ID: RE03-10-2735
Inj Date : 19-DEC-2009 07:26
Operator : RXM4 Inst ID: VOA1.i
Smp Info : |242937009|934728|1|VOAF|1|
Misc Info : LANL 5G N/A
Comment :
Method : /chem/VOA1.i/121809v1/VOA1-8260ox-121709PM.m
Meth Date : 19-Dec-2009 14:30 ron01469 Quant Type: ISTD
Cal Date : 17-DEC-2009 21:57 Cal File: 1r426.d
Als bottle: 42
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-917.sub
Target Version: 3.50

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	14.19430	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 76 Chlorobenzene-d5	17.157	1568000	50.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ug/l)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown Hydrocarbon				CAS #:			
18.068	378769	12.0780968	14.1	0		0	76

Data File: /chem/VOA1.i/121809v1/1r542.d
Date : 19-DEC-2009 07:26
Client ID: RE03-10-2735
Sample Info: |2429370091934728|1|VOAF|1|

Column phase: RTX-Volatiles

Instrument: VOA1.i

Operator: RXM4
Column diameter: 0.25

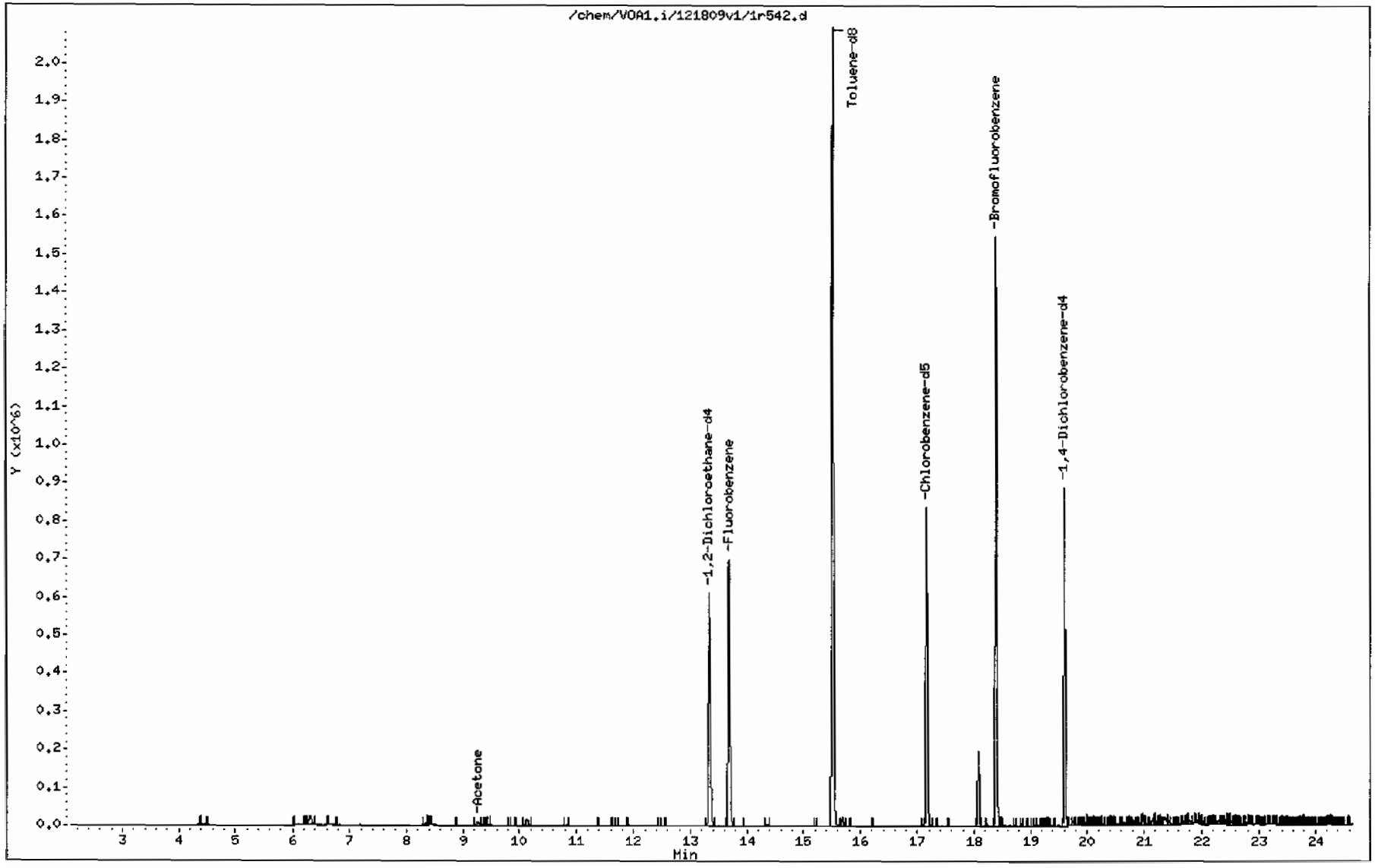

Data File: /chem/VOA1.i/121809v1/1r542.d

Date : 19-DEC-2009 07:26

Client ID: RE03-10-2735

Instrument: VOA1.i

Sample Info: |2429370091934728|1|VOAF|1|

Operator: RXM4

Column phase: RTX-Volatiles

Column diameter: 0.25

16 Acetone

Concentration: 6.1 ug/Kg

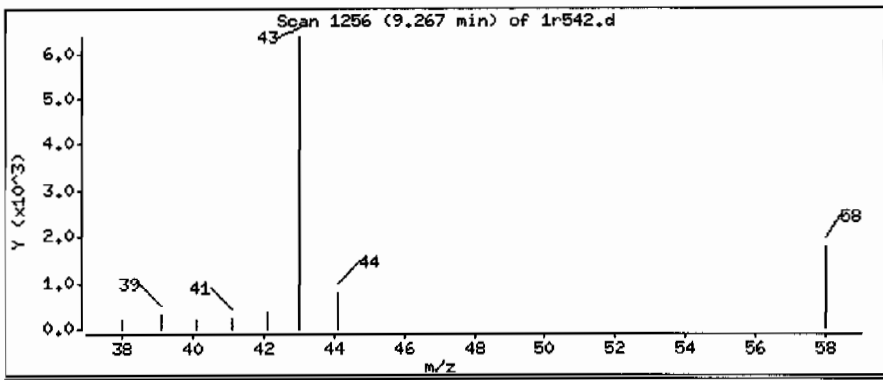

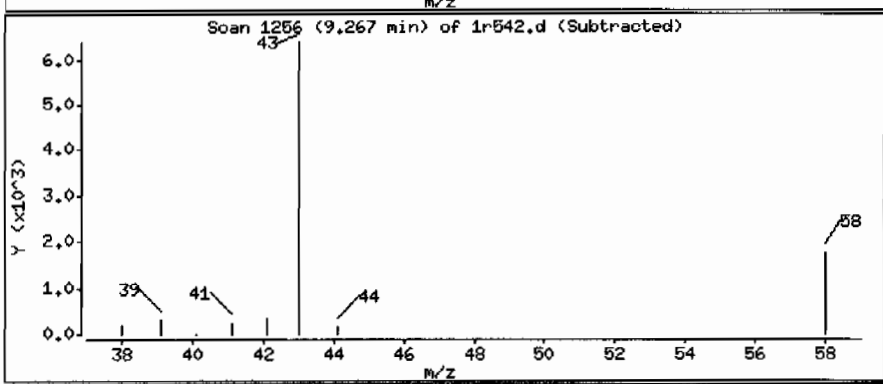

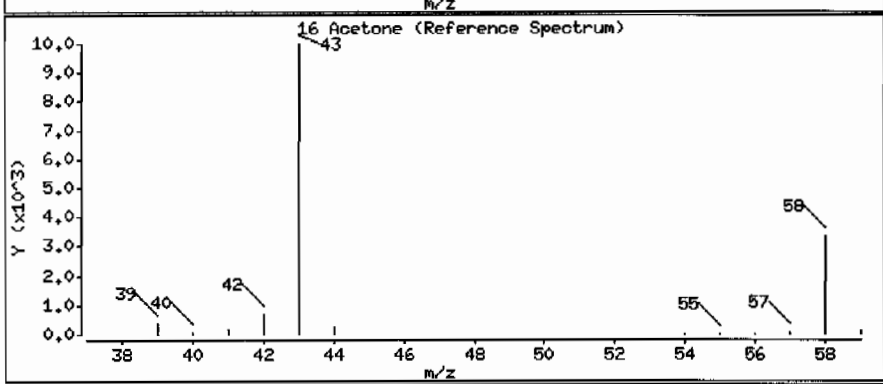

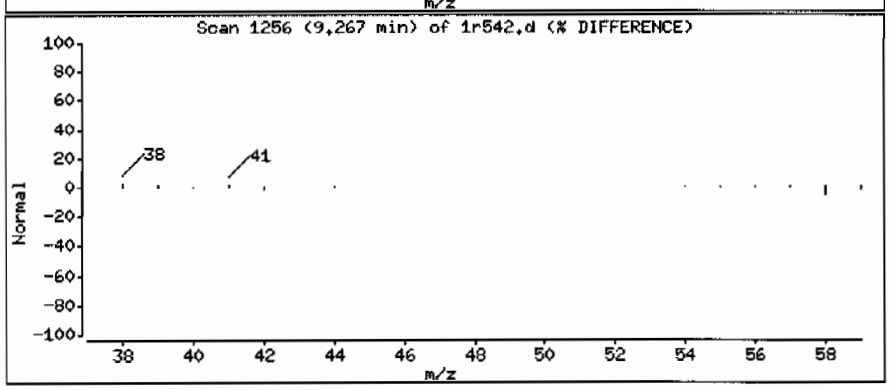

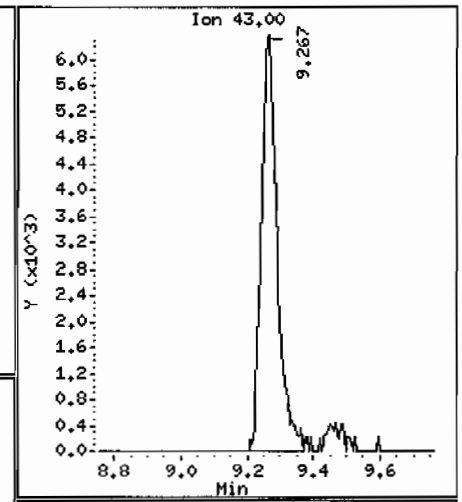

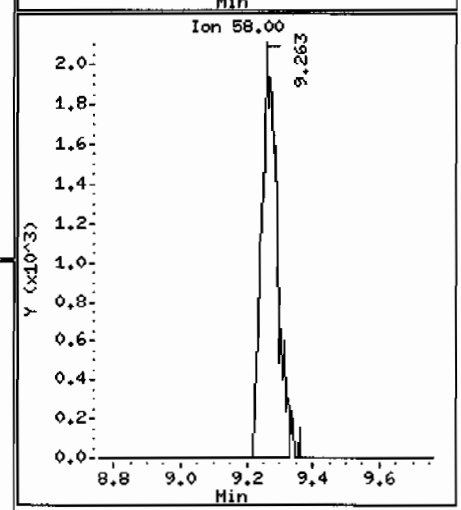

Data File: /chem/VOA1.i/121809v1/1r542.d

Date : 19-DEC-2009 07:26

Client ID: RE03-10-2735

Instrument: VOA1.i

Sample Info: |2429370091934728|1|VOAF|1|

Operator: RXH4

Column phase: RTX-Volatiles

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Hydrocarbon						
6-Methylphenanthridine	3955-65-5	NIST05.L	52077	18	C14H11N	193
Anthracene, 9,10-dihydro-9,10-dimethyl-	22566-43-4	NIST05.L	63100	18	C16H16	208
2-Phenylindolizine	25379-20-8	NIST05.L	52067	14	C14H11N	193

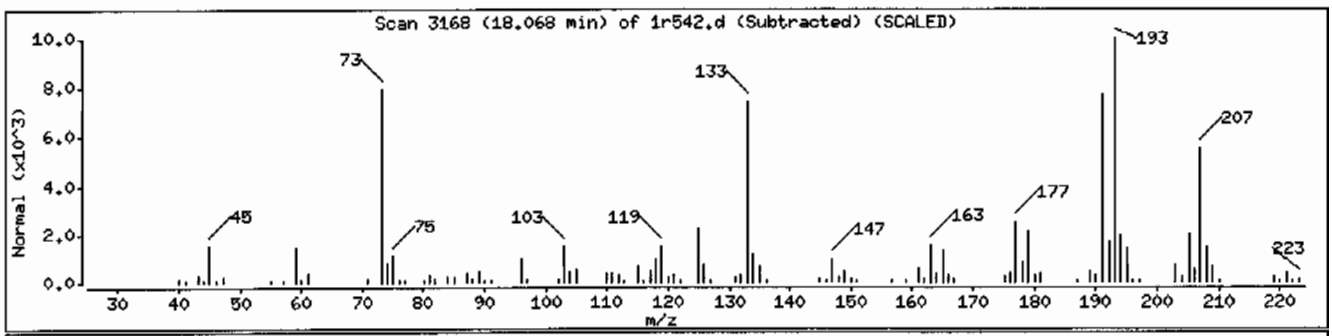

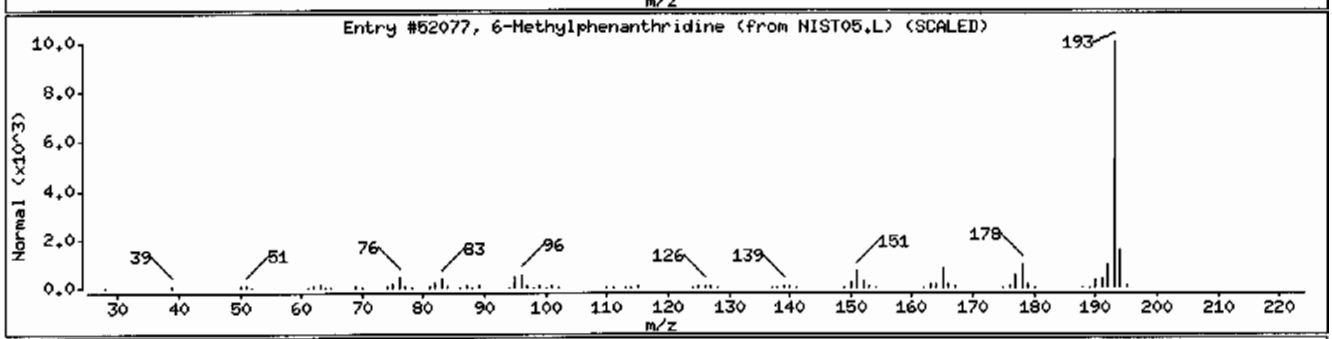

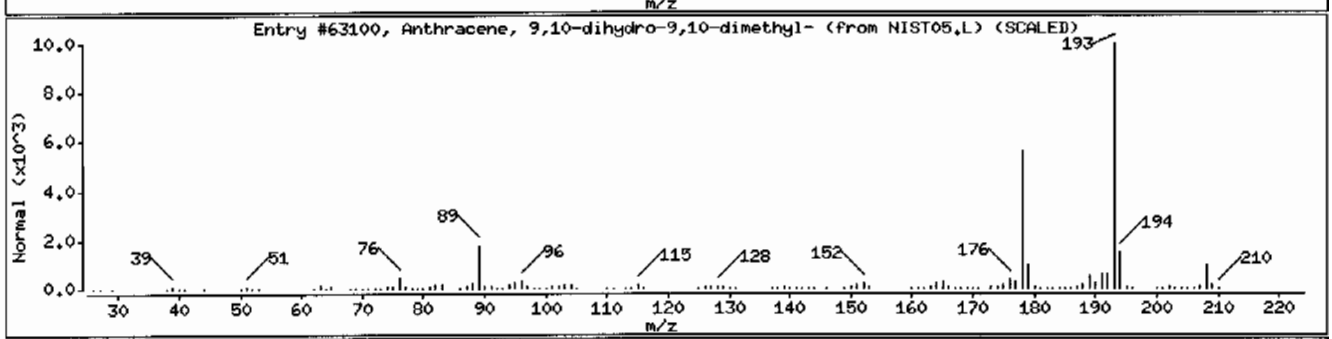

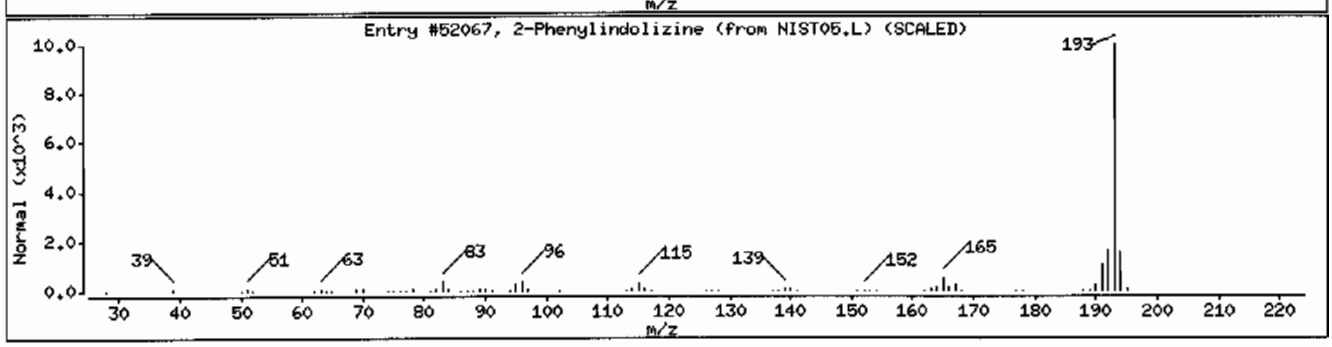

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-917**	**Date Collected:**	**12/11/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242937010**	**Date Received:**	**12/15/2009 08:45**		
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-10-6968**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**934728**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**12/19/2009 07:57**	**Analyst:**	**RXM4**	**Purge Vol:**	**5 mL**
Prep Date:	**12/18/2009 14:17**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1r543.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/kg	0.340	1.00
74-87-3	Chloromethane	U	1.00	ug/kg	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/kg	0.300	1.00
74-83-9	Bromomethane	U	1.00	ug/kg	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/kg	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/kg	0.300	1.00
67-64-1	Acetone	J	2.92	ug/kg	1.66	5.00
75-35-4	1,1-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/kg	1.60	5.00
75-09-2	Methylene chloride	U	5.00	ug/kg	2.00	5.00
75-15-0	Carbon disulfide	U	5.00	ug/kg	1.25	5.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/kg	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/kg	1.50	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/kg	0.300	1.00
74-97-5	Bromochloromethane	U	1.00	ug/kg	0.330	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/kg	0.300	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/kg	0.300	1.00
56-23-5	Carbon tetrachloride	U	1.00	ug/kg	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/kg	0.300	1.00
71-43-2	Benzene	U	1.00	ug/kg	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/kg	0.330	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/kg	0.300	1.00
74-95-3	Dibromomethane	U	1.00	ug/kg	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/kg	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
108-88-3	Toluene	U	1.00	ug/kg	0.300	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/kg	0.300	1.00
591-78-6	2-Hexanone	U	5.00	ug/kg	1.50	5.00
142-28-9	1,3-Dichloropropane	U	1.00	ug/kg	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/kg	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/kg	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/kg	0.300	1.00
108-90-7	Chlorobenzene	U	1.00	ug/kg	0.300	1.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-917**	**Date Collected:**	**12/11/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242937010**	**Date Received:**	**12/15/2009 08:45**		
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-10-6968**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**934728**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**12/19/2009 07:57**	**Analyst:**	**RXM4**	**Purge Vol:**	**5 mL**
Prep Date:	**12/18/2009 14:17**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1r543.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.00	ug/kg	0.300	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/kg	0.300	2.00
95-47-6	o-Xylene	U	1.00	ug/kg	0.300	1.00
100-42-5	Styrene	U	1.00	ug/kg	0.300	1.00
75-25-2	Bromoform	U	1.00	ug/kg	0.300	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/kg	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/kg	0.300	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/kg	0.300	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/kg	0.300	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/kg	0.300	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/kg	0.300	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/kg	0.300	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/kg	0.300	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/kg	0.300	1.00
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.00	ug/kg	1.60	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated Units	Fit	Qual
	No Tentatively Identified Compounds Found		ug/kg		

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/121809v1/1r543.d
Lab Smp Id: 242937010 Client Smp ID: RE03-10-6968
Inj Date : 19-DEC-2009 07:57
Operator : RXM4 Inst ID: VOA1.i
Smp Info : |242937010|934728|1|VOAF|1|
Misc Info : LANL 5G N/A TB
Comment :
Method : /chem/VOA1.i/121809v1/VOA1-8260ox-121709PM.m
Meth Date : 19-Dec-2009 14:30 ron01469 Quant Type: ISTD
Cal Date : 17-DEC-2009 21:57 Cal File: 1r426.d
Als bottle: 43
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-917.sub
Target Version: 3.50

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	0.00000	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
* 52 Fluorobenzene	96	13.686	13.686	(1.000)	656054	50.0000	
* 76 Chlorobenzene-d5	117	17.162	17.162	(1.000)	454680	50.0000	
* 102 1,4-Dichlorobenzene-d4	152	19.610	19.610	(1.000)	235691	50.0000	
$ 48 1,2-Dichloroethane-d4	65	13.341	13.341	(0.975)	499771	62.8701	62.9
$ 65 Toluene-d8	98	15.518	15.518	(0.904)	1481656	57.0610	57.1
$ 87 Bromofluorobenzene	95	18.391	18.386	(0.938)	564301	58.2506	58.2
16 Acetone	43	9.267	9.258	(0.677)	11570	2.91519	2.9(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

ION RATIO REPORT

VOA REPORT

Data file: 1r543.d
Report Date: 12/19/2009 14:34
Lab. ID: 242937010 SampleType: SAMPLE
Injection Date: 19-DEC-2009 07:57
Operator: RXM4 Instrument: VOA1.i
Sample Info: |242937010|934728|1|VOAF|1|
Miscellaneous Info: LANL 5G N/A TB
Comment:
Method used: /chem/VOA1.i/121809v1/VOA1-8260ox-121709PM.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-917
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
16 Acetone			CAS#: 67-64-1			
43	11570	9.27	9.26	80-120	100	( )
58	3664	9.27	9.26	3- 63	32	( )
51 1,2-Dichloroethane			CAS#: 107-06-2			
62	10172	13.69	13.44	80-120	100	(T)
64	1916	13.69	13.44	2- 62	19	(T)
64 4-Methyl-2-pentanone			CAS#: 108-10-1			
58	13406	15.52	15.36	80-120	100	(T)
43	7250	15.52	15.36	206-266	54	(QT)
100	939144	15.52	15.36	0- 59	7005	(QT)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/121809v1/1r543.d
Lab Smp Id: 242937010 Client Smp ID: RE03-10-6968
Inj Date : 19-DEC-2009 07:57
Operator : RXM4 Inst ID: VOA1.i
Smp Info : |242937010|934728|1|VOAF|1|
Misc Info : LANL 5G N/A TB
Comment :
Method : /chem/VOA1.i/121809v1/VOA1-8260ox-121709PM.m
Meth Date : 19-Dec-2009 14:30 ron01469 Quant Type: ISTD
Cal Date : 17-DEC-2009 21:57 Cal File: 1r426.d
Als bottle: 43
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-917.sub
Target Version: 3.50

- NO TENTATIVELY IDENTIFIED COMPOUNDS -

Data File: /chem/VOA1.i/121809v1/1r543.d
Date : 19-DEC-2009 07:57
Client ID: RE03-10-6968
Sample Info: |2429370101934728|1|VOAF|1|

Column phase: RTX-Volatiles

Instrument: VOA1.i

Operator: RXM4
Column diameter: 0.25

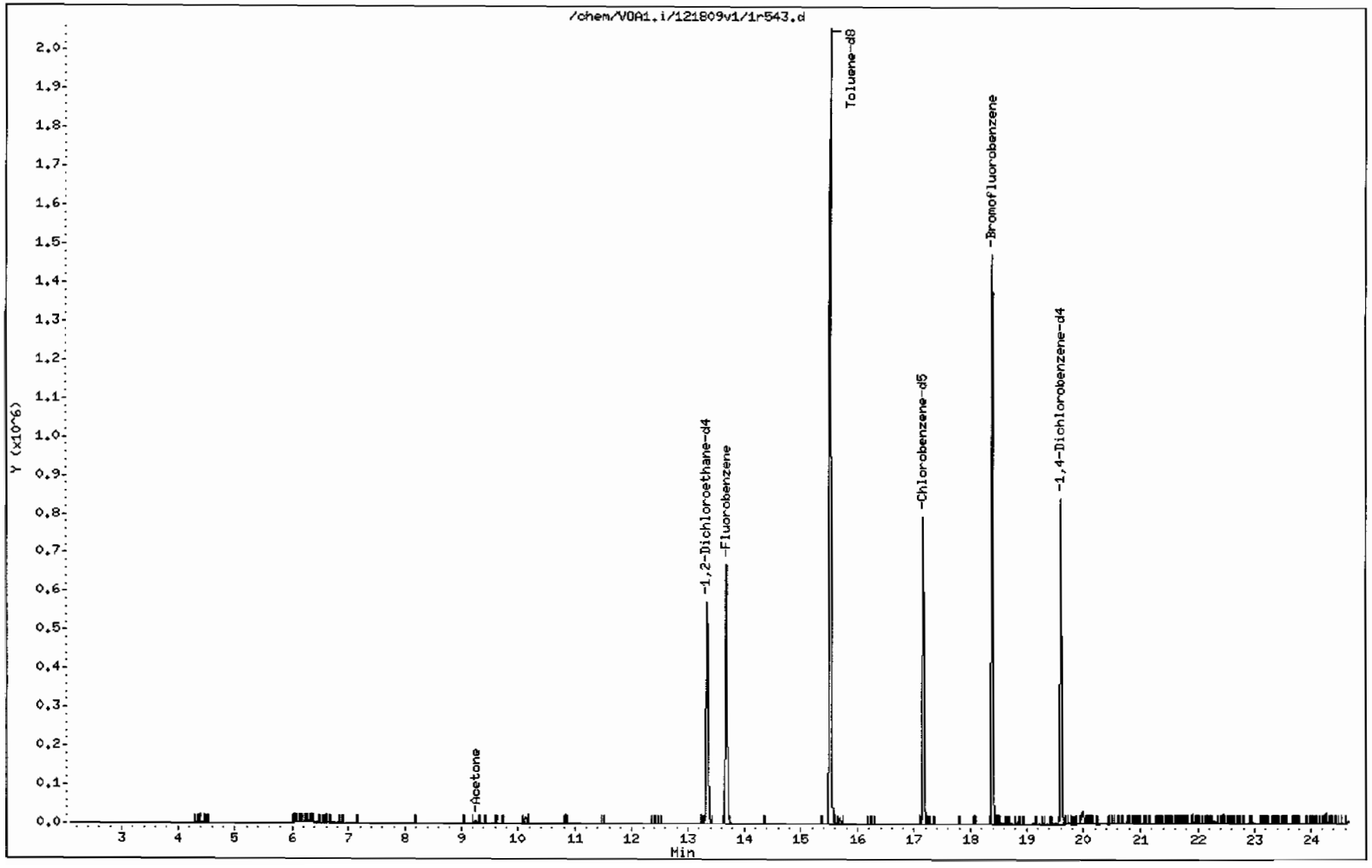

Data File: /chem/VOA1.i/121809v1/1r543.d

Date : 19-DEC-2009 07:57

Client ID: RE03-10-6968

Instrument: VOA1.i

Sample Info: |2429370101934728|1|VOAF|1|

Operator: RXM4

Column phase: RTX-Volatiles

Column diameter: 0.25

16 Acetone

Concentration: 2.9 ug/Kg

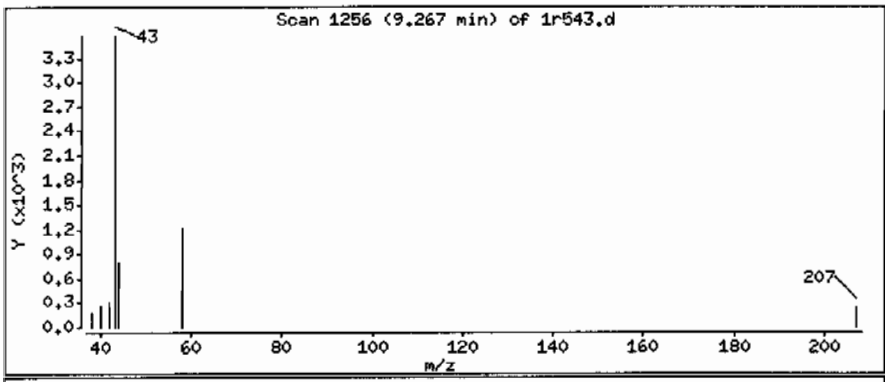

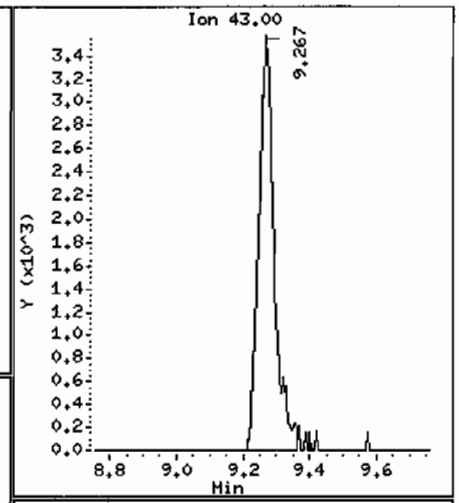

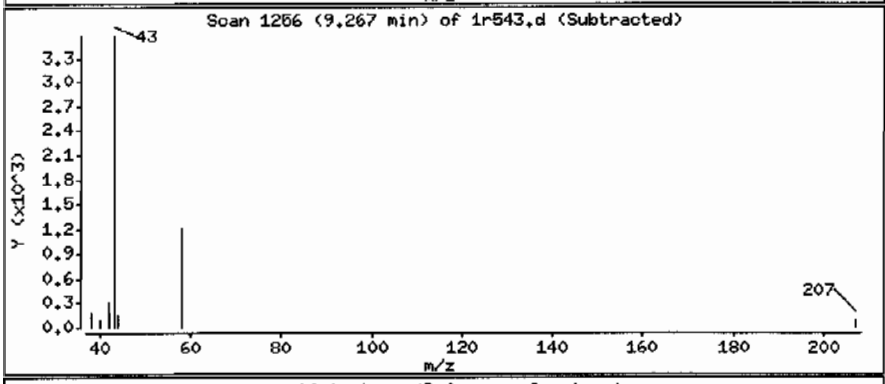

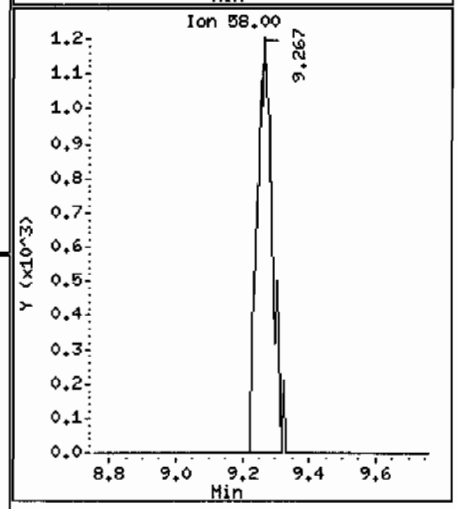

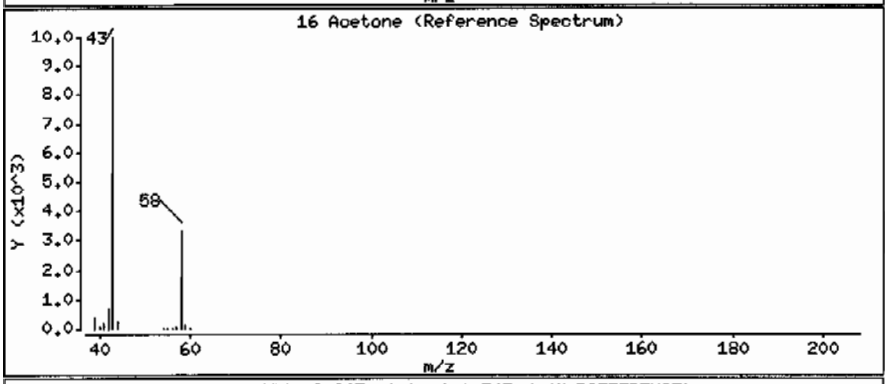

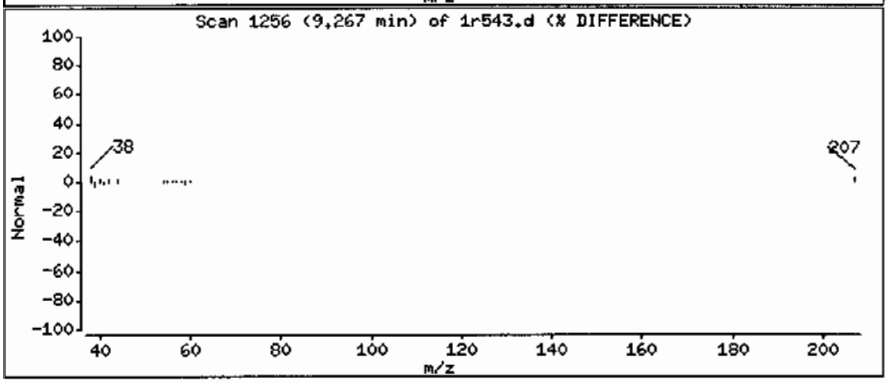

Standard Data

EPA 524.2/Low level SW846 8260B and Regular level 8260B and EPA 624
Calibration Standard Concentration Levels

	Level 1	Level 1a	Level 2	Level 3	Level 4 #	Level 5	Level 6	Level 7 !	Level 7a
Fluorobenzene (IS)									
1,2-Dichloroethane-d4(surr)		0.5	1	2	5	10	20	50	100
Dichlorodifluoromethane		0.5	1	2	5	10	20	50	100
Chloromethane		0.5	1	2	5	10	20	50	100
Vinyl chloride		0.5	1	2	5	10	20	50	100
Bromomethane		0.5	1	2	5	10	20	50	100
Chloroethane		0.5	1	2	5	10	20	50	100
Trichlorofluoromethane		0.5	1	2	5	10	20	50	100
1,1-Dichloroethene		0.5	1	2	5	10	20	50	100
Acetone	1	2.5	5	10	25	50	100	250	500
Iodomethane	1	2.5	5	10	25	50	100	250	500
Carbon disulfide	1	2.5	5	10	25	50	100	250	500
Methylene chloride		0.5	1	2	5	10	20	50	100
trans-1,2-Dichloroethene		0.5	1	2	5	10	20	50	100
1,1-Dichloroethane		0.5	1	2	5	10	20	50	100
Ethyl ether		0.5	1	2	5	10	20	50	100
Vinyl acetate	1	2.5	5	10	25	50	100	250	500
cis-1,2-Dichloroethene		0.5	1	2	5	10	20	50	100
1,2-Dichloroethene (total)		1	2	4	10	20	40	100	200
Cyclohexene		0.5	1	2	5	10	20	50	100
2-Chloroethylvinyl ether			5	10	25	50	100	250	500
2,2-Dichloropropane		0.5	1	2	5	10	20	50	100
2-Butanone	1	2.5	5	10	25	50	100	250	500
Bromochloromethane		0.5	1	2	5	10	20	50	100
Chloroform		0.5	1	2	5	10	20	50	100
1,1,1-Trichloroethane		0.5	1	2	5	10	20	50	100
1,1-Dichloropropene		0.5	1	2	5	10	20	50	100
Carbon tetrachloride		0.5	1	2	5	10	20	50	100
Benzene		0.5	1	2	5	10	20	50	100
1,2-Dichloroethane		0.5	1	2	5	10	20	50	100
Trichloroethene		0.5	1	2	5	10	20	50	100
1,2-Dichloropropane		0.5	1	2	5	10	20	50	100
Dibromomethane		0.5	1	2	5	10	20	50	100
Bromodichloromethane		0.5	1	2	5	10	20	50	100
cis-1,3-Dichloropropene		0.5	1	2	5	10	20	50	100
tert-Butylmethylether		0.5	1	2	5	10	20	50	100
Ethyl Ether			1	2	5	10	20	50	100
Acetonitrile			25	50	125	250	500	1250	2500
Methyl acetate			5	10	25	50	100	250	500
Cyclohexane			1	2	5	10	20	50	100
Methylcyclohexane			1	2	5	10	20	50	100
n-Butyl alcohol			50	100	250	500	1000	2500	5000
2-Nitropropane			5	10	25	50	100	250	500
Ethyl acetate			5	10	25	50	100	250	500
Acrolein			5	10	25	50	100	250	500
Trichlorotrifluoroethane			5	10	25	50	100	250	500
Allyl chloride			5	10	25	50	100	250	500
Acrylonitrile			5	10	25	50	100	250	500
1,4-Dioxane			50	100	250	500	1000	2500	5000
Isobutyl alcohol			50	100	250	500	1000	2500	5000
Methacrylonitrile			5	10	25	50	100	250	500
Propionitrile			5	10	25	50	100	250	500
Methyl methacrylate			5	10	25	50	100	250	500
Chlorotrifluoroethylene			5	10	25	50	100	250	500
2-Chloro-1,1,1-trifluoroethane			5	10	25	50	100	250	500

tert-Butyl alcohol			50	100	250	500	1000	2500	5000
Isopropyl ether			1	2	5	10	20	50	100
Ethyl tert-butyl ether			1	2	5	10	20	50	100
Isopropyl alcohol			50	100	250	500	1000	2500	5000
Methyl tert-amyl ether			1	2	5	10	20	50	100
1-Chlorohexane			1	2	5	10	20	50	100
2-Chloro-1,3-butadiene(chloroprene)			1	2	5	10	20	50	100
Chlorobenzene-d5 (IS)									
Toluene-d8 (surr)		0.5	1	2	5	10	20	50	100
4-Methyl-2-pentanone	1	2.5	5	10	25	50	100	250	500
Toluene		0.5	1	2	5	10	20	50	100
trans-1,3-Dichloropropene		0.5	1	2	5	10	20	50	100
1,1,2-Trichloroethane		0.5	1	2	5	10	20	50	100
Tetrachloroethene		0.5	1	2	5	10	20	50	100
1,3-Dichloropropane		0.5	1	2	5	10	20	50	100
2-Hexanone	1	2.5	5	10	25	50	20	250	500
Dibromochloromethane		0.5	1	2	5	10	20	50	100
1,2-Dibromoethane		0.5	1	2	5	10	20	50	100
Chlorobenzene		0.5	1	2	5	10	20	50	100
1,1,1,2-Tetrachloroethane		0.5	1	2	5	10	20	50	100
Ethylbenzene		0.5	1	2	5	10	20	50	100
m,p-Xylene		1	2	4	10	20	20	100	200
o-Xylene		0.5	1	2	5	10	20	50	100
Xylenes (total)		1.5	3	6	15	30	60	150	300
Stryene		0.5	1	2	5	10	20	50	100
Cyclohexanone			50	100	250	500	1000	2500	5000
Ethyl methacrylate			5	10	25	50	100	250	500
1,4-Dichlorobenzene-d4 (IS)									
Bromofluorobenzene (surr)		0.5	1	2	5	10	20	50	100
Bromoform		0.5	1	2	5	10	20	50	100
Isopropylbenzene		0.5	1	2	5	10	20	50	100
1,1,2,2-Tetrachloroethane		0.5	1	2	5	10	20	50	100
Bromobenzene		0.5	1	2	5	10	20	50	100
1,2,3-Trichloropropane		0.5	1	2	5	10	20	50	100
n-Propylbenzene		0.5	1	2	5	10	20	50	100
2-Chlorotoluene		0.5	1	2	5	10	20	50	100
1,3,5-Trimethylbenzene		0.5	1	2	5	10	20	50	100
4-Chlorotoluene		0.5	1	2	5	10	20	50	100
1,2,4-Trimethylbenzene		0.5	1	2	5	10	20	50	100
sec-Butylbenzene		0.5	1	2	5	10	20	50	100
1,3-Dichlorobenzene		0.5	1	2	5	10	20	50	100
tert-Butylbenzene		0.5	1	2	5	10	20	50	100
Isopropyltoluene		0.5	1	2	5	10	20	50	100
1,4-Dichlorobenzene		0.5	1	2	5	10	20	50	100
n-Butylbenzene		0.5	1	2	5	10	20	50	100
1,2-Dichlorobenzene		0.5	1	2	5	10	20	50	100
1,2-Dibromo-3-chloropropa		0.5	1	2	5	10	20	50	100
1,2,4-Trichlorobenzene		0.5	1	2	5	10	20	50	100
Hexachlorobutadiene		0.5	1	2	5	10	20	50	100
Naphthalene		0.5	1	2	5	10	20	50	100
1,2,3-Trichlorobenzene		0.5	1	2	5	10	20	50	100
cis-1,4-Dichloro-2-butene			5	10	25	50	100	250	500
trans-1,4-Dichloro-2-butene			5	10	25	50	100	250	500
Tetrahydrofuran			5	10	25	50	100	250	500
Pentachloroethane			5	10	25	50	100	250	500
Benzyl chloride			5	10	25	50	100	250	500
bis(2-Chloro-isopropyl)ether			5	10	25	50	100	250	500

Report Date: 21-Dec-2009 12:40

Calibration History

Method : /chem/VOA1.i/121809v1/VOA1-8260ox-121709PM.m
Start Cal Date: 17-DEC-2009 13:26
End Cal Date : 17-DEC-2009 21:57

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 1.00000		
17-DEC-2009 18:56	CALsubS+SS	/chem/VOA1.i/121709v1/1r420.d
17-DEC-2009 14:26	CALsubL+	/chem/VOA1.i/121709v1/1r411.d
Cal Level: 2 , Cal Amount: 2.00000		
17-DEC-2009 19:26	CALsubS+SS	/chem/VOA1.i/121709v1/1r421.d
17-DEC-2009 15:27	CALsubL+	/chem/VOA1.i/121709v1/1r413.d
Cal Level: 3 , Cal Amount: 5.00000		
17-DEC-2009 19:56	CALsubS+SS	/chem/VOA1.i/121709v1/1r422.d
17-DEC-2009 15:57	CALsubL+	/chem/VOA1.i/121709v1/1r414.d
Cal Level: 4 , Cal Amount: 10.00000		
17-DEC-2009 20:27	CALsubS+SS	/chem/VOA1.i/121709v1/1r423.d
17-DEC-2009 16:26	CALsubL+	/chem/VOA1.i/121709v1/1r415.d
Cal Level: 5 , Cal Amount: 20.00000		
17-DEC-2009 20:57	CALsubS+SS	/chem/VOA1.i/121709v1/1r424.d
17-DEC-2009 16:56	CALsubL+	/chem/VOA1.i/121709v1/1r416.d
Cal Level: 6 , Cal Amount: 50.00000		
17-DEC-2009 21:27	CALsubS+SS	/chem/VOA1.i/121709v1/1r425.d
17-DEC-2009 17:26	CALsubL+	/chem/VOA1.i/121709v1/1r417.d
Cal Level: 7 , Cal Amount: 100.00000		
17-DEC-2009 21:57	CALsubS+SS	/chem/VOA1.i/121709v1/1r426.d
17-DEC-2009 17:56	CALsubL+	/chem/VOA1.i/121709v1/1r418.d
Cal Level: 8 , Cal Amount: 200.00000		
17-DEC-2009 13:26	BENZENE+	/chem/VOA1.i/121709v1/1r409.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 6

Ccal Level: 6 , Ccal Amount: 50.0
18-DEC-2009 22:20 | CALsubL+ | /chem/VOA1.i/121809v1/1r524.d
Ccal Level: 6 , Ccal Amount: 50.0
18-DEC-2009 22:51 | CALsubS+SS | /chem/VOA1.i/121809v1/1r525.d
Ccal Level: 6 , Ccal Amount: 50.0
18-DEC-2009 21:49 | CALsubL+ | /chem/VOA1.i/121809v1/1r523.d

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Start Cal Date : 17-DEC-2009 13:26
End Cal Date : 17-DEC-2009 21:57
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/VOA1.i/121809v1/VOA1-8260ox-121709PM.m
Cal Date : 19-Dec-2009 14:30 ron01469

Calibration File Names:
Level 1: /chem/VOA1.i/121709v1/1r420.d
Level 2: /chem/VOA1.i/121709v1/1r421.d
Level 3: /chem/VOA1.i/121709v1/1r422.d
Level 4: /chem/VOA1.i/121709v1/1r423.d
Level 5: /chem/VOA1.i/121709v1/1r424.d
Level 6: /chem/VOA1.i/121709v1/1r425.d
Level 7: /chem/VOA1.i/121709v1/1r426.d
Level 8: /chem/VOA1.i/121709v1/1r409.d

Compound	1 Level 1	2 Level 2	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	200 Level 8									
M 1 Xylenes (total)	0.94993	0.96986	1.04684	0.90933	1.06190	1.03526					
	1.06685	++++++					AVRG		1.00571		6.17558
M 2 1,2-Dichloroethylene (total)	0.39459	0.39809	0.41845	0.36222	0.42047	0.42125					
	0.43750	++++++					AVRG		0.40751		6.07931
M 3 1,3-Dichloropropylene	0.79149	0.76022	0.87890	0.81655	0.94687	0.96481					
	1.03716	++++++					AVRG		0.88514		11.52028
4 Chlorotrifluoroethylene	17314	61906	95503	209513	408505	655803					
	880678	++++++					LINR	0.03423	0.22684		0.99712
5 Dichlorodifluoromethane	4634	11507	35600	44395	86248	277079					
	567930	++++++					LINR	0.00522	0.28418		0.99905

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Method file : /chem/VOA1.i/121809v1/VOA1-8260ox-121709PM.m
Cal Date : 19-Dec-2009 14:30 ron01469

Compound	1 Level 1	2 Level 2	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	200 Level 8									
6 Chloromethane	0.48851	0.54050	0.55024	0.44982	0.52271	0.54415					
	0.54196	+++++					AVRG		0.51970		7.16679
7 Vinyl chloride	0.47524	0.47673	0.45732	0.35896	0.42278	0.41726					
	0.41654	+++++					AVRG		0.43212		9.62913
8 2-Chloro-1,1,1-trifluoroethan	+++++	127797	215500	434110	811927	1347525					
	1771053	+++++					LINR	0.01494	0.45635		0.99554
9 Bromomethane	0.28178	0.29746	0.29450	0.24489	0.29091	0.28413					
	0.27975	+++++					AVRG		0.28192		6.24822
10 Chloroethane	0.29181	0.30650	0.30544	0.26230	0.31984	0.31793					
	0.30933	+++++					AVRG		0.30188		6.53884
11 Trichlorofluoromethane	0.41202	0.43953	0.45287	0.39013	0.45602	0.49371					
	0.48982	+++++					AVRG		0.44773		8.47603
12 Ethyl Ether	0.38139	0.40440	0.35425	0.33145	0.38356	0.37554					
	0.38665	+++++					AVRG		0.37389		6.39758
13 Acrolein	0.06484	0.07110	0.06960	0.07066	0.06970	0.07601					
	0.07601	+++++					AVRG		0.07113		5.49913
14 Trichlorotrifluoroethane	0.31728	0.28283	0.30430	0.31273	0.26693	0.29034					
	0.30209	+++++					AVRG		0.29664		5.97728

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Method file : /chem/VOA1.i/121809v1/VOA1-8260ox-121709PM.m
Cal Date : 19-Dec-2009 14:30 ron01469

Compound	1 Level 1	2 Level 2	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	200 Level 8									
15 1,1-Dichloroethylene	0.65853	0.69826	0.73125	0.60544	0.70006	0.73825					
	0.76533	+++++					AVRG		0.69959		7.69119
16 Acetone	0.33125	0.28405	0.28838	0.28737	0.31028	0.30716					
	0.30886	+++++					AVRG		0.30248		5.59393
17 Isopropyl Alcohol	+++++	64668	116421	230606	462328	1308642					
	2563752	+++++					LINR	1.83876	0.02704		0.99372
18 Iodomethane	0.54837	0.54749	0.58063	0.50333	0.57106	0.56342					
	0.56625	+++++					AVRG		0.55436		4.58679
19 Carbon disulfide	1.04837	1.13754	1.19034	1.00430	1.16007	1.18939					
	1.23769	+++++					AVRG		1.13824		7.32545
20 Allyl chloride	7872	16357	54830	122945	239242	782349					
	1746543	+++++					LINR	0.29193	0.18284		0.99540
21 Methyl acetate	0.30480	0.26240	0.29161	0.27818	0.30010	0.29235					
	0.29241	+++++					AVRG		0.28883		4.95133
22 Acetonitrile	0.05118	0.04733	0.04993	0.04960	0.05166	0.04925					
	0.04992	+++++					AVRG		0.04984		2.81886
23 Methylene chloride	+++++	26319	53903	88749	140147	424848					
	921999	+++++					LINR	-0.00189	0.45451		0.99942

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Method file : /chem/VOA1.i/121809v1/VOA1-8260ox-121709PM.m
Cal Date : 19-Dec-2009 14:30 ron01469

Compound	1 Level 1 100 Level 7	2 Level 2 200 Level 8	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
24 tert-Butyl Alcohol	36962	107148	188587	384290	775596	2176446					
	4204060	++++++					LINR	1.31682	0.04416		0.99435
25 tert-Butyl methyl ether	1.06428	1.09533	1.10199	1.08828	1.14951	1.13923					
	1.21507	++++++					AVRG		1.12196		4.50006
26 trans-1,2-Dichloroethylene	0.37150	0.37356	0.40077	0.34641	0.39809	0.40670					
	0.41945	++++++					AVRG		0.38807		6.49661
27 Acrylonitrile	0.13879	0.14421	0.14079	0.14300	0.13986	0.14918					
	0.14607	++++++					AVRG		0.14313		2.57275
28 Isopropyl ether	+++++	86054	143189	299636	589102	1525953					
	3114768	++++++					LINR	0.00936	1.61143		0.99953
29 Vinyl acetate	0.65280	0.62757	0.65723	0.69621	0.76396	0.72816					
	0.70592	++++++					AVRG		0.69026		6.89010
30 1,1-Dichloroethane	0.77767	0.75144	0.79985	0.69776	0.80088	0.80133					
	0.82728	++++++					AVRG		0.77946		5.51872
31 2-Chloro-1,3-butadiene	0.53856	0.49255	0.57665	0.63047	0.56687	0.66611					
	0.71558	++++++					AVRG		0.59811		12.87774
32 Ethyl tert-butyl ether	+++++	75681	125441	264555	516269	1389733					
	2866711	++++++					LINR	0.01815	1.48731		0.99916

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Compound	1 Level 1 100 Level 7	2 Level 2 200 Level 8	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
33 2,2-Dichloropropane	0.44641	0.43999	0.44785	0.39838	0.48384	0.48070					
	0.48654	+++++					AVRG		0.45482		6.97777
34 Ethyl acetate	0.39622	0.37301	0.34819	0.35996	0.34694	0.36845					
	0.35650	+++++					AVRG		0.36418		4.69288
35 2-Butanone	0.32498	0.29983	0.31772	0.32315	0.35854	0.37774					
	0.36734	+++++					AVRG		0.33847		8.62892
36 cis-1,2-Dichloroethylene	0.41768	0.42262	0.43613	0.37802	0.44285	0.43580					
	0.45555	+++++					AVRG		0.42695		5.84108
37 Propionitrile	0.05471	0.05478	0.05443	0.05651	0.05444	0.05843					
	0.05690	+++-+					AVRG		0.05574		2.79347
38 Tetrahydrofuran	0.33776	0.31409	0.31712	0.32320	0.30804	0.32423					
	0.30668	+++++					AVRG		0.31873		3.37891
39 Bromochloromethane	0.16937	0.18243	0.18561	0.17346	0.18913	0.18835					
	0.19783	+++++					AVRG		0.18374		5.28735
40 Methacrylonitrile	0.28749	0.28017	0.27957	0.29144	0.27868	0.29282					
	0.28296	+++++					AVRG		0.28473		2.05414
41 Chloroform	0.73934	0.75629	0.78313	0.67523	0.77565	0.78273					
	0.80194	+++++					AVRG		0.75919		5.55678

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Compound	1 Level 1	2 Level 2	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	200 Level 8									
42 Cyclohexane	0.71265	0.69334	0.75433	0.63572	0.76413	0.79603					
	0.79977	+++++					AVRG		0.73657		8.07339
43 1,1,1-Trichloroethane	0.48350	0.49398	0.51618	0.44034	0.54030	0.53477					
	0.53794	+++++					AVRG		0.50671		7.24508
44 Carbon tetrachloride	0.46456	0.47955	0.50223	0.44108	0.53314	0.54219					
	0.54465	+++++					AVRG		0.50106		8.15357
45 1,1-Dichloropropene	0.52226	0.53493	0.57439	0.47763	0.58059	0.59363					
	0.60749	+++++					AVRG		0.55584		8.28840
46 Isobutyl alcohol	0.01217	0.01218	0.01260	0.01292	0.01020	0.01420					
	0.01342	+++++					AVRG		0.01253		10.00060
47 Benzene	1.63393	1.59398	1.70750	1.44978	1.70316	1.69875					
	1.73137	1.46121					AVRG		1.62246		6.91796
49 Methyl tert-amyl ether	+++++	62439	104740	221271	432966	1170797					
	2409070	+++++					LINR	0.01872	1.25082		0.99919
50 Cyclohexene	0.54435	0.53848	0.59015	0.49810	0.59826	0.60785					
	0.61552	+++++					AVRG		0.57039		7.68512
51 1,2-Dichloroethane	0.60710	0.60440	0.60894	0.55428	0.61814	0.59887					
	0.61173	+++++					AVRG		0.60049		3.53686

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Cal Date : 19-Dec-2009 14:30 ron01469

Compound	1 Level 1 100 Level 7	2 Level 2 200 Level 8	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
53 n-Butyl alcohol	17909	31598	93677	213836	355810	1166468					
	2504807	+++++					LINR	4.05022	0.01261		0.99621
54 Trichloroethylene	0.40162	0.40745	0.43496	0.36932	0.42004	0.43163					
	0.44230	+++++					AVRG		0.41533		6.03315
55 Methylcyclohexane	0.62627	0.65054	0.68846	0.59693	0.71382	0.73247					
	0.74367	+++++					AVRG		0.67888		8.21647
56 Methyl methacrylate	0.22886	0.23546	0.23690	0.25298	0.24564	0.26211					
	0.25565	+++++					AVRG		0.24537		4.95406
57 1,2-Dichloropropane	0.42618	0.42979	0.45262	0.40054	0.46037	0.46437					
	0.48246	+++++					AVRG		0.44519		6.24291
58 1,4-Dioxane	0.00358	0.00330	0.00348	0.00358	0.00336	0.00371					
	0.00357	+++++					AVRG		0.00351		4.06886
59 Dibromomethane	0.26029	0.24224	0.24588	0.23433	0.25880	0.25261					
	0.26232	+++++					AVRG		0.25092		4.17552
60 Bromodichloromethane	0.50926	0.51863	0.55953	0.51519	0.58920	0.60255					
	0.62066	+++++					AVRG		0.55929		8.20445
61 2-Chloroethylvinyl ether	3320	6654	16837	44891	72737	+++++					
	+++++	+++++					LINR	0.08117	0.04822		0.99689

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Compound	1 Level 1	2 Level 2	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	200 Level 8									
62 2-Nitropropane	7070	14240	41325	90077	194039	547484					
	1089774	+++++					LINR	0.12959	0.11432		0.99946
63 cis-1,3-Dichloropropylene	0.58612	0.56484	0.64871	0.59482	0.69712	0.72465					
	0.75586	+++++					AVRG		0.65316		11.40729
64 4-Methyl-2-pentanone	0.21479	0.20124	0.23607	0.23812	0.26615	0.28741					
	0.26603	+++++					AVRG		0.24426		12.55053
66 Toluene	1.46521	1.42863	1.49665	1.27740	1.49413	1.48160					
	1.53694	+++++					AVRG		1.45437		5.82261
67 Ethyl methacrylate	0.62982	0.65076	0.67701	0.72386	0.70269	0.72791					
	0.69966	+++++					AVRG		0.68739		5.35198
68 trans-1,3-Dichloropropylene	0.76770	0.71716	0.82801	0.78620	0.90451	0.92116					
	0.99882	+++++					AVRG		0.84622		11.72422
69 1,1,2-Trichloroethane	0.38168	0.40632	0.41313	0.40400	0.43605	0.42541					
	0.44735	+++++					AVRG		0.41628		5.27763
70 Tetrachloroethylene	0.47569	0.43289	0.45867	0.37578	0.45285	0.44838					
	0.45872	+++++					AVRG		0.44328		7.31412
71 2-Hexanone	0.56340	0.54183	0.59354	0.60315	0.68692	0.72227					
	0.65208	+++++					AVRG		0.62331		10.59945

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Compound	1 Level 1 100 Level 7	2 Level 2 200 Level 8	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
72 1,3-Dichloropropane	0.88365	0.83969	0.89719	0.82861	0.92961	0.88191					
	0.92565	+++++					AVRG		0.88376		4.38843
73 Dibromochloromethane	0.45877	0.47737	0.51711	0.48955	0.55570	0.55863					
	0.60098	+++++					AVRG		0.52259		9.81323
74 1,2-Dibromoethane	0.45115	0.44054	0.45840	0.43614	0.49979	0.48669					
	0.51336	+++++					AVRG		0.46944		6.47778
75 1-Chlorohexane	+++++	0.63060	0.44690	0.47806	0.44136	0.48274					
	0.48848	+++++					AVRG		0.49469		14.02193
77 Chlorobenzene	1.47658	1.48489	1.58303	1.39069	1.59300	1.52504					
	1.58393	+++++					AVRG		1.51959		4.89896
78 Ethylbenzene	2.73939	2.65894	2.87432	2.49270	2.95069	2.86045					
	2.93464	+++++					AVRG		2.78730		5.98349
79 1,1,1,2-Tetrachloroethane	0.46710	0.47705	0.50032	0.46956	0.54220	0.53154					
	0.56441	+++++					AVRG		0.50746		7.66207
80 m,p-Xylenes	0.96338	0.99443	1.06188	0.91699	1.06459	1.03480					
	1.06400	+++++					AVRG		1.01429		5.71200
81 o-Xylene	0.92296	0.92068	1.01675	0.89402	1.05652	1.03617					
	1.07254	+++++					AVRG		0.98852		7.45464

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Compound	1 Level 1	2 Level 2	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	200 Level 8									
82 Styrene	1.46715	1.50616	1.68975	1.53152	1.79110	1.79165					
	1.86481	+++++					AVRG		1.66316		9.65288
83 Bromoform	4145	7916	21098	44307	78595	249234					
	535740	+++++					LINR	0.02681	0.72529		0.99945
84 Isopropylbenzene	4.68173	4.56078	4.98694	4.23435	5.31092	5.26026					
	5.48304	+++++					AVRG		4.93115		9.23815
85 cis-1,4-Dichloro-2-butene	0.34725	0.34844	0.37013	0.38870	0.38152	0.41058					
	0.40570	+++++					AVRG		0.37890		6.66885
86 Cyclohexanone	0.06763	0.06943	0.06963	0.07265	0.07578	0.08184					
	+++++	+++++					AVRG		0.07283		7.23346
88 1,1,2,2-Tetrachloroethane	1.22461	1.05159	1.10817	1.13584	1.24257	1.24947					
	1.30412	+++++					AVRG		1.18805		7.62825
89 n-Propylbenzene	5.91393	5.84477	6.21942	5.20861	6.52547	6.56652					
	6.67002	+++++					AVRG		6.13553		8.47766
90 trans-1,4-Dichloro-2-butene	0.31943	0.33408	0.34483	0.36424	0.35879	0.38701					
	0.38138	+++++					AVRG		0.35568		6.90918
91 Bromobenzene	1.21267	1.14263	1.17695	1.03606	1.22066	1.19524					
	1.25396	+++++					AVRG		1.17688		6.05619

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 17-DEC-2009 13:26
End Cal Date : 17-DEC-2009 21:57
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/VOA1.i/121809v1/VOA1-8260ox-121709PM.m
Cal Date : 19-Dec-2009 14:30 ron01469

Compound	1 Level 1	2 Level 2	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	200 Level 8									
92 1,2,3-Trichloropropane	0.29455	0.30883	0.31100	0.28319	0.31857	0.31270					
	0.32356	+++++					AVRG		0.30749		4.56165
93 1,3,5-Trimethylbenzene	3.92739	4.01597	4.40384	3.75330	4.56192	4.61175					
	4.71321	+++++					AVRG		4.28391		8.85752
94 2-Chlorotoluene	4.18989	4.13985	4.38991	3.70327	4.45640	4.42540					
	4.59915	+++++					AVRG		4.27198		6.93165
95 4-Chlorotoluene	3.74203	3.75004	3.94133	3.30902	4.02416	4.08453					
	4.23945	+++++					AVRG		3.87008		7.87163
96 tert-Butylbenzene	3.19861	3.62558	3.54064	3.03120	3.64733	3.76217					
	3.79753	+++++					AVRG		3.51472		8.25815
97 1,2,4-Trimethylbenzene	4.14843	4.08556	4.56169	3.88972	4.69789	4.73207					
	4.85492	+++++					AVRG		4.42433		8.50974
98 Pentachloroethane	0.37983	0.43833	0.41420	0.49680	0.33943	0.45190					
	0.42032	+++++					AVRG		0.42012		12.05499
99 sec-Butylbenzene	5.25649	5.29490	5.79412	4.90035	5.96681	6.06611					
	6.14338	+++++					AVRG		5.63173		8.51043
100 4-Isopropyltoluene	3.88557	3.91207	4.39734	3.76386	4.59180	4.64160					
	4.70377	+++++					AVRG		4.27086		9.45356

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Method file : /chem/VOA1.i/121809v1/VOA1-8260ox-121709PM.m
Cal Date : 19-Dec-2009 14:30 ron01469

Compound	1 Level 1	2 Level 2	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	200 Level 8									
101 1,3-Dichlorobenzene	2.26506	2.22860	2.34003	2.03460	2.38750	2.32771					
	2.42644	+++++					AVRG		2.28713		5.68981
103 1,4-Dichlorobenzene	2.37087	2.32322	2.31533	2.06880	2.41564	2.35216					
	2.47272	+++++					AVRG		2.33125		5.49155
104 Benzyl chloride	1.65395	1.74973	1.88958	2.06407	2.04500	2.19972					
	2.09266	+++++					AVRG		1.95639		10.13450
105 n-Butylbenzene	4.15554	4.15464	4.58993	3.92961	4.86897	4.90702					
	5.03734	+++++					AVRG		4.52044		9.72252
106 1,2-Dichlorobenzene	2.14225	2.09966	2.15610	1.96170	2.27666	2.24067					
	2.33585	+++++					AVRG		2.17327		5.73170
107 bis(2-Chloroisopropyl)ether	0.35444	0.44472	0.43116	0.46324	0.47339	0.53988					
	0.49699	+++++					AVRG		0.45769		12.64882
108 1,2-Dibromo-3-chloropropane	1016	1990	5799	13390	22261	73669					
	168000	+++++					LINR	0.04224	0.22710		0.99776
109 1,2,4-Trichlorobenzene	1.26932	1.11504	1.11692	1.07128	1.28838	1.22946					
	1.47355	+++++					AVRG		1.22342		11.32429
110 Hexachlorobutadiene	0.77567	0.75620	0.80958	0.72497	0.86849	0.86453					
	0.92769	+++++					AVRG		0.81816		8.79704

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INITIAL CALIBRATION DATA

Start Cal Date : 17-DEC-2009 13:26
End Cal Date : 17-DEC-2009 21:57
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/VOA1.i/121809v1/VOA1-8260ox-121709PM.m
Cal Date : 19-Dec-2009 14:30 ron01469

Compound	1 Level 1 100 Level 7	2 Level 2 200 Level 8	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
111 Naphthalene	18385	27302	69676	156979	280194	848437					
	2078041	+++++					LINR	0.04766	2.79235		0.99432
112 1,2,3-Trichlorobenzene	1.03792	0.79225	0.80520	0.83009	1.04491	0.85728					
	1.03151	+++++					AVRG		0.91417		12.88300
$ 48 1,2-Dichloroethane-d4	0.61083	0.60209	0.58068	0.60294	0.59083	0.66971					
	0.58381	+++++					AVRG		0.60584		4.98389
$ 65 Toluene-d8	2.94102	2.87365	2.77552	2.90697	2.85289	2.80136					
	2.83664	+++++					AVRG		2.85543		2.02109
$ 87 Bromofluorobenzene	2.14130	2.01859	2.01923	2.10724	1.99625	2.04053					
	2.06272	+++++					AVRG		2.05512		2.55181

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 17-DEC-2009 13:26
End Cal Date : 17-DEC-2009 21:57
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/VOA1.i/121809v1/VOA1-8260ox-121709PM.m
Cal Date : 19-Dec-2009 14:30 ron01469

Curve	Formula	Units
Averaged	Amt = Rsp/ml	Response
Linear	Amt = b + Rsp/ml	Response

Data File: /chem/VOA1.i/121709v1/1r428.d
Report Date: 21-Dec-2009 09:53

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA1.i Injection Date: 17-DEC-2009 22:57
Lab File ID: 1r428.d Init. Cal. Date(s): 17-DEC-2009 17-DEC-2009
Analysis Type: WATER Init. Cal. Times: 13:26 21:57
Lab Sample ID: W1VM091217-18 Quant Type: ISTD
Method: /chem/VOA1.i/121709v1/VOA1-8260ox-121709.m

	COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
M	1 Xylenes (total)	1.00571	1.08274	1.08274	0.050	7.65971	30.00000	Averaged	
M	2 1,2-Dichloroethylene (total	0.40751	0.42827	0.42827	0.050	5.09444	30.00000	Averaged	
M	3 1,3-Dichloropropylene	0.88514	1.01603	1.01603	0.050	14.78691	30.00000	Averaged	
	5 Dichlorodifluoromethane	44.17390	50.00000	0.24958	0.050	-11.65221	30.00000	Linear	
	6 Chloromethane	0.51970	0.48595	0.48595	0.100	-6.49415	30.00000	Averaged	spcc
	7 Vinyl chloride	0.43212	0.40394	0.40394	0.050	-6.51979	20.00000	Averaged	ccc
	9 Bromomethane	0.28210	0.28119	0.28119	0.050	-0.32083	30.00000	Averaged	
	10 Chloroethane	0.30188	0.30482	0.30482	0.050	0.97392	30.00000	Averaged	
	11 Trichlorofluoromethane	0.44773	0.47946	0.47946	0.050	7.08587	30.00000	Averaged	
	12 Ethyl Ether	0.37389	0.38351	0.38351	0.010	2.57247	30.00000	Averaged	
	16 Acetone	0.30248	0.28929	0.28929	0.000	-4.36166	40.00000	Averaged	
	22 Acetonitrile	0.04984	0.05445	0.05445	0.010	9.26527	30.00000	Averaged	
	15 1,1-Dichloroethylene	0.69959	0.69867	0.69867	0.050	-0.13124	20.00000	Averaged	ccc
	21 Methyl acetate	0.28883	0.31596	0.31596	0.010	9.39216	40.00000	Averaged	
	18 Iodomethane	0.55436	0.55775	0.55775	0.050	0.61108	30.00000	Averaged	
	23 Methylene chloride	49.74003	50.00000	0.45301	0.000	-0.51994	30.00000	Linear	
	19 Carbon disulfide	1.13824	1.18438	1.18438	0.050	4.05313	30.00000	Averaged	
	25 tert-Butyl methyl ether	1.12196	1.20960	1.20960	0.050	7.81191	30.00000	Averaged	
	26 trans-1,2-Dichloroethylene	0.38807	0.40463	0.40463	0.050	4.26889	30.00000	Averaged	
	29 Vinyl acetate	0.69026	0.78885	0.78885	0.010	14.28310	40.00000	Averaged	
	30 1,1-Dichloroethane	0.77946	0.80732	0.80732	0.100	3.57386	30.00000	Averaged	spcc
	35 2-Butanone	0.33847	0.33028	0.33028	0.030	-2.41926	40.00000	Averaged	
	36 cis-1,2-Dichloroethylene	0.42695	0.45191	0.45191	0.050	5.84534	30.00000	Averaged	
	33 2,2-Dichloropropane	0.45439	0.47156	0.47156	0.050	3.78034	30.00000	Averaged	
	41 Chloroform	0.75919	0.80022	0.80022	0.010	5.40526	20.00000	Averaged	ccc
	39 Bromochloromethane	0.18374	0.20003	0.20003	0.010	8.86726	30.00000	Averaged	
	43 1,1,1-Trichloroethane	0.50671	0.53061	0.53061	0.010	4.71555	30.00000	Averaged	
	42 Cyclohexane	0.73657	0.77955	0.77955	0.010	5.83609	30.00000	Averaged	
	45 1,1-Dichloropropene	0.55584	0.60113	0.60113	0.010	8.14672	30.00000	Averaged	
	53 n-Butyl alcohol	5603	5000	0.01362	0.001	12.05240	40.00000	Linear	
	44 Carbon tetrachloride	0.50106	0.53826	0.53826	0.010	7.42421	30.00000	Averaged	
$	48 1,2-Dichloroethane-d4	0.59741	0.65263	0.65263	0.010	9.24242	30.00000	Averaged	
	51 1,2-Dichloroethane	0.60049	0.62546	0.62546	0.010	4.15714	30.00000	Averaged	
	47 Benzene	1.62246	1.71937	1.71937	0.010	5.97318	30.00000	Averaged	
	50 Cyclohexene	0.57039	0.58842	0.58842	0.010	3.16148	30.00000	Averaged	

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA1.i Injection Date: 17-DEC-2009 22:57
Lab File ID: 1r428.d Init. Cal. Date(s): 17-DEC-2009 17-DEC-2009
Analysis Type: WATER Init. Cal. Times: 13:26 21:57
Lab Sample ID: W1VM091217-18 Quant Type: ISTD
Method: /chem/VOA1.i/121709v1/VOA1-8260ox-121709.m

	COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
	54 Trichloroethylene	0.41533	0.44171	0.44171	0.010	6.35017	30.00000	Averaged	
	57 1,2-Dichloropropane	0.44519	0.48303	0.48303	0.010	8.49895	20.00000	Averaged	ccc
	55 Methylcyclohexane	0.67888	0.73751	0.73751	0.010	8.63596	30.00000	Averaged	
	60 Bromodichloromethane	0.55929	0.62904	0.62904	0.010	12.47140	30.00000	Averaged	
	59 Dibromomethane	0.25092	0.26506	0.26506	0.010	5.63271	30.00000	Averaged	
	61 2-Chloroethylvinyl ether	455	250	0.08699	0.000	82.02379	30.00000	Linear	<-
	64 4-Methyl-2-pentanone	0.24426	0.26174	0.26174	0.010	7.15811	40.00000	Averaged	
	63 cis-1,3-Dichloropropylene	0.65316	0.74796	0.74796	0.010	14.51395	30.00000	Averaged	
$	65 Toluene-d8	2.78542	3.07353	3.07353	0.010	10.34355	30.00000	Averaged	
	66 Toluene	1.45437	1.53247	1.53247	0.010	5.37034	20.00000	Averaged	ccc
	68 trans-1,3-Dichloropropylene	0.84622	0.98007	0.98007	0.010	15.81730	30.00000	Averaged	
	69 1,1,2-Trichloroethane	0.41628	0.45507	0.45507	0.010	9.31814	30.00000	Averaged	
	71 2-Hexanone	0.62331	0.60444	0.60444	0.010	-3.02719	40.00000	Averaged	
	72 1,3-Dichloropropane	0.88376	0.94928	0.94928	0.010	7.41405	30.00000	Averaged	
	70 Tetrachloroethylene	0.44328	0.46018	0.46018	0.010	3.81270	30.00000	Averaged	
	73 Dibromochloromethane	0.52259	0.59588	0.59588	0.010	14.02580	30.00000	Averaged	
	74 1,2-Dibromoethane	0.46944	0.52465	0.52465	0.010	11.76021	30.00000	Averaged	
	77 Chlorobenzene	1.51959	1.61504	1.61504	0.300	6.28123	30.00000	Averaged	spcc
	79 1,1,1,2-Tetrachloroethane	0.50746	0.56614	0.56614	0.010	11.56535	30.00000	Averaged	
	78 Ethylbenzene	2.78730	2.96337	2.96337	0.010	6.31659	20.00000	Averaged	ccc
	80 m,p-Xylenes	1.01429	1.07930	1.07930	0.010	6.40871	30.00000	Averaged	
	81 o-Xylene	0.98852	1.08964	1.08964	0.010	10.22890	30.00000	Averaged	
	82 Styrene	1.66316	1.86998	1.86998	0.010	12.43542	30.00000	Averaged	
	83 Bromoform	50.23179	50.00000	0.70922	0.100	0.46358	30.00000	Linear	spcc
	84 Isopropylbenzene	4.93115	5.28643	5.28643	0.010	7.20479	30.00000	Averaged	
	88 1,1,2,2-Tetrachloroethane	1.18805	1.29626	1.29626	0.300	9.10775	30.00000	Averaged	spcc
$	87 Bromofluorobenzene	2.00113	2.08223	2.08223	0.010	4.05263	30.00000	Averaged	
	92 1,2,3-Trichloropropane	0.30749	0.32497	0.32497	0.010	5.68755	30.00000	Averaged	
	91 Bromobenzene	1.17688	1.24576	1.24576	0.010	5.85268	30.00000	Averaged	
	89 n-Propylbenzene	6.13553	6.49581	6.49581	0.010	5.87193	30.00000	Averaged	
	94 2-Chlorotoluene	4.27198	4.49512	4.49512	0.010	5.22330	30.00000	Averaged	
	93 1,3,5-Trimethylbenzene	4.28391	4.58482	4.58482	0.010	7.02413	30.00000	Averaged	
	95 4-Chlorotoluene	3.87008	4.15567	4.15567	0.010	7.37932	30.00000	Averaged	
	96 tert-Butylbenzene	3.51472	3.65977	3.65977	0.010	4.12685	30.00000	Averaged	
	97 1,2,4-Trimethylbenzene	4.42433	4.67781	4.67781	0.010	5.72929	30.00000	Averaged	
	99 sec-Butylbenzene	5.63174	5.96950	5.96950	0.010	5.99744	30.00000	Averaged	

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA1.i
Lab File ID: 1r428.d
Analysis Type: WATER
Lab Sample ID: W1VM091217-18
Method: /chem/VOA1.i/121709v1/VOA1-8260ox-121709.m

Injection Date: 17-DEC-2009 22:57
Init. Cal. Date(s): 17-DEC-2009 17-DEC-2009
Init. Cal. Times: 13:26 21:57
Quant Type: ISTD

COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
100 4-Isopropyltoluene	4.27086	4.57059	4.57059	0.010	7.01819	30.00000	Averaged
101 1,3-Dichlorobenzene	2.28713	2.37127	2.37127	0.010	3.67889	30.00000	Averaged
103 1,4-Dichlorobenzene	2.33125	2.42033	2.42033	0.010	3.82106	30.00000	Averaged
105 n-Butylbenzene	4.52044	4.87577	4.87577	0.010	7.86066	30.00000	Averaged
106 1,2-Dichlorobenzene	2.17327	2.25477	2.25477	0.010	3.74986	30.00000	Averaged
108 1,2-Dibromo-3-chloropropane	47.43781	50.00000	0.20587	0.010	-5.12437	30.00000	Linear
109 1,2,4-Trichlorobenzene	1.22342	1.19337	1.19337	0.010	-2.45661	30.00000	Averaged
110 Hexachlorobutadiene	0.81816	0.83470	0.83470	0.010	2.02097	30.00000	Averaged
111 Naphthalene	38.09339	50.00000	1.99432	0.010	-23.81322	30.00000	Linear
112 1,2,3-Trichlorobenzene	0.91417	0.74663	0.74663	0.010	-18.32692	30.00000	Averaged

Average %D / Drift Results.

Calculated Average %D/Drift = 7.89459
Maximun Average %D/Drift = 20.00000
* Passed Average %D/Drift Test.

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/121709v1/1r428.d
Lab Smp Id: W1VM091217-18 Client Smp ID: ICV
Inj Date : 17-DEC-2009 22:57
Operator : RXM4 Inst ID: VOA1.i
Smp Info : |W1VM091217-18|ICV|1|VOAF|1|
Misc Info : GEL 5ML N/A UVM091129-01D/IVM091214-01
Comment :
Method : /chem/VOA1.i/121709v1/VOA1-8260ox-121709.m
Meth Date : 21-Dec-2009 09:53 eh1 Quant Type: ISTD
Cal Date : 17-DEC-2009 21:27 Cal File: 1r425.d
Als bottle: 22 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: CALsubL+.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (Uf/Vo) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	sample purged

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
M 1 Xylenes (total)	106				2057420	150.000	162
M 2 1,2-Dichloroethylene (total)	96				763050	100.000	105
M 3 1,3-Dichloropropylene	75				1287095	100.000	115
5 Dichlorodifluoromethane	85	5.012	5.012	(0.366)	222340	50.0000	44.2
6 Chloromethane	50	5.557	5.557	(0.406)	432908	50.0000	46.8
7 Vinyl chloride	62	5.937	5.937	(0.434)	359853	50.0000	46.7
9 Bromomethane	96	6.952	6.952	(0.508)	250500	50.0000	49.8
10 Chloroethane	64	7.219	7.219	(0.528)	271547	50.0000	50.5
11 Trichlorofluoromethane	101	7.845	7.845	(0.573)	427124	50.0000	53.5
12 Ethyl Ether	59	8.480	8.480	(0.620)	341650	50.0000	51.3
16 Acetone	43	9.253	9.253	(0.676)	1288556	250.000	239
22 Acetonitrile	41	9.976	9.976	(0.729)	1212770	1250.00	1360
15 1,1-Dichloroethylene	61	9.097	9.097	(0.665)	622411	50.0000	49.9
21 Methyl acetate	43	9.838	9.838	(0.719)	1407371	250.000	273
18 Iodomethane	142	9.474	9.474	(0.692)	2484361	250.000	252

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
	23 Methylene chloride	84	10.137	10.137	(0.741)	403566	50.0000	49.7
	19 Carbon disulfide	76	9.580	9.580	(0.700)	5275512	250.000	260
	25 tert-Butyl methyl ether	73	10.441	10.441	(0.763)	1077575	50.0000	53.9
	26 trans-1,2-Dichloroethylene	96	10.552	10.552	(0.771)	360469	50.0000	52.1
	29 Vinyl acetate	43	11.297	11.297	(0.826)	3513753	250.000	286
	30 1,1-Dichloroethane	63	11.325	11.325	(0.828)	719197	50.0000	51.8
	35 2-Butanone	43	12.186	12.186	(0.891)	1471158	250.000	244
	36 cis-1,2-Dichloroethylene	96	12.204	12.204	(0.892)	402581	50.0000	52.9
	33 2,2-Dichloropropane	77	12.163	12.163	(0.889)	420092	50.0000	51.9
	41 Chloroform	83	12.614	12.614	(0.922)	712878	50.0000	52.7
	39 Bromochloromethane	128	12.558	12.558	(0.918)	178199	50.0000	54.4
	43 1,1,1-Trichloroethane	97	12.844	12.844	(0.939)	472693	50.0000	52.4
	42 Cyclohexane	56	12.839	12.839	(0.938)	694465	50.0000	52.9
	45 1,1-Dichloropropene	75	13.051	13.051	(0.954)	535515	50.0000	54.1
	53 n-Butyl alcohol	56	13.930	13.930	(1.018)	1213639	5000.00	5600
	44 Carbon tetrachloride	117	13.023	13.023	(0.952)	479509	50.0000	53.7
$	48 1,2-Dichloroethane-d4	65	13.341	13.341	(0.975)	581394	50.0000	54.6
	51 1,2-Dichloroethane	62	13.438	13.438	(0.982)	557188	50.0000	52.1
	47 Benzene	78	13.332	13.332	(0.974)	1531701	50.0000	53.0
	50 Cyclohexene	54	13.396	13.396	(0.979)	524195	50.0000	51.6
*	52 Fluorobenzene	96	13.682	13.682	(1.000)	890850	50.0000	
	54 Trichloroethylene	95	14.114	14.114	(1.032)	393495	50.0000	53.2
	57 1,2-Dichloropropane	63	14.460	14.460	(1.057)	430304	50.0000	54.2
	55 Methylcyclohexane	83	14.280	14.280	(1.044)	657008	50.0000	54.3
	60 Bromodichloromethane	83	14.750	14.750	(1.078)	560380	50.0000	56.2
	59 Dibromomethane	93	14.621	14.621	(1.069)	236126	50.0000	52.8
	61 2-Chloroethylvinyl ether	63	15.030	15.030	(1.099)	387483	250.000	455
	64 4-Methyl-2-pentanone	58	15.357	15.357	(0.895)	828937	250.000	268
	63 cis-1,3-Dichloropropylene	75	15.256	15.256	(1.115)	666320	50.0000	57.2
$	65 Toluene-d8	98	15.518	15.518	(0.904)	1946766	50.0000	55.2
	66 Toluene	92	15.596	15.596	(0.909)	970662	50.0000	52.7
	68 trans-1,3-Dichloropropylene	75	15.877	15.877	(0.925)	620775	50.0000	57.9
	69 1,1,2-Trichloroethane	83	16.103	16.103	(0.939)	288237	50.0000	54.6
	71 2-Hexanone	43	16.264	16.264	(0.948)	1914262	250.000	242
	72 1,3-Dichloropropane	76	16.305	16.305	(0.950)	601272	50.0000	53.7
	70 Tetrachloroethylene	164	16.190	16.190	(0.944)	291478	50.0000	51.9
	73 Dibromochloromethane	129	16.545	16.545	(0.964)	377431	50.0000	57.0
	74 1,2-Dibromoethane	107	16.724	16.724	(0.975)	332309	50.0000	55.9
*	76 Chlorobenzene-d5	117	17.157	17.157	(1.000)	633397	50.0000	
	77 Chlorobenzene	112	17.189	17.189	(1.002)	1022964	50.0000	53.1
	79 1,1,1,2-Tetrachloroethane	131	17.258	17.258	(1.006)	358594	50.0000	55.8
	78 Ethylbenzene	91	17.217	17.217	(1.003)	1876987	50.0000	53.2
	80 m,p-Xylenes	106	17.336	17.336	(1.010)	1367248	100.000	106
	81 o-Xylene	106	17.783	17.783	(1.036)	690172	50.0000	55.1
	82 Styrene	104	17.801	17.801	(1.038)	1184442	50.0000	56.2
	83 Bromoform	173	18.105	18.105	(0.923)	245870	50.0000	50.2
	84 Isopropylbenzene	105	18.128	18.128	(0.924)	1832693	50.0000	53.6

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
88 1,1,2,2-Tetrachloroethane	83	18.506	18.506	(0.944)	449385	50.0000	54.6
$ 87 Bromofluorobenzene	95	18.386	18.386	(0.938)	721865	50.0000	52.0
92 1,2,3-Trichloropropane	110	18.607	18.607	(0.949)	112662	50.0000	52.8
91 Bromobenzene	156	18.588	18.588	(0.948)	431879	50.0000	52.9
89 n-Propylbenzene	91	18.556	18.556	(0.946)	2251960	50.0000	52.9
94 2-Chlorotoluene	91	18.740	18.740	(0.956)	1558364	50.0000	52.6
93 1,3,5-Trimethylbenzene	105	18.717	18.717	(0.954)	1589461	50.0000	53.5
95 4-Chlorotoluene	91	18.851	18.851	(0.961)	1440682	50.0000	53.7
96 tert-Butylbenzene	119	19.076	19.076	(0.973)	1268765	50.0000	52.1
97 1,2,4-Trimethylbenzene	105	19.132	19.132	(0.976)	1621698	50.0000	52.9
99 sec-Butylbenzene	105	19.302	19.302	(0.984)	2069499	50.0000	53.0
100 4-Isopropyltoluene	119	19.422	19.422	(0.990)	1584529	50.0000	53.5
101 1,3-Dichlorobenzene	146	19.541	19.541	(0.996)	822071	50.0000	51.8
* 102 1,4-Dichlorobenzene-d4	152	19.610	19.610	(1.000)	346679	50.0000	
103 1,4-Dichlorobenzene	146	19.638	19.638	(1.001)	839077	50.0000	51.9
105 n-Butylbenzene	91	19.868	19.868	(1.013)	1690328	50.0000	53.9
106 1,2-Dichlorobenzene	146	20.080	20.080	(1.024)	781680	50.0000	51.9
108 1,2-Dibromo-3-chloropropane	157	21.000	21.000	(1.071)	71370	50.0000	47.4
109 1,2,4-Trichlorobenzene	180	22.022	22.022	(1.123)	413715	50.0000	48.8
110 Hexachlorobutadiene	225	22.105	22.105	(1.127)	289372	50.0000	51.0
111 Naphthalene	128	22.437	22.437	(1.144)	691390	50.0000	38.1
112 1,2,3-Trichlorobenzene	180	22.791	22.791	(1.162)	258840	50.0000	40.8

Data File: /chem/VOA1.i/121709v1/1r428.d
Date : 17-DEC-2009 22:57
Client ID: ICV
Sample Info: IW1VM091217-18|ICV|1|VOAF|1|
Purge Volume: 5.0
Column phase: RTX-Volatiles

Instrument: VOA1.i
Operator: RXH4
Column diameter: 0.25

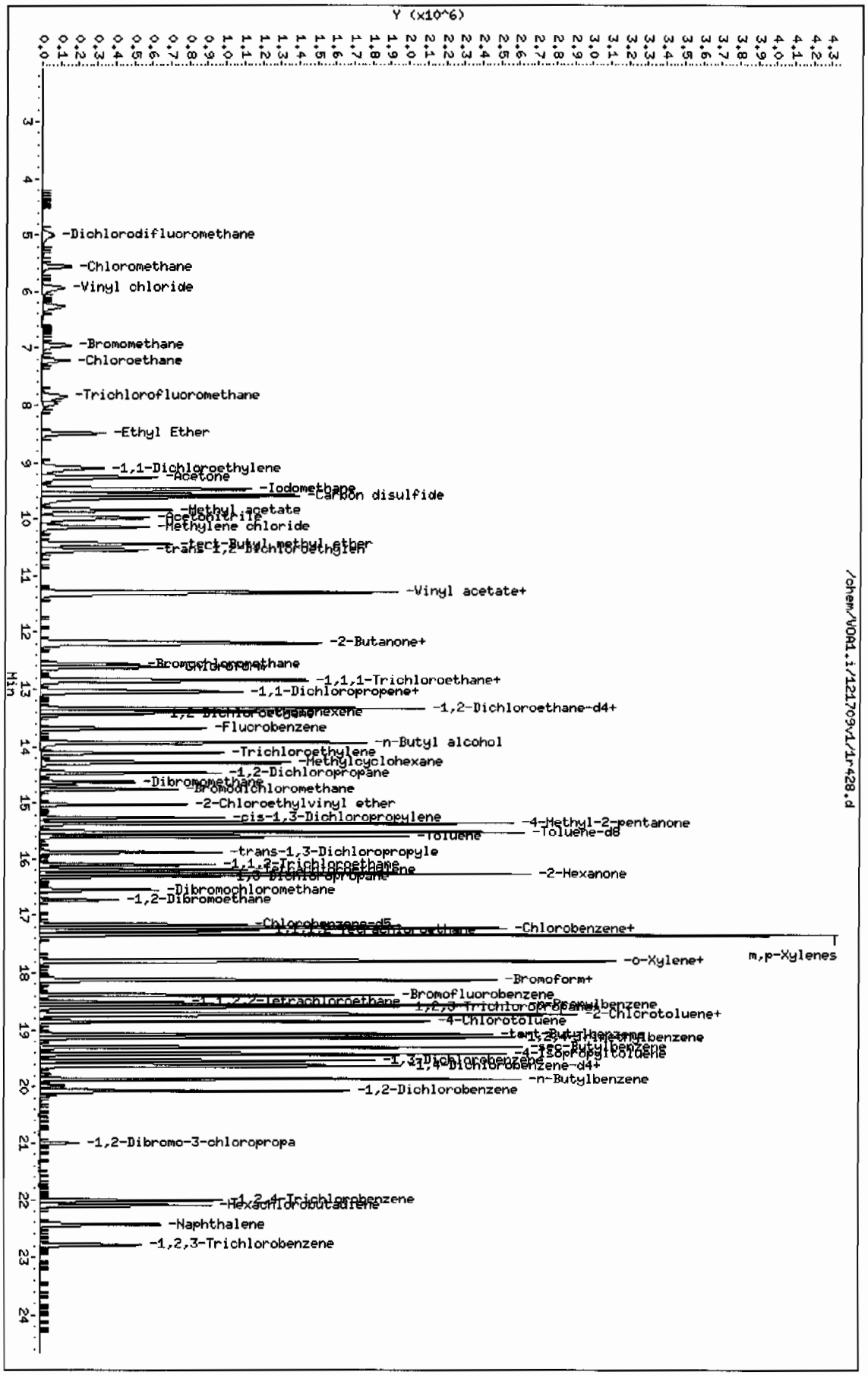

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Data File: /chem/VOA1.i/121709v1/1r430.d
Report Date: 18-Dec-2009 09:22

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA1.i Injection Date: 17-DEC-2009 23:58
Lab File ID: 1r430.d Init. Cal. Date(s): 17-DEC-2009 17-DEC-2009
Analysis Type: WATER Init. Cal. Times: 13:26 21:57
Lab Sample ID: W1VM091217-20 Quant Type: ISTD
Method: /chem/VOA1.i/121709v1/VOA1-8260ox-121709.m

COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
4 Chlorotrifluoroethylene	137	150	0.20454	0.010	-8.69028	30.00000	Linear
8 2-Chloro-1,1,1-trifluoroeth	156	150	0.47282	0.010	4.10632	30.00000	Linear
13 Acrolein	0.07113	0.08417	0.08417	0.001	18.33635	30.00000	Averaged
14 Trichlorotrifluoroethane	0.29664	0.35238	0.35238	0.030	18.78925	30.00000	Averaged
17 Isopropyl Alcohol	2723	2500	0.02846	0.000	8.93625	40.00000	Linear
20 Allyl chloride	266	250	0.18352	0.010	6.20960	30.00000	Linear
24 tert-Butyl Alcohol	2701	2500	0.04655	0.010	8.04183	40.00000	Linear
27 Acrylonitrile	0.14313	0.16467	0.16467	0.010	15.04894	30.00000	Averaged
28 Isopropyl ether	51.22072	50.00000	1.63570	0.010	2.44144	30.00000	Linear
31 2-Chloro-1,3-butadiene	0.59811	0.73987	0.73987	0.010	23.70038	30.00000	Averaged
32 Ethyl tert-butyl ether	50.60234	50.00000	1.47823	0.010	1.20467	30.00000	Linear
37 Propionitrile	0.05574	0.06140	0.06140	0.010	10.14507	30.00000	Averaged
34 Ethyl acetate	0.36418	0.38260	0.38260	0.010	5.05761	40.00000	Averaged
40 Methacrylonitrile	0.28473	0.31562	0.31562	0.010	10.84664	30.00000	Averaged
38 Tetrahydrofuran	0.31873	0.37618	0.37618	0.010	18.02448	30.00000	Averaged
46 Isobutyl alcohol	0.01253	0.01403	0.01403	0.001	12.00188	40.00000	Averaged
49 Methyl tert-amyl ether	50.82410	50.00000	1.24801	0.010	1.64821	30.00000	Linear
56 Methyl methacrylate	0.24537	0.28333	0.28333	0.010	15.47002	30.00000	Averaged
67 Ethyl methacrylate	0.68739	0.79692	0.79692	0.010	15.93469	30.00000	Averaged
75 1-Chlorohexane	0.49469	0.48337	0.48337	0.000	-2.28757	30.00000	Averaged
58 1,4-Dioxane	0.00351	0.00409	0.00409	0.001	16.51266	40.00000	Averaged
62 2-Nitropropane	268	250	0.11981	0.000	7.39385	30.00000	Linear
85 cis-1,4-Dichloro-2-butene	0.37890	0.46792	0.46792	0.010	23.49365	30.00000	Averaged
86 Cyclohexanone	0.07283	0.04492	0.04492	0.010	-38.32462	40.00000	Averaged
90 trans-1,4-Dichloro-2-butene	0.35568	0.44422	0.44422	0.010	24.89510	30.00000	Averaged
98 Pentachloroethane	0.42012	0.51504	0.51504	0.010	22.59531	30.00000	Averaged
104 Benzyl chloride	1.95639	2.22255	2.22255	0.010	13.60510	30.00000	Averaged
107 bis(2-Chloroisopropyl)ether	0.45769	0.57767	0.57767	0.010	26.21523	30.00000	Averaged
$ 48 1,2-Dichloroethane-d4	0.60584	0.61775	0.61775	0.010	1.96606	30.00000	Averaged
$ 65 Toluene-d8	2.85543	3.05423	3.05423	0.010	6.96200	30.00000	Averaged
$ 87 Bromofluorobenzene	2.05512	2.23181	2.23181	0.010	8.59736	30.00000	Averaged

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA1.i Injection Date: 17-DEC-2009 23:58
Lab File ID: 1r430.d Init. Cal. Date(s): 17-DEC-2009 17-DEC-2009
Analysis Type: WATER Init. Cal. Times: 13:26 21:57
Lab Sample ID: W1VM091217-20 Quant Type: ISTD
Method: /chem/VOA1.i/121709v1/VOA1-8260ox-121709.m

Average %D / Drift Results.	
Calculated Average %D/Drift =	12.82201
Maximun Average %D/Drift =	20.00000
* Passed Average %D/Drift Test.	

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VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/121709v1/1r430.d
Lab Smp Id: W1VM091217-20 Client Smp ID: SHORT ICV
Inj Date : 17-DEC-2009 23:58
Operator : RXM4 Inst ID: VOA1.i
Smp Info : |W1VM091217-20|SHORT ICV|1|VOAF|1|
Misc Info : GEL 5ML N/A UVM091118-08C/UVM091105-02E
Comment :
Method : /chem/VOA1.i/121709v1/VOA1-8260ox-121709.m
Meth Date : 18-Dec-2009 09:22 ron01469 Quant Type: ISTD
Cal Date : 17-DEC-2009 21:57 Cal File: 1r426.d
Als bottle: 24 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: CALsubS+SS.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (Uf/Vo) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	sample purged

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
4 Chlorotrifluoroethylene	116	4.897	4.897	(0.358)	583804	150.000	137
8 2-Chloro-1,1,1-trifluoroethane	118	6.312	6.312	(0.461)	1349548	150.000	156
13 Acrolein	56	8.954	8.954	(0.654)	400431	250.000	296
14 Trichlorotrifluoroethane	101	8.996	8.996	(0.658)	1676309	250.000	297
17 Isopropyl Alcohol	45	9.447	9.447	(0.690)	1353921	2500.00	2720
20 Allyl chloride	76	9.852	9.852	(0.720)	873041	250.000	266
24 tert-Butyl Alcohol	59	10.197	10.197	(0.745)	2214363	2500.00	2700
27 Acrylonitrile	53	10.671	10.671	(0.780)	783344	250.000	288
28 Isopropyl ether	45	11.196	11.196	(0.818)	1556246	50.0000	51.2
31 2-Chloro-1,3-butadiene	53	11.394	11.394	(0.833)	703930	50.0000	61.8
32 Ethyl tert-butyl ether	59	11.758	11.758	(0.859)	1406424	50.0000	50.6
37 Propionitrile	54	12.402	12.402	(0.906)	292076	250.000	275
34 Ethyl acetate	43	12.163	12.163	(0.889)	1820085	250.000	263
40 Methacrylonitrile	41	12.563	12.563	(0.918)	1501432	250.000	277
38 Tetrahydrofuran	42	12.540	12.540	(0.639)	640867	250.000	295

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
46 Isobutyl alcohol	41	13.111	13.111	(0.958)	667397	2500.00	2800
49 Methyl tert-amyl ether	73	13.346	13.346	(0.975)	1187396	50.0000	50.8
56 Methyl methacrylate	69	14.437	14.437	(1.055)	1347834	250.000	289
67 Ethyl methacrylate	69	15.808	15.808	(0.921)	2614016	250.000	290
75 1-Chlorohexane	55	17.028	17.028	(1.245)	459894	50.0000	48.8
58 1,4-Dioxane	88	14.543	14.543	(1.063)	194645	2500.00	2910
62 2-Nitropropane	43	15.077	15.077	(1.102)	569946	250.000	268
85 cis-1,4-Dichloro-2-butene	53	18.276	18.276	(0.932)	797153	250.000	309
86 Cyclohexanone	55	18.386	18.386	(1.072)	736654	1250.00	771
90 trans-1,4-Dichloro-2-butene	53	18.566	18.566	(0.947)	756783	250.000	312
98 Pentachloroethane	167	19.196	19.196	(0.979)	877430	250.000	306(A)
104 Benzyl chloride	91	19.772	19.772	(1.008)	3786361	250.000	284
107 bis(2-Chloroisopropyl)ether	45	20.163	20.163	(1.028)	984129	250.000	316
* 52 Fluorobenzene	96	13.682	13.682	(1.000)	951428	50.0000	
* 76 Chlorobenzene-d5	117	17.157	17.157	(1.000)	656029	50.0000	
* 102 1,4-Dichlorobenzene-d4	152	19.611	19.611	(1.000)	340721	50.0000	
$ 48 1,2-Dichloroethane-d4	65	13.341	13.341	(0.975)	587745	50.0000	51.0
$ 65 Toluene-d8	98	15.518	15.518	(0.904)	2003665	50.0000	53.5
$ 87 Bromofluorobenzene	95	18.386	18.386	(0.938)	760425	50.0000	54.3

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.

Data File: /chem/VOA1.i/121709v1/1r430.d
Date : 17-DEC-2009 23:58
Client ID: SHORT ICV
Sample Info: IW1VM091217-20|SHORT ICV|1|VOAF|1|
Purge Volume: 5.0
Column phase: RTX-Volatiles

Instrument: VOA1.i
Operator: RXH4
Column diameter: 0.25

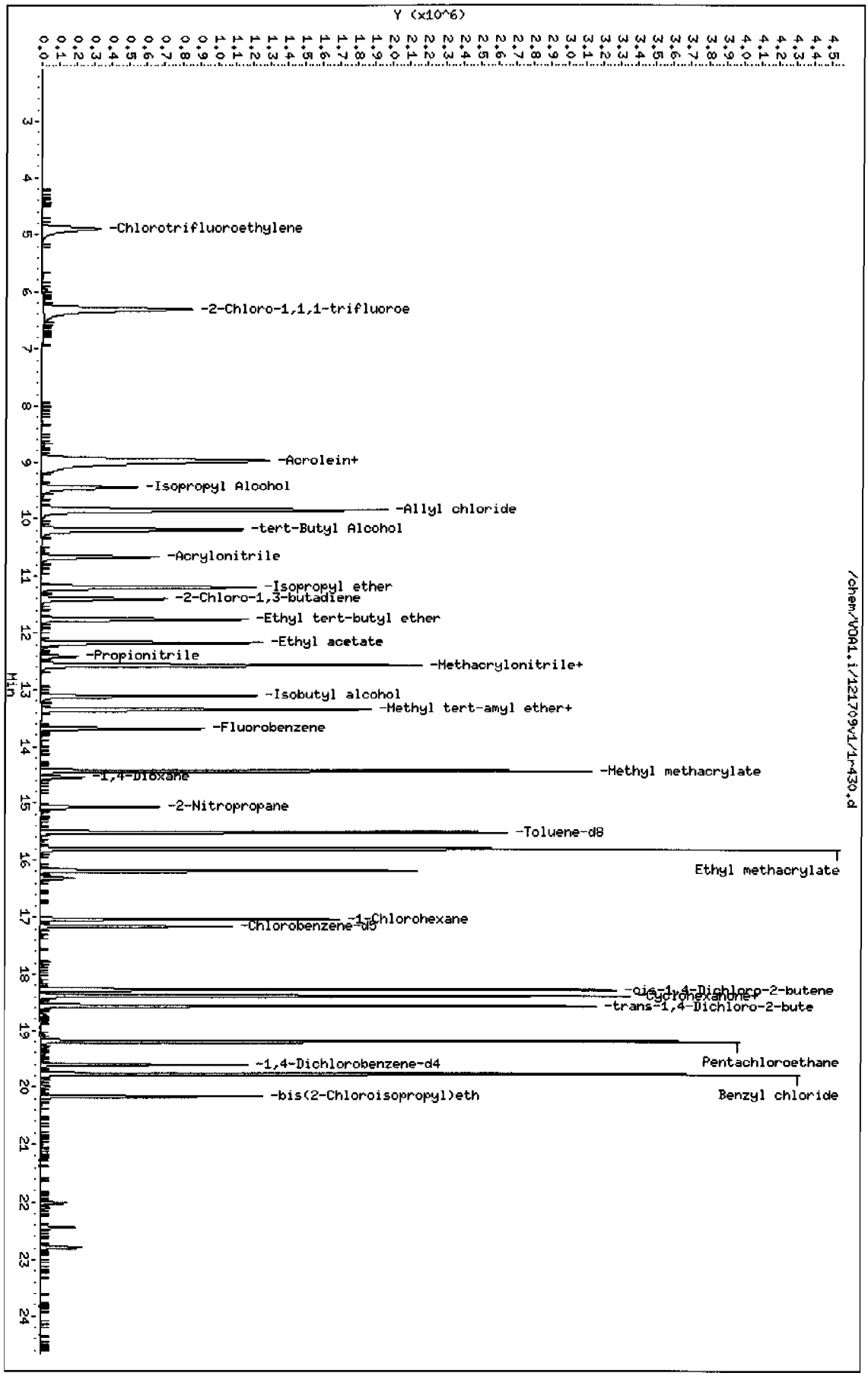

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA1.i Injection Date: 18-DEC-2009 22:20
Lab File ID: 1r524.d Init. Cal. Date(s): 17-DEC-2009 17-DEC-2009
Analysis Type: SOIL Init. Cal. Times: 13:26 21:57
Lab Sample ID: W1VM091218-06 Quant Type: ISTD
Method: /chem/VOA1.i/121809v1/VOA1-8260ox-121709PM.m

	COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
M	1 Xylenes (total)	1.00571	0.98307	0.98307	0.050	-2.25130	30.00000	Averaged	
M	2 1,2-Dichloroethylene (total	0.40751	0.38922	0.38922	0.050	-4.48819	30.00000	Averaged	
M	3 1,3-Dichloropropylene	0.88514	0.96363	0.96363	0.050	8.86722	30.00000	Averaged	
	5 Dichlorodifluoromethane	51.28996	50.00000	0.29003	0.050	2.57993	30.00000	Linear	
	6 Chloromethane	0.51970	0.50412	0.50412	0.100	-2.99685	30.00000	Averaged	spcc
	7 Vinyl chloride	0.43212	0.40656	0.40656	0.050	-5.91480	20.00000	Averaged	ccc
	9 Bromomethane	0.28192	0.27150	0.27150	0.050	-3.69684	30.00000	Averaged	
	10 Chloroethane	0.30188	0.30372	0.30372	0.050	0.61037	30.00000	Averaged	
	11 Trichlorofluoromethane	0.44773	0.49253	0.49253	0.050	10.00631	30.00000	Averaged	
	12 Ethyl Ether	0.37389	0.36983	0.36983	0.010	-1.08562	30.00000	Averaged	
	16 Acetone	0.30248	0.24546	0.24546	0.000	-18.85007	40.00000	Averaged	
	22 Acetonitrile	0.04984	0.04978	0.04978	0.010	-0.10604	30.00000	Averaged	
	15 1,1-Dichloroethylene	0.69959	0.69094	0.69094	0.050	-1.23665	20.00000	Averaged	ccc
	21 Methyl acetate	0.28883	0.29768	0.29768	0.010	3.06378	40.00000	Averaged	
	18 Iodomethane	0.55436	0.50496	0.50496	0.050	-8.91124	30.00000	Averaged	
	23 Methylene chloride	45.88237	50.00000	0.41795	0.000	-8.23527	30.00000	Linear	
	19 Carbon disulfide	1.13824	1.13135	1.13135	0.050	-0.60580	30.00000	Averaged	
	25 tert-Butyl methyl ether	1.12196	1.18131	1.18131	0.050	5.28985	30.00000	Averaged	
	26 trans-1,2-Dichloroethylene	0.38807	0.36686	0.36686	0.050	-5.46451	30.00000	Averaged	
	29 Vinyl acetate	0.69026	0.70893	0.70893	0.010	2.70479	40.00000	Averaged	
	30 1,1-Dichloroethane	0.77946	0.76734	0.76734	0.100	-1.55497	30.00000	Averaged	spcc
	35 2-Butanone	0.33847	0.27918	0.27918	0.030	-17.51706	40.00000	Averaged	
	36 cis-1,2-Dichloroethylene	0.42695	0.41158	0.41158	0.050	-3.60027	30.00000	Averaged	
	33 2,2-Dichloropropane	0.45482	0.47008	0.47008	0.050	3.35555	30.00000	Averaged	
	41 Chloroform	0.75919	0.76418	0.76418	0.010	0.65753	20.00000	Averaged	ccc
	39 Bromochloromethane	0.18374	0.17991	0.17991	0.010	-2.08441	30.00000	Averaged	
	43 1,1,1-Trichloroethane	0.50671	0.52712	0.52712	0.010	4.02764	30.00000	Averaged	
	42 Cyclohexane	0.73657	0.74432	0.74432	0.010	1.05214	30.00000	Averaged	
	45 1,1-Dichloropropene	0.55584	0.57432	0.57432	0.010	3.32457	30.00000	Averaged	
	53 n-Butyl alcohol	5409	5000	0.01314	0.001	8.18932	40.00000	Linear	
	44 Carbon tetrachloride	0.50106	0.54534	0.54534	0.010	8.83660	30.00000	Averaged	
$	48 1,2-Dichloroethane-d4	0.60584	0.69878	0.69878	0.010	15.34070	30.00000	Averaged	
	51 1,2-Dichloroethane	0.60049	0.64265	0.64265	0.010	7.02015	30.00000	Averaged	
	47 Benzene	1.62246	1.58280	1.58280	0.010	-2.44416	30.00000	Averaged	
	50 Cyclohexene	0.57039	0.56226	0.56226	0.010	-1.42494	30.00000	Averaged	

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA1.i Injection Date: 18-DEC-2009 22:20
Lab File ID: 1r524.d Init. Cal. Date(s): 17-DEC-2009 17-DEC-2009
Analysis Type: SOIL Init. Cal. Times: 13:26 21:57
Lab Sample ID: W1VM091218-06 Quant Type: ISTD
Method: /chem/VOA1.i/121809v1/VOA1-8260ox-121709PM.m

COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
54 Trichloroethylene	0.41533	0.41584	0.41584	0.010	0.12322	30.00000	Averaged	
57 1,2-Dichloropropane	0.44519	0.44680	0.44680	0.010	0.36253	20.00000	Averaged	ccc
55 Methylcyclohexane	0.67888	0.68789	0.68789	0.010	1.32710	30.00000	Averaged	
60 Bromodichloromethane	0.55929	0.68789	0.68789	0.010	22.99349	30.00000	Averaged	
59 Dibromomethane	0.25092	0.25301	0.25301	0.010	0.83150	30.00000	Averaged	
61 2-Chloroethylvinyl ether	458	250	0.08749	0.000	83.06427	30.00000	Linear	<-
64 4-Methyl-2-pentanone	0.24426	0.25040	0.25040	0.010	2.51254	40.00000	Averaged	
63 cis-1,3-Dichloropropylene	0.65316	0.70495	0.70495	0.010	7.92924	30.00000	Averaged	
$ 65 Toluene-d8	2.85543	2.85020	2.85020	0.010	-0.18333	30.00000	Averaged	
66 Toluene	1.45437	1.38096	1.38096	0.010	-5.04748	20.00000	Averaged	ccc
68 trans-1,3-Dichloropropylene	0.84622	0.94403	0.94403	0.010	11.55831	30.00000	Averaged	
69 1,1,2-Trichloroethane	0.41628	0.41775	0.41775	0.010	0.35453	30.00000	Averaged	
71 2-Hexanone	0.62331	0.52998	0.52998	0.010	-14.97432	40.00000	Averaged	
72 1,3-Dichloropropane	0.88376	0.88985	0.88985	0.010	0.68886	30.00000	Averaged	
70 Tetrachloroethylene	0.44328	0.41215	0.41215	0.010	-7.02184	30.00000	Averaged	
73 Dibromochloromethane	0.52259	0.55935	0.55935	0.010	7.03398	30.00000	Averaged	
74 1,2-Dibromoethane	0.46944	0.48523	0.48523	0.010	3.36311	30.00000	Averaged	
77 Chlorobenzene	1.51959	1.48102	1.48102	0.300	-2.53877	30.00000	Averaged	spcc
79 1,1,1,2-Tetrachloroethane	0.50746	0.51843	0.51843	0.010	2.16221	30.00000	Averaged	
78 Ethylbenzene	2.78730	2.74199	2.74199	0.010	-1.62577	20.00000	Averaged	ccc
80 m,p-Xylenes	1.01429	0.98446	0.98446	0.010	-2.94163	30.00000	Averaged	
81 o-Xylene	0.98852	0.98029	0.98029	0.010	-0.83288	30.00000	Averaged	
82 Styrene	1.66316	1.68932	1.68932	0.010	1.57268	30.00000	Averaged	
83 Bromoform	45.33350	50.00000	0.63816	0.100	-9.33299	30.00000	Linear	spcc
84 Isopropylbenzene	4.93115	4.78613	4.78613	0.010	-2.94084	30.00000	Averaged	
88 1,1,2,2-Tetrachloroethane	1.18805	1.14504	1.14504	0.300	-3.62063	30.00000	Averaged	spcc
$ 87 Bromofluorobenzene	2.05512	1.99480	1.99480	0.010	-2.93517	30.00000	Averaged	
92 1,2,3-Trichloropropane	0.30749	0.30892	0.30892	0.010	0.46490	30.00000	Averaged	
91 Bromobenzene	1.17688	1.09270	1.09270	0.010	-7.15286	30.00000	Averaged	
89 n-Propylbenzene	6.13553	5.87330	5.87330	0.010	-4.27393	30.00000	Averaged	
94 2-Chlorotoluene	4.27198	4.11474	4.11474	0.010	-3.68071	30.00000	Averaged	
93 1,3,5-Trimethylbenzene	4.28391	4.15810	4.15810	0.010	-2.93680	30.00000	Averaged	
95 4-Chlorotoluene	3.87008	3.73718	3.73718	0.010	-3.43392	30.00000	Averaged	
96 tert-Butylbenzene	3.51472	3.28833	3.28833	0.010	-6.44134	30.00000	Averaged	
97 1,2,4-Trimethylbenzene	4.42433	4.24282	4.24282	0.010	-4.10236	30.00000	Averaged	
99 sec-Butylbenzene	5.63173	5.38251	5.38251	0.010	-4.42543	30.00000	Averaged	

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA1.i Injection Date: 18-DEC-2009 22:20
Lab File ID: 1r524.d Init. Cal. Date(s): 17-DEC-2009 17-DEC-2009
Analysis Type: SOIL Init. Cal. Times: 13:26 21:57
Lab Sample ID: W1VM091218-06 Quant Type: ISTD
Method: /chem/VOA1.i/121809v1/VOA1-8260ox-121709PM.m

COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
100 4-Isopropyltoluene	4.27086	4.07431	4.07431	0.010	-4.60213	30.00000	Averaged
101 1,3-Dichlorobenzene	2.28713	2.09624	2.09624	0.010	-8.34659	30.00000	Averaged
103 1,4-Dichlorobenzene	2.33125	2.13053	2.13053	0.010	-8.60976	30.00000	Averaged
105 n-Butylbenzene	4.52044	4.48211	4.48211	0.010	-0.84780	30.00000	Averaged
106 1,2-Dichlorobenzene	2.17327	2.02488	2.02488	0.010	-6.82783	30.00000	Averaged
108 1,2-Dibromo-3-chloropropane	44.30868	50.00000	0.19166	0.010	-11.38263	30.00000	Linear
109 1,2,4-Trichlorobenzene	1.22342	1.16586	1.16586	0.010	-4.70502	30.00000	Averaged
110 Hexachlorobutadiene	0.81816	0.73096	0.73096	0.010	-10.65795	30.00000	Averaged
111 Naphthalene	40.02741	50.00000	2.10233	0.010	-19.94518	30.00000	Linear
112 1,2,3-Trichlorobenzene	0.91417	0.82733	0.82733	0.010	-9.49940	30.00000	Averaged

Average %D / Drift Results.

Calculated Average %D/Drift = 6.16796
Maximun Average %D/Drift = 20.00000
* Passed Average %D/Drift Test.

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VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/121809v1/1r524.d
Lab Smp Id: W1VM091218-06 Client Smp ID: VSTD050
Inj Date : 18-DEC-2009 22:20
Operator : RXM4 Inst ID: VOA1.i
Smp Info : |W1VM091218-06|CCV/LCS|1|VOAF|1|
Misc Info : GEL 5G N/A
Comment :
Method : /chem/VOA1.i/121809v1/VOA1-8260ox-121709PM.m
Meth Date : 19-Dec-2009 14:30 ron01469 Quant Type: ISTD
Cal Date : 17-DEC-2009 21:57 Cal File: 1r426.d
Als bottle: 24 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: CALsubL+.sub
Target Version: 3.50

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	0.00000	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
M 1 Xylenes (total)	106				1600826	150.000	147
M 2 1,2-Dichloroethylene (total)	96				589330	100.000	95.5
M 3 1,3-Dichloropropylene	75				1046113	100.000	110
5 Dichlorodifluoromethane	85	5.005	5.005	(0.366)	219568	50.0000	51.3
6 Chloromethane	50	5.564	5.564	(0.407)	381655	50.0000	48.5
7 Vinyl chloride	62	5.937	5.937	(0.434)	307790	50.0000	47.0
9 Bromomethane	96	6.947	6.947	(0.508)	205540	50.0000	48.2
10 Chloroethane	64	7.224	7.224	(0.528)	229935	50.0000	50.3
11 Trichlorofluoromethane	101	7.845	7.845	(0.573)	372878	50.0000	55.0
12 Ethyl Ether	59	8.480	8.480	(0.620)	279987	50.0000	49.4
16 Acetone	43	9.258	9.258	(0.676)	929154	250.000	203
22 Acetonitrile	41	9.981	9.981	(0.729)	942245	1250.00	1250
15 1,1-Dichloroethylene	61	9.097	9.097	(0.665)	523084	50.0000	49.4

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
21 Methyl acetate	43	9.838	9.838	(0.719)	1126825	250.000	258
18 Iodomethane	142	9.475	9.475	(0.692)	1911445	250.000	228
23 Methylene chloride	84	10.147	10.147	(0.741)	316411	50.0000	45.9
19 Carbon disulfide	76	9.580	9.580	(0.700)	4282514	250.000	248
25 tert-Butyl methyl ether	73	10.446	10.446	(0.763)	894325	50.0000	52.6
26 trans-1,2-Dichloroethylene	96	10.552	10.552	(0.771)	277738	50.0000	47.3
29 Vinyl acetate	43	11.297	11.297	(0.825)	2683541	250.000	257
30 1,1-Dichloroethane	63	11.330	11.330	(0.828)	580924	50.0000	49.2
35 2-Butanone	43	12.186	12.186	(0.890)	1056787	250.000	206
36 cis-1,2-Dichloroethylene	96	12.204	12.204	(0.892)	311591	50.0000	48.2
33 2,2-Dichloropropane	77	12.163	12.163	(0.889)	355879	50.0000	51.7
41 Chloroform	83	12.614	12.614	(0.922)	578532	50.0000	50.3
39 Bromochloromethane	128	12.559	12.559	(0.918)	136203	50.0000	49.0
43 1,1,1-Trichloroethane	97	12.849	12.849	(0.939)	399066	50.0000	52.0
42 Cyclohexane	56	12.844	12.844	(0.938)	563495	50.0000	50.5
45 1,1-Dichloropropene	75	13.051	13.051	(0.954)	434800	50.0000	51.7
53 n-Butyl alcohol	56	13.930	13.930	(1.018)	994486	5000.00	5410
44 Carbon tetrachloride	117	13.024	13.024	(0.952)	412855	50.0000	54.4
$ 48 1,2-Dichloroethane-d4	65	13.341	13.341	(0.975)	529021	50.0000	57.7
51 1,2-Dichloroethane	62	13.442	13.442	(0.982)	486526	50.0000	53.5
47 Benzene	78	13.336	13.336	(0.974)	1198283	50.0000	48.8
50 Cyclohexene	54	13.396	13.396	(0.979)	425667	50.0000	49.3
* 52 Fluorobenzene	96	13.686	13.686	(1.000)	757064	50.0000	
54 Trichloroethylene	95	14.119	14.119	(1.032)	314821	50.0000	50.1
57 1,2-Dichloropropane	63	14.460	14.460	(1.056)	338259	50.0000	50.2
55 Methylcyclohexane	83	14.285	14.285	(1.044)	520776	50.0000	50.7
60 Bromodichloromethane	83	14.285	14.285	(1.044)	520776	50.0000	61.5
59 Dibromomethane	93	14.625	14.625	(1.069)	191544	50.0000	50.4
61 2-Chloroethylvinyl ether	63	15.030	15.030	(1.098)	331191	250.000	458
64 4-Methyl-2-pentanone	58	15.357	15.357	(0.895)	679574	250.000	256
63 cis-1,3-Dichloropropylene	75	15.256	15.256	(1.115)	533693	50.0000	54.0
$ 65 Toluene-d8	98	15.518	15.518	(0.904)	1547087	50.0000	49.9
66 Toluene	92	15.597	15.597	(0.909)	749582	50.0000	47.5
68 trans-1,3-Dichloropropylene	75	15.877	15.877	(0.925)	512420	50.0000	55.8
69 1,1,2-Trichloroethane	83	16.103	16.103	(0.938)	226755	50.0000	50.2
71 2-Hexanone	43	16.269	16.269	(0.948)	1438351	250.000	212
72 1,3-Dichloropropane	76	16.305	16.305	(0.950)	483008	50.0000	50.3
70 Tetrachloroethylene	164	16.190	16.190	(0.943)	223717	50.0000	46.5
73 Dibromochloromethane	129	16.549	16.549	(0.964)	303612	50.0000	53.5
74 1,2-Dibromoethane	107	16.729	16.729	(0.975)	263380	50.0000	51.7
* 76 Chlorobenzene-d5	117	17.162	17.162	(1.000)	542799	50.0000	
77 Chlorobenzene	112	17.194	17.194	(1.002)	803894	50.0000	48.7
79 1,1,1,2-Tetrachloroethane	131	17.258	17.258	(1.006)	281402	50.0000	51.1
78 Ethylbenzene	91	17.217	17.217	(1.003)	1488350	50.0000	49.2
80 m,p-Xylenes	106	17.337	17.337	(1.010)	1068726	100.000	97.0
81 o-Xylene	106	17.783	17.783	(1.036)	532099	50.0000	49.6
82 Styrene	104	17.801	17.801	(1.037)	916961	50.0000	50.8

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
83 Bromoform	173	18.105	18.105	(0.923)	194619	50.0000	45.3
84 Isopropylbenzene	105	18.128	18.128	(0.924)	1459619	50.0000	48.5
88 1,1,2,2-Tetrachloroethane	83	18.506	18.506	(0.944)	349200	50.0000	48.2
$ 87 Bromofluorobenzene	95	18.386	18.386	(0.938)	608352	50.0000	48.5
92 1,2,3-Trichloropropane	110	18.602	18.602	(0.949)	94209	50.0000	50.2
91 Bromobenzene	156	18.593	18.593	(0.948)	333239	50.0000	46.4
89 n-Propylbenzene	91	18.556	18.556	(0.946)	1791173	50.0000	47.9
94 2-Chlorotoluene	91	18.740	18.740	(0.956)	1254867	50.0000	48.2
93 1,3,5-Trimethylbenzene	105	18.717	18.717	(0.954)	1268091	50.0000	48.5
95 4-Chlorotoluene	91	18.856	18.856	(0.962)	1139724	50.0000	48.3
96 tert-Butylbenzene	119	19.076	19.076	(0.973)	1002836	50.0000	46.8
97 1,2,4-Trimethylbenzene	105	19.132	19.132	(0.976)	1293928	50.0000	47.9
99 sec-Butylbenzene	105	19.302	19.302	(0.984)	1641496	50.0000	47.8
100 4-Isopropyltoluene	119	19.422	19.422	(0.990)	1242535	50.0000	47.7
101 1,3-Dichlorobenzene	146	19.541	19.541	(0.996)	639286	50.0000	45.8
* 102 1,4-Dichlorobenzene-d4	152	19.610	19.610	(1.000)	304968	50.0000	
103 1,4-Dichlorobenzene	146	19.638	19.638	(1.001)	649746	50.0000	45.7
105 n-Butylbenzene	91	19.868	19.868	(1.013)	1366903	50.0000	49.6
106 1,2-Dichlorobenzene	146	20.080	20.080	(1.024)	617526	50.0000	46.6
108 1,2-Dibromo-3-chloropropane	157	21.005	21.005	(1.071)	58448	50.0000	44.3
109 1,2,4-Trichlorobenzene	180	22.022	22.022	(1.123)	355550	50.0000	47.6
110 Hexachlorobutadiene	225	22.105	22.105	(1.127)	222920	50.0000	44.7
111 Naphthalene	128	22.437	22.437	(1.144)	641145	50.0000	40.0
112 1,2,3-Trichlorobenzene	180	22.787	22.787	(1.162)	252308	50.0000	45.2

Data File: /chem/VOA1.i/121809v1/1r524.d
Date : 18-DEC-2009 22:20
Client ID: VSTD050
Sample Info: IWUWH091218-061CCV/LCS1i1VOAF1i1
Column phase: RTX-Volatiles

Instrument: VOA1.i
Operator: RXH4
Column diameter: 0.25

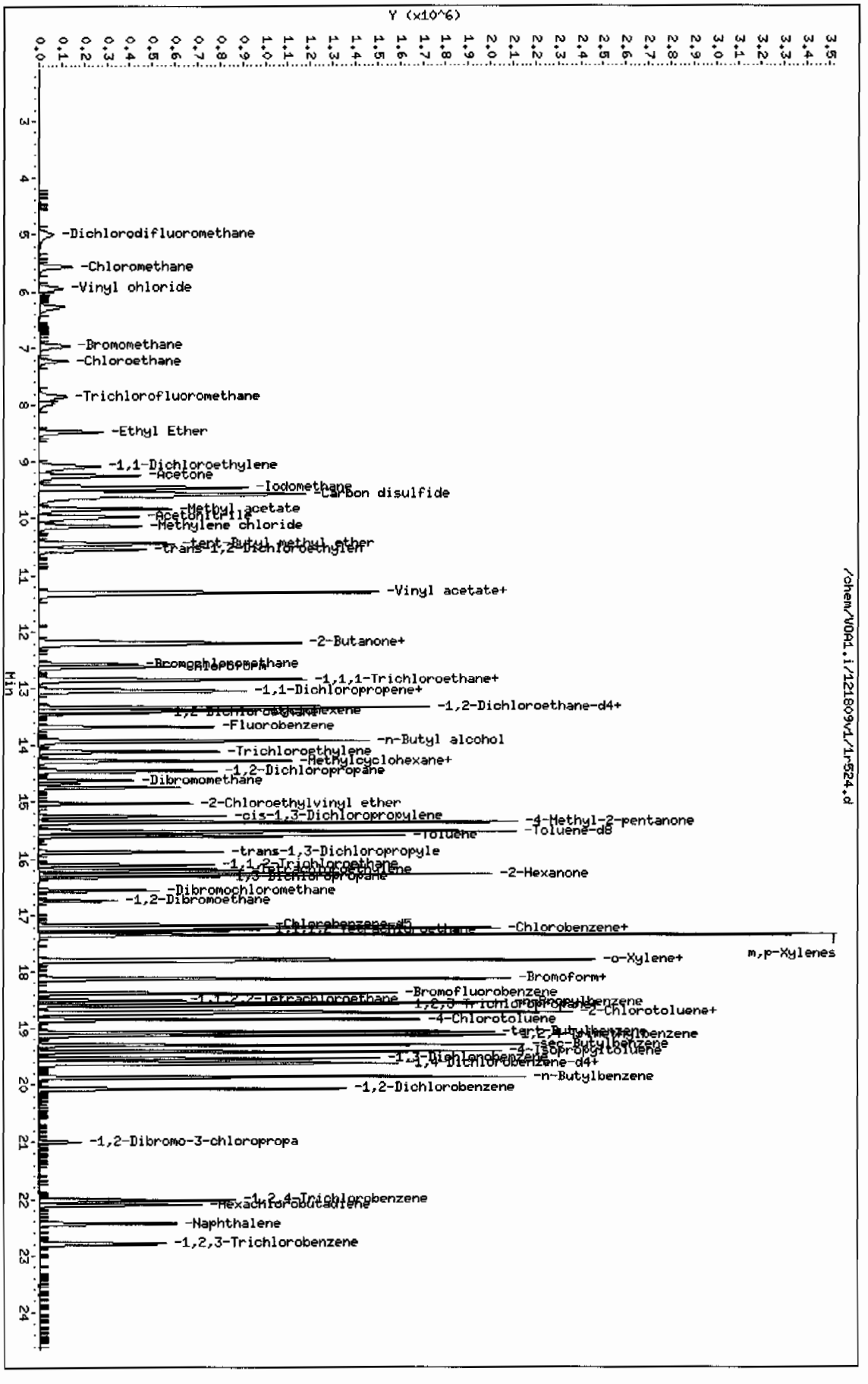

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA1.i Injection Date: 18-DEC-2009 22:51
Lab File ID: 1r525.d Init. Cal. Date(s): 17-DEC-2009 17-DEC-2009
Analysis Type: SOIL Init. Cal. Times: 13:26 21:57
Lab Sample ID: W1VM091218-07 Quant Type: ISTD
Method: /chem/VOA1.i/121809v1/VOA1-8260ox-121709PM.m

COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
4 Chlorotrifluoroethylene	139	150	0.20762	0.010	-7.33235	30.00000	Linear
8 2-Chloro-1,1,1-trifluoroeth	157	150	0.47399	0.010	4.36355	30.00000	Linear
13 Acrolein	0.07113	0.08723	0.08723	0.001	22.62765	30.00000	Averaged
14 Trichlorotrifluoroethane	0.29664	0.38173	0.38173	0.030	28.68290	30.00000	Averaged
17 Isopropyl Alcohol	2992	2500	0.03137	0.000	19.69490	40.00000	Linear
20 Allyl chloride	261	250	0.17999	0.010	4.27685	30.00000	Linear
24 tert-Butyl Alcohol	3054	2500	0.05278	0.010	22.15172	40.00000	Linear
27 Acrylonitrile	0.14313	0.17031	0.17031	0.010	18.99432	30.00000	Averaged
28 Isopropyl ether	49.66676	50.00000	1.58561	0.010	-0.66648	30.00000	Linear
31 2-Chloro-1,3-butadiene	0.59811	0.79650	0.79650	0.010	33.16910	30.00000	Averaged <-
32 Ethyl tert-butyl ether	51.23932	50.00000	1.49717	0.010	2.47863	30.00000	Linear
37 Propionitrile	0.05574	0.06693	0.06693	0.010	20.07608	30.00000	Averaged
34 Ethyl acetate	0.36418	0.40248	0.40248	0.010	10.51702	40.00000	Averaged
40 Methacrylonitrile	0.28473	0.33003	0.33003	0.010	15.90802	30.00000	Averaged
38 Tetrahydrofuran	0.31873	0.37143	0.37143	0.010	16.53408	30.00000	Averaged
46 Isobutyl alcohol	0.01253	0.01572	0.01572	0.001	25.51749	40.00000	Averaged
49 Methyl tert-amyl ether	51.33895	50.00000	1.26089	0.010	2.67789	30.00000	Linear
56 Methyl methacrylate	0.24537	0.29113	0.29113	0.010	18.64986	30.00000	Averaged
67 Ethyl methacrylate	0.68739	0.81287	0.81287	0.010	18.25503	30.00000	Averaged
75 1-Chlorohexane	0.49469	0.51000	0.51000	0.000	3.09530	30.00000	Averaged
58 1,4-Dioxane	0.00351	0.00416	0.00416	0.001	18.36492	40.00000	Averaged
62 2-Nitropropane	297	250	0.13288	0.000	18.82438	30.00000	Linear
85 cis-1,4-Dichloro-2-butene	0.37890	0.49646	0.49646	0.010	31.02614	30.00000	Averaged <-
86 Cyclohexanone	0.07283	0.04881	0.04881	0.010	-32.97599	40.00000	Averaged
90 trans-1,4-Dichloro-2-butene	0.35568	0.46909	0.46909	0.010	31.88759	30.00000	Averaged <-
98 Pentachloroethane	0.42012	0.39611	0.39611	0.010	-5.71297	30.00000	Averaged
104 Benzyl chloride	1.95639	2.31613	2.31613	0.010	18.38816	30.00000	Averaged
107 bis(2-Chloroisopropyl)ether	0.45769	0.60334	0.60334	0.010	31.82228	30.00000	Averaged <-
$ 48 1,2-Dichloroethane-d4	0.60584	0.69865	0.69865	0.010	15.31940	30.00000	Averaged
$ 65 Toluene-d8	2.85543	2.99517	2.99517	0.010	4.89382	30.00000	Averaged
$ 87 Bromofluorobenzene	2.05512	2.14942	2.14942	0.010	4.58819	30.00000	Averaged

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA1.i Injection Date: 18-DEC-2009 22:51
Lab File ID: 1r525.d Init. Cal. Date(s): 17-DEC-2009 17-DEC-2009
Analysis Type: SOIL Init. Cal. Times: 13:26 21:57
Lab Sample ID: W1VM091218-07 Quant Type: ISTD
Method: /chem/VOA1.i/121809v1/VOA1-8260ox-121709PM.m

Average %D / Drift Results.	
Calculated Average %D/Drift =	6.16796
Maximun Average %D/Drift =	20.00000
* Passed Average %D/Drift Test.	

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VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/121809v1/1r525.d
Lab Smp Id: W1VM091218-07 Client Smp ID: VSTD250S
Inj Date : 18-DEC-2009 22:51
Operator : RXM4 Inst ID: VOA1.i
Smp Info : |W1VM091218-07|SHORT|1|VOAF|1|
Misc Info : GEL 5G N/A UVM091118-08C/UVM091105-02E
Comment :
Method : /chem/VOA1.i/121809v1/VOA1-8260ox-121709PM.m
Meth Date : 19-Dec-2009 14:30 ron01469 Quant Type: ISTD
Cal Date : 17-DEC-2009 21:57 Cal File: 1r426.d
Als bottle: 25 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: CALsubS+SS.sub
Target Version: 3.50

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	0.00000	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
4 Chlorotrifluoroethylene	116	4.904	4.904	(0.358)	476741	150.000	139
8 2-Chloro-1,1,1-trifluoroethane	118	6.312	6.312	(0.461)	1088401	150.000	156
13 Acrolein	56	8.959	8.959	(0.655)	333827	250.000	306
14 Trichlorotrifluoroethane	101	8.991	8.991	(0.657)	1460902	250.000	322
17 Isopropyl Alcohol	45	9.456	9.456	(0.691)	1200555	2500.00	2990
20 Allyl chloride	76	9.857	9.857	(0.720)	688833	250.000	261
24 tert-Butyl Alcohol	59	10.202	10.202	(0.746)	2019908	2500.00	3050
27 Acrylonitrile	53	10.676	10.676	(0.780)	651808	250.000	297
28 Isopropyl ether	45	11.201	11.201	(0.819)	1213659	50.0000	49.7
31 2-Chloro-1,3-butadiene	53	11.403	11.403	(0.833)	609657	50.0000	66.6
32 Ethyl tert-butyl ether	59	11.758	11.758	(0.859)	1145965	50.0000	51.2
37 Propionitrile	54	12.407	12.407	(0.907)	256160	250.000	300
34 Ethyl acetate	43	12.167	12.167	(0.889)	1540341	250.000	276

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
40 Methacrylonitrile	41	12.563	12.563	(0.918)	1263049	250.000	290
38 Tetrahydrofuran	42	12.540	12.540	(0.639)	538487	250.000	291
46 Isobutyl alcohol	41	13.111	13.111	(0.958)	601709	2500.00	3140
49 Methyl tert-amyl ether	73	13.350	13.350	(0.976)	965113	50.0000	51.3
56 Methyl methacrylate	69	14.441	14.441	(1.056)	1114187	250.000	297
67 Ethyl methacrylate	69	15.813	15.813	(0.921)	2175031	250.000	296
75 1-Chlorohexane	55	17.028	17.028	(1.245)	390364	50.0000	51.5
58 1,4-Dioxane	88	14.547	14.547	(1.063)	159080	2500.00	2960
62 2-Nitropropane	43	15.081	15.081	(1.102)	508528	250.000	297
85 cis-1,4-Dichloro-2-butene	53	18.275	18.275	(0.932)	719750	250.000	328
86 Cyclohexanone	55	18.386	18.386	(1.071)	653030	1250.00	838
90 trans-1,4-Dichloro-2-butene	53	18.570	18.570	(0.947)	680074	250.000	330
98 Pentachloroethane	167	19.196	19.196	(0.979)	574271	250.000	236
104 Benzyl chloride	91	19.771	19.771	(1.008)	3357834	250.000	296
107 bis(2-Chloroisopropyl)ether	45	20.167	20.167	(1.028)	874693	250.000	330
* 52 Fluorobenzene	96	13.682	13.686	(1.000)	765419	50.0000	
* 76 Chlorobenzene-d5	117	17.162	17.162	(1.000)	535148	50.0000	
* 102 1,4-Dichlorobenzene-d4	152	19.610	19.610	(1.000)	289952	50.0000	
$ 48 1,2-Dichloroethane-d4	65	13.341	13.341	(0.975)	534760	50.0000	57.6
$ 65 Toluene-d8	98	15.518	15.518	(0.904)	1602863	50.0000	52.4
$ 87 Bromofluorobenzene	95	18.386	18.386	(0.938)	623227	50.0000	52.3

Data File: /chem/VOA1.i/121809v1/1r525.d
Date : 18-DEC-2009 22:51
Client ID: VSTD250S
Sample Info: IW1VM091218-07|SHORT|1|VOAF|1|
Column phase: RTX-Volatiles

Instrument: VOA1.i
Operator: RXH4
Column diameter: 0.25

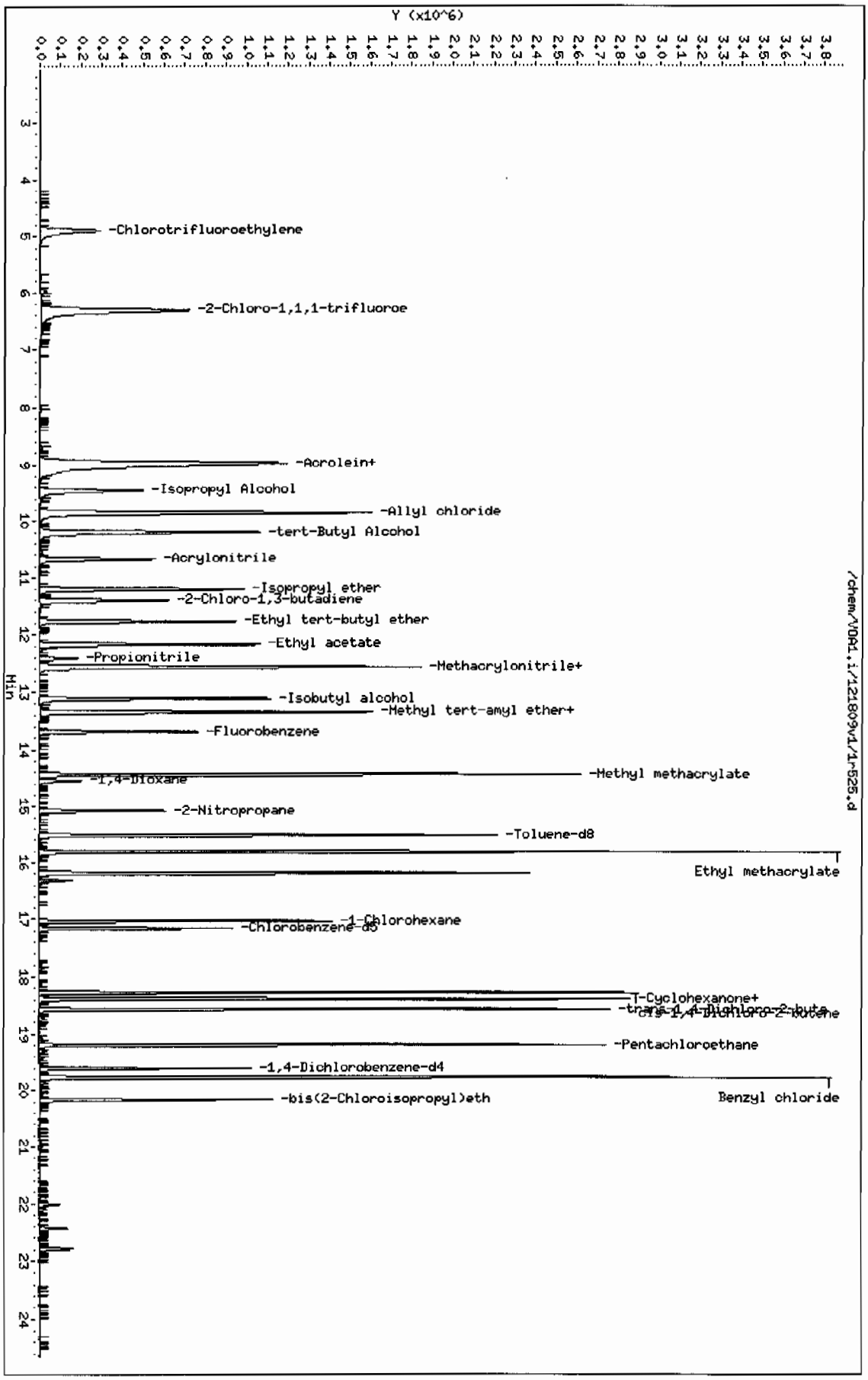

Page 1

QC Data

Data File: /chem/VOA1.i/121709v1/1r408.d

Page 1

Date : 17-DEC-2009 12:56

Client ID: BFB01

Instrument: VOA1.i

Sample Info: |UVM091117-02|BFB|1|VOAF|1|

Operator: RXM4

Column phase: RTX-Volatiles

Column diameter: 0.25

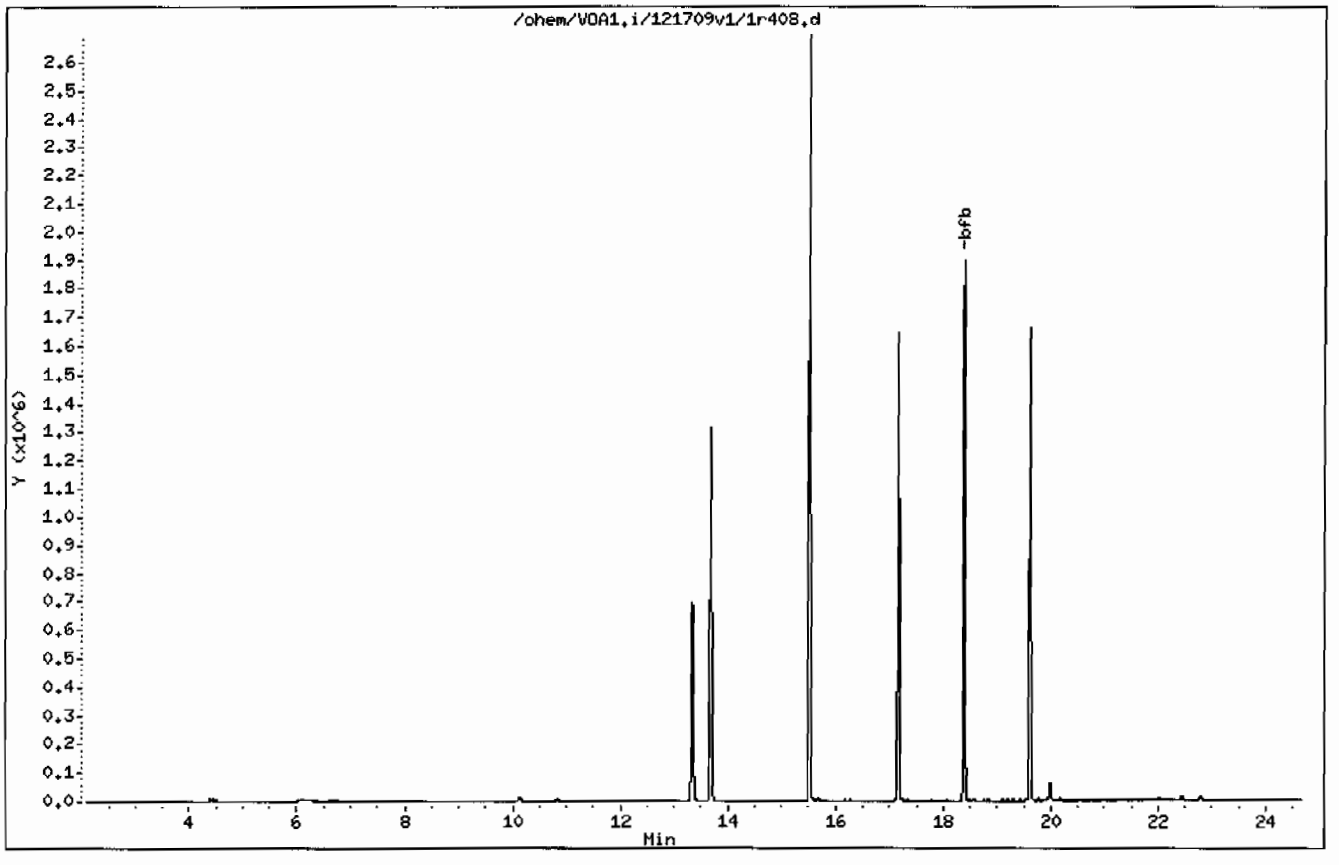

Data File: /chem/VOA1.i/121709v1/1r408.d

Date : 17-DEC-2009 12:56

Client ID: BFB01

Instrument: VOA1.i

Sample Info: |UVM091117-02|BFB|1|VOAF|1|

Operator: RXM4

Column phase: RTX-Volatiles

Column diameter: 0.25

1 bfb

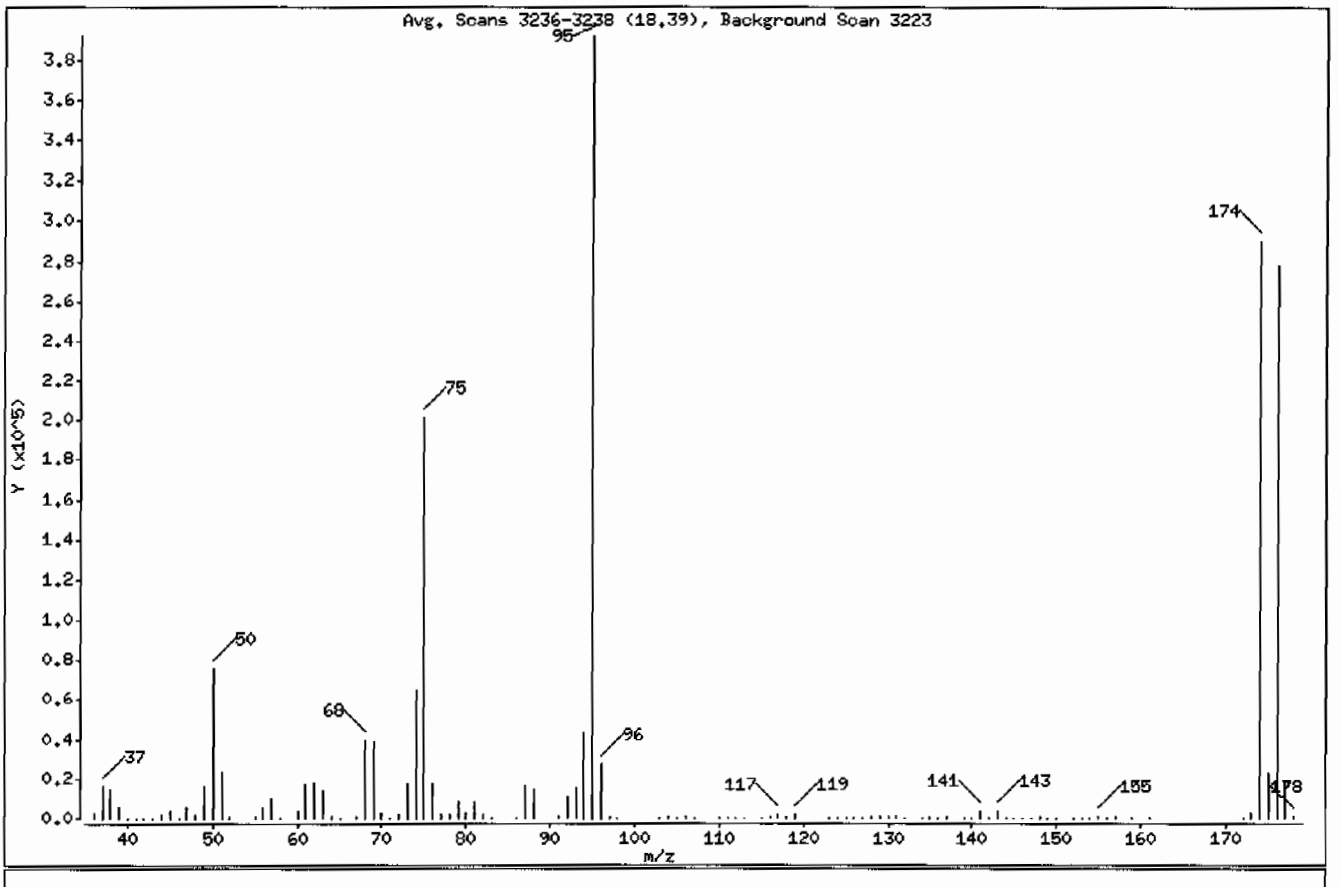

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	19.22
75	30.00 - 60.00% of mass 95	51.37
96	5.00 - 9.00% of mass 95	6.90
173	Less than 2.00% of mass 174	0.61 (0.83)
174	50.00 - 100.00% of mass 95	74.08
175	5.00 - 9.00% of mass 174	5.65 (7.63)
176	95.00 - 101.00% of mass 174	70.75 (95.51)
177	5.00 - 9.00% of mass 176	4.62 (6.54)

Data File: /chem/VOA1.i/121709v1/1r408.d

Date : 17-DEC-2009 12:56

Client ID: BFB01 Instrument: VOA1.i

Sample Info: |UVM091117-02|BFB|1|VOAF|1|

Operator: RXM4

Column phase: RTX-Volatiles Column diameter: 0.25

Data File: 1r408.d
Spectrum: Avg. Scans 3236-3238 (18.39), Background Scan 3223
Location of Maximum: 95.00
Number of points: 110

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	2874	68.00	39568	104.00	1329	140.00	263
37.00	16337	69.00	39040	105.00	411	141.00	3454
38.00	14622	70.00	2858	106.00	1316	142.00	441
39.00	5793	71.00	56	107.00	383	143.00	3213
40.00	268	72.00	2112	110.00	180	144.00	185
41.00	187	73.00	16760	111.00	260	145.00	364
42.00	431	74.00	65024	112.00	137	146.00	417
43.00	265	75.00	201536	113.00	208	147.00	241
44.00	1554	76.00	16848	115.00	318	148.00	868
45.00	3164	77.00	2254	116.00	1330	149.00	204
46.00	99	78.00	1672	117.00	2101	150.00	433
47.00	5349	79.00	8263	118.00	1270	152.00	111
48.00	1967	80.00	2473	119.00	1528	153.00	239
49.00	15962	81.00	8380	123.00	56	154.00	145
50.00	75392	82.00	1795	124.00	230	155.00	932
51.00	23576	83.00	239	125.00	72	156.00	174
52.00	1041	86.00	388	126.00	88	157.00	675
55.00	1234	87.00	16023	127.00	82	159.00	408
56.00	5159	88.00	14205	128.00	1243	161.00	448
57.00	9746	91.00	1126	129.00	651	172.00	388
58.00	352	92.00	10615	130.00	1286	173.00	2409
60.00	3488	93.00	15217	131.00	506	174.00	290624
61.00	17304	94.00	43696	132.00	52	175.00	22168
62.00	17712	95.00	392320	134.00	67	176.00	277568
63.00	13232	96.00	27088	135.00	559	177.00	18144
64.00	1214	97.00	893	136.00	123	178.00	473
65.00	111	98.00	234	137.00	596		
67.00	839	103.00	180	139.00	117		

Data File: /chem/VOA1.i/121809v1/1r522.d

Page 1

Date : 18-DEC-2009 21:19

Client ID: BFB01

Instrument: VOA1.i

Sample Info: |UVM091117-02|BFB02|1|VOAF|1|

Operator: RXM4

Column phase: RTX-Volatiles

Column diameter: 0.25

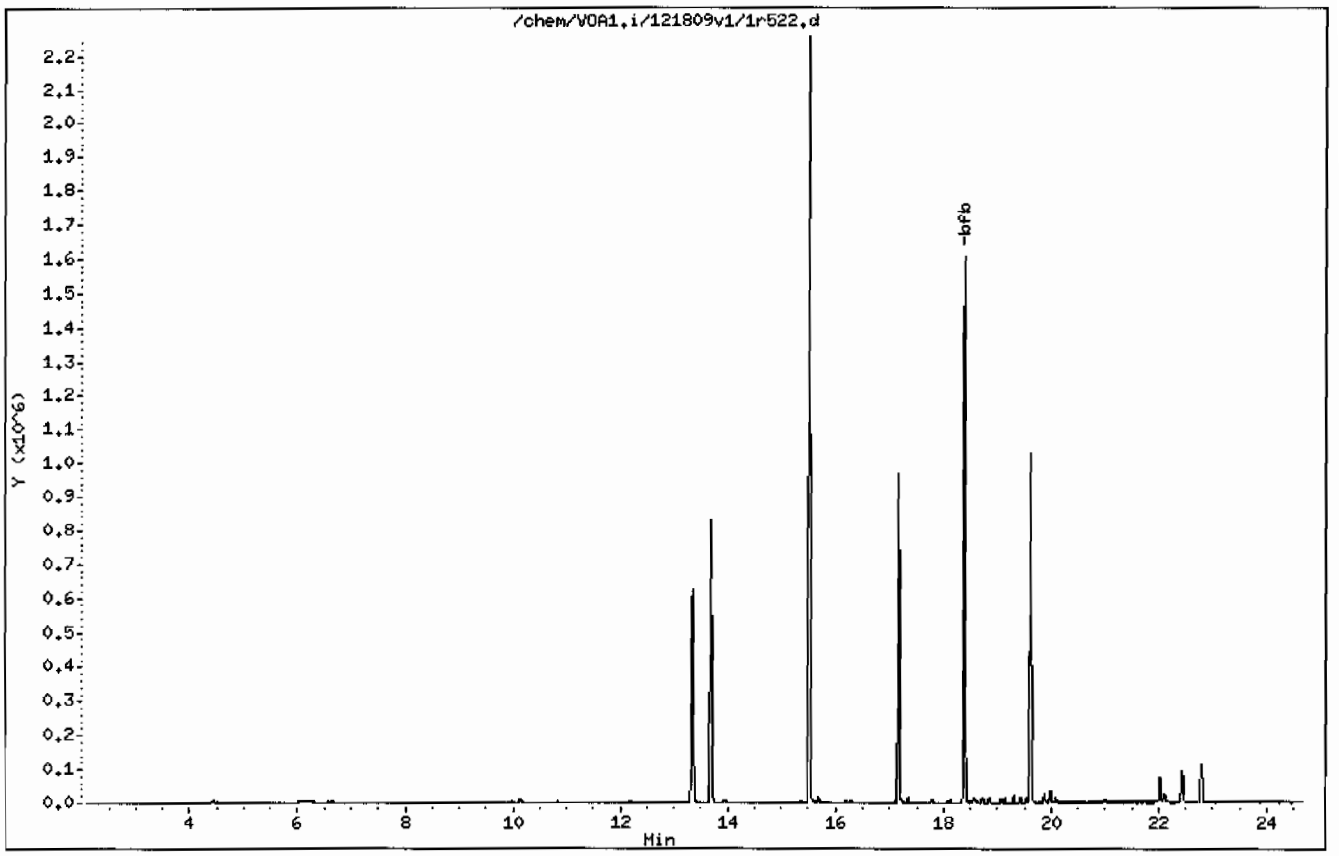

Data File: /chem/VOA1.i/121809v1/1r522.d

Date : 18-DEC-2009 21:19

Client ID: BFB01

Instrument: VOA1.i

Sample Info: |UVM091117-02|BFB02|1|VOAF|1|

Operator: RXM4

Column phase: RTX-Volatiles

Column diameter: 0.25

1 bfb

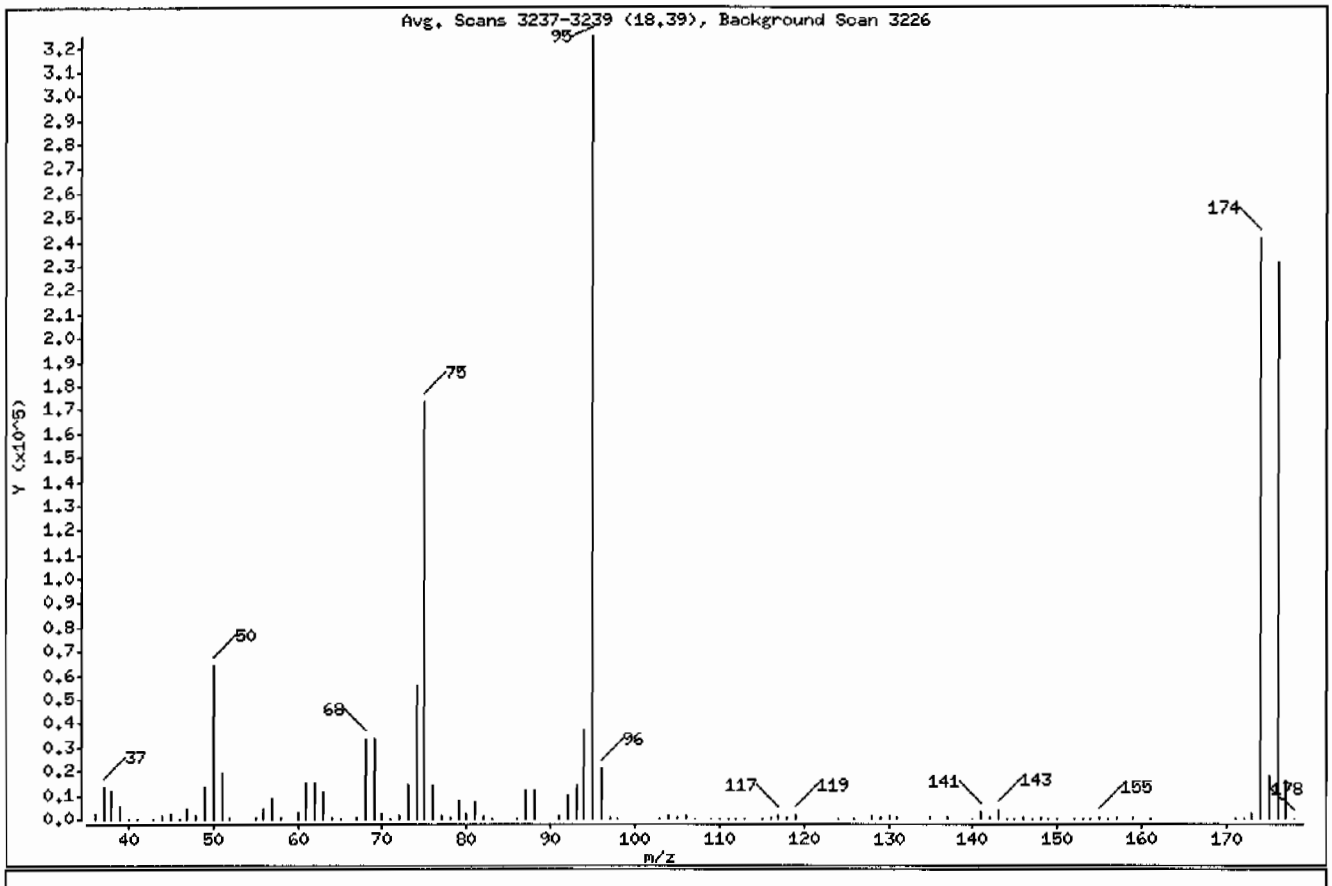

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	19.75
75	30.00 - 60.00% of mass 95	53.29
96	5.00 - 9.00% of mass 95	6.44
173	Less than 2.00% of mass 174	0.66 (0.89)
174	50.00 - 100.00% of mass 95	74.27
175	5.00 - 9.00% of mass 174	5.46 (7.35)
176	95.00 - 101.00% of mass 174	71.36 (96.07)
177	5.00 - 9.00% of mass 176	4.72 (6.61)

Data File: /chem/VOA1.i/121809v1/1r522.d

Date : 18-DEC-2009 21:19

Client ID: BFB01 Instrument: VOA1.i

Sample Info: |UVM091117-02|BFB02|1|VOAF|1|

Operator: RXM4

Column phase: RTX-Volatiles Column diameter: 0.25

Data File: 1r522.d
Spectrum: Avg. Scans 3237-3239 (18.39), Background Scan 3226
Location of Maximum: 95.00
Number of points: 104

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	2540	68.00	33760	103.00	107	144.00	217
37.00	13760	69.00	33472	104.00	1244	145.00	191
38.00	12320	70.00	2272	105.00	485	146.00	406
39.00	4983	71.00	75	106.00	1210	147.00	64
40.00	168	72.00	1683	107.00	295	148.00	771
41.00	62	73.00	14547	109.00	58	149.00	203
43.00	183	74.00	56264	110.00	60	150.00	345
44.00	1359	75.00	173120	111.00	202	152.00	109
45.00	2522	76.00	14396	112.00	58	153.00	198
46.00	131	77.00	1584	113.00	189	154.00	168
47.00	4357	78.00	1084	115.00	307	155.00	664
48.00	1720	79.00	7224	116.00	920	156.00	54
49.00	13078	80.00	2216	117.00	1785	157.00	524
50.00	64160	81.00	7591	118.00	1018	159.00	408
51.00	19704	82.00	1522	119.00	1315	161.00	325
52.00	998	83.00	182	124.00	113	171.00	88
55.00	1008	86.00	291	126.00	82	172.00	203
56.00	4583	87.00	12199	128.00	1123	173.00	2142
57.00	8685	88.00	11576	129.00	549	174.00	241280
58.00	380	91.00	1124	130.00	1146	175.00	17744
60.00	3187	92.00	9399	131.00	451	176.00	231808
61.00	15022	93.00	13817	135.00	531	177.00	15333
62.00	14752	94.00	37624	137.00	445	178.00	368
63.00	11070	95.00	324864	140.00	188		
64.00	1052	96.00	20920	141.00	3017		
65.00	131	97.00	657	142.00	444		
67.00	800	98.00	171	143.00	3387		

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-917**			**Matrix:**	**SOIL**
Lab Sample ID:	**1201999844**				
Client Sample:	**QC for batch 934727**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 934727**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**934728**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**12/18/2009 23:51**	**Analyst:**	**RXM4**	**Purge Vol:**	**5 mL**
Prep Date:	**12/18/2009 08:00**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1r527BA.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/kg	0.340	1.00
74-87-3	Chloromethane	U	1.00	ug/kg	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/kg	0.300	1.00
74-83-9	Bromomethane	U	1.00	ug/kg	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/kg	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/kg	0.300	1.00
67-64-1	Acetone	U	5.00	ug/kg	1.66	5.00
75-35-4	1,1-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/kg	1.60	5.00
75-09-2	Methylene chloride	U	5.00	ug/kg	2.00	5.00
75-15-0	Carbon disulfide	U	5.00	ug/kg	1.25	5.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/kg	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/kg	1.50	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/kg	0.300	1.00
74-97-5	Bromochloromethane	U	1.00	ug/kg	0.330	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/kg	0.300	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/kg	0.300	1.00
56-23-5	Carbon tetrachloride	U	1.00	ug/kg	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/kg	0.300	1.00
71-43-2	Benzene	U	1.00	ug/kg	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/kg	0.330	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/kg	0.300	1.00
74-95-3	Dibromomethane	U	1.00	ug/kg	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/kg	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
108-88-3	Toluene	U	1.00	ug/kg	0.300	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/kg	0.300	1.00
591-78-6	2-Hexanone	U	5.00	ug/kg	1.50	5.00
142-28-9	1,3-Dichloropropane	U	1.00	ug/kg	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/kg	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/kg	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/kg	0.300	1.00
108-90-7	Chlorobenzene	U	1.00	ug/kg	0.300	1.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-917**			**Matrix:**	**SOIL**
Lab Sample ID:	**1201999844**				
Client Sample:	**QC for batch 934727**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 934727**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**934728**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**12/18/2009 23:51**	**Analyst:**	**RXM4**	**Purge Vol:**	**5 mL**
Prep Date:	**12/18/2009 08:00**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1r527BA.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.00	ug/kg	0.300	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/kg	0.300	2.00
95-47-6	o-Xylene	U	1.00	ug/kg	0.300	1.00
100-42-5	Styrene	U	1.00	ug/kg	0.300	1.00
75-25-2	Bromoform	U	1.00	ug/kg	0.300	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/kg	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/kg	0.300	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/kg	0.300	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/kg	0.300	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/kg	0.300	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/kg	0.300	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/kg	0.300	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/kg	0.300	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/kg	0.300	1.00
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.00	ug/kg	1.60	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	No Tentatively Identified Compounds Found			ug/kg		

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/121809v1/1r527BA.d
Lab Smp Id: 1201999844 Client Smp ID: BLANK
Inj Date : 18-DEC-2009 23:51
Operator : RXM4 Inst ID: VOA1.i
Smp Info : |1201999844|934728|1|VOAF|1|
Misc Info : GEL 5G N/A
Comment :
Method : /chem/VOA1.i/121809v1/VOA1-8260ox-121709PM.m
Meth Date : 19-Dec-2009 14:30 ron01469 Quant Type: ISTD
Cal Date : 17-DEC-2009 21:57 Cal File: 1r426.d
Als bottle: 27 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	0.00000	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
$ 48 1,2-Dichloroethane-d4	65	13.341	13.341	(0.975)	521316	62.3056	62.3
* 52 Fluorobenzene	96	13.686	13.686	(1.000)	690536	50.0000	
$ 65 Toluene-d8	98	15.518	15.518	(0.904)	1501771	54.3827	54.4
* 76 Chlorobenzene-d5	117	17.162	17.162	(1.000)	483549	50.0000	
$ 87 Bromofluorobenzene	95	18.391	18.386	(0.938)	579841	56.0152	56.0
* 102 1,4-Dichlorobenzene-d4	152	19.610	19.610	(1.000)	251846	50.0000	
104 Benzyl chloride	91	19.776	19.771	(1.008)	10650	1.08076	1.1(a)
107 bis(2-Chloroisopropyl)ether	45	20.167	20.167	(1.028)	10011	4.34252	4.3(a)
109 1,2,4-Trichlorobenzene	180	22.032	22.022	(1.123)	4372	0.70948	0.71(a)
111 Naphthalene	128	22.441	22.437	(1.144)	13328	3.33055	3.3
112 1,2,3-Trichlorobenzene	180	22.786	22.787	(1.162)	7498	1.62838	1.6

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/121809v1/1r527BA.d
Lab Smp Id: 1201999844 Client Smp ID: BLANK
Inj Date : 18-DEC-2009 23:51
Operator : RXM4 Inst ID: VOA1.i
Smp Info : |1201999844|934728|1|VOAF|1|
Misc Info : GEL 5G N/A
Comment :
Method : /chem/VOA1.i/121809v1/VOA1-8260ox-121709PM.m
Meth Date : 19-Dec-2009 14:30 ron01469 Quant Type: ISTD
Cal Date : 17-DEC-2009 21:57 Cal File: 1r426.d
Als bottle: 27 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50
Processing Host: prdsvr07

- NO TENTATIVELY IDENTIFIED COMPOUNDS -

Data File: /chem/VOA1.i/121809v1/1r527BA.d
Date : 18-DEC-2009 23:51
Client ID: BLANK
Sample Info: |12019998441934728|1|VOAF|1|

Column phase: RTX-Volatiles

Instrument: VOA1.i

Operator: RXM4
Column diameter: 0.25

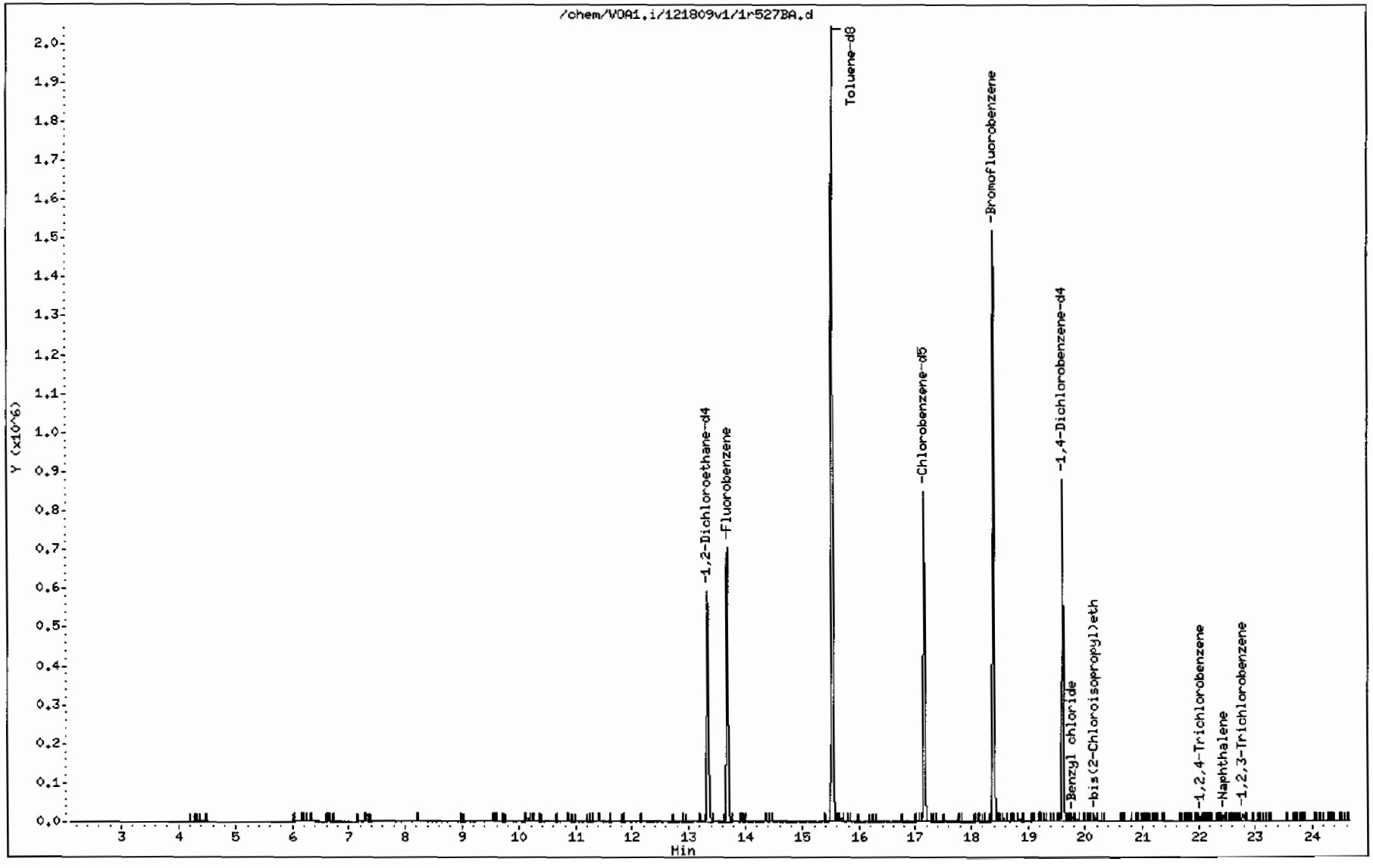

Data File: /chem/VOA1.i/121809v1/1r527BA.d

Date : 18-DEC-2009 23:51

Client ID: BLANK

Instrument: VOA1.i

Sample Info: |1201999844|934728|1|VOAF|1|

Operator: RXM4

Column phase: RTX-Volatiles

Column diameter: 0.25

104 Benzyl chloride

Concentration: 1.1 ug/Kg

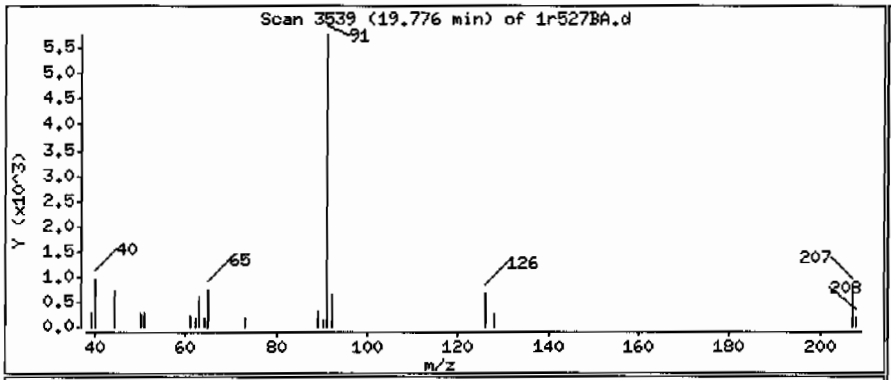

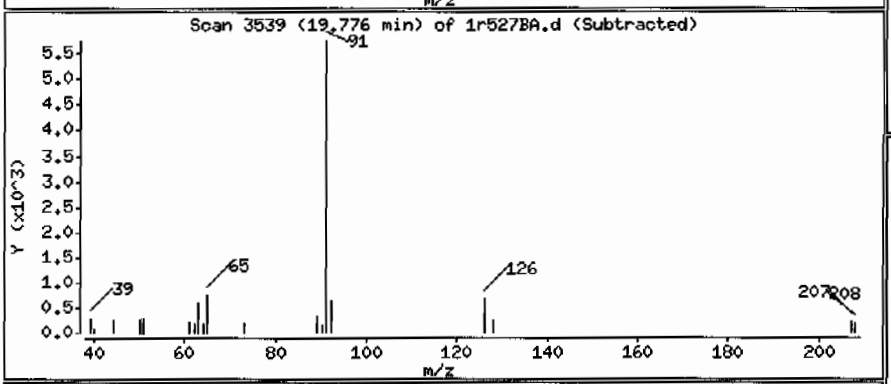

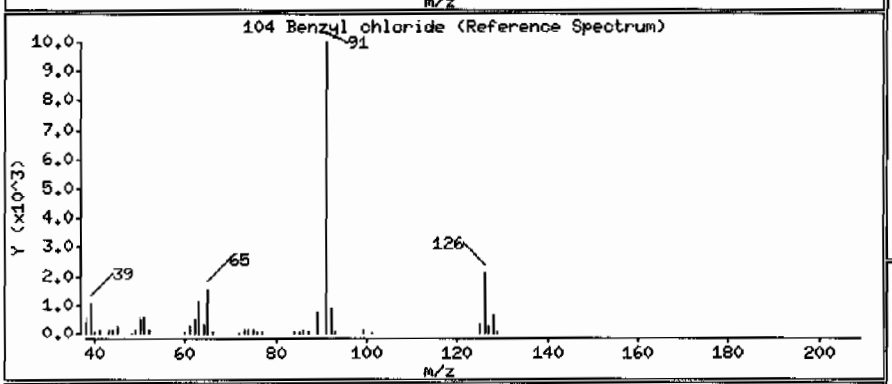

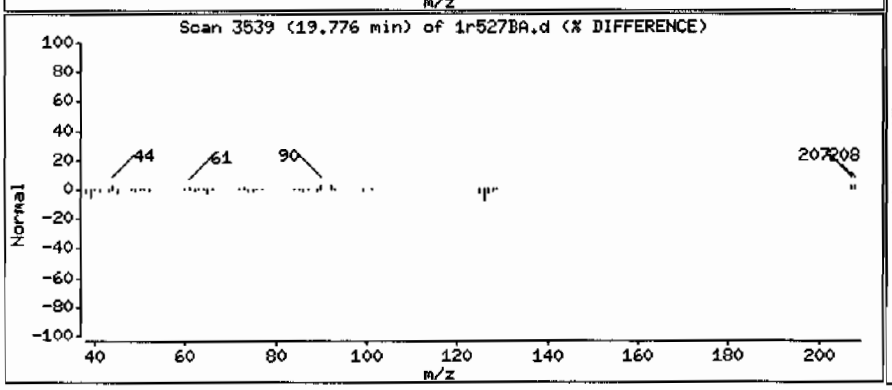

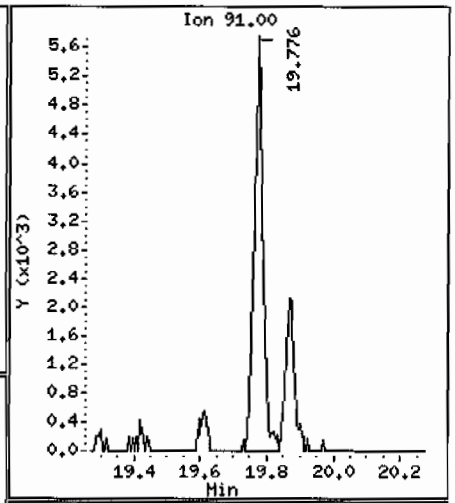

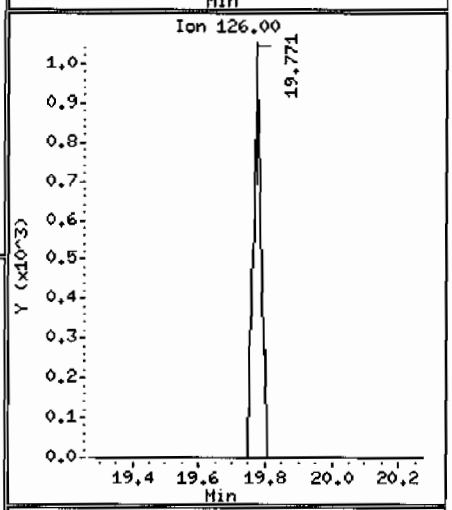

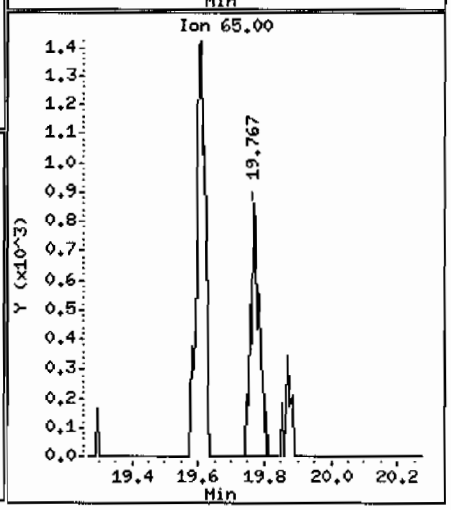

Data File: /chem/VOA1.i/121809v1/1r527BA.d

Date : 18-DEC-2009 23:51

Client ID: BLANK

Instrument: VOA1.i

Sample Info: |1201999844|934728|1|VOAF|1|

Operator: RXM4

Column phase: RTX-Volatiles

Column diameter: 0.25

107 bis(2-Chloroisopropyl)ether

Concentration: 4.3 ug/Kg

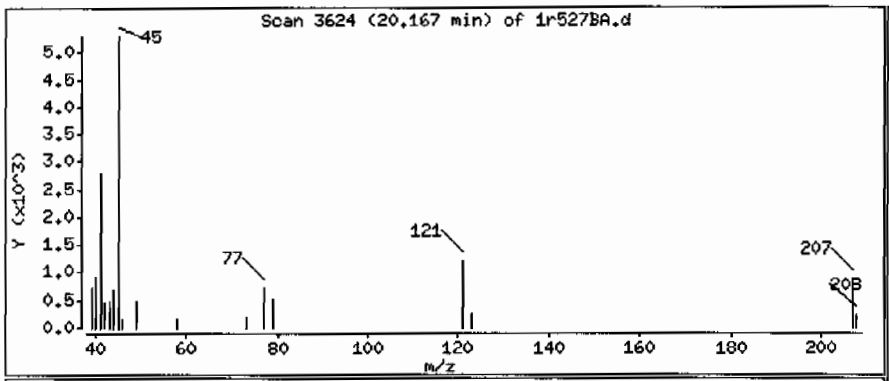

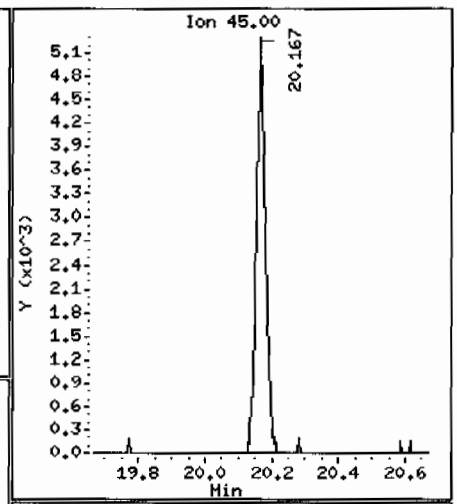

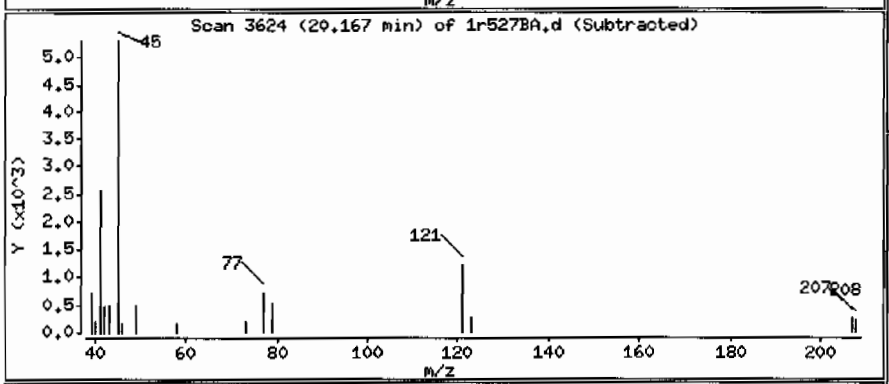

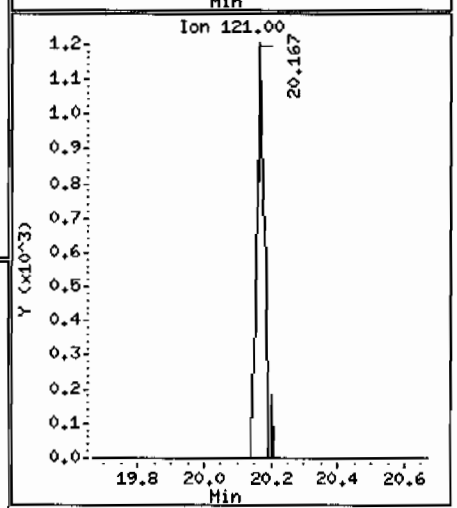

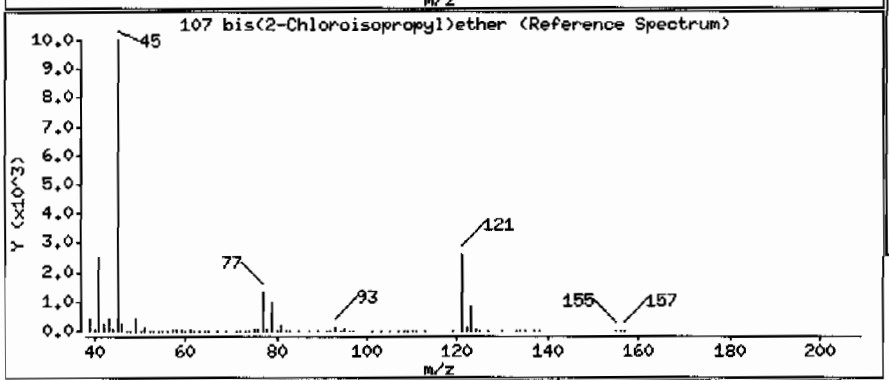

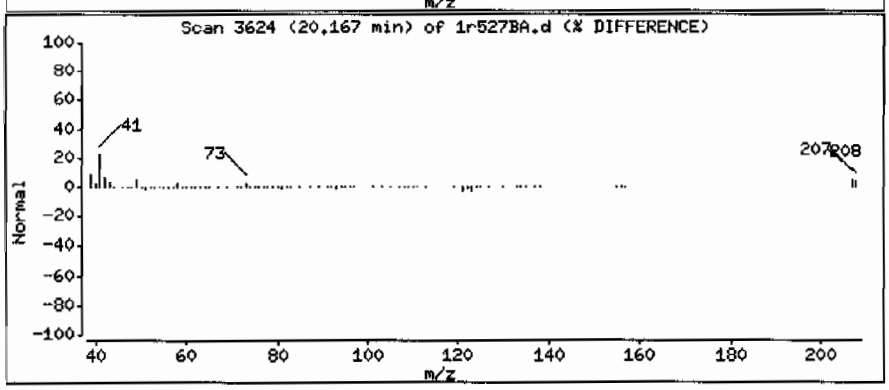

Data File: /chem/VOA1.i/121809v1/1r527BA.d

Date : 18-DEC-2009 23:51

Client ID: BLANK

Instrument: VOA1.i

Sample Info: |1201999844193472811|VOAF|1|

Operator: RXM4

Column phase: RTX-Volatiles

Column diameter: 0.25

109 1,2,4-Trichlorobenzene

Concentration: 0.71 ug/Kg

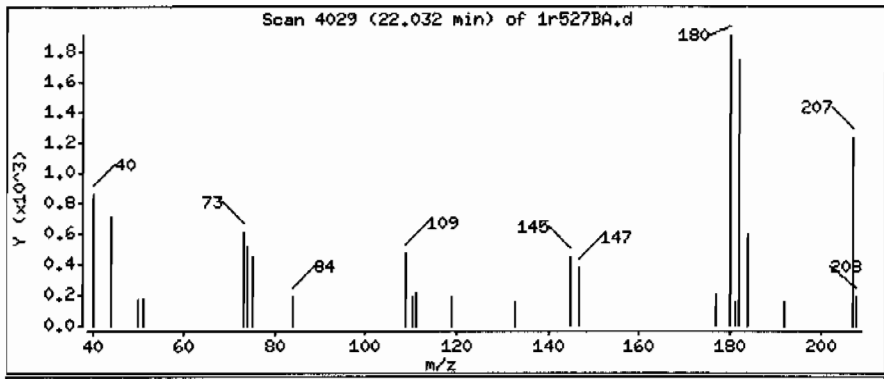

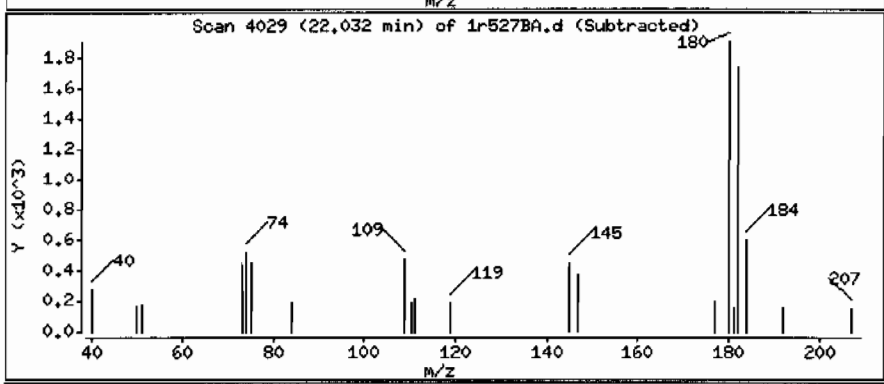

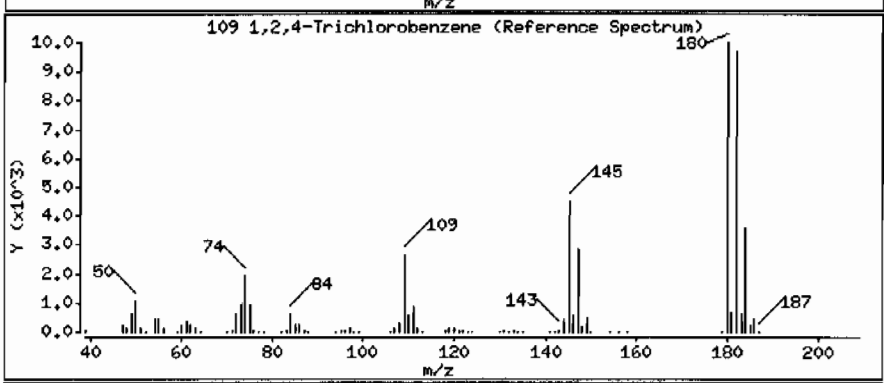

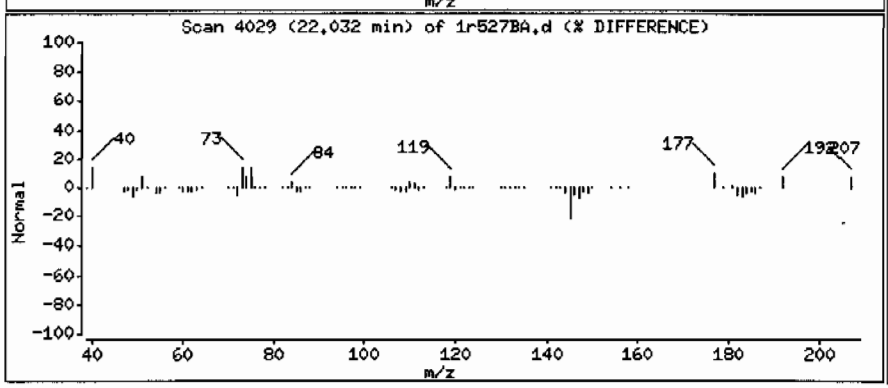

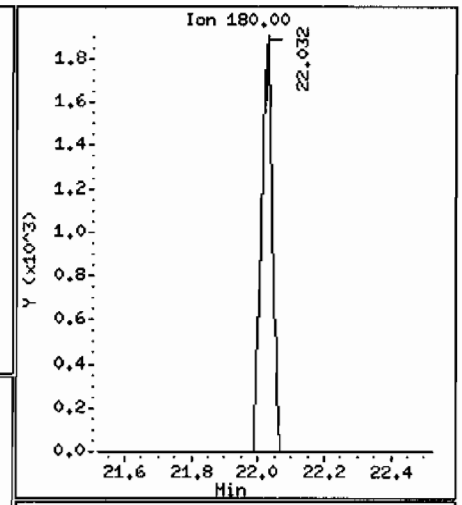

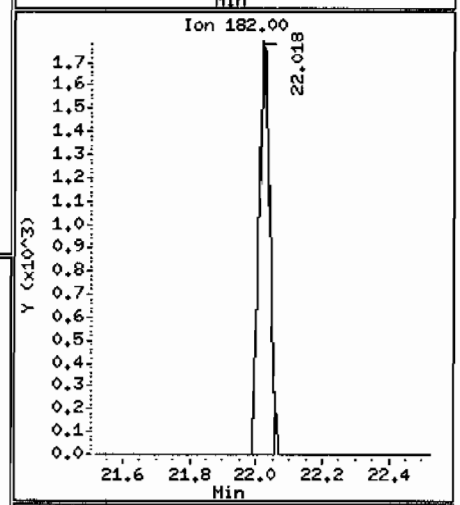

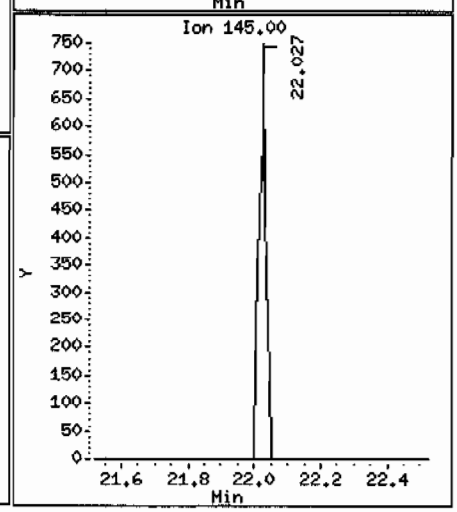

Data File: /chem/VOA1.i/121809v1/1r527BA.d

Date : 18-DEC-2009 23:51

Client ID: BLANK

Instrument: VOA1.i

Sample Info: |1201999844|934728|1|VOAF|1|

Operator: RXM4

Column phase: RTX-Volatiles

Column diameter: 0.25

111 Naphthalene

Concentration: 3.3 ug/Kg

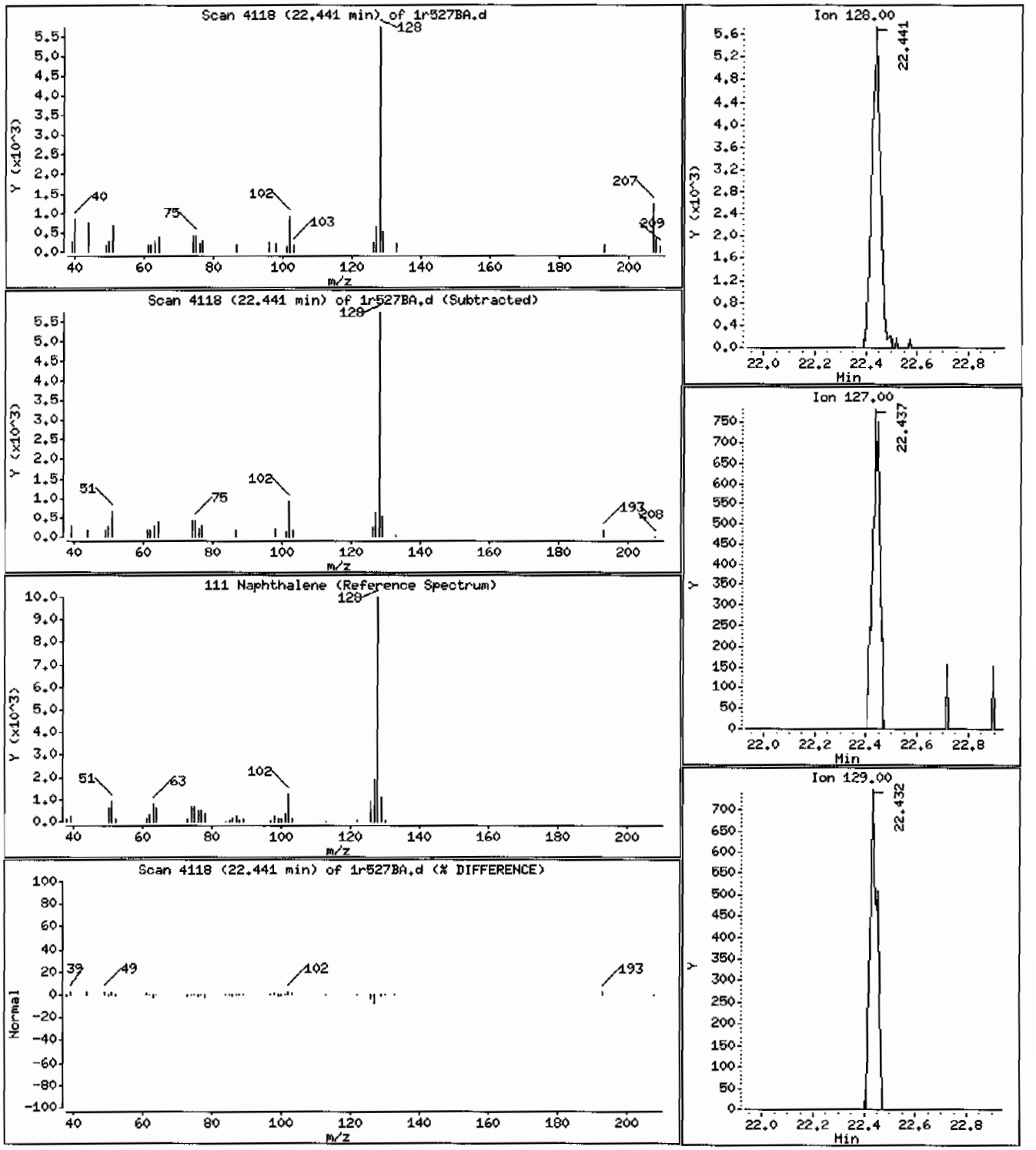

Data File: /chem/VOA1.i/121809v1/1r527BA.d

Date : 18-DEC-2009 23:51

Client ID: BLANK

Instrument: VOA1.i

Sample Info: |120199984419347281|VOAF|1|

Operator: RXM4

Column phase: RTX-Volatiles

Column diameter: 0.25

112 1,2,3-Trichlorobenzene

Concentration: 1.6 ug/Kg

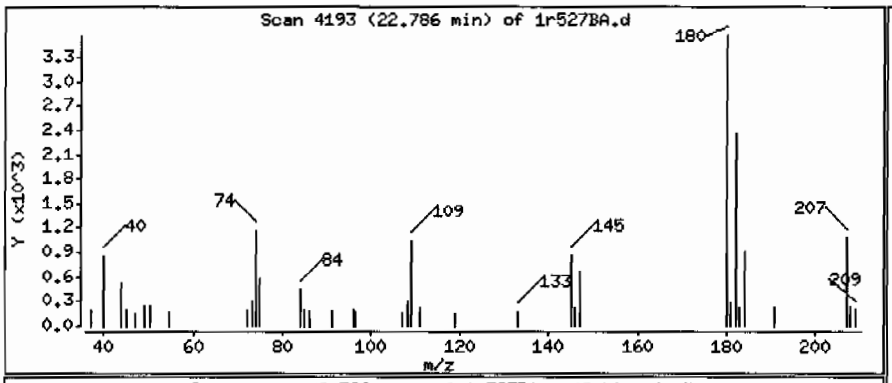

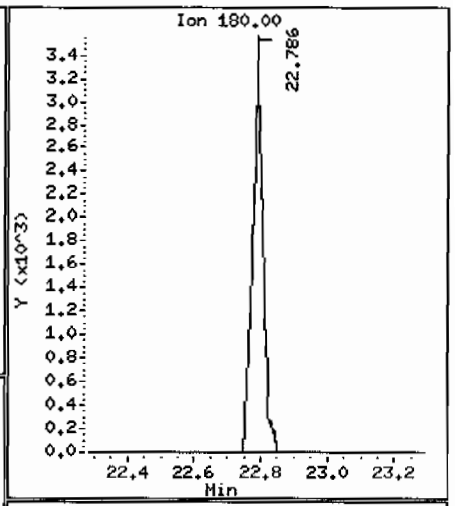

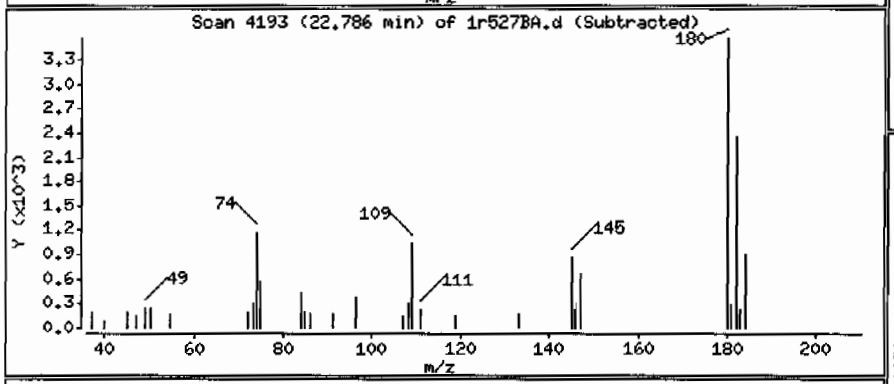

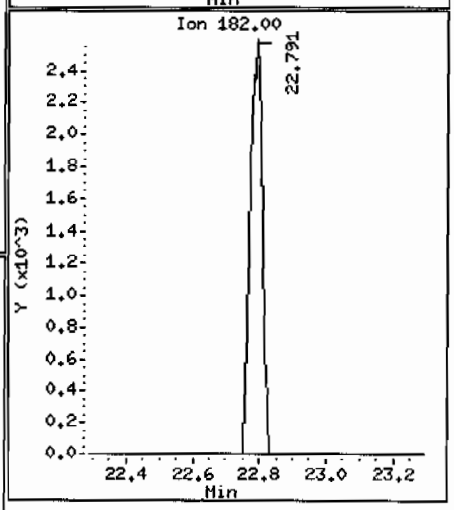

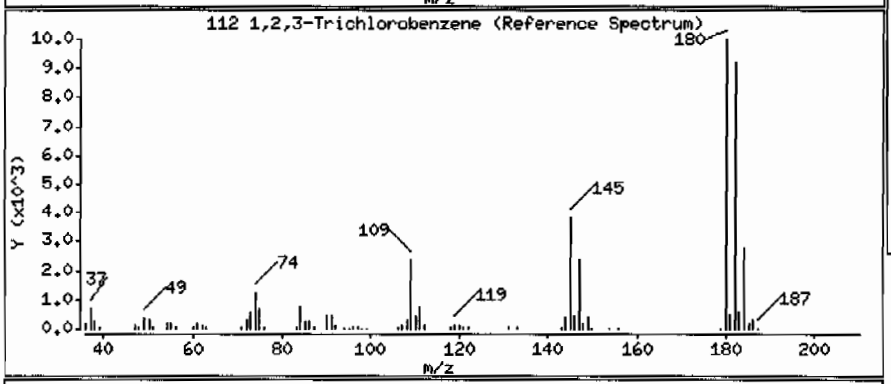

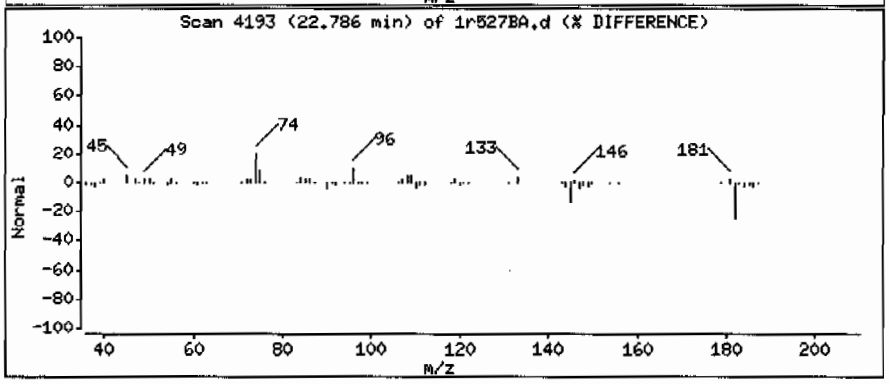

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-917**			**Matrix:**	**SOIL**
Lab Sample ID:	**1201999847**				
Client Sample:	**QC for batch 934727**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 934727**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**934728**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**12/18/2009 22:20**	**Analyst:**	**RXM4**	**Purge Vol:**	**5 mL**
Prep Date:	**12/18/2009 08:01**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1r524LA.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane		51.3	ug/kg	0.340	1.00
74-87-3	Chloromethane		48.5	ug/kg	0.300	1.00
75-01-4	Vinyl chloride		47.0	ug/kg	0.300	1.00
74-83-9	Bromomethane		47.9	ug/kg	0.300	1.00
75-00-3	Chloroethane		50.3	ug/kg	0.300	1.00
75-69-4	Trichlorofluoromethane		55.0	ug/kg	0.300	1.00
67-64-1	Acetone		203	ug/kg	1.66	5.00
75-35-4	1,1-Dichloroethylene		49.4	ug/kg	0.300	1.00
74-88-4	Iodomethane		228	ug/kg	1.60	5.00
75-09-2	Methylene chloride		45.9	ug/kg	2.00	5.00
75-15-0	Carbon disulfide		248	ug/kg	1.25	5.00
156-60-5	trans-1,2-Dichloroethylene		47.3	ug/kg	0.300	1.00
75-34-3	1,1-Dichloroethane		49.2	ug/kg	0.300	1.00
78-93-3	2-Butanone		206	ug/kg	1.50	5.00
156-59-2	cis-1,2-Dichloroethylene		48.2	ug/kg	0.300	1.00
594-20-7	2,2-Dichloropropane		51.7	ug/kg	0.300	1.00
67-66-3	Chloroform		50.3	ug/kg	0.300	1.00
74-97-5	Bromochloromethane		49.0	ug/kg	0.330	1.00
71-55-6	1,1,1-Trichloroethane		52.0	ug/kg	0.300	1.00
563-58-6	1,1-Dichloropropene		51.7	ug/kg	0.300	1.00
56-23-5	Carbon tetrachloride		54.4	ug/kg	0.300	1.00
107-06-2	1,2-Dichloroethane		53.5	ug/kg	0.300	1.00
71-43-2	Benzene		48.8	ug/kg	0.300	1.00
79-01-6	Trichloroethylene		50.1	ug/kg	0.330	1.00
78-87-5	1,2-Dichloropropane		50.2	ug/kg	0.300	1.00
75-27-4	Bromodichloromethane		61.5	ug/kg	0.300	1.00
74-95-3	Dibromomethane		50.4	ug/kg	0.300	1.00
108-10-1	4-Methyl-2-pentanone		256	ug/kg	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene		54.0	ug/kg	0.300	1.00
108-88-3	Toluene		47.5	ug/kg	0.300	1.00
10061-02-6	trans-1,3-Dichloropropylene		55.8	ug/kg	0.300	1.00
79-00-5	1,1,2-Trichloroethane		50.2	ug/kg	0.300	1.00
591-78-6	2-Hexanone		213	ug/kg	1.50	5.00
142-28-9	1,3-Dichloropropane		50.3	ug/kg	0.300	1.00
127-18-4	Tetrachloroethylene		46.5	ug/kg	0.300	1.00
124-48-1	Dibromochloromethane		53.5	ug/kg	0.300	1.00
106-93-4	1,2-Dibromoethane		51.7	ug/kg	0.300	1.00
108-90-7	Chlorobenzene		48.7	ug/kg	0.300	1.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-917**			**Matrix:**	**SOIL**
Lab Sample ID:	**1201999847**				
Client Sample:	**QC for batch 934727**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 934727**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**934728**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**12/18/2009 22:20**	**Analyst:**	**RXM4**	**Purge Vol:**	**5 mL**
Prep Date:	**12/18/2009 08:01**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1r524LA.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene		49.2	ug/kg	0.300	1.00
179601-23-1	m,p-Xylenes		97.1	ug/kg	0.300	2.00
95-47-6	o-Xylene		49.6	ug/kg	0.300	1.00
100-42-5	Styrene		50.8	ug/kg	0.300	1.00
75-25-2	Bromoform		45.3	ug/kg	0.300	1.00
79-34-5	1,1,2,2-Tetrachloroethane		48.2	ug/kg	0.300	1.00
96-18-4	1,2,3-Trichloropropane		50.2	ug/kg	0.300	1.00
108-86-1	Bromobenzene		46.4	ug/kg	0.300	1.00
103-65-1	n-Propylbenzene		47.9	ug/kg	0.300	1.00
95-49-8	2-Chlorotoluene		48.2	ug/kg	0.300	1.00
98-82-8	Isopropylbenzene		48.5	ug/kg	0.300	1.00
108-67-8	1,3,5-Trimethylbenzene		48.5	ug/kg	0.300	1.00
106-43-4	4-Chlorotoluene		48.3	ug/kg	0.300	1.00
98-06-6	tert-Butylbenzene		46.8	ug/kg	0.300	1.00
95-63-6	1,2,4-Trimethylbenzene		47.9	ug/kg	0.300	1.00
135-98-8	sec-Butylbenzene		47.8	ug/kg	0.300	1.00
99-87-6	4-Isopropyltoluene		47.7	ug/kg	0.300	1.00
541-73-1	1,3-Dichlorobenzene		45.8	ug/kg	0.300	1.00
106-46-7	1,4-Dichlorobenzene		45.7	ug/kg	0.300	1.00
104-51-8	n-Butylbenzene		49.6	ug/kg	0.300	1.00
96-12-8	1,2-Dibromo-3-chloropropane		44.3	ug/kg	0.300	1.00
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.00	ug/kg	1.60	5.00
630-20-6	1,1,1,2-Tetrachloroethane		51.1	ug/kg	0.300	1.00
95-50-1	1,2-Dichlorobenzene		46.6	ug/kg	0.300	1.00

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/121809v1/1r524LA.d
Lab Smp Id: 1201999847 Client Smp ID: LCS
Inj Date : 18-DEC-2009 22:20
Operator : RXM4 Inst ID: VOA1.i
Smp Info : |1201999847|934728|1|VOAF|1|
Misc Info : GEL 5G N/A
Comment :
Method : /chem/VOA1.i/121809v1/VOA1-8260ox-121709PM.m
Meth Date : 19-Dec-2009 14:30 ron01469 Quant Type: ISTD
Cal Date : 17-DEC-2009 21:57 Cal File: 1r426.d
Als bottle: 24 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	0.00000	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
M 1 Xylenes (total)	106				1600825	146.642	147
M 2 1,2-Dichloroethylene (total)	96				589329	95.4675	95.5
M 3 1,3-Dichloropropylene	75				1046113	109.744	110
5 Dichlorodifluoromethane	85	5.005	5.005	(0.366)	219568	51.2898	51.3
6 Chloromethane	50	5.564	5.564	(0.407)	381655	48.5016	48.5
7 Vinyl chloride	62	5.937	5.937	(0.434)	307790	47.0426	47.0
9 Bromomethane	96	6.947	6.947	(0.508)	204678	47.9497	47.9
10 Chloroethane	64	7.224	7.224	(0.528)	229935	50.3050	50.3
11 Trichlorofluoromethane	101	7.845	7.845	(0.573)	372955	55.0144	55.0
12 Ethyl Ether	59	8.480	8.480	(0.620)	279987	49.4572	49.4
15 1,1-Dichloroethylene	61	9.097	9.097	(0.665)	523084	49.3817	49.4
16 Acetone	43	9.258	9.258	(0.676)	929154	202.875	203

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
	18 Iodomethane	142	9.475	9.475	(0.692)	1911445	227.722	228
	19 Carbon disulfide	76	9.580	9.580	(0.700)	4282514	248.486	248
	21 Methyl acetate	43	9.838	9.838	(0.719)	1126825	257.659	258
	22 Acetonitrile	41	9.981	9.981	(0.729)	942245	1248.68	1250
	23 Methylene chloride	84	10.147	10.147	(0.741)	316411	45.8823	45.9
	25 tert-Butyl methyl ether	73	10.446	10.446	(0.763)	894325	52.6449	52.6
	26 trans-1,2-Dichloroethylene	96	10.552	10.552	(0.771)	277738	47.2677	47.3
	29 Vinyl acetate	43	11.297	11.297	(0.825)	2683541	256.762	257
	30 1,1-Dichloroethane	63	11.330	11.330	(0.828)	580924	49.2225	49.2
	33 2,2-Dichloropropane	77	12.163	12.163	(0.889)	355879	51.6777	51.7
	35 2-Butanone	43	12.186	12.186	(0.890)	1056787	206.207	206
	36 cis-1,2-Dichloroethylene	96	12.204	12.204	(0.892)	311591	48.1998	48.2
	39 Bromochloromethane	128	12.559	12.559	(0.918)	136203	48.9577	49.0
	41 Chloroform	83	12.614	12.614	(0.922)	578532	50.3288	50.3
	42 Cyclohexane	56	12.844	12.844	(0.938)	563692	50.5437	50.5
	43 1,1,1-Trichloroethane	97	12.849	12.849	(0.939)	399066	52.0138	52.0
	44 Carbon tetrachloride	117	13.024	13.024	(0.952)	412855	54.4183	54.4
	45 1,1-Dichloropropene	75	13.051	13.051	(0.954)	434800	51.6622	51.7
	47 Benzene	78	13.336	13.336	(0.974)	1198571	48.7897	48.8
$	48 1,2-Dichloroethane-d4	65	13.341	13.341	(0.975)	529021	57.6704	57.7
	50 Cyclohexene	54	13.396	13.396	(0.979)	425667	49.2875	49.3
	51 1,2-Dichloroethane	62	13.442	13.442	(0.982)	486526	53.5101	53.5
*	52 Fluorobenzene	96	13.686	13.686	(1.000)	757064	50.0000	
	53 n-Butyl alcohol	56	13.930	13.930	(1.018)	994486	5409.47	5410
	54 Trichloroethylene	95	14.119	14.119	(1.032)	314821	50.0616	50.1
	55 Methylcyclohexane	83	14.285	14.285	(1.044)	520776	50.6636	50.7
	57 1,2-Dichloropropane	63	14.460	14.460	(1.056)	338259	50.1813	50.2
	59 Dibromomethane	93	14.625	14.625	(1.069)	191544	50.4156	50.4
	60 Bromodichloromethane	83	14.285	14.285	(1.044)	520776	61.4968	61.5
	61 2-Chloroethylvinyl ether	63	15.030	15.030	(1.098)	331191	457.661	458(AR)
	63 cis-1,3-Dichloropropylene	75	15.256	15.256	(1.115)	533693	53.9646	54.0
	64 4-Methyl-2-pentanone	58	15.357	15.357	(0.895)	679574	256.282	256
$	65 Toluene-d8	98	15.518	15.518	(0.904)	1547087	49.9084	49.9
	66 Toluene	92	15.597	15.597	(0.909)	749582	47.4763	47.5
	68 trans-1,3-Dichloropropylene	75	15.877	15.877	(0.925)	512420	55.7792	55.8
	69 1,1,2-Trichloroethane	83	16.103	16.103	(0.938)	226755	50.1772	50.2
	70 Tetrachloroethylene	164	16.190	16.190	(0.943)	223717	46.4891	46.5
	71 2-Hexanone	43	16.269	16.269	(0.948)	1438351	212.564	212
	72 1,3-Dichloropropane	76	16.305	16.305	(0.950)	483008	50.3444	50.3
	73 Dibromochloromethane	129	16.549	16.549	(0.964)	303612	53.5170	53.5
	74 1,2-Dibromoethane	107	16.729	16.729	(0.975)	263380	51.6815	51.7
*	76 Chlorobenzene-d5	117	17.162	17.162	(1.000)	542799	50.0000	
	77 Chlorobenzene	112	17.194	17.194	(1.002)	803894	48.7306	48.7
	78 Ethylbenzene	91	17.217	17.217	(1.003)	1488350	49.1872	49.2
	79 1,1,1,2-Tetrachloroethane	131	17.258	17.258	(1.006)	281402	51.0811	51.1
	80 m,p-Xylenes	106	17.337	17.337	(1.010)	1068726	97.0584	97.0
	81 o-Xylene	106	17.783	17.783	(1.036)	532099	49.5836	49.6

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
82 Styrene	104	17.801	17.801	(1.037)	916961	50.7864	50.8
83 Bromoform	173	18.105	18.105	(0.923)	194619	45.3336	45.3
84 Isopropylbenzene	105	18.128	18.128	(0.924)	1459619	48.5297	48.5
$ 87 Bromofluorobenzene	95	18.386	18.386	(0.938)	608352	48.5325	48.5
88 1,1,2,2-Tetrachloroethane	83	18.506	18.506	(0.944)	349200	48.1897	48.2
89 n-Propylbenzene	91	18.556	18.556	(0.946)	1791173	47.8631	47.9
91 Bromobenzene	156	18.593	18.593	(0.948)	333239	46.4236	46.4
92 1,2,3-Trichloropropane	110	18.602	18.602	(0.949)	94209	50.2322	50.2
93 1,3,5-Trimethylbenzene	105	18.717	18.717	(0.954)	1268091	48.5317	48.5
94 2-Chlorotoluene	91	18.740	18.740	(0.956)	1254867	48.1597	48.2
95 4-Chlorotoluene	91	18.856	18.856	(0.962)	1139724	48.2832	48.3
96 tert-Butylbenzene	119	19.076	19.076	(0.973)	1002836	46.7794	46.8
97 1,2,4-Trimethylbenzene	105	19.132	19.132	(0.976)	1293928	47.9489	47.9
99 sec-Butylbenzene	105	19.302	19.302	(0.984)	1641496	47.7874	47.8
100 4-Isopropyltoluene	119	19.422	19.422	(0.990)	1242535	47.6990	47.7
101 1,3-Dichlorobenzene	146	19.541	19.541	(0.996)	639286	45.8268	45.8
* 102 1,4-Dichlorobenzene-d4	152	19.610	19.610	(1.000)	304968	50.0000	
103 1,4-Dichlorobenzene	146	19.638	19.638	(1.001)	649746	45.6952	45.7
105 n-Butylbenzene	91	19.868	19.868	(1.013)	1366903	49.5762	49.6
106 1,2-Dichlorobenzene	146	20.080	20.080	(1.024)	617526	46.5862	46.6
108 1,2-Dibromo-3-chloropropane	157	21.005	21.005	(1.071)	58448	44.3081	44.3
109 1,2,4-Trichlorobenzene	180	22.022	22.022	(1.123)	355550	47.6476	47.6
110 Hexachlorobutadiene	225	22.105	22.105	(1.127)	222920	44.6710	44.7
111 Naphthalene	128	22.437	22.437	(1.144)	641145	40.0275	40.0
112 1,2,3-Trichlorobenzene	180	22.787	22.787	(1.162)	252308	45.2503	45.2

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
R - Spike/Surrogate failed recovery limits.

Data File: /chem/VOA1.i/121809v1/1r524LA.d
Date : 18-DEC-2009 22:20
Client ID: LCS
Sample Info: |1201999847|9347281|1|VOAF11|
Column phase: RTX-Volatiles

Instrument: VOA1.i
Operator: RXH4
Column diameter: 0.25

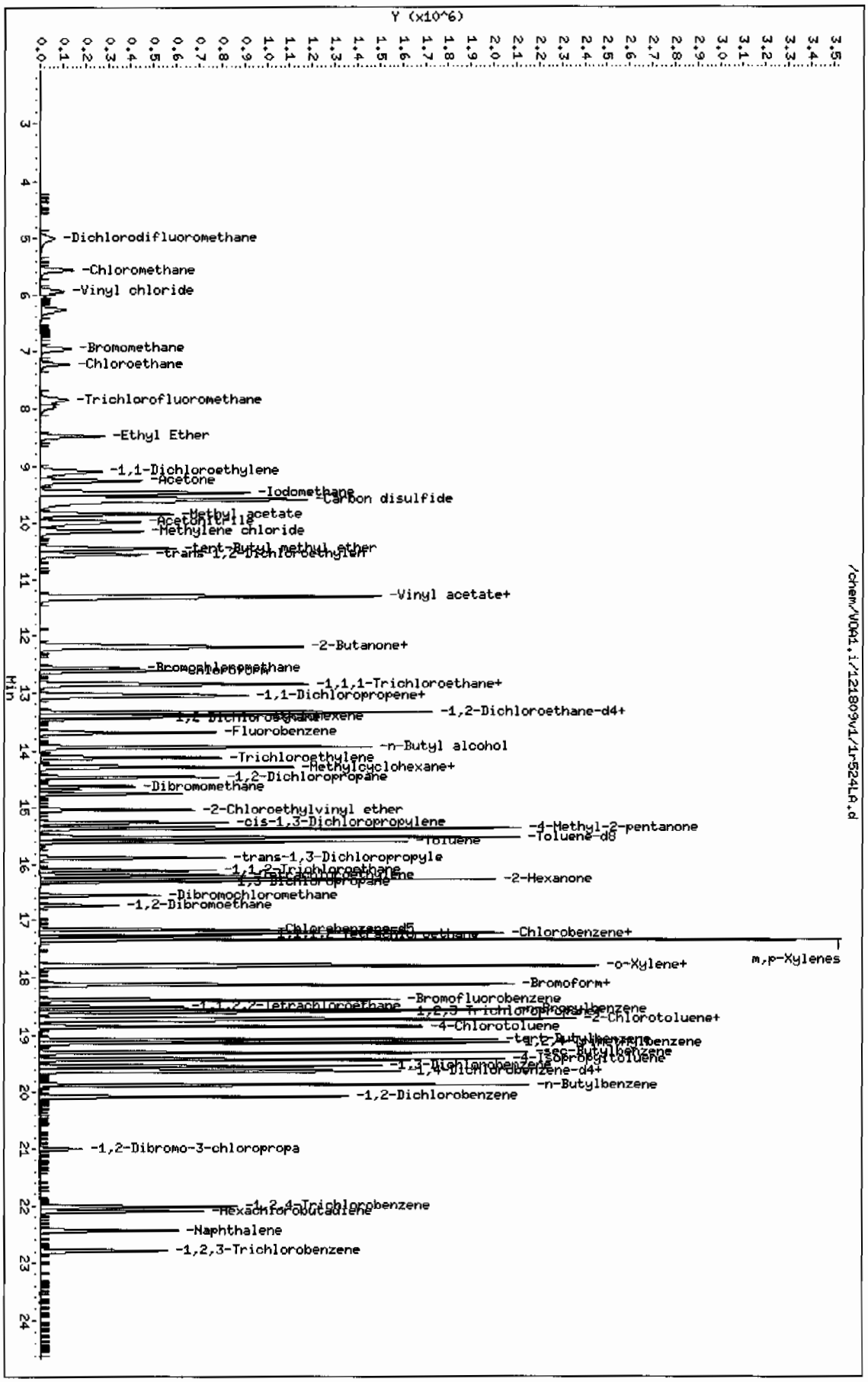

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-917**			**Matrix:**	**SOIL**
Lab Sample ID:	**1201999848**				
Client Sample:	**QC for batch 934727**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 934727**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**934728**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**12/18/2009 22:51**	**Analyst:**	**RXM4**	**Purge Vol:**	**5 mL**
Prep Date:	**12/18/2009 08:02**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1r525sLA.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/kg	0.340	1.00
74-87-3	Chloromethane	U	1.00	ug/kg	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/kg	0.300	1.00
74-83-9	Bromomethane	U	1.00	ug/kg	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/kg	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/kg	0.300	1.00
67-64-1	Acetone	U	5.00	ug/kg	1.66	5.00
75-35-4	1,1-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/kg	1.60	5.00
75-09-2	Methylene chloride	U	5.00	ug/kg	2.00	5.00
75-15-0	Carbon disulfide	U	5.00	ug/kg	1.25	5.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/kg	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/kg	1.50	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/kg	0.300	1.00
74-97-5	Bromochloromethane	U	1.00	ug/kg	0.330	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/kg	0.300	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/kg	0.300	1.00
56-23-5	Carbon tetrachloride	U	1.00	ug/kg	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/kg	0.300	1.00
71-43-2	Benzene	U	1.00	ug/kg	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/kg	0.330	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/kg	0.300	1.00
74-95-3	Dibromomethane	U	1.00	ug/kg	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/kg	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
108-88-3	Toluene	U	1.00	ug/kg	0.300	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/kg	0.300	1.00
591-78-6	2-Hexanone	U	5.00	ug/kg	1.50	5.00
142-28-9	1,3-Dichloropropane	U	1.00	ug/kg	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/kg	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/kg	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/kg	0.300	1.00
108-90-7	Chlorobenzene	U	1.00	ug/kg	0.300	1.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-917**			**Matrix:**	**SOIL**
Lab Sample ID:	**1201999848**				
Client Sample:	**QC for batch 934727**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 934727**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**934728**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**12/18/2009 22:51**	**Analyst:**	**RXM4**	**Purge Vol:**	**5 mL**
Prep Date:	**12/18/2009 08:02**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1r525sLA.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.00	ug/kg	0.300	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/kg	0.300	2.00
95-47-6	o-Xylene	U	1.00	ug/kg	0.300	1.00
100-42-5	Styrene	U	1.00	ug/kg	0.300	1.00
75-25-2	Bromoform	U	1.00	ug/kg	0.300	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/kg	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/kg	0.300	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/kg	0.300	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/kg	0.300	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/kg	0.300	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/kg	0.300	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/kg	0.300	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/kg	0.300	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/kg	0.300	1.00
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*		322	ug/kg	1.60	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/121809v1/1r525sLA.d
Lab Smp Id: 1201999848 Client Smp ID: LCS
Inj Date : 18-DEC-2009 22:51
Operator : RXM4 Inst ID: VOA1.i
Smp Info : |1201999848|934728|1|VOAF|1|
Misc Info : GEL 5G N/A UVM091118-08C/UVM091105-02E
Comment :
Method : /chem/VOA1.i/121809v1/VOA1-8260ox-121709PM.m
Meth Date : 19-Dec-2009 14:30 ron01469 Quant Type: ISTD
Cal Date : 17-DEC-2009 21:57 Cal File: 1r426.d
Als bottle: 25 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	0.00000	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
4 Chlorotrifluoroethylene	116	4.904	4.904	(0.358)	476741	139.001	139
8 2-Chloro-1,1,1-trifluoroethane	118	6.312	6.312	(0.461)	1088401	156.545	156
13 Acrolein	56	8.959	8.959	(0.655)	333827	306.569	306
14 Trichlorotrifluoroethane	101	8.991	8.991	(0.657)	1460902	321.707	322
17 Isopropyl Alcohol	45	9.456	9.456	(0.691)	1200555	2992.37	2990
20 Allyl chloride	76	9.857	9.857	(0.720)	688833	260.692	261
24 tert-Butyl Alcohol	59	10.202	10.202	(0.746)	2019908	3053.79	3050
27 Acrylonitrile	53	10.676	10.676	(0.780)	651808	297.486	297
28 Isopropyl ether	45	11.201	11.201	(0.819)	1213659	49.6668	49.7
31 2-Chloro-1,3-butadiene	53	11.403	11.403	(0.833)	609657	66.5846	66.6
32 Ethyl tert-butyl ether	59	11.758	11.758	(0.859)	1145965	51.2393	51.2
34 Ethyl acetate	43	12.167	12.167	(0.889)	1540341	276.293	276

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
37 Propionitrile	54	12.407	12.407	(0.907)	256160	300.190	300
38 Tetrahydrofuran	42	12.540	12.540	(0.639)	538487	291.335	291
40 Methacrylonitrile	41	12.563	12.563	(0.918)	1263049	289.770	290
46 Isobutyl alcohol	41	13.111	13.111	(0.958)	601709	3137.93	3140
$ 48 1,2-Dichloroethane-d4	65	13.341	13.341	(0.975)	534760	57.6597	57.6
49 Methyl tert-amyl ether	73	13.350	13.350	(0.976)	965113	51.3390	51.3
* 52 Fluorobenzene	96	13.682	13.686	(1.000)	765419	50.0000	
56 Methyl methacrylate	69	14.441	14.441	(1.056)	1114187	296.625	297
58 1,4-Dioxane	88	14.547	14.547	(1.063)	159080	2959.12	2960
62 2-Nitropropane	43	15.081	15.081	(1.102)	508528	297.061	297
$ 65 Toluene-d8	98	15.518	15.518	(0.904)	1602863	52.4470	52.4
67 Ethyl methacrylate	69	15.813	15.813	(0.921)	2175031	295.638	296
75 1-Chlorohexane	55	17.028	17.028	(1.245)	390364	51.5476	51.5
* 76 Chlorobenzene-d5	117	17.162	17.162	(1.000)	535148	50.0000	
85 cis-1,4-Dichloro-2-butene	53	18.275	18.275	(0.932)	719750	327.565	328
86 Cyclohexanone	55	18.386	18.386	(1.071)	653030	837.800	838
$ 87 Bromofluorobenzene	95	18.386	18.386	(0.938)	623227	52.2941	52.3
90 trans-1,4-Dichloro-2-butene	53	18.570	18.570	(0.947)	680074	329.719	330
98 Pentachloroethane	167	19.196	19.196	(0.979)	574271	235.717	236
* 102 1,4-Dichlorobenzene-d4	152	19.610	19.610	(1.000)	289952	50.0000	
104 Benzyl chloride	91	19.771	19.771	(1.008)	3357834	295.971	296
107 bis(2-Chloroisopropyl)ether	45	20.167	20.167	(1.028)	874693	329.556	330

Data File: /chem/VOA1.i/121809v1/1r525sLA.d
Date : 18-DEC-2009 22:51
Client ID: LCS
Sample Info: I120199984819347281|1|VOAF|1|

Instrument: VOA1.i
Operator: RXH4
Column diameter: 0.25

Column phase: RTX-Volatiles

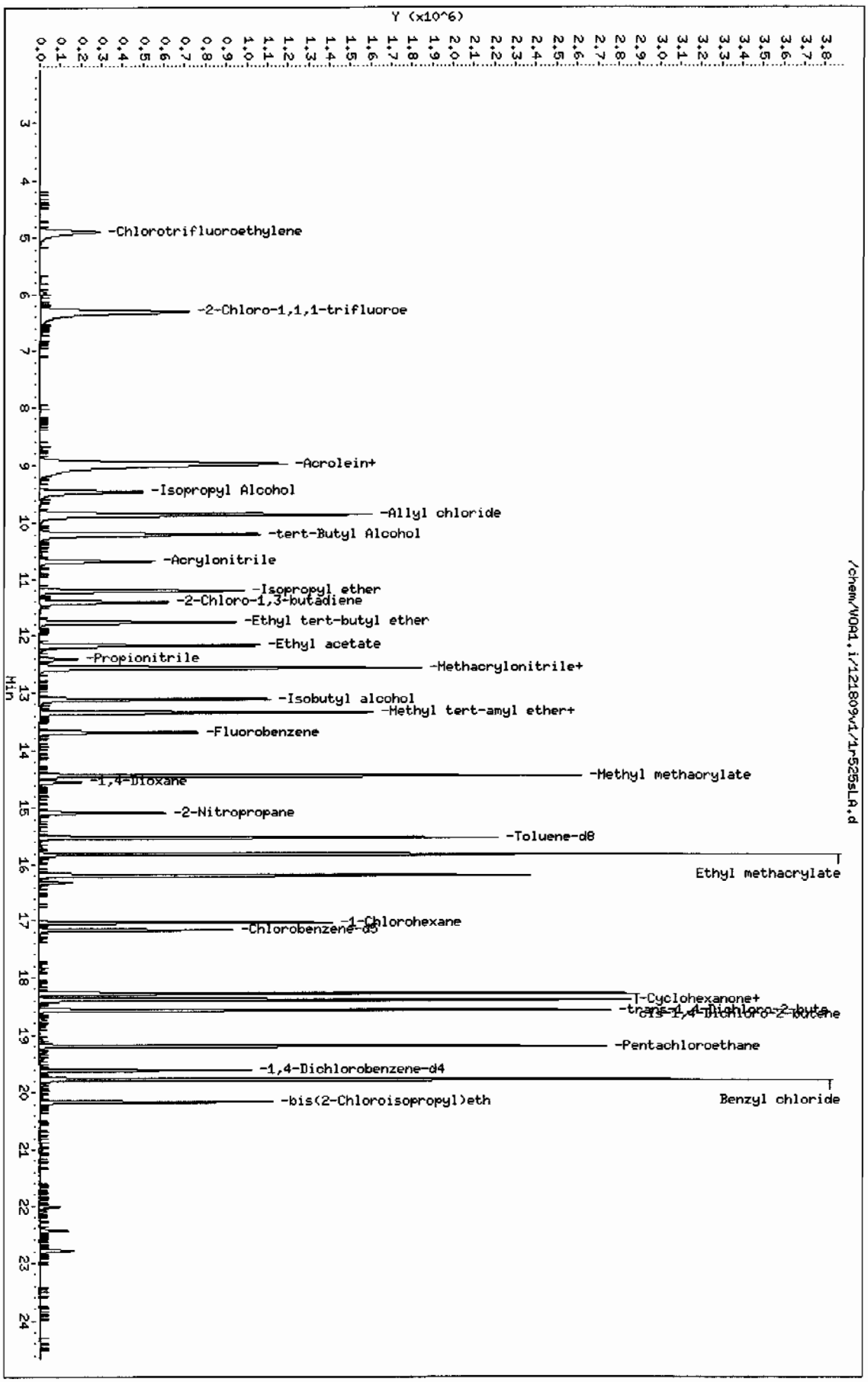

Page 1

Miscellaneous Data

Prep Logbook

Volatile Organic Compounds (VOC) by Gas Chromatograph/Mass Spectrometer

Batch ID: **934727** Verified by: _____

Analyst: Ronda Eagle
Method: SW846 5030
Lab SOP: GL-OA-E-038 REV# 13
Instrument: Sartorius Balance B-001

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units

Sample ID	Run Date	Matrix	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check 1
1201999844 MB	18-DEC-2009 08:00:00	Soil	5	5	1	
1201999847 LCS	18-DEC-2009 08:01:00	Soil	5	5	1	
1201999848 LCS	18-DEC-2009 08:02:00	Soil	5	5	1	
242791002	18-DEC-2009 14:01:00	Soil	5	5	1	
242794001	18-DEC-2009 14:02:00	Soil	5	5	1	
242794002	18-DEC-2009 14:05:00	Soil	5	5	1	
242794003	18-DEC-2009 14:06:00	Soil	5	5	1	
242794004	18-DEC-2009 14:07:00	Soil	5	5	1	
242937001	18-DEC-2009 14:08:00	Soil	5	5	1	
242937002	18-DEC-2009 14:09:00	Soil	5	5	1	
242937003	18-DEC-2009 14:10:00	Soil	5	5	1	
242937004	18-DEC-2009 14:11:00	Soil	5	5	1	
242937005	18-DEC-2009 14:12:00	Soil	5	5	1	
242937006	18-DEC-2009 14:13:00	Soil	5	5	1	
242937007	18-DEC-2009 14:14:00	Soil	5	5	1	
242937008	18-DEC-2009 14:15:00	Soil	5	5	1	
242937009	18-DEC-2009 14:16:00	Soil	5	5	1	
242937010	18-DEC-2009 14:17:00	Soil	5	5	1	
1202002633 MB	21-DEC-2009 12:00:00	Soil	5	5	1	
1202002634 LCS	21-DEC-2009 12:01:00	Soil	5	5	1	
1202002635 LCS	21-DEC-2009 12:02:00	Soil	5	5	1	
242791001	21-DEC-2009 15:10:00	Soil	5	5	1	
1201999845 PS (242794001)	21-DEC-2009 15:11:00	Soil	5	5	1	
1201999846 PSD (242794001)	21-DEC-2009 15:12:00	Soil	5	5	1	

Reagent/Solvent Lot ID	Description	Amount

Comments:

GEL Laboratories, LLC
Revision:11/22/04

ORGANIC RUN LOG - INSTRUMENT ID#VOA1

Date: 12/17/2009 Method 8260B/624 Operator: RJE

REVIEWED BY: _____
DATE: _____

HARDWARE CONFIGURATION & METHOD CONDITIONS SUMMARY No# 2

Daily Instrument Readings:
Multiplier Voltage: 1306

CALIBRATION & CC INFORMATION:

Initial Calibration Date: 12/17/2009

(See pg. 293 for ICAL Std. Sci. Ids)

NaHSO4 lot # N/A

Cl test lot # 84515

Sequence Number: 121709v1

Daily Standard Solution ID#		Volume Added for Purge (ul) Smpl	CCV	LCS	BFB
ICV	W1VM091217-18		5+5		
IS	UVM091203-01	1	1	1	
SS	UVM091117-02	1	1	1	
	N/A			5+5	
BFB	UVM091117-02				1
SHORT	W1VM091217-20		5+5	5+5	

Purge Amount	
5	Water Purge Vol:ML
5	Soil Purge Wt.:G
N/A	Mid level ext. MeOH Vol: ul
N/A	Methanol Lot #
X	Heated Purge

Analysis Date Time	Data File	Lab Sample ID	Client	Batch #	Wt.(g) or Vol(ml/ul)	Dil. Factor	pH	AS Slot #	Matrix w or s	Analyst	Cl test (Y/N)	Acceptable O/X	Comments
12/17/2009 7:38	1R401.D	UVM090821-02	GEL	BFB	5ML	1	N/A	1	W	RXM4	N/A	X	See 1R408
12/17/2009 8:08	1R402.D	W1VM091217-01	GEL	CCV/LCS	5G	1	N/A	2	S	RXM4	N/A	X	UVM091129-01D/IVM091214-01
12/17/2009 9:24	1R403.D	W1VM091217-02	GEL	CCV/LCS	5G	1	N/A	3	S	RXM4	N/A	X	UVM091129-01E/IVM091214-01
12/17/2009 9:54	1R404.D	W1VM091217-03	GEL	LCS	5G	1	N/A	4	S	RXM4	N/A	X	UVM091129-01E/IVM091214-01
12/17/2009 10:24	1R405.D	W1VM091217-04	GEL	SHORT	5G	1	N/A	5	S	RXM4	N/A	X	UVM091118-01C/UVM091105-02E
12/17/2009 10:54	1R406.D	12019---	GEL	BLANK	5G	1	N/A	6	S	RXM4	N/A	X	
12/17/2009 12:25	1R407.D	12019---	GEL	BLANK	5ML	1	N/A	1	W	RXM4	N/A	X	
12/17/2009 12:56	1R408.D	UVM091117-02	GEL	BFB	5ML	1	N/A	2	W	RXM4	N/A	O	
12/17/2009 13:26	1R409.D	W1VM091217-04	GEL	VSTD0005	5ML	1	N/A	3	W	RXM4	N/A	O	UVM090911-01D/UVM091130-01B
12/17/2009 13:56	1R410.D	W1VM091217-05	GEL	VSTD0005	5ML	1	N/A	4	W	RXM4	N/A	X	UVM090911-01D/UVM091130-01B: not needed
12/17/2009 14:26	1R411.D	W1VM091217-06	GEL	VSTD001	5ML	1	N/A	5	W	RXM4	N/A	O	UVM090911-02D/UVM091130-02B
12/17/2009 14:57	1R412.D	W1VM091217-07	GEL	VSTD001	5ML	1	N/A	6	W	RXM4	N/A	X	UVM090911-02D/UVM091130-02B: not needed
12/17/2009 15:27	1R413.D	W1VM091217-08	GEL	VSTD002	5ML	1	N/A	7	W	RXM4	N/A	O	UVM090911-03D/UVM091130-03B
12/17/2009 15:57	1R414.D	W1VM091217-09	GEL	VSTD005	5ML	1	N/A	8	W	RXM4	N/A	O	UVM090911-04D/UVM091130-04B
12/17/2009 16:26	1R415.D	W1VM091217-10	GEL	VSTD010	5ML	1	N/A	9	W	RXM4	N/A	O	UVM090911-05D/UVM091130-05B
12/17/2009 16:56	1R416.D	W1VM091217-11	GEL	VSTD020	5ML	1	N/A	10	W	RXM4	N/A	O	UVM090911-06D/UVM091130-06B
12/17/2009 17:26	1R417.D	W1VM091217-12	GEL	VSTD050	5ML	1	N/A	11	W	RXM4	N/A	O	UVM090911-07D/UVM091130-07B
12/17/2009 17:56	1R418.D	W1VM091217-13	GEL	VSTD100	5ML	1	N/A	12	W	RXM4	N/A	O	UVM090911-08D/UVM091130-08B
12/17/2009 18:26	1R419.D	12019---	GEL	BLANK	5ML	1	N/A	13	W	RXM4	N/A	X	instrument rinse
12/17/2009 18:56	1R420.D	W1VM091217-14	GEL	VSTD005S	5ML	1	N/A	14	W	RXM4	N/A	O	UVM091118-01/UVM091110-01D
12/17/2009 19:26	1R421.D	W1VM091217-15	GEL	VSTD010S	5ML	1	N/A	15	W	RXM4	N/A	O	UVM091118-02/UVM091110-02D
12/17/2009 19:56	1R422.D	W1VM091217-16	GEL	VSTD025S	5ML	1	N/A	16	W	RXM4	N/A	O	UVM091118-03/UVM091110-03D
12/17/2009 20:27	1R423.D	W1VM091217-17	GEL	VSTD050S	5ML	1	N/A	17	W	RXM4	N/A	O	UVM091118-04/UVM091110-04D
12/17/2009 20:57	1R424.D	W1VM091217-18	GEL	VSTD100S	5ML	1	N/A	18	W	RXM4	N/A	O	UVM091118-05/UVM091110-05D
12/17/2009 21:27	1R425.D	W1VM091217-19	GEL	VSTD250S	5ML	1	N/A	19	W	RXM4	N/A	O	UVM091118-06/UVM091110-06D
12/17/2009 21:57	1R426.D	W1VM091217-20	GEL	VSTD500S	5ML	1	N/A	20	W	RXM4	N/A	O	UVM091118-07/UVM091110-07D
12/17/2009 22:27	1R427.D	12019---	GEL	BLANK	5ML	1	N/A	21	W	RXM4	N/A	X	instrument rinse
12/17/2009 22:57	1R428.D	W1VM091217-18	GEL	ICV	5ML	1	N/A	22	W	RXM4	N/A	O	UVM091129-01D/IVM091214-01
12/17/2009 23:27	1R429.D	W1VM091217-19	GEL	ICV	5ML	1	N/A	23	W	RXM4	N/A	X	UVM091129-01E/IVM091214-01
12/17/2009 23:58	1R430.D	W1VM091217-20	GEL	SHORT ICV	5ML	1		24	W	RXM4	N/A	O	UVM091118-01C/UVM091105-02E

GEL Laboratories, LLC
Revision:11/22/04

ORGANIC RUN LOG - INSTRUMENT ID#VOA1

Date: 12/18/2009 Method 8260B/624 Operator: RJE

REVIEWED BY: _____
DATE: _____

HARDWARE CONFIGURATION & METHOD CONDITIONS SUMMARY No# 2

Daily Instrument Readings:
Multiplier Voltage: 1306

CALIBRATION & CC INFORMATION:

Initial Calibration Date: 12/17/2009

(See pg. 283 for ICAL Std. Sci. Ids)

NaHSO4 lot # N/A

Cl test lot # N/A

Sequence Number: 121809v1 PM

Daily Standard Solution ID#		Volume Added for Purge (ul) Blk/ Smpl	CCV	MS/ LCS	BFB
CCV	W1VM091218-06		5+5		
IS	UVM091203-01	1	1	1	
SS	UVM091117-02	1	1	1	
LCS/MS	W1VM091218-06			5+5	
BFB	UVM091117-02				1
SHORT	W1VM091218-07		5+5	5+5	

Purge Amount	
5	Water Purge Vol:ML
5	Soil Purge Wt.:G
	Mid level ext. MeOH Vol:
N/A	ul
N/A	Methanol Lot #
X	Heated Purge

Analysis Date Time	Data File	Lab Sample ID	Client	Batch #	Wt.(g) or Vol(ml/ul)	Dil. Factor	pH	AS Slot #	Matrix w or s	Analyst	Cl test (Y/N)	Acceptable O/X	Comments
12/18/2009 21:19	1R522.D	UVM091117-02	GEL	BFB02	5ML	1	N/A	22	W	RXM4	N/A	O	
12/18/2009 21:49	1R523.D	W1VM091218-05	GEL	CCV/LCS	5G	1	N/A	23	S	RXM4	N/A	X	Prepared incorrectly
12/18/2009 22:20	1R524.D	W1VM091218-06	GEL	CCV/LCS	5G	1	N/A	24	S	RXM4	N/A	O	UVM091214-01A/IVM091217-01
12/18/2009 22:51	1R525.D	W1VM091218-07	GEL	SHORT	5G	1	N/A	25	S	RXM4	N/A	O	UVM091118-08C/UVM091105-02
12/18/2009 23:21	1R526.D	12019--	GEL	BLANK	5G	1	N/A	26	S	RXM4	N/A	X	contamination >RL. See 1R527
12/18/2009 23:51	1R527.D	12019--	GEL	BLANK	5G	1	N/A	27	S	RXM4	N/A	O	
12/19/2009 0:21	1R528.D	242791001	LANL	934728	5G	1	N/A	28	S	RXM4	N/A	X	RA for high SS recovery.
12/19/2009 0:52	1R529.D	242791002	LANL	934728	5G	1	N/A	29	S	RXM4	N/A	O	
12/19/2009 1:22	1R530.D	242794001	LANL	934728	5G	1	N/A	30	S	RXM4	N/A	O	
12/19/2009 1:53	1R531.D	242794002	LANL	934728	5G	1	N/A	31	S	RXM4	N/A	O	
12/19/2009 2:23	1R532.D	242794003	LANL	934728	5G	1	N/A	32	S	RXM4	N/A	O	
12/19/2009 2:53	1R533.D	242794004	LANL	934728	5G	1	N/A	33	S	RXM4	N/A	O	
12/19/2009 3:23	1R534.D	242937001	LANL	934728	5G	1	N/A	34	S	RXM4	N/A	O	
12/19/2009 3:54	1R535.D	242937002	LANL	934728	5G	1	N/A	35	S	RXM4	N/A	O	
12/19/2009 4:25	1R536.D	242937003	LANL	934728	5G	1	N/A	36	S	RXM4	N/A	O	
12/19/2009 4:55	1R537.D	242937004	LANL	934728	5G	1	N/A	37	S	RXM4	N/A	O	
12/19/2009 5:25	1R538.D	242937005	LANL	934728	5G	1	N/A	38	S	RXM4	N/A	O	
12/19/2009 5:56	1R539.D	242937006	LANL	934728	5G	1	N/A	39	S	RXM4	N/A	O	
12/19/2009 6:26	1R540.D	242937007	LANL	934728	5G	1	N/A	40	S	RXM4	N/A	O	
12/19/2009 6:56	1R541.D	242937008	LANL	934728	5G	1	N/A	41	S	RXM4	N/A	O	
12/19/2009 7:26	1R542.D	242937009	LANL	934728	5G	1	N/A	42	S	RXM4	N/A	O	
12/19/2009 7:57	1R543.D	242937010	LANL	934728	5G	1	N/A	43	S	RXM4	N/A	O	TB
12/19/2009 8:27	1R544.D	1201999845	LANL	934728	5G	1	N/A	44	S	RXM4	N/A	X	MS 242794001: RA high SS recovery
12/19/2009 8:57	1R545.D	1201999846	LANL	934728	5G	1	N/A	45	S	RXM4	N/A	X	MSD 242794001; RA high SS recovery

NCR Report No.: 773454
Revision No.:

COMPANY - WIDE NONCONFORMANCE REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
22-DEC-09	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
VOA GC/MS	SW846 8260B	Solid	LANL
Batch ID:	**Sample Numbers:**		
934728	See Below		

Potentially affected work order(s)(SDG): 242791(10-903),242794(10-901),242937(10-917)

Application Issues:

Container scanning event for custody missed

Specification and Requirements Nonconformance Description:	NRG Disposition:
1. The sample container scanning event for custody missed for the following samples: 242791 001,002 242794 001,002,003,004 242937 001,002,003,004,005,006,007,008,009, 010	1. Although scanning of the samples in LIMS for custody was missed by the analyst, the samples were in the analysts custody at the time of analysis.

Originator's Name:

Ronda Eagle 22-DEC-09

Data Validator/Group Leader:

Erin Haubert 24-DEC-09

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/121809v1/1r530.d
Lab Smp Id: 242794001 Client Smp ID: RE03-09-13470
Inj Date : 19-DEC-2009 01:22
Operator : RXM4 Inst ID: VOA1.i
Smp Info : |242794001|934728|1|VOAF|1|
Misc Info : LANL 5G N/A
Comment :
Method : /chem/VOA1.i/121809v1/VOA1-8260ox-121709PM.m
Meth Date : 19-Dec-2009 14:30 ron01469 Quant Type: ISTD
Cal Date : 17-DEC-2009 21:57 Cal File: 1r426.d
Als bottle: 30
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-901.sub
Target Version: 3.50

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	4.35540	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
* 52 Fluorobenzene	96	13.686	13.686	(1.000)	708519	50.0000	
* 76 Chlorobenzene-d5	117	17.157	17.162	(1.000)	502557	50.0000	
* 102 1,4-Dichlorobenzene-d4	152	19.610	19.610	(1.000)	265113	50.0000	
$ 48 1,2-Dichloroethane-d4	65	13.341	13.341	(0.975)	527947	61.4966	64.3
$ 65 Toluene-d8	98	15.518	15.518	(0.904)	1504163	52.4092	54.8
$ 87 Bromofluorobenzene	95	18.391	18.386	(0.938)	593026	54.4221	56.9
23 Methylene chloride	84	10.137	10.147	(0.741)	14129	2.09902	2.2(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

ION RATIO REPORT

VOA REPORT

Data file: 1r530.d
Report Date: 12/19/2009 14:33
Lab. ID: 242794001 SampleType: SAMPLE
Injection Date: 19-DEC-2009 01:22
Operator: RXM4 Instrument: VOA1.i
Sample Info: |242794001|934728|1|VOAF|1|
Miscellaneous Info: LANL 5G N/A
Comment:
Method used: /chem/VOA1.i/121809v1/VOA1-8260ox-121709PM.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-901
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
23 Methylene chloride			CAS#: 75-09-2			
84	14129	10.14	10.15	80-120	100	( )
86	8958	10.14	10.14	35- 95	63	( )
49	21121	10.15	10.15	121-181	149	( )
51 1,2-Dichloroethane			CAS#: 107-06-2			
62	11416	13.69	13.44	80-120	100	(T)
64	1924	13.68	13.44	2- 62	17	(T)
64 4-Methyl-2-pentanone			CAS#: 108-10-1			
58	14141	15.52	15.36	80-120	100	(T)
43	7328	15.51	15.36	206-266	52	(QT)
100	942641	15.52	15.36	0- 59	6666	(QT)
82 Styrene			CAS#: 100-42-5			
104	5093	18.06	17.80	80-120	100	(T)
78	235	17.80	17.80	28- 88	5	(Q)

Q qualifier indicates ion failed ratio requirement
T qualifier indicates RT outside 0.06 minute window of expected RT

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/121809v1/1r530.d
Lab Smp Id: 242794001 Client Smp ID: RE03-09-13470
Inj Date : 19-DEC-2009 01:22
Operator : RXM4 Inst ID: VOA1.i
Smp Info : |242794001|934728|1|VOAF|1|
Misc Info : LANL 5G N/A
Comment :
Method : /chem/VOA1.i/121809v1/VOA1-8260ox-121709PM.m
Meth Date : 19-Dec-2009 14:30 ron01469 Quant Type: ISTD
Cal Date : 17-DEC-2009 21:57 Cal File: 1r426.d
Als bottle: 30
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-901.sub
Target Version: 3.50

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	4.35540	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 76 Chlorobenzene-d5	17.157	1666123	50.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ug/l)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Anthracene, 9,10-dihydro-9,10-dimethyl-				CAS #: 22566-43-4			
18.068	935122	28.0627981	29.3	38	NIST05.L	63100	76

Data File: /chem/VOA1.i/121809v1/1r530.d
Date : 19-DEC-2009 01:22
Client ID: RE03-09-13470
Sample Info: |2427940011934728|1|VOAF|1|

Column phase: RTX-Volatiles

Instrument: VOA1.i

Operator: RXM4
Column diameter: 0.25

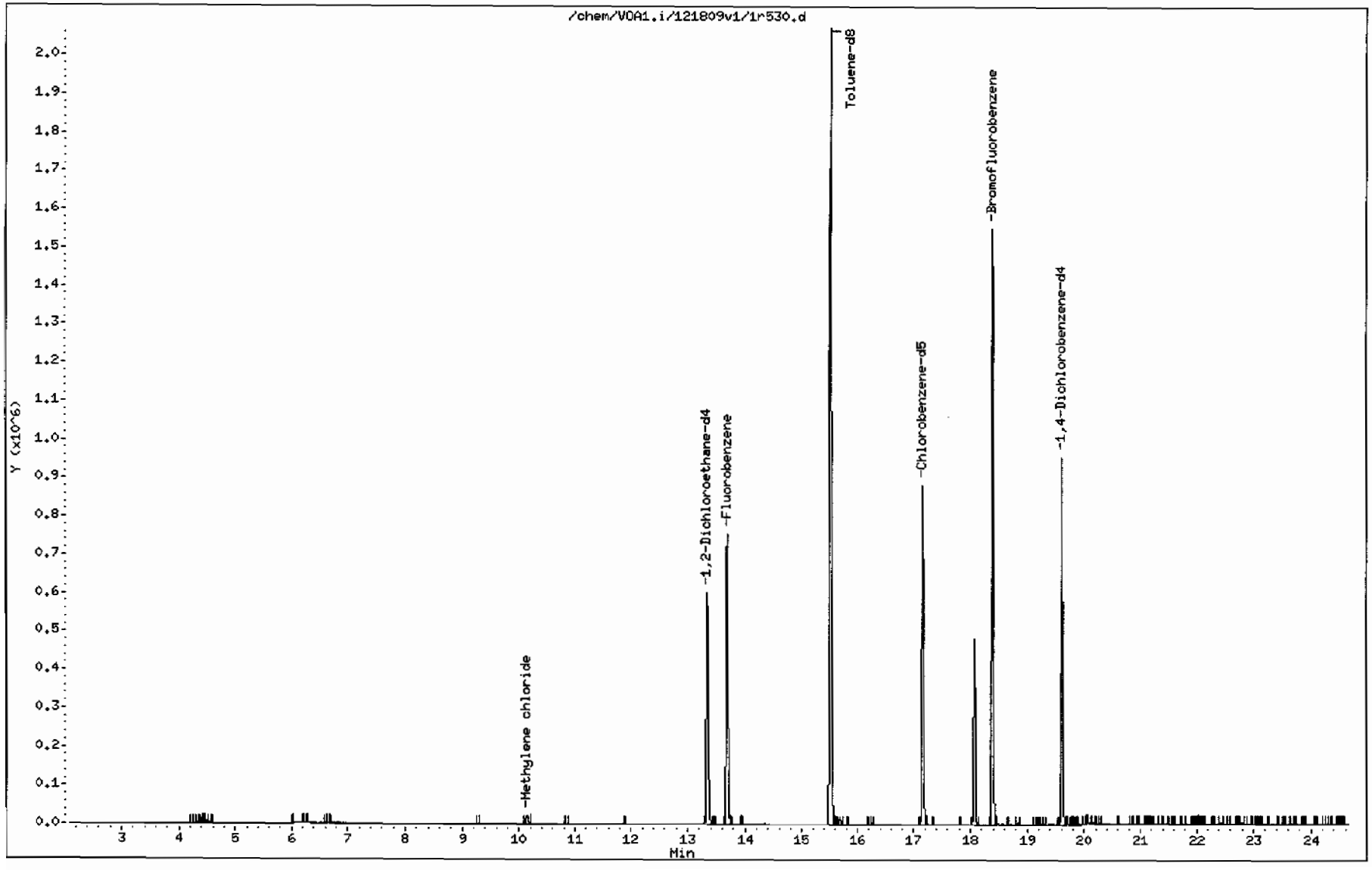

Data File: /chem/VOA1.i/121809v1/1r530.d

Date : 19-DEC-2009 01:22

Client ID: RE03-09-13470

Instrument: VOA1.i

Sample Info: |2427940011934728|1|VOAF|1|

Operator: RXM4

Column phase: RTX-Volatiles

Column diameter: 0.25

23 Methylene chloride

Concentration: 2.2 ug/Kg

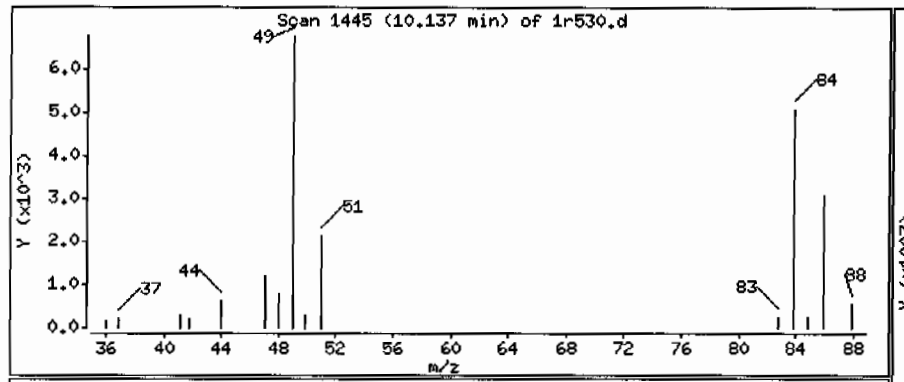

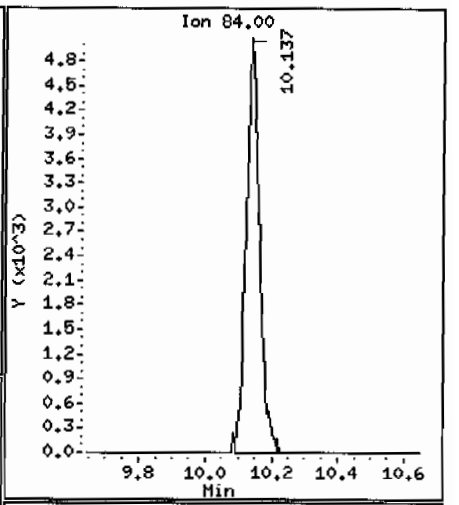

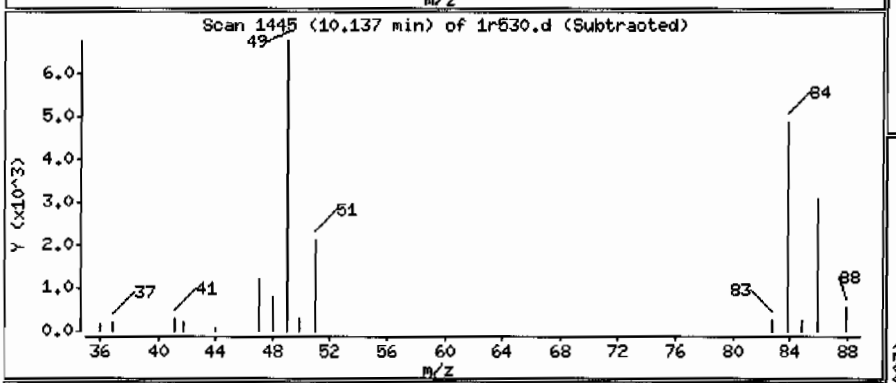

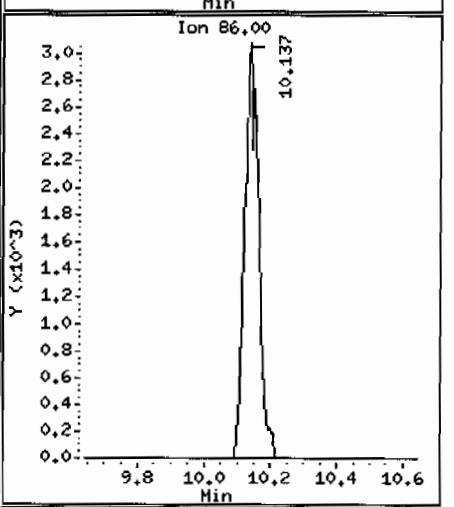

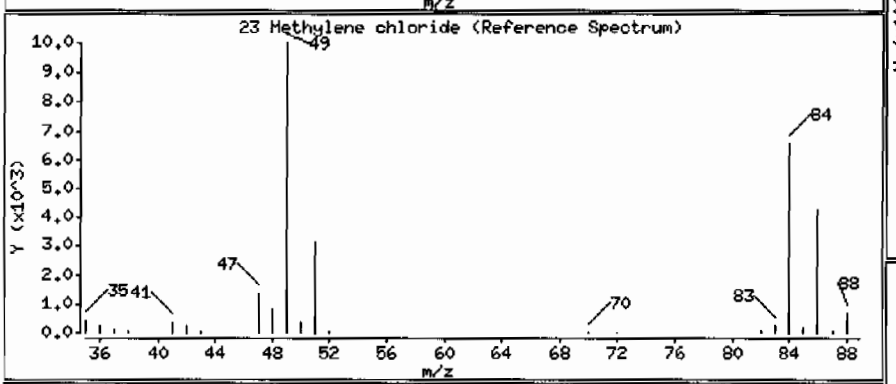

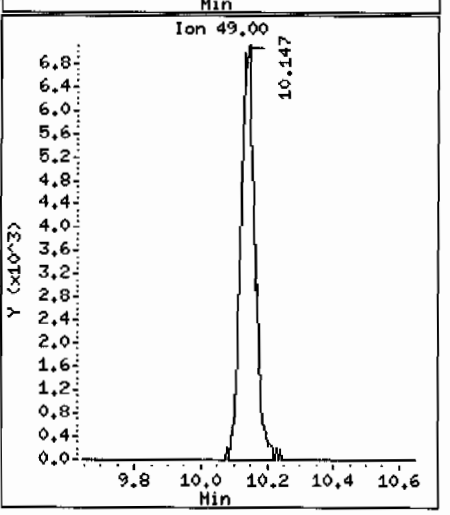

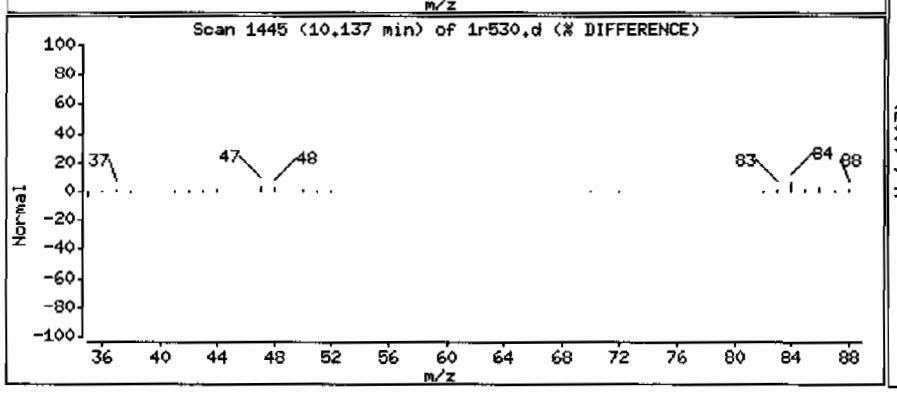

Data File: /chem/VOA1.i/121809v1/1r530.d

Date : 19-DEC-2009 01:22

Client ID: RE03-09-13470

Instrument: VOA1.i

Sample Info: |2427940011934728|1|VOAF|1|

Operator: RXM4

Column phase: RTX-Volatiles

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Anthracene, 9,10-dihydro-9,10-dimethyl-	22566-43-4	NIST05.L	63100	38	C16H16	208
Trisiloxane, 1,1,3,3,5,5-hexamethyl-	1189-93-1	NIST05.L	63149	35	C6H20O2Si3	208
2-Phenylindolizine	25379-20-8	NIST05.L	52067	30	C14H11N	193

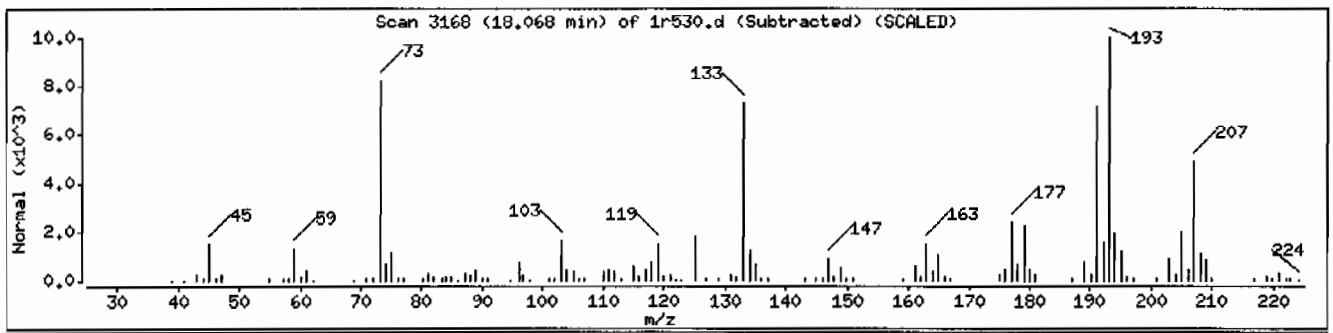

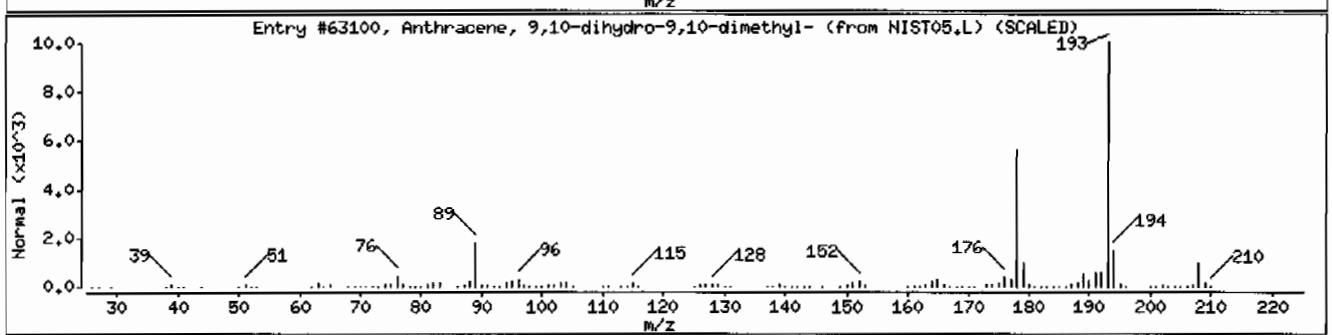

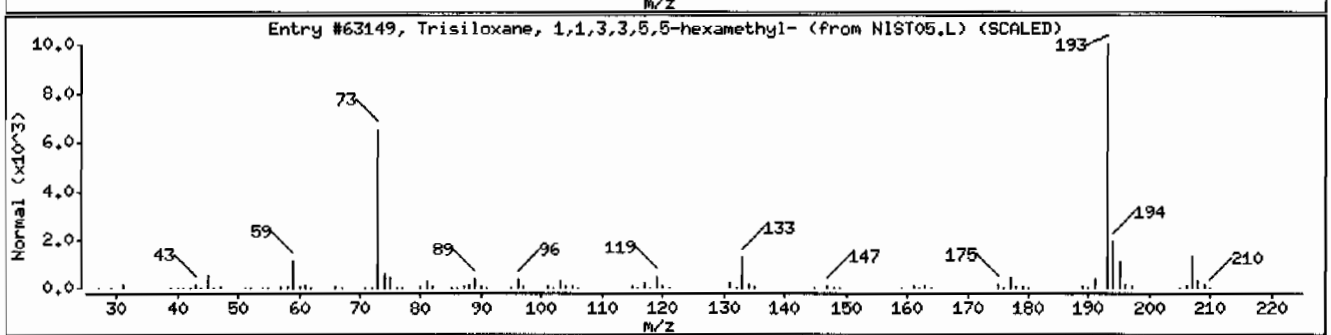

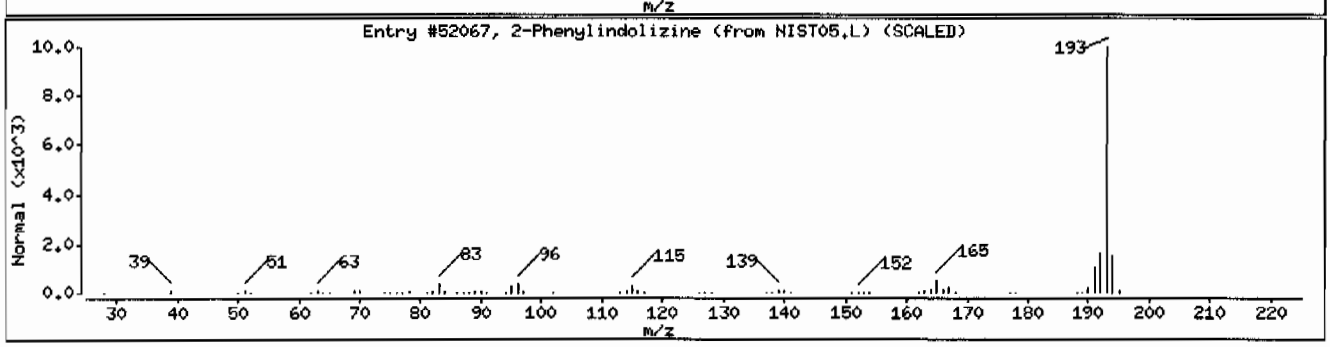

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/122109v1/1s115.d
Lab Smp Id: 1201999845 Client Smp ID: RE03-09-13470MS
Inj Date : 21-DEC-2009 17:21
Operator : RXM4 Inst ID: VOA1.i
Smp Info : |1201999845|934728|1|VOAF|1|
Misc Info : LANL 5G N/A MS 242794001
Comment :
Method : /chem/VOA1.i/122109v1/VOA1-8260ox-121709.m
Meth Date : 21-Dec-2009 13:41 ron01469 Quant Type: ISTD
Cal Date : 17-DEC-2009 18:56 Cal File: 1r420.d
Als bottle: 15 QC Sample: MS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-901.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	4.35540	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
* 52 Fluorobenzene	96	13.682	13.673	(1.000)	560675	50.0000	
* 76 Chlorobenzene-d5	117	17.157	17.153	(1.000)	398684	50.0000	
* 102 1,4-Dichlorobenzene-d4	152	19.610	19.606	(1.000)	210472	50.0000	
$ 48 1,2-Dichloroethane-d4	65	13.341	13.327	(0.975)	414752	61.9117	64.7
$ 65 Toluene-d8	98	15.514	15.509	(0.904)	1198900	53.9801	56.4
$ 87 Bromofluorobenzene	95	18.386	18.382	(0.938)	471272	55.9464	58.5
5 Dichlorodifluoromethane	85	5.005	4.998	(0.366)	91525	28.9825	30.3
6 Chloromethane	50	5.557	5.550	(0.406)	211378	36.2715	37.9
7 Vinyl chloride	62	5.937	5.930	(0.434)	183491	37.8675	39.6
9 Bromomethane	96	6.961	6.943	(0.509)	119276	37.7059	39.4
10 Chloroethane	64	7.224	7.215	(0.528)	137241	40.5420	42.4
11 Trichlorofluoromethane	101	7.854	7.836	(0.574)	222315	44.2799	46.3

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
16 Acetone	43	9.254	9.240	(0.676)	614235	181.091	189
15 1,1-Dichloroethylene	61	9.088	9.079	(0.664)	302331	38.5387	40.3
103 1,4-Dichlorobenzene	146	19.634	19.634	(1.001)	407620	41.5375	43.4
18 Iodomethane	142	9.475	9.461	(0.692)	1185620	190.726	199
23 Methylene chloride	84	10.147	10.128	(0.742)	190760	37.3334	39.0
19 Carbon disulfide	76	9.585	9.567	(0.701)	2612169	204.656	214
26 trans-1,2-Dichloroethylene	96	10.552	10.538	(0.771)	178985	41.1302	43.0
30 1,1-Dichloroethane	63	11.316	11.311	(0.827)	379548	43.4239	45.4
35 2-Butanone	43	12.186	12.172	(0.891)	753259	198.464	208
36 cis-1,2-Dichloroethylene	96	12.200	12.190	(0.892)	208868	43.6267	45.6
101 1,3-Dichlorobenzene	146	19.537	19.537	(0.996)	405406	42.1088	44.0
33 2,2-Dichloropropane	77	12.158	12.149	(0.889)	279161	54.7883	57.3
41 Chloroform	83	12.609	12.600	(0.922)	384229	45.1336	47.2
106 1,2-Dichlorobenzene	146	20.075	20.075	(1.024)	384457	42.0250	43.9
39 Bromochloromethane	128	12.559	12.549	(0.918)	91204	44.2650	46.3
43 1,1,1-Trichloroethane	97	12.844	12.835	(0.939)	296898	52.2515	54.6
45 1,1-Dichloropropene	75	13.051	13.042	(0.954)	300893	48.2740	50.5
44 Carbon tetrachloride	117	13.024	13.014	(0.952)	283300	50.4214	52.7
51 1,2-Dichloroethane	62	13.438	13.429	(0.982)	312238	46.3699	48.5
47 Benzene	78	13.332	13.323	(0.974)	827079	45.4603	47.5
54 Trichloroethylene	95	14.114	14.105	(1.032)	209907	45.0701	47.1
57 1,2-Dichloropropane	63	14.455	14.451	(1.057)	228155	45.7029	47.8
60 Bromodichloromethane	83	14.750	14.741	(1.078)	292763	46.6808	48.8
59 Dibromomethane	93	14.621	14.612	(1.069)	126961	45.1214	47.2
64 4-Methyl-2-pentanone	58	15.357	15.353	(0.895)	475440	244.109	255
63 cis-1,3-Dichloropropylene	75	15.251	15.247	(1.115)	345228	47.1348	49.3
66 Toluene	92	15.592	15.587	(0.909)	517964	44.6650	46.7
68 trans-1,3-Dichloropropylene	75	15.877	15.873	(0.925)	333662	49.4496	51.7
69 1,1,2-Trichloroethane	83	16.098	16.094	(0.938)	155666	46.8970	49.0
71 2-Hexanone	43	16.264	16.260	(0.948)	1009368	203.088	212
72 1,3-Dichloropropane	76	16.306	16.301	(0.950)	320608	45.4966	47.6
70 Tetrachloroethylene	164	16.186	16.181	(0.943)	155175	43.9013	45.9
73 Dibromochloromethane	129	16.545	16.540	(0.964)	202227	48.5308	50.7
74 1,2-Dibromoethane	107	16.724	16.720	(0.975)	179472	47.9464	50.1
77 Chlorobenzene	112	17.189	17.185	(1.002)	546548	45.1068	47.2
79 1,1,1,2-Tetrachloroethane	131	17.258	17.254	(1.006)	188652	46.6228	48.7
78 Ethylbenzene	91	17.217	17.212	(1.003)	1023029	46.0303	48.1
80 m,p-Xylenes	106	17.332	17.327	(1.010)	727323	89.9296	94.0
81 o-Xylene	106	17.778	17.779	(1.036)	360438	45.7283	47.8
82 Styrene	104	17.802	17.797	(1.038)	610404	46.0281	48.1
83 Bromoform	173	18.105	18.101	(0.923)	130408	44.0538	46.0
88 1,1,2,2-Tetrachloroethane	83	18.506	18.501	(0.944)	243225	48.6349	50.8
92 1,2,3-Trichloropropane	110	18.602	18.602	(0.949)	63829	49.3131	51.6(Q)
91 Bromobenzene	156	18.589	18.589	(0.948)	224446	45.3054	47.4
89 n-Propylbenzene	91	18.556	18.552	(0.946)	1186725	45.9486	48.0
94 2-Chlorotoluene	91	18.741	18.736	(0.956)	819019	45.5448	47.6
84 Isopropylbenzene	105	18.124	18.124	(0.924)	991990	47.7896	50.0

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
93	1,3,5-Trimethylbenzene	105	18.718	18.713	(0.954)	818021	45.3626	47.4
95	4-Chlorotoluene	91	18.851	18.846	(0.961)	734538	45.0889	47.1
96	tert-Butylbenzene	119	19.072	19.072	(0.973)	644383	43.5539	45.5
97	1,2,4-Trimethylbenzene	105	19.132	19.132	(0.976)	810864	43.5388	45.5
99	sec-Butylbenzene	105	19.297	19.298	(0.984)	1049315	44.2628	46.3
100	4-Isopropyltoluene	119	19.417	19.417	(0.990)	770244	42.8438	44.8
105	n-Butylbenzene	91	19.864	19.864	(1.013)	800751	42.0816	44.0
108	1,2-Dibromo-3-chloropropane	157	21.001	20.996	(1.071)	35992	39.7623	41.6

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: /chem/VOA1.i/122109v1/1s115.d
Date : 21-DEC-2009 17:21
Client ID: REC3-09-13470HS
Sample Info: 1220199984519347281 1|VOAF1 1|
Column phase: RTX-Volatiles

Instrument: VOA1.i
Operator: RXM4
Column diameter: 0.25

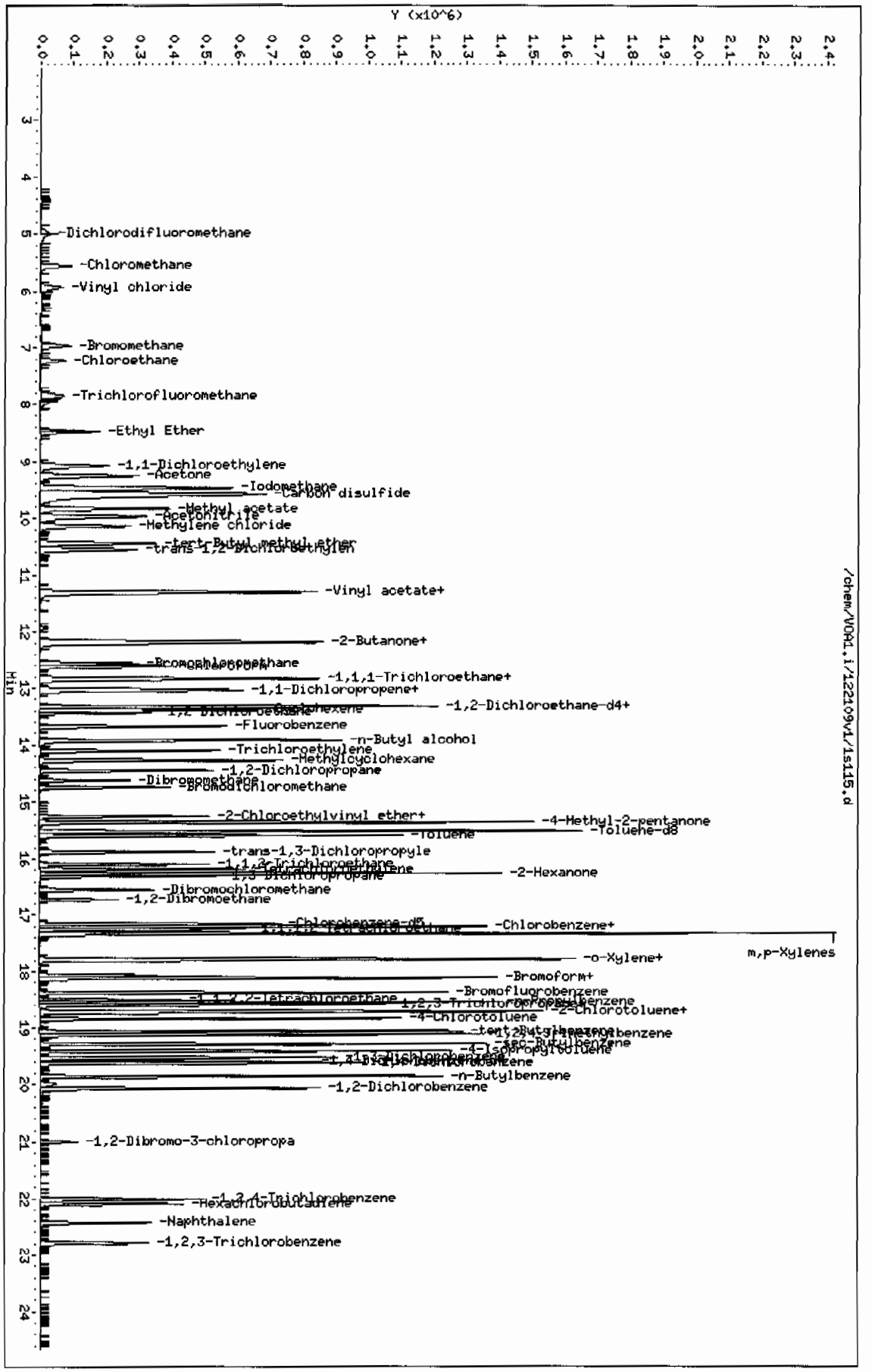

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/122109v1/1s116.d
Lab Smp Id: 1201999846 Client Smp ID: RE03-09-13470MSD
Inj Date : 21-DEC-2009 17:51
Operator : RXM4 Inst ID: VOA1.i
Smp Info : |1201999846|934728|1|VOAF|1|
Misc Info : LANL 5G N/A MSD 242794001
Comment :
Method : /chem/VOA1.i/122109v1/VOA1-8260ox-121709.m
Meth Date : 21-Dec-2009 13:41 ron01469 Quant Type: ISTD
Cal Date : 17-DEC-2009 18:56 Cal File: 1r420.d
Als bottle: 16 QC Sample: MSD
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-901.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	4.35540	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
* 52 Fluorobenzene	96	13.682	13.673	(1.000)	618107	50.0000	
* 76 Chlorobenzene-d5	117	17.157	17.153	(1.000)	448219	50.0000	
* 102 1,4-Dichlorobenzene-d4	152	19.611	19.606	(1.000)	232971	50.0000	
$ 48 1,2-Dichloroethane-d4	65	13.341	13.327	(0.975)	459221	62.1804	65.0
$ 65 Toluene-d8	98	15.518	15.509	(0.904)	1338379	53.6004	56.0
$ 87 Bromofluorobenzene	95	18.386	18.382	(0.938)	518877	55.6490	58.2
5 Dichlorodifluoromethane	85	5.012	4.998	(0.366)	107881	30.9696	32.4
6 Chloromethane	50	5.564	5.550	(0.407)	242519	37.7485	39.5
7 Vinyl chloride	62	5.937	5.930	(0.434)	206788	38.7102	40.5
9 Bromomethane	96	6.966	6.943	(0.509)	138925	39.8368	41.6
10 Chloroethane	64	7.228	7.215	(0.528)	154654	41.4409	43.3
11 Trichlorofluoromethane	101	7.854	7.836	(0.574)	248365	44.8720	46.9

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
16 Acetone	43	9.254	9.240	(0.676)	676706	180.971	189
15 1,1-Dichloroethylene	61	9.083	9.079	(0.664)	350472	40.5243	42.4
103 1,4-Dichlorobenzene	146	19.634	19.634	(1.001)	475011	43.7302	45.7
18 Iodomethane	142	9.475	9.461	(0.692)	1366525	199.402	208
23 Methylene chloride	84	10.142	10.128	(0.741)	221311	39.2931	41.1
19 Carbon disulfide	76	9.585	9.567	(0.701)	2986212	212.223	222
26 trans-1,2-Dichloroethylene	96	10.556	10.538	(0.772)	201879	42.0807	44.0
30 1,1-Dichloroethane	63	11.325	11.311	(0.828)	431356	44.7657	46.8
35 2-Butanone	43	12.186	12.172	(0.891)	815384	194.871	204
36 cis-1,2-Dichloroethylene	96	12.200	12.190	(0.892)	234162	44.3654	46.4
101 1,3-Dichlorobenzene	146	19.542	19.537	(0.996)	468001	43.9159	45.9
33 2,2-Dichloropropane	77	12.163	12.149	(0.889)	310468	55.2710	57.8
41 Chloroform	83	12.614	12.600	(0.922)	428310	45.6368	47.7
106 1,2-Dichlorobenzene	146	20.075	20.075	(1.024)	441626	43.6121	45.6
39 Bromochloromethane	128	12.559	12.549	(0.918)	99712	43.8977	45.9
43 1,1,1-Trichloroethane	97	12.844	12.835	(0.939)	333839	53.2937	55.7
45 1,1-Dichloropropene	75	13.047	13.042	(0.954)	338618	49.2786	51.5
44 Carbon tetrachloride	117	13.024	13.014	(0.952)	316458	51.0895	53.4
51 1,2-Dichloroethane	62	13.438	13.429	(0.982)	349203	47.0410	49.2
47 Benzene	78	13.332	13.323	(0.974)	942411	46.9865	49.1
54 Trichloroethylene	95	14.115	14.105	(1.032)	237303	46.2181	48.3
57 1,2-Dichloropropane	63	14.460	14.451	(1.057)	261057	47.4347	49.6
60 Bromodichloromethane	83	14.750	14.741	(1.078)	337250	48.7777	51.0
59 Dibromomethane	93	14.621	14.612	(1.069)	144738	46.6597	48.8
64 4-Methyl-2-pentanone	58	15.357	15.353	(0.895)	532929	243.386	254
63 cis-1,3-Dichloropropylene	75	15.251	15.247	(1.115)	398131	49.3071	51.6
66 Toluene	92	15.597	15.587	(0.909)	589334	45.2030	47.3
68 trans-1,3-Dichloropropylene	75	15.877	15.873	(0.925)	381520	50.2935	52.6
69 1,1,2-Trichloroethane	83	16.103	16.094	(0.939)	177791	47.6430	49.8
71 2-Hexanone	43	16.264	16.260	(0.948)	1113762	199.327	208
72 1,3-Dichloropropane	76	16.306	16.301	(0.950)	364363	45.9915	48.1
70 Tetrachloroethylene	164	16.186	16.181	(0.943)	178666	44.9610	47.0
73 Dibromochloromethane	129	16.545	16.540	(0.964)	228399	48.7541	51.0
74 1,2-Dibromoethane	107	16.724	16.720	(0.975)	204775	48.6603	50.9
77 Chlorobenzene	112	17.189	17.185	(1.002)	619428	45.4719	47.5
79 1,1,1,2-Tetrachloroethane	131	17.258	17.254	(1.006)	208416	45.8148	47.9
78 Ethylbenzene	91	17.217	17.212	(1.003)	1163838	46.5786	48.7
80 m,p-Xylenes	106	17.332	17.327	(1.010)	825686	90.8090	94.9
81 o-Xylene	106	17.783	17.779	(1.036)	402326	45.4016	47.5
82 Styrene	104	17.802	17.797	(1.038)	702491	47.1178	49.3
83 Bromoform	173	18.101	18.101	(0.923)	150142	45.7682	47.8
88 1,1,2,2-Tetrachloroethane	83	18.506	18.501	(0.944)	275305	49.7332	52.0
92 1,2,3-Trichloropropane	110	18.602	18.602	(0.949)	69510	48.5159	50.7(Q)
91 Bromobenzene	156	18.589	18.589	(0.948)	254295	46.3733	48.5
89 n-Propylbenzene	91	18.556	18.552	(0.946)	1347132	47.1221	49.3
94 2-Chlorotoluene	91	18.741	18.736	(0.956)	936450	47.0459	49.2
84 Isopropylbenzene	105	18.124	18.124	(0.924)	1136189	49.4504	51.7

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
93 1,3,5-Trimethylbenzene	105	18.718	18.713	(0.954)	945667	47.3766	49.5
95 4-Chlorotoluene	91	18.851	18.846	(0.961)	844436	46.8290	49.0
96 tert-Butylbenzene	119	19.072	19.072	(0.973)	726834	44.3824	46.4
97 1,2,4-Trimethylbenzene	105	19.132	19.132	(0.976)	948744	46.0225	48.1
99 sec-Butylbenzene	105	19.298	19.298	(0.984)	1187575	45.2571	47.3
100 4-Isopropyltoluene	119	19.417	19.417	(0.990)	891036	44.7762	46.8
105 n-Butylbenzene	91	19.864	19.864	(1.013)	930749	44.1896	46.2
108 1,2-Dibromo-3-chloropropane	157	21.001	20.996	(1.071)	43742	43.4504	45.4

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: /chem/VOA1.i/122109v1/1s116.d
Date : 21-DEC-2009 17:51
Client ID: RE03-09-13470MSD
Sample Info: 1120199984619347281|1|VOAF1|

Instrument: VOA1.i

Column phase: RTX-Volatiles

Operator: RXM4
Column diameter: 0.25

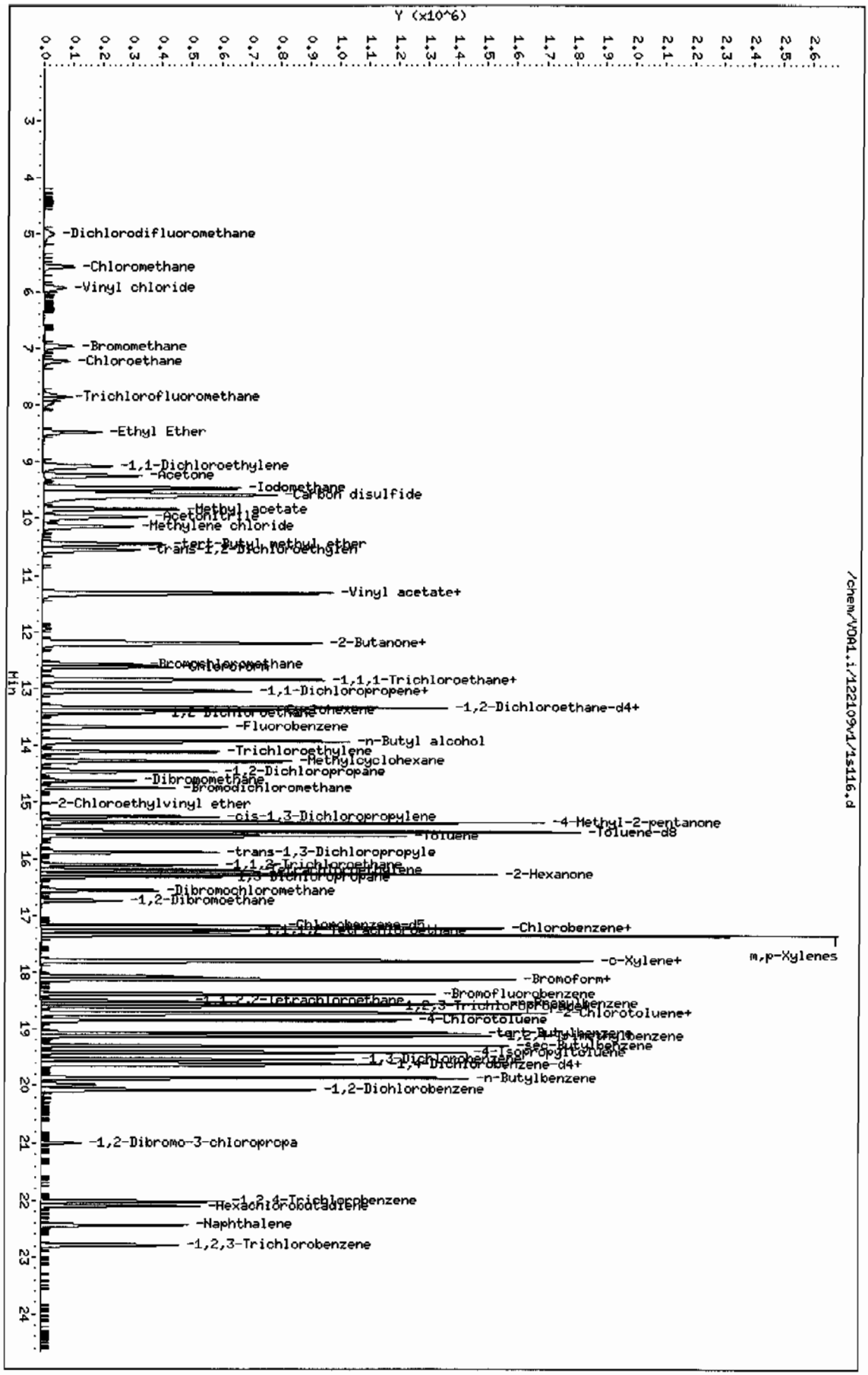

/chem/VOA1.i/122109v1/1s116.d

Page 1

GC/MS Semivolatile Analysis

Semi-Volatile Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-917

Method/Analysis Information

Procedure:	**Analysis of Semivolatile Organic Compounds by Gas Chromatography/Mass Spectrometry**
Analytical Method:	SW846 8270C
Prep Method:	SW846 3550B
Analytical Batch Number:	933806
Prep Batch Number:	933805

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 8270C:

Sample ID	Client ID
242937001	RE03-09-14213
242937002	RE03-09-14215
242937003	RE03-09-14212
242937004	RE03-09-14219
242937005	RE03-09-14218
242937006	RE03-09-14216
242937007	RE03-09-14214
242937008	RE03-09-14217
242937009	RE03-10-2735
1201997920	Method Blank (MB)
1201997921	Laboratory Control Sample (LCS)
1201997922	242937001(RE03-09-14213) Matrix Spike (MS)
1201997923	242937001(RE03-09-14213) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on a "dry weight" basis.

Preparation/Analytical Method Verification

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-009 REV# 23.

Raw data reports are processed and reviewed by the analyst using the Target software package. False positives have been removed from the Target quantitation reports per standard operating procedures (SOP) section 18.2.

Calibration Information

Please note that the 'Cal Date' indicated on each quantitation report reflects the date and time of the most recent calibrated analyte(s) in the Target processing method. Since the laboratory may calibrate with multiple solutions on different days using the same processing method, the Target software will update the

'Cal Date' to the last calibration file, date and time. The correct dates and times for all calibration files are located on the Calibration History report in the Standard Data section in the data package.

Due to software limitations, the Calibration Summary Form 6 may not indicate all the calibration files comprising the initial calibration. A complete list of the initial calibration data files are shown in the Calibration History report located in the Standard Data section of the data package. Please note that the second level of the initial calibration (5 mg/L) is only used for n-Nitrosodipropylamine. The various calibration mixes may not be calibrated using all of the calibration levels. In addition, not all of the mixes are calibrated using the same levels.

Diphenylamine has now superseded N-Nitroso-diphenylamine as a CCC on Quantitation Reports, Initial Calibration Reports, Calibration Check Standard Reports, etc. Previous versions of EPA Method 8270 (prior to 8270C) listed N-Nitroso-diphenylamine as a CCC. However, as stated in EPA Method 8270C, Revision 3, December, 1996, Section 1.4.5, "N-Nitroso-diphenylamine decomposes in the gas chromatographic inlet and cannot be separated from Diphenylamine." Studies of these two compounds at GEL, both independent of each other and together, show that they not only co-elute, but also have similar mass spectra. N-Nitroso-diphenylamine and Diphenylamine will be reported as Diphenylamine on all reports and forms.

The linear equation used in Target and indicated on the initial calibration summary form is not a conventional linear equation (slope intercept formula) and does not match the equation found in SW-846 method 8000B. The x and y axes are inversed in Target, so that the instrument response is treated as the independent variable (x) and the concentration ratio is treated as the dependent variable (y). The equation used in Target to calculate sample results is adjusted to account for the linear equation inversion and reciprocal slope. The adjusted calculation has been independently verified to produce valid results.

Initial Calibration
All initial calibration requirements have been met for this sample delivery group (SDG). A second source initial calibration verification (ICV) was included in the standard section directly behind the initial calibration.

CCV Requirements
All associated calibration verification standard(s) (ICV or CCV) met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Surrogate Recoveries
All the surrogate recoveries were within the established acceptance criteria for this SDG.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

QC Sample Designation
Sample 242937001 (RE03-09-14213) was selected for analysis as the matrix spike and matrix spike duplicate.

Matrix Spike (MS) Recovery Statement
The MS recoveries were not within the acceptance limits. Please see the spike recovery report for the specific failures. The MSD displayed similar recoveries. Therefore, the failures were attributed to sample matrix interference.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recoveries were not within the acceptance limits. Please see the spike recovery report for the specific failures. The MS displayed similar recoveries. Therefore, the failures were attributed to sample matrix interference.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD(s) between the MS and MSD met the acceptance limits.

Internal Standard (ISTD) Acceptance
The internal standard responses were within the required acceptance criteria for all samples and QC.

Technical Information

Holding Time Specifications
All samples in this SDG met the specified holding time. GEL assigns holding times based on the associated methodology that assigns the date and time from sample collection or sample receipt. Those holding times expressed in hours are calculated in the ALPHALIMS system. Those holding times expressed as days expire at midnight on the day of expiration.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-extraction/Re-analysis
Re-extractions or re-analyses were not required in this SDG except for confirmations and/or dilutions.

Miscellaneous Information

Nonconformance (NCR) Documentation
The following NCR was generated for this SDG: 773478. It is located in the Miscellaneous Section of the data report.

Manual Integrations
A manual integration was performed Benzyl alcohol in the MS. Please see the associated raw data file located in the Miscellaneous Section of the data report.

Additional Comments
Additional comments were not required for this SDG.

Electronic Package Comment
The following package was generated using an electronic data processing program referred to as "virtual packaging". In an effort to increase quality and efficiency, the laboratory is developing systems to eventually generate all data packages electronically. The following change from "traditional" packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. An electronic signature page inserted after the case narrative of each electronic package will indicate the analyst, reviewer, and report specialist names associated with the generation of the data and package. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

System Configuration

The samples reported in this SDG were analyzed on one or more of the following instrument systems. Instrument systems are referenced in the raw data and individual form headers by the Instrument ID designations listed below:

Instrument ID	Instrument	System Configuration	Column ID	Column Description
MSD6.I	HP Mass Spectrometer	HP6890/HP5973	DB-5MS	25m x 0.20mm x 0.33 um (5% Phenylmethylpolysiloxane)

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

Reviewer: Dan Bauchman **Date:** 1-11-10

Roadmap for LANL 10-917 SVOA

This roadmap was analyzed by nat00999 on 12-22-2009, 13:52.
This roadmap was reviewed by bar00895 on 01-05-2010, 09:40.

Sample

exclude	manual	datafile	smpid	injdate	injtime	sublist	clientid	dilution	batchid	comment
☐	N	/chem/MSD6.i/s122109.b/s6l2114.d	242937001	21-DEC-2009	16:57	10-917.sub	RE03-09-14213	1	933806	
☐	N	/chem/MSD6.i/s122109.b/s6l2117.d	242937002	21-DEC-2009	18:20	10-917.sub	RE03-09-14215	1	933806	
☐	N	/chem/MSD6.i/s122109.b/s6l2118.d	242937003	21-DEC-2009	18:48	10-917.sub	RE03-09-14212	1	933806	
☐	N	/chem/MSD6.i/s122109.b/s6l2119.d	242937004	21-DEC-2009	19:16	10-917.sub	RE03-09-14219	1	933806	
☐	N	/chem/MSD6.i/s122109.b/s6l2120.d	242937005	21-DEC-2009	19:43	10-917.sub	RE03-09-14218	1	933806	
☐	N	/chem/MSD6.i/s122109.b/s6l2121.d	242937006	21-DEC-2009	20:10	10-917.sub	RE03-09-14216	1	933806	
☐	N	/chem/MSD6.i/s122109.b/s6l2122.d	242937007	21-DEC-2009	20:38	10-917.sub	RE03-09-14214	1	933806	
☐	N	/chem/MSD6.i/s122109.b/s6l2123.d	242937008	21-DEC-2009	21:05	10-917.sub	RE03-09-14217	1	933806	
☐	N	/chem/MSD6.i/s122109.b/s6l2124.d	242937009	21-DEC-2009	21:33	10-917.sub	RE03-10-2735	1	933806	

QC Sample

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	batchid	comment
☐	N	/chem/MSD6.i/s122109.b/s6l2107.d	1201997920	mb	21-DEC-2009	13:39	10-917.sub	SBLK01	1	933806	
☐	N	/chem/MSD6.i/s122109.b/s6l2108.d	1201997921	lcs	21-DEC-2009	14:07	10-917.sub	SBLK01LCS	1	933806	
☐	N	/chem/MSD6.i/s122109.b/s6l2115.d	1201997922	ms	21-DEC-2009	17:25	10-917.sub	RE03-09-14213MS	1	933806	failed spike - C12 manual
☐	N	/chem/MSD6.i/s122109.b/s6l2116.d	1201997923	msd	21-DEC-2009	17:52	10-917.sub	RE03-09-14213MSD	1	933806	failed spik

Sample Data Summary

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-917**	**Date Collected:**	**12/11/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242937003**	**Date Received:**	**12/15/2009 08:45**	**%Moisture:**	**12.9**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14212**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**933806**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**12/21/2009 18:48**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/18/2009 09:12**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**s6l2118.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	382	ug/kg	76.5	382
108-95-2	Phenol	U	382	ug/kg	76.5	382
95-57-8	2-Chlorophenol	U	382	ug/kg	76.5	382
106-46-7	1,4-Dichlorobenzene	U	382	ug/kg	76.5	382
621-64-7	N-Nitrosodipropylamine	U	382	ug/kg	76.5	382
59-50-7	4-Chloro-3-methylphenol	U	382	ug/kg	76.5	382
83-32-9	Acenaphthene	U	38.2	ug/kg	12.6	38.2
121-14-2	2,4-Dinitrotoluene	U	382	ug/kg	38.2	382
100-02-7	4-Nitrophenol	U	382	ug/kg	126	382
87-86-5	Pentachlorophenol	U	382	ug/kg	95.6	382
129-00-0	Pyrene	U	38.2	ug/kg	11.5	38.2
110-86-1	Pyridine	U	382	ug/kg	76.5	382
62-53-3	Aniline	U	382	ug/kg	115	382
111-44-4	bis(2-Chloroethyl) ether	U	382	ug/kg	76.5	382
541-73-1	1,3-Dichlorobenzene	U	382	ug/kg	76.5	382
100-51-6	Benzyl alcohol	U	382	ug/kg	115	382
95-50-1	1,2-Dichlorobenzene	U	382	ug/kg	76.5	382
108-60-1	bis(2-Chloroisopropyl)ether	U	382	ug/kg	76.5	382
95-48-7	o-Cresol	U	382	ug/kg	76.5	382
65794-96-9	m,p-Cresols	U	382	ug/kg	115	382
67-72-1	Hexachloroethane	U	382	ug/kg	76.5	382
98-95-3	Nitrobenzene	U	382	ug/kg	76.5	382
78-59-1	Isophorone	U	382	ug/kg	76.5	382
88-75-5	2-Nitrophenol	U	382	ug/kg	76.5	382
105-67-9	2,4-Dimethylphenol	U	382	ug/kg	134	382
111-91-1	bis(2-Chloroethoxy)methane	U	382	ug/kg	76.5	382
120-83-2	2,4-Dichlorophenol	U	382	ug/kg	76.5	382
65-85-0	Benzoic acid	U	765	ug/kg	191	765
91-20-3	Naphthalene	U	38.2	ug/kg	11.5	38.2
106-47-8	4-Chloroaniline	U	382	ug/kg	76.5	382
87-68-3	Hexachlorobutadiene	U	382	ug/kg	76.5	382
91-57-6	2-Methylnaphthalene	U	38.2	ug/kg	7.65	38.2
77-47-4	Hexachlorocyclopentadiene	U	382	ug/kg	76.5	382
88-06-2	2,4,6-Trichlorophenol	U	382	ug/kg	76.5	382
95-95-4	2,4,5-Trichlorophenol	U	382	ug/kg	76.5	382
91-58-7	2-Chloronaphthalene	U	38.2	ug/kg	12.6	38.2
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	382	ug/kg	76.5	382
99-09-2	3-Nitroaniline	U	382	ug/kg	76.5	382

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-917	Date Collected:	12/11/2009 12:00	Matrix:	S
Lab Sample ID:	242937003	Date Received:	12/15/2009 08:45	%Moisture:	12.9
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14212	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	933806	Inst:	MSD6.I	Dilution:	1
Run Date:	12/21/2009 18:48	Analyst:	NAG1	Inj. Vol:	.5 uL
Prep Date:	12/18/2009 09:12	Aliquot:	30 g	Final Volume:	1 mL
Data File:	s6l2118.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	382	ug/kg	76.5	382
606-20-2	2,6-Dinitrotoluene	U	382	ug/kg	38.2	382
208-96-8	Acenaphthylene	U	38.2	ug/kg	11.5	38.2
51-28-5	2,4-Dinitrophenol	U	765	ug/kg	145	765
132-64-9	Dibenzofuran	U	382	ug/kg	76.5	382
84-66-2	Diethylphthalate	U	382	ug/kg	76.5	382
86-73-7	Fluorene	U	38.2	ug/kg	11.5	38.2
7005-72-3	4-Chlorophenylphenylether	U	382	ug/kg	76.5	382
534-52-1	2-Methyl-4,6-dinitrophenol	U	382	ug/kg	76.5	382
100-01-6	4-Nitroaniline	U	382	ug/kg	115	382
	p-Nitroaniline					
122-39-4	Diphenylamine	U	382	ug/kg	76.5	382
122-66-7	Azobenzene	U	382	ug/kg	76.5	382
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	382	ug/kg	76.5	382
118-74-1	Hexachlorobenzene	U	382	ug/kg	76.5	382
85-01-8	Phenanthrene	U	38.2	ug/kg	11.5	38.2
120-12-7	Anthracene	U	38.2	ug/kg	7.65	38.2
84-74-2	Di-n-butylphthalate	U	382	ug/kg	76.5	382
206-44-0	Fluoranthene	U	38.2	ug/kg	11.5	38.2
85-68-7	Butylbenzylphthalate	U	382	ug/kg	76.5	382
56-55-3	Benzo(a)anthracene	U	38.2	ug/kg	11.5	38.2
91-94-1	3,3'-Dichlorobenzidine	U	382	ug/kg	115	382
218-01-9	Chrysene	U	38.2	ug/kg	11.5	38.2
117-81-7	bis(2-Ethylhexyl)phthalate	U	382	ug/kg	76.5	382
117-84-0	Di-n-octylphthalate	U	382	ug/kg	76.5	382
205-99-2	Benzo(b)fluoranthene	U	38.2	ug/kg	11.5	38.2
207-08-9	Benzo(k)fluoranthene	U	38.2	ug/kg	11.5	38.2
50-32-8	Benzo(a)pyrene	U	38.2	ug/kg	11.5	38.2
193-39-5	Indeno(1,2,3-cd)pyrene	U	38.2	ug/kg	11.5	38.2
53-70-3	Dibenzo(a,h)anthracene	U	38.2	ug/kg	11.5	38.2
191-24-2	Benzo(ghi)perylene	U	38.2	ug/kg	11.5	38.2
120-82-1	1,2,4-Trichlorobenzene	U	382	ug/kg	76.5	382

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	3.61	530	ug/kg		JA

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-917	Date Collected:	12/11/2009 12:00	Matrix:	S
Lab Sample ID:	242937001	Date Received:	12/15/2009 08:45	%Moisture:	12.8
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14213	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	933806	Inst:	MSD6.I	Dilution:	1
Run Date:	12/21/2009 16:57	Analyst:	NAG1	Inj. Vol:	.5 uL
Prep Date:	12/18/2009 09:12	Aliquot:	30.02 g	Final Volume:	1 mL
Data File:	s6l2114.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	382	ug/kg	76.4	382
108-95-2	Phenol	U	382	ug/kg	76.4	382
95-57-8	2-Chlorophenol	U	382	ug/kg	76.4	382
106-46-7	1,4-Dichlorobenzene	U	382	ug/kg	76.4	382
621-64-7	N-Nitrosodipropylamine	U	382	ug/kg	76.4	382
59-50-7	4-Chloro-3-methylphenol	U	382	ug/kg	76.4	382
83-32-9	Acenaphthene	U	38.2	ug/kg	12.6	38.2
121-14-2	2,4-Dinitrotoluene	U	382	ug/kg	38.2	382
100-02-7	4-Nitrophenol	U	382	ug/kg	126	382
87-86-5	Pentachlorophenol	U	382	ug/kg	95.5	382
129-00-0	Pyrene	U	38.2	ug/kg	11.5	38.2
110-86-1	Pyridine	U	382	ug/kg	76.4	382
62-53-3	Aniline	U	382	ug/kg	115	382
111-44-4	bis(2-Chloroethyl) ether	U	382	ug/kg	76.4	382
541-73-1	1,3-Dichlorobenzene	U	382	ug/kg	76.4	382
100-51-6	Benzyl alcohol	U	382	ug/kg	115	382
95-50-1	1,2-Dichlorobenzene	U	382	ug/kg	76.4	382
108-60-1	bis(2-Chloroisopropyl)ether	U	382	ug/kg	76.4	382
95-48-7	o-Cresol	U	382	ug/kg	76.4	382
65794-96-9	m,p-Cresols	U	382	ug/kg	115	382
67-72-1	Hexachloroethane	U	382	ug/kg	76.4	382
98-95-3	Nitrobenzene	U	382	ug/kg	76.4	382
78-59-1	Isophorone	U	382	ug/kg	76.4	382
88-75-5	2-Nitrophenol	U	382	ug/kg	76.4	382
105-67-9	2,4-Dimethylphenol	U	382	ug/kg	134	382
111-91-1	bis(2-Chloroethoxy)methane	U	382	ug/kg	76.4	382
120-83-2	2,4-Dichlorophenol	U	382	ug/kg	76.4	382
65-85-0	Benzoic acid	U	764	ug/kg	191	764
91-20-3	Naphthalene	U	38.2	ug/kg	11.5	38.2
106-47-8	4-Chloroaniline	U	382	ug/kg	76.4	382
87-68-3	Hexachlorobutadiene	U	382	ug/kg	76.4	382
91-57-6	2-Methylnaphthalene	J	10.4	ug/kg	7.64	38.2
77-47-4	Hexachlorocyclopentadiene	U	382	ug/kg	76.4	382
88-06-2	2,4,6-Trichlorophenol	U	382	ug/kg	76.4	382
95-95-4	2,4,5-Trichlorophenol	U	382	ug/kg	76.4	382
91-58-7	2-Chloronaphthalene	U	38.2	ug/kg	12.6	38.2
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	382	ug/kg	76.4	382
99-09-2	3-Nitroaniline	U	382	ug/kg	76.4	382

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-917**	**Date Collected:**	**12/11/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242937001**	**Date Received:**	**12/15/2009 08:45**	**%Moisture:**	**12.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14213**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**933806**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**12/21/2009 16:57**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/18/2009 09:12**	**Aliquot:**	**30.02 g**	**Final Volume:**	**1 mL**
Data File:	**s6l2114.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	382	ug/kg	76.4	382
606-20-2	2,6-Dinitrotoluene	U	382	ug/kg	38.2	382
208-96-8	Acenaphthylene	U	38.2	ug/kg	11.5	38.2
51-28-5	2,4-Dinitrophenol	U	764	ug/kg	145	764
132-64-9	Dibenzofuran	U	382	ug/kg	76.4	382
84-66-2	Diethylphthalate	U	382	ug/kg	76.4	382
86-73-7	Fluorene	U	38.2	ug/kg	11.5	38.2
7005-72-3	4-Chlorophenylphenylether	U	382	ug/kg	76.4	382
534-52-1	2-Methyl-4,6-dinitrophenol	U	382	ug/kg	76.4	382
100-01-6	4-Nitroaniline	U	382	ug/kg	115	382
	p-Nitroaniline					
122-39-4	Diphenylamine	U	382	ug/kg	76.4	382
122-66-7	Azobenzene	U	382	ug/kg	76.4	382
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	382	ug/kg	76.4	382
118-74-1	Hexachlorobenzene	U	382	ug/kg	76.4	382
85-01-8	Phenanthrene	U	38.2	ug/kg	11.5	38.2
120-12-7	Anthracene	U	38.2	ug/kg	7.64	38.2
84-74-2	Di-n-butylphthalate	U	382	ug/kg	76.4	382
206-44-0	Fluoranthene	U	38.2	ug/kg	11.5	38.2
85-68-7	Butylbenzylphthalate	U	382	ug/kg	76.4	382
56-55-3	Benzo(a)anthracene	U	38.2	ug/kg	11.5	38.2
91-94-1	3,3'-Dichlorobenzidine	U	382	ug/kg	115	382
218-01-9	Chrysene	U	38.2	ug/kg	11.5	38.2
117-81-7	bis(2-Ethylhexyl)phthalate	U	382	ug/kg	76.4	382
117-84-0	Di-n-octylphthalate	U	382	ug/kg	76.4	382
205-99-2	Benzo(b)fluoranthene	U	38.2	ug/kg	11.5	38.2
207-08-9	Benzo(k)fluoranthene	U	38.2	ug/kg	11.5	38.2
50-32-8	Benzo(a)pyrene	U	38.2	ug/kg	11.5	38.2
193-39-5	Indeno(1,2,3-cd)pyrene	U	38.2	ug/kg	11.5	38.2
53-70-3	Dibenzo(a,h)anthracene	U	38.2	ug/kg	11.5	38.2
191-24-2	Benzo(ghi)perylene	U	38.2	ug/kg	11.5	38.2
120-82-1	1,2,4-Trichlorobenzene	U	382	ug/kg	76.4	382

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	3.62	570	ug/kg		JA
	Unknown	17.58	162	ug/kg		J

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-917	Date Collected:	12/11/2009 12:00	Matrix:	S
Lab Sample ID:	242937007	Date Received:	12/15/2009 08:45	%Moisture:	13.8
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14214	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	933806	Inst:	MSD6.I	Dilution:	1
Run Date:	12/21/2009 20:38	Analyst:	NAG1	Inj. Vol:	.5 uL
Prep Date:	12/18/2009 09:12	Aliquot:	30.02 g	Final Volume:	1 mL
Data File:	s6l2122.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	386	ug/kg	77.3	386
108-95-2	Phenol	U	386	ug/kg	77.3	386
95-57-8	2-Chlorophenol	U	386	ug/kg	77.3	386
106-46-7	1,4-Dichlorobenzene	U	386	ug/kg	77.3	386
621-64-7	N-Nitrosodipropylamine	U	386	ug/kg	77.3	386
59-50-7	4-Chloro-3-methylphenol	U	386	ug/kg	77.3	386
83-32-9	Acenaphthene	U	38.6	ug/kg	12.7	38.6
121-14-2	2,4-Dinitrotoluene	U	386	ug/kg	38.6	386
100-02-7	4-Nitrophenol	U	386	ug/kg	127	386
87-86-5	Pentachlorophenol	U	386	ug/kg	96.6	386
129-00-0	Pyrene	U	38.6	ug/kg	11.6	38.6
110-86-1	Pyridine	U	386	ug/kg	77.3	386
62-53-3	Aniline	U	386	ug/kg	116	386
111-44-4	bis(2-Chloroethyl) ether	U	386	ug/kg	77.3	386
541-73-1	1,3-Dichlorobenzene	U	386	ug/kg	77.3	386
100-51-6	Benzyl alcohol	U	386	ug/kg	116	386
95-50-1	1,2-Dichlorobenzene	U	386	ug/kg	77.3	386
108-60-1	bis(2-Chloroisopropyl)ether	U	386	ug/kg	77.3	386
95-48-7	o-Cresol	U	386	ug/kg	77.3	386
65794-96-9	m,p-Cresols	U	386	ug/kg	116	386
67-72-1	Hexachloroethane	U	386	ug/kg	77.3	386
98-95-3	Nitrobenzene	U	386	ug/kg	77.3	386
78-59-1	Isophorone	U	386	ug/kg	77.3	386
88-75-5	2-Nitrophenol	U	386	ug/kg	77.3	386
105-67-9	2,4-Dimethylphenol	U	386	ug/kg	135	386
111-91-1	bis(2-Chloroethoxy)methane	U	386	ug/kg	77.3	386
120-83-2	2,4-Dichlorophenol	U	386	ug/kg	77.3	386
65-85-0	Benzoic acid	U	773	ug/kg	193	773
91-20-3	Naphthalene	U	38.6	ug/kg	11.6	38.6
106-47-8	4-Chloroaniline	U	386	ug/kg	77.3	386
87-68-3	Hexachlorobutadiene	U	386	ug/kg	77.3	386
91-57-6	2-Methylnaphthalene	U	38.6	ug/kg	7.73	38.6
77-47-4	Hexachlorocyclopentadiene	U	386	ug/kg	77.3	386
88-06-2	2,4,6-Trichlorophenol	U	386	ug/kg	77.3	386
95-95-4	2,4,5-Trichlorophenol	U	386	ug/kg	77.3	386
91-58-7	2-Chloronaphthalene	U	38.6	ug/kg	12.7	38.6
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	386	ug/kg	77.3	386
99-09-2	3-Nitroaniline	U	386	ug/kg	77.3	386

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-917**	**Date Collected:**	**12/11/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242937007**	**Date Received:**	**12/15/2009 08:45**	**%Moisture:**	**13.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14214**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**933806**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**12/21/2009 20:38**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/18/2009 09:12**	**Aliquot:**	**30.02 g**	**Final Volume:**	**1 mL**
Data File:	**s612122.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	386	ug/kg	77.3	386
606-20-2	2,6-Dinitrotoluene	U	386	ug/kg	38.6	386
208-96-8	Acenaphthylene	U	38.6	ug/kg	11.6	38.6
51-28-5	2,4-Dinitrophenol	U	773	ug/kg	147	773
132-64-9	Dibenzofuran	U	386	ug/kg	77.3	386
84-66-2	Diethylphthalate	U	386	ug/kg	77.3	386
86-73-7	Fluorene	U	38.6	ug/kg	11.6	38.6
7005-72-3	4-Chlorophenylphenylether	U	386	ug/kg	77.3	386
534-52-1	2-Methyl-4,6-dinitrophenol	U	386	ug/kg	77.3	386
100-01-6	4-Nitroaniline	U	386	ug/kg	116	386
	p-Nitroaniline					
122-39-4	Diphenylamine	U	386	ug/kg	77.3	386
122-66-7	Azobenzene	U	386	ug/kg	77.3	386
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	386	ug/kg	77.3	386
118-74-1	Hexachlorobenzene	U	386	ug/kg	77.3	386
85-01-8	Phenanthrene	U	38.6	ug/kg	11.6	38.6
120-12-7	Anthracene	U	38.6	ug/kg	7.73	38.6
84-74-2	Di-n-butylphthalate	U	386	ug/kg	77.3	386
206-44-0	Fluoranthene	U	38.6	ug/kg	11.6	38.6
85-68-7	Butylbenzylphthalate	U	386	ug/kg	77.3	386
56-55-3	Benzo(a)anthracene	U	38.6	ug/kg	11.6	38.6
91-94-1	3,3'-Dichlorobenzidine	U	386	ug/kg	116	386
218-01-9	Chrysene	U	38.6	ug/kg	11.6	38.6
117-81-7	bis(2-Ethylhexyl)phthalate	U	386	ug/kg	77.3	386
117-84-0	Di-n-octylphthalate	U	386	ug/kg	77.3	386
205-99-2	Benzo(b)fluoranthene	U	38.6	ug/kg	11.6	38.6
207-08-9	Benzo(k)fluoranthene	U	38.6	ug/kg	11.6	38.6
50-32-8	Benzo(a)pyrene	U	38.6	ug/kg	11.6	38.6
193-39-5	Indeno(1,2,3-cd)pyrene	U	38.6	ug/kg	11.6	38.6
53-70-3	Dibenzo(a,h)anthracene	U	38.6	ug/kg	11.6	38.6
191-24-2	Benzo(ghi)perylene	U	38.6	ug/kg	11.6	38.6
120-82-1	1,2,4-Trichlorobenzene	U	386	ug/kg	77.3	386

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	3.61	447	ug/kg		JA

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-917	Date Collected:	12/11/2009 12:00	Matrix:	S
Lab Sample ID:	242937002	Date Received:	12/15/2009 08:45	%Moisture:	10.3
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14215	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	933806	Inst:	MSD6.I	Dilution:	1
Run Date:	12/21/2009 18:20	Analyst:	NAG1	Inj. Vol:	.5 uL
Prep Date:	12/18/2009 09:12	Aliquot:	30.04 g	Final Volume:	1 mL
Data File:	s6l2117.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	371	ug/kg	74.2	371
108-95-2	Phenol	U	371	ug/kg	74.2	371
95-57-8	2-Chlorophenol	U	371	ug/kg	74.2	371
106-46-7	1,4-Dichlorobenzene	U	371	ug/kg	74.2	371
621-64-7	N-Nitrosodipropylamine	U	371	ug/kg	74.2	371
59-50-7	4-Chloro-3-methylphenol	U	371	ug/kg	74.2	371
83-32-9	Acenaphthene	U	37.1	ug/kg	12.2	37.1
121-14-2	2,4-Dinitrotoluene	U	371	ug/kg	37.1	371
100-02-7	4-Nitrophenol	U	371	ug/kg	122	371
87-86-5	Pentachlorophenol	U	371	ug/kg	92.8	371
129-00-0	Pyrene	U	37.1	ug/kg	11.1	37.1
110-86-1	Pyridine	U	371	ug/kg	74.2	371
62-53-3	Aniline	U	371	ug/kg	111	371
111-44-4	bis(2-Chloroethyl) ether	U	371	ug/kg	74.2	371
541-73-1	1,3-Dichlorobenzene	U	371	ug/kg	74.2	371
100-51-6	Benzyl alcohol	U	371	ug/kg	111	371
95-50-1	1,2-Dichlorobenzene	U	371	ug/kg	74.2	371
108-60-1	bis(2-Chloroisopropyl)ether	U	371	ug/kg	74.2	371
95-48-7	o-Cresol	U	371	ug/kg	74.2	371
65794-96-9	m,p-Cresols	U	371	ug/kg	111	371
67-72-1	Hexachloroethane	U	371	ug/kg	74.2	371
98-95-3	Nitrobenzene	U	371	ug/kg	74.2	371
78-59-1	Isophorone	U	371	ug/kg	74.2	371
88-75-5	2-Nitrophenol	U	371	ug/kg	74.2	371
105-67-9	2,4-Dimethylphenol	U	371	ug/kg	130	371
111-91-1	bis(2-Chloroethoxy)methane	U	371	ug/kg	74.2	371
120-83-2	2,4-Dichlorophenol	U	371	ug/kg	74.2	371
65-85-0	Benzoic acid	U	742	ug/kg	186	742
91-20-3	Naphthalene	U	37.1	ug/kg	11.1	37.1
106-47-8	4-Chloroaniline	U	371	ug/kg	74.2	371
87-68-3	Hexachlorobutadiene	U	371	ug/kg	74.2	371
91-57-6	2-Methylnaphthalene	U	37.1	ug/kg	7.42	37.1
77-47-4	Hexachlorocyclopentadiene	U	371	ug/kg	74.2	371
88-06-2	2,4,6-Trichlorophenol	U	371	ug/kg	74.2	371
95-95-4	2,4,5-Trichlorophenol	U	371	ug/kg	74.2	371
91-58-7	2-Chloronaphthalene	U	37.1	ug/kg	12.2	37.1
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	371	ug/kg	74.2	371
99-09-2	3-Nitroaniline	U	371	ug/kg	74.2	371

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-917**	**Date Collected:**	**12/11/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242937002**	**Date Received:**	**12/15/2009 08:45**	**%Moisture:**	**10.3**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14215**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**933806**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**12/21/2009 18:20**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/18/2009 09:12**	**Aliquot:**	**30.04 g**	**Final Volume:**	**1 mL**
Data File:	**s6l2117.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	371	ug/kg	74.2	371
606-20-2	2,6-Dinitrotoluene	U	371	ug/kg	37.1	371
208-96-8	Acenaphthylene	U	37.1	ug/kg	11.1	37.1
51-28-5	2,4-Dinitrophenol	U	742	ug/kg	141	742
132-64-9	Dibenzofuran	U	371	ug/kg	74.2	371
84-66-2	Diethylphthalate	U	371	ug/kg	74.2	371
86-73-7	Fluorene	U	37.1	ug/kg	11.1	37.1
7005-72-3	4-Chlorophenylphenylether	U	371	ug/kg	74.2	371
534-52-1	2-Methyl-4,6-dinitrophenol	U	371	ug/kg	74.2	371
100-01-6	4-Nitroaniline	U	371	ug/kg	111	371
	p-Nitroaniline					
122-39-4	Diphenylamine	U	371	ug/kg	74.2	371
122-66-7	Azobenzene	U	371	ug/kg	74.2	371
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	371	ug/kg	74.2	371
118-74-1	Hexachlorobenzene	U	371	ug/kg	74.2	371
85-01-8	Phenanthrene	U	37.1	ug/kg	11.1	37.1
120-12-7	Anthracene	U	37.1	ug/kg	7.42	37.1
84-74-2	Di-n-butylphthalate	U	371	ug/kg	74.2	371
206-44-0	Fluoranthene	U	37.1	ug/kg	11.1	37.1
85-68-7	Butylbenzylphthalate	U	371	ug/kg	74.2	371
56-55-3	Benzo(a)anthracene	U	37.1	ug/kg	11.1	37.1
91-94-1	3,3'-Dichlorobenzidine	U	371	ug/kg	111	371
218-01-9	Chrysene	U	37.1	ug/kg	11.1	37.1
117-81-7	bis(2-Ethylhexyl)phthalate	U	371	ug/kg	74.2	371
117-84-0	Di-n-octylphthalate	U	371	ug/kg	74.2	371
205-99-2	Benzo(b)fluoranthene	U	37.1	ug/kg	11.1	37.1
207-08-9	Benzo(k)fluoranthene	U	37.1	ug/kg	11.1	37.1
50-32-8	Benzo(a)pyrene	U	37.1	ug/kg	11.1	37.1
193-39-5	Indeno(1,2,3-cd)pyrene	U	37.1	ug/kg	11.1	37.1
53-70-3	Dibenzo(a,h)anthracene	U	37.1	ug/kg	11.1	37.1
191-24-2	Benzo(ghi)perylene	U	37.1	ug/kg	11.1	37.1
120-82-1	1,2,4-Trichlorobenzene	U	371	ug/kg	74.2	371

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	3.61	521	ug/kg		JA

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-917**	**Date Collected:**	**12/11/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242937006**	**Date Received:**	**12/15/2009 08:45**	**%Moisture:**	**15.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14216**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**933806**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**12/21/2009 20:10**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/18/2009 09:12**	**Aliquot:**	**30.08 g**	**Final Volume:**	**1 mL**
Data File:	**s6l2121.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	395	ug/kg	79.0	395
108-95-2	Phenol	U	395	ug/kg	79.0	395
95-57-8	2-Chlorophenol	U	395	ug/kg	79.0	395
106-46-7	1,4-Dichlorobenzene	U	395	ug/kg	79.0	395
621-64-7	N-Nitrosodipropylamine	U	395	ug/kg	79.0	395
59-50-7	4-Chloro-3-methylphenol	U	395	ug/kg	79.0	395
83-32-9	Acenaphthene	U	39.5	ug/kg	13.0	39.5
121-14-2	2,4-Dinitrotoluene	U	395	ug/kg	39.5	395
100-02-7	4-Nitrophenol	U	395	ug/kg	130	395
87-86-5	Pentachlorophenol	U	395	ug/kg	98.7	395
129-00-0	Pyrene	U	39.5	ug/kg	11.8	39.5
110-86-1	Pyridine	U	395	ug/kg	79.0	395
62-53-3	Aniline	U	395	ug/kg	118	395
111-44-4	bis(2-Chloroethyl) ether	U	395	ug/kg	79.0	395
541-73-1	1,3-Dichlorobenzene	U	395	ug/kg	79.0	395
100-51-6	Benzyl alcohol	U	395	ug/kg	118	395
95-50-1	1,2-Dichlorobenzene	U	395	ug/kg	79.0	395
108-60-1	bis(2-Chloroisopropyl)ether	U	395	ug/kg	79.0	395
95-48-7	o-Cresol	U	395	ug/kg	79.0	395
65794-96-9	m,p-Cresols	U	395	ug/kg	118	395
67-72-1	Hexachloroethane	U	395	ug/kg	79.0	395
98-95-3	Nitrobenzene	U	395	ug/kg	79.0	395
78-59-1	Isophorone	U	395	ug/kg	79.0	395
88-75-5	2-Nitrophenol	U	395	ug/kg	79.0	395
105-67-9	2,4-Dimethylphenol	U	395	ug/kg	138	395
111-91-1	bis(2-Chloroethoxy)methane	U	395	ug/kg	79.0	395
120-83-2	2,4-Dichlorophenol	U	395	ug/kg	79.0	395
65-85-0	Benzoic acid	U	790	ug/kg	197	790
91-20-3	Naphthalene	U	39.5	ug/kg	11.8	39.5
106-47-8	4-Chloroaniline	U	395	ug/kg	79.0	395
87-68-3	Hexachlorobutadiene	U	395	ug/kg	79.0	395
91-57-6	2-Methylnaphthalene	U	39.5	ug/kg	7.90	39.5
77-47-4	Hexachlorocyclopentadiene	U	395	ug/kg	79.0	395
88-06-2	2,4,6-Trichlorophenol	U	395	ug/kg	79.0	395
95-95-4	2,4,5-Trichlorophenol	U	395	ug/kg	79.0	395
91-58-7	2-Chloronaphthalene	U	39.5	ug/kg	13.0	39.5
88-74-4	2-Nitroaniline	U	395	ug/kg	79.0	395
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	395	ug/kg	79.0	395

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-917**	**Date Collected:**	**12/11/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242937006**	**Date Received:**	**12/15/2009 08:45**	**%Moisture:**	**15.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14216**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**933806**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**12/21/2009 20:10**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/18/2009 09:12**	**Aliquot:**	**30.08 g**	**Final Volume:**	**1 mL**
Data File:	**s6l2121.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	395	ug/kg	79.0	395
606-20-2	2,6-Dinitrotoluene	U	395	ug/kg	39.5	395
208-96-8	Acenaphthylene	U	39.5	ug/kg	11.8	39.5
51-28-5	2,4-Dinitrophenol	U	790	ug/kg	150	790
132-64-9	Dibenzofuran	U	395	ug/kg	79.0	395
84-66-2	Diethylphthalate	U	395	ug/kg	79.0	395
86-73-7	Fluorene	U	39.5	ug/kg	11.8	39.5
7005-72-3	4-Chlorophenylphenylether	U	395	ug/kg	79.0	395
534-52-1	2-Methyl-4,6-dinitrophenol	U	395	ug/kg	79.0	395
100-01-6	4-Nitroaniline	U	395	ug/kg	118	395
	p-Nitroaniline					
122-39-4	Diphenylamine	U	395	ug/kg	79.0	395
122-66-7	Azobenzene	U	395	ug/kg	79.0	395
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	395	ug/kg	79.0	395
118-74-1	Hexachlorobenzene	U	395	ug/kg	79.0	395
85-01-8	Phenanthrene	U	39.5	ug/kg	11.8	39.5
120-12-7	Anthracene	U	39.5	ug/kg	7.90	39.5
84-74-2	Di-n-butylphthalate	U	395	ug/kg	79.0	395
206-44-0	Fluoranthene	U	39.5	ug/kg	11.8	39.5
85-68-7	Butylbenzylphthalate	U	395	ug/kg	79.0	395
56-55-3	Benzo(a)anthracene	U	39.5	ug/kg	11.8	39.5
91-94-1	3,3'-Dichlorobenzidine	U	395	ug/kg	118	395
218-01-9	Chrysene	U	39.5	ug/kg	11.8	39.5
117-81-7	bis(2-Ethylhexyl)phthalate	U	395	ug/kg	79.0	395
117-84-0	Di-n-octylphthalate	U	395	ug/kg	79.0	395
205-99-2	Benzo(b)fluoranthene	U	39.5	ug/kg	11.8	39.5
207-08-9	Benzo(k)fluoranthene	U	39.5	ug/kg	11.8	39.5
50-32-8	Benzo(a)pyrene	U	39.5	ug/kg	11.8	39.5
193-39-5	Indeno(1,2,3-cd)pyrene	U	39.5	ug/kg	11.8	39.5
53-70-3	Dibenzo(a,h)anthracene	U	39.5	ug/kg	11.8	39.5
191-24-2	Benzo(ghi)perylene	U	39.5	ug/kg	11.8	39.5
120-82-1	1,2,4-Trichlorobenzene	U	395	ug/kg	79.0	395

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	3.61	538	ug/kg		JA

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-917**	**Date Collected:**	**12/11/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242937008**	**Date Received:**	**12/15/2009 08:45**	**%Moisture:**	**15.2**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14217**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**933806**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**12/21/2009 21:05**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/18/2009 09:12**	**Aliquot:**	**30.07 g**	**Final Volume:**	**1 mL**
Data File:	**s6l2123.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	392	ug/kg	78.5	392
108-95-2	Phenol	U	392	ug/kg	78.5	392
95-57-8	2-Chlorophenol	U	392	ug/kg	78.5	392
106-46-7	1,4-Dichlorobenzene	U	392	ug/kg	78.5	392
621-64-7	N-Nitrosodipropylamine	U	392	ug/kg	78.5	392
59-50-7	4-Chloro-3-methylphenol	U	392	ug/kg	78.5	392
83-32-9	Acenaphthene	U	39.2	ug/kg	12.9	39.2
121-14-2	2,4-Dinitrotoluene	U	392	ug/kg	39.2	392
100-02-7	4-Nitrophenol	U	392	ug/kg	129	392
87-86-5	Pentachlorophenol	U	392	ug/kg	98.1	392
129-00-0	Pyrene	U	39.2	ug/kg	11.8	39.2
110-86-1	Pyridine	U	392	ug/kg	78.5	392
62-53-3	Aniline	U	392	ug/kg	118	392
111-44-4	bis(2-Chloroethyl) ether	U	392	ug/kg	78.5	392
541-73-1	1,3-Dichlorobenzene	U	392	ug/kg	78.5	392
100-51-6	Benzyl alcohol	U	392	ug/kg	118	392
95-50-1	1,2-Dichlorobenzene	U	392	ug/kg	78.5	392
108-60-1	bis(2-Chloroisopropyl)ether	U	392	ug/kg	78.5	392
95-48-7	o-Cresol	U	392	ug/kg	78.5	392
65794-96-9	m,p-Cresols	U	392	ug/kg	118	392
67-72-1	Hexachloroethane	U	392	ug/kg	78.5	392
98-95-3	Nitrobenzene	U	392	ug/kg	78.5	392
78-59-1	Isophorone	U	392	ug/kg	78.5	392
88-75-5	2-Nitrophenol	U	392	ug/kg	78.5	392
105-67-9	2,4-Dimethylphenol	U	392	ug/kg	137	392
111-91-1	bis(2-Chloroethoxy)methane	U	392	ug/kg	78.5	392
120-83-2	2,4-Dichlorophenol	U	392	ug/kg	78.5	392
65-85-0	Benzoic acid	U	785	ug/kg	196	785
91-20-3	Naphthalene	U	39.2	ug/kg	11.8	39.2
106-47-8	4-Chloroaniline	U	392	ug/kg	78.5	392
87-68-3	Hexachlorobutadiene	U	392	ug/kg	78.5	392
91-57-6	2-Methylnaphthalene	U	39.2	ug/kg	7.85	39.2
77-47-4	Hexachlorocyclopentadiene	U	392	ug/kg	78.5	392
88-06-2	2,4,6-Trichlorophenol	U	392	ug/kg	78.5	392
95-95-4	2,4,5-Trichlorophenol	U	392	ug/kg	78.5	392
91-58-7	2-Chloronaphthalene	U	39.2	ug/kg	12.9	39.2
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	392	ug/kg	78.5	392
99-09-2	3-Nitroaniline	U	392	ug/kg	78.5	392

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-917**	**Date Collected:**	**12/11/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242937008**	**Date Received:**	**12/15/2009 08:45**	**%Moisture:**	**15.2**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14217**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**933806**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**12/21/2009 21:05**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/18/2009 09:12**	**Aliquot:**	**30.07 g**	**Final Volume:**	**1 mL**
Data File:	**s6l2123.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	392	ug/kg	78.5	392
606-20-2	2,6-Dinitrotoluene	U	392	ug/kg	39.2	392
208-96-8	Acenaphthylene	U	39.2	ug/kg	11.8	39.2
51-28-5	2,4-Dinitrophenol	U	785	ug/kg	149	785
132-64-9	Dibenzofuran	U	392	ug/kg	78.5	392
84-66-2	Diethylphthalate	U	392	ug/kg	78.5	392
86-73-7	Fluorene	U	39.2	ug/kg	11.8	39.2
7005-72-3	4-Chlorophenylphenylether	U	392	ug/kg	78.5	392
534-52-1	2-Methyl-4,6-dinitrophenol	U	392	ug/kg	78.5	392
100-01-6	4-Nitroaniline	U	392	ug/kg	118	392
	p-Nitroaniline					
122-39-4	Diphenylamine	U	392	ug/kg	78.5	392
122-66-7	Azobenzene	U	392	ug/kg	78.5	392
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	392	ug/kg	78.5	392
118-74-1	Hexachlorobenzene	U	392	ug/kg	78.5	392
85-01-8	Phenanthrene	U	39.2	ug/kg	11.8	39.2
120-12-7	Anthracene	U	39.2	ug/kg	7.85	39.2
84-74-2	Di-n-butylphthalate	U	392	ug/kg	78.5	392
206-44-0	Fluoranthene	U	39.2	ug/kg	11.8	39.2
85-68-7	Butylbenzylphthalate	U	392	ug/kg	78.5	392
56-55-3	Benzo(a)anthracene	U	39.2	ug/kg	11.8	39.2
91-94-1	3,3'-Dichlorobenzidine	U	392	ug/kg	118	392
218-01-9	Chrysene	U	39.2	ug/kg	11.8	39.2
117-81-7	bis(2-Ethylhexyl)phthalate	U	392	ug/kg	78.5	392
117-84-0	Di-n-octylphthalate	U	392	ug/kg	78.5	392
205-99-2	Benzo(b)fluoranthene	U	39.2	ug/kg	11.8	39.2
207-08-9	Benzo(k)fluoranthene	U	39.2	ug/kg	11.8	39.2
50-32-8	Benzo(a)pyrene	U	39.2	ug/kg	11.8	39.2
193-39-5	Indeno(1,2,3-cd)pyrene	U	39.2	ug/kg	11.8	39.2
53-70-3	Dibenzo(a,h)anthracene	U	39.2	ug/kg	11.8	39.2
191-24-2	Benzo(ghi)perylene	U	39.2	ug/kg	11.8	39.2
120-82-1	1,2,4-Trichlorobenzene	U	392	ug/kg	78.5	392

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	3.61	434	ug/kg		JA

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-917**	**Date Collected:**	**12/11/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242937005**	**Date Received:**	**12/15/2009 08:45**	**%Moisture:**	**17.6**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14218**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**933806**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**12/21/2009 19:43**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/18/2009 09:12**	**Aliquot:**	**30.09 g**	**Final Volume:**	**1 mL**
Data File:	**s6l2120.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	403	ug/kg	80.7	403
108-95-2	Phenol	U	403	ug/kg	80.7	403
95-57-8	2-Chlorophenol	U	403	ug/kg	80.7	403
106-46-7	1,4-Dichlorobenzene	U	403	ug/kg	80.7	403
621-64-7	N-Nitrosodipropylamine	U	403	ug/kg	80.7	403
59-50-7	4-Chloro-3-methylphenol	U	403	ug/kg	80.7	403
83-32-9	Acenaphthene	U	40.3	ug/kg	13.3	40.3
121-14-2	2,4-Dinitrotoluene	U	403	ug/kg	40.3	403
100-02-7	4-Nitrophenol	U	403	ug/kg	133	403
87-86-5	Pentachlorophenol	U	403	ug/kg	101	403
129-00-0	Pyrene	U	40.3	ug/kg	12.1	40.3
110-86-1	Pyridine	U	403	ug/kg	80.7	403
62-53-3	Aniline	U	403	ug/kg	121	403
111-44-4	bis(2-Chloroethyl) ether	U	403	ug/kg	80.7	403
541-73-1	1,3-Dichlorobenzene	U	403	ug/kg	80.7	403
100-51-6	Benzyl alcohol	U	403	ug/kg	121	403
95-50-1	1,2-Dichlorobenzene	U	403	ug/kg	80.7	403
108-60-1	bis(2-Chloroisopropyl)ether	U	403	ug/kg	80.7	403
95-48-7	o-Cresol	U	403	ug/kg	80.7	403
65794-96-9	m,p-Cresols	U	403	ug/kg	121	403
67-72-1	Hexachloroethane	U	403	ug/kg	80.7	403
98-95-3	Nitrobenzene	U	403	ug/kg	80.7	403
78-59-1	Isophorone	U	403	ug/kg	80.7	403
88-75-5	2-Nitrophenol	U	403	ug/kg	80.7	403
105-67-9	2,4-Dimethylphenol	U	403	ug/kg	141	403
111-91-1	bis(2-Chloroethoxy)methane	U	403	ug/kg	80.7	403
120-83-2	2,4-Dichlorophenol	U	403	ug/kg	80.7	403
65-85-0	Benzoic acid	U	807	ug/kg	202	807
91-20-3	Naphthalene	U	40.3	ug/kg	12.1	40.3
106-47-8	4-Chloroaniline	U	403	ug/kg	80.7	403
87-68-3	Hexachlorobutadiene	U	403	ug/kg	80.7	403
91-57-6	2-Methylnaphthalene	U	40.3	ug/kg	8.07	40.3
77-47-4	Hexachlorocyclopentadiene	U	403	ug/kg	80.7	403
88-06-2	2,4,6-Trichlorophenol	U	403	ug/kg	80.7	403
95-95-4	2,4,5-Trichlorophenol	U	403	ug/kg	80.7	403
91-58-7	2-Chloronaphthalene	U	40.3	ug/kg	13.3	40.3
88-74-4	2-Nitroaniline	U	403	ug/kg	80.7	403
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	403	ug/kg	80.7	403

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-917	Date Collected:	12/11/2009 12:00	Matrix:	S
Lab Sample ID:	242937005	Date Received:	12/15/2009 08:45	%Moisture:	17.6
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14218	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	933806	Inst:	MSD6.I	Dilution:	1
Run Date:	12/21/2009 19:43	Analyst:	NAG1	Inj. Vol:	.5 uL
Prep Date:	12/18/2009 09:12	Aliquot:	30.09 g	Final Volume:	1 mL
Data File:	s6l2120.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	403	ug/kg	80.7	403
606-20-2	2,6-Dinitrotoluene	U	403	ug/kg	40.3	403
208-96-8	Acenaphthylene	U	40.3	ug/kg	12.1	40.3
51-28-5	2,4-Dinitrophenol	U	807	ug/kg	153	807
132-64-9	Dibenzofuran	U	403	ug/kg	80.7	403
84-66-2	Diethylphthalate	U	403	ug/kg	80.7	403
86-73-7	Fluorene	U	40.3	ug/kg	12.1	40.3
7005-72-3	4-Chlorophenylphenylether	U	403	ug/kg	80.7	403
534-52-1	2-Methyl-4,6-dinitrophenol	U	403	ug/kg	80.7	403
100-01-6	4-Nitroaniline	U	403	ug/kg	121	403
	p-Nitroaniline					
122-39-4	Diphenylamine	U	403	ug/kg	80.7	403
122-66-7	Azobenzene	U	403	ug/kg	80.7	403
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	403	ug/kg	80.7	403
118-74-1	Hexachlorobenzene	U	403	ug/kg	80.7	403
85-01-8	Phenanthrene	U	40.3	ug/kg	12.1	40.3
120-12-7	Anthracene	U	40.3	ug/kg	8.07	40.3
84-74-2	Di-n-butylphthalate	U	403	ug/kg	80.7	403
206-44-0	Fluoranthene	U	40.3	ug/kg	12.1	40.3
85-68-7	Butylbenzylphthalate	U	403	ug/kg	80.7	403
56-55-3	Benzo(a)anthracene	U	40.3	ug/kg	12.1	40.3
91-94-1	3,3'-Dichlorobenzidine	U	403	ug/kg	121	403
218-01-9	Chrysene	U	40.3	ug/kg	12.1	40.3
117-81-7	bis(2-Ethylhexyl)phthalate	U	403	ug/kg	80.7	403
117-84-0	Di-n-octylphthalate	U	403	ug/kg	80.7	403
205-99-2	Benzo(b)fluoranthene	U	40.3	ug/kg	12.1	40.3
207-08-9	Benzo(k)fluoranthene	U	40.3	ug/kg	12.1	40.3
50-32-8	Benzo(a)pyrene	U	40.3	ug/kg	12.1	40.3
193-39-5	Indeno(1,2,3-cd)pyrene	U	40.3	ug/kg	12.1	40.3
53-70-3	Dibenzo(a,h)anthracene	U	40.3	ug/kg	12.1	40.3
191-24-2	Benzo(ghi)perylene	U	40.3	ug/kg	12.1	40.3
120-82-1	1,2,4-Trichlorobenzene	U	403	ug/kg	80.7	403

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	2.36	305	ug/kg		J
	Unknown Aldol Condensate	3.61	429	ug/kg		JA

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-917**	**Date Collected:**	**12/11/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242937004**	**Date Received:**	**12/15/2009 08:45**	**%Moisture:**	**17.2**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14219**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**933806**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**12/21/2009 19:16**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/18/2009 09:12**	**Aliquot:**	**30.04 g**	**Final Volume:**	**1 mL**
Data File:	**s6l2119.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	402	ug/kg	80.4	402
108-95-2	Phenol	U	402	ug/kg	80.4	402
95-57-8	2-Chlorophenol	U	402	ug/kg	80.4	402
106-46-7	1,4-Dichlorobenzene	U	402	ug/kg	80.4	402
621-64-7	N-Nitrosodipropylamine	U	402	ug/kg	80.4	402
59-50-7	4-Chloro-3-methylphenol	U	402	ug/kg	80.4	402
83-32-9	Acenaphthene	U	40.2	ug/kg	13.3	40.2
121-14-2	2,4-Dinitrotoluene	U	402	ug/kg	40.2	402
100-02-7	4-Nitrophenol	U	402	ug/kg	133	402
87-86-5	Pentachlorophenol	U	402	ug/kg	100	402
129-00-0	Pyrene	U	40.2	ug/kg	12.1	40.2
110-86-1	Pyridine	U	402	ug/kg	80.4	402
62-53-3	Aniline	U	402	ug/kg	121	402
111-44-4	bis(2-Chloroethyl) ether	U	402	ug/kg	80.4	402
541-73-1	1,3-Dichlorobenzene	U	402	ug/kg	80.4	402
100-51-6	Benzyl alcohol	U	402	ug/kg	121	402
95-50-1	1,2-Dichlorobenzene	U	402	ug/kg	80.4	402
108-60-1	bis(2-Chloroisopropyl)ether	U	402	ug/kg	80.4	402
95-48-7	o-Cresol	U	402	ug/kg	80.4	402
65794-96-9	m,p-Cresols	U	402	ug/kg	121	402
67-72-1	Hexachloroethane	U	402	ug/kg	80.4	402
98-95-3	Nitrobenzene	U	402	ug/kg	80.4	402
78-59-1	Isophorone	U	402	ug/kg	80.4	402
88-75-5	2-Nitrophenol	U	402	ug/kg	80.4	402
105-67-9	2,4-Dimethylphenol	U	402	ug/kg	141	402
111-91-1	bis(2-Chloroethoxy)methane	U	402	ug/kg	80.4	402
120-83-2	2,4-Dichlorophenol	U	402	ug/kg	80.4	402
65-85-0	Benzoic acid	U	804	ug/kg	201	804
91-20-3	Naphthalene	U	40.2	ug/kg	12.1	40.2
106-47-8	4-Chloroaniline	U	402	ug/kg	80.4	402
87-68-3	Hexachlorobutadiene	U	402	ug/kg	80.4	402
91-57-6	2-Methylnaphthalene	U	40.2	ug/kg	8.04	40.2
77-47-4	Hexachlorocyclopentadiene	U	402	ug/kg	80.4	402
88-06-2	2,4,6-Trichlorophenol	U	402	ug/kg	80.4	402
95-95-4	2,4,5-Trichlorophenol	U	402	ug/kg	80.4	402
91-58-7	2-Chloronaphthalene	U	40.2	ug/kg	13.3	40.2
88-74-4	2-Nitroaniline	U	402	ug/kg	80.4	402
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	402	ug/kg	80.4	402

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-917	Date Collected:	12/11/2009 12:00	Matrix:	S
Lab Sample ID:	242937004	Date Received:	12/15/2009 08:45	%Moisture:	17.2
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14219	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	933806	Inst:	MSD6.I	Dilution:	1
Run Date:	12/21/2009 19:16	Analyst:	NAG1	Inj. Vol:	.5 uL
Prep Date:	12/18/2009 09:12	Aliquot:	30.04 g	Final Volume:	1 mL
Data File:	s6l2119.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	402	ug/kg	80.4	402
606-20-2	2,6-Dinitrotoluene	U	402	ug/kg	40.2	402
208-96-8	Acenaphthylene	U	40.2	ug/kg	12.1	40.2
51-28-5	2,4-Dinitrophenol	U	804	ug/kg	153	804
132-64-9	Dibenzofuran	U	402	ug/kg	80.4	402
84-66-2	Diethylphthalate	U	402	ug/kg	80.4	402
86-73-7	Fluorene	U	40.2	ug/kg	12.1	40.2
7005-72-3	4-Chlorophenylphenylether	U	402	ug/kg	80.4	402
534-52-1	2-Methyl-4,6-dinitrophenol	U	402	ug/kg	80.4	402
100-01-6	4-Nitroaniline	U	402	ug/kg	121	402
	p-Nitroaniline					
122-39-4	Diphenylamine	U	402	ug/kg	80.4	402
122-66-7	Azobenzene	U	402	ug/kg	80.4	402
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	402	ug/kg	80.4	402
118-74-1	Hexachlorobenzene	U	402	ug/kg	80.4	402
85-01-8	Phenanthrene	U	40.2	ug/kg	12.1	40.2
120-12-7	Anthracene	U	40.2	ug/kg	8.04	40.2
84-74-2	Di-n-butylphthalate	U	402	ug/kg	80.4	402
206-44-0	Fluoranthene	U	40.2	ug/kg	12.1	40.2
85-68-7	Butylbenzylphthalate	U	402	ug/kg	80.4	402
56-55-3	Benzo(a)anthracene	U	40.2	ug/kg	12.1	40.2
91-94-1	3,3'-Dichlorobenzidine	U	402	ug/kg	121	402
218-01-9	Chrysene	U	40.2	ug/kg	12.1	40.2
117-81-7	bis(2-Ethylhexyl)phthalate	U	402	ug/kg	80.4	402
117-84-0	Di-n-octylphthalate	U	402	ug/kg	80.4	402
205-99-2	Benzo(b)fluoranthene	U	40.2	ug/kg	12.1	40.2
207-08-9	Benzo(k)fluoranthene	U	40.2	ug/kg	12.1	40.2
50-32-8	Benzo(a)pyrene	U	40.2	ug/kg	12.1	40.2
193-39-5	Indeno(1,2,3-cd)pyrene	U	40.2	ug/kg	12.1	40.2
53-70-3	Dibenzo(a,h)anthracene	U	40.2	ug/kg	12.1	40.2
191-24-2	Benzo(ghi)perylene	U	40.2	ug/kg	12.1	40.2
120-82-1	1,2,4-Trichlorobenzene	U	402	ug/kg	80.4	402

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	3.61	504	ug/kg		JA

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-917	Date Collected:	12/11/2009 12:00	Matrix:	S
Lab Sample ID:	242937009	Date Received:	12/15/2009 08:45	%Moisture:	14.2
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-10-2735	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	933806	Inst:	MSD6.I	Dilution:	1
Run Date:	12/21/2009 21:33	Analyst:	NAG1	Inj. Vol:	.5 uL
Prep Date:	12/18/2009 09:12	Aliquot:	30.04 g	Final Volume:	1 mL
Data File:	s6l2124.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	388	ug/kg	77.6	388
108-95-2	Phenol	U	388	ug/kg	77.6	388
95-57-8	2-Chlorophenol	U	388	ug/kg	77.6	388
106-46-7	1,4-Dichlorobenzene	U	388	ug/kg	77.6	388
621-64-7	N-Nitrosodipropylamine	U	388	ug/kg	77.6	388
59-50-7	4-Chloro-3-methylphenol	U	388	ug/kg	77.6	388
83-32-9	Acenaphthene	U	38.8	ug/kg	12.8	38.8
121-14-2	2,4-Dinitrotoluene	U	388	ug/kg	38.8	388
100-02-7	4-Nitrophenol	U	388	ug/kg	128	388
87-86-5	Pentachlorophenol	U	388	ug/kg	97.0	388
129-00-0	Pyrene	U	38.8	ug/kg	11.6	38.8
110-86-1	Pyridine	U	388	ug/kg	77.6	388
62-53-3	Aniline	U	388	ug/kg	116	388
111-44-4	bis(2-Chloroethyl) ether	U	388	ug/kg	77.6	388
541-73-1	1,3-Dichlorobenzene	U	388	ug/kg	77.6	388
100-51-6	Benzyl alcohol	U	388	ug/kg	116	388
95-50-1	1,2-Dichlorobenzene	U	388	ug/kg	77.6	388
108-60-1	bis(2-Chloroisopropyl)ether	U	388	ug/kg	77.6	388
95-48-7	o-Cresol	U	388	ug/kg	77.6	388
65794-96-9	m,p-Cresols	U	388	ug/kg	116	388
67-72-1	Hexachloroethane	U	388	ug/kg	77.6	388
98-95-3	Nitrobenzene	U	388	ug/kg	77.6	388
78-59-1	Isophorone	U	388	ug/kg	77.6	388
88-75-5	2-Nitrophenol	U	388	ug/kg	77.6	388
105-67-9	2,4-Dimethylphenol	U	388	ug/kg	136	388
111-91-1	bis(2-Chloroethoxy)methane	U	388	ug/kg	77.6	388
120-83-2	2,4-Dichlorophenol	U	388	ug/kg	77.6	388
65-85-0	Benzoic acid	U	776	ug/kg	194	776
91-20-3	Naphthalene	U	38.8	ug/kg	11.6	38.8
106-47-8	4-Chloroaniline	U	388	ug/kg	77.6	388
87-68-3	Hexachlorobutadiene	U	388	ug/kg	77.6	388
91-57-6	2-Methylnaphthalene	U	38.8	ug/kg	7.76	38.8
77-47-4	Hexachlorocyclopentadiene	U	388	ug/kg	77.6	388
88-06-2	2,4,6-Trichlorophenol	U	388	ug/kg	77.6	388
95-95-4	2,4,5-Trichlorophenol	U	388	ug/kg	77.6	388
91-58-7	2-Chloronaphthalene	U	38.8	ug/kg	12.8	38.8
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	388	ug/kg	77.6	388
99-09-2	3-Nitroaniline	U	388	ug/kg	77.6	388

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-917**	**Date Collected:**	**12/11/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242937009**	**Date Received:**	**12/15/2009 08:45**	**%Moisture:**	**14.2**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-10-2735**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**933806**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**12/21/2009 21:33**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/18/2009 09:12**	**Aliquot:**	**30.04 g**	**Final Volume:**	**1 mL**
Data File:	**s6l2124.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	388	ug/kg	77.6	388
606-20-2	2,6-Dinitrotoluene	U	388	ug/kg	38.8	388
208-96-8	Acenaphthylene	U	38.8	ug/kg	11.6	38.8
51-28-5	2,4-Dinitrophenol	U	776	ug/kg	147	776
132-64-9	Dibenzofuran	U	388	ug/kg	77.6	388
84-66-2	Diethylphthalate	U	388	ug/kg	77.6	388
86-73-7	Fluorene	U	38.8	ug/kg	11.6	38.8
7005-72-3	4-Chlorophenylphenylether	U	388	ug/kg	77.6	388
534-52-1	2-Methyl-4,6-dinitrophenol	U	388	ug/kg	77.6	388
100-01-6	4-Nitroaniline	U	388	ug/kg	116	388
	p-Nitroaniline					
122-39-4	Diphenylamine	U	388	ug/kg	77.6	388
122-66-7	Azobenzene	U	388	ug/kg	77.6	388
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	388	ug/kg	77.6	388
118-74-1	Hexachlorobenzene	U	388	ug/kg	77.6	388
85-01-8	Phenanthrene	U	38.8	ug/kg	11.6	38.8
120-12-7	Anthracene	U	38.8	ug/kg	7.76	38.8
84-74-2	Di-n-butylphthalate	U	388	ug/kg	77.6	388
206-44-0	Fluoranthene	U	38.8	ug/kg	11.6	38.8
85-68-7	Butylbenzylphthalate	U	388	ug/kg	77.6	388
56-55-3	Benzo(a)anthracene	U	38.8	ug/kg	11.6	38.8
91-94-1	3,3'-Dichlorobenzidine	U	388	ug/kg	116	388
218-01-9	Chrysene	U	38.8	ug/kg	11.6	38.8
117-81-7	bis(2-Ethylhexyl)phthalate	U	388	ug/kg	77.6	388
117-84-0	Di-n-octylphthalate	U	388	ug/kg	77.6	388
205-99-2	Benzo(b)fluoranthene	U	38.8	ug/kg	11.6	38.8
207-08-9	Benzo(k)fluoranthene	U	38.8	ug/kg	11.6	38.8
50-32-8	Benzo(a)pyrene	U	38.8	ug/kg	11.6	38.8
193-39-5	Indeno(1,2,3-cd)pyrene	U	38.8	ug/kg	11.6	38.8
53-70-3	Dibenzo(a,h)anthracene	U	38.8	ug/kg	11.6	38.8
191-24-2	Benzo(ghi)perylene	U	38.8	ug/kg	11.6	38.8
120-82-1	1,2,4-Trichlorobenzene	U	388	ug/kg	77.6	388

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	3.61	478	ug/kg		JA

QC Summary

Surrogate Recovery Report

SDG Number: 10-917

Matrix Type: SOLID

CAP Column (1) : J&W DB-5MS

Sample ID	Client ID	2FP %REC	PHL %REC	NBZ %REC	FBP %REC	TBP %REC	TPH %REC
1201997920	MB for batch 933805	64	66	63	65	74	83
1201997921	LCS for batch 933805	70	70	70	72	86	80
242937001	RE03-09-14213	62	67	56	52	79	77
1201997922	RE03-09-14213MS	49	51	47	50	57	59
1201997923	RE03-09-14213MSD	47	52	48	50	61	73
242937002	RE03-09-14215	60	62	54	49	73	79
242937003	RE03-09-14212	57	58	57	56	55	75
242937004	RE03-09-14219	57	59	53	38	59	73
242937005	RE03-09-14218	55	56	52	44	50	68
242937006	RE03-09-14216	60	52	56	53	76	75
242937007	RE03-09-14214	59	62	53	47	68	68
242937008	RE03-09-14217	55	49	55	48	50	73
242937009	RE03-10-2735	57	56	50	40	57	75

Surrogate		Acceptance Limits
2FP	= 2-Fluorophenol	(35%-96%)
PHL	= Phenol-d5	(36%-96%)
NBZ	= Nitrobenzene-d5	(34%-104%)
FBP	= 2-Fluorobiphenyl	(36%-100%)
TBP	= 2,4,6-Tribromophenol	(37%-106%)
TPH	= p-Terphenyl-d14	(40%-124%)

* Recovery outside Acceptance Limits

\# Column to be used to flag recovery values

D Sample Diluted

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-917
Client ID: LCS for batch 933805
Lab Sample ID: 1201997921
Instrument: MSD6.I
Analyst: NAG1
Inj. Vol: .5 uL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 12/21/2009 14:07
Dilution: 1
Prep Batch ID 933805
Batch ID: 933806

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
62-75-9	LCS	N-Methyl-N-nitrosomethylam	1670	0.0	935	56	31-95
108-95-2	LCS	Phenol	1670	0.0	1220	73	37-104
95-57-8	LCS	2-Chlorophenol	1670	0.0	1220	73	40-105
106-46-7	LCS	1,4-Dichlorobenzene	1670	0.0	1010	61	34-103
621-64-7	LCS	N-Nitrosodipropylamine	1670	0.0	1190	71	36-110
59-50-7	LCS	4-Chloro-3-methylphenol	1670	0.0	1330	80	46-114
83-32-9	LCS	Acenaphthene	1670	0.0	1180	71	40-105
121-14-2	LCS	2,4-Dinitrotoluene	1670	0.0	1240	75	49-107
100-02-7	LCS	4-Nitrophenol	1670	0.0	1140	68	33-110
87-86-5	LCS	Pentachlorophenol	1670	0.0	1230	74	38-116
129-00-0	LCS	Pyrene	1670	0.0	1140	68	43-108
110-86-1	LCS	Pyridine	1670	0.0	912	55	13-129
62-53-3	LCS	Aniline	1670	0.0	1090	65	30-121
111-44-4	LCS	bis(2-Chloroethyl) ether	1670	0.0	1060	64	37-106
541-73-1	LCS	1,3-Dichlorobenzene	1670	0.0	1020	61	33-103
100-51-6	LCS	Benzyl alcohol	1670	0.0	1200	72	31-100
95-50-1	LCS	1,2-Dichlorobenzene	1670	0.0	1060	64	34-108
108-60-1	LCS	bis(2-Chloroisopropyl)ether	1670	0.0	1110	67	34-120
95-48-7	LCS	o-Cresol	1670	0.0	1170	70	39-111
65794-96-9	LCS	m,p-Cresols	1670	0.0	1320	79	43-118
67-72-1	LCS	Hexachloroethane	1670	0.0	968	58	34-105
98-95-3	LCS	Nitrobenzene	1670	0.0	1170	70	37-110

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-917
Client ID: LCS for batch 933805
Lab Sample ID: 1201997921
Instrument: MSD6.I
Analyst: NAG1
Inj. Vol: .5 uL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 12/21/2009 14:07
Dilution: 1
Prep Batch ID: 933805
Batch ID: 933806

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
78-59-1	LCS	Isophorone	1670	0.0	1200	72	41-108
88-75-5	LCS	2-Nitrophenol	1670	0.0	1250	75	35-112
105-67-9	LCS	2,4-Dimethylphenol	1670	0.0	1310	79	35-114
111-91-1	LCS	bis(2-Chloroethoxy)methane	1670	0.0	1180	71	40-109
120-83-2	LCS	2,4-Dichlorophenol	1670	0.0	1310	78	45-109
65-85-0	LCS	Benzoic acid	3330	0.0	2990	90	27-137
91-20-3	LCS	Naphthalene	1670	0.0	1100	66	35-105
106-47-8	LCS	4-Chloroaniline	1670	0.0	1180	71	30-122
87-68-3	LCS	Hexachlorobutadiene	1670	0.0	1160	70	37-111
91-57-6	LCS	2-Methylnaphthalene	1670	0.0	1290	77	40-106
77-47-4	LCS	Hexachlorocyclopentadiene	1670	0.0	803	48	24-135
88-06-2	LCS	2,4,6-Trichlorophenol	1670	0.0	1250	75	46-107
95-95-4	LCS	2,4,5-Trichlorophenol	1670	0.0	1290	77	44-110
91-58-7	LCS	2-Chloronaphthalene	1670	0.0	1150	69	44-104
88-74-4	LCS	2-Nitroaniline *o-Nitroaniline*	1670	0.0	1080	65	44-113
99-09-2	LCS	3-Nitroaniline *m-Nitroaniline*	1670	0.0	1260	76	48-113
131-11-3	LCS	Dimethylphthalate	1670	0.0	1220	73	47-104
606-20-2	LCS	2,6-Dinitrotoluene	1670	0.0	1210	72	47-103
208-96-8	LCS	Acenaphthylene	1670	0.0	1220	73	43-104
51-28-5	LCS	2,4-Dinitrophenol	1670	0.0	1280	77	32-114
132-64-9	LCS	Dibenzofuran	1670	0.0	1490	89	47-112
84-66-2	LCS	Diethylphthalate	1670	0.0	1240	74	50-108

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-917
Client ID: LCS for batch 933805
Lab Sample ID: 1201997921
Instrument: MSD6.I
Analyst: NAG1
Inj. Vol: .5 uL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 12/21/2009 14:07
Dilution: 1
Prep Batch ID: 933805
Batch ID: 933806

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
86-73-7	LCS	Fluorene	1670	0.0	1240	75	49-102
7005-72-3	LCS	4-Chlorophenylphenylether	1670	0.0	1290	78	50-109
534-52-1	LCS	2-Methyl-4,6-dinitrophenol	1670	0.0	1160	69	35-114
100-01-6	LCS	4-Nitroaniline *p-Nitroaniline*	1670	0.0	1370	82	44-139
122-39-4	LCS	Diphenylamine	1670	0.0	1240	75	46-111
122-66-7	LCS	Azobenzene *1,2-Diphenylhydrazine*	1670	0.0	1210	72	40-119
101-55-3	LCS	4-Bromophenylphenylether	1670	0.0	1250	75	45-112
118-74-1	LCS	Hexachlorobenzene	1670	0.0	1220	73	44-115
85-01-8	LCS	Phenanthrene	1670	0.0	1200	72	45-107
120-12-7	LCS	Anthracene	1670	0.0	1240	74	46-106
84-74-2	LCS	Di-n-butylphthalate	1670	0.0	1300	78	52-115
206-44-0	LCS	Fluoranthene	1670	0.0	1300	78	50-115
85-68-7	LCS	Butylbenzylphthalate	1670	0.0	1300	78	49-115
56-55-3	LCS	Benzo(a)anthracene	1670	0.0	1230	74	48-105
91-94-1	LCS	3,3'-Dichlorobenzidine	1670	0.0	1080	65	45-98
218-01-9	LCS	Chrysene	1670	0.0	1220	73	48-105
117-81-7	LCS	bis(2-Ethylhexyl)phthalate	1670	0.0	1250	75	50-117
117-84-0	LCS	Di-n-octylphthalate	1670	0.0	1210	73	39-123
205-99-2	LCS	Benzo(b)fluoranthene	1670	0.0	1250	75	46-111
207-08-9	LCS	Benzo(k)fluoranthene	1670	0.0	1250	75	46-114
50-32-8	LCS	Benzo(a)pyrene	1670	0.0	1320	79	49-112
193-39-5	LCS	Indeno(1,2,3-cd)pyrene	1670	0.0	1320	79	45-128

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-917
Client ID: LCS for batch 933805
Lab Sample ID: 1201997921
Instrument: MSD6.I
Analyst: NAG1
Inj. Vol: .5 uL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 12/21/2009 14:07
Dilution: 1
Prep Batch ID: 933805
Batch ID: 933806

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
53-70-3	LCS	Dibenzo(a,h)anthracene	1670	0.0	1320	79	44-131
191-24-2	LCS	Benzo(ghi)perylene	1670	0.0	1390	83	42-128
120-82-1	LCS	1,2,4-Trichlorobenzene	1670	0.0	1130	68	36-109

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-917
Client ID: RE03-09-14213MS
Lab Sample ID: 1201997922
Instrument: MSD6.I
Analyst: NAG1
Inj. Vol: .5 uL

Sample Type: Matrix Spike
Matrix: S
%Moisture: 12.8
Analysis Date: 12/21/2009 17:25
Prep Batch ID: 933805
Batch ID: 933806
Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
62-75-9	MS	N-Methyl-N-nitrosomethylam	1910	0.00	U	748	39	32-90
108-95-2	MS	Phenol	1910	0.00	U	984	51	32-105
95-57-8	MS	2-Chlorophenol	1910	0.00	U	945	49	33-106
106-46-7	MS	1,4-Dichlorobenzene	1910	0.00	U	460	24 *	33-95
621-64-7	MS	N-Nitrosodipropylamine	1910	0.00	U	982	51	31-109
59-50-7	MS	4-Chloro-3-methylphenol	1910	0.00	U	1100	58	38-119
83-32-9	MS	Acenaphthene	1910	0.00	U	905	47	39-100
121-14-2	MS	2,4-Dinitrotoluene	1910	0.00	U	1030	54	42-107
100-02-7	MS	4-Nitrophenol	1910	0.00	U	933	49	24-120
87-86-5	MS	Pentachlorophenol	1910	0.00	U	938	49	26-121
129-00-0	MS	Pyrene	1910	0.00	U	1010	53	34-120
110-86-1	MS	Pyridine	1910	0.00	U	723	38	30-95
62-53-3	MS	Aniline	1910	0.00	U	748	39	34-111
111-44-4	MS	bis(2-Chloroethyl) ether	1910	0.00	U	822	43	34-101
541-73-1	MS	1,3-Dichlorobenzene	1910	0.00	U	441	23 *	31-97
100-51-6	MS	Benzyl alcohol	1910	0.00	U	386	20	17-120
95-50-1	MS	1,2-Dichlorobenzene	1910	0.00	U	546	29 *	32-102
108-60-1	MS	bis(2-Chloroisopropyl)ether	1910	0.00	U	810	42	32-113
95-48-7	MS	o-Cresol	1910	0.00	U	950	50	31-119
65794-96-9	MS	m,p-Cresols	1910	0.00	U	1130	59	35-125
67-72-1	MS	Hexachloroethane	1910	0.00	U	385	20 *	30-100
98-95-3	MS	Nitrobenzene	1910	0.00	U	871	46	33-108

Semi-Volatile
Quality Control Summary
Spike Recovery Report

SDG Number: 10-917
Client ID: RE03-09-14213MS
Lab Sample ID: 1201997922
Instrument: MSD6.I
Analyst: NAG1
Inj. Vol: .5 uL

Sample Type: Matrix Spike
Matrix: S
%Moisture: 12.8
Analysis Date: 12/21/2009 17:25
Dilution: 1
Prep Batch ID: 933805
Batch ID: 933806

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
78-59-1	MS	Isophorone	1910	0.00	U	969	51	34-110
88-75-5	MS	2-Nitrophenol	1910	0.00	U	933	49	32-108
105-67-9	MS	2,4-Dimethylphenol	1910	0.00	U	964	50	32-115
111-91-1	MS	bis(2-Chloroethoxy)methane	1910	0.00	U	804	42	35-108
120-83-2	MS	2,4-Dichlorophenol	1910	0.00	U	1010	53	38-110
65-85-0	MS	Benzoic acid	3820	0.00	U	1710	45	18-134
91-20-3	MS	Naphthalene	1910	0.00	U	735	38	31-105
106-47-8	MS	4-Chloroaniline	1910	0.00	U	1000	53	29-123
87-68-3	MS	Hexachlorobutadiene	1910	0.00	U	564	29 *	31-109
91-57-6	MS	2-Methylnaphthalene	1910	10.4	J	938	49	32-110
77-47-4	MS	Hexachlorocyclopentadiene	1910	0.00	U	309	16 *	21-122
88-06-2	MS	2,4,6-Trichlorophenol	1910	0.00	U	958	50	37-108
95-95-4	MS	2,4,5-Trichlorophenol	1910	0.00	U	1060	56	37-116
91-58-7	MS	2-Chloronaphthalene	1910	0.00	U	875	46	37-103
88-74-4	MS	2-Nitroaniline *o-Nitroaniline*	1910	0.00	U	898	47	36-115
99-09-2	MS	3-Nitroaniline *m-Nitroaniline*	1910	0.00	U	1020	54	39-117
131-11-3	MS	Dimethylphthalate	1910	0.00	U	1050	55	41-105
606-20-2	MS	2,6-Dinitrotoluene	1910	0.00	U	972	51	41-103
208-96-8	MS	Acenaphthylene	1910	0.00	U	983	51	41-103
51-28-5	MS	2,4-Dinitrophenol	1910	0.00	U	856	45	25-104
132-64-9	MS	Dibenzofuran	1910	0.00	U	1230	65	40-114
84-66-2	MS	Diethylphthalate	1910	0.00	U	1050	55	43-110

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-917
Client ID: RE03-09-14213MS
Lab Sample ID: 1201997922
Instrument: MSD6.I
Analyst: NAG1
Inj. Vol: .5 uL

Sample Type: Matrix Spike
Matrix: S
%Moisture: 12.8
Analysis Date: 12/21/2009 17:25
Prep Batch ID: 933805
Batch ID: 933806
Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
86-73-7	MS	Fluorene	1910	0.00	U	1050	55	48-99
7005-72-3	MS	4-Chlorophenylphenylether	1910	0.00	U	1070	56	42-111
534-52-1	MS	2-Methyl-4,6-dinitrophenol	1910	0.00	U	883	46	19-118
100-01-6	MS	4-Nitroaniline *p-Nitroaniline*	1910	0.00	U	1150	60	35-139
122-39-4	MS	Diphenylamine	1910	0.00	U	955	50	41-112
122-66-7	MS	Azobenzene *1,2-Diphenylhydrazine*	1910	0.00	U	1040	54	37-118
101-55-3	MS	4-Bromophenylphenylether	1910	0.00	U	1060	55	39-112
118-74-1	MS	Hexachlorobenzene	1910	0.00	U	1040	54	38-113
85-01-8	MS	Phenanthrene	1910	0.00	U	1050	55	38-110
120-12-7	MS	Anthracene	1910	0.00	U	1080	57	38-112
84-74-2	MS	Di-n-butylphthalate	1910	0.00	U	1150	60	42-119
206-44-0	MS	Fluoranthene	1910	0.00	U	1140	60	38-119
85-68-7	MS	Butylbenzylphthalate	1910	0.00	U	1100	58	39-126
56-55-3	MS	Benzo(a)anthracene	1910	0.00	U	1060	55	39-110
91-94-1	MS	3,3'-Dichlorobenzidine	1910	0.00	U	626	33 *	35-106
218-01-9	MS	Chrysene	1910	0.00	U	1060	56	39-109
117-81-7	MS	bis(2-Ethylhexyl)phthalate	1910	0.00	U	1110	58	40-125
117-84-0	MS	Di-n-octylphthalate	1910	0.00	U	1090	57	30-147
205-99-2	MS	Benzo(b)fluoranthene	1910	0.00	U	1070	56	38-117
207-08-9	MS	Benzo(k)fluoranthene	1910	0.00	U	1080	57	39-120
50-32-8	MS	Benzo(a)pyrene	1910	0.00	U	1140	60	40-115
193-39-5	MS	Indeno(1,2,3-cd)pyrene	1910	0.00	U	1150	60	32-120

Semi-Volatile
Quality Control Summary
Spike Recovery Report

SDG Number:	**10-917**	**Sample Type:**	**Matrix Spike**
Client ID:	**RE03-09-14213MS**	**Matrix:**	**S**
Lab Sample ID:	**1201997922**	**%Moisture:**	**12.8**
Instrument:	**MSD6.I**	**Analysis Date:**	**12/21/2009 17:25**
Analyst:	**NAG1**	**Prep Batch ID:**	**933805**
Inj. Vol:	**.5 uL**	**Batch ID:**	**933806**

Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
53-70-3	MS	Dibenzo(a,h)anthracene	1910	0.00	U	1160	61	32-124
191-24-2	MS	Benzo(ghi)perylene	1910	0.00	U	1140	60	28-119
120-82-1	MS	1,2,4-Trichlorobenzene	1910	0.00	U	668	35	31-105

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-917
Client ID: RE03-09-14213MSD
Lab Sample ID: 1201997923
Instrument: MSD6.I
Analyst: NAG1
Inj. Vol: .5 uL

Sample Type: Matrix Spike Duplicate
Matrix: S
%Moisture: 12.8
Analysis Date: 12/21/2009 17:52
Dilution: 1
Prep Batch ID: 933805
Batch ID: 933806

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
62-75-9	MSD N-Methyl-N-nitrosomethylam	1910	0.00	U	753	39	32-90	1	0-30
108-95-2	MSD Phenol	1910	0.00	U	1020	53	32-105	3	0-30
95-57-8	MSD 2-Chlorophenol	1910	0.00	U	993	52	33-106	5	0-30
106-46-7	MSD 1,4-Dichlorobenzene	1910	0.00	U	539	28 *	33-95	16	0-30
621-64-7	MSD N-Nitrosodipropylamine	1910	0.00	U	1020	54	31-109	4	0-30
59-50-7	MSD 4-Chloro-3-methylphenol	1910	0.00	U	1220	64	38-119	10	0-30
83-32-9	MSD Acenaphthene	1910	0.00	U	985	52	39-100	8	0-30
121-14-2	MSD 2,4-Dinitrotoluene	1910	0.00	U	1210	63	42-107	16	0-30
100-02-7	MSD 4-Nitrophenol	1910	0.00	U	1010	53	24-120	8	0-30
87-86-5	MSD Pentachlorophenol	1910	0.00	U	947	50	26-121	1	0-30
129-00-0	MSD Pyrene	1910	0.00	U	1230	65	34-120	20	0-30
110-86-1	MSD Pyridine	1910	0.00	U	702	37	30-95	3	0-30
62-53-3	MSD Aniline	1910	0.00	U	681	36	34-111	9	0-30
111-44-4	MSD bis(2-Chloroethyl) ether	1910	0.00	U	835	44	34-101	2	0-30
541-73-1	MSD 1,3-Dichlorobenzene	1910	0.00	U	517	27 *	31-97	16	0-30
100-51-6	MSD Benzyl alcohol	1910	0.00	U	485	25	17-120	23	0-30
95-50-1	MSD 1,2-Dichlorobenzene	1910	0.00	U	616	32	32-102	12	0-30
108-60-1	MSD bis(2-Chloroisopropyl)ether	1910	0.00	U	844	44	32-113	4	0-30
95-48-7	MSD o-Cresol	1910	0.00	U	1110	58	31-119	16	0-30
65794-96-9	MSD m,p-Cresols	1910	0.00	U	1110	58	35-125	2	0-30
67-72-1	MSD Hexachloroethane	1910	0.00	U	478	25 *	30-100	22	0-30
98-95-3	MSD Nitrobenzene	1910	0.00	U	902	47	33-108	4	0-30

Semi-Volatile

Quality Control Summary

Spike Recovery Report

SDG Number: 10-917

Client ID: RE03-09-14213MSD

Lab Sample ID: 1201997923

Instrument: MSD6.I

Analyst: NAG1

Inj. Vol: .5 uL

Sample Type: Matrix Spike Duplicate

Matrix: S

%Moisture: 12.8

Analysis Date: 12/21/2009 17:52

Dilution: 1

Prep Batch ID: 933805

Batch ID: 933806

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
78-59-1	MSD Isophorone	1910	0.00	U	1000	52	34-110	3	0-30
88-75-5	MSD 2-Nitrophenol	1910	0.00	U	1000	52	32-108	7	0-30
105-67-9	MSD 2,4-Dimethylphenol	1910	0.00	U	1010	53	32-115	5	0-30
111-91-1	MSD bis(2-Chloroethoxy)methane	1910	0.00	U	978	51	35-108	20	0-30
120-83-2	MSD 2,4-Dichlorophenol	1910	0.00	U	1060	55	38-110	5	0-30
65-85-0	MSD Benzoic acid	3820	0.00	U	2130	56	18-134	22	0-30
91-20-3	MSD Naphthalene	1910	0.00	U	792	41	31-105	8	0-30
106-47-8	MSD 4-Chloroaniline	1910	0.00	U	955	50	29-123	5	0-30
87-68-3	MSD Hexachlorobutadiene	1910	0.00	U	662	35	31-109	16	0-30
91-57-6	MSD 2-Methylnaphthalene	1910	10.4	J	991	51	32-110	5	0-30
77-47-4	MSD Hexachlorocyclopentadiene	1910	0.00	U	373	19 *	21-122	19	0-30
88-06-2	MSD 2,4,6-Trichlorophenol	1910	0.00	U	998	52	37-108	4	0-30
95-95-4	MSD 2,4,5-Trichlorophenol	1910	0.00	U	1080	57	37-116	2	0-30
91-58-7	MSD 2-Chloronaphthalene	1910	0.00	U	929	49	37-103	6	0-30
88-74-4	MSD 2-Nitroaniline *o-Nitroaniline*	1910	0.00	U	984	51	36-115	9	0-30
99-09-2	MSD 3-Nitroaniline *m-Nitroaniline*	1910	0.00	U	1100	58	39-117	7	0-30
131-11-3	MSD Dimethylphthalate	1910	0.00	U	1130	59	41-105	7	0-30
606-20-2	MSD 2,6-Dinitrotoluene	1910	0.00	U	1100	58	41-103	13	0-30
208-96-8	MSD Acenaphthylene	1910	0.00	U	1040	54	41-103	5	0-30
51-28-5	MSD 2,4-Dinitrophenol	1910	0.00	U	912	48	25-104	6	0-30
132-64-9	MSD Dibenzofuran	1910	0.00	U	1310	69	40-114	6	0-30
84-66-2	MSD Diethylphthalate	1910	0.00	U	1210	63	43-110	15	0-30

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-917
Client ID: RE03-09-14213MSD
Lab Sample ID: 1201997923
Instrument: MSD6.I
Analyst: NAG1
Inj. Vol: .5 uL

Sample Type: Matrix Spike Duplicate
Matrix: S
%Moisture: 12.8
Analysis Date: 12/21/2009 17:52
Dilution: 1
Prep Batch ID 933805
Batch ID: 933806

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
86-73-7	MSD Fluorene	1910	0.00	U	1140	60	48-99	9	0-30
7005-72-3	MSD 4-Chlorophenylphenylether	1910	0.00	U	1160	61	42-111	8	0-30
534-52-1	MSD 2-Methyl-4,6-dinitrophenol	1910	0.00	U	941	49	19-118	6	0-30
100-01-6	MSD 4-Nitroaniline *p-Nitroaniline*	1910	0.00	U	1220	64	35-139	6	0-30
122-39-4	MSD Diphenylamine	1910	0.00	U	1100	57	41-112	14	0-30
122-66-7	MSD Azobenzene *1,2-Diphenylhydrazine*	1910	0.00	U	1160	61	37-118	11	0-30
101-55-3	MSD 4-Bromophenylphenylether	1910	0.00	U	1190	62	39-112	12	0-30
118-74-1	MSD Hexachlorobenzene	1910	0.00	U	1200	63	38-113	15	0-30
85-01-8	MSD Phenanthrene	1910	0.00	U	1200	63	38-110	14	0-30
120-12-7	MSD Anthracene	1910	0.00	U	1220	64	38-112	12	0-30
84-74-2	MSD Di-n-butylphthalate	1910	0.00	U	1350	71	42-119	16	0-30
206-44-0	MSD Fluoranthene	1910	0.00	U	1300	68	38-119	13	0-30
85-68-7	MSD Butylbenzylphthalate	1910	0.00	U	1410	74	39-126	24	0-30
56-55-3	MSD Benzo(a)anthracene	1910	0.00	U	1240	65	39-110	16	0-30
91-94-1	MSD 3,3'-Dichlorobenzidine	1910	0.00	U	758	40	35-106	19	0-30
218-01-9	MSD Chrysene	1910	0.00	U	1250	66	39-109	17	0-30
117-81-7	MSD bis(2-Ethylhexyl)phthalate	1910	0.00	U	1390	73	40-125	22	0-30
117-84-0	MSD Di-n-octylphthalate	1910	0.00	U	1410	74	30-147	26	0-30
205-99-2	MSD Benzo(b)fluoranthene	1910	0.00	U	1260	66	38-117	16	0-30
207-08-9	MSD Benzo(k)fluoranthene	1910	0.00	U	1300	68	39-120	18	0-30
50-32-8	MSD Benzo(a)pyrene	1910	0.00	U	1330	69	40-115	15	0-30
193-39-5	MSD Indeno(1,2,3-cd)pyrene	1910	0.00	U	1230	64	32-120	7	0-30

Semi-Volatile

Quality Control Summary

Spike Recovery Report

SDG Number: 10-917
Client ID: RE03-09-14213MSD
Lab Sample ID: 1201997923
Instrument: MSD6.I
Analyst: NAG1
Inj. Vol: .5 uL

Sample Type: Matrix Spike Duplicate
Matrix: S
%Moisture: 12.8
Analysis Date: 12/21/2009 17:52
Prep Batch ID: 933805
Batch ID: 933806
Dilution: 1

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
53-70-3	MSD Dibenzo(a,h)anthracene	1910	0.00	U	1250	65	32-124	7	0-30
191-24-2	MSD Benzo(ghi)perylene	1910	0.00	U	1230	64	28-119	8	0-30
120-82-1	MSD 1,2,4-Trichlorobenzene	1910	0.00	U	748	39	31-105	11	0-30

Method Blank Summary

SDG Number:	10-917	Client:	LANL010	Matrix:	SOIL
Client ID:	MB for batch 933805	Instrument ID:	MSD6.I	Data File:	s6l2107.d
Lab Sample ID:	1201997920	Prep Date:	12/18/2009 09:12	Analyzed:	12/21/09 13:39
Column:	J&W DB-5MS	Level:	LOW		

This method blank applies to the following samples and quality control samples:

	Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01	LCS for batch 933805	1201997921	s6l2108.d	12/21/09	1407
02	RE03-09-14213	242937001	s6l2114.d	12/21/09	1657
03	RE03-09-14213MS	1201997922	s6l2115.d	12/21/09	1725
04	RE03-09-14213MSD	1201997923	s6l2116.d	12/21/09	1752
05	RE03-09-14215	242937002	s6l2117.d	12/21/09	1820
06	RE03-09-14212	242937003	s6l2118.d	12/21/09	1848
07	RE03-09-14219	242937004	s6l2119.d	12/21/09	1916
08	RE03-09-14218	242937005	s6l2120.d	12/21/09	1943
09	RE03-09-14216	242937006	s6l2121.d	12/21/09	2010
10	RE03-09-14214	242937007	s6l2122.d	12/21/09	2038
11	RE03-09-14217	242937008	s6l2123.d	12/21/09	2105
12	RE03-10-2735	242937009	s6l2124.d	12/21/09	2133

Instrument Performance Check

DFTPP

Lab Name GEL Laboratories LLC **Client SDG:** 10-917

Instrument ID: MSD6.I **Injection Date/Time:** 09-NOV-09 18:00

Column Description: Phenomenex ZB-5MS **Lab File ID** /chem/MSD6.i/s110909.b/s6k0911.d

m/e	Ion Abundance Criteria	% Relative Abundance
198	Base Peak, 100% Relative Abundance	100
51	30 - 60% of mass 198	45.4
68	Less than 2% of mass 69	1.6
69	Mass 69 Relative Abundance	43
70	Less than 2% of mass 69	0.5
127	40 - 60% of mass 198	51.4
197	0 - 1% of mass 198	0.6
199	5 - 9% of mass 198	6.9
275	10 - 30% of mass 198	23.7
365	Greater than 1% of mass 198	2.4
441	Present, but less than mass 443	73.9
442	Greater than 40% of mass 198	77.9
443	17 - 23% of mass 442	19.2

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
MEGAICAL	WBN091106-08	/chem/MSD6.i/s110909.b/s6k091	09-NOV-09 18:53
MEGAICAL	WBN091106-07	/chem/MSD6.i/s110909.b/s6k091	09-NOV-09 19:31
MEGAICAL	WBN091106-06	/chem/MSD6.i/s110909.b/s6k091	09-NOV-09 20:09
MEGAICAL	WBN091106-05.1	/chem/MSD6.i/s110909.b/s6k091	09-NOV-09 20:46
MEGAICAL	WBN091106-04	/chem/MSD6.i/s110909.b/s6k091	09-NOV-09 21:25
MEGAICAL	WBN091106-03	/chem/MSD6.i/s110909.b/s6k091	09-NOV-09 22:01
MEGAICAL	WBN091106-02	/chem/MSD6.i/s110909.b/s6k091	09-NOV-09 22:39
MEGAICAL	WBN091106-01	/chem/MSD6.i/s110909.b/s6k092	09-NOV-09 23:16

Instrument Performance Check

DFTPP

Lab Name GEL Laboratories LLC **Client SDG:** 10-917

Instrument ID: MSD6.I **Injection Date/Time:** 10-NOV-09 11:07

Column Description: Phenomenex ZB-5MS **Lab File ID** /chem/MSD6.i/s110909.b/s6k0921.d

m/e	Ion Abundance Criteria	% Relative Abundance
198	Base Peak, 100% Relative Abundance	100
51	30 - 60% of mass 198	45.1
68	Less than 2% of mass 69	1.6
69	Mass 69 Relative Abundance	43.1
70	Less than 2% of mass 69	0.5
127	40 - 60% of mass 198	50.9
197	0 - 1% of mass 198	0.4
199	5 - 9% of mass 198	7
275	10 - 30% of mass 198	23.3
365	Greater than 1% of mass 198	2.6
441	Present, but less than mass 443	72.6
442	Greater than 40% of mass 198	76
443	17 - 23% of mass 442	19.9

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
AP12ICAL	WBN091016-01	/chem/MSD6.i/s110909.b/s6k092	10-NOV-09 11:59
AP12ICAL	WBN091016-02	/chem/MSD6.i/s110909.b/s6k092	10-NOV-09 12:36
AP12ICAL	WBN091016-03	/chem/MSD6.i/s110909.b/s6k092	10-NOV-09 13:13
AP12ICAL	WBN091016-04	/chem/MSD6.i/s110909.b/s6k092	10-NOV-09 13:51
AP12ICAL	WBN091016-05	/chem/MSD6.i/s110909.b/s6k092	10-NOV-09 14:30
AP12ICAL	WBN091016-06	/chem/MSD6.i/s110909.b/s6k092	10-NOV-09 15:06
AP12ICAL	WBN091016-07	/chem/MSD6.i/s110909.b/s6k092	10-NOV-09 15:43
MEGAICV	WBN091106-09.1	/chem/MSD6.i/s110909.b/s6k093	10-NOV-09 20:29
AP12ICV	WBN091016-08.1	/chem/MSD6.i/s110909.b/s6k093	10-NOV-09 21:07

Instrument Performance Check

DFTPP

Lab Name GEL Laboratories LLC **Client SDG:** 10-917

Instrument ID: MSD6.I **Injection Date/Time:** 21-DEC-09 11:06

Column Description: Phenomenex ZB-5MS **Lab File ID** /chem/MSD6.i/s122109.b/s6l2101.d

m/e	Ion Abundance Criteria	% Relative Abundance
198	Base Peak, 100% Relative Abundance	100
51	30 - 60% of mass 198	38.5
68	Less than 2% of mass 69	1.7
69	Mass 69 Relative Abundance	39.1
70	Less than 2% of mass 69	0.5
127	40 - 60% of mass 198	50.1
197	0 - 1% of mass 198	0.5
199	5 - 9% of mass 198	6.8
275	10 - 30% of mass 198	23.4
365	Greater than 1% of mass 198	2.5
441	Present, but less than mass 443	73
442	Greater than 40% of mass 198	77.9
443	17 - 23% of mass 442	19.6

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
MEGACVS	WBN091111-17.4	/chem/MSD6.i/s122109.b/s6l2102	21-DEC-09 11:20
AP12CVS	WBN091201-03.5	/chem/MSD6.i/s122109.b/s6l2103	21-DEC-09 11:47
SBLK01	1201997920	/chem/MSD6.i/s122109.b/s6l2107	21-DEC-09 13:39
SBLK01LCS	1201997921	/chem/MSD6.i/s122109.b/s6l2108	21-DEC-09 14:07
RE03-09-14213	242937001	/chem/MSD6.i/s122109.b/s6l2114	21-DEC-09 16:57
RE03-09-14213MS	1201997922	/chem/MSD6.i/s122109.b/s6l2115	21-DEC-09 17:25
RE03-09-14213MSD	1201997923	/chem/MSD6.i/s122109.b/s6l2116	21-DEC-09 17:52
RE03-09-14215	242937002	/chem/MSD6.i/s122109.b/s6l2117	21-DEC-09 18:20
RE03-09-14212	242937003	/chem/MSD6.i/s122109.b/s6l2118	21-DEC-09 18:48
RE03-09-14219	242937004	/chem/MSD6.i/s122109.b/s6l2119	21-DEC-09 19:16
RE03-09-14218	242937005	/chem/MSD6.i/s122109.b/s6l2120	21-DEC-09 19:43
RE03-09-14216	242937006	/chem/MSD6.i/s122109.b/s6l2121	21-DEC-09 20:10
RE03-09-14214	242937007	/chem/MSD6.i/s122109.b/s6l2122	21-DEC-09 20:38
RE03-09-14217	242937008	/chem/MSD6.i/s122109.b/s6l2123	21-DEC-09 21:05
RE03-10-2735	242937009	/chem/MSD6.i/s122109.b/s6l2124	21-DEC-09 21:33

Internal Standard
Area and RT Summary

Lab Name : GEL Laboratories LLC

Instrument: MSD6.I

GC Column: J&W DB-5MS

Client SDG: 10-917

STD Analysis Time: 21-DEC-09 11:20

Data File: s6l2102.d

	1,4-Dichlorobenzene-d4			Naphthalene-d8			Acenaphthene-d10			Phenanthrene-d10			Chrysene-d12			Perylene-d12		
	Area	#	RT #	Area	#	RT #	Area	#	RT #	Area	#	RT #	Area	#	RT #	Area	#	RT #
12 Hour STD	234388		5.02	952872		6.31	536777		8.19	928124		9.8	754307		12.9	688132		15.3
Upper Limit	468776		5.52	1905744		6.81	1073554		8.69	1856248		10.3	1508614		13.4	1376264		15.8
Lower Limit	117194		4.52	476436		5.81	268389		7.69	464062		9.3	377154		12.4	344066		14.8
Sample ID																		
BLK01	251616		5.02	967158		6.3	547984		8.18	907290		9.8	690552		12.9	571015		15.3
BLK01LCS	228399		5.01	909997		6.3	497258		8.18	877283		9.8	744195		12.9	655387		15.3
RE03-09-14213	261847		5.01	668045		6.3	463498		8.18	885105		9.79	724256		12.9	604242		15.3
RE03-09-14213MS	185078		5.01	750636		6.3	409501		8.18	714493		9.79	608909		12.9	534116		15.3
RE03-09-14213MSD	233016		5.02	941770		6.3	513133		8.18	890018		9.8	695935		12.9	578681		15.3
RE03-09-14215	271378		5.01	681741		6.3	485667		8.18	941101		9.8	769607		12.9	613595		15.3
RE03-09-14212	215882		5.01	831397		6.3	461210		8.18	805735		9.79	640084		12.9	497912		15.3
RE03-09-14219	217336		5.01	615000		6.3	435168		8.18	786013		9.79	633486		12.9	507466		15.3
RE03-09-14218	197932		5.01	776455		6.3	440634		8.18	761662		9.79	629206		12.9	530153		15.3
RE03-09-14216	226980		5.01	531879		6.3	379248		8.18	790155		9.79	758850		12.9	653041		15.3
RE03-09-14214	238207		5.01	564034		6.3	398279		8.18	852904		9.79	785039		12.9	681297		15.3
RE03-09-14217	199856		5.02	769463		6.3	436929		8.18	771093		9.79	659362		12.9	532114		15.3
RE03-10-2735	228212		5.01	895457		6.3	500053		8.18	852683		9.79	666411		12.9	504830		15.3

Area Upper Limit = +100% of internal standard area
Area Lower Limit = - 50% of internal standard area

RT Upper Limit = + 0.50 minutes of internal standard RT
RT Lower Limit = - 0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Value outside of QC Limits

Sample Data

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-917**	**Date Collected:**	**12/11/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242937003**	**Date Received:**	**12/15/2009 08:45**	**%Moisture:**	**12.9**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14212**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**933806**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**12/21/2009 18:48**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/18/2009 09:12**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**s6l2118.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	382	ug/kg	76.5	382
108-95-2	Phenol	U	382	ug/kg	76.5	382
95-57-8	2-Chlorophenol	U	382	ug/kg	76.5	382
106-46-7	1,4-Dichlorobenzene	U	382	ug/kg	76.5	382
621-64-7	N-Nitrosodipropylamine	U	382	ug/kg	76.5	382
59-50-7	4-Chloro-3-methylphenol	U	382	ug/kg	76.5	382
83-32-9	Acenaphthene	U	38.2	ug/kg	12.6	38.2
121-14-2	2,4-Dinitrotoluene	U	382	ug/kg	38.2	382
100-02-7	4-Nitrophenol	U	382	ug/kg	126	382
87-86-5	Pentachlorophenol	U	382	ug/kg	95.6	382
129-00-0	Pyrene	U	38.2	ug/kg	11.5	38.2
110-86-1	Pyridine	U	382	ug/kg	76.5	382
62-53-3	Aniline	U	382	ug/kg	115	382
111-44-4	bis(2-Chloroethyl) ether	U	382	ug/kg	76.5	382
541-73-1	1,3-Dichlorobenzene	U	382	ug/kg	76.5	382
100-51-6	Benzyl alcohol	U	382	ug/kg	115	382
95-50-1	1,2-Dichlorobenzene	U	382	ug/kg	76.5	382
108-60-1	bis(2-Chloroisopropyl)ether	U	382	ug/kg	76.5	382
95-48-7	o-Cresol	U	382	ug/kg	76.5	382
65794-96-9	m,p-Cresols	U	382	ug/kg	115	382
67-72-1	Hexachloroethane	U	382	ug/kg	76.5	382
98-95-3	Nitrobenzene	U	382	ug/kg	76.5	382
78-59-1	Isophorone	U	382	ug/kg	76.5	382
88-75-5	2-Nitrophenol	U	382	ug/kg	76.5	382
105-67-9	2,4-Dimethylphenol	U	382	ug/kg	134	382
111-91-1	bis(2-Chloroethoxy)methane	U	382	ug/kg	76.5	382
120-83-2	2,4-Dichlorophenol	U	382	ug/kg	76.5	382
65-85-0	Benzoic acid	U	765	ug/kg	191	765
91-20-3	Naphthalene	U	38.2	ug/kg	11.5	38.2
106-47-8	4-Chloroaniline	U	382	ug/kg	76.5	382
87-68-3	Hexachlorobutadiene	U	382	ug/kg	76.5	382
91-57-6	2-Methylnaphthalene	U	38.2	ug/kg	7.65	38.2
77-47-4	Hexachlorocyclopentadiene	U	382	ug/kg	76.5	382
88-06-2	2,4,6-Trichlorophenol	U	382	ug/kg	76.5	382
95-95-4	2,4,5-Trichlorophenol	U	382	ug/kg	76.5	382
91-58-7	2-Chloronaphthalene	U	38.2	ug/kg	12.6	38.2
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	382	ug/kg	76.5	382
99-09-2	3-Nitroaniline	U	382	ug/kg	76.5	382

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-917**	**Date Collected:**	**12/11/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242937003**	**Date Received:**	**12/15/2009 08:45**	**%Moisture:**	**12.9**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14212**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**933806**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**12/21/2009 18:48**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/18/2009 09:12**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**s612118.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	382	ug/kg	76.5	382
606-20-2	2,6-Dinitrotoluene	U	382	ug/kg	38.2	382
208-96-8	Acenaphthylene	U	38.2	ug/kg	11.5	38.2
51-28-5	2,4-Dinitrophenol	U	765	ug/kg	145	765
132-64-9	Dibenzofuran	U	382	ug/kg	76.5	382
84-66-2	Diethylphthalate	U	382	ug/kg	76.5	382
86-73-7	Fluorene	U	38.2	ug/kg	11.5	38.2
7005-72-3	4-Chlorophenylphenylether	U	382	ug/kg	76.5	382
534-52-1	2-Methyl-4,6-dinitrophenol	U	382	ug/kg	76.5	382
100-01-6	4-Nitroaniline	U	382	ug/kg	115	382
	p-Nitroaniline					
122-39-4	Diphenylamine	U	382	ug/kg	76.5	382
122-66-7	Azobenzene	U	382	ug/kg	76.5	382
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	382	ug/kg	76.5	382
118-74-1	Hexachlorobenzene	U	382	ug/kg	76.5	382
85-01-8	Phenanthrene	U	38.2	ug/kg	11.5	38.2
120-12-7	Anthracene	U	38.2	ug/kg	7.65	38.2
84-74-2	Di-n-butylphthalate	U	382	ug/kg	76.5	382
206-44-0	Fluoranthene	U	38.2	ug/kg	11.5	38.2
85-68-7	Butylbenzylphthalate	U	382	ug/kg	76.5	382
56-55-3	Benzo(a)anthracene	U	38.2	ug/kg	11.5	38.2
91-94-1	3,3'-Dichlorobenzidine	U	382	ug/kg	115	382
218-01-9	Chrysene	U	38.2	ug/kg	11.5	38.2
117-81-7	bis(2-Ethylhexyl)phthalate	U	382	ug/kg	76.5	382
117-84-0	Di-n-octylphthalate	U	382	ug/kg	76.5	382
205-99-2	Benzo(b)fluoranthene	U	38.2	ug/kg	11.5	38.2
207-08-9	Benzo(k)fluoranthene	U	38.2	ug/kg	11.5	38.2
50-32-8	Benzo(a)pyrene	U	38.2	ug/kg	11.5	38.2
193-39-5	Indeno(1,2,3-cd)pyrene	U	38.2	ug/kg	11.5	38.2
53-70-3	Dibenzo(a,h)anthracene	U	38.2	ug/kg	11.5	38.2
191-24-2	Benzo(ghi)perylene	U	38.2	ug/kg	11.5	38.2
120-82-1	1,2,4-Trichlorobenzene	U	382	ug/kg	76.5	382

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	3.61	530	ug/kg		JA

GEL Laboratories LLC

Data file : /chem/MSD6.i/s122109.b/s612118.d
Lab Smp Id: 242937003 Client Smp ID: RE03-09-14212
Inj Date : 21-DEC-2009 18:48
Operator : nag1 Inst ID: MSD6.i
Smp Info : |242937003|933806|1|SVMF|1|LANL
Misc Info : |MSD8270_S|WBN091208-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s122109.b/MSD6-M8270C-AQA-110909.m
Meth Date : 22-Dec-2009 11:21 nat00999 Quant Type: ISTD
Cal Date : 11-NOV-2009 04:38 Cal File: s6k0954.d
Als bottle: 18
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-917.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	12.85170	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	5.012	5.025	(1.000)	215882	40.0000	
* 29 Naphthalene-d8	136	6.301	6.309	(1.000)	831397	40.0000	
* 46 Acenaphthene-d10	164	8.179	8.187	(1.000)	461210	40.0000	
* 67 Phenanthrene-d10	188	9.795	9.802	(1.000)	805735	40.0000	
* 91 Chrysene-d12	240	12.873	12.885	(1.000)	640084	40.0000	
* 98 Perylene-d12	264	15.309	15.324	(1.000)	497912	40.0000	
$ 3 2-Fluorophenol	112	3.860	3.860	(0.770)	307818	56.9383	2180
$ 5 Phenol-d5	99	4.638	4.645	(0.925)	396099	58.0507	2220
$ 20 Nitrobenzene-d5	82	5.555	5.565	(0.882)	166569	28.3220	1080
$ 39 2-Fluorobiphenyl	172	7.428	7.435	(0.908)	333001	28.0168	1070
$ 60 2,4,6-Tribromophenol	329	9.033	9.040	(1.104)	73417	54.5386	2090
$ 81 p-Terphenyl-d14	244	11.502	11.507	(0.894)	388387	37.6256	1440

ION RATIO REPORT

SV REPORT

Data file: s612118.d
Report Date: 12/22/2009 11:49
Lab. ID: 242937003 SampleType: SAMPLE
Injection Date: 21-DEC-2009 18:48
Operator: nagl Instrument: MSD6.i
Sample Info: |242937003|933806|1|SVMF|1|LANL
Miscellaneous Info: |MSD8270_S|WBN091208-01
Comment:
Method used: /chem/MSD6.i/s122109.b/MSD6-M8270C-AQA-110909.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-917
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
17 N-Nitrosodipropylamine				CAS#: 621-64-7		
70	23204	5.55	5.39	80-120	100	(T)
42	13954	5.55	5.39	40-100	60	(T)
22 Isophorone				CAS#: 78-59-1		
82	166569	5.55	5.82	80-120	100	(T)
138	4388	6.30	5.82	0- 49	3	(T)
43 Dimethylphthalate				CAS#: 131-11-3		
163	81788	8.18	7.87	80-120	100	(T)
164	461210	8.18	7.87	0- 40	564	(QT)
50 2,4-Dinitrotoluene				CAS#: 121-14-2		
165	59480	8.18	8.37	80-120	100	(T)
89	666	8.18	8.37	41-101	1	(QT)
63	390	8.18	8.37	18- 78	1	(QT)
55 2-Methyl-4,6-dinitrophenol				CAS#: 534-52-1		
198	368	9.03	8.82	80-120	100	(T)
105	266	9.03	8.82	11- 71	72	(QT)
51	415	9.03	8.82	21- 81	113	(QT)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

Data file : /chem/MSD6.i/s122109.b/s612118.d
Lab Smp Id: 242937003 Client Smp ID: RE03-09-14212
Inj Date : 21-DEC-2009 18:48
Operator : nagl Inst ID: MSD6.i
Smp Info : |242937003|933806|1|SVMF|1|LANL
Misc Info : |MSD8270_S|WBN091208-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s122109.b/MSD6-M8270C-AQA-110909.m
Meth Date : 22-Dec-2009 11:21 nat00999 Quant Type: ISTD
Cal Date : 11-NOV-2009 04:38 Cal File: s6k0954.d
Als bottle: 18
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-917.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	12.85170	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	5.012	1263382	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown Aldol Condensate				CAS #:			
3.608	437442	13.8498602	530	0		0	10

Data File: /chem/MSD6.i/s122109.b/s612118.d
Date : 21-DEC-2009 18:48
Client ID: RE03-09-14212
Sample Info: |2429370031933806|1|SVHF|1|LANL
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Page 1

Instrument: MSD6.i

Operator: nag1
Column diameter: 0.20

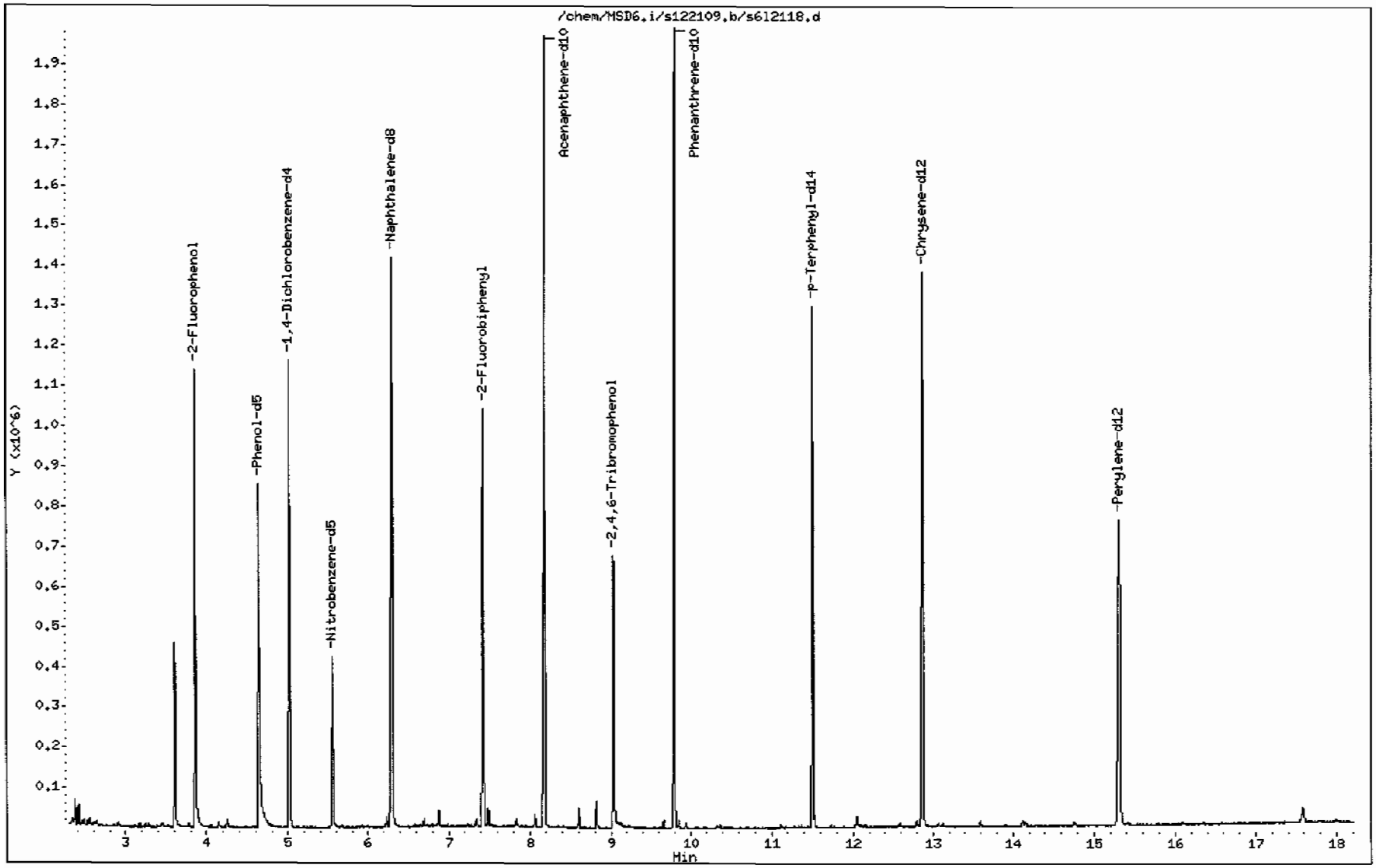

Data File: /chem/MSD6.i/s122109.b/s612118.d

Date : 21-DEC-2009 18:48

Client ID: RE03-09-14212

Instrument: MSD6.i

Sample Info: 1242937003|933806|1|SVMF|1|LANL

Volume Injected (uL): 0.5

Operator: nagl

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	56	C6H12O2	116
Acetic acid, 1,1-dimethylethyl ester	540-88-5	NIST05.L	7977	39	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	38	C6H12O2	116

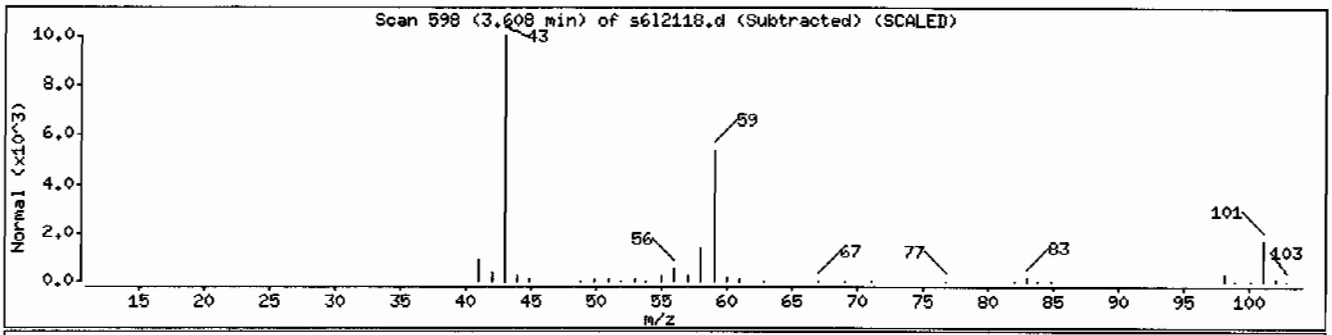

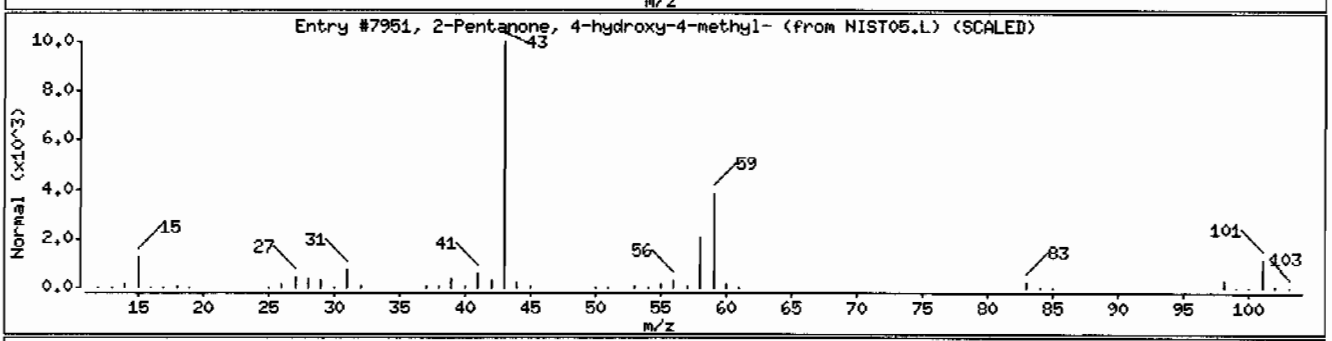

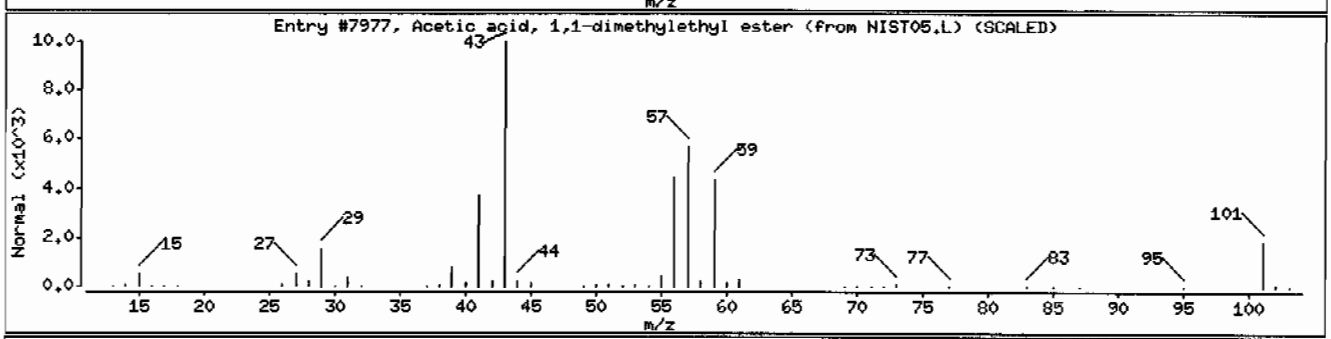

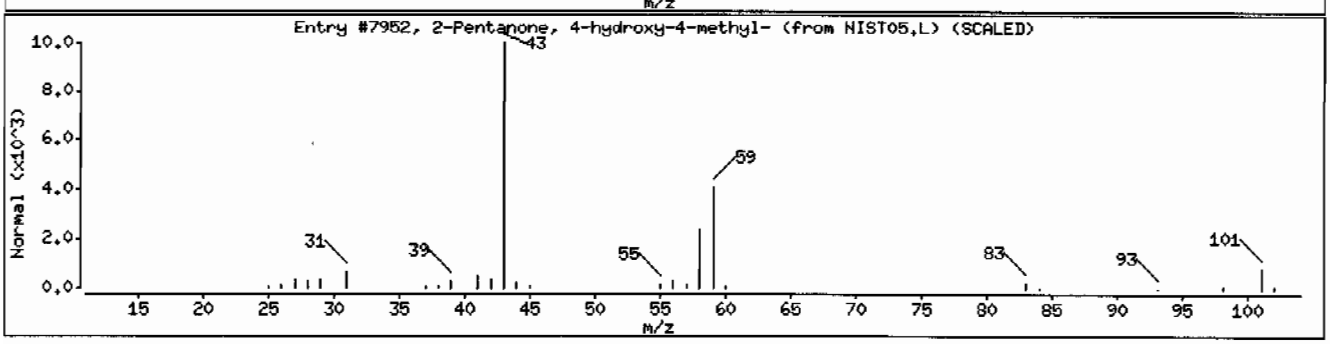

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-917	Date Collected:	12/11/2009 12:00	Matrix:	S
Lab Sample ID:	242937001	Date Received:	12/15/2009 08:45	%Moisture:	12.8
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14213	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	933806	Inst:	MSD6.I	Dilution:	1
Run Date:	12/21/2009 16:57	Analyst:	NAG1	Inj. Vol:	.5 uL
Prep Date:	12/18/2009 09:12	Aliquot:	30.02 g	Final Volume:	1 mL
Data File:	s6l2114.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	382	ug/kg	76.4	382
108-95-2	Phenol	U	382	ug/kg	76.4	382
95-57-8	2-Chlorophenol	U	382	ug/kg	76.4	382
106-46-7	1,4-Dichlorobenzene	U	382	ug/kg	76.4	382
621-64-7	N-Nitrosodipropylamine	U	382	ug/kg	76.4	382
59-50-7	4-Chloro-3-methylphenol	U	382	ug/kg	76.4	382
83-32-9	Acenaphthene	U	38.2	ug/kg	12.6	38.2
121-14-2	2,4-Dinitrotoluene	U	382	ug/kg	38.2	382
100-02-7	4-Nitrophenol	U	382	ug/kg	126	382
87-86-5	Pentachlorophenol	U	382	ug/kg	95.5	382
129-00-0	Pyrene	U	38.2	ug/kg	11.5	38.2
110-86-1	Pyridine	U	382	ug/kg	76.4	382
62-53-3	Aniline	U	382	ug/kg	115	382
111-44-4	bis(2-Chloroethyl) ether	U	382	ug/kg	76.4	382
541-73-1	1,3-Dichlorobenzene	U	382	ug/kg	76.4	382
100-51-6	Benzyl alcohol	U	382	ug/kg	115	382
95-50-1	1,2-Dichlorobenzene	U	382	ug/kg	76.4	382
108-60-1	bis(2-Chloroisopropyl)ether	U	382	ug/kg	76.4	382
95-48-7	o-Cresol	U	382	ug/kg	76.4	382
65794-96-9	m,p-Cresols	U	382	ug/kg	115	382
67-72-1	Hexachloroethane	U	382	ug/kg	76.4	382
98-95-3	Nitrobenzene	U	382	ug/kg	76.4	382
78-59-1	Isophorone	U	382	ug/kg	76.4	382
88-75-5	2-Nitrophenol	U	382	ug/kg	76.4	382
105-67-9	2,4-Dimethylphenol	U	382	ug/kg	134	382
111-91-1	bis(2-Chloroethoxy)methane	U	382	ug/kg	76.4	382
120-83-2	2,4-Dichlorophenol	U	382	ug/kg	76.4	382
65-85-0	Benzoic acid	U	764	ug/kg	191	764
91-20-3	Naphthalene	U	38.2	ug/kg	11.5	38.2
106-47-8	4-Chloroaniline	U	382	ug/kg	76.4	382
87-68-3	Hexachlorobutadiene	U	382	ug/kg	76.4	382
91-57-6	2-Methylnaphthalene	J	10.4	ug/kg	7.64	38.2
77-47-4	Hexachlorocyclopentadiene	U	382	ug/kg	76.4	382
88-06-2	2,4,6-Trichlorophenol	U	382	ug/kg	76.4	382
95-95-4	2,4,5-Trichlorophenol	U	382	ug/kg	76.4	382
91-58-7	2-Chloronaphthalene	U	38.2	ug/kg	12.6	38.2
88-74-4	2-Nitroaniline	U	382	ug/kg	76.4	382
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	382	ug/kg	76.4	382

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-917	Date Collected:	12/11/2009 12:00	Matrix:	S
Lab Sample ID:	242937001	Date Received:	12/15/2009 08:45	%Moisture:	12.8
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14213	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	933806	Inst:	MSD6.I	Dilution:	1
Run Date:	12/21/2009 16:57	Analyst:	NAG1	Inj. Vol:	.5 uL
Prep Date:	12/18/2009 09:12	Aliquot:	30.02 g	Final Volume:	1 mL
Data File:	s6l2114.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	382	ug/kg	76.4	382
606-20-2	2,6-Dinitrotoluene	U	382	ug/kg	38.2	382
208-96-8	Acenaphthylene	U	38.2	ug/kg	11.5	38.2
51-28-5	2,4-Dinitrophenol	U	764	ug/kg	145	764
132-64-9	Dibenzofuran	U	382	ug/kg	76.4	382
84-66-2	Diethylphthalate	U	382	ug/kg	76.4	382
86-73-7	Fluorene	U	38.2	ug/kg	11.5	38.2
7005-72-3	4-Chlorophenylphenylether	U	382	ug/kg	76.4	382
534-52-1	2-Methyl-4,6-dinitrophenol	U	382	ug/kg	76.4	382
100-01-6	4-Nitroaniline	U	382	ug/kg	115	382
	p-Nitroaniline					
122-39-4	Diphenylamine	U	382	ug/kg	76.4	382
122-66-7	Azobenzene	U	382	ug/kg	76.4	382
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	382	ug/kg	76.4	382
118-74-1	Hexachlorobenzene	U	382	ug/kg	76.4	382
85-01-8	Phenanthrene	U	38.2	ug/kg	11.5	38.2
120-12-7	Anthracene	U	38.2	ug/kg	7.64	38.2
84-74-2	Di-n-butylphthalate	U	382	ug/kg	76.4	382
206-44-0	Fluoranthene	U	38.2	ug/kg	11.5	38.2
85-68-7	Butylbenzylphthalate	U	382	ug/kg	76.4	382
56-55-3	Benzo(a)anthracene	U	38.2	ug/kg	11.5	38.2
91-94-1	3,3'-Dichlorobenzidine	U	382	ug/kg	115	382
218-01-9	Chrysene	U	38.2	ug/kg	11.5	38.2
117-81-7	bis(2-Ethylhexyl)phthalate	U	382	ug/kg	76.4	382
117-84-0	Di-n-octylphthalate	U	382	ug/kg	76.4	382
205-99-2	Benzo(b)fluoranthene	U	38.2	ug/kg	11.5	38.2
207-08-9	Benzo(k)fluoranthene	U	38.2	ug/kg	11.5	38.2
50-32-8	Benzo(a)pyrene	U	38.2	ug/kg	11.5	38.2
193-39-5	Indeno(1,2,3-cd)pyrene	U	38.2	ug/kg	11.5	38.2
53-70-3	Dibenzo(a,h)anthracene	U	38.2	ug/kg	11.5	38.2
191-24-2	Benzo(ghi)perylene	U	38.2	ug/kg	11.5	38.2
120-82-1	1,2,4-Trichlorobenzene	U	382	ug/kg	76.4	382

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	3.62	570	ug/kg		JA
	Unknown	17.58	162	ug/kg		J

GEL Laboratories LLC

Data file : /chem/MSD6.i/s122109.b/s612114.d
Lab Smp Id: 242937001 Client Smp ID: RE03-09-14213
Inj Date : 21-DEC-2009 16:57
Operator : nag1 Inst ID: MSD6.i
Smp Info : |242937001|933806|1|SVMF|1|LANL
Misc Info : |MSD8270_S|WBN091208-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s122109.b/MSD6-M8270C-AQA-110909.m
Meth Date : 22-Dec-2009 11:21 nat00999 Quant Type: ISTD
Cal Date : 11-NOV-2009 04:38 Cal File: s6k0954.d
Als bottle: 14
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-917.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.02000	weight of sample
M	12.82530	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	5.007	5.025	(1.000)	261847	40.0000	
* 29 Naphthalene-d8	136	6.301	6.309	(1.000)	668045	40.0000	
* 46 Acenaphthene-d10	164	8.179	8.187	(1.000)	463498	40.0000	
* 67 Phenanthrene-d10	188	9.795	9.802	(1.000)	885105	40.0000	
* 91 Chrysene-d12	240	12.873	12.885	(1.000)	724256	40.0000	
* 98 Perylene-d12	264	15.309	15.324	(1.000)	604242	40.0000	
$ 3 2-Fluorophenol	112	3.858	3.860	(0.770)	407367	62.1248	2370
$ 5 Phenol-d5	99	4.637	4.645	(0.926)	557563	67.3700	2570
$ 20 Nitrobenzene-d5	82	5.552	5.565	(0.881)	132964	28.1362	1080
$ 39 2-Fluorobiphenyl	172	7.428	7.435	(0.908)	308143	25.7974	986
$ 60 2,4,6-Tribromophenol	329	9.033	9.040	(1.104)	106544	78.7567	3010
$ 81 p-Terphenyl-d14	244	11.502	11.507	(0.894)	452306	38.7254	1480

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
34 2-Methylnaphthalene	142	7.048	7.055	(1.118)	2199	0.27345	10.4(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

ION RATIO REPORT

SV REPORT

Data file: s612114.d
Report Date: 12/22/2009 11:32
Lab. ID: 242937001 SampleType: SAMPLE
Injection Date: 21-DEC-2009 16:57
Operator: nagl Instrument: MSD6.i
Sample Info: |242937001|933806|1|SVMF|1|LANL
Miscellaneous Info: |MSD8270_S|WBN091208-01
Comment:
Method used: /chem/MSD6.i/s122109.b/MSD6-M8270C-AQA-110909.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-917
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
4 Aniline		CAS#: 62-53-3				
66	18162	4.63	4.71	80-120	100	(T)
93	141	4.72	4.71	228-288	1	(Q)
17 N-Nitrosodipropylamine				CAS#: 621-64-7		
70	14640	5.54	5.39	80-120	100	(T)
42	8985	5.54	5.39	40-100	61	(T)
22 Isophorone		CAS#: 78-59-1				
82	132964	5.55	5.82	80-120	100	(T)
138	1938	6.28	5.82	0- 49	1	(T)
34 2-Methylnaphthalene				CAS#: 91-57-6		
142	2199	7.05	7.06	80-120	100	( )
141	2168	7.05	7.06	55-115	99	( )
43 Dimethylphthalate				CAS#: 131-11-3		
163	87516	8.18	7.87	80-120	100	(T)
164	463498	8.18	7.87	0- 40	530	(QT)
50 2,4-Dinitrotoluene				CAS#: 121-14-2		
165	60622	8.18	8.37	80-120	100	(T)
89	488	8.18	8.37	41-101	1	(QT)
63	691	8.18	8.37	18- 78	1	(QT)

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
52 4-Nitrophenol			CAS#: 100-02-7			
139	498	8.40	8.32	80-120	100	(T)
109	1250	8.18	8.32	34- 94	251	(QT)
65	580	8.60	8.32	64-124	116	(T)
53 Fluorene			CAS#: 86-73-7			
166	6136	9.03	8.78	80-120	100	(T)
165	6680	9.03	8.78	62-122	109	(T)
167	2052	9.03	8.78	0- 44	33	(T)
55 2-Methyl-4,6-dinitrophenol			CAS#: 534-52-1			
198	124	9.02	8.82	80-120	100	(T)
105	673	9.03	8.82	11- 71	543	(QT)
51	643	9.03	8.82	21- 81	518	(QT)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

Data file : /chem/MSD6.i/s122109.b/s612114.d
Lab Smp Id: 242937001 Client Smp ID: RE03-09-14213
Inj Date : 21-DEC-2009 16:57
Operator : nag1 Inst ID: MSD6.i
Smp Info : |242937001|933806|1|SVMF|1|LANL
Misc Info : |MSD8270_S|WBN091208-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s122109.b/MSD6-M8270C-AQA-110909.m
Meth Date : 22-Dec-2009 11:21 nat00999 Quant Type: ISTD
Cal Date : 11-NOV-2009 04:38 Cal File: s6k0954.d
Als bottle: 14
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-917.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.02000	weight of sample
M	12.82530	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	5.007	1524955	40.000
* 98 Perylene-d12	15.309	1641036	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown Aldol Condensate				CAS #:			
3.616	569143	14.9287746	570	0		0	10

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
====	====	==========	==========	====	=======	==========	======
Unknown				CAS #:			
17.582	174284	4.24815147	162	0		0	98

Data File: /chem/MSD6.i/s122109.b/s612114.d
Date : 21-DEC-2009 16:57
Client ID: RE03-09-14213
Sample Info: |24293700|1933806|1|SVMF1|LANL
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Page 1

Instrument: MSD6.i

Operator: nag1
Column diameter: 0.20

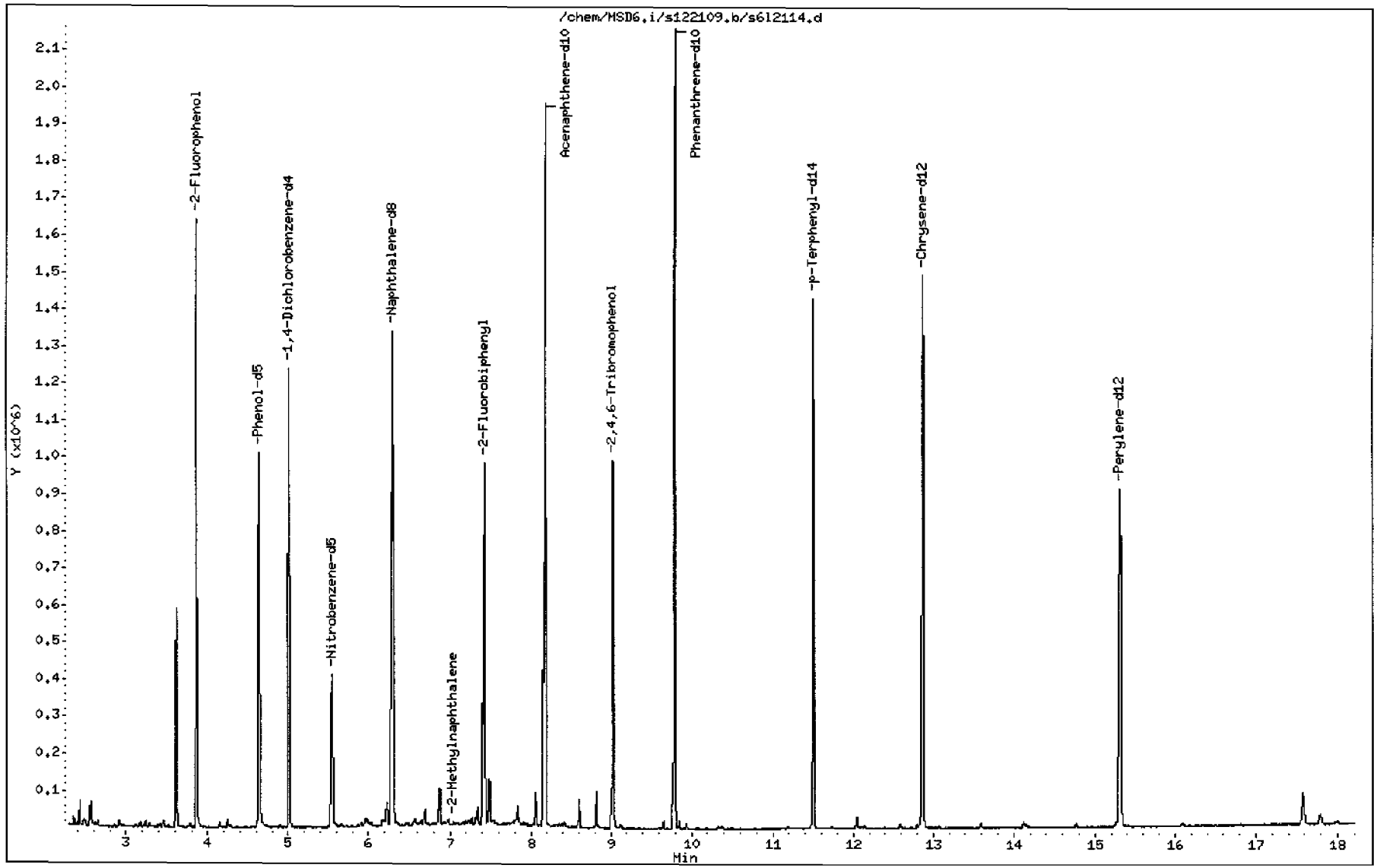

Data File: /chem/MSD6.i/s122109.b/s612114.d

Date : 21-DEC-2009 16:57

Client ID: RE03-09-14213

Instrument: MSD6.i

Sample Info: |2429370011933806|1|SVMF|1|LANL

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

34 2-Methylnaphthalene

Concentration: 10.4 ug/Kg

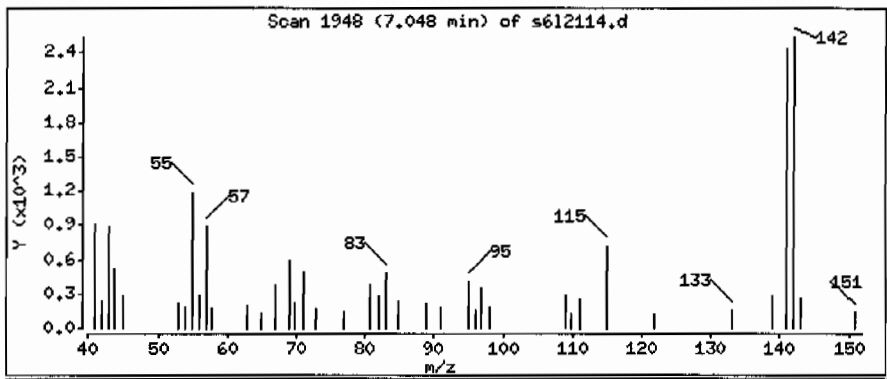

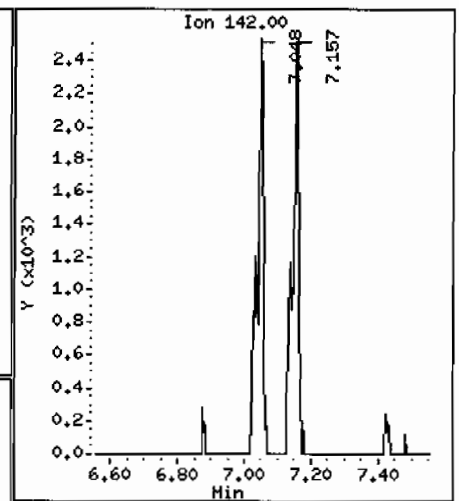

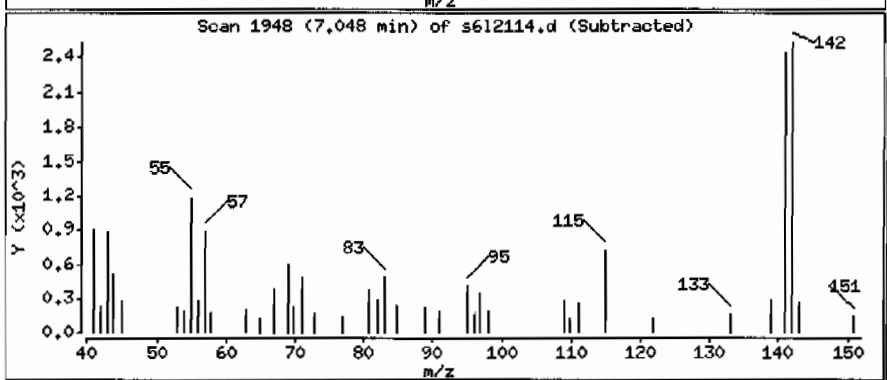

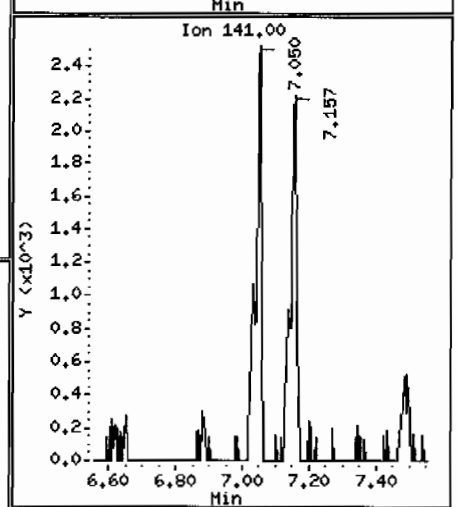

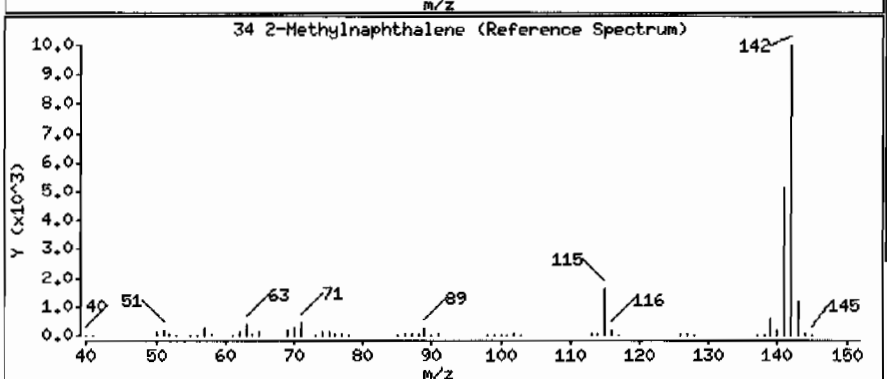

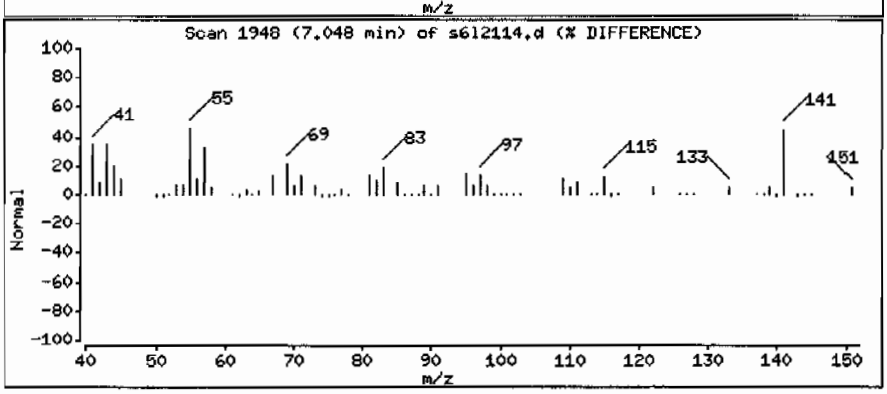

Data File: /chem/MSD6.i/s122109.b/s612114.d

Date : 21-DEC-2009 16:57

Client ID: RE03-09-14213

Instrument: MSD6.i

Sample Info: |2429370011933806|1|SVHF|1|LANL

Volume Injected (uL): 0.5

Operator: nagl

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	56	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	38	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7945	25	C6H12O2	116

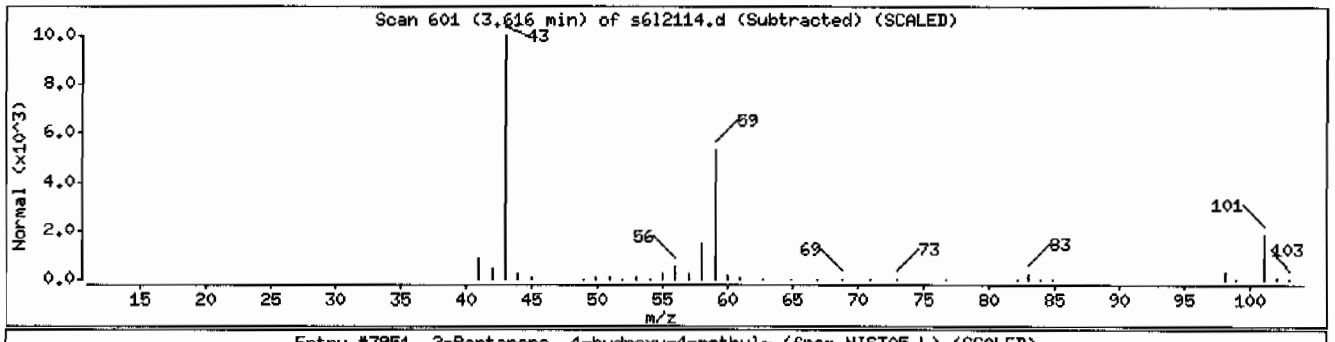

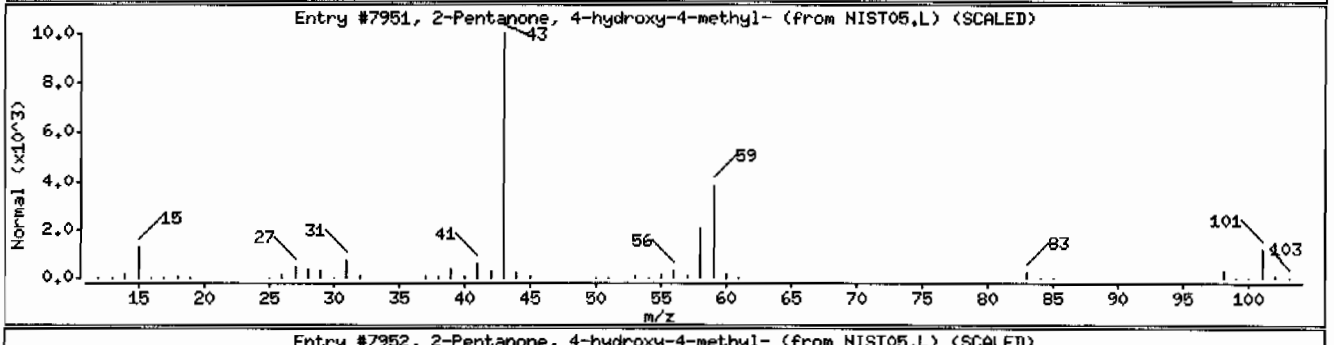

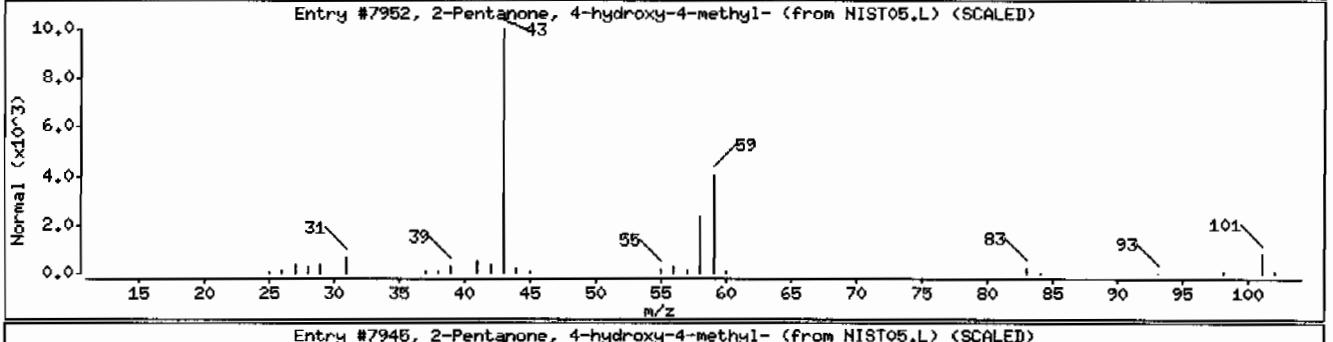

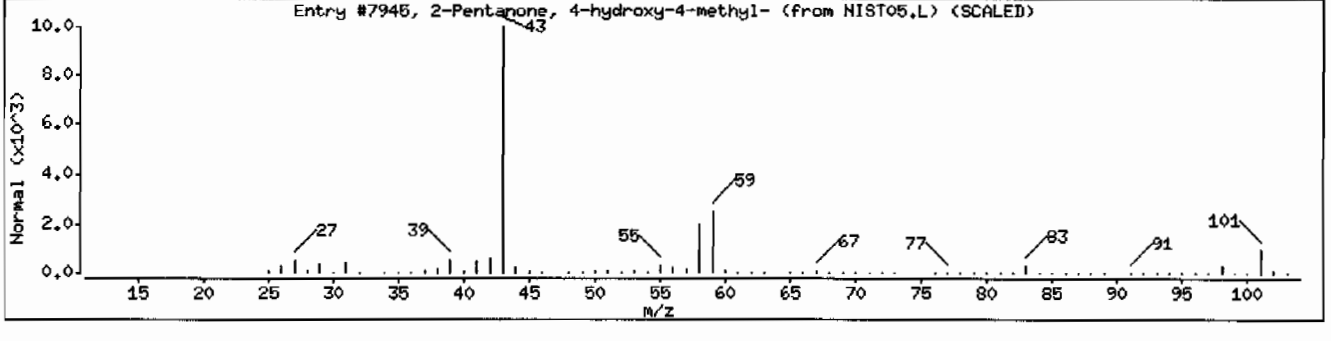

Data File: /chem/MSD6.i/s122109.b/s612114.d

Date : 21-DEC-2009 16:57

Client ID: RE03-09-14213 Instrument: MSD6.i

Sample Info: 1242937001|933806|1|SVMF|1|LANL

Volume Injected (uL): 0.5 Operator: nag1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
1-Benzazirene-1-carboxylic acid, 2,2,5a-	1000197-90-8	NIST05.L	101889	60	C15H23NO3	265
Cyclotrisiloxane, hexamethyl-	541-05-9	NIST05.L	73123	22	C6H18O3Si3	222
1H-Cyclopropl[e]azulene, 1a,2,3,4,4a,5,6,	489-40-7	NIST05.L	60083	18	C15H24	204

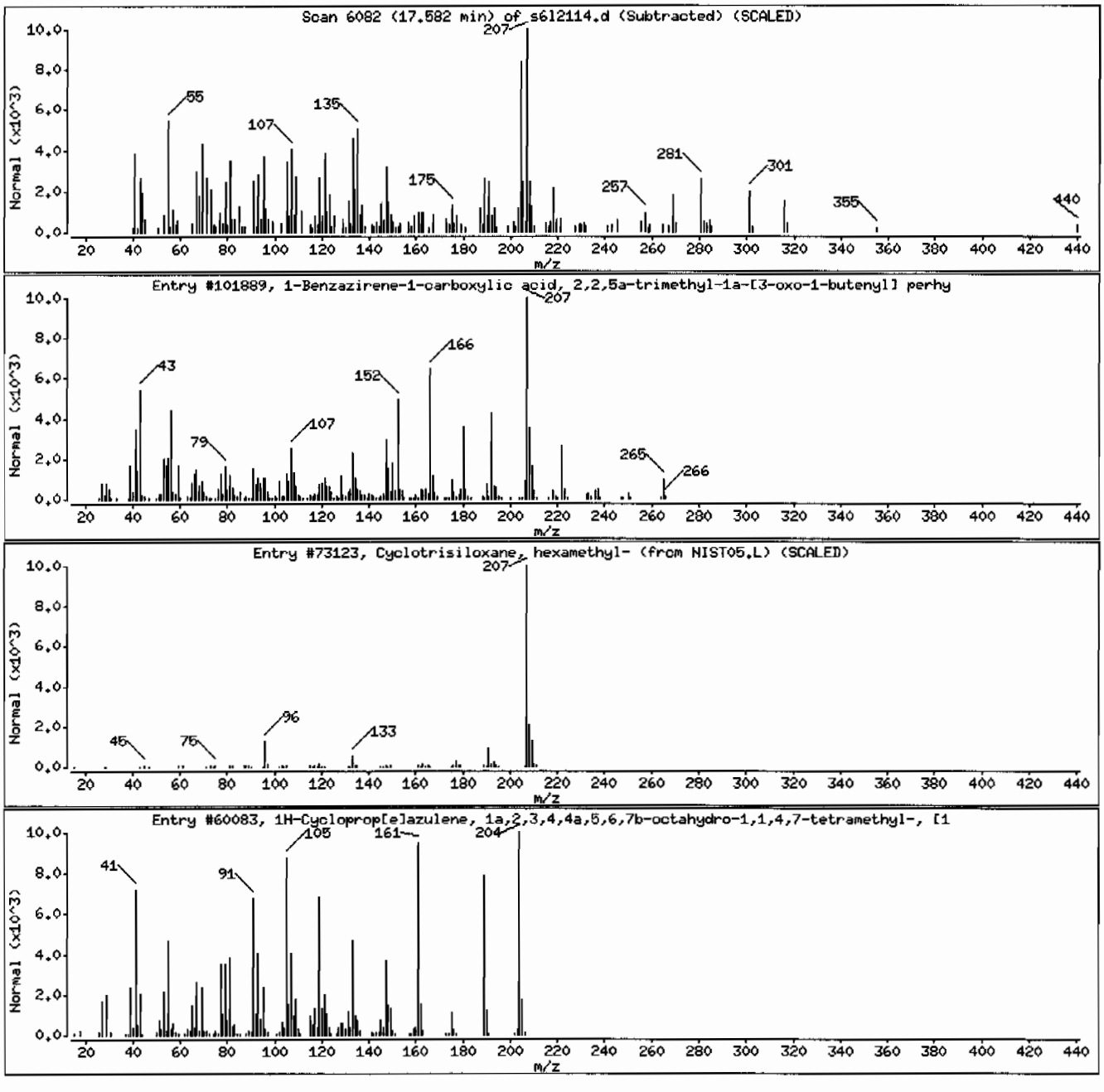

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-917	Date Collected:	12/11/2009 12:00	Matrix:	S
Lab Sample ID:	242937007	Date Received:	12/15/2009 08:45	%Moisture:	13.8
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14214	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	933806	Inst:	MSD6.I	Dilution:	1
Run Date:	12/21/2009 20:38	Analyst:	NAG1	Inj. Vol:	.5 uL
Prep Date:	12/18/2009 09:12	Aliquot:	30.02 g	Final Volume:	1 mL
Data File:	s612122.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	386	ug/kg	77.3	386
108-95-2	Phenol	U	386	ug/kg	77.3	386
95-57-8	2-Chlorophenol	U	386	ug/kg	77.3	386
106-46-7	1,4-Dichlorobenzene	U	386	ug/kg	77.3	386
621-64-7	N-Nitrosodipropylamine	U	386	ug/kg	77.3	386
59-50-7	4-Chloro-3-methylphenol	U	386	ug/kg	77.3	386
83-32-9	Acenaphthene	U	38.6	ug/kg	12.7	38.6
121-14-2	2,4-Dinitrotoluene	U	386	ug/kg	38.6	386
100-02-7	4-Nitrophenol	U	386	ug/kg	127	386
87-86-5	Pentachlorophenol	U	386	ug/kg	96.6	386
129-00-0	Pyrene	U	38.6	ug/kg	11.6	38.6
110-86-1	Pyridine	U	386	ug/kg	77.3	386
62-53-3	Aniline	U	386	ug/kg	116	386
111-44-4	bis(2-Chloroethyl) ether	U	386	ug/kg	77.3	386
541-73-1	1,3-Dichlorobenzene	U	386	ug/kg	77.3	386
100-51-6	Benzyl alcohol	U	386	ug/kg	116	386
95-50-1	1,2-Dichlorobenzene	U	386	ug/kg	77.3	386
108-60-1	bis(2-Chloroisopropyl)ether	U	386	ug/kg	77.3	386
95-48-7	o-Cresol	U	386	ug/kg	77.3	386
65794-96-9	m,p-Cresols	U	386	ug/kg	116	386
67-72-1	Hexachloroethane	U	386	ug/kg	77.3	386
98-95-3	Nitrobenzene	U	386	ug/kg	77.3	386
78-59-1	Isophorone	U	386	ug/kg	77.3	386
88-75-5	2-Nitrophenol	U	386	ug/kg	77.3	386
105-67-9	2,4-Dimethylphenol	U	386	ug/kg	135	386
111-91-1	bis(2-Chloroethoxy)methane	U	386	ug/kg	77.3	386
120-83-2	2,4-Dichlorophenol	U	386	ug/kg	77.3	386
65-85-0	Benzoic acid	U	773	ug/kg	193	773
91-20-3	Naphthalene	U	38.6	ug/kg	11.6	38.6
106-47-8	4-Chloroaniline	U	386	ug/kg	77.3	386
87-68-3	Hexachlorobutadiene	U	386	ug/kg	77.3	386
91-57-6	2-Methylnaphthalene	U	38.6	ug/kg	7.73	38.6
77-47-4	Hexachlorocyclopentadiene	U	386	ug/kg	77.3	386
88-06-2	2,4,6-Trichlorophenol	U	386	ug/kg	77.3	386
95-95-4	2,4,5-Trichlorophenol	U	386	ug/kg	77.3	386
91-58-7	2-Chloronaphthalene	U	38.6	ug/kg	12.7	38.6
88-74-4	2-Nitroaniline	U	386	ug/kg	77.3	386
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	386	ug/kg	77.3	386

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-917**	**Date Collected:**	**12/11/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242937007**	**Date Received:**	**12/15/2009 08:45**	**%Moisture:**	**13.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14214**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**933806**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**12/21/2009 20:38**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/18/2009 09:12**	**Aliquot:**	**30.02 g**	**Final Volume:**	**1 mL**
Data File:	**s6l2122.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	386	ug/kg	77.3	386
606-20-2	2,6-Dinitrotoluene	U	386	ug/kg	38.6	386
208-96-8	Acenaphthylene	U	38.6	ug/kg	11.6	38.6
51-28-5	2,4-Dinitrophenol	U	773	ug/kg	147	773
132-64-9	Dibenzofuran	U	386	ug/kg	77.3	386
84-66-2	Diethylphthalate	U	386	ug/kg	77.3	386
86-73-7	Fluorene	U	38.6	ug/kg	11.6	38.6
7005-72-3	4-Chlorophenylphenylether	U	386	ug/kg	77.3	386
534-52-1	2-Methyl-4,6-dinitrophenol	U	386	ug/kg	77.3	386
100-01-6	4-Nitroaniline	U	386	ug/kg	116	386
	p-Nitroaniline					
122-39-4	Diphenylamine	U	386	ug/kg	77.3	386
122-66-7	Azobenzene	U	386	ug/kg	77.3	386
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	386	ug/kg	77.3	386
118-74-1	Hexachlorobenzene	U	386	ug/kg	77.3	386
85-01-8	Phenanthrene	U	38.6	ug/kg	11.6	38.6
120-12-7	Anthracene	U	38.6	ug/kg	7.73	38.6
84-74-2	Di-n-butylphthalate	U	386	ug/kg	77.3	386
206-44-0	Fluoranthene	U	38.6	ug/kg	11.6	38.6
85-68-7	Butylbenzylphthalate	U	386	ug/kg	77.3	386
56-55-3	Benzo(a)anthracene	U	38.6	ug/kg	11.6	38.6
91-94-1	3,3'-Dichlorobenzidine	U	386	ug/kg	116	386
218-01-9	Chrysene	U	38.6	ug/kg	11.6	38.6
117-81-7	bis(2-Ethylhexyl)phthalate	U	386	ug/kg	77.3	386
117-84-0	Di-n-octylphthalate	U	386	ug/kg	77.3	386
205-99-2	Benzo(b)fluoranthene	U	38.6	ug/kg	11.6	38.6
207-08-9	Benzo(k)fluoranthene	U	38.6	ug/kg	11.6	38.6
50-32-8	Benzo(a)pyrene	U	38.6	ug/kg	11.6	38.6
193-39-5	Indeno(1,2,3-cd)pyrene	U	38.6	ug/kg	11.6	38.6
53-70-3	Dibenzo(a,h)anthracene	U	38.6	ug/kg	11.6	38.6
191-24-2	Benzo(ghi)perylene	U	38.6	ug/kg	11.6	38.6
120-82-1	1,2,4-Trichlorobenzene	U	386	ug/kg	77.3	386

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	3.61	447	ug/kg		JA

GEL Laboratories LLC

Data file : /chem/MSD6.i/s122109.b/s612122.d
Lab Smp Id: 242937007 Client Smp ID: RE03-09-14214
Inj Date : 21-DEC-2009 20:38
Operator : nagl Inst ID: MSD6.i
Smp Info : |242937007|933806|1|SVMF|1|LANL
Misc Info : |MSD8270_S|WBN091208-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s122109.b/MSD6-M8270C-AQA-110909.m
Meth Date : 22-Dec-2009 11:21 nat00999 Quant Type: ISTD
Cal Date : 11-NOV-2009 04:38 Cal File: s6k0954.d
Als bottle: 22
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-917.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.02000	weight of sample
M	13.78090	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	5.007	5.025	(1.000)	238207	40.0000	
* 29 Naphthalene-d8	136	6.299	6.309	(1.000)	564034	40.0000	
* 46 Acenaphthene-d10	164	8.177	8.187	(1.000)	398279	40.0000	
* 67 Phenanthrene-d10	188	9.795	9.802	(1.000)	852904	40.0000	
* 91 Chrysene-d12	240	12.873	12.885	(1.000)	785039	40.0000	
* 98 Perylene-d12	264	15.312	15.324	(1.000)	681297	40.0000	
$ 3 2-Fluorophenol	112	3.858	3.860	(0.770)	353041	59.1830	2290
$ 5 Phenol-d5	99	4.638	4.645	(0.926)	465862	61.8761	2390
$ 20 Nitrobenzene-d5	82	5.552	5.565	(0.881)	104897	26.2903	1020
$ 39 2-Fluorobiphenyl	172	7.428	7.435	(0.908)	239260	23.3107	901
$ 60 2,4,6-Tribromophenol	329	9.030	9.040	(1.104)	79563	68.4431	2640
$ 81 p-Terphenyl-d14	244	11.502	11.507	(0.894)	428390	33.8379	1310

ION RATIO REPORT

SV REPORT

Data file: s612122.d
Report Date: 12/22/2009 11:50
Lab. ID: 242937007 SampleType: SAMPLE
Injection Date: 21-DEC-2009 20:38
Operator: nagl Instrument: MSD6.i
Sample Info: |242937007|933806|1|SVMF|1|LANL
Miscellaneous Info: |MSD8270_S|WBN091208-01
Comment:
Method used: /chem/MSD6.i/s122109.b/MSD6-M8270C-AQA-110909.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-917
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
17 N-Nitrosodipropylamine				CAS#: 621-64-7		
70	13725	5.54	5.39	80-120	100	(T)
42	8283	5.54	5.39	40-100	60	(T)
22 Isophorone				CAS#: 78-59-1		
82	104897	5.55	5.82	80-120	100	(T)
138	2720	6.28	5.82	0- 49	3	(T)
43 Dimethylphthalate				CAS#: 131-11-3		
163	26358	8.15	7.87	80-120	100	(T)
164	152845	8.15	7.87	0- 40	580	(QT)
50 2,4-Dinitrotoluene				CAS#: 121-14-2		
165	52087	8.18	8.37	80-120	100	(T)
89	553	8.18	8.37	41-101	1	(QT)
63	573	8.18	8.37	18- 78	1	(QT)
53 Fluorene				CAS#: 86-73-7		
166	4946	9.03	8.78	80-120	100	(T)
165	5264	9.03	8.78	62-122	106	(T)
167	1771	9.03	8.78	0- 44	36	(T)
55 2-Methyl-4,6-dinitrophenol				CAS#: 534-52-1		
198	131	9.04	8.82	80-120	100	(T)
105	501	9.03	8.82	11- 71	380	(QT)
51	435	9.03	8.82	21- 81	330	(QT)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

Data file : /chem/MSD6.i/s122109.b/s612122.d
Lab Smp Id: 242937007 Client Smp ID: RE03-09-14214
Inj Date : 21-DEC-2009 20:38
Operator : nag1 Inst ID: MSD6.i
Smp Info : |242937007|933806|1|SVMF|1|LANL
Misc Info : |MSD8270_S|WBN091208-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s122109.b/MSD6-M8270C-AQA-110909.m
Meth Date : 22-Dec-2009 11:21 nat00999 Quant Type: ISTD
Cal Date : 11-NOV-2009 04:38 Cal File: s6k0954.d
Als bottle: 22
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-917.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.02000	weight of sample
M	13.78090	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	5.007	1390850	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown Aldol Condensate					CAS #:		
3.606	402354	11.5714576	447	0		0	10

Data File: /chem/MSD6.i/s122109.b/s612122.d
Date : 21-DEC-2009 20:38
Client ID: RE03-09-14214
Sample Info: 1242937007|933806|1|SVMF|1|LANL
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Page 1

Instrument: MSD6.i

Operator: nag1
Column diameter: 0.20

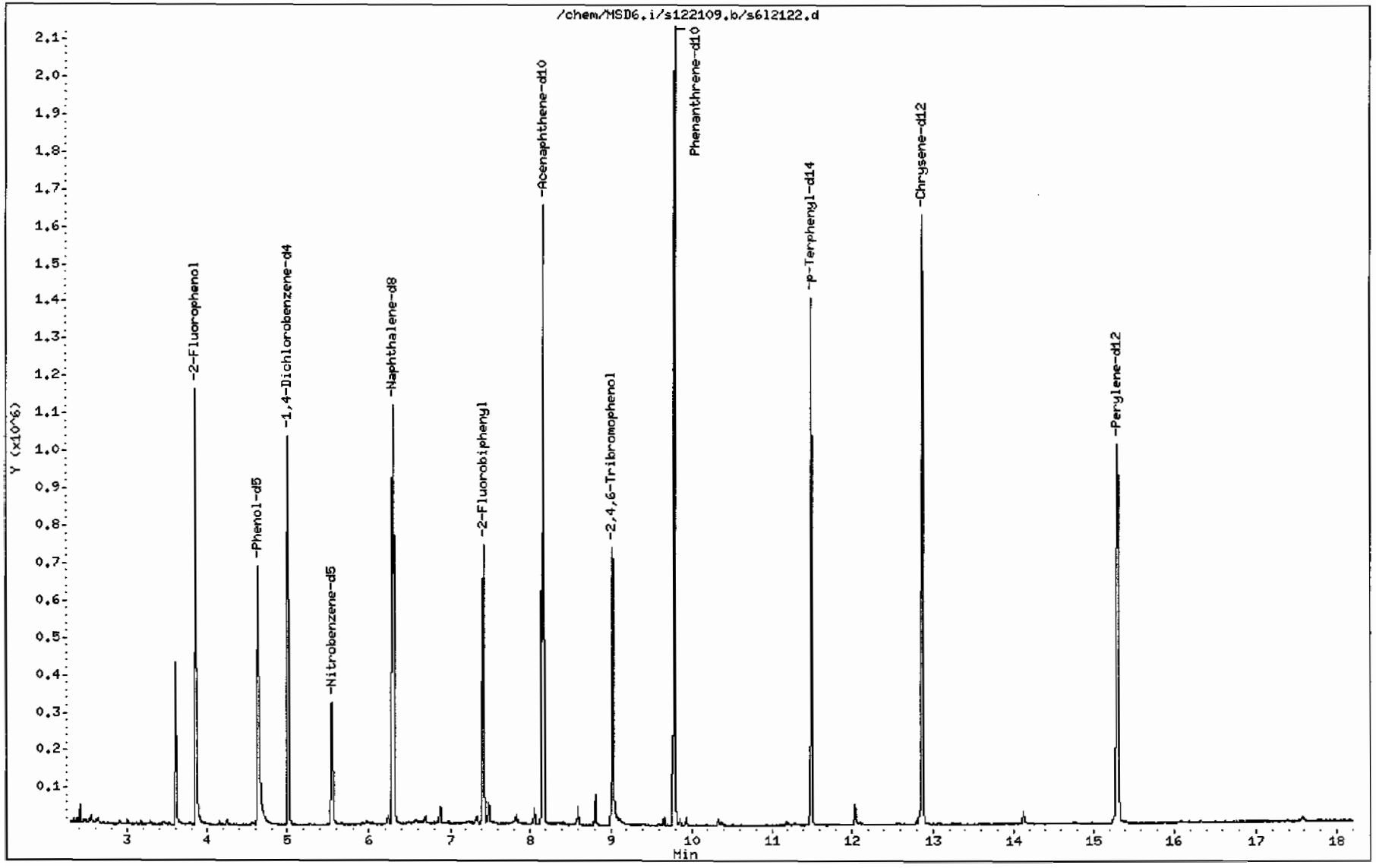

Data File: /chem/MSD6.i/s122109.b/s612122.d

Date : 21-DEC-2009 20:38

Client ID: RE03-09-14214

Instrument: MSD6.i

Sample Info: |24293700|9338061|SVMF|1|LANL

Volume Injected (uL): 0.5

Operator: nagl

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	50	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	38	C6H12O2	116
2,3-Butanedione, monooxime	57-71-6	NIST05.L	3949	12	C4H7NO2	101

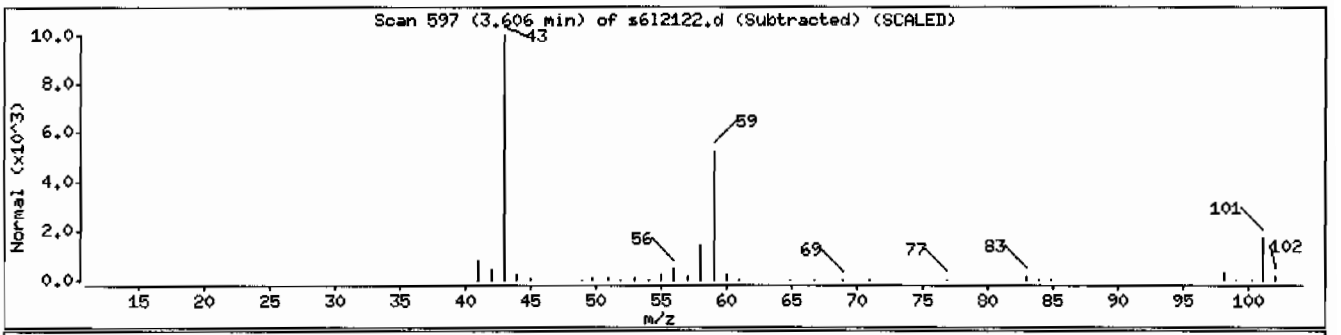

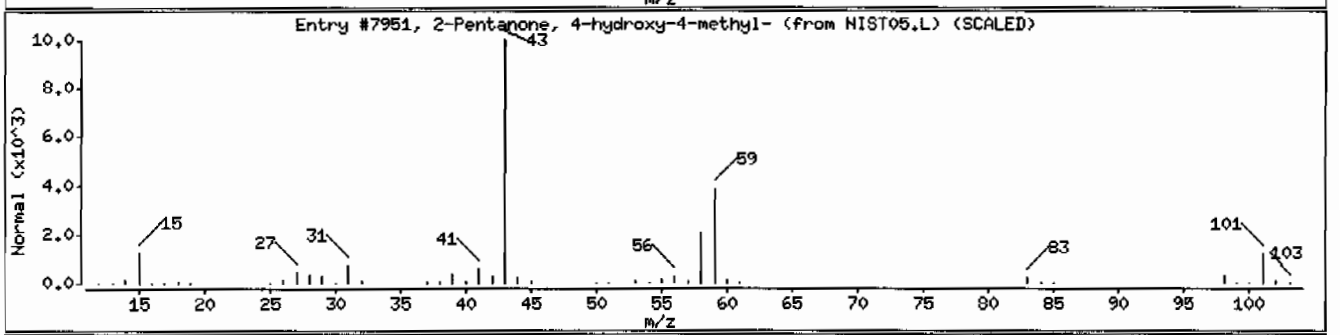

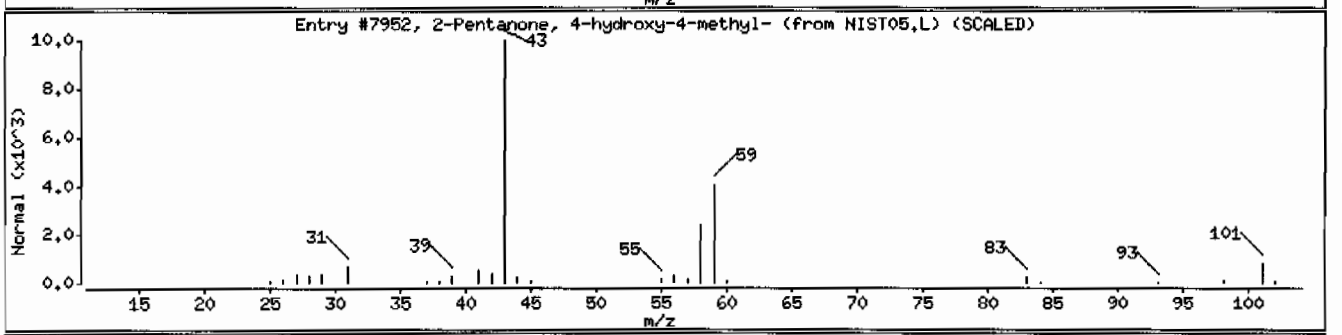

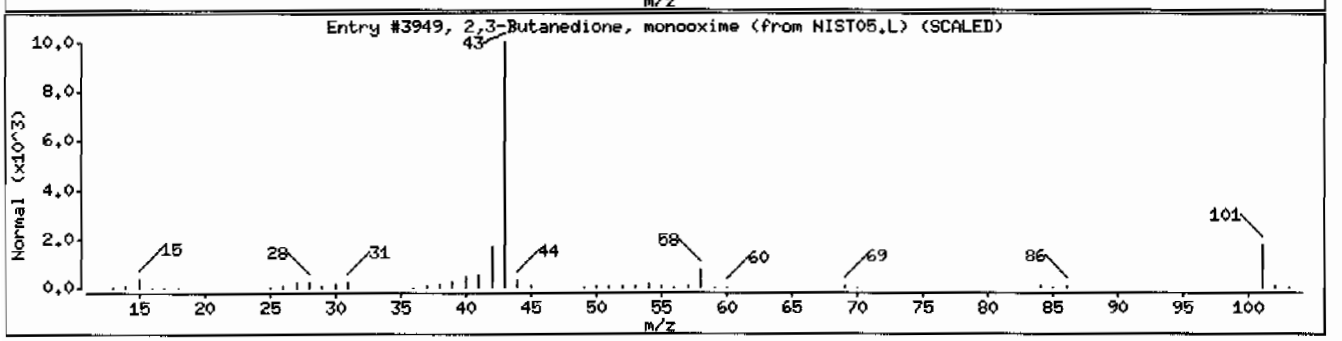

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-917	Date Collected:	12/11/2009 12:00	Matrix:	S
Lab Sample ID:	242937002	Date Received:	12/15/2009 08:45	%Moisture:	10.3
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14215	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	933806	Inst:	MSD6.I	Dilution:	1
Run Date:	12/21/2009 18:20	Analyst:	NAG1	Inj. Vol:	.5 uL
Prep Date:	12/18/2009 09:12	Aliquot:	30.04 g	Final Volume:	1 mL
Data File:	s612117.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	371	ug/kg	74.2	371
108-95-2	Phenol	U	371	ug/kg	74.2	371
95-57-8	2-Chlorophenol	U	371	ug/kg	74.2	371
106-46-7	1,4-Dichlorobenzene	U	371	ug/kg	74.2	371
621-64-7	N-Nitrosodipropylamine	U	371	ug/kg	74.2	371
59-50-7	4-Chloro-3-methylphenol	U	371	ug/kg	74.2	371
83-32-9	Acenaphthene	U	37.1	ug/kg	12.2	37.1
121-14-2	2,4-Dinitrotoluene	U	371	ug/kg	37.1	371
100-02-7	4-Nitrophenol	U	371	ug/kg	122	371
87-86-5	Pentachlorophenol	U	371	ug/kg	92.8	371
129-00-0	Pyrene	U	37.1	ug/kg	11.1	37.1
110-86-1	Pyridine	U	371	ug/kg	74.2	371
62-53-3	Aniline	U	371	ug/kg	111	371
111-44-4	bis(2-Chloroethyl) ether	U	371	ug/kg	74.2	371
541-73-1	1,3-Dichlorobenzene	U	371	ug/kg	74.2	371
100-51-6	Benzyl alcohol	U	371	ug/kg	111	371
95-50-1	1,2-Dichlorobenzene	U	371	ug/kg	74.2	371
108-60-1	bis(2-Chloroisopropyl)ether	U	371	ug/kg	74.2	371
95-48-7	o-Cresol	U	371	ug/kg	74.2	371
65794-96-9	m,p-Cresols	U	371	ug/kg	111	371
67-72-1	Hexachloroethane	U	371	ug/kg	74.2	371
98-95-3	Nitrobenzene	U	371	ug/kg	74.2	371
78-59-1	Isophorone	U	371	ug/kg	74.2	371
88-75-5	2-Nitrophenol	U	371	ug/kg	74.2	371
105-67-9	2,4-Dimethylphenol	U	371	ug/kg	130	371
111-91-1	bis(2-Chloroethoxy)methane	U	371	ug/kg	74.2	371
120-83-2	2,4-Dichlorophenol	U	371	ug/kg	74.2	371
65-85-0	Benzoic acid	U	742	ug/kg	186	742
91-20-3	Naphthalene	U	37.1	ug/kg	11.1	37.1
106-47-8	4-Chloroaniline	U	371	ug/kg	74.2	371
87-68-3	Hexachlorobutadiene	U	371	ug/kg	74.2	371
91-57-6	2-Methylnaphthalene	U	37.1	ug/kg	7.42	37.1
77-47-4	Hexachlorocyclopentadiene	U	371	ug/kg	74.2	371
88-06-2	2,4,6-Trichlorophenol	U	371	ug/kg	74.2	371
95-95-4	2,4,5-Trichlorophenol	U	371	ug/kg	74.2	371
91-58-7	2-Chloronaphthalene	U	37.1	ug/kg	12.2	37.1
88-74-4	2-Nitroaniline	U	371	ug/kg	74.2	371
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	371	ug/kg	74.2	371

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-917**	**Date Collected:**	**12/11/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242937002**	**Date Received:**	**12/15/2009 08:45**	**%Moisture:**	**10.3**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14215**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**933806**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**12/21/2009 18:20**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/18/2009 09:12**	**Aliquot:**	**30.04 g**	**Final Volume:**	**1 mL**
Data File:	**s6l2117.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	371	ug/kg	74.2	371
606-20-2	2,6-Dinitrotoluene	U	371	ug/kg	37.1	371
208-96-8	Acenaphthylene	U	37.1	ug/kg	11.1	37.1
51-28-5	2,4-Dinitrophenol	U	742	ug/kg	141	742
132-64-9	Dibenzofuran	U	371	ug/kg	74.2	371
84-66-2	Diethylphthalate	U	371	ug/kg	74.2	371
86-73-7	Fluorene	U	37.1	ug/kg	11.1	37.1
7005-72-3	4-Chlorophenylphenylether	U	371	ug/kg	74.2	371
534-52-1	2-Methyl-4,6-dinitrophenol	U	371	ug/kg	74.2	371
100-01-6	4-Nitroaniline	U	371	ug/kg	111	371
	p-Nitroaniline					
122-39-4	Diphenylamine	U	371	ug/kg	74.2	371
122-66-7	Azobenzene	U	371	ug/kg	74.2	371
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	371	ug/kg	74.2	371
118-74-1	Hexachlorobenzene	U	371	ug/kg	74.2	371
85-01-8	Phenanthrene	U	37.1	ug/kg	11.1	37.1
120-12-7	Anthracene	U	37.1	ug/kg	7.42	37.1
84-74-2	Di-n-butylphthalate	U	371	ug/kg	74.2	371
206-44-0	Fluoranthene	U	37.1	ug/kg	11.1	37.1
85-68-7	Butylbenzylphthalate	U	371	ug/kg	74.2	371
56-55-3	Benzo(a)anthracene	U	37.1	ug/kg	11.1	37.1
91-94-1	3,3'-Dichlorobenzidine	U	371	ug/kg	111	371
218-01-9	Chrysene	U	37.1	ug/kg	11.1	37.1
117-81-7	bis(2-Ethylhexyl)phthalate	U	371	ug/kg	74.2	371
117-84-0	Di-n-octylphthalate	U	371	ug/kg	74.2	371
205-99-2	Benzo(b)fluoranthene	U	37.1	ug/kg	11.1	37.1
207-08-9	Benzo(k)fluoranthene	U	37.1	ug/kg	11.1	37.1
50-32-8	Benzo(a)pyrene	U	37.1	ug/kg	11.1	37.1
193-39-5	Indeno(1,2,3-cd)pyrene	U	37.1	ug/kg	11.1	37.1
53-70-3	Dibenzo(a,h)anthracene	U	37.1	ug/kg	11.1	37.1
191-24-2	Benzo(ghi)perylene	U	37.1	ug/kg	11.1	37.1
120-82-1	1,2,4-Trichlorobenzene	U	371	ug/kg	74.2	371

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	3.61	521	ug/kg		JA

GEL Laboratories LLC

Data file : /chem/MSD6.i/s122109.b/s612117.d
Lab Smp Id: 242937002 Client Smp ID: RE03-09-14215
Inj Date : 21-DEC-2009 18:20
Operator : nagl Inst ID: MSD6.i
Smp Info : |242937002|933806|1|SVMF|1|LANL
Misc Info : |MSD8270_S|WBN091208-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s122109.b/MSD6-M8270C-AQA-110909.m
Meth Date : 22-Dec-2009 11:21 nat00999 Quant Type: ISTD
Cal Date : 11-NOV-2009 04:38 Cal File: s6k0954.d
Als bottle: 17
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-917.sub
Target Version: 3.50
Processing Host: hpclpl

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.04000	weight of sample
M	10.28450	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	5.007	5.025	(1.000)	271378	40.0000	
* 29 Naphthalene-d8	136	6.301	6.309	(1.000)	681741	40.0000	
* 46 Acenaphthene-d10	164	8.179	8.187	(1.000)	485667	40.0000	
* 67 Phenanthrene-d10	188	9.797	9.802	(1.000)	941101	40.0000	
* 91 Chrysene-d12	240	12.876	12.885	(1.000)	769607	40.0000	
* 98 Perylene-d12	264	15.312	15.324	(1.000)	613595	40.0000	
$ 3 2-Fluorophenol	112	3.858	3.860	(0.770)	405813	59.7142	2220
$ 5 Phenol-d5	99	4.635	4.645	(0.926)	533863	62.2408	2310
$ 20 Nitrobenzene-d5	82	5.552	5.565	(0.881)	129557	26.8645	997
$ 39 2-Fluorobiphenyl	172	7.428	7.435	(0.908)	307955	24.6049	913
$ 60 2,4,6-Tribromophenol	329	9.033	9.040	(1.104)	103934	73.3205	2720
$ 81 p-Terphenyl-d14	244	11.502	11.507	(0.893)	491182	39.5757	1470

ION RATIO REPORT

SV REPORT

Data file: s612117.d
Report Date: 12/22/2009 11:48
Lab. ID: 242937002 SampleType: SAMPLE
Injection Date: 21-DEC-2009 18:20
Operator: nagl Instrument: MSD6.i
Sample Info: |242937002|933806|1|SVMF|1|LANL
Miscellaneous Info: |MSD8270_S|WBN091208-01
Comment:
Method used: /chem/MSD6.i/s122109.b/MSD6-M8270C-AQA-110909.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-917
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
4 Aniline		CAS#: 62-53-3				
66	25492	4.64	4.71	80-120	100	(T)
93	179	4.73	4.71	228-288	1	(Q)
17 N-Nitrosodipropylamine				CAS#: 621-64-7		
70	14729	5.54	5.39	80-120	100	(T)
42	8652	5.54	5.39	40-100	59	(T)
22 Isophorone		CAS#: 78-59-1				
82	129557	5.55	5.82	80-120	100	(T)
138	2121	6.28	5.82	0- 49	2	(T)
34 2-Methylnaphthalene				CAS#: 91-57-6		
142	1792	7.16	7.06	80-120	100	(T)
141	1207	7.16	7.06	55-115	67	(T)
43 Dimethylphthalate				CAS#: 131-11-3		
163	89645	8.18	7.87	80-120	100	(T)
164	485667	8.18	7.87	0- 40	542	(QT)
50 2,4-Dinitrotoluene				CAS#: 121-14-2		
165	62843	8.18	8.37	80-120	100	(T)
89	820	8.18	8.37	41-101	1	(QT)
63	279	8.18	8.37	18- 78	0	(QT)

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
52 4-Nitrophenol			CAS#: 100-02-7			
139	312	8.39	8.32	80-120	100	(T)
109	1116	8.18	8.32	34- 94	357	(QT)
65	322	8.60	8.32	64-124	103	(T)
53 Fluorene			CAS#: 86-73-7			
166	6183	9.03	8.78	80-120	100	(T)
165	6738	9.03	8.78	62-122	109	(T)
167	2219	9.03	8.78	0- 44	36	(T)
55 2-Methyl-4,6-dinitrophenol			CAS#: 534-52-1			
198	121	9.03	8.82	80-120	100	(T)
105	610	9.03	8.82	11- 71	504	(QT)
51	597	9.03	8.82	21- 81	494	(QT)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

Data file : /chem/MSD6.i/s122109.b/s612117.d
Lab Smp Id: 242937002 Client Smp ID: RE03-09-14215
Inj Date : 21-DEC-2009 18:20
Operator : nagl Inst ID: MSD6.i
Smp Info : |242937002|933806|1|SVMF|1|LANL
Misc Info : |MSD8270_S|WBN091208-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s122109.b/MSD6-M8270C-AQA-110909.m
Meth Date : 22-Dec-2009 11:21 nat00999 Quant Type: ISTD
Cal Date : 11-NOV-2009 04:38 Cal File: s6k0954.d
Als bottle: 17
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-917.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.04000	weight of sample
M	10.28450	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	5.007	1567748	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown Aldol Condensate					CAS #:		
3.613	550543	14.0467231	521	0		0	10

Data File: /chem/MSD6.i/s122109.b/s612117.d
Date : 21-DEC-2009 18:20
Client ID: RE03-09-14215
Sample Info: |2429370021933806|1|SVMF|1|LANL
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD6.i

Operator: nag1
Column diameter: 0.20

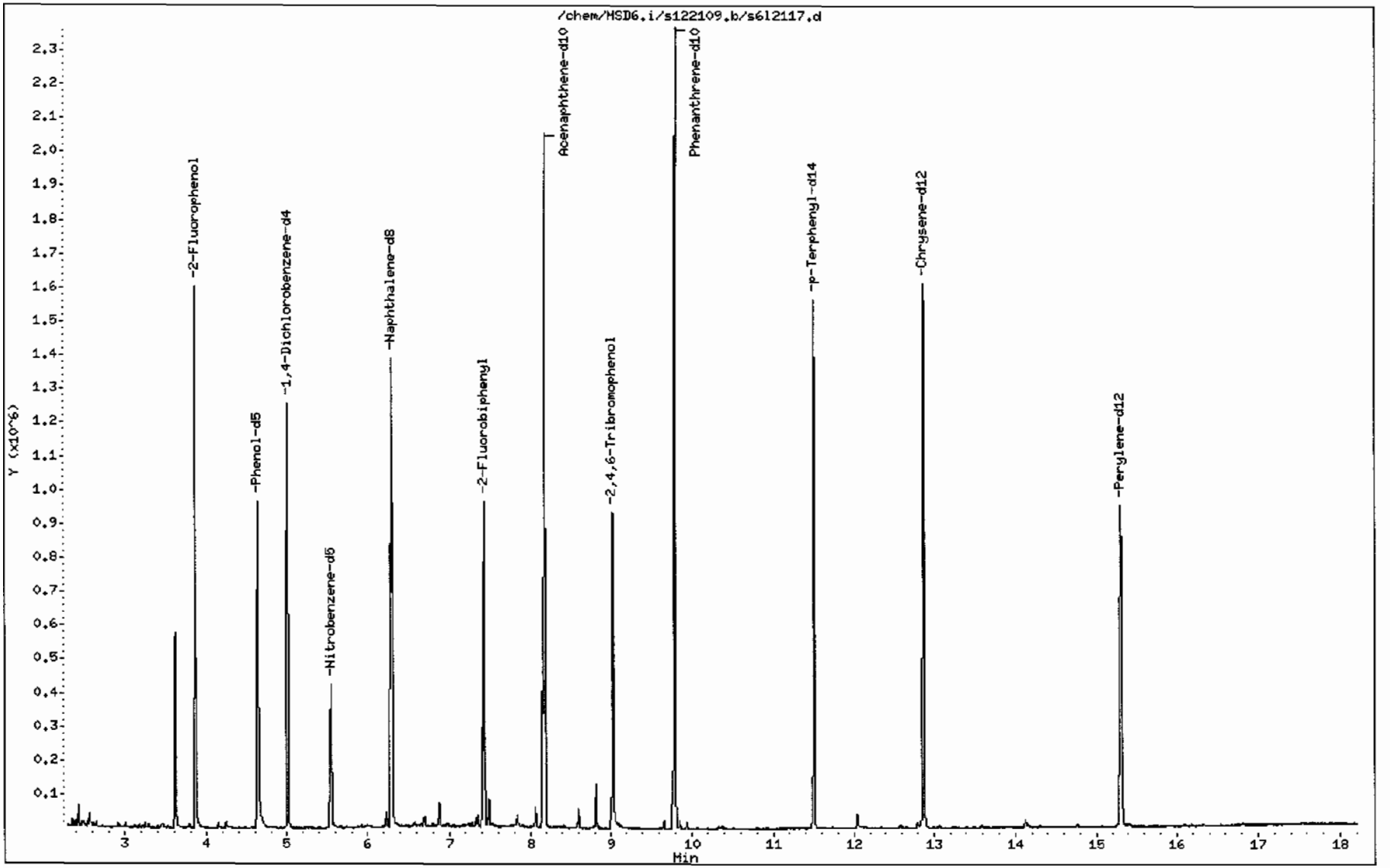

Data File: /chem/HSD6.i/s122109.b/s612117.d

Date : 21-DEC-2009 18:20

Client ID: RE03-09-14215

Instrument: HSD6.i

Sample Info: 1242937002193380611SVMF11LANL

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	59	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	45	C6H12O2	116
5-Hexen-2-one	109-49-9	NIST05.L	3091	9	C6H10O	98

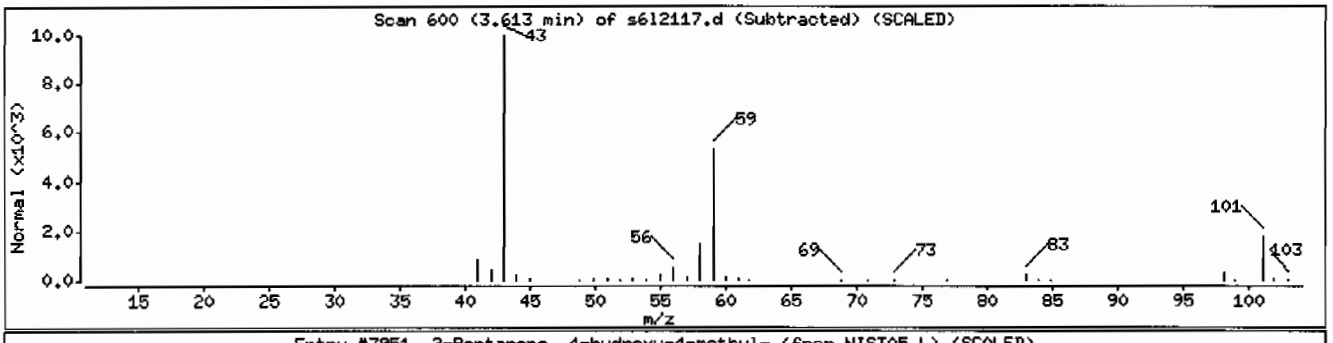

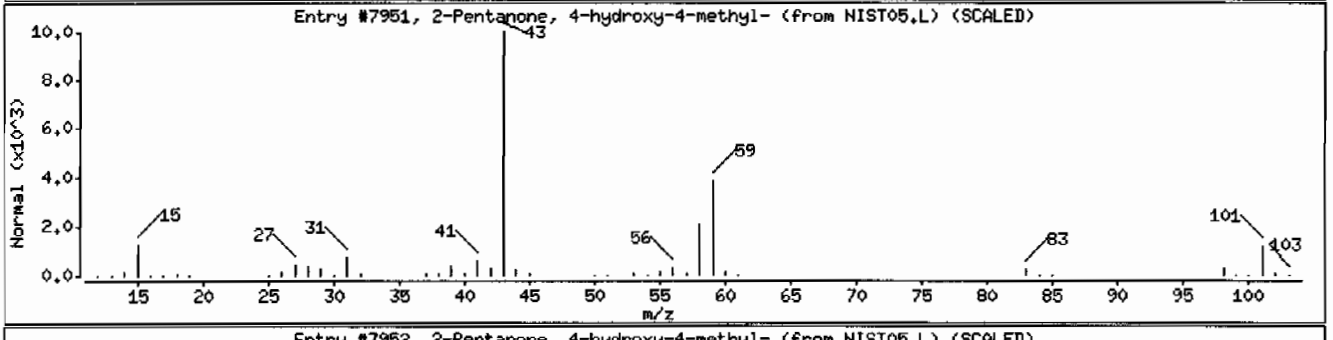

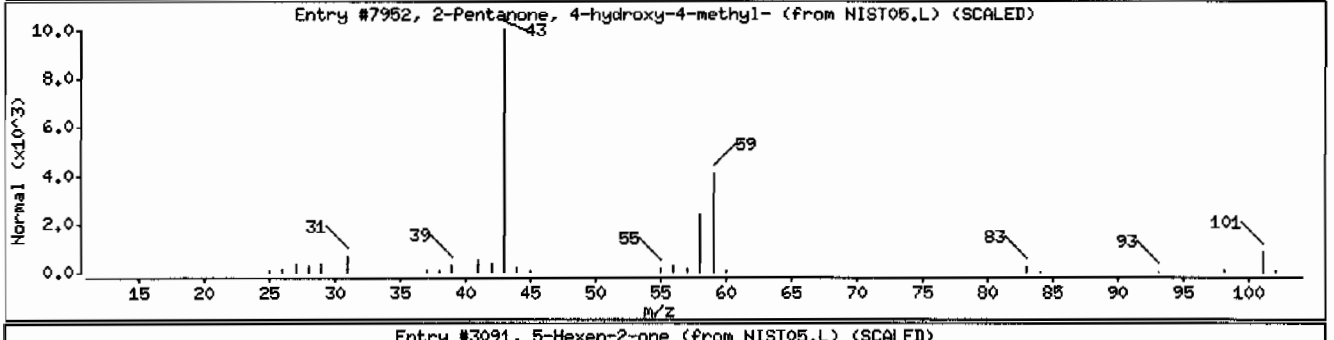

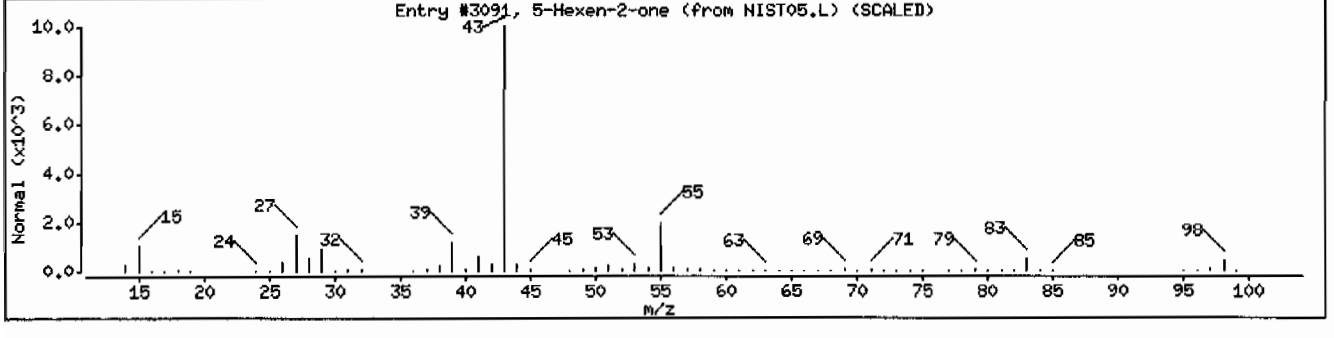

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-917	Date Collected:	12/11/2009 12:00	Matrix:	S
Lab Sample ID:	242937006	Date Received:	12/15/2009 08:45	%Moisture:	15.8
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14216	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	933806	Inst:	MSD6.I	Dilution:	1
Run Date:	12/21/2009 20:10	Analyst:	NAG1	Inj. Vol:	.5 uL
Prep Date:	12/18/2009 09:12	Aliquot:	30.08 g	Final Volume:	1 mL
Data File:	s6l2121.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	395	ug/kg	79.0	395
108-95-2	Phenol	U	395	ug/kg	79.0	395
95-57-8	2-Chlorophenol	U	395	ug/kg	79.0	395
106-46-7	1,4-Dichlorobenzene	U	395	ug/kg	79.0	395
621-64-7	N-Nitrosodipropylamine	U	395	ug/kg	79.0	395
59-50-7	4-Chloro-3-methylphenol	U	395	ug/kg	79.0	395
83-32-9	Acenaphthene	U	39.5	ug/kg	13.0	39.5
121-14-2	2,4-Dinitrotoluene	U	395	ug/kg	39.5	395
100-02-7	4-Nitrophenol	U	395	ug/kg	130	395
87-86-5	Pentachlorophenol	U	395	ug/kg	98.7	395
129-00-0	Pyrene	U	39.5	ug/kg	11.8	39.5
110-86-1	Pyridine	U	395	ug/kg	79.0	395
62-53-3	Aniline	U	395	ug/kg	118	395
111-44-4	bis(2-Chloroethyl) ether	U	395	ug/kg	79.0	395
541-73-1	1,3-Dichlorobenzene	U	395	ug/kg	79.0	395
100-51-6	Benzyl alcohol	U	395	ug/kg	118	395
95-50-1	1,2-Dichlorobenzene	U	395	ug/kg	79.0	395
108-60-1	bis(2-Chloroisopropyl)ether	U	395	ug/kg	79.0	395
95-48-7	o-Cresol	U	395	ug/kg	79.0	395
65794-96-9	m,p-Cresols	U	395	ug/kg	118	395
67-72-1	Hexachloroethane	U	395	ug/kg	79.0	395
98-95-3	Nitrobenzene	U	395	ug/kg	79.0	395
78-59-1	Isophorone	U	395	ug/kg	79.0	395
88-75-5	2-Nitrophenol	U	395	ug/kg	79.0	395
105-67-9	2,4-Dimethylphenol	U	395	ug/kg	138	395
111-91-1	bis(2-Chloroethoxy)methane	U	395	ug/kg	79.0	395
120-83-2	2,4-Dichlorophenol	U	395	ug/kg	79.0	395
65-85-0	Benzoic acid	U	790	ug/kg	197	790
91-20-3	Naphthalene	U	39.5	ug/kg	11.8	39.5
106-47-8	4-Chloroaniline	U	395	ug/kg	79.0	395
87-68-3	Hexachlorobutadiene	U	395	ug/kg	79.0	395
91-57-6	2-Methylnaphthalene	U	39.5	ug/kg	7.90	39.5
77-47-4	Hexachlorocyclopentadiene	U	395	ug/kg	79.0	395
88-06-2	2,4,6-Trichlorophenol	U	395	ug/kg	79.0	395
95-95-4	2,4,5-Trichlorophenol	U	395	ug/kg	79.0	395
91-58-7	2-Chloronaphthalene	U	39.5	ug/kg	13.0	39.5
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	395	ug/kg	79.0	395
99-09-2	3-Nitroaniline	U	395	ug/kg	79.0	395

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-917**	**Date Collected:**	**12/11/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242937006**	**Date Received:**	**12/15/2009 08:45**	**%Moisture:**	**15.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14216**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**933806**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**12/21/2009 20:10**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/18/2009 09:12**	**Aliquot:**	**30.08 g**	**Final Volume:**	**1 mL**
Data File:	**s6l2121.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	395	ug/kg	79.0	395
606-20-2	2,6-Dinitrotoluene	U	395	ug/kg	39.5	395
208-96-8	Acenaphthylene	U	39.5	ug/kg	11.8	39.5
51-28-5	2,4-Dinitrophenol	U	790	ug/kg	150	790
132-64-9	Dibenzofuran	U	395	ug/kg	79.0	395
84-66-2	Diethylphthalate	U	395	ug/kg	79.0	395
86-73-7	Fluorene	U	39.5	ug/kg	11.8	39.5
7005-72-3	4-Chlorophenylphenylether	U	395	ug/kg	79.0	395
534-52-1	2-Methyl-4,6-dinitrophenol	U	395	ug/kg	79.0	395
100-01-6	4-Nitroaniline	U	395	ug/kg	118	395
	p-Nitroaniline					
122-39-4	Diphenylamine	U	395	ug/kg	79.0	395
122-66-7	Azobenzene	U	395	ug/kg	79.0	395
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	395	ug/kg	79.0	395
118-74-1	Hexachlorobenzene	U	395	ug/kg	79.0	395
85-01-8	Phenanthrene	U	39.5	ug/kg	11.8	39.5
120-12-7	Anthracene	U	39.5	ug/kg	7.90	39.5
84-74-2	Di-n-butylphthalate	U	395	ug/kg	79.0	395
206-44-0	Fluoranthene	U	39.5	ug/kg	11.8	39.5
85-68-7	Butylbenzylphthalate	U	395	ug/kg	79.0	395
56-55-3	Benzo(a)anthracene	U	39.5	ug/kg	11.8	39.5
91-94-1	3,3'-Dichlorobenzidine	U	395	ug/kg	118	395
218-01-9	Chrysene	U	39.5	ug/kg	11.8	39.5
117-81-7	bis(2-Ethylhexyl)phthalate	U	395	ug/kg	79.0	395
117-84-0	Di-n-octylphthalate	U	395	ug/kg	79.0	395
205-99-2	Benzo(b)fluoranthene	U	39.5	ug/kg	11.8	39.5
207-08-9	Benzo(k)fluoranthene	U	39.5	ug/kg	11.8	39.5
50-32-8	Benzo(a)pyrene	U	39.5	ug/kg	11.8	39.5
193-39-5	Indeno(1,2,3-cd)pyrene	U	39.5	ug/kg	11.8	39.5
53-70-3	Dibenzo(a,h)anthracene	U	39.5	ug/kg	11.8	39.5
191-24-2	Benzo(ghi)perylene	U	39.5	ug/kg	11.8	39.5
120-82-1	1,2,4-Trichlorobenzene	U	395	ug/kg	79.0	395

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	3.61	538	ug/kg		JA

GEL Laboratories LLC

Data file : /chem/MSD6.i/s122109.b/s612121.d
Lab Smp Id: 242937006 Client Smp ID: RE03-09-14216
Inj Date : 21-DEC-2009 20:10
Operator : nagl Inst ID: MSD6.i
Smp Info : |242937006|933806|1|SVMF|1|LANL
Misc Info : |MSD8270_S|WBN091208-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s122109.b/MSD6-M8270C-AQA-110909.m
Meth Date : 22-Dec-2009 11:21 nat00999 Quant Type: ISTD
Cal Date : 11-NOV-2009 04:38 Cal File: s6k0954.d
Als bottle: 21
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-917.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.08000	weight of sample
M	15.82920	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	5.007	5.025	(1.000)	226980	40.0000	
* 29 Naphthalene-d8	136	6.299	6.309	(1.000)	531879	40.0000	
* 46 Acenaphthene-d10	164	8.177	8.187	(1.000)	379248	40.0000	
* 67 Phenanthrene-d10	188	9.795	9.802	(1.000)	790155	40.0000	
* 91 Chrysene-d12	240	12.873	12.885	(1.000)	758850	40.0000	
* 98 Perylene-d12	264	15.312	15.324	(1.000)	653041	40.0000	
$ 3 2-Fluorophenol	112	3.855	3.860	(0.770)	339642	59.7531	2360
$ 5 Phenol-d5	99	4.637	4.645	(0.926)	375163	52.2941	2060
$ 20 Nitrobenzene-d5	82	5.552	5.565	(0.881)	106094	28.1978	1110
$ 39 2-Fluorobiphenyl	172	7.428	7.435	(0.908)	258342	26.4329	1040
$ 60 2,4,6-Tribromophenol	329	9.033	9.040	(1.105)	84299	76.1562	3010
$ 81 p-Terphenyl-d14	244	11.502	11.507	(0.894)	458143	37.4369	1480

ION RATIO REPORT

SV REPORT

Data file: s612121.d
Report Date: 12/22/2009 11:49
Lab. ID: 242937006 SampleType: SAMPLE
Injection Date: 21-DEC-2009 20:10
Operator: nagl Instrument: MSD6.i
Sample Info: |242937006|933806|1|SVMF|1|LANL
Miscellaneous Info: |MSD8270_S|WBN091208-01
Comment:
Method used: /chem/MSD6.i/s122109.b/MSD6-M8270C-AQA-110909.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-917
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
17 N-Nitrosodipropylamine				CAS#: 621-64-7		
70	13811	5.54	5.39	80-120	100	(T)
42	8250	5.54	5.39	40-100	60	(T)
22 Isophorone				CAS#: 78-59-1		
82	106226	5.55	5.82	80-120	100	(T)
138	1697	6.28	5.82	0- 49	2	(T)
43 Dimethylphthalate				CAS#: 131-11-3		
163	28855	8.16	7.87	80-120	100	(T)
164	149823	8.15	7.87	0- 40	519	(QT)
50 2,4-Dinitrotoluene				CAS#: 121-14-2		
165	49045	8.18	8.37	80-120	100	(T)
89	643	8.18	8.37	41-101	1	(QT)
63	437	8.18	8.37	18- 78	1	(QT)
53 Fluorene				CAS#: 86-73-7		
166	3565	9.03	8.78	80-120	100	(T)
165	5038	9.03	8.78	62-122	141	(QT)
167	1905	9.03	8.78	0- 44	53	(QT)
55 2-Methyl-4,6-dinitrophenol				CAS#: 534-52-1		
198	129	9.03	8.82	80-120	100	(T)
105	466	9.03	8.82	11- 71	360	(QT)
51	458	9.03	8.82	21- 81	354	(QT)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

Data file : /chem/MSD6.i/s122109.b/s612121.d
Lab Smp Id: 242937006 Client Smp ID: RE03-09-14216
Inj Date : 21-DEC-2009 20:10
Operator : nagl Inst ID: MSD6.i
Smp Info : |242937006|933806|1|SVMF|1|LANL
Misc Info : |MSD8270_S|WBN091208-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s122109.b/MSD6-M8270C-AQA-110909.m
Meth Date : 22-Dec-2009 11:21 nat00999 Quant Type: ISTD
Cal Date : 11-NOV-2009 04:38 Cal File: s6k0954.d
Als bottle: 21
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-917.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.08000	weight of sample
M	15.82920	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	5.007	1320688	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown Aldol Condensate					CAS #:		
3.606	449481	13.6135473	538	0		0	10

Data File: /chem/MSD6.i/s122109.b/s612121.d
Date : 21-DEC-2009 20:10
Client ID: RE03-09-14216
Sample Info: |242937006|933806|1|SVMF|1|LANL
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD6.i

Operator: nag1
Column diameter: 0.20

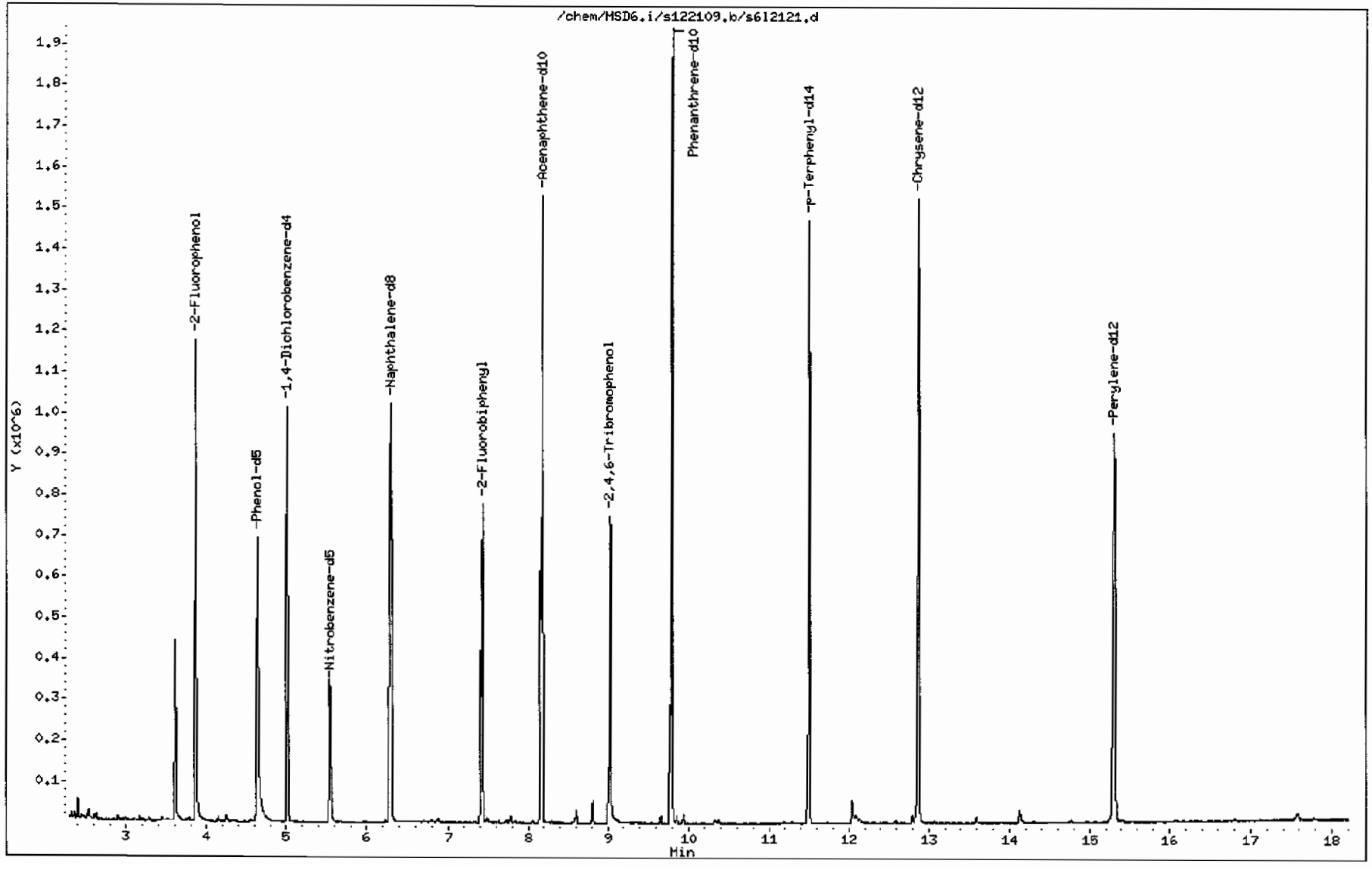

Data File: /chem/MSD6.i/s122109.b/s612121.d

Date : 21-DEC-2009 20:10

Client ID: RE03-09-14216

Instrument: MSD6.i

Sample Info: 1242937006193380611|SVMF|1|LANL

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	56	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	39	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7945	38	C6H12O2	116

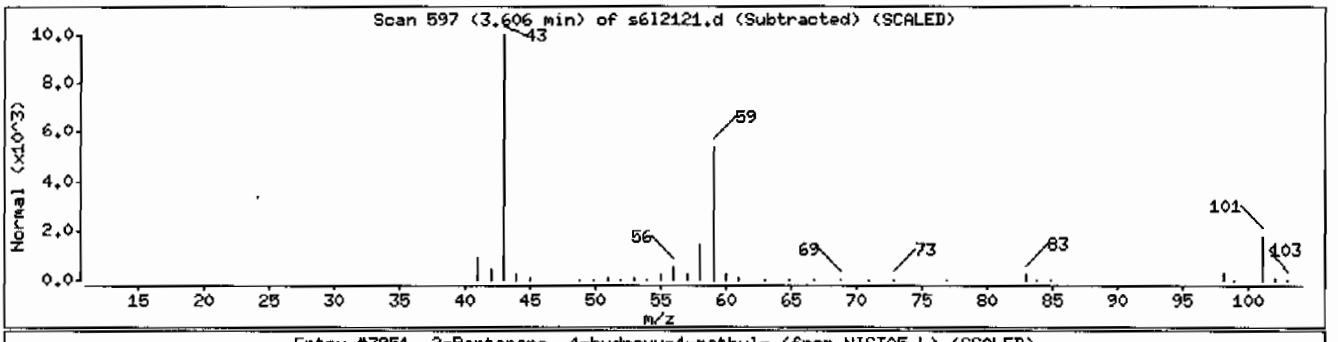

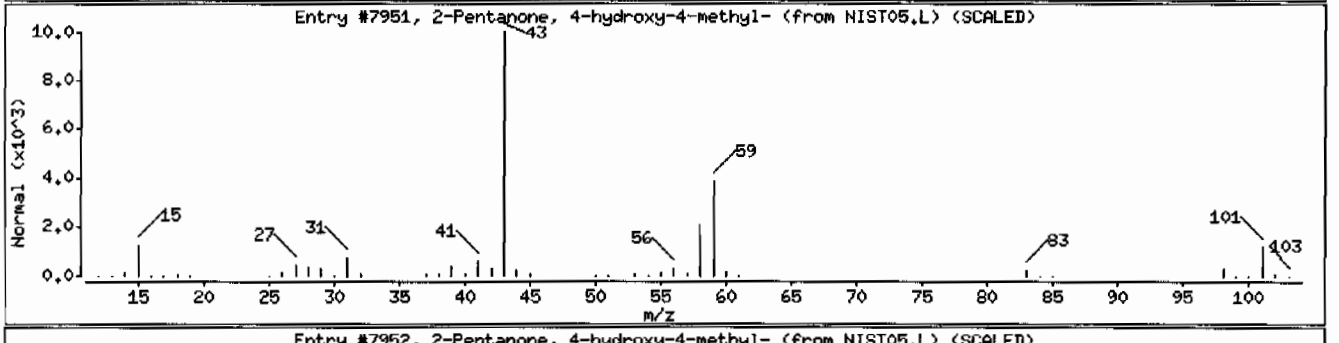

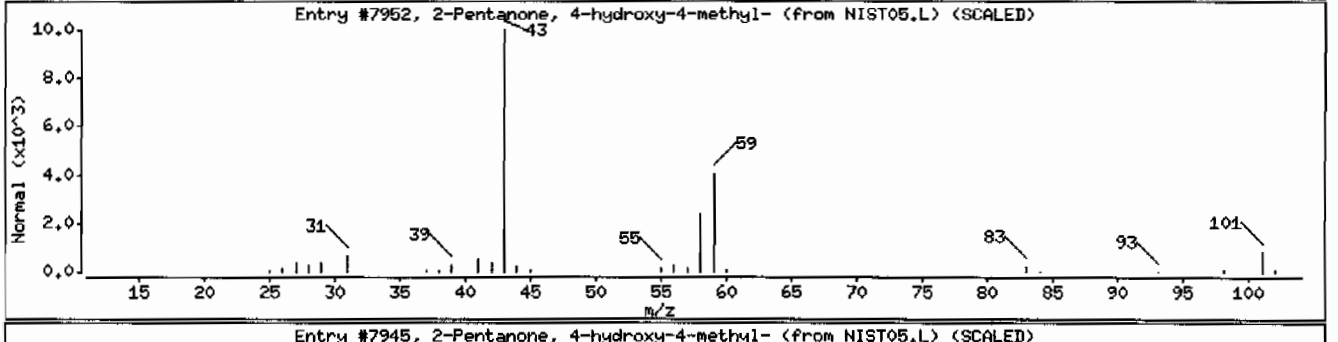

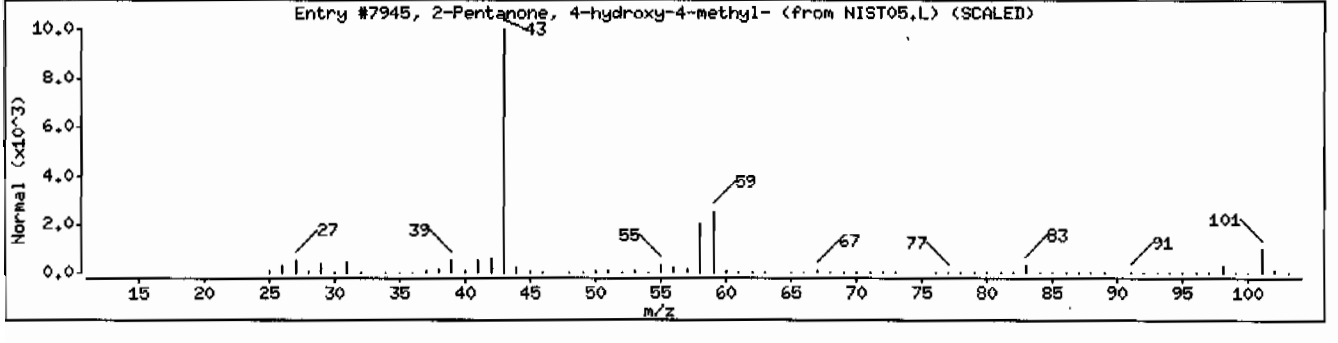

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-917	Date Collected:	12/11/2009 12:00	Matrix:	S
Lab Sample ID:	242937008	Date Received:	12/15/2009 08:45	%Moisture:	15.2
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14217	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	933806	Inst:	MSD6.I	Dilution:	1
Run Date:	12/21/2009 21:05	Analyst:	NAG1	Inj. Vol:	.5 uL
Prep Date:	12/18/2009 09:12	Aliquot:	30.07 g	Final Volume:	1 mL
Data File:	s6l2123.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	392	ug/kg	78.5	392
108-95-2	Phenol	U	392	ug/kg	78.5	392
95-57-8	2-Chlorophenol	U	392	ug/kg	78.5	392
106-46-7	1,4-Dichlorobenzene	U	392	ug/kg	78.5	392
621-64-7	N-Nitrosodipropylamine	U	392	ug/kg	78.5	392
59-50-7	4-Chloro-3-methylphenol	U	392	ug/kg	78.5	392
83-32-9	Acenaphthene	U	39.2	ug/kg	12.9	39.2
121-14-2	2,4-Dinitrotoluene	U	392	ug/kg	39.2	392
100-02-7	4-Nitrophenol	U	392	ug/kg	129	392
87-86-5	Pentachlorophenol	U	392	ug/kg	98.1	392
129-00-0	Pyrene	U	39.2	ug/kg	11.8	39.2
110-86-1	Pyridine	U	392	ug/kg	78.5	392
62-53-3	Aniline	U	392	ug/kg	118	392
111-44-4	bis(2-Chloroethyl) ether	U	392	ug/kg	78.5	392
541-73-1	1,3-Dichlorobenzene	U	392	ug/kg	78.5	392
100-51-6	Benzyl alcohol	U	392	ug/kg	118	392
95-50-1	1,2-Dichlorobenzene	U	392	ug/kg	78.5	392
108-60-1	bis(2-Chloroisopropyl)ether	U	392	ug/kg	78.5	392
95-48-7	o-Cresol	U	392	ug/kg	78.5	392
65794-96-9	m,p-Cresols	U	392	ug/kg	118	392
67-72-1	Hexachloroethane	U	392	ug/kg	78.5	392
98-95-3	Nitrobenzene	U	392	ug/kg	78.5	392
78-59-1	Isophorone	U	392	ug/kg	78.5	392
88-75-5	2-Nitrophenol	U	392	ug/kg	78.5	392
105-67-9	2,4-Dimethylphenol	U	392	ug/kg	137	392
111-91-1	bis(2-Chloroethoxy)methane	U	392	ug/kg	78.5	392
120-83-2	2,4-Dichlorophenol	U	392	ug/kg	78.5	392
65-85-0	Benzoic acid	U	785	ug/kg	196	785
91-20-3	Naphthalene	U	39.2	ug/kg	11.8	39.2
106-47-8	4-Chloroaniline	U	392	ug/kg	78.5	392
87-68-3	Hexachlorobutadiene	U	392	ug/kg	78.5	392
91-57-6	2-Methylnaphthalene	U	39.2	ug/kg	7.85	39.2
77-47-4	Hexachlorocyclopentadiene	U	392	ug/kg	78.5	392
88-06-2	2,4,6-Trichlorophenol	U	392	ug/kg	78.5	392
95-95-4	2,4,5-Trichlorophenol	U	392	ug/kg	78.5	392
91-58-7	2-Chloronaphthalene	U	39.2	ug/kg	12.9	39.2
88-74-4	2-Nitroaniline	U	392	ug/kg	78.5	392
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	392	ug/kg	78.5	392

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-917	Date Collected:	12/11/2009 12:00	Matrix:	S
Lab Sample ID:	242937008	Date Received:	12/15/2009 08:45	%Moisture:	15.2
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14217	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	933806	Inst:	MSD6.I	Dilution:	1
Run Date:	12/21/2009 21:05	Analyst:	NAG1	Inj. Vol:	.5 uL
Prep Date:	12/18/2009 09:12	Aliquot:	30.07 g	Final Volume:	1 mL
Data File:	s6l2123.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	392	ug/kg	78.5	392
606-20-2	2,6-Dinitrotoluene	U	392	ug/kg	39.2	392
208-96-8	Acenaphthylene	U	39.2	ug/kg	11.8	39.2
51-28-5	2,4-Dinitrophenol	U	785	ug/kg	149	785
132-64-9	Dibenzofuran	U	392	ug/kg	78.5	392
84-66-2	Diethylphthalate	U	392	ug/kg	78.5	392
86-73-7	Fluorene	U	39.2	ug/kg	11.8	39.2
7005-72-3	4-Chlorophenylphenylether	U	392	ug/kg	78.5	392
534-52-1	2-Methyl-4,6-dinitrophenol	U	392	ug/kg	78.5	392
100-01-6	4-Nitroaniline	U	392	ug/kg	118	392
	p-Nitroaniline					
122-39-4	Diphenylamine	U	392	ug/kg	78.5	392
122-66-7	Azobenzene	U	392	ug/kg	78.5	392
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	392	ug/kg	78.5	392
118-74-1	Hexachlorobenzene	U	392	ug/kg	78.5	392
85-01-8	Phenanthrene	U	39.2	ug/kg	11.8	39.2
120-12-7	Anthracene	U	39.2	ug/kg	7.85	39.2
84-74-2	Di-n-butylphthalate	U	392	ug/kg	78.5	392
206-44-0	Fluoranthene	U	39.2	ug/kg	11.8	39.2
85-68-7	Butylbenzylphthalate	U	392	ug/kg	78.5	392
56-55-3	Benzo(a)anthracene	U	39.2	ug/kg	11.8	39.2
91-94-1	3,3'-Dichlorobenzidine	U	392	ug/kg	118	392
218-01-9	Chrysene	U	39.2	ug/kg	11.8	39.2
117-81-7	bis(2-Ethylhexyl)phthalate	U	392	ug/kg	78.5	392
117-84-0	Di-n-octylphthalate	U	392	ug/kg	78.5	392
205-99-2	Benzo(b)fluoranthene	U	39.2	ug/kg	11.8	39.2
207-08-9	Benzo(k)fluoranthene	U	39.2	ug/kg	11.8	39.2
50-32-8	Benzo(a)pyrene	U	39.2	ug/kg	11.8	39.2
193-39-5	Indeno(1,2,3-cd)pyrene	U	39.2	ug/kg	11.8	39.2
53-70-3	Dibenzo(a,h)anthracene	U	39.2	ug/kg	11.8	39.2
191-24-2	Benzo(ghi)perylene	U	39.2	ug/kg	11.8	39.2
120-82-1	1,2,4-Trichlorobenzene	U	392	ug/kg	78.5	392

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	3.61	434	ug/kg		JA

GEL Laboratories LLC

Data file : /chem/MSD6.i/s122109.b/s612123.d
Lab Smp Id: 242937008 Client Smp ID: RE03-09-14217
Inj Date : 21-DEC-2009 21:05
Operator : nagl Inst ID: MSD6.i
Smp Info : |242937008|933806|1|SVMF|1|LANL
Misc Info : |MSD8270_S|WBN091208-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s122109.b/MSD6-M8270C-AQA-110909.m
Meth Date : 22-Dec-2009 11:21 nat00999 Quant Type: ISTD
Cal Date : 11-NOV-2009 04:38 Cal File: s6k0954.d
Als bottle: 23
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-917.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.07000	weight of sample
M	15.24500	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	5.017	5.025	(1.000)	199856	40.0000	
* 29 Naphthalene-d8	136	6.302	6.309	(1.000)	769463	40.0000	
* 46 Acenaphthene-d10	164	8.177	8.187	(1.000)	436929	40.0000	
* 67 Phenanthrene-d10	188	9.795	9.802	(1.000)	771093	40.0000	
* 91 Chrysene-d12	240	12.873	12.885	(1.000)	659362	40.0000	
* 98 Perylene-d12	264	15.309	15.324	(1.000)	532114	40.0000	
$ 3 2-Fluorophenol	112	3.863	3.860	(0.770)	275611	55.0689	2160
$ 5 Phenol-d5	99	4.638	4.645	(0.924)	311717	49.3473	1940
$ 20 Nitrobenzene-d5	82	5.555	5.565	(0.882)	149005	27.3748	1070
$ 39 2-Fluorobiphenyl	172	7.428	7.435	(0.908)	271472	24.1094	946
$ 60 2,4,6-Tribromophenol	329	9.031	9.040	(1.104)	63729	49.9727	1960
$ 81 p-Terphenyl-d14	244	11.502	11.507	(0.894)	389397	36.6205	1440

ION RATIO REPORT

SV REPORT

Data file: s612123.d
Report Date: 12/22/2009 11:50
Lab. ID: 242937008 SampleType: SAMPLE
Injection Date: 21-DEC-2009 21:05
Operator: nagl Instrument: MSD6.i
Sample Info: |242937008|933806|1|SVMF|1|LANL
Miscellaneous Info: |MSD8270_S|WBN091208-01
Comment:
Method used: /chem/MSD6.i/s122109.b/MSD6-M8270C-AQA-110909.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-917
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
17 N-Nitrosodipropylamine				CAS#: 621-64-7		
70	20275	5.55	5.39	80-120	100	(T)
42	11849	5.55	5.39	40-100	58	(T)
22 Isophorone				CAS#: 78-59-1		
82	149005	5.55	5.82	80-120	100	(T)
138	4193	6.30	5.82	0- 49	3	(T)
43 Dimethylphthalate				CAS#: 131-11-3		
163	77172	8.18	7.87	80-120	100	(T)
164	436929	8.18	7.87	0- 40	566	(QT)
50 2,4-Dinitrotoluene				CAS#: 121-14-2		
165	57127	8.18	8.37	80-120	100	(T)
89	617	8.18	8.37	41-101	1	(QT)
63	583	8.18	8.37	18- 78	1	(QT)
53 Fluorene				CAS#: 86-73-7		
166	3992	9.03	8.78	80-120	100	(T)
165	3797	9.03	8.78	62-122	95	(T)
167	1126	9.03	8.78	0- 44	28	(T)
55 2-Methyl-4,6-dinitrophenol				CAS#: 534-52-1		
198	117	9.02	8.82	80-120	100	(T)
105	309	9.03	8.82	11- 71	264	(QT)
51	381	9.03	8.82	21- 81	324	(QT)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

Data file : /chem/MSD6.i/s122109.b/s612123.d
Lab Smp Id: 242937008 Client Smp ID: RE03-09-14217
Inj Date : 21-DEC-2009 21:05
Operator : nagl Inst ID: MSD6.i
Smp Info : |242937008|933806|1|SVMF|1|LANL
Misc Info : |MSD8270_S|WBN091208-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s122109.b/MSD6-M8270C-AQA-110909.m
Meth Date : 22-Dec-2009 11:21 nat00999 Quant Type: ISTD
Cal Date : 11-NOV-2009 04:38 Cal File: s6k0954.d
Als bottle: 23
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-917.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.07000	weight of sample
M	15.24500	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	5.017	1166121	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown Aldol Condensate					CAS #:		
3.608	322666	11.0680198	434	0		0	10

Data File: /chem/MSD6.i/s122109.b/s612123.d
Date : 21-DEC-2009 21:05
Client ID: RE03-09-14217
Sample Info: |2429370081933806|1|SVMF|1|LANL
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Page 1

Instrument: MSD6.i

Operator: nag1
Column diameter: 0.20

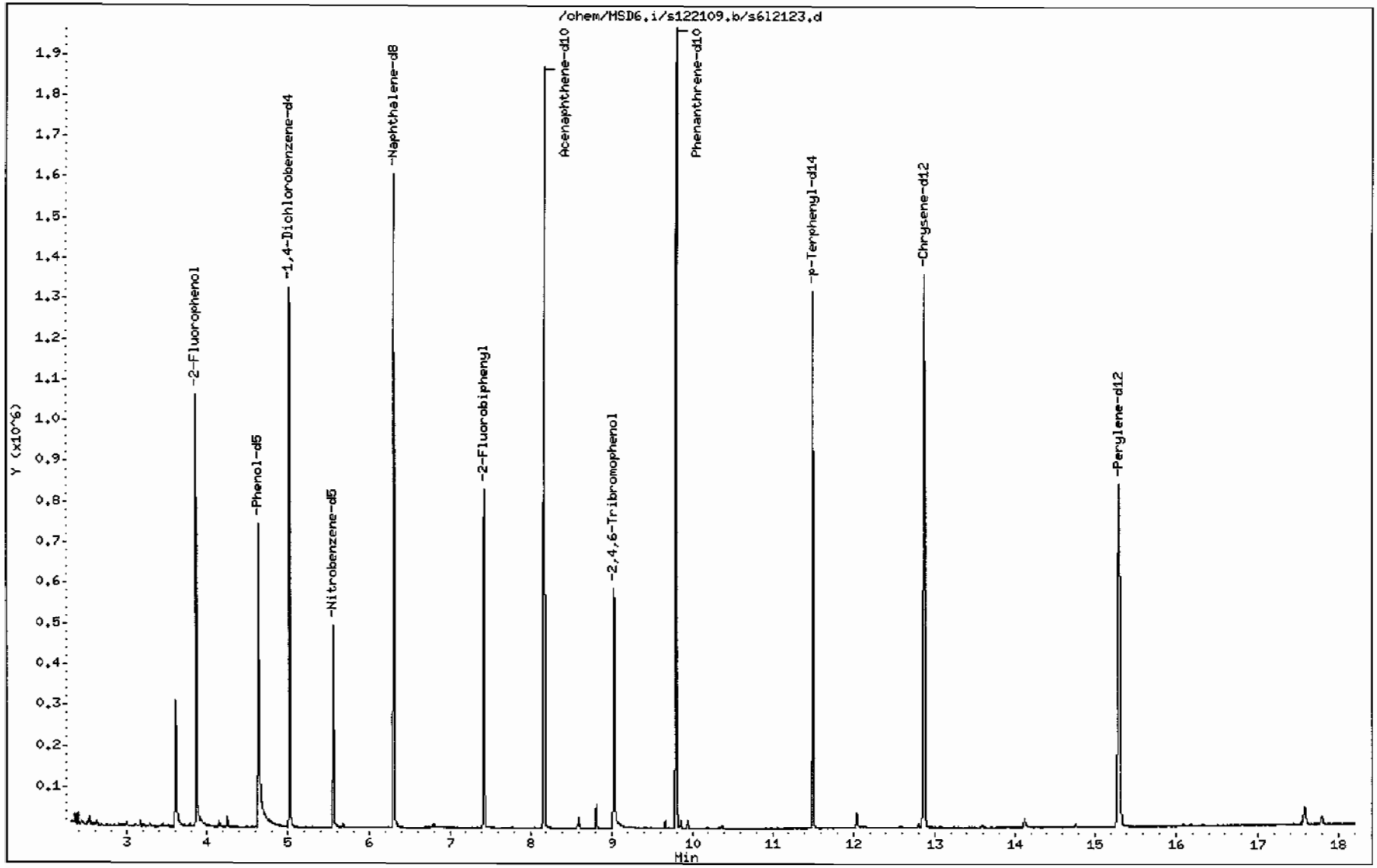

Data File: /chem/MSD6.i/s122109.b/s612123.d

Date : 21-DEC-2009 21:05

Client ID: RE03-09-14217

Instrument: MSD6.i

Sample Info: |2429370081933806|1|SVMF|1|LANL

Volume Injected (uL): 0.5

Operator: nagl

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	42	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	38	C6H12O2	116
2,3-Butanedione, monooxime	57-71-6	NIST05.L	3949	16	C4H7NO2	101

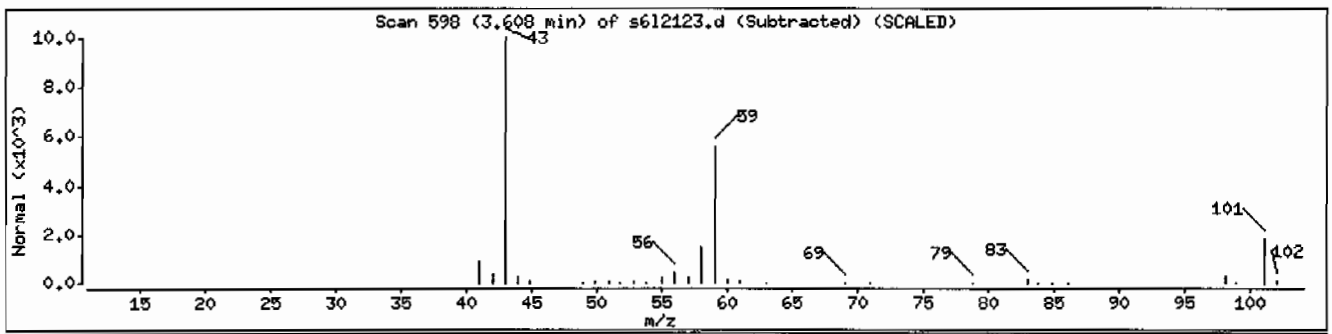

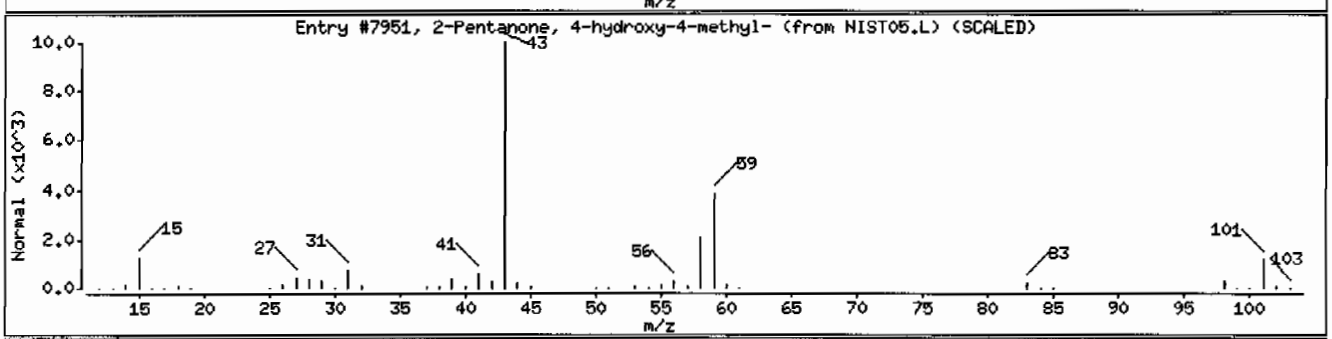

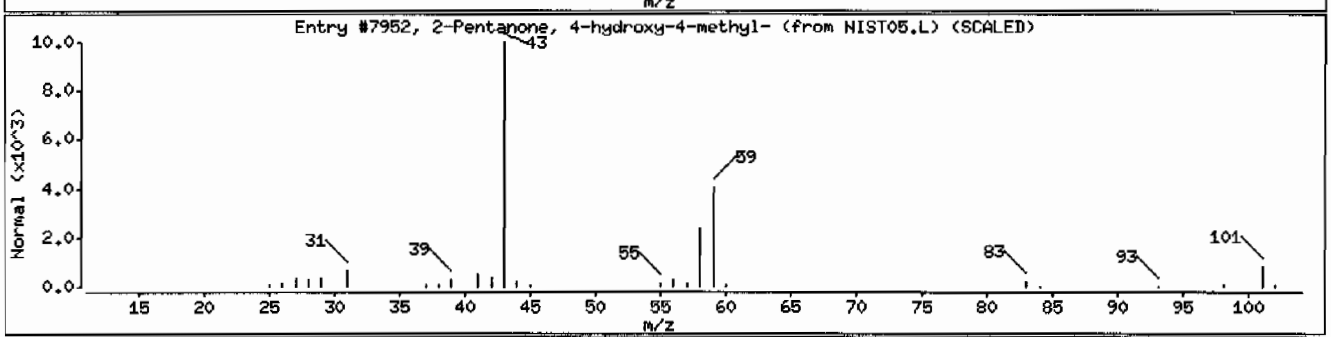

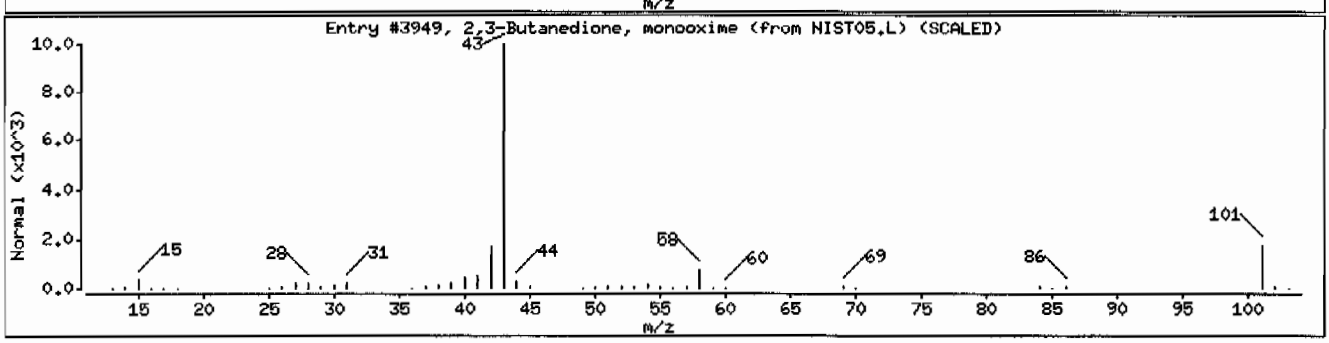

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-917	Date Collected:	12/11/2009 12:00	Matrix:	S
Lab Sample ID:	242937005	Date Received:	12/15/2009 08:45	%Moisture:	17.6
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14218	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	933806	Inst:	MSD6.I	Dilution:	1
Run Date:	12/21/2009 19:43	Analyst:	NAG1	Inj. Vol:	.5 uL
Prep Date:	12/18/2009 09:12	Aliquot:	30.09 g	Final Volume:	1 mL
Data File:	s6l2120.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	403	ug/kg	80.7	403
108-95-2	Phenol	U	403	ug/kg	80.7	403
95-57-8	2-Chlorophenol	U	403	ug/kg	80.7	403
106-46-7	1,4-Dichlorobenzene	U	403	ug/kg	80.7	403
621-64-7	N-Nitrosodipropylamine	U	403	ug/kg	80.7	403
59-50-7	4-Chloro-3-methylphenol	U	403	ug/kg	80.7	403
83-32-9	Acenaphthene	U	40.3	ug/kg	13.3	40.3
121-14-2	2,4-Dinitrotoluene	U	403	ug/kg	40.3	403
100-02-7	4-Nitrophenol	U	403	ug/kg	133	403
87-86-5	Pentachlorophenol	U	403	ug/kg	101	403
129-00-0	Pyrene	U	40.3	ug/kg	12.1	40.3
110-86-1	Pyridine	U	403	ug/kg	80.7	403
62-53-3	Aniline	U	403	ug/kg	121	403
111-44-4	bis(2-Chloroethyl) ether	U	403	ug/kg	80.7	403
541-73-1	1,3-Dichlorobenzene	U	403	ug/kg	80.7	403
100-51-6	Benzyl alcohol	U	403	ug/kg	121	403
95-50-1	1,2-Dichlorobenzene	U	403	ug/kg	80.7	403
108-60-1	bis(2-Chloroisopropyl)ether	U	403	ug/kg	80.7	403
95-48-7	o-Cresol	U	403	ug/kg	80.7	403
65794-96-9	m,p-Cresols	U	403	ug/kg	121	403
67-72-1	Hexachloroethane	U	403	ug/kg	80.7	403
98-95-3	Nitrobenzene	U	403	ug/kg	80.7	403
78-59-1	Isophorone	U	403	ug/kg	80.7	403
88-75-5	2-Nitrophenol	U	403	ug/kg	80.7	403
105-67-9	2,4-Dimethylphenol	U	403	ug/kg	141	403
111-91-1	bis(2-Chloroethoxy)methane	U	403	ug/kg	80.7	403
120-83-2	2,4-Dichlorophenol	U	403	ug/kg	80.7	403
65-85-0	Benzoic acid	U	807	ug/kg	202	807
91-20-3	Naphthalene	U	40.3	ug/kg	12.1	40.3
106-47-8	4-Chloroaniline	U	403	ug/kg	80.7	403
87-68-3	Hexachlorobutadiene	U	403	ug/kg	80.7	403
91-57-6	2-Methylnaphthalene	U	40.3	ug/kg	8.07	40.3
77-47-4	Hexachlorocyclopentadiene	U	403	ug/kg	80.7	403
88-06-2	2,4,6-Trichlorophenol	U	403	ug/kg	80.7	403
95-95-4	2,4,5-Trichlorophenol	U	403	ug/kg	80.7	403
91-58-7	2-Chloronaphthalene	U	40.3	ug/kg	13.3	40.3
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	403	ug/kg	80.7	403
99-09-2	3-Nitroaniline	U	403	ug/kg	80.7	403

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-917	Date Collected:	12/11/2009 12:00	Matrix:	S
Lab Sample ID:	242937005	Date Received:	12/15/2009 08:45	%Moisture:	17.6
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14218	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	933806	Inst:	MSD6.I	Dilution:	1
Run Date:	12/21/2009 19:43	Analyst:	NAG1	Inj. Vol:	.5 uL
Prep Date:	12/18/2009 09:12	Aliquot:	30.09 g	Final Volume:	1 mL
Data File:	s6l2120.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	403	ug/kg	80.7	403
606-20-2	2,6-Dinitrotoluene	U	403	ug/kg	40.3	403
208-96-8	Acenaphthylene	U	40.3	ug/kg	12.1	40.3
51-28-5	2,4-Dinitrophenol	U	807	ug/kg	153	807
132-64-9	Dibenzofuran	U	403	ug/kg	80.7	403
84-66-2	Diethylphthalate	U	403	ug/kg	80.7	403
86-73-7	Fluorene	U	40.3	ug/kg	12.1	40.3
7005-72-3	4-Chlorophenylphenylether	U	403	ug/kg	80.7	403
534-52-1	2-Methyl-4,6-dinitrophenol	U	403	ug/kg	80.7	403
100-01-6	4-Nitroaniline	U	403	ug/kg	121	403
	p-Nitroaniline					
122-39-4	Diphenylamine	U	403	ug/kg	80.7	403
122-66-7	Azobenzene	U	403	ug/kg	80.7	403
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	403	ug/kg	80.7	403
118-74-1	Hexachlorobenzene	U	403	ug/kg	80.7	403
85-01-8	Phenanthrene	U	40.3	ug/kg	12.1	40.3
120-12-7	Anthracene	U	40.3	ug/kg	8.07	40.3
84-74-2	Di-n-butylphthalate	U	403	ug/kg	80.7	403
206-44-0	Fluoranthene	U	40.3	ug/kg	12.1	40.3
85-68-7	Butylbenzylphthalate	U	403	ug/kg	80.7	403
56-55-3	Benzo(a)anthracene	U	40.3	ug/kg	12.1	40.3
91-94-1	3,3'-Dichlorobenzidine	U	403	ug/kg	121	403
218-01-9	Chrysene	U	40.3	ug/kg	12.1	40.3
117-81-7	bis(2-Ethylhexyl)phthalate	U	403	ug/kg	80.7	403
117-84-0	Di-n-octylphthalate	U	403	ug/kg	80.7	403
205-99-2	Benzo(b)fluoranthene	U	40.3	ug/kg	12.1	40.3
207-08-9	Benzo(k)fluoranthene	U	40.3	ug/kg	12.1	40.3
50-32-8	Benzo(a)pyrene	U	40.3	ug/kg	12.1	40.3
193-39-5	Indeno(1,2,3-cd)pyrene	U	40.3	ug/kg	12.1	40.3
53-70-3	Dibenzo(a,h)anthracene	U	40.3	ug/kg	12.1	40.3
191-24-2	Benzo(ghi)perylene	U	40.3	ug/kg	12.1	40.3
120-82-1	1,2,4-Trichlorobenzene	U	403	ug/kg	80.7	403

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	2.36	305	ug/kg		J
	Unknown Aldol Condensate	3.61	429	ug/kg		JA

GEL Laboratories LLC

Data file : /chem/MSD6.i/s122109.b/s612120.d
Lab Smp Id: 242937005 Client Smp ID: RE03-09-14218
Inj Date : 21-DEC-2009 19:43
Operator : nag1 Inst ID: MSD6.i
Smp Info : |242937005|933806|1|SVMF|1|LANL
Misc Info : |MSD8270_S|WBN091208-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s122109.b/MSD6-M8270C-AQA-110909.m
Meth Date : 22-Dec-2009 11:21 nat00999 Quant Type: ISTD
Cal Date : 11-NOV-2009 04:38 Cal File: s6k0954.d
Als bottle: 20
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-917.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.09000	weight of sample
M	17.60770	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	5.010	5.025	(1.000)	197932	40.0000	
* 29 Naphthalene-d8	136	6.299	6.309	(1.000)	776455	40.0000	
* 46 Acenaphthene-d10	164	8.177	8.187	(1.000)	440634	40.0000	
* 67 Phenanthrene-d10	188	9.795	9.802	(1.000)	761662	40.0000	
* 91 Chrysene-d12	240	12.873	12.885	(1.000)	629206	40.0000	
* 98 Perylene-d12	264	15.307	15.324	(1.000)	530153	40.0000	
$ 3 2-Fluorophenol	112	3.860	3.860	(0.771)	273110	55.0996	2220
$ 5 Phenol-d5	99	4.638	4.645	(0.926)	348268	55.6696	2240
$ 20 Nitrobenzene-d5	82	5.552	5.565	(0.881)	143126	26.0579	1050
$ 39 2-Fluorobiphenyl	172	7.428	7.435	(0.908)	248978	21.9258	884
$ 60 2,4,6-Tribromophenol	329	9.031	9.040	(1.104)	64295	49.9926	2020
$ 81 p-Terphenyl-d14	244	11.502	11.507	(0.894)	343088	33.8118	1360

ION RATIO REPORT

SV REPORT

Data file: s612120.d
Report Date: 12/22/2009 11:49
Lab. ID: 242937005 SampleType: SAMPLE
Injection Date: 21-DEC-2009 19:43
Operator: nag1 Instrument: MSD6.i
Sample Info: |242937005|933806|1|SVMF|1|LANL
Miscellaneous Info: |MSD8270_S|WBN091208-01
Comment:
Method used: /chem/MSD6.i/s122109.b/MSD6-M8270C-AQA-110909.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-917
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
17 N-Nitrosodipropylamine				CAS#: 621-64-7		
70	19511	5.55	5.39	80-120	100	(T)
42	11789	5.55	5.39	40-100	60	(T)
22 Isophorone				CAS#: 78-59-1		
82	143126	5.55	5.82	80-120	100	(T)
138	1984	6.29	5.82	0- 49	1	(T)
43 Dimethylphthalate				CAS#: 131-11-3		
163	78283	8.18	7.87	80-120	100	(T)
164	440634	8.18	7.87	0- 40	563	(QT)
50 2,4-Dinitrotoluene				CAS#: 121-14-2		
165	57793	8.18	8.37	80-120	100	(T)
89	406	8.18	8.37	41-101	1	(QT)
63	396	8.18	8.37	18- 78	1	(QT)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

Data file : /chem/MSD6.i/s122109.b/s612120.d
Lab Smp Id: 242937005 Client Smp ID: RE03-09-14218
Inj Date : 21-DEC-2009 19:43
Operator : nagl Inst ID: MSD6.i
Smp Info : |242937005|933806|1|SVMF|1|LANL
Misc Info : |MSD8270_S|WBN091208-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s122109.b/MSD6-M8270C-AQA-110909.m
Meth Date : 22-Dec-2009 11:21 nat00999 Quant Type: ISTD
Cal Date : 11-NOV-2009 04:38 Cal File: s6k0954.d
Als bottle: 20
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-917.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.09000	weight of sample
M	17.60770	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	5.010	1160561	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown					CAS #:		
2.360	219495	7.56513278	305	0		0	10
Unknown Aldol Condensate					CAS #:		
3.606	308836	10.6443539	429	0		0	10

Data File: /chem/MSD6.i/s122109.b/s612120.d

Date : 21-DEC-2009 19:43

Client ID: RE03-09-14218

Sample Info: |2429370051933806|1|SVMF|1|LANL

Volume Injected (uL): 0.5

Column phase: J&W DB-5MS

Instrument: MSD6.i

Operator: nag1

Column diameter: 0.20

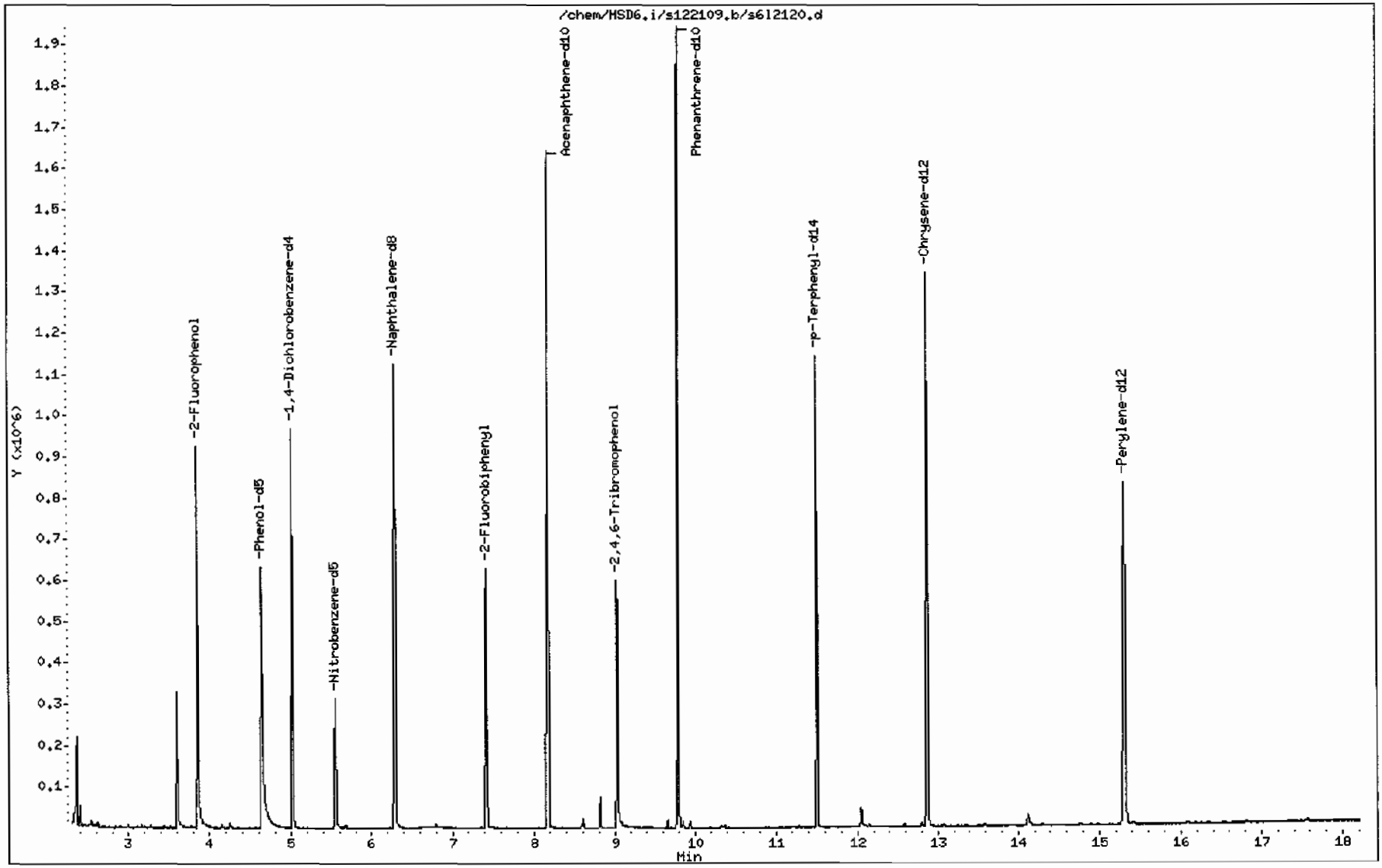

Data File: /chem/MSD6.i/s122109.b/s612120.d

Date : 21-DEC-2009 19:43

Client ID: RE03-09-14218

Instrument: MSD6.i

Sample Info: 1242937005193380611|SVMF|1|LANL

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Propane, 2,2-dimethoxy-	77-76-9	NIST05.L	4663	78	C5H12O2	104
Propane, 2,2-dimethoxy-	77-76-9	NIST05.L	4662	56	C5H12O2	104
Acetamide, N-methyl-	79-16-3	NIST05.L	724	43	C3H7NO	73

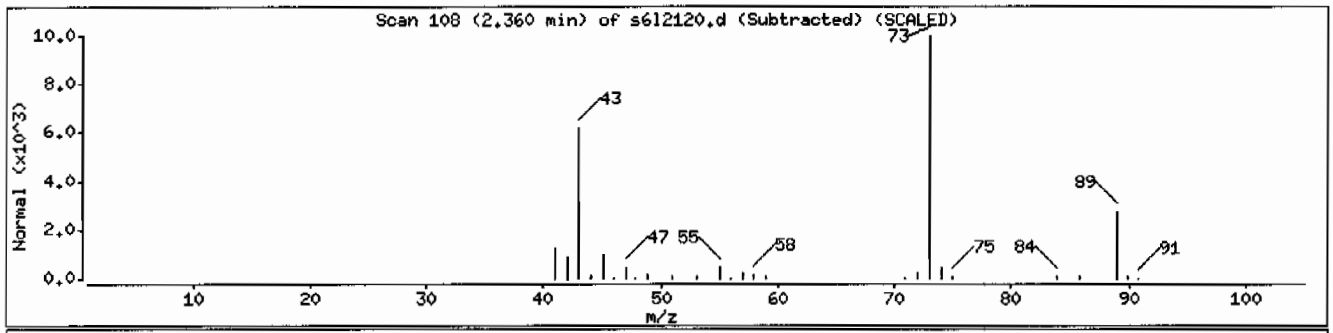

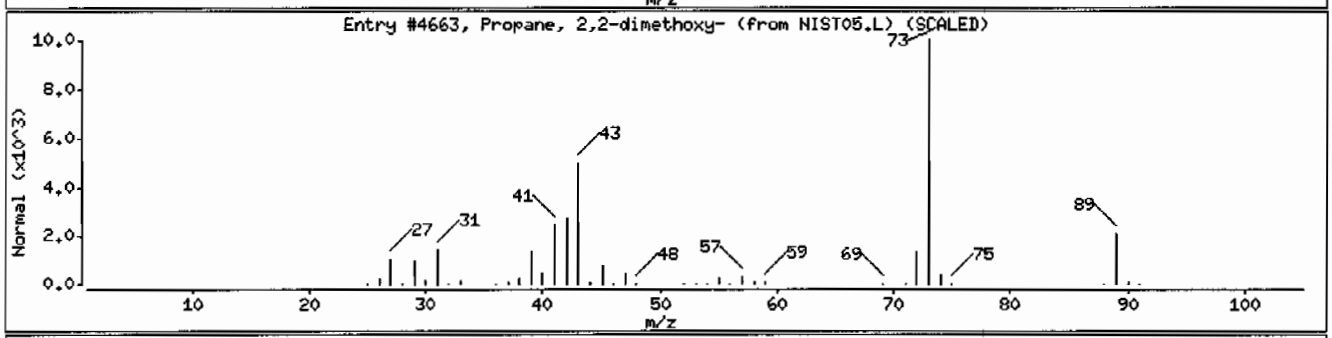

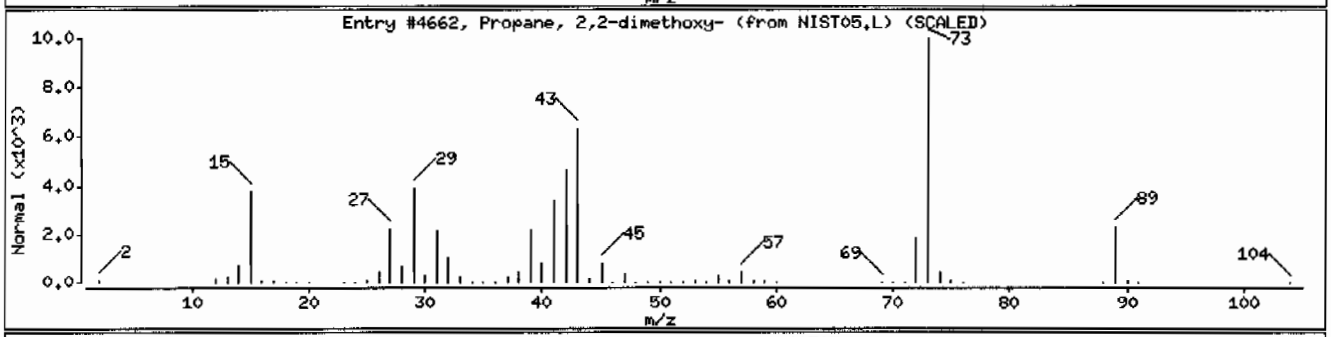

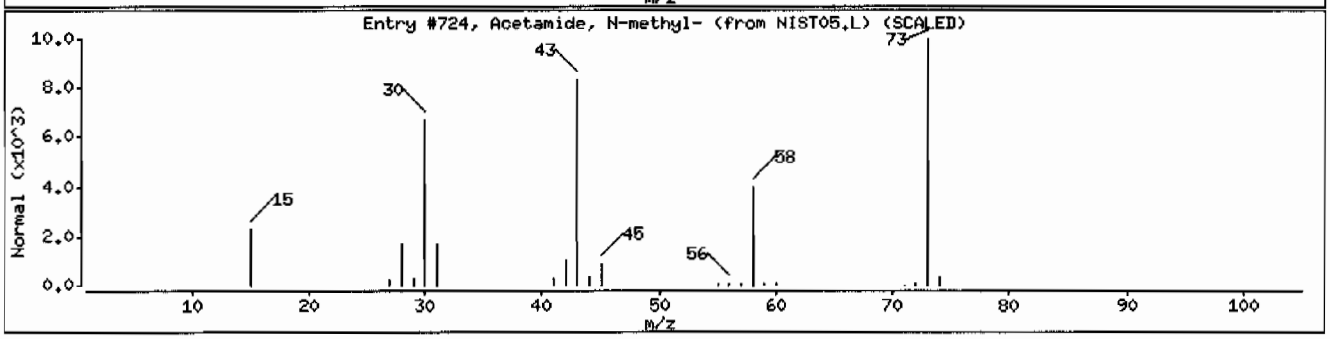

Data File: /chem/MSD6.i/s122109.b/s612120.d

Date : 21-DEC-2009 19:43

Client ID: RE03-09-14218

Instrument: MSD6.i

Sample Info: |2429370051933806|1|SVMF|1|LANL

Volume Injected (uL): 0.5

Operator: nagl

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7945	59	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	56	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	42	C6H12O2	116

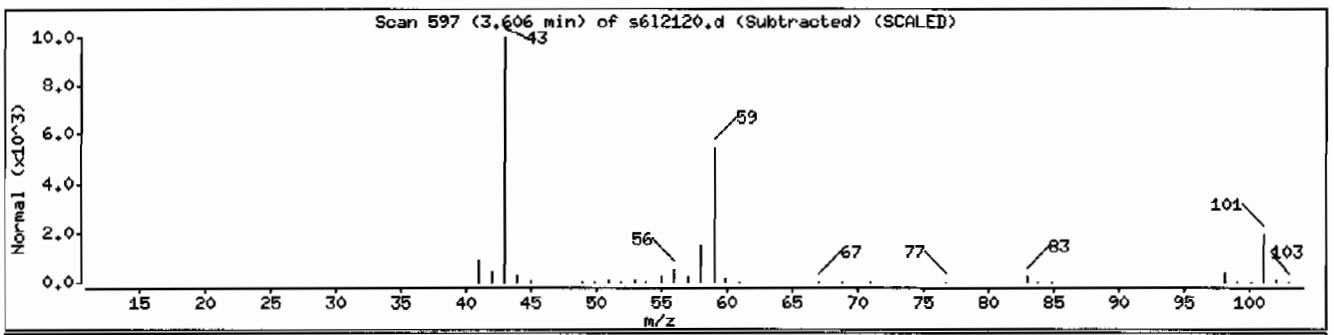

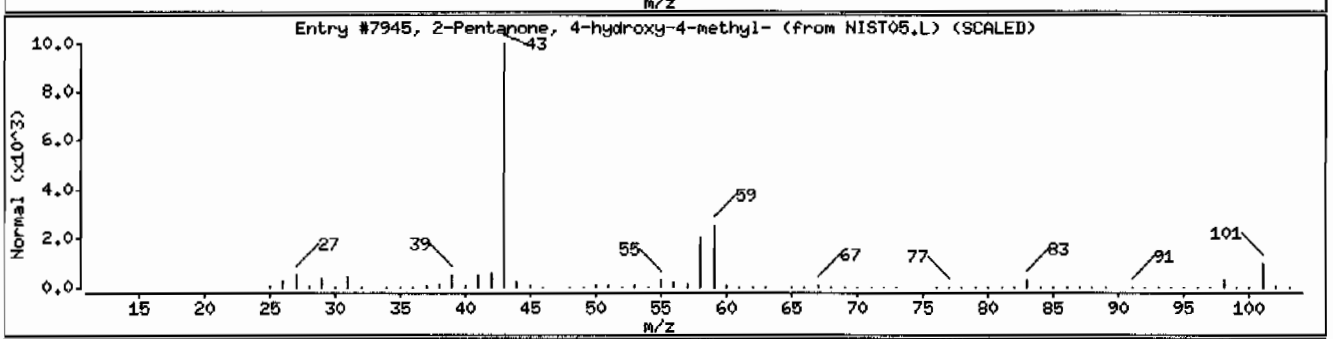

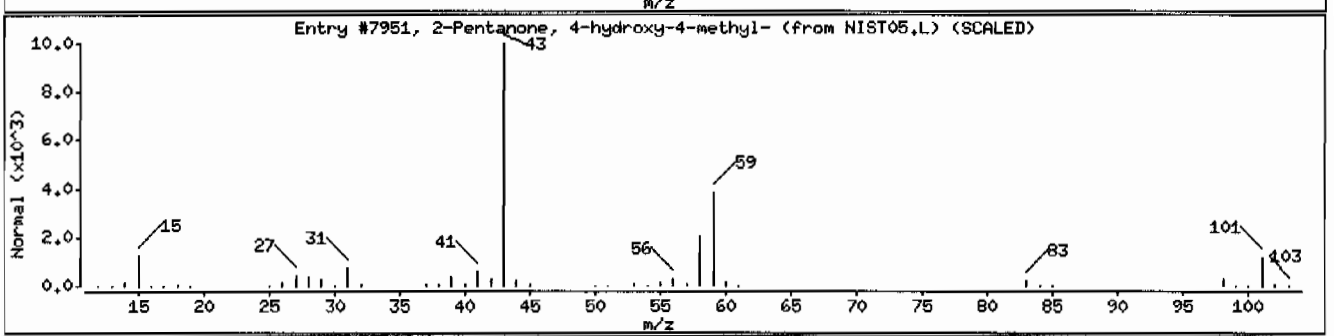

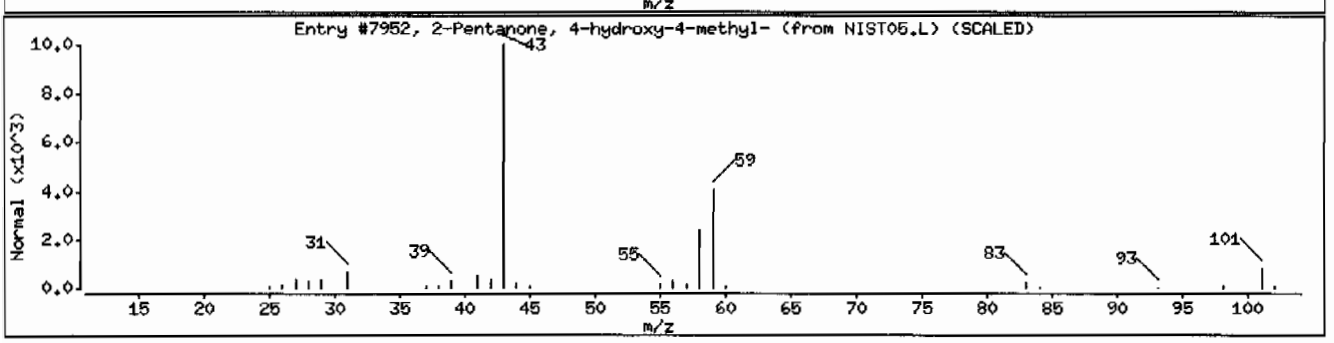

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-917**	**Date Collected:**	**12/11/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242937004**	**Date Received:**	**12/15/2009 08:45**	**%Moisture:**	**17.2**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14219**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**933806**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**12/21/2009 19:16**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/18/2009 09:12**	**Aliquot:**	**30.04 g**	**Final Volume:**	**1 mL**
Data File:	**s6l2119.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	402	ug/kg	80.4	402
108-95-2	Phenol	U	402	ug/kg	80.4	402
95-57-8	2-Chlorophenol	U	402	ug/kg	80.4	402
106-46-7	1,4-Dichlorobenzene	U	402	ug/kg	80.4	402
621-64-7	N-Nitrosodipropylamine	U	402	ug/kg	80.4	402
59-50-7	4-Chloro-3-methylphenol	U	402	ug/kg	80.4	402
83-32-9	Acenaphthene	U	40.2	ug/kg	13.3	40.2
121-14-2	2,4-Dinitrotoluene	U	402	ug/kg	40.2	402
100-02-7	4-Nitrophenol	U	402	ug/kg	133	402
87-86-5	Pentachlorophenol	U	402	ug/kg	100	402
129-00-0	Pyrene	U	40.2	ug/kg	12.1	40.2
110-86-1	Pyridine	U	402	ug/kg	80.4	402
62-53-3	Aniline	U	402	ug/kg	121	402
111-44-4	bis(2-Chloroethyl) ether	U	402	ug/kg	80.4	402
541-73-1	1,3-Dichlorobenzene	U	402	ug/kg	80.4	402
100-51-6	Benzyl alcohol	U	402	ug/kg	121	402
95-50-1	1,2-Dichlorobenzene	U	402	ug/kg	80.4	402
108-60-1	bis(2-Chloroisopropyl)ether	U	402	ug/kg	80.4	402
95-48-7	o-Cresol	U	402	ug/kg	80.4	402
65794-96-9	m,p-Cresols	U	402	ug/kg	121	402
67-72-1	Hexachloroethane	U	402	ug/kg	80.4	402
98-95-3	Nitrobenzene	U	402	ug/kg	80.4	402
78-59-1	Isophorone	U	402	ug/kg	80.4	402
88-75-5	2-Nitrophenol	U	402	ug/kg	80.4	402
105-67-9	2,4-Dimethylphenol	U	402	ug/kg	141	402
111-91-1	bis(2-Chloroethoxy)methane	U	402	ug/kg	80.4	402
120-83-2	2,4-Dichlorophenol	U	402	ug/kg	80.4	402
65-85-0	Benzoic acid	U	804	ug/kg	201	804
91-20-3	Naphthalene	U	40.2	ug/kg	12.1	40.2
106-47-8	4-Chloroaniline	U	402	ug/kg	80.4	402
87-68-3	Hexachlorobutadiene	U	402	ug/kg	80.4	402
91-57-6	2-Methylnaphthalene	U	40.2	ug/kg	8.04	40.2
77-47-4	Hexachlorocyclopentadiene	U	402	ug/kg	80.4	402
88-06-2	2,4,6-Trichlorophenol	U	402	ug/kg	80.4	402
95-95-4	2,4,5-Trichlorophenol	U	402	ug/kg	80.4	402
91-58-7	2-Chloronaphthalene	U	40.2	ug/kg	13.3	40.2
88-74-4	2-Nitroaniline	U	402	ug/kg	80.4	402
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	402	ug/kg	80.4	402

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-917**	**Date Collected:**	**12/11/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242937004**	**Date Received:**	**12/15/2009 08:45**	**%Moisture:**	**17.2**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14219**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**933806**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**12/21/2009 19:16**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/18/2009 09:12**	**Aliquot:**	**30.04 g**	**Final Volume:**	**1 mL**
Data File:	**s6l2119.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	402	ug/kg	80.4	402
606-20-2	2,6-Dinitrotoluene	U	402	ug/kg	40.2	402
208-96-8	Acenaphthylene	U	40.2	ug/kg	12.1	40.2
51-28-5	2,4-Dinitrophenol	U	804	ug/kg	153	804
132-64-9	Dibenzofuran	U	402	ug/kg	80.4	402
84-66-2	Diethylphthalate	U	402	ug/kg	80.4	402
86-73-7	Fluorene	U	40.2	ug/kg	12.1	40.2
7005-72-3	4-Chlorophenylphenylether	U	402	ug/kg	80.4	402
534-52-1	2-Methyl-4,6-dinitrophenol	U	402	ug/kg	80.4	402
100-01-6	4-Nitroaniline	U	402	ug/kg	121	402
	p-Nitroaniline					
122-39-4	Diphenylamine	U	402	ug/kg	80.4	402
122-66-7	Azobenzene	U	402	ug/kg	80.4	402
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	402	ug/kg	80.4	402
118-74-1	Hexachlorobenzene	U	402	ug/kg	80.4	402
85-01-8	Phenanthrene	U	40.2	ug/kg	12.1	40.2
120-12-7	Anthracene	U	40.2	ug/kg	8.04	40.2
84-74-2	Di-n-butylphthalate	U	402	ug/kg	80.4	402
206-44-0	Fluoranthene	U	40.2	ug/kg	12.1	40.2
85-68-7	Butylbenzylphthalate	U	402	ug/kg	80.4	402
56-55-3	Benzo(a)anthracene	U	40.2	ug/kg	12.1	40.2
91-94-1	3,3'-Dichlorobenzidine	U	402	ug/kg	121	402
218-01-9	Chrysene	U	40.2	ug/kg	12.1	40.2
117-81-7	bis(2-Ethylhexyl)phthalate	U	402	ug/kg	80.4	402
117-84-0	Di-n-octylphthalate	U	402	ug/kg	80.4	402
205-99-2	Benzo(b)fluoranthene	U	40.2	ug/kg	12.1	40.2
207-08-9	Benzo(k)fluoranthene	U	40.2	ug/kg	12.1	40.2
50-32-8	Benzo(a)pyrene	U	40.2	ug/kg	12.1	40.2
193-39-5	Indeno(1,2,3-cd)pyrene	U	40.2	ug/kg	12.1	40.2
53-70-3	Dibenzo(a,h)anthracene	U	40.2	ug/kg	12.1	40.2
191-24-2	Benzo(ghi)perylene	U	40.2	ug/kg	12.1	40.2
120-82-1	1,2,4-Trichlorobenzene	U	402	ug/kg	80.4	402

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	3.61	504	ug/kg		JA

GEL Laboratories LLC

Data file : /chem/MSD6.i/s122109.b/s612119.d
Lab Smp Id: 242937004 Client Smp ID: RE03-09-14219
Inj Date : 21-DEC-2009 19:16
Operator : nagl Inst ID: MSD6.i
Smp Info : |242937004|933806|1|SVMF|1|LANL
Misc Info : |MSD8270_S|WBN091208-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s122109.b/MSD6-M8270C-AQA-110909.m
Meth Date : 22-Dec-2009 11:21 nat00999 Quant Type: ISTD
Cal Date : 11-NOV-2009 04:38 Cal File: s6k0954.d
Als bottle: 19
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-917.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.04000	weight of sample
M	17.16580	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	5.007	5.025	(1.000)	217336	40.0000	
* 29 Naphthalene-d8	136	6.301	6.309	(1.000)	615000	40.0000	
* 46 Acenaphthene-d10	164	8.177	8.187	(1.000)	435168	40.0000	
* 67 Phenanthrene-d10	188	9.795	9.802	(1.000)	786013	40.0000	
* 91 Chrysene-d12	240	12.873	12.885	(1.000)	633486	40.0000	
* 98 Perylene-d12	264	15.309	15.324	(1.000)	507466	40.0000	
$ 3 2-Fluorophenol	112	3.858	3.860	(0.770)	311153	57.1701	2300
$ 5 Phenol-d5	99	4.637	4.645	(0.926)	404370	58.8664	2360
$ 20 Nitrobenzene-d5	82	5.555	5.565	(0.882)	115440	26.5350	1070
$ 39 2-Fluorobiphenyl	172	7.428	7.435	(0.908)	211696	18.8768	759
$ 60 2,4,6-Tribromophenol	329	9.030	9.040	(1.104)	74620	58.7495	2360
$ 81 p-Terphenyl-d14	244	11.502	11.507	(0.894)	373160	36.5269	1470

ION RATIO REPORT

SV REPORT

Data file: s612119.d
Report Date: 12/22/2009 11:49
Lab. ID: 242937004 SampleType: SAMPLE
Injection Date: 21-DEC-2009 19:16
Operator: nagl Instrument: MSD6.i
Sample Info: |242937004|933806|1|SVMF|1|LANL
Miscellaneous Info: |MSD8270_S|WBN091208-01
Comment:
Method used: /chem/MSD6.i/s122109.b/MSD6-M8270C-AQA-110909.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-917
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
17 N-Nitrosodipropylamine				CAS#: 621-64-7		
70	8190	5.54	5.39	80-120	100	(T)
42	3527	5.54	5.39	40-100	43	(T)
22 Isophorone				CAS#: 78-59-1		
82	115440	5.55	5.82	80-120	100	(T)
138	1575	6.28	5.82	0- 49	1	(T)
43 Dimethylphthalate				CAS#: 131-11-3		
163	79061	8.18	7.87	80-120	100	(T)
164	435169	8.18	7.87	0- 40	550	(QT)
50 2,4-Dinitrotoluene				CAS#: 121-14-2		
165	56421	8.18	8.37	80-120	100	(T)
89	345	8.18	8.37	41-101	1	(QT)
63	579	8.18	8.37	18- 78	1	(QT)
53 Fluorene				CAS#: 86-73-7		
166	4667	9.03	8.78	80-120	100	(T)
165	4516	9.03	8.78	62-122	97	(T)
167	1405	9.03	8.78	0- 44	30	(T)
55 2-Methyl-4,6-dinitrophenol				CAS#: 534-52-1		
198	199	9.03	8.82	80-120	100	(T)
105	145	9.03	8.82	11- 71	73	(QT)
51	374	9.03	8.82	21- 81	187	(QT)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

Data file : /chem/MSD6.i/s122109.b/s612119.d
Lab Smp Id: 242937004 Client Smp ID: RE03-09-14219
Inj Date : 21-DEC-2009 19:16
Operator : nagl Inst ID: MSD6.i
Smp Info : |242937004|933806|1|SVMF|1|LANL
Misc Info : |MSD8270_S|WBN091208-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s122109.b/MSD6-M8270C-AQA-110909.m
Meth Date : 22-Dec-2009 11:21 nat00999 Quant Type: ISTD
Cal Date : 11-NOV-2009 04:38 Cal File: s6k0954.d
Als bottle: 19
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-917.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariabl

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.04000	weight of sample
M	17.16580	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	5.007	1263434	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown Aldol Condensate					CAS #:		
3.605	396444	12.5512998	504	0		0	10

Data File: /chem/MSD6.i/s122109.b/s612119.d

Date : 21-DEC-2009 19:16

Client ID: RE03-09-14219

Sample Info: |2429370041933806|1|SVMF|1|LANL

Volume Injected (uL): 0.5

Column phase: J&W DB-5MS

Instrument: MSD6.i

Operator: nag1

Column diameter: 0.20

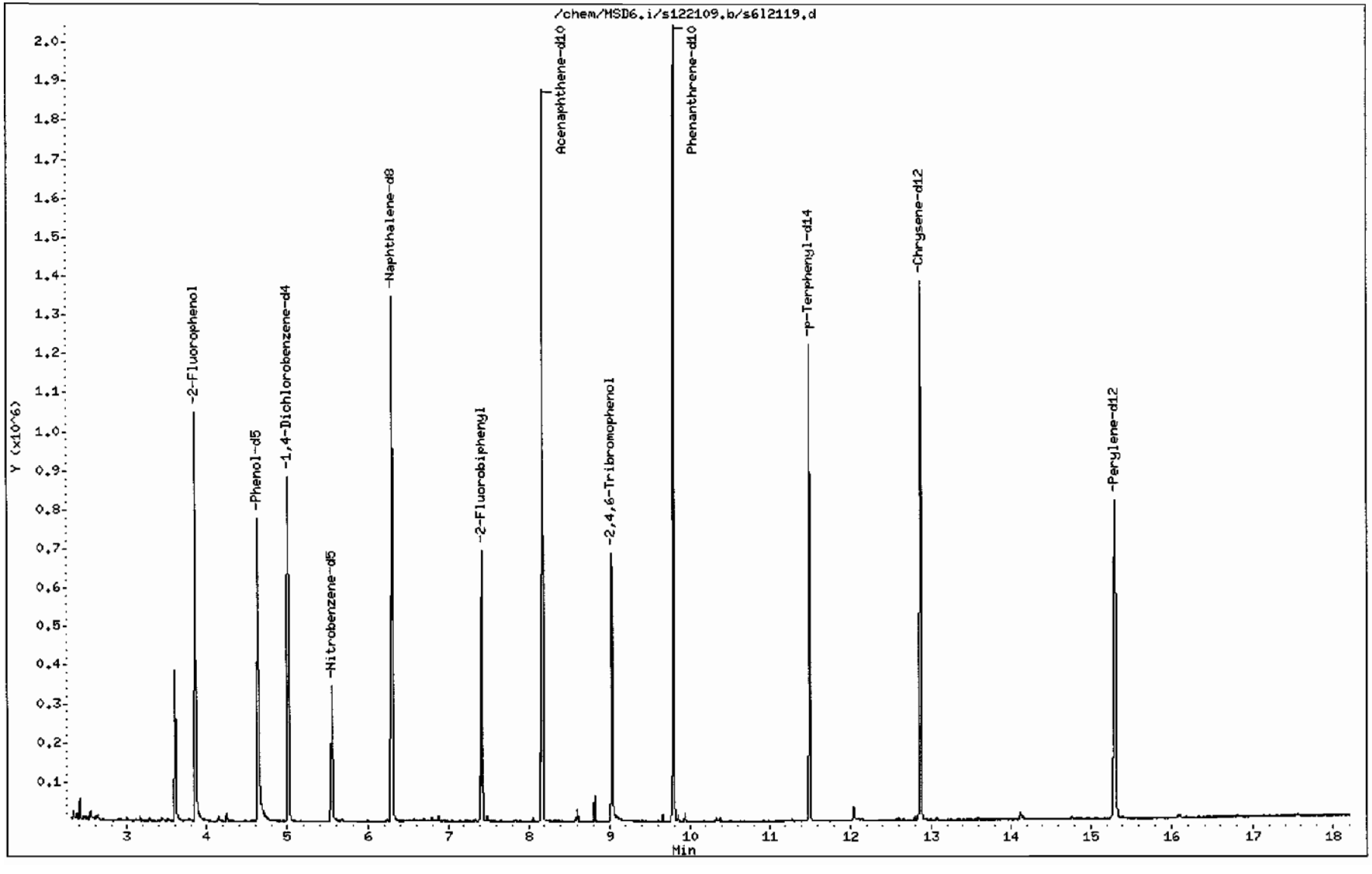

Data File: /chem/MSD6.i/s122109.b/s612119.d

Date : 21-DEC-2009 19:16

Client ID: RE03-09-14219

Instrument: MSD6.i

Sample Info: |2429370041933806|1|SVMF|1|LANL

Volume Injected (uL): 0.5

Operator: nagl

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	42	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	38	C6H12O2	116
3-Hexanol	623-37-0	NIST05.L	4318	33	C6H14O	102

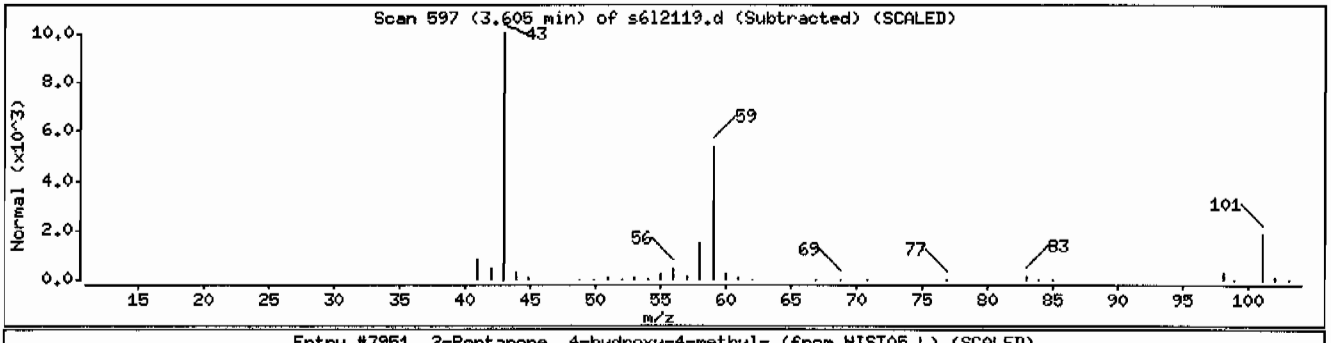

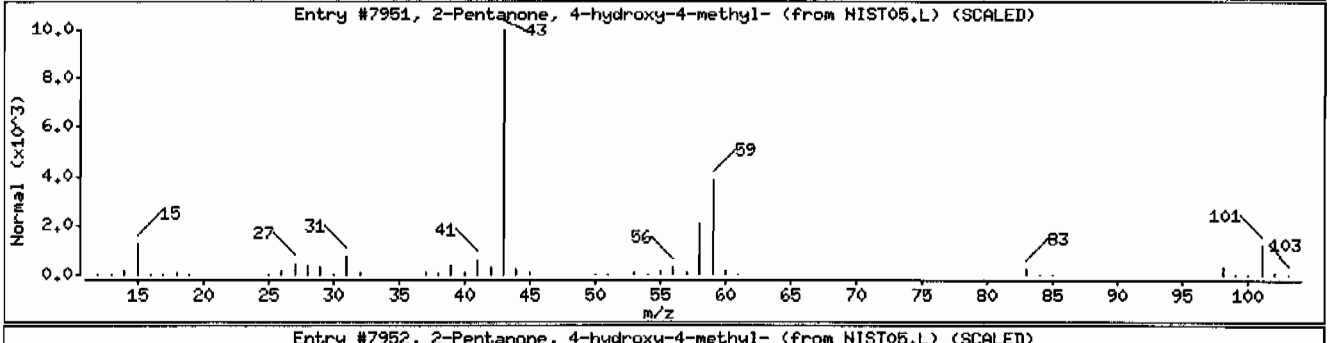

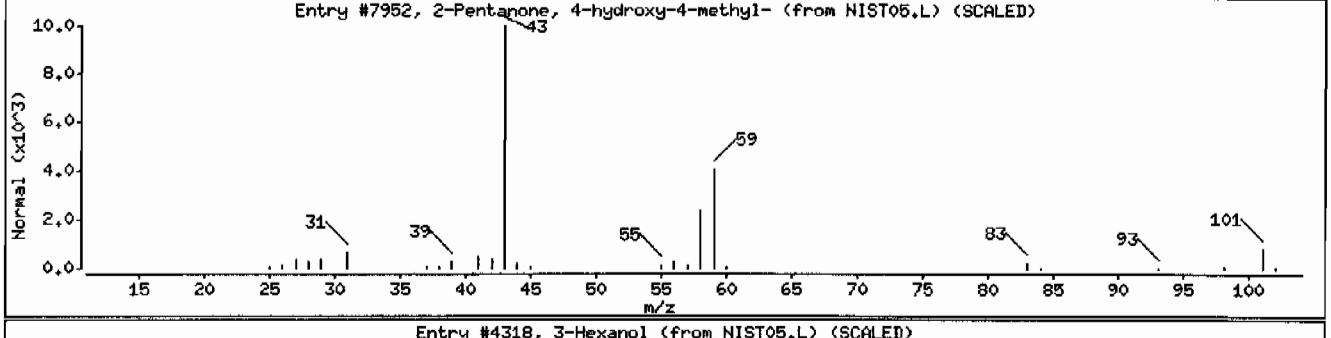

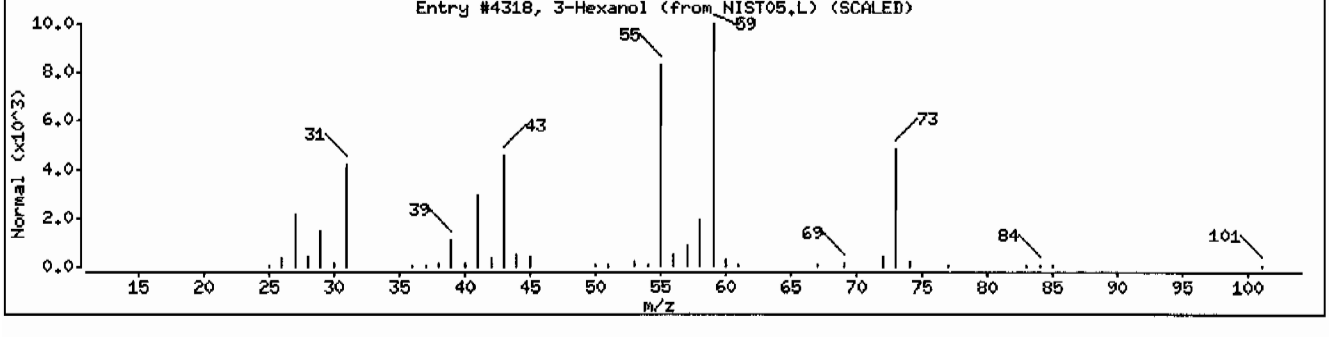

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-917	Date Collected:	12/11/2009 12:00	Matrix:	S
Lab Sample ID:	242937009	Date Received:	12/15/2009 08:45	%Moisture:	14.2
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-10-2735	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	933806	Inst:	MSD6.I	Dilution:	1
Run Date:	12/21/2009 21:33	Analyst:	NAG1	Inj. Vol:	.5 uL
Prep Date:	12/18/2009 09:12	Aliquot:	30.04 g	Final Volume:	1 mL
Data File:	s6l2124.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	388	ug/kg	77.6	388
108-95-2	Phenol	U	388	ug/kg	77.6	388
95-57-8	2-Chlorophenol	U	388	ug/kg	77.6	388
106-46-7	1,4-Dichlorobenzene	U	388	ug/kg	77.6	388
621-64-7	N-Nitrosodipropylamine	U	388	ug/kg	77.6	388
59-50-7	4-Chloro-3-methylphenol	U	388	ug/kg	77.6	388
83-32-9	Acenaphthene	U	38.8	ug/kg	12.8	38.8
121-14-2	2,4-Dinitrotoluene	U	388	ug/kg	38.8	388
100-02-7	4-Nitrophenol	U	388	ug/kg	128	388
87-86-5	Pentachlorophenol	U	388	ug/kg	97.0	388
129-00-0	Pyrene	U	38.8	ug/kg	11.6	38.8
110-86-1	Pyridine	U	388	ug/kg	77.6	388
62-53-3	Aniline	U	388	ug/kg	116	388
111-44-4	bis(2-Chloroethyl) ether	U	388	ug/kg	77.6	388
541-73-1	1,3-Dichlorobenzene	U	388	ug/kg	77.6	388
100-51-6	Benzyl alcohol	U	388	ug/kg	116	388
95-50-1	1,2-Dichlorobenzene	U	388	ug/kg	77.6	388
108-60-1	bis(2-Chloroisopropyl)ether	U	388	ug/kg	77.6	388
95-48-7	o-Cresol	U	388	ug/kg	77.6	388
65794-96-9	m,p-Cresols	U	388	ug/kg	116	388
67-72-1	Hexachloroethane	U	388	ug/kg	77.6	388
98-95-3	Nitrobenzene	U	388	ug/kg	77.6	388
78-59-1	Isophorone	U	388	ug/kg	77.6	388
88-75-5	2-Nitrophenol	U	388	ug/kg	77.6	388
105-67-9	2,4-Dimethylphenol	U	388	ug/kg	136	388
111-91-1	bis(2-Chloroethoxy)methane	U	388	ug/kg	77.6	388
120-83-2	2,4-Dichlorophenol	U	388	ug/kg	77.6	388
65-85-0	Benzoic acid	U	776	ug/kg	194	776
91-20-3	Naphthalene	U	38.8	ug/kg	11.6	38.8
106-47-8	4-Chloroaniline	U	388	ug/kg	77.6	388
87-68-3	Hexachlorobutadiene	U	388	ug/kg	77.6	388
91-57-6	2-Methylnaphthalene	U	38.8	ug/kg	7.76	38.8
77-47-4	Hexachlorocyclopentadiene	U	388	ug/kg	77.6	388
88-06-2	2,4,6-Trichlorophenol	U	388	ug/kg	77.6	388
95-95-4	2,4,5-Trichlorophenol	U	388	ug/kg	77.6	388
91-58-7	2-Chloronaphthalene	U	38.8	ug/kg	12.8	38.8
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	388	ug/kg	77.6	388
99-09-2	3-Nitroaniline	U	388	ug/kg	77.6	388

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-917**	**Date Collected:**	**12/11/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242937009**	**Date Received:**	**12/15/2009 08:45**	**%Moisture:**	**14.2**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-10-2735**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**933806**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**12/21/2009 21:33**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/18/2009 09:12**	**Aliquot:**	**30.04 g**	**Final Volume:**	**1 mL**
Data File:	**s612124.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	388	ug/kg	77.6	388
606-20-2	2,6-Dinitrotoluene	U	388	ug/kg	38.8	388
208-96-8	Acenaphthylene	U	38.8	ug/kg	11.6	38.8
51-28-5	2,4-Dinitrophenol	U	776	ug/kg	147	776
132-64-9	Dibenzofuran	U	388	ug/kg	77.6	388
84-66-2	Diethylphthalate	U	388	ug/kg	77.6	388
86-73-7	Fluorene	U	38.8	ug/kg	11.6	38.8
7005-72-3	4-Chlorophenylphenylether	U	388	ug/kg	77.6	388
534-52-1	2-Methyl-4,6-dinitrophenol	U	388	ug/kg	77.6	388
100-01-6	4-Nitroaniline	U	388	ug/kg	116	388
	p-Nitroaniline					
122-39-4	Diphenylamine	U	388	ug/kg	77.6	388
122-66-7	Azobenzene	U	388	ug/kg	77.6	388
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	388	ug/kg	77.6	388
118-74-1	Hexachlorobenzene	U	388	ug/kg	77.6	388
85-01-8	Phenanthrene	U	38.8	ug/kg	11.6	38.8
120-12-7	Anthracene	U	38.8	ug/kg	7.76	38.8
84-74-2	Di-n-butylphthalate	U	388	ug/kg	77.6	388
206-44-0	Fluoranthene	U	38.8	ug/kg	11.6	38.8
85-68-7	Butylbenzylphthalate	U	388	ug/kg	77.6	388
56-55-3	Benzo(a)anthracene	U	38.8	ug/kg	11.6	38.8
91-94-1	3,3'-Dichlorobenzidine	U	388	ug/kg	116	388
218-01-9	Chrysene	U	38.8	ug/kg	11.6	38.8
117-81-7	bis(2-Ethylhexyl)phthalate	U	388	ug/kg	77.6	388
117-84-0	Di-n-octylphthalate	U	388	ug/kg	77.6	388
205-99-2	Benzo(b)fluoranthene	U	38.8	ug/kg	11.6	38.8
207-08-9	Benzo(k)fluoranthene	U	38.8	ug/kg	11.6	38.8
50-32-8	Benzo(a)pyrene	U	38.8	ug/kg	11.6	38.8
193-39-5	Indeno(1,2,3-cd)pyrene	U	38.8	ug/kg	11.6	38.8
53-70-3	Dibenzo(a,h)anthracene	U	38.8	ug/kg	11.6	38.8
191-24-2	Benzo(ghi)perylene	U	38.8	ug/kg	11.6	38.8
120-82-1	1,2,4-Trichlorobenzene	U	388	ug/kg	77.6	388

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	3.61	478	ug/kg		JA

GEL Laboratories LLC

Data file : /chem/MSD6.i/s122109.b/s612124.d
Lab Smp Id: 242937009 Client Smp ID: RE03-10-2735
Inj Date : 21-DEC-2009 21:33
Operator : nag1 Inst ID: MSD6.i
Smp Info : |242937009|933806|1|SVMF|1|LANL
Misc Info : |MSD8270_S|WBN091208-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s122109.b/MSD6-M8270C-AQA-110909.m
Meth Date : 22-Dec-2009 11:21 nat00999 Quant Type: ISTD
Cal Date : 11-NOV-2009 04:38 Cal File: s6k0954.d
Als bottle: 24
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-917.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.04000	weight of sample
M	14.19430	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	5.015	5.025	(1.000)	228212	40.0000	
* 29 Naphthalene-d8	136	6.299	6.309	(1.000)	895457	40.0000	
* 46 Acenaphthene-d10	164	8.179	8.187	(1.000)	500053	40.0000	
* 67 Phenanthrene-d10	188	9.795	9.802	(1.000)	852683	40.0000	
* 91 Chrysene-d12	240	12.873	12.885	(1.000)	666411	40.0000	
* 98 Perylene-d12	264	15.307	15.324	(1.000)	504830	40.0000	
$ 3 2-Fluorophenol	112	3.863	3.860	(0.770)	326832	57.1890	2220
$ 5 Phenol-d5	99	4.638	4.645	(0.925)	405892	56.2720	2180
$ 20 Nitrobenzene-d5	82	5.552	5.565	(0.881)	157949	24.9350	967
$ 39 2-Fluorobiphenyl	172	7.428	7.435	(0.908)	254983	19.7864	768
$ 60 2,4,6-Tribromophenol	329	9.031	9.040	(1.104)	82929	56.8194	2200
$ 81 p-Terphenyl-d14	244	11.502	11.507	(0.894)	405458	37.7276	1460

ION RATIO REPORT

SV REPORT

Data file: s612124.d
Report Date: 12/22/2009 11:50
Lab. ID: 242937009 SampleType: SAMPLE
Injection Date: 21-DEC-2009 21:33
Operator: nag1 Instrument: MSD6.i
Sample Info: |242937009|933806|1|SVMF|1|LANL
Miscellaneous Info: |MSD8270_S|WBN091208-01
Comment:
Method used: /chem/MSD6.i/s122109.b/MSD6-M8270C-AQA-110909.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-917
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
17 N-Nitrosodipropylamine				CAS#: 621-64-7		
70	21461	5.55	5.39	80-120	100	(T)
42	12416	5.55	5.39	40-100	58	(T)
22 Isophorone				CAS#: 78-59-1		
82	157949	5.55	5.82	80-120	100	(T)
138	4636	6.30	5.82	0- 49	3	(T)
43 Dimethylphthalate				CAS#: 131-11-3		
163	89307	8.18	7.87	80-120	100	(T)
164	500053	8.18	7.87	0- 40	560	(QT)
50 2,4-Dinitrotoluene				CAS#: 121-14-2		
165	64649	8.18	8.37	80-120	100	(T)
89	741	8.18	8.37	41-101	1	(QT)
63	555	8.18	8.37	18- 78	1	(QT)
53 Fluorene				CAS#: 86-73-7		
166	5020	9.03	8.78	80-120	100	(T)
165	5204	9.03	8.78	62-122	104	(T)
167	1647	9.03	8.78	0- 44	33	(T)
55 2-Methyl-4,6-dinitrophenol				CAS#: 534-52-1		
198	157	9.03	8.82	80-120	100	(T)
105	284	9.03	8.82	11- 71	181	(QT)
51	260	9.03	8.82	21- 81	165	(QT)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

Data file : /chem/MSD6.i/s122109.b/s612124.d
Lab Smp Id: 242937009 Client Smp ID: RE03-10-2735
Inj Date : 21-DEC-2009 21:33
Operator : nag1 Inst ID: MSD6.i
Smp Info : |242937009|933806|1|SVMF|1|LANL
Misc Info : |MSD8270_S|WBN091208-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s122109.b/MSD6-M8270C-AQA-110909.m
Meth Date : 22-Dec-2009 11:21 nat00999 Quant Type: ISTD
Cal Date : 11-NOV-2009 04:38 Cal File: s6k0954.d
Als bottle: 24
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-917.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.04000	weight of sample
M	14.19430	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	5.015	1331688	40.000

	CONCENTRATIONS				QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown Aldol Condensate				CAS #:			
3.611	410456	12.3288782	478	0		0	10

Data File: /chem/MSD6.i/s122109.b/s612124.d
Date : 21-DEC-2009 21:33
Client ID: RE03-10-2735
Sample Info: |2429370091933806|1|SVHF|1|LANL
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Page 1

Instrument: MSD6.i

Operator: nag1
Column diameter: 0.20

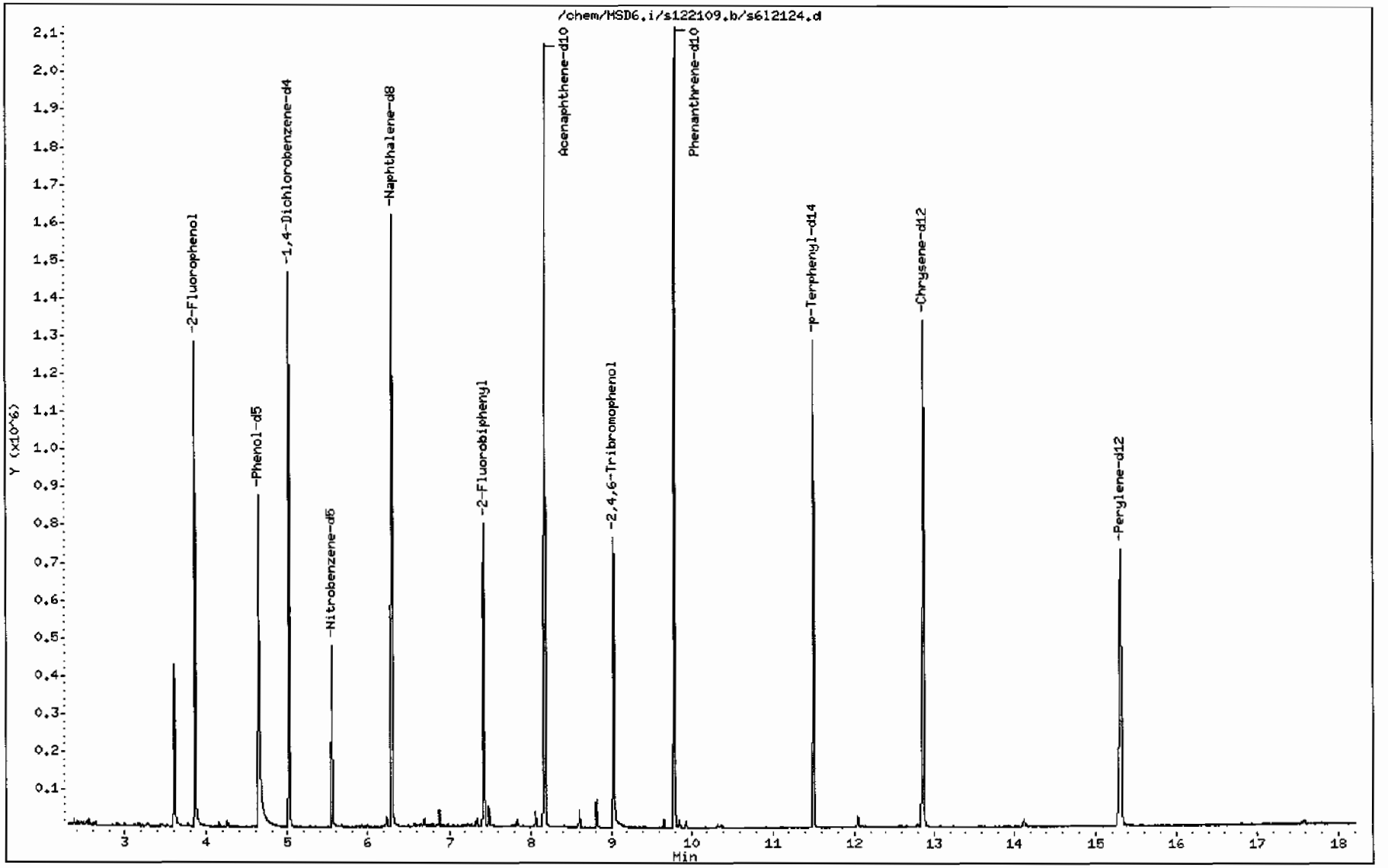

Data File: /chem/MSD6.i/s122109.b/s612124.d

Date : 21-DEC-2009 21:33

Client ID: RE03-10-2735

Instrument: MSD6.i

Sample Info: |242937009|933806|1|SVMF|1|LANL

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	56	C6H12O2	116
Acetic acid, 1,1-dimethylethyl ester	540-88-5	NIST05.L	7977	39	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	38	C6H12O2	116

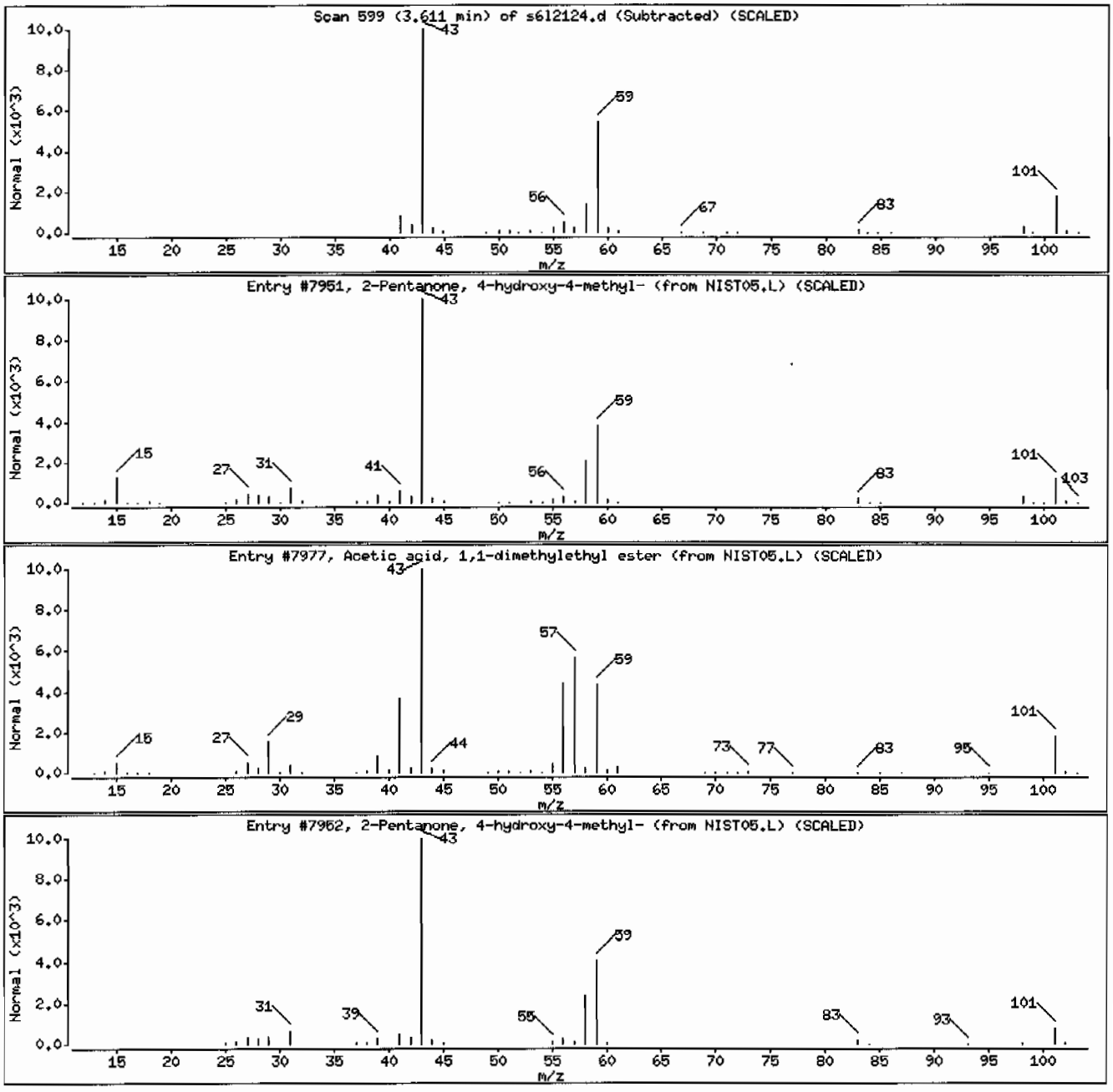

Standard Data

SW846 8270C//8270D/EPA 625								
Calibration Standard Concentration Levels*								
	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
1,4-Dichlorobenzene-d4 (INTERNAL STANDARD)								
Naphthalene-d8 (INTERNAL STANDARD)								
Acenaphthene-d10 (INTERNAL STANDARD)								
Phenanthrene-d10 (INTERNAL STANDARD)								
Chrysene-d12 (INTERNAL STANDARD)								
Perylene-d12 (INTERNAL STANDARD)								
2-Fluorophenol (SURROGATE)		10	20	40	50	80	100	120
Phenol-d5 (SURROGATE)		10	20	40	50	80	100	120
2-Chlorophenol-d4 (CLP SURROGATE)		10	20	40	50	80	100	120
1,2-Dichlorobenzene-d4 (CLP SURROGATE)		10	20	40	50	80	100	120
Nitrobenzene-d5 (SURROGATE)		10	20	40	50	80	100	120
2-Fluorobiphenyl (SURROGATE)		10	20	40	50	80	100	120
2,4,6-Tribromophenol (SURROGATE)		10	20	40	50	80	100	120
p-Terphenyl-d14 (SURROGATE)		10	20	40	50	80	100	120
N-Nitrosodimethylamine		10	20	40	50	80	100	120
Pyridine		10	20	40	50	80	100	120
Aniline		10	20	40	50	80	100	120
Benzaldehyde		10	20	40	50	80	100	120
Phenol		10	20	40	50	80	100	120
bis(2-Chloroethyl)ether	1	10	20	40	50	80	100	120
2-Chlorophenol		10	20	40	50	80	100	120
n-Decane		10	20	40	50	80	100	120
1,3-Dichlorobenzene		10	20	40	50	80	100	120
1,4-Dichlorobenzene		10	20	40	50	80	100	120
Benzyl Alcohol		10	20	40	50	80	100	120
1,2-Dichlorobenzene		10	20	40	50	80	100	120
bis(2-Chloroisopropyl)ether		10	20	40	50	80	100	120
o-Cresol (2-Methylphenol)		10	20	40	50	80	100	120
Acetophenone		10	20	40	50	80	100	120
N-Nitrosodipropylamine	1	10	20	40	50	80	100	120
m,p-Cresols (3-Methylphenol & 4-Methylphenol)		10	20	40	50	80	100	120
Hexachloroethane		10	20	40	50	80	100	120
Nitrobenzene		10	20	40	50	80	100	120
Isophorone		10	20	40	50	80	100	120
2-Nitrophenol		10	20	40	50	80	100	120
2,4-Dimethylphenol		10	20	40	50	80	100	120
bis(2-Chloroethoxy)methane		10	20	40	50	80	100	120
2,4-Dichlorophenol		10	20	40	50	80	100	120
Benzoic Acid			20	40	50	80	100	120
1,2,4-Trichlorobenzene		10	20	40	50	80	100	120
Naphthalene	1	10	20	40	50	80	100	120
alpha-Terpineol		10	20	40	50	80	100	120
4-Chloroaniline		10	20	40	50	80	100	120
Caprolactam		10	20	40	50	80	100	120

SW846 8270C//8270D/EPA 625								
Calibration Standard Concentration Levels*								
	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Hexachlorobutadiene		10	20	40	50	80	100	120
4-Chloro-3-methylphenol		10	20	40	50	80	100	120

2-Methylnaphthalene	1	10	20	40	50	80	100	120
1-Methylnaphthalene	1	10	20	40	50	80	100	120
Hexachlorocyclopentadiene		10	20	40	50	80	100	120
1,1'-Biphenyl		10	20	40	50	80	100	120
2,3-Dichloroaniline		10	20	40	50	80	100	120
2,4,6-Trichlorophenol		10	20	40	50	80	100	120
2,4,5-Trichlorophenol		10	20	40	50	80	100	120
2-Chloronaphthalene	1	10	20	40	50	80	100	120
o-Nitroaniline		10	20	40	50	80	100	120
m-Nitroaniline		10	20	40	50	80	100	120
Dimethylphthalate	1	10	20	40	50	80	100	120
2,6-Dinitrotoluene		10	20	40	50	80	100	120
Acenaphthylene	1	10	20	40	50	80	100	120
Acenaphthene	1	10	20	40	50	80	100	120
2,4-Dinitrophenol			20	40	50	80	100	120
Dibenzofuran		10	20	40	50	80	100	120
2,4-Dinitrotoluene		10	20	40	50	80	100	120
Diethylphthalate	1	10	20	40	50	80	100	120
4-Nitrophenol		10	20	40	50	80	100	120
Fluorene	1	10	20	40	50	80	100	120
4-Chlorophenyl phenyl ether		10	20	40	50	80	100	120
2-Methyl-4,6-dinitrophenol		10	20	40	50	80	100	120
p-Nitroaniline		10	20	40	50	80	100	120
Diphenylamine		10	20	40	50	80	100	120
1,2-Diphenylhydrazine		10	20	40	50	80	100	120
Tributylphosphate		10	20	40	50	80	100	120
4-Bromophenyl phenyether		10	20	40	50	80	100	120
Hexachlorobenzene		10	20	40	50	80	100	120
Atrazine		10	20	40	50	80	100	120
Pentachlorophenol		10	20	40	50	80	100	120
n-Octadecane		10	20	40	50	80	100	120
Phenanthrene	1	10	20	40	50	80	100	120
Anthracene	1	10	20	40	50	80	100	120
Di-n-butylphthalate	1	10	20	40	50	80	100	120
Fluoranthene	1	10	20	40	50	80	100	120
Benzidine		10	20	40	50	80	100	120
Pyrene	1	10	20	40	50	80	100	120
Butylbenzylphthalate	1	10	20	40	50	80	100	120
Benzo(a)anthracene	1	10	20	40	50	80	100	120
3,3'-Dichlorobenzidene		10	20	40	50	80	100	120
Chrysene	1	10	20	40	50	80	100	120
bis (2-Ethylhexyl) phthalate	1	10	20	40	50	80	100	120
Di-n-octylphthalate	1	10	20	40	50	80	100	120

SW846 8270C//8270D/EPA 625								
Calibration Standard Concentration Levels*								
	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Benzo(b)fluoranthene	1	10	20	40	50	80	100	120
Benzo(k)fluoranthene	1	10	20	40	50	80	100	120
Benzo(a)pyrene	1	10	20	40	50	80	100	120
Indeno-(1,2,3-cd)pyrene	1	10	20	40	50	80	100	120
Dibenzo(a,h)anthracene	1	10	20	40	50	80	100	120
Benzo(ghi)perylene	1	10	20	40	50	80	100	120
Carbazole	1	10	20	40	50	80	100	120

APPENDIX IX

1,4-Dioxane		10	20	40	50	80	100	120
Methyl methacrylate		10	20	40	50	80	100	120
Ethyl methacrylate		10	20	40	50	80	100	120
2-Picoline		10	20	40	50	80	100	120
N-Nitrosomethylethylamine		10	20	40	50	80	100	120
Methyl methanesulfonate		10	20	40	50	80	100	120
N-Nitrosodiethylamine		10	20	40	50	80	100	120
Ethyl methanesulfonate		10	20	40	50	80	100	120
Pentachloroethane		10	20	40	50	80	100	120
N-Nitrosopyrrolidine		10	20	40	50	80	100	120
N-Nitrosomorpholine		10	20	40	50	80	100	120
o-Toluidine		10	20	40	50	80	100	120
N-Nitrosopiperidine		10	20	40	50	80	100	120
a,a-Dimethhylphenethylamine		10	20	40	50	80	100	120
Triethylphosphorothioate		10	20	40	50	80	100	120
2,6-Dichlorophenol		10	20	40	50	80	100	120
Hexachloropropene		10	20	40	50	80	100	120
p-Phenylenediamine		10	20	40	50	80	100	120
N-Nitrosodi-n-butylamine		10	20	40	50	80	100	120
Safrole		10	20	40	50	80	100	120
1,2,4,5-Tetrachlorobenzene		10	20	40	50	80	100	120
Isosafrole		10	20	40	50	80	100	120
1,4-Naphthoquinone		10	20	40	50	80	100	120
m-Dinitrobenzene		10	20	40	50	80	100	120
Pentachlorobenzene		10	20	40	50	80	100	120
1-Naphthylamine		10	20	40	50	80	100	120
2-Naphthylamine		10	20	40	50	80	100	120
2,3,4,6-Tetrachlorophenol		10	20	40	50	80	100	120
5-Nitro-o-toluidine		10	20	40	50	80	100	120
Thionazin		10	20	40	50	80	100	120
Sulfotepp		10	20	40	50	80	100	120
Phorate		10	20	40	50	80	100	120
1,3,5-Trinitrobenzene		10	20	40	50	80	100	120
Phenacetin		10	20	40	50	80	100	120
Diallate (cis and trans)		10	20	40	50	80	100	120

SW846 8270C//8270D/EPA 625

Calibration Standard Concentration Levels*

	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Dimethoate		10	20	40	50	80	100	120
4-Aminobiphenyl		10	20	40	50	80	100	120
Pentachloronitrobenzene		10	20	40	50	80	100	120
Pronamide		10	20	40	50	80	100	120
Dinoseb		10	20	40	50	80	100	120
Disulfoton		10	20	40	50	80	100	120
Methyl parathion		10	20	40	50	80	100	120
4-Nitroquinoline oxide		10	20	40	50	80	100	120
Methapyrilene		10	20	40	50	80	100	120
Isodrin		10	20	40	50	80	100	120
Aramite		10	20	40	50	80	100	120
Kepone		10	20	40	50	80	100	120
p-(Dimethylamino)azobenzene		10	20	40	50	80	100	120

Chlorobenzilate		10	20	40	50	80	100	120
3,3'-Dimethylbenzidine		10	20	40	50	80	100	120
Famphur		10	20	40	50	80	100	120
2-Acetylaminofluorene		10	20	40	50	80	100	120
7,12-Dimethylbenz(a)anthracene		10	20	40	50	80	100	120
3-Methylcholanthrene		10	20	40	50	80	100	120
Hexachlorophene		500	1000	1250	1500	1750	2000	
p-Benzoquinone		10	20	40	50	80	100	120
Parathion		10	20	40	50	80	100	120
Methoxychlor		10	20	40	50	80	100	120
2-Ethoxyethanol		50	75	100	125	150	200	250
cis-Diallate		1.5	3	6	7.5	12	15	18
trans-Diallate		8.5	17	34	42	68	85	102
Dibenzo(a,e)pyrene		50	75	100	125	150	200	250
Phthalic anhydride		50	75	100	125	150	200	250
1,4-Dinitrobenzene		50	75	100	125	150	200	250
(2,3-Dibromopropyl)phosphate		50	75	100	125	150	200	250
Methylenebis(2-chloroaniline)		50	75	100	125	150	200	250
p-Toluidine		10	20	40	50	80	100	120
m-Toluidine		10	20	40	50	80	10	120

SW846 8270C//8270D/EPA 625								
Calibration Standard Concentration Levels*								
	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
bis(Chloromethyl)ether		10	20	40	50	80	100	120
Thiophenol		10	20	40	50	80	100	120
4-Chlorothiophenol		10	20	40	50	80	100	120
4-Chlorothio anisole		10	20	40	50	80	100	120
Phthalic acid		10	20	40	50	80	100	120
Hydroxymethyl phthalamide		10	20	40	50	80	100	120
Diphenyl sulfide		10	20	40	50	80	100	120
Diphenyl disulfide		10	20	40	50	80	100	120
Phenyl sulfone		10	20	40	50	80	100	120
Octachlorostyrene		10	20	40	50	80	100	120
2,2'-Dichlorobenzil		10	20	40	50	80	100	120
bis(p-Chlorophenyl)disulfide		10	20	40	50	80	100	120
bis(p-Chlorophenyl)sulfone		10	20	40	50	80	10	120

All values are mg/L without the prep factor.
# Indicates the calibration verification concentration level used
* Usual calibration levels using SCAN methodology
Level 1 may be included at request of client
(06/08)

Report Date: 22-Dec-2009 09:58

Calibration History

Method : /chem/MSD6.i/s122109.b/MSD6-M8270C-AQA-110909.m
Start Cal Date: 09-NOV-2009 18:53
End Cal Date : 11-NOV-2009 04:38

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 1.00000		
09-NOV-2009 18:53	MEGA	/chem/MSD6.i/s110909.b/s6k0913.d
Cal Level: 2 , Cal Amount: 10.00000		
11-NOV-2009 01:47	NEV	/chem/MSD6.i/s110909.b/s6k0948.d
10-NOV-2009 22:55	HEX	/chem/MSD6.i/s110909.b/s6k0942.d
10-NOV-2009 16:20	PEST	/chem/MSD6.i/s110909.b/s6k0930.d
10-NOV-2009 11:59	AP12	/chem/MSD6.i/s110909.b/s6k0923.d
09-NOV-2009 19:31	MEGA	/chem/MSD6.i/s110909.b/s6k0914.d
Cal Level: 3 , Cal Amount: 20.00000		
11-NOV-2009 02:16	NEV	/chem/MSD6.i/s110909.b/s6k0949.d
10-NOV-2009 23:24	HEX	/chem/MSD6.i/s110909.b/s6k0943.d
10-NOV-2009 16:56	PEST	/chem/MSD6.i/s110909.b/s6k0931.d
10-NOV-2009 12:36	AP12	/chem/MSD6.i/s110909.b/s6k0924.d
09-NOV-2009 20:09	MEGA	/chem/MSD6.i/s110909.b/s6k0915.d
Cal Level: 4 , Cal Amount: 40.00000		
11-NOV-2009 02:44	NEV	/chem/MSD6.i/s110909.b/s6k0950.d
10-NOV-2009 23:53	HEX	/chem/MSD6.i/s110909.b/s6k0944.d
10-NOV-2009 17:33	PEST	/chem/MSD6.i/s110909.b/s6k0932.d
10-NOV-2009 13:13	AP12	/chem/MSD6.i/s110909.b/s6k0925.d
09-NOV-2009 20:46	MEGA	/chem/MSD6.i/s110909.b/s6k0916.d
Cal Level: 5 , Cal Amount: 50.00000		
11-NOV-2009 03:12	NEV	/chem/MSD6.i/s110909.b/s6k0951.d
11-NOV-2009 00:21	HEX	/chem/MSD6.i/s110909.b/s6k0945.d
10-NOV-2009 18:09	PEST	/chem/MSD6.i/s110909.b/s6k0933.d
10-NOV-2009 13:51	AP12	/chem/MSD6.i/s110909.b/s6k0926.d
09-NOV-2009 21:25	MEGA	/chem/MSD6.i/s110909.b/s6k0917.d
Cal Level: 6 , Cal Amount: 80.00000		
11-NOV-2009 03:41	NEV	/chem/MSD6.i/s110909.b/s6k0952.d
11-NOV-2009 00:50	HEX	/chem/MSD6.i/s110909.b/s6k0946.d
10-NOV-2009 18:45	PEST	/chem/MSD6.i/s110909.b/s6k0934.d
10-NOV-2009 14:30	AP12	/chem/MSD6.i/s110909.b/s6k0927.d
09-NOV-2009 22:01	MEGA	/chem/MSD6.i/s110909.b/s6k0918.d
Cal Level: 7 , Cal Amount: 100.00000		

11-NOV-2009 04:10	NEV	/chem/MSD6.i/s110909.b/s6k0953.d
11-NOV-2009 01:18	HEX	/chem/MSD6.i/s110909.b/s6k0947.d
10-NOV-2009 19:21	PEST	/chem/MSD6.i/s110909.b/s6k0935.d
10-NOV-2009 15:06	AP12	/chem/MSD6.i/s110909.b/s6k0928.d
09-NOV-2009 22:39	MEGA	/chem/MSD6.i/s110909.b/s6k0919.d

Cal Level: 8 , Cal Amount: 120.00000		
11-NOV-2009 04:38	NEV	/chem/MSD6.i/s110909.b/s6k0954.d
10-NOV-2009 19:58	PEST	/chem/MSD6.i/s110909.b/s6k0936.d
10-NOV-2009 15:43	AP12	/chem/MSD6.i/s110909.b/s6k0929.d
09-NOV-2009 23:16	MEGA	/chem/MSD6.i/s110909.b/s6k0920.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 40.0		
21-DEC-2009 12:15	PEST	/chem/MSD6.i/s122109.b/s612104.d
Ccal Level: 4 , Ccal Amount: 40.0		
21-DEC-2009 11:47	AP12	/chem/MSD6.i/s122109.b/s612103.d
Ccal Level: 4 , Ccal Amount: 40.0		
21-DEC-2009 11:20	MEGA	/chem/MSD6.i/s122109.b/s612102.d

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Integrator : HP RTE
Method file : /chem/MSD6.i/s122109.b/MSD6-M8270C-AQA-110909.m
Cal Date : 22-Dec-2009 09:57 nat00999

Calibration File Names:
Level 1: /chem/MSD6.i/s110909.b/s6k0913.d
Level 2: /chem/MSD6.i/s110909.b/s6k0948.d
Level 3: /chem/MSD6.i/s110909.b/s6k0949.d
Level 4: /chem/MSD6.i/s110909.b/s6k0950.d
Level 5: /chem/MSD6.i/s110909.b/s6k0951.d
Level 6: /chem/MSD6.i/s110909.b/s6k0952.d
Level 7: /chem/MSD6.i/s110909.b/s6k0953.d
Level 8: /chem/MSD6.i/s110909.b/s6k0954.d

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
1 N-Methyl-N-nitrosomethylamine	+++++	0.62711	0.72014	0.69994	0.71294	0.67761					
	0.66245	0.66663					AVRG		0.68098		4.78734
2 Pyridine	+++++	0.78506	0.84345	0.94451	0.94132	0.77430					
	0.82190	0.82246					AVRG		0.84757		8.16958
4 Aniline	+++++	0.51792	0.56281	0.52949	0.53182	0.51964					
	0.51849	0.51247					AVRG		0.52752		3.21865
209 Benzaldehyde	+++++	0.94297	0.91161	0.92064	0.86617	0.84259					
	0.79828	0.74667					AVRG		0.86127		8.23824
6 Phenol	+++++	1.29580	1.38609	1.27955	1.27629	1.24279					
	1.20107	1.21677					AVRG		1.27120		4.82676

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
7 bis(2-Chloroethyl) ether	0.93365	0.90056	0.92748	0.85273	0.86174	0.82247					
	0.79075	0.79709					AVRG		0.86081		6.48811
8 2-Chlorophenol	+++++	1.05270	1.10343	1.04994	1.05384	0.99340					
	0.95375	0.94058					AVRG		1.02109		5.85808
203 n-Decane	+++++	1.57696	1.59018	1.40648	1.36249	1.17658					
	+++++	+++++					AVRG		1.42254		11.98709
9 1,3-Dichlorobenzene	+++++	1.22415	1.27608	1.20806	1.21136	1.14335					
	1.08668	1.07881					AVRG		1.17550		6.31837
11 1,4-Dichlorobenzene	+++++	1.27202	1.32037	1.21925	1.20743	1.15141					
	1.09639	1.07447					AVRG		1.19162		7.54222
12 Benzyl alcohol	+++++	0.60900	0.65716	0.63043	0.62465	0.64143					
	0.63021	0.64767					AVRG		0.63436		2.50657
13 1,2-Dichlorobenzene	+++++	1.16666	1.21707	1.13327	1.12016	1.08966					
	1.03460	1.02472					AVRG		1.11231		6.21300
14 bis(2-Chloroisopropyl)ether	+++++	2.07635	2.13325	1.99088	1.97675	1.86028					
	1.72252	1.69272					AVRG		1.92182		8.81925
15 o-Cresol	+++++	0.82992	0.88629	0.84024	0.85639	0.80893					
	0.80386	0.79407					AVRG		0.83139		3.92027

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
16 Acetophenone	+++++	1.20921	1.17591	1.21168	1.15285	1.16925					
	1.13524	1.12939					AVRG		1.16908		2.80572
17 N-Nitrosodipropylamine	0.65638	0.74117	0.78851	0.72893	0.73002	0.72328					
	0.70725	0.59369					AVRG		0.70865		8.34285
18 m,p-Cresols	+++++	1.03591	1.12590	1.04958	1.05532	1.04720					
	1.02399	1.03632					AVRG		1.05346		3.18987
19 Hexachloroethane	+++++	0.45806	0.49524	0.47390	0.46960	0.45628					
	0.43995	0.43396					AVRG		0.46100		4.53111
21 Nitrobenzene	+++++	0.31691	0.32516	0.29885	0.29715	0.27038					
	0.24823	0.23966					AVRG		0.28519		11.62250
22 Isophorone	+++++	0.55891	0.57824	0.53268	0.53266	0.49425					
	0.45829	0.38358					AVRG		0.50552		13.23015
23 2-Nitrophenol	+++++	0.13453	0.14214	0.13601	0.13806	0.12888					
	0.12072	0.12047					AVRG		0.13154		6.43934
24 2,4-Dimethylphenol	+++++	0.23987	0.22536	0.21067	0.20421	0.21065					
	0.21868	0.21622					AVRG		0.21795		5.40955
25 bis(2-Chloroethoxy)methane	+++++	0.33208	0.34147	0.30906	0.30442	0.28195					
	0.26036	0.25310					AVRG		0.29749		11.40063

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
26 2,4-Dichlorophenol	+++++	0.19875	0.21444	0.20921	0.20622	0.19391					
	0.18142	0.17985					AVRG		0.19769		6.80078
27 Benzoic acid	+++++	+++++	0.10585	0.12338	0.14032	0.14157					
	0.15049	0.14556					AVRG		0.13453		12.46641
28 1,2,4-Trichlorobenzene	+++++	0.27809	0.27557	0.25214	0.25046	0.22876					
	0.21050	0.20278					AVRG		0.24261		12.25857
30 Naphthalene	0.93577	0.85146	0.85267	0.76017	0.74029	0.64713					
	+++++	+++++					AVRG		0.79792		12.82401
204 alpha-Terpineol	+++++	0.23577	0.25490	0.22003	0.21987	0.20427					
	0.17723	+++++					AVRG		0.21868		12.15593
31 4-Chloroaniline	+++++	0.26389	0.28196	0.26991	0.26064	0.24995					
	0.23771	0.23114					AVRG		0.25646		7.00922
189 Caprolactam	+++++	0.06766	0.07272	0.08214	0.08102	0.07115					
	0.07075	0.07172					AVRG		0.07388		7.43636
32 Hexachlorobutadiene	+++++	0.14265	0.14557	0.13182	0.13097	0.11864					
	0.10931	0.10542					AVRG		0.12634		12.40746
33 4-Chloro-3-methylphenol	+++++	0.20824	0.22585	0.20971	0.20633	0.19424					
	0.17957	0.17303					AVRG		0.19957		9.25582

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
34 2-Methylnaphthalene	0.56779	0.53746	0.54769	0.49857	0.47476	0.43707					
	0.39981	0.38884					AVRG		0.48150		14.15789
35 1-Methylnaphthalene	0.55872	0.52838	0.53208	0.48366	0.46920	0.42612					
	0.38935	0.38051					AVRG		0.47100		14.29869
36 Hexachlorocyclopentadiene	+++++	0.13520	0.17775	0.15114	0.16219	0.15378					
	0.18308	0.16783					AVRG		0.16157		10.19735
208 1,1'-Biphenyl	+++++	1.32152	1.23439	1.25731	1.19710	1.16580					
	1.12776	1.10528					AVRG		1.20131		6.32036
205 2,3-Dichloroaniline	+++++	0.51880	0.53286	0.48272	0.49159	0.46096					
	0.42997	0.43664					AVRG		0.47908		8.16477
37 2,4,6-Trichlorophenol	+++++	0.27570	0.29634	0.28058	0.28008	0.26989					
	0.25242	0.25556					AVRG		0.27294		5.58990
38 2,4,5-Trichlorophenol	+++++	0.28031	0.30282	0.29443	0.29832	0.29160					
	0.28523	0.28197					AVRG		0.29067		2.92500
40 2-Chloronaphthalene	0.91208	0.94921	0.97975	0.90835	0.91949	0.87198					
	0.81926	0.82647					AVRG		0.89832		6.24992
42 o-Nitroaniline	+++++	0.28653	0.32807	0.30812	0.31848	0.31056					
	0.29539	0.30412					AVRG		0.30732		4.50651

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
41 m-Nitroaniline	+++++	0.19029	0.23187	0.23025	0.23197	0.23511					
	0.22216	0.23314					AVRG		0.22497		7.03906
43 Dimethylphthalate	+++++	1.10253	1.11895	1.05121	1.05401	1.01311					
	0.95493	0.88796					AVRG		1.02610		7.97599
44 2,6-Dinitrotoluene	+++++	0.24859	0.25869	0.24751	0.24771	0.24514					
	0.22903	0.23656					AVRG		0.24475		3.87474
45 Acenaphthylene	1.45077	1.53234	1.59736	1.47314	1.47686	1.41153					
	1.30118	1.31187					AVRG		1.44438		7.03164
47 Acenaphthene	0.97754	0.93463	0.97051	0.90906	0.90733	0.85875					
	0.82122	0.83304					AVRG		0.90151		6.58830
48 2,4-Dinitrophenol	+++++	+++++	15920	45695	60199	121040					
	185455	+++++					LINR	0.36255	0.13077		0.99262
49 Dibenzofuran	+++++	1.31036	1.35172	1.24091	1.23630	1.17505					
	1.09035	1.11352					AVRG		1.21689		7.96140
50 2,4-Dinitrotoluene	+++++	0.28688	0.32526	0.31392	0.31582	0.31468					
	0.30077	0.30301					AVRG		0.30862		4.09740
51 Diethylphthalate	+++++	1.08427	1.13193	1.06273	1.05585	1.00787					
	0.93441	0.95637					AVRG		1.03335		6.84784

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Compound	1 Level 1 100 Level 7	10 Level 2 120 Level 8	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
52 4-Nitrophenol	+++++	12277	40572	90802	114423	208122					
	294363	379687					LINR	0.18209	0.20146		0.99664
53 Fluorene	1.06940	1.05468	1.10259	1.00777	1.00699	0.94775					
	0.89677	0.90440					AVRG		0.99879		7.65829
54 4-Chlorophenylphenylether	+++++	0.49941	0.52344	0.48539	0.48490	0.45443					
	0.43029	0.42560					AVRG		0.47192		7.71070
55 2-Methyl-4,6-dinitrophenol	+++++	9251	34357	85168	107219	199515					
	279188	346834					LINR	0.17722	0.10780		0.99957
56 p-Nitroaniline	+++++	18297	49968	114446	144020	267165					
	377942	477974					LINR	0.17663	0.25514		0.99741
133 Diphenylamine	+++++	0.51235	0.51279	0.48995	0.49110	0.46341					
	0.45142	0.45392					AVRG		0.48213		5.41113
58 1,2-Diphenylhydrazine	+++++	0.65288	0.67935	0.62730	0.62752	0.58724					
	0.56393	0.55466					AVRG		0.61327		7.55575
59 Tributylphosphate	+++++	1.19922	1.25332	1.24022	1.27997	1.24188					
	1.19433	1.14050					AVRG		1.22135		3.81011
61 4-Bromophenylphenylether	+++++	0.16321	0.16758	0.15949	0.16092	0.15366					
	0.14977	0.15022					AVRG		0.15784		4.30183

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
63 Hexachlorobenzene	+++++	0.17072	0.17525	0.16702	0.16690	0.16190					
	0.15730	0.15822					AVRG		0.16533		3.97990
207 Atrazine	+++++	0.04466	0.04316	0.04336	0.04050	0.04104					
	0.03746	0.03425					AVRG		0.04063		9.04410
65 Pentachlorophenol	+++++	12427	38945	80211	100581	192628					
	259470	326879					LINR	0.13427	0.09964		0.99838
206 n-Octadecane	+++++	0.51627	0.51598	0.45832	0.46068	0.40718					
	0.37377	0.35992					AVRG		0.44173		14.37986
68 Phenanthrene	0.95060	0.88603	0.89746	0.83221	0.81673	0.77346					
	0.73349	0.72773					AVRG		0.82721		9.72714
69 Anthracene	0.87683	0.86194	0.90534	0.83970	0.83829	0.78921					
	0.75133	0.75196					AVRG		0.82682		6.91971
72 Di-n-butylphthalate	+++++	1.00113	1.04654	0.99105	0.98676	0.92173					
	0.85606	0.84350					AVRG		0.94954		8.15043
76 Fluoranthene	0.78392	0.79487	0.87026	0.82674	0.81613	0.77420					
	0.73596	0.73727					AVRG		0.79242		5.73137
77 Benzidine	+++++	0.35813	0.40641	0.39242	0.37729	0.37701					
	0.39765	0.44234					AVRG		0.39304		6.85454

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
79 Pyrene	1.12114	1.31021	1.22539	1.10007	1.11660	1.02083					
	0.96007	0.94734					AVRG		1.10021		11.38295
85 Butylbenzylphthalate	+++++	0.52543	0.54028	0.51608	0.52406	0.49119					
	0.46906	0.45845					AVRG		0.50351		6.16544
89 Benzo(a)anthracene	0.94221	0.85505	0.89830	0.85692	0.85716	0.83423					
	0.82127	0.83891					AVRG		0.86301		4.55256
90 3,3'-Dichlorobenzidine	+++++	0.23529	0.28074	0.29290	0.29384	0.28532					
	0.28779	0.30173					AVRG		0.28252		7.74710
92 Chrysene	0.87195	0.83557	0.87346	0.82487	0.82639	0.80729					
	0.78155	0.79409					AVRG		0.82690		4.03552
93 bis(2-Ethylhexyl)phthalate	7340	107837	270739	551016	645048	1078889					
	1389660	1700943					WLINR	0.01019	0.70092		0.99014
94 Di-n-octylphthalate	+++++	1.19610	1.35485	1.31605	1.35770	1.25055					
	1.27306	1.15060					AVRG		1.27127		6.18607
95 Benzo(b)fluoranthene	0.74161	0.85750	0.94279	0.90432	0.93361	0.89239					
	0.89332	0.91506					AVRG		0.88507		7.19928
96 Benzo(k)fluoranthene	0.73172	0.86857	0.95518	0.92430	0.92244	0.89945					
	0.88010	0.85909					AVRG		0.88011		7.72381

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INITIAL CALIBRATION DATA

Start Cal Date : 09-NOV-2009 18:53
End Cal Date : 11-NOV-2009 04:38
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD6.i/s122109.b/MSD6-M8270C-AQA-110909.m
Cal Date : 22-Dec-2009 09:57 nat00999

Compound	1 Level 1 100 Level 7	10 Level 2 120 Level 8	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
97 Benzo(a)pyrene	0.54179	0.70605	0.81133	0.81358	0.82559	0.80913					
	0.80179	0.80647					AVRG		0.76447		12.74919
99 Indeno(1,2,3-cd)pyrene	5888	60939	200863	402882	510813	1012558					
	1348903	1889688					LINR	0.07592	0.78768		0.99752
100 Dibenzo(a,h)anthracene	3385	46770	157194	361792	411532	815285					
	1094612	1529825					LINR	0.06768	0.63666		0.99908
101 Benzo(ghi)perylene	0.41694	0.53228	0.60870	0.60962	0.60436	0.63133					
	0.62968	0.63931					AVRG		0.58403		12.88683
102 1,4-Dioxane	+++++	0.37671	0.37043	0.39061	0.37803	0.36375					
	0.35237	0.33052					AVRG		0.36606		5.38827
103 Methyl methacrylate	+++++	0.19626	0.19646	0.20436	0.20625	0.18540					
	0.18964	0.17876					AVRG		0.19388		5.13081
104 Ethyl methacrylate	+++++	0.79650	0.81191	0.84398	0.82898	0.80568					
	0.79571	0.75648					AVRG		0.80561		3.45659
105 2-Picoline	+++++	1.39124	1.31746	1.36987	1.31904	1.28927					
	1.27506	1.19912					AVRG		1.30872		4.85814
106 N-Nitrosomethylethylamine	+++++	0.50512	0.48970	0.52453	0.49928	0.51969					
	0.51463	0.52429					AVRG		0.51104		2.61826

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
107 Methyl methanesulfonate	+++++	0.56429	0.53321	0.56316	0.50377	0.53102					
	0.50923	0.49498					AVRG		0.52852		5.24900
108 N-Nitrosodiethylamine	+++++	0.50310	0.47987	0.51154	0.48534	0.49862					
	0.49304	0.49722					AVRG		0.49553		2.15019
109 Ethyl Methanesulfonate	+++++	0.65808	0.64977	0.67344	0.62747	0.66045					
	0.64399	0.64860					AVRG		0.65169		2.21442
110 Pentachloroethane	+++++	0.32209	0.31386	0.33094	0.32010	0.31614					
	0.31148	0.30303					AVRG		0.31681		2.78134
111 N-Nitrosopyrrolidine	+++++	0.44182	0.46376	0.50830	0.47779	0.50143					
	0.49385	0.44600					AVRG		0.47614		5.57640
113 N-Nitrosomorpholine	+++++	0.71032	0.67134	0.71256	0.65887	0.68726					
	0.65974	0.65547					AVRG		0.67936		3.58698
114 o-Toluidine	+++++	1.74797	1.65530	1.71709	1.64005	1.64679					
	1.58070	1.58178					AVRG		1.65281		3.79762
115 N-Nitrosopiperidine	+++++	0.13834	0.13623	0.14736	0.13885	0.14290					
	0.13997	0.14373					AVRG		0.14105		2.69891
116 a,a-Dimethylphenethylamine	+++++	0.78770	0.81587	0.88476	0.87463	0.88336					
	0.86623	0.87565					AVRG		0.85546		4.44785

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	100 Level 7	120 Level 8									
117 Triethylphosphorothioate	+++++	0.14741	0.14492	0.13783	0.14116	0.13439					
	0.12857	0.12370					AVRG		0.13685		6.28357
118 2,6-Dichlorophenol	+++++	0.19682	0.19992	0.21240	0.20960	0.21251					
	0.20568	0.21118					AVRG		0.20687		3.05257
119 Hexachloropropene	+++++	0.08644	0.09499	0.10791	0.10350	0.10830					
	0.10654	0.11112					AVRG		0.10269		8.60612
120 p-Phenylenediamine	+++++	0.19714	0.24091	0.25567	0.24421	0.23168					
	0.22043	0.21678					AVRG		0.22955		8.57933
121 N-Nitrosodi-n-butylamine	+++++	0.22447	0.22501	0.22216	0.21154	0.19839					
	0.19348	0.19524					AVRG		0.21004		6.76180
122 Safrole	+++++	0.18675	0.18585	0.19677	0.19040	0.18675					
	0.17956	0.17958					AVRG		0.18653		3.22597
123 1,2,4,5-Tetrachlorobenzene	+++++	0.45393	0.42422	0.44255	0.41650	0.41676					
	0.40609	0.40229					AVRG		0.42319		4.45863
124 Isosafrole	+++++	0.34011	0.33198	0.35164	0.33779	0.34233					
	0.33627	0.33702					AVRG		0.33959		1.83025
125 1,4-Naphthoquinone	+++++	0.30018	0.32824	0.34894	0.32634	0.29745					
	0.28366	0.26235					AVRG		0.30674		9.65282

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	100 Level 7	120 Level 8									
126 m-Dinitrobenzene	+++++	0.15441	0.17500	0.17160	0.17355	0.17392					
	0.16754	0.16904					AVRG		0.16929		4.19006
127 Pentachlorobenzene	+++++	0.38426	0.36575	0.37736	0.36552	0.35674					
	0.35182	0.35035					AVRG		0.36454		3.50537
128 1-Naphthylamine	+++++	0.90674	0.92102	0.95184	0.91692	0.90718					
	0.86367	0.88454					AVRG		0.90742		3.07978
129 2-Naphthylamine	+++++	0.96578	1.00999	1.02440	0.99125	0.97953					
	0.93471	0.95520					AVRG		0.98012		3.19024
130 2,3,4,6-Tetrachlorophenol	+++++	0.20640	0.23481	0.21862	0.21374	0.22201					
	0.21460	0.22254					AVRG		0.21896		4.07356
131 5-Nitro-o-toluidine	+++++	0.22084	0.26615	0.28994	0.29013	0.29251					
	0.28841	0.30508					AVRG		0.27901		10.07623
132 Thionazin	+++++	0.16760	0.17396	0.17237	0.17849	0.17822					
	0.16987	0.16398					AVRG		0.17207		3.11896
134 Sulfotepp	+++++	0.08934	0.08802	0.08507	0.08886	0.08655					
	0.08265	0.08005					AVRG		0.08579		4.00843
135 Phorate	+++++	0.38230	0.38968	0.37391	0.38904	0.37359					
	0.35020	0.32660					AVRG		0.36933		6.25438

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	100 Level 7	120 Level 8									
136 1,3,5-Trinitrobenzene	+++++	14861	45341	104071	130665	222134					
	265730	408609					LINR	0.09141	0.12978		0.99734
137 Phenacetin	+++++	0.21732	0.25812	0.27209	0.26902	0.27044					
	0.26738	0.28241					AVRG		0.26240		8.05167
138 Diallate	+++++	0.26191	0.24374	0.25182	0.23998	0.23522					
	0.22716	0.22410					AVRG		0.24056		5.55643
139 Dimethoate	+++++	0.18955	0.19806	0.21061	0.22946	0.23158					
	0.22398	0.21950					AVRG		0.21468		7.45885
140 4-Aminobiphenyl	+++++	0.50489	0.50584	0.54599	0.56556	0.56494					
	0.53276	0.52934					AVRG		0.53562		4.66298
141 Pentachloronitrobenzene	+++++	0.06195	0.06081	0.06546	0.06329	0.06151					
	0.06084	0.05959					AVRG		0.06192		3.12402
142 Pronamide	+++++	0.26962	0.26582	0.27431	0.26759	0.26151					
	0.25173	0.25174					AVRG		0.26319		3.31411
143 Dinoseb	+++++	11996	47856	123552	154632	280906					
	375481	479562					LINR	0.15482	0.14736		0.99949
144 Disulfoton	+++++	0.31933	0.32969	0.31920	0.32975	0.31125					
	0.29624	0.27823					AVRG		0.31196		6.02930

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	100 Level 7	120 Level 8										
145 Methyl parathion	+++++	0.14493	0.15978	0.17270	0.18140	0.18775						
	0.18141	0.17864					AVRG		0.17237		8.70434	
146 4-Nitroquinoline-1-oxide	+++++	0.02012	0.03296	0.02700	0.02533	0.02224						
	0.01930	0.01750					AVRG		0.02349		22.76469	<-
147 Methapyrilene	+++++	0.40623	0.42209	0.41103	0.39768	0.37937						
	0.35132	0.33430					AVRG		0.38600		8.45747	
148 Isodrin	+++++	0.10136	0.09753	0.10130	0.09757	0.09481						
	0.09122	0.09037					AVRG		0.09631		4.58453	
149 Aramite	+++++	0.03841	0.04251	0.04600	0.04566	0.04690						
	0.04564	0.04428					AVRG		0.04420		6.60357	
150 Kepone	+++++	0.05674	0.06191	0.06311	0.06098	0.06085						
	0.06194	0.06656					AVRG		0.06173		4.75009	
151 p-(Dimethylamino)azobenzene	+++++	0.31224	0.31378	0.33288	0.32474	0.31931						
	0.31446	0.30396					AVRG		0.31734		2.95033	
152 Chlorobenzilate	+++++	0.30009	0.27506	0.30295	0.29512	0.29377						
	0.29203	0.28006					AVRG		0.29130		3.50189	
153 3,3'-Dimethylbenzidine	+++++	0.49489	0.52397	0.53487	0.52482	0.53397						
	0.53619	0.54473					AVRG		0.52763		3.04743	

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	100 Level 7	120 Level 8										
154 Famphur	+++++	0.28850	0.33742	0.33640	0.36516	0.37704						
	0.35655	0.33317					AVRG		0.34203		8.41381	
155 2-Acetylaminofluorene	+++++	23996	98558	217618	290992	478700						
	598627	953419					LINR	0.12414	0.37309		0.99874	
157 7,12Dimethylbenz(a)anthracene	+++++	0.45745	0.44941	0.48919	0.48420	0.49542						
	0.49422	0.48353					AVRG		0.47906		3.80416	
158 3-Methylcholanthrene	+++++	0.29343	0.35502	0.37871	0.37695	0.38953						
	0.38995	0.40328					AVRG		0.36955		9.94080	
26 Phthalic anhydride	+++++	10939	40864	83487	108159	203846						
	306459	+++++					LINR	0.14938	0.09004		0.99590	
173 Carbazole	0.68572	0.63216	0.65059	0.65023	0.64669	0.65901						
	0.65208	0.65947					AVRG		0.65449		2.32370	
174 Hexachlorophene	+++++	0.04700	0.06194	0.06687	0.06701	0.06606						
	+++++	+++++					AVRG		0.06178		13.78238	
179 Dibenzo(a,e)pyrene	+++++	21397	67635	183254	214017	467062						
	+++++	+++++					LINR	0.16800	0.36891		0.99459	
185 (2,3-Dibromopropyl)phosphate	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-

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	100 Level 7	120 Level 8									
184 p-Benzoquinone	+++++	0.09983	0.11502	0.14598	0.13665	0.14571					
	0.12211	0.12583					AVRG		0.12730		13.25929
191 Parathion	+++++	0.05089	0.05709	0.06102	0.06360	0.06315					
	0.06253	0.06173					AVRG		0.06000		7.60183
192 Methoxychlor	+++++	0.54663	0.59527	0.57022	0.57190	0.55995					
	0.49223	0.53082					AVRG		0.55243		6.05482
210 m-Toluidine	+++++	1.07152	1.09862	1.08267	1.09477	1.19760					
	1.39731	0.92523					AVRG		1.12396		12.87193
211 p-Toluidine	+++++	0.98878	1.01175	0.93629	0.93823	0.84629					
	0.67790	+++++					AVRG		0.89987		13.64283
212 Cis Diallate	+++++	0.25680	0.24216	0.25774	0.25015	0.25647					
	0.24871	0.25860					AVRG		0.25295		2.41779
213 Trans Diallate	+++++	0.30813	0.28675	0.29626	0.28232	0.27673					
	0.26725	0.26364					AVRG		0.28301		5.55643
214 1,4-Dinitrobenzene	+++++	0.15465	0.18602	0.18671	0.19154	0.19074					
	0.18381	0.19324					AVRG		0.18382		7.23195
215 2-Ethoxyethanol	+++++	0.69474	0.75708	0.72314	0.72734	0.69576					
	0.68979	0.68463					AVRG		0.71035		3.71426

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	100 Level 7	120 Level 8									
216 Methylenebis(2-chloroaniline)	+++++	11622	37526	94270	117296	226774					
	306702	394688					LINR	0.14094	0.14618		0.99920
229 2,2'-Dichlorobenzil	+++++	0.65548	0.70788	0.67278	+++++	0.85557					
	0.79635	+++++					AVRG		0.73761		11.58274
230 4-Chlorothioanisole	+++++	65505	120100	275307	+++++	727615					
	828249	+++++					LINR	0.13623	0.30665		0.99347
231 4-Chlorothiophenol	+++++	14955	49890	195788	+++++	593706					
	683100	+++++					LINR	0.29380	0.27176		0.99219
232 bis(p-Chlorophenyl)sulfone	+++++	0.41911	0.42098	0.38909	+++++	0.48605					
	0.44832	+++++					AVRG		0.43271		8.42306
233 bis(p-Chlorophenyl)disulfide	+++++	0.19644	0.20913	0.18244	++-++	0.22594					
	0.20806	+++++					AVRG		0.20440		7.90920
234 Diphenyl disulfide	+++++	0.20078	0.21401	0.19911	-+-++	0.24759					
	0.23595	+++++					AVRG		0.21949		9.81334
235 Diphenyl sulfide	+++++	0.77537	0.76082	0.73538	++-++	0.86393					
	0.82035	+++++					AVRG		0.79117		6.45415
236 Phenyl sulfone	+++++	0.43220	0.43102	0.40994	+++++	0.50304					
	0.47114	+++++					AVRG		0.44947		8.28032

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	100 Level 7	120 Level 8										
237 Hydroxymethyl phthalimide	+++++	0.14671	0.15531	0.12673	+++++	0.19818						
	0.17963	+++++					AVRG		0.16131		17.36813	<-
238 Phthalic acid	+++++	13646	40994	115933	+++++	343308						
	402020	+++++					LINR	0.25337	0.15547		0.99358	
239 Thiophenol	+++++	41092	104698	327879	+++++	922601						
	1046955	+++++					LINR	0.23456	1.46946		0.99364	
240 bis(Chloromethyl)ether	+++++	1.01755	1.00429	0.94829	+++++	1.10480						
	1.05711	+++++					AVRG		1.02641		5.71407	
241 Octachlorostyrene	+++++	0.06097	0.06109	0.05953	+++++	0.07399						
	0.07072	+++++					AVRG		0.06526		10.12747	
M 225 Trichlorophenols	+++++	0.27800	0.29958	0.28751	0.28920	0.28074						
	0.26883	0.26877					AVRG		0.28180		3.98593	
M 226 Tetrachlorophenols	+++++	0.20640	0.23481	0.21862	0.21374	0.22201						
	0.21460	0.22254					AVRG		0.21896		4.07356	
M 227 Benzo(b,k)fluoranthene	0.73667	0.86303	0.94898	0.91431	0.92802	0.89592						
	0.88671	0.88707					AVRG		0.88259		7.33906	
M 228 TTO Sum Semivolatiles	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-

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	100 Level 7	120 Level 8										
$ 3 2-Fluorophenol	+++++	0.98202	1.07204	1.02934	1.03017	0.98830						
	0.95348	0.95648					AVRG		1.00169		4.36295	
$ 5 Phenol-d5	+++++	1.23734	1.34586	1.27212	1.28456	1.26316						
	1.22407	1.22277					AVRG		1.26427		3.41674	
$ 187 2-Chlorophenol-d4	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
$ 188 1,2-Dichlorobenzene-d4	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
$ 20 Nitrobenzene-d5	+++++	0.30745	0.31426	0.29453	0.29315	0.27101						
	0.25359	0.24671					AVRG		0.28296		9.27927	
$ 39 2-Fluorobiphenyl	+++++	1.11512	1.14628	1.04977	1.05601	0.99136						
	0.92488	0.93239					AVRG		1.03083		8.29816	
$ 60 2,4,6-Tribromophenol	+++++	0.10485	0.11685	0.11180	0.11267	0.12310						
	0.12190	0.12607					AVRG		0.11675		6.41378	
$ 81 p-Terphenyl-d14	+++++	0.71309	0.69797	0.64349	0.66522	0.61764						
	0.59401	0.58404					AVRG		0.64507		7.73004	

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INITIAL CALIBRATION DATA

Start Cal Date : 09-NOV-2009 18:53
End Cal Date : 11-NOV-2009 04:38
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD6.i/s122109.b/MSD6-M8270C-AQA-110909.m
Cal Date : 22-Dec-2009 09:57 nat00999

Curve	Formula	Units
Averaged	Amt = Rsp/ml	Response
Linear	Amt = b + Rsp/ml	Response
Wt Linear	Amt = b + Rsp/ml	Response

Data File: /chem/MSD6.i/s110909.b/s6k0937.d
Report Date: 11-Nov-2009 10:50

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD6.i
Lab File ID: s6k0937.d
Analysis Type:
Lab Sample ID: WBN091106-09.1
Method: /chem/MSD6.i/s110909.b/MSD6-M8270C-AQA-110909.m

Injection Date: 10-NOV-2009 20:29
Init. Cal. Date(s): 09-NOV-2009 11-NOV-2009
Init. Cal. Times: 18:53 04:38
Quant Type: ISTD

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
$ 3 2-Fluorophenol	1.00169	1.03466	1.03466	0.000	3.29147	60.00000	Averaged	
$ 5 Phenol-d5	1.26427	1.24245	1.24245	0.000	-1.72556	60.00000	Averaged	
$ 20 Nitrobenzene-d5	0.28296	0.29902	0.29902	0.000	5.67523	60.00000	Averaged	
$ 39 2-Fluorobiphenyl	1.03083	1.08174	1.08174	0.000	4.93820	60.00000	Averaged	
$ 60 2,4,6-Tribromophenol	0.11675	0.12945	0.12945	0.000	10.88297	60.00000	Averaged	
$ 81 p-Terphenyl-d14	0.64507	0.72359	0.72359	0.000	12.17316	60.00000	Averaged	
1 N-Methyl-N-nitrosomethylami	0.68098	0.64081	0.64081	0.000	-5.89855	60.00000	Averaged	
2 Pyridine	0.84757	0.77144	0.77144	0.000	-8.98267	60.00000	Averaged	
4 Aniline	0.52752	0.51930	0.51930	0.000	-1.55765	60.00000	Averaged	
6 Phenol	1.27120	1.23489	1.23489	0.001	-2.85632	20.00000	Averaged	ccc
7 bis(2-Chloroethyl) ether	0.86081	0.80936	0.80936	0.000	-5.97614	60.00000	Averaged	
8 2-Chlorophenol	1.02109	1.01772	1.01772	0.000	-0.32996	60.00000	Averaged	
203 n-Decane	1.42254	1.44155	1.44155	0.000	1.33631	60.00000	Averaged	
9 1,3-Dichlorobenzene	1.17550	1.19665	1.19665	0.000	1.79939	60.00000	Averaged	
11 1,4-Dichlorobenzene	1.19162	1.18877	1.18877	0.001	-0.23932	20.00000	Averaged	ccc
13 1,2-Dichlorobenzene	1.11231	1.12583	1.12583	0.000	1.21558	60.00000	Averaged	
14 bis(2-Chloroisopropyl)ether	1.92182	1.94108	1.94108	0.000	1.00230	60.00000	Averaged	
12 Benzyl alcohol	0.63436	0.65075	0.65075	0.000	2.58272	60.00000	Averaged	
15 o-Cresol	0.83139	0.83798	0.83798	0.000	0.79318	60.00000	Averaged	
18 m,p-Cresols	1.05346	1.05662	1.05662	0.000	0.29972	60.00000	Averaged	
17 N-Nitrosodipropylamine	0.70865	0.69204	0.69204	0.050	-2.34415	60.00000	Averaged	spcc
19 Hexachloroethane	0.46100	0.44650	0.44650	0.000	-3.14409	60.00000	Averaged	
21 Nitrobenzene	0.28519	0.29957	0.29957	0.000	5.04113	60.00000	Averaged	
22 Isophorone	0.50552	0.52435	0.52435	0.000	3.72478	60.00000	Averaged	
23 2-Nitrophenol	0.13154	0.13639	0.13639	0.001	3.68222	20.00000	Averaged	ccc
24 2,4-Dimethylphenol	0.21795	0.23088	0.23088	0.000	5.93159	60.00000	Averaged	
25 bis(2-Chloroethoxy)methane	0.29749	0.30276	0.30276	0.000	1.77222	60.00000	Averaged	
26 2,4-Dichlorophenol	0.19769	0.20590	0.20590	0.001	4.15386	20.00000	Averaged	ccc
27 Benzoic acid	0.13453	0.14567	0.14567	0.000	8.28081	60.00000	Averaged	
28 1,2,4-Trichlorobenzene	0.24261	0.24953	0.24953	0.000	2.85087	60.00000	Averaged	
30 Naphthalene	0.79792	0.83170	0.83170	0.000	4.23406	60.00000	Averaged	
204 alpha-Terpineol	0.21868	0.21801	0.21801	0.000	-0.30655	60.00000	Averaged	
31 4-Chloroaniline	0.25646	0.26546	0.26546	0.000	3.51176	60.00000	Averaged	
32 Hexachlorobutadiene	0.12634	0.13489	0.13489	0.001	6.77038	20.00000	Averaged	ccc
33 4-Chloro-3-methylphenol	0.19957	0.20148	0.20148	0.001	0.96147	20.00000	Averaged	ccc
34 2-Methylnaphthalene	0.48150	0.55976	0.55976	0.000	16.25394	60.00000	Averaged	

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD6.i Injection Date: 10-NOV-2009 20:29
Lab File ID: s6k0937.d Init. Cal. Date(s): 09-NOV-2009 11-NOV-2009
Analysis Type: Init. Cal. Times: 18:53 04:38
Lab Sample ID: WBN091106-09.1 Quant Type: ISTD
Method: /chem/MSD6.i/s110909.b/MSD6-M8270C-AQA-110909.m

	COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
35	1-Methylnaphthalene	0.47100	0.53047	0.53047	0.000	12.62514	60.00000	Averaged	
36	Hexachlorocyclopentadiene	0.16157	0.12441	0.12441	0.050	-22.99690	60.00000	Averaged	spcc
205	2,3-Dichloroaniline	0.47908	0.48878	0.48878	0.000	2.02564	60.00000	Averaged	
37	2,4,6-Trichlorophenol	0.27294	0.27425	0.27425	0.001	0.48093	20.00000	Averaged	ccc
38	2,4,5-Trichlorophenol	0.29067	0.30912	0.30912	0.000	6.34737	60.00000	Averaged	
40	2-Chloronaphthalene	0.89832	0.89821	0.89821	0.000	-0.01212	60.00000	Averaged	
42	o-Nitroaniline	0.30732	0.29883	0.29883	0.000	-2.76487	60.00000	Averaged	
41	m-Nitroaniline	0.22497	0.22544	0.22544	0.000	0.20968	60.00000	Averaged	
43	Dimethylphthalate	1.02610	1.07233	1.07233	0.000	4.50566	60.00000	Averaged	
44	2,6-Dinitrotoluene	0.24475	0.24571	0.24571	0.000	0.39287	60.00000	Averaged	
50	2,4-Dinitrotoluene	0.30862	0.32387	0.32387	0.000	4.94261	60.00000	Averaged	
45	Acenaphthylene	1.44438	1.60997	1.60997	0.000	11.46448	60.00000	Averaged	
47	Acenaphthene	0.90151	0.96315	0.96315	0.001	6.83729	20.00000	Averaged	ccc
48	2,4-Dinitrophenol	35.88405	40.00000	0.06990	0.050	-10.28987	60.00000	Linear	spcc
49	Dibenzofuran	1.21689	1.24464	1.24464	0.000	2.28092	60.00000	Averaged	
51	Diethylphthalate	1.03335	1.08103	1.08103	0.000	4.61479	60.00000	Averaged	
52	4-Nitrophenol	37.16907	40.00000	0.15052	0.050	-7.07733	60.00000	Linear	spcc
53	Fluorene	0.99879	1.09503	1.09503	0.000	9.63571	60.00000	Averaged	
54	4-Chlorophenylphenylether	0.47192	0.49481	0.49481	0.000	4.84948	60.00000	Averaged	
55	2-Methyl-4,6-dinitrophenol	44.79678	40.00000	0.10162	0.000	11.99194	60.00000	Linear	
56	p-Nitroaniline	37.18126	40.00000	0.19210	0.000	-7.04684	60.00000	Linear	
133	Diphenylamine	0.48213	0.48382	0.48382	0.001	0.34977	20.00000	Averaged	ccc
58	1,2-Diphenylhydrazine	0.61327	0.61966	0.61966	0.000	1.04277	60.00000	Averaged	
61	4-Bromophenylphenylether	0.15784	0.15705	0.15705	0.000	-0.50023	60.00000	Averaged	
63	Hexachlorobenzene	0.16533	0.16268	0.16268	0.000	-1.60406	60.00000	Averaged	
65	Pentachlorophenol	41.23337	40.00000	0.08933	0.001	3.08343	20.00000	Linear	ccc
206	n-Octadecane	0.44173	0.45929	0.45929	0.000	3.97491	60.00000	Averaged	
68	Phenanthrene	0.82721	0.88585	0.88585	0.000	7.08867	60.00000	Averaged	
69	Anthracene	0.82682	0.90991	0.90991	0.000	10.04830	60.00000	Averaged	
72	Di-n-butylphthalate	0.94954	1.02135	1.02135	0.000	7.56331	60.00000	Averaged	
76	Fluoranthene	0.79242	0.90654	0.90654	0.001	14.40110	20.00000	Averaged	ccc
79	Pyrene	1.10021	1.20816	1.20816	0.000	9.81213	60.00000	Averaged	
85	Butylbenzylphthalate	0.50351	0.54090	0.54090	0.000	7.42706	60.00000	Averaged	
89	Benzo(a)anthracene	0.86301	0.92157	0.92157	0.000	6.78546	60.00000	Averaged	
92	Chrysene	0.82690	0.90169	0.90169	0.000	9.04505	60.00000	Averaged	
93	bis(2-Ethylhexyl)phthalate	41.60196	40.00000	0.72185	0.000	4.00491	60.00000	Wt Linear	

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD6.i Injection Date: 10-NOV-2009 20:29
Lab File ID: s6k0937.d Init. Cal. Date(s): 09-NOV-2009 11-NOV-2009
Analysis Type: Init. Cal. Times: 18:53 04:38
Lab Sample ID: WBN091106-09.1 Quant Type: ISTD
Method: /chem/MSD6.i/s110909.b/MSD6-M8270C-AQA-110909.m

	COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
	94 Di-n-octylphthalate	1.27127	1.35676	1.35676	0.001	6.72426	20.00000	Averaged	ccc
	95 Benzo(b)fluoranthene	0.88507	0.99154	0.99154	0.000	12.02912	60.00000	Averaged	
	96 Benzo(k)fluoranthene	0.88011	1.01364	1.01364	0.000	15.17242	60.00000	Averaged	
	97 Benzo(a)pyrene	0.76447	0.88080	0.88080	0.001	15.21790	20.00000	Averaged	ccc
	99 Indeno(1,2,3-cd)pyrene	40.05227	40.00000	0.72891	0.000	0.13069	60.00000	Linear	
	100 Dibenzo(a,h)anthracene	37.95723	40.00000	0.56106	0.000	-5.10692	60.00000	Linear	
	101 Benzo(ghi)perylene	0.58403	0.61594	0.61594	0.000	5.46367	60.00000	Averaged	
	126 m-Dinitrobenzene	0.16929	0.17081	0.17081	0.000	0.89311	60.00000	Averaged	
	130 2,3,4,6-Tetrachlorophenol	0.21896	0.23318	0.23318	0.000	6.49309	60.00000	Averaged	
	143 Dinoseb	37.88463	40.00000	0.11675	0.000	-5.28842	60.00000	Linear	
	173 Carbazole	0.65449	0.70032	0.70032	0.000	7.00193	60.00000	Averaged	
	184 p-Benzoquinone	0.12730	0.14364	0.14364	0.000	12.83157	60.00000	Averaged	
	192 Methoxychlor	0.55243	0.57593	0.57593	0.000	4.25434	60.00000	Averaged	
	211 p-Toluidine	0.89987	0.90823	0.90823	0.000	0.92871	60.00000	Averaged	
	210 m-Toluidine	1.12396	1.11262	1.11262	0.000	-1.00903	60.00000	Averaged	
	26 Phthalic anhydride	71.32284	40.00000	0.14710	0.000	78.30709	60.00000	Linear	<-
	179 Dibenzo(a,e)pyrene	23.04060	40.00000	0.15052	0.000	-42.39851	60.00000	Linear	
	214 1,4-Dinitrobenzene	0.18382	0.17485	0.17485	0.000	-4.87689	60.00000	Averaged	
	215 2-Ethoxyethanol	0.71035	0.75383	0.75383	0.000	6.12038	60.00000	Averaged	
	216 Methylenebis(2-chloroanilin	38.25405	40.00000	0.11920	0.000	-4.36487	60.00000	Linear	
M	225 Trichlorophenols	0.28180	0.29168	0.29168	0.000	3.50642	60.00000	Averaged	
M	226 Tetrachlorophenols	0.21896	0.23318	0.23318	0.000	6.49309	60.00000	Averaged	
M	227 Benzo(b,k)fluoranthene	0.88259	1.00259	1.00259	0.000	13.59635	60.00000	Averaged	

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Data file : /chem/MSD6.i/s110909.b/s6k0937.d
Lab Smp Id: WBN091106-09.1 Client Smp ID: MEGAICV
Inj Date : 10-NOV-2009 20:29
Operator : JMB3 Inst ID: MSD6.i
Smp Info : |WBN091106-09.1|40 PPM|1|SVMF|1|MEGAICV
Misc Info : |MSD8270|WBN091106-10
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s110909.b/MSD6-M8270C-AQA-110909.m
Meth Date : 11-Nov-2009 10:50 nat00999 Quant Type: ISTD
Cal Date : 11-NOV-2009 02:44 Cal File: s6k0950.d
Als bottle: 17 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: MEGA.sub
Target Version: 3.50
Processing Host: hpclp1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	4.834	4.834	(1.000)	267857	40.0000	
* 29 Naphthalene-d8	136	6.116	6.116	(1.000)	1007489	40.0000	
* 46 Acenaphthene-d10	164	7.986	7.986	(1.000)	511035	40.0000	
* 67 Phenanthrene-d10	188	9.599	9.599	(1.000)	891521	40.0000	
* 91 Chrysene-d12	240	12.618	12.618	(1.000)	688764	40.0000	
* 98 Perylene-d12	264	14.955	14.955	(1.000)	524055	40.0000	
$ 3 2-Fluorophenol	112	3.646	3.646	(0.754)	277141	40.0000	41.3
$ 5 Phenol-d5	99	4.431	4.431	(0.917)	332800	40.0000	39.3
$ 20 Nitrobenzene-d5	82	5.371	5.371	(0.878)	301256	40.0000	42.3
$ 39 2-Fluorobiphenyl	172	7.242	7.242	(0.907)	552805	40.0000	42.0
$ 60 2,4,6-Tribromophenol	329	8.834	8.834	(1.106)	66156	40.0000	44.4
$ 81 p-Terphenyl-d14	244	11.306	11.306	(0.896)	498384	40.0000	44.9
1 N-Methyl-N-nitrosomethylamine	74	2.663	2.663	(0.551)	171645	40.0000	37.6
2 Pyridine	79	2.701	2.701	(0.559)	206635	40.0000	36.4
4 Aniline	66	4.518	4.518	(0.935)	139099	40.0000	39.4
6 Phenol	94	4.444	4.444	(0.919)	330773	40.0000	38.8
7 bis(2-Chloroethyl) ether	63	4.559	4.559	(0.943)	216794	40.0000	37.6
8 2-Chlorophenol	128	4.633	4.633	(0.958)	272604	40.0000	39.9
203 n-Decane	43	4.643	4.643	(0.960)	386128	40.0000	40.5
9 1,3-Dichlorobenzene	146	4.783	4.783	(0.989)	320531	40.0000	40.7
11 1,4-Dichlorobenzene	146	4.852	4.852	(1.004)	318420	40.0000	39.9
13 1,2-Dichlorobenzene	146	5.002	5.002	(1.035)	301561	40.0000	40.5
14 bis(2-Chloroisopropyl)ether	45	5.068	5.068	(1.048)	519933	40.0000	40.4
12 Benzyl alcohol	108	4.941	4.941	(1.022)	174307	40.0000	41.0
15 o-Cresol	107	5.025	5.025	(1.040)	224459	40.0000	40.3
18 m,p-Cresols	107	5.180	5.180	(1.072)	283022	40.0000	40.1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
17 N-Nitrosodipropylamine	70	5.206	5.206	(1.077)	185368	40.0000	39.1
19 Hexachloroethane	117	5.338	5.338	(1.104)	119599	40.0000	38.7
21 Nitrobenzene	77	5.392	5.392	(0.882)	301811	40.0000	42.0
22 Isophorone	82	5.626	5.626	(0.920)	528272	40.0000	41.5
23 2-Nitrophenol	139	5.708	5.708	(0.933)	137410	40.0000	41.5
24 2,4-Dimethylphenol	122	5.718	5.718	(0.935)	232609	40.0000	42.4
25 bis(2-Chloroethoxy)methane	93	5.825	5.825	(0.952)	305032	40.0000	40.7
26 2,4-Dichlorophenol	162	5.950	5.950	(0.973)	207439	40.0000	41.7
27 Benzoic acid	105	5.812	5.812	(0.950)	146760	40.0000	43.3(H)
28 1,2,4-Trichlorobenzene	180	6.047	6.047	(0.989)	251400	40.0000	41.1
30 Naphthalene	128	6.138	6.138	(1.004)	837929	40.0000	41.7
204 alpha-Terpineol	59	6.123	6.123	(1.001)	219641	40.0000	39.9
31 4-Chloroaniline	127	6.172	6.172	(1.009)	267452	40.0000	41.4
32 Hexachlorobutadiene	225	6.251	6.251	(1.022)	135904	40.0000	42.7
33 4-Chloro-3-methylphenol	107	6.653	6.653	(1.088)	202993	40.0000	40.4
34 2-Methylnaphthalene	142	6.862	6.862	(1.122)	563953	40.0000	46.5
35 1-Methylnaphthalene	142	6.969	6.969	(1.140)	534441	40.0000	45.0
36 Hexachlorocyclopentadiene	237	7.020	7.020	(0.879)	63579	40.0000	30.8
205 2,3-Dichloroaniline	161	7.155	7.155	(0.896)	249785	40.0000	40.8
37 2,4,6-Trichlorophenol	196	7.147	7.147	(0.895)	140152	40.0000	40.2
38 2,4,5-Trichlorophenol	196	7.183	7.183	(0.899)	157970	40.0000	42.5
40 2-Chloronaphthalene	162	7.384	7.384	(0.925)	459019	40.0000	40.0
42 o-Nitroaniline	65	7.479	7.479	(0.936)	152711	40.0000	38.9
41 m-Nitroaniline	138	7.922	7.922	(0.992)	115209	40.0000	40.1
43 Dimethylphthalate	163	7.670	7.670	(0.960)	548000	40.0000	41.8
44 2,6-Dinitrotoluene	165	7.739	7.739	(0.969)	125566	40.0000	40.2
50 2,4-Dinitrotoluene	165	8.172	8.172	(1.023)	165511	40.0000	42.0
45 Acenaphthylene	152	7.835	7.835	(0.981)	822752	40.0000	44.6
47 Acenaphthene	154	8.024	8.024	(1.005)	492203	40.0000	42.7
48 2,4-Dinitrophenol	184	8.029	8.029	(1.005)	35722	40.0000	35.9
49 Dibenzofuran	168	8.205	8.205	(1.027)	636057	40.0000	40.9
51 Diethylphthalate	149	8.424	8.424	(1.055)	552446	40.0000	41.8
52 4-Nitrophenol	139	8.070	8.070	(1.011)	76920	40.0000	37.2
53 Fluorene	166	8.577	8.577	(1.074)	559601	40.0000	43.8
54 4-Chlorophenylphenylether	204	8.564	8.564	(1.072)	252864	40.0000	41.9
55 2-Methyl-4,6-dinitrophenol	198	8.613	8.613	(0.897)	90597	40.0000	44.8
56 p-Nitroaniline	138	8.582	8.582	(1.075)	98168	40.0000	37.2
133 Diphenylamine	169	8.689	8.689	(0.905)	431336	40.0000	40.1
58 1,2-Diphenylhydrazine	77	8.738	8.738	(0.910)	552443	40.0000	40.4
61 4-Bromophenylphenylether	248	9.094	9.094	(0.947)	140012	40.0000	39.8
63 Hexachlorobenzene	284	9.173	9.173	(0.956)	145031	40.0000	39.4
65 Pentachlorophenol	266	9.375	9.375	(0.977)	79644	40.0000	41.2
206 n-Octadecane	57	9.431	9.431	(0.982)	409467	40.0000	41.6
68 Phenanthrene	178	9.624	9.624	(1.003)	789756	40.0000	42.8
69 Anthracene	178	9.680	9.680	(1.008)	811200	40.0000	44.0
72 Di-n-butylphthalate	149	10.190	10.190	(1.062)	910557	40.0000	43.0
76 Fluoranthene	202	10.914	10.914	(1.137)	808196	40.0000	45.8

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
79 Pyrene	202	11.166	11.166	(0.885)	832137	40.0000	43.9
85 Butylbenzylphthalate	149	11.841	11.841	(0.938)	372553	40.0000	43.0
89 Benzo(a)anthracene	228	12.598	12.598	(0.998)	634741	40.0000	42.7
92 Chrysene	228	12.654	12.654	(1.003)	621053	40.0000	43.6
93 bis(2-Ethylhexyl)phthalate	149	12.570	12.570	(0.996)	497186	40.0000	41.6
94 Di-n-octylphthalate	149	13.561	13.561	(0.907)	711015	40.0000	42.7
95 Benzo(b)fluoranthene	252	14.275	14.275	(0.954)	519622	40.0000	44.8
96 Benzo(k)fluoranthene	252	14.326	14.326	(0.958)	531203	40.0000	46.1
97 Benzo(a)pyrene	252	14.853	14.853	(0.993)	461589	40.0000	46.1
99 Indeno(1,2,3-cd)pyrene	276	16.945	16.945	(1.133)	381990	40.0000	40.0
100 Dibenzo(a,h)anthracene	278	16.978	16.978	(1.135)	294025	40.0000	38.0
101 Benzo(ghi)perylene	276	17.460	17.460	(1.167)	322785	40.0000	42.2
126 m-Dinitrobenzene	168	7.708	7.708	(0.965)	87288	40.0000	40.4
130 2,3,4,6-Tetrachlorophenol	232	8.325	8.325	(1.042)	119161	40.0000	42.6
143 Dinoseb	211	9.561	9.561	(0.996)	104085	40.0000	37.9
173 Carbazole	167	9.841	9.841	(1.025)	624352	40.0000	42.8
184 p-Benzoquinone	54	4.085	4.085	(0.845)	38475	40.0000	45.1
192 Methoxychlor	227	12.468	12.468	(0.988)	396683	40.0000	41.7
211 p-Toluidine	106	5.252	5.252	(1.086)	243276	40.0000	40.4
210 m-Toluidine	106	5.285	5.285	(1.093)	298023	40.0000	39.6
26 Phthalic anhydride	104	6.911	6.911	(1.130)	148201	40.0000	71.3
179 Dibenzo(a,e)pyrene	302	21.182	21.182	(1.416)	78881	40.0000	23.0
214 1,4-Dinitrobenzene	75	7.624	7.624	(0.955)	89355	40.0000	38.0
215 2-Ethoxyethanol	59	2.454	2.454	(0.508)	201919	40.0000	42.4
216 Methylenebis(2-chloroaniline)	231	12.539	12.539	(0.994)	82098	40.0000	38.2
M 225 Trichlorophenols	196				298122	80.0000	82.8
M 226 Tetrachlorophenols	232				119161	40.0000	42.6
M 227 Benzo(b,k)fluoranthene	252				1050825	80.0000	90.9

QC Flag Legend

H - Operator selected an alternate compound hit.

Data File: /chem/MSD6.i/s110909.b/s6k0937.d
Date : 10-NOV-2009 20:29
Client ID: MEGAICV
Sample Info: IWBK091106-09.1|40 PPM|1|SWHF|1|MEGAICV
Column phase: J&W DB-5MS

Instrument: MSD6.i
Operator: JHB3
Column diameter: 0.20

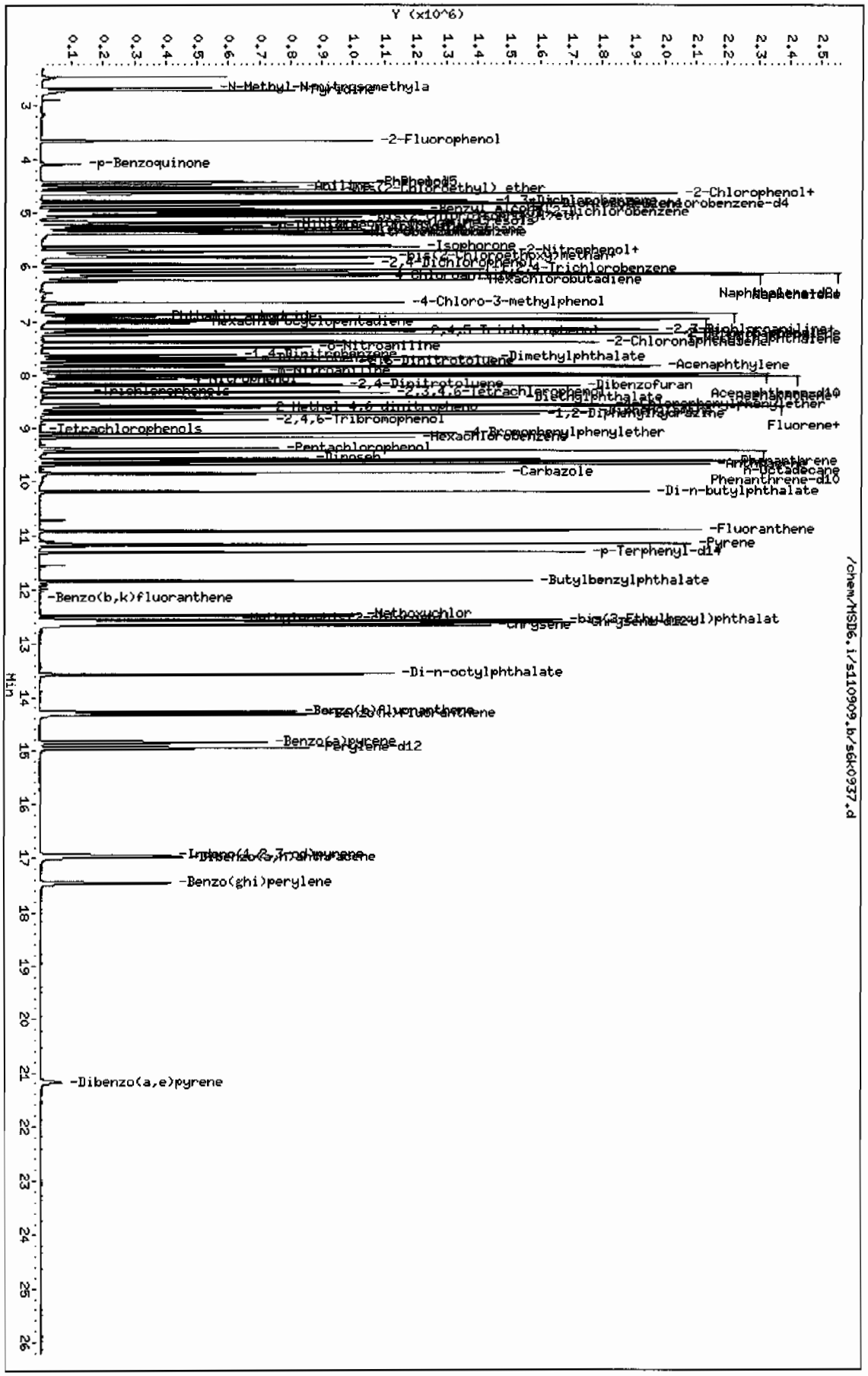

Page 1

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD6.i Injection Date: 10-NOV-2009 21:07
Lab File ID: s6k0938.d Init. Cal. Date(s): 09-NOV-2009 11-NOV-2009
Analysis Type: Init. Cal. Times: 18:53 04:38
Lab Sample ID: WBN091016-08.1 Quant Type: ISTD
Method: /chem/MSD6.i/s110909.b/MSD6-M8270C-AQA-110909.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
209 Benzaldehyde	0.86127	0.67526	0.67526	0.000	-21.59733	60.00000	Averaged
16 Acetophenone	1.16908	1.08481	1.08481	0.000	-7.20809	60.00000	Averaged
189 Caprolactam	0.07388	0.08118	0.08118	0.000	9.87786	60.00000	Averaged
208 1,1'-Biphenyl	1.20131	1.15865	1.15865	0.000	-3.55099	60.00000	Averaged
207 Atrazine	0.04063	0.03738	0.03738	0.000	-8.01727	60.00000	Averaged
77 Benzidine	0.39304	0.35886	0.35886	0.000	-8.69608	60.00000	Averaged
90 3,3'-Dichlorobenzidine	0.28252	0.30132	0.30132	0.000	6.65684	60.00000	Averaged
102 1,4-Dioxane	0.36606	0.45837	0.45837	0.000	25.21672	60.00000	Averaged
103 Methyl methacrylate	0.19388	0.26059	0.26059	0.000	34.40927	60.00000	Averaged
104 Ethyl methacrylate	0.80561	0.97594	0.97594	0.000	21.14390	60.00000	Averaged
105 2-Picoline	1.30872	1.36092	1.36092	0.000	3.98846	60.00000	Averaged
106 N-Nitrosomethylethylamine	0.51104	0.53755	0.53755	0.000	5.18772	60.00000	Averaged
107 Methyl methanesulfonate	0.52852	0.52223	0.52223	0.000	-1.19058	60.00000	Averaged
108 N-Nitrosodiethylamine	0.49553	0.51026	0.51026	0.000	2.97098	60.00000	Averaged
109 Ethyl Methanesulfonate	0.65169	0.73760	0.73760	0.000	13.18337	60.00000	Averaged
110 Pentachloroethane	0.31681	0.42390	0.42390	0.000	33.80401	60.00000	Averaged
111 N-Nitrosopyrrolidine	0.47614	0.46325	0.46325	0.000	-2.70540	60.00000	Averaged
113 N-Nitrosomorpholine	0.67936	0.65676	0.65676	0.000	-3.32751	60.00000	Averaged
114 o-Toluidine	1.65281	1.64899	1.64899	0.000	-0.23102	60.00000	Averaged
115 N-Nitrosopiperidine	0.14105	0.14180	0.14180	0.000	0.52679	60.00000	Averaged
116 a,a-Dimethylphenethylamine	0.85546	0.87204	0.87204	0.000	1.93819	60.00000	Averaged
118 2,6-Dichlorophenol	0.20687	0.20008	0.20008	0.000	-3.28259	60.00000	Averaged
119 Hexachloropropene	0.10269	0.14537	0.14537	0.000	41.57055	60.00000	Averaged
120 p-Phenylenediamine	0.22955	0.23182	0.23182	0.000	0.99155	60.00000	Averaged
121 N-Nitrosodi-n-butylamine	0.21004	0.21749	0.21749	0.000	3.54470	60.00000	Averaged
122 Safrole	0.18653	0.20933	0.20933	0.000	12.22661	60.00000	Averaged
123 1,2,4,5-Tetrachlorobenzene	0.42319	0.42512	0.42512	0.000	0.45545	60.00000	Averaged
124 Isosafrole	0.33959	0.43257	0.43257	0.000	27.38086	60.00000	Averaged
125 1,4-Naphthoquinone	0.30674	0.30375	0.30375	0.000	-0.97466	60.00000	Averaged
127 Pentachlorobenzene	0.36454	0.36394	0.36394	0.000	-0.16566	60.00000	Averaged
128 1-Naphthylamine	0.90742	0.91190	0.91190	0.000	0.49410	60.00000	Averaged
129 2-Naphthylamine	0.98012	0.91865	0.91865	0.000	-6.27177	60.00000	Averaged
131 5-Nitro-o-toluidine	0.27901	0.28996	0.28996	0.000	3.92480	60.00000	Averaged
136 1,3,5-Trinitrobenzene	46.05690	40.00000	0.13757	0.000	15.14226	60.00000	Linear
137 Phenacetin	0.26240	0.25991	0.25991	0.000	-0.94903	60.00000	Averaged
138 Diallate	0.24056	0.23148	0.23148	0.000	-3.77545	60.00000	Averaged

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD6.i Injection Date: 10-NOV-2009 21:07
Lab File ID: s6k0938.d Init. Cal. Date(s): 09-NOV-2009 11-NOV-2009
Analysis Type: Init. Cal. Times: 18:53 04:38
Lab Sample ID: WBN091016-08.1 Quant Type: ISTD
Method: /chem/MSD6.i/s110909.b/MSD6-M8270C-AQA-110909.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
140 4-Aminobiphenyl	0.53562	0.58994	0.58994	0.000	10.14239	60.00000	Averaged
141 Pentachloronitrobenzene	0.06192	0.06213	0.06213	0.000	0.34079	60.00000	Averaged
142 Pronamide	0.26319	0.26234	0.26234	0.000	-0.32101	60.00000	Averaged
146 4-Nitroquinoline-1-oxide	0.02349	0.02580	0.02580	0.000	9.82299	60.00000	Averaged
147 Methapyrilene	0.38600	0.39422	0.39422	0.000	2.12820	60.00000	Averaged
148 Isodrin	0.09631	0.08838	0.08838	0.000	-8.22821	60.00000	Averaged
149 Aramite	0.04420	0.04155	0.04155	0.000	-5.99495	60.00000	Averaged
150 Kepone	0.06173	0.05889	0.05889	0.000	-4.59530	60.00000	Averaged
151 p-(Dimethylamino)azobenzene	0.31734	0.33079	0.33079	0.000	4.23929	60.00000	Averaged
152 Chlorobenzilate	0.29130	0.29321	0.29321	0.000	0.65640	60.00000	Averaged
153 3,3'-Dimethylbenzidine	0.52763	0.57778	0.57778	0.000	9.50435	60.00000	Averaged
155 2-Acetylaminofluorene	41.44131	40.00000	0.34022	0.000	3.60328	60.00000	Linear
157 7,12Dimethylbenz(a)anthrace	0.47906	0.41447	0.41447	0.000	-13.48259	60.00000	Averaged
158 3-Methylcholanthrene	0.36955	0.35869	0.35869	0.000	-2.93887	60.00000	Averaged
212 Cis Diallate	0.25295	0.25705	0.25705	0.000	1.62146	60.00000	Averaged
213 Trans Diallate	0.28301	0.27233	0.27233	0.000	-3.77545	60.00000	Averaged

GEL Laboratories LLC

Data file : /chem/MSD6.i/s110909.b/s6k0938.d
Lab Smp Id: WBN091016-08.1 Client Smp ID: AP12ICV
Inj Date : 10-NOV-2009 21:07
Operator : JMB3 Inst ID: MSD6.i
Smp Info : |WBN091016-08.1|40 PPM|1|SVMF|1|AP12ICV
Misc Info : |MSD8270|WBN091106-10
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s110909.b/MSD6-M8270C-AQA-110909.m
Meth Date : 11-Nov-2009 09:25 nat00999 Quant Type: ISTD
Cal Date : 11-NOV-2009 02:44 Cal File: s6k0950.d
Als bottle: 18 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AP12.sub
Target Version: 3.50
Processing Host: hpclp1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	4.834	4.834	(1.000)	282437	40.0000	
* 29 Naphthalene-d8	136	6.113	6.113	(1.000)	974498	40.0000	
* 46 Acenaphthene-d10	164	7.983	7.983	(1.000)	519475	40.0000	
* 67 Phenanthrene-d10	188	9.599	9.599	(1.000)	914999	40.0000	
* 91 Chrysene-d12	240	12.613	12.613	(1.000)	718441	40.0000	
* 98 Perylene-d12	264	14.950	14.950	(1.000)	524113	40.0000	
209 Benzaldehyde	77	4.428	4.428	(0.916)	190719	40.0000	31.4
16 Acetophenone	105	5.211	5.211	(1.078)	306390	40.0000	37.1
189 Caprolactam	113	6.531	6.531	(1.068)	79108	40.0000	44.0
208 1,1'-Biphenyl	154	7.354	7.354	(0.921)	601890	40.0000	38.6
207 Atrazine	173	9.249	9.249	(0.964)	34200	40.0000	36.8
77 Benzidine	184	11.038	11.038	(0.875)	257818	40.0000	36.5
90 3,3'-Dichlorobenzidine	252	12.539	12.539	(0.994)	216482	40.0000	42.7
102 1,4-Dioxane	88	2.456	2.456	(0.508)	129460	40.0000	50.1
103 Methyl methacrylate	100	2.454	2.454	(0.508)	73600	40.0000	53.8
104 Ethyl methacrylate	69	2.971	2.971	(0.615)	275642	40.0000	48.4
105 2-Picoline	93	3.228	3.228	(0.668)	384374	40.0000	41.6
106 N-Nitrosomethylethylamine	88	3.297	3.297	(0.682)	151823	40.0000	42.1
107 Methyl methanesulfonate	80	3.521	3.521	(0.728)	147497	40.0000	39.5
108 N-Nitrosodiethylamine	102	3.858	3.858	(0.798)	144115	40.0000	41.2
109 Ethyl Methanesulfonate	79	4.097	4.097	(0.848)	208326	40.0000	45.3
110 Pentachloroethane	167	4.574	4.574	(0.946)	119725	40.0000	53.5
111 N-Nitrosopyrrolidine	100	5.190	5.190	(1.074)	130840	40.0000	38.9(Q)
113 N-Nitrosomorpholine	56	5.223	5.223	(1.081)	185493	40.0000	38.7
114 o-Toluidine	106	5.249	5.249	(1.086)	465737	40.0000	39.9
115 N-Nitrosopiperidine	114	5.539	5.539	(0.906)	138180	40.0000	40.2

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
116 a,a-Dimethylphenethylamine	58	5.962	5.962	(0.975)	849798	40.0000	40.8
118 2,6-Dichlorophenol	162	6.184	6.184	(1.012)	194979	40.0000	38.7
119 Hexachloropropene	213	6.222	6.222	(1.018)	141665	40.0000	56.6
120 p-Phenylenediamine	108	6.541	6.541	(1.070)	225910	40.0000	40.4
121 N-Nitrosodi-n-butylamine	84	6.515	6.515	(1.066)	211942	40.0000	41.4(T)
122 Safrole	162	6.750	6.750	(1.104)	203993	40.0000	44.9
123 1,2,4,5-Tetrachlorobenzene	216	7.035	7.035	(0.881)	220840	40.0000	40.2
124 Isosafrole	162	7.305	7.305	(0.915)	224711	40.0000	51.0
125 1,4-Naphthoquinone	158	7.565	7.565	(0.948)	157789	40.0000	39.6
127 Pentachlorobenzene	250	8.156	8.156	(1.022)	189057	40.0000	39.9
128 1-Naphthylamine	143	8.284	8.284	(1.038)	473709	40.0000	40.2
129 2-Naphthylamine	143	8.368	8.368	(1.048)	477216	40.0000	37.5
131 5-Nitro-o-toluidine	152	8.574	8.574	(1.074)	150626	40.0000	41.6
136 1,3,5-Trinitrobenzene	75	8.946	8.946	(0.932)	125876	40.0000	46.0
137 Phenacetin	108	9.010	9.010	(0.939)	237813	40.0000	39.6(Q)
138 Diallate	86	8.990	8.990	(0.937)	211803	40.0000	38.5
140 4-Aminobiphenyl	169	9.374	9.374	(0.977)	539794	40.0000	44.0
141 Pentachloronitrobenzene	237	9.392	9.392	(0.978)	56852	40.0000	40.1(Q)
142 Pronamide	173	9.423	9.423	(0.982)	240044	40.0000	39.9
146 4-Nitroquinoline-1-oxide	101	10.445	10.445	(1.088)	23608	40.0000	43.9
147 Methapyrilene	58	10.518	10.518	(1.096)	360709	40.0000	40.8
148 Isodrin	193	10.750	10.750	(1.120)	80870	40.0000	36.7
149 Aramite	185	11.265	11.265	(1.174)	38019	40.0000	37.6
150 Kepone	272	11.933	11.933	(1.243)	53886	40.0000	38.2
151 p-(Dimethylamino)azobenzene	120	11.456	11.456	(0.908)	237654	40.0000	41.7
152 Chlorobenzilate	251	11.499	11.499	(0.912)	210653	40.0000	40.3
153 3,3'-Dimethylbenzidine	212	11.838	11.838	(0.939)	415103	40.0000	43.8
155 2-Acetylaminofluorene	181	12.154	12.154	(0.964)	244425	40.0000	41.4
157 7,12Dimethylbenz(a)anthracene	256	14.251	14.251	(0.953)	217229	40.0000	34.6
158 3-Methylcholanthrene	268	15.477	15.477	(1.035)	187994	40.0000	38.8(Q)
212 Cis Diallate	86	9.092	9.092	(0.947)	35280	6.00000	6.1
213 Trans Diallate	86	8.990	8.990	(0.937)	211803	34.0000	32.7

QC Flag Legend

T - Target compound detected outside RT window.
Q - Qualifier signal failed the ratio test.

Data File: /chem/MSD6.i/s110909.b/s6k0938.d

Date : 10-NOV-2009 21:07

Client ID: AP12ICV

Sample Info: IWBN091016-08.1|40 PPM|1|SVMF|1|AP12ICV

Column phase: J&W DB-5MS

Instrument: MSD6.i

Operator: JMB3

Column diameter: 0.20

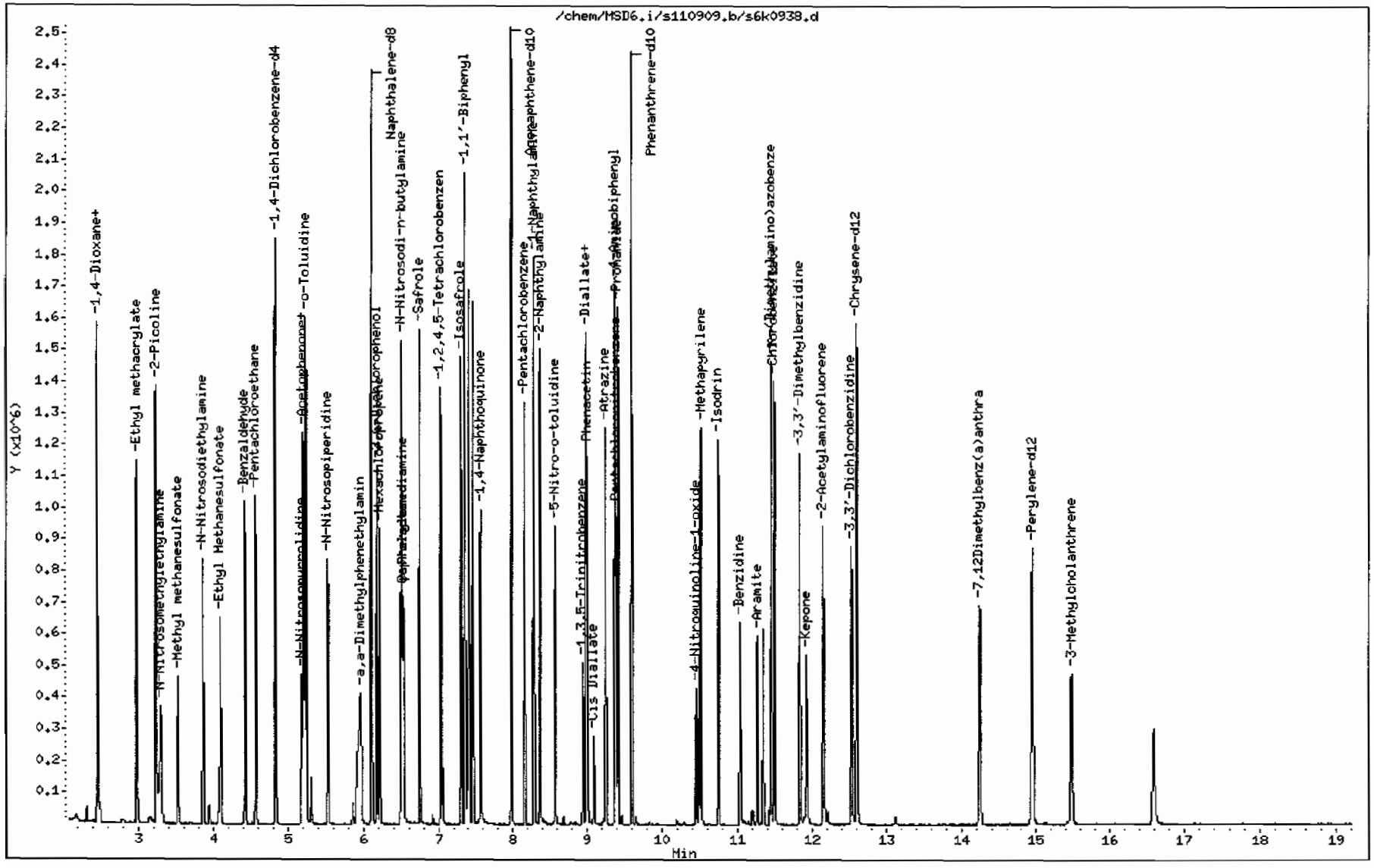

Data File: /chem/MSD6.i/s122109.b/s612102.d
Report Date: 22-Dec-2009 10:00

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD6.i
Lab File ID: s612102.d
Analysis Type: WATER
Lab Sample ID: WBN091111-17.4
Method: /chem/MSD6.i/s122109.b/MSD6-M8270C-AQA-110909.m

Injection Date: 21-DEC-2009 11:20
Init. Cal. Date(s): 09-NOV-2009 11-NOV-2009
Init. Cal. Times: 18:53 04:38
Quant Type: ISTD

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
$ 3 2-Fluorophenol	1.00169	0.96254	0.96254	0.000	-3.90874	60.00000	Averaged
$ 5 Phenol-d5	1.26427	1.24234	1.24234	0.000	-1.73477	60.00000	Averaged
$ 20 Nitrobenzene-d5	0.28296	0.27957	0.27957	0.000	-1.19830	60.00000	Averaged
$ 39 2-Fluorobiphenyl	1.03083	0.98324	0.98324	0.000	-4.61692	60.00000	Averaged
$ 60 2,4,6-Tribromophenol	0.11675	0.12912	0.12912	0.000	10.59346	60.00000	Averaged
$ 81 p-Terphenyl-d14	0.64507	0.68244	0.68244	0.000	5.79446	60.00000	Averaged
1 N-Methyl-N-nitrosomethylami	0.68098	0.55639	0.55639	0.000	-18.29468	60.00000	Averaged
2 Pyridine	0.84757	0.68118	0.68118	0.000	-19.63135	60.00000	Averaged
4 Aniline	0.52752	0.48881	0.48881	0.000	-7.33749	60.00000	Averaged
6 Phenol	1.27120	1.24223	1.24223	0.001	-2.27857	20.00000	Averaged ccc
7 bis(2-Chloroethyl) ether	0.86081	0.76416	0.76416	0.000	-11.22754	60.00000	Averaged
8 2-Chlorophenol	1.02109	1.02154	1.02154	0.000	0.04406	60.00000	Averaged
203 n-Decane	1.42254	1.13386	1.13386	0.000	-20.29280	60.00000	Averaged
9 1,3-Dichlorobenzene	1.17550	1.17887	1.17887	0.000	0.28651	60.00000	Averaged
11 1,4-Dichlorobenzene	1.19162	1.16424	1.16424	0.001	-2.29771	20.00000	Averaged ccc
13 1,2-Dichlorobenzene	1.11231	1.10547	1.10547	0.000	-0.61504	60.00000	Averaged
14 bis(2-Chloroisopropyl)ether	1.92182	1.80489	1.80489	0.000	-6.08433	60.00000	Averaged
12 Benzyl alcohol	0.63436	0.66928	0.66928	0.000	5.50418	60.00000	Averaged
15 o-Cresol	0.83139	0.81421	0.81421	0.000	-2.06550	60.00000	Averaged
18 m,p-Cresols	1.05346	1.07828	1.07828	0.000	2.35623	60.00000	Averaged
17 N-Nitrosodipropylamine	0.70865	0.72913	0.72913	0.050	2.89000	60.00000	Averaged spcc
19 Hexachloroethane	0.46100	0.42899	0.42899	0.000	-6.94224	60.00000	Averaged
21 Nitrobenzene	0.28519	0.27746	0.27746	0.000	-2.71030	60.00000	Averaged
22 Isophorone	0.50552	0.49750	0.49750	0.000	-1.58646	60.00000	Averaged
23 2-Nitrophenol	0.13154	0.13542	0.13542	0.001	2.94516	20.00000	Averaged ccc
24 2,4-Dimethylphenol	0.21795	0.23564	0.23564	0.000	8.11618	60.00000	Averaged
25 bis(2-Chloroethoxy)methane	0.29749	0.28438	0.28438	0.000	-4.40649	60.00000	Averaged
26 2,4-Dichlorophenol	0.19769	0.20735	0.20735	0.001	4.88937	20.00000	Averaged ccc
27 Benzoic acid	0.13453	0.16175	0.16175	0.000	20.23271	60.00000	Averaged
28 1,2,4-Trichlorobenzene	0.24261	0.24158	0.24158	0.000	-0.42637	60.00000	Averaged
30 Naphthalene	0.79792	0.80302	0.80302	0.000	0.63988	60.00000	Averaged
204 alpha-Terpineol	0.21868	0.19373	0.19373	0.000	-11.41071	60.00000	Averaged
31 4-Chloroaniline	0.25646	0.26463	0.26463	0.000	3.18555	60.00000	Averaged
32 Hexachlorobutadiene	0.12634	0.12939	0.12939	0.001	2.41729	20.00000	Averaged ccc
33 4-Chloro-3-methylphenol	0.19957	0.21706	0.21706	0.001	8.76724	20.00000	Averaged ccc
34 2-Methylnaphthalene	0.48150	0.56463	0.56463	0.000	17.26493	60.00000	Averaged

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD6.i Injection Date: 21-DEC-2009 11:20
Lab File ID: s612102.d Init. Cal. Date(s): 09-NOV-2009 11-NOV-2009
Analysis Type: WATER Init. Cal. Times: 18:53 04:38
Lab Sample ID: WBN091111-17.4 Quant Type: ISTD
Method: /chem/MSD6.i/s122109.b/MSD6-M8270C-AQA-110909.m

	COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
35	1-Methylnaphthalene	0.47100	0.53343	0.53343	0.000	13.25450	60.00000	Averaged	
36	Hexachlorocyclopentadiene	0.16157	0.06793	0.06793	0.050	-57.95719	60.00000	Averaged	spcc
205	2,3-Dichloroaniline	0.47908	0.44617	0.44617	0.000	-6.86976	60.00000	Averaged	
37	2,4,6-Trichlorophenol	0.27294	0.26149	0.26149	0.001	-4.19378	20.00000	Averaged	ccc
38	2,4,5-Trichlorophenol	0.29067	0.29762	0.29762	0.000	2.39329	60.00000	Averaged	
40	2-Chloronaphthalene	0.89832	0.84052	0.84052	0.000	-6.43453	60.00000	Averaged	
42	o-Nitroaniline	0.30732	0.27388	0.27388	0.000	-10.88080	60.00000	Averaged	
41	m-Nitroaniline	0.22497	0.21961	0.21961	0.000	-2.38502	60.00000	Averaged	
43	Dimethylphthalate	1.02610	0.99960	0.99960	0.000	-2.58256	60.00000	Averaged	
44	2,6-Dinitrotoluene	0.24475	0.23366	0.23366	0.000	-4.53124	60.00000	Averaged	
50	2,4-Dinitrotoluene	0.30862	0.30897	0.30897	0.000	0.11395	60.00000	Averaged	
45	Acenaphthylene	1.44438	1.52387	1.52387	0.000	5.50365	60.00000	Averaged	
47	Acenaphthene	0.90151	0.91424	0.91424	0.001	1.41244	20.00000	Averaged	ccc
48	2,4-Dinitrophenol	35.10654	40.00000	0.06736	0.050	-12.23366	60.00000	Linear	spcc
49	Dibenzofuran	1.21689	1.17145	1.17145	0.000	-3.73374	60.00000	Averaged	
51	Diethylphthalate	1.03335	1.01910	1.01910	0.000	-1.37878	60.00000	Averaged	
52	4-Nitrophenol	38.69242	40.00000	0.15819	0.050	-3.26894	60.00000	Linear	spcc
53	Fluorene	0.99879	1.05779	1.05779	0.000	5.90669	60.00000	Averaged	
54	4-Chlorophenylphenylether	0.47192	0.47790	0.47790	0.000	1.26688	60.00000	Averaged	
55	2-Methyl-4,6-dinitrophenol	40.93842	40.00000	0.09122	0.000	2.34605	60.00000	Linear	
56	p-Nitroaniline	36.59656	40.00000	0.18837	0.000	-8.50860	60.00000	Linear	
133	Diphenylamine	0.48213	0.46822	0.46822	0.001	-2.88530	20.00000	Averaged	ccc
58	1,2-Diphenylhydrazine	0.61327	0.56963	0.56963	0.000	-7.11594	60.00000	Averaged	
61	4-Bromophenylphenylether	0.15784	0.15406	0.15406	0.000	-2.39073	60.00000	Averaged	
63	Hexachlorobenzene	0.16533	0.16160	0.16160	0.000	-2.25543	60.00000	Averaged	
65	Pentachlorophenol	36.92502	40.00000	0.07860	0.001	-7.68745	20.00000	Linear	ccc
206	n-Octadecane	0.44173	0.40146	0.40146	0.000	-9.11699	60.00000	Averaged	
68	Phenanthrene	0.82721	0.85105	0.85105	0.000	2.88176	60.00000	Averaged	
69	Anthracene	0.82682	0.87118	0.87118	0.000	5.36515	60.00000	Averaged	
72	Di-n-butylphthalate	0.94954	0.98769	0.98769	0.000	4.01786	60.00000	Averaged	
76	Fluoranthene	0.79242	0.86822	0.86822	0.001	9.56538	20.00000	Averaged	ccc
79	Pyrene	1.10021	1.10689	1.10689	0.000	0.60728	60.00000	Averaged	
85	Butylbenzylphthalate	0.50351	0.53583	0.53583	0.000	6.41909	60.00000	Averaged	
89	Benzo(a)anthracene	0.86301	0.90849	0.90849	0.000	5.27001	60.00000	Averaged	
92	Chrysene	0.82690	0.86796	0.86796	0.000	4.96582	60.00000	Averaged	
93	bis(2-Ethylhexyl)phthalate	41.16011	40.00000	0.71411	0.000	2.90027	60.00000	Wt Linear	

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD6.i Injection Date: 21-DEC-2009 11:20
Lab File ID: s612102.d Init. Cal. Date(s): 09-NOV-2009 11-NOV-2009
Analysis Type: WATER Init. Cal. Times: 18:53 04:38
Lab Sample ID: WBN091111-17.4 Quant Type: ISTD
Method: /chem/MSD6.i/s122109.b/MSD6-M8270C-AQA-110909.m

	COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
	94 Di-n-octylphthalate	1.27127	1.25794	1.25794	0.001	-1.04863	20.00000	Averaged	ccc
	95 Benzo(b)fluoranthene	0.88507	0.95014	0.95014	0.000	7.35099	60.00000	Averaged	
	96 Benzo(k)fluoranthene	0.88011	0.93516	0.93516	0.000	6.25575	60.00000	Averaged	
	97 Benzo(a)pyrene	0.76447	0.87533	0.87533	0.001	14.50154	20.00000	Averaged	ccc
	99 Indeno(1,2,3-cd)pyrene	46.38141	40.00000	0.85355	0.000	15.95351	60.00000	Linear	
	100 Dibenzo(a,h)anthracene	46.17145	40.00000	0.69180	0.000	15.42863	60.00000	Linear	
	101 Benzo(ghi)perylene	0.58403	0.72394	0.72394	0.000	23.95609	60.00000	Averaged	
	126 m-Dinitrobenzene	0.16929	0.16083	0.16083	0.000	-4.99740	60.00000	Averaged	
	130 2,3,4,6-Tetrachlorophenol	0.21896	0.22633	0.22633	0.000	3.36848	60.00000	Averaged	
	143 Dinoseb	32.18392	40.00000	0.09575	0.000	-19.54021	60.00000	Linear	
	173 Carbazole	0.65449	0.63761	0.63761	0.000	-2.57971	60.00000	Averaged	
	184 p-Benzoquinone	0.12730	0.12351	0.12351	0.000	-2.97845	60.00000	Averaged	
	192 Methoxychlor	0.55243	0.45965	0.45965	0.000	-16.79576	60.00000	Averaged	
	211 p-Toluidine	0.89987	0.91137	0.91137	0.000	1.27793	60.00000	Averaged	
	210 m-Toluidine	1.12396	1.13713	1.13713	0.000	1.17143	60.00000	Averaged	
	26 Phthalic anhydride	58.13931	40.00000	0.11742	0.000	45.34827	60.00000	Linear	
	214 1,4-Dinitrobenzene	0.18382	0.17280	0.17280	0.000	-5.99074	60.00000	Averaged	
	215 2-Ethoxyethanol	0.71035	0.60184	0.60184	0.000	-15.27680	60.00000	Averaged	
	216 Methylenebis(2-chloroanilin	38.08809	40.00000	0.11859	0.000	-4.77976	60.00000	Linear	
M	225 Trichlorophenols	0.28180	0.27956	0.27956	0.000	-0.79664	60.00000	Averaged	
M	226 Tetrachlorophenols	0.21896	0.22633	0.22633	0.000	3.36848	60.00000	Averaged	
M	227 Benzo(b,k)fluoranthene	0.88259	0.94265	0.94265	0.000	6.80491	60.00000	Averaged	

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Data file : /chem/MSD6.i/s122109.b/s612102.d
Lab Smp Id: WBN091111-17.4 Client Smp ID: MEGACVS
Inj Date : 21-DEC-2009 11:20
Operator : nag1 Inst ID: MSD6.i
Smp Info : |WBN091111-17.4|CVS|1|SVMF|1|MEGACVS
Misc Info : |MSD8270|WBN091208-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s122109.b/MSD6-M8270C-AQA-110909.m
Meth Date : 22-Dec-2009 10:00 nat00999 Quant Type: ISTD
Cal Date : 11-NOV-2009 04:38 Cal File: s6k0954.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: MEGA.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vo *Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vo	1000.00000	volume of sample ext
Vi	0.50000	volume injected

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	5.025	5.025	(1.000)	234388	40.0000	
* 29 Naphthalene-d8	136	6.309	6.309	(1.000)	952872	40.0000	
* 46 Acenaphthene-d10	164	8.187	8.187	(1.000)	536777	40.0000	
* 67 Phenanthrene-d10	188	9.802	9.802	(1.000)	928124	40.0000	
* 91 Chrysene-d12	240	12.885	12.885	(1.000)	754307	40.0000	
* 98 Perylene-d12	264	15.324	15.324	(1.000)	688132	40.0000	
$ 3 2-Fluorophenol	112	3.860	3.860	(0.768)	225607	40.0000	38.4
$ 5 Phenol-d5	99	4.645	4.645	(0.924)	291189	40.0000	39.3
$ 20 Nitrobenzene-d5	82	5.565	5.565	(0.882)	266392	40.0000	39.5
$ 39 2-Fluorobiphenyl	172	7.435	7.435	(0.908)	527780	40.0000	38.2
$ 60 2,4,6-Tribromophenol	329	9.040	9.040	(1.104)	69307	40.0000	44.2
$ 81 p-Terphenyl-d14	244	11.507	11.507	(0.893)	514773	40.0000	42.3
1 N-Methyl-N-nitrosomethylamine	74	2.866	2.866	(0.570)	130412	40.0000	32.7

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
2 Pyridine	79	2.907	2.907	(0.579)	159661	40.0000	32.1
4 Aniline	66	4.711	4.711	(0.938)	114572	40.0000	37.1
6 Phenol	94	4.658	4.658	(0.927)	291164	40.0000	39.1(Q)
7 bis(2-Chloroethyl) ether	63	4.747	4.747	(0.945)	179110	40.0000	35.5
8 2-Chlorophenol	128	4.833	4.833	(0.962)	239437	40.0000	40.0
203 n-Decane	43	4.821	4.821	(0.959)	265764	40.0000	31.9
9 1,3-Dichlorobenzene	146	4.974	4.974	(0.990)	276312	40.0000	40.1
11 1,4-Dichlorobenzene	146	5.040	5.040	(1.003)	272884	40.0000	39.1
13 1,2-Dichlorobenzene	146	5.190	5.190	(1.033)	259108	40.0000	39.8
14 bis(2-Chloroisopropyl)ether	45	5.254	5.254	(1.046)	423045	40.0000	37.6
12 Benzyl alcohol	108	5.137	5.137	(1.022)	156871	40.0000	42.2
15 o-Cresol	107	5.231	5.231	(1.041)	190842	40.0000	39.2
18 m,p-Cresols	107	5.384	5.384	(1.071)	252736	40.0000	40.9
17 N-Nitrosodipropylamine	70	5.392	5.392	(1.073)	170900	40.0000	41.2
19 Hexachloroethane	117	5.527	5.527	(1.100)	100551	40.0000	37.2
21 Nitrobenzene	77	5.588	5.588	(0.886)	264385	40.0000	38.9
22 Isophorone	82	5.820	5.820	(0.922)	474050	40.0000	39.4
23 2-Nitrophenol	139	5.904	5.904	(0.936)	129037	40.0000	41.2
24 2,4-Dimethylphenol	122	5.919	5.919	(0.938)	224536	40.0000	43.2
25 bis(2-Chloroethoxy)methane	93	6.013	6.013	(0.953)	270981	40.0000	38.2
26 2,4-Dichlorophenol	162	6.159	6.159	(0.976)	197579	40.0000	42.0
27 Benzoic acid	105	6.034	6.034	(0.956)	154125	40.0000	48.1
28 1,2,4-Trichlorobenzene	180	6.240	6.240	(0.989)	230195	40.0000	39.8
30 Naphthalene	128	6.334	6.334	(1.004)	765177	40.0000	40.2
204 alpha-Terpineol	59	6.314	6.314	(1.001)	184596	40.0000	35.4
31 4-Chloroaniline	127	6.370	6.370	(1.010)	252156	40.0000	41.3
32 Hexachlorobutadiene	225	6.436	6.436	(1.020)	123296	40.0000	41.0
33 4-Chloro-3-methylphenol	107	6.869	6.869	(1.089)	206832	40.0000	43.5
34 2-Methylnaphthalene	142	7.055	7.055	(1.118)	538019	40.0000	46.9
35 1-Methylnaphthalene	142	7.165	7.165	(1.136)	508293	40.0000	45.3
36 Hexachlorocyclopentadiene	237	7.213	7.213	(0.881)	36462	40.0000	16.8
205 2,3-Dichloroaniline	161	7.354	7.354	(0.898)	239492	40.0000	37.2
37 2,4,6-Trichlorophenol	196	7.351	7.351	(0.898)	140363	40.0000	38.3
38 2,4,5-Trichlorophenol	196	7.405	7.405	(0.904)	159758	40.0000	41.0
40 2-Chloronaphthalene	162	7.583	7.583	(0.926)	451172	40.0000	37.4
42 o-Nitroaniline	65	7.685	7.685	(0.939)	147015	40.0000	35.6
41 m-Nitroaniline	138	8.128	8.128	(0.993)	117879	40.0000	39.0
43 Dimethylphthalate	163	7.866	7.866	(0.961)	536563	40.0000	39.0
44 2,6-Dinitrotoluene	165	7.940	7.940	(0.970)	125422	40.0000	38.2
50 2,4-Dinitrotoluene	165	8.373	8.373	(1.023)	165849	40.0000	40.0
45 Acenaphthylene	152	8.036	8.036	(0.982)	817981	40.0000	42.2
47 Acenaphthene	154	8.222	8.222	(1.004)	490745	40.0000	40.6
48 2,4-Dinitrophenol	184	8.238	8.238	(1.006)	36157	40.0000	35.1
49 Dibenzofuran	168	8.406	8.406	(1.027)	628809	40.0000	38.5
51 Diethylphthalate	149	8.615	8.615	(1.052)	547029	40.0000	39.4
52 4-Nitrophenol	139	8.322	8.322	(1.016)	84913	40.0000	38.7
53 Fluorene	166	8.778	8.778	(1.072)	567797	40.0000	42.4

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
54 4-Chlorophenylphenylether	204	8.758	8.758	(1.070)	256526	40.0000	40.5
55 2-Methyl-4,6-dinitrophenol	198	8.819	8.819	(0.900)	84666	40.0000	40.9
56 p-Nitroaniline	138	8.796	8.796	(1.074)	101111	40.0000	36.6
133 Diphenylamine	169	8.888	8.888	(0.907)	434569	40.0000	38.8
58 1,2-Diphenylhydrazine	77	8.933	8.933	(0.911)	528686	40.0000	37.2
61 4-Bromophenylphenylether	248	9.293	9.293	(0.948)	142991	40.0000	39.0
63 Hexachlorobenzene	284	9.372	9.372	(0.956)	149986	40.0000	39.1
65 Pentachlorophenol	266	9.586	9.586	(0.978)	72953	40.0000	36.9
206 n-Octadecane	57	9.609	9.609	(0.980)	372604	40.0000	36.4
68 Phenanthrene	178	9.830	9.830	(1.003)	789882	40.0000	41.2
69 Anthracene	178	9.884	9.884	(1.008)	808567	40.0000	42.1
72 Di-n-butylphthalate	149	10.378	10.378	(1.059)	916696	40.0000	41.6
76 Fluoranthene	202	11.120	11.120	(1.134)	805813	40.0000	43.8
79 Pyrene	202	11.374	11.374	(0.883)	834933	40.0000	40.2
85 Butylbenzylphthalate	149	12.055	12.055	(0.936)	404177	40.0000	42.6
89 Benzo(a)anthracene	228	12.863	12.863	(0.998)	685278	40.0000	42.1
92 Chrysene	228	12.924	12.924	(1.003)	654709	40.0000	42.0
93 bis(2-Ethylhexyl)phthalate	149	12.806	12.806	(0.994)	538658	40.0000	41.2
94 Di-n-octylphthalate	149	13.836	13.836	(0.903)	865630	40.0000	39.6
95 Benzo(b)fluoranthene	252	14.616	14.616	(0.954)	653819	40.0000	42.9
96 Benzo(k)fluoranthene	252	14.664	14.664	(0.957)	643516	40.0000	42.5
97 Benzo(a)pyrene	252	15.217	15.217	(0.993)	602340	40.0000	45.8
99 Indeno(1,2,3-cd)pyrene	276	17.375	17.375	(1.134)	587352	40.0000	46.4
100 Dibenzo(a,h)anthracene	278	17.403	17.403	(1.136)	476049	40.0000	46.2
101 Benzo(ghi)perylene	276	17.928	17.928	(1.170)	498165	40.0000	49.6
126 m-Dinitrobenzene	168	7.914	7.914	(0.967)	86332	40.0000	38.0
130 2,3,4,6-Tetrachlorophenol	232	8.531	8.531	(1.042)	121491	40.0000	41.3
143 Dinoseb	211	9.756	9.756	(0.995)	88867	40.0000	32.2
173 Carbazole	167	10.049	10.049	(1.025)	591782	40.0000	39.0
184 p-Benzoquinone	54	4.278	4.278	(0.851)	28950	40.0000	38.8
192 Methoxychlor	227	12.715	12.715	(0.987)	346715	40.0000	33.3
211 p-Toluidine	106	5.442	5.442	(1.083)	213615	40.0000	40.5
210 m-Toluidine	106	5.478	5.478	(1.090)	266529	40.0000	40.5
26 Phthalic anhydride	104	7.117	7.117	(1.128)	111889	40.0000	58.1
214 1,4-Dinitrobenzene	75	7.830	7.830	(0.956)	92757	40.0000	37.6
215 2-Ethoxyethanol	59	2.655	2.655	(0.528)	141063	40.0000	33.9
216 Methylenebis(2-chloroaniline)	231	12.796	12.796	(0.993)	89453	40.0000	38.1(Q)
M 225 Trichlorophenols	196				300121	80.0000	79.4
M 226 Tetrachlorophenols	232				121491	40.0000	41.3
M 227 Benzo(b,k)fluoranthene	252				1297335	80.0000	85.4

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: /chem/MSD6.i/s122109.b/s612102.d
Date : 21-DEC-2009 11:20
Client ID: MEGACVS
Sample Info: IWBN091111-17,4|CVS|1|SWMF|1|MEGACVS
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD6.i
Operator: nagi
Column diameter: 0.20

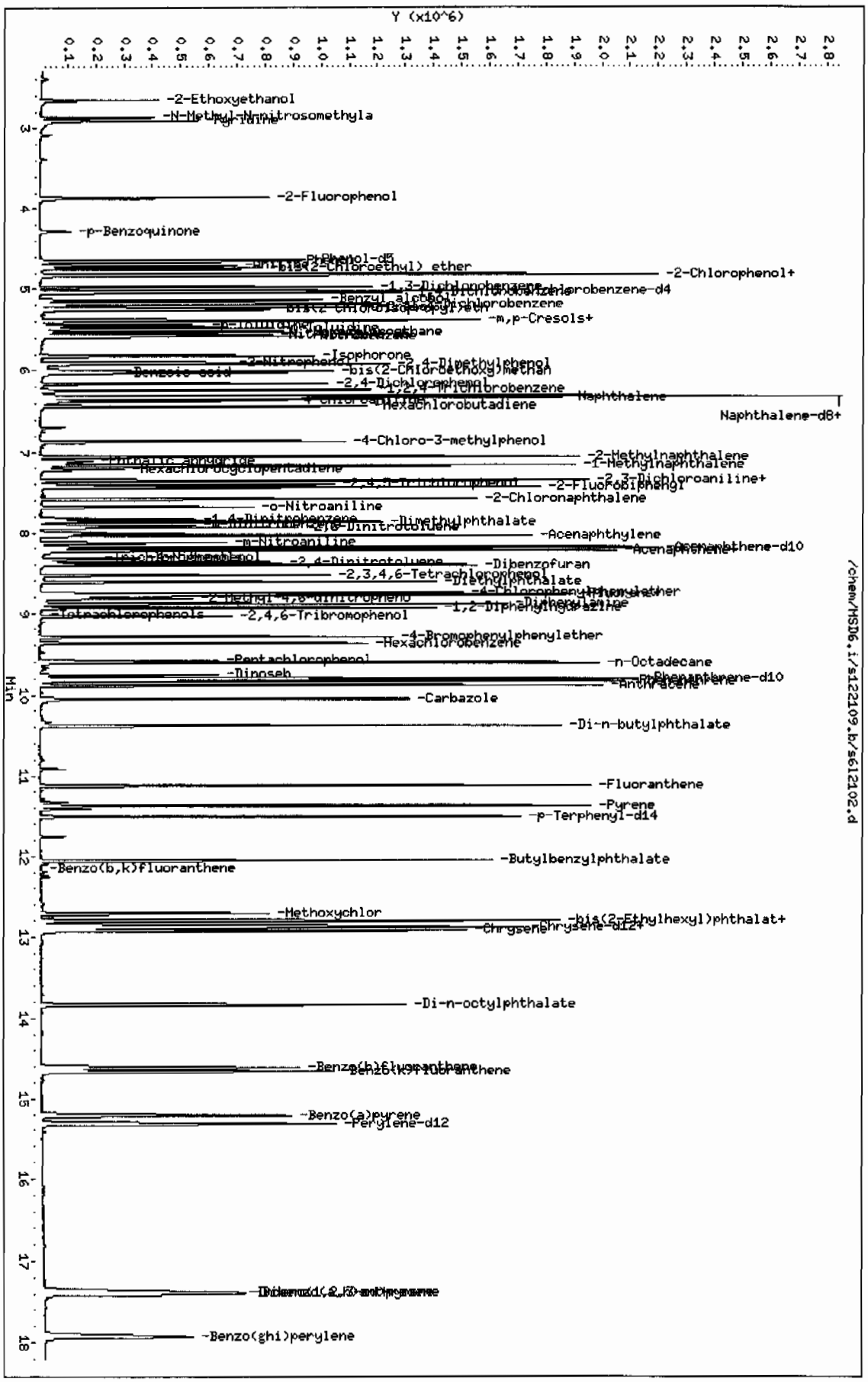

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD6.i Injection Date: 21-DEC-2009 11:47
Lab File ID: s612103.d Init. Cal. Date(s): 09-NOV-2009 11-NOV-2009
Analysis Type: WATER Init. Cal. Times: 18:53 04:38
Lab Sample ID: WBN091201-03.5 Quant Type: ISTD
Method: /chem/MSD6.i/s122109.b/MSD6-M8270C-AQA-110909.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
209 Benzaldehyde	0.86127	0.84220	0.84220	0.000	-2.21410	60.00000	Averaged
16 Acetophenone	1.16908	1.14452	1.14452	0.000	-2.10043	60.00000	Averaged
189 Caprolactam	0.07388	0.07904	0.07904	0.000	6.97847	60.00000	Averaged
208 1,1'-Biphenyl	1.20131	1.13257	1.13257	0.000	-5.72165	60.00000	Averaged
207 Atrazine	0.04063	0.03965	0.03965	0.000	-2.42165	60.00000	Averaged
77 Benzidine	0.39304	0.31230	0.31230	0.000	-20.54080	60.00000	Averaged
90 3,3'-Dichlorobenzidine	0.28252	0.27943	0.27943	0.000	-1.09189	60.00000	Averaged
102 1,4-Dioxane	0.36606	0.31772	0.31772	0.000	-13.20477	60.00000	Averaged
103 Methyl methacrylate	0.19388	0.17486	0.17486	0.000	-9.81083	60.00000	Averaged
104 Ethyl methacrylate	0.80561	0.68806	0.68806	0.000	-14.59096	60.00000	Averaged
105 2-Picoline	1.30872	1.22920	1.22920	0.000	-6.07608	60.00000	Averaged
106 N-Nitrosomethylethylamine	0.51104	0.46722	0.46722	0.000	-8.57431	60.00000	Averaged
107 Methyl methanesulfonate	0.52852	0.46534	0.46534	0.000	-11.95366	60.00000	Averaged
108 N-Nitrosodiethylamine	0.49553	0.47944	0.47944	0.000	-3.24843	60.00000	Averaged
109 Ethyl Methanesulfonate	0.65169	0.59447	0.59447	0.000	-8.78004	60.00000	Averaged
110 Pentachloroethane	0.31681	0.30618	0.30618	0.000	-3.35304	60.00000	Averaged
111 N-Nitrosopyrrolidine	0.47614	0.49712	0.49712	0.000	4.40771	60.00000	Averaged
113 N-Nitrosomorpholine	0.67936	0.64051	0.64051	0.000	-5.71921	60.00000	Averaged
114 o-Toluidine	1.65281	1.60456	1.60456	0.000	-2.91939	60.00000	Averaged
115 N-Nitrosopiperidine	0.14105	0.13310	0.13310	0.000	-5.63518	60.00000	Averaged
116 a,a-Dimethylphenethylamine	0.85546	0.73659	0.73659	0.000	-13.89493	60.00000	Averaged
118 2,6-Dichlorophenol	0.20687	0.19095	0.19095	0.000	-7.69646	60.00000	Averaged
119 Hexachloropropene	0.10269	0.08318	0.08318	0.000	-18.99170	60.00000	Averaged
120 p-Phenylenediamine	0.22955	0.21013	0.21013	0.000	-8.46005	60.00000	Averaged
121 N-Nitrosodi-n-butylamine	0.21004	0.18228	0.18228	0.000	-13.21845	60.00000	Averaged
122 Safrole	0.18653	0.19095	0.19095	0.000	2.37222	60.00000	Averaged
123 1,2,4,5-Tetrachlorobenzene	0.42319	0.39962	0.39962	0.000	-5.56965	60.00000	Averaged
124 Isosafrole	0.33959	0.31935	0.31935	0.000	-5.96033	60.00000	Averaged
125 1,4-Naphthoquinone	0.30674	0.30427	0.30427	0.000	-0.80361	60.00000	Averaged
127 Pentachlorobenzene	0.36454	0.35654	0.35654	0.000	-2.19426	60.00000	Averaged
128 1-Naphthylamine	0.90742	0.86674	0.86674	0.000	-4.48231	60.00000	Averaged
129 2-Naphthylamine	0.98012	0.91695	0.91695	0.000	-6.44515	60.00000	Averaged
131 5-Nitro-o-toluidine	0.27901	0.26483	0.26483	0.000	-5.08027	60.00000	Averaged
136 1,3,5-Trinitrobenzene	35.39360	40.00000	0.10297	0.000	-11.51600	60.00000	Linear
137 Phenacetin	0.26240	0.24442	0.24442	0.000	-6.85039	60.00000	Averaged
138 Diallate	0.24056	0.22974	0.22974	0.000	-4.49957	60.00000	Averaged

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD6.i Injection Date: 21-DEC-2009 11:47
Lab File ID: s612103.d Init. Cal. Date(s): 09-NOV-2009 11-NOV-2009
Analysis Type: WATER Init. Cal. Times: 18:53 04:38
Lab Sample ID: WBN091201-03.5 Quant Type: ISTD
Method: /chem/MSD6.i/s122109.b/MSD6-M8270C-AQA-110909.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
140 4-Aminobiphenyl	0.53562	0.51492	0.51492	0.000	-3.86352	60.00000	Averaged
141 Pentachloronitrobenzene	0.06192	0.06156	0.06156	0.000	-0.58723	60.00000	Averaged
142 Pronamide	0.26319	0.25126	0.25126	0.000	-4.53327	60.00000	Averaged
146 4-Nitroquinoline-1-oxide	0.02349	0.01260	0.01260	0.000	-46.34957	60.00000	Averaged
147 Methapyrilene	0.38600	0.36114	0.36114	0.000	-6.44066	60.00000	Averaged
148 Isodrin	0.09631	0.09946	0.09946	0.000	3.26895	60.00000	Averaged
149 Aramite	0.04420	0.04593	0.04593	0.000	3.92267	60.00000	Averaged
150 Kepone	0.06173	0.06485	0.06485	0.000	5.05442	60.00000	Averaged
151 p-(Dimethylamino)azobenzene	0.31734	0.29408	0.29408	0.000	-7.32982	60.00000	Averaged
152 Chlorobenzilate	0.29130	0.29466	0.29466	0.000	1.15499	60.00000	Averaged
153 3,3'-Dimethylbenzidine	0.52763	0.48369	0.48369	0.000	-8.32930	60.00000	Averaged
155 2-Acetylaminofluorene	39.95865	40.00000	0.32639	0.000	-0.10339	60.00000	Linear
157 7,12Dimethylbenz(a)anthrace	0.47906	0.45736	0.45736	0.000	-4.52913	60.00000	Averaged
158 3-Methylcholanthrene	0.36955	0.37642	0.37642	0.000	1.85928	60.00000	Averaged
212 Cis Diallate	0.25295	0.22754	0.22754	0.000	-10.04361	60.00000	Averaged
213 Trans Diallate	0.28301	0.27028	0.27028	0.000	-4.49957	60.00000	Averaged

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Data file : /chem/MSD6.i/s122109.b/s612103.d
Lab Smp Id: WBN091201-03.5 Client Smp ID: AP12CVS
Inj Date : 21-DEC-2009 11:47
Operator : nagl Inst ID: MSD6.i
Smp Info : |WBN091201-03.5|CVS|1|SVMF|1|AP12CVS
Misc Info : |MSD8270|WBN091208-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s122109.b/MSD6-M8270C-AQA-110909.m
Meth Date : 22-Dec-2009 09:59 nat00999 Quant Type: ISTD
Cal Date : 11-NOV-2009 04:38 Cal File: s6k0954.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AP12.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vo *Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vo	1000.00000	volume of sample ext
Vi	0.50000	volume injected

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	5.020	5.020	(1.000)	196996	40.0000	
* 29 Naphthalene-d8	136	6.304	6.304	(1.000)	740674	40.0000	
* 46 Acenaphthene-d10	164	8.179	8.179	(1.000)	418754	40.0000	
* 67 Phenanthrene-d10	188	9.800	9.800	(1.000)	730148	40.0000	
* 91 Chrysene-d12	240	12.873	12.873	(1.000)	593618	40.0000	
* 98 Perylene-d12	264	15.309	15.309	(1.000)	497129	40.0000	
209 Benzaldehyde	77	4.617	4.617	(0.920)	165911	40.0000	39.1
16 Acetophenone	105	5.402	5.402	(1.076)	225466	40.0000	39.2
189 Caprolactam	113	6.732	6.732	(1.068)	58540	40.0000	42.8
208 1,1'-Biphenyl	154	7.545	7.545	(0.922)	474270	40.0000	37.7
207 Atrazine	173	9.446	9.446	(0.964)	28951	40.0000	39.0
77 Benzidine	184	11.237	11.237	(0.873)	185389	40.0000	31.8
90 3,3'-Dichlorobenzidine	252	12.794	12.794	(0.994)	165875	40.0000	39.6

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
102 1,4-Dioxane	88	2.655	2.655	(0.529)	62590	40.0000	34.7
103 Methyl methacrylate	100	2.647	2.647	(0.527)	34446	40.0000	36.1
104 Ethyl methacrylate	69	3.157	3.157	(0.629)	135545	40.0000	34.2
105 2-Picoline	93	3.422	3.422	(0.682)	242148	40.0000	37.6
106 N-Nitrosomethylethylamine	88	3.488	3.488	(0.695)	92040	40.0000	36.6
107 Methyl methanesulfonate	80	3.715	3.715	(0.740)	91671	40.0000	35.2
108 N-Nitrosodiethylamine	102	4.049	4.049	(0.807)	94447	40.0000	38.7
109 Ethyl Methanesulfonate	79	4.283	4.283	(0.853)	117108	40.0000	36.5
110 Pentachloroethane	167	4.760	4.760	(0.948)	60317	40.0000	38.6
111 N-Nitrosopyrrolidine	100	5.384	5.384	(1.073)	97931	40.0000	41.8(Q)
113 N-Nitrosomorpholine	56	5.417	5.417	(1.079)	126178	40.0000	37.7
114 o-Toluidine	106	5.438	5.438	(1.083)	316092	40.0000	38.8
115 N-Nitrosopiperidine	114	5.733	5.733	(0.909)	98587	40.0000	37.7
116 a,a-Dimethylphenethylamine	58	6.100	6.100	(0.968)	545574	40.0000	34.4
118 2,6-Dichlorophenol	162	6.380	6.380	(1.012)	141432	40.0000	36.9
119 Hexachloropropene	213	6.411	6.411	(1.017)	61612	40.0000	32.4
120 p-Phenylenediamine	108	6.740	6.740	(1.069)	155635	40.0000	36.6
121 N-Nitrosodi-n-butylamine	84	6.701	6.701	(1.063)	135009	40.0000	34.7(T)
122 Safrole	162	6.380	6.380	(1.012)	141432	40.0000	40.9
123 1,2,4,5-Tetrachlorobenzene	216	7.229	7.229	(0.884)	167344	40.0000	37.8
124 Isosafrole	162	7.494	7.494	(0.916)	133729	40.0000	37.6
125 1,4-Naphthoquinone	158	7.767	7.767	(0.950)	127415	40.0000	39.7
127 Pentachlorobenzene	250	8.353	8.353	(1.021)	149304	40.0000	39.1
128 1-Naphthylamine	143	8.485	8.485	(1.037)	362952	40.0000	38.2
129 2-Naphthylamine	143	8.569	8.569	(1.048)	383977	40.0000	37.4
131 5-Nitro-o-toluidine	152	8.776	8.776	(1.073)	110900	40.0000	38.0
136 1,3,5-Trinitrobenzene	75	9.153	9.153	(0.934)	75185	40.0000	35.4
137 Phenacetin	108	9.204	9.204	(0.939)	178463	40.0000	37.2(Q)
138 Diallate	86	9.178	9.178	(0.937)	167742	40.0000	38.2
140 4-Aminobiphenyl	169	9.573	9.573	(0.977)	375969	40.0000	38.4
141 Pentachloronitrobenzene	237	9.588	9.588	(0.978)	44947	40.0000	39.8(Q)
142 Pronamide	173	9.611	9.611	(0.981)	183455	40.0000	38.2
146 4-Nitroquinoline-1-oxide	101	10.654	10.654	(1.087)	9203	40.0000	21.5
147 Methapyrilene	58	10.707	10.707	(1.093)	263687	40.0000	37.4
148 Isodrin	193	10.952	10.952	(1.118)	72617	40.0000	41.3
149 Aramite	185	11.454	11.454	(1.169)	33539	40.0000	41.6
150 Kepone	272	12.157	12.157	(1.240)	47349	40.0000	42.0
151 p-(Dimethylamino)azobenzene	120	11.660	11.660	(0.906)	174570	40.0000	37.1
152 Chlorobenzilate	251	11.701	11.701	(0.909)	174916	40.0000	40.5
153 3,3'-Dimethylbenzidine	212	12.060	12.060	(0.937)	287125	40.0000	36.7
155 2-Acetylaminofluorene	181	12.391	12.391	(0.963)	193749	40.0000	40.0
157 7,12Dimethylbenz(a)anthracene	256	14.580	14.580	(0.952)	227368	40.0000	38.2
158 3-Methylcholanthrene	268	15.849	15.849	(1.035)	187130	40.0000	40.7(Q)
212 Cis Diallate	86	9.280	9.280	(0.947)	24921	6.00000	5.4
213 Trans Diallate	86	9.178	9.178	(0.937)	167742	34.0000	32.5

QC Flag Legend

T - Target compound detected outside RT window.
Q - Qualifier signal failed the ratio test.

Data File: /chem/MSD6.i/s122109.b/s612103.d
Date : 21-DEC-2009 11:47
Client ID: AP12CVS
Sample Info: IWBN091201-03,5ICVSI1ISVHF11IAP12CVS
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD6.i
Operator: nag1
Column diameter: 0.20

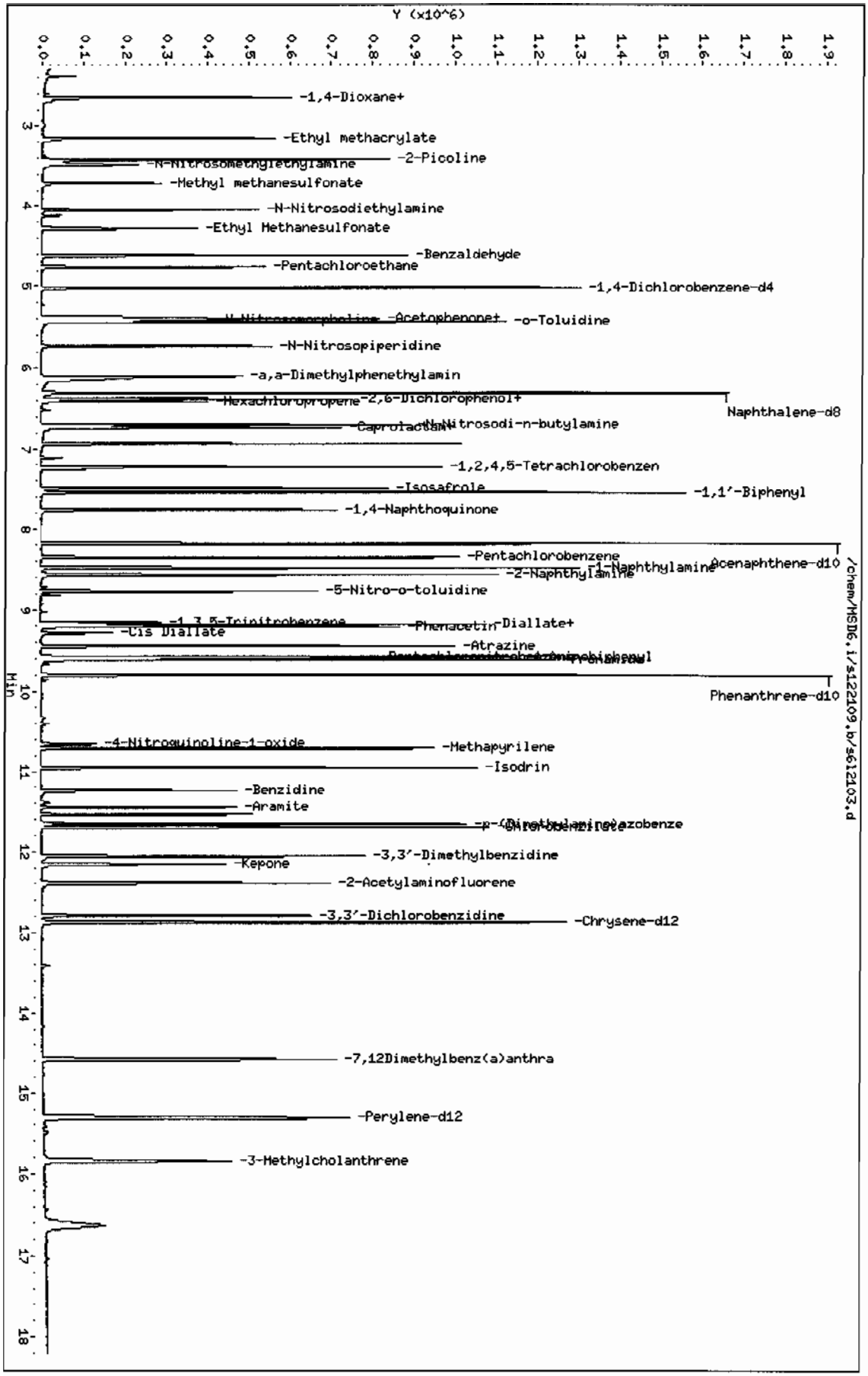

Page 1

QC Data

Data File: /chem/MSD6.i/s110909.b/s6k0911.d

Date : 09-NOV-2009 18:00

Client ID: DFTPP

Instrument: MSD6.i

Sample Info: |WBN091101-01|50 PPM|1|SVMF|1|DFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

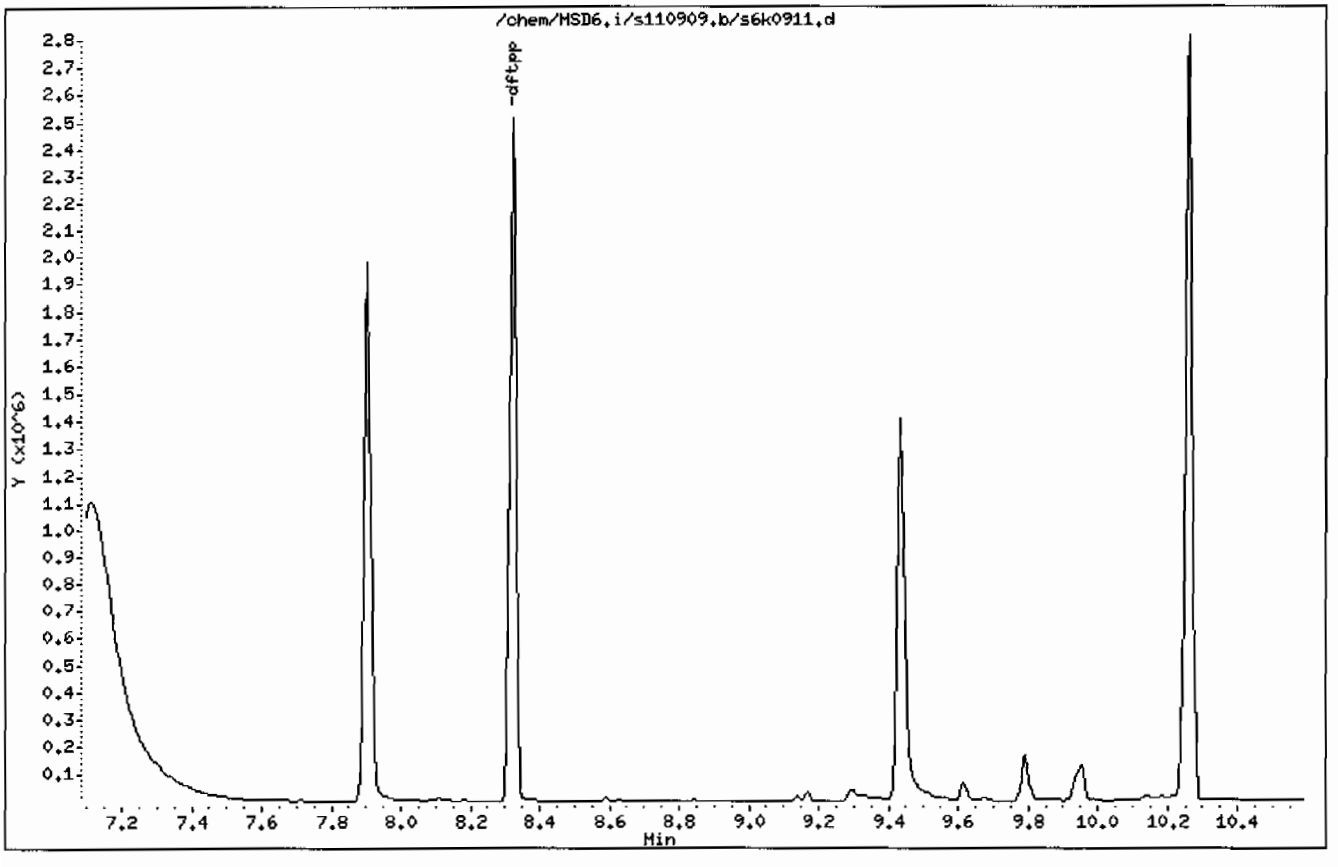

Data File: /chem/MSD6.i/s110909.b/s6k0911.d

Date : 09-NOV-2009 18:00

Client ID: DFTPP

Instrument: MSD6.i

Sample Info: IWBN091101-01|50 PPM|1|SVMF|1|DFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

1 dftpp

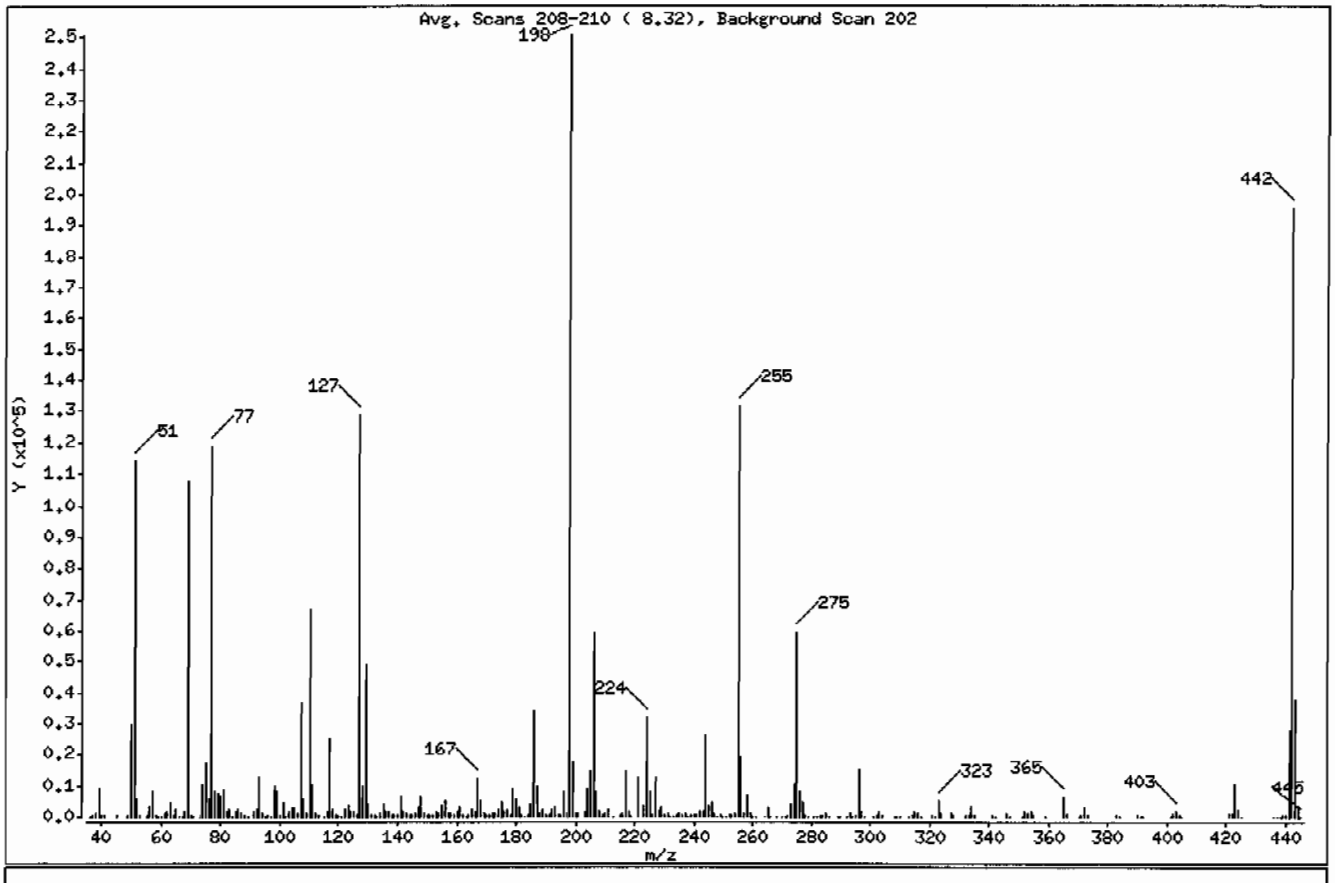

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	45.40
68	Less than 2.00% of mass 69	0.67 (1.56)
69	Mass 69 relative abundance	42.98
70	Less than 2.00% of mass 69	0.23 (0.53)
127	40.00 - 60.00% of mass 198	51.37
197	Less than 1.00% of mass 198	0.57
199	5.00 - 9.00% of mass 198	6.92
275	10.00 - 30.00% of mass 198	23.67
365	Greater than 1.00% of mass 198	2.45
441	Present, but less than mass 443	11.05
442	Greater than 40.00% of mass 198	77.94
443	17.00 - 23.00% of mass 442	14.94 (19.17)

Data File: /chem/MSD6.i/s110909.b/s6k0911.d

Date : 09-NOV-2009 18:00

Client ID: DFTPP

Instrument: MSD6.i

Sample Info: |WBN091101-01|50 PPM|1|SVMF|1|DFTPP

Operator: JHB3

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

Data File: s6k0911.d
Spectrum: Avg. Scans 208-210 (8.32), Background Scan 202
Location of Maximum: 198.00
Number of points: 303

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	8	122.00	2302	198.00	250752	284.00	336
37.00	393	123.00	3695	199.00	17344	285.00	937
38.00	1200	124.00	1621	200.00	1195	286.00	170
39.00	9016	125.00	1448	201.00	1207	289.00	255
40.00	406	126.00	632	203.00	1659	290.00	159
41.00	292	127.00	128832	204.00	8363	292.00	259
45.00	305	128.00	9787	205.00	14289	293.00	1083
49.00	640	129.00	49280	206.00	59576	294.00	255
50.00	29544	130.00	4085	207.00	7878	295.00	324
51.00	113864	131.00	795	208.00	1898	296.00	14712
52.00	5719	132.00	464	209.00	609	297.00	1998
53.00	291	133.00	153	210.00	1016	298.00	48
55.00	556	134.00	1412	211.00	2089	301.00	220
56.00	3212	135.00	3908	213.00	96	302.00	374
57.00	7977	136.00	1509	215.00	674	303.00	1716
58.00	306	137.00	2002	216.00	1188	304.00	518
59.00	43	138.00	459	217.00	14324	308.00	142
60.00	144	139.00	392	218.00	1841	309.00	104
61.00	1384	140.00	751	219.00	194	310.00	127
62.00	1579	141.00	6116	221.00	12869	313.00	98
63.00	4522	142.00	1931	223.00	3368	314.00	758
64.00	592	143.00	1380	224.00	31752	315.00	1571
65.00	2251	144.00	329	225.00	7987	316.00	915
66.00	47	145.00	339	226.00	839	317.00	119
67.00	98	146.00	1032	227.00	12952	321.00	481
68.00	1681	147.00	3100	228.00	1848	322.00	229
69.00	107792	148.00	6347	229.00	2774	323.00	5178
70.00	566	149.00	1410	230.00	478	324.00	998
71.00	154	150.00	411	231.00	1257	327.00	960
73.00	818	151.00	692	232.00	280	328.00	487
74.00	10556	152.00	489	233.00	226	332.00	397
75.00	17208	153.00	1814	234.00	759	333.00	430
76.00	5735	154.00	1411	235.00	1001	334.00	3299
77.00	118792	155.00	3187	236.00	589	335.00	849
78.00	8119	156.00	5061	237.00	1093	341.00	644

Date : 09-NOV-2009 18:00

Client ID: DFTPP Instrument: MSD6.i

Sample Info: |WBN091101-01|50 PPM|1|SVMF|1|DFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5MS Column diameter: 0.20

Data File: s6k0911.d
Spectrum: Avg. Scans 208-210 (8.32), Background Scan 202
Location of Maximum: 198.00
Number of points: 303

m/z	Y	m/z	Y	m/z	Y	m/z	Y
79.00	7616	157.00	1047	238.00	176	342.00	184
80.00	6053	158.00	1005	239.00	483	346.00	1112
81.00	8741	159.00	819	240.00	449	347.00	197
82.00	1932	160.00	1690	241.00	776	351.00	99
83.00	2188	161.00	2737	242.00	1684	352.00	1491
84.00	232	162.00	809	243.00	1819	353.00	1169
85.00	1461	163.00	190	244.00	25832	354.00	1725
86.00	2130	164.00	335	245.00	3598	355.00	318
87.00	1162	165.00	2034	246.00	4786	359.00	103
88.00	449	166.00	1979	247.00	980	365.00	6134
89.00	268	167.00	12360	248.00	210	366.00	872
91.00	1835	168.00	5121	249.00	829	370.00	96
92.00	2163	169.00	1038	250.00	174	371.00	434
93.00	12786	170.00	446	251.00	238	372.00	2651
94.00	908	171.00	470	252.00	289	373.00	754
95.00	251	172.00	1064	253.00	569	383.00	711
96.00	626	173.00	1291	254.00	1047	384.00	258
97.00	236	174.00	2515	255.00	131328	390.00	402
98.00	9808	175.00	4789	256.00	18784	391.00	259
99.00	8032	176.00	1446	257.00	1424	392.00	153
100.00	745	177.00	2269	258.00	6873	401.00	116
101.00	4358	178.00	802	259.00	1148	402.00	1140
102.00	258	179.00	8475	260.00	228	403.00	1594
103.00	1616	180.00	5994	261.00	261	404.00	514
104.00	3096	181.00	2983	264.00	141	405.00	98
105.00	2795	182.00	429	265.00	2620	421.00	1430
106.00	910	183.00	259	266.00	251	422.00	1234
107.00	36184	184.00	679	268.00	180	423.00	10131
108.00	5604	185.00	3929	270.00	163	424.00	2144
109.00	997	186.00	34256	271.00	257	425.00	193
110.00	66656	187.00	9747	272.00	290	436.00	45
111.00	10177	188.00	1146	273.00	3906	437.00	191
112.00	1133	189.00	2105	274.00	10561	438.00	232
113.00	472	190.00	292	275.00	59368	439.00	301
115.00	217	191.00	815	276.00	7957	440.00	309

Data File: /chem/MSD6.i/s110909.b/s6k0911.d

Date : 09-NOV-2009 18:00

Client ID: DFTPP

Instrument: MSD6.i

Sample Info: IWBN091101-01|50 PPM|1|SVMF|1|DFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

Data File: s6k0911.d
Spectrum: Avg. Scans 208-210 (8.32), Background Scan 202
Location of Maximum: 198.00
Number of points: 303

m/z	Y	m/z	Y	m/z	Y	m/z	Y
116.00	1841	192.00	2423	277.00	4641	441.00	27712
117.00	25072	193.00	3008	278.00	676	442.00	195456
118.00	2060	194.00	699	279.00	175	443.00	37472
119.00	345	195.00	448	281.00	87	444.00	3400
120.00	476	196.00	7876	282.00	46	445.00	197
121.00	165	197.00	1433	283.00	505		

Data File: /chem/MSD6.i/s110909.b/s6k0921.d

Page 1

Date : 10-NOV-2009 11:07

Client ID: DFTPP

Instrument: MSD6.i

Sample Info: |WBN091101-01|50 PPM|1|SVMF|1|DFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

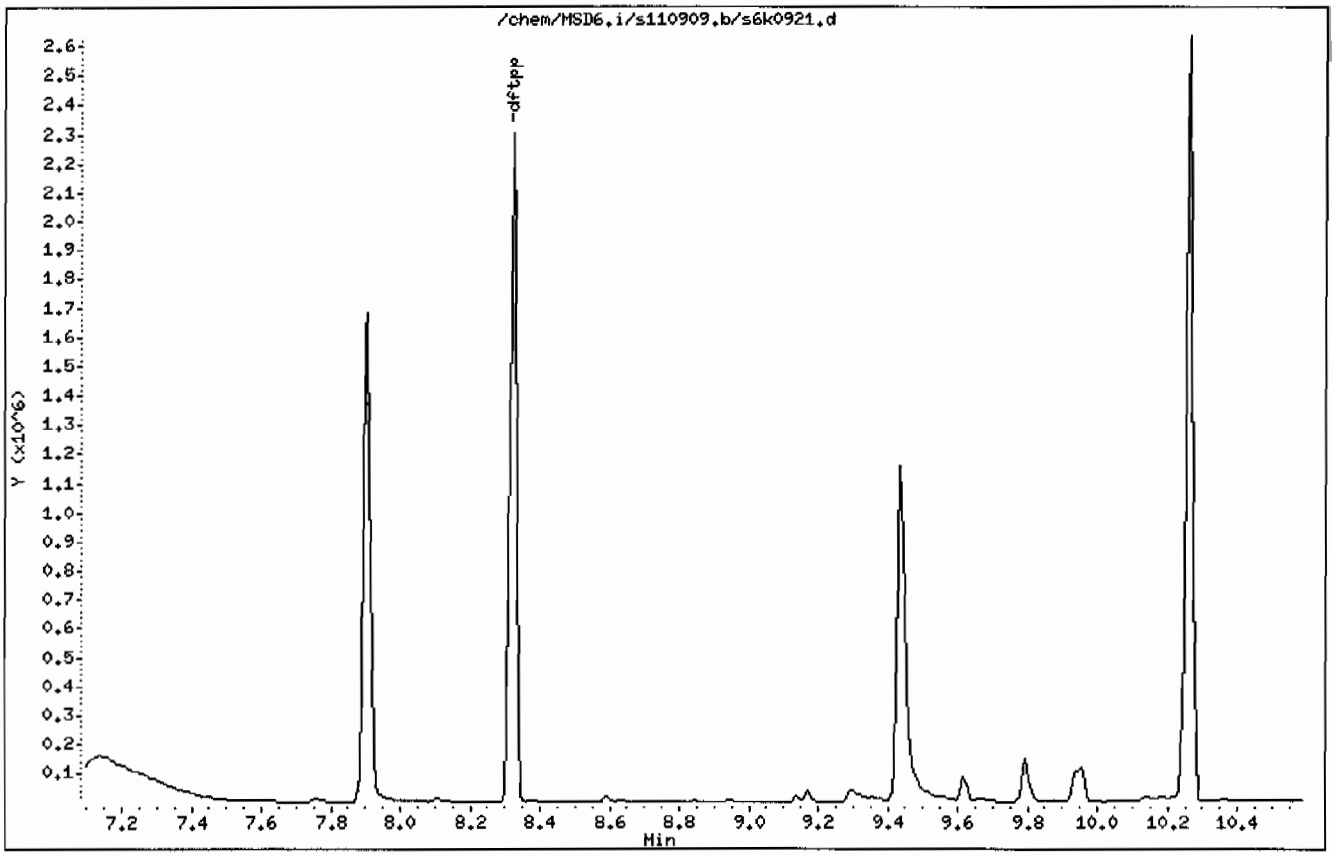

Data File: /chem/MSD6.i/s110909.b/s6k0921.d

Date : 10-NOV-2009 11:07

Client ID: DFTPP

Instrument: MSD6.i

Sample Info: |WBN091101-01|50 PPM|1|SVMF|1|DFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

1 dftpp

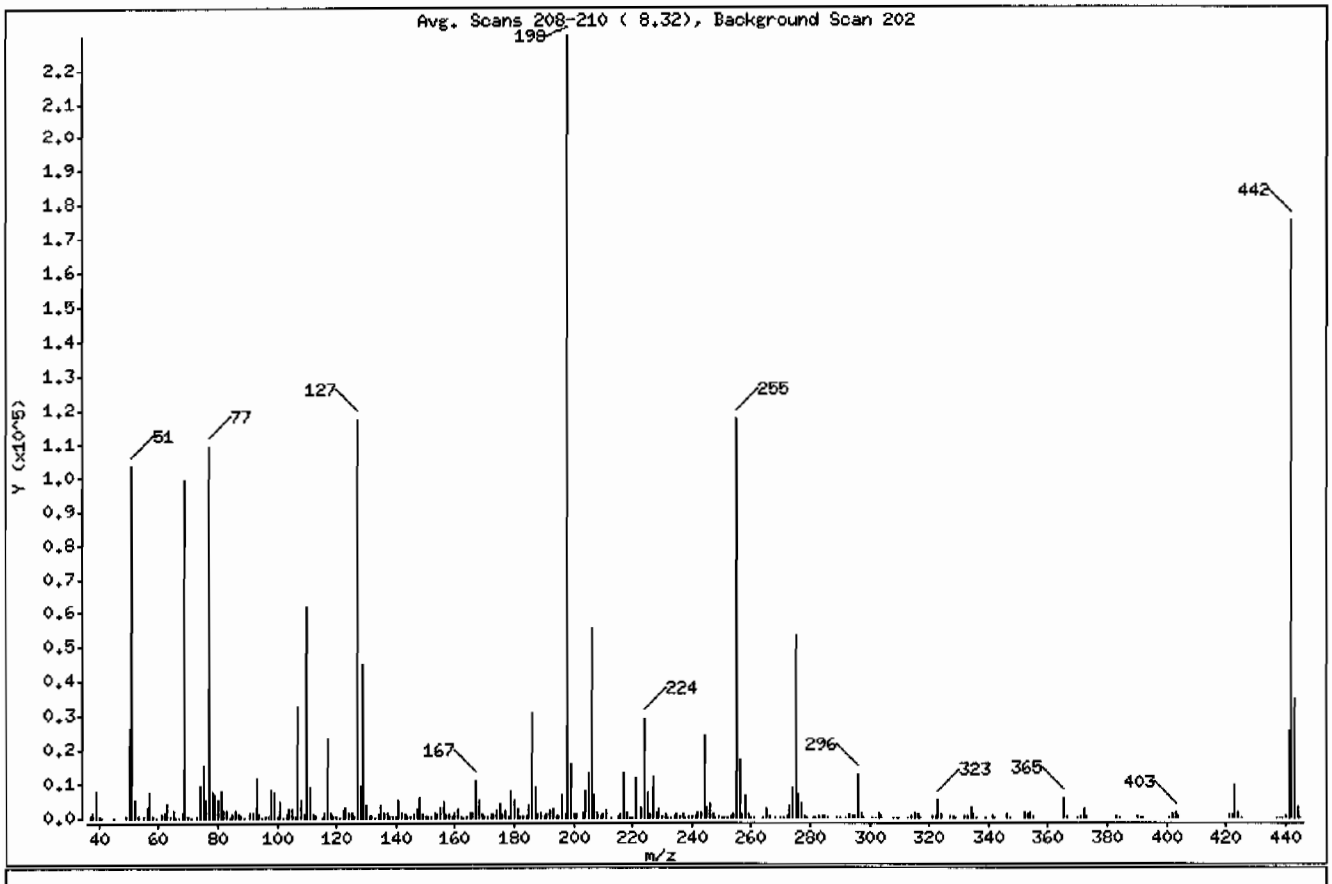

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	45.09
68	Less than 2.00% of mass 69	0.69 (1.59)
69	Mass 69 relative abundance	43.13
70	Less than 2.00% of mass 69	0.21 (0.50)
127	40.00 - 60.00% of mass 198	50.95
197	Less than 1.00% of mass 198	0.38
199	5.00 - 9.00% of mass 198	7.01
275	10.00 - 30.00% of mass 198	23.31
365	Greater than 1.00% of mass 198	2.61
441	Present, but less than mass 443	11.00
442	Greater than 40.00% of mass 198	76.04
443	17.00 - 23.00% of mass 442	15.14 (19.92)

Data File: /chem/MSD6.i/s110909.b/s6k0921.d

Date : 10-NOV-2009 11:07

Client ID: DFTPP

Instrument: MSD6.i

Sample Info: |WBN091101-01|50 PPM|1|SVMF|1|DFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

Data File: s6k0921.d
Spectrum: Avg. Scans 208-210 (8.32), Background Scan 202
Location of Maximum: 198.00
Number of points: 301

m/z	Y	m/z	Y	m/z	Y	m/z	Y
37.00	446	124.00	1597	200.00	1296	285.00	727
38.00	1364	125.00	1527	201.00	1130	286.00	93
39.00	8081	126.00	500	203.00	1398	289.00	109
40.00	429	127.00	117112	204.00	7870	290.00	48
41.00	123	128.00	9305	205.00	12990	292.00	179
45.00	232	129.00	44864	206.00	55704	293.00	996
49.00	676	130.00	3877	207.00	6919	294.00	284
50.00	26328	131.00	762	208.00	1589	295.00	295
51.00	103656	132.00	413	209.00	492	296.00	12743
52.00	5217	133.00	83	210.00	869	297.00	1758
53.00	281	134.00	1179	211.00	2059	298.00	106
55.00	508	135.00	3584	213.00	155	301.00	200
56.00	3141	136.00	1380	215.00	501	302.00	236
57.00	7300	137.00	1770	216.00	1098	303.00	1828
58.00	351	138.00	422	217.00	13179	304.00	578
59.00	89	139.00	313	218.00	1725	308.00	164
61.00	1282	140.00	577	219.00	178	309.00	120
62.00	1522	141.00	5319	220.00	48	310.00	179
63.00	4035	142.00	1826	221.00	11795	313.00	116
64.00	709	143.00	1268	223.00	3181	314.00	633
65.00	2010	144.00	322	224.00	29056	315.00	1462
66.00	201	145.00	315	225.00	7532	316.00	903
67.00	136	146.00	853	226.00	796	317.00	97
68.00	1576	147.00	2856	227.00	12169	321.00	535
69.00	99128	148.00	5895	228.00	1834	322.00	301
70.00	492	149.00	1137	229.00	2389	323.00	5031
71.00	87	150.00	371	230.00	448	324.00	932
73.00	640	151.00	713	231.00	1077	327.00	782
74.00	9704	152.00	430	232.00	217	328.00	460
75.00	15458	153.00	1634	233.00	234	329.00	92
76.00	5031	154.00	1294	234.00	764	332.00	329
77.00	109208	155.00	2977	235.00	895	333.00	541
78.00	7381	156.00	4520	236.00	588	334.00	3026
79.00	6803	157.00	931	237.00	934	335.00	912
80.00	5387	158.00	937	238.00	52	336.00	92

Data File: /chem/MSD6.i/s110909.b/s6k0921.d

Date : 10-NOV-2009 11:07

Client ID: DFTPP

Instrument: MSD6.i

Sample Info: |WBN091101-01|50 PPM|1|SVMF|1|DFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

Data File: s6k0921.d
Spectrum: Avg. Scans 208-210 (8.32), Background Scan 202
Location of Maximum: 198.00
Number of points: 301

m/z	Y	m/z	Y	m/z	Y	m/z	Y
81.00	7979	159.00	792	239.00	457	339.00	88
82.00	2000	160.00	1501	240.00	364	341.00	550
83.00	1851	161.00	2637	241.00	638	342.00	176
84.00	203	162.00	756	242.00	1412	346.00	1020
85.00	1319	163.00	204	243.00	1572	347.00	119
86.00	1985	164.00	328	244.00	24152	352.00	1335
87.00	1000	165.00	1810	245.00	3200	353.00	950
88.00	412	166.00	1695	246.00	4314	354.00	1475
89.00	260	167.00	10891	247.00	844	355.00	296
91.00	1676	168.00	5136	248.00	166	365.00	5995
92.00	1806	169.00	973	249.00	748	366.00	747
93.00	11677	170.00	306	250.00	170	370.00	103
94.00	892	171.00	442	251.00	190	371.00	323
95.00	199	172.00	897	252.00	210	372.00	2543
96.00	636	173.00	1105	253.00	472	373.00	611
97.00	286	174.00	2178	254.00	899	383.00	675
98.00	8556	175.00	4297	255.00	117320	384.00	156
99.00	7312	176.00	1290	256.00	16728	390.00	314
100.00	595	177.00	2105	257.00	1320	391.00	189
101.00	4548	178.00	636	258.00	6484	392.00	157
102.00	251	179.00	8002	259.00	1064	401.00	199
103.00	1289	180.00	5191	260.00	200	402.00	1090
104.00	2626	181.00	2701	261.00	212	403.00	1396
105.00	2533	182.00	448	264.00	192	404.00	427
106.00	724	183.00	312	265.00	2469	421.00	1265
107.00	33008	184.00	599	266.00	401	422.00	1145
108.00	5264	185.00	3797	268.00	43	423.00	9473
109.00	994	186.00	30448	270.00	167	424.00	1846
110.00	61616	187.00	8914	271.00	186	425.00	183
111.00	9026	188.00	970	272.00	329	437.00	54
112.00	1057	189.00	1726	273.00	3492	438.00	170
113.00	367	190.00	298	274.00	9124	439.00	228
115.00	227	191.00	976	275.00	53576	440.00	294
116.00	1610	192.00	2282	276.00	7126	441.00	25272
117.00	23152	193.00	2535	277.00	3970	442.00	174784

Date : 10-NOV-2009 11:07

Client ID: DFTPP Instrument: MSD6.i

Sample Info: |WBN091101-01|50 PPM|1|SVMF|1|DFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5MS Column diameter: 0.20

Data File: s6k0921.d
Spectrum: Avg. Scans 208-210 (8.32), Background Scan 202
Location of Maximum: 198.00
Number of points: 301

m/z	Y	m/z	Y	m/z	Y	m/z	Y
118.00	1681	194.00	518	278.00	653	443.00	34808
119.00	280	195.00	333	279.00	140	444.00	3177
120.00	427	196.00	6863	281.00	140	445.00	129
121.00	176	197.00	878	282.00	42		
122.00	2199	198.00	229824	283.00	507		
123.00	3315	199.00	16104	284.00	294		

Data File: /chem/MSD6.i/s122109.b/s612101.d

Page 1

Date : 21-DEC-2009 11:06

Client ID: DFTPP

Instrument: MSD6.i

Sample Info: IWBN091213-01|50 PPM|1|SVMF|1|DFTPP

Operator: nag1

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

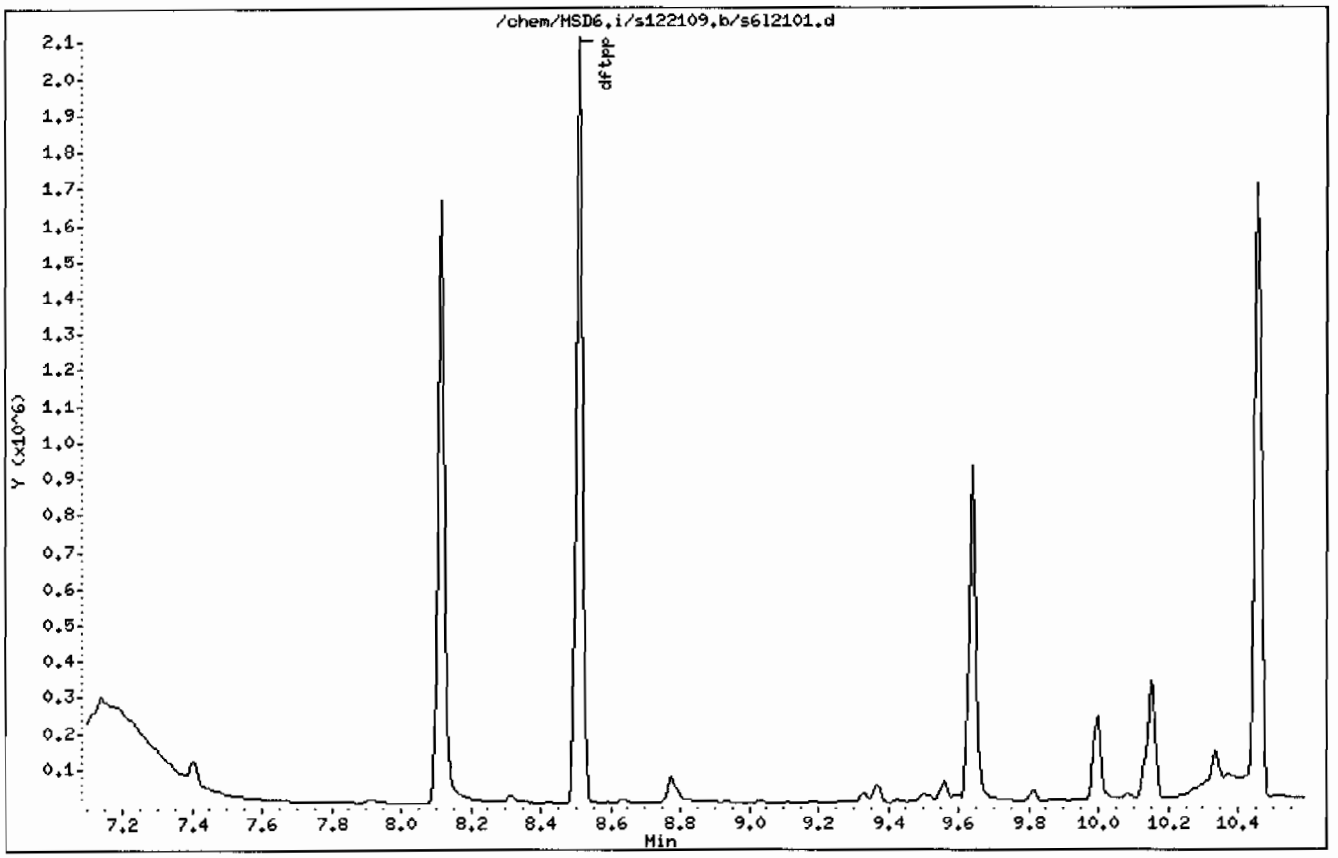

Data File: /chem/MSD6.i/s122109.b/s612101.d

Date : 21-DEC-2009 11:06

Client ID: DFTPP

Instrument: MSD6.i

Sample Info: |WBN091213-01|50 PPM|1|SVMF|1|DFTPP

Operator: nagl

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

1 dftpp

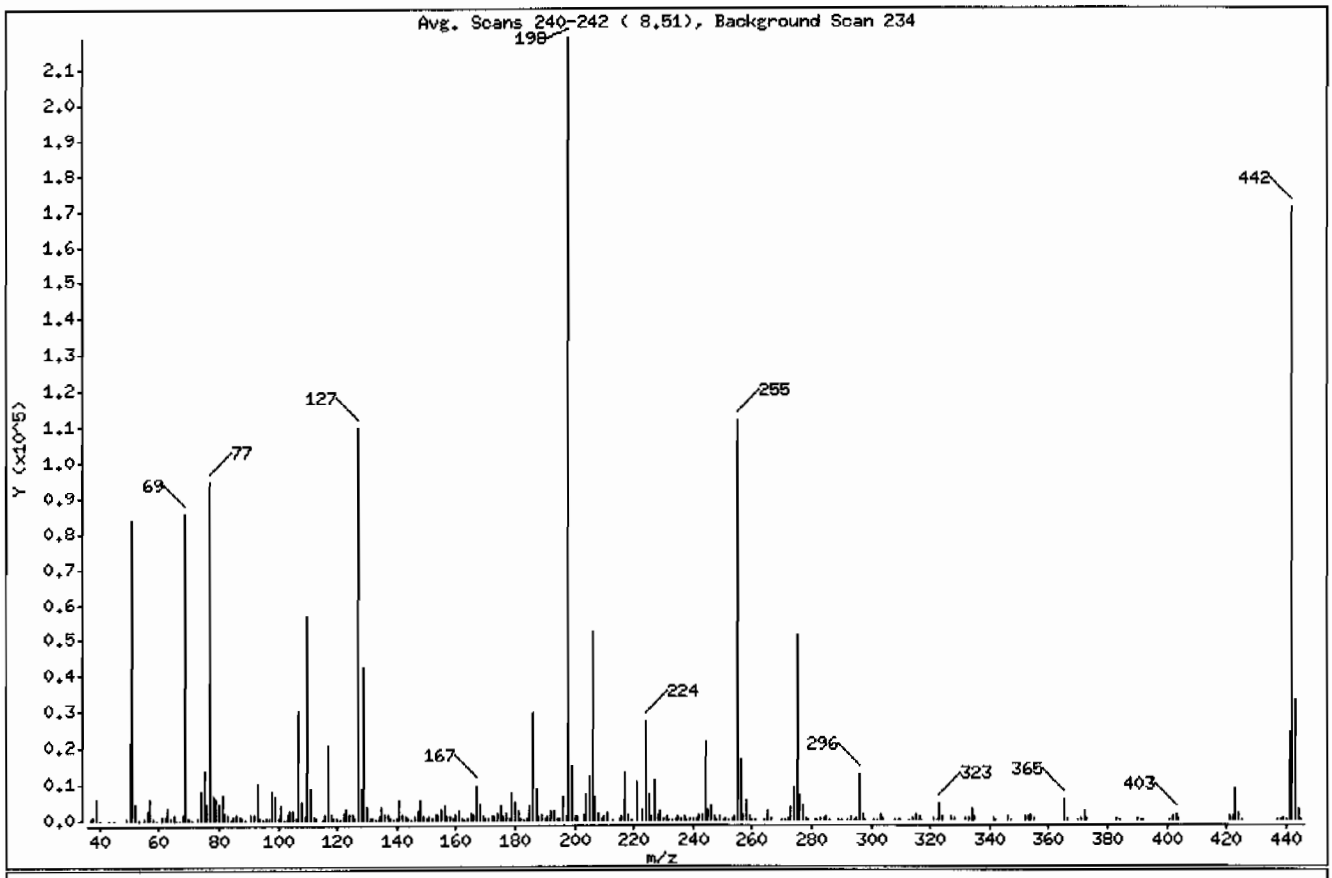

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	38.47
68	Less than 2.00% of mass 69	0.67 (1.71)
69	Mass 69 relative abundance	39.15
70	Less than 2.00% of mass 69	0.21 (0.54)
127	40.00 - 60.00% of mass 198	50.08
197	Less than 1.00% of mass 198	0.52
199	5.00 - 9.00% of mass 198	6.82
275	10.00 - 30.00% of mass 198	23.43
365	Greater than 1.00% of mass 198	2.45
441	Present, but less than mass 443	11.14
442	Greater than 40.00% of mass 198	77.87
443	17.00 - 23.00% of mass 442	15.27 (19.61)

Data File: /chem/MSD6.i/s122109.b/s612101.d

Date : 21-DEC-2009 11:06

Client ID: DFTPP

Instrument: MSD6.i

Sample Info: |WBN091213-01|50 PPM|1|SVMF|1|DFTPP

Operator: nag1

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

Data File: s612101.d
Spectrum: Avg. Scans 240-242 (8.51), Background Scan 234
Location of Maximum: 198.00
Number of points: 296

m/z	Y	m/z	Y	m/z	Y	m/z	Y
37.00	353	123.00	3210	198.00	218560	284.00	323
38.00	877	124.00	1280	199.00	14910	285.00	801
39.00	6190	125.00	1264	200.00	1177	286.00	103
40.00	243	126.00	448	201.00	1109	289.00	97
43.00	45	127.00	109472	203.00	1367	290.00	99
45.00	138	128.00	8459	204.00	7032	292.00	187
49.00	586	129.00	42216	205.00	12011	293.00	889
50.00	21784	130.00	3551	206.00	52264	294.00	210
51.00	84104	131.00	717	207.00	6555	295.00	284
52.00	4394	132.00	380	208.00	1782	296.00	12414
53.00	251	133.00	79	209.00	631	297.00	1717
55.00	357	134.00	1219	210.00	785	298.00	169
56.00	2501	135.00	3519	211.00	1870	301.00	170
57.00	6060	136.00	1390	213.00	179	302.00	246
58.00	292	137.00	1560	215.00	581	303.00	1652
59.00	49	138.00	370	216.00	1062	304.00	404
61.00	1049	139.00	196	217.00	12827	308.00	180
62.00	1225	140.00	548	218.00	1572	309.00	43
63.00	3404	141.00	5484	219.00	191	310.00	181
64.00	456	142.00	1658	221.00	10760	313.00	44
65.00	1717	143.00	1182	223.00	2764	314.00	647
66.00	170	144.00	319	224.00	27240	315.00	1555
67.00	152	145.00	247	225.00	7041	316.00	964
68.00	1463	146.00	863	226.00	831	317.00	43
69.00	85568	147.00	2572	227.00	11079	321.00	450
70.00	461	148.00	5530	228.00	1641	322.00	190
71.00	170	149.00	1221	229.00	2336	323.00	4364
73.00	588	150.00	329	230.00	374	324.00	865
74.00	8241	151.00	764	231.00	1045	327.00	796
75.00	13421	152.00	462	232.00	182	328.00	463
76.00	4345	153.00	1600	233.00	196	332.00	315
77.00	94464	154.00	1310	234.00	688	333.00	366
78.00	6506	155.00	2792	235.00	845	334.00	2920
79.00	6134	156.00	4204	236.00	546	335.00	822
80.00	4519	157.00	817	237.00	1008	341.00	591

Data File: /chem/MSD6.i/s122109.b/s612101.d

Date : 21-DEC-2009 11:06

Client ID: DFTPP

Instrument: MSD6.i

Sample Info: |WBN091213-01|50 PPM|1|SVMF|1|DFTPP

Operator: nag1

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

Data File: s612101.d
Spectrum: Avg. Scans 240-242 (8.51), Background Scan 234
Location of Maximum: 198.00
Number of points: 296

m/z	Y	m/z	Y	m/z	Y	m/z	Y
81.00	6959	158.00	947	238.00	46	342.00	215
82.00	1778	159.00	695	239.00	543	346.00	845
83.00	1678	160.00	1502	240.00	334	347.00	186
84.00	218	161.00	2351	241.00	631	352.00	1254
85.00	1227	162.00	630	242.00	1486	353.00	900
86.00	1758	163.00	206	243.00	1554	354.00	1369
87.00	889	164.00	283	244.00	21672	355.00	272
88.00	387	165.00	1786	245.00	2940	365.00	5357
89.00	230	166.00	1548	246.00	3978	366.00	718
91.00	1689	167.00	9602	247.00	859	370.00	86
92.00	1610	168.00	4419	248.00	164	371.00	328
93.00	10270	169.00	860	249.00	806	372.00	2357
94.00	734	170.00	330	250.00	168	373.00	641
95.00	115	171.00	394	251.00	258	383.00	572
96.00	544	172.00	885	252.00	179	384.00	180
97.00	259	173.00	1232	253.00	460	390.00	330
98.00	8071	174.00	1969	254.00	839	391.00	222
99.00	6515	175.00	4047	255.00	111456	392.00	195
100.00	510	176.00	1162	256.00	16520	401.00	153
101.00	4001	177.00	1932	257.00	1268	402.00	968
102.00	215	178.00	611	258.00	5749	403.00	1385
103.00	1284	179.00	7464	259.00	920	404.00	452
104.00	2409	180.00	5141	260.00	165	421.00	1209
105.00	2267	181.00	2434	261.00	164	422.00	1088
106.00	646	182.00	396	264.00	148	423.00	8666
107.00	30352	183.00	250	265.00	2417	424.00	1770
108.00	4787	184.00	585	266.00	304	425.00	174
109.00	811	185.00	3802	270.00	165	437.00	90
110.00	56872	186.00	29528	271.00	207	438.00	116
111.00	8567	187.00	8623	272.00	328	439.00	290
112.00	1031	188.00	819	273.00	3445	440.00	225
113.00	278	189.00	1735	274.00	8989	441.00	24360
115.00	165	190.00	264	275.00	51224	442.00	170176
116.00	1431	191.00	843	276.00	6908	443.00	33384
117.00	20600	192.00	2264	277.00	4129	444.00	3079

Data File: /chem/MSD6.i/s122109.b/s612101.d

Date : 21-DEC-2009 11:06

Client ID: DFTPP

Instrument: MSD6.i

Sample Info: |WBN091213-01|50 PPM|1|SVMF|1|DFTPP

Operator: nag1

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

Data File: s612101.d
Spectrum: Avg. Scans 240-242 (8.51), Background Scan 234
Location of Maximum: 198.00
Number of points: 296

m/z	Y	m/z	Y	m/z	Y	m/z	Y
118.00	1606	193.00	2450	278.00	599	445.00	115
119.00	283	194.00	615	279.00	151		
120.00	372	195.00	318	281.00	36		
121.00	173	196.00	6538	282.00	98		
122.00	1869	197.00	1139	283.00	535		

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-917**			**Matrix:**	**SOIL**
Lab Sample ID:	**1201997920**				
Client Sample:	**QC for batch 933805**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 933805**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**933806**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**12/21/2009 13:39**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/18/2009 09:12**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**s6l2107.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	333	ug/kg	66.7	333
108-95-2	Phenol	U	333	ug/kg	66.7	333
95-57-8	2-Chlorophenol	U	333	ug/kg	66.7	333
106-46-7	1,4-Dichlorobenzene	U	333	ug/kg	66.7	333
621-64-7	N-Nitrosodipropylamine	U	333	ug/kg	66.7	333
59-50-7	4-Chloro-3-methylphenol	U	333	ug/kg	66.7	333
83-32-9	Acenaphthene	U	33.3	ug/kg	11.0	33.3
121-14-2	2,4-Dinitrotoluene	U	333	ug/kg	33.3	333
100-02-7	4-Nitrophenol	U	333	ug/kg	110	333
87-86-5	Pentachlorophenol	U	333	ug/kg	83.3	333
129-00-0	Pyrene	U	33.3	ug/kg	10.0	33.3
110-86-1	Pyridine	U	333	ug/kg	66.7	333
62-53-3	Aniline	U	333	ug/kg	100	333
111-44-4	bis(2-Chloroethyl) ether	U	333	ug/kg	66.7	333
541-73-1	1,3-Dichlorobenzene	U	333	ug/kg	66.7	333
100-51-6	Benzyl alcohol	U	333	ug/kg	100	333
95-50-1	1,2-Dichlorobenzene	U	333	ug/kg	66.7	333
108-60-1	bis(2-Chloroisopropyl)ether	U	333	ug/kg	66.7	333
95-48-7	o-Cresol	U	333	ug/kg	66.7	333
65794-96-9	m,p-Cresols	U	333	ug/kg	100	333
67-72-1	Hexachloroethane	U	333	ug/kg	66.7	333
98-95-3	Nitrobenzene	U	333	ug/kg	66.7	333
78-59-1	Isophorone	U	333	ug/kg	66.7	333
88-75-5	2-Nitrophenol	U	333	ug/kg	66.7	333
105-67-9	2,4-Dimethylphenol	U	333	ug/kg	117	333
111-91-1	bis(2-Chloroethoxy)methane	U	333	ug/kg	66.7	333
120-83-2	2,4-Dichlorophenol	U	333	ug/kg	66.7	333
65-85-0	Benzoic acid	U	667	ug/kg	167	667
91-20-3	Naphthalene	U	33.3	ug/kg	10.0	33.3
106-47-8	4-Chloroaniline	U	333	ug/kg	66.7	333
87-68-3	Hexachlorobutadiene	U	333	ug/kg	66.7	333
91-57-6	2-Methylnaphthalene	U	33.3	ug/kg	6.67	33.3
77-47-4	Hexachlorocyclopentadiene	U	333	ug/kg	66.7	333
88-06-2	2,4,6-Trichlorophenol	U	333	ug/kg	66.7	333
95-95-4	2,4,5-Trichlorophenol	U	333	ug/kg	66.7	333
91-58-7	2-Chloronaphthalene	U	33.3	ug/kg	11.0	33.3
88-74-4	2-Nitroaniline	U	333	ug/kg	66.7	333
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	333	ug/kg	66.7	333

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-917			Matrix:	SOIL
Lab Sample ID:	1201997920				
Client Sample:	QC for batch 933805	Client:	LANL010	Project:	QC
Client ID:	MB for batch 933805	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	933806	Inst:	MSD6.I	Dilution:	1
Run Date:	12/21/2009 13:39	Analyst:	NAG1	Inj. Vol:	.5 uL
Prep Date:	12/18/2009 09:12	Aliquot:	30 g	Final Volume:	1 mL
Data File:	s6l2107.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	333	ug/kg	66.7	333
606-20-2	2,6-Dinitrotoluene	U	333	ug/kg	33.3	333
208-96-8	Acenaphthylene	U	33.3	ug/kg	10.0	33.3
51-28-5	2,4-Dinitrophenol	U	667	ug/kg	127	667
132-64-9	Dibenzofuran	U	333	ug/kg	66.7	333
84-66-2	Diethylphthalate	U	333	ug/kg	66.7	333
86-73-7	Fluorene	U	33.3	ug/kg	10.0	33.3
7005-72-3	4-Chlorophenylphenylether	U	333	ug/kg	66.7	333
534-52-1	2-Methyl-4,6-dinitrophenol	U	333	ug/kg	66.7	333
100-01-6	4-Nitroaniline	U	333	ug/kg	100	333
	p-Nitroaniline					
122-39-4	Diphenylamine	U	333	ug/kg	66.7	333
122-66-7	Azobenzene	U	333	ug/kg	66.7	333
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	333	ug/kg	66.7	333
118-74-1	Hexachlorobenzene	U	333	ug/kg	66.7	333
85-01-8	Phenanthrene	U	33.3	ug/kg	10.0	33.3
120-12-7	Anthracene	U	33.3	ug/kg	6.67	33.3
84-74-2	Di-n-butylphthalate	U	333	ug/kg	66.7	333
206-44-0	Fluoranthene	U	33.3	ug/kg	10.0	33.3
85-68-7	Butylbenzylphthalate	U	333	ug/kg	66.7	333
56-55-3	Benzo(a)anthracene	U	33.3	ug/kg	10.0	33.3
91-94-1	3,3'-Dichlorobenzidine	U	333	ug/kg	100	333
218-01-9	Chrysene	U	33.3	ug/kg	10.0	33.3
117-81-7	bis(2-Ethylhexyl)phthalate	U	333	ug/kg	66.7	333
117-84-0	Di-n-octylphthalate	U	333	ug/kg	66.7	333
205-99-2	Benzo(b)fluoranthene	U	33.3	ug/kg	10.0	33.3
207-08-9	Benzo(k)fluoranthene	U	33.3	ug/kg	10.0	33.3
50-32-8	Benzo(a)pyrene	U	33.3	ug/kg	10.0	33.3
193-39-5	Indeno(1,2,3-cd)pyrene	U	33.3	ug/kg	10.0	33.3
53-70-3	Dibenzo(a,h)anthracene	U	33.3	ug/kg	10.0	33.3
191-24-2	Benzo(ghi)perylene	U	33.3	ug/kg	10.0	33.3
120-82-1	1,2,4-Trichlorobenzene	U	333	ug/kg	66.7	333

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	2.39	758	ug/kg		J
	Unknown Aldol Condensate	3.62	586	ug/kg		JA

GEL Laboratories LLC

Data file : /chem/MSD6.i/s122109.b/s612107.d
Lab Smp Id: 1201997920 Client Smp ID: SBLK01
Inj Date : 21-DEC-2009 13:39
Operator : nagl Inst ID: MSD6.i
Smp Info : |1201997920|933806|1|SVMF|1|SBLK01
Misc Info : |MSD8270_S|WBN091208-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s122109.b/MSD6-M8270C-AQA-110909.m
Meth Date : 22-Dec-2009 11:21 nat00999 Quant Type: ISTD
Cal Date : 11-NOV-2009 04:38 Cal File: s6k0954.d
Als bottle: 7 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-917.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	0.00000	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	5.017	5.025	(1.000)	251616	40.0000	
* 29 Naphthalene-d8	136	6.299	6.309	(1.000)	967158	40.0000	
* 46 Acenaphthene-d10	164	8.179	8.187	(1.000)	547984	40.0000	
* 67 Phenanthrene-d10	188	9.797	9.802	(1.000)	907290	40.0000	
* 91 Chrysene-d12	240	12.873	12.885	(1.000)	690552	40.0000	
* 98 Perylene-d12	264	15.309	15.324	(1.000)	571015	40.0000	
$ 3 2-Fluorophenol	112	3.865	3.860	(0.770)	404548	64.2035	2140
$ 5 Phenol-d5	99	4.635	4.645	(0.924)	525628	66.0938	2200
$ 20 Nitrobenzene-d5	82	5.552	5.565	(0.881)	215495	31.4976	1050
$ 39 2-Fluorobiphenyl	172	7.428	7.435	(0.908)	457175	32.3733	1080
$ 60 2,4,6-Tribromophenol	329	9.033	9.040	(1.104)	118014	73.7856	2460
$ 81 p-Terphenyl-d14	244	11.502	11.507	(0.894)	464883	41.7448	1390

GEL Laboratories LLC

Data file : /chem/MSD6.i/s122109.b/s612107.d
Lab Smp Id: 1201997920 Client Smp ID: SBLK01
Inj Date : 21-DEC-2009 13:39
Operator : nag1 Inst ID: MSD6.i
Smp Info : |1201997920|933806|1|SVMF|1|SBLK01
Misc Info : |MSD8270_S|WBN091208-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s122109.b/MSD6-M8270C-AQA-110909.m
Meth Date : 22-Dec-2009 11:21 nat00999 Quant Type: ISTD
Cal Date : 11-NOV-2009 04:38 Cal File: s6k0954.d
Als bottle: 7 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-917.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	0.00000	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	5.017	1467841	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown				CAS #:			
2.387	834168	22.7318166	758	0		0	10
Unknown Aldol Condensate				CAS #:			
3.618	645567	17.5922752	586	0		0	10

Data File: /chem/MSD6.i/s122109.b/s612107.d
Date : 21-DEC-2009 13:39
Client ID: SBLK01
Sample Info: |1201997920193380611|SVMF|1|SBLK01
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Page 1

Instrument: MSD6.i

Operator: nag1
Column diameter: 0.20

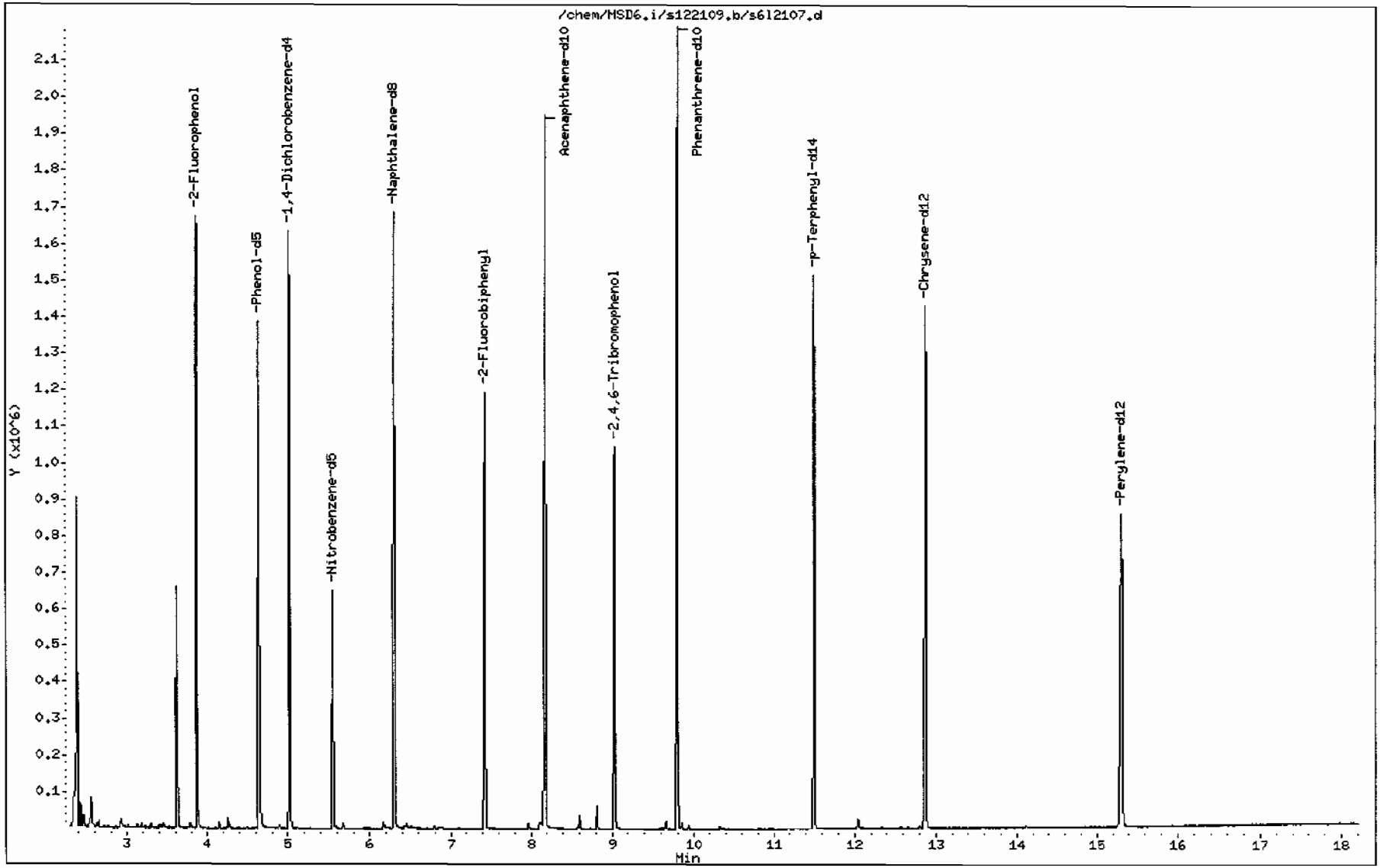

Data File: /chem/MSD6.i/s122109.b/s612107.d

Date : 21-DEC-2009 13:39

Client ID: SBLK01

Instrument: MSD6.i

Sample Info: |1201997920193380611|SVMF11|SBLK01

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Propane, 2,2-dimethoxy-	77-76-9	NIST05.L	4662	56	C5H12O2	104
Propane, 2,2-dimethoxy-	77-76-9	NIST05.L	4663	38	C5H12O2	104
Propanoic acid, 2-methyl-, propyl ester	644-49-5	NIST05.L	13119	16	C7H14O2	130

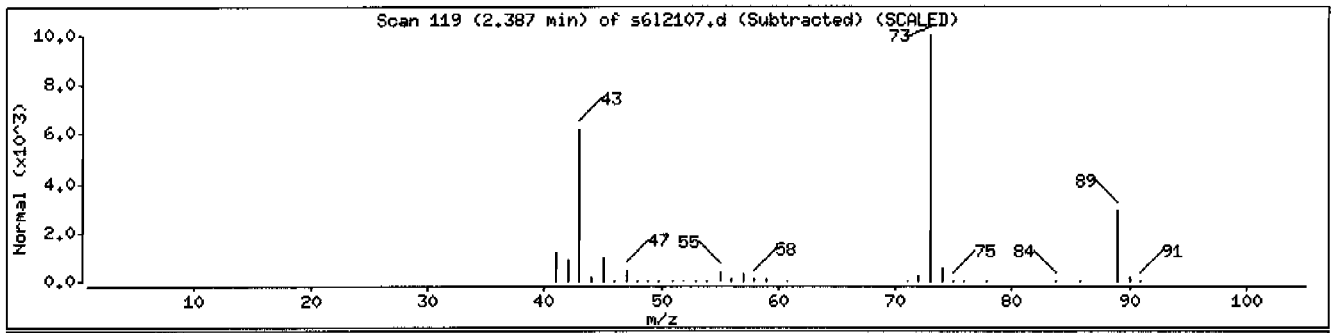

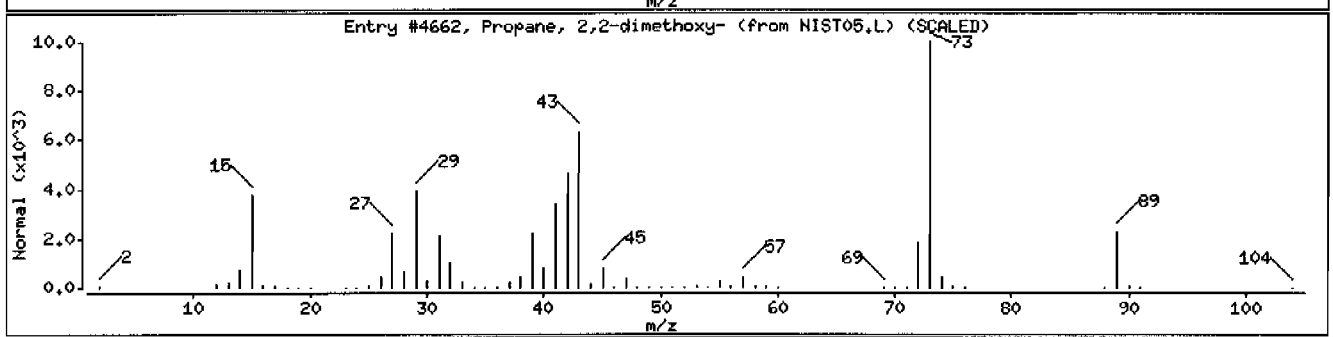

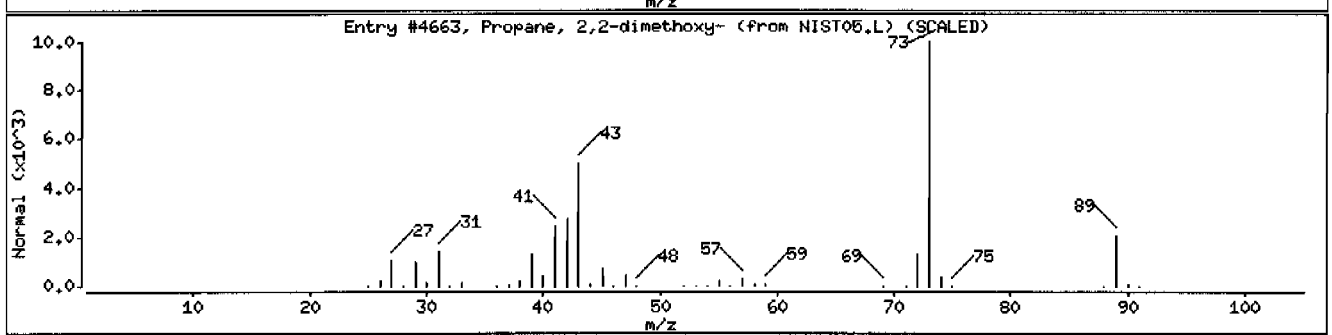

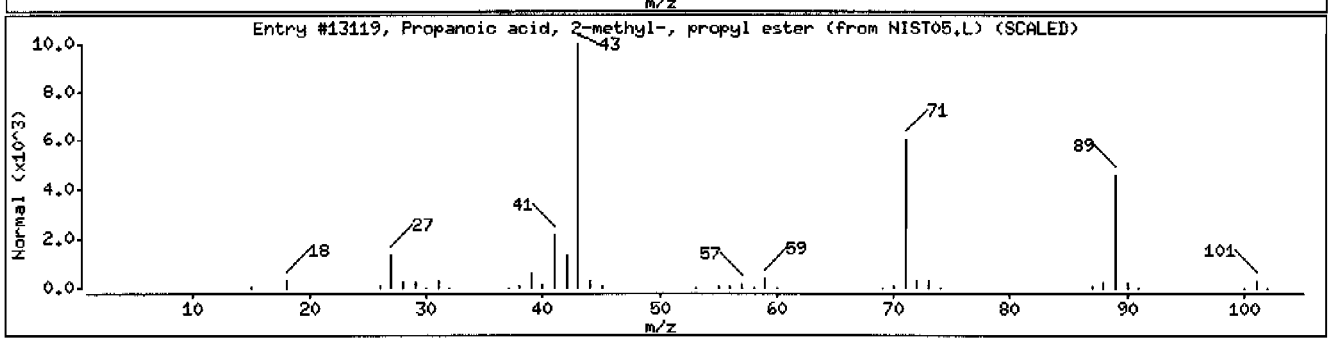

Data File: /chem/MSD6.i/s122109.b/s612107.d

Date : 21-DEC-2009 13:39

Client ID: SBLK01 Instrument: MSD6.i

Sample Info: !120199792019338061!!SVMF!1!SBLK01

Volume Injected (uL): 0.5 Operator: nag1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7945	59	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	56	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	38	C6H12O2	116

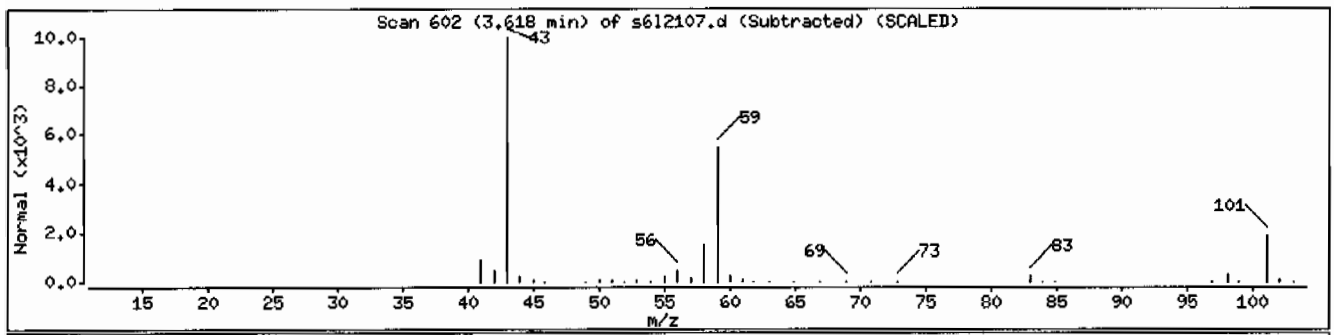

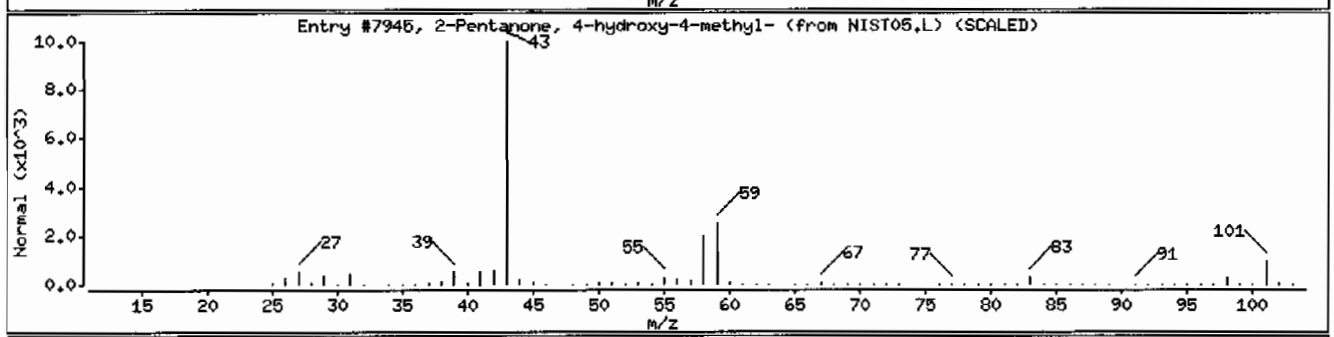

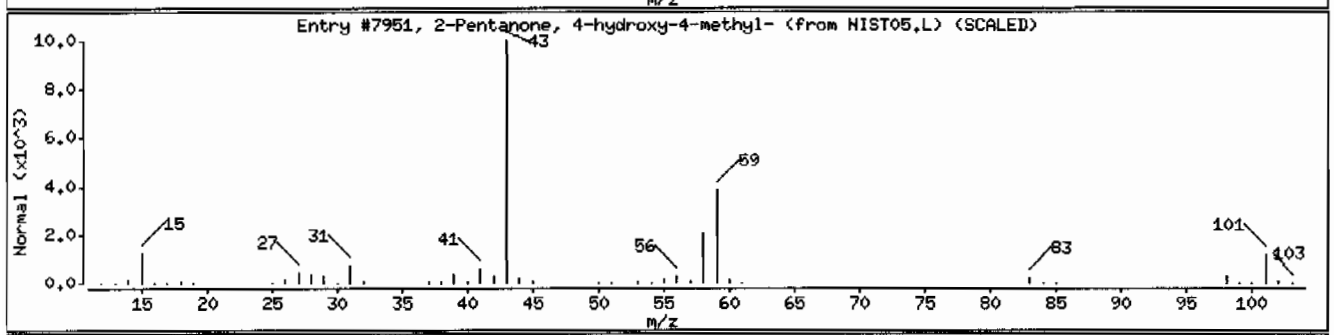

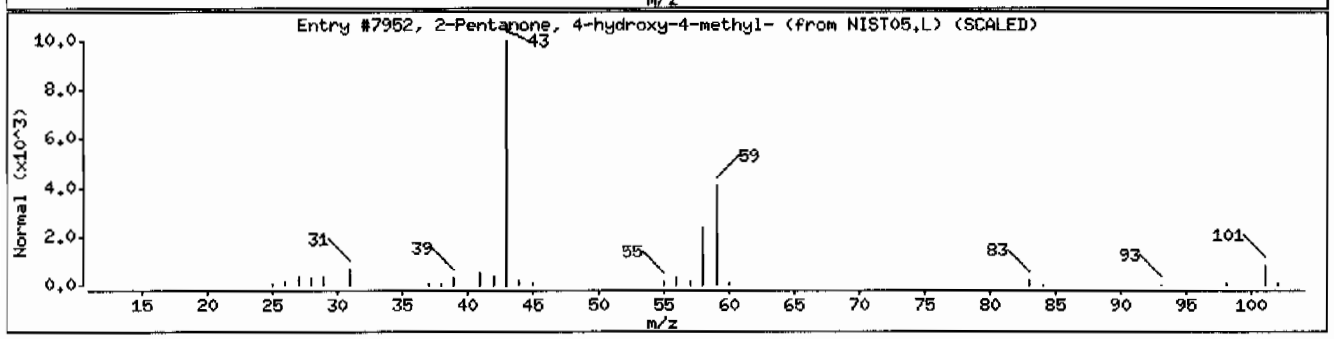

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-917**			**Matrix:**	**SOIL**
Lab Sample ID:	**1201997921**				
Client Sample:	**QC for batch 933805**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 933805**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**933806**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**12/21/2009 14:07**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/18/2009 09:12**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**s6l2108.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine		935	ug/kg	66.7	333
108-95-2	Phenol		1220	ug/kg	66.7	333
95-57-8	2-Chlorophenol		1220	ug/kg	66.7	333
106-46-7	1,4-Dichlorobenzene		1010	ug/kg	66.7	333
621-64-7	N-Nitrosodipropylamine		1190	ug/kg	66.7	333
59-50-7	4-Chloro-3-methylphenol		1330	ug/kg	66.7	333
83-32-9	Acenaphthene		1180	ug/kg	11.0	33.3
121-14-2	2,4-Dinitrotoluene		1240	ug/kg	33.3	333
100-02-7	4-Nitrophenol		1140	ug/kg	110	333
87-86-5	Pentachlorophenol		1230	ug/kg	83.3	333
129-00-0	Pyrene		1140	ug/kg	10.0	33.3
110-86-1	Pyridine		912	ug/kg	66.7	333
62-53-3	Aniline		1090	ug/kg	100	333
111-44-4	bis(2-Chloroethyl) ether		1060	ug/kg	66.7	333
541-73-1	1,3-Dichlorobenzene		1020	ug/kg	66.7	333
100-51-6	Benzyl alcohol		1200	ug/kg	100	333
95-50-1	1,2-Dichlorobenzene		1060	ug/kg	66.7	333
108-60-1	bis(2-Chloroisopropyl)ether		1110	ug/kg	66.7	333
95-48-7	o-Cresol		1170	ug/kg	66.7	333
65794-96-9	m,p-Cresols		1320	ug/kg	100	333
67-72-1	Hexachloroethane		968	ug/kg	66.7	333
98-95-3	Nitrobenzene		1170	ug/kg	66.7	333
78-59-1	Isophorone		1200	ug/kg	66.7	333
88-75-5	2-Nitrophenol		1250	ug/kg	66.7	333
105-67-9	2,4-Dimethylphenol		1310	ug/kg	117	333
111-91-1	bis(2-Chloroethoxy)methane		1180	ug/kg	66.7	333
120-83-2	2,4-Dichlorophenol		1310	ug/kg	66.7	333
65-85-0	Benzoic acid		2990	ug/kg	167	667
91-20-3	Naphthalene		1100	ug/kg	10.0	33.3
106-47-8	4-Chloroaniline		1180	ug/kg	66.7	333
87-68-3	Hexachlorobutadiene		1160	ug/kg	66.7	333
91-57-6	2-Methylnaphthalene		1290	ug/kg	6.67	33.3
77-47-4	Hexachlorocyclopentadiene		803	ug/kg	66.7	333
88-06-2	2,4,6-Trichlorophenol		1250	ug/kg	66.7	333
95-95-4	2,4,5-Trichlorophenol		1290	ug/kg	66.7	333
91-58-7	2-Chloronaphthalene		1150	ug/kg	11.0	33.3
88-74-4	2-Nitroaniline *o-Nitroaniline*		1080	ug/kg	66.7	333
99-09-2	3-Nitroaniline		1260	ug/kg	66.7	333

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-917**			**Matrix:**	**SOIL**
Lab Sample ID:	**1201997921**				
Client Sample:	**QC for batch 933805**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 933805**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**933806**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**12/21/2009 14:07**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/18/2009 09:12**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**s612108.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate		1220	ug/kg	66.7	333
606-20-2	2,6-Dinitrotoluene		1210	ug/kg	33.3	333
208-96-8	Acenaphthylene		1220	ug/kg	10.0	33.3
51-28-5	2,4-Dinitrophenol		1280	ug/kg	127	667
132-64-9	Dibenzofuran		1490	ug/kg	66.7	333
84-66-2	Diethylphthalate		1240	ug/kg	66.7	333
86-73-7	Fluorene		1240	ug/kg	10.0	33.3
7005-72-3	4-Chlorophenylphenylether		1290	ug/kg	66.7	333
534-52-1	2-Methyl-4,6-dinitrophenol		1160	ug/kg	66.7	333
100-01-6	4-Nitroaniline		1370	ug/kg	100	333
	p-Nitroaniline					
122-39-4	Diphenylamine		1240	ug/kg	66.7	333
122-66-7	Azobenzene		1210	ug/kg	66.7	333
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether		1250	ug/kg	66.7	333
118-74-1	Hexachlorobenzene		1220	ug/kg	66.7	333
85-01-8	Phenanthrene		1200	ug/kg	10.0	33.3
120-12-7	Anthracene		1240	ug/kg	6.67	33.3
84-74-2	Di-n-butylphthalate		1300	ug/kg	66.7	333
206-44-0	Fluoranthene		1300	ug/kg	10.0	33.3
85-68-7	Butylbenzylphthalate		1300	ug/kg	66.7	333
56-55-3	Benzo(a)anthracene		1230	ug/kg	10.0	33.3
91-94-1	3,3'-Dichlorobenzidine		1080	ug/kg	100	333
218-01-9	Chrysene		1220	ug/kg	10.0	33.3
117-81-7	bis(2-Ethylhexyl)phthalate		1250	ug/kg	66.7	333
117-84-0	Di-n-octylphthalate		1210	ug/kg	66.7	333
205-99-2	Benzo(b)fluoranthene		1250	ug/kg	10.0	33.3
207-08-9	Benzo(k)fluoranthene		1250	ug/kg	10.0	33.3
50-32-8	Benzo(a)pyrene		1320	ug/kg	10.0	33.3
193-39-5	Indeno(1,2,3-cd)pyrene		1320	ug/kg	10.0	33.3
53-70-3	Dibenzo(a,h)anthracene		1320	ug/kg	10.0	33.3
191-24-2	Benzo(ghi)perylene		1390	ug/kg	10.0	33.3
120-82-1	1,2,4-Trichlorobenzene		1130	ug/kg	66.7	333

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Data file : /chem/MSD6.i/s122109.b/s612108.d
Lab Smp Id: 1201997921 Client Smp ID: SBLK01LCS
Inj Date : 21-DEC-2009 14:07
Operator : nagl Inst ID: MSD6.i
Smp Info : |1201997921|933806|1|SVMF|1|SBLK01LCS
Misc Info : |MSD8270_S|WBN091208-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s122109.b/MSD6-M8270C-AQA-110909.m
Meth Date : 22-Dec-2009 11:21 nat00999 Quant Type: ISTD
Cal Date : 11-NOV-2009 04:38 Cal File: s6k0954.d
Als bottle: 8 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-917.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	0.00000	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	5.014	5.025	(1.000)	228399	40.0000	
* 29 Naphthalene-d8	136	6.304	6.309	(1.000)	909997	40.0000	
* 46 Acenaphthene-d10	164	8.182	8.187	(1.000)	497258	40.0000	
* 67 Phenanthrene-d10	188	9.800	9.802	(1.000)	877283	40.0000	
* 91 Chrysene-d12	240	12.880	12.885	(1.000)	744195	40.0000	
* 98 Perylene-d12	264	15.316	15.324	(1.000)	655387	40.0000	
$ 3 2-Fluorophenol	112	3.865	3.860	(0.771)	399830	69.9049	2330
$ 5 Phenol-d5	99	4.642	4.645	(0.926)	506415	70.1508	2340
$ 20 Nitrobenzene-d5	82	5.560	5.565	(0.882)	226509	35.1871	1170
$ 39 2-Fluorobiphenyl	172	7.433	7.435	(0.908)	462326	36.0777	1200
$ 60 2,4,6-Tribromophenol	329	9.038	9.040	(1.105)	125074	86.1770	2870
$ 81 p-Terphenyl-d14	244	11.502	11.507	(0.893)	477247	39.7660	1320

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
6 Phenol	94	4.655	4.658	(0.928)	265663	36.6003	1220(Q)
8 2-Chlorophenol	128	4.828	4.833	(0.963)	213514	36.6208	1220
11 1,4-Dichlorobenzene	146	5.032	5.040	(1.004)	206000	30.2758	1010
17 N-Nitrosodipropylamine	70	5.387	5.392	(1.074)	144610	35.7380	1190(Q)
28 1,2,4-Trichlorobenzene	180	6.235	6.240	(0.989)	187107	33.8995	1130
33 4-Chloro-3-methylphenol	107	6.872	6.869	(1.090)	181220	39.9155	1330
47 Acenaphthene	154	8.217	8.222	(1.004)	396302	35.3617	1180
50 2,4-Dinitrotoluene	165	8.368	8.373	(1.023)	143065	37.2896	1240
52 4-Nitrophenol	139	8.327	8.322	(1.018)	67085	34.0700	1140
65 Pentachlorophenol	266	9.583	9.586	(0.978)	68976	36.9338	1230
79 Pyrene	202	11.369	11.374	(0.883)	697247	34.0632	1140
2 Pyridine	79	2.951	2.907	(0.588)	132369	27.3511	912
4 Aniline	66	4.701	4.711	(0.937)	98203	32.6025	1090
7 bis(2-Chloroethyl) ether	63	4.734	4.747	(0.944)	156928	31.9271	1060
9 1,3-Dichlorobenzene	146	4.964	4.974	(0.990)	205751	30.6539	1020
12 Benzyl alcohol	108	5.134	5.137	(1.024)	130097	35.9166	1200
13 1,2-Dichlorobenzene	146	5.183	5.190	(1.034)	202088	31.8186	1060
14 bis(2-Chloroisopropyl)ether	45	5.244	5.254	(1.046)	366606	33.4081	1110
15 o-Cresol	107	5.236	5.231	(1.044)	166103	34.9897	1170
18 m,p-Cresols	107	5.376	5.384	(1.072)	237377	39.4627	1320
19 Hexachloroethane	117	5.519	5.527	(1.101)	76459	29.0466	968
21 Nitrobenzene	77	5.580	5.588	(0.885)	226886	34.9697	1160
22 Isophorone	82	5.812	5.820	(0.922)	415459	36.1255	1200
23 2-Nitrophenol	139	5.899	5.904	(0.936)	111877	37.3841	1250
24 2,4-Dimethylphenol	122	5.917	5.919	(0.939)	194624	39.2514	1310
25 bis(2-Chloroethoxy)methane	93	6.008	6.013	(0.953)	238653	35.2623	1180
26 2,4-Dichlorophenol	162	6.154	6.159	(0.976)	176150	39.1677	1300
27 Benzoic acid	105	6.049	6.034	(0.960)	274755	89.7738	2990
30 Naphthalene	128	6.327	6.334	(1.004)	599249	33.0119	1100
31 4-Chloroaniline	127	6.368	6.370	(1.010)	207335	35.5367	1180
32 Hexachlorobutadiene	225	6.434	6.436	(1.021)	99922	34.7648	1160
34 2-Methylnaphthalene	142	7.053	7.055	(1.119)	423607	38.6713	1290
36 Hexachlorocyclopentadiene	237	7.208	7.213	(0.881)	48370	24.0824	803
37 2,4,6-Trichlorophenol	196	7.349	7.351	(0.898)	127535	37.5874	1250
38 2,4,5-Trichlorophenol	196	7.407	7.405	(0.905)	139731	38.6700	1290
40 2-Chloronaphthalene	162	7.580	7.583	(0.926)	386103	34.5739	1150
42 o-Nitroaniline	65	7.680	7.685	(0.939)	123462	32.3158	1080
41 m-Nitroaniline	138	8.123	8.128	(0.993)	105776	37.8215	1260
43 Dimethylphthalate	163	7.853	7.866	(0.960)	468766	36.7489	1220
44 2,6-Dinitrotoluene	165	7.932	7.940	(0.969)	110104	36.1878	1210
45 Acenaphthylene	152	8.031	8.036	(0.982)	658923	36.6970	1220
48 2,4-Dinitrophenol	184	8.233	8.238	(1.006)	39061	38.5304	1280(Q)
49 Dibenzofuran	168	8.401	8.406	(1.027)	675718	44.6676	1490
51 Diethylphthalate	149	8.612	8.615	(1.053)	477609	37.1796	1240
53 Fluorene	166	8.773	8.778	(1.072)	462870	37.2788	1240
54 4-Chlorophenylphenylether	204	8.755	8.758	(1.070)	227854	38.8387	1290
55 2-Methyl-4,6-dinitrophenol	198	8.814	8.819	(0.899)	65268	34.6953	1160

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
56 p-Nitroaniline	138	8.791	8.796	(1.074)	108200	41.1785	1370
133 Diphenylamine	169	8.883	8.888	(0.906)	394589	37.3162	1240
58 1,2-Diphenylhydrazine	77	8.931	8.933	(0.911)	487500	36.2447	1210
61 4-Bromophenylphenylether	248	9.288	9.293	(0.948)	129782	37.4907	1250
63 Hexachlorobenzene	284	9.367	9.372	(0.956)	132846	36.6367	1220
68 Phenanthrene	178	9.825	9.830	(1.003)	653454	36.0178	1200
69 Anthracene	178	9.881	9.884	(1.008)	672967	37.1109	1240
72 Di-n-butylphthalate	149	10.373	10.378	(1.058)	812533	39.0166	1300
76 Fluoranthene	202	11.117	11.120	(1.134)	677270	38.9697	1300
85 Butylbenzylphthalate	149	12.052	12.055	(0.936)	364712	38.9331	1300
89 Benzo(a)anthracene	228	12.858	12.863	(0.998)	594177	37.0063	1230
90 3,3'-Dichlorobenzidine	252	12.794	12.794	(0.993)	170150	32.3715	1080
92 Chrysene	228	12.919	12.924	(1.003)	565063	36.7297	1220
93 bis(2-Ethylhexyl)phthalate	149	12.802	12.806	(0.994)	485259	37.6190	1250
94 Di-n-octylphthalate	149	13.831	13.836	(0.903)	756746	36.3307	1210
95 Benzo(b)fluoranthene	252	14.606	14.616	(0.954)	545430	37.6116	1250
96 Benzo(k)fluoranthene	252	14.657	14.664	(0.957)	539959	37.4445	1250
97 Benzo(a)pyrene	252	15.207	15.217	(0.993)	495364	39.5483	1320
99 Indeno(1,2,3-cd)pyrene	276	17.363	17.375	(1.134)	473036	39.6894	1320
100 Dibenzo(a,h)anthracene	278	17.393	17.403	(1.136)	384895	39.6047	1320
101 Benzo(ghi)perylene	276	17.918	17.928	(1.170)	397942	41.5861	1390
1 N-Methyl-N-nitrosomethylamine	74	2.900	2.866	(0.578)	109029	28.0399	935

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: /chem/MSD6.i/s122109.b/s612108.d
Date : 21-DEC-2009 14:07
Client ID: SBLK01LCS
Sample Info: 1120199792|1933806|1|SVHF|1|SBLK01LCS
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD6.i
Operator: nagl
Column diameter: 0.20

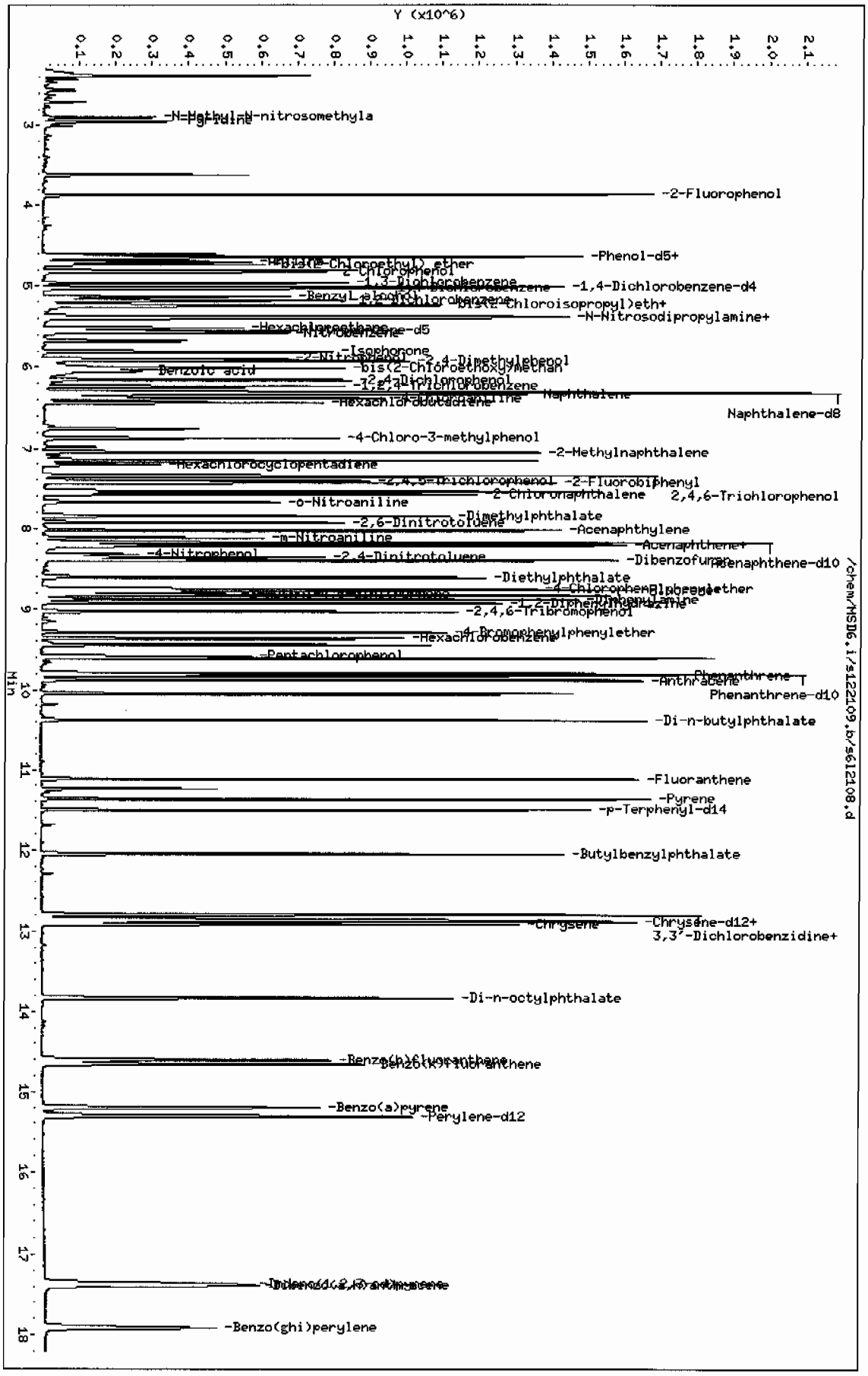

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-917**	**Date Collected:**	**12/11/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**1201997922**	**Date Received:**	**12/15/2009 08:45**	**%Moisture:**	**12.8**
Client Sample:	**QC for batch 933805**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**RE03-09-14213MS**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**933806**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**12/21/2009 17:25**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/18/2009 09:12**	**Aliquot:**	**30.01 g**	**Final Volume:**	**1 mL**
Data File:	**s612115.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine		748	ug/kg	76.4	382
108-95-2	Phenol		984	ug/kg	76.4	382
95-57-8	2-Chlorophenol		945	ug/kg	76.4	382
106-46-7	1,4-Dichlorobenzene		460	ug/kg	76.4	382
621-64-7	N-Nitrosodipropylamine		982	ug/kg	76.4	382
59-50-7	4-Chloro-3-methylphenol		1100	ug/kg	76.4	382
83-32-9	Acenaphthene		905	ug/kg	12.6	38.2
121-14-2	2,4-Dinitrotoluene		1030	ug/kg	38.2	382
100-02-7	4-Nitrophenol		933	ug/kg	126	382
87-86-5	Pentachlorophenol		938	ug/kg	95.6	382
129-00-0	Pyrene		1010	ug/kg	11.5	38.2
110-86-1	Pyridine		723	ug/kg	76.4	382
62-53-3	Aniline		748	ug/kg	115	382
111-44-4	bis(2-Chloroethyl) ether		822	ug/kg	76.4	382
541-73-1	1,3-Dichlorobenzene		441	ug/kg	76.4	382
100-51-6	Benzyl alcohol		386	ug/kg	115	382
95-50-1	1,2-Dichlorobenzene		546	ug/kg	76.4	382
108-60-1	bis(2-Chloroisopropyl)ether		810	ug/kg	76.4	382
95-48-7	o-Cresol		950	ug/kg	76.4	382
65794-96-9	m,p-Cresols		1130	ug/kg	115	382
67-72-1	Hexachloroethane		385	ug/kg	76.4	382
98-95-3	Nitrobenzene		871	ug/kg	76.4	382
78-59-1	Isophorone		969	ug/kg	76.4	382
88-75-5	2-Nitrophenol		933	ug/kg	76.4	382
105-67-9	2,4-Dimethylphenol		964	ug/kg	134	382
111-91-1	bis(2-Chloroethoxy)methane		804	ug/kg	76.4	382
120-83-2	2,4-Dichlorophenol		1010	ug/kg	76.4	382
65-85-0	Benzoic acid		1710	ug/kg	191	764
91-20-3	Naphthalene		735	ug/kg	11.5	38.2
106-47-8	4-Chloroaniline		1000	ug/kg	76.4	382
87-68-3	Hexachlorobutadiene		564	ug/kg	76.4	382
91-57-6	2-Methylnaphthalene		938	ug/kg	7.64	38.2
77-47-4	Hexachlorocyclopentadiene	J	309	ug/kg	76.4	382
88-06-2	2,4,6-Trichlorophenol		958	ug/kg	76.4	382
95-95-4	2,4,5-Trichlorophenol		1060	ug/kg	76.4	382
91-58-7	2-Chloronaphthalene		875	ug/kg	12.6	38.2
88-74-4	2-Nitroaniline		898	ug/kg	76.4	382
99-09-2	*o-Nitroaniline* 3-Nitroaniline		1020	ug/kg	76.4	382

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-917**	**Date Collected:**	**12/11/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**1201997922**	**Date Received:**	**12/15/2009 08:45**	**%Moisture:**	**12.8**
Client Sample:	**QC for batch 933805**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**RE03-09-14213MS**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**933806**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**12/21/2009 17:25**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/18/2009 09:12**	**Aliquot:**	**30.01 g**	**Final Volume:**	**1 mL**
Data File:	**s6l2115.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate		1050	ug/kg	76.4	382
606-20-2	2,6-Dinitrotoluene		972	ug/kg	38.2	382
208-96-8	Acenaphthylene		983	ug/kg	11.5	38.2
51-28-5	2,4-Dinitrophenol		856	ug/kg	145	764
132-64-9	Dibenzofuran		1230	ug/kg	76.4	382
84-66-2	Diethylphthalate		1050	ug/kg	76.4	382
86-73-7	Fluorene		1050	ug/kg	11.5	38.2
7005-72-3	4-Chlorophenylphenylether		1070	ug/kg	76.4	382
534-52-1	2-Methyl-4,6-dinitrophenol		883	ug/kg	76.4	382
100-01-6	4-Nitroaniline		1150	ug/kg	115	382
	p-Nitroaniline					
122-39-4	Diphenylamine		955	ug/kg	76.4	382
122-66-7	Azobenzene		1040	ug/kg	76.4	382
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether		1060	ug/kg	76.4	382
118-74-1	Hexachlorobenzene		1040	ug/kg	76.4	382
85-01-8	Phenanthrene		1050	ug/kg	11.5	38.2
120-12-7	Anthracene		1080	ug/kg	7.64	38.2
84-74-2	Di-n-butylphthalate		1150	ug/kg	76.4	382
206-44-0	Fluoranthene		1140	ug/kg	11.5	38.2
85-68-7	Butylbenzylphthalate		1100	ug/kg	76.4	382
56-55-3	Benzo(a)anthracene		1060	ug/kg	11.5	38.2
91-94-1	3,3'-Dichlorobenzidine		626	ug/kg	115	382
218-01-9	Chrysene		1060	ug/kg	11.5	38.2
117-81-7	bis(2-Ethylhexyl)phthalate		1110	ug/kg	76.4	382
117-84-0	Di-n-octylphthalate		1090	ug/kg	76.4	382
205-99-2	Benzo(b)fluoranthene		1070	ug/kg	11.5	38.2
207-08-9	Benzo(k)fluoranthene		1080	ug/kg	11.5	38.2
50-32-8	Benzo(a)pyrene		1140	ug/kg	11.5	38.2
193-39-5	Indeno(1,2,3-cd)pyrene		1150	ug/kg	11.5	38.2
53-70-3	Dibenzo(a,h)anthracene		1160	ug/kg	11.5	38.2
191-24-2	Benzo(ghi)perylene		1140	ug/kg	11.5	38.2
120-82-1	1,2,4-Trichlorobenzene		668	ug/kg	76.4	382

GEL Laboratories LLC

Data file : /chem/MSD6.i/s122109.b/s612115.d
Lab Smp Id: 1201997922 Client Smp ID: RE03-09-14213MS
Inj Date : 21-DEC-2009 17:25
Operator : nagl Inst ID: MSD6.i
Smp Info : |1201997922|933806|1|SVMF|1|LANL_MS
Misc Info : |MSD8270_S|WBN091208-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s122109.b/MSD6-M8270C-AQA-110909.m
Meth Date : 22-Dec-2009 11:21 nat00999 Quant Type: ISTD
Cal Date : 11-NOV-2009 04:38 Cal File: s6k0954.d
Als bottle: 15 QC Sample: MS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-917.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.01000	weight of sample
M	12.82530	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	5.012	5.025	(1.000)	185078	40.0000	
* 29 Naphthalene-d8	136	6.301	6.309	(1.000)	750636	40.0000	
* 46 Acenaphthene-d10	164	8.179	8.187	(1.000)	409501	40.0000	
* 67 Phenanthrene-d10	188	9.795	9.802	(1.000)	714493	40.0000	
* 91 Chrysene-d12	240	12.875	12.885	(1.000)	608909	40.0000	
* 98 Perylene-d12	264	15.311	15.324	(1.000)	534116	40.0000	
$ 3 2-Fluorophenol	112	3.860	3.860	(0.770)	225626	48.6812	1860
$ 5 Phenol-d5	99	4.640	4.645	(0.926)	296792	50.7362	1940
$ 20 Nitrobenzene-d5	82	5.557	5.565	(0.882)	125318	23.6005	902
$ 39 2-Fluorobiphenyl	172	7.430	7.435	(0.908)	265110	25.1214	960
$ 60 2,4,6-Tribromophenol	329	9.033	9.040	(1.104)	68337	57.1751	2180
$ 81 p-Terphenyl-d14	244	11.500	11.507	(0.893)	288427	29.3724	1120

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	CONCENTRATIONS FINAL (ug/Kg)
6 Phenol	94	4.653	4.658	(0.928)	151397	25.7401	984(Q)
8 2-Chlorophenol	128	4.829	4.833	(0.963)	116832	24.7288	945
11 1,4-Dichlorobenzene	146	5.030	5.040	(1.004)	66409	12.0447	460(R)
17 N-Nitrosodipropylamine	70	5.379	5.392	(1.073)	84246	25.6934	982(Q)
28 1,2,4-Trichlorobenzene	180	6.233	6.240	(0.989)	79594	17.4821	668
33 4-Chloro-3-methylphenol	107	6.872	6.869	(1.091)	107780	28.7795	1100
47 Acenaphthene	154	8.215	8.222	(1.004)	218486	23.6733	905
50 2,4-Dinitrotoluene	165	8.365	8.373	(1.023)	85369	27.0197	1030
52 4-Nitrophenol	139	8.330	8.322	(1.018)	35301	24.3997	933
65 Pentachlorophenol	266	9.583	9.586	(0.978)	34111	24.5362	938
79 Pyrene	202	11.367	11.374	(0.883)	441136	26.3394	1010
2 Pyridine	79	2.933	2.907	(0.585)	74196	18.9195	723
4 Aniline	66	4.701	4.711	(0.938)	47786	19.5779	748
7 bis(2-Chloroethyl) ether	63	4.734	4.747	(0.945)	85668	21.5089	822
9 1,3-Dichlorobenzene	146	4.961	4.974	(0.990)	62810	11.5481	441(R)
12 Benzyl alcohol	108	5.147	5.137	(1.027)	29619	10.0911	386(QM)
13 1,2-Dichlorobenzene	146	5.183	5.190	(1.034)	73463	14.2741	546(R)
14 bis(2-Chloroisopropyl)ether	45	5.244	5.254	(1.046)	188337	21.1801	810(Q)
15 o-Cresol	107	5.231	5.231	(1.044)	95566	24.8431	950(Q)
18 m,p-Cresols	107	5.374	5.384	(1.072)	143796	29.5008	1130
19 Hexachloroethane	117	5.519	5.527	(1.101)	21481	10.0707	385(R)
21 Nitrobenzene	77	5.578	5.588	(0.885)	121981	22.7923	871
22 Isophorone	82	5.807	5.820	(0.922)	240414	25.3429	969
23 2-Nitrophenol	139	5.896	5.904	(0.936)	60230	24.3989	933
24 2,4-Dimethylphenol	122	5.917	5.919	(0.939)	103148	25.2192	964
25 bis(2-Chloroethoxy)methane	93	6.006	6.013	(0.953)	117436	21.0357	804
26 2,4-Dichlorophenol	162	6.154	6.159	(0.977)	97937	26.3999	1010
27 Benzoic acid	105	6.011	6.034	(0.954)	113068	44.7873	1710
30 Naphthalene	128	6.324	6.334	(1.004)	287976	19.2322	735
31 4-Chloroaniline	127	6.365	6.370	(1.010)	126525	26.2900	1000
32 Hexachlorobutadiene	225	6.431	6.436	(1.021)	34966	14.7481	564(R)
34 2-Methylnaphthalene	142	7.051	7.055	(1.119)	221839	24.5512	938
36 Hexachlorocyclopentadiene	237	7.208	7.213	(0.881)	13354	8.07349	309(aR)
37 2,4,6-Trichlorophenol	196	7.346	7.351	(0.898)	69994	25.0496	958
38 2,4,5-Trichlorophenol	196	7.407	7.405	(0.906)	82613	27.7623	1060
40 2-Chloronaphthalene	162	7.578	7.583	(0.926)	210445	22.8829	875
42 o-Nitroaniline	65	7.677	7.685	(0.939)	73914	23.4928	898
41 m-Nitroaniline	138	8.118	8.128	(0.993)	61694	26.7869	1020
43 Dimethylphthalate	163	7.851	7.866	(0.960)	288989	27.5104	1050
44 2,6-Dinitrotoluene	165	7.927	7.940	(0.969)	63696	25.4214	972
45 Acenaphthylene	152	8.029	8.036	(0.982)	380449	25.7288	983
48 2,4-Dinitrophenol	184	8.230	8.238	(1.006)	10567	22.3954	856(Q)
49 Dibenzofuran	168	8.398	8.406	(1.027)	402115	32.2778	1230
51 Diethylphthalate	149	8.607	8.615	(1.052)	289267	27.3437	1040
53 Fluorene	166	8.771	8.778	(1.072)	279554	27.3398	1040
54 4-Chlorophenylphenylether	204	8.753	8.758	(1.070)	135794	28.1071	1070
55 2-Methyl-4,6-dinitrophenol	198	8.809	8.819	(0.899)	30843	23.1068	883

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
56 p-Nitroaniline	138	8.783	8.796	(1.074)	60074	30.0643	1150
133 Diphenylamine	169	8.880	8.888	(0.907)	215114	24.9783	955
58 1,2-Diphenylhydrazine	77	8.926	8.933	(0.911)	297890	27.1936	1040
61 4-Bromophenylphenylether	248	9.285	9.293	(0.948)	78129	27.7117	1060
63 Hexachlorobenzene	284	9.364	9.372	(0.956)	80129	27.1331	1040
68 Phenanthrene	178	9.823	9.830	(1.003)	405466	27.4409	1050
69 Anthracene	178	9.876	9.884	(1.008)	419082	28.3758	1080
72 Di-n-butylphthalate	149	10.371	10.378	(1.059)	508548	29.9835	1150
76 Fluoranthene	202	11.112	11.120	(1.134)	422000	29.8140	1140
85 Butylbenzylphthalate	149	12.050	12.055	(0.936)	221252	28.8663	1100
89 Benzo(a)anthracene	228	12.855	12.863	(0.998)	363032	27.6337	1060
90 3,3'-Dichlorobenzidine	252	12.789	12.794	(0.993)	70437	16.3782	626(R)
92 Chrysene	228	12.911	12.924	(1.003)	350234	27.8236	1060
93 bis(2-Ethylhexyl)phthalate	149	12.799	12.806	(0.994)	305320	29.0225	1110
94 Di-n-octylphthalate	149	13.828	13.836	(0.903)	482247	28.4090	1080
95 Benzo(b)fluoranthene	252	14.601	14.616	(0.954)	331057	28.0122	1070
96 Benzo(k)fluoranthene	252	14.649	14.664	(0.957)	333511	28.3792	1080
97 Benzo(a)pyrene	252	15.199	15.217	(0.993)	304538	29.8337	1140
99 Indeno(1,2,3-cd)pyrene	276	17.355	17.375	(1.133)	283167	29.9593	1140
100 Dibenzo(a,h)anthracene	278	17.386	17.403	(1.135)	235061	30.3573	1160
101 Benzo(ghi)perylene	276	17.905	17.928	(1.169)	232109	29.7634	1140
1 N-Methyl-N-nitrosomethylamine	74	2.882	2.866	(0.575)	61624	19.5579	748

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Data File: /chem/MSD6.i/s122109.b/s612115.d
Date : 21-DEC-2009 17:25
Client ID: RE03-09-14213MS
Sample Info: 1120199792219338061|1|SVMF1|LANL_MS
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD6.i
Operator: nagl
Column diameter: 0.20

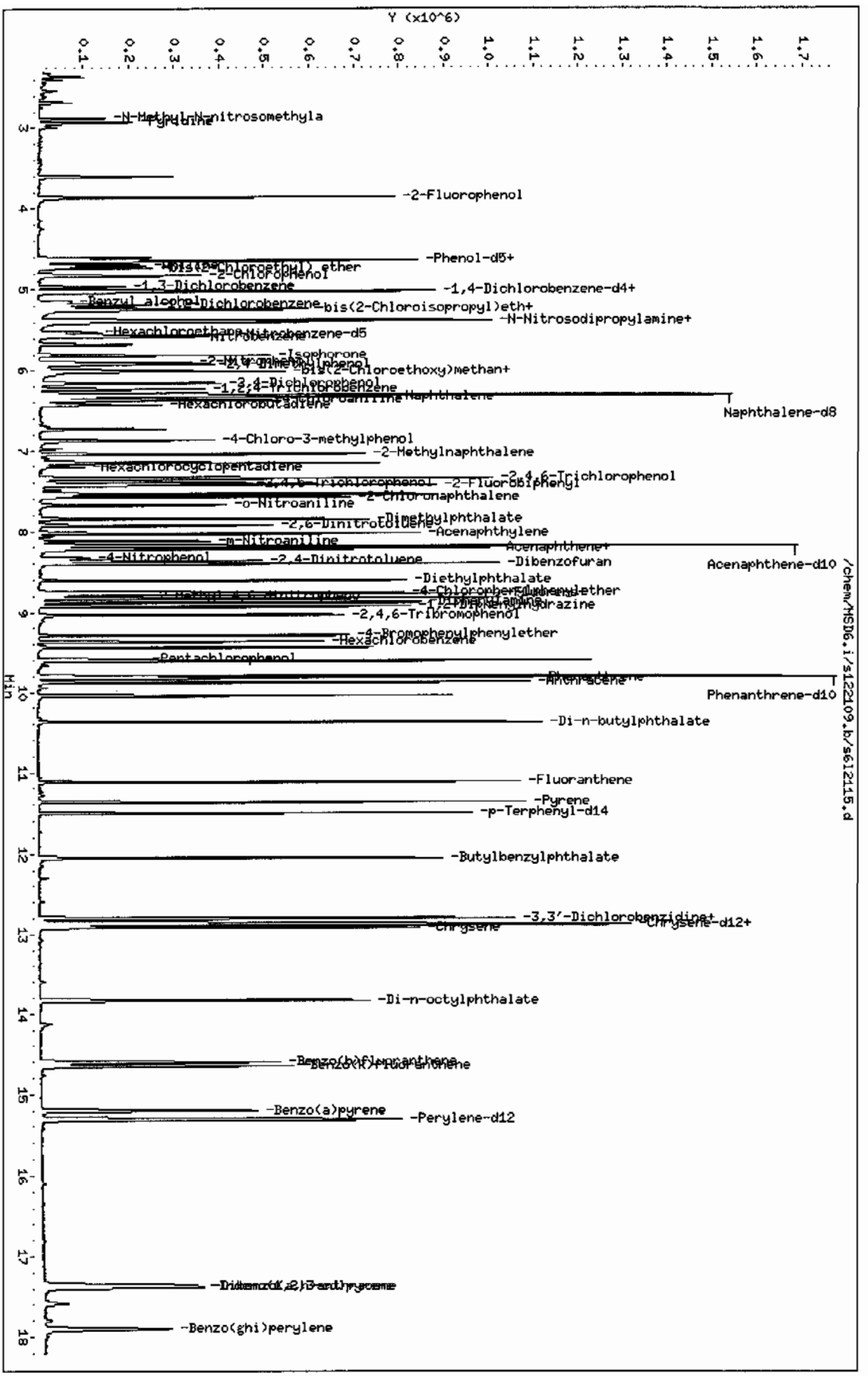

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-917	Date Collected:	12/11/2009 12:00	Matrix:	S
Lab Sample ID:	1201997923	Date Received:	12/15/2009 08:45	%Moisture:	12.8
Client Sample:	QC for batch 933805	Client:	LANL010	Project:	QC
Client ID:	RE03-09-14213MSD	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	933806	Inst:	MSD6.I	Dilution:	1
Run Date:	12/21/2009 17:52	Analyst:	NAG1	Inj. Vol:	.5 uL
Prep Date:	12/18/2009 09:12	Aliquot:	30 g	Final Volume:	1 mL
Data File:	s6l2116.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine		753	ug/kg	76.5	382
108-95-2	Phenol		1020	ug/kg	76.5	382
95-57-8	2-Chlorophenol		993	ug/kg	76.5	382
106-46-7	1,4-Dichlorobenzene		539	ug/kg	76.5	382
621-64-7	N-Nitrosodipropylamine		1020	ug/kg	76.5	382
59-50-7	4-Chloro-3-methylphenol		1220	ug/kg	76.5	382
83-32-9	Acenaphthene		985	ug/kg	12.6	38.2
121-14-2	2,4-Dinitrotoluene		1210	ug/kg	38.2	382
100-02-7	4-Nitrophenol		1010	ug/kg	126	382
87-86-5	Pentachlorophenol		947	ug/kg	95.6	382
129-00-0	Pyrene		1230	ug/kg	11.5	38.2
110-86-1	Pyridine		702	ug/kg	76.5	382
62-53-3	Aniline		681	ug/kg	115	382
111-44-4	bis(2-Chloroethyl) ether		835	ug/kg	76.5	382
541-73-1	1,3-Dichlorobenzene		517	ug/kg	76.5	382
100-51-6	Benzyl alcohol		485	ug/kg	115	382
95-50-1	1,2-Dichlorobenzene		616	ug/kg	76.5	382
108-60-1	bis(2-Chloroisopropyl)ether		844	ug/kg	76.5	382
95-48-7	o-Cresol		1110	ug/kg	76.5	382
65794-96-9	m,p-Cresols		1110	ug/kg	115	382
67-72-1	Hexachloroethane		478	ug/kg	76.5	382
98-95-3	Nitrobenzene		902	ug/kg	76.5	382
78-59-1	Isophorone		1000	ug/kg	76.5	382
88-75-5	2-Nitrophenol		1000	ug/kg	76.5	382
105-67-9	2,4-Dimethylphenol		1010	ug/kg	134	382
111-91-1	bis(2-Chloroethoxy)methane		978	ug/kg	76.5	382
120-83-2	2,4-Dichlorophenol		1060	ug/kg	76.5	382
65-85-0	Benzoic acid		2130	ug/kg	191	765
91-20-3	Naphthalene		792	ug/kg	11.5	38.2
106-47-8	4-Chloroaniline		955	ug/kg	76.5	382
87-68-3	Hexachlorobutadiene		662	ug/kg	76.5	382
91-57-6	2-Methylnaphthalene		991	ug/kg	7.65	38.2
77-47-4	Hexachlorocyclopentadiene	J	373	ug/kg	76.5	382
88-06-2	2,4,6-Trichlorophenol		998	ug/kg	76.5	382
95-95-4	2,4,5-Trichlorophenol		1080	ug/kg	76.5	382
91-58-7	2-Chloronaphthalene		929	ug/kg	12.6	38.2
88-74-4	2-Nitroaniline		984	ug/kg	76.5	382
99-09-2	*o-Nitroaniline* 3-Nitroaniline		1100	ug/kg	76.5	382

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-917**	**Date Collected:**	**12/11/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**1201997923**	**Date Received:**	**12/15/2009 08:45**	**%Moisture:**	**12.8**
Client Sample:	**QC for batch 933805**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**RE03-09-14213MSD**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**933806**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**12/21/2009 17:52**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/18/2009 09:12**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**s6l2116.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate		1130	ug/kg	76.5	382
606-20-2	2,6-Dinitrotoluene		1100	ug/kg	38.2	382
208-96-8	Acenaphthylene		1040	ug/kg	11.5	38.2
51-28-5	2,4-Dinitrophenol		912	ug/kg	145	765
132-64-9	Dibenzofuran		1310	ug/kg	76.5	382
84-66-2	Diethylphthalate		1210	ug/kg	76.5	382
86-73-7	Fluorene		1140	ug/kg	11.5	38.2
7005-72-3	4-Chlorophenylphenylether		1160	ug/kg	76.5	382
534-52-1	2-Methyl-4,6-dinitrophenol		941	ug/kg	76.5	382
100-01-6	4-Nitroaniline		1220	ug/kg	115	382
	p-Nitroaniline					
122-39-4	Diphenylamine		1100	ug/kg	76.5	382
122-66-7	Azobenzene		1160	ug/kg	76.5	382
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether		1190	ug/kg	76.5	382
118-74-1	Hexachlorobenzene		1200	ug/kg	76.5	382
85-01-8	Phenanthrene		1200	ug/kg	11.5	38.2
120-12-7	Anthracene		1220	ug/kg	7.65	38.2
84-74-2	Di-n-butylphthalate		1350	ug/kg	76.5	382
206-44-0	Fluoranthene		1300	ug/kg	11.5	38.2
85-68-7	Butylbenzylphthalate		1410	ug/kg	76.5	382
56-55-3	Benzo(a)anthracene		1240	ug/kg	11.5	38.2
91-94-1	3,3'-Dichlorobenzidine		758	ug/kg	115	382
218-01-9	Chrysene		1250	ug/kg	11.5	38.2
117-81-7	bis(2-Ethylhexyl)phthalate		1390	ug/kg	76.5	382
117-84-0	Di-n-octylphthalate		1410	ug/kg	76.5	382
205-99-2	Benzo(b)fluoranthene		1260	ug/kg	11.5	38.2
207-08-9	Benzo(k)fluoranthene		1300	ug/kg	11.5	38.2
50-32-8	Benzo(a)pyrene		1330	ug/kg	11.5	38.2
193-39-5	Indeno(1,2,3-cd)pyrene		1230	ug/kg	11.5	38.2
53-70-3	Dibenzo(a,h)anthracene		1250	ug/kg	11.5	38.2
191-24-2	Benzo(ghi)perylene		1230	ug/kg	11.5	38.2
120-82-1	1,2,4-Trichlorobenzene		748	ug/kg	76.5	382

GEL Laboratories LLC

Data file : /chem/MSD6.i/s122109.b/s612116.d
Lab Smp Id: 1201997923 Client Smp ID: RE03-09-14213MSD
Inj Date : 21-DEC-2009 17:52
Operator : nagl Inst ID: MSD6.i
Smp Info : |1201997923|933806|1|SVMF|1|LANL_MSD
Misc Info : |MSD8270_S|WBN091208-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s122109.b/MSD6-M8270C-AQA-110909.m
Meth Date : 22-Dec-2009 11:21 nat00999 Quant Type: ISTD
Cal Date : 11-NOV-2009 04:38 Cal File: s6k0954.d
Als bottle: 16 QC Sample: MSD
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-917.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	12.82530	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	5.020	5.025	(1.000)	233016	40.0000	
* 29 Naphthalene-d8	136	6.304	6.309	(1.000)	941770	40.0000	
* 46 Acenaphthene-d10	164	8.182	8.187	(1.000)	513133	40.0000	
* 67 Phenanthrene-d10	188	9.800	9.802	(1.000)	890018	40.0000	
* 91 Chrysene-d12	240	12.878	12.885	(1.000)	695935	40.0000	
* 98 Perylene-d12	264	15.311	15.324	(1.000)	578681	40.0000	
$ 3 2-Fluorophenol	112	3.865	3.860	(0.770)	271447	46.5185	1780
$ 5 Phenol-d5	99	4.640	4.645	(0.924)	382022	51.8708	1980
$ 20 Nitrobenzene-d5	82	5.560	5.565	(0.882)	160355	24.0700	920
$ 39 2-Fluorobiphenyl	172	7.430	7.435	(0.908)	332937	25.1770	963
$ 60 2,4,6-Tribromophenol	329	9.035	9.040	(1.104)	91872	61.3422	2340
$ 81 p-Terphenyl-d14	244	11.502	11.507	(0.893)	409724	36.5072	1400

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
6 Phenol	94	4.653	4.658	(0.927)	197324	26.6466	1020(Q)
8 2-Chlorophenol	128	4.828	4.833	(0.962)	154436	25.9632	993
11 1,4-Dichlorobenzene	146	5.037	5.040	(1.004)	97907	14.1043	539(R)
17 N-Nitrosodipropylamine	70	5.384	5.392	(1.073)	110469	26.7597	1020(Q)
28 1,2,4-Trichlorobenzene	180	6.233	6.240	(0.989)	111768	19.5666	748
33 4-Chloro-3-methylphenol	107	6.875	6.869	(1.091)	149573	31.8334	1220
47 Acenaphthene	154	8.215	8.222	(1.004)	297965	25.7647	985
50 2,4-Dinitrotoluene	165	8.365	8.373	(1.022)	125155	31.6121	1210
52 4-Nitrophenol	139	8.335	8.322	(1.019)	49310	26.3635	1010
65 Pentachlorophenol	266	9.586	9.586	(0.978)	42999	24.7654	947
79 Pyrene	202	11.367	11.374	(0.883)	618159	32.2937	1230
2 Pyridine	79	2.928	2.907	(0.583)	90655	18.3607	702
4 Aniline	66	4.704	4.711	(0.937)	54745	17.8147	681
7 bis(2-Chloroethyl) ether	63	4.739	4.747	(0.944)	109516	21.8396	835
9 1,3-Dichlorobenzene	146	4.969	4.974	(0.990)	92516	13.5104	517(R)
12 Benzyl alcohol	108	5.137	5.137	(1.023)	46873	12.6841	485(Q)
13 1,2-Dichlorobenzene	146	5.185	5.190	(1.033)	104434	16.1173	616(R)
14 bis(2-Chloroisopropyl)ether	45	5.246	5.254	(1.045)	247185	22.0792	844(Q)
15 o-Cresol	107	5.234	5.231	(1.043)	141060	29.1256	1110
18 m,p-Cresols	107	5.374	5.384	(1.071)	177841	28.9794	1110
19 Hexachloroethane	117	5.522	5.527	(1.100)	33601	12.5120	478(R)
21 Nitrobenzene	77	5.578	5.588	(0.885)	158470	23.6008	902
22 Isophorone	82	5.810	5.820	(0.922)	312162	26.2277	1000
23 2-Nitrophenol	139	5.899	5.904	(0.936)	81205	26.2195	1000
24 2,4-Dimethylphenol	122	5.917	5.919	(0.939)	135783	26.4606	1010
25 bis(2-Chloroethoxy)methane	93	6.006	6.013	(0.953)	179168	25.5800	978
26 2,4-Dichlorophenol	162	6.156	6.159	(0.977)	128981	27.7119	1060
27 Benzoic acid	105	6.026	6.034	(0.956)	176607	55.7580	2130
30 Naphthalene	128	6.327	6.334	(1.004)	389331	20.7242	792
31 4-Chloroaniline	127	6.365	6.370	(1.010)	150783	24.9719	955
32 Hexachlorobutadiene	225	6.434	6.436	(1.021)	51534	17.3248	662
34 2-Methylnaphthalene	142	7.050	7.055	(1.118)	293860	25.9215	991
36 Hexachlorocyclopentadiene	237	7.208	7.213	(0.881)	20196	9.74407	372(aR)
37 2,4,6-Trichlorophenol	196	7.349	7.351	(0.898)	91392	26.1020	998
38 2,4,5-Trichlorophenol	196	7.410	7.405	(0.906)	105474	28.2864	1080
40 2-Chloronaphthalene	162	7.578	7.583	(0.926)	279845	24.2837	928
42 o-Nitroaniline	65	7.677	7.685	(0.938)	101476	25.7393	984
41 m-Nitroaniline	138	8.121	8.128	(0.993)	83275	28.8548	1100
43 Dimethylphthalate	163	7.853	7.866	(0.960)	389258	29.5718	1130
44 2,6-Dinitrotoluene	165	7.930	7.940	(0.969)	90429	28.8018	1100
45 Acenaphthylene	152	8.029	8.036	(0.981)	502149	27.1007	1040
48 2,4-Dinitrophenol	184	8.233	8.238	(1.006)	15701	23.8618	912(Q)
49 Dibenzofuran	168	8.401	8.406	(1.027)	536303	34.3550	1310
51 Diethylphthalate	149	8.610	8.615	(1.052)	420448	31.7173	1210
53 Fluorene	166	8.773	8.778	(1.072)	382525	29.8548	1140
54 4-Chlorophenylphenylether	204	8.753	8.758	(1.070)	184346	30.4504	1160
55 2-Methyl-4,6-dinitrophenol	198	8.811	8.819	(0.899)	41995	24.5972	940

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
56	p-Nitroaniline	138	8.786	8.796	(1.074)	81582	31.9907	1220
133	Diphenylamine	169	8.883	8.888	(0.906)	307480	28.6623	1100
58	1,2-Diphenylhydrazine	77	8.928	8.933	(0.911)	415609	30.4576	1160
61	4-Bromophenylphenylether	248	9.288	9.293	(0.948)	109414	31.1546	1190
63	Hexachlorobenzene	284	9.367	9.372	(0.956)	115891	31.5035	1200
68	Phenanthrene	178	9.825	9.830	(1.003)	579665	31.4935	1200
69	Anthracene	178	9.879	9.884	(1.008)	588145	31.9693	1220
72	Di-n-butylphthalate	149	10.373	10.378	(1.058)	746151	35.3164	1350
76	Fluoranthene	202	11.115	11.120	(1.134)	597599	33.8935	1300
85	Butylbenzylphthalate	149	12.050	12.055	(0.936)	322210	36.7812	1410
89	Benzo(a)anthracene	228	12.855	12.863	(0.998)	486493	32.4007	1240
90	3,3'-Dichlorobenzidine	252	12.791	12.794	(0.993)	97377	19.8110	758
92	Chrysene	228	12.916	12.924	(1.003)	471892	32.8006	1250
93	bis(2-Ethylhexyl)phthalate	149	12.802	12.806	(0.994)	437350	36.2709	1390
94	Di-n-octylphthalate	149	13.828	13.836	(0.903)	679125	36.9260	1410
95	Benzo(b)fluoranthene	252	14.603	14.616	(0.954)	420418	32.8339	1260
96	Benzo(k)fluoranthene	252	14.654	14.664	(0.957)	431264	33.8711	1300
97	Benzo(a)pyrene	252	15.204	15.217	(0.993)	383653	34.6897	1330
99	Indeno(1,2,3-cd)pyrene	276	17.360	17.375	(1.134)	331845	32.1576	1230
100	Dibenzo(a,h)anthracene	278	17.388	17.403	(1.136)	275533	32.6220	1250
101	Benzo(ghi)perylene	276	17.908	17.928	(1.170)	271310	32.1109	1230
1	N-Methyl-N-nitrosomethylamine	74	2.879	2.866	(0.574)	78089	19.6849	753

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
R - Spike/Surrogate failed recovery limits.

Data File: /chem/MSD6.i/s122109.b/s612116.d
Date : 21-DEC-2009 17:52
Client ID: RE03-09-14213MSD
Sample Info: |1201997923|933806|1|SVMF|1|LANL_MSD
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Page 1

Instrument: MSD6.i

Operator: nag1
Column diameter: 0.20

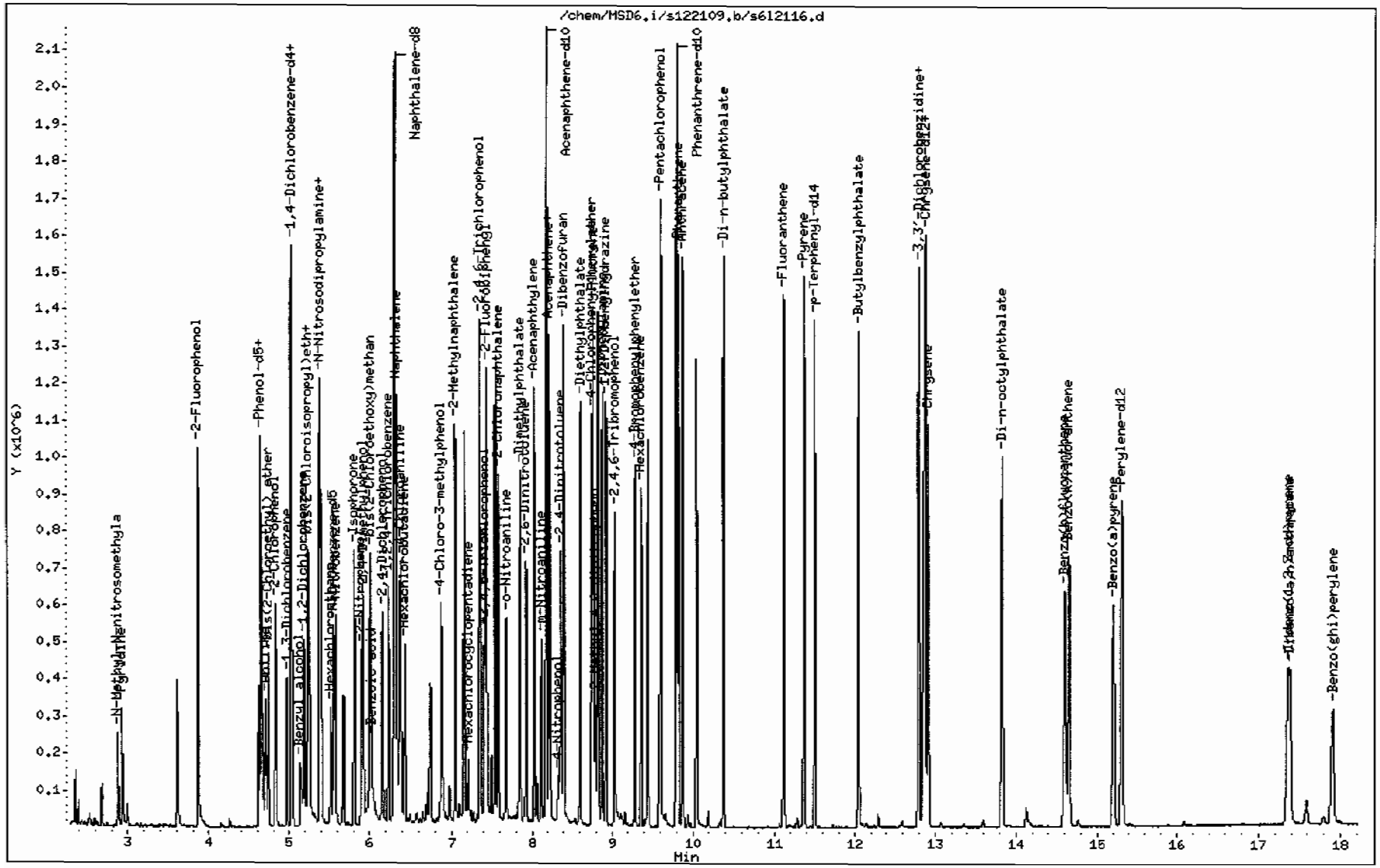

Miscellaneous Data

Prep Logbook

Extraction of Semivolatile and Nonvolatile Organic Compounds from Soil, Sludge, and Other Miscellaneous Solid Samples

Batch ID: 933805 **Verified by:** _____

Analyst: Robin Hunt

Method: SW846 3550B

Lab SOP: GL-OA-E-010 REV# 18

Instrument: Semi-Volatiles Manual

Sample ID	Run Date	Aliquot (g)	Prepped Aliquot (mL)	Prepped Factor (mL/g)
1201997920 MB	18-DEC-2009 09:12:08	30	1	0.03333
1201997921 LCS	18-DEC-2009 09:12:08	30	1	0.03333
242937001	18-DEC-2009 09:12:08	30.02	1	0.03331
1201997922 MS (242937001)	18-DEC-2009 09:12:08	30.01	1	0.03332
1201997923 MSD (242937001)	18-DEC-2009 09:12:08	30	1	0.03333
242937002	18-DEC-2009 09:12:08	30.04	1	0.03329
242937003	18-DEC-2009 09:12:08	30	1	0.03333
242937004	18-DEC-2009 09:12:08	30.04	1	0.03329
242937005	18-DEC-2009 09:12:08	30.09	1	0.03323
242937006	18-DEC-2009 09:12:08	30.08	1	0.03324
242937007	18-DEC-2009 09:12:08	30.02	1	0.03331
242937008	18-DEC-2009 09:12:08	30.07	1	0.03326
242937009	18-DEC-2009 09:12:08	30.04	1	0.03329

Type	Sample Id	Description	Serial Number	Spike Amt	Units
LCS	1201997921	BNA LCS w/o Benzidine 50ppm	UE091130-12	1	mL
LCS	1201997921	BENZIDINE LCS	UE091217-22	1	mL
MS	1201997922	BNA LCS w/o Benzidine 50ppm	UE091130-12	1	mL
MS	1201997922	BENZIDINE LCS	UE091217-22	1	mL
MSD	1201997923	BNA LCS w/o Benzidine 50ppm	UE091130-12	1	mL
MSD	1201997923	BENZIDINE LCS	UE091217-22	1	mL
SURR	All	BNA for all Surrogate	UE091215-10	1	mL
REGNT	All	Acetone	1233927	150	mL
REGNT	All	Methylene Chloride	1242565-D	150	mL
SOURC	All	SODIUM SULFATE	1242582	30	g

Comments:

Verified By: JAM

Final Solvent: CH2Cl2

GEL ORGANIC RUN LOG INSTRUMENT ID: MSD6

DATE: 11/09/2009 METHOD: See raw data OPERATOR: JMB3 REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT:1198658-D
Multiplier Voltage: 1565 Emv Extr. Injection Volume: 0.5, 1.0 ul
DFTPP Solution ID: WBN091101-01 Internal Std ID: WBN091106-10
CALIBRATION & QC INFORMATION:
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.

SOP: GL-OA-E-009 Rev. 22 Sequence Number: /chem/MSD6.i/s110909.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
s6k0901.d	WBN091101-01	JMB3	09-NOV-2009 11:20	50 PPM	s110909	1.0	DFTPP	DUSE
s6k0902.d	inst blk	JMB3	09-NOV-2009 11:35	--------	s110909	1.0	INST BLK	DUSE
s6k0903.d	WBN091106-08	JMB3	09-NOV-2009 12:23	1 PPM	s110909	1.0	MEGAICAL	DUSE
s6k0904.d	WBN091106-07	JMB3	09-NOV-2009 13:00	10 PPM	s110909	1.0	MEGAICAL	DUSE
s6k0905.d	WBN091106-06	JMB3	09-NOV-2009 13:36	20 PPM	s110909	1.0	MEGAICAL	DUSE
s6k0906.d	WBN091106-05.1	JMB3	09-NOV-2009 14:14	40 PPM	s110909	1.0	MEGAICAL	DUSE
s6k0907.d	WBN091106-04	JMB3	09-NOV-2009 14:52	50 PPM	s110909	1.0	MEGAICAL	DUSE
s6k0908.d	WBN091106-03	JMB3	09-NOV-2009 15:30	80 PPM	s110909	1.0	MEGAICAL	DUSE
s6k0909.d	WBN091106-02	JMB3	09-NOV-2009 16:06	100 PPM	s110909	1.0	MEGAICAL	DUSE
s6k0910.d	WBN091106-01	JMB3	09-NOV-2009 16:43	120 PPM	s110909	1.0	MEGAICAL	DUSE
s6k0911-D.d	WBN091101-01	JMB3	09-NOV-2009 18:00	50 PPM	s110909	1.0	DFTPP	
s6k0911.d	WBN091101-01	JMB3	09-NOV-2009 18:00	50 PPM	s110909	1.0	DFTPP	
s6k0912.d	inst blk	JMB3	09-NOV-2009 18:15	--------	s110909	1.0	INST BLK	
s6k0913.d	WBN091106-08	JMB3	09-NOV-2009 18:53	1 PPM	s110909	1.0	MEGAICAL	
s6k0914.d	WBN091106-07	JMB3	09-NOV-2009 19:31	10 PPM	s110909	1.0	MEGAICAL	
s6k0915.d	WBN091106-06	JMB3	09-NOV-2009 20:09	20 PPM	s110909	1.0	MEGAICAL	
s6k0916.d	WBN091106-05.1	JMB3	09-NOV-2009 20:46	40 PPM	s110909	1.0	MEGAICAL	
s6k0917.d	WBN091106-04	JMB3	09-NOV-2009 21:25	50 PPM	s110909	1.0	MEGAICAL	
s6k0918.d	WBN091106-03	JMB3	09-NOV-2009 22:01	80 PPM	s110909	1.0	MEGAICAL	

s6k0919.d	WBN091106-02	JMB3	09-NOV-2009 22:39	100 PPM	s110909	1.0	MEGAICAL	
s6k0920.d	WBN091106-01	JMB3	09-NOV-2009 23:16	120 PPM	s110909	1.0	MEGAICAL	
s6k0921-D.d	WBN091101-01	JMB3	10-NOV-2009 11:07	50 PPM	s110909	1.0	DFTPP	
s6k0921.d	WBN091101-01	JMB3	10-NOV-2009 11:07	50 PPM	s110909	1.0	DFTPP	
s6k0922.d	inst blk	JMB3	10-NOV-2009 11:21	--------	s110909	1.0	INST BLK	
s6k0923.d	WBN091016-01	JMB3	10-NOV-2009 11:59	10 PPM	s110909	1.0	AP12ICAL	
s6k0924.d	WBN091016-02	JMB3	10-NOV-2009 12:36	20 PPM	s110909	1.0	AP12ICAL	
s6k0925.d	WBN091016-03	JMB3	10-NOV-2009 13:13	40 PPM	s110909	1.0	AP12ICAL	
s6k0926.d	WBN091016-04	JMB3	10-NOV-2009 13:51	50 PPM	s110909	1.0	AP12ICAL	
s6k0927.d	WBN091016-05	JMB3	10-NOV-2009 14:30	80 PPM	s110909	1.0	AP12ICAL	
s6k0928.d	WBN091016-06	JMB3	10-NOV-2009 15:06	100 PPM	s110909	1.0	AP12ICAL	
s6k0929.d	WBN091016-07	JMB3	10-NOV-2009 15:43	120 PPM	s110909	1.0	AP12ICAL	
s6k0930.d	WBN091029-25	JMB3	10-NOV-2009 16:20	10 PPM	s110909	1.0	PESTICAL	
s6k0931.d	WBN091029-24	JMB3	10-NOV-2009 16:56	20 PPM	s110909	1.0	PESTICAL	
s6k0932.d	WBN091029-23.1	JMB3	10-NOV-2009 17:33	40 PPM	s110909	1.0	PESTICAL	
s6k0933.d	WBN091029-22	JMB3	10-NOV-2009 18:09	50 PPM	s110909	1.0	PESTICAL	
s6k0934.d	WBN091029-21	JMB3	10-NOV-2009 18:45	80 PPM	s110909	1.0	PESTICAL	
s6k0935.d	WBN091029-20	JMB3	10-NOV-2009 19:21	100 PPM	s110909	1.0	PESTICAL	
s6k0936.d	WBN091029-19	JMB3	10-NOV-2009 19:58	120 PPM	s110909	1.0	PESTICAL	
s6k0937-D.d	WBN091106-09.1	JMB3	10-NOV-2009 20:29	40 PPM	s110909	1.0	MEGAICV	FAILED SC 8270D
s6k0937.d	WBN091106-09.1	JMB3	10-NOV-2009 20:29	40 PPM	s110909	1.0	MEGAICV	
s6k0938-D.d	WBN091016-08.1	JMB3	10-NOV-2009 21:07	40 PPM	s110909	1.0	AP12ICV	
s6k0938.d	WBN091016-08.1	JMB3	10-NOV-2009 21:07	40 PPM	s110909	1.0	AP12ICV	
s6k0939-D.d	WBN091029-26.1	JMB3	10-NOV-2009 21:35	40 PPM	s110909	1.0	PESTICV	
s6k0939.d	WBN091029-26.1	JMB3	10-NOV-2009 21:35	40 PPM	s110909	1.0	PESTICV	
s6k0940-D.d	WBN091101-01	JMB3	10-NOV-2009 22:12	50 PPM	s110909	1.0	DFTPP	
s6k0940.d	WBN091101-01	JMB3	10-NOV-2009 22:12	50 PPM	s110909	1.0	DFTPP	

s6k0941.d	inst blk	JMB3	10-NOV-2009 22:26	--------	s110909	1.0	INST BLK	
s6k0942.d	WBN091016-16	JMB3	10-NOV-2009 22:55	500 PPM	s110909	1.0	HEXICAL	
s6k0943.d	WBN091016-15	JMB3	10-NOV-2009 23:24	1000 PPM	s110909	1.0	HEXICAL	
s6k0944.d	WBN091016-14	JMB3	10-NOV-2009 23:53	1250 PPM	s110909	1.0	HEXICAL	
s6k0945.d	WBN091016-13	JMB3	11-NOV-2009 00:21	1500 PPM	s110909	1.0	HEXICAL	
s6k0946.d	WBN091016-12	JMB3	11-NOV-2009 00:50	1750 PPM	s110909	1.0	HEXICAL	
s6k0947.d	UBN090828-02.4-16	JMB3	11-NOV-2009 01:18	500 PPM	s110909	1.0	HEXICAL	
s6k0948.d	UBN090924-01	JMB3	11-NOV-2009 01:47	10 PPM	s110909	1.0	NEVICAL	
s6k0949.d	UBN090924-02	JMB3	11-NOV-2009 02:16	20 PPM	s110909	1.0	NEVICAL	
s6k0950.d	UBN090924-03	JMB3	11-NOV-2009 02:44	40 PPM	s110909	1.0	NEVICAL	
s6k0951.d	UBN090924-04	JMB3	11-NOV-2009 03:12	50 PPM	s110909	1.0	NEVICAL	DUSE - disabled
s6k0952.d	UBN090924-05	JMB3	11-NOV-2009 03:41	80 PPM	s110909	1.0	NEVICAL	
s6k0953.d	UBN090924-06	JMB3	11-NOV-2009 04:10	100 PPM	s110909	1.0	NEVICAL	
s6k0954.d	UBN090924-07	JMB3	11-NOV-2009 04:38	120 PPM	s110909	1.0	NEVICAL	DUSE - disabled
s6k0955-D.d	WBN091016-10.1	JMB3	11-NOV-2009 05:07	1250 PPM	s110909	1.0	HEXICV	DUSE - failed >70%-130%
s6k0955.d	WBN091016-10.1	JMB3	11-NOV-2009 05:07	1250 PPM	s110909	1.0	HEXICV	

GEL ORGANIC RUN LOG INSTRUMENT ID: MSD6

DATE: 12/21/2009 METHOD: See raw data OPERATOR: nagl REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT:1239699-D
Multiplier Voltage: 1494 Emv Extr. Injection Volume: 0.5, 1.0 ul
DFTPP Solution ID: WBN091213-01 Internal Std ID: WBN091208-01
CALIBRATION & QC INFORMATION:
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.

SOP: GL-OA-E-009 Rev. 23 Sequence Number: /chem/MSD6.i/s122109.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
s612101.d	WBN091213-01	nagl	21-DEC-2009 11:06	50 PPM	s122109	1.0	DFTPP	
s612102.d	WBN091111-17.4	nagl	21-DEC-2009 11:20	CVS	s122109	1.0	MEGACVS	234388
s612103.d	WBN091201-03.5	nagl	21-DEC-2009 11:47	CVS	s122109	1.0	AP12CVS	
s612104.d	WBN091202-23.5	nagl	21-DEC-2009 12:15	CVS	s122109	1.0	PESTCVS	
s612105.d	1201998937	nagl	21-DEC-2009 12:43	934295	10-844	1.0	SBLK01	
s612106.d	1201998938	nagl	21-DEC-2009 13:11	934295	10-844	1.0	SBLK01LCS	
s612107.d	1201997920	nagl	21-DEC-2009 13:39	933806	10-917	1.0	SBLK01	
s612108.d	1201997921	nagl	21-DEC-2009 14:07	933806	10-917	1.0	SBLK01LCS	
s612109.d	243016006	nagl	21-DEC-2009 14:35	934313	10-932	1.0	LANL	DUSE - failed surr - rr of s612024
s612110.d	242651002	nagl	21-DEC-2009 15:04	934295	10-844	1.0	LANLRE	
s612111.d	1201998939	nagl	21-DEC-2009 15:32	934295	10-844	1.0	LANLRE_MS	
s612112.d	1201998940	nagl	21-DEC-2009 16:00	934295	10-844	1.0	LANLRE_MSD	
s612113.d	242652004	nagl	21-DEC-2009 16:28	934295	10-850	1.0	LANLRE	
s612114.d	242937001	nagl	21-DEC-2009 16:57	933806	10-917	1.0	LANL	
s612115.d	1201997922	nagl	21-DEC-2009 17:25	933806	10-917	1.0	LANL_MS	failed spike - C12 manual
s612116.d	1201997923	nagl	21-DEC-2009 17:52	933806	10-917	1.0	LANL_MSD	failed spik
s612117.d	242937002	nagl	21-DEC-2009 18:20	933806	10-917	1.0	LANL	
s612118.d	242937003	nagl	21-DEC-2009 18:48	933806	10-917	1.0	LANL	
s612119.d	242937004	nagl	21-DEC-2009 19:16	933806	10-917	1.0	LANL	

s612120.d	242937005	nag1	21-DEC-2009 19:43	933806	10-917		1.0	LANL	
s612121.d	242937006	nag1	21-DEC-2009 20:10	933806	10-917		1.0	LANL	
s612122.d	242937007	nag1	21-DEC-2009 20:38	933806	10-917		1.0	LANL	
s612123.d	242937008	nag1	21-DEC-2009 21:05	933806	10-917		1.0	LANL	
s612124.d	242937009	nag1	21-DEC-2009 21:33	933806	10-917		1.0	LANL	

Instrument Batch: /chem/MSD6.i/s122109.b Page: 1

COMPANY - WIDE NONCONFORMANCE REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
22-DEC-09	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
SEMIVOA GC/MS	SW846 8270C	Solid	LANL
Batch ID:	**Sample Numbers:**		
933806	See Below		

Potentially affected work order(s)(SDG): 242937(10-917)

Application Issues:

Failed Recovery for MS/PS

Failed Recovery for MSD/PSD

Specification and Requirements Nonconformance Description:	NRG Disposition:
1. The MS(1201997922) and MSD(1201997923) recovered multiple spike analytes outside of the established acceptance limits. Please see the QC Summary report for the specific failures.	1. Since the MSD displayed similar spike recoveries to the MS, the failures were attributed to matrix interference and the data results have been reported.

Originator's Name:

Nathan Greene 22-DEC-09

Data Validator/Group Leader:

Barbara Bailey 30-DEC-09

Data File: /chem/MSD6.i/s122109.b/s612115.d
Injection Date: 21-DEC-2009 17:25
Instrument: MSD6.i
Client Sample ID: RE03-09-14213MS

Compound: Benzyl alcohol
CAS Number: 100-51-6

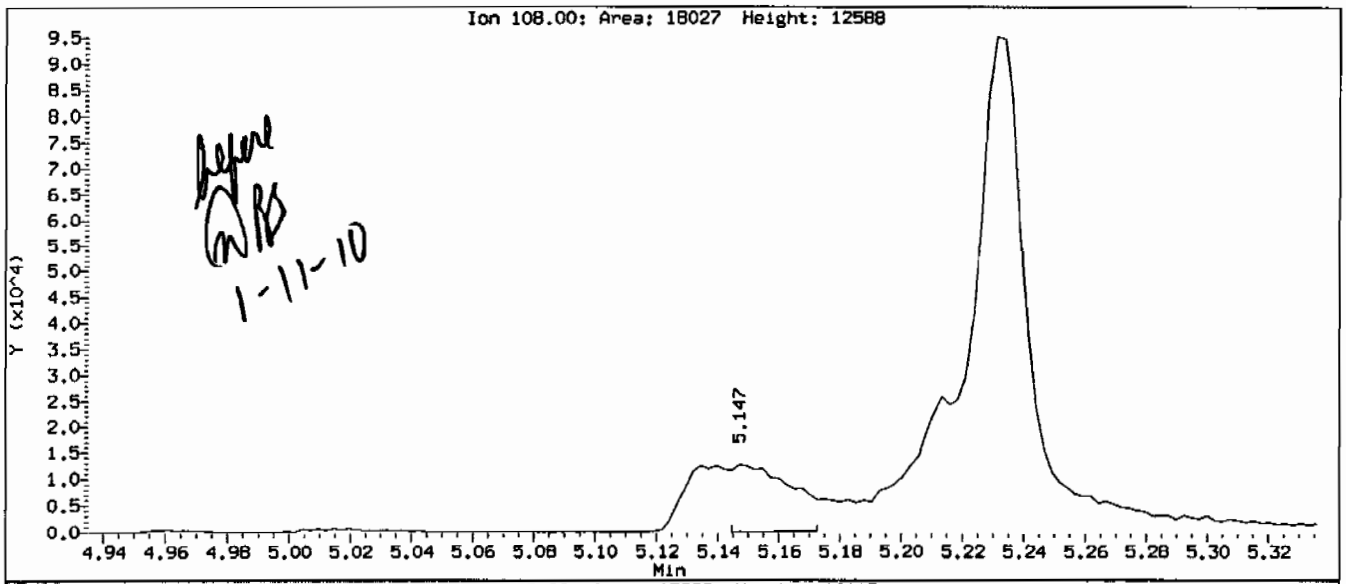

before
WB
1-11-10

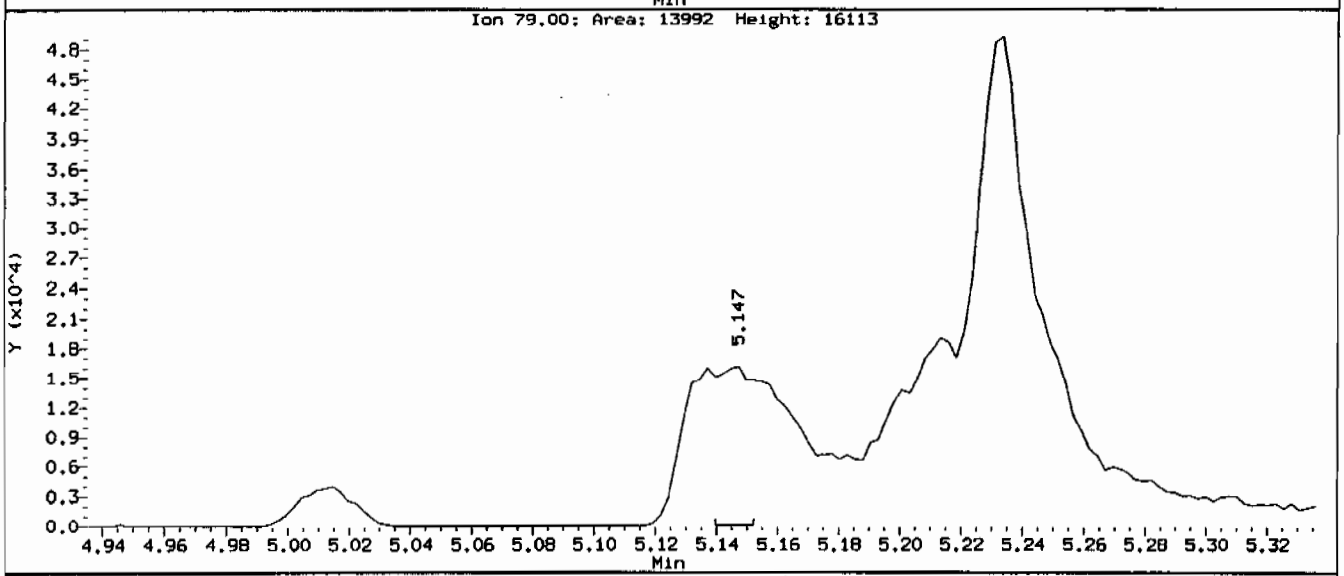

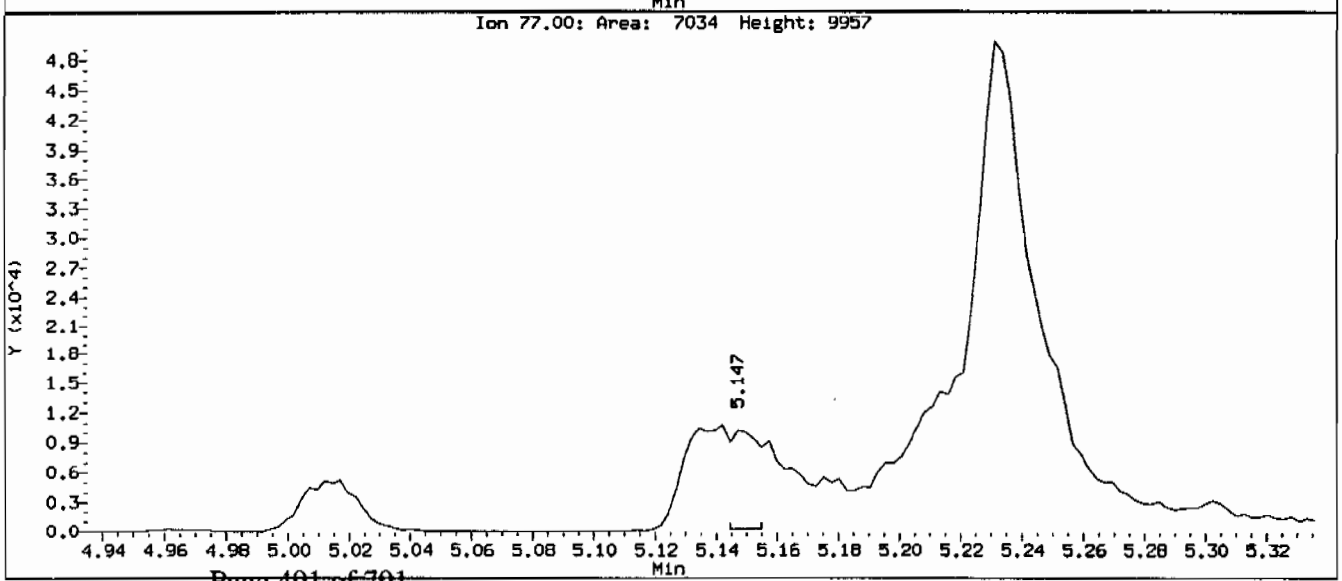

Data File: /chem/MSD6.i/s122109.b/s612115.d
Injection Date: 21-DEC-2009 17:25
Instrument: MSD6.i
Client Sample ID: RE03-09-14213MS

Compound: Benzyl alcohol
CAS Number: 100-51-6

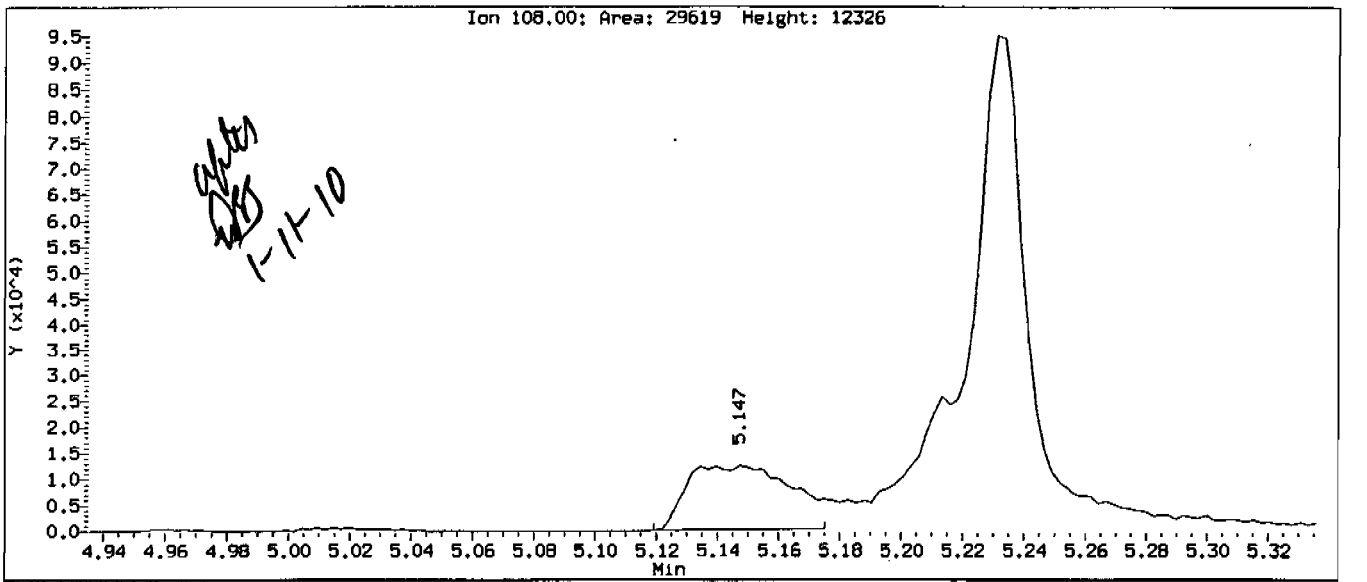

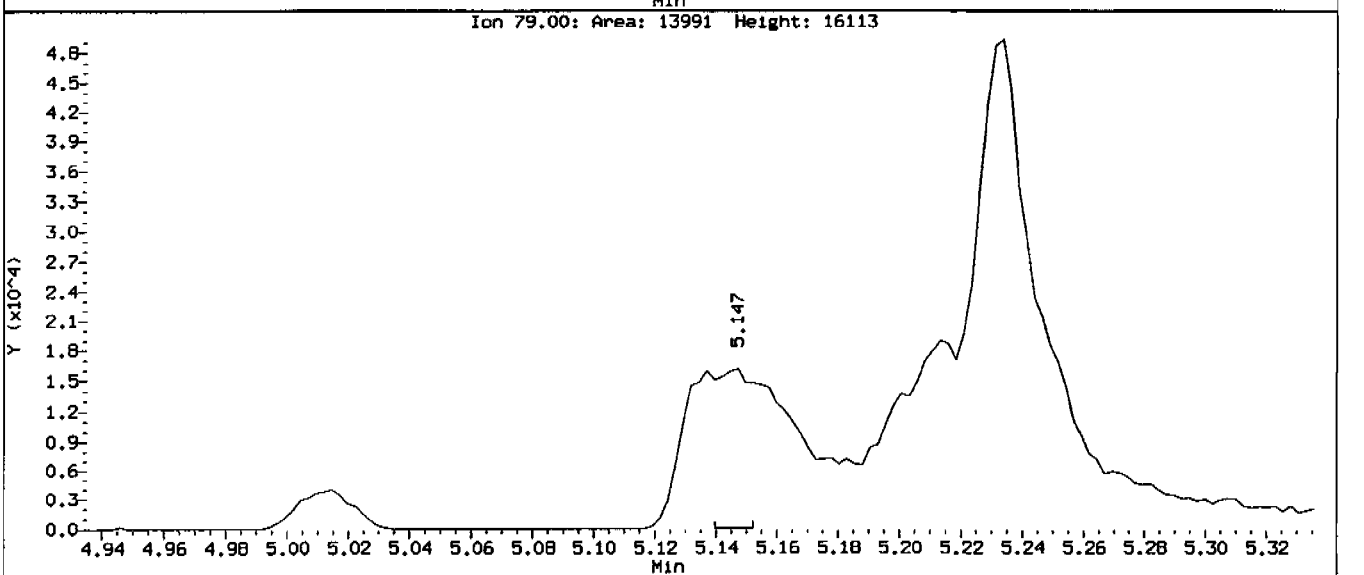

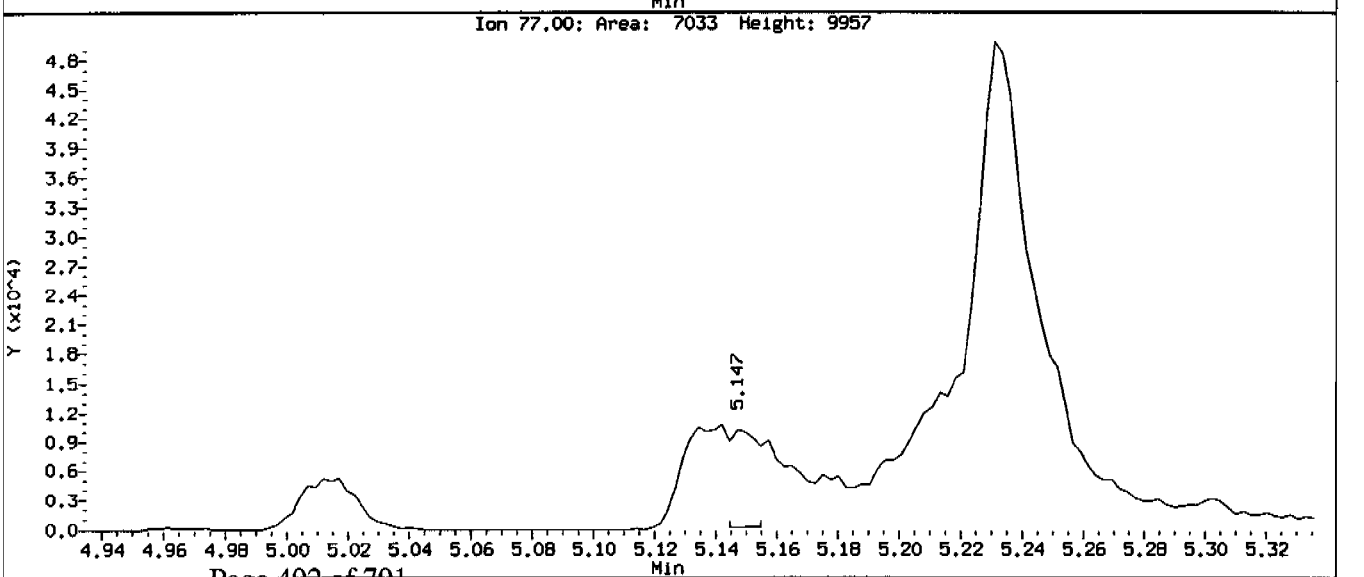

GC SEMIVOLATILE DRO ANALYSIS

DRO Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-917

Method/Analysis Information

Procedure:	**Analysis of Diesel Range Organics by Flame Ionization Detector**
Analytical Method:	SW846 8015A/B SVOC
Prep Method:	SW846 3550B
Analytical Batch Number:	933843
Prep Batch Number:	933842

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 8015A/B SVOC:

Sample ID	Client ID
242937001	RE03-09-14213
242937002	RE03-09-14215
242937003	RE03-09-14212
242937004	RE03-09-14219
242937005	RE03-09-14218
242937006	RE03-09-14216
242937007	RE03-09-14214
242937008	RE03-09-14217
242937009	RE03-10-2735
1201997993	Method Blank (MB)
1201997994	Laboratory Control Sample (LCS)
1201997995	242937001(RE03-09-14213) Matrix Spike (MS)
1201997996	242937001(RE03-09-14213) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on a "dry weight" basis.

Preparation/Analytical Method Verification

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-003 REV# 18.

Raw data reports are processed and reviewed by the analyst using the Target software package. False positives have

been removed from the Target quantitation reports per standard operating procedures (SOP) section 23.0.

Calibration Information

Initial Calibration
All initial calibration requirements have been met for this sample delivery group (SDG).

The linear equation used in Target and indicated on the initial calibration summary form is not a conventional linear equation (slope intercept formula) and does not match the equation found in SW-846 method 8000B. The x and y axes are inversed in Target, so that the instrument response is treated as the independent variable (x) and the concentration ratio is treated as the dependent variable (y). The equation used in Target to calculate sample results is adjusted to account for the linear equation inversion and reciprocal slope. The adjusted calculation has been independently verified to produce valid results.

Continuing Calibration Verification (CCV) Requirements
All associated calibration verification standard(s) (ICV or CCV) met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Surrogate Recoveries
All surrogate recoveries were within the established acceptance criteria for this SDG.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

QC Sample Designation
Sample 242937001 (RE03-09-14213) was selected for the matrix spike and matrix spike duplicate analysis.

Matrix Spike (MS) Recovery Statement
The MS recovery was within the established acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recovery was within the established acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD between the MS and MSD met the acceptance limits.

Technical Information

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-extraction/Re-analysis
Re-extractions or re-analyses were not required in this SDG.

Miscellaneous Information

Electronic Package Comment

The following package was generated using an electronic data processing program referred to as "virtual packaging". In an effort to increase quality and efficiency, the laboratory is developing systems to eventually generate all data packages electronically. The following change from "traditional" packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. An electronic signature page inserted after the case narrative of each electronic package will indicate the analyst, reviewer, and report specialist names associated with the generation of the data and package. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Nonconformance (NCR) Documentation

Nonconformance report (NCR) is for documentation of any procedural anomalies that may deviate from referenced SOP or contractual document. A NCR was not required for this SDG.

Manual Integration

Certain standards and QC samples may have required manual integration to correctly position the baseline as set in the calibration standard injections. If manual integration was performed, copies of all manual integration peak profiles are included in the raw data section of this fraction.

Additional Comments

The additional comments field is used to address special issues associated with each analysis, clarify method/contractual issues pertaining to the analysis, and to list any report documents generated as a result of sample analysis or review. The following additional comments were required:

Due to software limitation, the Form VIIs will display the results either in the % difference or % drift depending on the type of the calibration curve. If the curve of all analytes is generated using an average response factor (RF), the Form VII will display results using the difference calculation (RF). If the curve of one or more analytes is generated using a linear curve, the Form VII will display results using the % drift calculation (by concentration) for all analytes.

System Configuration

The GC-FID analysis was performed on the following instrument configuration:

Instrument ID	Instrument	System Configuration	Column ID	Column Description
FID7.I	Agilent GC FID	Agilent 6890N GC/FID	DB-5MS	30m x 0.25mm, 0.25um(J&W)

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Jimi Cao **Date:** 1/11/10

Roadmap for LANL 10-917 DRO

This roadmap was analyzed by kev01577 on 12-20-2009, 16:35.
This roadmap was reviewed by hea01125 on 12-22-2009, 17:41.
This roadmap was packaged by yml on 01-08-2010, 10:55.

Sample

exclude	manual	datafile	smpid	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/fid7.i/121709dr/013f1301.d	242937001	18-DEC-2009	07:16	10-917.sub	RE03-09-14213	1.00000	933843	USE
☐	N	/chem/fid7.i/121709dr/018f1801.d	242937002	18-DEC-2009	10:21	10-917.sub	RE03-09-14215	1.00000	933843	USE
☐	N	/chem/fid7.i/121709dr/019f1901.d	242937003	18-DEC-2009	10:58	10-917.sub	RE03-09-14212	1.00000	933843	USE
☐	N	/chem/fid7.i/121709dr/020f2001.d	242937004	18-DEC-2009	11:35	10-917.sub	RE03-09-14219	1.00000	933843	USE
☐	N	/chem/fid7.i/121709dr/021f2101.d	242937005	18-DEC-2009	12:12	10-917.sub	RE03-09-14218	1.00000	933843	USE
☐	N	/chem/fid7.i/121709dr/022f2201.d	242937006	18-DEC-2009	12:49	10-917.sub	RE03-09-14216	1.00000	933843	USE
☐	N	/chem/fid7.i/121709dr/023f2301.d	242937007	18-DEC-2009	13:27	10-917.sub	RE03-09-14214	1.00000	933843	USE
☐	N	/chem/fid7.i/121709dr/024f2401.d	242937008	18-DEC-2009	14:04	10-917.sub	RE03-09-14217	1.00000	933843	USE
☐	N	/chem/fid7.i/121709dr/025f2501.d	242937009	18-DEC-2009	14:42	10-917.sub	RE03-10-2735	1.00000	933843	USE

QC Sample

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/fid7.i/121709dr/005f0501a.d	1201997993	mb	18-DEC-2009	02:24	10-917.sub	DBLK01	1.00000	933843	
☐	N	/chem/fid7.i/121709dr/006f0601a.d	1201997994	lcs	18-DEC-2009	03:00	10-917.sub	DBLK01LCS	1.00000	933843	
☐	N	/chem/fid7.i/121709dr/016f1601.d	1201997995	ms	18-DEC-2009	09:07	10-917.sub	RE03-09-14213MS	1.00000	933843	USE
☐	N	/chem/fid7.i/121709dr/017f1701.d	1201997996	msd	18-DEC-2009	09:44	10-917.sub	RE03-09-14213MSD	1.00000	933843	USE

SAMPLE DATA SUMMARY

Flame Ionization Detector
Certificate of Analysis
Sample Summary

SDG Number:	10–917	Date Collected:	12/11/2009 12:00	Matrix:	S
Lab Sample ID:	242937001	Date Received:	12/15/2009 08:45	%Moisture:	12.8
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03–09–14213	Method:	SW846 8015A/B SVOC	SOP Ref:	GL–OA–E–003
Batch ID:	933843	Inst:	FID7.I	Dilution:	1
Run Date:	12/18/2009 07:16	Analyst:	KXR2	Inj. Vol:	1 uL
Prep Date:	12/17/2009 18:54	Aliquot:	30.01 g	Final Volume:	1 mL
Data File:	013f1301.d	Column:	DB–5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics		11.6	mg/kg	2.48	7.64

Flame Ionization Detector
Certificate of Analysis
Sample Summary

SDG Number:	10-917	Date Collected:	12/11/2009 12:00	Matrix:	S
Lab Sample ID:	242937002	Date Received:	12/15/2009 08:45	%Moisture:	10.3
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14215	Method:	SW846 8015A/B SVOC	SOP Ref:	GL-OA-E-003
Batch ID:	933843	Inst:	FID7.I	Dilution:	1
Run Date:	12/18/2009 10:21	Analyst:	KXR2	Inj. Vol:	1 uL
Prep Date:	12/17/2009 18:54	Aliquot:	30.01 g	Final Volume:	1 mL
Data File:	018f1801.d	Column:	DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics	J	3.37	mg/kg	2.41	7.43

Flame Ionization Detector
Certificate of Analysis
Sample Summary

SDG Number:	10–917	Date Collected:	12/11/2009 12:00	Matrix:	S
Lab Sample ID:	242937003	Date Received:	12/15/2009 08:45	%Moisture:	12.9
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03–09–14212	Method:	SW846 8015A/B SVOC	SOP Ref:	GL–OA–E–003
Batch ID:	933843	Inst:	FID7.I	Dilution:	1
Run Date:	12/18/2009 10:58	Analyst:	KXR2	Inj. Vol:	1 uL
Prep Date:	12/17/2009 18:54	Aliquot:	30.03 g	Final Volume:	1 mL
Data File:	019f1901.d	Column:	DB–5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics	J	6.03	mg/kg	2.48	7.64

Flame Ionization Detector
Certificate of Analysis
Sample Summary

SDG Number:	10–917	**Date Collected:**	12/11/2009 12:00	**Matrix:**	S
Lab Sample ID:	242937004	**Date Received:**	12/15/2009 08:45	**%Moisture:**	17.2
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03–09–14219	**Method:**	SW846 8015A/B SVOC	**SOP Ref:**	GL–OA–E–003
Batch ID:	933843	**Inst:**	FID7.I	**Dilution:**	1
Run Date:	12/18/2009 11:35	**Analyst:**	KXR2	**Inj. Vol:**	1 uL
Prep Date:	12/17/2009 18:54	**Aliquot:**	30.09 g	**Final Volume:**	1 mL
Data File:	020f2001.d	**Column:**	DB–5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics	U	8.02	mg/kg	2.61	8.02

Flame Ionization Detector
Certificate of Analysis
Sample Summary

SDG Number:	10–917	Date Collected:	12/11/2009 12:00	Matrix:	S
Lab Sample ID:	242937005	Date Received:	12/15/2009 08:45	%Moisture:	17.6
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03–09–14218	Method:	SW846 8015A/B SVOC	SOP Ref:	GL–OA–E–003
Batch ID:	933843	Inst:	FID7.I	Dilution:	1
Run Date:	12/18/2009 12:12	Analyst:	KXR2	Inj. Vol:	1 uL
Prep Date:	12/17/2009 18:54	Aliquot:	30.05 g	Final Volume:	1 mL
Data File:	021f2101.d	Column:	DB–5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics	U	8.08	mg/kg	2.63	8.08

Flame Ionization Detector
Certificate of Analysis
Sample Summary

SDG Number:	10-917	Date Collected:	12/11/2009 12:00	Matrix:	S
Lab Sample ID:	242937006	Date Received:	12/15/2009 08:45	%Moisture:	15.8
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14216	Method:	SW846 8015A/B SVOC	SOP Ref:	GL-OA-E-003
Batch ID:	933843	Inst:	FID7.I	Dilution:	1
Run Date:	12/18/2009 12:49	Analyst:	KXR2	Inj. Vol:	1 uL
Prep Date:	12/17/2009 18:54	Aliquot:	30.02 g	Final Volume:	1 mL
Data File:	022f2201.d	Column:	DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics	J	4.09	mg/kg	2.57	7.92

Flame Ionization Detector
Certificate of Analysis
Sample Summary

SDG Number:	10–917	**Date Collected:**	12/11/2009 12:00	**Matrix:**	S
Lab Sample ID:	242937007	**Date Received:**	12/15/2009 08:45	**%Moisture:**	13.8
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03–09–14214	**Method:**	SW846 8015A/B SVOC	**SOP Ref:**	GL–OA–E–003
Batch ID:	933843	**Inst:**	FID7.I	**Dilution:**	1
Run Date:	12/18/2009 13:27	**Analyst:**	KXR2	**Inj. Vol:**	1 uL
Prep Date:	12/17/2009 18:54	**Aliquot:**	30.05 g	**Final Volume:**	1 mL
Data File:	023f2301.d	**Column:**	DB–5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics	J	5.19	mg/kg	2.51	7.72

Flame Ionization Detector
Certificate of Analysis
Sample Summary

SDG Number:	10–917	**Date Collected:**	12/11/2009 12:00	**Matrix:**	S
Lab Sample ID:	242937008	**Date Received:**	12/15/2009 08:45	**%Moisture:**	15.2
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03–09–14217	**Method:**	SW846 8015A/B SVOC	**SOP Ref:**	GL–OA–E–003
Batch ID:	933843	**Inst:**	FID7.I	**Dilution:**	1
Run Date:	12/18/2009 14:04	**Analyst:**	KXR2	**Inj. Vol:**	1 uL
Prep Date:	12/17/2009 18:54	**Aliquot:**	30.04 g	**Final Volume:**	1 mL
Data File:	024f2401.d	**Column:**	DB–5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics	J	2.82	mg/kg	2.55	7.86

Flame Ionization Detector
Certificate of Analysis
Sample Summary

SDG Number:	10-917	Date Collected:	12/11/2009 12:00	Matrix:	S
Lab Sample ID:	242937009	Date Received:	12/15/2009 08:45	%Moisture:	14.2
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-10-2735	Method:	SW846 8015A/B SVOC	SOP Ref:	GL-OA-E-003
Batch ID:	933843	Inst:	FID7.I	Dilution:	1
Run Date:	12/18/2009 14:42	Analyst:	KXR2	Inj. Vol:	1 uL
Prep Date:	12/17/2009 18:54	Aliquot:	30.03 g	Final Volume:	1 mL
Data File:	025f2501.d	Column:	DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics	J	7.49	mg/kg	2.52	7.76

QUALITY CONTROL SUMMARY

Flame Ionization Detector

Surrogate Recovery Report

SDG Number: 10–917

Matrix Type: SOLID

CAP Column (1) : DB–5MS

Sample ID	Client ID	OTP %REC
1201997993	MB for batch 933842	45
1201997994	LCS for batch 933842	78
242937001	RE03–09–14213	55
1201997995	RE03–09–14213MS	66
1201997996	RE03–09–14213MSD	80
242937002	RE03–09–14215	50
242937003	RE03–09–14212	57
242937004	RE03–09–14219	49
242937005	RE03–09–14218	45
242937006	RE03–09–14216	64
242937007	RE03–09–14214	55
242937008	RE03–09–14217	50
242937009	RE03–10–2735	59

Surrogate	Acceptance Limits
OTP = o–Terphenyl	(24%–124%)

* Recovery outside Acceptance Limits

\# Column to be used to flag recovery values

D Sample Diluted

Flame Ionization Detector

Quality Control Summary

Spike Recovery Report

SDG Number: 10–917

Sample Type: Laboratory Control Sample

Client ID: LCS for batch 933842

Matrix: SOIL

Lab Sample ID: 1201997994

Instrument: FID7.I

Analysis Date: 12/18/2009 03:00

Dilution: 1

Analyst: KXR2

Prep Batch ID: 933842

Inj. Vol: 1 uL

Batch ID: 933843

CAS No		Parmname	Amount Added mg/kg	Sample Conc. mg/kg	Spike Conc. mg/kg	Recovery %	Acceptance Limits
DRO	LCS	Diesel Range Organics	33.3	0.0	27.3	82	53–114

Flame Ionization Detector

Quality Control Summary
Spike Recovery Report

SDG Number: 10-917
Client ID: RE03-09-14213MS
Lab Sample ID: 1201997995
Instrument: FID7.I
Analyst: KXR2
Inj. Vol: 1 uL

Sample Type: Matrix Spike
Matrix: S
%Moisture: 12.8
Analysis Date: 12/18/2009 09:07
Prep Batch ID: 933842
Batch ID: 933843
Dilution: 1

CAS No		Parmname	Amount Added mg/kg	Sample Conc. mg/kg	Spike Conc. mg/kg	Recovery %	Acceptance Limits
DRO	MS	Diesel Range Organics	38.2	11.6	28.4	44	21-122

Flame Ionization Detector

Quality Control Summary

Spike Recovery Report

SDG Number: 10–917

Client ID: RE03–09–14213MSD

Lab Sample ID: 1201997996

Instrument: FID7.I

Analyst: KXR2

Inj. Vol: 1 uL

Sample Type: Matrix Spike Duplicate

Matrix: S

%Moisture: 12.8

Analysis Date: 12/18/2009 09:44

Dilution: 1

Prep Batch ID: 933842

Batch ID: 933843

CAS No	Parmname	Amount Added mg/kg	Sample Conc. mg/kg	Spike Conc. mg/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
DRO	MSD Diesel Range Organics	38.2	11.6	33.6	58	21–122	17	0–30

Method Blank Summary

SDG Number:	10–917	Client:	LANL010	Matrix:	SOIL
Client ID:	MB for batch 933842	Instrument ID:	FID7.I	Data File:	005f0501.d
Lab Sample ID:	1201997993	Prep Date:	12/17/2009 18:54	Analyzed:	12/18/09 02:24
Column:	DB–5MS	Level:	LOW		

This method blank applies to the following samples and quality control samples:

	Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01	LCS for batch 933842	1201997994	006f0601.d	12/18/09	0300
02	RE03–09–14213	242937001	013f1301.d	12/18/09	0716
03	RE03–09–14213MS	1201997995	016f1601.d	12/18/09	0907
04	RE03–09–14213MSD	1201997996	017f1701.d	12/18/09	0944
05	RE03–09–14215	242937002	018f1801.d	12/18/09	1021
06	RE03–09–14212	242937003	019f1901.d	12/18/09	1058
07	RE03–09–14219	242937004	020f2001.d	12/18/09	1135
08	RE03–09–14218	242937005	021f2101.d	12/18/09	1212
09	RE03–09–14216	242937006	022f2201.d	12/18/09	1249
10	RE03–09–14214	242937007	023f2301.d	12/18/09	1327
11	RE03–09–14217	242937008	024f2401.d	12/18/09	1404
12	RE03–10–2735	242937009	025f2501.d	12/18/09	1442

SAMPLE DATA

Flame Ionization Detector
Certificate of Analysis
Sample Summary

SDG Number:	10–917	**Date Collected:**	12/11/2009 12:00	**Matrix:**	S
Lab Sample ID:	242937001	**Date Received:**	12/15/2009 08:45	**%Moisture:**	12.8
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03–09–14213	**Method:**	SW846 8015A/B SVOC	**SOP Ref:**	GL–OA–E–003
Batch ID:	933843	**Inst:**	FID7.I	**Dilution:**	1
Run Date:	12/18/2009 07:16	**Analyst:**	KXR2	**Inj. Vol:**	1 uL
Prep Date:	12/17/2009 18:54	**Aliquot:**	30.01 g	**Final Volume:**	1 mL
Data File:	013f1301.d	**Column:**	DB–5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics		11.6	mg/kg	2.48	7.64

GEL Laboratories LLC

DB-5MS .25mm

Data file : /chem/fid7.i/121709dr/013f1301.d
Lab Smp Id: 242937001 Client Smp ID: RE03-09-14213
Inj Date : 18-DEC-2009 07:16
Operator : KXR2 Inst ID: fid7.i
Smp Info : |242937001|1|
Misc Info : |FIDDRO_S|933843|FIDF|LANL|
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fid7.i/121709dr/FID7a.i_b_DRO_121309.m
Meth Date : 18-Dec-2009 15:52 kev01577 Quant Type: ESTD
Cal Date : 13-DEC-2009 18:58 Cal File: 007f0701.d
Als bottle: 13
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-917.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.01000	Weigth of sample extracted (g)
M	12.82530	% Moisture

Cpnd Variable Local Compound Variable

	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (mg/L)	FINAL (mg/Kg)	
S	1 Diesel Range Organics					CAS #:	
	7.480- 17.855			4072990	303.565	11.6	
$	2 o-Terphenyl					CAS #: 84-15-1	
	13.595	13.598	-0.003	290509	11.0190	0.42	(M)

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/fid7.i/121709dr/013f1301.d
Date : 18-DEC-2009 07:16
Client ID: RE03-09-14213
Sample Info: |242937001|1|
Volume Injected (uL): 1.0
Column phase: DB-5MS

Page 1

Instrument: fid7.i

Operator: KXR2
Column diameter: 0.25

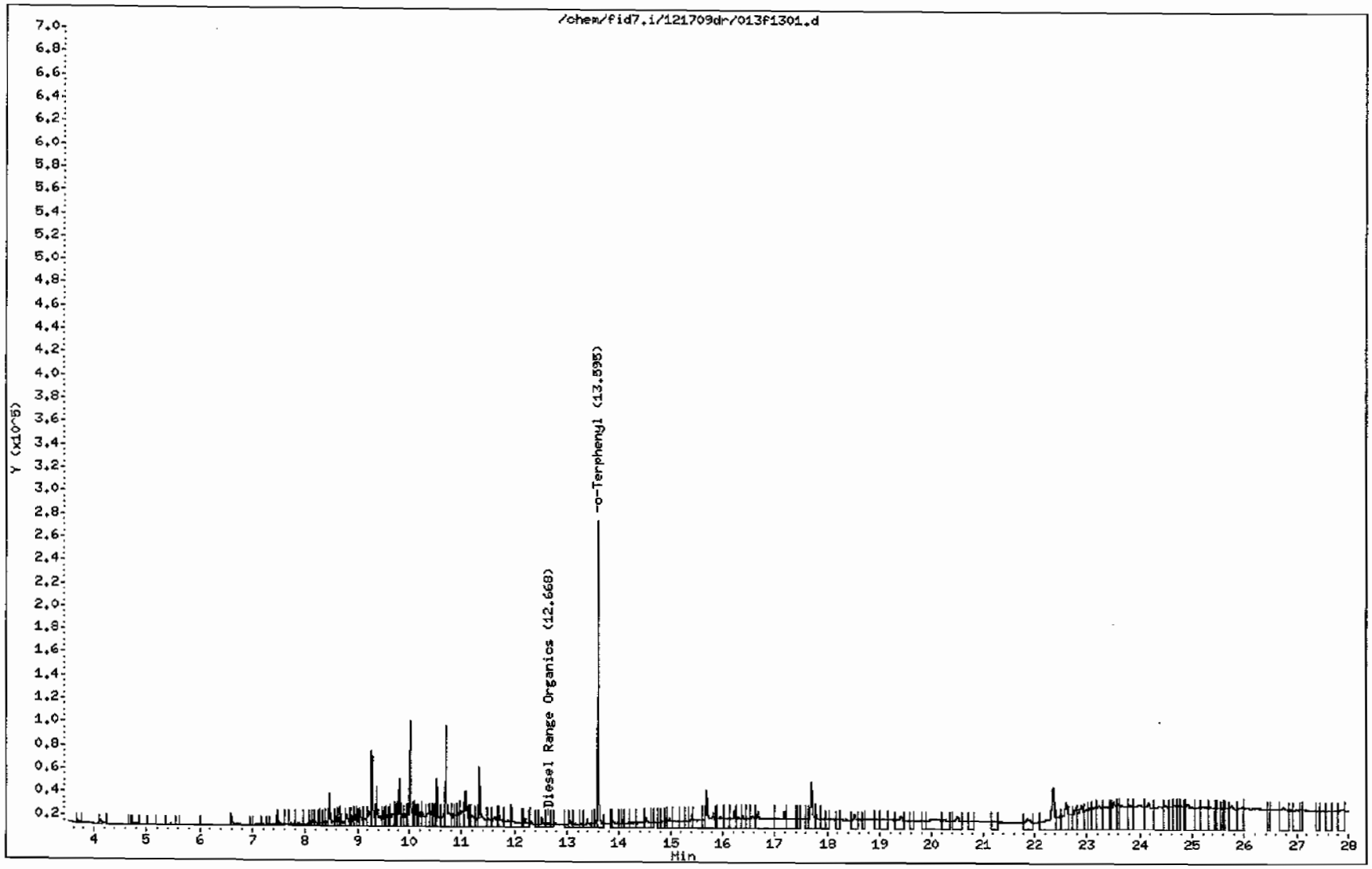

Data File: /chem/fid7.i/121709dr/013f1301.d
Injection Date: 18-DEC-2009 07:16
Instrument: fid7.i
Client Sample ID: RE03-09-14213

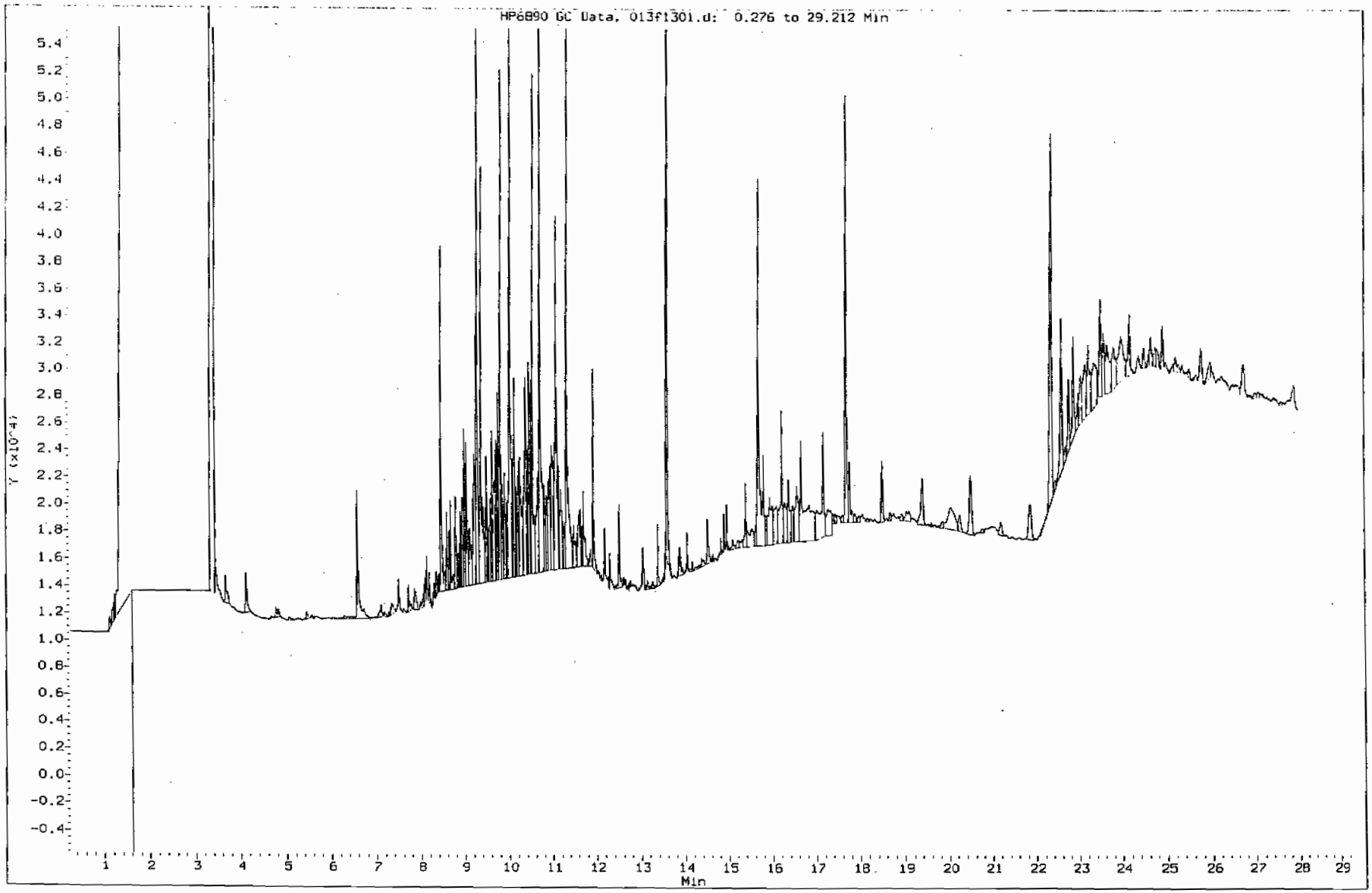

Data File: /chem/fid7.i/121709dr/013f1301.d
Injection Date: 18-DEC-2009 07:16
Instrument: fid7.i
Client Sample ID: RE03-09-14213

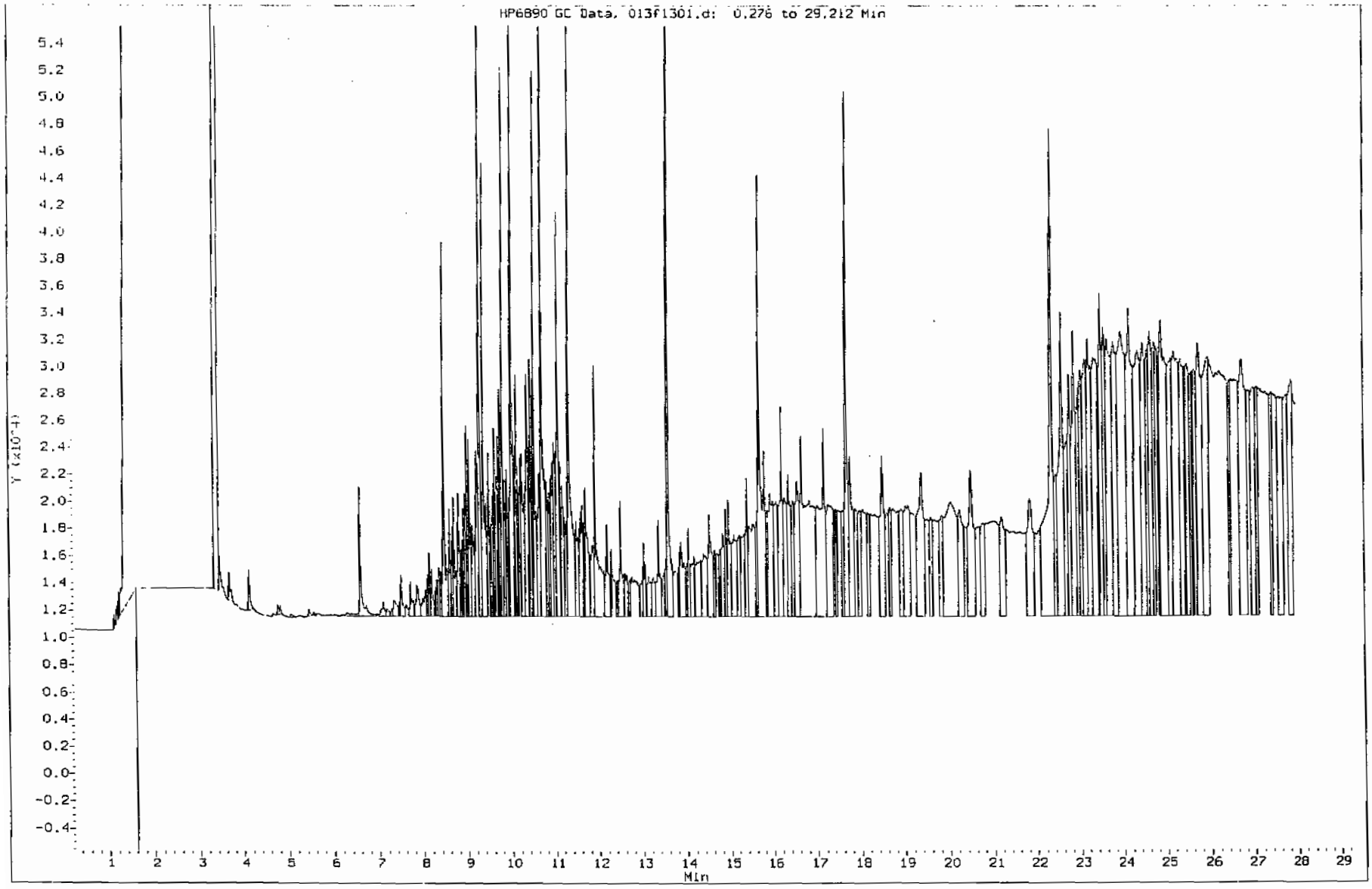

Flame Ionization Detector
Certificate of Analysis
Sample Summary

SDG Number:	10-917	Date Collected:	12/11/2009 12:00	Matrix:	S
Lab Sample ID:	242937002	Date Received:	12/15/2009 08:45	%Moisture:	10.3
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14215	Method:	SW846 8015A/B SVOC	SOP Ref:	GL-OA-E-003
Batch ID:	933843	Inst:	FID7.I	Dilution:	1
Run Date:	12/18/2009 10:21	Analyst:	KXR2	Inj. Vol:	1 uL
Prep Date:	12/17/2009 18:54	Aliquot:	30.01 g	Final Volume:	1 mL
Data File:	018f1801.d	Column:	DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics	J	3.37	mg/kg	2.41	7.43

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DB-5MS .25mm

Data file : /chem/fid7.i/121709dr/018f1801.d
Lab Smp Id: 242937002 Client Smp ID: RE03-09-14215
Inj Date : 18-DEC-2009 10:21
Operator : KXR2 Inst ID: fid7.i
Smp Info : |242937002|1|
Misc Info : |FIDDRO_S|933843|FIDF|LANL|
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fid7.i/121709dr/FID7a.i_b_DRO_121309.m
Meth Date : 18-Dec-2009 15:52 kev01577 Quant Type: ESTD
Cal Date : 13-DEC-2009 18:58 Cal File: 007f0701.d
Als bottle: 18
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-917.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.01000	Weigth of sample extracted (g)
M	10.28450	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (mg/L)	CONCENTRATIONS FINAL (mg/Kg)	
S 1 Diesel Range Organics					CAS #:	
7.480- 17.855			1217776	90.7623	3.4	(a)
$ 2 o-Terphenyl					CAS #: 84-15-1	
13.594	13.598	-0.004	264232	10.0223	0.37	(M)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

Data File: /chem/fid7.i/121709dr/018f1801.d
Date : 18-DEC-2009 10:21
Client ID: RE03-09-14215
Sample Info: |242937002|1|
Volume Injected (uL): 1.0
Column phase: DB-5MS

Instrument: fid7.i

Operator: KXR2
Column diameter: 0.25

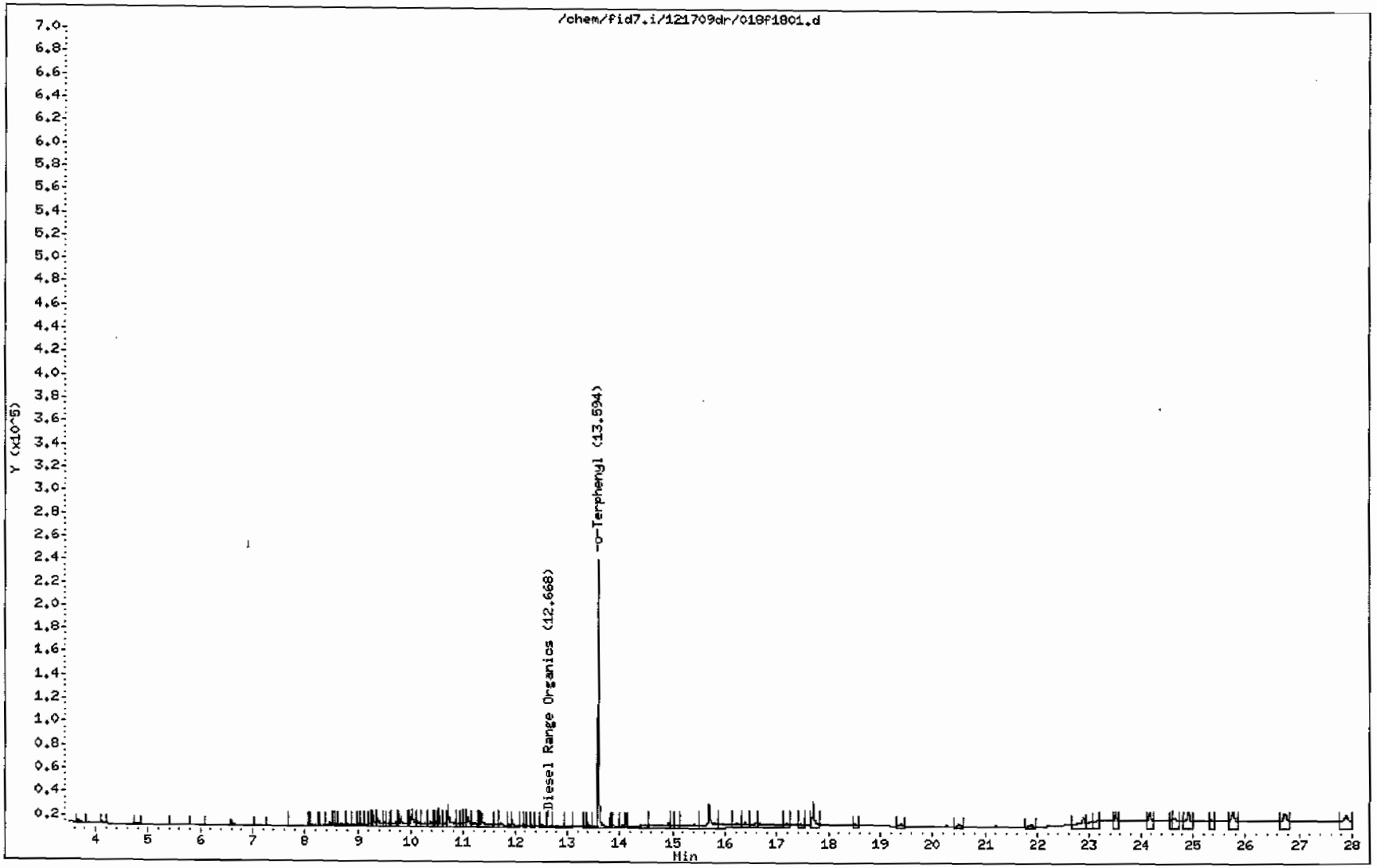

Data File: /chem/fid7.i/121709dr/018f1001.d
Injection Date: 18-DEC-2009 10:21
Instrument: fid7.i
Client Sample ID: RE03-09-14215

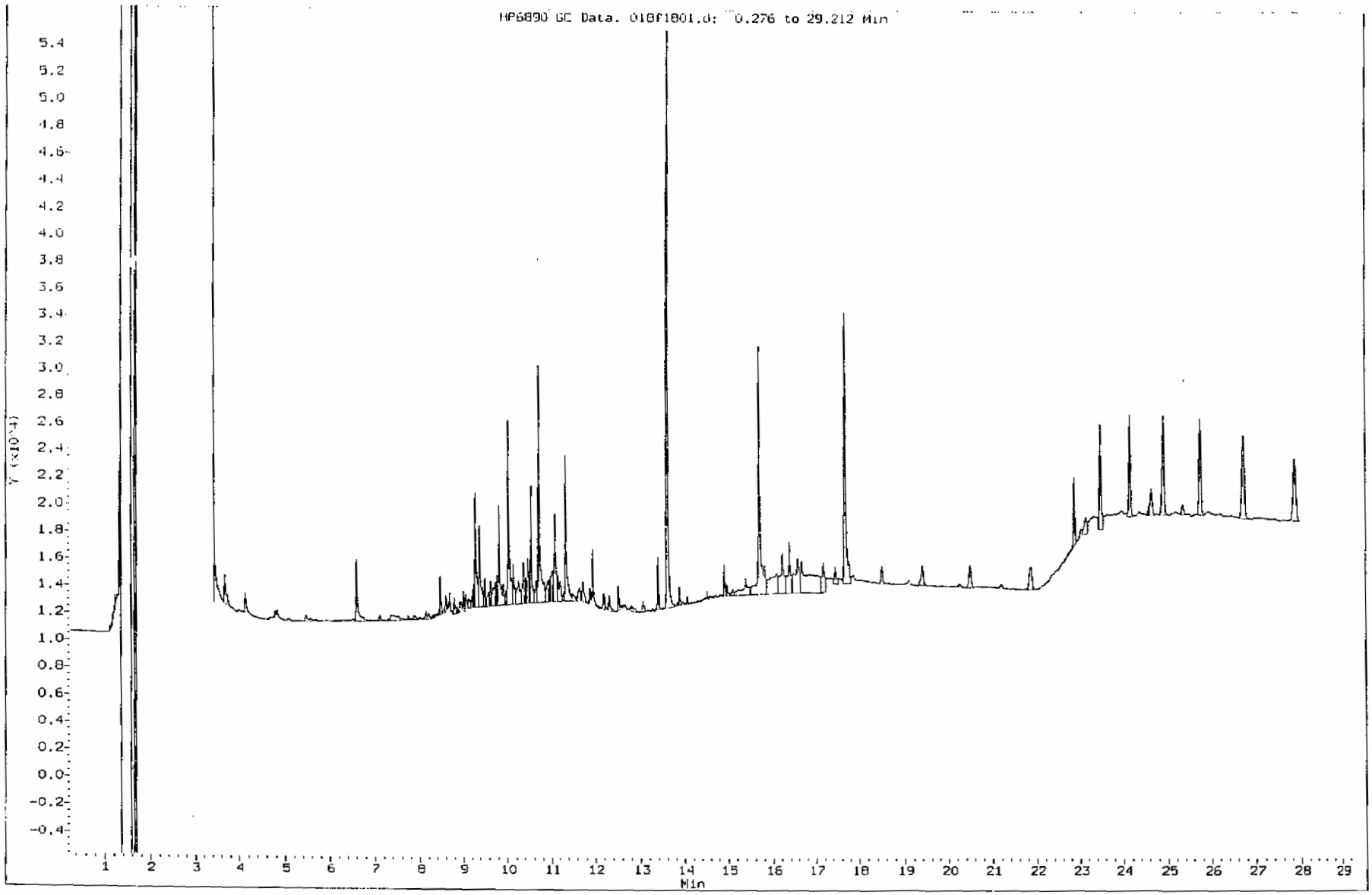

Data File: /chem/fid7.i/121709dr/018f1801.d
Injection Date: 18-DEC-2009 10:21
Instrument: Fid7.i
Client Sample ID: RE03-09-1-0215

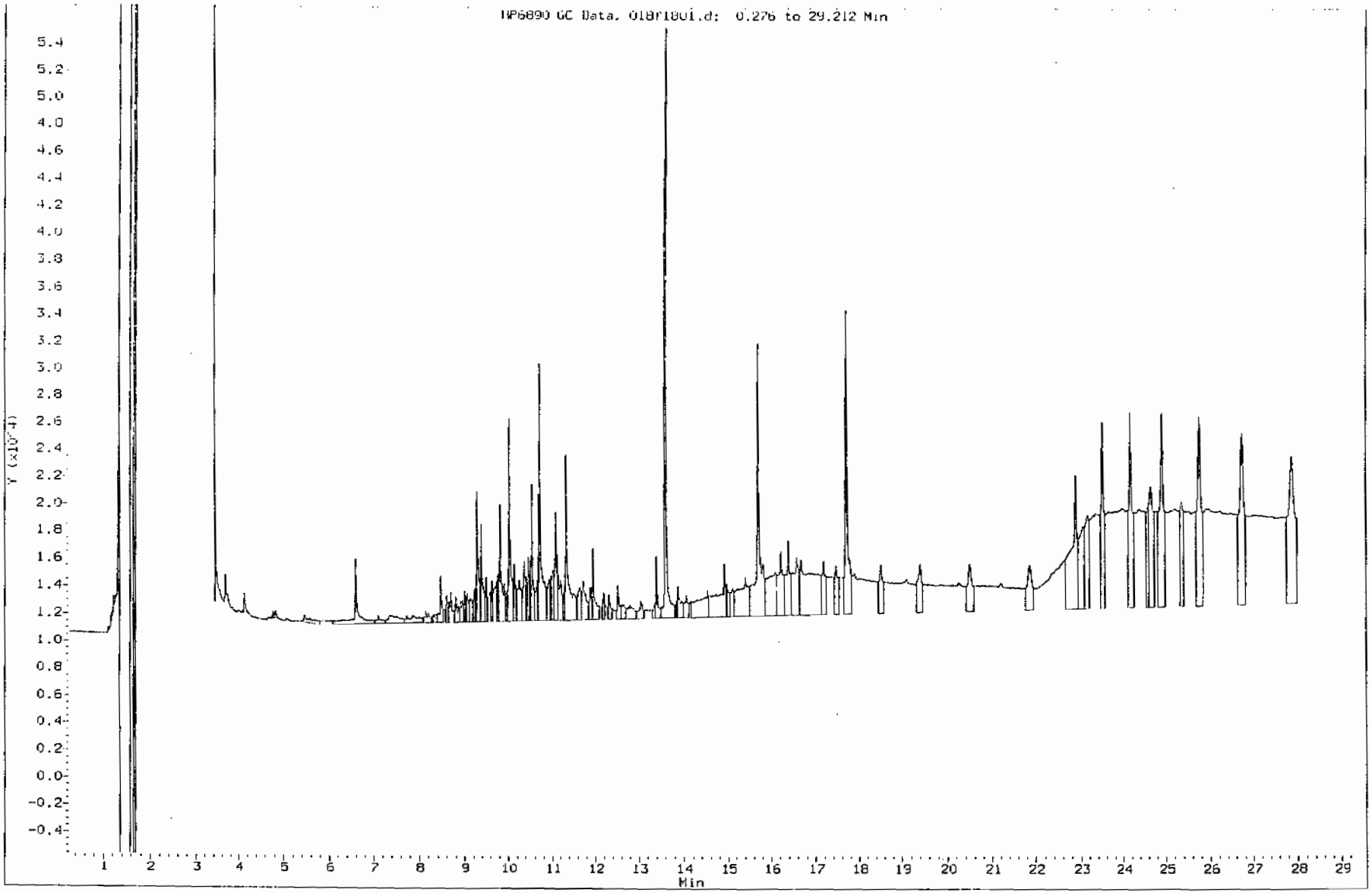

Flame Ionization Detector
Certificate of Analysis
Sample Summary

SDG Number:	10–917	Date Collected:	12/11/2009 12:00	Matrix:	S
Lab Sample ID:	242937003	Date Received:	12/15/2009 08:45	%Moisture:	12.9
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03–09–14212	Method:	SW846 8015A/B SVOC	SOP Ref:	GL–OA–E–003
Batch ID:	933843	Inst:	FID7.I	Dilution:	1
Run Date:	12/18/2009 10:58	Analyst:	KXR2	Inj. Vol:	1 uL
Prep Date:	12/17/2009 18:54	Aliquot:	30.03 g	Final Volume:	1 mL
Data File:	019f1901.d	Column:	DB–5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics	J	6.03	mg/kg	2.48	7.64

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DB-5MS .25mm

Data file : /chem/fid7.i/121709dr/019f1901.d
Lab Smp Id: 242937003 Client Smp ID: RE03-09-14212
Inj Date : 18-DEC-2009 10:58
Operator : KXR2 Inst ID: fid7.i
Smp Info : |242937003|1|
Misc Info : |FIDDRO_S|933843|FIDF|LANL|
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fid7.i/121709dr/FID7a.i_b_DRO_121309.m
Meth Date : 18-Dec-2009 15:52 kev01577 Quant Type: ESTD
Cal Date : 13-DEC-2009 18:58 Cal File: 007f0701.d
Als bottle: 19
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-917.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.03000	Weigth of sample extracted (g)
M	12.85170	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (mg/L)	FINAL (mg/Kg)	
$ 1 Diesel Range Organics					CAS #:	
7.480- 17.855			2117184	157.796	6.0	(a)
$ 2 o-Terphenyl					CAS #: 84-15-1	
13.594	13.598	-0.004	301791	11.4469	0.44	(M)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

Data File: /chem/fid7.i/121709dr/019f1901.d
Date : 18-DEC-2009 10:58
Client ID: RE03-09-14212
Sample Info: |242937003|1|
Volume Injected (uL): 1.0
Column phase: DB-5MS

Instrument: fid7.i

Operator: KXR2
Column diameter: 0.25

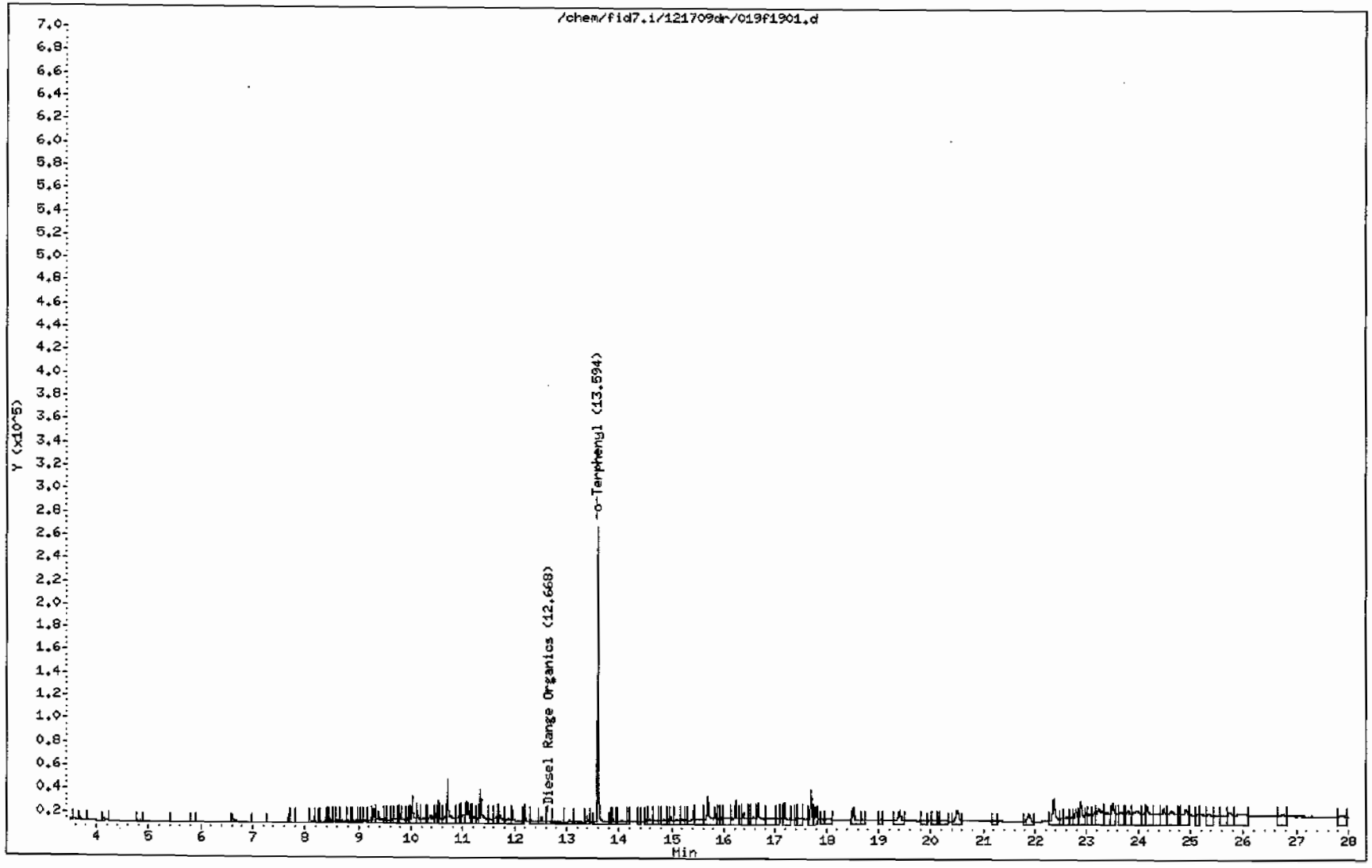

Data File: /chem/fid7.i/121709dc/019f1901.d
Injection Date: 18-DEC-2009 10:58
Instrument: Fid7.i
Client Sample ID: RE03-09-14212

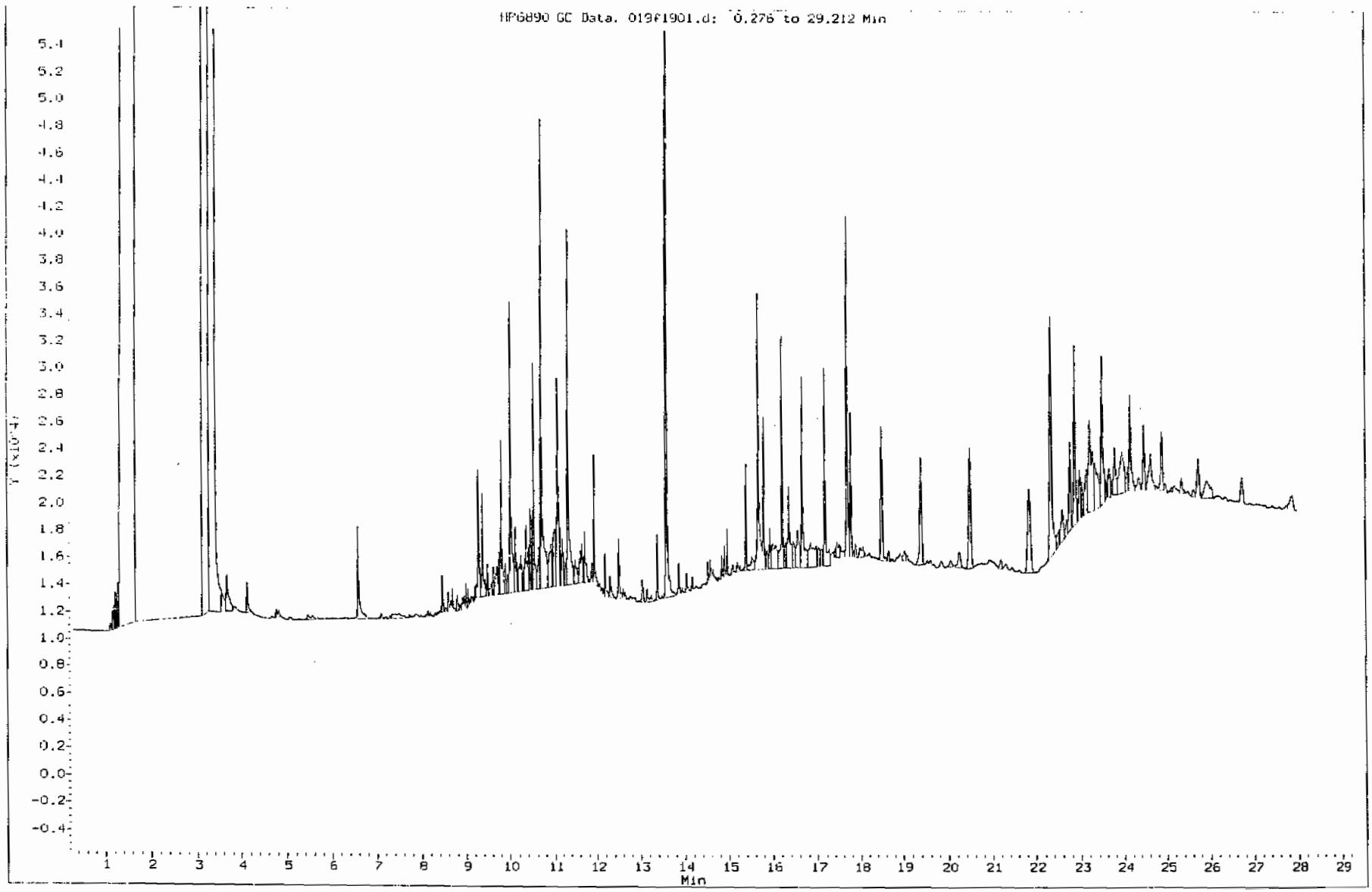

Data File: /chem/fid7.i/121709dr/019f1901.d
Injection Date: 18-DEC-2009 10:58
Instrument: Fid7.i
Client Sample ID: RE03-09-14212

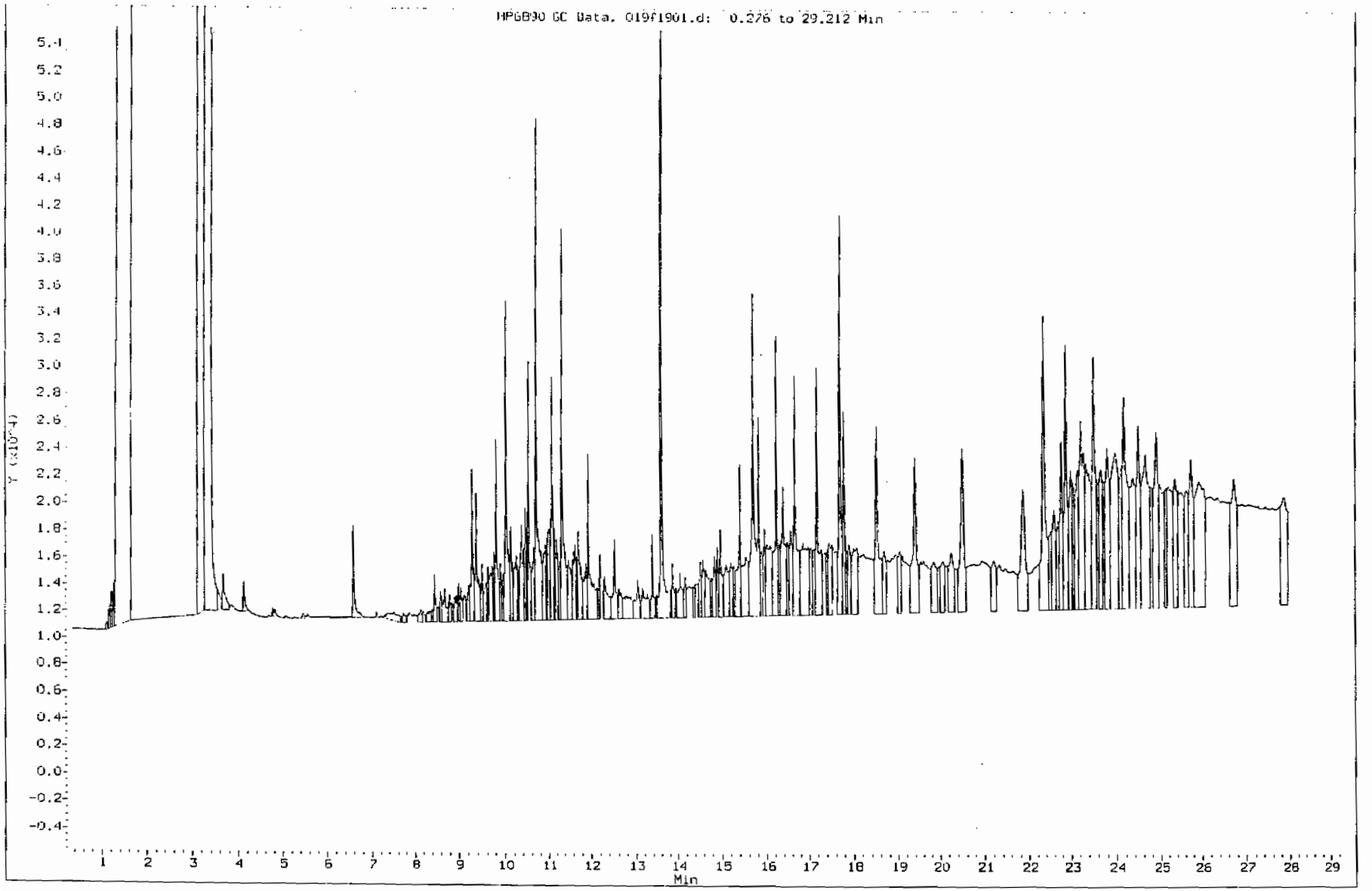

Flame Ionization Detector
Certificate of Analysis
Sample Summary

SDG Number:	10–917	Date Collected:	12/11/2009 12:00	Matrix:	S
Lab Sample ID:	242937004	Date Received:	12/15/2009 08:45	%Moisture:	17.2
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03–09–14219	Method:	SW846 8015A/B SVOC	SOP Ref:	GL–OA–E–003
Batch ID:	933843	Inst:	FID7.I	Dilution:	1
Run Date:	12/18/2009 11:35	Analyst:	KXR2	Inj. Vol:	1 uL
Prep Date:	12/17/2009 18:54	Aliquot:	30.09 g	Final Volume:	1 mL
Data File:	020f2001.d	Column:	DB–5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics	U	8.02	mg/kg	2.61	8.02

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DB-5MS .25mm

Data file : /chem/fid7.i/121709dr/020f2001.d
Lab Smp Id: 242937004 Client Smp ID: RE03-09-14219
Inj Date : 18-DEC-2009 11:35
Operator : KXR2 Inst ID: fid7.i
Smp Info : |242937004|1|
Misc Info : |FIDDRO_S|933843|FIDF|LANL|
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fid7.i/121709dr/FID7a.i_b_DRO_121309.m
Meth Date : 18-Dec-2009 15:52 kev01577 Quant Type: ESTD
Cal Date : 13-DEC-2009 18:58 Cal File: 007f0701.d
Als bottle: 20
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-917.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.09000	Weigth of sample extracted (g)
M	17.16580	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (mg/L)	FINAL (mg/Kg)
$ 2 o-Terphenyl					CAS #: 84-15-1
13.594	13.598	-0.004	256019	9.71077	0.39

Data File: /chem/fid7.i/121709dr/020f2001.d
Date : 18-DEC-2009 11:35
Client ID: RE03-09-14219
Sample Info: 1242937004|1|
Volume Injected (uL): 1.0
Column phase: DB-5MS

Page 1

Instrument: fid7.i

Operator: KXR2
Column diameter: 0.25

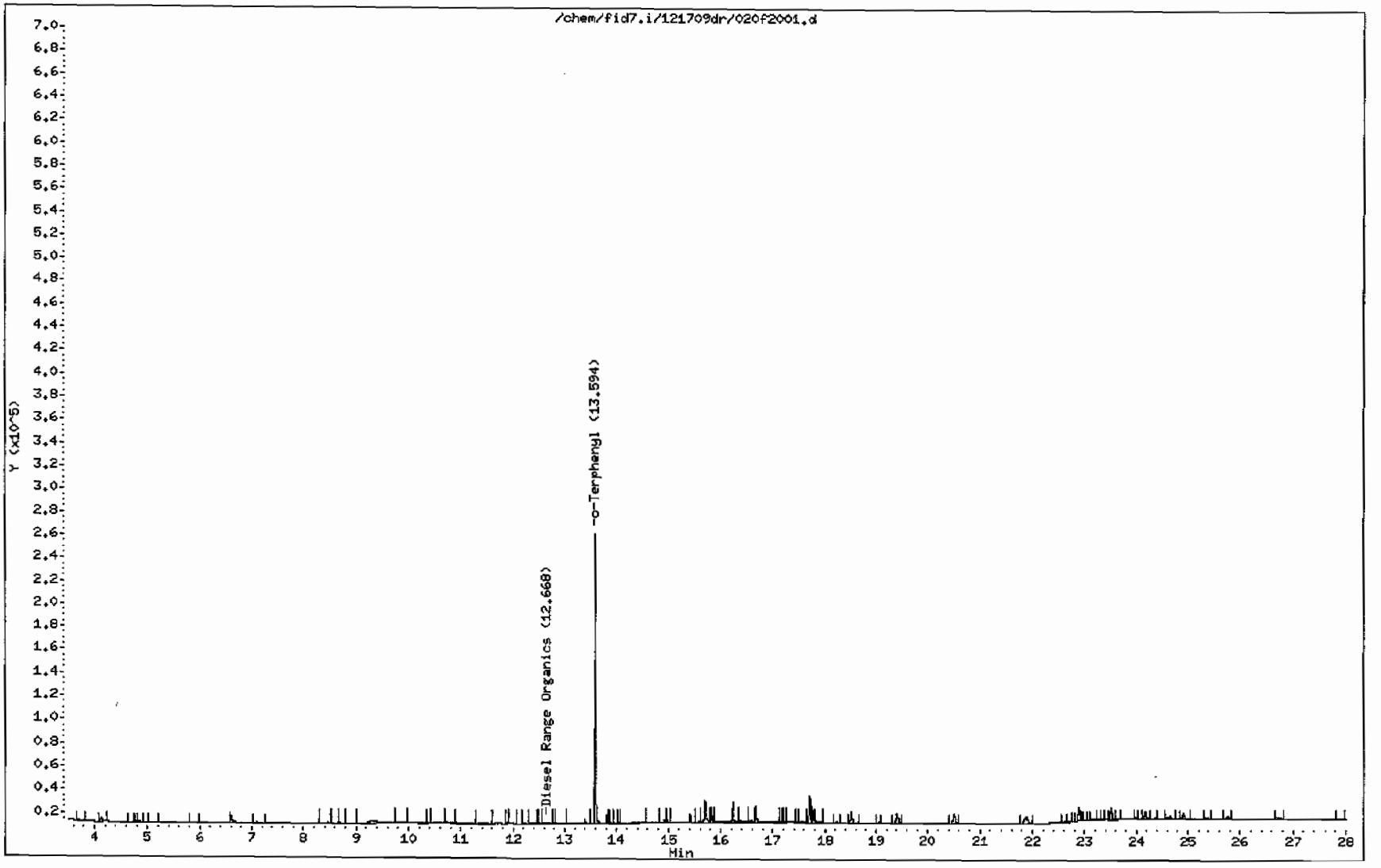

Flame Ionization Detector
Certificate of Analysis
Sample Summary

SDG Number:	10–917	Date Collected:	12/11/2009 12:00	Matrix:	S
Lab Sample ID:	242937005	Date Received:	12/15/2009 08:45	%Moisture:	17.6
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03–09–14218	Method:	SW846 8015A/B SVOC	SOP Ref:	GL–OA–E–003
Batch ID:	933843	Inst:	FID7.I	Dilution:	1
Run Date:	12/18/2009 12:12	Analyst:	KXR2	Inj. Vol:	1 uL
Prep Date:	12/17/2009 18:54	Aliquot:	30.05 g	Final Volume:	1 mL
Data File:	021f2101.d	Column:	DB–5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics	U	8.08	mg/kg	2.63	8.08

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DB-5MS .25mm

Data file : /chem/fid7.i/121709dr/021f2101.d
Lab Smp Id: 242937005 Client Smp ID: RE03-09-14218
Inj Date : 18-DEC-2009 12:12
Operator : KXR2 Inst ID: fid7.i
Smp Info : |242937005|1|
Misc Info : |FIDDRO_S|933843|FIDF|LANL|
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fid7.i/121709dr/FID7a.i_b_DRO_121309.m
Meth Date : 18-Dec-2009 15:52 kev01577 Quant Type: ESTD
Cal Date : 13-DEC-2009 18:58 Cal File: 007f0701.d
Als bottle: 21
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-917.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.05000	Weigth of sample extracted (g)
M	17.60770	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (mg/L)	FINAL (mg/Kg)
$ 2 o-Terphenyl					CAS #: 84-15-1
13.594	13.598	-0.004	238959	9.06367	0.37

Data File: /chem/fid7.i/121709dr/021f2101.d
Date : 18-DEC-2009 12:12
Client ID: RE03-09-14218
Sample Info: 1242937005111
Volume Injected (uL): 1.0
Column phase: DB-5MS

Instrument: fid7.i

Operator: KXR2
Column diameter: 0.25

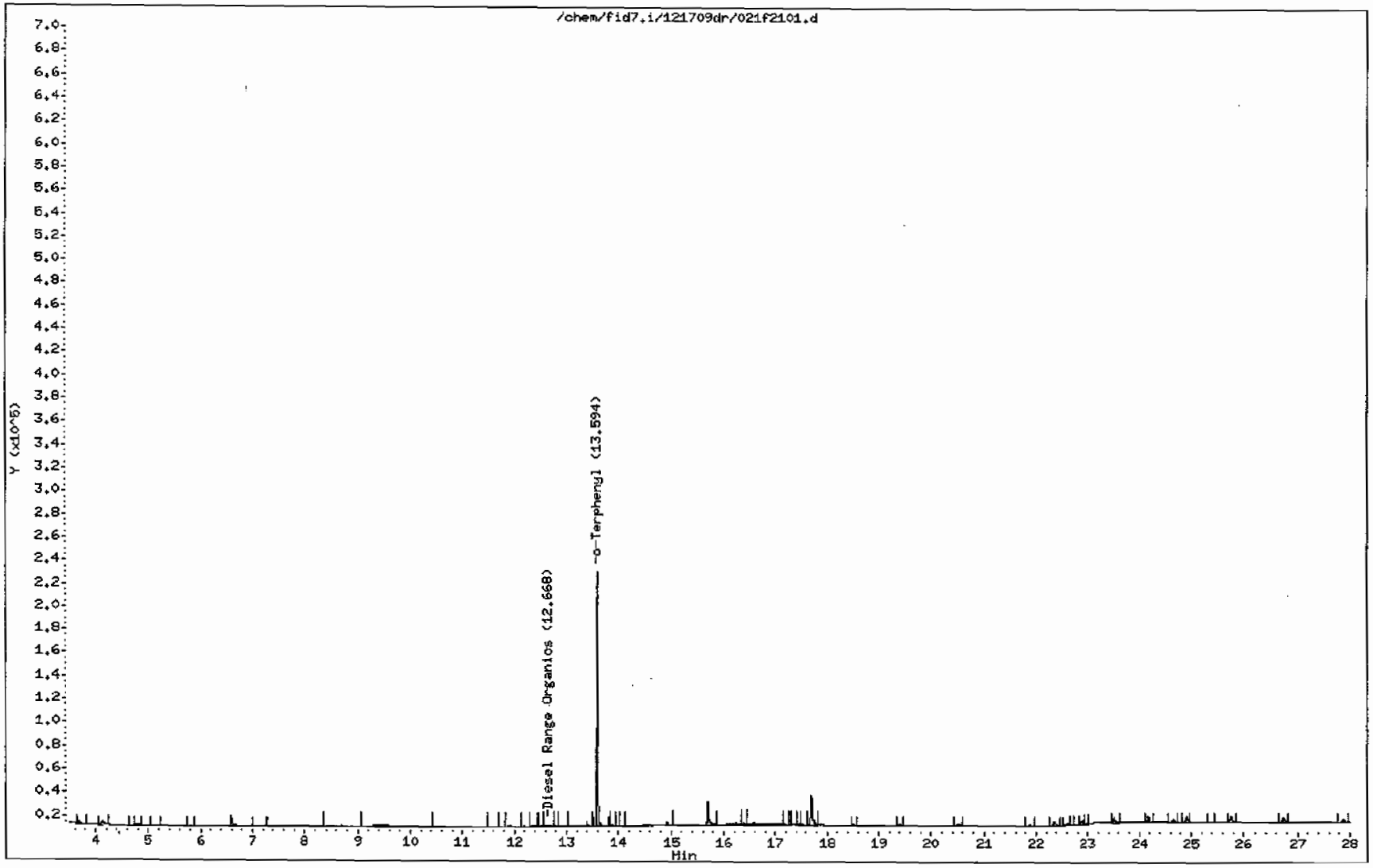

Flame Ionization Detector
Certificate of Analysis
Sample Summary

SDG Number:	10-917	Date Collected:	12/11/2009 12:00	Matrix:	S
Lab Sample ID:	242937006	Date Received:	12/15/2009 08:45	%Moisture:	15.8
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14216	Method:	SW846 8015A/B SVOC	SOP Ref:	GL-OA-E-003
Batch ID:	933843	Inst:	FID7.I	Dilution:	1
Run Date:	12/18/2009 12:49	Analyst:	KXR2	Inj. Vol:	1 uL
Prep Date:	12/17/2009 18:54	Aliquot:	30.02 g	Final Volume:	1 mL
Data File:	022f2201.d	Column:	DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics	J	4.09	mg/kg	2.57	7.92

GEL Laboratories LLC

DB-5MS .25mm

Data file : /chem/fid7.i/121709dr/022f2201.d
Lab Smp Id: 242937006 Client Smp ID: RE03-09-14216
Inj Date : 18-DEC-2009 12:49
Operator : KXR2 Inst ID: fid7.i
Smp Info : |242937006|1|
Misc Info : |FIDDRO_S|933843|FIDF|LANL|
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fid7.i/121709dr/FID7a.i_b_DRO_121309.m
Meth Date : 18-Dec-2009 15:52 kev01577 Quant Type: ESTD
Cal Date : 13-DEC-2009 18:58 Cal File: 007f0701.d
Als bottle: 22
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-917.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.02000	Weigth of sample extracted (g)
M	15.82920	% Moisture

Cpnd Variable Local Compound Variable

	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (mg/L)	FINAL (mg/Kg)	
S	1 Diesel Range Organics					CAS #:	
	7.480- 17.855			1387112	103.383	4.1	(a)
$	2 o-Terphenyl					CAS #: 84-15-1	
	13.596	13.598	-0.002	335019	12.7072	0.50	(M)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

Data File: /chem/fid7.i/121709dr/022f2201.d
Date : 18-DEC-2009 12:49
Client ID: RE03-09-14216
Sample Info: |2429370061|1|
Volume Injected (uL): 1.0
Column phase: DB-5MS

Instrument: fid7.i

Operator: KXR2
Column diameter: 0.25

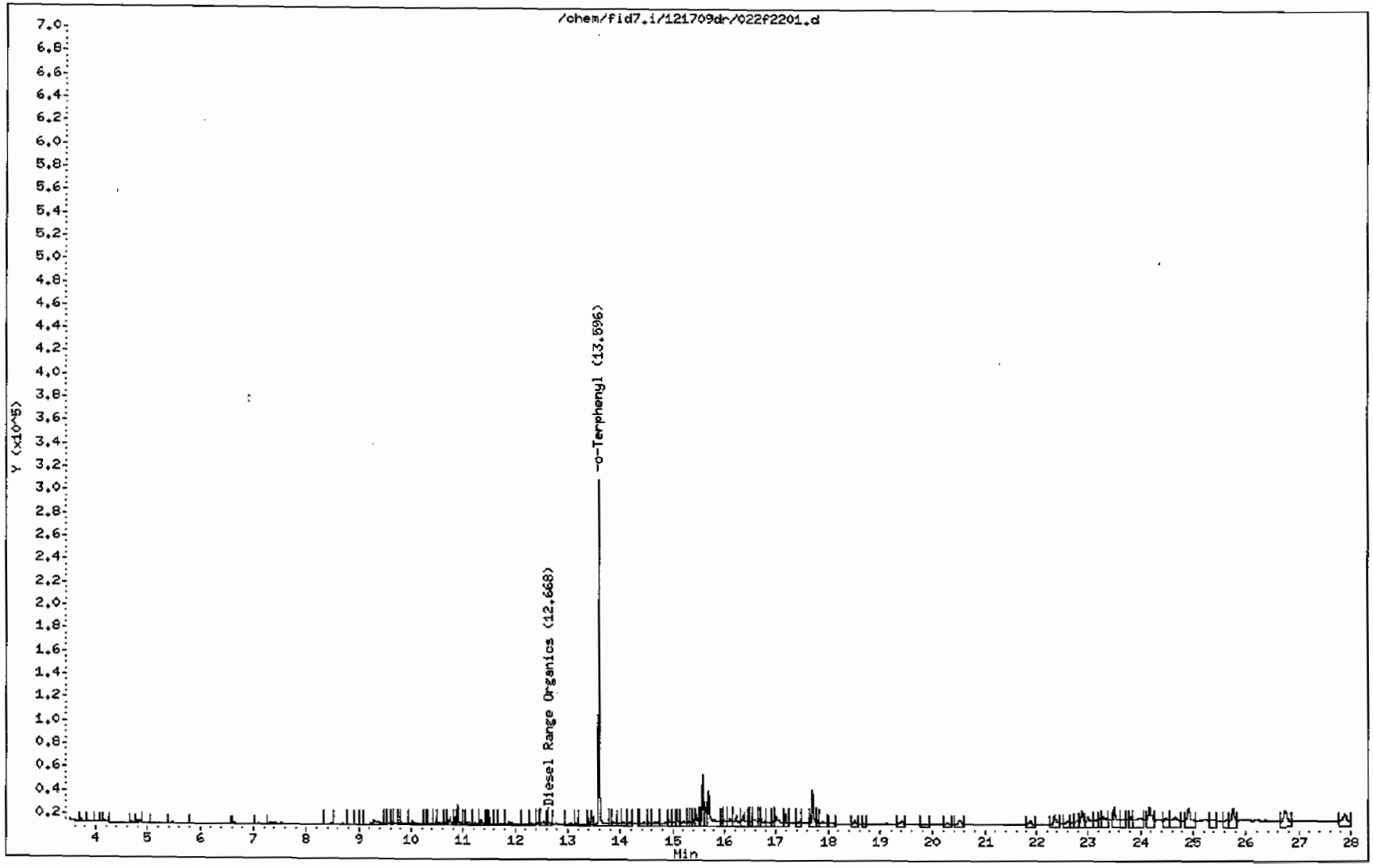

Data File: /chem/Fid7.i/121/09dr/022f2201.d
Injection Date: 18-DEC-2009 12:49
Instrument: Fid7.i
Client Sample ID: REO3-09-14216

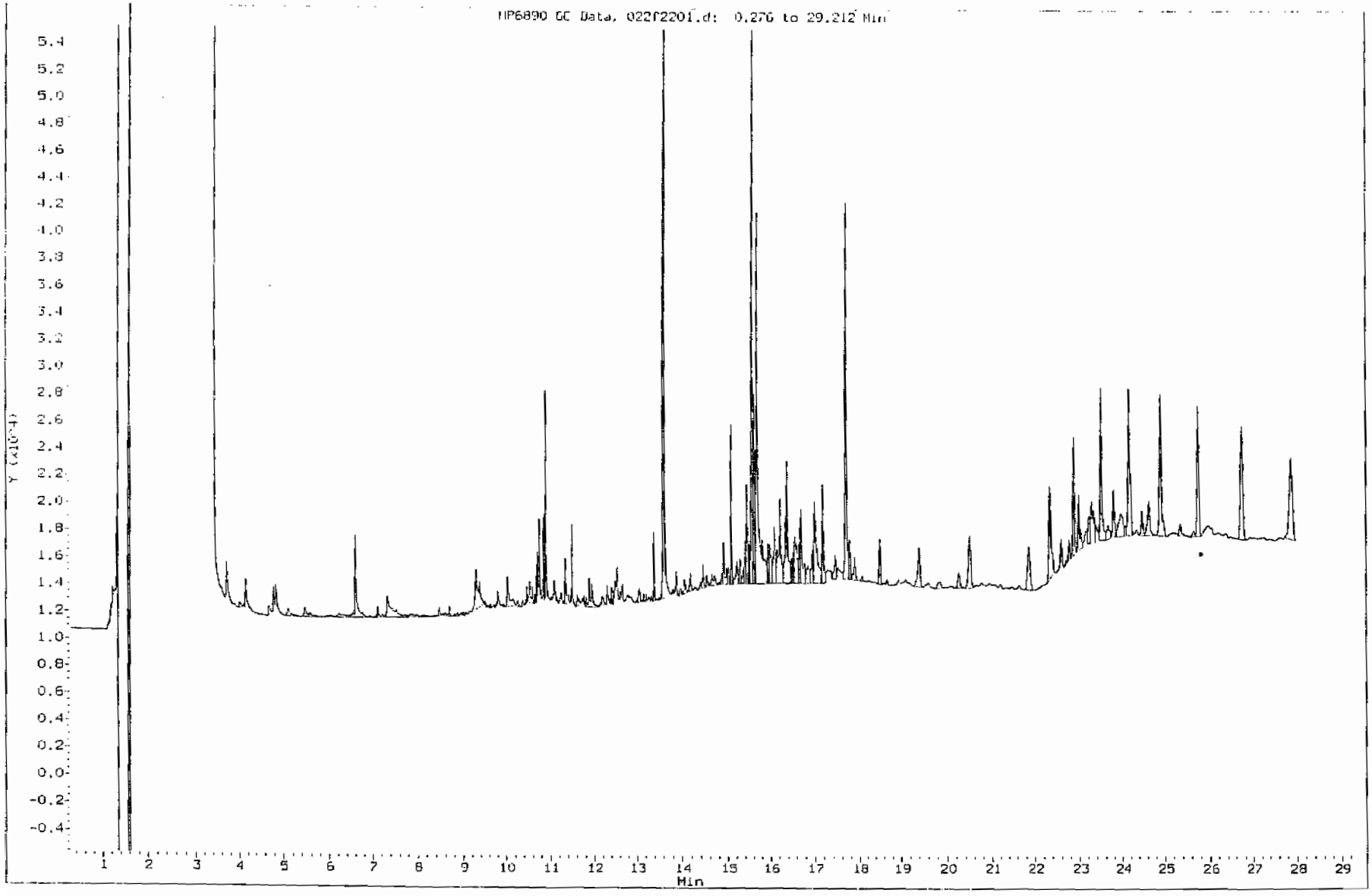

Data File: /chem/fid7.i/121209dr/022f2201.d
Injection Date: 18-DEC-2009 12:49
Instrument: fid7.i
Client Sample ID: RE03-09-14216

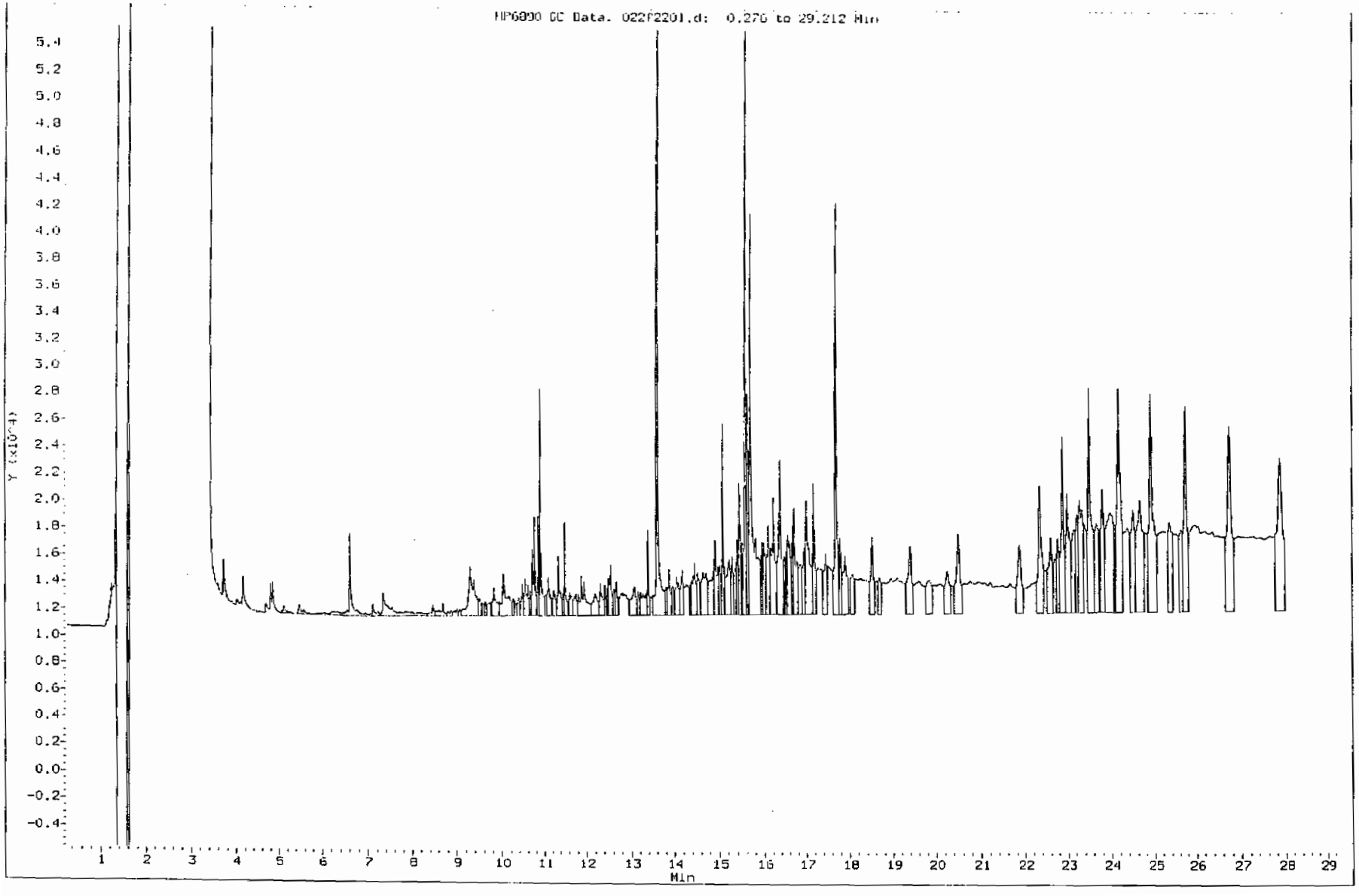

Flame Ionization Detector
Certificate of Analysis
Sample Summary

SDG Number:	10-917	Date Collected:	12/11/2009 12:00	Matrix:	S
Lab Sample ID:	242937007	Date Received:	12/15/2009 08:45	%Moisture:	13.8
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14214	Method:	SW846 8015A/B SVOC	SOP Ref:	GL-OA-E-003
Batch ID:	933843	Inst:	FID7.I	Dilution:	1
Run Date:	12/18/2009 13:27	Analyst:	KXR2	Inj. Vol:	1 uL
Prep Date:	12/17/2009 18:54	Aliquot:	30.05 g	Final Volume:	1 mL
Data File:	023f2301.d	Column:	DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics	J	5.19	mg/kg	2.51	7.72

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DB-5MS .25mm

Data file :"/chem/fid7.i/121709dr/023f2301.d
Lab Smp Id: 242937007 Client Smp ID: RE03-09-14214
Inj Date : 18-DEC-2009 13:27
Operator : KXR2 Inst ID: fid7.i
Smp Info : |242937007|1|
Misc Info : |FIDDRO_S|933843|FIDF|LANL|
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fid7.i/121709dr/FID7a.i_b_DRO_121309.m
Meth Date : 18-Dec-2009 15:52 kev01577 Quant Type: ESTD
Cal Date : 13-DEC-2009 18:58 Cal File: 007f0701.d
Als bottle: 23
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-917.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.05000	Weigth of sample extracted (g)
M	13.78090	% Moisture

Cpnd Variable Local Compound Variable

	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (mg/L)	FINAL (mg/Kg)	
S	1 Diesel Range Organics					CAS #:	
	7.480- 17.855			1803853	134.443	5.2	(a)
$	2 o-Terphenyl					CAS #: 84-15-1	
	13.595	13.598	-0.003	287933	10.9212	0.42	(M)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

Data File: /chem/fid7.i/121709dr/023f2301.d
Date : 18-DEC-2009 13:27
Client ID: RE03-09-14214
Sample Info: 1242937007111
Volume Injected (uL): 1.0
Column phase: DB-5MS

Page 1

Instrument: fid7.i

Operator: KXR2
Column diameter: 0.25

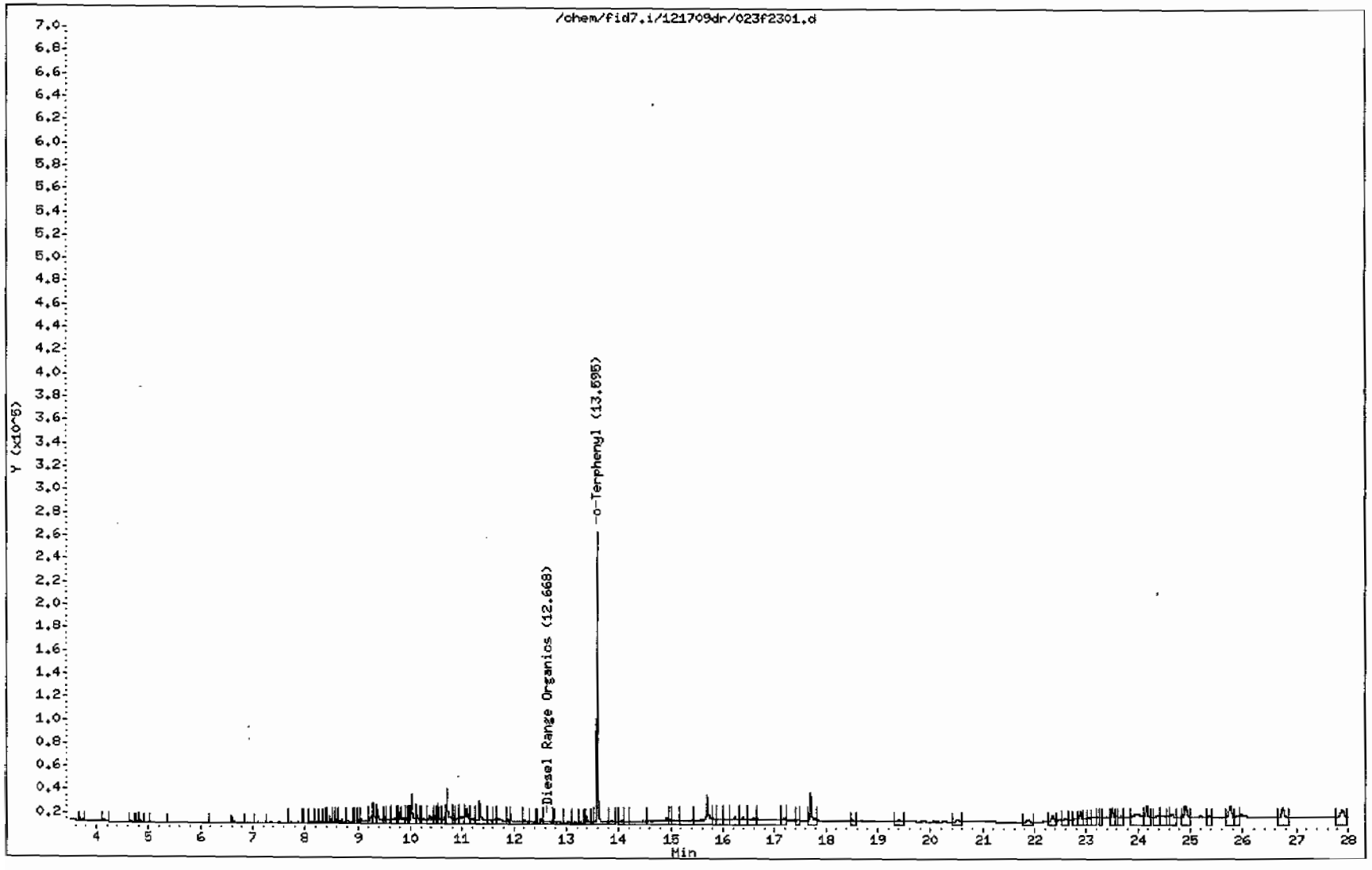

Data File: /chem/fid7.i/121709dr/023f2301.d
Injection Date: 10-DEC-2009 13:27
Instrument: fid7.i
Client Sample ID: RE03-09-14214

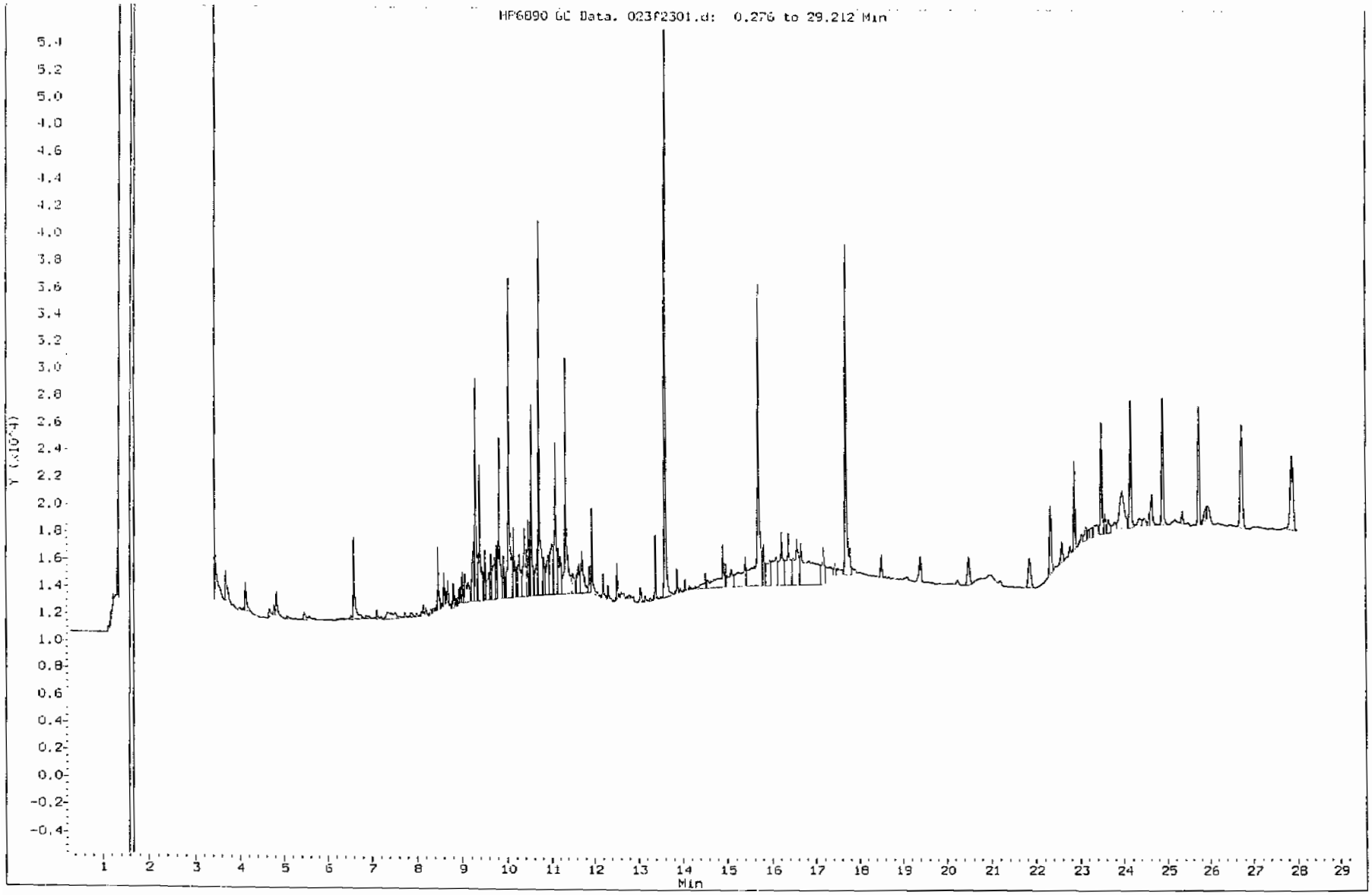

Data File: /chem/Fid7.i/121709dr/0230f2301.d
Injection Date: 18-DEC-2009 13:27
Instrument: Fid7.i
Client Sample ID: RE03-09-1421-1

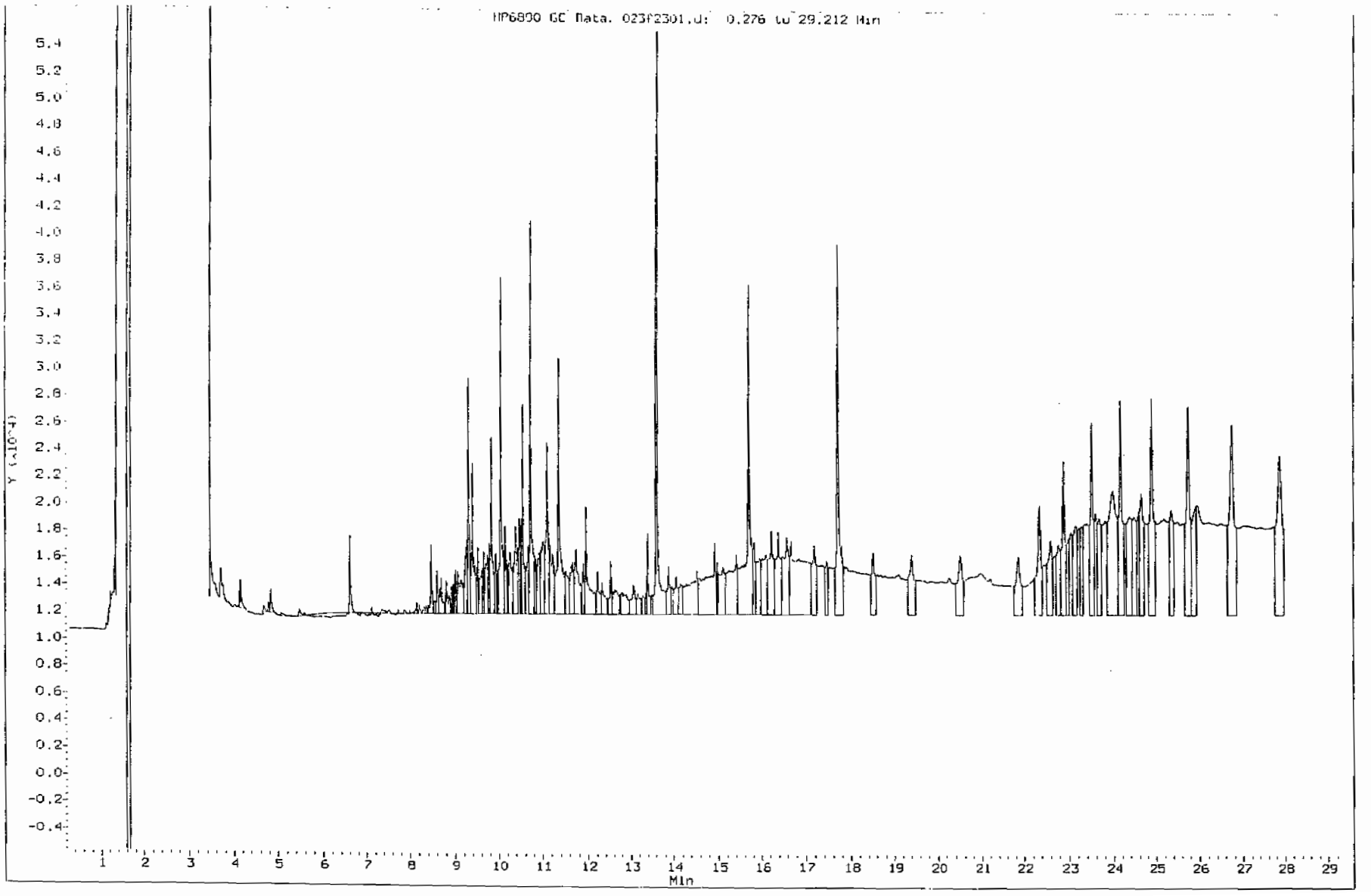

Flame Ionization Detector
Certificate of Analysis
Sample Summary

SDG Number:	10-917	Date Collected:	12/11/2009 12:00	Matrix:	S
Lab Sample ID:	242937008	Date Received:	12/15/2009 08:45	%Moisture:	15.2
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14217	Method:	SW846 8015A/B SVOC	SOP Ref:	GL-OA-E-003
Batch ID:	933843	Inst:	FID7.I	Dilution:	1
Run Date:	12/18/2009 14:04	Analyst:	KXR2	Inj. Vol:	1 uL
Prep Date:	12/17/2009 18:54	Aliquot:	30.04 g	Final Volume:	1 mL
Data File:	024f2401.d	Column:	DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics	J	2.82	mg/kg	2.55	7.86

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DB-5MS .25mm

Data file : /chem/fid7.i/121709dr/024f2401.d
Lab Smp Id: 242937008 Client Smp ID: RE03-09-14217
Inj Date : 18-DEC-2009 14:04
Operator : KXR2 Inst ID: fid7.i
Smp Info : |242937008|1|
Misc Info : |FIDDRO_S|933843|FIDF|LANL|
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fid7.i/121709dr/FID7a.i_b_DRO_121309.m
Meth Date : 18-Dec-2009 15:52 kev01577 Quant Type: ESTD
Cal Date : 13-DEC-2009 18:58 Cal File: 007f0701.d
Als bottle: 24
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-917.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.04000	Weigth of sample extracted (g)
M	15.24500	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (mg/L)	FINAL (mg/Kg)	
S 1 Diesel Range Organics					CAS #:	
7.480-	17.855		964526	71.8873	2.8	(a)
$ 2 o-Terphenyl					CAS #: 84-15-1	
13.595	13.598	-0.003	263419	9.99142	0.39	(M)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

Data File: /chem/fid7.i/121709dr/024f2401.d
Date : 18-DEC-2009 14:04
Client ID: RE03-09-14217
Sample Info: 1242937008111
Volume Injected (uL): 1.0
Column phase: DB-5MS

Page 1

Instrument: fid7.i

Operator: KXR2
Column diameter: 0.25

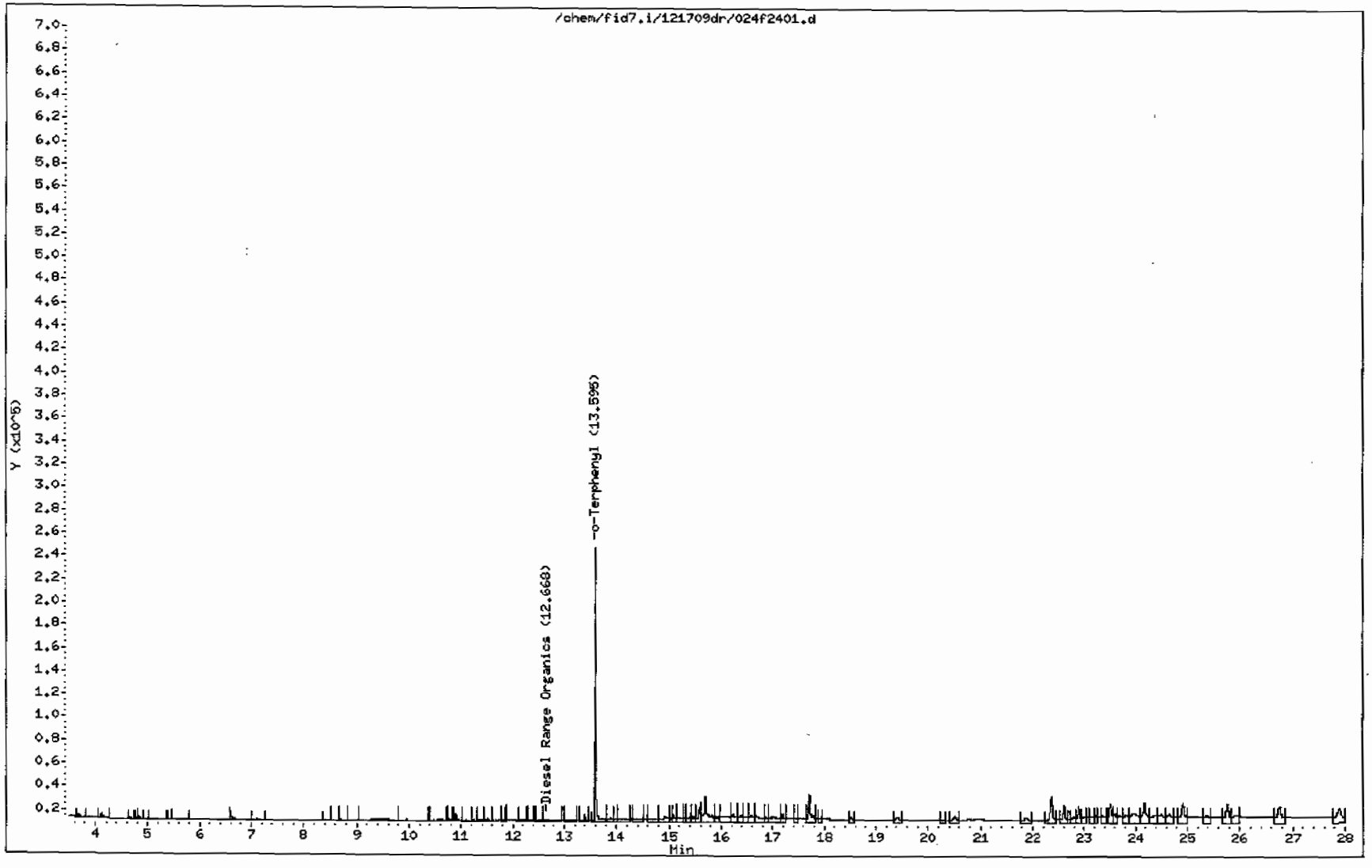

Data File: /chem/fid2.i/121709dr/024f2401.d
Injection Date: 18-DEC-2009 14:04
Instrument: fid2.i
Client Sample ID: RE03-09-14217

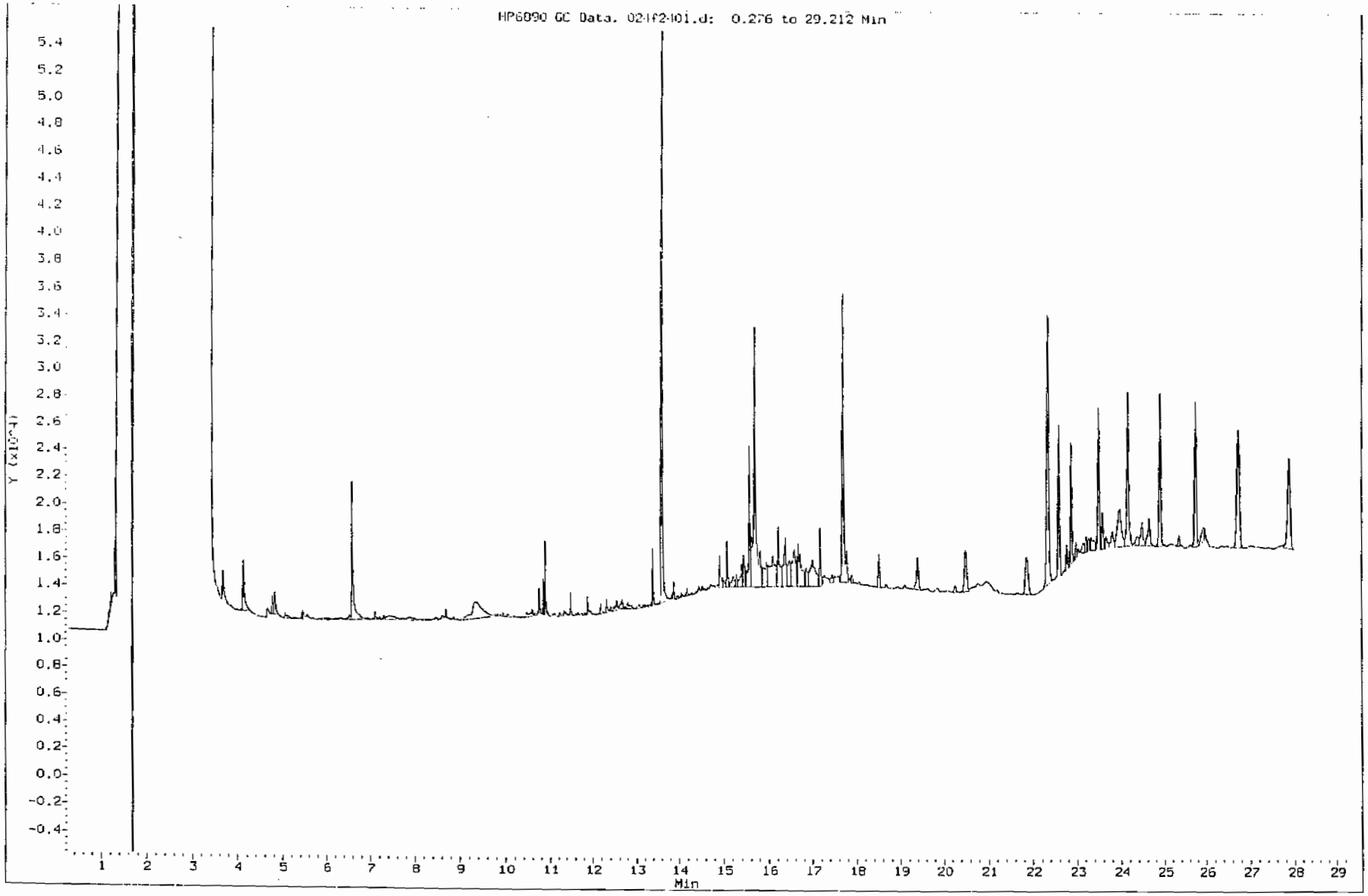

Data File: /chem/fid7.i/121709dw/024f2401.d
Injection Date: 18-DEC-2009 14:04
Instrument: fid7.i
Client Sample ID: RE03-09-14217

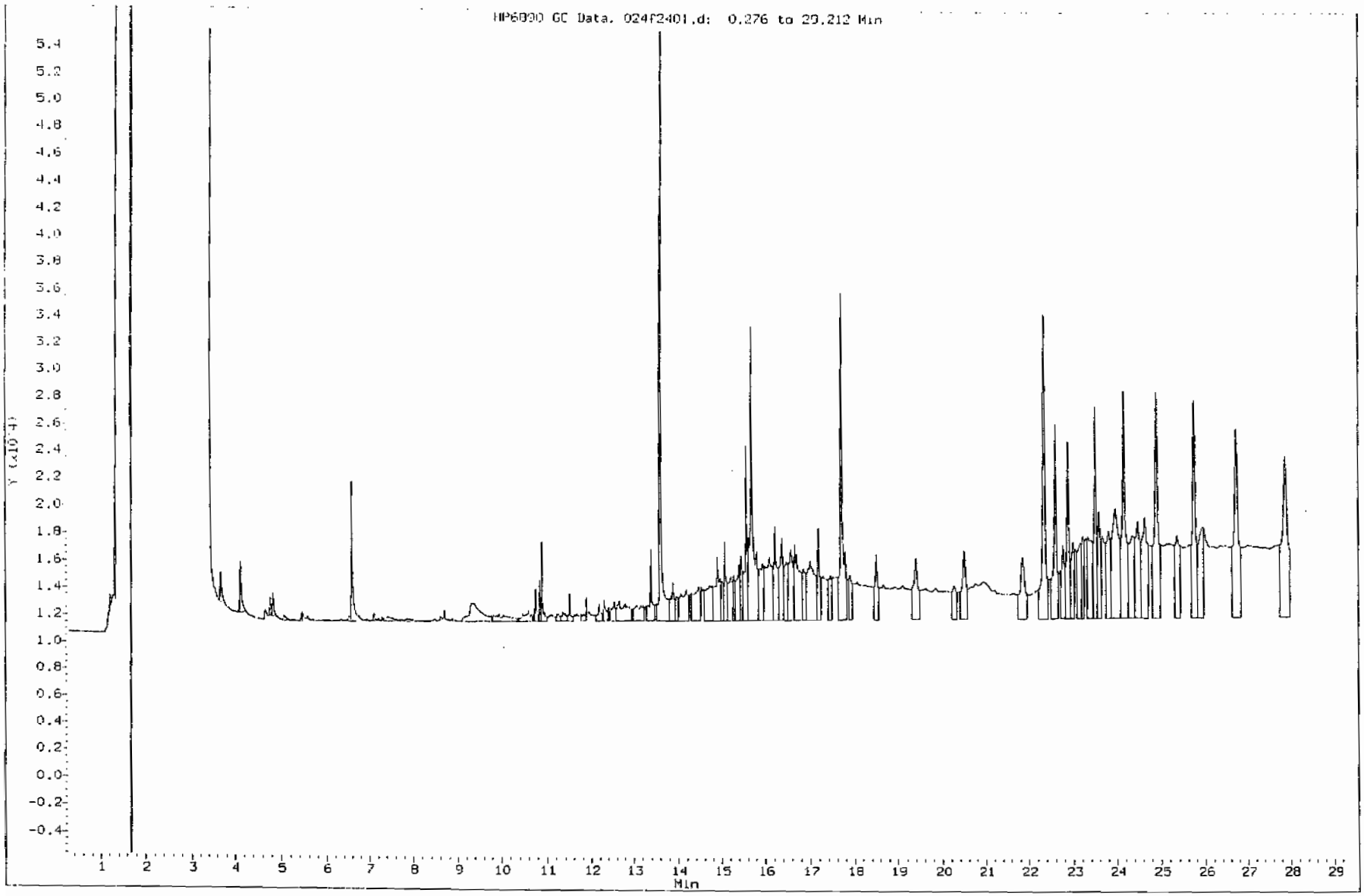

Flame Ionization Detector
Certificate of Analysis
Sample Summary

SDG Number:	10-917	Date Collected:	12/11/2009 12:00	Matrix:	S
Lab Sample ID:	242937009	Date Received:	12/15/2009 08:45	%Moisture:	14.2
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-10-2735	Method:	SW846 8015A/B SVOC	SOP Ref:	GL-OA-E-003
Batch ID:	933843	Inst:	FID7.1	Dilution:	1
Run Date:	12/18/2009 14:42	Analyst:	KXR2	Inj. Vol:	1 uL
Prep Date:	12/17/2009 18:54	Aliquot:	30.03 g	Final Volume:	1 mL
Data File:	025f2501.d	Column:	DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics	J	7.49	mg/kg	2.52	7.76

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DB-5MS .25mm

Data file : /chem/fid7.i/121709dr/025f2501.d
Lab Smp Id: 242937009 Client Smp ID: RE03-10-2735
Inj Date : 18-DEC-2009 14:42
Operator : KXR2 Inst ID: fid7.i
Smp Info : |242937009|1|
Misc Info : |FIDDRO_S|933843|FIDF|LANL|
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fid7.i/121709dr/FID7a.i_b_DRO_121309.m
Meth Date : 18-Dec-2009 15:52 kev01577 Quant Type: ESTD
Cal Date : 13-DEC-2009 18:58 Cal File: 007f0701.d
Als bottle: 25
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-917.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.03000	Weigth of sample extracted (g)
M	14.19430	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (mg/L)	FINAL (mg/Kg)	
S 1 Diesel Range Organics					CAS #:	
7.480~	17.855		2591167	193.123	7.5	(a)
$ 2 o-Terphenyl					CAS #: 84-15-1	
13.595	13.598	-0.003	312698	11.8606	0.46	(M)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

Data File: /chem/fid7.i/121709dr/025f2501.d
Date : 18-DEC-2009 14:42
Client ID: RE03-10-2735
Sample Info: |242937009|1|
Volume Injected (uL): 1.0
Column phase: DB-5MS

Instrument: fid7.i

Operator: KXR2
Column diameter: 0.25

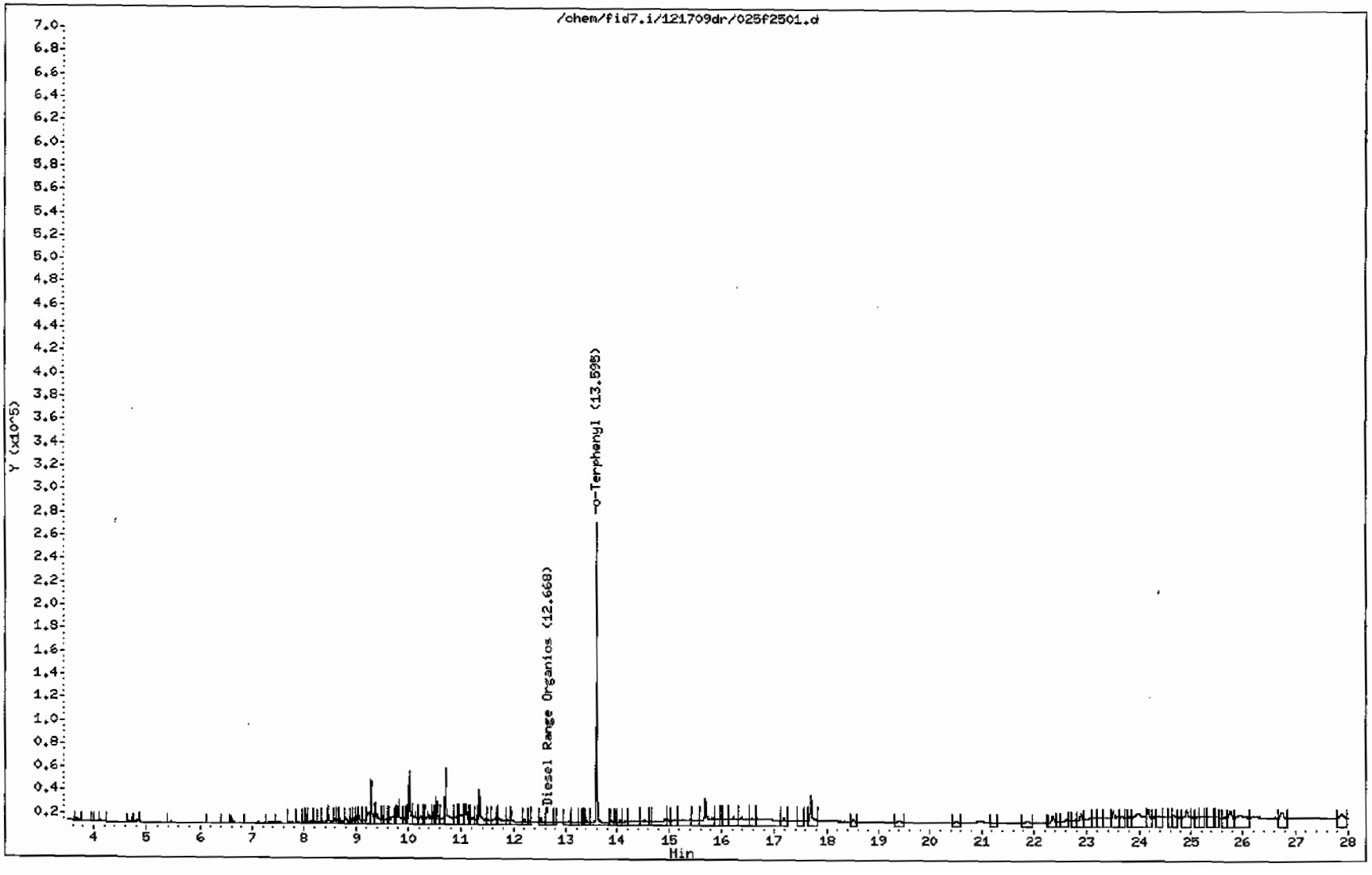

Data File: /chem/fid7.i/121709dr/025f2501.d
Injection Date: 18-DEC-2009 14:42
Instrument: fid7.i
Client Sample ID: RE03-10-2735

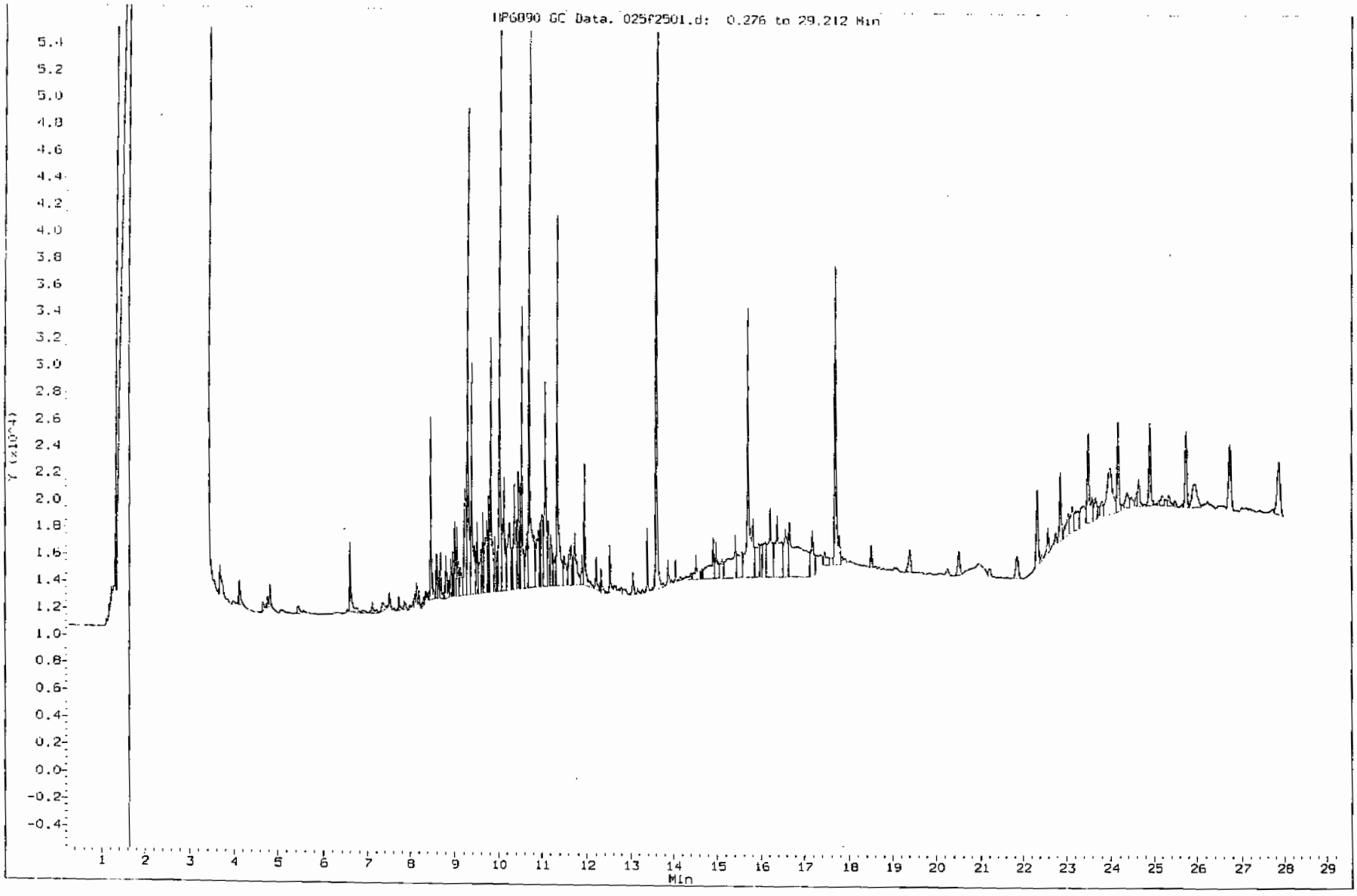

Data File: /chem/fid7.i/121709dr/025f2501.d
Injection Date: 18-DEC-2009 14:42
Instrument: fid7.i
Client Sample ID: RE03-10-2735

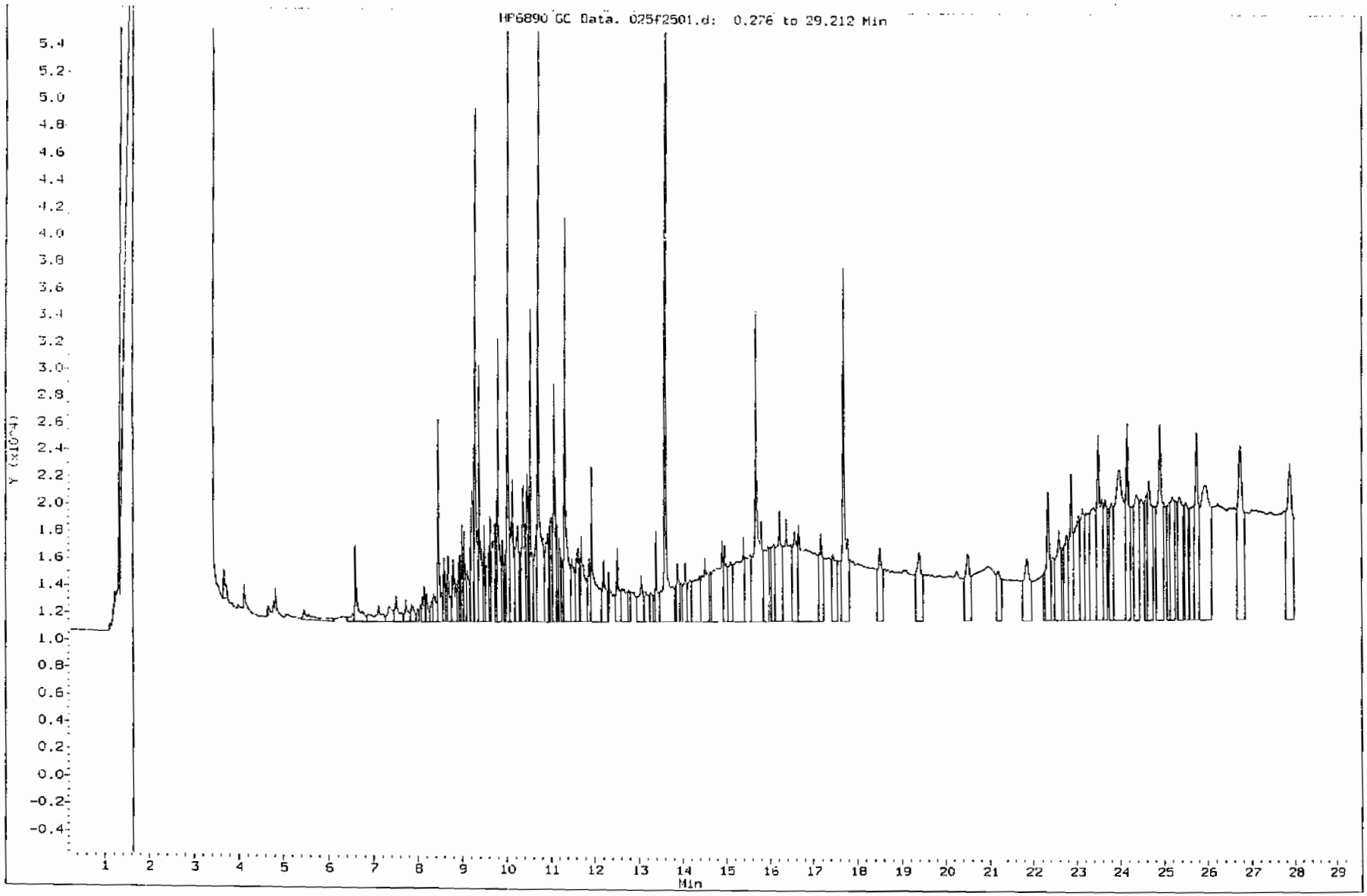

STANDARDS DATA

Report Date: 20-Dec-2009 16:09

Calibration History

Method : /chem/fid7.i/121709dr/FID7a.i_b_DRO_121309.m
Start Cal Date: 13-DEC-2009 16:31
End Cal Date : 13-DEC-2009 18:58

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 3 , Cal Amount: 200.00000		
13-DEC-2009 16:31	dro	/chem/fid7.i/121309dr/003f0301.d
Cal Level: 4 , Cal Amount: 500.00000		
13-DEC-2009 17:07	dro	/chem/fid7.i/121309dr/004f0401.d
Cal Level: 5 , Cal Amount: 1000.00000		
13-DEC-2009 17:45	dro	/chem/fid7.i/121309dr/005f0501.d
Cal Level: 6 , Cal Amount: 2000.00000		
13-DEC-2009 18:22	dro	/chem/fid7.i/121309dr/006f0601.d
Cal Level: 7 , Cal Amount: 5000.00000		
13-DEC-2009 18:58	dro	/chem/fid7.i/121309dr/007f0701.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 5

Ccal Level: 5 , Ccal Amount: 1000		
18-DEC-2009 15:19	dro	/chem/fid7.i/121709dr/026f2601.d
Ccal Level: 5 , Ccal Amount: 1000		
18-DEC-2009 07:53	dro	/chem/fid7.i/121709dr/014f1401.d
Ccal Level: 5 , Ccal Amount: 1000		
18-DEC-2009 01:10	dro	/chem/fid7.i/121709dr/003f0301.d

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COMPOUND LISTING

Method file : /chem/fid7.i/121709dr/FID7a.i_b_DRO_121309.m
Quant Method : ESTD
Last Update : 18-Dec-2009 15:52
Data Type : GC DATA
Target Version : 3.50
Number of Cpnds : 6

Global Integrator : Falcon

Chromat Events	Values
Initial:Start Threshold	100.000000
Initial:End Threshold	50.000000
Initial:Area Threshold	100.000000
Initial:P-P Resolution	1.000000
Initial:Bunch Factor	11.000000
Initial:Negative Peaks	OFF
Initial:Tension	7.000000
5.000:Force Cluster ON	n/a
17.000:Force Cluster OFF	n/a
17.371:Tension	1.000000

		Compound	RT	RT Window	RF
	3	Decane (C10)	7.510	7.480-7.540	
S	1	Diesel Range Organics	12.668	7.480-17.855	1.342e+04
$	2	o-Terphenyl	13.598	13.568-13.628	2.636e+04
	4	Octacosane (C28)	17.827	17.797-17.857	
S	75	JP-4	6.750	3.500-10.000	
S	76	Motor oil	17.000	14.000-20.000	

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INITIAL CALIBRATION DATA

Start Cal Date : 13-DEC-2009 16:31
End Cal Date : 13-DEC-2009 18:58
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/fid7.i/121709dr/FID7a.i_b_DRO_121309.m
Cal Date : 18-Dec-2009 15:52 kev01577
Curve Type : Average

Calibration File Names:
Level 3: /chem/fid7.i/121309dr/003f0301.d
Level 4: /chem/fid7.i/121309dr/004f0401.d
Level 5: /chem/fid7.i/121309dr/005f0501.d
Level 6: /chem/fid7.i/121309dr/006f0601.d
Level 7: /chem/fid7.i/121309dr/007f0701.d

	Compound	200.000 Level 3	500.000 Level 4	1000.000 Level 5	2000.000 Level 6	5000.000 Level 7	RRF	% RSD
	3 Decane (C10)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
S	1 Diesel Range Organics	12370	13330	13518	14106	13763	13417	4.871
	4 Octacosane (C28)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
S	75 JP-4	+++++	+++++	+++++	+++++	+++++	+++++	+++++
S	76 Motor oil	+++++	+++++	+++++	+++++	+++++	+++++	+++++
$	2 o-Terphenyl	24795	27259	25475	26481	27813	26365	4.710

FORM 7
SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-917

Instrument ID: FID7 Calibration Date: 12/18/09 Time: 0110

Lab File ID: 003F0301 Init. Calib. Date(s): 12/13/09 12/13/09

Init. Calib. Times: 1631 1858

GC Column: DB-5MS ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Diesel Range Organics	13417.204	14229.682	0.01	6.0	15.0
o-Terphenyl	26364.536	25172.046	0.01	-4.5	15.0

FORM VII SV

FORM 7
SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-917

Instrument ID: FID7 Calibration Date: 12/18/09 Time: 0753

Lab File ID: 014F1401 Init. Calib. Date(s): 12/13/09 12/13/09

Init. Calib. Times: 1631 1858

GC Column: DB-5MS ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Diesel Range Organics	13417.204	14851.428	0.01	10.7	15.0
o-Terphenyl	26364.536	27011.441	0.01	2.4	15.0

FORM VII SV

FORM 7
SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-917

Instrument ID: FID7 Calibration Date: 12/18/09 Time: 1519

Lab File ID: 026F2601 Init. Calib. Date(s): 12/13/09 12/13/09

Init. Calib. Times: 1631 1858

GC Column: DB-5MS ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Diesel Range Organics	13417.204	13735.763	0.01	2.4	15.0
o-Terphenyl	26364.536	24426.805	0.01	-7.3	15.0

FORM VII SV

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DB-5MS .25mm

Data file : /chem/fid7.i/121709dr/003f0301.d
Lab Smp Id: UFI091118-02 D1 Client Smp ID: DSTD01
Inj Date : 18-DEC-2009 01:10
Operator : KXR2 Inst ID: fid7.i
Smp Info : |UFI091118-02 D1
Misc Info :
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fid7.i/121709dr/FID7a.i_b_DRO_121309.m
Meth Date : 18-Dec-2009 15:52 kev01577 Quant Type: ESTD
Cal Date : 13-DEC-2009 18:58 Cal File: 007f0701.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: dro.sub
Target Version: 3.50 Sample Matrix: None

	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (mg/L)	ON-COL (mg/L)
S	1 Diesel Range Organics					CAS #:
	7.480- 17.855			14229682	1000.00	1060
$	2 o-Terphenyl					CAS #: 84-15-1
	13.598	13.598	0.000	629301	25.0000	23.9

Data File: /chem/fid7.i/121709dr/003f0301.d
Date : 18-DEC-2009 01:10
Client ID: DSTD01
Sample Info: |UFI091118-02 D1

Column phase: DB-5MS

Instrument: fid7.i

Operator: KXR2
Column diameter: 0.25

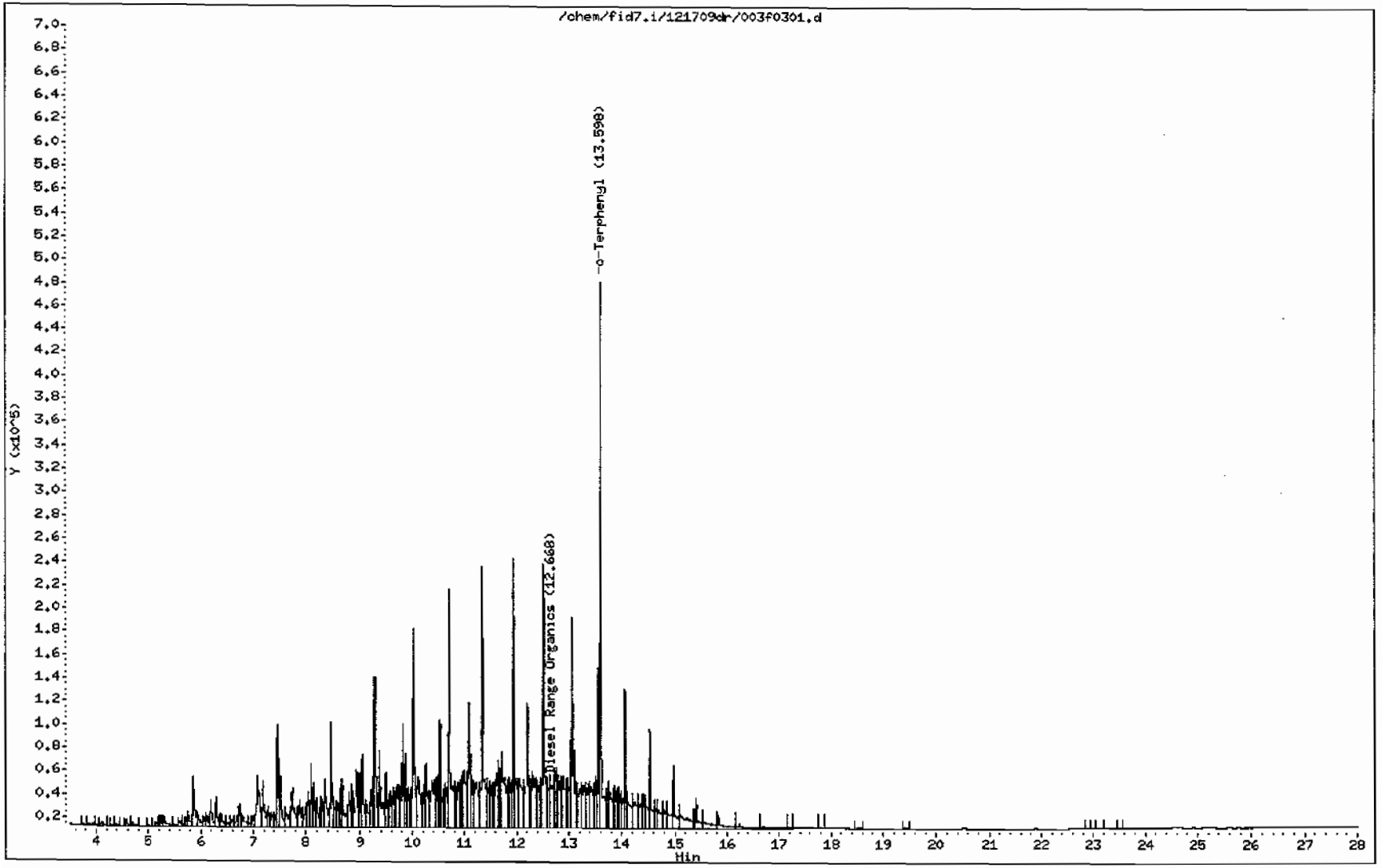

GEL Laboratories LLC

DB-5MS .25mm

Data file : /chem/fid7.i/121709dr/014f1401.d
Lab Smp Id: UFI091118-02 D2 Client Smp ID: DSTD02
Inj Date : 18-DEC-2009 07:53
Operator : KXR2 Inst ID: fid7.i
Smp Info : |UFI091118-02 D2
Misc Info :
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fid7.i/121709dr/FID7a.i_b_DRO_121309.m
Meth Date : 18-Dec-2009 15:52 kev01577 Quant Type: ESTD
Cal Date : 13-DEC-2009 18:58 Cal File: 007f0701.d
Als bottle: 14 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: dro.sub
Target Version: 3.50 Sample Matrix: None

	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (mg/L)	AMOUNTS ON-COL (mg/L)	
S	1 Diesel Range Organics						CAS #:
	7.480- 17.855			14851428	1000.00		1110
$	2 o-Terphenyl						CAS #: 84-15-1
	13.601	13.598	0.003	675286	25.0000		25.6

Data File: /chem/fid7.i/121709dr/014f1401.d
Date : 18-DEC-2009 07:53
Client ID: DSTD02
Sample Info: |UFI091118-02 D2

Column phase: DB-5MS

Instrument: fid7.i

Operator: KXR2
Column diameter: 0.25

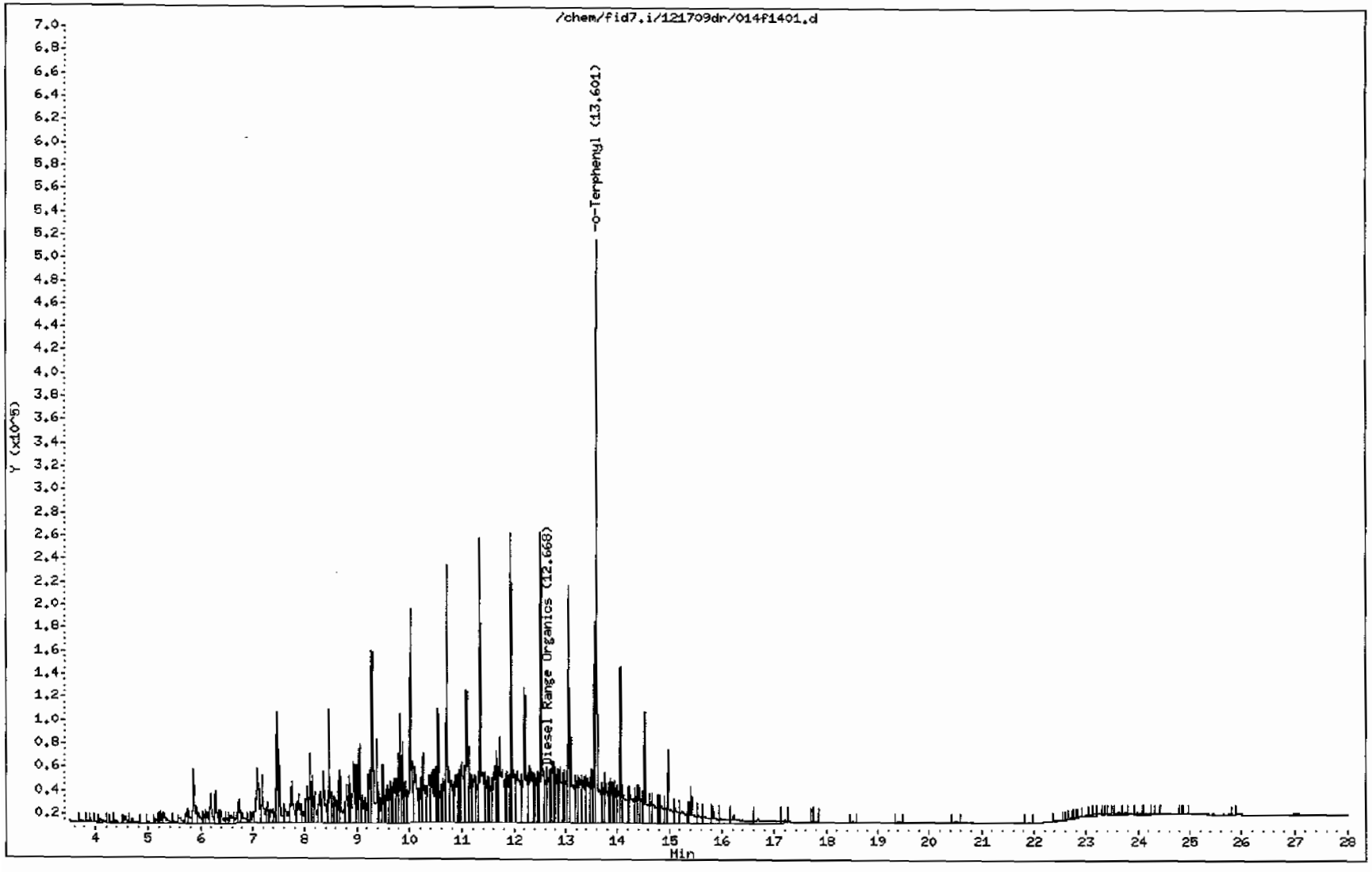

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DB-5MS .25mm

Data file : /chem/fid7.i/121709dr/026f2601.d
Lab Smp Id: UFI091118-02 D3 Client Smp ID: DSTD03
Inj Date : 18-DEC-2009 15:19
Operator : KXR2 Inst ID: fid7.i
Smp Info : |UFI091118-02 D3
Misc Info :
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fid7.i/121709dr/FID7a.i_b_DRO_121309.m
Meth Date : 18-Dec-2009 15:52 kev01577 Quant Type: ESTD
Cal Date : 13-DEC-2009 18:58 Cal File: 007f0701.d
Als bottle: 26 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: dro.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (mg/L)	AMOUNTS ON-COL (mg/L)
S 1 Diesel Range Organics					CAS #:
7.480- 17.855			13735763	1000.00	1020
$ 2 o-Terphenyl					CAS #: 84-15-1
13.600	13.598	0.002	610670	25.0000	23.2

Data File: /chem/fid7.i/121709dr/026f2601.d
Date : 18-DEC-2009 15:19
Client ID: DSTD03
Sample Info: IUFI091118-02 D3

Column phase: DB-5MS

Instrument: fid7.i

Operator: KXR2
Column diameter: 0.25

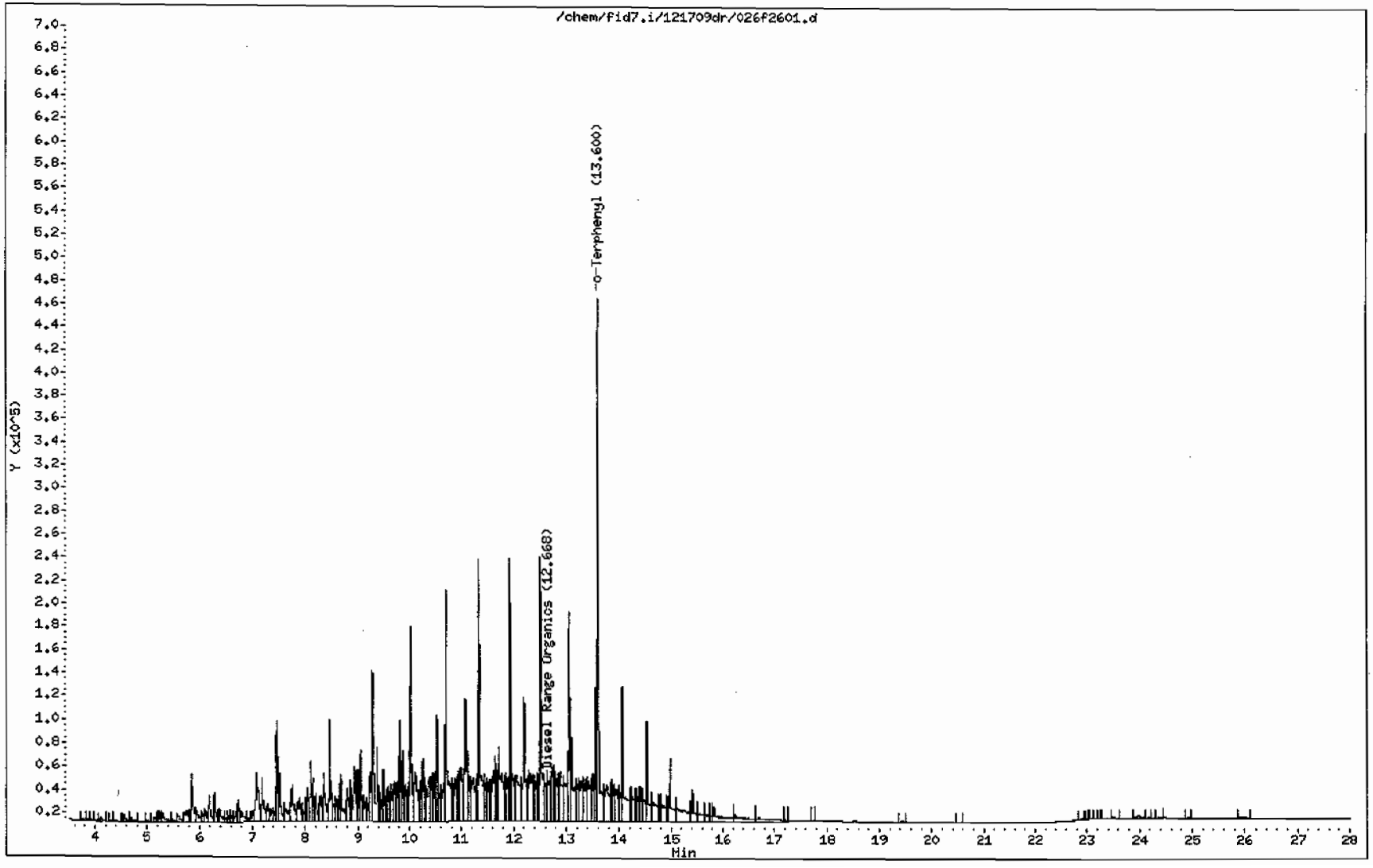

8D
DRO ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-917

GC Column: DB-5MS ID: 0.25 (mm) Init. Calib. Date(s): 12/13/09 12/13/09

Instrument ID: FID7

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 13.60

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	RT
01	DIBLK01	WFI091130-06	12/13/09	1516	13.59	
02	RTMARKER	UFI091013-03	12/13/09	1553		
03	CSTD01	UFI090827-10	12/13/09	1631	13.59	
04	CSTD02	UFI090827-11	12/13/09	1707	13.59	
05	CSTD03	UFI090827-12	12/13/09	1745	13.60	
06	CSTD04	UFI090827-13	12/13/09	1822	13.61	
07	CSTD05	UFI090827-14	12/13/09	1858	13.62	
08	DSTD01	WFI090928-01	12/13/09	1936	13.60	
09	DIBLK02	WFI091130-06	12/13/09	2012	13.59	
10	ZZZZZ	ZZZZZ	12/13/09	2049	13.59	
11	ZZZZZ	ZZZZZ	12/13/09	2126	13.59	
12	ZZZZZ	ZZZZZ	12/13/09	2203	13.59	
13	ZZZZZ	ZZZZZ	12/13/09	2240	13.59	
14	ZZZZZ	ZZZZZ	12/13/09	2318	13.60	
15	ZZZZZ	ZZZZZ	12/13/09	2354	13.59	
16	ZZZZZ	ZZZZZ	12/14/09	0032	13.59	
17	ZZZZZ	ZZZZZ	12/14/09	0109	13.59	
18	ZZZZZ	ZZZZZ	12/14/09	0146	13.59	
19	ZZZZZ	ZZZZZ	12/14/09	0223	13.59	
20	DSTD02	UFI091118-02	12/14/09	0300	13.60	
21	DIBLK03	WFI091130-06	12/14/09	0337	13.60	
22	ZZZZZ	ZZZZZ	12/14/09	0413	13.59	
23	ZZZZZ	ZZZZZ	12/14/09	0450	13.59	
24	ZZZZZ	ZZZZZ	12/14/09	0527	13.59	
25	ZZZZZ	ZZZZZ	12/14/09	0604	13.59	
26	ZZZZZ	ZZZZZ	12/14/09	0641	13.59	
27	ZZZZZ	ZZZZZ	12/14/09	0718	13.59	
28	ZZZZZ	ZZZZZ	12/14/09	0755	13.59	
29	ZZZZZ	ZZZZZ	12/14/09	0832	13.59	
30	ZZZZZ	ZZZZZ	12/14/09	0909	13.59	
31	DSTD03	UFI091118-02	12/14/09	0946	13.60	
32	DIBLK04	WFI091130-06	12/14/09	1023	13.60	

S1 = o-Terphenyl QC LIMITS (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
DRO ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-917

GC Column: DB-5MS ID: 0.25 (mm) Init. Calib. Date(s): 12/13/09 12/13/09

Instrument ID: FID7

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 13.60

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	RT
01	DIBLK01	WFI091130-06	12/17/09	2357	13.59	
02	RTMARKER	UFI091013-03	12/18/09	0034		
03	DSTD01	UFI091118-02	12/18/09	0110	13.60	
04	DIBLK02	WFI091130-06	12/18/09	0147	13.59	
05	DBLK01	1201997993	12/18/09	0224	13.59	
06	DBLK01LCS	1201997994	12/18/09	0300	13.59	
07	ZZZZZ	ZZZZZ	12/18/09	0337	13.59	
08	ZZZZZ	ZZZZZ	12/18/09	0413	13.59	
09	ZZZZZ	ZZZZZ	12/18/09	0450	13.59	
10	ZZZZZ	ZZZZZ	12/18/09	0526	13.59	
11	ZZZZZ	ZZZZZ	12/18/09	0603	13.60	
12	ZZZZZ	ZZZZZ	12/18/09	0640	13.60	
13	RE03-09-14213	242937001	12/18/09	0716	13.60	
14	DSTD02	UFI091118-02	12/18/09	0753	13.60	
15	DIBLK03	WFI091130-06	12/18/09	0830	13.60	
16	RE03-09-14213MS	1201997995	12/18/09	0907	13.60	
17	RE03-09-14213MSD	1201997996	12/18/09	0944	13.60	
18	RE03-09-14215	242937002	12/18/09	1021	13.59	
19	RE03-09-14212	242937003	12/18/09	1058	13.59	
20	RE03-09-14219	242937004	12/18/09	1135	13.59	
21	RE03-09-14218	242937005	12/18/09	1212	13.59	
22	RE03-09-14216	242937006	12/18/09	1249	13.60	
23	RE03-09-14214	242937007	12/18/09	1327	13.60	
24	RE03-09-14217	242937008	12/18/09	1404	13.59	
25	RE03-10-2735	242937009	12/18/09	1442	13.60	
26	DSTD03	UFI091118-02	12/18/09	1519	13.60	
27	DIBLK04	WFI091130-06	12/18/09	1557	13.60	
28						
29						
30						
31						
32						

S1 = o-Terphenyl QC LIMITS (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

QUALITY CONTROL DATA

Flame Ionization Detector
Certificate of Analysis
Sample Summary

SDG Number:	10-917			Matrix:	SOIL
Lab Sample ID:	1201997993				
Client Sample:	QC for batch 933842	Client:	LANL010	Project:	QC
Client ID:	MB for batch 933842	Method:	SW846 8015A/B SVOC	SOP Ref:	GL-OA-E-003
Batch ID:	933843	Inst:	FID7.I	Dilution:	1
Run Date:	12/18/2009 02:24	Analyst:	KXR2	Inj. Vol:	1 uL
Prep Date:	12/17/2009 18:54	Aliquot:	30 g	Final Volume:	1 mL
Data File:	005f0501.d	Column:	DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics	U	6.67	mg/kg	2.17	6.67

GEL Laboratories LLC

DB-5MS .25mm

Data file : /chem/fid7.i/121709dr/005f0501a.d
Lab Smp Id: 1201997993 Client Smp ID: DBLK01
Inj Date : 18-DEC-2009 02:24
Operator : KXR2 Inst ID: fid7.i
Smp Info : |1201997993|1|
Misc Info : |FIDDRO_S|933843|FIDF|MB|
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fid7.i/121709dr/FID7a.i_b_DRO_121309.m
Meth Date : 18-Dec-2009 15:52 kev01577 Quant Type: ESTD
Cal Date : 13-DEC-2009 18:58 Cal File: 007f0701.d
Als bottle: 5 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-917.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weigth of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (mg/L)	FINAL (mg/Kg)
$ 2 o-Terphenyl					CAS #: 84-15-1
13.593	13.598	-0.005	239098	9.06893	0.30

Data File: /chem/fid7.i/121709dr/005f0501a.d
Date : 18-DEC-2009 02:24
Client ID: DBLK01
Sample Info: |120199799311|
Volume Injected (uL): 1.0
Column phase: DB-5MS

Instrument: fid7.i

Operator: KXR2
Column diameter: 0.25

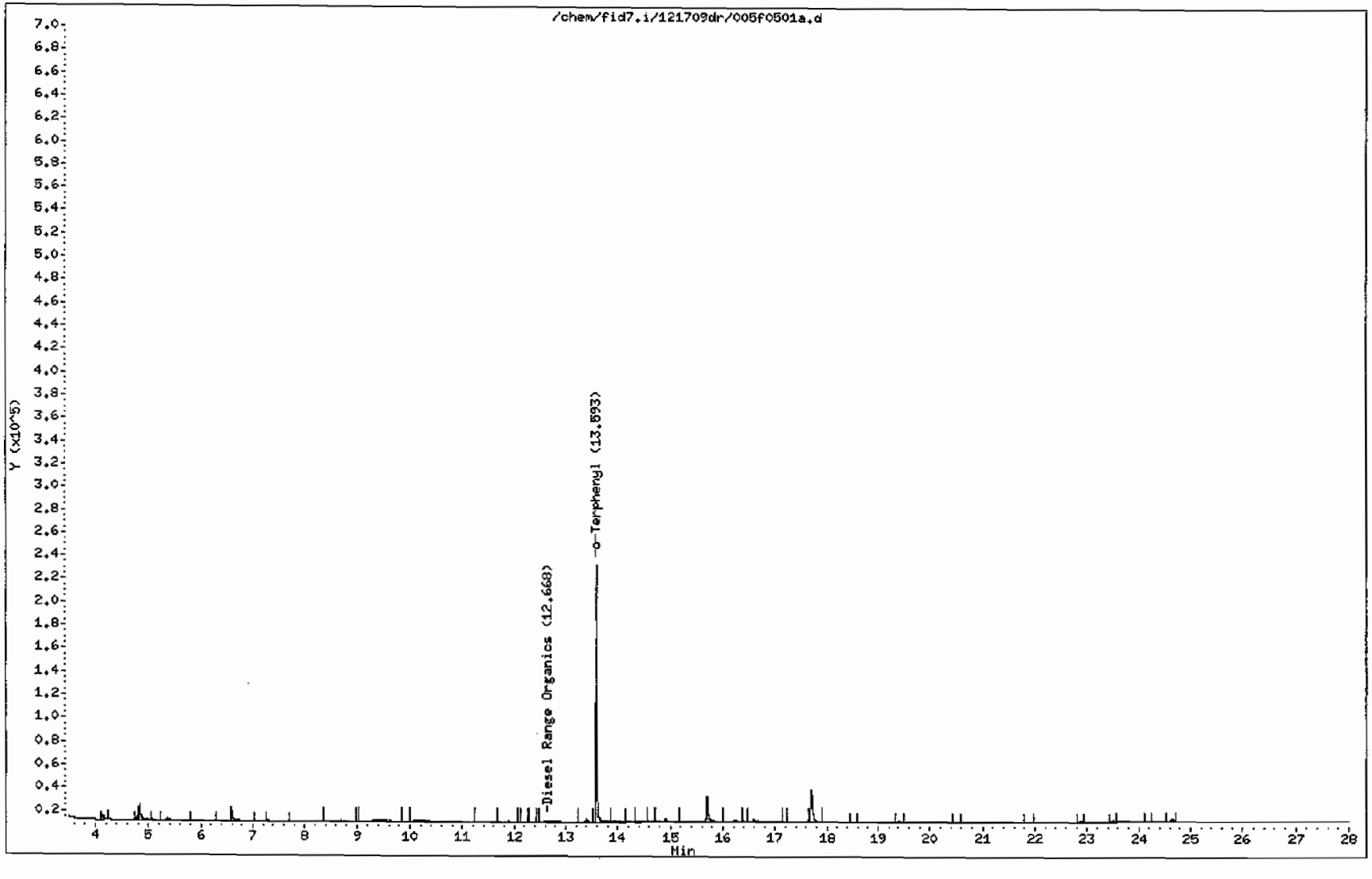

Flame Ionization Detector
Certificate of Analysis
Sample Summary

SDG Number:	10–917			**Matrix:**	SOIL
Lab Sample ID:	1201997994				
Client Sample:	QC for batch 933842	**Client:**	LANL010	**Project:**	QC
Client ID:	LCS for batch 933842	**Method:**	SW846 8015A/B SVOC	**SOP Ref:**	GL–OA–E–003
Batch ID:	933843	**Inst:**	FID7.I	**Dilution:**	1
Run Date:	12/18/2009 03:00	**Analyst:**	KXR2	**Inj. Vol:**	1 uL
Prep Date:	12/17/2009 18:54	**Aliquot:**	30 g	**Final Volume:**	1 mL
Data File:	006f0601.d	**Column:**	DB–5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics		27.3	mg/kg	2.17	6.67

GEL Laboratories LLC

DB-5MS .25mm

Data file : /chem/fid7.i/121709dr/006f0601a.d
Lab Smp Id: 1201997994 Client Smp ID: DBLK01LCS
Inj Date : 18-DEC-2009 03:00
Operator : KXR2 Inst ID: fid7.i
Smp Info : |1201997994|1|
Misc Info : |FIDDRO_S|933843|FIDF|LCS|
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fid7.i/121709dr/FID7a.i_b_DRO_121309.m
Meth Date : 18-Dec-2009 15:52 kev01577 Quant Type: ESTD
Cal Date : 13-DEC-2009 18:58 Cal File: 007f0701.d
Als bottle: 6 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-917.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weigth of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (mg/L)	FINAL (mg/Kg)
S 1 Diesel Range Organics					CAS #:
7.480- 17.855			10980075	818.358	27.3
$ 2 o-Terphenyl					CAS #: 84-15-1
13.594	13.598	-0.004	413517	15.6846	0.52

Data File: /chem/fid7.i/121709dr/006f0601a.d
Date : 18-DEC-2009 03:00
Client ID: DBLK01LCS
Sample Info: |1201997994|1|
Volume Injected (uL): 1.0
Column phase: DB-5MS

Instrument: fid7.i

Operator: KXR2
Column diameter: 0.25

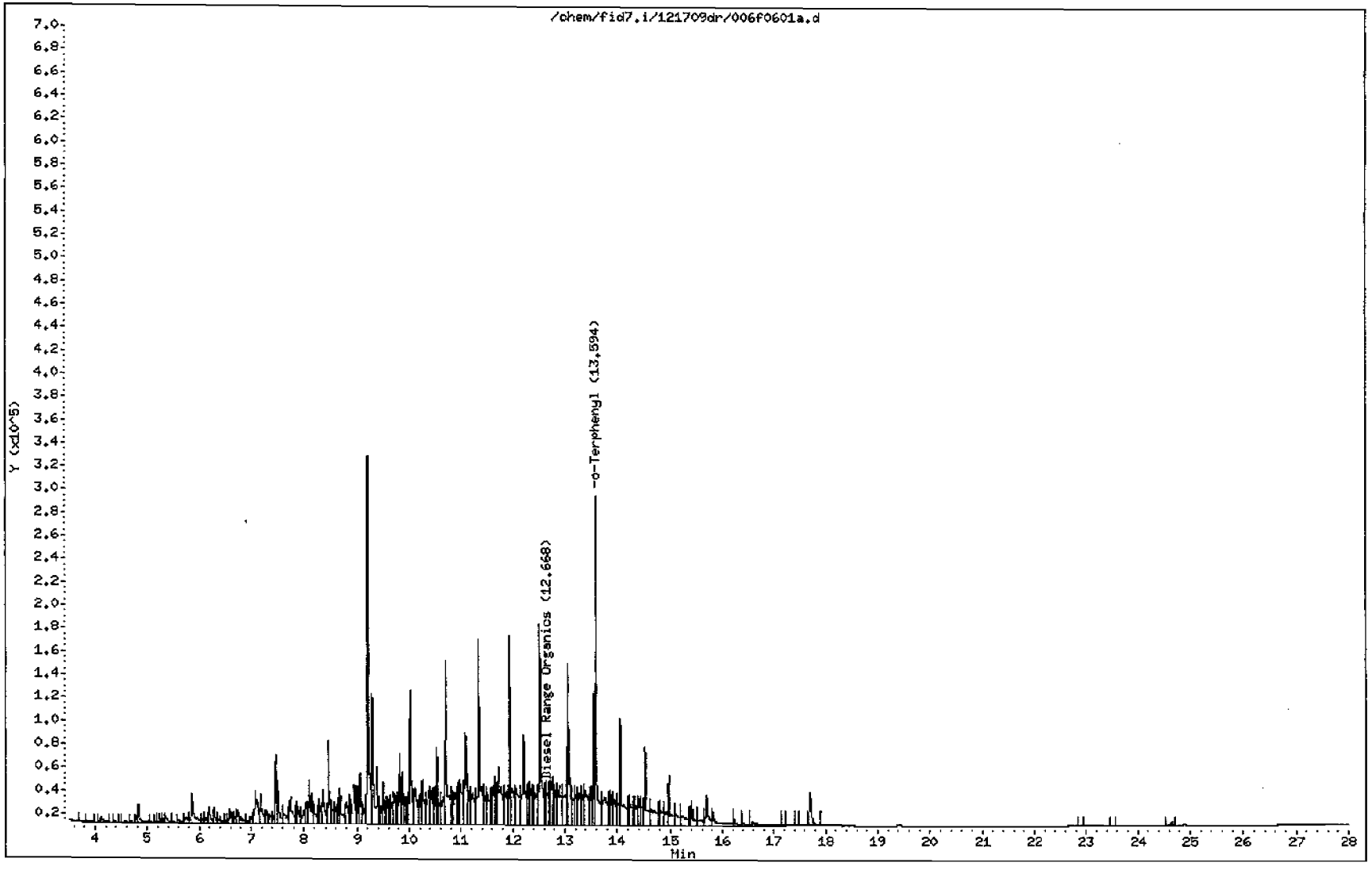

Flame Ionization Detector
Certificate of Analysis
Sample Summary

SDG Number:	10–917	Date Collected:	12/11/2009 12:00	Matrix:	S
Lab Sample ID:	1201997995	Date Received:	12/15/2009 08:45	%Moisture:	12.8
Client Sample:	QC for batch 933842	Client:	LANL010	Project:	QC
Client ID:	RE03–09–14213MS	Method:	SW846 8015A/B SVOC	SOP Ref:	GL–OA–E–003
Batch ID:	933843	Inst:	FID7.I	Dilution:	1
Run Date:	12/18/2009 09:07	Analyst:	KXR2	Inj. Vol:	1 uL
Prep Date:	12/17/2009 18:54	Aliquot:	30.05 g	Final Volume:	1 mL
Data File:	016f1601.d	Column:	DB–5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics		28.4	mg/kg	2.48	7.63

GEL Laboratories LLC

DB-5MS .25mm

Data file : /chem/fid7.i/121709dr/016f1601.d
Lab Smp Id: 1201997995 Client Smp ID: RE03-09-14213MS
Inj Date : 18-DEC-2009 09:07
Operator : KXR2 Inst ID: fid7.i
Smp Info : |1201997995|1|
Misc Info : |FIDDRO_S|933843|FIDF|MS|
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fid7.i/121709dr/FID7a.i_b_DRO_121309.m
Meth Date : 18-Dec-2009 15:52 kev01577 Quant Type: ESTD
Cal Date : 13-DEC-2009 18:58 Cal File: 007f0701.d
Als bottle: 16 QC Sample: MS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-917.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.05000	Weigth of sample extracted (g)
M	12.82530	% Moisture

Cpnd Variable Local Compound Variable

	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (mg/L)	FINAL (mg/Kg)
S	1 Diesel Range Organics					CAS #:
	7.480~ 17.855			9978863	743.736	28.4
$	2 o-Terphenyl					CAS #: 84-15-1
	13.595	13.598	-0.003	348537	13.2199	0.50

Data File: /chem/fid7.i/121709dr/016f1601.d
Date : 18-DEC-2009 09:07
Client ID: RE03-09-14213MS
Sample Info: |1201997995|1|
Volume Injected (uL): 1.0
Column phase: DB-5MS

Instrument: fid7.i

Operator: KXR2
Column diameter: 0.25

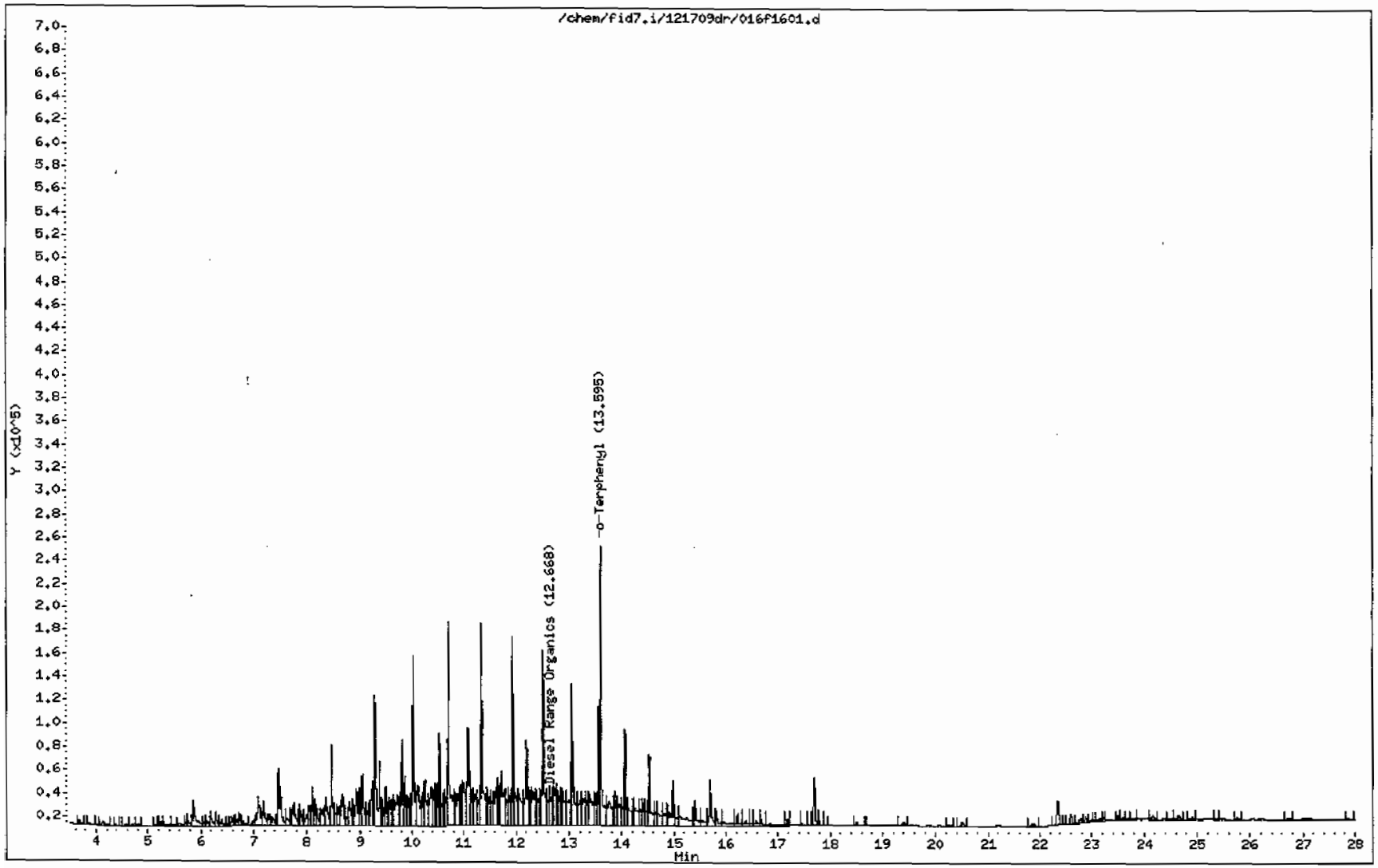

Flame Ionization Detector
Certificate of Analysis
Sample Summary

SDG Number:	10–917	Date Collected:	12/11/2009 12:00	Matrix:	S
Lab Sample ID:	1201997996	Date Received:	12/15/2009 08:45	%Moisture:	12.8
Client Sample:	QC for batch 933842	Client:	LANL010	Project:	QC
Client ID:	RE03–09–14213MSD	Method:	SW846 8015A/B SVOC	SOP Ref:	GL–OA–E–003
Batch ID:	933843	Inst:	FID7.I	Dilution:	1
Run Date:	12/18/2009 09:44	Analyst:	KXR2	Inj. Vol:	1 uL
Prep Date:	12/17/2009 18:54	Aliquot:	30.02 g	Final Volume:	1 mL
Data File:	017f1701.d	Column:	DB–5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics		33.6	mg/kg	2.48	7.64

GEL Laboratories LLC

DB-5MS .25mm

Data file : /chem/fid7.i/121709dr/017f1701.d
Lab Smp Id: 1201997996 Client Smp ID: RE03-09-14213MSD
Inj Date : 18-DEC-2009 09:44
Operator : KXR2 Inst ID: fid7.i
Smp Info : |1201997996|1|
Misc Info : |FIDDRO_S|933843|FIDF|MSD|
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fid7.i/121709dr/FID7a.i_b_DRO_121309.m
Meth Date : 18-Dec-2009 15:52 kev01577 Quant Type: ESTD
Cal Date : 13-DEC-2009 18:58 Cal File: 007f0701.d
Als bottle: 17 QC Sample: MSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-917.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.02000	Weigth of sample extracted (g)
M	12.82530	% Moisture

Cpnd Variable Local Compound Variable

	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (mg/L)	FINAL (mg/Kg)
S	1 Diesel Range Organics					CAS #:
	7.480- 17.855			11790359	878.749	33.6
$	2 o-Terphenyl					CAS #: 84-15-1
	13.596	13.598	-0.002	424333	16.0949	0.62

Data File: /chem/fid7.i/121709dr/017f1701.d
Date : 18-DEC-2009 09:44
Client ID: RE03-09-14213MSD
Sample Info: |1201997996|1|
Volume Injected (uL): 1.0
Column phase: DB-5MS

Instrument: fid7.i

Operator: KXR2
Column diameter: 0.25

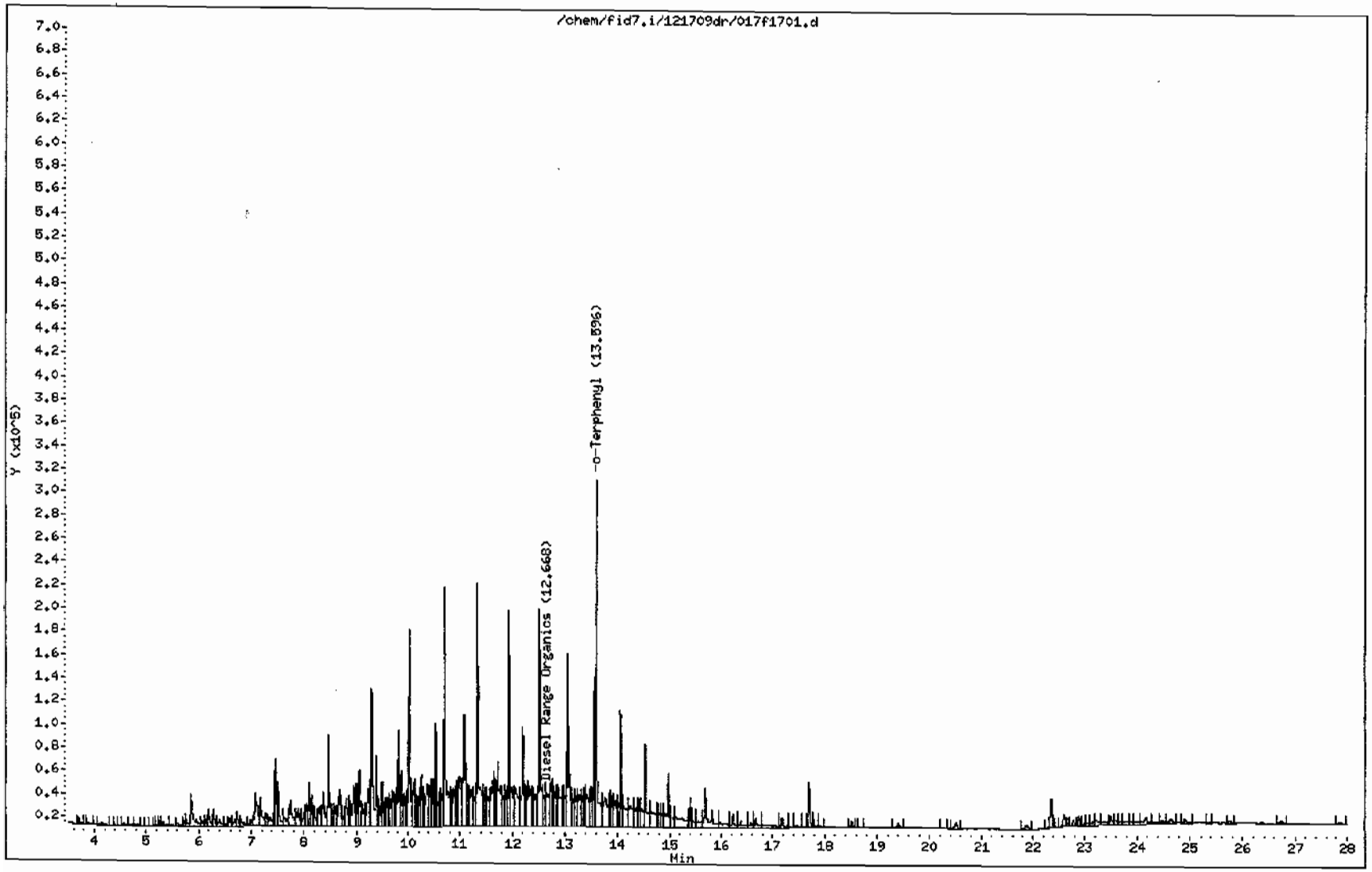

MISCELLANEOUS DATA

GEL ORGANIC RUN LOG INSTRUMENT ID: FID7.i

DATE: 12/14/2009 METHOD: FID7a.i_b_DRO_121309.m OPERATOR:KXR2 REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 16 on pg. 16 Solvent REMAT ID:CH2CL2

Calibration & QC Information
GC Column: DB-5MS 30m x 0.25mm x 0.25um
Initial Calibration Dates: See Calibration History and Standards Log
Initial Calibration Std ID's: See Calibration History and Standards Log
FID analysis of GEL SOP:GL-OA-E-003

Sequence Number:121309DR Injection Volume: 1.0 ul

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001f0101.d	WFI091130-06 B1	KXR2	13-DEC-2009 15:16		SDGa20942	1.0		CLEAN
002f0201.d	UFI091013-03 RT	KXR2	13-DEC-2009 15:53		SDGa20942	1.0		RTMARKER
003f0301.d	UFI090827-10 200	KXR2	13-DEC-2009 16:31		SDGa20942	1.0		CAL. LEVEL 1
004f0401.d	UFI090827-11 500	KXR2	13-DEC-2009 17:07		SDGa20942	1.0		CAL. LEVEL 2
005f0501.d	UFI090827-12 1000	KXR2	13-DEC-2009 17:45		SDGa20942	1.0		CAL. LEVEL 3
006f0601.d	UFI090827-13 2000	KXR2	13-DEC-2009 18:22		SDGa20942	1.0		CAL. LEVEL 4
007f0701.d	UFI090827-14 5000	KXR2	13-DEC-2009 18:58		SDGa20942	1.0		CAL. LEVEL 5
008f0801.d	WFI090928-01 D1	KXR2	13-DEC-2009 19:36		SDGa20942	1.0		PASSES
009f0901.d	WFI091130-06 B2	KXR2	13-DEC-2009 20:12		SDGa20942	1.0		CLEAN
010f1001.d	1201993826	KXR2	13-DEC-2009 20:49	932074	10-830	1.0	MB	USE
011f1101.d	1201993827	KXR2	13-DEC-2009 21:26	932074	10-830	1.0	LCS	USE
012f1201.d	242439002	KXR2	13-DEC-2009 22:03	932074	10-830	1.0	LANL	USE
013f1301.d	1201993828	KXR2	13-DEC-2009 22:40	932074	10-830	1.0	MS	USE
014f1401.d	1201993829	KXR2	13-DEC-2009 23:18	932074	10-830	1.0	MSD	USE
015f1501.d	242439003	KXR2	13-DEC-2009 23:54	932074	10-830	1.0	LANL	USE

Instrument Batch: /chem/fid7.i/121309dr Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
016f1601.d	242439004	KXR2	14-DEC-2009 00:32	932074	10-830	1.0	LANL	USE

017f1701.d	242439005	KXR2	14-DEC-2009 01:09	932074	10-830		5.0	LANL	USE
018f1801.d	242439006	KXR2	14-DEC-2009 01:46	932074	10-830		1.0	LANL	USE
019f1901.d	242439007	KXR2	14-DEC-2009 02:23	932074	10-830		1.0	LANL	USE
020f2001.d	UFI091118-02 D2	KXR2	14-DEC-2009 03:00		SDGa20942		1.0		PASSES
021f2101.d	WFI091130-06 B3	KXR2	14-DEC-2009 03:37		SDGa20942		1.0		CLEAN
022f2201.d	242439008	KXR2	14-DEC-2009 04:13	932074	10-830		1.0	LANL	USE
023f2301.d	242439009	KXR2	14-DEC-2009 04:50	932074	10-830		1.0	LANL	USE
024f2401.d	242439010	KXR2	14-DEC-2009 05:27	932074	10-830		1.0	LANL	USE
025f2501.d	242439011	KXR2	14-DEC-2009 06:04	932074	10-830		1.0	LANL	USE
026f2601.d	242439012	KXR2	14-DEC-2009 06:41	932074	10-830		1.0	LANL	USE
027f2701.d	242439013	KXR2	14-DEC-2009 07:18	932074	10-830		20.0	LANL	USE
028f2801.d	242439014	KXR2	14-DEC-2009 07:55	932074	10-830		1.0	LANL	USE
029f2901.d	242439015	KXR2	14-DEC-2009 08:32	932074	10-830		10.0	LANL	USE
030f3001.d	242439016	KXR2	14-DEC-2009 09:09	932074	10-830		1.0	LANL	USE
031f3101.d	UFI091118-02 D3	KXR2	14-DEC-2009 09:46		SDGa20942		1.0		PASSES
032f3201.d	WFI091130-06 B4	KXR2	14-DEC-2009 10:23		SDGa20942		1.0		CLEAN

GEL ORGANIC RUN LOG INSTRUMENT ID: FID7.i

DATE: 12/20/2009 METHOD: FID7a.i_b_DRO_121309.m OPERATOR:KXR2 REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 16 on pg. 16 Solvent REMAT ID:CH2CL2

Calibration & QC Information
GC Column: DB-5MS 30m x 0.25mm x 0.25um
Initial Calibration Dates: See Calibration History and Standards Log
Initial Calibration Std ID's: See Calibration History and Standards Log
FID analysis of GEL SOP:GL-OA-E-003

Sequence Number:121709DR Injection Volume: 1.0 ul

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001f01D1.d	WFI091130-06 B1	KXR2	17-DEC-2009 23:57		SDGa07291	1.0		CLEAN
002f0201.d	UFI091013-03 RT	KXR2	18-DEC-2009 00:34		SDGa07291	1.0		RTMARKER
003f0301.d	UFI091118-02 D1	KXR2	18-DEC-2009 01:10		SDGa07291	1.0		PASSES
004f0401.d	WFI091130-06 B2	KXR2	18-DEC-2009 01:47		SDGa07291	1.0		CLEAN
005f0501.d	1201997993	KXR2	18-DEC-2009 02:24	933843	10-852	1.0	MB	USE
006f0601.d	1201997994	KXR2	18-DEC-2009 03:00	933843	10-852	1.0	LCS	USE
007f0701.d	242654001	KXR2	18-DEC-2009 03:37	933843	10-852	1.0	LANL	DUSE,REEXTRACT
008f0801.d	242654004	KXR2	18-DEC-2009 04:13	933843	10-852	1.0	LANL	DUSE,REEXTRACT
009f0901.d	242654005	KXR2	18-DEC-2009 04:50	933843	10-852	1.0	LANL	DUSE,REEXTRACT
010f1001.d	242654006	KXR2	18-DEC-2009 05:26	933843	10-852	1.0	LANL	DUSE,REEXTRACT
011f1101.d	242654015	KXR2	18-DEC-2009 06:03	933843	10-852	1.0	LANL	DUSE,REEXTRACT
012f1201.d	242654017	KXR2	18-DEC-2009 06:40	933843	10-852	1.0	LANL	DUSE,REEXTRACT
013f1301.d	242937001	KXR2	18-DEC-2009 07:16	933843	10-917	1.0	LANL	USE
014f1401.d	UFI091118-02 D2	KXR2	18-DEC-2009 07:53		SDGa07291	1.0		PASSES
015f1501.d	WFI091130-06 B3	KXR2	18-DEC-2009 08:30		SDGa07291	1.0		CLEAN

Instrument Batch: /chem/fid7.i/121709dr Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
016f1601.d	1201997995	KXR2	18-DEC-2009 09:07	933843	10-917	1.0	MS	USE

017f1701.d	1201997996	KXR2	18-DEC-2009 09:44	933843	10-917		1.0	MSD	USE
018f1801.d	242937002	KXR2	18-DEC-2009 10:21	933843	10-917		1.0	LANL	USE
019f1901.d	242937003	KXR2	18-DEC-2009 10:58	933843	10-917		1.0	LANL	USE
020f2001.d	242937004	KXR2	18-DEC-2009 11:35	933843	10-917		1.0	LANL	USE
021f2101.d	242937005	KXR2	18-DEC-2009 12:12	933843	10-917		1.0	LANL	USE
022f2201.d	242937006	KXR2	18-DEC-2009 12:49	933843	10-917		1.0	LANL	USE
023f2301.d	242937007	KXR2	18-DEC-2009 13:27	933843	10-917		1.0	LANL	USE
024f2401.d	242937008	KXR2	18-DEC-2009 14:04	933843	10-917		1.0	LANL	USE
025f2501.d	242937009	KXR2	18-DEC-2009 14:42	933843	10-917		1.0	LANL	USE
026f2601.d	UFI091118-02 D3	KXR2	18-DEC-2009 15:19		SDGa07291		1.0		PASSES
027f2701.d	WFI091130-06 B4	KXR2	18-DEC-2009 15:57		SDGa07291		1.0		CLEAN

Prep Logbook

Extraction of Semivolatile and Nonvolatile Organic Compounds from Soil, Sludge, and Other Miscellaneous Solid Samples

Batch ID: 933842 **Verified by:** _____

Analyst: Alberto Velasco

Method: SW846 3550B

Lab SOP: GL-OA-E-010 REV# 18

Instrument: Semi-Volatiles Manual

Sample ID	Run Date	Aliquot (g)	Prepped Aliquot (mL)	Prepped Factor (mL/g)
1201997993 MB	17-DEC-2009 18:54:38	30	1	0.03333
1201997994 LCS	17-DEC-2009 18:54:38	30	1	0.03333
242654001 - 2	17-DEC-2009 18:54:38	30.03	1	0.0333
242654004 - 2	17-DEC-2009 18:54:38	30.08	1	0.03324
242654005 - 2	17-DEC-2009 18:54:38	30.09	1	0.03323
242654006 - 2	17-DEC-2009 18:54:38	30.08	1	0.03324
242654015 - 2	17-DEC-2009 18:54:38	30.07	1	0.03326
242654017 - 2	17-DEC-2009 18:54:38	30.01	1	0.03332
242937001	17-DEC-2009 18:54:38	30.01	1	0.03332
1201997995 MS (242937001)	17-DEC-2009 18:54:38	30.05	1	0.03328
1201997996 MSD (242937001)	17-DEC-2009 18:54:38	30.02	1	0.03331
242937002	17-DEC-2009 18:54:38	30.01	1	0.03332
242937003	17-DEC-2009 18:54:38	30.03	1	0.0333
242937004	17-DEC-2009 18:54:38	30.09	1	0.03323
242937005	17-DEC-2009 18:54:38	30.05	1	0.03328
242937006	17-DEC-2009 18:54:38	30.02	1	0.03331
242937007	17-DEC-2009 18:54:38	30.05	1	0.03328
242937008	17-DEC-2009 18:54:38	30.04	1	0.03329
242937009	17-DEC-2009 18:54:38	30.03	1	0.0333

Type	Sample Id	Description	Serial Number	Spike Amt	Units
LCS	1201997994	TPH DRO LCS	UE091030-08	1	mL
MS	1201997995	TPH DRO LCS	UE091030-08	1	mL
MSD	1201997996	TPH DRO LCS	UE091030-08	1	mL
SURR	All	20 ppm surrogate	WE091210-04	1	mL
REGNT	All	Methylene Chloride	1242565-D	300	mL
SOURC	All	SODIUM SULFATE	1242582	30	g

Comments:

Verified By: AJS

Final Solvent: CH2Cl2

GC SEMIVOLATILE PCB ANALYSIS

PCB Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-917

Method/Analysis Information

Procedure:	**Analysis of Polychlorinated Biphenyls byECD**
Analytical Method:	SW846 8082
Prep Method:	SW846 3550B
Analytical Batch Number:	933817
Prep Batch Number:	933816

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 8082:

Sample ID	Client ID
242937001	RE03-09-14213
242937002	RE03-09-14215
242937003	RE03-09-14212
242937004	RE03-09-14219
242937005	RE03-09-14218
242937006	RE03-09-14216
242937007	RE03-09-14214
242937008	RE03-09-14217
242937009	RE03-10-2735
1201997946	Method Blank (MB)
1201997947	Laboratory Control Sample (LCS)
1201997948	242937001(RE03-09-14213) Matrix Spike (MS)
1201997949	242937001(RE03-09-14213) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on a "dry weight" basis.

Preparation/Analytical Method Verification

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-040 REV# 14.

Raw data reports are processed and reviewed by the analyst using the Target software package. False positives have

been removed from the Target quantitation reports per standard operating procedures (SOP) section 23.0.

Calibration Information

Please note that the 'Cal Date' indicated on each quantitation report reflects the date and time of the most recent calibrated analyte(s) in the Target processing method. Since the laboratory may calibrate with multiple solutions on different days using the same processing method, the Target software will update the 'Cal Date' to the last calibration file, date and time. The correct dates and times for all calibration files are located on the Calibration History report in the Standard Data section in the data package.

Due to software limitations, the Calibration Summary Form 6 may not indicate all the calibration files comprising the initial calibration. A complete list of the initial calibration data files are shown in the Calibration History report located in the Standard Data section of the data package.

Initial Calibration
All initial calibration requirements have been met for this sample delivery group (SDG).

The linear equation used in Target and indicated on the initial calibration summary form is not a conventional linear equation (slope intercept formula) and does not match the equation found in SW-846 method 8000B. The x and y axes are inversed in Target, so that the instrument response is treated as the independent variable (x) and the concentration ratio is treated as the dependent variable (y). The equation used in Target to calculate sample results is adjusted to account for the linear equation inversion and reciprocal slope. The adjusted calculation has been independently verified to produce valid results.

Continuing Calibration Verification (CCV) Requirements
All associated calibration verification standard(s) (ICV or CCV) met the acceptance criteria for the Aroclors.

One or more of the five quantified peaks failed to meet the acceptance criteria in Aroclor-1260 standards analyzed for this SDG; however, the average concentration of the five quantitated peaks met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Surrogate Recoveries
All surrogate recoveries were within the established acceptance criteria for this SDG.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

QC Sample Designation
Sample 242937001 (RE03-09-14213) was selected for the matrix spike and matrix spike duplicate analysis.

Matrix Spike (MS) Recovery Statement
The MS recoveries for this SDG were not within the established acceptance limits due to Aroclor contamination. See NCR #772523 located in the Miscellaneous Data section.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recoveries for this SDG were within the established acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD between the MS and MSD did not meet the acceptance limits due to Aroclor contamination in the MS. See NCR #772523 located in the Miscellaneous Data section.

Technical Information

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP. All sample extracts were cleaned using alumina. Additionally, copper was added to all sample extracts to remove sulfur.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-extraction/Re-analysis
Sample 242937001 (RE03-09-14213) was re-extracted and re-analyzed due to Aroclor contamination in the MS of this sample. The re-extraction confirmed that there were no Aroclors detected in the sample. The first analysis was reported in this data package. The raw data for the second analysis were included in the Miscellaneous Data section.

Miscellaneous Information

Electronic Package Comment

The following package was generated using an electronic data processing program referred to as "virtual packaging". In an effort to increase quality and efficiency, the laboratory is developing systems to eventually generate all data packages electronically. The following change from "traditional" packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. An electronic signature page inserted after the case narrative of each electronic package will indicate the analyst, reviewer, and report specialist names associated with the generation of the data and package. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Nonconformance (NCR) Documentation
Nonconformance report (NCR) is for documentation of any procedural anomalies that may deviate from referenced SOP or contractual document. NCR # 772523 was generated for this SDG. A copy is included in the Miscellaneous Data section of this package.

Manual Integration
Certain standards and samples may have required manual integration to correctly position the baseline as set in the calibration standard injections. If manual integration was performed, copies of all manual integration peak profiles are included in the raw data section of this PCB fraction.

Additional Comments
The additional comments field is used to address special issues associated with each analysis, clarify method/contractual issues pertaining to the analysis, and to list any report documents generated as a result of sample analysis or review. The following additional comments were required:

The higher results from either column have been chosen and reported in the data package for the client samples, MB and LCS. The data reported for the MS and MSD are from the same analytical column as the parent sample.

The data reported on the form I and III may differ slightly from the data reported on the form X. This is due to software limitations in rounding differences between the forms.

Aroclors quantitated on the raw data report by the Target data system do not necessarily represent positive Aroclor

identification. In order for positive identification to be made, the Aroclor must match in pattern and retention time; as well as quantitate relatively close between the primary and confirmation columns, as specified in SW846 method 8000. When these conditions are not met, the Aroclor is reported as a non-detect on the data report. These situations will be noted on the raw data as DMP, representing does not match pattern, or DNC does not confirm.

Due to software limitation, the Form VIIs will display the results either in the % difference or % drift depending on the type of the calibration curve. If the curve of all analytes is generated using an average response factor (RF), the Form VII will display results using the %difference calculation (RF). If the curve of one or more analytes is generated using a linear curve, the Form VII will display results using the % drift calculation (by concentration) for all analytes.

System Configuration

The Semi-Volatiles-PCB analysis was performed on the following instrument configuration:

Instrument ID	Instrument	System Configuration	Column ID	Column Description
ECD1A.I_1	HP Gas Chromatograph	HP6890 Series ECD	Rtx-CLP I	30m x 0.25mm, 0.25um (Rtx-CLPesticide)
ECD1A.I_2	HP Gas Chromatograph	HP6890 Series ECD	Rtx-CLP II	30m x 0.25mm, 0.20um (Rtx-CLPesticideII)

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Jimmi Cao Date: 1/11/10

Roadmap for LANL 10-917 PCB

This roadmap was analyzed by jen01212 on 12-23-2009, 12:30.
This roadmap was reviewed by hea01125 on 12-23-2009, 15:27.
This roadmap was reviewed by yml on 01-11-2010, 07:44.
This roadmap was packaged by yml on 01-11-2010, 09:19.
This roadmap was validated by jim01140 on 01-11-2010, 13:37.

Front Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd1a.i/121809.b/046f4601.d	242937001	sample	18-DEC-2009	14:29	10-917.sub	RE03-09-14213	1.00000	933817	UPLOAD BOTH COLUMNS, USE HIGHER
☐	N	/chem/ecd1a.i/121809.b/049f4901.d	242937002	sample	18-DEC-2009	15:07	10-917.sub	RE03-09-14215	1.00000	933817	UPLOAD BOTH COLUMNS, USE HIGHER
☐	N	/chem/ecd1a.i/121809.b/050f5001.d	242937003	sample	18-DEC-2009	15:20	10-917.sub	RE03-09-14212	1.00000	933817	UPLOAD BOTH COLUMNS, USE HIGHER
☐	N	/chem/ecd1a.i/121809.b/053f5301.d	242937004	sample	18-DEC-2009	15:53	10-917.sub	RE03-09-14219	1.00000	933817	UPLOAD BOTH COLUMNS, USE HIGHER
☐	N	/chem/ecd1a.i/121809.b/054f5401.d	242937005	sample	18-DEC-2009	16:06	10-917.sub	RE03-09-14218	1.00000	933817	UPLOAD BOTH COLUMNS, USE HIGHER
☐	N	/chem/ecd1a.i/121809.b/055f5501.d	242937006	sample	18-DEC-2009	16:19	10-917.sub	RE03-09-14216	1.00000	933817	UPLOAD BOTH COLUMNS, USE HIGHER
☐	N	/chem/ecd1a.i/121809.b/056f5601.d	242937007	sample	18-DEC-2009	16:31	10-917.sub	RE03-09-14214	1.00000	933817	UPLOAD BOTH COLUMNS, USE HIGHER
☐	N	/chem/ecd1a.i/121809.b/057f5701.d	242937008	sample	18-DEC-2009	16:44	10-917.sub	RE03-09-14217	1.00000	933817	UPLOAD BOTH COLUMNS, USE HIGHER
☐	N	/chem/ecd1a.i/121809.b/058f5801.d	242937009	sample	18-DEC-2009	16:57	10-917.sub	RE03-10-2735	1.00000	933817	UPLOAD BOTH COLUMNS, USE HIGHER

Back Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd1a.i/121809.b/046b4601.d	242937001	sample	18-DEC-2009	14:29	10-917.sub	RE03-09-14213	1.00000	933817	UPLOAD BOTH COLUMNS, USE HIGHER
☐	N	/chem/ecd1a.i/121809.b/049b4901.d	242937002	sample	18-DEC-2009	15:07	10-917.sub	RE03-09-14215	1.00000	933817	UPLOAD BOTH COLUMNS, USE HIGHER
☐	N	/chem/ecd1a.i/121809.b/050b5001.d	242937003	sample	18-DEC-2009	15:20	10-917.sub	RE03-09-14212	1.00000	933817	UPLOAD BOTH COLUMNS, USE HIGHER
☐	N	/chem/ecd1a.i/121809.b/053b5301.d	242937004	sample	18-DEC-2009	15:53	10-917.sub	RE03-09-14219	1.00000	933817	UPLOAD BOTH COLUMNS, USE HIGHER
☐	N	/chem/ecd1a.i/121809.b/054b5401.d	242937005	sample	18-DEC-2009	16:06	10-917.sub	RE03-09-14218	1.00000	933817	UPLOAD BOTH COLUMNS, USE HIGHER
☐	N	/chem/ecd1a.i/121809.b/055b5501.d	242937006	sample	18-DEC-2009	16:19	10-917.sub	RE03-09-14216	1.00000	933817	UPLOAD BOTH COLUMNS, USE HIGHER
☐	N	/chem/ecd1a.i/121809.b/056b5601.d	242937007	sample	18-DEC-2009	16:31	10-917.sub	RE03-09-14214	1.00000	933817	UPLOAD BOTH COLUMNS, USE HIGHER
☐	N	/chem/ecd1a.i/121809.b/057b5701.d	242937008	sample	18-DEC-2009	16:44	10-917.sub	RE03-09-14217	1.00000	933817	UPLOAD BOTH COLUMNS, USE HIGHER
☐	N	/chem/ecd1a.i/121809.b/058b5801.d	242937009	sample	18-DEC-2009	16:57	10-917.sub	RE03-10-2735	1.00000	933817	UPLOAD BOTH COLUMNS, USE HIGHER

Front QC Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd1a.i/121809.b/041f4101-2.d	1201997946	mb	18-DEC-2009	13:30	10-917.sub	PBLK01	1.00000	933817	
☐	N	/chem/ecd1a.i/121809.b/042f4201-2.d	1201997947	lcs	18-DEC-2009	13:41	10-917.sub	PBLK01LCS	1.00000	933817	

☐	N	/chem/ecd1a.i/121809.b/047f4701.d	1201997948	ms	18-DEC-2009	14:42	10-917.sub	RE03-09-14213MS	1.00000	933817	contaminated RE the parent
☐	N	/chem/ecd1a.i/121809.b/048f4801.d	1201997949	msd	18-DEC-2009	14:54	10-917.sub	RE03-09-14213MSD	1.00000	933817	UPLOAD BOTH COLUMNS, USE HIGHER

Back QC Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd1a.i/121809.b/041b4101-2.d	1201997946	mb	18-DEC-2009	13:30	10-917.sub	PBLK01	1.00000	933817	
☐	N	/chem/ecd1a.i/121809.b/042b4201-2.d	1201997947	lcs	18-DEC-2009	13:41	10-917.sub	PBLK01LCS	1.00000	933817	
☐	N	/chem/ecd1a.i/121809.b/047b4701.d	1201997948	ms	18-DEC-2009	14:42	10-917.sub	RE03-09-14213MS	1.00000	933817	contaminated RE the parent
☐	N	/chem/ecd1a.i/121809.b/048b4801.d	1201997949	msd	18-DEC-2009	14:54	10-917.sub	RE03-09-14213MSD	1.00000	933817	UPLOAD BOTH COLUMNS, USE HIGHER

SAMPLE DATA SUMMARY

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10-917**	**Date Collected:**	**12/11/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242937003**	**Date Received:**	**12/15/2009 08:45**	**%Moisture:**	**12.9**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14212**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**933817**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**12/18/2009 15:20**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**12/17/2009 10:38**	**Aliquot:**	**30.05 g**	**Final Volume:**	**1 mL**
Data File:	**050f5001.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	050b5001.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.82	ug/kg	1.27	3.82	1
11104-28-2	Aroclor-1221	U	3.82	ug/kg	1.27	3.82	1
11141-16-5	Aroclor-1232	U	3.82	ug/kg	1.27	3.82	1
53469-21-9	Aroclor-1242	U	3.82	ug/kg	1.27	3.82	1
12672-29-6	Aroclor-1248	U	3.82	ug/kg	1.27	3.82	1
11097-69-1	Aroclor-1254	P	10.6	ug/kg	1.27	3.82	1
11096-82-5	Aroclor-1260		10.0	ug/kg	1.27	3.82	2

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10–917	**Date Collected:**	12/11/2009 12:00	**Matrix:**	S
Lab Sample ID:	242937001	**Date Received:**	12/15/2009 08:45	**%Moisture:**	12.8
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03–09–14213	**Method:**	SW846 8082	**SOP Ref:**	GL–OA–E–040
Batch ID:	933817	**Inst:**	ECD1A.I	**Dilution:**	1
Run Date:	12/18/2009 14:29	**Analyst:**	YS1	**Inj. Vol:**	1 uL
Prep Date:	12/17/2009 10:38	**Aliquot:**	30.01 g	**Final Volume:**	1 mL
Data File:	046f4601.d	**Column:**	1 CLP1	**Level:**	LOW
	046b4601.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	3.82	ug/kg	1.27	3.82	1
11104–28–2	Aroclor–1221	U	3.82	ug/kg	1.27	3.82	1
11141–16–5	Aroclor–1232	U	3.82	ug/kg	1.27	3.82	1
53469–21–9	Aroclor–1242	U	3.82	ug/kg	1.27	3.82	1
12672–29–6	Aroclor–1248	U	3.82	ug/kg	1.27	3.82	1
11097–69–1	Aroclor–1254	U	3.82	ug/kg	1.27	3.82	1
11096–82–5	Aroclor–1260	U	3.82	ug/kg	1.27	3.82	1

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10-917**	**Date Collected:**	**12/11/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242937007**	**Date Received:**	**12/15/2009 08:45**	**%Moisture:**	**13.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14214**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**933817**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**12/18/2009 16:31**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**12/17/2009 10:38**	**Aliquot:**	**30.03 g**	**Final Volume:**	**1 mL**
Data File:	**056f5601.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	056b5601.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.86	ug/kg	1.29	3.86	1
11104-28-2	Aroclor-1221	U	3.86	ug/kg	1.29	3.86	1
11141-16-5	Aroclor-1232	U	3.86	ug/kg	1.29	3.86	1
53469-21-9	Aroclor-1242	U	3.86	ug/kg	1.29	3.86	1
12672-29-6	Aroclor-1248	U	3.86	ug/kg	1.29	3.86	1
11097-69-1	Aroclor-1254	J	2.10	ug/kg	1.29	3.86	1
11096-82-5	Aroclor-1260	U	3.86	ug/kg	1.29	3.86	1

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–917**	**Date Collected:**	**12/11/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242937002**	**Date Received:**	**12/15/2009 08:45**	**%Moisture:**	**10.3**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03–09–14215**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**933817**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**12/18/2009 15:07**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**12/17/2009 10:38**	**Aliquot:**	**30.01 g**	**Final Volume:**	**1 mL**
Data File:	**049f4901.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	049b4901.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	3.71	ug/kg	1.24	3.71	1
11104–28–2	Aroclor–1221	U	3.71	ug/kg	1.24	3.71	1
11141–16–5	Aroclor–1232	U	3.71	ug/kg	1.24	3.71	1
53469–21–9	Aroclor–1242	U	3.71	ug/kg	1.24	3.71	1
12672–29–6	Aroclor–1248	U	3.71	ug/kg	1.24	3.71	1
11097–69–1	Aroclor–1254	U	3.71	ug/kg	1.24	3.71	1
11096–82–5	Aroclor–1260	U	3.71	ug/kg	1.24	3.71	1

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10–917	**Date Collected:**	12/11/2009 12:00	**Matrix:**	S
Lab Sample ID:	242937006	**Date Received:**	12/15/2009 08:45	**%Moisture:**	15.8
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03–09–14216	**Method:**	SW846 8082	**SOP Ref:**	GL–OA–E–040
Batch ID:	933817	**Inst:**	ECD1A.I	**Dilution:**	1
Run Date:	12/18/2009 16:19	**Analyst:**	YS1	**Inj. Vol:**	1 uL
Prep Date:	12/17/2009 10:38	**Aliquot:**	30.09 g	**Final Volume:**	1 mL
Data File:	055f5501.d	**Column:**	1 CLP1	**Level:**	LOW
	055b5501.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	3.95	ug/kg	1.31	3.95	1
11104–28–2	Aroclor–1221	U	3.95	ug/kg	1.31	3.95	1
11141–16–5	Aroclor–1232	U	3.95	ug/kg	1.31	3.95	1
53469–21–9	Aroclor–1242	U	3.95	ug/kg	1.31	3.95	1
12672–29–6	Aroclor–1248	U	3.95	ug/kg	1.31	3.95	1
11097–69–1	Aroclor–1254	U	3.95	ug/kg	1.31	3.95	1
11096–82–5	Aroclor–1260	U	3.95	ug/kg	1.31	3.95	1

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–917**	**Date Collected:**	**12/11/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242937008**	**Date Received:**	**12/15/2009 08:45**	**%Moisture:**	**15.2**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03–09–14217**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**933817**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**12/18/2009 16:44**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**12/17/2009 10:38**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**057f5701.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	057b5701.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	3.93	ug/kg	1.31	3.93	1
11104–28–2	Aroclor–1221	U	3.93	ug/kg	1.31	3.93	1
11141–16–5	Aroclor–1232	U	3.93	ug/kg	1.31	3.93	1
53469–21–9	Aroclor–1242	U	3.93	ug/kg	1.31	3.93	1
12672–29–6	Aroclor–1248	U	3.93	ug/kg	1.31	3.93	1
11097–69–1	Aroclor–1254	U	3.93	ug/kg	1.31	3.93	1
11096–82–5	Aroclor–1260	U	3.93	ug/kg	1.31	3.93	1

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–917**	**Date Collected:**	**12/11/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242937005**	**Date Received:**	**12/15/2009 08:45**	**%Moisture:**	**17.6**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03–09–14218**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**933817**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**12/18/2009 16:06**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**12/17/2009 10:38**	**Aliquot:**	**30.09 g**	**Final Volume:**	**1 mL**
Data File:	**054f5401.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	054b5401.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	4.03	ug/kg	1.34	4.03	1
11104–28–2	Aroclor–1221	U	4.03	ug/kg	1.34	4.03	1
11141–16–5	Aroclor–1232	U	4.03	ug/kg	1.34	4.03	1
53469–21–9	Aroclor–1242	U	4.03	ug/kg	1.34	4.03	1
12672–29–6	Aroclor–1248	U	4.03	ug/kg	1.34	4.03	1
11097–69–1	Aroclor–1254	U	4.03	ug/kg	1.34	4.03	1
11096–82–5	Aroclor–1260	U	4.03	ug/kg	1.34	4.03	1

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10–917	**Date Collected:**	12/11/2009 12:00	**Matrix:**	S
Lab Sample ID:	242937004	**Date Received:**	12/15/2009 08:45	**%Moisture:**	17.2
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03–09–14219	**Method:**	SW846 8082	**SOP Ref:**	GL–OA–E–040
Batch ID:	933817	**Inst:**	ECD1A.I	**Dilution:**	1
Run Date:	12/18/2009 15:53	**Analyst:**	YS1	**Inj. Vol:**	1 uL
Prep Date:	12/17/2009 10:38	**Aliquot:**	30.05 g	**Final Volume:**	1 mL
Data File:	053f5301.d	**Column:**	1 CLP1	**Level:**	LOW
	053b5301.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	4.02	ug/kg	1.34	4.02	1
11104–28–2	Aroclor–1221	U	4.02	ug/kg	1.34	4.02	1
11141–16–5	Aroclor–1232	U	4.02	ug/kg	1.34	4.02	1
53469–21–9	Aroclor–1242	U	4.02	ug/kg	1.34	4.02	1
12672–29–6	Aroclor–1248	U	4.02	ug/kg	1.34	4.02	1
11097–69–1	Aroclor–1254	U	4.02	ug/kg	1.34	4.02	1
11096–82–5	Aroclor–1260	U	4.02	ug/kg	1.34	4.02	1

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10–917	**Date Collected:**	12/11/2009 12:00	**Matrix:**	S
Lab Sample ID:	242937009	**Date Received:**	12/15/2009 08:45	**%Moisture:**	14.2
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RF03–10–2735	**Method:**	SW846 8082	**SOP Ref:**	GL–OA–E–040
Batch ID:	933817	**Inst:**	ECD1A.I	**Dilution:**	1
Run Date:	12/18/2009 16:57	**Analyst:**	YS1	**Inj. Vol:**	1 uL
Prep Date:	12/17/2009 10:38	**Aliquot:**	30.03 g	**Final Volume:**	1 mL
Data File:	058f5801.d	**Column:**	1 CLP1	**Level:**	LOW
	058b5801.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	3.88	ug/kg	1.29	3.88	1
11104–28–2	Aroclor–1221	U	3.88	ug/kg	1.29	3.88	1
11141–16–5	Aroclor–1232	U	3.88	ug/kg	1.29	3.88	1
53469–21–9	Aroclor–1242	U	3.88	ug/kg	1.29	3.88	1
12672–29–6	Aroclor–1248	U	3.88	ug/kg	1.29	3.88	1
11097–69–1	Aroclor–1254	U	3.88	ug/kg	1.29	3.88	1
11096–82–5	Aroclor–1260	U	3.88	ug/kg	1.29	3.88	1

QUALITY CONTROL SUMMARY

Surrogate Recovery Report

SDG Number: 10-917

Matrix Type: SOLID

CAP Column (1) : CLP1 **CAP Column (2) : CLP2**

Sample ID	Client ID	4CMX 1 %REC #	4CMX 2 %REC #	DCB 1 %REC #	DCB 2 %REC #
1201997946	MB for batch 933816	72	69	86	84
1201997947	LCS for batch 933816	75	71	85	83
242937001	RE03-09-14213	61	57	74	73
1201997948	RE03-09-14213MS	53	53	63	61
1201997949	RE03-09-14213MSD	57	54	68	68
242937002	RE03-09-14215	57	54	73	73
242937003	RE03-09-14212	59	56	65	65
242937004	RE03-09-14219	49	47	75	75
242937005	RE03-09-14218	58	56	79	79
242937006	RE03-09-14216	61	58	72	71
242937007	RE03-09-14214	56	53	69	69
242937008	RE03-09-14217	73	69	90	89
242937009	RE03-10-2735	55	54	75	75

Surrogate	Acceptance Limits
4CMX = 4cmx	(34%-105%)
DCB = Decachlorobiphenyl	(33%-115%)

* Recovery outside Acceptance Limits

\# Column to be used to flag recovery values

D Sample Diluted

PCB

Quality Control Summary
Spike Recovery Report

SDG Number: 10-917
Client ID: LCS for batch 933816
Lab Sample ID: 1201997947
Instrument: ECD1A.I
Analyst: YS1
Inj. Vol: 1 uL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 12/18/2009 13:41
Prep Batch ID: 933816
Batch ID: 933817
Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
12674-11-2	LCS	Aroclor-1016	33.3	0.0	27.4	82	41-110
11096-82-5	LCS	Aroclor-1260	33.3	0.0	32.7	98	48-110

PCB

Quality Control Summary
Spike Recovery Report

SDG Number: 10–917
Client ID: RE03–09–14213MS
Lab Sample ID: 1201997948
Instrument: ECD1A.I
Analyst: YS1
Inj. Vol: 1 uL

Sample Type: Matrix Spike
Matrix: S
%Moisture: 12.8
Analysis Date: 12/18/2009 14:42
Prep Batch ID: 933816
Batch ID: 933817
Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
12674–11–2	MS	Aroclor–1016	38.2	0.00	U	116	303 *	23–117
11096–82–5	MS	Aroclor–1260	38.2	0.00	U	71.8	188 *	27–116

PCB

Quality Control Summary
Spike Recovery Report

SDG Number: 10–917
Client ID: RE03–09–14213MSD
Lab Sample ID: 1201997949
Instrument: ECD1A.I
Analyst: YS1
Inj. Vol: 1 uL

Sample Type: Matrix Spike Duplicate
Matrix: S
%Moisture: 12.8
Analysis Date: 12/18/2009 14:54
Dilution: 1
Prep Batch ID: 933816
Batch ID: 933817

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
12674–11–2	MSD Aroclor–1016	38.2	0.00	U	26.4	69	23–117	126 *	0–30
11096–82–5	MSD Aroclor–1260	38.2	0.00	U	32.5	85	27–116	75 *	0–30

Method Blank Summary

SDG Number:	10–917	Client:	LANL010	Matrix:	SOIL
Client ID:	MB for batch 933816	Instrument ID:	ECD1A.I_2 ECD1A.I_1	Data File:	041b4101–1.d 041f4101–1.d
Lab Sample ID:	1201997946				
Column:	CLP2 CLP1	Prep Date:	12/17/2009 10:38	Analyzed:	12/18/09 13:30
		Level:	LOW		

This method blank applies to the following samples and quality control samples:

	Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01	LCS for batch 933816	1201997947	042f4201–1.d 042b4201–1.d	12/18/09	1341
02	RE03–09–14213	242937001	046f4601.d 046b4601.d	12/18/09	1429
03	RE03–09–14213MS	1201997948	047f4701.d 047b4701.d	12/18/09	1442
04	RE03–09–14213MSD	1201997949	048f4801.d 048b4801.d	12/18/09	1454
05	RE03–09–14215	242937002	049f4901.d 049b4901.d	12/18/09	1507
06	RE03–09–14212	242937003	050f5001.d 050b5001.d	12/18/09	1520
07	RE03–09–14219	242937004	053f5301.d 053b5301.d	12/18/09	1553
08	RE03–09–14218	242937005	054f5401.d 054b5401.d	12/18/09	1606
09	RE03–09–14216	242937006	055f5501.d 055b5501.d	12/18/09	1619
10	RE03–09–14214	242937007	056f5601.d 056b5601.d	12/18/09	1631
11	RE03–09–14217	242937008	057f5701.d 057b5701.d	12/18/09	1644
12	RE03–10–2735	242937009	058f5801.d 058b5801.d	12/18/09	1657

SAMPLE DATA

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–917**	**Date Collected:**	**12/11/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242937003**	**Date Received:**	**12/15/2009 08:45**	**%Moisture:**	**12.9**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03–09–14212**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**933817**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**12/18/2009 15:20**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**12/17/2009 10:38**	**Aliquot:**	**30.05 g**	**Final Volume:**	**1 mL**
Data File:	**050f5001.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	050b5001.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	3.82	ug/kg	1.27	3.82	1
11104–28–2	Aroclor–1221	U	3.82	ug/kg	1.27	3.82	1
11141–16–5	Aroclor–1232	U	3.82	ug/kg	1.27	3.82	1
53469–21–9	Aroclor–1242	U	3.82	ug/kg	1.27	3.82	1
12672–29–6	Aroclor–1248	U	3.82	ug/kg	1.27	3.82	1
11097–69–1	Aroclor–1254	P	10.6	ug/kg	1.27	3.82	1
11096–82–5	Aroclor–1260		10.0	ug/kg	1.27	3.82	2

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/121809.b/050f5001.d
Lab Smp Id: 242937003 Client Smp ID: RE03-09-14212
Inj Date : 18-DEC-2009 15:20
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |242937003|1|
Misc Info : |ECD82P_1S|933817|SVAF|LANL|SOIL|RE03-09-14212|||
Comment :
Method : /chem/ecd1a.i/121809.b/ECD1-F-8082-121409.m
Meth Date : 18-Dec-2009 17:26 yip00818 Quant Type: ESTD
Cal Date : 14-DEC-2009 11:34 Cal File: 040f4001.d
Als bottle: 50
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-917.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.05000	Weight of sample extracted (g)
M	12.85170	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.972	1.971	0.001	44248956	117.787	4.5	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.287	5.290	-0.003	41481633	130.634	5.0	80.00- 120.00	100.00
6 Aroclor-1254					CAS #: 11097-69-1		
3.275	3.277	-0.002	2292184	183.588	7.0	80.00- 120.00	100.00
3.430	3.432	-0.002	3114087	186.228	7.1	119.49- 159.49	135.86
3.664	3.666	-0.002	5195939	250.843	9.6	162.57- 202.57	226.68
3.828	3.830	-0.002	2889158	184.091	7.0	120.92- 160.92	126.04

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
6 Aroclor-1254 (continued)							
3.935	3.939	-0.004	8887395	585.757	22.4	112.86- 152.86	387.73
Average of Peak Concentrations =					10.6		
7 Aroclor-1260					CAS #: 11096-82-5		
3.772	3.774	-0.002	5014801	299.353	11.4	80.00- 120.00	100.00
3.935	3.937	-0.002	8887395	359.194	13.7	134.60- 174.60	177.22
4.165	4.167	-0.002	3115593	212.128	8.1	72.50- 112.50	62.13
4.308	4.311	-0.003	2850007	187.692	7.2	76.61- 116.61	56.83
4.488	4.490	-0.002	7876922	229.311	8.8	204.05- 244.05	157.07
Average of Peak Concentrations =					9.8		

Data File: /chem/ecd1a.i/121809.b/050f5001.d
Date : 18-DEC-2009 15:20
Client ID: RE03-09-14212
Sample Info: 1242937003|1|
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecd1a.i
Operator: YS1
Column diameter: 0.25

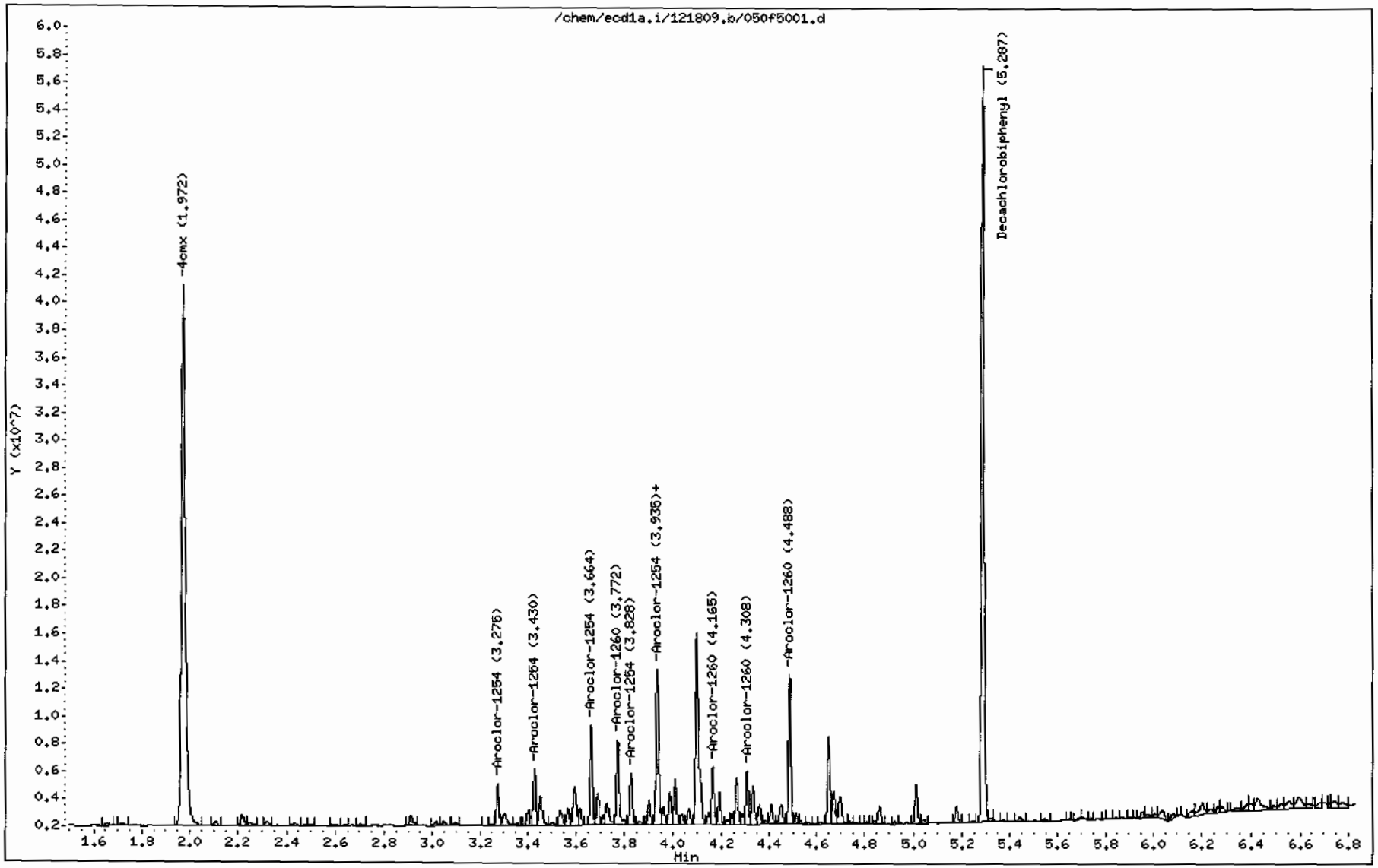

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/121809.b/050b5001.d
Lab Smp Id: 242937003 Client Smp ID: RE03-09-14212
Inj Date : 18-DEC-2009 15:20
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |242937003|1|
Misc Info : |ECD82P_1S|933817|SVAF|LANL|SOIL|RE03-09-14212|||
Comment :
Method : /chem/ecd1a.i/121809.b/ECD1-B-8082-121409.m
Meth Date : 18-Dec-2009 17:26 yip00818 Quant Type: ESTD
Cal Date : 14-DEC-2009 12:16 Cal File: 044b4401.d
Als bottle: 50
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-917.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclpl

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.05000	Weight of sample extracted (g)
M	12.85170	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.302	2.302	0.000	33589191	111.954	4.3	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.949	5.951	-0.002	30405056	130.367	5.0	80.00- 120.00	100.00
6 Aroclor-1254					CAS #: 11097-69-1		
3.408	3.409	-0.001	462687	71.8988	2.7	80.00- 120.00	100.00
3.830	3.832	-0.002	1830144	158.326	6.0	160.98- 200.98	395.55
3.947	3.948	-0.001	2806991	225.801	8.6	182.99- 222.99	606.67
4.223	4.225	-0.002	3839596	227.463	8.7	266.09- 306.09	829.85

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
6 Aroclor-1254 (continued)							
4.359	4.361	-0.002	2105716	169.331	6.5	192.87- 232.87	455.11
Average of Peak Concentrations =					6.5		
7 Aroclor-1260					CAS #: 11096-82-5		
4.339	4.341	-0.002	4250794	310.730	11.9	80.00- 120.00	100.00
4.463	4.465	-0.002	5545572	345.971	13.2	103.47- 143.47	130.46
4.729	4.731	-0.002	2903843	231.125	8.8	75.31- 115.31	68.31
4.903	4.905	-0.002	2433003	189.929	7.2	78.17- 118.17	57.24
5.050	5.051	-0.001	6662587	238.822	9.1	203.54- 243.54	156.74
Average of Peak Concentrations =					10.0		

Data File: /chem/ecd1a.i/121809.b/050b5001.d
Date : 18-DEC-2009 15:20
Client ID: RE03-09-14212
Sample Info: 1242937003111
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd1a.i
Operator: YS1
Column diameter: 0.25

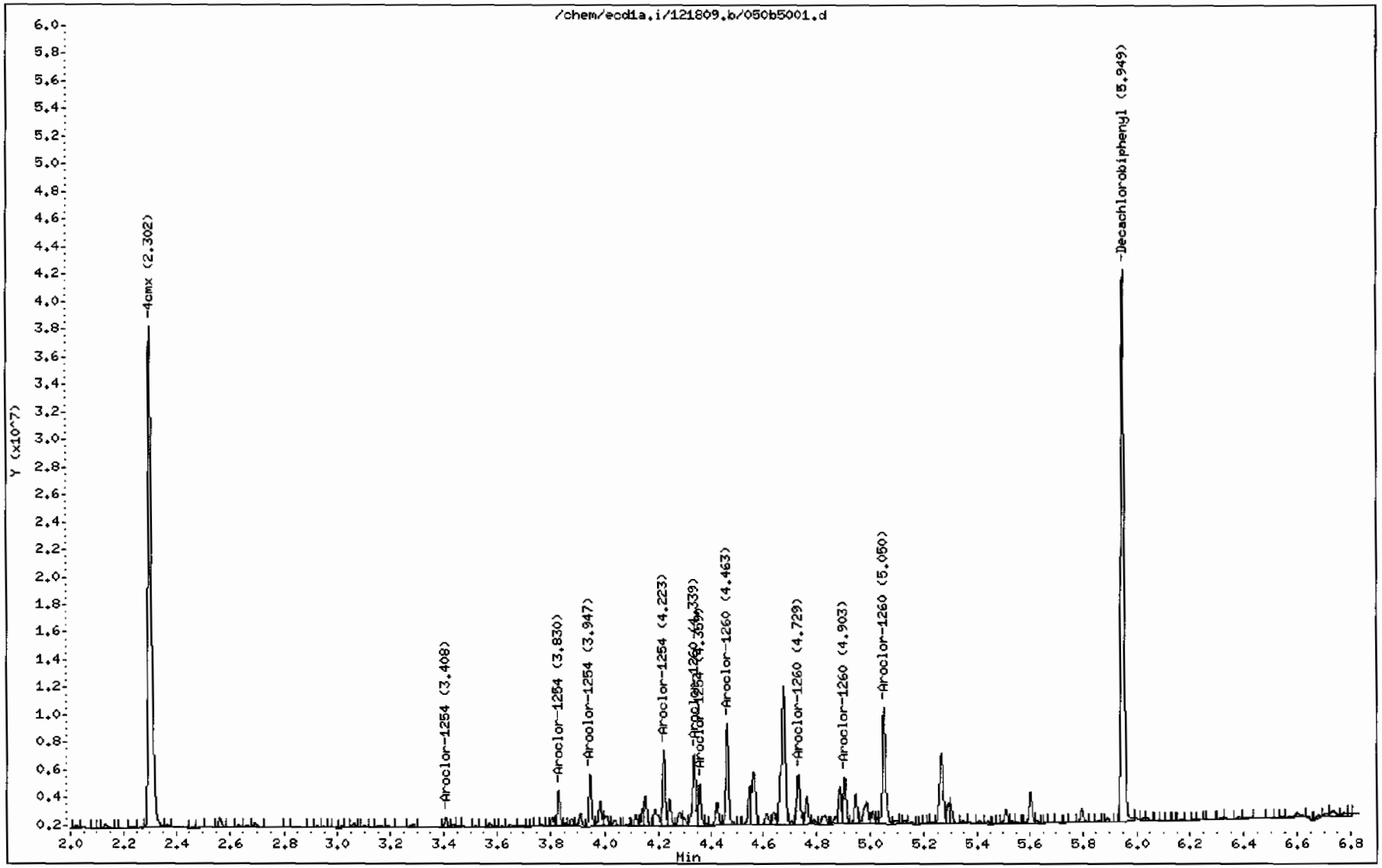

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10-917	**Date Collected:**	12/11/2009 12:00	**Matrix:**	S
Lab Sample ID:	242937001	**Date Received:**	12/15/2009 08:45	**%Moisture:**	12.8
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14213	**Method:**	SW846 8082	**SOP Ref:**	GL-OA-E-040
Batch ID:	933817	**Inst:**	ECD1A.I	**Dilution:**	1
Run Date:	12/18/2009 14:29	**Analyst:**	YS1	**Inj. Vol:**	1 uL
Prep Date:	12/17/2009 10:38	**Aliquot:**	30.01 g	**Final Volume:**	1 mL
Data File:	046f4601.d	**Column:**	1 CLP1	**Level:**	LOW
	046b4601.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.82	ug/kg	1.27	3.82	1
11104-28-2	Aroclor-1221	U	3.82	ug/kg	1.27	3.82	1
11141-16-5	Aroclor-1232	U	3.82	ug/kg	1.27	3.82	1
53469-21-9	Aroclor-1242	U	3.82	ug/kg	1.27	3.82	1
12672-29-6	Aroclor-1248	U	3.82	ug/kg	1.27	3.82	1
11097-69-1	Aroclor-1254	U	3.82	ug/kg	1.27	3.82	1
11096-82-5	Aroclor-1260	U	3.82	ug/kg	1.27	3.82	1

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RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/121809.b/046f4601.d
Lab Smp Id: 242937001 Client Smp ID: RE03-09-14213
Inj Date : 18-DEC-2009 14:29
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |242937001|1|
Misc Info : |ECD82P_1S|933817|SVAF|LANL|SOIL|RE03-09-14213|||
Comment :
Method : /chem/ecd1a.i/121809.b/ECD1-F-8082-121409.m
Meth Date : 18-Dec-2009 13:22 yip00818 Quant Type: ESTD
Cal Date : 14-DEC-2009 11:34 Cal File: 040f4001.d
Als bottle: 46
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-917.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.01000	Weight of sample extracted (g)
M	12.82530	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.972	1.971	0.001	45500091	121.117	4.6	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.287	5.290	-0.003	47068247	148.228	5.7	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/121809.b/046f4601.d
Date : 18-DEC-2009 14:29
Client ID: REO3-09-14213
Sample Info: 1242937001|1|
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecd1a.i
Operator: YSL
Column diameter: 0.25

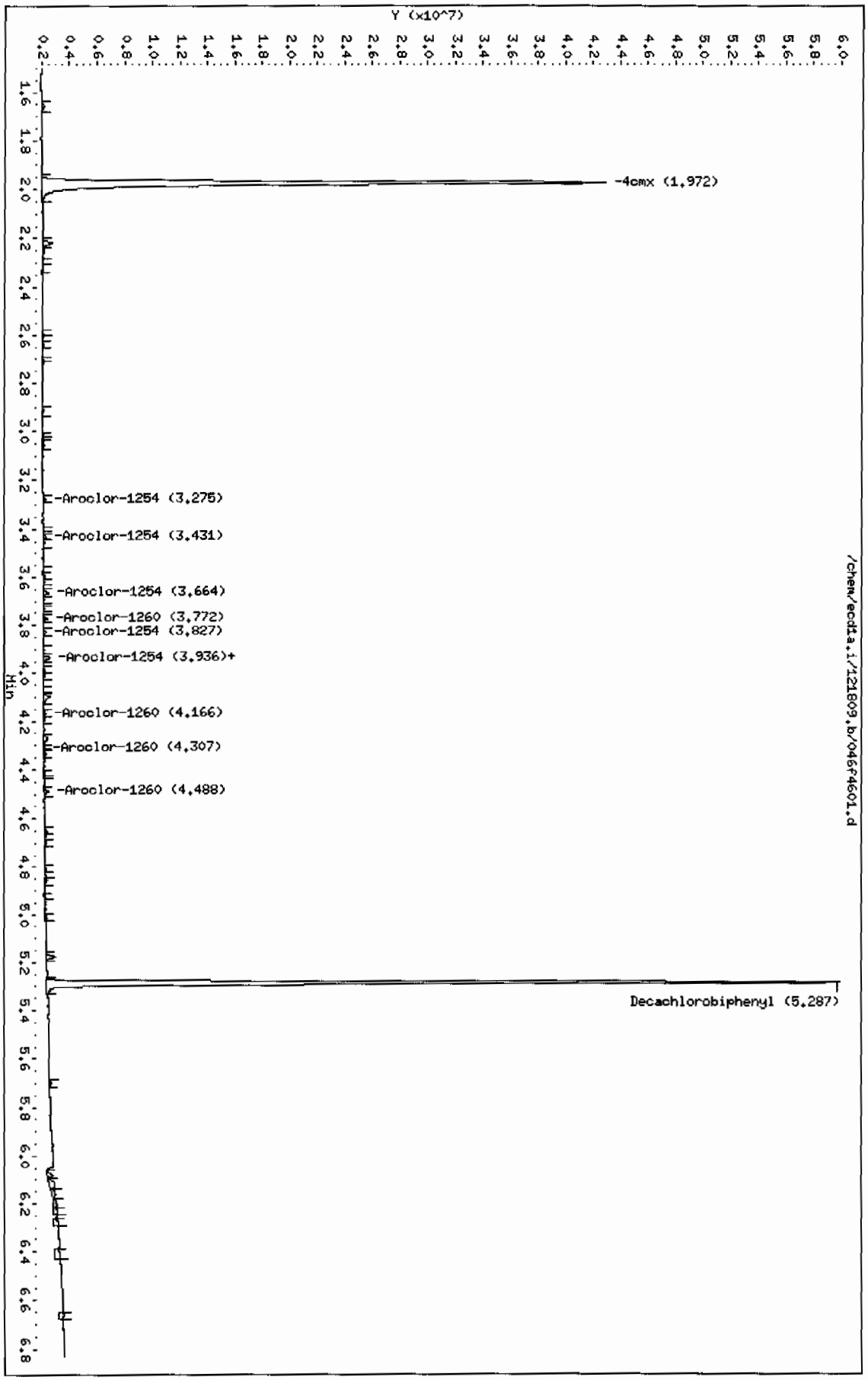

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RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/121809.b/046b4601.d
Lab Smp Id: 242937001 Client Smp ID: RE03-09-14213
Inj Date : 18-DEC-2009 14:29
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |242937001|1|
Misc Info : |ECD82P_1S|933817|SVAF|LANL|SOIL|RE03-09-14213|||
Comment :
Method : /chem/ecd1a.i/121809.b/ECD1-B-8082-121409.m
Meth Date : 18-Dec-2009 13:23 yip00818 Quant Type: ESTD
Cal Date : 14-DEC-2009 12:16 Cal File: 044b4401.d
Als bottle: 46
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-917.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.01000	Weight of sample extracted (g)
M	12.82530	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.302	2.302	0.000	34436096	114.777	4.4	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.950	5.951	-0.001	34106345	146.237	5.6	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/121809.b/046b4601.d
Date : 18-DEC-2009 14:29
Client ID: RE03-09-14213
Sample Info: 1242937001:1l
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd1a.i
Operator: YS1
Column diameter: 0.25

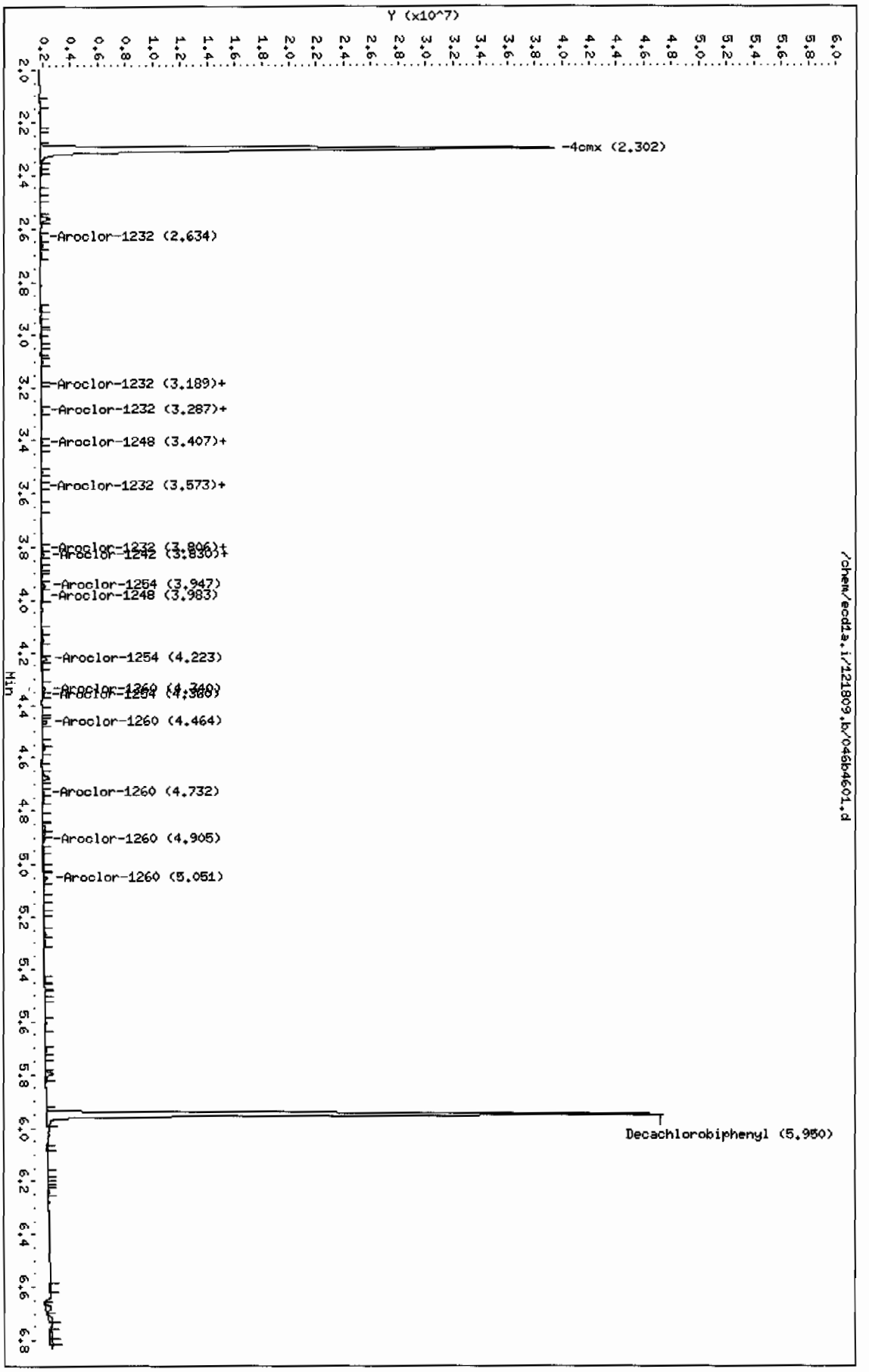

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PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–917**	**Date Collected:**	**12/11/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242937007**	**Date Received:**	**12/15/2009 08:45**	**%Moisture:**	**13.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03–09–14214**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**933817**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**12/18/2009 16:31**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**12/17/2009 10:38**	**Aliquot:**	**30.03 g**	**Final Volume:**	**1 mL**
Data File:	**056f5601.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	056b5601.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	3.86	ug/kg	1.29	3.86	1
11104–28–2	Aroclor–1221	U	3.86	ug/kg	1.29	3.86	1
11141–16–5	Aroclor–1232	U	3.86	ug/kg	1.29	3.86	1
53469–21–9	Aroclor–1242	U	3.86	ug/kg	1.29	3.86	1
12672–29–6	Aroclor–1248	U	3.86	ug/kg	1.29	3.86	1
11097–69–1	Aroclor–1254	J	2.10	ug/kg	1.29	3.86	1
11096–82–5	Aroclor–1260	U	3.86	ug/kg	1.29	3.86	1

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RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/121809.b/056f5601.d
Lab Smp Id: 242937007 Client Smp ID: RE03-09-14214
Inj Date : 18-DEC-2009 16:31
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |242937007|1|
Misc Info : |ECD82P_1S|933817|SVAF|LANL|SOIL|RE03-09-14214|||
Comment :
Method : /chem/ecd1a.i/121809.b/ECD1-F-8082-121409.m
Meth Date : 18-Dec-2009 17:26 yip00818 Quant Type: ESTD
Cal Date : 14-DEC-2009 11:34 Cal File: 040f4001.d
Als bottle: 56
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-917.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.03000	Weight of sample extracted (g)
M	13.78090	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.972	1.971	0.001	41807546	111.288	4.3	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.287	5.290	-0.003	43861451	138.129	5.3	80.00- 120.00	100.00
6 Aroclor-1254					CAS #: 11097-69-1		
3.274	3.277	-0.003	664369	53.2113	2.0	80.00- 120.00	100.00(a)
3.430	3.432	-0.002	850834	50.8813	2.0	119.49- 159.49	128.07
3.663	3.666	-0.003	1075972	51.9444	2.0	162.57- 202.57	161.95
3.828	3.830	-0.002	598945	38.1634	1.5	120.92- 160.92	90.15

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
6 Aroclor-1254 (continued)							
3.935	3.939	-0.004	1151465	75.8916	2.9	112.86- 152.86	173.32
			Average of Peak Concentrations =		2.1		

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

Data File: /chem/ecd1a.i/121809.b/056f5601.d
Date : 18-DEC-2009 16:31
Client ID: RE03-09-14214
Sample Info: |242937007|1|
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecd1a.i
Operator: YS1
Column diameter: 0.25

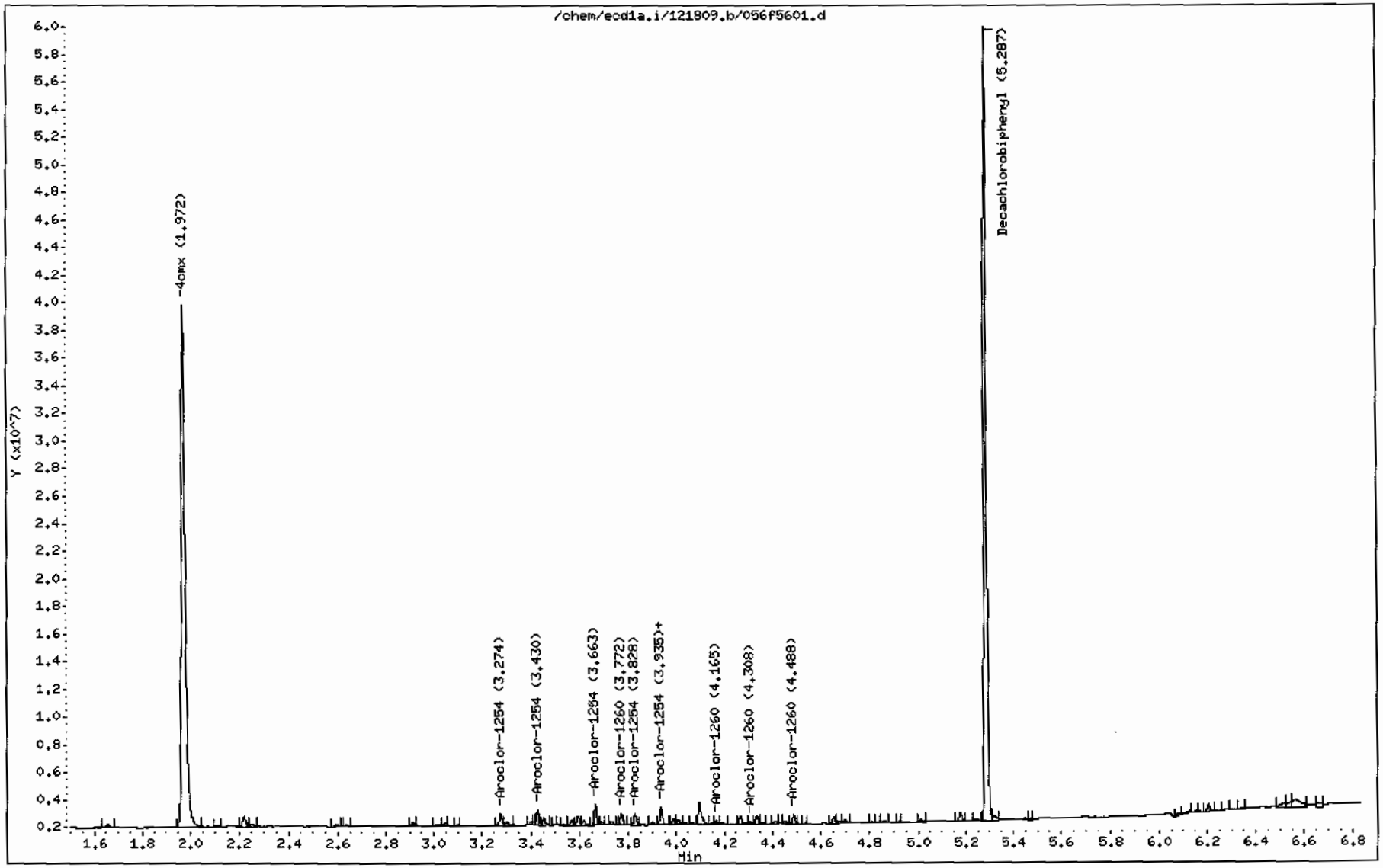

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RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/121809.b/056b5601.d
Lab Smp Id: 242937007 Client Smp ID: RE03-09-14214
Inj Date : 18-DEC-2009 16:31
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |242937007|1|
Misc Info : |ECD82P_1S|933817|SVAF|LANL|SOIL|RE03-09-14214|||
Comment :
Method : /chem/ecd1a.i/121809.b/ECD1-B-8082-121409.m
Meth Date : 18-Dec-2009 17:21 yip00818 Quant Type: ESTD
Cal Date : 14-DEC-2009 12:16 Cal File: 044b4401.d
Als bottle: 56
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-917.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.03000	Weight of sample extracted (g)
M	13.78090	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.302	2.302	0.000	31775279	105.909	4.1	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.949	5.951	-0.002	32401387	138.926	5.4	80.00- 120.00	100.00
6 Aroclor-1254					CAS #: 11097-69-1		
3.408	3.409	-0.001	251228	39.0394	1.5	80.00- 120.00	100.00(a)
3.829	3.832	-0.003	553667	47.8980	1.8	160.98- 200.98	220.38
3.946	3.948	-0.002	812084	65.3258	2.5	182.99- 222.99	323.25
4.223	4.225	-0.002	888371	52.6285	2.0	266.09- 306.09	353.61

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
6 Aroclor-1254 (continued)							
4.359	4.361	-0.002	458505	36.8707	1.4	192.87- 232.87	182.51
		Average of Peak Concentrations =			1.9		

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

Data File: /chem/ecdia.i/121809.b/056b5601.d
Date : 18-DEC-2009 16:31
Client ID: RE03-09-14214
Sample Info: 1242937007111
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecdia.i
Operator: YS1
Column diameter: 0.25

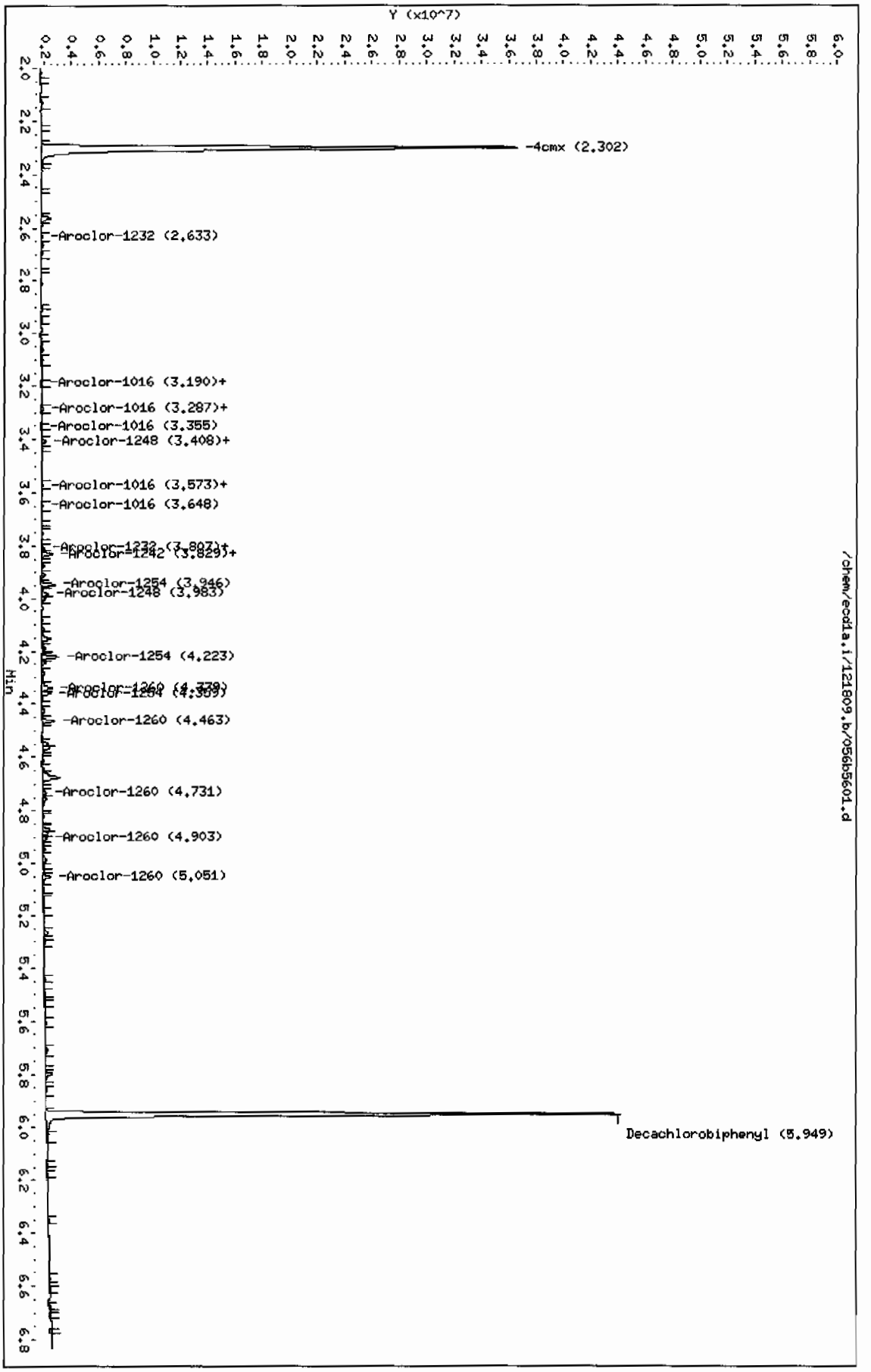

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PCB
Certificate of Analysis
Sample Summary

SDG Number:	10–917	**Date Collected:**	12/11/2009 12:00	**Matrix:**	S
Lab Sample ID:	242937002	**Date Received:**	12/15/2009 08:45	**%Moisture:**	10.3
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03–09–14215	**Method:**	SW846 8082	**SOP Ref:**	GL–OA–E–040
Batch ID:	933817	**Inst:**	ECD1A.I	**Dilution:**	1
Run Date:	12/18/2009 15:07	**Analyst:**	YS1	**Inj. Vol:**	1 uL
Prep Date:	12/17/2009 10:38	**Aliquot:**	30.01 g	**Final Volume:**	1 mL
Data File:	049f4901.d	**Column:**	1 CLP1	**Level:**	LOW
	049b4901.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	3.71	ug/kg	1.24	3.71	1
11104–28–2	Aroclor–1221	U	3.71	ug/kg	1.24	3.71	1
11141–16–5	Aroclor–1232	U	3.71	ug/kg	1.24	3.71	1
53469–21–9	Aroclor–1242	U	3.71	ug/kg	1.24	3.71	1
12672–29–6	Aroclor–1248	U	3.71	ug/kg	1.24	3.71	1
11097–69–1	Aroclor–1254	U	3.71	ug/kg	1.24	3.71	1
11096–82–5	Aroclor–1260	U	3.71	ug/kg	1.24	3.71	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/121809.b/049f4901.d
Lab Smp Id: 242937002 Client Smp ID: RE03-09-14215
Inj Date : 18-DEC-2009 15:07
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |242937002|1|
Misc Info : |ECD82P_1S|933817|SVAF|LANL|SOIL|RE03-09-14215|||
Comment :
Method : /chem/ecd1a.i/121809.b/ECD1-F-8082-121409.m
Meth Date : 18-Dec-2009 17:18 yip00818 Quant Type: ESTD
Cal Date : 14-DEC-2009 11:34 Cal File: 040f4001.d
Als bottle: 49
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-917.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.01000	Weight of sample extracted (g)
M	10.28450	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.972	1.971	0.001	42775186	113.864	4.2	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.287	5.290	-0.003	46575921	146.677	5.4	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/121809.b/049f4901.d
Date : 18-DEC-2009 15:07
Client ID: RE03-09-14215
Sample Info: 1242937002111
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecd1a.i
Operator: YS1
Column diameter: 0.25

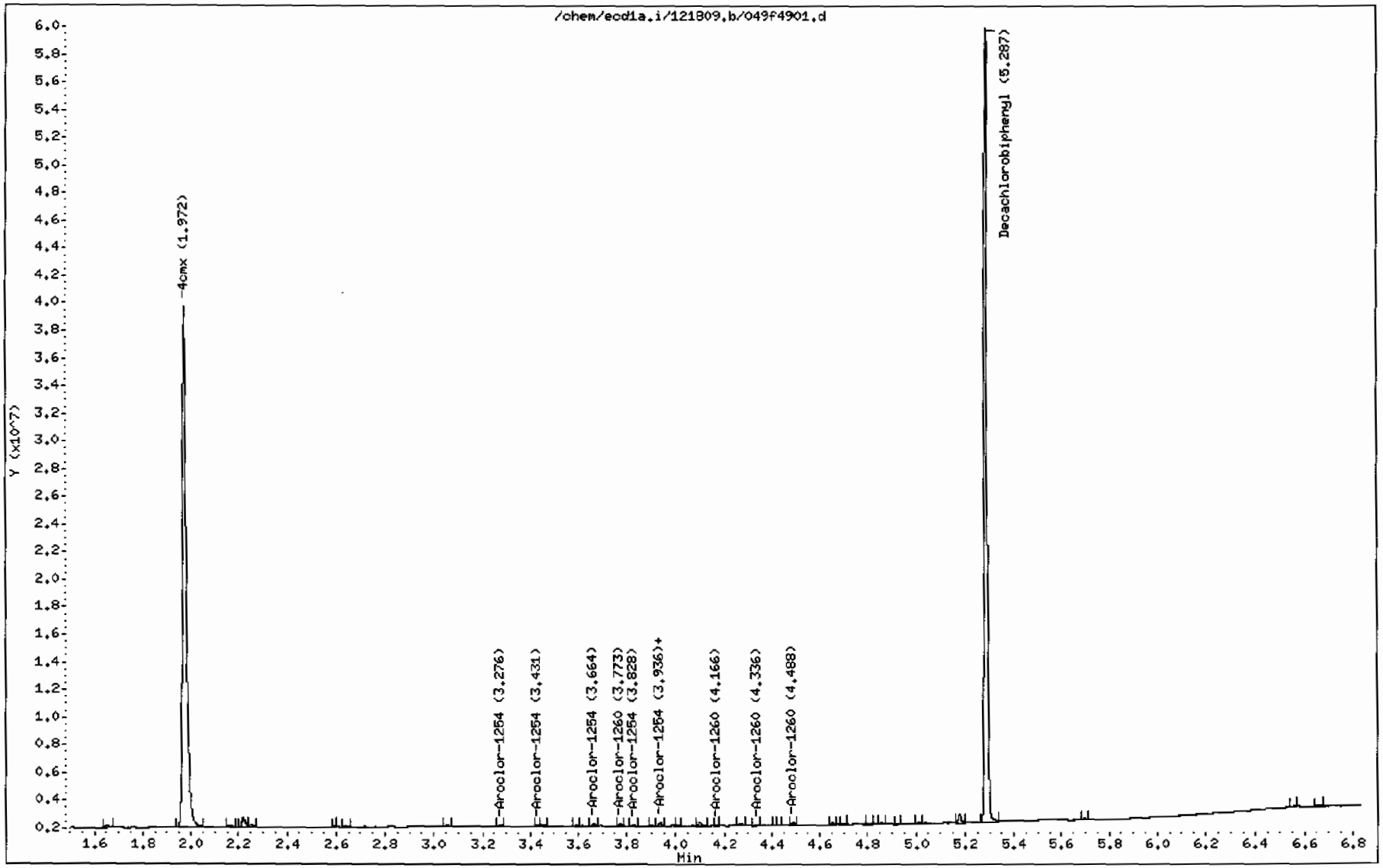

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/121809.b/049b4901.d
Lab Smp Id: 242937002 Client Smp ID: RE03-09-14215
Inj Date : 18-DEC-2009 15:07
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |242937002|1|
Misc Info : |ECD82P_1S|933817|SVAF|LANL|SOIL|RE03-09-14215|||
Comment :
Method : /chem/ecd1a.i/121809.b/ECD1-B-8082-121409.m
Meth Date : 18-Dec-2009 17:26 yip00818 Quant Type: ESTD
Cal Date : 14-DEC-2009 12:16 Cal File: 044b4401.d
Als bottle: 49
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-917.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.01000	Weight of sample extracted (g)
M	10.28450	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.302	2.302	0.000	32609003	108.687	4.0	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.949	5.951	-0.002	34188121	146.587	5.4	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/121809.b/049b4901.d
Date : 18-DEC-2009 15:07
Client ID: RE03-09-14215
Sample Info: 1242937002111
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd1a.i
Operator: YS1
Column diameter: 0.25

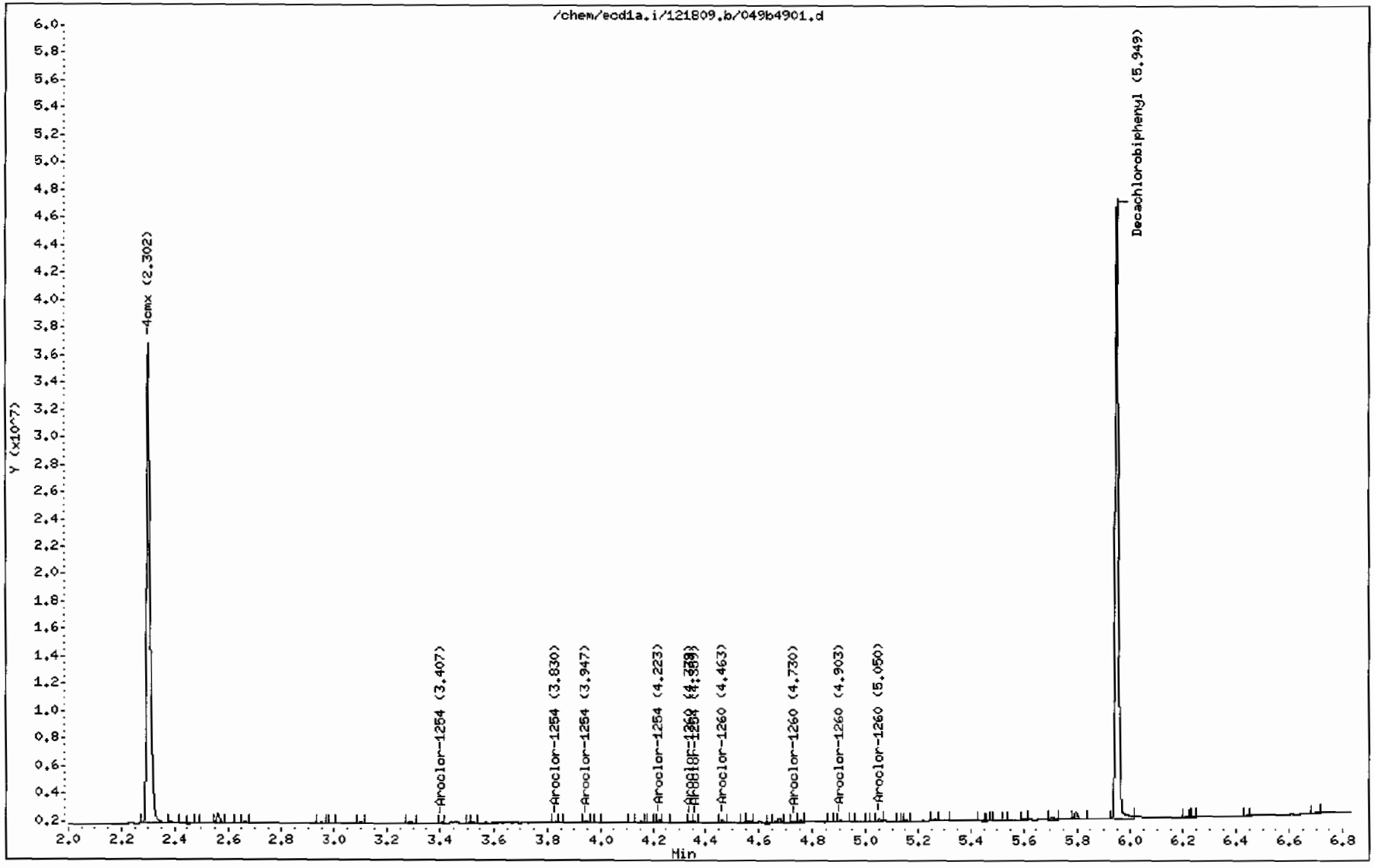

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–917**	**Date Collected:**	**12/11/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242937006**	**Date Received:**	**12/15/2009 08:45**	**%Moisture:**	**15.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03–09–14216**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**933817**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**12/18/2009 16:19**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**12/17/2009 10:38**	**Aliquot:**	**30.09 g**	**Final Volume:**	**1 mL**
Data File:	**055f5501.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	055b5501.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	3.95	ug/kg	1.31	3.95	1
11104–28–2	Aroclor–1221	U	3.95	ug/kg	1.31	3.95	1
11141–16–5	Aroclor–1232	U	3.95	ug/kg	1.31	3.95	1
53469–21–9	Aroclor–1242	U	3.95	ug/kg	1.31	3.95	1
12672–29–6	Aroclor–1248	U	3.95	ug/kg	1.31	3.95	1
11097–69–1	Aroclor–1254	U	3.95	ug/kg	1.31	3.95	1
11096–82–5	Aroclor–1260	U	3.95	ug/kg	1.31	3.95	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/121809.b/055f5501.d
Lab Smp Id: 242937006 Client Smp ID: RE03-09-14216
Inj Date : 18-DEC-2009 16:19
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |242937006|1|
Misc Info : |ECD82P_1S|933817|SVAF|LANL|SOIL|RE03-09-14216|||
Comment :
Method : /chem/ecd1a.i/121809.b/ECD1-F-8082-121409.m
Meth Date : 18-Dec-2009 17:21 yip00818 Quant Type: ESTD
Cal Date : 14-DEC-2009 11:34 Cal File: 040f4001.d
Als bottle: 55
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-917.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.09000	Weight of sample extracted (g)
M	15.82920	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.972	1.971	0.001	45702667	121.657	4.8	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.287	5.290	-0.003	45530894	143.386	5.7	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/121809.b/055f5501.d
Date : 18-DEC-2009 16:19
Client ID: RE03-09-14216
Sample Info: 1242937006|1|
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecd1a.i
Operator: YS1
Column diameter: 0.25

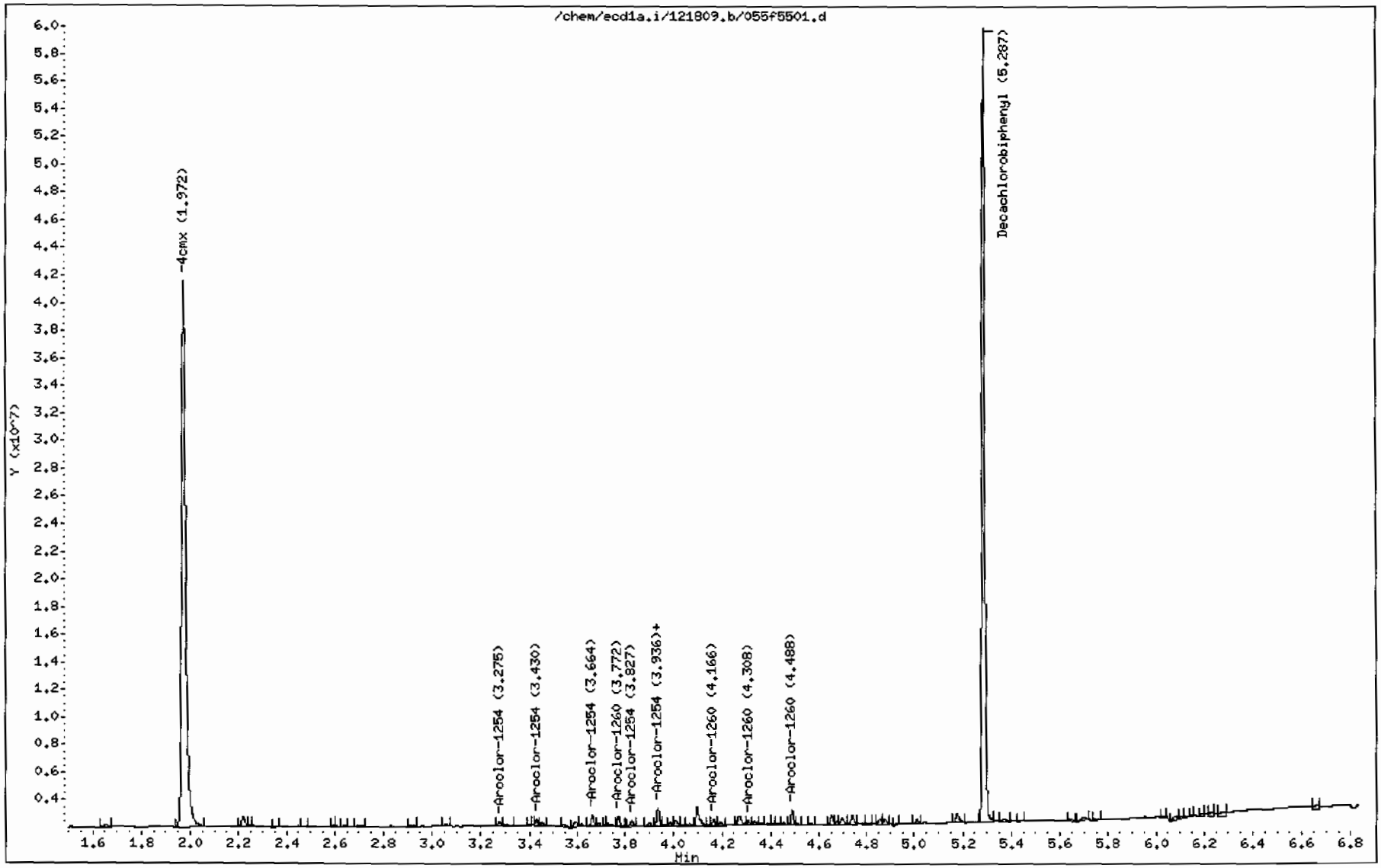

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/121809.b/055b5501.d
Lab Smp Id: 242937006 Client Smp ID: RE03-09-14216
Inj Date : 18-DEC-2009 16:19
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |242937006|1|
Misc Info : |ECD82P_1S|933817|SVAF|LANL|SOIL|RE03-09-14216|||
Comment :
Method : /chem/ecd1a.i/121809.b/ECD1-B-8082-121409.m
Meth Date : 18-Dec-2009 17:21 yip00818 Quant Type: ESTD
Cal Date : 14-DEC-2009 12:16 Cal File: 044b4401.d
Als bottle: 55
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-917.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.09000	Weight of sample extracted (g)
M	15.82920	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.302	2.302	0.000	34744732	115.806	4.6	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.950	5.951	-0.001	33138195	142.086	5.6	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/121809.b/055b5501.d
Date : 18-DEC-2009 16:19
Client ID: RE03-09-14216
Sample Info: 1242937006|1|
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd1a.i
Operator: YS1
Column diameter: 0.25

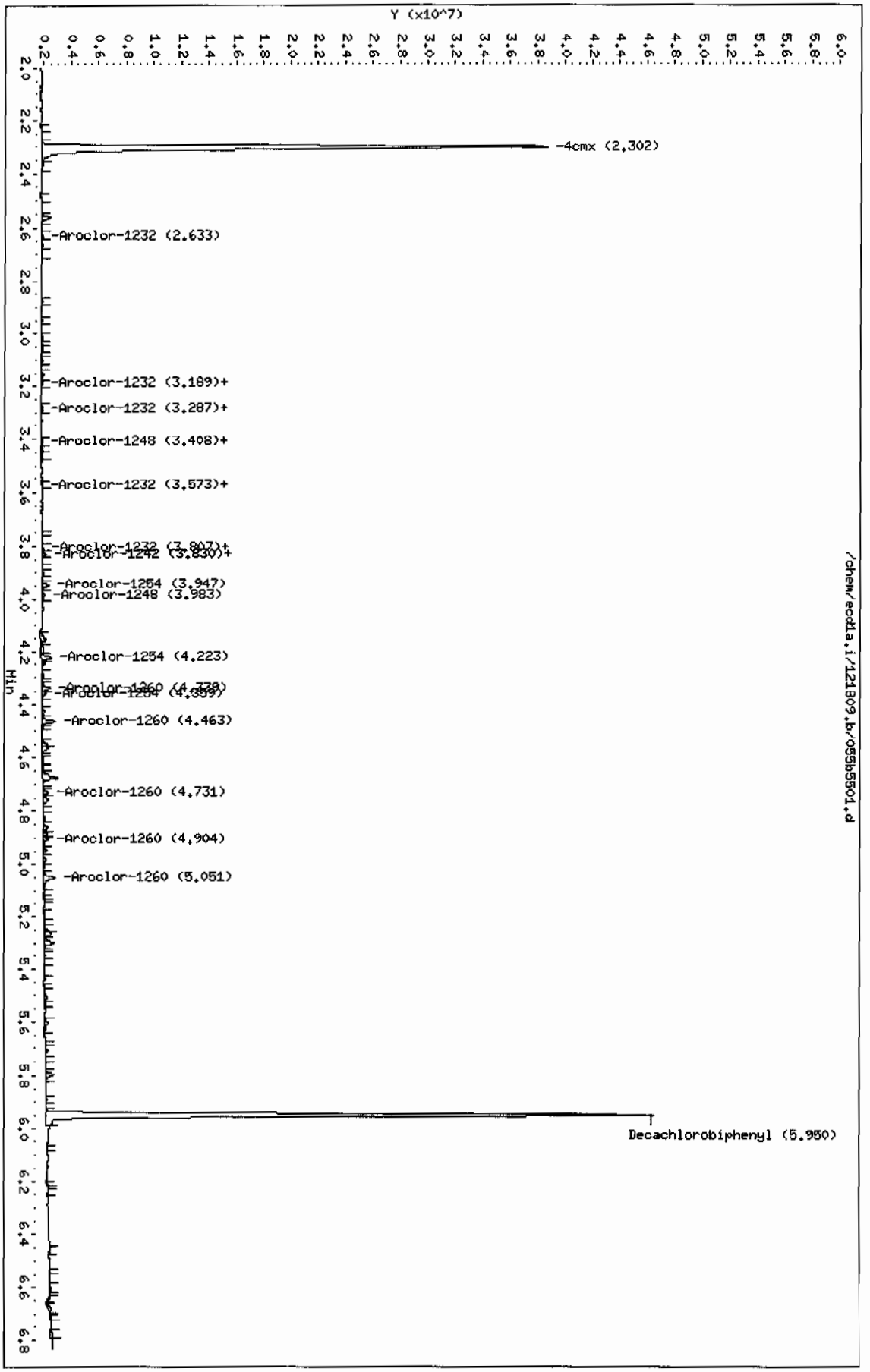

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10-917	**Date Collected:**	12/11/2009 12:00	**Matrix:**	S
Lab Sample ID:	242937008	**Date Received:**	12/15/2009 08:45	**%Moisture:**	15.2
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14217	**Method:**	SW846 8082	**SOP Ref:**	GL-OA-E-040
Batch ID:	933817	**Inst:**	ECD1A.I	**Dilution:**	1
Run Date:	12/18/2009 16:44	**Analyst:**	YS1	**Inj. Vol:**	1 uL
Prep Date:	12/17/2009 10:38	**Aliquot:**	30 g	**Final Volume:**	1 mL
Data File:	057f5701.d	**Column:**	1 CLP1	**Level:**	LOW
	057b5701.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.93	ug/kg	1.31	3.93	1
11104-28-2	Aroclor-1221	U	3.93	ug/kg	1.31	3.93	1
11141-16-5	Aroclor-1232	U	3.93	ug/kg	1.31	3.93	1
53469-21-9	Aroclor-1242	U	3.93	ug/kg	1.31	3.93	1
12672-29-6	Aroclor-1248	U	3.93	ug/kg	1.31	3.93	1
11097-69-1	Aroclor-1254	U	3.93	ug/kg	1.31	3.93	1
11096-82-5	Aroclor-1260	U	3.93	ug/kg	1.31	3.93	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/121809.b/057f5701.d
Lab Smp Id: 242937008 Client Smp ID: RE03-09-14217
Inj Date : 18-DEC-2009 16:44
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |242937008|1|
Misc Info : |ECD82P_1S|933817|SVAF|LANL|SOIL|RE03-09-14217|||
Comment :
Method : /chem/ecd1a.i/121809.b/ECD1-F-8082-121409.m
Meth Date : 18-Dec-2009 17:21 yip00818 Quant Type: ESTD
Cal Date : 14-DEC-2009 11:34 Cal File: 040f4001.d
Als bottle: 57
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-917.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	15.24500	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.971	1.971	0.000	54659935	145.500	5.7	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.287	5.290	-0.003	56911616	179.226	7.0	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/121809.b/057f5701.d
Date : 18-DEC-2009 16:44
Client ID: RE03-09-14217
Sample Info: |242937008|1|
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecd1a.i
Operator: YS1
Column diameter: 0.25

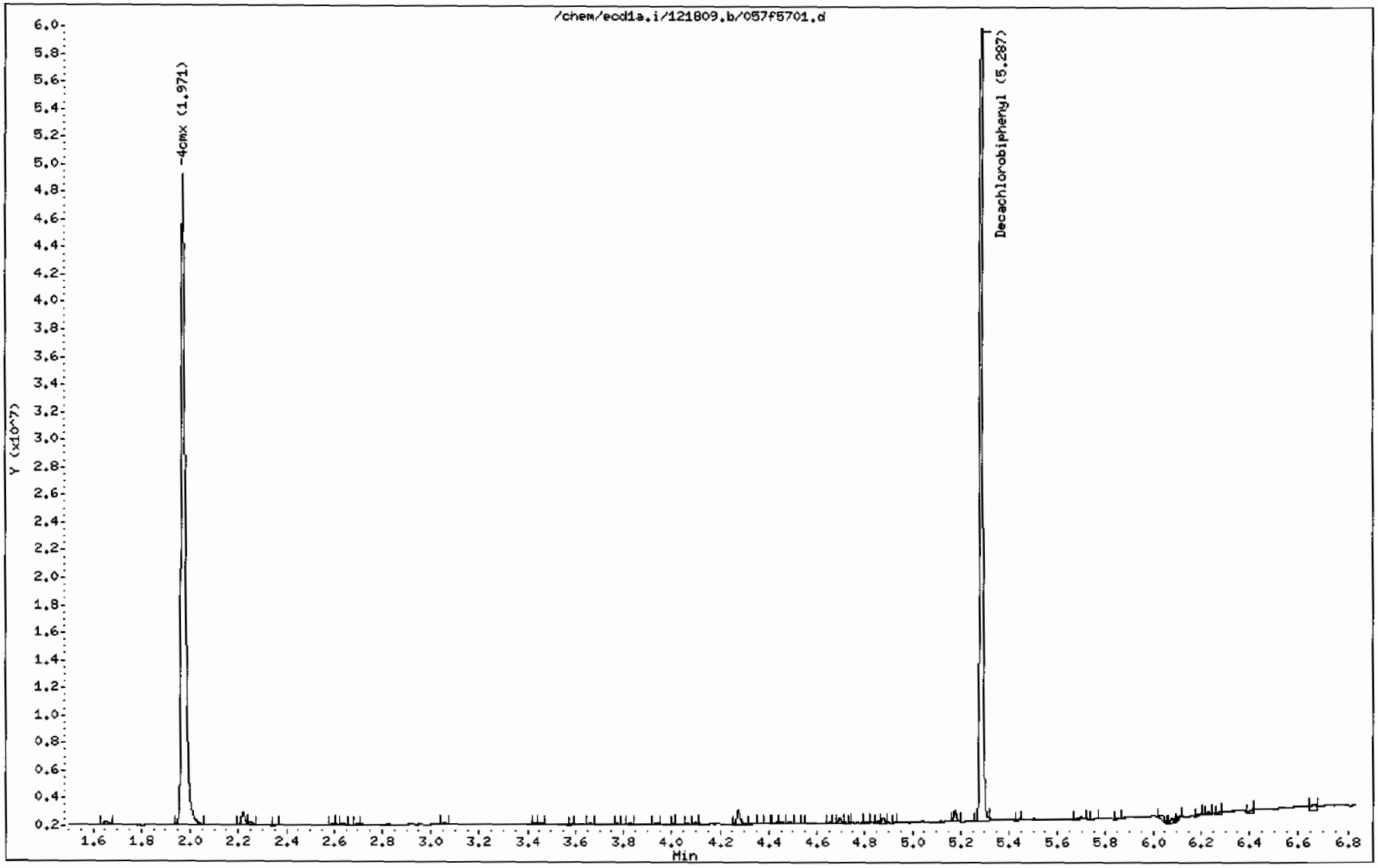

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/121809.b/057b5701.d
Lab Smp Id: 242937008 Client Smp ID: RE03-09-14217
Inj Date : 18-DEC-2009 16:44
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |242937008|1|
Misc Info : |ECD82P_1S|933817|SVAF|LANL|SOIL|RE03-09-14217|||
Comment :
Method : /chem/ecd1a.i/121809.b/ECD1-B-8082-121409.m
Meth Date : 18-Dec-2009 17:21 yip00818 Quant Type: ESTD
Cal Date : 14-DEC-2009 12:16 Cal File: 044b4401.d
Als bottle: 57
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-917.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	15.24500	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.301	2.302	-0.001	41625236	138.739	5.4	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.950	5.951	-0.001	41378495	177.417	7.0	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/121809.b/057b5701.d

Date : 18-DEC-2009 16:44

Client ID: RE03-09-14217

Sample Info: (242937008|1|

Volume Injected (uL): 1.0

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

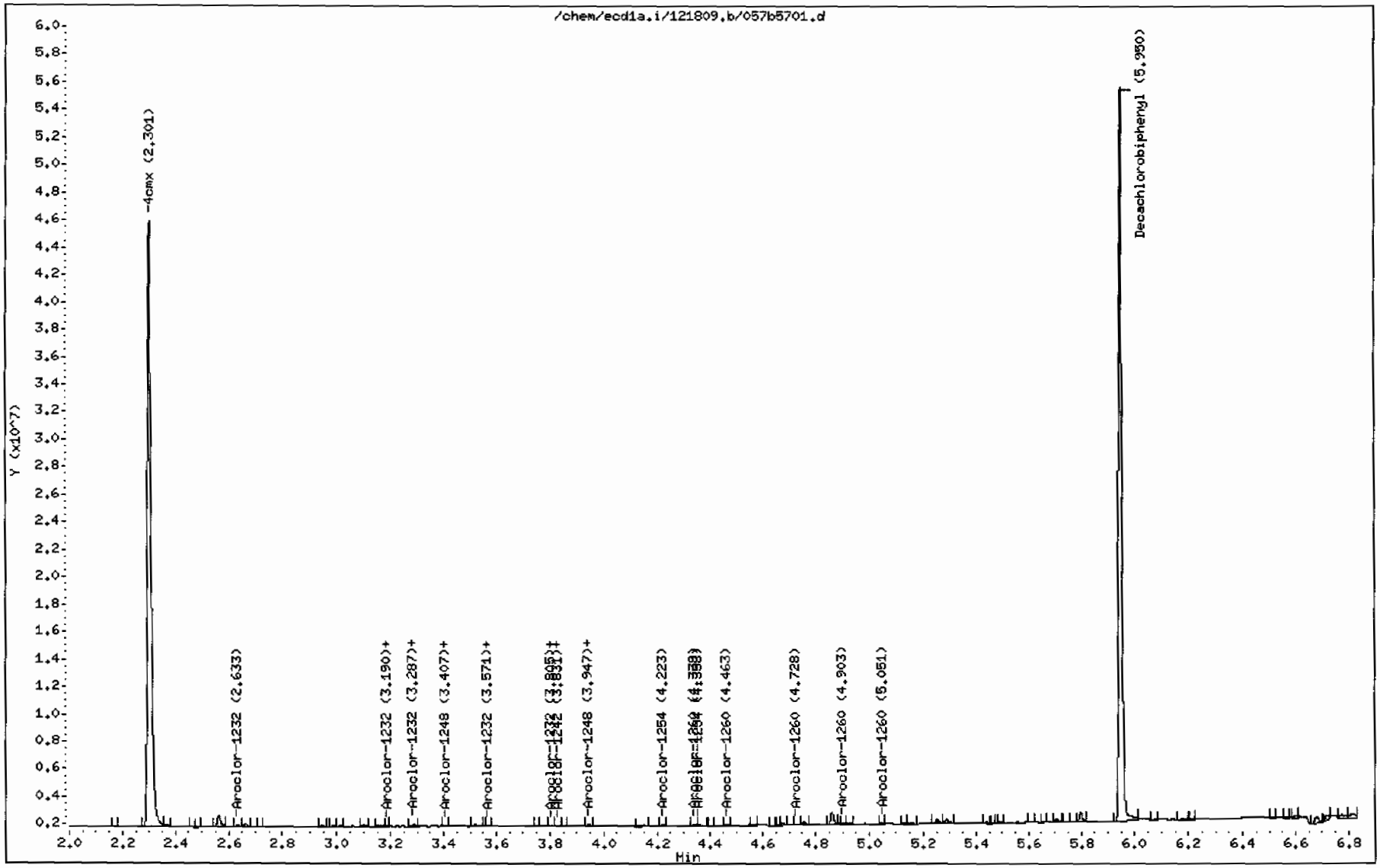

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–917**	**Date Collected:**	**12/11/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242937005**	**Date Received:**	**12/15/2009 08:45**	**%Moisture:**	**17.6**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03–09–14218**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**933817**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**12/18/2009 16:06**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**12/17/2009 10:38**	**Aliquot:**	**30.09 g**	**Final Volume:**	**1 mL**
Data File:	**054f5401.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	054b5401.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	4.03	ug/kg	1.34	4.03	1
11104–28–2	Aroclor–1221	U	4.03	ug/kg	1.34	4.03	1
11141–16–5	Aroclor–1232	U	4.03	ug/kg	1.34	4.03	1
53469–21–9	Aroclor–1242	U	4.03	ug/kg	1.34	4.03	1
12672–29–6	Aroclor–1248	U	4.03	ug/kg	1.34	4.03	1
11097–69–1	Aroclor–1254	U	4.03	ug/kg	1.34	4.03	1
11096–82–5	Aroclor–1260	U	4.03	ug/kg	1.34	4.03	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/121809.b/054f5401.d
Lab Smp Id: 242937005 Client Smp ID: RE03-09-14218
Inj Date : 18-DEC-2009 16:06
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |242937005|1|
Misc Info : |ECD82P_1S|933817|SVAF|LANL|SOIL|RE03-09-14218|||
Comment :
Method : /chem/ecd1a.i/121809.b/ECD1-F-8082-121409.m
Meth Date : 18-Dec-2009 17:21 yip00818 Quant Type: ESTD
Cal Date : 14-DEC-2009 11:34 Cal File: 040f4001.d
Als bottle: 54
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-917.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.09000	Weight of sample extracted (g)
M	17.60770	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.973	1.971	0.002	43943402	116.974	4.7	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.287	5.290	-0.003	50236991	158.207	6.4	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/121809.b/054f5401.d
Date : 18-DEC-2009 16:06
Client ID: RE03-09-14218
Sample Info: 1242937005111
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecd1a.i
Operator: YS1
Column diameter: 0.25

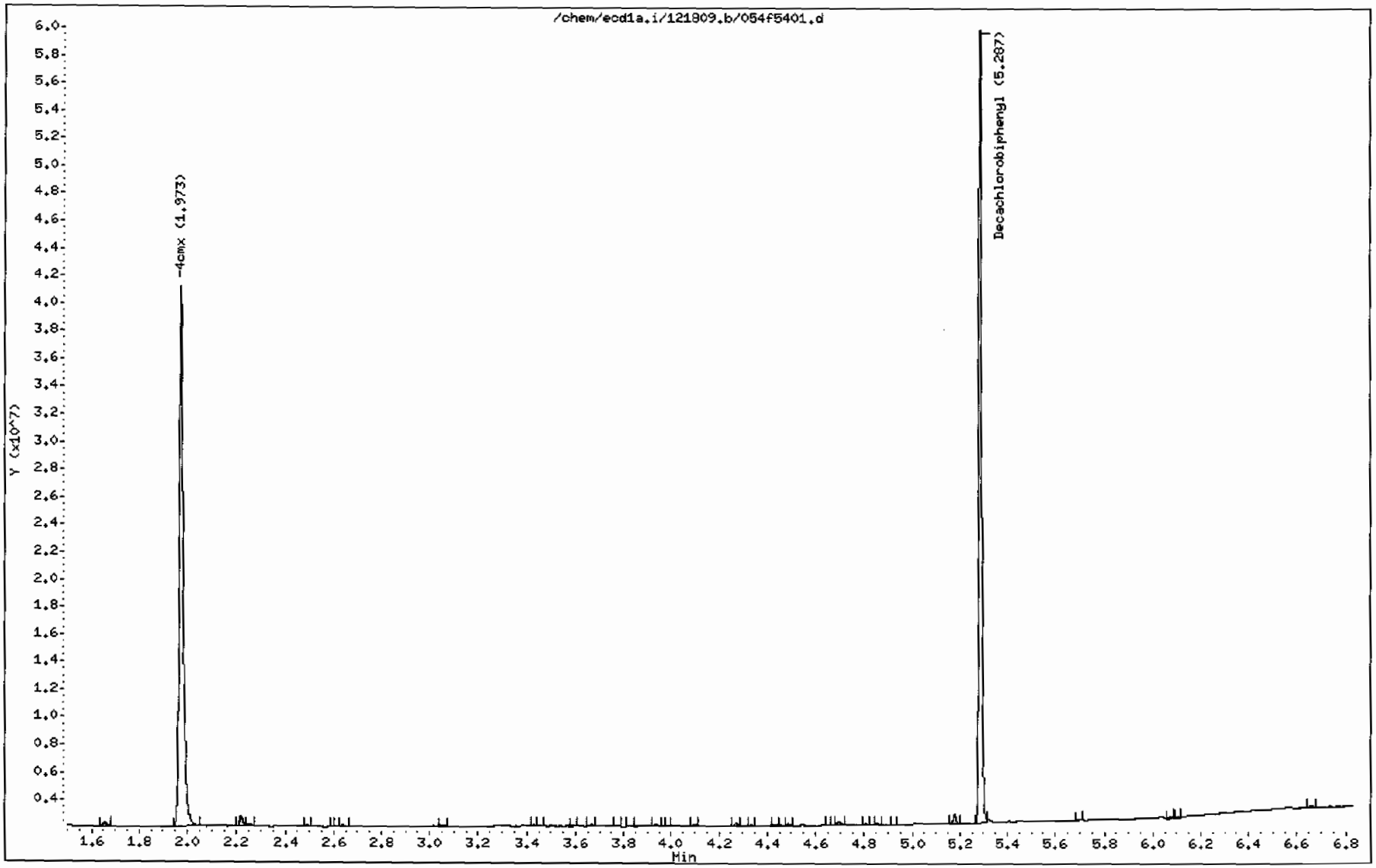

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/121809.b/054b5401.d
Lab Smp Id: 242937005 Client Smp ID: RE03-09-14218
Inj Date : 18-DEC-2009 16:06
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |242937005|1|
Misc Info : |ECD82P_1S|933817|SVAF|LANL|SOIL|RE03-09-14218|||
Comment :
Method : /chem/ecd1a.i/121809.b/ECD1-B-8082-121409.m
Meth Date : 18-Dec-2009 17:21 yip00818 Quant Type: ESTD
Cal Date : 14-DEC-2009 12:16 Cal File: 044b4401.d
Als bottle: 54
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-917.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpc1p1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.09000	Weight of sample extracted (g)
M	17.60770	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.303	2.302	0.001	33640254	112.125	4.5	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.949	5.951	-0.002	36812051	157.838	6.4	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/121809.b/054b5401.d
Date : 18-DEC-2009 16:06
Client ID: RE03-09-14218
Sample Info: I2429370051I1
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd1a.i
Operator: YS1
Column diameter: 0.25

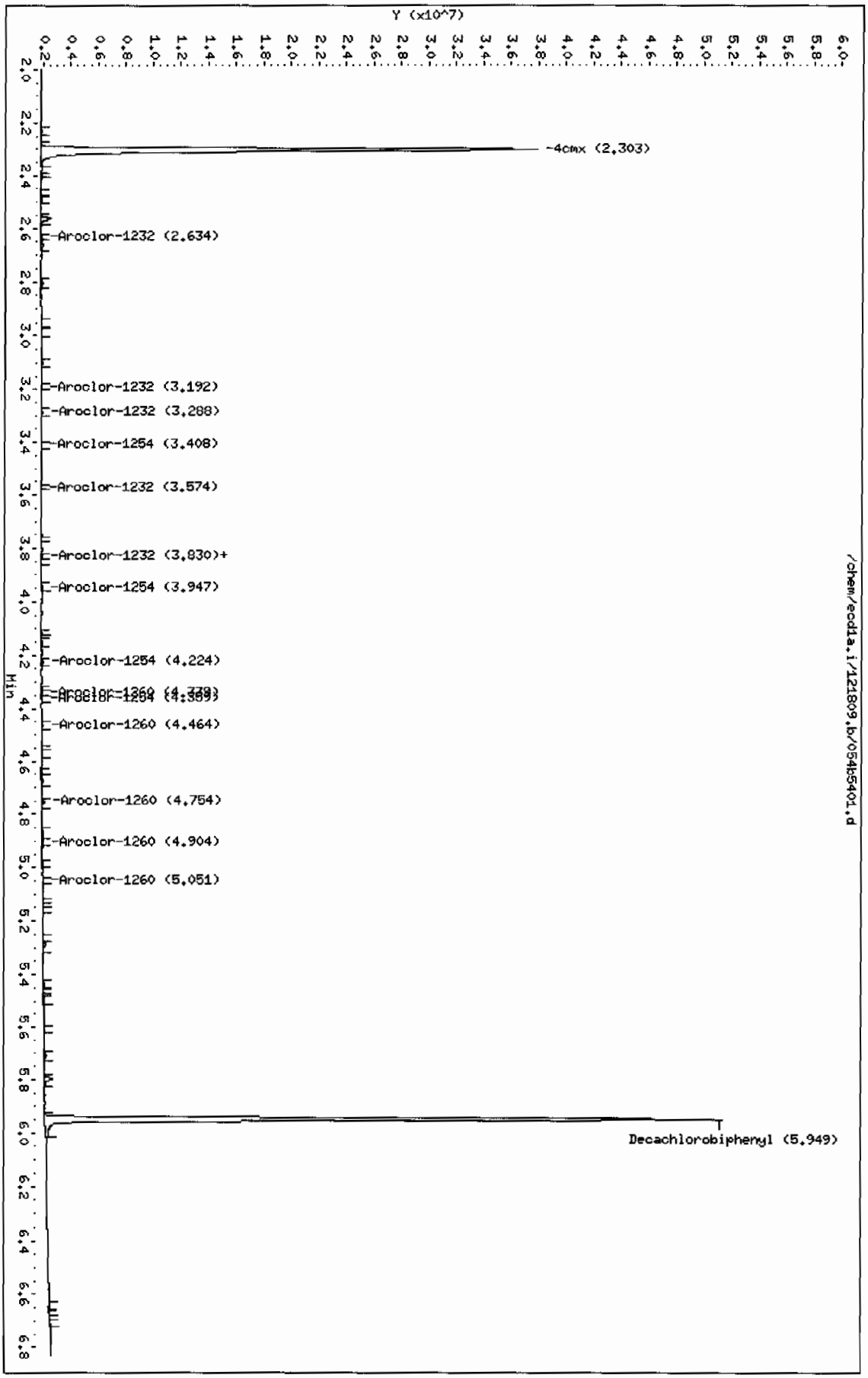

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10-917	**Date Collected:**	12/11/2009 12:00	**Matrix:**	S
Lab Sample ID:	242937004	**Date Received:**	12/15/2009 08:45	**%Moisture:**	17.2
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14219	**Method:**	SW846 8082	**SOP Ref:**	GL-OA-E-040
Batch ID:	933817	**Inst:**	ECD1A.I	**Dilution:**	1
Run Date:	12/18/2009 15:53	**Analyst:**	YS1	**Inj. Vol:**	1 uL
Prep Date:	12/17/2009 10:38	**Aliquot:**	30.05 g	**Final Volume:**	1 mL
Data File:	053f5301.d	**Column:**	1 CLP1	**Level:**	LOW
	053b5301.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	4.02	ug/kg	1.34	4.02	1
11104-28-2	Aroclor-1221	U	4.02	ug/kg	1.34	4.02	1
11141-16-5	Aroclor-1232	U	4.02	ug/kg	1.34	4.02	1
53469-21-9	Aroclor-1242	U	4.02	ug/kg	1.34	4.02	1
12672-29-6	Aroclor-1248	U	4.02	ug/kg	1.34	4.02	1
11097-69-1	Aroclor-1254	U	4.02	ug/kg	1.34	4.02	1
11096-82-5	Aroclor-1260	U	4.02	ug/kg	1.34	4.02	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/121809.b/053f5301.d
Lab Smp Id: 242937004 Client Smp ID: RE03-09-14219
Inj Date : 18-DEC-2009 15:53
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |242937004|1|
Misc Info : |ECD82P_1S|933817|SVAF|LANL|SOIL|RE03-09-14219|||
Comment :
Method : /chem/ecd1a.i/121809.b/ECD1-F-8082-121409.m
Meth Date : 18-Dec-2009 17:21 yip00818 Quant Type: ESTD
Cal Date : 14-DEC-2009 11:34 Cal File: 040f4001.d
Als bottle: 53
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-917.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.05000	Weight of sample extracted (g)
M	17.16580	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.972	1.971	0.001	36548785	97.2898	3.9	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.288	5.290	-0.002	47760725	150.408	6.0	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/121809.b/053f5301.d
Date : 18-DEC-2009 15:53
Client ID: RE03-09-14219
Sample Info: 1242937004111
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1
Column diameter: 0.25

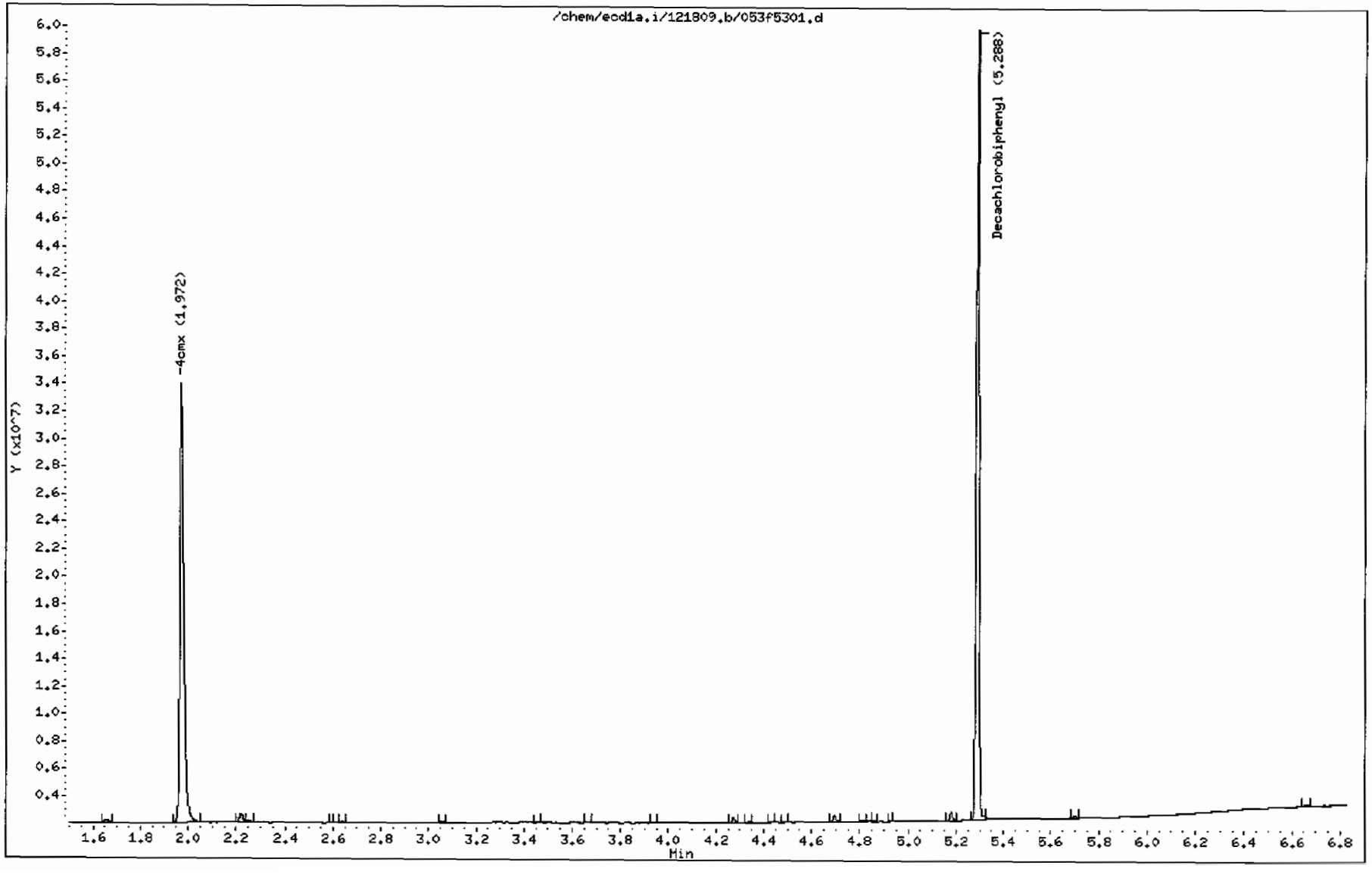

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/121809.b/053b5301.d
Lab Smp Id: 242937004 Client Smp ID: RE03-09-14219
Inj Date : 18-DEC-2009 15:53
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |242937004|1|
Misc Info : |ECD82P_1S|933817|SVAF|LANL|SOIL|RE03-09-14219|||
Comment :
Method : /chem/ecd1a.i/121809.b/ECD1-B-8082-121409.m
Meth Date : 18-Dec-2009 17:21 yip00818 Quant Type: ESTD
Cal Date : 14-DEC-2009 12:16 Cal File: 044b4401.d
Als bottle: 53
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-917.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.05000	Weight of sample extracted (g)
M	17.16580	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.302	2.302	0.000	27974396	93.2400	3.7	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.950	5.951	-0.001	34881315	149.559	6.0	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/121809.b/053b5301.d
Date : 18-DEC-2009 15:53
Client ID: RE03-09-14219
Sample Info: 1242937004111
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd1a.i
Operator: YS1
Column diameter: 0.25

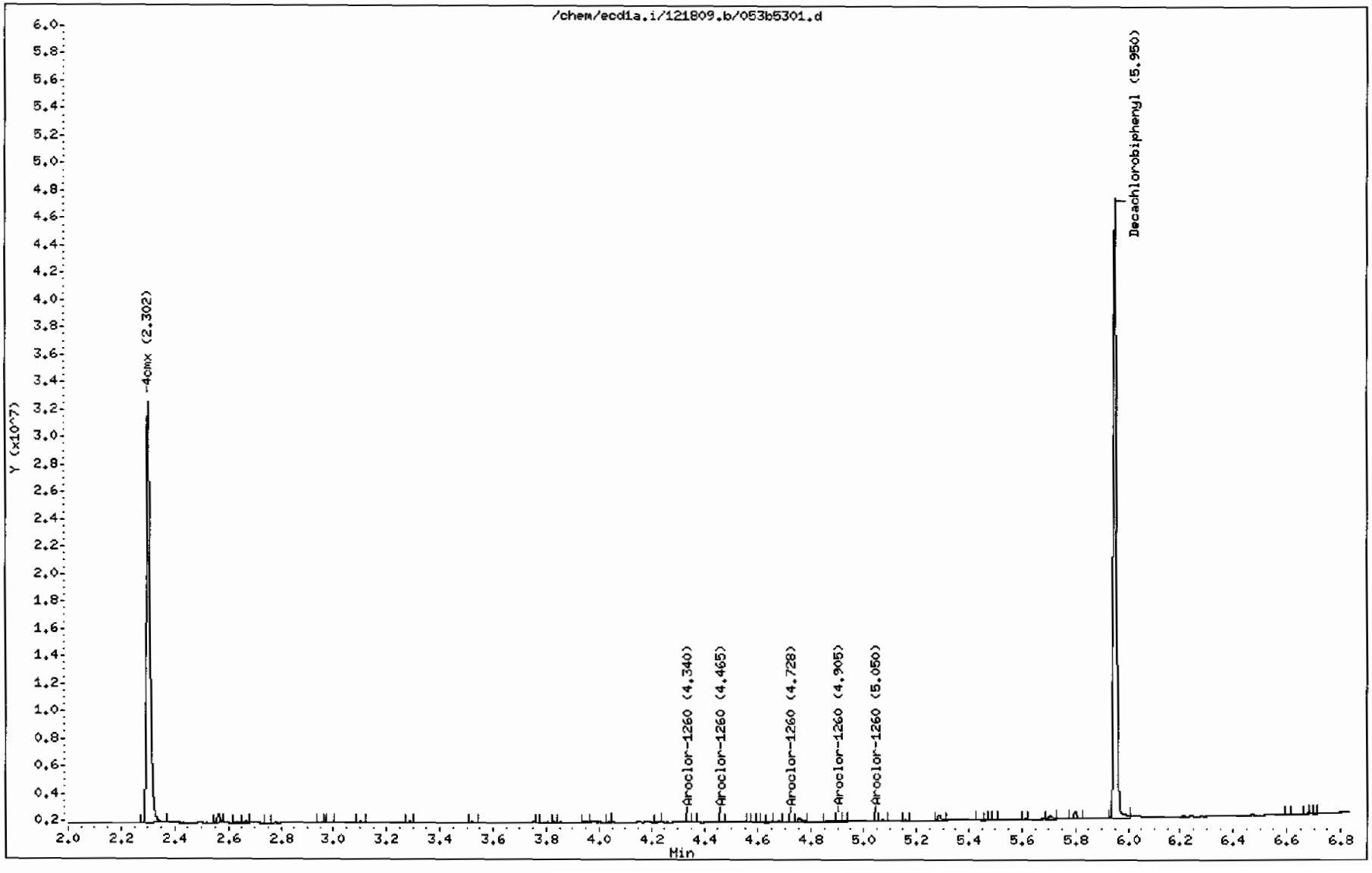

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10–917	**Date Collected:**	12/11/2009 12:00	**Matrix:**	S
Lab Sample ID:	242937009	**Date Received:**	12/15/2009 08:45	**%Moisture:**	14.2
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03–10–2735	**Method:**	SW846 8082	**SOP Ref:**	GL–OA–E–040
Batch ID:	933817	**Inst:**	ECD1A.I	**Dilution:**	1
Run Date:	12/18/2009 16:57	**Analyst:**	YS1	**Inj. Vol:**	1 uL
Prep Date:	12/17/2009 10:38	**Aliquot:**	30.03 g	**Final Volume:**	1 mL
Data File:	058f5801.d	**Column:**	1 CLP1	**Level:**	LOW
	058b5801.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	3.88	ug/kg	1.29	3.88	1
11104–28–2	Aroclor–1221	U	3.88	ug/kg	1.29	3.88	1
11141–16–5	Aroclor–1232	U	3.88	ug/kg	1.29	3.88	1
53469–21–9	Aroclor–1242	U	3.88	ug/kg	1.29	3.88	1
12672–29–6	Aroclor–1248	U	3.88	ug/kg	1.29	3.88	1
11097–69–1	Aroclor–1254	U	3.88	ug/kg	1.29	3.88	1
11096–82–5	Aroclor–1260	U	3.88	ug/kg	1.29	3.88	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/121809.b/058f5801.d
Lab Smp Id: 242937009 Client Smp ID: RE03-10-2735
Inj Date : 18-DEC-2009 16:57
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |242937009|1|
Misc Info : |ECD82P_1S|933817|SVAF|LANL|SOIL|RE03-10-2735|||
Comment :
Method : /chem/ecd1a.i/121809.b/ECD1-F-8082-121409.m
Meth Date : 18-Dec-2009 17:21 yip00818 Quant Type: ESTD
Cal Date : 14-DEC-2009 11:34 Cal File: 040f4001.d
Als bottle: 58
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-917.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.03000	Weight of sample extracted (g)
M	14.19430	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.971	1.971	0.000	41570959	110.658	4.3	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.286	5.290	-0.004	47751352	150.379	5.8	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/121809.b/058f5801.d
Date : 18-DEC-2009 16:57
Client ID: RE03-10-2735
Sample Info: |242937009|1|
Volume Injected (uL): 1.0
Column phase: CLP1

Page 1

Instrument: ecd1a.i

Operator: YS1
Column diameter: 0.25

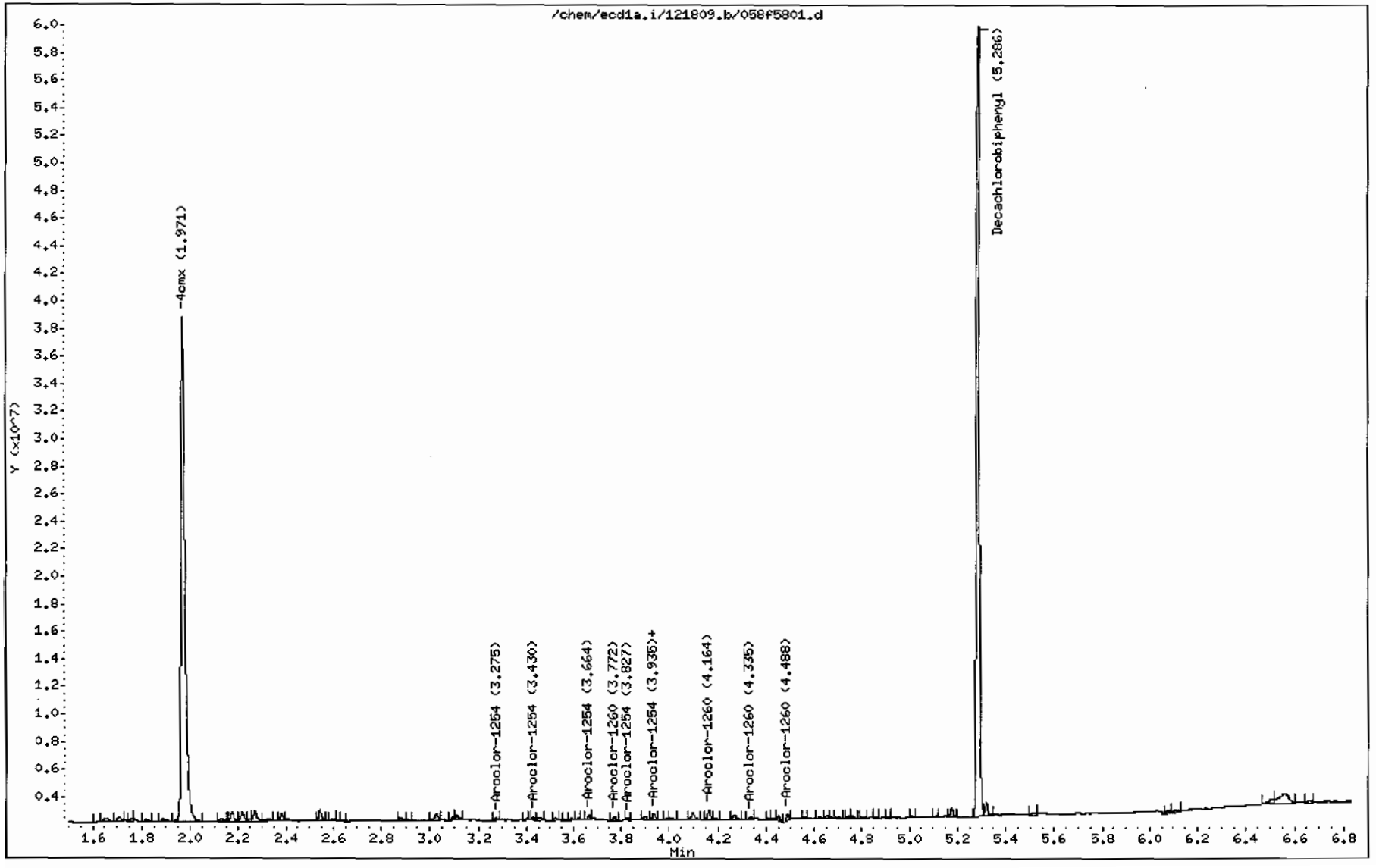

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/121809.b/058b5801.d
Lab Smp Id: 242937009 Client Smp ID: RE03-10-2735
Inj Date : 18-DEC-2009 16:57
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |242937009|1|
Misc Info : |ECD82P_1S|933817|SVAF|LANL|SOIL|RE03-10-2735|||
Comment :
Method : /chem/ecd1a.i/121809.b/ECD1-B-8082-121409.m
Meth Date : 18-Dec-2009 17:21 yip00818 Quant Type: ESTD
Cal Date : 14-DEC-2009 12:16 Cal File: 044b4401.d
Als bottle: 58
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-917.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.03000	Weight of sample extracted (g)
M	14.19430	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.302	2.302	0.000	32130717	107.093	4.2	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.950	5.951	-0.001	34763843	149.056	5.8	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/121809.b/058b5801.d
Date : 18-DEC-2009 16:57
Client ID: RE03-10-2735
Sample Info: |242937009|1|
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd1a.i
Operator: YS1
Column diameter: 0.25

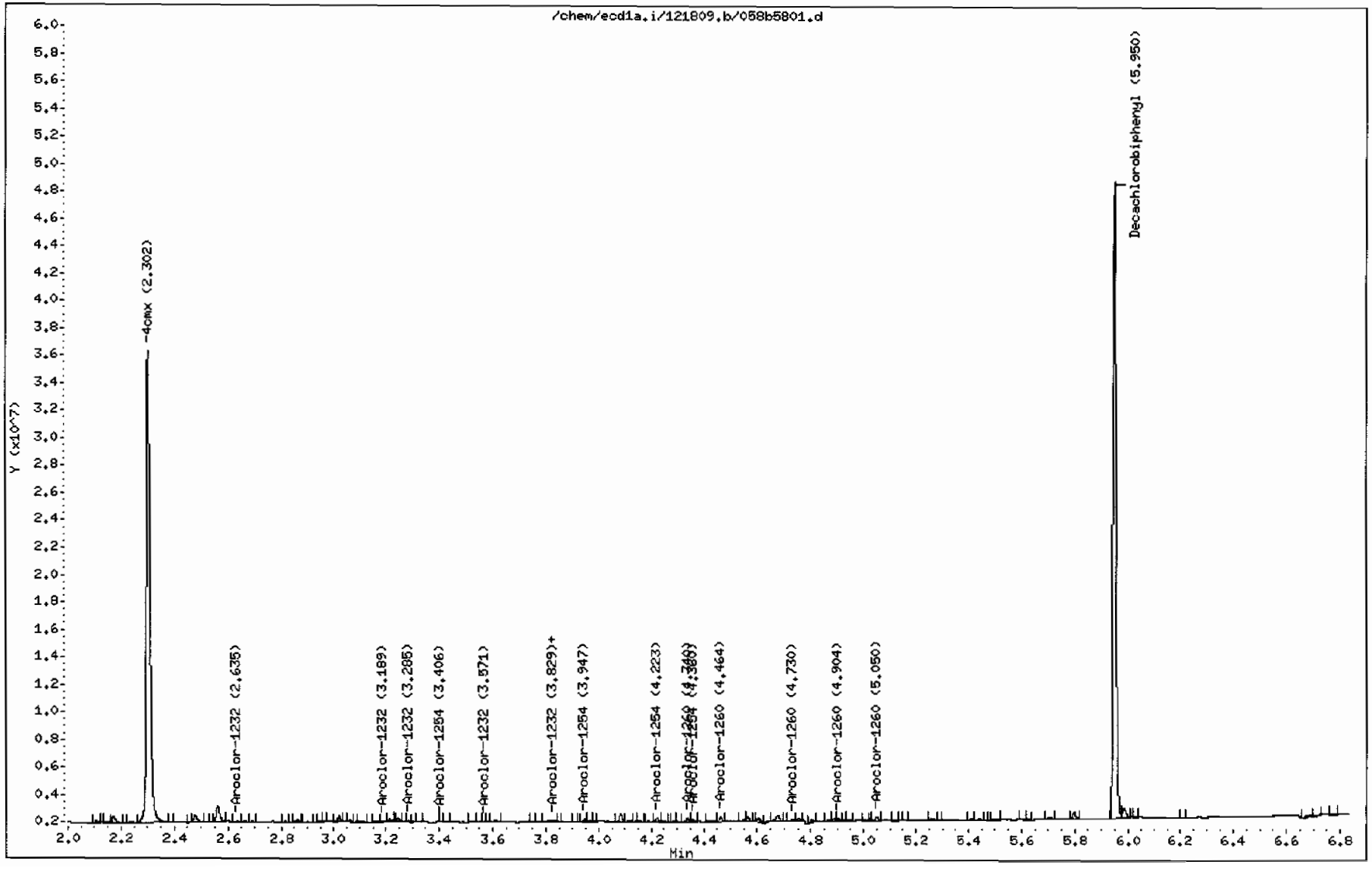

STANDARDS DATA

Report Date: 18-Dec-2009 17:50

Calibration History

Method : /chem/ecd1a.i/121809.b/ECD1-F-8082-121409.m
Start Cal Date: 14-DEC-2009 05:36
End Cal Date : 14-DEC-2009 12:37

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 100.00000		
14-DEC-2009 11:34	AR1268	/chem/ecd1a.i/121409.b/040f4001.d
14-DEC-2009 09:28	AR1248	/chem/ecd1a.i/121409.b/028f2801.d
14-DEC-2009 08:25	AR1242	/chem/ecd1a.i/121409.b/022f2201.d
14-DEC-2009 07:22	AR1254	/chem/ecd1a.i/121409.b/016f1601.d
14-DEC-2009 10:31	AR1660	/chem/ecd1a.i/121409.b/034f3401.d
Cal Level: 2 , Cal Amount: 200.00000		
14-DEC-2009 11:44	AR1268	/chem/ecd1a.i/121409.b/041f4101.d
14-DEC-2009 09:38	AR1248	/chem/ecd1a.i/121409.b/029f2901.d
14-DEC-2009 08:35	AR1242	/chem/ecd1a.i/121409.b/023f2301.d
14-DEC-2009 07:32	AR1254	/chem/ecd1a.i/121409.b/017f1701.d
14-DEC-2009 10:41	AR1660	/chem/ecd1a.i/121409.b/035f3501.d
Cal Level: 3 , Cal Amount: 500.00000		
14-DEC-2009 11:55	AR1268	/chem/ecd1a.i/121409.b/042f4201.d
14-DEC-2009 09:49	AR1248	/chem/ecd1a.i/121409.b/030f3001.d
14-DEC-2009 08:46	AR1242	/chem/ecd1a.i/121409.b/024f2401.d
14-DEC-2009 07:43	AR1254	/chem/ecd1a.i/121409.b/018f1801.d
14-DEC-2009 10:52	AR1660	/chem/ecd1a.i/121409.b/036f3601.d
Cal Level: 4 , Cal Amount: 1000.00000		
14-DEC-2009 12:37	DDTANALOGSTD	/chem/ecd1a.i/121409.b/046f4601.d
14-DEC-2009 09:59	AR1248	/chem/ecd1a.i/121409.b/031f3101.d
14-DEC-2009 08:56	AR1242	/chem/ecd1a.i/121409.b/025f2501.d
14-DEC-2009 07:53	AR1254	/chem/ecd1a.i/121409.b/019f1901.d
14-DEC-2009 11:02	AR1660	/chem/ecd1a.i/121409.b/037f3701.d
14-DEC-2009 12:06	AR1268	/chem/ecd1a.i/121409.b/043f4301.d
14-DEC-2009 05:58	AR1262	/chem/ecd1a.i/121409.b/008f0801.d
14-DEC-2009 05:47	AR1221	/chem/ecd1a.i/121409.b/007f0701.d
14-DEC-2009 05:36	AR1232	/chem/ecd1a.i/121409.b/006f0601.d
Cal Level: 5 , Cal Amount: 4000.00000		
14-DEC-2009 12:16	AR1268	/chem/ecd1a.i/121409.b/044f4401.d
14-DEC-2009 10:10	AR1248	/chem/ecd1a.i/121409.b/032f3201.d
14-DEC-2009 09:07	AR1242	/chem/ecd1a.i/121409.b/026f2601.d
14-DEC-2009 08:04	AR1254	/chem/ecd1a.i/121409.b/020f2001.d
14-DEC-2009 11:13	AR1660	/chem/ecd1a.i/121409.b/038f3801.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 1000		
18-DEC-2009 17:09	AR1660	/chem/ecd1a.i/121809.b/059f5901.d
Ccal Level: 4 , Ccal Amount: 1000		
18-DEC-2009 15:32	AR1660	/chem/ecd1a.i/121809.b/051f5101.d
Ccal Level: 4 , Ccal Amount: 1000		
18-DEC-2009 13:09	AR1660	/chem/ecd1a.i/121809.b/039f3901.d
Ccal Level: 4 , Ccal Amount: 1000		
18-DEC-2009 11:01	AR1660	/chem/ecd1a.i/121809.b/028f2801.d
Ccal Level: 4 , Ccal Amount: 1000		
18-DEC-2009 09:30	AR1660	/chem/ecd1a.i/121809.b/020f2001.d
Ccal Level: 4 , Ccal Amount: 1000		
18-DEC-2009 07:39	AR1660	/chem/ecd1a.i/121809.b/010f1001.d
Ccal Level: 4 , Ccal Amount: 1000		
18-DEC-2009 07:28	AR1268	/chem/ecd1a.i/121809.b/009f0901.d
Ccal Level: 4 , Ccal Amount: 1000		
18-DEC-2009 07:18	AR1262	/chem/ecd1a.i/121809.b/008f0801.d
Ccal Level: 4 , Ccal Amount: 1000		
18-DEC-2009 07:07	AR1221	/chem/ecd1a.i/121809.b/007f0701.d
Ccal Level: 4 , Ccal Amount: 1000		
18-DEC-2009 06:57	AR1232	/chem/ecd1a.i/121809.b/006f0601.d
Ccal Level: 4 , Ccal Amount: 1000		
18-DEC-2009 06:46	AR1248	/chem/ecd1a.i/121809.b/005f0501.d
Ccal Level: 4 , Ccal Amount: 1000		
18-DEC-2009 06:36	AR1242	/chem/ecd1a.i/121809.b/004f0401.d
Ccal Level: 4 , Ccal Amount: 1000		
18-DEC-2009 06:25	AR1254	/chem/ecd1a.i/121809.b/003f0301.d
Ccal Level: 4 , Ccal Amount: 1000		
18-DEC-2009 07:28	AR1268	/chem/ecd1a.i/121809.b/009b0901.d

Report Date: 18-Dec-2009 17:50

Calibration History

Method : /chem/ecd1a.i/121809.b/ECD1-B-8082-121409.m
Start Cal Date: 11-DEC-2009 10:17
End Cal Date : 14-DEC-2009 12:37

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 100.00000		
14-DEC-2009 11:34	AR1268	/chem/ecd1a.i/121409.b/040b4001.d
14-DEC-2009 09:28	AR1248	/chem/ecd1a.i/121409.b/028b2801.d
14-DEC-2009 08:25	AR1242	/chem/ecd1a.i/121409.b/022b2201.d
14-DEC-2009 07:22	AR1254	/chem/ecd1a.i/121409.b/016b1601.d
14-DEC-2009 10:31	AR1660	/chem/ecd1a.i/121409.b/034b3401.d
Cal Level: 2 , Cal Amount: 200.00000		
14-DEC-2009 11:44	AR1268	/chem/ecd1a.i/121409.b/041b4101.d
14-DEC-2009 09:38	AR1248	/chem/ecd1a.i/121409.b/029b2901.d
14-DEC-2009 08:35	AR1242	/chem/ecd1a.i/121409.b/023b2301.d
14-DEC-2009 07:32	AR1254	/chem/ecd1a.i/121409.b/017b1701.d
14-DEC-2009 10:41	AR1660	/chem/ecd1a.i/121409.b/035b3501.d
Cal Level: 3 , Cal Amount: 500.00000		
14-DEC-2009 11:55	AR1268	/chem/ecd1a.i/121409.b/042b4201.d
14-DEC-2009 09:49	AR1248	/chem/ecd1a.i/121409.b/030b3001.d
14-DEC-2009 08:46	AR1242	/chem/ecd1a.i/121409.b/024b2401.d
14-DEC-2009 07:43	AR1254	/chem/ecd1a.i/121409.b/018b1801.d
14-DEC-2009 10:52	AR1660	/chem/ecd1a.i/121409.b/036b3601.d
Cal Level: 4 , Cal Amount: 1000.00000		
14-DEC-2009 12:37	DDTANALOGSTD	/chem/ecd1a.i/121409.b/046b4601.d
14-DEC-2009 12:06	AR1268	/chem/ecd1a.i/121409.b/043b4301.d
14-DEC-2009 05:58	AR1262	/chem/ecd1a.i/121409.b/008b0801.d
14-DEC-2009 05:47	AR1221	/chem/ecd1a.i/121409.b/007b0701.d
14-DEC-2009 05:36	AR1232	/chem/ecd1a.i/121409.b/006b0601.d
14-DEC-2009 09:59	AR1248	/chem/ecd1a.i/121409.b/031b3101.d
14-DEC-2009 08:56	AR1242	/chem/ecd1a.i/121409.b/025b2501.d
14-DEC-2009 07:53	AR1254	/chem/ecd1a.i/121409.b/019b1901.d
14-DEC-2009 11:02	AR1660	/chem/ecd1a.i/121409.b/037b3701.d
Cal Level: 5 , Cal Amount: 4000.00000		
14-DEC-2009 12:16	AR1268	/chem/ecd1a.i/121409.b/044b4401.d
14-DEC-2009 10:10	AR1248	/chem/ecd1a.i/121409.b/032b3201.d
14-DEC-2009 09:07	AR1242	/chem/ecd1a.i/121409.b/026b2601.d
14-DEC-2009 08:04	AR1254	/chem/ecd1a.i/121409.b/020b2001.d
14-DEC-2009 11:13	AR1660	/chem/ecd1a.i/121409.b/038b3801.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

| Ccal Level: 4 , Ccal Amount: 1000 |

18-DEC-2009 17:09	AR1660	/chem/ecd1a.i/121809.b/059b5901.d
Ccal Level: 4 , Ccal Amount: 1000		
18-DEC-2009 15:32	AR1660	/chem/ecd1a.i/121809.b/051b5101.d
Ccal Level: 4 , Ccal Amount: 1000		
18-DEC-2009 13:09	AR1660	/chem/ecd1a.i/121809.b/039b3901.d
Ccal Level: 4 , Ccal Amount: 1000		
18-DEC-2009 11:01	AR1660	/chem/ecd1a.i/121809.b/028b2801.d
Ccal Level: 4 , Ccal Amount: 1000		
18-DEC-2009 09:30	AR1660	/chem/ecd1a.i/121809.b/020b2001.d
Ccal Level: 4 , Ccal Amount: 1000		
18-DEC-2009 07:39	AR1660	/chem/ecd1a.i/121809.b/010b1001.d
Ccal Level: 4 , Ccal Amount: 1000		
18-DEC-2009 07:28	AR1268	/chem/ecd1a.i/121809.b/009b0901.d
Ccal Level: 4 , Ccal Amount: 1000		
18-DEC-2009 07:18	AR1262	/chem/ecd1a.i/121809.b/008b0801.d
Ccal Level: 4 , Ccal Amount: 1000		
18-DEC-2009 07:07	AR1221	/chem/ecd1a.i/121809.b/007b0701.d
Ccal Level: 4 , Ccal Amount: 1000		
18-DEC-2009 06:57	AR1232	/chem/ecd1a.i/121809.b/006b0601.d
Ccal Level: 4 , Ccal Amount: 1000		
18-DEC-2009 06:46	AR1248	/chem/ecd1a.i/121809.b/005b0501.d
Ccal Level: 4 , Ccal Amount: 1000		
18-DEC-2009 06:36	AR1242	/chem/ecd1a.i/121809.b/004b0401.d
Ccal Level: 4 , Ccal Amount: 1000		
18-DEC-2009 06:25	AR1254	/chem/ecd1a.i/121809.b/003b0301.d

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd1a.i/121809.b/ECD1-F-8082-121409.m
Quant Method : ESTD Target Version : 3.50
Last Update : 18-Dec-2009 11:22 Number of Cpnds : 15
Data Type : GC MULTI COMP

Global Integrator : Falcon

Chromat Events	Values
Initial:Start Threshold	12031.000000
Initial:End Threshold	6015.500000
Initial:Area Threshold	15489.000000
Initial:P-P Resolution	1.000000
Initial:Bunch Factor	2.000000
Initial:Negative Peaks	OFF
Initial:Tension	0.500000

Compound	RT	RT Window	RF
1 Aroclor-1016	2.428	2.398-2.458	1.387e+04
	2.706	2.676-2.736	1.010e+04
	2.799	2.769-2.829	1.176e+04
	2.836	2.806-2.866	6.599e+03
	3.048	3.018-3.078	8.673e+03
63 4,4-DDD	3.953	3.933-3.973	3.938e+05
64 4,4-DDE	3.603	3.583-3.623	4.795e+05
62 4,4-DDT	4.118	4.098-4.138	3.238e+05
2 Aroclor-1221	2.085	2.055-2.115	4.301e+03
	2.178	2.148-2.208	2.440e+03
	2.204	2.174-2.234	1.027e+04
3 Aroclor-1232	2.429	2.399-2.459	6.717e+03
	2.718	2.688-2.748	8.157e+03
	2.799	2.769-2.829	5.751e+03
	3.048	3.018-3.078	3.954e+03
	3.302	3.272-3.332	3.533e+03
4 Aroclor-1242	2.429	2.399-2.459	1.166e+04
	2.718	2.688-2.748	1.345e+04
	2.836	2.806-2.866	5.506e+03
	3.048	3.018-3.078	7.245e+03
	3.301	3.271-3.331	6.811e+03

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd1a.i/121809.b/ECD1-F-8082-121409.m

Compound	RT	RT Window	RF
5 Aroclor-1248	3.099	3.069-3.129	7.848e+03
	3.250	3.220-3.280	6.870e+03
	3.302	3.272-3.332	1.331e+04
	3.434	3.404-3.464	1.101e+04
	3.666	3.636-3.696	7.455e+03
6 Aroclor-1254	3.277	3.247-3.307	1.249e+04
	3.432	3.402-3.462	1.672e+04
	3.666	3.636-3.696	2.071e+04
	3.830	3.800-3.860	1.569e+04
	3.939	3.909-3.969	1.517e+04
7 Aroclor-1260	3.774	3.744-3.804	1.675e+04
	3.937	3.907-3.967	2.474e+04
	4.167	4.137-4.197	1.469e+04
	4.311	4.281-4.341	1.518e+04
	4.490	4.460-4.520	3.435e+04
8 Aroclor-1262	3.775	3.745-3.805	1.402e+04
	3.937	3.907-3.967	1.841e+04
	4.167	4.137-4.197	2.251e+04
	4.311	4.281-4.341	2.033e+04
	4.490	4.460-4.520	4.317e+04
9 Aroclor-1268	4.675	4.644-4.705	5.438e+04
	4.697	4.667-4.727	5.419e+04
	4.810	4.780-4.840	4.052e+04
	5.014	4.984-5.044	1.833e+04
	5.179	5.149-5.209	1.233e+05
M 10 Aroclor-Total	1.000	0.980-1.020	
$ 11 4cmx	1.971	1.941-2.001	3.757e+05
$ 12 Decachlorobiphenyl	5.290	5.260-5.320	3.175e+05

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd1a.i/121809.b/ECD1-B-8082-121409.m
Quant Method : ESTD Target Version : 3.50
Last Update : 18-Dec-2009 11:23 Number of Cpnds : 15
Data Type : GC MULTI COMP

Global Integrator : Falcon

Chromat Events	Values
Initial:Start Threshold	7222.000000
Initial:End Threshold	3611.000000
Initial:Area Threshold	6833.000000
Initial:P-P Resolution	0.000000
Initial:Bunch Factor	2.000000
Initial:Negative Peaks	OFF
Initial:Tension	0.500000

Compound	RT	RT Window	RF
1 Aroclor-1016	3.201	3.171-3.231	1.261e+04
	3.283	3.253-3.313	9.328e+03
	3.347	3.317-3.377	5.411e+03
	3.574	3.544-3.604	7.052e+03
	3.650	3.620-3.680	6.551e+03
62 4,4-DDT	4.670	4.650-4.690	2.436e+05
63 4,4-DDE	4.139	4.119-4.159	3.580e+05
64 4,4-DDD	4.483	4.463-4.503	2.893e+05
2 Aroclor-1221	2.499	2.469-2.529	3.640e+03
	2.594	2.564-2.624	2.329e+03
	2.635	2.605-2.665	8.119e+03
3 Aroclor-1232	2.635	2.605-2.665	6.156e+03
	3.201	3.171-3.231	6.302e+03
	3.284	3.254-3.314	4.701e+03
	3.574	3.544-3.604	3.243e+03
	3.808	3.778-3.838	3.151e+03
4 Aroclor-1242	3.200	3.170-3.230	1.059e+04
	3.284	3.254-3.314	8.054e+03
	3.575	3.545-3.605	5.962e+03
	3.808	3.778-3.838	6.057e+03
	3.835	3.805-3.865	6.701e+03

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd1a.i/121809.b/ECD1-B-8082-121409.m

Compound	RT	RT Window	RF
5 Aroclor-1248	3.409	3.379-3.439	8.054e+03
	3.574	3.544-3.604	9.874e+03
	3.808	3.778-3.838	1.122e+04
	3.835	3.805-3.865	1.248e+04
	3.972	3.942-4.002	1.210e+04
6 Aroclor-1254	3.409	3.379-3.439	6.435e+03
	3.832	3.802-3.862	1.156e+04
	3.948	3.918-3.978	1.243e+04
	4.225	4.195-4.255	1.688e+04
	4.361	4.330-4.391	1.244e+04
7 Aroclor-1260	4.341	4.311-4.371	1.368e+04
	4.465	4.435-4.495	1.603e+04
	4.731	4.701-4.761	1.256e+04
	4.905	4.875-4.935	1.281e+04
	5.051	5.021-5.081	2.790e+04
8 Aroclor-1262	4.465	4.435-4.495	1.292e+04
	4.731	4.701-4.761	1.831e+04
	4.906	4.876-4.936	1.658e+04
	5.052	5.022-5.082	3.329e+04
	5.265	5.235-5.295	2.297e+04
9 Aroclor-1268	5.263	5.233-5.293	4.358e+04
	5.291	5.261-5.321	4.039e+04
	5.440	5.410-5.470	3.144e+04
	5.605	5.575-5.635	1.427e+04
	5.798	5.768-5.828	8.886e+04
M 10 Aroclor-Total	1.000	0.980-1.020	
$ 11 4cmx	2.302	2.272-2.332	3.000e+05
$ 12 Decachlorobiphenyl	5.951	5.921-5.981	2.332e+05

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 14-DEC-2009 05:36
End Cal Date : 14-DEC-2009 12:37
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd1a.i/121809.b/ECD1-F-8082-121409.m
Cal Date : 18-Dec-2009 11:22 yip00818
Curve Type : Average

Calibration File Names:
Level 1: /chem/ecd1a.i/121409.b/040f4001.d
Level 2: /chem/ecd1a.i/121409.b/041f4101.d
Level 3: /chem/ecd1a.i/121409.b/042f4201.d
Level 4: /chem/ecd1a.i/121409.b/046f4601.d
Level 5: /chem/ecd1a.i/121409.b/044f4401.d

Compound	100.000 Level 1	200.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
1 Aroclor-1016(1)	15975	14641	13829	13236	11653	13867	11.596
(2)	10801	10349	9832	9922	9584	10098	4.757
(3)	13242	12280	11732	11291	10240	11757	9.507
(4)	7178	6867	6609	6421	5920	6599	7.183
(5)	9710	9021	8649	8224	7763	8673	8.604
63 4,4-DDD	+++++	+++++	+++++	393799	+++++	393799	0.000
64 4,4-DDE	+++++	+++++	+++++	479509	+++++	479509	0.000
62 4,4-DDT	+++++	+++++	+++++	323817	+++++	323817	0.000
2 Aroclor-1221(1)	+++++	+++++	+++++	4301	+++++	4301	0.000
(2)	+++++	+++++	+++++	2440	+++++	2440	0.000
(3)	+++++	+++++	+++++	10272	+++++	10272	0.000
3 Aroclor-1232(1)	+++++	+++++	+++++	6717	+++++	6717	0.000
(2)	+++++	+++++	+++++	8157	+++++	8157	0.000
(3)	+++++	+++++	+++++	5751	+++++	5751	0.000
(4)	+++++	+++++	+++++	3954	+++++	3954	0.000
(5)	+++++	+++++	+++++	3533	+++++	3533	0.000
4 Aroclor-1242(1)	13692	12467	11522	10819	9798	11660	12.846
(2)	14782	14429	13236	12555	12263	13453	8.301
(3)	6076	5890	5423	5191	4949	5506	8.563
(4)	8395	7578	7079	6747	6426	7245	10.645
(5)	7587	7189	6604	6378	6296	6811	8.178
5 Aroclor-1248(1)	9070	8103	7743	7247	7078	7848	10.119
(2)	7785	7181	6827	6444	6114	6870	9.456
(3)	15108	13267	13037	12915	12225	13310	8.094
(4)	12682	11331	10815	10392	9852	11015	9.799
(5)	8605	7806	7405	7124	6336	7455	11.244

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 14-DEC-2009 05:36
End Cal Date : 14-DEC-2009 12:37
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd1a.i/121809.b/ECD1-F-8082-121409.m
Cal Date : 18-Dec-2009 11:22 yip00818
Curve Type : Average

Compound	100.000 Level 1	200.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
6 Aroclor-1254(1)	14281	12975	12313	11911	10947	12485	9.963
(2)	18803	17181	16666	15949	15010	16722	8.494
(3)	22492	20906	20786	20326	19059	20714	5.957
(4)	16753	15627	15809	15513	14770	15694	4.535
(5)	16595	15169	15433	15075	13591	15172	7.071
7 Aroclor-1260(1)	18145	17177	16842	16407	15189	16752	6.464
(2)	26410	24871	24973	24571	22887	24743	5.081
(3)	16099	14386	14855	14472	13625	14687	6.171
(4)	16517	14719	15311	15032	14343	15185	5.451
(5)	35425	33953	34899	34487	32987	34350	2.719
8 Aroclor-1262(1)	#####	#####	#####	14019	#####	14019	0.000
(2)	#####	#####	#####	18406	#####	18406	0.000
(3)	#####	#####	#####	22511	#####	22511	0.000
(4)	#####	#####	#####	20327	#####	20327	0.000
(5)	#####	#####	#####	43170	#####	43170	0.000
9 Aroclor-1268(1)	56914	55996	53872	52565	52528	54375	3.680
(2)	57500	55307	54092	52376	51697	54194	4.300
(3)	43006	41368	40020	38976	39247	40524	4.120
(4)	19620	18932	18085	17425	17569	18326	5.094
(5)	128350	126812	122798	118830	119599	123278	3.436
M 10 Aroclor-Total	#####	#####	#####	#####	#####	#####	#####
$ 11 4cmx	367897	454677	359986	359846	335942	375669	12.182
$ 12 Decachlorobiphenyl	316645	388263	307193	296602	278999	317541	13.206

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 11-DEC-2009 10:17
End Cal Date : 14-DEC-2009 12:37
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd1a.i/121809.b/ECD1-B-8082-121409.m
Cal Date : 18-Dec-2009 11:23 yip00818
Curve Type : Average

Calibration File Names:
Level 1: /chem/ecd1a.i/121409.b/040b4001.d
Level 2: /chem/ecd1a.i/121409.b/041b4101.d
Level 3: /chem/ecd1a.i/121409.b/042b4201.d
Level 4: /chem/ecd1a.i/121409.b/046b4601.d
Level 5: /chem/ecd1a.i/121409.b/044b4401.d

Compound	100.000 Level 1	200.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	$\overline{RRF}$	% RSD
1 Aroclor-1016(1)	14281	12734	12848	12156	11039	12612	9.333
(2)	10954	9913	9256	8806	7710	9328	13.003
(3)	6310	5679	5380	5089	4598	5411	11.852
(4)	8214	7430	6981	6696	5938	7052	12.003
(5)	7754	6843	6481	6115	5561	6551	12.561
62 4,4-DDT	+++++	+++++	+++++	243613	+++++	243613	0.000
63 4,4-DDE	+++++	+++++	+++++	357996	+++++	357996	0.000
64 4,4-DDD	+++++	+++++	+++++	289343	+++++	289343	0.000
2 Aroclor-1221(1)	+++++	+++++	+++++	3640	+++++	3640	0.000
(2)	+++++	+++++	+++++	2329	+++++	2329	0.000
(3)	+++++	+++++	+++++	8119	+++++	8119	0.000
3 Aroclor-1232(1)	+++++	+++++	+++++	6156	+++++	6156	0.000
(2)	+++++	+++++	+++++	6302	+++++	6302	0.000
(3)	+++++	+++++	+++++	4701	+++++	4701	0.000
(4)	+++++	+++++	+++++	3243	+++++	3243	0.000
(5)	+++++	+++++	+++++	3151	+++++	3151	0.000
4 Aroclor-1242(1)	12348	11309	9989	9755	9542	10589	11.338
(2)	9730	8628	7875	7358	6677	8054	14.627
(3)	7163	6326	5763	5452	5107	5962	13.534
(4)	7183	6468	5900	5548	5185	6057	12.997
(5)	7820	7123	6589	6229	5746	6701	11.977
5 Aroclor-1248(1)	9914	8542	7972	7289	6553	8054	15.880
(2)	11996	10356	9798	9046	8173	9874	14.605
(3)	13306	11756	11119	10365	9555	11220	12.723
(4)	14720	13121	12480	11577	10516	12483	12.732
(5)	14361	12633	11977	11210	10342	12104	12.596

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 11-DEC-2009 10:17
End Cal Date : 14-DEC-2009 12:37
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd1a.i/121809.b/ECD1-B-8082-121409.m
Cal Date : 18-Dec-2009 11:23 yip00818
Curve Type : Average

	Compound	100.000 Level 1	200.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
	6 Aroclor-1254(1)	7857	6938	6317	5878	5185	6435	15.850
	(2)	13759	12316	11389	10708	9625	11559	13.615
	(3)	14674	13172	12243	11576	10492	12431	12.786
	(4)	19102	17554	16808	16165	14771	16880	9.533
	(5)	14276	12708	12612	11843	10739	12435	10.425
	7 Aroclor-1260(1)	15678	14232	13583	13177	11731	13680	10.567
	(2)	18142	16574	16035	15527	13867	16029	9.709
	(3)	14298	13064	12524	12030	10903	12564	9.989
	(4)	14593	13310	12766	12230	11150	12810	9.970
	(5)	30553	28626	28257	27276	24777	27898	7.569
	8 Aroclor-1262(1)	+++++	+++++	+++++	12922	+++++	12922	0.000
	(2)	+++++	+++++	+++++	18311	+++++	18311	0.000
	(3)	+++++	+++++	+++++	16579	+++++	16579	0.000
	(4)	+++++	+++++	+++++	33287	+++++	33287	0.000
	(5)	+++++	+++++	+++++	22972	+++++	22972	0.000
	9 Aroclor-1268(1)	48327	45655	43354	41349	39206	43578	8.193
	(2)	44968	41865	39872	38249	36983	40388	7.790
	(3)	35350	32573	30975	29630	28674	31440	8.372
	(4)	16410	14977	13894	13214	12876	14274	10.077
	(5)	96769	92419	87897	84047	83161	88859	6.460
M	10 Aroclor-Total	+++++	+++++	+++++	+++++	+++++	+++++	+++++
$	11 4cmx	307069	367145	286931	282899	256086	300026	13.893
$	12 Decachlorobiphenyl	248884	286011	224119	212175	194946	233227	15.194

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-917

Instrument ID: ECD1A Calibration Date: 12/18/09 Time: 0625

Lab File ID: 003F0301 Init. Calib. Date(s): 12/14/09 12/14/09

Heated Purge: (Y/N) N Init. Calib. Times: 0722 0804

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1254	12485.476	11369.636	0.01	-8.9	15.0
(2)	16721.938	15859.745	0.01	-5.2	15.0
(3)	20713.923	20757.126	0.01	0.2	15.0
(4)	15694.205	16022.296	0.01	2.1	15.0
(5)	15172.491	15105.387	0.01	-0.4	15.0
4cmx	375669.41	363084.43	0.01	-3.4	15.0
Decachlorobiphenyl	317540.53	339007.37	0.01	6.8	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-917

Instrument ID: ECD1A Calibration Date: 12/18/09 Time: 0625

Lab File ID: 003B0301 Init. Calib. Date(s): 12/14/09 12/14/09

Heated Purge: (Y/N) N Init. Calib. Times: 0722 0804

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1254	6435.255	5631.472	0.01	-12.5	15.0
(2)	11559.316	10192.060	0.01	-11.8	15.0
(3)	12431.285	11431.508	0.01	-8.0	15.0
(4)	16880.060	16110.905	0.01	-4.6	15.0
(5)	12435.475	11987.805	0.01	-3.6	15.0
4cmx	300025.77	282043.48	0.01	-6.0	15.0
Decachlorobiphenyl	233227.08	249541.35	0.01	7.0	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-917

Instrument ID: ECD1A Calibration Date: 12/18/09 Time: 0636

Lab File ID: 004F0401 Init. Calib. Date(s): 12/14/09 12/14/09

Heated Purge: (Y/N) N Init. Calib. Times: 0825 0907

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1242	11659.831	10690.945	0.01	-8.3	15.0
(2)	13453.003	13658.051	0.01	1.5	15.0
(3)	5505.921	5413.437	0.01	-1.7	15.0
(4)	7244.860	7083.622	0.01	-2.2	15.0
(5)	6810.757	7062.352	0.01	3.7	15.0
4cmx	375669.41	377599.27	0.01	0.5	15.0
Decachlorobiphenyl	317540.53	350500.73	0.01	10.4	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-917

Instrument ID: ECD1A Calibration Date: 12/18/09 Time: 0636

Lab File ID: 004B0401 Init. Calib. Date(s): 12/14/09 12/14/09

Heated Purge: (Y/N) N Init. Calib. Times: 0825 0907

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1242	10588.563	10326.497	0.01	-2.5	15.0
(2)	8053.609	6921.166	0.01	-14.1	15.0
(3)	5962.199	5713.239	0.01	-4.2	15.0
(4)	6056.800	5911.211	0.01	-2.4	15.0
(5)	6701.366	6633.003	0.01	-1.0	15.0
4cmx	300025.77	290676.70	0.01	-3.1	15.0
Decachlorobiphenyl	233227.08	257718.67	0.01	10.5	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-917

Instrument ID: ECD1A Calibration Date: 12/18/09 Time: 0739

Lab File ID: 010F1001 Init. Calib. Date(s): 12/14/09 12/14/09

Heated Purge: (Y/N) N Init. Calib. Times: 1031 1113

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	13866.870	12330.832	0.01	-11.1	15.0
(2)	10097.726	9897.470	0.01	-2.0	15.0
(3)	11757.020	10652.468	0.01	-9.4	15.0
(4)	6599.010	6447.886	0.01	-2.3	15.0
(5)	8673.402	8161.861	0.01	-5.9	15.0
Aroclor-1260	16752.150	16734.808	0.01	-0.1	15.0
(2)	24742.603	25853.720	0.01	4.5	15.0
(3)	14687.346	15501.606	0.01	5.5	15.0
(4)	15184.529	16239.284	0.01	6.9	15.0
(5)	34350.443	37804.699	0.01	10.0	15.0
4cmx	375669.41	368143.75	0.01	-2.0	15.0
Decachlorobiphenyl	317540.53	345109.18	0.01	8.7	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-917

Instrument ID: ECD1A Calibration Date: 12/18/09 Time: 0739

Lab File ID: 010B1001 Init. Calib. Date(s): 12/14/09 12/14/09

Heated Purge: (Y/N) N Init. Calib. Times: 1031 1113

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	12611.539	11927.331	0.01	-5.4	15.0
(2)	9327.875	8028.181	0.01	-13.9	15.0
(3)	5411.316	5008.897	0.01	-7.4	15.0
(4)	7051.879	6328.701	0.01	-10.2	15.0
(5)	6550.733	7144.497	0.01	9.1	15.0
Aroclor-1260	13680.027	12803.554	0.01	-6.4	15.0
(2)	16029.019	15889.172	0.01	-0.9	15.0
(3)	12563.933	12234.293	0.01	-2.6	15.0
(4)	12810.076	12555.623	0.01	-2.0	15.0
(5)	27897.674	29009.133	0.01	4.0	15.0
4cmx	300025.77	281579.07	0.01	-6.1	15.0
Decachlorobiphenyl	233227.08	252475.73	0.01	8.2	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-917

Instrument ID: ECD1A Calibration Date: 12/18/09 Time: 1309

Lab File ID: 039F3901 Init. Calib. Date(s): 12/14/09 12/14/09

Heated Purge: (Y/N) N Init. Calib. Times: 1031 1113

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	13866.870	13138.490	0.01	-5.2	15.0
(2)	10097.726	10983.969	0.01	8.8	15.0
(3)	11757.020	11370.854	0.01	-3.3	15.0
(4)	6599.010	6850.867	0.01	3.8	15.0
(5)	8673.402	8675.726	0.01	0.0	15.0
Aroclor-1260	16752.150	17541.676	0.01	4.7	15.0
(2)	24742.603	27179.982	0.01	9.8	15.0
(3)	14687.346	16164.491	0.01	10.0	15.0
(4)	15184.529	16705.410	0.01	10.0	15.0
(5)	34350.443	38724.081	0.01	12.7	15.0
4cmx	375669.41	394752.24	0.01	5.1	15.0
Decachlorobiphenyl	317540.53	330951.61	0.01	4.2	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-917

Instrument ID: ECD1A Calibration Date: 12/18/09 Time: 1309

Lab File ID: 039B3901 Init. Calib. Date(s): 12/14/09 12/14/09

Heated Purge: (Y/N) N Init. Calib. Times: 1031 1113

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	12611.539	13090.120	0.01	3.8	15.0
(2)	9327.875	8536.710	0.01	-8.5	15.0
(3)	5411.316	5324.123	0.01	-1.6	15.0
(4)	7051.879	6877.959	0.01	-2.5	15.0
(5)	6550.733	6323.503	0.01	-3.5	15.0
Aroclor-1260	13680.027	13166.302	0.01	-3.8	15.0
(2)	16029.019	16280.638	0.01	1.6	15.0
(3)	12563.933	12421.983	0.01	-1.1	15.0
(4)	12810.076	12683.173	0.01	-1.0	15.0
(5)	27897.674	28727.482	0.01	3.0	15.0
4cmx	300025.77	300603.57	0.01	0.2	15.0
Decachlorobiphenyl	233227.08	236506.10	0.01	1.4	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-917

Instrument ID: ECD1A Calibration Date: 12/18/09 Time: 1532

Lab File ID: 051F5101 Init. Calib. Date(s): 12/14/09 12/14/09

Heated Purge: (Y/N) N Init. Calib. Times: 1031 1113

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D	
Aroclor-1016	13866.870	13426.842	0.01	-3.2	15.0	
(2)	10097.726	11156.686	0.01	10.5	15.0	
(3)	11757.020	11600.066	0.01	-1.3	15.0	
(4)	6599.010	7002.384	0.01	6.1	15.0	
(5)	8673.402	8927.646	0.01	2.9	15.0	
Aroclor-1260	16752.150	18189.516	0.01	8.6	15.0	
(2)	24742.603	28104.563	0.01	13.6	15.0	
(3)	14687.346	16781.893	0.01	14.3	15.0	
(4)	15184.529	17479.010	0.01	15.1	15.0	<-
(5)	34350.443	40432.258	0.01	17.7	15.0	<-
4cmx	375669.41	403148.87	0.01	7.3	15.0	
Decachlorobiphenyl	317540.53	348536.57	0.01	9.8	15.0	

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-917

Instrument ID: ECD1A Calibration Date: 12/18/09 Time: 1532

Lab File ID: 051B5101 Init. Calib. Date(s): 12/14/09 12/14/09

Heated Purge: (Y/N) N Init. Calib. Times: 1031 1113

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	12611.539	12821.499	0.01	1.7	15.0
(2)	9327.875	8743.856	0.01	-6.3	15.0
(3)	5411.316	5483.288	0.01	1.3	15.0
(4)	7051.879	6924.124	0.01	-1.8	15.0
(5)	6550.733	6576.368	0.01	0.4	15.0
Aroclor-1260	13680.027	13824.247	0.01	1.0	15.0
(2)	16029.019	17099.871	0.01	6.7	15.0
(3)	12563.933	13136.696	0.01	4.6	15.0
(4)	12810.076	13546.897	0.01	5.8	15.0
(5)	27897.674	30663.439	0.01	9.9	15.0
4cmx	300025.77	305838.78	0.01	1.9	15.0
Decachlorobiphenyl	233227.08	254280.86	0.01	9.0	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-917

Instrument ID: ECD1A Calibration Date: 12/18/09 Time: 1709

Lab File ID: 059F5901 Init. Calib. Date(s): 12/14/09 12/14/09

Heated Purge: (Y/N) N Init. Calib. Times: 1031 1113

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D	
Aroclor-1016	13866.870	13307.745	0.01	-4.0	15.0	
(2)	10097.726	10962.936	0.01	8.6	15.0	
(3)	11757.020	11521.069	0.01	-2.0	15.0	
(4)	6599.010	6994.460	0.01	6.0	15.0	
(5)	8673.402	8934.196	0.01	3.0	15.0	
Aroclor-1260	16752.150	18016.523	0.01	7.5	15.0	
(2)	24742.603	27853.865	0.01	12.6	15.0	
(3)	14687.346	16664.815	0.01	13.5	15.0	
(4)	15184.529	17406.434	0.01	14.6	15.0	
(5)	34350.443	40366.863	0.01	17.5	15.0	<-
4cmx	375669.41	401621.71	0.01	6.9	15.0	
Decachlorobiphenyl	317540.53	348379.14	0.01	9.7	15.0	

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-917

Instrument ID: ECD1A Calibration Date: 12/18/09 Time: 1709

Lab File ID: 059B5901 Init. Calib. Date(s): 12/14/09 12/14/09

Heated Purge: (Y/N) N Init. Calib. Times: 1031 1113

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	12611.539	13092.819	0.01	3.8	15.0
(2)	9327.875	8717.071	0.01	-6.5	15.0
(3)	5411.316	5446.268	0.01	0.6	15.0
(4)	7051.879	6875.785	0.01	-2.5	15.0
(5)	6550.733	6521.444	0.01	-0.4	15.0
Aroclor-1260	13680.027	13787.576	0.01	0.8	15.0
(2)	16029.019	17023.921	0.01	6.2	15.0
(3)	12563.933	13141.368	0.01	4.6	15.0
(4)	12810.076	13535.556	0.01	5.7	15.0
(5)	27897.674	30821.258	0.01	10.5	15.0
4cmx	300025.77	305863.26	0.01	1.9	15.0
Decachlorobiphenyl	233227.08	256694.24	0.01	10.1	15.0

FORM VII PEST

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/121809.b/003f0301.d
Lab Smp Id: WAR091216-54 Client Smp ID: AR125401
Inj Date : 18-DEC-2009 06:25
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR091216-54
Misc Info :
Comment :
Method : /chem/ecd1a.i/121809.b/ECD1-F-8082-121409.m
Meth Date : 18-Dec-2009 08:38 yip00818 Quant Type: ESTD
Cal Date : 14-DEC-2009 11:34 Cal File: 040f4001.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1254.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.972	1.971	0.001	36308443	100.000	96.6	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.289	5.290	-0.001	33900737	100.000	107	80.00- 120.00	100.00
6 Aroclor-1254					CAS #: 11097-69-1		
3.277	3.277	0.000	11369636	1000.00	911	80.00- 120.00	100.00
3.432	3.432	0.000	15859745	1000.00	948	119.49- 159.49	139.49
3.666	3.666	0.000	20757126	1000.00	1000	162.57- 202.57	182.57
3.830	3.830	0.000	16022296	1000.00	1020	120.92- 160.92	140.92
3.939	3.939	0.000	15105387	1000.00	996	112.86- 152.86	132.86
Average of Peak Amounts =					976		

Data File: /chem/ecd1a.i/121809.b/003f0301.d
Date : 18-DEC-2009 06:25
Client ID: AR125401
Sample Info: IWAR091216-54

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1
Column diameter: 0.25

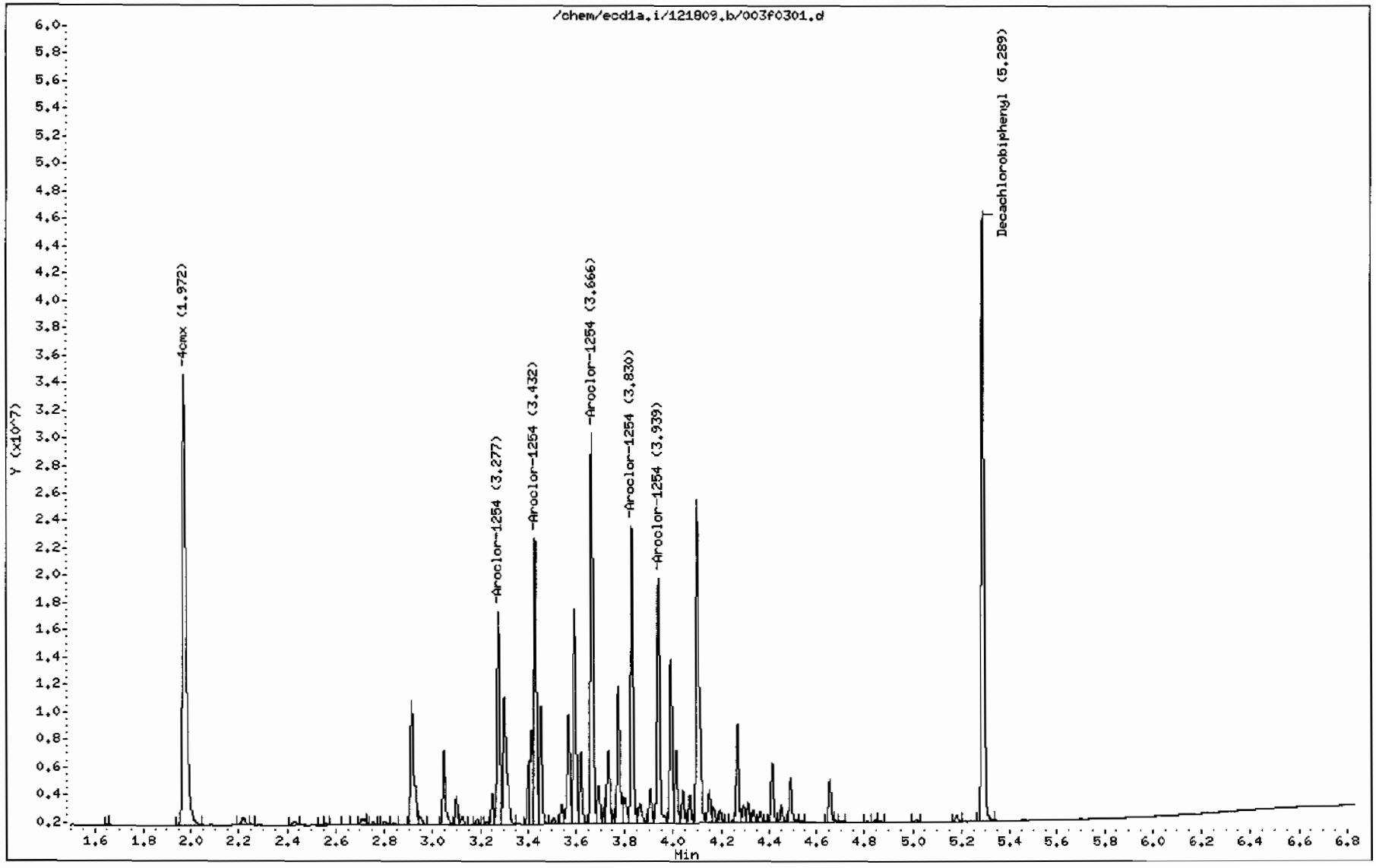

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/121809.b/003b0301.d
Lab Smp Id: WAR091216-54 Client Smp ID: AR125401
Inj Date : 18-DEC-2009 06:25
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR091216-54
Misc Info :
Comment :
Method : /chem/ecd1a.i/121809.b/ECD1-B-8082-121409.m
Meth Date : 18-Dec-2009 08:38 yip00818 Quant Type: ESTD
Cal Date : 14-DEC-2009 12:16 Cal File: 044b4401.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1254.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.302	2.302	0.000	28204348	100.000	94.0	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.950	5.951	-0.001	24954135	100.000	107	80.00- 120.00	100.00
6 Aroclor-1254					CAS #: 11097-69-1		
3.409	3.409	0.000	5631472	1000.00	875	80.00- 120.00	100.00
3.832	3.832	0.000	10192060	1000.00	882	160.98- 200.98	180.98
3.948	3.948	0.000	11431508	1000.00	920	182.99- 222.99	202.99
4.225	4.225	0.000	16110905	1000.00	954	266.09- 306.09	286.09
4.361	4.361	0.000	11987805	1000.00	964	192.87- 232.87	212.87
		Average of Peak Amounts =			919		

Data File: /chem/ecd1a.i/121809.b/003b0301.d
Date : 18-DEC-2009 06:25
Client ID: AR125401
Sample Info: IWAR091216-54

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1
Column diameter: 0.25

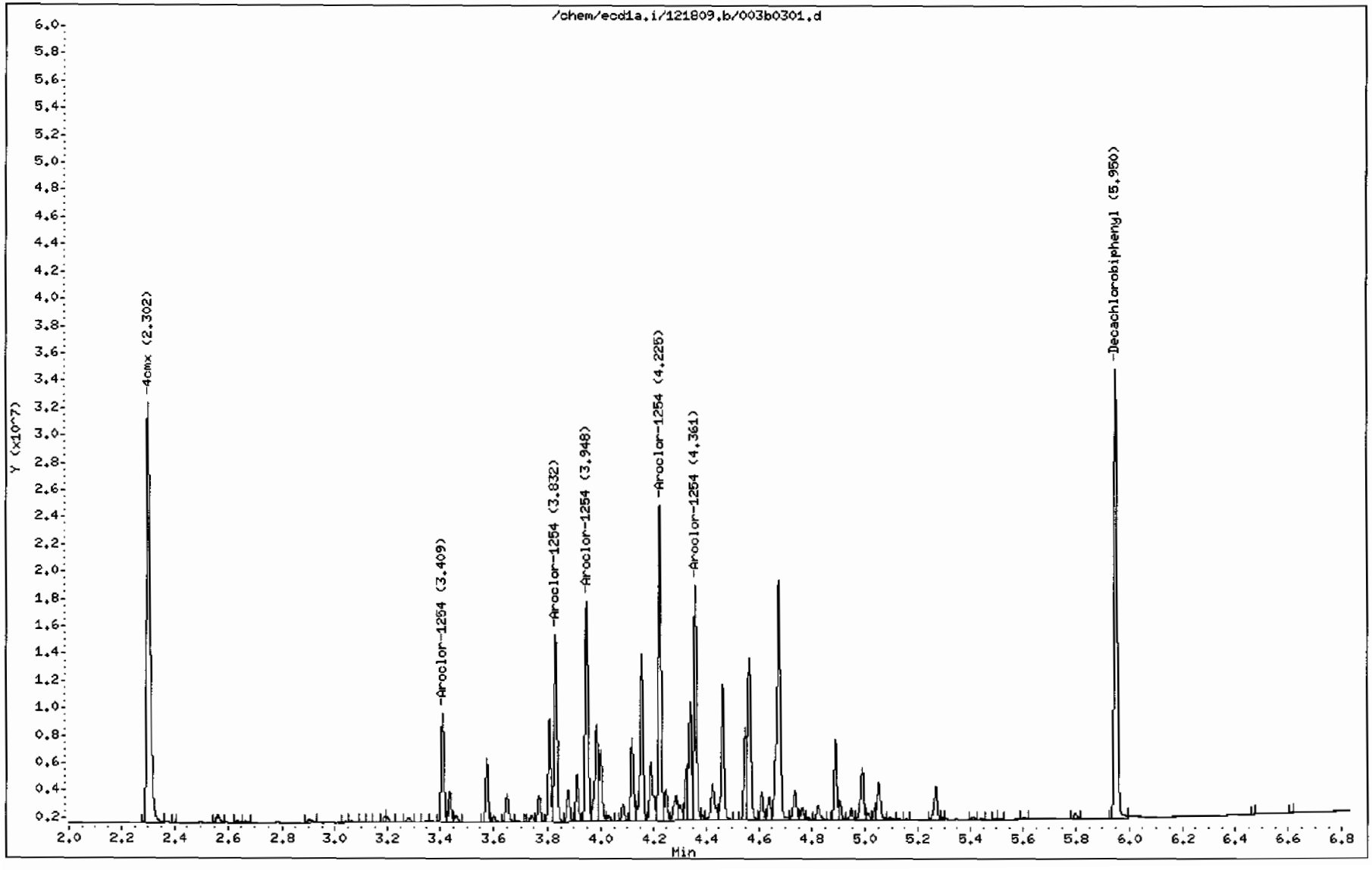

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/121809.b/004f0401.d
Lab Smp Id: WAR091102-42 Client Smp ID: AR124201
Inj Date : 18-DEC-2009 06:36
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR091102-42
Misc Info :
Comment :
Method : /chem/ecd1a.i/121809.b/ECD1-F-8082-121409.m
Meth Date : 18-Dec-2009 08:38 yip00818 Quant Type: ESTD
Cal Date : 14-DEC-2009 11:34 Cal File: 040f4001.d
Als bottle: 4 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1242.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.973	1.971	0.002	37759927	100.000	100	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.290	5.290	0.000	35050073	100.000	110	80.00- 120.00	100.00
4 Aroclor-1242					CAS #: 53469-21-9		
2.429	2.429	0.000	10690945	1000.00	917	80.00- 120.00	100.00
2.718	2.718	0.000	13658051	1000.00	1020	107.75- 147.75	127.75
2.836	2.836	0.000	5413437	1000.00	983	30.64- 70.64	50.64
3.048	3.048	0.000	7083622	1000.00	978	46.26- 86.26	66.26
3.301	3.301	0.000	7062352	1000.00	1040	46.06- 86.06	66.06
Average of Peak Amounts =					986		

Data File: /chem/ecd1a.i/121809.b/004f0401.d
Date : 18-DEC-2009 06:36
Client ID: AR124201
Sample Info: IWAR091102-42

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1
Column diameter: 0.25

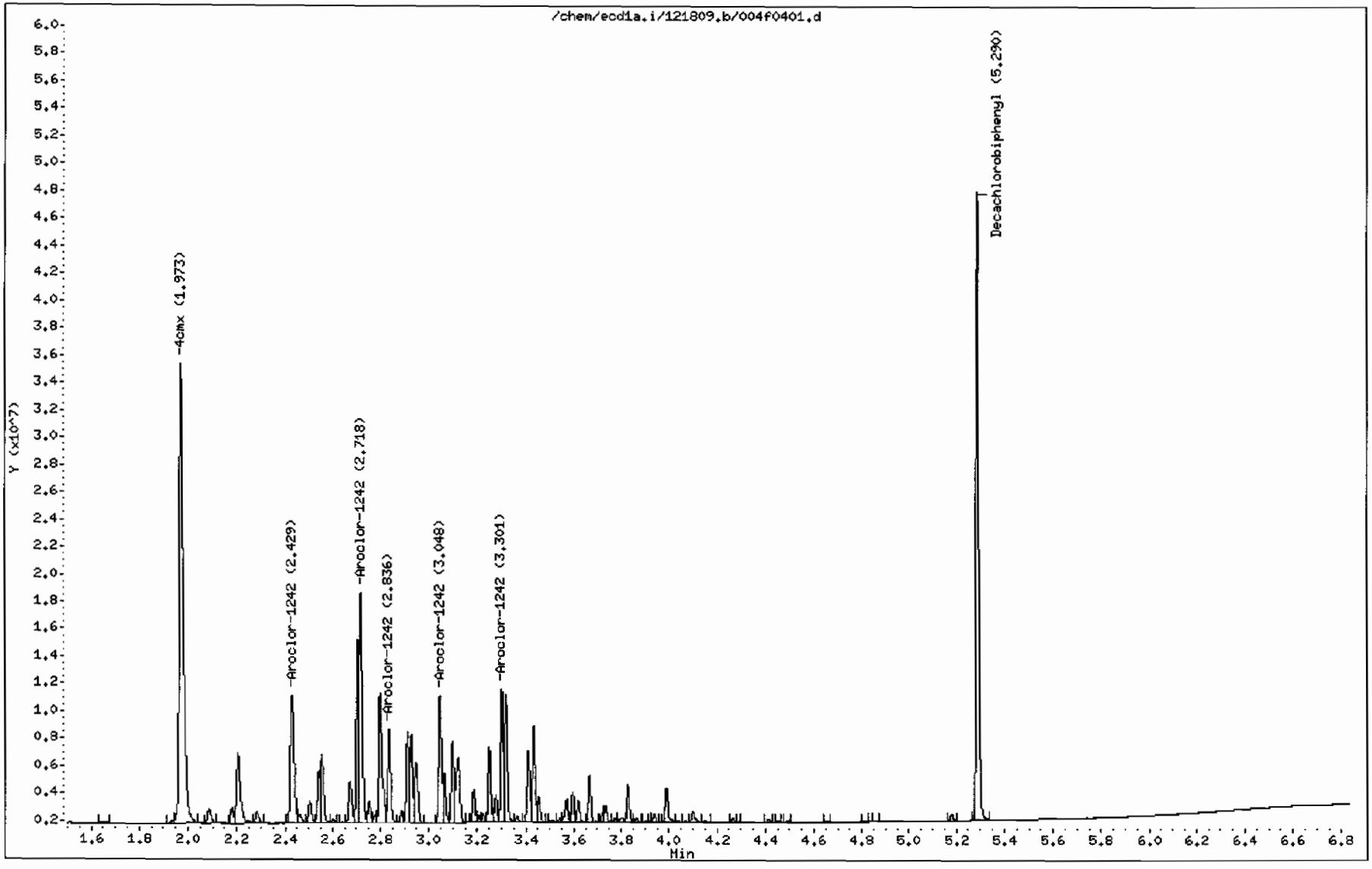

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/121809.b/004b0401.d
Lab Smp Id: WAR091102-42 Client Smp ID: AR124201
Inj Date : 18-DEC-2009 06:36
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR091102-42
Misc Info :
Comment :
Method : /chem/ecd1a.i/121809.b/ECD1-B-8082-121409.m
Meth Date : 18-Dec-2009 08:38 yip00818 Quant Type: ESTD
Cal Date : 14-DEC-2009 12:16 Cal File: 044b4401.d
Als bottle: 4 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1242.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

AMOUNTS

RT	EXP RT	DLT RT	RESPONSE	CAL-AMT (ug/L)	ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.303	2.302	0.001	29067670	100.000	96.9	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.950	5.951	-0.001	25771867	100.000	110	80.00- 120.00	100.00
4 Aroclor-1242					CAS #: 53469-21-9		
3.200	3.200	0.000	10326497	1000.00	975	80.00- 120.00	100.00
3.284	3.284	0.000	6921166	1000.00	859	47.02- 87.02	67.02
3.575	3.575	0.000	5713239	1000.00	958	35.33- 75.33	55.33
3.808	3.808	0.000	5911211	1000.00	976	37.24- 77.24	57.24
3.835	3.835	0.000	6633003	1000.00	990	44.23- 84.23	64.23
Average of Peak Amounts =					952		

Data File: /chem/ecd1a.i/121809.b/004b0401.d

Date : 18-DEC-2009 06:36

Client ID: AR124201

Sample Info: !WAR091102-42

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

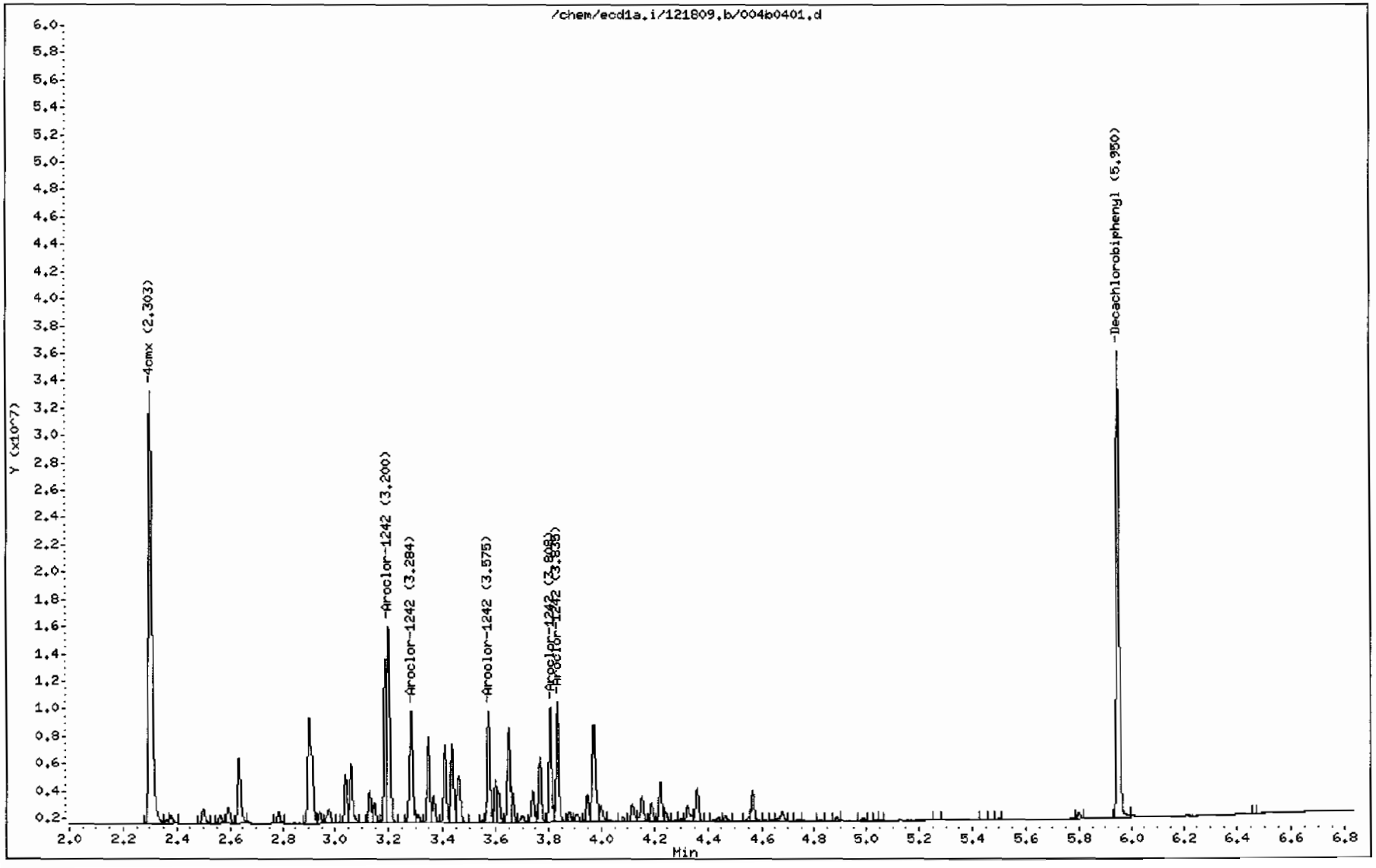

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/121809.b/005f0501.d
Lab Smp Id: WAR091027-48 Client Smp ID: AR124801
Inj Date : 18-DEC-2009 06:46
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR091027-48
Misc Info :
Comment :
Method : /chem/ecd1a.i/121809.b/ECD1-F-8082-121409.m
Meth Date : 18-Dec-2009 08:39 yip00818 Quant Type: ESTD
Cal Date : 14-DEC-2009 11:34 Cal File: 040f4001.d
Als bottle: 5 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1248.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.972	1.971	0.001	33580803	100.000	89.4	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.289	5.290	-0.001	31790438	100.000	100	80.00- 120.00	100.00
5 Aroclor-1248					CAS #: 12672-29-6		
3.099	3.099	0.000	7584395	1000.00	966	80.00- 120.00	100.00
3.250	3.250	0.000	6779868	1000.00	987	69.39- 109.39	89.39
3.302	3.302	0.000	13481771	1000.00	1010	157.76- 197.76	177.76
3.434	3.434	0.000	10728144	1000.00	974	121.45- 161.45	141.45
3.666	3.666	0.000	6800129	1000.00	912	69.66- 109.66	89.66
Average of Peak Amounts =					970		

Data File: /chem/ecd1a.i/121809.b/005f0501.d
Date : 18-DEC-2009 06:46
Client ID: AR124801
Sample Info: IWAR091027-48

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1
Column diameter: 0.25

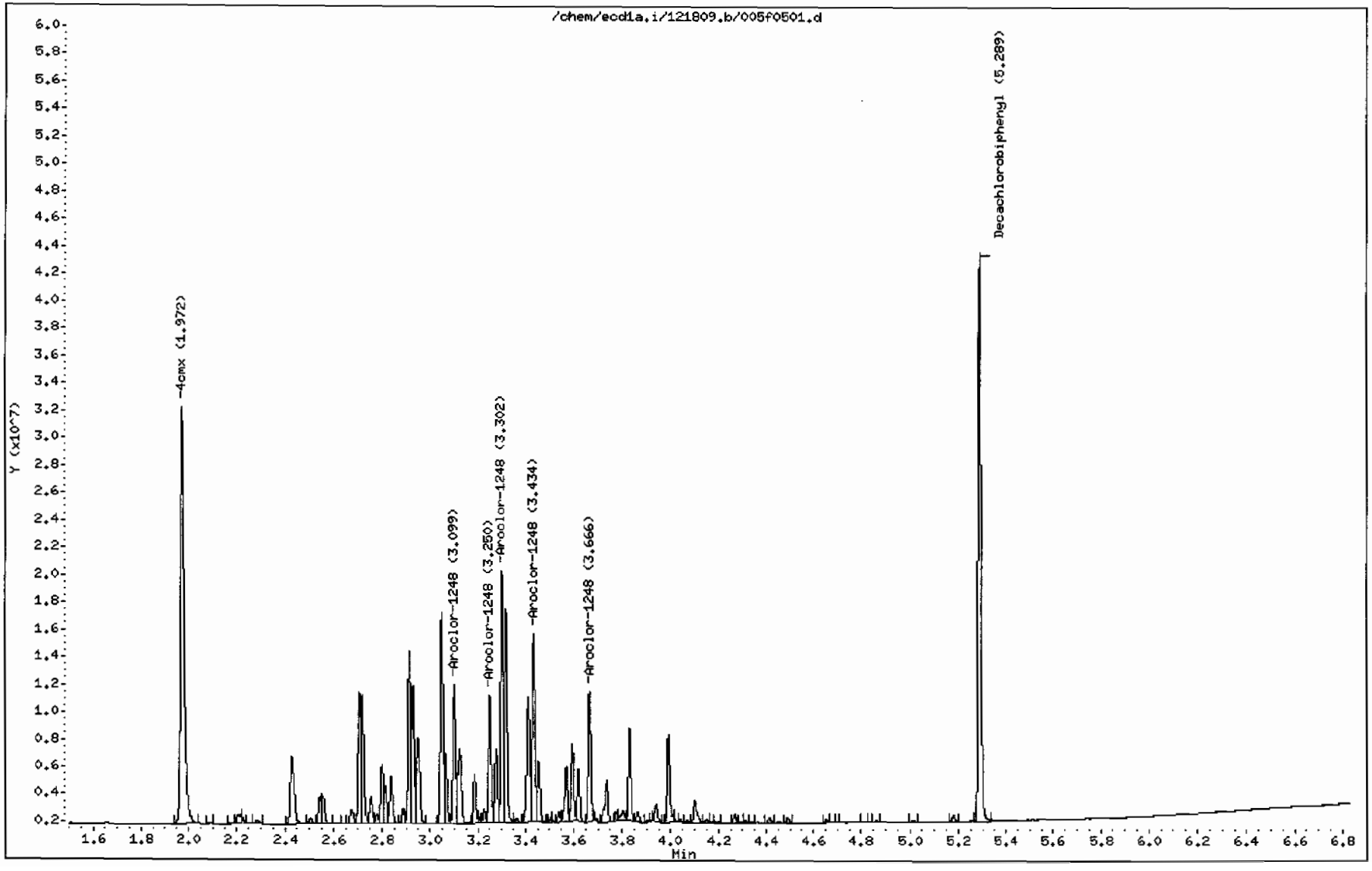

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/121809.b/005b0501.d
Lab Smp Id: WAR091027-48 Client Smp ID: AR124801
Inj Date : 18-DEC-2009 06:46
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR091027-48
Misc Info :
Comment :
Method : /chem/ecd1a.i/121809.b/ECD1-B-8082-121409.m
Meth Date : 18-Dec-2009 08:39 yip00818 Quant Type: ESTD
Cal Date : 14-DEC-2009 12:16 Cal File: 044b4401.d
Als bottle: 5 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1248.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.303	2.302	0.001	26248646	100.000	87.5	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.951	5.951	0.000	23376207	100.000	100	80.00- 120.00	100.00
5 Aroclor-1248					CAS #: 12672-29-6		
3.409	3.409	0.000	7286024	1000.00	905	80.00- 120.00	100.00
3.574	3.574	0.000	9160025	1000.00	928	105.72- 145.72	125.72
3.808	3.808	0.000	10630645	1000.00	947	125.90- 165.90	145.90
3.835	3.835	0.000	11748273	1000.00	941	141.24- 181.24	161.24
3.972	3.972	0.000	11407289	1000.00	942	136.56- 176.56	156.56
Average of Peak Amounts =					933		

Data File: /chem/ecd1a.i/121809.b/005b0501.d

Date : 18-DEC-2009 06:46

Client ID: AR124801

Sample Info: IWAR091027-48

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

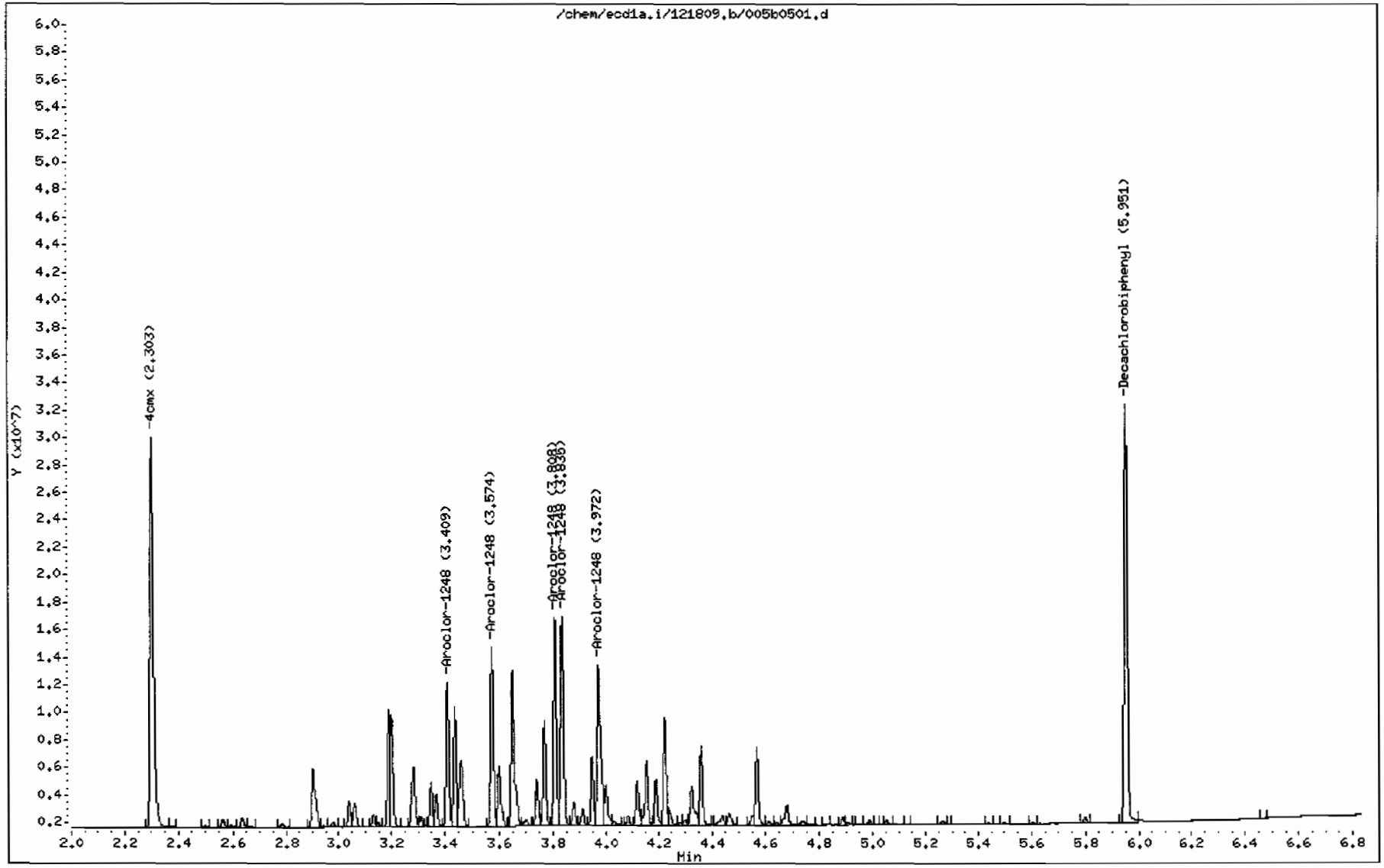

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/121809.b/006f0601.d
Lab Smp Id: WAR090930-32 Client Smp ID: AR123201
Inj Date : 18-DEC-2009 06:57
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR090930-32
Misc Info :
Comment :
Method : /chem/ecd1a.i/121809.b/ECD1-F-8082-121409.m
Meth Date : 18-Dec-2009 08:39 yip00818 Quant Type: ESTD
Cal Date : 14-DEC-2009 11:34 Cal File: 040f4001.d
Als bottle: 6 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1232.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

AMOUNTS

RT	EXP RT	DLT RT	RESPONSE	CAL-AMT (ug/L)	ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.973	1.971	0.002	50547361	100.000	134	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.289	5.290	-0.001	46936749	100.000	148	80.00- 120.00	100.00
3 Aroclor-1232					CAS #: 11141-16-5		
2.429	2.429	0.000	6852441	1000.00	1020	80.00- 120.00	100.00
2.718	2.718	0.000	8740491	1000.00	1070	107.55- 147.55	127.55
2.799	2.799	0.000	5880209	1000.00	1020	65.81- 105.81	85.81
3.048	3.048	0.000	4401555	1000.00	1110	44.23- 84.23	64.23
3.302	3.302	0.000	4108719	1000.00	1160	39.96- 79.96	59.96

Average of Peak Amounts = 1.08e+03

Data File: /chem/ecd1a.i/121809.b/006f0601.d

Date : 18-DEC-2009 06:57

Client ID: AR123201

Sample Info: IWAR090930-32

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

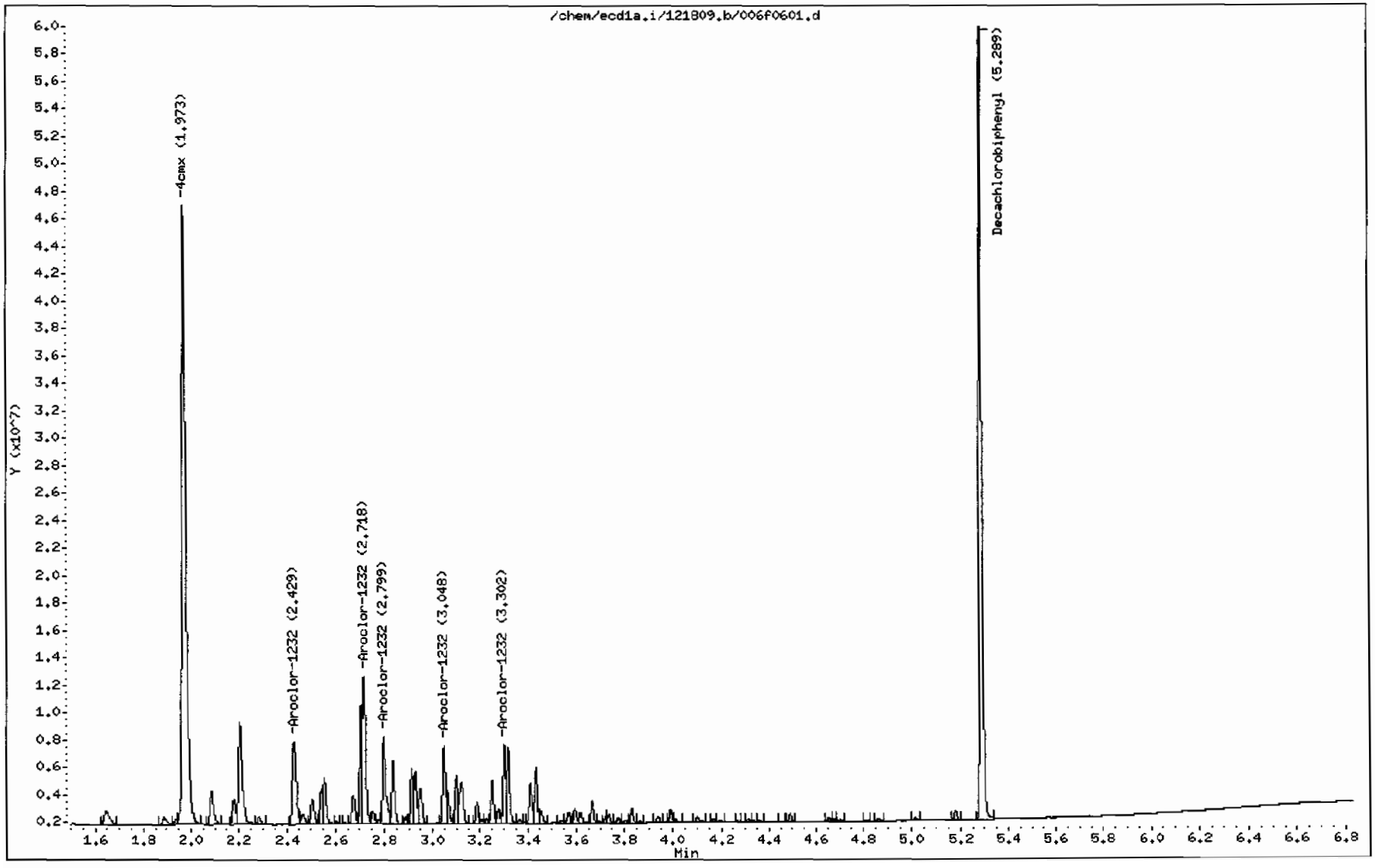

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/121809.b/006b0601.d
Lab Smp Id: WAR090930-32 Client Smp ID: AR123201
Inj Date : 18-DEC-2009 06:57
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR090930-32
Misc Info :
Comment :
Method : /chem/ecd1a.i/121809.b/ECD1-B-8082-121409.m
Meth Date : 18-Dec-2009 08:39 yip00818 Quant Type: ESTD
Cal Date : 14-DEC-2009 12:16 Cal File: 044b4401.d
Als bottle: 6 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1232.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclpl

AMOUNTS

RT	EXP RT	DLT RT	RESPONSE	CAL-AMT (ug/L)	ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.303	2.302	0.001	38596920	100.000	129	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.951	5.951	0.000	34351210	100.000	147	80.00- 120.00	100.00
3 Aroclor-1232					CAS #: 11141-16-5		
2.635	2.635	0.000	6086916	1000.00	989	80.00- 120.00	100.00
3.201	3.201	0.000	6896701	1000.00	1090	93.30- 133.30	113.30
3.284	3.284	0.000	4660372	1000.00	991	56.56- 96.56	76.56
3.574	3.574	0.000	3602068	1000.00	1110	39.18- 79.18	59.18
3.808	3.808	0.000	3531252	1000.00	1120	38.01- 78.01	58.01

Average of Peak Amounts = 1.06e+03

Data File: /chem/ecd1a.i/121809.b/006b0601.d

Date : 18-DEC-2009 06:57

Client ID: AR123201

Sample Info: IWAR090930-32

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

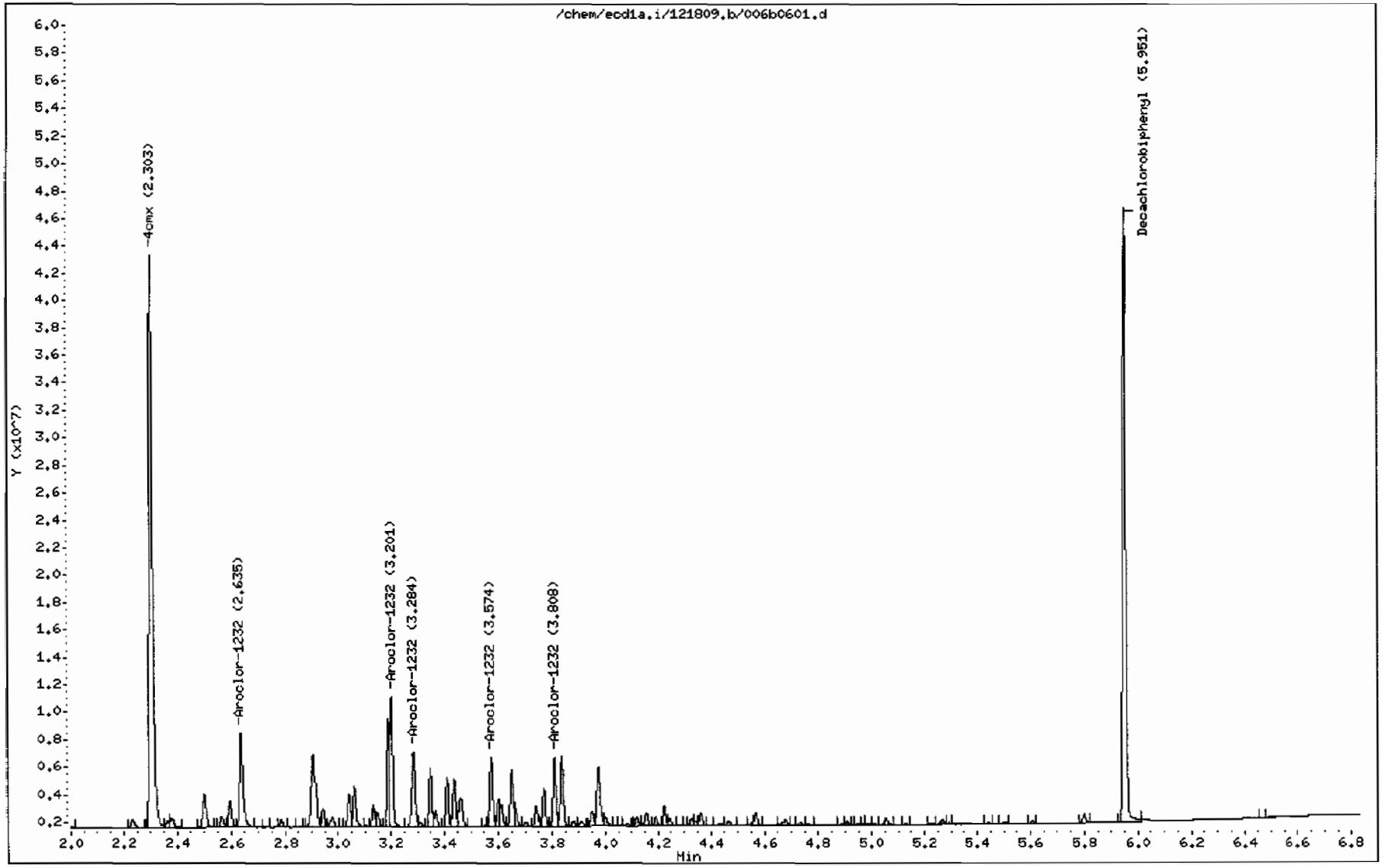

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/121809.b/007f0701.d
Lab Smp Id: WAR090803-21 Client Smp ID: AR122101
Inj Date : 18-DEC-2009 07:07
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR090803-21
Misc Info :
Comment :
Method : /chem/ecd1a.i/121809.b/ECD1-F-8082-121409.m
Meth Date : 18-Dec-2009 08:40 yip00818 Quant Type: ESTD
Cal Date : 14-DEC-2009 11:34 Cal File: 040f4001.d
Als bottle: 7 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1221.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

AMOUNTS

RT	EXP RT	DLT RT	RESPONSE	CAL-AMT (ug/L)	ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.971	1.971	0.000	37466602	100.000	99.7	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.290	5.290	0.000	35027708	100.000	110	80.00- 120.00	100.00
2 Aroclor-1221					CAS #: 11104-28-2		
2.085	2.085	0.000	4334131	1000.00	1010	80.00- 120.00	100.00
2.178	2.178	0.000	2439275	1000.00	1000	36.28- 76.28	56.28
2.204	2.204	0.000	10459949	1000.00	1020	221.34- 261.34	241.34

Average of Peak Amounts = 1.01e+03

Data File: /chem/ecd1a.i/121809.b/007f0701.d
Date : 18-DEC-2009 07:07
Client ID: AR122101
Sample Info: IWAR090803-21

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1
Column diameter: 0.25

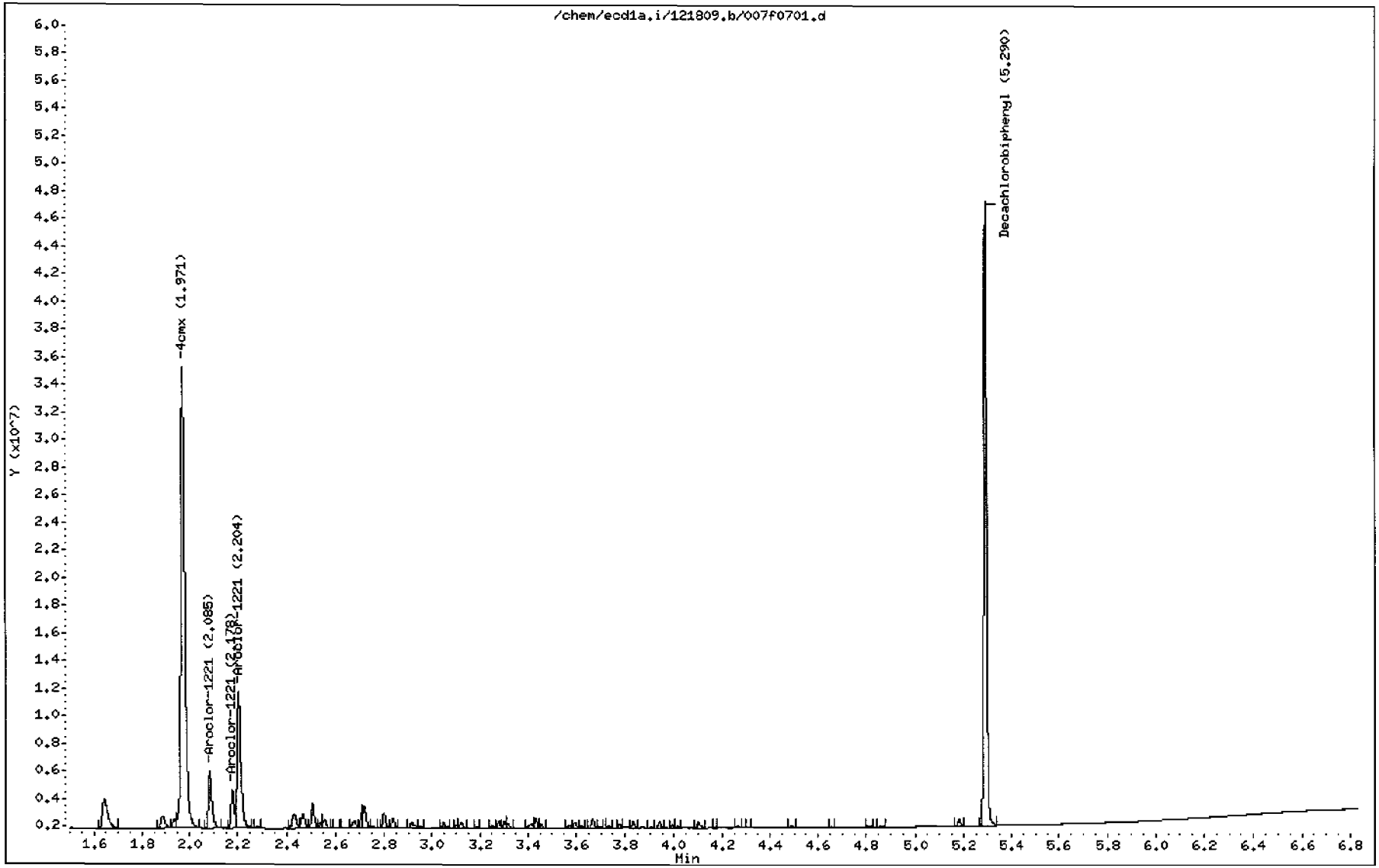

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/121809.b/007b0701.d
Lab Smp Id: WAR090803-21 Client Smp ID: AR122101
Inj Date : 18-DEC-2009 07:07
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR090803-21
Misc Info :
Comment :
Method : /chem/ecd1a.i/121809.b/ECD1-B-8082-121409.m
Meth Date : 18-Dec-2009 08:39 yip00818 Quant Type: ESTD
Cal Date : 14-DEC-2009 12:16 Cal File: 044b4401.d
Als bottle: 7 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1221.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpc1p1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.301	2.302	-0.001	28539395	100.000	95.1	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.951	5.951	0.000	25780874	100.000	110	80.00- 120.00	100.00
2 Aroclor-1221					CAS #: 11104-28-2		
2.499	2.499	0.000	3559560	1000.00	978	80.00- 120.00	100.00
2.594	2.594	0.000	2298459	1000.00	987	44.57- 84.57	64.57
2.635	2.635	0.000	7994245	1000.00	985	204.59- 244.59	224.59
Average of Peak Amounts =					983		

Data File: /chem/ecd1a.i/121809.b/007b0701.d

Date : 18-DEC-2009 07:07

Client ID: AR122101

Sample Info: IWAR090803-21

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

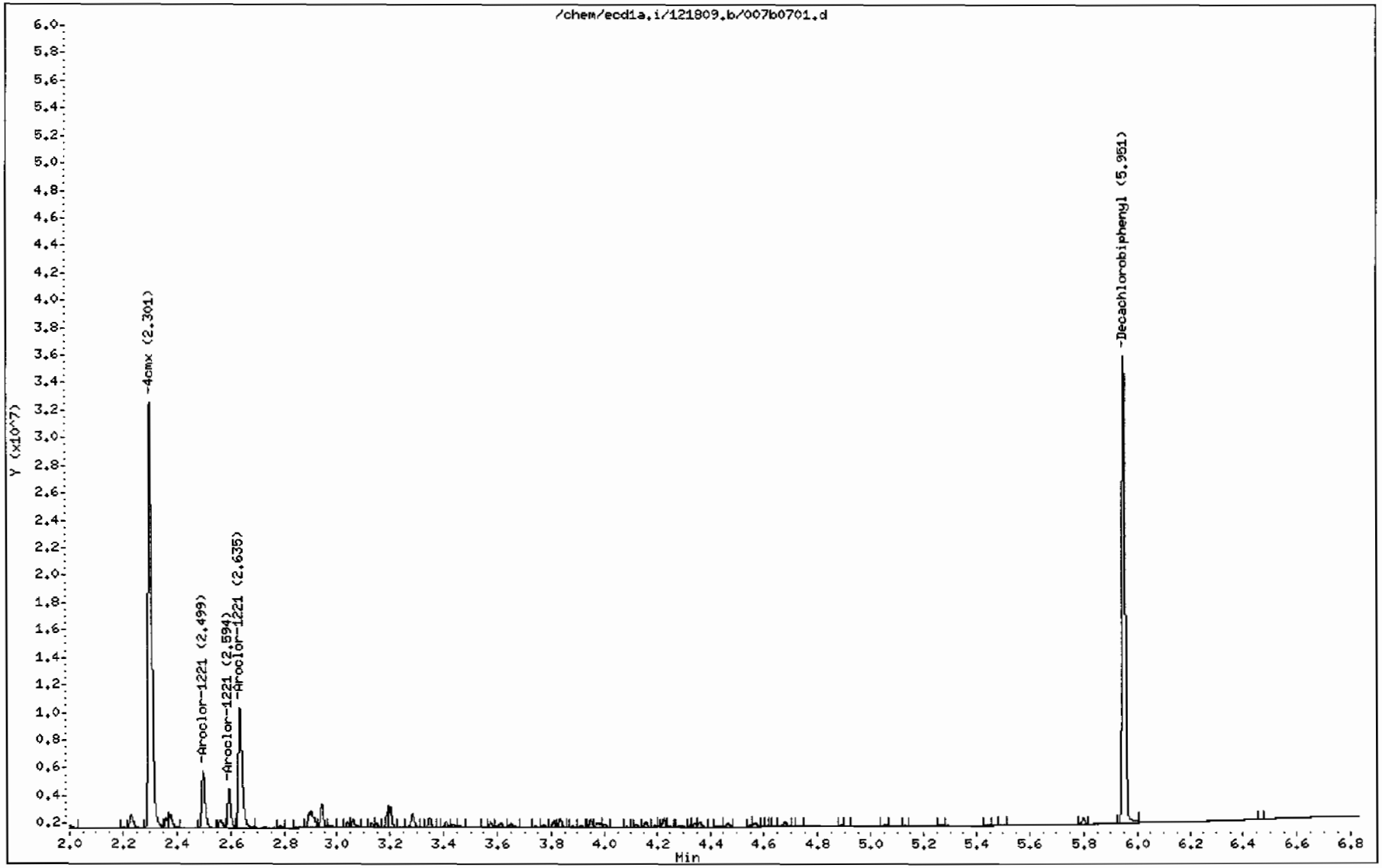

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/121809.b/010f1001.d
Lab Smp Id: WAR091211-60 01 Client Smp ID: AR166001
Inj Date : 18-DEC-2009 07:39
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR091211-60 01
Misc Info :
Comment :
Method : /chem/ecd1a.i/121809.b/ECD1-F-8082-121409.m
Meth Date : 18-Dec-2009 08:41 yip00818 Quant Type: ESTD
Cal Date : 14-DEC-2009 11:34 Cal File: 040f4001.d
Als bottle: 10 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

AMOUNTS

RT	EXP RT	DLT RT	RESPONSE	CAL-AMT (ug/L)	ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.971	1.971	0.000	36814375	100.000	98.0	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.290	5.290	0.000	34510918	100.000	109	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.428	2.428	0.000	12330832	1000.00	889	80.00- 120.00	100.00
2.706	2.706	0.000	9897470	1000.00	980	60.27- 100.27	80.27
2.799	2.799	0.000	10652468	1000.00	906	66.39- 106.39	86.39
2.836	2.836	0.000	6447886	1000.00	977	32.29- 72.29	52.29
3.048	3.048	0.000	8161861	1000.00	941	46.19- 86.19	66.19
Average of Peak Amounts =					939		
7 Aroclor-1260					CAS #: 11096-82-5		
3.774	3.774	0.000	16734808	1000.00	999	80.00- 120.00	100.00
3.937	3.937	0.000	25853720	1000.00	1040	134.49- 174.49	154.49
4.167	4.167	0.000	15501606	1000.00	1060	72.63- 112.63	92.63
4.311	4.311	0.000	16239284	1000.00	1070	77.04- 117.04	97.04
4.490	4.490	0.000	37804699	1000.00	1100	205.90- 245.90	225.90
Average of Peak Amounts =					1.05e+03		

Data File: /chem/ecd1a.i/121809.b/010f1001.d
Date : 18-DEC-2009 07:39
Client ID: AR166001
Sample Info: IWAR091211-60 01

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1
Column diameter: 0.25

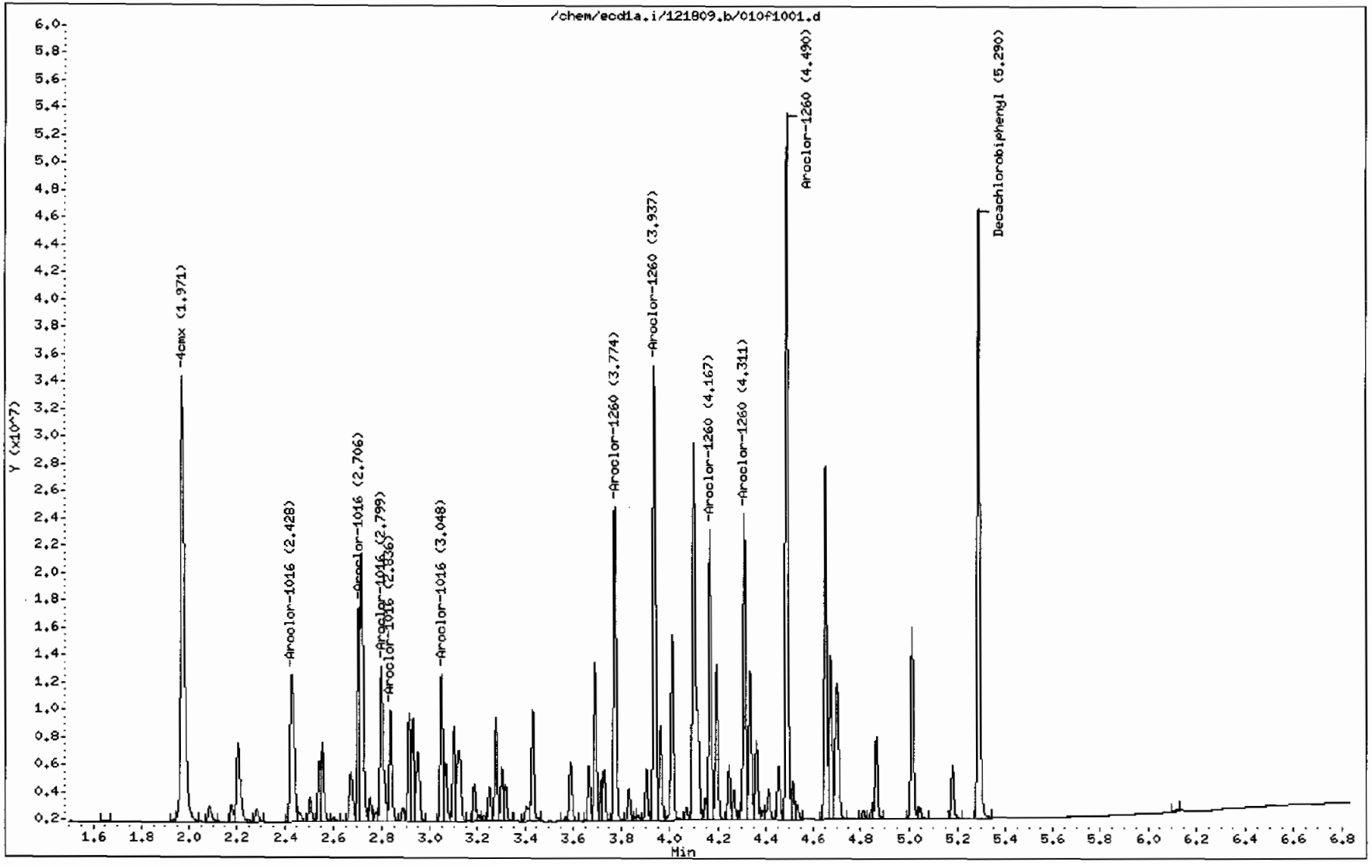

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdla.i/121809.b/010b1001.d
Lab Smp Id: WAR091211-60 01 Client Smp ID: AR166001
Inj Date : 18-DEC-2009 07:39
Operator : YS1 Inst ID: ecdla.i
Smp Info : |WAR091211-60 01
Misc Info :
Comment :
Method : /chem/ecdla.i/121809.b/ECD1-B-8082-121409.m
Meth Date : 18-Dec-2009 08:41 yip00818 Quant Type: ESTD
Cal Date : 14-DEC-2009 12:16 Cal File: 044b4401.d
Als bottle: 10 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.302	2.302	0.000	28157907	100.000	93.8	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.951	5.951	0.000	25247573	100.000	108	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.201	3.201	0.000	11927331	1000.00	946	80.00- 120.00	100.00
3.283	3.283	0.000	8028181	1000.00	861	47.31- 87.31	67.31
3.347	3.347	0.000	5008897	1000.00	926	22.00- 62.00	42.00
3.574	3.574	0.000	6328701	1000.00	897	33.06- 73.06	53.06
3.650	3.650	0.000	7144497	1000.00	1090	39.90- 79.90	59.90
Average of Peak Amounts =					944		
7 Aroclor-1260					CAS #: 11096-82-5		
4.341	4.341	0.000	12803554	1000.00	936	80.00- 120.00	100.00
4.465	4.465	0.000	15889172	1000.00	991	104.10- 144.10	124.10
4.731	4.731	0.000	12234293	1000.00	974	75.55- 115.55	95.55
4.905	4.905	0.000	12555623	1000.00	980	78.06- 118.06	98.06
5.051	5.051	0.000	29009133	1000.00	1040	206.57- 246.57	226.57
Average of Peak Amounts =					984		

Data File: /chem/ecd1a.i/121809.b/010b1001.d
Date : 18-DEC-2009 07:39
Client ID: AR166001
Sample Info: IWAR091211-60 01

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1
Column diameter: 0.25

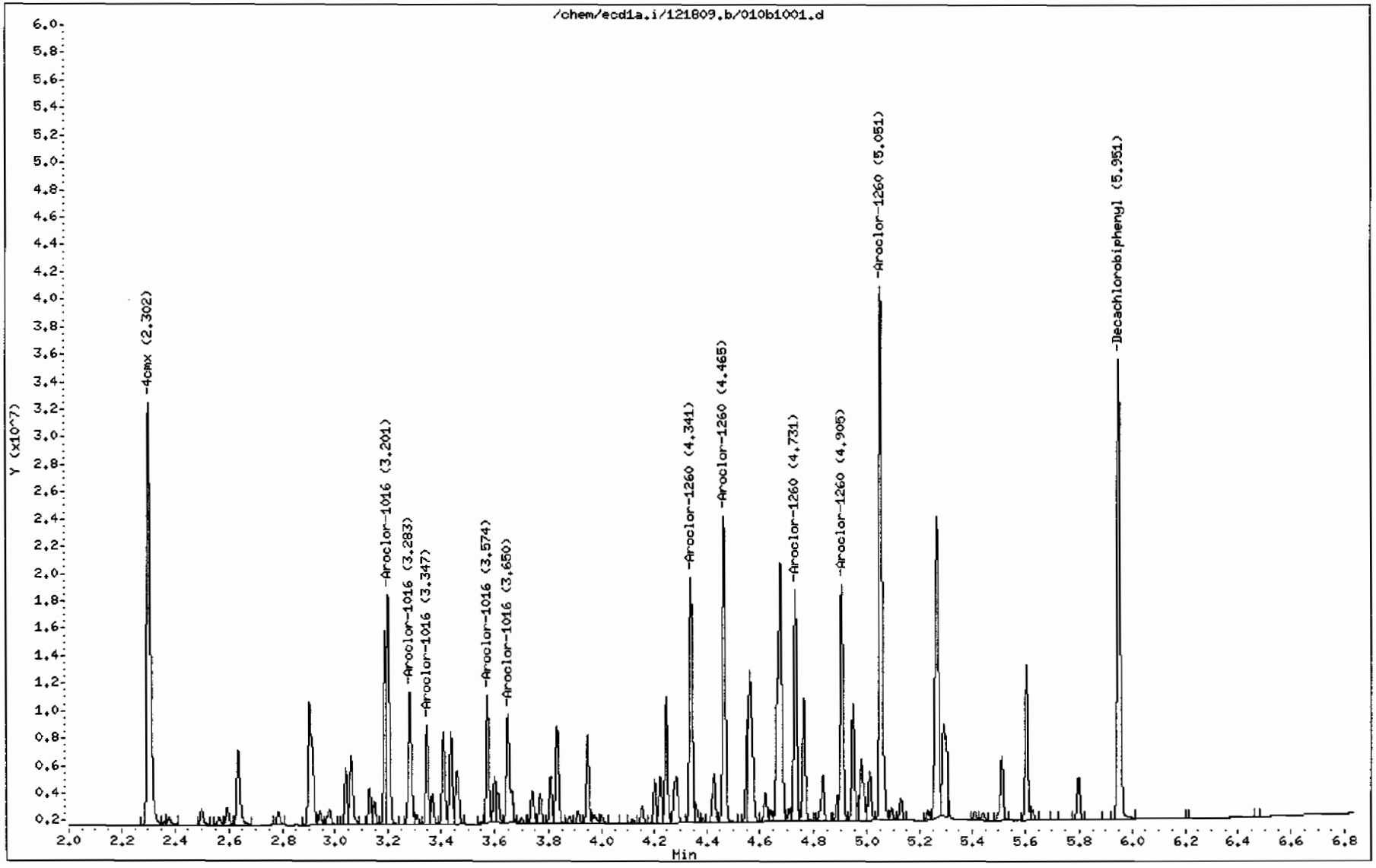

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/121809.b/039f3901.d
Lab Smp Id: WAR091211-60 04 Client Smp ID: AR166004
Inj Date : 18-DEC-2009 13:09
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR091211-60 04
Misc Info :
Comment :
Method : /chem/ecd1a.i/121809.b/ECD1-F-8082-121409.m
Meth Date : 18-Dec-2009 13:22 yip00818 Quant Type: ESTD
Cal Date : 14-DEC-2009 11:34 Cal File: 040f4001.d
Als bottle: 39 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.973	1.971	0.002	39475224	100.000	105	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.287	5.290	-0.003	33095161	100.000	104	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.428	2.428	0.000	13138490	1000.00	947	80.00- 120.00	100.00
2.705	2.706	-0.001	10983969	1000.00	1090	63.60- 103.60	83.60
2.798	2.799	-0.001	11370854	1000.00	967	66.55- 106.55	86.55
2.836	2.836	0.000	6850866	1000.00	1040	32.14- 72.14	52.14
3.047	3.048	-0.001	8675726	1000.00	1000	46.03- 86.03	66.03
Average of Peak Amounts =					1.01e+03		
7 Aroclor-1260					CAS #: 11096-82-5		
3.773	3.774	-0.001	17541676	1000.00	1050	80.00- 120.00	100.00
3.935	3.937	-0.002	27179981	1000.00	1100	134.95- 174.95	154.95
4.166	4.167	-0.001	16164491	1000.00	1100	72.15- 112.15	92.15
4.308	4.311	-0.003	16705409	1000.00	1100	75.23- 115.23	95.23
4.488	4.490	-0.002	38724081	1000.00	1130	200.75- 240.75	220.75
Average of Peak Amounts =					1.09e+03		

Data File: /chem/ecd1a.i/121809.b/039f3901.d

Date : 18-DEC-2009 13:09

Client ID: AR166004

Sample Info: IWAR091211-60 04

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

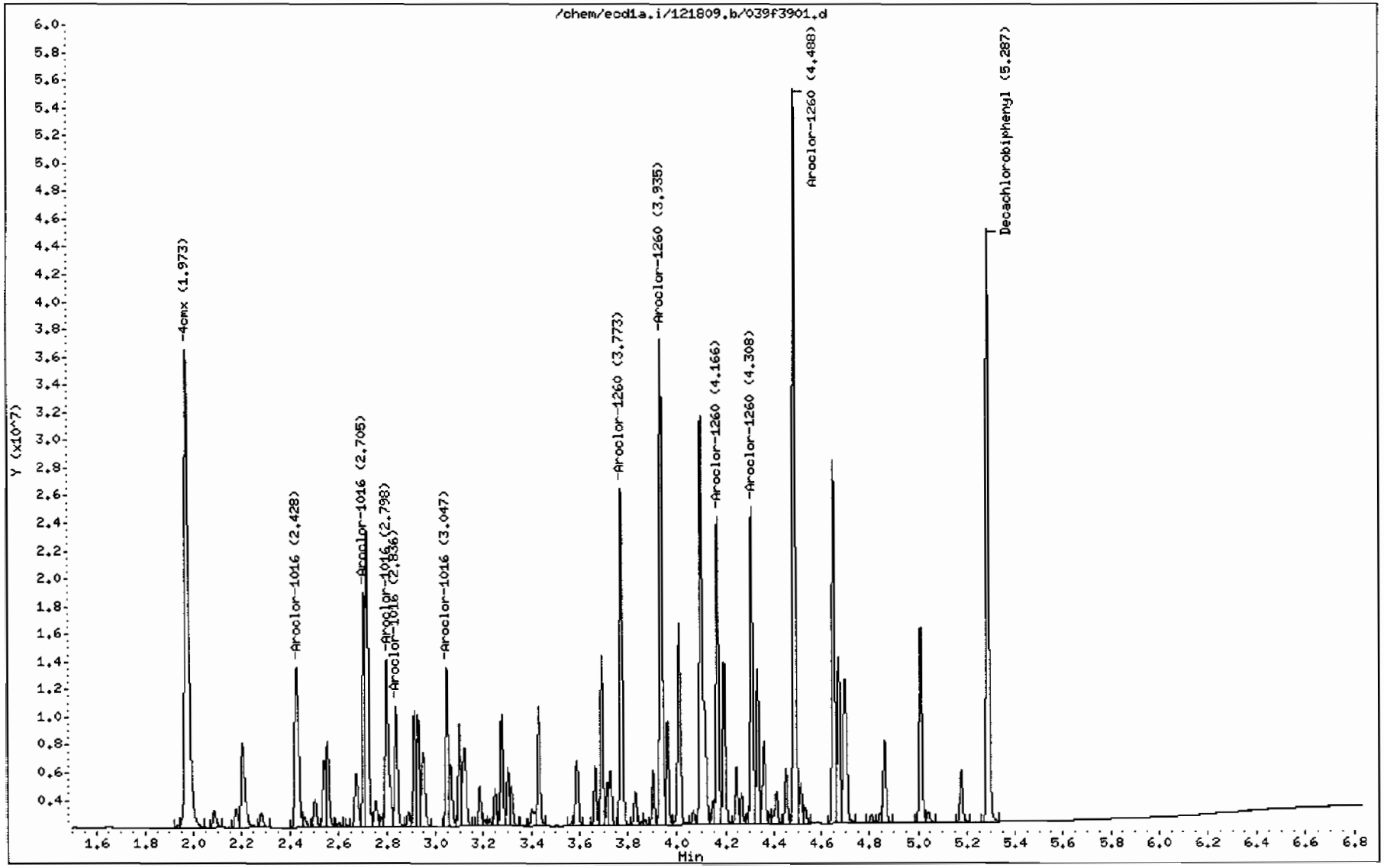

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/121809.b/039b3901.d
Lab Smp Id: WAR091211-60 04 Client Smp ID: AR166004
Inj Date : 18-DEC-2009 13:09
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR091211-60 04
Misc Info :
Comment :
Method : /chem/ecd1a.i/121809.b/ECD1-B-8082-121409.m
Meth Date : 18-Dec-2009 13:23 yip00818 Quant Type: ESTD
Cal Date : 14-DEC-2009 12:16 Cal File: 044b4401.d
Als bottle: 39 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.303	2.302	0.001	30060357	100.000	100	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.949	5.951	-0.002	23650610	100.000	101	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.199	3.201	-0.002	13090119	1000.00	1040	80.00- 120.00	100.00
3.283	3.283	0.000	8536709	1000.00	915	45.21- 85.21	65.21
3.346	3.347	-0.001	5324123	1000.00	984	20.67- 60.67	40.67
3.573	3.574	-0.001	6877958	1000.00	975	32.54- 72.54	52.54
3.648	3.650	-0.002	6323503	1000.00	965	28.31- 68.31	48.31
Average of Peak Amounts =					976		
7 Aroclor-1260					CAS #: 11096-82-5		
4.338	4.341	-0.003	13166301	1000.00	962	80.00- 120.00	100.00
4.463	4.465	-0.002	16280637	1000.00	1020	103.65- 143.65	123.65
4.729	4.731	-0.002	12421982	1000.00	989	74.35- 114.35	94.35
4.903	4.905	-0.002	12683173	1000.00	990	76.33- 116.33	96.33
5.050	5.051	-0.001	28727481	1000.00	1030	198.19- 238.19	218.19
Average of Peak Amounts =					997		

Data File: /chem/ecd1a.i/121809.b/039b3901.d

Date : 18-DEC-2009 13:09

Client ID: AR166004

Sample Info: IWAR091211-60 04

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

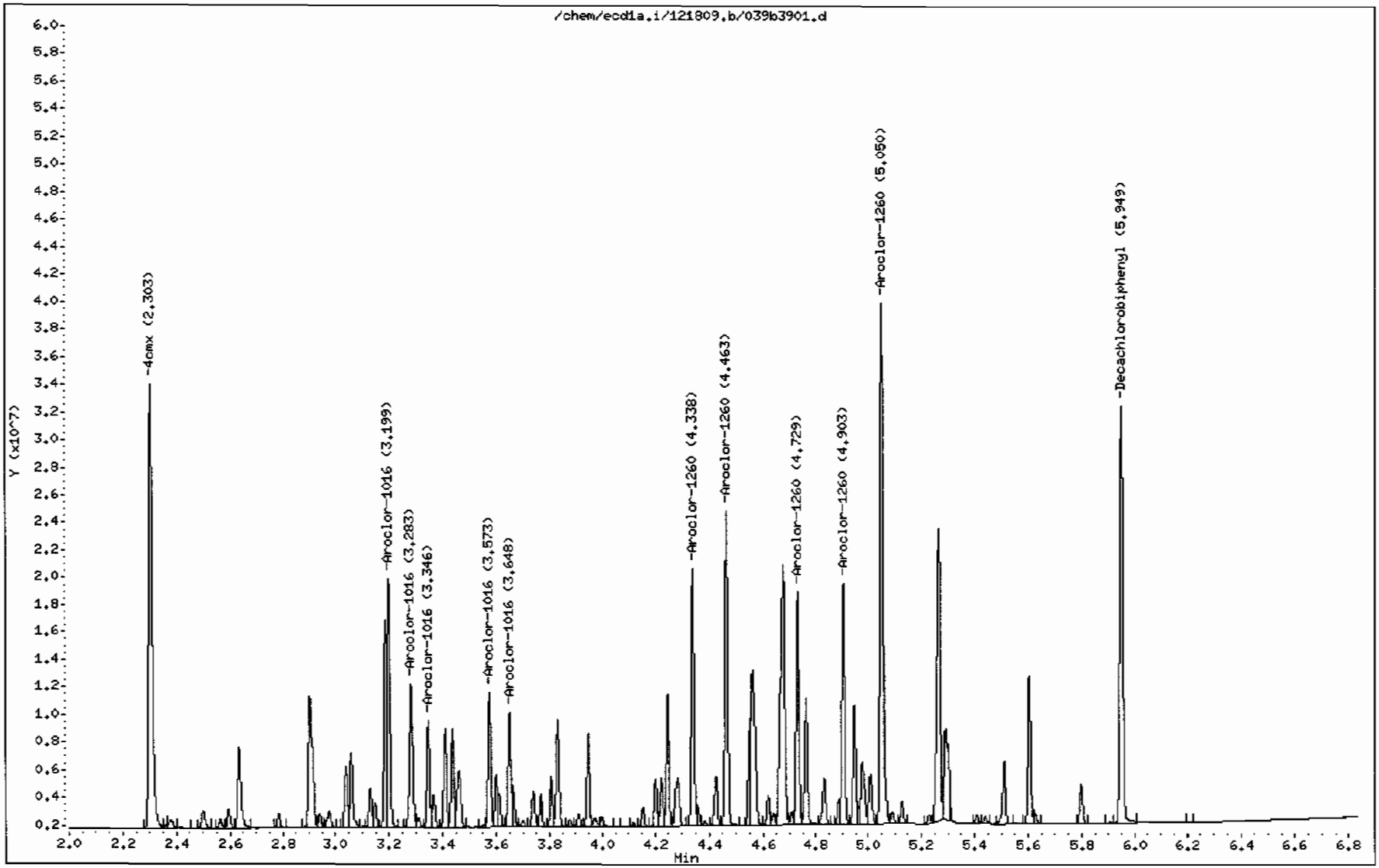

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/121809.b/051f5101.d
Lab Smp Id: WAR091211-60 05 Client Smp ID: AR166005
Inj Date : 18-DEC-2009 15:32
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR091211-60 05
Misc Info :
Comment :
Method : /chem/ecd1a.i/121809.b/ECD1-F-8082-121409.m
Meth Date : 18-Dec-2009 17:21 yip00818 Quant Type: ESTD
Cal Date : 14-DEC-2009 11:34 Cal File: 040f4001.d
Als bottle: 51 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.971	1.971	0.000	40314887	100.000	107	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.287	5.290	-0.003	34853657	100.000	110	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.428	2.428	0.000	13426842	1000.00	968	80.00- 120.00	100.00
2.705	2.706	-0.001	11156685	1000.00	1100	63.09- 103.09	83.09
2.797	2.799	-0.002	11600066	1000.00	987	66.39- 106.39	86.39
2.835	2.836	-0.001	7002383	1000.00	1060	32.15- 72.15	52.15
3.045	3.048	-0.003	8927645	1000.00	1030	46.49- 86.49	66.49
Average of Peak Amounts =					1.03e+03		
7 Aroclor-1260					CAS #: 11096-82-5		
3.772	3.774	-0.002	18189516	1000.00	1080	80.00- 120.00	100.00
3.935	3.937	-0.002	28104563	1000.00	1140	134.51- 174.51	154.51
4.165	4.167	-0.002	16781893	1000.00	1140	72.26- 112.26	92.26
4.308	4.311	-0.003	17479009	1000.00	1150	76.09- 116.09	96.09
4.487	4.490	-0.003	40432257	1000.00	1180	202.28- 242.28	222.28
Average of Peak Amounts =					1.14e+03		

Data File: /chem/ecd1a.i/121809.b/051f5101.d
Date : 18-DEC-2009 15:32
Client ID: AR166005
Sample Info: IWAR091211-60 05
Column phase: CLP1

Instrument: ecd1a.i
Operator: YS1
Column diameter: 0.25

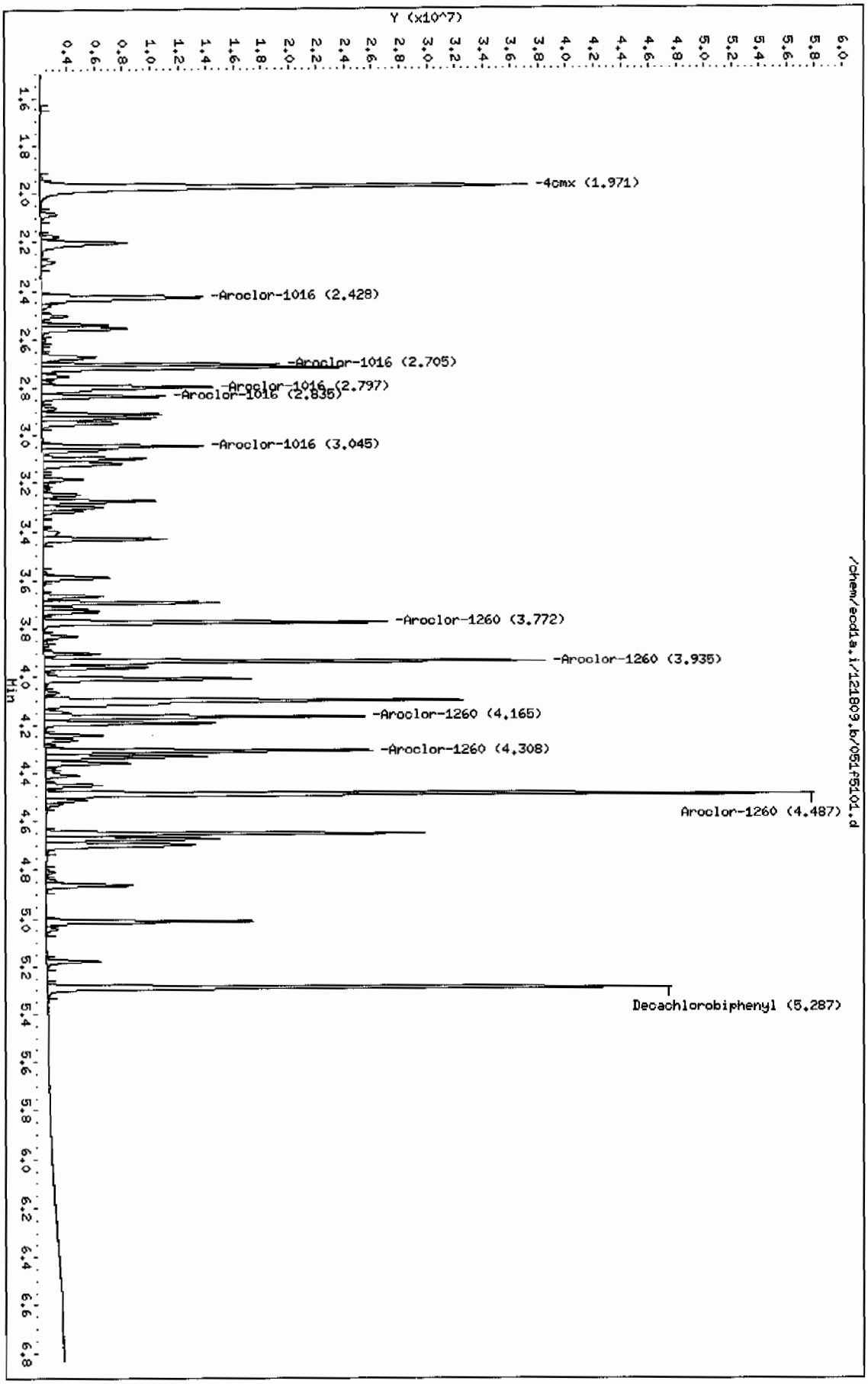

Page 1

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RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/121809.b/051b5101.d
Lab Smp Id: WAR091211-60 05 Client Smp ID: AR166005
Inj Date : 18-DEC-2009 15:32
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR091211-60 05
Misc Info :
Comment :
Method : /chem/ecd1a.i/121809.b/ECD1-B-8082-121409.m
Meth Date : 18-Dec-2009 17:26 yip00818 Quant Type: ESTD
Cal Date : 14-DEC-2009 12:16 Cal File: 044b4401.d
Als bottle: 51 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.302	2.302	0.000	30583878	100.000	102	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.950	5.951	-0.001	25428086	100.000	109	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.200	3.201	-0.001	12821499	1000.00	1020	80.00- 120.00	100.00(M)
3.282	3.283	-0.001	8743856	1000.00	937	46.58- 86.58	68.20
3.346	3.347	-0.001	5483288	1000.00	1010	21.60- 61.60	42.77
3.572	3.574	-0.002	6924124	1000.00	982	32.52- 72.52	54.00
3.649	3.650	-0.001	6576367	1000.00	1000	39.41- 79.41	60.95
Average of Peak Amounts =					991		
7 Aroclor-1260					CAS #: 11096-82-5		
4.339	4.341	-0.002	13824247	1000.00	1010	80.00- 120.00	100.00
4.464	4.465	-0.001	17099871	1000.00	1070	103.47- 143.47	123.69
4.730	4.731	-0.001	13136696	1000.00	1040	75.31- 115.31	95.03
4.904	4.905	-0.001	13546897	1000.00	1060	78.17- 118.17	97.99
5.050	5.051	-0.001	30663439	1000.00	1100	203.54- 243.54	221.81
Average of Peak Amounts =					1.06e+03		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd1a.i/121809.b/051b5101.d
Date : 18-DEC-2009 15:32
Client ID: AR166005
Sample Info: !WAR091211-60 05

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1
Column diameter: 0.25

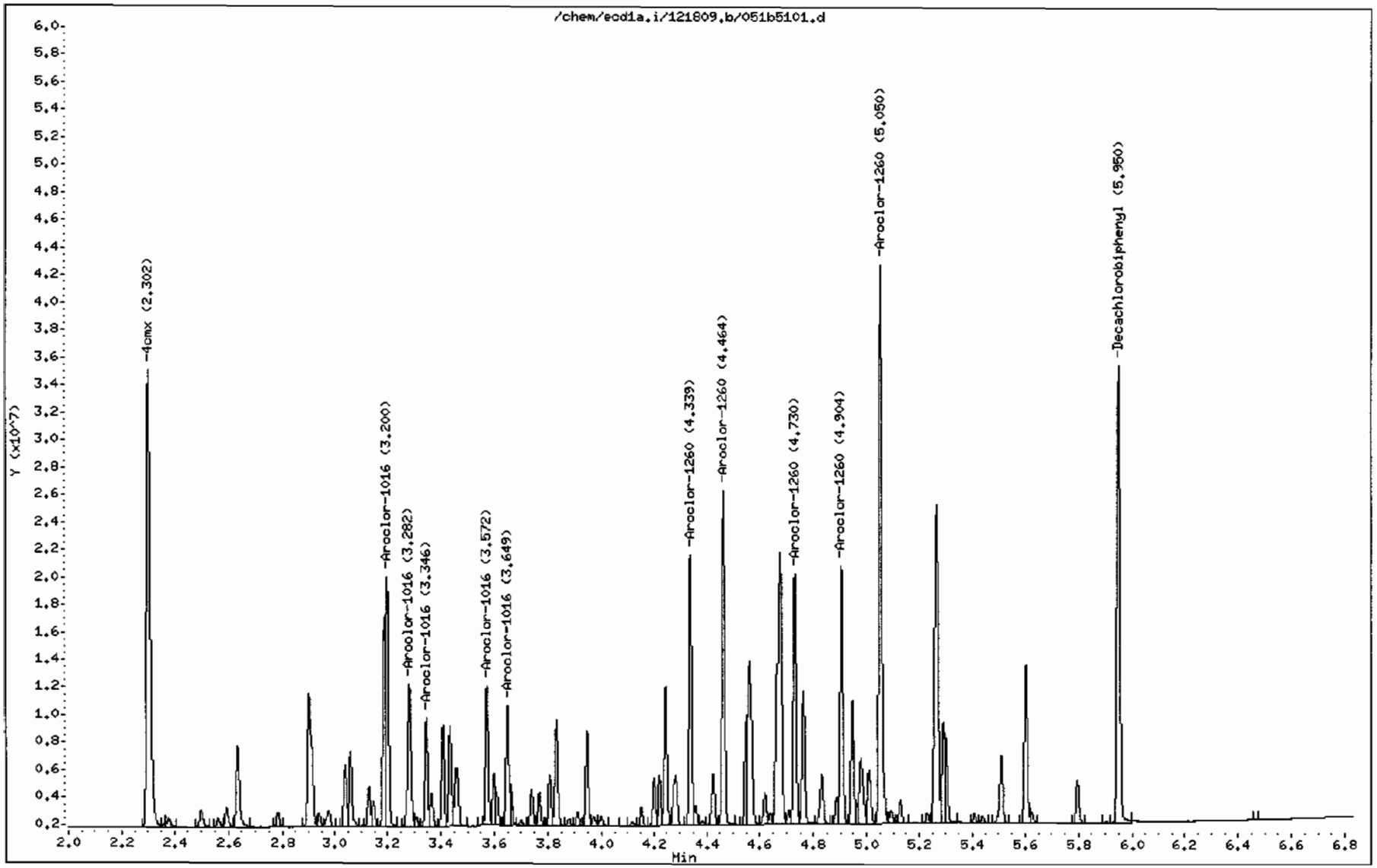

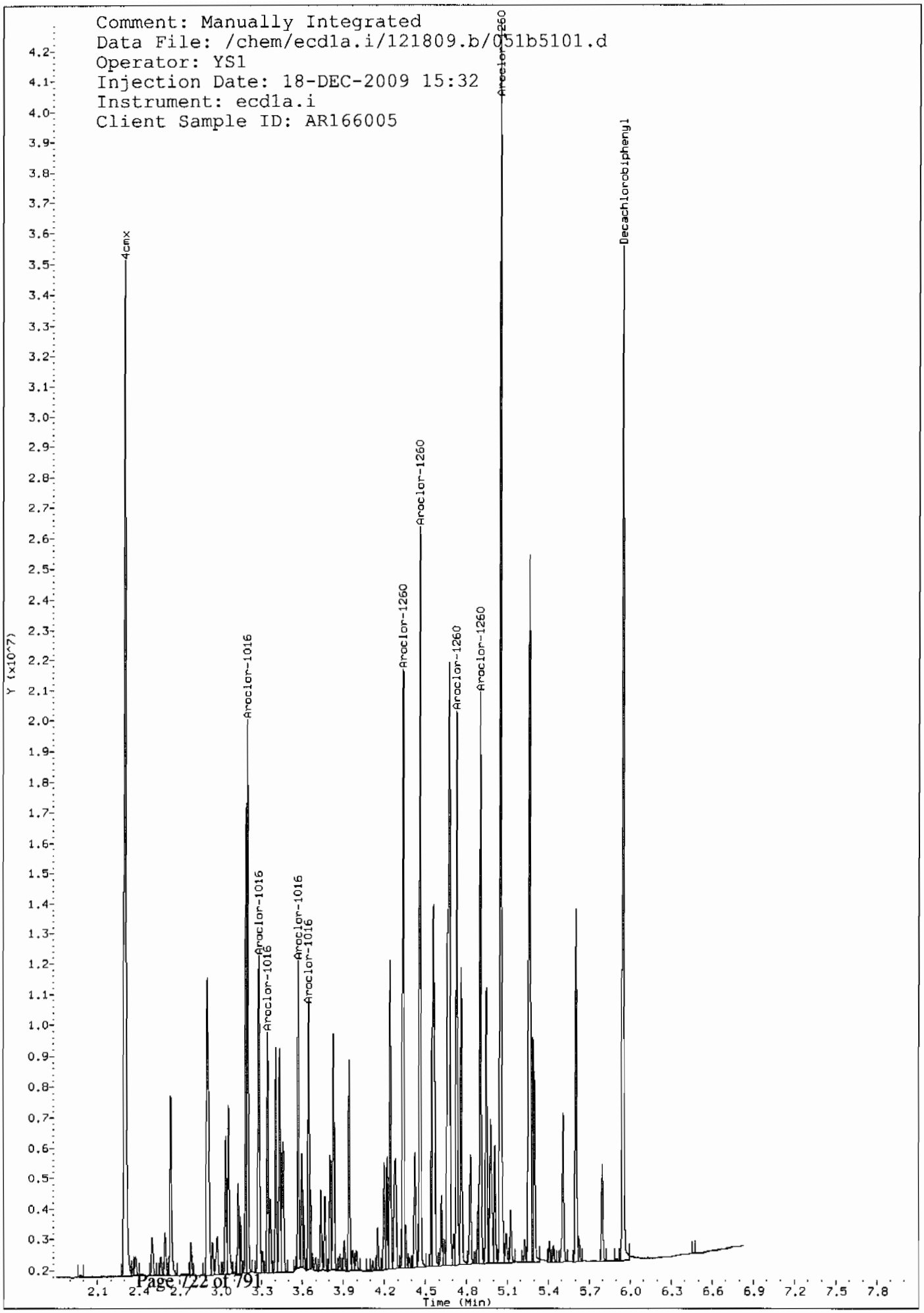
Comment: Manually Integrated
Data File: /chem/ecd1a.i/121809.b/051b5101.d
Operator: YS1
Injection Date: 18-DEC-2009 15:32
Instrument: ecd1a.i
Client Sample ID: AR166005
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

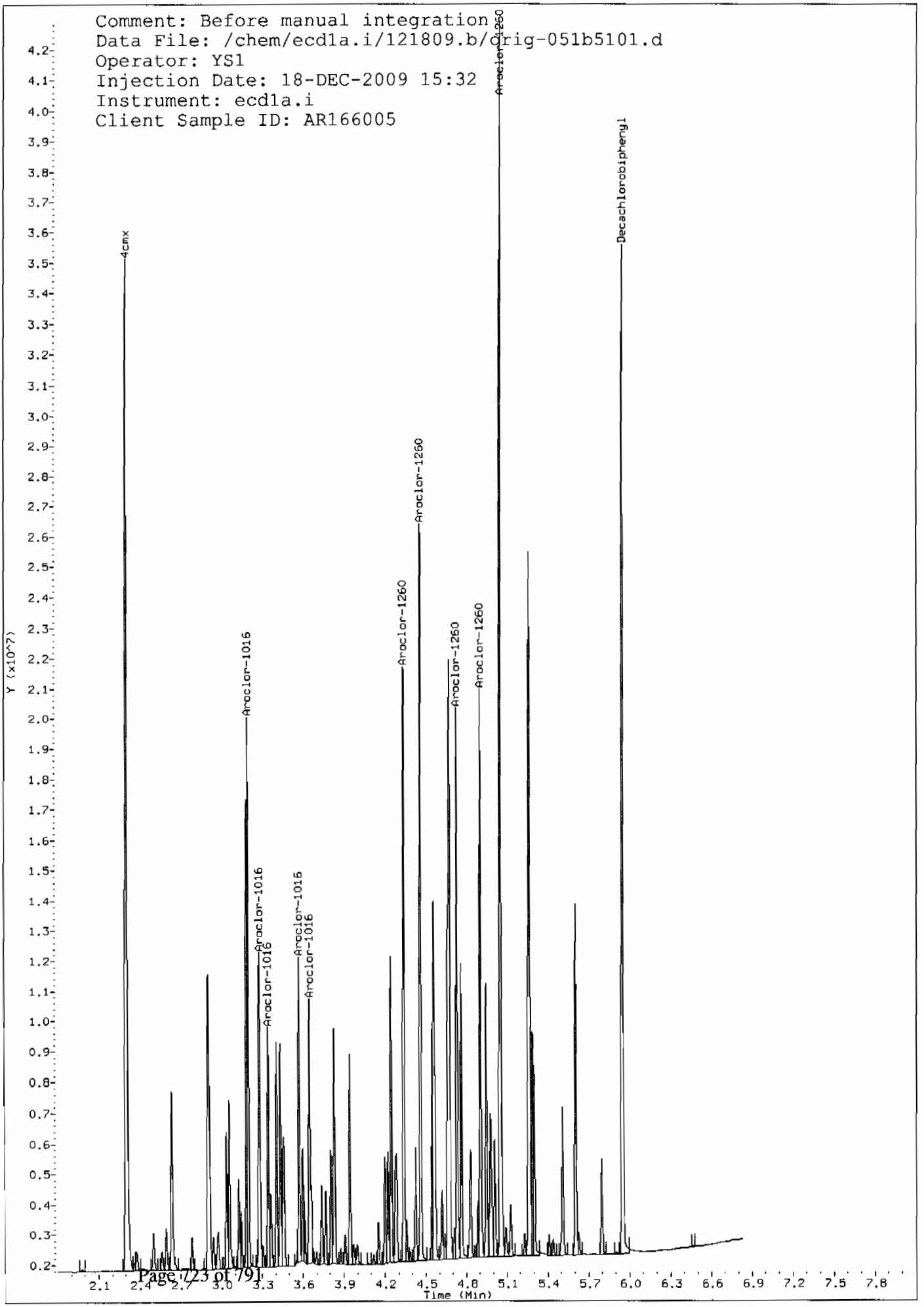
Comment: Before manual integration
Data File: /chem/ecd1a.i/121809.b/drig-051b5101.d
Operator: YS1
Injection Date: 18-DEC-2009 15:32
Instrument: ecd1a.i
Client Sample ID: AR166005
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/121809.b/059f5901.d
Lab Smp Id: WAR091211-60 06 Client Smp ID: AR166006
Inj Date : 18-DEC-2009 17:09
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR091211-60 06
Misc Info :
Comment :
Method : /chem/ecd1a.i/121809.b/ECD1-F-8082-121409.m
Meth Date : 18-Dec-2009 17:26 yip00818 Quant Type: ESTD
Cal Date : 14-DEC-2009 11:34 Cal File: 040f4001.d
Als bottle: 59 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.972	1.971	0.001	40162171	100.000	107	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.287	5.290	-0.003	34837914	100.000	110	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.428	2.428	0.000	13307745	1000.00	960	80.00- 120.00	100.00
2.704	2.706	-0.002	10962935	1000.00	1080	62.38- 102.38	82.38
2.798	2.799	-0.001	11521069	1000.00	980	66.57- 106.57	86.57
2.835	2.836	-0.001	6994459	1000.00	1060	32.56- 72.56	52.56
3.046	3.048	-0.002	8934196	1000.00	1030	47.14- 87.14	67.14
Average of Peak Amounts =					1.02e+03		
7 Aroclor-1260					CAS #: 11096-82-5		
3.773	3.774	-0.001	18016522	1000.00	1080	80.00- 120.00	100.00
3.935	3.937	-0.002	27853865	1000.00	1120	134.60- 174.60	154.60
4.165	4.167	-0.002	16664815	1000.00	1130	72.50- 112.50	92.50
4.309	4.311	-0.002	17406433	1000.00	1150	76.61- 116.61	96.61
4.488	4.490	-0.002	40366862	1000.00	1180	204.05- 244.05	224.05
Average of Peak Amounts =					1.13e+03		

Data File: /chem/ecd1a.i/121809.b/059f5901.d
Date : 18-DEC-2009 17:09
Client ID: AR166006
Sample Info: !WAR091211-60 06

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1
Column diameter: 0.25

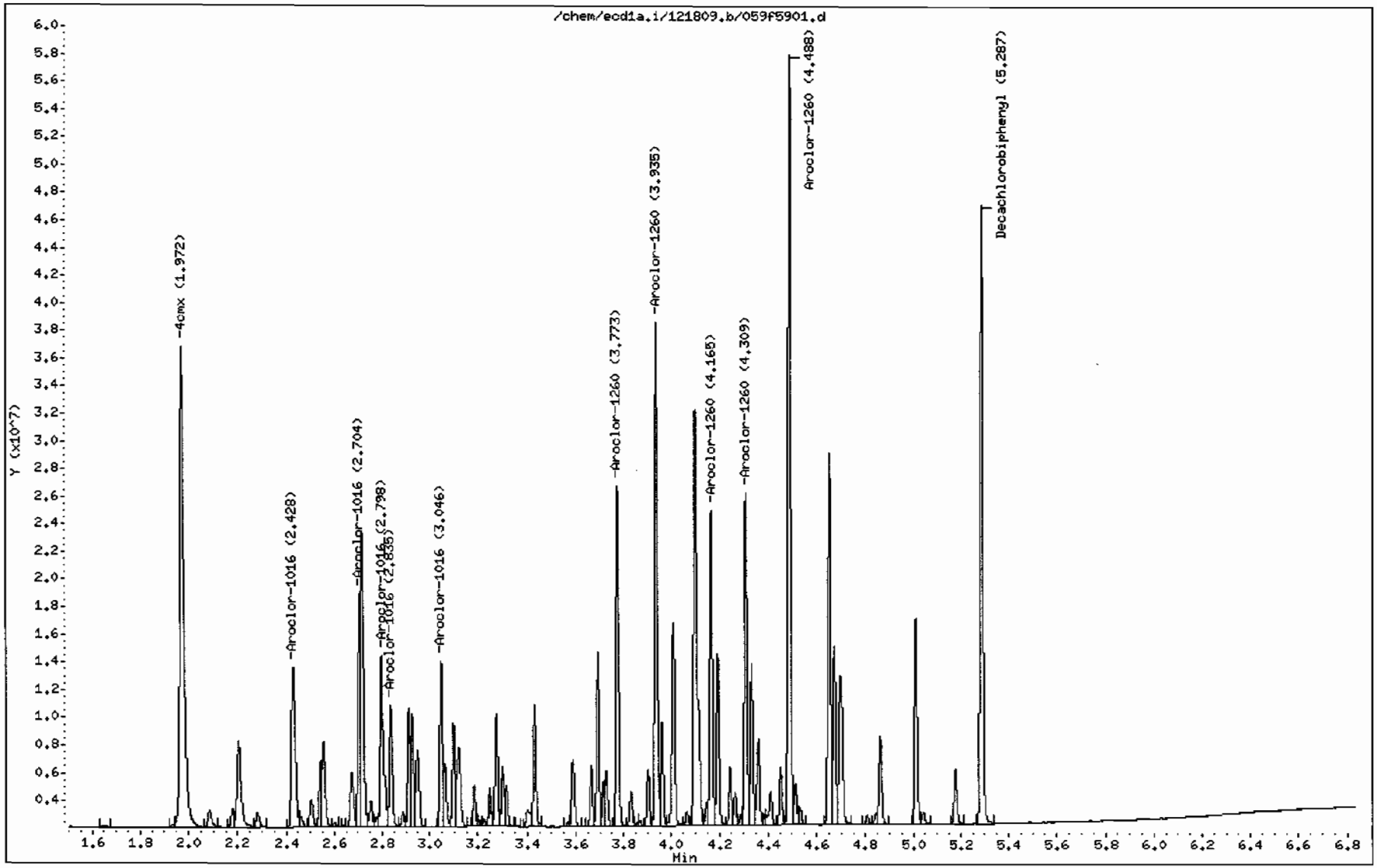

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/121809.b/059b5901.d
Lab Smp Id: WAR091211-60 06 Client Smp ID: AR166006
Inj Date : 18-DEC-2009 17:09
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR091211-60 06
Misc Info :
Comment :
Method : /chem/ecd1a.i/121809.b/ECD1-B-8082-121409.m
Meth Date : 18-Dec-2009 17:26 yip00818 Quant Type: ESTD
Cal Date : 14-DEC-2009 12:16 Cal File: 044b4401.d
Als bottle: 59 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.302	2.302	0.000	30586326	100.000	102	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.949	5.951	-0.002	25669424	100.000	110	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.199	3.201	-0.002	13092819	1000.00	1040	80.00- 120.00	100.00(M)
3.282	3.283	-0.001	8717071	1000.00	934	48.20- 88.20	66.58
3.346	3.347	-0.001	5446268	1000.00	1010	22.77- 62.77	41.60
3.573	3.574	-0.001	6875785	1000.00	975	34.00- 74.00	52.52
3.649	3.650	-0.001	6521444	1000.00	996	31.29- 71.29	59.41
Average of Peak Amounts =					990		
7 Aroclor-1260					CAS #: 11096-82-5		
4.339	4.341	-0.002	13787576	1000.00	1010	80.00- 120.00	100.00
4.464	4.465	-0.001	17023921	1000.00	1060	103.69- 143.69	123.47
4.729	4.731	-0.002	13141368	1000.00	1040	75.03- 115.03	95.31
4.903	4.905	-0.002	13535556	1000.00	1060	77.99- 117.99	98.17
5.049	5.051	-0.002	30821258	1000.00	1100	201.81- 241.81	223.54
Average of Peak Amounts =					1.06e+03		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd1a.i/121809.b/059b5901.d

Date : 18-DEC-2009 17:09

Client ID: AR166006

Sample Info: IWAR091211-60 06

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

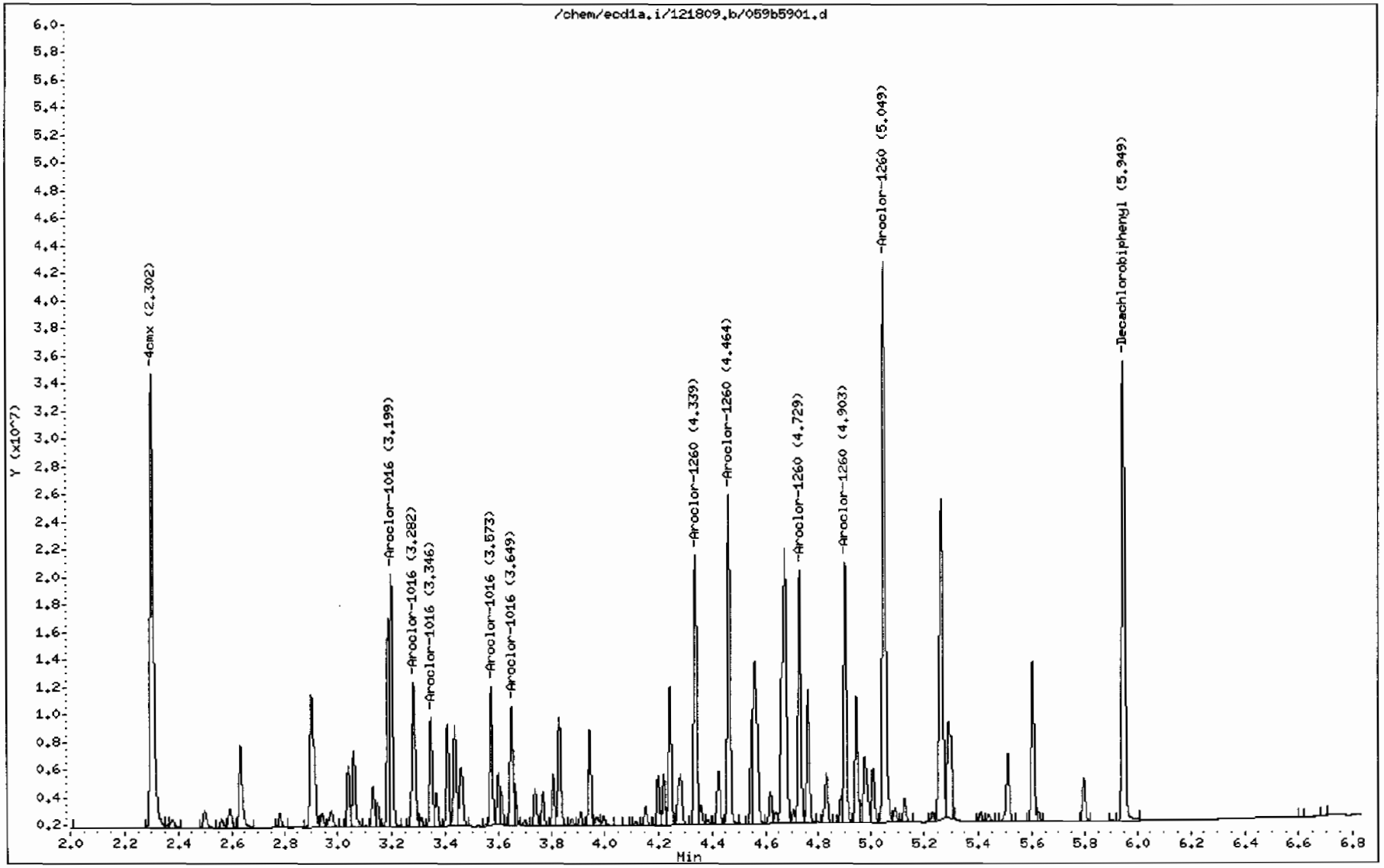

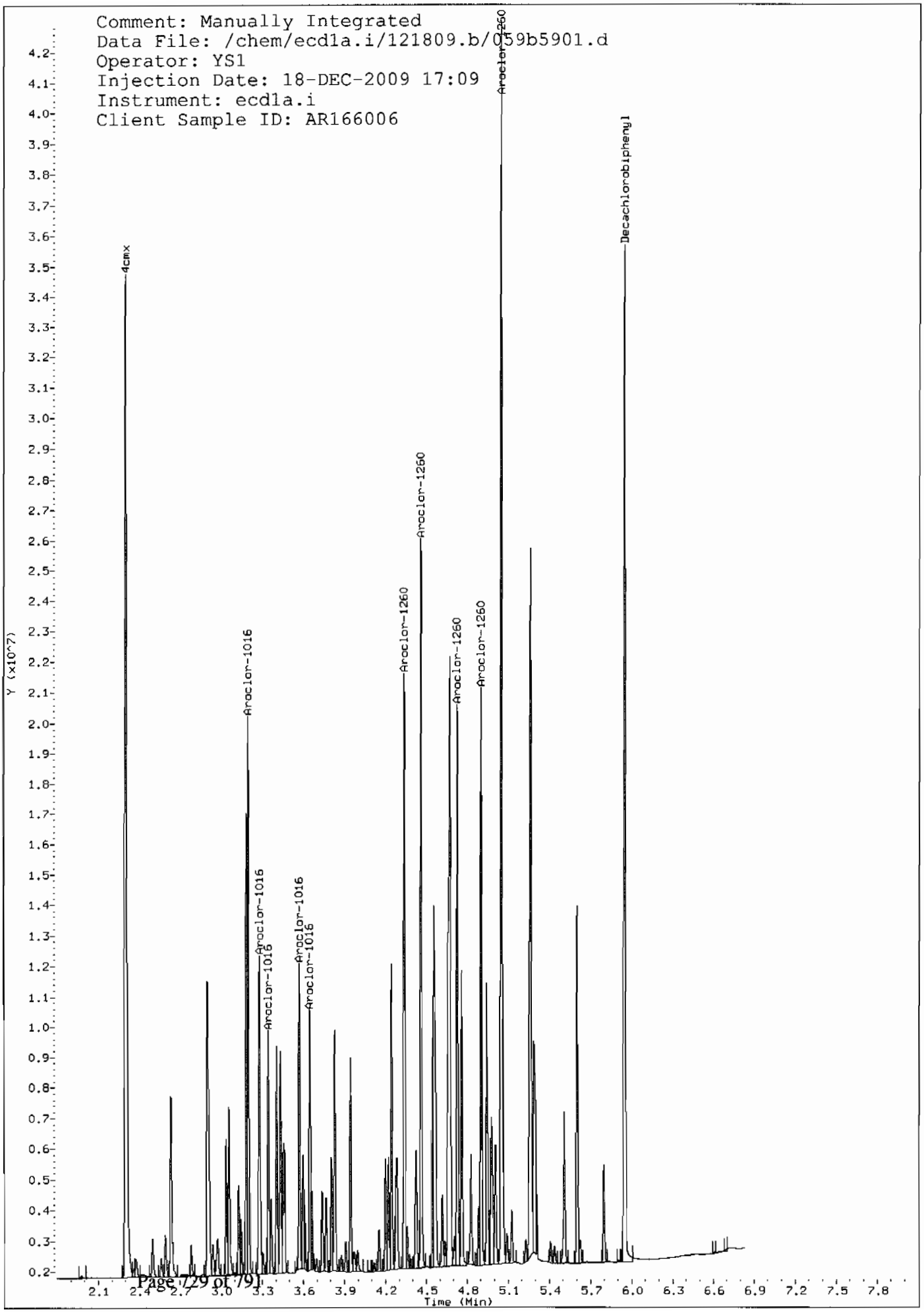
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Operator: YS1
Injection Date: 18-DEC-2009 17:09
Instrument: ecd1a.i
Client Sample ID: AR166006
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
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Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

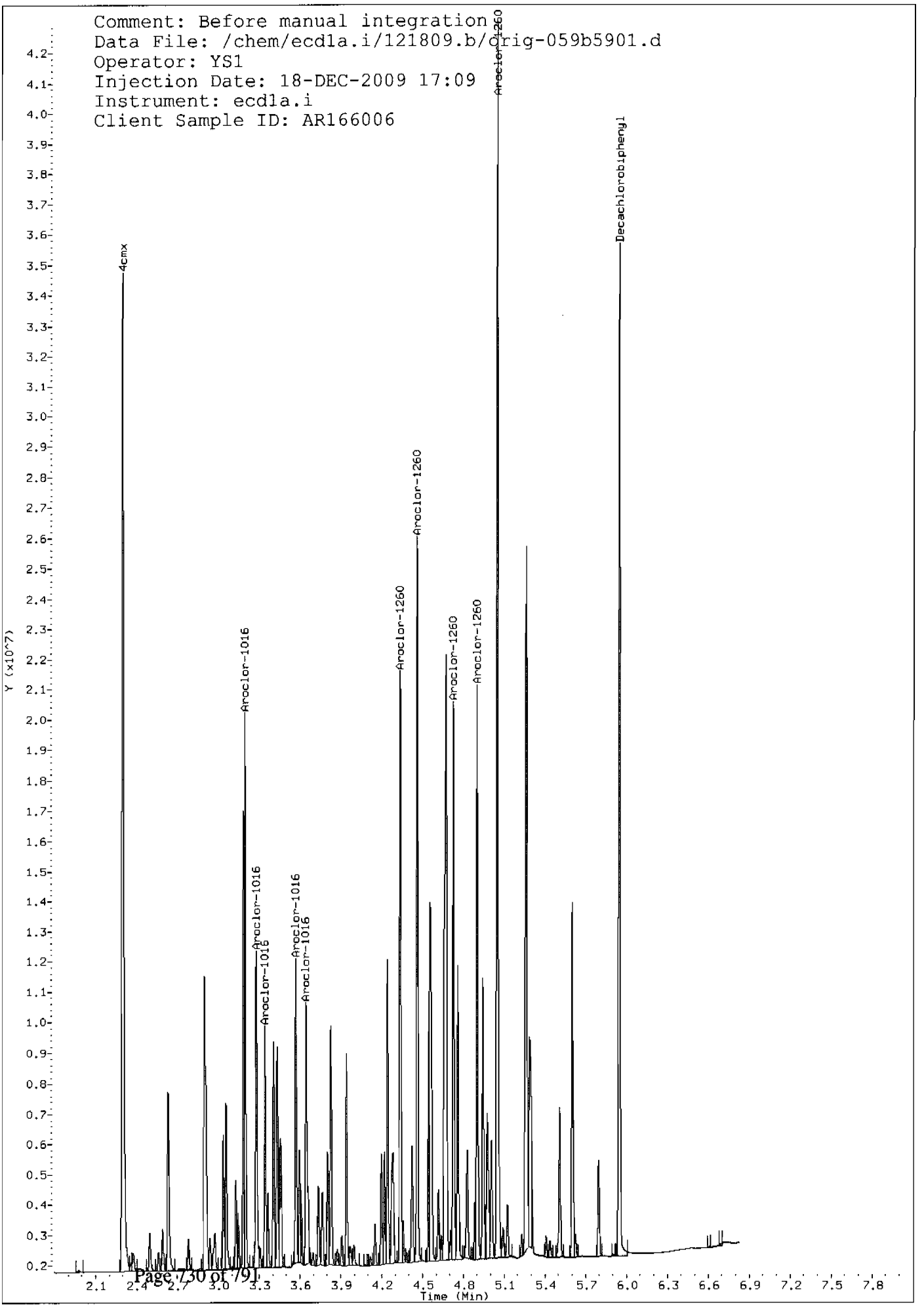
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Data File: /chem/ecd1a.i/121809.b/orig-059b5901.d
Operator: YS1
Injection Date: 18-DEC-2009 17:09
Instrument: ecd1a.i
Client Sample ID: AR166006
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
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Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-917

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 12/14/09 12/14/09

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 1.97 DCB: 5.29

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR091130-99	12/14/09	0444	1.97	5.29
02	ZZZZZ	ZZZZZ	12/14/09	0454	1.97	5.29
03	ZZZZZ	ZZZZZ	12/14/09	0505	1.97	5.29
04	ZZZZZ	ZZZZZ	12/14/09	0515	1.97	5.29
05	ZZZZZ	ZZZZZ	12/14/09	0526	1.97	5.29
06	AR123201	WAR090930-32	12/14/09	0536	1.97	5.29
07	AR122101	WAR090803-21	12/14/09	0547	1.97	5.29
08	AR126201	WAR090803-62	12/14/09	0558	1.97	5.29
09	ZZZZZ	ZZZZZ	12/14/09	0608	1.97	5.29
10	ZZZZZ	ZZZZZ	12/14/09	0619	1.97	5.29
11	ZZZZZ	ZZZZZ	12/14/09	0629	1.97	5.29
12	ZZZZZ	ZZZZZ	12/14/09	0640	1.97	5.29
13	ZZZZZ	ZZZZZ	12/14/09	0650	1.97	5.29
14	ZZZZZ	ZZZZZ	12/14/09	0701	1.97	5.29
15	ZZZZZ	ZZZZZ	12/14/09	0711	1.97	5.29
16	AR125401	WAR091214-05	12/14/09	0722	1.97	5.29
17	AR125402	WAR091214-06	12/14/09	0732	1.97	5.29
18	AR125403	WAR091214-07	12/14/09	0743	1.97	5.29
19	AR125404	WAR091214-08	12/14/09	0753	1.97	5.29
20	AR125405	IAR091027-01	12/14/09	0804	1.97	5.29
21	AR125401	WAR091102-54	12/14/09	0814	1.97	5.29
22	AR124201	WAR091214-09	12/14/09	0825	1.97	5.29
23	AR124202	WAR091214-10	12/14/09	0835	1.97	5.29
24	AR124203	WAR091214-11	12/14/09	0846	1.97	5.29
25	AR124204	WAR091214-12	12/14/09	0856	1.97	5.29
26	AR124205	IAR0911111-0	12/14/09	0907	1.97	5.29
27	AR124201	WAR091102-42	12/14/09	0917	1.97	5.29
28	AR124801	WAR091214-13	12/14/09	0928	1.97	5.29
29	AR124802	WAR091214-14	12/14/09	0938	1.97	5.29
30	AR124803	WAR091214-15	12/14/09	0949	1.97	5.29
31	AR124804	WAR091214-16	12/14/09	0959	1.97	5.29
32	AR124805	IAR091027-02	12/14/09	1010	1.97	5.29

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-917

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 12/14/09 12/14/09

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 1.97 DCB: 5.29

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	AR124801	WAR091027-48	12/14/09	1020	1.97	5.29
02	AR166001	WAR091214-01	12/14/09	1031	1.97	5.29
03	AR166002	WAR091214-02	12/14/09	1041	1.97	5.29
04	AR166003	WAR091214-03	12/14/09	1052	1.97	5.29
05	AR166004	WAR091214-04	12/14/09	1102	1.97	5.29
06	AR166005	IAR091102-01	12/14/09	1113	1.97	5.29
07	AR166001	WAR091211-60	12/14/09	1123	1.97	5.29
08	AR126801	WAR091214-17	12/14/09	1134	1.97	5.29
09	AR126802	WAR091214-18	12/14/09	1144	1.97	5.29
10	AR126803	WAR091214-19	12/14/09	1155	1.97	5.29
11	AR126804	WAR091214-20	12/14/09	1206	1.97	5.29
12	AR126805	IAR090817-02	12/14/09	1216	1.97	5.29
13	AR126801	WAR091106-68	12/14/09	1227	1.97	5.29
14	DDTANALOGSTD	WAR091020-DD	12/14/09	1237		
15	PIBLK02	WAR091130-99	12/14/09	1248	1.97	5.29
16	ZZZZZ	ZZZZZ	12/14/09	1258	1.97	5.29
17	ZZZZZ	ZZZZZ	12/14/09	1309	1.97	5.29
18	ZZZZZ	ZZZZZ	12/14/09	1319	1.97	5.29
19	ZZZZZ	ZZZZZ	12/14/09	1330	1.97	5.29
20	ZZZZZ	ZZZZZ	12/14/09	1340	1.97	5.29
21	ZZZZZ	ZZZZZ	12/14/09	1351	1.97	5.29
22	ZZZZZ	ZZZZZ	12/14/09	1403	1.97	5.29
23	ZZZZZ	ZZZZZ	12/14/09	1416	1.97	5.29
24	ZZZZZ	ZZZZZ	12/14/09	1429	1.97	5.29
25	ZZZZZ	ZZZZZ	12/14/09	1441	1.97	5.29
26	AR166002	WAR091211-60	12/14/09	1452	1.97	5.29
27	PIBLK03	WAR091130-99	12/14/09	1502	1.97	5.29
28	ZZZZZ	ZZZZZ	12/14/09	1513	1.97	5.29
29	ZZZZZ	ZZZZZ	12/14/09	1525	1.97	5.29
30	ZZZZZ	ZZZZZ	12/14/09	1538	1.97	5.29
31	ZZZZZ	ZZZZZ	12/14/09	1551	1.97	5.29
32	ZZZZZ	ZZZZZ	12/14/09	1603	1.97	5.27

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-917

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 12/14/09 12/14/09

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.30 DCB: 5.94

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR091130-99	12/14/09	0444	2.30	5.95
02	ZZZZZ	ZZZZZ	12/14/09	0454	2.30	5.94
03	ZZZZZ	ZZZZZ	12/14/09	0505	2.30	5.95
04	ZZZZZ	ZZZZZ	12/14/09	0515	2.30	5.95
05	ZZZZZ	ZZZZZ	12/14/09	0526	2.30	5.95
06	AR123201	WAR090930-32	12/14/09	0536	2.30	5.95
07	AR122101	WAR090803-21	12/14/09	0547	2.30	5.95
08	AR126201	WAR090803-62	12/14/09	0558	2.30	5.94
09	ZZZZZ	ZZZZZ	12/14/09	0608	2.30	5.94
10	ZZZZZ	ZZZZZ	12/14/09	0619	2.30	5.95
11	ZZZZZ	ZZZZZ	12/14/09	0629	2.30	5.94
12	ZZZZZ	ZZZZZ	12/14/09	0640	2.30	5.94
13	ZZZZZ	ZZZZZ	12/14/09	0650	2.30	5.95
14	ZZZZZ	ZZZZZ	12/14/09	0701	2.30	5.94
15	ZZZZZ	ZZZZZ	12/14/09	0711	2.30	5.95
16	AR125401	WAR091214-05	12/14/09	0722	2.30	5.94
17	AR125402	WAR091214-06	12/14/09	0732	2.30	5.94
18	AR125403	WAR091214-07	12/14/09	0743	2.30	5.94
19	AR125404	WAR091214-08	12/14/09	0753	2.30	5.94
20	AR125405	IAR091027-01	12/14/09	0804	2.30	5.95
21	AR125401	WAR091102-54	12/14/09	0814	2.30	5.94
22	AR124201	WAR091214-09	12/14/09	0825	2.30	5.94
23	AR124202	WAR091214-10	12/14/09	0835	2.30	5.94
24	AR124203	WAR091214-11	12/14/09	0846	2.30	5.94
25	AR124204	WAR091214-12	12/14/09	0856	2.30	5.94
26	AR124205	IAR0911111-0	12/14/09	0907	2.30	5.94
27	AR124201	WAR091102-42	12/14/09	0917	2.30	5.94
28	AR124801	WAR091214-13	12/14/09	0928	2.30	5.94
29	AR124802	WAR091214-14	12/14/09	0938	2.30	5.94
30	AR124803	WAR091214-15	12/14/09	0949	2.30	5.94
31	AR124804	WAR091214-16	12/14/09	0959	2.30	5.94
32	AR124805	IAR091027-02	12/14/09	1010	2.30	5.94

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-917

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 12/14/09 12/14/09

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.30 DCB: 5.94

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	AR124801	WAR091027-48	12/14/09	1020	2.30	5.95
02	AR166001	WAR091214-01	12/14/09	1031	2.30	5.94
03	AR166002	WAR091214-02	12/14/09	1041	2.30	5.94
04	AR166003	WAR091214-03	12/14/09	1052	2.30	5.94
05	AR166004	WAR091214-04	12/14/09	1102	2.30	5.94
06	AR166005	IAR091102-01	12/14/09	1113	2.30	5.94
07	AR166001	WAR091211-60	12/14/09	1123	2.30	5.94
08	AR126801	WAR091214-17	12/14/09	1134	2.30	5.95
09	AR126802	WAR091214-18	12/14/09	1144	2.30	5.94
10	AR126803	WAR091214-19	12/14/09	1155	2.30	5.94
11	AR126804	WAR091214-20	12/14/09	1206	2.30	5.94
12	AR126805	IAR090817-02	12/14/09	1216	2.30	5.94
13	AR126801	WAR091106-68	12/14/09	1227	2.30	5.94
14	DDTANALOGSTD	WAR091020-DD	12/14/09	1237		
15	PIBLK02	WAR091130-99	12/14/09	1248	2.30	5.94
16	ZZZZZ	ZZZZZ	12/14/09	1258	2.30	5.94
17	ZZZZZ	ZZZZZ	12/14/09	1309	2.30	5.94
18	ZZZZZ	ZZZZZ	12/14/09	1319	2.30	5.94
19	ZZZZZ	ZZZZZ	12/14/09	1330	2.30	5.94
20	ZZZZZ	ZZZZZ	12/14/09	1340	2.30	5.94
21	ZZZZZ	ZZZZZ	12/14/09	1351	2.30	5.94
22	ZZZZZ	ZZZZZ	12/14/09	1403	2.30	5.94
23	ZZZZZ	ZZZZZ	12/14/09	1416	2.30	5.94
24	ZZZZZ	ZZZZZ	12/14/09	1429	2.30	5.94
25	ZZZZZ	ZZZZZ	12/14/09	1441	2.30	5.94
26	AR166002	WAR091211-60	12/14/09	1452	2.30	5.94
27	PIBLK03	WAR091130-99	12/14/09	1502	2.30	5.94
28	ZZZZZ	ZZZZZ	12/14/09	1513	2.30	5.94
29	ZZZZZ	ZZZZZ	12/14/09	1525	2.30	5.94
30	ZZZZZ	ZZZZZ	12/14/09	1538	2.30	5.94
31	ZZZZZ	ZZZZZ	12/14/09	1551	2.30	5.94
32	ZZZZZ	ZZZZZ	12/14/09	1603	2.30	5.94

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-917

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 12/14/09 12/14/09

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 1.97 DCB: 5.29

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR091130-99	12/18/09	0604	1.97	5.29
02	ZZZZZ	ZZZZZ	12/18/09	0615	1.97	5.29
03	AR125401	WAR091216-54	12/18/09	0625	1.97	5.29
04	AR124201	WAR091102-42	12/18/09	0636	1.97	5.29
05	AR124801	WAR091027-48	12/18/09	0646	1.97	5.29
06	AR123201	WAR090930-32	12/18/09	0657	1.97	5.29
07	AR122101	WAR090803-21	12/18/09	0707	1.97	5.29
08	AR126201	WAR090803-62	12/18/09	0718	1.97	5.29
09	AR126801	WAR091106-68	12/18/09	0728	1.97	5.29
10	AR166001	WAR091211-60	12/18/09	0739	1.97	5.29
11	DDTANALOGSTD	WAR091020-DD	12/18/09	0749		
12	ZZZZZ	ZZZZZ	12/18/09	0800	1.97	5.29
13	PIBLK02	WAR091130-99	12/18/09	0810	1.97	5.29
14	ZZZZZ	ZZZZZ	12/18/09	0821	1.98	5.29
15	ZZZZZ	ZZZZZ	12/18/09	0831	1.98	5.29
16	ZZZZZ	ZZZZZ	12/18/09	0842	1.98	5.29
17	ZZZZZ	ZZZZZ	12/18/09	0853	1.97	5.29
18	ZZZZZ	ZZZZZ	12/18/09	0905	1.97	5.29
19	ZZZZZ	ZZZZZ	12/18/09	0918	1.97	5.29
20	AR166002	WAR091211-60	12/18/09	0930	1.97	5.29
21	PIBLK03	WAR091130-99	12/18/09	0941	1.97	5.29
22	ZZZZZ	ZZZZZ	12/18/09	0951	1.97	5.29
23	ZZZZZ	ZZZZZ	12/18/09	1002	1.97	5.29
24	ZZZZZ	ZZZZZ	12/18/09	1012	1.97	5.29
25	ZZZZZ	ZZZZZ	12/18/09	1023	1.97	5.29
26	ZZZZZ	ZZZZZ	12/18/09	1036	1.97	5.29
27	ZZZZZ	ZZZZZ	12/18/09	1048	1.97	5.29
28	AR166003	WAR091211-60	12/18/09	1101	1.97	5.29
29	PIBLK04	WAR091130-99	12/18/09	1111	1.97	5.29
30	ZZZZZ	ZZZZZ	12/18/09	1122	1.97	5.29
31	ZZZZZ	ZZZZZ	12/18/09	1132	1.97	5.29
32	ZZZZZ	ZZZZZ	12/18/09	1143	1.97	5.29

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-917

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 12/14/09 12/14/09

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 1.97 DCB: 5.29

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	ZZZZZ	ZZZZZ	12/18/09	1153	1.97	5.29
02	ZZZZZ	ZZZZZ	12/18/09	1206	1.97	5.29
03	ZZZZZ	ZZZZZ	12/18/09	1218	1.97	5.29
04	ZZZZZ	ZZZZZ	12/18/09	1231	1.97	5.29
05	ZZZZZ	ZZZZZ	12/18/09	1244	1.97	5.29
06	ZZZZZ	ZZZZZ	12/18/09	1256	1.97	5.29
07	AR166004	WAR091211-60	12/18/09	1309	1.97	5.29
08	PIBLK05	WAR091130-99	12/18/09	1320	1.97	5.29
09	PBLK01LCS	1201997946	12/18/09	1330	1.97	5.29
10	PBLK01LCS	1201997947	12/18/09	1341	1.97	5.29
11	ZZZZZ	ZZZZZ	12/18/09	1351	1.97	5.29
12	ZZZZZ	ZZZZZ	12/18/09	1404	1.97	5.29
13	ZZZZZ	ZZZZZ	12/18/09	1416	1.97	5.29
14	RE03-09-14213	242937001	12/18/09	1429	1.97	5.29
15	RE03-09-14213MS	1201997948	12/18/09	1442	1.97	5.29
16	RE03-09-14213MSD	1201997949	12/18/09	1454	1.97	5.29
17	RE03-09-14215	242937002	12/18/09	1507	1.97	5.29
18	RE03-09-14212	242937003	12/18/09	1520	1.97	5.29
19	AR166005	WAR091211-60	12/18/09	1532	1.97	5.29
20	PIBLK06	WAR091130-99	12/18/09	1543	1.97	5.29
21	RE03-09-14219	242937004	12/18/09	1553	1.97	5.29
22	RE03-09-14218	242937005	12/18/09	1606	1.97	5.29
23	RE03-09-14216	242937006	12/18/09	1619	1.97	5.29
24	RE03-09-14214	242937007	12/18/09	1631	1.97	5.29
25	RE03-09-14217	242937008	12/18/09	1644	1.97	5.29
26	RE03-10-2735	242937009	12/18/09	1657	1.97	5.29
27	AR166006	WAR091211-60	12/18/09	1709	1.97	5.29
28						
29						
30						
31						
32						

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-917

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 12/14/09 12/14/09

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.30 DCB: 5.95

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR091130-99	12/18/09	0604	2.30	5.95
02	ZZZZZ	ZZZZZ	12/18/09	0615	2.30	5.95
03	AR125401	WAR091216-54	12/18/09	0625	2.30	5.95
04	AR124201	WAR091102-42	12/18/09	0636	2.30	5.95
05	AR124801	WAR091027-48	12/18/09	0646	2.30	5.95
06	AR123201	WAR090930-32	12/18/09	0657	2.30	5.95
07	AR122101	WAR090803-21	12/18/09	0707	2.30	5.95
08	AR126201	WAR090803-62	12/18/09	0718	2.30	5.95
09	AR126801	WAR091106-68	12/18/09	0728	2.30	5.95
10	AR166001	WAR091211-60	12/18/09	0739	2.30	5.95
11	DDTANALOGSTD	WAR091020-DD	12/18/09	0749		
12	ZZZZZ	ZZZZZ	12/18/09	0800	2.30	5.95
13	PIBLK02	WAR091130-99	12/18/09	0810	2.30	5.95
14	ZZZZZ	ZZZZZ	12/18/09	0821	2.31	5.95
15	ZZZZZ	ZZZZZ	12/18/09	0831	2.31	5.95
16	ZZZZZ	ZZZZZ	12/18/09	0842	2.31	5.95
17	ZZZZZ	ZZZZZ	12/18/09	0853	2.30	5.95
18	ZZZZZ	ZZZZZ	12/18/09	0905	2.30	5.95
19	ZZZZZ	ZZZZZ	12/18/09	0918	2.30	5.95
20	AR166002	WAR091211-60	12/18/09	0930	2.30	5.95
21	PIBLK03	WAR091130-99	12/18/09	0941	2.30	5.95
22	ZZZZZ	ZZZZZ	12/18/09	0951	2.30	5.95
23	ZZZZZ	ZZZZZ	12/18/09	1002	2.30	5.95
24	ZZZZZ	ZZZZZ	12/18/09	1012	2.30	5.95
25	ZZZZZ	ZZZZZ	12/18/09	1023	2.30	5.95
26	ZZZZZ	ZZZZZ	12/18/09	1036	2.30	5.95
27	ZZZZZ	ZZZZZ	12/18/09	1048	2.30	5.95
28	AR166003	WAR091211-60	12/18/09	1101	2.30	5.95
29	PIBLK04	WAR091130-99	12/18/09	1111	2.30	5.95
30	ZZZZZ	ZZZZZ	12/18/09	1122	2.30	5.95
31	ZZZZZ	ZZZZZ	12/18/09	1132	2.30	5.95
32	ZZZZZ	ZZZZZ	12/18/09	1143	2.30	5.95

QC LIMITS
S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-917

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 12/14/09 12/14/09

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.30 DCB: 5.95

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	ZZZZZ	ZZZZZ	12/18/09	1153	2.30	5.95
02	ZZZZZ	ZZZZZ	12/18/09	1206	2.30	5.95
03	ZZZZZ	ZZZZZ	12/18/09	1218	2.30	5.95
04	ZZZZZ	ZZZZZ	12/18/09	1231	2.30	5.95
05	ZZZZZ	ZZZZZ	12/18/09	1244	2.30	5.95
06	ZZZZZ	ZZZZZ	12/18/09	1256	2.30	5.95
07	AR166004	WAR091211-60	12/18/09	1309	2.30	5.95
08	PIBLK05	WAR091130-99	12/18/09	1320	2.30	5.95
09	PBLK01	1201997946	12/18/09	1330	2.30	5.95
10	PBLK01LCS	1201997947	12/18/09	1341	2.30	5.95
11	ZZZZZ	ZZZZZ	12/18/09	1351	2.30	5.95
12	ZZZZZ	ZZZZZ	12/18/09	1404	2.30	5.95
13	ZZZZZ	ZZZZZ	12/18/09	1416	2.30	5.95
14	RE03-09-14213	242937001	12/18/09	1429	2.30	5.95
15	RE03-09-14213MS	1201997948	12/18/09	1442	2.30	5.95
16	RE03-09-14213MSD	1201997949	12/18/09	1454	2.30	5.95
17	RE03-09-14215	242937002	12/18/09	1507	2.30	5.95
18	RE03-09-14212	242937003	12/18/09	1520	2.30	5.95
19	AR166005	WAR091211-60	12/18/09	1532	2.30	5.95
20	PIBLK06	WAR091130-99	12/18/09	1543	2.30	5.95
21	RE03-09-14219	242937004	12/18/09	1553	2.30	5.95
22	RE03-09-14218	242937005	12/18/09	1606	2.30	5.95
23	RE03-09-14216	242937006	12/18/09	1619	2.30	5.95
24	RE03-09-14214	242937007	12/18/09	1631	2.30	5.95
25	RE03-09-14217	242937008	12/18/09	1644	2.30	5.95
26	RE03-10-2735	242937009	12/18/09	1657	2.30	5.95
27	AR166006	WAR091211-60	12/18/09	1709	2.30	5.95
28						
29						
30						
31						
32						

QC LIMITS
S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

Identification Summary

SDG Number: 10–917 **Client ID:** LCS for batch 933816

Lab Sample ID: 1201997947

Data File:	042f4201.d	**Data File:**	042b4201.d
Inst:	ECD1A.I_1	**Inst:**	ECD1A.I_2
Column:	CLP1	**Column:**	CLP2
Analyzed:	18–DEC–09 13:41	**Analyzed:**	18–DEC–09 13:41

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor–1016							2.97
Column 1	1	2.43	2.4 – 2.46	25.8		ug/kg	
	2	2.71	2.68 – 2.74	29.9		ug/kg	
	3	2.8	2.77 – 2.83	26		ug/kg	
	4	2.84	2.81 – 2.87	27.9		ug/kg	
	5	3.05	3.02 – 3.08	27.5		ug/kg	
					27.4		
Column 2	1	3.2	3.17 – 3.23	27.1		ug/kg	
	2	3.28	3.25 – 3.31	25.4		ug/kg	
	3	3.35	3.32 – 3.38	26.6		ug/kg	
	4	3.57	3.54 – 3.6	27.2		ug/kg	
	5	3.65	3.62 – 3.68	26.7		ug/kg	
					26.6		
Aroclor–1260							7.13
Column 1	1	3.77	3.74 – 3.8	30.7		ug/kg	
	2	3.94	3.91 – 3.97	32.4		ug/kg	
	3	4.17	4.14 – 4.2	32.8		ug/kg	
	4	4.31	4.28 – 4.34	33		ug/kg	
	5	4.49	4.46 – 4.52	34.3		ug/kg	
					32.7		
Column 2	1	4.34	4.31 – 4.37	28.7		ug/kg	
	2	4.46	4.43 – 4.49	30.5		ug/kg	
	3	4.73	4.7 – 4.76	29.9		ug/kg	
	4	4.9	4.87 – 4.93	30.5		ug/kg	
	5	5.05	5.02 – 5.08	32.4		ug/kg	
					30.4		

Identification Summary

SDG Number: 10–917 **Client ID:** RE03–09–14212

Lab Sample ID: 242937003

Data File:	050f5001.d	**Data File:**	050b5001.d
Inst:	ECD1A.I_1	**Inst:**	ECD1A.I_2
Column:	CLP1	**Column:**	CLP2
Analyzed:	18–DEC–09 15:20	**Analyzed:**	18–DEC–09 15:20

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor–1254							47.9
Column 1	1	3.28	3.25 – 3.31	7.01		ug/kg	
	2	3.43	3.4 – 3.46	7.11		ug/kg	
	3	3.66	3.64 – 3.7	9.58		ug/kg	
	4	3.83	3.8 – 3.86	7.03		ug/kg	
	5	3.94	3.91 – 3.97	22.4		ug/kg	
					10.6		
Column 2	1	3.41	3.38 – 3.44	2.75		ug/kg	
	2	3.83	3.8 – 3.86	6.05		ug/kg	
	3	3.95	3.92 – 3.98	8.62		ug/kg	
	4	4.22	4.19 – 4.25	8.69		ug/kg	
	5	4.36	4.33 – 4.39	6.47		ug/kg	
					6.51		
Aroclor–1260							2.22
Column 1	1	3.77	3.74 – 3.8	11.4		ug/kg	
	2	3.94	3.91 – 3.97	13.7		ug/kg	
	3	4.17	4.14 – 4.2	8.1		ug/kg	
	4	4.31	4.28 – 4.34	7.17		ug/kg	
	5	4.49	4.46 – 4.52	8.76		ug/kg	
					9.83		
Column 2	1	4.34	4.31 – 4.37	11.9		ug/kg	
	2	4.46	4.43 – 4.49	13.2		ug/kg	
	3	4.73	4.7 – 4.76	8.83		ug/kg	
	4	4.9	4.87 – 4.93	7.25		ug/kg	
	5	5.05	5.02 – 5.08	9.12		ug/kg	
					10.1		

Identification Summary

SDG Number: 10–917 **Client ID:** RE03–09–14213MS

Lab Sample ID: 1201997948

Data File: 047f4701.d **Data File:** 047b4701.d

Inst: ECD1A.I_1 **Inst:** ECD1A.I_2

Column: CLP1 **Column:** CLP2

Analyzed: 18–DEC–09 14:42 **Analyzed:** 18–DEC–09 14:42

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor–1016							1.21
Column 1	1	2.43	2.4 – 2.46	105		ug/kg	
	2	2.7	2.68 – 2.74	106		ug/kg	
	3	2.8	2.77 – 2.83	99.7		ug/kg	
	4	2.83	2.81 – 2.87	111		ug/kg	
	5	3.05	3.02 – 3.08	157		ug/kg	
					116		
Column 2	1	3.2	3.17 – 3.23	94.7		ug/kg	
	2	3.28	3.25 – 3.31	117		ug/kg	
	3	3.35	3.32 – 3.38	95.4		ug/kg	
	4	3.57	3.54 – 3.6	146		ug/kg	
	5	3.65	3.62 – 3.68	132		ug/kg	
					117		
Aroclor–1242							6.85
Column 1	1	2.43	2.4 – 2.46	125		ug/kg	
	2	2.72	2.69 – 2.75	126		ug/kg	
	3	2.83	2.81 – 2.87	133		ug/kg	
	4	3.05	3.02 – 3.08	188		ug/kg	
	5	3.3	3.27 – 3.33	240		ug/kg	
					162		
Column 2	1	3.2	3.17 – 3.23	113		ug/kg	
	2	3.28	3.25 – 3.31	136		ug/kg	
	3	3.57	3.54 – 3.6	173		ug/kg	
	4	3.81	3.78 – 3.84	175		ug/kg	
	5	3.83	3.81 – 3.87	273		ug/kg	
					174		

Identification Summary

SDG Number: 10–917 **Client ID:** RE03–09–14213MS

Lab Sample ID: 1201997948

Data File:	047f4701.d	**Data File:**	047b4701.d
Inst:	ECD1A.I_1	**Inst:**	ECD1A.I_2
Column:	CLP1	**Column:**	CLP2
Analyzed:	18–DEC–09 14:42	**Analyzed:**	18–DEC–09 14:42

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor–1254							2
Column 1	1	3.27	3.25 – 3.31	152		ug/kg	
	2	3.43	3.4 – 3.46	157		ug/kg	
	3	3.66	3.64 – 3.7	163		ug/kg	
	4	3.83	3.8 – 3.86	169		ug/kg	
	5	3.94	3.91 – 3.97	199		ug/kg	
					168		
Column 2	1	3.41	3.38 – 3.44	171		ug/kg	
	2	3.83	3.8 – 3.86	158		ug/kg	
	3	3.95	3.92 – 3.98	224		ug/kg	
	4	4.22	4.19 – 4.25	151		ug/kg	
	5	4.36	4.33 – 4.39	153		ug/kg	
					171		
Aroclor–1260							3.99
Column 1	1	3.77	3.74 – 3.8	101		ug/kg	
	2	3.94	3.91 – 3.97	122		ug/kg	
	3	4.16	4.14 – 4.2	50.2		ug/kg	
	4	4.31	4.28 – 4.34	39.6		ug/kg	
	5	4.49	4.46 – 4.52	46.2		ug/kg	
					71.8		
Column 2	1	4.34	4.31 – 4.37	103		ug/kg	
	2	4.46	4.43 – 4.49	99.3		ug/kg	
	3	4.73	4.7 – 4.76	54.3		ug/kg	
	4	4.9	4.87 – 4.93	44.9		ug/kg	
	5	5.05	5.02 – 5.08	43.8		ug/kg	
					69		

Identification Summary

SDG Number: 10-917 **Client ID:** RE03-09-14213MSD

Lab Sample ID: 1201997949

Data File:	048f4801.d	**Data File:**	048h4801.d
Inst:	ECD1A.I_1	**Inst:**	ECD1A.I_2
Column:	CLP1	**Column:**	CLP2
Analyzed:	18-DEC-09 14:54	**Analyzed:**	18-DEC-09 14:54

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor-1016							3.04
Column 1	1	2.43	2.4 – 2.46	24.1		ug/kg	
	2	2.71	2.68 – 2.74	28.9		ug/kg	
	3	2.8	2.77 – 2.83	25.1		ug/kg	
	4	2.84	2.81 – 2.87	26.8		ug/kg	
	5	3.05	3.02 – 3.08	27		ug/kg	
					26.4		
Column 2	1	3.2	3.17 – 3.23	26.7		ug/kg	
	2	3.28	3.25 – 3.31	24.3		ug/kg	
	3	3.35	3.32 – 3.38	25.5		ug/kg	
	4	3.57	3.54 – 3.6	25.5		ug/kg	
	5	3.65	3.62 – 3.68	26.1		ug/kg	
					25.6		
Aroclor-1260							5.89
Column 1	1	3.77	3.74 – 3.8	31.1		ug/kg	
	2	3.94	3.91 – 3.97	32.8		ug/kg	
	3	4.17	4.14 – 4.2	32.8		ug/kg	
	4	4.31	4.28 – 4.34	32		ug/kg	
	5	4.49	4.46 – 4.52	33.9		ug/kg	
					32.5		
Column 2	1	4.34	4.31 – 4.37	29.3		ug/kg	
	2	4.46	4.43 – 4.49	31.1		ug/kg	
	3	4.73	4.7 – 4.76	30.4		ug/kg	
	4	4.9	4.87 – 4.93	30.4		ug/kg	
	5	5.05	5.02 – 5.08	32.1		ug/kg	
					30.6		

Identification Summary

SDG Number: 10–917 **Client ID:** RE03–09–14214

Lab Sample ID: 242937007

Data File:	056f5601.d	**Data File:**	056b5601.d
Inst:	ECD1A.I_1	**Inst:**	ECD1A.I_2
Column:	CLP1	**Column:**	CLP2
Analyzed:	18–DEC–09 16:31	**Analyzed:**	18–DEC–09 16:31

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor–1254							11.1
Column 1	1	3.27	3.25 – 3.31	2.06		ug/kg	
	2	3.43	3.4 – 3.46	1.97		ug/kg	
	3	3.66	3.64 – 3.7	2.01		ug/kg	
	4	3.83	3.8 – 3.86	1.47		ug/kg	
	5	3.94	3.91 – 3.97	2.93		ug/kg	
					2.09		
Column 2	1	3.41	3.38 – 3.44	1.51		ug/kg	
	2	3.83	3.8 – 3.86	1.85		ug/kg	
	3	3.95	3.92 – 3.98	2.52		ug/kg	
	4	4.22	4.19 – 4.25	2.03		ug/kg	
	5	4.36	4.33 – 4.39	1.42		ug/kg	
					1.87		

QUALITY CONTROL DATA

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–917**			**Matrix:**	**SOIL**
Lab Sample ID:	**1201997946**				
Client Sample:	**QC for batch 933816**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 933816**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**933817**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**12/18/2009 13:30**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**12/17/2009 10:38**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**041f4101–1.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	041b4101–1.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	3.33	ug/kg	1.11	3.33	1
11104–28–2	Aroclor–1221	U	3.33	ug/kg	1.11	3.33	1
11141–16–5	Aroclor–1232	U	3.33	ug/kg	1.11	3.33	1
53469–21–9	Aroclor–1242	U	3.33	ug/kg	1.11	3.33	1
12672–29–6	Aroclor–1248	U	3.33	ug/kg	1.11	3.33	1
11097–69–1	Aroclor–1254	U	3.33	ug/kg	1.11	3.33	1
11096–82–5	Aroclor–1260	U	3.33	ug/kg	1.11	3.33	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/121809.b/041f4101-2.d
Lab Smp Id: 1201997946 Client Smp ID: PBLK01LCS
Inj Date : 18-DEC-2009 13:30
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1201997946|1|
Misc Info : |ECD82P_1S|933817|SVAF|QC A|SOIL|MB|||
Comment :
Method : /chem/ecd1a.i/121809.b/ECD1-F-8082-121409.m
Meth Date : 18-Dec-2009 17:26 yip00818 Quant Type: ESTD
Cal Date : 14-DEC-2009 11:34 Cal File: 040f4001.d
Als bottle: 41 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-917.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.973	1.971	0.002	54377300	144.748	4.8	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.289	5.290	-0.001	54470624	171.539	5.7	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/121809.b/041f4101-2.d

Date : 18-DEC-2009 13:30

Client ID: PBLK01LCS

Sample Info: |1201997946|1|

Volume Injected (uL): 1.0

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

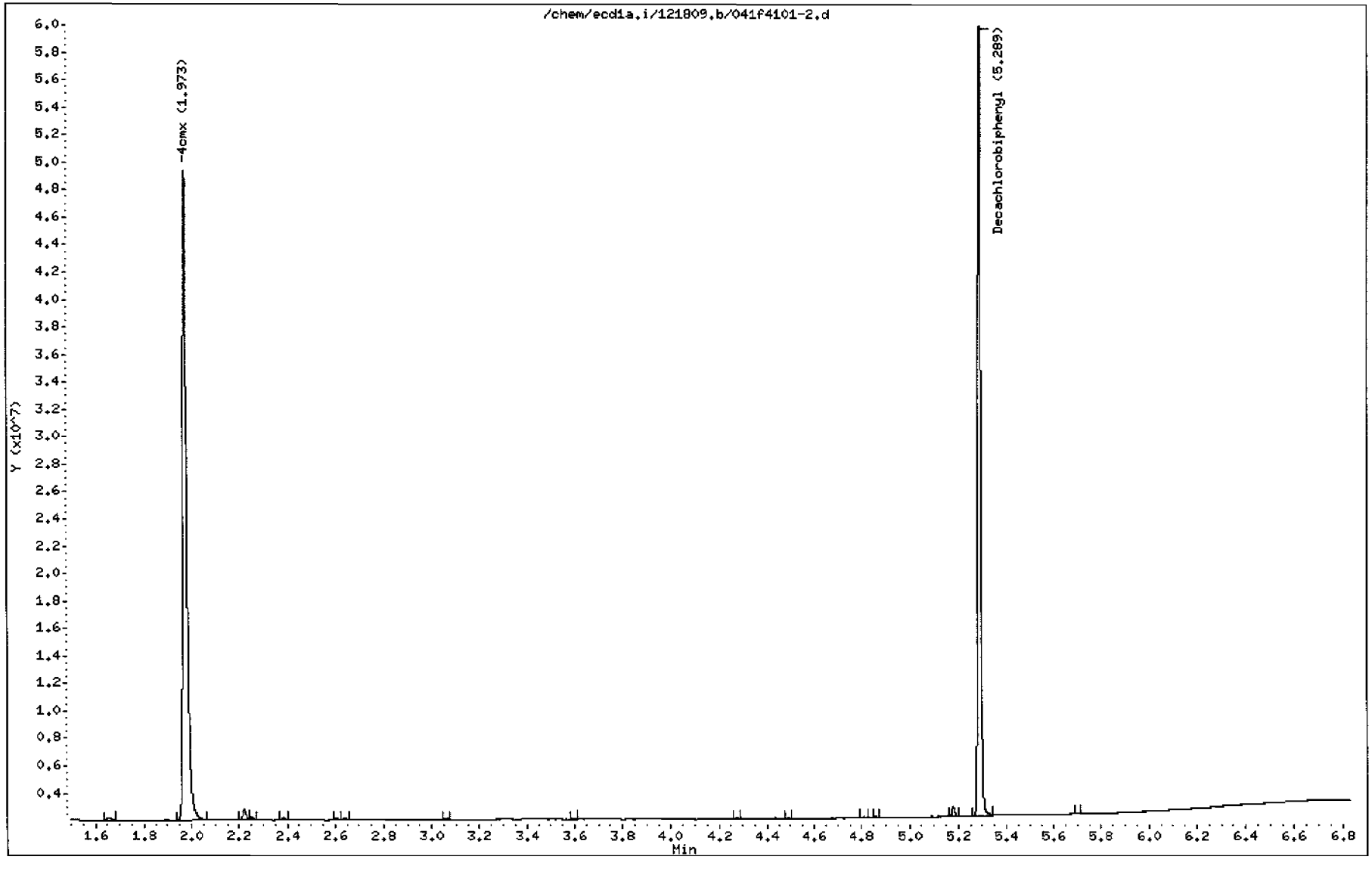

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/121809.b/041b4101-2.d
Lab Smp Id: 1201997946 Client Smp ID: PBLK01
Inj Date : 18-DEC-2009 13:30
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1201997946|1|
Misc Info : |ECD82P_1S|933817|SVAF|QC A|SOIL|MB|||
Comment :
Method : /chem/ecd1a.i/121809.b/ECD1-B-8082-121409.m
Meth Date : 18-Dec-2009 17:26 yip00818 Quant Type: ESTD
Cal Date : 14-DEC-2009 12:16 Cal File: 044b4401.d
Als bottle: 41 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-917.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.303	2.302	0.001	41397898	137.981	4.6	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.951	5.951	0.000	39210822	168.123	5.6	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/121809.b/041b4101-2.d
Date : 18-DEC-2009 13:30
Client ID: PBLK01
Sample Info: |1201997946|1|
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1
Column diameter: 0.25

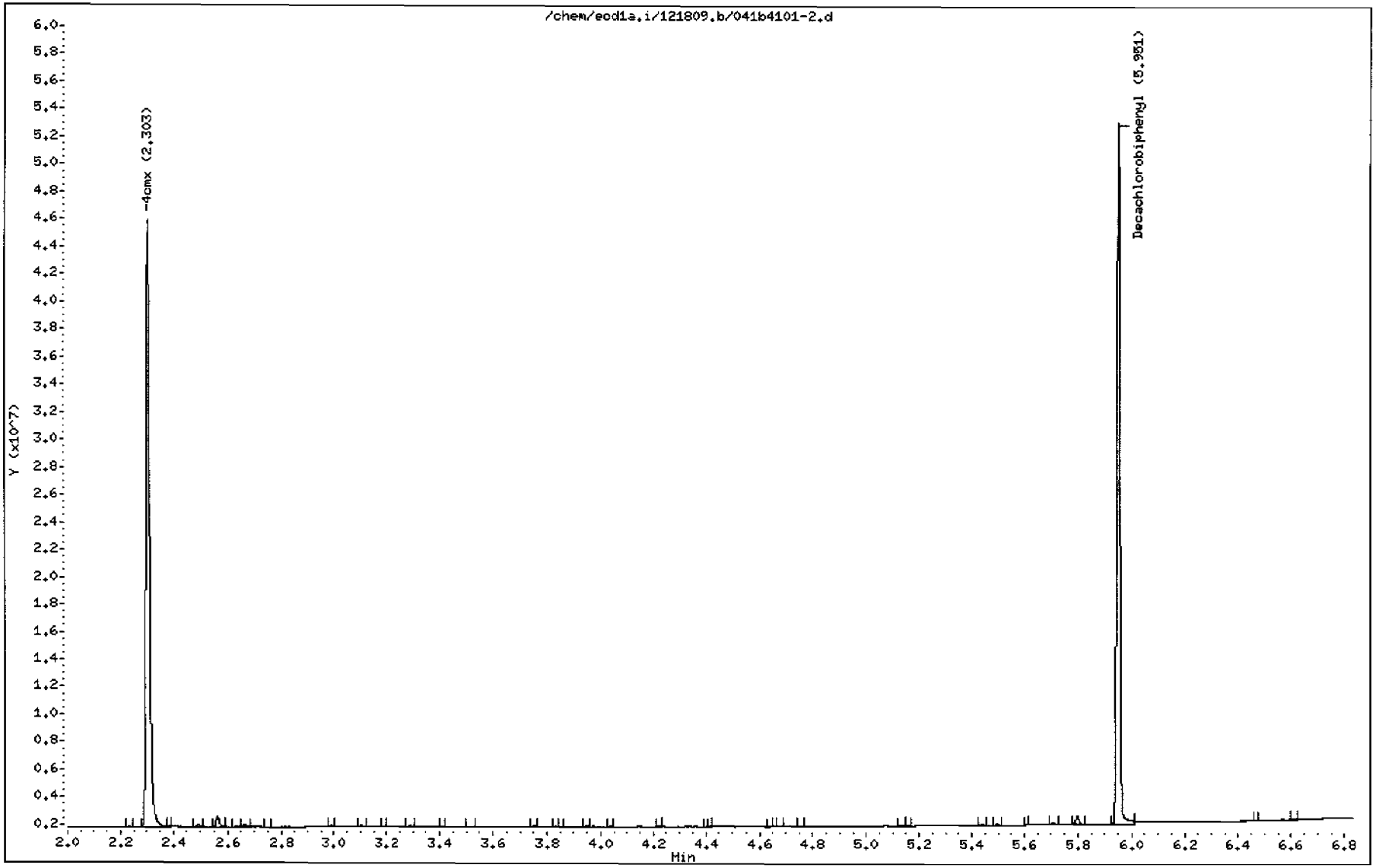

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–917**			**Matrix:**	**SOIL**
Lab Sample ID:	**1201997947**				
Client Sample:	**QC for batch 933816**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 933816**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**933817**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**12/18/2009 13:41**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**12/17/2009 10:38**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**042f4201–1.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	042b4201–1.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016		27.4	ug/kg	1.11	3.33	1
11104–28–2	Aroclor–1221	U	3.33	ug/kg	1.11	3.33	1
11141–16–5	Aroclor–1232	U	3.33	ug/kg	1.11	3.33	1
53469–21–9	Aroclor–1242	U	3.33	ug/kg	1.11	3.33	1
12672–29–6	Aroclor–1248	U	3.33	ug/kg	1.11	3.33	1
11097–69–1	Aroclor–1254	U	3.33	ug/kg	1.11	3.33	1
11096–82–5	Aroclor–1260		32.7	ug/kg	1.11	3.33	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/121809.b/042f4201-2.d
Lab Smp Id: 1201997947 Client Smp ID: PBLK01LCS
Inj Date : 18-DEC-2009 13:41
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1201997947|1|
Misc Info : |ECD82P_1S|933817|SVAF|QC A|SOIL|LCS|||
Comment :
Method : /chem/ecd1a.i/121809.b/ECD1-F-8082-121409.m
Meth Date : 18-Dec-2009 17:26 yip00818 Quant Type: ESTD
Cal Date : 14-DEC-2009 11:34 Cal File: 040f4001.d
Als bottle: 42 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-917.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.972	1.971	0.001	56643235	150.779	5.0	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.288	5.290	-0.002	53873589	169.659	5.6	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.428	2.428	0.000	10724141	773.364	25.8	80.00- 120.00	100.00
2.706	2.706	0.000	9053808	896.618	29.9	62.38- 102.38	84.42
2.798	2.799	-0.001	9160163	779.123	26.0	66.57- 106.57	85.42
2.836	2.836	0.000	5518827	836.311	27.9	32.56- 72.56	51.46

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
1 Aroclor-1016 (continued)							
3.047	3.048	-0.001	7161289	825.661	27.5	47.14- 87.14	66.78
			Average of Peak Concentrations =		27.4		
7 Aroclor-1260					CAS #: 11096-82-5		
3.773	3.774	-0.001	15454393	922.532	30.8	80.00- 120.00	100.00
3.936	3.937	-0.001	24087177	973.510	32.4	134.60- 174.60	155.86
4.167	4.167	0.000	14442452	983.326	32.8	72.50- 112.50	93.45
4.310	4.311	-0.001	15032858	990.011	33.0	76.61- 116.61	97.27
4.489	4.490	-0.001	35387836	1030.20	34.3	204.05- 244.05	228.98
			Average of Peak Concentrations =		32.7		

Data File: /chem/ecd1a.i/121809.b/042f4201-2.d
Date : 18-DEC-2009 13:41
Client ID: PBLK01LCS
Sample Info: |1201997947|1|
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1
Column diameter: 0.25

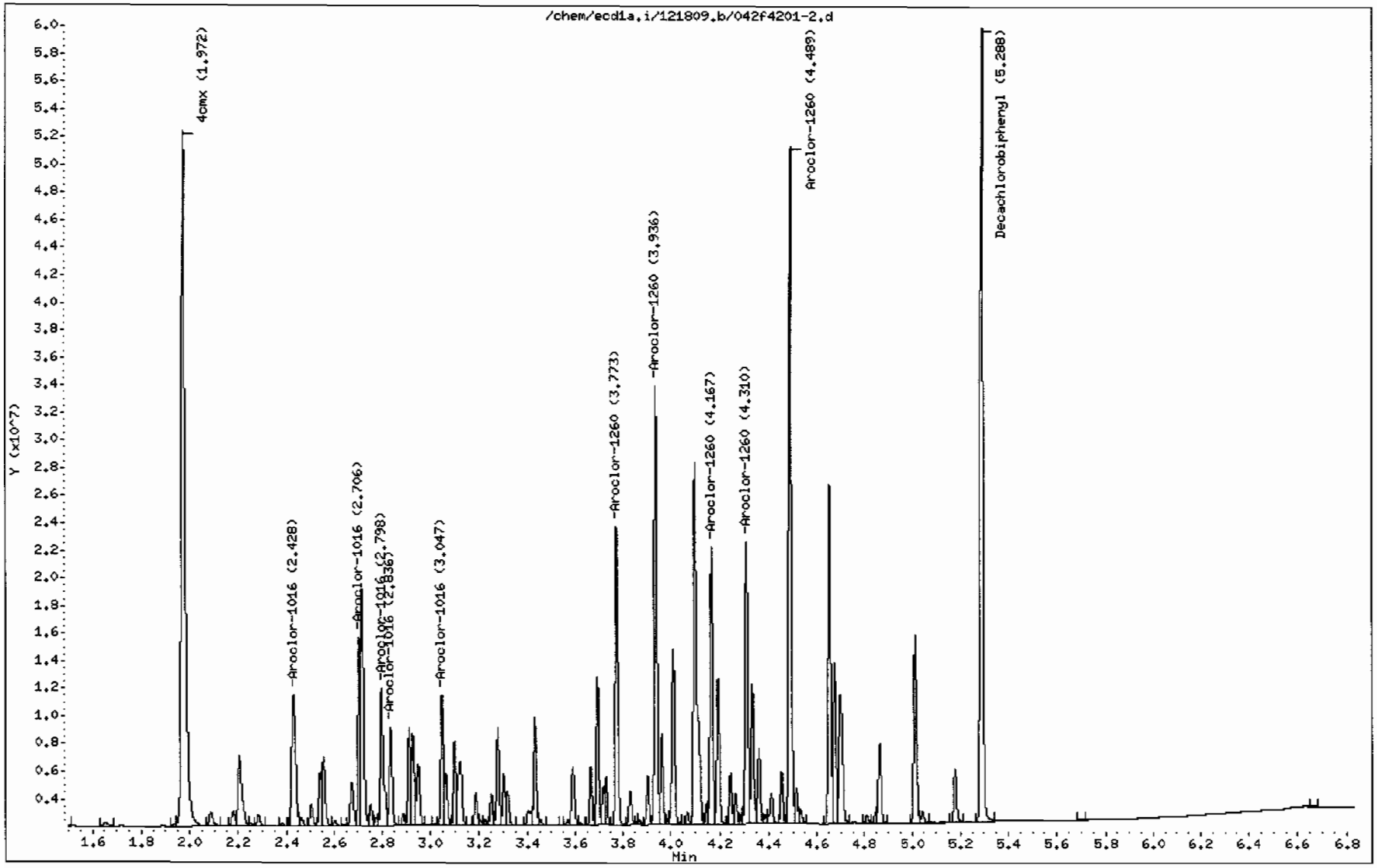

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/121809.b/042b4201-2.d
Lab Smp Id: 1201997947 Client Smp ID: PBLK01LCS
Inj Date : 18-DEC-2009 13:41
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1201997947|1|
Misc Info : |ECD82P_1S|933817|SVAF|QC A|SOIL|LCS|||
Comment :
Method : /chem/ecd1a.i/121809.b/ECD1-B-8082-121409.m
Meth Date : 18-Dec-2009 17:26 yip00818 Quant Type: ESTD
Cal Date : 14-DEC-2009 12:16 Cal File: 044b4401.d
Als bottle: 42 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-917.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.302	2.302	0.000	42803632	142.667	4.8	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.949	5.951	-0.002	38527443	165.193	5.5	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.199	3.201	-0.002	10265973	814.014	27.1	80.00- 120.00	100.00
3.283	3.283	0.000	7097471	760.888	25.4	46.58- 86.58	69.14
3.346	3.347	-0.001	4322794	798.843	26.6	21.60- 61.60	42.11
3.573	3.574	-0.001	5756722	816.339	27.2	32.52- 72.52	56.08

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
1 Aroclor-1016 (continued)							
3.648	3.650	-0.002	5245115	800.691	26.7	39.41- 79.41	51.09
Average of Peak Concentrations =					26.6		
7 Aroclor-1260					CAS #: 11096-82-5		
4.339	4.341	-0.002	11797277	862.372	28.7	80.00- 120.00	100.00
4.464	4.465	-0.001	14645591	913.692	30.4	103.47- 143.47	124.14
4.730	4.731	-0.001	11282229	897.985	29.9	75.31- 115.31	95.63
4.904	4.905	-0.001	11721647	915.033	30.5	78.17- 118.17	99.36
5.051	5.051	0.000	27144377	972.998	32.4	203.54- 243.54	230.09
Average of Peak Concentrations =					30.4		

Data File: /chem/ecd1a.i/121809.b/042b4201-2.d
Date : 18-DEC-2009 13:41
Client ID: PBLK01LCS
Sample Info: |1201997947|1|
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1
Column diameter: 0.25

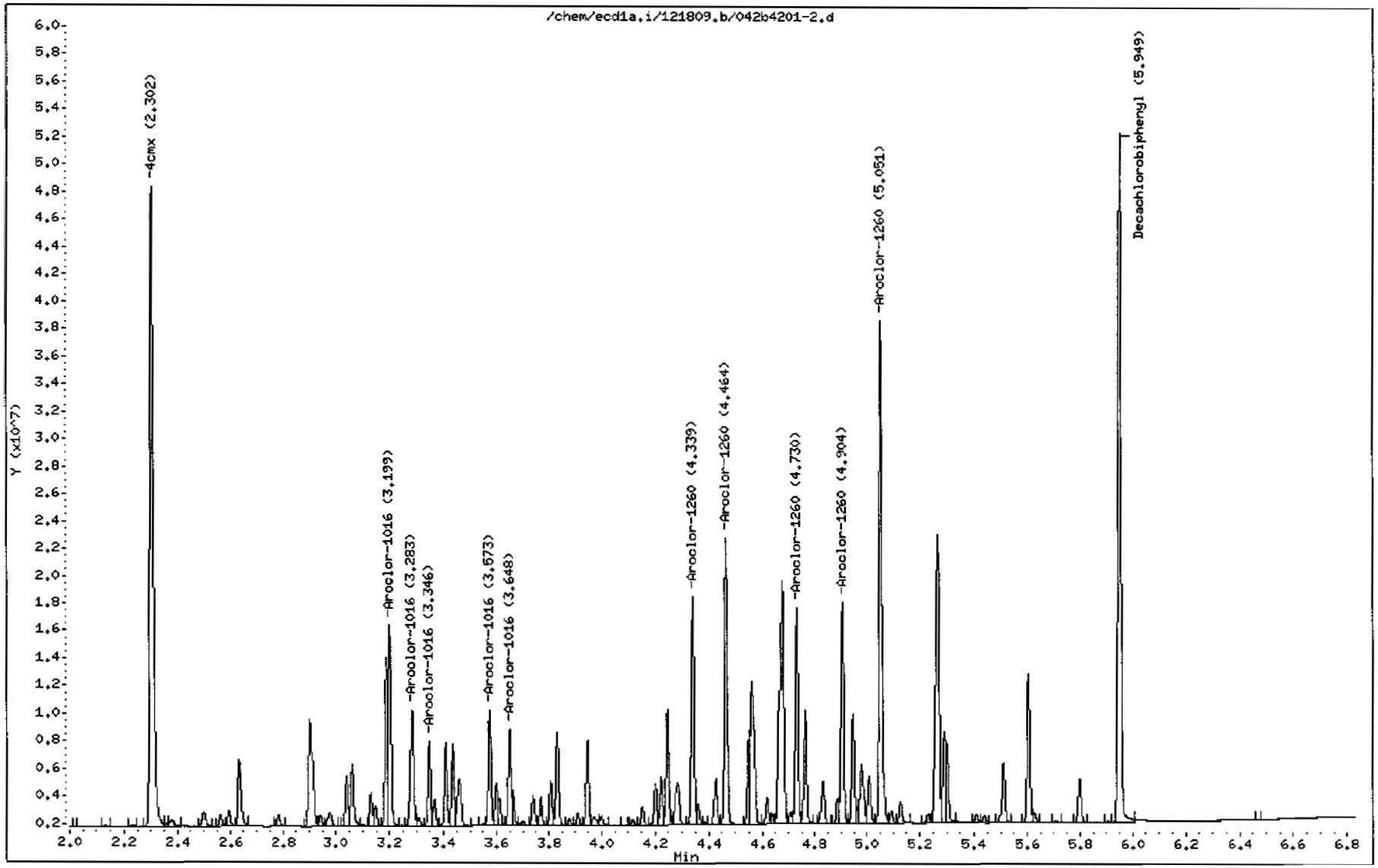

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10-917**	**Date Collected:**	**12/11/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**1201997948**	**Date Received:**	**12/15/2009 08:45**	**%Moisture:**	**12.8**
Client Sample:	**QC for batch 933816**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**RE03-09-14213MS**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**933817**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**12/18/2009 14:42**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**12/17/2009 10:38**	**Aliquot:**	**30.01 g**	**Final Volume:**	**1 mL**
Data File:	**047f4701.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	047b4701.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016		116	ug/kg	1.27	3.82	1
11104-28-2	Aroclor-1221	U	3.82	ug/kg	1.27	3.82	1
11141-16-5	Aroclor-1232	U	3.82	ug/kg	1.27	3.82	1
53469-21-9	Aroclor-1242		162	ug/kg	1.27	3.82	1
12672-29-6	Aroclor-1248	U	3.82	ug/kg	1.27	3.82	1
11097-69-1	Aroclor-1254		168	ug/kg	1.27	3.82	1
11096-82-5	Aroclor-1260		71.8	ug/kg	1.27	3.82	1

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RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/121809.b/047f4701.d
Lab Smp Id: 1201997948 Client Smp ID: RE03-09-14213MS
Inj Date : 18-DEC-2009 14:42
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1201997948|1|
Misc Info : |ECD82P_1S|933817|SVAF|QC A|SOIL|MS|||
Comment :
Method : /chem/ecd1a.i/121809.b/ECD1-F-8082-121409.m
Meth Date : 18-Dec-2009 17:26 yip00818 Quant Type: ESTD
Cal Date : 14-DEC-2009 11:34 Cal File: 040f4001.d
Als bottle: 47 QC Sample: MS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-917.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.01000	Weight of sample extracted (g)
M	12.82530	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (uq/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.971	1.971	0.000	39960113	106.370	4.1	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.287	5.290	-0.003	39785355	125.292	4.8	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.429	2.428	0.001	37998709	2740.25	105	80.00- 120.00	100.00(R)
2.704	2.706	-0.002	27889642	2761.97	106	62.38- 102.38	73.40
2.797	2.799	-0.002	30652190	2607.14	99.6	66.57- 106.57	80.67
2.834	2.836	-0.002	19171366	2905.19	111	32.56- 72.56	50.45

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
1 Aroclor-1016 (continued)							
3.045	3.048	-0.003	35573491	4101.45	157	47.14- 87.14	93.62
Average of Peak Concentrations =					116		
4 Aroclor-1242					CAS #: 53469-21-9		
2.429	2.429	0.000	37998709	3258.94	124	80.00- 120.00	100.00(A)
2.717	2.718	-0.001	44424085	3302.17	126	107.75- 147.75	116.91
2.834	2.836	-0.002	19171366	3481.95	133	30.64- 70.64	50.45
3.045	3.048	-0.003	35573491	4910.17	188	46.26- 86.26	93.62
3.299	3.301	-0.002	42730691	6274.00	240	46.06- 86.06	112.45
Average of Peak Concentrations =					162		
6 Aroclor-1254					CAS #: 11097-69-1		
3.274	3.277	-0.003	49637618	3975.63	152	80.00- 120.00	100.00(A)
3.429	3.432	-0.003	68886631	4119.54	157	119.49- 159.49	138.78
3.663	3.666	-0.003	88337756	4264.66	163	162.57- 202.57	177.97
3.827	3.830	-0.003	69242499	4411.98	169	120.92- 160.92	139.50
3.935	3.939	-0.004	79184725	5218.97	199	112.86- 152.86	159.53
Average of Peak Concentrations =					168		
7 Aroclor-1260					CAS #: 11096-82-5		
3.772	3.774	-0.002	44109918	2633.09	101	80.00- 120.00	100.00(R)
3.935	3.937	-0.002	79184725	3200.34	122	134.60- 174.60	179.52
4.164	4.167	-0.003	19298479	1313.95	50.2	72.50- 112.50	43.75
4.308	4.311	-0.003	15750584	1037.28	39.6	76.61- 116.61	35.71
4.487	4.490	-0.003	41532125	1209.07	46.2	204.05- 244.05	94.16
Average of Peak Concentrations =					71.8		

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
R - Spike/Surrogate failed recovery limits.

Data File: /chem/ecd1a.i/121809.b/047f4701.d
Date : 18-DEC-2009 14:42
Client ID: RE03-09-14213MS
Sample Info: |1201997948|1|
Volume Injected (uL): 1.0
Column phase: CLP1

Page 1

Instrument: ecd1a.i

Operator: YS1
Column diameter: 0.25

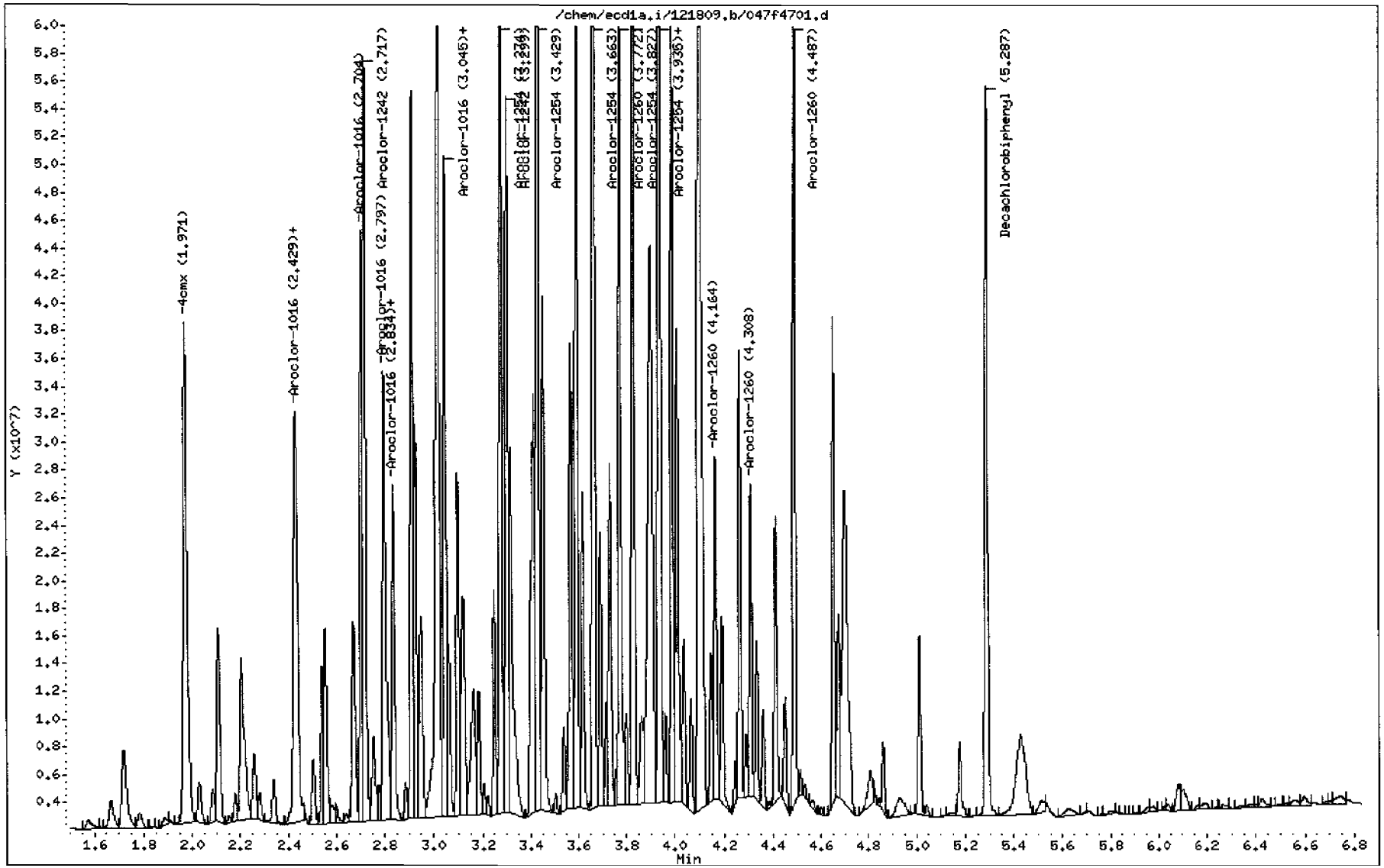

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/121809.b/047b4701.d
Lab Smp Id: 1201997948 Client Smp ID: RE03-09-14213MS
Inj Date : 18-DEC-2009 14:42
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1201997948|1|
Misc Info : |ECD82P_1S|933817|SVAF|QC A|SOIL|MS|||
Comment :
Method : /chem/ecd1a.i/121809.b/ECD1-B-8082-121409.m
Meth Date : 18-Dec-2009 17:26 yip00818 Quant Type: ESTD
Cal Date : 14-DEC-2009 12:16 Cal File: 044b4401.d
Als bottle: 47 QC Sample: MS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-917.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.01000	Weight of sample extracted (g)
M	12.82530	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.301	2.302	-0.001	31533915	105.104	4.0	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.949	5.951	-0.002	28355277	121.578	4.6	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.199	3.201	-0.002	31250785	2477.95	94.7	80.00- 120.00	100.00(RM)
3.282	3.283	-0.001	28611158	3067.28	117	46.58- 86.58	91.55
3.346	3.347	-0.001	13512134	2497.01	95.4	21.60- 61.60	43.24
3.573	3.574	-0.001	26919477	3817.35	146	32.52- 72.52	86.14

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
1 Aroclor-1016 (continued)							
3.648	3.650	-0.002	22540304	3440.88	132	39.41- 79.41	72.13
			Average of Peak Concentrations =		117		
4 Aroclor-1242					CAS #: 53469-21-9		
3.199	3.200	-0.001	31250785	2951.37	113	80.00- 120.00	100.00(AM)
3.282	3.284	-0.002	28611158	3552.59	136	47.02- 87.02	91.55
3.573	3.575	-0.002	26919477	4515.02	172	35.33- 75.33	86.14
3.806	3.808	-0.002	27667632	4568.03	175	37.24- 77.24	88.53
3.830	3.835	-0.005	47894496	7146.98	273	44.23- 84.23	153.26
			Average of Peak Concentrations =		174		
6 Aroclor-1254					CAS #: 11097-69-1		
3.408	3.409	-0.001	28844581	4482.27	171	80.00- 120.00	100.00(AM)
3.830	3.832	-0.002	47894496	4143.37	158	160.98- 200.98	166.04
3.947	3.948	-0.001	72848884	5860.13	224	182.99- 222.99	252.56
4.223	4.225	-0.002	66484894	3938.66	150	266.09- 306.09	230.49
4.358	4.361	-0.003	49865761	4009.96	153	192.87- 232.87	172.88
			Average of Peak Concentrations =		171		
7 Aroclor-1260					CAS #: 11096-82-5		
4.338	4.341	-0.003	36747769	2686.24	103	80.00- 120.00	100.00(RM)
4.463	4.465	-0.002	41652559	2598.57	99.3	103.47- 143.47	113.35
4.730	4.731	-0.001	17845504	1420.38	54.3	75.31- 115.31	48.56
4.903	4.905	-0.002	15041375	1174.18	44.9	78.17- 118.17	40.93
5.050	5.051	-0.001	31988107	1146.62	43.8	203.54- 243.54	87.05
			Average of Peak Concentrations =		69.1		

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Data File: /chem/ecd1a.i/121809.b/047b4701.d
Date : 18-DEC-2009 14:42
Client ID: RE03-09-14213MS
Sample Info: |1201997948:1|
Volume Injected (uL): 1.0
Column phase: CLP2

Page 1

Instrument: ecd1a.i

Operator: YS1
Column diameter: 0.25

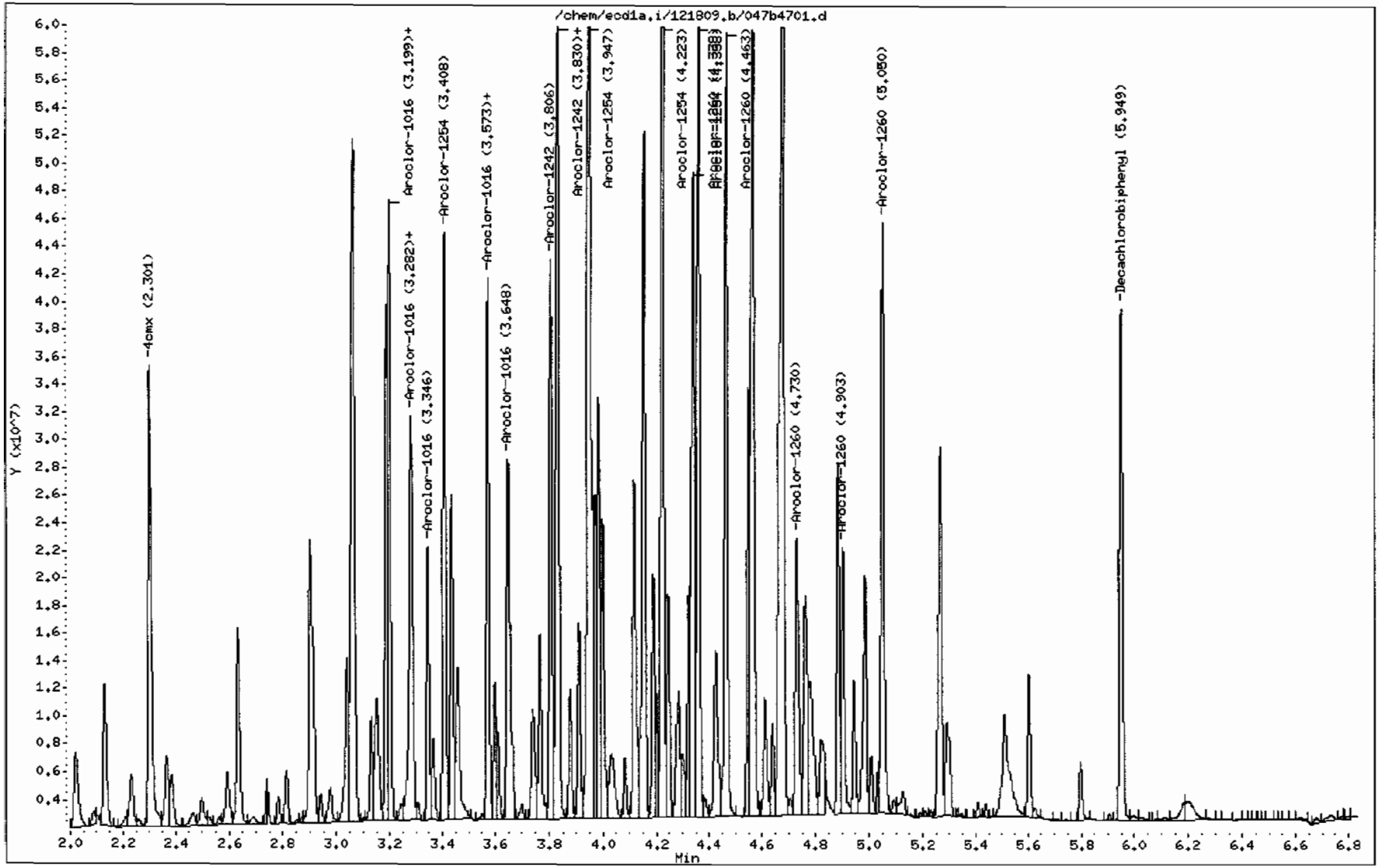

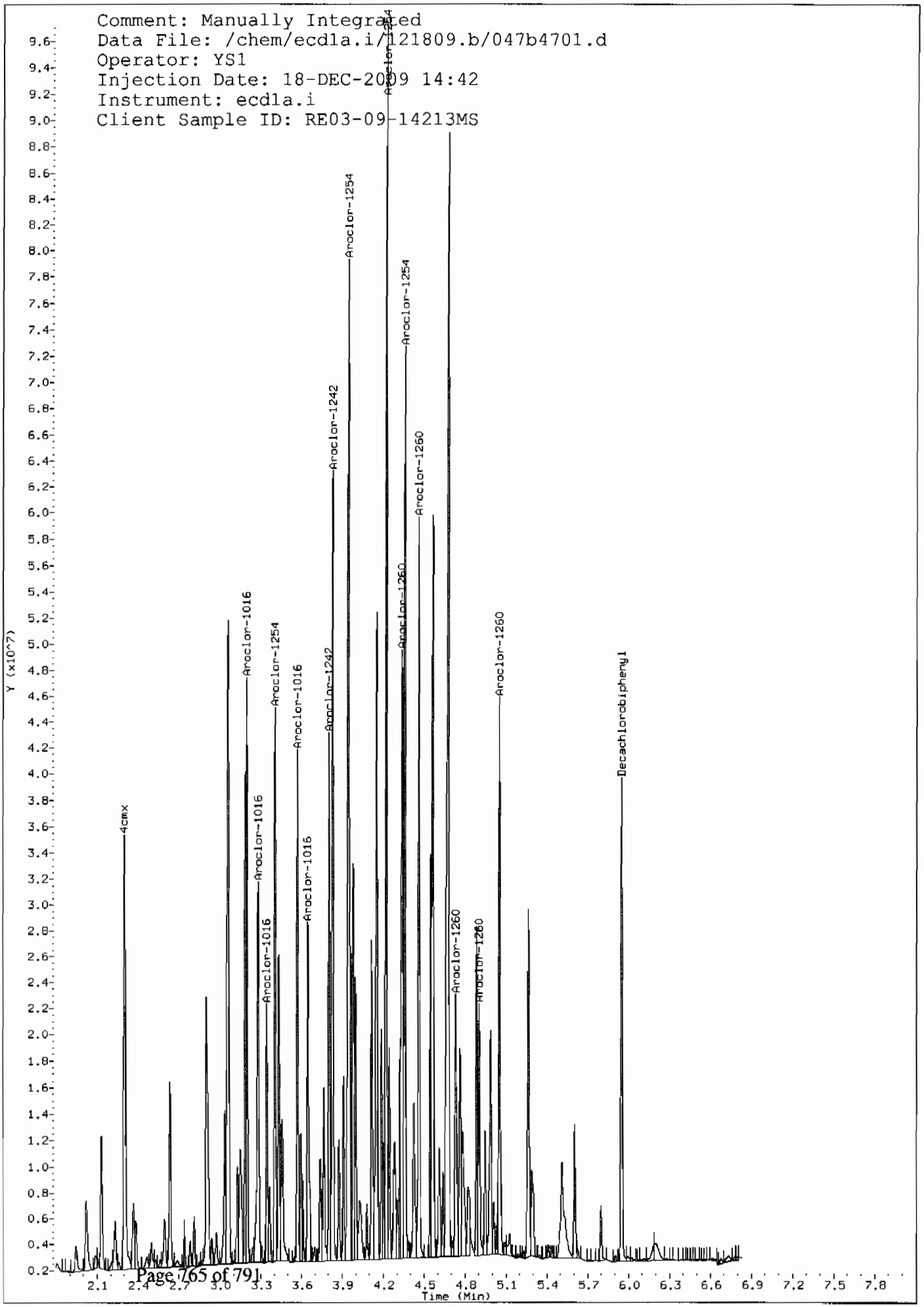
Comment: Manually Integrated
Data File: /chem/ecd1a.i/121809.b/047b4701.d
Operator: YS1
Injection Date: 18-DEC-2009 14:42
Instrument: ecd1a.i
Client Sample ID: RE03-09-14213MS
Y (x10^7)
Time (Min)
4cmx
Aroclor-1016
Aroclor-1254
Aroclor-1242
Aroclor-1260
Decachlorobiphenyl

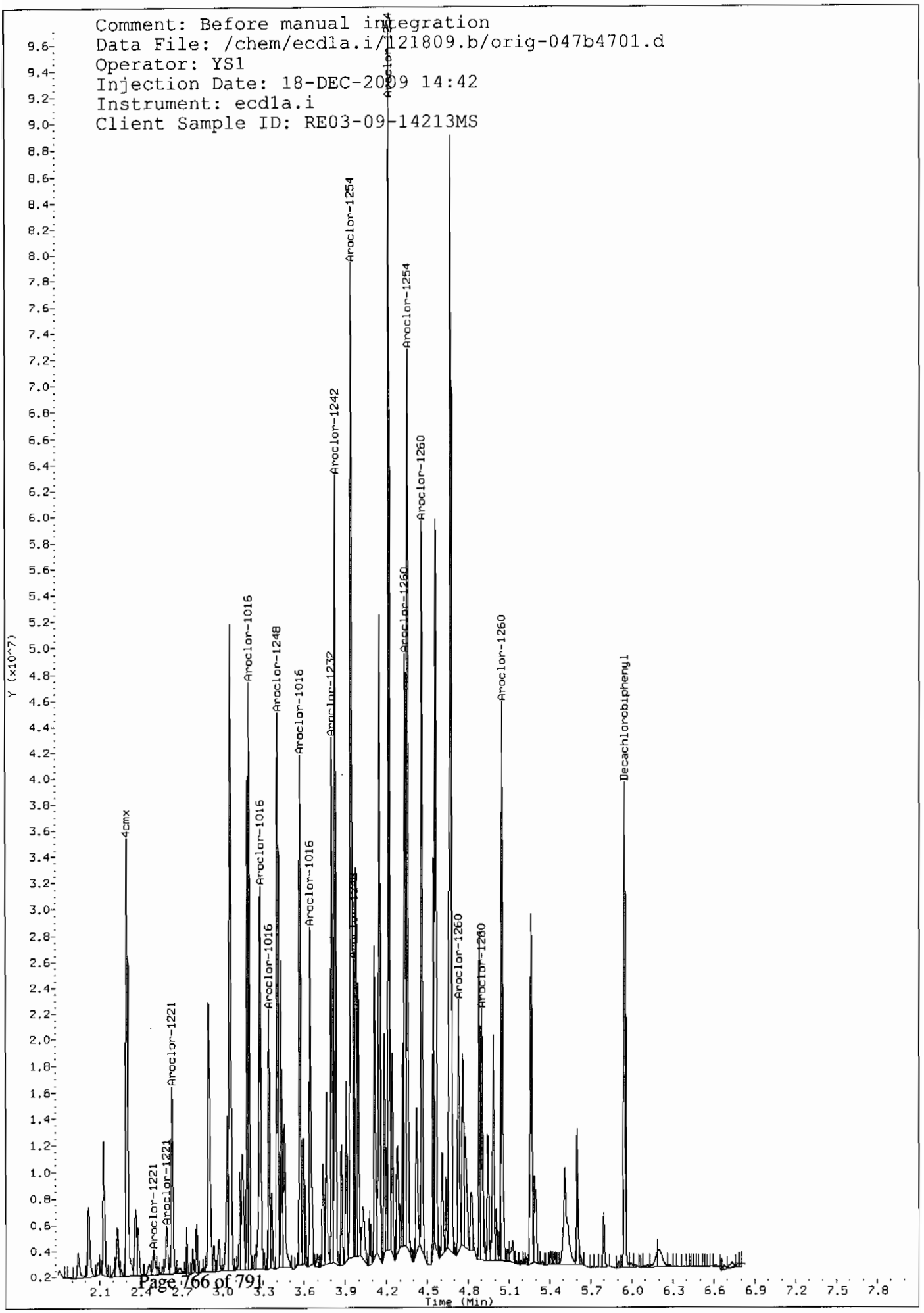
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Operator: YS1
Injection Date: 18-DEC-2009 14:42
Instrument: ecd1a.i
Client Sample ID: RE03-09-14213MS
Y (x10^7)
Time (Min)
4cmx
Aroclor-1221
Aroclor-1221
Aroclor-1221
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1248
Aroclor-1016
Aroclor-1016
Aroclor-1232
Aroclor-1242
Aroclor-1254
Aroclor-1254
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1280
Decachlorobiphenyl

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–917**	**Date Collected:**	**12/11/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**1201997949**	**Date Received:**	**12/15/2009 08:45**	**%Moisture:**	**12.8**
Client Sample:	**QC for batch 933816**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**RE03–09–14213MSD**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**933817**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**12/18/2009 14:54**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**12/17/2009 10:38**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**048f4801.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	048b4801.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016		26.4	ug/kg	1.27	3.82	1
11104–28–2	Aroclor–1221	U	3.82	ug/kg	1.27	3.82	1
11141–16–5	Aroclor–1232	U	3.82	ug/kg	1.27	3.82	1
53469–21–9	Aroclor–1242	U	3.82	ug/kg	1.27	3.82	1
12672–29–6	Aroclor–1248	U	3.82	ug/kg	1.27	3.82	1
11097–69–1	Aroclor–1254	U	3.82	ug/kg	1.27	3.82	1
11096–82–5	Aroclor–1260		32.5	ug/kg	1.27	3.82	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/121809.b/048f4801.d
Lab Smp Id: 1201997949 Client Smp ID: RE03-09-14213MSD
Inj Date : 18-DEC-2009 14:54
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1201997949|1|
Misc Info : |ECD82P_1S|933817|SVAF|QC A|SOIL|MSD|||
Comment :
Method : /chem/ecd1a.i/121809.b/ECD1-F-8082-121409.m
Meth Date : 18-Dec-2009 17:26 yip00818 Quant Type: ESTD
Cal Date : 14-DEC-2009 11:34 Cal File: 040f4001.d
Als bottle: 48 QC Sample: MSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-917.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	12.82530	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.972	1.971	0.001	42509200	113.156	4.3	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.287	5.290	-0.003	43127093	135.816	5.2	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.428	2.428	0.000	8738660	630.183	24.1	80.00- 120.00	100.00
2.705	2.706	-0.001	7635829	756.193	28.9	62.38- 102.38	87.38
2.798	2.799	-0.001	7723727	656.946	25.1	66.57- 106.57	88.39
2.835	2.836	-0.001	4634227	702.261	26.8	32.56- 72.56	53.03

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
1 Aroclor-1016 (continued)							
3.046	3.048	-0.002	6130569	706.824	27.0	47.14- 87.14	70.15
Average of Peak Concentrations =					26.4		
7 Aroclor-1260					CAS #: 11096-82-5		
3.773	3.774	-0.001	13608149	812.323	31.1	80.00- 120.00	100.00
3.935	3.937	-0.002	21215317	857.441	32.8	134.60- 174.60	155.90
4.165	4.167	-0.002	12588163	857.075	32.8	72.50- 112.50	92.50
4.309	4.311	-0.002	12689043	835.656	32.0	76.61- 116.61	93.25
4.488	4.490	-0.002	30435150	886.019	33.9	204.05- 244.05	223.65
Average of Peak Concentrations =					32.5		

Data File: /chem/ecdia.i/121809.b/048f4801.d
Date : 18-DEC-2009 14:54
Client ID: RE03-09-14213MSD
Sample Info: 1120199794911
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecdia.i
Operator: YSI
Column diameter: 0.25

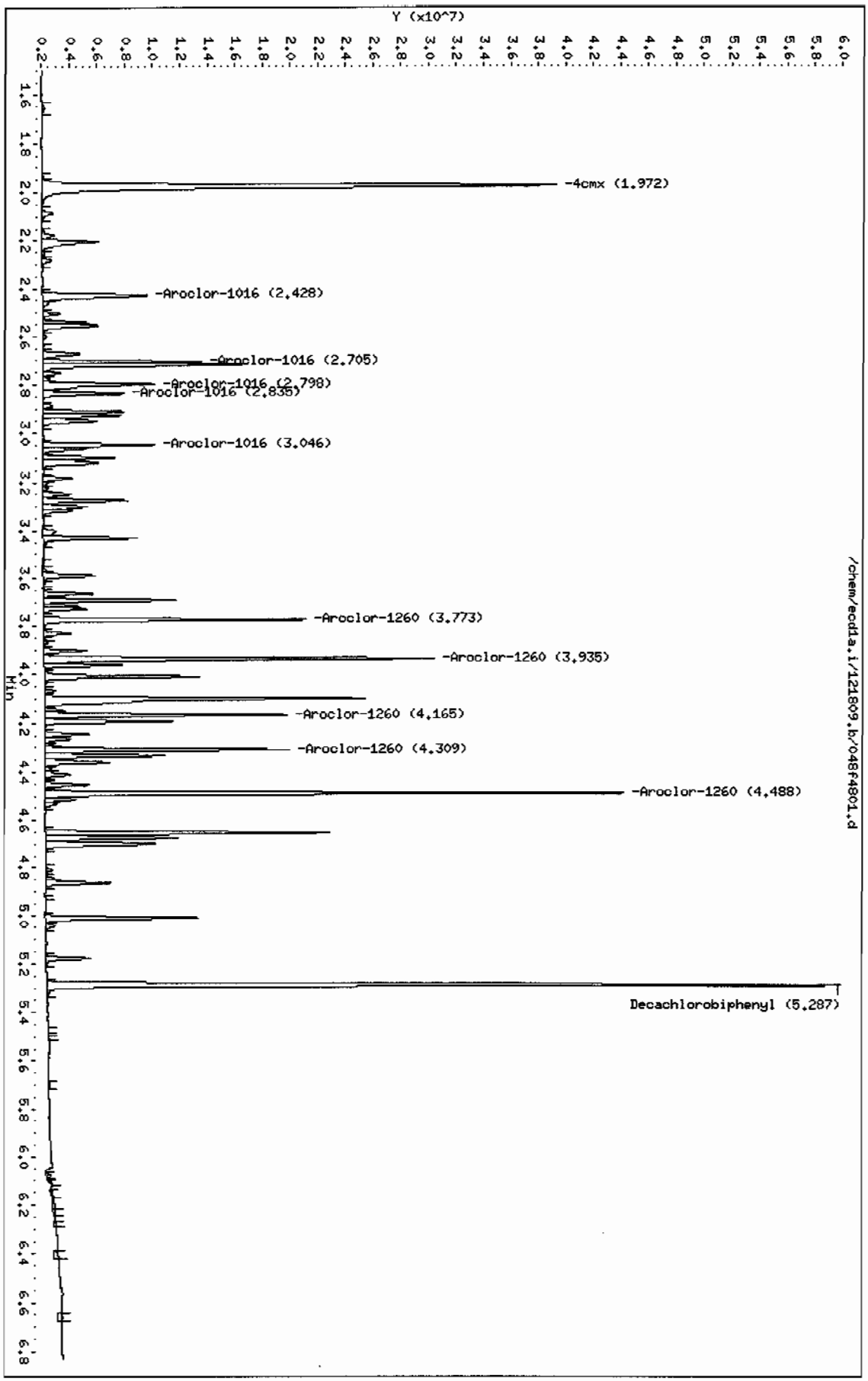

Page 1

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/121809.b/048b4801.d
Lab Smp Id: 1201997949 Client Smp ID: RE03-09-14213MSD
Inj Date : 18-DEC-2009 14:54
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1201997949|1|
Misc Info : |ECD82P_1S|933817|SVAF|QC A|SOIL|MSD|||
Comment :
Method : /chem/ecd1a.i/121809.b/ECD1-B-8082-121409.m
Meth Date : 18-Dec-2009 17:26 yip00818 Quant Type: ESTD
Cal Date : 14-DEC-2009 12:16 Cal File: 044b4401.d
Als bottle: 48 QC Sample: MSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-917.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	12.82530	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.302	2.302	0.000	32139993	107.124	4.1	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.950	5.951	-0.001	31527636	135.180	5.2	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.199	3.201	-0.002	8794287	697.321	26.7	80.00- 120.00	100.00(M)
3.283	3.283	0.000	5924927	635.185	24.3	46.58- 86.58	67.37
3.346	3.347	-0.001	3610610	667.233	25.5	21.60- 61.60	41.06
3.574	3.574	0.000	4704059	667.065	25.5	32.52- 72.52	53.49

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
1 Aroclor-1016 (continued)							
3.649	3.650	-0.001	4469631	682.310	26.1	39.41- 79.41	60.82
Average of Peak Concentrations =					25.6		
7 Aroclor-1260					CAS #: 11096-82-5		
4.339	4.341	-0.002	10473114	765.577	29.3	80.00- 120.00	100.00
4.464	4.465	-0.001	13041039	813.589	31.1	103.47- 143.47	124.52
4.729	4.731	-0.002	9975210	793.956	30.4	75.31- 115.31	95.25
4.904	4.905	-0.001	10168781	793.811	30.4	78.17- 118.17	97.09
5.050	5.051	-0.001	23393189	838.535	32.1	203.54- 243.54	223.36
Average of Peak Concentrations =					30.7		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd1a.i/121809.b/048b4801.d

Date : 18-DEC-2009 14:54

Client ID: RE03-09-14213MSD

Sample Info: |1201997949|1|

Volume Injected (uL): 1.0

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

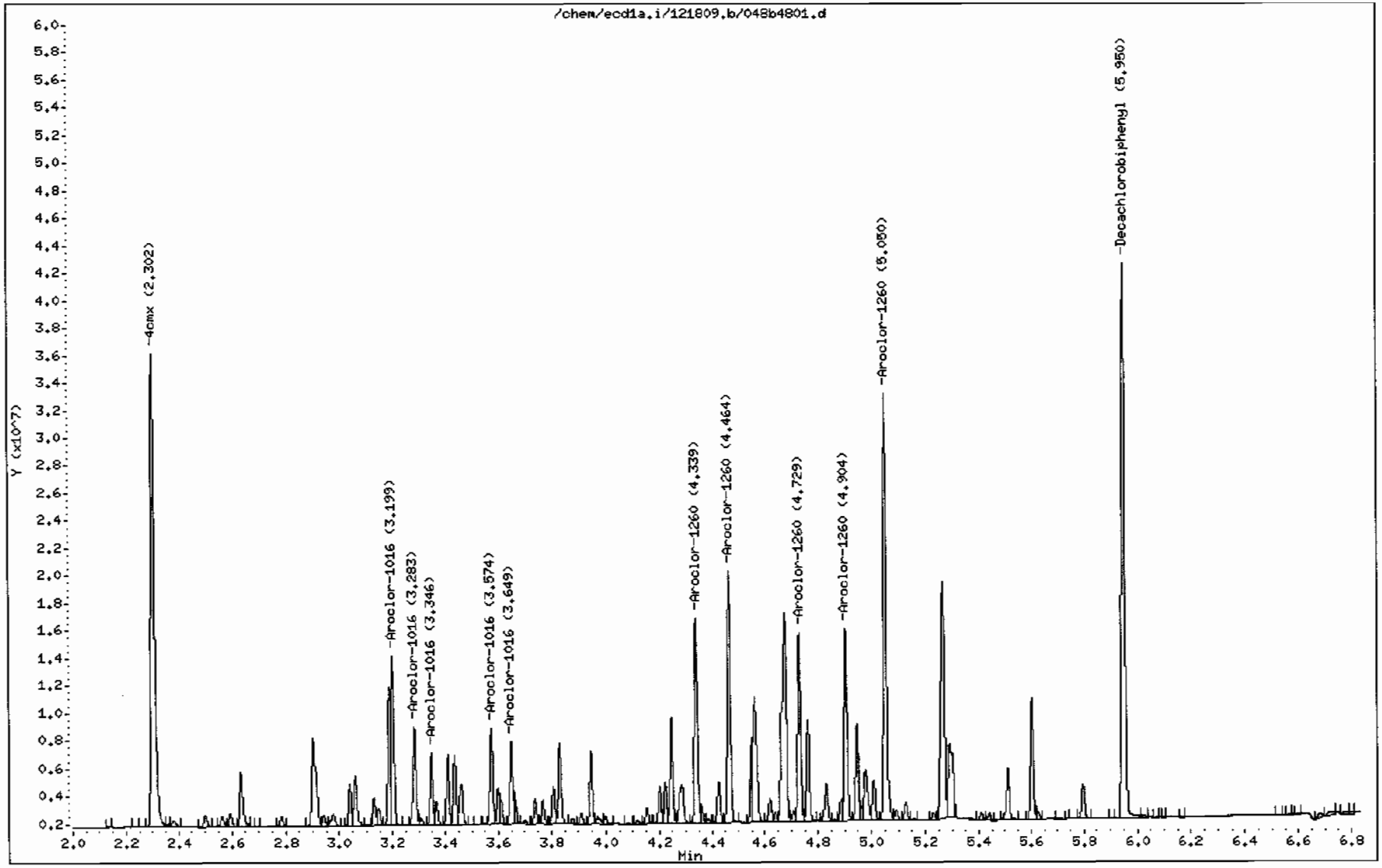

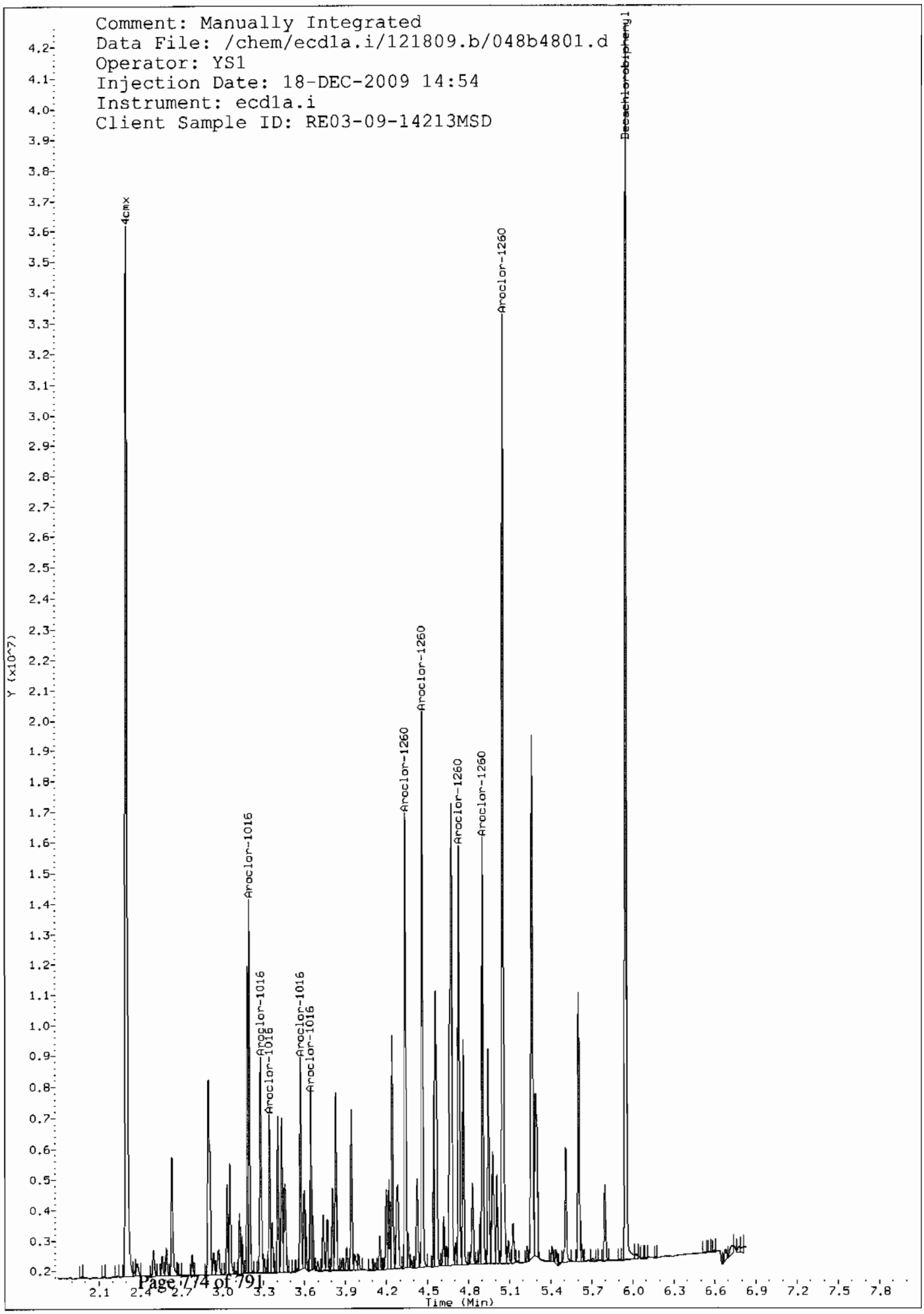
Comment: Manually Integrated
Data File: /chem/ecd1a.i/121809.b/048b4801.d
Operator: YS1
Injection Date: 18-DEC-2009 14:54
Instrument: ecd1a.i
Client Sample ID: RE03-09-14213MSD
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

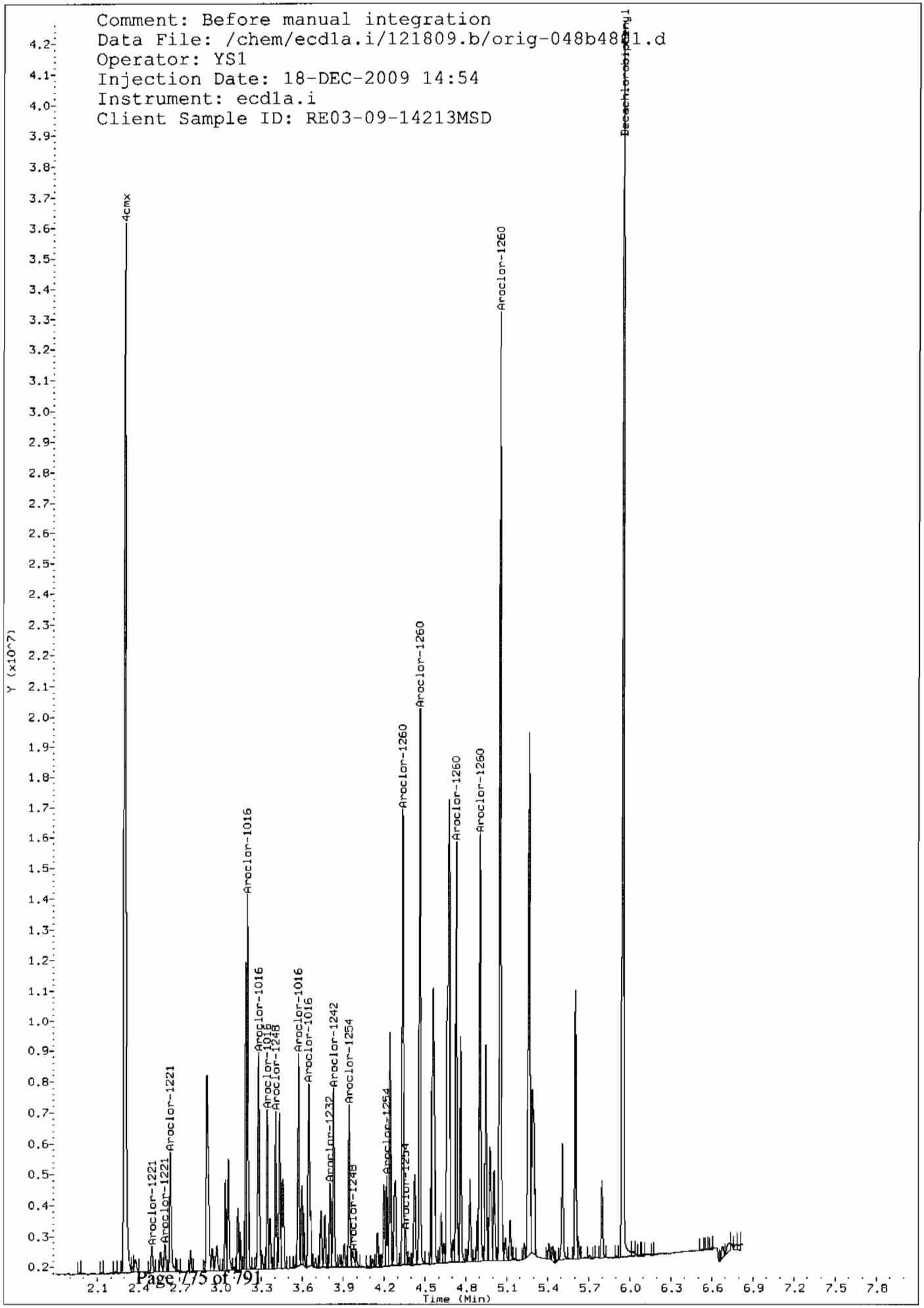
Comment: Before manual integration
Data File: /chem/ecd1a.i/121809.b/orig-048b4881.d
Operator: YS1
Injection Date: 18-DEC-2009 14:54
Instrument: ecd1a.i
Client Sample ID: RE03-09-14213MSD
4cmx
Aroclor-1221
Aroclor-1221
Aroclor-1221
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1248
Aroclor-1016
Aroclor-1016
Aroclor-1232
Aroclor-1242
Aroclor-1248
Aroclor-1254
Aroclor-1254
Aroclor-1254
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

MISCELLANEOUS DATA

GEL ORGANIC RUN LOG INSTRUMENT ID: ECD1

DATE: 12/15/2009 METHOD: ECD1-F-8082-121409.m OPERATOR:YS1 REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1

SOLVENT LOT DA385
ALUMINA LOT 1230997-A
COPPER LOT 236547-A

Calibration & QC Information
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.
GEL SOP GL-OA-E-040 Polychlorinated Biphenyl: EPA 8082
Chromatogram Abbreviation Legend: AB-Assign Baseline, AP-Assign Peak,
DNC-Do Not Call, DMP-Doesn't Match Pattern, NC-Not Confirmed, RT-Retention Time,
BF-Before, AF-After.

Sequence Number: /chem/ecd1a.i/121409.b Injection Volume: 0.5 ul

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001f0101.d	WAR091130-99 01	YS1	14-DEC-2009 04:44		121409	1.0	CLEAN	
002f0201.d	WAR091211-60 01	YS1	14-DEC-2009 04:54		121409	1.0	DUSE RE-ICAL	
003f0301.d	WAR091102-54	YS1	14-DEC-2009 05:05		121409	1.0	DUSE RE-ICAL	
004f0401.d	WAR091102-42	YS1	14-DEC-2009 05:15		121409	1.0	DUSE RE-ICAL	
005f0501.d	WAR091027-48	YS1	14-DEC-2009 05:26		121409	1.0	DUSE RE-ICAL	
006f0601.d	WAR090930-32	YS1	14-DEC-2009 05:36		121409	1.0	PATTERN ONLY	
007f0701.d	WAR090803-21	YS1	14-DEC-2009 05:47		121409	1.0	PATTERN ONLY	
008f0801.d	WAR090803-62	YS1	14-DEC-2009 05:58		121409	1.0	PATTERN ONLY	
009f0901.d	WAR091106-68	YS1	14-DEC-2009 06:08		121409	1.0	DUSE RE-ICAL	
010f1001.d	1660-1	YS1	14-DEC-2009 06:19		121409	1.0	DUSE	
011f1101.d	1660-2	YS1	14-DEC-2009 06:29		121409	1.0	DUSE	
012f1201.d	1660-3	YS1	14-DEC-2009 06:40		121409	1.0	DUSE	
013f1301.d	1660-4	YS1	14-DEC-2009 06:50		121409	1.0	DUSE	
014f1401.d	WAR091102-01	YS1	14-DEC-2009 07:01		121409	1.0	DUSE	
015f1501.d	WAR091211-60 01	YS1	14-DEC-2009 07:11		121409	1.0	DUSE	

Instrument Batch: /chem/ecd1a.i/121409.b Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments

016f1601.d	WAR091214-05 54	YS1	14-DEC-2009 07:22		121409		1.0	AR1254 I-CAL LEVEL 1
017f1701.d	WAR091214-06 54	YS1	14-DEC-2009 07:32		121409		1.0	AR1254 I-CAL LEVEL 2
018f1801.d	WAR091214-07 54	YS1	14-DEC-2009 07:43		121409		1.0	AR1254 I-CAL LEVEL 3
019f1901.d	WAR091214-08 54	YS1	14-DEC-2009 07:53		121409		1.0	AR1254 I-CAL LEVEL 4
020f2001.d	IAR091027-01	YS1	14-DEC-2009 08:04		121409		1.0	AR1254 I-CAL LEVEL 5
021f2101.d	WAR091102-54	YS1	14-DEC-2009 08:14		121409		1.0	PASSED ON BOTH COLUMNS
022f2201.d	WAR091214-09 42	YS1	14-DEC-2009 08:25		121409		1.0	AR1242 I-CAL LEVEL 1
023f2301.d	WAR091214-10 42	YS1	14-DEC-2009 08:35		121409		1.0	AR1242 I-CAL LEVEL 2
024f2401.d	WAR091214-11 42	YS1	14-DEC-2009 08:46		121409		1.0	AR1242 I-CAL LEVEL 3
025f2501.d	WAR091214-12 42	YS1	14-DEC-2009 08:56		121409		1.0	AR1242 I-CAL LEVEL 4
026f2601.d	IAR0911111-01	YS1	14-DEC-2009 09:07		121409		1.0	AR1242 I-CAL LEVEL 5
027f2701.d	WAR091102-42	YS1	14-DEC-2009 09:17		121409		1.0	PASSED ON BOTH COLUMNS
028f2801.d	WAR091214-13 48	YS1	14-DEC-2009 09:28		121409		1.0	AR1248 I-CAL LEVEL 1
029f2901.d	WAR091214-14 48	YS1	14-DEC-2009 09:38		121409		1.0	AR1248 I-CAL LEVEL 2
030f3001.d	WAR091214-15 48	YS1	14-DEC-2009 09:49		121409		1.0	AR1248 I-CAL LEVEL 3
031f3101.d	WAR091214-16 48	YS1	14-DEC-2009 09:59		121409		1.0	AR1248 I-CAL LEVEL 4
032f3201.d	IAR091027-02	YS1	14-DEC-2009 10:10		121409		1.0	AR1248 I-CAL LEVEL 5
033f3301.d	WAR091027-48	YS1	14-DEC-2009 10:20		121409		1.0	PASSED ON BOTH COLUMNS
034f3401.d	WAR091214-01 60	YS1	14-DEC-2009 10:31		121409		1.0	AR1660 I-CAL LEVEL 1
035f3501.d	WAR091214-02 60	YS1	14-DEC-2009 10:41		121409		1.0	AR1660 I-CAL LEVEL 2

Instrument Batch: /chem/ecd1a.i/121409.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
036f3601.d	WAR091214-03 60	YS1	14-DEC-2009 10:52		121409		1.0	AR1660 I-CAL LEVEL 3
037f3701.d	WAR091214-04 60	YS1	14-DEC-2009 11:02		121409		1.0	AR1660 I-CAL LEVEL 4
038f3801.d	IAR091102-01	YS1	14-DEC-2009 11:13		121409		1.0	AR1660 I-CAL LEVEL 5
039f3901.d	WAR091211-60 01	YS1	14-DEC-2009 11:23		121409		1.0	PASSED ON BOTH COLUMNS
040f4001.d	WAR091214-17 68	YS1	14-DEC-2009 11:34		121409		1.0	AR1268 I-CAL LEVEL 1

041f4101.d	WAR091214-18 68	YS1	14-DEC-2009 11:44		121409		1.0		AR1268 I-CAL LEVEL 2
042f4201.d	WAR091214-19 68	YS1	14-DEC-2009 11:55		121409		1.0		AR1268 I-CAL LEVEL 3
043f4301.d	WAR091214-20 68	YS1	14-DEC-2009 12:06		121409		1.0		AR1268 I-CAL LEVEL 4
044f4401.d	IAR090817-02	YS1	14-DEC-2009 12:16		121409		1.0		AR1268 I-CAL LEVEL 5
045f4501.d	WAR091106-68	YS1	14-DEC-2009 12:27		121409		1.0		PASSED ON BOTH COLUMNS
046f4601.d	WAR091020-DDT	YS1	14-DEC-2009 12:37		121409		1.0		DDT ANALOG STANDARD
047f4701.d	WAR091130-99 02	YS1	14-DEC-2009 12:48		121409		1.0		CLEAN
048f4801.d	1201991693	YS1	14-DEC-2009 12:58	931140	10-782		1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
049f4901.d	1201991694	YS1	14-DEC-2009 13:09	931140	10-782		1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
050f5001.d	242297001	YS1	14-DEC-2009 13:19	931140	10-782		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
051f5101.d	242297002	YS1	14-DEC-2009 13:30	931140	10-782		10.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
052f5201.d	242297003	YS1	14-DEC-2009 13:40	931140	10-782		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
053f5301.d	242297004	YS1	14-DEC-2009 13:51	931140	10-782		5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
054f5401.d	242297005	YS1	14-DEC-2009 14:03	931140	10-782		5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
055f5501.d	242297006	YS1	14-DEC-2009 14:16	931140	10-782		10.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER

Instrument Batch: /chem/ecd1a.i/121409.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
056f5601.d	242297007	YS1	14-DEC-2009 14:29	931140	10-782	5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
057f5701.d	242297008	YS1	14-DEC-2009 14:41	931140	10-782	25.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
058f5801.d	WAR091211-60 02	YS1	14-DEC-2009 14:52		121409	1.0		PASSED ON BOTH COLUMNS
059f5901.d	WAR091130-99 03	YS1	14-DEC-2009 15:02		121409	1.0		CLEAN
060f6001.d	242297009	YS1	14-DEC-2009 15:13	931140	10-782	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
061f6101.d	242297010	YS1	14-DEC-2009 15:25	931140	10-782	1.0	LANL	DCB LOW RE
062f6201.d	242297011	YS1	14-DEC-2009 15:38	931140	10-782	5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
063f6301.d	242297012	YS1	14-DEC-2009 15:51	931140	10-782	5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
064f6401.d	242297013	YS1	14-DEC-2009 16:03	931140	10-782	10.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER

065f6501.d	242305004	YS1	14-DEC-2009 16:16	931140	10-786	5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
066f6601.d	1201991695	YS1	14-DEC-2009 16:28	931140	10-786	5.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
067f6701.d	1201991696	YS1	14-DEC-2009 16:41	931140	10-786	5.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
068f6801.d	242305005	YS1	14-DEC-2009 16:53	931140	10-786	5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
069f6901.d	242305006	YS1	14-DEC-2009 17:06	931140	10-786	5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
070f7001.d	WAR091211-60 03	YS1	14-DEC-2009 17:19		121409	1.0		PASSED ON BOTH COLUMNS
071f7101.d	WAR091130-99 04	YS1	14-DEC-2009 17:31		121409	1.0		CLEAN
072f7201.d	1201992645	YS1	14-DEC-2009 17:44	931553	242521	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
073f7301.d	1201992646	YS1	14-DEC-2009 17:57	931553	242521	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
074f7401.d	242264001	YS1	14-DEC-2009 18:09	931553	242264	5.0	ENRG	UPLOAD BOTH COLUMNS, USE HIGHER
075f7501.d	242521001	YS1	14-DEC-2009 18:22	931553	242521	5.0	EMSC	UPLOAD BOTH COLUMNS, USE HIGHER

Instrument Batch: /chem/ecd1a.i/121409.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
076f7601.d	1201992647	YS1	14-DEC-2009 18:35	931553	242521	5.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
077f7701.d	1201992648	YS1	14-DEC-2009 18:47	931553	242521	5.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
078f7801.d	242521002	YS1	14-DEC-2009 19:00	931553	242521	5.0	EMSC	UPLOAD BOTH COLUMNS, USE HIGHER
079f7901.d	242521003	YS1	14-DEC-2009 19:12	931553	242521	5.0	EMSC	UPLOAD BOTH COLUMNS, USE HIGHER
080f8001.d	242521004	YS1	14-DEC-2009 19:25	931553	242521	5.0	EMSC	UPLOAD BOTH COLUMNS, USE HIGHER
081f8101.d	242521005	YS1	14-DEC-2009 19:38	931553	242521	5.0	EMSC	UPLOAD BOTH COLUMNS, USE HIGHER
082f8201.d	WAR091211-60 04	YS1	14-DEC-2009 19:50		121409	1.0		PASSED ON BOTH COLUMNS
083f8301.d	WAR091130-99 05	YS1	14-DEC-2009 20:03		121409	1.0		CLEAN
084f8401.d	242521006	YS1	14-DEC-2009 20:15	931553	242521	5.0	EMSC	UPLOAD BOTH COLUMNS, USE HIGHER
085f8501.d	242521007	YS1	14-DEC-2009 20:28	931553	242521	5.0	EMSC	UPLOAD BOTH COLUMNS, USE HIGHER
086f8601.d	242521008	YS1	14-DEC-2009 20:41	931553	242521	5.0	EMSC	UPLOAD BOTH COLUMNS, USE HIGHER
087f8701.d	WAR091211-60 05	YS1	14-DEC-2009 20:53		121409	1.0		PASSED ON BOTH COLUMNS
088f8801.d	WAR091130-99 06	YS1	14-DEC-2009 21:06		121409	1.0		CLEAN
089f8901.d	242297010	YS1	14-DEC-2009 21:19	931140	10-782	1.0	LANL	

090f9001.d	WAR091211-60 06	YS1	14-DEC-2009 21:31		121409	1.0	PASSED ON BOTH COLUMNS
091f9101.d	WAR091130-99 07	YS1	14-DEC-2009 21:44		121409	1.0	CLEAN
092f9201.d	1660	YS1	14-DEC-2009 21:56		121409	1.0	screen
093f9301.d	1660	YS1	14-DEC-2009 22:09		121409	1.0	screen
094f9401.d	1660	YS1	14-DEC-2009 22:22		121409	1.0	screen

Instrument Batch: /chem/ecd1a.i/121409.b

Page: 5

GEL ORGANIC RUN LOG INSTRUMENT ID: ECD1

DATE: 12/18/2009 METHOD: ECD1-F-8082-121409.m OPERATOR:YS1 REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1

SOLVENT LOT DA385
ALUMINA LOT 1230997-A
COPPER LOT 236547-A

Calibration & QC Information
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.
GEL SOP GL-OA-E-040 Polychlorinated Biphenyl: EPA 8082
Chromatogram Abbreviation Legend: AB-Assign Baseline, AP-Assign Peak,
DNC-Do Not Call, DMP-Doesn't Match Pattern, NC-Not Confirmed, RT-Retention Time,
BF-Before, AF-After.

Sequence Number: /chem/ecd1a.i/121809.b Injection Volume: 0.5 ul

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001f0101.d	WAR091130-99 01	YS1	18-DEC-2009 06:04		121809	1.0		CLEAN
002f0201.d	WAR091211-60 01	YS1	18-DEC-2009 06:15		121809	1.0		DUSE RR FILE 10
003f0301.d	WAR091216-54	YS1	18-DEC-2009 06:25		121809	1.0		PASSED ON BOTH COLUMNS
004f0401.d	WAR091102-42	YS1	18-DEC-2009 06:36		121809	1.0		PASSED ON BOTH COLUMNS
005f0501.d	WAR091027-48	YS1	18-DEC-2009 06:46		121809	1.0		PASSED ON BOTH COLUMNS
006f0601.d	WAR090930-32	YS1	18-DEC-2009 06:57		121809	1.0		PATTERN ONLY
007f0701.d	WAR090803-21	YS1	18-DEC-2009 07:07		121809	1.0		PATTERN ONLY
008f0801.d	WAR090803-62	YS1	18-DEC-2009 07:18		121809	1.0		PATTERN ONLY
009f0901.d	WAR091106-68	YS1	18-DEC-2009 07:28		121809	1.0		PASSED ON BOTH COLUMNS
010f1001.d	WAR091211-60 01	YS1	18-DEC-2009 07:39		121809	1.0		PASSED ON BOTH COLUMNS
011f1101.d	WAR091020-DDT	YS1	18-DEC-2009 07:49		121809	1.0		DDT ANALOG STANDARD
012f1201.d	WE091219-15	YS1	18-DEC-2009 08:00		121809	1.0		SURROGATE SCREEN FRO PREP
013f1301.d	WAR091130-99 02	YS1	18-DEC-2009 08:10		121809	1.0		CLEAN
014f1401.d	1201999173	YS1	18-DEC-2009 08:21	934414	EUI-7432	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
015f1501.d	1201999174	YS1	18-DEC-2009 08:31	934414	EUI-7432	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER

Instrument Batch: /chem/ecd1a.i/121809.b Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments

016f1601.d	1201999177	YS1	18-DEC-2009 08:42	934414	EUI-7432		1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
017f1701.d	242969001	YS1	18-DEC-2009 08:53	934414	EUI-7432		1.0	CARE	UPLOAD BOTH COLUMNS, USE HIGHER
018f1801.d	1201999175	YS1	18-DEC-2009 09:05	934414	EUI-7432		1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
019f1901.d	1201999176	YS1	18-DEC-2009 09:18	934414	EUI-7432		1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
020f2001.d	WAR091211-60 02	YS1	18-DEC-2009 09:30		121809		1.0		PASSED ON BOTH COLUMNS
021f2101.d	WAR091130-99 03	YS1	18-DEC-2009 09:41		121809		1.0		CLEAN
022f2201.d	1201998037	YS1	18-DEC-2009 09:51	933872	EUI-7431		1.0	QC A	DUSE
023f2301.d	1201998038	YS1	18-DEC-2009 10:02	933872	EUI-7431		1.0	QC A	DUSE
024f2401.d	1201998041	YS1	18-DEC-2009 10:12	933872	EUI-7431		1.0	QC A	DUSE
025f2501.d	242968001	YS1	18-DEC-2009 10:23	933872	EUI-7431		1.0	CARE	DUSE RE
026f2601.d	1201998039	YS1	18-DEC-2009 10:36	933872	EUI-7431		1.0	QC A	DUSE
027f2701.d	1201998040	YS1	18-DEC-2009 10:48	933872	EUI-7431		1.0	QC A	DUSE
028f2801.d	WAR091211-60 03	YS1	18-DEC-2009 11:01		121809		1.0		PASSED ON BOTH COLUMNS
029f2901.d	WAR091130-99 04	YS1	18-DEC-2009 11:11		121809		1.0		CLEAN
030f3001.d	1201998041	YS1	18-DEC-2009 11:22		1		1.0		DUSE
031f3101.d	1201998357	YS1	18-DEC-2009 11:32	934021	242701		1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
032f3201.d	1201998358	YS1	18-DEC-2009 11:43	934021	242701		1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
033f3301.d	242701001	YS1	18-DEC-2009 11:53	934021	242701		5.0	SVAF	UPLOAD BOTH COLUMNS, USE HIGHER
034f3401.d	1201998359	YS1	18-DEC-2009 12:06	934021	242701		5.0	SVAF	UPLOAD BOTH COLUMNS, USE HIGHER
035f3501.d	1201998360	YS1	18-DEC-2009 12:18	934021	242701		5.0	SVAF	UPLOAD BOTH COLUMNS, USE HIGHER

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
036f3601.d	242701002	YS1	18-DEC-2009 12:31	934021	242701		5.0	SVAF	UPLOAD BOTH COLUMNS, USE HIGHER
037f3701.d	242701003	YS1	18-DEC-2009 12:44	934021	242701		5.0	SVAF	UPLOAD BOTH COLUMNS, USE HIGHER
038f3801.d	242701004	YS1	18-DEC-2009 12:56	934021	242701		5.0	SVAF	UPLOAD BOTH COLUMNS, USE HIGHER
039f3901.d	WAR091211-60 04	YS1	18-DEC-2009 13:09		121809		1.0		PASSED ON BOTH COLUMNS
040f4001.d	WAR091130-99 05	YS1	18-DEC-2009 13:20		121809		1.0		CLEAN

041f4101.d	1201997946	YS1	18-DEC-2009 13:30	933817	10-755		1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
042f4201.d	1201997947	YS1	18-DEC-2009 13:41	933817	10-755		1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
043f4301.d	242178002	YS1	18-DEC-2009 13:51	933817	10-755		1.0	SVAF	UPLOAD BOTH COLUMNS, USE HIGHER
044f4401.d	242295004	YS1	18-DEC-2009 14:04	933817	10-780		1.0	SVAF	UPLOAD BOTH COLUMNS, USE HIGHER
045f4501.d	242295010	YS1	18-DEC-2009 14:16	933817	10-780		1.0	SVAF	UPLOAD BOTH COLUMNS, USE HIGHER
046f4601.d	242937001	YS1	18-DEC-2009 14:29	933817	10-917		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
047f4701.d	1201997948	YS1	18-DEC-2009 14:42	933817	10-917		1.0	QC A	contaminated RE the parent
048f4801.d	1201997949	YS1	18-DEC-2009 14:54		10-917		1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
049f4901.d	242937002	YS1	18-DEC-2009 15:07	933817	10-917		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
050f5001.d	242937003	YS1	18-DEC-2009 15:20	933817	10-917		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
051f5101.d	WAR091211-60 05	YS1	18-DEC-2009 15:32		121809		1.0		PASSED ON BOTH COLUMNS
052f5201.d	WAR091130-99 06	YS1	18-DEC-2009 15:43		121809		1.0		CLEAN
053f5301.d	242937004	YS1	18-DEC-2009 15:53	933817	10-917		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
054f5401.d	242937005	YS1	18-DEC-2009 16:06	933817	10-917		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
055f5501.d	242937006	YS1	18-DEC-2009 16:19	933817	10-917		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER

Instrument Batch: /chem/ecd1a.i/121809.b Page: 3

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
056f5601.d	242937007	YS1	18-DEC-2009 16:31	933817	10-917	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
057f5701.d	242937008	YS1	18-DEC-2009 16:44	933817	10-917	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
058f5801.d	242937009	YS1	18-DEC-2009 16:57	933817	10-917	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
059f5901.d	WAR091211-60 06	YS1	18-DEC-2009 17:09		121809	1.0		PASSED ON BOTH COLUMNS

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/122209.b/026b2601.d
Lab Smp Id: 242937001 Client Smp ID: RE03-09-14213
Inj Date : 22-DEC-2009 12:18
Operator : JAOC Inst ID: ecd1a.i
Smp Info : |242937001|1|
Misc Info : |ECD82P_1S|935393|SVA|LANL|SOIL|RE03-09-14213|||
Comment :
Method : /chem/ecd1a.i/122209.b/ECD1-B-8082-121409.m
Meth Date : 23-Dec-2009 06:44 jen01212 Quant Type: ESTD
Cal Date : 14-DEC-2009 12:16 Cal File: 044b4401.d
Als bottle: 26
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-917.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.02000	Weight of sample extracted (g)
M	12.82530	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.302	2.302	0.000	32716580	109.046	4.2	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.948	5.948	0.000	31077599	133.250	5.1	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/122209.b/026b2601.d
Date : 22-DEC-2009 12:18
Client ID: RE03-09-14213
Sample Info: |242937001|1|
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd1a.i

Operator: JAOC
Column diameter: 0.25

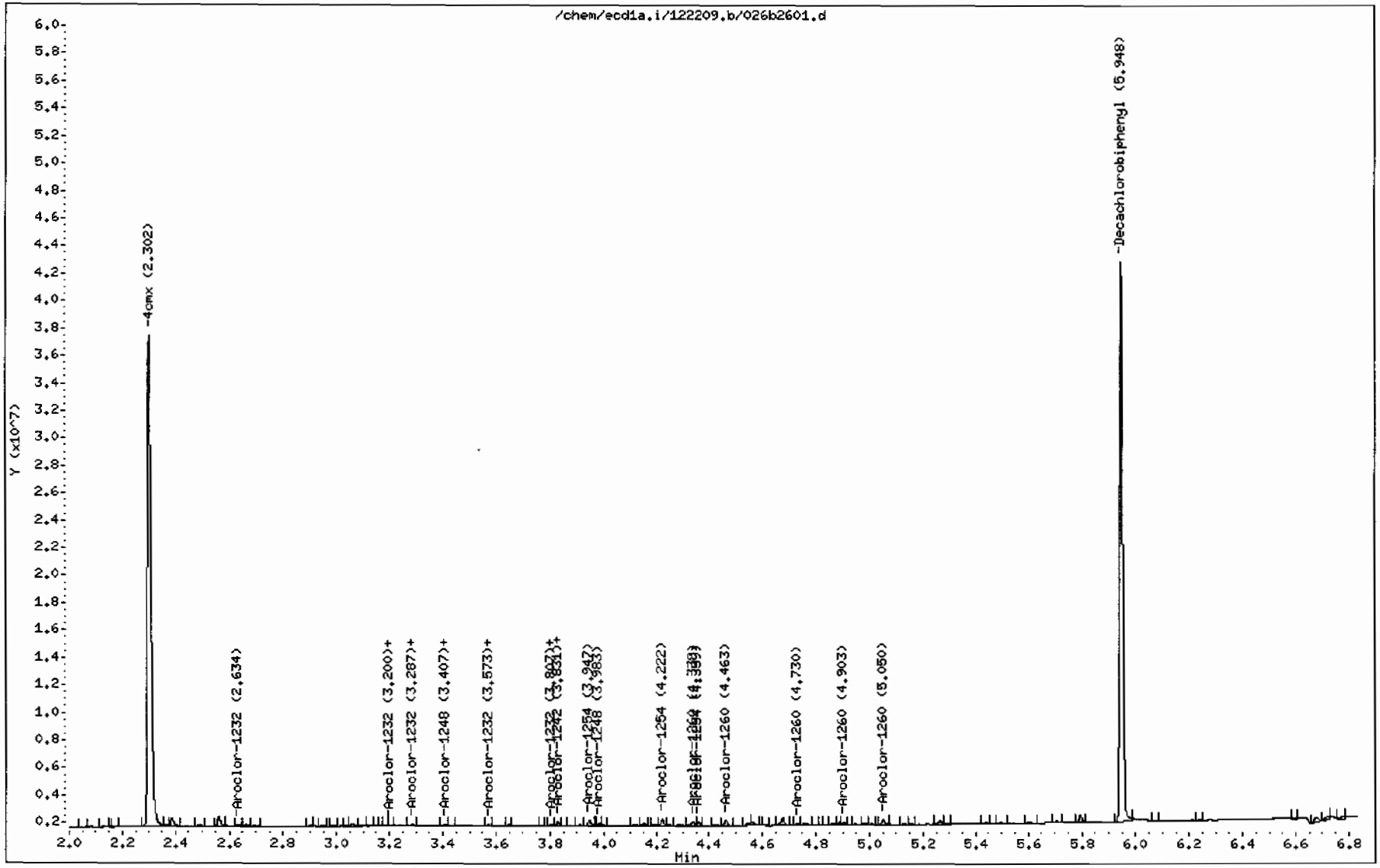

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/122209.b/026f2601.d
Lab Smp Id: 242937001 Client Smp ID: RE03-09-14213
Inj Date : 22-DEC-2009 12:18
Operator : JAOC Inst ID: ecd1a.i
Smp Info : |242937001|1|
Misc Info : |ECD82P_1S|935393|SVA|LANL|SOIL|RE03-09-14213|||
Comment :
Method : /chem/ecd1a.i/122209.b/ECD1-F-8082-121409.m
Meth Date : 23-Dec-2009 06:42 jen01212 Quant Type: ESTD
Cal Date : 14-DEC-2009 11:34 Cal File: 040f4001.d
Als bottle: 26
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-917.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.02000	Weight of sample extracted (g)
M	12.82530	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.972	1.971	0.001	42937295	114.295	4.4	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.287	5.286	0.001	43346001	136.505	5.2	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/122209.b/026f2601.d
Date : 22-DEC-2009 12:18
Client ID: RE03-09-14213
Sample Info: |242937001|1|
Volume Injected (uL): 1.0
Column phase: CLP1

Page 1

Instrument: ecd1a.i

Operator: JAOC
Column diameter: 0.25

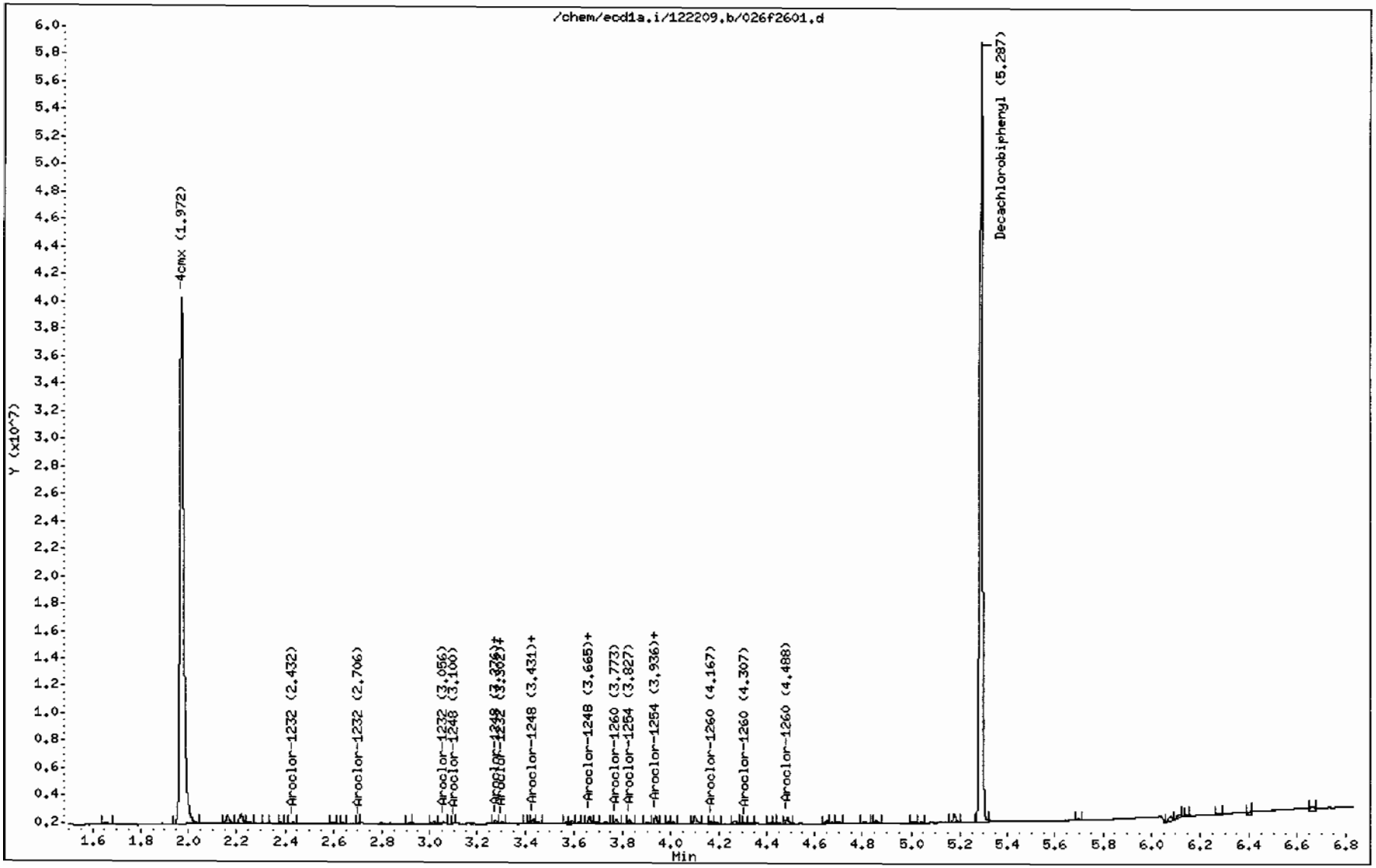

Prep Logbook

Extraction of Semivolatile and Nonvolatile Organic Compounds from Soil, Sludge, and Other Miscellaneous Solid Samples

Batch ID: 933816 **Verified by:** _____

Analyst: Robin Hunt

Method: SW846 3550B

Lab SOP: GL–OA–E–010 REV# 18

Instrument: Semi–Volatiles Manual

Sample ID	Run Date	Aliquot (g)	Clean Up	Prior to Clean up (mL)	Amount Cleaned (mL)	After Clean up (mL)	Prepped Aliquot (mL)	Prepped Factor (mL/g)
1201997946 MB	17–DEC–2009 10:38:59	30	H2SO4/KMn1		1	8	1	0.03333
1201997947 LCS	17–DEC–2009 10:38:59	30	H2SO4/KMn1		1	8	1	0.03333
242178002 – 3	17–DEC–2009 10:38:59	30	H2SO4/KMn1		1	8	1	0.03333
242295004 – 3	17–DEC–2009 10:38:59	30.05	H2SO4/KMn1		1	8	1	0.03328
242295010 – 3	17–DEC–2009 10:38:59	30	H2SO4/KMn1		1	8	1	0.03333
242937001	17–DEC–2009 10:38:59	30.01	H2SO4/KMn1		1	8	1	0.03332
1201997948 MS (242937001)	17–DEC–2009 10:38:59	30.01	H2SO4/KMn1		1	8	1	0.03332
1201997949 MSD (242937001)	17–DEC–2009 10:38:59	30	H2SO4/KMn1		1	8	1	0.03333
242937002	17–DEC–2009 10:38:59	30.01	H2SO4/KMn1		1	8	1	0.03332
242937003	17–DEC–2009 10:38:59	30.05	H2SO4/KMn1		1	8	1	0.03328
242937004	17–DEC–2009 10:38:59	30.05	H2SO4/KMn1		1	8	1	0.03328
242937005	17–DEC–2009 10:38:59	30.09	H2SO4/KMn1		1	8	1	0.03323
242937006	17–DEC–2009 10:38:59	30.09	H2SO4/KMn1		1	8	1	0.03323
242937007	17–DEC–2009 10:38:59	30.03	H2SO4/KMn1		1	8	1	0.0333
242937008	17–DEC–2009 10:38:59	30	H2SO4/KMn1		1	8	1	0.03333
242937009	17–DEC–2009 10:38:59	30.03	H2SO4/KMn1		1	8	1	0.0333

Type	Sample Id	Description	Serial Number	Spike Amt	Units
LCS	1201997947	PCB Laboratory Control	WE091210–07	1	mL
MS	1201997948	PCB Laboratory Control	WE091210–07	1	mL
MSD	1201997949	PCB Laboratory Control	WE091210–07	1	mL
SURR	All	PEST LOW LEVEL SURROGATE 200 UG/L	UE091130–15	1	mL
REGNT	All	1:1 sulfuric acid	1133264a	5	mL
REGNT	All	Acetone	1233927	150	mL
REGNT	All	Hexane	1241300–B2	150	mL
REGNT	All	5% Potassium Permanganate	B1202457–F	5	mL
SOURC	All	SODIUM SULFATE	1242582	30	g

Comments:

Clean up Date: 12/17/2009

Clean up Initials: RWH

Verified By: JAM

Final Solvent: Hexane

Clean Up SOP: GL–OA–E–037

COMPANY - WIDE NONCONFORMANCE REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
19-DEC-09	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
GC/ECD	SW846 8082	Solid	LANL
Batch ID:	**Sample Numbers:**		
933817	See Below		

Potentially affected work order(s)(SDG): 242178(10-755),242295(10-780),242937(10-917)

Application Issues:

Failed Recovery for MS/PS

Failed RPD for MS/MSD, or PS/PSD

Specification and Requirements Nonconformance Description:	NRG Disposition:
1. QC sample 1201997948(MS) did not meet the spike recovery limit. 2. The RPD between matrix QC samples: 1201997948(MS) and 1201997949(MSD) did not meet the acceptance limit.	1. and 2. QC sample 1201997948(MS) was contaminated with high concentrations of target Aroclor patterns; the positive bias in the spike recovery was due to the contamination. The parent sample was re-extracted. The re-extraction confirmed that there were no target analytes detected above the PQL in the environmental sample. The data were reported. The re-extraction data was reported to the client in the miscellaneous section of the data package.

Originator's Name:
Yiping Shi 19-DEC-09

Data Validator/Group Leader:
Heather Joy 19-DEC-09

Friday, December 11, 2009

REQUEST NUMBER: 10-901

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

These Samples are on:

LANL Request Number:10-901

Per Agreement Number:126310011

Project Cost Code: MR2A054196D0

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 12/11/2009

TURNAROUND/REPORT DUE: 1/10/2010

TURNAROUND REQ'D: 30 Days

RAD SCREENING: Yes, Below Background

LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:

Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:6010B	1	RE03-09-13469	S	12/10/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-13470	S	12/10/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-13471	S	12/10/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-13472	S	12/10/2009	Plus, B, Li, Si, Ti, U
	SW-846:8015M_EXTRACTABLE	1	RE03-09-13469	S	12/10/2009	
		1	RE03-09-13470	S	12/10/2009	

Friday, December 11, 2009

REQUEST NUMBER: 10-901

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8015M_EXTRACTABLE	1	RE03-09-13471	S	12/10/2009	
		1	RE03-09-13472	S	12/10/2009	
	SW-846:8082	1	RE03-09-13469	S	12/10/2009	
		1	RE03-09-13470	S	12/10/2009	
		1	RE03-09-13471	S	12/10/2009	
		1	RE03-09-13472	S	12/10/2009	
	SW-846:8260B	1	RE03-09-13469	S	12/10/2009	
		1	RE03-09-13470	S	12/10/2009	
		1	RE03-09-13471	S	12/10/2009	
		1	RE03-09-13472	S	12/10/2009	
	SW-846:8270C	1	RE03-09-13469	S	12/10/2009	
		1	RE03-09-13470	S	12/10/2009	
		1	RE03-09-13471	S	12/10/2009	
		1	RE03-09-13472	S	12/10/2009	
	SW-846:9012A	1	RE03-09-13469	S	12/10/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-13470	S	12/10/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-13471	S	12/10/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-13472	S	12/10/2009	Plus, B, Li, Si, Ti, U

Final Page of REQUEST NUMBER 10-901

Friday, December 11, 2009

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-901C

REQUEST NUMBER: 10-901

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 1/10/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS:

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE03-09-13470	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-09-13470	1	GLASS	8270C+8082+TPH-DRO	Ice	S
RE03-09-13471	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-09-13471	1	GLASS	8270C+8082+TPH-DRO	Ice	S
RE03-09-13472	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-09-13472	1	GLASS	8270C+8082+TPH-DRO	Ice	S
RE03-09-13469	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-09-13469	1	GLASS	8270C+8082+TPH-DRO	Ice	S
RE03-09-13470	1	POLY	Metals+CN - GEL	Ice	S
RE03-09-13472	1	POLY	Metals+CN - GEL	Ice	S
RE03-09-13471	1	POLY	Metals+CN - GEL	Ice	S
RE03-09-13469	1	POLY	Metals+CN - GEL	Ice	S

Relinquished By:		Date	Time	Received By:		Date	Time
		12/11/09	3:00				
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

Received for DISPOSAL By: **Date** **Time** **Remarks:**

Printed Name Signature

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2263 **EVENT NAME:** Soil Sampling at CU 03-009(a)-00

SAMPLE ID: RE03-09-13469 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		~~12-9-09~~ 12-10-09 MV	MEDIA:	NA	QB+3
TIME COLLECTED (HH:MM)		0838	SUB-MEDIA:	OTHER	NA
PRS ID:	03-009(i)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	03-608194		FIELD QC TYPE:	NA	
LOCATION TYPE:	GENERIC		FIELD PREP:	NA	
TOP DEPTH:	0	4'	SAMPLE USAGE:	INV	
BOTTOM DEPTH:	0	5'	SCREEN/PORT DESC:		
FIELD MATRIX:	S		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+8082+TPH-DRO	500 ML GLASS	Ice	Y	
1		Metals+CN - GEL	125 ML POLY	Ice	Y	Plus, B, Li, Si, Ti, U

SAMPLE DESC: Brown tuff. 7.5 YR 5/4

SAMPLE COMMENTS: NA

LOCATION DESC: 03-009(i)-2

FIELD SCREENING/MEASUREMENT RESULTS: PID: 5.6 ppm Background
α 44 DPM
β 1130

mr 12/10/09
~~PID~~ samples: <m DA

COLLECTED BY (PRINT) M. Shando **REVIEWED BY (PRINT)** M. Rains

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) M. Rains (Signature)	12/10/09 1530	(Printed Name) (Signature)	12/10/09 1530
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name) (Signature)		(Printed Name) (Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2263 **EVENT NAME:** Soil Sampling at CU 03-009(a)-00

SAMPLE ID: RE03-09-13470 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12-10-09 ~~12-9-09~~	MEDIA:	NA	QBt3
TIME COLLECTED (HH:MM)		0852	SUB-MEDIA:	OTHER	NA
PRS ID:	03-009(i)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	03-608194		FIELD QC TYPE:	NA	
LOCATION TYPE:	GENERIC		FIELD PREP:	NA	
TOP DEPTH:	0	9'	SAMPLE USAGE:	INV	
BOTTOM DEPTH:	0	10'	SCREEN/PORT DESC:		—
FIELD MATRIX:	S		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+8082+TPH-DRO	500 ML GLASS	Ice	Y	
1		Metals+CN - GEL	125 ML POLY	Ice	Y	Plus, B, Li, Si, Ti, U

SAMPLE DESC: Pinkish gray tuff. 7.5 YR 6/2

SAMPLE COMMENTS: NA

LOCATION DESC: 03-009(i)-3

FIELD SCREENING/MEASUREMENT RESULTS: PID: 9.9 ppm Background α: 44 β: 1130 DPM Samples: LMDA

COLLECTED BY (PRINT) M. Shendo **REVIEWED BY (PRINT)** M. Rains

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) M. Rains (Signature)	12/10/09 1530	(Printed Name) (Signature)	12/10/09 1530
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name) (Signature)		(Printed Name) (Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2263 **EVENT NAME:** Soil Sampling at CU 03-009(a)-00

SAMPLE ID: RE03-09-13471 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12-10-09 ~~12-9-09~~	MEDIA:	NA	QB+3
TIME COLLECTED (HH:MM)		0900	SUB-MEDIA:	OTHER	NA
PRS ID:	03-009(i)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	03-608195		FIELD QC TYPE:	NA	
LOCATION TYPE:	GENERIC		FIELD PREP:	NA	
TOP DEPTH:	0	4'	SAMPLE USAGE:	INV	
BOTTOM DEPTH:	0	5'	SCREEN/PORT DESC:		—
FIELD MATRIX:	S		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+8082+TPH-DRO	500 ML GLASS	Ice	Y	
1		Metals+CN - GEL	125 ML POLY	Ice	Y	Plus, B, Li, Si, Ti, U

SAMPLE DESC: Brown Tuff 7.5YR 5/3

SAMPLE COMMENTS: NA

LOCATION DESC: 03-009(i)-K 1 KW 12-9-09

FIELD SCREENING/MEASUREMENT RESULTS: PID: 0.0ppm Sample < MDA
Background:
α 44
β 1130 DPM

COLLECTED BY (PRINT) D. Thomas **REVIEWED BY (PRINT)** M. Bains

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) M. Bains (Signature)	12/10/09 1530	(Printed Name) (Signature)	12/10/09 1530
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name) (Signature)		(Printed Name) (Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2263 **EVENT NAME:** Soil Sampling at CU 03-009(a)-00

SAMPLE ID: RE03-09-13472 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12·10·09	MEDIA:	NA	QBt 3
TIME COLLECTED (HH:MM)		0905	SUB-MEDIA:	OTHER	NA
PRS ID:	03-009(i)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	03-608195		FIELD QC TYPE:	NA	
LOCATION TYPE:	GENERIC		FIELD PREP:	NA	
TOP DEPTH:	0	9'	SAMPLE USAGE:	INV	
BOTTOM DEPTH:	0	10'	SCREEN/PORT DESC:		
FIELD MATRIX:	S		EXCAVATED: YES / NO (NA)		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / (NA)

BOREHOLE: YES / NO / (NA) BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+8082+TPH-DRO	500 ML GLASS	Ice	Y	
1		Metals+CN - GEL	125 ML POLY	Ice	Y	Plus, B, Li, Si, Ti, U

SAMPLE DESC: Pinkish gray tuff. 7.5YR 6/2

SAMPLE COMMENTS: NA

LOCATION DESC: 9i-1

FIELD SCREENING/MEASUREMENT RESULTS: PID: 0.0ppm Samples: < MDA
Background:
α 44 DPM
β 1130

COLLECTED BY (PRINT) D. Thomas **REVIEWED BY (PRINT)** M Rains

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) M Rains (Signature)	12/10/09 1530	(Printed Name) (Signature)	12/10/09 1530
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name) (Signature)		(Printed Name) (Signature)	

DATA VALIDATION COVER SHEET

5114-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY

Section I.

REQUEST NUMBER: 10-901 VALIDATION DATE: 02/02/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Maryann Jordan ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☒ OTHER (DESCRIBE): VOCs by GC/MS

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☒	☐	☐	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☒	☐	☐	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. The %Ds in the ICV and/or CCV were >20% for bromodichloromethane and 1,1,2-trichloro-1,2,2-trifluoroethane. All associated sample results were NDs and, thus, were qualified UJ,V7c.
2. It should be noted that 1,1,2-trichloro-1,2,2-trifluoroethane was not included in the MS/MSD. Since analysis of a MS/MSD pair is not a client requirement, no sample data were qualified.

Reviewed by: Monica Dymerski **Level I** **Date:** 02/04/10

VALIDATOR'S SIGNATURE: [signature] DATE: 02/02/10

VOLATILE ORGANIC COMPOUND (VOC) ANALYTICAL DATA VALIDATION CHECKLIST

5114-2

Volatile Organic Compound (VOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, V9	J-, V9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, V9a	J-, V9a
☐	☐	☒	3. The instrument performance sample did not pass method acceptance criteria.	R, V16	R, V16
☐	☐	☒	4. Samples were analyzed outside specific method tune time criteria.	N/A	J, V16b
☐	☐	☒	5. The required instrument performance sample information is missing. Contact the SMO or external laboratory for information.	R, V16c	R, V16c
☐	☒	☐	6. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ or R, V7	J, V7
☐	☒	☐	7. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, V7a	J, V7a
☐	☒	☐	8. The affected analytes were analyzed with an RRF of <0.05 in the initial calibration and/or CCV.	R, V7b	J, V7b
☒	☐	☐	9. The Initial Calibration Verification (ICV) and/or Continuing Calibration Verification (CCV) were recovered outside the method-specific limits.	UJ, V7c	J, V7c
☐	☒	☐	10. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, V7d	J, V7d
☐	☒	☐	11. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, V7f	R, V7f

VOLATILE ORGANIC COMPOUND (VOC) ANALYTICAL DATA VALIDATION CHECKLIST

5114-2

Volatile Organic Compound (VOC) Analytical Data Validation Checklist

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Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	12. The sample result is ≤5X (10X for common organic laboratory contaminants) the concentration of the related analyte in the method blank.	U, V4	N/A
☐	☒	☐	13. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X (10X for common laboratory contaminants).	N/A	J, V4a
☐	☐	☒	14. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, and/or equipment blank.	U, V4d	N/A
☐	☒	☐	15. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V4e	R, V4e
☐	☒	☐	16. The IS retention time has shifted by more than 30 seconds.	UJ, V0	J, V0
☐	☐	☒	17. Analyte is positively confirmed but outside the IS retention time window; however, spectral matches must be provided.	N/A	J, V0a
☐	☒	☐	18. Required IS retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V0b	R, V0b
☐	☐	☒	19. The quantitating IS are count is <10% of the expected value, which indicates increased potential for false negative results and other possible problems with sample quantitation. Follow method-specific windows.	R, V1a	J, V1a
☐	☐	☒	20. The IS area count for the quantitating IS is <50% but >10% for organics window relation to the previous continuing calibration. Follow the method-specific windows.	UJ, V1b	J, V1b

VOLATILE ORGANIC COMPOUND (VOC) ANALYTICAL DATA VALIDATION CHECKLIST

5114-2

Volatile Organic Compound (VOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	21. The IS area count for the quantitating IS is >200% of the area count for the previous organic continuing calibration. Follow the method-specific windows.	UJ, V1c	J, V1c
☐	☐	☒	22. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V1d	R, V1d
☐	☒	☐	23. The surrogate is <10%R. Follow the external laboratory limits located within the associated data package.	R, V3	J-, V3
☐	☒	☐	24. The surrogate is < the Lower Acceptance Limit (LAL) but ≥10%R. Follow the external laboratory limits located within the associated data package.	UJ, V3a	J-, V3a
☐	☒	☐	25. The surrogate %R is > the Upper Acceptance Limit (UAL) Follow the external laboratory limits located within the associated data package.	N/A	J+, V3b
☐	☒	☐	26. At least one surrogate is > the UAL and one surrogate is < the LAL. Follow the external laboratory limits located within the associated data package.	UJ, V3c	J, V3c
☐	☒	☐	27. Required surrogate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V3d	R, V3d
☐	☒	☐	28. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, V12	J-, V12
☐	☒	☐	29. The LCS percent recovery was < the LAL but > 10%. Follow the external laboratory limits located within the associated data package.	UV, V12a	J-, V12a
☐	☒	☐	30. The LCS percent recover was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, V12b

VOLATILE ORGANIC COMPOUND (VOC) ANALYTICAL DATA VALIDATION CHECKLIST

5114-2

Volatile Organic Compound (VOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	31. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V12c	R, V12c
☐	☒	☐	32. The affected analyte is considered not detected because mass spectrum did not meet specifications.	N/A	U, V8
☐	☒	☐	33. The mass spectrum column documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V8a	R, V8a
☐	☒	☐	34. Duplicate, dilution, or reanalysis.	UJ, V88	J, V88
☐	☐	☒	35. The affected analytes have elevated detection limits and may not meet project DQOs because the sample was diluted without any target analytees identified due to matrix interference. Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.	UJ, R, V15	R, V15
☒	☐	☐	36. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB, NQ, NQ
☐	☒	☐	37. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.	UJ, R, V19	J, R, V19

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-901	Date Collected:	12/10/2009 12:00	Matrix:	S
Lab Sample ID:	242794004	Date Received:	12/12/2009 09:35	%Moisture:	6.4
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-13469	Method:	SW846 8260B	SOP Ref:	GL-OA-E-038
Batch ID:	934728	Inst:	VOA1.I	Dilution:	1
Run Date:	12/19/2009 02:53	Analyst:	RXM4	Purge Vol:	5 mL
Prep Date:	12/18/2009 14:07	Aliquot:	5 g	Final Volume:	5 mL
Data File:	1r533.d	Column:	RTX-Volatiles	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
75-71-8	Dichlorodifluoromethane	U	1.07	ug/kg	0.363	1.07	
74-87-3	Chloromethane	U	1.07	ug/kg	0.321	1.07	
75-01-4	Vinyl chloride	U	1.07	ug/kg	0.321	1.07	
74-83-9	Bromomethane	U	1.07	ug/kg	0.321	1.07	
75-00-3	Chloroethane	U	1.07	ug/kg	0.321	1.07	
75-69-4	Trichlorofluoromethane	U	1.07	ug/kg	0.321	1.07	
67-64-1	Acetone	U	5.34	ug/kg	1.77	5.34	
75-35-4	1,1-Dichloroethylene	U	1.07	ug/kg	0.321	1.07	
74-88-4	Iodomethane	U	5.34	ug/kg	1.71	5.34	
75-09-2	Methylene chloride	J	2.34	ug/kg	2.14	5.34	
75-15-0	Carbon disulfide	U	5.34	ug/kg	1.34	5.34	
156-60-5	trans-1,2-Dichloroethylene	U	1.07	ug/kg	0.321	1.07	
75-34-3	1,1-Dichloroethane	U	1.07	ug/kg	0.321	1.07	
78-93-3	2-Butanone	U	5.34	ug/kg	1.60	5.34	
156-59-2	cis-1,2-Dichloroethylene	U	1.07	ug/kg	0.321	1.07	
594-20-7	2,2-Dichloropropane	U	1.07	ug/kg	0.321	1.07	
67-66-3	Chloroform	U	1.07	ug/kg	0.321	1.07	
74-97-5	Bromochloromethane	U	1.07	ug/kg	0.353	1.07	
71-55-6	1,1,1-Trichloroethane	U	1.07	ug/kg	0.321	1.07	
563-58-6	1,1-Dichloropropene	U	1.07	ug/kg	0.321	1.07	
56-23-5	Carbon tetrachloride	U	1.07	ug/kg	0.321	1.07	
107-06-2	1,2-Dichloroethane	U	1.07	ug/kg	0.321	1.07	
71-43-2	Benzene	U	1.07	ug/kg	0.321	1.07	
79-01-6	Trichloroethylene	U	1.07	ug/kg	0.353	1.07	
78-87-5	1,2-Dichloropropane	U	1.07	ug/kg	0.321	1.07	
75-27-4	Bromodichloromethane	U	1.07	ug/kg	0.321	1.07	UJ,V7c
74-95-3	Dibromomethane	U	1.07	ug/kg	0.321	1.07	
108-10-1	4-Methyl-2-pentanone	U	5.34	ug/kg	1.34	5.34	
10061-01-5	cis-1,3-Dichloropropylene	U	1.07	ug/kg	0.321	1.07	
108-88-3	Toluene	U	1.07	ug/kg	0.321	1.07	
10061-02-6	trans-1,3-Dichloropropylene	U	1.07	ug/kg	0.321	1.07	
79-00-5	1,1,2-Trichloroethane	U	1.07	ug/kg	0.321	1.07	
591-78-6	2-Hexanone	U	5.34	ug/kg	1.60	5.34	
142-28-9	1,3-Dichloropropane	U	1.07	ug/kg	0.321	1.07	
127-18-4	Tetrachloroethylene	U	1.07	ug/kg	0.321	1.07	
124-48-1	Dibromochloromethane	U	1.07	ug/kg	0.321	1.07	
106-93-4	1,2-Dibromoethane	U	1.07	ug/kg	0.321	1.07	
108-90-7	Chlorobenzene	U	1.07	ug/kg	0.321	1.07	

MJ
02/02/10

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-901	Date Collected:	12/10/2009 12:00	Matrix:	S
Lab Sample ID:	242794004	Date Received:	12/12/2009 09:35	%Moisture:	6.4
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-13469	Method:	SW846 8260B	SOP Ref:	GL-OA-E-038
Batch ID:	934728	Inst:	VOA1.I	Dilution:	1
Run Date:	12/19/2009 02:53	Analyst:	RXM4	Purge Vol:	5 mL
Prep Date:	12/18/2009 14:07	Aliquot:	5 g	Final Volume:	5 mL
Data File:	1r533.d	Column:	RTX-Volatiles	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
100-41-4	Ethylbenzene	U	1.07	ug/kg	0.321	1.07	
179601-23-1	m,p-Xylenes	U	2.14	ug/kg	0.321	2.14	
95-47-6	o-Xylene	U	1.07	ug/kg	0.321	1.07	
100-42-5	Styrene	U	1.07	ug/kg	0.321	1.07	
75-25-2	Bromoform	U	1.07	ug/kg	0.321	1.07	
79-34-5	1,1,2,2-Tetrachloroethane	U	1.07	ug/kg	0.321	1.07	
96-18-4	1,2,3-Trichloropropane	U	1.07	ug/kg	0.321	1.07	
108-86-1	Bromobenzene	U	1.07	ug/kg	0.321	1.07	
103-65-1	n-Propylbenzene	U	1.07	ug/kg	0.321	1.07	
95-49-8	2-Chlorotoluene	U	1.07	ug/kg	0.321	1.07	
98-82-8	Isopropylbenzene	U	1.07	ug/kg	0.321	1.07	
108-67-8	1,3,5-Trimethylbenzene	U	1.07	ug/kg	0.321	1.07	
106-43-4	4-Chlorotoluene	U	1.07	ug/kg	0.321	1.07	
98-06-6	tert-Butylbenzene	U	1.07	ug/kg	0.321	1.07	
95-63-6	1,2,4-Trimethylbenzene	U	1.07	ug/kg	0.321	1.07	
135-98-8	sec-Butylbenzene	U	1.07	ug/kg	0.321	1.07	
99-87-6	4-Isopropyltoluene	U	1.07	ug/kg	0.321	1.07	
541-73-1	1,3-Dichlorobenzene	U	1.07	ug/kg	0.321	1.07	
106-46-7	1,4-Dichlorobenzene	U	1.07	ug/kg	0.321	1.07	
104-51-8	n-Butylbenzene	U	1.07	ug/kg	0.321	1.07	
96-12-8	1,2-Dibromo-3-chloropropane	U	1.07	ug/kg	0.321	1.07	
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.34	ug/kg	1.71	5.34	UJ,V7c
630-20-6	1,1,1,2-Tetrachloroethane	U	1.07	ug/kg	0.321	1.07	
95-50-1	1,2-Dichlorobenzene	U	1.07	ug/kg	0.321	1.07	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Hydrocarbon	18.07	18.7	ug/kg		J

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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-901	Date Collected:	12/10/2009 12:00	Matrix:	S
Lab Sample ID:	242794001	Date Received:	12/12/2009 09:35	%Moisture:	4.4
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-13470	Method:	SW846 8260B	SOP Ref:	GL-OA-E-038
Batch ID:	934728	Inst:	VOA1.I	Dilution:	1
Run Date:	12/19/2009 01:22	Analyst:	RXM4	Purge Vol:	5 mL
Prep Date:	12/18/2009 14:02	Aliquot:	5 g	Final Volume:	5 mL
Data File:	1r530.d	Column:	RTX-Volatiles	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
75-71-8	Dichlorodifluoromethane	U	1.05	ug/kg	0.355	1.05	
74-87-3	Chloromethane	U	1.05	ug/kg	0.314	1.05	
75-01-4	Vinyl chloride	U	1.05	ug/kg	0.314	1.05	
74-83-9	Bromomethane	U	1.05	ug/kg	0.314	1.05	
75-00-3	Chloroethane	U	1.05	ug/kg	0.314	1.05	
75-69-4	Trichlorofluoromethane	U	1.05	ug/kg	0.314	1.05	
67-64-1	Acetone	U	5.23	ug/kg	1.74	5.23	
75-35-4	1,1-Dichloroethylene	U	1.05	ug/kg	0.314	1.05	
74-88-4	Iodomethane	U	5.23	ug/kg	1.67	5.23	
75-09-2	Methylene chloride	J	2.19	ug/kg	2.09	5.23	
75-15-0	Carbon disulfide	U	5.23	ug/kg	1.31	5.23	
156-60-5	trans-1,2-Dichloroethylene	U	1.05	ug/kg	0.314	1.05	
75-34-3	1,1-Dichloroethane	U	1.05	ug/kg	0.314	1.05	
78-93-3	2-Butanone	U	5.23	ug/kg	1.57	5.23	
156-59-2	cis-1,2-Dichloroethylene	U	1.05	ug/kg	0.314	1.05	
594-20-7	2,2-Dichloropropane	U	1.05	ug/kg	0.314	1.05	
67-66-3	Chloroform	U	1.05	ug/kg	0.314	1.05	
74-97-5	Bromochloromethane	U	1.05	ug/kg	0.345	1.05	
71-55-6	1,1,1-Trichloroethane	U	1.05	ug/kg	0.314	1.05	
563-58-6	1,1-Dichloropropene	U	1.05	ug/kg	0.314	1.05	
56-23-5	Carbon tetrachloride	U	1.05	ug/kg	0.314	1.05	
107-06-2	1,2-Dichloroethane	U	1.05	ug/kg	0.314	1.05	
71-43-2	Benzene	U	1.05	ug/kg	0.314	1.05	
79-01-6	Trichloroethylene	U	1.05	ug/kg	0.345	1.05	
78-87-5	1,2-Dichloropropane	U	1.05	ug/kg	0.314	1.05	
75-27-4	Bromodichloromethane	U	1.05	ug/kg	0.314	1.05	UJ,V7c
74-95-3	Dibromomethane	U	1.05	ug/kg	0.314	1.05	
108-10-1	4-Methyl-2-pentanone	U	5.23	ug/kg	1.31	5.23	
10061-01-5	cis-1,3-Dichloropropylene	U	1.05	ug/kg	0.314	1.05	
108-88-3	Toluene	U	1.05	ug/kg	0.314	1.05	
10061-02-6	trans-1,3-Dichloropropylene	U	1.05	ug/kg	0.314	1.05	
79-00-5	1,1,2-Trichloroethane	U	1.05	ug/kg	0.314	1.05	
591-78-6	2-Hexanone	U	5.23	ug/kg	1.57	5.23	
142-28-9	1,3-Dichloropropane	U	1.05	ug/kg	0.314	1.05	
127-18-4	Tetrachloroethylene	U	1.05	ug/kg	0.314	1.05	
124-48-1	Dibromochloromethane	U	1.05	ug/kg	0.314	1.05	
106-93-4	1,2-Dibromoethane	U	1.05	ug/kg	0.314	1.05	
108-90-7	Chlorobenzene	U	1.05	ug/kg	0.314	1.05	

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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-901	Date Collected:	12/10/2009 12:00	Matrix:	S
Lab Sample ID:	242794001	Date Received:	12/12/2009 09:35	%Moisture:	4.4
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-13470	Method:	SW846 8260B	SOP Ref:	GL-OA-E-038
Batch ID:	934728	Inst:	VOA1.I	Dilution:	1
Run Date:	12/19/2009 01:22	Analyst:	RXM4	Purge Vol:	5 mL
Prep Date:	12/18/2009 14:02	Aliquot:	5 g	Final Volume:	5 mL
Data File:	1r530.d	Column:	RTX-Volatiles	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
100-41-4	Ethylbenzene	U	1.05	ug/kg	0.314	1.05	
179601-23-1	m,p-Xylenes	U	2.09	ug/kg	0.314	2.09	
95-47-6	o-Xylene	U	1.05	ug/kg	0.314	1.05	
100-42-5	Styrene	U	1.05	ug/kg	0.314	1.05	
75-25-2	Bromoform	U	1.05	ug/kg	0.314	1.05	
79-34-5	1,1,2,2-Tetrachloroethane	U	1.05	ug/kg	0.314	1.05	
96-18-4	1,2,3-Trichloropropane	U	1.05	ug/kg	0.314	1.05	
108-86-1	Bromobenzene	U	1.05	ug/kg	0.314	1.05	
103-65-1	n-Propylbenzene	U	1.05	ug/kg	0.314	1.05	
95-49-8	2-Chlorotoluene	U	1.05	ug/kg	0.314	1.05	
98-82-8	Isopropylbenzene	U	1.05	ug/kg	0.314	1.05	
108-67-8	1,3,5-Trimethylbenzene	U	1.05	ug/kg	0.314	1.05	
106-43-4	4-Chlorotoluene	U	1.05	ug/kg	0.314	1.05	
98-06-6	tert-Butylbenzene	U	1.05	ug/kg	0.314	1.05	
95-63-6	1,2,4-Trimethylbenzene	U	1.05	ug/kg	0.314	1.05	
135-98-8	sec-Butylbenzene	U	1.05	ug/kg	0.314	1.05	
99-87-6	4-Isopropyltoluene	U	1.05	ug/kg	0.314	1.05	
541-73-1	1,3-Dichlorobenzene	U	1.05	ug/kg	0.314	1.05	
106-46-7	1,4-Dichlorobenzene	U	1.05	ug/kg	0.314	1.05	
104-51-8	n-Butylbenzene	U	1.05	ug/kg	0.314	1.05	
96-12-8	1,2-Dibromo-3-chloropropane	U	1.05	ug/kg	0.314	1.05	
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.23	ug/kg	1.67	5.23	UJ,V7c
630-20-6	1,1,1,2-Tetrachloroethane	U	1.05	ug/kg	0.314	1.05	
95-50-1	1,2-Dichlorobenzene	U	1.05	ug/kg	0.314	1.05	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Flt	Qual
22566-43-4	Anthracene, 9,10-dihydro-9,10-dimethyl-	18.07	29.3	ug/kg	38	NJ

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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-901	Date Collected:	12/10/2009 12:00	Matrix:	S
Lab Sample ID:	242794002	Date Received:	12/12/2009 09:35	%Moisture:	4.3
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-13471	Method:	SW846 8260B	SOP Ref:	GL-OA-E-038
Batch ID:	934728	Inst:	VOA1.I	Dilution:	1
Run Date:	12/19/2009 01:53	Analyst:	RXM4	Purge Vol:	5 mL
Prep Date:	12/18/2009 14:05	Aliquot:	5 g	Final Volume:	5 mL
Data File:	1r531.d	Column:	RTX-Volatiles	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
75-71-8	Dichlorodifluoromethane	U	1.04	ug/kg	0.355	1.04	
74-87-3	Chloromethane	U	1.04	ug/kg	0.313	1.04	
75-01-4	Vinyl chloride	U	1.04	ug/kg	0.313	1.04	
74-83-9	Bromomethane	U	1.04	ug/kg	0.313	1.04	
75-00-3	Chloroethane	U	1.04	ug/kg	0.313	1.04	
75-69-4	Trichlorofluoromethane	U	1.04	ug/kg	0.313	1.04	
67-64-1	Acetone	U	5.22	ug/kg	1.73	5.22	
75-35-4	1,1-Dichloroethylene	U	1.04	ug/kg	0.313	1.04	
74-88-4	Iodomethane	U	5.22	ug/kg	1.67	5.22	
75-09-2	Methylene chloride	J	2.33	ug/kg	2.09	5.22	
75-15-0	Carbon disulfide	U	5.22	ug/kg	1.31	5.22	
156-60-5	trans-1,2-Dichloroethylene	U	1.04	ug/kg	0.313	1.04	
75-34-3	1,1-Dichloroethane	U	1.04	ug/kg	0.313	1.04	
78-93-3	2-Butanone	U	5.22	ug/kg	1.57	5.22	
156-59-2	cis-1,2-Dichloroethylene	U	1.04	ug/kg	0.313	1.04	
594-20-7	2,2-Dichloropropane	U	1.04	ug/kg	0.313	1.04	
67-66-3	Chloroform	U	1.04	ug/kg	0.313	1.04	
74-97-5	Bromochloromethane	U	1.04	ug/kg	0.345	1.04	
71-55-6	1,1,1-Trichloroethane	U	1.04	ug/kg	0.313	1.04	
563-58-6	1,1-Dichloropropene	U	1.04	ug/kg	0.313	1.04	
56-23-5	Carbon tetrachloride	U	1.04	ug/kg	0.313	1.04	
107-06-2	1,2-Dichloroethane	U	1.04	ug/kg	0.313	1.04	
71-43-2	Benzene	U	1.04	ug/kg	0.313	1.04	
79-01-6	Trichloroethylene	U	1.04	ug/kg	0.345	1.04	
78-87-5	1,2-Dichloropropane	U	1.04	ug/kg	0.313	1.04	
75-27-4	Bromodichloromethane	U	1.04	ug/kg	0.313	1.04	UJ,V7c
74-95-3	Dibromomethane	U	1.04	ug/kg	0.313	1.04	
108-10-1	4-Methyl-2-pentanone	U	5.22	ug/kg	1.31	5.22	
10061-01-5	cis-1,3-Dichloropropylene	U	1.04	ug/kg	0.313	1.04	
108-88-3	Toluene	U	1.04	ug/kg	0.313	1.04	
10061-02-6	trans-1,3-Dichloropropylene	U	1.04	ug/kg	0.313	1.04	
79-00-5	1,1,2-Trichloroethane	U	1.04	ug/kg	0.313	1.04	
591-78-6	2-Hexanone	J	2.28	ug/kg	1.57	5.22	
142-28-9	1,3-Dichloropropane	U	1.04	ug/kg	0.313	1.04	
127-18-4	Tetrachloroethylene	U	1.04	ug/kg	0.313	1.04	
124-48-1	Dibromochloromethane	U	1.04	ug/kg	0.313	1.04	
106-93-4	1,2-Dibromoethane	U	1.04	ug/kg	0.313	1.04	
108-90-7	Chlorobenzene	U	1.04	ug/kg	0.313	1.04	

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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-901	Date Collected:	12/10/2009 12:00	Matrix:	S
Lab Sample ID:	242794002	Date Received:	12/12/2009 09:35	%Moisture:	4.3
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-13471	Method:	SW846 8260B	SOP Ref:	GL-OA-E-038
Batch ID:	934728	Inst:	VOA1.I	Dilution:	1
Run Date:	12/19/2009 01:53	Analyst:	RXM4	Purge Vol:	5 mL
Prep Date:	12/18/2009 14:05	Aliquot:	5 g	Final Volume:	5 mL
Data File:	1r531.d	Column:	RTX-Volatiles	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
100-41-4	Ethylbenzene	U	1.04	ug/kg	0.313	1.04	
179601-23-1	m,p-Xylenes	U	2.09	ug/kg	0.313	2.09	
95-47-6	o-Xylene	U	1.04	ug/kg	0.313	1.04	
100-42-5	Styrene	U	1.04	ug/kg	0.313	1.04	
75-25-2	Bromoform	U	1.04	ug/kg	0.313	1.04	
79-34-5	1,1,2,2-Tetrachloroethane	U	1.04	ug/kg	0.313	1.04	
96-18-4	1,2,3-Trichloropropane	U	1.04	ug/kg	0.313	1.04	
108-86-1	Bromobenzene	U	1.04	ug/kg	0.313	1.04	
103-65-1	n-Propylbenzene	U	1.04	ug/kg	0.313	1.04	
95-49-8	2-Chlorotoluene	U	1.04	ug/kg	0.313	1.04	
98-82-8	Isopropylbenzene	U	1.04	ug/kg	0.313	1.04	
108-67-8	1,3,5-Trimethylbenzene	U	1.04	ug/kg	0.313	1.04	
106-43-4	4-Chlorotoluene	U	1.04	ug/kg	0.313	1.04	
98-06-6	tert-Butylbenzene	U	1.04	ug/kg	0.313	1.04	
95-63-6	1,2,4-Trimethylbenzene	U	1.04	ug/kg	0.313	1.04	
135-98-8	sec-Butylbenzene	U	1.04	ug/kg	0.313	1.04	
99-87-6	4-Isopropyltoluene	U	1.04	ug/kg	0.313	1.04	
541-73-1	1,3-Dichlorobenzene	U	1.04	ug/kg	0.313	1.04	
106-46-7	1,4-Dichlorobenzene	U	1.04	ug/kg	0.313	1.04	
104-51-8	n-Butylbenzene	U	1.04	ug/kg	0.313	1.04	
96-12-8	1,2-Dibromo-3-chloropropane	U	1.04	ug/kg	0.313	1.04	
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.22	ug/kg	1.67	5.22	UJ,V7c
630-20-6	1,1,1,2-Tetrachloroethane	U	1.04	ug/kg	0.313	1.04	
95-50-1	1,2-Dichlorobenzene	U	1.04	ug/kg	0.313	1.04	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Siloxane	18.07	20.4	ug/kg		J
	Unknown Hydrocarbon	20.01	21.4	ug/kg		J

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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-901	Date Collected:	12/10/2009 12:00	Matrix:	S
Lab Sample ID:	242794003	Date Received:	12/12/2009 09:35	%Moisture:	7.7
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-13472	Method:	SW846 8260B	SOP Ref:	GL-OA-E-038
Batch ID:	934728	Inst:	VOA1.I	Dilution:	1
Run Date:	12/19/2009 02:23	Analyst:	RXM4	Purge Vol:	5 mL
Prep Date:	12/18/2009 14:06	Aliquot:	5 g	Final Volume:	5 mL
Data File:	1r532.d	Column:	RTX-Volatiles	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
75-71-8	Dichlorodifluoromethane	U	1.08	ug/kg	0.368	1.08	
74-87-3	Chloromethane	U	1.08	ug/kg	0.325	1.08	
75-01-4	Vinyl chloride	U	1.08	ug/kg	0.325	1.08	
74-83-9	Bromomethane	U	1.08	ug/kg	0.325	1.08	
75-00-3	Chloroethane	U	1.08	ug/kg	0.325	1.08	
75-69-4	Trichlorofluoromethane	U	1.08	ug/kg	0.325	1.08	
67-64-1	Acetone	U	5.42	ug/kg	1.80	5.42	
75-35-4	1,1-Dichloroethylene	U	1.08	ug/kg	0.325	1.08	
74-88-4	Iodomethane	U	5.42	ug/kg	1.73	5.42	
75-09-2	Methylene chloride	J	2.24	ug/kg	2.17	5.42	
75-15-0	Carbon disulfide	U	5.42	ug/kg	1.35	5.42	
156-60-5	trans-1,2-Dichloroethylene	U	1.08	ug/kg	0.325	1.08	
75-34-3	1,1-Dichloroethane	U	1.08	ug/kg	0.325	1.08	
78-93-3	2-Butanone	U	5.42	ug/kg	1.63	5.42	
156-59-2	cis-1,2-Dichloroethylene	U	1.08	ug/kg	0.325	1.08	
594-20-7	2,2-Dichloropropane	U	1.08	ug/kg	0.325	1.08	
67-66-3	Chloroform	U	1.08	ug/kg	0.325	1.08	
74-97-5	Bromochloromethane	U	1.08	ug/kg	0.358	1.08	
71-55-6	1,1,1-Trichloroethane	U	1.08	ug/kg	0.325	1.08	
563-58-6	1,1-Dichloropropene	U	1.08	ug/kg	0.325	1.08	
56-23-5	Carbon tetrachloride	U	1.08	ug/kg	0.325	1.08	
107-06-2	1,2-Dichloroethane	U	1.08	ug/kg	0.325	1.08	
71-43-2	Benzene	U	1.08	ug/kg	0.325	1.08	
79-01-6	Trichloroethylene	U	1.08	ug/kg	0.358	1.08	
78-87-5	1,2-Dichloropropane	U	1.08	ug/kg	0.325	1.08	
75-27-4	Bromodichloromethane	U	1.08	ug/kg	0.325	1.08	UJ,V7c
74-95-3	Dibromomethane	U	1.08	ug/kg	0.325	1.08	
108-10-1	4-Methyl-2-pentanone	U	5.42	ug/kg	1.35	5.42	
10061-01-5	cis-1,3-Dichloropropylene	U	1.08	ug/kg	0.325	1.08	
108-88-3	Toluene	U	1.08	ug/kg	0.325	1.08	
10061-02-6	trans-1,3-Dichloropropylene	U	1.08	ug/kg	0.325	1.08	
79-00-5	1,1,2-Trichloroethane	U	1.08	ug/kg	0.325	1.08	
591-78-6	2-Hexanone	U	5.42	ug/kg	1.63	5.42	
142-28-9	1,3-Dichloropropane	U	1.08	ug/kg	0.325	1.08	
127-18-4	Tetrachloroethylene	U	1.08	ug/kg	0.325	1.08	
124-48-1	Dibromochloromethane	U	1.08	ug/kg	0.325	1.08	
106-93-4	1,2-Dibromoethane	U	1.08	ug/kg	0.325	1.08	
108-90-7	Chlorobenzene	U	1.08	ug/kg	0.325	1.08	

MJ
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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-901	Date Collected:	12/10/2009 12:00	Matrix:	S
Lab Sample ID:	242794003	Date Received:	12/12/2009 09:35	%Moisture:	7.7
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-13472	Method:	SW846 8260B	SOP Ref:	GL-OA-E-038
Batch ID:	934728	Inst:	VOA1.I	Dilution:	1
Run Date:	12/19/2009 02:23	Analyst:	RXM4	Purge Vol:	5 mL
Prep Date:	12/18/2009 14:06	Aliquot:	5 g	Final Volume:	5 mL
Data File:	1r532.d	Column:	RTX-Volatiles	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
100-41-4	Ethylbenzene	U	1.08	ug/kg	0.325	1.08	
179601-23-1	m,p-Xylenes	U	2.17	ug/kg	0.325	2.17	
95-47-6	o-Xylene	U	1.08	ug/kg	0.325	1.08	
100-42-5	Styrene	U	1.08	ug/kg	0.325	1.08	
75-25-2	Bromoform	U	1.08	ug/kg	0.325	1.08	
79-34-5	1,1,2,2-Tetrachloroethane	U	1.08	ug/kg	0.325	1.08	
96-18-4	1,2,3-Trichloropropane	U	1.08	ug/kg	0.325	1.08	
108-86-1	Bromobenzene	U	1.08	ug/kg	0.325	1.08	
103-65-1	n-Propylbenzene	U	1.08	ug/kg	0.325	1.08	
95-49-8	2-Chlorotoluene	U	1.08	ug/kg	0.325	1.08	
98-82-8	Isopropylbenzene	U	1.08	ug/kg	0.325	1.08	
108-67-8	1,3,5-Trimethylbenzene	U	1.08	ug/kg	0.325	1.08	
106-43-4	4-Chlorotoluene	U	1.08	ug/kg	0.325	1.08	
98-06-6	tert-Butylbenzene	U	1.08	ug/kg	0.325	1.08	
95-63-6	1,2,4-Trimethylbenzene	U	1.08	ug/kg	0.325	1.08	
135-98-8	sec-Butylbenzene	U	1.08	ug/kg	0.325	1.08	
99-87-6	4-Isopropyltoluene	U	1.08	ug/kg	0.325	1.08	
541-73-1	1,3-Dichlorobenzene	U	1.08	ug/kg	0.325	1.08	
106-46-7	1,4-Dichlorobenzene	U	1.08	ug/kg	0.325	1.08	
104-51-8	n-Butylbenzene	U	1.08	ug/kg	0.325	1.08	
96-12-8	1,2-Dibromo-3-chloropropane	U	1.08	ug/kg	0.325	1.08	
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.42	ug/kg	1.73	5.42	UJ,V7c
630-20-6	1,1,1,2-Tetrachloroethane	U	1.08	ug/kg	0.325	1.08	
95-50-1	1,2-Dichlorobenzene	U	1.08	ug/kg	0.325	1.08	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Hydrocarbon	18.07	30.8	ug/kg		J

MJ
02/02/10

DATA VALIDATION COVER SHEET

5115-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-901 VALIDATION DATE: 02/03/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Maryann Jordan ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☒ OTHER (DESCRIBE): SVOCs by GC/MS

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☒	☐	☐	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☒	☐	☐	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. The %Ds in the ICV and/or CCV were >20% for hexachlorocyclopentadiene; benzoic acid and 2-methyl-4,6-dinitrophenol. The associated sample results were NDs and, thus, were qualified UJ,SV7c.
2. The %Rs in the MS and/or MSD were < the laboratory LAL but ≥10% for 11 compounds, and <10% for two compounds. The MS/MSD RPDs were > the laboratory acceptance limit for 18 compounds. Since analysis of a MS/MSD pair is not a client requirement, no sample data were qualified. It should be noted that the parent sample for the MS/MSD was a LANL sample from another RN and that the raw data for the parent sample was not included in the data package. No sample data were qualified as a result.

Reviewed by: Monica Dymerski **Level I** **Date:** 02/04/10

VALIDATOR'S SIGNATURE: DATE: 02/03/10

SEMIVOLATILE ORGANIC COMPOUND (SVOC) ANALYTICAL DATA VALIDATION CHECKLIST

5115-2

Semivolatile Organic Compound (SVOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, SV9	J-, SV9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, SV9a	J-, SV9a
☐	☒	☐	3. The affected analytes are regarded as rejected because the analytical holding time was exceeded.	R, SV9b	R, SV9b
☐	☐	☒	4. The instrument performance sample did not pass method acceptance criteria.	R, SV16	R, SV16
☐	☐	☒	5. Samples were analyzed outside specific method tune time criteria.	N/A	J, SV16b
☐	☐	☒	6. The required instrument performance sample information is missing. Contact the SMO or external laboratory for information.	R, SV16c	R, SV16c
☐	☒	☐	7. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, SV7	J, SV7
☐	☒	☐	8. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, SV7a	J, SV7a
☐	☒	☐	9. The affected analytes were analyzed with an RRF of <0.05 in the initial calibration and/or Continuing Calibration Verification (CCV).	R, SV7b	J, SV7b
☒	☐	☐	10. The Initial Calibration Verification (ICV) and/or CCV were recovered outside the method-specific limits.	UJ, SV7c	J, SV7c
☐	☒	☐	11. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, SV7d	J, SV7d

SEMIVOLATILE ORGANIC COMPOUND (SVOC) ANALYTICAL DATA VALIDATION CHECKLIST

5115-2 Semivolatile Organic Compound (SVOC) Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	12. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, SV7f	R, SV7f
☐	☒	☐	13. The sample result is ≤5X (10X for common organic laboratory contaminates) the concentration of the related analyte in the method blank.	U, SV4	J, V4a
☐	☒	☐	14. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was greater than 5X (10X for common laboratory contaminates).	N/A	J, SV4a
☐	☐	☒	15. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	UJ, SV4d	N/A
☐	☒	☐	16. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV4e	R, SV4e
☐	☒	☐	17. The IS retention time has shifted by more than 30 seconds.	UJ, SV0	J, SV0
☐	☐	☒	18. Analyte is positively confirmed but outside the IS retention time window; however, spectral matches must be provided.	N/A	J, SV0a
☐	☒	☐	19. Required IS retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV0b	R, SV0b
☐	☐	☒	20. The quantitating IS area count is <10% of the expected value, which indicates increased potential for false negative results and other possible problems with sample quantitation. Follow method-specific windows.	R, SV1a	J, SV1a

SEMIVOLATILE ORGANIC COMPOUND (SVOC) ANALYTICAL DATA VALIDATION CHECKLIST

5115-2

Semivolatile Organic Compound (SVOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	21. The IS area count for the quantitating IS is <50% but >10% for organics window relation to the previous continuing calibration. Follow method-specific windows.	UJ, SV1b	J, SV1b
☐	☐	☒	22. The IS area count for the quantitating IS is >200% of the area count for the previous continuing calibration. Follow method-specific windows.	UJ, SV1c	J, SV1c
☐	☐	☒	23. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV1d	R, SV1d
☐	☒	☐	24. The surrogate is <10%R. Follow the external laboratory limits located within the associated data package.	R, SV3	J-, SV3
☐	☒	☐	25. The surrogate is < the Lower Acceptance Level (LAL) but ≥10%R. Follow the external laboratory limits located within the associated data package.	UJ, SV3a	J-, SV3a
☐	☒	☐	26. The surrogate %R value is > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, SV3b
☐	☒	☐	27. At least one surrogate is > the Upper Acceptance Limit (UAL) and one surrogate is < the LAL. Follow the external laboratory limits located within the associated data package.	UJ, SV3c	J, SV3c
☐	☒	☐	28. Required surrogate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV3d	R, SV3d
☐	☒	☐	29. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, SV12	J-, SV12

SEMIVOLATILE ORGANIC COMPOUND (SVOC) ANALYTICAL DATA VALIDATION CHECKLIST

5115-2

Semivolatile Organic Compound (SVOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	30. The LCS percent recovery was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, SV12a	J-, SV12a
☐	☒	☐	31. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, SV12b
☐	☒	☐	32. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV12c	R, SV12c
☐	☒	☐	33. The affected analyte is considered not detected because mass spectrum did not meet specifications.	N/A	U, SV8
☐	☒	☐	34. The mass spectrum column documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV8a	R, SV8a
☐	☒	☐	35. Duplicate, dilution, or reanalysis.	UJ, SV88	J, SV88
☐	☐	☒	36. The affected analytes have elevated detection limits and may not meet project DQOs because the sample was diluted without any target analytees identified due to matrix interference. Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.	UJ, R, SV15	R, SV15
☒	☐	☐	37. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB, NQ, NQ
☐	☒	☐	38. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.	UJ, R, SV19	J, R, SV19

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-901	Date Collected:	12/10/2009 12:00	Matrix:	S
Lab Sample ID:	242794004	Date Received:	12/12/2009 09:35	%Moisture:	6.4
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-13469	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	932444	Inst:	MSD6.I	Dilution:	1
Run Date:	12/17/2009 01:30	Analyst:	NAG1	Inj. Vol:	.5 uL
Prep Date:	12/14/2009 09:47	Aliquot:	30 g	Final Volume:	1 mL
Data File:	s6l1635.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
62-75-9	N-Methyl-N-nitrosomethylamine	U	356	ug/kg	71.2	356	
108-95-2	Phenol	U	356	ug/kg	71.2	356	
95-57-8	2-Chlorophenol	U	356	ug/kg	71.2	356	
106-46-7	1,4-Dichlorobenzene	U	356	ug/kg	71.2	356	
621-64-7	N-Nitrosodipropylamine	U	356	ug/kg	71.2	356	
59-50-7	4-Chloro-3-methylphenol	U	356	ug/kg	71.2	356	
83-32-9	Acenaphthene	U	35.6	ug/kg	11.8	35.6	
121-14-2	2,4-Dinitrotoluene	U	356	ug/kg	35.6	356	
100-02-7	4-Nitrophenol	U	356	ug/kg	118	356	
87-86-5	Pentachlorophenol	U	356	ug/kg	89.1	356	
129-00-0	Pyrene	J	15.1	ug/kg	10.7	35.6	
110-86-1	Pyridine	U	356	ug/kg	71.2	356	
62-53-3	Aniline	U	356	ug/kg	107	356	
111-44-4	bis(2-Chloroethyl) ether	U	356	ug/kg	71.2	356	
541-73-1	1,3-Dichlorobenzene	U	356	ug/kg	71.2	356	
100-51-6	Benzyl alcohol	U	356	ug/kg	107	356	
95-50-1	1,2-Dichlorobenzene	U	356	ug/kg	71.2	356	
108-60-1	bis(2-Chloroisopropyl)ether	U	356	ug/kg	71.2	356	
95-48-7	o-Cresol	U	356	ug/kg	71.2	356	
65794-96-9	m,p-Cresols	U	356	ug/kg	107	356	
67-72-1	Hexachloroethane	U	356	ug/kg	71.2	356	
98-95-3	Nitrobenzene	U	356	ug/kg	71.2	356	
78-59-1	Isophorone	U	356	ug/kg	71.2	356	
88-75-5	2-Nitrophenol	U	356	ug/kg	71.2	356	
105-67-9	2,4-Dimethylphenol	U	356	ug/kg	125	356	
111-91-1	bis(2-Chloroethoxy)methane	U	356	ug/kg	71.2	356	
120-83-2	2,4-Dichlorophenol	U	356	ug/kg	71.2	356	
65-85-0	Benzoic acid	U	712	ug/kg	178	712	UJ,SV7c
91-20-3	Naphthalene	U	35.6	ug/kg	10.7	35.6	
106-47-8	4-Chloroaniline	U	356	ug/kg	71.2	356	
87-68-3	Hexachlorobutadiene	U	356	ug/kg	71.2	356	
91-57-6	2-Methylnaphthalene	U	35.6	ug/kg	7.12	35.6	
77-47-4	Hexachlorocyclopentadiene	U	356	ug/kg	71.2	356	UJ,SV7c
88-06-2	2,4,6-Trichlorophenol	U	356	ug/kg	71.2	356	
95-95-4	2,4,5-Trichlorophenol	U	356	ug/kg	71.2	356	
91-58-7	2-Chloronaphthalene	U	35.6	ug/kg	11.8	35.6	
88-74-4	2-Nitroaniline	U	356	ug/kg	71.2	356	
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	356	ug/kg	71.2	356	

MJ
02/03/10

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-901	Date Collected:	12/10/2009 12:00	Matrix:	S
Lab Sample ID:	242794004	Date Received:	12/12/2009 09:35	%Moisture:	6.4
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-13469	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	932444	Inst:	MSD6.I	Dilution:	1
Run Date:	12/17/2009 01:30	Analyst:	NAG1	Inj. Vol:	.5 uL
Prep Date:	12/14/2009 09:47	Aliquot:	30 g	Final Volume:	1 mL
Data File:	s611635.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
	m-Nitroaniline						
131-11-3	Dimethylphthalate	U	356	ug/kg	71.2	356	
606-20-2	2,6-Dinitrotoluene	U	356	ug/kg	35.6	356	
208-96-8	Acenaphthylene	U	35.6	ug/kg	10.7	35.6	
51-28-5	2,4-Dinitrophenol	U	712	ug/kg	135	712	
132-64-9	Dibenzofuran	U	356	ug/kg	71.2	356	
84-66-2	Diethylphthalate	U	356	ug/kg	71.2	356	
86-73-7	Fluorene	U	35.6	ug/kg	10.7	35.6	
7005-72-3	4-Chlorophenylphenylether	U	356	ug/kg	71.2	356	
534-52-1	2-Methyl-4,6-dinitrophenol	U	356	ug/kg	71.2	356	UJ,SV7c
100-01-6	4-Nitroaniline	U	356	ug/kg	107	356	
	p-Nitroaniline						
122-39-4	Diphenylamine	U	356	ug/kg	71.2	356	
122-66-7	Azobenzene	U	356	ug/kg	71.2	356	
	1,2-Diphenylhydrazine						
101-55-3	4-Bromophenylphenylether	U	356	ug/kg	71.2	356	
118-74-1	Hexachlorobenzene	U	356	ug/kg	71.2	356	
85-01-8	Phenanthrene	U	35.6	ug/kg	10.7	35.6	
120-12-7	Anthracene	U	35.6	ug/kg	7.12	35.6	
84-74-2	Di-n-butylphthalate	U	356	ug/kg	71.2	356	
206-44-0	Fluoranthene	J	16.1	ug/kg	10.7	35.6	
85-68-7	Butylbenzylphthalate	U	356	ug/kg	71.2	356	
56-55-3	Benzo(a)anthracene	U	35.6	ug/kg	10.7	35.6	
91-94-1	3,3'-Dichlorobenzidine	U	356	ug/kg	107	356	
218-01-9	Chrysene	U	35.6	ug/kg	10.7	35.6	
117-81-7	bis(2-Ethylhexyl)phthalate	U	356	ug/kg	71.2	356	
117-84-0	Di-n-octylphthalate	U	356	ug/kg	71.2	356	
205-99-2	Benzo(b)fluoranthene	U	35.6	ug/kg	10.7	35.6	
207-08-9	Benzo(k)fluoranthene	U	35.6	ug/kg	10.7	35.6	
50-32-8	Benzo(a)pyrene	U	35.6	ug/kg	10.7	35.6	
193-39-5	Indeno(1,2,3-cd)pyrene	U	35.6	ug/kg	10.7	35.6	
53-70-3	Dibenzo(a,h)anthracene	U	35.6	ug/kg	10.7	35.6	
191-24-2	Benzo(ghi)perylene	U	35.6	ug/kg	10.7	35.6	
120-82-1	1,2,4-Trichlorobenzene	U	356	ug/kg	71.2	356	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	3.44	362	ug/kg		JA

MJ
02/03/10

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-901	Date Collected:	12/10/2009 12:00	Matrix:	S
Lab Sample ID:	242794001	Date Received:	12/12/2009 09:35	%Moisture:	4.4
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-13470	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	932444	Inst:	MSD6.I	Dilution:	1
Run Date:	12/17/2009 00:08	Analyst:	NAG1	Inj. Vol:	.5 uL
Prep Date:	12/14/2009 09:47	Aliquot:	30.03 g	Final Volume:	1 mL
Data File:	s611632.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
62-75-9	N-Methyl-N-nitrosomethylamine	U	348	ug/kg	69.6	348	
108-95-2	Phenol	U	348	ug/kg	69.6	348	
95-57-8	2-Chlorophenol	U	348	ug/kg	69.6	348	
106-46-7	1,4-Dichlorobenzene	U	348	ug/kg	69.6	348	
621-64-7	N-Nitrosodipropylamine	U	348	ug/kg	69.6	348	
59-50-7	4-Chloro-3-methylphenol	U	348	ug/kg	69.6	348	
83-32-9	Acenaphthene	U	34.8	ug/kg	11.5	34.8	
121-14-2	2,4-Dinitrotoluene	U	348	ug/kg	34.8	348	
100-02-7	4-Nitrophenol	U	348	ug/kg	115	348	
87-86-5	Pentachlorophenol	U	348	ug/kg	87.0	348	
129-00-0	Pyrene	U	34.8	ug/kg	10.4	34.8	
110-86-1	Pyridine	U	348	ug/kg	69.6	348	
62-53-3	Aniline	U	348	ug/kg	104	348	
111-44-4	bis(2-Chloroethyl) ether	U	348	ug/kg	69.6	348	
541-73-1	1,3-Dichlorobenzene	U	348	ug/kg	69.6	348	
100-51-6	Benzyl alcohol	U	348	ug/kg	104	348	
95-50-1	1,2-Dichlorobenzene	U	348	ug/kg	69.6	348	
108-60-1	bis(2-Chloroisopropyl)ether	U	348	ug/kg	69.6	348	
95-48-7	o-Cresol	U	348	ug/kg	69.6	348	
65794-96-9	m,p-Cresols	U	348	ug/kg	104	348	
67-72-1	Hexachloroethane	U	348	ug/kg	69.6	348	
98-95-3	Nitrobenzene	U	348	ug/kg	69.6	348	
78-59-1	Isophorone	U	348	ug/kg	69.6	348	
88-75-5	2-Nitrophenol	U	348	ug/kg	69.6	348	
105-67-9	2,4-Dimethylphenol	U	348	ug/kg	122	348	
111-91-1	bis(2-Chloroethoxy)methane	U	348	ug/kg	69.6	348	
120-83-2	2,4-Dichlorophenol	U	348	ug/kg	69.6	348	
65-85-0	Benzoic acid	U	696	ug/kg	174	696	UJ,SV7c
91-20-3	Naphthalene	U	34.8	ug/kg	10.4	34.8	
106-47-8	4-Chloroaniline	U	348	ug/kg	69.6	348	
87-68-3	Hexachlorobutadiene	U	348	ug/kg	69.6	348	
91-57-6	2-Methylnaphthalene	U	34.8	ug/kg	6.96	34.8	
77-47-4	Hexachlorocyclopentadiene	U	348	ug/kg	69.6	348	UJ,SV7c
88-06-2	2,4,6-Trichlorophenol	U	348	ug/kg	69.6	348	
95-95-4	2,4,5-Trichlorophenol	U	348	ug/kg	69.6	348	
91-58-7	2-Chloronaphthalene	U	34.8	ug/kg	11.5	34.8	
88-74-4	2-Nitroaniline	U	348	ug/kg	69.6	348	
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	348	ug/kg	69.6	348	

MJ
02/03/10

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-901	Date Collected:	12/10/2009 12:00	Matrix:	S
Lab Sample ID:	242794001	Date Received:	12/12/2009 09:35	%Moisture:	4.4
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-13470	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	932444	Inst:	MSD6.I	Dilution:	1
Run Date:	12/17/2009 00:08	Analyst:	NAG1	Inj. Vol:	.5 uL
Prep Date:	12/14/2009 09:47	Aliquot:	30.03 g	Final Volume:	1 mL
Data File:	s611632.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
	m-Nitroaniline						
131-11-3	Dimethylphthalate	U	348	ug/kg	69.6	348	
606-20-2	2,6-Dinitrotoluene	U	348	ug/kg	34.8	348	
208-96-8	Acenaphthylene	U	34.8	ug/kg	10.4	34.8	
51-28-5	2,4-Dinitrophenol	U	696	ug/kg	132	696	
132-64-9	Dibenzofuran	U	348	ug/kg	69.6	348	
84-66-2	Diethylphthalate	U	348	ug/kg	69.6	348	
86-73-7	Fluorene	U	34.8	ug/kg	10.4	34.8	
7005-72-3	4-Chlorophenylphenylether	U	348	ug/kg	69.6	348	
534-52-1	2-Methyl-4,6-dinitrophenol	U	348	ug/kg	69.6	348	UJ,SV7c
100-01-6	4-Nitroaniline	U	348	ug/kg	104	348	
	p-Nitroaniline						
122-39-4	Diphenylamine	U	348	ug/kg	69.6	348	
122-66-7	Azobenzene	U	348	ug/kg	69.6	348	
	1,2-Diphenylhydrazine						
101-55-3	4-Bromophenylphenylether	U	348	ug/kg	69.6	348	
118-74-1	Hexachlorobenzene	U	348	ug/kg	69.6	348	
85-01-8	Phenanthrene	U	34.8	ug/kg	10.4	34.8	
120-12-7	Anthracene	U	34.8	ug/kg	6.96	34.8	
84-74-2	Di-n-butylphthalate	U	348	ug/kg	69.6	348	
206-44-0	Fluoranthene	U	34.8	ug/kg	10.4	34.8	
85-68-7	Butylbenzylphthalate	U	348	ug/kg	69.6	348	
56-55-3	Benzo(a)anthracene	U	34.8	ug/kg	10.4	34.8	
91-94-1	3,3'-Dichlorobenzidine	U	348	ug/kg	104	348	
218-01-9	Chrysene	U	34.8	ug/kg	10.4	34.8	
117-81-7	bis(2-Ethylhexyl)phthalate	U	348	ug/kg	69.6	348	
117-84-0	Di-n-octylphthalate	U	348	ug/kg	69.6	348	
205-99-2	Benzo(b)fluoranthene	U	34.8	ug/kg	10.4	34.8	
207-08-9	Benzo(k)fluoranthene	U	34.8	ug/kg	10.4	34.8	
50-32-8	Benzo(a)pyrene	U	34.8	ug/kg	10.4	34.8	
193-39-5	Indeno(1,2,3-cd)pyrene	U	34.8	ug/kg	10.4	34.8	
53-70-3	Dibenzo(a,h)anthracene	U	34.8	ug/kg	10.4	34.8	
191-24-2	Benzo(ghi)perylene	U	34.8	ug/kg	10.4	34.8	
120-82-1	1,2,4-Trichlorobenzene	U	348	ug/kg	69.6	348	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	3.45	627	ug/kg		JA
301-02-0	9-Octadecenamide, (Z)-	11.85	253	ug/kg	97	NJ

MJ
02/03/10

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-901	Date Collected:	12/10/2009 12:00	Matrix:	S
Lab Sample ID:	242794002	Date Received:	12/12/2009 09:35	%Moisture:	4.3
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-13471	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	932444	Inst:	MSD6.I	Dilution:	1
Run Date:	12/17/2009 00:36	Analyst:	NAG1	Inj. Vol:	.5 uL
Prep Date:	12/14/2009 09:47	Aliquot:	30.03 g	Final Volume:	1 mL
Data File:	s611633.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
62-75-9	N-Methyl-N-nitrosomethylamine	U	348	ug/kg	69.6	348	
108-95-2	Phenol	U	348	ug/kg	69.6	348	
95-57-8	2-Chlorophenol	U	348	ug/kg	69.6	348	
106-46-7	1,4-Dichlorobenzene	U	348	ug/kg	69.6	348	
621-64-7	N-Nitrosodipropylamine	U	348	ug/kg	69.6	348	
59-50-7	4-Chloro-3-methylphenol	U	348	ug/kg	69.6	348	
83-32-9	Acenaphthene	U	34.8	ug/kg	11.5	34.8	
121-14-2	2,4-Dinitrotoluene	U	348	ug/kg	34.8	348	
100-02-7	4-Nitrophenol	U	348	ug/kg	115	348	
87-86-5	Pentachlorophenol	U	348	ug/kg	87.0	348	
129-00-0	Pyrene	U	34.8	ug/kg	10.4	34.8	
110-86-1	Pyridine	U	348	ug/kg	69.6	348	
62-53-3	Aniline	U	348	ug/kg	104	348	
111-44-4	bis(2-Chloroethyl) ether	U	348	ug/kg	69.6	348	
541-73-1	1,3-Dichlorobenzene	U	348	ug/kg	69.6	348	
100-51-6	Benzyl alcohol	U	348	ug/kg	104	348	
95-50-1	1,2-Dichlorobenzene	U	348	ug/kg	69.6	348	
108-60-1	bis(2-Chloroisopropyl)ether	U	348	ug/kg	69.6	348	
95-48-7	o-Cresol	U	348	ug/kg	69.6	348	
65794-96-9	m,p-Cresols	U	348	ug/kg	104	348	
67-72-1	Hexachloroethane	U	348	ug/kg	69.6	348	
98-95-3	Nitrobenzene	U	348	ug/kg	69.6	348	
78-59-1	Isophorone	U	348	ug/kg	69.6	348	
88-75-5	2-Nitrophenol	U	348	ug/kg	69.6	348	
105-67-9	2,4-Dimethylphenol	U	348	ug/kg	122	348	
111-91-1	bis(2-Chloroethoxy)methane	U	348	ug/kg	69.6	348	
120-83-2	2,4-Dichlorophenol	U	348	ug/kg	69.6	348	
65-85-0	Benzoic acid	U	696	ug/kg	174	696	UJ,SV7c
91-20-3	Naphthalene	U	34.8	ug/kg	10.4	34.8	
106-47-8	4-Chloroaniline	U	348	ug/kg	69.6	348	
87-68-3	Hexachlorobutadiene	U	348	ug/kg	69.6	348	
91-57-6	2-Methylnaphthalene	U	34.8	ug/kg	6.96	34.8	
77-47-4	Hexachlorocyclopentadiene	U	348	ug/kg	69.6	348	UJ,SV7c
88-06-2	2,4,6-Trichlorophenol	U	348	ug/kg	69.6	348	
95-95-4	2,4,5-Trichlorophenol	U	348	ug/kg	69.6	348	
91-58-7	2-Chloronaphthalene	U	34.8	ug/kg	11.5	34.8	
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	348	ug/kg	69.6	348	
99-09-2	3-Nitroaniline	U	348	ug/kg	69.6	348	

MJ
02/03/10

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-901	Date Collected:	12/10/2009 12:00	Matrix:	S
Lab Sample ID:	242794002	Date Received:	12/12/2009 09:35	%Moisture:	4.3
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-13471	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	932444	Inst:	MSD6.I	Dilution:	1
Run Date:	12/17/2009 00:36	Analyst:	NAG1	Inj. Vol:	.5 uL
Prep Date:	12/14/2009 09:47	Aliquot:	30.03 g	Final Volume:	1 mL
Data File:	s611633.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
	m-Nitroaniline						
131-11-3	Dimethylphthalate	U	348	ug/kg	69.6	348	
606-20-2	2,6-Dinitrotoluene	U	348	ug/kg	34.8	348	
208-96-8	Acenaphthylene	U	34.8	ug/kg	10.4	34.8	
51-28-5	2,4-Dinitrophenol	U	696	ug/kg	132	696	
132-64-9	Dibenzofuran	U	348	ug/kg	69.6	348	
84-66-2	Diethylphthalate	U	348	ug/kg	69.6	348	
86-73-7	Fluorene	U	34.8	ug/kg	10.4	34.8	
7005-72-3	4-Chlorophenylphenylether	U	348	ug/kg	69.6	348	
534-52-1	2-Methyl-4,6-dinitrophenol	U	348	ug/kg	69.6	348	UJ,SV7c
100-01-6	4-Nitroaniline	U	348	ug/kg	104	348	
	p-Nitroaniline						
122-39-4	Diphenylamine	U	348	ug/kg	69.6	348	
122-66-7	Azobenzene	U	348	ug/kg	69.6	348	
	1,2-Diphenylhydrazine						
101-55-3	4-Bromophenylphenylether	U	348	ug/kg	69.6	348	
118-74-1	Hexachlorobenzene	U	348	ug/kg	69.6	348	
85-01-8	Phenanthrene	U	34.8	ug/kg	10.4	34.8	
120-12-7	Anthracene	U	34.8	ug/kg	6.96	34.8	
84-74-2	Di-n-butylphthalate	U	348	ug/kg	69.6	348	
206-44-0	Fluoranthene	U	34.8	ug/kg	10.4	34.8	
85-68-7	Butylbenzylphthalate	U	348	ug/kg	69.6	348	
56-55-3	Benzo(a)anthracene	U	34.8	ug/kg	10.4	34.8	
91-94-1	3,3'-Dichlorobenzidine	U	348	ug/kg	104	348	
218-01-9	Chrysene	U	34.8	ug/kg	10.4	34.8	
117-81-7	bis(2-Ethylhexyl)phthalate	U	348	ug/kg	69.6	348	
117-84-0	Di-n-octylphthalate	U	348	ug/kg	69.6	348	
205-99-2	Benzo(b)fluoranthene	U	34.8	ug/kg	10.4	34.8	
207-08-9	Benzo(k)fluoranthene	U	34.8	ug/kg	10.4	34.8	
50-32-8	Benzo(a)pyrene	U	34.8	ug/kg	10.4	34.8	
193-39-5	Indeno(1,2,3-cd)pyrene	U	34.8	ug/kg	10.4	34.8	
53-70-3	Dibenzo(a,h)anthracene	U	34.8	ug/kg	10.4	34.8	
191-24-2	Benzo(ghi)perylene	U	34.8	ug/kg	10.4	34.8	
120-82-1	1,2,4-Trichlorobenzene	U	348	ug/kg	69.6	348	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	3.45	391	ug/kg		JA

MJ
02/03/10

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-901	Date Collected:	12/10/2009 12:00	Matrix:	S
Lab Sample ID:	242794003	Date Received:	12/12/2009 09:35	%Moisture:	7.7
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-13472	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	932444	Inst:	MSD6.I	Dilution:	1
Run Date:	12/17/2009 01:03	Analyst:	NAG1	Inj. Vol:	.5 uL
Prep Date:	12/14/2009 09:47	Aliquot:	30 g	Final Volume:	1 mL
Data File:	s611634.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
62-75-9	N-Methyl-N-nitrosomethylamine	U	361	ug/kg	72.2	361	
108-95-2	Phenol	U	361	ug/kg	72.2	361	
95-57-8	2-Chlorophenol	U	361	ug/kg	72.2	361	
106-46-7	1,4-Dichlorobenzene	U	361	ug/kg	72.2	361	
621-64-7	N-Nitrosodipropylamine	U	361	ug/kg	72.2	361	
59-50-7	4-Chloro-3-methylphenol	U	361	ug/kg	72.2	361	
83-32-9	Acenaphthene	U	36.1	ug/kg	11.9	36.1	
121-14-2	2,4-Dinitrotoluene	U	361	ug/kg	36.1	361	
100-02-7	4-Nitrophenol	U	361	ug/kg	119	361	
87-86-5	Pentachlorophenol	U	361	ug/kg	90.3	361	
129-00-0	Pyrene	U	36.1	ug/kg	10.8	36.1	
110-86-1	Pyridine	U	361	ug/kg	72.2	361	
62-53-3	Aniline	U	361	ug/kg	108	361	
111-44-4	bis(2-Chloroethyl) ether	U	361	ug/kg	72.2	361	
541-73-1	1,3-Dichlorobenzene	U	361	ug/kg	72.2	361	
100-51-6	Benzyl alcohol	U	361	ug/kg	108	361	
95-50-1	1,2-Dichlorobenzene	U	361	ug/kg	72.2	361	
108-60-1	bis(2-Chloroisopropyl)ether	U	361	ug/kg	72.2	361	
95-48-7	o-Cresol	U	361	ug/kg	72.2	361	
65794-96-9	m,p-Cresols	U	361	ug/kg	108	361	
67-72-1	Hexachloroethane	U	361	ug/kg	72.2	361	
98-95-3	Nitrobenzene	U	361	ug/kg	72.2	361	
78-59-1	Isophorone	U	361	ug/kg	72.2	361	
88-75-5	2-Nitrophenol	U	361	ug/kg	72.2	361	
105-67-9	2,4-Dimethylphenol	U	361	ug/kg	126	361	
111-91-1	bis(2-Chloroethoxy)methane	U	361	ug/kg	72.2	361	
120-83-2	2,4-Dichlorophenol	U	361	ug/kg	72.2	361	
65-85-0	Benzoic acid	U	722	ug/kg	181	722	UJ,SV7c
91-20-3	Naphthalene	U	36.1	ug/kg	10.8	36.1	
106-47-8	4-Chloroaniline	U	361	ug/kg	72.2	361	
87-68-3	Hexachlorobutadiene	U	361	ug/kg	72.2	361	
91-57-6	2-Methylnaphthalene	U	36.1	ug/kg	7.22	36.1	
77-47-4	Hexachlorocyclopentadiene	U	361	ug/kg	72.2	361	UJ,SV7c
88-06-2	2,4,6-Trichlorophenol	U	361	ug/kg	72.2	361	
95-95-4	2,4,5-Trichlorophenol	U	361	ug/kg	72.2	361	
91-58-7	2-Chloronaphthalene	U	36.1	ug/kg	11.9	36.1	
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	361	ug/kg	72.2	361	
99-09-2	3-Nitroaniline	U	361	ug/kg	72.2	361	

MJ
02/03/10

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-901	Date Collected:	12/10/2009 12:00	Matrix:	S
Lab Sample ID:	242794003	Date Received:	12/12/2009 09:35	%Moisture:	7.7
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-13472	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	932444	Inst:	MSD6.I	Dilution:	1
Run Date:	12/17/2009 01:03	Analyst:	NAG1	Inj. Vol:	.5 uL
Prep Date:	12/14/2009 09:47	Aliquot:	30 g	Final Volume:	1 mL
Data File:	s611634.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
	m-Nitroaniline						
131-11-3	Dimethylphthalate	U	361	ug/kg	72.2	361	
606-20-2	2,6-Dinitrotoluene	U	361	ug/kg	36.1	361	
208-96-8	Acenaphthylene	U	36.1	ug/kg	10.8	36.1	
51-28-5	2,4-Dinitrophenol	U	722	ug/kg	137	722	
132-64-9	Dibenzofuran	U	361	ug/kg	72.2	361	
84-66-2	Diethylphthalate	U	361	ug/kg	72.2	361	
86-73-7	Fluorene	U	36.1	ug/kg	10.8	36.1	
7005-72-3	4-Chlorophenylphenylether	U	361	ug/kg	72.2	361	
534-52-1	2-Methyl-4,6-dinitrophenol	U	361	ug/kg	72.2	361	UJ,SV7c
100-01-6	4-Nitroaniline	U	361	ug/kg	108	361	
	p-Nitroaniline						
122-39-4	Diphenylamine	U	361	ug/kg	72.2	361	
122-66-7	Azobenzene	U	361	ug/kg	72.2	361	
	1,2-Diphenylhydrazine						
101-55-3	4-Bromophenylphenylether	U	361	ug/kg	72.2	361	
118-74-1	Hexachlorobenzene	U	361	ug/kg	72.2	361	
85-01-8	Phenanthrene	U	36.1	ug/kg	10.8	36.1	
120-12-7	Anthracene	U	36.1	ug/kg	7.22	36.1	
84-74-2	Di-n-butylphthalate	U	361	ug/kg	72.2	361	
206-44-0	Fluoranthene	U	36.1	ug/kg	10.8	36.1	
85-68-7	Butylbenzylphthalate	U	361	ug/kg	72.2	361	
56-55-3	Benzo(a)anthracene	U	36.1	ug/kg	10.8	36.1	
91-94-1	3,3'-Dichlorobenzidine	U	361	ug/kg	108	361	
218-01-9	Chrysene	U	36.1	ug/kg	10.8	36.1	
117-81-7	bis(2-Ethylhexyl)phthalate	U	361	ug/kg	72.2	361	
117-84-0	Di-n-octylphthalate	U	361	ug/kg	72.2	361	
205-99-2	Benzo(b)fluoranthene	U	36.1	ug/kg	10.8	36.1	
207-08-9	Benzo(k)fluoranthene	U	36.1	ug/kg	10.8	36.1	
50-32-8	Benzo(a)pyrene	U	36.1	ug/kg	10.8	36.1	
193-39-5	Indeno(1,2,3-cd)pyrene	U	36.1	ug/kg	10.8	36.1	
53-70-3	Dibenzo(a,h)anthracene	U	36.1	ug/kg	10.8	36.1	
191-24-2	Benzo(ghi)perylene	U	36.1	ug/kg	10.8	36.1	
120-82-1	1,2,4-Trichlorobenzene	U	361	ug/kg	72.2	361	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	3.45	402	ug/kg		JA

MJ
02/03/10

DATA VALIDATION COVER SHEET

5130-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-901 VALIDATION DATE: 02/03/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Maryann Jordan ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☒ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE):

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

None

Reviewed by: Monica Dymerski **Level I** **Date:** 02/04/10

VALIDATOR'S SIGNATURE: [signature] DATE: 02/03/10

TPH GRO AND DRO ANALYTICAL DATA VALIDATION CHECKLIST

5130-2

TPH GRO and DRO Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The retention time criteria were not met.	R, DR0 or GR0	R, DR0 or GR0
☐	☒	☐	2. Required retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, DR0b	R, GR0b
☐	☒	☐	3. The surrogate is less than 10%R. Follow external laboratory limits.	R, DR3 or GR3	J-, DR3 or GR3
☐	☒	☐	4. The surrogate is less than the Lower Acceptance Limit, but greater than or equal to 10%R. Follow external laboratory limits.	UJ, DR3a or GR3a	J-, DR3a or GR3a
☐	☒	☐	5. The surrogate %R value is greater than the Upper Acceptance Limit. Follow external laboratory limits.	N/A	J+, DR3b or GR3b
☐	☒	☐	6. Required surrogate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, DR3d or GR3d	R, DR3d or GR3d
☐	☒	☐	7. The sample result is less than or equal to 5 times the concentration of the related analyte in the method blank.	U, DR4 or GR4	N/A
☐	☒	☐	8. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank, but was greater than 5x.	N/A	J+, DR4a or GR4a
☐	☐	☒	9. The sample result is less than or equal to 5 times the concentration of the related analyte in the trip blank, rinsate blank or equipment blank.	U, DR4d or GR4d	N/A
☐	☒	☐	10. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, DR4e or GR4e	R, DR4e or GR4e
☐	☒	☐	11. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ or R, DR7 or GR7	J, DR7 or GR7

TPH GRO AND DRO ANALYTICAL DATA VALIDATION CHECKLIST

5130-2 TPH GRO and DRO Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	12. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is less than 0.995.	UJ, DR7a or GR7a	J, DR7a or GR7a
☐	☒	☐	13. The ICV and/or CCV were recovered outside the method specific limits.	UJ, DR7c or GR7c	J, DR7c or GR7c
☐	☒	☐	14. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, DR7d or GR7d	J, DR7d or GR7d
☐	☒	☐	15. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, DR7f or GR7f	R, DR7f or GR7f
☐	☒	☐	16. The holding time was greater than 1 and less than or equal to 2 times the applicable holding time requirement.	UJ, DR9 or GR9	J-, DR9 or GR9
☐	☒	☐	17. The holding time was greater than 2 times the applicable holding time requirement.	R, DR9a or GR9a	J-, DR9a or GR9a
☐	☒	☐	18. The LCS percent recovery was less than 10%. Follow the external laboratory limits.	R, DR12 or GR12	J-, DR12 or GR12
☐	☒	☐	19. The LCS percent recovery was less than the Lower Acceptance Limit, but greater than 10%. Follow the external laboratory limits.	UJ, DR12a or GR12a	J-, DR12a or GR12a
☐	☒	☐	20. The LCS percent recovery was greater than the Upper Acceptance Limit. Follow the external laboratory limits.	N/A	J+, DR12b or GR12b
☐	☒	☐	21. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or the external laboratory for information.	R, DR12c or GR12c	R, DR12c or GR12c
☐	☒	☐	22. The MS/MSD percent recovery was less than 10%.	R, DR12d or GR12d	R, DR12d or Gr12d
☐	☒	☐	23. The MS/MSD percent recovery was greater than 10%, but less than 70%.	UJ, DR12e or GR12e	J, DR12e or GR12e

TPH GRO AND DRO ANALYTICAL DATA VALIDATION CHECKLIST

5130-2 TPH GRO and DRO Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	24. The MS/MSD percent recovery was greater than 70%.	N/A	J+, DR12f or GR12f
☐	☒	☐	25. The MS/MSD relative percent difference was greater than 30%.	UJ, DR12g or GR12g	J, DR12g or GR12g
☐	☐	☒	26. The affected analytes have elevated detection limits and may not meet project DQOs because the sample was diluted without any target analytes identified due to matrix interference. (Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.)	UJ, R, DR15 or GR15	R, DR15 or GR15
☐	☒	☐	27. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.	UJ, R, DR19 or GR19	J, R, DR19 or GR19
☐	☒	☐	28. Duplicate, dilution, or reanalysis.	UJ, DR88 or GR88	J, DR88 or GR88

Flame Ionization Detector
Certificate of Analysis
Sample Summary

SDG Number:	10-901	Date Collected:	12/10/2009 12:00	Matrix:	S
Lab Sample ID:	242794001	Date Received:	12/12/2009 09:35	%Moisture:	4.4
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-13470	Method:	SW846 8015A/B SVOC	SOP Ref:	GL-OA-E-003
Batch ID:	933001	Inst:	FID7.I	Dilution:	1
Run Date:	12/17/2009 02:36	Analyst:	KXR2	Inj. Vol:	1 uL
Prep Date:	12/15/2009 16:56	Aliquot:	30.04 g	Final Volume:	1 mL
Data File:	018f1801.d	Column:	DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics	J	2.86	mg/kg	2.26	6.96

MJ
02/03/10

Flame Ionization Detector
Certificate of Analysis
Sample Summary

SDG Number:	10-901	Date Collected:	12/10/2009 12:00	Matrix:	S
Lab Sample ID:	242794002	Date Received:	12/12/2009 09:35	%Moisture:	4.3
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-13471	Method:	SW846 8015A/B SVOC	SOP Ref:	GL-OA-E-003
Batch ID:	933001	Inst:	FID7.I	Dilution:	1
Run Date:	12/17/2009 04:27	Analyst:	KXR2	Inj. Vol:	1 uL
Prep Date:	12/15/2009 16:56	Aliquot:	30 g	Final Volume:	1 mL
Data File:	021f2101.d	Column:	DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics	U	6.97	mg/kg	2.26	6.97

MJ
02/03/10

Flame Ionization Detector
Certificate of Analysis
Sample Summary

SDG Number:	10-901	Date Collected:	12/10/2009 12:00	Matrix:	S
Lab Sample ID:	242794003	Date Received:	12/12/2009 09:35	%Moisture:	7.7
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-13472	Method:	SW846 8015A/B SVOC	SOP Ref:	GL-OA-E-003
Batch ID:	933001	Inst:	FID7.I	Dilution:	1
Run Date:	12/17/2009 05:03	Analyst:	KXR2	Inj. Vol:	1 uL
Prep Date:	12/15/2009 16:56	Aliquot:	30 g	Final Volume:	1 mL
Data File:	022f2201.d	Column:	DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics	U	7.22	mg/kg	2.35	7.22

MJ
02/03/10

GEL Laboratories LLC

Report Date: January 5, 2010

Flame Ionization Detector
Certificate of Analysis
Sample Summary

SDG Number:	10-901	Date Collected:	12/10/2009 12:00	Matrix:	S
Lab Sample ID:	242794004	Date Received:	12/12/2009 09:35	%Moisture:	6.4
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-13469	Method:	SW846 8015A/B SVOC	SOP Ref:	GL-OA-E-003
Batch ID:	933001	Inst:	FID7.I	Dilution:	10
Run Date:	12/17/2009 05:40	Analyst:	KXR2	Inj. Vol:	1 uL
Prep Date:	12/15/2009 16:56	Aliquot:	30.01 g	Final Volume:	1 mL
Data File:	023f2301.d	Column:	DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics	U	71.2	mg/kg	23.1	71.2

MJ
02/03/10

DATA VALIDATION COVER SHEET

5116-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY

Section I.

REQUEST NUMBER: 10-901 VALIDATION DATE: 02/03/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Maryann Jordan ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☒ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE): PCBs

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

None

Reviewed by: Monica Dymerski **Level I** **Date:** 02/04/10

VALIDATOR'S SIGNATURE: [signature] DATE: 02/03/10

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2

Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, P9	J-, P9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, P9	J-, P9a
☐	☒	☐	3. The affected analytes are regarded as rejected because the analytical holding time was exceeded.	R, P9b	R, P9b
☐	☒	☐	4. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, P7	J, P7
☐	☒	☐	5. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, P7a	J, P7a
☐	☒	☐	6. The Initial Calibration Verification (ICV) and/or Continuing Calibration Verification (CCV) were recovered outside the method-specific limits.	UJ, P7c	J, P7c
☐	☒	☐	7. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, P7d	J, P7d
☐	☐	☒	8. The multicomponent standard was not analyzed within 72 hours of the initial analysis.	R, P7e	J, P7e
☐	☒	☐	9. Required calibration Information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, P7f	R, P7f
☐	☐	☒	10. The breakdown criteria have been exceeded. This can cause low bias in reported results. If compound is detected, qualify J-. If compound is not present, but breakdown products are present, qualify R. If no compounds or breakdown products are present, qualify UJ (4,4' DDT and Endrin).	UJ, R, P13	J-, P13

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2

Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	11. The breakdown criteria have been exceeded. This can cause high bias in the reported results and potential false positive results for the breakdown products Endrin ketone, Endrin aldehyde, DDD, and DDE.	UJ, P13a	J+, P13a
☐	☐	☒	12. The breakdown documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P13b	R, P13b
☐	☒	☐	13. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, P4	N/A
☐	☒	☐	14. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was greater than 5X.	N/A	J, P4a
☐	☐	☒	15. The sample result is ≤5X the concentration of the related analyte in the instrument blank and continuing calibration blank.	UJ, P4b	N/A
☐	☐	☒	16. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	UJ, P4d	N/A
☐	☒	☐	17. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P4e	R, P4e
☐	☒	☐	18. The analyte RT shifted by more than 0.05 minutes from the mid-level standard of the initial calibration.	R, P0	J, P0
☐	☒	☐	19. Required retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P0b	R, P0b
☐	☒	☐	20. The surrogate is <10%R. Follow the external laboratory limits located within the associated data package.	R, P3	J-, P3

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2

Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	21. The surrogate is < the Lower Acceptance Level (LAL) but ≥10%R. Follow the external laboratory limits located within the associated data package.	UJ, P3a	J-, P3a
☐	☒	☐	22. The surrogate %R value is > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, P3b
☐	☒	☐	23. At least one surrogate is > the Upper Acceptance Limit (UAL) and one surrogate is < the LAL. Follow the external laboratory limits located within the associated data package.	UJ, P3c	J, P3c
☐	☒	☐	24. Required surrogate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P3d	R, P3d
☐	☒	☐	25. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, P12	J-, P12
☐	☒	☐	26. The LCS percent recovery was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, P12a	J-, P12a
☐	☒	☐	27. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, P12b
☐	☒	☐	28. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P12c	R, P12c
☐	☐	☒	29. The analyte was not confirmed on a second dissimilar column.	N/A	R, P8
☐	☐	☒	30. The second dissimilar column documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P8a	R, P8a
☐	☒	☐	31. Duplicate, Dilution, or reanalysis.	UJ, P88	J, P88

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2

Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	32. The affected analytes have elevated detection limits and may not meet project DQOs because the sample was diluted without any target analytees identified due to matrix interference. Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.	UJ, R, P15	R, P15
☒	☐	☐	33. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB, NQ, NQ
☐	☒	☐	34. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.	UJ, R, P19	J, R, P19

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10–901	**Date Collected:**	12/10/2009 12:00	**Matrix:**	S
Lab Sample ID:	242794004	**Date Received:**	12/12/2009 09:35	**%Moisture:**	6.4
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03–09–13469	**Method:**	SW846 8082	**SOP Ref:**	GL–OA–E–040
Batch ID:	933402	**Inst:**	ECD2A.I	**Dilution:**	5
Run Date:	12/16/2009 19:25	**Analyst:**	JAOC	**Inj. Vol:**	1 uL
Prep Date:	12/16/2009 09:01	**Aliquot:**	30.05 g	**Final Volume:**	1 mL
Data File:	064f6401.d	**Column:**	1 CLP1	**Level:**	LOW
	064b6401.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	17.8	ug/kg	5.92	17.8	1
11104–28–2	Aroclor–1221	U	17.8	ug/kg	5.92	17.8	1
11141–16–5	Aroclor–1232	U	17.8	ug/kg	5.92	17.8	1
53469–21–9	Aroclor–1242	U	17.8	ug/kg	5.92	17.8	1
12672–29–6	Aroclor–1248	U	17.8	ug/kg	5.92	17.8	1
11097–69–1	Aroclor–1254	U	17.8	ug/kg	5.92	17.8	1
11096–82–5	Aroclor–1260	U	17.8	ug/kg	5.92	17.8	1

MJ
02/03/10

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10-901	Date Collected:	12/10/2009 12:00	Matrix:	S
Lab Sample ID:	242794001	Date Received:	12/12/2009 09:35	%Moisture:	4.4
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-13470	Method:	SW846 8082	SOP Ref:	GL-OA-E-040
Batch ID:	933402	Inst:	ECD2A.I	Dilution:	1
Run Date:	12/16/2009 18:29	Analyst:	JAOC	Inj. Vol:	1 uL
Prep Date:	12/16/2009 09:01	Aliquot:	30 g	Final Volume:	1 mL
Data File:	059f5901.d	Column:	1 CLP1	Level:	LOW
	059b5901.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.49	ug/kg	1.16	3.49	1
11104-28-2	Aroclor-1221	U	3.49	ug/kg	1.16	3.49	1
11141-16-5	Aroclor-1232	U	3.49	ug/kg	1.16	3.49	1
53469-21-9	Aroclor-1242	U	3.49	ug/kg	1.16	3.49	1
12672-29-6	Aroclor-1248	U	3.49	ug/kg	1.16	3.49	1
11097-69-1	Aroclor-1254	U	3.49	ug/kg	1.16	3.49	1
11096-82-5	Aroclor-1260	U	3.49	ug/kg	1.16	3.49	1

MJ
02/03/10

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10–901	Date Collected:	12/10/2009 12:00	Matrix:	S
Lab Sample ID:	242794002	Date Received:	12/12/2009 09:35	%Moisture:	4.3
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03–09–13471	Method:	SW846 8082	SOP Ref:	GL–OA–E–040
Batch ID:	933402	Inst:	ECD2A.I	Dilution:	1
Run Date:	12/16/2009 19:02	Analyst:	JAOC	Inj. Vol:	1 uL
Prep Date:	12/16/2009 09:01	Aliquot:	30.01 g	Final Volume:	1 mL
Data File:	062f6201.d	Column:	1 CLP1	Level:	LOW
	062b6201.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	3.48	ug/kg	1.16	3.48	1
11104–28–2	Aroclor–1221	U	3.48	ug/kg	1.16	3.48	1
11141–16–5	Aroclor–1232	U	3.48	ug/kg	1.16	3.48	1
53469–21–9	Aroclor–1242	U	3.48	ug/kg	1.16	3.48	1
12672–29–6	Aroclor–1248	U	3.48	ug/kg	1.16	3.48	1
11097–69–1	Aroclor–1254	U	3.48	ug/kg	1.16	3.48	1
11096–82–5	Aroclor–1260	U	3.48	ug/kg	1.16	3.48	1

MJ
02/03/10

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10-901	**Date Collected:**	12/10/2009 12:00	**Matrix:**	S
Lab Sample ID:	242794003	**Date Received:**	12/12/2009 09:35	**%Moisture:**	7.7
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-13472	**Method:**	SW846 8082	**SOP Ref:**	GL-OA-E-040
Batch ID:	933402	**Inst:**	ECD2A.I	**Dilution:**	1
Run Date:	12/16/2009 19:14	**Analyst:**	JAOC	**Inj. Vol:**	1 uL
Prep Date:	12/16/2009 09:01	**Aliquot:**	30.07 g	**Final Volume:**	1 mL
Data File:	063f6301.d	**Column:**	1 CLP1	**Level:**	LOW
	063b6301.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.60	ug/kg	1.20	3.60	1
11104-28-2	Aroclor-1221	U	3.60	ug/kg	1.20	3.60	1
11141-16-5	Aroclor-1232	U	3.60	ug/kg	1.20	3.60	1
53469-21-9	Aroclor-1242	U	3.60	ug/kg	1.20	3.60	1
12672-29-6	Aroclor-1248	U	3.60	ug/kg	1.20	3.60	1
11097-69-1	Aroclor-1254	U	3.60	ug/kg	1.20	3.60	1
11096-82-5	Aroclor-1260	U	3.60	ug/kg	1.20	3.60	1

MJ
02/03/10

DATA VALIDATION COVER SHEET

5118-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-901 VALIDATION DATE: 02/03/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Maryann Jordan ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☒ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE):

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☐	☐	☒	8. QUANTITATION REPORTS
☐	☐	☒	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. Ag and Tl were detected in the ICB and/or CCB. The results for Ag and Tl in the samples were detects ≤5X the blank concentrations and, thus, were qualified U,I4b.
2. The MS %R for As was < the laboratory LAL but ≥10%. The associated sample results were detects and, thus, were qualified J-,I6a. The MS %Rs for Al, Fe, Mn, Si, and Ti were > the laboratory UALs. The associated sample results for Al, Mn, and Si were detects and, thus, were qualified J+,I6b. The parent sample concentrations for Fe and Ti were >4X the spike concentrations and, thus, sample results were not qualified.
3. The sample duplicate RPDs were >35%, and the parent sample and duplicate concentrations were >5X the PQL for Al and Mg. The associated sample results were detects and, thus, were qualified J,I10a.

Reviewed by: Monica Dymerski **Level I** **Date:** 02/04/10

VALIDATOR'S SIGNATURE: Maryann Jordan DATE: 02/03/10

METALS ANALYTICAL DATA VALIDATION CHECKLIST

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Metals Analytical Data Validation Checklist

Records Use only

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Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, I9	J-, I9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, I9a	J-, I9a
☐	☐	☒	3. The instrument performance sample did not pass method acceptance criteria.	R, I16	R, I16
☐	☐	☒	4. The mass calibration is not within 0.1 amu or %RSD is >5% for any isotope (Be, Mg, Co, In, Pb).	UJ, I16a	J, I16a
☐	☐	☒	5. Samples were analyzed outside specific method tune time criteria.	N/A	J, I16b
☐	☐	☒	6. The required instrument performance sample information is missing. Contact the SMO or external laboratory for information.	R, I16c	R, I16c
☐	☒	☐	7. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, I7	J, I7
☐	☒	☐	8. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, I7a	J, I7a
☐	☒	☐	9. The initial Calibration Verification (ICV) and/or Continuing Calibration Verification (CCV) were recovered outside the method-specific limits.	UJ, I7c	J, I7c
☐	☒	☐	10. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, I7d	J, I7d
☐	☒	☐	11. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, I7f	R, I7f
☐	☒	☐	12. Metals interference check sample percent recover value is <50%.	R, I2	J-, I2

METALS ANALYTICAL DATA VALIDATION CHECKLIST	
5118-2 Metals Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	13. Metals interference check sample percent recovery value is ≥50% and <80%	UJ, I2a	J-, I2a
☐	☒	☐	14. Metals interference check sample percent recovery value is >120%.	N/A	J+, I2b
☐	☒	☐	15. Metals interference check sample was not analyzed with the samples.	R, I2c	R, I2c
☐	☒	☐	16. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, I4	N/A
☐	☒	☐	17. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X.	N/A	J, I4a
☒	☐	☐	18. The sample result is ≤5X the concentration of the related analyte in the instrument blank and continuing calibration blank.	U, I4b	N/A
☐	☒	☐	19. Continuing calibration blanks were not analyzed at the appropriate method frequency.	UJ, I4c	J, I4c
☐	☐	☒	20. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	U, I4d	N/A
☐	☒	☐	21. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, I4e	R, I4e
☐	☒	☐	22. The associated matrix spike recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I6	R, I6
☒	☐	☐	23. The associated matrix spike recovery was <the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I6a	J+, I6a
☒	☐	☐	24. The associated matrix spike recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	UJ, I6b	J+, I6b

METALS ANALYTICAL DATA VALIDATION CHECKLIST

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Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	25. Required matrix spike information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. If the LCS information is present, do not Reject. Qualify data based on the LCS information.	R, I6c	R, I6c
☒	☐	☐	26. The sample and the duplicate sample results were ≥5X the RL and the duplicate RPD was >20% for water samples and >35% for soil samples.	UJ, I10a	J, I10a
☐	☒	☐	27. The duplicate sample was not prepared and/or analyzed with the samples for unspecified reasons. The duplicate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	UJ, I10d	J, I10d
☐	☒	☐	28. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I12	R, I12
☐	☒	☐	29. The LCS percent recover was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I12a	J-, I12a
☐	☒	☐	30. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, I12b
☐	☒	☐	31. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. Do not Reject if MS/MSD information is present. Qualify according to MS/MSD criteria.	R, I12c	R, I12c
☐	☐	☒	32. The quantitating IS area count is <10% for metals window in relation to the initial calibration blank. Follow the method-specific windows.	R, I1a	J, I1a

METALS ANALYTICAL DATA VALIDATION CHECKLIST

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Metals Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	33. The IS area count for the quantitating IS is <60% but >10% for metals window in relation to the initial calibration blank. Follow the method-specific windows.	UJ, I1b	J, I1b
☐	☐	☒	34. The IS area count for the quantitating IS is >125% in relation to the metals initial calibration blank. Follow method-specific windows.	UJ, I1c	J, I1c
☐	☐	☒	35. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, I1d	R, I1d
☐	☐	☒	36. Serial dilution sample RPD was >10% and the sample result was >50X the MDL (>100X the MDL for ICPMS). Qualify ONLY the sample used for the serial dilution.	UJ, I18	J, I18
☐	☐	☒	37. Serial dilution sample was not analyzed with the samples.	UJ, I18a	J, I18
☐	☐	☒	38. The sample result was reported as detected between the IDL and the EDL.	N/A	J, I1
☐	☒	☐	39. Duplicate, dilution, or reanalysis.	UJ, I88	J, I88
☒	☐	☐	40. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB, NQ, NQ
☐	☒	☐	41. The LANL project chemist identified quality deficiencies in the reported data that require further qualification. This code can ONLY be used and/or under advisement by the LANL project chemist.	UJ, R, I19	J, R, I19

METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-901 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 242794001 **BASIS:** Dry Weight **DATE COLLECTED** 10-DEC-09

CLIENT ID: RE03-09-13470 **LEVEL:** Low **DATE RECEIVED** 12-DEC-09

MATRIX: SOIL **%SOLIDS:** 95.6

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum J+,I6b	470000	ug/Kg	*N	7000	20600	20600	1	P	HSC	12/19/09 09:55	121909B-1	932935
7440-36-0	Antimony	794	ug/Kg	J	340	1030	1030	1	P	HSC	12/19/09 09:55	121909B-1	932935
7440-38-2	Arsenic J-,I6a	0.609	mg/kg	J	0.203	1.01	1.01	2	MS	SKJ	12/31/09 00:00	091230-2	932937
7440-39-3	Barium	14800	ug/Kg		103	515	515	1	P	HSC	12/19/09 09:55	121909B-1	932935
7440-41-7	Beryllium	0.287	mg/kg		0.0203	0.101	0.101	2	MS	SKJ	12/31/09 14:39	091231-3	932937
7440-42-8	Boron	5150	ug/Kg	U	1030	5150	5150	1	P	HSC	12/19/09 09:55	121909B-1	932935
7440-43-9	Cadmium	122	ug/Kg	J	103	515	515	1	P	HSC	12/19/09 09:55	121909B-1	932935
7440-70-2	Calcium	320000	ug/Kg		8230	25700	25700	1	P	HSC	12/19/09 09:55	121909B-1	932935
7440-47-3	Chromium	605	ug/Kg		154	515	515	1	P	HSC	12/19/09 09:55	121909B-1	932935
7440-48-4	Cobalt	356	ug/Kg	J	154	515	515	1	P	HSC	12/19/09 09:55	121909B-1	932935
7440-50-8	Copper	1300	ug/Kg		309	1030	1030	1	P	HSC	12/19/09 09:55	121909B-1	932935
7439-89-6	Iron	6670000	ug/Kg		8230	25700	25700	1	P	HSC	12/19/09 09:55	121909B-1	932935
7439-92-1	Lead	4910	ug/Kg	*	257	1030	1030	1	P	HSC	12/19/09 09:55	121909B-1	932935
7439-93-2	Lithium	4.33	mg/kg	*N	0.405	2.03	2.03	2	MS	SKJ	12/31/09 14:39	091231-3	932937
7439-95-4	Magnesium J,I10a	268000	ug/Kg	*	8750	30900	30900	1	P	HSC	12/19/09 09:55	121909B-1	932935
7439-96-5	Manganese J+,I6b	181000	ug/Kg	N	206	1030	1030	1	P	HSC	12/19/09 09:55	121909B-1	932935
7439-97-6	Mercury	12.2	ug/kg	U	4.14	12.2	12.2	1	AV	ETL	12/23/09 12:20	122309S1-4	934871
7440-02-0	Nickel	1.93	mg/kg	*	0.101	0.405	0.405	2	MS	SKJ	12/31/09 00:00	091230-2	932937
7440-09-7	Potassium	153000	ug/Kg	*	6590	25700	25700	1	P	HSC	12/19/09 09:55	121909B-1	932935
7782-49-2	Selenium	1.01	mg/kg	U	0.507	1.01	1.01	2	MS	SKJ	12/31/09 00:00	091230-2	932937
7440-21-3	Silicon J+,I6b	474000	ug/Kg	N	1540	10300	10300	1	P	HSC	12/19/09 09:55	121909B-1	932935
7440-22-4	Silver U,I4b	104	ug/Kg	J	103	515	515	1	P	HSC	12/19/09 09:55	121909B-1	932935
7440-23-5	Sodium	72600	ug/Kg		7200	25700	25700	1	P	HSC	12/19/09 09:55	121909B-1	932935
7440-28-0	Thallium U,I4b	0.164	mg/kg	J	0.0608	0.203	0.203	2	MS	SKJ	12/31/09 00:00	091230-2	932937
7440-32-6	Titanium	262000	ug/Kg		103	515	515	1	P	HSC	12/19/09 09:55	121909B-1	932935
7440-61-1	Uranium	0.456	mg/kg		0.0134	0.0405	0.0405	2	MS	SKJ	12/31/09 14:39	091231-3	932937
7440-62-2	Vanadium	2260	ug/Kg		103	515	515	1	P	HSC	12/19/09 09:55	121909B-1	932935
7440-66-6	Zinc	34900	ug/Kg		340	1030	1030	1	P	HSC	12/19/09 09:55	121909B-1	932935

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
932935	932934	SW846 3050B	0.508	g	50	mL	12/17/09	FGA
932937	932936	SW846 3050B	0.516	g	50	mL	12/17/09	FGA
934871	934870	SW846 7471A Prep	0.515	g	30	mL	12/22/09	TXB3

MJ
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METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-901 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 242794002 **BASIS:** Dry Weight **DATE COLLECTED** 10-DEC-09

CLIENT ID: RE03-09-13471 **LEVEL:** Low **DATE RECEIVED** 12-DEC-09

MATRIX: SOIL **%SOLIDS:** 95.7

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum J+,I6b	2570000	ug/Kg	*N	7020	20600	20600	1	P	HSC	12/19/09 10:13	121909B-1	932935
7440-36-0	Antimony	589	ug/Kg	J	341	1030	1030	1	P	HSC	12/19/09 10:13	121909B-1	932935
7440-38-2	Arsenic J-,I6a	0.521	mg/kg	J	0.206	1.03	1.03	2	MS	SKJ	12/31/09 00:44	091230-2	932937
7440-39-3	Barium	29600	ug/Kg		103	516	516	1	P	HSC	12/19/09 10:13	121909B-1	932935
7440-41-7	Beryllium	0.458	mg/kg		0.0206	0.103	0.103	2	MS	SKJ	12/31/09 14:56	091231-3	932937
7440-42-8	Boron	5160	ug/Kg	U	1030	5160	5160	1	P	HSC	12/19/09 10:13	121909B-1	932935
7440-43-9	Cadmium	516	ug/Kg	U	103	516	516	1	P	HSC	12/19/09 10:13	121909B-1	932935
7440-70-2	Calcium	1040000	ug/Kg		8260	25800	25800	1	P	HSC	12/19/09 10:13	121909B-1	932935
7440-47-3	Chromium	1680	ug/Kg		155	516	516	1	P	HSC	12/19/09 10:13	121909B-1	932935
7440-48-4	Cobalt	844	ug/Kg		155	516	516	1	P	HSC	12/19/09 10:13	121909B-1	932935
7440-50-8	Copper	1960	ug/Kg		310	1030	1030	1	P	HSC	12/19/09 10:13	121909B-1	932935
7439-89-6	Iron	7570000	ug/Kg		8260	25800	25800	1	P	HSC	12/19/09 10:13	121909B-1	932935
7439-92-1	Lead	6400	ug/Kg	*	258	1030	1030	1	P	HSC	12/19/09 10:13	121909B-1	932935
7439-93-2	Lithium	8.9	mg/kg	*N	0.412	2.06	2.06	2	MS	SKJ	12/31/09 14:56	091231-3	932937
7439-95-4	Magnesium J,I10a	571000	ug/Kg	*	8780	31000	31000	1	P	HSC	12/19/09 10:13	121909B-1	932935
7439-96-5	Manganese J+,I6b	184000	ug/Kg	N	206	1030	1030	1	P	HSC	12/19/09 10:13	121909B-1	932935
7439-97-6	Mercury	11.7	ug/kg	U	3.99	11.7	11.7	1	AV	ETL	12/23/09 12:29	122309S1-4	934871
7440-02-0	Nickel	2.24	mg/kg	*	0.103	0.412	0.412	2	MS	SKJ	12/31/09 00:44	091230-2	932937
7440-09-7	Potassium	368000	ug/Kg	*	6610	25800	25800	1	P	HSC	12/19/09 10:13	121909B-1	932935
7782-49-2	Selenium	1.03	mg/kg	U	0.515	1.03	1.03	2	MS	SKJ	12/31/09 00:44	091230-2	932937
7440-21-3	Silicon J+,I6b	904000	ug/Kg	N	1550	10300	10300	1	P	HSC	12/19/09 10:13	121909B-1	932935
7440-22-4	Silver U,I4b	135	ug/Kg	J	103	516	516	1	P	HSC	12/19/09 10:13	121909B-1	932935
7440-23-5	Sodium	332000	ug/Kg		7230	25800	25800	1	P	HSC	12/19/09 10:13	121909B-1	932935
7440-28-0	Thallium U,I4b	0.154	mg/kg	J	0.0618	0.206	0.206	2	MS	SKJ	12/31/09 00:44	091230-2	932937
7440-32-6	Titanium	223000	ug/Kg		103	516	516	1	P	HSC	12/19/09 10:13	121909B-1	932935
7440-61-1	Uranium	0.504	mg/kg		0.0136	0.0412	0.0412	2	MS	SKJ	12/31/09 14:56	091231-3	932937
7440-62-2	Vanadium	4760	ug/Kg		103	516	516	1	P	HSC	12/19/09 10:13	121909B-1	932935
7440-66-6	Zinc	36400	ug/Kg		341	1030	1030	1	P	HSC	12/19/09 10:13	121909B-1	932935

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
932935	932934	SW846 3050B	0.506	g	50	mL	12/17/09	FGA
932937	932936	SW846 3050B	0.507	g	50	mL	12/17/09	FGA
934871	934870	SW846 7471A Prep	0.534	g	30	mL	12/22/09	TXB3

MJ
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METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-901 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 242794003 **BASIS:** Dry Weight **DATE COLLECTED** 10-DEC-09

CLIENT ID: RE03-09-13472 **LEVEL:** Low **DATE RECEIVED** 12-DEC-09

MATRIX: SOIL **%SOLIDS:** 92.3

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum J+,I6b	1120000	ug/Kg	*N	7150	21000	21000	1	P	HSC	12/19/09 10:17	121909B-1	932935
7440-36-0	Antimony	661	ug/Kg	J	347	1050	1050	1	P	HSC	12/19/09 10:17	121909B-1	932935
7440-38-2	Arsenic J-,I6a	0.50	mg/kg	J	0.212	1.06	1.06	2	MS	SKJ	12/31/09 00:50	091230-2	932937
7440-39-3	Barium	17900	ug/Kg		105	526	526	1	P	HSC	12/19/09 10:17	121909B-1	932935
7440-41-7	Beryllium	0.358	mg/kg		0.0212	0.106	0.106	2	MS	SKJ	12/31/09 14:59	091231-3	932937
7440-42-8	Boron	5260	ug/Kg	U	1050	5260	5260	1	P	HSC	12/19/09 10:17	121909B-1	932935
7440-43-9	Cadmium	126	ug/Kg	J	105	526	526	1	P	HSC	12/19/09 10:17	121909B-1	932935
7440-70-2	Calcium	495000	ug/Kg		8420	26300	26300	1	P	HSC	12/19/09 10:17	121909B-1	932935
7440-47-3	Chromium	830	ug/Kg		158	526	526	1	P	HSC	12/19/09 10:17	121909B-1	932935
7440-48-4	Cobalt	458	ug/Kg	J	158	526	526	1	P	HSC	12/19/09 10:17	121909B-1	932935
7440-50-8	Copper	1330	ug/Kg		316	1050	1050	1	P	HSC	12/19/09 10:17	121909B-1	932935
7439-89-6	Iron	6940000	ug/Kg		8420	26300	26300	1	P	HSC	12/19/09 10:17	121909B-1	932935
7439-92-1	Lead	7240	ug/Kg	*	263	1050	1050	1	P	HSC	12/19/09 10:17	121909B-1	932935
7439-93-2	Lithium	6.49	mg/kg	*N	0.423	2.12	2.12	2	MS	SKJ	12/31/09 14:59	091231-3	932937
7439-95-4	Magnesium J,I10a	299000	ug/Kg	*	8940	31600	31600	1	P	HSC	12/19/09 10:17	121909B-1	932935
7439-96-5	Manganese J+,I6b	211000	ug/Kg	N	210	1050	1050	1	P	HSC	12/19/09 10:17	121909B-1	932935
7439-97-6	Mercury	5.07	ug/kg	J	4.42	13	13	1	AV	ETL	12/23/09 12:34	122309S1-4	934871
7440-02-0	Nickel	1.57	mg/kg	*	0.106	0.423	0.423	2	MS	SKJ	12/31/09 00:50	091230-2	932937
7440-09-7	Potassium	193000	ug/Kg	*	6730	26300	26300	1	P	HSC	12/19/09 10:17	121909B-1	932935
7782-49-2	Selenium	1.06	mg/kg	U	0.529	1.06	1.06	2	MS	SKJ	12/31/09 00:50	091230-2	932937
7440-21-3	Silicon J+,I6b	638000	ug/Kg	N	1580	10500	10500	1	P	HSC	12/19/09 10:17	121909B-1	932935
7440-22-4	Silver U,I4b	116	ug/Kg	J	105	526	526	1	P	HSC	12/19/09 10:17	121909B-1	932935
7440-23-5	Sodium	81100	ug/Kg		7360	26300	26300	1	P	HSC	12/19/09 10:17	121909B-1	932935
7440-28-0	Thallium U,I4b	0.112	mg/kg	J	0.0635	0.212	0.212	2	MS	SKJ	12/31/09 00:50	091230-2	932937
7440-32-6	Titanium	262000	ug/Kg		105	526	526	1	P	HSC	12/19/09 10:17	121909B-1	932935
7440-61-1	Uranium	0.521	mg/kg		0.014	0.0423	0.0423	2	MS	SKJ	12/31/09 14:59	091231-3	932937
7440-62-2	Vanadium	2790	ug/Kg		105	526	526	1	P	HSC	12/19/09 10:17	121909B-1	932935
7440-66-6	Zinc	37700	ug/Kg		347	1050	1050	1	P	HSC	12/19/09 10:17	121909B-1	932935

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
932935	932934	SW846 3050B	0.515	g	50	mL	12/17/09	FGA
932937	932936	SW846 3050B	0.512	g	50	mL	12/17/09	FGA
934871	934870	SW846 7471A Prep	0.5	g	30	mL	12/22/09	TXB3

MJ
02/03/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-901 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 242794004 **BASIS:** Dry Weight **DATE COLLECTED** 10-DEC-09

CLIENT ID: RE03-09-13469 **LEVEL:** Low **DATE RECEIVED** 12-DEC-09

MATRIX: SOIL **%SOLIDS:** 93.6

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum J+,I6b	8110000	ug/Kg	*N	6920	20400	20400	1	P	HSC	12/19/09 10:23	121909B-1	932935
7440-36-0	Antimony	1650	ug/Kg		336	1020	1020	1	P	HSC	12/19/09 10:23	121909B-1	932935
7440-38-2	Arsenic J-,I6a	1.75	mg/kg		0.21	1.05	1.05	2	MS	SKJ	12/31/09 00:56	091230-2	932937
7440-39-3	Barium	136000	ug/Kg		102	509	509	1	P	HSC	12/19/09 10:23	121909B-1	932935
7440-41-7	Beryllium	0.940	mg/kg		0.021	0.105	0.105	2	MS	SKJ	12/31/09 15:01	091231-3	932937
7440-42-8	Boron	2250	ug/Kg	J	1020	5090	5090	1	P	HSC	12/19/09 10:23	121909B-1	932935
7440-43-9	Cadmium	177	ug/Kg	J	102	509	509	1	P	HSC	12/19/09 10:23	121909B-1	932935
7440-70-2	Calcium	2310000	ug/Kg		8140	25400	25400	1	P	HSC	12/19/09 10:23	121909B-1	932935
7440-47-3	Chromium	7680	ug/Kg		153	509	509	1	P	HSC	12/19/09 10:23	121909B-1	932935
7440-48-4	Cobalt	4670	ug/Kg		153	509	509	1	P	HSC	12/19/09 10:23	121909B-1	932935
7440-50-8	Copper	5880	ug/Kg		305	1020	1020	1	P	HSC	12/19/09 10:23	121909B-1	932935
7439-89-6	Iron	12100000	ug/Kg		8140	25400	25400	1	P	HSC	12/19/09 10:23	121909B-1	932935
7439-92-1	Lead	12800	ug/Kg	*	254	1020	1020	1	P	HSC	12/19/09 10:23	121909B-1	932935
7439-93-2	Lithium	15.7	mg/kg	*N	0.419	2.1	2.1	2	MS	SKJ	12/31/09 15:01	091231-3	932937
7439-95-4	Magnesium J,I10a	1630000	ug/Kg	*	8650	30500	30500	1	P	HSC	12/19/09 10:23	121909B-1	932935
7439-96-5	Manganese J+,I6b	351000	ug/Kg	N	204	1020	1020	1	P	HSC	12/19/09 10:23	121909B-1	932935
7439-97-6	Mercury	16	ug/kg		4.07	12	12	1	AV	ETL	12/23/09 12:35	122309S1-4	934871
7440-02-0	Nickel	7.04	mg/kg	*	0.105	0.419	0.419	2	MS	SKJ	12/31/09 00:56	091230-2	932937
7440-09-7	Potassium	1230000	ug/Kg	*	6510	25400	25400	1	P	HSC	12/19/09 10:23	121909B-1	932935
7782-49-2	Selenium	1.05	mg/kg	U	0.524	1.05	1.05	2	MS	SKJ	12/31/09 00:56	091230-2	932937
7440-21-3	Silicon J+,I6b	1220000	ug/Kg	N	1530	10200	10200	1	P	HSC	12/19/09 10:23	121909B-1	932935
7440-22-4	Silver U,I4b	195	ug/Kg	J	102	509	509	1	P	HSC	12/19/09 10:23	121909B-1	932935
7440-23-5	Sodium	198000	ug/Kg		7120	25400	25400	1	P	HSC	12/19/09 10:23	121909B-1	932935
7440-28-0	Thallium U,I4b	0.177	mg/kg	J	0.0629	0.21	0.21	2	MS	SKJ	12/31/09 00:56	091230-2	932937
7440-32-6	Titanium	415000	ug/Kg		102	509	509	1	P	HSC	12/19/09 10:23	121909B-1	932935
7440-61-1	Uranium	0.786	mg/kg		0.0138	0.0419	0.0419	2	MS	SKJ	12/31/09 15:01	091231-3	932937
7440-62-2	Vanadium	22400	ug/Kg		102	509	509	1	P	HSC	12/19/09 10:23	121909B-1	932935
7440-66-6	Zinc	30600	ug/Kg		336	1020	1020	1	P	HSC	12/19/09 10:23	121909B-1	932935

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
932935	932934	SW846 3050B	0.525	g	50	mL	12/17/09	FGA
932937	932936	SW846 3050B	0.51	g	50	mL	12/17/09	FGA
934871	934870	SW846 7471A Prep	0.536	g	30	mL	12/22/09	TXB3

MJ
02/03/10

DATA VALIDATION COVER SHEET

5120-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY

Section I.

REQUEST NUMBER: 10-901 VALIDATION DATE: 02/03/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Maryann Jordan ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☒ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE): total cyanide analysis only

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☐	☐	☒	8. QUANTITATION REPORTS
☐	☐	☒	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. It should be noted that the QC analyses were performed on a sample from another LANL RN. No sample data were qualified as a result.

Reviewed by: Monica Dymerski **Level I** **Date:** 02/04/10

VALIDATOR'S SIGNATURE: Maryann Jordan DATE: 02/03/10

GENERAL CHEMISTRY ANALYTICAL DATA VALIDATION CHECKLIST

5120-2

General Chemistry Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, I9	J-, I9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, I9a	J-, I9a
☐	☐	☒	3. The affected analytes are regarded as rejected because the analytical holding time was exceeded.	R, I9b	R, I9b
☐	☒	☐	4. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, I7	J, I7
☐	☒	☐	5. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, I7a	J, I7a
☐	☒	☐	6. The ICV and/or CCV were recovered outside the method specific limits.	UJ, I7c	J, I7c
☐	☒	☐	7. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, I7d	J, I7d
☐	☒	☐	8. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, I7f	R, I7f
☐	☐	☒	9. The interference check sample percent recovery value is <50%.	R, I2	J-, I2
☐	☐	☒	10. The interference check sample percent recovery value is ≥50% and <80%.	UJ, I2a	J-, I2a
☐	☐	☒	11. The interference check sample percent recovery value is >120%.	N/A	J+, I2b
☐	☐	☒	12. The interference check sample was not analyzed with the samples.	R, I2c	R, I2c
☐	☒	☐	13. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, I4	N/A

GENERAL CHEMISTRY ANALYTICAL DATA VALIDATION CHECKLIST	
5120-2 **General Chemistry Analytical Data Validation Checklist**	Records Use only Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	14. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X.	N/A	J, I4a
☐	☒	☐	15. The sample result is ≤5X the concentration of the related analyte in the instrument blank and continuing calibration blank.	U, I4b	N/A
☐	☒	☐	16. Continuing calibration blanks were not analyzed at the appropriate method frequency.	UJ, I4c	J, I4c
☐	☐	☒	17. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	U, I4d	N/A
☐	☒	☐	18. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, I4e	R, I4e
☐	☒	☐	19. The associate matrix spike recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I6	R, I6
☐	☒	☐	20. The associated matrix spike recovery was below the Lower Acceptance Limit (LAL) but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I6a	J-, I6a
☐	☒	☐	21. The associated matrix spike recovery was above the Upper Acceptance Limit (UAL). Follow the external laboratory limits located within the associated data package.	UJ, I6b	J+, I6b
☐	☒	☐	22. Required matrix spike information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. If LCS information is present, do not reject. Qualify data based on LCS information.	R, I6c	R, I6c
☐	☒	☐	23. The sample and/or the duplicate sample results RPD is not within the acceptance limits. Follow the external laboratory limits located within the associated data package.	UJ, I10b	J, I10b

GENERAL CHEMISTRY ANALYTICAL DATA VALIDATION CHECKLIST

5120-2

General Chemistry Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	24. The duplicate sample was not prepared and/or analyzed with the samples for unspecified reasons. The duplicate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	UJ, I10d	J, I10d
☐	☒	☐	25. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I12	R, I12
☐	☒	☐	26. The LCS percent recover was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I12a	J-, I12a
☐	☒	☐	27. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, I12b
☐	☒	☐	28. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. Do not Reject if MS/MSD information is present. Qualify according to MS/MSD criteria.	R, I12c	R, I12c
☐	☒	☐	29. Duplicate, dilution, or reanalysis	UJ, I88	J, I88
☐	☒	☐	30. The LANL project chemist identified quality deficiencies in the reported data that require further qualification. This code can ONLY be used and/or under advisement by the LANL project chemist.	UJ, R, I19	J, R, I19
☒	☐	☐	31. Qualification of data via data validation does not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB NQ, NQ (no qualification)

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: January 2, 2010

Client SDG: 10-901

Client Sample ID:	RE03-09-13470	Project:	LANL01004
Sample ID:	242794001	Client ID:	LANL010
Matrix:	S		
Collect Date:	10-DEC-09 12:00		
Receive Date:	12-DEC-09		
Collector:	Client		
Moisture:	4.36%		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Flow Injection Analysis											
SW9012A Cyanide, Total Federal "Dry Weight Corrected"											
Cyanide, Total	U	ND	69.7	256	ug/kg	1	AXC2	12/17/09	1026	932527	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	SXJ1	12/16/09	1230	932526

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

MJ
02/03/10

GEL LABORATORIES LLC

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: January 2, 2010

Client SDG: 10-901

Client Sample ID:	RE03-09-13471	Project:	LANL01004
Sample ID:	242794002	Client ID:	LANL010
Matrix:	S		
Collect Date:	10-DEC-09 12:00		
Receive Date:	12-DEC-09		
Collector:	Client		
Moisture:	4.29%		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Flow Injection Analysis											
SW9012A Cyanide, Total Federal "Dry Weight Corrected"											
Cyanide, Total	U	ND	71.1	261	ug/kg	1	AXC2	12/17/09	1010	932527	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	SXJ1	12/16/09	1230	932526

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

MJ
02/03/10

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: January 2, 2010

Client SDG: 10-901

Client Sample ID:	RE03-09-13472	Project:	LANL01004
Sample ID:	242794003	Client ID:	LANL010
Matrix:	S		
Collect Date:	10-DEC-09 12:00		
Receive Date:	12-DEC-09		
Collector:	Client		
Moisture:	7.7%		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Flow Injection Analysis											
SW9012A Cyanide, Total Federal "Dry Weight Corrected"											
Cyanide, Total	U	ND	68.2	251	ug/kg	1	AXC2	12/17/09	1010	932527	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	SXJ1	12/16/09	1230	932526

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

MJ
02/03/10

GEL LABORATORIES LLC
2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: January 2, 2010
Client SDG: 10-901

Client Sample ID:	RE03-09-13469	Project:	LANL01004
Sample ID:	242794004	Client ID:	LANL010
Matrix:	S		
Collect Date:	10-DEC-09 12:00		
Receive Date:	12-DEC-09		
Collector:	Client		
Moisture:	6.42%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total Federal "Dry Weight Corrected"										
Cyanide, Total	U	ND	72.7	267	ug/kg	1	AXC2 12/17/09	1011	932527	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	SXJ1	12/16/09	1230	932526

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

MJ
02/03/10

Friday, December 11, 2009

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-901C

REQUEST NUMBER: 10-901

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 1/10/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS: 242794

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE03-09-13470	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-09-13470	1	GLASS	8270C+8082+TPH-DRO	Ice	S
RE03-09-13471	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-09-13471	1	GLASS	8270C+8082+TPH-DRO	Ice	S
RE03-09-13472	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-09-13472	1	GLASS	8270C+8082+TPH-DRO	Ice	S
RE03-09-13469	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-09-13469	1	GLASS	8270C+8082+TPH-DRO	Ice	S
RE03-09-13470	1	POLY	Metals+CN - GEL	Ice	S
RE03-09-13472	1	POLY	Metals+CN - GEL	Ice	S
RE03-09-13471	1	POLY	Metals+CN - GEL	Ice	S
RE03-09-13469	1	POLY	Metals+CN - GEL	Ice	S

Relinquished By:		Date	Time	Received By:		Date	Time
[illegible]		12/11/09	3:00	Patricia Doter-Dent	P. Doter-Dent	12-12-09	09:35
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

Received for DISPOSAL By: **Date** **Time** **Remarks:**

Printed Name Signature

Friday, December 11, 2009

REQUEST NUMBER: 10-901

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis
General Engineering Laboratories, Inc., Charleston, SC.
2040 Savage Rd
Charleston, SC 29407

These Samples are on:
LANL Request Number: 10-901
Per Agreement Number: 126310011
Project Cost Code: MR2A054196D0

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 12/11/2009
TURNAROUND/REPORT DUE: 1/10/2010
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Yes, Below Background
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:6010B	1	RE03-09-13469	S	12/10/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-13470	S	12/10/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-13471	S	12/10/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-13472	S	12/10/2009	Plus, B, Li, Si, Ti, U
	SW-846:8015M_EXTRACTABLE	1	RE03-09-13469	S	12/10/2009	
		1	RE03-09-13470	S	12/10/2009	

Friday, December 11, 2009

REQUEST NUMBER: 10-901

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8015M_EXTRACTABLE	1	RE03-09-13471	S	12/10/2009	
		1	RE03-09-13472	S	12/10/2009	
	SW-846:8082	1	RE03-09-13469	S	12/10/2009	
		1	RE03-09-13470	S	12/10/2009	
		1	RE03-09-13471	S	12/10/2009	
		1	RE03-09-13472	S	12/10/2009	
	SW-846:8260B	1	RE03-09-13469	S	12/10/2009	
		1	RE03-09-13470	S	12/10/2009	
		1	RE03-09-13471	S	12/10/2009	
		1	RE03-09-13472	S	12/10/2009	
	SW-846:8270C	1	RE03-09-13469	S	12/10/2009	
		1	RE03-09-13470	S	12/10/2009	
		1	RE03-09-13471	S	12/10/2009	
		1	RE03-09-13472	S	12/10/2009	
	SW-846:9012A	1	RE03-09-13469	S	12/10/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-13470	S	12/10/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-13471	S	12/10/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-13472	S	12/10/2009	Plus, B, Li, Si, Ti, U

Final Page of REQUEST NUMBER 10-901

GEL Laboratories LLC

a member of The GEL Group INC

PO Box 30712 Charleston, SC 29417
2040 Savage Road Charleston, SC 29407

P 843.556.8171 F 843.766.1178

www.gel.com

December 19, 2009

Ms. Joylene Valdez
Los Alamos National Laboratory
PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545

Re: LANL ER Project
Work Order: 242794
SDG: 10-901

Dear Ms. Valdez:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the following analytical results for the sample(s) we received on December 12, 2009, and analyzed for FID Flame Ionization Detector, GC Semivolatile PCB, GC/MS Semivolatile, GC/MS Volatile, General Chemistry and Metals. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 4485.

Sincerely,

for

Valerie Davis
Project Manager

Purchase Order: 72733-001-09
Chain of Custody: 10-901
Enclosures

problem solved

Los Alamos National Laboratory (72733-001-09)
LANL ER Project
Work Order #: 242794
SDG: 10-901

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Cyanide, Total.....1012

Case Narrative

Case Narrative for
Los Alamos National Laboratory (72733-001-09)
LANL ER Project
Workorder #: 242794
SDG # : 10-901

December 19, 2009

Laboratory Identification:

GEL Laboratories LLC
2040 Savage Road
Charleston, South Carolina 29407
(843) 556-8171

Summary

Sample receipt The samples arrived at GEL Laboratories LLC, Charleston, South Carolina on December 12, 2009 for analysis. The samples were prepared/analyzed within the required holding time. Shipping container temperatures were checked, documented, and within specifications. The samples were screened according to GEL Standard Operating Procedure. The samples were delivered with proper chain of custody documentation and signatures. All sample containers arrived without any visible signs of tampering or breakage. Containers were checked for pH, where appropriate, and matched the preservative as documented on the accompanying chain of custody. Shipping container temperature was within specification (0 - 6C).

Sample Identification The laboratory received the following samples:

Laboratory ID	Client ID
242794001	RE03-09-13470
242794002	RE03-09-13471
242794003	RE03-09-13472
242794004	RE03-09-13469

Case Narrative

Sample analyses were conducted using methodology as outlined in GEL Laboratories, LLC (GEL) Standard Operating Procedures. Any technical or administrative problems during analysis, data review, and reduction are contained in the analytical case narratives in the enclosed data package.

Data Package The enclosed data package contains the following sections: Case Narrative, Chain of Custody, Cooler Receipt Checklist, Data Package Qualifier Definitions and data from the following fractions: FID Flame Ionization Detector, GC Semivolatile PCB, GC/MS Semivolatile, GC/MS Volatile, General Chemistry and Metals.

I certify that this data report is in compliance with the terms and conditions of the subcontract and task order, both technically and for completeness, for other than the conditions detailed in the attached case narrative.

for

Valerie Davis

Project Manager

List of current GEL Certifications as of 19 December 2009

State	Certification
Arizona	AZ0668
Arkansas	88–0651
CLIA	42D0904046
California – NELAP	01151CA
Colorado	GEL
Connecticut	PH–0169
Dept. of Navy	NFESC 413
EPA Region 5	WG–15J
Florida – NELAP	E87156
Georgia	E87156 (FL/NELAP)
Georgia DW	967
Hawaii	N/A
ISO 17025	2567.01
Idaho	SC00012
Illinois – NELAP	200029
Indiana	C–SC–01
Kansas – NELAP	E–10332
Kentucky	90129
Louisiana – NELAP	03046
Maryland	270
Massachusetts	M–SC012
Nevada	SC00012
New Jersey – NELAP	SC002
New Mexico	FL NELAP E87156
New York – NELAP	11501
North Carolina	233
North Carolina DW	45709
Oklahoma	9904
Pennsylvania – NELAP	68–00485
South Carolina	10120001/10120002
Tennessee	TN 02934
Texas – NELAP	T104704235–07B–TX
U.S. Dept. of Agriculture	S–52597
Utah – NELAP	GEL
Vermont	VT87156
Virginia	00151
Washington	C1641

Chain of Custody and Supporting Documentation

Friday, December 11, 2009

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-901C

LOS ALAMOS

NATIONAL LABORATORY

REQUEST NUMBER: 10-901

ATTN: Valerie Davis

TURNAROUND/REPORT DUE: 1/10/2010

TURNAROUND REQ'D: 30

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

LAB REQUEST COMMENTS: 242794

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE03-09-13470	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-09-13470	1	GLASS	8270C+8082+TPH-DRO	Ice	S
RE03-09-13471	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-09-13471	1	GLASS	8270C+8082+TPH-DRO	Ice	S
RE03-09-13472	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-09-13472	1	GLASS	8270C+8082+TPH-DRO	Ice	S
RE03-09-13469	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-09-13469	1	GLASS	8270C+8082+TPH-DRO	Ice	S
RE03-09-13470	1	POLY	Metals+CN - GEL	Ice	S
RE03-09-13472	1	POLY	Metals+CN - GEL	Ice	S
RE03-09-13471	1	POLY	Metals+CN - GEL	Ice	S
RE03-09-13469	1	POLY	Metals+CN - GEL	Ice	S

Relinquished By:		Date	Time	Received By:		Date	Time
		12/11/09	3:00	Patricia Dover-Dent	P. Dover-Dent	12-12-09	09:35
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

Received for DISPOSAL By: **Date** **Time** **Remarks:**

Printed Name Signature

Friday, December 11, 2009

REQUEST NUMBER: 10-901

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis
General Engineering Laboratories, Inc., Charleston, SC.
2040 Savage Rd
Charleston, SC 29407

These Samples are on:
LANL Request Number:10-901
Per Agreement Number:126310011
Project Cost Code: MR2A054196D0

Please analyse the enclosed samples
according to the schedule indicated:

SHIP DATE: 12/11/2009
TURNAROUND/REPORT DUE: 1/10/2010
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Yes, Below Background
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:6010B	1	RE03-09-13469	S	12/10/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-13470	S	12/10/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-13471	S	12/10/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-13472	S	12/10/2009	Plus, B, Li, Si, Ti, U
	SW-846:8015M_EXTRACTABLE	1	RE03-09-13469	S	12/10/2009	
		1	RE03-09-13470	S	12/10/2009	

Friday, December 11, 2009

REQUEST NUMBER: 10-901

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8015M_EXTRACTABLE	1	RE03-09-13471	S	12/10/2009	
		1	RE03-09-13472	S	12/10/2009	
	SW-846:8082	1	RE03-09-13469	S	12/10/2009	
		1	RE03-09-13470	S	12/10/2009	
		1	RE03-09-13471	S	12/10/2009	
		1	RE03-09-13472	S	12/10/2009	
	SW-846:8260B	1	RE03-09-13469	S	12/10/2009	
		1	RE03-09-13470	S	12/10/2009	
		1	RE03-09-13471	S	12/10/2009	
		1	RE03-09-13472	S	12/10/2009	
	SW-846:8270C	1	RE03-09-13469	S	12/10/2009	
		1	RE03-09-13470	S	12/10/2009	
		1	RE03-09-13471	S	12/10/2009	
		1	RE03-09-13472	S	12/10/2009	
	SW-846:9012A	1	RE03-09-13469	S	12/10/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-13470	S	12/10/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-13471	S	12/10/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-13472	S	12/10/2009	Plus, B, Li, Si, Ti, U

Final Page of REQUEST NUMBER 10-901

GEL Laboratories LLC

SAMPLE RECEIPT & REVIEW FORM

Client:LANL	**SDG/ARCOC/Work Order:10-901**
Received By:Patricia Dover-Dent	**Date Received:December 12, 2009**

Suspected Hazard Information	**Yes**	**No**	*If Counts > x2 area background on samples not marked "radioactive", contact the Radiation Safety Group of further
COC/Samples marked as radioactive?		X	Maximum Counts Observed*:30 CPM
Classified Radioactive II by RSO?		X	
COC/Samples marked containing PCBs?		X	
Shipped as a DOT Hazardous?		X	Hazard Class Shipped: UN#:
Samples identified as Foreign Soil?		X	

	Sample Receipt Criteria	**Yes**	**NA**	**No**	**Comments/Qualifiers (Required for Non-Conforming Items)**
1	Shipping containers received intact and sealed?	X			Circle Applicable: seals broken damaged container leaking container other (describe
2	Samples requiring cold preservation within (0 < 6 deg. C?	X			Preservation Method: ice bags **BLUE ICE** dry ice **NONE** other (describe) **1,2C**
3	Chain of custody documents included with shipment?	X			
4	Sample containers intact and sealed?	X			Circle Applicable: seals broken damaged container leaking container other (describe)
5	Samples requiring chemical preservation at proper pH?		X		Sample ID's, containers affected and observed pH. If Preservative added, Lot#:
6	VOA vials free of headspace (defined as < 6mm bubble)?		X		Sample ID's and containers affected:
7	Are Encore containers present?			X	(If yes, immediately deliver to Volatiles laboratory)
8	Samples received within holding time?	X			Id's and tests affected:
9	Sample ID's on COC match ID's on bottles?	X			Sample ID's and containers affected:
10	Date & time on COC match date & time on bottles?		X		Sample ID's affected: **No Time on Chain of Custody**
11	Number of containers received match number indicated on COC?	X			Sample ID's affected:
12	COC form is properly signed in relinquished/received sections?	X			

Comments:FED EX #'S
7209 7849 2141 1C
7209 7849 2174 1C
7209 7849 2185 1C
7209 7849 2163 2C
7209 7849 2196 2C

 PM review: Initials VSD Date 12/14/09

ORIGIN ID: SAFA (505)665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 11DEC09
ACTWGT: 57.0 LB MAN
CAD: 6014176/CAFE2434

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843)556-8171
REF: 6B010AWE6L1155000

1c

FedEx Express

SATURDAY ### A1
PRIORITY OVERNIGHT

TRK# 0201 7209 7849 2141

29407
SC-US
CHS

X0 CHSA

ORIGIN ID: SAFA (505)665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 11DEC09
ACTWGT: 57.0 LB MAN
CAD: 6014176/CAFE2434

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843)556-8171
REF: 6B010AMR2A054196D0

1c

FedEx Express

SATURDAY ### A1
3 of 3
PRIORITY OVERNIGHT

MPS# 0263 7209 7849 2174
Matrix 7209 7849 2152 0201

29407
SC-US
CHS

X0 CHSA

ORIGIN ID: SAFA (505)665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 11DEC09
ACTWGT: 52.0 LB MAN
CAD: 6014176/CAFE2434

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843)556-8171
REF: 6B010AMR1A015AGWM0

1c

FedEx Express

SATURDAY ### A1
1 of 2
PRIORITY OVERNIGHT

TRK# 0201 7209 7849 2185
MASTER

29407
SC-US
CHS

X0 CHSA

ORIGIN ID: SAFA (505)665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 11DEC09
ACTWGT: 55.0 LB MAN
CAD: 6014176/CAFE2434

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843)556-8171
REF: 6B010AMR2A054196D0

2c

FedEx Express

SATURDAY ### A1
2 of 3
PRIORITY OVERNIGHT

MPS# 0263 7209 7849 2163
Matrix 7209 7849 2152 0201

29407
SC-US
CHS

X0 CHSA

ORIGIN ID: SAFA (505)665-9969
JOYLENE VRCDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 11DEC09
ACTWGT: 60.0 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843)556-8171
REF # 6B010GMR1A015AGWM0

2c

FedEx Express

SATURDAY ### A1
PRIORITY OVERNIGHT

2 of 2
MPS# 0283 7209 7849 2196
Mstr# 7209 7849 2185 0201

29407
SC-US
CHS

X0 CHSA

Part # 156149-632 NRIT V3 09-09

Data Review Qualifier Flag Definition Sheet

Data Review Qualifier Definitions

Qualifier	Explanation
*	A quality control analyte recovery is outside of specified acceptance criteria
**	Analyte is a surrogate compound
<	Result is less than value reported
>	Result is greater than value reported
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL
A	The TIC is a suspected aldol-condensation product
B	Target analyte was detected in the associated blank
B	Metals-Either presence of analyte detected in the associated blank, or MDL/IDL < sample value < PQL
BD	Results are either below the MDC or tracer recovery is low
C	Analyte has been confirmed by GC/MS analysis
D	Results are reported from a diluted aliquot of the sample
d	5-day BOD-The 2:1 depletion requirement was not met for this sample
E	Organics-Concentration of the target analyte exceeds the instrument calibration range
E	Metals-%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
H	Analytical holding time was exceeded
h	Preparation or preservation holding time was exceeded
J	Value is estimated
N	Metals-The Matrix spike sample recovery is not within specified control limits
N	Organics-Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A	Spike recovery limits do not apply. Sample concentration exceeds spike concentration by 4X or more
ND	Analyte concentration is not detected above the reporting limit
UI	Gamma Spectroscopy-Uncertain identification
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
Z	Paint Filter Test-Particulates passed through the filter, however no free liquids were observed.

GC/MS Volatile Analysis

GC/MS Volatile Organics
Los Alamos National Laboratory (LANL)
SDG 10-901

Method/Analysis Information

Procedure:	Volatile Organic Compounds (VOC) by Gas Chromatograph/Mass Spectrometer
Analytical Method:	SW846 8260B
Prep Method:	SW846 5030
Analytical Batch Number:	934728
Prep Batch Number:	934727

Sample Analysis

The following client and quality control samples were analyzed to complete this SDG using the methods referenced in the Analysis Information section:

Sample ID	Client ID
242794001	RE03-09-13470
242794002	RE03-09-13471
242794003	RE03-09-13472
242794004	RE03-09-13469
1201999844	Method Blank (MB)
1201999847	Laboratory Control Sample (LCS)
1201999848	Laboratory Control Sample (LCS)
1202002633	Method Blank (MB)
1202002634	Laboratory Control Sample (LCS)
1202002635	Laboratory Control Sample (LCS)
1201999845	242794001(RE03-09-13470) Post Spike (PS)
1201999846	242794001(RE03-09-13470) Post Spike Duplicate (PSD)

NOTE: For volatile organic analyses the matrix spike designations may be indicated as "PS" or "PSD". The "PS" designation (post spike) indicates that the matrix was fortified prior to analysis but after applying any prep factors, such as a dilution. The laboratory considers the MS/MSD and PS/PSD designations interchangeable.
The samples in this SDG were analyzed on a "dry weight" basis.

Preparation/Analytical Method Verification

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-038 REV# 13.

Raw data reports are processed and reviewed by the analyst using the Target software package. False positives have been removed from the Target quantitation reports per standard operating procedures (SOP) section 19.1.2.

Calibration Information

Please note that the 'Cal Date' indicated on each quantitation report reflects the date and time of the most recent calibrated analyte(s) in the Target processing method. Since the laboratory may calibrate with multiple solutions on different days using the same processing method, the Target software will update the 'Cal Date' to the last calibration file, date and time. The correct dates and times for all calibration files are located on the Calibration History report in the Standard Data section in the data package.

The surrogate compounds were calibrated using a minimum five-point calibration curve. The surrogates were added by the auto sampler at a concentration of 50 ug/L. GEL Laboratories LLC will not have surrogate recoveries reported for Dibromofluoromethane. This is due to increased regulations for this analyte and an industry shortage.

Due to software limitations, the Calibration Summary Form 6 may not indicate all the calibration files comprising the initial calibration. A complete list of the initial calibration data files are shown in the Calibration History report located in the Standard Data section of the data package.

The linear equation used in Target and indicated on the initial calibration summary form is not a conventional linear equation (slope intercept formula) and does not match the equation found in SW-846 method 8000B. The x and y axes are inversed in Target, so that the instrument response is treated as the independent variable (x) and the concentration ratio is treated as the dependent variable (y). The equation used in Target to calculate sample results is adjusted to account for the linear equation inversion and reciprocal slope. The adjusted calculation has been independently verified to produce valid results.

Initial Calibration

All initial calibration requirements have been met for this sample delivery groups (SDG). A second source initial calibration verification (ICV) was included in the standard section directly behind the initial calibration.

Continuing Calibration Verification Requirements

All associated calibration verification standard(s) (ICV or CCV) met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement

The MBs analyzed with this SDG met the acceptance criteria.

Surrogate Recoveries

Surrogate recoveries in all client and quality control samples were within the acceptance limits.

Laboratory Control Sample (LCS) Recovery

The LCS spike recoveries met the acceptance limits.

QC Sample Designation

Sample 242794001 (RE03-09-13470) was designated for spike analysis in this SDG.

Matrix Spike (PS) Recovery Statement

The spike recoveries for this SDG were within the required acceptance limits.

Matrix Spike Duplicate (PSD) Recovery Statement

The spike duplicate recoveries for this SDG were within the required acceptance limits.

Relative Percent Difference (RPD) Statement

The RPD(s) between the matrix spike pair met the acceptance limits.

Internal Standard (ISTD) Acceptance
The internal standard responses in all client and quality control samples met the required acceptance criteria.

Technical Information

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection or sample receipt. Those holding times expressed in hours are calculated in the ALPHALIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Sample Preservation and Integrity
All samples met the sample preservation and integrity requirements.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-extraction/Re-analysis
The samples in this SDG were re-analyzed due to unacceptable recoveries in the initial analysis: 1201999845 (RE03-09-13470) and 1201999846 (RE03-09-13470).

Miscellaneous Information

Electronic Package Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. An electronic signature page inserted after the case narrative of each electronic package will indicate the analyst, reviewer, and report specialist names associated with the generation of the data and package. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Nonconformance (NCR) Documentation
The following NCR was generated for this SDG: 773454 242794001 (RE03-09-13470), 242794002 (RE03-09-13471), 242794003 (RE03-09-13472) and 242794004 (RE03-09-13469).

Manual Integrations
Data files associated with the initial calibration, continuing calibration check, and samples did not require manual integrations.

TIC Comment
Tentatively identified compounds (TIC) were required for this SDG.

Additional Comments
The samples were not in the analyst's custody in LIMS. However, the analyst did maintain custody of the samples during analysis. See NCR# 773454.

Residual Chlorine
Residual Chlorine was not detected in any of the samples in this SDG.

System Configuration

The Volatile-GC/MS analysis was performed on the following instrument configuration:

Instrument ID	Instrument	System Configuration	Column ID	Column Description	P & T Trap
VOA1.I	Gas Chromatograph/Mass Spectrometer	HP6890/HP5973	RTX-624	Restek, 60m x 0.25mm x 1.4um	Trap 10

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis Report
for

LANL010 Los Alamos National Laboratory (72733-001-09)

Client SDG: 10-901 GEL Work Order: 242794

The Qualifiers in this report are defined as follows:

* A quality control analyte recovery is outside of specified acceptance criteria

** Analyte is a surrogate compound

J Value is estimated

U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

Review/Validation

GEL requires all analytical data to be verified by a qualified data reviewer. In addition, all CLP-like deliverables receive a third level review of the fractional data package.

The following data validator verified the information presented in this case narrative:

Signature: Stacy Calloway **Name: Stacy Calloway**

Date: 07 JAN 2010 **Title: Data Validator**

Roadmap for LANL 10-901 VOA

This roadmap was analyzed by ron01469 on 12-22-2009, 13:48.
This roadmap was reviewed by ch1 on 12-24-2009, 09:30.

Sample

exclude	manual	datafile	smpid	clientid	injdate	injtime	sublist	dilution	batchid	comment
☐	N	/chem/VOA1.i/121809v1/1r530.d	242794001	RE03-09-13470	19-DEC-2009	01:22	10-901.sub	1	934728	
☐	N	/chem/VOA1.i/121809v1/1r531.d	242794002	RE03-09-13471	19-DEC-2009	01:53	10-901.sub	1	934728	
☐	N	/chem/VOA1.i/121809v1/1r532.d	242794003	RE03-09-13472	19-DEC-2009	02:23	10-901.sub	1	934728	
☐	N	/chem/VOA1.i/121809v1/1r533.d	242794004	RE03-09-13469	19-DEC-2009	02:53	10-901.sub	1	934728	

QC Sample

exclude	manual	datafile	smpid	clientid	sampletype	injdate	injtime	sublist	dilution	batchid	comment
☐	N	/chem/VOA1.i/121809v1/1r524LA.d	1201999847	LCS	lcs	18-DEC-2009	22:20	all.sub	1	934728	
☐	N	/chem/VOA1.i/121809v1/1r525sLA.d	1201999848	LCS	lcs	18-DEC-2009	22:51	all.sub	1	934728	
☐	N	/chem/VOA1.i/121809v1/1r527BA.d	1201999844	BLANK	mb	18-DEC-2009	23:51	all.sub	1	934728	
■	N	/chem/VOA1.i/121809v1/1r544.d	1201999845	RE03-09-13470MS	ms	19-DEC-2009	08:27	CALsubL+.sub	1	934728	
■	N	/chem/VOA1.i/121809v1/1r545.d	1201999846	RE03-09-13470MSD	msd	19-DEC-2009	08:57	CALsubL+.sub	1	934728	
☐	N	/chem/VOA1.i/122109v1/1s108LA.d	1202002634	LCS	lcs	21-DEC-2009	13:49	all.sub	1	934728	
☐	N	/chem/VOA1.i/122109v1/1s109sLA.d	1202002635	LCS	lcs	21-DEC-2009	14:19	all.sub	1	934728	
☐	N	/chem/VOA1.i/122109v1/1s111BA.d	1202002633	BLANK	mb	21-DEC-2009	15:20	all.sub	1	934728	
☐	N	/chem/VOA1.i/122109v1/1s115.d	1201999845	RE03-09-13470MS	ms	21-DEC-2009	17:21	10-901.sub	1	934728	
☐	N	/chem/VOA1.i/122109v1/1s116.d	1201999846	RE03-09-13470MSD	msd	21-DEC-2009	17:51	10-901.sub	1	934728	

Sample Data Summary

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-901	**Date Collected:**	12/10/2009 12:00	**Matrix:**	S
Lab Sample ID:	242794004	**Date Received:**	12/12/2009 09:35	**%Moisture:**	6.4
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-13469	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	934728	**Inst:**	VOA1.I	**Dilution:**	1
Run Date:	12/19/2009 02:53	**Analyst:**	RXM4	**Purge Vol:**	5 mL
Prep Date:	12/18/2009 14:07	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	1r533.d	**Column:**	RTX-Volatiles	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.07	ug/kg	0.363	1.07
74-87-3	Chloromethane	U	1.07	ug/kg	0.321	1.07
75-01-4	Vinyl chloride	U	1.07	ug/kg	0.321	1.07
74-83-9	Bromomethane	U	1.07	ug/kg	0.321	1.07
75-00-3	Chloroethane	U	1.07	ug/kg	0.321	1.07
75-69-4	Trichlorofluoromethane	U	1.07	ug/kg	0.321	1.07
67-64-1	Acetone	U	5.34	ug/kg	1.77	5.34
75-35-4	1,1-Dichloroethylene	U	1.07	ug/kg	0.321	1.07
74-88-4	Iodomethane	U	5.34	ug/kg	1.71	5.34
75-09-2	Methylene chloride	J	2.34	ug/kg	2.14	5.34
75-15-0	Carbon disulfide	U	5.34	ug/kg	1.34	5.34
156-60-5	trans-1,2-Dichloroethylene	U	1.07	ug/kg	0.321	1.07
75-34-3	1,1-Dichloroethane	U	1.07	ug/kg	0.321	1.07
78-93-3	2-Butanone	U	5.34	ug/kg	1.60	5.34
156-59-2	cis-1,2-Dichloroethylene	U	1.07	ug/kg	0.321	1.07
594-20-7	2,2-Dichloropropane	U	1.07	ug/kg	0.321	1.07
67-66-3	Chloroform	U	1.07	ug/kg	0.321	1.07
74-97-5	Bromochloromethane	U	1.07	ug/kg	0.353	1.07
71-55-6	1,1,1-Trichloroethane	U	1.07	ug/kg	0.321	1.07
563-58-6	1,1-Dichloropropene	U	1.07	ug/kg	0.321	1.07
56-23-5	Carbon tetrachloride	U	1.07	ug/kg	0.321	1.07
107-06-2	1,2-Dichloroethane	U	1.07	ug/kg	0.321	1.07
71-43-2	Benzene	U	1.07	ug/kg	0.321	1.07
79-01-6	Trichloroethylene	U	1.07	ug/kg	0.353	1.07
78-87-5	1,2-Dichloropropane	U	1.07	ug/kg	0.321	1.07
75-27-4	Bromodichloromethane	U	1.07	ug/kg	0.321	1.07
74-95-3	Dibromomethane	U	1.07	ug/kg	0.321	1.07
108-10-1	4-Methyl-2-pentanone	U	5.34	ug/kg	1.34	5.34
10061-01-5	cis-1,3-Dichloropropylene	U	1.07	ug/kg	0.321	1.07
108-88-3	Toluene	U	1.07	ug/kg	0.321	1.07
10061-02-6	trans-1,3-Dichloropropylene	U	1.07	ug/kg	0.321	1.07
79-00-5	1,1,2-Trichloroethane	U	1.07	ug/kg	0.321	1.07
591-78-6	2-Hexanone	U	5.34	ug/kg	1.60	5.34
142-28-9	1,3-Dichloropropane	U	1.07	ug/kg	0.321	1.07
127-18-4	Tetrachloroethylene	U	1.07	ug/kg	0.321	1.07
124-48-1	Dibromochloromethane	U	1.07	ug/kg	0.321	1.07
106-93-4	1,2-Dibromoethane	U	1.07	ug/kg	0.321	1.07
108-90-7	Chlorobenzene	U	1.07	ug/kg	0.321	1.07

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-901	**Date Collected:**	12/10/2009 12:00	**Matrix:**	S
Lab Sample ID:	242794004	**Date Received:**	12/12/2009 09:35	**%Moisture:**	6.4
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-13469	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	934728	**Inst:**	VOA1.I	**Dilution:**	1
Run Date:	12/19/2009 02:53	**Analyst:**	RXM4	**Purge Vol:**	5 mL
Prep Date:	12/18/2009 14:07	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	1r533.d	**Column:**	RTX-Volatiles	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.07	ug/kg	0.321	1.07
179601-23-1	m,p-Xylenes	U	2.14	ug/kg	0.321	2.14
95-47-6	o-Xylene	U	1.07	ug/kg	0.321	1.07
100-42-5	Styrene	U	1.07	ug/kg	0.321	1.07
75-25-2	Bromoform	U	1.07	ug/kg	0.321	1.07
79-34-5	1,1,2,2-Tetrachloroethane	U	1.07	ug/kg	0.321	1.07
96-18-4	1,2,3-Trichloropropane	U	1.07	ug/kg	0.321	1.07
108-86-1	Bromobenzene	U	1.07	ug/kg	0.321	1.07
103-65-1	n-Propylbenzene	U	1.07	ug/kg	0.321	1.07
95-49-8	2-Chlorotoluene	U	1.07	ug/kg	0.321	1.07
98-82-8	Isopropylbenzene	U	1.07	ug/kg	0.321	1.07
108-67-8	1,3,5-Trimethylbenzene	U	1.07	ug/kg	0.321	1.07
106-43-4	4-Chlorotoluene	U	1.07	ug/kg	0.321	1.07
98-06-6	tert-Butylbenzene	U	1.07	ug/kg	0.321	1.07
95-63-6	1,2,4-Trimethylbenzene	U	1.07	ug/kg	0.321	1.07
135-98-8	sec-Butylbenzene	U	1.07	ug/kg	0.321	1.07
99-87-6	4-Isopropyltoluene	U	1.07	ug/kg	0.321	1.07
541-73-1	1,3-Dichlorobenzene	U	1.07	ug/kg	0.321	1.07
106-46-7	1,4-Dichlorobenzene	U	1.07	ug/kg	0.321	1.07
104-51-8	n-Butylbenzene	U	1.07	ug/kg	0.321	1.07
96-12-8	1,2-Dibromo-3-chloropropane	U	1.07	ug/kg	0.321	1.07
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.34	ug/kg	1.71	5.34
630-20-6	1,1,1,2-Tetrachloroethane	U	1.07	ug/kg	0.321	1.07
95-50-1	1,2-Dichlorobenzene	U	1.07	ug/kg	0.321	1.07

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Hydrocarbon	18.07	18.7	ug/kg		J

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-901	**Date Collected:**	12/10/2009 12:00	**Matrix:**	S
Lab Sample ID:	242794001	**Date Received:**	12/12/2009 09:35	**%Moisture:**	4.4
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-13470	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	934728	**Inst:**	VOA1.I	**Dilution:**	1
Run Date:	12/19/2009 01:22	**Analyst:**	RXM4	**Purge Vol:**	5 mL
Prep Date:	12/18/2009 14:02	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	1r530.d	**Column:**	RTX-Volatiles	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.05	ug/kg	0.355	1.05
74-87-3	Chloromethane	U	1.05	ug/kg	0.314	1.05
75-01-4	Vinyl chloride	U	1.05	ug/kg	0.314	1.05
74-83-9	Bromomethane	U	1.05	ug/kg	0.314	1.05
75-00-3	Chloroethane	U	1.05	ug/kg	0.314	1.05
75-69-4	Trichlorofluoromethane	U	1.05	ug/kg	0.314	1.05
67-64-1	Acetone	U	5.23	ug/kg	1.74	5.23
75-35-4	1,1-Dichloroethylene	U	1.05	ug/kg	0.314	1.05
74-88-4	Iodomethane	U	5.23	ug/kg	1.67	5.23
75-09-2	Methylene chloride	J	2.19	ug/kg	2.09	5.23
75-15-0	Carbon disulfide	U	5.23	ug/kg	1.31	5.23
156-60-5	trans-1,2-Dichloroethylene	U	1.05	ug/kg	0.314	1.05
75-34-3	1,1-Dichloroethane	U	1.05	ug/kg	0.314	1.05
78-93-3	2-Butanone	U	5.23	ug/kg	1.57	5.23
156-59-2	cis-1,2-Dichloroethylene	U	1.05	ug/kg	0.314	1.05
594-20-7	2,2-Dichloropropane	U	1.05	ug/kg	0.314	1.05
67-66-3	Chloroform	U	1.05	ug/kg	0.314	1.05
74-97-5	Bromochloromethane	U	1.05	ug/kg	0.345	1.05
71-55-6	1,1,1-Trichloroethane	U	1.05	ug/kg	0.314	1.05
563-58-6	1,1-Dichloropropene	U	1.05	ug/kg	0.314	1.05
56-23-5	Carbon tetrachloride	U	1.05	ug/kg	0.314	1.05
107-06-2	1,2-Dichloroethane	U	1.05	ug/kg	0.314	1.05
71-43-2	Benzene	U	1.05	ug/kg	0.314	1.05
79-01-6	Trichloroethylene	U	1.05	ug/kg	0.345	1.05
78-87-5	1,2-Dichloropropane	U	1.05	ug/kg	0.314	1.05
75-27-4	Bromodichloromethane	U	1.05	ug/kg	0.314	1.05
74-95-3	Dibromomethane	U	1.05	ug/kg	0.314	1.05
108-10-1	4-Methyl-2-pentanone	U	5.23	ug/kg	1.31	5.23
10061-01-5	cis-1,3-Dichloropropylene	U	1.05	ug/kg	0.314	1.05
108-88-3	Toluene	U	1.05	ug/kg	0.314	1.05
10061-02-6	trans-1,3-Dichloropropylene	U	1.05	ug/kg	0.314	1.05
79-00-5	1,1,2-Trichloroethane	U	1.05	ug/kg	0.314	1.05
591-78-6	2-Hexanone	U	5.23	ug/kg	1.57	5.23
142-28-9	1,3-Dichloropropane	U	1.05	ug/kg	0.314	1.05
127-18-4	Tetrachloroethylene	U	1.05	ug/kg	0.314	1.05
124-48-1	Dibromochloromethane	U	1.05	ug/kg	0.314	1.05
106-93-4	1,2-Dibromoethane	U	1.05	ug/kg	0.314	1.05
108-90-7	Chlorobenzene	U	1.05	ug/kg	0.314	1.05

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-901**	**Date Collected:**	**12/10/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242794001**	**Date Received:**	**12/12/2009 09:35**	**%Moisture:**	**4.4**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-13470**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**934728**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**12/19/2009 01:22**	**Analyst:**	**RXM4**	**Purge Vol:**	**5 mL**
Prep Date:	**12/18/2009 14:02**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1r530.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.05	ug/kg	0.314	1.05
179601-23-1	m,p-Xylenes	U	2.09	ug/kg	0.314	2.09
95-47-6	o-Xylene	U	1.05	ug/kg	0.314	1.05
100-42-5	Styrene	U	1.05	ug/kg	0.314	1.05
75-25-2	Bromoform	U	1.05	ug/kg	0.314	1.05
79-34-5	1,1,2,2-Tetrachloroethane	U	1.05	ug/kg	0.314	1.05
96-18-4	1,2,3-Trichloropropane	U	1.05	ug/kg	0.314	1.05
108-86-1	Bromobenzene	U	1.05	ug/kg	0.314	1.05
103-65-1	n-Propylbenzene	U	1.05	ug/kg	0.314	1.05
95-49-8	2-Chlorotoluene	U	1.05	ug/kg	0.314	1.05
98-82-8	Isopropylbenzene	U	1.05	ug/kg	0.314	1.05
108-67-8	1,3,5-Trimethylbenzene	U	1.05	ug/kg	0.314	1.05
106-43-4	4-Chlorotoluene	U	1.05	ug/kg	0.314	1.05
98-06-6	tert-Butylbenzene	U	1.05	ug/kg	0.314	1.05
95-63-6	1,2,4-Trimethylbenzene	U	1.05	ug/kg	0.314	1.05
135-98-8	sec-Butylbenzene	U	1.05	ug/kg	0.314	1.05
99-87-6	4-Isopropyltoluene	U	1.05	ug/kg	0.314	1.05
541-73-1	1,3-Dichlorobenzene	U	1.05	ug/kg	0.314	1.05
106-46-7	1,4-Dichlorobenzene	U	1.05	ug/kg	0.314	1.05
104-51-8	n-Butylbenzene	U	1.05	ug/kg	0.314	1.05
96-12-8	1,2-Dibromo-3-chloropropane	U	1.05	ug/kg	0.314	1.05
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.23	ug/kg	1.67	5.23
630-20-6	1,1,1,2-Tetrachloroethane	U	1.05	ug/kg	0.314	1.05
95-50-1	1,2-Dichlorobenzene	U	1.05	ug/kg	0.314	1.05

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
22566-43-4	Anthracene, 9,10-dihydro-9,10-dimethyl-	18.07	29.3	ug/kg	38	NJ

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-901**	**Date Collected:**	**12/10/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242794002**	**Date Received:**	**12/12/2009 09:35**	**%Moisture:**	**4.3**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-13471**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**934728**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**12/19/2009 01:53**	**Analyst:**	**RXM4**	**Purge Vol:**	**5 mL**
Prep Date:	**12/18/2009 14:05**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1r531.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.04	ug/kg	0.355	1.04
74-87-3	Chloromethane	U	1.04	ug/kg	0.313	1.04
75-01-4	Vinyl chloride	U	1.04	ug/kg	0.313	1.04
74-83-9	Bromomethane	U	1.04	ug/kg	0.313	1.04
75-00-3	Chloroethane	U	1.04	ug/kg	0.313	1.04
75-69-4	Trichlorofluoromethane	U	1.04	ug/kg	0.313	1.04
67-64-1	Acetone	U	5.22	ug/kg	1.73	5.22
75-35-4	1,1-Dichloroethylene	U	1.04	ug/kg	0.313	1.04
74-88-4	Iodomethane	U	5.22	ug/kg	1.67	5.22
75-09-2	Methylene chloride	J	2.33	ug/kg	2.09	5.22
75-15-0	Carbon disulfide	U	5.22	ug/kg	1.31	5.22
156-60-5	trans-1,2-Dichloroethylene	U	1.04	ug/kg	0.313	1.04
75-34-3	1,1-Dichloroethane	U	1.04	ug/kg	0.313	1.04
78-93-3	2-Butanone	U	5.22	ug/kg	1.57	5.22
156-59-2	cis-1,2-Dichloroethylene	U	1.04	ug/kg	0.313	1.04
594-20-7	2,2-Dichloropropane	U	1.04	ug/kg	0.313	1.04
67-66-3	Chloroform	U	1.04	ug/kg	0.313	1.04
74-97-5	Bromochloromethane	U	1.04	ug/kg	0.345	1.04
71-55-6	1,1,1-Trichloroethane	U	1.04	ug/kg	0.313	1.04
563-58-6	1,1-Dichloropropene	U	1.04	ug/kg	0.313	1.04
56-23-5	Carbon tetrachloride	U	1.04	ug/kg	0.313	1.04
107-06-2	1,2-Dichloroethane	U	1.04	ug/kg	0.313	1.04
71-43-2	Benzene	U	1.04	ug/kg	0.313	1.04
79-01-6	Trichloroethylene	U	1.04	ug/kg	0.345	1.04
78-87-5	1,2-Dichloropropane	U	1.04	ug/kg	0.313	1.04
75-27-4	Bromodichloromethane	U	1.04	ug/kg	0.313	1.04
74-95-3	Dibromomethane	U	1.04	ug/kg	0.313	1.04
108-10-1	4-Methyl-2-pentanone	U	5.22	ug/kg	1.31	5.22
10061-01-5	cis-1,3-Dichloropropylene	U	1.04	ug/kg	0.313	1.04
108-88-3	Toluene	U	1.04	ug/kg	0.313	1.04
10061-02-6	trans-1,3-Dichloropropylene	U	1.04	ug/kg	0.313	1.04
79-00-5	1,1,2-Trichloroethane	U	1.04	ug/kg	0.313	1.04
591-78-6	2-Hexanone	J	2.28	ug/kg	1.57	5.22
142-28-9	1,3-Dichloropropane	U	1.04	ug/kg	0.313	1.04
127-18-4	Tetrachloroethylene	U	1.04	ug/kg	0.313	1.04
124-48-1	Dibromochloromethane	U	1.04	ug/kg	0.313	1.04
106-93-4	1,2-Dibromoethane	U	1.04	ug/kg	0.313	1.04
108-90-7	Chlorobenzene	U	1.04	ug/kg	0.313	1.04

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-901	**Date Collected:**	12/10/2009 12:00	**Matrix:**	S
Lab Sample ID:	242794002	**Date Received:**	12/12/2009 09:35	**%Moisture:**	4.3
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-13471	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	934728	**Inst:**	VOA1.I	**Dilution:**	1
Run Date:	12/19/2009 01:53	**Analyst:**	RXM4	**Purge Vol:**	5 mL
Prep Date:	12/18/2009 14:05	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	1r531.d	**Column:**	RTX-Volatiles	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.04	ug/kg	0.313	1.04
179601-23-1	m,p-Xylenes	U	2.09	ug/kg	0.313	2.09
95-47-6	o-Xylene	U	1.04	ug/kg	0.313	1.04
100-42-5	Styrene	U	1.04	ug/kg	0.313	1.04
75-25-2	Bromoform	U	1.04	ug/kg	0.313	1.04
79-34-5	1,1,2,2-Tetrachloroethane	U	1.04	ug/kg	0.313	1.04
96-18-4	1,2,3-Trichloropropane	U	1.04	ug/kg	0.313	1.04
108-86-1	Bromobenzene	U	1.04	ug/kg	0.313	1.04
103-65-1	n-Propylbenzene	U	1.04	ug/kg	0.313	1.04
95-49-8	2-Chlorotoluene	U	1.04	ug/kg	0.313	1.04
98-82-8	Isopropylbenzene	U	1.04	ug/kg	0.313	1.04
108-67-8	1,3,5-Trimethylbenzene	U	1.04	ug/kg	0.313	1.04
106-43-4	4-Chlorotoluene	U	1.04	ug/kg	0.313	1.04
98-06-6	tert-Butylbenzene	U	1.04	ug/kg	0.313	1.04
95-63-6	1,2,4-Trimethylbenzene	U	1.04	ug/kg	0.313	1.04
135-98-8	sec-Butylbenzene	U	1.04	ug/kg	0.313	1.04
99-87-6	4-Isopropyltoluene	U	1.04	ug/kg	0.313	1.04
541-73-1	1,3-Dichlorobenzene	U	1.04	ug/kg	0.313	1.04
106-46-7	1,4-Dichlorobenzene	U	1.04	ug/kg	0.313	1.04
104-51-8	n-Butylbenzene	U	1.04	ug/kg	0.313	1.04
96-12-8	1,2-Dibromo-3-chloropropane	U	1.04	ug/kg	0.313	1.04
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.22	ug/kg	1.67	5.22
630-20-6	1,1,1,2-Tetrachloroethane	U	1.04	ug/kg	0.313	1.04
95-50-1	1,2-Dichlorobenzene	U	1.04	ug/kg	0.313	1.04

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Siloxane	18.07	20.4	ug/kg		J
	Unknown Hydrocarbon	20.01	21.4	ug/kg		J

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-901	**Date Collected:**	12/10/2009 12:00	**Matrix:**	S
Lab Sample ID:	242794003	**Date Received:**	12/12/2009 09:35	**%Moisture:**	7.7
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-13472	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	934728	**Inst:**	VOA1.I	**Dilution:**	1
Run Date:	12/19/2009 02:23	**Analyst:**	RXM4	**Purge Vol:**	5 mL
Prep Date:	12/18/2009 14:06	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	1r532.d	**Column:**	RTX-Volatiles	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.08	ug/kg	0.368	1.08
74-87-3	Chloromethane	U	1.08	ug/kg	0.325	1.08
75-01-4	Vinyl chloride	U	1.08	ug/kg	0.325	1.08
74-83-9	Bromomethane	U	1.08	ug/kg	0.325	1.08
75-00-3	Chloroethane	U	1.08	ug/kg	0.325	1.08
75-69-4	Trichlorofluoromethane	U	1.08	ug/kg	0.325	1.08
67-64-1	Acetone	U	5.42	ug/kg	1.80	5.42
75-35-4	1,1-Dichloroethylene	U	1.08	ug/kg	0.325	1.08
74-88-4	Iodomethane	U	5.42	ug/kg	1.73	5.42
75-09-2	Methylene chloride	J	2.24	ug/kg	2.17	5.42
75-15-0	Carbon disulfide	U	5.42	ug/kg	1.35	5.42
156-60-5	trans-1,2-Dichloroethylene	U	1.08	ug/kg	0.325	1.08
75-34-3	1,1-Dichloroethane	U	1.08	ug/kg	0.325	1.08
78-93-3	2-Butanone	U	5.42	ug/kg	1.63	5.42
156-59-2	cis-1,2-Dichloroethylene	U	1.08	ug/kg	0.325	1.08
594-20-7	2,2-Dichloropropane	U	1.08	ug/kg	0.325	1.08
67-66-3	Chloroform	U	1.08	ug/kg	0.325	1.08
74-97-5	Bromochloromethane	U	1.08	ug/kg	0.358	1.08
71-55-6	1,1,1-Trichloroethane	U	1.08	ug/kg	0.325	1.08
563-58-6	1,1-Dichloropropene	U	1.08	ug/kg	0.325	1.08
56-23-5	Carbon tetrachloride	U	1.08	ug/kg	0.325	1.08
107-06-2	1,2-Dichloroethane	U	1.08	ug/kg	0.325	1.08
71-43-2	Benzene	U	1.08	ug/kg	0.325	1.08
79-01-6	Trichloroethylene	U	1.08	ug/kg	0.358	1.08
78-87-5	1,2-Dichloropropane	U	1.08	ug/kg	0.325	1.08
75-27-4	Bromodichloromethane	U	1.08	ug/kg	0.325	1.08
74-95-3	Dibromomethane	U	1.08	ug/kg	0.325	1.08
108-10-1	4-Methyl-2-pentanone	U	5.42	ug/kg	1.35	5.42
10061-01-5	cis-1,3-Dichloropropylene	U	1.08	ug/kg	0.325	1.08
108-88-3	Toluene	U	1.08	ug/kg	0.325	1.08
10061-02-6	trans-1,3-Dichloropropylene	U	1.08	ug/kg	0.325	1.08
79-00-5	1,1,2-Trichloroethane	U	1.08	ug/kg	0.325	1.08
591-78-6	2-Hexanone	U	5.42	ug/kg	1.63	5.42
142-28-9	1,3-Dichloropropane	U	1.08	ug/kg	0.325	1.08
127-18-4	Tetrachloroethylene	U	1.08	ug/kg	0.325	1.08
124-48-1	Dibromochloromethane	U	1.08	ug/kg	0.325	1.08
106-93-4	1,2-Dibromoethane	U	1.08	ug/kg	0.325	1.08
108-90-7	Chlorobenzene	U	1.08	ug/kg	0.325	1.08

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-901	**Date Collected:**	12/10/2009 12:00	**Matrix:**	S
Lab Sample ID:	242794003	**Date Received:**	12/12/2009 09:35	**%Moisture:**	7.7
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-13472	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	934728	**Inst:**	VOA1.I	**Dilution:**	1
Run Date:	12/19/2009 02:23	**Analyst:**	RXM4	**Purge Vol:**	5 mL
Prep Date:	12/18/2009 14:06	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	1r532.d	**Column:**	RTX-Volatiles	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.08	ug/kg	0.325	1.08
179601-23-1	m,p-Xylenes	U	2.17	ug/kg	0.325	2.17
95-47-6	o-Xylene	U	1.08	ug/kg	0.325	1.08
100-42-5	Styrene	U	1.08	ug/kg	0.325	1.08
75-25-2	Bromoform	U	1.08	ug/kg	0.325	1.08
79-34-5	1,1,2,2-Tetrachloroethane	U	1.08	ug/kg	0.325	1.08
96-18-4	1,2,3-Trichloropropane	U	1.08	ug/kg	0.325	1.08
108-86-1	Bromobenzene	U	1.08	ug/kg	0.325	1.08
103-65-1	n-Propylbenzene	U	1.08	ug/kg	0.325	1.08
95-49-8	2-Chlorotoluene	U	1.08	ug/kg	0.325	1.08
98-82-8	Isopropylbenzene	U	1.08	ug/kg	0.325	1.08
108-67-8	1,3,5-Trimethylbenzene	U	1.08	ug/kg	0.325	1.08
106-43-4	4-Chlorotoluene	U	1.08	ug/kg	0.325	1.08
98-06-6	tert-Butylbenzene	U	1.08	ug/kg	0.325	1.08
95-63-6	1,2,4-Trimethylbenzene	U	1.08	ug/kg	0.325	1.08
135-98-8	sec-Butylbenzene	U	1.08	ug/kg	0.325	1.08
99-87-6	4-Isopropyltoluene	U	1.08	ug/kg	0.325	1.08
541-73-1	1,3-Dichlorobenzene	U	1.08	ug/kg	0.325	1.08
106-46-7	1,4-Dichlorobenzene	U	1.08	ug/kg	0.325	1.08
104-51-8	n-Butylbenzene	U	1.08	ug/kg	0.325	1.08
96-12-8	1,2-Dibromo-3-chloropropane	U	1.08	ug/kg	0.325	1.08
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.42	ug/kg	1.73	5.42
630-20-6	1,1,1,2-Tetrachloroethane	U	1.08	ug/kg	0.325	1.08
95-50-1	1,2-Dichlorobenzene	U	1.08	ug/kg	0.325	1.08

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Hydrocarbon	18.07	30.8	ug/kg		J

QC Summary

Volatile

Surrogate Recovery Report

SDG Number: 10-901

Matrix Type: SOLID

CAP Column (1) : RTX-Volatiles

Sample ID	Client ID	DCED4 %REC	TOL %REC	BFB %REC
1201999847	LCS for batch 934727	115	100	97
1201999848	LCS for batch 934727	115	105	105
1201999844	MB for batch 934727	125	109	112
242794001	RE03-09-13470	123	105	109
242794002	RE03-09-13471	127	111	113
242794003	RE03-09-13472	120	104	106
242794004	RE03-09-13469	128	114	122
1202002634	LCS for batch 934727	121	104	109
1202002635	LCS for batch 934727	106	116	112
1202002633	MB for batch 934727	111	117	116
1201999845	RE03-09-13470PS	124	108	112
1201999846	RE03-09-13470PSD	124	107	111

Surrogate		Acceptance Limits
DCED4	= 1,2-Dichloroethane-d4	(68%-131%)
TOL	= Toluene-d8	(75%-129%)
BFB	= Bromofluorobenzene	(68%-133%)

* Recovery outside Acceptance Limits

\# Column to be used to flag recovery values

D Sample Diluted

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-901
Client ID: RE03-09-13470PS
Lab Sample ID: 1201999845
Instrument: VOA1.I
Analyst: RXM4
Purge Vol: 5 mL

Sample Type: Post Spike
Matrix: S
%Moisture: 4.4
Analysis Date: 12/21/2009 17:21
Prep Batch ID: 934727
Batch ID: 934728

Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
75-71-8	PS	Dichlorodifluoromethane	50.0	0.00	U	29.0	58	25-149
74-87-3	PS	Chloromethane	50.0	0.00	U	36.3	73	39-140
75-01-4	PS	Vinyl chloride	50.0	0.00	U	37.9	76	47-129
74-83-9	PS	Bromomethane	50.0	0.00	U	37.7	75	31-135
75-00-3	PS	Chloroethane	50.0	0.00	U	40.5	81	53-128
75-69-4	PS	Trichlorofluoromethane	50.0	0.00	U	44.3	89	51-151
67-64-1	PS	Acetone	250	0.00	U	181	72	21-153
75-35-4	PS	1,1-Dichloroethylene	50.0	0.00	U	38.5	77	61-125
74-88-4	PS	Iodomethane	250	0.00	U	191	76	53-142
75-09-2	PS	Methylene chloride	50.0	2.10	J	37.3	70	59-136
75-15-0	PS	Carbon disulfide	250	0.00	U	205	82	46-129
156-60-5	PS	trans-1,2-Dichloroethylene	50.0	0.00	U	41.1	82	56-126
75-34-3	PS	1,1-Dichloroethane	50.0	0.00	U	43.4	87	62-125
78-93-3	PS	2-Butanone	250	0.00	U	198	79	26-152
156-59-2	PS	cis-1,2-Dichloroethylene	50.0	0.00	U	43.6	87	60-130
594-20-7	PS	2,2-Dichloropropane	50.0	0.00	U	54.8	110	55-135
67-66-3	PS	Chloroform	50.0	0.00	U	45.1	90	60-127
74-97-5	PS	Bromochloromethane	50.0	0.00	U	44.3	89	61-131
71-55-6	PS	1,1,1-Trichloroethane	50.0	0.00	U	52.3	105	59-131
563-58-6	PS	1,1-Dichloropropene	50.0	0.00	U	48.3	97	57-128
56-23-5	PS	Carbon tetrachloride	50.0	0.00	U	50.4	101	58-136
107-06-2	PS	1,2-Dichloroethane	50.0	0.00	U	46.4	93	58-126

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-901
Client ID: RE03-09-13470PS
Lab Sample ID: 1201999845
Instrument: VOA1.I
Analyst: RXM4
Purge Vol: 5 mL

Sample Type: Post Spike
Matrix: S
%Moisture: 4.4
Analysis Date: 12/21/2009 17:21
Prep Batch ID: 934727
Batch ID: 934728
Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
71-43-2	PS	Benzene	50.0	0.00	U	45.5	91	56-123
79-01-6	PS	Trichloroethylene	50.0	0.00	U	45.1	90	51-137
78-87-5	PS	1,2-Dichloropropane	50.0	0.00	U	45.7	91	60-126
75-27-4	PS	Bromodichloromethane	50.0	0.00	U	46.7	93	55-138
74-95-3	PS	Dibromomethane	50.0	0.00	U	45.1	90	60-132
108-10-1	PS	4-Methyl-2-pentanone	250	0.00	U	244	98	58-136
10061-01-5	PS	cis-1,3-Dichloropropylene	50.0	0.00	U	47.1	94	54-133
108-88-3	PS	Toluene	50.0	0.00	U	44.7	89	52-128
10061-02-6	PS	trans-1,3-Dichloropropylene	50.0	0.00	U	49.4	99	53-137
79-00-5	PS	1,1,2-Trichloroethane	50.0	0.00	U	46.9	94	59-130
591-78-6	PS	2-Hexanone	250	0.00	U	203	81	31-148
142-28-9	PS	1,3-Dichloropropane	50.0	0.00	U	45.5	91	57-127
127-18-4	PS	Tetrachloroethylene	50.0	0.00	U	43.9	88	51-128
124-48-1	PS	Dibromochloromethane	50.0	0.00	U	48.5	97	59-139
106-93-4	PS	1,2-Dibromoethane	50.0	0.00	U	47.9	96	57-133
108-90-7	PS	Chlorobenzene	50.0	0.00	U	45.1	90	53-122
100-41-4	PS	Ethylbenzene	50.0	0.00	U	46.0	92	51-125
179601-23-1	PS	m,p-Xylenes	100	0.00	U	89.9	90	50-126
95-47-6	PS	o-Xylene	50.0	0.00	U	45.7	91	52-127
100-42-5	PS	Styrene	50.0	0.00	U	46.0	92	49-135
75-25-2	PS	Bromoform	50.0	0.00	U	44.1	88	57-149
79-34-5	PS	1,1,2,2-Tetrachloroethane	50.0	0.00	U	48.6	97	63-127

Volatile

Quality Control Summary

Spike Recovery Report

SDG Number: 10-901
Client ID: RE03-09-13470PS
Lab Sample ID: 1201999845
Instrument: VOA1.I
Analyst: RXM4
Purge Vol: 5 mL

Sample Type: Post Spike
Matrix: S
%Moisture: 4.4
Analysis Date: 12/21/2009 17:21
Prep Batch ID: 934727
Batch ID: 934728
Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
96-18-4	PS	1,2,3-Trichloropropane	50.0	0.00	U	49.3	99	57-149
108-86-1	PS	Bromobenzene	50.0	0.00	U	45.3	91	49-131
103-65-1	PS	n-Propylbenzene	50.0	0.00	U	45.9	92	40-136
95-49-8	PS	2-Chlorotoluene	50.0	0.00	U	45.5	91	44-135
98-82-8	PS	Isopropylbenzene	50.0	0.00	U	47.8	96	44-140
108-67-8	PS	1,3,5-Trimethylbenzene	50.0	0.00	U	45.4	91	42-140
106-43-4	PS	4-Chlorotoluene	50.0	0.00	U	45.1	90	44-132
98-06-6	PS	tert-Butylbenzene	50.0	0.00	U	43.6	87	42-142
95-63-6	PS	1,2,4-Trimethylbenzene	50.0	0.00	U	43.5	87	43-137
135-98-8	PS	sec-Butylbenzene	50.0	0.00	U	44.3	89	39-139
99-87-6	PS	4-Isopropyltoluene	50.0	0.00	U	42.8	86	38-145
541-73-1	PS	1,3-Dichlorobenzene	50.0	0.00	U	42.1	84	43-129
106-46-7	PS	1,4-Dichlorobenzene	50.0	0.00	U	41.5	83	44-125
104-51-8	PS	n-Butylbenzene	50.0	0.00	U	42.1	84	36-141
96-12-8	PS	1,2-Dibromo-3-chloropropane	50.0	0.00	U	39.8	80	47-151
630-20-6	PS	1,1,1,2-Tetrachloroethane	50.0	0.00	U	46.6	93	59-131
95-50-1	PS	1,2-Dichlorobenzene	50.0	0.00	U	42.0	84	43-129

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-901
Client ID: RE03-09-13470PSD
Lab Sample ID: 1201999846
Instrument: VOA1.I
Analyst: RXM4
Purge Vol: 5 mL

Sample Type: Post Spike Duplicate
Matrix: S
%Moisture: 4.4
Analysis Date: 12/21/2009 17:51
Dilution: 1
Prep Batch ID: 934727
Batch ID: 934728

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
75-71-8	PSD	Dichlorodifluoromethane	50.0	0.00	U	31.0	62	25-149	7	0-25
74-87-3	PSD	Chloromethane	50.0	0.00	U	37.7	75	39-140	4	0-25
75-01-4	PSD	Vinyl chloride	50.0	0.00	U	38.7	77	47-129	2	0-25
74-83-9	PSD	Bromomethane	50.0	0.00	U	39.8	80	31-135	6	0-25
75-00-3	PSD	Chloroethane	50.0	0.00	U	41.4	83	53-128	2	0-25
75-69-4	PSD	Trichlorofluoromethane	50.0	0.00	U	44.9	90	51-151	1	0-25
67-64-1	PSD	Acetone	250	0.00	U	181	72	21-153	0	0-25
75-35-4	PSD	1,1-Dichloroethylene	50.0	0.00	U	40.5	81	61-125	5	0-25
74-88-4	PSD	Iodomethane	250	0.00	U	199	80	53-142	4	0-25
75-09-2	PSD	Methylene chloride	50.0	2.10	J	39.3	74	59-136	5	0-25
75-15-0	PSD	Carbon disulfide	250	0.00	U	212	85	46-129	4	0-25
156-60-5	PSD	trans-1,2-Dichloroethylene	50.0	0.00	U	42.1	84	56-126	2	0-25
75-34-3	PSD	1,1-Dichloroethane	50.0	0.00	U	44.8	90	62-125	3	0-25
78-93-3	PSD	2-Butanone	250	0.00	U	195	78	26-152	2	0-25
156-59-2	PSD	cis-1,2-Dichloroethylene	50.0	0.00	U	44.4	89	60-130	2	0-25
594-20-7	PSD	2,2-Dichloropropane	50.0	0.00	U	55.3	111	55-135	1	0-25
67-66-3	PSD	Chloroform	50.0	0.00	U	45.6	91	60-127	1	0-25
74-97-5	PSD	Bromochloromethane	50.0	0.00	U	43.9	88	61-131	1	0-25
71-55-6	PSD	1,1,1-Trichloroethane	50.0	0.00	U	53.3	107	59-131	2	0-25
563-58-6	PSD	1,1-Dichloropropene	50.0	0.00	U	49.3	99	57-128	2	0-25
56-23-5	PSD	Carbon tetrachloride	50.0	0.00	U	51.1	102	58-136	1	0-25
107-06-2	PSD	1,2-Dichloroethane	50.0	0.00	U	47.0	94	58-126	1	0-25

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-901
Client ID: RE03-09-13470PSD
Lab Sample ID: 1201999846
Instrument: VOA1.I
Analyst: RXM4
Purge Vol: 5 mL

Sample Type: Post Spike Duplicate
Matrix: S
%Moisture: 4.4
Analysis Date: 12/21/2009 17:51
Dilution: 1
Prep Batch ID: 934727
Batch ID: 934728

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
71-43-2	PSD	Benzene	50.0	0.00	U	47.0	94	56-123	3	0-25
79-01-6	PSD	Trichloroethylene	50.0	0.00	U	46.2	92	51-137	3	0-25
78-87-5	PSD	1,2-Dichloropropane	50.0	0.00	U	47.4	95	60-126	4	0-25
75-27-4	PSD	Bromodichloromethane	50.0	0.00	U	48.8	98	55-138	4	0-25
74-95-3	PSD	Dibromomethane	50.0	0.00	U	46.7	93	60-132	3	0-25
108-10-1	PSD	4-Methyl-2-pentanone	250	0.00	U	243	97	58-136	0	0-25
10061-01-5	PSD	cis-1,3-Dichloropropylene	50.0	0.00	U	49.3	99	54-133	5	0-25
108-88-3	PSD	Toluene	50.0	0.00	U	45.2	90	52-128	1	0-25
10061-02-6	PSD	trans-1,3-Dichloropropylene	50.0	0.00	U	50.3	101	53-137	2	0-25
79-00-5	PSD	1,1,2-Trichloroethane	50.0	0.00	U	47.6	95	59-130	2	0-25
591-78-6	PSD	2-Hexanone	250	0.00	U	199	80	31-148	2	0-25
142-28-9	PSD	1,3-Dichloropropane	50.0	0.00	U	46.0	92	57-127	1	0-25
127-18-4	PSD	Tetrachloroethylene	50.0	0.00	U	45.0	90	51-128	2	0-25
124-48-1	PSD	Dibromochloromethane	50.0	0.00	U	48.8	98	59-139	0	0-25
106-93-4	PSD	1,2-Dibromoethane	50.0	0.00	U	48.7	97	57-133	1	0-25
108-90-7	PSD	Chlorobenzene	50.0	0.00	U	45.5	91	53-122	1	0-25
100-41-4	PSD	Ethylbenzene	50.0	0.00	U	46.6	93	51-125	1	0-25
179601-23-1	PSD	m,p-Xylenes	100	0.00	U	90.8	91	50-126	1	0-25
95-47-6	PSD	o-Xylene	50.0	0.00	U	45.4	91	52-127	1	0-25
100-42-5	PSD	Styrene	50.0	0.00	U	47.1	94	49-135	2	0-25
75-25-2	PSD	Bromoform	50.0	0.00	U	45.8	92	57-149	4	0-25
79-34-5	PSD	1,1,2,2-Tetrachloroethane	50.0	0.00	U	49.7	99	63-127	2	0-25

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-901
Client ID: RE03-09-13470PSD
Lab Sample ID: 1201999846
Instrument: VOA1.I
Analyst: RXM4
Purge Vol: 5 mL

Sample Type: Post Spike Duplicate
Matrix: S
%Moisture: 4.4
Analysis Date: 12/21/2009 17:51
Dilution: 1
Prep Batch ID: 934727
Batch ID: 934728

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
96-18-4	PSD	1,2,3-Trichloropropane	50.0	0.00	U	48.5	97	57-149	2	0-25
108-86-1	PSD	Bromobenzene	50.0	0.00	U	46.4	93	49-131	2	0-25
103-65-1	PSD	n-Propylbenzene	50.0	0.00	U	47.1	94	40-136	3	0-25
95-49-8	PSD	2-Chlorotoluene	50.0	0.00	U	47.0	94	44-135	3	0-25
98-82-8	PSD	Isopropylbenzene	50.0	0.00	U	49.5	99	44-140	3	0-25
108-67-8	PSD	1,3,5-Trimethylbenzene	50.0	0.00	U	47.4	95	42-140	4	0-25
106-43-4	PSD	4-Chlorotoluene	50.0	0.00	U	46.8	94	44-132	4	0-25
98-06-6	PSD	tert-Butylbenzene	50.0	0.00	U	44.4	89	42-142	2	0-25
95-63-6	PSD	1,2,4-Trimethylbenzene	50.0	0.00	U	46.0	92	43-137	6	0-25
135-98-8	PSD	sec-Butylbenzene	50.0	0.00	U	45.3	91	39-139	2	0-25
99-87-6	PSD	4-Isopropyltoluene	50.0	0.00	U	44.8	90	38-145	4	0-25
541-73-1	PSD	1,3-Dichlorobenzene	50.0	0.00	U	43.9	88	43-129	4	0-25
106-46-7	PSD	1,4-Dichlorobenzene	50.0	0.00	U	43.7	87	44-125	5	0-25
104-51-8	PSD	n-Butylbenzene	50.0	0.00	U	44.2	88	36-141	5	0-25
96-12-8	PSD	1,2-Dibromo-3-chloropropane	50.0	0.00	U	43.5	87	47-151	9	0-25
630-20-6	PSD	1,1,1,2-Tetrachloroethane	50.0	0.00	U	45.8	92	59-131	2	0-25
95-50-1	PSD	1,2-Dichlorobenzene	50.0	0.00	U	43.6	87	43-129	4	0-25

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-901
Client ID: LCS for batch 934727
Lab Sample ID: 1201999847
Instrument: VOA1.I
Analyst: RXM4
Purge Vol: 5 mL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 12/18/2009 22:20
Dilution: 1
Prep Batch ID: 934727
Batch ID: 934728

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
75-71-8	LCS	Dichlorodifluoromethane	50.0	0.0	51.3	103	33-155
74-87-3	LCS	Chloromethane	50.0	0.0	48.5	97	53-132
75-01-4	LCS	Vinyl chloride	50.0	0.0	47.0	94	61-128
74-83-9	LCS	Bromomethane	50.0	0.0	47.9	96	63-126
75-00-3	LCS	Chloroethane	50.0	0.0	50.3	101	67-124
75-69-4	LCS	Trichlorofluoromethane	50.0	0.0	55.0	110	67-151
67-64-1	LCS	Acetone	250	0.0	203	81	29-160
75-35-4	LCS	1,1-Dichloroethylene	50.0	0.0	49.4	99	70-125
74-88-4	LCS	Iodomethane	250	0.0	228	91	74-131
75-09-2	LCS	Methylene chloride	50.0	0.0	45.9	92	72-127
75-15-0	LCS	Carbon disulfide	250	0.0	248	99	64-127
156-60-5	LCS	trans-1,2-Dichloroethylene	50.0	0.0	47.3	95	71-122
75-34-3	LCS	1,1-Dichloroethane	50.0	0.0	49.2	98	75-120
78-93-3	LCS	2-Butanone	250	0.0	206	82	35-162
156-59-2	LCS	cis-1,2-Dichloroethylene	50.0	0.0	48.2	96	76-122
594-20-7	LCS	2,2-Dichloropropane	50.0	0.0	51.7	103	74-135
67-66-3	LCS	Chloroform	50.0	0.0	50.3	101	77-120
74-97-5	LCS	Bromochloromethane	50.0	0.0	49.0	98	76-122
71-55-6	LCS	1,1,1-Trichloroethane	50.0	0.0	52.0	104	75-128
563-58-6	LCS	1,1-Dichloropropene	50.0	0.0	51.7	103	77-125
56-23-5	LCS	Carbon tetrachloride	50.0	0.0	54.4	109	77-134
107-06-2	LCS	1,2-Dichloroethane	50.0	0.0	53.5	107	72-120

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-901
Client ID: LCS for batch 934727
Lab Sample ID: 1201999847
Instrument: VOA1.I
Analyst: RXM4
Purge Vol: 5 mL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 12/18/2009 22:20
Dilution: 1
Prep Batch ID: 934727
Batch ID: 934728

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
71-43-2	LCS	Benzene	50.0	0.0	48.8	98	72-120
79-01-6	LCS	Trichloroethylene	50.0	0.0	50.1	100	78-121
78-87-5	LCS	1,2-Dichloropropane	50.0	0.0	50.2	100	74-120
75-27-4	LCS	Bromodichloromethane	50.0	0.0	61.5	123	79-125
74-95-3	LCS	Dibromomethane	50.0	0.0	50.4	101	78-122
108-10-1	LCS	4-Methyl-2-pentanone	250	0.0	256	103	71-134
10061-01-5	LCS	cis-1,3-Dichloropropylene	50.0	0.0	54.0	108	80-125
108-88-3	LCS	Toluene	50.0	0.0	47.5	95	65-124
10061-02-6	LCS	trans-1,3-Dichloropropylene	50.0	0.0	55.8	112	71-134
79-00-5	LCS	1,1,2-Trichloroethane	50.0	0.0	50.2	100	76-120
591-78-6	LCS	2-Hexanone	250	0.0	213	85	42-159
142-28-9	LCS	1,3-Dichloropropane	50.0	0.0	50.3	101	72-120
127-18-4	LCS	Tetrachloroethylene	50.0	0.0	46.5	93	74-123
124-48-1	LCS	Dibromochloromethane	50.0	0.0	53.5	107	83-128
106-93-4	LCS	1,2-Dibromoethane	50.0	0.0	51.7	103	79-121
108-90-7	LCS	Chlorobenzene	50.0	0.0	48.7	97	75-120
100-41-4	LCS	Ethylbenzene	50.0	0.0	49.2	98	74-120
179601-23-1	LCS	m,p-Xylenes	100	0.0	97.1	97	74-120
95-47-6	LCS	o-Xylene	50.0	0.0	49.6	99	74-120
100-42-5	LCS	Styrene	50.0	0.0	50.8	102	76-125
75-25-2	LCS	Bromoform	50.0	0.0	45.3	91	77-138
79-34-5	LCS	1,1,2,2-Tetrachloroethane	50.0	0.0	48.2	96	72-122

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-901
Client ID: LCS for batch 934727
Lab Sample ID: 1201999847
Instrument: VOA1.I
Analyst: RXM4
Purge Vol: 5 mL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 12/18/2009 22:20
Dilution: 1
Prep Batch ID: 934727
Batch ID: 934728

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
96-18-4	LCS	1,2,3-Trichloropropane	50.0	0.0	50.2	100	75-135
108-86-1	LCS	Bromobenzene	50.0	0.0	46.4	93	73-120
103-65-1	LCS	n-Propylbenzene	50.0	0.0	47.9	96	68-121
95-49-8	LCS	2-Chlorotoluene	50.0	0.0	48.2	96	69-120
98-82-8	LCS	Isopropylbenzene	50.0	0.0	48.5	97	66-127
108-67-8	LCS	1,3,5-Trimethylbenzene	50.0	0.0	48.5	97	67-126
106-43-4	LCS	4-Chlorotoluene	50.0	0.0	48.3	97	72-120
98-06-6	LCS	tert-Butylbenzene	50.0	0.0	46.8	94	72-124
95-63-6	LCS	1,2,4-Trimethylbenzene	50.0	0.0	47.9	96	72-122
135-98-8	LCS	sec-Butylbenzene	50.0	0.0	47.8	96	71-124
99-87-6	LCS	4-Isopropyltoluene	50.0	0.0	47.7	95	72-130
541-73-1	LCS	1,3-Dichlorobenzene	50.0	0.0	45.8	92	73-120
106-46-7	LCS	1,4-Dichlorobenzene	50.0	0.0	45.7	91	73-120
104-51-8	LCS	n-Butylbenzene	50.0	0.0	49.6	99	72-128
96-12-8	LCS	1,2-Dibromo-3-chloropropane	50.0	0.0	44.3	89	68-145
630-20-6	LCS	1,1,1,2-Tetrachloroethane	50.0	0.0	51.1	102	78-121
95-50-1	LCS	1,2-Dichlorobenzene	50.0	0.0	46.6	93	74-120

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-901 **Sample Type:** Laboratory Control Sample

Client ID: LCS for batch 934727 **Matrix:** SOIL

Lab Sample ID: 1201999848

Instrument: VOA1.I **Analysis Date:** 12/18/2009 22:51 **Dilution:** 1

Analyst: RXM4 **Prep Batch ID:** 934727

Purge Vol: 5 mL **Batch ID:** 934728

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
76-13-1	LCS	1,1,2-Trichloro-1,2,2-Trifluor *Trichlorotrifluoroethane*	250	0.0	322	129	52-139

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-901
Client ID: LCS for batch 934727
Lab Sample ID: 1202002634
Instrument: VOA1.I
Analyst: RXM4
Purge Vol: 5 mL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 12/21/2009 13:49
Dilution: 1
Prep Batch ID: 934727
Batch ID: 934728

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
75-71-8	LCS	Dichlorodifluoromethane	50.0	0.0	46.7	93	33-155
74-87-3	LCS	Chloromethane	50.0	0.0	49.1	98	53-132
75-01-4	LCS	Vinyl chloride	50.0	0.0	49.7	99	61-128
74-83-9	LCS	Bromomethane	50.0	0.0	50.9	102	63-126
75-00-3	LCS	Chloroethane	50.0	0.0	52.9	106	67-124
75-69-4	LCS	Trichlorofluoromethane	50.0	0.0	58.6	117	67-151
67-64-1	LCS	Acetone	250	0.0	189	76	29-160
75-35-4	LCS	1,1-Dichloroethylene	50.0	0.0	53.3	107	70-125
74-88-4	LCS	Iodomethane	250	0.0	249	100	74-131
75-09-2	LCS	Methylene chloride	50.0	0.0	49.5	99	72-127
75-15-0	LCS	Carbon disulfide	250	0.0	282	113	64-127
156-60-5	LCS	trans-1,2-Dichloroethylene	50.0	0.0	52.4	105	71-122
75-34-3	LCS	1,1-Dichloroethane	50.0	0.0	52.6	105	75-120
78-93-3	LCS	2-Butanone	250	0.0	193	77	35-162
156-59-2	LCS	cis-1,2-Dichloroethylene	50.0	0.0	52.2	104	76-122
594-20-7	LCS	2,2-Dichloropropane	50.0	0.0	59.0	118	74-135
67-66-3	LCS	Chloroform	50.0	0.0	52.7	105	77-120
74-97-5	LCS	Bromochloromethane	50.0	0.0	49.2	98	76-122
71-55-6	LCS	1,1,1-Trichloroethane	50.0	0.0	55.5	111	75-128
563-58-6	LCS	1,1-Dichloropropene	50.0	0.0	56.4	113	77-125
56-23-5	LCS	Carbon tetrachloride	50.0	0.0	56.2	112	77-134
107-06-2	LCS	1,2-Dichloroethane	50.0	0.0	50.3	101	72-120

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-901
Client ID: LCS for batch 934727
Lab Sample ID: 1202002634
Instrument: VOA1.I
Analyst: RXM4
Purge Vol: 5 mL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 12/21/2009 13:49
Dilution: 1
Prep Batch ID: 934727
Batch ID: 934728

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
71-43-2	LCS	Benzene	50.0	0.0	54.1	108	72-120
79-01-6	LCS	Trichloroethylene	50.0	0.0	52.1	104	78-121
78-87-5	LCS	1,2-Dichloropropane	50.0	0.0	52.2	104	74-120
75-27-4	LCS	Bromodichloromethane	50.0	0.0	53.9	108	79-125
74-95-3	LCS	Dibromomethane	50.0	0.0	49.4	99	78-122
108-10-1	LCS	4-Methyl-2-pentanone	250	0.0	245	98	71-134
10061-01-5	LCS	cis-1,3-Dichloropropylene	50.0	0.0	55.1	110	80-125
108-88-3	LCS	Toluene	50.0	0.0	50.5	101	65-124
10061-02-6	LCS	trans-1,3-Dichloropropylene	50.0	0.0	55.3	111	71-134
79-00-5	LCS	1,1,2-Trichloroethane	50.0	0.0	49.3	99	76-120
591-78-6	LCS	2-Hexanone	250	0.0	201	80	42-159
142-28-9	LCS	1,3-Dichloropropane	50.0	0.0	48.4	97	72-120
127-18-4	LCS	Tetrachloroethylene	50.0	0.0	49.3	99	74-123
124-48-1	LCS	Dibromochloromethane	50.0	0.0	50.3	101	83-128
106-93-4	LCS	1,2-Dibromoethane	50.0	0.0	50.4	101	79-121
108-90-7	LCS	Chlorobenzene	50.0	0.0	51.0	102	75-120
100-41-4	LCS	Ethylbenzene	50.0	0.0	51.7	103	74-120
179601-23-1	LCS	m,p-Xylenes	100	0.0	105	105	74-120
95-47-6	LCS	o-Xylene	50.0	0.0	50.4	101	74-120
100-42-5	LCS	Styrene	50.0	0.0	51.8	104	76-125
75-25-2	LCS	Bromoform	50.0	0.0	47.7	95	77-138
79-34-5	LCS	1,1,2,2-Tetrachloroethane	50.0	0.0	49.7	99	72-122

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-901
Client ID: LCS for batch 934727
Lab Sample ID: 1202002634
Instrument: VOA1.I
Analyst: RXM4
Purge Vol: 5 mL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 12/21/2009 13:49
Dilution: 1
Prep Batch ID: 934727
Batch ID: 934728

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
96-18-4	LCS	1,2,3-Trichloropropane	50.0	0.0	48.6	97	75-135
108-86-1	LCS	Bromobenzene	50.0	0.0	50.8	102	73-120
103-65-1	LCS	n-Propylbenzene	50.0	0.0	54.0	108	68-121
95-49-8	LCS	2-Chlorotoluene	50.0	0.0	52.2	104	69-120
98-82-8	LCS	Isopropylbenzene	50.0	0.0	56.8	114	66-127
108-67-8	LCS	1,3,5-Trimethylbenzene	50.0	0.0	53.3	107	67-126
106-43-4	LCS	4-Chlorotoluene	50.0	0.0	55.1	110	72-120
98-06-6	LCS	tert-Butylbenzene	50.0	0.0	53.8	108	72-124
95-63-6	LCS	1,2,4-Trimethylbenzene	50.0	0.0	54.3	109	72-122
135-98-8	LCS	sec-Butylbenzene	50.0	0.0	53.1	106	71-124
99-87-6	LCS	4-Isopropyltoluene	50.0	0.0	53.4	107	72-130
541-73-1	LCS	1,3-Dichlorobenzene	50.0	0.0	50.5	101	73-120
106-46-7	LCS	1,4-Dichlorobenzene	50.0	0.0	49.9	100	73-120
104-51-8	LCS	n-Butylbenzene	50.0	0.0	56.2	112	72-128
96-12-8	LCS	1,2-Dibromo-3-chloropropane	50.0	0.0	42.5	85	68-145
630-20-6	LCS	1,1,1,2-Tetrachloroethane	50.0	0.0	51.1	102	78-121
95-50-1	LCS	1,2-Dichlorobenzene	50.0	0.0	50.1	100	74-120

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-901 **Sample Type:** Laboratory Control Sample

Client ID: LCS for batch 934727 **Matrix:** SOIL

Lab Sample ID: 1202002635

Instrument: VOA1.I **Analysis Date:** 12/21/2009 14:19 **Dilution:** 1

Analyst: RXM4 **Prep Batch ID** 934727

Purge Vol: 5 mL **Batch ID:** 934728

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
76-13-1	LCS	1,1,2-Trichloro-1,2,2-Trifluor *Trichlorotrifluoroethane*	250	0.0	334	133	52-139

Method Blank Summary

SDG Number:	10-901	Client:	LANL010	Matrix:	SOIL
Client ID:	MB for batch 934727	Instrument ID:	VOA1.I	Data File:	1r527BA.d
Lab Sample ID:	1201999844	Prep Date:	12/18/2009 08:00	Analyzed:	12/18/09 23:51
Column:	RTX-Volatiles	Heated Purge:	Yes		

This method blank applies to the following samples and quality control samples:

	Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01	LCS for batch 934727	1201999847	1r524LA.d	12/18/09	2220
02	LCS for batch 934727	1201999848	1r525sLA.d	12/18/09	2251
03	RE03-09-13470	242794001	1r530.d	12/19/09	0122
04	RE03-09-13471	242794002	1r531.d	12/19/09	0153
05	RE03-09-13472	242794003	1r532.d	12/19/09	0223
06	RE03-09-13469	242794004	1r533.d	12/19/09	0253

Method Blank Summary

SDG Number:	10-901	Client:	LANL010	Matrix:	SOIL
Client ID:	MB for batch 934727	Instrument ID:	VOA1.I	Data File:	1s111BA.d
Lab Sample ID:	1202002633	Prep Date:	12/21/2009 12:00	Analyzed:	12/21/09 15:20
Column:	RTX-Volatiles	Heated Purge:	Yes		

This method blank applies to the following samples and quality control samples:

	Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01	LCS for batch 934727	1202002634	1s108LA.d	12/21/09	1349
02	LCS for batch 934727	1202002635	1s109sLA.d	12/21/09	1419
03	RE03-09-13470PS	1201999845	1s115.d	12/21/09	1721
04	RE03-09-13470PSD	1201999846	1s116.d	12/21/09	1751

Instrument Performance Check

BFB

Lab Name GEL Laboratories LLC **Client SDG:** 10-901

Instrument ID: VOA1.I **Injection Date/Time:** 17-DEC-09 12:56

Column Description: RTX-Volatiles **Lab File ID** /121709v1/1r408.d

m/e	Ion Abundance Criteria	% Relative Abundance
95	Base Peak, 100% Relative Abundance	100
50	15.0 - 40.0% of mass 95	19.2
75	30.0 - 60.0% of mass 95	51.4
96	5.0 - 9.0% of mass 95	6.9
173	Less than 2.0% of mass 174	0.8
174	50.0 - 100.0% of mass 95	74.1
175	5.0 -9.0% of mass 174	7.6
176	95.0 - 101.0% of mass 174	95.5
177	5.0 - 9.0% of mass 176	6.5

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
VSTD0005	W1VM091217-04	/121709v1/1r409.d	17-DEC-09 13:26
VSTD001	W1VM091217-06	/121709v1/1r411.d	17-DEC-09 14:26
VSTD002	W1VM091217-08	/121709v1/1r413.d	17-DEC-09 15:27
VSTD005	W1VM091217-09	/121709v1/1r414.d	17-DEC-09 15:57
VSTD010	W1VM091217-10	/121709v1/1r415.d	17-DEC-09 16:26
VSTD020	W1VM091217-11	/121709v1/1r416.d	17-DEC-09 16:56
VSTD050	W1VM091217-12	/121709v1/1r417.d	17-DEC-09 17:26
VSTD100	W1VM091217-13	/121709v1/1r418.d	17-DEC-09 17:56
VSTD005S	W1VM091217-14	/121709v1/1r420.d	17-DEC-09 18:56
VSTD010S	W1VM091217-15	/121709v1/1r421.d	17-DEC-09 19:26
VSTD025S	W1VM091217-16	/121709v1/1r422.d	17-DEC-09 19:56
VSTD050S	W1VM091217-17	/121709v1/1r423.d	17-DEC-09 20:27
VSTD100S	W1VM091217-18	/121709v1/1r424.d	17-DEC-09 20:57
VSTD250S	W1VM091217-19	/121709v1/1r425.d	17-DEC-09 21:27
VSTD500S	W1VM091217-20	/121709v1/1r426.d	17-DEC-09 21:57
ICV	W1VM091217-18	/121709v1/1r428.d	17-DEC-09 22:57
SHORT ICV	W1VM091217-20	/121709v1/1r430.d	17-DEC-09 23:58

Instrument Performance Check

BFB

Lab Name GEL Laboratories LLC **Client SDG:** 10-901

Instrument ID: VOA1.I **Injection Date/Time:** 18-DEC-09 21:19

Column Description: RTX-Volatiles **Lab File ID** /121809v1/1r522.d

m/e	Ion Abundance Criteria	% Relative Abundance
95	Base Peak, 100% Relative Abundance	100
50	15.0 - 40.0% of mass 95	19.7
75	30.0 - 60.0% of mass 95	53.3
96	5.0 - 9.0% of mass 95	6.4
173	Less than 2.0% of mass 174	0.9
174	50.0 - 100.0% of mass 95	74.3
175	5.0 -9.0% of mass 174	7.4
176	95.0 - 101.0% of mass 174	96.1
177	5.0 - 9.0% of mass 176	6.6

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
VSTD050	W1VM091218-06	/121809v1/1r524.d	18-DEC-09 22:20
LCS	1201999847	/121809v1/1r524LA.d	18-DEC-09 22:20
VSTD250S	W1VM091218-07	/121809v1/1r525.d	18-DEC-09 22:51
LCS	1201999848	/121809v1/1r525sLA.d	18-DEC-09 22:51
BLANK	1201999844	/121809v1/1r527BA.d	18-DEC-09 23:51
RE03-09-13470	242794001	/121809v1/1r530.d	19-DEC-09 01:22
RE03-09-13471	242794002	/121809v1/1r531.d	19-DEC-09 01:53
RE03-09-13472	242794003	/121809v1/1r532.d	19-DEC-09 02:23
RE03-09-13469	242794004	/121809v1/1r533.d	19-DEC-09 02:53

Instrument Performance Check

BFB

Lab Name GEL Laboratories LLC **Client SDG:** 10-901

Instrument ID: VOA1.I **Injection Date/Time:** 21-DEC-09 12:49

Column Description: RTX-Volatiles **Lab File ID** /122109v1/1s106BFB.d

m/e	Ion Abundance Criteria	% Relative Abundance
95	Base Peak, 100% Relative Abundance	100
50	15.0 - 40.0% of mass 95	19.4
75	30.0 - 60.0% of mass 95	51.3
96	5.0 - 9.0% of mass 95	6.7
173	Less than 2.0% of mass 174	0.8
174	50.0 - 100.0% of mass 95	71.8
175	5.0 -9.0% of mass 174	7.3
176	95.0 - 101.0% of mass 174	97
177	5.0 - 9.0% of mass 176	6.5

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
VSTD050	W1VM091221-05	/122109v1/1s106.d	21-DEC-09 12:49
VSTD250S	W1VM091221-06	/122109v1/1s107.d	21-DEC-09 13:19
LCS	1202002634	/122109v1/1s108LA.d	21-DEC-09 13:49
LCS	1202002635	/122109v1/1s109sLA.d	21-DEC-09 14:19
BLANK	1202002633	/122109v1/1s111BA.d	21-DEC-09 15:20
RE03-09-13470MS	1201999845	/122109v1/1s115.d	21-DEC-09 17:21
RE03-09-13470MSD	1201999846	/122109v1/1s116.d	21-DEC-09 17:51

Internal Standard
Area and RT Summary

Lab Name : GEL Laboratories LLC

Instrument: VOA1.I

GC Column: RTX-Volatiles

Client SDG: 10-901

STD Analysis Time: 18-DEC-09 22:20

Data File: 1r524.d

	Fluorobenzene			Chlorobenzene-d5			1,4-Dichlorobenzene-d4		
	Area	#	RT #	Area	#	RT #	Area	#	RT #
12 Hour STD	757064		13.7	542799		17.2	304968		19.6
Upper Limit	1514128		14.2	1085598		17.7	609936		20.1
Lower Limit	378532		13.2	271400		16.7	152484		19.1
Sample ID									
BLK01LCS	757064		13.7	542799		17.2	304968		19.6
BLK01SLCS	765419		13.7	535148		17.2	289952		19.6
BLK01	690536		13.7	483549		17.2	251846		19.6
RE03-09-13470	708519		13.7	502557		17.2	265113		19.6
RE03-09-13471	638489		13.7	438729		17.2	232257		19.6
RE03-09-13472	687093		13.7	482939		17.2	258578		19.6
RE03-09-13469	627573		13.7	424429		17.2	207294		19.6

Area Upper Limit = +100% of internal standard area
Area Lower Limit = - 50% of internal standard area

RT Upper Limit = + 0.50 minutes of internal standard RT
RT Lower Limit = - 0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Value outside of QC Limits

Internal Standard
Area and RT Summary

Lab Name : GEL Laboratories LLC

Instrument: VOA1.I

GC Column: RTX-Volatiles

Client SDG: 10-901

STD Analysis Time: 21-DEC-09 12:49

Data File: 1s106.d

	Fluorobenzene			Chlorobenzene-d5			1,4-Dichlorobenzene-d4		
	Area	#	RT #	Area	#	RT #	Area	#	RT #
12 Hour STD	1057170		13.7	732780		17.2	384616		19.6
Upper Limit	2114340		14.2	1465560		17.7	769232		20.1
Lower Limit	528585		13.2	366390		16.7	192308		19.1
Sample ID									
BLK02LCS	973651		13.7	701935		17.2	361894		19.6
BLK02SLCS	1002859		13.7	675615		17.2	358230		19.6
BLK02	954868		13.7	640048		17.2	332944		19.6
RE03-09-13470MS	560675		13.7	398684		17.2	210472		19.6
RE03-09-13470MSD	618107		13.7	448219		17.2	232971		19.6

Area Upper Limit = +100% of internal standard area
Area Lower Limit = - 50% of internal standard area

RT Upper Limit = + 0.50 minutes of internal standard RT
RT Lower Limit = - 0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Value outside of QC Limits

Sample Data

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-901	**Date Collected:**	12/10/2009 12:00	**Matrix:**	S
Lab Sample ID:	242794004	**Date Received:**	12/12/2009 09:35	**%Moisture:**	6.4
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-13469	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	934728	**Inst:**	VOA1.I	**Dilution:**	1
Run Date:	12/19/2009 02:53	**Analyst:**	RXM4	**Purge Vol:**	5 mL
Prep Date:	12/18/2009 14:07	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	1r533.d	**Column:**	RTX-Volatiles	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.07	ug/kg	0.363	1.07
74-87-3	Chloromethane	U	1.07	ug/kg	0.321	1.07
75-01-4	Vinyl chloride	U	1.07	ug/kg	0.321	1.07
74-83-9	Bromomethane	U	1.07	ug/kg	0.321	1.07
75-00-3	Chloroethane	U	1.07	ug/kg	0.321	1.07
75-69-4	Trichlorofluoromethane	U	1.07	ug/kg	0.321	1.07
67-64-1	Acetone	U	5.34	ug/kg	1.77	5.34
75-35-4	1,1-Dichloroethylene	U	1.07	ug/kg	0.321	1.07
74-88-4	Iodomethane	U	5.34	ug/kg	1.71	5.34
75-09-2	Methylene chloride	J	2.34	ug/kg	2.14	5.34
75-15-0	Carbon disulfide	U	5.34	ug/kg	1.34	5.34
156-60-5	trans-1,2-Dichloroethylene	U	1.07	ug/kg	0.321	1.07
75-34-3	1,1-Dichloroethane	U	1.07	ug/kg	0.321	1.07
78-93-3	2-Butanone	U	5.34	ug/kg	1.60	5.34
156-59-2	cis-1,2-Dichloroethylene	U	1.07	ug/kg	0.321	1.07
594-20-7	2,2-Dichloropropane	U	1.07	ug/kg	0.321	1.07
67-66-3	Chloroform	U	1.07	ug/kg	0.321	1.07
74-97-5	Bromochloromethane	U	1.07	ug/kg	0.353	1.07
71-55-6	1,1,1-Trichloroethane	U	1.07	ug/kg	0.321	1.07
563-58-6	1,1-Dichloropropene	U	1.07	ug/kg	0.321	1.07
56-23-5	Carbon tetrachloride	U	1.07	ug/kg	0.321	1.07
107-06-2	1,2-Dichloroethane	U	1.07	ug/kg	0.321	1.07
71-43-2	Benzene	U	1.07	ug/kg	0.321	1.07
79-01-6	Trichloroethylene	U	1.07	ug/kg	0.353	1.07
78-87-5	1,2-Dichloropropane	U	1.07	ug/kg	0.321	1.07
75-27-4	Bromodichloromethane	U	1.07	ug/kg	0.321	1.07
74-95-3	Dibromomethane	U	1.07	ug/kg	0.321	1.07
108-10-1	4-Methyl-2-pentanone	U	5.34	ug/kg	1.34	5.34
10061-01-5	cis-1,3-Dichloropropylene	U	1.07	ug/kg	0.321	1.07
108-88-3	Toluene	U	1.07	ug/kg	0.321	1.07
10061-02-6	trans-1,3-Dichloropropylene	U	1.07	ug/kg	0.321	1.07
79-00-5	1,1,2-Trichloroethane	U	1.07	ug/kg	0.321	1.07
591-78-6	2-Hexanone	U	5.34	ug/kg	1.60	5.34
142-28-9	1,3-Dichloropropane	U	1.07	ug/kg	0.321	1.07
127-18-4	Tetrachloroethylene	U	1.07	ug/kg	0.321	1.07
124-48-1	Dibromochloromethane	U	1.07	ug/kg	0.321	1.07
106-93-4	1,2-Dibromoethane	U	1.07	ug/kg	0.321	1.07
108-90-7	Chlorobenzene	U	1.07	ug/kg	0.321	1.07

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-901	**Date Collected:**	12/10/2009 12:00	**Matrix:**	S
Lab Sample ID:	242794004	**Date Received:**	12/12/2009 09:35	**%Moisture:**	6.4
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-13469	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	934728	**Inst:**	VOA1.I	**Dilution:**	1
Run Date:	12/19/2009 02:53	**Analyst:**	RXM4	**Purge Vol:**	5 mL
Prep Date:	12/18/2009 14:07	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	1r533.d	**Column:**	RTX-Volatiles	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.07	ug/kg	0.321	1.07
179601-23-1	m,p-Xylenes	U	2.14	ug/kg	0.321	2.14
95-47-6	o-Xylene	U	1.07	ug/kg	0.321	1.07
100-42-5	Styrene	U	1.07	ug/kg	0.321	1.07
75-25-2	Bromoform	U	1.07	ug/kg	0.321	1.07
79-34-5	1,1,2,2-Tetrachloroethane	U	1.07	ug/kg	0.321	1.07
96-18-4	1,2,3-Trichloropropane	U	1.07	ug/kg	0.321	1.07
108-86-1	Bromobenzene	U	1.07	ug/kg	0.321	1.07
103-65-1	n-Propylbenzene	U	1.07	ug/kg	0.321	1.07
95-49-8	2-Chlorotoluene	U	1.07	ug/kg	0.321	1.07
98-82-8	Isopropylbenzene	U	1.07	ug/kg	0.321	1.07
108-67-8	1,3,5-Trimethylbenzene	U	1.07	ug/kg	0.321	1.07
106-43-4	4-Chlorotoluene	U	1.07	ug/kg	0.321	1.07
98-06-6	tert-Butylbenzene	U	1.07	ug/kg	0.321	1.07
95-63-6	1,2,4-Trimethylbenzene	U	1.07	ug/kg	0.321	1.07
135-98-8	sec-Butylbenzene	U	1.07	ug/kg	0.321	1.07
99-87-6	4-Isopropyltoluene	U	1.07	ug/kg	0.321	1.07
541-73-1	1,3-Dichlorobenzene	U	1.07	ug/kg	0.321	1.07
106-46-7	1,4-Dichlorobenzene	U	1.07	ug/kg	0.321	1.07
104-51-8	n-Butylbenzene	U	1.07	ug/kg	0.321	1.07
96-12-8	1,2-Dibromo-3-chloropropane	U	1.07	ug/kg	0.321	1.07
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.34	ug/kg	1.71	5.34
630-20-6	1,1,1,2-Tetrachloroethane	U	1.07	ug/kg	0.321	1.07
95-50-1	1,2-Dichlorobenzene	U	1.07	ug/kg	0.321	1.07

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Hydrocarbon	18.07	18.7	ug/kg		J

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/121809v1/1r533.d
Lab Smp Id: 242794004 Client Smp ID: RE03-09-13469
Inj Date : 19-DEC-2009 02:53
Operator : RXM4 Inst ID: VOA1.i
Smp Info : |242794004|934728|1|VOAF|1|
Misc Info : LANL 5G N/A
Comment :
Method : /chem/VOA1.i/121809v1/VOA1-8260ox-121709PM.m
Meth Date : 19-Dec-2009 14:30 ron01469 Quant Type: ISTD
Cal Date : 17-DEC-2009 21:57 Cal File: 1r426.d
Als bottle: 33
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-901.sub
Target Version: 3.50

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	6.42310	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
* 52 Fluorobenzene	96	13.686	13.686	(1.000)	627573	50.0000	
* 76 Chlorobenzene-d5	117	17.162	17.162	(1.000)	424429	50.0000	
* 102 1,4-Dichlorobenzene-d4	152	19.610	19.610	(1.000)	207294	50.0000	
$ 48 1,2-Dichloroethane-d4	65	13.341	13.341	(0.975)	485845	63.8919	68.3
$ 65 Toluene-d8	98	15.518	15.518	(0.904)	1384972	57.1391	61.1
$ 87 Bromofluorobenzene	95	18.386	18.386	(0.938)	518233	60.8234	65.0
23 Methylene chloride	84	10.133	10.147	(0.740)	13041	2.19125	2.3(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

ION RATIO REPORT

VOA REPORT

Data file: 1r533.d
Report Date: 12/19/2009 14:33
Lab. ID: 242794004 SampleType: SAMPLE
Injection Date: 19-DEC-2009 02:53
Operator: RXM4 Instrument: VOA1.i
Sample Info: |242794004|934728|1|VOAF|1|
Miscellaneous Info: LANL 5G N/A
Comment:
Method used: /chem/VOA1.i/121809v1/VOA1-8260ox-121709PM.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-901
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
23 Methylene chloride				CAS#: 75-09-2		
84	13041	10.13	10.15	80-120	100	( )
86	8648	10.14	10.14	35- 95	66	( )
49	19871	10.14	10.15	121-181	152	( )
51 1,2-Dichloroethane				CAS#: 107-06-2		
62	10958	13.68	13.44	80-120	100	(T)
64	1699	13.68	13.44	2- 62	16	(T)
64 4-Methyl-2-pentanone				CAS#: 108-10-1		
58	13668	15.52	15.36	80-120	100	(T)
43	6929	15.52	15.36	206-266	51	(QT)
100	872948	15.52	15.36	0- 59	6386	(QT)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/121809v1/1r533.d
Lab Smp Id: 242794004 Client Smp ID: RE03-09-13469
Inj Date : 19-DEC-2009 02:53
Operator : RXM4 Inst ID: VOA1.i
Smp Info : |242794004|934728|1|VOAF|1|
Misc Info : LANL 5G N/A
Comment :
Method : /chem/VOA1.i/121809v1/VOA1-8260ox-121709PM.m
Meth Date : 19-Dec-2009 14:30 ron01469 Quant Type: ISTD
Cal Date : 17-DEC-2009 21:57 Cal File: 1r426.d
Als bottle: 33
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-901.sub
Target Version: 3.50

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	6.42310	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 76 Chlorobenzene-d5	17.162	1424531	50.000

	CONCENTRATIONS				QUANT		
RT	AREA	ON-COL(ug/l)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown Hydrocarbon					CAS #:		
18.073	499602	17.5356663	18.7	0		0	76

Data File: /chem/VOA1.i/121809v1/1r533.d
Date : 19-DEC-2009 02:53
Client ID: RE03-09-13469
Sample Info: |2427940041934728|1|VOAF|1|

Column phase: RTX-Volatiles

Instrument: VOA1.i

Operator: RXM4
Column diameter: 0.25

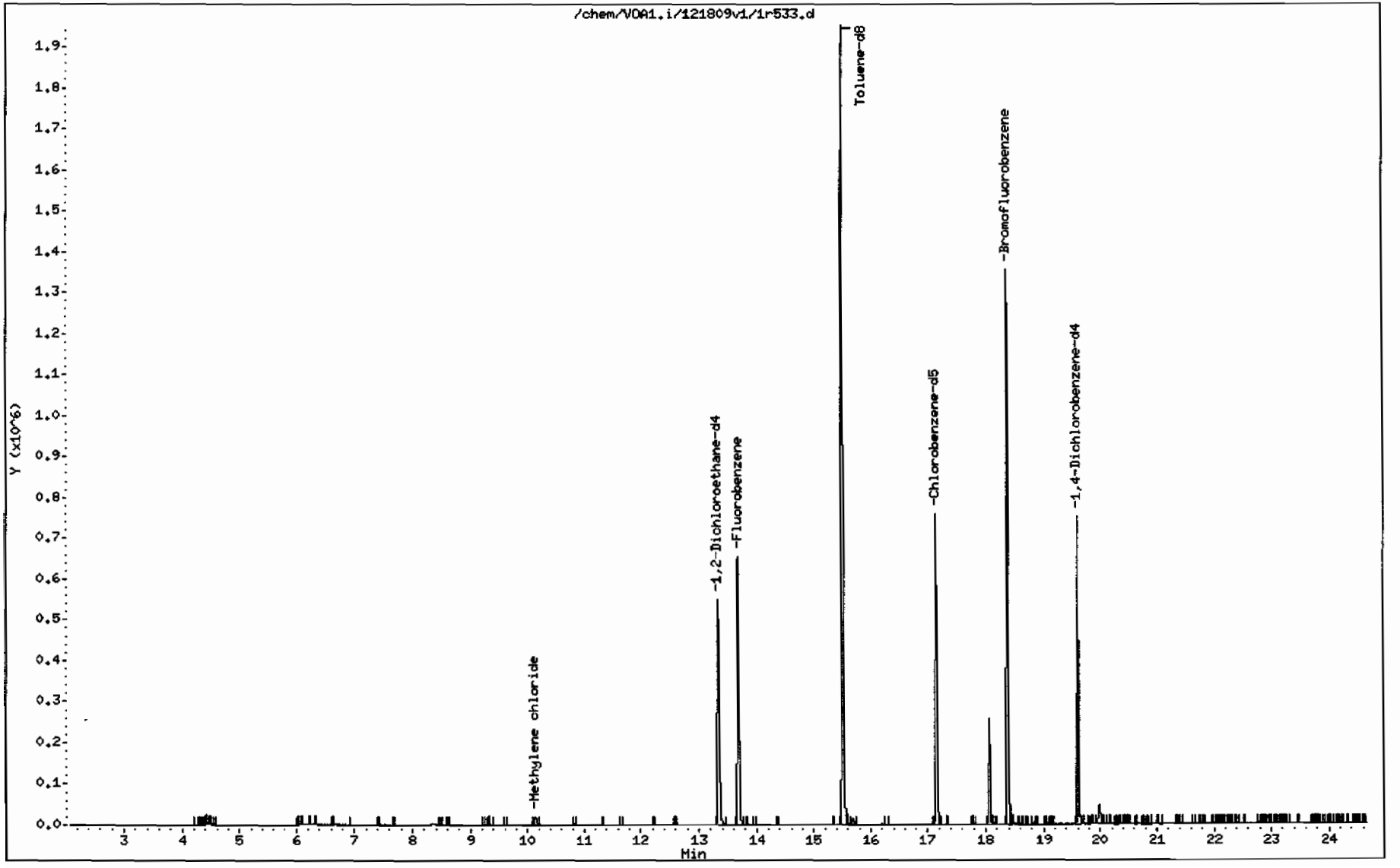

Data File: /chem/VOA1.i/121809v1/1r533.d

Date : 19-DEC-2009 02:53

Client ID: RE03-09-13469

Instrument: VOA1.i

Sample Info: |2427940041934728|1|VOAF|1|

Operator: RXM4

Column phase: RTX-Volatiles

Column diameter: 0.25

23 Methylene chloride

Concentration: 2.3 ug/Kg

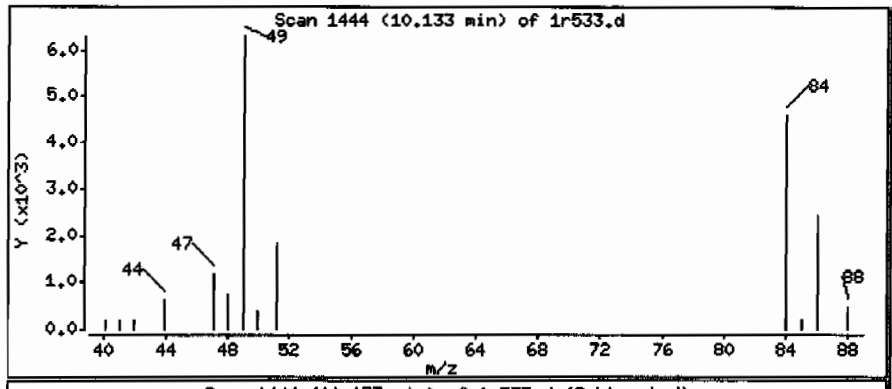

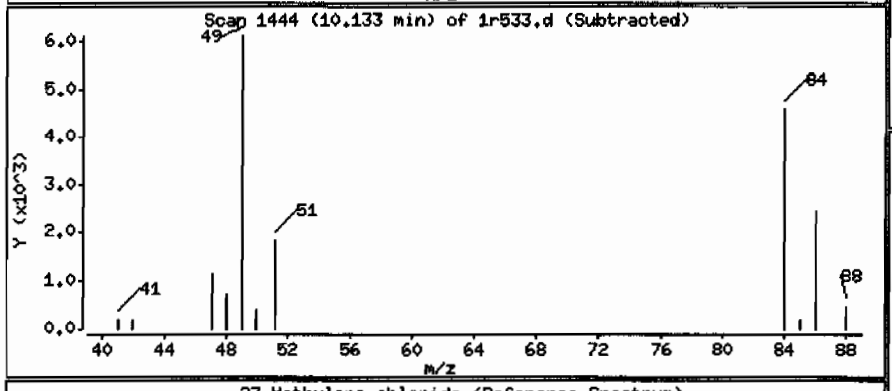

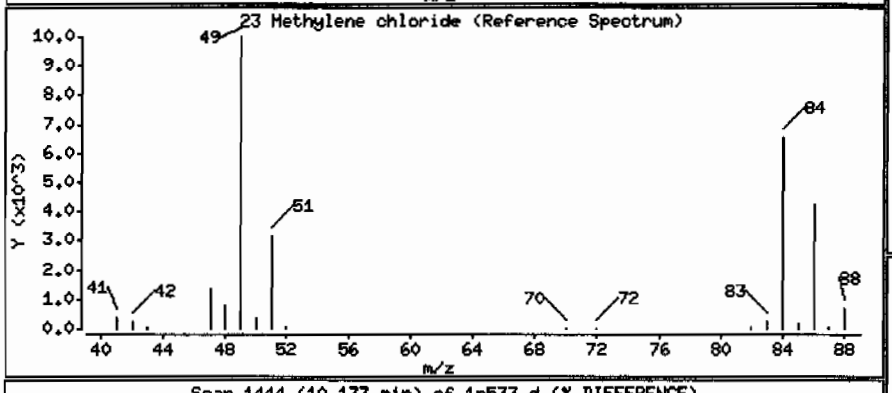

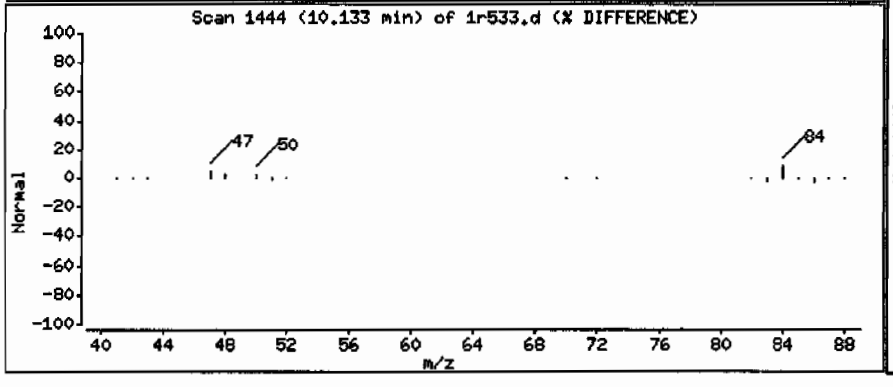

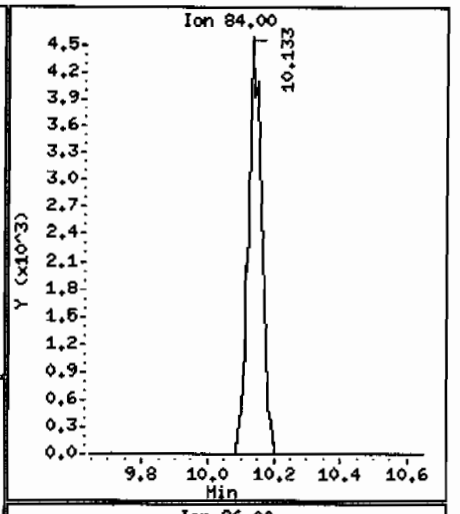

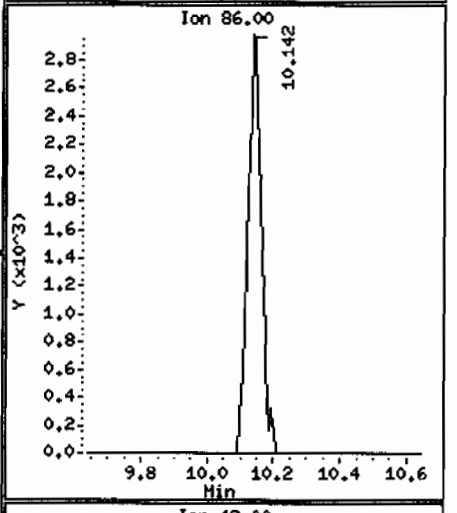

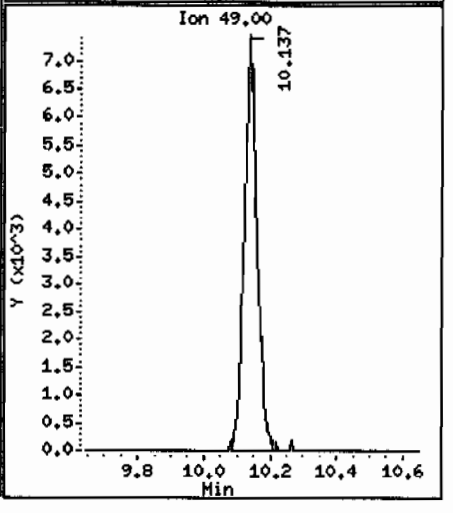

Data File: /chem/VOA1.i/121809v1/1r533.d

Page 1

Date : 19-DEC-2009 02:53

Client ID: RE03-09-13469

Instrument: VOA1.i

Sample Info: |242794004|934728|1|VOAF|1|

Operator: RXH4

Column phase: RTX-Volatiles

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Hydrocarbon						
5H-Pyrido[1,2-c]pyrrolo[1,2-a]pyrimidine	114530-37-9	NIST05.L	72812	27	C14H26N2	222
Trisiloxane, 1,1,3,3,5,5-hexamethyl-	1189-93-1	NIST05.L	63149	27	C6H20O2Si3	208
Anthracene, 9,10-dihydro-9,10-dimethyl-	22566-43-4	NIST05.L	63100	27	C16H16	208

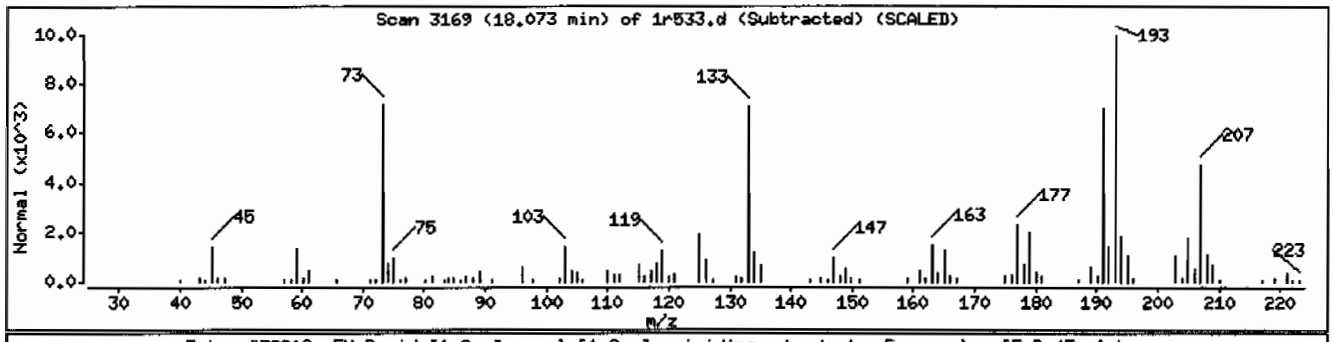

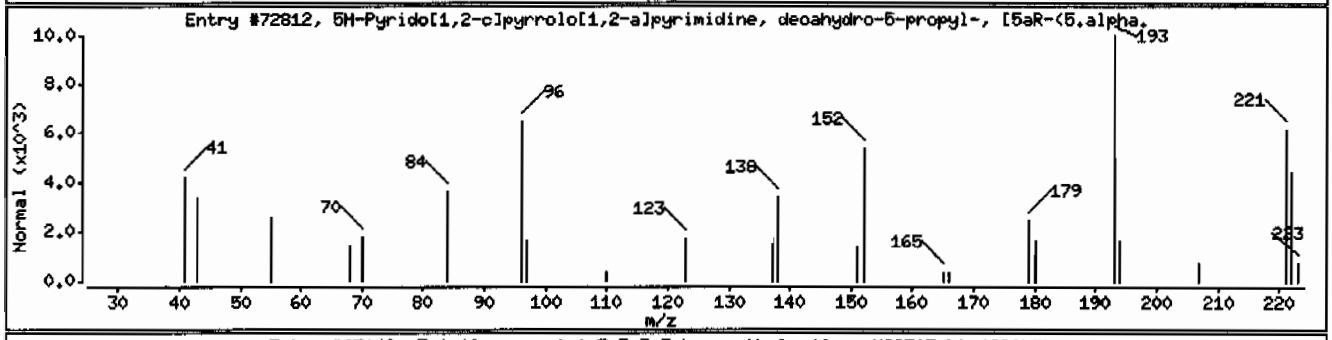

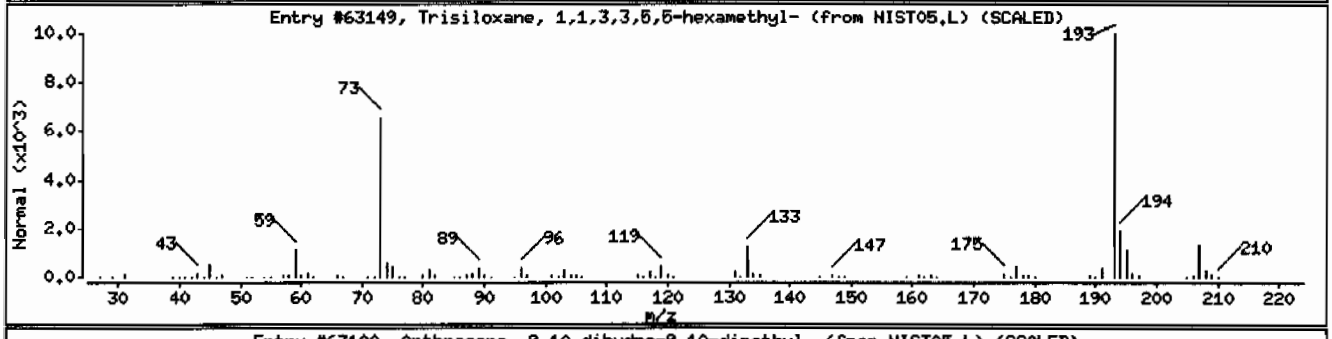

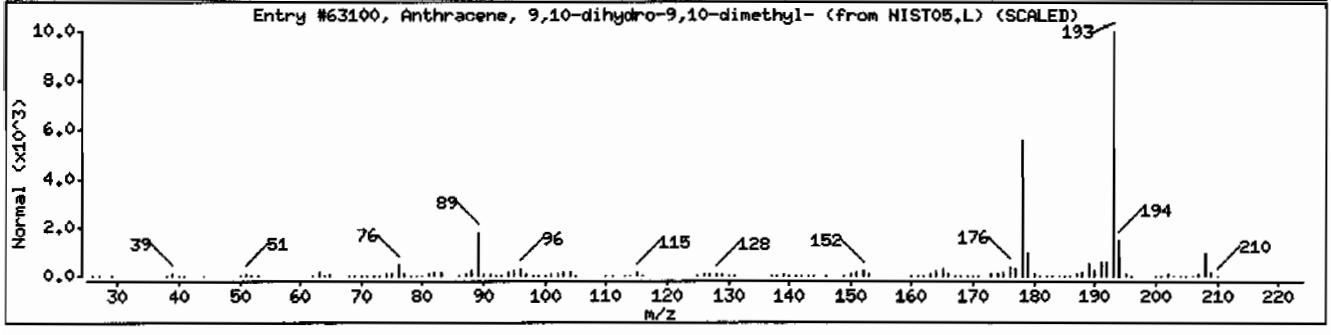

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-901	Date Collected:	12/10/2009 12:00	Matrix:	S
Lab Sample ID:	242794001	Date Received:	12/12/2009 09:35	%Moisture:	4.4
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-13470	Method:	SW846 8260B	SOP Ref:	GL-OA-E-038
Batch ID:	934728	Inst:	VOA1.I	Dilution:	1
Run Date:	12/19/2009 01:22	Analyst:	RXM4	Purge Vol:	5 mL
Prep Date:	12/18/2009 14:02	Aliquot:	5 g	Final Volume:	5 mL
Data File:	1r530.d	Column:	RTX-Volatiles	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.05	ug/kg	0.355	1.05
74-87-3	Chloromethane	U	1.05	ug/kg	0.314	1.05
75-01-4	Vinyl chloride	U	1.05	ug/kg	0.314	1.05
74-83-9	Bromomethane	U	1.05	ug/kg	0.314	1.05
75-00-3	Chloroethane	U	1.05	ug/kg	0.314	1.05
75-69-4	Trichlorofluoromethane	U	1.05	ug/kg	0.314	1.05
67-64-1	Acetone	U	5.23	ug/kg	1.74	5.23
75-35-4	1,1-Dichloroethylene	U	1.05	ug/kg	0.314	1.05
74-88-4	Iodomethane	U	5.23	ug/kg	1.67	5.23
75-09-2	Methylene chloride	J	2.19	ug/kg	2.09	5.23
75-15-0	Carbon disulfide	U	5.23	ug/kg	1.31	5.23
156-60-5	trans-1,2-Dichloroethylene	U	1.05	ug/kg	0.314	1.05
75-34-3	1,1-Dichloroethane	U	1.05	ug/kg	0.314	1.05
78-93-3	2-Butanone	U	5.23	ug/kg	1.57	5.23
156-59-2	cis-1,2-Dichloroethylene	U	1.05	ug/kg	0.314	1.05
594-20-7	2,2-Dichloropropane	U	1.05	ug/kg	0.314	1.05
67-66-3	Chloroform	U	1.05	ug/kg	0.314	1.05
74-97-5	Bromochloromethane	U	1.05	ug/kg	0.345	1.05
71-55-6	1,1,1-Trichloroethane	U	1.05	ug/kg	0.314	1.05
563-58-6	1,1-Dichloropropene	U	1.05	ug/kg	0.314	1.05
56-23-5	Carbon tetrachloride	U	1.05	ug/kg	0.314	1.05
107-06-2	1,2-Dichloroethane	U	1.05	ug/kg	0.314	1.05
71-43-2	Benzene	U	1.05	ug/kg	0.314	1.05
79-01-6	Trichloroethylene	U	1.05	ug/kg	0.345	1.05
78-87-5	1,2-Dichloropropane	U	1.05	ug/kg	0.314	1.05
75-27-4	Bromodichloromethane	U	1.05	ug/kg	0.314	1.05
74-95-3	Dibromomethane	U	1.05	ug/kg	0.314	1.05
108-10-1	4-Methyl-2-pentanone	U	5.23	ug/kg	1.31	5.23
10061-01-5	cis-1,3-Dichloropropylene	U	1.05	ug/kg	0.314	1.05
108-88-3	Toluene	U	1.05	ug/kg	0.314	1.05
10061-02-6	trans-1,3-Dichloropropylene	U	1.05	ug/kg	0.314	1.05
79-00-5	1,1,2-Trichloroethane	U	1.05	ug/kg	0.314	1.05
591-78-6	2-Hexanone	U	5.23	ug/kg	1.57	5.23
142-28-9	1,3-Dichloropropane	U	1.05	ug/kg	0.314	1.05
127-18-4	Tetrachloroethylene	U	1.05	ug/kg	0.314	1.05
124-48-1	Dibromochloromethane	U	1.05	ug/kg	0.314	1.05
106-93-4	1,2-Dibromoethane	U	1.05	ug/kg	0.314	1.05
108-90-7	Chlorobenzene	U	1.05	ug/kg	0.314	1.05

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-901**	**Date Collected:**	**12/10/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242794001**	**Date Received:**	**12/12/2009 09:35**	**%Moisture:**	**4.4**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-13470**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**934728**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**12/19/2009 01:22**	**Analyst:**	**RXM4**	**Purge Vol:**	**5 mL**
Prep Date:	**12/18/2009 14:02**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1r530.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.05	ug/kg	0.314	1.05
179601-23-1	m,p-Xylenes	U	2.09	ug/kg	0.314	2.09
95-47-6	o-Xylene	U	1.05	ug/kg	0.314	1.05
100-42-5	Styrene	U	1.05	ug/kg	0.314	1.05
75-25-2	Bromoform	U	1.05	ug/kg	0.314	1.05
79-34-5	1,1,2,2-Tetrachloroethane	U	1.05	ug/kg	0.314	1.05
96-18-4	1,2,3-Trichloropropane	U	1.05	ug/kg	0.314	1.05
108-86-1	Bromobenzene	U	1.05	ug/kg	0.314	1.05
103-65-1	n-Propylbenzene	U	1.05	ug/kg	0.314	1.05
95-49-8	2-Chlorotoluene	U	1.05	ug/kg	0.314	1.05
98-82-8	Isopropylbenzene	U	1.05	ug/kg	0.314	1.05
108-67-8	1,3,5-Trimethylbenzene	U	1.05	ug/kg	0.314	1.05
106-43-4	4-Chlorotoluene	U	1.05	ug/kg	0.314	1.05
98-06-6	tert-Butylbenzene	U	1.05	ug/kg	0.314	1.05
95-63-6	1,2,4-Trimethylbenzene	U	1.05	ug/kg	0.314	1.05
135-98-8	sec-Butylbenzene	U	1.05	ug/kg	0.314	1.05
99-87-6	4-Isopropyltoluene	U	1.05	ug/kg	0.314	1.05
541-73-1	1,3-Dichlorobenzene	U	1.05	ug/kg	0.314	1.05
106-46-7	1,4-Dichlorobenzene	U	1.05	ug/kg	0.314	1.05
104-51-8	n-Butylbenzene	U	1.05	ug/kg	0.314	1.05
96-12-8	1,2-Dibromo-3-chloropropane	U	1.05	ug/kg	0.314	1.05
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.23	ug/kg	1.67	5.23
630-20-6	1,1,1,2-Tetrachloroethane	U	1.05	ug/kg	0.314	1.05
95-50-1	1,2-Dichlorobenzene	U	1.05	ug/kg	0.314	1.05

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
22566-43-4	Anthracene, 9,10-dihydro-9,10-dimethyl-	18.07	29.3	ug/kg	38	NJ

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/121809v1/1r530.d
Lab Smp Id: 242794001 Client Smp ID: RE03-09-13470
Inj Date : 19-DEC-2009 01:22
Operator : RXM4 Inst ID: VOA1.i
Smp Info : |242794001|934728|1|VOAF|1|
Misc Info : LANL 5G N/A
Comment :
Method : /chem/VOA1.i/121809v1/VOA1-8260ox-121709PM.m
Meth Date : 19-Dec-2009 14:30 ron01469 Quant Type: ISTD
Cal Date : 17-DEC-2009 21:57 Cal File: 1r426.d
Als bottle: 30
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-901.sub
Target Version: 3.50

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	4.35540	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
* 52 Fluorobenzene	96	13.686	13.686	(1.000)	708519	50.0000	
* 76 Chlorobenzene-d5	117	17.157	17.162	(1.000)	502557	50.0000	
* 102 1,4-Dichlorobenzene-d4	152	19.610	19.610	(1.000)	265113	50.0000	
$ 48 1,2-Dichloroethane-d4	65	13.341	13.341	(0.975)	527947	61.4966	64.3
$ 65 Toluene-d8	98	15.518	15.518	(0.904)	1504163	52.4092	54.8
$ 87 Bromofluorobenzene	95	18.391	18.386	(0.938)	593026	54.4221	56.9
23 Methylene chloride	84	10.137	10.147	(0.741)	14129	2.09902	2.2(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

ION RATIO REPORT

VOA REPORT

Data file: 1r530.d
Report Date: 12/19/2009 14:33
Lab. ID: 242794001 SampleType: SAMPLE
Injection Date: 19-DEC-2009 01:22
Operator: RXM4 Instrument: VOA1.i
Sample Info: |242794001|934728|1|VOAF|1|
Miscellaneous Info: LANL 5G N/A
Comment:
Method used: /chem/VOA1.i/121809v1/VOA1-8260ox-121709PM.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-901
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
23 Methylene chloride			CAS#: 75-09-2			
84	14129	10.14	10.15	80-120	100	( )
86	8958	10.14	10.14	35- 95	63	( )
49	21121	10.15	10.15	121-181	149	( )
51 1,2-Dichloroethane			CAS#: 107-06-2			
62	11416	13.69	13.44	80-120	100	(T)
64	1924	13.68	13.44	2- 62	17	(T)
64 4-Methyl-2-pentanone			CAS#: 108-10-1			
58	14141	15.52	15.36	80-120	100	(T)
43	7328	15.51	15.36	206-266	52	(QT)
100	942641	15.52	15.36	0- 59	6666	(QT)
82 Styrene			CAS#: 100-42-5			
104	5093	18.06	17.80	80-120	100	(T)
78	235	17.80	17.80	28- 88	5	(Q)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/121809v1/1r530.d
Lab Smp Id: 242794001 Client Smp ID: RE03-09-13470
Inj Date : 19-DEC-2009 01:22
Operator : RXM4 Inst ID: VOA1.i
Smp Info : |242794001|934728|1|VOAF|1|
Misc Info : LANL 5G N/A
Comment :
Method : /chem/VOA1.i/121809v1/VOA1-8260ox-121709PM.m
Meth Date : 19-Dec-2009 14:30 ron01469 Quant Type: ISTD
Cal Date : 17-DEC-2009 21:57 Cal File: 1r426.d
Als bottle: 30
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-901.sub
Target Version: 3.50

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	4.35540	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 76 Chlorobenzene-d5	17.157	1666123	50.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ug/l)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Anthracene, 9,10-dihydro-9,10-dimethyl-				CAS #: 22566-43-4			
18.068	935122	28.0627981	29.3	38	NIST05.L	63100	76

Data File: /chem/VOA1.i/121809v1/1r530.d
Date : 19-DEC-2009 01:22
Client ID: RE03-09-13470
Sample Info: |242794001|934728|1|VOAF|1|

Column phase: RTX-Volatiles

Instrument: VOA1.i

Operator: RXM4
Column diameter: 0.25

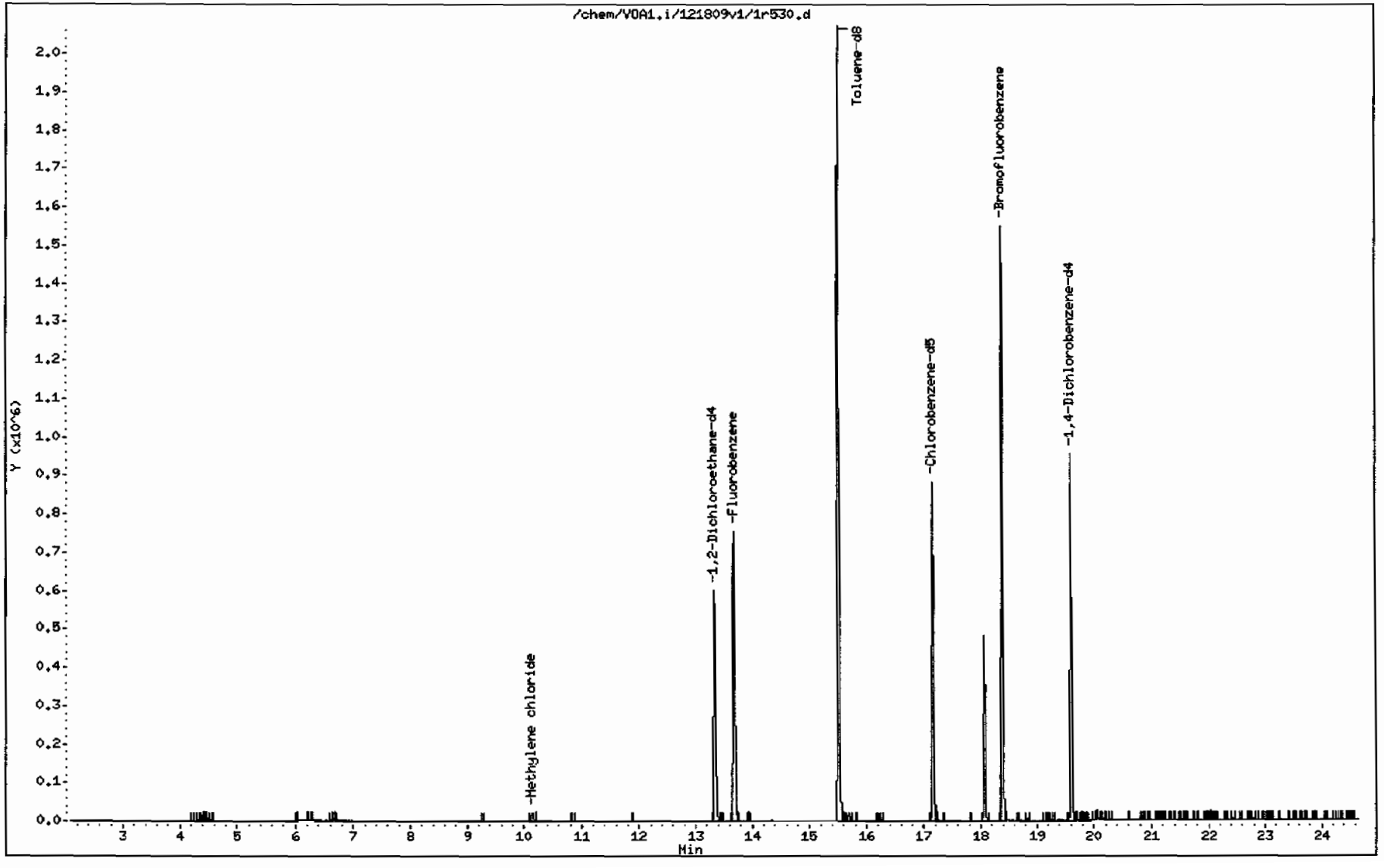

Data File: /chem/VOA1.i/121809v1/1r530.d

Date : 19-DEC-2009 01:22

Client ID: RE03-09-13470

Instrument: VOA1.i

Sample Info: |2427940001|934728|1|VOAF|1|

Operator: RXH4

Column phase: RTX-Volatiles

Column diameter: 0.25

23 Methylene chloride

Concentration: 2.2 ug/Kg

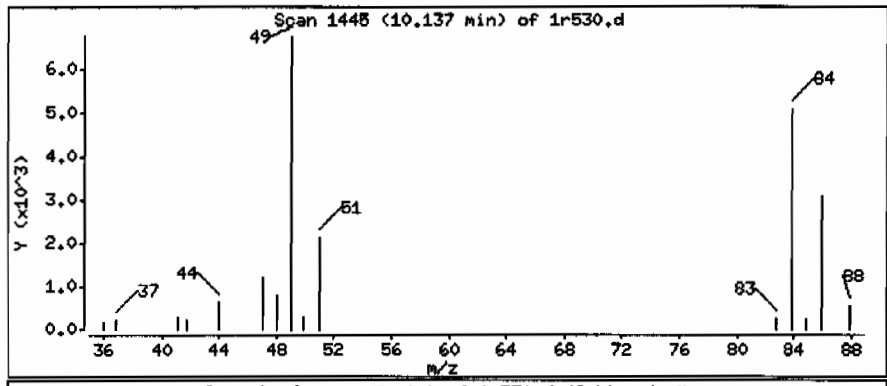

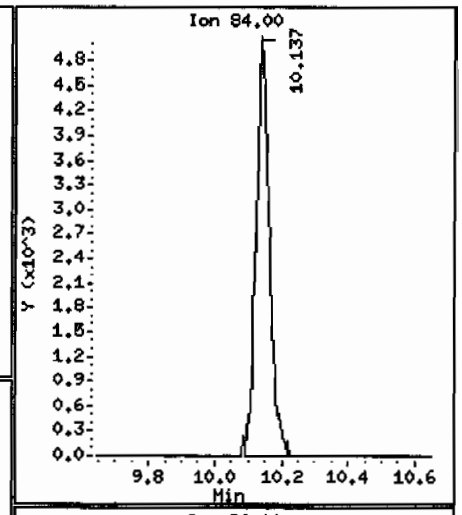

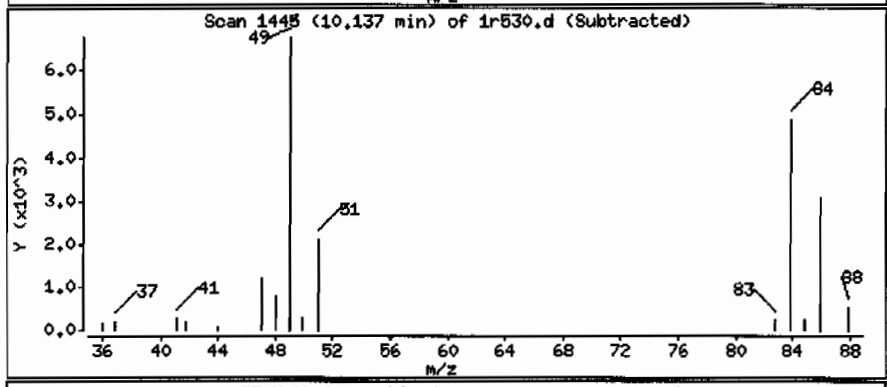

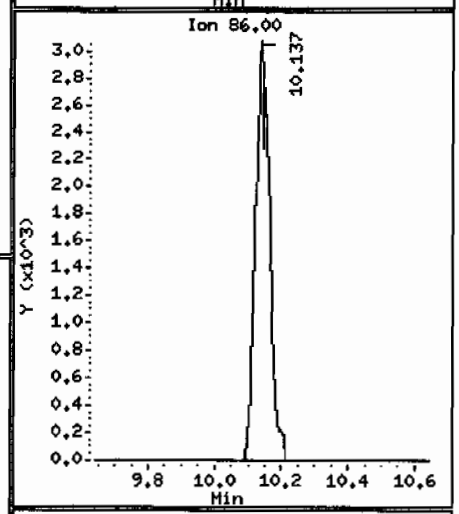

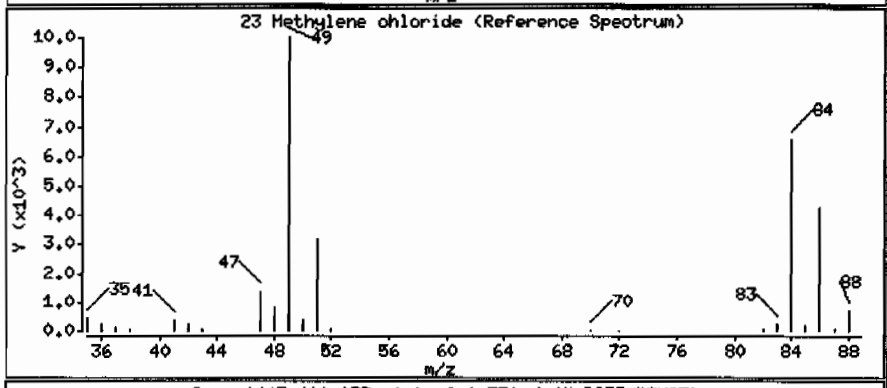

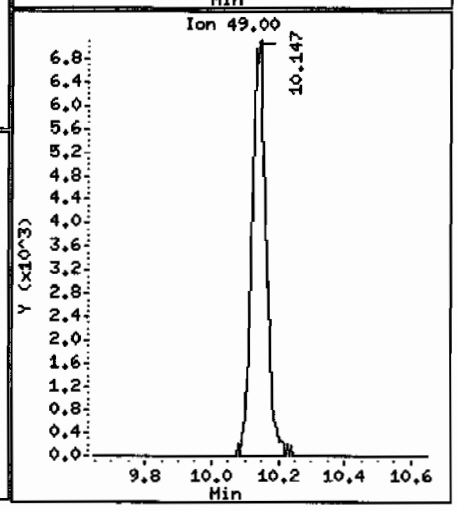

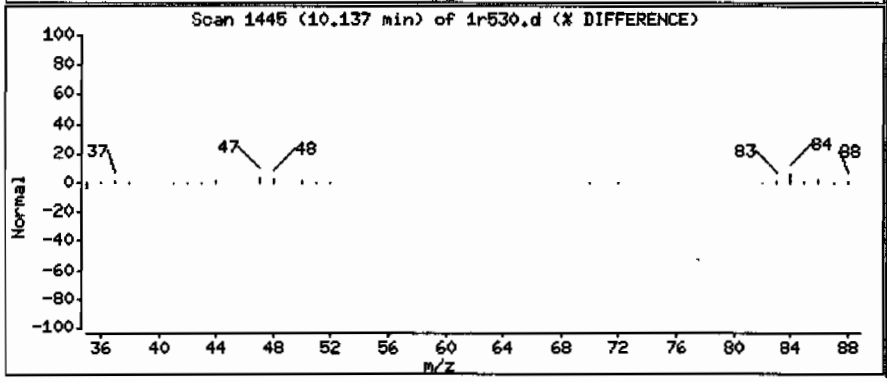

Data File: /chem/VOA1.i/121809v1/1r530.d

Date : 19-DEC-2009 01:22

Client ID: RE03-09-13470

Instrument: VOA1.i

Sample Info: |2427940001|934728|1|VOAF|1|

Operator: RXH4

Column phase: RTX-Volatiles

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Anthracene, 9,10-dihydro-9,10-dimethyl-	22566-43-4	NIST05.L	63100	38	C16H16	208
Trisiloxane, 1,1,3,3,5,5-hexamethyl-	1189-93-1	NIST05.L	63149	35	C6H20O2Si3	208
2-Phenylindolizine	25379-20-8	NIST05.L	52067	30	C14H11N	193

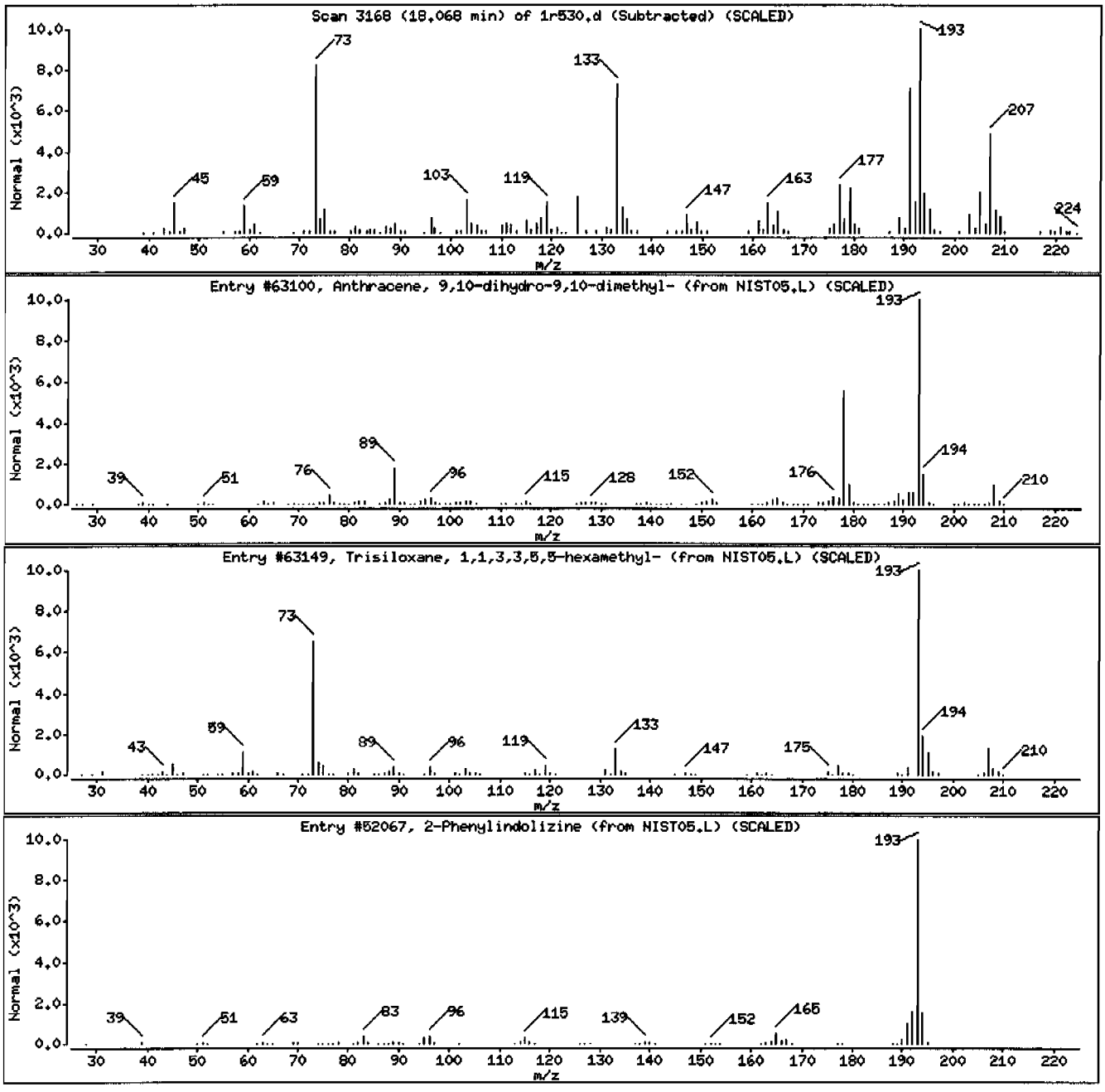

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-901**	**Date Collected:**	**12/10/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242794002**	**Date Received:**	**12/12/2009 09:35**	**%Moisture:**	**4.3**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-13471**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**934728**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**12/19/2009 01:53**	**Analyst:**	**RXM4**	**Purge Vol:**	**5 mL**
Prep Date:	**12/18/2009 14:05**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1r531.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.04	ug/kg	0.355	1.04
74-87-3	Chloromethane	U	1.04	ug/kg	0.313	1.04
75-01-4	Vinyl chloride	U	1.04	ug/kg	0.313	1.04
74-83-9	Bromomethane	U	1.04	ug/kg	0.313	1.04
75-00-3	Chloroethane	U	1.04	ug/kg	0.313	1.04
75-69-4	Trichlorofluoromethane	U	1.04	ug/kg	0.313	1.04
67-64-1	Acetone	U	5.22	ug/kg	1.73	5.22
75-35-4	1,1-Dichloroethylene	U	1.04	ug/kg	0.313	1.04
74-88-4	Iodomethane	U	5.22	ug/kg	1.67	5.22
75-09-2	Methylene chloride	J	2.33	ug/kg	2.09	5.22
75-15-0	Carbon disulfide	U	5.22	ug/kg	1.31	5.22
156-60-5	trans-1,2-Dichloroethylene	U	1.04	ug/kg	0.313	1.04
75-34-3	1,1-Dichloroethane	U	1.04	ug/kg	0.313	1.04
78-93-3	2-Butanone	U	5.22	ug/kg	1.57	5.22
156-59-2	cis-1,2-Dichloroethylene	U	1.04	ug/kg	0.313	1.04
594-20-7	2,2-Dichloropropane	U	1.04	ug/kg	0.313	1.04
67-66-3	Chloroform	U	1.04	ug/kg	0.313	1.04
74-97-5	Bromochloromethane	U	1.04	ug/kg	0.345	1.04
71-55-6	1,1,1-Trichloroethane	U	1.04	ug/kg	0.313	1.04
563-58-6	1,1-Dichloropropene	U	1.04	ug/kg	0.313	1.04
56-23-5	Carbon tetrachloride	U	1.04	ug/kg	0.313	1.04
107-06-2	1,2-Dichloroethane	U	1.04	ug/kg	0.313	1.04
71-43-2	Benzene	U	1.04	ug/kg	0.313	1.04
79-01-6	Trichloroethylene	U	1.04	ug/kg	0.345	1.04
78-87-5	1,2-Dichloropropane	U	1.04	ug/kg	0.313	1.04
75-27-4	Bromodichloromethane	U	1.04	ug/kg	0.313	1.04
74-95-3	Dibromomethane	U	1.04	ug/kg	0.313	1.04
108-10-1	4-Methyl-2-pentanone	U	5.22	ug/kg	1.31	5.22
10061-01-5	cis-1,3-Dichloropropylene	U	1.04	ug/kg	0.313	1.04
108-88-3	Toluene	U	1.04	ug/kg	0.313	1.04
10061-02-6	trans-1,3-Dichloropropylene	U	1.04	ug/kg	0.313	1.04
79-00-5	1,1,2-Trichloroethane	U	1.04	ug/kg	0.313	1.04
591-78-6	2-Hexanone	J	2.28	ug/kg	1.57	5.22
142-28-9	1,3-Dichloropropane	U	1.04	ug/kg	0.313	1.04
127-18-4	Tetrachloroethylene	U	1.04	ug/kg	0.313	1.04
124-48-1	Dibromochloromethane	U	1.04	ug/kg	0.313	1.04
106-93-4	1,2-Dibromoethane	U	1.04	ug/kg	0.313	1.04
108-90-7	Chlorobenzene	U	1.04	ug/kg	0.313	1.04

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-901**	**Date Collected:**	**12/10/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242794002**	**Date Received:**	**12/12/2009 09:35**	**%Moisture:**	**4.3**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-13471**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**934728**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**12/19/2009 01:53**	**Analyst:**	**RXM4**	**Purge Vol:**	**5 mL**
Prep Date:	**12/18/2009 14:05**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1r531.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.04	ug/kg	0.313	1.04
179601-23-1	m,p-Xylenes	U	2.09	ug/kg	0.313	2.09
95-47-6	o-Xylene	U	1.04	ug/kg	0.313	1.04
100-42-5	Styrene	U	1.04	ug/kg	0.313	1.04
75-25-2	Bromoform	U	1.04	ug/kg	0.313	1.04
79-34-5	1,1,2,2-Tetrachloroethane	U	1.04	ug/kg	0.313	1.04
96-18-4	1,2,3-Trichloropropane	U	1.04	ug/kg	0.313	1.04
108-86-1	Bromobenzene	U	1.04	ug/kg	0.313	1.04
103-65-1	n-Propylbenzene	U	1.04	ug/kg	0.313	1.04
95-49-8	2-Chlorotoluene	U	1.04	ug/kg	0.313	1.04
98-82-8	Isopropylbenzene	U	1.04	ug/kg	0.313	1.04
108-67-8	1,3,5-Trimethylbenzene	U	1.04	ug/kg	0.313	1.04
106-43-4	4-Chlorotoluene	U	1.04	ug/kg	0.313	1.04
98-06-6	tert-Butylbenzene	U	1.04	ug/kg	0.313	1.04
95-63-6	1,2,4-Trimethylbenzene	U	1.04	ug/kg	0.313	1.04
135-98-8	sec-Butylbenzene	U	1.04	ug/kg	0.313	1.04
99-87-6	4-Isopropyltoluene	U	1.04	ug/kg	0.313	1.04
541-73-1	1,3-Dichlorobenzene	U	1.04	ug/kg	0.313	1.04
106-46-7	1,4-Dichlorobenzene	U	1.04	ug/kg	0.313	1.04
104-51-8	n-Butylbenzene	U	1.04	ug/kg	0.313	1.04
96-12-8	1,2-Dibromo-3-chloropropane	U	1.04	ug/kg	0.313	1.04
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.22	ug/kg	1.67	5.22
630-20-6	1,1,1,2-Tetrachloroethane	U	1.04	ug/kg	0.313	1.04
95-50-1	1,2-Dichlorobenzene	U	1.04	ug/kg	0.313	1.04

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Siloxane	18.07	20.4	ug/kg		J
	Unknown Hydrocarbon	20.01	21.4	ug/kg		J

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/121809v1/1r531.d
Lab Smp Id: 242794002 Client Smp ID: RE03-09-13471
Inj Date : 19-DEC-2009 01:53
Operator : RXM4 Inst ID: VOA1.i
Smp Info : |242794002|934728|1|VOAF|1|
Misc Info : LANL 5G N/A
Comment :
Method : /chem/VOA1.i/121809v1/VOA1-8260ox-121709PM.m
Meth Date : 19-Dec-2009 14:30 ron01469 Quant Type: ISTD
Cal Date : 17-DEC-2009 21:57 Cal File: 1r426.d
Als bottle: 31
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-901.sub
Target Version: 3.50

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	4.29430	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
* 52 Fluorobenzene	96	13.686	13.686	(1.000)	638489	50.0000	
* 76 Chlorobenzene-d5	117	17.157	17.162	(1.000)	438729	50.0000	
* 102 1,4-Dichlorobenzene-d4	152	19.610	19.610	(1.000)	232257	50.0000	
$ 48 1,2-Dichloroethane-d4	65	13.341	13.341	(0.975)	490099	63.3494	66.2
$ 65 Toluene-d8	98	15.518	15.518	(0.904)	1386061	55.3202	57.8
$ 87 Bromofluorobenzene	95	18.391	18.386	(0.938)	541212	56.6932	59.2
23 Methylene chloride	84	10.142	10.147	(0.741)	13511	2.23315	2.3(a)
71 2-Hexanone	43	16.269	16.269	(0.948)	11930	2.18127	2.3(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

ION RATIO REPORT

VOA REPORT

Data file: 1r531.d
Report Date: 12/19/2009 14:33
Lab. ID: 242794002 SampleType: SAMPLE
Injection Date: 19-DEC-2009 01:53
Operator: RXM4 Instrument: VOA1.i
Sample Info: |242794002|934728|1|VOAF|1|
Miscellaneous Info: LANL 5G N/A
Comment:
Method used: /chem/VOA1.i/121809v1/VOA1-8260ox-121709PM.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-901
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
23 Methylene chloride			CAS#: 75-09-2			
84	13511	10.14	10.15	80-120	100	( )
86	8858	10.14	10.14	35- 95	66	( )
49	20465	10.14	10.15	121-181	151	( )
51 1,2-Dichloroethane			CAS#: 107-06-2			
62	10595	13.68	13.44	80-120	100	(T)
64	1770	13.69	13.44	2- 62	17	(T)
64 4-Methyl-2-pentanone			CAS#: 108-10-1			
58	13511	15.52	15.36	80-120	100	(T)
43	6934	15.52	15.36	206-266	51	(QT)
100	882407	15.52	15.36	0- 59	6531	(QT)
71 2-Hexanone			CAS#: 591-78-6			
43	11930	16.27	16.27	80-120	100	( )
58	6903	16.27	16.27	29- 89	58	( )
105 n-Butylbenzene			CAS#: 104-51-8			
91	38445	20.01	19.87	80-120	100	(T)
92	3839	20.00	19.87	25- 85	10	(QT)
134	110	19.86	19.87	0- 52	0	( )

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/121809v1/1r531.d
Lab Smp Id: 242794002 Client Smp ID: RE03-09-13471
Inj Date : 19-DEC-2009 01:53
Operator : RXM4 Inst ID: VOA1.i
Smp Info : |242794002|934728|1|VOAF|1|
Misc Info : LANL 5G N/A
Comment :
Method : /chem/VOA1.i/121809v1/VOA1-8260ox-121709PM.m
Meth Date : 19-Dec-2009 14:30 ron01469 Quant Type: ISTD
Cal Date : 17-DEC-2009 21:57 Cal File: 1r426.d
Als bottle: 31
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-901.sub
Target Version: 3.50

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	4.29430	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 76 Chlorobenzene-d5	17.157	1463022	50.000
* 102 1,4-Dichlorobenzene-d4	19.610	1494108	50.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ug/l)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown Siloxane					CAS #:		
18.073	570704	19.5042723	20.4	0		0	76

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ug/l)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
====	====	==========	==========	====	========	==========	======
Unknown Hydrocarbon					CAS #:		
20.006	611158	20.4522759	21.4	0		0	102

Data File: /chem/VOA1.i/121809v1/1r531.d
Date : 19-DEC-2009 01:53
Client ID: RE03-09-13471
Sample Info: |2427940021934728|1|VOAF|1|

Column phase: RTX-Volatiles

Instrument: VOA1.i

Operator: RXH4
Column diameter: 0.25

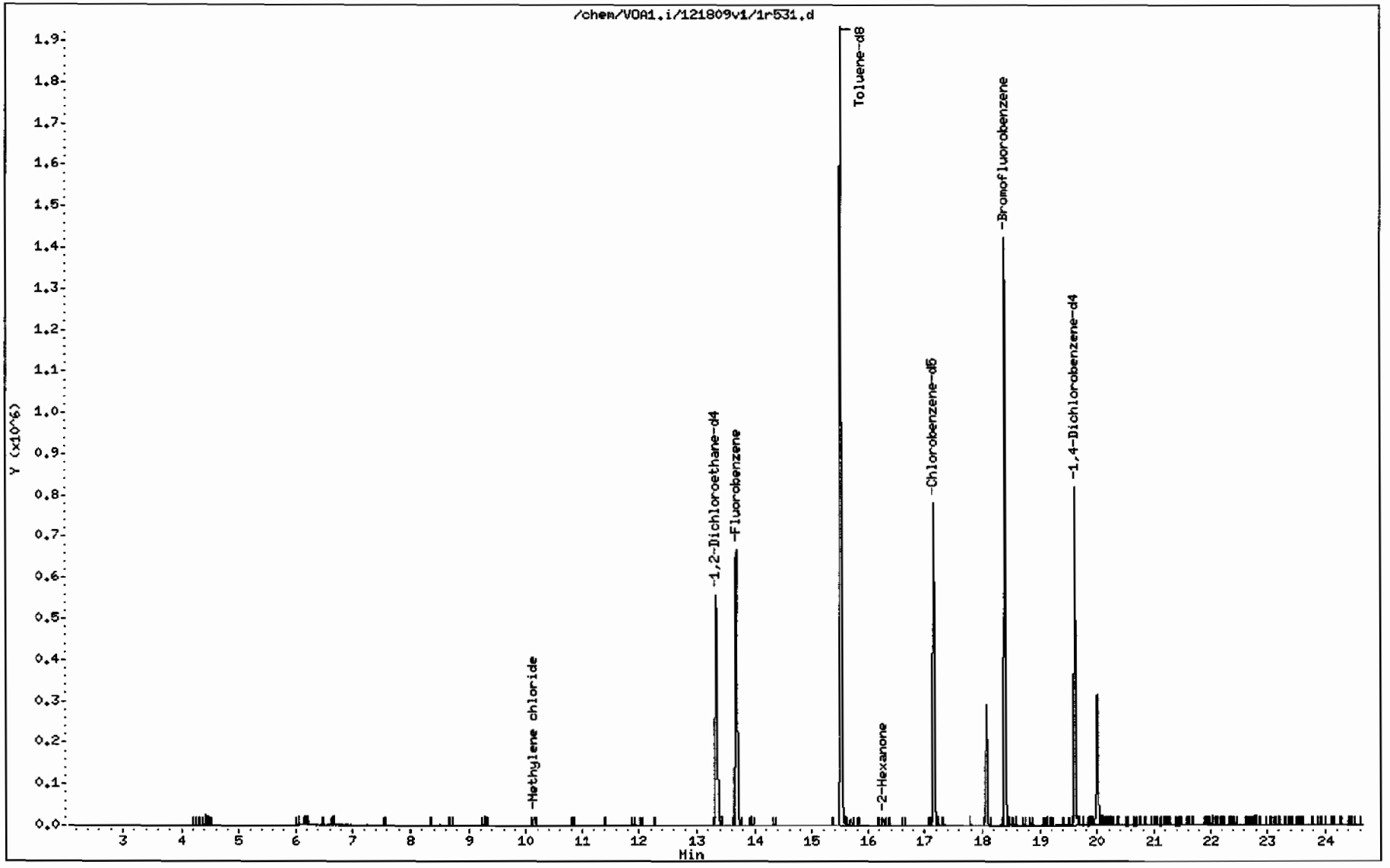

Data File: /chem/VOA1.i/121809v1/1r531.d

Date : 19-DEC-2009 01:53

Client ID: RE03-09-13471

Instrument: VOA1.i

Sample Info: |2427940021934728|1|VOAF|1|

Operator: RXM4

Column phase: RTX-Volatiles

Column diameter: 0.25

23 Methylene chloride

Concentration: 2.3 ug/Kg

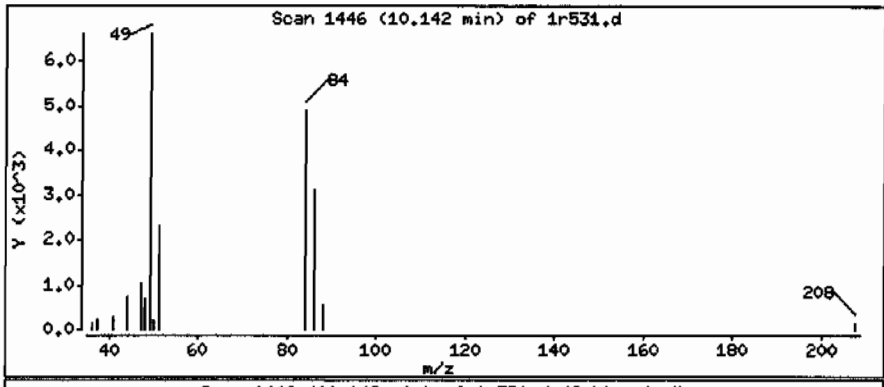

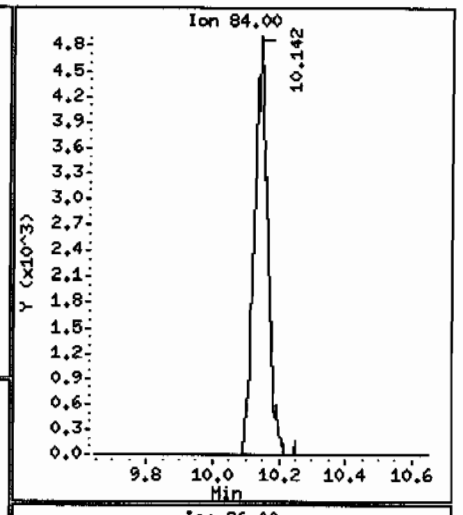

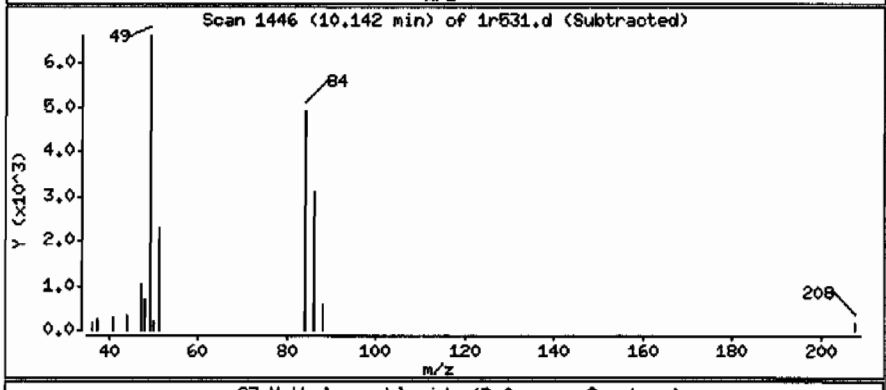

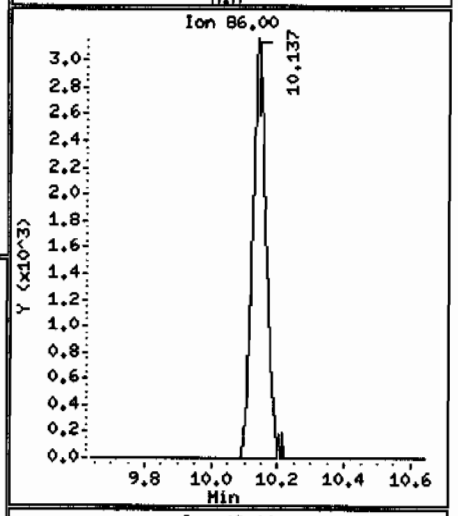

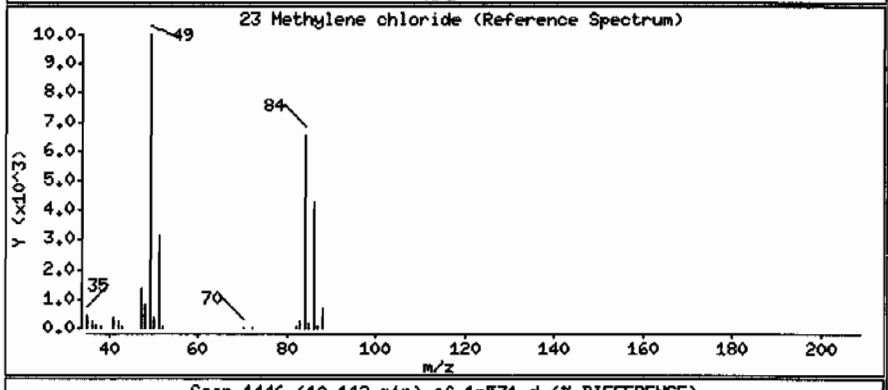

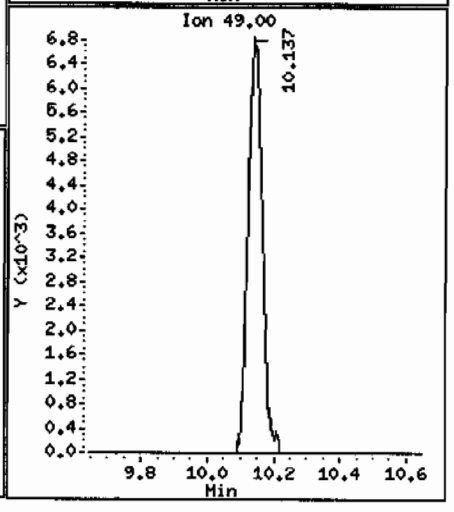

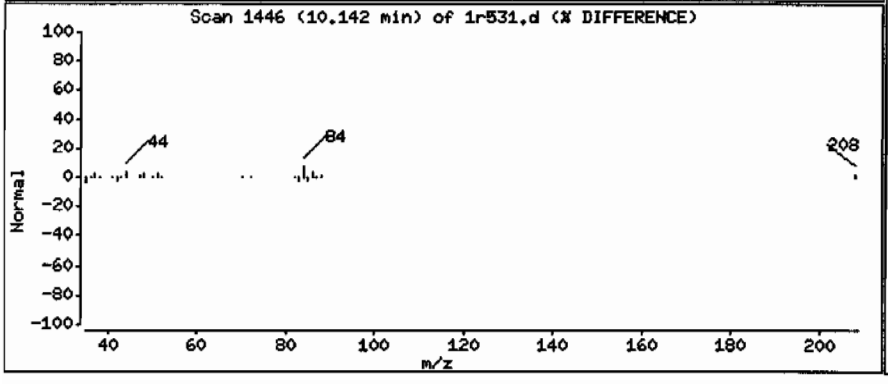

Data File: /chem/VOA1.i/121809v1/1r531.d

Date : 19-DEC-2009 01:53

Client ID: RE03-09-13471

Instrument: VOA1.i

Sample Info: |2427940021934728|1|VOAF|1|

Operator: RXH4

Column phase: RTX-Volatiles

Column diameter: 0.25

71 2-Hexanone

Concentration: 2.3 ug/Kg

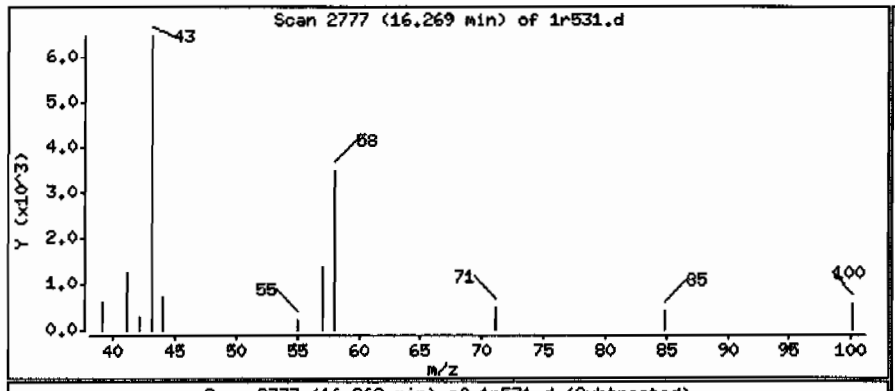

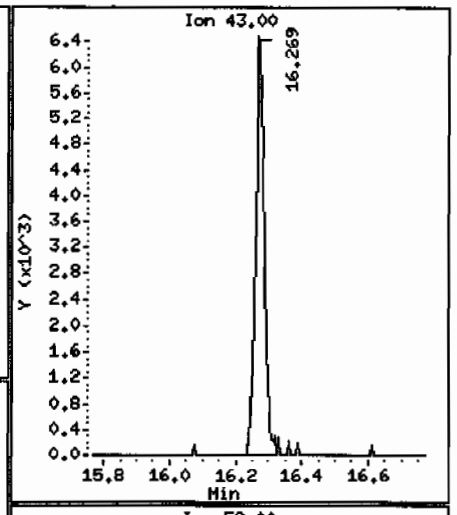

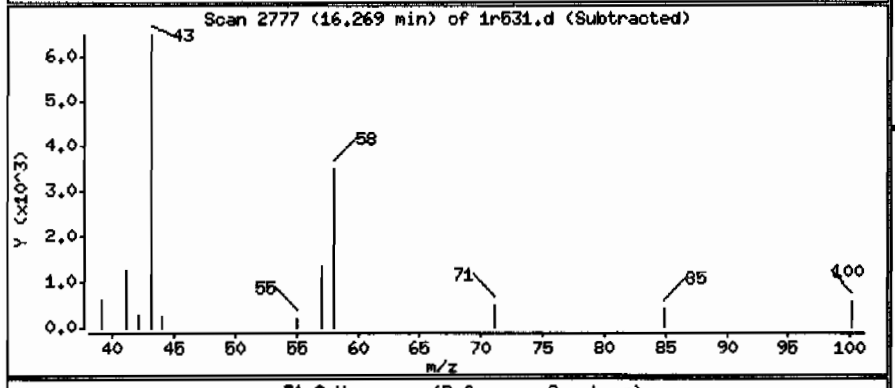

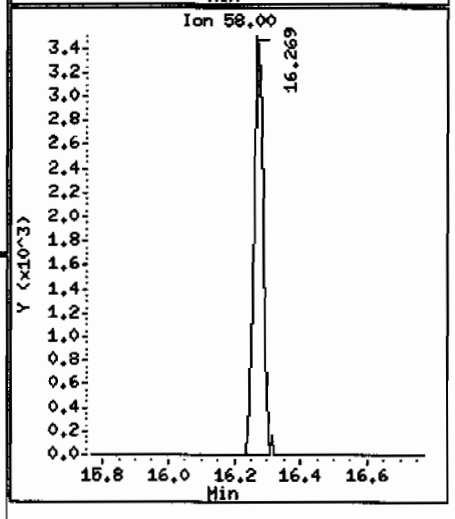

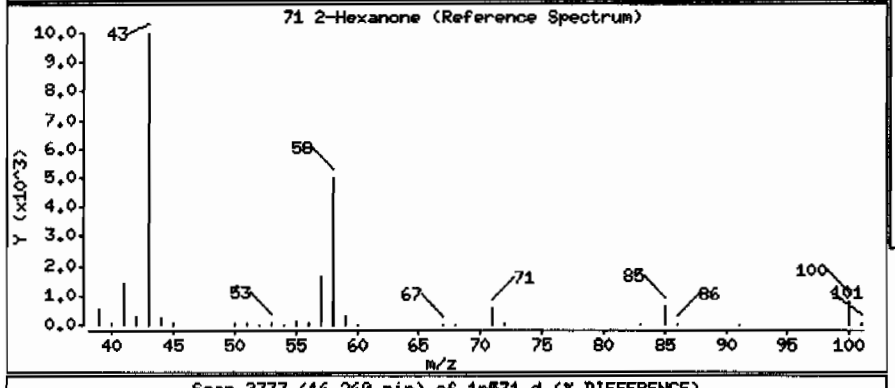

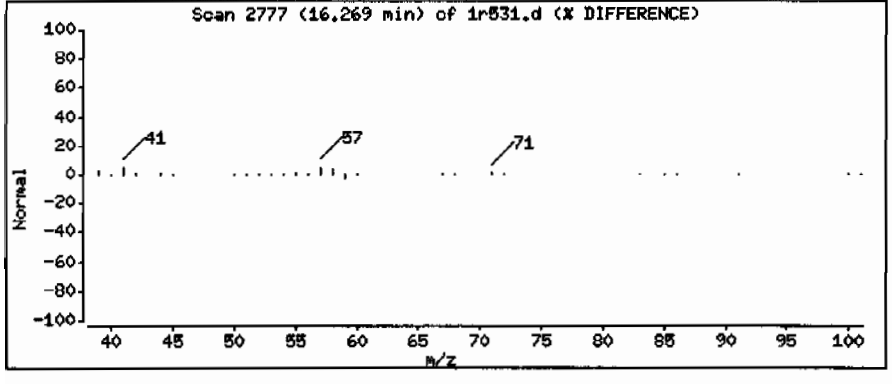

Data File: /chem/VOA1.i/121809v1/1r531.d

Page 1

Date : 19-DEC-2009 01:53

Client ID: RE03-09-13471

Instrument: VOA1.i

Sample Info: |2427940021934728|1|VOAF|1|

Operator: RXH4

Column phase: RTX-Volatiles

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Siloxane						
Silane, (2-ethyl-3,3-dimethyl-4-methylen	95798-13-3	NIST05.L	62897	38	C13H24Si	208
2-Phenylindolizine	25379-20-8	NIST05.L	52067	30	C14H11N	193
Anthracene, 9,10-dihydro-9,10-dimethyl-	22566-43-4	NIST05.L	63100	30	C16H16	208

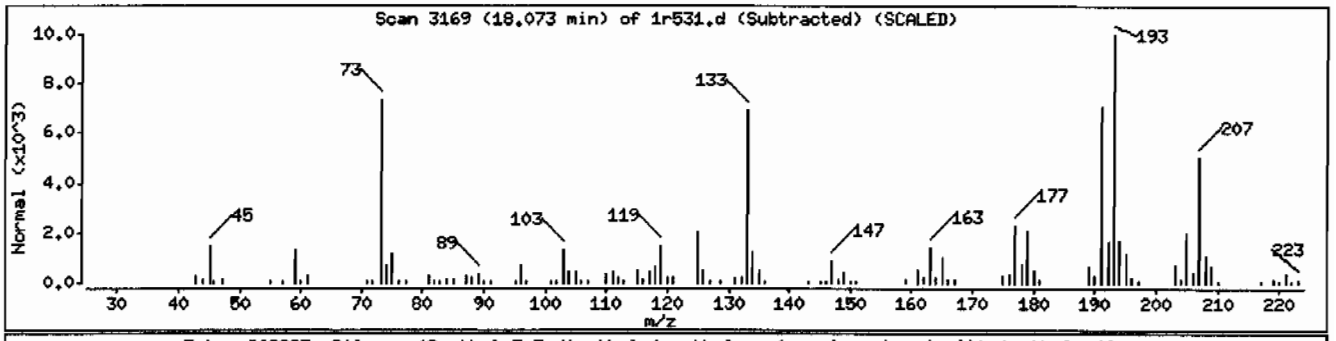

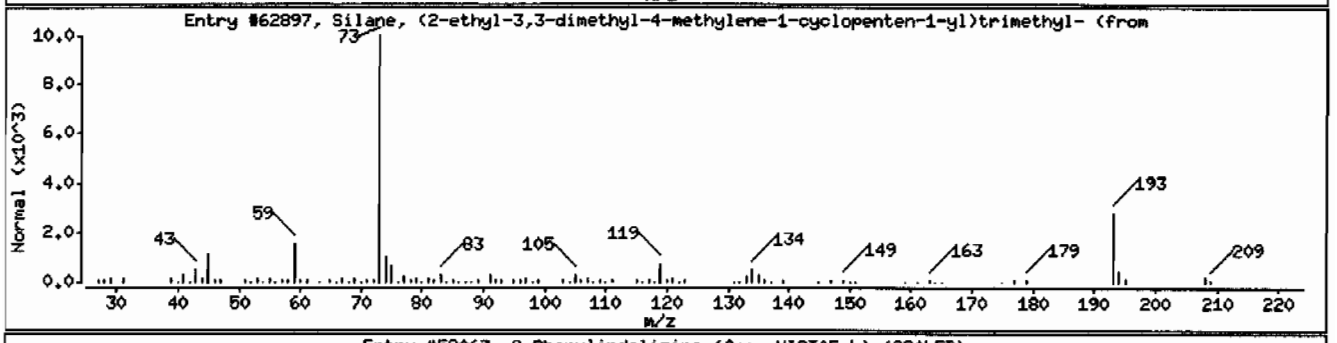

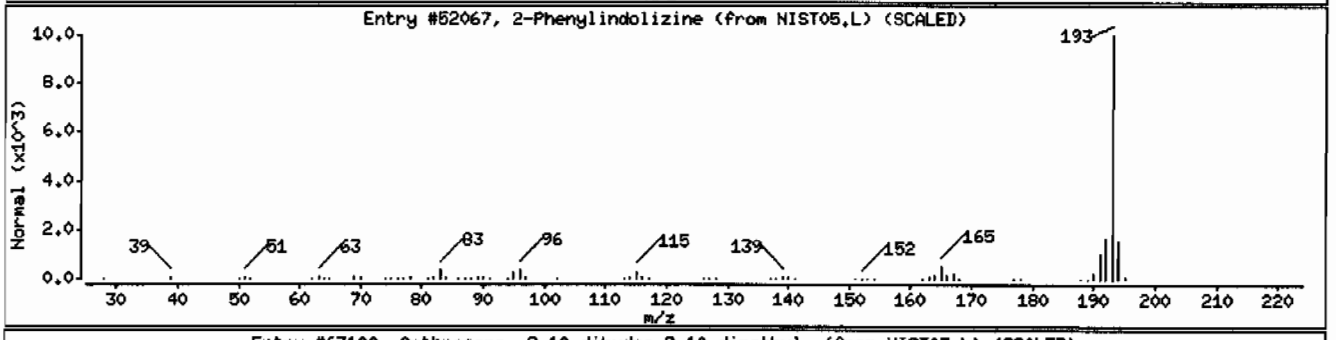

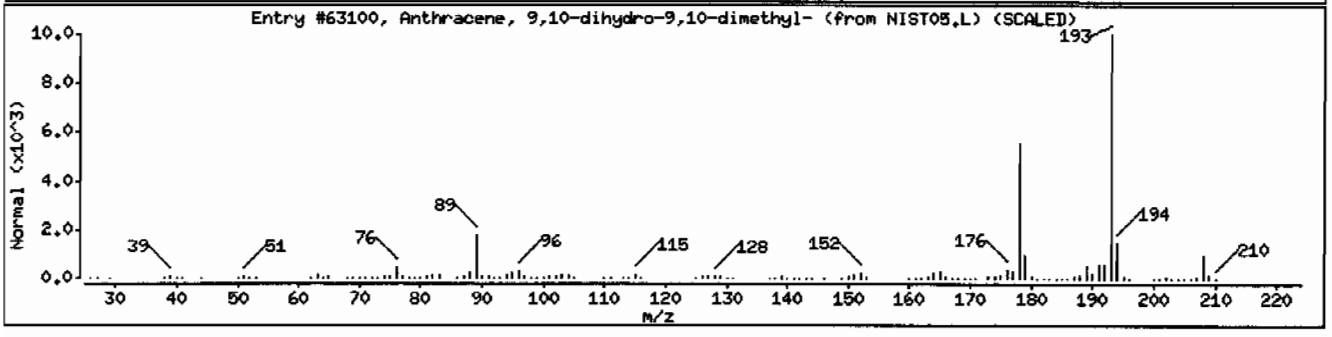

Data File: /chem/VOA1.i/121809v1/1r531.d

Date : 19-DEC-2009 01:53

Client ID: RE03-09-13471

Instrument: VOA1.i

Sample Info: |2427940021934728|1|VOAF|1|

Operator: RXM4

Column phase: RTX-Volatiles

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Hydrocarbon						
Propane, 1,1,2-trichloro-	598-77-6	NIST05.L	20884	38	C3H5Cl3	146
4-Azidobenzoic acid	6427-66-3	NIST05.L	31530	38	C7H5N3O2	163
1H-Tetrazole, 5-phenyl-	18039-42-4	NIST05.L	21221	37	C7H6N4	146

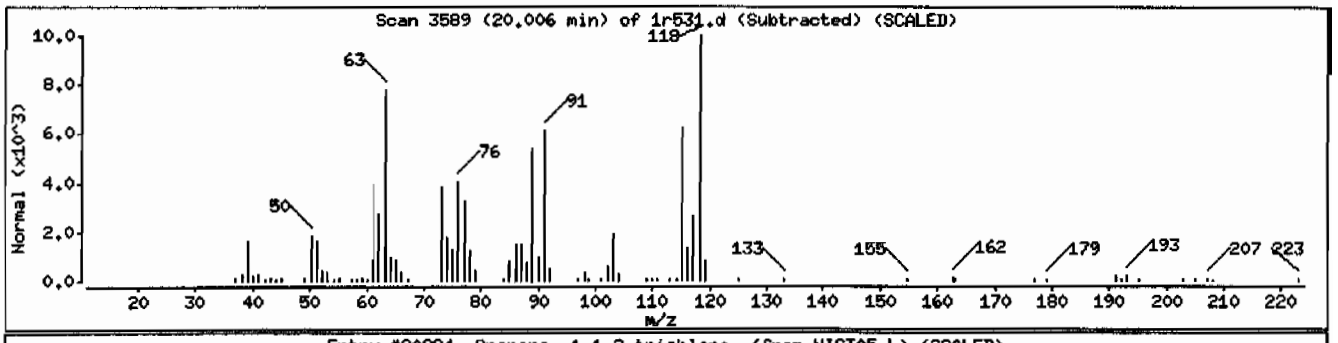

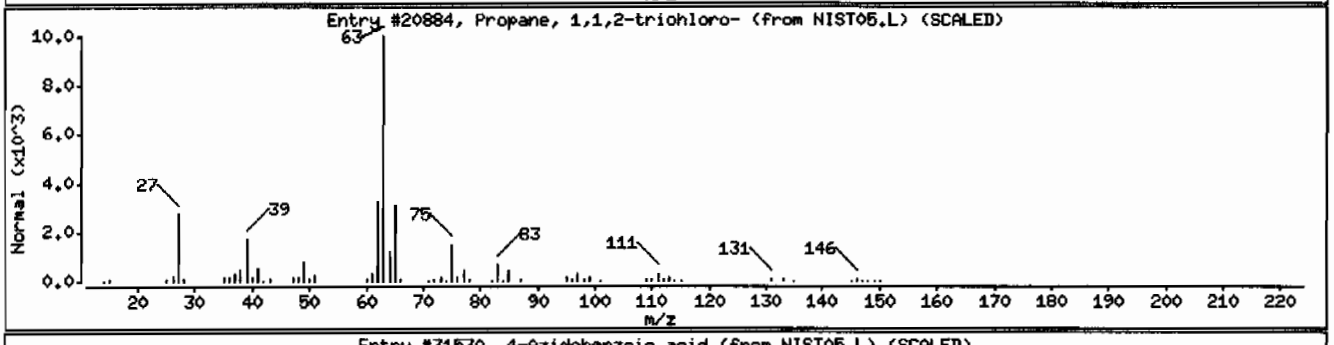

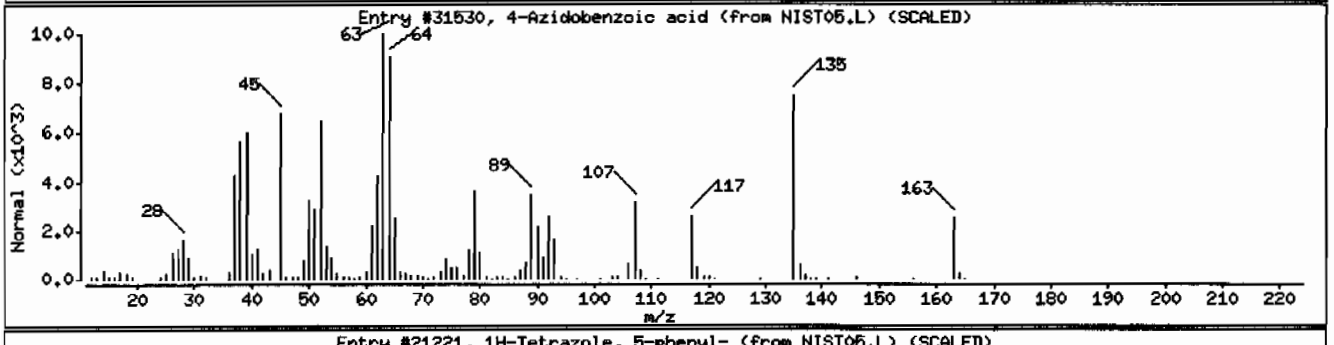

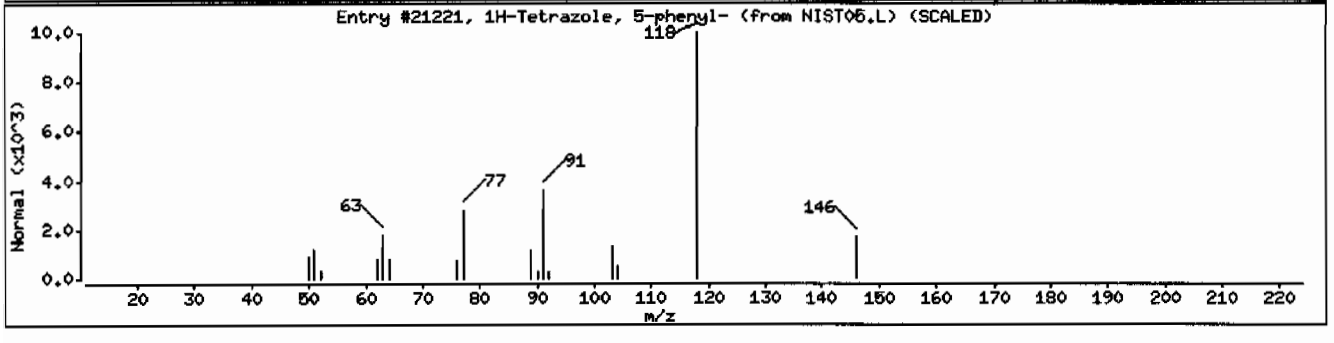

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-901	**Date Collected:**	12/10/2009 12:00	**Matrix:**	S
Lab Sample ID:	242794003	**Date Received:**	12/12/2009 09:35	**%Moisture:**	7.7
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-13472	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	934728	**Inst:**	VOA1.I	**Dilution:**	1
Run Date:	12/19/2009 02:23	**Analyst:**	RXM4	**Purge Vol:**	5 mL
Prep Date:	12/18/2009 14:06	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	1r532.d	**Column:**	RTX-Volatiles	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.08	ug/kg	0.368	1.08
74-87-3	Chloromethane	U	1.08	ug/kg	0.325	1.08
75-01-4	Vinyl chloride	U	1.08	ug/kg	0.325	1.08
74-83-9	Bromomethane	U	1.08	ug/kg	0.325	1.08
75-00-3	Chloroethane	U	1.08	ug/kg	0.325	1.08
75-69-4	Trichlorofluoromethane	U	1.08	ug/kg	0.325	1.08
67-64-1	Acetone	U	5.42	ug/kg	1.80	5.42
75-35-4	1,1-Dichloroethylene	U	1.08	ug/kg	0.325	1.08
74-88-4	Iodomethane	U	5.42	ug/kg	1.73	5.42
75-09-2	Methylene chloride	J	2.24	ug/kg	2.17	5.42
75-15-0	Carbon disulfide	U	5.42	ug/kg	1.35	5.42
156-60-5	trans-1,2-Dichloroethylene	U	1.08	ug/kg	0.325	1.08
75-34-3	1,1-Dichloroethane	U	1.08	ug/kg	0.325	1.08
78-93-3	2-Butanone	U	5.42	ug/kg	1.63	5.42
156-59-2	cis-1,2-Dichloroethylene	U	1.08	ug/kg	0.325	1.08
594-20-7	2,2-Dichloropropane	U	1.08	ug/kg	0.325	1.08
67-66-3	Chloroform	U	1.08	ug/kg	0.325	1.08
74-97-5	Bromochloromethane	U	1.08	ug/kg	0.358	1.08
71-55-6	1,1,1-Trichloroethane	U	1.08	ug/kg	0.325	1.08
563-58-6	1,1-Dichloropropene	U	1.08	ug/kg	0.325	1.08
56-23-5	Carbon tetrachloride	U	1.08	ug/kg	0.325	1.08
107-06-2	1,2-Dichloroethane	U	1.08	ug/kg	0.325	1.08
71-43-2	Benzene	U	1.08	ug/kg	0.325	1.08
79-01-6	Trichloroethylene	U	1.08	ug/kg	0.358	1.08
78-87-5	1,2-Dichloropropane	U	1.08	ug/kg	0.325	1.08
75-27-4	Bromodichloromethane	U	1.08	ug/kg	0.325	1.08
74-95-3	Dibromomethane	U	1.08	ug/kg	0.325	1.08
108-10-1	4-Methyl-2-pentanone	U	5.42	ug/kg	1.35	5.42
10061-01-5	cis-1,3-Dichloropropylene	U	1.08	ug/kg	0.325	1.08
108-88-3	Toluene	U	1.08	ug/kg	0.325	1.08
10061-02-6	trans-1,3-Dichloropropylene	U	1.08	ug/kg	0.325	1.08
79-00-5	1,1,2-Trichloroethane	U	1.08	ug/kg	0.325	1.08
591-78-6	2-Hexanone	U	5.42	ug/kg	1.63	5.42
142-28-9	1,3-Dichloropropane	U	1.08	ug/kg	0.325	1.08
127-18-4	Tetrachloroethylene	U	1.08	ug/kg	0.325	1.08
124-48-1	Dibromochloromethane	U	1.08	ug/kg	0.325	1.08
106-93-4	1,2-Dibromoethane	U	1.08	ug/kg	0.325	1.08
108-90-7	Chlorobenzene	U	1.08	ug/kg	0.325	1.08

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-901**	**Date Collected:**	**12/10/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242794003**	**Date Received:**	**12/12/2009 09:35**	**%Moisture:**	**7.7**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-13472**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**934728**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**12/19/2009 02:23**	**Analyst:**	**RXM4**	**Purge Vol:**	**5 mL**
Prep Date:	**12/18/2009 14:06**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1r532.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.08	ug/kg	0.325	1.08
179601-23-1	m,p-Xylenes	U	2.17	ug/kg	0.325	2.17
95-47-6	o-Xylene	U	1.08	ug/kg	0.325	1.08
100-42-5	Styrene	U	1.08	ug/kg	0.325	1.08
75-25-2	Bromoform	U	1.08	ug/kg	0.325	1.08
79-34-5	1,1,2,2-Tetrachloroethane	U	1.08	ug/kg	0.325	1.08
96-18-4	1,2,3-Trichloropropane	U	1.08	ug/kg	0.325	1.08
108-86-1	Bromobenzene	U	1.08	ug/kg	0.325	1.08
103-65-1	n-Propylbenzene	U	1.08	ug/kg	0.325	1.08
95-49-8	2-Chlorotoluene	U	1.08	ug/kg	0.325	1.08
98-82-8	Isopropylbenzene	U	1.08	ug/kg	0.325	1.08
108-67-8	1,3,5-Trimethylbenzene	U	1.08	ug/kg	0.325	1.08
106-43-4	4-Chlorotoluene	U	1.08	ug/kg	0.325	1.08
98-06-6	tert-Butylbenzene	U	1.08	ug/kg	0.325	1.08
95-63-6	1,2,4-Trimethylbenzene	U	1.08	ug/kg	0.325	1.08
135-98-8	sec-Butylbenzene	U	1.08	ug/kg	0.325	1.08
99-87-6	4-Isopropyltoluene	U	1.08	ug/kg	0.325	1.08
541-73-1	1,3-Dichlorobenzene	U	1.08	ug/kg	0.325	1.08
106-46-7	1,4-Dichlorobenzene	U	1.08	ug/kg	0.325	1.08
104-51-8	n-Butylbenzene	U	1.08	ug/kg	0.325	1.08
96-12-8	1,2-Dibromo-3-chloropropane	U	1.08	ug/kg	0.325	1.08
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.42	ug/kg	1.73	5.42
630-20-6	1,1,1,2-Tetrachloroethane	U	1.08	ug/kg	0.325	1.08
95-50-1	1,2-Dichlorobenzene	U	1.08	ug/kg	0.325	1.08

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Hydrocarbon	18.07	30.8	ug/kg		J

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/121809v1/1r532.d
Lab Smp Id: 242794003 Client Smp ID: RE03-09-13472
Inj Date : 19-DEC-2009 02:23
Operator : RXM4 Inst ID: VOA1.i
Smp Info : |242794003|934728|1|VOAF|1|
Misc Info : LANL 5G N/A
Comment :
Method : /chem/VOA1.i/121809v1/VOA1-8260ox-121709PM.m
Meth Date : 19-Dec-2009 14:30 ron01469 Quant Type: ISTD
Cal Date : 17-DEC-2009 21:57 Cal File: 1r426.d
Als bottle: 32
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-901.sub
Target Version: 3.50

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	7.70420	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
* 52 Fluorobenzene	96	13.686	13.686	(1.000)	687093	50.0000	
* 76 Chlorobenzene-d5	117	17.162	17.162	(1.000)	482939	50.0000	
* 102 1,4-Dichlorobenzene-d4	152	19.610	19.610	(1.000)	258578	50.0000	
$ 48 1,2-Dichloroethane-d4	65	13.341	13.341	(0.975)	498255	59.8478	64.8
$ 65 Toluene-d8	98	15.518	15.518	(0.904)	1428071	51.7792	56.1
$ 87 Bromofluorobenzene	95	18.391	18.386	(0.938)	561479	52.8292	57.2
23 Methylene chloride	84	10.137	10.147	(0.741)	13514	2.06896	2.2(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

ION RATIO REPORT

VOA REPORT

Data file: 1r532.d
Report Date: 12/19/2009 14:33
Lab. ID: 242794003 SampleType: SAMPLE
Injection Date: 19-DEC-2009 02:23
Operator: RXM4 Instrument: VOA1.i
Sample Info: |242794003|934728|1|VOAF|1|
Miscellaneous Info: LANL 5G N/A
Comment:
Method used: /chem/VOA1.i/121809v1/VOA1-8260ox-121709PM.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-901
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
23 Methylene chloride				CAS#: 75-09-2		
84	13514	10.14	10.15	80-120	100	( )
86	9043	10.14	10.14	35- 95	67	( )
49	20310	10.13	10.15	121-181	150	( )
51 1,2-Dichloroethane				CAS#: 107-06-2		
62	11239	13.68	13.44	80-120	100	(T)
64	1966	13.68	13.44	2- 62	17	(T)
64 4-Methyl-2-pentanone				CAS#: 108-10-1		
58	14065	15.52	15.36	80-120	100	(T)
43	6851	15.52	15.36	206-266	49	(QT)
100	902255	15.52	15.36	0- 59	6415	(QT)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/121809v1/1r532.d
Lab Smp Id: 242794003 Client Smp ID: RE03-09-13472
Inj Date : 19-DEC-2009 02:23
Operator : RXM4 Inst ID: VOA1.i
Smp Info : |242794003|934728|1|VOAF|1|
Misc Info : LANL 5G N/A
Comment :
Method : /chem/VOA1.i/121809v1/VOA1-8260ox-121709PM.m
Meth Date : 19-Dec-2009 14:30 ron01469 Quant Type: ISTD
Cal Date : 17-DEC-2009 21:57 Cal File: 1r426.d
Als bottle: 32
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-901.sub
Target Version: 3.50

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	7.70420	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 76 Chlorobenzene-d5	17.162	1601052	50.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ug/l)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown Hydrocarbon					CAS #:		
18.068	910726	28.4414861	30.8	0		0	76

Data File: /chem/VOA1.i/121809v1/1r532.d
Date : 19-DEC-2009 02:23
Client ID: RE03-09-13472
Sample Info: |2427940031934728|1|VOAF|1|

Column phase: RTX-Volatiles

Instrument: VOA1.i

Operator: RXM4
Column diameter: 0.25

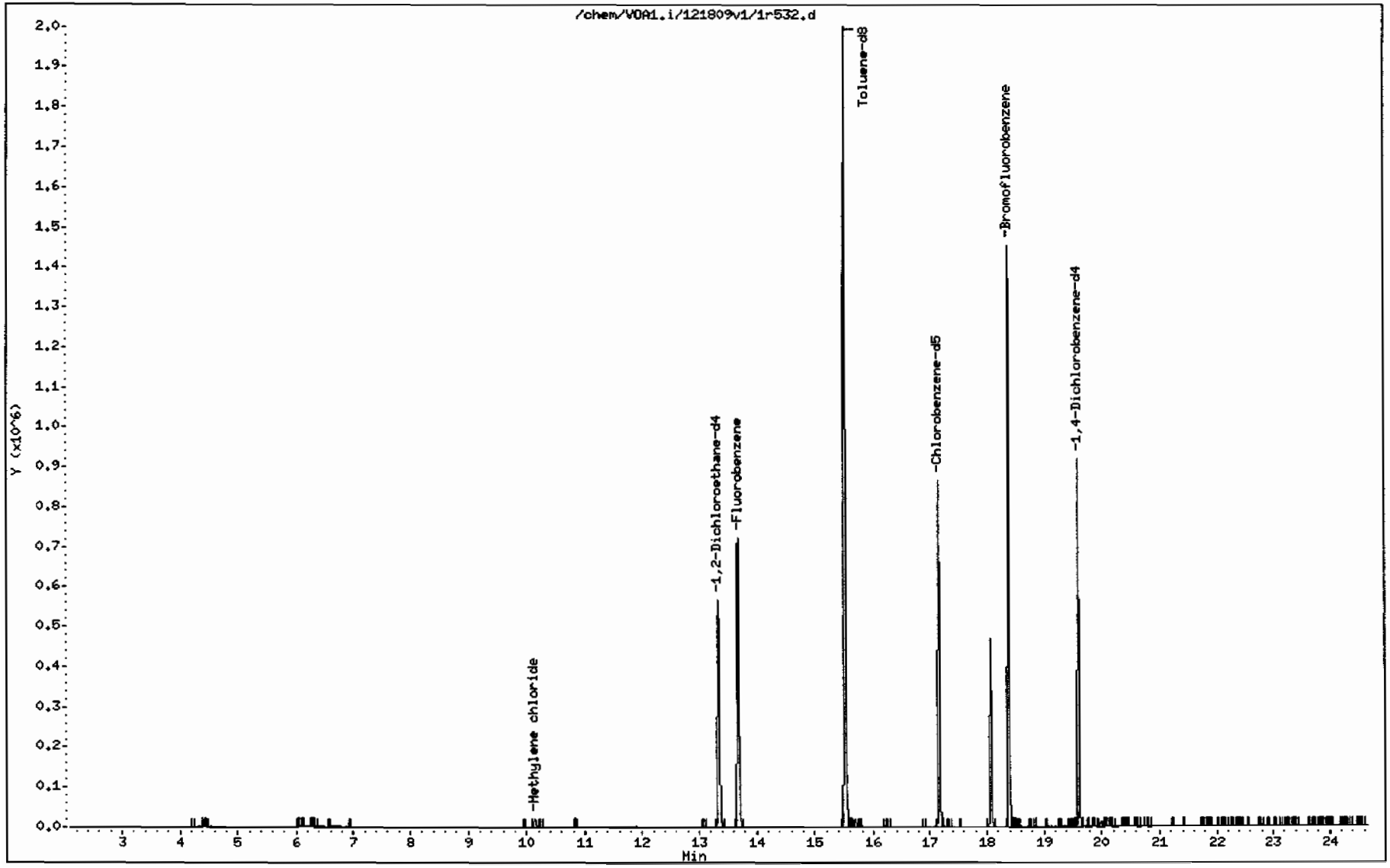

Data File: /chem/VOA1.i/121809v1/1r532.d

Date : 19-DEC-2009 02:23

Client ID: RE03-09-13472

Instrument: VOA1.i

Sample Info: |2427940031934728|1|VOAF|1|

Operator: RXM4

Column phase: RTX-Volatiles

Column diameter: 0.25

23 Methylene chloride

Concentration: 2.2 ug/Kg

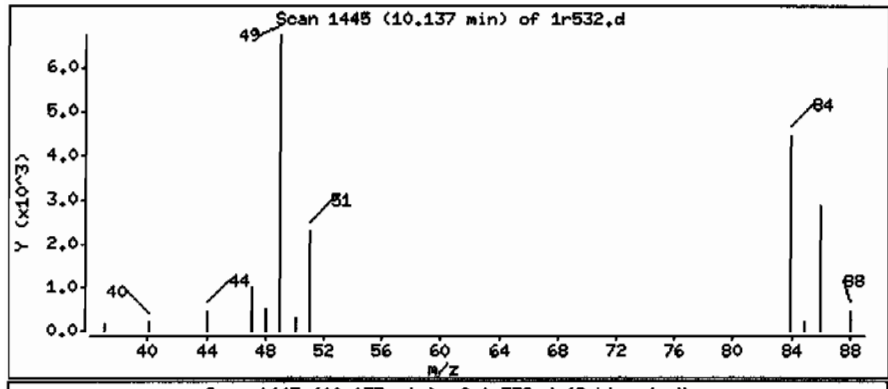

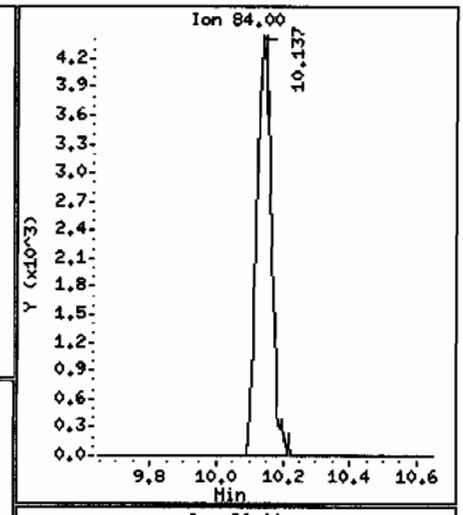

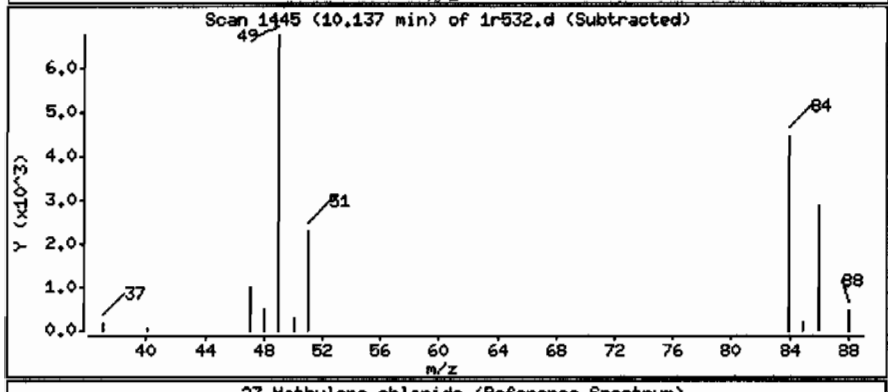

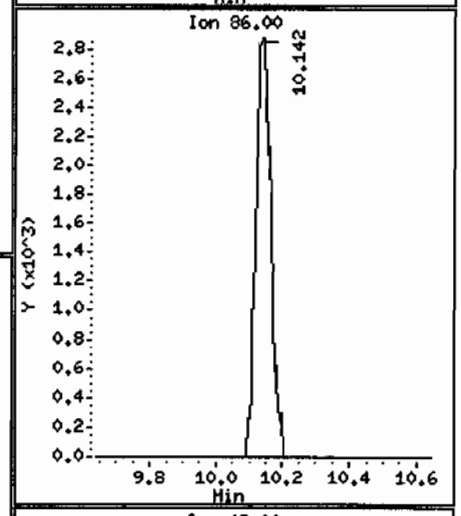

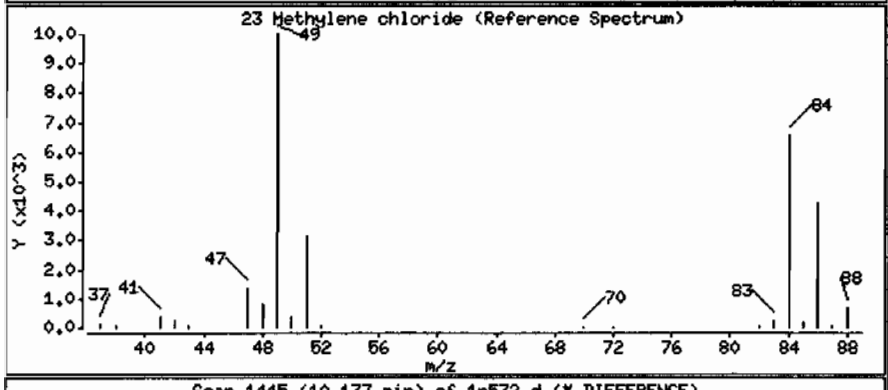

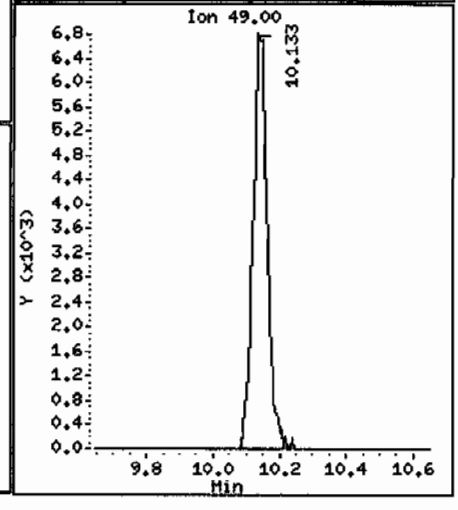

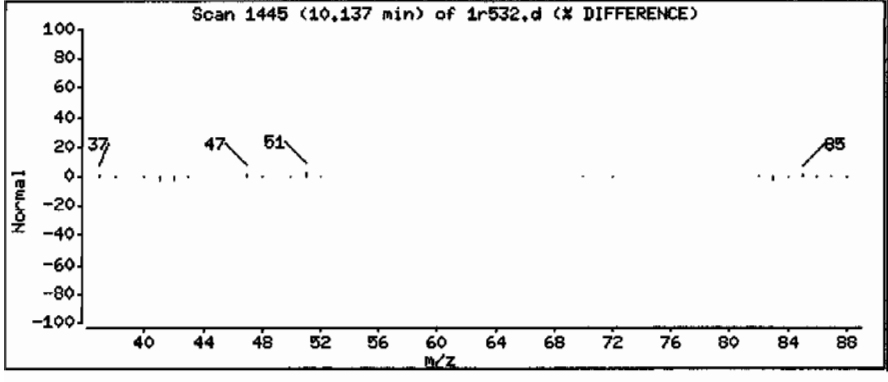

Data File: /chem/VOA1.i/121809v1/1r532.d

Date : 19-DEC-2009 02:23

Client ID: RE03-09-13472

Instrument: VOA1.i

Sample Info: |2427940031934728|1|VOAF|1|

Operator: RXM4

Column phase: RTX-Volatiles

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Hydrocarbon						
Anthracene, 9,10-dihydro-9,10-dimethyl-	22566-43-4	NIST05.L	63100	30	C16H16	208
Trisiloxane, 1,1,3,3,5,5-hexamethyl-	1189-93-1	NIST05.L	63149	27	C6H20O2Si3	208
Benzaldehyde, p-nitro-, dimethylhydrazon	10424-92-7	NIST05.L	52177	25	C9H11N3O2	193

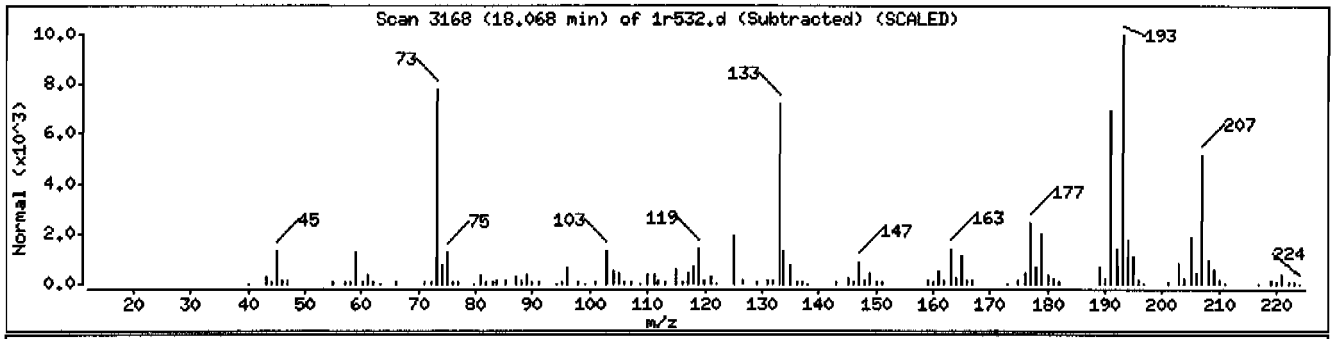

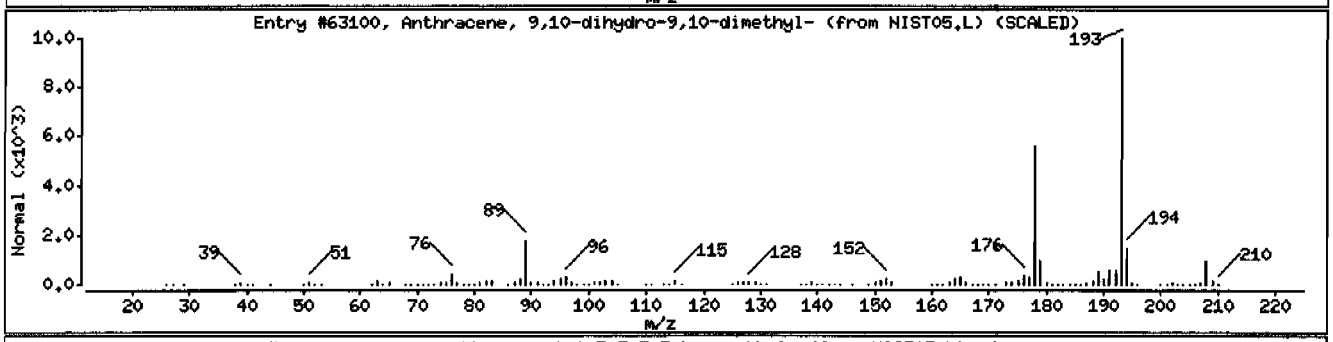

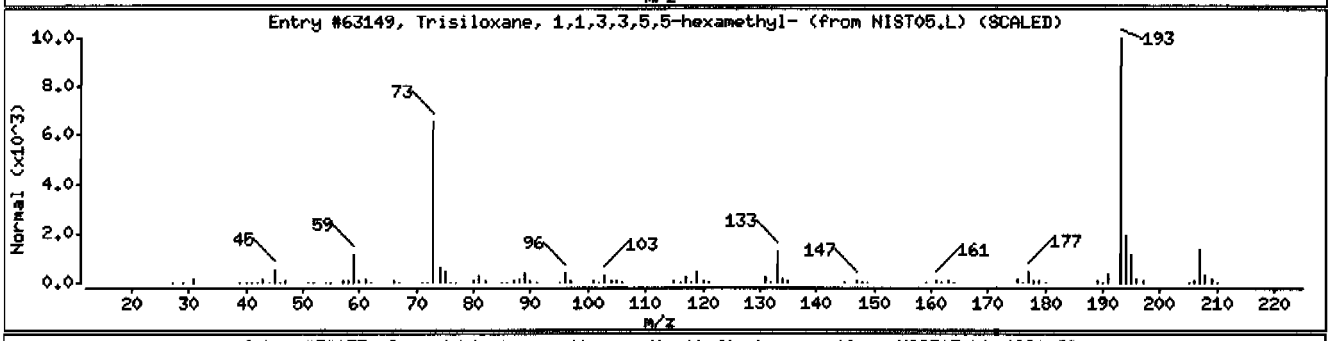

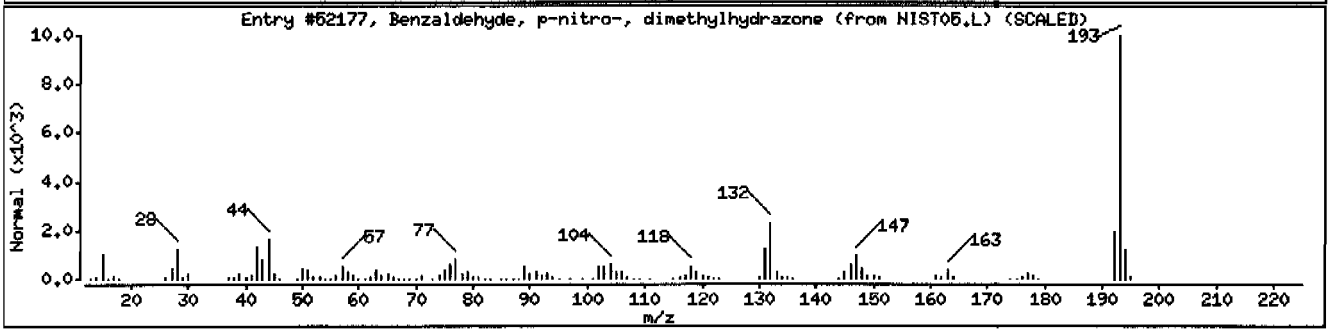

Standard Data

EPA 524.2/Low level SW846 8260B and Regular level 8260B and EPA 624
Calibration Standard Concentration Levels

	Level 1	Level 1a	Level 2	Level 3	Level 4 #	Level 5	Level 6	Level 7 !	Level 7a
Fluorobenzene (IS)									
1,2-Dichloroethane-d4(surr)		0.5	1	2	5	10	20	50	100
Dichlorodifluoromethane		0.5	1	2	5	10	20	50	100
Chloromethane		0.5	1	2	5	10	20	50	100
Vinyl chloride		0.5	1	2	5	10	20	50	100
Bromomethane		0.5	1	2	5	10	20	50	100
Chloroethane		0.5	1	2	5	10	20	50	100
Trichlorofluoromethane		0.5	1	2	5	10	20	50	100
1,1-Dichloroethene		0.5	1	2	5	10	20	50	100
Acetone	1	2.5	5	10	25	50	100	250	500
Iodomethane	1	2.5	5	10	25	50	100	250	500
Carbon disulfide	1	2.5	5	10	25	50	100	250	500
Methylene chloride		0.5	1	2	5	10	20	50	100
trans-1,2-Dichloroethene		0.5	1	2	5	10	20	50	100
1,1-Dichloroethane		0.5	1	2	5	10	20	50	100
Ethyl ether		0.5	1	2	5	10	20	50	100
Vinyl acetate	1	2.5	5	10	25	50	100	250	500
cis-1,2-Dichloroethene		0.5	1	2	5	10	20	50	100
1,2-Dichloroethene (total)		1	2	4	10	20	40	100	200
Cyclohexene		0.5	1	2	5	10	20	50	100
2-Chloroethylvinyl ether			5	10	25	50	100	250	500
2,2-Dichloropropane		0.5	1	2	5	10	20	50	100
2-Butanone	1	2.5	5	10	25	50	100	250	500
Bromochloromethane		0.5	1	2	5	10	20	50	100
Chloroform		0.5	1	2	5	10	20	50	100
1,1,1-Trichloroethane		0.5	1	2	5	10	20	50	100
1,1-Dichloropropene		0.5	1	2	5	10	20	50	100
Carbon tetrachloride		0.5	1	2	5	10	20	50	100
Benzene		0.5	1	2	5	10	20	50	100
1,2-Dichloroethane		0.5	1	2	5	10	20	50	100
Trichloroethene		0.5	1	2	5	10	20	50	100
1,2-Dichloropropane		0.5	1	2	5	10	20	50	100
Dibromomethane		0.5	1	2	5	10	20	50	100
Bromodichloromethane		0.5	1	2	5	10	20	50	100
cis-1,3-Dichloropropene		0.5	1	2	5	10	20	50	100
tert-Butylmethylether		0.5	1	2	5	10	20	50	100
Ethyl Ether			1	2	5	10	20	50	100
Acetonitrile			25	50	125	250	500	1250	2500
Methyl acetate			5	10	25	50	100	250	500
Cyclohexane			1	2	5	10	20	50	100
Methylcyclohexane			1	2	5	10	20	50	100
n-Butyl alcohol			50	100	250	500	1000	2500	5000
2-Nitropropane			5	10	25	50	100	250	500
Ethyl acetate			5	10	25	50	100	250	500
Acrolein			5	10	25	50	100	250	500
Trichlorotrifluoroethane			5	10	25	50	100	250	500
Allyl chloride			5	10	25	50	100	250	500
Acrylonitrile			5	10	25	50	100	250	500
1,4-Dioxane			50	100	250	500	1000	2500	5000
Isobutyl alcohol			50	100	250	500	1000	2500	5000
Methacrylonitrile			5	10	25	50	100	250	500
Propionitrile			5	10	25	50	100	250	500
Methyl methacrylate			5	10	25	50	100	250	500
Chlorotrifluoroethylene			5	10	25	50	100	250	500
2-Chloro-1,1,1-trifluoroethane			5	10	25	50	100	250	500

tert-Butyl alcohol			50	100	250	500	1000	2500	5000
Isopropyl ether			1	2	5	10	20	50	100
Ethyl tert-butyl ether			1	2	5	10	20	50	100
Isopropyl alcohol			50	100	250	500	1000	2500	5000
Methyl tert-amyl ether			1	2	5	10	20	50	100
1-Chlorohexane			1	2	5	10	20	50	100
2-Chloro-1,3-butadiene(chloroprene)			1	2	5	10	20	50	100
Chlorobenzene-d5 (IS)									
Toluene-d8 (surr)		0.5	1	2	5	10	20	50	100
4-Methyl-2-pentanone	1	2.5	5	10	25	50	100	250	500
Toluene		0.5	1	2	5	10	20	50	100
trans-1,3-Dichloropropene		0.5	1	2	5	10	20	50	100
1,1,2-Trichloroethane		0.5	1	2	5	10	20	50	100
Tetrachloroethene		0.5	1	2	5	10	20	50	100
1,3-Dichloropropane		0.5	1	2	5	10	20	50	100
2-Hexanone	1	2.5	5	10	25	50	20	250	500
Dibromochloromethane		0.5	1	2	5	10	20	50	100
1,2-Dibromoethane		0.5	1	2	5	10	20	50	100
Chlorobenzene		0.5	1	2	5	10	20	50	100
1,1,1,2-Tetrachloroethane		0.5	1	2	5	10	20	50	100
Ethylbenzene		0.5	1	2	5	10	20	50	100
m,p-Xylene		1	2	4	10	20	20	100	200
o-Xylene		0.5	1	2	5	10	20	50	100
Xylenes (total)		1.5	3	6	15	30	60	150	300
Stryene		0.5	1	2	5	10	20	50	100
Cyclohexanone			50	100	250	500	1000	2500	5000
Ethyl methacrylate			5	10	25	50	100	250	500
1,4-Dichlorobenzene-d4 (IS)									
Bromofluorobenzene (surr)		0.5	1	2	5	10	20	50	100
Bromoform		0.5	1	2	5	10	20	50	100
Isopropylbenzene		0.5	1	2	5	10	20	50	100
1,1,2,2-Tetrachloroethane		0.5	1	2	5	10	20	50	100
Bromobenzene		0.5	1	2	5	10	20	50	100
1,2,3-Trichloropropane		0.5	1	2	5	10	20	50	100
n-Propylbenzene		0.5	1	2	5	10	20	50	100
2-Chlorotoluene		0.5	1	2	5	10	20	50	100
1,3,5-Trimethylbenzene		0.5	1	2	5	10	20	50	100
4-Chlorotoluene		0.5	1	2	5	10	20	50	100
1,2,4-Trimethylbenzene		0.5	1	2	5	10	20	50	100
sec-Butylbenzene		0.5	1	2	5	10	20	50	100
1,3-Dichlorobenzene		0.5	1	2	5	10	20	50	100
tert-Butylbenzene		0.5	1	2	5	10	20	50	100
Isopropyltoluene		0.5	1	2	5	10	20	50	100
1,4-Dichlorobenzene		0.5	1	2	5	10	20	50	100
n-Butylbenzene		0.5	1	2	5	10	20	50	100
1,2-Dichlorobenzene		0.5	1	2	5	10	20	50	100
1,2-Dibromo-3-chloropropa		0.5	1	2	5	10	20	50	100
1,2,4-Trichlorobenzene		0.5	1	2	5	10	20	50	100
Hexachlorobutadiene		0.5	1	2	5	10	20	50	100
Naphthalene		0.5	1	2	5	10	20	50	100
1,2,3-Trichlorobenzene		0.5	1	2	5	10	20	50	100
cis-1,4-Dichloro-2-butene			5	10	25	50	100	250	500
trans-1,4-Dichloro-2-butene			5	10	25	50	100	250	500
Tetrahydrofuran			5	10	25	50	100	250	500
Pentachloroethane			5	10	25	50	100	250	500
Benzyl chloride			5	10	25	50	100	250	500
bis(2-Chloro-isopropyl)ether			5	10	25	50	100	250	500

Report Date: 21-Dec-2009 13:41

Calibration History

Method : /chem/VOA1.i/122109v1/VOA1-8260ox-121709.m
Start Cal Date: 17-DEC-2009 13:26
End Cal Date : 17-DEC-2009 21:57

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 1.00000		
17-DEC-2009 18:56	CALsubS+SS	/chem/VOA1.i/121709v1/1r420.d
17-DEC-2009 14:26	CALsubL+	/chem/VOA1.i/121709v1/1r411.d
Cal Level: 2 , Cal Amount: 2.00000		
17-DEC-2009 19:26	CALsubS+SS	/chem/VOA1.i/121709v1/1r421.d
17-DEC-2009 15:27	CALsubL+	/chem/VOA1.i/121709v1/1r413.d
Cal Level: 3 , Cal Amount: 5.00000		
17-DEC-2009 19:56	CALsubS+SS	/chem/VOA1.i/121709v1/1r422.d
17-DEC-2009 15:57	CALsubL+	/chem/VOA1.i/121709v1/1r414.d
Cal Level: 4 , Cal Amount: 10.00000		
17-DEC-2009 20:27	CALsubS+SS	/chem/VOA1.i/121709v1/1r423.d
17-DEC-2009 16:26	CALsubL+	/chem/VOA1.i/121709v1/1r415.d
Cal Level: 5 , Cal Amount: 20.00000		
17-DEC-2009 20:57	CALsubS+SS	/chem/VOA1.i/121709v1/1r424.d
17-DEC-2009 16:56	CALsubL+	/chem/VOA1.i/121709v1/1r416.d
Cal Level: 6 , Cal Amount: 50.00000		
17-DEC-2009 21:27	CALsubS+SS	/chem/VOA1.i/121709v1/1r425.d
17-DEC-2009 17:26	CALsubL+	/chem/VOA1.i/121709v1/1r417.d
Cal Level: 7 , Cal Amount: 100.00000		
17-DEC-2009 21:57	CALsubS+SS	/chem/VOA1.i/121709v1/1r426.d
17-DEC-2009 17:56	CALsubL+	/chem/VOA1.i/121709v1/1r418.d
Cal Level: 8 , Cal Amount: 200.00000		
17-DEC-2009 13:26	BENZENE+	/chem/VOA1.i/121709v1/1r409.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 6

```
| Ccal Level: 6 , Ccal Amount: 50.0                                                |
+==================================================================================+
|21-DEC-2009 12:49 |CALsubL+          |/chem/VOA1.i/122109v1/1s106.d               |
+------------------+-----------------+-----------------------------------------+
| Ccal Level: 6 , Ccal Amount: 50.0                                                |
+==================================================================================+
|21-DEC-2009 13:19 |CALsubS+SS        |/chem/VOA1.i/122109v1/1s107.d               |
+------------------+-----------------+-----------------------------------------+
| Ccal Level: 6 , Ccal Amount: 50.0                                                |
+==================================================================================+
|21-DEC-2009 11:39 |CALsubL+          |/chem/VOA1.i/122109v1/1s106.d               |
+------------------+-----------------+-----------------------------------------+
| Ccal Level: 6 , Ccal Amount: 50.0                                                |
+==================================================================================+
|21-DEC-2009 09:42 |CALsubL+          |/chem/VOA1.i/122109v1/1s104.d               |
+------------------+-----------------+-----------------------------------------+
| Ccal Level: 6 , Ccal Amount: 50.0                                                |
+==================================================================================+
|21-DEC-2009 07:44 |CALsubL+          |/chem/VOA1.i/122109v1/1s101.d               |
+------------------+-----------------+-----------------------------------------+
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GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 17-DEC-2009 13:26
End Cal Date : 17-DEC-2009 21:57
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/VOA1.i/122109v1/VOA1-8260ox-121709.m
Cal Date : 21-Dec-2009 13:40 ron01469

Calibration File Names:
Level 1: /chem/VOA1.i/121709v1/1r420.d
Level 2: /chem/VOA1.i/121709v1/1r421.d
Level 3: /chem/VOA1.i/121709v1/1r422.d
Level 4: /chem/VOA1.i/121709v1/1r423.d
Level 5: /chem/VOA1.i/121709v1/1r424.d
Level 6: /chem/VOA1.i/121709v1/1r425.d
Level 7: /chem/VOA1.i/121709v1/1r426.d
Level 8: /chem/VOA1.i/121709v1/1r409.d

Compound	1 Level 1	2 Level 2	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	200 Level 8									
M 1 Xylenes (total)	0.94993	0.96986	1.04684	0.90933	1.06190	1.03526					
	1.06685	+++++					AVRG		1.00571		6.17553
M 2 1,2-Dichloroethylene (total)	0.39459	0.39809	0.41845	0.36222	0.42047	0.42125					
	0.43750	+++++					AVRG		0.40751		6.07880
M 3 1,3-Dichloropropylene	0.79149	0.76022	0.87890	0.81655	0.94687	0.96481					
	1.03716	+++++					AVRG		0.88514		11.51985
4 Chlorotrifluoroethylene	17314	61906	95503	209513	408505	655803					
	880678	+++++					LINR	0.03423	0.22684		0.99712
5 Dichlorodifluoromethane	4634	11507	35600	44395	86248	277079					
	567930	+++++					LINR	0.00522	0.28418		0.99905

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 17-DEC-2009 13:26
End Cal Date : 17-DEC-2009 21:57
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/VOA1.i/122109v1/VOA1-8260ox-121709.m
Cal Date : 21-Dec-2009 13:40 ron01469

Compound	1 Level 1	2 Level 2	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	200 Level 8									
6 Chloromethane	0.48851	0.54050	0.55024	0.44982	0.52271	0.54415					
	0.54196	+++++					AVRG		0.51970		7.16663
7 Vinyl chloride	0.47524	0.47673	0.45732	0.35896	0.42278	0.41726					
	0.41654	+++++					AVRG		0.43212		9.63059
8 2-Chloro-1,1,1-trifluoroethan	+++++	127797	215500	434110	811927	1347525					
	1771053	+++++					LINR	0.01494	0.45635		0.99554
9 Bromomethane	0.28304	0.29746	0.29450	0.24489	0.29091	0.28413					
	0.27975	+++++					AVRG		0.28210		6.24594
10 Chloroethane	0.29181	0.30650	0.30544	0.26230	0.31984	0.31793					
	0.30933	+++++					AVRG		0.30188		6.53784
11 Trichlorofluoromethane	0.41202	0.43953	0.45287	0.39013	0.45602	0.49371					
	0.48982	+++++					AVRG		0.44774		8.47489
12 Ethyl Ether	0.38139	0.40440	0.35425	0.33145	0.38356	0.37554					
	0.38665	+++++					AVRG		0.37389		6.39761
13 Acrolein	0.06484	0.07110	0.06960	0.07066	0.06970	0.07601					
	0.07601	+++++					AVRG		0.07113		5.49913
14 Trichlorotrifluoroethane	0.31728	0.28283	0.30430	0.31273	0.26693	0.29034					
	0.30209	+++++					AVRG		0.29664		5.97728

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 17-DEC-2009 13:26
End Cal Date : 17-DEC-2009 21:57
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/VOA1.i/122109v1/VOA1-8260ox-121709.m
Cal Date : 21-Dec-2009 13:40 ron01469

Compound	1 Level 1 100 Level 7	2 Level 2 200 Level 8	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
15 1,1-Dichloroethylene	0.65853	0.69826	0.73125	0.60544	0.70006	0.73825					
	0.76533	+++++					AVRG		0.69959		7.69093
16 Acetone	0.33125	0.28405	0.28838	0.28737	0.31028	0.30716					
	0.30886	+++++					AVRG		0.30248		5.59423
17 Isopropyl Alcohol	+++++	64668	116421	230606	462328	1308642					
	2563752	+++++					LINR	1.83876	0.02704		0.99372
18 Iodomethane	0.54837	0.54749	0.58063	0.50333	0.57106	0.56342					
	0.56625	+++++					AVRG		0.55436		4.58673
19 Carbon disulfide	1.04837	1.13754	1.19034	1.00430	1.16007	1.18939					
	1.23769	+++++					AVRG		1.13824		7.32542
20 Allyl chloride	7872	16357	54830	122945	239242	782349					
	1746543	+++++					LINR	0.29193	0.18284		0.99540
21 Methyl acetate	0.30480	0.26240	0.29161	0.27818	0.30010	0.29235					
	0.29241	+++++					AVRG		0.28883		4.95183
22 Acetonitrile	0.05118	0.04733	0.04993	0.04960	0.05166	0.04925					
	0.04992	+++++					AVRG		0.04984		2.81887
23 Methylene chloride	+++++	26319	53903	88749	140147	424848					
	921999	+++++					LINR	-0.00189	0.45451		0.99942

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 17-DEC-2009 13:26
End Cal Date : 17-DEC-2009 21:57
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/VOA1.i/122109v1/VOA1-8260ox-121709.m
Cal Date : 21-Dec-2009 13:40 ron01469

Compound	1 Level 1 100 Level 7	2 Level 2 200 Level 8	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
24 tert-Butyl Alcohol	36962	107148	188587	384290	775596	2176446					
	4204060	++++++					LINR	1.31682	0.04416		0.99435
25 tert-Butyl methyl ether	1.06428	1.09533	1.10199	1.08828	1.14951	1.13923					
	1.21507	++++++					AVRG		1.12196		4.49998
26 trans-1,2-Dichloroethylene	0.37150	0.37356	0.40077	0.34641	0.39809	0.40670					
	0.41945	++++++					AVRG		0.38807		6.49551
27 Acrylonitrile	0.13879	0.14421	0.14079	0.14300	0.13986	0.14918					
	0.14607	++++++					AVRG		0.14313		2.57275
28 Isopropyl ether	++++++	86054	143189	299636	589102	1525953					
	3114768	++++++					LINR	0.00936	1.61143		0.99953
29 Vinyl acetate	0.65280	0.62757	0.65723	0.69621	0.76396	0.72816					
	0.70592	++++++					AVRG		0.69026		6.89003
30 1,1-Dichloroethane	0.77767	0.75144	0.79985	0.69776	0.80088	0.80133					
	0.82728	++++++					AVRG		0.77946		5.51864
31 2-Chloro-1,3-butadiene	0.53856	0.49255	0.57665	0.63047	0.56687	0.66611					
	0.71558	++++++					AVRG		0.59811		12.87774
32 Ethyl tert-butyl ether	++++++	75681	125441	264555	516269	1389733					
	2866711	++++++					LINR	0.01815	1.48731		0.99916

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 17-DEC-2009 13:26
End Cal Date : 17-DEC-2009 21:57
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/VOA1.i/122109v1/VOA1-8260ox-121709.m
Cal Date : 21-Dec-2009 13:40 ron01469

Compound	1 Level 1	2 Level 2	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	200 Level 8									
33 2,2-Dichloropropane	0.44340	0.43999	0.44785	0.39838	0.48384	0.48070					
	0.48654	+++++					AVRG		0.45439		7.01801
34 Ethyl acetate	0.39622	0.37301	0.34819	0.35996	0.34694	0.36845					
	0.35650	+++++					AVRG		0.36418		4.69288
35 2-Butanone	0.32498	0.29983	0.31772	0.32315	0.35854	0.37774					
	0.36734	+++++					AVRG		0.33847		8.62874
36 cis-1,2-Dichloroethylene	0.41768	0.42262	0.43613	0.37802	0.44285	0.43580					
	0.45555	+++++					AVRG		0.42695		5.84097
37 Propionitrile	0.05471	0.05478	0.05443	0.05651	0.05444	0.05843					
	0.05690	+++++					AVRG		0.05574		2.79347
38 Tetrahydrofuran	0.33776	0.31409	0.31712	0.32320	0.30804	0.32423					
	0.30668	+++++					AVRG		0.31873		3.37891
39 Bromochloromethane	0.16937	0.18243	0.18561	0.17346	0.18913	0.18835					
	0.19783	+++++					AVRG		0.18374		5.28387
40 Methacrylonitrile	0.28749	0.28017	0.27957	0.29144	0.27868	0.29282					
	0.28296	+++++					AVRG		0.28473		2.05414
41 Chloroform	0.73934	0.75629	0.78313	0.67523	0.77565	0.78273					
	0.80194	+++++					AVRG		0.75919		5.55664

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 17-DEC-2009 13:26
End Cal Date : 17-DEC-2009 21:57
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/VOA1.i/122109v1/VOA1-8260ox-121709.m
Cal Date : 21-Dec-2009 13:40 ron01469

Compound	1 Level 1	2 Level 2	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	200 Level 8									
42 Cyclohexane	0.71265	0.69334	0.75433	0.63572	0.76413	0.79603					
	0.79977	+++++					AVRG		0.73657		8.07311
43 1,1,1-Trichloroethane	0.48350	0.49398	0.51618	0.44034	0.54030	0.53477					
	0.53794	+++++					AVRG		0.50672		7.24428
44 Carbon tetrachloride	0.46456	0.47955	0.50223	0.44108	0.53314	0.54219					
	0.54465	+++++					AVRG		0.50106		8.15336
45 1,1-Dichloropropene	0.52226	0.53493	0.57439	0.47763	0.58059	0.59363					
	0.60749	+++++					AVRG		0.55585		8.28750
46 Isobutyl alcohol	0.01217	0.01218	0.01260	0.01292	0.01020	0.01420					
	0.01342	+++++					AVRG		0.01253		10.00060
47 Benzene	1.63393	1.59398	1.70750	1.44978	1.70316	1.69875					
	1.73137	1.46121					AVRG		1.62246		6.91797
49 Methyl tert-amyl ether	+++++	62439	104740	221271	432966	1170797					
	2409070	+++++					LINR	0.01872	1.25082		0.99919
50 Cyclohexene	0.54435	0.53848	0.59015	0.49810	0.59826	0.60785					
	0.61552	+++++					AVRG		0.57039		7.68467
51 1,2-Dichloroethane	0.60710	0.60440	0.60894	0.55428	0.61814	0.59887					
	0.61173	+++++					AVRG		0.60049		3.53687

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 17-DEC-2009 13:26
End Cal Date : 17-DEC-2009 21:57
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/VOA1.i/122109v1/VOA1-8260ox-121709.m
Cal Date : 21-Dec-2009 13:40 ron01469

Compound	1 Level 1	2 Level 2	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	200 Level 8									
53 n-Butyl alcohol	17909	31598	93677	213836	355810	1166468					
	2504807	+++++					LINR	4.05023	0.01261		0.99621
54 Trichloroethylene	0.40162	0.40745	0.43496	0.36932	0.42004	0.43163					
	0.44230	+++++					AVRG		0.41533		6.03300
55 Methylcyclohexane	0.62627	0.65054	0.68846	0.59693	0.71382	0.73247					
	0.74367	+++++					AVRG		0.67889		8.21544
56 Methyl methacrylate	0.22886	0.23546	0.23690	0.25298	0.24564	0.26211					
	0.25565	+++++					AVRG		0.24537		4.95406
57 1,2-Dichloropropane	0.42618	0.42979	0.45262	0.40054	0.46037	0.46437					
	0.48246	+++++					AVRG		0.44519		6.24287
58 1,4-Dioxane	0.00358	0.00330	0.00348	0.00358	0.00336	0.00371					
	0.00357	+++++					AVRG		0.00351		4.06886
59 Dibromomethane	0.26029	0.24224	0.24588	0.23433	0.25880	0.25261					
	0.26232	+++++					AVRG		0.25093		4.17690
60 Bromodichloromethane	0.50926	0.51863	0.55953	0.51519	0.58920	0.60255					
	0.62066	+++++					AVRG		0.55929		8.20411
61 2-Chloroethylvinyl ether	3320	6654	16837	44891	72737	+++++					
	+++++	+++++					LINR	0.08117	0.04822		0.99689

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 17-DEC-2009 13:26
End Cal Date : 17-DEC-2009 21:57
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/VOA1.i/122109v1/VOA1-8260ox-121709.m
Cal Date : 21-Dec-2009 13:40 ron01469

Compound	1 Level 1 100 Level 7	2 Level 2 200 Level 8	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
62 2-Nitropropane	7070	14240	41325	90077	194039	547484					
	1089774	+++++					LINR	0.12959	0.11432		0.99946
63 cis-1,3-Dichloropropylene	0.58612	0.56484	0.64871	0.59482	0.69712	0.72465					
	0.75586	+++++					AVRG		0.65317		11.40645
64 4-Methyl-2-pentanone	0.21479	0.20124	0.23607	0.23812	0.26615	0.28741					
	0.26603	+++++					AVRG		0.24426		12.54972
66 Toluene	1.46521	1.42863	1.49665	1.27740	1.49413	1.48160					
	1.53694	+++++					AVRG		1.45437		5.82264
67 Ethyl methacrylate	0.62982	0.65076	0.67701	0.72386	0.70269	0.72791					
	0.69966	+++++					AVRG		0.68739		5.35198
68 trans-1,3-Dichloropropylene	0.76770	0.71716	0.82801	0.78620	0.90451	0.92116					
	0.99882	+++++					AVRG		0.84622		11.72419
69 1,1,2-Trichloroethane	0.38168	0.40632	0.41313	0.40400	0.43605	0.42541					
	0.44735	+++++					AVRG		0.41628		5.27381
70 Tetrachloroethylene	0.47569	0.43289	0.45867	0.37578	0.45285	0.44838					
	0.45872	+++++					AVRG		0.44329		7.31567
71 2-Hexanone	0.56340	0.54183	0.59354	0.60315	0.68692	0.72227					
	0.65208	+++++					AVRG		0.62331		10.59929

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 17-DEC-2009 13:26
End Cal Date : 17-DEC-2009 21:57
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/VOA1.i/122109v1/VOA1-8260ox-121709.m
Cal Date : 21-Dec-2009 13:40 ron01469

Compound	1 Level 1	2 Level 2	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	200 Level 8									
72 1,3-Dichloropropane	0.88365	0.83969	0.89719	0.82861	0.92961	0.88191					
	0.92565	+++++					AVRG		0.88376		4.38841
73 Dibromochloromethane	0.45877	0.47737	0.51711	0.48955	0.55570	0.55863					
	0.60098	+++++					AVRG		0.52259		9.81166
74 1,2-Dibromoethane	0.45115	0.44054	0.45840	0.43614	0.49979	0.48669					
	0.51336	+++++					AVRG		0.46944		6.47729
75 1-Chlorohexane	+++++	0.63060	0.44690	0.47806	0.44136	0.48274					
	0.48848	+++++					AVRG		0.49469		14.02193
77 Chlorobenzene	1.47658	1.48489	1.58303	1.39069	1.59300	1.52504					
	1.58393	+++++					AVRG		1.51959		4.89898
78 Ethylbenzene	2.73939	2.65894	2.87432	2.49270	2.95069	2.86045					
	2.93464	+++++					AVRG		2.78731		5.98339
79 1,1,1,2-Tetrachloroethane	0.46710	0.47705	0.50032	0.46956	0.54220	0.53154					
	0.56441	+++++					AVRG		0.50746		7.66003
80 m,p-Xylenes	0.96338	0.99443	1.06188	0.91699	1.06459	1.03480					
	1.06400	+++++					AVRG		1.01430		5.71156
81 o-Xylene	0.92296	0.92068	1.01675	0.89402	1.05652	1.03617					
	1.07254	+++++					AVRG		0.98852		7.45436

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 17-DEC-2009 13:26
End Cal Date : 17-DEC-2009 21:57
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/VOA1.i/122109v1/VOA1-8260ox-121709.m
Cal Date : 21-Dec-2009 13:40 ron01469

Compound	1 Level 1 100 Level 7	2 Level 2 200 Level 8	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
82 Styrene	1.46715	1.50616	1.68975	1.53152	1.79110	1.79165					
	1.86481	+++++					AVRG		1.66316		9.65274
83 Bromoform	4145	7916	21098	44307	78595	249234					
	535740	+++++					LINR	0.02680	0.72529		0.99945
84 Isopropylbenzene	4.68173	4.56078	4.98694	4.23435	5.31092	5.26026					
	5.48304	+++++					AVRG		4.93116		9.23797
85 cis-1,4-Dichloro-2-butene	0.34725	0.34844	0.37013	0.38870	0.38152	0.41058					
	0.40570	+++++					AVRG		0.37890		6.66885
86 Cyclohexanone	0.06763	0.06943	0.06963	0.07265	0.07578	0.08184					
	+++++	+++++					AVRG		0.07283		7.23346
88 1,1,2,2-Tetrachloroethane	1.22461	1.05159	1.10817	1.13584	1.24257	1.24947					
	1.30412	+++++					AVRG		1.18805		7.62833
89 n-Propylbenzene	5.91393	5.84477	6.21942	5.20861	6.52547	6.56652					
	6.67002	+++++					AVRG		6.13555		8.47755
90 trans-1,4-Dichloro-2-butene	0.31943	0.33408	0.34483	0.36424	0.35879	0.38701					
	0.38138	+++++					AVRG		0.35568		6.90918
91 Bromobenzene	1.21267	1.14263	1.17695	1.03606	1.22066	1.19524					
	1.25396	+++++					AVRG		1.17689		6.05681

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 17-DEC-2009 13:26
End Cal Date : 17-DEC-2009 21:57
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/VOA1.i/122109v1/VOA1-8260ox-121709.m
Cal Date : 21-Dec-2009 13:40 ron01469

Compound	1 Level 1	2 Level 2	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	200 Level 8									
92 1,2,3-Trichloropropane	0.29455	0.30883	0.31100	0.28319	0.31857	0.31270					
	0.32356	+++++					AVRG		0.30749		4.56037
93 1,3,5-Trimethylbenzene	3.92739	4.01597	4.40384	3.75330	4.56192	4.61175					
	4.71321	+++++					AVRG		4.28393		8.85710
94 2-Chlorotoluene	4.18989	4.13985	4.38991	3.70327	4.45640	4.42540					
	4.59915	+++++					AVRG		4.27200		6.93154
95 4-Chlorotoluene	3.74203	3.75004	3.94133	3.30902	4.02416	4.08453					
	4.23945	+++++					AVRG		3.87008		7.87164
96 tert-Butylbenzene	3.19861	3.62558	3.54064	3.03120	3.64733	3.76217					
	3.79753	+++++					AVRG		3.51473		8.25774
97 1,2,4-Trimethylbenzene	4.14843	4.08556	4.56169	3.88972	4.69789	4.73207					
	4.85492	+++++					AVRG		4.42433		8.50973
98 Pentachloroethane	0.37983	0.43833	0.41420	0.49680	0.33943	0.45190					
	0.42032	+++++					AVRG		0.42012		12.05499
99 sec-Butylbenzene	5.25649	5.29490	5.79412	4.90035	5.96681	6.06611					
	6.14338	+++++					AVRG		5.63174		8.51047
100 4-Isopropyltoluene	3.88557	3.91207	4.39734	3.76386	4.59180	4.64160					
	4.70377	+++++					AVRG		4.27087		9.45328

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 17-DEC-2009 13:26
End Cal Date : 17-DEC-2009 21:57
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/VOA1.i/122109v1/VOA1-8260ox-121709.m
Cal Date : 21-Dec-2009 13:40 ron01469

Compound	1 Level 1 100 Level 7	2 Level 2 200 Level 8	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
101 1,3-Dichlorobenzene	2.26506	2.22860	2.34003	2.03460	2.38750	2.32771					
	2.42644	+++++					AVRG		2.28714		5.68973
103 1,4-Dichlorobenzene	2.37087	2.32322	2.31533	2.06880	2.41564	2.35216					
	2.47272	+++++					AVRG		2.33126		5.49170
104 Benzyl chloride	1.65395	1.74973	1.88958	2.06407	2.04500	2.19972					
	2.09266	+++++					AVRG		1.95639		10.13450
105 n-Butylbenzene	4.15554	4.15464	4.58993	3.92961	4.86897	4.90702					
	5.03734	+++++					AVRG		4.52044		9.72247
106 1,2-Dichlorobenzene	2.14225	2.09966	2.15610	1.96170	2.27666	2.24067					
	2.33585	+++++					AVRG		2.17328		5.73161
107 bis(2-Chloroisopropyl)ether	0.35444	0.44472	0.43116	0.46324	0.47339	0.53988					
	0.49699	+++++					AVRG		0.45769		12.64882
108 1,2-Dibromo-3-chloropropane	1016	1990	5799	13390	22261	73669					
	168000	+++++					LINR	0.04224	0.22710		0.99776
109 1,2,4-Trichlorobenzene	1.26932	1.11504	1.11692	1.07128	1.28838	1.22946					
	1.47355	+++++					AVRG		1.22343		11.32460
110 Hexachlorobutadiene	0.77567	0.75620	0.80958	0.72497	0.86849	0.86453					
	0.92769	+++++					AVRG		0.81816		8.79706

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 17-DEC-2009 13:26
End Cal Date : 17-DEC-2009 21:57
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/VOA1.i/122109v1/VOA1-8260ox-121709.m
Cal Date : 21-Dec-2009 13:40 ron01469

Compound	1 Level 1	2 Level 2	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	200 Level 8									
111 Naphthalene	18385	27302	69676	156979	280194	848437					
	2078041	+++++					LINR	0.04766	2.79235		0.99432
112 1,2,3-Trichlorobenzene	1.03792	0.79225	0.80520	0.83009	1.04491	0.85728					
	1.03151	+++++					AVRG		0.91418		12.88453
$ 48 1,2-Dichloroethane-d4	0.55185	0.60209	0.58068	0.60294	0.59083	0.66971					
	0.58381	+++++					AVRG		0.59741		6.05981
$ 65 Toluene-d8	2.45092	2.87365	2.77552	2.90697	2.85289	2.80136					
	2.83664	+++++					AVRG		2.78542		5.52258
$ 87 Bromofluorobenzene	1.76335	2.01859	2.01923	2.10724	1.99625	2.04053					
	2.06272	+++++					AVRG		2.00113		5.54217

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 17-DEC-2009 13:26
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Quant Method : ISTD
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Integrator : HP RTE
Method file : /chem/VOA1.i/122109v1/VOA1-8260ox-121709.m
Cal Date : 21-Dec-2009 13:40 ron01469

Curve	Formula	Units
Averaged	Amt = Rsp/ml	Response
Linear	Amt = b + Rsp/ml	Response

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA1.i Injection Date: 17-DEC-2009 22:57
Lab File ID: 1r428.d Init. Cal. Date(s): 17-DEC-2009 17-DEC-2009
Analysis Type: WATER Init. Cal. Times: 13:26 21:57
Lab Sample ID: W1VM091217-18 Quant Type: ISTD
Method: /chem/VOA1.i/121709v1/VOA1-8260ox-121709.m

	COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
M	1 Xylenes (total)	1.00571	1.08274	1.08274	0.050	7.65971	30.00000	Averaged	
M	2 1,2-Dichloroethylene (total	0.40751	0.42827	0.42827	0.050	5.09444	30.00000	Averaged	
M	3 1,3-Dichloropropylene	0.88514	1.01603	1.01603	0.050	14.78691	30.00000	Averaged	
	5 Dichlorodifluoromethane	44.17390	50.00000	0.24958	0.050	-11.65221	30.00000	Linear	
	6 Chloromethane	0.51970	0.48595	0.48595	0.100	-6.49415	30.00000	Averaged	spcc
	7 Vinyl chloride	0.43212	0.40394	0.40394	0.050	-6.51979	20.00000	Averaged	ccc
	9 Bromomethane	0.28210	0.28119	0.28119	0.050	-0.32083	30.00000	Averaged	
	10 Chloroethane	0.30188	0.30482	0.30482	0.050	0.97392	30.00000	Averaged	
	11 Trichlorofluoromethane	0.44773	0.47946	0.47946	0.050	7.08587	30.00000	Averaged	
	12 Ethyl Ether	0.37389	0.38351	0.38351	0.010	2.57247	30.00000	Averaged	
	16 Acetone	0.30248	0.28929	0.28929	0.000	-4.36166	40.00000	Averaged	
	22 Acetonitrile	0.04984	0.05445	0.05445	0.010	9.26527	30.00000	Averaged	
	15 1,1-Dichloroethylene	0.69959	0.69867	0.69867	0.050	-0.13124	20.00000	Averaged	ccc
	21 Methyl acetate	0.28883	0.31596	0.31596	0.010	9.39216	40.00000	Averaged	
	18 Iodomethane	0.55436	0.55775	0.55775	0.050	0.61108	30.00000	Averaged	
	23 Methylene chloride	49.74003	50.00000	0.45301	0.000	-0.51994	30.00000	Linear	
	19 Carbon disulfide	1.13824	1.18438	1.18438	0.050	4.05313	30.00000	Averaged	
	25 tert-Butyl methyl ether	1.12196	1.20960	1.20960	0.050	7.81191	30.00000	Averaged	
	26 trans-1,2-Dichloroethylene	0.38807	0.40463	0.40463	0.050	4.26889	30.00000	Averaged	
	29 Vinyl acetate	0.69026	0.78885	0.78885	0.010	14.28310	40.00000	Averaged	
	30 1,1-Dichloroethane	0.77946	0.80732	0.80732	0.100	3.57386	30.00000	Averaged	spcc
	35 2-Butanone	0.33847	0.33028	0.33028	0.030	-2.41926	40.00000	Averaged	
	36 cis-1,2-Dichloroethylene	0.42695	0.45191	0.45191	0.050	5.84534	30.00000	Averaged	
	33 2,2-Dichloropropane	0.45439	0.47156	0.47156	0.050	3.78034	30.00000	Averaged	
	41 Chloroform	0.75919	0.80022	0.80022	0.010	5.40526	20.00000	Averaged	ccc
	39 Bromochloromethane	0.18374	0.20003	0.20003	0.010	8.86726	30.00000	Averaged	
	43 1,1,1-Trichloroethane	0.50671	0.53061	0.53061	0.010	4.71555	30.00000	Averaged	
	42 Cyclohexane	0.73657	0.77955	0.77955	0.010	5.83609	30.00000	Averaged	
	45 1,1-Dichloropropene	0.55584	0.60113	0.60113	0.010	8.14672	30.00000	Averaged	
	53 n-Butyl alcohol	5603	5000	0.01362	0.001	12.05240	40.00000	Linear	
	44 Carbon tetrachloride	0.50106	0.53826	0.53826	0.010	7.42421	30.00000	Averaged	
$	48 1,2-Dichloroethane-d4	0.59741	0.65263	0.65263	0.010	9.24242	30.00000	Averaged	
	51 1,2-Dichloroethane	0.60049	0.62546	0.62546	0.010	4.15714	30.00000	Averaged	
	47 Benzene	1.62246	1.71937	1.71937	0.010	5.97318	30.00000	Averaged	
	50 Cyclohexene	0.57039	0.58842	0.58842	0.010	3.16148	30.00000	Averaged	

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA1.i
Lab File ID: 1r428.d
Analysis Type: WATER
Lab Sample ID: W1VM091217-18
Method: /chem/VOA1.i/121709v1/VOA1-8260ox-121709.m

Injection Date: 17-DEC-2009 22:57
Init. Cal. Date(s): 17-DEC-2009 17-DEC-2009
Init. Cal. Times: 13:26 21:57
Quant Type: ISTD

COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
54 Trichloroethylene	0.41533	0.44171	0.44171	0.010	6.35017	30.00000	Averaged	
57 1,2-Dichloropropane	0.44519	0.48303	0.48303	0.010	8.49895	20.00000	Averaged	ccc
55 Methylcyclohexane	0.67888	0.73751	0.73751	0.010	8.63596	30.00000	Averaged	
60 Bromodichloromethane	0.55929	0.62904	0.62904	0.010	12.47140	30.00000	Averaged	
59 Dibromomethane	0.25092	0.26506	0.26506	0.010	5.63271	30.00000	Averaged	
61 2-Chloroethylvinyl ether	455	250	0.08699	0.000	82.02379	30.00000	Linear	<-
64 4-Methyl-2-pentanone	0.24426	0.26174	0.26174	0.010	7.15811	40.00000	Averaged	
63 cis-1,3-Dichloropropylene	0.65316	0.74796	0.74796	0.010	14.51395	30.00000	Averaged	
$ 65 Toluene-d8	2.78542	3.07353	3.07353	0.010	10.34355	30.00000	Averaged	
66 Toluene	1.45437	1.53247	1.53247	0.010	5.37034	20.00000	Averaged	ccc
68 trans-1,3-Dichloropropylene	0.84622	0.98007	0.98007	0.010	15.81730	30.00000	Averaged	
69 1,1,2-Trichloroethane	0.41628	0.45507	0.45507	0.010	9.31814	30.00000	Averaged	
71 2-Hexanone	0.62331	0.60444	0.60444	0.010	-3.02719	40.00000	Averaged	
72 1,3-Dichloropropane	0.88376	0.94928	0.94928	0.010	7.41405	30.00000	Averaged	
70 Tetrachloroethylene	0.44328	0.46018	0.46018	0.010	3.81270	30.00000	Averaged	
73 Dibromochloromethane	0.52259	0.59588	0.59588	0.010	14.02580	30.00000	Averaged	
74 1,2-Dibromoethane	0.46944	0.52465	0.52465	0.010	11.76021	30.00000	Averaged	
77 Chlorobenzene	1.51959	1.61504	1.61504	0.300	6.28123	30.00000	Averaged	spcc
79 1,1,1,2-Tetrachloroethane	0.50746	0.56614	0.56614	0.010	11.56535	30.00000	Averaged	
78 Ethylbenzene	2.78730	2.96337	2.96337	0.010	6.31659	20.00000	Averaged	ccc
80 m,p-Xylenes	1.01429	1.07930	1.07930	0.010	6.40871	30.00000	Averaged	
81 o-Xylene	0.98852	1.08964	1.08964	0.010	10.22890	30.00000	Averaged	
82 Styrene	1.66316	1.86998	1.86998	0.010	12.43542	30.00000	Averaged	
83 Bromoform	50.23179	50.00000	0.70922	0.100	0.46358	30.00000	Linear	spcc
84 Isopropylbenzene	4.93115	5.28643	5.28643	0.010	7.20479	30.00000	Averaged	
88 1,1,2,2-Tetrachloroethane	1.18805	1.29626	1.29626	0.300	9.10775	30.00000	Averaged	spcc
$ 87 Bromofluorobenzene	2.00113	2.08223	2.08223	0.010	4.05263	30.00000	Averaged	
92 1,2,3-Trichloropropane	0.30749	0.32497	0.32497	0.010	5.68755	30.00000	Averaged	
91 Bromobenzene	1.17688	1.24576	1.24576	0.010	5.85268	30.00000	Averaged	
89 n-Propylbenzene	6.13553	6.49581	6.49581	0.010	5.87193	30.00000	Averaged	
94 2-Chlorotoluene	4.27198	4.49512	4.49512	0.010	5.22330	30.00000	Averaged	
93 1,3,5-Trimethylbenzene	4.28391	4.58482	4.58482	0.010	7.02413	30.00000	Averaged	
95 4-Chlorotoluene	3.87008	4.15567	4.15567	0.010	7.37932	30.00000	Averaged	
96 tert-Butylbenzene	3.51472	3.65977	3.65977	0.010	4.12685	30.00000	Averaged	
97 1,2,4-Trimethylbenzene	4.42433	4.67781	4.67781	0.010	5.72929	30.00000	Averaged	
99 sec-Butylbenzene	5.63174	5.96950	5.96950	0.010	5.99744	30.00000	Averaged	

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA1.i Injection Date: 17-DEC-2009 22:57
Lab File ID: 1r428.d Init. Cal. Date(s): 17-DEC-2009 17-DEC-2009
Analysis Type: WATER Init. Cal. Times: 13:26 21:57
Lab Sample ID: W1VM091217-18 Quant Type: ISTD
Method: /chem/VOA1.i/121709v1/VOA1-8260ox-121709.m

COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
100 4-Isopropyltoluene	4.27086	4.57059	4.57059	0.010	7.01819	30.00000	Averaged
101 1,3-Dichlorobenzene	2.28713	2.37127	2.37127	0.010	3.67889	30.00000	Averaged
103 1,4-Dichlorobenzene	2.33125	2.42033	2.42033	0.010	3.82106	30.00000	Averaged
105 n-Butylbenzene	4.52044	4.87577	4.87577	0.010	7.86066	30.00000	Averaged
106 1,2-Dichlorobenzene	2.17327	2.25477	2.25477	0.010	3.74986	30.00000	Averaged
108 1,2-Dibromo-3-chloropropane	47.43781	50.00000	0.20587	0.010	-5.12437	30.00000	Linear
109 1,2,4-Trichlorobenzene	1.22342	1.19337	1.19337	0.010	-2.45661	30.00000	Averaged
110 Hexachlorobutadiene	0.81816	0.83470	0.83470	0.010	2.02097	30.00000	Averaged
111 Naphthalene	38.09339	50.00000	1.99432	0.010	-23.81322	30.00000	Linear
112 1,2,3-Trichlorobenzene	0.91417	0.74663	0.74663	0.010	-18.32692	30.00000	Averaged

Average %D / Drift Results.

Calculated Average %D/Drift = 7.89459
Maximun Average %D/Drift = 20.00000
* Passed Average %D/Drift Test.

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VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/121709v1/1r428.d
Lab Smp Id: W1VM091217-18 Client Smp ID: ICV
Inj Date : 17-DEC-2009 22:57
Operator : RXM4 Inst ID: VOA1.i
Smp Info : |W1VM091217-18|ICV|1|VOAF|1|
Misc Info : GEL 5ML N/A UVM091129-01D/IVM091214-01
Comment :
Method : /chem/VOA1.i/121709v1/VOA1-8260ox-121709.m
Meth Date : 21-Dec-2009 09:53 ehl Quant Type: ISTD
Cal Date : 17-DEC-2009 21:27 Cal File: 1r425.d
Als bottle: 22 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: CALsubL+.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (Uf/Vo) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	sample purged

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
M 1 Xylenes (total)	106				2057420	150.000	162
M 2 1,2-Dichloroethylene (total)	96				763050	100.000	105
M 3 1,3-Dichloropropylene	75				1287095	100.000	115
5 Dichlorodifluoromethane	85	5.012	5.012	(0.366)	222340	50.0000	44.2
6 Chloromethane	50	5.557	5.557	(0.406)	432908	50.0000	46.8
7 Vinyl chloride	62	5.937	5.937	(0.434)	359853	50.0000	46.7
9 Bromomethane	96	6.952	6.952	(0.508)	250500	50.0000	49.8
10 Chloroethane	64	7.219	7.219	(0.528)	271547	50.0000	50.5
11 Trichlorofluoromethane	101	7.845	7.845	(0.573)	427124	50.0000	53.5
12 Ethyl Ether	59	8.480	8.480	(0.620)	341650	50.0000	51.3
16 Acetone	43	9.253	9.253	(0.676)	1288556	250.000	239
22 Acetonitrile	41	9.976	9.976	(0.729)	1212770	1250.00	1360
15 1,1-Dichloroethylene	61	9.097	9.097	(0.665)	622411	50.0000	49.9
21 Methyl acetate	43	9.838	9.838	(0.719)	1407371	250.000	273
18 Iodomethane	142	9.474	9.474	(0.692)	2484361	250.000	252

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
	23 Methylene chloride	84	10.137	10.137	(0.741)	403566	50.0000	49.7
	19 Carbon disulfide	76	9.580	9.580	(0.700)	5275512	250.000	260
	25 tert-Butyl methyl ether	73	10.441	10.441	(0.763)	1077575	50.0000	53.9
	26 trans-1,2-Dichloroethylene	96	10.552	10.552	(0.771)	360469	50.0000	52.1
	29 Vinyl acetate	43	11.297	11.297	(0.826)	3513753	250.000	286
	30 1,1-Dichloroethane	63	11.325	11.325	(0.828)	719197	50.0000	51.8
	35 2-Butanone	43	12.186	12.186	(0.891)	1471158	250.000	244
	36 cis-1,2-Dichloroethylene	96	12.204	12.204	(0.892)	402581	50.0000	52.9
	33 2,2-Dichloropropane	77	12.163	12.163	(0.889)	420092	50.0000	51.9
	41 Chloroform	83	12.614	12.614	(0.922)	712878	50.0000	52.7
	39 Bromochloromethane	128	12.558	12.558	(0.918)	178199	50.0000	54.4
	43 1,1,1-Trichloroethane	97	12.844	12.844	(0.939)	472693	50.0000	52.4
	42 Cyclohexane	56	12.839	12.839	(0.938)	694465	50.0000	52.9
	45 1,1-Dichloropropene	75	13.051	13.051	(0.954)	535515	50.0000	54.1
	53 n-Butyl alcohol	56	13.930	13.930	(1.018)	1213639	5000.00	5600
	44 Carbon tetrachloride	117	13.023	13.023	(0.952)	479509	50.0000	53.7
$	48 1,2-Dichloroethane-d4	65	13.341	13.341	(0.975)	581394	50.0000	54.6
	51 1,2-Dichloroethane	62	13.438	13.438	(0.982)	557188	50.0000	52.1
	47 Benzene	78	13.332	13.332	(0.974)	1531701	50.0000	53.0
	50 Cyclohexene	54	13.396	13.396	(0.979)	524195	50.0000	51.6
*	52 Fluorobenzene	96	13.682	13.682	(1.000)	890850	50.0000	
	54 Trichloroethylene	95	14.114	14.114	(1.032)	393495	50.0000	53.2
	57 1,2-Dichloropropane	63	14.460	14.460	(1.057)	430304	50.0000	54.2
	55 Methylcyclohexane	83	14.280	14.280	(1.044)	657008	50.0000	54.3
	60 Bromodichloromethane	83	14.750	14.750	(1.078)	560380	50.0000	56.2
	59 Dibromomethane	93	14.621	14.621	(1.069)	236126	50.0000	52.8
	61 2-Chloroethylvinyl ether	63	15.030	15.030	(1.099)	387483	250.000	455
	64 4-Methyl-2-pentanone	58	15.357	15.357	(0.895)	828937	250.000	268
	63 cis-1,3-Dichloropropylene	75	15.256	15.256	(1.115)	666320	50.0000	57.2
$	65 Toluene-d8	98	15.518	15.518	(0.904)	1946766	50.0000	55.2
	66 Toluene	92	15.596	15.596	(0.909)	970662	50.0000	52.7
	68 trans-1,3-Dichloropropylene	75	15.877	15.877	(0.925)	620775	50.0000	57.9
	69 1,1,2-Trichloroethane	83	16.103	16.103	(0.939)	288237	50.0000	54.6
	71 2-Hexanone	43	16.264	16.264	(0.948)	1914262	250.000	242
	72 1,3-Dichloropropane	76	16.305	16.305	(0.950)	601272	50.0000	53.7
	70 Tetrachloroethylene	164	16.190	16.190	(0.944)	291478	50.0000	51.9
	73 Dibromochloromethane	129	16.545	16.545	(0.964)	377431	50.0000	57.0
	74 1,2-Dibromoethane	107	16.724	16.724	(0.975)	332309	50.0000	55.9
*	76 Chlorobenzene-d5	117	17.157	17.157	(1.000)	633397	50.0000	
	77 Chlorobenzene	112	17.189	17.189	(1.002)	1022964	50.0000	53.1
	79 1,1,1,2-Tetrachloroethane	131	17.258	17.258	(1.006)	358594	50.0000	55.8
	78 Ethylbenzene	91	17.217	17.217	(1.003)	1876987	50.0000	53.2
	80 m,p-Xylenes	106	17.336	17.336	(1.010)	1367248	100.000	106
	81 o-Xylene	106	17.783	17.783	(1.036)	690172	50.0000	55.1
	82 Styrene	104	17.801	17.801	(1.038)	1184442	50.0000	56.2
	83 Bromoform	173	18.105	18.105	(0.923)	245870	50.0000	50.2
	84 Isopropylbenzene	105	18.128	18.128	(0.924)	1832693	50.0000	53.6

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
88 1,1,2,2-Tetrachloroethane	83	18.506	18.506	(0.944)	449385	50.0000	54.6
$ 87 Bromofluorobenzene	95	18.386	18.386	(0.938)	721865	50.0000	52.0
92 1,2,3-Trichloropropane	110	18.607	18.607	(0.949)	112662	50.0000	52.8
91 Bromobenzene	156	18.588	18.588	(0.948)	431879	50.0000	52.9
89 n-Propylbenzene	91	18.556	18.556	(0.946)	2251960	50.0000	52.9
94 2-Chlorotoluene	91	18.740	18.740	(0.956)	1558364	50.0000	52.6
93 1,3,5-Trimethylbenzene	105	18.717	18.717	(0.954)	1589461	50.0000	53.5
95 4-Chlorotoluene	91	18.851	18.851	(0.961)	1440682	50.0000	53.7
96 tert-Butylbenzene	119	19.076	19.076	(0.973)	1268765	50.0000	52.1
97 1,2,4-Trimethylbenzene	105	19.132	19.132	(0.976)	1621698	50.0000	52.9
99 sec-Butylbenzene	105	19.302	19.302	(0.984)	2069499	50.0000	53.0
100 4-Isopropyltoluene	119	19.422	19.422	(0.990)	1584529	50.0000	53.5
101 1,3-Dichlorobenzene	146	19.541	19.541	(0.996)	822071	50.0000	51.8
* 102 1,4-Dichlorobenzene-d4	152	19.610	19.610	(1.000)	346679	50.0000	
103 1,4-Dichlorobenzene	146	19.638	19.638	(1.001)	839077	50.0000	51.9
105 n-Butylbenzene	91	19.868	19.868	(1.013)	1690328	50.0000	53.9
106 1,2-Dichlorobenzene	146	20.080	20.080	(1.024)	781680	50.0000	51.9
108 1,2-Dibromo-3-chloropropane	157	21.000	21.000	(1.071)	71370	50.0000	47.4
109 1,2,4-Trichlorobenzene	180	22.022	22.022	(1.123)	413715	50.0000	48.8
110 Hexachlorobutadiene	225	22.105	22.105	(1.127)	289372	50.0000	51.0
111 Naphthalene	128	22.437	22.437	(1.144)	691390	50.0000	38.1
112 1,2,3-Trichlorobenzene	180	22.791	22.791	(1.162)	258840	50.0000	40.8

Data File: /ohem/VOA1.i/121709v1/1r428.d
Date : 17-DEC-2009 22:57
Client ID: ICV
Sample Info: IW1VW091217-18|ICV|1|VOAF|1|
Purge Volume: 5.0
Column phase: RTX-Volatiles

Instrument: VOA1.i
Operator: RXN4
Column diameter: 0.25

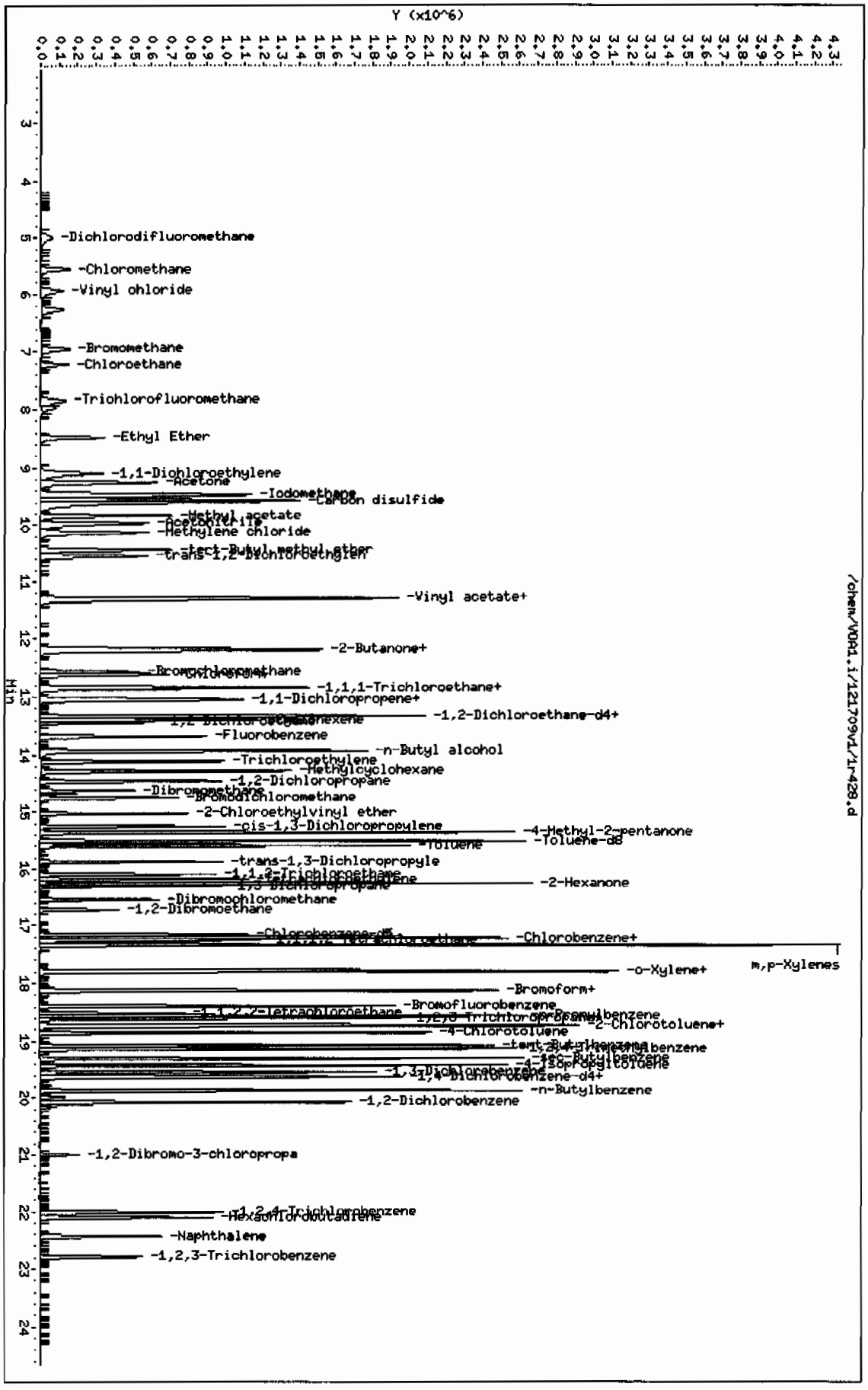

Page 1

Data File: /chem/VOA1.i/121709v1/1r430.d
Report Date: 18-Dec-2009 09:22

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA1.i
Lab File ID: 1r430.d
Analysis Type: WATER
Lab Sample ID: W1VM091217-20
Method: /chem/VOA1.i/121709v1/VOA1-8260ox-121709.m

Injection Date: 17-DEC-2009 23:58
Init. Cal. Date(s): 17-DEC-2009 17-DEC-2009
Init. Cal. Times: 13:26 21:57
Quant Type: ISTD

	COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
	4 Chlorotrifluoroethylene	137	150	0.20454	0.010	-8.69028	30.00000	Linear
	8 2-Chloro-1,1,1-trifluoroeth	156	150	0.47282	0.010	4.10632	30.00000	Linear
	13 Acrolein	0.07113	0.08417	0.08417	0.001	18.33635	30.00000	Averaged
	14 Trichlorotrifluoroethane	0.29664	0.35238	0.35238	0.030	18.78925	30.00000	Averaged
	17 Isopropyl Alcohol	2723	2500	0.02846	0.000	8.93625	40.00000	Linear
	20 Allyl chloride	266	250	0.18352	0.010	6.20960	30.00000	Linear
	24 tert-Butyl Alcohol	2701	2500	0.04655	0.010	8.04183	40.00000	Linear
	27 Acrylonitrile	0.14313	0.16467	0.16467	0.010	15.04894	30.00000	Averaged
	28 Isopropyl ether	51.22072	50.00000	1.63570	0.010	2.44144	30.00000	Linear
	31 2-Chloro-1,3-butadiene	0.59811	0.73987	0.73987	0.010	23.70038	30.00000	Averaged
	32 Ethyl tert-butyl ether	50.60234	50.00000	1.47823	0.010	1.20467	30.00000	Linear
	37 Propionitrile	0.05574	0.06140	0.06140	0.010	10.14507	30.00000	Averaged
	34 Ethyl acetate	0.36418	0.38260	0.38260	0.010	5.05761	40.00000	Averaged
	40 Methacrylonitrile	0.28473	0.31562	0.31562	0.010	10.84664	30.00000	Averaged
	38 Tetrahydrofuran	0.31873	0.37618	0.37618	0.010	18.02448	30.00000	Averaged
	46 Isobutyl alcohol	0.01253	0.01403	0.01403	0.001	12.00188	40.00000	Averaged
	49 Methyl tert-amyl ether	50.82410	50.00000	1.24801	0.010	1.64821	30.00000	Linear
	56 Methyl methacrylate	0.24537	0.28333	0.28333	0.010	15.47002	30.00000	Averaged
	67 Ethyl methacrylate	0.68739	0.79692	0.79692	0.010	15.93469	30.00000	Averaged
	75 1-Chlorohexane	0.49469	0.48337	0.48337	0.000	-2.28757	30.00000	Averaged
	58 1,4-Dioxane	0.00351	0.00409	0.00409	0.001	16.51266	40.00000	Averaged
	62 2-Nitropropane	268	250	0.11981	0.000	7.39385	30.00000	Linear
	85 cis-1,4-Dichloro-2-butene	0.37890	0.46792	0.46792	0.010	23.49365	30.00000	Averaged
	86 Cyclohexanone	0.07283	0.04492	0.04492	0.010	-38.32462	40.00000	Averaged
	90 trans-1,4-Dichloro-2-butene	0.35568	0.44422	0.44422	0.010	24.89510	30.00000	Averaged
	98 Pentachloroethane	0.42012	0.51504	0.51504	0.010	22.59531	30.00000	Averaged
	104 Benzyl chloride	1.95639	2.22255	2.22255	0.010	13.60510	30.00000	Averaged
	107 bis(2-Chloroisopropyl)ether	0.45769	0.57767	0.57767	0.010	26.21523	30.00000	Averaged
$	48 1,2-Dichloroethane-d4	0.60584	0.61775	0.61775	0.010	1.96606	30.00000	Averaged
$	65 Toluene-d8	2.85543	3.05423	3.05423	0.010	6.96200	30.00000	Averaged
$	87 Bromofluorobenzene	2.05512	2.23181	2.23181	0.010	8.59736	30.00000	Averaged

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA1.i Injection Date: 17-DEC-2009 23:58
Lab File ID: 1r430.d Init. Cal. Date(s): 17-DEC-2009 17-DEC-2009
Analysis Type: WATER Init. Cal. Times: 13:26 21:57
Lab Sample ID: W1VM091217-20 Quant Type: ISTD
Method: /chem/VOA1.i/121709v1/VOA1-8260ox-121709.m

Average %D / Drift Results.	
Calculated Average %D/Drift =	12.82201
Maximun Average %D/Drift =	20.00000
* Passed Average %D/Drift Test.	

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/121709v1/1r430.d
Lab Smp Id: W1VM091217-20 Client Smp ID: SHORT ICV
Inj Date : 17-DEC-2009 23:58
Operator : RXM4 Inst ID: VOA1.i
Smp Info : |W1VM091217-20|SHORT ICV|1|VOAF|1|
Misc Info : GEL 5ML N/A UVM091118-08C/UVM091105-02E
Comment :
Method : /chem/VOA1.i/121709v1/VOA1-8260ox-121709.m
Meth Date : 18-Dec-2009 09:22 ron01469 Quant Type: ISTD
Cal Date : 17-DEC-2009 21:57 Cal File: 1r426.d
Als bottle: 24 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: CALsubS+SS.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (Uf/Vo) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	sample purged

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
4 Chlorotrifluoroethylene	116	4.897	4.897	(0.358)	583804	150.000	137
8 2-Chloro-1,1,1-trifluoroethane	118	6.312	6.312	(0.461)	1349548	150.000	156
13 Acrolein	56	8.954	8.954	(0.654)	400431	250.000	296
14 Trichlorotrifluoroethane	101	8.996	8.996	(0.658)	1676309	250.000	297
17 Isopropyl Alcohol	45	9.447	9.447	(0.690)	1353921	2500.00	2720
20 Allyl chloride	76	9.852	9.852	(0.720)	873041	250.000	266
24 tert-Butyl Alcohol	59	10.197	10.197	(0.745)	2214363	2500.00	2700
27 Acrylonitrile	53	10.671	10.671	(0.780)	783344	250.000	288
28 Isopropyl ether	45	11.196	11.196	(0.818)	1556246	50.0000	51.2
31 2-Chloro-1,3-butadiene	53	11.394	11.394	(0.833)	703930	50.0000	61.8
32 Ethyl tert-butyl ether	59	11.758	11.758	(0.859)	1406424	50.0000	50.6
37 Propionitrile	54	12.402	12.402	(0.906)	292076	250.000	275
34 Ethyl acetate	43	12.163	12.163	(0.889)	1820085	250.000	263
40 Methacrylonitrile	41	12.563	12.563	(0.918)	1501432	250.000	277
38 Tetrahydrofuran	42	12.540	12.540	(0.639)	640867	250.000	295

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
46 Isobutyl alcohol	41	13.111	13.111	(0.958)	667397	2500.00	2800
49 Methyl tert-amyl ether	73	13.346	13.346	(0.975)	1187396	50.0000	50.8
56 Methyl methacrylate	69	14.437	14.437	(1.055)	1347834	250.000	289
67 Ethyl methacrylate	69	15.808	15.808	(0.921)	2614016	250.000	290
75 1-Chlorohexane	55	17.028	17.028	(1.245)	459894	50.0000	48.8
58 1,4-Dioxane	88	14.543	14.543	(1.063)	194645	2500.00	2910
62 2-Nitropropane	43	15.077	15.077	(1.102)	569946	250.000	268
85 cis-1,4-Dichloro-2-butene	53	18.276	18.276	(0.932)	797153	250.000	309
86 Cyclohexanone	55	18.386	18.386	(1.072)	736654	1250.00	771
90 trans-1,4-Dichloro-2-butene	53	18.566	18.566	(0.947)	756783	250.000	312
98 Pentachloroethane	167	19.196	19.196	(0.979)	877430	250.000	306(A)
104 Benzyl chloride	91	19.772	19.772	(1.008)	3786361	250.000	284
107 bis(2-Chloroisopropyl)ether	45	20.163	20.163	(1.028)	984129	250.000	316
* 52 Fluorobenzene	96	13.682	13.682	(1.000)	951428	50.0000	
* 76 Chlorobenzene-d5	117	17.157	17.157	(1.000)	656029	50.0000	
* 102 1,4-Dichlorobenzene-d4	152	19.611	19.611	(1.000)	340721	50.0000	
$ 48 1,2-Dichloroethane-d4	65	13.341	13.341	(0.975)	587745	50.0000	51.0
$ 65 Toluene-d8	98	15.518	15.518	(0.904)	2003665	50.0000	53.5
$ 87 Bromofluorobenzene	95	18.386	18.386	(0.938)	760425	50.0000	54.3

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.

Data File: /chem/VOA1.i/121709v1/1r430.d
Date : 17-DEC-2009 23:58
Client ID: SHORT ICV
Sample Info: IW1VH091217-20|SHORT ICV|1|VOAF|1|
Purge Volume: 5.0
Column phase: RTX-Volatiles

Instrument: VOA1.i
Operator: RXH4
Column diameter: 0.25

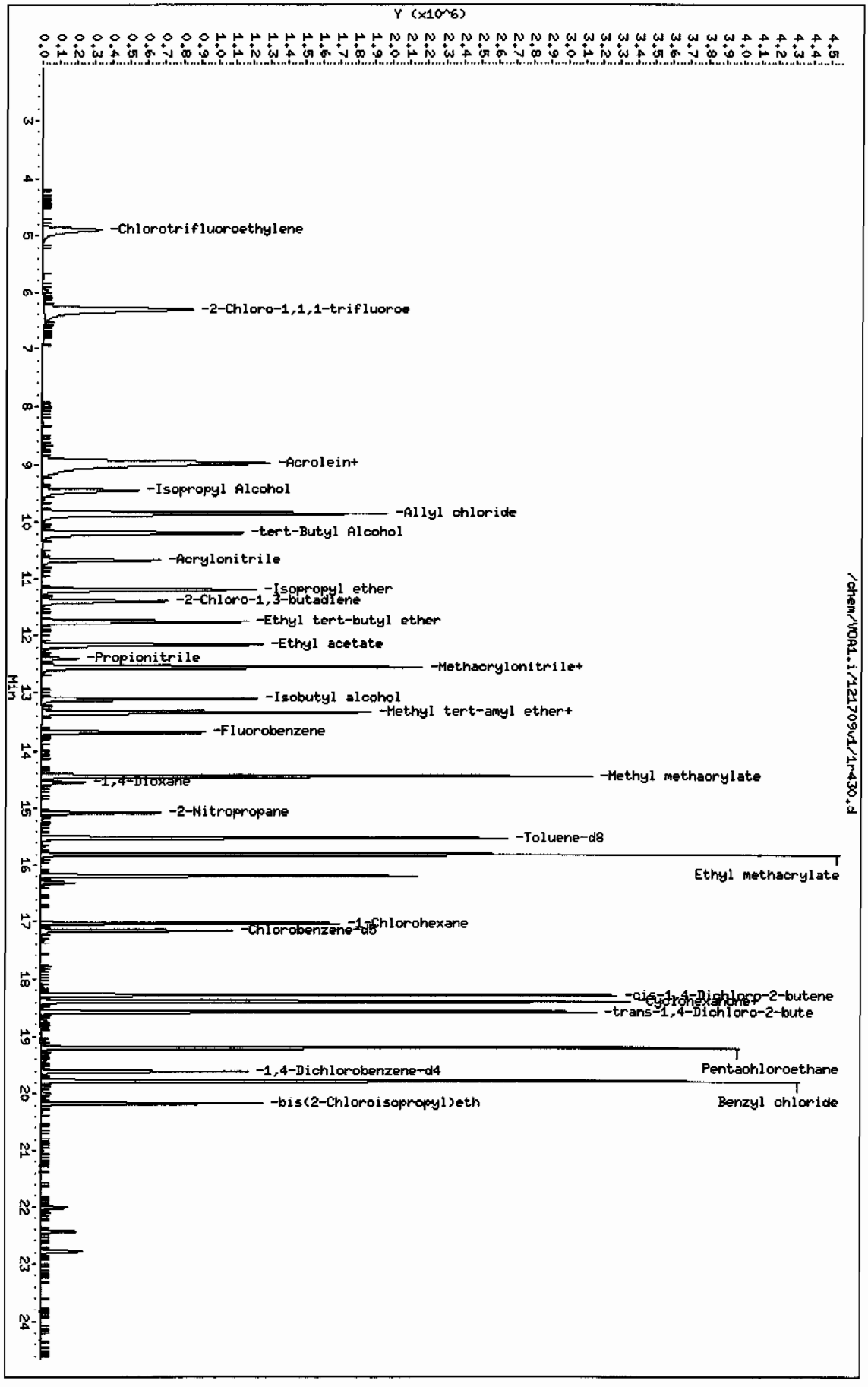

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GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA1.i Injection Date: 18-DEC-2009 22:20
Lab File ID: 1r524.d Init. Cal. Date(s): 17-DEC-2009 17-DEC-2009
Analysis Type: SOIL Init. Cal. Times: 13:26 21:57
Lab Sample ID: W1VM091218-06 Quant Type: ISTD
Method: /chem/VOA1.i/121809v1/VOA1-8260ox-121709PM.m

	COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
M	1 Xylenes (total)	1.00571	0.98307	0.98307	0.050	-2.25130	30.00000	Averaged	
M	2 1,2-Dichloroethylene (total	0.40751	0.38922	0.38922	0.050	-4.48819	30.00000	Averaged	
M	3 1,3-Dichloropropylene	0.88514	0.96363	0.96363	0.050	8.86722	30.00000	Averaged	
	5 Dichlorodifluoromethane	51.28996	50.00000	0.29003	0.050	2.57993	30.00000	Linear	
	6 Chloromethane	0.51970	0.50412	0.50412	0.100	-2.99685	30.00000	Averaged	spcc
	7 Vinyl chloride	0.43212	0.40656	0.40656	0.050	-5.91480	20.00000	Averaged	ccc
	9 Bromomethane	0.28192	0.27150	0.27150	0.050	-3.69684	30.00000	Averaged	
	10 Chloroethane	0.30188	0.30372	0.30372	0.050	0.61037	30.00000	Averaged	
	11 Trichlorofluoromethane	0.44773	0.49253	0.49253	0.050	10.00631	30.00000	Averaged	
	12 Ethyl Ether	0.37389	0.36983	0.36983	0.010	-1.08562	30.00000	Averaged	
	16 Acetone	0.30248	0.24546	0.24546	0.000	-18.85007	40.00000	Averaged	
	22 Acetonitrile	0.04984	0.04978	0.04978	0.010	-0.10604	30.00000	Averaged	
	15 1,1-Dichloroethylene	0.69959	0.69094	0.69094	0.050	-1.23665	20.00000	Averaged	ccc
	21 Methyl acetate	0.28883	0.29768	0.29768	0.010	3.06378	40.00000	Averaged	
	18 Iodomethane	0.55436	0.50496	0.50496	0.050	-8.91124	30.00000	Averaged	
	23 Methylene chloride	45.88237	50.00000	0.41795	0.000	-8.23527	30.00000	Linear	
	19 Carbon disulfide	1.13824	1.13135	1.13135	0.050	-0.60580	30.00000	Averaged	
	25 tert-Butyl methyl ether	1.12196	1.18131	1.18131	0.050	5.28985	30.00000	Averaged	
	26 trans-1,2-Dichloroethylene	0.38807	0.36686	0.36686	0.050	-5.46451	30.00000	Averaged	
	29 Vinyl acetate	0.69026	0.70893	0.70893	0.010	2.70479	40.00000	Averaged	
	30 1,1-Dichloroethane	0.77946	0.76734	0.76734	0.100	-1.55497	30.00000	Averaged	spcc
	35 2-Butanone	0.33847	0.27918	0.27918	0.030	-17.51706	40.00000	Averaged	
	36 cis-1,2-Dichloroethylene	0.42695	0.41158	0.41158	0.050	-3.60027	30.00000	Averaged	
	33 2,2-Dichloropropane	0.45482	0.47008	0.47008	0.050	3.35555	30.00000	Averaged	
	41 Chloroform	0.75919	0.76418	0.76418	0.010	0.65753	20.00000	Averaged	ccc
	39 Bromochloromethane	0.18374	0.17991	0.17991	0.010	-2.08441	30.00000	Averaged	
	43 1,1,1-Trichloroethane	0.50671	0.52712	0.52712	0.010	4.02764	30.00000	Averaged	
	42 Cyclohexane	0.73657	0.74432	0.74432	0.010	1.05214	30.00000	Averaged	
	45 1,1-Dichloropropene	0.55584	0.57432	0.57432	0.010	3.32457	30.00000	Averaged	
	53 n-Butyl alcohol	5409	5000	0.01314	0.001	8.18932	40.00000	Linear	
	44 Carbon tetrachloride	0.50106	0.54534	0.54534	0.010	8.83660	30.00000	Averaged	
$	48 1,2-Dichloroethane-d4	0.60584	0.69878	0.69878	0.010	15.34070	30.00000	Averaged	
	51 1,2-Dichloroethane	0.60049	0.64265	0.64265	0.010	7.02015	30.00000	Averaged	
	47 Benzene	1.62246	1.58280	1.58280	0.010	-2.44416	30.00000	Averaged	
	50 Cyclohexene	0.57039	0.56226	0.56226	0.010	-1.42494	30.00000	Averaged	

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA1.i Injection Date: 18-DEC-2009 22:20
Lab File ID: 1r524.d Init. Cal. Date(s): 17-DEC-2009 17-DEC-2009
Analysis Type: SOIL Init. Cal. Times: 13:26 21:57
Lab Sample ID: W1VM091218-06 Quant Type: ISTD
Method: /chem/VOA1.i/121809v1/VOA1-8260ox-121709PM.m

	COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
	54 Trichloroethylene	0.41533	0.41584	0.41584	0.010	0.12322	30.00000	Averaged	
	57 1,2-Dichloropropane	0.44519	0.44680	0.44680	0.010	0.36253	20.00000	Averaged	ccc
	55 Methylcyclohexane	0.67888	0.68789	0.68789	0.010	1.32710	30.00000	Averaged	
	60 Bromodichloromethane	0.55929	0.68789	0.68789	0.010	22.99349	30.00000	Averaged	
	59 Dibromomethane	0.25092	0.25301	0.25301	0.010	0.83150	30.00000	Averaged	
	61 2-Chloroethylvinyl ether	458	250	0.08749	0.000	83.06427	30.00000	Linear	<-
	64 4-Methyl-2-pentanone	0.24426	0.25040	0.25040	0.010	2.51254	40.00000	Averaged	
	63 cis-1,3-Dichloropropylene	0.65316	0.70495	0.70495	0.010	7.92924	30.00000	Averaged	
$	65 Toluene-d8	2.85543	2.85020	2.85020	0.010	-0.18333	30.00000	Averaged	
	66 Toluene	1.45437	1.38096	1.38096	0.010	-5.04748	20.00000	Averaged	ccc
	68 trans-1,3-Dichloropropylene	0.84622	0.94403	0.94403	0.010	11.55831	30.00000	Averaged	
	69 1,1,2-Trichloroethane	0.41628	0.41775	0.41775	0.010	0.35453	30.00000	Averaged	
	71 2-Hexanone	0.62331	0.52998	0.52998	0.010	-14.97432	40.00000	Averaged	
	72 1,3-Dichloropropane	0.88376	0.88985	0.88985	0.010	0.68886	30.00000	Averaged	
	70 Tetrachloroethylene	0.44328	0.41215	0.41215	0.010	-7.02184	30.00000	Averaged	
	73 Dibromochloromethane	0.52259	0.55935	0.55935	0.010	7.03398	30.00000	Averaged	
	74 1,2-Dibromoethane	0.46944	0.48523	0.48523	0.010	3.36311	30.00000	Averaged	
	77 Chlorobenzene	1.51959	1.48102	1.48102	0.300	-2.53877	30.00000	Averaged	spcc
	79 1,1,1,2-Tetrachloroethane	0.50746	0.51843	0.51843	0.010	2.16221	30.00000	Averaged	
	78 Ethylbenzene	2.78730	2.74199	2.74199	0.010	-1.62577	20.00000	Averaged	ccc
	80 m,p-Xylenes	1.01429	0.98446	0.98446	0.010	-2.94163	30.00000	Averaged	
	81 o-Xylene	0.98852	0.98029	0.98029	0.010	-0.83288	30.00000	Averaged	
	82 Styrene	1.66316	1.68932	1.68932	0.010	1.57268	30.00000	Averaged	
	83 Bromoform	45.33350	50.00000	0.63816	0.100	-9.33299	30.00000	Linear	spcc
	84 Isopropylbenzene	4.93115	4.78613	4.78613	0.010	-2.94084	30.00000	Averaged	
	88 1,1,2,2-Tetrachloroethane	1.18805	1.14504	1.14504	0.300	-3.62063	30.00000	Averaged	spcc
$	87 Bromofluorobenzene	2.05512	1.99480	1.99480	0.010	-2.93517	30.00000	Averaged	
	92 1,2,3-Trichloropropane	0.30749	0.30892	0.30892	0.010	0.46490	30.00000	Averaged	
	91 Bromobenzene	1.17688	1.09270	1.09270	0.010	-7.15286	30.00000	Averaged	
	89 n-Propylbenzene	6.13553	5.87330	5.87330	0.010	-4.27393	30.00000	Averaged	
	94 2-Chlorotoluene	4.27198	4.11474	4.11474	0.010	-3.68071	30.00000	Averaged	
	93 1,3,5-Trimethylbenzene	4.28391	4.15810	4.15810	0.010	-2.93680	30.00000	Averaged	
	95 4-Chlorotoluene	3.87008	3.73718	3.73718	0.010	-3.43392	30.00000	Averaged	
	96 tert-Butylbenzene	3.51472	3.28833	3.28833	0.010	-6.44134	30.00000	Averaged	
	97 1,2,4-Trimethylbenzene	4.42433	4.24282	4.24282	0.010	-4.10236	30.00000	Averaged	
	99 sec-Butylbenzene	5.63173	5.38251	5.38251	0.010	-4.42543	30.00000	Averaged	

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA1.i
Lab File ID: 1r524.d
Analysis Type: SOIL
Lab Sample ID: W1VM091218-06
Method: /chem/VOA1.i/121809v1/VOA1-8260ox-121709PM.m

Injection Date: 18-DEC-2009 22:20
Init. Cal. Date(s): 17-DEC-2009 17-DEC-2009
Init. Cal. Times: 13:26 21:57
Quant Type: ISTD

COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
100 4-Isopropyltoluene	4.27086	4.07431	4.07431	0.010	-4.60213	30.00000	Averaged
101 1,3-Dichlorobenzene	2.28713	2.09624	2.09624	0.010	-8.34659	30.00000	Averaged
103 1,4-Dichlorobenzene	2.33125	2.13053	2.13053	0.010	-8.60976	30.00000	Averaged
105 n-Butylbenzene	4.52044	4.48211	4.48211	0.010	-0.84780	30.00000	Averaged
106 1,2-Dichlorobenzene	2.17327	2.02488	2.02488	0.010	-6.82783	30.00000	Averaged
108 1,2-Dibromo-3-chloropropane	44.30868	50.00000	0.19166	0.010	-11.38263	30.00000	Linear
109 1,2,4-Trichlorobenzene	1.22342	1.16586	1.16586	0.010	-4.70502	30.00000	Averaged
110 Hexachlorobutadiene	0.81816	0.73096	0.73096	0.010	-10.65795	30.00000	Averaged
111 Naphthalene	40.02741	50.00000	2.10233	0.010	-19.94518	30.00000	Linear
112 1,2,3-Trichlorobenzene	0.91417	0.82733	0.82733	0.010	-9.49940	30.00000	Averaged

Average %D / Drift Results.

Calculated Average %D/Drift = 6.16796
Maximun Average %D/Drift = 20.00000
* Passed Average %D/Drift Test.

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/121809v1/1r524.d
Lab Smp Id: W1VM091218-06 Client Smp ID: VSTD050
Inj Date : 18-DEC-2009 22:20
Operator : RXM4 Inst ID: VOA1.i
Smp Info : |W1VM091218-06|CCV/LCS|1|VOAF|1|
Misc Info : GEL 5G N/A
Comment :
Method : /chem/VOA1.i/121809v1/VOA1-8260ox-121709PM.m
Meth Date : 19-Dec-2009 14:30 ron01469 Quant Type: ISTD
Cal Date : 17-DEC-2009 21:57 Cal File: 1r426.d
Als bottle: 24 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: CALsubL+.sub
Target Version: 3.50

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	0.00000	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
M 1 Xylenes (total)	106				1600826	150.000	147
M 2 1,2-Dichloroethylene (total)	96				589330	100.000	95.5
M 3 1,3-Dichloropropylene	75				1046113	100.000	110
5 Dichlorodifluoromethane	85	5.005	5.005	(0.366)	219568	50.0000	51.3
6 Chloromethane	50	5.564	5.564	(0.407)	381655	50.0000	48.5
7 Vinyl chloride	62	5.937	5.937	(0.434)	307790	50.0000	47.0
9 Bromomethane	96	6.947	6.947	(0.508)	205540	50.0000	48.2
10 Chloroethane	64	7.224	7.224	(0.528)	229935	50.0000	50.3
11 Trichlorofluoromethane	101	7.845	7.845	(0.573)	372878	50.0000	55.0
12 Ethyl Ether	59	8.480	8.480	(0.620)	279987	50.0000	49.4
16 Acetone	43	9.258	9.258	(0.676)	929154	250.000	203
22 Acetonitrile	41	9.981	9.981	(0.729)	942245	1250.00	1250
15 1,1-Dichloroethylene	61	9.097	9.097	(0.665)	523084	50.0000	49.4

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
21 Methyl acetate	43	9.838	9.838	(0.719)	1126825	250.000	258
18 Iodomethane	142	9.475	9.475	(0.692)	1911445	250.000	228
23 Methylene chloride	84	10.147	10.147	(0.741)	316411	50.0000	45.9
19 Carbon disulfide	76	9.580	9.580	(0.700)	4282514	250.000	248
25 tert-Butyl methyl ether	73	10.446	10.446	(0.763)	894325	50.0000	52.6
26 trans-1,2-Dichloroethylene	96	10.552	10.552	(0.771)	277738	50.0000	47.3
29 Vinyl acetate	43	11.297	11.297	(0.825)	2683541	250.000	257
30 1,1-Dichloroethane	63	11.330	11.330	(0.828)	580924	50.0000	49.2
35 2-Butanone	43	12.186	12.186	(0.890)	1056787	250.000	206
36 cis-1,2-Dichloroethylene	96	12.204	12.204	(0.892)	311591	50.0000	48.2
33 2,2-Dichloropropane	77	12.163	12.163	(0.889)	355879	50.0000	51.7
41 Chloroform	83	12.614	12.614	(0.922)	578532	50.0000	50.3
39 Bromochloromethane	128	12.559	12.559	(0.918)	136203	50.0000	49.0
43 1,1,1-Trichloroethane	97	12.849	12.849	(0.939)	399066	50.0000	52.0
42 Cyclohexane	56	12.844	12.844	(0.938)	563495	50.0000	50.5
45 1,1-Dichloropropene	75	13.051	13.051	(0.954)	434800	50.0000	51.7
53 n-Butyl alcohol	56	13.930	13.930	(1.018)	994486	5000.00	5410
44 Carbon tetrachloride	117	13.024	13.024	(0.952)	412855	50.0000	54.4
$ 48 1,2-Dichloroethane-d4	65	13.341	13.341	(0.975)	529021	50.0000	57.7
51 1,2-Dichloroethane	62	13.442	13.442	(0.982)	486526	50.0000	53.5
47 Benzene	78	13.336	13.336	(0.974)	1198283	50.0000	48.8
50 Cyclohexene	54	13.396	13.396	(0.979)	425667	50.0000	49.3
* 52 Fluorobenzene	96	13.686	13.686	(1.000)	757064	50.0000	
54 Trichloroethylene	95	14.119	14.119	(1.032)	314821	50.0000	50.1
57 1,2-Dichloropropane	63	14.460	14.460	(1.056)	338259	50.0000	50.2
55 Methylcyclohexane	83	14.285	14.285	(1.044)	520776	50.0000	50.7
60 Bromodichloromethane	83	14.285	14.285	(1.044)	520776	50.0000	61.5
59 Dibromomethane	93	14.625	14.625	(1.069)	191544	50.0000	50.4
61 2-Chloroethylvinyl ether	63	15.030	15.030	(1.098)	331191	250.000	458
64 4-Methyl-2-pentanone	58	15.357	15.357	(0.895)	679574	250.000	256
63 cis-1,3-Dichloropropylene	75	15.256	15.256	(1.115)	533693	50.0000	54.0
$ 65 Toluene-d8	98	15.518	15.518	(0.904)	1547087	50.0000	49.9
66 Toluene	92	15.597	15.597	(0.909)	749582	50.0000	47.5
68 trans-1,3-Dichloropropylene	75	15.877	15.877	(0.925)	512420	50.0000	55.8
69 1,1,2-Trichloroethane	83	16.103	16.103	(0.938)	226755	50.0000	50.2
71 2-Hexanone	43	16.269	16.269	(0.948)	1438351	250.000	212
72 1,3-Dichloropropane	76	16.305	16.305	(0.950)	483008	50.0000	50.3
70 Tetrachloroethylene	164	16.190	16.190	(0.943)	223717	50.0000	46.5
73 Dibromochloromethane	129	16.549	16.549	(0.964)	303612	50.0000	53.5
74 1,2-Dibromoethane	107	16.729	16.729	(0.975)	263380	50.0000	51.7
* 76 Chlorobenzene-d5	117	17.162	17.162	(1.000)	542799	50.0000	
77 Chlorobenzene	112	17.194	17.194	(1.002)	803894	50.0000	48.7
79 1,1,1,2-Tetrachloroethane	131	17.258	17.258	(1.006)	281402	50.0000	51.1
78 Ethylbenzene	91	17.217	17.217	(1.003)	1488350	50.0000	49.2
80 m,p-Xylenes	106	17.337	17.337	(1.010)	1068726	100.000	97.0
81 o-Xylene	106	17.783	17.783	(1.036)	532099	50.0000	49.6
82 Styrene	104	17.801	17.801	(1.037)	916961	50.0000	50.8

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
83 Bromoform	173	18.105	18.105	(0.923)	194619	50.0000	45.3
84 Isopropylbenzene	105	18.128	18.128	(0.924)	1459619	50.0000	48.5
88 1,1,2,2-Tetrachloroethane	83	18.506	18.506	(0.944)	349200	50.0000	48.2
$ 87 Bromofluorobenzene	95	18.386	18.386	(0.938)	608352	50.0000	48.5
92 1,2,3-Trichloropropane	110	18.602	18.602	(0.949)	94209	50.0000	50.2
91 Bromobenzene	156	18.593	18.593	(0.948)	333239	50.0000	46.4
89 n-Propylbenzene	91	18.556	18.556	(0.946)	1791173	50.0000	47.9
94 2-Chlorotoluene	91	18.740	18.740	(0.956)	1254867	50.0000	48.2
93 1,3,5-Trimethylbenzene	105	18.717	18.717	(0.954)	1268091	50.0000	48.5
95 4-Chlorotoluene	91	18.856	18.856	(0.962)	1139724	50.0000	48.3
96 tert-Butylbenzene	119	19.076	19.076	(0.973)	1002836	50.0000	46.8
97 1,2,4-Trimethylbenzene	105	19.132	19.132	(0.976)	1293928	50.0000	47.9
99 sec-Butylbenzene	105	19.302	19.302	(0.984)	1641496	50.0000	47.8
100 4-Isopropyltoluene	119	19.422	19.422	(0.990)	1242535	50.0000	47.7
101 1,3-Dichlorobenzene	146	19.541	19.541	(0.996)	639286	50.0000	45.8
* 102 1,4-Dichlorobenzene-d4	152	19.610	19.610	(1.000)	304968	50.0000	
103 1,4-Dichlorobenzene	146	19.638	19.638	(1.001)	649746	50.0000	45.7
105 n-Butylbenzene	91	19.868	19.868	(1.013)	1366903	50.0000	49.6
106 1,2-Dichlorobenzene	146	20.080	20.080	(1.024)	617526	50.0000	46.6
108 1,2-Dibromo-3-chloropropane	157	21.005	21.005	(1.071)	58448	50.0000	44.3
109 1,2,4-Trichlorobenzene	180	22.022	22.022	(1.123)	355550	50.0000	47.6
110 Hexachlorobutadiene	225	22.105	22.105	(1.127)	222920	50.0000	44.7
111 Naphthalene	128	22.437	22.437	(1.144)	641145	50.0000	40.0
112 1,2,3-Trichlorobenzene	180	22.787	22.787	(1.162)	252308	50.0000	45.2

Data File: /chem/VOA1.i/121809v1/1r524.d
Date : 18-DEC-2009 22:20
Client ID: VSTD050
Sample Info: |W1VM091218-06|CCV/LCS|1|VO6F|1|
Column phase: RTX-Volatiles

Instrument: VOA1.i
Operator: RXH4
Column diameter: 0.25

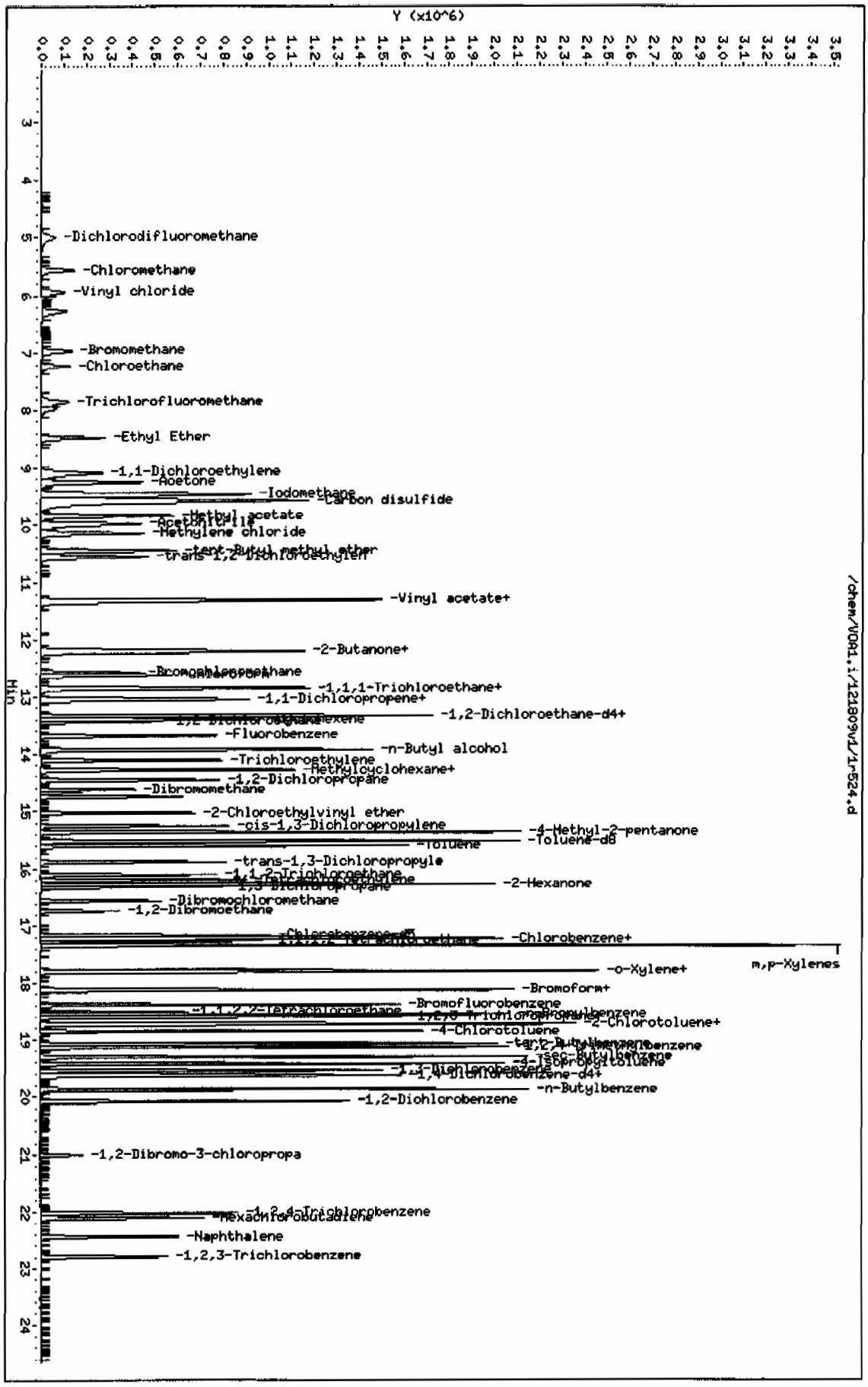

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA1.i Injection Date: 18-DEC-2009 22:51
Lab File ID: 1r525.d Init. Cal. Date(s): 17-DEC-2009 17-DEC-2009
Analysis Type: SOIL Init. Cal. Times: 13:26 21:57
Lab Sample ID: W1VM091218-07 Quant Type: ISTD
Method: /chem/VOA1.i/121809v1/VOA1-8260ox-121709PM.m

COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
4 Chlorotrifluoroethylene	139	150	0.20762	0.010	-7.33235	30.00000	Linear
8 2-Chloro-1,1,1-trifluoroeth	157	150	0.47399	0.010	4.36355	30.00000	Linear
13 Acrolein	0.07113	0.08723	0.08723	0.001	22.62765	30.00000	Averaged
14 Trichlorotrifluoroethane	0.29664	0.38173	0.38173	0.030	28.68290	30.00000	Averaged
17 Isopropyl Alcohol	2992	2500	0.03137	0.000	19.69490	40.00000	Linear
20 Allyl chloride	261	250	0.17999	0.010	4.27685	30.00000	Linear
24 tert-Butyl Alcohol	3054	2500	0.05278	0.010	22.15172	40.00000	Linear
27 Acrylonitrile	0.14313	0.17031	0.17031	0.010	18.99432	30.00000	Averaged
28 Isopropyl ether	49.66676	50.00000	1.58561	0.010	-0.66648	30.00000	Linear
31 2-Chloro-1,3-butadiene	0.59811	0.79650	0.79650	0.010	33.16910	30.00000	Averaged <-
32 Ethyl tert-butyl ether	51.23932	50.00000	1.49717	0.010	2.47863	30.00000	Linear
37 Propionitrile	0.05574	0.06693	0.06693	0.010	20.07608	30.00000	Averaged
34 Ethyl acetate	0.36418	0.40248	0.40248	0.010	10.51702	40.00000	Averaged
40 Methacrylonitrile	0.28473	0.33003	0.33003	0.010	15.90802	30.00000	Averaged
38 Tetrahydrofuran	0.31873	0.37143	0.37143	0.010	16.53408	30.00000	Averaged
46 Isobutyl alcohol	0.01253	0.01572	0.01572	0.001	25.51749	40.00000	Averaged
49 Methyl tert-amyl ether	51.33895	50.00000	1.26089	0.010	2.67789	30.00000	Linear
56 Methyl methacrylate	0.24537	0.29113	0.29113	0.010	18.64986	30.00000	Averaged
67 Ethyl methacrylate	0.68739	0.81287	0.81287	0.010	18.25503	30.00000	Averaged
75 1-Chlorohexane	0.49469	0.51000	0.51000	0.000	3.09530	30.00000	Averaged
58 1,4-Dioxane	0.00351	0.00416	0.00416	0.001	18.36492	40.00000	Averaged
62 2-Nitropropane	297	250	0.13288	0.000	18.82438	30.00000	Linear
85 cis-1,4-Dichloro-2-butene	0.37890	0.49646	0.49646	0.010	31.02614	30.00000	Averaged <-
86 Cyclohexanone	0.07283	0.04881	0.04881	0.010	-32.97599	40.00000	Averaged
90 trans-1,4-Dichloro-2-butene	0.35568	0.46909	0.46909	0.010	31.88759	30.00000	Averaged <-
98 Pentachloroethane	0.42012	0.39611	0.39611	0.010	-5.71297	30.00000	Averaged
104 Benzyl chloride	1.95639	2.31613	2.31613	0.010	18.38816	30.00000	Averaged
107 bis(2-Chloroisopropyl)ether	0.45769	0.60334	0.60334	0.010	31.82228	30.00000	Averaged <-
$ 48 1,2-Dichloroethane-d4	0.60584	0.69865	0.69865	0.010	15.31940	30.00000	Averaged
$ 65 Toluene-d8	2.85543	2.99517	2.99517	0.010	4.89382	30.00000	Averaged
$ 87 Bromofluorobenzene	2.05512	2.14942	2.14942	0.010	4.58819	30.00000	Averaged

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA1.i Injection Date: 18-DEC-2009 22:51
Lab File ID: 1r525.d Init. Cal. Date(s): 17-DEC-2009 17-DEC-2009
Analysis Type: SOIL Init. Cal. Times: 13:26 21:57
Lab Sample ID: W1VM091218-07 Quant Type: ISTD
Method: /chem/VOA1.i/121809v1/VOA1-8260ox-121709PM.m

Average %D / Drift Results.
Calculated Average %D/Drift = 6.16796
Maximun Average %D/Drift = 20.00000
* Passed Average %D/Drift Test.

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VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/121809v1/1r525.d
Lab Smp Id: W1VM091218-07 Client Smp ID: VSTD250S
Inj Date : 18-DEC-2009 22:51
Operator : RXM4 Inst ID: VOA1.i
Smp Info : |W1VM091218-07|SHORT|1|VOAF|1|
Misc Info : GEL 5G N/A UVM091118-08C/UVM091105-02E
Comment :
Method : /chem/VOA1.i/121809v1/VOA1-8260ox-121709PM.m
Meth Date : 19-Dec-2009 14:30 ron01469 Quant Type: ISTD
Cal Date : 17-DEC-2009 21:57 Cal File: 1r426.d
Als bottle: 25 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: CALsubS+SS.sub
Target Version: 3.50

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	0.00000	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
4 Chlorotrifluoroethylene	116	4.904	4.904	(0.358)	476741	150.000	139
8 2-Chloro-1,1,1-trifluoroethane	118	6.312	6.312	(0.461)	1088401	150.000	156
13 Acrolein	56	8.959	8.959	(0.655)	333827	250.000	306
14 Trichlorotrifluoroethane	101	8.991	8.991	(0.657)	1460902	250.000	322
17 Isopropyl Alcohol	45	9.456	9.456	(0.691)	1200555	2500.00	2990
20 Allyl chloride	76	9.857	9.857	(0.720)	688833	250.000	261
24 tert-Butyl Alcohol	59	10.202	10.202	(0.746)	2019908	2500.00	3050
27 Acrylonitrile	53	10.676	10.676	(0.780)	651808	250.000	297
28 Isopropyl ether	45	11.201	11.201	(0.819)	1213659	50.0000	49.7
31 2-Chloro-1,3-butadiene	53	11.403	11.403	(0.833)	609657	50.0000	66.6
32 Ethyl tert-butyl ether	59	11.758	11.758	(0.859)	1145965	50.0000	51.2
37 Propionitrile	54	12.407	12.407	(0.907)	256160	250.000	300
34 Ethyl acetate	43	12.167	12.167	(0.889)	1540341	250.000	276

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
40 Methacrylonitrile	41	12.563	12.563	(0.918)	1263049	250.000	290
38 Tetrahydrofuran	42	12.540	12.540	(0.639)	538487	250.000	291
46 Isobutyl alcohol	41	13.111	13.111	(0.958)	601709	2500.00	3140
49 Methyl tert-amyl ether	73	13.350	13.350	(0.976)	965113	50.0000	51.3
56 Methyl methacrylate	69	14.441	14.441	(1.056)	1114187	250.000	297
67 Ethyl methacrylate	69	15.813	15.813	(0.921)	2175031	250.000	296
75 1-Chlorohexane	55	17.028	17.028	(1.245)	390364	50.0000	51.5
58 1,4-Dioxane	88	14.547	14.547	(1.063)	159080	2500.00	2960
62 2-Nitropropane	43	15.081	15.081	(1.102)	508528	250.000	297
85 cis-1,4-Dichloro-2-butene	53	18.275	18.275	(0.932)	719750	250.000	328
86 Cyclohexanone	55	18.386	18.386	(1.071)	653030	1250.00	838
90 trans-1,4-Dichloro-2-butene	53	18.570	18.570	(0.947)	680074	250.000	330
98 Pentachloroethane	167	19.196	19.196	(0.979)	574271	250.000	236
104 Benzyl chloride	91	19.771	19.771	(1.008)	3357834	250.000	296
107 bis(2-Chloroisopropyl)ether	45	20.167	20.167	(1.028)	874693	250.000	330
* 52 Fluorobenzene	96	13.682	13.686	(1.000)	765419	50.0000	
* 76 Chlorobenzene-d5	117	17.162	17.162	(1.000)	535148	50.0000	
* 102 1,4-Dichlorobenzene-d4	152	19.610	19.610	(1.000)	289952	50.0000	
$ 48 1,2-Dichloroethane-d4	65	13.341	13.341	(0.975)	534760	50.0000	57.6
$ 65 Toluene-d8	98	15.518	15.518	(0.904)	1602863	50.0000	52.4
$ 87 Bromofluorobenzene	95	18.386	18.386	(0.938)	623227	50.0000	52.3

Data File: /chem/VOA1.i/121809v1/1r525.d
Date : 18-DEC-2009 22:51
Client ID: VSTD250S
Sample Info: IW1VH091218-07|SHORT|1|VOAF|1|
Column phase: RTX-Volatiles

Instrument: VOA1.i
Operator: RXM4
Column diameter: 0.25

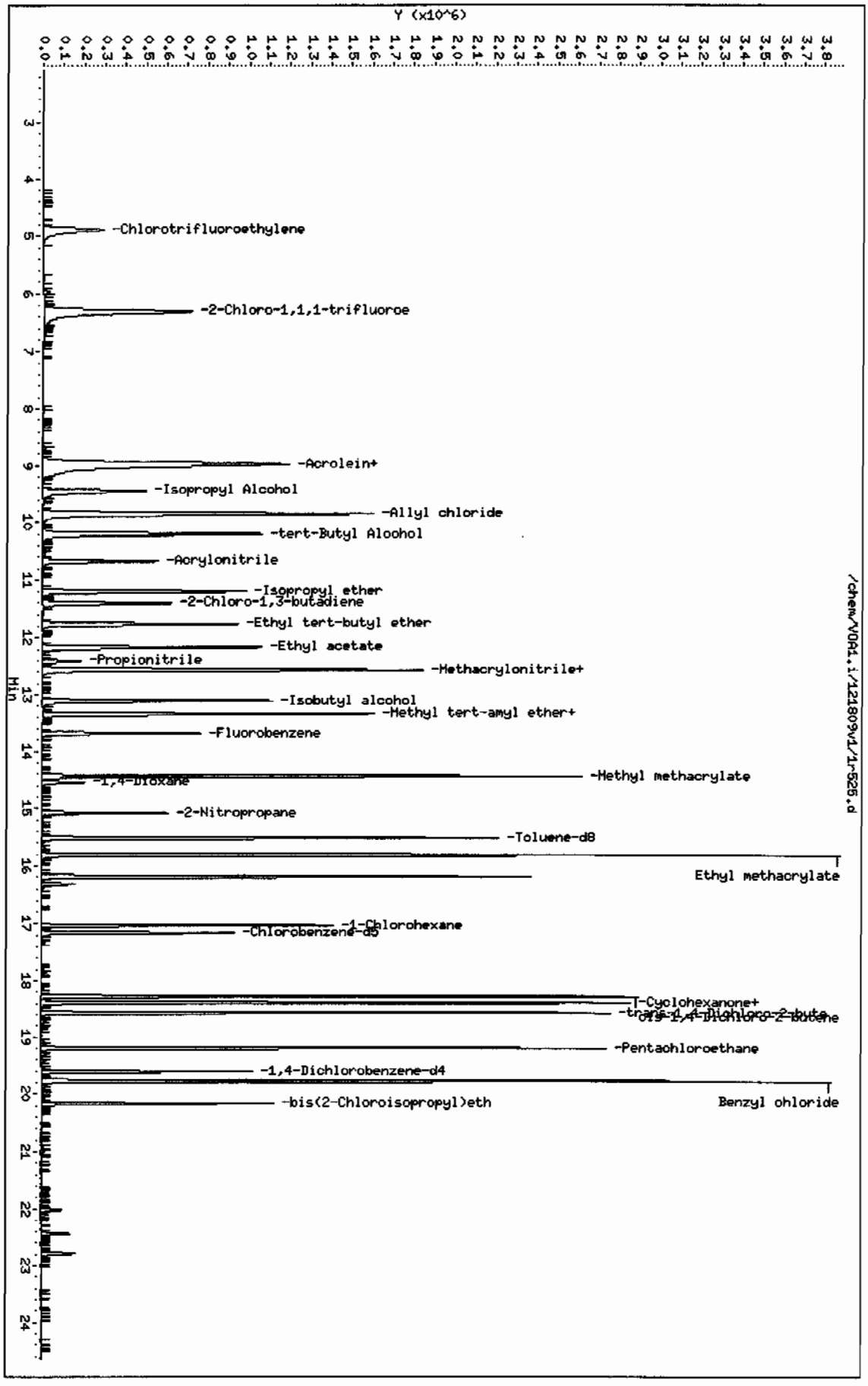

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GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA1.i Injection Date: 21-DEC-2009 12:49
Lab File ID: 1s106.d Init. Cal. Date(s): 17-DEC-2009 17-DEC-2009
Analysis Type: WATER Init. Cal. Times: 13:26 21:57
Lab Sample ID: W1VM091221-05 Quant Type: ISTD
Method: /chem/VOA1.i/122109v1/VOA1-8260ox-121709.m

	COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
M	1 Xylenes (total)	1.00571	1.06822	1.06822	0.050	6.21507	30.00000	Averaged	
M	2 1,2-Dichloroethylene (total	0.40751	0.41559	0.41559	0.050	1.98078	30.00000	Averaged	
M	3 1,3-Dichloropropylene	0.88514	0.97940	0.97940	0.050	10.64835	30.00000	Averaged	
	5 Dichlorodifluoromethane	42.69822	50.00000	0.24119	0.050	-14.60357	30.00000	Linear	
	6 Chloromethane	0.51970	0.48829	0.48829	0.100	-6.04437	30.00000	Averaged	spcc
	7 Vinyl chloride	0.43212	0.41274	0.41274	0.050	-4.48548	20.00000	Averaged	ccc
	9 Bromomethane	0.28210	0.27244	0.27244	0.050	-3.42455	30.00000	Averaged	
	10 Chloroethane	0.30188	0.31041	0.31041	0.050	2.82391	30.00000	Averaged	
	11 Trichlorofluoromethane	0.44774	0.50949	0.50949	0.050	13.79289	30.00000	Averaged	
	12 Ethyl Ether	0.37389	0.35757	0.35757	0.010	-4.36432	30.00000	Averaged	
	16 Acetone	0.30248	0.21556	0.21556	0.000	-28.73452	40.00000	Averaged	
	22 Acetonitrile	0.04984	0.04401	0.04401	0.010	-11.69487	30.00000	Averaged	
	15 1,1-Dichloroethylene	0.69959	0.71612	0.71612	0.050	2.36292	20.00000	Averaged	ccc
	21 Methyl acetate	0.28883	0.25964	0.25964	0.010	-10.10660	40.00000	Averaged	
	18 Iodomethane	0.55436	0.53646	0.53646	0.050	-3.23045	30.00000	Averaged	
	23 Methylene chloride	47.10081	50.00000	0.42902	0.000	-5.79838	30.00000	Linear	
	19 Carbon disulfide	1.13824	1.21681	1.21681	0.050	6.90204	30.00000	Averaged	
	25 tert-Butyl methyl ether	1.12196	1.09508	1.09508	0.050	-2.39602	30.00000	Averaged	
	26 trans-1,2-Dichloroethylene	0.38807	0.39754	0.39754	0.050	2.44040	30.00000	Averaged	
	29 Vinyl acetate	0.69026	0.80117	0.80117	0.010	16.06660	40.00000	Averaged	
	30 1,1-Dichloroethane	0.77946	0.79265	0.79265	0.100	1.69103	30.00000	Averaged	spcc
	35 2-Butanone	0.33847	0.24998	0.24998	0.030	-26.14510	40.00000	Averaged	
	36 cis-1,2-Dichloroethylene	0.42695	0.43363	0.43363	0.050	1.56356	30.00000	Averaged	
	33 2,2-Dichloropropane	0.45439	0.53784	0.53784	0.050	18.36598	30.00000	Averaged	
	41 Chloroform	0.75919	0.76943	0.76943	0.010	1.34947	20.00000	Averaged	ccc
	39 Bromochloromethane	0.18374	0.18086	0.18086	0.010	-1.56773	30.00000	Averaged	
	43 1,1,1-Trichloroethane	0.50672	0.54986	0.54986	0.010	8.51462	30.00000	Averaged	
	42 Cyclohexane	0.73657	0.82770	0.82770	0.010	12.37274	30.00000	Averaged	
	45 1,1-Dichloropropene	0.55585	0.61752	0.61752	0.010	11.09521	30.00000	Averaged	
	53 n-Butyl alcohol	4633	5000	0.01118	0.001	-7.34997	40.00000	Linear	
	44 Carbon tetrachloride	0.50106	0.55641	0.55641	0.010	11.04536	30.00000	Averaged	
$	48 1,2-Dichloroethane-d4	0.59741	0.62248	0.62248	0.010	4.19648	30.00000	Averaged	
	51 1,2-Dichloroethane	0.60049	0.56638	0.56638	0.010	-5.68005	30.00000	Averaged	
	47 Benzene	1.62246	1.70991	1.70991	0.010	5.38980	30.00000	Averaged	
	50 Cyclohexene	0.57039	0.61248	0.61248	0.010	7.37866	30.00000	Averaged	

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA1.i Injection Date: 21-DEC-2009 12:49
Lab File ID: 1s106.d Init. Cal. Date(s): 17-DEC-2009 17-DEC-2009
Analysis Type: WATER Init. Cal. Times: 13:26 21:57
Lab Sample ID: W1VM091221-05 Quant Type: ISTD
Method: /chem/VOA1.i/122109v1/VOA1-8260ox-121709.m

	COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
	54 Trichloroethylene	0.41533	0.43381	0.43381	0.010	4.44905	30.00000	Averaged	
	57 1,2-Dichloropropane	0.44519	0.45983	0.45983	0.010	3.28955	20.00000	Averaged	ccc
	55 Methylcyclohexane	0.67889	0.76930	0.76930	0.010	13.31790	30.00000	Averaged	
	60 Bromodichloromethane	0.55929	0.57770	0.57770	0.010	3.29149	30.00000	Averaged	
	59 Dibromomethane	0.25093	0.23612	0.23612	0.010	-5.89971	30.00000	Averaged	
	61 2-Chloroethylvinyl ether	645	250	0.12371	0.000	158	30.00000	Linear	<-
	64 4-Methyl-2-pentanone	0.24426	0.23576	0.23576	0.010	-3.47932	40.00000	Averaged	
	63 cis-1,3-Dichloropropylene	0.65317	0.70327	0.70327	0.010	7.67072	30.00000	Averaged	
$	65 Toluene-d8	2.78542	3.01380	3.01380	0.010	8.19927	30.00000	Averaged	
	66 Toluene	1.45437	1.52338	1.52338	0.010	4.74555	20.00000	Averaged	ccc
	68 trans-1,3-Dichloropropylene	0.84622	0.94420	0.94420	0.010	11.57831	30.00000	Averaged	
	69 1,1,2-Trichloroethane	0.41628	0.41450	0.41450	0.010	-0.42812	30.00000	Averaged	
	71 2-Hexanone	0.62331	0.50270	0.50270	0.010	-19.35042	40.00000	Averaged	
	72 1,3-Dichloropropane	0.88376	0.87150	0.87150	0.010	-1.38751	30.00000	Averaged	
	70 Tetrachloroethylene	0.44329	0.46759	0.46759	0.010	5.48240	30.00000	Averaged	
	73 Dibromochloromethane	0.52259	0.54238	0.54238	0.010	3.78728	30.00000	Averaged	
	74 1,2-Dibromoethane	0.46944	0.46678	0.46678	0.010	-0.56801	30.00000	Averaged	
	77 Chlorobenzene	1.51959	1.57645	1.57645	0.300	3.74117	30.00000	Averaged	spcc
	79 1,1,1,2-Tetrachloroethane	0.50746	0.53104	0.53104	0.010	4.64590	30.00000	Averaged	
	78 Ethylbenzene	2.78731	2.96142	2.96142	0.010	6.24648	20.00000	Averaged	ccc
	80 m,p-Xylenes	1.01430	1.07378	1.07378	0.010	5.86447	30.00000	Averaged	
	81 o-Xylene	0.98852	1.05708	1.05708	0.010	6.93550	30.00000	Averaged	
	82 Styrene	1.66316	1.81090	1.81090	0.010	8.88258	30.00000	Averaged	
	83 Bromoform	45.93055	50.00000	0.64682	0.100	-8.13889	30.00000	Linear	spcc
	84 Isopropylbenzene	4.93116	5.52949	5.52949	0.010	12.13363	30.00000	Averaged	
	88 1,1,2,2-Tetrachloroethane	1.18805	1.15180	1.15180	0.300	-3.05136	30.00000	Averaged	spcc
$	87 Bromofluorobenzene	2.00113	2.18544	2.18544	0.010	9.21002	30.00000	Averaged	
	92 1,2,3-Trichloropropane	0.30749	0.29461	0.29461	0.010	-4.18981	30.00000	Averaged	
	91 Bromobenzene	1.17689	1.19885	1.19885	0.010	1.86534	30.00000	Averaged	
	89 n-Propylbenzene	6.13555	6.78867	6.78867	0.010	10.64485	30.00000	Averaged	
	94 2-Chlorotoluene	4.27200	4.57266	4.57266	0.010	7.03807	30.00000	Averaged	
	93 1,3,5-Trimethylbenzene	4.28393	4.64732	4.64732	0.010	8.48255	30.00000	Averaged	
	95 4-Chlorotoluene	3.87008	4.18492	4.18492	0.010	8.13513	30.00000	Averaged	
	96 tert-Butylbenzene	3.51473	3.73875	3.73875	0.010	6.37378	30.00000	Averaged	
	97 1,2,4-Trimethylbenzene	4.42433	4.67620	4.67620	0.010	5.69297	30.00000	Averaged	
	99 sec-Butylbenzene	5.63174	6.11750	6.11750	0.010	8.62540	30.00000	Averaged	

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA1.i Injection Date: 21-DEC-2009 12:49
Lab File ID: 1s106.d Init. Cal. Date(s): 17-DEC-2009 17-DEC-2009
Analysis Type: WATER Init. Cal. Times: 13:26 21:57
Lab Sample ID: W1VM091221-05 Quant Type: ISTD
Method: /chem/VOA1.i/122109v1/VOA1-8260ox-121709.m

COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
100 4-Isopropyltoluene	4.27087	4.64084	4.64084	0.010	8.66271	30.00000	Averaged
101 1,3-Dichlorobenzene	2.28714	2.34267	2.34267	0.010	2.42767	30.00000	Averaged
103 1,4-Dichlorobenzene	2.33126	2.37349	2.37349	0.010	1.81161	30.00000	Averaged
105 n-Butylbenzene	4.52044	5.16722	5.16722	0.010	14.30785	30.00000	Averaged
106 1,2-Dichlorobenzene	2.17328	2.18020	2.18020	0.010	0.31853	30.00000	Averaged
108 1,2-Dibromo-3-chloropropane	43.25487	50.00000	0.18687	0.010	-13.49026	30.00000	Linear
109 1,2,4-Trichlorobenzene	1.22343	1.31194	1.31194	0.010	7.23463	30.00000	Averaged
110 Hexachlorobutadiene	0.81816	0.87661	0.87661	0.010	7.14316	30.00000	Averaged
111 Naphthalene	40.85817	50.00000	2.14873	0.010	-18.28366	30.00000	Linear
112 1,2,3-Trichlorobenzene	0.91418	0.89499	0.89499	0.010	-2.09908	30.00000	Averaged

Average %D / Drift Results.

Calculated Average %D/Drift = 9.16774
Maximun Average %D/Drift = 20.00000
* Passed Average %D/Drift Test.

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VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/122109v1/1s106.d
Lab Smp Id: W1VM091221-05 Client Smp ID: VSTD050
Inj Date : 21-DEC-2009 12:49
Operator : RXM4 Inst ID: VOA1.i
Smp Info : |W1VM091221-05|CCV/LCS|1|VOAF|1|
Misc Info : GEL 5ml N/A
Comment :
Method : /chem/VOA1.i/122109v1/VOA1-8260ox-121709.m
Meth Date : 21-Dec-2009 13:41 ron01469 Quant Type: ISTD
Cal Date : 17-DEC-2009 18:56 Cal File: 1r420.d
Als bottle: 6 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: CALsubL+.sub
Target Version: 3.50

Concentration Formula: Amt * DF * (Uf/Vo) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	sample purged

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
M 1 Xylenes (total)	106				2348301	150.000	159
M 2 1,2-Dichloroethylene (total)	96				878689	100.000	102
M 3 1,3-Dichloropropylene	75				1435365	100.000	110
5 Dichlorodifluoromethane	85	4.998	4.998	(0.366)	254983	50.0000	42.7
6 Chloromethane	50	5.550	5.550	(0.406)	516203	50.0000	47.0
7 Vinyl chloride	62	5.930	5.930	(0.434)	436335	50.0000	47.8
9 Bromomethane	96	6.943	6.943	(0.508)	288014	50.0000	48.3
10 Chloroethane	64	7.215	7.215	(0.528)	328153	50.0000	51.4
11 Trichlorofluoromethane	101	7.836	7.836	(0.573)	538618	50.0000	56.9
12 Ethyl Ether	59	8.467	8.467	(0.619)	378016	50.0000	47.8
16 Acetone	43	9.240	9.240	(0.676)	1139439	250.000	178
22 Acetonitrile	41	9.963	9.963	(0.729)	1163114	1250.00	1100
15 1,1-Dichloroethylene	61	9.079	9.079	(0.664)	757062	50.0000	51.2
21 Methyl acetate	43	9.820	9.820	(0.718)	1372436	250.000	225
18 Iodomethane	142	9.461	9.461	(0.692)	2835625	250.000	242
23 Methylene chloride	84	10.128	10.128	(0.741)	453548	50.0000	47.1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
19 Carbon disulfide	76	9.567	9.567	(0.700)	6431849	250.000	267
25 tert-Butyl methyl ether	73	10.423	10.423	(0.762)	1157680	50.0000	48.8
26 trans-1,2-Dichloroethylene	96	10.538	10.538	(0.771)	420271	50.0000	51.2
29 Vinyl acetate	43	11.284	11.284	(0.825)	4234840	250.000	290
30 1,1-Dichloroethane	63	11.311	11.311	(0.827)	837961	50.0000	50.8
35 2-Butanone	43	12.172	12.172	(0.890)	1321344	250.000	185
36 cis-1,2-Dichloroethylene	96	12.190	12.190	(0.892)	458417	50.0000	50.8
33 2,2-Dichloropropane	77	12.149	12.149	(0.889)	568587	50.0000	59.2
41 Chloroform	83	12.600	12.600	(0.922)	813421	50.0000	50.7
39 Bromochloromethane	128	12.549	12.549	(0.918)	191202	50.0000	49.2
43 1,1,1-Trichloroethane	97	12.835	12.835	(0.939)	581300	50.0000	54.2
42 Cyclohexane	56	12.830	12.830	(0.938)	875024	50.0000	56.2
45 1,1-Dichloropropene	75	13.042	13.042	(0.954)	652826	50.0000	55.5
53 n-Butyl alcohol	56	13.921	13.921	(1.018)	1181489	5000.00	4630
44 Carbon tetrachloride	117	13.014	13.014	(0.952)	588214	50.0000	55.5
$ 48 1,2-Dichloroethane-d4	65	13.327	13.327	(0.975)	658070	50.0000	52.1
51 1,2-Dichloroethane	62	13.429	13.429	(0.982)	598765	50.0000	47.2
47 Benzene	78	13.323	13.323	(0.974)	1807662	50.0000	52.7
50 Cyclohexene	54	13.387	13.387	(0.979)	647494	50.0000	53.7
* 52 Fluorobenzene	96	13.673	13.673	(1.000)	1057170	50.0000	
54 Trichloroethylene	95	14.105	14.105	(1.032)	458613	50.0000	52.2
57 1,2-Dichloropropane	63	14.451	14.451	(1.057)	486123	50.0000	51.6
55 Methylcyclohexane	83	14.271	14.271	(1.044)	813279	50.0000	56.6
60 Bromodichloromethane	83	14.741	14.741	(1.078)	610725	50.0000	51.6
59 Dibromomethane	93	14.612	14.612	(1.069)	249621	50.0000	47.0
61 2-Chloroethylvinyl ether	63	15.021	15.021	(1.099)	653899	250.000	645(A)
64 4-Methyl-2-pentanone	58	15.353	15.353	(0.895)	863808	250.000	241
63 cis-1,3-Dichloropropylene	75	15.247	15.247	(1.115)	743473	50.0000	53.8
$ 65 Toluene-d8	98	15.509	15.509	(0.904)	2208456	50.0000	54.1
66 Toluene	92	15.587	15.587	(0.909)	1116305	50.0000	52.4
68 trans-1,3-Dichloropropylene	75	15.873	15.873	(0.925)	691892	50.0000	55.8
69 1,1,2-Trichloroethane	83	16.094	16.094	(0.938)	303739	50.0000	49.8
71 2-Hexanone	43	16.260	16.260	(0.948)	1841839	250.000	202
72 1,3-Dichloropropane	76	16.301	16.301	(0.950)	638619	50.0000	49.3
70 Tetrachloroethylene	164	16.181	16.181	(0.943)	342640	50.0000	52.7
73 Dibromochloromethane	129	16.540	16.540	(0.964)	397448	50.0000	51.9
74 1,2-Dibromoethane	107	16.720	16.720	(0.975)	342043	50.0000	49.7
* 76 Chlorobenzene-d5	117	17.153	17.153	(1.000)	732780	50.0000	
77 Chlorobenzene	112	17.185	17.185	(1.002)	1155187	50.0000	51.9
79 1,1,1,2-Tetrachloroethane	131	17.254	17.254	(1.006)	389135	50.0000	52.3
78 Ethylbenzene	91	17.212	17.212	(1.003)	2170069	50.0000	53.1
80 m,p-Xylenes	106	17.327	17.327	(1.010)	1573692	100.000	106
81 o-Xylene	106	17.779	17.779	(1.036)	774609	50.0000	53.5
82 Styrene	104	17.797	17.797	(1.038)	1326988	50.0000	54.4
83 Bromoform	173	18.101	18.101	(0.923)	248778	50.0000	45.9
84 Isopropylbenzene	105	18.124	18.124	(0.924)	2126734	50.0000	56.1
88 1,1,2,2-Tetrachloroethane	83	18.501	18.501	(0.944)	443002	50.0000	48.5

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
$ 87 Bromofluorobenzene	95	18.382	18.382	(0.938)	840555	50.0000	54.6
92 1,2,3-Trichloropropane	110	18.602	18.602	(0.949)	113310	50.0000	47.9
91 Bromobenzene	156	18.589	18.589	(0.948)	461097	50.0000	50.9
89 n-Propylbenzene	91	18.552	18.552	(0.946)	2611035	50.0000	55.3
94 2-Chlorotoluene	91	18.736	18.736	(0.956)	1758723	50.0000	53.5
93 1,3,5-Trimethylbenzene	105	18.713	18.713	(0.954)	1787435	50.0000	54.2
95 4-Chlorotoluene	91	18.846	18.846	(0.961)	1609589	50.0000	54.1
96 tert-Butylbenzene	119	19.072	19.072	(0.973)	1437987	50.0000	53.2
97 1,2,4-Trimethylbenzene	105	19.132	19.132	(0.976)	1798546	50.0000	52.8
99 sec-Butylbenzene	105	19.298	19.298	(0.984)	2352891	50.0000	54.3
100 4-Isopropyltoluene	119	19.417	19.417	(0.990)	1784945	50.0000	54.3
101 1,3-Dichlorobenzene	146	19.537	19.537	(0.996)	901028	50.0000	51.2
* 102 1,4-Dichlorobenzene-d4	152	19.606	19.606	(1.000)	384616	50.0000	
103 1,4-Dichlorobenzene	146	19.634	19.634	(1.001)	912885	50.0000	50.9
105 n-Butylbenzene	91	19.864	19.864	(1.013)	1987398	50.0000	57.2
106 1,2-Dichlorobenzene	146	20.075	20.075	(1.024)	838542	50.0000	50.2
108 1,2-Dibromo-3-chloropropane	157	20.996	20.996	(1.071)	71873	50.0000	43.2
109 1,2,4-Trichlorobenzene	180	22.018	22.018	(1.123)	504595	50.0000	53.6
110 Hexachlorobutadiene	225	22.101	22.101	(1.127)	337157	50.0000	53.6
111 Naphthalene	128	22.432	22.432	(1.144)	826436	50.0000	40.8
112 1,2,3-Trichlorobenzene	180	22.782	22.782	(1.162)	344227	50.0000	49.0

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.

Data File: /chem/VOA1.i/122109v1/1s106.d
Date : 21-DEC-2009 12:49
Client ID: VSTD050
Sample Info: IW1VM091221-05|CCV/LCS|1|VOAF|1|
Purge Volume: 5.0
Column phase: RTX-Volatiles

Instrument: VOA1.i
Operator: RXM4
Column diameter: 0.25

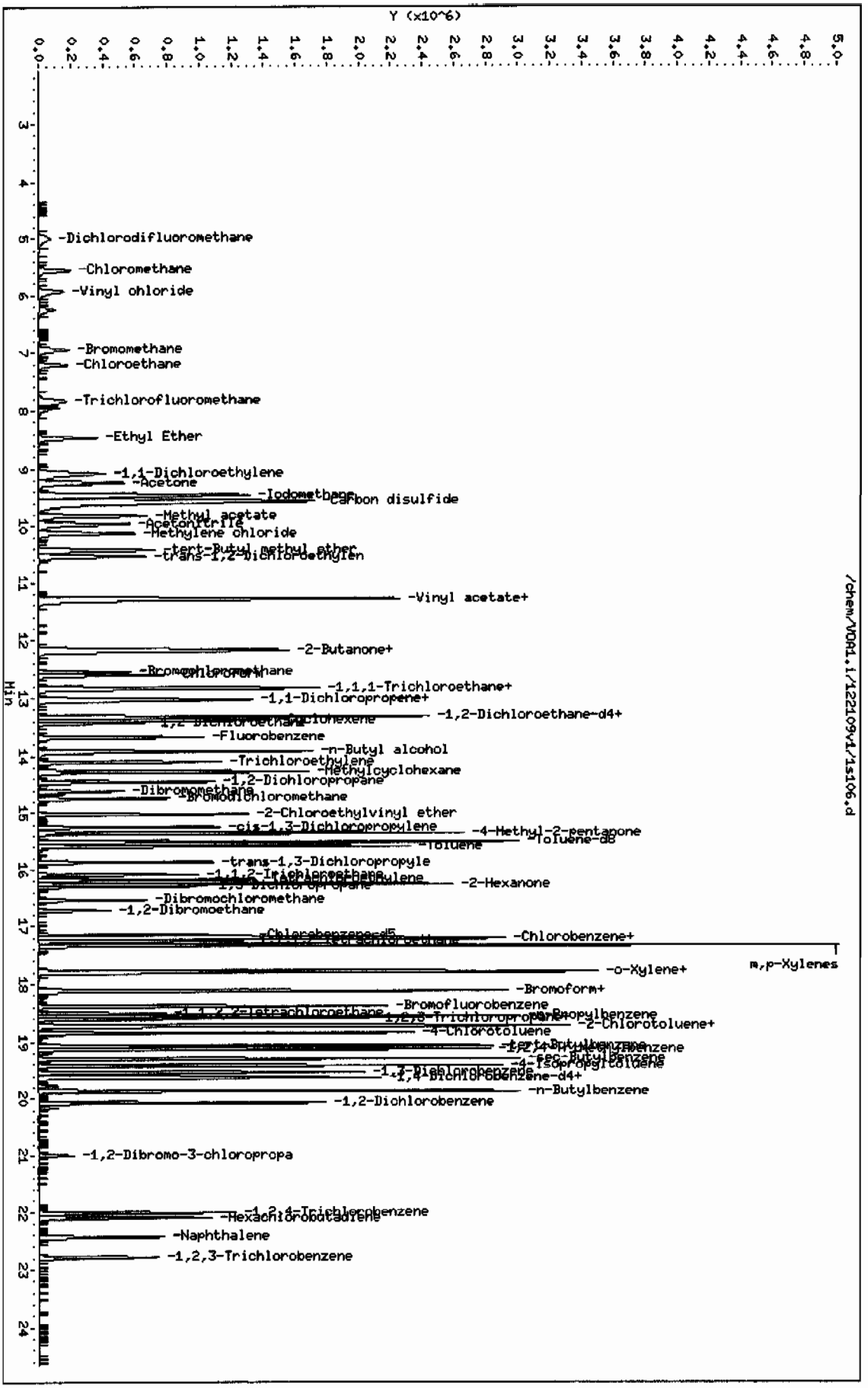

Page 1

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA1.i Injection Date: 21-DEC-2009 13:19
Lab File ID: 1s107.d Init. Cal. Date(s): 17-DEC-2009 17-DEC-2009
Analysis Type: WATER Init. Cal. Times: 13:26 21:57
Lab Sample ID: W1VM091221-06 Quant Type: ISTD
Method: /chem/VOA1.i/122109v1/VOA1-8260ox-121709.m

COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
4 Chlorotrifluoroethylene	118	150	0.17553	0.010	-21.47879	30.00000	Linear
8 2-Chloro-1,1,1-trifluoroeth	143	150	0.43184	0.010	-4.87321	30.00000	Linear
13 Acrolein	0.07113	0.08685	0.08685	0.001	22.10232	30.00000	Averaged
14 Trichlorotrifluoroethane	0.29664	0.39465	0.39465	0.030	33.03822	30.00000	Averaged <-
17 Isopropyl Alcohol	2488	2500	0.02591	0.000	-0.49555	40.00000	Linear
20 Allyl chloride	290	250	0.20153	0.010	16.05645	30.00000	Linear
24 tert-Butyl Alcohol	2626	2500	0.04522	0.010	5.02907	40.00000	Linear
27 Acrylonitrile	0.14313	0.15587	0.15587	0.010	8.90326	30.00000	Averaged
28 Isopropyl ether	48.24318	50.00000	1.53973	0.010	-3.51364	30.00000	Linear
31 2-Chloro-1,3-butadiene	0.59811	0.82660	0.82660	0.010	38.20140	30.00000	Averaged <-
32 Ethyl tert-butyl ether	51.57024	50.00000	1.50702	0.010	3.14048	30.00000	Linear
37 Propionitrile	0.05574	0.06004	0.06004	0.010	7.71720	30.00000	Averaged
34 Ethyl acetate	0.36418	0.36817	0.36817	0.010	1.09472	40.00000	Averaged
40 Methacrylonitrile	0.28473	0.30522	0.30522	0.010	7.19488	30.00000	Averaged
38 Tetrahydrofuran	0.31873	0.32550	0.32550	0.010	2.12166	30.00000	Averaged
46 Isobutyl alcohol	0.01253	0.01265	0.01265	0.001	0.98981	40.00000	Averaged
49 Methyl tert-amyl ether	51.66187	50.00000	1.26897	0.010	3.32375	30.00000	Linear
56 Methyl methacrylate	0.24537	0.28271	0.28271	0.010	15.21587	30.00000	Averaged
67 Ethyl methacrylate	0.68739	0.79715	0.79715	0.010	15.96781	30.00000	Averaged
75 1-Chlorohexane	0.49469	0.49768	0.49768	0.000	0.60519	30.00000	Averaged
58 1,4-Dioxane	0.00351	0.00342	0.00342	0.001	-2.74304	40.00000	Averaged
62 2-Nitropropane	269	250	0.12026	0.000	7.78538	30.00000	Linear
85 cis-1,4-Dichloro-2-butene	0.37890	0.48694	0.48694	0.010	28.51223	30.00000	Averaged
86 Cyclohexanone	0.07283	0.04238	0.04238	0.010	-41.80367	40.00000	Averaged <-
90 trans-1,4-Dichloro-2-butene	0.35568	0.45902	0.45902	0.010	29.05627	30.00000	Averaged
98 Pentachloroethane	0.42012	0.75111	0.75111	0.010	78.78698	30.00000	Averaged <-
104 Benzyl chloride	1.95639	2.78164	2.78164	0.010	42.18258	30.00000	Averaged <-
107 bis(2-Chloroisopropyl)ether	0.45769	0.52446	0.52446	0.010	14.58844	30.00000	Averaged
$ 48 1,2-Dichloroethane-d4	0.59741	0.67173	0.67173	0.010	12.44025	30.00000	Averaged
$ 65 Toluene-d8	2.78542	3.13966	3.13966	0.010	12.71780	30.00000	Averaged
$ 87 Bromofluorobenzene	2.00113	2.19343	2.19343	0.010	9.60956	30.00000	Averaged

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA1.i Injection Date: 21-DEC-2009 13:19
Lab File ID: 1s107.d Init. Cal. Date(s): 17-DEC-2009 17-DEC-2009
Analysis Type: WATER Init. Cal. Times: 13:26 21:57
Lab Sample ID: W1VM091221-06 Quant Type: ISTD
Method: /chem/VOA1.i/122109v1/VOA1-8260ox-121709.m

Average %D / Drift Results.
Calculated Average %D/Drift = 9.16774
Maximun Average %D/Drift = 20.00000
* Passed Average %D/Drift Test.

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/122109v1/1s107.d
Lab Smp Id: W1VM091221-06 Client Smp ID: VSTD250S
Inj Date : 21-DEC-2009 13:19
Operator : RXM4 Inst ID: VOA1.i
Smp Info : |W1VM091221-06|SHORT|1|VOAF|1|
Misc Info : GEL 5ml N/A
Comment :
Method : /chem/VOA1.i/122109v1/VOA1-8260ox-121709.m
Meth Date : 21-Dec-2009 13:41 ron01469 Quant Type: ISTD
Cal Date : 17-DEC-2009 18:56 Cal File: 1r420.d
Als bottle: 7 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: CALsubS+SS.sub
Target Version: 3.50

Concentration Formula: Amt * DF * (Uf/Vo) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	sample purged

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
4 Chlorotrifluoroethylene	116	4.897	4.897	(0.358)	482739	150.000	118
8 2-Chloro-1,1,1-trifluoroethane	118	6.308	6.308	(0.461)	1187648	150.000	143
13 Acrolein	56	8.954	8.954	(0.654)	398111	250.000	305
14 Trichlorotrifluoroethane	101	8.987	8.987	(0.657)	1808939	250.000	332
17 Isopropyl Alcohol	45	9.451	9.451	(0.691)	1187664	2500.00	2490
20 Allyl chloride	76	9.852	9.852	(0.720)	923738	250.000	290
24 tert-Butyl Alcohol	59	10.197	10.197	(0.745)	2072649	2500.00	2620
27 Acrylonitrile	53	10.671	10.671	(0.780)	714466	250.000	272
28 Isopropyl ether	45	11.196	11.196	(0.818)	1411536	50.0000	48.2
31 2-Chloro-1,3-butadiene	53	11.394	11.394	(0.833)	757777	50.0000	69.1
32 Ethyl tert-butyl ether	59	11.753	11.753	(0.859)	1381544	50.0000	51.6
37 Propionitrile	54	12.407	12.407	(0.907)	275225	250.000	269
34 Ethyl acetate	43	12.163	12.163	(0.889)	1687576	250.000	253
40 Methacrylonitrile	41	12.563	12.563	(0.918)	1399033	250.000	268
38 Tetrahydrofuran	42	12.535	12.535	(0.639)	572711	250.000	255
46 Isobutyl alcohol	41	13.106	13.106	(0.958)	579839	2500.00	2520

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
49 Methyl tert-amyl ether	73	13.346	13.346	(0.975)	1163319	50.0000	51.7
56 Methyl methacrylate	69	14.437	14.437	(1.055)	1295837	250.000	288
67 Ethyl methacrylate	69	15.808	15.808	(0.921)	2564579	250.000	290
75 1-Chlorohexane	55	17.028	17.028	(1.245)	456246	50.0000	50.3
58 1,4-Dioxane	88	14.547	14.547	(1.063)	156553	2500.00	2430
62 2-Nitropropane	43	15.076	15.076	(1.102)	551219	250.000	269
85 cis-1,4-Dichloro-2-butene	53	18.271	18.271	(0.932)	856768	250.000	321
86 Cyclohexanone	55	18.381	18.381	(1.071)	681760	1250.00	727
90 trans-1,4-Dichloro-2-butene	53	18.565	18.565	(0.947)	807656	250.000	323
98 Pentachloroethane	167	19.196	19.196	(0.979)	1321588	250.000	447(A)
104 Benzyl chloride	91	19.771	19.771	(1.008)	4894320	250.000	355
107 bis(2-Chloroisopropyl)ether	45	20.163	20.163	(1.028)	922790	250.000	286
* 52 Fluorobenzene	96	13.682	13.673	(1.000)	916741	50.0000	
* 76 Chlorobenzene-d5	117	17.157	17.153	(1.000)	643439	50.0000	
* 102 1,4-Dichlorobenzene-d4	152	19.606	19.606	(1.000)	351901	50.0000	
$ 48 1,2-Dichloroethane-d4	65	13.336	13.327	(0.975)	615804	50.0000	56.2
$ 65 Toluene-d8	98	15.514	15.509	(0.904)	2020183	50.0000	56.4
$ 87 Bromofluorobenzene	95	18.386	18.382	(0.938)	771871	50.0000	54.8

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.

Data File: /chem/VOA1.i/122109v1/1s107.d
Date : 21-DEC-2009 13:19
Client ID: VSTD250S
Sample Info: |WLVH091221-06|SHORT|1|VOAF|1|
Purge Volume: 5.0
Column phase: RTX-Volatiles

Instrument: VOA1.i
Operator: RXH4
Column diameter: 0.25

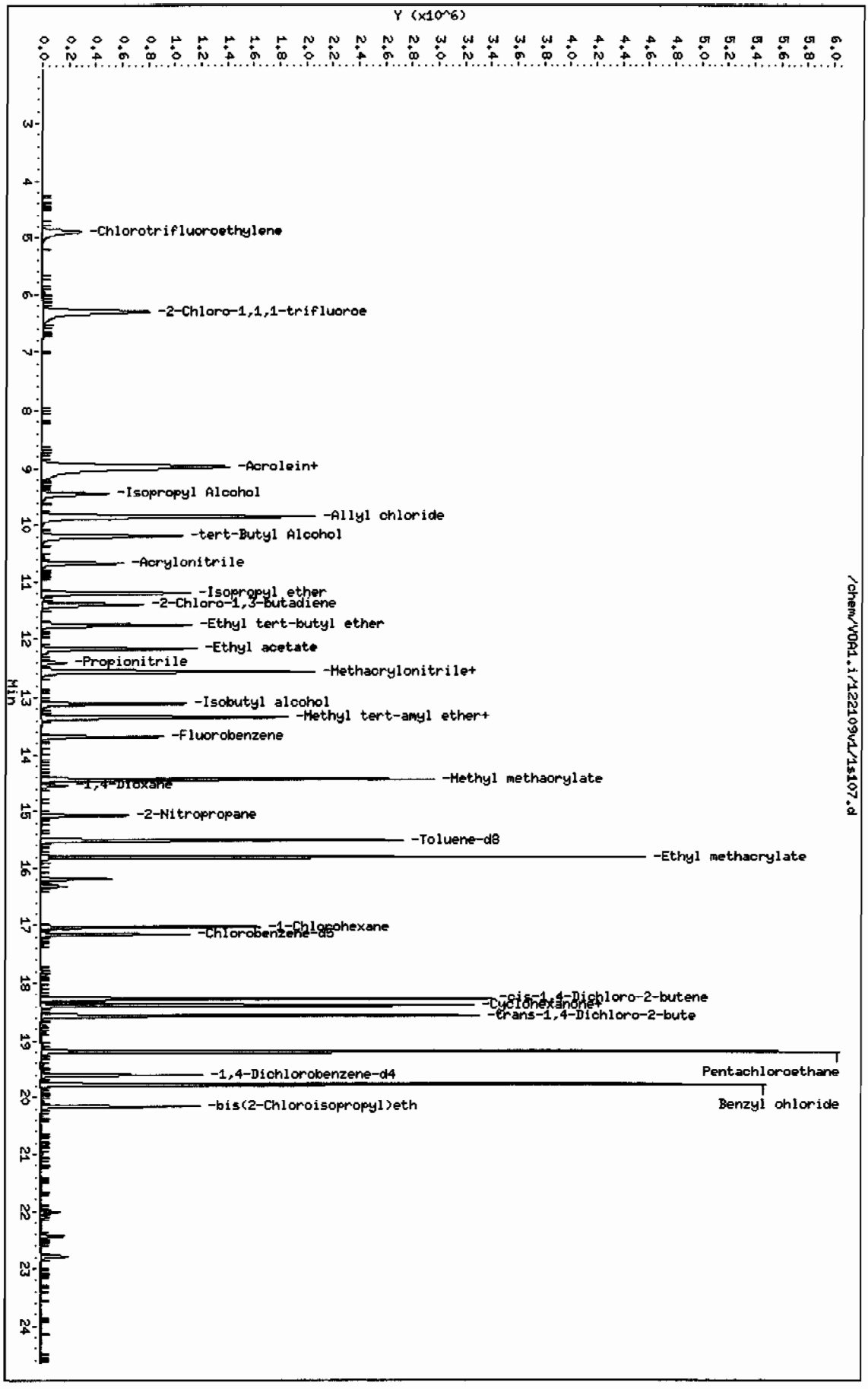

Page 1

QC Data

Data File: /chem/VOA1.i/121709v1/1r408.d

Page 1

Date : 17-DEC-2009 12:56

Client ID: BFB01

Instrument: VOA1.i

Sample Info: |UVM091117-02|BFB|1|VOAF|1|

Operator: RXM4

Column phase: RTX-Volatiles

Column diameter: 0.25

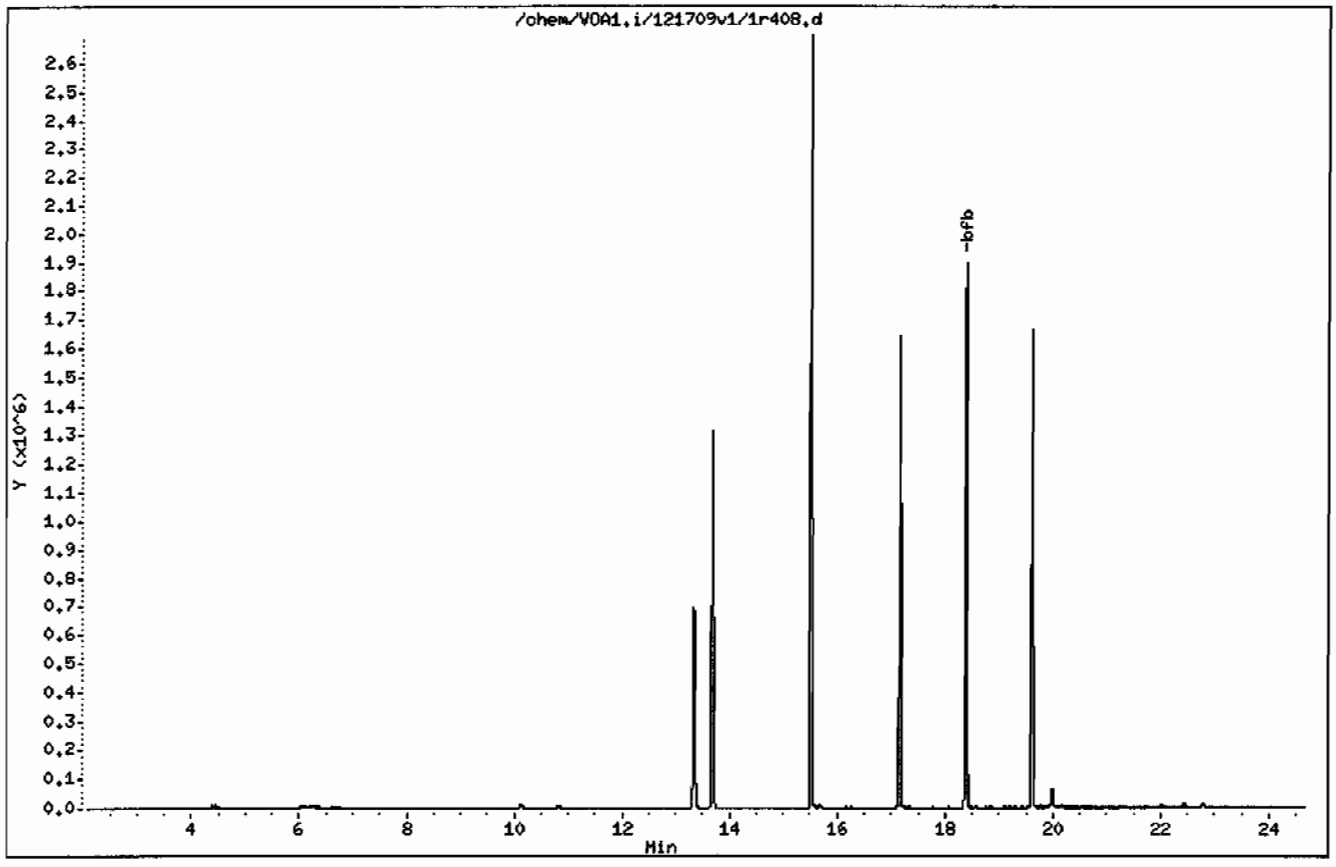

Data File: /chem/VOA1.i/121709v1/1r408.d

Date : 17-DEC-2009 12:56

Client ID: BFB01

Instrument: VOA1.i

Sample Info: |UVH091117-02|BFB|1|VOAF|1|

Operator: RXM4

Column phase: RTX-Volatiles

Column diameter: 0.25

1 bfb

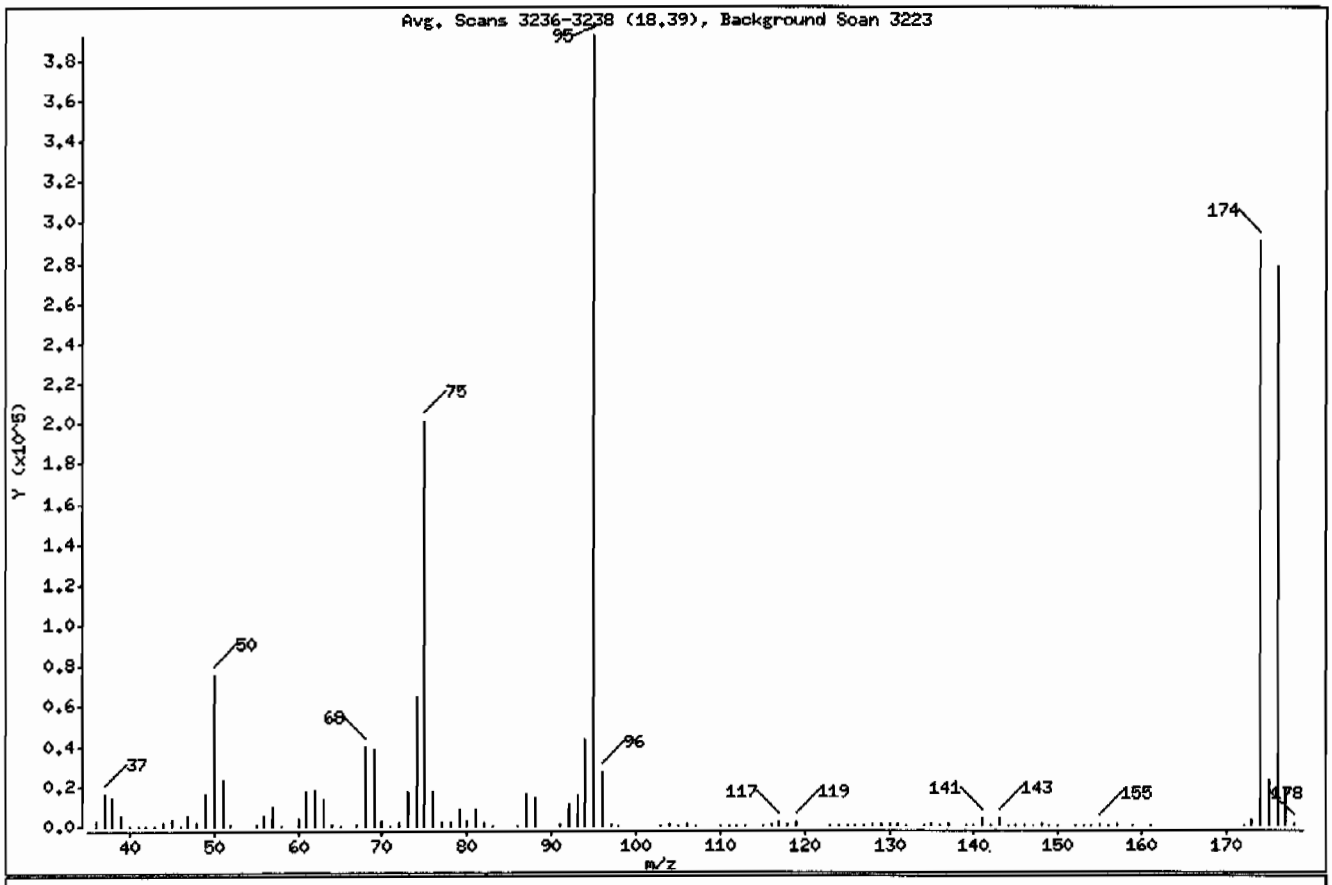

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	19.22
75	30.00 - 60.00% of mass 95	51.37
96	5.00 - 9.00% of mass 95	6.90
173	Less than 2.00% of mass 174	0.61 (0.83)
174	50.00 - 100.00% of mass 95	74.08
175	5.00 - 9.00% of mass 174	5.65 (7.63)
176	95.00 - 101.00% of mass 174	70.75 (95.51)
177	5.00 - 9.00% of mass 176	4.62 (6.54)

Data File: /chem/VOA1.i/121709v1/1r408.d

Date : 17-DEC-2009 12:56

Client ID: BFB01 Instrument: VOA1.i

Sample Info: |UVM091117-02|BFB|1|VOAF|1|

Operator: RXM4

Column phase: RTX-Volatiles Column diameter: 0.25

Data File: 1r408.d
Spectrum: Avg. Scans 3236-3238 (18.39), Background Scan 3223
Location of Maximum: 95.00
Number of points: 110

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	2874	68.00	39568	104.00	1329	140.00	263
37.00	16337	69.00	39040	105.00	411	141.00	3454
38.00	14622	70.00	2858	106.00	1316	142.00	441
39.00	5793	71.00	56	107.00	383	143.00	3213
40.00	268	72.00	2112	110.00	180	144.00	185
41.00	187	73.00	16760	111.00	260	145.00	364
42.00	431	74.00	65024	112.00	137	146.00	417
43.00	265	75.00	201636	113.00	208	147.00	241
44.00	1554	76.00	16848	115.00	318	148.00	868
45.00	3164	77.00	2254	116.00	1330	149.00	204
46.00	99	78.00	1672	117.00	2101	150.00	433
47.00	5349	79.00	8263	118.00	1270	152.00	111
48.00	1967	80.00	2473	119.00	1528	153.00	239
49.00	15962	81.00	8380	123.00	56	154.00	145
50.00	75392	82.00	1795	124.00	230	155.00	932
51.00	23576	83.00	239	125.00	72	156.00	174
52.00	1041	86.00	388	126.00	88	157.00	675
55.00	1234	87.00	16023	127.00	82	159.00	408
56.00	5159	88.00	14205	128.00	1243	161.00	448
57.00	9746	91.00	1126	129.00	651	172.00	388
58.00	352	92.00	10615	130.00	1286	173.00	2409
60.00	3488	93.00	15217	131.00	506	174.00	290624
61.00	17304	94.00	43696	132.00	52	175.00	22168
62.00	17712	95.00	392320	134.00	67	176.00	277568
63.00	13232	96.00	27088	135.00	559	177.00	18144
64.00	1214	97.00	893	136.00	123	178.00	473
65.00	111	98.00	234	137.00	596		
67.00	839	103.00	180	139.00	117		

Data File: /chem/VOA1.i/121809v1/1r522.d

Page 1

Date : 18-DEC-2009 21:19

Client ID: BFB01

Instrument: VOA1.i

Sample Info: |UVH091117-02|BFB02|1|VOAF|1|

Operator: RXM4

Column phase: RTX-Volatiles

Column diameter: 0.25

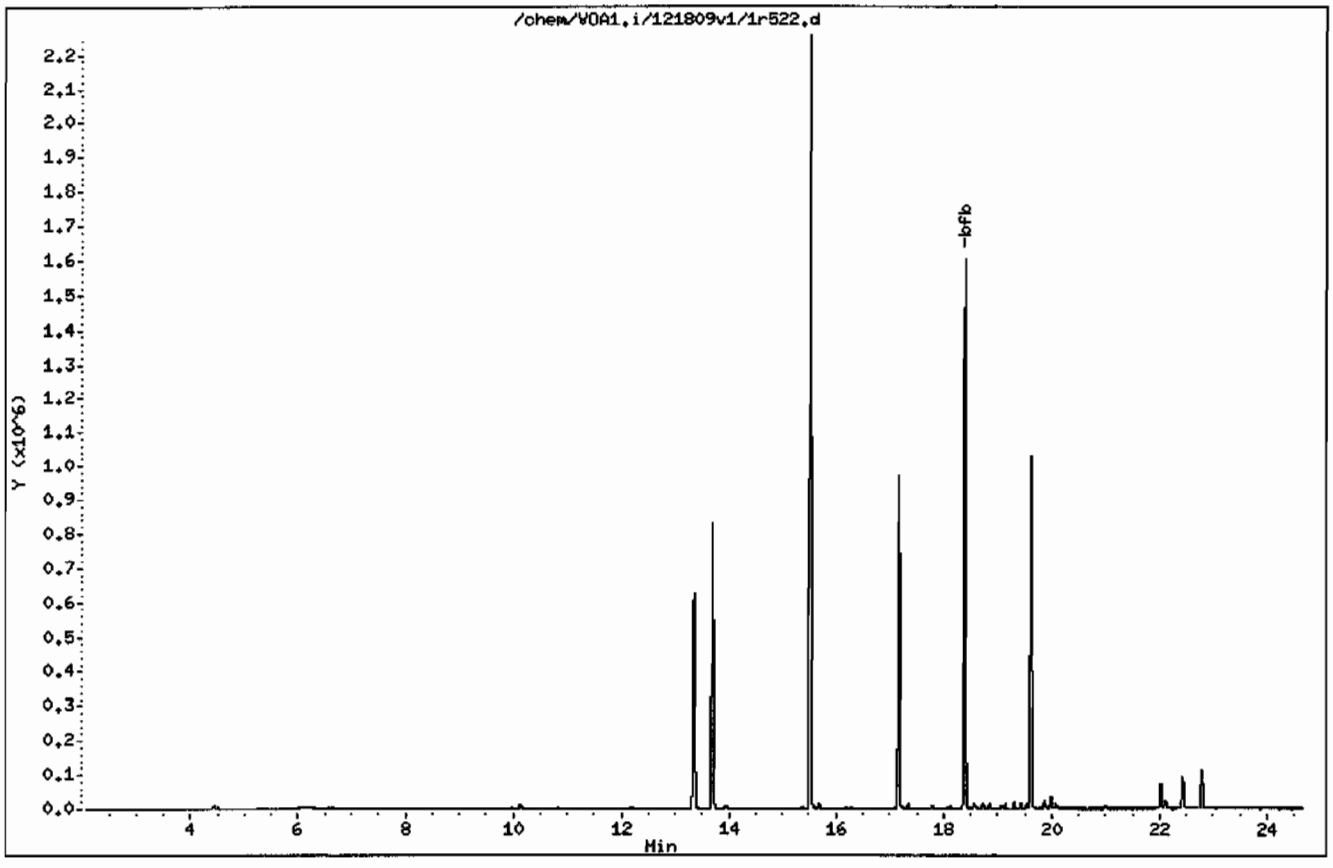

Data File: /chem/VOA1.i/121809v1/1r522.d

Date : 18-DEC-2009 21:19

Client ID: BFB01 Instrument: VOA1.i

Sample Info: |UVM091117-02|BFB02|1|VOAF|1|

Operator: RXM4

Column phase: RTX-Volatiles Column diameter: 0.25

1 bfb

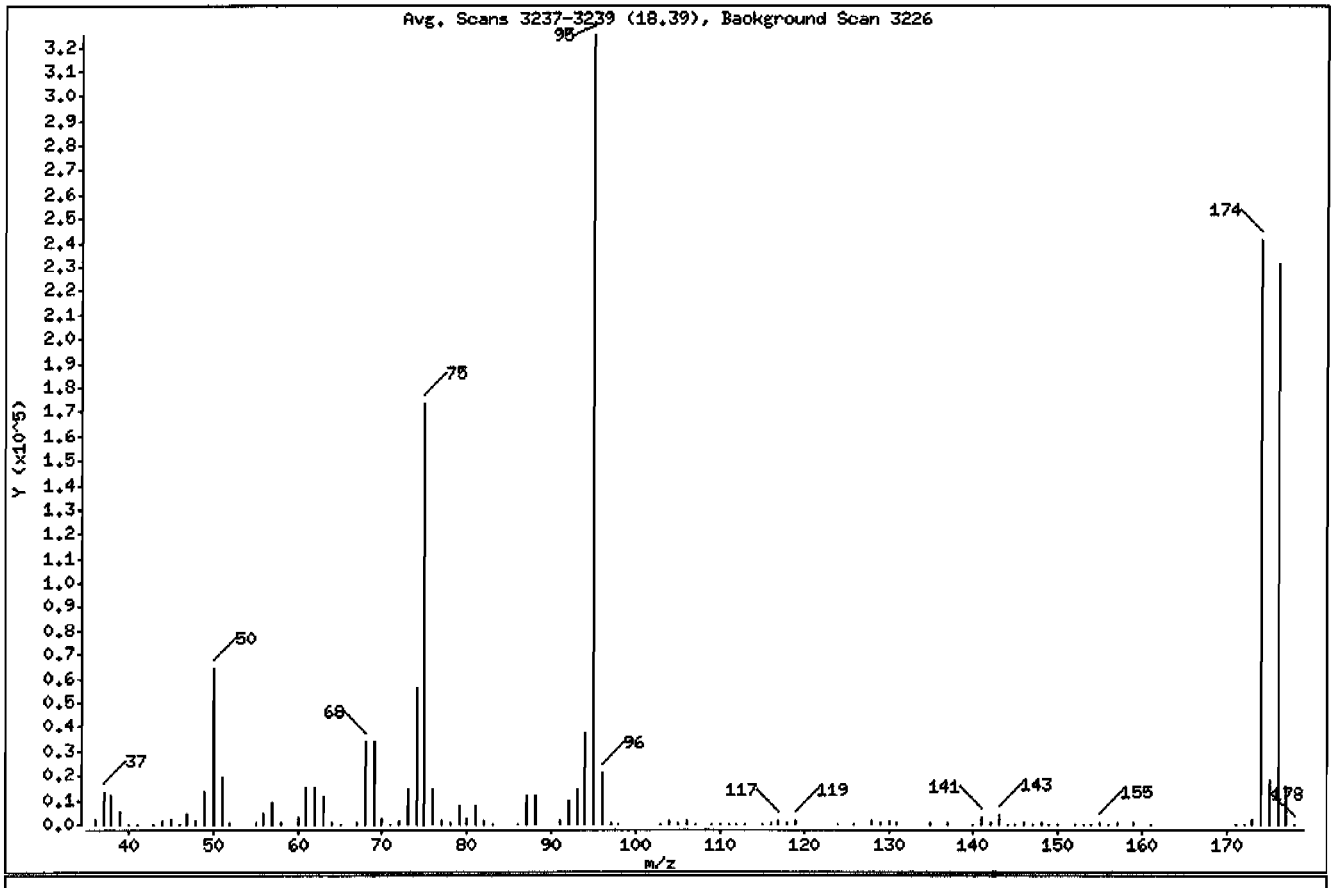

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	19.75
75	30.00 - 60.00% of mass 95	53.29
96	5.00 - 9.00% of mass 95	6.44
173	Less than 2.00% of mass 174	0.66 (0.89)
174	50.00 - 100.00% of mass 95	74.27
175	5.00 - 9.00% of mass 174	5.46 (7.35)
176	95.00 - 101.00% of mass 174	71.36 (96.07)
177	5.00 - 9.00% of mass 176	4.72 (6.61)

Data File: /chem/VOA1.i/121809v1/1r522.d

Date : 18-DEC-2009 21:19

Client ID: BFB01 Instrument: VOA1.i

Sample Info: |UVM091117-02|BFB02|1|VOAF|1|

Operator: RXM4

Column phase: RTX-Volatiles Column diameter: 0.25

Data File: 1r522.d

Spectrum: Avg. Scans 3237-3239 (18.39), Background Scan 3226

Location of Maximum: 95.00

Number of points: 104

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	2540	68.00	33760	103.00	107	144.00	217
37.00	13760	69.00	33472	104.00	1244	145.00	191
38.00	12320	70.00	2272	105.00	486	146.00	406
39.00	4983	71.00	75	106.00	1210	147.00	64
40.00	168	72.00	1683	107.00	295	148.00	771
41.00	62	73.00	14547	109.00	58	149.00	203
43.00	183	74.00	56264	110.00	60	150.00	345
44.00	1359	75.00	173120	111.00	202	152.00	109
45.00	2522	76.00	14396	112.00	58	153.00	198
46.00	131	77.00	1584	113.00	189	154.00	168
47.00	4357	78.00	1084	115.00	307	155.00	664
48.00	1720	79.00	7224	116.00	920	156.00	54
49.00	13078	80.00	2216	117.00	1785	157.00	524
50.00	64160	81.00	7591	118.00	1018	159.00	408
51.00	19704	82.00	1522	119.00	1315	161.00	325
52.00	998	83.00	182	124.00	113	171.00	88
55.00	1008	86.00	291	126.00	82	172.00	203
56.00	4583	87.00	12199	128.00	1123	173.00	2142
57.00	8685	88.00	11576	129.00	549	174.00	241280
58.00	380	91.00	1124	130.00	1146	175.00	17744
60.00	3187	92.00	9399	131.00	451	176.00	231808
61.00	15022	93.00	13817	135.00	531	177.00	15333
62.00	14752	94.00	37624	137.00	445	178.00	368
63.00	11070	95.00	324864	140.00	188		
64.00	1052	96.00	20920	141.00	3017		
65.00	131	97.00	657	142.00	444		
67.00	800	98.00	171	143.00	3387		

Data File: /chem/VOA1.i/122109v1/1s106BFB.d

Date : 21-DEC-2009 12:49

Client ID: BFB

Instrument: VOA1.i

Sample Info: |W1VH091221-05|CCV/LCS|1|VOAF|1|

Operator: RXM4

Column phase: RTX-Volatiles

Column diameter: 0.25

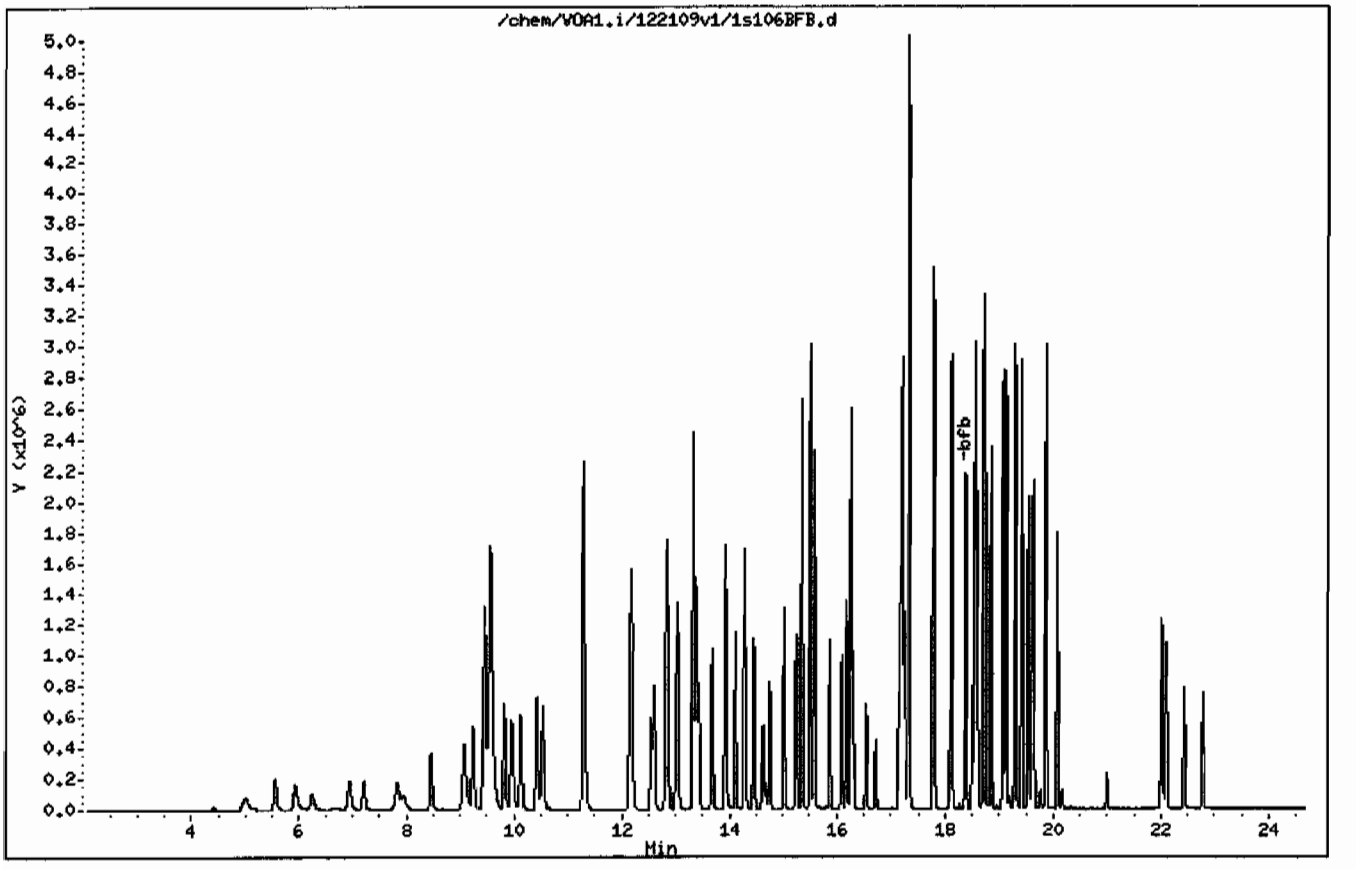

Data File: /chem/VOA1.i/122109v1/1s106BFB.d

Date : 21-DEC-2009 12:49

Client ID: BFB

Instrument: VOA1.i

Sample Info: |W1VM091221-05|CCV/LCS|1|VOAF|1|

Operator: RXH4

Column phase: RTX-Volatiles

Column diameter: 0.25

1 bfb

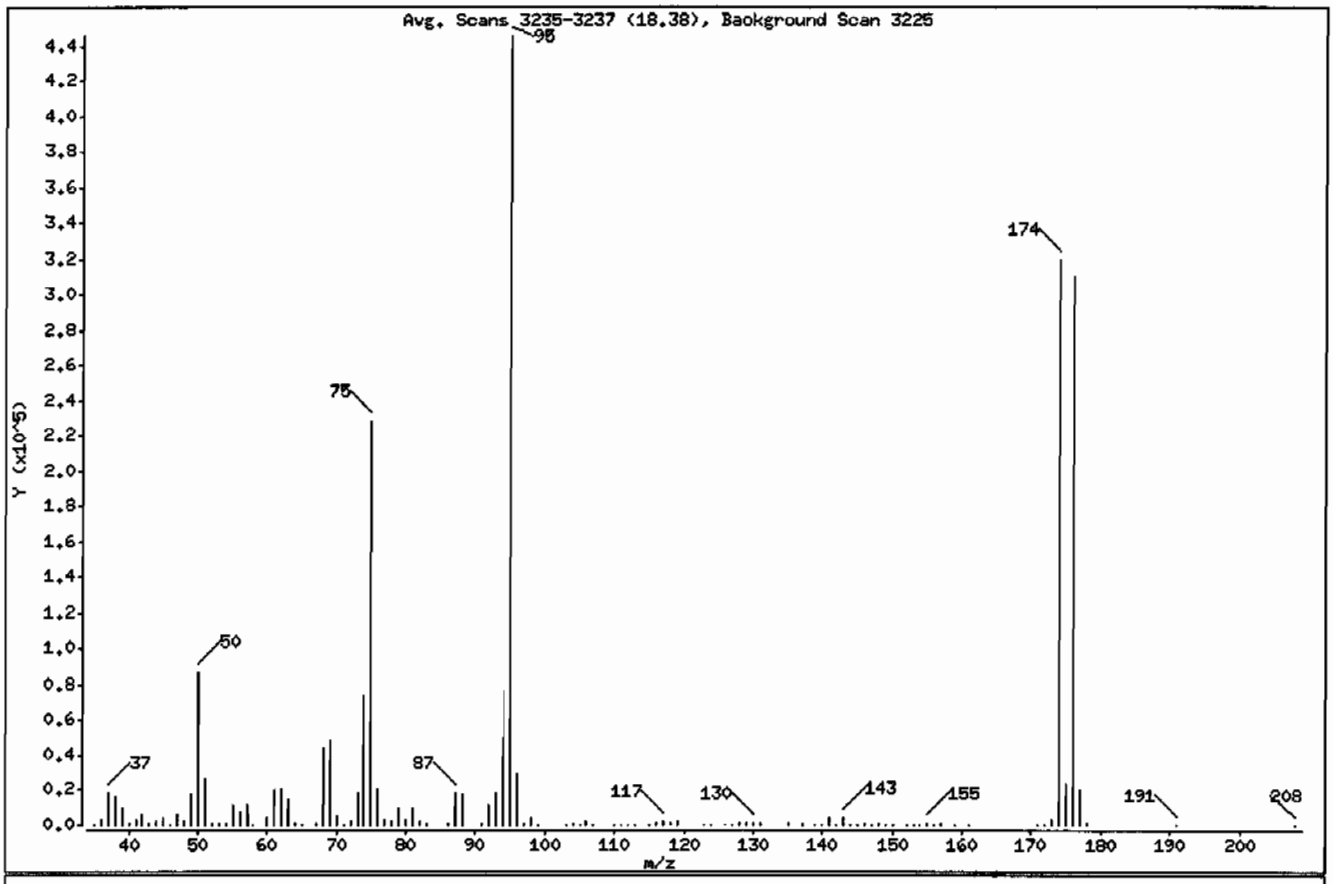

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	19.43
75	30.00 - 60.00% of mass 95	51.31
96	5.00 - 9.00% of mass 95	6.65
173	Less than 2.00% of mass 174	0.61 (0.85)
174	50.00 - 100.00% of mass 95	71.83
175	5.00 - 9.00% of mass 174	5.24 (7.30)
176	95.00 - 101.00% of mass 174	69.66 (96.98)
177	5.00 - 9.00% of mass 176	4.52 (6.49)

Data File: /chem/VOA1.i/122109v1/1s106BFB.d

Date : 21-DEC-2009 12:49

Client ID: BFB

Instrument: VOA1.i

Sample Info: IW1VH091221-05ICCV/LCSI1IVOAFI1I

Operator: RXM4

Column phase: RTX-Volatiles

Column diameter: 0.25

Data File: 1s106BFB.d
Spectrum: Avg. Scans 3235-3237 (18.38), Background Scan 3225
Location of Maximum: 95.00
Number of points: 113

m/z	Y	m/z	Y	m/z	Y	m/z	Y
35.00	60	65.00	294	99.00	189	143.00	4145
36.00	3499	67.00	1155	103.00	269	144.00	275
37.00	18896	68.00	44280	104.00	1399	145.00	392
38.00	16416	69.00	48544	105.00	493	146.00	561
39.00	8729	70.00	5193	106.00	1561	147.00	298
40.00	797	71.00	359	107.00	413	148.00	852
41.00	3087	72.00	2065	110.00	206	149.00	342
42.00	6293	73.00	18616	111.00	302	150.00	322
43.00	1165	74.00	73360	112.00	265	152.00	199
44.00	1884	75.00	228928	113.00	208	153.00	259
45.00	3723	76.00	20512	115.00	502	154.00	294
46.00	263	77.00	2924	116.00	1325	155.00	1048
47.00	6395	78.00	1629	117.00	2281	156.00	108
48.00	2302	79.00	9104	118.00	1444	157.00	574
49.00	17928	80.00	2900	119.00	1714	159.00	484
50.00	86688	81.00	9715	123.00	61	161.00	499
51.00	26872	82.00	2090	124.00	240	171.00	67
52.00	1272	83.00	1235	126.00	81	172.00	166
53.00	580	86.00	581	127.00	176	173.00	2711
54.00	650	87.00	18352	128.00	1362	174.00	320448
55.00	11718	88.00	17168	129.00	658	175.00	23384
56.00	7481	91.00	1217	130.00	1426	176.00	310784
57.00	11521	92.00	11671	131.00	627	177.00	20184
58.00	472	93.00	18256	135.00	728	178.00	609
60.00	4121	94.00	50376	137.00	675	191.00	70
61.00	19424	95.00	446144	139.00	55	208.00	60
62.00	20024	96.00	29688	140.00	322		
63.00	14848	97.00	944	141.00	3626		
64.00	1327	98.00	3810	142.00	437		

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-901**			**Matrix:**	**SOIL**
Lab Sample ID:	**1201999844**				
Client Sample:	**QC for batch 934727**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 934727**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**934728**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**12/18/2009 23:51**	**Analyst:**	**RXM4**	**Purge Vol:**	**5 mL**
Prep Date:	**12/18/2009 08:00**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1r527BA.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/kg	0.340	1.00
74-87-3	Chloromethane	U	1.00	ug/kg	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/kg	0.300	1.00
74-83-9	Bromomethane	U	1.00	ug/kg	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/kg	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/kg	0.300	1.00
67-64-1	Acetone	U	5.00	ug/kg	1.66	5.00
75-35-4	1,1-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/kg	1.60	5.00
75-09-2	Methylene chloride	U	5.00	ug/kg	2.00	5.00
75-15-0	Carbon disulfide	U	5.00	ug/kg	1.25	5.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/kg	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/kg	1.50	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/kg	0.300	1.00
74-97-5	Bromochloromethane	U	1.00	ug/kg	0.330	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/kg	0.300	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/kg	0.300	1.00
56-23-5	Carbon tetrachloride	U	1.00	ug/kg	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/kg	0.300	1.00
71-43-2	Benzene	U	1.00	ug/kg	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/kg	0.330	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/kg	0.300	1.00
74-95-3	Dibromomethane	U	1.00	ug/kg	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/kg	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
108-88-3	Toluene	U	1.00	ug/kg	0.300	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/kg	0.300	1.00
591-78-6	2-Hexanone	U	5.00	ug/kg	1.50	5.00
142-28-9	1,3-Dichloropropane	U	1.00	ug/kg	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/kg	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/kg	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/kg	0.300	1.00
108-90-7	Chlorobenzene	U	1.00	ug/kg	0.300	1.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-901			**Matrix:**	SOIL
Lab Sample ID:	1201999844				
Client Sample:	QC for batch 934727	**Client:**	LANL010	**Project:**	QC
Client ID:	MB for batch 934727	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	934728	**Inst:**	VOA1.I	**Dilution:**	1
Run Date:	12/18/2009 23:51	**Analyst:**	RXM4	**Purge Vol:**	5 mL
Prep Date:	12/18/2009 08:00	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	1r527BA.d	**Column:**	RTX-Volatiles	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.00	ug/kg	0.300	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/kg	0.300	2.00
95-47-6	o-Xylene	U	1.00	ug/kg	0.300	1.00
100-42-5	Styrene	U	1.00	ug/kg	0.300	1.00
75-25-2	Bromoform	U	1.00	ug/kg	0.300	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/kg	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/kg	0.300	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/kg	0.300	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/kg	0.300	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/kg	0.300	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/kg	0.300	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/kg	0.300	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/kg	0.300	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/kg	0.300	1.00
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.00	ug/kg	1.60	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	No Tentatively Identified Compounds Found			ug/kg		

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/121809v1/1r527BA.d
Lab Smp Id: 1201999844 Client Smp ID: BLANK
Inj Date : 18-DEC-2009 23:51
Operator : RXM4 Inst ID: VOA1.i
Smp Info : |1201999844|934728|1|VOAF|1|
Misc Info : GEL 5G N/A
Comment :
Method : /chem/VOA1.i/121809v1/VOA1-8260ox-121709PM.m
Meth Date : 19-Dec-2009 14:30 ron01469 Quant Type: ISTD
Cal Date : 17-DEC-2009 21:57 Cal File: 1r426.d
Als bottle: 27 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	0.00000	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
$ 48 1,2-Dichloroethane-d4	65	13.341	13.341	(0.975)	521316	62.3056	62.3
* 52 Fluorobenzene	96	13.686	13.686	(1.000)	690536	50.0000	
$ 65 Toluene-d8	98	15.518	15.518	(0.904)	1501771	54.3827	54.4
* 76 Chlorobenzene-d5	117	17.162	17.162	(1.000)	483549	50.0000	
$ 87 Bromofluorobenzene	95	18.391	18.386	(0.938)	579841	56.0152	56.0
* 102 1,4-Dichlorobenzene-d4	152	19.610	19.610	(1.000)	251846	50.0000	
104 Benzyl chloride	91	19.776	19.771	(1.008)	10650	1.08076	1.1(a)
107 bis(2-Chloroisopropyl)ether	45	20.167	20.167	(1.028)	10011	4.34252	4.3(a)
109 1,2,4-Trichlorobenzene	180	22.032	22.022	(1.123)	4372	0.70948	0.71(a)
111 Naphthalene	128	22.441	22.437	(1.144)	13328	3.33055	3.3
112 1,2,3-Trichlorobenzene	180	22.786	22.787	(1.162)	7498	1.62838	1.6

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/121809v1/1r527BA.d
Lab Smp Id: 1201999844 Client Smp ID: BLANK
Inj Date : 18-DEC-2009 23:51
Operator : RXM4 Inst ID: VOA1.i
Smp Info : |1201999844|934728|1|VOAF|1|
Misc Info : GEL 5G N/A
Comment :
Method : /chem/VOA1.i/121809v1/VOA1-8260ox-121709PM.m
Meth Date : 19-Dec-2009 14:30 ron01469 Quant Type: ISTD
Cal Date : 17-DEC-2009 21:57 Cal File: 1r426.d
Als bottle: 27 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50
Processing Host: prdsvr07

- NO TENTATIVELY IDENTIFIED COMPOUNDS -

Data File: /chem/VOA1.i/121809v1/1r527BA.d
Date : 18-DEC-2009 23:51
Client ID: BLANK
Sample Info: |1201999844|934728|1|VOAF|1|

Column phase: RTX-Volatiles

Instrument: VOA1.i

Operator: RXM4
Column diameter: 0.25

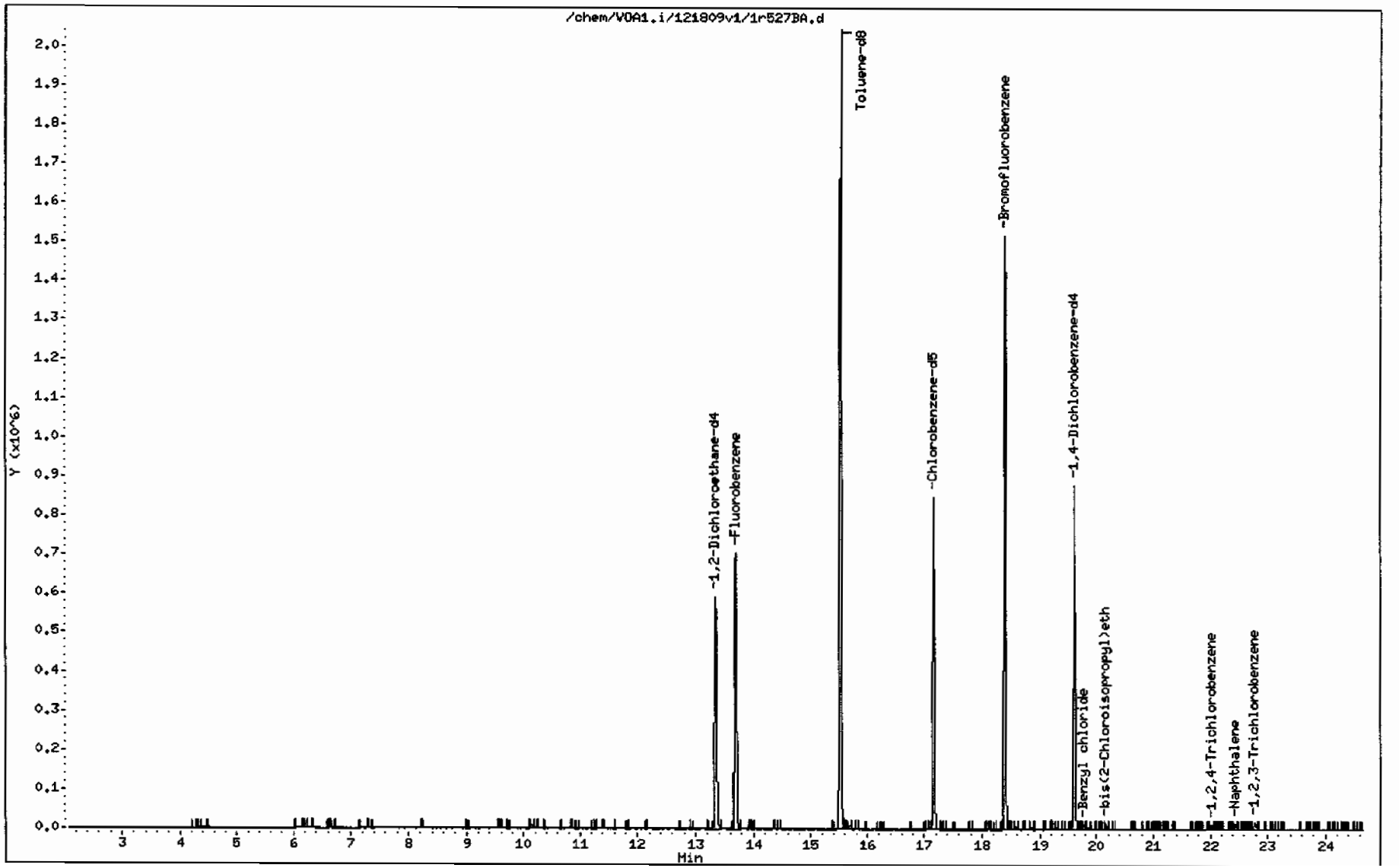

Data File: /chem/VOA1.i/121809v1/1r527BA.d

Date : 18-DEC-2009 23:51

Client ID: BLANK

Instrument: VOA1.i

Sample Info: |1201999844|934728|1|VOAF|1|

Operator: RXM4

Column phase: RTX-Volatiles

Column diameter: 0.25

104 Benzyl chloride

Concentration: 1.1 ug/Kg

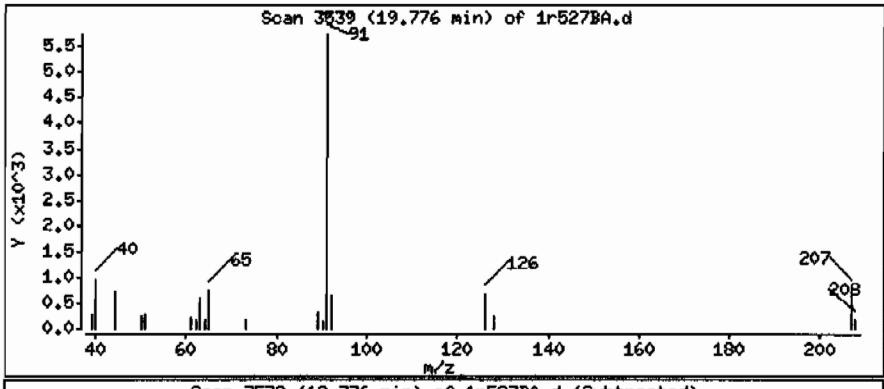

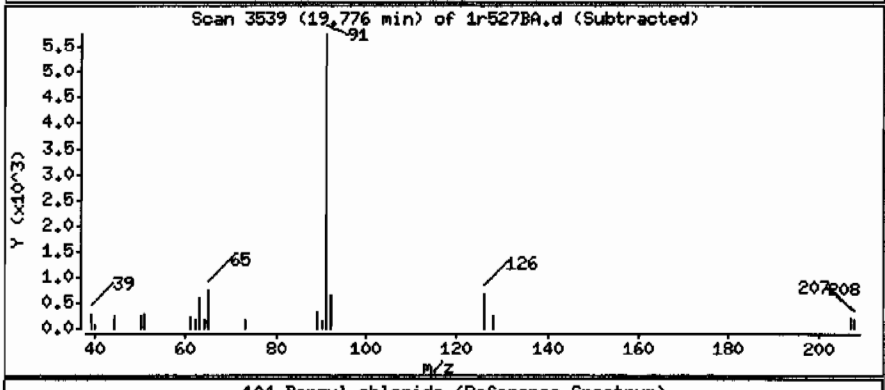

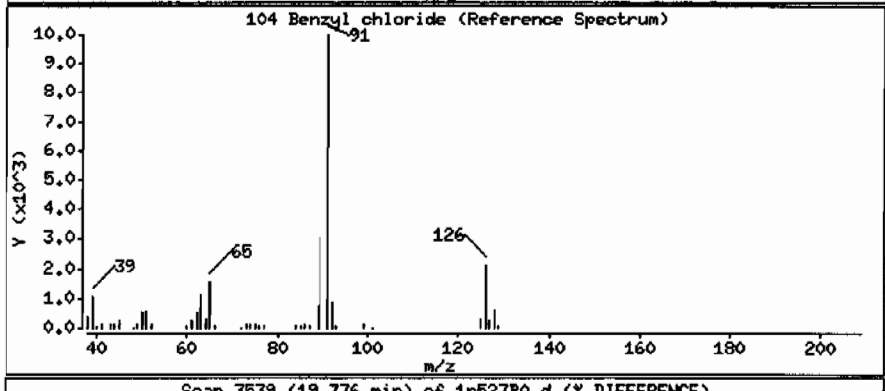

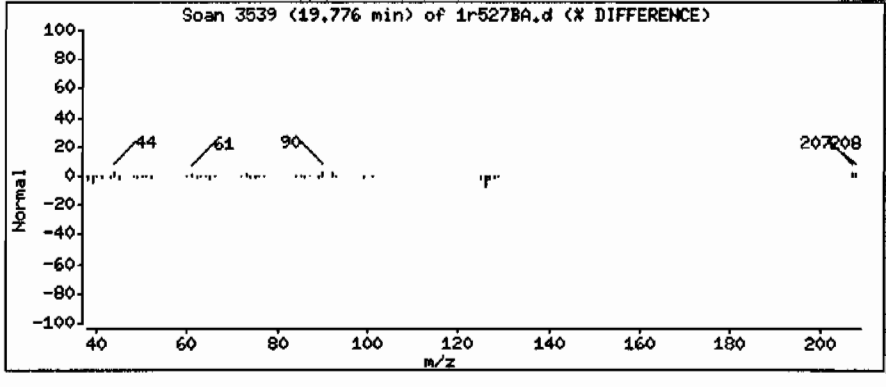

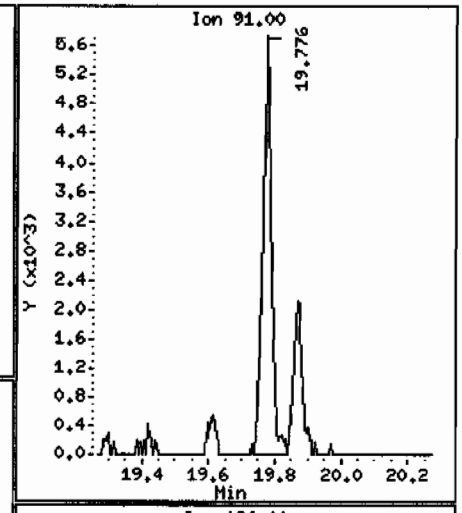

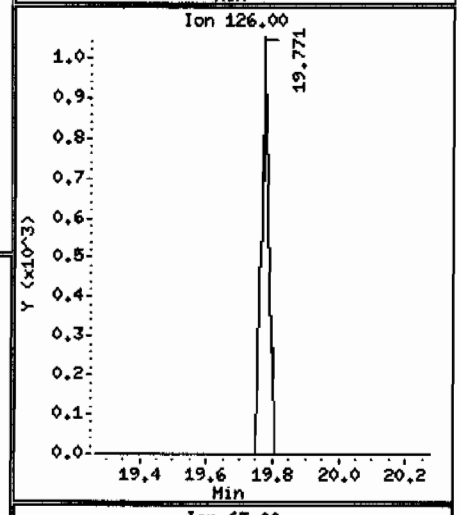

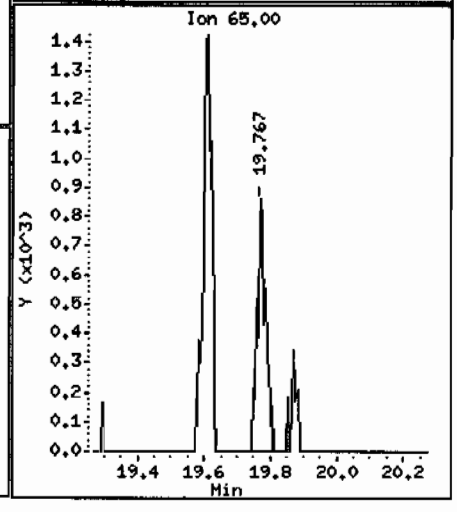

Data File: /chem/VOA1.i/121809v1/1r527BA.d

Date : 18-DEC-2009 23:51

Client ID: BLANK

Instrument: VOA1.i

Sample Info: |1201999844|9347281|VOAF|1|

Operator: RXH4

Column phase: RTX-Volatiles

Column diameter: 0.25

107 bis(2-Chloroisopropyl)ether

Concentration: 4.3 ug/Kg

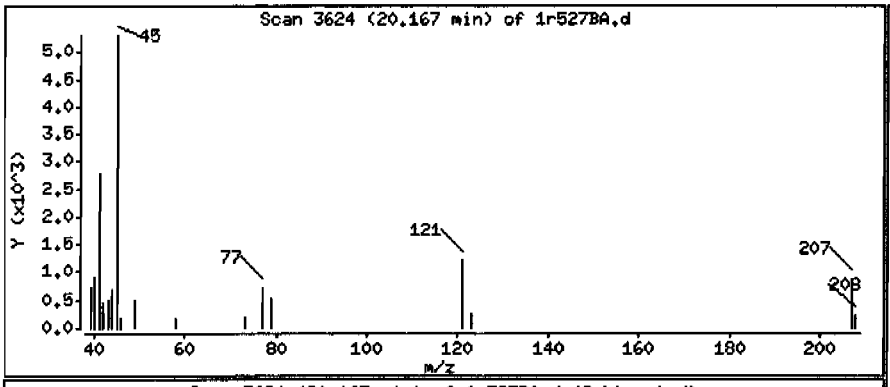

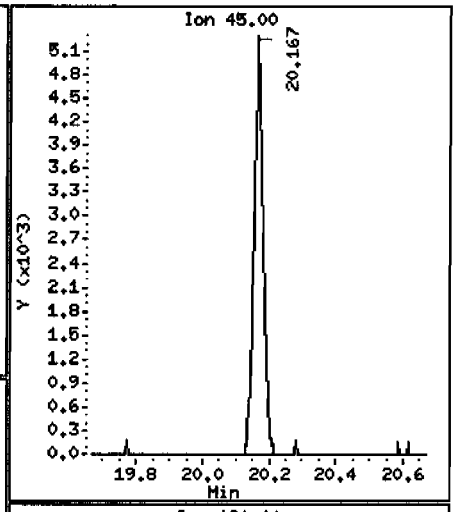

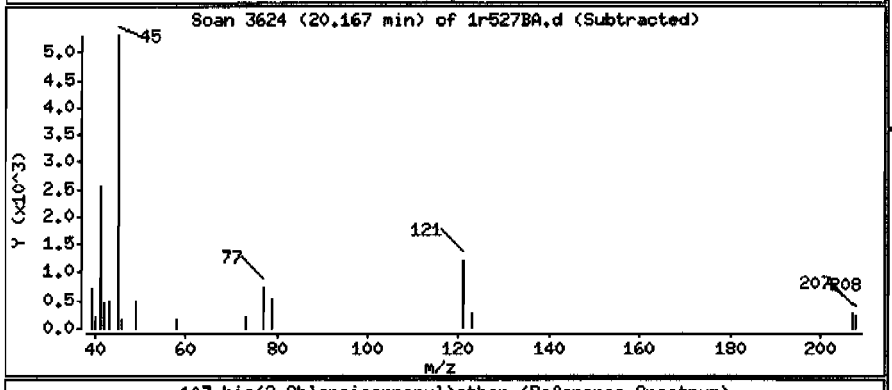

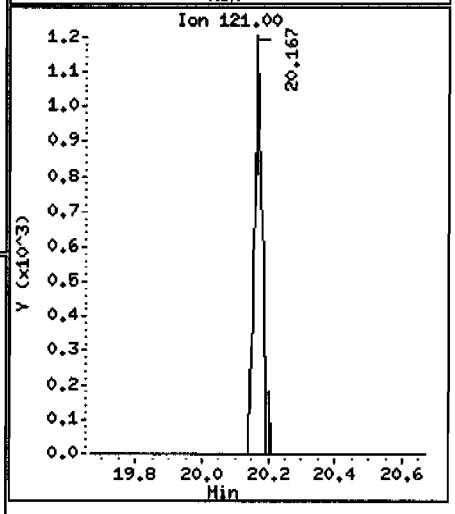

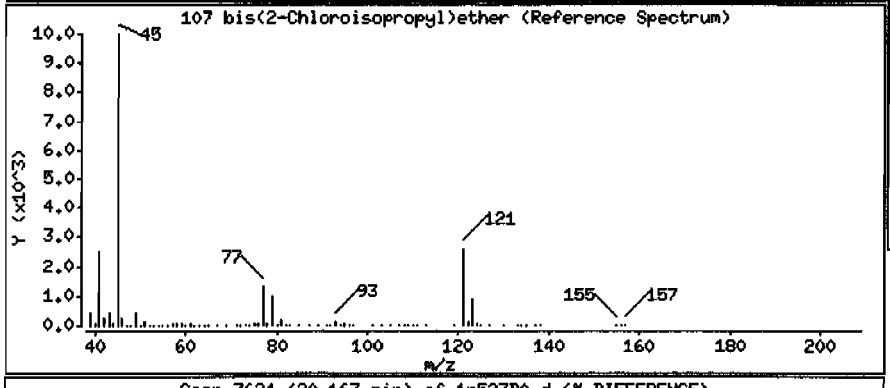

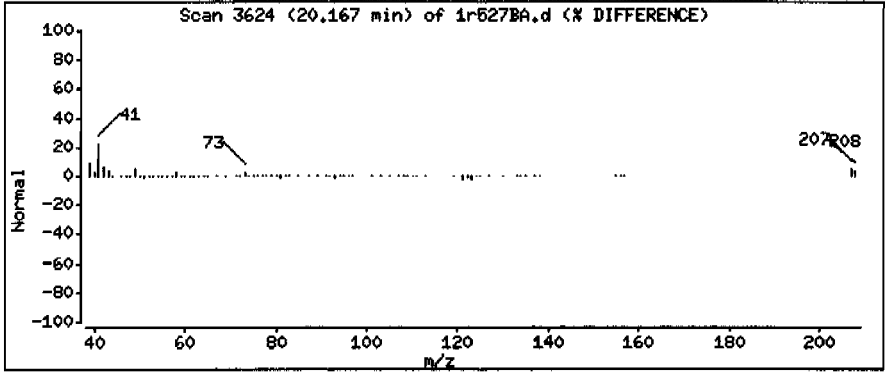

Data File: /chem/VOA1.i/121809v1/1r527BA.d

Date : 18-DEC-2009 23:51

Client ID: BLANK

Instrument: VOA1.i

Sample Info: |1201999844|934728|1|VOAF|1|

Operator: RXH4

Column phase: RTX-Volatiles

Column diameter: 0.25

109 1,2,4-Trichlorobenzene

Concentration: 0.71 ug/Kg

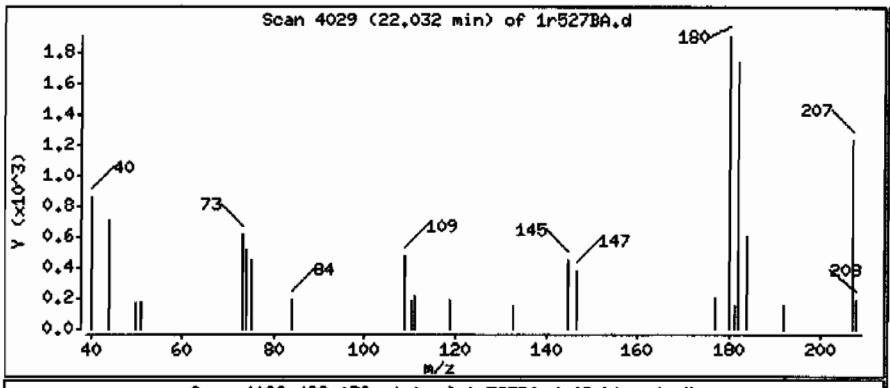

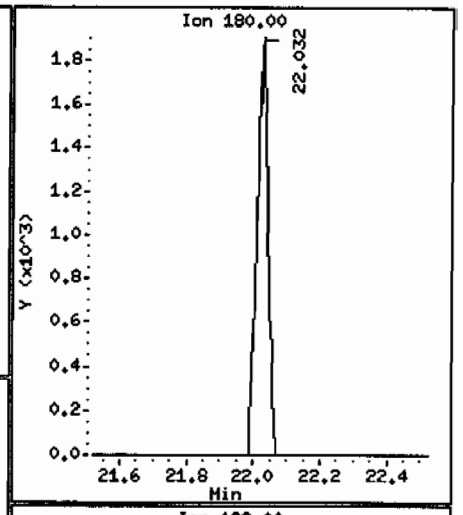

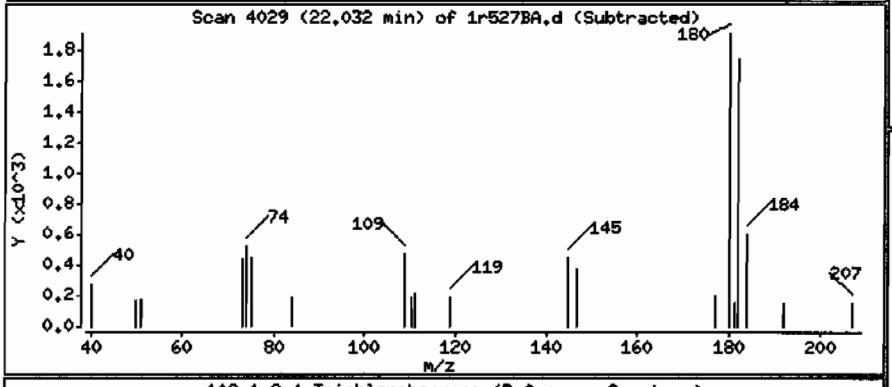

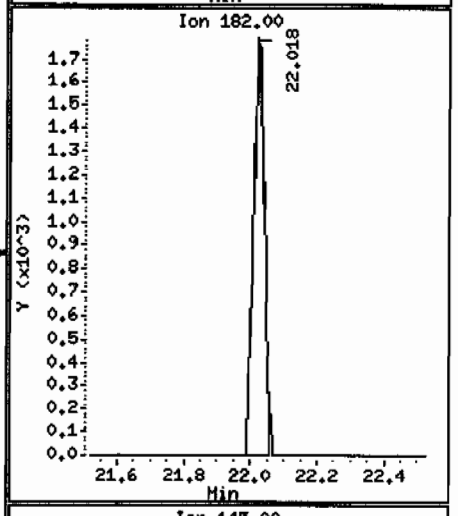

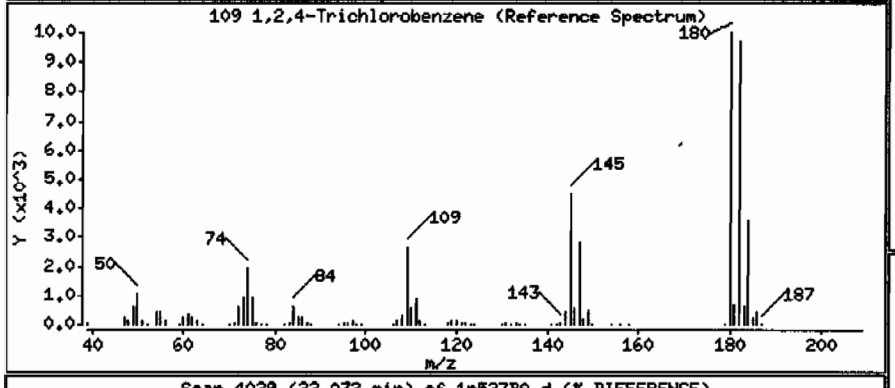

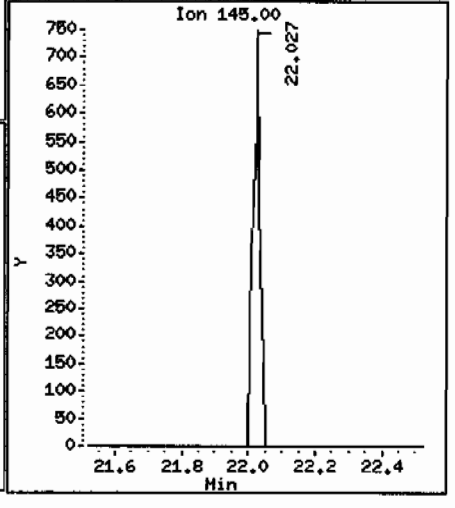

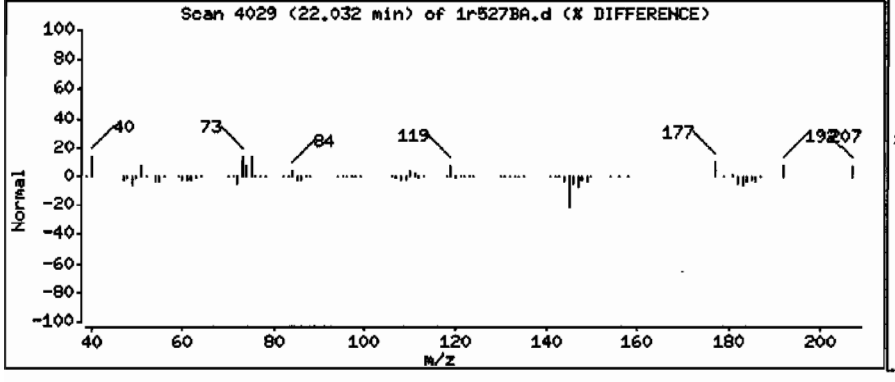

Data File: /chem/VOA1.i/121809v1/1r527BA.d

Date : 18-DEC-2009 23:51

Client ID: BLANK

Instrument: VOA1.i

Sample Info: |120199984419347281|VOAF|1|

Operator: RXM4

Column phase: RTX-Volatiles

Column diameter: 0.25

111 Naphthalene

Concentration: 3.3 ug/Kg

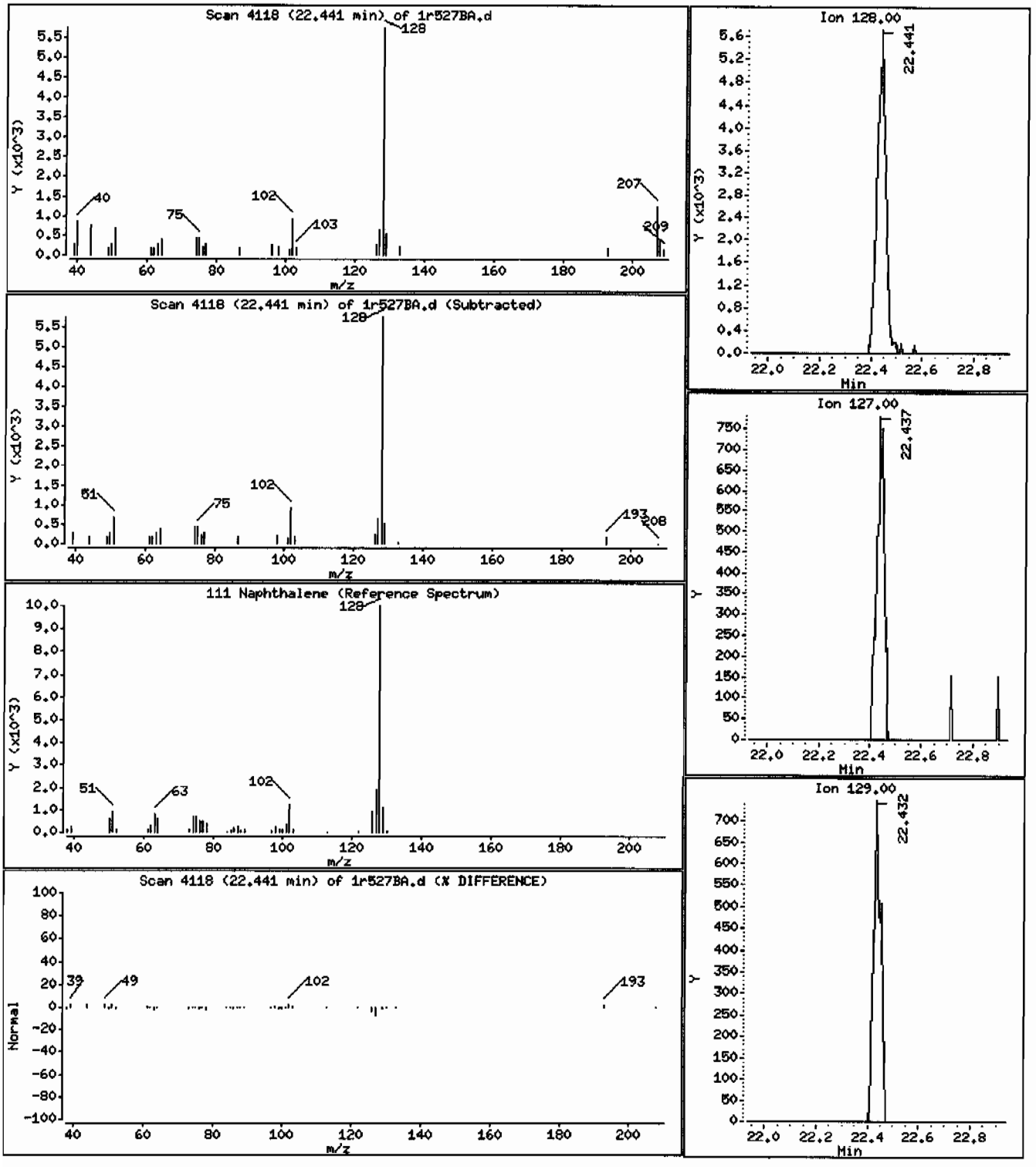

Data File: /chem/VOA1.i/121809v1/1r527BA.d

Date : 18-DEC-2009 23:51

Client ID: BLANK

Instrument: VOA1.i

Sample Info: |1201999844|934728|1|VOAF|1|

Operator: RXM4

Column phase: RTX-Volatiles

Column diameter: 0.25

112 1,2,3-Trichlorobenzene

Concentration: 1.6 ug/Kg

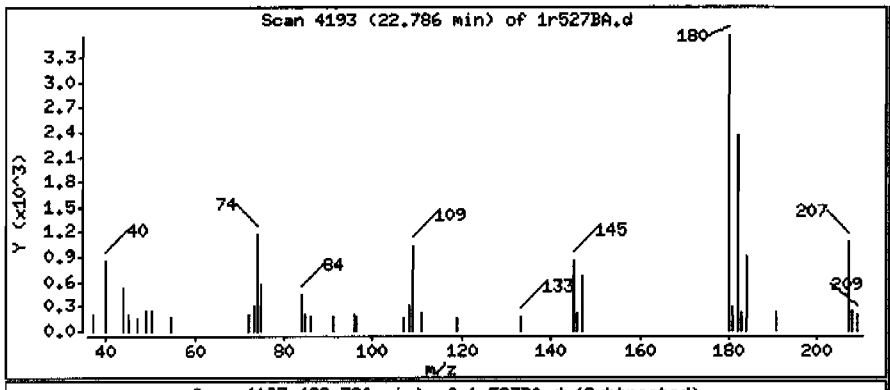

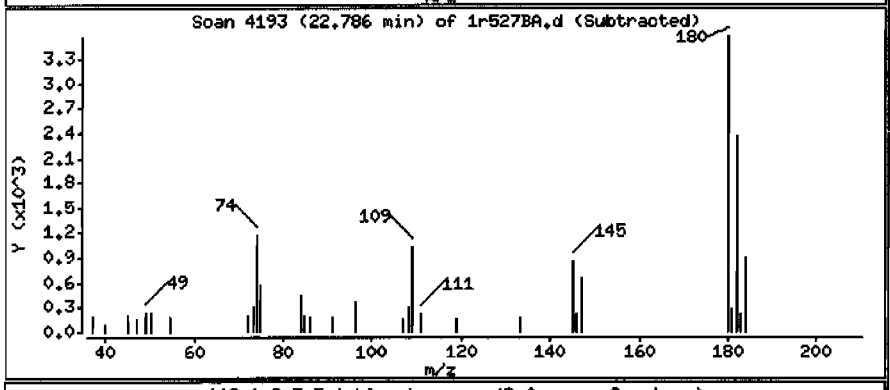

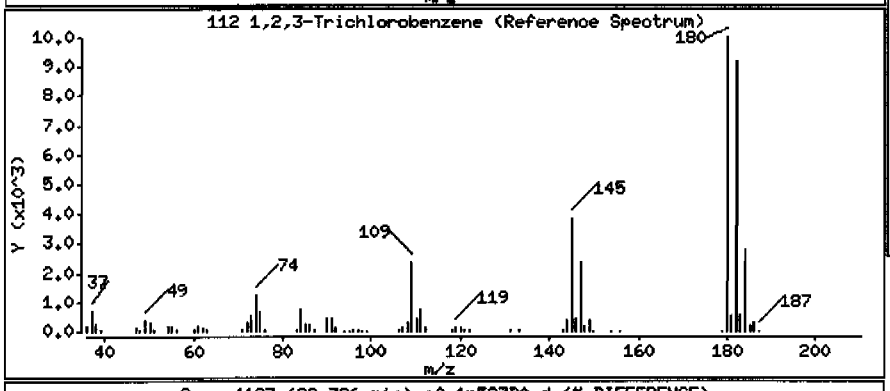

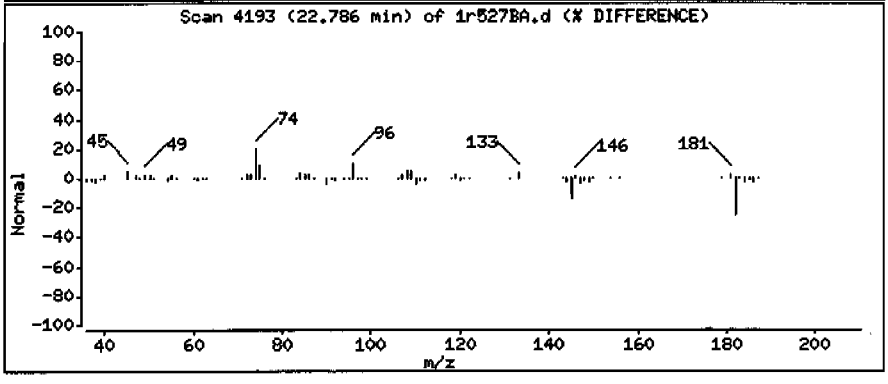

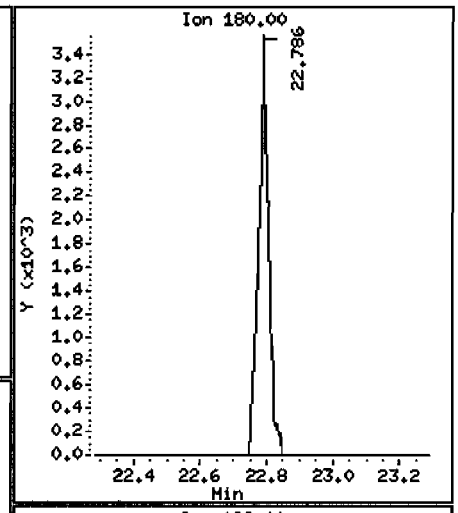

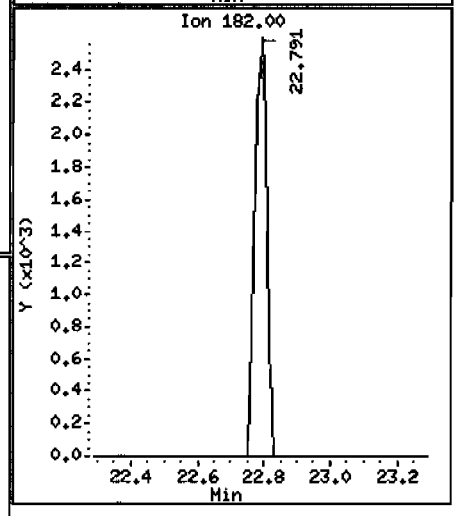

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-901			**Matrix:**	SOIL
Lab Sample ID:	1202002633				
Client Sample:	QC for batch 934727	**Client:**	LANL010	**Project:**	QC
Client ID:	MB for batch 934727	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	934728	**Inst:**	VOA1.I	**Dilution:**	1
Run Date:	12/21/2009 15:20	**Analyst:**	RXM4	**Purge Vol:**	5 mL
Prep Date:	12/21/2009 12:00	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	1s111BA.d	**Column:**	RTX-Volatiles	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/kg	0.340	1.00
74-87-3	Chloromethane	U	1.00	ug/kg	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/kg	0.300	1.00
74-83-9	Bromomethane	U	1.00	ug/kg	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/kg	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/kg	0.300	1.00
67-64-1	Acetone	U	5.00	ug/kg	1.66	5.00
75-35-4	1,1-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/kg	1.60	5.00
75-09-2	Methylene chloride	U	5.00	ug/kg	2.00	5.00
75-15-0	Carbon disulfide	U	5.00	ug/kg	1.25	5.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/kg	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/kg	1.50	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/kg	0.300	1.00
74-97-5	Bromochloromethane	U	1.00	ug/kg	0.330	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/kg	0.300	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/kg	0.300	1.00
56-23-5	Carbon tetrachloride	U	1.00	ug/kg	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/kg	0.300	1.00
71-43-2	Benzene	U	1.00	ug/kg	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/kg	0.330	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/kg	0.300	1.00
74-95-3	Dibromomethane	U	1.00	ug/kg	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/kg	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
108-88-3	Toluene	U	1.00	ug/kg	0.300	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/kg	0.300	1.00
591-78-6	2-Hexanone	U	5.00	ug/kg	1.50	5.00
142-28-9	1,3-Dichloropropane	U	1.00	ug/kg	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/kg	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/kg	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/kg	0.300	1.00
108-90-7	Chlorobenzene	U	1.00	ug/kg	0.300	1.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-901			**Matrix:**	SOIL
Lab Sample ID:	1202002633				
Client Sample:	QC for batch 934727	**Client:**	LANL010	**Project:**	QC
Client ID:	MB for batch 934727	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	934728	**Inst:**	VOA1.I	**Dilution:**	1
Run Date:	12/21/2009 15:20	**Analyst:**	RXM4	**Purge Vol:**	5 mL
Prep Date:	12/21/2009 12:00	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	1s111BA.d	**Column:**	RTX-Volatiles	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.00	ug/kg	0.300	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/kg	0.300	2.00
95-47-6	o-Xylene	U	1.00	ug/kg	0.300	1.00
100-42-5	Styrene	U	1.00	ug/kg	0.300	1.00
75-25-2	Bromoform	U	1.00	ug/kg	0.300	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/kg	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/kg	0.300	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/kg	0.300	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/kg	0.300	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/kg	0.300	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/kg	0.300	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/kg	0.300	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/kg	0.300	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/kg	0.300	1.00
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.00	ug/kg	1.60	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated Units	Fit	Qual
	No Tentatively Identified Compounds Found		ug/kg		

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/122109v1/1s111BA.d
Lab Smp Id: 1202002633 Client Smp ID: BLANK
Inj Date : 21-DEC-2009 15:20
Operator : RXM4 Inst ID: VOA1.i
Smp Info : |1202002633|934728|1|VOAF|1|
Misc Info : GEL 5G N/A
Comment :
Method : /chem/VOA1.i/122109v1/VOA1-8260ox-121709.m
Meth Date : 21-Dec-2009 13:41 ron01469 Quant Type: ISTD
Cal Date : 17-DEC-2009 18:56 Cal File: 1r420.d
Als bottle: 11 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	0.00000	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
$ 48 1,2-Dichloroethane-d4	65	13.341	13.327	(0.975)	632702	55.4563	55.4
* 52 Fluorobenzene	96	13.682	13.673	(1.000)	954868	50.0000	
$ 65 Toluene-d8	98	15.518	15.509	(0.904)	2088777	58.5813	58.6
* 76 Chlorobenzene-d5	117	17.157	17.153	(1.000)	640048	50.0000	
$ 87 Bromofluorobenzene	95	18.386	18.382	(0.938)	776159	58.2471	58.2
* 102 1,4-Dichlorobenzene-d4	152	19.606	19.606	(1.000)	332944	50.0000	
104 Benzyl chloride	91	19.767	19.771	(1.008)	19050	1.46231	1.5(a)
107 bis(2-Chloroisopropyl)ether	45	20.168	20.163	(1.029)	12892	4.23008	4.2(a)
109 1,2,4-Trichlorobenzene	180	22.013	22.018	(1.123)	7392	0.90736	0.91(a)
111 Naphthalene	128	22.437	22.432	(1.144)	19893	3.45280	3.4
112 1,2,3-Trichlorobenzene	180	22.787	22.782	(1.162)	11538	1.89539	1.9

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/122109v1/1s111BA.d
Lab Smp Id: 1202002633 Client Smp ID: BLANK
Inj Date : 21-DEC-2009 15:20
Operator : RXM4 Inst ID: VOA1.i
Smp Info : |1202002633|934728|1|VOAF|1|
Misc Info : GEL 5G N/A
Comment :
Method : /chem/VOA1.i/122109v1/VOA1-8260ox-121709.m
Meth Date : 21-Dec-2009 13:41 ron01469 Quant Type: ISTD
Cal Date : 17-DEC-2009 18:56 Cal File: 1r420.d
Als bottle: 11 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50
Processing Host: prdsvr07

- NO TENTATIVELY IDENTIFIED COMPOUNDS -

Data File: /ohem/VOA1.i/122109v1/1s111BA.d
Date : 21-DEC-2009 15:20
Client ID: BLANK
Sample Info: |1202002633|934728|1|VOAF|1|

Column phase: RTX-Volatiles

Instrument: VOA1.i

Operator: RXH4
Column diameter: 0.25

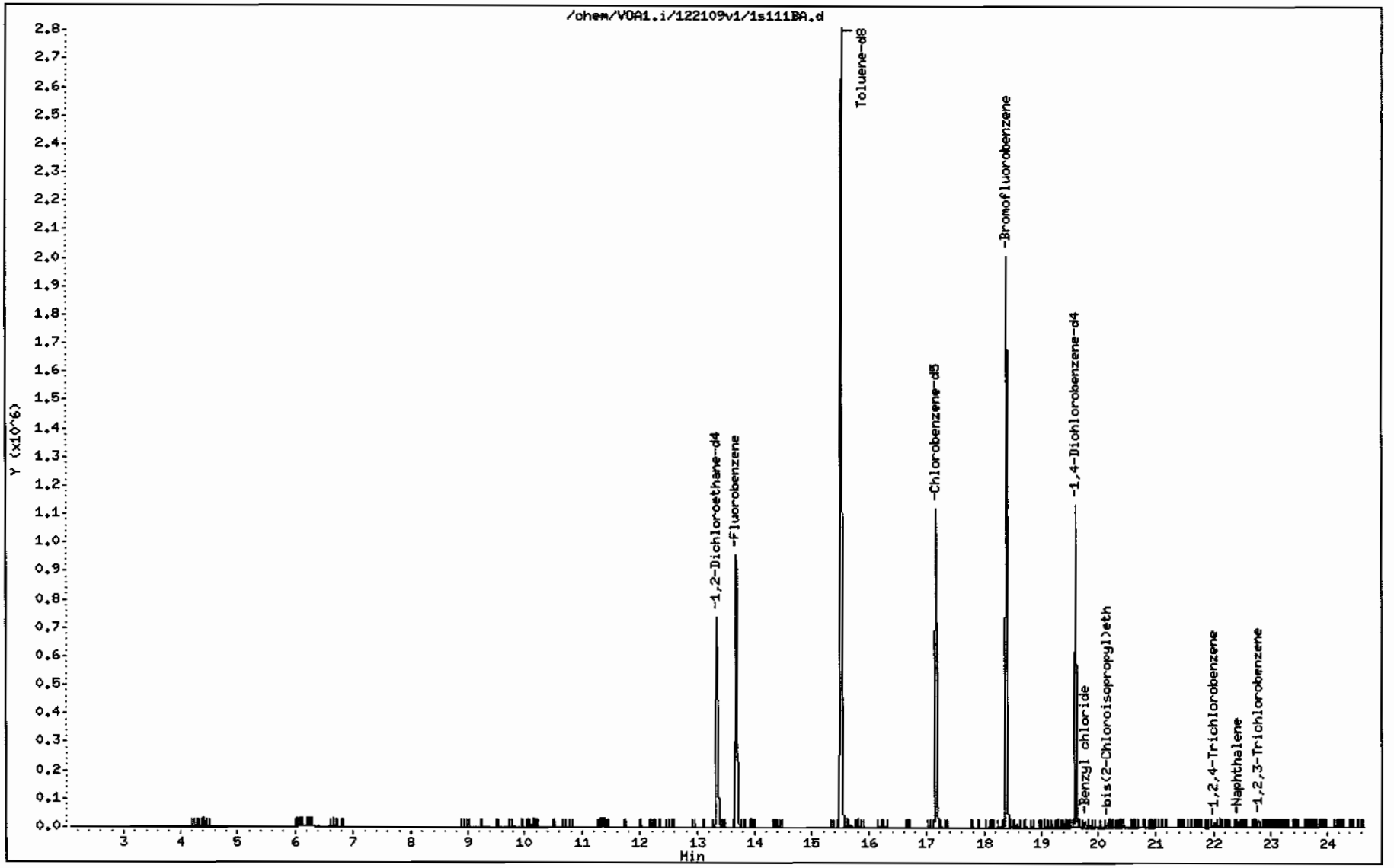

Data File: /chem/VOA1.i/122109v1/1s111BA.d

Date : 21-DEC-2009 15:20

Client ID: BLANK

Instrument: VOA1.i

Sample Info: |1202002633|934728|1|VOAF|1|

Operator: RXH4

Column phase: RTX-Volatiles

Column diameter: 0.25

104 Benzyl chloride

Concentration: 1.5 ug/Kg

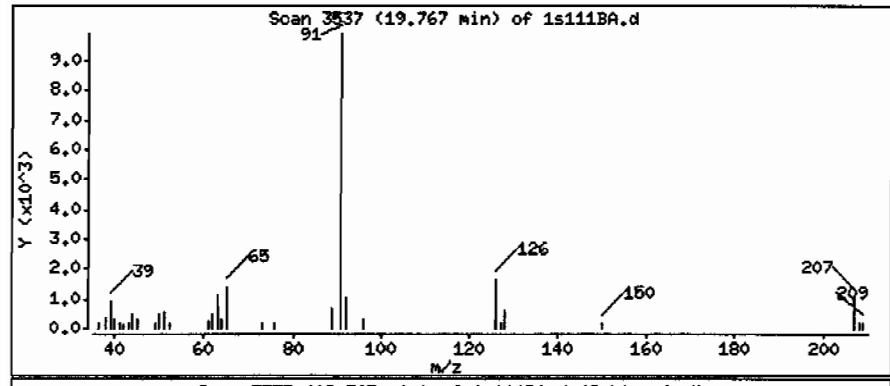

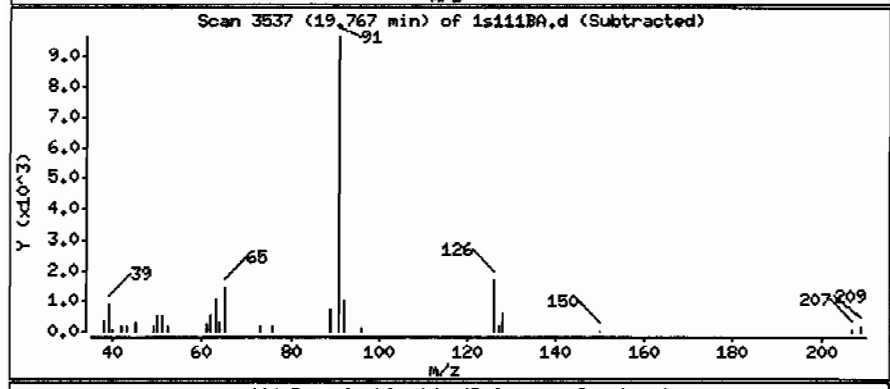

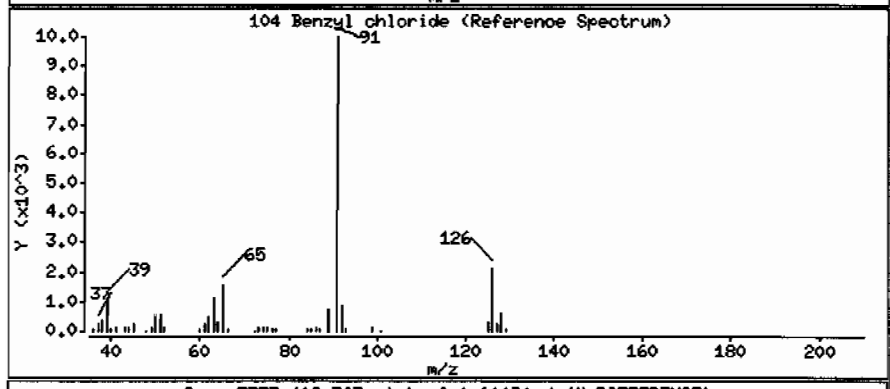

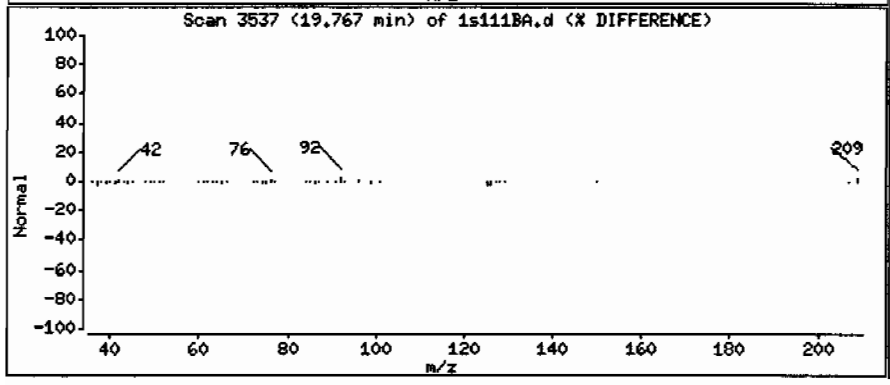

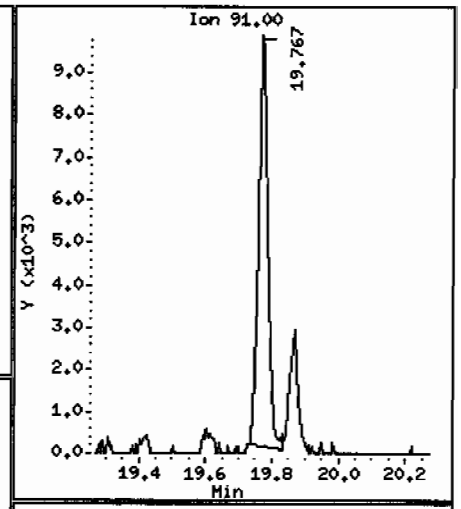

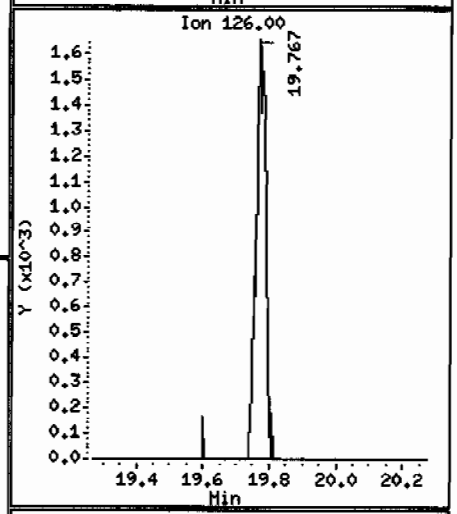

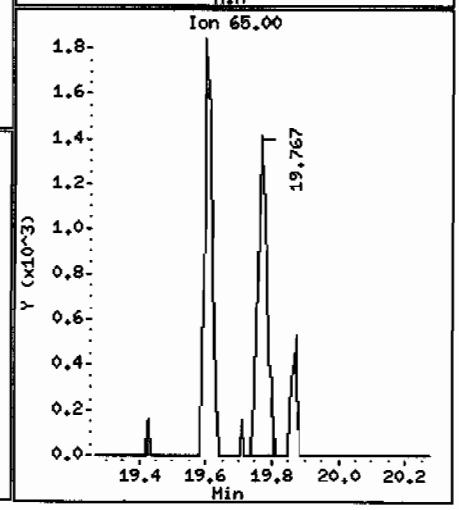

Data File: /chem/VOA1.i/122109v1/1s111BA.d

Date : 21-DEC-2009 15:20

Client ID: BLANK

Instrument: VOA1.i

Sample Info: |12020026331934728|1|VOAF|1|

Operator: RXM4

Column phase: RTX-Volatiles

Column diameter: 0.25

107 bis(2-Chloroisopropyl)ether

Concentration: 4.2 ug/Kg

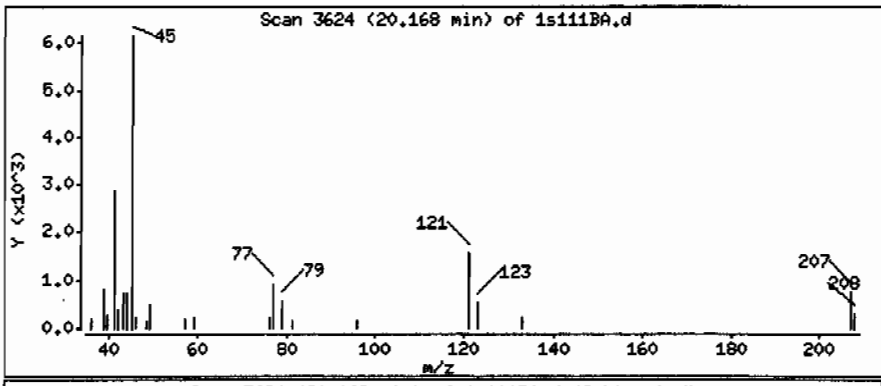

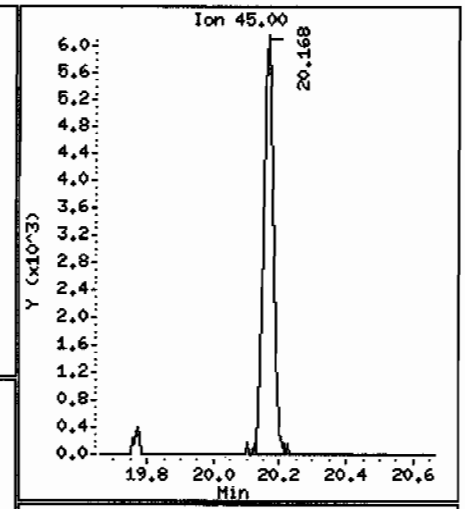

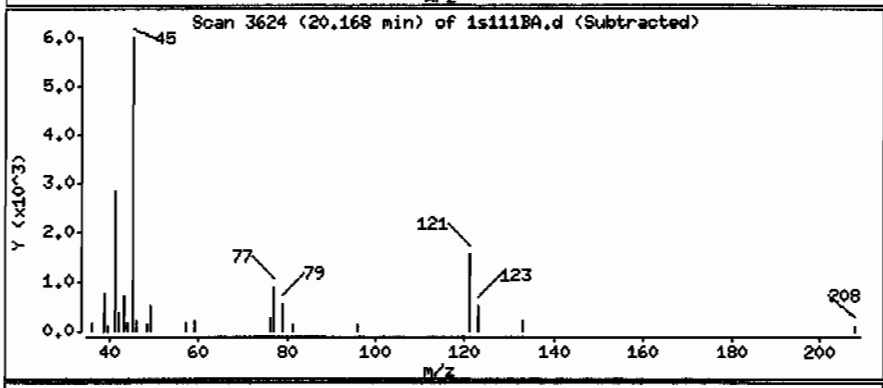

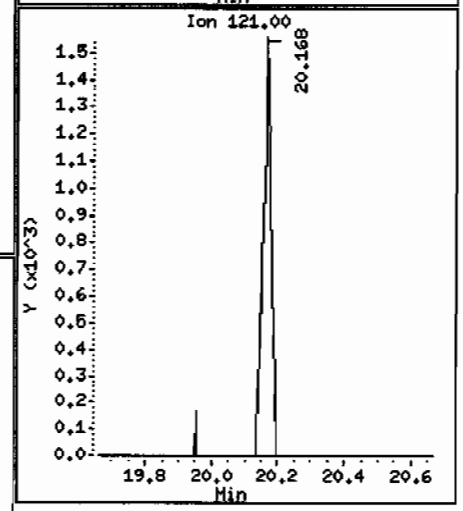

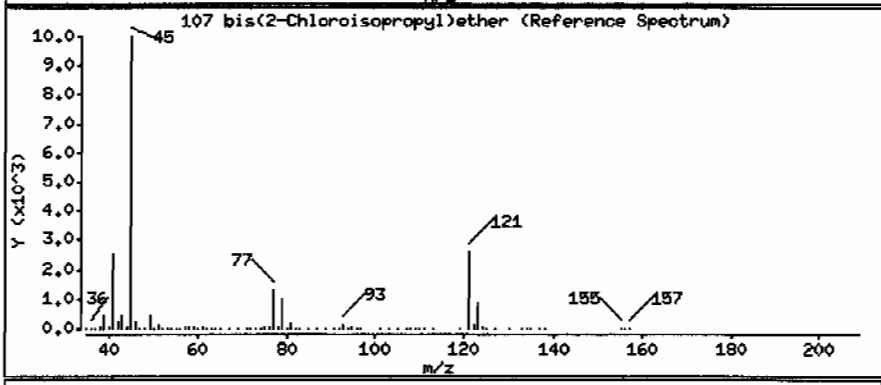

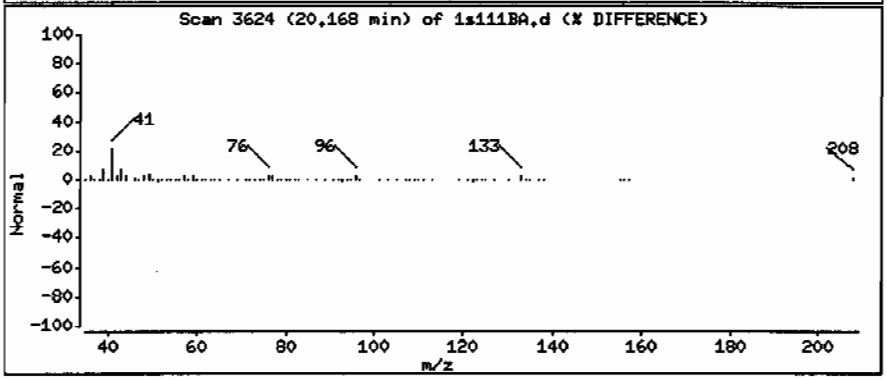

Data File: /chem/VOA1.i/122109v1/1s111BA.d

Date : 21-DEC-2009 15:20

Client ID: BLANK

Instrument: VOA1.i

Sample Info: |1202002633|934728|1|VOAF|1|

Operator: RXM4

Column phase: RTX-Volatiles

Column diameter: 0.25

109 1,2,4-Trichlorobenzene

Concentration: 0.91 ug/Kg

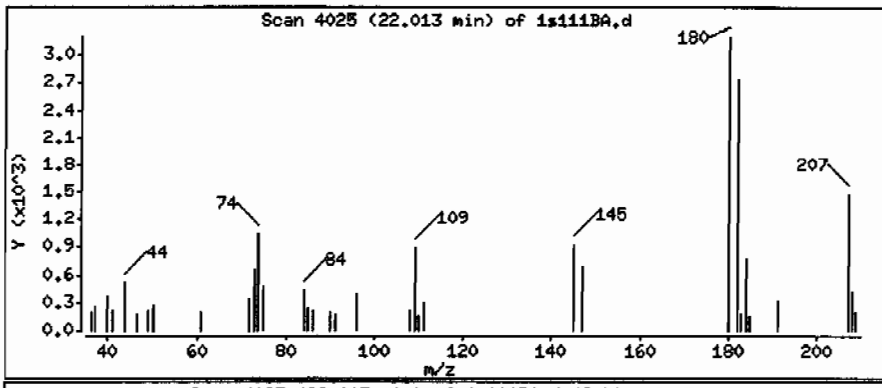

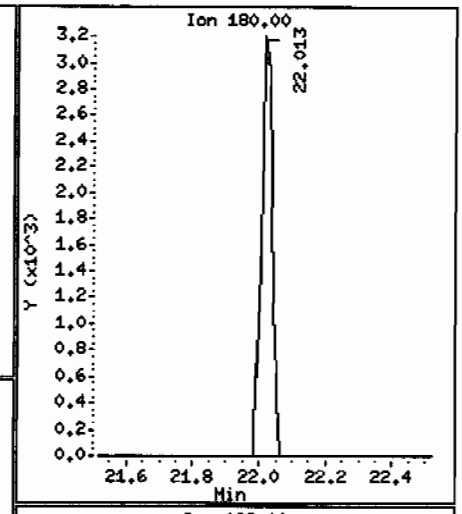

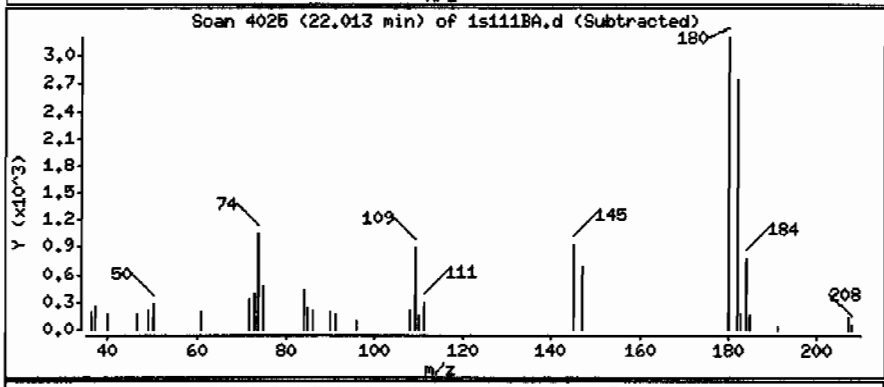

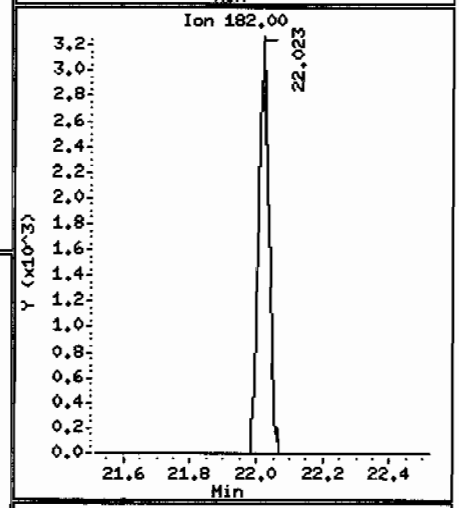

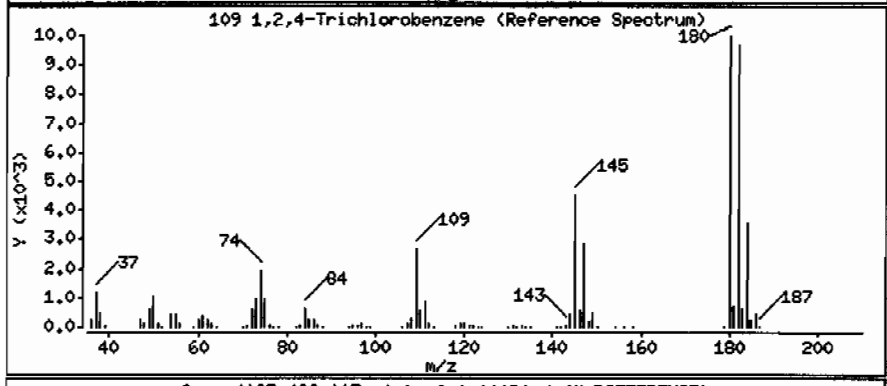

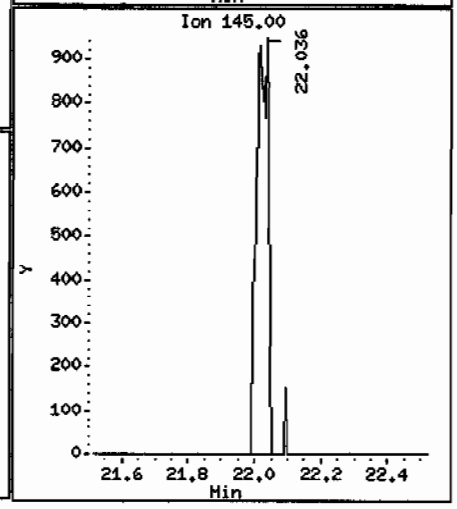

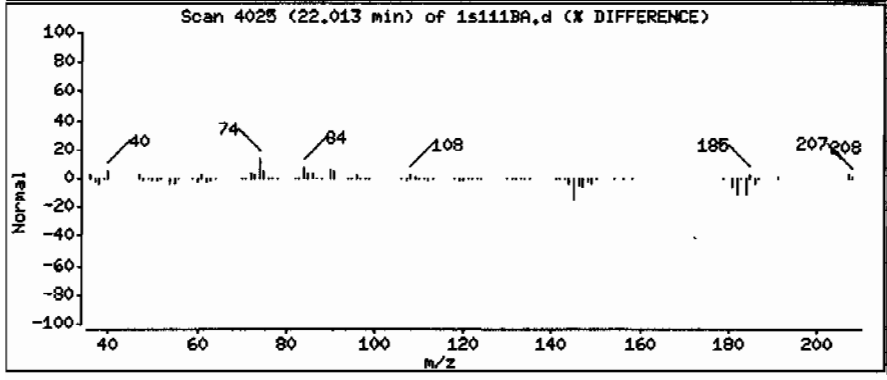

Data File: /chem/VOA1.i/122109v1/1s111BA.d

Date : 21-DEC-2009 15:20

Client ID: BLANK

Instrument: VOA1.i

Sample Info: |1202002633|934728|1|VOAF|1|

Operator: RXM4

Column phase: RTX-Volatiles

Column diameter: 0.25

111 Naphthalene

Concentration: 3.4 ug/Kg

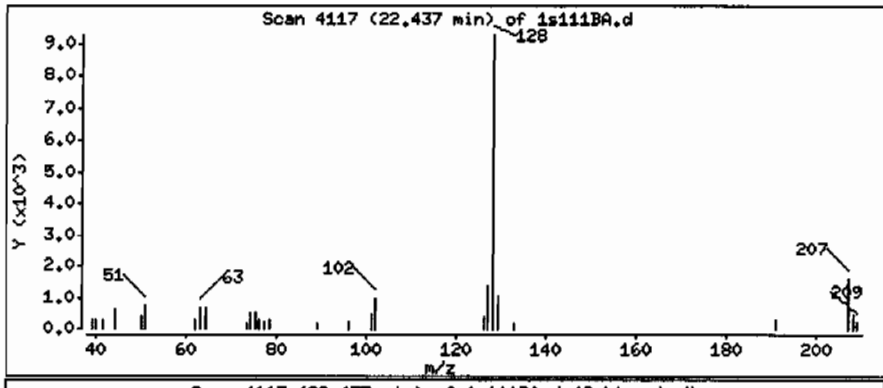

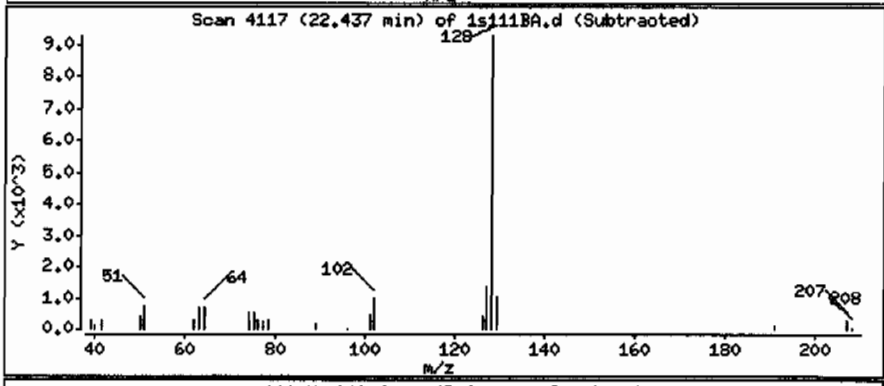

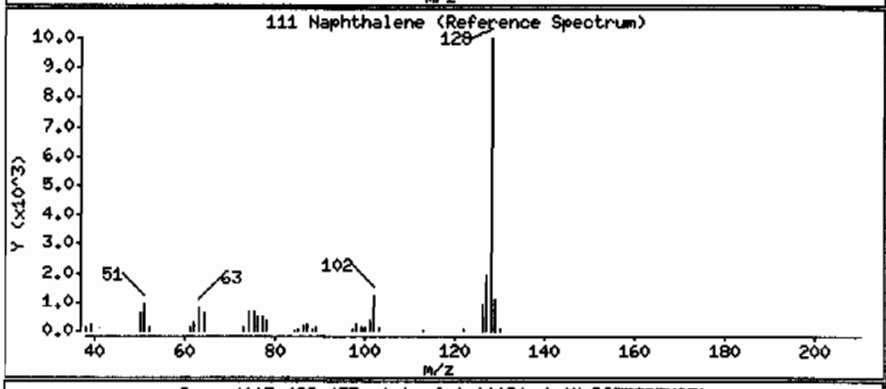

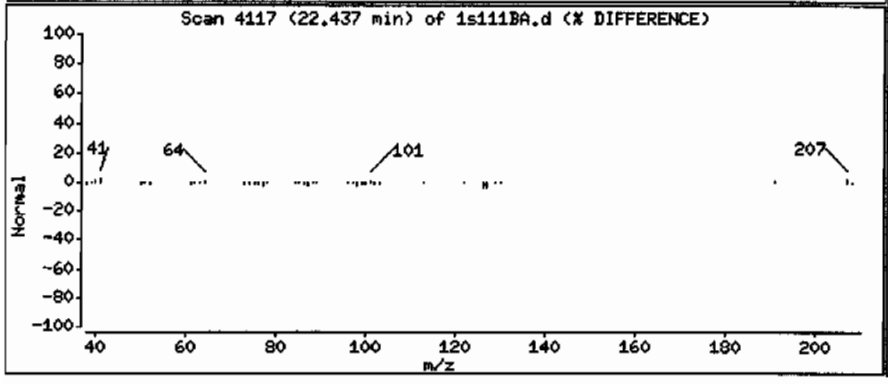

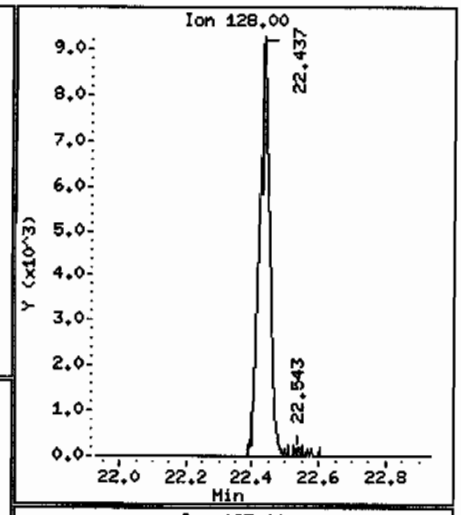

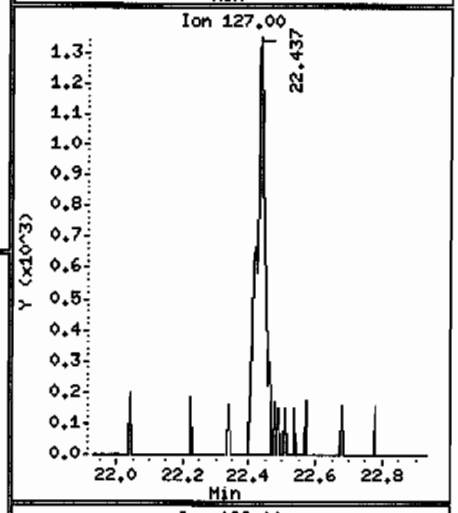

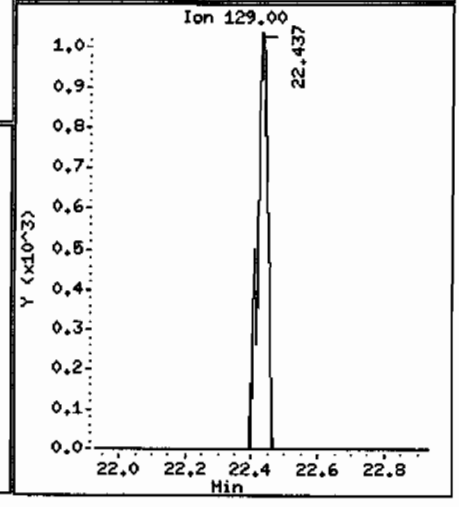

Data File: /chem/VOA1.i/122109v1/1s111BA.d

Date : 21-DEC-2009 15:20

Client ID: BLANK

Instrument: VOA1.i

Sample Info: |1202002633|934728|1|VOAF|1|

Operator: RXM4

Column phase: RTX-Volatiles

Column diameter: 0.25

112 1,2,3-Trichlorobenzene

Concentration: 1.9 ug/Kg

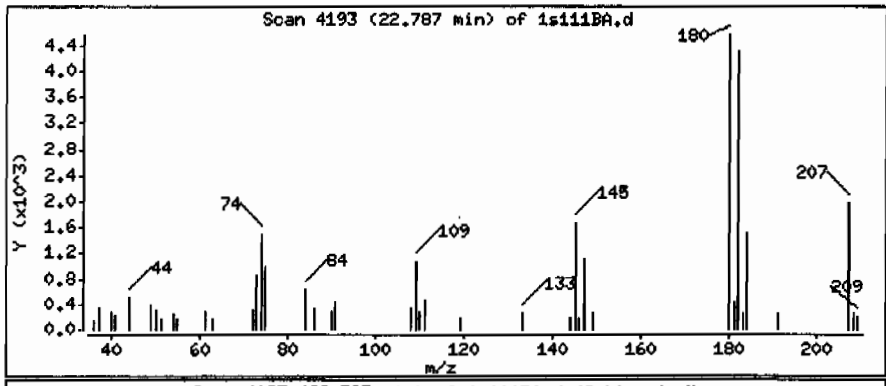

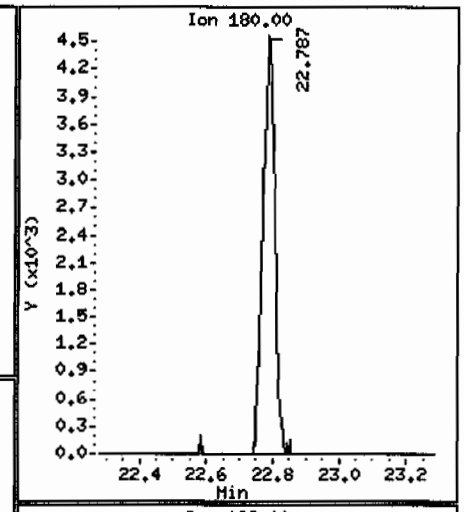

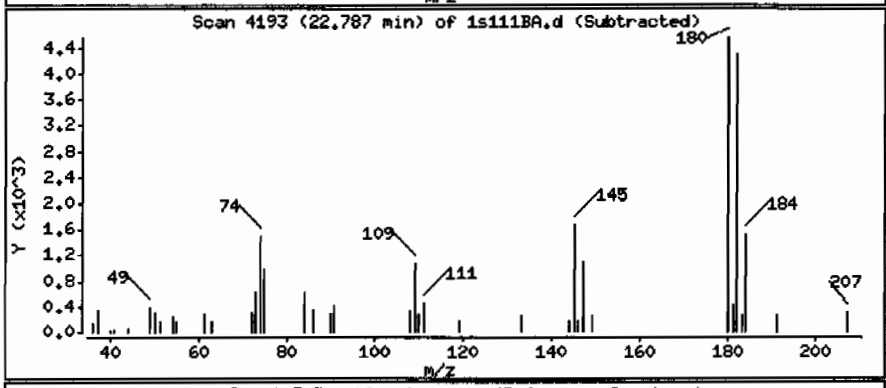

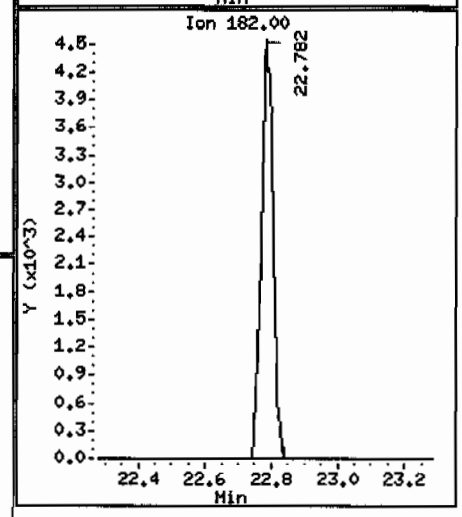

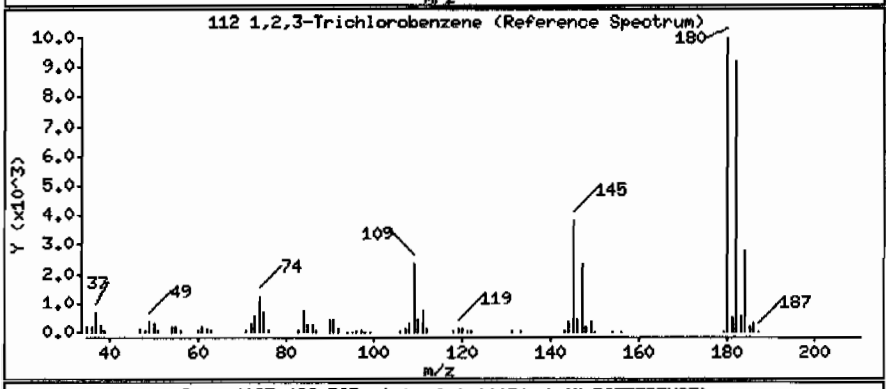

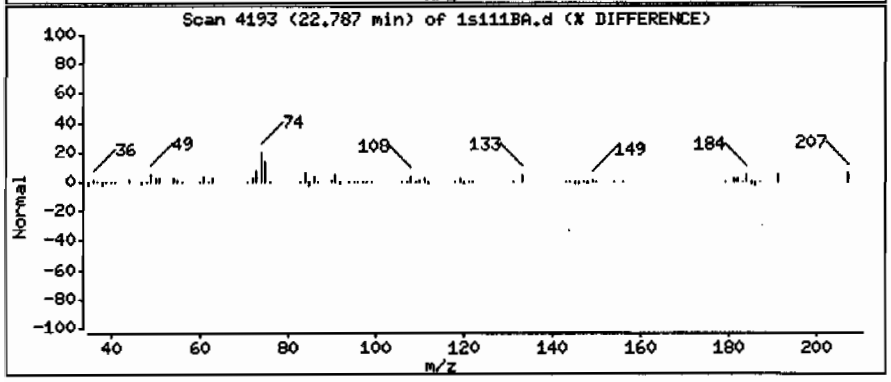

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-901**			**Matrix:**	**SOIL**
Lab Sample ID:	**1201999847**				
Client Sample:	**QC for batch 934727**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 934727**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**934728**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**12/18/2009 22:20**	**Analyst:**	**RXM4**	**Purge Vol:**	**5 mL**
Prep Date:	**12/18/2009 08:01**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1r524LA.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane		51.3	ug/kg	0.340	1.00
74-87-3	Chloromethane		48.5	ug/kg	0.300	1.00
75-01-4	Vinyl chloride		47.0	ug/kg	0.300	1.00
74-83-9	Bromomethane		47.9	ug/kg	0.300	1.00
75-00-3	Chloroethane		50.3	ug/kg	0.300	1.00
75-69-4	Trichlorofluoromethane		55.0	ug/kg	0.300	1.00
67-64-1	Acetone		203	ug/kg	1.66	5.00
75-35-4	1,1-Dichloroethylene		49.4	ug/kg	0.300	1.00
74-88-4	Iodomethane		228	ug/kg	1.60	5.00
75-09-2	Methylene chloride		45.9	ug/kg	2.00	5.00
75-15-0	Carbon disulfide		248	ug/kg	1.25	5.00
156-60-5	trans-1,2-Dichloroethylene		47.3	ug/kg	0.300	1.00
75-34-3	1,1-Dichloroethane		49.2	ug/kg	0.300	1.00
78-93-3	2-Butanone		206	ug/kg	1.50	5.00
156-59-2	cis-1,2-Dichloroethylene		48.2	ug/kg	0.300	1.00
594-20-7	2,2-Dichloropropane		51.7	ug/kg	0.300	1.00
67-66-3	Chloroform		50.3	ug/kg	0.300	1.00
74-97-5	Bromochloromethane		49.0	ug/kg	0.330	1.00
71-55-6	1,1,1-Trichloroethane		52.0	ug/kg	0.300	1.00
563-58-6	1,1-Dichloropropene		51.7	ug/kg	0.300	1.00
56-23-5	Carbon tetrachloride		54.4	ug/kg	0.300	1.00
107-06-2	1,2-Dichloroethane		53.5	ug/kg	0.300	1.00
71-43-2	Benzene		48.8	ug/kg	0.300	1.00
79-01-6	Trichloroethylene		50.1	ug/kg	0.330	1.00
78-87-5	1,2-Dichloropropane		50.2	ug/kg	0.300	1.00
75-27-4	Bromodichloromethane		61.5	ug/kg	0.300	1.00
74-95-3	Dibromomethane		50.4	ug/kg	0.300	1.00
108-10-1	4-Methyl-2-pentanone		256	ug/kg	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene		54.0	ug/kg	0.300	1.00
108-88-3	Toluene		47.5	ug/kg	0.300	1.00
10061-02-6	trans-1,3-Dichloropropylene		55.8	ug/kg	0.300	1.00
79-00-5	1,1,2-Trichloroethane		50.2	ug/kg	0.300	1.00
591-78-6	2-Hexanone		213	ug/kg	1.50	5.00
142-28-9	1,3-Dichloropropane		50.3	ug/kg	0.300	1.00
127-18-4	Tetrachloroethylene		46.5	ug/kg	0.300	1.00
124-48-1	Dibromochloromethane		53.5	ug/kg	0.300	1.00
106-93-4	1,2-Dibromoethane		51.7	ug/kg	0.300	1.00
108-90-7	Chlorobenzene		48.7	ug/kg	0.300	1.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-901**			**Matrix:**	**SOIL**
Lab Sample ID:	**1201999847**				
Client Sample:	**QC for batch 934727**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 934727**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**934728**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**12/18/2009 22:20**	**Analyst:**	**RXM4**	**Purge Vol:**	**5 mL**
Prep Date:	**12/18/2009 08:01**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1r524LA.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene		49.2	ug/kg	0.300	1.00
179601-23-1	m,p-Xylenes		97.1	ug/kg	0.300	2.00
95-47-6	o-Xylene		49.6	ug/kg	0.300	1.00
100-42-5	Styrene		50.8	ug/kg	0.300	1.00
75-25-2	Bromoform		45.3	ug/kg	0.300	1.00
79-34-5	1,1,2,2-Tetrachloroethane		48.2	ug/kg	0.300	1.00
96-18-4	1,2,3-Trichloropropane		50.2	ug/kg	0.300	1.00
108-86-1	Bromobenzene		46.4	ug/kg	0.300	1.00
103-65-1	n-Propylbenzene		47.9	ug/kg	0.300	1.00
95-49-8	2-Chlorotoluene		48.2	ug/kg	0.300	1.00
98-82-8	Isopropylbenzene		48.5	ug/kg	0.300	1.00
108-67-8	1,3,5-Trimethylbenzene		48.5	ug/kg	0.300	1.00
106-43-4	4-Chlorotoluene		48.3	ug/kg	0.300	1.00
98-06-6	tert-Butylbenzene		46.8	ug/kg	0.300	1.00
95-63-6	1,2,4-Trimethylbenzene		47.9	ug/kg	0.300	1.00
135-98-8	sec-Butylbenzene		47.8	ug/kg	0.300	1.00
99-87-6	4-Isopropyltoluene		47.7	ug/kg	0.300	1.00
541-73-1	1,3-Dichlorobenzene		45.8	ug/kg	0.300	1.00
106-46-7	1,4-Dichlorobenzene		45.7	ug/kg	0.300	1.00
104-51-8	n-Butylbenzene		49.6	ug/kg	0.300	1.00
96-12-8	1,2-Dibromo-3-chloropropane		44.3	ug/kg	0.300	1.00
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.00	ug/kg	1.60	5.00
630-20-6	1,1,1,2-Tetrachloroethane		51.1	ug/kg	0.300	1.00
95-50-1	1,2-Dichlorobenzene		46.6	ug/kg	0.300	1.00

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/121809v1/1r524LA.d
Lab Smp Id: 1201999847 Client Smp ID: LCS
Inj Date : 18-DEC-2009 22:20
Operator : RXM4 Inst ID: VOA1.i
Smp Info : |1201999847|934728|1|VOAF|1|
Misc Info : GEL 5G N/A
Comment :
Method : /chem/VOA1.i/121809v1/VOA1-8260ox-121709PM.m
Meth Date : 19-Dec-2009 14:30 ron01469 Quant Type: ISTD
Cal Date : 17-DEC-2009 21:57 Cal File: 1r426.d
Als bottle: 24 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	0.00000	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
M 1 Xylenes (total)	106				1600825	146.642	147
M 2 1,2-Dichloroethylene (total)	96				589329	95.4675	95.5
M 3 1,3-Dichloropropylene	75				1046113	109.744	110
5 Dichlorodifluoromethane	85	5.005	5.005	(0.366)	219568	51.2898	51.3
6 Chloromethane	50	5.564	5.564	(0.407)	381655	48.5016	48.5
7 Vinyl chloride	62	5.937	5.937	(0.434)	307790	47.0426	47.0
9 Bromomethane	96	6.947	6.947	(0.508)	204678	47.9497	47.9
10 Chloroethane	64	7.224	7.224	(0.528)	229935	50.3050	50.3
11 Trichlorofluoromethane	101	7.845	7.845	(0.573)	372955	55.0144	55.0
12 Ethyl Ether	59	8.480	8.480	(0.620)	279987	49.4572	49.4
15 1,1-Dichloroethylene	61	9.097	9.097	(0.665)	523084	49.3817	49.4
16 Acetone	43	9.258	9.258	(0.676)	929154	202.875	203

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
	18 Iodomethane	142	9.475	9.475	(0.692)	1911445	227.722	228
	19 Carbon disulfide	76	9.580	9.580	(0.700)	4282514	248.486	248
	21 Methyl acetate	43	9.838	9.838	(0.719)	1126825	257.659	258
	22 Acetonitrile	41	9.981	9.981	(0.729)	942245	1248.68	1250
	23 Methylene chloride	84	10.147	10.147	(0.741)	316411	45.8823	45.9
	25 tert-Butyl methyl ether	73	10.446	10.446	(0.763)	894325	52.6449	52.6
	26 trans-1,2-Dichloroethylene	96	10.552	10.552	(0.771)	277738	47.2677	47.3
	29 Vinyl acetate	43	11.297	11.297	(0.825)	2683541	256.762	257
	30 1,1-Dichloroethane	63	11.330	11.330	(0.828)	580924	49.2225	49.2
	33 2,2-Dichloropropane	77	12.163	12.163	(0.889)	355879	51.6777	51.7
	35 2-Butanone	43	12.186	12.186	(0.890)	1056787	206.207	206
	36 cis-1,2-Dichloroethylene	96	12.204	12.204	(0.892)	311591	48.1998	48.2
	39 Bromochloromethane	128	12.559	12.559	(0.918)	136203	48.9577	49.0
	41 Chloroform	83	12.614	12.614	(0.922)	578532	50.3288	50.3
	42 Cyclohexane	56	12.844	12.844	(0.938)	563692	50.5437	50.5
	43 1,1,1-Trichloroethane	97	12.849	12.849	(0.939)	399066	52.0138	52.0
	44 Carbon tetrachloride	117	13.024	13.024	(0.952)	412855	54.4183	54.4
	45 1,1-Dichloropropene	75	13.051	13.051	(0.954)	434800	51.6622	51.7
	47 Benzene	78	13.336	13.336	(0.974)	1198571	48.7897	48.8
$	48 1,2-Dichloroethane-d4	65	13.341	13.341	(0.975)	529021	57.6704	57.7
	50 Cyclohexene	54	13.396	13.396	(0.979)	425667	49.2875	49.3
	51 1,2-Dichloroethane	62	13.442	13.442	(0.982)	486526	53.5101	53.5
*	52 Fluorobenzene	96	13.686	13.686	(1.000)	757064	50.0000	
	53 n-Butyl alcohol	56	13.930	13.930	(1.018)	994486	5409.47	5410
	54 Trichloroethylene	95	14.119	14.119	(1.032)	314821	50.0616	50.1
	55 Methylcyclohexane	83	14.285	14.285	(1.044)	520776	50.6636	50.7
	57 1,2-Dichloropropane	63	14.460	14.460	(1.056)	338259	50.1813	50.2
	59 Dibromomethane	93	14.625	14.625	(1.069)	191544	50.4156	50.4
	60 Bromodichloromethane	83	14.285	14.285	(1.044)	520776	61.4968	61.5
	61 2-Chloroethylvinyl ether	63	15.030	15.030	(1.098)	331191	457.661	458(AR)
	63 cis-1,3-Dichloropropylene	75	15.256	15.256	(1.115)	533693	53.9646	54.0
	64 4-Methyl-2-pentanone	58	15.357	15.357	(0.895)	679574	256.282	256
$	65 Toluene-d8	98	15.518	15.518	(0.904)	1547087	49.9084	49.9
	66 Toluene	92	15.597	15.597	(0.909)	749582	47.4763	47.5
	68 trans-1,3-Dichloropropylene	75	15.877	15.877	(0.925)	512420	55.7792	55.8
	69 1,1,2-Trichloroethane	83	16.103	16.103	(0.938)	226755	50.1772	50.2
	70 Tetrachloroethylene	164	16.190	16.190	(0.943)	223717	46.4891	46.5
	71 2-Hexanone	43	16.269	16.269	(0.948)	1438351	212.564	212
	72 1,3-Dichloropropane	76	16.305	16.305	(0.950)	483008	50.3444	50.3
	73 Dibromochloromethane	129	16.549	16.549	(0.964)	303612	53.5170	53.5
	74 1,2-Dibromoethane	107	16.729	16.729	(0.975)	263380	51.6815	51.7
*	76 Chlorobenzene-d5	117	17.162	17.162	(1.000)	542799	50.0000	
	77 Chlorobenzene	112	17.194	17.194	(1.002)	803894	48.7306	48.7
	78 Ethylbenzene	91	17.217	17.217	(1.003)	1488350	49.1872	49.2
	79 1,1,1,2-Tetrachloroethane	131	17.258	17.258	(1.006)	281402	51.0811	51.1
	80 m,p-Xylenes	106	17.337	17.337	(1.010)	1068726	97.0584	97.0
	81 o-Xylene	106	17.783	17.783	(1.036)	532099	49.5836	49.6

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
82 Styrene	104	17.801	17.801	(1.037)	916961	50.7864	50.8
83 Bromoform	173	18.105	18.105	(0.923)	194619	45.3336	45.3
84 Isopropylbenzene	105	18.128	18.128	(0.924)	1459619	48.5297	48.5
$ 87 Bromofluorobenzene	95	18.386	18.386	(0.938)	608352	48.5325	48.5
88 1,1,2,2-Tetrachloroethane	83	18.506	18.506	(0.944)	349200	48.1897	48.2
89 n-Propylbenzene	91	18.556	18.556	(0.946)	1791173	47.8631	47.9
91 Bromobenzene	156	18.593	18.593	(0.948)	333239	46.4236	46.4
92 1,2,3-Trichloropropane	110	18.602	18.602	(0.949)	94209	50.2322	50.2
93 1,3,5-Trimethylbenzene	105	18.717	18.717	(0.954)	1268091	48.5317	48.5
94 2-Chlorotoluene	91	18.740	18.740	(0.956)	1254867	48.1597	48.2
95 4-Chlorotoluene	91	18.856	18.856	(0.962)	1139724	48.2832	48.3
96 tert-Butylbenzene	119	19.076	19.076	(0.973)	1002836	46.7794	46.8
97 1,2,4-Trimethylbenzene	105	19.132	19.132	(0.976)	1293928	47.9489	47.9
99 sec-Butylbenzene	105	19.302	19.302	(0.984)	1641496	47.7874	47.8
100 4-Isopropyltoluene	119	19.422	19.422	(0.990)	1242535	47.6990	47.7
101 1,3-Dichlorobenzene	146	19.541	19.541	(0.996)	639286	45.8268	45.8
* 102 1,4-Dichlorobenzene-d4	152	19.610	19.610	(1.000)	304968	50.0000	
103 1,4-Dichlorobenzene	146	19.638	19.638	(1.001)	649746	45.6952	45.7
105 n-Butylbenzene	91	19.868	19.868	(1.013)	1366903	49.5762	49.6
106 1,2-Dichlorobenzene	146	20.080	20.080	(1.024)	617526	46.5862	46.6
108 1,2-Dibromo-3-chloropropane	157	21.005	21.005	(1.071)	58448	44.3081	44.3
109 1,2,4-Trichlorobenzene	180	22.022	22.022	(1.123)	355550	47.6476	47.6
110 Hexachlorobutadiene	225	22.105	22.105	(1.127)	222920	44.6710	44.7
111 Naphthalene	128	22.437	22.437	(1.144)	641145	40.0275	40.0
112 1,2,3-Trichlorobenzene	180	22.787	22.787	(1.162)	252308	45.2503	45.2

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
R - Spike/Surrogate failed recovery limits.

Data File: /chem/VOA1.i/121809v1/1r524LA.d
Date : 18-DEC-2009 22:20
Client ID: LCS
Sample Info: 1120199984719347281|1|VOAF|1|
Column phase: RTX-Volatiles

Instrument: VOA1.i
Operator: RXH4
Column diameter: 0.25

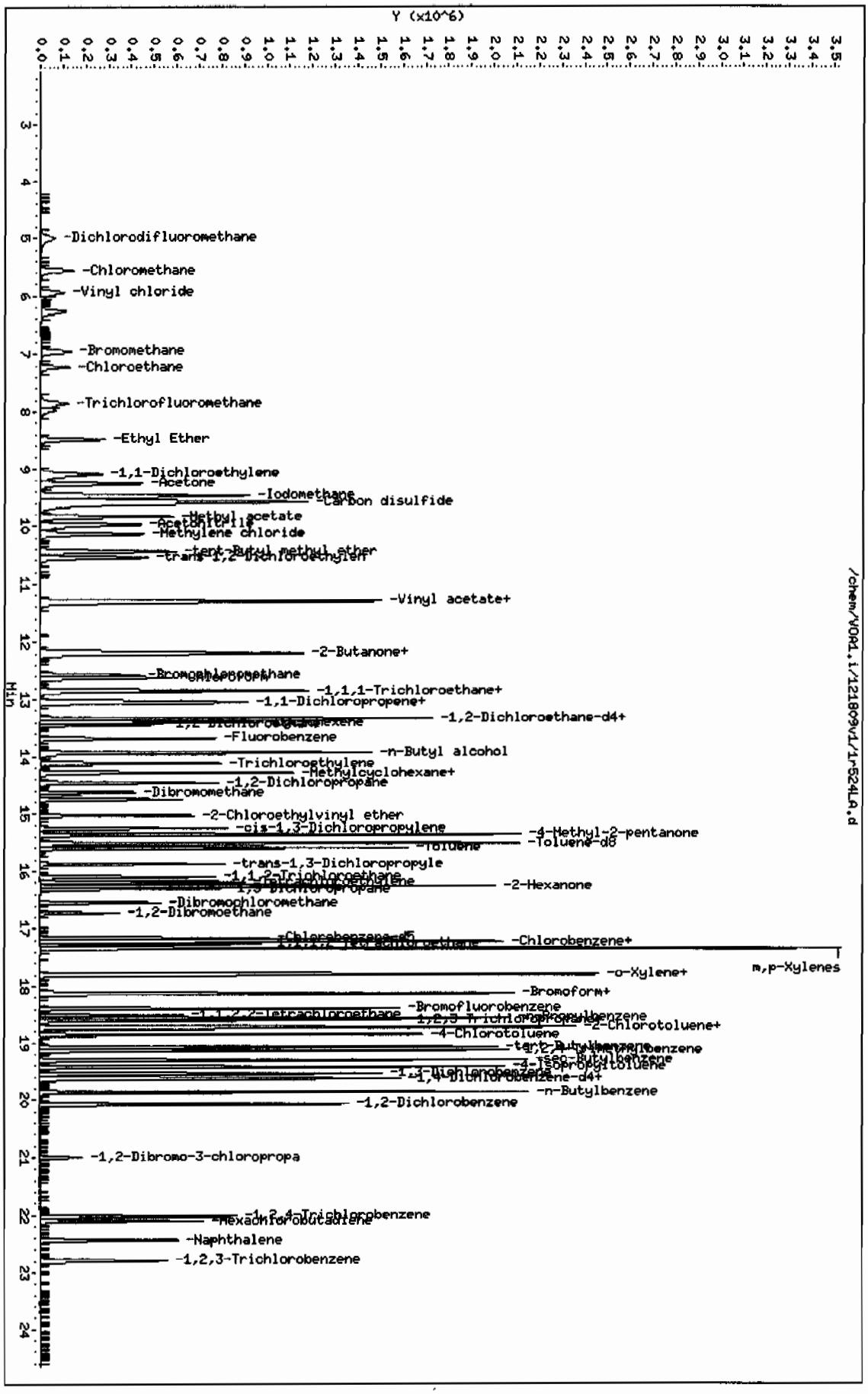

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-901**			**Matrix:**	**SOIL**
Lab Sample ID:	**1201999848**				
Client Sample:	**QC for batch 934727**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 934727**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**934728**	**Inst:**	**VOA1J**	**Dilution:**	**1**
Run Date:	**12/18/2009 22:51**	**Analyst:**	**RXM4**	**Purge Vol:**	**5 mL**
Prep Date:	**12/18/2009 08:02**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1r525sLA.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/kg	0.340	1.00
74-87-3	Chloromethane	U	1.00	ug/kg	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/kg	0.300	1.00
74-83-9	Bromomethane	U	1.00	ug/kg	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/kg	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/kg	0.300	1.00
67-64-1	Acetone	U	5.00	ug/kg	1.66	5.00
75-35-4	1,1-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/kg	1.60	5.00
75-09-2	Methylene chloride	U	5.00	ug/kg	2.00	5.00
75-15-0	Carbon disulfide	U	5.00	ug/kg	1.25	5.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/kg	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/kg	1.50	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/kg	0.300	1.00
74-97-5	Bromochloromethane	U	1.00	ug/kg	0.330	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/kg	0.300	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/kg	0.300	1.00
56-23-5	Carbon tetrachloride	U	1.00	ug/kg	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/kg	0.300	1.00
71-43-2	Benzene	U	1.00	ug/kg	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/kg	0.330	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/kg	0.300	1.00
74-95-3	Dibromomethane	U	1.00	ug/kg	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/kg	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
108-88-3	Toluene	U	1.00	ug/kg	0.300	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/kg	0.300	1.00
591-78-6	2-Hexanone	U	5.00	ug/kg	1.50	5.00
142-28-9	1,3-Dichloropropane	U	1.00	ug/kg	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/kg	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/kg	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/kg	0.300	1.00
108-90-7	Chlorobenzene	U	1.00	ug/kg	0.300	1.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-901**			**Matrix:**	**SOIL**
Lab Sample ID:	**1201999848**				
Client Sample:	**QC for batch 934727**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 934727**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**934728**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**12/18/2009 22:51**	**Analyst:**	**RXM4**	**Purge Vol:**	**5 mL**
Prep Date:	**12/18/2009 08:02**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1r525sLA.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.00	ug/kg	0.300	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/kg	0.300	2.00
95-47-6	o-Xylene	U	1.00	ug/kg	0.300	1.00
100-42-5	Styrene	U	1.00	ug/kg	0.300	1.00
75-25-2	Bromoform	U	1.00	ug/kg	0.300	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/kg	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/kg	0.300	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/kg	0.300	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/kg	0.300	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/kg	0.300	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/kg	0.300	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/kg	0.300	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/kg	0.300	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/kg	0.300	1.00
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*		322	ug/kg	1.60	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/121809v1/1r525sLA.d
Lab Smp Id: 1201999848 Client Smp ID: LCS
Inj Date : 18-DEC-2009 22:51
Operator : RXM4 Inst ID: VOA1.i
Smp Info : |1201999848|934728|1|VOAF|1|
Misc Info : GEL 5G N/A UVM091118-08C/UVM091105-02E
Comment :
Method : /chem/VOA1.i/121809v1/VOA1-8260ox-121709PM.m
Meth Date : 19-Dec-2009 14:30 ron01469 Quant Type: ISTD
Cal Date : 17-DEC-2009 21:57 Cal File: 1r426.d
Als bottle: 25 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	0.00000	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
4 Chlorotrifluoroethylene	116	4.904	4.904	(0.358)	476741	139.001	139
8 2-Chloro-1,1,1-trifluoroethane	118	6.312	6.312	(0.461)	1088401	156.545	156
13 Acrolein	56	8.959	8.959	(0.655)	333827	306.569	306
14 Trichlorotrifluoroethane	101	8.991	8.991	(0.657)	1460902	321.707	322
17 Isopropyl Alcohol	45	9.456	9.456	(0.691)	1200555	2992.37	2990
20 Allyl chloride	76	9.857	9.857	(0.720)	688833	260.692	261
24 tert-Butyl Alcohol	59	10.202	10.202	(0.746)	2019908	3053.79	3050
27 Acrylonitrile	53	10.676	10.676	(0.780)	651808	297.486	297
28 Isopropyl ether	45	11.201	11.201	(0.819)	1213659	49.6668	49.7
31 2-Chloro-1,3-butadiene	53	11.403	11.403	(0.833)	609657	66.5846	66.6
32 Ethyl tert-butyl ether	59	11.758	11.758	(0.859)	1145965	51.2393	51.2
34 Ethyl acetate	43	12.167	12.167	(0.889)	1540341	276.293	276

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
37 Propionitrile	54	12.407	12.407	(0.907)	256160	300.190	300
38 Tetrahydrofuran	42	12.540	12.540	(0.639)	538487	291.335	291
40 Methacrylonitrile	41	12.563	12.563	(0.918)	1263049	289.770	290
46 Isobutyl alcohol	41	13.111	13.111	(0.958)	601709	3137.93	3140
$ 48 1,2-Dichloroethane-d4	65	13.341	13.341	(0.975)	534760	57.6597	57.6
49 Methyl tert-amyl ether	73	13.350	13.350	(0.976)	965113	51.3390	51.3
* 52 Fluorobenzene	96	13.682	13.686	(1.000)	765419	50.0000	
56 Methyl methacrylate	69	14.441	14.441	(1.056)	1114187	296.625	297
58 1,4-Dioxane	88	14.547	14.547	(1.063)	159080	2959.12	2960
62 2-Nitropropane	43	15.081	15.081	(1.102)	508528	297.061	297
$ 65 Toluene-d8	98	15.518	15.518	(0.904)	1602863	52.4470	52.4
67 Ethyl methacrylate	69	15.813	15.813	(0.921)	2175031	295.638	296
75 1-Chlorohexane	55	17.028	17.028	(1.245)	390364	51.5476	51.5
* 76 Chlorobenzene-d5	117	17.162	17.162	(1.000)	535148	50.0000	
85 cis-1,4-Dichloro-2-butene	53	18.275	18.275	(0.932)	719750	327.565	328
86 Cyclohexanone	55	18.386	18.386	(1.071)	653030	837.800	838
$ 87 Bromofluorobenzene	95	18.386	18.386	(0.938)	623227	52.2941	52.3
90 trans-1,4-Dichloro-2-butene	53	18.570	18.570	(0.947)	680074	329.719	330
98 Pentachloroethane	167	19.196	19.196	(0.979)	574271	235.717	236
* 102 1,4-Dichlorobenzene-d4	152	19.610	19.610	(1.000)	289952	50.0000	
104 Benzyl chloride	91	19.771	19.771	(1.008)	3357834	295.971	296
107 bis(2-Chloroisopropyl)ether	45	20.167	20.167	(1.028)	874693	329.556	330

Data File: /chem/VOA1.i/121809v1/1r525sLA.d
Date : 18-DEC-2009 22:51
Client ID: LCS
Sample Info: 1120199984819347281|1|VOAF|1|
Column phase: RTX-Volatiles

Instrument: VOA1.i
Operator: RXH4
Column diameter: 0.25

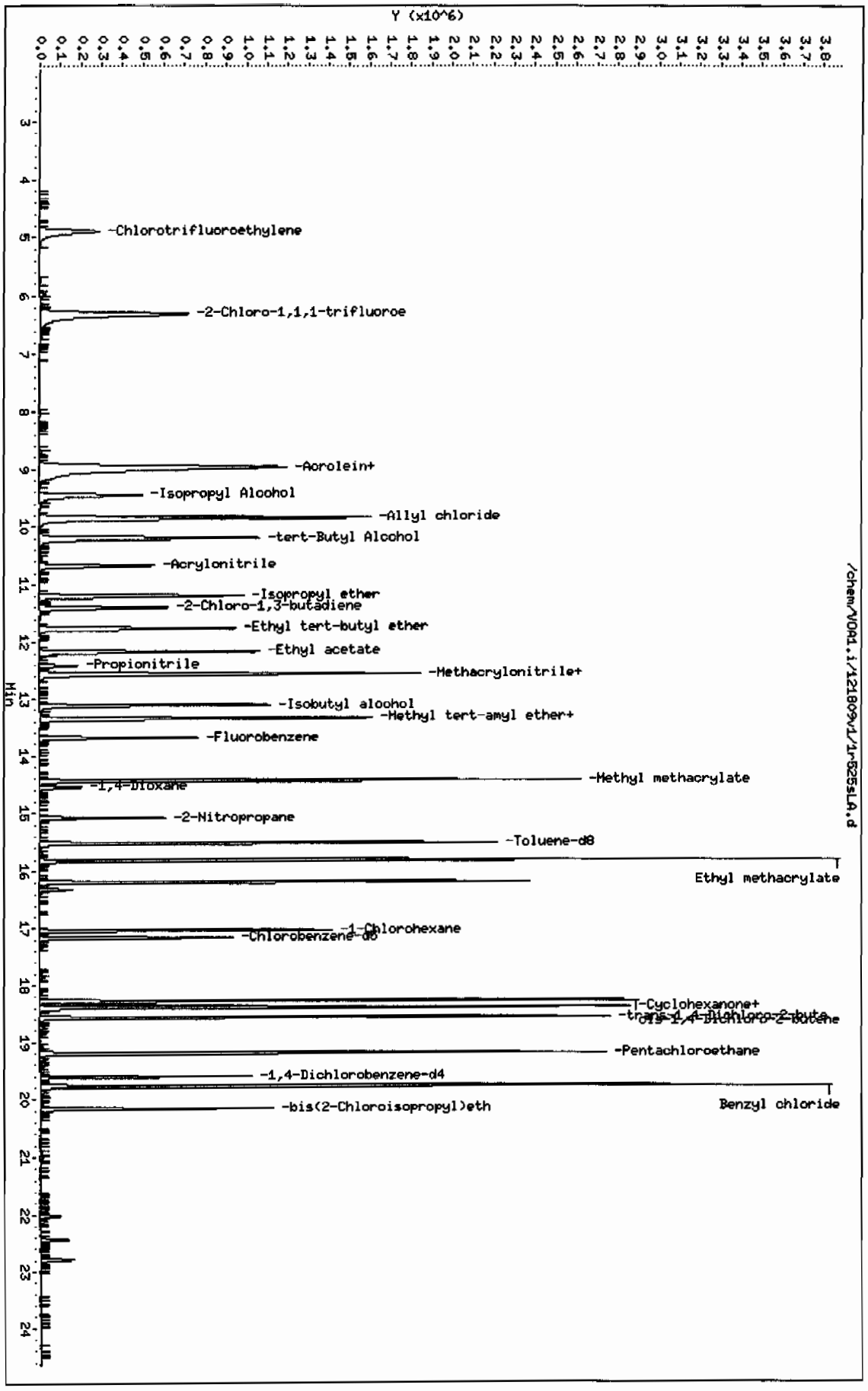

Page 1

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-901**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202002634**				
Client Sample:	**QC for batch 934727**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 934727**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**934728**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**12/21/2009 13:49**	**Analyst:**	**RXM4**	**Purge Vol:**	**5 mL**
Prep Date:	**12/21/2009 12:01**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1s108LA.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane		46.7	ug/kg	0.340	1.00
74-87-3	Chloromethane		49.1	ug/kg	0.300	1.00
75-01-4	Vinyl chloride		49.7	ug/kg	0.300	1.00
74-83-9	Bromomethane		50.9	ug/kg	0.300	1.00
75-00-3	Chloroethane		52.9	ug/kg	0.300	1.00
75-69-4	Trichlorofluoromethane		58.6	ug/kg	0.300	1.00
67-64-1	Acetone		189	ug/kg	1.66	5.00
75-35-4	1,1-Dichloroethylene		53.3	ug/kg	0.300	1.00
74-88-4	Iodomethane		249	ug/kg	1.60	5.00
75-09-2	Methylene chloride		49.5	ug/kg	2.00	5.00
75-15-0	Carbon disulfide		282	ug/kg	1.25	5.00
156-60-5	trans-1,2-Dichloroethylene		52.4	ug/kg	0.300	1.00
75-34-3	1,1-Dichloroethane		52.6	ug/kg	0.300	1.00
78-93-3	2-Butanone		193	ug/kg	1.50	5.00
156-59-2	cis-1,2-Dichloroethylene		52.2	ug/kg	0.300	1.00
594-20-7	2,2-Dichloropropane		59.0	ug/kg	0.300	1.00
67-66-3	Chloroform		52.7	ug/kg	0.300	1.00
74-97-5	Bromochloromethane		49.2	ug/kg	0.330	1.00
71-55-6	1,1,1-Trichloroethane		55.5	ug/kg	0.300	1.00
563-58-6	1,1-Dichloropropene		56.4	ug/kg	0.300	1.00
56-23-5	Carbon tetrachloride		56.2	ug/kg	0.300	1.00
107-06-2	1,2-Dichloroethane		50.3	ug/kg	0.300	1.00
71-43-2	Benzene		54.1	ug/kg	0.300	1.00
79-01-6	Trichloroethylene		52.1	ug/kg	0.330	1.00
78-87-5	1,2-Dichloropropane		52.2	ug/kg	0.300	1.00
75-27-4	Bromodichloromethane		53.9	ug/kg	0.300	1.00
74-95-3	Dibromomethane		49.4	ug/kg	0.300	1.00
108-10-1	4-Methyl-2-pentanone		245	ug/kg	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene		55.1	ug/kg	0.300	1.00
108-88-3	Toluene		50.5	ug/kg	0.300	1.00
10061-02-6	trans-1,3-Dichloropropylene		55.3	ug/kg	0.300	1.00
79-00-5	1,1,2-Trichloroethane		49.3	ug/kg	0.300	1.00
591-78-6	2-Hexanone		201	ug/kg	1.50	5.00
142-28-9	1,3-Dichloropropane		48.4	ug/kg	0.300	1.00
127-18-4	Tetrachloroethylene		49.3	ug/kg	0.300	1.00
124-48-1	Dibromochloromethane		50.3	ug/kg	0.300	1.00
106-93-4	1,2-Dibromoethane		50.4	ug/kg	0.300	1.00
108-90-7	Chlorobenzene		51.0	ug/kg	0.300	1.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-901**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202002634**				
Client Sample:	**QC for batch 934727**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 934727**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**934728**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**12/21/2009 13:49**	**Analyst:**	**RXM4**	**Purge Vol:**	**5 mL**
Prep Date:	**12/21/2009 12:01**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1s108LA.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene		51.7	ug/kg	0.300	1.00
179601-23-1	m,p-Xylenes		105	ug/kg	0.300	2.00
95-47-6	o-Xylene		50.4	ug/kg	0.300	1.00
100-42-5	Styrene		51.8	ug/kg	0.300	1.00
75-25-2	Bromoform		47.7	ug/kg	0.300	1.00
79-34-5	1,1,2,2-Tetrachloroethane		49.7	ug/kg	0.300	1.00
96-18-4	1,2,3-Trichloropropane		48.6	ug/kg	0.300	1.00
108-86-1	Bromobenzene		50.8	ug/kg	0.300	1.00
103-65-1	n-Propylbenzene		54.0	ug/kg	0.300	1.00
95-49-8	2-Chlorotoluene		52.2	ug/kg	0.300	1.00
98-82-8	Isopropylbenzene		56.8	ug/kg	0.300	1.00
108-67-8	1,3,5-Trimethylbenzene		53.3	ug/kg	0.300	1.00
106-43-4	4-Chlorotoluene		55.1	ug/kg	0.300	1.00
98-06-6	tert-Butylbenzene		53.8	ug/kg	0.300	1.00
95-63-6	1,2,4-Trimethylbenzene		54.3	ug/kg	0.300	1.00
135-98-8	sec-Butylbenzene		53.1	ug/kg	0.300	1.00
99-87-6	4-Isopropyltoluene		53.4	ug/kg	0.300	1.00
541-73-1	1,3-Dichlorobenzene		50.5	ug/kg	0.300	1.00
106-46-7	1,4-Dichlorobenzene		49.9	ug/kg	0.300	1.00
104-51-8	n-Butylbenzene		56.2	ug/kg	0.300	1.00
96-12-8	1,2-Dibromo-3-chloropropane		42.5	ug/kg	0.300	1.00
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.00	ug/kg	1.60	5.00
630-20-6	1,1,1,2-Tetrachloroethane		51.1	ug/kg	0.300	1.00
95-50-1	1,2-Dichlorobenzene		50.1	ug/kg	0.300	1.00

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/122109v1/1s108LA.d
Lab Smp Id: 1202002634 Client Smp ID: LCS
Inj Date : 21-DEC-2009 13:49
Operator : RXM4 Inst ID: VOA1.i
Smp Info : |1202002634|934728|1|VOAF|1|
Misc Info : GEL 5G N/A
Comment :
Method : /chem/VOA1.i/122109v1/VOA1-8260ox-121709.m
Meth Date : 21-Dec-2009 13:41 ron01469 Quant Type: ISTD
Cal Date : 17-DEC-2009 18:56 Cal File: 1r420.d
Als bottle: 8 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	0.00000	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
M 1 Xylenes (total)	106				2200602	155.823	156
M 2 1,2-Dichloroethylene (total)	96				829926	104.598	104
M 3 1,3-Dichloropropylene	75				1357976	110.413	110
5 Dichlorodifluoromethane	85	4.997	4.998	(0.365)	256834	46.6728	46.7
6 Chloromethane	50	5.557	5.550	(0.406)	497011	49.1111	49.1
7 Vinyl chloride	62	5.937	5.930	(0.434)	417874	49.6599	49.6
9 Bromomethane	96	6.952	6.943	(0.508)	279545	50.8881	50.9
10 Chloroethane	64	7.219	7.215	(0.528)	311153	52.9301	52.9
11 Trichlorofluoromethane	101	7.854	7.836	(0.574)	510639	58.5678	58.6
12 Ethyl Ether	59	8.480	8.467	(0.620)	355242	48.7915	48.8
15 1,1-Dichloroethylene	61	9.092	9.079	(0.665)	726440	53.3239	53.3
16 Acetone	43	9.254	9.240	(0.676)	1112331	188.844	189

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
	18 Iodomethane	142	9.470	9.461	(0.692)	2689959	249.182	249
	19 Carbon disulfide	76	9.580	9.567	(0.700)	6239871	281.519	282
	21 Methyl acetate	43	9.838	9.820	(0.719)	1315892	233.958	234
	22 Acetonitrile	41	9.976	9.963	(0.729)	1108430	1142.15	1140
	23 Methylene chloride	84	10.142	10.128	(0.741)	439198	49.5279	49.5
	25 tert-Butyl methyl ether	73	10.441	10.423	(0.763)	1113029	50.9444	50.9
	26 trans-1,2-Dichloroethylene	96	10.547	10.538	(0.771)	396310	52.4430	52.4
	29 Vinyl acetate	43	11.297	11.284	(0.826)	3960184	294.623	295
	30 1,1-Dichloroethane	63	11.325	11.311	(0.828)	797871	52.5658	52.6
	33 2,2-Dichloropropane	77	12.163	12.149	(0.889)	521647	58.9546	59.0
	35 2-Butanone	43	12.181	12.172	(0.890)	1269673	192.636	193
	36 cis-1,2-Dichloroethylene	96	12.199	12.190	(0.892)	433616	52.1548	52.2
	39 Bromochloromethane	128	12.563	12.549	(0.918)	176002	49.1895	49.2
	41 Chloroform	83	12.609	12.600	(0.922)	778740	52.6756	52.7
	42 Cyclohexane	56	12.839	12.830	(0.938)	822637	57.3536	57.4
	43 1,1,1-Trichloroethane	97	12.844	12.835	(0.939)	547357	55.4715	55.5
	44 Carbon tetrachloride	117	13.023	13.014	(0.952)	548048	56.1687	56.2
	45 1,1-Dichloropropene	75	13.046	13.042	(0.954)	610301	56.3836	56.4
	47 Benzene	78	13.332	13.323	(0.974)	1709573	54.1104	54.1
$	48 1,2-Dichloroethane-d4	65	13.341	13.327	(0.975)	702485	60.3850	60.4
	50 Cyclohexene	54	13.396	13.387	(0.979)	614324	55.3084	55.3
	51 1,2-Dichloroethane	62	13.438	13.429	(0.982)	588345	50.3142	50.3
*	52 Fluorobenzene	96	13.682	13.673	(1.000)	973651	50.0000	
	53 n-Butyl alcohol	56	13.930	13.921	(1.018)	1144745	4862.91	4860
	54 Trichloroethylene	95	14.114	14.105	(1.032)	420983	52.0516	52.0
	55 Methylcyclohexane	83	14.280	14.271	(1.044)	752623	56.9309	56.9
	57 1,2-Dichloropropane	63	14.460	14.451	(1.057)	452742	52.2242	52.2
	59 Dibromomethane	93	14.621	14.612	(1.069)	241539	49.4319	49.4
	60 Bromodichloromethane	83	14.750	14.741	(1.078)	586612	53.8618	53.9
	61 2-Chloroethylvinyl ether	63	15.026	15.021	(1.098)	592702	635.252	635 (AR)
	63 cis-1,3-Dichloropropylene	75	15.256	15.247	(1.115)	701400	55.1454	55.1
	64 4-Methyl-2-pentanone	58	15.357	15.353	(0.895)	838666	244.573	244
$	65 Toluene-d8	98	15.514	15.509	(0.904)	2028945	51.8863	51.9
	66 Toluene	92	15.592	15.587	(0.909)	1031383	50.5149	50.5
	68 trans-1,3-Dichloropropylene	75	15.877	15.873	(0.925)	656576	55.2679	55.3
	69 1,1,2-Trichloroethane	83	16.098	16.094	(0.938)	287883	49.2605	49.3
	70 Tetrachloroethylene	164	16.186	16.181	(0.943)	306582	49.2645	49.3
	71 2-Hexanone	43	16.264	16.260	(0.948)	1758938	201.010	201
	72 1,3-Dichloropropane	76	16.305	16.301	(0.950)	600849	48.4286	48.4
	73 Dibromochloromethane	129	16.545	16.540	(0.964)	368903	50.2831	50.3
	74 1,2-Dibromoethane	107	16.724	16.720	(0.975)	332480	50.4495	50.4
*	76 Chlorobenzene-d5	117	17.157	17.153	(1.000)	701935	50.0000	
	77 Chlorobenzene	112	17.189	17.185	(1.002)	1088796	51.0378	51.0
	78 Ethylbenzene	91	17.217	17.212	(1.003)	2024442	51.7360	51.7
	79 1,1,1,2-Tetrachloroethane	131	17.254	17.254	(1.006)	364045	51.1003	51.1
	80 m,p-Xylenes	106	17.332	17.327	(1.010)	1501209	105.426	105
	81 o-Xylene	106	17.783	17.779	(1.036)	699393	50.3973	50.4

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
82 Styrene	104	17.801	17.797	(1.038)	1210089	51.8269	51.8
83 Bromoform	173	18.101	18.101	(0.923)	243538	47.7320	47.7
84 Isopropylbenzene	105	18.128	18.124	(0.925)	2026596	56.7815	56.8
$ 87 Bromofluorobenzene	95	18.386	18.382	(0.938)	791250	54.6295	54.6
88 1,1,2,2-Tetrachloroethane	83	18.501	18.501	(0.944)	427025	49.6599	49.6
89 n-Propylbenzene	91	18.556	18.552	(0.946)	2400197	54.0483	54.0
91 Bromobenzene	156	18.593	18.589	(0.948)	432973	50.8290	50.8
92 1,2,3-Trichloropropane	110	18.602	18.602	(0.949)	108227	48.6288	48.6
93 1,3,5-Trimethylbenzene	105	18.717	18.713	(0.955)	1653312	53.3213	53.3
94 2-Chlorotoluene	91	18.740	18.736	(0.956)	1614375	52.2110	52.2
95 4-Chlorotoluene	91	18.851	18.846	(0.961)	1543915	55.1178	55.1
96 tert-Butylbenzene	119	19.072	19.072	(0.973)	1367386	53.7511	53.8
97 1,2,4-Trimethylbenzene	105	19.132	19.132	(0.976)	1737395	54.2550	54.2
99 sec-Butylbenzene	105	19.297	19.298	(0.984)	2162510	53.0523	53.0
100 4-Isopropyltoluene	119	19.417	19.417	(0.990)	1652089	53.4449	53.4
101 1,3-Dichlorobenzene	146	19.537	19.537	(0.996)	835750	50.4861	50.5
* 102 1,4-Dichlorobenzene-d4	152	19.606	19.606	(1.000)	361894	50.0000	
103 1,4-Dichlorobenzene	146	19.633	19.634	(1.001)	841439	49.8678	49.9
105 n-Butylbenzene	91	19.864	19.864	(1.013)	1840404	56.2498	56.2
106 1,2-Dichlorobenzene	146	20.075	20.075	(1.024)	788379	50.1197	50.1
108 1,2-Dibromo-3-chloropropane	157	21.000	20.996	(1.071)	66382	42.4975	42.5
109 1,2,4-Trichlorobenzene	180	22.018	22.018	(1.123)	457650	51.6823	51.7
110 Hexachlorobutadiene	225	22.105	22.101	(1.127)	301916	50.9842	51.0
111 Naphthalene	128	22.432	22.432	(1.144)	725125	38.2612	38.3
112 1,2,3-Trichlorobenzene	180	22.786	22.782	(1.162)	292474	44.2023	44.2

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
R - Spike/Surrogate failed recovery limits.

Data File: /chem/VOA1.i/122109v1/1s108LA.d
Date : 21-DEC-2009 13:49
Client ID: LCS
Sample Info: |120200263419347281|VOAF|1|
Column phase: RTX-Volatiles

Instrument: VOA1.i
Operator: RXH4
Column diameter: 0.25

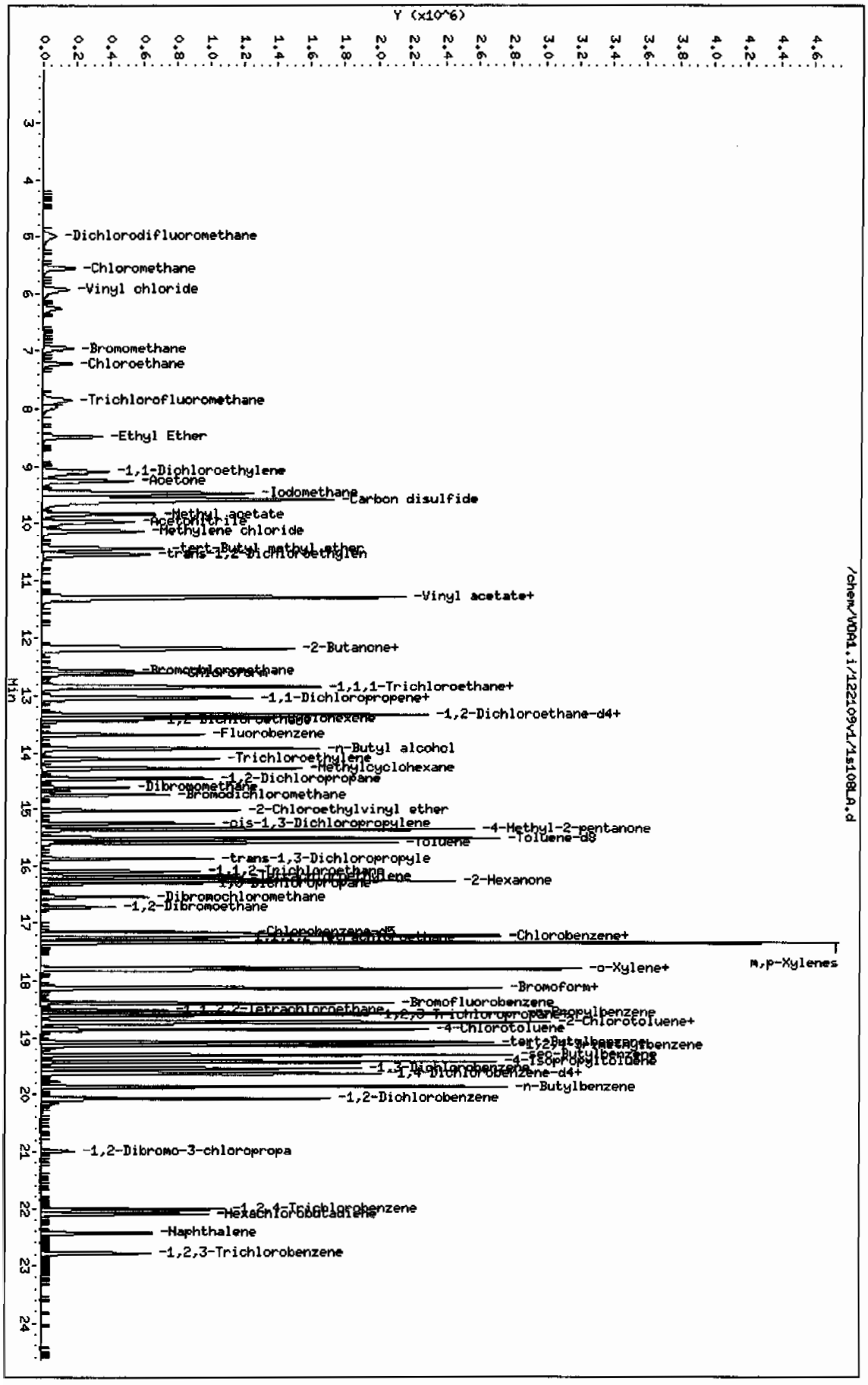

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-901**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202002635**				
Client Sample:	**QC for batch 934727**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 934727**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**934728**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**12/21/2009 14:19**	**Analyst:**	**RXM4**	**Purge Vol:**	**5 mL**
Prep Date:	**12/21/2009 12:02**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1s109sLA.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/kg	0.340	1.00
74-87-3	Chloromethane	U	1.00	ug/kg	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/kg	0.300	1.00
74-83-9	Bromomethane	U	1.00	ug/kg	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/kg	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/kg	0.300	1.00
67-64-1	Acetone	U	5.00	ug/kg	1.66	5.00
75-35-4	1,1-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/kg	1.60	5.00
75-09-2	Methylene chloride	U	5.00	ug/kg	2.00	5.00
75-15-0	Carbon disulfide	U	5.00	ug/kg	1.25	5.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/kg	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/kg	1.50	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/kg	0.300	1.00
74-97-5	Bromochloromethane	U	1.00	ug/kg	0.330	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/kg	0.300	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/kg	0.300	1.00
56-23-5	Carbon tetrachloride	U	1.00	ug/kg	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/kg	0.300	1.00
71-43-2	Benzene	U	1.00	ug/kg	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/kg	0.330	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/kg	0.300	1.00
74-95-3	Dibromomethane	U	1.00	ug/kg	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/kg	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
108-88-3	Toluene	U	1.00	ug/kg	0.300	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/kg	0.300	1.00
591-78-6	2-Hexanone	U	5.00	ug/kg	1.50	5.00
142-28-9	1,3-Dichloropropane	U	1.00	ug/kg	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/kg	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/kg	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/kg	0.300	1.00
108-90-7	Chlorobenzene	U	1.00	ug/kg	0.300	1.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-901**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202002635**				
Client Sample:	**QC for batch 934727**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 934727**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**934728**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**12/21/2009 14:19**	**Analyst:**	**RXM4**	**Purge Vol:**	**5 mL**
Prep Date:	**12/21/2009 12:02**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1s109sLA.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.00	ug/kg	0.300	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/kg	0.300	2.00
95-47-6	o-Xylene	U	1.00	ug/kg	0.300	1.00
100-42-5	Styrene	U	1.00	ug/kg	0.300	1.00
75-25-2	Bromoform	U	1.00	ug/kg	0.300	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/kg	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/kg	0.300	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/kg	0.300	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/kg	0.300	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/kg	0.300	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/kg	0.300	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/kg	0.300	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/kg	0.300	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/kg	0.300	1.00
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*		334	ug/kg	1.60	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/122109v1/1s109sLA.d
Lab Smp Id: 1202002635 Client Smp ID: LCS
Inj Date : 21-DEC-2009 14:19
Operator : RXM4 Inst ID: VOA1.i
Smp Info : |1202002635|934728|1|VOAF|1|
Misc Info : GEL 5G N/A
Comment :
Method : /chem/VOA1.i/122109v1/VOA1-8260ox-121709.m
Meth Date : 21-Dec-2009 13:41 ron01469 Quant Type: ISTD
Cal Date : 17-DEC-2009 18:56 Cal File: 1r420.d
Als bottle: 9 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	0.00000	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
4 Chlorotrifluoroethylene	116	4.897	4.897	(0.358)	616681	137.254	137
8 2-Chloro-1,1,1-trifluoroethane	118	6.308	6.308	(0.461)	1515588	166.330	166
13 Acrolein	56	8.954	8.954	(0.654)	417985	292.972	293
14 Trichlorotrifluoroethane	101	8.982	8.987	(0.656)	1985255	333.669	334
17 Isopropyl Alcohol	45	9.451	9.451	(0.691)	1387710	2650.76	2650
20 Allyl chloride	76	9.857	9.852	(0.720)	1014623	291.262	291
24 tert-Butyl Alcohol	59	10.197	10.197	(0.745)	2251611	2607.95	2610
27 Acrylonitrile	53	10.671	10.671	(0.780)	766669	267.063	267
28 Isopropyl ether	45	11.196	11.196	(0.818)	1708592	53.3314	53.3
31 2-Chloro-1,3-butadiene	53	11.394	11.394	(0.833)	810999	67.6033	67.6
32 Ethyl tert-butyl ether	59	11.758	11.753	(0.859)	1569943	53.5352	53.5
34 Ethyl acetate	43	12.163	12.163	(0.889)	1809472	247.722	248

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
37 Propionitrile	54	12.407	12.407	(0.907)	291624	260.836	261
38 Tetrahydrofuran	42	12.540	12.535	(0.640)	618141	270.688	271
40 Methacrylonitrile	41	12.563	12.563	(0.918)	1479802	259.117	259
46 Isobutyl alcohol	41	13.106	13.106	(0.958)	671836	2674.11	2670
$ 48 1,2-Dichloroethane-d4	65	13.341	13.327	(0.975)	637189	53.1770	53.2
49 Methyl tert-amyl ether	73	13.346	13.346	(0.975)	1334254	54.1194	54.1
* 52 Fluorobenzene	96	13.682	13.673	(1.000)	1002859	50.0000	
56 Methyl methacrylate	69	14.437	14.437	(1.055)	1388597	282.153	282
58 1,4-Dioxane	88	14.542	14.547	(1.063)	208869	2965.38	2960
62 2-Nitropropane	43	15.076	15.076	(1.102)	579470	259.201	259
$ 65 Toluene-d8	98	15.514	15.509	(0.904)	2180892	57.9447	57.9
67 Ethyl methacrylate	69	15.808	15.808	(0.921)	2719290	292.769	293
75 1-Chlorohexane	55	17.028	17.028	(1.245)	541297	54.5549	54.6
* 76 Chlorobenzene-d5	117	17.157	17.153	(1.000)	675615	50.0000	
85 cis-1,4-Dichloro-2-butene	53	18.271	18.271	(0.932)	859315	316.543	316
86 Cyclohexanone	55	18.386	18.381	(1.072)	716567	728.180	728
$ 87 Bromofluorobenzene	95	18.386	18.382	(0.938)	802354	55.9627	56.0
90 trans-1,4-Dichloro-2-butene	53	18.565	18.565	(0.947)	801208	314.410	314
98 Pentachloroethane	167	19.196	19.196	(0.979)	1368770	454.746	455(AR)
* 102 1,4-Dichlorobenzene-d4	152	19.606	19.606	(1.000)	358230	50.0000	
104 Benzyl chloride	91	19.771	19.771	(1.008)	4893713	349.134	349
107 bis(2-Chloroisopropyl)ether	45	20.163	20.163	(1.028)	957759	292.074	292

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
R - Spike/Surrogate failed recovery limits.

Data File: /chem/VOA1.i/122109v1/1s109sLA.d
Date : 21-DEC-2009 14:19
Client ID: LCS
Sample Info: 1120200263519347281|1|VOAF1|1
Column phase: RTX-Volatiles

Instrument: VOA1.i
Operator: RXM4
Column diameter: 0.25

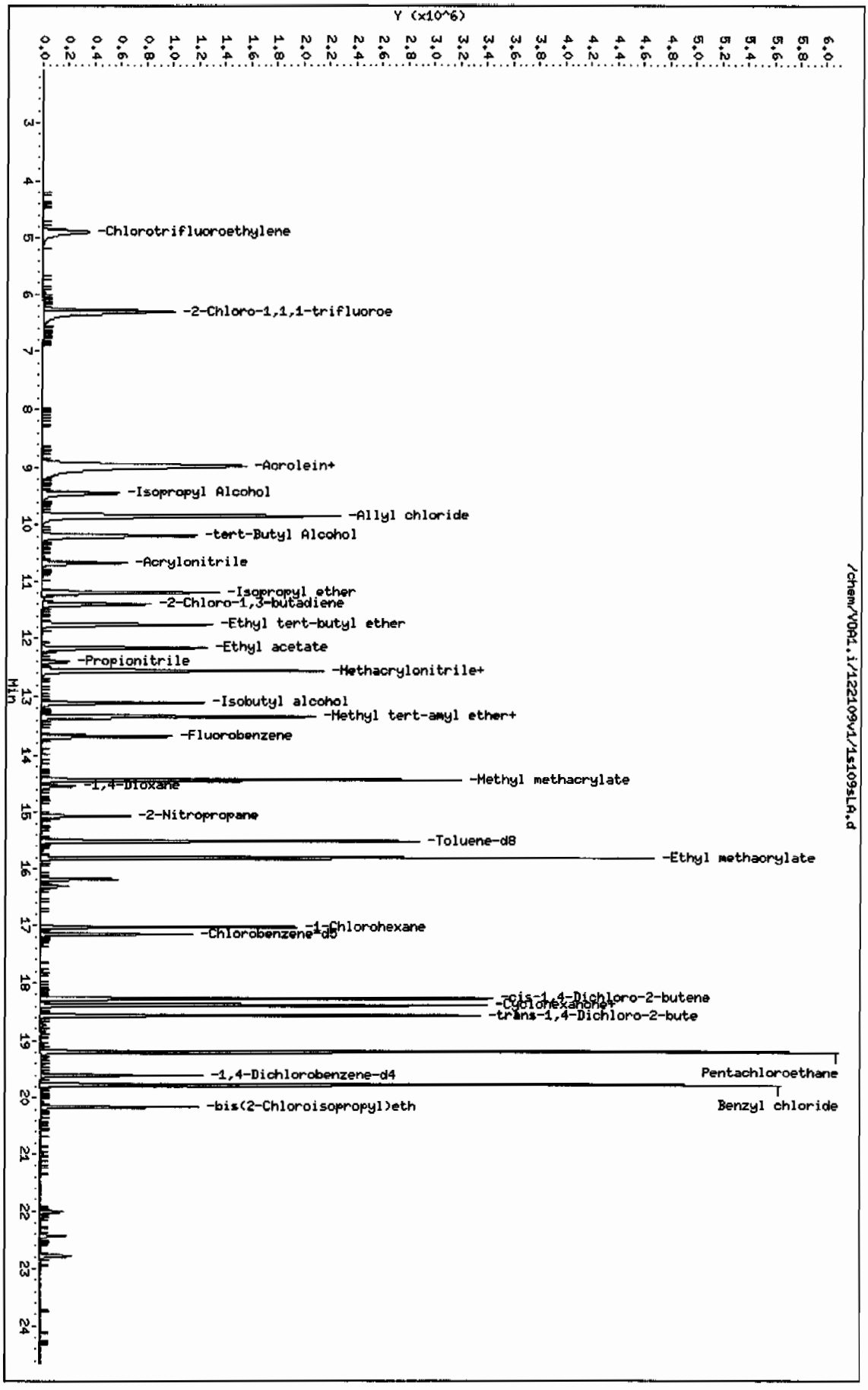

Page 1

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-901**	**Date Collected:**	**12/10/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**1201999845**	**Date Received:**	**12/12/2009 09:35**	**%Moisture:**	**4.4**
Client Sample:	**QC for batch 934727**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**RE03-09-13470PS**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**934728**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**12/21/2009 17:21**	**Analyst:**	**RXM4**	**Purge Vol:**	**5 mL**
Prep Date:	**12/21/2009 15:11**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1s115.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane		30.3	ug/kg	0.355	1.05
74-87-3	Chloromethane		37.9	ug/kg	0.314	1.05
75-01-4	Vinyl chloride		39.6	ug/kg	0.314	1.05
74-83-9	Bromomethane		39.4	ug/kg	0.314	1.05
75-00-3	Chloroethane		42.4	ug/kg	0.314	1.05
75-69-4	Trichlorofluoromethane		46.3	ug/kg	0.314	1.05
67-64-1	Acetone		189	ug/kg	1.74	5.23
75-35-4	1,1-Dichloroethylene		40.3	ug/kg	0.314	1.05
74-88-4	Iodomethane		199	ug/kg	1.67	5.23
75-09-2	Methylene chloride		39.0	ug/kg	2.09	5.23
75-15-0	Carbon disulfide		214	ug/kg	1.31	5.23
156-60-5	trans-1,2-Dichloroethylene		43.0	ug/kg	0.314	1.05
75-34-3	1,1-Dichloroethane		45.4	ug/kg	0.314	1.05
78-93-3	2-Butanone		208	ug/kg	1.57	5.23
156-59-2	cis-1,2-Dichloroethylene		45.6	ug/kg	0.314	1.05
594-20-7	2,2-Dichloropropane		57.3	ug/kg	0.314	1.05
67-66-3	Chloroform		47.2	ug/kg	0.314	1.05
74-97-5	Bromochloromethane		46.3	ug/kg	0.345	1.05
71-55-6	1,1,1-Trichloroethane		54.6	ug/kg	0.314	1.05
563-58-6	1,1-Dichloropropene		50.5	ug/kg	0.314	1.05
56-23-5	Carbon tetrachloride		52.7	ug/kg	0.314	1.05
107-06-2	1,2-Dichloroethane		48.5	ug/kg	0.314	1.05
71-43-2	Benzene		47.5	ug/kg	0.314	1.05
79-01-6	Trichloroethylene		47.1	ug/kg	0.345	1.05
78-87-5	1,2-Dichloropropane		47.8	ug/kg	0.314	1.05
75-27-4	Bromodichloromethane		48.8	ug/kg	0.314	1.05
74-95-3	Dibromomethane		47.2	ug/kg	0.314	1.05
108-10-1	4-Methyl-2-pentanone		255	ug/kg	1.31	5.23
10061-01-5	cis-1,3-Dichloropropylene		49.3	ug/kg	0.314	1.05
108-88-3	Toluene		46.7	ug/kg	0.314	1.05
10061-02-6	trans-1,3-Dichloropropylene		51.7	ug/kg	0.314	1.05
79-00-5	1,1,2-Trichloroethane		49.0	ug/kg	0.314	1.05
591-78-6	2-Hexanone		212	ug/kg	1.57	5.23
142-28-9	1,3-Dichloropropane		47.6	ug/kg	0.314	1.05
127-18-4	Tetrachloroethylene		45.9	ug/kg	0.314	1.05
124-48-1	Dibromochloromethane		50.7	ug/kg	0.314	1.05
106-93-4	1,2-Dibromoethane		50.1	ug/kg	0.314	1.05
108-90-7	Chlorobenzene		47.2	ug/kg	0.314	1.05

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-901	**Date Collected:**	12/10/2009 12:00	**Matrix:**	S
Lab Sample ID:	1201999845	**Date Received:**	12/12/2009 09:35	**%Moisture:**	4.4
Client Sample:	QC for batch 934727	**Client:**	LANL010	**Project:**	QC
Client ID:	RE03-09-13470PS	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	934728	**Inst:**	VOA1.I	**Dilution:**	1
Run Date:	12/21/2009 17:21	**Analyst:**	RXM4	**Purge Vol:**	5 mL
Prep Date:	12/21/2009 15:11	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	1s115.d	**Column:**	RTX-Volatiles	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene		48.1	ug/kg	0.314	1.05
179601-23-1	m,p-Xylenes		94.0	ug/kg	0.314	2.09
95-47-6	o-Xylene		47.8	ug/kg	0.314	1.05
100-42-5	Styrene		48.1	ug/kg	0.314	1.05
75-25-2	Bromoform		46.1	ug/kg	0.314	1.05
79-34-5	1,1,2,2-Tetrachloroethane		50.8	ug/kg	0.314	1.05
96-18-4	1,2,3-Trichloropropane		51.6	ug/kg	0.314	1.05
108-86-1	Bromobenzene		47.4	ug/kg	0.314	1.05
103-65-1	n-Propylbenzene		48.0	ug/kg	0.314	1.05
95-49-8	2-Chlorotoluene		47.6	ug/kg	0.314	1.05
98-82-8	Isopropylbenzene		50.0	ug/kg	0.314	1.05
108-67-8	1,3,5-Trimethylbenzene		47.4	ug/kg	0.314	1.05
106-43-4	4-Chlorotoluene		47.1	ug/kg	0.314	1.05
98-06-6	tert-Butylbenzene		45.5	ug/kg	0.314	1.05
95-63-6	1,2,4-Trimethylbenzene		45.5	ug/kg	0.314	1.05
135-98-8	sec-Butylbenzene		46.3	ug/kg	0.314	1.05
99-87-6	4-Isopropyltoluene		44.8	ug/kg	0.314	1.05
541-73-1	1,3-Dichlorobenzene		44.0	ug/kg	0.314	1.05
106-46-7	1,4-Dichlorobenzene		43.4	ug/kg	0.314	1.05
104-51-8	n-Butylbenzene		44.0	ug/kg	0.314	1.05
96-12-8	1,2-Dibromo-3-chloropropane		41.6	ug/kg	0.314	1.05
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.23	ug/kg	1.67	5.23
630-20-6	1,1,1,2-Tetrachloroethane		48.7	ug/kg	0.314	1.05
95-50-1	1,2-Dichlorobenzene		43.9	ug/kg	0.314	1.05

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/122109v1/1s115.d
Lab Smp Id: 1201999845 Client Smp ID: RE03-09-13470MS
Inj Date : 21-DEC-2009 17:21
Operator : RXM4 Inst ID: VOA1.i
Smp Info : |1201999845|934728|1|VOAF|1|
Misc Info : LANL 5G N/A MS 242794001
Comment :
Method : /chem/VOA1.i/122109v1/VOA1-8260ox-121709.m
Meth Date : 21-Dec-2009 13:41 ron01469 Quant Type: ISTD
Cal Date : 17-DEC-2009 18:56 Cal File: 1r420.d
Als bottle: 15 QC Sample: MS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-901.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	4.35540	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
* 52 Fluorobenzene	96	13.682	13.673	(1.000)	560675	50.0000	
* 76 Chlorobenzene-d5	117	17.157	17.153	(1.000)	398684	50.0000	
* 102 1,4-Dichlorobenzene-d4	152	19.610	19.606	(1.000)	210472	50.0000	
$ 48 1,2-Dichloroethane-d4	65	13.341	13.327	(0.975)	414752	61.9117	64.7
$ 65 Toluene-d8	98	15.514	15.509	(0.904)	1198900	53.9801	56.4
$ 87 Bromofluorobenzene	95	18.386	18.382	(0.938)	471272	55.9464	58.5
5 Dichlorodifluoromethane	85	5.005	4.998	(0.366)	91525	28.9825	30.3
6 Chloromethane	50	5.557	5.550	(0.406)	211378	36.2715	37.9
7 Vinyl chloride	62	5.937	5.930	(0.434)	183491	37.8675	39.6
9 Bromomethane	96	6.961	6.943	(0.509)	119276	37.7059	39.4
10 Chloroethane	64	7.224	7.215	(0.528)	137241	40.5420	42.4
11 Trichlorofluoromethane	101	7.854	7.836	(0.574)	222315	44.2799	46.3

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
16 Acetone	43	9.254	9.240	(0.676)	614235	181.091	189
15 1,1-Dichloroethylene	61	9.088	9.079	(0.664)	302331	38.5387	40.3
103 1,4-Dichlorobenzene	146	19.634	19.634	(1.001)	407620	41.5375	43.4
18 Iodomethane	142	9.475	9.461	(0.692)	1185620	190.726	199
23 Methylene chloride	84	10.147	10.128	(0.742)	190760	37.3334	39.0
19 Carbon disulfide	76	9.585	9.567	(0.701)	2612169	204.656	214
26 trans-1,2-Dichloroethylene	96	10.552	10.538	(0.771)	178985	41.1302	43.0
30 1,1-Dichloroethane	63	11.316	11.311	(0.827)	379548	43.4239	45.4
35 2-Butanone	43	12.186	12.172	(0.891)	753259	198.464	208
36 cis-1,2-Dichloroethylene	96	12.200	12.190	(0.892)	208868	43.6267	45.6
101 1,3-Dichlorobenzene	146	19.537	19.537	(0.996)	405406	42.1088	44.0
33 2,2-Dichloropropane	77	12.158	12.149	(0.889)	279161	54.7883	57.3
41 Chloroform	83	12.609	12.600	(0.922)	384229	45.1336	47.2
106 1,2-Dichlorobenzene	146	20.075	20.075	(1.024)	384457	42.0250	43.9
39 Bromochloromethane	128	12.559	12.549	(0.918)	91204	44.2650	46.3
43 1,1,1-Trichloroethane	97	12.844	12.835	(0.939)	296898	52.2515	54.6
45 1,1-Dichloropropene	75	13.051	13.042	(0.954)	300893	48.2740	50.5
44 Carbon tetrachloride	117	13.024	13.014	(0.952)	283300	50.4214	52.7
51 1,2-Dichloroethane	62	13.438	13.429	(0.982)	312238	46.3699	48.5
47 Benzene	78	13.332	13.323	(0.974)	827079	45.4603	47.5
54 Trichloroethylene	95	14.114	14.105	(1.032)	209907	45.0701	47.1
57 1,2-Dichloropropane	63	14.455	14.451	(1.057)	228155	45.7029	47.8
60 Bromodichloromethane	83	14.750	14.741	(1.078)	292763	46.6808	48.8
59 Dibromomethane	93	14.621	14.612	(1.069)	126961	45.1214	47.2
64 4-Methyl-2-pentanone	58	15.357	15.353	(0.895)	475440	244.109	255
63 cis-1,3-Dichloropropylene	75	15.251	15.247	(1.115)	345228	47.1348	49.3
66 Toluene	92	15.592	15.587	(0.909)	517964	44.6650	46.7
68 trans-1,3-Dichloropropylene	75	15.877	15.873	(0.925)	333662	49.4496	51.7
69 1,1,2-Trichloroethane	83	16.098	16.094	(0.938)	155666	46.8970	49.0
71 2-Hexanone	43	16.264	16.260	(0.948)	1009368	203.088	212
72 1,3-Dichloropropane	76	16.306	16.301	(0.950)	320608	45.4966	47.6
70 Tetrachloroethylene	164	16.186	16.181	(0.943)	155175	43.9013	45.9
73 Dibromochloromethane	129	16.545	16.540	(0.964)	202227	48.5308	50.7
74 1,2-Dibromoethane	107	16.724	16.720	(0.975)	179472	47.9464	50.1
77 Chlorobenzene	112	17.189	17.185	(1.002)	546548	45.1068	47.2
79 1,1,1,2-Tetrachloroethane	131	17.258	17.254	(1.006)	188652	46.6228	48.7
78 Ethylbenzene	91	17.217	17.212	(1.003)	1023029	46.0303	48.1
80 m,p-Xylenes	106	17.332	17.327	(1.010)	727323	89.9296	94.0
81 o-Xylene	106	17.778	17.779	(1.036)	360438	45.7283	47.8
82 Styrene	104	17.802	17.797	(1.038)	610404	46.0281	48.1
83 Bromoform	173	18.105	18.101	(0.923)	130408	44.0538	46.0
88 1,1,2,2-Tetrachloroethane	83	18.506	18.501	(0.944)	243225	48.6349	50.8
92 1,2,3-Trichloropropane	110	18.602	18.602	(0.949)	63829	49.3131	51.6(Q)
91 Bromobenzene	156	18.589	18.589	(0.948)	224446	45.3054	47.4
89 n-Propylbenzene	91	18.556	18.552	(0.946)	1186725	45.9486	48.0
94 2-Chlorotoluene	91	18.741	18.736	(0.956)	819019	45.5448	47.6
84 Isopropylbenzene	105	18.124	18.124	(0.924)	991990	47.7896	50.0

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
93 1,3,5-Trimethylbenzene	105	18.718	18.713	(0.954)	818021	45.3626	47.4
95 4-Chlorotoluene	91	18.851	18.846	(0.961)	734538	45.0889	47.1
96 tert-Butylbenzene	119	19.072	19.072	(0.973)	644383	43.5539	45.5
97 1,2,4-Trimethylbenzene	105	19.132	19.132	(0.976)	810864	43.5388	45.5
99 sec-Butylbenzene	105	19.297	19.298	(0.984)	1049315	44.2628	46.3
100 4-Isopropyltoluene	119	19.417	19.417	(0.990)	770244	42.8438	44.8
105 n-Butylbenzene	91	19.864	19.864	(1.013)	800751	42.0816	44.0
108 1,2-Dibromo-3-chloropropane	157	21.001	20.996	(1.071)	35992	39.7623	41.6

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: /chem/VOA1.i/122109v1/1s115.d
Date : 21-DEC-2009 17:21
Client ID: RE03-09-13470MS
Sample Info: 1120199984519347281|1|VOAF|1|
Column phase: RTX-Volatiles

Instrument: VOA1.i
Operator: RXH4
Column diameter: 0.25

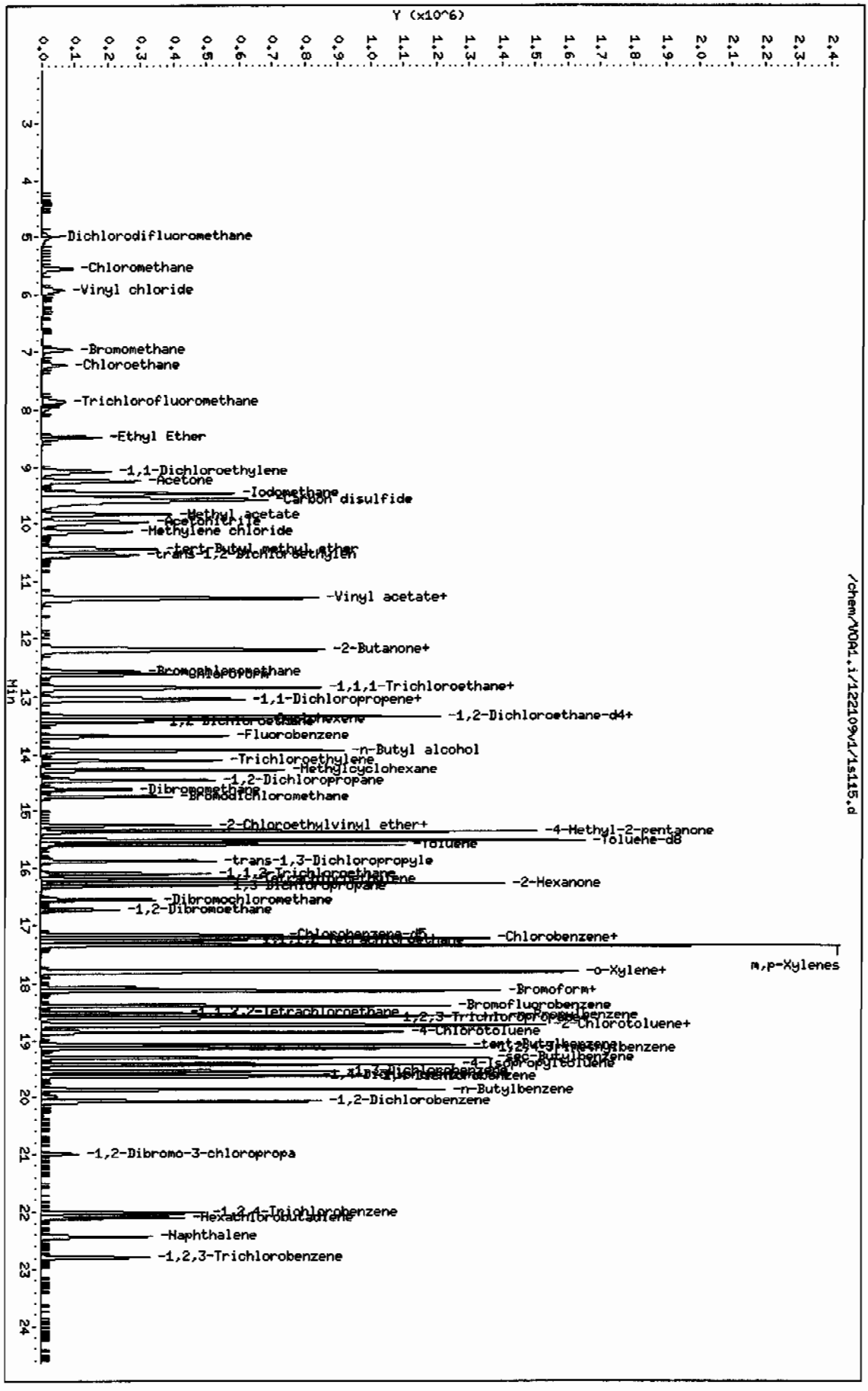

Page 1

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-901	**Date Collected:**	12/10/2009 12:00	**Matrix:**	S
Lab Sample ID:	1201999846	**Date Received:**	12/12/2009 09:35	**%Moisture:**	4.4
Client Sample:	QC for batch 934727	**Client:**	LANL010	**Project:**	QC
Client ID:	RE03-09-13470PSD	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	934728	**Inst:**	VOA1.I	**Dilution:**	1
Run Date:	12/21/2009 17:51	**Analyst:**	RXM4	**Purge Vol:**	5 mL
Prep Date:	12/21/2009 15:12	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	1s116.d	**Column:**	RTX-Volatiles	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane		32.4	ug/kg	0.355	1.05
74-87-3	Chloromethane		39.5	ug/kg	0.314	1.05
75-01-4	Vinyl chloride		40.5	ug/kg	0.314	1.05
74-83-9	Bromomethane		41.7	ug/kg	0.314	1.05
75-00-3	Chloroethane		43.3	ug/kg	0.314	1.05
75-69-4	Trichlorofluoromethane		46.9	ug/kg	0.314	1.05
67-64-1	Acetone		189	ug/kg	1.74	5.23
75-35-4	1,1-Dichloroethylene		42.4	ug/kg	0.314	1.05
74-88-4	Iodomethane		208	ug/kg	1.67	5.23
75-09-2	Methylene chloride		41.1	ug/kg	2.09	5.23
75-15-0	Carbon disulfide		222	ug/kg	1.31	5.23
156-60-5	trans-1,2-Dichloroethylene		44.0	ug/kg	0.314	1.05
75-34-3	1,1-Dichloroethane		46.8	ug/kg	0.314	1.05
78-93-3	2-Butanone		204	ug/kg	1.57	5.23
156-59-2	cis-1,2-Dichloroethylene		46.4	ug/kg	0.314	1.05
594-20-7	2,2-Dichloropropane		57.8	ug/kg	0.314	1.05
67-66-3	Chloroform		47.7	ug/kg	0.314	1.05
74-97-5	Bromochloromethane		45.9	ug/kg	0.345	1.05
71-55-6	1,1,1-Trichloroethane		55.7	ug/kg	0.314	1.05
563-58-6	1,1-Dichloropropene		51.5	ug/kg	0.314	1.05
56-23-5	Carbon tetrachloride		53.4	ug/kg	0.314	1.05
107-06-2	1,2-Dichloroethane		49.2	ug/kg	0.314	1.05
71-43-2	Benzene		49.1	ug/kg	0.314	1.05
79-01-6	Trichloroethylene		48.3	ug/kg	0.345	1.05
78-87-5	1,2-Dichloropropane		49.6	ug/kg	0.314	1.05
75-27-4	Bromodichloromethane		51.0	ug/kg	0.314	1.05
74-95-3	Dibromomethane		48.8	ug/kg	0.314	1.05
108-10-1	4-Methyl-2-pentanone		254	ug/kg	1.31	5.23
10061-01-5	cis-1,3-Dichloropropylene		51.6	ug/kg	0.314	1.05
108-88-3	Toluene		47.3	ug/kg	0.314	1.05
10061-02-6	trans-1,3-Dichloropropylene		52.6	ug/kg	0.314	1.05
79-00-5	1,1,2-Trichloroethane		49.8	ug/kg	0.314	1.05
591-78-6	2-Hexanone		208	ug/kg	1.57	5.23
142-28-9	1,3-Dichloropropane		48.1	ug/kg	0.314	1.05
127-18-4	Tetrachloroethylene		47.0	ug/kg	0.314	1.05
124-48-1	Dibromochloromethane		51.0	ug/kg	0.314	1.05
106-93-4	1,2-Dibromoethane		50.9	ug/kg	0.314	1.05
108-90-7	Chlorobenzene		47.5	ug/kg	0.314	1.05

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-901	**Date Collected:**	12/10/2009 12:00	**Matrix:**	S
Lab Sample ID:	1201999846	**Date Received:**	12/12/2009 09:35	**%Moisture:**	4.4
Client Sample:	QC for batch 934727	**Client:**	LANL010	**Project:**	QC
Client ID:	RE03-09-13470PSD	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	934728	**Inst:**	VOA1.I	**Dilution:**	1
Run Date:	12/21/2009 17:51	**Analyst:**	RXM4	**Purge Vol:**	5 mL
Prep Date:	12/21/2009 15:12	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	1s116.d	**Column:**	RTX-Volatiles	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene		48.7	ug/kg	0.314	1.05
179601-23-1	m,p-Xylenes		94.9	ug/kg	0.314	2.09
95-47-6	o-Xylene		47.5	ug/kg	0.314	1.05
100-42-5	Styrene		49.3	ug/kg	0.314	1.05
75-25-2	Bromoform		47.9	ug/kg	0.314	1.05
79-34-5	1,1,2,2-Tetrachloroethane		52.0	ug/kg	0.314	1.05
96-18-4	1,2,3-Trichloropropane		50.7	ug/kg	0.314	1.05
108-86-1	Bromobenzene		48.5	ug/kg	0.314	1.05
103-65-1	n-Propylbenzene		49.3	ug/kg	0.314	1.05
95-49-8	2-Chlorotoluene		49.2	ug/kg	0.314	1.05
98-82-8	Isopropylbenzene		51.7	ug/kg	0.314	1.05
108-67-8	1,3,5-Trimethylbenzene		49.5	ug/kg	0.314	1.05
106-43-4	4-Chlorotoluene		49.0	ug/kg	0.314	1.05
98-06-6	tert-Butylbenzene		46.4	ug/kg	0.314	1.05
95-63-6	1,2,4-Trimethylbenzene		48.1	ug/kg	0.314	1.05
135-98-8	sec-Butylbenzene		47.3	ug/kg	0.314	1.05
99-87-6	4-Isopropyltoluene		46.8	ug/kg	0.314	1.05
541-73-1	1,3-Dichlorobenzene		45.9	ug/kg	0.314	1.05
106-46-7	1,4-Dichlorobenzene		45.7	ug/kg	0.314	1.05
104-51-8	n-Butylbenzene		46.2	ug/kg	0.314	1.05
96-12-8	1,2-Dibromo-3-chloropropane		45.4	ug/kg	0.314	1.05
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.23	ug/kg	1.67	5.23
630-20-6	1,1,1,2-Tetrachloroethane		47.9	ug/kg	0.314	1.05
95-50-1	1,2-Dichlorobenzene		45.6	ug/kg	0.314	1.05

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/122109v1/1s116.d
Lab Smp Id: 1201999846 Client Smp ID: RE03-09-13470MSD
Inj Date : 21-DEC-2009 17:51
Operator : RXM4 Inst ID: VOA1.i
Smp Info : |1201999846|934728|1|VOAF|1|
Misc Info : LANL 5G N/A MSD 242794001
Comment :
Method : /chem/VOA1.i/122109v1/VOA1-8260ox-121709.m
Meth Date : 21-Dec-2009 13:41 ron01469 Quant Type: ISTD
Cal Date : 17-DEC-2009 18:56 Cal File: 1r420.d
Als bottle: 16 QC Sample: MSD
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-901.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	4.35540	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
* 52 Fluorobenzene	96	13.682	13.673	(1.000)	618107	50.0000	
* 76 Chlorobenzene-d5	117	17.157	17.153	(1.000)	448219	50.0000	
* 102 1,4-Dichlorobenzene-d4	152	19.611	19.606	(1.000)	232971	50.0000	
$ 48 1,2-Dichloroethane-d4	65	13.341	13.327	(0.975)	459221	62.1804	65.0
$ 65 Toluene-d8	98	15.518	15.509	(0.904)	1338379	53.6004	56.0
$ 87 Bromofluorobenzene	95	18.386	18.382	(0.938)	518877	55.6490	58.2
5 Dichlorodifluoromethane	85	5.012	4.998	(0.366)	107881	30.9696	32.4
6 Chloromethane	50	5.564	5.550	(0.407)	242519	37.7485	39.5
7 Vinyl chloride	62	5.937	5.930	(0.434)	206788	38.7102	40.5
9 Bromomethane	96	6.966	6.943	(0.509)	138925	39.8368	41.6
10 Chloroethane	64	7.228	7.215	(0.528)	154654	41.4409	43.3
11 Trichlorofluoromethane	101	7.854	7.836	(0.574)	248365	44.8720	46.9

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
16 Acetone	43	9.254	9.240	(0.676)	676706	180.971	189
15 1,1-Dichloroethylene	61	9.083	9.079	(0.664)	350472	40.5243	42.4
103 1,4-Dichlorobenzene	146	19.634	19.634	(1.001)	475011	43.7302	45.7
18 Iodomethane	142	9.475	9.461	(0.692)	1366525	199.402	208
23 Methylene chloride	84	10.142	10.128	(0.741)	221311	39.2931	41.1
19 Carbon disulfide	76	9.585	9.567	(0.701)	2986212	212.223	222
26 trans-1,2-Dichloroethylene	96	10.556	10.538	(0.772)	201879	42.0807	44.0
30 1,1-Dichloroethane	63	11.325	11.311	(0.828)	431356	44.7657	46.8
35 2-Butanone	43	12.186	12.172	(0.891)	815384	194.871	204
36 cis-1,2-Dichloroethylene	96	12.200	12.190	(0.892)	234162	44.3654	46.4
101 1,3-Dichlorobenzene	146	19.542	19.537	(0.996)	468001	43.9159	45.9
33 2,2-Dichloropropane	77	12.163	12.149	(0.889)	310468	55.2710	57.8
41 Chloroform	83	12.614	12.600	(0.922)	428310	45.6368	47.7
106 1,2-Dichlorobenzene	146	20.075	20.075	(1.024)	441626	43.6121	45.6
39 Bromochloromethane	128	12.559	12.549	(0.918)	99712	43.8977	45.9
43 1,1,1-Trichloroethane	97	12.844	12.835	(0.939)	333839	53.2937	55.7
45 1,1-Dichloropropene	75	13.047	13.042	(0.954)	338618	49.2786	51.5
44 Carbon tetrachloride	117	13.024	13.014	(0.952)	316458	51.0895	53.4
51 1,2-Dichloroethane	62	13.438	13.429	(0.982)	349203	47.0410	49.2
47 Benzene	78	13.332	13.323	(0.974)	942411	46.9865	49.1
54 Trichloroethylene	95	14.115	14.105	(1.032)	237303	46.2181	48.3
57 1,2-Dichloropropane	63	14.460	14.451	(1.057)	261057	47.4347	49.6
60 Bromodichloromethane	83	14.750	14.741	(1.078)	337250	48.7777	51.0
59 Dibromomethane	93	14.621	14.612	(1.069)	144738	46.6597	48.8
64 4-Methyl-2-pentanone	58	15.357	15.353	(0.895)	532929	243.386	254
63 cis-1,3-Dichloropropylene	75	15.251	15.247	(1.115)	398131	49.3071	51.6
66 Toluene	92	15.597	15.587	(0.909)	589334	45.2030	47.3
68 trans-1,3-Dichloropropylene	75	15.877	15.873	(0.925)	381520	50.2935	52.6
69 1,1,2-Trichloroethane	83	16.103	16.094	(0.939)	177791	47.6430	49.8
71 2-Hexanone	43	16.264	16.260	(0.948)	1113762	199.327	208
72 1,3-Dichloropropane	76	16.306	16.301	(0.950)	364363	45.9915	48.1
70 Tetrachloroethylene	164	16.186	16.181	(0.943)	178666	44.9610	47.0
73 Dibromochloromethane	129	16.545	16.540	(0.964)	228399	48.7541	51.0
74 1,2-Dibromoethane	107	16.724	16.720	(0.975)	204775	48.6603	50.9
77 Chlorobenzene	112	17.189	17.185	(1.002)	619428	45.4719	47.5
79 1,1,1,2-Tetrachloroethane	131	17.258	17.254	(1.006)	208416	45.8148	47.9
78 Ethylbenzene	91	17.217	17.212	(1.003)	1163838	46.5786	48.7
80 m,p-Xylenes	106	17.332	17.327	(1.010)	825686	90.8090	94.9
81 o-Xylene	106	17.783	17.779	(1.036)	402326	45.4016	47.5
82 Styrene	104	17.802	17.797	(1.038)	702491	47.1178	49.3
83 Bromoform	173	18.101	18.101	(0.923)	150142	45.7682	47.8
88 1,1,2,2-Tetrachloroethane	83	18.506	18.501	(0.944)	275305	49.7332	52.0
92 1,2,3-Trichloropropane	110	18.602	18.602	(0.949)	69510	48.5159	50.7(Q)
91 Bromobenzene	156	18.589	18.589	(0.948)	254295	46.3733	48.5
89 n-Propylbenzene	91	18.556	18.552	(0.946)	1347132	47.1221	49.3
94 2-Chlorotoluene	91	18.741	18.736	(0.956)	936450	47.0459	49.2
84 Isopropylbenzene	105	18.124	18.124	(0.924)	1136189	49.4504	51.7

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
93 1,3,5-Trimethylbenzene	105	18.718	18.713	(0.954)	945667	47.3766	49.5
95 4-Chlorotoluene	91	18.851	18.846	(0.961)	844436	46.8290	49.0
96 tert-Butylbenzene	119	19.072	19.072	(0.973)	726834	44.3824	46.4
97 1,2,4-Trimethylbenzene	105	19.132	19.132	(0.976)	948744	46.0225	48.1
99 sec-Butylbenzene	105	19.298	19.298	(0.984)	1187575	45.2571	47.3
100 4-Isopropyltoluene	119	19.417	19.417	(0.990)	891036	44.7762	46.8
105 n-Butylbenzene	91	19.864	19.864	(1.013)	930749	44.1896	46.2
108 1,2-Dibromo-3-chloropropane	157	21.001	20.996	(1.071)	43742	43.4504	45.4

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: /chem/VOA1.i/122109v1/1s116.d
Date : 21-DEC-2009 17:51
Client ID: RE03-09-13470MSD
Sample Info: |1201999846|934728|1|VOAF|1|

Column phase: RTX-Volatiles

Instrument: VOA1.i

Operator: RXH4
Column diameter: 0.25

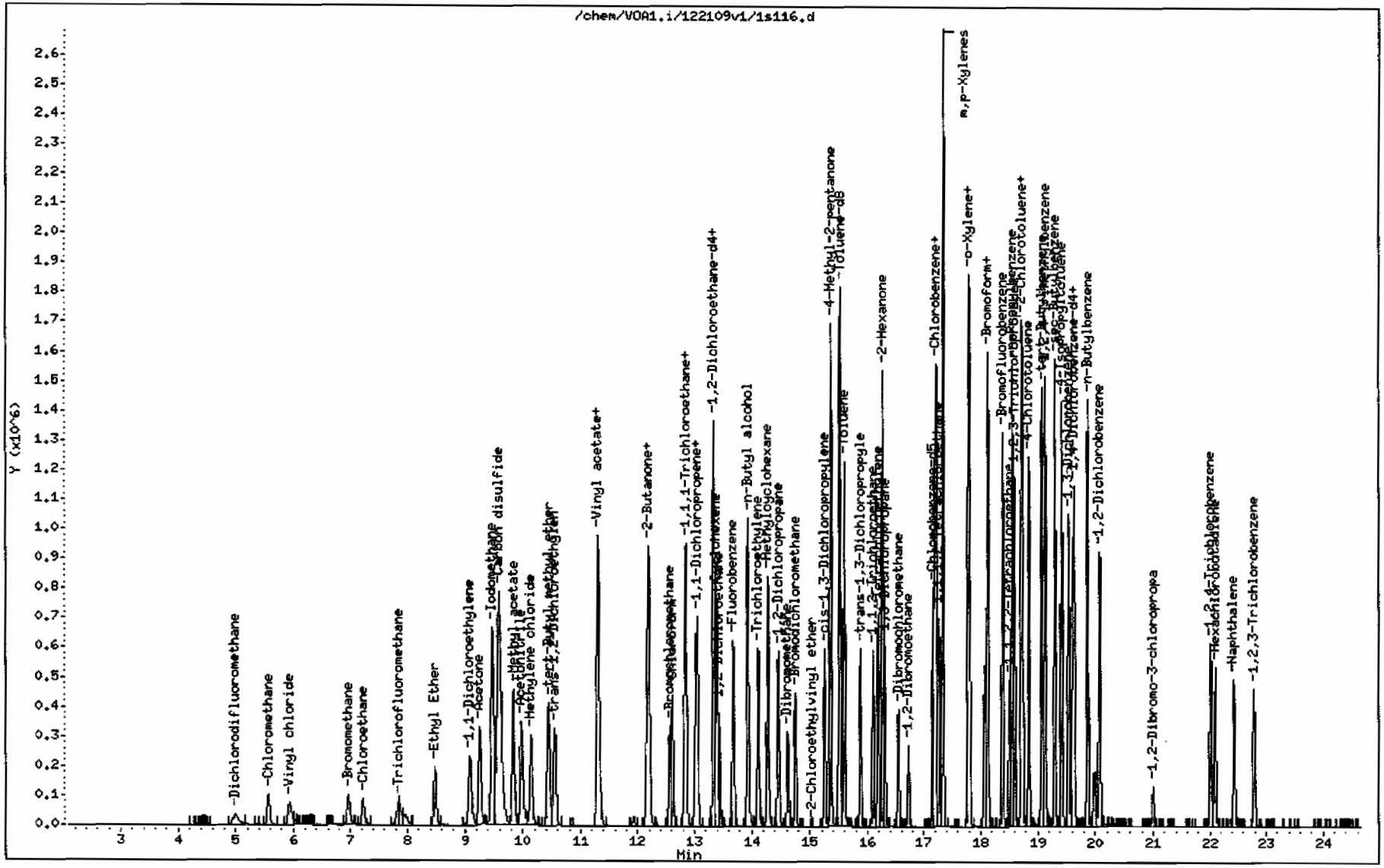

Miscellaneous Data

Prep Logbook

Volatile Organic Compounds (VOC) by Gas Chromatograph/Mass Spectrometer

Batch ID: **934727** Verified by: _____

Analyst: Ronda Eagle
Method: SW846 5030
Lab SOP: GL-OA-E-038 REV# 13
Instrument: Sartorius Balance B-001

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units

Sample ID	Run Date	Matrix	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check 1
1201999844 MB	18-DEC-2009 08:00:00	Soil	5	5	1	
1201999847 LCS	18-DEC-2009 08:01:00	Soil	5	5	1	
1201999848 LCS	18-DEC-2009 08:02:00	Soil	5	5	1	
242791002	18-DEC-2009 14:01:00	Soil	5	5	1	
242794001	18-DEC-2009 14:02:00	Soil	5	5	1	
242794002	18-DEC-2009 14:05:00	Soil	5	5	1	
242794003	18-DEC-2009 14:06:00	Soil	5	5	1	
242794004	18-DEC-2009 14:07:00	Soil	5	5	1	
242937001	18-DEC-2009 14:08:00	Soil	5	5	1	
242937002	18-DEC-2009 14:09:00	Soil	5	5	1	
242937003	18-DEC-2009 14:10:00	Soil	5	5	1	
242937004	18-DEC-2009 14:11:00	Soil	5	5	1	
242937005	18-DEC-2009 14:12:00	Soil	5	5	1	
242937006	18-DEC-2009 14:13:00	Soil	5	5	1	
242937007	18-DEC-2009 14:14:00	Soil	5	5	1	
242937008	18-DEC-2009 14:15:00	Soil	5	5	1	
242937009	18-DEC-2009 14:16:00	Soil	5	5	1	
242937010	18-DEC-2009 14:17:00	Soil	5	5	1	
1202002633 MB	21-DEC-2009 12:00:00	Soil	5	5	1	
1202002634 LCS	21-DEC-2009 12:01:00	Soil	5	5	1	
1202002635 LCS	21-DEC-2009 12:02:00	Soil	5	5	1	
242791001	21-DEC-2009 15:10:00	Soil	5	5	1	
1201999845 PS (242794001)	21-DEC-2009 15:11:00	Soil	5	5	1	
1201999846 PSD (242794001)	21-DEC-2009 15:12:00	Soil	5	5	1	

Reagent/Solvent Lot ID	Description	Amount

Comments:

GEL Laboratories, LLC
Revision:11/22/04

ORGANIC RUN LOG - INSTRUMENT ID#VOA1

Date: 12/17/2009 Method 8260B/624 Operator: RJE

REVIEWED BY: _____
DATE: _____

HARDWARE CONFIGURATION & METHOD CONDITIONS SUMMARY No# 2

Daily Instrument Readings:
Multiplier Voltage: 1306

CALIBRATION & CC INFORMATION:

Initial Calibration Date: 12/17/2009

(See pg. 293 for ICAL Std. Sci. Ids)

NaHSO4 lot # N/A

Cl test lot # 84515

Sequence Number: 121709v1

Daily Standard Solution ID#		Volume Added for Purge (ul) Smpl	CCV	LCS	BFB
ICV	W1VM091217-18		5+5		
IS	UVM091203-01	1	1	1	
SS	UVM091117-02	1	1	1	
	N/A			5+5	
BFB	UVM091117-02				1
SHORT	W1VM091217-20		5+5	5+5	

Purge Amount	
5	Water Purge Vol:ML
5	Soil Purge Wt.:G
N/A	Mid level ext. MeOH Vol: ul
N/A	Methanol Lot #
X	Heated Purge

Analysis Date Time	Data File	Lab Sample ID	Client	Batch #	Wt.(g) or Vol(ml/ul)	Dil. Factor	pH	AS Slot #	Matrix w or s	Analyst	Cl test (Y/N)	Acceptable O/X	Comments
12/17/2009 7:38	1R401.D	UVM090821-02	GEL	BFB	5ML	1	N/A	1	W	RXM4	N/A	X	See 1R408
12/17/2009 8:08	1R402.D	W1VM091217-01	GEL	CCV/LCS	5G	1	N/A	2	S	RXM4	N/A	X	UVM091129-01D/IVM091214-01
12/17/2009 9:24	1R403.D	W1VM091217-02	GEL	CCV/LCS	5G	1	N/A	3	S	RXM4	N/A	X	UVM091129-01E/IVM091214-01
12/17/2009 9:54	1R404.D	W1VM091217-03	GEL	LCS	5G	1	N/A	4	S	RXM4	N/A	X	UVM091129-01E/IVM091214-01
12/17/2009 10:24	1R405.D	W1VM091217-04	GEL	SHORT	5G	1	N/A	5	S	RXM4	N/A	X	UVM091118-01C/UVM091105-02E
12/17/2009 10:54	1R406.D	12019---	GEL	BLANK	5G	1	N/A	6	S	RXM4	N/A	X	
12/17/2009 12:25	1R407.D	12019---	GEL	BLANK	5ML	1	N/A	1	W	RXM4	N/A	X	
12/17/2009 12:56	1R408.D	UVM091117-02	GEL	BFB	5ML	1	N/A	2	W	RXM4	N/A	O	
12/17/2009 13:26	1R409.D	W1VM091217-04	GEL	VSTD0005	5ML	1	N/A	3	W	RXM4	N/A	O	UVM090911-01D/UVM091130-01B
12/17/2009 13:56	1R410.D	W1VM091217-05	GEL	VSTD0005	5ML	1	N/A	4	W	RXM4	N/A	X	UVM090911-01D/UVM091130-01B: not needed
12/17/2009 14:26	1R411.D	W1VM091217-06	GEL	VSTD001	5ML	1	N/A	5	W	RXM4	N/A	O	UVM090911-02D/UVM091130-02B
12/17/2009 14:57	1R412.D	W1VM091217-07	GEL	VSTD001	5ML	1	N/A	6	W	RXM4	N/A	X	UVM090911-02D/UVM091130-02B: not needed
12/17/2009 15:27	1R413.D	W1VM091217-08	GEL	VSTD002	5ML	1	N/A	7	W	RXM4	N/A	O	UVM090911-03D/UVM091130-03B
12/17/2009 15:57	1R414.D	W1VM091217-09	GEL	VSTD005	5ML	1	N/A	8	W	RXM4	N/A	O	UVM090911-04D/UVM091130-04B
12/17/2009 16:26	1R415.D	W1VM091217-10	GEL	VSTD010	5ML	1	N/A	9	W	RXM4	N/A	O	UVM090911-05D/UVM091130-05B
12/17/2009 16:56	1R416.D	W1VM091217-11	GEL	VSTD020	5ML	1	N/A	10	W	RXM4	N/A	O	UVM090911-06D/UVM091130-06B
12/17/2009 17:26	1R417.D	W1VM091217-12	GEL	VSTD050	5ML	1	N/A	11	W	RXM4	N/A	O	UVM090911-07D/UVM091130-07B
12/17/2009 17:56	1R418.D	W1VM091217-13	GEL	VSTD100	5ML	1	N/A	12	W	RXM4	N/A	O	UVM090911-08D/UVM091130-08B
12/17/2009 18:26	1R419.D	12019---	GEL	BLANK	5ML	1	N/A	13	W	RXM4	N/A	X	instrument rinse
12/17/2009 18:56	1R420.D	W1VM091217-14	GEL	VSTD005S	5ML	1	N/A	14	W	RXM4	N/A	O	UVM091118-01/UVM091110-01D
12/17/2009 19:26	1R421.D	W1VM091217-15	GEL	VSTD010S	5ML	1	N/A	15	W	RXM4	N/A	O	UVM091118-02/UVM091110-02D
12/17/2009 19:56	1R422.D	W1VM091217-16	GEL	VSTD025S	5ML	1	N/A	16	W	RXM4	N/A	O	UVM091118-03/UVM091110-03D
12/17/2009 20:27	1R423.D	W1VM091217-17	GEL	VSTD050S	5ML	1	N/A	17	W	RXM4	N/A	O	UVM091118-04/UVM091110-04D
12/17/2009 20:57	1R424.D	W1VM091217-18	GEL	VSTD100S	5ML	1	N/A	18	W	RXM4	N/A	O	UVM091118-05/UVM091110-05D
12/17/2009 21:27	1R425.D	W1VM091217-19	GEL	VSTD250S	5ML	1	N/A	19	W	RXM4	N/A	O	UVM091118-06/UVM091110-06D
12/17/2009 21:57	1R426.D	W1VM091217-20	GEL	VSTD500S	5ML	1	N/A	20	W	RXM4	N/A	O	UVM091118-07/UVM091110-07D
12/17/2009 22:27	1R427.D	12019---	GEL	BLANK	5ML	1	N/A	21	W	RXM4	N/A	X	instrument rinse
12/17/2009 22:57	1R428.D	W1VM091217-18	GEL	ICV	5ML	1	N/A	22	W	RXM4	N/A	O	UVM091129-01D/IVM091214-01
12/17/2009 23:27	1R429.D	W1VM091217-19	GEL	ICV	5ML	1	N/A	23	W	RXM4	N/A	X	UVM091129-01E/IVM091214-01
12/17/2009 23:58	1R430.D	W1VM091217-20	GEL	SHORT ICV	5ML	1		24	W	RXM4	N/A	O	UVM091118-01C/UVM091105-02E

GEL Laboratories, LLC
Revision:11/22/04

ORGANIC RUN LOG - INSTRUMENT ID#VOA1

Date: 12/18/2009 Method 8260B/624 Operator: RJE

REVIEWED BY: _____
DATE: _____

HARDWARE CONFIGURATION & METHOD CONDITIONS SUMMARY No# 2

Daily Instrument Readings:
Multiplier Voltage: 1306

CALIBRATION & CC INFORMATION:

Initial Calibration Date: 12/17/2009

(See pg. 283 for ICAL Std. Sci. Ids)

NaHSO4 lot # N/A

Cl test lot # N/A

Sequence Number: 121809v1 PM

Daily Standard — Volume Added for Purge (ul)

	Solution ID#	Blk/ Smpl	CCV	MS/ LCS	BFB
CCV	W1VM091218-06		5+5		
IS	UVM091203-01	1	1	1	
SS	UVM091117-02	1	1	1	
LCS/MS	W1VM091218-06			5+5	
BFB	UVM091117-02				1
SHORT	W1VM091218-07		5+5	5+5	

Purge Amount

5	Water Purge Vol:ML
5	Soil Purge Wt.:G
N/A	Mid level ext. MeOH Vol: ul
N/A	Methanol Lot #
X	Heated Purge

Analysis Date Time	Data File	Lab Sample ID	Client	Batch #	Wt.(g) or Vol(ml/ul)	Dil. Factor	pH	AS Slot #	Matrix w or s	Analyst	Cl test (Y/N)	Acceptable O/X	Comments
12/18/2009 21:19	1R522.D	UVM091117-02	GEL	BFB02	5ML	1	N/A	22	W	RXM4	N/A	O	
12/18/2009 21:49	1R523.D	W1VM091218-05	GEL	CCV/LCS	5G	1	N/A	23	S	RXM4	N/A	X	Prepared incorrectly
12/18/2009 22:20	1R524.D	W1VM091218-06	GEL	CCV/LCS	5G	1	N/A	24	S	RXM4	N/A	O	UVM091214-01A/IVM091217-01
12/18/2009 22:51	1R525.D	W1VM091218-07	GEL	SHORT	5G	1	N/A	25	S	RXM4	N/A	O	UVM091118-08C/UVM091105-02
12/18/2009 23:21	1R526.D	12019--	GEL	BLANK	5G	1	N/A	26	S	RXM4	N/A	X	contamination >RL. See 1R527
12/18/2009 23:51	1R527.D	12019--	GEL	BLANK	5G	1	N/A	27	S	RXM4	N/A	O	
12/19/2009 0:21	1R528.D	242791001	LANL	934728	5G	1	N/A	28	S	RXM4	N/A	X	RA for high SS recovery.
12/19/2009 0:52	1R529.D	242791002	LANL	934728	5G	1	N/A	29	S	RXM4	N/A	O	
12/19/2009 1:22	1R530.D	242794001	LANL	934728	5G	1	N/A	30	S	RXM4	N/A	O	
12/19/2009 1:53	1R531.D	242794002	LANL	934728	5G	1	N/A	31	S	RXM4	N/A	O	
12/19/2009 2:23	1R532.D	242794003	LANL	934728	5G	1	N/A	32	S	RXM4	N/A	O	
12/19/2009 2:53	1R533.D	242794004	LANL	934728	5G	1	N/A	33	S	RXM4	N/A	O	
12/19/2009 3:23	1R534.D	242937001	LANL	934728	5G	1	N/A	34	S	RXM4	N/A	O	
12/19/2009 3:54	1R535.D	242937002	LANL	934728	5G	1	N/A	35	S	RXM4	N/A	O	
12/19/2009 4:25	1R536.D	242937003	LANL	934728	5G	1	N/A	36	S	RXM4	N/A	O	
12/19/2009 4:55	1R537.D	242937004	LANL	934728	5G	1	N/A	37	S	RXM4	N/A	O	
12/19/2009 5:25	1R538.D	242937005	LANL	934728	5G	1	N/A	38	S	RXM4	N/A	O	
12/19/2009 5:56	1R539.D	242937006	LANL	934728	5G	1	N/A	39	S	RXM4	N/A	O	
12/19/2009 6:26	1R540.D	242937007	LANL	934728	5G	1	N/A	40	S	RXM4	N/A	O	
12/19/2009 6:56	1R541.D	242937008	LANL	934728	5G	1	N/A	41	S	RXM4	N/A	O	
12/19/2009 7:26	1R542.D	242937009	LANL	934728	5G	1	N/A	42	S	RXM4	N/A	O	
12/19/2009 7:57	1R543.D	242937010	LANL	934728	5G	1	N/A	43	S	RXM4	N/A	O	TB
12/19/2009 8:27	1R544.D	1201999845	LANL	934728	5G	1	N/A	44	S	RXM4	N/A	X	MS 242794001: RA high SS recovery
12/19/2009 8:57	1R545.D	1201999846	LANL	934728	5G	1	N/A	45	S	RXM4	N/A	X	MSD 242794001; RA high SS recovery

GEL Laboratories, LLC
Revision:11/22/04

ORGANIC RUN LOG - INSTRUMENT ID#VOA1

Date: 12/21/2009 Method 8260B/624 Operator: RJE

REVIEWED BY: _____
DATE: _____

HARDWARE CONFIGURATION & METHOD CONDITIONS SUMMARY No# 2

Daily Instrument Readings:
Multiplier Voltage: 1306

CALIBRATION & CC INFORMATION:

Initial Calibration Date: 12/17/2009

(See pg. 283 for ICAL Std. Sci. Ids)

NaHSO4 lot # N/A

Cl test lot # 84515

Sequence Number: 122109v1

Daily Standard

	Solution ID#	Volume Added for Purge (ul) Blk/ Smpl	CCV	MS/ LCS	BFB
CCV	W1VM091221-05		5+5		
IS	UVM091203-01	1	1	1	
SS	UVM091117-02	1	1	1	
LCS/MS	W1VM091221-07/05			5+5	
BFB	UVM090910-02				1
SHORT	W1VM091221-08/06		5+5	5+5	

Purge Amount

5	Water Purge Vol:ML
varied	Soil Purge Wt.:G
	Mid level ext. MeOH Vol:
varied	ul
CZ937	Methanol Lot #
X	Heated Purge

Analysis Date Time	Data File	Lab Sample ID	Client	Batch #	Wt.(g) or Vol(ml/ul)	Dil. Factor	pH	AS Slot #	Matrix w or s	Analyst	Cl test (Y/N)	Acceptable O/X	Comments
12/21/2009 7:44	1S101.D	UVM090910-02	GEL	BFB	5ML	1	N/A	1	W	RXM4	N/A	X	See 1S106
12/21/2009 8:13	1S102.D	W1VM091221-01	GEL	CCV/LCS	5ML	1	N/A	2	W	RXM4	N/A	X	UVM091214-01A/IVM091217-01
12/21/2009 8:46	1S103.D	12019--	GEL	BLANK	5ML	1	N/A	3	W	RXM4	N/A	X	Rinse
12/21/2009 9:42	1S104.D	W1VM091221-03	GEL	CCV/LCS	5ML	1	N/A	4	W	RXM4	N/A	X	increased multiplier
12/21/2009 10:12	1S105.D	W1VM091221-04	GEL	SHORT	5ML	1	N/A	5	W	RXM4	N/A	X	decreased multiplier
12/21/2009 12:49	1S106.D	W1VM091221-05	GEL	BFB/CCV/LCS	5ML	1	N/A	6	W	RXM4	N/A	O	UVM091214-01A/IVM091217-01
12/21/2009 13:19	1S107.D	W1VM091221-06	GEL	SHORT	5ML	1	N/A	7	W	RXM4	N/A	O	UVM091118-08C/UVM091105-02E
12/21/2009 13:49	1S108.D	W1VM091221-07	GEL	LCS	5G	1	N/A	8	S	RXM4	N/A	O	UVM091214-01A/IVM091217-01
12/21/2009 14:19	1S109.D	W1VM091221-08	GEL	SHORT	5G	1	N/A	9	S	RXM4	N/A	O	UVM091118-08C/UVM091105-02E
12/21/2009 14:50	1S110.D	12019--	GEL	BLANK	5ML	1	N/A	10	W	RXM4	N/A	X	Contamination >RL. See 1S112.
12/21/2009 15:20	1S111.D	12019--	GEL	BLANK	5G	1	N/A	11	S	RXM4	N/A	O	
12/21/2009 15:50	1S112.D	12019--	GEL	BLANK	5ML	1	N/A	12	W	RXM4	N/A	O	
12/21/2009 16:20	1S113.D	1202002553	LANL	BLANK	100uL	50	N/A	13	S	RXM4	N/A	O	HB
12/21/2009 16:51	1S114.D	242791001	LANL	934728	5G	1	N/A	14	S	RXM4	N/A	O	
12/21/2009 17:21	1S115.D	1201999845	LANL	934728	5G	1	N/A	15	S	RXM4	N/A	O	MS 242794001
12/21/2009 17:51	1S116.D	1201999846	LANL	934728	5G	1	N/A	16	S	RXM4	N/A	O	MSD 242794001
12/21/2009 18:21	1S117.D	12019--	GEL	BLANK	5ML	1	N/A	17	W	RXM4	N/A	X	rinse
12/21/2009 18:51	1S118.D	242926004	WSRB	935085	5ML	1	PH2	18	W	RXM4	N	O	RA from 1R608
12/21/2009 19:21	1S119.D	242926005	WSRB	935085	5ML	1	PH2	19	W	RXM4	N	O	RA from 1R609
12/21/2009 19:51	1S120.D	243088001	LANL	935553	5G	1	N/A	20	S	RXM4	N/A	O	
12/21/2009 20:21	1S121.D	243088002	LANL	935553	5G	1	N/A	21	S	RXM4	N/A	O	
12/21/2009 20:51	1S122.D	243094001	LANL	935553	5G	1	N/A	22	S	RXM4	N/A	O	TB
12/21/2009 21:22	1S123.D	243275001	LANL	935553	5G	1	N/A	23	S	RXM4	N/A	X	TB RA high SS recovery. See 12/22/09
12/21/2009 21:52	1S124.D	243275002	LANL	935553	5G	1	N/A	24	S	RXM4	N/A	X	TB RA high SS recovery. See 12/22/09
12/21/2009 22:22	1S125.D	243275003	LANL	935553	5G	1	N/A	25	S	RXM4	N/A	X	TB RA high SS recovery. See 12/22/09
12/21/2009 22:52	1S126.D	243275006	LANL	935553	100ul	50	N/A	26	S	RXM4	N/A	O	dry wipes 1g/10ml
12/21/2009 23:22	1S127.D	243275004	LANL	935553	250ul	200	N/A	27	S	RXM4	N/A	X	oily wipes 5g/10mL RA @50x 12/22/09
12/21/2009 23:52	1S128.D	243275005	LANL	935553	5ul	1000	N/A	28	S	RXM4	N/A	X	oily wipes 5/10mL RA for high SS 12/23/09

GEL Laboratories, LLC
Revision:11/22/04

ORGANIC RUN LOG - INSTRUMENT ID#VOA1

Date: 12/21/2009 Method 8260B/624 Operator: RJE

REVIEWED BY: _____
DATE: _____

HARDWARE CONFIGURATION & METHOD CONDITIONS SUMMARY No# 2

Daily Instrument Readings:
Multiplier Voltage: 1306

CALIBRATION & CC INFORMATION:

Initial Calibration Date: 12/17/2009

(See pg. 283 for ICAL Std. Sci. Ids)

NaHSO4 lot # N/A

Cl test lot # 84515

Sequence Number: 122109v1

Daily Standard Solution ID#		Volume Added for Purge (ul) Blk/ Smpl	CCV	MS/ LCS	BFB
CCV	W1VM091221-05		5+5		
IS	UVM091203-01	1	1	1	
SS	UVM091117-02	1	1	1	
LCS/MS	W1VM091221-07/05			5+5	
BFB	UVM090910-02				1
SHORT	W1VM091221-08/06		5+5	5+5	

Purge Amount	
5	Water Purge Vol:ML
varied	Soil Purge Wt.:G
varied	Mid level ext. MeOH Vol: ul
CZ937	Methanol Lot #
X	Heated Purge

Analysis Date Time	Data File	Lab Sample ID	Client	Batch #	Wt.(g) or Vol(ml/ul)	Dil. Factor	pH	AS Slot #	Matrix w or s	Analyst	Cl test (Y/N)	Acceptable O/X	Comments
12/22/2009 0:22	1S129.D	1202001850	LANL	935553	5G	1	N/A	29	S	RXM4	N/A	X	MS 243088001: see 12/22/09
12/22/2009 0:52	1S130.D	1202001851	LANL	935553	5G	1	N/A	30	S	RXM4	N/A	X	MSD 243088001; out of tune.

NCR Report No.: 773454
Revision No.:

COMPANY - WIDE NONCONFORMANCE REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
22-DEC-09	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
VOA GC/MS	SW846 8260B	Solid	LANL
Batch ID:	**Sample Numbers:**		
934728	See Below		

Potentially affected work order(s)(SDG): 242791(10-903),242794(10-901),242937(10-917)

Application Issues:

Container scanning event for custody missed

Specification and Requirements Nonconformance Description:	NRG Disposition:
1. The sample container scanning event for custody missed for the following samples: 242791 001,002 242794 001,002,003,004 242937 001,002,003,004,005,006,007,008,009, 010	1. Although scanning of the samples in LIMS for custody was missed by the analyst, the samples were in the analysts custody at the time of analysis.

Originator's Name:

Ronda Eagle 22-DEC-09

Data Validator/Group Leader:

Erin Haubert 24-DEC-09

GC/MS Semivolatile Analysis

Semi-Volatile Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-901

Method/Analysis Information

Procedure:	**Analysis of Semivolatile Organic Compounds by Gas Chromatography/Mass Spectrometry**
Analytical Method:	SW846 8270C
Prep Method:	SW846 3550B
Analytical Batch Number:	932444
Prep Batch Number:	932443

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 8270C:

Sample ID	Client ID
242794001	RE03-09-13470
242794002	RE03-09-13471
242794003	RE03-09-13472
242794004	RE03-09-13469
1201994527	Method Blank (MB)
1201994528	Laboratory Control Sample (LCS)
1201994529	242791001(RE16-10-2878) Matrix Spike (MS)
1201994530	242791001(RE16-10-2878) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on a "dry weight" basis.

Preparation/Analytical Method Verification

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-009 REV# 23.

Raw data reports are processed and reviewed by the analyst using the Target software package. False positives have been removed from the Target quantitation reports per standard operating procedures (SOP) section 18.2.

Calibration Information

Please note that the 'Cal Date' indicated on each quantitation report reflects the date and time of the most recent calibrated analyte(s) in the Target processing method. Since the laboratory may calibrate with multiple solutions on different days using the same processing method, the Target software will update the 'Cal Date' to the last calibration file, date and time. The correct dates and times for all calibration files are located on the Calibration History report in the Standard Data section in the data package.

Due to software limitations, the Calibration Summary Form 6 may not indicate all the calibration files comprising the initial calibration. A complete list of the initial calibration data files are shown in the Calibration History report located in the Standard Data section of the data package. Please note that the second level of the initial calibration (5 mg/L) is only used for n-Nitrosodipropylamine. The various

calibration mixes may not be calibrated using all of the calibration levels. In addition, not all of the mixes are calibrated using the same levels.

Diphenylamine has now superseded N-Nitroso-diphenylamine as a CCC on Quantitation Reports, Initial Calibration Reports, Calibration Check Standard Reports, etc. Previous versions of EPA Method 8270 (prior to 8270C) listed N-Nitroso-diphenylamine as a CCC. However, as stated in EPA Method 8270C, Revision 3, December, 1996, Section 1.4.5, "N-Nitroso-diphenylamine decomposes in the gas chromatographic inlet and cannot be separated from Diphenylamine." Studies of these two compounds at GEL, both independent of each other and together, show that they not only co-elute, but also have similar mass spectra. N-Nitroso-diphenylamine and Diphenylamine will be reported as Diphenylamine on all reports and forms.

The linear equation used in Target and indicated on the initial calibration summary form is not a conventional linear equation (slope intercept formula) and does not match the equation found in SW-846 method 8000B. The x and y axes are inversed in Target, so that the instrument response is treated as the independent variable (x) and the concentration ratio is treated as the dependent variable (y). The equation used in Target to calculate sample results is adjusted to account for the linear equation inversion and reciprocal slope. The adjusted calculation has been independently verified to produce valid results.

Initial Calibration
All initial calibration requirements have been met for this sample delivery group (SDG). A second source initial calibration verification (ICV) was included in the standard section directly behind the initial calibration.

CCV Requirements
All associated calibration verification standard(s) (ICV or CCV) met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Surrogate Recoveries
All the surrogate recoveries were within the established acceptance criteria for this SDG.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

QC Sample Designation
The non-SDG sample 242791001(RE16-10-2878) was selected for analysis as the matrix spike and matrix spike duplicate. Please see the associated raw data files located in the Miscellaneous Section of the data report.

Matrix Spike (MS) Recovery Statement
Multiple MS recoveries were not within the acceptance limits. Since the MS and MSD both displayed failures, they were attributed to matrix interference and the data have been reported. Please see the spike recovery report for the specific failures.

Matrix Spike Duplicate (MSD) Recovery Statement
Multiple MSD recoveries were not within the acceptance limits. Since the MS and MSD both displayed failures, they were attributed to matrix interference and the data have been reported. Please see the spike recovery report for the specific failures.

MS/MSD Relative Percent Difference (RPD) Statement
The relative percent differences (RPD) were not within the acceptance limits. The failures were attributed

to matrix interference and the data have been reported. Please see the spike recovery report for the specific failures.

Internal Standard (ISTD) Acceptance
The internal standards for the samples reported in this SDG were acceptable.

Technical Information

Holding Time Specifications
All samples in this SDG met the specified holding time. GEL assigns holding times based on the associated methodology that assigns the date and time from sample collection or sample receipt. Those holding times expressed in hours are calculated in the ALPHALIMS system. Those holding times expressed as days expire at midnight on the day of expiration.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-extraction/Re-analysis
Re-extractions or re-analyses were not required in this SDG except for confirmations and/or dilutions.

Miscellaneous Information

Nonconformance (NCR) Documentation
A non-conformance report was not required for the samples reported in this SDG.

Manual Integrations
Some initial calibration standards, continuing calibration standards, and/or samples may require manual integrations due to software limitations. Please see the raw data in the Miscellaneous Section.

Additional Comments
Additional comments were not required for this SDG.

Electronic Package Comment
The following package was generated using an electronic data processing program referred to as "virtual packaging". In an effort to increase quality and efficiency, the laboratory is developing systems to eventually generate all data packages electronically. The following change from "traditional" packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. An electronic signature page inserted after the case narrative of each electronic package will indicate the analyst, reviewer, and report specialist names associated with the generation of the data and package. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

System Configuration

The samples reported in this SDG were analyzed on one or more of the following instrument systems. Instrument systems are referenced in the raw data and individual form headers by the Instrument ID designations listed below:

Instrument ID	Instrument	System Configuration	Column ID	Column Description
MSD6.I	HP Mass Spectrometer	HP6890/HP5973	DB-5MS	25m x 0.20mm x 0.33 um (5% Phenylmethylpolysiloxane)

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

Reviewer: [illegible] **Date:** 1-6-10

Roadmap for LANL 10-901 SVOA

This roadmap was analyzed by nat00999 on 12-18-2009, 14:16.
This roadmap was reviewed by bar00895 on 12-21-2009, 07:30.

Sample

exclude	manual	datafile	smpid	injdate	injtime	sublist	clientid	dilution	batchid	comment
☐	N	/chem/MSD6.i/s121609.b/s6l1632.d	242794001	17-DEC-2009	00:08	10-901.sub	RE03-09-13470	1	932444	
☐	N	/chem/MSD6.i/s121609.b/s6l1633.d	242794002	17-DEC-2009	00:36	10-901.sub	RE03-09-13471	1	932444	
☐	N	/chem/MSD6.i/s121609.b/s6l1634.d	242794003	17-DEC-2009	01:03	10-901.sub	RE03-09-13472	1	932444	
☐	N	/chem/MSD6.i/s121609.b/s6l1635.d	242794004	17-DEC-2009	01:30	10-901.sub	RE03-09-13469	1	932444	

QC Sample

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	batchid	comment
☐	N	/chem/MSD6.i/s121609.b/s6l1613-7.d	1201994527	mb	16-DEC-2009	15:15	10-901.sub	SBLK01	1	932444	
☐	N	/chem/MSD6.i/s121609.b/s6l1614-7.d	1201994528	lcs	16-DEC-2009	15:45	10-901.sub	SBLK01LCS	1	932444	

Sample Data Summary

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-901	Date Collected:	12/10/2009 12:00	Matrix:	S
Lab Sample ID:	242794004	Date Received:	12/12/2009 09:35	%Moisture:	6.4
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-13469	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	932444	Inst:	MSD6.I	Dilution:	1
Run Date:	12/17/2009 01:30	Analyst:	NAG1	Inj. Vol:	.5 uL
Prep Date:	12/14/2009 09:47	Aliquot:	30 g	Final Volume:	1 mL
Data File:	s6l1635.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	356	ug/kg	71.2	356
108-95-2	Phenol	U	356	ug/kg	71.2	356
95-57-8	2-Chlorophenol	U	356	ug/kg	71.2	356
106-46-7	1,4-Dichlorobenzene	U	356	ug/kg	71.2	356
621-64-7	N-Nitrosodipropylamine	U	356	ug/kg	71.2	356
59-50-7	4-Chloro-3-methylphenol	U	356	ug/kg	71.2	356
83-32-9	Acenaphthene	U	35.6	ug/kg	11.8	35.6
121-14-2	2,4-Dinitrotoluene	U	356	ug/kg	35.6	356
100-02-7	4-Nitrophenol	U	356	ug/kg	118	356
87-86-5	Pentachlorophenol	U	356	ug/kg	89.1	356
129-00-0	Pyrene	J	15.1	ug/kg	10.7	35.6
110-86-1	Pyridine	U	356	ug/kg	71.2	356
62-53-3	Aniline	U	356	ug/kg	107	356
111-44-4	bis(2-Chloroethyl) ether	U	356	ug/kg	71.2	356
541-73-1	1,3-Dichlorobenzene	U	356	ug/kg	71.2	356
100-51-6	Benzyl alcohol	U	356	ug/kg	107	356
95-50-1	1,2-Dichlorobenzene	U	356	ug/kg	71.2	356
108-60-1	bis(2-Chloroisopropyl)ether	U	356	ug/kg	71.2	356
95-48-7	o-Cresol	U	356	ug/kg	71.2	356
65794-96-9	m,p-Cresols	U	356	ug/kg	107	356
67-72-1	Hexachloroethane	U	356	ug/kg	71.2	356
98-95-3	Nitrobenzene	U	356	ug/kg	71.2	356
78-59-1	Isophorone	U	356	ug/kg	71.2	356
88-75-5	2-Nitrophenol	U	356	ug/kg	71.2	356
105-67-9	2,4-Dimethylphenol	U	356	ug/kg	125	356
111-91-1	bis(2-Chloroethoxy)methane	U	356	ug/kg	71.2	356
120-83-2	2,4-Dichlorophenol	U	356	ug/kg	71.2	356
65-85-0	Benzoic acid	U	712	ug/kg	178	712
91-20-3	Naphthalene	U	35.6	ug/kg	10.7	35.6
106-47-8	4-Chloroaniline	U	356	ug/kg	71.2	356
87-68-3	Hexachlorobutadiene	U	356	ug/kg	71.2	356
91-57-6	2-Methylnaphthalene	U	35.6	ug/kg	7.12	35.6
77-47-4	Hexachlorocyclopentadiene	U	356	ug/kg	71.2	356
88-06-2	2,4,6-Trichlorophenol	U	356	ug/kg	71.2	356
95-95-4	2,4,5-Trichlorophenol	U	356	ug/kg	71.2	356
91-58-7	2-Chloronaphthalene	U	35.6	ug/kg	11.8	35.6
88-74-4	2-Nitroaniline	U	356	ug/kg	71.2	356
	o-Nitroaniline					
99-09-2	3-Nitroaniline	U	356	ug/kg	71.2	356

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-901**	**Date Collected:**	**12/10/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242794004**	**Date Received:**	**12/12/2009 09:35**	**%Moisture:**	**6.4**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-13469**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**932444**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**12/17/2009 01:30**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/14/2009 09:47**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**s6l1635.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	356	ug/kg	71.2	356
606-20-2	2,6-Dinitrotoluene	U	356	ug/kg	35.6	356
208-96-8	Acenaphthylene	U	35.6	ug/kg	10.7	35.6
51-28-5	2,4-Dinitrophenol	U	712	ug/kg	135	712
132-64-9	Dibenzofuran	U	356	ug/kg	71.2	356
84-66-2	Diethylphthalate	U	356	ug/kg	71.2	356
86-73-7	Fluorene	U	35.6	ug/kg	10.7	35.6
7005-72-3	4-Chlorophenylphenylether	U	356	ug/kg	71.2	356
534-52-1	2-Methyl-4,6-dinitrophenol	U	356	ug/kg	71.2	356
100-01-6	4-Nitroaniline	U	356	ug/kg	107	356
	p-Nitroaniline					
122-39-4	Diphenylamine	U	356	ug/kg	71.2	356
122-66-7	Azobenzene	U	356	ug/kg	71.2	356
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	356	ug/kg	71.2	356
118-74-1	Hexachlorobenzene	U	356	ug/kg	71.2	356
85-01-8	Phenanthrene	U	35.6	ug/kg	10.7	35.6
120-12-7	Anthracene	U	35.6	ug/kg	7.12	35.6
84-74-2	Di-n-butylphthalate	U	356	ug/kg	71.2	356
206-44-0	Fluoranthene	J	16.1	ug/kg	10.7	35.6
85-68-7	Butylbenzylphthalate	U	356	ug/kg	71.2	356
56-55-3	Benzo(a)anthracene	U	35.6	ug/kg	10.7	35.6
91-94-1	3,3'-Dichlorobenzidine	U	356	ug/kg	107	356
218-01-9	Chrysene	U	35.6	ug/kg	10.7	35.6
117-81-7	bis(2-Ethylhexyl)phthalate	U	356	ug/kg	71.2	356
117-84-0	Di-n-octylphthalate	U	356	ug/kg	71.2	356
205-99-2	Benzo(b)fluoranthene	U	35.6	ug/kg	10.7	35.6
207-08-9	Benzo(k)fluoranthene	U	35.6	ug/kg	10.7	35.6
50-32-8	Benzo(a)pyrene	U	35.6	ug/kg	10.7	35.6
193-39-5	Indeno(1,2,3-cd)pyrene	U	35.6	ug/kg	10.7	35.6
53-70-3	Dibenzo(a,h)anthracene	U	35.6	ug/kg	10.7	35.6
191-24-2	Benzo(ghi)perylene	U	35.6	ug/kg	10.7	35.6
120-82-1	1,2,4-Trichlorobenzene	U	356	ug/kg	71.2	356

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	3.44	362	ug/kg		JA

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-901	Date Collected:	12/10/2009 12:00	Matrix:	S
Lab Sample ID:	242794001	Date Received:	12/12/2009 09:35	%Moisture:	4.4
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-13470	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	932444	Inst:	MSD6.I	Dilution:	1
Run Date:	12/17/2009 00:08	Analyst:	NAG1	Inj. Vol:	.5 uL
Prep Date:	12/14/2009 09:47	Aliquot:	30.03 g	Final Volume:	1 mL
Data File:	s6l1632.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	348	ug/kg	69.6	348
108-95-2	Phenol	U	348	ug/kg	69.6	348
95-57-8	2-Chlorophenol	U	348	ug/kg	69.6	348
106-46-7	1,4-Dichlorobenzene	U	348	ug/kg	69.6	348
621-64-7	N-Nitrosodipropylamine	U	348	ug/kg	69.6	348
59-50-7	4-Chloro-3-methylphenol	U	348	ug/kg	69.6	348
83-32-9	Acenaphthene	U	34.8	ug/kg	11.5	34.8
121-14-2	2,4-Dinitrotoluene	U	348	ug/kg	34.8	348
100-02-7	4-Nitrophenol	U	348	ug/kg	115	348
87-86-5	Pentachlorophenol	U	348	ug/kg	87.0	348
129-00-0	Pyrene	U	34.8	ug/kg	10.4	34.8
110-86-1	Pyridine	U	348	ug/kg	69.6	348
62-53-3	Aniline	U	348	ug/kg	104	348
111-44-4	bis(2-Chloroethyl) ether	U	348	ug/kg	69.6	348
541-73-1	1,3-Dichlorobenzene	U	348	ug/kg	69.6	348
100-51-6	Benzyl alcohol	U	348	ug/kg	104	348
95-50-1	1,2-Dichlorobenzene	U	348	ug/kg	69.6	348
108-60-1	bis(2-Chloroisopropyl)ether	U	348	ug/kg	69.6	348
95-48-7	o-Cresol	U	348	ug/kg	69.6	348
65794-96-9	m,p-Cresols	U	348	ug/kg	104	348
67-72-1	Hexachloroethane	U	348	ug/kg	69.6	348
98-95-3	Nitrobenzene	U	348	ug/kg	69.6	348
78-59-1	Isophorone	U	348	ug/kg	69.6	348
88-75-5	2-Nitrophenol	U	348	ug/kg	69.6	348
105-67-9	2,4-Dimethylphenol	U	348	ug/kg	122	348
111-91-1	bis(2-Chloroethoxy)methane	U	348	ug/kg	69.6	348
120-83-2	2,4-Dichlorophenol	U	348	ug/kg	69.6	348
65-85-0	Benzoic acid	U	696	ug/kg	174	696
91-20-3	Naphthalene	U	34.8	ug/kg	10.4	34.8
106-47-8	4-Chloroaniline	U	348	ug/kg	69.6	348
87-68-3	Hexachlorobutadiene	U	348	ug/kg	69.6	348
91-57-6	2-Methylnaphthalene	U	34.8	ug/kg	6.96	34.8
77-47-4	Hexachlorocyclopentadiene	U	348	ug/kg	69.6	348
88-06-2	2,4,6-Trichlorophenol	U	348	ug/kg	69.6	348
95-95-4	2,4,5-Trichlorophenol	U	348	ug/kg	69.6	348
91-58-7	2-Chloronaphthalene	U	34.8	ug/kg	11.5	34.8
88-74-4	2-Nitroaniline	U	348	ug/kg	69.6	348
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	348	ug/kg	69.6	348

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-901**	**Date Collected:**	**12/10/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242794001**	**Date Received:**	**12/12/2009 09:35**	**%Moisture:**	**4.4**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-13470**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**932444**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**12/17/2009 00:08**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/14/2009 09:47**	**Aliquot:**	**30.03 g**	**Final Volume:**	**1 mL**
Data File:	**s6l1632.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	348	ug/kg	69.6	348
606-20-2	2,6-Dinitrotoluene	U	348	ug/kg	34.8	348
208-96-8	Acenaphthylene	U	34.8	ug/kg	10.4	34.8
51-28-5	2,4-Dinitrophenol	U	696	ug/kg	132	696
132-64-9	Dibenzofuran	U	348	ug/kg	69.6	348
84-66-2	Diethylphthalate	U	348	ug/kg	69.6	348
86-73-7	Fluorene	U	34.8	ug/kg	10.4	34.8
7005-72-3	4-Chlorophenylphenylether	U	348	ug/kg	69.6	348
534-52-1	2-Methyl-4,6-dinitrophenol	U	348	ug/kg	69.6	348
100-01-6	4-Nitroaniline	U	348	ug/kg	104	348
	p-Nitroaniline					
122-39-4	Diphenylamine	U	348	ug/kg	69.6	348
122-66-7	Azobenzene	U	348	ug/kg	69.6	348
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	348	ug/kg	69.6	348
118-74-1	Hexachlorobenzene	U	348	ug/kg	69.6	348
85-01-8	Phenanthrene	U	34.8	ug/kg	10.4	34.8
120-12-7	Anthracene	U	34.8	ug/kg	6.96	34.8
84-74-2	Di-n-butylphthalate	U	348	ug/kg	69.6	348
206-44-0	Fluoranthene	U	34.8	ug/kg	10.4	34.8
85-68-7	Butylbenzylphthalate	U	348	ug/kg	69.6	348
56-55-3	Benzo(a)anthracene	U	34.8	ug/kg	10.4	34.8
91-94-1	3,3'-Dichlorobenzidine	U	348	ug/kg	104	348
218-01-9	Chrysene	U	34.8	ug/kg	10.4	34.8
117-81-7	bis(2-Ethylhexyl)phthalate	U	348	ug/kg	69.6	348
117-84-0	Di-n-octylphthalate	U	348	ug/kg	69.6	348
205-99-2	Benzo(b)fluoranthene	U	34.8	ug/kg	10.4	34.8
207-08-9	Benzo(k)fluoranthene	U	34.8	ug/kg	10.4	34.8
50-32-8	Benzo(a)pyrene	U	34.8	ug/kg	10.4	34.8
193-39-5	Indeno(1,2,3-cd)pyrene	U	34.8	ug/kg	10.4	34.8
53-70-3	Dibenzo(a,h)anthracene	U	34.8	ug/kg	10.4	34.8
191-24-2	Benzo(ghi)perylene	U	34.8	ug/kg	10.4	34.8
120-82-1	1,2,4-Trichlorobenzene	U	348	ug/kg	69.6	348

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	3.45	627	ug/kg		JA
301-02-0	9-Octadecenamide, (Z)-	11.85	253	ug/kg	97	NJ

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-901	Date Collected:	12/10/2009 12:00	Matrix:	S
Lab Sample ID:	242794002	Date Received:	12/12/2009 09:35	%Moisture:	4.3
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-13471	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	932444	Inst:	MSD6.I	Dilution:	1
Run Date:	12/17/2009 00:36	Analyst:	NAG1	Inj. Vol:	.5 uL
Prep Date:	12/14/2009 09:47	Aliquot:	30.03 g	Final Volume:	1 mL
Data File:	s6l1633.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	348	ug/kg	69.6	348
108-95-2	Phenol	U	348	ug/kg	69.6	348
95-57-8	2-Chlorophenol	U	348	ug/kg	69.6	348
106-46-7	1,4-Dichlorobenzene	U	348	ug/kg	69.6	348
621-64-7	N-Nitrosodipropylamine	U	348	ug/kg	69.6	348
59-50-7	4-Chloro-3-methylphenol	U	348	ug/kg	69.6	348
83-32-9	Acenaphthene	U	34.8	ug/kg	11.5	34.8
121-14-2	2,4-Dinitrotoluene	U	348	ug/kg	34.8	348
100-02-7	4-Nitrophenol	U	348	ug/kg	115	348
87-86-5	Pentachlorophenol	U	348	ug/kg	87.0	348
129-00-0	Pyrene	U	34.8	ug/kg	10.4	34.8
110-86-1	Pyridine	U	348	ug/kg	69.6	348
62-53-3	Aniline	U	348	ug/kg	104	348
111-44-4	bis(2-Chloroethyl) ether	U	348	ug/kg	69.6	348
541-73-1	1,3-Dichlorobenzene	U	348	ug/kg	69.6	348
100-51-6	Benzyl alcohol	U	348	ug/kg	104	348
95-50-1	1,2-Dichlorobenzene	U	348	ug/kg	69.6	348
108-60-1	bis(2-Chloroisopropyl)ether	U	348	ug/kg	69.6	348
95-48-7	o-Cresol	U	348	ug/kg	69.6	348
65794-96-9	m,p-Cresols	U	348	ug/kg	104	348
67-72-1	Hexachloroethane	U	348	ug/kg	69.6	348
98-95-3	Nitrobenzene	U	348	ug/kg	69.6	348
78-59-1	Isophorone	U	348	ug/kg	69.6	348
88-75-5	2-Nitrophenol	U	348	ug/kg	69.6	348
105-67-9	2,4-Dimethylphenol	U	348	ug/kg	122	348
111-91-1	bis(2-Chloroethoxy)methane	U	348	ug/kg	69.6	348
120-83-2	2,4-Dichlorophenol	U	348	ug/kg	69.6	348
65-85-0	Benzoic acid	U	696	ug/kg	174	696
91-20-3	Naphthalene	U	34.8	ug/kg	10.4	34.8
106-47-8	4-Chloroaniline	U	348	ug/kg	69.6	348
87-68-3	Hexachlorobutadiene	U	348	ug/kg	69.6	348
91-57-6	2-Methylnaphthalene	U	34.8	ug/kg	6.96	34.8
77-47-4	Hexachlorocyclopentadiene	U	348	ug/kg	69.6	348
88-06-2	2,4,6-Trichlorophenol	U	348	ug/kg	69.6	348
95-95-4	2,4,5-Trichlorophenol	U	348	ug/kg	69.6	348
91-58-7	2-Chloronaphthalene	U	34.8	ug/kg	11.5	34.8
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	348	ug/kg	69.6	348
99-09-2	3-Nitroaniline	U	348	ug/kg	69.6	348

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-901**	**Date Collected:**	**12/10/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242794002**	**Date Received:**	**12/12/2009 09:35**	**%Moisture:**	**4.3**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-13471**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**932444**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**12/17/2009 00:36**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/14/2009 09:47**	**Aliquot:**	**30.03 g**	**Final Volume:**	**1 mL**
Data File:	**s6l1633.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	348	ug/kg	69.6	348
606-20-2	2,6-Dinitrotoluene	U	348	ug/kg	34.8	348
208-96-8	Acenaphthylene	U	34.8	ug/kg	10.4	34.8
51-28-5	2,4-Dinitrophenol	U	696	ug/kg	132	696
132-64-9	Dibenzofuran	U	348	ug/kg	69.6	348
84-66-2	Diethylphthalate	U	348	ug/kg	69.6	348
86-73-7	Fluorene	U	34.8	ug/kg	10.4	34.8
7005-72-3	4-Chlorophenylphenylether	U	348	ug/kg	69.6	348
534-52-1	2-Methyl-4,6-dinitrophenol	U	348	ug/kg	69.6	348
100-01-6	4-Nitroaniline	U	348	ug/kg	104	348
	p-Nitroaniline					
122-39-4	Diphenylamine	U	348	ug/kg	69.6	348
122-66-7	Azobenzene	U	348	ug/kg	69.6	348
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	348	ug/kg	69.6	348
118-74-1	Hexachlorobenzene	U	348	ug/kg	69.6	348
85-01-8	Phenanthrene	U	34.8	ug/kg	10.4	34.8
120-12-7	Anthracene	U	34.8	ug/kg	6.96	34.8
84-74-2	Di-n-butylphthalate	U	348	ug/kg	69.6	348
206-44-0	Fluoranthene	U	34.8	ug/kg	10.4	34.8
85-68-7	Butylbenzylphthalate	U	348	ug/kg	69.6	348
56-55-3	Benzo(a)anthracene	U	34.8	ug/kg	10.4	34.8
91-94-1	3,3'-Dichlorobenzidine	U	348	ug/kg	104	348
218-01-9	Chrysene	U	34.8	ug/kg	10.4	34.8
117-81-7	bis(2-Ethylhexyl)phthalate	U	348	ug/kg	69.6	348
117-84-0	Di-n-octylphthalate	U	348	ug/kg	69.6	348
205-99-2	Benzo(b)fluoranthene	U	34.8	ug/kg	10.4	34.8
207-08-9	Benzo(k)fluoranthene	U	34.8	ug/kg	10.4	34.8
50-32-8	Benzo(a)pyrene	U	34.8	ug/kg	10.4	34.8
193-39-5	Indeno(1,2,3-cd)pyrene	U	34.8	ug/kg	10.4	34.8
53-70-3	Dibenzo(a,h)anthracene	U	34.8	ug/kg	10.4	34.8
191-24-2	Benzo(ghi)perylene	U	34.8	ug/kg	10.4	34.8
120-82-1	1,2,4-Trichlorobenzene	U	348	ug/kg	69.6	348

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	3.45	391	ug/kg		JA

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-901**	**Date Collected:**	**12/10/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242794003**	**Date Received:**	**12/12/2009 09:35**	**%Moisture:**	**7.7**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-13472**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**932444**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**12/17/2009 01:03**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/14/2009 09:47**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**s6l1634.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	361	ug/kg	72.2	361
108-95-2	Phenol	U	361	ug/kg	72.2	361
95-57-8	2-Chlorophenol	U	361	ug/kg	72.2	361
106-46-7	1,4-Dichlorobenzene	U	361	ug/kg	72.2	361
621-64-7	N-Nitrosodipropylamine	U	361	ug/kg	72.2	361
59-50-7	4-Chloro-3-methylphenol	U	361	ug/kg	72.2	361
83-32-9	Acenaphthene	U	36.1	ug/kg	11.9	36.1
121-14-2	2,4-Dinitrotoluene	U	361	ug/kg	36.1	361
100-02-7	4-Nitrophenol	U	361	ug/kg	119	361
87-86-5	Pentachlorophenol	U	361	ug/kg	90.3	361
129-00-0	Pyrene	U	36.1	ug/kg	10.8	36.1
110-86-1	Pyridine	U	361	ug/kg	72.2	361
62-53-3	Aniline	U	361	ug/kg	108	361
111-44-4	bis(2-Chloroethyl) ether	U	361	ug/kg	72.2	361
541-73-1	1,3-Dichlorobenzene	U	361	ug/kg	72.2	361
100-51-6	Benzyl alcohol	U	361	ug/kg	108	361
95-50-1	1,2-Dichlorobenzene	U	361	ug/kg	72.2	361
108-60-1	bis(2-Chloroisopropyl)ether	U	361	ug/kg	72.2	361
95-48-7	o-Cresol	U	361	ug/kg	72.2	361
65794-96-9	m,p-Cresols	U	361	ug/kg	108	361
67-72-1	Hexachloroethane	U	361	ug/kg	72.2	361
98-95-3	Nitrobenzene	U	361	ug/kg	72.2	361
78-59-1	Isophorone	U	361	ug/kg	72.2	361
88-75-5	2-Nitrophenol	U	361	ug/kg	72.2	361
105-67-9	2,4-Dimethylphenol	U	361	ug/kg	126	361
111-91-1	bis(2-Chloroethoxy)methane	U	361	ug/kg	72.2	361
120-83-2	2,4-Dichlorophenol	U	361	ug/kg	72.2	361
65-85-0	Benzoic acid	U	722	ug/kg	181	722
91-20-3	Naphthalene	U	36.1	ug/kg	10.8	36.1
106-47-8	4-Chloroaniline	U	361	ug/kg	72.2	361
87-68-3	Hexachlorobutadiene	U	361	ug/kg	72.2	361
91-57-6	2-Methylnaphthalene	U	36.1	ug/kg	7.22	36.1
77-47-4	Hexachlorocyclopentadiene	U	361	ug/kg	72.2	361
88-06-2	2,4,6-Trichlorophenol	U	361	ug/kg	72.2	361
95-95-4	2,4,5-Trichlorophenol	U	361	ug/kg	72.2	361
91-58-7	2-Chloronaphthalene	U	36.1	ug/kg	11.9	36.1
88-74-4	2-Nitroaniline	U	361	ug/kg	72.2	361
	o-Nitroaniline					
99-09-2	3-Nitroaniline	U	361	ug/kg	72.2	361

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-901	Date Collected:	12/10/2009 12:00	Matrix:	S
Lab Sample ID:	242794003	Date Received:	12/12/2009 09:35	%Moisture:	7.7
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-13472	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	932444	Inst:	MSD6.I	Dilution:	1
Run Date:	12/17/2009 01:03	Analyst:	NAG1	Inj. Vol:	.5 uL
Prep Date:	12/14/2009 09:47	Aliquot:	30 g	Final Volume:	1 mL
Data File:	s6l1634.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	361	ug/kg	72.2	361
606-20-2	2,6-Dinitrotoluene	U	361	ug/kg	36.1	361
208-96-8	Acenaphthylene	U	36.1	ug/kg	10.8	36.1
51-28-5	2,4-Dinitrophenol	U	722	ug/kg	137	722
132-64-9	Dibenzofuran	U	361	ug/kg	72.2	361
84-66-2	Diethylphthalate	U	361	ug/kg	72.2	361
86-73-7	Fluorene	U	36.1	ug/kg	10.8	36.1
7005-72-3	4-Chlorophenylphenylether	U	361	ug/kg	72.2	361
534-52-1	2-Methyl-4,6-dinitrophenol	U	361	ug/kg	72.2	361
100-01-6	4-Nitroaniline	U	361	ug/kg	108	361
	p-Nitroaniline					
122-39-4	Diphenylamine	U	361	ug/kg	72.2	361
122-66-7	Azobenzene	U	361	ug/kg	72.2	361
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	361	ug/kg	72.2	361
118-74-1	Hexachlorobenzene	U	361	ug/kg	72.2	361
85-01-8	Phenanthrene	U	36.1	ug/kg	10.8	36.1
120-12-7	Anthracene	U	36.1	ug/kg	7.22	36.1
84-74-2	Di-n-butylphthalate	U	361	ug/kg	72.2	361
206-44-0	Fluoranthene	U	36.1	ug/kg	10.8	36.1
85-68-7	Butylbenzylphthalate	U	361	ug/kg	72.2	361
56-55-3	Benzo(a)anthracene	U	36.1	ug/kg	10.8	36.1
91-94-1	3,3'-Dichlorobenzidine	U	361	ug/kg	108	361
218-01-9	Chrysene	U	36.1	ug/kg	10.8	36.1
117-81-7	bis(2-Ethylhexyl)phthalate	U	361	ug/kg	72.2	361
117-84-0	Di-n-octylphthalate	U	361	ug/kg	72.2	361
205-99-2	Benzo(b)fluoranthene	U	36.1	ug/kg	10.8	36.1
207-08-9	Benzo(k)fluoranthene	U	36.1	ug/kg	10.8	36.1
50-32-8	Benzo(a)pyrene	U	36.1	ug/kg	10.8	36.1
193-39-5	Indeno(1,2,3-cd)pyrene	U	36.1	ug/kg	10.8	36.1
53-70-3	Dibenzo(a,h)anthracene	U	36.1	ug/kg	10.8	36.1
191-24-2	Benzo(ghi)perylene	U	36.1	ug/kg	10.8	36.1
120-82-1	1,2,4-Trichlorobenzene	U	361	ug/kg	72.2	361

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	3.45	402	ug/kg		JA

QC Summary

Semi-Volatile

Surrogate Recovery Report

SDG Number: 10-901

Matrix Type: SOLID

CAP Column (1) : J&W DB-5MS

Sample ID	Client ID	2FP %REC	PHL %REC	NBZ %REC	FBP %REC	TBP %REC	TPH %REC
1201994527	MB for batch 932443	67	68	68	69	71	86
1201994528	LCS for batch 932443	67	67	66	65	85	85
242794001	RE03-09-13470	95	82	56	52	79	98
242794002	RE03-09-13471	58	59	58	59	74	92
242794003	RE03-09-13472	62	65	47	47	70	84
242794004	RE03-09-13469	62	65	64	66	71	93

Surrogate		Acceptance Limits
2FP	= 2-Fluorophenol	(35%-96%)
PHL	= Phenol-d5	(36%-96%)
NBZ	= Nitrobenzene-d5	(34%-104%)
FBP	= 2-Fluorobiphenyl	(36%-100%)
TBP	= 2,4,6-Tribromophenol	(37%-106%)
TPH	= p-Terphenyl-d14	(40%-124%)

* Recovery outside Acceptance Limits

\# Column to be used to flag recovery values

D Sample Diluted

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-901
Client ID: LCS for batch 932443
Lab Sample ID: 1201994528
Instrument: MSD6.I
Analyst: NAG1
Inj. Vol: .5 uL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 12/16/2009 15:45
Dilution: 1
Prep Batch ID: 932443
Batch ID: 932444

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
62-75-9	LCS	N-Methyl-N-nitrosomethylam	1670	0.0	946	57	31-95
108-95-2	LCS	Phenol	1670	0.0	1190	71	37-104
95-57-8	LCS	2-Chlorophenol	1670	0.0	1160	69	40-105
106-46-7	LCS	1,4-Dichlorobenzene	1670	0.0	964	58	34-103
621-64-7	LCS	N-Nitrosodipropylamine	1670	0.0	996	60	36-110
59-50-7	LCS	4-Chloro-3-methylphenol	1670	0.0	1200	72	46-114
83-32-9	LCS	Acenaphthene	1670	0.0	1180	71	40-105
121-14-2	LCS	2,4-Dinitrotoluene	1670	0.0	1340	81	49-107
100-02-7	LCS	4-Nitrophenol	1670	0.0	1340	81	33-110
87-86-5	LCS	Pentachlorophenol	1670	0.0	1250	75	38-116
129-00-0	LCS	Pyrene	1670	0.0	1230	74	43-108
110-86-1	LCS	Pyridine	1670	0.0	897	54	13-129
62-53-3	LCS	Aniline	1670	0.0	1120	67	30-121
111-44-4	LCS	bis(2-Chloroethyl) ether	1670	0.0	1010	61	37-106
541-73-1	LCS	1,3-Dichlorobenzene	1670	0.0	950	57	33-103
100-51-6	LCS	Benzyl alcohol	1670	0.0	1390	84	31-100
95-50-1	LCS	1,2-Dichlorobenzene	1670	0.0	1020	61	34-108
108-60-1	LCS	bis(2-Chloroisopropyl)ether	1670	0.0	1070	64	34-120
95-48-7	LCS	o-Cresol	1670	0.0	866	52	39-111
65794-96-9	LCS	m,p-Cresols	1670	0.0	1250	75	43-118
67-72-1	LCS	Hexachloroethane	1670	0.0	944	57	34-105
98-95-3	LCS	Nitrobenzene	1670	0.0	1100	66	37-110

Semi-Volatile

Quality Control Summary

Spike Recovery Report

SDG Number: 10-901 **Sample Type:** Laboratory Control Sample

Client ID: LCS for batch 932443 **Matrix:** SOIL

Lab Sample ID: 1201994528

Instrument: MSD6.I **Analysis Date:** 12/16/2009 15:45 **Dilution:** 1

Analyst: NAG1 **Prep Batch ID:** 932443

Inj. Vol: .5 uL **Batch ID:** 932444

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
78-59-1	LCS	Isophorone	1670	0.0	940	56	41-108
88-75-5	LCS	2-Nitrophenol	1670	0.0	1180	71	35-112
105-67-9	LCS	2,4-Dimethylphenol	1670	0.0	1030	62	35-114
111-91-1	LCS	bis(2-Chloroethoxy)methane	1670	0.0	865	52	40-109
120-83-2	LCS	2,4-Dichlorophenol	1670	0.0	1200	72	45-109
65-85-0	LCS	Benzoic acid	3330	0.0	3080	92	27-137
91-20-3	LCS	Naphthalene	1670	0.0	1020	61	35-105
106-47-8	LCS	4-Chloroaniline	1670	0.0	1140	69	30-122
87-68-3	LCS	Hexachlorobutadiene	1670	0.0	1060	63	37-111
91-57-6	LCS	2-Methylnaphthalene	1670	0.0	1060	63	40-106
77-47-4	LCS	Hexachlorocyclopentadiene	1670	0.0	1040	62	24-135
88-06-2	LCS	2,4,6-Trichlorophenol	1670	0.0	1180	71	46-107
95-95-4	LCS	2,4,5-Trichlorophenol	1670	0.0	1190	71	44-110
91-58-7	LCS	2-Chloronaphthalene	1670	0.0	1090	65	44-104
88-74-4	LCS	2-Nitroaniline *o-Nitroaniline*	1670	0.0	1100	66	44-113
99-09-2	LCS	3-Nitroaniline *m-Nitroaniline*	1670	0.0	1380	83	48-113
131-11-3	LCS	Dimethylphthalate	1670	0.0	1240	75	47-104
606-20-2	LCS	2,6-Dinitrotoluene	1670	0.0	1210	72	47-103
208-96-8	LCS	Acenaphthylene	1670	0.0	1220	73	43-104
51-28-5	LCS	2,4-Dinitrophenol	1670	0.0	1500	90	32-114
132-64-9	LCS	Dibenzofuran	1670	0.0	1500	90	47-112
84-66-2	LCS	Diethylphthalate	1670	0.0	1300	78	50-108

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-901
Client ID: LCS for batch 932443
Lab Sample ID: 1201994528
Instrument: MSD6.I
Analyst: NAG1
Inj. Vol: .5 uL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 12/16/2009 15:45
Dilution: 1
Prep Batch ID 932443
Batch ID: 932444

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
86-73-7	LCS	Fluorene	1670	0.0	1280	77	49-102
7005-72-3	LCS	4-Chlorophenylphenylether	1670	0.0	1300	78	50-109
534-52-1	LCS	2-Methyl-4,6-dinitrophenol	1670	0.0	1250	75	35-114
100-01-6	LCS	4-Nitroaniline *p-Nitroaniline*	1670	0.0	1500	90	44-139
122-39-4	LCS	Diphenylamine	1670	0.0	1200	72	46-111
122-66-7	LCS	Azobenzene *1,2-Diphenylhydrazine*	1670	0.0	1250	75	40-119
101-55-3	LCS	4-Bromophenylphenylether	1670	0.0	1250	75	45-112
118-74-1	LCS	Hexachlorobenzene	1670	0.0	1220	73	44-115
85-01-8	LCS	Phenanthrene	1670	0.0	1190	72	45-107
120-12-7	LCS	Anthracene	1670	0.0	1220	73	46-106
84-74-2	LCS	Di-n-butylphthalate	1670	0.0	1390	84	52-115
206-44-0	LCS	Fluoranthene	1670	0.0	1360	82	50-115
85-68-7	LCS	Butylbenzylphthalate	1670	0.0	1410	85	49-115
56-55-3	LCS	Benzo(a)anthracene	1670	0.0	1390	83	48-105
91-94-1	LCS	3,3'-Dichlorobenzidine	1670	0.0	1070	64	45-98
218-01-9	LCS	Chrysene	1670	0.0	1300	78	48-105
117-81-7	LCS	bis(2-Ethylhexyl)phthalate	1670	0.0	1460	88	50-117
117-84-0	LCS	Di-n-octylphthalate	1670	0.0	1480	89	39-123
205-99-2	LCS	Benzo(b)fluoranthene	1670	0.0	1430	86	46-111
207-08-9	LCS	Benzo(k)fluoranthene	1670	0.0	1320	79	46-114
50-32-8	LCS	Benzo(a)pyrene	1670	0.0	1440	87	49-112
193-39-5	LCS	Indeno(1,2,3-cd)pyrene	1670	0.0	1430	86	45-128

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-901
Client ID: LCS for batch 932443
Lab Sample ID: 1201994528
Instrument: MSD6.I
Analyst: NAG1
Inj. Vol: .5 uL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 12/16/2009 15:45
Dilution: 1
Prep Batch ID: 932443
Batch ID: 932444

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
53-70-3	LCS	Dibenzo(a,h)anthracene	1670	0.0	1350	81	44-131
191-24-2	LCS	Benzo(ghi)perylene	1670	0.0	1490	89	42-128
120-82-1	LCS	1,2,4-Trichlorobenzene	1670	0.0	1060	63	36-109

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-901
Client ID: RE16-10-2878MS
Lab Sample ID: 1201994529
Instrument: MSD6.I
Analyst: NAG1
Inj. Vol: .5 uL

Sample Type: Matrix Spike
Matrix: S
%Moisture: 12.6
Analysis Date: 12/16/2009 22:46
Prep Batch ID: 932443
Batch ID: 932444
Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
62-75-9	MS	N-Methyl-N-nitrosomethylam	1900	0.00	U	961	51	32-90
108-95-2	MS	Phenol	1900	0.00	U	1310	69	32-105
95-57-8	MS	2-Chlorophenol	1900	0.00	U	1140	60	33-106
106-46-7	MS	1,4-Dichlorobenzene	1900	0.00	U	637	34	33-95
621-64-7	MS	N-Nitrosodipropylamine	1900	0.00	U	1110	59	31-109
59-50-7	MS	4-Chloro-3-methylphenol	1900	0.00	U	1650	87	38-119
83-32-9	MS	Acenaphthene	1900	0.00	U	1050	56	39-100
121-14-2	MS	2,4-Dinitrotoluene	1900	0.00	U	1250	66	42-107
100-02-7	MS	4-Nitrophenol	1900	0.00	U	1080	57	24-120
87-86-5	MS	Pentachlorophenol	1900	0.00	U	1160	61	26-121
129-00-0	MS	Pyrene	1900	0.00	U	1390	73	34-120
110-86-1	MS	Pyridine	1900	0.00	U	502	26 *	30-95
62-53-3	MS	Aniline	1900	0.00	U	707	37	34-111
111-44-4	MS	bis(2-Chloroethyl) ether	1900	0.00	U	882	46	34-101
541-73-1	MS	1,3-Dichlorobenzene	1900	0.00	U	828	44	31-97
100-51-6	MS	Benzyl alcohol	1900	0.00	U	212	11 *	17-120
95-50-1	MS	1,2-Dichlorobenzene	1900	0.00	U	740	39	32-102
108-60-1	MS	bis(2-Chloroisopropyl)ether	1900	0.00	U	1190	63	32-113
95-48-7	MS	o-Cresol	1900	0.00	U	1330	70	31-119
65794-96-9	MS	m,p-Cresols	1900	0.00	U	1510	79	35-125
67-72-1	MS	Hexachloroethane	1900	0.00	U	605	32	30-100
98-95-3	MS	Nitrobenzene	1900	0.00	U	920	48	33-108

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-901
Client ID: RE16-10-2878MS
Lab Sample ID: 1201994529
Instrument: MSD6.I
Analyst: NAG1
Inj. Vol: .5 uL

Sample Type: Matrix Spike
Matrix: S
%Moisture: 12.6
Analysis Date: 12/16/2009 22:46
Prep Batch ID: 932443
Batch ID: 932444
Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
78-59-1	MS	Isophorone	1900	0.00	U	1090	57	34-110
88-75-5	MS	2-Nitrophenol	1900	0.00	U	1020	53	32-108
105-67-9	MS	2,4-Dimethylphenol	1900	0.00	U	936	49	32-115
111-91-1	MS	bis(2-Chloroethoxy)methane	1900	0.00	U	1010	53	35-108
120-83-2	MS	2,4-Dichlorophenol	1900	0.00	U	1300	69	38-110
65-85-0	MS	Benzoic acid	3800	0.00	U	3800	100	18-134
91-20-3	MS	Naphthalene	1900	0.00	U	880	46	31-105
106-47-8	MS	4-Chloroaniline	1900	0.00	U	770	41	29-123
87-68-3	MS	Hexachlorobutadiene	1900	0.00	U	876	46	31-109
91-57-6	MS	2-Methylnaphthalene	1900	0.00	U	1190	63	32-110
77-47-4	MS	Hexachlorocyclopentadiene	1900	0.00	U	263	14 *	21-122
88-06-2	MS	2,4,6-Trichlorophenol	1900	0.00	U	1140	60	37-108
95-95-4	MS	2,4,5-Trichlorophenol	1900	0.00	U	1360	72	37-116
91-58-7	MS	2-Chloronaphthalene	1900	0.00	U	1010	53	37-103
88-74-4	MS	2-Nitroaniline *o-Nitroaniline*	1900	0.00	U	1090	57	36-115
99-09-2	MS	3-Nitroaniline *m-Nitroaniline*	1900	0.00	U	1020	53	39-117
131-11-3	MS	Dimethylphthalate	1900	0.00	U	1240	65	41-105
606-20-2	MS	2,6-Dinitrotoluene	1900	0.00	U	1200	63	41-103
208-96-8	MS	Acenaphthylene	1900	0.00	U	1120	59	41-103
51-28-5	MS	2,4-Dinitrophenol	1900	0.00	U	1080	57	25-104
132-64-9	MS	Dibenzofuran	1900	0.00	U	1440	76	40-114
84-66-2	MS	Diethylphthalate	1900	0.00	U	1340	70	43-110

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-901
Client ID: RE16-10-2878MS
Lab Sample ID: 1201994529
Instrument: MSD6.I
Analyst: NAG1
Inj. Vol: .5 uL

Sample Type: Matrix Spike
Matrix: S
%Moisture: 12.6
Analysis Date: 12/16/2009 22:46
Prep Batch ID 932443
Batch ID: 932444
Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
86-73-7	MS	Fluorene	1900	0.00	U	1240	65	48-99
7005-72-3	MS	4-Chlorophenylphenylether	1900	0.00	U	1280	67	42-111
534-52-1	MS	2-Methyl-4,6-dinitrophenol	1900	0.00	U	877	46	19-118
100-01-6	MS	4-Nitroaniline *p-Nitroaniline*	1900	0.00	U	1320	69	35-139
122-39-4	MS	Diphenylamine	1900	0.00	U	1120	59	41-112
122-66-7	MS	Azobenzene *1,2-Diphenylhydrazine*	1900	0.00	U	1210	64	37-118
101-55-3	MS	4-Bromophenylphenylether	1900	0.00	U	1200	63	39-112
118-74-1	MS	Hexachlorobenzene	1900	0.00	U	1040	55	38-113
85-01-8	MS	Phenanthrene	1900	0.00	U	1240	65	38-110
120-12-7	MS	Anthracene	1900	0.00	U	1240	65	38-112
84-74-2	MS	Di-n-butylphthalate	1900	0.00	U	1360	72	42-119
206-44-0	MS	Fluoranthene	1900	0.00	U	1260	67	38-119
85-68-7	MS	Butylbenzylphthalate	1900	0.00	U	1610	85	39-126
56-55-3	MS	Benzo(a)anthracene	1900	0.00	U	1210	64	39-110
91-94-1	MS	3,3'-Dichlorobenzidine	1900	0.00	U	0.00	0 *	35-106
218-01-9	MS	Chrysene	1900	0.00	U	1190	62	39-109
117-81-7	MS	bis(2-Ethylhexyl)phthalate	1900	0.00	U	1530	81	40-125
117-84-0	MS	Di-n-octylphthalate	1900	0.00	U	2160	114	30-147
205-99-2	MS	Benzo(b)fluoranthene	1900	0.00	U	1380	73	38-117
207-08-9	MS	Benzo(k)fluoranthene	1900	0.00	U	1410	74	39-120
50-32-8	MS	Benzo(a)pyrene	1900	0.00	U	1270	67	40-115
193-39-5	MS	Indeno(1,2,3-cd)pyrene	1900	0.00	U	970	51	32-120

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-901
Client ID: RE16-10-2878MS
Lab Sample ID: 1201994529
Instrument: MSD6.I
Analyst: NAG1
Inj. Vol: .5 uL

Sample Type: Matrix Spike
Matrix: S
%Moisture: 12.6
Analysis Date: 12/16/2009 22:46
Prep Batch ID: 932443
Batch ID: 932444
Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
53-70-3	MS	Dibenzo(a,h)anthracene	1900	0.00	U	1000	53	32-124
191-24-2	MS	Benzo(ghi)perylene	1900	0.00	U	832	44	28-119
120-82-1	MS	1,2,4-Trichlorobenzene	1900	0.00	U	875	46	31-105

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-901
Client ID: RE16-10-2878MSD
Lab Sample ID: 1201994530
Instrument: MSD6.I
Analyst: NAG1
Inj. Vol: .5 uL

Sample Type: Matrix Spike Duplicate
Matrix: S
%Moisture: 12.6
Analysis Date: 12/17/2009 17:29
Dilution: 1
Prep Batch ID: 932443
Batch ID: 932444

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
62-75-9	MSD	N-Methyl-N-nitrosomethylam	1900	0.00	U	476	25 *	32-90	67 *	0-30
108-95-2	MSD	Phenol	1900	0.00	U	884	46	32-105	39 *	0-30
95-57-8	MSD	2-Chlorophenol	1900	0.00	U	820	43	33-106	32 *	0-30
106-46-7	MSD	1,4-Dichlorobenzene	1900	0.00	U	498	26 *	33-95	25	0-30
621-64-7	MSD	N-Nitrosodipropylamine	1900	0.00	U	861	45	31-109	26	0-30
59-50-7	MSD	4-Chloro-3-methylphenol	1900	0.00	U	1030	54	38-119	46 *	0-30
83-32-9	MSD	Acenaphthene	1900	0.00	U	913	48	39-100	14	0-30
121-14-2	MSD	2,4-Dinitrotoluene	1900	0.00	U	1020	54	42-107	20	0-30
100-02-7	MSD	4-Nitrophenol	1900	0.00	U	929	49	24-120	15	0-30
87-86-5	MSD	Pentachlorophenol	1900	0.00	U	1100	58	26-121	5	0-30
129-00-0	MSD	Pyrene	1900	0.00	U	1180	62	34-120	16	0-30
110-86-1	MSD	Pyridine	1900	0.00	U	445	23 *	30-95	12	0-30
62-53-3	MSD	Aniline	1900	0.00	U	404	21 *	34-111	55 *	0-30
111-44-4	MSD	bis(2-Chloroethyl) ether	1900	0.00	U	648	34	34-101	31 *	0-30
541-73-1	MSD	1,3-Dichlorobenzene	1900	0.00	U	483	25 *	31-97	53 *	0-30
100-51-6	MSD	Benzyl alcohol	1900	0.00	U	0.00	0 *	17-120	200 *	0-30
95-50-1	MSD	1,2-Dichlorobenzene	1900	0.00	U	572	30 *	32-102	26	0-30
108-60-1	MSD	bis(2-Chloroisopropyl)ether	1900	0.00	U	687	36	32-113	54 *	0-30
95-48-7	MSD	o-Cresol	1900	0.00	U	770	40	31-119	53 *	0-30
65794-96-9	MSD	m,p-Cresols	1900	0.00	U	930	49	35-125	47 *	0-30
67-72-1	MSD	Hexachloroethane	1900	0.00	U	456	24 *	30-100	28	0-30
98-95-3	MSD	Nitrobenzene	1900	0.00	U	773	41	33-108	17	0-30

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-901
Client ID: RE16-10-2878MSD
Lab Sample ID: 1201994530
Instrument: MSD6.I
Analyst: NAG1
Inj. Vol: .5 uL

Sample Type: Matrix Spike Duplicate
Matrix: S
%Moisture: 12.6
Analysis Date: 12/17/2009 17:29
Prep Batch ID: 932443
Batch ID: 932444
Dilution: 1

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
78-59-1	MSD Isophorone	1900	0.00	U	928	49	34-110	16	0-30
88-75-5	MSD 2-Nitrophenol	1900	0.00	U	824	43	32-108	21	0-30
105-67-9	MSD 2,4-Dimethylphenol	1900	0.00	U	688	36	32-115	30	0-30
111-91-1	MSD bis(2-Chloroethoxy)methane	1900	0.00	U	865	45	35-108	15	0-30
120-83-2	MSD 2,4-Dichlorophenol	1900	0.00	U	982	52	38-110	28	0-30
65-85-0	MSD Benzoic acid	3810	0.00	U	2520	66	18-134	40 *	0-30
91-20-3	MSD Naphthalene	1900	0.00	U	753	40	31-105	16	0-30
106-47-8	MSD 4-Chloroaniline	1900	0.00	U	477	25 *	29-123	47 *	0-30
87-68-3	MSD Hexachlorobutadiene	1900	0.00	U	704	37	31-109	22	0-30
91-57-6	MSD 2-Methylnaphthalene	1900	0.00	U	964	51	32-110	21	0-30
77-47-4	MSD Hexachlorocyclopentadiene	1900	0.00	U	233	12 *	21-122	12	0-30
88-06-2	MSD 2,4,6-Trichlorophenol	1900	0.00	U	985	52	37-108	15	0-30
95-95-4	MSD 2,4,5-Trichlorophenol	1900	0.00	U	918	48	37-116	39 *	0-30
91-58-7	MSD 2-Chloronaphthalene	1900	0.00	U	890	47	37-103	13	0-30
88-74-4	MSD 2-Nitroaniline *o-Nitroaniline*	1900	0.00	U	854	45	36-115	24	0-30
99-09-2	MSD 3-Nitroaniline *m-Nitroaniline*	1900	0.00	U	658	35 *	39-117	43 *	0-30
131-11-3	MSD Dimethylphthalate	1900	0.00	U	1090	57	41-105	13	0-30
606-20-2	MSD 2,6-Dinitrotoluene	1900	0.00	U	999	52	41-103	19	0-30
208-96-8	MSD Acenaphthylene	1900	0.00	U	988	52	41-103	13	0-30
51-28-5	MSD 2,4-Dinitrophenol	1900	0.00	U	889	47	25-104	19	0-30
132-64-9	MSD Dibenzofuran	1900	0.00	U	1200	63	40-114	18	0-30
84-66-2	MSD Diethylphthalate	1900	0.00	U	1130	59	43-110	17	0-30

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-901
Client ID: RE16-10-2878MSD
Lab Sample ID: 1201994530
Instrument: MSD6.I
Analyst: NAG1
Inj. Vol: .5 uL

Sample Type: Matrix Spike Duplicate
Matrix: S
%Moisture: 12.6
Analysis Date: 12/17/2009 17:29
Prep Batch ID: 932443
Batch ID: 932444
Dilution: 1

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
86-73-7	MSD Fluorene	1900	0.00	U	1030	54	48-99	19	0-30
7005-72-3	MSD 4-Chlorophenylphenylether	1900	0.00	U	1040	55	42-111	21	0-30
534-52-1	MSD 2-Methyl-4,6-dinitrophenol	1900	0.00	U	824	43	19-118	6	0-30
100-01-6	MSD 4-Nitroaniline *p-Nitroaniline*	1900	0.00	U	905	48	35-139	37 *	0-30
122-39-4	MSD Diphenylamine	1900	0.00	U	958	50	41-112	16	0-30
122-66-7	MSD Azobenzene *1,2-Diphenylhydrazine*	1900	0.00	U	1040	55	37-118	15	0-30
101-55-3	MSD 4-Bromophenylphenylether	1900	0.00	U	1030	54	39-112	15	0-30
118-74-1	MSD Hexachlorobenzene	1900	0.00	U	955	50	38-113	8	0-30
85-01-8	MSD Phenanthrene	1900	0.00	U	1050	55	38-110	17	0-30
120-12-7	MSD Anthracene	1900	0.00	U	1050	55	38-112	16	0-30
84-74-2	MSD Di-n-butylphthalate	1900	0.00	U	1250	65	42-119	9	0-30
206-44-0	MSD Fluoranthene	1900	0.00	U	1080	57	38-119	16	0-30
85-68-7	MSD Butylbenzylphthalate	1900	0.00	U	1370	72	39-126	16	0-30
56-55-3	MSD Benzo(a)anthracene	1900	0.00	U	1020	54	39-110	17	0-30
91-94-1	MSD 3,3'-Dichlorobenzidine	1900	0.00	U	0.00	0 *	35-106	0	0-30
218-01-9	MSD Chrysene	1900	0.00	U	1040	54	39-109	14	0-30
117-81-7	MSD bis(2-Ethylhexyl)phthalate	1900	0.00	U	1220	64	40-125	23	0-30
117-84-0	MSD Di-n-octylphthalate	1900	0.00	U	1380	72	30-147	44 *	0-30
205-99-2	MSD Benzo(b)fluoranthene	1900	0.00	U	1110	58	38-117	21	0-30
207-08-9	MSD Benzo(k)fluoranthene	1900	0.00	U	1190	62	39-120	17	0-30
50-32-8	MSD Benzo(a)pyrene	1900	0.00	U	1110	58	40-115	14	0-30
193-39-5	MSD Indeno(1,2,3-cd)pyrene	1900	0.00	U	995	52	32-120	3	0-30

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-901
Client ID: RE16-10-2878MSD
Lab Sample ID: 1201994530
Instrument: MSD6.I
Analyst: NAG1
Inj. Vol: .5 uL

Sample Type: Matrix Spike Duplicate
Matrix: S
%Moisture: 12.6
Analysis Date: 12/17/2009 17:29
Dilution: 1
Prep Batch ID: 932443
Batch ID: 932444

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
53-70-3	MSD Dibenzo(a,h)anthracene	1900	0.00	U	499	26 *	32-124	67 *	0-30
191-24-2	MSD Benzo(ghi)perylene	1900	0.00	U	914	48	28-119	9	0-30
120-82-1	MSD 1,2,4-Trichlorobenzene	1900	0.00	U	740	39	31-105	17	0-30

Method Blank Summary

SDG Number:	10-901	Client:	LANL010	Matrix:	SOIL
Client ID:	MB for batch 932443	Instrument ID:	MSD6.I	Data File:	s6l1613-1.d
Lab Sample ID:	1201994527	Prep Date:	12/14/2009 09:47	Analyzed:	12/16/09 15:15
Column:	J&W DB-5MS	Level:	LOW		

This method blank applies to the following samples and quality control samples:

Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01 LCS for batch 932443	1201994528	s6l1614-1.d	12/16/09	1545
03 RE03-09-13470	242794001	s6l1632.d	12/17/09	0008
04 RE03-09-13471	242794002	s6l1633.d	12/17/09	0036
05 RE03-09-13472	242794003	s6l1634.d	12/17/09	0103
06 RE03-09-13469	242794004	s6l1635.d	12/17/09	0130

Instrument Performance Check

DFTPP

Lab Name GEL Laboratories LLC **Client SDG:** 10-901

Instrument ID: MSD6.I **Injection Date/Time:** 09-NOV-09 18:00

Column Description: Phenomenex ZB-5MS **Lab File ID** /chem/MSD6.i/s110909.b/s6k0911.d

m/e	Ion Abundance Criteria	% Relative Abundance
198	Base Peak, 100% Relative Abundance	100
51	30 - 60% of mass 198	45.4
68	Less than 2% of mass 69	1.6
69	Mass 69 Relative Abundance	43
70	Less than 2% of mass 69	0.5
127	40 - 60% of mass 198	51.4
197	0 - 1% of mass 198	0.6
199	5 - 9% of mass 198	6.9
275	10 - 30% of mass 198	23.7
365	Greater than 1% of mass 198	2.4
441	Present, but less than mass 443	73.9
442	Greater than 40% of mass 198	77.9
443	17 - 23% of mass 442	19.2

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
MEGAICAL	WBN091106-08	/chem/MSD6.i/s110909.b/s6k091	09-NOV-09 18:53
MEGAICAL	WBN091106-07	/chem/MSD6.i/s110909.b/s6k091	09-NOV-09 19:31
MEGAICAL	WBN091106-06	/chem/MSD6.i/s110909.b/s6k091	09-NOV-09 20:09
MEGAICAL	WBN091106-05.1	/chem/MSD6.i/s110909.b/s6k091	09-NOV-09 20:46
MEGAICAL	WBN091106-04	/chem/MSD6.i/s110909.b/s6k091	09-NOV-09 21:25
MEGAICAL	WBN091106-03	/chem/MSD6.i/s110909.b/s6k091	09-NOV-09 22:01
MEGAICAL	WBN091106-02	/chem/MSD6.i/s110909.b/s6k091	09-NOV-09 22:39
MEGAICAL	WBN091106-01	/chem/MSD6.i/s110909.b/s6k092	09-NOV-09 23:16

Instrument Performance Check

DFTPP

Lab Name GEL Laboratories LLC **Client SDG:** 10-901

Instrument ID: MSD6.I **Injection Date/Time:** 10-NOV-09 11:07

Column Description: Phenomenex ZB-5MS **Lab File ID** /chem/MSD6.i/s110909.b/s6k0921.d

m/e	Ion Abundance Criteria	% Relative Abundance
198	Base Peak, 100% Relative Abundance	100
51	30 - 60% of mass 198	45.1
68	Less than 2% of mass 69	1.6
69	Mass 69 Relative Abundance	43.1
70	Less than 2% of mass 69	0.5
127	40 - 60% of mass 198	50.9
197	0 - 1% of mass 198	0.4
199	5 - 9% of mass 198	7
275	10 - 30% of mass 198	23.3
365	Greater than 1% of mass 198	2.6
441	Present, but less than mass 443	72.6
442	Greater than 40% of mass 198	76
443	17 - 23% of mass 442	19.9

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
AP12ICAL	WBN091016-01	/chem/MSD6.i/s110909.b/s6k092	10-NOV-09 11:59
AP12ICAL	WBN091016-02	/chem/MSD6.i/s110909.b/s6k092	10-NOV-09 12:36
AP12ICAL	WBN091016-03	/chem/MSD6.i/s110909.b/s6k092	10-NOV-09 13:13
AP12ICAL	WBN091016-04	/chem/MSD6.i/s110909.b/s6k092	10-NOV-09 13:51
AP12ICAL	WBN091016-05	/chem/MSD6.i/s110909.b/s6k092	10-NOV-09 14:30
AP12ICAL	WBN091016-06	/chem/MSD6.i/s110909.b/s6k092	10-NOV-09 15:06
AP12ICAL	WBN091016-07	/chem/MSD6.i/s110909.b/s6k092	10-NOV-09 15:43
MEGAICV	WBN091106-09.1	/chem/MSD6.i/s110909.b/s6k093	10-NOV-09 20:29
AP12ICV	WBN091016-08.1	/chem/MSD6.i/s110909.b/s6k093	10-NOV-09 21:07

Instrument Performance Check

DFTPP

Lab Name GEL Laboratories LLC **Client SDG:** 10-901

Instrument ID: MSD6.I **Injection Date/Time:** 16-DEC-09 14:04

Column Description: Phenomenex ZB-5MS **Lab File ID** /chem/MSD6.i/s121609.b/s6l1610.d

m/e	Ion Abundance Criteria	% Relative Abundance
198	Base Peak, 100% Relative Abundance	100
51	30 - 60% of mass 198	38.6
68	Less than 2% of mass 69	1.5
69	Mass 69 Relative Abundance	38.9
70	Less than 2% of mass 69	0.5
127	40 - 60% of mass 198	49.8
197	0 - 1% of mass 198	0.4
199	5 - 9% of mass 198	6.9
275	10 - 30% of mass 198	23.9
365	Greater than 1% of mass 198	2.5
441	Present, but less than mass 443	75.4
442	Greater than 40% of mass 198	84.1
443	17 - 23% of mass 442	19.3

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
MEGACVS	WBN091111-17.4	/chem/MSD6.i/s121609.b/s6l1611	16-DEC-09 14:18
AP12CVS	WBN091201-03.5	/chem/MSD6.i/s121609.b/s6l1612	16-DEC-09 14:46
SBLK01	1201994527	/chem/MSD6.i/s121609.b/s6l1613	16-DEC-09 15:15
SBLK01LCS	1201994528	/chem/MSD6.i/s121609.b/s6l1614	16-DEC-09 15:45
RE03-09-13470	242794001	/chem/MSD6.i/s121609.b/s6l1632	17-DEC-09 00:08
RE03-09-13471	242794002	/chem/MSD6.i/s121609.b/s6l1633	17-DEC-09 00:36
RE03-09-13472	242794003	/chem/MSD6.i/s121609.b/s6l1634	17-DEC-09 01:03
RE03-09-13469	242794004	/chem/MSD6.i/s121609.b/s6l1635	17-DEC-09 01:30

Internal Standard
Area and RT Summary

Lab Name : GEL Laboratories LLC

Instrument: MSD6.I

GC Column: J&W DB-5MS

Client SDG: 10-901

STD Analysis Time: 16-DEC-09 14:18

Data File: s611611.d

	1,4-Dichlorobenzene-d4				Naphthalene-d8				Acenaphthene-d10				Phenanthrene-d10				Chrysene-d12				Perylene-d12			
	Area	#	RT	#	Area	#	RT	#	Area	#	RT	#	Area	#	RT	#	Area	#	RT	#	Area	#	RT	#
12 Hour STD	209214		4.85		828674		6.13		435590		8		744475		9.61		599948		12.6		527608		15.0	
Upper Limit	418428		5.35		1657348		6.63		871180		8.5		1488950		10.1		1199896		13.1		1055216		15.5	
Lower Limit	104607		4.35		414337		5.63		217795		7.5		372238		9.11		299974		12.1		263804		14.5	
Sample ID																								
BLK01	213205		4.84		803720		6.13		443898		8		755605		9.61		628686		12.6		545942		15.0	
BLK01LCS	222177		4.84		901365		6.13		432311		8		823729		9.61		674416		12.6		578792		15.0	
RE03-09-13470	131828		4.85		592979		6.13		413552		8		807799		9.61		540286		12.6		330054		15.0	
RE03-09-13471	222101		4.85		850020		6.13		471437		8		817380		9.61		600621		12.6		352085		15.0	
RE03-09-13472	181317		4.85		757889		6.13		447987		8		791580		9.61		595155		12.6		392196		15.0	
RE03-09-13469	211012		4.85		838912		6.13		461744		8		803897		9.61		580433		12.6		370677		15.0	

Area Upper Limit = +100% of internal standard area
Area Lower Limit = - 50% of internal standard area

RT Upper Limit = + 0.50 minutes of internal standard RT
RT Lower Limit = - 0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Value outside of QC Limits

Sample Data

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-901**	**Date Collected:**	**12/10/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242794004**	**Date Received:**	**12/12/2009 09:35**	**%Moisture:**	**6.4**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-13469**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**932444**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**12/17/2009 01:30**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/14/2009 09:47**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**s6l1635.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	356	ug/kg	71.2	356
108-95-2	Phenol	U	356	ug/kg	71.2	356
95-57-8	2-Chlorophenol	U	356	ug/kg	71.2	356
106-46-7	1,4-Dichlorobenzene	U	356	ug/kg	71.2	356
621-64-7	N-Nitrosodipropylamine	U	356	ug/kg	71.2	356
59-50-7	4-Chloro-3-methylphenol	U	356	ug/kg	71.2	356
83-32-9	Acenaphthene	U	35.6	ug/kg	11.8	35.6
121-14-2	2,4-Dinitrotoluene	U	356	ug/kg	35.6	356
100-02-7	4-Nitrophenol	U	356	ug/kg	118	356
87-86-5	Pentachlorophenol	U	356	ug/kg	89.1	356
129-00-0	Pyrene	J	15.1	ug/kg	10.7	35.6
110-86-1	Pyridine	U	356	ug/kg	71.2	356
62-53-3	Aniline	U	356	ug/kg	107	356
111-44-4	bis(2-Chloroethyl) ether	U	356	ug/kg	71.2	356
541-73-1	1,3-Dichlorobenzene	U	356	ug/kg	71.2	356
100-51-6	Benzyl alcohol	U	356	ug/kg	107	356
95-50-1	1,2-Dichlorobenzene	U	356	ug/kg	71.2	356
108-60-1	bis(2-Chloroisopropyl)ether	U	356	ug/kg	71.2	356
95-48-7	o-Cresol	U	356	ug/kg	71.2	356
65794-96-9	m,p-Cresols	U	356	ug/kg	107	356
67-72-1	Hexachloroethane	U	356	ug/kg	71.2	356
98-95-3	Nitrobenzene	U	356	ug/kg	71.2	356
78-59-1	Isophorone	U	356	ug/kg	71.2	356
88-75-5	2-Nitrophenol	U	356	ug/kg	71.2	356
105-67-9	2,4-Dimethylphenol	U	356	ug/kg	125	356
111-91-1	bis(2-Chloroethoxy)methane	U	356	ug/kg	71.2	356
120-83-2	2,4-Dichlorophenol	U	356	ug/kg	71.2	356
65-85-0	Benzoic acid	U	712	ug/kg	178	712
91-20-3	Naphthalene	U	35.6	ug/kg	10.7	35.6
106-47-8	4-Chloroaniline	U	356	ug/kg	71.2	356
87-68-3	Hexachlorobutadiene	U	356	ug/kg	71.2	356
91-57-6	2-Methylnaphthalene	U	35.6	ug/kg	7.12	35.6
77-47-4	Hexachlorocyclopentadiene	U	356	ug/kg	71.2	356
88-06-2	2,4,6-Trichlorophenol	U	356	ug/kg	71.2	356
95-95-4	2,4,5-Trichlorophenol	U	356	ug/kg	71.2	356
91-58-7	2-Chloronaphthalene	U	35.6	ug/kg	11.8	35.6
88-74-4	2-Nitroaniline	U	356	ug/kg	71.2	356
	o-Nitroaniline					
99-09-2	3-Nitroaniline	U	356	ug/kg	71.2	356

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-901	**Date Collected:**	12/10/2009 12:00	**Matrix:**	S
Lab Sample ID:	242794004	**Date Received:**	12/12/2009 09:35	**%Moisture:**	6.4
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-13469	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	932444	**Inst:**	MSD6.I	**Dilution:**	1
Run Date:	12/17/2009 01:30	**Analyst:**	NAG1	**Inj. Vol:**	.5 uL
Prep Date:	12/14/2009 09:47	**Aliquot:**	30 g	**Final Volume:**	1 mL
Data File:	s611635.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	356	ug/kg	71.2	356
606-20-2	2,6-Dinitrotoluene	U	356	ug/kg	35.6	356
208-96-8	Acenaphthylene	U	35.6	ug/kg	10.7	35.6
51-28-5	2,4-Dinitrophenol	U	712	ug/kg	135	712
132-64-9	Dibenzofuran	U	356	ug/kg	71.2	356
84-66-2	Diethylphthalate	U	356	ug/kg	71.2	356
86-73-7	Fluorene	U	35.6	ug/kg	10.7	35.6
7005-72-3	4-Chlorophenylphenylether	U	356	ug/kg	71.2	356
534-52-1	2-Methyl-4,6-dinitrophenol	U	356	ug/kg	71.2	356
100-01-6	4-Nitroaniline	U	356	ug/kg	107	356
	p-Nitroaniline					
122-39-4	Diphenylamine	U	356	ug/kg	71.2	356
122-66-7	Azobenzene	U	356	ug/kg	71.2	356
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	356	ug/kg	71.2	356
118-74-1	Hexachlorobenzene	U	356	ug/kg	71.2	356
85-01-8	Phenanthrene	U	35.6	ug/kg	10.7	35.6
120-12-7	Anthracene	U	35.6	ug/kg	7.12	35.6
84-74-2	Di-n-butylphthalate	U	356	ug/kg	71.2	356
206-44-0	Fluoranthene	J	16.1	ug/kg	10.7	35.6
85-68-7	Butylbenzylphthalate	U	356	ug/kg	71.2	356
56-55-3	Benzo(a)anthracene	U	35.6	ug/kg	10.7	35.6
91-94-1	3,3'-Dichlorobenzidine	U	356	ug/kg	107	356
218-01-9	Chrysene	U	35.6	ug/kg	10.7	35.6
117-81-7	bis(2-Ethylhexyl)phthalate	U	356	ug/kg	71.2	356
117-84-0	Di-n-octylphthalate	U	356	ug/kg	71.2	356
205-99-2	Benzo(b)fluoranthene	U	35.6	ug/kg	10.7	35.6
207-08-9	Benzo(k)fluoranthene	U	35.6	ug/kg	10.7	35.6
50-32-8	Benzo(a)pyrene	U	35.6	ug/kg	10.7	35.6
193-39-5	Indeno(1,2,3-cd)pyrene	U	35.6	ug/kg	10.7	35.6
53-70-3	Dibenzo(a,h)anthracene	U	35.6	ug/kg	10.7	35.6
191-24-2	Benzo(ghi)perylene	U	35.6	ug/kg	10.7	35.6
120-82-1	1,2,4-Trichlorobenzene	U	356	ug/kg	71.2	356

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	3.44	362	ug/kg		JA

GEL Laboratories LLC

Data file : /chem/MSD6.i/s121609.b/s611635.d
Lab Smp Id: 242794004 Client Smp ID: RE03-09-13469
Inj Date : 17-DEC-2009 01:30
Operator : nagl Inst ID: MSD6.i
Smp Info : |242794004|932444|1|SVMF|1|LANL
Misc Info : |MSD8270_S|WBN091208-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s121609.b/MSD6-M8270C-AQA-110909.m
Meth Date : 17-Dec-2009 08:11 nat00999 Quant Type: ISTD
Cal Date : 11-NOV-2009 04:38 Cal File: s6k0954.d
Als bottle: 26
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-901.sub
Target Version: 3.50
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	6.42000	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	4.846	4.849	(1.000)	211012	40.0000	
* 29 Naphthalene-d8	136	6.128	6.131	(1.000)	838912	40.0000	
* 46 Acenaphthene-d10	164	8.001	8.001	(1.000)	461744	40.0000	
* 67 Phenanthrene-d10	188	9.614	9.611	(1.000)	803897	40.0000	
* 91 Chrysene-d12	240	12.636	12.633	(1.000)	580433	40.0000	
* 98 Perylene-d12	264	14.978	14.973	(1.000)	370677	40.0000	
$ 3 2-Fluorophenol	112	3.687	3.674	(0.761)	325713	61.6389	2200
$ 5 Phenol-d5	99	4.464	4.457	(0.921)	434977	65.2198	2320
$ 20 Nitrobenzene-d5	82	5.384	5.389	(0.879)	189407	31.9167	1140
$ 39 2-Fluorobiphenyl	172	7.254	7.254	(0.907)	390413	32.8092	1170
$ 60 2,4,6-Tribromophenol	329	8.852	8.850	(1.106)	95880	71.1431	2530
$ 81 p-Terphenyl-d14	244	11.321	11.316	(0.896)	436322	46.6133	1660

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
79 Pyrene	202	11.178	11.176	(0.885)	6755	0.42312	15.1(a)
76 Fluoranthene	202	10.929	10.926	(1.137)	7214	0.45298	16.1(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

ION RATIO REPORT

SV REPORT

Data file: s611635.d
Report Date: 12/17/2009 08:37
Lab. ID: 242794004 SampleType: SAMPLE
Injection Date: 17-DEC-2009 01:30
Operator: nagl Instrument: MSD6.i
Sample Info: |242794004|932444|1|SVMF|1|LANL
Miscellaneous Info: |MSD8270_S|WBN091208-01
Comment:
Method used: /chem/MSD6.i/s121609.b/MSD6-M8270C-AQA-110909.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-901
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
4 Aniline		CAS#: 62-53-3				
66	19219	4.46	4.54	80-120	100	(T)
93	123	4.58	4.54	228-288	1	(Q)
17 N-Nitrosodipropylamine				CAS#: 621-64-7		
70	24875	5.39	5.23	80-120	100	(T)
42	14537	5.39	5.23	40-100	58	(T)
22 Isophorone			CAS#: 78-59-1			
82	189407	5.38	5.64	80-120	100	(T)
138	4016	6.13	5.64	0- 49	2	(T)
43 Dimethylphthalate				CAS#: 131-11-3		
163	81633	8.00	7.69	80-120	100	(T)
164	461744	8.00	7.69	0- 40	566	(QT)
45 Acenaphthylene				CAS#: 208-96-8		
152	19328	8.00	7.85	80-120	100	(T)
151	5250	8.00	7.85	0- 50	27	(T)
153	20462	8.00	7.85	0- 43	106	(QT)
47 Acenaphthene				CAS#: 83-32-9		
154	18146	8.00	8.04	80-120	100	( )
153	20462	8.00	8.04	72-132	113	( )
152	19328	8.00	8.04	18- 78	107	(Q)

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
50 2,4-Dinitrotoluene			CAS#: 121-14-2			
165	59843	8.00	8.19	80-120	100	(T)
89	1502	8.00	8.19	40-100	3	(QT)
63	3152	8.00	8.19	17- 77	5	(QT)
52 4-Nitrophenol			CAS#: 100-02-7			
139	3270	8.00	8.10	80-120	100	(T)
109	913	8.00	8.10	23- 83	28	(T)
65	2241	8.00	8.10	60-120	69	(T)
53 Fluorene			CAS#: 86-73-7			
166	5953	8.85	8.59	80-120	100	(T)
165	5589	8.85	8.59	62-122	94	(T)
167	1935	8.85	8.59	0- 44	33	(T)
55 2-Methyl-4,6-dinitrophenol			CAS#: 534-52-1			
198	145	8.84	8.63	80-120	100	(T)
105	456	8.85	8.63	11- 71	314	(QT)
51	581	8.85	8.63	21- 81	400	(QT)
69 Anthracene			CAS#: 120-12-7			
178	4921	9.64	9.69	80-120	100	( )
179	880	9.64	9.69	0- 46	18	( )
176	895	9.63	9.69	0- 49	18	( )
76 Fluoranthene			CAS#: 206-44-0			
202	7214	10.93	10.93	80-120	100	( )
203	1270	10.93	10.93	0- 47	18	( )
101	657	10.93	10.93	0- 43	9	( )
79 Pyrene			CAS#: 129-00-0			
202	6755	11.18	11.18	80-120	100	( )
200	700	11.18	11.18	0- 51	10	( )
101	1191	11.18	11.18	0- 46	18	( )
99 Indeno(1,2,3-cd)pyrene			CAS#: 193-39-5			
276	159	16.99	16.96	80-120	100	( )
138	674	17.18	16.97	6- 66	424	(QT)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

Data file : /chem/MSD6.i/s121609.b/s611635.d
Lab Smp Id: 242794004 Client Smp ID: RE03-09-13469
Inj Date : 17-DEC-2009 01:30
Operator : nag1 Inst ID: MSD6.i
Smp Info : |242794004|932444|1|SVMF|1|LANL
Misc Info : |MSD8270_S|WBN091208-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s121609.b/MSD6-M8270C-AQA-110909.m
Meth Date : 17-Dec-2009 08:11 nat00999 Quant Type: ISTD
Cal Date : 11-NOV-2009 04:38 Cal File: s6k0954.d
Als bottle: 26
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-901.sub
Target Version: 3.50
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	6.42000	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	4.846	1236369	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown Aldol Condensate				CAS #:			
3.442	314027	10.1596617	362	0		0	10

Data File: /chem/MSD6.i/s121609.b/s611635.d
Date : 17-DEC-2009 01:30
Client ID: RE03-09-13469
Sample Info: |2427940041932444111SVMFI1ILANL
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD6.i

Operator: nag1
Column diameter: 0.20

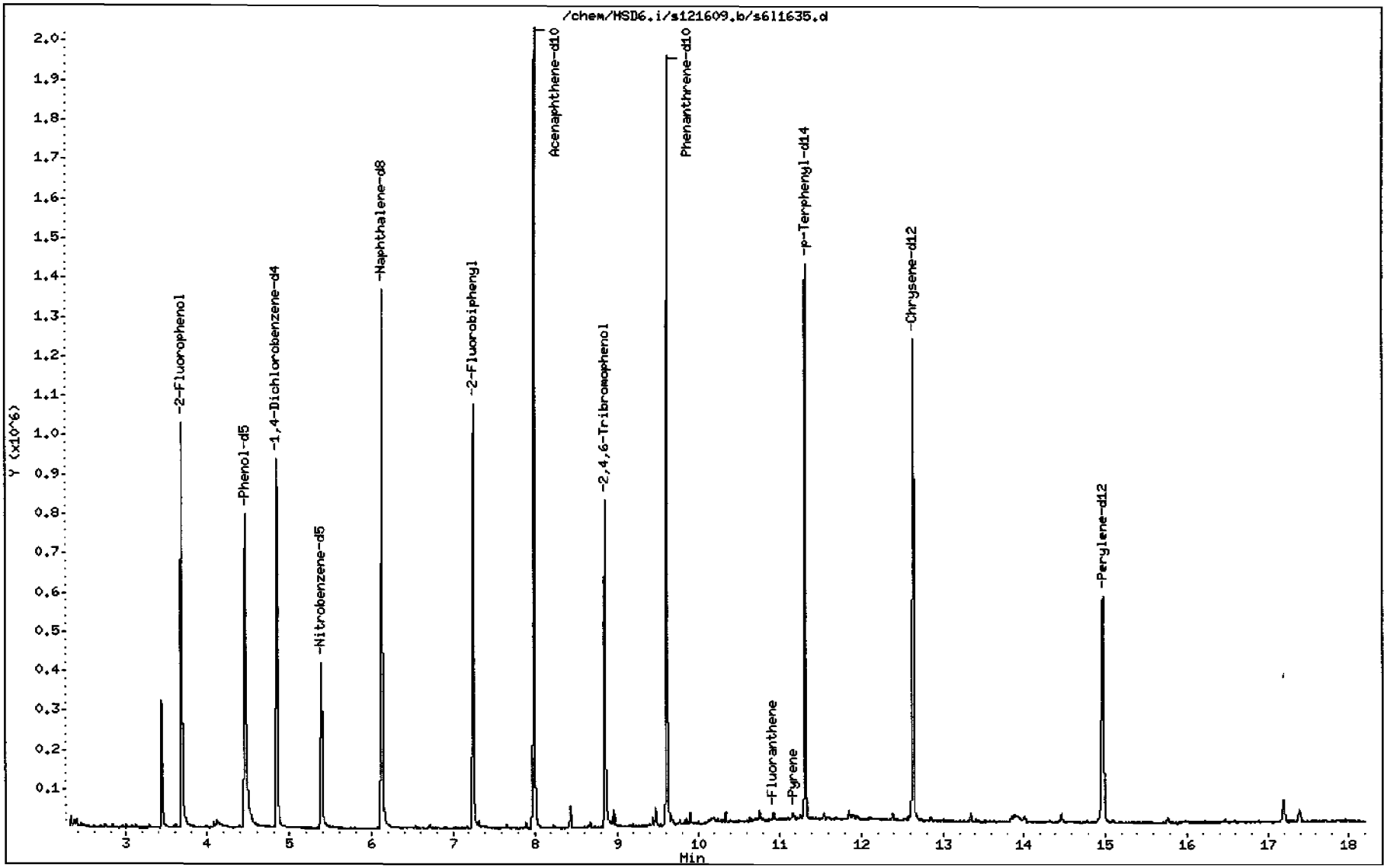

Data File: /chem/MSD6.i/s121609.b/s611635.d

Date : 17-DEC-2009 01:30

Client ID: RE03-09-13469

Instrument: MSD6.i

Sample Info: |2427940041932444|1|SVHF|1|LANL

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

79 Pyrene

Concentration: 15.1 ug/Kg

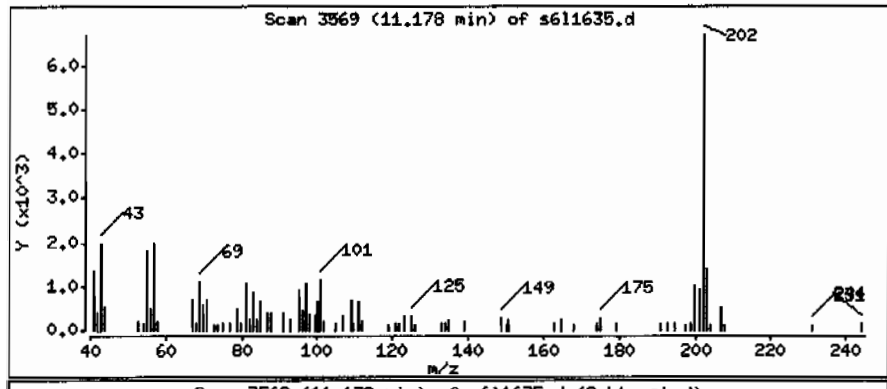

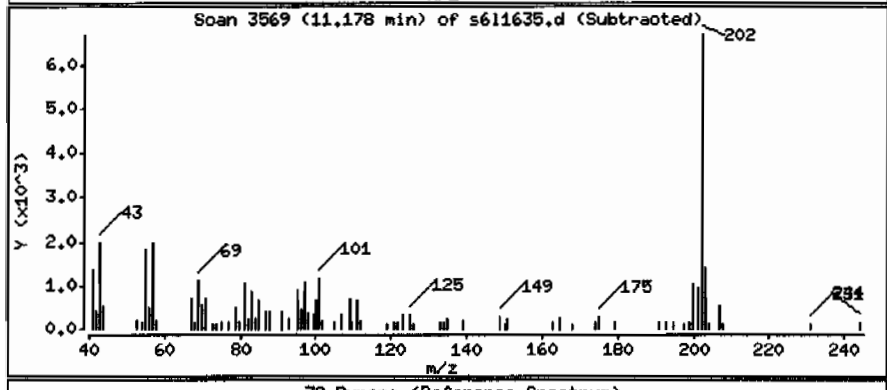

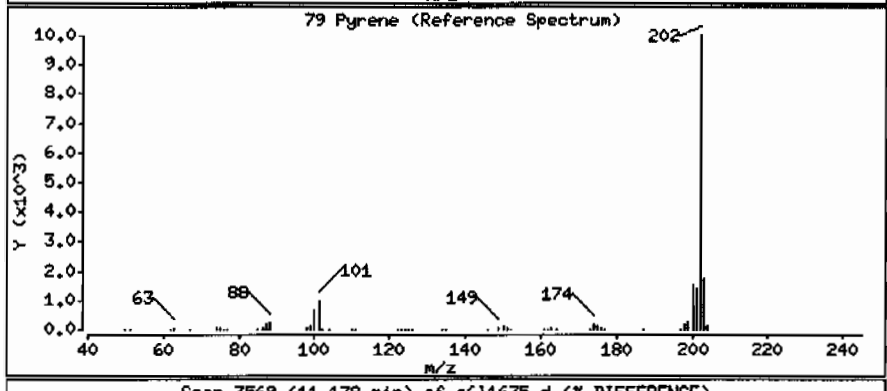

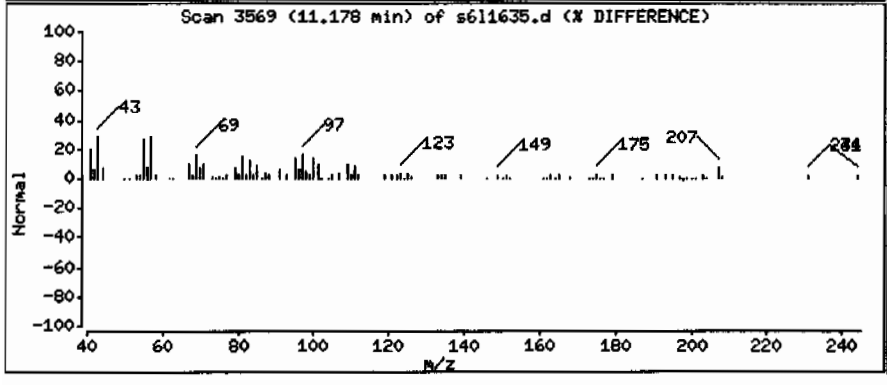

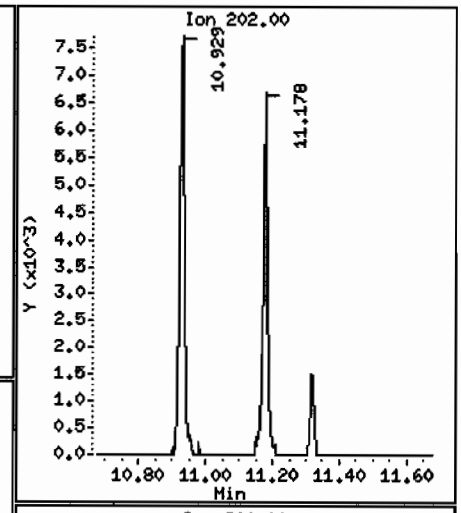

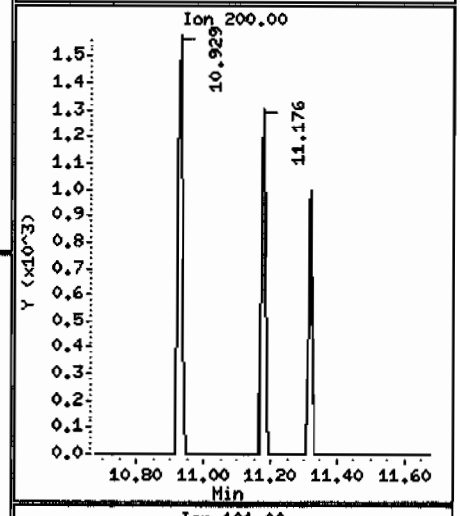

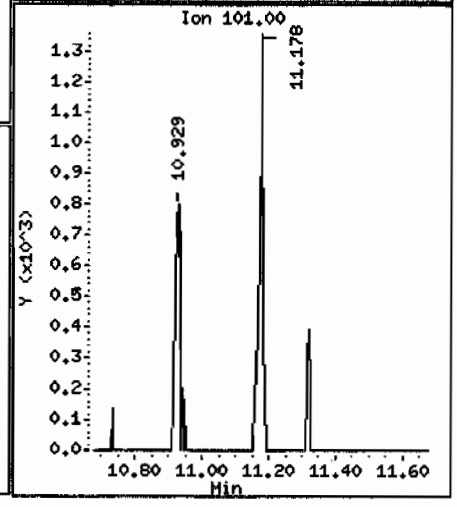

Data File: /chem/MSD6.i/s121609.b/s611635.d

Date : 17-DEC-2009 01:30

Client ID: RE03-09-13469

Instrument: MSD6.i

Sample Info: 1242794004|932444|1|SVMF|1|LANL

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

76 Fluoranthene

Concentration: 16.1 ug/Kg

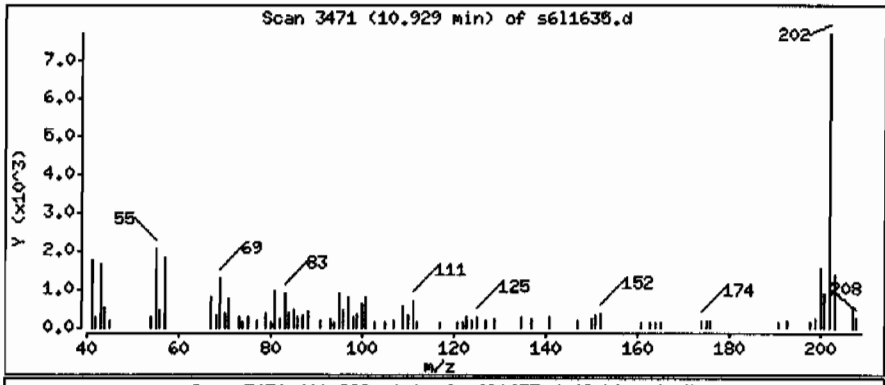

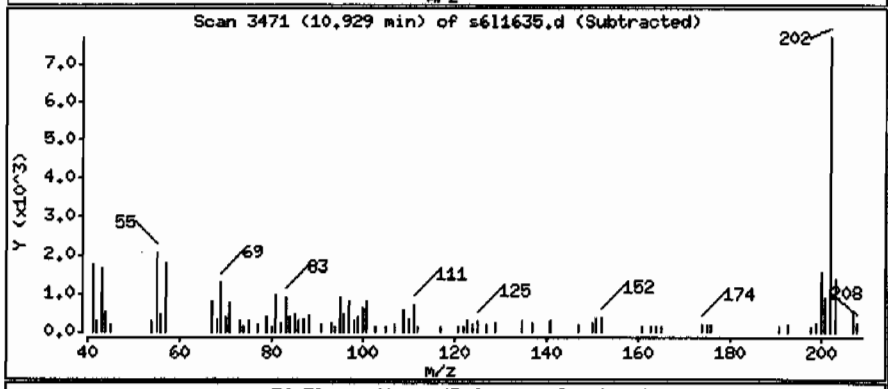

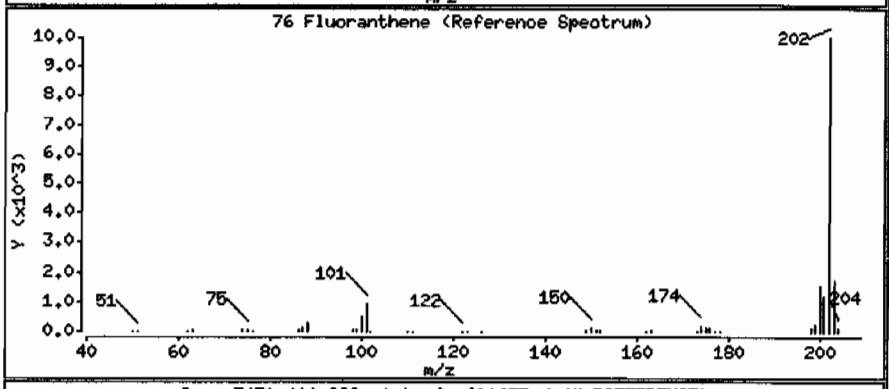

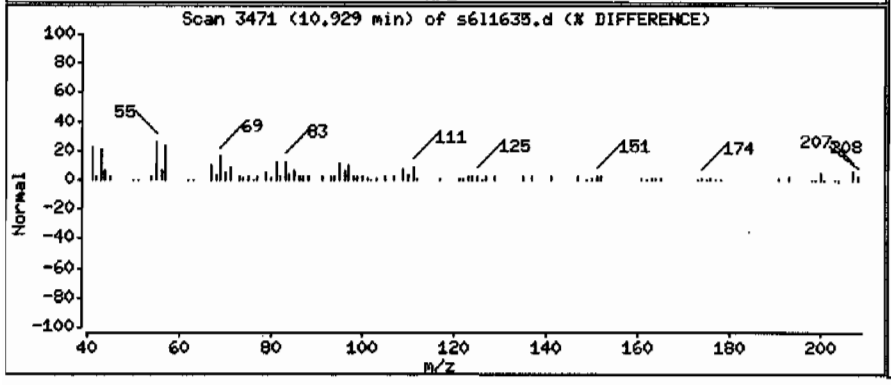

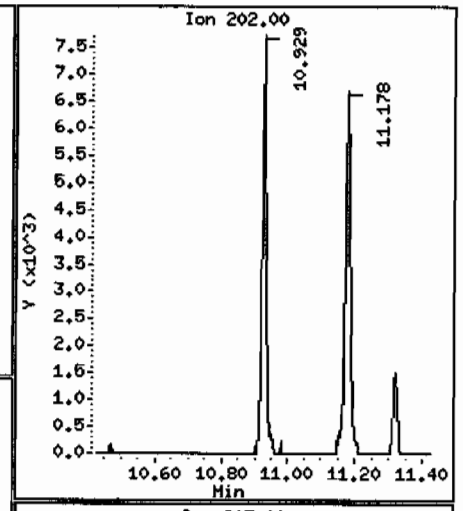

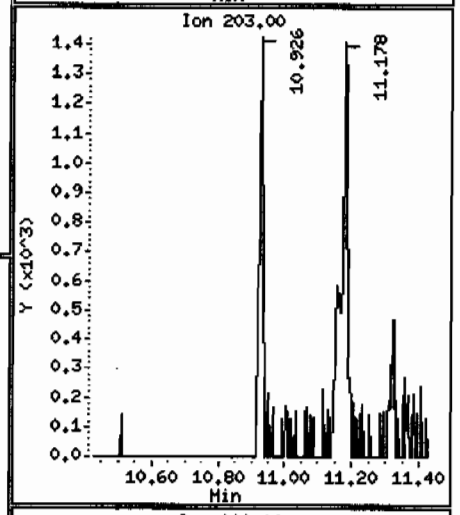

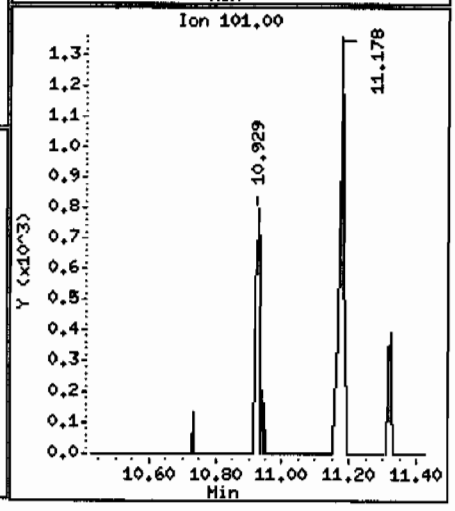

Data File: /chem/MSD6.i/s121609.b/s611635.d

Date : 17-DEC-2009 01:30

Client ID: RE03-09-13469

Instrument: MSD6.i

Sample Info: |242794004|932444|1|SVMF|1|LANL

Volume Injected (uL): 0.5

Operator: nagl

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7945	59	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	56	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	45	C6H12O2	116

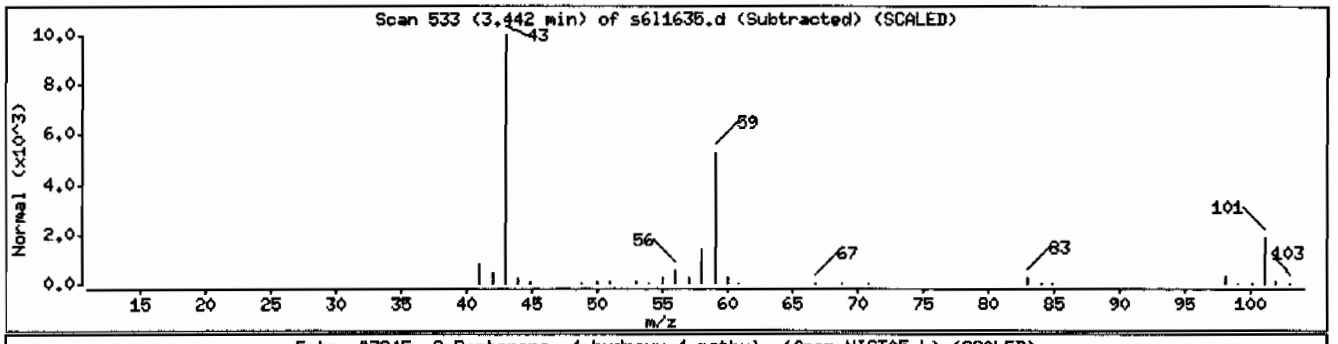

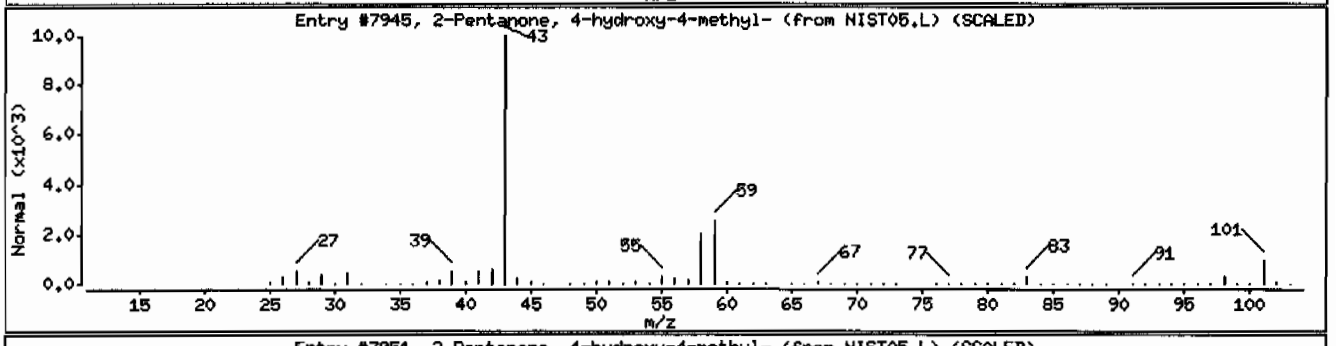

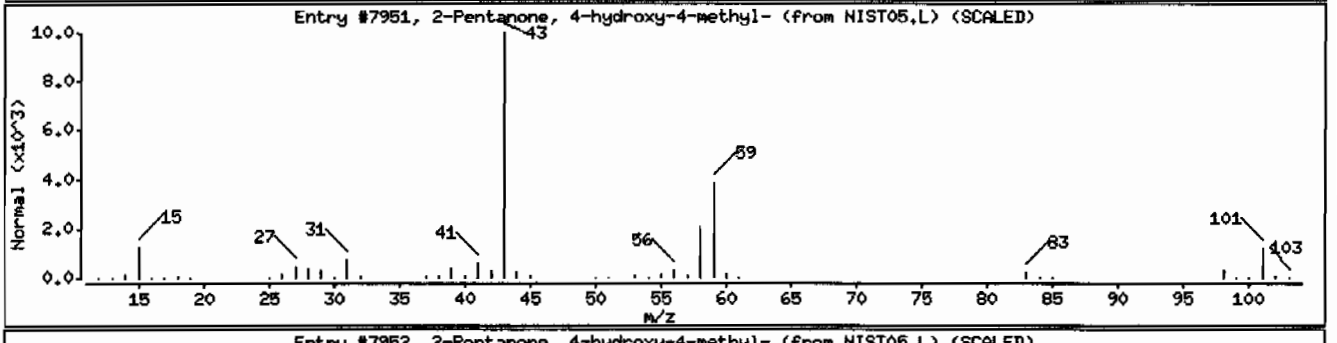

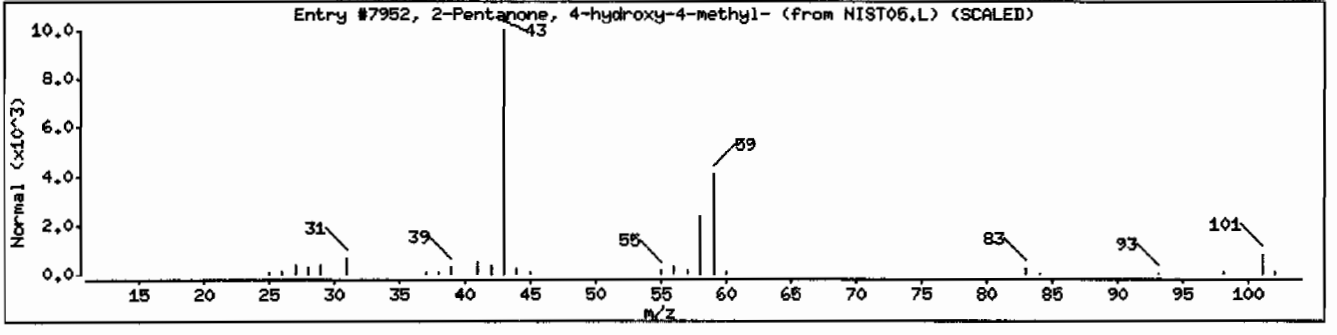

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-901	Date Collected:	12/10/2009 12:00	Matrix:	S
Lab Sample ID:	242794001	Date Received:	12/12/2009 09:35	%Moisture:	4.4
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-13470	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	932444	Inst:	MSD6.I	Dilution:	1
Run Date:	12/17/2009 00:08	Analyst:	NAG1	Inj. Vol:	.5 uL
Prep Date:	12/14/2009 09:47	Aliquot:	30.03 g	Final Volume:	1 mL
Data File:	s6l1632.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	348	ug/kg	69.6	348
108-95-2	Phenol	U	348	ug/kg	69.6	348
95-57-8	2-Chlorophenol	U	348	ug/kg	69.6	348
106-46-7	1,4-Dichlorobenzene	U	348	ug/kg	69.6	348
621-64-7	N-Nitrosodipropylamine	U	348	ug/kg	69.6	348
59-50-7	4-Chloro-3-methylphenol	U	348	ug/kg	69.6	348
83-32-9	Acenaphthene	U	34.8	ug/kg	11.5	34.8
121-14-2	2,4-Dinitrotoluene	U	348	ug/kg	34.8	348
100-02-7	4-Nitrophenol	U	348	ug/kg	115	348
87-86-5	Pentachlorophenol	U	348	ug/kg	87.0	348
129-00-0	Pyrene	U	34.8	ug/kg	10.4	34.8
110-86-1	Pyridine	U	348	ug/kg	69.6	348
62-53-3	Aniline	U	348	ug/kg	104	348
111-44-4	bis(2-Chloroethyl) ether	U	348	ug/kg	69.6	348
541-73-1	1,3-Dichlorobenzene	U	348	ug/kg	69.6	348
100-51-6	Benzyl alcohol	U	348	ug/kg	104	348
95-50-1	1,2-Dichlorobenzene	U	348	ug/kg	69.6	348
108-60-1	bis(2-Chloroisopropyl)ether	U	348	ug/kg	69.6	348
95-48-7	o-Cresol	U	348	ug/kg	69.6	348
65794-96-9	m,p-Cresols	U	348	ug/kg	104	348
67-72-1	Hexachloroethane	U	348	ug/kg	69.6	348
98-95-3	Nitrobenzene	U	348	ug/kg	69.6	348
78-59-1	Isophorone	U	348	ug/kg	69.6	348
88-75-5	2-Nitrophenol	U	348	ug/kg	69.6	348
105-67-9	2,4-Dimethylphenol	U	348	ug/kg	122	348
111-91-1	bis(2-Chloroethoxy)methane	U	348	ug/kg	69.6	348
120-83-2	2,4-Dichlorophenol	U	348	ug/kg	69.6	348
65-85-0	Benzoic acid	U	696	ug/kg	174	696
91-20-3	Naphthalene	U	34.8	ug/kg	10.4	34.8
106-47-8	4-Chloroaniline	U	348	ug/kg	69.6	348
87-68-3	Hexachlorobutadiene	U	348	ug/kg	69.6	348
91-57-6	2-Methylnaphthalene	U	34.8	ug/kg	6.96	34.8
77-47-4	Hexachlorocyclopentadiene	U	348	ug/kg	69.6	348
88-06-2	2,4,6-Trichlorophenol	U	348	ug/kg	69.6	348
95-95-4	2,4,5-Trichlorophenol	U	348	ug/kg	69.6	348
91-58-7	2-Chloronaphthalene	U	34.8	ug/kg	11.5	34.8
88-74-4	2-Nitroaniline	U	348	ug/kg	69.6	348
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	348	ug/kg	69.6	348

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-901**	**Date Collected:**	**12/10/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242794001**	**Date Received:**	**12/12/2009 09:35**	**%Moisture:**	**4.4**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-13470**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**932444**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**12/17/2009 00:08**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/14/2009 09:47**	**Aliquot:**	**30.03 g**	**Final Volume:**	**1 mL**
Data File:	**s6l1632.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	348	ug/kg	69.6	348
606-20-2	2,6-Dinitrotoluene	U	348	ug/kg	34.8	348
208-96-8	Acenaphthylene	U	34.8	ug/kg	10.4	34.8
51-28-5	2,4-Dinitrophenol	U	696	ug/kg	132	696
132-64-9	Dibenzofuran	U	348	ug/kg	69.6	348
84-66-2	Diethylphthalate	U	348	ug/kg	69.6	348
86-73-7	Fluorene	U	34.8	ug/kg	10.4	34.8
7005-72-3	4-Chlorophenylphenylether	U	348	ug/kg	69.6	348
534-52-1	2-Methyl-4,6-dinitrophenol	U	348	ug/kg	69.6	348
100-01-6	4-Nitroaniline	U	348	ug/kg	104	348
	p-Nitroaniline					
122-39-4	Diphenylamine	U	348	ug/kg	69.6	348
122-66-7	Azobenzene	U	348	ug/kg	69.6	348
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	348	ug/kg	69.6	348
118-74-1	Hexachlorobenzene	U	348	ug/kg	69.6	348
85-01-8	Phenanthrene	U	34.8	ug/kg	10.4	34.8
120-12-7	Anthracene	U	34.8	ug/kg	6.96	34.8
84-74-2	Di-n-butylphthalate	U	348	ug/kg	69.6	348
206-44-0	Fluoranthene	U	34.8	ug/kg	10.4	34.8
85-68-7	Butylbenzylphthalate	U	348	ug/kg	69.6	348
56-55-3	Benzo(a)anthracene	U	34.8	ug/kg	10.4	34.8
91-94-1	3,3'-Dichlorobenzidine	U	348	ug/kg	104	348
218-01-9	Chrysene	U	34.8	ug/kg	10.4	34.8
117-81-7	bis(2-Ethylhexyl)phthalate	U	348	ug/kg	69.6	348
117-84-0	Di-n-octylphthalate	U	348	ug/kg	69.6	348
205-99-2	Benzo(b)fluoranthene	U	34.8	ug/kg	10.4	34.8
207-08-9	Benzo(k)fluoranthene	U	34.8	ug/kg	10.4	34.8
50-32-8	Benzo(a)pyrene	U	34.8	ug/kg	10.4	34.8
193-39-5	Indeno(1,2,3-cd)pyrene	U	34.8	ug/kg	10.4	34.8
53-70-3	Dibenzo(a,h)anthracene	U	34.8	ug/kg	10.4	34.8
191-24-2	Benzo(ghi)perylene	U	34.8	ug/kg	10.4	34.8
120-82-1	1,2,4-Trichlorobenzene	U	348	ug/kg	69.6	348

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	3.45	627	ug/kg		JA
301-02-0	9-Octadecenamide, (Z)-	11.85	253	ug/kg	97	NJ

GEL Laboratories LLC

Data file : /chem/MSD6.i/s121609.b/s611632.d
Lab Smp Id: 242794001 Client Smp ID: RE03-09-13470
Inj Date : 17-DEC-2009 00:08
Operator : nagl Inst ID: MSD6.i
Smp Info : |242794001|932444|1|SVMF|1|LANL
Misc Info : |MSD8270_S|WBN091208-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s121609.b/MSD6-M8270C-AQA-110909.m
Meth Date : 17-Dec-2009 08:11 nat00999 Quant Type: ISTD
Cal Date : 11-NOV-2009 04:38 Cal File: s6k0954.d
Als bottle: 23
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-901.sub
Target Version: 3.50
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.03000	weight of sample
M	4.36000	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	4.847	4.849	(1.000)	131828	40.0000	(Q)
* 29 Naphthalene-d8	136	6.128	6.131	(1.000)	592979	40.0000	
* 46 Acenaphthene-d10	164	8.001	8.001	(1.000)	413552	40.0000	
* 67 Phenanthrene-d10	188	9.614	9.611	(1.000)	807799	40.0000	
* 91 Chrysene-d12	240	12.634	12.633	(1.000)	540286	40.0000	
* 98 Perylene-d12	264	14.975	14.973	(1.000)	330054	40.0000	
$ 3 2-Fluorophenol	112	3.687	3.674	(0.761)	314932	95.3972	3320
$ 5 Phenol-d5	99	4.462	4.457	(0.921)	341543	81.9706	2850
$ 20 Nitrobenzene-d5	82	5.384	5.389	(0.879)	118024	28.1364	980
$ 39 2-Fluorobiphenyl	172	7.255	7.254	(0.907)	276194	25.9153	902
$ 60 2,4,6-Tribromophenol	329	8.852	8.850	(1.106)	94759	78.5049	2730
$ 81 p-Terphenyl-d14	244	11.319	11.316	(0.896)	428428	49.1710	1710

QC Flag Legend

Q - Qualifier signal failed the ratio test.

ION RATIO REPORT

SV REPORT

Data file: s611632.d
Report Date: 12/17/2009 08:35
Lab. ID: 242794001 SampleType: SAMPLE
Injection Date: 17-DEC-2009 00:08
Operator: nag1 Instrument: MSD6.i
Sample Info: |242794001|932444|1|SVMF|1|LANL
Miscellaneous Info: |MSD8270_S|WBN091208-01
Comment:
Method used: /chem/MSD6.i/s121609.b/MSD6-M8270C-AQA-110909.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-901
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
1 N-Methyl-N-nitrosomethylamine				CAS#: 62-75-9		
74	4675	2.40	2.70	80-120	100	(T)
42	2138	2.40	2.70	59-119	46	(QT)
43	17022	2.40	2.70	8- 68	364	(QT)
4 Aniline				CAS#: 62-53-3		
66	14607	4.46	4.54	80-120	100	(T)
93	104	4.58	4.54	228-288	1	(Q)
17 N-Nitrosodipropylamine				CAS#: 621-64-7		
70	8731	5.36	5.23	80-120	100	(T)
42	5029	5.37	5.23	40-100	58	(T)
22 Isophorone				CAS#: 78-59-1		
82	118024	5.38	5.64	80-120	100	(T)
138	1680	6.11	5.64	0- 49	1	(T)
43 Dimethylphthalate				CAS#: 131-11-3		
163	72708	8.00	7.69	80-120	100	(T)
164	413552	8.00	7.69	0- 40	569	(QT)
50 2,4-Dinitrotoluene				CAS#: 121-14-2		
165	53567	8.00	8.19	80-120	100	(T)
89	477	8.00	8.19	40-100	1	(QT)
63	321	8.00	8.19	17- 77	1	(QT)

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
53 Fluorene			CAS#: 86-73-7			
166	5896	8.85	8.59	80-120	100	(T)
165	5749	8.85	8.59	62-122	98	(T)
167	2087	8.85	8.59	0- 44	35	(T)
55 2-Methyl-4,6-dinitrophenol			CAS#: 534-52-1			
198	104	8.85	8.63	80-120	100	(T)
105	537	8.85	8.63	11- 71	516	(QT)
51	132	8.84	8.63	21- 81	127	(QT)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

Data file : /chem/MSD6.i/s121609.b/s611632.d
Lab Smp Id: 242794001 Client Smp ID: RE03-09-13470
Inj Date : 17-DEC-2009 00:08
Operator : nag1 Inst ID: MSD6.i
Smp Info : |242794001|932444|1|SVMF|1|LANL
Misc Info : |MSD8270_S|WBN091208-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s121609.b/MSD6-M8270C-AQA-110909.m
Meth Date : 17-Dec-2009 08:11 nat00999 Quant Type: ISTD
Cal Date : 11-NOV-2009 04:38 Cal File: s6k0954.d
Als bottle: 23
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-901.sub
Target Version: 3.50
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.03000	weight of sample
M	4.36000	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	4.847	762625	40.000
* 91 Chrysene-d12	12.634	1450139	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown Aldol Condensate					CAS #:		
3.453	343238	18.0029487	627	0		0	10

RT	AREA	CONCENTRATIONS ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	QUANT LIBRARY	LIB ENTRY	CPND #
9-Octadecenamide, (Z)-					CAS #: 301-02-0		
11.849	263635	7.27198805	253	97	NIST05.L	112657	91

Data File: /chem/MSD6.i/s121609.b/s611632.d
Date : 17-DEC-2009 00:08
Client ID: RE03-09-13470
Sample Info: |2427940011932444|1|SVMF|1|LANL
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Page 1

Instrument: MSD6.i

Operator: nag1
Column diameter: 0.20

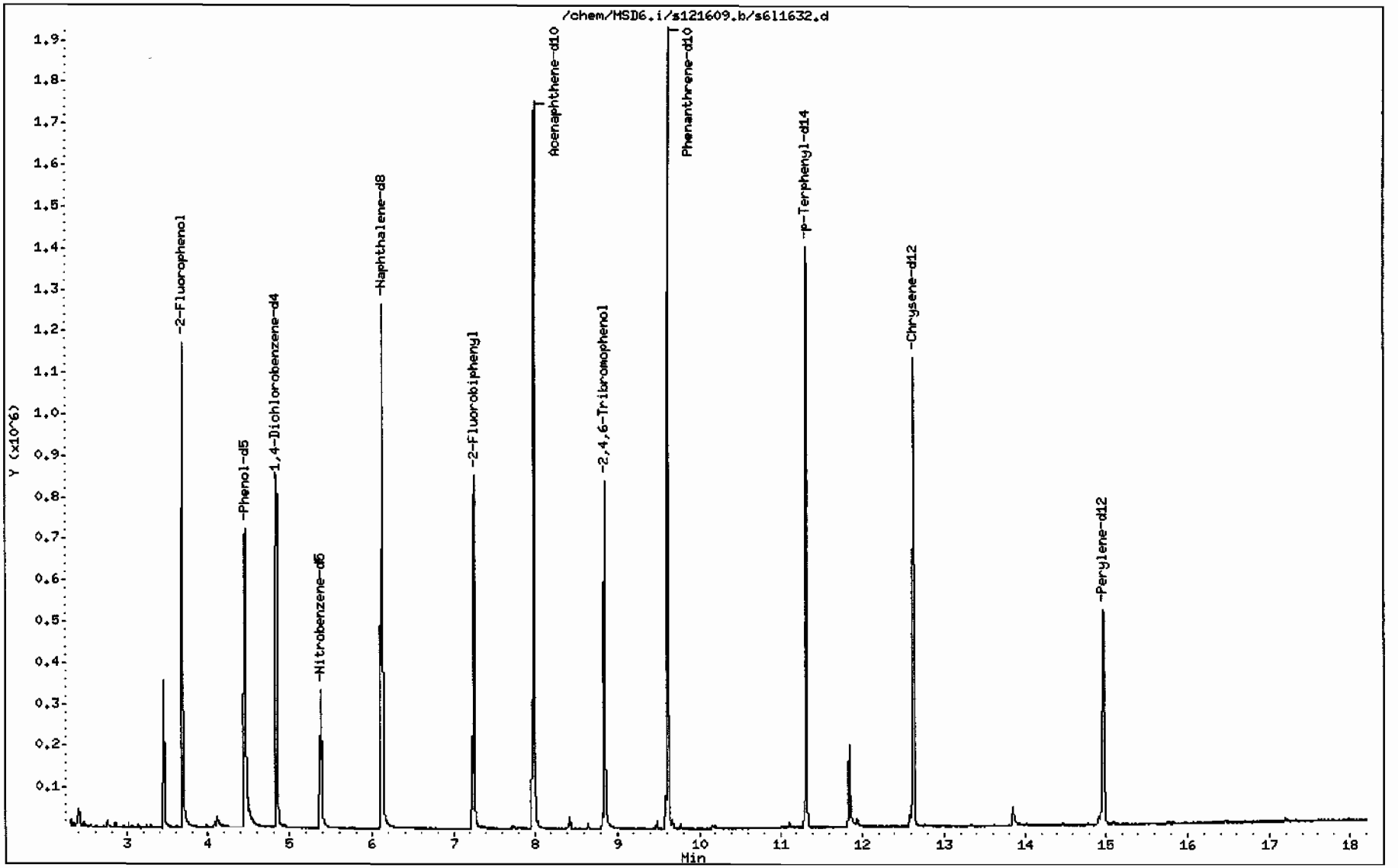

Data File: /chem/MSD6.i/s121609.b/s611632.d

Date : 17-DEC-2009 00:08

Client ID: RE03-09-13470

Instrument: MSD6.i

Sample Info: |2427940011932444|1|SVMF|1|LANL

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	59	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	38	C6H12O2	116
Acetic acid, cyano-, methyl ester	105-34-0	NIST05.L	3380	9	C4H5NO2	99

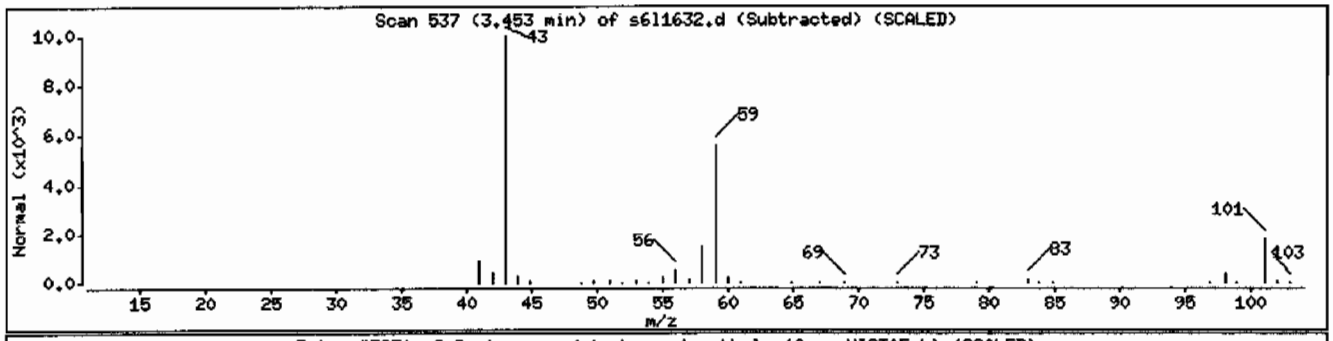

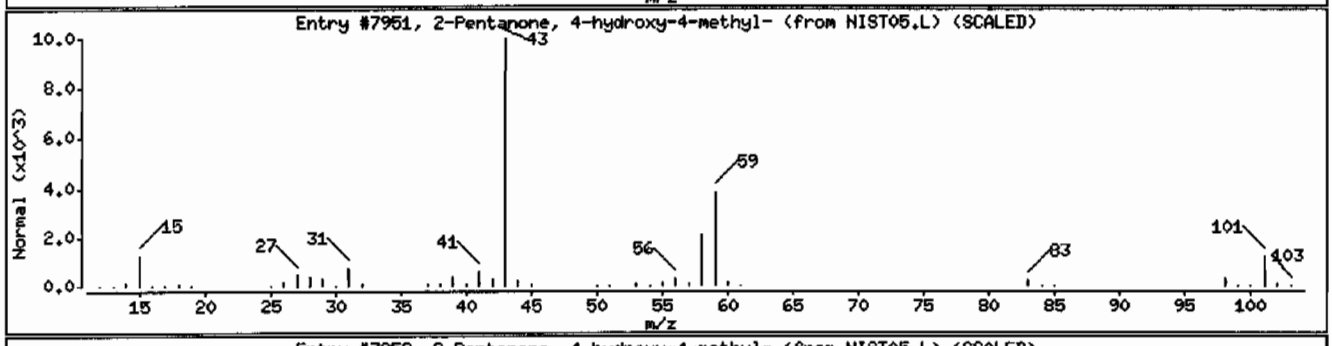

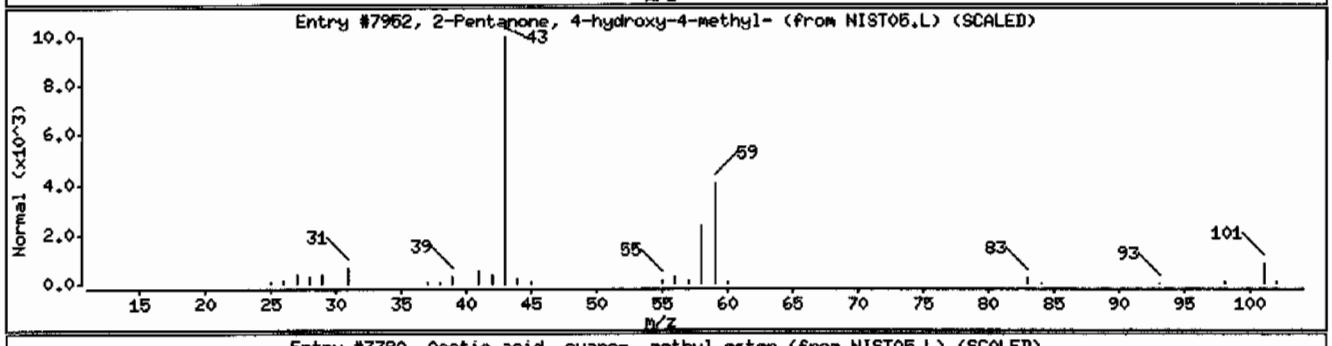

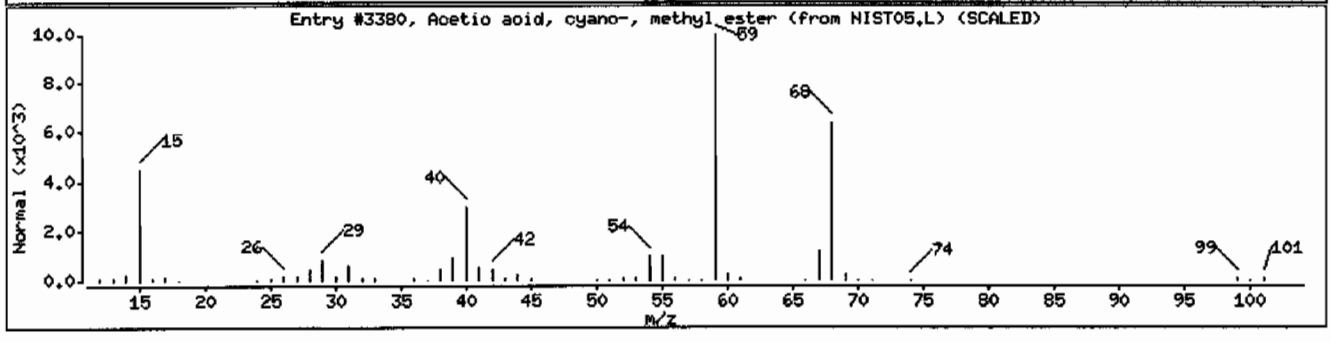

Data File: /chem/MSD6.i/s121609.b/s611632.d

Date : 17-DEC-2009 00:08

Client ID: RE03-09-13470

Instrument: MSD6.i

Sample Info: 1242794001|932444|1|SVMF|1|LANL

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
9-Octadecenamide, (Z)-	301-02-0	NIST05.L	112657	97	C18H35NO	281
9-Octadecenamide, (Z)-	301-02-0	NIST05.L	112656	94	C18H35NO	281
9-Octadecenamide, (Z)-	301-02-0	NIST05.L	112655	90	C18H35NO	281

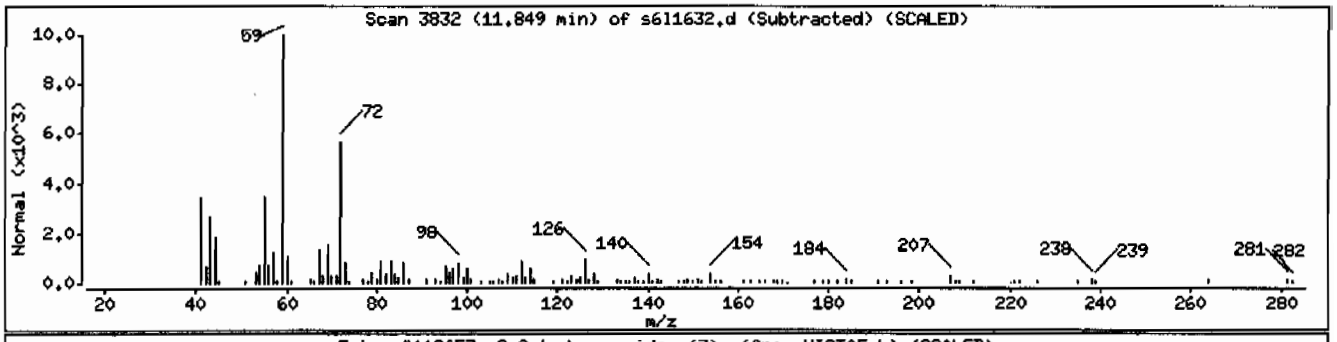

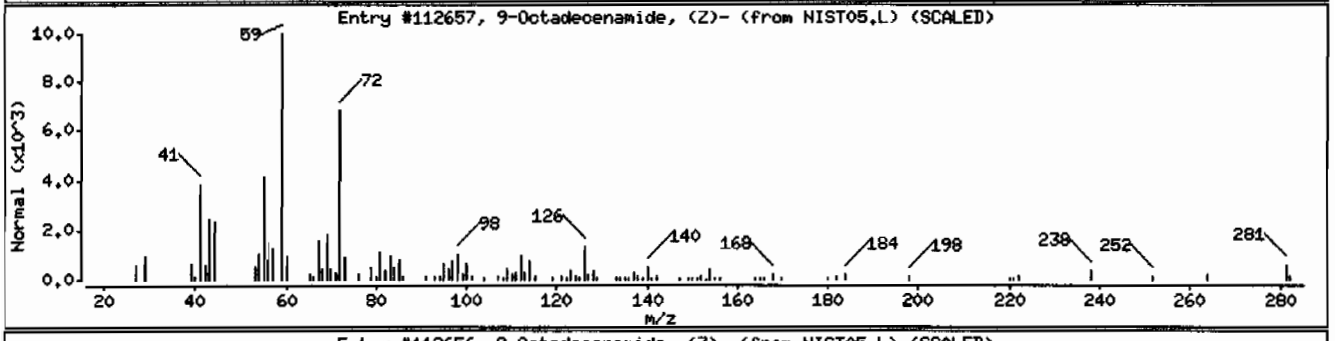

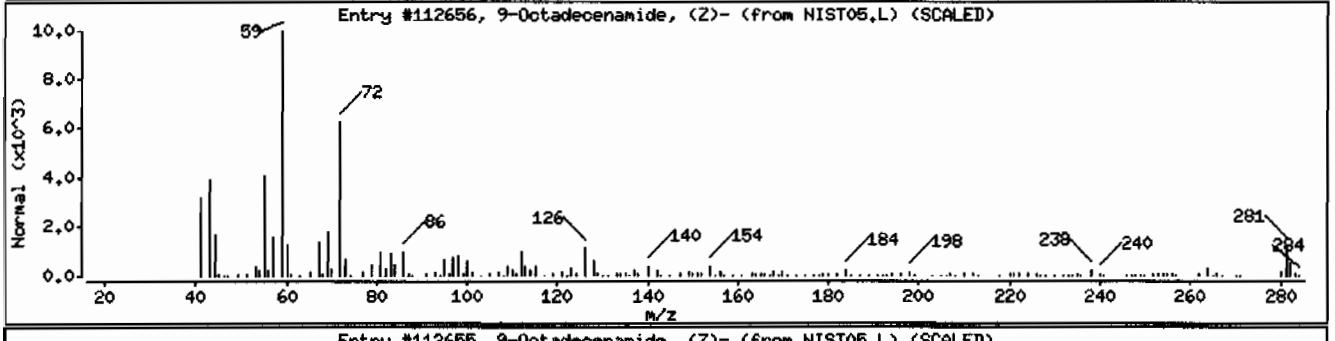

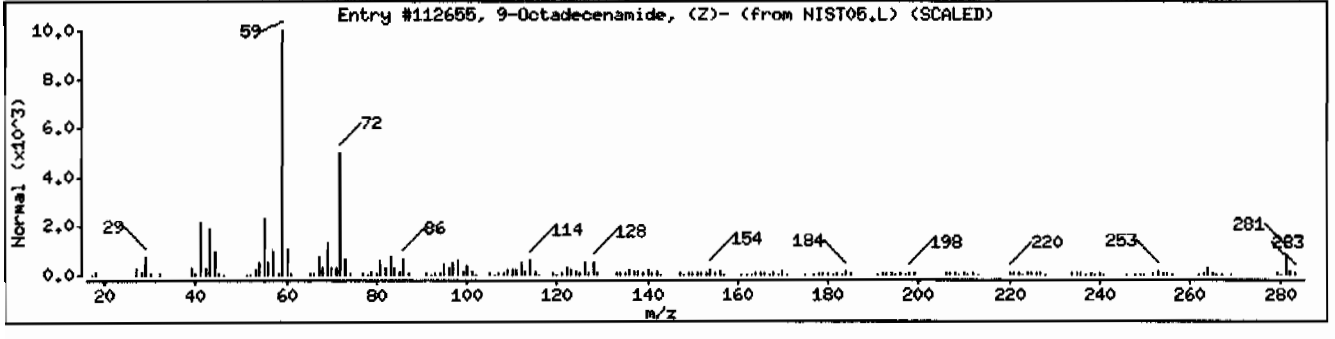

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-901	Date Collected:	12/10/2009 12:00	Matrix:	S
Lab Sample ID:	242794002	Date Received:	12/12/2009 09:35	%Moisture:	4.3
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-13471	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	932444	Inst:	MSD6.I	Dilution:	1
Run Date:	12/17/2009 00:36	Analyst:	NAG1	Inj. Vol:	.5 uL
Prep Date:	12/14/2009 09:47	Aliquot:	30.03 g	Final Volume:	1 mL
Data File:	s6l1633.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	348	ug/kg	69.6	348
108-95-2	Phenol	U	348	ug/kg	69.6	348
95-57-8	2-Chlorophenol	U	348	ug/kg	69.6	348
106-46-7	1,4-Dichlorobenzene	U	348	ug/kg	69.6	348
621-64-7	N-Nitrosodipropylamine	U	348	ug/kg	69.6	348
59-50-7	4-Chloro-3-methylphenol	U	348	ug/kg	69.6	348
83-32-9	Acenaphthene	U	34.8	ug/kg	11.5	34.8
121-14-2	2,4-Dinitrotoluene	U	348	ug/kg	34.8	348
100-02-7	4-Nitrophenol	U	348	ug/kg	115	348
87-86-5	Pentachlorophenol	U	348	ug/kg	87.0	348
129-00-0	Pyrene	U	34.8	ug/kg	10.4	34.8
110-86-1	Pyridine	U	348	ug/kg	69.6	348
62-53-3	Aniline	U	348	ug/kg	104	348
111-44-4	bis(2-Chloroethyl) ether	U	348	ug/kg	69.6	348
541-73-1	1,3-Dichlorobenzene	U	348	ug/kg	69.6	348
100-51-6	Benzyl alcohol	U	348	ug/kg	104	348
95-50-1	1,2-Dichlorobenzene	U	348	ug/kg	69.6	348
108-60-1	bis(2-Chloroisopropyl)ether	U	348	ug/kg	69.6	348
95-48-7	o-Cresol	U	348	ug/kg	69.6	348
65794-96-9	m,p-Cresols	U	348	ug/kg	104	348
67-72-1	Hexachloroethane	U	348	ug/kg	69.6	348
98-95-3	Nitrobenzene	U	348	ug/kg	69.6	348
78-59-1	Isophorone	U	348	ug/kg	69.6	348
88-75-5	2-Nitrophenol	U	348	ug/kg	69.6	348
105-67-9	2,4-Dimethylphenol	U	348	ug/kg	122	348
111-91-1	bis(2-Chloroethoxy)methane	U	348	ug/kg	69.6	348
120-83-2	2,4-Dichlorophenol	U	348	ug/kg	69.6	348
65-85-0	Benzoic acid	U	696	ug/kg	174	696
91-20-3	Naphthalene	U	34.8	ug/kg	10.4	34.8
106-47-8	4-Chloroaniline	U	348	ug/kg	69.6	348
87-68-3	Hexachlorobutadiene	U	348	ug/kg	69.6	348
91-57-6	2-Methylnaphthalene	U	34.8	ug/kg	6.96	34.8
77-47-4	Hexachlorocyclopentadiene	U	348	ug/kg	69.6	348
88-06-2	2,4,6-Trichlorophenol	U	348	ug/kg	69.6	348
95-95-4	2,4,5-Trichlorophenol	U	348	ug/kg	69.6	348
91-58-7	2-Chloronaphthalene	U	34.8	ug/kg	11.5	34.8
88-74-4	2-Nitroaniline	U	348	ug/kg	69.6	348
	o-Nitroaniline					
99-09-2	3-Nitroaniline	U	348	ug/kg	69.6	348

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-901	Date Collected:	12/10/2009 12:00	Matrix:	S
Lab Sample ID:	242794002	Date Received:	12/12/2009 09:35	%Moisture:	4.3
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-13471	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	932444	Inst:	MSD6.I	Dilution:	1
Run Date:	12/17/2009 00:36	Analyst:	NAG1	Inj. Vol:	.5 uL
Prep Date:	12/14/2009 09:47	Aliquot:	30.03 g	Final Volume:	1 mL
Data File:	s6l1633.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	348	ug/kg	69.6	348
606-20-2	2,6-Dinitrotoluene	U	348	ug/kg	34.8	348
208-96-8	Acenaphthylene	U	34.8	ug/kg	10.4	34.8
51-28-5	2,4-Dinitrophenol	U	696	ug/kg	132	696
132-64-9	Dibenzofuran	U	348	ug/kg	69.6	348
84-66-2	Diethylphthalate	U	348	ug/kg	69.6	348
86-73-7	Fluorene	U	34.8	ug/kg	10.4	34.8
7005-72-3	4-Chlorophenylphenylether	U	348	ug/kg	69.6	348
534-52-1	2-Methyl-4,6-dinitrophenol	U	348	ug/kg	69.6	348
100-01-6	4-Nitroaniline	U	348	ug/kg	104	348
	p-Nitroaniline					
122-39-4	Diphenylamine	U	348	ug/kg	69.6	348
122-66-7	Azobenzene	U	348	ug/kg	69.6	348
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	348	ug/kg	69.6	348
118-74-1	Hexachlorobenzene	U	348	ug/kg	69.6	348
85-01-8	Phenanthrene	U	34.8	ug/kg	10.4	34.8
120-12-7	Anthracene	U	34.8	ug/kg	6.96	34.8
84-74-2	Di-n-butylphthalate	U	348	ug/kg	69.6	348
206-44-0	Fluoranthene	U	34.8	ug/kg	10.4	34.8
85-68-7	Butylbenzylphthalate	U	348	ug/kg	69.6	348
56-55-3	Benzo(a)anthracene	U	34.8	ug/kg	10.4	34.8
91-94-1	3,3'-Dichlorobenzidine	U	348	ug/kg	104	348
218-01-9	Chrysene	U	34.8	ug/kg	10.4	34.8
117-81-7	bis(2-Ethylhexyl)phthalate	U	348	ug/kg	69.6	348
117-84-0	Di-n-octylphthalate	U	348	ug/kg	69.6	348
205-99-2	Benzo(b)fluoranthene	U	34.8	ug/kg	10.4	34.8
207-08-9	Benzo(k)fluoranthene	U	34.8	ug/kg	10.4	34.8
50-32-8	Benzo(a)pyrene	U	34.8	ug/kg	10.4	34.8
193-39-5	Indeno(1,2,3-cd)pyrene	U	34.8	ug/kg	10.4	34.8
53-70-3	Dibenzo(a,h)anthracene	U	34.8	ug/kg	10.4	34.8
191-24-2	Benzo(ghi)perylene	U	34.8	ug/kg	10.4	34.8
120-82-1	1,2,4-Trichlorobenzene	U	348	ug/kg	69.6	348

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	3.45	391	ug/kg		JA

GEL Laboratories LLC

Data file : /chem/MSD6.i/s121609.b/s611633.d
Lab Smp Id: 242794002 Client Smp ID: RE03-09-13471
Inj Date : 17-DEC-2009 00:36
Operator : nagl Inst ID: MSD6.i
Smp Info : |242794002|932444|1|SVMF|1|LANL
Misc Info : |MSD8270_S|WBN091208-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s121609.b/MSD6-M8270C-AQA-110909.m
Meth Date : 17-Dec-2009 08:11 nat00999 Quant Type: ISTD
Cal Date : 11-NOV-2009 04:38 Cal File: s6k0954.d
Als bottle: 24
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-901.sub
Target Version: 3.50
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.03000	weight of sample
M	4.29000	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	4.846	4.849	(1.000)	222101	40.0000	
* 29 Naphthalene-d8	136	6.128	6.131	(1.000)	850020	40.0000	
* 46 Acenaphthene-d10	164	8.001	8.001	(1.000)	471437	40.0000	
* 67 Phenanthrene-d10	188	9.614	9.611	(1.000)	817380	40.0000	
* 91 Chrysene-d12	240	12.633	12.633	(1.000)	600621	40.0000	
* 98 Perylene-d12	264	14.975	14.973	(1.000)	352085	40.0000	
$ 3 2-Fluorophenol	112	3.689	3.674	(0.761)	322933	58.0615	2020
$ 5 Phenol-d5	99	4.462	4.457	(0.921)	416008	59.2613	2060
$ 20 Nitrobenzene-d5	82	5.384	5.389	(0.879)	174879	29.0835	1010
$ 39 2-Fluorobiphenyl	172	7.254	7.254	(0.907)	357450	29.4214	1020
$ 60 2,4,6-Tribromophenol	329	8.852	8.850	(1.106)	102185	74.2625	2580
$ 81 p-Terphenyl-d14	244	11.321	11.316	(0.896)	443180	45.7546	1590

ION RATIO REPORT

SV REPORT

Data file: s611633.d
Report Date: 12/17/2009 08:36
Lab. ID: 242794002 SampleType: SAMPLE
Injection Date: 17-DEC-2009 00:36
Operator: nagl Instrument: MSD6.i
Sample Info: |242794002|932444|1|SVMF|1|LANL
Miscellaneous Info: |MSD8270_S|WBN091208-01
Comment:
Method used: /chem/MSD6.i/s121609.b/MSD6-M8270C-AQA-110909.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-901
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
1 N-Methyl-N-nitrosomethylamine				CAS#: 62-75-9		
74	7817	2.39	2.70	80-120	100	(T)
42	276	2.38	2.70	59-119	4	(QT)
43	12793	2.41	2.70	8- 68	164	(QT)
4 Aniline				CAS#: 62-53-3		
66	19928	4.46	4.54	80-120	100	(T)
93	111	4.58	4.54	228-288	1	(Q)
17 N-Nitrosodipropylamine				CAS#: 621-64-7		
70	24364	5.38	5.23	80-120	100	(T)
42	13508	5.38	5.23	40-100	55	(T)
22 Isophorone				CAS#: 78-59-1		
82	174879	5.38	5.64	80-120	100	(T)
138	4115	6.13	5.64	0- 49	2	(T)
43 Dimethylphthalate				CAS#: 131-11-3		
163	82941	8.00	7.69	80-120	100	(T)
164	471437	8.00	7.69	0- 40	568	(QT)
50 2,4-Dinitrotoluene				CAS#: 121-14-2		
165	61288	8.00	8.19	80-120	100	(T)
89	432	8.00	8.19	40-100	1	(QT)
63	1167	8.01	8.19	17- 77	2	(QT)

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
53 Fluorene			CAS#: 86-73-7			
166	6576	8.85	8.59	80-120	100	(T)
165	5871	8.85	8.59	62-122	89	(T)
167	1461	8.85	8.59	0- 44	22	(T)
55 2-Methyl-4,6-dinitrophenol				CAS#: 534-52-1		
198	165	8.85	8.63	80-120	100	(T)
105	618	8.85	8.63	11- 71	373	(QT)
51	616	8.85	8.63	21- 81	372	(QT)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

Data file : /chem/MSD6.i/s121609.b/s611633.d
Lab Smp Id: 242794002 Client Smp ID: RE03-09-13471
Inj Date : 17-DEC-2009 00:36
Operator : nagl Inst ID: MSD6.i
Smp Info : |242794002|932444|1|SVMF|1|LANL
Misc Info : |MSD8270_S|WBN091208-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s121609.b/MSD6-M8270C-AQA-110909.m
Meth Date : 17-Dec-2009 08:11 nat00999 Quant Type: ISTD
Cal Date : 11-NOV-2009 04:38 Cal File: s6k0954.d
Als bottle: 24
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-901.sub
Target Version: 3.50
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.03000	weight of sample
M	4.29000	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	4.846	1295746	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown Aldol Condensate					CAS #:		
3.453	363999	11.2367349	391	0		0	10

Data File: /chem/MSD6.i/s121609.b/s611633.d
Date : 17-DEC-2009 00:36
Client ID: RE03-09-13471
Sample Info: |2427940021932444|1|SVMF|1|LANL
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Page 1

Instrument: MSD6.i

Operator: nagl
Column diameter: 0.20

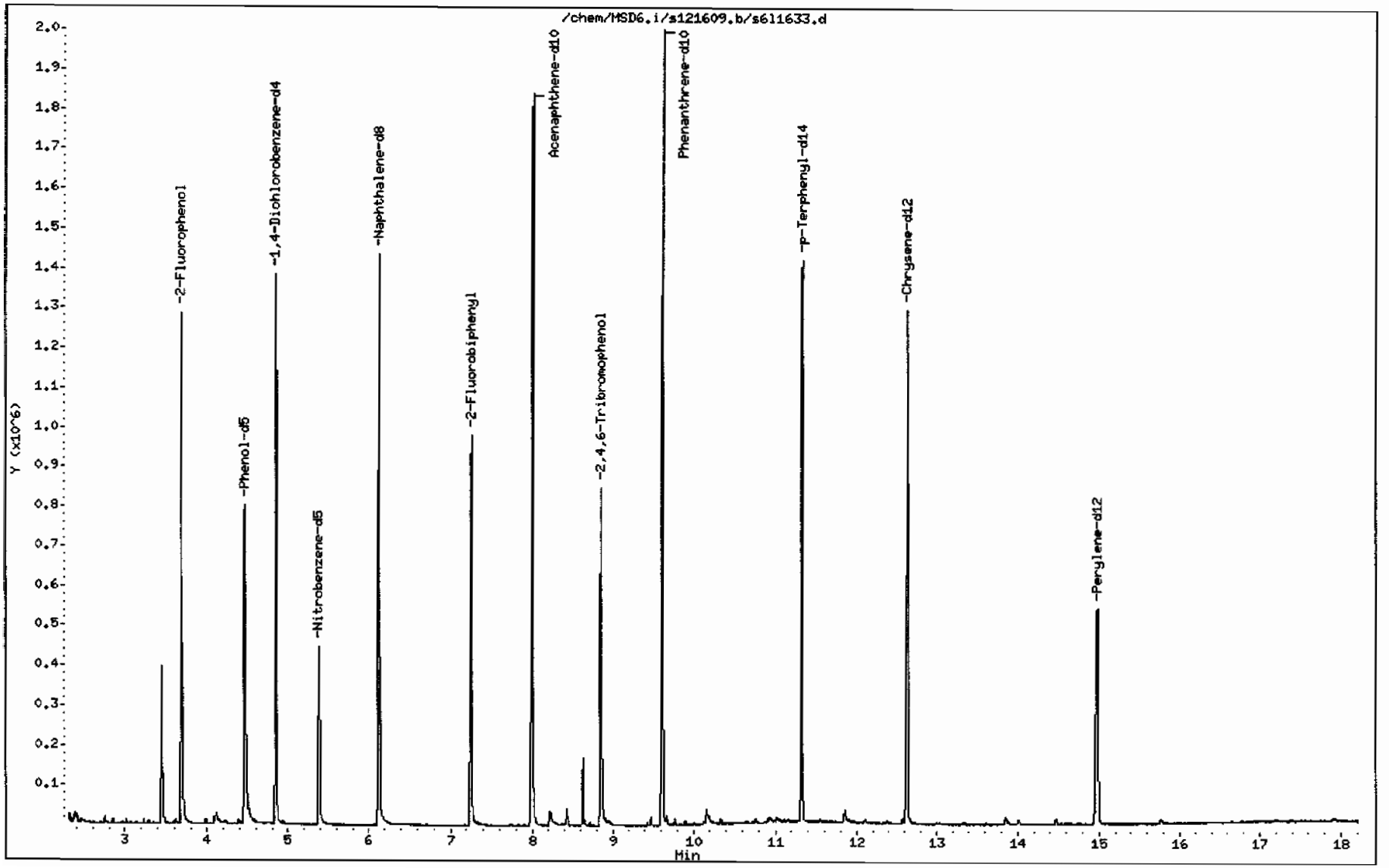

Data File: /chem/MSD6.i/s121609.b/s611633.d

Date : 17-DEC-2009 00:36

Client ID: RE03-09-13471

Instrument: MSD6.i

Sample Info: 1242794002193244411SVMF11LANL

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7945	59	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	56	C6H12O2	116
Acetic acid, 1,1-dimethylethyl ester	540-88-5	NIST05.L	7977	39	C6H12O2	116

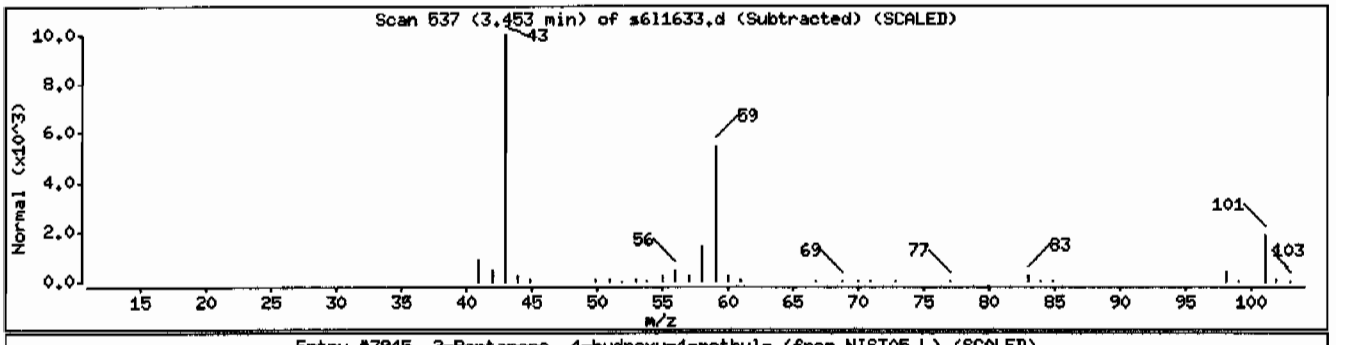

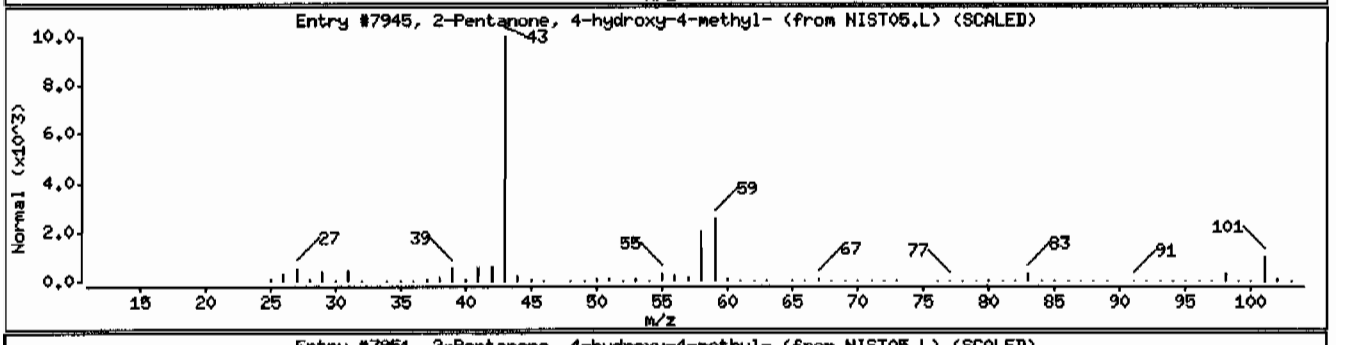

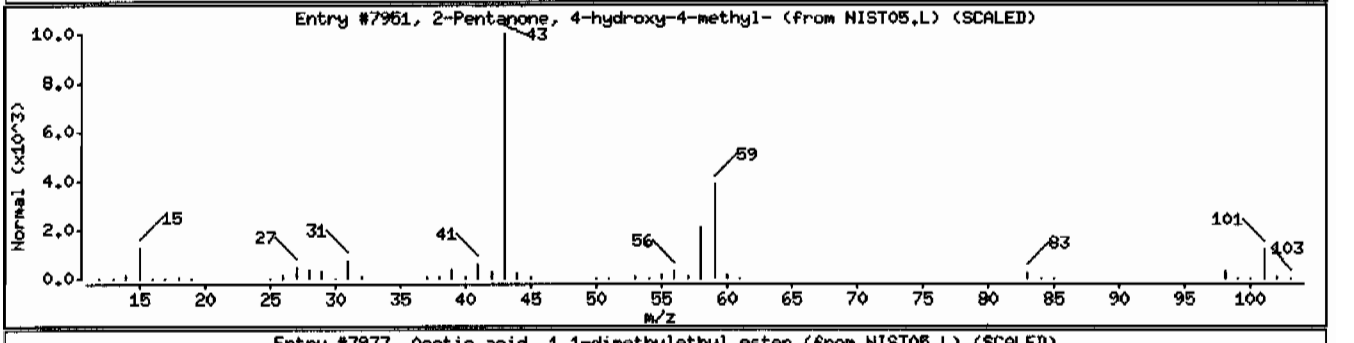

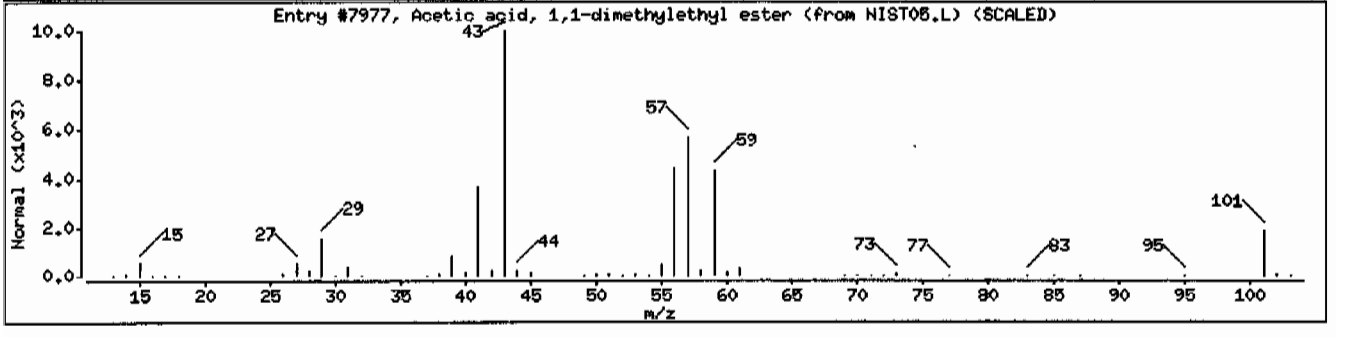

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-901	Date Collected:	12/10/2009 12:00	Matrix:	S
Lab Sample ID:	242794003	Date Received:	12/12/2009 09:35	%Moisture:	7.7
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-13472	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	932444	Inst:	MSD6.I	Dilution:	1
Run Date:	12/17/2009 01:03	Analyst:	NAG1	Inj. Vol:	.5 uL
Prep Date:	12/14/2009 09:47	Aliquot:	30 g	Final Volume:	1 mL
Data File:	s6l1634.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	361	ug/kg	72.2	361
108-95-2	Phenol	U	361	ug/kg	72.2	361
95-57-8	2-Chlorophenol	U	361	ug/kg	72.2	361
106-46-7	1,4-Dichlorobenzene	U	361	ug/kg	72.2	361
621-64-7	N-Nitrosodipropylamine	U	361	ug/kg	72.2	361
59-50-7	4-Chloro-3-methylphenol	U	361	ug/kg	72.2	361
83-32-9	Acenaphthene	U	36.1	ug/kg	11.9	36.1
121-14-2	2,4-Dinitrotoluene	U	361	ug/kg	36.1	361
100-02-7	4-Nitrophenol	U	361	ug/kg	119	361
87-86-5	Pentachlorophenol	U	361	ug/kg	90.3	361
129-00-0	Pyrene	U	36.1	ug/kg	10.8	36.1
110-86-1	Pyridine	U	361	ug/kg	72.2	361
62-53-3	Aniline	U	361	ug/kg	108	361
111-44-4	bis(2-Chloroethyl) ether	U	361	ug/kg	72.2	361
541-73-1	1,3-Dichlorobenzene	U	361	ug/kg	72.2	361
100-51-6	Benzyl alcohol	U	361	ug/kg	108	361
95-50-1	1,2-Dichlorobenzene	U	361	ug/kg	72.2	361
108-60-1	bis(2-Chloroisopropyl)ether	U	361	ug/kg	72.2	361
95-48-7	o-Cresol	U	361	ug/kg	72.2	361
65794-96-9	m,p-Cresols	U	361	ug/kg	108	361
67-72-1	Hexachloroethane	U	361	ug/kg	72.2	361
98-95-3	Nitrobenzene	U	361	ug/kg	72.2	361
78-59-1	Isophorone	U	361	ug/kg	72.2	361
88-75-5	2-Nitrophenol	U	361	ug/kg	72.2	361
105-67-9	2,4-Dimethylphenol	U	361	ug/kg	126	361
111-91-1	bis(2-Chloroethoxy)methane	U	361	ug/kg	72.2	361
120-83-2	2,4-Dichlorophenol	U	361	ug/kg	72.2	361
65-85-0	Benzoic acid	U	722	ug/kg	181	722
91-20-3	Naphthalene	U	36.1	ug/kg	10.8	36.1
106-47-8	4-Chloroaniline	U	361	ug/kg	72.2	361
87-68-3	Hexachlorobutadiene	U	361	ug/kg	72.2	361
91-57-6	2-Methylnaphthalene	U	36.1	ug/kg	7.22	36.1
77-47-4	Hexachlorocyclopentadiene	U	361	ug/kg	72.2	361
88-06-2	2,4,6-Trichlorophenol	U	361	ug/kg	72.2	361
95-95-4	2,4,5-Trichlorophenol	U	361	ug/kg	72.2	361
91-58-7	2-Chloronaphthalene	U	36.1	ug/kg	11.9	36.1
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	361	ug/kg	72.2	361
99-09-2	3-Nitroaniline	U	361	ug/kg	72.2	361

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-901**	**Date Collected:**	**12/10/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242794003**	**Date Received:**	**12/12/2009 09:35**	**%Moisture:**	**7.7**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-13472**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**932444**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**12/17/2009 01:03**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/14/2009 09:47**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**s6l1634.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	361	ug/kg	72.2	361
606-20-2	2,6-Dinitrotoluene	U	361	ug/kg	36.1	361
208-96-8	Acenaphthylene	U	36.1	ug/kg	10.8	36.1
51-28-5	2,4-Dinitrophenol	U	722	ug/kg	137	722
132-64-9	Dibenzofuran	U	361	ug/kg	72.2	361
84-66-2	Diethylphthalate	U	361	ug/kg	72.2	361
86-73-7	Fluorene	U	36.1	ug/kg	10.8	36.1
7005-72-3	4-Chlorophenylphenylether	U	361	ug/kg	72.2	361
534-52-1	2-Methyl-4,6-dinitrophenol	U	361	ug/kg	72.2	361
100-01-6	4-Nitroaniline	U	361	ug/kg	108	361
	p-Nitroaniline					
122-39-4	Diphenylamine	U	361	ug/kg	72.2	361
122-66-7	Azobenzene	U	361	ug/kg	72.2	361
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	361	ug/kg	72.2	361
118-74-1	Hexachlorobenzene	U	361	ug/kg	72.2	361
85-01-8	Phenanthrene	U	36.1	ug/kg	10.8	36.1
120-12-7	Anthracene	U	36.1	ug/kg	7.22	36.1
84-74-2	Di-n-butylphthalate	U	361	ug/kg	72.2	361
206-44-0	Fluoranthene	U	36.1	ug/kg	10.8	36.1
85-68-7	Butylbenzylphthalate	U	361	ug/kg	72.2	361
56-55-3	Benzo(a)anthracene	U	36.1	ug/kg	10.8	36.1
91-94-1	3,3'-Dichlorobenzidine	U	361	ug/kg	108	361
218-01-9	Chrysene	U	36.1	ug/kg	10.8	36.1
117-81-7	bis(2-Ethylhexyl)phthalate	U	361	ug/kg	72.2	361
117-84-0	Di-n-octylphthalate	U	361	ug/kg	72.2	361
205-99-2	Benzo(b)fluoranthene	U	36.1	ug/kg	10.8	36.1
207-08-9	Benzo(k)fluoranthene	U	36.1	ug/kg	10.8	36.1
50-32-8	Benzo(a)pyrene	U	36.1	ug/kg	10.8	36.1
193-39-5	Indeno(1,2,3-cd)pyrene	U	36.1	ug/kg	10.8	36.1
53-70-3	Dibenzo(a,h)anthracene	U	36.1	ug/kg	10.8	36.1
191-24-2	Benzo(ghi)perylene	U	36.1	ug/kg	10.8	36.1
120-82-1	1,2,4-Trichlorobenzene	U	361	ug/kg	72.2	361

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	3.45	402	ug/kg		JA

GEL Laboratories LLC

Data file : /chem/MSD6.i/s121609.b/s611634.d
Lab Smp Id: 242794003 Client Smp ID: RE03-09-13472
Inj Date : 17-DEC-2009 01:03
Operator : nagl Inst ID: MSD6.i
Smp Info : |242794003|932444|1|SVMF|1|LANL
Misc Info : |MSD8270_S|WBN091208-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s121609.b/MSD6-M8270C-AQA-110909.m
Meth Date : 17-Dec-2009 08:11 nat00999 Quant Type: ISTD
Cal Date : 11-NOV-2009 04:38 Cal File: s6k0954.d
Als bottle: 25
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-901.sub
Target Version: 3.50
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	7.70000	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	4.849	4.849	(1.000)	181317	40.0000	
* 29 Naphthalene-d8	136	6.128	6.131	(1.000)	757889	40.0000	
* 46 Acenaphthene-d10	164	8.001	8.001	(1.000)	447987	40.0000	
* 67 Phenanthrene-d10	188	9.614	9.611	(1.000)	791580	40.0000	
* 91 Chrysene-d12	240	12.633	12.633	(1.000)	595155	40.0000	
* 98 Perylene-d12	264	14.978	14.973	(1.000)	392196	40.0000	
$ 3 2-Fluorophenol	112	3.690	3.674	(0.761)	282023	62.1116	2240
$ 5 Phenol-d5	99	4.464	4.457	(0.921)	374854	65.4100	2360
$ 20 Nitrobenzene-d5	82	5.387	5.389	(0.879)	126407	23.5778	851
$ 39 2-Fluorobiphenyl	172	7.254	7.254	(0.907)	269358	23.3312	842
$ 60 2,4,6-Tribromophenol	329	8.852	8.850	(1.106)	91147	69.7081	2520
$ 81 p-Terphenyl-d14	244	11.319	11.316	(0.896)	403339	42.0238	1520

ION RATIO REPORT

SV REPORT

Data file: s611634.d
Report Date: 12/17/2009 08:37
Lab. ID: 242794003 SampleType: SAMPLE
Injection Date: 17-DEC-2009 01:03
Operator: nagl Instrument: MSD6.i
Sample Info: |242794003|932444|1|SVMF|1|LANL
Miscellaneous Info: |MSD8270_S|WBN091208-01
Comment:
Method used: /chem/MSD6.i/s121609.b/MSD6-M8270C-AQA-110909.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-901
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
4 Aniline		CAS#: 62-53-3				
66	16492	4.46	4.54	80-120	100	(T)
93	165	4.22	4.54	228-288	1	(QT)
17 N-Nitrosodipropylamine				CAS#: 621-64-7		
70	17420	5.39	5.23	80-120	100	(T)
42	10421	5.38	5.23	40-100	60	(T)
22 Isophorone		CAS#: 78-59-1				
82	126407	5.39	5.64	80-120	100	(T)
138	246	6.10	5.64	0- 49	0	(T)
43 Dimethylphthalate			CAS#: 131-11-3			
163	78864	8.00	7.69	80-120	100	(T)
164	447382	8.00	7.69	0- 40	567	(QT)
50 2,4-Dinitrotoluene			CAS#: 121-14-2			
165	57938	8.00	8.19	80-120	100	(T)
89	749	8.00	8.19	40-100	1	(QT)
63	417	8.00	8.19	17- 77	1	(QT)
53 Fluorene		CAS#: 86-73-7				
166	5425	8.85	8.59	80-120	100	(T)
165	5889	8.85	8.59	62-122	109	(T)
167	1779	8.85	8.59	0- 44	33	(T)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

Data file : /chem/MSD6.i/s121609.b/s611634.d
Lab Smp Id: 242794003 Client Smp ID: RE03-09-13472
Inj Date : 17-DEC-2009 01:03
Operator : nagl Inst ID: MSD6.i
Smp Info : |242794003|932444|1|SVMF|1|LANL
Misc Info : |MSD8270_S|WBN091208-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s121609.b/MSD6-M8270C-AQA-110909.m
Meth Date : 17-Dec-2009 08:11 nat00999 Quant Type: ISTD
Cal Date : 11-NOV-2009 04:38 Cal File: s6k0954.d
Als bottle: 25
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-901.sub
Target Version: 3.50
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	7.70000	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	4.849	1055830	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown Aldol Condensate					CAS #:		
3.453	293754	11.1288233	402	0		0	10

Data File: /chem/MSD6.i/s121609.b/s611634.d
Date : 17-DEC-2009 01:03
Client ID: RE03-09-13472
Sample Info: 1242794003193244411|SVMF11|LANL
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD6.i
Operator: magi
Column diameter: 0.20

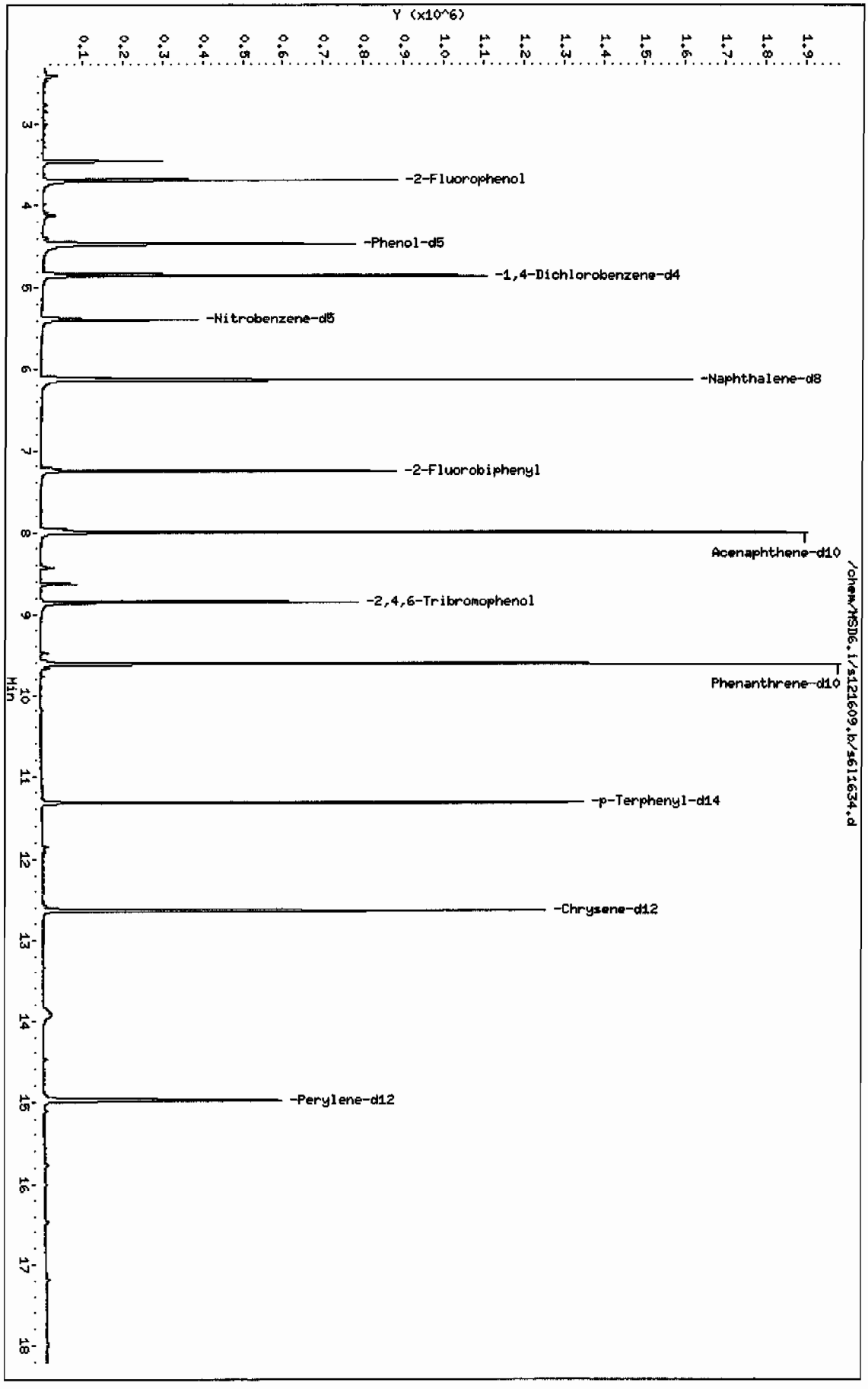

Page 1

Data File: /chem/MSD6.i/s121609.b/s611634.d

Date : 17-DEC-2009 01:03

Client ID: RE03-09-13472

Instrument: MSD6.i

Sample Info: |2427940031932444|1|SVMF|1|LANL

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	53	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	36	C6H12O2	116
Formamide, N,N-diethyl-	617-84-5	NIST05.L	4002	9	C5H11NO	101

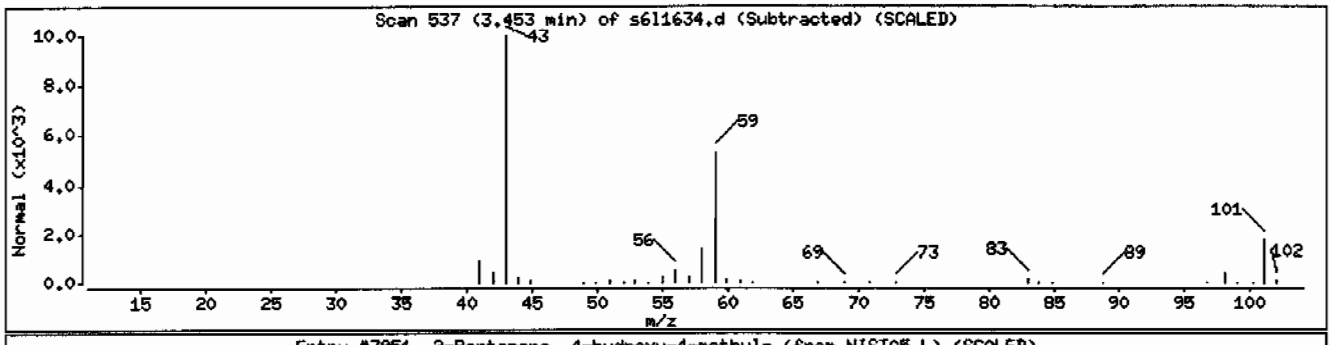

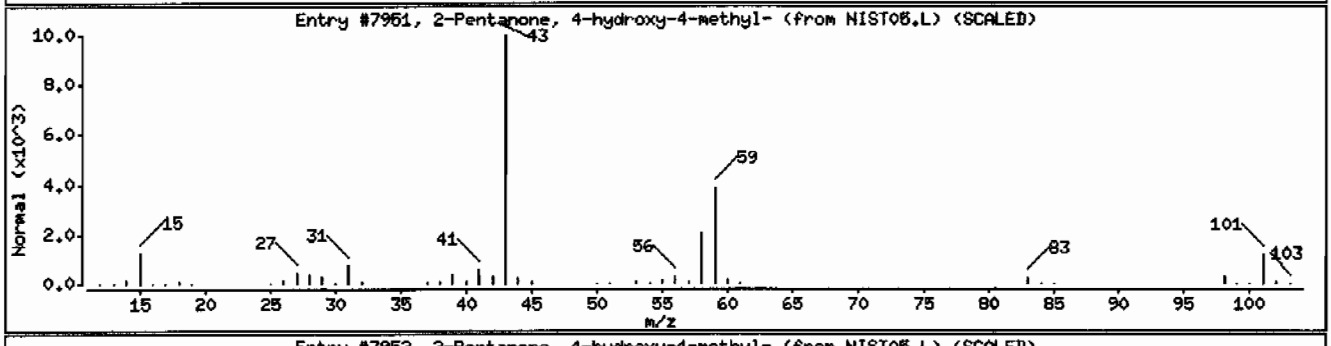

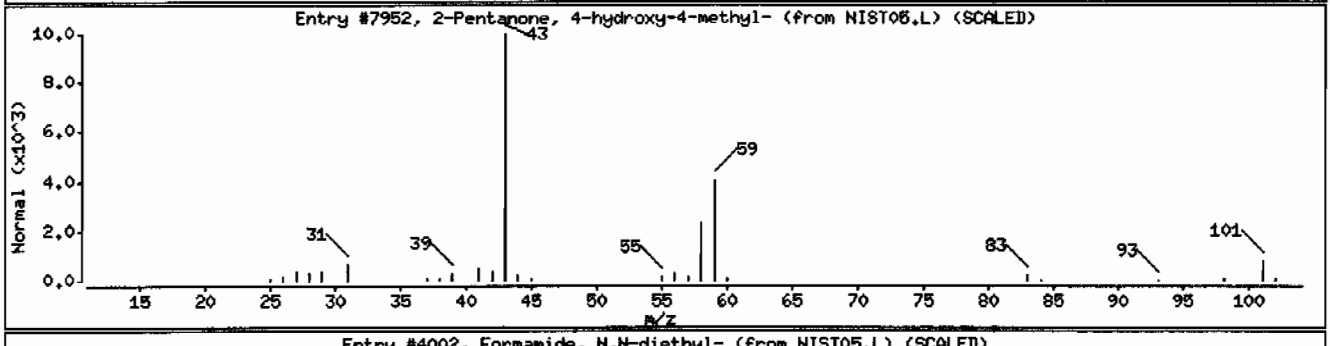

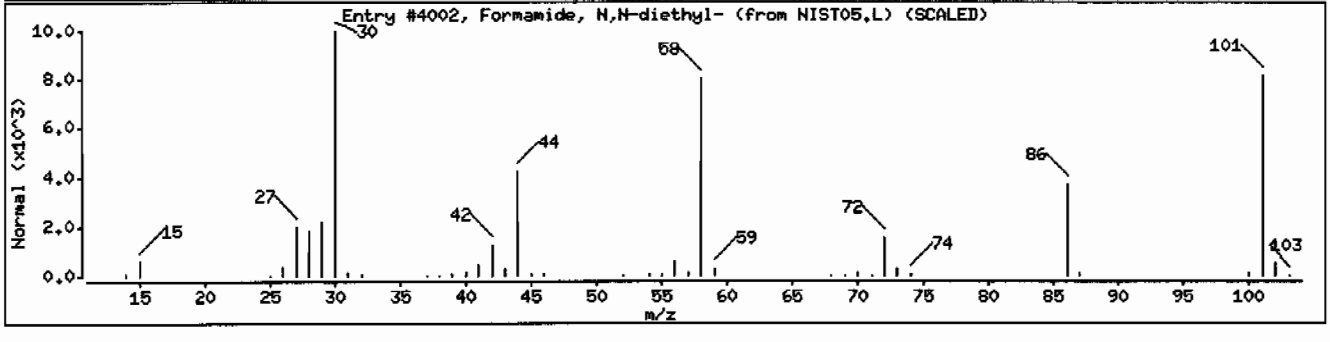

Standard Data

SW846 8270C//8270D/EPA 625								
Calibration Standard Concentration Levels*								
	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
1,4-Dichlorobenzene-d4 (INTERNAL STANDARD)								
Naphthalene-d8 (INTERNAL STANDARD)								
Acenaphthene-d10 (INTERNAL STANDARD)								
Phenanthrene-d10 (INTERNAL STANDARD)								
Chrysene-d12 (INTERNAL STANDARD)								
Perylene-d12 (INTERNAL STANDARD)								
2-Fluorophenol (SURROGATE)		10	20	40	50	80	100	120
Phenol-d5 (SURROGATE)		10	20	40	50	80	100	120
2-Chlorophenol-d4 (CLP SURROGATE)		10	20	40	50	80	100	120
1,2-Dichlorobenzene-d4 (CLP SURROGATE)		10	20	40	50	80	100	120
Nitrobenzene-d5 (SURROGATE)		10	20	40	50	80	100	120
2-Fluorobiphenyl (SURROGATE)		10	20	40	50	80	100	120
2,4,6-Tribromophenol (SURROGATE)		10	20	40	50	80	100	120
p-Terphenyl-d14 (SURROGATE)		10	20	40	50	80	100	120
N-Nitrosodimethylamine		10	20	40	50	80	100	120
Pyridine		10	20	40	50	80	100	120
Aniline		10	20	40	50	80	100	120
Benzaldehyde		10	20	40	50	80	100	120
Phenol		10	20	40	50	80	100	120
bis(2-Chloroethyl)ether	1	10	20	40	50	80	100	120
2-Chlorophenol		10	20	40	50	80	100	120
n-Decane		10	20	40	50	80	100	120
1,3-Dichlorobenzene		10	20	40	50	80	100	120
1,4-Dichlorobenzene		10	20	40	50	80	100	120
Benzyl Alcohol		10	20	40	50	80	100	120
1,2-Dichlorobenzene		10	20	40	50	80	100	120
bis(2-Chloroisopropyl)ether		10	20	40	50	80	100	120
o-Cresol (2-Methylphenol)		10	20	40	50	80	100	120
Acetophenone		10	20	40	50	80	100	120
N-Nitrosodipropylamine	1	10	20	40	50	80	100	120
m,p-Cresols (3-Methylphenol & 4-Methylphenol)		10	20	40	50	80	100	120
Hexachloroethane		10	20	40	50	80	100	120
Nitrobenzene		10	20	40	50	80	100	120
Isophorone		10	20	40	50	80	100	120
2-Nitrophenol		10	20	40	50	80	100	120
2,4-Dimethylphenol		10	20	40	50	80	100	120
bis(2-Chloroethoxy)methane		10	20	40	50	80	100	120
2,4-Dichlorophenol		10	20	40	50	80	100	120
Benzoic Acid			20	40	50	80	100	120
1,2,4-Trichlorobenzene		10	20	40	50	80	100	120
Naphthalene	1	10	20	40	50	80	100	120
alpha-Terpineol		10	20	40	50	80	100	120
4-Chloroaniline		10	20	40	50	80	100	120
Caprolactam		10	20	40	50	80	100	120

SW846 8270C//8270D/EPA 625								
Calibration Standard Concentration Levels*								
	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Hexachlorobutadiene		10	20	40	50	80	100	120
4-Chloro-3-methylphenol		10	20	40	50	80	100	120

2-Methylnaphthalene	1	10	20	40	50	80	100	120
1-Methylnaphthalene	1	10	20	40	50	80	100	120
Hexachlorocyclopentadiene		10	20	40	50	80	100	120
1,1'-Biphenyl		10	20	40	50	80	100	120
2,3-Dichloroaniline		10	20	40	50	80	100	120
2,4,6-Trichlorophenol		10	20	40	50	80	100	120
2,4,5-Trichlorophenol		10	20	40	50	80	100	120
2-Chloronaphthalene	1	10	20	40	50	80	100	120
o-Nitroaniline		10	20	40	50	80	100	120
m-Nitroaniline		10	20	40	50	80	100	120
Dimethylphthalate	1	10	20	40	50	80	100	120
2,6-Dinitrotoluene		10	20	40	50	80	100	120
Acenaphthylene	1	10	20	40	50	80	100	120
Acenaphthene	1	10	20	40	50	80	100	120
2,4-Dinitrophenol			20	40	50	80	100	120
Dibenzofuran		10	20	40	50	80	100	120
2,4-Dinitrotoluene		10	20	40	50	80	100	120
Diethylphthalate	1	10	20	40	50	80	100	120
4-Nitrophenol		10	20	40	50	80	100	120
Fluorene	1	10	20	40	50	80	100	120
4-Chlorophenyl phenyl ether		10	20	40	50	80	100	120
2-Methyl-4,6-dinitrophenol		10	20	40	50	80	100	120
p-Nitroaniline		10	20	40	50	80	100	120
Diphenylamine		10	20	40	50	80	100	120
1,2-Diphenylhydrazine		10	20	40	50	80	100	120
Tributylphosphate		10	20	40	50	80	100	120
4-Bromophenyl phenyether		10	20	40	50	80	100	120
Hexachlorobenzene		10	20	40	50	80	100	120
Atrazine		10	20	40	50	80	100	120
Pentachlorophenol		10	20	40	50	80	100	120
n-Octadecane		10	20	40	50	80	100	120
Phenanthrene	1	10	20	40	50	80	100	120
Anthracene	1	10	20	40	50	80	100	120
Di-n-butylphthalate	1	10	20	40	50	80	100	120
Fluoranthene	1	10	20	40	50	80	100	120
Benzidine		10	20	40	50	80	100	120
Pyrene	1	10	20	40	50	80	100	120
Butylbenzylphthalate	1	10	20	40	50	80	100	120
Benzo(a)anthracene	1	10	20	40	50	80	100	120
3,3'-Dichlorobenzidene		10	20	40	50	80	100	120
Chrysene	1	10	20	40	50	80	100	120
bis (2-Ethylhexyl) phthalate	1	10	20	40	50	80	100	120
Di-n-octylphthalate	1	10	20	40	50	80	100	120

SW846 8270C//8270D/EPA 625								
Calibration Standard Concentration Levels*								
	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Benzo(b)fluoranthene	1	10	20	40	50	80	100	120
Benzo(k)fluoranthene	1	10	20	40	50	80	100	120
Benzo(a)pyrene	1	10	20	40	50	80	100	120
Indeno-(1,2,3-cd)pyrene	1	10	20	40	50	80	100	120
Dibenzo(a,h)anthracene	1	10	20	40	50	80	100	120
Benzo(ghi)perylene	1	10	20	40	50	80	100	120
Carbazole	1	10	20	40	50	80	100	120

APPENDIX IX

1,4-Dioxane		10	20	40	50	80	100	120
Methyl methacrylate		10	20	40	50	80	100	120
Ethyl methacrylate		10	20	40	50	80	100	120
2-Picoline		10	20	40	50	80	100	120
N-Nitrosomethylethylamine		10	20	40	50	80	100	120
Methyl methanesulfonate		10	20	40	50	80	100	120
N-Nitrosodiethylamine		10	20	40	50	80	100	120
Ethyl methanesulfonate		10	20	40	50	80	100	120
Pentachloroethane		10	20	40	50	80	100	120
N-Nitrosopyrrolidine		10	20	40	50	80	100	120
N-Nitrosomorpholine		10	20	40	50	80	100	120
o-Toluidine		10	20	40	50	80	100	120
N-Nitrosopiperidine		10	20	40	50	80	100	120
a,a-Dimethhylphenethylamine		10	20	40	50	80	100	120
Triethylphosphorothioate		10	20	40	50	80	100	120
2,6-Dichlorophenol		10	20	40	50	80	100	120
Hexachloropropene		10	20	40	50	80	100	120
p-Phenylenediamine		10	20	40	50	80	100	120
N-Nitrosodi-n-butylamine		10	20	40	50	80	100	120
Safrole		10	20	40	50	80	100	120
1,2,4,5-Tetrachlorobenzene		10	20	40	50	80	100	120
Isosafrole		10	20	40	50	80	100	120
1,4-Naphthoquinone		10	20	40	50	80	100	120
m-Dinitrobenzene		10	20	40	50	80	100	120
Pentachlorobenzene		10	20	40	50	80	100	120
1-Naphthylamine		10	20	40	50	80	100	120
2-Naphthylamine		10	20	40	50	80	100	120
2,3,4,6-Tetrachlorophenol		10	20	40	50	80	100	120
5-Nitro-o-toluidine		10	20	40	50	80	100	120
Thionazin		10	20	40	50	80	100	120
Sulfotepp		10	20	40	50	80	100	120
Phorate		10	20	40	50	80	100	120
1,3,5-Trinitrobenzene		10	20	40	50	80	100	120
Phenacetin		10	20	40	50	80	100	120
Diallate (cis and trans)		10	20	40	50	80	100	120

SW846 8270C//8270D/EPA 625

Calibration Standard Concentration Levels*

	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Dimethoate		10	20	40	50	80	100	120
4-Aminobiphenyl		10	20	40	50	80	100	120
Pentachloronitrobenzene		10	20	40	50	80	100	120
Pronamide		10	20	40	50	80	100	120
Dinoseb		10	20	40	50	80	100	120
Disulfoton		10	20	40	50	80	100	120
Methyl parathion		10	20	40	50	80	100	120
4-Nitroquinoline oxide		10	20	40	50	80	100	120
Methapyrilene		10	20	40	50	80	100	120
Isodrin		10	20	40	50	80	100	120
Aramite		10	20	40	50	80	100	120
Kepone		10	20	40	50	80	100	120
p-(Dimethylamino)azobenzene		10	20	40	50	80	100	120

Chlorobenzilate		10	20	40	50	80	100	120
3,3'-Dimethylbenzidine		10	20	40	50	80	100	120
Famphur		10	20	40	50	80	100	120
2-Acetylaminofluorene		10	20	40	50	80	100	120
7,12-Dimethylbenz(a)anthracene		10	20	40	50	80	100	120
3-Methylcholanthrene		10	20	40	50	80	100	120
Hexachlorophene		500	1000	1250	1500	1750	2000	
p-Benzoquinone		10	20	40	50	80	100	120
Parathion		10	20	40	50	80	100	120
Methoxychlor		10	20	40	50	80	100	120
2-Ethoxyethanol		50	75	100	125	150	200	250
cis-Diallate		1.5	3	6	7.5	12	15	18
trans-Diallate		8.5	17	34	42	68	85	102
Dibenzo(a,e)pyrene		50	75	100	125	150	200	250
Phthalic anhydride		50	75	100	125	150	200	250
1,4-Dinitrobenzene		50	75	100	125	150	200	250
(2,3-Dibromopropyl)phosphate		50	75	100	125	150	200	250
Methylenebis(2-chloroaniline)		50	75	100	125	150	200	250
p-Toluidine		10	20	40	50	80	100	120
m-Toluidine		10	20	40	50	80	10	120

SW846 8270C//8270D/EPA 625								
Calibration Standard Concentration Levels*								
	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
bis(Chloromethyl)ether		10	20	40	50	80	100	120
Thiophenol		10	20	40	50	80	100	120
4-Chlorothiophenol		10	20	40	50	80	100	120
4-Chlorothio anisole		10	20	40	50	80	100	120
Phthalic acid		10	20	40	50	80	100	120
Hydroxymethyl phthalamide		10	20	40	50	80	100	120
Diphenyl sulfide		10	20	40	50	80	100	120
Diphenyl disulfide		10	20	40	50	80	100	120
Phenyl sulfone		10	20	40	50	80	100	120
Octachlorostyrene		10	20	40	50	80	100	120
2,2'-Dichlorobenzil		10	20	40	50	80	100	120
bis(p-Chlorophenyl)disulfide		10	20	40	50	80	100	120
bis(p-Chlorophenyl)sulfone		10	20	40	50	80	10	120

All values are mg/L without the prep factor.
# Indicates the calibration verification concentration level used
* Usual calibration levels using SCAN methodology
Level 1 may be included at request of client
(06/08)

Report Date: 17-Dec-2009 08:12

Calibration History

Method : /chem/MSD6.i/s121609.b/MSD6-M8270C-AQA-110909.m
Start Cal Date: 09-NOV-2009 18:53
End Cal Date : 11-NOV-2009 04:38

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 1.00000		
09-NOV-2009 18:53	MEGA	/chem/MSD6.i/s110909.b/s6k0913.d
Cal Level: 2 , Cal Amount: 10.00000		
11-NOV-2009 01:47	NEV	/chem/MSD6.i/s110909.b/s6k0948.d
10-NOV-2009 22:55	HEX	/chem/MSD6.i/s110909.b/s6k0942.d
10-NOV-2009 16:20	PEST	/chem/MSD6.i/s110909.b/s6k0930.d
10-NOV-2009 11:59	AP12	/chem/MSD6.i/s110909.b/s6k0923.d
09-NOV-2009 19:31	MEGA	/chem/MSD6.i/s110909.b/s6k0914.d
Cal Level: 3 , Cal Amount: 20.00000		
11-NOV-2009 02:16	NEV	/chem/MSD6.i/s110909.b/s6k0949.d
10-NOV-2009 23:24	HEX	/chem/MSD6.i/s110909.b/s6k0943.d
10-NOV-2009 16:56	PEST	/chem/MSD6.i/s110909.b/s6k0931.d
10-NOV-2009 12:36	AP12	/chem/MSD6.i/s110909.b/s6k0924.d
09-NOV-2009 20:09	MEGA	/chem/MSD6.i/s110909.b/s6k0915.d
Cal Level: 4 , Cal Amount: 40.00000		
11-NOV-2009 02:44	NEV	/chem/MSD6.i/s110909.b/s6k0950.d
10-NOV-2009 23:53	HEX	/chem/MSD6.i/s110909.b/s6k0944.d
10-NOV-2009 17:33	PEST	/chem/MSD6.i/s110909.b/s6k0932.d
10-NOV-2009 13:13	AP12	/chem/MSD6.i/s110909.b/s6k0925.d
09-NOV-2009 20:46	MEGA	/chem/MSD6.i/s110909.b/s6k0916.d
Cal Level: 5 , Cal Amount: 50.00000		
11-NOV-2009 03:12	NEV	/chem/MSD6.i/s110909.b/s6k0951.d
11-NOV-2009 00:21	HEX	/chem/MSD6.i/s110909.b/s6k0945.d
10-NOV-2009 18:09	PEST	/chem/MSD6.i/s110909.b/s6k0933.d
10-NOV-2009 13:51	AP12	/chem/MSD6.i/s110909.b/s6k0926.d
09-NOV-2009 21:25	MEGA	/chem/MSD6.i/s110909.b/s6k0917.d
Cal Level: 6 , Cal Amount: 80.00000		
11-NOV-2009 03:41	NEV	/chem/MSD6.i/s110909.b/s6k0952.d
11-NOV-2009 00:50	HEX	/chem/MSD6.i/s110909.b/s6k0946.d
10-NOV-2009 18:45	PEST	/chem/MSD6.i/s110909.b/s6k0934.d
10-NOV-2009 14:30	AP12	/chem/MSD6.i/s110909.b/s6k0927.d
09-NOV-2009 22:01	MEGA	/chem/MSD6.i/s110909.b/s6k0918.d
Cal Level: 7 , Cal Amount: 100.00000		

11-NOV-2009 04:10	NEV	/chem/MSD6.i/s110909.b/s6k0953.d
11-NOV-2009 01:18	HEX	/chem/MSD6.i/s110909.b/s6k0947.d
10-NOV-2009 19:21	PEST	/chem/MSD6.i/s110909.b/s6k0935.d
10-NOV-2009 15:06	AP12	/chem/MSD6.i/s110909.b/s6k0928.d
09-NOV-2009 22:39	MEGA	/chem/MSD6.i/s110909.b/s6k0919.d

Cal Level: 8 , Cal Amount: 120.00000		
11-NOV-2009 04:38	NEV	/chem/MSD6.i/s110909.b/s6k0954.d
10-NOV-2009 19:58	PEST	/chem/MSD6.i/s110909.b/s6k0936.d
10-NOV-2009 15:43	AP12	/chem/MSD6.i/s110909.b/s6k0929.d
09-NOV-2009 23:16	MEGA	/chem/MSD6.i/s110909.b/s6k0920.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 40.0		
16-DEC-2009 14:18	MEGA	/chem/MSD6.i/s121609.b/s611611.d
Ccal Level: 4 , Ccal Amount: 40.0		
16-DEC-2009 14:46	AP12	/chem/MSD6.i/s121609.b/s611612.d
Ccal Level: 4 , Ccal Amount: 40.0		
16-DEC-2009 11:57	AP12	/chem/MSD6.i/s121609.b/s611607.d
Ccal Level: 4 , Ccal Amount: 40.0		
16-DEC-2009 12:53	PEST	/chem/MSD6.i/s121609.b/s611609.d
Ccal Level: 4 , Ccal Amount: 40.0		
16-DEC-2009 12:25	MEGA	/chem/MSD6.i/s121609.b/s611608.d
Ccal Level: 4 , Ccal Amount: 40.0		
16-DEC-2009 11:28	MEGA	/chem/MSD6.i/s121609.b/s611606.d
Ccal Level: 4 , Ccal Amount: 40.0		
16-DEC-2009 09:38	MEGA	/chem/MSD6.i/s121609.b/s611604.d
Ccal Level: 4 , Ccal Amount: 40.0		
16-DEC-2009 08:47	MEGA	/chem/MSD6.i/s121609.b/s611602.d

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 09-NOV-2009 18:53
End Cal Date : 11-NOV-2009 04:38
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD6.i/s121609.b/MSD6-M8270C-AQA-110909.m
Cal Date : 17-Dec-2009 08:11 nat00999

Calibration File Names:
Level 1: /chem/MSD6.i/s110909.b/s6k0913.d
Level 2: /chem/MSD6.i/s110909.b/s6k0948.d
Level 3: /chem/MSD6.i/s110909.b/s6k0949.d
Level 4: /chem/MSD6.i/s110909.b/s6k0950.d
Level 5: /chem/MSD6.i/s110909.b/s6k0951.d
Level 6: /chem/MSD6.i/s110909.b/s6k0952.d
Level 7: /chem/MSD6.i/s110909.b/s6k0953.d
Level 8: /chem/MSD6.i/s110909.b/s6k0954.d

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
1 N-Methyl-N-nitrosomethylamine	+++++	0.62711	0.72014	0.69994	0.71294	0.67761					
	0.66245	0.66663					AVRG		0.68098		4.78734
2 Pyridine	+++++	0.78506	0.84345	0.94451	0.94132	0.77430					
	0.82190	0.82246					AVRG		0.84757		8.16958
4 Aniline	+++++	0.51792	0.56281	0.52949	0.53182	0.51964					
	0.51849	0.51247					AVRG		0.52752		3.21865
209 Benzaldehyde	+++++	0.94297	0.91161	0.92064	0.86617	0.84259					
	0.79828	0.74667					AVRG		0.86127		8.23824
6 Phenol	+++++	1.29580	1.38609	1.27955	1.27629	1.24279					
	1.20107	1.21677					AVRG		1.27120		4.82676

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 09-NOV-2009 18:53
End Cal Date : 11-NOV-2009 04:38
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD6.i/s121609.b/MSD6-M8270C-AQA-110909.m
Cal Date : 17-Dec-2009 08:11 nat00999

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
7 bis(2-Chloroethyl) ether	0.93365	0.90056	0.92748	0.85273	0.86174	0.82247					
	0.79075	0.79709					AVRG		0.86081		6.48811
8 2-Chlorophenol	+++++	1.05270	1.10343	1.04994	1.05384	0.99340					
	0.95375	0.94058					AVRG		1.02109		5.85808
203 n-Decane	+++++	1.57696	1.59018	1.40648	1.36249	1.17658					
	+++++	+++++					AVRG		1.42254		11.98709
9 1,3-Dichlorobenzene	+++++	1.22415	1.27608	1.20806	1.21136	1.14335					
	1.08668	1.07881					AVRG		1.17550		6.31837
11 1,4-Dichlorobenzene	+++++	1.27202	1.32037	1.21925	1.20743	1.15141					
	1.09639	1.07447					AVRG		1.19162		7.54222
12 Benzyl alcohol	+++++	0.60900	0.65716	0.63043	0.62465	0.64143					
	0.63021	0.64767					AVRG		0.63436		2.50657
13 1,2-Dichlorobenzene	+++++	1.16666	1.21707	1.13327	1.12016	1.08966					
	1.03460	1.02472					AVRG		1.11231		6.21300
14 bis(2-Chloroisopropyl)ether	+++++	2.07635	2.13325	1.99088	1.97675	1.86028					
	1.72252	1.69272					AVRG		1.92182		8.81925
15 o-Cresol	+++++	0.82992	0.88629	0.84024	0.85639	0.80893					
	0.80386	0.79407					AVRG		0.83139		3.92027

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End Cal Date : 11-NOV-2009 04:38
Quant Method : ISTD
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Integrator : HP RTE
Method file : /chem/MSD6.i/s121609.b/MSD6-M8270C-AQA-110909.m
Cal Date : 17-Dec-2009 08:11 nat00999

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
16 Acetophenone	+++++	1.20921	1.17591	1.21168	1.15285	1.16925					
	1.13524	1.12939					AVRG		1.16908		2.80572
17 N-Nitrosodipropylamine	0.65638	0.74117	0.78851	0.72893	0.73002	0.72328					
	0.70725	0.59369					AVRG		0.70865		8.34285
18 m,p-Cresols	+++++	1.03591	1.12590	1.04958	1.05532	1.04720					
	1.02399	1.03632					AVRG		1.05346		3.18987
19 Hexachloroethane	+++++	0.45806	0.49524	0.47390	0.46960	0.45628					
	0.43995	0.43396					AVRG		0.46100		4.53111
21 Nitrobenzene	+++++	0.31691	0.32516	0.29885	0.29715	0.27038					
	0.24823	0.23966					AVRG		0.28519		11.62250
22 Isophorone	+++++	0.55891	0.57824	0.53268	0.53266	0.49425					
	0.45829	0.38358					AVRG		0.50552		13.23015
23 2-Nitrophenol	+++++	0.13453	0.14214	0.13601	0.13806	0.12888					
	0.12072	0.12047					AVRG		0.13154		6.43934
24 2,4-Dimethylphenol	+++++	0.23987	0.22536	0.21067	0.20421	0.21065					
	0.21868	0.21622					AVRG		0.21795		5.40955
25 bis(2-Chloroethoxy)methane	+++++	0.33208	0.34147	0.30906	0.30442	0.28195					
	0.26036	0.25310					AVRG		0.29749		11.40063

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	100 Level 7	120 Level 8									
26 2,4-Dichlorophenol	+++++	0.19875	0.21444	0.20921	0.20622	0.19391					
	0.18142	0.17985					AVRG		0.19769		6.80078
27 Benzoic acid	+++++	+++++	0.10585	0.12338	0.14032	0.14157					
	0.15049	0.14556					AVRG		0.13453		12.46641
28 1,2,4-Trichlorobenzene	+++++	0.27809	0.27557	0.25214	0.25046	0.22876					
	0.21050	0.20278					AVRG		0.24261		12.25857
30 Naphthalene	0.93577	0.85146	0.85267	0.76017	0.74029	0.64713					
	+++++	+++++					AVRG		0.79792		12.82401
204 alpha-Terpineol	+++++	0.23577	0.25490	0.22003	0.21987	0.20427					
	0.17723	+++++					AVRG		0.21868		12.15593
31 4-Chloroaniline	+++++	0.26389	0.28196	0.26991	0.26064	0.24995					
	0.23771	0.23114					AVRG		0.25646		7.00922
189 Caprolactam	+++++	0.06766	0.07272	0.08214	0.08102	0.07115					
	0.07075	0.07172					AVRG		0.07388		7.43636
32 Hexachlorobutadiene	+++++	0.14265	0.14557	0.13182	0.13097	0.11864					
	0.10931	0.10542					AVRG		0.12634		12.40746
33 4-Chloro-3-methylphenol	+++++	0.20824	0.22585	0.20971	0.20633	0.19424					
	0.17957	0.17303					AVRG		0.19957		9.25582

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
34 2-Methylnaphthalene	0.56779	0.53746	0.54769	0.49857	0.47476	0.43707					
	0.39981	0.38884					AVRG		0.48150		14.15789
35 1-Methylnaphthalene	0.55872	0.52838	0.53208	0.48366	0.46920	0.42612					
	0.38935	0.38051					AVRG		0.47100		14.29869
36 Hexachlorocyclopentadiene	+++++	0.13520	0.17775	0.15114	0.16219	0.15378					
	0.18308	0.16783					AVRG		0.16157		10.19735
208 1,1'-Biphenyl	+++++	1.32152	1.23439	1.25731	1.19710	1.16580					
	1.12776	1.10528					AVRG		1.20131		6.32036
205 2,3-Dichloroaniline	+++++	0.51880	0.53286	0.48272	0.49159	0.46096					
	0.42997	0.43664					AVRG		0.47908		8.16477
37 2,4,6-Trichlorophenol	+++++	0.27570	0.29634	0.28058	0.28008	0.26989					
	0.25242	0.25556					AVRG		0.27294		5.58990
38 2,4,5-Trichlorophenol	+++++	0.28031	0.30282	0.29443	0.29832	0.29160					
	0.28523	0.28197					AVRG		0.29067		2.92500
40 2-Chloronaphthalene	0.91208	0.94921	0.97975	0.90835	0.91949	0.87198					
	0.81926	0.82647					AVRG		0.89832		6.24992
42 o-Nitroaniline	+++++	0.28653	0.32807	0.30812	0.31848	0.31056					
	0.29539	0.30412					AVRG		0.30732		4.50651

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	100 Level 7	120 Level 8									
41 m-Nitroaniline	+++++	0.19029	0.23187	0.23025	0.23197	0.23511					
	0.22216	0.23314					AVRG		0.22497		7.03906
43 Dimethylphthalate	+++++	1.10253	1.11895	1.05121	1.05401	1.01311					
	0.95493	0.88796					AVRG		1.02610		7.97599
44 2,6-Dinitrotoluene	+++++	0.24859	0.25869	0.24751	0.24771	0.24514					
	0.22903	0.23656					AVRG		0.24475		3.87474
45 Acenaphthylene	1.45077	1.53234	1.59736	1.47314	1.47686	1.41153					
	1.30118	1.31187					AVRG		1.44438		7.03164
47 Acenaphthene	0.97754	0.93463	0.97051	0.90906	0.90733	0.85875					
	0.82122	0.83304					AVRG		0.90151		6.58830
48 2,4-Dinitrophenol	+++++	+++++	15920	45695	60199	121040					
	185455	+++++					LINR	0.36255	0.13077		0.99262
49 Dibenzofuran	+++++	1.31036	1.35172	1.24091	1.23630	1.17505					
	1.09035	1.11352					AVRG		1.21689		7.96140
50 2,4-Dinitrotoluene	+++++	0.28688	0.32526	0.31392	0.31582	0.31468					
	0.30077	0.30301					AVRG		0.30862		4.09740
51 Diethylphthalate	+++++	1.08427	1.13193	1.06273	1.05585	1.00787					
	0.93441	0.95637					AVRG		1.03335		6.84784

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	100 Level 7	120 Level 8									
52 4-Nitrophenol	+++++	12277	40572	90802	114423	208122					
	294363	379687					LINR	0.18209	0.20146		0.99664
53 Fluorene	1.06940	1.05468	1.10259	1.00777	1.00699	0.94775					
	0.89677	0.90440					AVRG		0.99879		7.65829
54 4-Chlorophenylphenylether	+++++	0.49941	0.52344	0.48539	0.48490	0.45443					
	0.43029	0.42560					AVRG		0.47192		7.71070
55 2-Methyl-4,6-dinitrophenol	+++++	9251	34357	85168	107219	199515					
	279188	346834					LINR	0.17722	0.10780		0.99957
56 p-Nitroaniline	+++++	18297	49968	114446	144020	267165					
	377942	477974					LINR	0.17663	0.25514		0.99741
133 Diphenylamine	+++++	0.51235	0.51279	0.48995	0.49110	0.46341					
	0.45142	0.45392					AVRG		0.48213		5.41113
58 1,2-Diphenylhydrazine	+++++	0.65288	0.67935	0.62730	0.62752	0.58724					
	0.56393	0.55466					AVRG		0.61327		7.55575
59 Tributylphosphate	+++++	1.19922	1.25332	1.24022	1.27997	1.24188					
	1.19433	1.14050					AVRG		1.22135		3.81011
61 4-Bromophenylphenylether	+++++	0.16321	0.16758	0.15949	0.16092	0.15366					
	0.14977	0.15022					AVRG		0.15784		4.30183

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	100 Level 7	120 Level 8									
63 Hexachlorobenzene	+++++	0.17072	0.17525	0.16702	0.16690	0.16190					
	0.15730	0.15822					AVRG		0.16533		3.97990
207 Atrazine	+++++	0.04466	0.04316	0.04336	0.04050	0.04104					
	0.03746	0.03425					AVRG		0.04063		9.04410
65 Pentachlorophenol	+++++	12427	38945	80211	100581	192628					
	259470	326879					LINR	0.13427	0.09964		0.99838
206 n-Octadecane	+++++	0.51627	0.51598	0.45832	0.46068	0.40718					
	0.37377	0.35992					AVRG		0.44173		14.37986
68 Phenanthrene	0.95060	0.88603	0.89746	0.83221	0.81673	0.77346					
	0.73349	0.72773					AVRG		0.82721		9.72714
69 Anthracene	0.87683	0.86194	0.90534	0.83970	0.83829	0.78921					
	0.75133	0.75196					AVRG		0.82682		6.91971
72 Di-n-butylphthalate	+++++	1.00113	1.04654	0.99105	0.98676	0.92173					
	0.85606	0.84350					AVRG		0.94954		8.15043
76 Fluoranthene	0.78392	0.79487	0.87026	0.82674	0.81613	0.77420					
	0.73596	0.73727					AVRG		0.79242		5.73137
77 Benzidine	+++++	0.35813	0.40641	0.39242	0.37729	0.37701					
	0.39765	0.44234					AVRG		0.39304		6.85454

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	100 Level 7	120 Level 8									
79 Pyrene	1.12114	1.31021	1.22539	1.10007	1.11660	1.02083					
	0.96007	0.94734					AVRG		1.10021		11.38295
85 Butylbenzylphthalate	+++++	0.52543	0.54028	0.51608	0.52406	0.49119					
	0.46906	0.45845					AVRG		0.50351		6.16544
89 Benzo(a)anthracene	0.94221	0.85505	0.89830	0.85692	0.85716	0.83423					
	0.82127	0.83891					AVRG		0.86301		4.55256
90 3,3'-Dichlorobenzidine	+++++	0.23529	0.28074	0.29290	0.29384	0.28532					
	0.28779	0.30173					AVRG		0.28252		7.74710
92 Chrysene	0.87195	0.83557	0.87346	0.82487	0.82639	0.80729					
	0.78155	0.79409					AVRG		0.82690		4.03552
93 bis(2-Ethylhexyl)phthalate	7340	107837	270739	551016	645048	1078889					
	1389660	1700943					WLINR	0.01019	0.70092		0.99014
94 Di-n-octylphthalate	+++++	1.19610	1.35485	1.31605	1.35770	1.25055					
	1.27306	1.15060					AVRG		1.27127		6.18607
95 Benzo(b)fluoranthene	0.74161	0.85750	0.94279	0.90432	0.93361	0.89239					
	0.89332	0.91506					AVRG		0.88507		7.19928
96 Benzo(k)fluoranthene	0.73172	0.86857	0.95518	0.92430	0.92244	0.89945					
	0.88010	0.85909					AVRG		0.88011		7.72381

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	100 Level 7	120 Level 8									
97 Benzo(a)pyrene	0.54179	0.70605	0.81133	0.81358	0.82559	0.80913					
	0.80179	0.80647					AVRG		0.76447		12.74919
99 Indeno(1,2,3-cd)pyrene	5888	60939	200863	402882	510813	1012558					
	1348903	1889688					LINR	0.07592	0.78768		0.99752
100 Dibenzo(a,h)anthracene	3385	46770	157194	361792	411532	815285					
	1094612	1529825					LINR	0.06768	0.63666		0.99908
101 Benzo(ghi)perylene	0.41694	0.53228	0.60870	0.60962	0.60436	0.63133					
	0.62968	0.63931					AVRG		0.58403		12.88683
102 1,4-Dioxane	+++++	0.37671	0.37043	0.39061	0.37803	0.36375					
	0.35237	0.33052					AVRG		0.36606		5.38827
103 Methyl methacrylate	+++++	0.19626	0.19646	0.20436	0.20625	0.18540					
	0.18964	0.17876					AVRG		0.19388		5.13081
104 Ethyl methacrylate	+++++	0.79650	0.81191	0.84398	0.82898	0.80568					
	0.79571	0.75648					AVRG		0.80561		3.45659
105 2-Picoline	+++++	1.39124	1.31746	1.36987	1.31904	1.28927					
	1.27506	1.19912					AVRG		1.30872		4.85814
106 N-Nitrosomethylethylamine	+++++	0.50512	0.48970	0.52453	0.49928	0.51969					
	0.51463	0.52429					AVRG		0.51104		2.61826

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	100 Level 7	120 Level 8									
107 Methyl methanesulfonate	+++++	0.56429	0.53321	0.56316	0.50377	0.53102					
	0.50923	0.49498					AVRG		0.52852		5.24900
108 N-Nitrosodiethylamine	+++++	0.50310	0.47987	0.51154	0.48534	0.49862					
	0.49304	0.49722					AVRG		0.49553		2.15019
109 Ethyl Methanesulfonate	+++++	0.65808	0.64977	0.67344	0.62747	0.66045					
	0.64399	0.64860					AVRG		0.65169		2.21442
110 Pentachloroethane	+++++	0.32209	0.31386	0.33094	0.32010	0.31614					
	0.31148	0.30303					AVRG		0.31681		2.78134
111 N-Nitrosopyrrolidine	+++++	0.44182	0.46376	0.50830	0.47779	0.50143					
	0.49385	0.44600					AVRG		0.47614		5.57640
113 N-Nitrosomorpholine	+++++	0.71032	0.67134	0.71256	0.65887	0.68726					
	0.65974	0.65547					AVRG		0.67936		3.58698
114 o-Toluidine	+++++	1.74797	1.65530	1.71709	1.64005	1.64679					
	1.58070	1.58178					AVRG		1.65281		3.79762
115 N-Nitrosopiperidine	+++++	0.13834	0.13623	0.14736	0.13885	0.14290					
	0.13997	0.14373					AVRG		0.14105		2.69891
116 a,a-Dimethylphenethylamine	+++++	0.78770	0.81587	0.88476	0.87463	0.88336					
	0.86623	0.87565					AVRG		0.85546		4.44785

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	100 Level 7	120 Level 8									
117 Triethylphosphorothioate	+++++	0.14741	0.14492	0.13783	0.14116	0.13439					
	0.12857	0.12370					AVRG		0.13685		6.28357
118 2,6-Dichlorophenol	+++++	0.19682	0.19992	0.21240	0.20960	0.21251					
	0.20568	0.21118					AVRG		0.20687		3.05257
119 Hexachloropropene	+++++	0.08644	0.09499	0.10791	0.10350	0.10830					
	0.10654	0.11112					AVRG		0.10269		8.60612
120 p-Phenylenediamine	+++++	0.19714	0.24091	0.25567	0.24421	0.23168					
	0.22043	0.21678					AVRG		0.22955		8.57933
121 N-Nitrosodi-n-butylamine	+++++	0.22447	0.22501	0.22216	0.21154	0.19839					
	0.19348	0.19524					AVRG		0.21004		6.76180
122 Safrole	+++++	0.18675	0.18585	0.19677	0.19040	0.18675					
	0.17956	0.17958					AVRG		0.18653		3.22597
123 1,2,4,5-Tetrachlorobenzene	+++++	0.45393	0.42422	0.44255	0.41650	0.41676					
	0.40609	0.40229					AVRG		0.42319		4.45863
124 Isosafrole	+++++	0.34011	0.33198	0.35164	0.33779	0.34233					
	0.33627	0.33702					AVRG		0.33959		1.83025
125 1,4-Naphthoquinone	+++++	0.30018	0.32824	0.34894	0.32634	0.29745					
	0.28366	0.26235					AVRG		0.30674		9.65282

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 09-NOV-2009 18:53
End Cal Date : 11-NOV-2009 04:38
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD6.i/s121609.b/MSD6-M8270C-AQA-110909.m
Cal Date : 17-Dec-2009 08:11 nat00999

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
126 m-Dinitrobenzene	+++++	0.15441	0.17500	0.17160	0.17355	0.17392					
	0.16754	0.16904					AVRG		0.16929		4.19006
127 Pentachlorobenzene	+++++	0.38426	0.36575	0.37736	0.36552	0.35674					
	0.35182	0.35035					AVRG		0.36454		3.50537
128 1-Naphthylamine	+++++	0.90674	0.92102	0.95184	0.91692	0.90718					
	0.86367	0.88454					AVRG		0.90742		3.07978
129 2-Naphthylamine	+++++	0.96578	1.00999	1.02440	0.99125	0.97953					
	0.93471	0.95520					AVRG		0.98012		3.19024
130 2,3,4,6-Tetrachlorophenol	+++++	0.20640	0.23481	0.21862	0.21374	0.22201					
	0.21460	0.22254					AVRG		0.21896		4.07356
131 5-Nitro-o-toluidine	+++++	0.22084	0.26615	0.28994	0.29013	0.29251					
	0.28841	0.30508					AVRG		0.27901		10.07623
132 Thionazin	+++++	0.16760	0.17396	0.17237	0.17849	0.17822					
	0.16987	0.16398					AVRG		0.17207		3.11896
134 Sulfotepp	+++++	0.08934	0.08802	0.08507	0.08886	0.08655					
	0.08265	0.08005					AVRG		0.08579		4.00843
135 Phorate	+++++	0.38230	0.38968	0.37391	0.38904	0.37359					
	0.35020	0.32660					AVRG		0.36933		6.25438

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Cal Date : 17-Dec-2009 08:11 nat00999

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
136 1,3,5-Trinitrobenzene	+++++	14861	45341	104071	130665	222134					
	265730	408609					LINR	0.09141	0.12978		0.99734
137 Phenacetin	+++++	0.21732	0.25812	0.27209	0.26902	0.27044					
	0.26738	0.28241					AVRG		0.26240		8.05167
138 Diallate	+++++	0.26191	0.24374	0.25182	0.23998	0.23522					
	0.22716	0.22410					AVRG		0.24056		5.55643
139 Dimethoate	+++++	0.18955	0.19806	0.21061	0.22946	0.23158					
	0.22398	0.21950					AVRG		0.21468		7.45885
140 4-Aminobiphenyl	+++++	0.50489	0.50584	0.54599	0.56556	0.56494					
	0.53276	0.52934					AVRG		0.53562		4.66298
141 Pentachloronitrobenzene	+++++	0.06195	0.06081	0.06546	0.06329	0.06151					
	0.06084	0.05959					AVRG		0.06192		3.12402
142 Pronamide	+++++	0.26962	0.26582	0.27431	0.26759	0.26151					
	0.25173	0.25174					AVRG		0.26319		3.31411
143 Dinoseb	+++++	11996	47856	123552	154632	280906					
	375481	479562					LINR	0.15482	0.14736		0.99949
144 Disulfoton	+++++	0.31933	0.32969	0.31920	0.32975	0.31125					
	0.29624	0.27823					AVRG		0.31196		6.02930

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Method file : /chem/MSD6.i/s121609.b/MSD6-M8270C-AQA-110909.m
Cal Date : 17-Dec-2009 08:11 nat00999

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	100 Level 7	120 Level 8										
145 Methyl parathion	+++++	0.14493	0.15978	0.17270	0.18140	0.18775						
	0.18141	0.17864					AVRG		0.17237		8.70434	
146 4-Nitroquinoline-1-oxide	+++++	0.02012	0.03296	0.02700	0.02533	0.02224						
	0.01930	0.01750					AVRG		0.02349		22.76469	<-
147 Methapyrilene	+++++	0.40623	0.42209	0.41103	0.39768	0.37937						
	0.35132	0.33430					AVRG		0.38600		8.45747	
148 Isodrin	+++++	0.10136	0.09753	0.10130	0.09757	0.09481						
	0.09122	0.09037					AVRG		0.09631		4.58453	
149 Aramite	+++++	0.03841	0.04251	0.04600	0.04566	0.04690						
	0.04564	0.04428					AVRG		0.04420		6.60357	
150 Kepone	+++++	0.05674	0.06191	0.06311	0.06098	0.06085						
	0.06194	0.06656					AVRG		0.06173		4.75009	
151 p-(Dimethylamino)azobenzene	+++++	0.31224	0.31378	0.33288	0.32474	0.31931						
	0.31446	0.30396					AVRG		0.31734		2.95033	
152 Chlorobenzilate	+++++	0.30009	0.27506	0.30295	0.29512	0.29377						
	0.29203	0.28006					AVRG		0.29130		3.50189	
153 3,3'-Dimethylbenzidine	+++++	0.49489	0.52397	0.53487	0.52482	0.53397						
	0.53619	0.54473					AVRG		0.52763		3.04743	

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
154 Famphur	+++++	0.28850	0.33742	0.33640	0.36516	0.37704					
	0.35655	0.33317					AVRG		0.34203		8.41381
155 2-Acetylaminofluorene	+++++	23996	98558	217618	290992	478700					
	598627	953419					LINR	0.12414	0.37309		0.99874
157 7,12Dimethylbenz(a)anthracene	+++++	0.45745	0.44941	0.48919	0.48420	0.49542					
	0.49422	0.48353					AVRG		0.47906		3.80416
158 3-Methylcholanthrene	+++++	0.29343	0.35502	0.37871	0.37695	0.38953					
	0.38995	0.40328					AVRG		0.36955		9.94080
26 Phthalic anhydride	+++++	10939	40864	83487	108159	203846					
	306459	+++++					LINR	0.14938	0.09004		0.99590
173 Carbazole	0.68572	0.63216	0.65059	0.65023	0.64669	0.65901					
	0.65208	0.65947					AVRG		0.65449		2.32370
174 Hexachlorophene	+++++	0.04700	0.06194	0.06687	0.06701	0.06606					
	+++++	+++++					AVRG		0.06178		13.78238
179 Dibenzo(a,e)pyrene	+++++	21397	67635	183254	214017	467062					
	+++++	+++++					LINR	0.16800	0.36891		0.99459
185 (2,3-Dibromopropyl)phosphate	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+00		0.000e+00 <-

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Cal Date : 17-Dec-2009 08:11 nat00999

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
184 p-Benzoquinone	+++++	0.09983	0.11502	0.14598	0.13665	0.14571					
	0.12211	0.12583					AVRG		0.12730		13.25929
191 Parathion	+++++	0.05089	0.05709	0.06102	0.06360	0.06315					
	0.06253	0.06173					AVRG		0.06000		7.60183
192 Methoxychlor	+++++	0.54663	0.59527	0.57022	0.57190	0.55995					
	0.49223	0.53082					AVRG		0.55243		6.05482
210 m-Toluidine	+++++	1.07152	1.09862	1.08267	1.09477	1.19760					
	1.39731	0.92523					AVRG		1.12396		12.87193
211 p-Toluidine	+++++	0.98878	1.01175	0.93629	0.93823	0.84629					
	0.67790	+++++					AVRG		0.89987		13.64283
212 Cis Diallate	+++++	0.25680	0.24216	0.25774	0.25015	0.25647					
	0.24871	0.25860					AVRG		0.25295		2.41779
213 Trans Diallate	+++++	0.30813	0.28675	0.29626	0.28232	0.27673					
	0.26725	0.26364					AVRG		0.28301		5.55643
214 1,4-Dinitrobenzene	+++++	0.15465	0.18602	0.18671	0.19154	0.19074					
	0.18381	0.19324					AVRG		0.18382		7.23195
215 2-Ethoxyethanol	+++++	0.69474	0.75708	0.72314	0.72734	0.69576					
	0.68979	0.68463					AVRG		0.71035		3.71426

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Method file : /chem/MSD6.i/s121609.b/MSD6-M8270C-AQA-110909.m
Cal Date : 17-Dec-2009 08:11 nat00999

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
216 Methylenebis(2-chloroaniline)	+++++	11622	37526	94270	117296	226774					
	306702	394688					LINR	0.14094	0.14618		0.99920
229 2,2'-Dichlorobenzil	+++++	0.65548	0.70788	0.67278	+++++	0.85557					
	0.79635	+++++					AVRG		0.73761		11.58274
230 4-Chlorothioanisole	+++++	65505	120100	275307	+++++	727615					
	828249	+++++					LINR	0.13623	0.30665		0.99347
231 4-Chlorothiophenol	+++++	14955	49890	195788	+++++	593706					
	683100	+++++					LINR	0.29380	0.27176		0.99219
232 bis(p-Chlorophenyl)sulfone	+++++	0.41911	0.42098	0.38909	+++++	0.48605					
	0.44832	+++++					AVRG		0.43271		8.42306
233 bis(p-Chlorophenyl)disulfide	+++++	0.19644	0.20913	0.18244	+++++	0.22594					
	0.20806	+++++					AVRG		0.20440		7.90920
234 Diphenyl disulfide	+++++	0.20078	0.21401	0.19911	+++++	0.24759					
	0.23595	+++++					AVRG		0.21949		9.81334
235 Diphenyl sulfide	+++++	0.77537	0.76082	0.73538	+++++	0.86393					
	0.82035	+++++					AVRG		0.79117		6.45415
236 Phenyl sulfone	+++++	0.43220	0.43102	0.40994	+++++	0.50304					
	0.47114	+++++					AVRG		0.44947		8.28032

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Cal Date : 17-Dec-2009 08:11 nat00999

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	100 Level 7	120 Level 8										
237 Hydroxymethyl phthalimide	+++++	0.14671	0.15531	0.12673	+++++	0.19818						
	0.17963	+++++					AVRG		0.16131		17.36813	<-
238 Phthalic acid	+++++	13646	40994	115933	+++++	343308						
	402020	+++++					LINR	0.25337	0.15547		0.99358	
239 Thiophenol	+++++	41092	104698	327879	+++++	922601						
	1046955	+++++					LINR	0.23456	1.46946		0.99364	
240 bis(Chloromethyl)ether	+++++	1.01755	1.00429	0.94829	+++++	1.10480						
	1.05711	+++++					AVRG		1.02641		5.71407	
241 Octachlorostyrene	+++++	0.06097	0.06109	0.05953	+++++	0.07399						
	0.07072	+++++					AVRG		0.06526		10.12747	
M 225 Trichlorophenols	+++++	0.27800	0.29958	0.28751	0.28920	0.28074						
	0.26883	0.26877					AVRG		0.28180		3.98593	
M 226 Tetrachlorophenols	+++++	0.20640	0.23481	0.21862	0.21374	0.22201						
	0.21460	0.22254					AVRG		0.21896		4.07356	
M 227 Benzo(b,k)fluoranthene	0.73667	0.86303	0.94898	0.91431	0.92802	0.89592						
	0.88671	0.88707					AVRG		0.88259		7.33906	
M 228 TTO Sum Semivolatiles	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	100 Level 7	120 Level 8										
$ 3 2-Fluorophenol	+++++	0.98202	1.07204	1.02934	1.03017	0.98830						
	0.95348	0.95648					AVRG		1.00169		4.36295	
$ 5 Phenol-d5	+++++	1.23734	1.34586	1.27212	1.28456	1.26316						
	1.22407	1.22277					AVRG		1.26427		3.41674	
$ 187 2-Chlorophenol-d4	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
$ 188 1,2-Dichlorobenzene-d4	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
$ 20 Nitrobenzene-d5	+++++	0.30745	0.31426	0.29453	0.29315	0.27101						
	0.25359	0.24671					AVRG		0.28296		9.27927	
$ 39 2-Fluorobiphenyl	+++++	1.11512	1.14628	1.04977	1.05601	0.99136						
	0.92488	0.93239					AVRG		1.03083		8.29816	
$ 60 2,4,6-Tribromophenol	+++++	0.10485	0.11685	0.11180	0.11267	0.12310						
	0.12190	0.12607					AVRG		0.11675		6.41378	
$ 81 p-Terphenyl-d14	+++++	0.71309	0.69797	0.64349	0.66522	0.61764						
	0.59401	0.58404					AVRG		0.64507		7.73004	

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Cal Date : 17-Dec-2009 08:11 nat00999

Curve	Formula	Units
Averaged	Amt = Rsp/ml	Response
Linear	Amt = b + Rsp/ml	Response
Wt Linear	Amt = b + Rsp/ml	Response

Data File: /chem/MSD6.i/s110909.b/s6k0937.d
Report Date: 11-Nov-2009 10:50

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD6.i
Lab File ID: s6k0937.d
Analysis Type:
Lab Sample ID: WBN091106-09.1 Quant Type: ISTD
Method: /chem/MSD6.i/s110909.b/MSD6-M8270C-AQA-110909.m

Injection Date: 10-NOV-2009 20:29
Init. Cal. Date(s): 09-NOV-2009 11-NOV-2009
Init. Cal. Times: 18:53 04:38

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
$ 3 2-Fluorophenol	1.00169	1.03466	1.03466	0.000	3.29147	60.00000	Averaged
$ 5 Phenol-d5	1.26427	1.24245	1.24245	0.000	-1.72556	60.00000	Averaged
$ 20 Nitrobenzene-d5	0.28296	0.29902	0.29902	0.000	5.67523	60.00000	Averaged
$ 39 2-Fluorobiphenyl	1.03083	1.08174	1.08174	0.000	4.93820	60.00000	Averaged
$ 60 2,4,6-Tribromophenol	0.11675	0.12945	0.12945	0.000	10.88297	60.00000	Averaged
$ 81 p-Terphenyl-d14	0.64507	0.72359	0.72359	0.000	12.17316	60.00000	Averaged
1 N-Methyl-N-nitrosomethylami	0.68098	0.64081	0.64081	0.000	-5.89855	60.00000	Averaged
2 Pyridine	0.84757	0.77144	0.77144	0.000	-8.98267	60.00000	Averaged
4 Aniline	0.52752	0.51930	0.51930	0.000	-1.55765	60.00000	Averaged
6 Phenol	1.27120	1.23489	1.23489	0.001	-2.85632	20.00000	Averaged ccc
7 bis(2-Chloroethyl) ether	0.86081	0.80936	0.80936	0.000	-5.97614	60.00000	Averaged
8 2-Chlorophenol	1.02109	1.01772	1.01772	0.000	-0.32996	60.00000	Averaged
203 n-Decane	1.42254	1.44155	1.44155	0.000	1.33631	60.00000	Averaged
9 1,3-Dichlorobenzene	1.17550	1.19665	1.19665	0.000	1.79939	60.00000	Averaged
11 1,4-Dichlorobenzene	1.19162	1.18877	1.18877	0.001	-0.23932	20.00000	Averaged ccc
13 1,2-Dichlorobenzene	1.11231	1.12583	1.12583	0.000	1.21558	60.00000	Averaged
14 bis(2-Chloroisopropyl)ether	1.92182	1.94108	1.94108	0.000	1.00230	60.00000	Averaged
12 Benzyl alcohol	0.63436	0.65075	0.65075	0.000	2.58272	60.00000	Averaged
15 o-Cresol	0.83139	0.83798	0.83798	0.000	0.79318	60.00000	Averaged
18 m,p-Cresols	1.05346	1.05662	1.05662	0.000	0.29972	60.00000	Averaged
17 N-Nitrosodipropylamine	0.70865	0.69204	0.69204	0.050	-2.34415	60.00000	Averaged spcc
19 Hexachloroethane	0.46100	0.44650	0.44650	0.000	-3.14409	60.00000	Averaged
21 Nitrobenzene	0.28519	0.29957	0.29957	0.000	5.04113	60.00000	Averaged
22 Isophorone	0.50552	0.52435	0.52435	0.000	3.72478	60.00000	Averaged
23 2-Nitrophenol	0.13154	0.13639	0.13639	0.001	3.68222	20.00000	Averaged ccc
24 2,4-Dimethylphenol	0.21795	0.23088	0.23088	0.000	5.93159	60.00000	Averaged
25 bis(2-Chloroethoxy)methane	0.29749	0.30276	0.30276	0.000	1.77222	60.00000	Averaged
26 2,4-Dichlorophenol	0.19769	0.20590	0.20590	0.001	4.15386	20.00000	Averaged ccc
27 Benzoic acid	0.13453	0.14567	0.14567	0.000	8.28081	60.00000	Averaged
28 1,2,4-Trichlorobenzene	0.24261	0.24953	0.24953	0.000	2.85087	60.00000	Averaged
30 Naphthalene	0.79792	0.83170	0.83170	0.000	4.23406	60.00000	Averaged
204 alpha-Terpineol	0.21868	0.21801	0.21801	0.000	-0.30655	60.00000	Averaged
31 4-Chloroaniline	0.25646	0.26546	0.26546	0.000	3.51176	60.00000	Averaged
32 Hexachlorobutadiene	0.12634	0.13489	0.13489	0.001	6.77038	20.00000	Averaged ccc
33 4-Chloro-3-methylphenol	0.19957	0.20148	0.20148	0.001	0.96147	20.00000	Averaged ccc
34 2-Methylnaphthalene	0.48150	0.55976	0.55976	0.000	16.25394	60.00000	Averaged

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD6.i Injection Date: 10-NOV-2009 20:29
Lab File ID: s6k0937.d Init. Cal. Date(s): 09-NOV-2009 11-NOV-2009
Analysis Type: Init. Cal. Times: 18:53 04:38
Lab Sample ID: WBN091106-09.1 Quant Type: ISTD
Method: /chem/MSD6.i/s110909.b/MSD6-M8270C-AQA-110909.m

	COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
35	1-Methylnaphthalene	0.47100	0.53047	0.53047	0.000	12.62514	60.00000	Averaged	
36	Hexachlorocyclopentadiene	0.16157	0.12441	0.12441	0.050	-22.99690	60.00000	Averaged	spcc
205	2,3-Dichloroaniline	0.47908	0.48878	0.48878	0.000	2.02564	60.00000	Averaged	
37	2,4,6-Trichlorophenol	0.27294	0.27425	0.27425	0.001	0.48093	20.00000	Averaged	ccc
38	2,4,5-Trichlorophenol	0.29067	0.30912	0.30912	0.000	6.34737	60.00000	Averaged	
40	2-Chloronaphthalene	0.89832	0.89821	0.89821	0.000	-0.01212	60.00000	Averaged	
42	o-Nitroaniline	0.30732	0.29883	0.29883	0.000	-2.76487	60.00000	Averaged	
41	m-Nitroaniline	0.22497	0.22544	0.22544	0.000	0.20968	60.00000	Averaged	
43	Dimethylphthalate	1.02610	1.07233	1.07233	0.000	4.50566	60.00000	Averaged	
44	2,6-Dinitrotoluene	0.24475	0.24571	0.24571	0.000	0.39287	60.00000	Averaged	
50	2,4-Dinitrotoluene	0.30862	0.32387	0.32387	0.000	4.94261	60.00000	Averaged	
45	Acenaphthylene	1.44438	1.60997	1.60997	0.000	11.46448	60.00000	Averaged	
47	Acenaphthene	0.90151	0.96315	0.96315	0.001	6.83729	20.00000	Averaged	ccc
48	2,4-Dinitrophenol	35.88405	40.00000	0.06990	0.050	-10.28987	60.00000	Linear	spcc
49	Dibenzofuran	1.21689	1.24464	1.24464	0.000	2.28092	60.00000	Averaged	
51	Diethylphthalate	1.03335	1.08103	1.08103	0.000	4.61479	60.00000	Averaged	
52	4-Nitrophenol	37.16907	40.00000	0.15052	0.050	-7.07733	60.00000	Linear	spcc
53	Fluorene	0.99879	1.09503	1.09503	0.000	9.63571	60.00000	Averaged	
54	4-Chlorophenylphenylether	0.47192	0.49481	0.49481	0.000	4.84948	60.00000	Averaged	
55	2-Methyl-4,6-dinitrophenol	44.79678	40.00000	0.10162	0.000	11.99194	60.00000	Linear	
56	p-Nitroaniline	37.18126	40.00000	0.19210	0.000	-7.04684	60.00000	Linear	
133	Diphenylamine	0.48213	0.48382	0.48382	0.001	0.34977	20.00000	Averaged	ccc
58	1,2-Diphenylhydrazine	0.61327	0.61966	0.61966	0.000	1.04277	60.00000	Averaged	
61	4-Bromophenylphenylether	0.15784	0.15705	0.15705	0.000	-0.50023	60.00000	Averaged	
63	Hexachlorobenzene	0.16533	0.16268	0.16268	0.000	-1.60406	60.00000	Averaged	
65	Pentachlorophenol	41.23337	40.00000	0.08933	0.001	3.08343	20.00000	Linear	ccc
206	n-Octadecane	0.44173	0.45929	0.45929	0.000	3.97491	60.00000	Averaged	
68	Phenanthrene	0.82721	0.88585	0.88585	0.000	7.08867	60.00000	Averaged	
69	Anthracene	0.82682	0.90991	0.90991	0.000	10.04830	60.00000	Averaged	
72	Di-n-butylphthalate	0.94954	1.02135	1.02135	0.000	7.56331	60.00000	Averaged	
76	Fluoranthene	0.79242	0.90654	0.90654	0.001	14.40110	20.00000	Averaged	ccc
79	Pyrene	1.10021	1.20816	1.20816	0.000	9.81213	60.00000	Averaged	
85	Butylbenzylphthalate	0.50351	0.54090	0.54090	0.000	7.42706	60.00000	Averaged	
89	Benzo(a)anthracene	0.86301	0.92157	0.92157	0.000	6.78546	60.00000	Averaged	
92	Chrysene	0.82690	0.90169	0.90169	0.000	9.04505	60.00000	Averaged	
93	bis(2-Ethylhexyl)phthalate	41.60196	40.00000	0.72185	0.000	4.00491	60.00000	Wt Linear	

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD6.i
Lab File ID: s6k0937.d
Analysis Type:
Lab Sample ID: WBN091106-09.1
Method: /chem/MSD6.i/s110909.b/MSD6-M8270C-AQA-110909.m

Injection Date: 10-NOV-2009 20:29
Init. Cal. Date(s): 09-NOV-2009 11-NOV-2009
Init. Cal. Times: 18:53 04:38
Quant Type: ISTD

	COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
	94 Di-n-octylphthalate	1.27127	1.35676	1.35676	0.001	6.72426	20.00000	Averaged	ccc
	95 Benzo(b)fluoranthene	0.88507	0.99154	0.99154	0.000	12.02912	60.00000	Averaged	
	96 Benzo(k)fluoranthene	0.88011	1.01364	1.01364	0.000	15.17242	60.00000	Averaged	
	97 Benzo(a)pyrene	0.76447	0.88080	0.88080	0.001	15.21790	20.00000	Averaged	ccc
	99 Indeno(1,2,3-cd)pyrene	40.05227	40.00000	0.72891	0.000	0.13069	60.00000	Linear	
	100 Dibenzo(a,h)anthracene	37.95723	40.00000	0.56106	0.000	-5.10692	60.00000	Linear	
	101 Benzo(ghi)perylene	0.58403	0.61594	0.61594	0.000	5.46367	60.00000	Averaged	
	126 m-Dinitrobenzene	0.16929	0.17081	0.17081	0.000	0.89311	60.00000	Averaged	
	130 2,3,4,6-Tetrachlorophenol	0.21896	0.23318	0.23318	0.000	6.49309	60.00000	Averaged	
	143 Dinoseb	37.88463	40.00000	0.11675	0.000	-5.28842	60.00000	Linear	
	173 Carbazole	0.65449	0.70032	0.70032	0.000	7.00193	60.00000	Averaged	
	184 p-Benzoquinone	0.12730	0.14364	0.14364	0.000	12.83157	60.00000	Averaged	
	192 Methoxychlor	0.55243	0.57593	0.57593	0.000	4.25434	60.00000	Averaged	
	211 p-Toluidine	0.89987	0.90823	0.90823	0.000	0.92871	60.00000	Averaged	
	210 m-Toluidine	1.12396	1.11262	1.11262	0.000	-1.00903	60.00000	Averaged	
	26 Phthalic anhydride	71.32284	40.00000	0.14710	0.000	78.30709	60.00000	Linear	<-
	179 Dibenzo(a,e)pyrene	23.04060	40.00000	0.15052	0.000	-42.39851	60.00000	Linear	
	214 1,4-Dinitrobenzene	0.18382	0.17485	0.17485	0.000	-4.87689	60.00000	Averaged	
	215 2-Ethoxyethanol	0.71035	0.75383	0.75383	0.000	6.12038	60.00000	Averaged	
	216 Methylenebis(2-chloroanilin	38.25405	40.00000	0.11920	0.000	-4.36487	60.00000	Linear	
M	225 Trichlorophenols	0.28180	0.29168	0.29168	0.000	3.50642	60.00000	Averaged	
M	226 Tetrachlorophenols	0.21896	0.23318	0.23318	0.000	6.49309	60.00000	Averaged	
M	227 Benzo(b,k)fluoranthene	0.88259	1.00259	1.00259	0.000	13.59635	60.00000	Averaged	

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Data file : /chem/MSD6.i/s110909.b/s6k0937.d
Lab Smp Id: WBN091106-09.1 Client Smp ID: MEGAICV
Inj Date : 10-NOV-2009 20:29
Operator : JMB3 Inst ID: MSD6.i
Smp Info : |WBN091106-09.1|40 PPM|1|SVMF|1|MEGAICV
Misc Info : |MSD8270|WBN091106-10
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s110909.b/MSD6-M8270C-AQA-110909.m
Meth Date : 11-Nov-2009 10:50 nat00999 Quant Type: ISTD
Cal Date : 11-NOV-2009 02:44 Cal File: s6k0950.d
Als bottle: 17 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: MEGA.sub
Target Version: 3.50
Processing Host: hpclp1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	4.834	4.834	(1.000)	267857	40.0000	
* 29 Naphthalene-d8	136	6.116	6.116	(1.000)	1007489	40.0000	
* 46 Acenaphthene-d10	164	7.986	7.986	(1.000)	511035	40.0000	
* 67 Phenanthrene-d10	188	9.599	9.599	(1.000)	891521	40.0000	
* 91 Chrysene-d12	240	12.618	12.618	(1.000)	688764	40.0000	
* 98 Perylene-d12	264	14.955	14.955	(1.000)	524055	40.0000	
$ 3 2-Fluorophenol	112	3.646	3.646	(0.754)	277141	40.0000	41.3
$ 5 Phenol-d5	99	4.431	4.431	(0.917)	332800	40.0000	39.3
$ 20 Nitrobenzene-d5	82	5.371	5.371	(0.878)	301256	40.0000	42.3
$ 39 2-Fluorobiphenyl	172	7.242	7.242	(0.907)	552805	40.0000	42.0
$ 60 2,4,6-Tribromophenol	329	8.834	8.834	(1.106)	66156	40.0000	44.4
$ 81 p-Terphenyl-d14	244	11.306	11.306	(0.896)	498384	40.0000	44.9
1 N-Methyl-N-nitrosomethylamine	74	2.663	2.663	(0.551)	171645	40.0000	37.6
2 Pyridine	79	2.701	2.701	(0.559)	206635	40.0000	36.4
4 Aniline	66	4.518	4.518	(0.935)	139099	40.0000	39.4
6 Phenol	94	4.444	4.444	(0.919)	330773	40.0000	38.8
7 bis(2-Chloroethyl) ether	63	4.559	4.559	(0.943)	216794	40.0000	37.6
8 2-Chlorophenol	128	4.633	4.633	(0.958)	272604	40.0000	39.9
203 n-Decane	43	4.643	4.643	(0.960)	386128	40.0000	40.5
9 1,3-Dichlorobenzene	146	4.783	4.783	(0.989)	320531	40.0000	40.7
11 1,4-Dichlorobenzene	146	4.852	4.852	(1.004)	318420	40.0000	39.9
13 1,2-Dichlorobenzene	146	5.002	5.002	(1.035)	301561	40.0000	40.5
14 bis(2-Chloroisopropyl)ether	45	5.068	5.068	(1.048)	519933	40.0000	40.4
12 Benzyl alcohol	108	4.941	4.941	(1.022)	174307	40.0000	41.0
15 o-Cresol	107	5.025	5.025	(1.040)	224459	40.0000	40.3
18 m,p-Cresols	107	5.180	5.180	(1.072)	283022	40.0000	40.1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
17 N-Nitrosodipropylamine	70	5.206	5.206	(1.077)	185368	40.0000	39.1
19 Hexachloroethane	117	5.338	5.338	(1.104)	119599	40.0000	38.7
21 Nitrobenzene	77	5.392	5.392	(0.882)	301811	40.0000	42.0
22 Isophorone	82	5.626	5.626	(0.920)	528272	40.0000	41.5
23 2-Nitrophenol	139	5.708	5.708	(0.933)	137410	40.0000	41.5
24 2,4-Dimethylphenol	122	5.718	5.718	(0.935)	232609	40.0000	42.4
25 bis(2-Chloroethoxy)methane	93	5.825	5.825	(0.952)	305032	40.0000	40.7
26 2,4-Dichlorophenol	162	5.950	5.950	(0.973)	207439	40.0000	41.7
27 Benzoic acid	105	5.812	5.812	(0.950)	146760	40.0000	43.3(H)
28 1,2,4-Trichlorobenzene	180	6.047	6.047	(0.989)	251400	40.0000	41.1
30 Naphthalene	128	6.138	6.138	(1.004)	837929	40.0000	41.7
204 alpha-Terpineol	59	6.123	6.123	(1.001)	219641	40.0000	39.9
31 4-Chloroaniline	127	6.172	6.172	(1.009)	267452	40.0000	41.4
32 Hexachlorobutadiene	225	6.251	6.251	(1.022)	135904	40.0000	42.7
33 4-Chloro-3-methylphenol	107	6.653	6.653	(1.088)	202993	40.0000	40.4
34 2-Methylnaphthalene	142	6.862	6.862	(1.122)	563953	40.0000	46.5
35 1-Methylnaphthalene	142	6.969	6.969	(1.140)	534441	40.0000	45.0
36 Hexachlorocyclopentadiene	237	7.020	7.020	(0.879)	63579	40.0000	30.8
205 2,3-Dichloroaniline	161	7.155	7.155	(0.896)	249785	40.0000	40.8
37 2,4,6-Trichlorophenol	196	7.147	7.147	(0.895)	140152	40.0000	40.2
38 2,4,5-Trichlorophenol	196	7.183	7.183	(0.899)	157970	40.0000	42.5
40 2-Chloronaphthalene	162	7.384	7.384	(0.925)	459019	40.0000	40.0
42 o-Nitroaniline	65	7.479	7.479	(0.936)	152711	40.0000	38.9
41 m-Nitroaniline	138	7.922	7.922	(0.992)	115209	40.0000	40.1
43 Dimethylphthalate	163	7.670	7.670	(0.960)	548000	40.0000	41.8
44 2,6-Dinitrotoluene	165	7.739	7.739	(0.969)	125566	40.0000	40.2
50 2,4-Dinitrotoluene	165	8.172	8.172	(1.023)	165511	40.0000	42.0
45 Acenaphthylene	152	7.835	7.835	(0.981)	822752	40.0000	44.6
47 Acenaphthene	154	8.024	8.024	(1.005)	492203	40.0000	42.7
48 2,4-Dinitrophenol	184	8.029	8.029	(1.005)	35722	40.0000	35.9
49 Dibenzofuran	168	8.205	8.205	(1.027)	636057	40.0000	40.9
51 Diethylphthalate	149	8.424	8.424	(1.055)	552446	40.0000	41.8
52 4-Nitrophenol	139	8.070	8.070	(1.011)	76920	40.0000	37.2
53 Fluorene	166	8.577	8.577	(1.074)	559601	40.0000	43.8
54 4-Chlorophenylphenylether	204	8.564	8.564	(1.072)	252864	40.0000	41.9
55 2-Methyl-4,6-dinitrophenol	198	8.613	8.613	(0.897)	90597	40.0000	44.8
56 p-Nitroaniline	138	8.582	8.582	(1.075)	98168	40.0000	37.2
133 Diphenylamine	169	8.689	8.689	(0.905)	431336	40.0000	40.1
58 1,2-Diphenylhydrazine	77	8.738	8.738	(0.910)	552443	40.0000	40.4
61 4-Bromophenylphenylether	248	9.094	9.094	(0.947)	140012	40.0000	39.8
63 Hexachlorobenzene	284	9.173	9.173	(0.956)	145031	40.0000	39.4
65 Pentachlorophenol	266	9.375	9.375	(0.977)	79644	40.0000	41.2
206 n-Octadecane	57	9.431	9.431	(0.982)	409467	40.0000	41.6
68 Phenanthrene	178	9.624	9.624	(1.003)	789756	40.0000	42.8
69 Anthracene	178	9.680	9.680	(1.008)	811200	40.0000	44.0
72 Di-n-butylphthalate	149	10.190	10.190	(1.062)	910557	40.0000	43.0
76 Fluoranthene	202	10.914	10.914	(1.137)	808196	40.0000	45.8

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
79 Pyrene	202	11.166	11.166	(0.885)	832137	40.0000	43.9
85 Butylbenzylphthalate	149	11.841	11.841	(0.938)	372553	40.0000	43.0
89 Benzo(a)anthracene	228	12.598	12.598	(0.998)	634741	40.0000	42.7
92 Chrysene	228	12.654	12.654	(1.003)	621053	40.0000	43.6
93 bis(2-Ethylhexyl)phthalate	149	12.570	12.570	(0.996)	497186	40.0000	41.6
94 Di-n-octylphthalate	149	13.561	13.561	(0.907)	711015	40.0000	42.7
95 Benzo(b)fluoranthene	252	14.275	14.275	(0.954)	519622	40.0000	44.8
96 Benzo(k)fluoranthene	252	14.326	14.326	(0.958)	531203	40.0000	46.1
97 Benzo(a)pyrene	252	14.853	14.853	(0.993)	461589	40.0000	46.1
99 Indeno(1,2,3-cd)pyrene	276	16.945	16.945	(1.133)	381990	40.0000	40.0
100 Dibenzo(a,h)anthracene	278	16.978	16.978	(1.135)	294025	40.0000	38.0
101 Benzo(ghi)perylene	276	17.460	17.460	(1.167)	322785	40.0000	42.2
126 m-Dinitrobenzene	168	7.708	7.708	(0.965)	87288	40.0000	40.4
130 2,3,4,6-Tetrachlorophenol	232	8.325	8.325	(1.042)	119161	40.0000	42.6
143 Dinoseb	211	9.561	9.561	(0.996)	104085	40.0000	37.9
173 Carbazole	167	9.841	9.841	(1.025)	624352	40.0000	42.8
184 p-Benzoquinone	54	4.085	4.085	(0.845)	38475	40.0000	45.1
192 Methoxychlor	227	12.468	12.468	(0.988)	396683	40.0000	41.7
211 p-Toluidine	106	5.252	5.252	(1.086)	243276	40.0000	40.4
210 m-Toluidine	106	5.285	5.285	(1.093)	298023	40.0000	39.6
26 Phthalic anhydride	104	6.911	6.911	(1.130)	148201	40.0000	71.3
179 Dibenzo(a,e)pyrene	302	21.182	21.182	(1.416)	78881	40.0000	23.0
214 1,4-Dinitrobenzene	75	7.624	7.624	(0.955)	89355	40.0000	38.0
215 2-Ethoxyethanol	59	2.454	2.454	(0.508)	201919	40.0000	42.4
216 Methylenebis(2-chloroaniline)	231	12.539	12.539	(0.994)	82098	40.0000	38.2
M 225 Trichlorophenols	196				298122	80.0000	82.8
M 226 Tetrachlorophenols	232				119161	40.0000	42.6
M 227 Benzo(b,k)fluoranthene	252				1050825	80.0000	90.9

QC Flag Legend

H - Operator selected an alternate compound hit.

Data File: /chem/MSD6.i/s110909.b/s6k0937.d
Date : 10-NOV-2009 20:29
Client ID: MEGAICV
Sample Info: IWBN091106-09.1|40 PPM|1|SVMF1|1|MEGAICV
Column phase: J&W DB-5MS

Instrument: MSD6.i
Operator: JMB3
Column diameter: 0.20

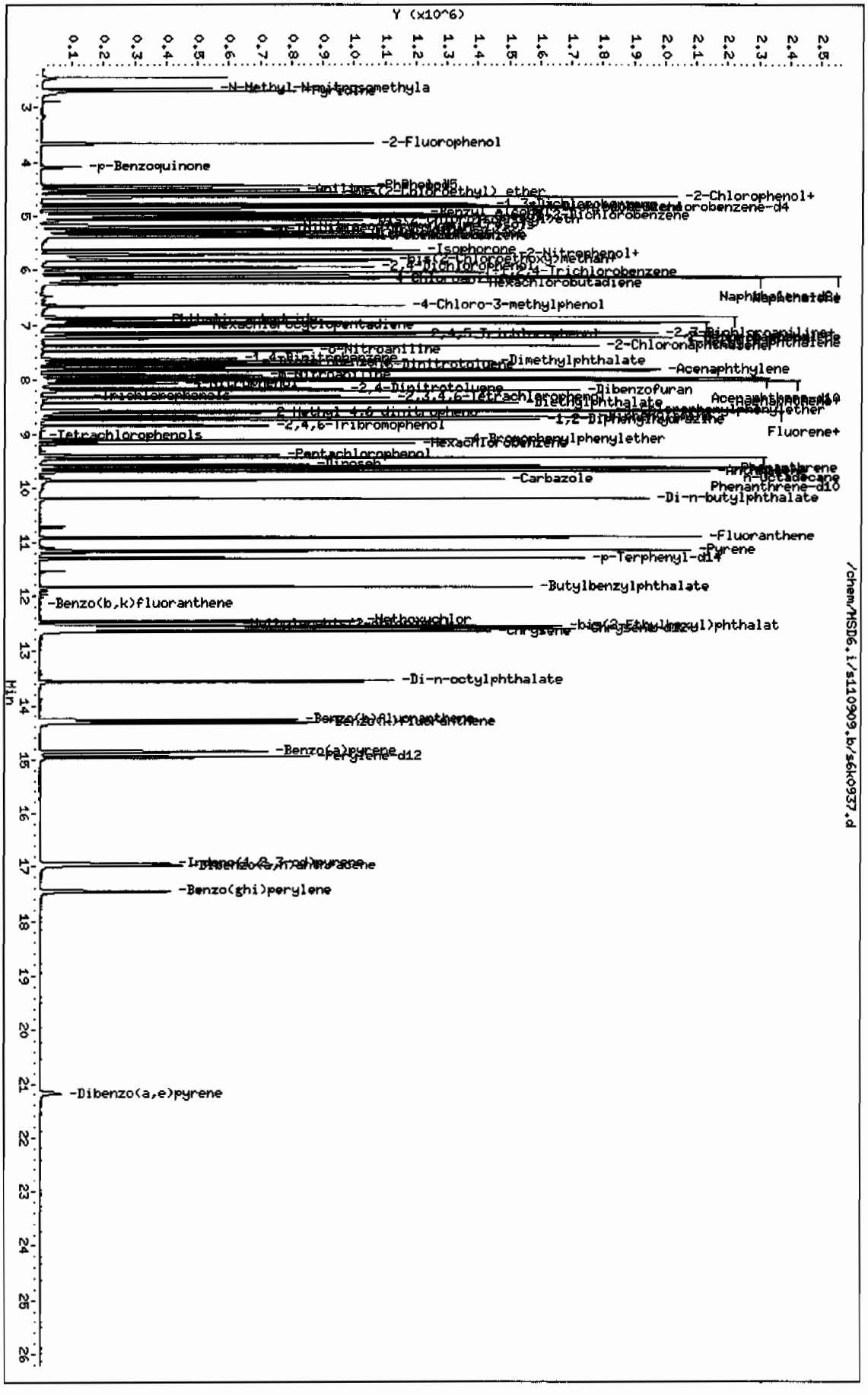

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD6.i
Lab File ID: s6k0938.d
Analysis Type:
Lab Sample ID: WBN091016-08.1 Quant Type: ISTD
Method: /chem/MSD6.i/s110909.b/MSD6-M8270C-AQA-110909.m

Injection Date: 10-NOV-2009 21:07
Init. Cal. Date(s): 09-NOV-2009 11-NOV-2009
Init. Cal. Times: 18:53 04:38

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
209 Benzaldehyde	0.86127	0.67526	0.67526	0.000	-21.59733	60.00000	Averaged
16 Acetophenone	1.16908	1.08481	1.08481	0.000	-7.20809	60.00000	Averaged
189 Caprolactam	0.07388	0.08118	0.08118	0.000	9.87786	60.00000	Averaged
208 1,1'-Biphenyl	1.20131	1.15865	1.15865	0.000	-3.55099	60.00000	Averaged
207 Atrazine	0.04063	0.03738	0.03738	0.000	-8.01727	60.00000	Averaged
77 Benzidine	0.39304	0.35886	0.35886	0.000	-8.69608	60.00000	Averaged
90 3,3'-Dichlorobenzidine	0.28252	0.30132	0.30132	0.000	6.65684	60.00000	Averaged
102 1,4-Dioxane	0.36606	0.45837	0.45837	0.000	25.21672	60.00000	Averaged
103 Methyl methacrylate	0.19388	0.26059	0.26059	0.000	34.40927	60.00000	Averaged
104 Ethyl methacrylate	0.80561	0.97594	0.97594	0.000	21.14390	60.00000	Averaged
105 2-Picoline	1.30872	1.36092	1.36092	0.000	3.98846	60.00000	Averaged
106 N-Nitrosomethylethylamine	0.51104	0.53755	0.53755	0.000	5.18772	60.00000	Averaged
107 Methyl methanesulfonate	0.52852	0.52223	0.52223	0.000	-1.19058	60.00000	Averaged
108 N-Nitrosodiethylamine	0.49553	0.51026	0.51026	0.000	2.97098	60.00000	Averaged
109 Ethyl Methanesulfonate	0.65169	0.73760	0.73760	0.000	13.18337	60.00000	Averaged
110 Pentachloroethane	0.31681	0.42390	0.42390	0.000	33.80401	60.00000	Averaged
111 N-Nitrosopyrrolidine	0.47614	0.46325	0.46325	0.000	-2.70540	60.00000	Averaged
113 N-Nitrosomorpholine	0.67936	0.65676	0.65676	0.000	-3.32751	60.00000	Averaged
114 o-Toluidine	1.65281	1.64899	1.64899	0.000	-0.23102	60.00000	Averaged
115 N-Nitrosopiperidine	0.14105	0.14180	0.14180	0.000	0.52679	60.00000	Averaged
116 a,a-Dimethylphenethylamine	0.85546	0.87204	0.87204	0.000	1.93819	60.00000	Averaged
118 2,6-Dichlorophenol	0.20687	0.20008	0.20008	0.000	-3.28259	60.00000	Averaged
119 Hexachloropropene	0.10269	0.14537	0.14537	0.000	41.57055	60.00000	Averaged
120 p-Phenylenediamine	0.22955	0.23182	0.23182	0.000	0.99155	60.00000	Averaged
121 N-Nitrosodi-n-butylamine	0.21004	0.21749	0.21749	0.000	3.54470	60.00000	Averaged
122 Safrole	0.18653	0.20933	0.20933	0.000	12.22661	60.00000	Averaged
123 1,2,4,5-Tetrachlorobenzene	0.42319	0.42512	0.42512	0.000	0.45545	60.00000	Averaged
124 Isosafrole	0.33959	0.43257	0.43257	0.000	27.38086	60.00000	Averaged
125 1,4-Naphthoquinone	0.30674	0.30375	0.30375	0.000	-0.97466	60.00000	Averaged
127 Pentachlorobenzene	0.36454	0.36394	0.36394	0.000	-0.16566	60.00000	Averaged
128 1-Naphthylamine	0.90742	0.91190	0.91190	0.000	0.49410	60.00000	Averaged
129 2-Naphthylamine	0.98012	0.91865	0.91865	0.000	-6.27177	60.00000	Averaged
131 5-Nitro-o-toluidine	0.27901	0.28996	0.28996	0.000	3.92480	60.00000	Averaged
136 1,3,5-Trinitrobenzene	46.05690	40.00000	0.13757	0.000	15.14226	60.00000	Linear
137 Phenacetin	0.26240	0.25991	0.25991	0.000	-0.94903	60.00000	Averaged
138 Diallate	0.24056	0.23148	0.23148	0.000	-3.77545	60.00000	Averaged

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD6.i Injection Date: 10-NOV-2009 21:07
Lab File ID: s6k0938.d Init. Cal. Date(s): 09-NOV-2009 11-NOV-2009
Analysis Type: Init. Cal. Times: 18:53 04:38
Lab Sample ID: WBN091016-08.1 Quant Type: ISTD
Method: /chem/MSD6.i/s110909.b/MSD6-M8270C-AQA-110909.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
140 4-Aminobiphenyl	0.53562	0.58994	0.58994	0.000	10.14239	60.00000	Averaged
141 Pentachloronitrobenzene	0.06192	0.06213	0.06213	0.000	0.34079	60.00000	Averaged
142 Pronamide	0.26319	0.26234	0.26234	0.000	-0.32101	60.00000	Averaged
146 4-Nitroquinoline-1-oxide	0.02349	0.02580	0.02580	0.000	9.82299	60.00000	Averaged
147 Methapyrilene	0.38600	0.39422	0.39422	0.000	2.12820	60.00000	Averaged
148 Isodrin	0.09631	0.08838	0.08838	0.000	-8.22821	60.00000	Averaged
149 Aramite	0.04420	0.04155	0.04155	0.000	-5.99495	60.00000	Averaged
150 Kepone	0.06173	0.05889	0.05889	0.000	-4.59530	60.00000	Averaged
151 p-(Dimethylamino)azobenzene	0.31734	0.33079	0.33079	0.000	4.23929	60.00000	Averaged
152 Chlorobenzilate	0.29130	0.29321	0.29321	0.000	0.65640	60.00000	Averaged
153 3,3'-Dimethylbenzidine	0.52763	0.57778	0.57778	0.000	9.50435	60.00000	Averaged
155 2-Acetylaminofluorene	41.44131	40.00000	0.34022	0.000	3.60328	60.00000	Linear
157 7,12Dimethylbenz(a)anthrace	0.47906	0.41447	0.41447	0.000	-13.48259	60.00000	Averaged
158 3-Methylcholanthrene	0.36955	0.35869	0.35869	0.000	-2.93887	60.00000	Averaged
212 Cis Diallate	0.25295	0.25705	0.25705	0.000	1.62146	60.00000	Averaged
213 Trans Diallate	0.28301	0.27233	0.27233	0.000	-3.77545	60.00000	Averaged

GEL Laboratories LLC

Data file : /chem/MSD6.i/s110909.b/s6k0938.d
Lab Smp Id: WBN091016-08.1 Client Smp ID: AP12ICV
Inj Date : 10-NOV-2009 21:07
Operator : JMB3 Inst ID: MSD6.i
Smp Info : |WBN091016-08.1|40 PPM|1|SVMF|1|AP12ICV
Misc Info : |MSD8270|WBN091106-10
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s110909.b/MSD6-M8270C-AQA-110909.m
Meth Date : 11-Nov-2009 09:25 nat00999 Quant Type: ISTD
Cal Date : 11-NOV-2009 02:44 Cal File: s6k0950.d
Als bottle: 18 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AP12.sub
Target Version: 3.50
Processing Host: hpclp1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	4.834	4.834	(1.000)	282437	40.0000	
* 29 Naphthalene-d8	136	6.113	6.113	(1.000)	974498	40.0000	
* 46 Acenaphthene-d10	164	7.983	7.983	(1.000)	519475	40.0000	
* 67 Phenanthrene-d10	188	9.599	9.599	(1.000)	914999	40.0000	
* 91 Chrysene-d12	240	12.613	12.613	(1.000)	718441	40.0000	
* 98 Perylene-d12	264	14.950	14.950	(1.000)	524113	40.0000	
209 Benzaldehyde	77	4.428	4.428	(0.916)	190719	40.0000	31.4
16 Acetophenone	105	5.211	5.211	(1.078)	306390	40.0000	37.1
189 Caprolactam	113	6.531	6.531	(1.068)	79108	40.0000	44.0
208 1,1'-Biphenyl	154	7.354	7.354	(0.921)	601890	40.0000	38.6
207 Atrazine	173	9.249	9.249	(0.964)	34200	40.0000	36.8
77 Benzidine	184	11.038	11.038	(0.875)	257818	40.0000	36.5
90 3,3'-Dichlorobenzidine	252	12.539	12.539	(0.994)	216482	40.0000	42.7
102 1,4-Dioxane	88	2.456	2.456	(0.508)	129460	40.0000	50.1
103 Methyl methacrylate	100	2.454	2.454	(0.508)	73600	40.0000	53.8
104 Ethyl methacrylate	69	2.971	2.971	(0.615)	275642	40.0000	48.4
105 2-Picoline	93	3.228	3.228	(0.668)	384374	40.0000	41.6
106 N-Nitrosomethylethylamine	88	3.297	3.297	(0.682)	151823	40.0000	42.1
107 Methyl methanesulfonate	80	3.521	3.521	(0.728)	147497	40.0000	39.5
108 N-Nitrosodiethylamine	102	3.858	3.858	(0.798)	144115	40.0000	41.2
109 Ethyl Methanesulfonate	79	4.097	4.097	(0.848)	208326	40.0000	45.3
110 Pentachloroethane	167	4.574	4.574	(0.946)	119725	40.0000	53.5
111 N-Nitrosopyrrolidine	100	5.190	5.190	(1.074)	130840	40.0000	38.9(Q)
113 N-Nitrosomorpholine	56	5.223	5.223	(1.081)	185493	40.0000	38.7
114 o-Toluidine	106	5.249	5.249	(1.086)	465737	40.0000	39.9
115 N-Nitrosopiperidine	114	5.539	5.539	(0.906)	138180	40.0000	40.2

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
116 a,a-Dimethylphenethylamine	58	5.962	5.962	(0.975)	849798	40.0000	40.8
118 2,6-Dichlorophenol	162	6.184	6.184	(1.012)	194979	40.0000	38.7
119 Hexachloropropene	213	6.222	6.222	(1.018)	141665	40.0000	56.6
120 p-Phenylenediamine	108	6.541	6.541	(1.070)	225910	40.0000	40.4
121 N-Nitrosodi-n-butylamine	84	6.515	6.515	(1.066)	211942	40.0000	41.4(T)
122 Safrole	162	6.750	6.750	(1.104)	203993	40.0000	44.9
123 1,2,4,5-Tetrachlorobenzene	216	7.035	7.035	(0.881)	220840	40.0000	40.2
124 Isosafrole	162	7.305	7.305	(0.915)	224711	40.0000	51.0
125 1,4-Naphthoquinone	158	7.565	7.565	(0.948)	157789	40.0000	39.6
127 Pentachlorobenzene	250	8.156	8.156	(1.022)	189057	40.0000	39.9
128 1-Naphthylamine	143	8.284	8.284	(1.038)	473709	40.0000	40.2
129 2-Naphthylamine	143	8.368	8.368	(1.048)	477216	40.0000	37.5
131 5-Nitro-o-toluidine	152	8.574	8.574	(1.074)	150626	40.0000	41.6
136 1,3,5-Trinitrobenzene	75	8.946	8.946	(0.932)	125876	40.0000	46.0
137 Phenacetin	108	9.010	9.010	(0.939)	237813	40.0000	39.6(Q)
138 Diallate	86	8.990	8.990	(0.937)	211803	40.0000	38.5
140 4-Aminobiphenyl	169	9.374	9.374	(0.977)	539794	40.0000	44.0
141 Pentachloronitrobenzene	237	9.392	9.392	(0.978)	56852	40.0000	40.1(Q)
142 Pronamide	173	9.423	9.423	(0.982)	240044	40.0000	39.9
146 4-Nitroquinoline-1-oxide	101	10.445	10.445	(1.088)	23608	40.0000	43.9
147 Methapyrilene	58	10.518	10.518	(1.096)	360709	40.0000	40.8
148 Isodrin	193	10.750	10.750	(1.120)	80870	40.0000	36.7
149 Aramite	185	11.265	11.265	(1.174)	38019	40.0000	37.6
150 Kepone	272	11.933	11.933	(1.243)	53886	40.0000	38.2
151 p-(Dimethylamino)azobenzene	120	11.456	11.456	(0.908)	237654	40.0000	41.7
152 Chlorobenzilate	251	11.499	11.499	(0.912)	210653	40.0000	40.3
153 3,3'-Dimethylbenzidine	212	11.838	11.838	(0.939)	415103	40.0000	43.8
155 2-Acetylaminofluorene	181	12.154	12.154	(0.964)	244425	40.0000	41.4
157 7,12Dimethylbenz(a)anthracene	256	14.251	14.251	(0.953)	217229	40.0000	34.6
158 3-Methylcholanthrene	268	15.477	15.477	(1.035)	187994	40.0000	38.8(Q)
212 Cis Diallate	86	9.092	9.092	(0.947)	35280	6.00000	6.1
213 Trans Diallate	86	8.990	8.990	(0.937)	211803	34.0000	32.7

QC Flag Legend

T - Target compound detected outside RT window.
Q - Qualifier signal failed the ratio test.

Data File: /chem/MSD6.i/s110909.b/s6k0938.d
Date : 10-NOV-2009 21:07
Client ID: AP12ICV
Sample Info: IWBN091016-08,1|40 PPM|1|SVMF|1|AP12ICV
Column phase: J&W DB-5MS

Instrument: MSD6.i
Operator: JMB3
Column diameter: 0.20

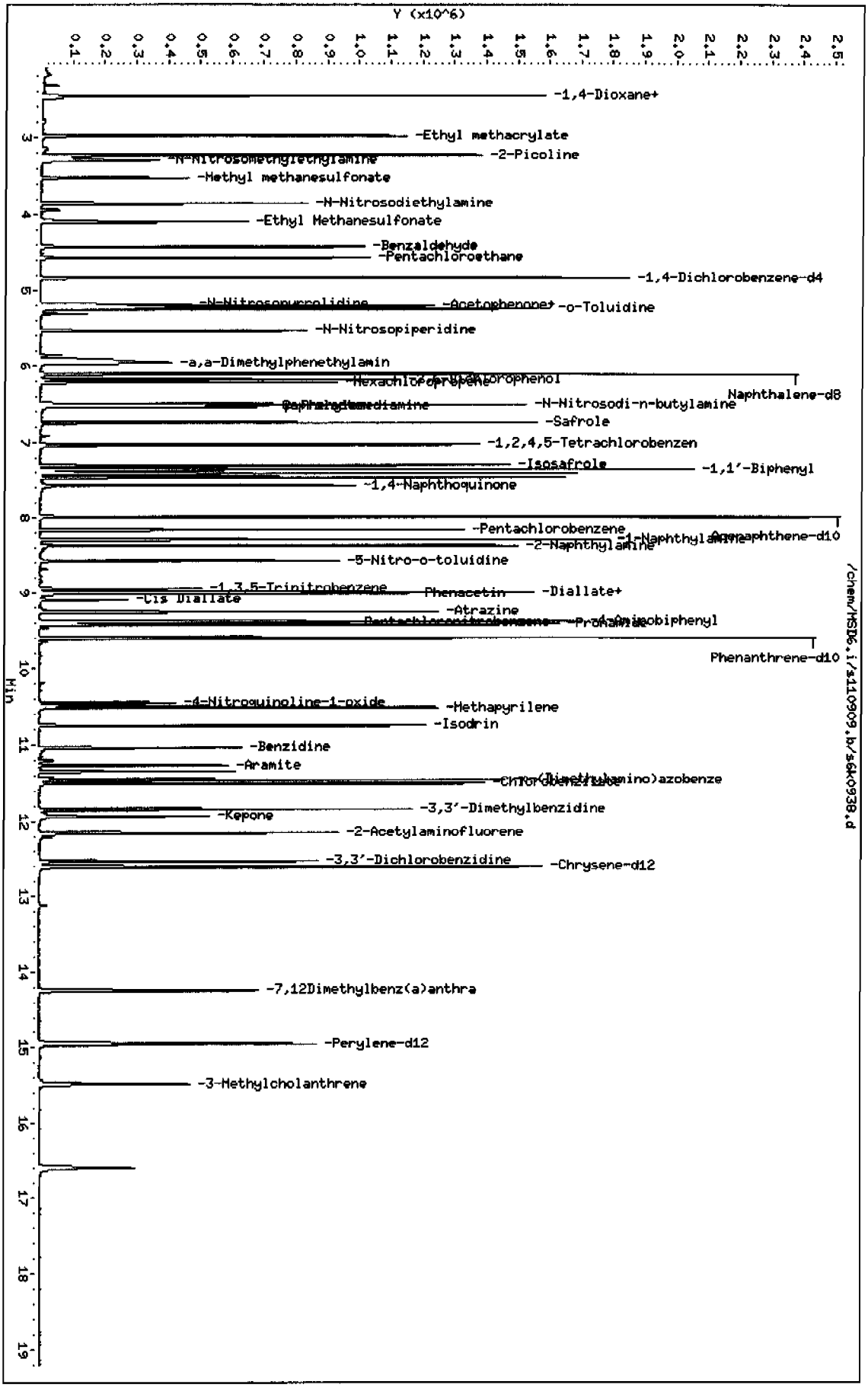

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GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD6.i Injection Date: 16-DEC-2009 14:18
Lab File ID: s611611.d Init. Cal. Date(s): 09-NOV-2009 11-NOV-2009
Analysis Type: WATER Init. Cal. Times: 18:53 04:38
Lab Sample ID: WBN091111-17.4 Quant Type: ISTD
Method: /chem/MSD6.i/s121609.b/MSD6-M8270C-AQA-110909.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
$ 3 2-Fluorophenol	1.00169	0.99383	0.99383	0.000	-0.78474	60.00000	Averaged
$ 5 Phenol-d5	1.26427	1.27179	1.27179	0.000	0.59511	60.00000	Averaged
$ 20 Nitrobenzene-d5	0.28296	0.28440	0.28440	0.000	0.50791	60.00000	Averaged
$ 39 2-Fluorobiphenyl	1.03083	1.07143	1.07143	0.000	3.93838	60.00000	Averaged
$ 60 2,4,6-Tribromophenol	0.11675	0.13188	0.13188	0.000	12.96090	60.00000	Averaged
$ 81 p-Terphenyl-d14	0.64507	0.70417	0.70417	0.000	9.16172	60.00000	Averaged
1 N-Methyl-N-nitrosomethylami	0.68098	0.62678	0.62678	0.000	-7.95869	60.00000	Averaged
2 Pyridine	0.84757	0.74535	0.74535	0.000	-12.06041	60.00000	Averaged
4 Aniline	0.52752	0.50228	0.50228	0.000	-4.78378	60.00000	Averaged
6 Phenol	1.27120	1.27161	1.27161	0.001	0.03272	20.00000	Averaged ccc
7 bis(2-Chloroethyl) ether	0.86081	0.78504	0.78504	0.000	-8.80158	60.00000	Averaged
8 2-Chlorophenol	1.02109	1.00553	1.00553	0.000	-1.52396	60.00000	Averaged
203 n-Decane	1.42254	1.19641	1.19641	0.000	-15.89621	60.00000	Averaged
9 1,3-Dichlorobenzene	1.17550	1.20399	1.20399	0.000	2.42360	60.00000	Averaged
11 1,4-Dichlorobenzene	1.19162	1.20297	1.20297	0.001	0.95238	20.00000	Averaged ccc
13 1,2-Dichlorobenzene	1.11231	1.13899	1.13899	0.000	2.39858	60.00000	Averaged
14 bis(2-Chloroisopropyl)ether	1.92182	1.82850	1.82850	0.000	-4.85585	60.00000	Averaged
12 Benzyl alcohol	0.63436	0.66385	0.66385	0.000	4.64855	60.00000	Averaged
15 o-Cresol	0.83139	0.83695	0.83695	0.000	0.66940	60.00000	Averaged
18 m,p-Cresols	1.05346	1.10132	1.10132	0.000	4.54301	60.00000	Averaged
17 N-Nitrosodipropylamine	0.70865	0.73103	0.73103	0.050	3.15790	60.00000	Averaged spcc
19 Hexachloroethane	0.46100	0.44040	0.44040	0.000	-4.46784	60.00000	Averaged
21 Nitrobenzene	0.28519	0.28894	0.28894	0.000	1.31336	60.00000	Averaged
22 Isophorone	0.50552	0.51771	0.51771	0.000	2.41251	60.00000	Averaged
23 2-Nitrophenol	0.13154	0.14019	0.14019	0.001	6.57497	20.00000	Averaged ccc
24 2,4-Dimethylphenol	0.21795	0.23988	0.23988	0.000	10.06300	60.00000	Averaged
25 bis(2-Chloroethoxy)methane	0.29749	0.30035	0.30035	0.000	0.96047	60.00000	Averaged
26 2,4-Dichlorophenol	0.19769	0.21227	0.21227	0.001	7.37910	20.00000	Averaged ccc
27 Benzoic acid	0.13453	0.17926	0.17926	0.000	33.24910	60.00000	Averaged
28 1,2,4-Trichlorobenzene	0.24261	0.24702	0.24702	0.000	1.81626	60.00000	Averaged
30 Naphthalene	0.79792	0.82601	0.82601	0.000	3.52090	60.00000	Averaged
204 alpha-Terpineol	0.21868	0.20547	0.20547	0.000	-6.03838	60.00000	Averaged
31 4-Chloroaniline	0.25646	0.26906	0.26906	0.000	4.91254	60.00000	Averaged
32 Hexachlorobutadiene	0.12634	0.12994	0.12994	0.001	2.85236	20.00000	Averaged ccc
33 4-Chloro-3-methylphenol	0.19957	0.20185	0.20185	0.001	1.14311	20.00000	Averaged ccc
34 2-Methylnaphthalene	0.48150	0.56492	0.56492	0.000	17.32452	60.00000	Averaged

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD6.i
Lab File ID: s611611.d
Analysis Type: WATER
Lab Sample ID: WBN091111-17.4 Quant Type: ISTD
Method: /chem/MSD6.i/s121609.b/MSD6-M8270C-AQA-110909.m

Injection Date: 16-DEC-2009 14:18
Init. Cal. Date(s): 09-NOV-2009 11-NOV-2009
Init. Cal. Times: 18:53 04:38

	COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
35	1-Methylnaphthalene	0.47100	0.54136	0.54136	0.000	14.93862	60.00000	Averaged	
36	Hexachlorocyclopentadiene	0.16157	0.11758	0.11758	0.050	-27.22798	60.00000	Averaged	spcc
205	2,3-Dichloroaniline	0.47908	0.48572	0.48572	0.000	1.38553	60.00000	Averaged	
37	2,4,6-Trichlorophenol	0.27294	0.27815	0.27815	0.001	1.90905	20.00000	Averaged	ccc
38	2,4,5-Trichlorophenol	0.29067	0.30694	0.30694	0.000	5.59814	60.00000	Averaged	
40	2-Chloronaphthalene	0.89832	0.90517	0.90517	0.000	0.76191	60.00000	Averaged	
42	o-Nitroaniline	0.30732	0.28055	0.28055	0.000	-8.71181	60.00000	Averaged	
41	m-Nitroaniline	0.22497	0.23011	0.23011	0.000	2.28581	60.00000	Averaged	
43	Dimethylphthalate	1.02610	1.06035	1.06035	0.000	3.33737	60.00000	Averaged	
44	2,6-Dinitrotoluene	0.24475	0.24919	0.24919	0.000	1.81632	60.00000	Averaged	
50	2,4-Dinitrotoluene	0.30862	0.31750	0.31750	0.000	2.87665	60.00000	Averaged	
45	Acenaphthylene	1.44438	1.63158	1.63158	0.000	12.96066	60.00000	Averaged	
47	Acenaphthene	0.90151	0.98114	0.98114	0.001	8.83322	20.00000	Averaged	ccc
48	2,4-Dinitrophenol	44.24466	40.00000	0.09723	0.050	10.61166	60.00000	Linear	spcc
49	Dibenzofuran	1.21689	1.24362	1.24362	0.000	2.19663	60.00000	Averaged	
51	Diethylphthalate	1.03335	1.08027	1.08027	0.000	4.54116	60.00000	Averaged	
52	4-Nitrophenol	41.90769	40.00000	0.17438	0.050	4.76924	60.00000	Linear	spcc
53	Fluorene	0.99879	1.12099	1.12099	0.000	12.23437	60.00000	Averaged	
54	4-Chlorophenylphenylether	0.47192	0.49797	0.49797	0.000	5.51874	60.00000	Averaged	
55	2-Methyl-4,6-dinitrophenol	52.18245	40.00000	0.12152	0.000	30.45612	60.00000	Linear	
56	p-Nitroaniline	38.97065	40.00000	0.20351	0.000	-2.57337	60.00000	Linear	
133	Diphenylamine	0.48213	0.49507	0.49507	0.001	2.68245	20.00000	Averaged	ccc
58	1,2-Diphenylhydrazine	0.61327	0.60577	0.60577	0.000	-1.22350	60.00000	Averaged	
61	4-Bromophenylphenylether	0.15784	0.16120	0.16120	0.000	2.13226	60.00000	Averaged	
63	Hexachlorobenzene	0.16533	0.16912	0.16912	0.000	2.29179	60.00000	Averaged	
65	Pentachlorophenol	41.01949	40.00000	0.08880	0.001	2.54873	20.00000	Linear	ccc
206	n-Octadecane	0.44173	0.43248	0.43248	0.000	-2.09463	60.00000	Averaged	
68	Phenanthrene	0.82721	0.89358	0.89358	0.000	8.02236	60.00000	Averaged	
69	Anthracene	0.82682	0.93056	0.93056	0.000	12.54639	60.00000	Averaged	
72	Di-n-butylphthalate	0.94954	1.05256	1.05256	0.000	10.85042	60.00000	Averaged	
76	Fluoranthene	0.79242	0.92392	0.92392	0.001	16.59515	20.00000	Averaged	ccc
79	Pyrene	1.10021	1.16971	1.16971	0.000	6.31716	60.00000	Averaged	
85	Butylbenzylphthalate	0.50351	0.54745	0.54745	0.000	8.72860	60.00000	Averaged	
89	Benzo(a)anthracene	0.86301	0.95056	0.95056	0.000	10.14528	60.00000	Averaged	
92	Chrysene	0.82690	0.92095	0.92095	0.000	11.37418	60.00000	Averaged	
93	bis(2-Ethylhexyl)phthalate	45.54644	40.00000	0.79097	0.000	13.86609	60.00000	Wt Linear	

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD6.i Injection Date: 16-DEC-2009 14:18
Lab File ID: s611611.d Init. Cal. Date(s): 09-NOV-2009 11-NOV-2009
Analysis Type: WATER Init. Cal. Times: 18:53 04:38
Lab Sample ID: WBN091111-17.4 Quant Type: ISTD
Method: /chem/MSD6.i/s121609.b/MSD6-M8270C-AQA-110909.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
94 Di-n-octylphthalate	1.27127	1.40099	1.40099	0.001	10.20395	20.00000	Averaged	ccc
95 Benzo(b)fluoranthene	0.88507	0.99141	0.99141	0.000	12.01479	60.00000	Averaged	
96 Benzo(k)fluoranthene	0.88011	1.02279	1.02279	0.000	16.21184	60.00000	Averaged	
97 Benzo(a)pyrene	0.76447	0.90445	0.90445	0.001	18.31071	20.00000	Averaged	ccc
99 Indeno(1,2,3-cd)pyrene	44.53953	40.00000	0.81728	0.000	11.34883	60.00000	Linear	
100 Dibenzo(a,h)anthracene	44.22786	40.00000	0.66086	0.000	10.56964	60.00000	Linear	
101 Benzo(ghi)perylene	0.58403	0.69184	0.69184	0.000	18.46032	60.00000	Averaged	
126 m-Dinitrobenzene	0.16929	0.17392	0.17392	0.000	2.73258	60.00000	Averaged	
130 2,3,4,6-Tetrachlorophenol	0.21896	0.23026	0.23026	0.000	5.16146	60.00000	Averaged	
143 Dinoseb	42.43059	40.00000	0.13350	0.000	6.07648	60.00000	Linear	
173 Carbazole	0.65449	0.66231	0.66231	0.000	1.19442	60.00000	Averaged	
184 p-Benzoquinone	0.12730	0.05012	0.05012	0.000	-60.62921	60.00000	Averaged	<-
192 Methoxychlor	0.55243	0.49272	0.49272	0.000	-10.80878	60.00000	Averaged	
211 p-Toluidine	0.89987	0.95511	0.95511	0.000	6.13856	60.00000	Averaged	
210 m-Toluidine	1.12396	1.14096	1.14096	0.000	1.51251	60.00000	Averaged	
26 Phthalic anhydride	52.55150	40.00000	0.10484	0.000	31.37875	60.00000	Linear	
214 1,4-Dinitrobenzene	0.18382	0.17843	0.17843	0.000	-2.93150	60.00000	Averaged	
215 2-Ethoxyethanol	0.71035	0.59017	0.59017	0.000	-16.91888	60.00000	Averaged	
216 Methylenebis(2-chloroanilin	41.77903	40.00000	0.13208	0.000	4.44758	60.00000	Linear	
M 225 Trichlorophenols	0.28180	0.29254	0.29254	0.000	3.81162	60.00000	Averaged	
M 226 Tetrachlorophenols	0.21896	0.23026	0.23026	0.000	5.16146	60.00000	Averaged	
M 227 Benzo(b,k)fluoranthene	0.88259	1.00710	1.00710	0.000	14.10741	60.00000	Averaged	

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Data file : /chem/MSD6.i/s121609.b/s611611.d
Lab Smp Id: WBN091111-17.4 Client Smp ID: MEGACVS
Inj Date : 16-DEC-2009 14:18
Operator : nagl Inst ID: MSD6.i
Smp Info : |WBN091111-17.4|CVS|1|SVMF|1|MEGACVS
Misc Info : |MSD8270|WBN091208-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s121609.b/MSD6-M8270C-AQA-110909.m
Meth Date : 17-Dec-2009 08:11 nat00999 Quant Type: ISTD
Cal Date : 11-NOV-2009 04:38 Cal File: s6k0954.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: MEGA.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vo *Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vo	1000.00000	volume of sample ext
Vi	0.50000	volume injected

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	4.849	4.849	(1.000)	209214	40.0000	
* 29 Naphthalene-d8	136	6.131	6.131	(1.000)	828674	40.0000	
* 46 Acenaphthene-d10	164	8.001	8.001	(1.000)	435590	40.0000	
* 67 Phenanthrene-d10	188	9.611	9.611	(1.000)	744475	40.0000	
* 91 Chrysene-d12	240	12.633	12.633	(1.000)	599948	40.0000	
* 98 Perylene-d12	264	14.973	14.973	(1.000)	527608	40.0000	
$ 3 2-Fluorophenol	112	3.674	3.674	(0.758)	207923	40.0000	39.7
$ 5 Phenol-d5	99	4.457	4.457	(0.919)	266077	40.0000	40.2
$ 20 Nitrobenzene-d5	82	5.389	5.389	(0.879)	235671	40.0000	40.2
$ 39 2-Fluorobiphenyl	172	7.254	7.254	(0.907)	466704	40.0000	41.6
$ 60 2,4,6-Tribromophenol	329	8.850	8.850	(1.106)	57446	40.0000	45.2
$ 81 p-Terphenyl-d14	244	11.316	11.316	(0.896)	422463	40.0000	43.7
1 N-Methyl-N-nitrosomethylamine	74	2.701	2.701	(0.557)	131131	40.0000	36.8

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
2 Pyridine	79	2.737	2.737	(0.564)	155938	40.0000	35.2
4 Aniline	66	4.538	4.538	(0.936)	105085	40.0000	38.1
6 Phenol	94	4.469	4.469	(0.922)	266039	40.0000	40.0
7 bis(2-Chloroethyl) ether	63	4.574	4.574	(0.943)	164242	40.0000	36.5
8 2-Chlorophenol	128	4.650	4.650	(0.959)	210371	40.0000	39.4
203 n-Decane	43	4.655	4.655	(0.960)	250305	40.0000	33.6
9 1,3-Dichlorobenzene	146	4.798	4.798	(0.989)	251891	40.0000	41.0
11 1,4-Dichlorobenzene	146	4.867	4.867	(1.004)	251678	40.0000	40.4
13 1,2-Dichlorobenzene	146	5.017	5.017	(1.035)	238292	40.0000	41.0
14 bis(2-Chloroisopropyl)ether	45	5.083	5.083	(1.048)	382548	40.0000	38.0
12 Benzyl alcohol	108	4.961	4.961	(1.023)	138887	40.0000	41.8
15 o-Cresol	107	5.045	5.045	(1.040)	175102	40.0000	40.3
18 m,p-Cresols	107	5.203	5.203	(1.073)	230411	40.0000	41.8
17 N-Nitrosodipropylamine	70	5.226	5.226	(1.078)	152942	40.0000	41.3
19 Hexachloroethane	117	5.348	5.348	(1.103)	92138	40.0000	38.2
21 Nitrobenzene	77	5.410	5.410	(0.882)	239434	40.0000	40.5
22 Isophorone	82	5.644	5.644	(0.921)	429014	40.0000	41.0
23 2-Nitrophenol	139	5.726	5.726	(0.934)	116175	40.0000	42.6
24 2,4-Dimethylphenol	122	5.736	5.736	(0.936)	198786	40.0000	44.0
25 bis(2-Chloroethoxy)methane	93	5.840	5.840	(0.953)	248892	40.0000	40.4
26 2,4-Dichlorophenol	162	5.968	5.968	(0.973)	175905	40.0000	43.0
27 Benzoic acid	105	5.850	5.850	(0.954)	148547	40.0000	53.3
28 1,2,4-Trichlorobenzene	180	6.062	6.062	(0.989)	204700	40.0000	40.7
30 Naphthalene	128	6.154	6.154	(1.004)	684493	40.0000	41.4
204 alpha-Terpineol	59	6.138	6.138	(1.001)	170271	40.0000	37.6
31 4-Chloroaniline	127	6.189	6.189	(1.010)	222960	40.0000	42.0
32 Hexachlorobutadiene	225	6.261	6.261	(1.021)	107681	40.0000	41.1
33 4-Chloro-3-methylphenol	107	6.676	6.676	(1.089)	167265	40.0000	40.4
34 2-Methylnaphthalene	142	6.875	6.875	(1.121)	468131	40.0000	46.9
35 1-Methylnaphthalene	142	6.984	6.984	(1.139)	448615	40.0000	46.0
36 Hexachlorocyclopentadiene	237	7.033	7.033	(0.879)	51215	40.0000	29.1
205 2,3-Dichloroaniline	161	7.170	7.170	(0.896)	211573	40.0000	40.6
37 2,4,6-Trichlorophenol	196	7.165	7.165	(0.896)	121159	40.0000	40.8
38 2,4,5-Trichlorophenol	196	7.203	7.203	(0.900)	133700	40.0000	42.2
40 2-Chloronaphthalene	162	7.400	7.400	(0.925)	394282	40.0000	40.3
42 o-Nitroaniline	65	7.499	7.499	(0.937)	122205	40.0000	36.5
41 m-Nitroaniline	138	7.942	7.942	(0.993)	100235	40.0000	40.9
43 Dimethylphthalate	163	7.685	7.685	(0.960)	461876	40.0000	41.3
44 2,6-Dinitrotoluene	165	7.756	7.756	(0.969)	108546	40.0000	40.7
50 2,4-Dinitrotoluene	165	8.192	8.192	(1.024)	138299	40.0000	41.2
45 Acenaphthylene	152	7.851	7.851	(0.981)	710701	40.0000	45.2
47 Acenaphthene	154	8.037	8.037	(1.004)	427376	40.0000	43.5
48 2,4-Dinitrophenol	184	8.052	8.052	(1.006)	42354	40.0000	44.2
49 Dibenzofuran	168	8.220	8.220	(1.027)	541708	40.0000	40.9
51 Diethylphthalate	149	8.437	8.437	(1.054)	470556	40.0000	41.8
52 4-Nitrophenol	139	8.103	8.103	(1.013)	75960	40.0000	41.9
53 Fluorene	166	8.592	8.592	(1.074)	488292	40.0000	44.9

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
54 4-Chlorophenylphenylether	204	8.574	8.574	(1.072)	216909	40.0000	42.2
55 2-Methyl-4,6-dinitrophenol	198	8.633	8.633	(0.898)	90472	40.0000	52.2
56 p-Nitroaniline	138	8.605	8.605	(1.075)	88647	40.0000	39.0
133 Diphenylamine	169	8.702	8.702	(0.905)	368565	40.0000	41.1
58 1,2-Diphenylhydrazine	77	8.750	8.750	(0.910)	450977	40.0000	39.5
61 4-Bromophenylphenylether	248	9.107	9.107	(0.948)	120012	40.0000	40.8
63 Hexachlorobenzene	284	9.183	9.183	(0.955)	125905	40.0000	40.9
65 Pentachlorophenol	266	9.390	9.390	(0.977)	66111	40.0000	41.0
206 n-Octadecane	57	9.436	9.436	(0.982)	321970	40.0000	39.2
68 Phenanthrene	178	9.637	9.637	(1.003)	665245	40.0000	43.2
69 Anthracene	178	9.693	9.693	(1.008)	692779	40.0000	45.0
72 Di-n-butylphthalate	149	10.197	10.197	(1.061)	783608	40.0000	44.3
76 Fluoranthene	202	10.926	10.926	(1.137)	687837	40.0000	46.6
79 Pyrene	202	11.176	11.176	(0.885)	701764	40.0000	42.5
85 Butylbenzylphthalate	149	11.849	11.849	(0.938)	328444	40.0000	43.5
89 Benzo(a)anthracene	228	12.613	12.613	(0.998)	570287	40.0000	44.0
92 Chrysene	228	12.669	12.669	(1.003)	552523	40.0000	44.5
93 bis(2-Ethylhexyl)phthalate	149	12.575	12.575	(0.995)	474542	40.0000	45.5
94 Di-n-octylphthalate	149	13.564	13.564	(0.906)	739175	40.0000	44.1
95 Benzo(b)fluoranthene	252	14.295	14.295	(0.955)	523078	40.0000	44.8
96 Benzo(k)fluoranthene	252	14.343	14.343	(0.958)	539631	40.0000	46.5
97 Benzo(a)pyrene	252	14.871	14.871	(0.993)	477193	40.0000	47.3
99 Indeno(1,2,3-cd)pyrene	276	16.963	16.963	(1.133)	431201	40.0000	44.5
100 Dibenzo(a,h)anthracene	278	16.993	16.993	(1.135)	348677	40.0000	44.2
101 Benzo(ghi)perylene	276	17.480	17.480	(1.167)	365021	40.0000	47.4(Q)
126 m-Dinitrobenzene	168	7.728	7.728	(0.966)	75758	40.0000	41.1
130 2,3,4,6-Tetrachlorophenol	232	8.342	8.342	(1.043)	100299	40.0000	42.1
143 Dinoseb	211	9.573	9.573	(0.996)	99385	40.0000	42.4
173 Carbazole	167	9.856	9.856	(1.025)	493075	40.0000	40.5
184 p-Benzoquinone	54	4.107	4.107	(0.847)	10486	40.0000	15.7
192 Methoxychlor	227	12.478	12.478	(0.988)	295607	40.0000	35.7
211 p-Toluidine	106	5.269	5.269	(1.087)	199823	40.0000	42.4
210 m-Toluidine	106	5.303	5.303	(1.094)	238705	40.0000	40.6
26 Phthalic anhydride	104	6.933	6.933	(1.131)	86882	40.0000	52.6
214 1,4-Dinitrobenzene	75	7.647	7.647	(0.956)	77721	40.0000	38.8
215 2-Ethoxyethanol	59	2.487	2.487	(0.513)	123472	40.0000	33.2
216 Methylenebis(2-chloroaniline)	231	12.554	12.554	(0.994)	79240	40.0000	41.8(Q)
M 225 Trichlorophenols	196				254859	80.0000	83.0
M 226 Tetrachlorophenols	232				100299	40.0000	42.1
M 227 Benzo(b,k)fluoranthene	252				1062709	80.0000	91.3

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: /chem/MSD6.i/s121609.b/s611611.d
Date : 16-DEC-2009 14:18
Client ID: MEGACVS
Sample Info: IWBN091111-17.4|CVS1|1|SVHF|1|MEGACVS
Volume Injected (ul): 0.5
Column phase: J&W DB-5MS

Instrument: MSD6.i
Operator: nag1
Column diameter: 0.20

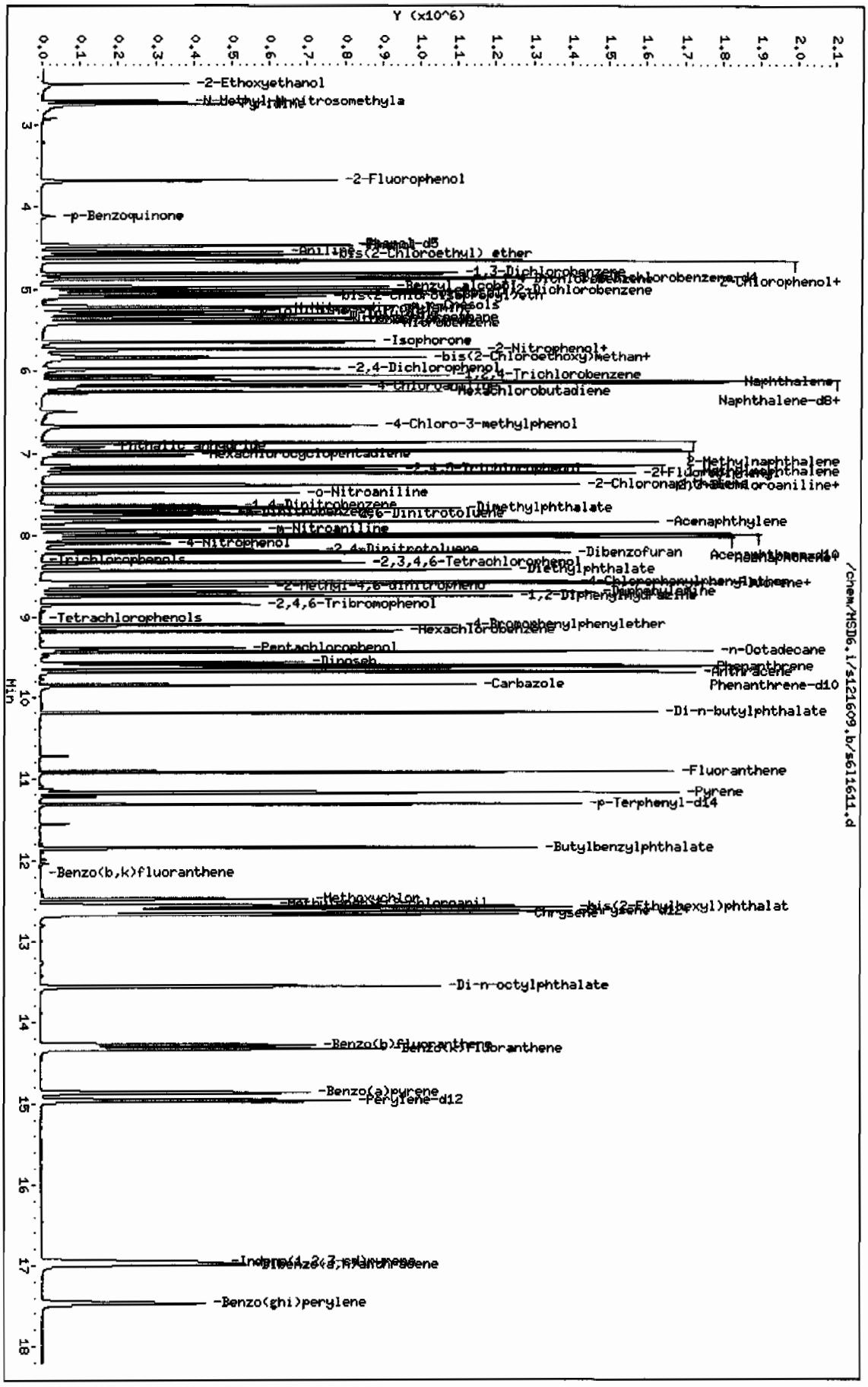

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD6.i Injection Date: 16-DEC-2009 14:46
Lab File ID: s611612.d Init. Cal. Date(s): 09-NOV-2009 11-NOV-2009
Analysis Type: WATER Init. Cal. Times: 18:53 04:38
Lab Sample ID: WBN091201-03.5 Quant Type: ISTD
Method: /chem/MSD6.i/s121609.b/MSD6-M8270C-AQA-110909.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
209 Benzaldehyde	0.86127	0.89433	0.89433	0.000	3.83819	60.00000	Averaged
16 Acetophenone	1.16908	1.20934	1.20934	0.000	3.44420	60.00000	Averaged
189 Caprolactam	0.07388	0.08702	0.08702	0.000	17.78166	60.00000	Averaged
208 1,1'-Biphenyl	1.20131	1.18926	1.18926	0.000	-1.00269	60.00000	Averaged
207 Atrazine	0.04063	0.04262	0.04262	0.000	4.89142	60.00000	Averaged
77 Benzidine	0.39304	0.31459	0.31459	0.000	-19.95903	60.00000	Averaged
90 3,3'-Dichlorobenzidine	0.28252	0.29864	0.29864	0.000	5.70779	60.00000	Averaged
102 1,4-Dioxane	0.36606	0.30348	0.30348	0.000	-17.09632	60.00000	Averaged
103 Methyl methacrylate	0.19388	0.16111	0.16111	0.000	-16.90047	60.00000	Averaged
104 Ethyl methacrylate	0.80561	0.76511	0.76511	0.000	-5.02691	60.00000	Averaged
105 2-Picoline	1.30872	1.28600	1.28600	0.000	-1.73593	60.00000	Averaged
106 N-Nitrosomethylethylamine	0.51104	0.49714	0.49714	0.000	-2.71936	60.00000	Averaged
107 Methyl methanesulfonate	0.52852	0.50298	0.50298	0.000	-4.83357	60.00000	Averaged
108 N-Nitrosodiethylamine	0.49553	0.48965	0.48965	0.000	-1.18636	60.00000	Averaged
109 Ethyl Methanesulfonate	0.65169	0.64864	0.64864	0.000	-0.46754	60.00000	Averaged
110 Pentachloroethane	0.31681	0.32035	0.32035	0.000	1.11932	60.00000	Averaged
111 N-Nitrosopyrrolidine	0.47614	0.52670	0.52670	0.000	10.61979	60.00000	Averaged
113 N-Nitrosomorpholine	0.67936	0.65595	0.65595	0.000	-3.44649	60.00000	Averaged
114 o-Toluidine	1.65281	1.70381	1.70381	0.000	3.08559	60.00000	Averaged
115 N-Nitrosopiperidine	0.14105	0.14355	0.14355	0.000	1.77059	60.00000	Averaged
116 a,a-Dimethylphenethylamine	0.85546	0.81197	0.81197	0.000	-5.08299	60.00000	Averaged
118 2,6-Dichlorophenol	0.20687	0.22230	0.22230	0.000	7.45815	60.00000	Averaged
119 Hexachloropropene	0.10269	0.09458	0.09458	0.000	-7.89586	60.00000	Averaged
120 p-Phenylenediamine	0.22955	0.23919	0.23919	0.000	4.20076	60.00000	Averaged
121 N-Nitrosodi-n-butylamine	0.21004	0.20880	0.20880	0.000	-0.59269	60.00000	Averaged
122 Safrole	0.18653	0.19390	0.19390	0.000	3.95271	60.00000	Averaged
123 1,2,4,5-Tetrachlorobenzene	0.42319	0.41604	0.41604	0.000	-1.68968	60.00000	Averaged
124 Isosafrole	0.33959	0.34019	0.34019	0.000	0.17555	60.00000	Averaged
125 1,4-Naphthoquinone	0.30674	0.33933	0.33933	0.000	10.62648	60.00000	Averaged
127 Pentachlorobenzene	0.36454	0.37434	0.37434	0.000	2.68650	60.00000	Averaged
128 1-Naphthylamine	0.90742	0.95277	0.95277	0.000	4.99866	60.00000	Averaged
129 2-Naphthylamine	0.98012	1.04054	1.04054	0.000	6.16436	60.00000	Averaged
131 5-Nitro-o-toluidine	0.27901	0.30162	0.30162	0.000	8.10290	60.00000	Averaged
136 1,3,5-Trinitrobenzene	41.92332	40.00000	0.12416	0.000	4.80831	60.00000	Linear
137 Phenacetin	0.26240	0.27085	0.27085	0.000	3.22108	60.00000	Averaged
138 Diallate	0.24056	0.23725	0.23725	0.000	-1.37609	60.00000	Averaged

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD6.i Injection Date: 16-DEC-2009 14:46
Lab File ID: s611612.d Init. Cal. Date(s): 09-NOV-2009 11-NOV-2009
Analysis Type: WATER Init. Cal. Times: 18:53 04:38
Lab Sample ID: WBN091201-03.5 Quant Type: ISTD
Method: /chem/MSD6.i/s121609.b/MSD6-M8270C-AQA-110909.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
140 4-Aminobiphenyl	0.53562	0.52632	0.52632	0.000	-1.73602	60.00000	Averaged
141 Pentachloronitrobenzene	0.06192	0.06268	0.06268	0.000	1.21547	60.00000	Averaged
142 Pronamide	0.26319	0.26537	0.26537	0.000	0.82951	60.00000	Averaged
146 4-Nitroquinoline-1-oxide	0.02349	0.02648	0.02648	0.000	12.72728	60.00000	Averaged
147 Methapyrilene	0.38600	0.41378	0.41378	0.000	7.19639	60.00000	Averaged
148 Isodrin	0.09631	0.10285	0.10285	0.000	6.79289	60.00000	Averaged
149 Aramite	0.04420	0.04833	0.04833	0.000	9.33169	60.00000	Averaged
150 Kepone	0.06173	0.07299	0.07299	0.000	18.24238	60.00000	Averaged
151 p-(Dimethylamino)azobenzene	0.31734	0.30077	0.30077	0.000	-5.22199	60.00000	Averaged
152 Chlorobenzilate	0.29130	0.27011	0.27011	0.000	-7.27354	60.00000	Averaged
153 3,3'-Dimethylbenzidine	0.52763	0.46893	0.46893	0.000	-11.12535	60.00000	Averaged
155 2-Acetylaminofluorene	43.62004	40.00000	0.36054	0.000	9.05009	60.00000	Linear
157 7,12Dimethylbenz(a)anthrace	0.47906	0.45602	0.45602	0.000	-4.80852	60.00000	Averaged
158 3-Methylcholanthrene	0.36955	0.40849	0.40849	0.000	10.53626	60.00000	Averaged
212 Cis Diallate	0.25295	0.23891	0.23891	0.000	-5.54879	60.00000	Averaged
213 Trans Diallate	0.28301	0.27912	0.27912	0.000	-1.37609	60.00000	Averaged

GEL Laboratories LLC

Data file : /chem/MSD6.i/s121609.b/s611612.d
Lab Smp Id: WBN091201-03.5 Client Smp ID: AP12CVS
Inj Date : 16-DEC-2009 14:46
Operator : nagl Inst ID: MSD6.i
Smp Info : |WBN091201-03.5|CVS|1|SVMF|1|AP12CVS
Misc Info : |MSD8270|WBN091208-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s121609.b/MSD6-M8270C-AQA-110909.m
Meth Date : 17-Dec-2009 08:10 nat00999 Quant Type: ISTD
Cal Date : 11-NOV-2009 04:38 Cal File: s6k0954.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AP12.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vo *Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vo	1000.00000	volume of sample ext
Vi	0.50000	volume injected

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	4.849	4.849	(1.000)	183991	40.0000	
* 29 Naphthalene-d8	136	6.128	6.128	(1.000)	690217	40.0000	
* 46 Acenaphthene-d10	164	7.999	7.999	(1.000)	389642	40.0000	
* 67 Phenanthrene-d10	188	9.612	9.612	(1.000)	696322	40.0000	
* 91 Chrysene-d12	240	12.626	12.626	(1.000)	639146	40.0000	
* 98 Perylene-d12	264	14.970	14.970	(1.000)	580165	40.0000	
209 Benzaldehyde	77	4.449	4.449	(0.918)	164549	40.0000	41.5
16 Acetophenone	105	5.229	5.229	(1.078)	222508	40.0000	41.4
189 Caprolactam	113	6.551	6.551	(1.069)	60061	40.0000	47.1
208 1,1'-Biphenyl	154	7.367	7.367	(0.921)	463387	40.0000	39.6
207 Atrazine	173	9.268	9.268	(0.964)	29679	40.0000	42.0
77 Benzidine	184	11.051	11.051	(0.875)	201069	40.0000	32.0
90 3,3'-Dichlorobenzidine	252	12.552	12.552	(0.994)	190875	40.0000	42.3

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
102 1,4-Dioxane	88	2.490	2.490	(0.513)	55837	40.0000	33.2
103 Methyl methacrylate	100	2.484	2.484	(0.512)	29643	40.0000	33.2
104 Ethyl methacrylate	69	2.994	2.994	(0.617)	140773	40.0000	38.0
105 2-Picoline	93	3.257	3.257	(0.672)	236613	40.0000	39.3
106 N-Nitrosomethylethylamine	88	3.325	3.325	(0.686)	91469	40.0000	38.9
107 Methyl methanesulfonate	80	3.552	3.552	(0.733)	92543	40.0000	38.1
108 N-Nitrosodiethylamine	102	3.883	3.883	(0.801)	90092	40.0000	39.5
109 Ethyl Methanesulfonate	79	4.120	4.120	(0.850)	119344	40.0000	39.8
110 Pentachloroethane	167	4.592	4.592	(0.947)	58942	40.0000	40.4
111 N-Nitrosopyrrolidine	100	5.211	5.211	(1.075)	96908	40.0000	44.2(Q)
113 N-Nitrosomorpholine	56	5.244	5.244	(1.081)	120689	40.0000	38.6
114 o-Toluidine	106	5.267	5.267	(1.086)	313486	40.0000	41.2
115 N-Nitrosopiperidine	114	5.557	5.557	(0.907)	99081	40.0000	40.7
116 a,a-Dimethylphenethylamine	58	5.930	5.930	(0.968)	560438	40.0000	38.0
118 2,6-Dichlorophenol	162	6.202	6.202	(1.012)	153436	40.0000	43.0
119 Hexachloropropene	213	6.235	6.235	(1.017)	65279	40.0000	36.8
120 p-Phenylenediamine	108	6.561	6.561	(1.071)	165092	40.0000	41.7
121 N-Nitrosodi-n-butylamine	84	6.528	6.528	(1.065)	144116	40.0000	39.8(T)
122 Safrole	162	6.765	6.765	(1.104)	133832	40.0000	41.6
123 1,2,4,5-Tetrachlorobenzene	216	7.051	7.051	(0.881)	162108	40.0000	39.3
124 Isosafrole	162	7.318	7.318	(0.915)	132551	40.0000	40.1
125 1,4-Naphthoquinone	158	7.583	7.583	(0.948)	132218	40.0000	44.2
127 Pentachlorobenzene	250	8.172	8.172	(1.022)	145857	40.0000	41.1
128 1-Naphthylamine	143	8.302	8.302	(1.038)	371241	40.0000	42.0
129 2-Naphthylamine	143	8.386	8.386	(1.048)	405438	40.0000	42.5
131 5-Nitro-o-toluidine	152	8.592	8.592	(1.074)	117522	40.0000	43.2
136 1,3,5-Trinitrobenzene	75	8.972	8.972	(0.933)	86454	40.0000	41.9
137 Phenacetin	108	9.028	9.028	(0.939)	188597	40.0000	41.3(Q)
138 Diallate	86	9.000	9.000	(0.936)	165203	40.0000	39.4
140 4-Aminobiphenyl	169	9.392	9.392	(0.977)	366486	40.0000	39.3
141 Pentachloronitrobenzene	237	9.405	9.405	(0.979)	43642	40.0000	40.5(Q)
142 Pronamide	173	9.433	9.433	(0.981)	184784	40.0000	40.3
146 4-Nitroquinoline-1-oxide	101	10.463	10.463	(1.089)	18441	40.0000	45.1
147 Methapyrilene	58	10.524	10.524	(1.095)	288125	40.0000	42.9
148 Isodrin	193	10.761	10.761	(1.120)	71616	40.0000	42.7
149 Aramite	185	11.273	11.273	(1.173)	33650	40.0000	43.7
150 Kepone	272	11.940	11.940	(1.242)	50824	40.0000	47.3
151 p-(Dimethylamino)azobenzene	120	11.467	11.467	(0.908)	192234	40.0000	37.9
152 Chlorobenzilate	251	11.507	11.507	(0.911)	172639	40.0000	37.1
153 3,3'-Dimethylbenzidine	212	11.851	11.851	(0.939)	299717	40.0000	35.5
155 2-Acetylaminofluorene	181	12.172	12.172	(0.964)	230436	40.0000	43.6
157 7,12Dimethylbenz(a)anthracene	256	14.267	14.267	(0.953)	264569	40.0000	38.1
158 3-Methylcholanthrene	268	15.493	15.493	(1.035)	236990	40.0000	44.2(Q)
212 Cis Diallate	86	9.102	9.102	(0.947)	24954	6.00000	5.7
213 Trans Diallate	86	9.000	9.000	(0.936)	165203	34.0000	33.5

QC Flag Legend

T - Target compound detected outside RT window.
Q - Qualifier signal failed the ratio test.

Data File: /chem/MSD6.i/s121609.b/s611612.d
Date : 16-DEC-2009 14:46
Client ID: AP12CVS
Sample Info: |WBN091201-03,5|CVS|1|SVHF|1|AP12CVS
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD6.i
Operator: mag1
Column diameter: 0.20

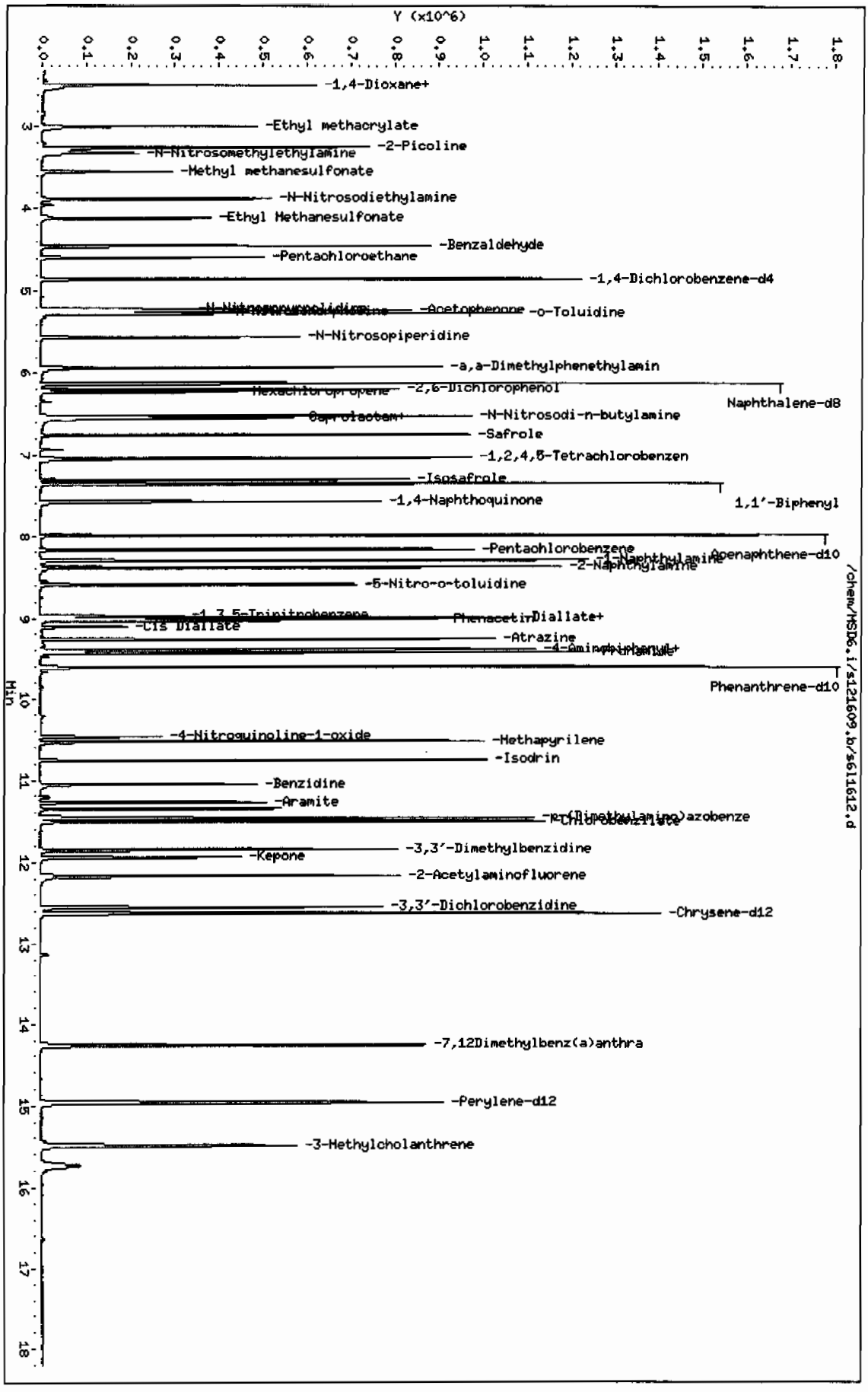

Page 1

QC Data

Data File: /chem/MSD6.i/s110909.b/s6k0911.d

Date : 09-NOV-2009 18:00

Client ID: DFTPP

Instrument: MSD6.i

Sample Info: |WBN091101-01|50 PPM|1|SVMF|1|DFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

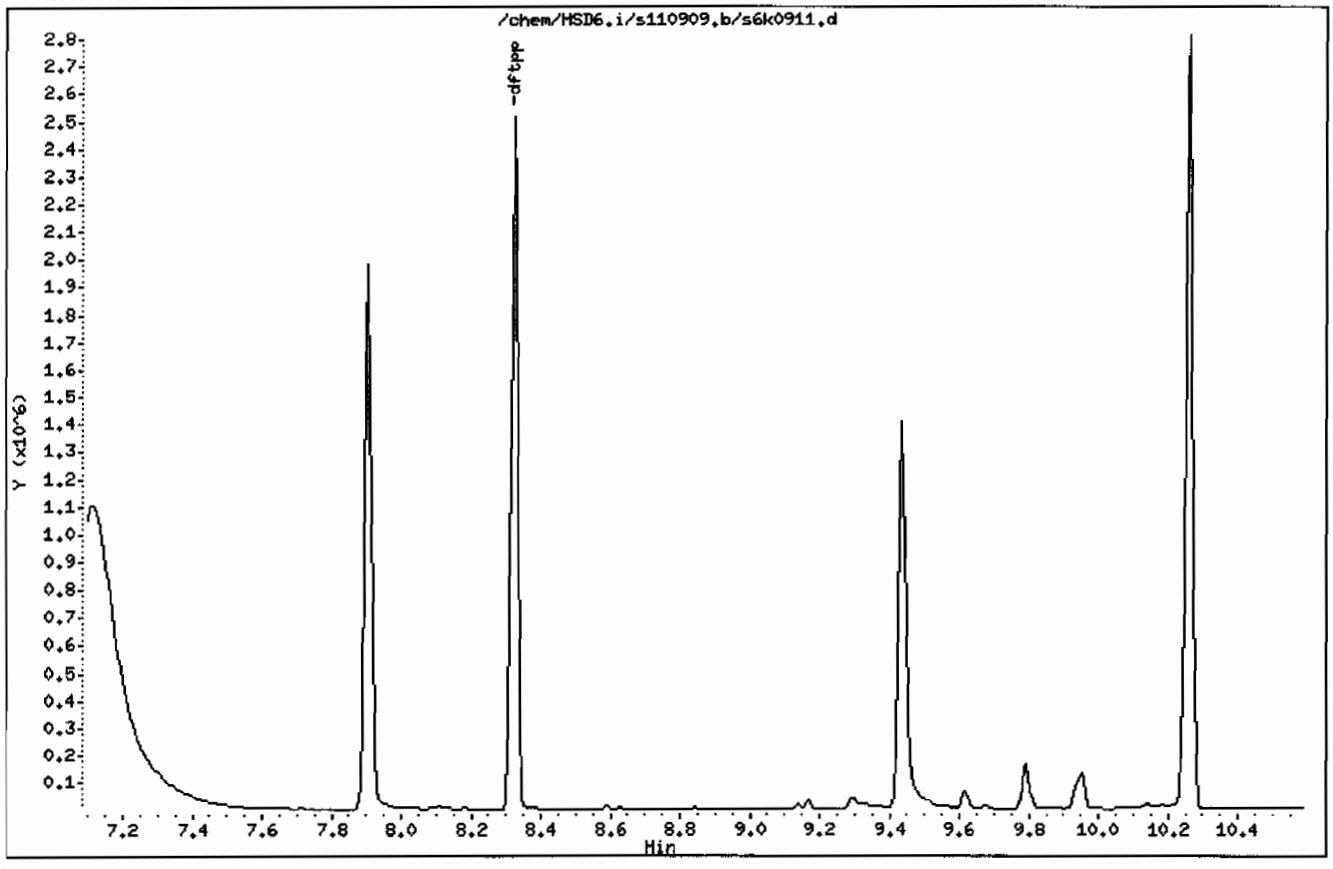

Data File: /chem/MSD6.i/s110909.b/s6k0911.d

Date : 09-NOV-2009 18:00

Client ID: DFTPP

Instrument: MSD6.i

Sample Info: IWBN091101-01150 PPM|1|SVMF|1|DFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

1 dftpp

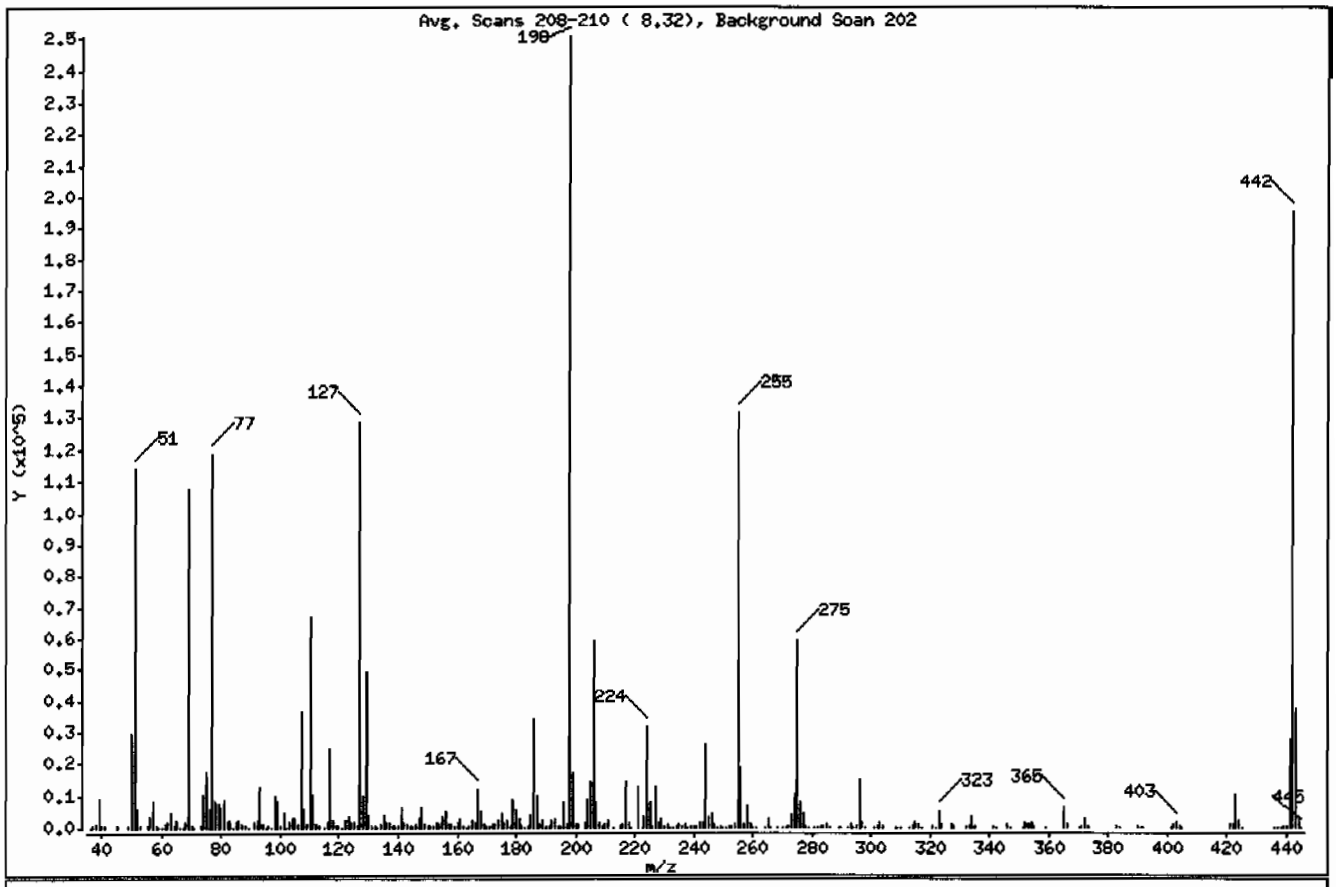

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	45.40
68	Less than 2.00% of mass 69	0.67 (1.56)
69	Mass 69 relative abundance	42.98
70	Less than 2.00% of mass 69	0.23 (0.53)
127	40.00 - 60.00% of mass 198	51.37
197	Less than 1.00% of mass 198	0.57
199	5.00 - 9.00% of mass 198	6.92
275	10.00 - 30.00% of mass 198	23.67
365	Greater than 1.00% of mass 198	2.45
441	Present, but less than mass 443	11.05
442	Greater than 40.00% of mass 198	77.94
443	17.00 - 23.00% of mass 442	14.94 (19.17)

Data File: /chem/MSD6.i/s110909.b/s6k0911.d

Date : 09-NOV-2009 18:00

Client ID: DFTPP

Instrument: MSD6.i

Sample Info: |WBN091101-01|50 PPM|1|SVMF|1|DFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

Data File: s6k0911.d
Spectrum: Avg. Scans 208-210 (8.32), Background Scan 202
Location of Maximum: 198.00
Number of points: 303

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	8	122.00	2302	198.00	250752	284.00	336
37.00	393	123.00	3695	199.00	17344	285.00	937
38.00	1200	124.00	1621	200.00	1195	286.00	170
39.00	9016	125.00	1448	201.00	1207	289.00	255
40.00	406	126.00	632	203.00	1659	290.00	159
41.00	292	127.00	128832	204.00	8363	292.00	259
45.00	305	128.00	9787	205.00	14289	293.00	1083
49.00	640	129.00	49280	206.00	59576	294.00	255
50.00	29544	130.00	4085	207.00	7878	295.00	324
51.00	113864	131.00	795	208.00	1898	296.00	14712
52.00	5719	132.00	464	209.00	609	297.00	1998
53.00	291	133.00	153	210.00	1016	298.00	48
55.00	556	134.00	1412	211.00	2089	301.00	220
56.00	3212	135.00	3908	213.00	96	302.00	374
57.00	7977	136.00	1509	215.00	674	303.00	1716
58.00	306	137.00	2002	216.00	1188	304.00	518
59.00	43	138.00	459	217.00	14324	308.00	142
60.00	144	139.00	392	218.00	1841	309.00	104
61.00	1384	140.00	751	219.00	194	310.00	127
62.00	1579	141.00	6116	221.00	12869	313.00	98
63.00	4522	142.00	1931	223.00	3368	314.00	758
64.00	592	143.00	1380	224.00	31752	315.00	1571
65.00	2251	144.00	329	225.00	7987	316.00	915
66.00	47	145.00	339	226.00	839	317.00	119
67.00	98	146.00	1032	227.00	12952	321.00	481
68.00	1681	147.00	3100	228.00	1848	322.00	229
69.00	107792	148.00	6347	229.00	2774	323.00	5178
70.00	566	149.00	1410	230.00	478	324.00	998
71.00	154	150.00	411	231.00	1257	327.00	960
73.00	818	151.00	692	232.00	280	328.00	487
74.00	10556	152.00	489	233.00	226	332.00	397
75.00	17208	153.00	1814	234.00	769	333.00	430
76.00	5735	154.00	1411	235.00	1001	334.00	3299
77.00	118792	155.00	3187	236.00	589	335.00	849
78.00	8119	156.00	5061	237.00	1093	341.00	644

Data File: /chem/MSD6.i/s110909.b/s6k0911.d

Date : 09-NOV-2009 18:00

Client ID: DFTPP

Instrument: MSD6.i

Sample Info: |WBN091101-01|50 PPM|1|SVMF|1|DFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

Data File: s6k0911.d
Spectrum: Avg. Scans 208-210 (8.32), Background Scan 202
Location of Maximum: 198.00
Number of points: 303

m/z	Y	m/z	Y	m/z	Y	m/z	Y
79.00	7616	157.00	1047	238.00	176	342.00	184
80.00	6053	158.00	1005	239.00	483	346.00	1112
81.00	8741	159.00	819	240.00	449	347.00	197
82.00	1932	160.00	1690	241.00	776	351.00	99
83.00	2188	161.00	2737	242.00	1684	352.00	1491
84.00	232	162.00	809	243.00	1819	353.00	1169
85.00	1461	163.00	190	244.00	25832	354.00	1725
86.00	2130	164.00	335	245.00	3598	355.00	318
87.00	1162	165.00	2034	246.00	4786	359.00	103
88.00	449	166.00	1979	247.00	980	365.00	6134
89.00	268	167.00	12360	248.00	210	366.00	872
91.00	1835	168.00	5121	249.00	829	370.00	96
92.00	2163	169.00	1038	250.00	174	371.00	434
93.00	12786	170.00	446	251.00	238	372.00	2651
94.00	908	171.00	470	252.00	289	373.00	754
95.00	251	172.00	1064	253.00	569	383.00	711
96.00	626	173.00	1291	254.00	1047	384.00	258
97.00	236	174.00	2515	255.00	131328	390.00	402
98.00	9808	175.00	4789	256.00	18784	391.00	259
99.00	8032	176.00	1446	257.00	1424	392.00	153
100.00	745	177.00	2269	258.00	6873	401.00	116
101.00	4358	178.00	802	259.00	1148	402.00	1140
102.00	258	179.00	8475	260.00	228	403.00	1594
103.00	1616	180.00	5994	261.00	261	404.00	514
104.00	3096	181.00	2983	264.00	141	405.00	98
105.00	2795	182.00	429	265.00	2620	421.00	1430
106.00	910	183.00	259	266.00	251	422.00	1234
107.00	36184	184.00	679	268.00	180	423.00	10131
108.00	5604	185.00	3929	270.00	163	424.00	2144
109.00	997	186.00	34256	271.00	257	425.00	193
110.00	66656	187.00	9747	272.00	290	436.00	45
111.00	10177	188.00	1146	273.00	3906	437.00	191
112.00	1133	189.00	2105	274.00	10561	438.00	232
113.00	472	190.00	292	275.00	59368	439.00	301
115.00	217	191.00	815	276.00	7957	440.00	309

Data File: /chem/MSD6.i/s110909.b/s6k0911.d

Date : 09-NOV-2009 18:00

Client ID: DFTPP

Instrument: MSD6.i

Sample Info: |WBN091101-01|50 PPM|1|SVMF|1|DFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

Data File: s6k0911.d
Spectrum: Avg. Scans 208-210 (8.32), Background Scan 202
Location of Maximum: 198.00
Number of points: 303

m/z	Y	m/z	Y	m/z	Y	m/z	Y
116.00	1841	192.00	2423	277.00	4641	441.00	27712
117.00	25072	193.00	3008	278.00	676	442.00	195456
118.00	2060	194.00	699	279.00	176	443.00	37472
119.00	345	195.00	448	281.00	87	444.00	3400
120.00	476	196.00	7876	282.00	46	445.00	197
121.00	165	197.00	1433	283.00	505		

Data File: /chem/MSD6.i/s110909.b/s6k0921.d

Date : 10-NOV-2009 11:07

Client ID: DFTPP

Instrument: MSD6.i

Sample Info: |WBN091101-01|50 PPM|1|SVMF|1|DFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

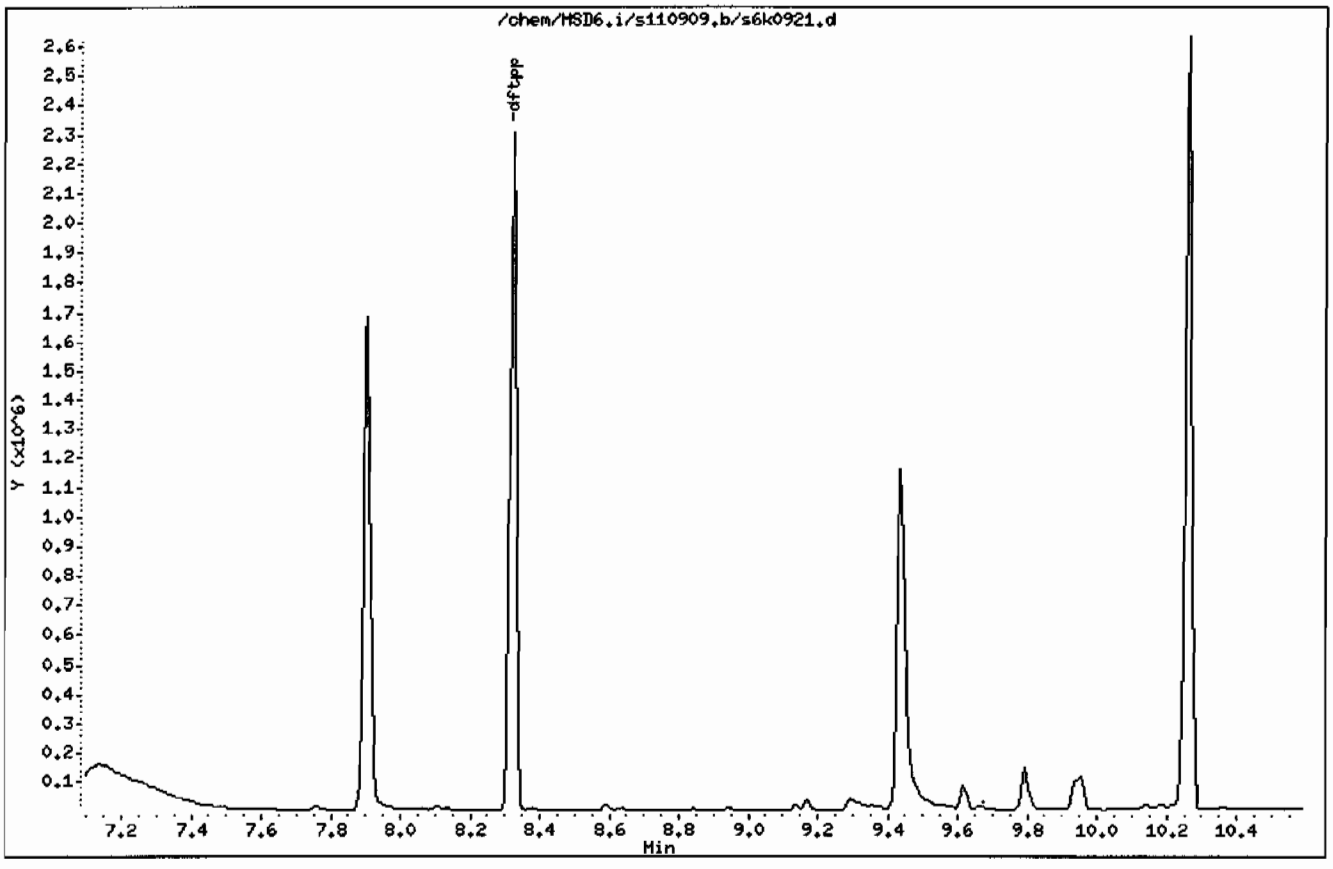

Data File: /chem/MSD6.i/s110909.b/s6k0921.d

Date : 10-NOV-2009 11:07

Client ID: DFTPP

Instrument: MSD6.i

Sample Info: |WBN091101-01|50 PPM|1|SVMF|1|DFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

1 dftpp

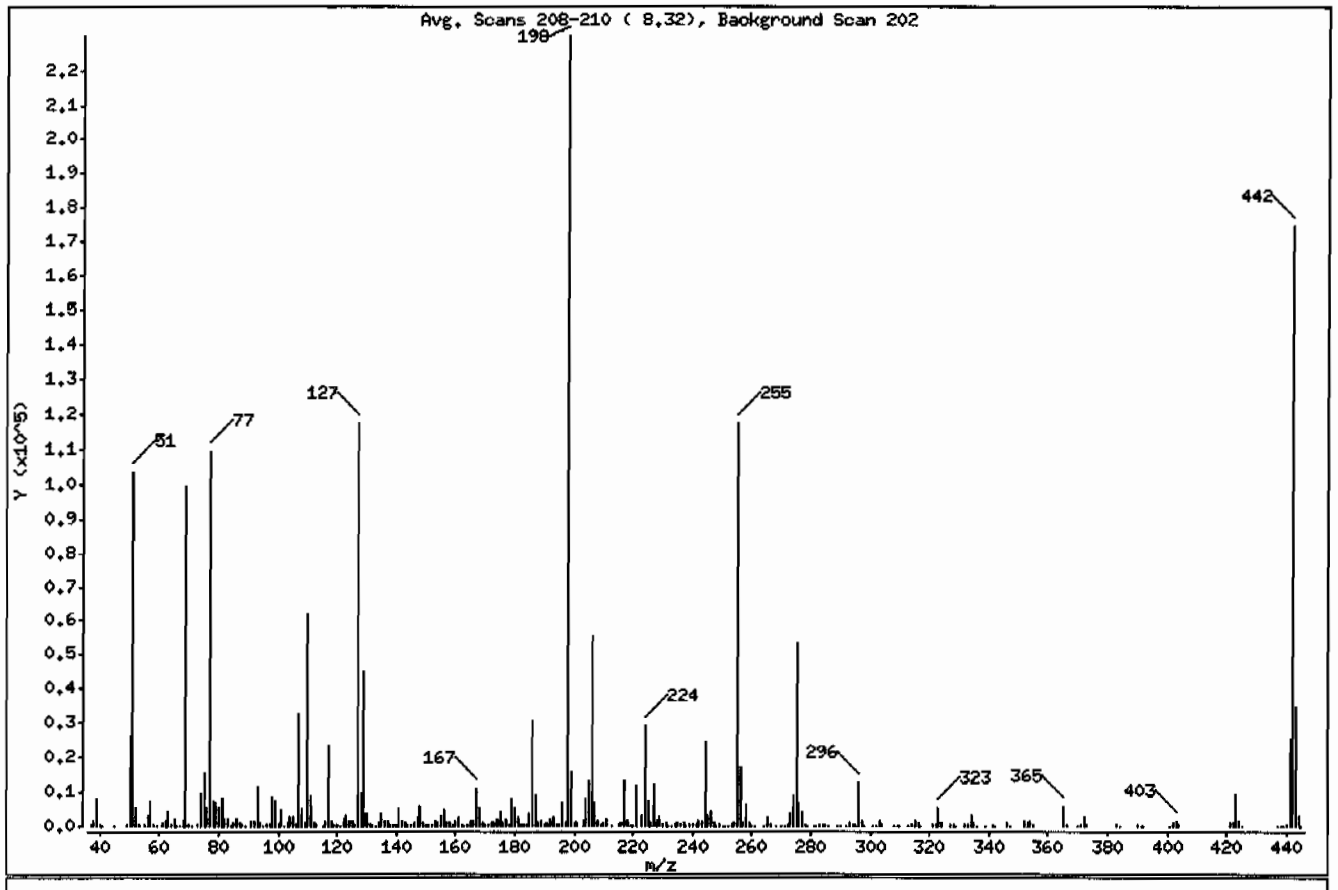

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	45.09
68	Less than 2.00% of mass 69	0.69 (1.59)
69	Mass 69 relative abundance	43.13
70	Less than 2.00% of mass 69	0.21 (0.50)
127	40.00 - 60.00% of mass 198	50.95
197	Less than 1.00% of mass 198	0.38
199	5.00 - 9.00% of mass 198	7.01
275	10.00 - 30.00% of mass 198	23.31
365	Greater than 1.00% of mass 198	2.61
441	Present, but less than mass 443	11.00
442	Greater than 40.00% of mass 198	76.04
443	17.00 - 23.00% of mass 442	15.14 (19.92)

Date : 10-NOV-2009 11:07

Client ID: DFTPP Instrument: MSD6.i

Sample Info: |WBN091101-01|50 PPM|1|SVMF|1|DFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5MS Column diameter: 0.20

Data File: s6k0921.d
Spectrum: Avg. Scans 208-210 (8.32), Background Scan 202
Location of Maximum: 198.00
Number of points: 301

m/z	Y	m/z	Y	m/z	Y	m/z	Y
37.00	446	124.00	1597	200.00	1296	285.00	727
38.00	1364	125.00	1527	201.00	1130	286.00	93
39.00	8081	126.00	500	203.00	1398	289.00	109
40.00	429	127.00	117112	204.00	7870	290.00	48
41.00	123	128.00	9305	205.00	12990	292.00	179
45.00	232	129.00	44864	206.00	55704	293.00	996
49.00	676	130.00	3877	207.00	6919	294.00	284
50.00	26328	131.00	762	208.00	1589	295.00	295
51.00	103656	132.00	413	209.00	492	296.00	12743
52.00	5217	133.00	83	210.00	869	297.00	1758
53.00	281	134.00	1179	211.00	2059	298.00	106
55.00	508	135.00	3584	213.00	155	301.00	200
56.00	3141	136.00	1380	215.00	501	302.00	236
57.00	7300	137.00	1770	216.00	1098	303.00	1828
58.00	351	138.00	422	217.00	13179	304.00	578
59.00	89	139.00	313	218.00	1725	308.00	164
61.00	1282	140.00	577	219.00	178	309.00	120
62.00	1522	141.00	5319	220.00	48	310.00	179
63.00	4035	142.00	1826	221.00	11795	313.00	116
64.00	709	143.00	1268	223.00	3181	314.00	633
65.00	2010	144.00	322	224.00	29056	315.00	1462
66.00	201	145.00	315	225.00	7532	316.00	903
67.00	136	146.00	853	226.00	796	317.00	97
68.00	1576	147.00	2856	227.00	12169	321.00	535
69.00	99128	148.00	5895	228.00	1834	322.00	301
70.00	492	149.00	1137	229.00	2389	323.00	5031
71.00	87	150.00	371	230.00	448	324.00	932
73.00	640	151.00	713	231.00	1077	327.00	782
74.00	9704	152.00	430	232.00	217	328.00	460
75.00	15458	153.00	1634	233.00	234	329.00	92
76.00	5031	154.00	1294	234.00	764	332.00	329
77.00	109208	155.00	2977	235.00	895	333.00	541
78.00	7381	156.00	4520	236.00	588	334.00	3026
79.00	6803	157.00	931	237.00	934	335.00	912
80.00	5387	158.00	937	238.00	52	336.00	92

Data File: /chem/MSD6.i/s110909.b/s6k0921.d

Date : 10-NOV-2009 11:07

Client ID: DFTPP

Instrument: MSD6.i

Sample Info: IWBN091101-01|50 PPM|1|SVMF|1|DFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5HS

Column diameter: 0.20

Data File: s6k0921.d

Spectrum: Avg. Scans 208-210 (8.32), Background Scan 202

Location of Maximum: 198.00

Number of points: 301

m/z	Y	m/z	Y	m/z	Y	m/z	Y
81.00	7979	159.00	792	239.00	457	339.00	88
82.00	2000	160.00	1501	240.00	364	341.00	550
83.00	1851	161.00	2637	241.00	638	342.00	176
84.00	203	162.00	756	242.00	1412	346.00	1020
85.00	1319	163.00	204	243.00	1572	347.00	119
86.00	1985	164.00	328	244.00	24152	352.00	1335
87.00	1000	165.00	1810	245.00	3200	353.00	960
88.00	412	166.00	1695	246.00	4314	354.00	1476
89.00	260	167.00	10891	247.00	844	355.00	296
91.00	1676	168.00	5136	248.00	166	365.00	5996
92.00	1806	169.00	973	249.00	748	366.00	747
93.00	11677	170.00	306	250.00	170	370.00	103
94.00	892	171.00	442	251.00	190	371.00	323
95.00	199	172.00	897	252.00	210	372.00	2543
96.00	636	173.00	1105	253.00	472	373.00	611
97.00	286	174.00	2178	254.00	899	383.00	675
98.00	8556	175.00	4297	255.00	117320	384.00	156
99.00	7312	176.00	1290	256.00	16728	390.00	314
100.00	596	177.00	2105	257.00	1320	391.00	189
101.00	4548	178.00	636	258.00	6484	392.00	157
102.00	251	179.00	8002	259.00	1064	401.00	199
103.00	1289	180.00	5191	260.00	200	402.00	1090
104.00	2626	181.00	2701	261.00	212	403.00	1396
105.00	2533	182.00	448	264.00	192	404.00	427
106.00	724	183.00	312	265.00	2469	421.00	1265
107.00	33008	184.00	599	266.00	401	422.00	1145
108.00	5264	185.00	3797	268.00	43	423.00	9473
109.00	994	186.00	30448	270.00	167	424.00	1846
110.00	61616	187.00	8914	271.00	186	425.00	183
111.00	9026	188.00	970	272.00	329	437.00	54
112.00	1057	189.00	1726	273.00	3492	438.00	170
113.00	367	190.00	298	274.00	9124	439.00	228
115.00	227	191.00	976	275.00	53576	440.00	294
116.00	1610	192.00	2282	276.00	7126	441.00	25272
117.00	23152	193.00	2535	277.00	3970	442.00	174784

Data File: /chem/MSD6.i/s110909.b/s6k0921.d

Date : 10-NOV-2009 11:07

Client ID: DFTPP

Instrument: MSD6.i

Sample Info: |WBN091101-01|50 PPM|1|SVMF|1|DFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

Data File: s6k0921.d
Spectrum: Avg. Scans 208-210 (8.32), Background Scan 202
Location of Maximum: 198.00
Number of points: 301

m/z	Y	m/z	Y	m/z	Y	m/z	Y
118.00	1681	194.00	518	278.00	653	443.00	34808
119.00	280	195.00	333	279.00	140	444.00	3177
120.00	427	196.00	6863	281.00	140	445.00	129
121.00	176	197.00	878	282.00	42		
122.00	2199	198.00	229824	283.00	507		
123.00	3315	199.00	16104	284.00	294		

Data File: /chem/MSD6.i/s121609.b/s611610.d

Date : 16-DEC-2009 14:04

Client ID: DFTPP

Instrument: MSD6.i

Sample Info: |WBN091213-01|50 PPM|1|SVMF|1|DFTPP

Operator: nagi

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

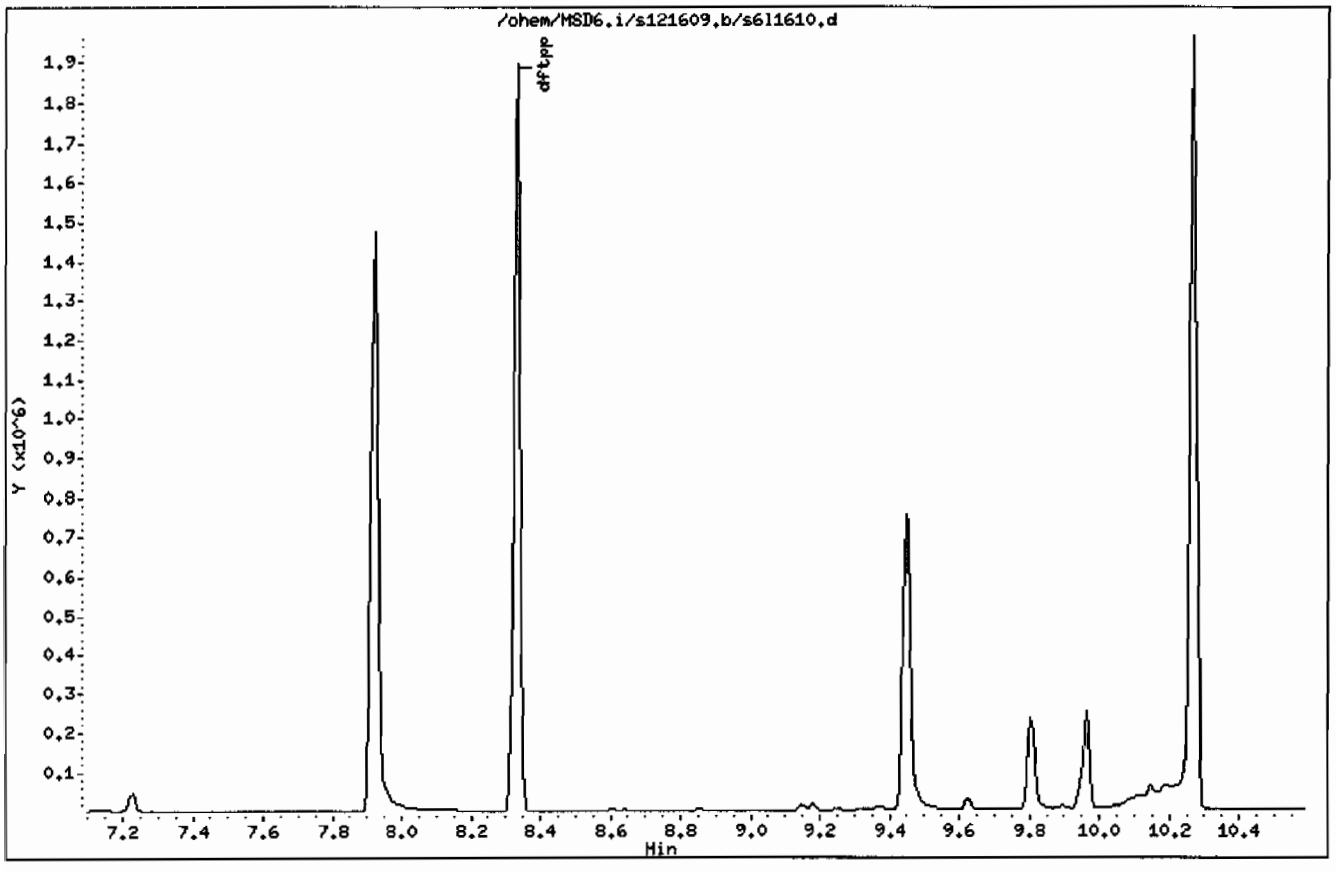

Data File: /chem/MSD6.i/s121609.b/s611610.d

Date : 16-DEC-2009 14:04

Client ID: DFTPP

Instrument: MSD6.i

Sample Info: |WBN091213-01|50 PPM|1|SVMF|1|DFTPP

Operator: nag1

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

1 dftpp

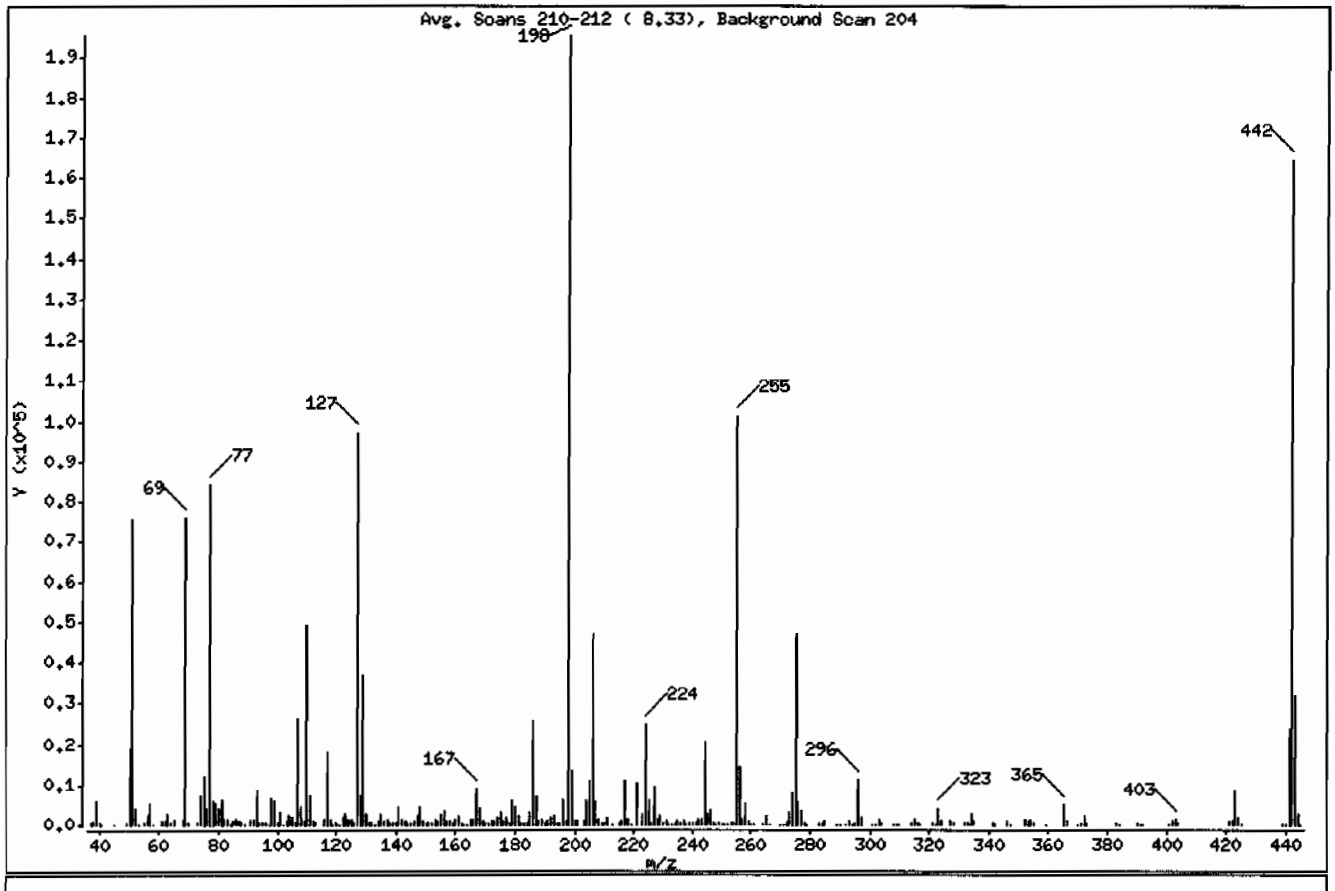

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	38.58
68	Less than 2.00% of mass 69	0.60 (1.55)
69	Mass 69 relative abundance	38.87
70	Less than 2.00% of mass 69	0.18 (0.46)
127	40.00 - 60.00% of mass 198	49.76
197	Less than 1.00% of mass 198	0.39
199	5.00 - 9.00% of mass 198	6.85
275	10.00 - 30.00% of mass 198	23.90
365	Greater than 1.00% of mass 198	2.53
441	Present, but less than mass 443	12.26
442	Greater than 40.00% of mass 198	84.12
443	17.00 - 23.00% of mass 442	16.25 (19.31)

Data File: /chem/MSD6.i/s121609.b/s611610.d

Date : 16-DEC-2009 14:04

Client ID: DFTPP

Instrument: MSD6.i

Sample Info: |WBN091213-01|50 PPM|1|SVMF|1|DFTPP

Operator: nag1

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

Data File: s611610.d
Spectrum: Avg. Scans 210-212 (8.33), Background Scan 204
Location of Maximum: 198.00
Number of points: 285

m/z	Y	m/z	Y	m/z	Y	m/z	Y
37.00	329	125.00	1239	197.00	771	279.00	48
38.00	800	126.00	464	198.00	195520	283.00	389
39.00	5756	127.00	97296	199.00	13402	284.00	282
40.00	317	128.00	7203	200.00	1053	285.00	704
41.00	192	129.00	36776	201.00	1049	289.00	102
45.00	198	130.00	2919	203.00	1095	290.00	94
49.00	521	131.00	574	204.00	6249	292.00	179
50.00	18904	132.00	372	205.00	10640	293.00	808
51.00	75424	133.00	153	206.00	46704	294.00	198
52.00	4067	134.00	944	207.00	5993	295.00	230
53.00	102	135.00	2851	208.00	1490	296.00	11069
55.00	367	136.00	1121	209.00	435	297.00	1610
56.00	2294	137.00	1343	210.00	587	301.00	151
57.00	5603	138.00	353	211.00	1701	302.00	197
58.00	220	139.00	229	213.00	87	303.00	1443
61.00	883	140.00	486	215.00	424	304.00	362
62.00	1006	141.00	4439	216.00	939	308.00	171
63.00	2855	142.00	1382	217.00	10922	309.00	141
64.00	449	143.00	977	218.00	1417	310.00	154
65.00	1519	144.00	282	219.00	189	314.00	585
68.00	1176	145.00	229	221.00	10498	315.00	1178
69.00	75992	146.00	770	223.00	2628	316.00	671
70.00	347	147.00	2140	224.00	24936	317.00	150
73.00	536	148.00	4633	225.00	6382	321.00	364
74.00	7170	149.00	927	226.00	610	322.00	202
75.00	12152	150.00	277	227.00	9574	323.00	4130
76.00	3973	151.00	611	228.00	1407	324.00	746
77.00	84224	152.00	420	229.00	2157	327.00	709
78.00	5895	153.00	1331	230.00	328	328.00	354
79.00	5312	154.00	954	231.00	907	332.00	267
80.00	4022	155.00	2506	232.00	114	333.00	384
81.00	6110	156.00	3759	233.00	187	334.00	2531
82.00	1550	157.00	765	234.00	545	335.00	677
83.00	1500	158.00	843	235.00	701	341.00	469
84.00	196	159.00	601	236.00	448	342.00	151

Date : 16-DEC-2009 14:04

Client ID: DFTPP Instrument: MSD6.i

Sample Info: |WBN091213-01|50 PPM|1|SVMF|1|DFTPP

Operator: nag1

Column phase: Phenomenex ZB-5MS Column diameter: 0.20

Data File: s611610.d
Spectrum: Avg. Scans 210-212 (8.33), Background Scan 204
Location of Maximum: 198.00
Number of points: 285

m/z	Y	m/z	Y	m/z	Y	m/z	Y
85.00	1077	160.00	1373	237.00	890	346.00	807
86.00	1548	161.00	2161	238.00	42	347.00	105
87.00	796	162.00	584	239.00	365	352.00	1163
88.00	329	163.00	167	240.00	317	353.00	845
89.00	119	164.00	210	241.00	460	354.00	1304
91.00	1416	165.00	1422	242.00	1270	355.00	271
92.00	1386	166.00	1453	243.00	1388	359.00	42
93.00	8764	167.00	8782	244.00	20600	365.00	4950
94.00	622	168.00	3877	245.00	2574	366.00	699
95.00	244	169.00	734	246.00	3645	370.00	47
96.00	492	170.00	285	247.00	671	371.00	312
97.00	132	171.00	320	248.00	91	372.00	2209
98.00	6678	172.00	755	249.00	637	373.00	578
99.00	5704	173.00	1047	250.00	113	383.00	573
100.00	458	174.00	1675	251.00	185	384.00	196
101.00	3366	175.00	3343	252.00	178	390.00	329
102.00	203	176.00	1067	253.00	455	391.00	220
103.00	1104	177.00	1614	254.00	651	392.00	205
104.00	2175	178.00	538	255.00	101120	401.00	47
105.00	1940	179.00	6318	256.00	14592	402.00	889
106.00	607	180.00	4630	257.00	1128	403.00	1334
107.00	25984	181.00	2109	258.00	5317	404.00	418
108.00	4283	182.00	343	259.00	927	421.00	1059
109.00	688	183.00	233	260.00	162	422.00	1010
110.00	49096	184.00	494	261.00	188	423.00	8360
111.00	7198	185.00	2975	264.00	88	424.00	1746
112.00	793	186.00	25656	265.00	2138	425.00	45
113.00	291	187.00	7054	266.00	179	439.00	149
116.00	1473	188.00	750	270.00	141	440.00	195
117.00	17920	189.00	1519	271.00	166	441.00	23968
118.00	1367	190.00	249	272.00	261	442.00	164480
119.00	210	191.00	691	273.00	3040	443.00	31768
120.00	291	192.00	1920	274.00	8204	444.00	2860
121.00	95	193.00	2261	275.00	46720	445.00	104
122.00	1769	194.00	440	276.00	5923		

Data File: /chem/MSD6.i/s121609.b/s611610.d

Date : 16-DEC-2009 14:04

Client ID: DFTPP

Instrument: MSD6.i

Sample Info: |WBN091213-01|50 PPM|1|SVMF|1|DFTPP

Operator: nagi

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

Data File: s611610.d
Spectrum: Avg. Scans 210-212 (8.33), Background Scan 204
Location of Maximum: 198.00
Number of points: 285

m/z	Y	m/z	Y	m/z	Y	m/z	Y
123.00	2752	195.00	266	277.00	3457		
124.00	1194	196.00	6169	278.00	487		

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-901			**Matrix:**	SOIL
Lab Sample ID:	1201994527				
Client Sample:	QC for batch 932443	**Client:**	LANL010	**Project:**	QC
Client ID:	MB for batch 932443	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	932444	**Inst:**	MSD6.I	**Dilution:**	1
Run Date:	12/16/2009 15:15	**Analyst:**	NAG1	**Inj. Vol:**	.5 uL
Prep Date:	12/14/2009 09:47	**Aliquot:**	30 g	**Final Volume:**	1 mL
Data File:	s6l1613-1.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	333	ug/kg	66.7	333
108-95-2	Phenol	U	333	ug/kg	66.7	333
95-57-8	2-Chlorophenol	U	333	ug/kg	66.7	333
106-46-7	1,4-Dichlorobenzene	U	333	ug/kg	66.7	333
621-64-7	N-Nitrosodipropylamine	U	333	ug/kg	66.7	333
59-50-7	4-Chloro-3-methylphenol	U	333	ug/kg	66.7	333
83-32-9	Acenaphthene	U	33.3	ug/kg	11.0	33.3
121-14-2	2,4-Dinitrotoluene	U	333	ug/kg	33.3	333
100-02-7	4-Nitrophenol	U	333	ug/kg	110	333
87-86-5	Pentachlorophenol	U	333	ug/kg	83.3	333
129-00-0	Pyrene	U	33.3	ug/kg	10.0	33.3
110-86-1	Pyridine	U	333	ug/kg	66.7	333
62-53-3	Aniline	U	333	ug/kg	100	333
111-44-4	bis(2-Chloroethyl) ether	U	333	ug/kg	66.7	333
541-73-1	1,3-Dichlorobenzene	U	333	ug/kg	66.7	333
100-51-6	Benzyl alcohol	U	333	ug/kg	100	333
95-50-1	1,2-Dichlorobenzene	U	333	ug/kg	66.7	333
108-60-1	bis(2-Chloroisopropyl)ether	U	333	ug/kg	66.7	333
95-48-7	o-Cresol	U	333	ug/kg	66.7	333
65794-96-9	m,p-Cresols	U	333	ug/kg	100	333
67-72-1	Hexachloroethane	U	333	ug/kg	66.7	333
98-95-3	Nitrobenzene	U	333	ug/kg	66.7	333
78-59-1	Isophorone	U	333	ug/kg	66.7	333
88-75-5	2-Nitrophenol	U	333	ug/kg	66.7	333
105-67-9	2,4-Dimethylphenol	U	333	ug/kg	117	333
111-91-1	bis(2-Chloroethoxy)methane	U	333	ug/kg	66.7	333
120-83-2	2,4-Dichlorophenol	U	333	ug/kg	66.7	333
65-85-0	Benzoic acid	U	667	ug/kg	167	667
91-20-3	Naphthalene	U	33.3	ug/kg	10.0	33.3
106-47-8	4-Chloroaniline	U	333	ug/kg	66.7	333
87-68-3	Hexachlorobutadiene	U	333	ug/kg	66.7	333
91-57-6	2-Methylnaphthalene	U	33.3	ug/kg	6.67	33.3
77-47-4	Hexachlorocyclopentadiene	U	333	ug/kg	66.7	333
88-06-2	2,4,6-Trichlorophenol	U	333	ug/kg	66.7	333
95-95-4	2,4,5-Trichlorophenol	U	333	ug/kg	66.7	333
91-58-7	2-Chloronaphthalene	U	33.3	ug/kg	11.0	33.3
88-74-4	2-Nitroaniline	U	333	ug/kg	66.7	333
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	333	ug/kg	66.7	333

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-901**			**Matrix:**	**SOIL**
Lab Sample ID:	**1201994527**				
Client Sample:	**QC for batch 932443**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 932443**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**932444**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**12/16/2009 15:15**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/14/2009 09:47**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**s6l1613-1.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	333	ug/kg	66.7	333
606-20-2	2,6-Dinitrotoluene	U	333	ug/kg	33.3	333
208-96-8	Acenaphthylene	U	33.3	ug/kg	10.0	33.3
51-28-5	2,4-Dinitrophenol	U	667	ug/kg	127	667
132-64-9	Dibenzofuran	U	333	ug/kg	66.7	333
84-66-2	Diethylphthalate	U	333	ug/kg	66.7	333
86-73-7	Fluorene	U	33.3	ug/kg	10.0	33.3
7005-72-3	4-Chlorophenylphenylether	U	333	ug/kg	66.7	333
534-52-1	2-Methyl-4,6-dinitrophenol	U	333	ug/kg	66.7	333
100-01-6	4-Nitroaniline	U	333	ug/kg	100	333
	p-Nitroaniline					
122-39-4	Diphenylamine	U	333	ug/kg	66.7	333
122-66-7	Azobenzene	U	333	ug/kg	66.7	333
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	333	ug/kg	66.7	333
118-74-1	Hexachlorobenzene	U	333	ug/kg	66.7	333
85-01-8	Phenanthrene	U	33.3	ug/kg	10.0	33.3
120-12-7	Anthracene	U	33.3	ug/kg	6.67	33.3
84-74-2	Di-n-butylphthalate	U	333	ug/kg	66.7	333
206-44-0	Fluoranthene	U	33.3	ug/kg	10.0	33.3
85-68-7	Butylbenzylphthalate	U	333	ug/kg	66.7	333
56-55-3	Benzo(a)anthracene	U	33.3	ug/kg	10.0	33.3
91-94-1	3,3'-Dichlorobenzidine	U	333	ug/kg	100	333
218-01-9	Chrysene	U	33.3	ug/kg	10.0	33.3
117-81-7	bis(2-Ethylhexyl)phthalate	U	333	ug/kg	66.7	333
117-84-0	Di-n-octylphthalate	U	333	ug/kg	66.7	333
205-99-2	Benzo(b)fluoranthene	U	33.3	ug/kg	10.0	33.3
207-08-9	Benzo(k)fluoranthene	U	33.3	ug/kg	10.0	33.3
50-32-8	Benzo(a)pyrene	U	33.3	ug/kg	10.0	33.3
193-39-5	Indeno(1,2,3-cd)pyrene	U	33.3	ug/kg	10.0	33.3
53-70-3	Dibenzo(a,h)anthracene	U	33.3	ug/kg	10.0	33.3
191-24-2	Benzo(ghi)perylene	U	33.3	ug/kg	10.0	33.3
120-82-1	1,2,4-Trichlorobenzene	U	333	ug/kg	66.7	333

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	2.22	401	ug/kg		J
	Unknown Aldol Condensate	3.45	441	ug/kg		JA

GEL Laboratories LLC

Data file : /chem/MSD6.i/s121609.b/s611613-7.d
Lab Smp Id: 1201994527 Client Smp ID: SBLK01
Inj Date : 16-DEC-2009 15:15
Operator : nagl Inst ID: MSD6.i
Smp Info : |1201994527|932444|1|SVMF|1|SBLK01
Misc Info : |MSD8270_S|WBN091208-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s121609.b/MSD6-M8270C-AQA-110909.m
Meth Date : 17-Dec-2009 08:11 nat00999 Quant Type: ISTD
Cal Date : 11-NOV-2009 04:38 Cal File: s6k0954.d
Als bottle: 4 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-901.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	0.00000	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	4.844	4.849	(1.000)	213205	40.0000	
* 29 Naphthalene-d8	136	6.126	6.131	(1.000)	803720	40.0000	
* 46 Acenaphthene-d10	164	7.996	8.001	(1.000)	443898	40.0000	
* 67 Phenanthrene-d10	188	9.606	9.611	(1.000)	755605	40.0000	
* 91 Chrysene-d12	240	12.626	12.633	(1.000)	628686	40.0000	
* 98 Perylene-d12	264	14.968	14.973	(1.000)	545942	40.0000	
$ 3 2-Fluorophenol	112	3.687	3.674	(0.761)	355317	66.5496	2220
$ 5 Phenol-d5	99	4.454	4.457	(0.920)	456839	67.7932	2260
$ 20 Nitrobenzene-d5	82	5.379	5.389	(0.878)	192951	33.9375	1130
$ 39 2-Fluorobiphenyl	172	7.252	7.254	(0.907)	394967	34.5263	1150
$ 60 2,4,6-Tribromophenol	329	8.844	8.850	(1.106)	92216	71.1753	2370
$ 81 p-Terphenyl-d14	244	11.316	11.316	(0.896)	433496	42.7569	1420

GEL Laboratories LLC

Data file : /chem/MSD6.i/s121609.b/s611613-7.d
Lab Smp Id: 1201994527 Client Smp ID: SBLK01
Inj Date : 16-DEC-2009 15:15
Operator : nagl Inst ID: MSD6.i
Smp Info : |1201994527|932444|1|SVMF|1|SBLK01
Misc Info : |MSD8270_S|WBN091208-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s121609.b/MSD6-M8270C-AQA-110909.m
Meth Date : 17-Dec-2009 08:11 nat00999 Quant Type: ISTD
Cal Date : 11-NOV-2009 04:38 Cal File: s6k0954.d
Als bottle: 4 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-901.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	0.00000	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	4.844	1235594	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown					CAS #:		
2.224	371635	12.0309580	401	0		0	10
Unknown Aldol Condensate					CAS #:		
3.450	408534	13.2255105	441	0		0	10

Data File: /chem/MSD6.i/s121609.b/s611613-7.d
Date : 16-DEC-2009 15:15
Client ID: SBLK01
Sample Info: |1201994527|932444|1|SVMF|1|SBLK01
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD6.i

Operator: nag1
Column diameter: 0.20

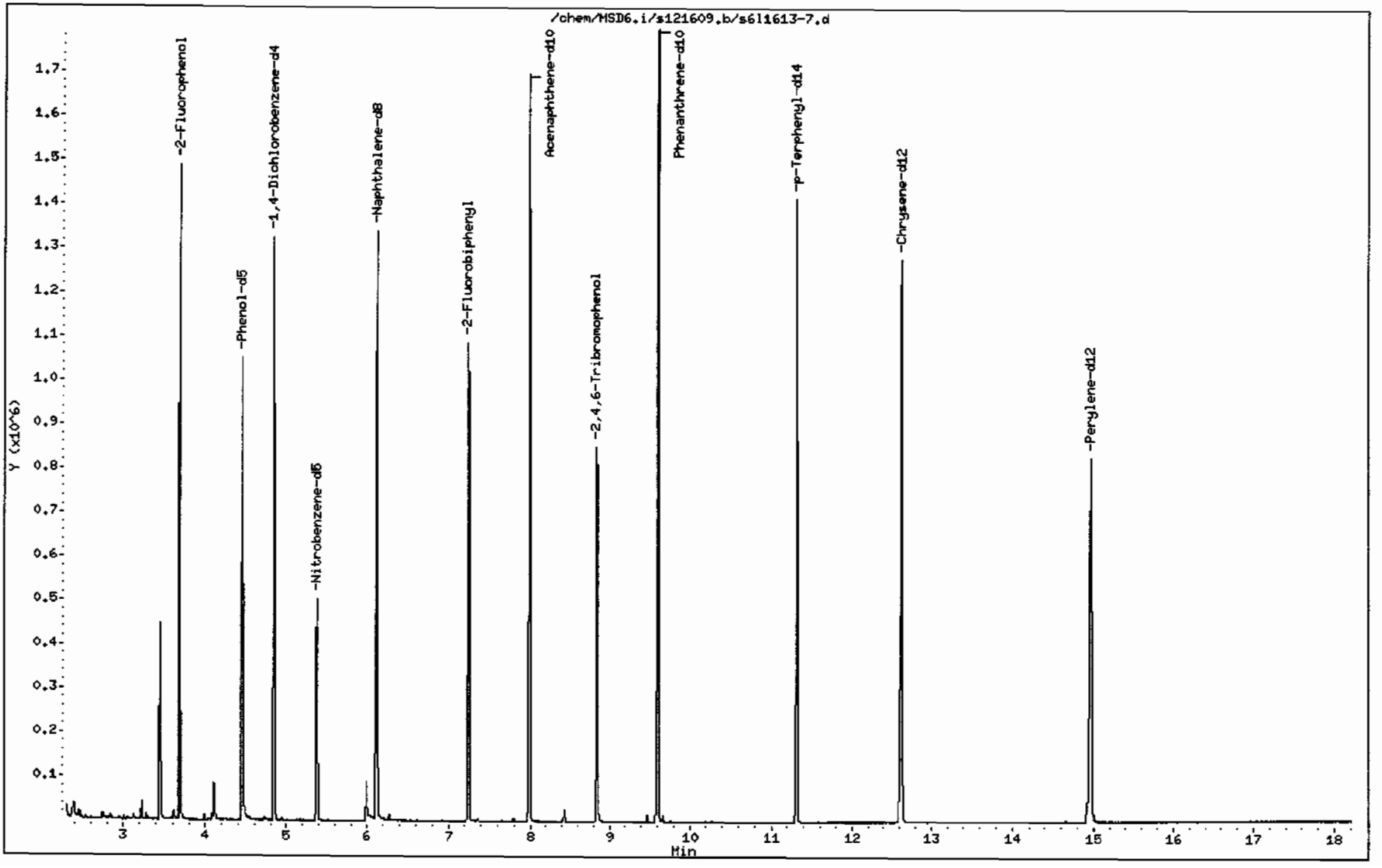

Data File: /chem/MSD6.i/s121609.b/s611613-7.d

Date : 16-DEC-2009 15:15

Client ID: SBLK01

Instrument: MSD6.i

Sample Info: |1201994527|932444|1|SVMF|1|SBLK01

Volume Injected (uL): 0.5

Operator: nagl

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Propane, 2,2-dimethoxy-	77-76-9	NIST05.L	4663	78	C5H12O2	104
Propane, 2,2-dimethoxy-	77-76-9	NIST05.L	4658	40	C5H12O2	104
Propanoic acid, 2-methyl-, propyl ester	644-49-5	NIST05.L	13119	17	C7H14O2	130

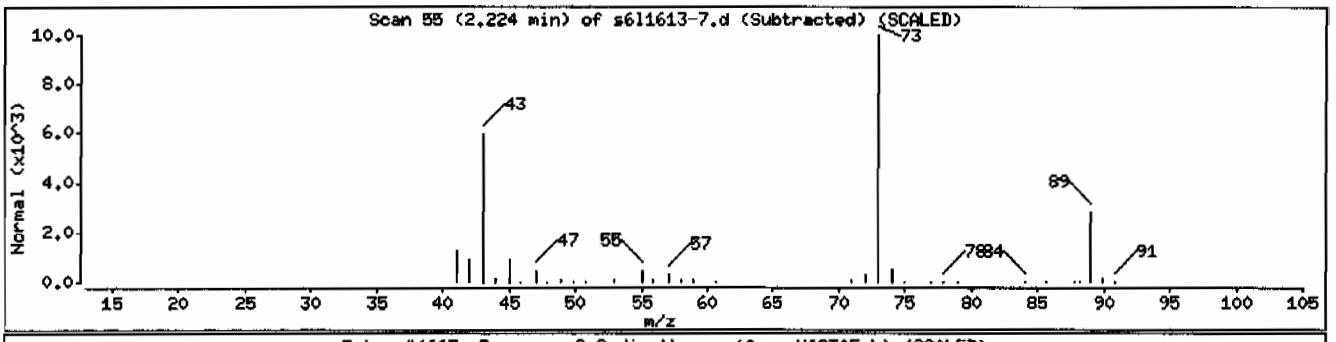

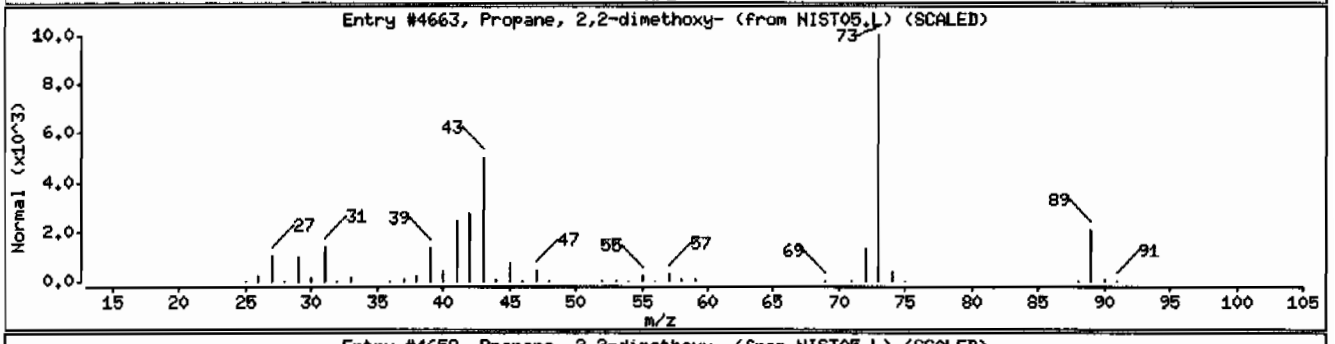

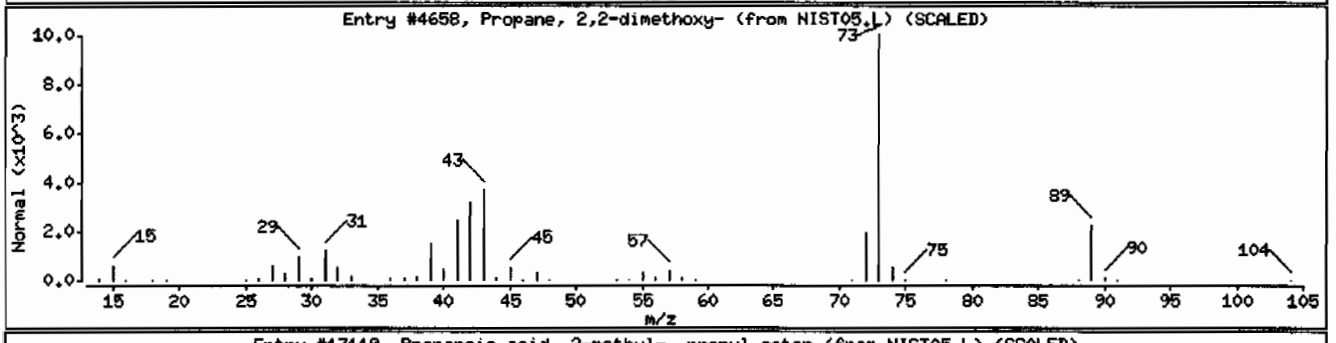

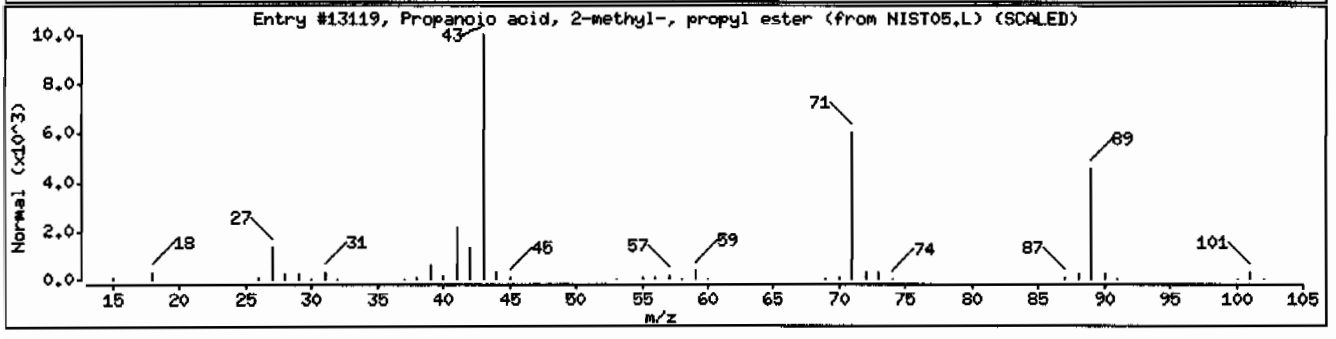

Data File: /chem/MSD6.i/s121609.b/s611613-7.d

Date : 16-DEC-2009 15:15

Client ID: SBLK01 Instrument: MSD6.i

Sample Info: |1201994527|932444|1|SVMF|1|SBLK01

Volume Injected (uL): 0.5 Operator: nag1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	59	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	38	C6H12O2	116
Acetic acid, cyano-, methyl ester	105-34-0	NIST05.L	3380	9	C4H5NO2	99

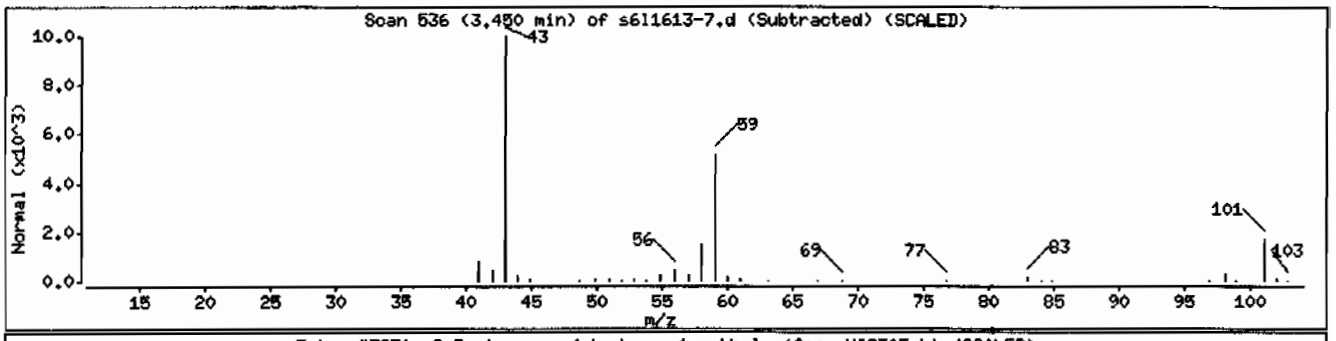

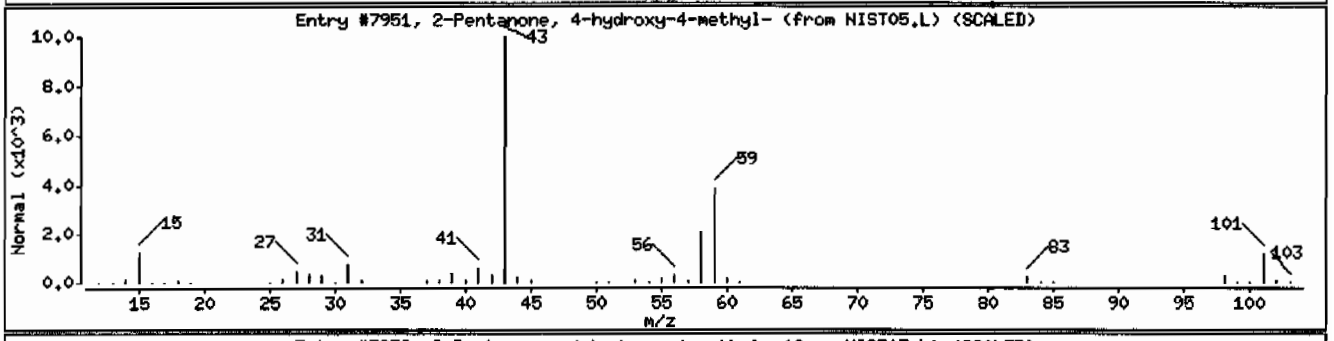

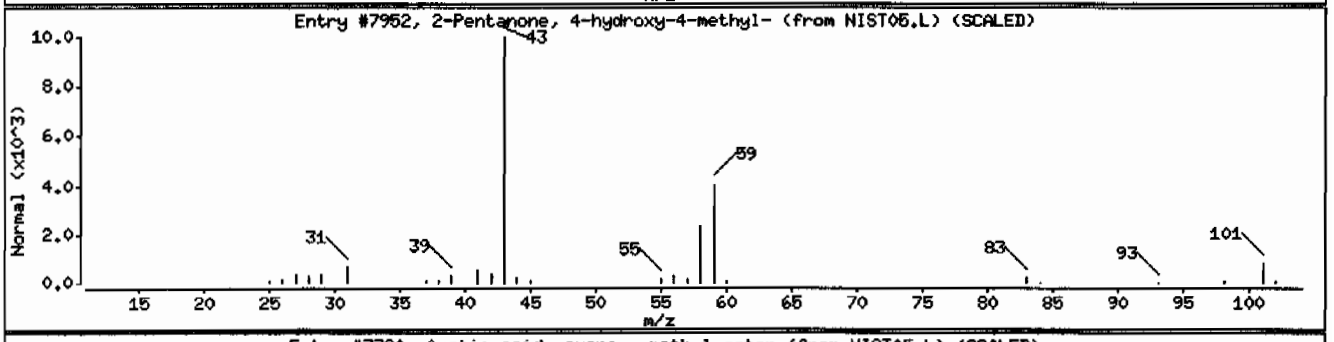

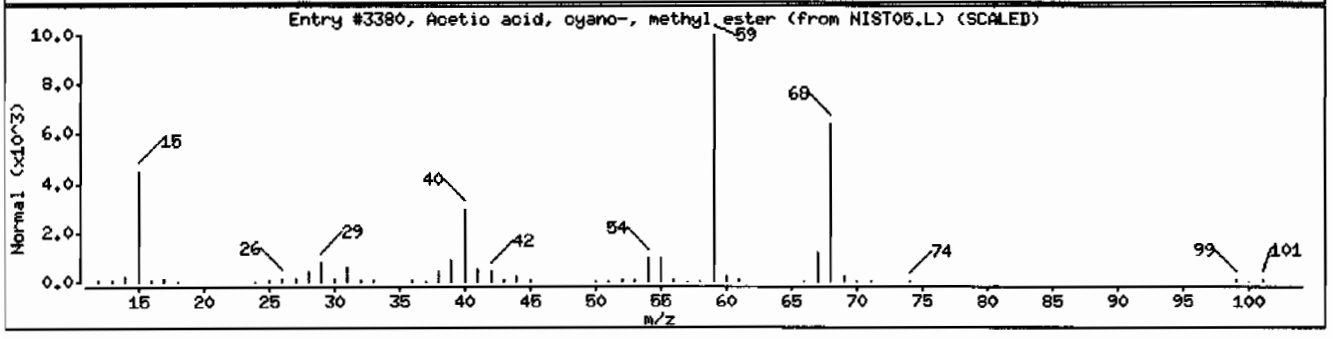

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-901			**Matrix:**	SOIL
Lab Sample ID:	1201994528				
Client Sample:	QC for batch 932443	**Client:**	LANL010	**Project:**	QC
Client ID:	LCS for batch 932443	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	932444	**Inst:**	MSD6.I	**Dilution:**	1
Run Date:	12/16/2009 15:45	**Analyst:**	NAG1	**Inj. Vol:**	.5 uL
Prep Date:	12/14/2009 09:47	**Aliquot:**	30 g	**Final Volume:**	1 mL
Data File:	s6l1614-1.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine		946	ug/kg	66.7	333
108-95-2	Phenol		1190	ug/kg	66.7	333
95-57-8	2-Chlorophenol		1160	ug/kg	66.7	333
106-46-7	1,4-Dichlorobenzene		964	ug/kg	66.7	333
621-64-7	N-Nitrosodipropylamine		996	ug/kg	66.7	333
59-50-7	4-Chloro-3-methylphenol		1200	ug/kg	66.7	333
83-32-9	Acenaphthene		1180	ug/kg	11.0	33.3
121-14-2	2,4-Dinitrotoluene		1340	ug/kg	33.3	333
100-02-7	4-Nitrophenol		1340	ug/kg	110	333
87-86-5	Pentachlorophenol		1250	ug/kg	83.3	333
129-00-0	Pyrene		1230	ug/kg	10.0	33.3
110-86-1	Pyridine		897	ug/kg	66.7	333
62-53-3	Aniline		1120	ug/kg	100	333
111-44-4	bis(2-Chloroethyl) ether		1010	ug/kg	66.7	333
541-73-1	1,3-Dichlorobenzene		950	ug/kg	66.7	333
100-51-6	Benzyl alcohol		1390	ug/kg	100	333
95-50-1	1,2-Dichlorobenzene		1020	ug/kg	66.7	333
108-60-1	bis(2-Chloroisopropyl)ether		1070	ug/kg	66.7	333
95-48-7	o-Cresol		866	ug/kg	66.7	333
65794-96-9	m,p-Cresols		1250	ug/kg	100	333
67-72-1	Hexachloroethane		944	ug/kg	66.7	333
98-95-3	Nitrobenzene		1100	ug/kg	66.7	333
78-59-1	Isophorone		940	ug/kg	66.7	333
88-75-5	2-Nitrophenol		1180	ug/kg	66.7	333
105-67-9	2,4-Dimethylphenol		1030	ug/kg	117	333
111-91-1	bis(2-Chloroethoxy)methane		865	ug/kg	66.7	333
120-83-2	2,4-Dichlorophenol		1200	ug/kg	66.7	333
65-85-0	Benzoic acid		3080	ug/kg	167	667
91-20-3	Naphthalene		1020	ug/kg	10.0	33.3
106-47-8	4-Chloroaniline		1140	ug/kg	66.7	333
87-68-3	Hexachlorobutadiene		1060	ug/kg	66.7	333
91-57-6	2-Methylnaphthalene		1060	ug/kg	6.67	33.3
77-47-4	Hexachlorocyclopentadiene		1040	ug/kg	66.7	333
88-06-2	2,4,6-Trichlorophenol		1180	ug/kg	66.7	333
95-95-4	2,4,5-Trichlorophenol		1190	ug/kg	66.7	333
91-58-7	2-Chloronaphthalene		1090	ug/kg	11.0	33.3
88-74-4	2-Nitroaniline		1100	ug/kg	66.7	333
99-09-2	*o-Nitroaniline* 3-Nitroaniline		1380	ug/kg	66.7	333

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-901**			**Matrix:**	**SOIL**
Lab Sample ID:	**1201994528**				
Client Sample:	**QC for batch 932443**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 932443**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**932444**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**12/16/2009 15:45**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/14/2009 09:47**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**s6l1614-1.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate		1240	ug/kg	66.7	333
606-20-2	2,6-Dinitrotoluene		1210	ug/kg	33.3	333
208-96-8	Acenaphthylene		1220	ug/kg	10.0	33.3
51-28-5	2,4-Dinitrophenol		1500	ug/kg	127	667
132-64-9	Dibenzofuran		1500	ug/kg	66.7	333
84-66-2	Diethylphthalate		1300	ug/kg	66.7	333
86-73-7	Fluorene		1280	ug/kg	10.0	33.3
7005-72-3	4-Chlorophenylphenylether		1300	ug/kg	66.7	333
534-52-1	2-Methyl-4,6-dinitrophenol		1250	ug/kg	66.7	333
100-01-6	4-Nitroaniline		1500	ug/kg	100	333
	p-Nitroaniline					
122-39-4	Diphenylamine		1200	ug/kg	66.7	333
122-66-7	Azobenzene		1250	ug/kg	66.7	333
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether		1250	ug/kg	66.7	333
118-74-1	Hexachlorobenzene		1220	ug/kg	66.7	333
85-01-8	Phenanthrene		1190	ug/kg	10.0	33.3
120-12-7	Anthracene		1220	ug/kg	6.67	33.3
84-74-2	Di-n-butylphthalate		1390	ug/kg	66.7	333
206-44-0	Fluoranthene		1360	ug/kg	10.0	33.3
85-68-7	Butylbenzylphthalate		1410	ug/kg	66.7	333
56-55-3	Benzo(a)anthracene		1390	ug/kg	10.0	33.3
91-94-1	3,3'-Dichlorobenzidine		1070	ug/kg	100	333
218-01-9	Chrysene		1300	ug/kg	10.0	33.3
117-81-7	bis(2-Ethylhexyl)phthalate		1460	ug/kg	66.7	333
117-84-0	Di-n-octylphthalate		1480	ug/kg	66.7	333
205-99-2	Benzo(b)fluoranthene		1430	ug/kg	10.0	33.3
207-08-9	Benzo(k)fluoranthene		1320	ug/kg	10.0	33.3
50-32-8	Benzo(a)pyrene		1440	ug/kg	10.0	33.3
193-39-5	Indeno(1,2,3-cd)pyrene		1430	ug/kg	10.0	33.3
53-70-3	Dibenzo(a,h)anthracene		1350	ug/kg	10.0	33.3
191-24-2	Benzo(ghi)perylene		1490	ug/kg	10.0	33.3
120-82-1	1,2,4-Trichlorobenzene		1060	ug/kg	66.7	333

GEL Laboratories LLC

Data file : /chem/MSD6.i/s121609.b/s611614-7.d
Lab Smp Id: 1201994528 Client Smp ID: SBLK01LCS
Inj Date : 16-DEC-2009 15:45
Operator : nag1 Inst ID: MSD6.i
Smp Info : |1201994528|932444|1|SVMF|1|SBLK01LCS
Misc Info : |MSD8270_S|WBN091208-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s121609.b/MSD6-M8270C-AQA-110909.m
Meth Date : 17-Dec-2009 08:11 nat00999 Quant Type: ISTD
Cal Date : 11-NOV-2009 04:38 Cal File: s6k0954.d
Als bottle: 5 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-901.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	0.00000	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	4.844	4.849	(1.000)	222177	40.0000	
* 29 Naphthalene-d8	136	6.128	6.131	(1.000)	901365	40.0000	
* 46 Acenaphthene-d10	164	8.001	8.001	(1.000)	432311	40.0000	
* 67 Phenanthrene-d10	188	9.611	9.611	(1.000)	823729	40.0000	
* 91 Chrysene-d12	240	12.636	12.633	(1.000)	674416	40.0000	
* 98 Perylene-d12	264	14.975	14.973	(1.000)	578792	40.0000	
$ 3 2-Fluorophenol	112	3.684	3.674	(0.761)	372834	67.0105	2230
$ 5 Phenol-d5	99	4.462	4.457	(0.921)	469261	66.8245	2230
$ 20 Nitrobenzene-d5	82	5.386	5.389	(0.879)	211354	33.1473	1100
$ 39 2-Fluorobiphenyl	172	7.254	7.254	(0.907)	362416	32.5299	1080
$ 60 2,4,6-Tribromophenol	329	8.852	8.850	(1.106)	107810	85.4415	2850
$ 81 p-Terphenyl-d14	244	11.316	11.316	(0.896)	463851	42.6487	1420

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
6 Phenol	94	4.474	4.469	(0.924)	252199	35.7184	1190(Q)
8 2-Chlorophenol	128	4.650	4.650	(0.960)	196801	34.6995	1160
11 1,4-Dichlorobenzene	146	4.859	4.867	(1.003)	191411	28.9194	964
17 N-Nitrosodipropylamine	70	5.216	5.226	(1.077)	117602	29.8774	996(Q)
28 1,2,4-Trichlorobenzene	180	6.059	6.062	(0.989)	173287	31.6963	1060
33 4-Chloro-3-methylphenol	107	6.683	6.676	(1.091)	162030	36.0304	1200
47 Acenaphthene	154	8.037	8.037	(1.004)	345185	35.4279	1180
50 2,4-Dinitrotoluene	165	8.189	8.192	(1.024)	134310	40.2669	1340
52 4-Nitrophenol	139	8.110	8.103	(1.014)	71925	40.3171	1340
65 Pentachlorophenol	266	9.395	9.390	(0.977)	66085	37.5769	1250
79 Pyrene	202	11.178	11.176	(0.885)	683973	36.8720	1230
2 Pyridine	79	2.785	2.737	(0.575)	126735	26.9203	897
4 Aniline	66	4.533	4.538	(0.936)	98294	33.5466	1120
7 bis(2-Chloroethyl) ether	63	4.566	4.574	(0.943)	145160	30.3600	1010
9 1,3-Dichlorobenzene	146	4.790	4.798	(0.989)	186152	28.5106	950
12 Benzyl alcohol	108	4.961	4.961	(1.024)	147171	41.7682	1390
13 1,2-Dichlorobenzene	146	5.009	5.017	(1.034)	188857	30.5682	1020
14 bis(2-Chloroisopropyl)ether	45	5.076	5.083	(1.048)	341558	31.9972	1070
15 o-Cresol	107	5.053	5.045	(1.043)	119990	25.9838	866
18 m,p-Cresols	107	5.198	5.203	(1.073)	219772	37.5592	1250
19 Hexachloroethane	117	5.346	5.348	(1.104)	72516	28.3202	944
21 Nitrobenzene	77	5.404	5.410	(0.882)	212840	33.1190	1100
22 Isophorone	82	5.639	5.644	(0.920)	321407	28.2150	940
23 2-Nitrophenol	139	5.723	5.726	(0.934)	105064	35.4437	1180
24 2,4-Dimethylphenol	122	5.738	5.736	(0.936)	152351	31.0201	1030
25 bis(2-Chloroethoxy)methane	93	5.840	5.840	(0.953)	174011	25.9573	865
26 2,4-Dichlorophenol	162	5.970	5.968	(0.974)	160733	36.0819	1200
27 Benzoic acid	105	5.868	5.850	(0.958)	280267	92.4518	3080
30 Naphthalene	128	6.151	6.154	(1.004)	552768	30.7429	1020
31 4-Chloroaniline	127	6.192	6.189	(1.010)	198075	34.2747	1140
32 Hexachlorobutadiene	225	6.261	6.261	(1.022)	90184	31.6773	1060
34 2-Methylnaphthalene	142	6.875	6.875	(1.122)	343818	31.6879	1060
36 Hexachlorocyclopentadiene	237	7.033	7.033	(0.879)	54376	31.1398	1040
37 2,4,6-Trichlorophenol	196	7.168	7.165	(0.896)	104480	35.4186	1180
38 2,4,5-Trichlorophenol	196	7.211	7.203	(0.901)	112266	35.7367	1190
40 2-Chloronaphthalene	162	7.399	7.400	(0.925)	317174	32.6685	1090
42 o-Nitroaniline	65	7.499	7.499	(0.937)	109117	32.8518	1100
41 m-Nitroaniline	138	7.940	7.942	(0.992)	100428	41.3040	1380
43 Dimethylphthalate	163	7.680	7.685	(0.960)	413335	37.2714	1240
44 2,6-Dinitrotoluene	165	7.756	7.756	(0.969)	95775	36.2074	1210
45 Acenaphthylene	152	7.851	7.851	(0.981)	572428	36.6693	1220
48 2,4-Dinitrophenol	184	8.052	8.052	(1.006)	42991	44.9210	1500(Q)
49 Dibenzofuran	168	8.220	8.220	(1.027)	591964	45.0099	1500
51 Diethylphthalate	149	8.437	8.437	(1.054)	434374	38.8939	1300
53 Fluorene	166	8.592	8.592	(1.074)	413862	38.3392	1280
54 4-Chlorophenylphenylether	204	8.574	8.574	(1.072)	199458	39.1062	1300
55 2-Methyl-4,6-dinitrophenol	198	8.635	8.633	(0.898)	67586	37.5343	1250

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
56 p-Nitroaniline	138	8.605	8.605	(1.075)	104686	45.0291	1500
133 Diphenylamine	169	8.704	8.702	(0.906)	358751	36.1327	1200
58 1,2-Diphenylhydrazine	77	8.750	8.750	(0.910)	472482	37.4119	1250
61 4-Bromophenylphenylether	248	9.107	9.107	(0.948)	121862	37.4915	1250
63 Hexachlorobenzene	284	9.186	9.183	(0.956)	124574	36.5890	1220
68 Phenanthrene	178	9.639	9.637	(1.003)	609394	35.7731	1190
69 Anthracene	178	9.693	9.693	(1.008)	624974	36.7049	1220
72 Di-n-butylphthalate	149	10.197	10.197	(1.061)	817015	41.7825	1390
76 Fluoranthene	202	10.926	10.926	(1.137)	666126	40.8204	1360
85 Butylbenzylphthalate	149	11.851	11.849	(0.938)	358880	42.2744	1410
89 Benzo(a)anthracene	228	12.613	12.613	(0.998)	606807	41.7031	1390
90 3,3'-Dichlorobenzidine	252	12.554	12.552	(0.994)	152910	32.1016	1070
92 Chrysene	228	12.669	12.669	(1.003)	544751	39.0731	1300
93 bis(2-Ethylhexyl)phthalate	149	12.575	12.575	(0.995)	514043	43.9048	1460
94 Di-n-octylphthalate	149	13.566	13.564	(0.906)	818399	44.4901	1480
95 Benzo(b)fluoranthene	252	14.292	14.295	(0.954)	551120	43.0332	1430
96 Benzo(k)fluoranthene	252	14.341	14.343	(0.958)	505143	39.6658	1320
97 Benzo(a)pyrene	252	14.873	14.871	(0.993)	478979	43.3007	1440
99 Indeno(1,2,3-cd)pyrene	276	16.965	16.963	(1.133)	453867	42.8580	1430
100 Dibenzo(a,h)anthracene	278	16.998	16.993	(1.135)	347439	40.4217	1350
101 Benzo(ghi)perylene	276	17.485	17.480	(1.168)	377799	44.7059	1490
1 N-Methyl-N-nitrosomethylamine	74	2.734	2.701	(0.564)	107401	28.3947	946

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: /chem/MSD6.i/s121609.b/s611614-7.d
Date : 16-DEC-2009 15:45
Client ID: SBLK01LCS
Sample Info: |1201994528|932444|1|SVMF|1|SBLK01LCS
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Page 1

Instrument: MSD6.i

Operator: nag1
Column diameter: 0.20

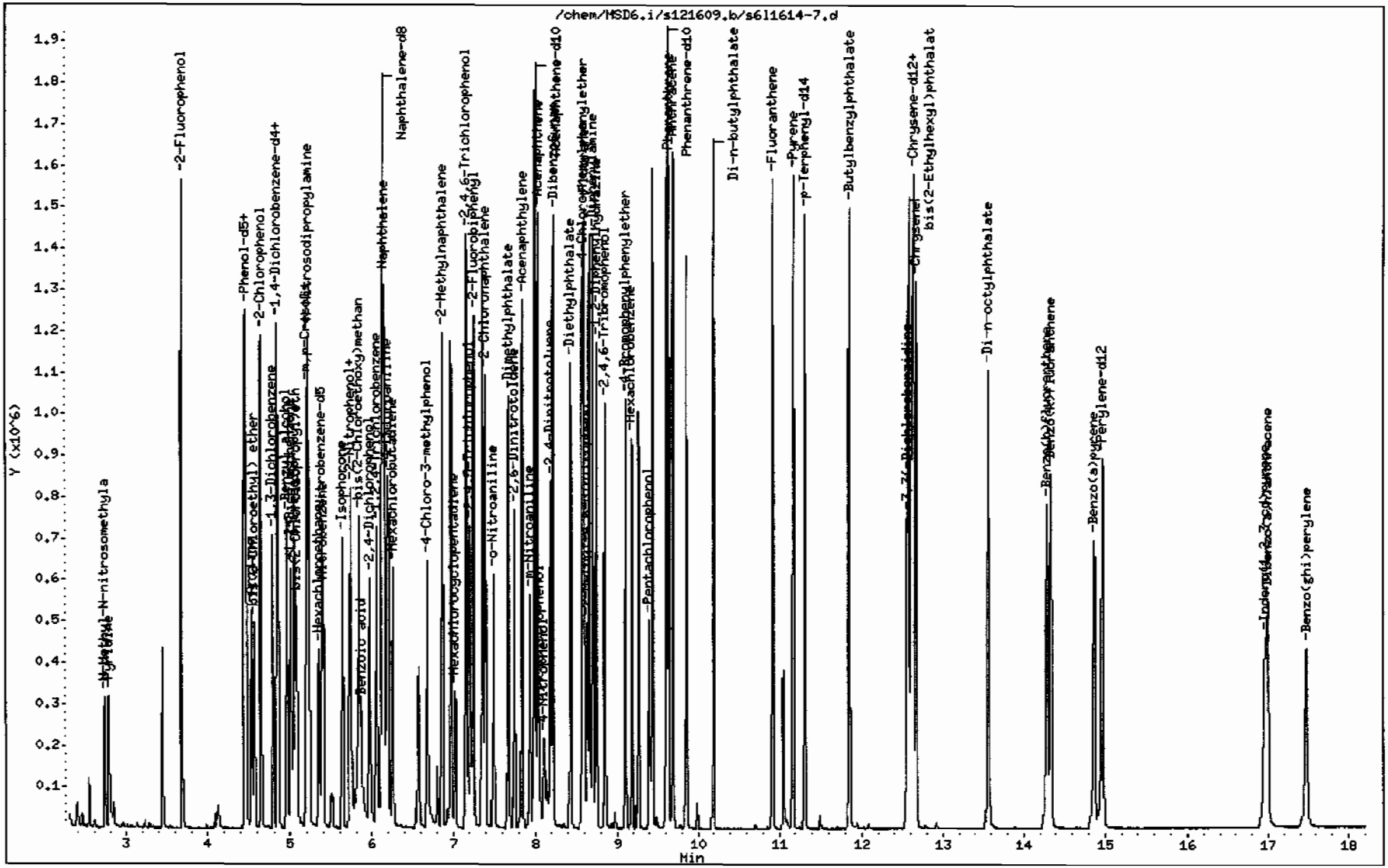

Miscellaneous Data

Prep Logbook

Extraction of Semivolatile and Nonvolatile Organic Compounds from Soil, Sludge, and Other Miscellaneous Solid Samples

Batch ID: 932443 **Verified by:** _____

Analyst: Robin Hunt

Method: SW846 3550B

Lab SOP: GL-OA-E-010 REV# 18

Instrument: Semi-Volatiles Manual

Sample ID	Run Date	Aliquot (g)	Prepped Aliquot (mL)	Prepped Factor (mL/g)
1201994527 MB	14-DEC-2009 09:47:05	30	1	0.03333
1201994528 LCS	14-DEC-2009 09:47:05	30	1	0.03333
242298004 - 2	14-DEC-2009 09:47:05	30	1	0.03333
242668001	14-DEC-2009 09:47:05	30.07	1	0.03326
242668002	14-DEC-2009 09:47:05	30.02	1	0.03331
242743002	14-DEC-2009 09:47:05	30.05	1	0.03328
242746001	14-DEC-2009 09:47:05	30.01	1	0.03332
242746002	14-DEC-2009 09:47:05	30.02	1	0.03331
242750001	14-DEC-2009 09:47:05	30.03	1	0.0333
242750002	14-DEC-2009 09:47:05	30.01	1	0.03332
242750003	14-DEC-2009 09:47:05	30	1	0.03333
242750004	14-DEC-2009 09:47:05	30.02	1	0.03331
242750005	14-DEC-2009 09:47:05	30.04	1	0.03329
242784003	14-DEC-2009 09:47:05	30.03	1	0.0333
242784004	14-DEC-2009 09:47:05	30	1	0.03333
242791001	14-DEC-2009 09:47:05	30.03	1	0.0333
1201994529 MS (242791001)	14-DEC-2009 09:47:05	30.09	1	0.03323
1201994530 MSD (242791001)	14-DEC-2009 09:47:05	30.02	1	0.03331
242791002	14-DEC-2009 09:47:05	30.01	1	0.03332
242794001	14-DEC-2009 09:47:05	30.03	1	0.0333
242794002	14-DEC-2009 09:47:05	30.03	1	0.0333
242794003	14-DEC-2009 09:47:05	30	1	0.03333
242794004	14-DEC-2009 09:47:05	30	1	0.03333

Type	Sample Id	Description	Serial Number	Spike Amt	Units
LCS	1201994528	BENZIDINE LCS	UE091130-21	1	mL
LCS	1201994528	BNA LCS w/o Benzidine 50ppm	UE091202-11	1	mL
MS	1201994529	BENZIDINE LCS	UE091130-21	1	mL
MS	1201994529	BNA LCS w/o Benzidine 50ppm	UE091202-11	1	mL
MSD	1201994530	BENZIDINE LCS	UE091130-21	1	mL
MSD	1201994530	BNA LCS w/o Benzidine 50ppm	UE091202-11	1	mL
SURR	All	BNA for all Surrogate	UE091130-10	1	mL
REGNT	All	Acetone	1233927	150	mL
REGNT	All	Methylene Chloride	1239699-D	150	mL
SOURC	All	SODIUM SULFATE	1237409	30	g

Comments:

Verified By: JAM

Final Solvent: CH2Cl2

GEL ORGANIC RUN LOG INSTRUMENT ID: MSD6

DATE: 11/09/2009 METHOD: See raw data OPERATOR: JMB3 REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT:1198658-D
Multiplier Voltage: 1565 Emv Extr. Injection Volume: 0.5, 1.0 ul
DFTPP Solution ID: WBN091101-01 Internal Std ID: WBN091106-10
CALIBRATION & QC INFORMATION:
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.

SOP: GL-OA-E-009 Rev. 22 Sequence Number: /chem/MSD6.i/s110909.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
s6k0901.d	WBN091101-01	JMB3	09-NOV-2009 11:20	50 PPM	s110909	1.0	DFTPP	DUSE
s6k0902.d	inst blk	JMB3	09-NOV-2009 11:35	--------	s110909	1.0	INST BLK	DUSE
s6k0903.d	WBN091106-08	JMB3	09-NOV-2009 12:23	1 PPM	s110909	1.0	MEGAICAL	DUSE
s6k0904.d	WBN091106-07	JMB3	09-NOV-2009 13:00	10 PPM	s110909	1.0	MEGAICAL	DUSE
s6k0905.d	WBN091106-06	JMB3	09-NOV-2009 13:36	20 PPM	s110909	1.0	MEGAICAL	DUSE
s6k0906.d	WBN091106-05.1	JMB3	09-NOV-2009 14:14	40 PPM	s110909	1.0	MEGAICAL	DUSE
s6k0907.d	WBN091106-04	JMB3	09-NOV-2009 14:52	50 PPM	s110909	1.0	MEGAICAL	DUSE
s6k0908.d	WBN091106-03	JMB3	09-NOV-2009 15:30	80 PPM	s110909	1.0	MEGAICAL	DUSE
s6k0909.d	WBN091106-02	JMB3	09-NOV-2009 16:06	100 PPM	s110909	1.0	MEGAICAL	DUSE
s6k0910.d	WBN091106-01	JMB3	09-NOV-2009 16:43	120 PPM	s110909	1.0	MEGAICAL	DUSE
s6k0911-D.d	WBN091101-01	JMB3	09-NOV-2009 18:00	50 PPM	s110909	1.0	DFTPP	
s6k0911.d	WBN091101-01	JMB3	09-NOV-2009 18:00	50 PPM	s110909	1.0	DFTPP	
s6k0912.d	inst blk	JMB3	09-NOV-2009 18:15	--------	s110909	1.0	INST BLK	
s6k0913.d	WBN091106-08	JMB3	09-NOV-2009 18:53	1 PPM	s110909	1.0	MEGAICAL	
s6k0914.d	WBN091106-07	JMB3	09-NOV-2009 19:31	10 PPM	s110909	1.0	MEGAICAL	
s6k0915.d	WBN091106-06	JMB3	09-NOV-2009 20:09	20 PPM	s110909	1.0	MEGAICAL	
s6k0916.d	WBN091106-05.1	JMB3	09-NOV-2009 20:46	40 PPM	s110909	1.0	MEGAICAL	
s6k0917.d	WBN091106-04	JMB3	09-NOV-2009 21:25	50 PPM	s110909	1.0	MEGAICAL	
s6k0918.d	WBN091106-03	JMB3	09-NOV-2009 22:01	80 PPM	s110909	1.0	MEGAICAL	

s6k0919.d	WBN091106-02	JMB3	09-NOV-2009 22:39	100 PPM	s110909	1.0	MEGAICAL	
s6k0920.d	WBN091106-01	JMB3	09-NOV-2009 23:16	120 PPM	s110909	1.0	MEGAICAL	
s6k0921-D.d	WBN091101-01	JMB3	10-NOV-2009 11:07	50 PPM	s110909	1.0	DFTPP	
s6k0921.d	WBN091101-01	JMB3	10-NOV-2009 11:07	50 PPM	s110909	1.0	DFTPP	
s6k0922.d	inst blk	JMB3	10-NOV-2009 11:21	--------	s110909	1.0	INST BLK	
s6k0923.d	WBN091016-01	JMB3	10-NOV-2009 11:59	10 PPM	s110909	1.0	AP12ICAL	
s6k0924.d	WBN091016-02	JMB3	10-NOV-2009 12:36	20 PPM	s110909	1.0	AP12ICAL	
s6k0925.d	WBN091016-03	JMB3	10-NOV-2009 13:13	40 PPM	s110909	1.0	AP12ICAL	
s6k0926.d	WBN091016-04	JMB3	10-NOV-2009 13:51	50 PPM	s110909	1.0	AP12ICAL	
s6k0927.d	WBN091016-05	JMB3	10-NOV-2009 14:30	80 PPM	s110909	1.0	AP12ICAL	
s6k0928.d	WBN091016-06	JMB3	10-NOV-2009 15:06	100 PPM	s110909	1.0	AP12ICAL	
s6k0929.d	WBN091016-07	JMB3	10-NOV-2009 15:43	120 PPM	s110909	1.0	AP12ICAL	
s6k0930.d	WBN091029-25	JMB3	10-NOV-2009 16:20	10 PPM	s110909	1.0	PESTICAL	
s6k0931.d	WBN091029-24	JMB3	10-NOV-2009 16:56	20 PPM	s110909	1.0	PESTICAL	
s6k0932.d	WBN091029-23.1	JMB3	10-NOV-2009 17:33	40 PPM	s110909	1.0	PESTICAL	
s6k0933.d	WBN091029-22	JMB3	10-NOV-2009 18:09	50 PPM	s110909	1.0	PESTICAL	
s6k0934.d	WBN091029-21	JMB3	10-NOV-2009 18:45	80 PPM	s110909	1.0	PESTICAL	
s6k0935.d	WBN091029-20	JMB3	10-NOV-2009 19:21	100 PPM	s110909	1.0	PESTICAL	
s6k0936.d	WBN091029-19	JMB3	10-NOV-2009 19:58	120 PPM	s110909	1.0	PESTICAL	
s6k0937-D.d	WBN091106-09.1	JMB3	10-NOV-2009 20:29	40 PPM	s110909	1.0	MEGAICV	FAILED SC 8270D
s6k0937.d	WBN091106-09.1	JMB3	10-NOV-2009 20:29	40 PPM	s110909	1.0	MEGAICV	
s6k0938-D.d	WBN091016-08.1	JMB3	10-NOV-2009 21:07	40 PPM	s110909	1.0	AP12ICV	
s6k0938.d	WBN091016-08.1	JMB3	10-NOV-2009 21:07	40 PPM	s110909	1.0	AP12ICV	
s6k0939-D.d	WBN091029-26.1	JMB3	10-NOV-2009 21:35	40 PPM	s110909	1.0	PESTICV	
s6k0939.d	WBN091029-26.1	JMB3	10-NOV-2009 21:35	40 PPM	s110909	1.0	PESTICV	
s6k0940-D.d	WBN091101-01	JMB3	10-NOV-2009 22:12	50 PPM	s110909	1.0	DFTPP	
s6k0940.d	WBN091101-01	JMB3	10-NOV-2009 22:12	50 PPM	s110909	1.0	DFTPP	

s6k0941.d	inst blk	JMB3	10-NOV-2009 22:26	--------	s110909	1.0	INST BLK	
s6k0942.d	WBN091016-16	JMB3	10-NOV-2009 22:55	500 PPM	s110909	1.0	HEXICAL	
s6k0943.d	WBN091016-15	JMB3	10-NOV-2009 23:24	1000 PPM	s110909	1.0	HEXICAL	
s6k0944.d	WBN091016-14	JMB3	10-NOV-2009 23:53	1250 PPM	s110909	1.0	HEXICAL	
s6k0945.d	WBN091016-13	JMB3	11-NOV-2009 00:21	1500 PPM	s110909	1.0	HEXICAL	
s6k0946.d	WBN091016-12	JMB3	11-NOV-2009 00:50	1750 PPM	s110909	1.0	HEXICAL	
s6k0947.d	UBN090828-02.4-16	JMB3	11-NOV-2009 01:18	500 PPM	s110909	1.0	HEXICAL	
s6k0948.d	UBN090924-01	JMB3	11-NOV-2009 01:47	10 PPM	s110909	1.0	NEVICAL	
s6k0949.d	UBN090924-02	JMB3	11-NOV-2009 02:16	20 PPM	s110909	1.0	NEVICAL	
s6k0950.d	UBN090924-03	JMB3	11-NOV-2009 02:44	40 PPM	s110909	1.0	NEVICAL	
s6k0951.d	UBN090924-04	JMB3	11-NOV-2009 03:12	50 PPM	s110909	1.0	NEVICAL	DUSE - disabled
s6k0952.d	UBN090924-05	JMB3	11-NOV-2009 03:41	80 PPM	s110909	1.0	NEVICAL	
s6k0953.d	UBN090924-06	JMB3	11-NOV-2009 04:10	100 PPM	s110909	1.0	NEVICAL	
s6k0954.d	UBN090924-07	JMB3	11-NOV-2009 04:38	120 PPM	s110909	1.0	NEVICAL	DUSE - disabled
s6k0955-D.d	WBN091016-10.1	JMB3	11-NOV-2009 05:07	1250 PPM	s110909	1.0	HEXICV	DUSE - failed >70%-130%
s6k0955.d	WBN091016-10.1	JMB3	11-NOV-2009 05:07	1250 PPM	s110909	1.0	HEXICV	

GEL ORGANIC RUN LOG INSTRUMENT ID: MSD6

DATE: 12/16/2009 METHOD: See raw data OPERATOR: nagl REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT:1202440-D
Multiplier Voltage: 1588 Emv Extr. Injection Volume: 0.5, 1.0 ul
DFTPP Solution ID: WBN091213-01 Internal Std ID: WBN091208-01
CALIBRATION & QC INFORMATION:
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.

SOP: GL-OA-E-009 Rev. 23 Sequence Number: /chem/MSD6.i/s121609.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
s611601.d	WBN091213-01	nagl	16-DEC-2009 08:36	50 PPM	s121609	1.0	DFTPP	DUSE
s611602.d	WBN091106-09.1	nagl	16-DEC-2009 08:47	CVS	s121609	1.0	MEGACVS	DUSE
s611603.d	WBN091213-01	nagl	16-DEC-2009 09:25	50 PPM	s121609	1.0	DFTPP	DUSE
s611604.d	WBN091106-09.1	nagl	16-DEC-2009 09:38	CVS	s121609	1.0	MEGACVS	DUSE
s611605.d	WBN091213-01	nagl	16-DEC-2009 11:14	50 PPM	s121609	1.0	DFTPP	DUSE
s611606.d	WBN091106-09.1	nagl	16-DEC-2009 11:28	CVS	s121609	1.0	MEGACVS	DUSE
s611607.d	WBN091201-03.5	nagl	16-DEC-2009 11:57	CVS	s121609	1.0	AP12CVS	DUSE
s611608.d	WBN091106-09.1	nagl	16-DEC-2009 12:25	CVS	s121609	1.0	MEGACVS	DUSE
s611609.d	WBN091202-23.5	nagl	16-DEC-2009 12:53	CVS	s121609	1.0	PESTCVS	DUSE - MAINENTANCE
s611610.d	WBN091213-01	nagl	16-DEC-2009 14:04	50 PPM	s121609	1.0	DFTPP	
s611611.d	WBN091111-17.4	nagl	16-DEC-2009 14:18	CVS	s121609	1.0	MEGACVS	209214
s611612.d	WBN091201-03.5	nagl	16-DEC-2009 14:46	CVS	s121609	1.0	AP12CVS	
s611613-1.d	1201994527	nagl	16-DEC-2009 15:15	932444	10-854	1.0	SBLK01	
s611613-2.d	1201994527	nagl	16-DEC-2009 15:15	932444	10-883	1.0	SBLK01	
s611613-3.d	1201994527	nagl	16-DEC-2009 15:15	932444	10-884	1.0	SBLK01	
s611613-4.d	1201994527	nagl	16-DEC-2009 15:15	932444	10-886	1.0	SBLK01	
s611613-5.d	1201994527	nagl	16-DEC-2009 15:15	932444	10-899	1.0	SBLK01	
s611613-6.d	1201994527	nagl	16-DEC-2009 15:15	932444	10-903	1.0	SBLK01	
s611613-7.d	1201994527	nagl	16-DEC-2009 15:15	932444	10-901	1.0	SBLK01	

s611613.d	1201994527	nagl	16-DEC-2009 15:15	932444	10-788	1.0	SBLK01	
s611614-1.d	1201994528	nagl	16-DEC-2009 15:45	932444	10-854	1.0	SBLK01LCS	
s611614-2.d	1201994528	nagl	16-DEC-2009 15:45	932444	10-883	1.0	SBLK01LCS	
s611614-3.d	1201994528	nagl	16-DEC-2009 15:45	932444	10-884	1.0	SBLK01LCS	
s611614-4.d	1201994528	nagl	16-DEC-2009 15:45	932444	10-886	1.0	SBLK01LCS	
s611614-5.d	1201994528	nagl	16-DEC-2009 15:45	932444	10-899	1.0	SBLK01LCS	
s611614-6.d	1201994528	nagl	16-DEC-2009 15:45	932444	10-903	1.0	SBLK01LCS	
s611614-7.d	1201994528	nagl	16-DEC-2009 15:45	932444	10-901	1.0	SBLK01LCS	
s611614.d	1201994528	nagl	16-DEC-2009 15:45	932444	10-788	1.0	SBLK01LCS	
s611615.d	242298004	nagl	16-DEC-2009 16:13	932444	10-788	1.0	LANLRE	
s611616.d	242668001	nagl	16-DEC-2009 16:42	932444	10-854	1.0	LANL	
s611617.d	242668002	nagl	16-DEC-2009 17:10	932444	10-854	1.0	LANL	
s611618.d	242743002	nagl	16-DEC-2009 17:38	932444	10-883	1.0	LANL	
s611619.d	242746001	nagl	16-DEC-2009 18:07	932444	10-884	1.0	LANL	
s611620.d	242746002	nagl	16-DEC-2009 18:36	932444	10-884	1.0	LANL	
s611621.d	242750001	nagl	16-DEC-2009 19:03	932444	10-886	1.0	LANL	
s611622.d	242750002	nagl	16-DEC-2009 19:31	932444	10-886	1.0	LANL	
s611623.d	242750003	nagl	16-DEC-2009 20:00	932444	10-886	1.0	LANL	
s611624.d	242750004	nagl	16-DEC-2009 20:28	932444	10-886	1.0	LANL	
s611625.d	242750005	nagl	16-DEC-2009 20:56	932444	10-886	1.0	LANL	
s611626.d	242784003	nagl	16-DEC-2009 21:23	932444	10-899	1.0	LANL	
s611627.d	242784004	nagl	16-DEC-2009 21:51	932444	10-899	1.0	LANL	
s611628.d	242791001	nagl	16-DEC-2009 22:19	932444	10-903	1.0	LANL	
s611629.d	1201994529	nagl	16-DEC-2009 22:46	932444	10-903	1.0	LANL_MS	failed spike
s611630.d	1201994530	nagl	16-DEC-2009 23:13	932444	10-903	1.0	LANL_MSD	DUSE - failed IS/spike - RR - see s611717
s611631.d	242791002	nagl	16-DEC-2009 23:41	932444	10-903	1.0	LANL	
s611632.d	242794001	nagl	17-DEC-2009 00:08	932444	10-901	1.0	LANL	

s611633.d	242794002	nag1	17-DEC-2009 00:36	932444	10-901		1.0	LANL	
s611634.d	242794003	nag1	17-DEC-2009 01:03	932444	10-901		1.0	LANL	
s611635.d	242794004	nag1	17-DEC-2009 01:30	932444	10-901		1.0	LANL	

Instrument Batch: /chem/MSD6.i/s121609.b

GEL Laboratories LLC

Data file : /chem/MSD6.i/s121609.b/s611629.d
Lab Smp Id: 1201994529 Client Smp ID: RE16-10-2878MS
Inj Date : 16-DEC-2009 22:46
Operator : nagl Inst ID: MSD6.i
Smp Info : |1201994529|932444|1|SVMF|1|LANL_MS
Misc Info : |MSD8270_S|WBN091208-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s121609.b/MSD6-M8270C-AQA-110909.m
Meth Date : 17-Dec-2009 08:11 nat00999 Quant Type: ISTD
Cal Date : 11-NOV-2009 04:38 Cal File: s6k0954.d
Als bottle: 20 QC Sample: MS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-903.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.09000	weight of sample
M	12.55480	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	4.849	4.849	(1.000)	163674	40.0000	
* 29 Naphthalene-d8	136	6.131	6.131	(1.000)	738236	40.0000	
* 46 Acenaphthene-d10	164	8.003	8.001	(1.000)	448525	40.0000	
* 67 Phenanthrene-d10	188	9.616	9.611	(1.000)	817803	40.0000	
* 91 Chrysene-d12	240	12.638	12.633	(1.000)	532879	40.0000	
* 98 Perylene-d12	264	14.978	14.973	(1.000)	292729	40.0000	
$ 3 2-Fluorophenol	112	3.690	3.674	(0.761)	278264	67.8897	2580
$ 5 Phenol-d5	99	4.469	4.457	(0.922)	344249	66.5447	2530(H)
$ 20 Nitrobenzene-d5	82	5.389	5.389	(0.879)	126211	24.1679	918
$ 39 2-Fluorobiphenyl	172	7.257	7.254	(0.907)	314417	27.2014	1030
$ 60 2,4,6-Tribromophenol	329	8.855	8.850	(1.106)	93901	71.7282	2730
$ 81 p-Terphenyl-d14	244	11.319	11.316	(0.896)	361402	42.0550	1600

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
6 Phenol	94	4.479	4.469	(0.924)	179202	34.4517	1310(Q)
8 2-Chlorophenol	128	4.658	4.650	(0.961)	125001	29.9178	1140
11 1,4-Dichlorobenzene	146	4.867	4.867	(1.004)	81762	16.7685	637
17 N-Nitrosodipropylamine	70	5.218	5.226	(1.076)	84897	29.2778	1110(Q)
28 1,2,4-Trichlorobenzene	180	6.062	6.062	(0.989)	103101	23.0256	875
33 4-Chloro-3-methylphenol	107	6.696	6.676	(1.092)	160191	43.4928	1650
47 Acenaphthene	154	8.037	8.037	(1.004)	280590	27.7571	1050
50 2,4-Dinitrotoluene	165	8.195	8.192	(1.024)	114109	32.9738	1250
52 4-Nitrophenol	139	8.139	8.103	(1.017)	47752	28.4222	1080
65 Pentachlorophenol	266	9.402	9.390	(0.978)	51378	30.5911	1160
79 Pyrene	202	11.181	11.176	(0.885)	536884	36.6301	1390
2 Pyridine	79	2.772	2.737	(0.572)	45848	13.2198	502(R)
4 Aniline	66	4.538	4.538	(0.936)	40181	18.6150	707(Q)
7 bis(2-Chloroethyl) ether	63	4.574	4.574	(0.943)	81729	23.2033	882
9 1,3-Dichlorobenzene	146	4.798	4.798	(0.989)	104729	21.7734	827
12 Benzyl alcohol	108	4.969	4.961	(1.025)	14496	5.58458	212(aR)
13 1,2-Dichlorobenzene	146	5.015	5.017	(1.034)	88599	19.4663	740
14 bis(2-Chloroisopropyl)ether	45	5.083	5.083	(1.048)	246197	31.3076	1190
15 o-Cresol	107	5.058	5.045	(1.043)	118735	34.9025	1330
18 m,p-Cresols	107	5.203	5.203	(1.073)	170939	39.6556	1510
19 Hexachloroethane	117	5.348	5.348	(1.103)	30048	15.9293	605
21 Nitrobenzene	77	5.410	5.410	(0.882)	127426	24.2096	920
22 Isophorone	82	5.641	5.644	(0.920)	267366	28.6574	1090
23 2-Nitrophenol	139	5.728	5.726	(0.934)	64927	26.7434	1020
24 2,4-Dimethylphenol	122	5.748	5.736	(0.938)	99016	24.6155	936
25 bis(2-Chloroethoxy)methane	93	5.840	5.840	(0.953)	145323	26.4681	1000
26 2,4-Dichlorophenol	162	5.978	5.968	(0.975)	125218	34.3208	1300
27 Benzoic acid	105	5.876	5.850	(0.958)	248070	99.9133	3800
30 Naphthalene	128	6.154	6.154	(1.004)	340898	23.1490	880
31 4-Chloroaniline	127	6.194	6.189	(1.010)	95865	20.2539	770
32 Hexachlorobutadiene	225	6.261	6.261	(1.021)	53747	23.0504	876
34 2-Methylnaphthalene	142	6.877	6.875	(1.122)	277963	31.2793	1190
36 Hexachlorocyclopentadiene	237	7.033	7.033	(0.879)	12532	6.91734	263(aR)
37 2,4,6-Trichlorophenol	196	7.170	7.165	(0.896)	91938	30.0402	1140
38 2,4,5-Trichlorophenol	196	7.221	7.203	(0.902)	116586	35.7703	1360(H)
40 2-Chloronaphthalene	162	7.402	7.400	(0.925)	268724	26.6776	1010
42 o-Nitroaniline	65	7.504	7.499	(0.938)	98604	28.6135	1090
41 m-Nitroaniline	138	7.945	7.942	(0.993)	67440	26.7341	1020
43 Dimethylphthalate	163	7.682	7.685	(0.960)	376026	32.6814	1240
44 2,6-Dinitrotoluene	165	7.759	7.756	(0.969)	86985	31.6956	1200
45 Acenaphthylene	152	7.851	7.851	(0.981)	479000	29.5752	1120
48 2,4-Dinitrophenol	184	8.060	8.052	(1.007)	20232	28.3001	1080(Q)
49 Dibenzofuran	168	8.223	8.220	(1.027)	517904	37.9552	1440
51 Diethylphthalate	149	8.437	8.437	(1.054)	407695	35.1854	1340
53 Fluorene	166	8.592	8.592	(1.074)	366609	32.7341	1240
54 4-Chlorophenylphenylether	204	8.577	8.574	(1.072)	177882	33.6152	1280
55 2-Methyl-4,6-dinitrophenol	198	8.638	8.633	(0.898)	35208	23.0638	876

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
56 p-Nitroaniline	138	8.610	8.605	(1.076)	78839	34.6223	1320
133 Diphenylamine	169	8.704	8.702	(0.905)	290252	29.4455	1120
58 1,2-Diphenylhydrazine	77	8.753	8.750	(0.910)	398198	31.7585	1210
61 4-Bromophenylphenylether	248	9.109	9.107	(0.947)	101763	31.5348	1200
63 Hexachlorobenzene	284	9.188	9.183	(0.955)	92196	27.2754	1040
68 Phenanthrene	178	9.642	9.637	(1.003)	553469	32.7255	1240
69 Anthracene	178	9.695	9.693	(1.008)	550432	32.5613	1240
72 Di-n-butylphthalate	149	10.200	10.197	(1.061)	696557	35.8803	1360
76 Fluoranthene	202	10.929	10.926	(1.136)	538775	33.2555	1260
85 Butylbenzylphthalate	149	11.851	11.849	(0.938)	284536	42.4194	1610
89 Benzo(a)anthracene	228	12.618	12.613	(0.998)	365948	31.8300	1210
92 Chrysene	228	12.672	12.669	(1.003)	343788	31.2083	1190
93 bis(2-Ethylhexyl)phthalate	149	12.577	12.575	(0.995)	372265	40.2745	1530
94 Di-n-octylphthalate	149	13.566	13.564	(0.906)	529631	56.9284	2160
95 Benzo(b)fluoranthene	252	14.297	14.295	(0.955)	234939	36.2718	1380
96 Benzo(k)fluoranthene	252	14.343	14.343	(0.958)	239075	37.1187	1410
97 Benzo(a)pyrene	252	14.876	14.871	(0.993)	186639	33.3609	1270
99 Indeno(1,2,3-cd)pyrene	276	16.970	16.963	(1.133)	129568	25.5139	970
100 Dibenzo(a,h)anthracene	278	17.001	16.993	(1.135)	110177	26.3542	1000
101 Benzo(ghi)perylene	276	17.488	17.480	(1.168)	93592	21.8977	832
1 N-Methyl-N-nitrosomethylamine	74	2.726	2.701	(0.562)	70428	25.2752	960

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
R - Spike/Surrogate failed recovery limits.
H - Operator selected an alternate compound hit.

Data File: /chem/MSD6.i/s121609.b/s611629.d
Date : 16-DEC-2009 22:46
Client ID: RE16-10-2878MS
Sample Info: 1120199452919324441|1|SVHF|1|LANL_HS
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD6.i
Operator: nag1
Column diameter: 0.20

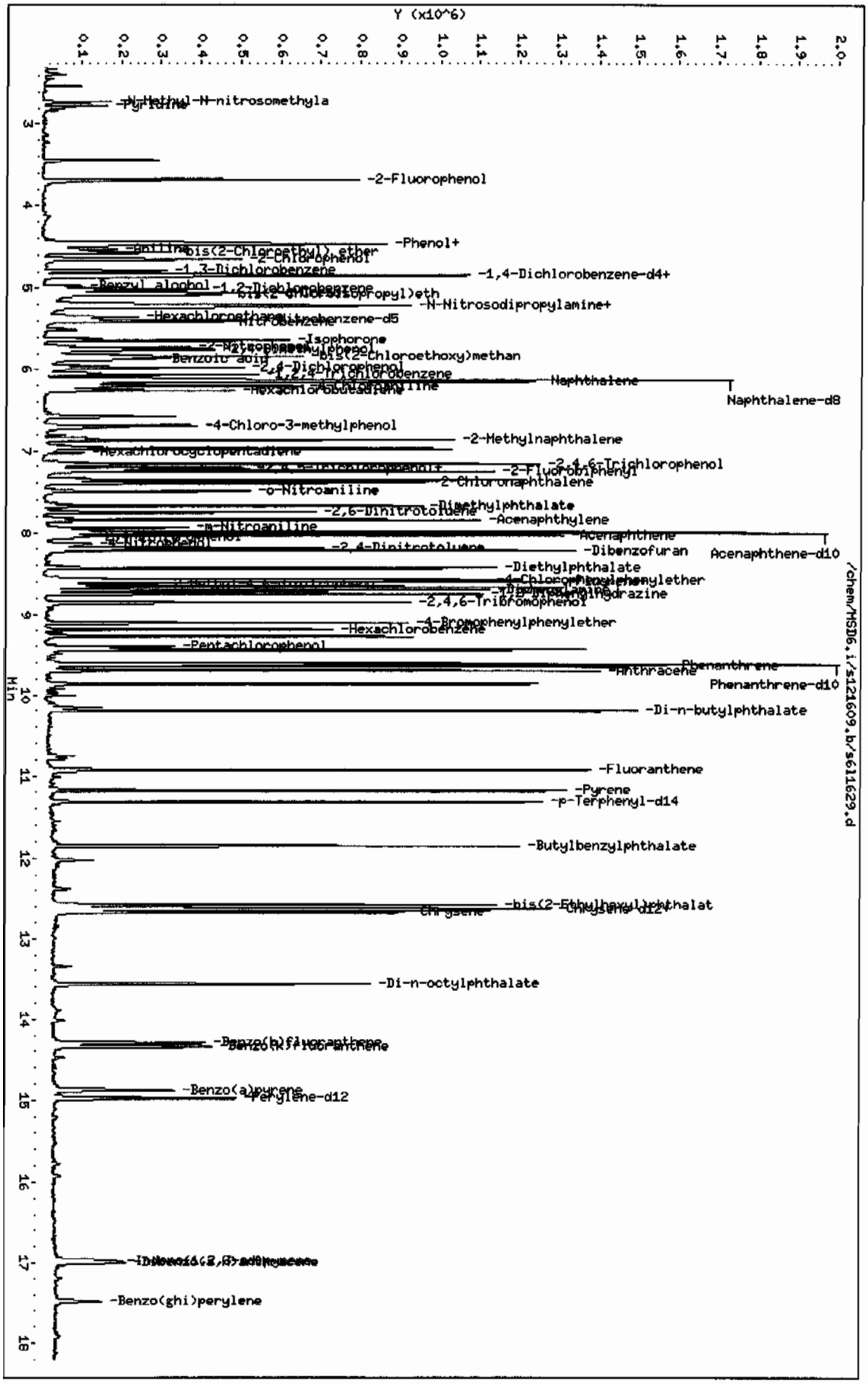

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Data file : /chem/MSD6.i/s121709.b/s611717.d
Lab Smp Id: 1201994530 Client Smp ID: RE16-10-2878MSD
Inj Date : 17-DEC-2009 17:29
Operator : nagl Inst ID: MSD6.i
Smp Info : |1201994530|932444|1|SVMF|1|LANL0001MSD
Misc Info : |MSD8270_S|WBN091208-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s121709.b/MSD6-M8270C-AQA-110909.m
Meth Date : 18-Dec-2009 07:24 nat00999 Quant Type: ISTD
Cal Date : 11-NOV-2009 04:38 Cal File: s6k0954.d
Als bottle: 17 QC Sample: MSD
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-903.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.02000	weight of sample
M	12.55480	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	4.800	4.800	(1.000)	129085	40.0000	
* 29 Naphthalene-d8	136	6.080	6.080	(1.000)	515847	40.0000	
* 46 Acenaphthene-d10	164	7.950	7.950	(1.000)	279099	40.0000	
* 67 Phenanthrene-d10	188	9.563	9.563	(1.000)	473949	40.0000	
* 91 Chrysene-d12	240	12.575	12.575	(1.000)	311788	40.0000	
* 98 Perylene-d12	264	14.893	14.893	(1.000)	210612	40.0000	
$ 3 2-Fluorophenol	112	3.639	3.626	(0.758)	142945	44.2201	1680
$ 5 Phenol-d5	99	4.416	4.410	(0.920)	199032	48.7829	1860
$ 20 Nitrobenzene-d5	82	5.336	5.338	(0.878)	81738	22.3996	853
$ 39 2-Fluorobiphenyl	172	7.206	7.206	(0.906)	186834	25.9759	990
$ 60 2,4,6-Tribromophenol	329	8.804	8.801	(1.107)	49410	60.6545	2310
$ 81 p-Terphenyl-d14	244	11.273	11.270	(0.896)	177869	35.3750	1350

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
6 Phenol	94	4.428	4.423	(0.922)	95211	23.2091	884(Q)
8 2-Chlorophenol	128	4.604	4.602	(0.959)	70953	21.5323	820
11 1,4-Dichlorobenzene	146	4.818	4.816	(1.004)	50256	13.0688	498(R)
17 N-Nitrosodipropylamine	70	5.165	5.170	(1.076)	51665	22.5916	860(Q)
28 1,2,4-Trichlorobenzene	180	6.011	6.011	(0.989)	60779	19.4257	740
33 4-Chloro-3-methylphenol	107	6.643	6.632	(1.093)	69599	27.0431	1030
47 Acenaphthene	154	7.983	7.986	(1.004)	150738	23.9637	913
50 2,4-Dinitrotoluene	165	8.141	8.143	(1.024)	57739	26.8131	1020
52 4-Nitrophenol	139	8.098	8.062	(1.019)	24033	24.3807	929
65 Pentachlorophenol	266	9.351	9.344	(0.978)	27869	28.9762	1100
79 Pyrene	202	11.130	11.130	(0.885)	266462	31.0715	1180
2 Pyridine	79	2.693	2.685	(0.561)	31930	11.6736	445(R)
4 Aniline	66	4.487	4.487	(0.935)	18044	10.5993	404(QR)
7 bis(2-Chloroethyl) ether	63	4.525	4.525	(0.943)	47236	17.0040	648(R)
9 1,3-Dichlorobenzene	146	4.750	4.749	(0.989)	48125	12.6862	483(R)
13 1,2-Dichlorobenzene	146	4.966	4.966	(1.034)	53925	15.0228	572(R)
14 bis(2-Chloroisopropyl)ether	45	5.035	5.035	(1.049)	111888	18.0408	687
15 o-Cresol	107	5.004	4.999	(1.042)	54212	20.2058	770
18 m,p-Cresols	107	5.152	5.152	(1.073)	83018	24.4196	930
19 Hexachloroethane	117	5.300	5.300	(1.104)	17796	11.9621	456(R)
21 Nitrobenzene	77	5.356	5.358	(0.881)	74606	20.2851	773
22 Isophorone	82	5.588	5.593	(0.919)	158801	24.3589	928
23 2-Nitrophenol	139	5.674	5.674	(0.933)	36689	21.6272	824
24 2,4-Dimethylphenol	122	5.690	5.690	(0.936)	50800	18.0735	688
25 bis(2-Chloroethoxy)methane	93	5.789	5.792	(0.952)	87124	22.7092	865
26 2,4-Dichlorophenol	162	5.924	5.922	(0.974)	65748	25.7897	982
27 Benzoic acid	105	5.797	5.784	(0.953)	114913	66.2357	2520
30 Naphthalene	128	6.100	6.102	(1.003)	203459	19.7724	753
31 4-Chloroaniline	127	6.143	6.141	(1.010)	41429	12.5264	477(R)
32 Hexachlorobutadiene	225	6.212	6.212	(1.022)	30125	18.4895	704
34 2-Methylnaphthalene	142	6.826	6.826	(1.123)	157127	25.3043	964
36 Hexachlorocyclopentadiene	237	6.984	6.984	(0.879)	6893	6.11442	233(aR)
37 2,4,6-Trichlorophenol	196	7.119	7.117	(0.896)	49257	25.8645	985
38 2,4,5-Trichlorophenol	196	7.168	7.157	(0.902)	48885	24.1035	918
40 2-Chloronaphthalene	162	7.349	7.348	(0.924)	146431	23.3616	890
42 o-Nitroaniline	65	7.450	7.450	(0.937)	48092	22.4274	854
41 m-Nitroaniline	138	7.891	7.894	(0.993)	27100	17.2641	658(R)
43 Dimethylphthalate	163	7.629	7.636	(0.960)	205487	28.7009	1090
44 2,6-Dinitrotoluene	165	7.705	7.708	(0.969)	44799	26.2332	999
45 Acenaphthylene	152	7.800	7.802	(0.981)	261489	25.9462	988
48 2,4-Dinitrophenol	184	8.009	8.003	(1.007)	8063	23.3390	889(Q)
49 Dibenzofuran	168	8.169	8.169	(1.028)	267522	31.5072	1200
51 Diethylphthalate	149	8.386	8.391	(1.055)	214336	29.7270	1130
53 Fluorene	166	8.541	8.544	(1.074)	187874	26.9583	1030
54 4-Chlorophenylphenylether	204	8.526	8.528	(1.072)	89752	27.2569	1040
55 2-Methyl-4,6-dinitrophenol	198	8.584	8.584	(0.898)	18588	21.6417	824
56 p-Nitroaniline	138	8.554	8.554	(1.076)	29728	23.7641	905

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
133 Diphenylamine	169	8.653	8.653	(0.905)	143667	25.1488	958
58 1,2-Diphenylhydrazine	77	8.702	8.702	(0.910)	198775	27.3552	1040
61 4-Bromophenylphenylether	248	9.058	9.058	(0.947)	50417	26.9584	1030
63 Hexachlorobenzene	284	9.135	9.137	(0.955)	49117	25.0731	955
68 Phenanthrene	178	9.588	9.588	(1.003)	269212	27.4666	1050
69 Anthracene	178	9.644	9.644	(1.009)	270118	27.5720	1050
72 Di-n-butylphthalate	149	10.154	10.151	(1.062)	368181	32.7249	1250
76 Fluoranthene	202	10.880	10.880	(1.138)	265878	28.3176	1080
85 Butylbenzylphthalate	149	11.803	11.803	(0.939)	141487	36.0507	1370
89 Benzo(a)anthracene	228	12.557	12.557	(0.999)	180956	26.9005	1020
92 Chrysene	228	12.608	12.608	(1.003)	175277	27.1940	1040
93 bis(2-Ethylhexyl)phthalate	149	12.524	12.524	(0.996)	172521	31.9847	1220
94 Di-n-octylphthalate	149	13.505	13.502	(0.907)	242115	36.1709	1380
95 Benzo(b)fluoranthene	252	14.221	14.218	(0.955)	136171	29.2201	1110
96 Benzo(k)fluoranthene	252	14.267	14.267	(0.958)	144222	31.1224	1180
97 Benzo(a)pyrene	252	14.794	14.794	(0.993)	116783	29.0134	1100
99 Indeno(1,2,3-cd)pyrene	276	16.881	16.878	(1.133)	95779	26.1306	995
100 Dibenzo(a,h)anthracene	278	16.907	16.909	(1.135)	34823	13.0952	499(R)
101 Benzo(ghi)perylene	276	17.391	17.388	(1.168)	73803	24.0003	914(Q)
1 N-Methyl-N-nitrosomethylamine	74	2.650	2.650	(0.552)	27471	12.5005	476(R)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
R - Spike/Surrogate failed recovery limits.

Data File: /chem/MSD6.i/s121709.b/s611717.d
Date : 17-DEC-2009 17:29
Client ID: RE16-10-2878MSD
Sample Info: 1120199453019324441|SWF1|LANL0001MSD
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD6.i
Operator: nagl
Column diameter: 0.20

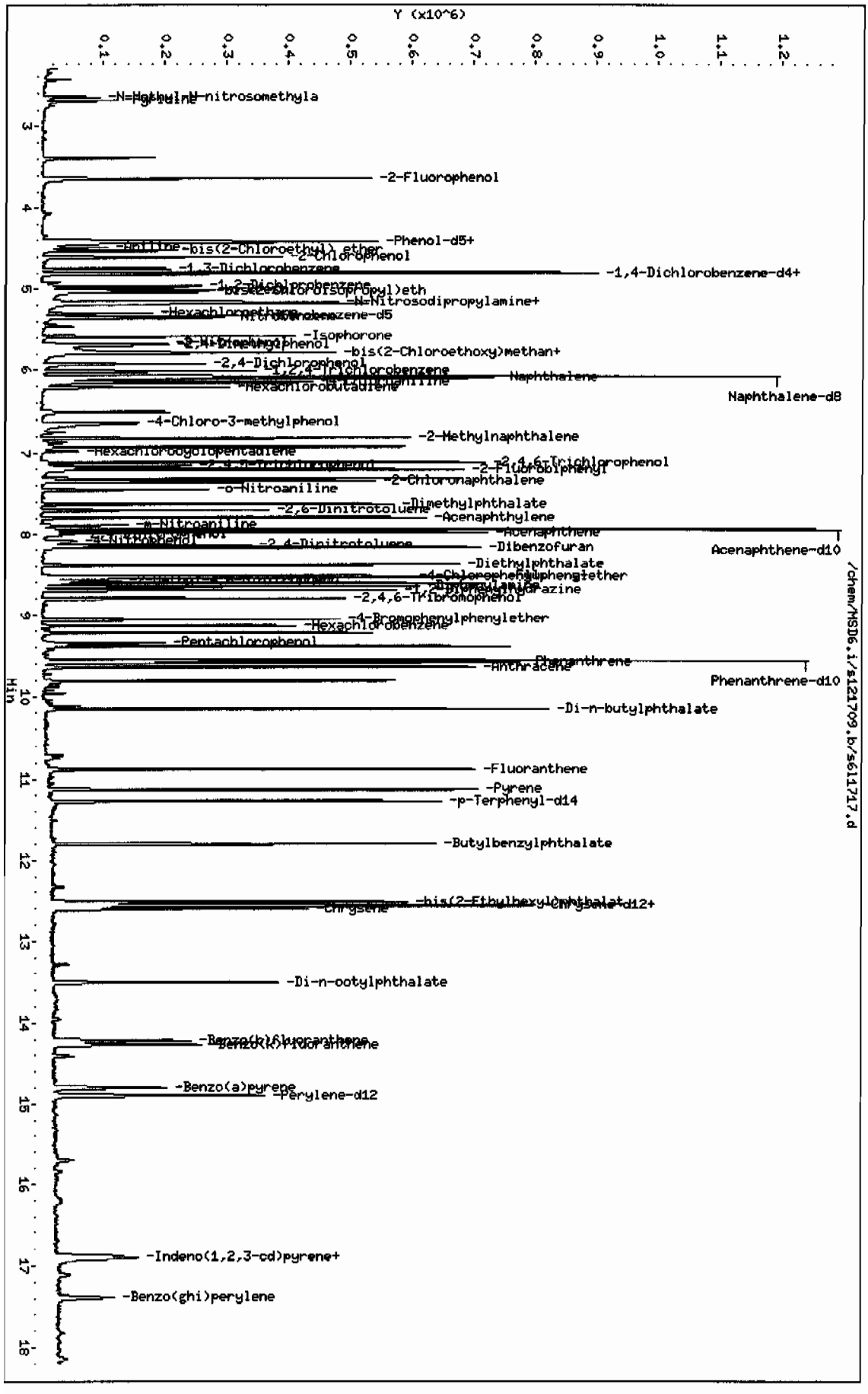

Page 1

GC SEMIVOLATILE DRO ANALYSIS

DRO Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-901

Method/Analysis Information

Procedure:	**Analysis of Diesel Range Organics by Flame Ionization Detector**
Analytical Method:	SW846 8015A/B SVOC
Prep Method:	SW846 3550B
Analytical Batch Number:	933001
Prep Batch Number:	933000

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 8015A/B SVOC:

Sample ID	Client ID
242794001	RE03-09-13470
242794002	RE03-09-13471
242794003	RE03-09-13472
242794004	RE03-09-13469
1201995990	Method Blank (MB)
1201995991	Laboratory Control Sample (LCS)
1201995992	242794001(RE03-09-13470) Matrix Spike (MS)
1201995993	242794001(RE03-09-13470) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on a "dry weight" basis.

Preparation/Analytical Method Verification

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-003 REV# 18.

Raw data reports are processed and reviewed by the analyst using the Target software package. False positives have been removed from the Target quantitation reports per standard operating procedures (SOP) section 23.0.

Calibration Information

Initial Calibration
All initial calibration requirements have been met for this sample delivery group (SDG).

The linear equation used in Target and indicated on the initial calibration summary form is not a conventional linear equation (slope intercept formula) and does not match the equation found in SW-846 method 8000B. The x and y

axes are inversed in Target, so that the instrument response is treated as the independent variable (x) and the concentration ratio is treated as the dependent variable (y). The equation used in Target to calculate sample results is adjusted to account for the linear equation inversion and reciprocal slope. The adjusted calculation has been independently verified to produce valid results.

Continuing Calibration Verification (CCV) Requirements
All associated calibration verification standard(s) (ICV or CCV) met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Surrogate Recoveries
All surrogate recoveries were within the established acceptance criteria for this SDG.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

QC Sample Designation
Sample 242794001 (RE03-09-13470) was selected for the matrix spike and matrix spike duplicate analysis.

Matrix Spike (MS) Recovery Statement
The MS recovery was within the established acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recovery was within the established acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD between the MS and MSD met the acceptance limits.

Technical Information

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

Sample Dilutions
Sample 242794004 (RE03-09-13469) was diluted at 1:10 due to thick and oily matrix of the extract.

Sample Re-extraction/Re-analysis
Re-extractions or re-analyses were not required in this SDG.

Miscellaneous Information

Electronic Package Comment

The following package was generated using an electronic data processing program referred to as "virtual packaging". In an effort to increase quality and efficiency, the laboratory is developing systems to eventually generate all data packages electronically. The following change from "traditional" packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates

are present on the original raw data. These hard copies are temporarily stored in the laboratory. An electronic signature page inserted after the case narrative of each electronic package will indicate the analyst, reviewer, and report specialist names associated with the generation of the data and package. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Nonconformance (NCR) Documentation
Nonconformance report (NCR) is for documentation of any procedural anomalies that may deviate from referenced SOP or contractual document. A NCR was not required for this SDG.

Manual Integration
Certain standards and QC samples may have required manual integration to correctly position the baseline as set in the calibration standard injections. If manual integration was performed, copies of all manual integration peak profiles are included in the raw data section of this fraction.

Additional Comments
The additional comments field is used to address special issues associated with each analysis, clarify method/contractual issues pertaining to the analysis, and to list any report documents generated as a result of sample analysis or review. The following additional comments were required:

Due to software limitation, the Form VIIs will display the results either in the % difference or % drift depending on the type of the calibration curve. If the curve of all analytes is generated using an average response factor (RF), the Form VII will display results using the difference calculation (RF). If the curve of one or more analytes is generated using a linear curve, the Form VII will display results using the % drift calculation (by concentration) for all analytes.

System Configuration

The GC-FID analysis was performed on the following instrument configuration:

Instrument ID	Instrument	System Configuration	Column ID	Column Description
FID7.I	Agilent GC FID	Agilent 6890N GC/FID	DB-5MS	30m x 0.25mm, 0.25um(J&W)

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Jimi Cao **Date:** 1/7/10

Roadmap for LANL 10-901 DRO

This roadmap was analyzed by kev01577 on 12-17-2009, 14:41.
This roadmap was reviewed by jcb on 12-18-2009, 08:54.
This roadmap was packaged by yml on 01-05-2010, 11:33.

Sample

exclude	manual	datafile	smpid	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/fid7.i/121609dr/018f1801.d	242794001	17-DEC-2009	02:36	10-901.sub	RE03-09-13470	1.00000	933001	USE
☐	N	/chem/fid7.i/121609dr/021f2101.d	242794002	17-DEC-2009	04:27	10-901.sub	RE03-09-13471	1.00000	933001	USE
☐	N	/chem/fid7.i/121609dr/022f2201.d	242794003	17-DEC-2009	05:03	10-901.sub	RE03-09-13472	1.00000	933001	USE
☐	N	/chem/fid7.i/121609dr/023f2301.d	242794004	17-DEC-2009	05:40	10-901.sub	RE03-09-13469	10.00000	933001	USE

QC Sample

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/fid7.i/121609dr/005f0501c.d	1201995990	mb	16-DEC-2009	18:39	10-901.sub	DBLK01	1.00000	933001	
☐	N	/chem/fid7.i/121609dr/006f0601c.d	1201995991	lcs	16-DEC-2009	19:16	10-901.sub	DBLK01LCS	1.00000	933001	
☐	N	/chem/fid7.i/121609dr/019f1901.d	1201995992	ms	17-DEC-2009	03:13	10-901.sub	RE03-09-13470MS	1.00000	933001	USE
☐	N	/chem/fid7.i/121609dr/020f2001.d	1201995993	msd	17-DEC-2009	03:50	10-901.sub	RE03-09-13470MSD	1.00000	933001	USE

SAMPLE DATA SUMMARY

Flame Ionization Detector
Certificate of Analysis
Sample Summary

SDG Number:	10-901	Date Collected:	12/10/2009 12:00	Matrix:	S
Lab Sample ID:	242794001	Date Received:	12/12/2009 09:35	%Moisture:	4.4
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-13470	Method:	SW846 8015A/B SVOC	SOP Ref:	GL-OA-E-003
Batch ID:	933001	Inst:	FID7.I	Dilution:	1
Run Date:	12/17/2009 02:36	Analyst:	KXR2	Inj. Vol:	1 uL
Prep Date:	12/15/2009 16:56	Aliquot:	30.04 g	Final Volume:	1 mL
Data File:	018f1801.d	Column:	DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics	J	2.86	mg/kg	2.26	6.96

Flame Ionization Detector
Certificate of Analysis
Sample Summary

SDG Number:	10–901	Date Collected:	12/10/2009 12:00	Matrix:	S
Lab Sample ID:	242794002	Date Received:	12/12/2009 09:35	%Moisture:	4.3
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03–09–13471	Method:	SW846 8015A/B SVOC	SOP Ref:	GL–OA–E–003
Batch ID:	933001	Inst:	FID7.I	Dilution:	1
Run Date:	12/17/2009 04:27	Analyst:	KXR2	Inj. Vol:	1 uL
Prep Date:	12/15/2009 16:56	Aliquot:	30 g	Final Volume:	1 mL
Data File:	021f2101.d	Column:	DB–5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics	U	6.97	mg/kg	2.26	6.97

Flame Ionization Detector
Certificate of Analysis
Sample Summary

SDG Number:	10-901	Date Collected:	12/10/2009 12:00	Matrix:	S
Lab Sample ID:	242794003	Date Received:	12/12/2009 09:35	%Moisture:	7.7
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-13472	Method:	SW846 8015A/B SVOC	SOP Ref:	GL-OA-E-003
Batch ID:	933001	Inst:	FID7.I	Dilution:	1
Run Date:	12/17/2009 05:03	Analyst:	KXR2	Inj. Vol:	1 uL
Prep Date:	12/15/2009 16:56	Aliquot:	30 g	Final Volume:	1 mL
Data File:	022f2201.d	Column:	DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics	U	7.22	mg/kg	2.35	7.22

Flame Ionization Detector
Certificate of Analysis
Sample Summary

SDG Number:	10-901	**Date Collected:**	12/10/2009 12:00	**Matrix:**	S
Lab Sample ID:	242794004	**Date Received:**	12/12/2009 09:35	**%Moisture:**	6.4
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-13469	**Method:**	SW846 8015A/B SVOC	**SOP Ref:**	GL-OA-E-003
Batch ID:	933001	**Inst:**	FID7.I	**Dilution:**	10
Run Date:	12/17/2009 05:40	**Analyst:**	KXR2	**Inj. Vol:**	1 uL
Prep Date:	12/15/2009 16:56	**Aliquot:**	30.01 g	**Final Volume:**	1 mL
Data File:	023f2301.d	**Column:**	DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics	U	71.2	mg/kg	23.1	71.2

QUALITY CONTROL SUMMARY

Flame Ionization Detector

Surrogate Recovery Report

SDG Number: 10-901

Matrix Type: SOLID

CAP Column (1) : DB-5MS

Sample ID	Client ID	OTP %REC	
1201995990	MB for batch 933000	47	
1201995991	LCS for batch 933000	80	
242794001	RE03-09-13470	47	
1201995992	RE03-09-13470MS	56	
1201995993	RE03-09-13470MSD	53	
242794002	RE03-09-13471	37	
242794003	RE03-09-13472	41	
242794004	RE03-09-13469	47	D

Surrogate	Acceptance Limits
OTP = o-Terphenyl	(24%-124%)

* Recovery outside Acceptance Limits

\# Column to be used to flag recovery values

D Sample Diluted

Flame Ionization Detector
Quality Control Summary
Spike Recovery Report

SDG Number: 10-901
Client ID: LCS for batch 933000
Lab Sample ID: 1201995991
Instrument: FID7.I
Analyst: KXR2
Inj. Vol: 1 uL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 12/16/2009 19:16
Prep Batch ID: 933000
Batch ID: 933001
Dilution: 1

CAS No		Parmname	Amount Added mg/kg	Sample Conc. mg/kg	Spike Conc. mg/kg	Recovery %	Acceptance Limits
DRO	LCS	Diesel Range Organics	33.3	0.0	22.2	67	53-114

Flame Ionization Detector
Quality Control Summary
Spike Recovery Report

SDG Number:	**10–901**	**Sample Type:**	**Matrix Spike**
Client ID:	**RE03–09–13470MS**	**Matrix:**	**S**
Lab Sample ID:	**1201995992**	**%Moisture:**	**4.4**
Instrument:	**FID7.I**	**Analysis Date:**	**12/17/2009 03:13**
Analyst:	**KXR2**	**Prep Batch ID:**	**933000**
Inj. Vol:	**1 uL**	**Batch ID:**	**933001**

Dilution: 1

CAS No		Parmname	Amount Added mg/kg	Sample Conc. mg/kg		Spike Conc. mg/kg	Recovery %	Acceptance Limits
DRO	MS	Diesel Range Organics	34.9	2.86	J	17.3	41	21–122

Flame Ionization Detector

Quality Control Summary

Spike Recovery Report

SDG Number:	**10–901**	**Sample Type:**	**Matrix Spike Duplicate**
Client ID:	**RE03–09–13470MSD**	**Matrix:**	**S**
Lab Sample ID:	**1201995993**	**%Moisture:**	**4.4**
Instrument:	**FID7.I**	**Analysis Date:**	**12/17/2009 03:50**
Analyst:	**KXR2**	**Prep Batch ID:**	**933000**
Inj. Vol:	**1 uL**	**Batch ID:**	**933001**

Dilution: 1

CAS No	Parmname	Amount Added mg/kg	Sample Conc. mg/kg		Spike Conc. mg/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
DRO	MSD Diesel Range Organics	34.8	2.86	J	18.2	44	21–122	5	0–30

Method Blank Summary

SDG Number:	10–901	Client:	LANL010	Matrix:	SOIL
Client ID:	MB for batch 933000	Instrument ID:	FID7.I	Data File:	005f0501.d
Lab Sample ID:	1201995990	Prep Date:	12/15/2009 16:56	Analyzed:	12/16/09 18:39
Column:	DB–5MS	Level:	LOW		

This method blank applies to the following samples and quality control samples:

	Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01	LCS for batch 933000	1201995991	006f0601.d	12/16/09	1916
02	RE03–09–13470	242794001	018f1801.d	12/17/09	0236
03	RE03–09–13470MS	1201995992	019f1901.d	12/17/09	0313
04	RE03–09–13470MSD	1201995993	020f2001.d	12/17/09	0350
05	RE03–09–13471	242794002	021f2101.d	12/17/09	0427
06	RE03–09–13472	242794003	022f2201.d	12/17/09	0503
07	RE03–09–13469	242794004	023f2301.d	12/17/09	0540

SAMPLE
DATA

Flame Ionization Detector
Certificate of Analysis
Sample Summary

SDG Number:	10-901	**Date Collected:**	12/10/2009 12:00	**Matrix:**	S
Lab Sample ID:	242794001	**Date Received:**	12/12/2009 09:35	**%Moisture:**	4.4
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-13470	**Method:**	SW846 8015A/B SVOC	**SOP Ref:**	GL-OA-E-003
Batch ID:	933001	**Inst:**	FID7.I	**Dilution:**	1
Run Date:	12/17/2009 02:36	**Analyst:**	KXR2	**Inj. Vol:**	1 uL
Prep Date:	12/15/2009 16:56	**Aliquot:**	30.04 g	**Final Volume:**	1 mL
Data File:	018f1801.d	**Column:**	DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics	J	2.86	mg/kg	2.26	6.96

GEL Laboratories LLC

DB-5MS .25mm

Data file : /chem/fid7.i/121609dr/018f1801.d
Lab Smp Id: 242794001 Client Smp ID: RE03-09-13470
Inj Date : 17-DEC-2009 02:36
Operator : KXR2 Inst ID: fid7.i
Smp Info : |242794001|1|
Misc Info : |FIDDRO_S|933001|FIDF|LANL|
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fid7.i/121609dr/FID7a.i_b_DRO_121309.m
Meth Date : 17-Dec-2009 14:05 kev01577 Quant Type: ESTD
Cal Date : 13-DEC-2009 18:58 Cal File: 007f0701.d
Als bottle: 18
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-901.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.04000	Weigth of sample extracted (g)
M	4.36000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (mg/L)	FINAL (mg/Kg)	
$ 1 Diesel Range Organics					CAS #:	
7.480-	17.855		1100973	82.0568	2.8	(a)
$ 2 o-Terphenyl					CAS #: 84-15-1	
13.593	13.597	-0.004	245290	9.30379	0.32	(M)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/fid7.i/121609dr/018f1801.d
Date : 17-DEC-2009 02:36
Client ID: RE03-09-13470
Sample Info: 1242794001|1|
Volume Injected (uL): 1.0
Column phase: DB-5MS

Instrument: fid7.i

Operator: KXR2
Column diameter: 0.25

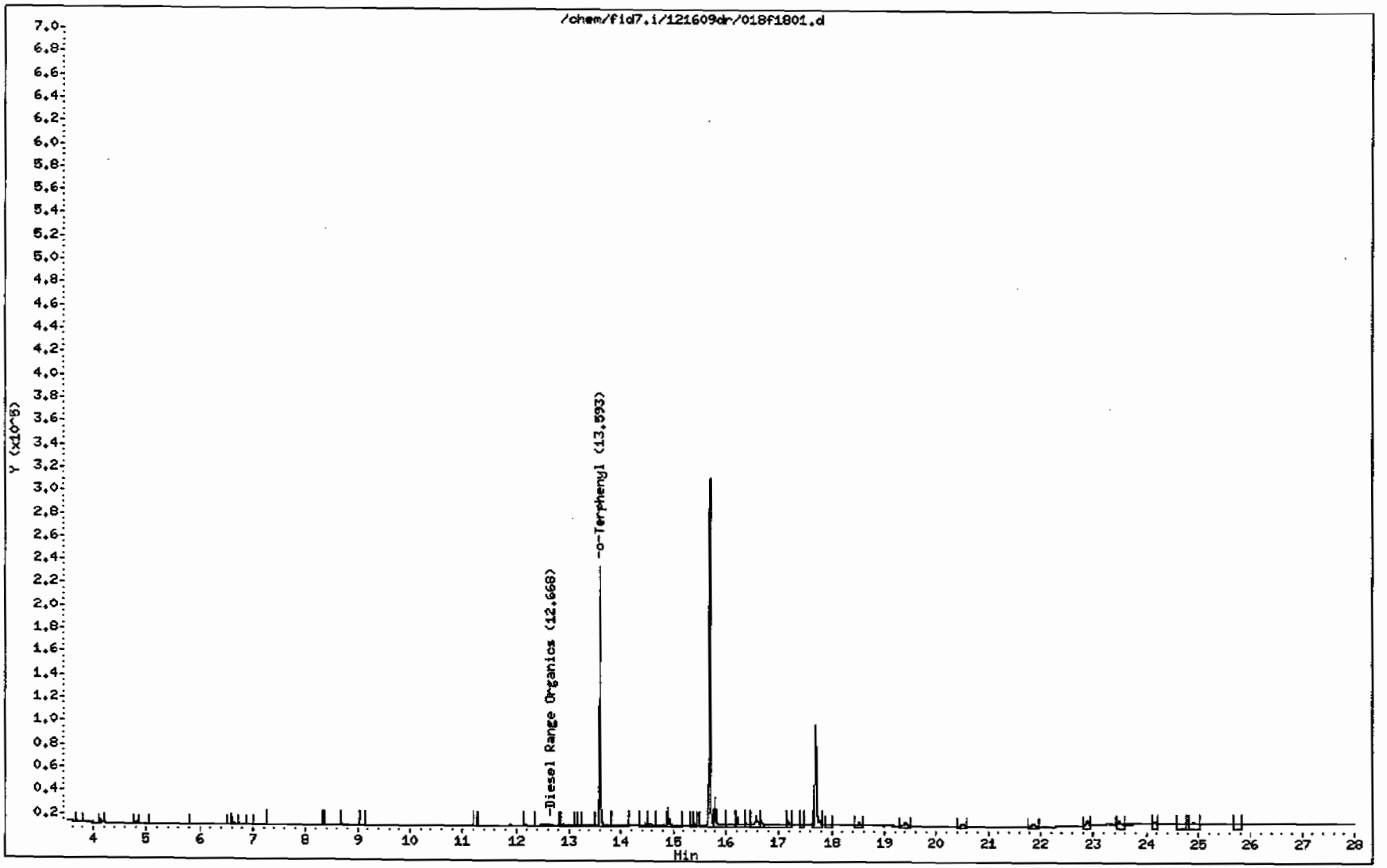

Data File: /chem/fid7.i/121609dr/018f1801.d
Injection Date: 17-DEC-2009 02:36
Instrument: fid7.i
Client Sample ID: RE03-09-13470

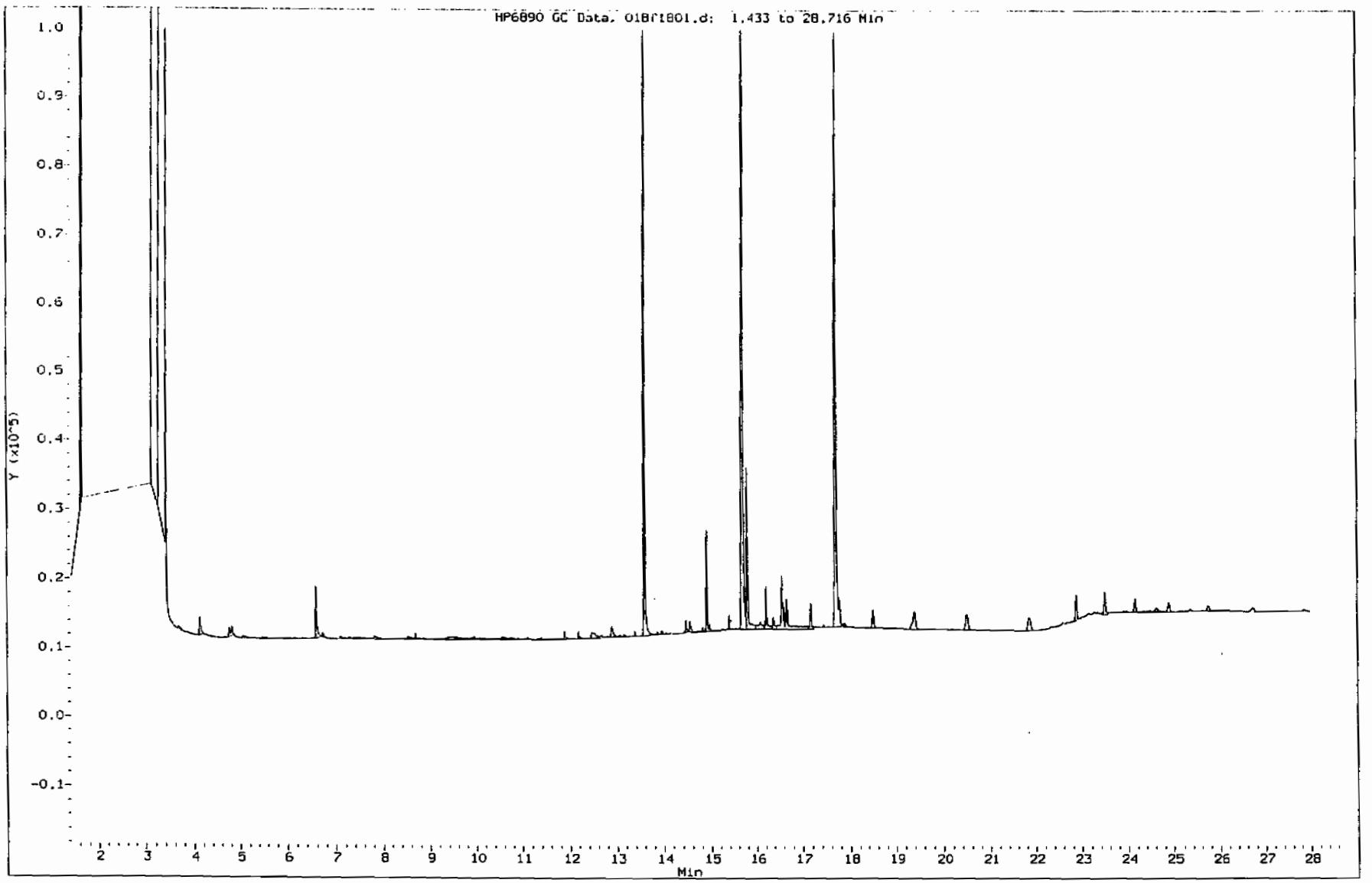

Data File: /chem/fid7.i/121609dr/018f1801.d
Injection Date: 17-DEC-2009 02:36
Instrument: fid7.i
Client Sample ID: RE03-09-13470

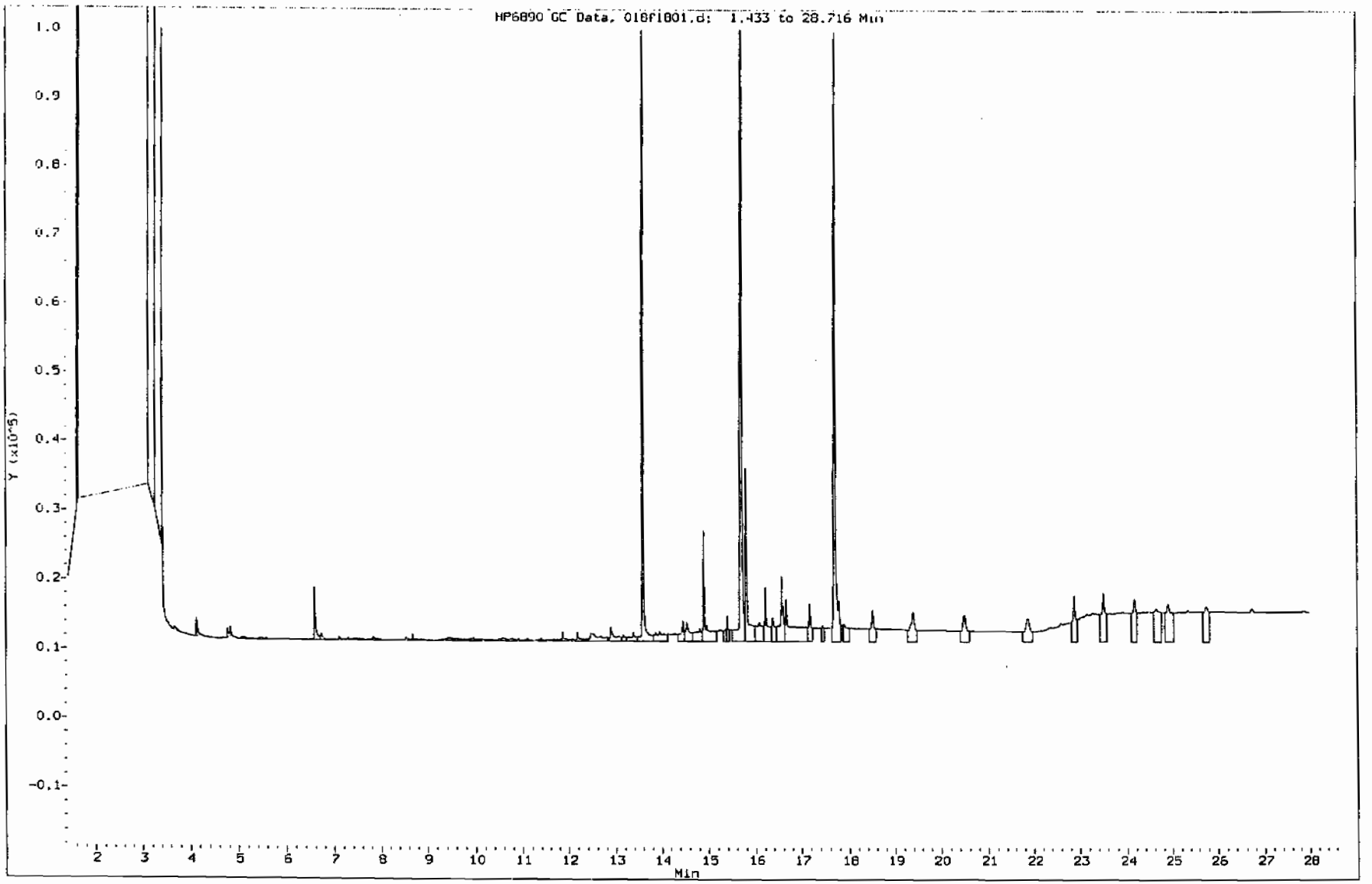

Flame Ionization Detector
Certificate of Analysis
Sample Summary

SDG Number:	10-901	Date Collected:	12/10/2009 12:00	Matrix:	S
Lab Sample ID:	242794002	Date Received:	12/12/2009 09:35	%Moisture:	4.3
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-13471	Method:	SW846 8015A/B SVOC	SOP Ref:	GL-OA-E-003
Batch ID:	933001	Inst:	FID7.I	Dilution:	1
Run Date:	12/17/2009 04:27	Analyst:	KXR2	Inj. Vol:	1 uL
Prep Date:	12/15/2009 16:56	Aliquot:	30 g	Final Volume:	1 mL
Data File:	021f2101.d	Column:	DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics	U	6.97	mg/kg	2.26	6.97

GEL Laboratories LLC

DB-5MS .25mm

Data file : /chem/fid7.i/121609dr/021f2101.d
Lab Smp Id: 242794002 Client Smp ID: RE03-09-13471
Inj Date : 17-DEC-2009 04:27
Operator : KXR2 Inst ID: fid7.i
Smp Info : |242794002|1|
Misc Info : |FIDDRO_S|933001|FIDF|LANL|
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fid7.i/121609dr/FID7a.i_b_DRO_121309.m
Meth Date : 17-Dec-2009 14:05 kev01577 Quant Type: ESTD
Cal Date : 13-DEC-2009 18:58 Cal File: 007f0701.d
Als bottle: 21
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-901.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weigth of sample extracted (g)
M	4.29000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (mg/L)	FINAL (mg/Kg)
$ 2 o-Terphenyl					CAS #: 84-15-1
13.592	13.597	-0.005	196927	7.46939	0.26

Data File: /chem/fid7.i/121609dr/021f2101.d
Date : 17-DEC-2009 04:27
Client ID: RE03-09-13471
Sample Info: |2427940021|
Volume Injected (uL): 1.0
Column phase: DB-5MS

Instrument: fid7.i

Operator: KXR2
Column diameter: 0.25

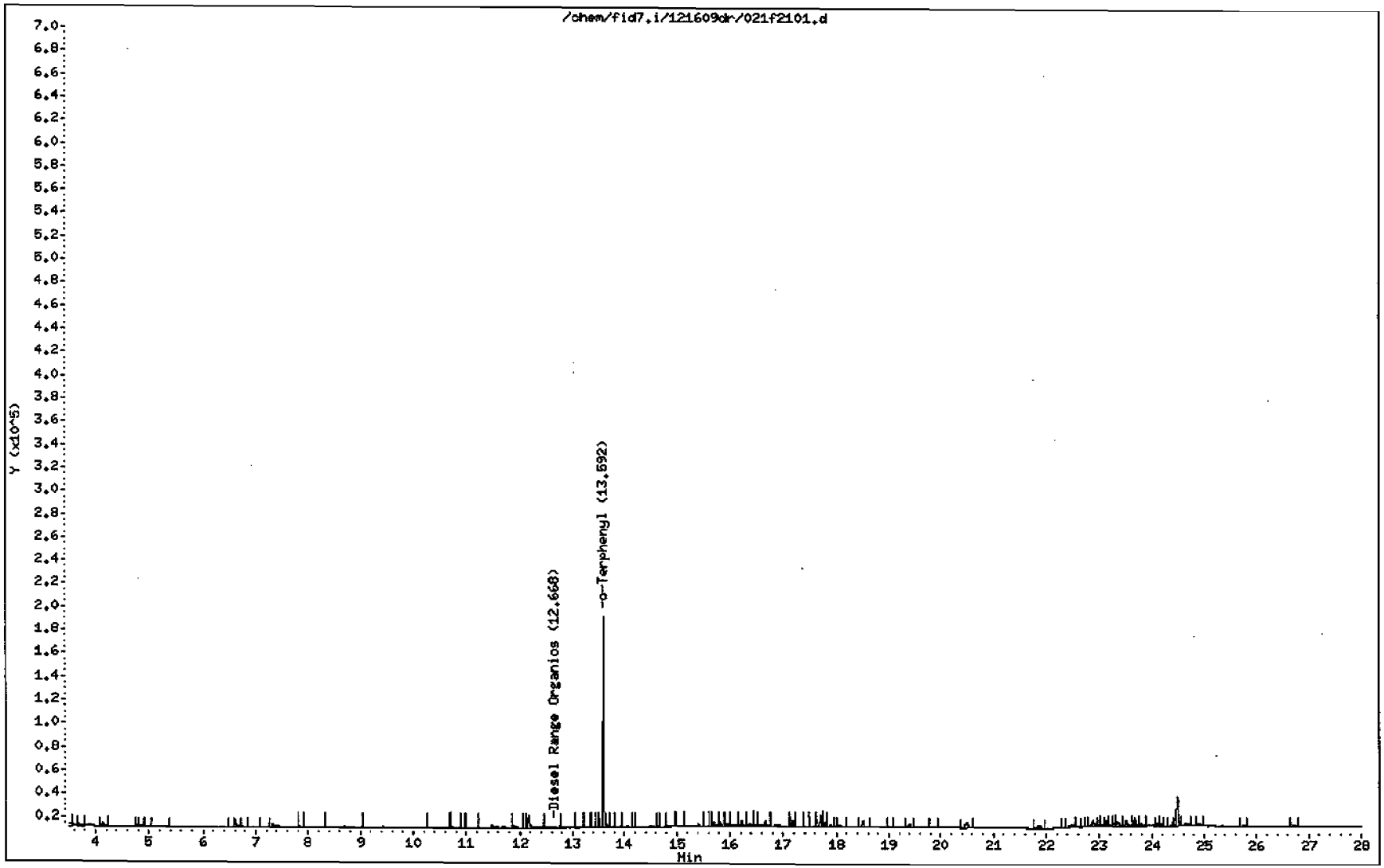

Flame Ionization Detector
Certificate of Analysis
Sample Summary

SDG Number:	10-901	**Date Collected:**	12/10/2009 12:00	**Matrix:**	S
Lab Sample ID:	242794003	**Date Received:**	12/12/2009 09:35	**%Moisture:**	7.7
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-13472	**Method:**	SW846 8015A/B SVOC	**SOP Ref:**	GL-OA-E-003
Batch ID:	933001	**Inst:**	FID7.I	**Dilution:**	1
Run Date:	12/17/2009 05:03	**Analyst:**	KXR2	**Inj. Vol:**	1 uL
Prep Date:	12/15/2009 16:56	**Aliquot:**	30 g	**Final Volume:**	1 mL
Data File:	022f2201.d	**Column:**	DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics	U	7.22	mg/kg	2.35	7.22

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DB-5MS .25mm

Data file : /chem/fid7.i/121609dr/022f2201.d
Lab Smp Id: 242794003 Client Smp ID: RE03-09-13472
Inj Date : 17-DEC-2009 05:03
Operator : KXR2 Inst ID: fid7.i
Smp Info : |242794003|1|
Misc Info : |FIDDRO_S|933001|FIDF|LANL|
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fid7.i/121609dr/FID7a.i_b_DRO_121309.m
Meth Date : 17-Dec-2009 14:05 kev01577 Quant Type: ESTD
Cal Date : 13-DEC-2009 18:58 Cal File: 007f0701.d
Als bottle: 22
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-901.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weigth of sample extracted (g)
M	7.70000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (mg/L)	FINAL (mg/Kg)
$ 2 o-Terphenyl					CAS #: 84-15-1
13.592	13.597	-0.005	216454	8.21004	0.30

Data File: /chem/fid7.i/121609dr/022f2201.d
Date : 17-DEC-2009 05:03
Client ID: RE03-09-13472
Sample Info: |24279400311|
Volume Injected (uL): 1.0
Column phase: DB-5MS

Instrument: fid7.i

Operator: KXR2
Column diameter: 0.25

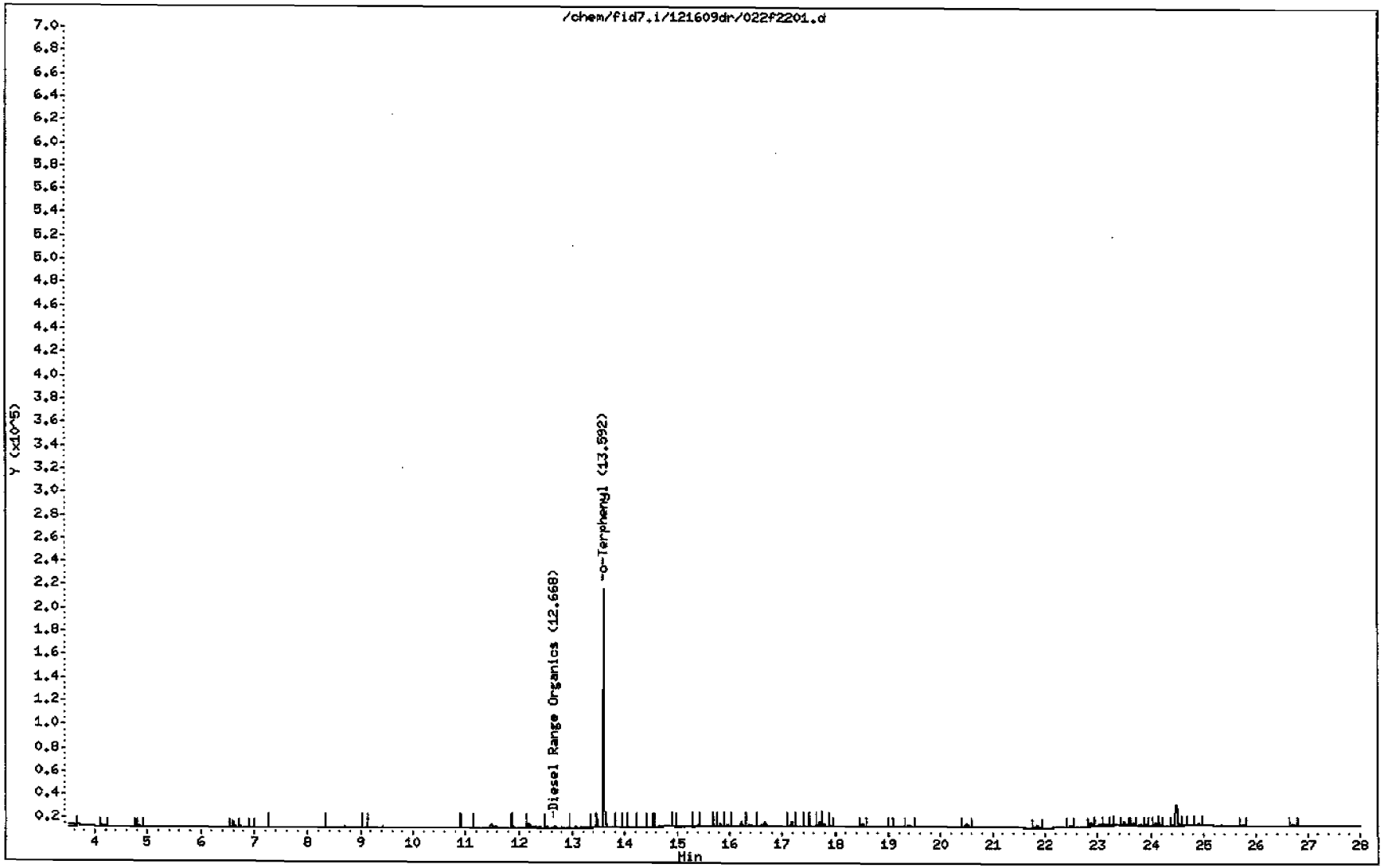

Flame Ionization Detector
Certificate of Analysis
Sample Summary

SDG Number:	10-901	**Date Collected:**	12/10/2009 12:00	**Matrix:**	S
Lab Sample ID:	242794004	**Date Received:**	12/12/2009 09:35	**%Moisture:**	6.4
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-13469	**Method:**	SW846 8015A/B SVOC	**SOP Ref:**	GL-OA-E-003
Batch ID:	933001	**Inst:**	FID7.I	**Dilution:**	10
Run Date:	12/17/2009 05:40	**Analyst:**	KXR2	**Inj. Vol:**	1 uL
Prep Date:	12/15/2009 16:56	**Aliquot:**	30.01 g	**Final Volume:**	1 mL
Data File:	023f2301.d	**Column:**	DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics	U	71.2	mg/kg	23.1	71.2

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DB-5MS .25mm

Data file : /chem/fid7.i/121609dr/023f2301.d
Lab Smp Id: 242794004 Client Smp ID: RE03-09-13469
Inj Date : 17-DEC-2009 05:40
Operator : KXR2 Inst ID: fid7.i
Smp Info : |242794004|10|
Misc Info : |FIDDRO_S|933001|FIDF|LANL|
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fid7.i/121609dr/FID7a.i_b_DRO_121309.m
Meth Date : 17-Dec-2009 14:05 kev01577 Quant Type: ESTD
Cal Date : 13-DEC-2009 18:58 Cal File: 007f0701.d
Als bottle: 23
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: 10-901.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	10.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.01000	Weigth of sample extracted (g)
M	6.42000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (mg/L)	FINAL (mg/Kg)
$ 2 o-Terphenyl					CAS #: 84-15-1
13.593	13.597	-0.004	25020	0.94900	0.34

Data File: /chem/fid7.i/121609dr/023f2301.d
Date : 17-DEC-2009 05:40
Client ID: RE03-09-13469
Sample Info: 12427940041101
Volume Injected (uL): 1.0
Column phase: DB-5MS

Page 1

Instrument: fid7.i

Operator: KXR2
Column diameter: 0.25

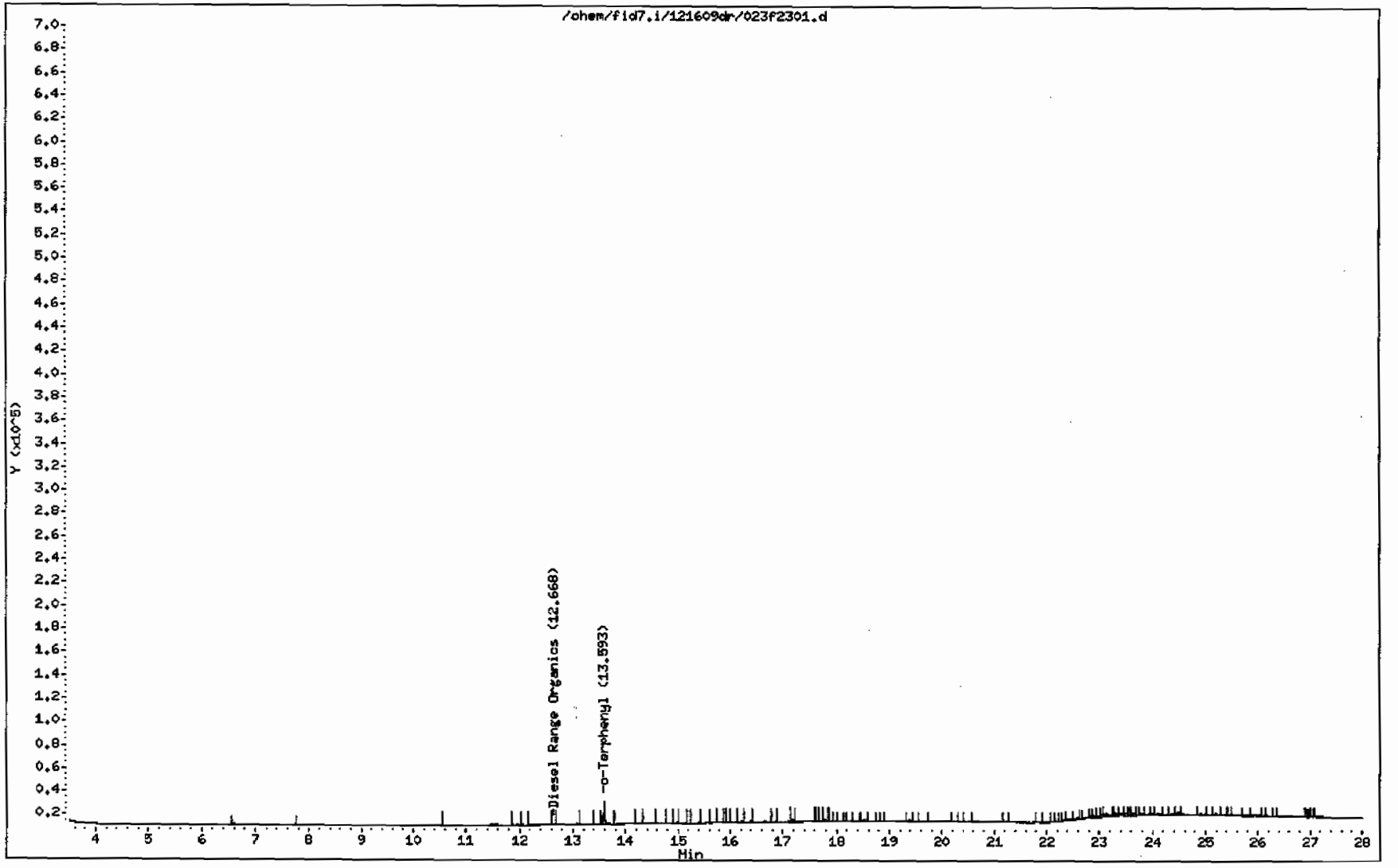

STANDARDS DATA

Report Date: 17-Dec-2009 13:09

Calibration History

Method : /chem/fid7.i/121609dr/FID7a.i_b_DRO_121309.m
Start Cal Date: 13-DEC-2009 16:31
End Cal Date : 13-DEC-2009 18:58

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 3 , Cal Amount: 200.00000		
13-DEC-2009 16:31	dro	/chem/fid7.i/121309dr/003f0301.d
Cal Level: 4 , Cal Amount: 500.00000		
13-DEC-2009 17:07	dro	/chem/fid7.i/121309dr/004f0401.d
Cal Level: 5 , Cal Amount: 1000.00000		
13-DEC-2009 17:45	dro	/chem/fid7.i/121309dr/005f0501.d
Cal Level: 6 , Cal Amount: 2000.00000		
13-DEC-2009 18:22	dro	/chem/fid7.i/121309dr/006f0601.d
Cal Level: 7 , Cal Amount: 5000.00000		
13-DEC-2009 18:58	dro	/chem/fid7.i/121309dr/007f0701.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 5

Ccal Level: 5 , Ccal Amount: 1000		
17-DEC-2009 06:16	dro	/chem/fid7.i/121609dr/024f2401.d
Ccal Level: 5 , Ccal Amount: 1000		
16-DEC-2009 17:24	dro	/chem/fid7.i/121609dr/003f0301.d

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COMPOUND LISTING

Method file : /chem/fid7.i/121609dr/FID7a.i_b_DRO_121309.m
Quant Method : ESTD Target Version : 3.50
Last Update : 17-Dec-2009 11:49 Number of Cpnds : 6
Data Type : GC DATA

Global Integrator : Falcon

Chromat Events	Values
Initial:Start Threshold	100.000000
Initial:End Threshold	50.000000
Initial:Area Threshold	100.000000
Initial:P-P Resolution	1.000000
Initial:Bunch Factor	11.000000
Initial:Negative Peaks	OFF
Initial:Tension	7.000000
5.000:Force Cluster ON	n/a
17.000:Force Cluster OFF	n/a
17.371:Tension	1.000000

		Compound	RT	RT Window	RF
	3	Decane (C10)	7.509	7.479-7.539	
S	1	Diesel Range Organics	12.668	7.480-17.855	1.342e+04
$	2	o-Terphenyl	13.597	13.567-13.627	2.636e+04
	4	Octacosane (C28)	17.825	17.795-17.855	
S	75	JP-4	6.750	3.500-10.000	
S	76	Motor oil	17.000	14.000-20.000	

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INITIAL CALIBRATION DATA

Start Cal Date : 13-DEC-2009 16:31
End Cal Date : 13-DEC-2009 18:58
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/fid7.i/121609dr/FID7a.i_b_DRO_121309.m
Cal Date : 17-Dec-2009 11:49 kev01577
Curve Type : Average

Calibration File Names:
Level 3: /chem/fid7.i/121309dr/003f0301.d
Level 4: /chem/fid7.i/121309dr/004f0401.d
Level 5: /chem/fid7.i/121309dr/005f0501.d
Level 6: /chem/fid7.i/121309dr/006f0601.d
Level 7: /chem/fid7.i/121309dr/007f0701.d

Compound	200.000 Level 3	500.000 Level 4	1000.000 Level 5	2000.000 Level 6	5000.000 Level 7	RRF	% RSD
3 Decane (C10)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
S 1 Diesel Range Organics	12370	13330	13518	14106	13763	13417	4.871
4 Octacosane (C28)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
S 75 JP-4	+++++	+++++	+++++	+++++	+++++	+++++	+++++
S 76 Motor oil	+++++	+++++	+++++	+++++	+++++	+++++	+++++
$ 2 o-Terphenyl	24795	27259	25475	26481	27813	26365	4.710

FORM 7
SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-901

Instrument ID: FID7 Calibration Date: 12/16/09 Time: 1724

Lab File ID: 003F0301 Init. Calib. Date(s): 12/13/09 12/13/09

Init. Calib. Times: 1631 1858

GC Column: DB-5MS ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Diesel Range Organics	13417.204	13736.002	0.01	2.4	15.0
o-Terphenyl	26364.536	24730.250	0.01	-6.2	15.0

FORM VII SV

FORM 7
SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-901

Instrument ID: FID7 Calibration Date: 12/17/09 Time: 0010

Lab File ID: 014F1401 Init. Calib. Date(s): 12/13/09 12/13/09

Init. Calib. Times: 1631 1858

GC Column: DB-5MS ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Diesel Range Organics	13417.204	14197.288	0.01	5.8	15.0
o-Terphenyl	26364.536	25633.658	0.01	-2.8	15.0

FORM VII SV

FORM 7
SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-901

Instrument ID: FID7 Calibration Date: 12/17/09 Time: 0616

Lab File ID: 024F2401 Init. Calib. Date(s): 12/13/09 12/13/09

Init. Calib. Times: 1631 1858

GC Column: DB-5MS ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Diesel Range Organics	13417.204	14528.739	0.01	8.3	15.0
o-Terphenyl	26364.536	26429.800	0.01	0.2	15.0

FORM VII SV

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DB-5MS .25mm

Data file : /chem/fid7.i/121609dr/003f0301.d
Lab Smp Id: UFI091118-02 D1 Client Smp ID: DTSD01
Inj Date : 16-DEC-2009 17:24
Operator : KXR2 Inst ID: fid7.i
Smp Info : |UFI091118-02 D1
Misc Info :
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fid7.i/121609dr/FID7a.i_b_DRO_121309.m
Meth Date : 17-Dec-2009 11:49 kev01577 Quant Type: ESTD
Cal Date : 13-DEC-2009 18:58 Cal File: 007f0701.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: dro.sub
Target Version: 3.50 Sample Matrix: None

	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (mg/L)	ON-COL (mg/L)
S	1 Diesel Range Organics					CAS #:
	7.480- 17.855			13736002	1000.00	1020
$	2 o-Terphenyl					CAS #: 84-15-1
	13.597	13.597	0.000	618256	25.0000	23.4

Data File: /chem/fid7.i/121609dr/003f0301.d
Date : 16-DEC-2009 17:24
Client ID: DTSD01
Sample Info: IUFI091118-02 D1

Column phase: DB-5MS

Instrument: fid7.i

Operator: KXR2
Column diameter: 0.25

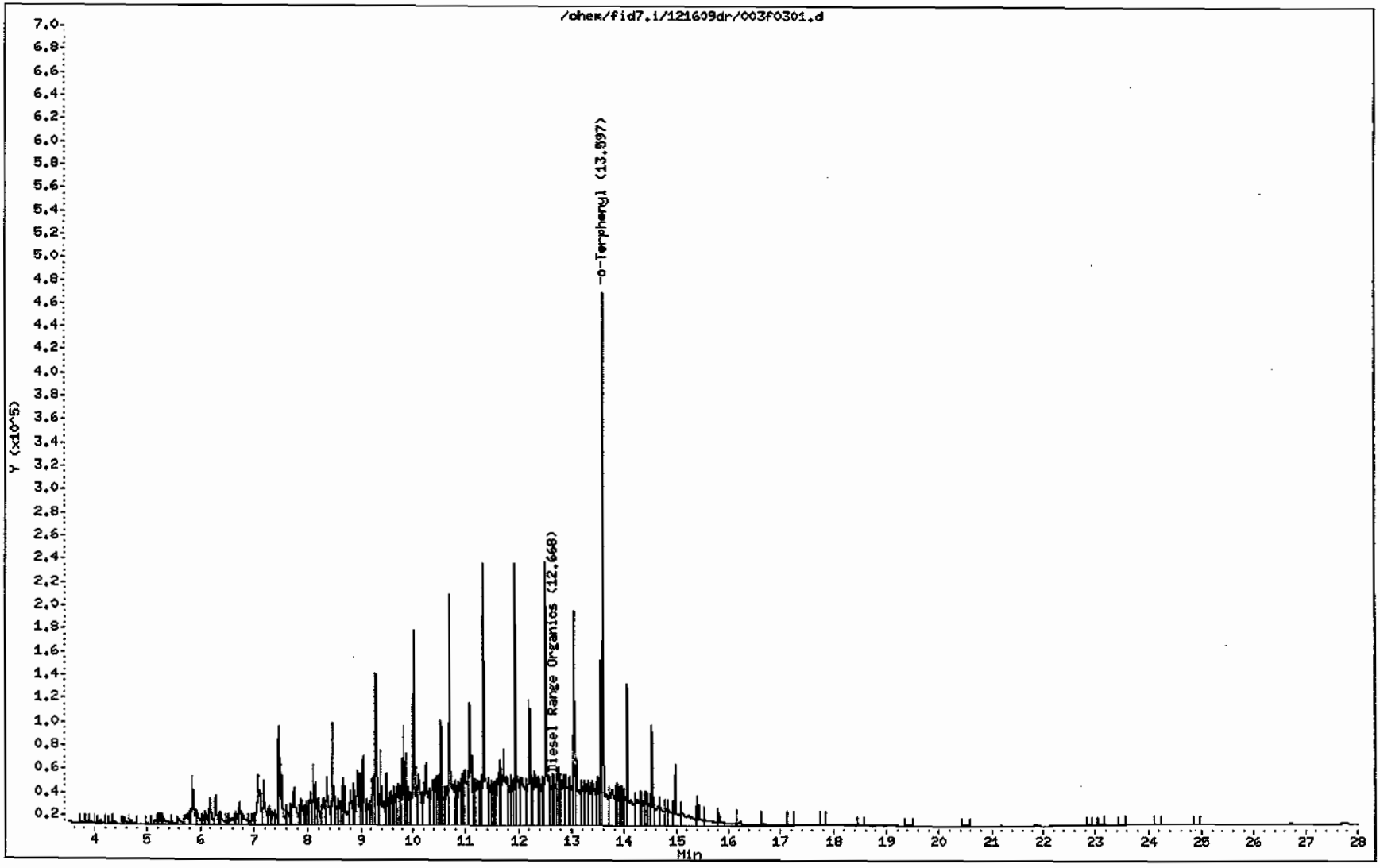

GEL Laboratories LLC

DB-5MS .25mm

Data file : /chem/fid7.i/121609dr/014f1401.d
Lab Smp Id: UFI091118-02 D2 Client Smp ID: DSTD02
Inj Date : 17-DEC-2009 00:10
Operator : KXR2 Inst ID: fid7.i
Smp Info : |UFI091118-02 D2
Misc Info :
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fid7.i/121609dr/FID7a.i_b_DRO_121309.m
Meth Date : 17-Dec-2009 14:05 kev01577 Quant Type: ESTD
Cal Date : 13-DEC-2009 18:58 Cal File: 007f0701.d
Als bottle: 14 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: dro.sub
Target Version: 3.50 Sample Matrix: None

	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (mg/L)	AMOUNTS ON-COL (mg/L)
S	1 Diesel Range Organics					CAS #:
	7.480- 17.855			14197287	1000.00	1060
$	2 o-Terphenyl					CAS #: 84-15-1
	13.598	13.597	0.001	640841	25.0000	24.3

Data File: /chem/fid7.i/121609dr/014f1401.d
Date : 17-DEC-2009 00:10
Client ID: DSTD02
Sample Info: IUFI091118-02 D2

Column phase: DB-5MS

Instrument: fid7.i

Operator: KXR2
Column diameter: 0.25

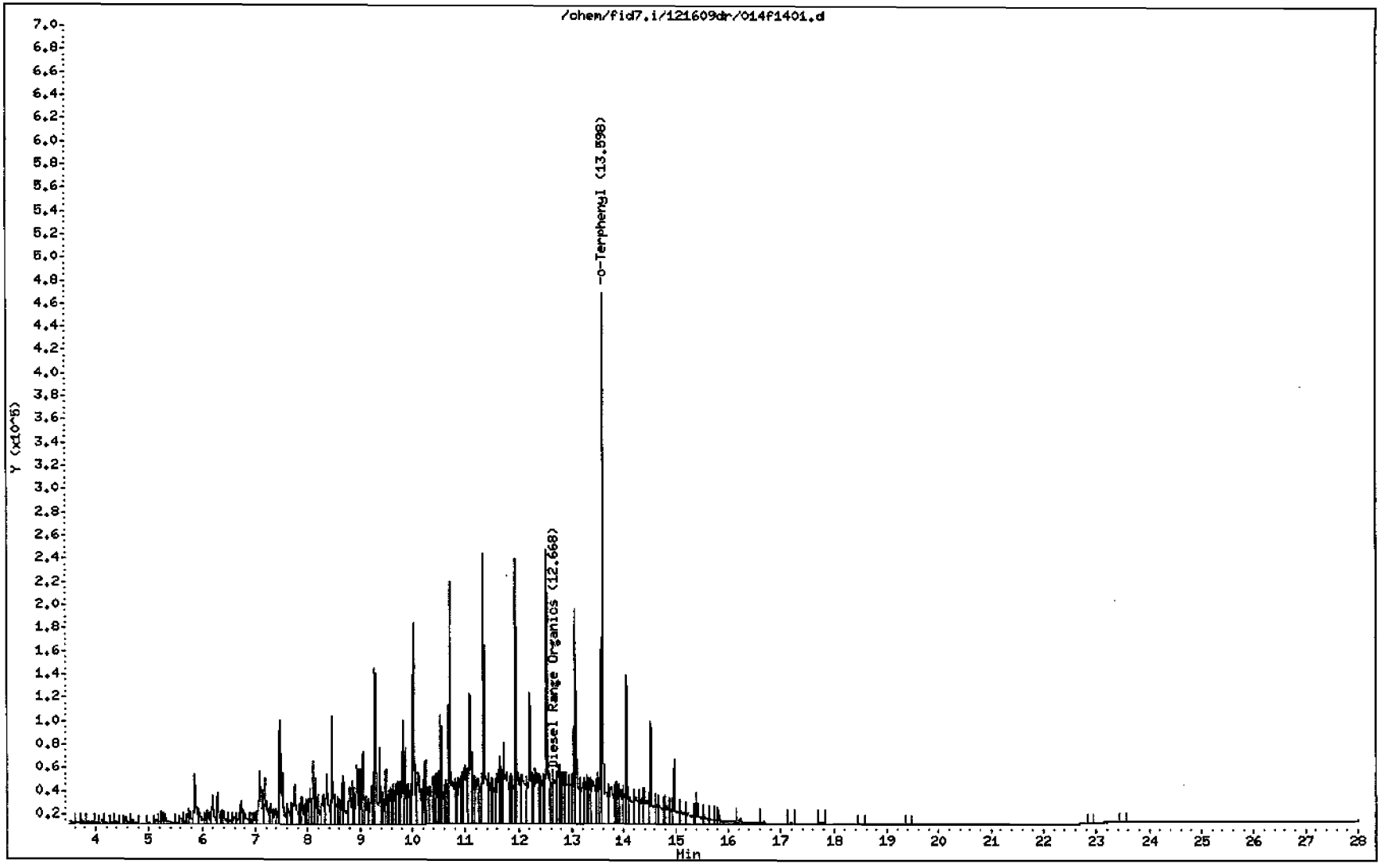

GEL Laboratories LLC

DB-5MS .25mm

Data file : /chem/fid7.i/121609dr/024f2401.d
Lab Smp Id: UFI091118-02 D3 Client Smp ID: DSTD03
Inj Date : 17-DEC-2009 06:16
Operator : KXR2 Inst ID: fid7.i
Smp Info : |UFI091118-02 D3
Misc Info :
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fid7.i/121609dr/FID7a.i_b_DRO_121309.m
Meth Date : 17-Dec-2009 11:49 kev01577 Quant Type: ESTD
Cal Date : 13-DEC-2009 18:58 Cal File: 007f0701.d
Als bottle: 24 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: dro.sub
Target Version: 3.50 Sample Matrix: None

	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (mg/L)	AMOUNTS ON-COL (mg/L)		
S	1 Diesel Range Organics					CAS #:		
	7.480- 17.855			14528739	1000.00	1080		(M)
$	2 o-Terphenyl					CAS #: 84-15-1		
	13.598	13.597	0.001	660745	25.0000	25.1		(M)

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/fid7.i/121609dr/024f2401.d
Date : 17-DEC-2009 06:16
Client ID: DSTD03
Sample Info: IUFI091118-02 D3

Column phase: DB-5HS

Page 1

Instrument: fid7.i

Operator: KXR2
Column diameter: 0.25

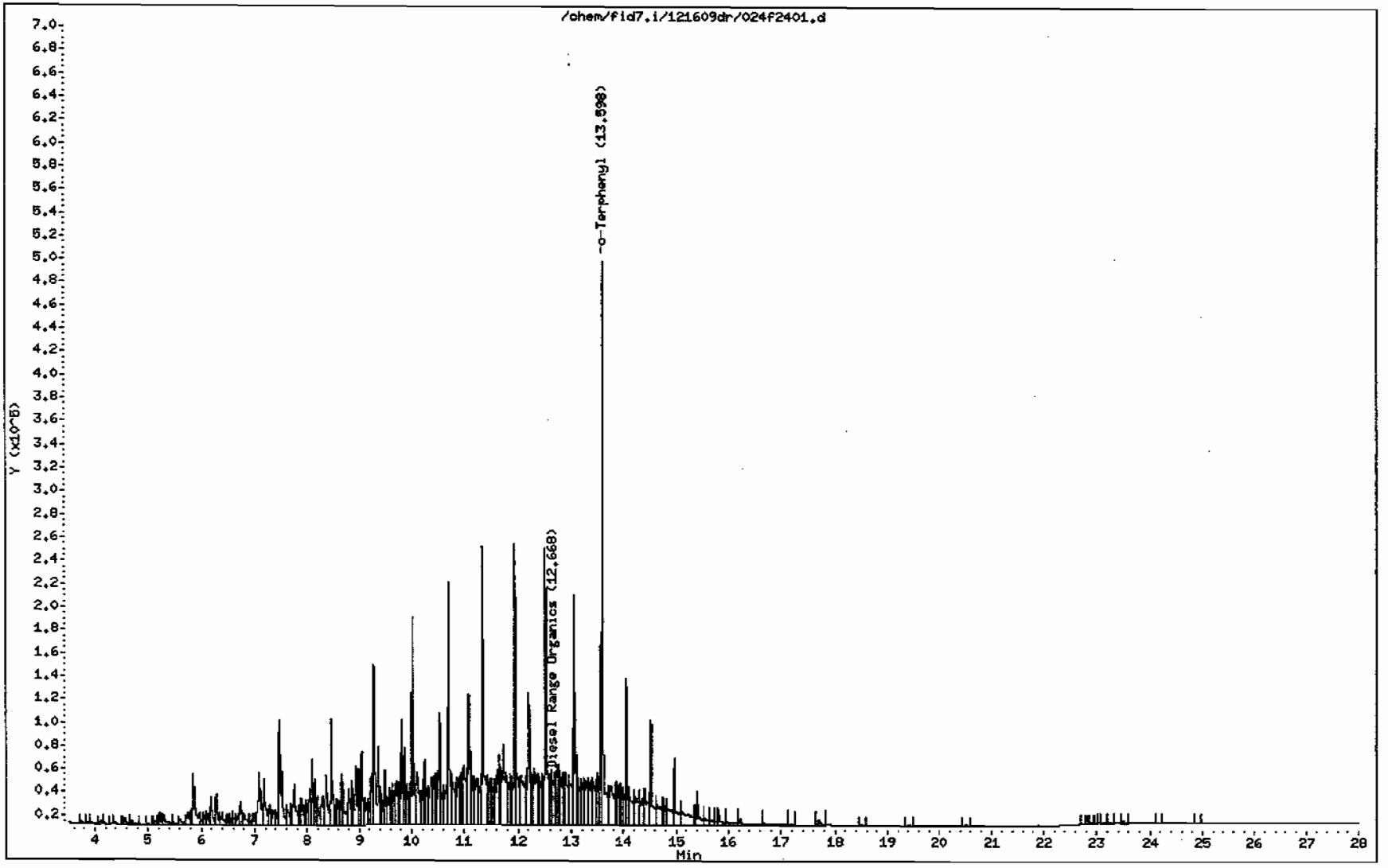

Data File: /chem/fid7.i/121609dr/024f2401.d
Injection Date: 17-DEC-2009 06:16
Instrument: fid7.i
Client Sample ID: DSTD03

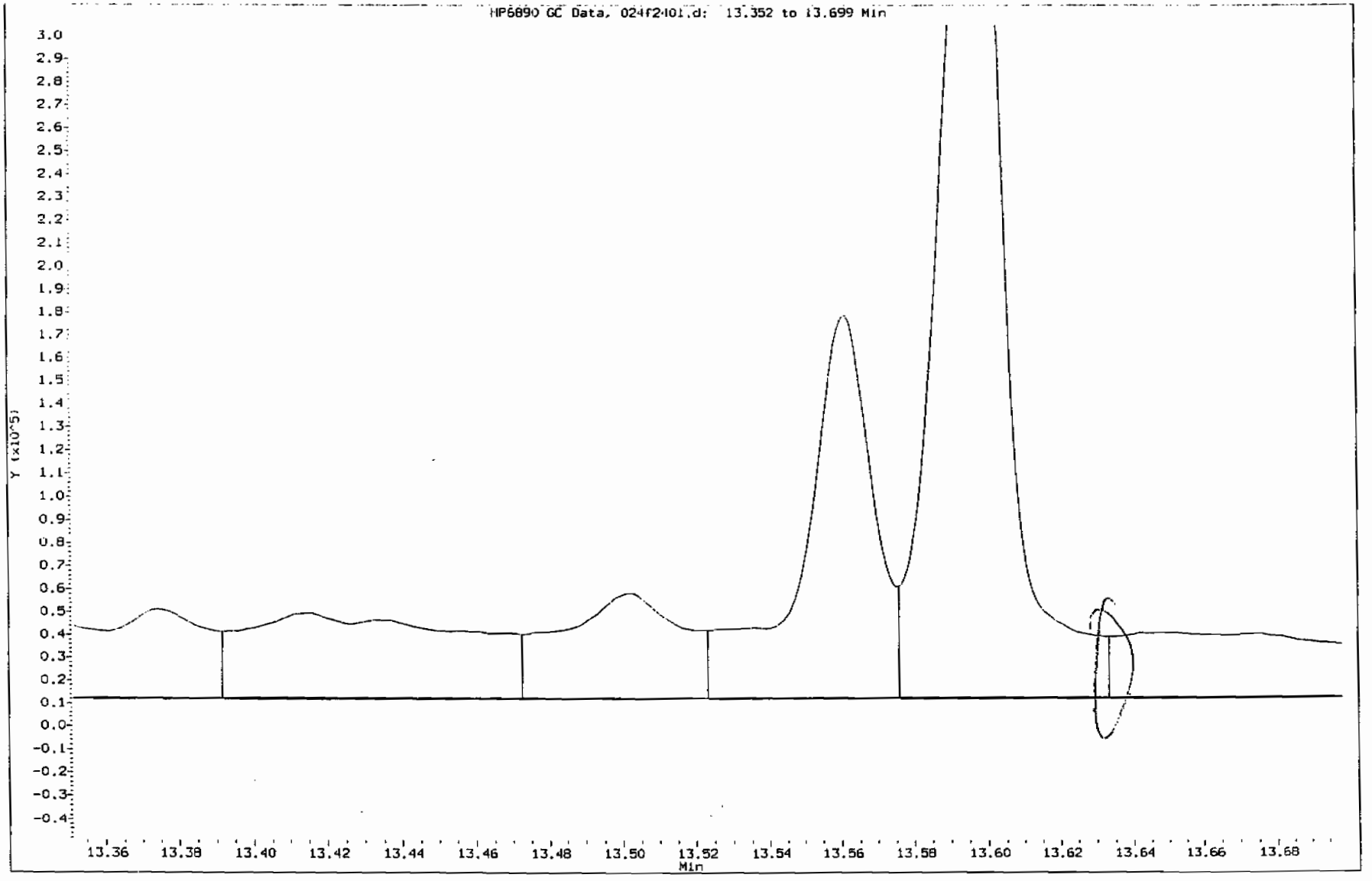

Data File: /chem/fid7.i/121609dr/024f2401.d
Injection Date: 17-DEC-2009 06:16
Instrument: fid7.i
Client Sample ID: DSID03

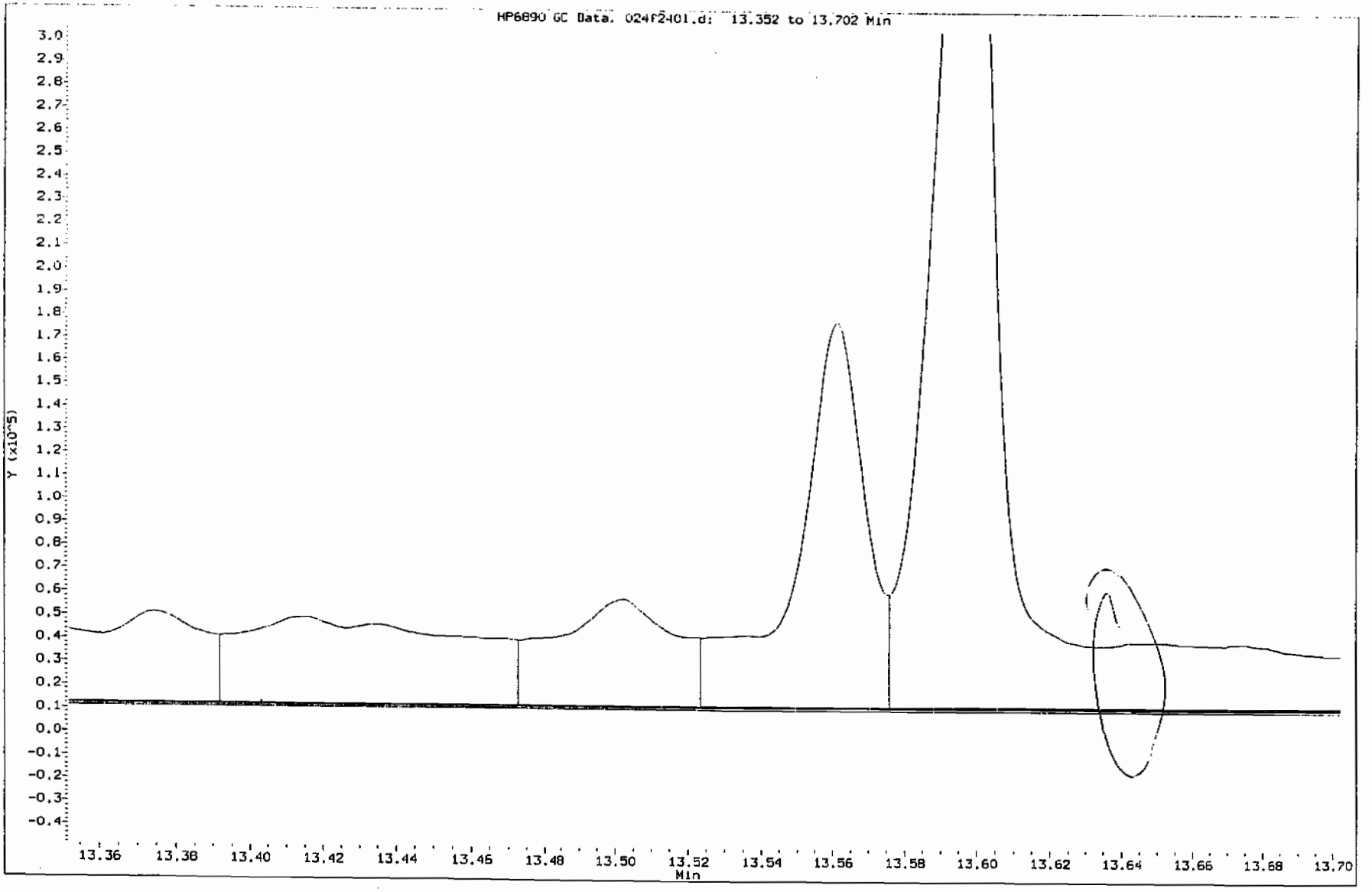

8D
DRO ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-901

GC Column: DB-5MS ID: 0.25 (mm) Init. Calib. Date(s): 12/13/09 12/13/09

Instrument ID: FID7

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 13.60

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	RT
01	DIBLK01	WFI091130-06	12/13/09	1516	13.59	
02	RTMARKER	UFI091013-03	12/13/09	1553		
03	CSTD01	UFI090827-10	12/13/09	1631	13.59	
04	CSTD02	UFI090827-11	12/13/09	1707	13.59	
05	CSTD03	UFI090827-12	12/13/09	1745	13.60	
06	CSTD04	UFI090827-13	12/13/09	1822	13.61	
07	CSTD05	UFI090827-14	12/13/09	1858	13.62	
08	DSTD01	WFI090928-01	12/13/09	1936	13.60	
09	DIBLK02	WFI091130-06	12/13/09	2012	13.59	
10	ZZZZZ	ZZZZZ	12/13/09	2049	13.59	
11	ZZZZZ	ZZZZZ	12/13/09	2126	13.59	
12	ZZZZZ	ZZZZZ	12/13/09	2203	13.59	
13	ZZZZZ	ZZZZZ	12/13/09	2240	13.59	
14	ZZZZZ	ZZZZZ	12/13/09	2318	13.60	
15	ZZZZZ	ZZZZZ	12/13/09	2354	13.59	
16	ZZZZZ	ZZZZZ	12/14/09	0032	13.59	
17	ZZZZZ	ZZZZZ	12/14/09	0109	13.59	
18	ZZZZZ	ZZZZZ	12/14/09	0146	13.59	
19	ZZZZZ	ZZZZZ	12/14/09	0223	13.59	
20	DSTD02	UFI091118-02	12/14/09	0300	13.60	
21	DIBLK03	WFI091130-06	12/14/09	0337	13.60	
22	ZZZZZ	ZZZZZ	12/14/09	0413	13.59	
23	ZZZZZ	ZZZZZ	12/14/09	0450	13.59	
24	ZZZZZ	ZZZZZ	12/14/09	0527	13.59	
25	ZZZZZ	ZZZZZ	12/14/09	0604	13.59	
26	ZZZZZ	ZZZZZ	12/14/09	0641	13.59	
27	ZZZZZ	ZZZZZ	12/14/09	0718	13.59	
28	ZZZZZ	ZZZZZ	12/14/09	0755	13.59	
29	ZZZZZ	ZZZZZ	12/14/09	0832	13.59	
30	ZZZZZ	ZZZZZ	12/14/09	0909	13.59	
31	DSTD03	UFI091118-02	12/14/09	0946	13.60	
32	DIBLK04	WFI091130-06	12/14/09	1023	13.60	

S1 = o-Terphenyl

QC LIMITS
(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

8D
DRO ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-901

GC Column: DB-5MS ID: 0.25 (mm) Init. Calib. Date(s): 12/13/09 12/13/09

Instrument ID: FID7

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 13.60

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	RT
01	DIBLK01	WFI091130-06	12/16/09	1610	13.59	
02	RTMARKER	UFI091013-03	12/16/09	1647		
03	DTSD01	UFI091118-02	12/16/09	1724	13.60	
04	DIBLK02	WFI091130-06	12/16/09	1801	13.59	
05	DBLK01	1201995990	12/16/09	1839	13.59	
06	DBLK01LCS	1201995991	12/16/09	1916	13.59	
07	ZZZZZ	ZZZZZ	12/16/09	1952	13.59	
08	ZZZZZ	ZZZZZ	12/16/09	2029	13.59	
09	ZZZZZ	ZZZZZ	12/16/09	2106	13.59	
10	ZZZZZ	ZZZZZ	12/16/09	2143	13.59	
11	ZZZZZ	ZZZZZ	12/16/09	2220	13.59	
12	ZZZZZ	ZZZZZ	12/16/09	2256	13.59	
13	ZZZZZ	ZZZZZ	12/16/09	2333	13.59	
14	DSTD02	UFI091118-02	12/17/09	0010	13.60	
15	DIBLK03	WFI091130-06	12/17/09	0047	13.59	
16	ZZZZZ	ZZZZZ	12/17/09	0123	13.59	
17	ZZZZZ	ZZZZZ	12/17/09	0200	13.59	
18	RE03-09-13470	242794001	12/17/09	0236	13.59	
19	RE03-09-13470MS	1201995992	12/17/09	0313	13.59	
20	RE03-09-13470MSD	1201995993	12/17/09	0350	13.59	
21	RE03-09-13471	242794002	12/17/09	0427	13.59	
22	RE03-09-13472	242794003	12/17/09	0503	13.59	
23	RE03-09-13469	242794004	12/17/09	0540	13.59	
24	DSTD03	UFI091118-02	12/17/09	0616	13.60	
25	DIBLK04	WFI091130-06	12/17/09	0652	13.59	
26						
27						
28						
29						
30						
31						
32						

S1 = o-Terphenyl

QC LIMITS
(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

QUALITY CONTROL DATA

Flame Ionization Detector
Certificate of Analysis
Sample Summary

SDG Number:	**10-901**			**Matrix:**	**SOIL**
Lab Sample ID:	**1201995990**				
Client Sample:	**QC for batch 933000**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 933000**	**Method:**	**SW846 8015A/B SVOC**	**SOP Ref:**	**GL-OA-E-003**
Batch ID:	**933001**	**Inst:**	**FID7.I**	**Dilution:**	**1**
Run Date:	**12/16/2009 18:39**	**Analyst:**	**KXR2**	**Inj. Vol:**	**1 uL**
Prep Date:	**12/15/2009 16:56**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**005f0501.d**	**Column:**	**DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics	U	6.67	mg/kg	2.17	6.67

GEL Laboratories LLC

DB-5MS .25mm

Data file : /chem/fid7.i/121609dr/005f0501c.d
Lab Smp Id: 1201995990 Client Smp ID: DBLK01
Inj Date : 16-DEC-2009 18:39
Operator : KXR2 Inst ID: fid7.i
Smp Info : |1201995990|1|
Misc Info : |FIDDRO_S|933001|FIDF|MB|
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fid7.i/121609dr/FID7a.i_b_DRO_121309.m
Meth Date : 17-Dec-2009 14:05 kev01577 Quant Type: ESTD
Cal Date : 13-DEC-2009 18:58 Cal File: 007f0701.d
Als bottle: 5 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-901.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weigth of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (mg/L)	FINAL (mg/Kg)
$ 2 o-Terphenyl					CAS #: 84-15-1
13.592	13.597	-0.005	245909	9.32726	0.31

Data File: /chem/fid7.i/121609dr/005f0501c.d
Date : 16-DEC-2009 18:39
Client ID: DBLK01
Sample Info: |120199599011|
Volume Injected (uL): 1.0
Column phase: DB-5MS

Instrument: fid7.i

Operator: KXR2
Column diameter: 0.25

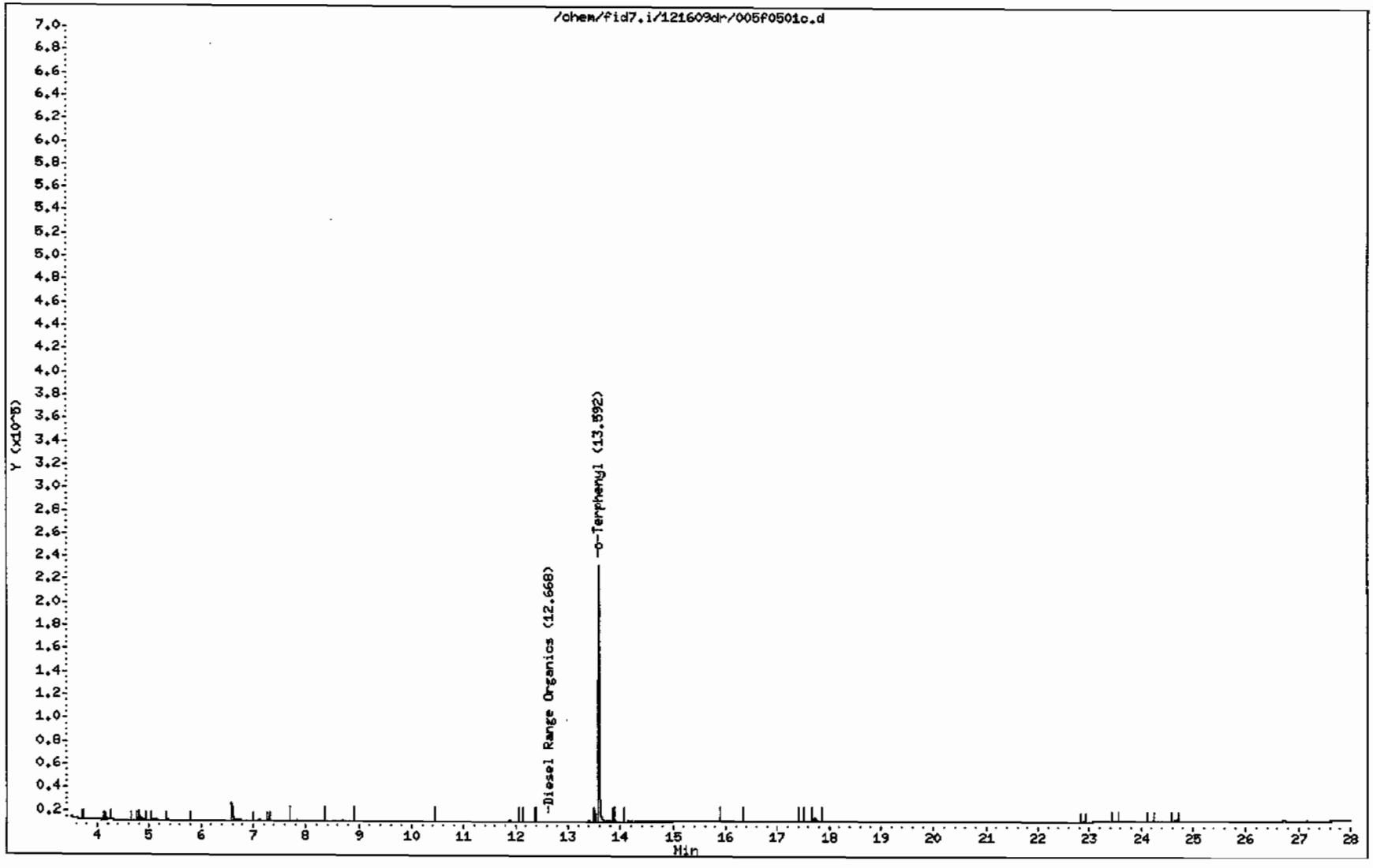

Flame Ionization Detector
Certificate of Analysis
Sample Summary

SDG Number:	10-901			**Matrix:**	SOIL
Lab Sample ID:	1201995991				
Client Sample:	QC for batch 933000	**Client:**	LANL010	**Project:**	QC
Client ID:	LCS for batch 933000	**Method:**	SW846 8015A/B SVOC	**SOP Ref:**	GL-OA-E-003
Batch ID:	933001	**Inst:**	FID7.I	**Dilution:**	1
Run Date:	12/16/2009 19:16	**Analyst:**	KXR2	**Inj. Vol:**	1 uL
Prep Date:	12/15/2009 16:56	**Aliquot:**	30 g	**Final Volume:**	1 mL
Data File:	006f0601.d	**Column:**	DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics		22.2	mg/kg	2.17	6.67

GEL Laboratories LLC

DB-5MS .25mm

Data file : /chem/fid7.i/121609dr/006f0601c.d
Lab Smp Id: 1201995991 Client Smp ID: DBLK01LCS
Inj Date : 16-DEC-2009 19:16
Operator : KXR2 Inst ID: fid7.i
Smp Info : |1201995991|1|
Misc Info : |FIDDRO_S|933001|FIDF|LCS|
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fid7.i/121609dr/FID7a.i_b_DRO_121309.m
Meth Date : 17-Dec-2009 14:05 kev01577 Quant Type: ESTD
Cal Date : 13-DEC-2009 18:58 Cal File: 007f0701.d
Als bottle: 6 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-901.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weigth of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (mg/L)	FINAL (mg/Kg)
S	1 Diesel Range Organics					CAS #:
	7.480	17.855		8928086	665.421	22.2
$	2 o-Terphenyl					CAS #: 84-15-1
	13.594	13.597	-0.003	423124	16.0490	0.53

Data File: /chem/fid7.i/121609dr/006f0601c.d
Date : 16-DEC-2009 19:16
Client ID: DBLK01LCS
Sample Info: |1201996991|1|
Volume Injected (uL): 1.0
Column phase: DB-5MS

Instrument: fid7.i
Operator: KXR2
Column diameter: 0.25

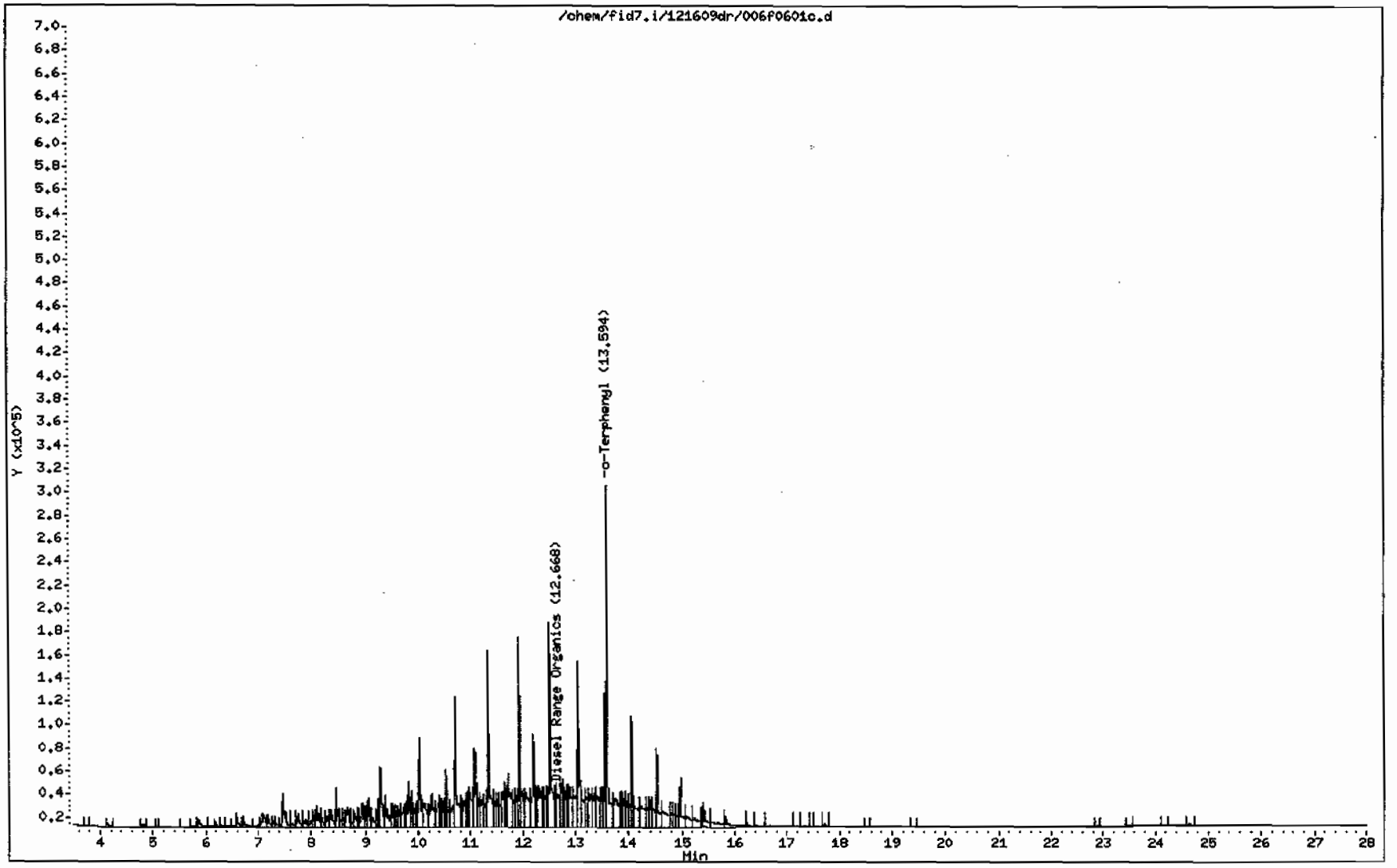

Flame Ionization Detector
Certificate of Analysis
Sample Summary

SDG Number:	10-901	Date Collected:	12/10/2009 12:00	Matrix:	S
Lab Sample ID:	1201995992	Date Received:	12/12/2009 09:35	%Moisture:	4.4
Client Sample:	QC for batch 933000	Client:	LANL010	Project:	QC
Client ID:	RE03-09-13470MS	Method:	SW846 8015A/B SVOC	SOP Ref:	GL-OA-E-003
Batch ID:	933001	Inst:	FID7.I	Dilution:	1
Run Date:	12/17/2009 03:13	Analyst:	KXR2	Inj. Vol:	1 uL
Prep Date:	12/15/2009 16:56	Aliquot:	30 g	Final Volume:	1 mL
Data File:	019f1901.d	Column:	DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics		17.3	mg/kg	2.27	6.97

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DB-5MS .25mm

Data file : /chem/fid7.i/121609dr/019f1901.d
Lab Smp Id: 1201995992 Client Smp ID: RE03-09-13470MS
Inj Date : 17-DEC-2009 03:13
Operator : KXR2 Inst ID: fid7.i
Smp Info : |1201995992|1|
Misc Info : |FIDDRO_S|933001|FIDF|MS|
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fid7.i/121609dr/FID7a.i_b_DRO_121309.m
Meth Date : 17-Dec-2009 14:05 kev01577 Quant Type: ESTD
Cal Date : 13-DEC-2009 18:58 Cal File: 007f0701.d
Als bottle: 19 QC Sample: MS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-901.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weigth of sample extracted (g)
M	4.36000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (mg/L)	FINAL (mg/Kg)
S 1 Diesel Range Organics					CAS #:
7.480- 17.855			6649131	495.568	17.3
$ 2 o-Terphenyl					CAS #: 84-15-1
13.594	13.597	-0.003	295758	11.2180	0.39

Data File: /chem/fid7.i/121609dr/019f1901.d
Date : 17-DEC-2009 03:13
Client ID: RE03-09-13470MS
Sample Info: |120199599211|
Volume Injected (uL): 1.0
Column phase: DB-5MS

Page 1

Instrument: fid7.i

Operator: KXR2
Column diameter: 0.25

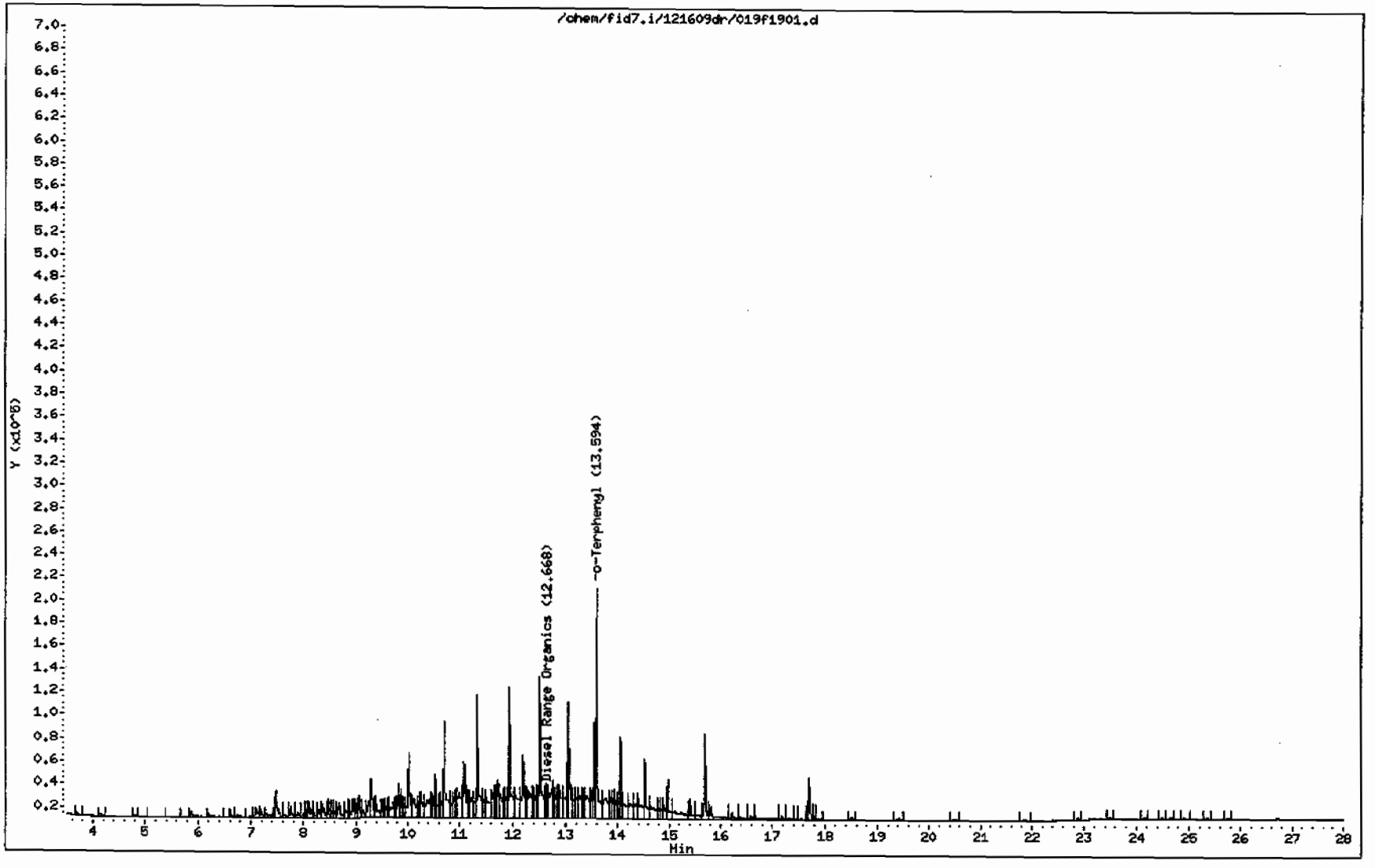

Flame Ionization Detector
Certificate of Analysis
Sample Summary

SDG Number:	10-901	**Date Collected:**	12/10/2009 12:00	**Matrix:**	S
Lab Sample ID:	1201995993	**Date Received:**	12/12/2009 09:35	**%Moisture:**	4.4
Client Sample:	QC for batch 933000	**Client:**	LANL010	**Project:**	QC
Client ID:	RE03-09-13470MSD	**Method:**	SW846 8015A/B SVOC	**SOP Ref:**	GL-OA-E-003
Batch ID:	933001	**Inst:**	FID7.I	**Dilution:**	1
Run Date:	12/17/2009 03:50	**Analyst:**	KXR2	**Inj. Vol:**	1 uL
Prep Date:	12/15/2009 16:56	**Aliquot:**	30.02 g	**Final Volume:**	1 mL
Data File:	020f2001.d	**Column:**	DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics		18.2	mg/kg	2.26	6.97

GEL Laboratories LLC

DB-5MS .25mm

Data file : /chem/fid7.i/121609dr/020f2001.d
Lab Smp Id: 1201995993 Client Smp ID: RE03-09-13470MSD
Inj Date : 17-DEC-2009 03:50
Operator : KXR2 Inst ID: fid7.i
Smp Info : |1201995993|1|
Misc Info : |FIDDRO_S|933001|FIDF|MSD|
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fid7.i/121609dr/FID7a.i_b_DRO_121309.m
Meth Date : 17-Dec-2009 14:05 kev01577 Quant Type: ESTD
Cal Date : 13-DEC-2009 18:58 Cal File: 007f0701.d
Als bottle: 20 QC Sample: MSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-901.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.02000	Weigth of sample extracted (g)
M	4.36000	% Moisture

Cpnd Variable Local Compound Variable

	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (mg/L)	FINAL (mg/Kg)
S	1 Diesel Range Organics					CAS #:
	7.480- 17.855			6996089	521.427	18.2
$	2 o-Terphenyl					CAS #: 84-15-1
	13.593	13.597	-0.004	281166	10.6646	0.37

Data File: /chem/fid7.i/121609dr/020f2001.d
Date : 17-DEC-2009 03:50
Client ID: RE03-09-13470MSD
Sample Info: |120199599311|
Volume Injected (uL): 1.0
Column phase: DB-5MS

Instrument: fid7.i

Operator: KXR2
Column diameter: 0.25

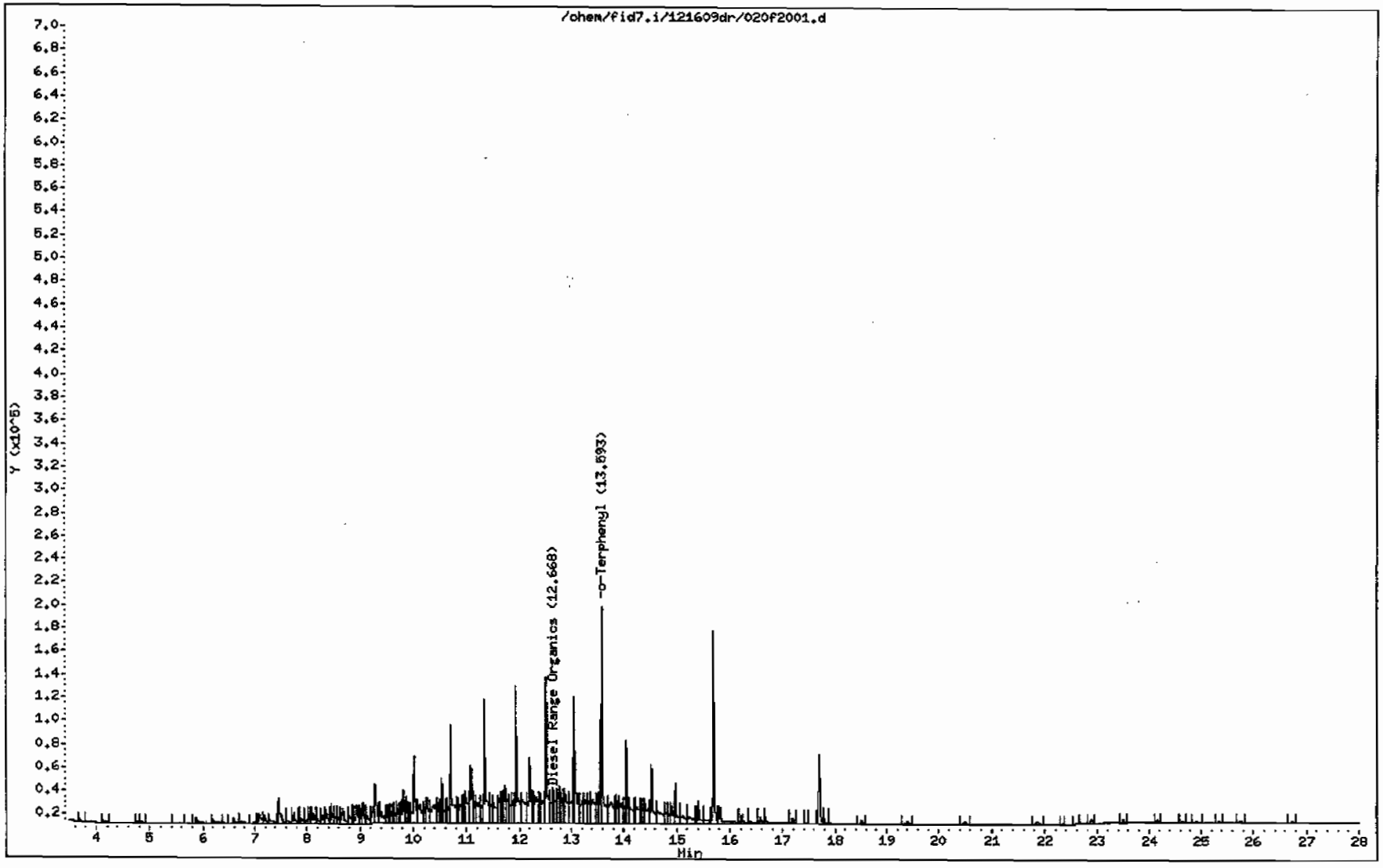

MISCELLANEOUS DATA

GEL ORGANIC RUN LOG INSTRUMENT ID: FID7.i

DATE: 12/14/2009 METHOD: FID7a.i_b_DRO_121309.m OPERATOR:KXR2 REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 16 on pg. 16 Solvent REMAT ID:CH2CL2

Calibration & QC Information
GC Column: DB-5MS 30m x 0.25mm x 0.25um
Initial Calibration Dates: See Calibration History and Standards Log
Initial Calibration Std ID's: See Calibration History and Standards Log
FID analysis of GEL SOP:GL-OA-E-003

Sequence Number:121309DR Injection Volume: 1.0 ul

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001f0101.d	WFI091130-06 B1	KXR2	13-DEC-2009 15:16		SDGa20942	1.0		CLEAN
002f0201.d	UFI091013-03 RT	KXR2	13-DEC-2009 15:53		SDGa20942	1.0		RTMARKER
003f0301.d	UFI090827-10 200	KXR2	13-DEC-2009 16:31		SDGa20942	1.0		CAL. LEVEL 1
004f0401.d	UFI090827-11 500	KXR2	13-DEC-2009 17:07		SDGa20942	1.0		CAL. LEVEL 2
005f0501.d	UFI090827-12 1000	KXR2	13-DEC-2009 17:45		SDGa20942	1.0		CAL. LEVEL 3
006f0601.d	UFI090827-13 2000	KXR2	13-DEC-2009 18:22		SDGa20942	1.0		CAL. LEVEL 4
007f0701.d	UFI090827-14 5000	KXR2	13-DEC-2009 18:58		SDGa20942	1.0		CAL. LEVEL 5
008f0801.d	WFI090928-01 D1	KXR2	13-DEC-2009 19:36		SDGa20942	1.0		PASSES
009f0901.d	WFI091130-06 B2	KXR2	13-DEC-2009 20:12		SDGa20942	1.0		CLEAN
010f1001.d	1201993826	KXR2	13-DEC-2009 20:49	932074	10-830	1.0	MB	USE
011f1101.d	1201993827	KXR2	13-DEC-2009 21:26	932074	10-830	1.0	LCS	USE
012f1201.d	242439002	KXR2	13-DEC-2009 22:03	932074	10-830	1.0	LANL	USE
013f1301.d	1201993828	KXR2	13-DEC-2009 22:40	932074	10-830	1.0	MS	USE
014f1401.d	1201993829	KXR2	13-DEC-2009 23:18	932074	10-830	1.0	MSD	USE
015f1501.d	242439003	KXR2	13-DEC-2009 23:54	932074	10-830	1.0	LANL	USE

Instrument Batch: /chem/fid7.i/121309dr Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
016f1601.d	242439004	KXR2	14-DEC-2009 00:32	932074	10-830	1.0	LANL	USE

017f1701.d	242439005	KXR2	14-DEC-2009 01:09	932074	10-830		5.0	LANL	USE
018f1801.d	242439006	KXR2	14-DEC-2009 01:46	932074	10-830		1.0	LANL	USE
019f1901.d	242439007	KXR2	14-DEC-2009 02:23	932074	10-830		1.0	LANL	USE
020f2001.d	UFI091118-02 D2	KXR2	14-DEC-2009 03:00		SDGa20942		1.0		PASSES
021f2101.d	WFI091130-06 B3	KXR2	14-DEC-2009 03:37		SDGa20942		1.0		CLEAN
022f2201.d	242439008	KXR2	14-DEC-2009 04:13	932074	10-830		1.0	LANL	USE
023f2301.d	242439009	KXR2	14-DEC-2009 04:50	932074	10-830		1.0	LANL	USE
024f2401.d	242439010	KXR2	14-DEC-2009 05:27	932074	10-830		1.0	LANL	USE
025f2501.d	242439011	KXR2	14-DEC-2009 06:04	932074	10-830		1.0	LANL	USE
026f2601.d	242439012	KXR2	14-DEC-2009 06:41	932074	10-830		1.0	LANL	USE
027f2701.d	242439013	KXR2	14-DEC-2009 07:18	932074	10-830		20.0	LANL	USE
028f2801.d	242439014	KXR2	14-DEC-2009 07:55	932074	10-830		1.0	LANL	USE
029f2901.d	242439015	KXR2	14-DEC-2009 08:32	932074	10-830		10.0	LANL	USE
030f3001.d	242439016	KXR2	14-DEC-2009 09:09	932074	10-830		1.0	LANL	USE
031f3101.d	UFI091118-02 D3	KXR2	14-DEC-2009 09:46		SDGa20942		1.0		PASSES
032f3201.d	WFI091130-06 B4	KXR2	14-DEC-2009 10:23		SDGa20942		1.0		CLEAN

GEL ORGANIC RUN LOG INSTRUMENT ID: FID7.i

DATE: 12/17/2009 METHOD: FID7a.i_b_DRO_121309.m OPERATOR:KXR2 REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 16 on pg. 16 Solvent REMAT ID:CH2CL2

Calibration & QC Information
GC Column: DB-5MS 30m x 0.25mm x 0.25um
Initial Calibration Dates: See Calibration History and Standards Log
Initial Calibration Std ID's: See Calibration History and Standards Log
FID analysis of GEL SOP:GL-OA-E-003

Sequence Number:121609DR Injection Volume: 1.0 ul

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001f0101.d	WFI091130-06 B1	KXR2	16-DEC-2009 16:10		SDGa14471	1.0		CLEAN
002f0201.d	UFI091013-03 RT	KXR2	16-DEC-2009 16:47		SDGa14471	1.0		RTMARKER
003f0301.d	UFI091118-02 D1	KXR2	16-DEC-2009 17:24		SDGa14471	1.0		PASSES
004f0401.d	WFI091130-06 B2	KXR2	16-DEC-2009 18:01		SDGa14471	1.0		CLEAN
005f0501.d	1201995990	KXR2	16-DEC-2009 18:39	933001	10-854	1.0	MB	USE
006f0601.d	1201995991	KXR2	16-DEC-2009 19:16	933001	10-854	1.0	LCS	USE
007f0701.d	242668001	KXR2	16-DEC-2009 19:52	933001	10-854	1.0	LANL	USE
008f0801.d	242668002	KXR2	16-DEC-2009 20:29	933001	10-854	10.0	LANL	USE
009f0901.d	242750001	KXR2	16-DEC-2009 21:06	933001	10-886	1.0	LANL	USE
010f1001.d	242750002	KXR2	16-DEC-2009 21:43	933001	10-886	1.0	LANL	USE
011f1101.d	242750003	KXR2	16-DEC-2009 22:20	933001	10-886	1.0	LANL	USE
012f1201.d	242750004	KXR2	16-DEC-2009 22:56	933001	10-886	1.0	LANL	USE
013f1301.d	242750005	KXR2	16-DEC-2009 23:33	933001	10-886	1.0	LANL	USE
014f1401.d	UFI091118-02 D2	KXR2	17-DEC-2009 00:10		SDGa14471	1.0		PASSES
015f1501.d	WFI091130-06 B3	KXR2	17-DEC-2009 00:47		SDGa14471	1.0		CLEAN

Instrument Batch: /chem/fid7.i/121609dr Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
016f1601.d	242784003	KXR2	17-DEC-2009 01:23	933001	10-899	1.0	LANL	USE

017f1701.d	242784004	KXR2	17-DEC-2009 02:00	933001	10-899		5.0	LANL	USE
018f1801.d	242794001	KXR2	17-DEC-2009 02:36	933001	10-901		1.0	LANL	USE
019f1901.d	1201995992	KXR2	17-DEC-2009 03:13	933001	10-901		1.0	LANL	USE
020f2001.d	1201995993	KXR2	17-DEC-2009 03:50	933001	10-901		1.0	LANL	USE
021f2101.d	242794002	KXR2	17-DEC-2009 04:27	933001	10-901		1.0	LANL	USE
022f2201.d	242794003	KXR2	17-DEC-2009 05:03	933001	10-901		1.0	LANL	USE
023f2301.d	242794004	KXR2	17-DEC-2009 05:40	933001	10-901		10.0	LANL	USE
024f2401.d	UFI091118-02 D3	KXR2	17-DEC-2009 06:16		SDGa14471		1.0		PASSES
025f2501.d	WFI091130-06 B4	KXR2	17-DEC-2009 06:52		SDGa14471		1.0		CLEAN

Prep Logbook

Extraction of Semivolatile and Nonvolatile Organic Compounds from Soil, Sludge, and Other Miscellaneous Solid Samples

Batch ID: 933000 **Verified by:** _____

Analyst: Joshua McCartney

Method: SW846 3550B

Lab SOP: GL–OA–E–010 REV# 18

Instrument: Semi–Volatiles Manual

Sample ID	Run Date	Aliquot (g)	Prepped Aliquot (mL)	Prepped Factor (mL/g)
1201995990 MB	15–DEC–2009 16:56:05	30	1	0.03333
1201995991 LCS	15–DEC–2009 16:56:05	30	1	0.03333
242668001	15–DEC–2009 16:56:05	30.08	1	0.03324
242668002	15–DEC–2009 16:56:05	30	1	0.03333
242750001	15–DEC–2009 16:56:05	30	1	0.03333
242750002	15–DEC–2009 16:56:05	30.04	1	0.03329
242750003	15–DEC–2009 16:56:05	30.02	1	0.03331
242750004	15–DEC–2009 16:56:05	30.06	1	0.03327
242750005	15–DEC–2009 16:56:05	30	1	0.03333
242784003	15–DEC–2009 16:56:05	30	1	0.03333
242784004	15–DEC–2009 16:56:05	30.01	1	0.03332
242794001	15–DEC–2009 16:56:05	30.04	1	0.03329
1201995992 MS (242794001)	15–DEC–2009 16:56:05	30	1	0.03333
1201995993 MSD (242794001)	15–DEC–2009 16:56:05	30.02	1	0.03331
242794002	15–DEC–2009 16:56:05	30	1	0.03333
242794003	15–DEC–2009 16:56:05	30	1	0.03333
242794004	15–DEC–2009 16:56:05	30.01	1	0.03332

Type	Sample Id	Description	Serial Number	Spike Amt	Units
LCS	1201995991	TPH DRO LCS	UE091030–08	1	mL
MS	1201995992	TPH DRO LCS	UE091030–08	1	mL
MSD	1201995993	TPH DRO LCS	UE091030–08	1	mL
SURR	All	20 ppm surrogate	WE091210–04	1	mL
REGNT	All	Methylene Chloride	1242565–D	300	mL
SOURC	All	SODIUM SULFATE	1242582	30	g

Comments:

Verified By: RWH

Final Solvent: CH2Cl2

GC SEMIVOLATILE PCB ANALYSIS

PCB Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-901

Method/Analysis Information

Procedure:	**Analysis of Polychlorinated Biphenyls by ECD**
Analytical Method:	SW846 8082
Prep Method:	SW846 3550B
Analytical Batch Number:	933402
Prep Batch Number:	933401

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 8082:

Sample ID	Client ID
242794001	RE03-09-13470
242794002	RE03-09-13471
242794003	RE03-09-13472
242794004	RE03-09-13469
1201997004	Method Blank (MB)
1201997005	Laboratory Control Sample (LCS)
1201997006	242794001(RE03-09-13470) Matrix Spike (MS)
1201997007	242794001(RE03-09-13470) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on a "dry weight" basis.

Preparation/Analytical Method Verification

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-040 REV# 14.

Raw data reports are processed and reviewed by the analyst using the Target software package. False positives have been removed from the Target quantitation reports per standard operating procedures (SOP) section 23.0.

Calibration Information

Please note that the 'Cal Date' indicated on each quantitation report reflects the date and time of the most recent calibrated analyte(s) in the Target processing method. Since the laboratory may calibrate with multiple solutions on different days using the same processing method, the Target software will update the 'Cal Date' to the last calibration file, date and time. The correct dates and times for all calibration files are located on the Calibration History report

in the Standard Data section in the data package.

Due to software limitations, the Calibration Summary Form 6 may not indicate all the calibration files comprising the initial calibration. A complete list of the initial calibration data files are shown in the Calibration History report located in the Standard Data section of the data package.

Initial Calibration
All initial calibration requirements have been met for this sample delivery group (SDG).

The linear equation used in Target and indicated on the initial calibration summary form is not a conventional linear equation (slope intercept formula) and does not match the equation found in SW-846 method 8000B. The x and y axes are inversed in Target, so that the instrument response is treated as the independent variable (x) and the concentration ratio is treated as the dependent variable (y). The equation used in Target to calculate sample results is adjusted to account for the linear equation inversion and reciprocal slope. The adjusted calculation has been independently verified to produce valid results.

Continuing Calibration Verification (CCV) Requirements
All associated calibration verification standard(s) (ICV or CCV) met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB(s) analyzed with this SDG met the acceptance criteria.

Surrogate Recoveries
All surrogate recoveries were within the established acceptance criteria for this SDG.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

QC Sample Designation
Sample 242794001 (RE03-09-13470) was selected for the matrix spike and matrix spike duplicate analysis.

Matrix Spike (MS) Recovery Statement
The MS recoveries for this SDG were within the established acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recoveries for this SDG were within the established acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD(s) between the MS and MSD met the acceptance limits.

Technical Information

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

Sample Dilutions
Sample 242794004 (RE03-09-13469) was diluted at 1:5 due to the oily matrix of the extract.

Sample Re-extraction/Re-analysis
Re-extractions or re-analyses were not required in this SDG.

Miscellaneous Information

Electronic Package Comment

The following package was generated using an electronic data processing program referred to as "virtual packaging". In an effort to increase quality and efficiency, the laboratory is developing systems to eventually generate all data packages electronically. The following change from "traditional" packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. An electronic signature page inserted after the case narrative of each electronic package will indicate the analyst, reviewer, and report specialist names associated with the generation of the data and package. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Nonconformance (NCR) Documentation
Nonconformance reports (NCRs) are for documentation of any procedural anomalies that may deviate from referenced SOP or contractual document. A NCR was not required for this SDG.

Manual Integrations
Certain standards and samples may have required manual integration to correctly position the baseline as set in the calibration standard injections. If manual integration was performed, copies of all manual integration peak profiles are included in the raw data section of this PCB fraction.

Additional Comments
The additional comments field is used to address special issues associated with each analysis, clarify method/contractual issues pertaining to the analysis, and to list any report documents generated as a result of sample analysis or review. The following additional comments were required:

The higher results from either column have been chosen and reported in the data package for the client samples, MB and LCS. The data reported for the MS and MSD are from the same analytical column as the parent sample.

The data reported on the form I and III may differ slightly from the data reported on the form X. This is due to software limitations in rounding differences between the forms.

Aroclors quantitated on the raw data report by the Target data system do not necessarily represent positive Aroclor identification. In order for positive identification to be made, the Aroclor must match in pattern and retention time; as well as quantitate relatively close between the primary and confirmation columns, as specified in SW846 method 8000. When these conditions are not met, the Aroclor is reported as a non-detect on the data report. These situations will be noted on the raw data as DMP, representing does not match pattern, or DNC does not confirm.

Due to software limitation, the Form VIIs will display the results either in the % difference or % drift depending on the type of the calibration curve. If the curve of all analytes is generated using an average response factor (RF), the Form VII will display results using the %difference calculation (RF). If the curve of one or more analytes is generated using a linear curve, the Form VII will display results using the % drift calculation (by concentration) for all analytes.

System Configuration

The Semi-Volatiles-PCB analysis was performed on the following instrument configuration:

Instrument ID	Instrument	System Configuration	Column ID	Column Description
ECD2A.I_1	HP Gas Chromatograph	HP6890 Series ECD	Rtx-CLP I	30m x 0.25mm, 0.25um (Rtx-CLPesticide)
ECD2A.I_2	HP Gas Chromatograph	HP6890 Series ECD	Rtx-CLP II	30m x 0.25mm, 0.20um (Rtx-CLPesticide II)

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Andy Whitlock Date: 01-07-2010

Roadmap for LANL 10-901 PCB

This roadmap was analyzed by jen01212 on 12-17-2009, 10:00.
This roadmap was reviewed by rob01090 on 12-21-2009, 14:39.
This roadmap was packaged by yml on 01-06-2010, 12:02.

Front Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd2a.i/121609.b/059f5901.d	242794001	sample	16-DEC-2009	18:29	10-901.sub	RE03-09-13470	1.00000	933402	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd2a.i/121609.b/062f6201.d	242794002	sample	16-DEC-2009	19:02	10-901.sub	RE03-09-13471	1.00000	933402	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd2a.i/121609.b/063f6301.d	242794003	sample	16-DEC-2009	19:14	10-901.sub	RE03-09-13472	1.00000	933402	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd2a.i/121609.b/064f6401.d	242794004	sample	16-DEC-2009	19:25	10-901.sub	RE03-09-13469	5.00000	933402	UPLOAD BOTH, USE HIGHER

Back Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd2a.i/121609.b/059b5901.d	242794001	sample	16-DEC-2009	18:29	10-901.sub	RE03-09-13470	1.00000	933402	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd2a.i/121609.b/062b6201.d	242794002	sample	16-DEC-2009	19:02	10-901.sub	RE03-09-13471	1.00000	933402	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd2a.i/121609.b/063b6301.d	242794003	sample	16-DEC-2009	19:14	10-901.sub	RE03-09-13472	1.00000	933402	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd2a.i/121609.b/064b6401.d	242794004	sample	16-DEC-2009	19:25	10-901.sub	RE03-09-13469	5.00000	933402	UPLOAD BOTH, USE HIGHER

Front QC Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd2a.i/121609.b/055f5501-1.d	1201997004	mb	16-DEC-2009	17:45	10-901.sub	PBLK01	1.00000	933402	
☐	N	/chem/ecd2a.i/121609.b/056f5601-1.d	1201997005	lcs	16-DEC-2009	17:56	10-901.sub	PBLK01LCS	1.00000	933402	
☐	N	/chem/ecd2a.i/121609.b/060f6001.d	1201997006	ms	16-DEC-2009	18:40	10-901.sub	RE03-09-13470MS	1.00000	933402	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd2a.i/121609.b/061f6101.d	1201997007	msd	16-DEC-2009	18:51	10-901.sub	RE03-09-13470MSD	1.00000	933402	UPLOAD BOTH, USE HIGHER

Back QC Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd2a.i/121609.b/055b5501-1.d	1201997004	mb	16-DEC-2009	17:45	10-901.sub	PBLK01	1.00000	933402	
☐	N	/chem/ecd2a.i/121609.b/056b5601-1.d	1201997005	lcs	16-DEC-2009	17:56	10-901.sub	PBLK01LCS	1.00000	933402	
☐	N	/chem/ecd2a.i/121609.b/060b6001.d	1201997006	ms	16-DEC-2009	18:40	10-901.sub	RE03-09-13470MS	1.00000	933402	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd2a.i/121609.b/061b6101.d	1201997007	msd	16-DEC-2009	18:51	10-901.sub	RE03-09-13470MSD	1.00000	933402	UPLOAD BOTH, USE HIGHER

SAMPLE DATA SUMMARY

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10–901	**Date Collected:**	12/10/2009 12:00	**Matrix:**	S
Lab Sample ID:	242794004	**Date Received:**	12/12/2009 09:35	**%Moisture:**	6.4
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03–09–13469	**Method:**	SW846 8082	**SOP Ref:**	GL–OA–E–040
Batch ID:	933402	**Inst:**	ECD2A.I	**Dilution:**	5
Run Date:	12/16/2009 19:25	**Analyst:**	JAOC	**Inj. Vol:**	1 uL
Prep Date:	12/16/2009 09:01	**Aliquot:**	30.05 g	**Final Volume:**	1 mL
Data File:	064f6401.d	**Column:**	1 CLP1	**Level:**	LOW
	064b6401.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	17.8	ug/kg	5.92	17.8	1
11104–28–2	Aroclor–1221	U	17.8	ug/kg	5.92	17.8	1
11141–16–5	Aroclor–1232	U	17.8	ug/kg	5.92	17.8	1
53469–21–9	Aroclor–1242	U	17.8	ug/kg	5.92	17.8	1
12672–29–6	Aroclor–1248	U	17.8	ug/kg	5.92	17.8	1
11097–69–1	Aroclor–1254	U	17.8	ug/kg	5.92	17.8	1
11096–82–5	Aroclor–1260	U	17.8	ug/kg	5.92	17.8	1

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–901**	**Date Collected:**	**12/10/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242794001**	**Date Received:**	**12/12/2009 09:35**	**%Moisture:**	**4.4**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03–09–13470**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**933402**	**Inst:**	**ECD2A.I**	**Dilution:**	**1**
Run Date:	**12/16/2009 18:29**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**12/16/2009 09:01**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**059f5901.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	059b5901.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	3.49	ug/kg	1.16	3.49	1
11104–28–2	Aroclor–1221	U	3.49	ug/kg	1.16	3.49	1
11141–16–5	Aroclor–1232	U	3.49	ug/kg	1.16	3.49	1
53469–21–9	Aroclor–1242	U	3.49	ug/kg	1.16	3.49	1
12672–29–6	Aroclor–1248	U	3.49	ug/kg	1.16	3.49	1
11097–69–1	Aroclor–1254	U	3.49	ug/kg	1.16	3.49	1
11096–82–5	Aroclor–1260	U	3.49	ug/kg	1.16	3.49	1

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10–901	**Date Collected:**	12/10/2009 12:00	**Matrix:**	S
Lab Sample ID:	242794002	**Date Received:**	12/12/2009 09:35	**%Moisture:**	4.3
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03–09–13471	**Method:**	SW846 8082	**SOP Ref:**	GL–OA–E–040
Batch ID:	933402	**Inst:**	ECD2A.I	**Dilution:**	1
Run Date:	12/16/2009 19:02	**Analyst:**	JAOC	**Inj. Vol:**	1 uL
Prep Date:	12/16/2009 09:01	**Aliquot:**	30.01 g	**Final Volume:**	1 mL
Data File:	062f6201.d	**Column:**	1 CLP1	**Level:**	LOW
	062b6201.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	3.48	ug/kg	1.16	3.48	1
11104–28–2	Aroclor–1221	U	3.48	ug/kg	1.16	3.48	1
11141–16–5	Aroclor–1232	U	3.48	ug/kg	1.16	3.48	1
53469–21–9	Aroclor–1242	U	3.48	ug/kg	1.16	3.48	1
12672–29–6	Aroclor–1248	U	3.48	ug/kg	1.16	3.48	1
11097–69–1	Aroclor–1254	U	3.48	ug/kg	1.16	3.48	1
11096–82–5	Aroclor–1260	U	3.48	ug/kg	1.16	3.48	1

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10-901	**Date Collected:**	12/10/2009 12:00	**Matrix:**	S
Lab Sample ID:	242794003	**Date Received:**	12/12/2009 09:35	**%Moisture:**	7.7
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-13472	**Method:**	SW846 8082	**SOP Ref:**	GL-OA-E-040
Batch ID:	933402	**Inst:**	ECD2A.I	**Dilution:**	1
Run Date:	12/16/2009 19:14	**Analyst:**	JAOC	**Inj. Vol:**	1 uL
Prep Date:	12/16/2009 09:01	**Aliquot:**	30.07 g	**Final Volume:**	1 mL
Data File:	063f6301.d	**Column:**	1 CLP1	**Level:**	LOW
	063b6301.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.60	ug/kg	1.20	3.60	1
11104-28-2	Aroclor-1221	U	3.60	ug/kg	1.20	3.60	1
11141-16-5	Aroclor-1232	U	3.60	ug/kg	1.20	3.60	1
53469-21-9	Aroclor-1242	U	3.60	ug/kg	1.20	3.60	1
12672-29-6	Aroclor-1248	U	3.60	ug/kg	1.20	3.60	1
11097-69-1	Aroclor-1254	U	3.60	ug/kg	1.20	3.60	1
11096-82-5	Aroclor-1260	U	3.60	ug/kg	1.20	3.60	1

QUALITY CONTROL SUMMARY

Surrogate Recovery Report

SDG Number: 10-901

Matrix Type: SOLID

CAP Column (1) : CLP1 **CAP Column (2) : CLP2**

Sample ID	Client ID	4CMX 1 %REC #	4CMX 2 %REC #	DCB 1 %REC #	DCB 2 %REC #
1201997004	MB for batch 933401	63	66	79	81
1201997005	LCS for batch 933401	63	65	77	79
242794001	RE03-09-13470	49	51	63	62
1201997006	RE03-09-13470MS	60	62	73	74
1201997007	RE03-09-13470MSD	63	66	78	78
242794002	RE03-09-13471	56	58	68	68
242794003	RE03-09-13472	53	56	69	69
242794004	RE03-09-13469	57 D	58 D	64 D	61 D

Surrogate	Acceptance Limits
4CMX = 4cmx	(34%-105%)
DCB = Decachlorobiphenyl	(33%-115%)

* Recovery outside Acceptance Limits

\# Column to be used to flag recovery values

D Sample Diluted

PCB

Quality Control Summary
Spike Recovery Report

SDG Number: 10-901
Client ID: LCS for batch 933401
Lab Sample ID: 1201997005
Instrument: ECD2A.I
Analyst: JAOC
Inj. Vol: 1 uL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 12/16/2009 17:56
Dilution: 1
Prep Batch ID: 933401
Batch ID: 933402

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
12674-11-2	LCS	Aroclor-1016	33.3	0.0	19.6	59	41-110
11096-82-5	LCS	Aroclor-1260	33.3	0.0	26.0	78	48-110

PCB

Quality Control Summary
Spike Recovery Report

SDG Number: 10–901
Client ID: RE03–09–13470MS
Lab Sample ID: 1201997006
Instrument: ECD2A.I
Analyst: JAOC
Inj. Vol: 1 uL

Sample Type: Matrix Spike
Matrix: S
%Moisture: 4.4
Analysis Date: 12/16/2009 18:40
Prep Batch ID: 933401
Batch ID: 933402
Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
12674–11–2	MS	Aroclor–1016	34.8	0.00	U	19.3	55	23–117
11096–82–5	MS	Aroclor–1260	34.8	0.00	U	25.9	74	27–116

PCB

Quality Control Summary
Spike Recovery Report

SDG Number:	**10-901**	**Sample Type:**	**Matrix Spike Duplicate**
Client ID:	**RE03-09-13470MSD**	**Matrix:**	**S**
Lab Sample ID:	**1201997007**	**%Moisture:**	**4.4**
Instrument:	**ECD2A.I**	**Analysis Date:**	**12/16/2009 18:51**
Analyst:	**JAOC**	**Prep Batch ID**	**933401**
Inj. Vol:	**1 uL**	**Batch ID:**	**933402**

Dilution: 1

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
12674-11-2	MSD Aroclor-1016	34.9	0.00	U	19.4	56	23-117	1	0-30
11096-82-5	MSD Aroclor-1260	34.9	0.00	U	26.3	75	27-116	2	0-30

Method Blank Summary

SDG Number:	10-901	Client:	LANL010	Matrix:	SOIL
Client ID:	MB for batch 933401	Instrument ID:	ECD2A.I_2 ECD2A.I_1	Data File:	055b5501-1.d 055f5501-1.d
Lab Sample ID:	1201997004				
Column:	CLP2 CLP1	Prep Date:	12/16/2009 09:01	Analyzed:	12/16/09 17:45
		Level:	LOW		

This method blank applies to the following samples and quality control samples:

Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01 LCS for batch 933401	1201997005	056f5601-1.d 056b5601-1.d	12/16/09	1756
02 RE03-09-13470	242794001	059f5901.d 059b5901.d	12/16/09	1829
03 RE03-09-13470MS	1201997006	060f6001.d 060b6001.d	12/16/09	1840
04 RE03-09-13470MSD	1201997007	061f6101.d 061b6101.d	12/16/09	1851
05 RE03-09-13471	242794002	062f6201.d 062b6201.d	12/16/09	1902
06 RE03-09-13472	242794003	063f6301.d 063b6301.d	12/16/09	1914
07 RE03-09-13469	242794004	064f6401.d 064b6401.d	12/16/09	1925

SAMPLE DATA

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10-901**	**Date Collected:**	**12/10/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242794004**	**Date Received:**	**12/12/2009 09:35**	**%Moisture:**	**6.4**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-13469**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**933402**	**Inst:**	**ECD2A.I**	**Dilution:**	**5**
Run Date:	**12/16/2009 19:25**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**12/16/2009 09:01**	**Aliquot:**	**30.05 g**	**Final Volume:**	**1 mL**
Data File:	**064f6401.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	064b6401.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	17.8	ug/kg	5.92	17.8	1
11104-28-2	Aroclor-1221	U	17.8	ug/kg	5.92	17.8	1
11141-16-5	Aroclor-1232	U	17.8	ug/kg	5.92	17.8	1
53469-21-9	Aroclor-1242	U	17.8	ug/kg	5.92	17.8	1
12672-29-6	Aroclor-1248	U	17.8	ug/kg	5.92	17.8	1
11097-69-1	Aroclor-1254	U	17.8	ug/kg	5.92	17.8	1
11096-82-5	Aroclor-1260	U	17.8	ug/kg	5.92	17.8	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/121609.b/064f6401.d
Lab Smp Id: 242794004 Client Smp ID: RE03-09-13469
Inj Date : 16-DEC-2009 19:25
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |242794004|5|
Misc Info : |ECD82P_1S|933402|SVAF|LANL|SOIL|RE03-09-13469|||
Comment :
Method : /chem/ecd2a.i/121609.b/ECD2-F-8082-111209A.m
Meth Date : 17-Dec-2009 05:44 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012f1201.d
Als bottle: 64
Dil Factor: 5.00000
Integrator: Falcon Compound Sublist: 10-901.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	5.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.05000	Weight of sample extracted (g)
M	6.42000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.775	1.775	0.000	1424007	22.8603	4.1	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.612	5.613	-0.001	1389740	25.6829	4.6	80.00- 120.00	100.00

Data File: /chem/ecd2a.i/121609.b/064f6401.d

Date : 16-DEC-2009 19:25

Client ID: RE03-09-13469

Sample Info: |242794004|5|

Volume Injected (uL): 1.0

Column phase: CLP1

Instrument: ecd2a.i

Operator: JAOC

Column diameter: 0.25

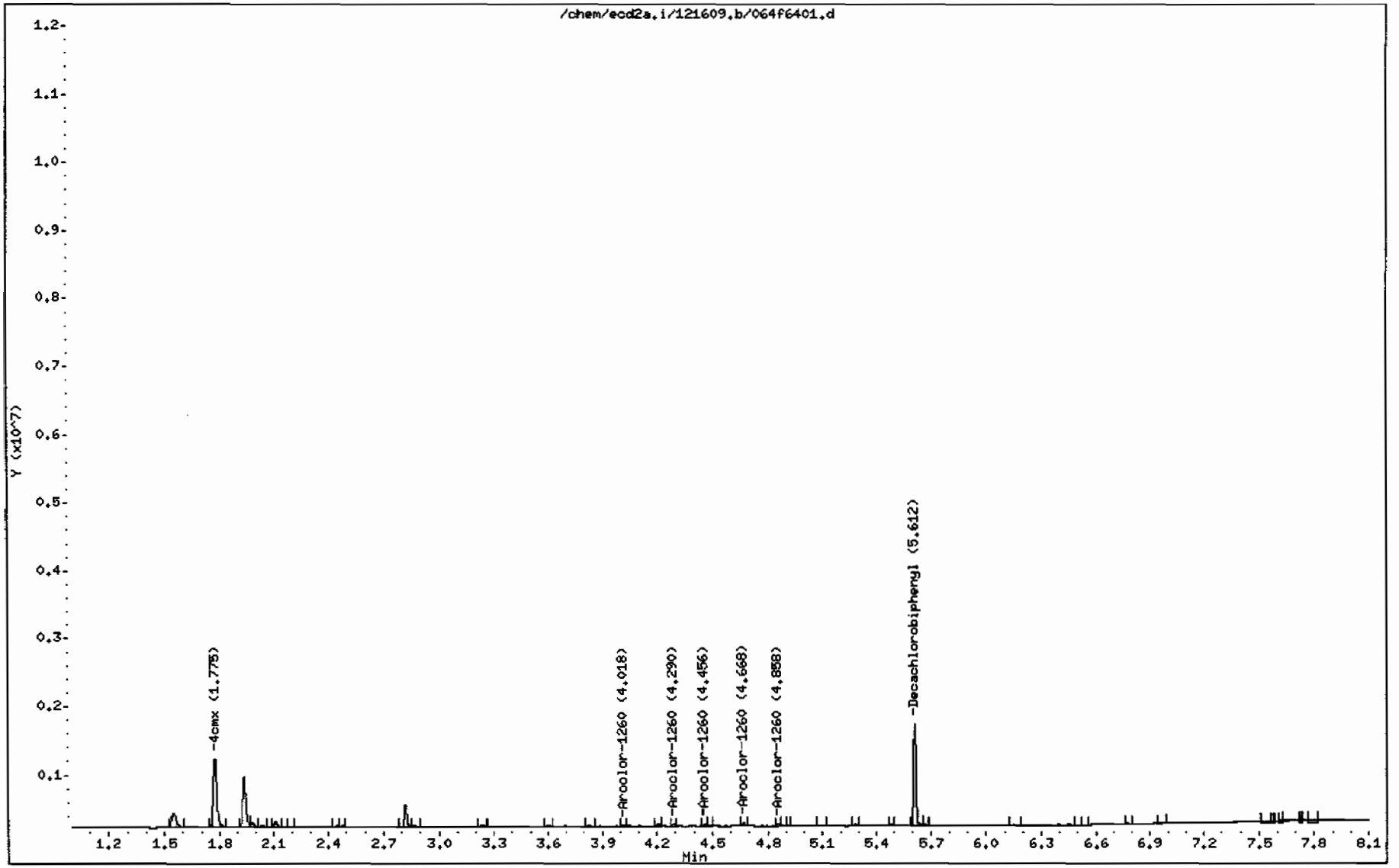

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/121609.b/064b6401.d
Lab Smp Id: 242794004 Client Smp ID: RE03-09-13469
Inj Date : 16-DEC-2009 19:25
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |242794004|5|
Misc Info : |ECD82P_1S|933402|SVAF|LANL|SOIL|RE03-09-13469|||
Comment :
Method : /chem/ecd2a.i/121609.b/ECD2-B-8082-111209A.m
Meth Date : 17-Dec-2009 05:26 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012b1201.d
Als bottle: 64
Dil Factor: 5.00000
Integrator: Falcon Compound Sublist: 10-901.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	5.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.05000	Weight of sample extracted (g)
M	6.42000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.072	2.072	0.000	2988517	23.1098	4.1	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.304	6.305	-0.001	2769064	24.5521	4.4	80.00- 120.00	100.00

Data File: /chem/ecd2a.i/121609.b/064b6401.d

Date : 16-DEC-2009 19:25

Client ID: RE03-09-13469

Sample Info: |242794004|5|

Volume Injected (uL): 1.0

Column phase: CLP2

Instrument: ecd2a.i

Operator: JADC

Column diameter: 0.25

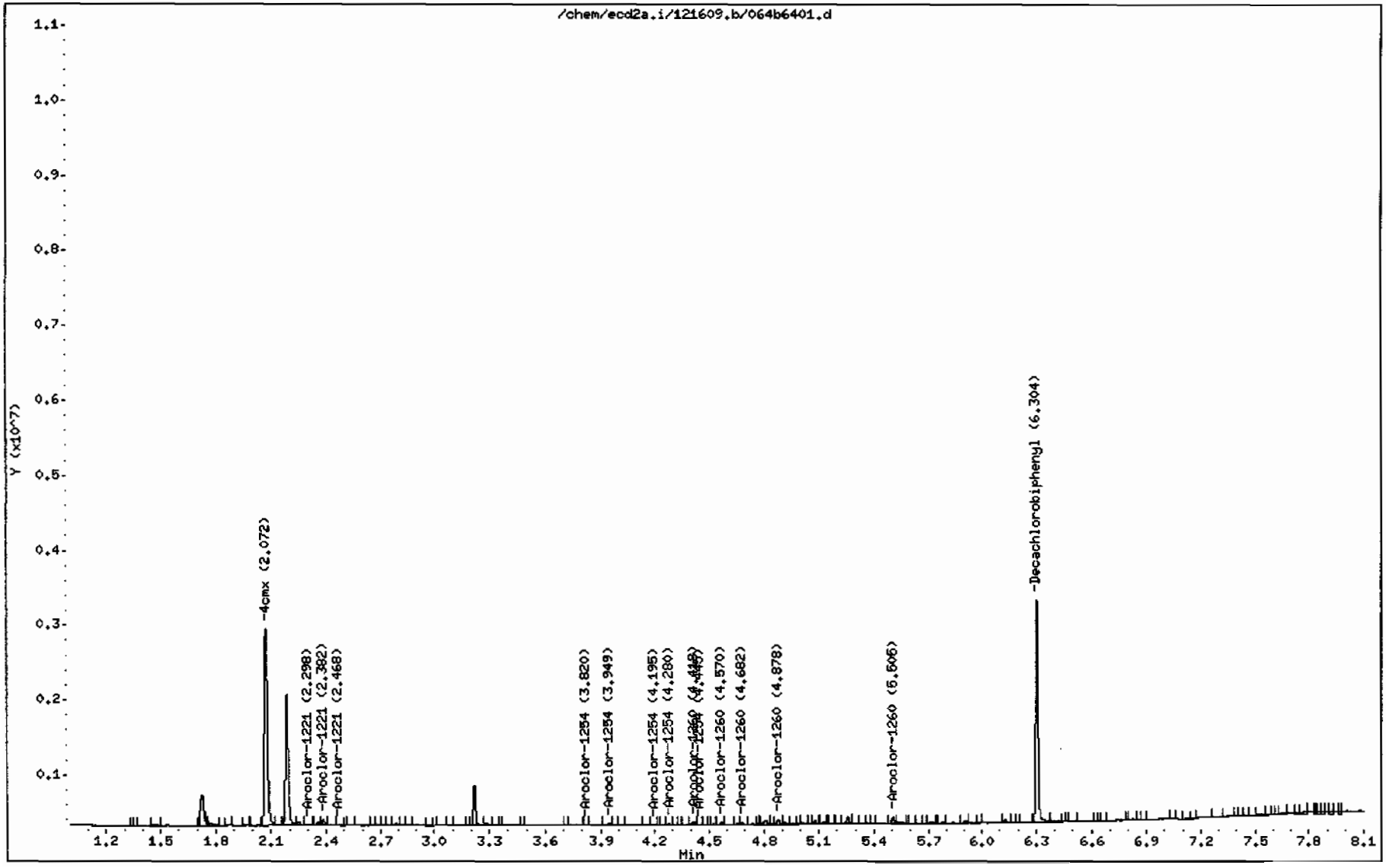

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10-901**	**Date Collected:**	**12/10/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242794001**	**Date Received:**	**12/12/2009 09:35**	**%Moisture:**	**4.4**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-13470**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**933402**	**Inst:**	**ECD2A.I**	**Dilution:**	**1**
Run Date:	**12/16/2009 18:29**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**12/16/2009 09:01**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**059f5901.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	059b5901.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.49	ug/kg	1.16	3.49	1
11104-28-2	Aroclor-1221	U	3.49	ug/kg	1.16	3.49	1
11141-16-5	Aroclor-1232	U	3.49	ug/kg	1.16	3.49	1
53469-21-9	Aroclor-1242	U	3.49	ug/kg	1.16	3.49	1
12672-29-6	Aroclor-1248	U	3.49	ug/kg	1.16	3.49	1
11097-69-1	Aroclor-1254	U	3.49	ug/kg	1.16	3.49	1
11096-82-5	Aroclor-1260	U	3.49	ug/kg	1.16	3.49	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/121609.b/059f5901.d
Lab Smp Id: 242794001 Client Smp ID: RE03-09-13470
Inj Date : 16-DEC-2009 18:29
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |242794001|1|
Misc Info : |ECD82P_1S|933402|SVAF|LANL|SOIL|RE03-09-13470|||
Comment :
Method : /chem/ecd2a.i/121609.b/ECD2-F-8082-111209A.m
Meth Date : 17-Dec-2009 05:44 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012f1201.d
Als bottle: 59
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-901.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	4.36000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.774	1.775	-0.001	6154144	98.7956	3.4	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.612	5.613	-0.001	6826093	126.149	4.4	80.00- 120.00	100.00

Data File: /chem/ecd2a.i/121609.b/059f5901.d

Date : 16-DEC-2009 18:29

Client ID: RE03-09-13470

Sample Info: |242794001|1|

Volume Injected (uL): 1.0

Column phase: CLP1

Instrument: ecd2a.i

Operator: JAOC

Column diameter: 0.25

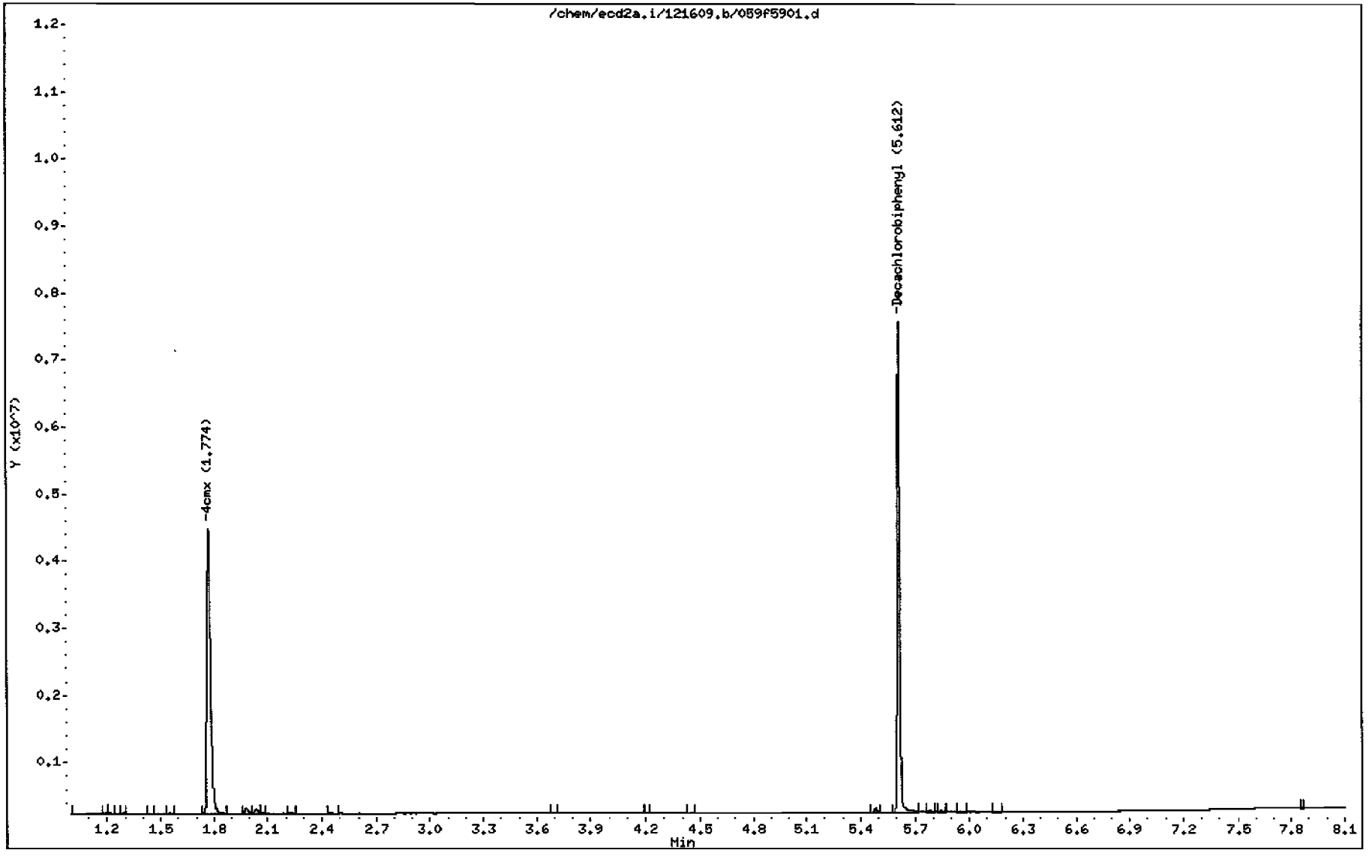

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/121609.b/059b5901.d
Lab Smp Id: 242794001 Client Smp ID: RE03-09-13470
Inj Date : 16-DEC-2009 18:29
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |242794001|1|
Misc Info : |ECD82P_1S|933402|SVAF|LANL|SOIL|RE03-09-13470|||
Comment :
Method : /chem/ecd2a.i/121609.b/ECD2-B-8082-111209A.m
Meth Date : 17-Dec-2009 05:26 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012b1201.d
Als bottle: 59
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-901.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	4.36000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.072	2.072	0.000	13294500	102.805	3.6	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.304	6.305	-0.001	14038785	124.476	4.3	80.00- 120.00	100.00

Data File: /chem/ecd2a.i/121609.b/059b5901.d
Date : 16-DEC-2009 18:29
Client ID: RE03-09-13470
Sample Info: |2427940011|1|
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd2a.i
Operator: JAOC
Column diameter: 0.25

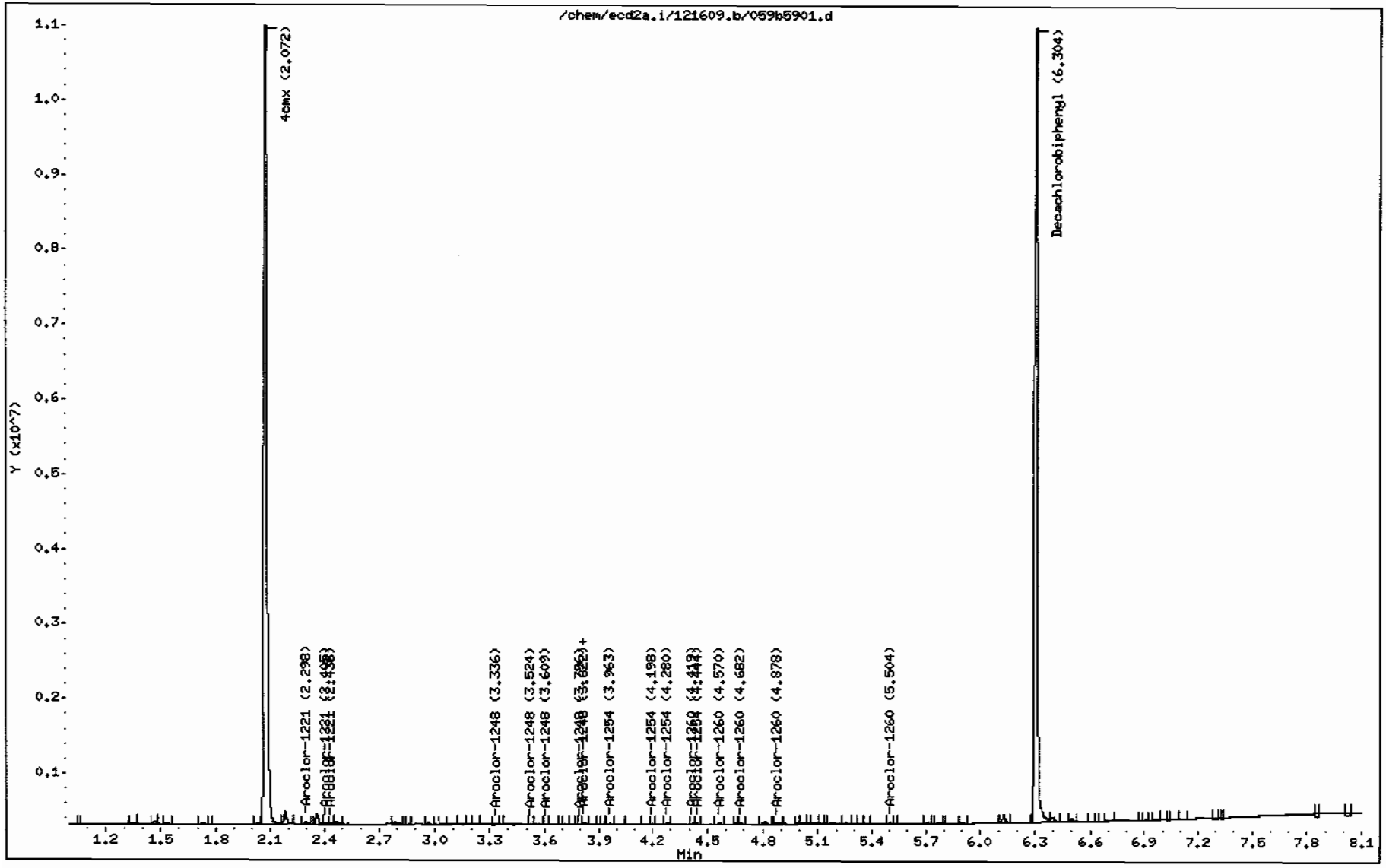

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10-901**	**Date Collected:**	**12/10/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242794002**	**Date Received:**	**12/12/2009 09:35**	**%Moisture:**	**4.3**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-13471**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**933402**	**Inst:**	**ECD2A.I**	**Dilution:**	**1**
Run Date:	**12/16/2009 19:02**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**12/16/2009 09:01**	**Aliquot:**	**30.01 g**	**Final Volume:**	**1 mL**
Data File:	**062f6201.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	062b6201.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.48	ug/kg	1.16	3.48	1
11104-28-2	Aroclor-1221	U	3.48	ug/kg	1.16	3.48	1
11141-16-5	Aroclor-1232	U	3.48	ug/kg	1.16	3.48	1
53469-21-9	Aroclor-1242	U	3.48	ug/kg	1.16	3.48	1
12672-29-6	Aroclor-1248	U	3.48	ug/kg	1.16	3.48	1
11097-69-1	Aroclor-1254	U	3.48	ug/kg	1.16	3.48	1
11096-82-5	Aroclor-1260	U	3.48	ug/kg	1.16	3.48	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/121609.b/062f6201.d
Lab Smp Id: 242794002 Client Smp ID: RE03-09-13471
Inj Date : 16-DEC-2009 19:02
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |242794002|1|
Misc Info : |ECD82P_1S|933402|SVAF|LANL|SOIL|RE03-09-13471|||
Comment :
Method : /chem/ecd2a.i/121609.b/ECD2-F-8082-111209A.m
Meth Date : 17-Dec-2009 05:44 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012f1201.d
Als bottle: 62
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-901.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.01000	Weight of sample extracted (g)
M	4.29000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.774	1.775	-0.001	6969310	111.882	3.9	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.612	5.613	-0.001	7310355	135.098	4.7	80.00- 120.00	100.00

Data File: /chem/ecd2a.i/121609.b/062f6201.d
Date : 16-DEC-2009 19:02
Client ID: RE03-09-13471
Sample Info: 1242794002111
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecd2a.i
Operator: JAOC
Column diameter: 0.25

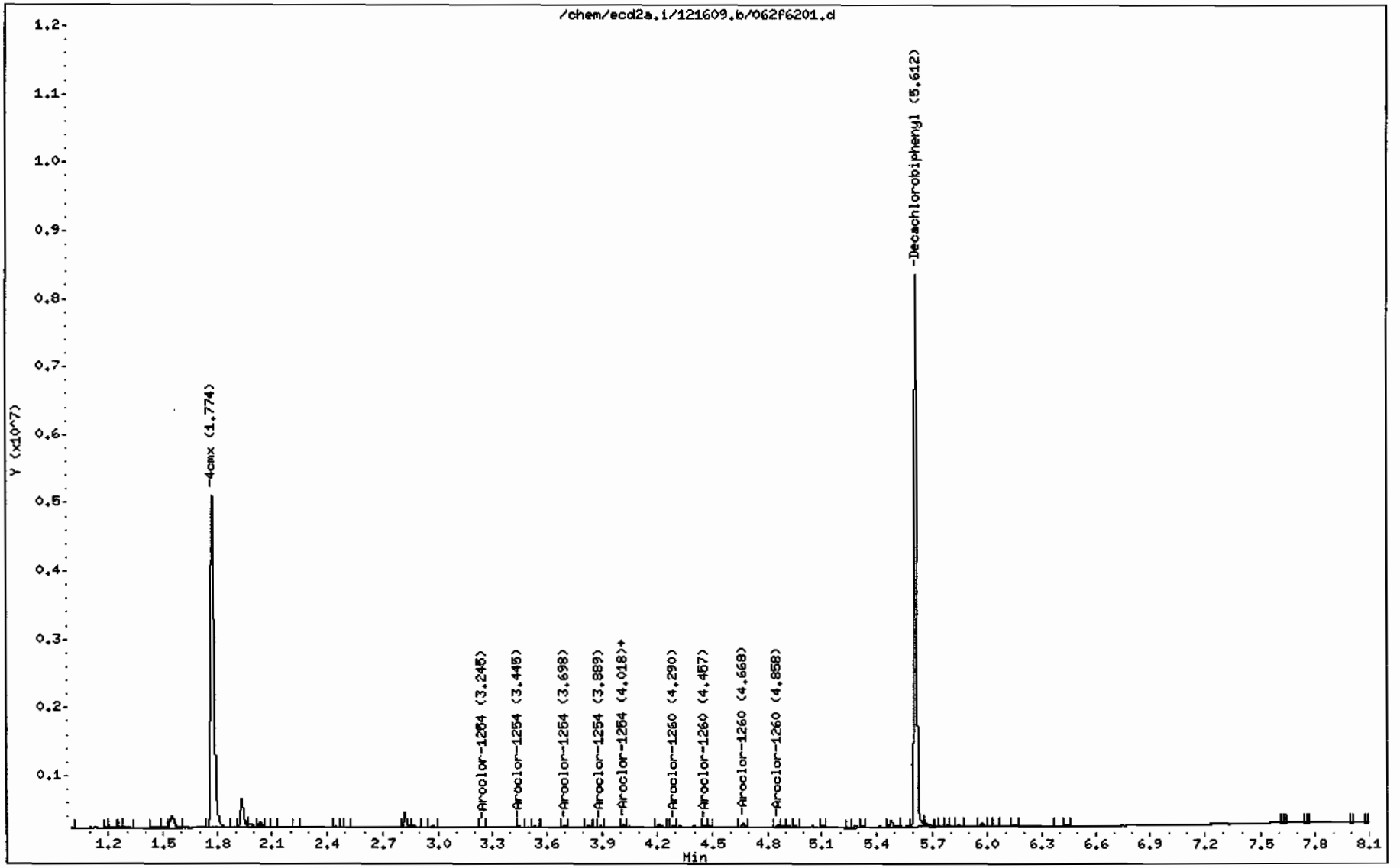

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/121609.b/062b6201.d
Lab Smp Id: 242794002 Client Smp ID: RE03-09-13471
Inj Date : 16-DEC-2009 19:02
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |242794002|1|
Misc Info : |ECD82P_1S|933402|SVAF|LANL|SOIL|RE03-09-13471|||
Comment :
Method : /chem/ecd2a.i/121609.b/ECD2-B-8082-111209A.m
Meth Date : 17-Dec-2009 05:26 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012b1201.d
Als bottle: 62
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-901.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.01000	Weight of sample extracted (g)
M	4.29000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.071	2.072	-0.001	15044540	116.338	4.0	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.305	6.305	0.000	15451092	136.998	4.8	80.00- 120.00	100.00

Data File: /chem/ecd2a.i/121609.b/062b6201.d
Date : 16-DEC-2009 19:02
Client ID: RE03-09-13471
Sample Info: |2427940021|1|
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd2a.i

Operator: JAOC
Column diameter: 0.25

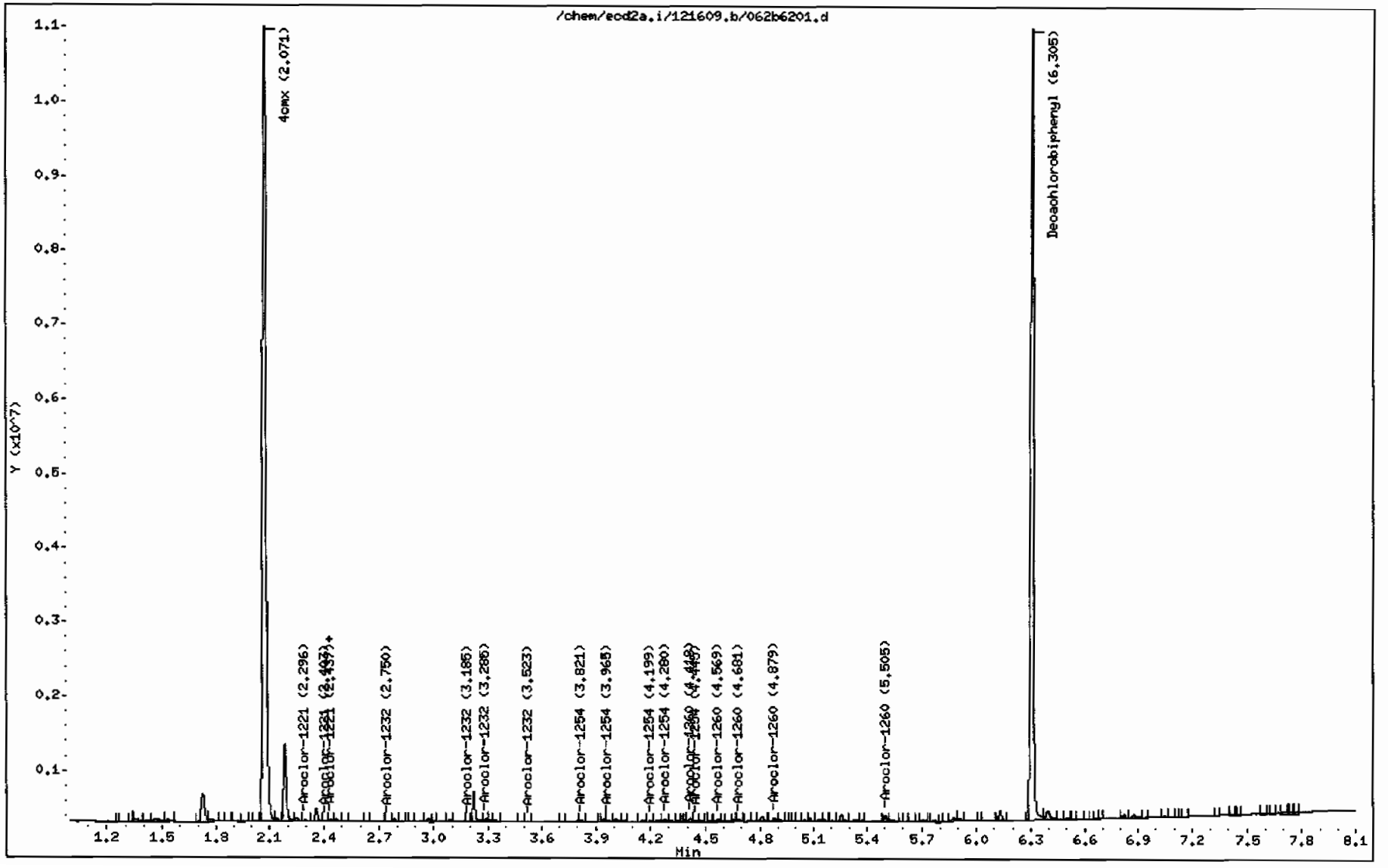

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10–901	**Date Collected:**	12/10/2009 12:00	**Matrix:**	S
Lab Sample ID:	242794003	**Date Received:**	12/12/2009 09:35	**%Moisture:**	7.7
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03–09–13472	**Method:**	SW846 8082	**SOP Ref:**	GL–OA–E–040
Batch ID:	933402	**Inst:**	ECD2A.I	**Dilution:**	1
Run Date:	12/16/2009 19:14	**Analyst:**	JAOC	**Inj. Vol:**	1 uL
Prep Date:	12/16/2009 09:01	**Aliquot:**	30.07 g	**Final Volume:**	1 mL
Data File:	063f6301.d	**Column:**	1 CLP1	**Level:**	LOW
	063b6301.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	3.60	ug/kg	1.20	3.60	1
11104–28–2	Aroclor–1221	U	3.60	ug/kg	1.20	3.60	1
11141–16–5	Aroclor–1232	U	3.60	ug/kg	1.20	3.60	1
53469–21–9	Aroclor–1242	U	3.60	ug/kg	1.20	3.60	1
12672–29–6	Aroclor–1248	U	3.60	ug/kg	1.20	3.60	1
11097–69–1	Aroclor–1254	U	3.60	ug/kg	1.20	3.60	1
11096–82–5	Aroclor–1260	U	3.60	ug/kg	1.20	3.60	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/121609.b/063f6301.d
Lab Smp Id: 242794003 Client Smp ID: RE03-09-13472
Inj Date : 16-DEC-2009 19:14
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |242794003|1|
Misc Info : |ECD82P_1S|933402|SVAF|LANL|SOIL|RE03-09-13472|||
Comment :
Method : /chem/ecd2a.i/121609.b/ECD2-F-8082-111209A.m
Meth Date : 17-Dec-2009 05:44 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012f1201.d
Als bottle: 63
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-901.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.07000	Weight of sample extracted (g)
M	7.70000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.773	1.775	-0.002	6653951	106.819	3.8	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.612	5.613	-0.001	7451203	137.701	5.0	80.00- 120.00	100.00

Data File: /chem/ecd2a.i/121609.b/063f6301.d

Date : 16-DEC-2009 19:14

Client ID: RE03-09-13472

Sample Info: |242794003|1|

Volume Injected (uL): 1.0

Column phase: CLP1

Instrument: ecd2a.i

Operator: JAOC

Column diameter: 0.25

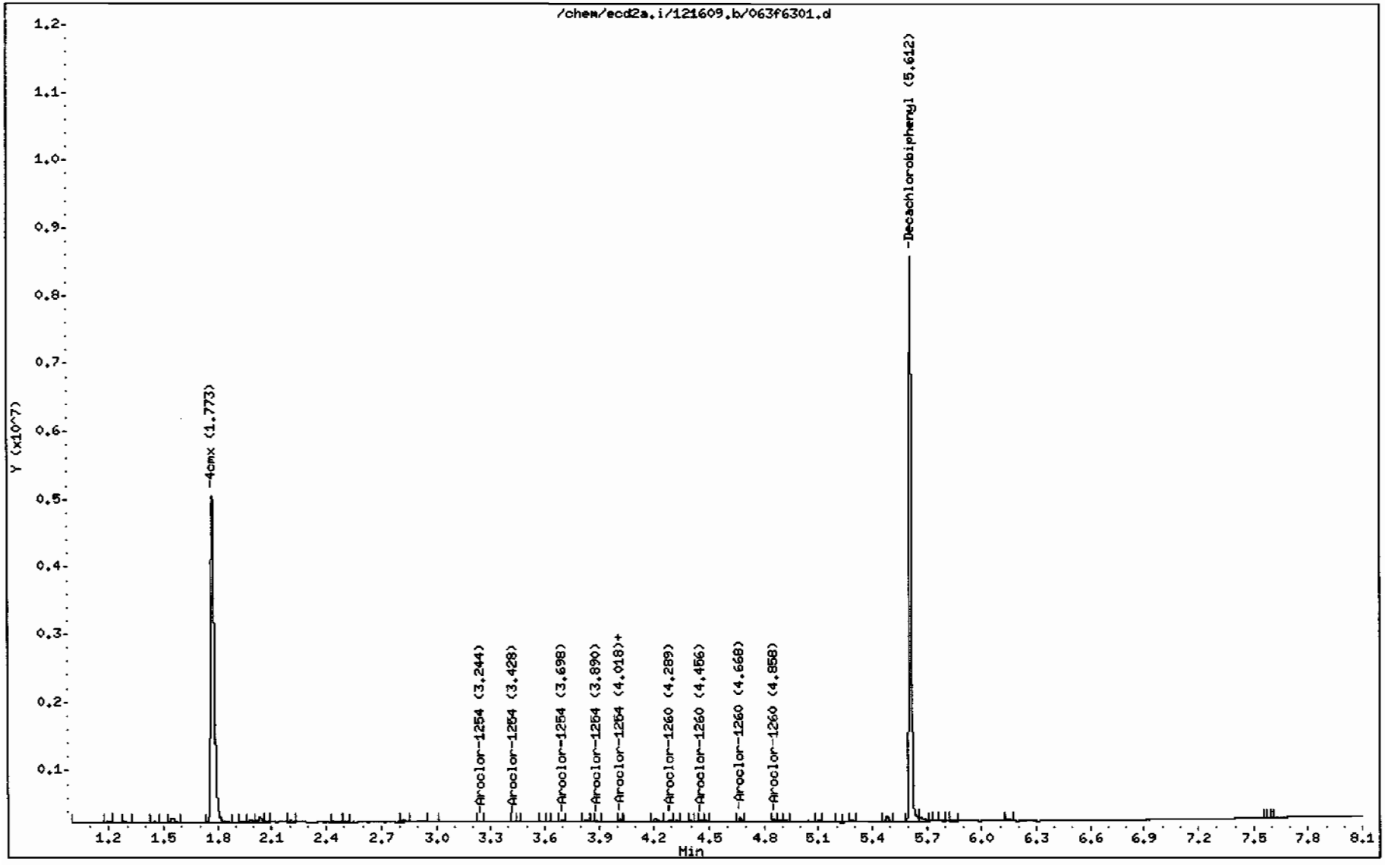

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/121609.b/063b6301.d
Lab Smp Id: 242794003 Client Smp ID: RE03-09-13472
Inj Date : 16-DEC-2009 19:14
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |242794003|1|
Misc Info : |ECD82P_1S|933402|SVAF|LANL|SOIL|RE03-09-13472|||
Comment :
Method : /chem/ecd2a.i/121609.b/ECD2-B-8082-111209A.m
Meth Date : 17-Dec-2009 05:26 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012b1201.d
Als bottle: 63
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-901.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.07000	Weight of sample extracted (g)
M	7.70000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.071	2.072	-0.001	14467431	111.875	4.0	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.305	6.305	0.000	15503215	137.461	5.0	80.00- 120.00	100.00

Data File: /chem/ecd2a.i/121609.b/063b6301.d
Date : 16-DEC-2009 19:14
Client ID: RE03-09-13472
Sample Info: |242794003|1|
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd2a.i
Operator: JADC
Column diameter: 0.25

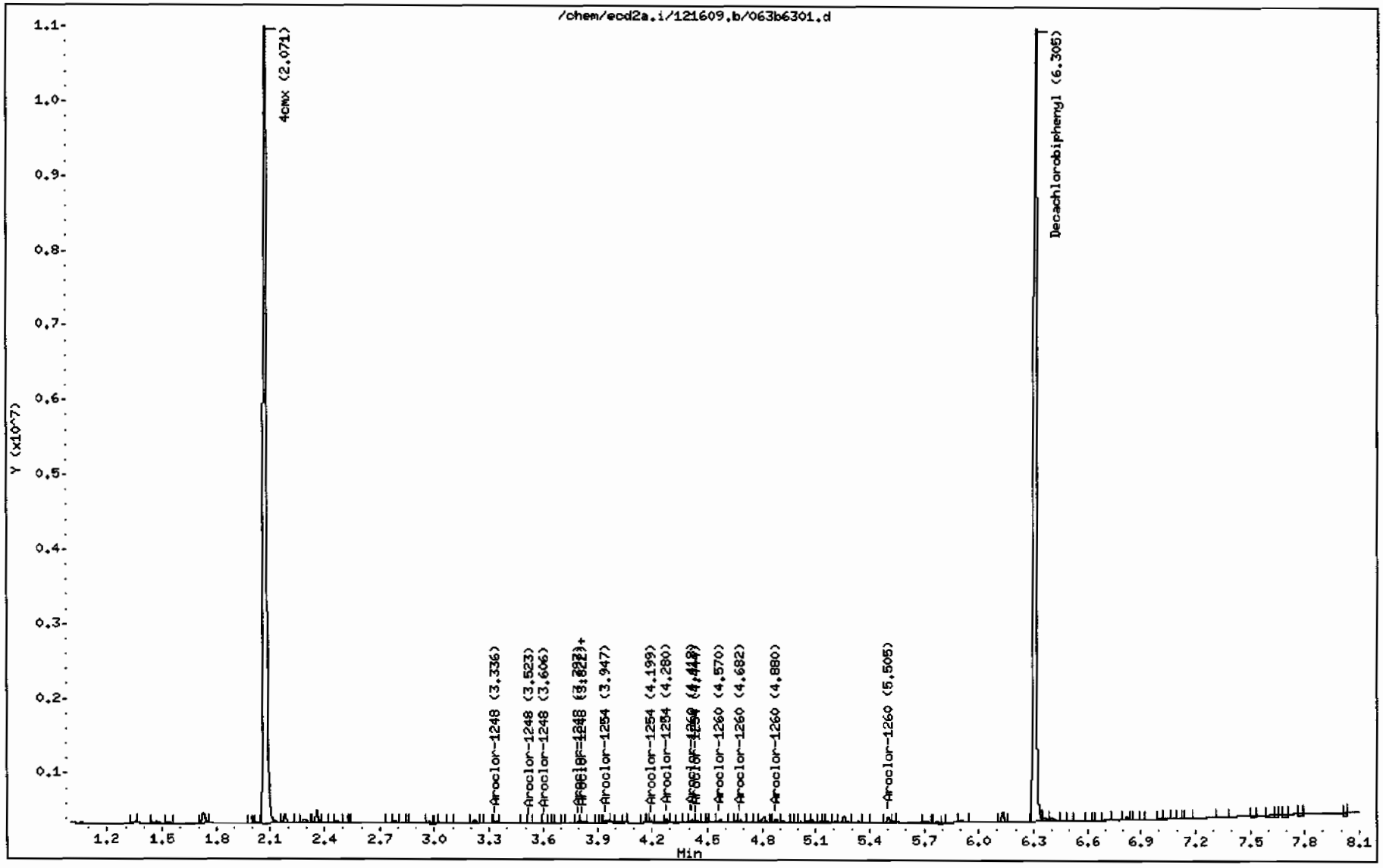

STANDARDS DATA

Report Date: 16-Dec-2009 11:45

Calibration History

Method : /chem/ecd2a.i/121609.b/ECD2-F-8082-111209A.m
Start Cal Date: 12-NOV-2009 11:00
End Cal Date : 14-DEC-2009 09:35

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 100.00000		
02-DEC-2009 07:05	AR1262	/chem/ecd2a.i/120209.b/008f0801.d
12-NOV-2009 16:22	AR1268	/chem/ecd2a.i/111209a.b/035f3501.d
30-NOV-2009 10:12	AR1248	/chem/ecd2a.i/113009a.b/011f1101.d
12-NOV-2009 14:09	AR1242	/chem/ecd2a.i/111209a.b/023f2301.d
30-NOV-2009 08:43	AR1254	/chem/ecd2a.i/113009a.b/003f0301.d
14-DEC-2009 08:51	AR1660	/chem/ecd2a.i/121409.b/011f1101.d
Cal Level: 2 , Cal Amount: 250.00000		
02-DEC-2009 07:16	AR1262	/chem/ecd2a.i/120209.b/009f0901.d
12-NOV-2009 16:33	AR1268	/chem/ecd2a.i/111209a.b/036f3601.d
30-NOV-2009 10:23	AR1248	/chem/ecd2a.i/113009a.b/012f1201.d
12-NOV-2009 14:20	AR1242	/chem/ecd2a.i/111209a.b/024f2401.d
30-NOV-2009 08:54	AR1254	/chem/ecd2a.i/113009a.b/004f0401.d
14-DEC-2009 09:02	AR1660	/chem/ecd2a.i/121409.b/012f1201.d
Cal Level: 3 , Cal Amount: 500.00000		
02-DEC-2009 07:27	AR1262	/chem/ecd2a.i/120209.b/010f1001.d
12-NOV-2009 16:44	AR1268	/chem/ecd2a.i/111209a.b/037f3701.d
30-NOV-2009 10:34	AR1248	/chem/ecd2a.i/113009a.b/013f1301.d
12-NOV-2009 14:31	AR1242	/chem/ecd2a.i/111209a.b/025f2501.d
30-NOV-2009 09:05	AR1254	/chem/ecd2a.i/113009a.b/005f0501.d
14-DEC-2009 09:13	AR1660	/chem/ecd2a.i/121409.b/013f1301.d
Cal Level: 4 , Cal Amount: 1000.00000		
30-NOV-2009 10:45	AR1248	/chem/ecd2a.i/113009a.b/014f1401.d
12-NOV-2009 14:42	AR1242	/chem/ecd2a.i/111209a.b/026f2601.d
30-NOV-2009 09:16	AR1254	/chem/ecd2a.i/113009a.b/006f0601.d
14-DEC-2009 09:24	AR1660	/chem/ecd2a.i/121409.b/014f1401.d
12-NOV-2009 11:45	DDTANALOGSTD	/chem/ecd2a.i/111209a.b/010f1001.d
12-NOV-2009 16:55	AR1268	/chem/ecd2a.i/111209a.b/038f3801.d
02-DEC-2009 07:38	AR1262	/chem/ecd2a.i/120209.b/011f1101.d
12-NOV-2009 11:11	AR1221	/chem/ecd2a.i/111209a.b/007f0701.d
12-NOV-2009 11:00	AR1232	/chem/ecd2a.i/111209a.b/006f0601.d
Cal Level: 5 , Cal Amount: 4000.00000		
02-DEC-2009 07:50	AR1262	/chem/ecd2a.i/120209.b/012f1201.d
12-NOV-2009 17:07	AR1268	/chem/ecd2a.i/111209a.b/039f3901.d
30-NOV-2009 10:56	AR1248	/chem/ecd2a.i/113009a.b/015f1501.d

12-NOV-2009 14:53	AR1242	/chem/ecd2a.i/111209a.b/027f2701.d
30-NOV-2009 09:27	AR1254	/chem/ecd2a.i/113009a.b/007f0701.d
14-DEC-2009 09:35	AR1660	/chem/ecd2a.i/121409.b/015f1501.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 1000		
16-DEC-2009 10:21	AR1660	/chem/ecd2a.i/121609.b/018f1801.d
Ccal Level: 4 , Ccal Amount: 1000		
16-DEC-2009 08:37	AR1268	/chem/ecd2a.i/121609.b/009f0901.d
Ccal Level: 4 , Ccal Amount: 1000		
16-DEC-2009 08:26	AR1262	/chem/ecd2a.i/121609.b/008f0801.d
Ccal Level: 4 , Ccal Amount: 1000		
16-DEC-2009 08:14	AR1221	/chem/ecd2a.i/121609.b/007f0701.d
Ccal Level: 4 , Ccal Amount: 1000		
16-DEC-2009 08:03	AR1232	/chem/ecd2a.i/121609.b/006f0601.d
Ccal Level: 4 , Ccal Amount: 1000		
16-DEC-2009 07:52	AR1248	/chem/ecd2a.i/121609.b/005f0501.d
Ccal Level: 4 , Ccal Amount: 1000		
16-DEC-2009 07:41	AR1242	/chem/ecd2a.i/121609.b/004f0401.d
Ccal Level: 4 , Ccal Amount: 1000		
16-DEC-2009 07:30	AR1254	/chem/ecd2a.i/121609.b/003f0301.d
Ccal Level: 4 , Ccal Amount: 1000		
16-DEC-2009 07:19	AR1660	/chem/ecd2a.i/121609.b/002f0201.d

Report Date: 16-Dec-2009 11:45

Calibration History

Method : /chem/ecd2a.i/121609.b/ECD2-B-8082-111209A.m
Start Cal Date: 12-NOV-2009 11:00
End Cal Date : 14-DEC-2009 09:35

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 100.00000		
02-DEC-2009 07:05	AR1262	/chem/ecd2a.i/120209.b/008b0801.d
12-NOV-2009 16:22	AR1268	/chem/ecd2a.i/111209a.b/035b3501.d
30-NOV-2009 10:12	AR1248	/chem/ecd2a.i/113009a.b/011b1101.d
12-NOV-2009 14:09	AR1242	/chem/ecd2a.i/111209a.b/023b2301.d
30-NOV-2009 08:43	AR1254	/chem/ecd2a.i/113009a.b/003b0301.d
14-DEC-2009 08:51	AR1660	/chem/ecd2a.i/121409.b/011b1101.d
Cal Level: 2 , Cal Amount: 250.00000		
02-DEC-2009 07:16	AR1262	/chem/ecd2a.i/120209.b/009b0901.d
12-NOV-2009 16:33	AR1268	/chem/ecd2a.i/111209a.b/036b3601.d
30-NOV-2009 10:23	AR1248	/chem/ecd2a.i/113009a.b/012b1201.d
12-NOV-2009 14:20	AR1242	/chem/ecd2a.i/111209a.b/024b2401.d
30-NOV-2009 08:54	AR1254	/chem/ecd2a.i/113009a.b/004b0401.d
14-DEC-2009 09:02	AR1660	/chem/ecd2a.i/121409.b/012b1201.d
Cal Level: 3 , Cal Amount: 500.00000		
02-DEC-2009 07:27	AR1262	/chem/ecd2a.i/120209.b/010b1001.d
12-NOV-2009 16:44	AR1268	/chem/ecd2a.i/111209a.b/037b3701.d
30-NOV-2009 10:34	AR1248	/chem/ecd2a.i/113009a.b/013b1301.d
12-NOV-2009 14:31	AR1242	/chem/ecd2a.i/111209a.b/025b2501.d
30-NOV-2009 09:05	AR1254	/chem/ecd2a.i/113009a.b/005b0501.d
14-DEC-2009 09:13	AR1660	/chem/ecd2a.i/121409.b/013b1301.d
Cal Level: 4 , Cal Amount: 1000.00000		
30-NOV-2009 10:45	AR1248	/chem/ecd2a.i/113009a.b/014b1401.d
12-NOV-2009 14:42	AR1242	/chem/ecd2a.i/111209a.b/026b2601.d
30-NOV-2009 09:16	AR1254	/chem/ecd2a.i/113009a.b/006b0601.d
14-DEC-2009 09:24	AR1660	/chem/ecd2a.i/121409.b/014b1401.d
12-NOV-2009 11:45	DDTANALOGSTD	/chem/ecd2a.i/111209a.b/010b1001.d
12-NOV-2009 16:55	AR1268	/chem/ecd2a.i/111209a.b/038b3801.d
02-DEC-2009 07:38	AR1262	/chem/ecd2a.i/120209.b/011b1101.d
12-NOV-2009 11:11	AR1221	/chem/ecd2a.i/111209a.b/007b0701.d
12-NOV-2009 11:00	AR1232	/chem/ecd2a.i/111209a.b/006b0601.d
Cal Level: 5 , Cal Amount: 4000.00000		
02-DEC-2009 07:50	AR1262	/chem/ecd2a.i/120209.b/012b1201.d
12-NOV-2009 17:07	AR1268	/chem/ecd2a.i/111209a.b/039b3901.d
30-NOV-2009 10:56	AR1248	/chem/ecd2a.i/113009a.b/015b1501.d
12-NOV-2009 14:53	AR1242	/chem/ecd2a.i/111209a.b/027b2701.d
30-NOV-2009 09:27	AR1254	/chem/ecd2a.i/113009a.b/007b0701.d
14-DEC-2009 09:35	AR1660	/chem/ecd2a.i/121409.b/015b1501.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 1000		
16-DEC-2009 10:21	AR1660	/chem/ecd2a.i/121609.b/018b1801.d
Ccal Level: 4 , Ccal Amount: 1000		
16-DEC-2009 08:37	AR1268	/chem/ecd2a.i/121609.b/009b0901.d
Ccal Level: 4 , Ccal Amount: 1000		
16-DEC-2009 08:26	AR1262	/chem/ecd2a.i/121609.b/008b0801.d
Ccal Level: 4 , Ccal Amount: 1000		
16-DEC-2009 08:14	AR1221	/chem/ecd2a.i/121609.b/007b0701.d
Ccal Level: 4 , Ccal Amount: 1000		
16-DEC-2009 08:03	AR1232	/chem/ecd2a.i/121609.b/006b0601.d
Ccal Level: 4 , Ccal Amount: 1000		
16-DEC-2009 07:52	AR1248	/chem/ecd2a.i/121609.b/005b0501.d
Ccal Level: 4 , Ccal Amount: 1000		
16-DEC-2009 07:41	AR1242	/chem/ecd2a.i/121609.b/004b0401.d
Ccal Level: 4 , Ccal Amount: 1000		
16-DEC-2009 07:30	AR1254	/chem/ecd2a.i/121609.b/003b0301.d
Ccal Level: 4 , Ccal Amount: 1000		
16-DEC-2009 07:19	AR1660	/chem/ecd2a.i/121609.b/002b0201.d

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COMPOUND LISTING

Method file : /chem/ecd2a.i/121609.b/ECD2-F-8082-111209A.m
Quant Method : ESTD Target Version : 3.50
Last Update : 16-Dec-2009 10:43 Number of Cpnds : 15
Data Type : GC MULTI COMP

Global Integrator : Falcon

Chromat Events	Values
Initial:Start Threshold	500.000000
Initial:End Threshold	250.000000
Initial:Area Threshold	10000.000000
Initial:P-P Resolution	1.000000
Initial:Bunch Factor	2.000000
Initial:Negative Peaks	OFF
Initial:Tension	1.100000
8.500:Bunch Factor	2.000000

Compound	RT	RT Window	RF
1 Aroclor-1016	2.278	2.248-2.308	2.238e+03
	2.601	2.571-2.631	4.685e+03
	2.692	2.662-2.722	1.901e+03
	2.827	2.797-2.857	9.760e+02
	2.979	2.949-3.009	1.458e+03
2 Aroclor-1221	1.441	1.411-1.471	4.641e+02
	1.902	1.872-1.932	6.570e+02
	2.002	1.972-2.032	3.467e+02
3 Aroclor-1232	2.030	2.000-2.060	1.165e+03
	2.277	2.247-2.307	9.314e+02
	2.692	2.662-2.722	8.004e+02
	2.735	2.705-2.765	5.102e+02
	2.979	2.949-3.009	5.840e+02
4 Aroclor-1242	2.277	2.247-2.307	1.733e+03
	2.692	2.662-2.722	1.484e+03
	2.734	2.704-2.764	9.058e+02
	2.827	2.797-2.857	7.269e+02
	2.978	2.948-3.008	1.120e+03
5 Aroclor-1248	2.828	2.798-2.858	1.527e+03
	2.978	2.948-3.008	2.027e+03
	3.038	3.008-3.068	1.571e+03
	3.273	3.243-3.303	2.218e+03
	3.426	3.396-3.456	1.913e+03

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COMPOUND LISTING

Method file : /chem/ecd2a.i/121609.b/ECD2-F-8082-111209A.m

Compound	RT	RT Window	RF
6 Aroclor-1254	3.245	3.215-3.275	2.080e+03
	3.427	3.397-3.457	2.772e+03
	3.697	3.667-3.727	3.742e+03
	3.889	3.859-3.919	2.783e+03
	4.018	3.988-4.048	2.760e+03
7 Aroclor-1260	4.019	3.990-4.050	4.165e+03
	4.290	4.260-4.320	2.591e+03
	4.456	4.426-4.486	2.631e+03
	4.669	4.639-4.699	6.088e+03
	4.859	4.829-4.889	2.942e+03
8 Aroclor-1262	3.826	3.796-3.856	2.273e+03
	4.018	3.988-4.048	3.072e+03
	4.289	4.259-4.319	4.004e+03
	4.455	4.425-4.485	3.573e+03
	4.857	4.827-4.887	2.501e+03
9 Aroclor-1268	4.887	4.857-4.917	9.392e+03
	4.914	4.884-4.944	9.361e+03
	5.046	5.016-5.076	7.073e+03
	5.285	5.255-5.315	3.056e+03
	5.482	5.452-5.512	2.201e+04
M 10 Aroclor-Total	1.000	0.980-1.020	
$ 11 4cmx	1.775	1.745-1.805	6.229e+04
$ 12 Decachlorobiphenyl	5.613	5.583-5.643	5.411e+04
13 4,4'-DDT	4.238	4.218-4.258	5.006e+04
14 4,4'-DDD	4.044	4.024-4.064	7.298e+04
15 4,4'-DDE	3.639	3.619-3.659	7.426e+04

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COMPOUND LISTING

Method file : /chem/ecd2a.i/121609.b/ECD2-B-8082-111209A.m
Quant Method : ESTD Target Version : 3.50
Last Update : 16-Dec-2009 10:42 Number of Cpnds : 15
Data Type : GC MULTI COMP

Global Integrator : Falcon

Chromat Events	Values
Initial:Start Threshold	1000.000000
Initial:End Threshold	500.000000
Initial:Area Threshold	500.000000
Initial:P-P Resolution	0.000000
Initial:Bunch Factor	3.000000
Initial:Negative Peaks	OFF
Initial:Tension	4.000000
4.200:Tension	1.000000

Compound	RT	RT Window	RF
1 Aroclor-1016	2.749	2.719-2.779	4.538e+03
	3.183	3.153-3.213	3.602e+03
	3.335	3.305-3.365	2.053e+03
	3.363	3.333-3.393	2.137e+03
	3.522	3.492-3.552	2.871e+03
2 Aroclor-1221	2.296	2.265-2.325	1.263e+03
	2.401	2.370-2.430	7.739e+02
	2.446	2.416-2.475	3.051e+03
3 Aroclor-1232	2.446	2.416-2.476	2.061e+03
	2.749	2.719-2.779	1.960e+03
	3.184	3.154-3.214	1.498e+03
	3.256	3.226-3.286	9.309e+02
	3.522	3.492-3.552	1.107e+03
4 Aroclor-1242	2.749	2.719-2.779	3.445e+03
	3.184	3.154-3.214	2.681e+03
	3.255	3.225-3.285	1.637e+03
	3.334	3.304-3.364	1.508e+03
	3.522	3.492-3.552	2.145e+03
5 Aroclor-1248	3.335	3.305-3.365	3.282e+03
	3.521	3.491-3.551	4.187e+03
	3.608	3.578-3.638	4.451e+03
	3.797	3.767-3.827	4.697e+03
	3.827	3.797-3.857	5.389e+03

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd2a.i/121609.b/ECD2-B-8082-111209A.m

	Compound	RT	RT Window	RF
	6 Aroclor-1254	3.822	3.792-3.852	4.985e+03
		3.964	3.934-3.994	5.799e+03
		4.200	4.170-4.230	4.023e+03
		4.281	4.251-4.311	7.731e+03
		4.444	4.414-4.474	5.608e+03
	7 Aroclor-1260	4.418	4.388-4.448	5.767e+03
		4.570	4.540-4.600	7.124e+03
		4.681	4.652-4.712	4.819e+03
		4.879	4.849-4.909	5.632e+03
		5.505	5.475-5.535	9.038e+03
	8 Aroclor-1262	4.418	4.388-4.448	4.703e+03
		4.570	4.540-4.600	5.853e+03
		4.878	4.848-4.908	8.946e+03
		5.079	5.049-5.109	7.772e+03
		5.257	5.227-5.287	1.672e+04
	9 Aroclor-1268	5.503	5.473-5.533	2.032e+04
		5.535	5.505-5.565	2.018e+04
		5.706	5.676-5.736	1.496e+04
		5.907	5.877-5.937	6.438e+03
		6.131	6.101-6.161	4.409e+04
M	10 Aroclor-Total	1.000	0.980-1.020	
$	11 4cmx	2.072	2.042-2.102	1.293e+05
$	12 Decachlorobiphenyl	6.305	6.275-6.335	1.128e+05
	13 4,4'-DDT	4.814	4.794-4.834	8.705e+04
	14 4,4'-DDD	4.600	4.580-4.620	1.499e+05
	15 4,4'-DDE	4.195	4.175-4.215	1.504e+05

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 12-NOV-2009 11:00
End Cal Date : 14-DEC-2009 09:35
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd2a.i/121609.b/ECD2-F-8082-111209A.m
Cal Date : 16-Dec-2009 16:43 yip00818
Curve Type : Average

Calibration File Names:
Level 1: /chem/ecd2a.i/120209.b/008f0801.d
Level 2: /chem/ecd2a.i/120209.b/009f0901.d
Level 3: /chem/ecd2a.i/120209.b/010f1001.d
Level 4: /chem/ecd2a.i/113009a.b/014f1401.d
Level 5: /chem/ecd2a.i/120209.b/012f1201.d

Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
1 Aroclor-1016(1)	2466	2335	2250	2152	1986	2238	8.133
(2)	4869	4683	4664	4616	4594	4685	2.323
(3)	2072	1962	1892	1818	1764	1901	6.365
(4)	1061	990	984	930	915	976	5.885
(5)	1595	1490	1441	1389	1375	1458	6.121
2 Aroclor-1221(1)	+++++	+++++	+++++	464	+++++	464	0.000
(2)	+++++	+++++	+++++	657	+++++	657	0.000
(3)	+++++	+++++	+++++	347	+++++	347	0.000
3 Aroclor-1232(1)	+++++	+++++	+++++	1165	+++++	1165	0.000
(2)	+++++	+++++	+++++	931	+++++	931	0.000
(3)	+++++	+++++	+++++	800	+++++	800	0.000
(4)	+++++	+++++	+++++	510	+++++	510	0.000
(5)	+++++	+++++	+++++	584	+++++	584	0.000
4 Aroclor-1242(1)	1990	1799	1692	1619	1566	1733	9.686
(2)	1678	1536	1439	1387	1381	1484	8.410
(3)	1015	931	874	843	866	906	7.639
(4)	817	761	714	669	673	727	8.615
(5)	1272	1143	1059	1036	1087	1120	8.434
5 Aroclor-1248(1)	1738	1529	1527	1515	1325	1527	9.560
(2)	2238	2070	1990	2006	1832	2027	7.247
(3)	1706	1611	1571	1551	1415	1571	6.718
(4)	2322	2198	2161	2230	2178	2218	2.874
(5)	2083	1922	1902	1885	1770	1913	5.861
6 Aroclor-1254(1)	2304	2118	2048	2007	1924	2080	6.888
(2)	2981	2797	2739	2702	2642	2772	4.677
(3)	3870	3712	3711	3744	3675	3742	2.011
(4)	2886	2776	2725	2760	2767	2783	2.186
(5)	2994	2820	2741	2711	2533	2760	6.080

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 12-NOV-2009 11:00
End Cal Date : 14-DEC-2009 09:35
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd2a.i/121609.b/ECD2-F-8082-111209A.m
Cal Date : 16-Dec-2009 16:43 yip00818
Curve Type : Average

Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
7 Aroclor-1260(1)	4187	4145	4185	4134	4175	4165	0.584
(2)	2696	2603	2589	2529	2536	2591	2.593
(3)	2699	2626	2625	2591	2614	2631	1.539
(4)	5867	6003	6142	6129	6296	6088	2.650
(5)	2925	2904	2929	2920	3034	2942	1.769
8 Aroclor-1262(1)	2530	2266	2239	2239	2092	2273	6.993
(2)	3295	3066	3031	3051	2917	3072	4.482
(3)	4237	3997	3977	3997	3815	4004	3.763
(4)	3754	3532	3556	3594	3430	3573	3.295
(5)	2578	2453	2481	2538	2454	2501	2.217
9 Aroclor-1268(1)	9077	9136	9272	9373	10103	9392	4.409
(2)	9332	9272	9238	9197	9765	9361	2.470
(3)	6985	6923	6953	6984	7523	7073	3.568
(4)	3112	3015	2984	2964	3207	3056	3.331
(5)	21397	21592	21760	21851	23464	22013	3.767
M 10 Aroclor-Total	+++++	+++++	+++++	+++++	+++++	+++++	+++++
13 4,4'-DDT	+++++	+++++	+++++	50063	+++++	50063	0.000
14 4,4'-DDD	+++++	+++++	+++++	72978	+++++	72978	0.000
15 4,4'-DDE	+++++	+++++	+++++	74262	+++++	74262	0.000
$ 11 4cmx	61300	61246	62868	63075	62969	62292	1.498
$ 12 Decachlorobiphenyl	55102	53352	54400	53360	54345	54112	1.389

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 12-NOV-2009 11:00
End Cal Date : 14-DEC-2009 09:35
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd2a.i/121609.b/ECD2-B-8082-111209A.m
Cal Date : 16-Dec-2009 16:43 yip00818
Curve Type : Average

Calibration File Names:
Level 1: /chem/ecd2a.i/120209.b/008b0801.d
Level 2: /chem/ecd2a.i/120209.b/009b0901.d
Level 3: /chem/ecd2a.i/120209.b/010b1001.d
Level 4: /chem/ecd2a.i/113009a.b/014b1401.d
Level 5: /chem/ecd2a.i/120209.b/012b1201.d

Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
1 Aroclor-1016(1)	4662	4582	4609	4551	4285	4538	3.244
(2)	3647	3696	3564	3575	3528	3602	1.886
(3)	2078	2044	2044	2059	2041	2053	0.760
(4)	2149	2125	2133	2140	2138	2137	0.428
(5)	2852	2832	2882	2908	2879	2871	1.025
2 Aroclor-1221(1)	+++++	+++++	+++++	1263	+++++	1263	0.000
(2)	+++++	+++++	+++++	774	+++++	774	0.000
(3)	+++++	+++++	+++++	3051	+++++	3051	0.000
3 Aroclor-1232(1)	+++++	+++++	+++++	2061	+++++	2061	0.000
(2)	+++++	+++++	+++++	1960	+++++	1960	0.000
(3)	+++++	+++++	+++++	1498	+++++	1498	0.000
(4)	+++++	+++++	+++++	931	+++++	931	0.000
(5)	+++++	+++++	+++++	1107	+++++	1107	0.000
4 Aroclor-1242(1)	3674	3489	3409	3384	3271	3445	4.346
(2)	2815	2677	2634	2637	2644	2681	2.863
(3)	1696	1624	1594	1606	1663	1637	2.599
(4)	1601	1513	1471	1467	1487	1508	3.655
(5)	2235	2100	2068	2141	2180	2145	3.068
5 Aroclor-1248(1)	3439	3315	3263	3296	3099	3282	3.723
(2)	4291	4205	4192	4250	3996	4187	2.717
(3)	4601	4495	4377	4484	4299	4451	2.609
(4)	4665	4612	4696	4831	4682	4697	1.733
(5)	5471	5399	5390	5477	5208	5389	2.022
6 Aroclor-1254(1)	5121	4955	4998	5025	4828	4985	2.145
(2)	5885	5693	5812	5852	5753	5799	1.330
(3)	4010	3906	3992	4126	4082	4023	2.109
(4)	7559	7611	7766	7925	7797	7731	1.909
(5)	5659	5569	5439	5821	5553	5608	2.538

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 12-NOV-2009 11:00
End Cal Date : 14-DEC-2009 09:35
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd2a.i/121609.b/ECD2-B-8082-111209A.m
Cal Date : 16-Dec-2009 16:43 yip00818
Curve Type : Average

	Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
	7 Aroclor-1260(1)	5735	5627	5779	5816	5877	5767	1.626
	(2)	6687	7031	7243	7286	7372	7124	3.855
	(3)	4572	4701	4890	4942	4988	4819	3.647
	(4)	5377	5518	5714	5746	5803	5632	3.163
	(5)	8369	8607	9231	9252	9728	9038	6.039
	8 Aroclor-1262(1)	4855	4536	4634	4812	4677	4703	2.776
	(2)	5760	5648	5834	6083	5942	5853	2.859
	(3)	8687	8674	9001	9349	9021	8946	3.121
	(4)	7559	7507	7790	8124	7880	7772	3.221
	(5)	15890	16154	16824	17584	17141	16719	4.167
	9 Aroclor-1268(1)	18829	19584	20101	20533	22559	20321	6.904
	(2)	18822	19343	20333	20389	22025	20182	6.077
	(3)	13874	14365	14864	15141	16565	14962	6.808
	(4)	5734	6115	6404	6840	7097	6438	8.497
	(5)	40707	42777	43856	44408	48724	44094	6.689
M	10 Aroclor-Total	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	13 4,4'-DDT	+++++	+++++	+++++	87046	+++++	87046	0.000
	14 4,4'-DDD	+++++	+++++	+++++	149858	+++++	149858	0.000
	15 4,4'-DDE	+++++	+++++	+++++	150414	+++++	150414	0.000
$	11 4cmx	118604	126358	131414	133891	136323	129318	5.440
$	12 Decachlorobiphenyl	109662	108705	113295	113170	119083	112783	3.614

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-901

Instrument ID: ECD2A Calibration Date: 12/16/09 Time: 0719

Lab File ID: 002F0201 Init. Calib. Date(s): 12/14/09 12/14/09

Heated Purge: (Y/N) N Init. Calib. Times: 0851 0935

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	2237.690	2005.393	0.01	-10.4	15.0
(2)	4685.268	4346.121	0.01	-7.2	15.0
(3)	1901.482	1726.292	0.01	-9.2	15.0
(4)	975.978	892.582	0.01	-8.5	15.0
(5)	1457.866	1331.971	0.01	-8.6	15.0
Aroclor-1260	4165.097	4222.797	0.01	1.4	15.0
(2)	2590.571	2597.107	0.01	0.2	15.0
(3)	2631.205	2679.634	0.01	1.8	15.0
(4)	6087.596	6454.106	0.01	6.0	15.0
(5)	2942.150	3115.470	0.01	5.9	15.0
4cmx	62291.660	64097.680	0.01	2.9	15.0
Decachlorobiphenyl	54111.563	59946.260	0.01	10.8	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-901

Instrument ID: ECD2A Calibration Date: 12/16/09 Time: 0719

Lab File ID: 002B0201 Init. Calib. Date(s): 12/14/09 12/14/09

Heated Purge: (Y/N) N Init. Calib. Times: 0851 0935

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	4537.819	4199.281	0.01	-7.5	15.0
(2)	3602.166	3336.705	0.01	-7.4	15.0
(3)	2053.230	1923.864	0.01	-6.3	15.0
(4)	2137.091	1995.726	0.01	-6.6	15.0
(5)	2870.516	2746.890	0.01	-4.3	15.0
Aroclor-1260	5766.921	5824.681	0.01	1.0	15.0
(2)	7123.891	7410.550	0.01	4.0	15.0
(3)	4818.707	4989.621	0.01	3.5	15.0
(4)	5631.757	5833.903	0.01	3.6	15.0
(5)	9037.511	9636.078	0.01	6.6	15.0
4cmx	129318.03	136013.54	0.01	5.2	15.0
Decachlorobiphenyl	112782.99	114056.78	0.01	1.1	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-901

Instrument ID: ECD2A Calibration Date: 12/16/09 Time: 1723

Lab File ID: 053F5301 Init. Calib. Date(s): 12/14/09 12/14/09

Heated Purge: (Y/N) N Init. Calib. Times: 0851 0935

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	2237.690	1989.180	0.01	-11.1	15.0
(2)	4685.268	4331.749	0.01	-7.5	15.0
(3)	1901.482	1705.773	0.01	-10.3	15.0
(4)	975.978	883.371	0.01	-9.5	15.0
(5)	1457.866	1313.592	0.01	-9.9	15.0
Aroclor-1260	4165.097	4137.574	0.01	-0.7	15.0
(2)	2590.571	2565.887	0.01	-1.0	15.0
(3)	2631.205	2633.826	0.01	0.1	15.0
(4)	6087.596	6345.858	0.01	4.2	15.0
(5)	2942.150	3051.155	0.01	3.7	15.0
4cmx	62291.660	61891.490	0.01	-0.6	15.0
Decachlorobiphenyl	54111.563	58192.510	0.01	7.5	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-901

Instrument ID: ECD2A Calibration Date: 12/16/09 Time: 1723

Lab File ID: 053B5301 Init. Calib. Date(s): 12/14/09 12/14/09

Heated Purge: (Y/N) N Init. Calib. Times: 0851 0935

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	4537.819	4258.873	0.01	-6.1	15.0
(2)	3602.166	3377.763	0.01	-6.2	15.0
(3)	2053.230	1947.976	0.01	-5.1	15.0
(4)	2137.091	2019.139	0.01	-5.5	15.0
(5)	2870.516	2760.112	0.01	-3.8	15.0
Aroclor-1260	5766.921	5764.634	0.01	-0.0	15.0
(2)	7123.891	7347.627	0.01	3.1	15.0
(3)	4818.707	4971.693	0.01	3.2	15.0
(4)	5631.757	5769.902	0.01	2.4	15.0
(5)	9037.511	9614.149	0.01	6.4	15.0
4cmx	129318.03	133172.90	0.01	3.0	15.0
Decachlorobiphenyl	112782.99	119709.22	0.01	6.1	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-901

Instrument ID: ECD2A Calibration Date: 12/16/09 Time: 1936

Lab File ID: 065F6501 Init. Calib. Date(s): 12/14/09 12/14/09

Heated Purge: (Y/N) N Init. Calib. Times: 0851 0935

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	2237.690	1964.819	0.01	-12.2	15.0
(2)	4685.268	4244.114	0.01	-9.4	15.0
(3)	1901.482	1676.697	0.01	-11.8	15.0
(4)	975.978	859.662	0.01	-11.9	15.0
(5)	1457.866	1278.112	0.01	-12.3	15.0
Aroclor-1260	4165.097	4071.086	0.01	-2.2	15.0
(2)	2590.571	2510.176	0.01	-3.1	15.0
(3)	2631.205	2577.913	0.01	-2.0	15.0
(4)	6087.596	6212.004	0.01	2.0	15.0
(5)	2942.150	3000.039	0.01	2.0	15.0
4cmx	62291.660	60724.200	0.01	-2.5	15.0
Decachlorobiphenyl	54111.563	57003.630	0.01	5.3	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-901

Instrument ID: ECD2A Calibration Date: 12/16/09 Time: 1936

Lab File ID: 065B6501 Init. Calib. Date(s): 12/14/09 12/14/09

Heated Purge: (Y/N) N Init. Calib. Times: 0851 0935

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	4537.819	4175.179	0.01	-8.0	15.0
(2)	3602.166	3292.051	0.01	-8.6	15.0
(3)	2053.230	1906.929	0.01	-7.1	15.0
(4)	2137.091	1981.819	0.01	-7.3	15.0
(5)	2870.516	2687.599	0.01	-6.4	15.0
Aroclor-1260	5766.921	5592.581	0.01	-3.0	15.0
(2)	7123.891	7116.038	0.01	-0.1	15.0
(3)	4818.707	4826.251	0.01	0.2	15.0
(4)	5631.757	5648.611	0.01	0.3	15.0
(5)	9037.511	9420.424	0.01	4.2	15.0
4cmx	129318.03	130456.43	0.01	0.9	15.0
Decachlorobiphenyl	112782.99	117084.57	0.01	3.8	15.0

FORM VII PEST

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/121609.b/002f0201.d
Lab Smp Id: WAR091211-60 01 Client Smp ID: AR166001
Inj Date : 16-DEC-2009 07:19
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |WAR091211-60 01
Misc Info : |PCB_CVS|1660||CVS|
Comment :
Method : /chem/ecd2a.i/121609.b/ECD2-F-8082-111209A.m
Meth Date : 16-Dec-2009 10:43 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012f1201.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.775	1.775	0.000	6409768	100.000	103	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.613	5.613	0.000	5994626	100.000	111	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.278	2.278	0.000	2005392	1000.00	896	80.00- 120.00	100.00
2.601	2.601	0.000	4346121	1000.00	928	195.47- 235.47	216.72
2.692	2.692	0.000	1726292	1000.00	908	65.45- 105.45	86.08
2.827	2.827	0.000	892581	1000.00	914	23.36- 63.36	44.51
2.979	2.979	0.000	1331970	1000.00	914	46.81- 86.81	66.42
Average of Peak Amounts =					912		
7 Aroclor-1260					CAS #: 11096-82-5		
4.019	4.019	0.000	4222796	1000.00	1010	80.00- 120.00	100.00
4.290	4.290	0.000	2597106	1000.00	1000	42.57- 82.57	61.50
4.456	4.456	0.000	2679633	1000.00	1020	44.37- 84.37	63.46
4.669	4.669	0.000	6454106	1000.00	1060	133.32- 173.32	152.84
4.859	4.859	0.000	3115470	1000.00	1060	54.28- 94.28	73.78
Average of Peak Amounts =					1.03e+03		

Data File: /chem/ecd2a.i/121609.b/002f0201.d
Date : 16-DEC-2009 07:19
Client ID: AR166001
Sample Info: IWAR091211-60 01

Column phase: CLP1

Instrument: ecd2a.i

Operator: JAOC
Column diameter: 0.25

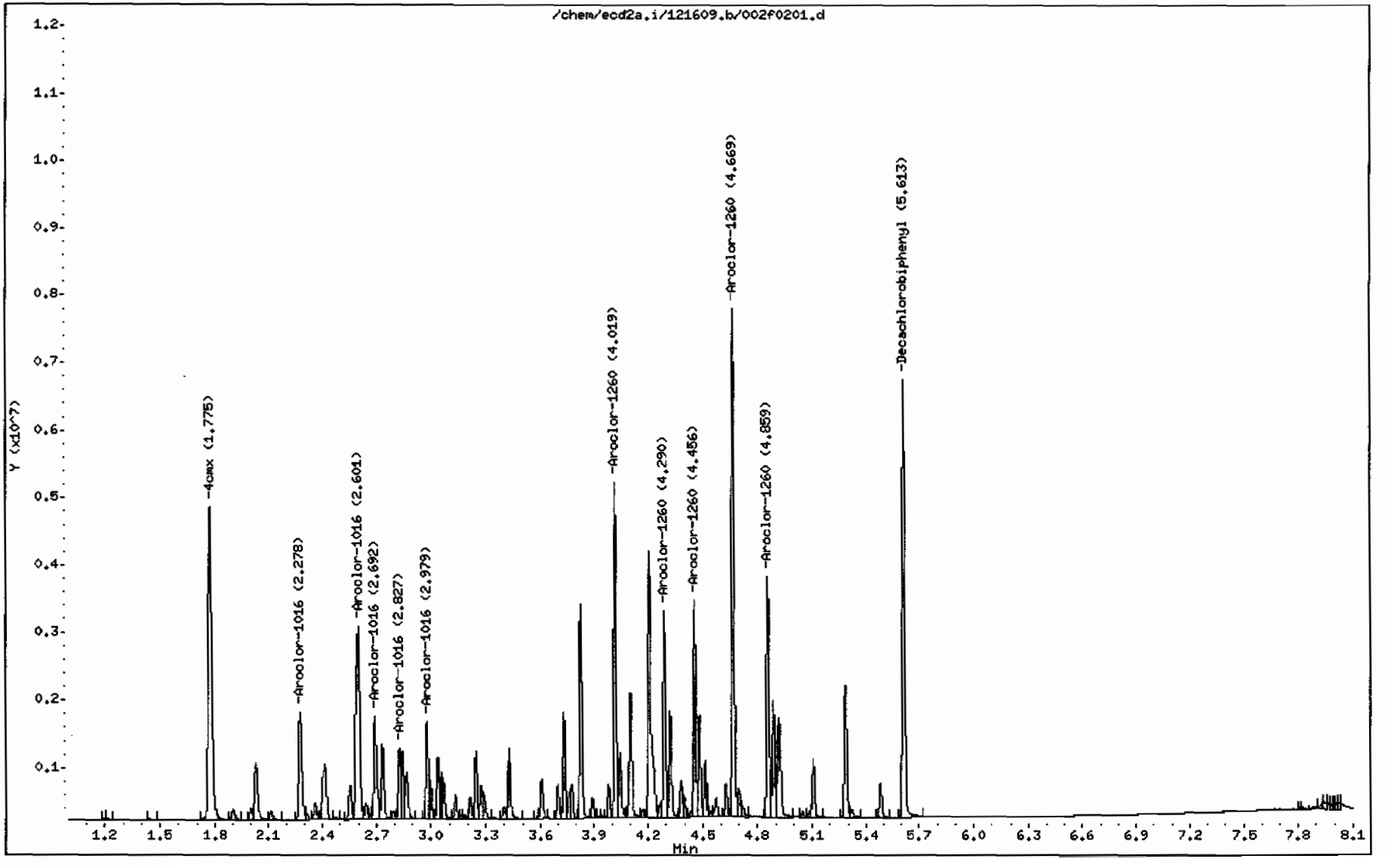

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/121609.b/002b0201.d
Lab Smp Id: WAR091211-60 01 Client Smp ID: AR166001
Inj Date : 16-DEC-2009 07:19
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |WAR091211-60 01
Misc Info : |PCB_CVS|1660||CVS|
Comment :
Method : /chem/ecd2a.i/121609.b/ECD2-B-8082-111209A.m
Meth Date : 16-Dec-2009 10:42 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012b1201.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.072	2.072	0.000	13601354	100.000	105	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.305	6.305	0.000	11405678	100.000	101	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.749	2.749	0.000	4199281	1000.00	925	80.00- 120.00	100.00
3.183	3.183	0.000	3336704	1000.00	926	59.67- 99.67	79.46
3.335	3.335	0.000	1923864	1000.00	937	26.04- 66.04	45.81
3.363	3.363	0.000	1995725	1000.00	934	27.67- 67.67	47.53
3.522	3.522	0.000	2746889	1000.00	957	45.18- 85.18	65.41
Average of Peak Amounts =					936		
7 Aroclor-1260					CAS #: 11096-82-5		
4.418	4.418	0.000	5824680	1000.00	1010	80.00- 120.00	100.00
4.570	4.570	0.000	7410549	1000.00	1040	107.19- 147.19	127.23
4.681	4.681	0.000	4989620	1000.00	1040	65.73- 105.73	85.66
4.879	4.879	0.000	5833903	1000.00	1040	80.84- 120.84	100.16
5.505	5.505	0.000	9636077	1000.00	1070	148.40- 188.40	165.44
Average of Peak Amounts =					1.04e+03		

Data File: /chem/ecd2a.i/121609.b/002b0201.d
Date : 16-DEC-2009 07:19
Client ID: AR166001
Sample Info: IWAR091211-60 01

Column phase: CLP2

Instrument: ecd2a.i

Operator: JAOC
Column diameter: 0.25

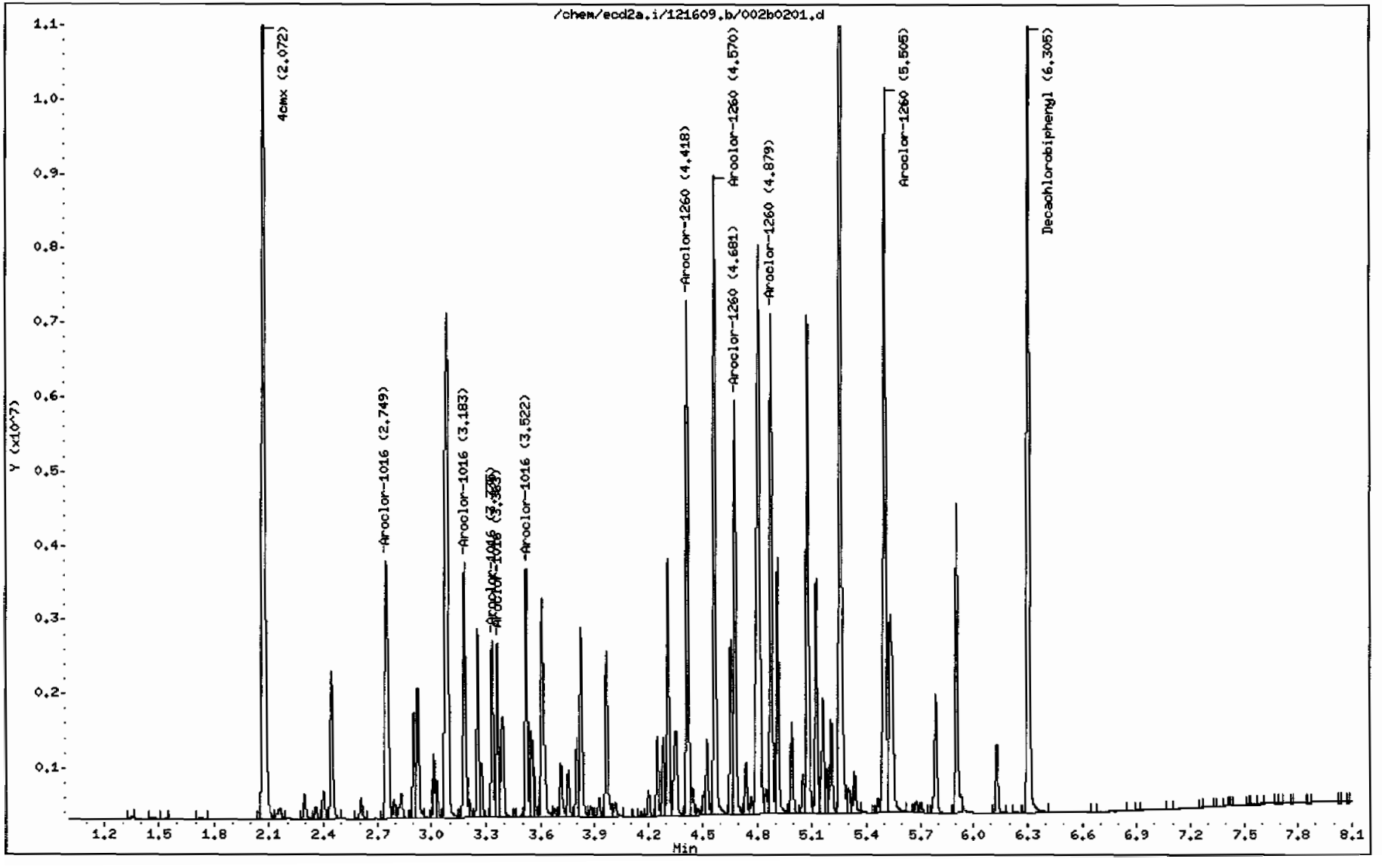

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/121609.b/003f0301.d
Lab Smp Id: WAR091102-54 Client Smp ID: AR125401
Inj Date : 16-DEC-2009 07:30
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |WAR091102-54
Misc Info : |PCB_CVS|1254||CVS|
Comment :
Method : /chem/ecd2a.i/121609.b/ECD2-F-8082-111209A.m
Meth Date : 16-Dec-2009 10:43 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012f1201.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1254.sub
Target Version: 3.50 Sample Matrix: None

AMOUNTS

RT	EXP RT	DLT RT	RESPONSE	CAL-AMT (ug/L)	ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.776	1.775	0.001	7148039	100.000	115	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.612	5.613	-0.001	6813720	100.000	126	80.00- 120.00	100.00
6 Aroclor-1254					CAS #: 11097-69-1		
3.245	3.245	0.000	2118549	1000.00	1020	80.00- 120.00	100.00
3.427	3.427	0.000	2871041	1000.00	1040	115.52- 155.52	135.52
3.697	3.697	0.000	3962898	1000.00	1060	167.06- 207.06	187.06
3.889	3.889	0.000	2983577	1000.00	1070	120.83- 160.83	140.83
4.018	4.018	0.000	2789022	1000.00	1010	111.65- 151.65	131.65

Average of Peak Amounts = 1.04e+03

Data File: /chem/ecd2a.i/121609.b/003f0301.d
Date : 16-DEC-2009 07:30
Client ID: AR125401
Sample Info: IWAR091102-54

Column phase: CLP1

Instrument: ecd2a.i

Operator: JADC
Column diameter: 0.25

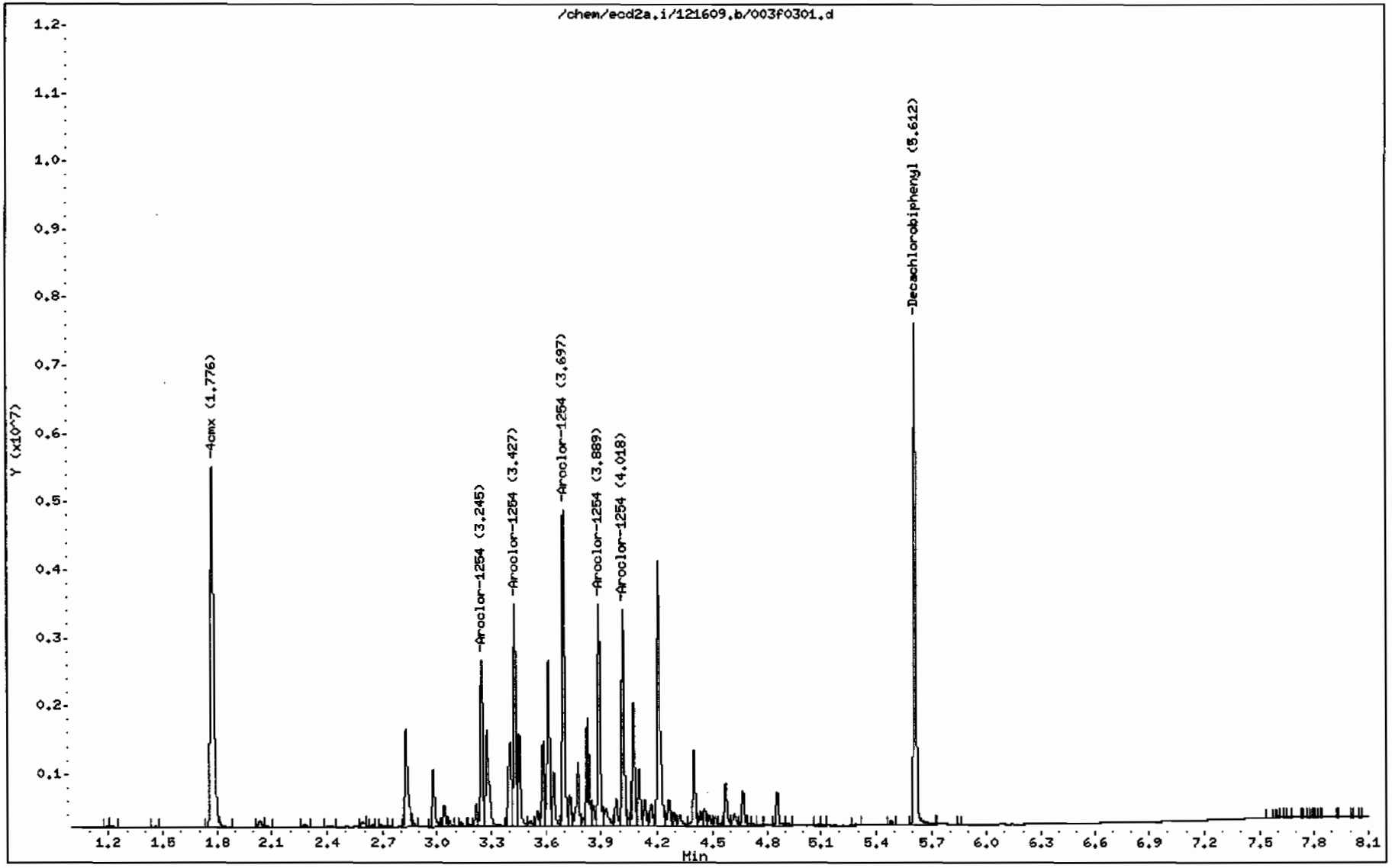

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/121609.b/003b0301.d
Lab Smp Id: WAR091102-54 Client Smp ID: AR125401
Inj Date : 16-DEC-2009 07:30
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |WAR091102-54
Misc Info : |PCB_CVS|1254||CVS|
Comment :
Method : /chem/ecd2a.i/121609.b/ECD2-B-8082-111209A.m
Meth Date : 16-Dec-2009 10:42 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012b1201.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1254.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.073	2.072	0.001	15316137	100.000	118	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.305	6.305	0.000	12846625	100.000	114	80.00- 120.00	100.00
6 Aroclor-1254					CAS #: 11097-69-1		
3.822	3.822	0.000	5258340	1000.00	1050	80.00- 120.00	100.00
3.964	3.964	0.000	6159328	1000.00	1060	97.13- 137.13	117.13
4.200	4.200	0.000	4365476	1000.00	1080	63.02- 103.02	83.02
4.281	4.281	0.000	8439255	1000.00	1090	140.49- 180.49	160.49
4.444	4.444	0.000	5931756	1000.00	1060	92.81- 132.81	112.81

Average of Peak Amounts = 1.07e+03

Data File: /chem/ecd2a.i/121609.b/003b0301.d
Date : 16-DEC-2009 07:30
Client ID: AR125401
Sample Info: IWAR091102-54

Column phase: CLP2

Page 1

Instrument: ecd2a.i

Operator: JAOC
Column diameter: 0.25

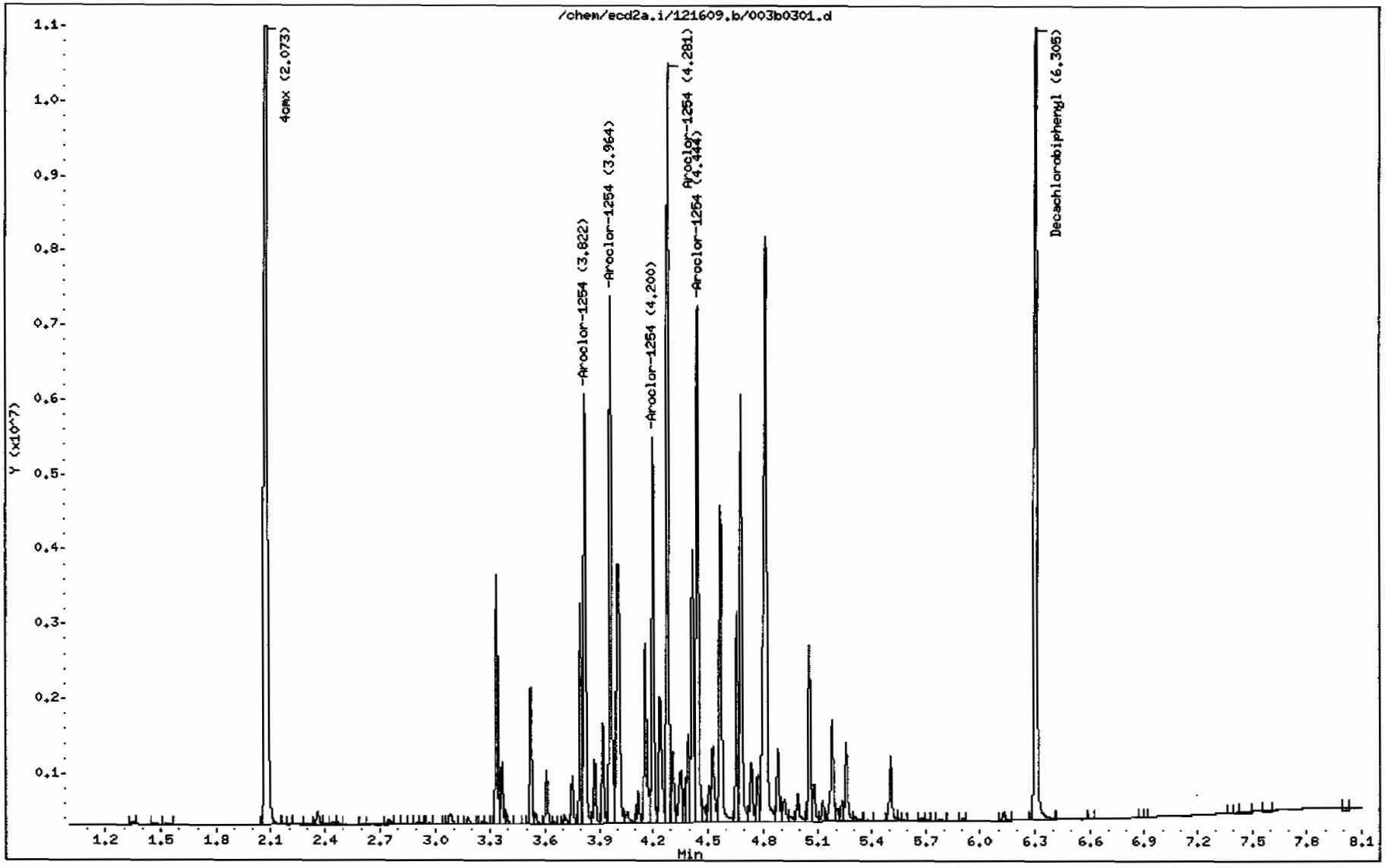

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/121609.b/004f0401.d
Lab Smp Id: WAR091102-42 Client Smp ID: AR124201
Inj Date : 16-DEC-2009 07:41
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |WAR091102-42
Misc Info : |PCB_CVS|1242||CVS|
Comment :
Method : /chem/ecd2a.i/121609.b/ECD2-F-8082-111209A.m
Meth Date : 16-Dec-2009 10:43 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012f1201.d
Als bottle: 4 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1242.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.775	1.775	0.000	6573922	100.000	106	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.612	5.613	-0.001	6165528	100.000	114	80.00- 120.00	100.00
4 Aroclor-1242					CAS #: 53469-21-9		
2.277	2.277	0.000	1728954	1000.00	997	80.00- 120.00	100.00
2.692	2.692	0.000	1459093	1000.00	983	64.39- 104.39	84.39
2.734	2.734	0.000	889003	1000.00	981	31.42- 71.42	51.42
2.827	2.827	0.000	710212	1000.00	977	21.08- 61.08	41.08
2.978	2.978	0.000	1124596	1000.00	1000	45.04- 85.04	65.04
			Average of Peak Amounts =		989		

Data File: /chem/ecd2a.i/121609.b/004f0401.d
Date : 16-DEC-2009 07:41
Client ID: AR124201
Sample Info: IWAR091102-42

Column phase: CLP1

Instrument: ecd2a.i

Operator: JAOC
Column diameter: 0.25

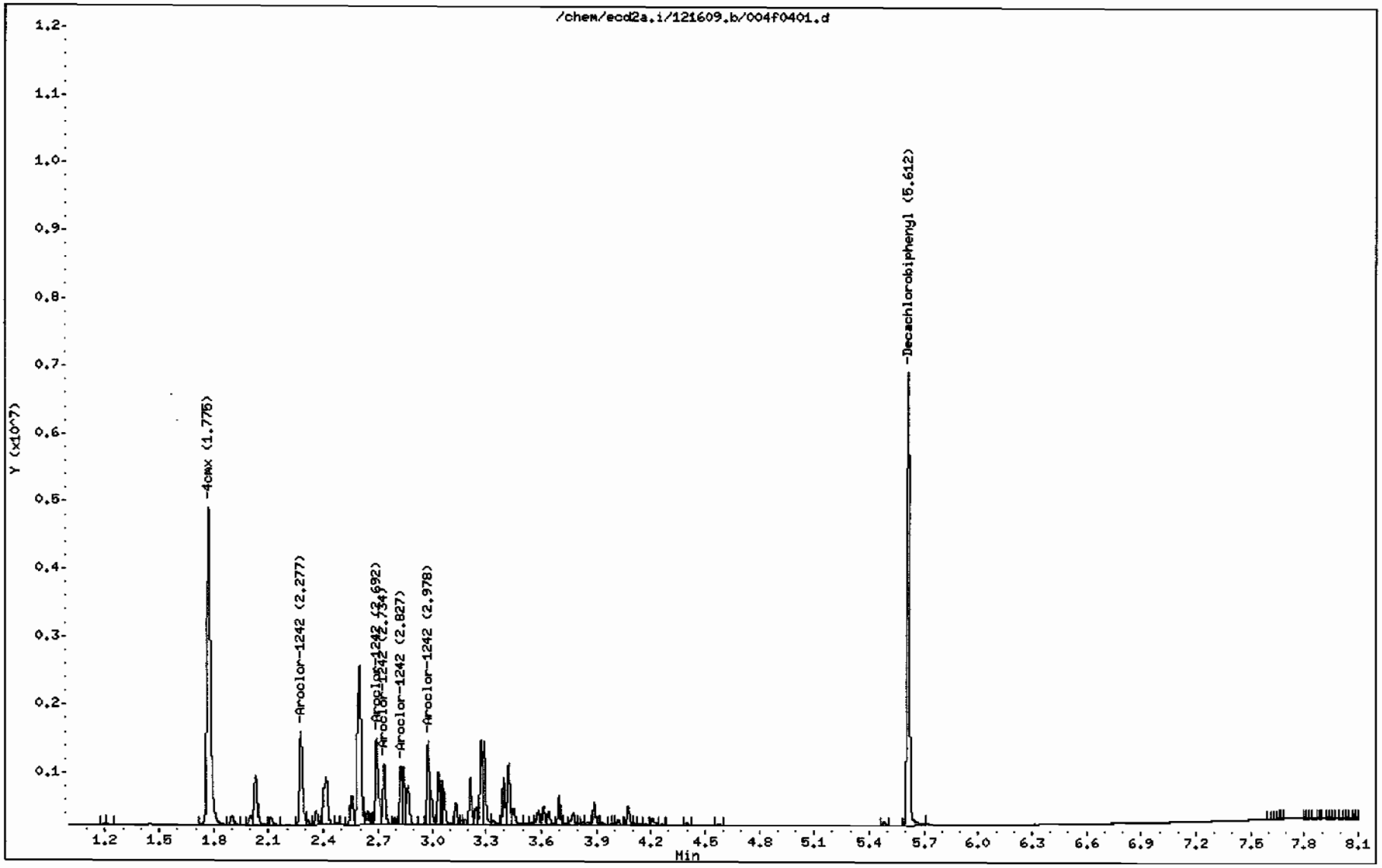

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/121609.b/004b0401.d
Lab Smp Id: WAR091102-42 Client Smp ID: AR124201
Inj Date : 16-DEC-2009 07:41
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |WAR091102-42
Misc Info : |PCB_CVS|1242||CVS|
Comment :
Method : /chem/ecd2a.i/121609.b/ECD2-B-8082-111209A.m
Meth Date : 16-Dec-2009 10:42 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012b1201.d
Als bottle: 4 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1242.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.072	2.072	0.000	13950766	100.000	108	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.306	6.305	0.001	11860385	100.000	105	80.00- 120.00	100.00
4 Aroclor-1242					CAS #: 53469-21-9		
2.749	2.749	0.000	3614832	1000.00	1050	80.00- 120.00	100.00
3.184	3.184	0.000	2825482	1000.00	1050	58.16- 98.16	78.16
3.255	3.255	0.000	1706566	1000.00	1040	27.21- 67.21	47.21
3.334	3.334	0.000	1591693	1000.00	1060	24.03- 64.03	44.03
3.522	3.522	0.000	2343536	1000.00	1090	44.83- 84.83	64.83

Average of Peak Amounts = 1.06e+03

Data File: /chem/ecd2a.i/121609.b/004b0401.d
Date : 16-DEC-2009 07:41
Client ID: AR124201
Sample Info: IWAR091102-42

Column phase: CLP2

Instrument: ecd2a.i

Operator: JAOC
Column diameter: 0.25

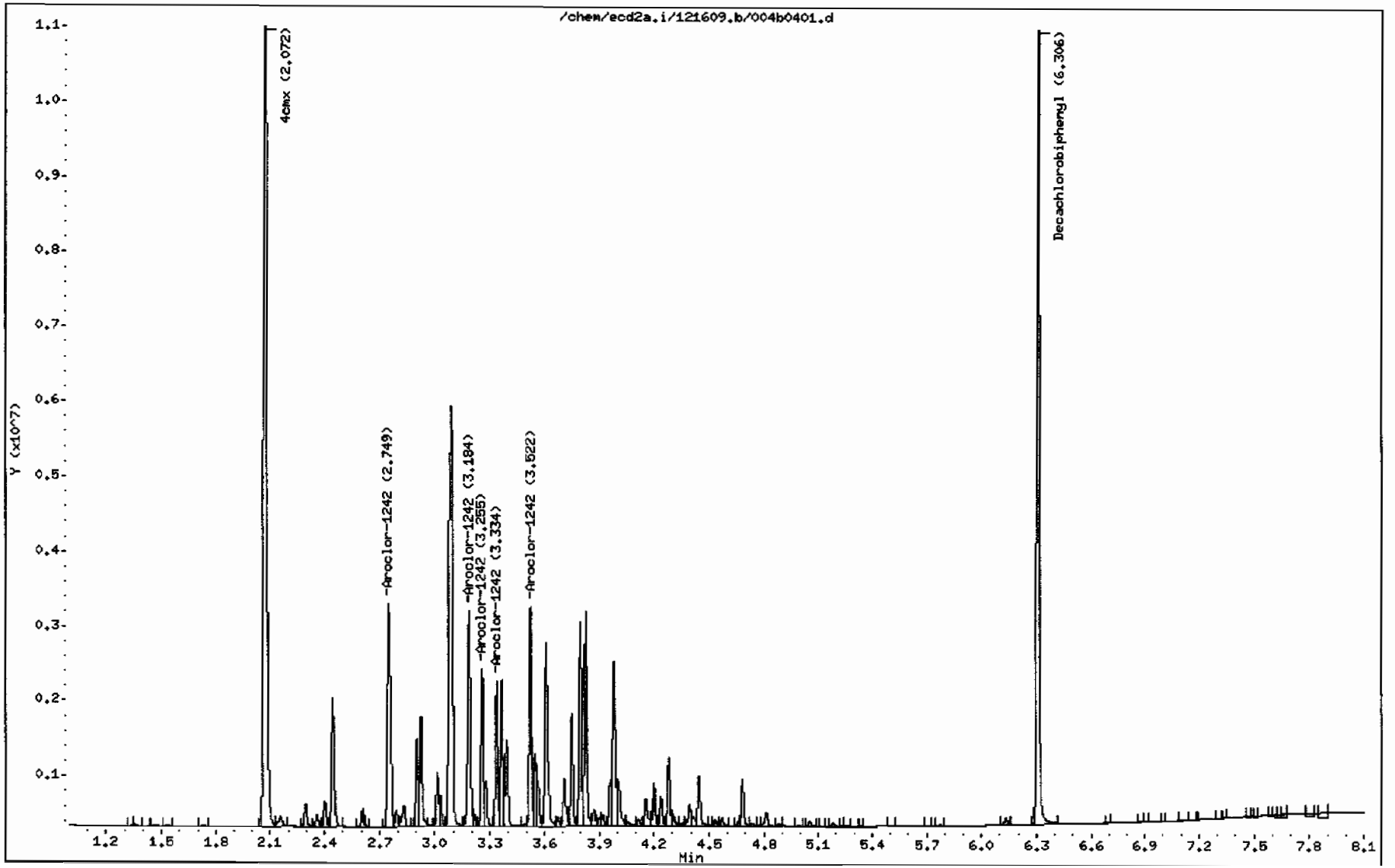

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RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/121609.b/005f0501.d
Lab Smp Id: WAR091027-48 Client Smp ID: AR124801
Inj Date : 16-DEC-2009 07:52
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |WAR091027-48
Misc Info : |PCB_CVS|1248||CVS|
Comment :
Method : /chem/ecd2a.i/121609.b/ECD2-F-8082-111209A.m
Meth Date : 16-Dec-2009 10:43 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012f1201.d
Als bottle: 5 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1248.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.774	1.775	-0.001	7220389	100.000	116	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.612	5.613	-0.001	6879298	100.000	127	80.00- 120.00	100.00
5 Aroclor-1248					CAS #: 12672-29-6		
2.828	2.828	0.000	1524430	1000.00	998	80.00- 120.00	100.00
2.978	2.978	0.000	2011190	1000.00	992	111.93- 151.93	131.93
3.038	3.038	0.000	1538949	1000.00	980	80.95- 120.95	100.95
3.273	3.273	0.000	2202352	1000.00	993	124.47- 164.47	144.47
3.426	3.426	0.000	1846631	1000.00	965	101.14- 141.14	121.14
		Average of Peak Amounts =			986		

Data File: /chem/ecd2a.i/121609.b/005f0501.d
Date : 16-DEC-2009 07:52
Client ID: AR124801
Sample Info: IWAR091027-48

Column phase: CLP1

Instrument: ecd2a.i

Operator: JAOC
Column diameter: 0.25

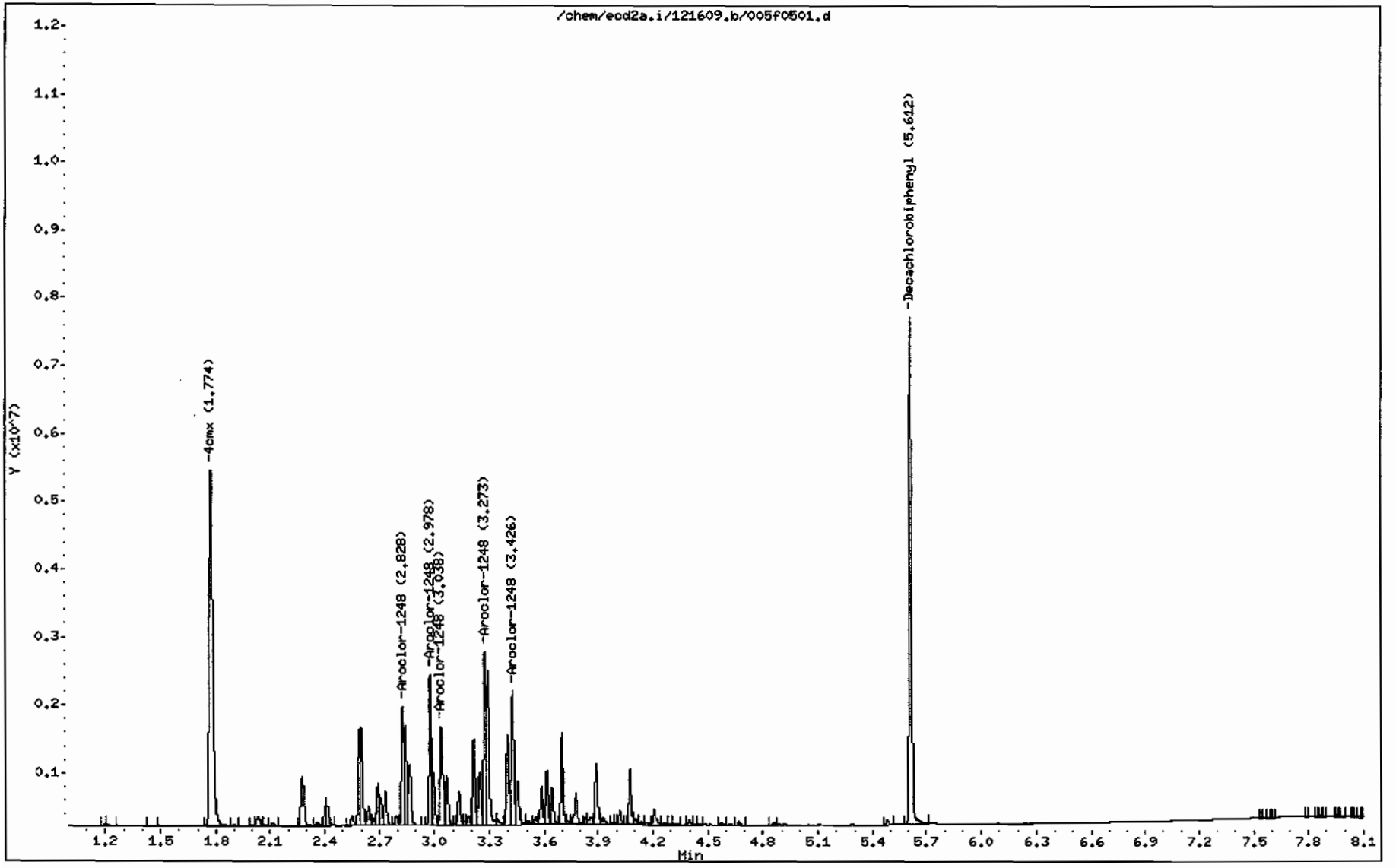

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/121609.b/005b0501.d
Lab Smp Id: WAR091027-48 Client Smp ID: AR124801
Inj Date : 16-DEC-2009 07:52
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |WAR091027-48
Misc Info : |PCB_CVS|1248||CVS|
Comment :
Method : /chem/ecd2a.i/121609.b/ECD2-B-8082-111209A.m
Meth Date : 16-Dec-2009 10:42 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012b1201.d
Als bottle: 5 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1248.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.072	2.072	0.000	15574793	100.000	120	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.305	6.305	0.000	13436161	100.000	119	80.00- 120.00	100.00
5 Aroclor-1248					CAS #: 12672-29-6		
3.335	3.335	0.000	3288158	1000.00	1000	80.00- 120.00	100.00
3.521	3.521	0.000	4214992	1000.00	1010	108.19- 148.19	128.19
3.608	3.608	0.000	4459767	1000.00	1000	115.63- 155.63	135.63
3.797	3.797	0.000	4722058	1000.00	1000	123.61- 163.61	143.61
3.827	3.827	0.000	5384992	1000.00	999	143.77- 183.77	163.77

Average of Peak Amounts = 1e+03

Data File: /chem/ecd2a.i/121609.b/005b0501.d

Date : 16-DEC-2009 07:52

Client ID: AR124801

Sample Info: IWAR091027-48

Column phase: CLP2

Instrument: ecd2a.i

Operator: JAOC

Column diameter: 0.25

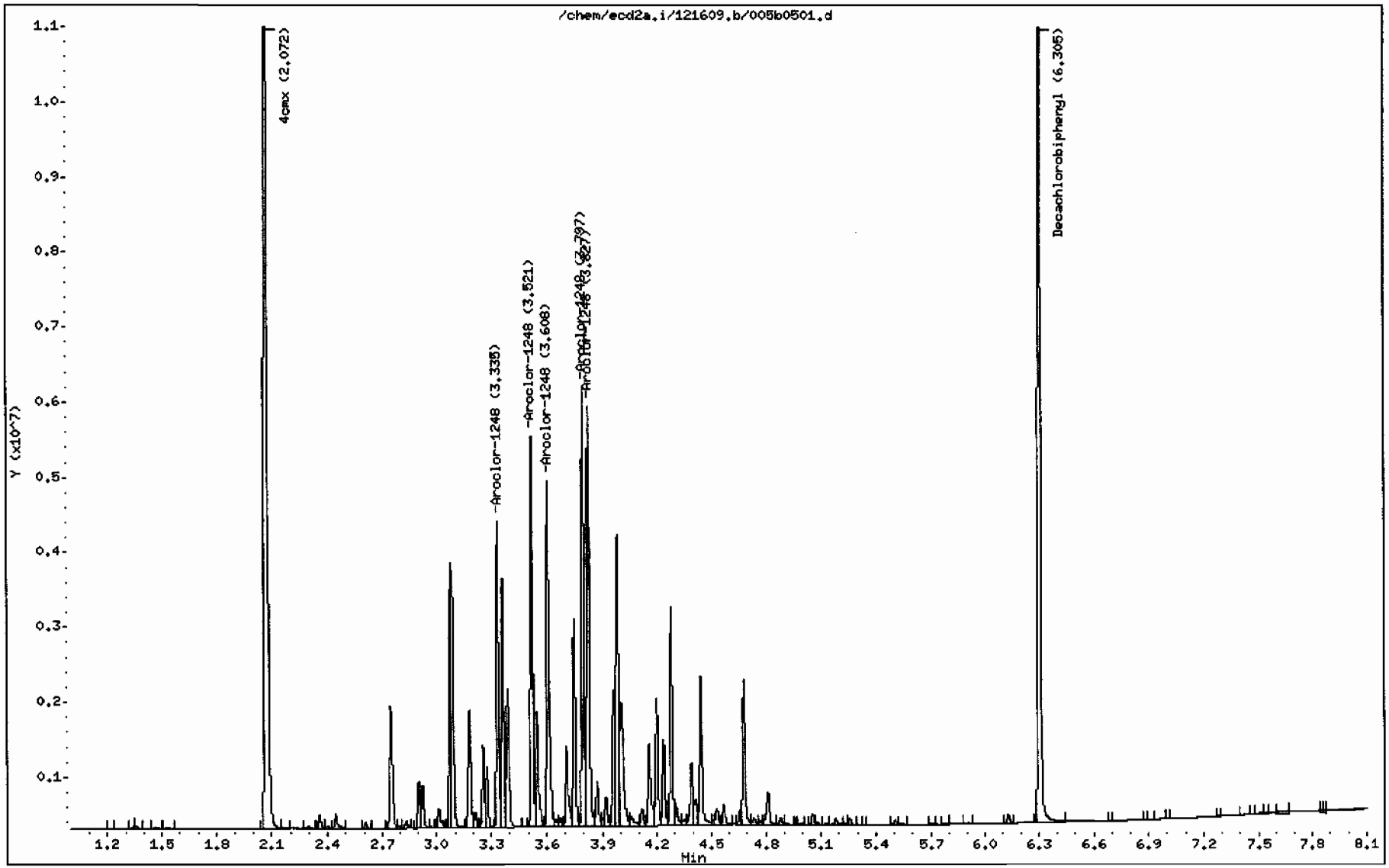

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RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/121609.b/006f0601.d
Lab Smp Id: WAR090930-32 Client Smp ID: AR123201
Inj Date : 16-DEC-2009 08:03
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |WAR090930-32
Misc Info : |PCB_CVS|1232||CVS|
Comment :
Method : /chem/ecd2a.i/121609.b/ECD2-F-8082-111209A.m
Meth Date : 16-Dec-2009 10:43 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012f1201.d
Als bottle: 6 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1232.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.775	1.775	0.000	9484182	100.000	152	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.612	5.613	-0.001	9267680	100.000	171	80.00- 120.00	100.00
3 Aroclor-1232					CAS #: 11141-16-5		
2.030	2.030	0.000	1453361	1000.00	1250	80.00- 120.00	100.00
2.277	2.277	0.000	1182597	1000.00	1270	61.37- 101.37	81.37
2.692	2.692	0.000	1018257	1000.00	1270	50.06- 90.06	70.06
2.735	2.735	0.000	639651	1000.00	1250	24.01- 64.01	44.01
2.979	2.979	0.000	734963	1000.00	1260	30.57- 70.57	50.57

Average of Peak Amounts = 1.26e+03

Data File: /chem/ecd2a.i/121609.b/006f0601.d
Date : 16-DEC-2009 08:03
Client ID: AR123201
Sample Info: IWAR090930-32

Column phase: CLP1

Instrument: ecd2a.i

Operator: JAOC
Column diameter: 0.25

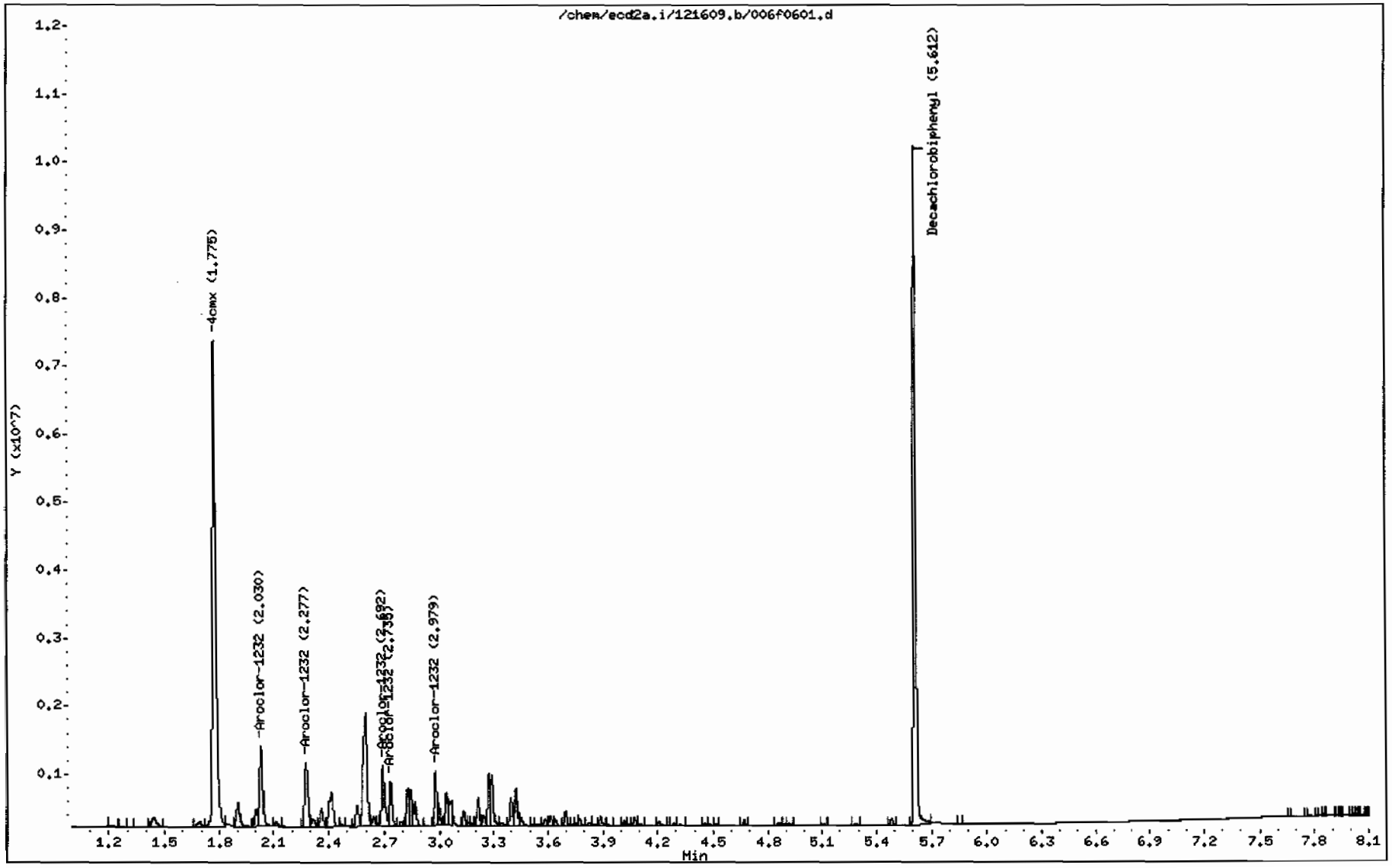

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/121609.b/006b0601.d
Lab Smp Id: WAR090930-32 Client Smp ID: AR123201
Inj Date : 16-DEC-2009 08:03
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |WAR090930-32
Misc Info : |PCB_CVS|1232||CVS|
Comment :
Method : /chem/ecd2a.i/121609.b/ECD2-B-8082-111209A.m
Meth Date : 16-Dec-2009 10:42 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012b1201.d
Als bottle: 6 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1232.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.073	2.072	0.001	20447538	100.000	158	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.305	6.305	0.000	18357437	100.000	163	80.00- 120.00	100.00
3 Aroclor-1232					CAS #: 11141-16-5		
2.446	2.446	0.000	2668787	1000.00	1300	80.00- 120.00	100.00
2.749	2.749	0.000	2549346	1000.00	1300	75.52- 115.52	95.52
3.184	3.184	0.000	2035464	1000.00	1360	56.27- 96.27	76.27
3.256	3.256	0.000	1202277	1000.00	1290	25.05- 65.05	45.05
3.522	3.522	0.000	1483487	1000.00	1340	35.59- 75.59	55.59

Average of Peak Amounts = 1.32e+03

Data File: /chem/ecd2a.i/121609.b/006b0601.d
Date : 16-DEC-2009 08:03
Client ID: AR123201
Sample Info: IWAR090930-32

Column phase: CLP2

Instrument: ecd2a.i

Operator: JAOC
Column diameter: 0.25

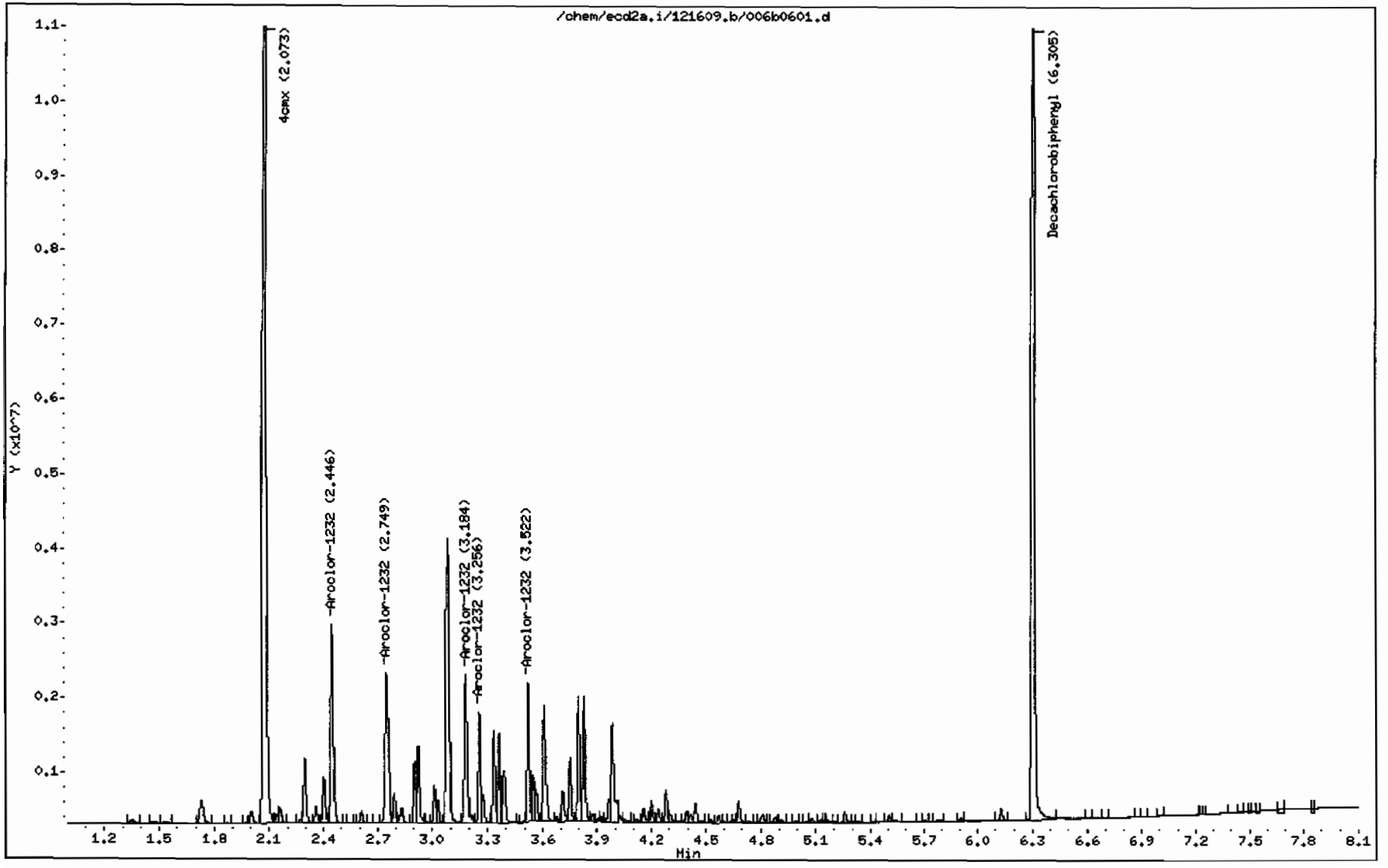

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/121609.b/007f0701.d
Lab Smp Id: WAR091111-21 Client Smp ID: AR122101
Inj Date : 16-DEC-2009 08:14
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |WAR091111-21
Misc Info : |PCB_CVS|1262||CVS|
Comment :
Method : /chem/ecd2a.i/121609.b/ECD2-F-8082-111209A.m
Meth Date : 16-Dec-2009 10:43 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012f1201.d
Als bottle: 7 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1221.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.775	1.775	0.000	6921098	100.000	111	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.612	5.613	-0.001	6582745	100.000	122	80.00- 120.00	100.00
2 Aroclor-1221					CAS #: 11104-28-2		
1.441	1.441	0.000	545743	1000.00	1180	80.00- 120.00	100.00
1.902	1.902	0.000	749079	1000.00	1140	117.26- 157.26	137.26
2.002	2.002	0.000	409980	1000.00	1180	55.12- 95.12	75.12

Average of Peak Amounts = 1.17e+03

Data File: /chem/ecd2a.i/121609.b/007f0701.d

Date : 16-DEC-2009 08:14

Client ID: AR122101

Sample Info: IWAR091111-21

Column phase: CLP1

Instrument: ecd2a.i

Operator: JADC

Column diameter: 0.25

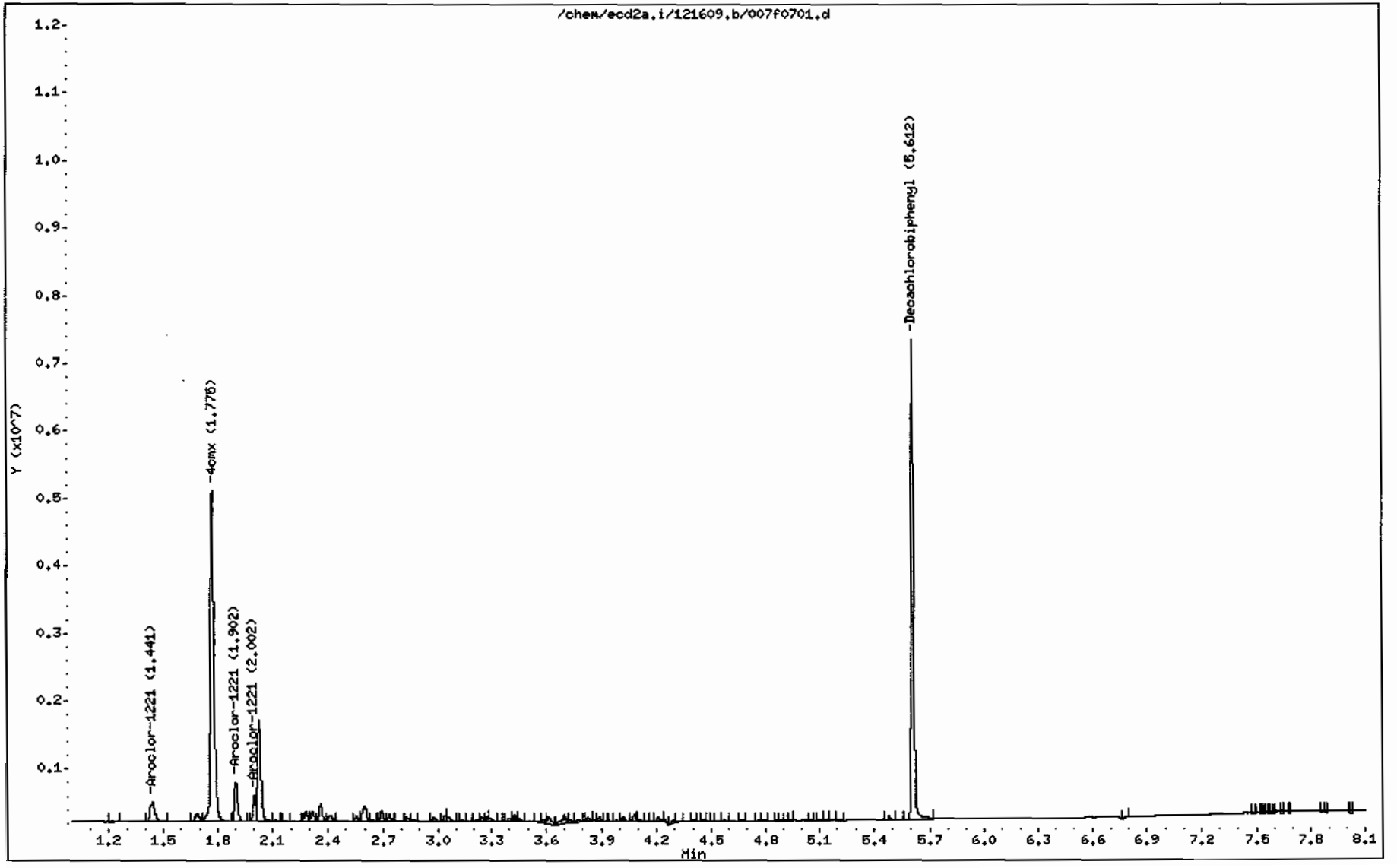

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/121609.b/007b0701.d
Lab Smp Id: WAR091111-21 Client Smp ID: AR122101
Inj Date : 16-DEC-2009 08:14
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |WAR091111-21
Misc Info : |PCB_CVS|1262||CVS|
Comment :
Method : /chem/ecd2a.i/121609.b/ECD2-B-8082-111209A.m
Meth Date : 16-Dec-2009 10:42 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012b1201.d
Als bottle: 7 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1221.sub
Target Version: 3.50 Sample Matrix: None

AMOUNTS

RT	EXP RT	DLT RT	RESPONSE	CAL-AMT (ug/L)	ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.072	2.072	0.000	14491254	100.000	112	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.306	6.305	0.001	12753338	100.000	113	80.00- 120.00	100.00
2 Aroclor-1221					CAS #: 11104-28-2		
2.296	2.296	0.000	1450221	1000.00	1150	80.00- 120.00	100.00
2.401	2.401	0.000	890492	1000.00	1150	41.40- 81.40	61.40
2.446	2.446	0.000	3519724	1000.00	1150	222.70- 262.70	242.70

Average of Peak Amounts = 1.15e+03

Data File: /chem/ecd2a.i/121609.b/007b0701.d
Date : 16-DEC-2009 08:14
Client ID: AR122101
Sample Info: IWAR091111-21

Column phase: CLP2

Instrument: ecd2a.i

Operator: JAOC
Column diameter: 0.25

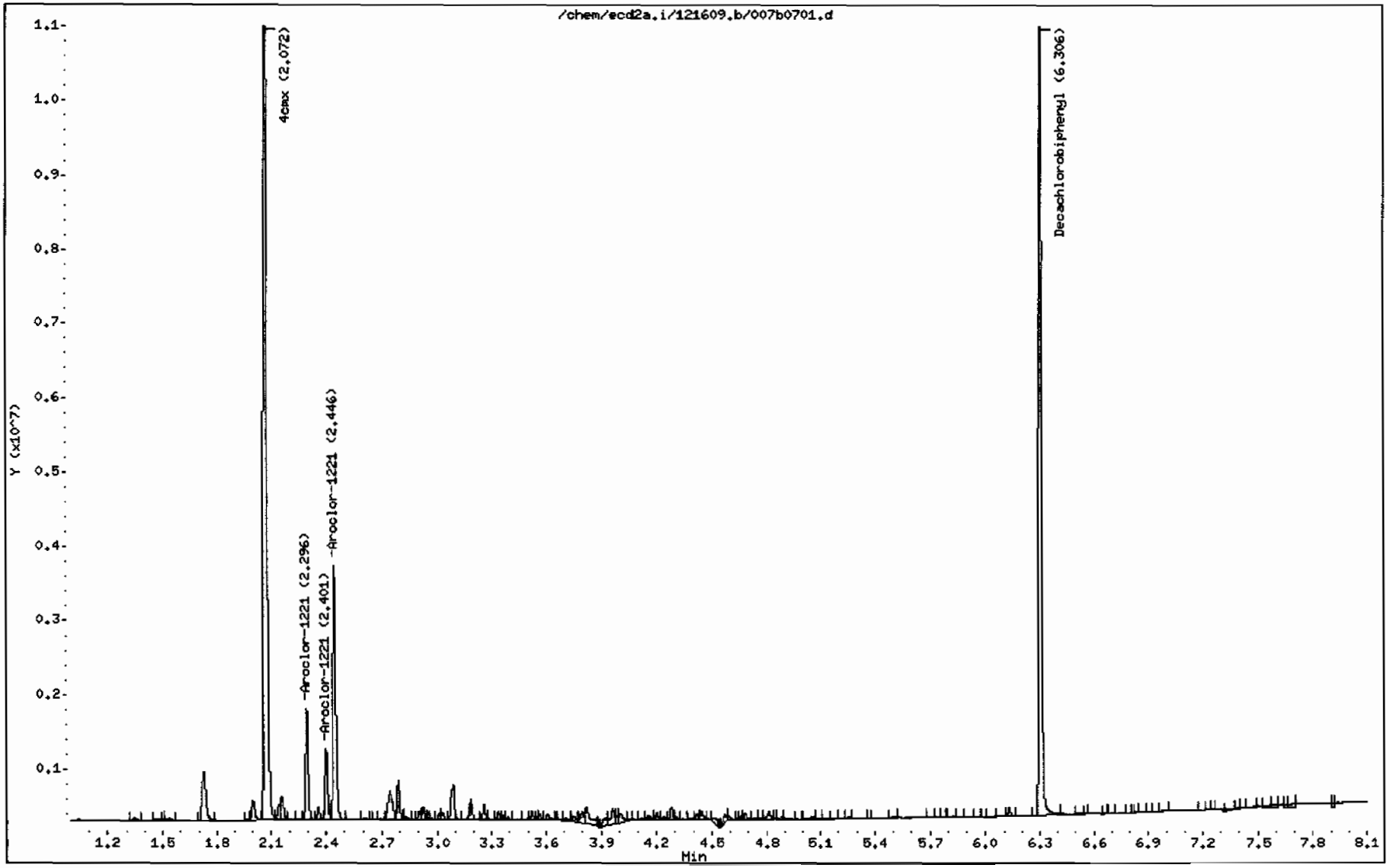

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/121609.b/053f5301.d
Lab Smp Id: WAR091211-60 06 Client Smp ID: AR166006
Inj Date : 16-DEC-2009 17:23
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |WAR091211-60 06
Misc Info : |PCB_CVS|1660||CVS|
Comment :
Method : /chem/ecd2a.i/121609.b/ECD2-F-8082-111209A.m
Meth Date : 17-Dec-2009 05:44 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012f1201.d
Als bottle: 53 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.775	1.775	0.000	6189149	100.000	99.4	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.611	5.613	-0.002	5819251	100.000	108	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.276	2.278	-0.002	1989179	1000.00	889	80.00- 120.00	100.00
2.601	2.601	0.000	4331749	1000.00	924	196.58- 236.58	217.77
2.691	2.692	-0.001	1705773	1000.00	897	65.90- 105.90	85.75
2.826	2.827	-0.001	883370	1000.00	905	23.48- 63.48	44.41
2.978	2.979	-0.001	1313592	1000.00	901	45.53- 85.53	66.04
Average of Peak Amounts =					903		
7 Aroclor-1260					CAS #: 11096-82-5		
4.018	4.019	-0.001	4137573	1000.00	993	80.00- 120.00	100.00
4.290	4.290	0.000	2565887	1000.00	990	42.27- 82.27	62.01
4.456	4.456	0.000	2633826	1000.00	1000	44.05- 84.05	63.66
4.668	4.669	-0.001	6345858	1000.00	1040	133.72- 173.72	153.37
4.857	4.859	-0.002	3051155	1000.00	1040	54.07- 94.07	73.74
Average of Peak Amounts =					1.01e+03		

Data File: /chem/ecd2a.i/121609.b/053f5301.d
Date : 16-DEC-2009 17:23
Client ID: AR166006
Sample Info: IWAR091211-60 06

Column phase: CLP1

Instrument: ecd2a.i

Operator: JAOC
Column diameter: 0.25

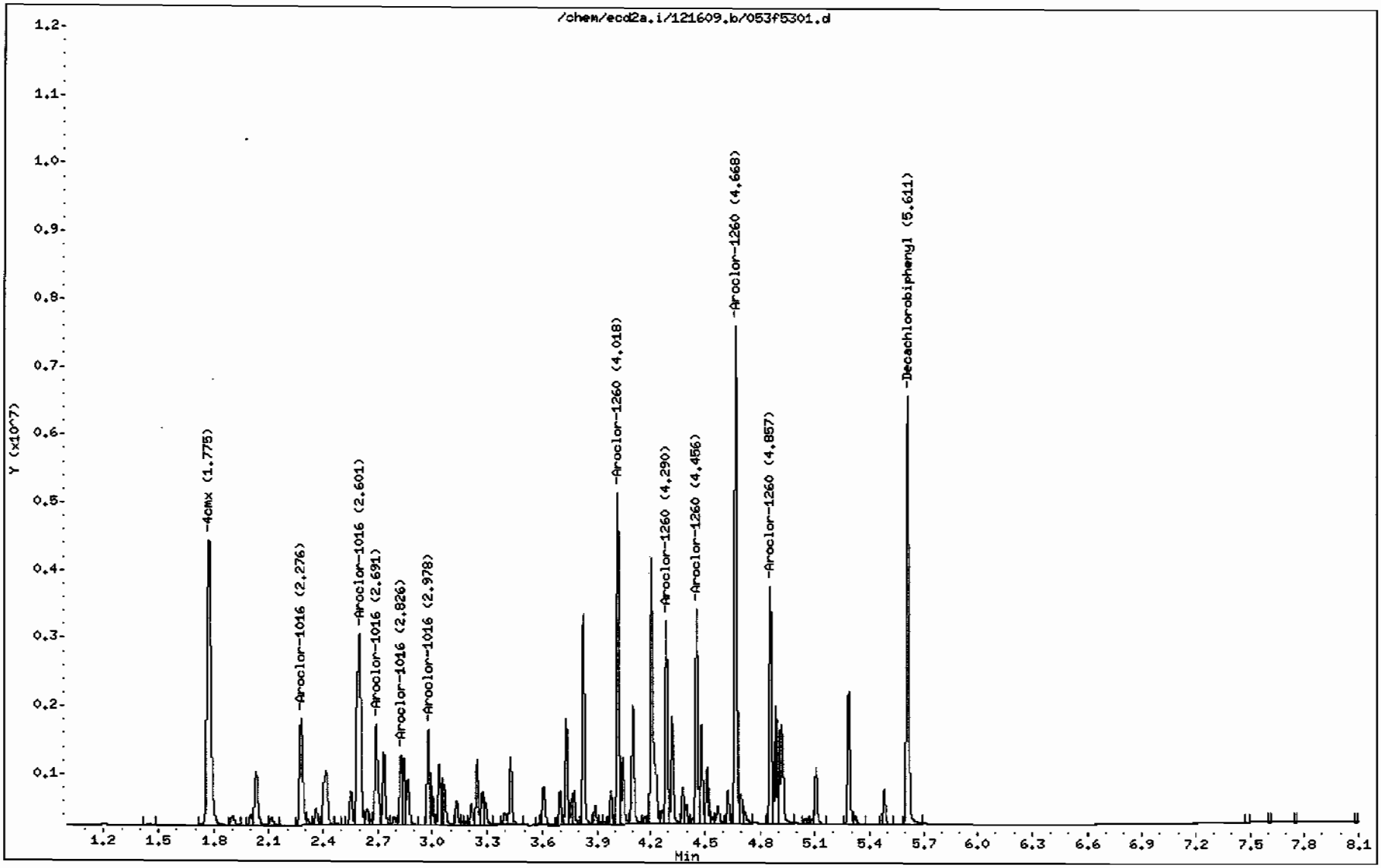

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/121609.b/053b5301.d
Lab Smp Id: WAR091211-60 06 Client Smp ID: AR166006
Inj Date : 16-DEC-2009 17:23
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |WAR091211-60 06
Misc Info : |PCB_CVS|1660||CVS|
Comment :
Method : /chem/ecd2a.i/121609.b/ECD2-B-8082-111209A.m
Meth Date : 17-Dec-2009 05:26 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012b1201.d
Als bottle: 53 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

AMOUNTS

RT	EXP RT	DLT RT	RESPONSE	CAL-AMT (ug/L)	ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.072	2.072	0.000	13317290	100.000	103	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.304	6.305	-0.001	11970922	100.000	106	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.749	2.749	0.000	4258873	1000.00	938	80.00- 120.00	100.00
3.183	3.183	0.000	3377763	1000.00	938	58.95- 98.95	79.31
3.334	3.335	-0.001	1947975	1000.00	949	25.56- 65.56	45.74
3.363	3.363	0.000	2019138	1000.00	945	27.40- 67.40	47.41
3.521	3.522	-0.001	2760112	1000.00	962	44.70- 84.70	64.81
Average of Peak Amounts =					946		
7 Aroclor-1260					CAS #: 11096-82-5		
4.418	4.418	0.000	5764633	1000.00	1000	80.00- 120.00	100.00
4.569	4.570	-0.001	7347627	1000.00	1030	107.91- 147.91	127.46
4.681	4.681	0.000	4971693	1000.00	1030	66.01- 106.01	86.24
4.878	4.879	-0.001	5769902	1000.00	1020	80.89- 120.89	100.09
5.504	5.505	-0.001	9614148	1000.00	1060	148.43- 188.43	166.78
Average of Peak Amounts =					1.03e+03		

Data File: /chem/ecd2a.i/121609.b/053b5301.d
Date : 16-DEC-2009 17:23
Client ID: AR166006
Sample Info: IWAR091211-60 06

Column phase: CLP2

Instrument: ecd2a.i

Operator: JADC
Column diameter: 0.25

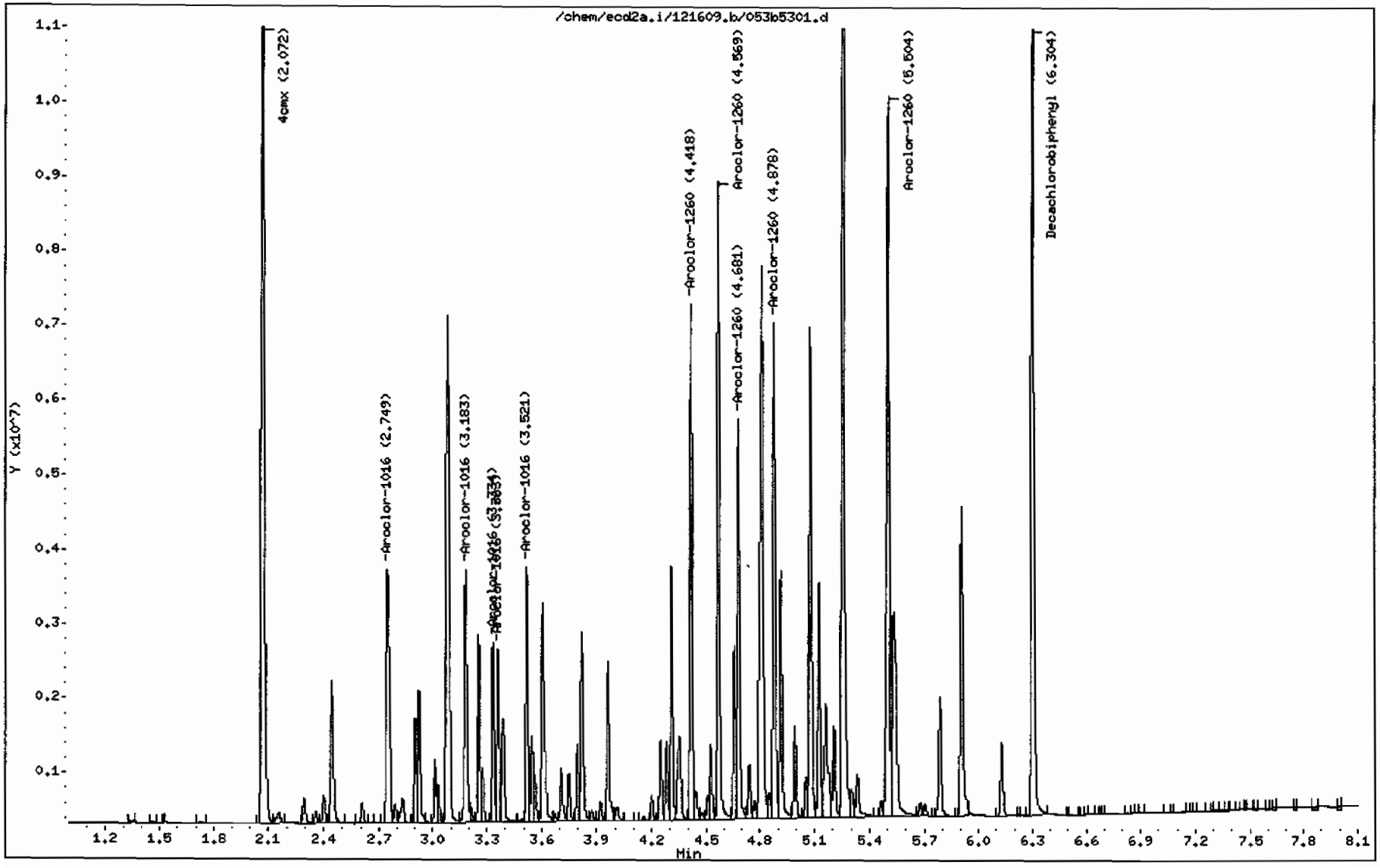

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/121609.b/065f6501.d
Lab Smp Id: WAR091211-60 07 Client Smp ID: AR166007
Inj Date : 16-DEC-2009 19:36
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |WAR091211-60 07
Misc Info : |PCB_CVS|1660||CVS|
Comment :
Method : /chem/ecd2a.i/121609.b/ECD2-F-8082-111209A.m
Meth Date : 17-Dec-2009 05:44 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012f1201.d
Als bottle: 65 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.774	1.775	-0.001	6072420	100.000	97.5	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.612	5.613	-0.001	5700363	100.000	105	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.277	2.278	-0.001	1964818	1000.00	878	80.00- 120.00	100.00
2.600	2.601	-0.001	4244113	1000.00	906	196.58- 236.58	216.01
2.691	2.692	-0.001	1676697	1000.00	882	65.90- 105.90	85.34
2.826	2.827	-0.001	859661	1000.00	881	23.48- 63.48	43.75
2.978	2.979	-0.001	1278111	1000.00	877	45.53- 85.53	65.05
Average of Peak Amounts =					885		
7 Aroclor-1260					CAS #: 11096-82-5		
4.019	4.019	0.000	4071085	1000.00	977	80.00- 120.00	100.00
4.289	4.290	-0.001	2510175	1000.00	969	42.27- 82.27	61.66
4.455	4.456	-0.001	2577913	1000.00	980	44.05- 84.05	63.32
4.669	4.669	0.000	6212004	1000.00	1020	133.72- 173.72	152.59
4.858	4.859	-0.001	3000039	1000.00	1020	54.07- 94.07	73.69
Average of Peak Amounts =					993		

Data File: /chem/ecd2a.i/121609.b/065f6501.d

Date : 16-DEC-2009 19:36

Client ID: AR166007

Sample Info: IWAR091211-60 07

Column phase: CLP1

Instrument: ecd2a.i

Operator: JAOC

Column diameter: 0.25

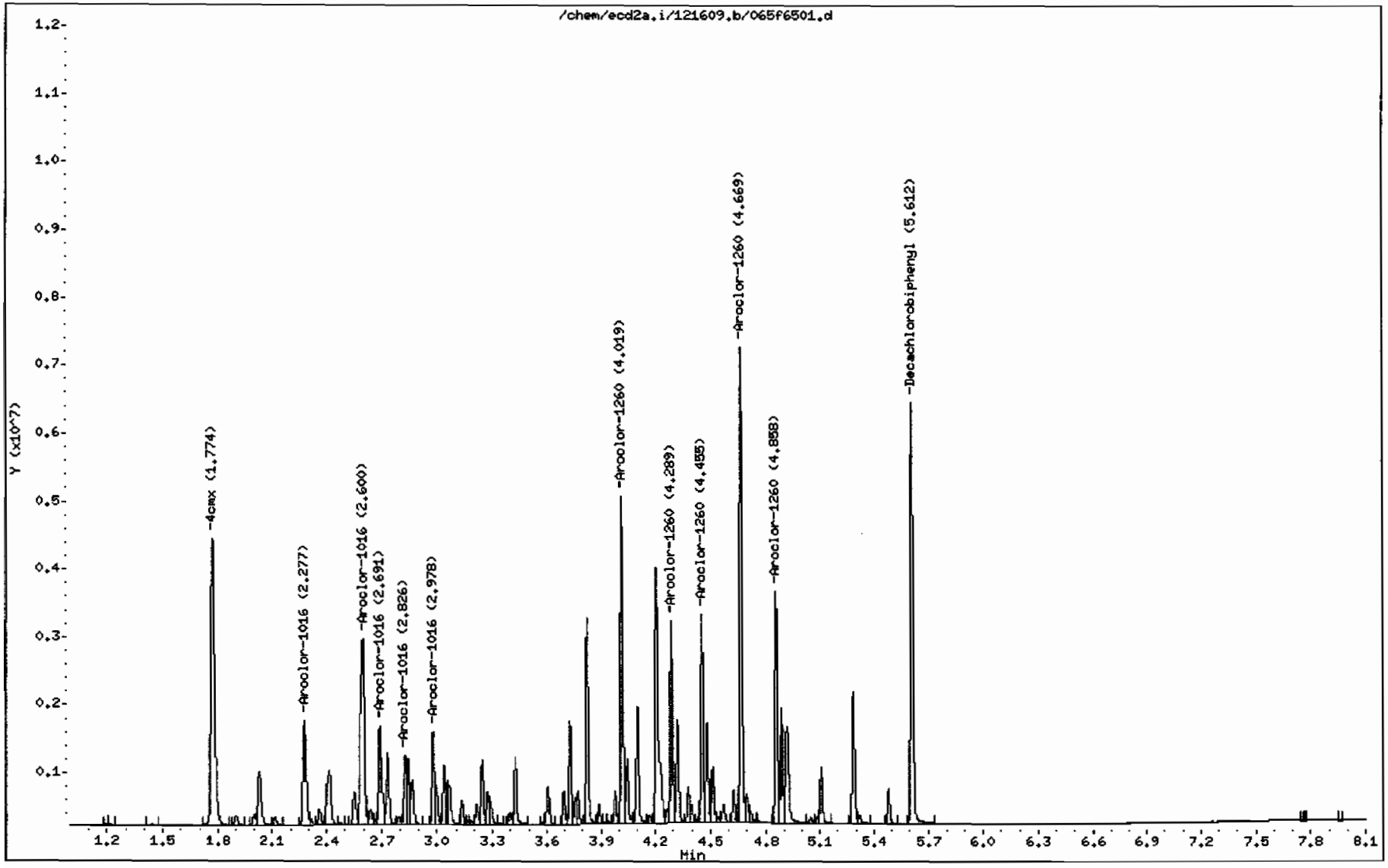

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/121609.b/065b6501.d
Lab Smp Id: WAR091211-60 07 Client Smp ID: AR166007
Inj Date : 16-DEC-2009 19:36
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |WAR091211-60 07
Misc Info : |PCB_CVS|1660||CVS|
Comment :
Method : /chem/ecd2a.i/121609.b/ECD2-B-8082-111209A.m
Meth Date : 17-Dec-2009 05:26 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012b1201.d
Als bottle: 65 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.071	2.072	-0.001	13045643	100.000	101	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.305	6.305	0.000	11708457	100.000	104	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.749	2.749	0.000	4175179	1000.00	920	80.00- 120.00	100.00
3.183	3.183	0.000	3292051	1000.00	914	58.95- 98.95	78.85
3.335	3.335	0.000	1906929	1000.00	929	25.56- 65.56	45.67
3.363	3.363	0.000	1981819	1000.00	927	27.40- 67.40	47.47
3.521	3.522	-0.001	2687598	1000.00	936	44.70- 84.70	64.37
Average of Peak Amounts =					925		
7 Aroclor-1260					CAS #: 11096-82-5		
4.418	4.418	0.000	5592581	1000.00	970	80.00- 120.00	100.00
4.570	4.570	0.000	7116038	1000.00	999	107.91- 147.91	127.24
4.681	4.681	0.000	4826250	1000.00	1000	66.01- 106.01	86.30
4.879	4.879	0.000	5648610	1000.00	1000	80.89- 120.89	101.00
5.504	5.505	-0.001	9420424	1000.00	1040	148.43- 188.43	168.45
Average of Peak Amounts =					1e+03		

Data File: /chem/ecd2a.i/121609.b/065b6501.d
Date : 16-DEC-2009 19:36
Client ID: AR166007
Sample Info: IWAR091211-60 07

Column phase: CLP2

Instrument: ecd2a.i

Operator: JADC
Column diameter: 0.25

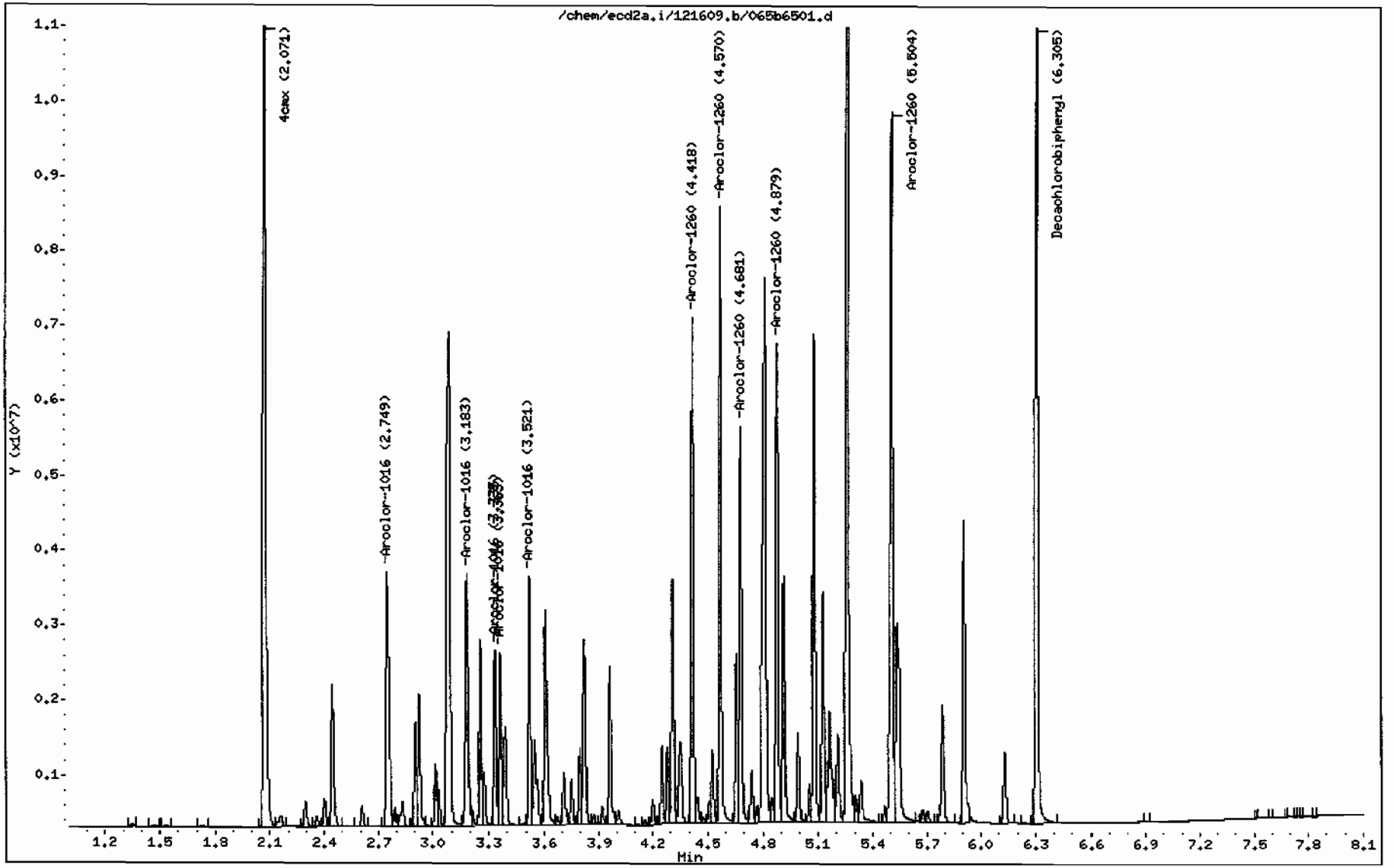

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-901

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 12/14/09 12/14/09

Instrument ID: ECD2A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 1.77 DCB: 5.61

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR091130-99	12/14/09	0700	1.77	5.61
02	ZZZZZ	ZZZZZ	12/14/09	0711	1.77	5.61
03	AR125401	WAR091102-54	12/14/09	0722	1.77	5.61
04	AR124201	WAR091102-42	12/14/09	0733	1.77	5.61
05	AR124801	WAR091027-48	12/14/09	0744	1.77	5.61
06	AR123201	WAR090930-32	12/14/09	0755	1.77	5.61
07	AR122101	WAR091111-21	12/14/09	0807	1.77	5.61
08	ZZZZZ	ZZZZZ	12/14/09	0818	1.77	5.61
09	AR126201	WAR091111-62	12/14/09	0829	1.77	5.61
10	AR126801	WAR091106-68	12/14/09	0840	1.77	5.61
11	AR166001	WAR091214-01	12/14/09	0851	1.77	5.61
12	AR166002	WAR091214-02	12/14/09	0902	1.77	5.61
13	AR166003	WAR091214-03	12/14/09	0913	1.77	5.61
14	AR166004	WAR091214-04	12/14/09	0924	1.77	5.61
15	AR166005	IAR091102-01	12/14/09	0935	1.77	5.61
16	AR166001	WAR091211-60	12/14/09	0946	1.77	5.61
17	DDTANALOGSTD	WAR091020-DD	12/14/09	0958		
18	PIBLK02	WAR091130-99	12/14/09	1009	1.77	5.61
19	ZZZZZ	ZZZZZ	12/14/09	1020	1.77	5.61
20	ZZZZZ	ZZZZZ	12/14/09	1031	1.77	5.61
21	ZZZZZ	ZZZZZ	12/14/09	1042	1.77	
22	ZZZZZ	ZZZZZ	12/14/09	1053	1.76	
23	ZZZZZ	ZZZZZ	12/14/09	1104	1.76	
24	ZZZZZ	ZZZZZ	12/14/09	1115	1.77	5.61
25	ZZZZZ	ZZZZZ	12/14/09	1126	1.77	5.61
26	ZZZZZ	ZZZZZ	12/14/09	1137	1.76	
27	ZZZZZ	ZZZZZ	12/14/09	1148	1.77	5.61
28	ZZZZZ	ZZZZZ	12/14/09	1159	1.76	5.62
29	AR166002	WAR091211-60	12/14/09	1211	1.77	5.61
30	PIBLK03	WAR091130-99	12/14/09	1222	1.77	5.61
31	ZZZZZ	ZZZZZ	12/14/09	1233	1.77	5.61
32	ZZZZZ	ZZZZZ	12/14/09	1244	1.76	

QC LIMITS
S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-901

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 12/14/09 12/14/09

Instrument ID: ECD2A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.07 DCB: 6.30

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR091130-99	12/14/09	0700	2.07	6.31
02	ZZZZZ	ZZZZZ	12/14/09	0711	2.07	6.30
03	AR125401	WAR091102-54	12/14/09	0722	2.07	6.30
04	AR124201	WAR091102-42	12/14/09	0733	2.07	6.30
05	AR124801	WAR091027-48	12/14/09	0744	2.07	6.30
06	AR123201	WAR090930-32	12/14/09	0755	2.07	6.30
07	AR122101	WAR091111-21	12/14/09	0807	2.07	6.30
08	ZZZZZ	ZZZZZ	12/14/09	0818	2.07	6.30
09	AR166201	WAR091111-62	12/14/09	0829	2.07	6.30
10	AR126801	WAR091106-68	12/14/09	0840	2.07	6.30
11	AR166001	WAR091214-01	12/14/09	0851	2.07	6.30
12	AR166002	WAR091214-02	12/14/09	0902	2.07	6.30
13	AR166003	WAR091214-03	12/14/09	0913	2.07	6.30
14	AR166004	WAR091214-04	12/14/09	0924	2.07	6.30
15	AR166005	IAR091102-01	12/14/09	0935	2.07	6.30
16	AR166001	WAR091211-60	12/14/09	0946	2.07	6.30
17	DDTANALOGSTD	WAR091020-DD	12/14/09	0958		
18	PIBLK02	WAR091130-99	12/14/09	1009	2.07	6.30
19	ZZZZZ	ZZZZZ	12/14/09	1020	2.07	6.30
20	ZZZZZ	ZZZZZ	12/14/09	1031	2.07	6.30
21	ZZZZZ	ZZZZZ	12/14/09	1042	2.07	
22	ZZZZZ	ZZZZZ	12/14/09	1053	2.07	
23	ZZZZZ	ZZZZZ	12/14/09	1104	2.06	
24	ZZZZZ	ZZZZZ	12/14/09	1115	2.07	6.30
25	ZZZZZ	ZZZZZ	12/14/09	1126	2.07	6.31
26	ZZZZZ	ZZZZZ	12/14/09	1137	2.07	
27	ZZZZZ	ZZZZZ	12/14/09	1148	2.07	6.30
28	ZZZZZ	ZZZZZ	12/14/09	1159	2.06	6.30
29	AR166002	WAR091211-60	12/14/09	1211	2.07	6.30
30	PIBLK03	WAR091130-99	12/14/09	1222	2.07	6.30
31	ZZZZZ	ZZZZZ	12/14/09	1233	2.07	6.31
32	ZZZZZ	ZZZZZ	12/14/09	1244	2.07	

QC LIMITS
S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-901

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 12/14/09 12/14/09

Instrument ID: ECD2A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 1.77 DCB: 5.61

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR091130-99	12/16/09	0708	1.77	5.61
02	AR166001	WAR091211-60	12/16/09	0719	1.78	5.61
03	AR125401	WAR091102-54	12/16/09	0730	1.78	5.61
04	AR124201	WAR091102-42	12/16/09	0741	1.77	5.61
05	AR124801	WAR091027-48	12/16/09	0752	1.77	5.61
06	AR123201	WAR090930-32	12/16/09	0803	1.78	5.61
07	AR122101	WAR091111-21	12/16/09	0814	1.78	5.61
08	AR126201	WAR091111-62	12/16/09	0826	1.77	5.61
09	AR126801	WAR091106-68	12/16/09	0837	1.78	5.61
10	DDTANALOGSTD	WAR091020-DD	12/16/09	0848		
11	PIBLK02	WAR091130-99	12/16/09	0859	1.78	5.61
12	ZZZZZ	ZZZZZ	12/16/09	0910	1.77	5.61
13	ZZZZZ	ZZZZZ	12/16/09	0921	1.77	5.61
14	ZZZZZ	ZZZZZ	12/16/09	0932	1.77	5.61
15	ZZZZZ	ZZZZZ	12/16/09	0943	1.77	5.61
16	ZZZZZ	ZZZZZ	12/16/09	0954	1.78	5.61
17	ZZZZZ	ZZZZZ	12/16/09	1005	1.77	5.61
18	AR166002	WAR091211-60	12/16/09	1021	1.77	5.61
19	PIBLK03	WAR091130-99	12/16/09	1032	1.78	5.61
20	ZZZZZ	ZZZZZ	12/16/09	1043	1.77	5.61
21	ZZZZZ	ZZZZZ	12/16/09	1054	1.77	5.61
22	ZZZZZ	ZZZZZ	12/16/09	1105	1.78	5.61
23	ZZZZZ	ZZZZZ	12/16/09	1116	1.78	5.61
24	ZZZZZ	ZZZZZ	12/16/09	1128	1.77	5.62
25	ZZZZZ	ZZZZZ	12/16/09	1139	1.78	5.61
26	ZZZZZ	ZZZZZ	12/16/09	1150	1.77	5.61
27	ZZZZZ	ZZZZZ	12/16/09	1201	1.77	5.61
28	ZZZZZ	ZZZZZ	12/16/09	1212	1.78	5.61
29	ZZZZZ	ZZZZZ	12/16/09	1223	1.78	5.61
30	AR166003	WAR091211-60	12/16/09	1239	1.77	5.61
31	PIBLK04	WAR091130-99	12/16/09	1250	1.77	5.61
32	ZZZZZ	ZZZZZ	12/16/09	1301	1.77	5.61

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-901

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 12/14/09 12/14/09

Instrument ID: ECD2A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 1.77 DCB: 5.61

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	ZZZZZ	ZZZZZ	12/16/09	1312	1.77	5.61
02	ZZZZZ	ZZZZZ	12/16/09	1323	1.78	5.61
03	ZZZZZ	ZZZZZ	12/16/09	1334	1.78	5.61
04	ZZZZZ	ZZZZZ	12/16/09	1345	1.78	5.62
05	ZZZZZ	ZZZZZ	12/16/09	1356	1.78	5.61
06	AR166004	WAR091211-60	12/16/09	1412	1.77	5.61
07	PIBLK05	WAR091130-99	12/16/09	1438	1.77	5.62
08	ZZZZZ	ZZZZZ	12/16/09	1449	1.77	5.61
09	ZZZZZ	ZZZZZ	12/16/09	1505	1.78	5.61
10	ZZZZZ	ZZZZZ	12/16/09	1516	1.78	5.61
11	ZZZZZ	ZZZZZ	12/16/09	1527	1.78	5.61
12	ZZZZZ	ZZZZZ	12/16/09	1538	1.78	5.61
13	ZZZZZ	ZZZZZ	12/16/09	1549	1.78	5.61
14	ZZZZZ	ZZZZZ	12/16/09	1600	1.77	5.61
15	ZZZZZ	ZZZZZ	12/16/09	1611	1.77	5.61
16	AR166005	WAR091211-60	12/16/09	1627	1.77	5.61
17	PIBLK06	WAR091130-99	12/16/09	1638	1.77	5.61
18	ZZZZZ	ZZZZZ	12/16/09	1649	1.78	5.61
19	ZZZZZ	ZZZZZ	12/16/09	1700	1.78	5.61
20	ZZZZZ	ZZZZZ	12/16/09	1711	1.77	5.61
21	AR166006	WAR091211-60	12/16/09	1723	1.77	5.61
22	PIBLK07	WAR091130-99	12/16/09	1734	1.78	5.61
23	PBLK01	1201997004	12/16/09	1745	1.78	5.61
24	PBLK01LCS	1201997005	12/16/09	1756	1.77	5.61
25	ZZZZZ	ZZZZZ	12/16/09	1807	1.77	5.61
26	ZZZZZ	ZZZZZ	12/16/09	1818	1.78	5.61
27	RE03-09-13470	242794001	12/16/09	1829	1.77	5.61
28	RE03-09-13470MS	1201997006	12/16/09	1840	1.77	5.61
29	RE03-09-13470MSD	1201997007	12/16/09	1851	1.77	5.61
30	RE03-09-13471	242794002	12/16/09	1902	1.77	5.61
31	RE03-09-13472	242794003	12/16/09	1914	1.77	5.61
32	RE03-09-13469	242794004	12/16/09	1925	1.78	5.61

QC LIMITS
S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-901

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 12/14/09 12/14/09

Instrument ID: ECD2A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 1.77 DCB: 5.61

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	AR166007	WAR091211-60	12/16/09	1936	1.77	5.61
02	PIBLK08	WAR091130-99	12/16/09	1947	1.77	5.61
03	ZZZZZ	ZZZZZ	12/16/09	1958	1.77	5.61
04	ZZZZZ	ZZZZZ	12/16/09	2009	1.77	5.61
05	ZZZZZ	ZZZZZ	12/16/09	2020	1.77	5.61
06	ZZZZZ	ZZZZZ	12/16/09	2031	1.77	5.61
07	ZZZZZ	ZZZZZ	12/16/09	2042	1.77	5.61
08	ZZZZZ	ZZZZZ	12/16/09	2053	1.77	5.61
09	AR166008	WAR091211-60	12/16/09	2104	1.78	5.61
10	PIBLK09	WAR091130-99	12/16/09	2116	1.77	5.61
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	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-901

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 12/14/09 12/14/09

Instrument ID: ECD2A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.07 DCB: 6.30

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR091130-99	12/16/09	0708	2.07	6.30
02	AR166001	WAR091211-60	12/16/09	0719	2.07	6.30
03	AR125401	WAR091102-54	12/16/09	0730	2.07	6.31
04	AR124201	WAR091102-42	12/16/09	0741	2.07	6.31
05	AR124801	WAR091027-48	12/16/09	0752	2.07	6.30
06	AR123201	WAR090930-32	12/16/09	0803	2.07	6.30
07	AR122101	WAR091111-21	12/16/09	0814	2.07	6.31
08	AR126201	WAR091111-62	12/16/09	0826	2.07	6.30
09	AR126801	WAR091106-68	12/16/09	0837	2.07	6.30
10	DDTANALOGSTD	WAR091020-DD	12/16/09	0848		
11	PIBLK02	WAR091130-99	12/16/09	0859	2.07	6.30
12	ZZZZZ	ZZZZZ	12/16/09	0910	2.07	6.30
13	ZZZZZ	ZZZZZ	12/16/09	0921	2.07	6.30
14	ZZZZZ	ZZZZZ	12/16/09	0932	2.07	6.30
15	ZZZZZ	ZZZZZ	12/16/09	0943	2.07	6.30
16	ZZZZZ	ZZZZZ	12/16/09	0954	2.07	6.30
17	ZZZZZ	ZZZZZ	12/16/09	1005	2.07	6.31
18	AR166002	WAR091211-60	12/16/09	1021	2.07	6.30
19	PIBLK03	WAR091130-99	12/16/09	1032	2.07	6.30
20	ZZZZZ	ZZZZZ	12/16/09	1043	2.07	6.30
21	ZZZZZ	ZZZZZ	12/16/09	1054	2.07	6.30
22	ZZZZZ	ZZZZZ	12/16/09	1105	2.07	6.31
23	ZZZZZ	ZZZZZ	12/16/09	1116	2.07	6.31
24	ZZZZZ	ZZZZZ	12/16/09	1128	2.07	6.31
25	ZZZZZ	ZZZZZ	12/16/09	1139	2.07	6.30
26	ZZZZZ	ZZZZZ	12/16/09	1150	2.07	6.30
27	ZZZZZ	ZZZZZ	12/16/09	1201	2.07	6.30
28	ZZZZZ	ZZZZZ	12/16/09	1212	2.07	6.30
29	ZZZZZ	ZZZZZ	12/16/09	1223	2.07	6.30
30	AR166003	WAR091211-60	12/16/09	1239	2.07	6.30
31	PIBLK04	WAR091130-99	12/16/09	1250	2.07	6.30
32	ZZZZZ	ZZZZZ	12/16/09	1301	2.07	6.30

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-901

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 12/14/09 12/14/09

Instrument ID: ECD2A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.07 DCB: 6.30

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	ZZZZZ	ZZZZZ	12/16/09	1312	2.07	6.30
02	ZZZZZ	ZZZZZ	12/16/09	1323	2.07	6.30
03	ZZZZZ	ZZZZZ	12/16/09	1334	2.07	6.30
04	ZZZZZ	ZZZZZ	12/16/09	1345	2.07	6.31
05	ZZZZZ	ZZZZZ	12/16/09	1356	2.07	6.31
06	AR166004	WAR091211-60	12/16/09	1412	2.07	6.30
07	PIBLK05	WAR091130-99	12/16/09	1438	2.07	6.31
08	ZZZZZ	ZZZZZ	12/16/09	1449	2.07	6.31
09	ZZZZZ	ZZZZZ	12/16/09	1505	2.07	6.30
10	ZZZZZ	ZZZZZ	12/16/09	1516	2.07	6.30
11	ZZZZZ	ZZZZZ	12/16/09	1527	2.07	6.31
12	ZZZZZ	ZZZZZ	12/16/09	1538	2.07	6.30
13	ZZZZZ	ZZZZZ	12/16/09	1549	2.07	6.31
14	ZZZZZ	ZZZZZ	12/16/09	1600	2.07	6.30
15	ZZZZZ	ZZZZZ	12/16/09	1611	2.07	6.31
16	AR166005	WAR091211-60	12/16/09	1627	2.07	6.30
17	PIBLK06	WAR091130-99	12/16/09	1638	2.07	6.30
18	ZZZZZ	ZZZZZ	12/16/09	1649	2.07	6.30
19	ZZZZZ	ZZZZZ	12/16/09	1700	2.07	6.30
20	ZZZZZ	ZZZZZ	12/16/09	1711	2.07	6.30
21	AR166006	WAR091211-60	12/16/09	1723	2.07	6.30
22	PIBLK07	WAR091130-99	12/16/09	1734	2.07	6.30
23	PBLK01	1201997004	12/16/09	1745	2.07	6.30
24	PBLK01LCS	1201997005	12/16/09	1756	2.07	6.30
25	ZZZZZ	ZZZZZ	12/16/09	1807	2.07	6.30
26	ZZZZZ	ZZZZZ	12/16/09	1818	2.07	6.30
27	RE03-09-13470	242794001	12/16/09	1829	2.07	6.30
28	RE03-09-13470MS	1201997006	12/16/09	1840	2.07	6.30
29	RE03-09-13470MSD	1201997007	12/16/09	1851	2.07	6.30
30	RE03-09-13471	242794002	12/16/09	1902	2.07	6.30
31	RE03-09-13472	242794003	12/16/09	1914	2.07	6.30
32	RE03-09-13469	242794004	12/16/09	1925	2.07	6.30

QC LIMITS
S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-901

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 12/14/09 12/14/09

Instrument ID: ECD2A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.07 DCB: 6.30

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	AR166007	WAR091211-60	12/16/09	1936	2.07	6.30
02	PIBLK08	WAR091130-99	12/16/09	1947	2.07	6.31
03	ZZZZZ	ZZZZZ	12/16/09	1958	2.07	6.30
04	ZZZZZ	ZZZZZ	12/16/09	2009	2.07	6.30
05	ZZZZZ	ZZZZZ	12/16/09	2020	2.07	6.30
06	ZZZZZ	ZZZZZ	12/16/09	2031	2.07	6.30
07	ZZZZZ	ZZZZZ	12/16/09	2042	2.07	6.30
08	ZZZZZ	ZZZZZ	12/16/09	2053	2.07	6.30
09	AR166008	WAR091211-60	12/16/09	2104	2.07	6.30
10	PIBLK09	WAR091130-99	12/16/09	2116	2.07	6.30
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	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

Identification Summary

SDG Number: 10-901 **Client ID:** LCS for batch 933401

Lab Sample ID: 1201997005

Data File:	056f5601.d	**Data File:**	056b5601.d
Inst:	ECD2A.I_1	**Inst:**	ECD2A.I_2
Column:	CLP1	**Column:**	CLP2
Analyzed:	16-DEC-09 17:56	**Analyzed:**	16-DEC-09 17:56

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor-1016							2.81
Column 1	1	2.28	2.25 – 2.31	18.7		ug/kg	
	2	2.6	2.57 – 2.63	19.5		ug/kg	
	3	2.69	2.66 – 2.72	18.7		ug/kg	
	4	2.83	2.8 – 2.86	19.2		ug/kg	
	5	2.98	2.95 – 3.01	19.3		ug/kg	
					19.1		
Column 2	1	2.75	2.72 – 2.78	19.3		ug/kg	
	2	3.18	3.15 – 3.21	19.2		ug/kg	
	3	3.33	3.3 – 3.36	20		ug/kg	
	4	3.36	3.33 – 3.39	19.8		ug/kg	
	5	3.52	3.49 – 3.55	19.7		ug/kg	
					19.6		
Aroclor-1260							1.23
Column 1	1	4.02	3.99 – 4.05	24.7		ug/kg	
	2	4.29	4.26 – 4.32	25.1		ug/kg	
	3	4.46	4.43 – 4.49	25.4		ug/kg	
	4	4.67	4.64 – 4.7	27.5		ug/kg	
	5	4.86	4.83 – 4.89	27.3		ug/kg	
					26		
Column 2	1	4.42	4.39 – 4.45	23.9		ug/kg	
	2	4.57	4.54 – 4.6	25.7		ug/kg	
	3	4.68	4.65 – 4.71	25.1		ug/kg	
	4	4.88	4.85 – 4.91	26.1		ug/kg	
	5	5.5	5.47 – 5.53	27.6		ug/kg	
					25.7		

Identification Summary

SDG Number: 10–901 **Client ID:** RE03–09–13470MS

Lab Sample ID: 1201997006

Data File:	060f6001.d	**Data File:**	060b6001.d
Inst:	ECD2A.I_1	**Inst:**	ECD2A.I_2
Column:	CLP1	**Column:**	CLP2
Analyzed:	16–DEC–09 18:40	**Analyzed:**	16–DEC–09 18:40

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor–1016							1.97
Column 1	1	2.28	2.25 – 2.31	18.5		ug/kg	
	2	2.6	2.57 – 2.63	19.3		ug/kg	
	3	2.69	2.66 – 2.72	18.8		ug/kg	
	4	2.83	2.8 – 2.86	19.8		ug/kg	
	5	2.98	2.95 – 3.01	20		ug/kg	
					19.3		
Column 2	1	2.75	2.72 – 2.78	19.2		ug/kg	
	2	3.18	3.15 – 3.21	19.3		ug/kg	
	3	3.33	3.3 – 3.36	20.2		ug/kg	
	4	3.36	3.33 – 3.39	19.8		ug/kg	
	5	3.52	3.49 – 3.55	20		ug/kg	
					19.7		
Aroclor–1260							1.11
Column 1	1	4.02	3.99 – 4.05	24.9		ug/kg	
	2	4.29	4.26 – 4.32	25.1		ug/kg	
	3	4.46	4.43 – 4.49	25.5		ug/kg	
	4	4.67	4.64 – 4.7	27		ug/kg	
	5	4.86	4.83 – 4.89	27		ug/kg	
					25.9		
Column 2	1	4.42	4.39 – 4.45	24.1		ug/kg	
	2	4.57	4.54 – 4.6	25.4		ug/kg	
	3	4.68	4.65 – 4.71	25.2		ug/kg	
	4	4.88	4.85 – 4.91	25.9		ug/kg	
	5	5.5	5.47 – 5.53	27.4		ug/kg	
					25.6		

Identification Summary

SDG Number: 10–901 **Client ID:** RE03–09–13470MSD

Lab Sample ID: 1201997007

Data File:	061f6101.d	**Data File:**	061b6101.d
Inst:	ECD2A.I_1	**Inst:**	ECD2A.I_2
Column:	CLP1	**Column:**	CLP2
Analyzed:	16–DEC–09 18:51	**Analyzed:**	16–DEC–09 18:51

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor–1016							2.12
Column 1	1	2.28	2.25 – 2.31	18.7		ug/kg	
	2	2.6	2.57 – 2.63	19.4		ug/kg	
	3	2.69	2.66 – 2.72	19		ug/kg	
	4	2.83	2.8 – 2.86	20.3		ug/kg	
	5	2.98	2.95 – 3.01	19.7		ug/kg	
					19.4		
Column 2	1	2.75	2.72 – 2.78	19.4		ug/kg	
	2	3.18	3.15 – 3.21	19.5		ug/kg	
	3	3.33	3.3 – 3.36	20.3		ug/kg	
	4	3.36	3.33 – 3.39	20		ug/kg	
	5	3.52	3.49 – 3.55	20.1		ug/kg	
					19.9		
Aroclor–1260							.816
Column 1	1	4.02	3.99 – 4.05	25.1		ug/kg	
	2	4.29	4.26 – 4.32	25.5		ug/kg	
	3	4.46	4.43 – 4.49	26.7		ug/kg	
	4	4.67	4.64 – 4.7	27.2		ug/kg	
	5	4.86	4.83 – 4.89	27.1		ug/kg	
					26.3		
Column 2	1	4.42	4.39 – 4.45	24.6		ug/kg	
	2	4.57	4.54 – 4.6	26.1		ug/kg	
	3	4.68	4.65 – 4.71	25.6		ug/kg	
	4	4.88	4.85 – 4.91	26.5		ug/kg	
	5	5.5	5.47 – 5.53	27.7		ug/kg	
					26.1		

QUALITY CONTROL DATA

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10–901			**Matrix:**	SOIL
Lab Sample ID:	1201997004				
Client Sample:	QC for batch 933401	**Client:**	LANL010	**Project:**	QC
Client ID:	MB for batch 933401	**Method:**	SW846 8082	**SOP Ref:**	GL–OA–E–040
Batch ID:	933402	**Inst:**	ECD2A.I	**Dilution:**	1
Run Date:	12/16/2009 17:45	**Analyst:**	JAOC	**Inj. Vol:**	1 uL
Prep Date:	12/16/2009 09:01	**Aliquot:**	30 g	**Final Volume:**	1 mL
Data File:	055f5501–1.d	**Column:**	1 CLP1	**Level:**	LOW
	055b5501–1.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	3.33	ug/kg	1.11	3.33	1
11104–28–2	Aroclor–1221	U	3.33	ug/kg	1.11	3.33	1
11141–16–5	Aroclor–1232	U	3.33	ug/kg	1.11	3.33	1
53469–21–9	Aroclor–1242	U	3.33	ug/kg	1.11	3.33	1
12672–29–6	Aroclor–1248	U	3.33	ug/kg	1.11	3.33	1
11097–69–1	Aroclor–1254	U	3.33	ug/kg	1.11	3.33	1
11096–82–5	Aroclor–1260	U	3.33	ug/kg	1.11	3.33	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/121609.b/055f5501-1.d
Lab Smp Id: 1201997004 Client Smp ID: PBLK01
Inj Date : 16-DEC-2009 17:45
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |1201997004|1|
Misc Info : |ECD82P_1S|933402|SVAF|QC A|SOIL|MB|||
Comment :
Method : /chem/ecd2a.i/121609.b/ECD2-F-8082-111209A.m
Meth Date : 17-Dec-2009 05:44 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012f1201.d
Als bottle: 55 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-901.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.775	1.775	0.000	7852779	126.065	4.2	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.610	5.613	-0.003	8517018	157.397	5.2	80.00- 120.00	100.00

Data File: /chem/ecd2a.i/121609.b/055f5501-1.d
Date : 16-DEC-2009 17:45
Client ID: PBLK01
Sample Info: |1201997004|1|
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecd2a.i

Operator: JAOC
Column diameter: 0.25

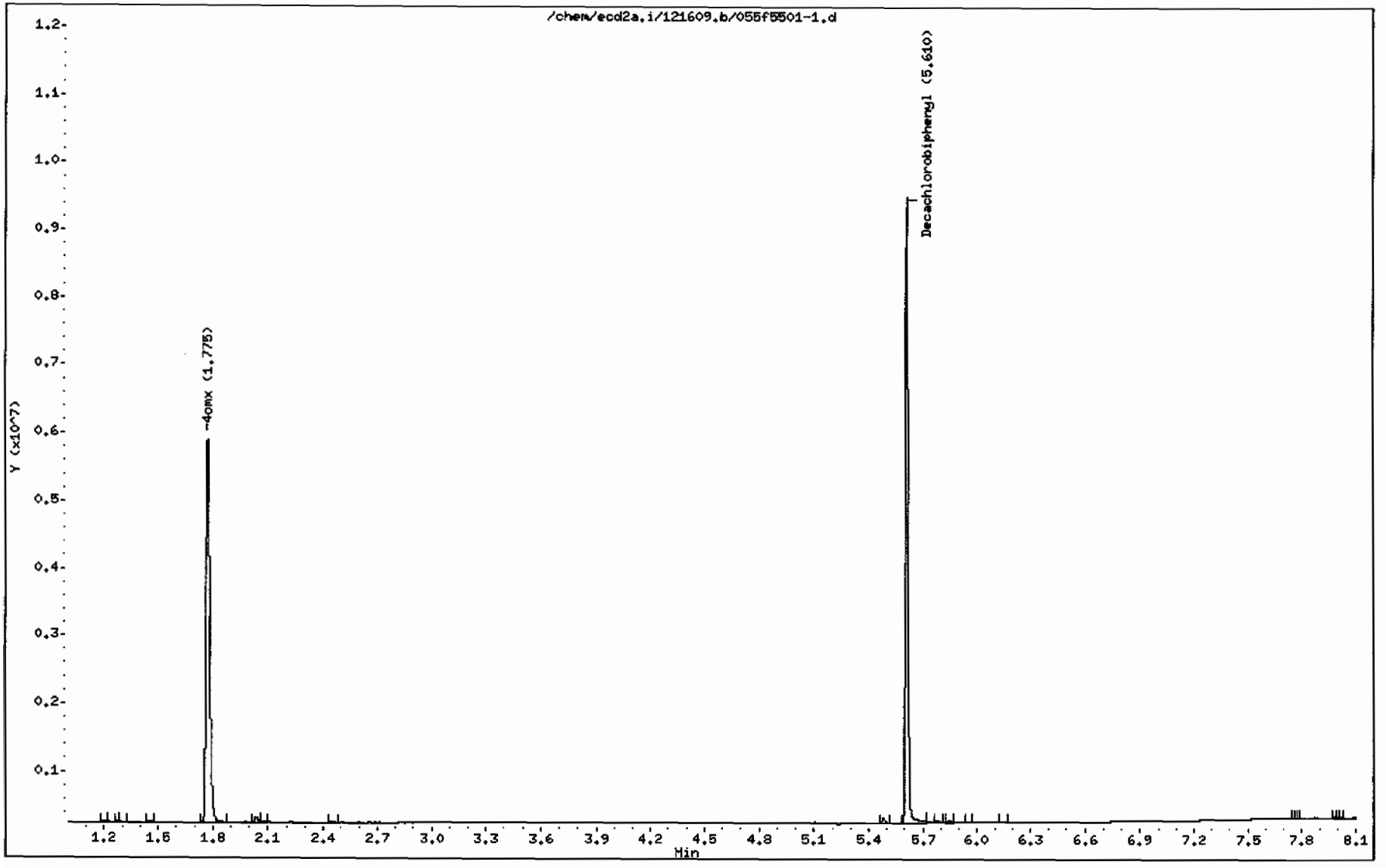

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/121609.b/055b5501-1.d
Lab Smp Id: 1201997004 Client Smp ID: PBLK01
Inj Date : 16-DEC-2009 17:45
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |1201997004|1|
Misc Info : |ECD82P_1S|933402|SVAF|QC A|SOIL|MB|||
Comment :
Method : /chem/ecd2a.i/121609.b/ECD2-B-8082-111209A.m
Meth Date : 17-Dec-2009 05:26 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012b1201.d
Als bottle: 55 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-901.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.072	2.072	0.000	16960777	131.156	4.4	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.305	6.305	0.000	18188430	161.269	5.4	80.00- 120.00	100.00

Data File: /chem/ecd2a.i/121609.b/055b5501-1.d
Date : 16-DEC-2009 17:45
Client ID: PBLK01
Sample Info: |1201997004|1|
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd2a.i
Operator: JAOC
Column diameter: 0.25

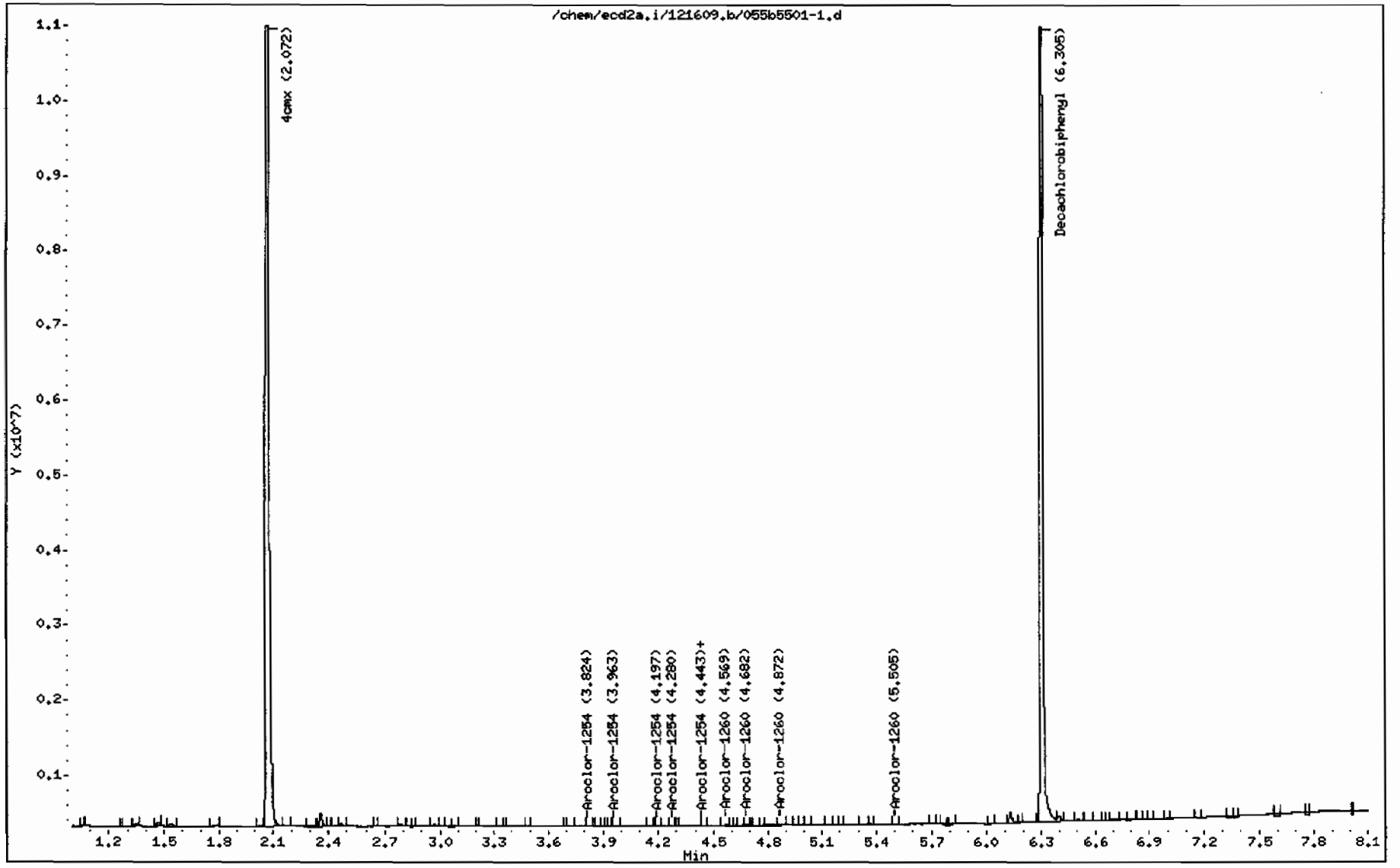

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–901**			**Matrix:**	**SOIL**
Lab Sample ID:	**1201997005**				
Client Sample:	**QC for batch 933401**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 933401**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**933402**	**Inst:**	**ECD2A.I**	**Dilution:**	**1**
Run Date:	**12/16/2009 17:56**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**12/16/2009 09:01**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**056f5601–1.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	056b5601–1.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016		19.6	ug/kg	1.11	3.33	2
11104–28–2	Aroclor–1221	U	3.33	ug/kg	1.11	3.33	1
11141–16–5	Aroclor–1232	U	3.33	ug/kg	1.11	3.33	1
53469–21–9	Aroclor–1242	U	3.33	ug/kg	1.11	3.33	1
12672–29–6	Aroclor–1248	U	3.33	ug/kg	1.11	3.33	1
11097–69–1	Aroclor–1254	U	3.33	ug/kg	1.11	3.33	1
11096–82–5	Aroclor–1260		26.0	ug/kg	1.11	3.33	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/121609.b/056f5601-1.d
Lab Smp Id: 1201997005 Client Smp ID: PBLK01LCS
Inj Date : 16-DEC-2009 17:56
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |1201997005|1|
Misc Info : |ECD82P_1S|933402|SVAF|QC A|SOIL|LCS|||
Comment :
Method : /chem/ecd2a.i/121609.b/ECD2-F-8082-111209A.m
Meth Date : 17-Dec-2009 05:44 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012f1201.d
Als bottle: 56 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-901.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.773	1.775	-0.002	7813906	125.441	4.2	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.612	5.613	-0.001	8326526	153.877	5.1	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.275	2.278	-0.003	1256725	561.617	18.7	80.00- 120.00	100.00
2.600	2.601	-0.001	2738496	584.491	19.5	196.58- 236.58	217.91
2.690	2.692	-0.002	1066678	560.972	18.7	65.90- 105.90	84.88
2.826	2.827	-0.001	560865	574.670	19.2	23.48- 63.48	44.63

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
1 Aroclor-1016 (continued)							
2.977	2.979	-0.002	845067	579.660	19.3	45.53- 85.53	67.24
Average of Peak Concentrations =					19.1		
7 Aroclor-1260					CAS #: 11096-82-5		
4.019	4.019	0.000	3081922	739.940	24.7	80.00- 120.00	100.00
4.290	4.290	0.000	1954780	754.575	25.2	42.27- 82.27	63.43
4.455	4.456	-0.001	2007646	763.014	25.4	44.05- 84.05	65.14
4.668	4.669	-0.001	5020681	824.739	27.5	133.72- 173.72	162.91
4.858	4.859	-0.001	2407026	818.118	27.3	54.07- 94.07	78.10
Average of Peak Concentrations =					26.0		

Data File: /chem/ecd2a.i/121609.b/056f5601-1.d
Date : 16-DEC-2009 17:56
Client ID: PBLK01LCS
Sample Info: |1201997005|1|
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecd2a.i
Operator: JAOC
Column diameter: 0.25

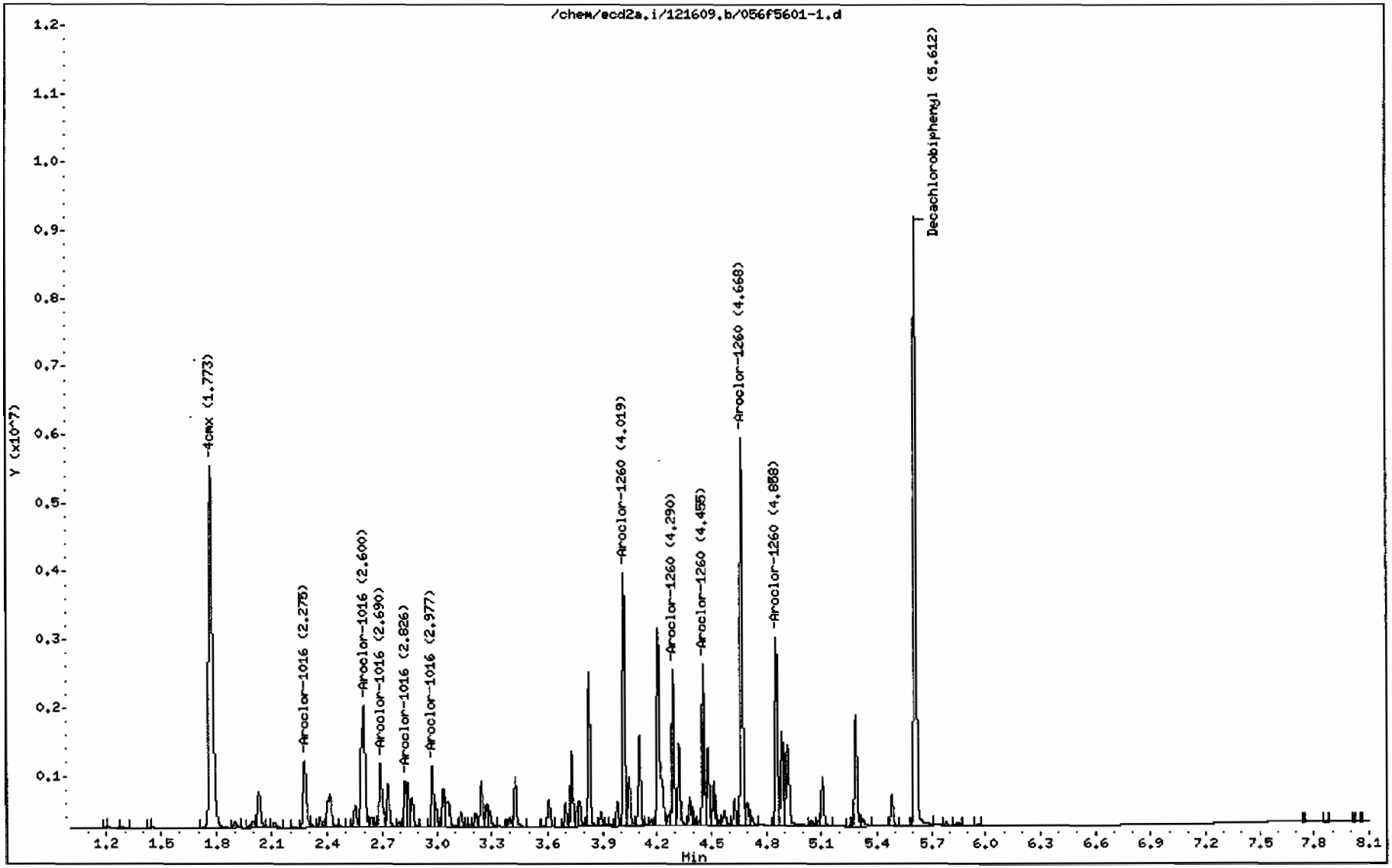

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/121609.b/056b5601-1.d
Lab Smp Id: 1201997005 Client Smp ID: PBLK01LCS
Inj Date : 16-DEC-2009 17:56
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |1201997005|1|
Misc Info : |ECD82P_1S|933402|SVAF|QC A|SOIL|LCS|||
Comment :
Method : /chem/ecd2a.i/121609.b/ECD2-B-8082-111209A.m
Meth Date : 17-Dec-2009 05:26 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012b1201.d
Als bottle: 56 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-901.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.070	2.072	-0.002	16785115	129.797	4.3	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.304	6.305	-0.001	17715544	157.076	5.2	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.748	2.749	-0.001	2633761	580.402	19.3	80.00- 120.00	100.00
3.183	3.183	0.000	2077467	576.727	19.2	58.95- 98.95	78.88
3.334	3.335	-0.001	1233381	600.703	20.0	25.56- 65.56	46.83
3.363	3.363	0.000	1270395	594.451	19.8	27.40- 67.40	48.24

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
1 Aroclor-1016 (continued)							
3.522	3.522	0.000	1695638	590.708	19.7	44.70- 84.70	64.38
Average of Peak Concentrations =					19.6		
7 Aroclor-1260					CAS #: 11096-82-5		
4.418	4.418	0.000	4141245	718.103	23.9	80.00- 120.00	100.00
4.570	4.570	0.000	5489413	770.564	25.7	107.91- 147.91	132.55
4.681	4.681	0.000	3628649	753.034	25.1	66.01- 106.01	87.62
4.878	4.879	-0.001	4402328	781.697	26.0	80.89- 120.89	106.30
5.505	5.505	0.000	7494042	829.215	27.6	148.43- 188.43	180.96
Average of Peak Concentrations =					25.7		

Data File: /chem/ecd2a.i/121609.b/056b5601-1.d
Date : 16-DEC-2009 17:56
Client ID: PBLK01LCS
Sample Info: |1201997005|1|
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd2a.i

Operator: JAOC
Column diameter: 0.25

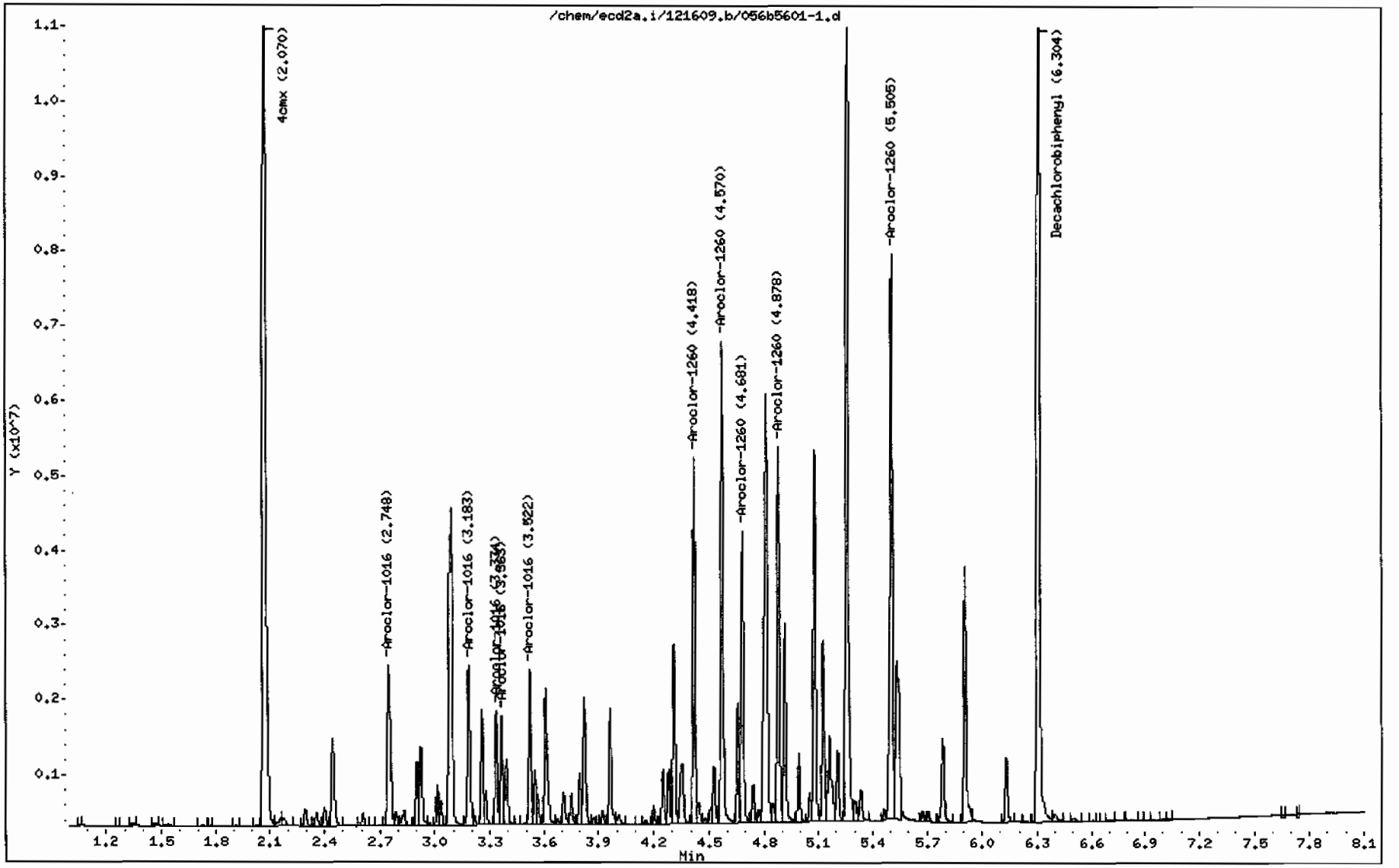

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10–901	**Date Collected:**	12/10/2009 12:00	**Matrix:**	S
Lab Sample ID:	1201997006	**Date Received:**	12/12/2009 09:35	**%Moisture:**	4.4
Client Sample:	QC for batch 933401	**Client:**	LANL010	**Project:**	QC
Client ID:	RE03–09–13470MS	**Method:**	SW846 8082	**SOP Ref:**	GL–OA–E–040
Batch ID:	933402	**Inst:**	ECD2A.I	**Dilution:**	1
Run Date:	12/16/2009 18:40	**Analyst:**	JAOC	**Inj. Vol:**	1 uL
Prep Date:	12/16/2009 09:01	**Aliquot:**	30.04 g	**Final Volume:**	1 mL
Data File:	060f6001.d	**Column:**	1 CLP1	**Level:**	LOW
	060b6001.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016		19.3	ug/kg	1.16	3.48	1
11104–28–2	Aroclor–1221	U	3.48	ug/kg	1.16	3.48	1
11141–16–5	Aroclor–1232	U	3.48	ug/kg	1.16	3.48	1
53469–21–9	Aroclor–1242	U	3.48	ug/kg	1.16	3.48	1
12672–29–6	Aroclor–1248	U	3.48	ug/kg	1.16	3.48	1
11097–69–1	Aroclor–1254	U	3.48	ug/kg	1.16	3.48	1
11096–82–5	Aroclor–1260		25.9	ug/kg	1.16	3.48	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/121609.b/060f6001.d
Lab Smp Id: 1201997006 Client Smp ID: RE03-09-13470MS
Inj Date : 16-DEC-2009 18:40
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |1201997006|1|
Misc Info : |ECD82P_1S|933402|SVAF|QC A|SOIL|MS|||
Comment :
Method : /chem/ecd2a.i/121609.b/ECD2-F-8082-111209A.m
Meth Date : 17-Dec-2009 05:44 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012f1201.d
Als bottle: 60 QC Sample: MS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-901.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.04000	Weight of sample extracted (g)
M	4.36000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.774	1.775	-0.001	7454108	119.665	4.2	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.611	5.613	-0.002	7935893	146.658	5.1	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.277	2.278	-0.001	1192416	532.878	18.5	80.00- 120.00	100.00
2.601	2.601	0.000	2601554	555.263	19.3	196.58- 236.58	218.18
2.691	2.692	-0.001	1028416	540.850	18.8	65.90- 105.90	86.25
2.827	2.827	0.000	554888	568.546	19.8	23.48- 63.48	46.53
2.978	2.979	-0.001	838680	575.279	20.0	45.53- 85.53	70.33
Average of Peak Concentrations =					19.3		

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
7 Aroclor-1260					CAS #: 11096-82-5		
4.018	4.019	-0.001	2977635	714.902	24.9	80.00- 120.00	100.00
4.290	4.290	0.000	1869700	721.733	25.1	42.27- 82.27	62.79
4.455	4.456	-0.001	1929130	733.174	25.5	44.05- 84.05	64.79
4.668	4.669	-0.001	4717871	774.997	27.0	133.72- 173.72	158.44
4.857	4.859	-0.002	2283190	776.028	27.0	54.07- 94.07	76.68
			Average of Peak Concentrations =		25.9		

Data File: /chem/ecd2a.i/121609.b/060f6001.d
Date : 16-DEC-2009 18:40
Client ID: RE03-09-13470MS
Sample Info: |1201997006|1|
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecd2a.i
Operator: JAOC
Column diameter: 0.25

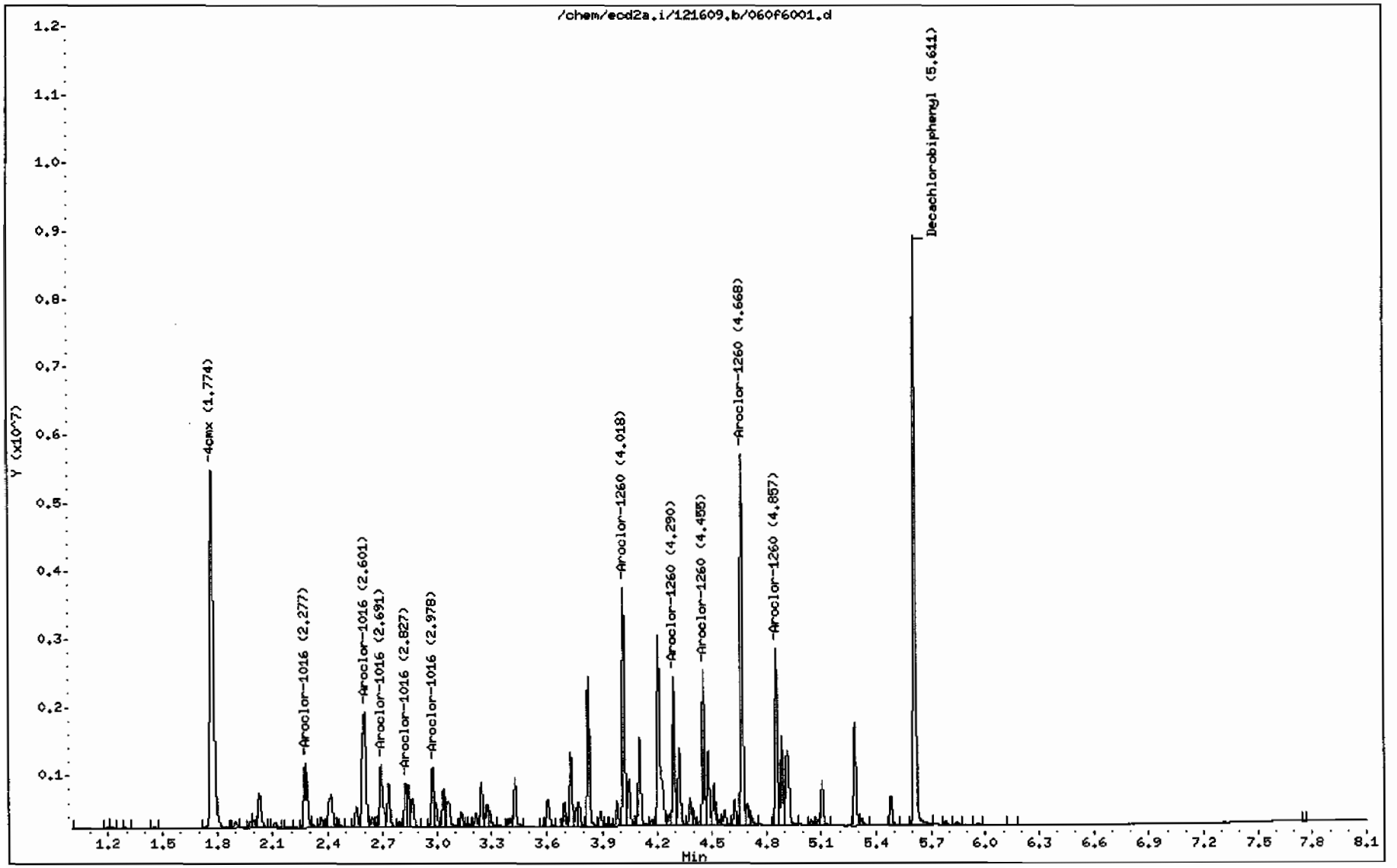

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/121609.b/060b6001.d
Lab Smp Id: 1201997006 Client Smp ID: RE03-09-13470MS
Inj Date : 16-DEC-2009 18:40
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |1201997006|1|
Misc Info : |ECD82P_1S|933402|SVAF|QC A|SOIL|MS|||
Comment :
Method : /chem/ecd2a.i/121609.b/ECD2-B-8082-111209A.m
Meth Date : 17-Dec-2009 05:26 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012b1201.d
Als bottle: 60 QC Sample: MS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-901.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.04000	Weight of sample extracted (g)
M	4.36000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.072	2.072	0.000	16089926	124.421	4.3	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.304	6.305	-0.001	16727198	148.313	5.2	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.749	2.749	0.000	2502058	551.379	19.2	80.00- 120.00	100.00
3.183	3.183	0.000	1998806	554.890	19.3	58.95- 98.95	79.89
3.335	3.335	0.000	1190365	579.752	20.2	25.56- 65.56	47.58
3.363	3.363	0.000	1213252	567.712	19.8	27.40- 67.40	48.49
3.522	3.522	0.000	1648339	574.231	20.0	44.70- 84.70	65.88
			Average of Peak Concentrations =		19.7		

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
7 Aroclor-1260					CAS #: 11096-82-5		
4.417	4.418	-0.001	3993502	692.484	24.1	80.00- 120.00	100.00
4.569	4.570	-0.001	5204908	730.627	25.4	107.91- 147.91	130.33
4.681	4.681	0.000	3484175	723.052	25.2	66.01- 106.01	87.25
4.878	4.879	-0.001	4197782	745.377	25.9	80.89- 120.89	105.12
5.504	5.505	-0.001	7123397	788.203	27.4	148.43- 188.43	178.37
Average of Peak Concentrations =					25.6		

Data File: /chem/ecd2a.i/121609.b/060b6001.d
Date : 16-DEC-2009 18:40
Client ID: RE03-09-13470MS
Sample Info: !1201997006!1!
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd2a.i

Operator: JAOC
Column diameter: 0.25

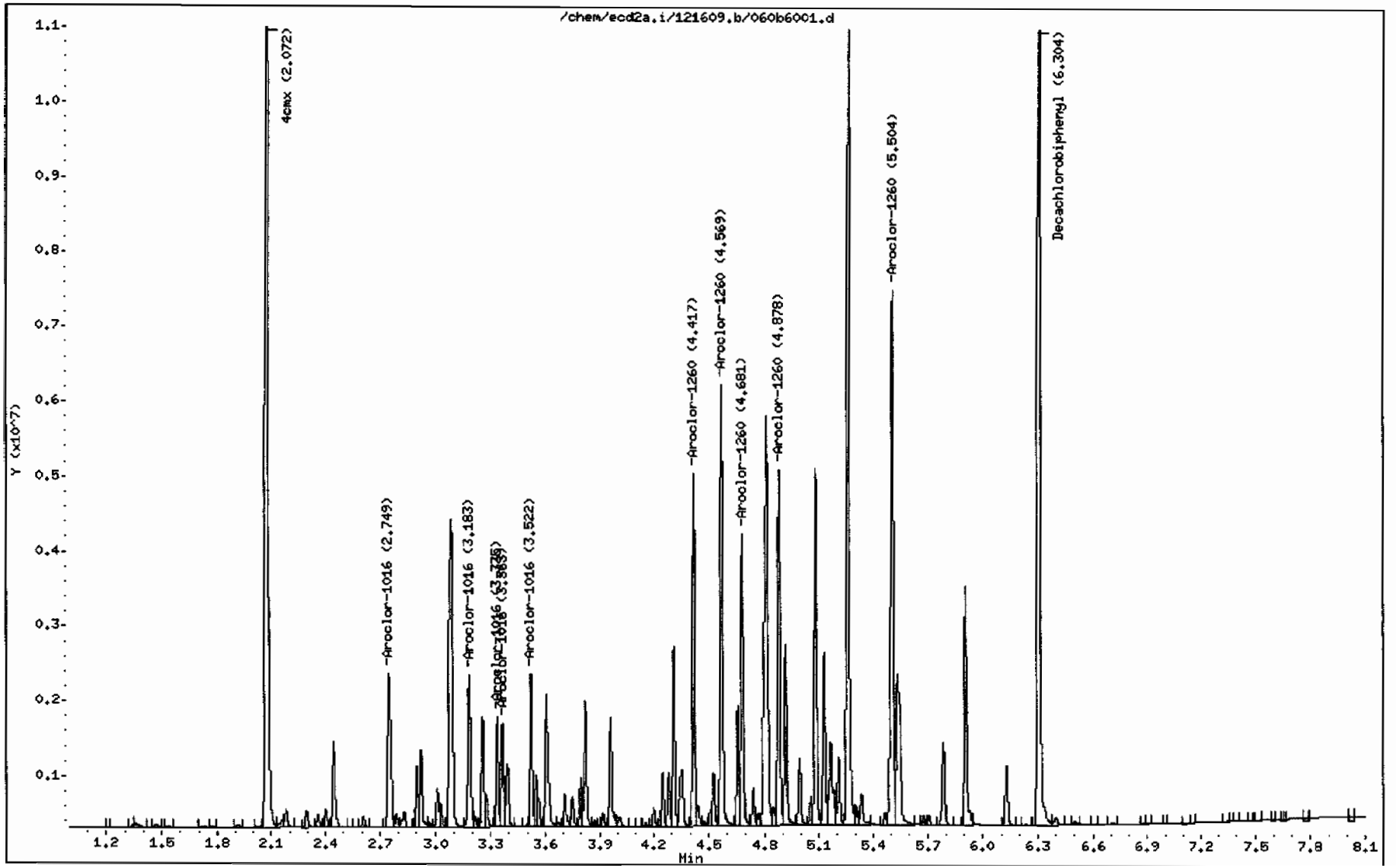

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10-901	**Date Collected:**	12/10/2009 12:00	**Matrix:**	S
Lab Sample ID:	1201997007	**Date Received:**	12/12/2009 09:35	**%Moisture:**	4.4
Client Sample:	QC for batch 933401	**Client:**	LANL010	**Project:**	QC
Client ID:	RE03-09-13470MSD	**Method:**	SW846 8082	**SOP Ref:**	GL-OA-E-040
Batch ID:	933402	**Inst:**	ECD2A.I	**Dilution:**	1
Run Date:	12/16/2009 18:51	**Analyst:**	JAOC	**Inj. Vol:**	1 uL
Prep Date:	12/16/2009 09:01	**Aliquot:**	30 g	**Final Volume:**	1 mL
Data File:	061f6101.d	**Column:**	1 CLP1	**Level:**	LOW
	061b6101.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016		19.4	ug/kg	1.16	3.49	1
11104-28-2	Aroclor-1221	U	3.49	ug/kg	1.16	3.49	1
11141-16-5	Aroclor-1232	U	3.49	ug/kg	1.16	3.49	1
53469-21-9	Aroclor-1242	U	3.49	ug/kg	1.16	3.49	1
12672-29-6	Aroclor-1248	U	3.49	ug/kg	1.16	3.49	1
11097-69-1	Aroclor-1254	U	3.49	ug/kg	1.16	3.49	1
11096-82-5	Aroclor-1260		26.3	ug/kg	1.16	3.49	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/121609.b/061f6101.d
Lab Smp Id: 1201997007 Client Smp ID: RE03-09-13470MSD
Inj Date : 16-DEC-2009 18:51
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |1201997007|1|
Misc Info : |ECD82P_1S|933402|SVAF|QC A|SOIL|MSD|||
Comment :
Method : /chem/ecd2a.i/121609.b/ECD2-F-8082-111209A.m
Meth Date : 17-Dec-2009 05:44 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012f1201.d
Als bottle: 61 QC Sample: MSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-901.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	4.36000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.774	1.775	-0.001	7852095	126.054	4.4	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.611	5.613	-0.002	8442646	156.023	5.4	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.277	2.278	-0.001	1201626	536.994	18.7	80.00- 120.00	100.00
2.600	2.601	-0.001	2611082	557.296	19.4	196.58- 236.58	217.30
2.691	2.692	-0.001	1035643	544.651	19.0	65.90- 105.90	86.19
2.827	2.827	0.000	569905	583.932	20.4	23.48- 63.48	47.43
2.978	2.979	-0.001	824354	565.453	19.7	45.53- 85.53	68.60
Average of Peak Concentrations =					19.4		

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
7 Aroclor-1260					CAS #: 11096-82-5		
4.018	4.019	-0.001	3004778	721.419	25.1	80.00- 120.00	100.00
4.290	4.290	0.000	1894448	731.286	25.5	42.27- 82.27	63.05
4.455	4.456	-0.001	2012910	765.014	26.7	44.05- 84.05	66.99
4.668	4.669	-0.001	4746956	779.775	27.2	133.72- 173.72	157.98
4.856	4.859	-0.003	2290462	778.499	27.1	54.07- 94.07	76.23
Average of Peak Concentrations =					26.3		

Data File: /chem/ecd2a.i/121609.b/061f6101.d
Date : 16-DEC-2009 18:51
Client ID: RE03-09-13470MSD
Sample Info: |1201997007111
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecd2a.i

Operator: JAOC
Column diameter: 0.25

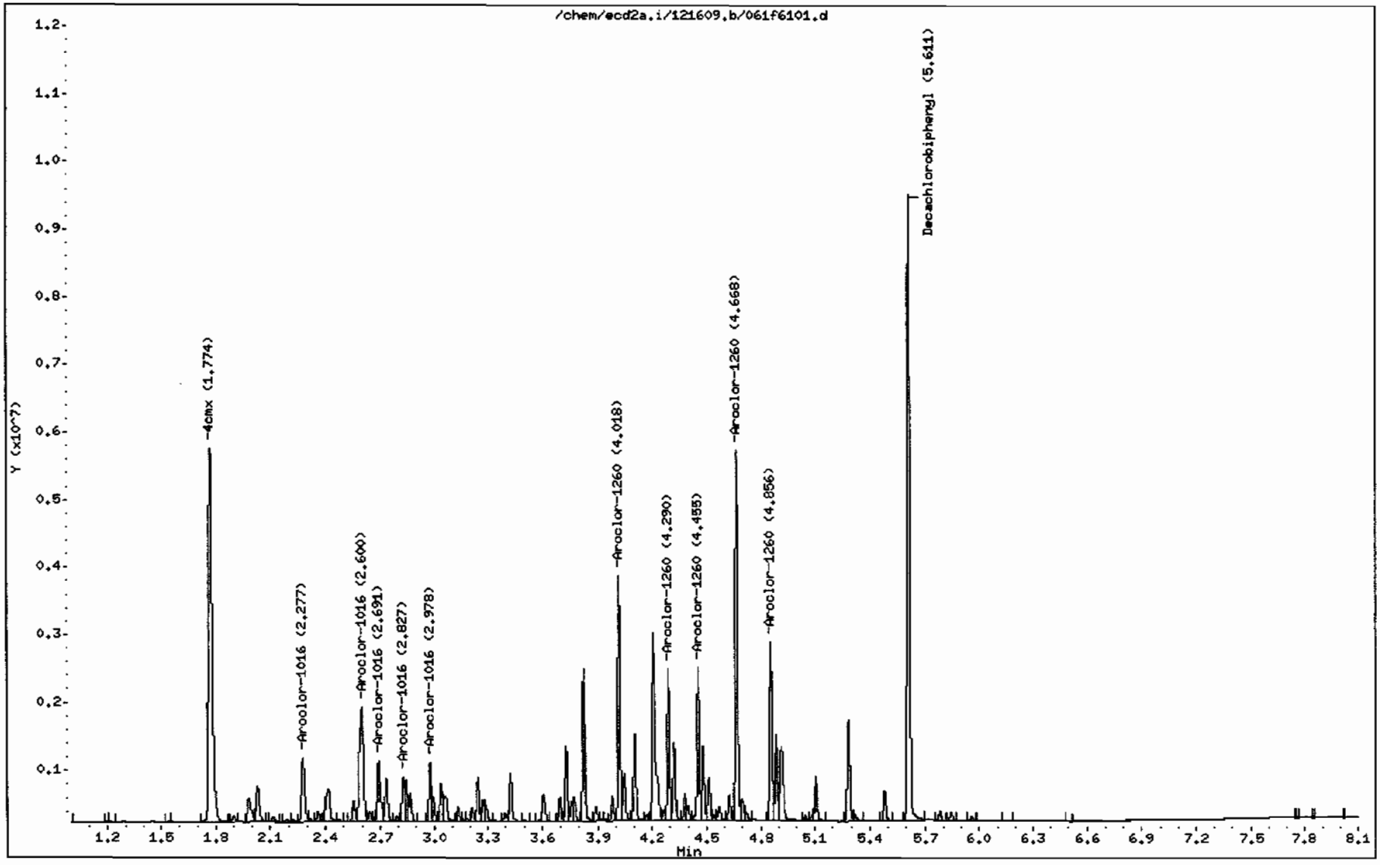

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/121609.b/061b6101.d
Lab Smp Id: 1201997007 Client Smp ID: RE03-09-13470MSD
Inj Date : 16-DEC-2009 18:51
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |1201997007|1|
Misc Info : |ECD82P_1S|933402|SVAF|QC A|SOIL|MSD|||
Comment :
Method : /chem/ecd2a.i/121609.b/ECD2-B-8082-111209A.m
Meth Date : 17-Dec-2009 05:26 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012b1201.d
Als bottle: 61 QC Sample: MSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-901.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	4.36000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.071	2.072	-0.001	17140108	132.542	4.6	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.304	6.305	-0.001	17497432	155.142	5.4	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.749	2.749	0.000	2521838	555.738	19.4	80.00- 120.00	100.00
3.183	3.183	0.000	2011331	558.367	19.5	58.95- 98.95	79.76
3.334	3.335	-0.001	1197346	583.152	20.3	25.56- 65.56	47.48
3.363	3.363	0.000	1226275	573.806	20.0	27.40- 67.40	48.63
3.522	3.522	0.000	1656461	577.060	20.1	44.70- 84.70	65.68

Average of Peak Concentrations = 19.8

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
7 Aroclor-1260					CAS #: 11096-82-5		
4.418	4.418	0.000	4071674	706.039	24.6	80.00- 120.00	100.00
4.570	4.570	0.000	5328988	748.045	26.1	107.91- 147.91	130.88
4.681	4.681	0.000	3544265	735.522	25.6	66.01- 106.01	87.05
4.878	4.879	-0.001	4278236	759.663	26.5	80.89- 120.89	105.07
5.504	5.505	-0.001	7194099	796.027	27.7	148.43- 188.43	176.69
			Average of Peak Concentrations =		26.1		

Data File: /chem/ecd2a.i/121609.b/061b6101.d
Date : 16-DEC-2009 18:51
Client ID: RE03-09-13470MSD
Sample Info: |120199700711|
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd2a.i

Operator: JAOC
Column diameter: 0.25

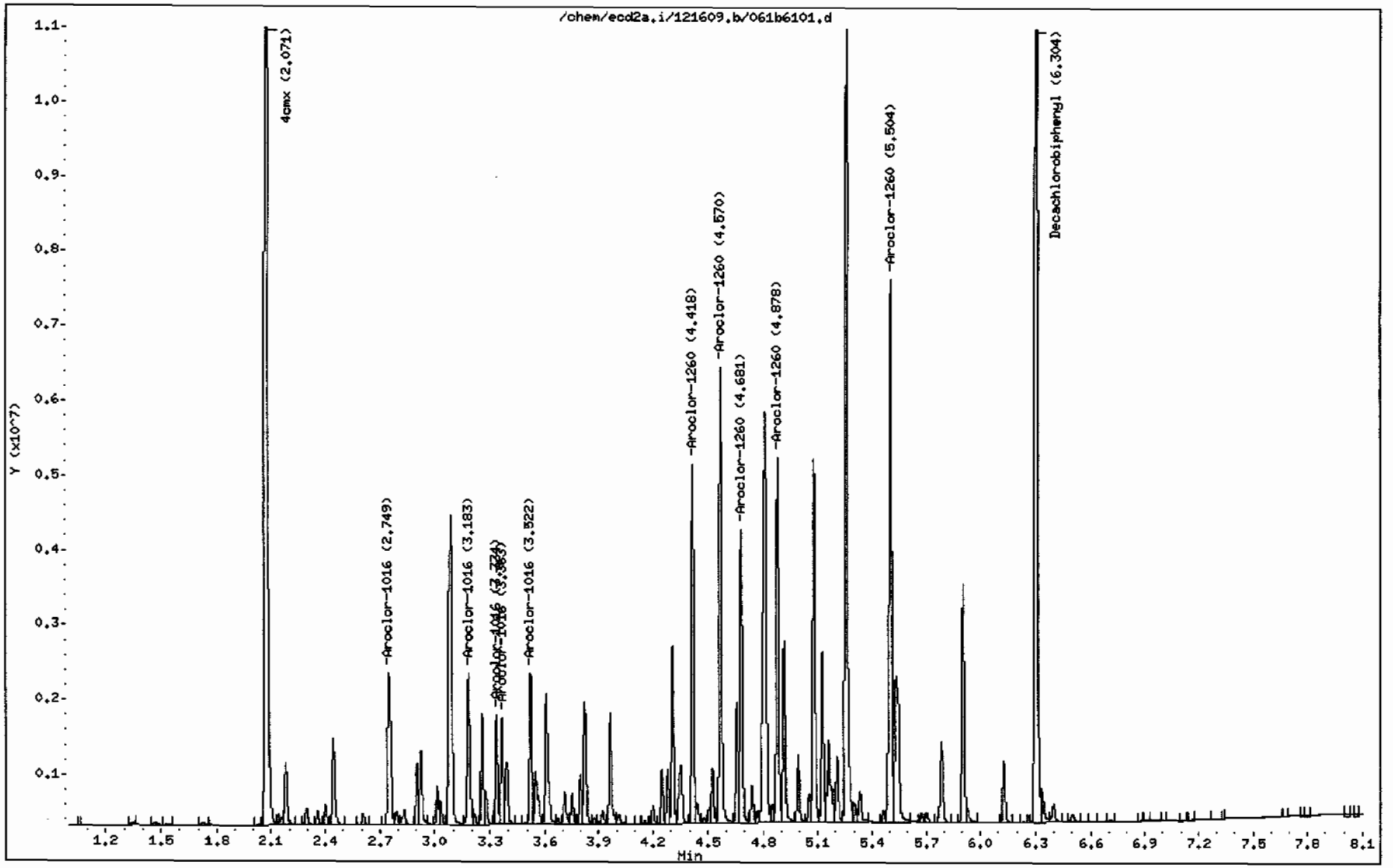

MISCELLANEOUS DATA

GEL ORGANIC RUN LOG INSTRUMENT ID: ECD2

DATE: 12/14/2009 METHOD: ECD2-F-8082-111209A.m OPERATOR:YS1 REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT:DA385
ALUMINA LOT:1230997-A
COPPER LOT:236547-A

Calibration & QC Information
Initial Calibration Dates: See Calibration History and Standards Log
Initial Calibration Std ID's: See Calibration History and Standards Log
GEL SOP GL-OA-E-040
EPA Method: 8082 Polychlorinated Biphenyls PCBs by Gas Chromatography
Sequence Number: Injection Volume: 1.0 uL

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001f0101.d	WAR091130-99 IB	YS1	14-DEC-2009 07:00		121409	1.0		CLEAN
002f0201.d	WAR091211-60 01	YS1	14-DEC-2009 07:11		121409	1.0		DUSE RE-I-CAL
003f0301.d	WAR091102-54	YS1	14-DEC-2009 07:22		121409	1.0		PASSED ON BOTH COLUMNS
004f0401.d	WAR091102-42	YS1	14-DEC-2009 07:33		121409	1.0		PASSED ON BOTH COLUMNS
005f0501.d	WAR091027-48	YS1	14-DEC-2009 07:44		121409	1.0		PASSED ON BOTH COLUMNS
006f0601.d	WAR090930-32	YS1	14-DEC-2009 07:55		121409	1.0		PATTERN ONLY
007f0701.d	WAR091111-21	YS1	14-DEC-2009 08:07		121409	1.0		PATTERN ONLY
008f0801.d	AR1660-4	YS1	14-DEC-2009 08:18		121409	1.0		DUSE SCREEN
009f0901.d	WAR091111-62	YS1	14-DEC-2009 08:29		121409	1.0		PATTERN ONLY
010f1001.d	WAR091106-68	YS1	14-DEC-2009 08:40		121409	1.0		PATTERN ONLY
011f1101.d	WAR091214-01 60	YS1	14-DEC-2009 08:51		121409	1.0		AR1660 I-CAL LEVEL 1
012f1201.d	WAR091214-02 60	YS1	14-DEC-2009 09:02		121409	1.0		AR1660 I-CAL LEVEL 2
013f1301.d	WAR091214-03 60	YS1	14-DEC-2009 09:13		121409	1.0		AR1660 I-CAL LEVEL 3
014f1401.d	WAR091214-04 60	YS1	14-DEC-2009 09:24		121409	1.0		AR1660 I-CAL LEVEL 4
015f1501.d	IAR091102-01	YS1	14-DEC-2009 09:35		121409	1.0		AR1660 I-CAL LEVEL 5

Instrument Batch: /chem/ecd2a.i/121409.b Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
016f1601.d	WAR091211-60 01	YS1	14-DEC-2009 09:46		121409	1.0		PASSED ON BOTH COLUMNS

017f1701.d	WAR091020-DDT	YS1	14-DEC-2009 09:58		121409		1.0		DDT ANALOG STANDARD
018f1801.d	WAR091130-99 02	YS1	14-DEC-2009 10:09	SOLV	121409		1.0	IB	CLEAN
019f1901.d	1201992205	YS1	14-DEC-2009 10:20	931371	241934		1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
020f2001.d	1201992206	YS1	14-DEC-2009 10:31	931371	241934		1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
021f2101.d	241934001	YS1	14-DEC-2009 10:42	931371	241934		10.0	NREA	UPLOAD BOTH COLUMNS, USE HIGHER
022f2201.d	1201992207	YS1	14-DEC-2009 10:53	931371	241934		10.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
023f2301.d	1201992208	YS1	14-DEC-2009 11:04	931371	241934		10.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
024f2401.d	241934002	YS1	14-DEC-2009 11:15	931371	241934		1.0	NREA	UPLOAD BOTH COLUMNS, USE HIGHER
025f2501.d	241934003	YS1	14-DEC-2009 11:26	931371	241934		1.0	NREA	UPLOAD BOTH COLUMNS, USE HIGHER
026f2601.d	241934004	YS1	14-DEC-2009 11:37	931371	241934		10.0	NREA	UPLOAD BOTH COLUMNS, USE HIGHER
027f2701.d	241934005	YS1	14-DEC-2009 11:48	931371	241934		1.0	NREA	UPLOAD BOTH COLUMNS, USE HIGHER
028f2801.d	241934006	YS1	14-DEC-2009 11:59	931371	241934		20.0	NREA	UPLOAD BOTH COLUMNS, USE HIGHER
029f2901.d	WAR091211-60 02	YS1	14-DEC-2009 12:11	1660	121409		1.0	CVS	PASSED ON BOTH COLUMNS
030f3001.d	WAR091130-99 03	YS1	14-DEC-2009 12:22	SOLV	121409		1.0	IB	CLEAN
031f3101.d	241934007	YS1	14-DEC-2009 12:33	931371	241934		1.0	NREA	UPLOAD BOTH COLUMNS, USE HIGHER
032f3201.d	241934008	YS1	14-DEC-2009 12:44	931371	241934		10.0	NREA	UPLOAD BOTH COLUMNS, USE HIGHER
033f3301.d	241934009	YS1	14-DEC-2009 13:00	931371	241934		1.0	NREA	DUSE RR5X AFTER MORE SULFUR CLEANED
034f3401.d	241934010	YS1	14-DEC-2009 13:11	931371	241934		10.0	NREA	UPLOAD BOTH COLUMNS, USE HIGHER
035f3501.d	241934011	YS1	14-DEC-2009 13:27	931371	241934		5.0	NREA	UPLOAD BOTH COLUMNS, USE HIGHER

Instrument Batch: /chem/ecd2a.i/121409.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
036f3601.d	241935001	YS1	14-DEC-2009 13:43	931371	241935		1.0	NREA	UPLOAD BOTH COLUMNS, USE HIGHER
037f3701.d	241935004	YS1	14-DEC-2009 13:54	931371	241935		5.0	NREA	UPLOAD BOTH COLUMNS, USE HIGHER
038f3801.d	241935005	YS1	14-DEC-2009 14:05	931371	241935		5.0	NREA	UPLOAD BOTH COLUMNS, USE HIGHER
039f3901.d	241935006	YS1	14-DEC-2009 14:21	931371	241935		50.0	NREA	UPLOAD BOTH COLUMNS, USE HIGHER
040f4001.d	241935007	YS1	14-DEC-2009 14:36	931371	241935		5.0	NREA	UPLOAD BOTH COLUMNS, USE HIGHER
041f4101.d	WAR091211-60 03	YS1	14-DEC-2009 14:52		121409		1.0		PASSED ON BOTH COLUMNS

042f4201.d	WAR091130-99 04	YS1	14-DEC-2009 15:03	SOLV	121409		1.0	IB	CLEAN
043f4301.d	241934009	YS1	14-DEC-2009 15:14	931371	241934		5.0	NREA	UPLOAD BOTH COLUMNS, USE HIGHER
044f4401.d	241935008	YS1	14-DEC-2009 15:30	931371	241935		20000.0	NREA	UPLOAD BOTH COLUMNS, USE HIGHER
045f4501.d	WAR091211-60 04	YS1	14-DEC-2009 15:45		121409		1.0		PASSED ON BOTH COLUMNS

GEL ORGANIC RUN LOG INSTRUMENT ID: ECD2

DATE: 12/17/2009 METHOD: ECD2-F-8082-111209A.m OPERATOR:JAOC REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT:DA385
ALUMINA LOT:1230997-A
COPPER LOT:236547-A

Calibration & QC Information
Initial Calibration Dates: See Calibration History and Standards Log
Initial Calibration Std ID's: See Calibration History and Standards Log
GEL SOP GL-OA-E-040
EPA Method: 8082 Polychlorinated Biphenyls PCBs by Gas Chromatography
Sequence Number:121609 Injection Volume: 1.0 uL

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001f0101.d	WAR091130-99 IB	JAOC	16-DEC-2009 07:08		121609	1.0		CLEAN
002f0201.d	WAR091211-60 01	JAOC	16-DEC-2009 07:19		121609	1.0		PASSES BOTH COLUMNS
003f0301.d	WAR091102-54	JAOC	16-DEC-2009 07:30		121609	1.0		PASSES BOTH COLUMNS
004f0401.d	WAR091102-42	JAOC	16-DEC-2009 07:41		121609	1.0		PASSES BOTH COLUMNS
005f0501.d	WAR091027-48	JAOC	16-DEC-2009 07:52		121609	1.0		PASSES BOTH COLUMNS
006f0601.d	WAR090930-32	JAOC	16-DEC-2009 08:03		121609	1.0		PATTERN ONLY
007f0701.d	WAR091111-21	JAOC	16-DEC-2009 08:14		121609	1.0		PATTERN ONLY
008f0801.d	WAR091111-62	JAOC	16-DEC-2009 08:26		121609	1.0		PATTERN ONLY
009f0901.d	WAR091106-68	JAOC	16-DEC-2009 08:37		121609	1.0		PATTERN ONLY
010f1001.d	WAR091020-DDT	JAOC	16-DEC-2009 08:48		121609	1.0		DDT
011f1101.d	WAR091130-99 02	JAOC	16-DEC-2009 08:59		121609	1.0		CLEAN
012f1201.d	1201996921	JAOC	16-DEC-2009 09:10	933371	242062	1.0	QC A	UPLOAD BOTH, USE HIGHER (has 42, 54, abd 60 hits)
013f1301.d	1201996922	JAOC	16-DEC-2009 09:21	933371	242062	1.0	QC A	UPLOAD BOTH, USE HIGHER
014f1401.d	242062012	JAOC	16-DEC-2009 09:32	933371	242062	1.0	NREA	UPLOAD BOTH, USE HIGHER
015f1501.d	242557019	JAOC	16-DEC-2009 09:43	933371	242557	5.0	NREA	DUSE, CONFIRMS

Instrument Batch: /chem/ecd2a.i/121609.b Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
016f1601.d	1201996923	JAOC	16-DEC-2009 09:54	933371	242557	5.0	QC A	DUSE, WRONG PARENT ASSOCIATION RUN NEAT

017f1701.d	1201996924	JAOC	16-DEC-2009 10:05	933371	242557	5.0	QC A	DUSE, WRONG PARENT ASSOCIATION RUN NEAT
018f1801.d	WAR091211-60 02	JAOC	16-DEC-2009 10:21		121609	1.0		PASSES BOTH COLUMNS
019f1901.d	WAR091130-99 03	JAOC	16-DEC-2009 10:32		121609	1.0		CLEAN
020f2001.d	1201995950	JAOC	16-DEC-2009 10:43	932982	242368	1.0	QC A	UPLOAD BOTH, USE HIGHER
021f2101.d	1201995951	JAOC	16-DEC-2009 10:54	932982	242368	1.0	QC A	UPLOAD BOTH, USE HIGHER
022f2201.d	242368001	JAOC	16-DEC-2009 11:05	932982	242368	1.0	GEEL	UPLOAD BOTH, USE HIGHER
023f2301.d	1201995952	JAOC	16-DEC-2009 11:16	932982	242368	1.0	QC A	UPLOAD BOTH, USE HIGHER
024f2401.d	1201995953	JAOC	16-DEC-2009 11:28	932982	242368	1.0	QC A	UPLOAD BOTH, USE HIGHER
025f2501.d	242368002	JAOC	16-DEC-2009 11:39	932982	242368	1.0	GEEL	DUSE, OVERRANGE RE-RUN AT 5X
026f2601.d	242368003	JAOC	16-DEC-2009 11:50	932982	242368	1.0	GEEL	UPLOAD BOTH, USE HIGHER
027f2701.d	242368004	JAOC	16-DEC-2009 12:01	932982	242368	1.0	GEEL	UPLOAD BOTH, USE HIGHER
028f2801.d	242368005	JAOC	16-DEC-2009 12:12	932982	242368	1.0	GEEL	UPLOAD BOTH, USE HIGHER
029f2901.d	242368006	JAOC	16-DEC-2009 12:23	932982	242368	1.0	GEEL	UPLOAD BOTH, USE HIGHER
030f3001.d	WAR091211-60 03	JAOC	16-DEC-2009 12:39		121609	1.0		PASSES BOTH COLUMNS
031f3101.d	WAR091130-99 04	JAOC	16-DEC-2009 12:50		121609	1.0		CLEAN
032f3201.d	242368002	JAOC	16-DEC-2009 13:01	932982	242368	5.0	GEEL	UPLOAD BOTH, USE HIGHER
033f3301.d	242368007	JAOC	16-DEC-2009 13:12	932982	242368	1.0	GEEL	DUSE DOESN'T CONFIRM:SENT FOR RE, UPLOADED BOTH
034f3401.d	242368008	JAOC	16-DEC-2009 13:23	932982	242368	1.0	GEEL	DUSE DOESN'T CONFIRM:SENT FOR RE, UPLOADED BOTH
035f3501.d	242368009	JAOC	16-DEC-2009 13:34	932982	242368	1.0	GEEL	DUSE DOESN'T CONFIRM:SENT FOR RE, UPLOADED BOTH

Instrument Batch: /chem/ecd2a.i/121609.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
036f3601.d	242368010	JAOC	16-DEC-2009 13:45	932982	242368	1.0	GEEL	UPLOAD BOTH, USE HIGHER
037f3701.d	242368011	JAOC	16-DEC-2009 13:56	932982	242368	1.0	GEEL	UPLOAD BOTH, USE HIGHER
038f3801.d	WAR091211-60 04	JAOC	16-DEC-2009 14:12		121609	1.0		PASSES BOTH COLUMNS
039f3901.d	WAR091130-99 05	JAOC	16-DEC-2009 14:38		121609	1.0		CLEAN
040f4001.d	1201995636	JAOC	16-DEC-2009 14:49	932863	242475	1.0	QC A	UPLOAD BOTH, USE HIGHER
041f4101.d	1201995637	JAOC	16-DEC-2009 15:05	932863	242475	1.0	QC A	UPLOAD BOTH, USE HIGHER

042f4201.d	242368013	JAOC	16-DEC-2009 15:16	932863	242368	1.0	GEEL	DUSE DOESN'T CONFIRM:SENT FOR RE, UPLOADED BOTH
043f4301.d	242475001	JAOC	16-DEC-2009 15:27	932863	242475	1.0	WSRB	UPLOAD BOTH, USE HIGHER
044f4401.d	1201995640	JAOC	16-DEC-2009 15:38	932863	242475	1.0	QC A	UPLOAD BOTH, USE HIGHER
045f4501.d	1201995641	JAOC	16-DEC-2009 15:49	932863	242475	1.0	QC A	UPLOAD BOTH, USE HIGHER
046f4601.d	1201996923	JAOC	16-DEC-2009 16:00	933371	242062	1.0	QC A	UPLOAD BOTH, USE HIGHER
047f4701.d	1201996924	JAOC	16-DEC-2009 16:11	933371	242062	1.0	QC A	UPLOAD BOTH, USE HIGHER
048f4801.d	WAR091211-60 05	JAOC	16-DEC-2009 16:27		121609	1.0		PASSES BOTH COLUMNS
049f4901.d	WAR091130-99 06	JAOC	16-DEC-2009 16:38		121609	1.0		CLEAN
050f5001.d	242632001	JAOC	16-DEC-2009 16:49	932863	09399B	5.0	WSRS	UPLOAD BOTH, USE HIGHER
051f5101.d	1201995638	JAOC	16-DEC-2009 17:00	932863	09399B	5.0	QC A	UPLOAD BOTH, USE HIGHER
052f5201.d	1201995639	JAOC	16-DEC-2009 17:11	932863	09399B	5.0	QC A	UPLOAD BOTH, USE HIGHER
053f5301.d	WAR091211-60 06	JAOC	16-DEC-2009 17:23		121609	1.0		PASSES BOTH COLUMNS
054f5401.d	WAR091130-99 07	JAOC	16-DEC-2009 17:34		121609	1.0		CLEAN
055f5501.d	1201997004	JAOC	16-DEC-2009 17:45	933402	10-899	1.0	QC A	UPLOAD BOTH, USE HIGHER

Instrument Batch: /chem/ecd2a.i/121609.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
056f5601.d	1201997005	JAOC	16-DEC-2009 17:56	933402	10-899	1.0	QC A	UPLOAD BOTH, USE HIGHER
057f5701.d	242784003	JAOC	16-DEC-2009 18:07	933402	10-899	5.0	LANL	UPLOAD BOTH, USE HIGHER
058f5801.d	242784004	JAOC	16-DEC-2009 18:18	933402	10-899	5.0	LANL	UPLOAD BOTH, USE HIGHER
059f5901.d	242794001	JAOC	16-DEC-2009 18:29	933402	10-901	1.0	LANL	UPLOAD BOTH, USE HIGHER
060f6001.d	1201997006	JAOC	16-DEC-2009 18:40	933402	10-901	1.0	QC A	UPLOAD BOTH, USE HIGHER
061f6101.d	1201997007	JAOC	16-DEC-2009 18:51	933402	10-901	1.0	QC A	UPLOAD BOTH, USE HIGHER
062f6201.d	242794002	JAOC	16-DEC-2009 19:02	933402	10-901	1.0	LANL	UPLOAD BOTH, USE HIGHER
063f6301.d	242794003	JAOC	16-DEC-2009 19:14	933402	10-901	1.0	LANL	UPLOAD BOTH, USE HIGHER
064f6401.d	242794004	JAOC	16-DEC-2009 19:25	933402	10-901	5.0	LANL	UPLOAD BOTH, USE HIGHER
065f6501.d	WAR091211-60 07	JAOC	16-DEC-2009 19:36		121609	1.0		PASSES BOTH COLUMNS

066f6601.d	WAR091130-99 08	JAOC	16-DEC-2009 19:47		121609		1.0		CLEAN
067f6701.d	1201997008	JAOC	16-DEC-2009 19:58	933405	242921		1.0	QC A	UPLOAD BOTH, USE FRONT
068f6801.d	1201997011	JAOC	16-DEC-2009 20:09	933405	242921		1.0	QC A	UPLOAD BOTH, USE FRONT
069f6901.d	1201997012	JAOC	16-DEC-2009 20:20	933405	242921		1.0	QC A	UPLOAD BOTH, USE FRONT
070f7001.d	242921001	JAOC	16-DEC-2009 20:31	933405	242921		50.0	MECP	UPLOAD BOTH, USE FRONT
071f7101.d	1201997009	JAOC	16-DEC-2009 20:42	933405	242921		50.0	QC A	UPLOAD BOTH, USE FRONT
072f7201.d	1201997010	JAOC	16-DEC-2009 20:53	933405	242921		50.0	QC A	UPLOAD BOTH, USE FRONT
073f7301.d	WAR091211-60 08	JAOC	16-DEC-2009 21:04		121609		1.0		PASSES BOTH COLUMNS
074f7401.d	WAR091130-99 09	JAOC	16-DEC-2009 21:16		121609		1.0		CLEAN

Prep Logbook

Extraction of Semivolatile and Nonvolatile Organic Compounds from Soil, Sludge, and Other Miscellaneous Solid Samples

Batch ID: 933401 **Verified by:** _____

Analyst: Robin Hunt

Method: SW846 3550B

Lab SOP: GL-OA-E-010 REV# 18

Instrument: Semi-Volatiles Manual

Sample ID	Run Date	Aliquot (g)	Clean Up	Prior to Clean up (mL)	Amount Cleaned (mL)	After Clean up (mL)	Prepped Aliquot (mL)	Prepped Factor (mL/g)
1201997004 MB	16-DEC-2009 09:01:00	30	H2SO4/KMnl		1	8	1	0.03333
1201997005 LCS	16-DEC-2009 09:01:00	30	H2SO4/KMnl		1	8	1	0.03333
242784003	16-DEC-2009 09:01:00	30.01	H2SO4/KMnl		1	8	1	0.03332
242784004	16-DEC-2009 09:01:00	30	H2SO4/KMnl		1	8	1	0.03333
242794001	16-DEC-2009 09:01:00	30	H2SO4/KMnl		1	8	1	0.03333
1201997006 MS (242794001)	16-DEC-2009 09:01:00	30.04	H2SO4/KMnl		1	8	1	0.03329
1201997007 MSD (242794001)	16-DEC-2009 09:01:00	30	H2SO4/KMnl		1	8	1	0.03333
242794002	16-DEC-2009 09:01:00	30.01	H2SO4/KMnl		1	8	1	0.03332
242794003	16-DEC-2009 09:01:00	30.07	H2SO4/KMnl		1	8	1	0.03326
242794004	16-DEC-2009 09:01:00	30.05	H2SO4/KMnl		1	8	1	0.03328

Type	Sample Id	Description	Serial Number	Spike Amt	Units
LCS	1201997005	PCB Laboratory Control	WE091210-07	1	mL
MS	1201997006	PCB Laboratory Control	WE091210-07	1	mL
MSD	1201997007	PCB Laboratory Control	WE091210-07	1	mL
SURR	All	PEST LOW LEVEL SURROGATE 200 UG/L	UE091130-15	1	mL
REGNT	All	1:1 sulfuric acid	1133264a	5	mL
REGNT	All	Acetone	1233927	150	mL
REGNT	All	Hexane	1241300-B2	150	mL
REGNT	All	5% Potassium Permanganate	B1202457-F	5	mL
SOURC	All	SODIUM SULFATE	1242582	30	g

Comments:

Clean up Date: 12/16/2009

Clean up Initials: RWH

Verified By: JAM

Final Solvent: Hexane

Clean Up SOP: GL-OA-E-037

Metals Analysis

Case Narrative

Metals Fractional Narrative
Los Alamos National Laboratory (LANL)
SDG 10-901

Sample Analysis

Sample ID	Client ID
242794001	RE03-09-13470
242794002	RE03-09-13471
242794003	RE03-09-13472
242794004	RE03-09-13469
1201995825	Method Blank (MB) **ICP**
1201995830	Laboratory Control Sample (LCS)
1201995827	242794001(RE03-09-13470L) Serial Dilution (SD)
1201995826	242794001(RE03-09-13470D) Sample Duplicate (DUP)
1201995828	242794001(RE03-09-13470S) Matrix Spike (MS)
1201995829	242794001(RE03-09-13470SD) Matrix Spike Duplicate (MSD)
1201995836	Method Blank (MB) **ICP-MS**
1201995841	Laboratory Control Sample (LCS)
1201995838	242794001(RE03-09-13470L) Serial Dilution (SD)
1201995837	242794001(RE03-09-13470D) Sample Duplicate (DUP)
1201995839	242794001(RE03-09-13470S) Matrix Spike (MS)
1201995840	242794001(RE03-09-13470SD) Matrix Spike Duplicate (MSD)
1202000180	Method Blank (MB) **CVAA**
1202000181	Laboratory Control Sample (LCS)
1202000184	242794001(RE03-09-13470L) Serial Dilution (SD)
1202000182	242794001(RE03-09-13470D) Sample Duplicate (DUP)
1202000183	242794001(RE03-09-13470S) Matrix Spike (MS)
1202000185	242794001(RE03-09-13470SD) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on a "dry weight" basis.

Method/Analysis Information

Analytical Batch: 932935, 932937 and 934871

Prep Batch :	932934, 932936 and 934870
Standard Operating Procedures:	GL-MA-E-013 REV# 20, GL-MA-E-009 REV# 19, GL-MA-E-014 REV# 20 and GL-MA-E-010 REV# 23
Analytical Method:	SW846 3050B/6010B, SW846 3050B/6020 and SW846 7471A
Prep Method :	SW846 3050B and SW846 7471A Prep

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

System Configuration

The Metals analysis-ICP was performed on a P E 4300 Optima radial/axial-viewing inductively coupled plasma atomic emission spectrometer. The instrument is equipped with a Burgener nebulizer, cyclonic spray chamber, and yttrium or scandium internal standard. Operating conditions for the ICP are set at a power level of 1500 watts. The instrument has a peristaltic pump flow rate of 1.4L/min, argon gas flows of 15 L/min and 0.2 L/min for the torch and auxiliary gases, and a flow setting of 0.65L/min for the nebulizer.

The Metals analysis - ICPMS was performed on a Perkin Elmer ELAN 6100E inductively coupled plasma mass spectrometer (ICP-MS). The instrument is equipped with a cross-flow nebulizer, quadrupole mass spectrometer, and dual mode electron multiplier detector. Internal standards of scandium, germanium, indium, tantalum, and/or lutetium were utilized to cover the mass spectrum. Operating conditions are set at 1400W power and combined argon pressures of 360+/-7 kPa for the plasma and auxiliary gases, and 0.85 L/min carrier gas flow, and an initial lens voltage of 5.2.

The Metals analysis-Mercury was performed on a Perkin-Elmer Flow Injection Mercury System (FIMS-100) automated mercury analyzer. The instrument consists of a cold vapor atomic absorption spectrometer set to detect mercury at a wavelength of 253.7 nm. Sample introduction through the flow injection system is performed via a peristaltic pump at 9 mL/min and nitrogen carrier gas rate of 80 mL/min.

Calibration Information

Instrument Calibration
All initial calibration requirements have been met for this sample delivery group (SDG).

CRDL Requirements
All CRDL standard(s) met the referenced advisory control limits in the initial calibration. All other standards ran during the analysis was not required by the method being reported therefore the data was not adversely affected.

ICSA/ICSAB Statement
All interference check samples (ICSA and ICSAB) associated with this SDG met the established acceptance criteria.

Continuing Calibration Blank (CCB) Requirements
All continuing calibration blanks (CCB) bracketing this batch met the established acceptance criteria.

Continuing Calibration Verification (CCV) Requirements
All continuing calibration verifications (CCV) bracketing this SDG met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MBs analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

Quality Control (QC) Sample Statement
The following sample was selected as the quality control (QC) sample for this SDG: 242794001 (RE03-09-13470)-ICP, ICP-MS and CVAA.

Matrix Spike (MS) Recovery Statement
The percent recoveries (%R) obtained from the MS analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. The MS met the recommended quality control acceptance criteria for percent recoveries for all applicable analytes with the exceptions of aluminum, manganese, silicon and lithium as indicated by the "N" qualifiers.

Matrix Spike Duplicate (MSD) Recovery Statement
The percent recovery (%R) obtained from the MSD analyses are evaluated when the sample concentration is less than four time (4X) the spike concentration added. All applicable elements met the acceptance criteria.

MS/MSD Relative Percent Difference (RPD) Statement
The relative percent difference (RPD) obtained from the designated matrix spike duplicate (MSD) is evaluated based on acceptance criteria of 20%. The RPD between qualifying elements results in the MS and MSD were within the acceptance limits of 20% with the exceptions of aluminum, and lithium as indicated by the "*" qualifiers.

Duplicate Relative Percent Difference (RPD) Statement
The relative percent difference (RPD) obtained from the designated sample duplicate (DUP) is evaluated based on acceptance criteria of 20% when the sample is >5X the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the contract required detection limit (RL), a control of +/-RL is used to evaluate the DUP results. All

applicable analytes met these requirements with the exceptions of aluminum, lead, magnesium, potassium and nickel as indicated by the "*" qualifiers.

Serial Dilution % Difference Statement
The serial dilution is used to assess matrix suppression or enhancement. Raw element concentrations that are 25X the IDL/MDL for CVAA, 50X the IDL/MDL for ICP, and 100X the IDL/MDL for ICP-MS analyses are applicable for serial dilution assessment. All applicable analytes met the acceptance criteria of less than 10% difference (%D).

Technical Information

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Sample Dilutions
Dilutions are performed to minimize matrix interferences resulting from elevated mineral element concentrations present in solid samples and/or to bring over range target analyte concentrations into the linear calibration range of the instrument. The samples in this SDG were diluted the standard 2x for solids on the ICPMS.

Preparation Information
The samples in this SDG were prepared exactly according to the cited SOP.

Miscellaneous Information

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Nonconformance Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. The following NCR was generated for this SDG: NCR ID 776470 and 777424. A copy is included in the Miscellaneous Data section of this package.

Additional Comments
Additional comments were not required for this SDG.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Nick Cole A. Elmore **Date:** 1·8·10

Sample Data Summary

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-901 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 242794001 **BASIS:** Dry Weight **DATE COLLECTED** 10-DEC-09

CLIENT ID: RE03-09-13470 **LEVEL:** Low **DATE RECEIVED** 12-DEC-09

MATRIX: SOIL **%SOLIDS:** 95.6

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	470000	ug/Kg	*N	7000	20600	20600	1	P	HSC	12/19/09 09:55	121909B-1	932935
7440-36-0	Antimony	794	ug/Kg	J	340	1030	1030	1	P	HSC	12/19/09 09:55	121909B-1	932935
7440-38-2	Arsenic	0.609	mg/kg	J	0.203	1.01	1.01	2	MS	SKJ	12/31/09 00:00	091230-2	932937
7440-39-3	Barium	14800	ug/Kg		103	515	515	1	P	HSC	12/19/09 09:55	121909B-1	932935
7440-41-7	Beryllium	0.287	mg/kg		0.0203	0.101	0.101	2	MS	SKJ	12/31/09 14:39	091231-3	932937
7440-42-8	Boron	5150	ug/Kg	U	1030	5150	5150	1	P	HSC	12/19/09 09:55	121909B-1	932935
7440-43-9	Cadmium	122	ug/Kg	J	103	515	515	1	P	HSC	12/19/09 09:55	121909B-1	932935
7440-70-2	Calcium	320000	ug/Kg		8230	25700	25700	1	P	HSC	12/19/09 09:55	121909B-1	932935
7440-47-3	Chromium	605	ug/Kg		154	515	515	1	P	HSC	12/19/09 09:55	121909B-1	932935
7440-48-4	Cobalt	356	ug/Kg	J	154	515	515	1	P	HSC	12/19/09 09:55	121909B-1	932935
7440-50-8	Copper	1300	ug/Kg		309	1030	1030	1	P	HSC	12/19/09 09:55	121909B-1	932935
7439-89-6	Iron	6670000	ug/Kg		8230	25700	25700	1	P	HSC	12/19/09 09:55	121909B-1	932935
7439-92-1	Lead	4910	ug/Kg	*	257	1030	1030	1	P	HSC	12/19/09 09:55	121909B-1	932935
7439-93-2	Lithium	4.33	mg/kg	*N	0.405	2.03	2.03	2	MS	SKJ	12/31/09 14:39	091231-3	932937
7439-95-4	Magnesium	268000	ug/Kg	*	8750	30900	30900	1	P	HSC	12/19/09 09:55	121909B-1	932935
7439-96-5	Manganese	181000	ug/Kg	N	206	1030	1030	1	P	HSC	12/19/09 09:55	121909B-1	932935
7439-97-6	Mercury	12.2	ug/kg	U	4.14	12.2	12.2	1	AV	ETL	12/23/09 12:20	122309S1-4	934871
7440-02-0	Nickel	1.93	mg/kg	*	0.101	0.405	0.405	2	MS	SKJ	12/31/09 00:00	091230-2	932937
7440-09-7	Potassium	153000	ug/Kg	*	6590	25700	25700	1	P	HSC	12/19/09 09:55	121909B-1	932935
7782-49-2	Selenium	1.01	mg/kg	U	0.507	1.01	1.01	2	MS	SKJ	12/31/09 00:00	091230-2	932937
7440-21-3	Silicon	474000	ug/Kg	N	1540	10300	10300	1	P	HSC	12/19/09 09:55	121909B-1	932935
7440-22-4	Silver	104	ug/Kg	J	103	515	515	1	P	HSC	12/19/09 09:55	121909B-1	932935
7440-23-5	Sodium	72600	ug/Kg		7200	25700	25700	1	P	HSC	12/19/09 09:55	121909B-1	932935
7440-28-0	Thallium	0.164	mg/kg	J	0.0608	0.203	0.203	2	MS	SKJ	12/31/09 00:00	091230-2	932937
7440-32-6	Titanium	262000	ug/Kg		103	515	515	1	P	HSC	12/19/09 09:55	121909B-1	932935
7440-61-1	Uranium	0.456	mg/kg		0.0134	0.0405	0.0405	2	MS	SKJ	12/31/09 14:39	091231-3	932937
7440-62-2	Vanadium	2260	ug/Kg		103	515	515	1	P	HSC	12/19/09 09:55	121909B-1	932935
7440-66-6	Zinc	34900	ug/Kg		340	1030	1030	1	P	HSC	12/19/09 09:55	121909B-1	932935

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
932935	932934	SW846 3050B	0.508	g	50	mL	12/17/09	FGA
932937	932936	SW846 3050B	0.516	g	50	mL	12/17/09	FGA
934871	934870	SW846 7471A Prep	0.515	g	30	mL	12/22/09	TXB3

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-901 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 242794002 **BASIS:** Dry Weight **DATE COLLECTED** 10-DEC-09

CLIENT ID: RE03-09-13471 **LEVEL:** Low **DATE RECEIVED** 12-DEC-09

MATRIX: SOIL **%SOLIDS:** 95.7

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	2570000	ug/Kg	*N	7020	20600	20600	1	P	HSC	12/19/09 10:13	121909B-1	932935
7440-36-0	Antimony	589	ug/Kg	J	341	1030	1030	1	P	HSC	12/19/09 10:13	121909B-1	932935
7440-38-2	Arsenic	0.521	mg/kg	J	0.206	1.03	1.03	2	MS	SKJ	12/31/09 00:44	091230-2	932937
7440-39-3	Barium	29600	ug/Kg		103	516	516	1	P	HSC	12/19/09 10:13	121909B-1	932935
7440-41-7	Beryllium	0.458	mg/kg		0.0206	0.103	0.103	2	MS	SKJ	12/31/09 14:56	091231-3	932937
7440-42-8	Boron	5160	ug/Kg	U	1030	5160	5160	1	P	HSC	12/19/09 10:13	121909B-1	932935
7440-43-9	Cadmium	516	ug/Kg	U	103	516	516	1	P	HSC	12/19/09 10:13	121909B-1	932935
7440-70-2	Calcium	1040000	ug/Kg		8260	25800	25800	1	P	HSC	12/19/09 10:13	121909B-1	932935
7440-47-3	Chromium	1680	ug/Kg		155	516	516	1	P	HSC	12/19/09 10:13	121909B-1	932935
7440-48-4	Cobalt	844	ug/Kg		155	516	516	1	P	HSC	12/19/09 10:13	121909B-1	932935
7440-50-8	Copper	1960	ug/Kg		310	1030	1030	1	P	HSC	12/19/09 10:13	121909B-1	932935
7439-89-6	Iron	7570000	ug/Kg		8260	25800	25800	1	P	HSC	12/19/09 10:13	121909B-1	932935
7439-92-1	Lead	6400	ug/Kg	*	258	1030	1030	1	P	HSC	12/19/09 10:13	121909B-1	932935
7439-93-2	Lithium	8.9	mg/kg	*N	0.412	2.06	2.06	2	MS	SKJ	12/31/09 14:56	091231-3	932937
7439-95-4	Magnesium	571000	ug/Kg	*	8780	31000	31000	1	P	HSC	12/19/09 10:13	121909B-1	932935
7439-96-5	Manganese	184000	ug/Kg	N	206	1030	1030	1	P	HSC	12/19/09 10:13	121909B-1	932935
7439-97-6	Mercury	11.7	ug/kg	U	3.99	11.7	11.7	1	AV	ETL	12/23/09 12:29	122309S1-4	934871
7440-02-0	Nickel	2.24	mg/kg	*	0.103	0.412	0.412	2	MS	SKJ	12/31/09 00:44	091230-2	932937
7440-09-7	Potassium	368000	ug/Kg	*	6610	25800	25800	1	P	HSC	12/19/09 10:13	121909B-1	932935
7782-49-2	Selenium	1.03	mg/kg	U	0.515	1.03	1.03	2	MS	SKJ	12/31/09 00:44	091230-2	932937
7440-21-3	Silicon	904000	ug/Kg	N	1550	10300	10300	1	P	HSC	12/19/09 10:13	121909B-1	932935
7440-22-4	Silver	135	ug/Kg	J	103	516	516	1	P	HSC	12/19/09 10:13	121909B-1	932935
7440-23-5	Sodium	332000	ug/Kg		7230	25800	25800	1	P	HSC	12/19/09 10:13	121909B-1	932935
7440-28-0	Thallium	0.154	mg/kg	J	0.0618	0.206	0.206	2	MS	SKJ	12/31/09 00:44	091230-2	932937
7440-32-6	Titanium	223000	ug/Kg		103	516	516	1	P	HSC	12/19/09 10:13	121909B-1	932935
7440-61-1	Uranium	0.504	mg/kg		0.0136	0.0412	0.0412	2	MS	SKJ	12/31/09 14:56	091231-3	932937
7440-62-2	Vanadium	4760	ug/Kg		103	516	516	1	P	HSC	12/19/09 10:13	121909B-1	932935
7440-66-6	Zinc	36400	ug/Kg		341	1030	1030	1	P	HSC	12/19/09 10:13	121909B-1	932935

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
932935	932934	SW846 3050B	0.506	g	50	mL	12/17/09	FGA
932937	932936	SW846 3050B	0.507	g	50	mL	12/17/09	FGA
934871	934870	SW846 7471A Prep	0.534	g	30	mL	12/22/09	TXB3

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-901 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 242794003 **BASIS:** Dry Weight **DATE COLLECTED** 10-DEC-09

CLIENT ID: RE03-09-13472 **LEVEL:** Low **DATE RECEIVED** 12-DEC-09

MATRIX: SOIL **%SOLIDS:** 92.3

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	1120000	ug/Kg	*N	7150	21000	21000	1	P	HSC	12/19/09 10:17	121909B-1	932935
7440-36-0	Antimony	661	ug/Kg	J	347	1050	1050	1	P	HSC	12/19/09 10:17	121909B-1	932935
7440-38-2	Arsenic	0.50	mg/kg	J	0.212	1.06	1.06	2	MS	SKJ	12/31/09 00:50	091230-2	932937
7440-39-3	Barium	17900	ug/Kg		105	526	526	1	P	HSC	12/19/09 10:17	121909B-1	932935
7440-41-7	Beryllium	0.358	mg/kg		0.0212	0.106	0.106	2	MS	SKJ	12/31/09 14:59	091231-3	932937
7440-42-8	Boron	5260	ug/Kg	U	1050	5260	5260	1	P	HSC	12/19/09 10:17	121909B-1	932935
7440-43-9	Cadmium	126	ug/Kg	J	105	526	526	1	P	HSC	12/19/09 10:17	121909B-1	932935
7440-70-2	Calcium	495000	ug/Kg		8420	26300	26300	1	P	HSC	12/19/09 10:17	121909B-1	932935
7440-47-3	Chromium	830	ug/Kg		158	526	526	1	P	HSC	12/19/09 10:17	121909B-1	932935
7440-48-4	Cobalt	458	ug/Kg	J	158	526	526	1	P	HSC	12/19/09 10:17	121909B-1	932935
7440-50-8	Copper	1330	ug/Kg		316	1050	1050	1	P	HSC	12/19/09 10:17	121909B-1	932935
7439-89-6	Iron	6940000	ug/Kg		8420	26300	26300	1	P	HSC	12/19/09 10:17	121909B-1	932935
7439-92-1	Lead	7240	ug/Kg	*	263	1050	1050	1	P	HSC	12/19/09 10:17	121909B-1	932935
7439-93-2	Lithium	6.49	mg/kg	*N	0.423	2.12	2.12	2	MS	SKJ	12/31/09 14:59	091231-3	932937
7439-95-4	Magnesium	299000	ug/Kg	*	8940	31600	31600	1	P	HSC	12/19/09 10:17	121909B-1	932935
7439-96-5	Manganese	211000	ug/Kg	N	210	1050	1050	1	P	HSC	12/19/09 10:17	121909B-1	932935
7439-97-6	Mercury	5.07	ug/kg	J	4.42	13	13	1	AV	ETL	12/23/09 12:34	122309S1-4	934871
7440-02-0	Nickel	1.57	mg/kg	*	0.106	0.423	0.423	2	MS	SKJ	12/31/09 00:50	091230-2	932937
7440-09-7	Potassium	193000	ug/Kg	*	6730	26300	26300	1	P	HSC	12/19/09 10:17	121909B-1	932935
7782-49-2	Selenium	1.06	mg/kg	U	0.529	1.06	1.06	2	MS	SKJ	12/31/09 00:50	091230-2	932937
7440-21-3	Silicon	638000	ug/Kg	N	1580	10500	10500	1	P	HSC	12/19/09 10:17	121909B-1	932935
7440-22-4	Silver	116	ug/Kg	J	105	526	526	1	P	HSC	12/19/09 10:17	121909B-1	932935
7440-23-5	Sodium	81100	ug/Kg		7360	26300	26300	1	P	HSC	12/19/09 10:17	121909B-1	932935
7440-28-0	Thallium	0.112	mg/kg	J	0.0635	0.212	0.212	2	MS	SKJ	12/31/09 00:50	091230-2	932937
7440-32-6	Titanium	262000	ug/Kg		105	526	526	1	P	HSC	12/19/09 10:17	121909B-1	932935
7440-61-1	Uranium	0.521	mg/kg		0.014	0.0423	0.0423	2	MS	SKJ	12/31/09 14:59	091231-3	932937
7440-62-2	Vanadium	2790	ug/Kg		105	526	526	1	P	HSC	12/19/09 10:17	121909B-1	932935
7440-66-6	Zinc	37700	ug/Kg		347	1050	1050	1	P	HSC	12/19/09 10:17	121909B-1	932935

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
932935	932934	SW846 3050B	0.515	g	50	mL	12/17/09	FGA
932937	932936	SW846 3050B	0.512	g	50	mL	12/17/09	FGA
934871	934870	SW846 7471A Prep	0.5	g	30	mL	12/22/09	TXB3

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-901 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 242794004 **BASIS:** Dry Weight **DATE COLLECTED** 10-DEC-09

CLIENT ID: RE03-09-13469 **LEVEL:** Low **DATE RECEIVED** 12-DEC-09

MATRIX: SOIL **%SOLIDS:** 93.6

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	8110000	ug/Kg	*N	6920	20400	20400	1	P	HSC	12/19/09 10:23	121909B-1	932935
7440-36-0	Antimony	1650	ug/Kg		336	1020	1020	1	P	HSC	12/19/09 10:23	121909B-1	932935
7440-38-2	Arsenic	1.75	mg/kg		0.21	1.05	1.05	2	MS	SKJ	12/31/09 00:56	091230-2	932937
7440-39-3	Barium	136000	ug/Kg		102	509	509	1	P	HSC	12/19/09 10:23	121909B-1	932935
7440-41-7	Beryllium	0.940	mg/kg		0.021	0.105	0.105	2	MS	SKJ	12/31/09 15:01	091231-3	932937
7440-42-8	Boron	2250	ug/Kg	J	1020	5090	5090	1	P	HSC	12/19/09 10:23	121909B-1	932935
7440-43-9	Cadmium	177	ug/Kg	J	102	509	509	1	P	HSC	12/19/09 10:23	121909B-1	932935
7440-70-2	Calcium	2310000	ug/Kg		8140	25400	25400	1	P	HSC	12/19/09 10:23	121909B-1	932935
7440-47-3	Chromium	7680	ug/Kg		153	509	509	1	P	HSC	12/19/09 10:23	121909B-1	932935
7440-48-4	Cobalt	4670	ug/Kg		153	509	509	1	P	HSC	12/19/09 10:23	121909B-1	932935
7440-50-8	Copper	5880	ug/Kg		305	1020	1020	1	P	HSC	12/19/09 10:23	121909B-1	932935
7439-89-6	Iron	12100000	ug/Kg		8140	25400	25400	1	P	HSC	12/19/09 10:23	121909B-1	932935
7439-92-1	Lead	12800	ug/Kg	*	254	1020	1020	1	P	HSC	12/19/09 10:23	121909B-1	932935
7439-93-2	Lithium	15.7	mg/kg	*N	0.419	2.1	2.1	2	MS	SKJ	12/31/09 15:01	091231-3	932937
7439-95-4	Magnesium	1630000	ug/Kg	*	8650	30500	30500	1	P	HSC	12/19/09 10:23	121909B-1	932935
7439-96-5	Manganese	351000	ug/Kg	N	204	1020	1020	1	P	HSC	12/19/09 10:23	121909B-1	932935
7439-97-6	Mercury	16	ug/kg		4.07	12	12	1	AV	ETL	12/23/09 12:35	122309S1-4	934871
7440-02-0	Nickel	7.04	mg/kg	*	0.105	0.419	0.419	2	MS	SKJ	12/31/09 00:56	091230-2	932937
7440-09-7	Potassium	1230000	ug/Kg	*	6510	25400	25400	1	P	HSC	12/19/09 10:23	121909B-1	932935
7782-49-2	Selenium	1.05	mg/kg	U	0.524	1.05	1.05	2	MS	SKJ	12/31/09 00:56	091230-2	932937
7440-21-3	Silicon	1220000	ug/Kg	N	1530	10200	10200	1	P	HSC	12/19/09 10:23	121909B-1	932935
7440-22-4	Silver	195	ug/Kg	J	102	509	509	1	P	HSC	12/19/09 10:23	121909B-1	932935
7440-23-5	Sodium	198000	ug/Kg		7120	25400	25400	1	P	HSC	12/19/09 10:23	121909B-1	932935
7440-28-0	Thallium	0.177	mg/kg	J	0.0629	0.21	0.21	2	MS	SKJ	12/31/09 00:56	091230-2	932937
7440-32-6	Titanium	415000	ug/Kg		102	509	509	1	P	HSC	12/19/09 10:23	121909B-1	932935
7440-61-1	Uranium	0.786	mg/kg		0.0138	0.0419	0.0419	2	MS	SKJ	12/31/09 15:01	091231-3	932937
7440-62-2	Vanadium	22400	ug/Kg		102	509	509	1	P	HSC	12/19/09 10:23	121909B-1	932935
7440-66-6	Zinc	30600	ug/Kg		336	1020	1020	1	P	HSC	12/19/09 10:23	121909B-1	932935

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
932935	932934	SW846 3050B	0.525	g	50	mL	12/17/09	FGA
932937	932936	SW846 3050B	0.51	g	50	mL	12/17/09	FGA
934871	934870	SW846 7471A Prep	0.536	g	30	mL	12/22/09	TXB3

Quality Control Summary

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-901

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
ICV01										
	Aluminum	5130	ug/L	5000	ug/L	102.6	90.0 - 110.0	P	19-DEC-09 03:56	121909B-1
	Antimony	498	ug/L	500	ug/L	99.6	90.0 - 110.0	P	19-DEC-09 03:56	121909B-1
	Barium	515	ug/L	500	ug/L	103	90.0 - 110.0	P	19-DEC-09 03:56	121909B-1
	Boron	522	ug/L	500	ug/L	104.4	90.0 - 110.0	P	19-DEC-09 03:56	121909B-1
	Cadmium	506	ug/L	500	ug/L	101.2	90.0 - 110.0	P	19-DEC-09 03:56	121909B-1
	Calcium	4990	ug/L	5000	ug/L	99.8	90.0 - 110.0	P	19-DEC-09 03:56	121909B-1
	Chromium	495	ug/L	500	ug/L	99.1	90.0 - 110.0	P	19-DEC-09 03:56	121909B-1
	Cobalt	515	ug/L	500	ug/L	103	90.0 - 110.0	P	19-DEC-09 03:56	121909B-1
	Copper	497	ug/L	500	ug/L	99.5	90.0 - 110.0	P	19-DEC-09 03:56	121909B-1
	Iron	5130	ug/L	5000	ug/L	102.5	90.0 - 110.0	P	19-DEC-09 03:56	121909B-1
	Lead	503	ug/L	500	ug/L	100.6	90.0 - 110.0	P	19-DEC-09 03:56	121909B-1
	Magnesium	5210	ug/L	5000	ug/L	104.2	90.0 - 110.0	P	19-DEC-09 03:56	121909B-1
	Manganese	510	ug/L	500	ug/L	102	90.0 - 110.0	P	19-DEC-09 03:56	121909B-1
	Potassium	2460	ug/L	2500	ug/L	98.4	90.0 - 110.0	P	19-DEC-09 03:56	121909B-1
	Silicon	4940	ug/L	5000	ug/L	98.8	90.0 - 110.0	P	19-DEC-09 03:56	121909B-1
	Silver	261	ug/L	250	ug/L	104.3	90.0 - 110.0	P	19-DEC-09 03:56	121909B-1
	Sodium	2530	ug/L	2500	ug/L	101.3	90.0 - 110.0	P	19-DEC-09 03:56	121909B-1
	Titanium	492	ug/L	500	ug/L	98.5	90.0 - 110.0	P	19-DEC-09 03:56	121909B-1
	Vanadium	512	ug/L	500	ug/L	102.3	90.0 - 110.0	P	19-DEC-09 03:56	121909B-1
	Zinc	507	ug/L	500	ug/L	101.5	90.0 - 110.0	P	19-DEC-09 03:56	121909B-1
	Mercury	5.21	ug/L	5	ug/L	104.3	90.0 - 110.0	AV	23-DEC-09 08:50	122309S1-4
	Arsenic	46	ug/L	50	ug/L	91.9	90.0 - 110.0	MS	30-DEC-09 22:40	091230-2
	Nickel	52.3	ug/L	50	ug/L	104.5	90.0 - 110.0	MS	30-DEC-09 22:40	091230-2
	Selenium	49.9	ug/L	50	ug/L	99.9	90.0 - 110.0	MS	30-DEC-09 22:40	091230-2
	Thallium	48.6	ug/L	50	ug/L	97.1	90.0 - 110.0	MS	30-DEC-09 22:40	091230-2
	Beryllium	51.4	ug/L	50	ug/L	102.7	90.0 - 110.0	MS	31-DEC-09 14:14	091231-3
	Lithium	51.4	ug/L	50	ug/L	102.9	90.0 - 110.0	MS	31-DEC-09 14:14	091231-3
	Uranium	53.2	ug/L	50	ug/L	106.3	90.0 - 110.0	MS	31-DEC-09 14:14	091231-3
CCV01										
	Aluminum	5180	ug/L	5000	ug/L	103.5	90.0 - 110.0	P	19-DEC-09 04:20	121909B-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-901

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Antimony	502	ug/L	500	ug/L	100.4	90.0 - 110.0	P	19-DEC-09 04:20	121909B-1
	Barium	509	ug/L	500	ug/L	101.9	90.0 - 110.0	P	19-DEC-09 04:20	121909B-1
	Boron	506	ug/L	500	ug/L	101.2	90.0 - 110.0	P	19-DEC-09 04:20	121909B-1
	Cadmium	512	ug/L	500	ug/L	102.3	90.0 - 110.0	P	19-DEC-09 04:20	121909B-1
	Calcium	5230	ug/L	5000	ug/L	104.6	90.0 - 110.0	P	19-DEC-09 04:20	121909B-1
	Chromium	508	ug/L	500	ug/L	101.5	90.0 - 110.0	P	19-DEC-09 04:20	121909B-1
	Cobalt	509	ug/L	500	ug/L	101.8	90.0 - 110.0	P	19-DEC-09 04:20	121909B-1
	Copper	493	ug/L	500	ug/L	98.6	90.0 - 110.0	P	19-DEC-09 04:20	121909B-1
	Iron	5260	ug/L	5000	ug/L	105.3	90.0 - 110.0	P	19-DEC-09 04:20	121909B-1
	Lead	508	ug/L	500	ug/L	101.7	90.0 - 110.0	P	19-DEC-09 04:20	121909B-1
	Magnesium	5380	ug/L	5000	ug/L	107.7	90.0 - 110.0	P	19-DEC-09 04:20	121909B-1
	Manganese	505	ug/L	500	ug/L	101.1	90.0 - 110.0	P	19-DEC-09 04:20	121909B-1
	Potassium	5240	ug/L	5000	ug/L	104.7	90.0 - 110.0	P	19-DEC-09 04:20	121909B-1
	Silicon	2480	ug/L	2500	ug/L	99.3	90.0 - 110.0	P	19-DEC-09 04:20	121909B-1
	Silver	508	ug/L	500	ug/L	101.6	90.0 - 110.0	P	19-DEC-09 04:20	121909B-1
	Sodium	10300	ug/L	10000	ug/L	103.3	90.0 - 110.0	P	19-DEC-09 04:20	121909B-1
	Titanium	501	ug/L	500	ug/L	100.1	90.0 - 110.0	P	19-DEC-09 04:20	121909B-1
	Vanadium	510	ug/L	500	ug/L	101.9	90.0 - 110.0	P	19-DEC-09 04:20	121909B-1
	Zinc	513	ug/L	500	ug/L	102.6	90.0 - 110.0	P	19-DEC-09 04:20	121909B-1
	Mercury	5.06	ug/L	5	ug/L	101.2	80.0 - 120.0	AV	23-DEC-09 08:55	122309S1-4
	Arsenic	45.6	ug/L	50	ug/L	91.3	90.0 - 110.0	MS	30-DEC-09 23:11	091230-2
	Nickel	51.4	ug/L	50	ug/L	102.7	90.0 - 110.0	MS	30-DEC-09 23:11	091230-2
	Selenium	49.2	ug/L	50	ug/L	98.4	90.0 - 110.0	MS	30-DEC-09 23:11	091230-2
	Thallium	48.3	ug/L	50	ug/L	96.6	90.0 - 110.0	MS	30-DEC-09 23:11	091230-2
	Beryllium	50	ug/L	50	ug/L	99.9	90.0 - 110.0	MS	31-DEC-09 14:27	091231-3
	Lithium	50.1	ug/L	50	ug/L	100.2	90.0 - 110.0	MS	31-DEC-09 14:27	091231-3
	Uranium	52.8	ug/L	50	ug/L	105.7	90.0 - 110.0	MS	31-DEC-09 14:27	091231-3
CCV02										
	Aluminum	5240	ug/L	5000	ug/L	104.9	90.0 - 110.0	P	19-DEC-09 04:49	121909B-1
	Antimony	503	ug/L	500	ug/L	100.6	90.0 - 110.0	P	19-DEC-09 04:49	121909B-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-901

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Barium	513	ug/L	500	ug/L	102.5	90.0 – 110.0	P	19-DEC-09 04:49	121909B-1
	Boron	509	ug/L	500	ug/L	101.8	90.0 – 110.0	P	19-DEC-09 04:49	121909B-1
	Cadmium	516	ug/L	500	ug/L	103.1	90.0 – 110.0	P	19-DEC-09 04:49	121909B-1
	Calcium	5330	ug/L	5000	ug/L	106.7	90.0 – 110.0	P	19-DEC-09 04:49	121909B-1
	Chromium	511	ug/L	500	ug/L	102.2	90.0 – 110.0	P	19-DEC-09 04:49	121909B-1
	Cobalt	513	ug/L	500	ug/L	102.6	90.0 – 110.0	P	19-DEC-09 04:49	121909B-1
	Copper	501	ug/L	500	ug/L	100.1	90.0 – 110.0	P	19-DEC-09 04:49	121909B-1
	Iron	5290	ug/L	5000	ug/L	105.8	90.0 – 110.0	P	19-DEC-09 04:49	121909B-1
	Lead	508	ug/L	500	ug/L	101.7	90.0 – 110.0	P	19-DEC-09 04:49	121909B-1
	Magnesium	5360	ug/L	5000	ug/L	107.2	90.0 – 110.0	P	19-DEC-09 04:49	121909B-1
	Manganese	511	ug/L	500	ug/L	102.2	90.0 – 110.0	P	19-DEC-09 04:49	121909B-1
	Potassium	5220	ug/L	5000	ug/L	104.3	90.0 – 110.0	P	19-DEC-09 04:49	121909B-1
	Silicon	2510	ug/L	2500	ug/L	100.4	90.0 – 110.0	P	19-DEC-09 04:49	121909B-1
	Silver	518	ug/L	500	ug/L	103.5	90.0 – 110.0	P	19-DEC-09 04:49	121909B-1
	Sodium	10500	ug/L	10000	ug/L	105.4	90.0 – 110.0	P	19-DEC-09 04:49	121909B-1
	Titanium	507	ug/L	500	ug/L	101.4	90.0 – 110.0	P	19-DEC-09 04:49	121909B-1
	Vanadium	516	ug/L	500	ug/L	103.1	90.0 – 110.0	P	19-DEC-09 04:49	121909B-1
	Zinc	516	ug/L	500	ug/L	103.2	90.0 – 110.0	P	19-DEC-09 04:49	121909B-1
	Mercury	5.03	ug/L	5	ug/L	100.6	80.0 – 120.0	AV	23-DEC-09 09:15	122309S1-4
	Arsenic	50.7	ug/L	50	ug/L	101.3	90.0 – 110.0	MS	30-DEC-09 23:29	091230-2
	Nickel	54.1	ug/L	50	ug/L	108.3	90.0 – 110.0	MS	30-DEC-09 23:29	091230-2
	Selenium	51.5	ug/L	50	ug/L	103	90.0 – 110.0	MS	30-DEC-09 23:29	091230-2
	Thallium	51.3	ug/L	50	ug/L	102.6	90.0 – 110.0	MS	30-DEC-09 23:29	091230-2
	Beryllium	50.6	ug/L	50	ug/L	101.1	90.0 – 110.0	MS	31-DEC-09 14:41	091231-3
	Lithium	50.1	ug/L	50	ug/L	100.2	90.0 – 110.0	MS	31-DEC-09 14:41	091231-3
	Uranium	53	ug/L	50	ug/L	105.9	90.0 – 110.0	MS	31-DEC-09 14:41	091231-3
CCV03										
	Aluminum	5210	ug/L	5000	ug/L	104.3	90.0 – 110.0	P	19-DEC-09 05:23	121909B-1
	Antimony	499	ug/L	500	ug/L	99.7	90.0 – 110.0	P	19-DEC-09 05:23	121909B-1
	Barium	512	ug/L	500	ug/L	102.3	90.0 – 110.0	P	19-DEC-09 05:23	121909B-1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–901

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Boron	509	ug/L	500	ug/L	101.8	90.0 – 110.0	P	19–DEC–09 05:23	121909B–1
	Cadmium	514	ug/L	500	ug/L	102.8	90.0 – 110.0	P	19–DEC–09 05:23	121909B–1
	Calcium	5230	ug/L	5000	ug/L	104.5	90.0 – 110.0	P	19–DEC–09 05:23	121909B–1
	Chromium	509	ug/L	500	ug/L	101.9	90.0 – 110.0	P	19–DEC–09 05:23	121909B–1
	Cobalt	513	ug/L	500	ug/L	102.6	90.0 – 110.0	P	19–DEC–09 05:23	121909B–1
	Copper	499	ug/L	500	ug/L	99.8	90.0 – 110.0	P	19–DEC–09 05:23	121909B–1
	Iron	5190	ug/L	5000	ug/L	103.8	90.0 – 110.0	P	19–DEC–09 05:23	121909B–1
	Lead	504	ug/L	500	ug/L	100.8	90.0 – 110.0	P	19–DEC–09 05:23	121909B–1
	Magnesium	5290	ug/L	5000	ug/L	105.8	90.0 – 110.0	P	19–DEC–09 05:23	121909B–1
	Manganese	504	ug/L	500	ug/L	100.8	90.0 – 110.0	P	19–DEC–09 05:23	121909B–1
	Potassium	5200	ug/L	5000	ug/L	104.1	90.0 – 110.0	P	19–DEC–09 05:23	121909B–1
	Silicon	2500	ug/L	2500	ug/L	100.1	90.0 – 110.0	P	19–DEC–09 05:23	121909B–1
	Silver	516	ug/L	500	ug/L	103.2	90.0 – 110.0	P	19–DEC–09 05:23	121909B–1
	Sodium	10500	ug/L	10000	ug/L	105	90.0 – 110.0	P	19–DEC–09 05:23	121909B–1
	Titanium	500	ug/L	500	ug/L	100	90.0 – 110.0	P	19–DEC–09 05:23	121909B–1
	Vanadium	515	ug/L	500	ug/L	103	90.0 – 110.0	P	19–DEC–09 05:23	121909B–1
	Zinc	515	ug/L	500	ug/L	103	90.0 – 110.0	P	19–DEC–09 05:23	121909B–1
	Mercury	5	ug/L	5	ug/L	99.9	80.0 – 120.0	AV	23–DEC–09 09:35	122309S1–4
	Arsenic	45.8	ug/L	50	ug/L	91.7	90.0 – 110.0	MS	31–DEC–09 00:07	091230–2
	Nickel	49.1	ug/L	50	ug/L	98.1	90.0 – 110.0	MS	31–DEC–09 00:07	091230–2
	Selenium	49.2	ug/L	50	ug/L	98.4	90.0 – 110.0	MS	31–DEC–09 00:07	091230–2
	Thallium	48.3	ug/L	50	ug/L	96.6	90.0 – 110.0	MS	31–DEC–09 00:07	091230–2
	Beryllium	53	ug/L	50	ug/L	106.1	90.0 – 110.0	MS	31–DEC–09 15:04	091231–3
	Lithium	54.5	ug/L	50	ug/L	108.9	90.0 – 110.0	MS	31–DEC–09 15:04	091231–3
	Uranium	53.2	ug/L	50	ug/L	106.3	90.0 – 110.0	MS	31–DEC–09 15:04	091231–3
CCV04										
	Aluminum	5170	ug/L	5000	ug/L	103.4	90.0 – 110.0	P	19–DEC–09 05:56	121909B–1
	Antimony	502	ug/L	500	ug/L	100.4	90.0 – 110.0	P	19–DEC–09 05:56	121909B–1
	Barium	510	ug/L	500	ug/L	102	90.0 – 110.0	P	19–DEC–09 05:56	121909B–1
	Boron	509	ug/L	500	ug/L	101.7	90.0 – 110.0	P	19–DEC–09 05:56	121909B–1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-901

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Cadmium	512	ug/L	500	ug/L	102.4	90.0 – 110.0	P	19-DEC-09 05:56	121909B-1
	Calcium	5080	ug/L	5000	ug/L	101.5	90.0 – 110.0	P	19-DEC-09 05:56	121909B-1
	Chromium	508	ug/L	500	ug/L	101.6	90.0 – 110.0	P	19-DEC-09 05:56	121909B-1
	Cobalt	511	ug/L	500	ug/L	102.1	90.0 – 110.0	P	19-DEC-09 05:56	121909B-1
	Copper	499	ug/L	500	ug/L	99.8	90.0 – 110.0	P	19-DEC-09 05:56	121909B-1
	Iron	5200	ug/L	5000	ug/L	103.9	90.0 – 110.0	P	19-DEC-09 05:56	121909B-1
	Lead	502	ug/L	500	ug/L	100.5	90.0 – 110.0	P	19-DEC-09 05:56	121909B-1
	Magnesium	5270	ug/L	5000	ug/L	105.3	90.0 – 110.0	P	19-DEC-09 05:56	121909B-1
	Manganese	503	ug/L	500	ug/L	100.5	90.0 – 110.0	P	19-DEC-09 05:56	121909B-1
	Potassium	5180	ug/L	5000	ug/L	103.5	90.0 – 110.0	P	19-DEC-09 05:56	121909B-1
	Silicon	2490	ug/L	2500	ug/L	99.8	90.0 – 110.0	P	19-DEC-09 05:56	121909B-1
	Silver	516	ug/L	500	ug/L	103.1	90.0 – 110.0	P	19-DEC-09 05:56	121909B-1
	Sodium	10400	ug/L	10000	ug/L	104.1	90.0 – 110.0	P	19-DEC-09 05:56	121909B-1
	Titanium	500	ug/L	500	ug/L	99.9	90.0 – 110.0	P	19-DEC-09 05:56	121909B-1
	Vanadium	513	ug/L	500	ug/L	102.6	90.0 – 110.0	P	19-DEC-09 05:56	121909B-1
	Zinc	514	ug/L	500	ug/L	102.8	90.0 – 110.0	P	19-DEC-09 05:56	121909B-1
	Mercury	5.03	ug/L	5	ug/L	100.7	80.0 – 120.0	AV	23-DEC-09 09:55	122309S1-4
	Arsenic	46.4	ug/L	50	ug/L	92.8	90.0 – 110.0	MS	31-DEC-09 01:03	091230-2
	Nickel	47.3	ug/L	50	ug/L	94.6	90.0 – 110.0	MS	31-DEC-09 01:03	091230-2
	Selenium	50.5	ug/L	50	ug/L	101	90.0 – 110.0	MS	31-DEC-09 01:03	091230-2
	Thallium	47.4	ug/L	50	ug/L	94.9	90.0 – 110.0	MS	31-DEC-09 01:03	091230-2
CCV05										
	Aluminum	5250	ug/L	5000	ug/L	105	90.0 – 110.0	P	19-DEC-09 06:25	121909B-1
	Antimony	511	ug/L	500	ug/L	102.1	90.0 – 110.0	P	19-DEC-09 06:25	121909B-1
	Barium	517	ug/L	500	ug/L	103.4	90.0 – 110.0	P	19-DEC-09 06:25	121909B-1
	Boron	515	ug/L	500	ug/L	102.9	90.0 – 110.0	P	19-DEC-09 06:25	121909B-1
	Cadmium	520	ug/L	500	ug/L	104	90.0 – 110.0	P	19-DEC-09 06:25	121909B-1
	Calcium	5160	ug/L	5000	ug/L	103.2	90.0 – 110.0	P	19-DEC-09 06:25	121909B-1
	Chromium	515	ug/L	500	ug/L	103	90.0 – 110.0	P	19-DEC-09 06:25	121909B-1
	Cobalt	518	ug/L	500	ug/L	103.5	90.0 – 110.0	P	19-DEC-09 06:25	121909B-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-901

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Copper	504	ug/L	500	ug/L	100.9	90.0 – 110.0	P	19-DEC-09 06:25	121909B-1
	Iron	5270	ug/L	5000	ug/L	105.4	90.0 – 110.0	P	19-DEC-09 06:25	121909B-1
	Lead	508	ug/L	500	ug/L	101.7	90.0 – 110.0	P	19-DEC-09 06:25	121909B-1
	Magnesium	5380	ug/L	5000	ug/L	107.6	90.0 – 110.0	P	19-DEC-09 06:25	121909B-1
	Manganese	510	ug/L	500	ug/L	102.1	90.0 – 110.0	P	19-DEC-09 06:25	121909B-1
	Potassium	5260	ug/L	5000	ug/L	105.3	90.0 – 110.0	P	19-DEC-09 06:25	121909B-1
	Silicon	2530	ug/L	2500	ug/L	101.2	90.0 – 110.0	P	19-DEC-09 06:25	121909B-1
	Silver	521	ug/L	500	ug/L	104.2	90.0 – 110.0	P	19-DEC-09 06:25	121909B-1
	Sodium	10600	ug/L	10000	ug/L	106	90.0 – 110.0	P	19-DEC-09 06:25	121909B-1
	Titanium	507	ug/L	500	ug/L	101.3	90.0 – 110.0	P	19-DEC-09 06:25	121909B-1
	Vanadium	520	ug/L	500	ug/L	104	90.0 – 110.0	P	19-DEC-09 06:25	121909B-1
	Zinc	520	ug/L	500	ug/L	104.1	90.0 – 110.0	P	19-DEC-09 06:25	121909B-1
	Mercury	5.03	ug/L	5	ug/L	100.5	80.0 – 120.0	AV	23-DEC-09 10:08	122309S1-4
CCV06										
	Aluminum	5330	ug/L	5000	ug/L	106.5	90.0 – 110.0	P	19-DEC-09 07:00	121909B-1
	Antimony	511	ug/L	500	ug/L	102.1	90.0 – 110.0	P	19-DEC-09 07:00	121909B-1
	Barium	522	ug/L	500	ug/L	104.3	90.0 – 110.0	P	19-DEC-09 07:00	121909B-1
	Boron	519	ug/L	500	ug/L	103.8	90.0 – 110.0	P	19-DEC-09 07:00	121909B-1
	Cadmium	525	ug/L	500	ug/L	105	90.0 – 110.0	P	19-DEC-09 07:00	121909B-1
	Calcium	5170	ug/L	5000	ug/L	103.5	90.0 – 110.0	P	19-DEC-09 07:00	121909B-1
	Chromium	519	ug/L	500	ug/L	103.8	90.0 – 110.0	P	19-DEC-09 07:00	121909B-1
	Cobalt	523	ug/L	500	ug/L	104.6	90.0 – 110.0	P	19-DEC-09 07:00	121909B-1
	Copper	509	ug/L	500	ug/L	101.8	90.0 – 110.0	P	19-DEC-09 07:00	121909B-1
	Iron	5310	ug/L	5000	ug/L	106.2	90.0 – 110.0	P	19-DEC-09 07:00	121909B-1
	Lead	514	ug/L	500	ug/L	102.8	90.0 – 110.0	P	19-DEC-09 07:00	121909B-1
	Magnesium	5440	ug/L	5000	ug/L	108.7	90.0 – 110.0	P	19-DEC-09 07:00	121909B-1
	Manganese	515	ug/L	500	ug/L	102.9	90.0 – 110.0	P	19-DEC-09 07:00	121909B-1
	Potassium	5290	ug/L	5000	ug/L	105.8	90.0 – 110.0	P	19-DEC-09 07:00	121909B-1
	Silicon	2550	ug/L	2500	ug/L	102.1	90.0 – 110.0	P	19-DEC-09 07:00	121909B-1
	Silver	526	ug/L	500	ug/L	105.3	90.0 – 110.0	P	19-DEC-09 07:00	121909B-1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–901

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Sodium	10700	ug/L	10000	ug/L	106.9	90.0 – 110.0	P	19–DEC–09 07:00	121909B–1
	Titanium	512	ug/L	500	ug/L	102.3	90.0 – 110.0	P	19–DEC–09 07:00	121909B–1
	Vanadium	525	ug/L	500	ug/L	105	90.0 – 110.0	P	19–DEC–09 07:00	121909B–1
	Zinc	525	ug/L	500	ug/L	105.1	90.0 – 110.0	P	19–DEC–09 07:00	121909B–1
	Mercury	4.99	ug/L	5	ug/L	99.8	80.0 – 120.0	AV	23–DEC–09 10:28	122309S1–4
CCV07										
	Aluminum	5350	ug/L	5000	ug/L	107	90.0 – 110.0	P	19–DEC–09 07:29	121909B–1
	Antimony	519	ug/L	500	ug/L	103.7	90.0 – 110.0	P	19–DEC–09 07:29	121909B–1
	Barium	522	ug/L	500	ug/L	104.5	90.0 – 110.0	P	19–DEC–09 07:29	121909B–1
	Boron	520	ug/L	500	ug/L	104.1	90.0 – 110.0	P	19–DEC–09 07:29	121909B–1
	Cadmium	524	ug/L	500	ug/L	104.9	90.0 – 110.0	P	19–DEC–09 07:29	121909B–1
	Calcium	5310	ug/L	5000	ug/L	106.1	90.0 – 110.0	P	19–DEC–09 07:29	121909B–1
	Chromium	520	ug/L	500	ug/L	104.1	90.0 – 110.0	P	19–DEC–09 07:29	121909B–1
	Cobalt	523	ug/L	500	ug/L	104.6	90.0 – 110.0	P	19–DEC–09 07:29	121909B–1
	Copper	511	ug/L	500	ug/L	102.1	90.0 – 110.0	P	19–DEC–09 07:29	121909B–1
	Iron	5320	ug/L	5000	ug/L	106.3	90.0 – 110.0	P	19–DEC–09 07:29	121909B–1
	Lead	515	ug/L	500	ug/L	103	90.0 – 110.0	P	19–DEC–09 07:29	121909B–1
	Magnesium	5450	ug/L	5000	ug/L	109	90.0 – 110.0	P	19–DEC–09 07:29	121909B–1
	Manganese	516	ug/L	500	ug/L	103.2	90.0 – 110.0	P	19–DEC–09 07:29	121909B–1
	Potassium	5340	ug/L	5000	ug/L	106.8	90.0 – 110.0	P	19–DEC–09 07:29	121909B–1
	Silicon	2570	ug/L	2500	ug/L	102.7	90.0 – 110.0	P	19–DEC–09 07:29	121909B–1
	Silver	527	ug/L	500	ug/L	105.4	90.0 – 110.0	P	19–DEC–09 07:29	121909B–1
	Sodium	10700	ug/L	10000	ug/L	107.1	90.0 – 110.0	P	19–DEC–09 07:29	121909B–1
	Titanium	513	ug/L	500	ug/L	102.7	90.0 – 110.0	P	19–DEC–09 07:29	121909B–1
	Vanadium	525	ug/L	500	ug/L	105	90.0 – 110.0	P	19–DEC–09 07:29	121909B–1
	Zinc	527	ug/L	500	ug/L	105.4	90.0 – 110.0	P	19–DEC–09 07:29	121909B–1
	Mercury	3.05	ug/L	5	ug/L	61.1	80.0 – 120.0	AV	23–DEC–09 10:48	122309S1–4
CCV08										
	Aluminum	5180	ug/L	5000	ug/L	103.5	90.0 – 110.0	P	19–DEC–09 08:11	121909B–1
	Antimony	502	ug/L	500	ug/L	100.3	90.0 – 110.0	P	19–DEC–09 08:11	121909B–1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-901

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Barium	506	ug/L	500	ug/L	101.3	90.0 – 110.0	P	19-DEC-09 08:11	121909B-1
	Boron	506	ug/L	500	ug/L	101.2	90.0 – 110.0	P	19-DEC-09 08:11	121909B-1
	Cadmium	512	ug/L	500	ug/L	102.4	90.0 – 110.0	P	19-DEC-09 08:11	121909B-1
	Calcium	5060	ug/L	5000	ug/L	101.2	90.0 – 110.0	P	19-DEC-09 08:11	121909B-1
	Chromium	505	ug/L	500	ug/L	101	90.0 – 110.0	P	19-DEC-09 08:11	121909B-1
	Cobalt	509	ug/L	500	ug/L	101.8	90.0 – 110.0	P	19-DEC-09 08:11	121909B-1
	Copper	494	ug/L	500	ug/L	98.8	90.0 – 110.0	P	19-DEC-09 08:11	121909B-1
	Iron	5160	ug/L	5000	ug/L	103.2	90.0 – 110.0	P	19-DEC-09 08:11	121909B-1
	Lead	500	ug/L	500	ug/L	100.1	90.0 – 110.0	P	19-DEC-09 08:11	121909B-1
	Magnesium	5290	ug/L	5000	ug/L	105.8	90.0 – 110.0	P	19-DEC-09 08:11	121909B-1
	Manganese	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	19-DEC-09 08:11	121909B-1
	Potassium	5280	ug/L	5000	ug/L	105.5	90.0 – 110.0	P	19-DEC-09 08:11	121909B-1
	Silicon	2480	ug/L	2500	ug/L	99.2	90.0 – 110.0	P	19-DEC-09 08:11	121909B-1
	Silver	511	ug/L	500	ug/L	102.3	90.0 – 110.0	P	19-DEC-09 08:11	121909B-1
	Sodium	10600	ug/L	10000	ug/L	106.2	90.0 – 110.0	P	19-DEC-09 08:11	121909B-1
	Titanium	497	ug/L	500	ug/L	99.5	90.0 – 110.0	P	19-DEC-09 08:11	121909B-1
	Vanadium	510	ug/L	500	ug/L	101.9	90.0 – 110.0	P	19-DEC-09 08:11	121909B-1
	Zinc	512	ug/L	500	ug/L	102.4	90.0 – 110.0	P	19-DEC-09 08:11	121909B-1
	Mercury	3	ug/L	5	ug/L	60.1	80.0 – 120.0	AV	23-DEC-09 10:59	122309S1-4
CCV09										
	Aluminum	5370	ug/L	5000	ug/L	107.4	90.0 – 110.0	P	19-DEC-09 08:24	121909B-1
	Antimony	509	ug/L	500	ug/L	101.9	90.0 – 110.0	P	19-DEC-09 08:24	121909B-1
	Barium	517	ug/L	500	ug/L	103.3	90.0 – 110.0	P	19-DEC-09 08:24	121909B-1
	Boron	514	ug/L	500	ug/L	102.8	90.0 – 110.0	P	19-DEC-09 08:24	121909B-1
	Cadmium	521	ug/L	500	ug/L	104.2	90.0 – 110.0	P	19-DEC-09 08:24	121909B-1
	Calcium	5380	ug/L	5000	ug/L	107.6	90.0 – 110.0	P	19-DEC-09 08:24	121909B-1
	Chromium	514	ug/L	500	ug/L	102.8	90.0 – 110.0	P	19-DEC-09 08:24	121909B-1
	Cobalt	518	ug/L	500	ug/L	103.6	90.0 – 110.0	P	19-DEC-09 08:24	121909B-1
	Copper	502	ug/L	500	ug/L	100.4	90.0 – 110.0	P	19-DEC-09 08:24	121909B-1
	Iron	5310	ug/L	5000	ug/L	106.1	90.0 – 110.0	P	19-DEC-09 08:24	121909B-1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–901

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Lead	505	ug/L	500	ug/L	101	90.0 – 110.0	P	19–DEC–09 08:24	121909B–1
	Magnesium	5510	ug/L	5000	ug/L	110.1	90.0 – 110.0	P	19–DEC–09 08:24	121909B–1
	Manganese	507	ug/L	500	ug/L	101.4	90.0 – 110.0	P	19–DEC–09 08:24	121909B–1
	Potassium	5230	ug/L	5000	ug/L	104.7	90.0 – 110.0	P	19–DEC–09 08:24	121909B–1
	Silicon	2520	ug/L	2500	ug/L	101	90.0 – 110.0	P	19–DEC–09 08:24	121909B–1
	Silver	520	ug/L	500	ug/L	104	90.0 – 110.0	P	19–DEC–09 08:24	121909B–1
	Sodium	10600	ug/L	10000	ug/L	105.5	90.0 – 110.0	P	19–DEC–09 08:24	121909B–1
	Titanium	504	ug/L	500	ug/L	100.7	90.0 – 110.0	P	19–DEC–09 08:24	121909B–1
	Vanadium	519	ug/L	500	ug/L	103.8	90.0 – 110.0	P	19–DEC–09 08:24	121909B–1
	Zinc	520	ug/L	500	ug/L	104.1	90.0 – 110.0	P	19–DEC–09 08:24	121909B–1
	Mercury	4.8	ug/L	5	ug/L	96.1	80.0 – 120.0	AV	23–DEC–09 11:17	122309S1–4
CCV10										
	Aluminum	5370	ug/L	5000	ug/L	107.4	90.0 – 110.0	P	19–DEC–09 09:08	121909B–1
	Antimony	510	ug/L	500	ug/L	102	90.0 – 110.0	P	19–DEC–09 09:08	121909B–1
	Barium	517	ug/L	500	ug/L	103.4	90.0 – 110.0	P	19–DEC–09 09:08	121909B–1
	Boron	516	ug/L	500	ug/L	103.2	90.0 – 110.0	P	19–DEC–09 09:08	121909B–1
	Cadmium	521	ug/L	500	ug/L	104.2	90.0 – 110.0	P	19–DEC–09 09:08	121909B–1
	Calcium	5200	ug/L	5000	ug/L	104.1	90.0 – 110.0	P	19–DEC–09 09:08	121909B–1
	Chromium	514	ug/L	500	ug/L	102.9	90.0 – 110.0	P	19–DEC–09 09:08	121909B–1
	Cobalt	519	ug/L	500	ug/L	103.8	90.0 – 110.0	P	19–DEC–09 09:08	121909B–1
	Copper	505	ug/L	500	ug/L	101	90.0 – 110.0	P	19–DEC–09 09:08	121909B–1
	Iron	5250	ug/L	5000	ug/L	105	90.0 – 110.0	P	19–DEC–09 09:08	121909B–1
	Lead	509	ug/L	500	ug/L	101.9	90.0 – 110.0	P	19–DEC–09 09:08	121909B–1
	Magnesium	5470	ug/L	5000	ug/L	109.5	90.0 – 110.0	P	19–DEC–09 09:08	121909B–1
	Manganese	509	ug/L	500	ug/L	101.8	90.0 – 110.0	P	19–DEC–09 09:08	121909B–1
	Potassium	5230	ug/L	5000	ug/L	104.5	90.0 – 110.0	P	19–DEC–09 09:08	121909B–1
	Silicon	2530	ug/L	2500	ug/L	101.1	90.0 – 110.0	P	19–DEC–09 09:08	121909B–1
	Silver	522	ug/L	500	ug/L	104.4	90.0 – 110.0	P	19–DEC–09 09:08	121909B–1
	Sodium	10600	ug/L	10000	ug/L	106	90.0 – 110.0	P	19–DEC–09 09:08	121909B–1
	Titanium	506	ug/L	500	ug/L	101.3	90.0 – 110.0	P	19–DEC–09 09:08	121909B–1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-901

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Vanadium	519	ug/L	500	ug/L	103.9	90.0 - 110.0	P	19-DEC-09 09:08	121909B-1
	Zinc	521	ug/L	500	ug/L	104.2	90.0 - 110.0	P	19-DEC-09 09:08	121909B-1
	Mercury	4.67	ug/L	5	ug/L	93.3	80.0 - 120.0	AV	23-DEC-09 11:30	122309S1-4
CCV11										
	Aluminum	5290	ug/L	5000	ug/L	105.7	90.0 - 110.0	P	19-DEC-09 09:41	121909B-1
	Antimony	509	ug/L	500	ug/L	101.7	90.0 - 110.0	P	19-DEC-09 09:41	121909B-1
	Barium	515	ug/L	500	ug/L	103	90.0 - 110.0	P	19-DEC-09 09:41	121909B-1
	Boron	514	ug/L	500	ug/L	102.8	90.0 - 110.0	P	19-DEC-09 09:41	121909B-1
	Cadmium	520	ug/L	500	ug/L	104	90.0 - 110.0	P	19-DEC-09 09:41	121909B-1
	Calcium	5190	ug/L	5000	ug/L	103.8	90.0 - 110.0	P	19-DEC-09 09:41	121909B-1
	Chromium	514	ug/L	500	ug/L	102.8	90.0 - 110.0	P	19-DEC-09 09:41	121909B-1
	Cobalt	517	ug/L	500	ug/L	103.3	90.0 - 110.0	P	19-DEC-09 09:41	121909B-1
	Copper	502	ug/L	500	ug/L	100.4	90.0 - 110.0	P	19-DEC-09 09:41	121909B-1
	Iron	5280	ug/L	5000	ug/L	105.7	90.0 - 110.0	P	19-DEC-09 09:41	121909B-1
	Lead	509	ug/L	500	ug/L	101.7	90.0 - 110.0	P	19-DEC-09 09:41	121909B-1
	Magnesium	5440	ug/L	5000	ug/L	108.9	90.0 - 110.0	P	19-DEC-09 09:41	121909B-1
	Manganese	512	ug/L	500	ug/L	102.5	90.0 - 110.0	P	19-DEC-09 09:41	121909B-1
	Potassium	5320	ug/L	5000	ug/L	106.4	90.0 - 110.0	P	19-DEC-09 09:41	121909B-1
	Silicon	2520	ug/L	2500	ug/L	100.9	90.0 - 110.0	P	19-DEC-09 09:41	121909B-1
	Silver	520	ug/L	500	ug/L	104	90.0 - 110.0	P	19-DEC-09 09:41	121909B-1
	Sodium	10700	ug/L	10000	ug/L	107	90.0 - 110.0	P	19-DEC-09 09:41	121909B-1
	Titanium	509	ug/L	500	ug/L	101.8	90.0 - 110.0	P	19-DEC-09 09:41	121909B-1
	Vanadium	518	ug/L	500	ug/L	103.6	90.0 - 110.0	P	19-DEC-09 09:41	121909B-1
	Zinc	519	ug/L	500	ug/L	103.9	90.0 - 110.0	P	19-DEC-09 09:41	121909B-1
	Mercury	4.68	ug/L	5	ug/L	93.6	80.0 - 120.0	AV	23-DEC-09 11:50	122309S1-4
CCV12										
	Aluminum	5260	ug/L	5000	ug/L	105.3	90.0 - 110.0	P	19-DEC-09 10:27	121909B-1
	Antimony	509	ug/L	500	ug/L	101.9	90.0 - 110.0	P	19-DEC-09 10:27	121909B-1
	Barium	513	ug/L	500	ug/L	102.6	90.0 - 110.0	P	19-DEC-09 10:27	121909B-1
	Boron	508	ug/L	500	ug/L	101.7	90.0 - 110.0	P	19-DEC-09 10:27	121909B-1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–901

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Cadmium	517	ug/L	500	ug/L	103.5	90.0 – 110.0	P	19–DEC–09 10:27	121909B–1
	Calcium	5260	ug/L	5000	ug/L	105.2	90.0 – 110.0	P	19–DEC–09 10:27	121909B–1
	Chromium	510	ug/L	500	ug/L	102	90.0 – 110.0	P	19–DEC–09 10:27	121909B–1
	Cobalt	513	ug/L	500	ug/L	102.6	90.0 – 110.0	P	19–DEC–09 10:27	121909B–1
	Copper	497	ug/L	500	ug/L	99.5	90.0 – 110.0	P	19–DEC–09 10:27	121909B–1
	Iron	5270	ug/L	5000	ug/L	105.3	90.0 – 110.0	P	19–DEC–09 10:27	121909B–1
	Lead	510	ug/L	500	ug/L	102.1	90.0 – 110.0	P	19–DEC–09 10:27	121909B–1
	Magnesium	5350	ug/L	5000	ug/L	107	90.0 – 110.0	P	19–DEC–09 10:27	121909B–1
	Manganese	511	ug/L	500	ug/L	102.2	90.0 – 110.0	P	19–DEC–09 10:27	121909B–1
	Potassium	5250	ug/L	5000	ug/L	104.9	90.0 – 110.0	P	19–DEC–09 10:27	121909B–1
	Silicon	2500	ug/L	2500	ug/L	100.1	90.0 – 110.0	P	19–DEC–09 10:27	121909B–1
	Silver	515	ug/L	500	ug/L	103.1	90.0 – 110.0	P	19–DEC–09 10:27	121909B–1
	Sodium	10600	ug/L	10000	ug/L	105.8	90.0 – 110.0	P	19–DEC–09 10:27	121909B–1
	Titanium	508	ug/L	500	ug/L	101.6	90.0 – 110.0	P	19–DEC–09 10:27	121909B–1
	Vanadium	515	ug/L	500	ug/L	102.9	90.0 – 110.0	P	19–DEC–09 10:27	121909B–1
	Zinc	516	ug/L	500	ug/L	103.2	90.0 – 110.0	P	19–DEC–09 10:27	121909B–1
	Mercury	4.72	ug/L	5	ug/L	94.5	80.0 – 120.0	AV	23–DEC–09 12:10	122309S1–4
CCV13										
	Mercury	4.69	ug/L	5	ug/L	93.8	80.0 – 120.0	AV	23–DEC–09 12:30	122309S1–4
CCV14										
	Mercury	4.64	ug/L	5	ug/L	92.8	80.0 – 120.0	AV	23–DEC–09 12:51	122309S1–4

METALS
-2b-
CRDL Standard for AA & ICP

SDG No: 10-901

Contract: LANL01004 **Lab Code:** GEL

AA CRDL Standard Source: SPEX

ICP CRDL Standard Source Solutions Plus

Instrument ID: HG3,ICPMS4,OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Advisory Limits (%R)	M	Analysis Date/Time	Run Number
CRDL01										
	Mercury	.184	ug/L	.2	ug/L	92	70.0 – 130.0	AV	23-DEC-09 08:53	122309S1-4
	Nickel	2.16	ug/L	2	ug/L	107.8	70.0 – 130.0	MS	30-DEC-09 22:52	091230-2
	Thallium	1.07	ug/L	1	ug/L	107.4	70.0 – 130.0	MS	30-DEC-09 22:52	091230-2
	Arsenic	4.84	ug/L	5	ug/L	96.8	70.0 – 130.0	MS	30-DEC-09 22:52	091230-2
	Selenium	5.27	ug/L	5	ug/L	105.5	70.0 – 130.0	MS	30-DEC-09 22:52	091230-2
	Beryllium	.504	ug/L	.5	ug/L	100.8	70.0 – 130.0	MS	31-DEC-09 14:19	091231-3
	Lithium	11	ug/L	10	ug/L	110.3	70.0 – 130.0	MS	31-DEC-09 14:19	091231-3
	Uranium	.216	ug/L	.2	ug/L	108	70.0 – 130.0	MS	31-DEC-09 14:19	091231-3
PQL01										
	Aluminum	199	ug/L	200	ug/L	99.5	70.0 – 130.0	P	19-DEC-09 04:04	121909B-1
	Iron	115	ug/L	100	ug/L	115.3	70.0 – 130.0	P	19-DEC-09 04:04	121909B-1
	Lead	10.1	ug/L	10	ug/L	101.4	70.0 – 130.0	P	19-DEC-09 04:04	121909B-1
	Magnesium	330	ug/L	300	ug/L	109.9	70.0 – 130.0	P	19-DEC-09 04:04	121909B-1
	Manganese	10.6	ug/L	10	ug/L	106	70.0 – 130.0	P	19-DEC-09 04:04	121909B-1
	Potassium	134	ug/L	150	ug/L	89.2	70.0 – 130.0	P	19-DEC-09 04:04	121909B-1
	Silver	5.27	ug/L	5	ug/L	105.4	70.0 – 130.0	P	19-DEC-09 04:04	121909B-1
	Sodium	323	ug/L	300	ug/L	107.6	70.0 – 130.0	P	19-DEC-09 04:04	121909B-1
	Antimony	9.96	ug/L	10	ug/L	99.6	70.0 – 130.0	P	19-DEC-09 04:04	121909B-1
	Titanium	4.97	ug/L	5	ug/L	99.3	70.0 – 130.0	P	19-DEC-09 04:04	121909B-1
	Silicon	104	ug/L	100	ug/L	104.4	70.0 – 130.0	P	19-DEC-09 04:04	121909B-1
	Boron	51.5	ug/L	50	ug/L	102.9	70.0 – 130.0	P	19-DEC-09 04:04	121909B-1
	Calcium	214	ug/L	200	ug/L	107.2	70.0 – 130.0	P	19-DEC-09 04:04	121909B-1
	Zinc	10.3	ug/L	10	ug/L	103.4	70.0 – 130.0	P	19-DEC-09 04:04	121909B-1
	Vanadium	4.93	ug/L	5	ug/L	98.7	70.0 – 130.0	P	19-DEC-09 04:04	121909B-1
	Copper	10.5	ug/L	10	ug/L	104.9	70.0 – 130.0	P	19-DEC-09 04:04	121909B-1
	Cobalt	5.05	ug/L	5	ug/L	101	70.0 – 130.0	P	19-DEC-09 04:04	121909B-1
	Chromium	5.4	ug/L	5	ug/L	108	70.0 – 130.0	P	19-DEC-09 04:04	121909B-1
	Barium	5.22	ug/L	5	ug/L	104.3	70.0 – 130.0	P	19-DEC-09 04:04	121909B-1
	Cadmium	5.24	ug/L	5	ug/L	104.8	70.0 – 130.0	P	19-DEC-09 04:04	121909B-1

METALS
–2b–
CRDL Standard for AA & ICP

SDG No: 10–901

Contract: LANL01004 **Lab Code:** GEL

AA CRDL Standard Source:

ICP CRDL Standard Source

Instrument ID: HG3,ICPMS4,OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Advisory Limits (%R)	M	Analysis Date/Time	Run Number
PQL02										
	Aluminum	206	ug/L	200	ug/L	102.9	70.0 – 130.0	P	19–DEC–09 04:53	121909B–1
	Iron	112	ug/L	100	ug/L	111.6	70.0 – 130.0	P	19–DEC–09 04:53	121909B–1
	Lead	9.73	ug/L	10	ug/L	97.3	70.0 – 130.0	P	19–DEC–09 04:53	121909B–1
	Magnesium	352	ug/L	300	ug/L	117.4	70.0 – 130.0	P	19–DEC–09 04:53	121909B–1
	Potassium	140	ug/L	150	ug/L	93.3	70.0 – 130.0	P	19–DEC–09 04:53	121909B–1
	Sodium	338	ug/L	300	ug/L	112.7	70.0 – 130.0	P	19–DEC–09 04:53	121909B–1
	Titanium	5.13	ug/L	5	ug/L	102.6	70.0 – 130.0	P	19–DEC–09 04:53	121909B–1
	Silicon	100	ug/L	100	ug/L	100.5	70.0 – 130.0	P	19–DEC–09 04:53	121909B–1
	Boron	51.1	ug/L	50	ug/L	102.2	70.0 – 130.0	P	19–DEC–09 04:53	121909B–1
	Calcium	230	ug/L	200	ug/L	114.8	70.0 – 130.0	P	19–DEC–09 04:53	121909B–1
	Zinc	10.5	ug/L	10	ug/L	104.6	70.0 – 130.0	P	19–DEC–09 04:53	121909B–1
	Vanadium	4.91	ug/L	5	ug/L	98.1	70.0 – 130.0	P	19–DEC–09 04:53	121909B–1
	Copper	10.7	ug/L	10	ug/L	106.7	70.0 – 130.0	P	19–DEC–09 04:53	121909B–1
	Cobalt	5.1	ug/L	5	ug/L	102	70.0 – 130.0	P	19–DEC–09 04:53	121909B–1
	Chromium	5.26	ug/L	5	ug/L	105.2	70.0 – 130.0	P	19–DEC–09 04:53	121909B–1
	Cadmium	5.13	ug/L	5	ug/L	102.6	70.0 – 130.0	P	19–DEC–09 04:53	121909B–1
	Barium	5.38	ug/L	5	ug/L	107.5	70.0 – 130.0	P	19–DEC–09 04:53	121909B–1
	Antimony	11.6	ug/L	10	ug/L	116.4	70.0 – 130.0	P	19–DEC–09 04:53	121909B–1
	Silver	5.63	ug/L	5	ug/L	112.6	70.0 – 130.0	P	19–DEC–09 04:53	121909B–1
	Manganese	10.5	ug/L	10	ug/L	105.3	70.0 – 130.0	P	19–DEC–09 04:53	121909B–1
PQL03										
	Chromium	5.36	ug/L	5	ug/L	107.1	70.0 – 130.0	P	19–DEC–09 05:26	121909B–1
	Cobalt	4.71	ug/L	5	ug/L	94.2	70.0 – 130.0	P	19–DEC–09 05:26	121909B–1
	Copper	10.7	ug/L	10	ug/L	107.4	70.0 – 130.0	P	19–DEC–09 05:26	121909B–1
	Vanadium	4.99	ug/L	5	ug/L	99.8	70.0 – 130.0	P	19–DEC–09 05:26	121909B–1
	Zinc	10.7	ug/L	10	ug/L	107.4	70.0 – 130.0	P	19–DEC–09 05:26	121909B–1
	Calcium	233	ug/L	200	ug/L	116.6	70.0 – 130.0	P	19–DEC–09 05:26	121909B–1
	Cadmium	5.19	ug/L	5	ug/L	103.8	70.0 – 130.0	P	19–DEC–09 05:26	121909B–1
	Barium	5.51	ug/L	5	ug/L	110.2	70.0 – 130.0	P	19–DEC–09 05:26	121909B–1
	Antimony	14	ug/L	10	ug/L	139.8	70.0 – 130.0	P	19–DEC–09 05:26	121909B–1

METALS
–2b–
CRDL Standard for AA & ICP

SDG No: 10–901

Contract: LANL01004 **Lab Code:** GEL

AA CRDL Standard Source:

ICP CRDL Standard Source

Instrument ID: HG3,ICPMS4,OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Advisory Limits (%R)	M	Analysis Date/Time	Run Number
	Sodium	353	ug/L	300	ug/L	117.7	70.0 – 130.0	P	19–DEC–09 05:26	121909B–1
	Silver	5.82	ug/L	5	ug/L	116.4	70.0 – 130.0	P	19–DEC–09 05:26	121909B–1
	Potassium	156	ug/L	150	ug/L	103.7	70.0 – 130.0	P	19–DEC–09 05:26	121909B–1
	Manganese	10.6	ug/L	10	ug/L	105.7	70.0 – 130.0	P	19–DEC–09 05:26	121909B–1
	Magnesium	322	ug/L	300	ug/L	107.2	70.0 – 130.0	P	19–DEC–09 05:26	121909B–1
	Lead	12.1	ug/L	10	ug/L	120.6	70.0 – 130.0	P	19–DEC–09 05:26	121909B–1
	Iron	113	ug/L	100	ug/L	113.1	70.0 – 130.0	P	19–DEC–09 05:26	121909B–1
	Aluminum	210	ug/L	200	ug/L	105.2	70.0 – 130.0	P	19–DEC–09 05:26	121909B–1
	Boron	50.8	ug/L	50	ug/L	101.6	70.0 – 130.0	P	19–DEC–09 05:26	121909B–1
	Silicon	106	ug/L	100	ug/L	106	70.0 – 130.0	P	19–DEC–09 05:26	121909B–1
	Titanium	5.17	ug/L	5	ug/L	103.4	70.0 – 130.0	P	19–DEC–09 05:26	121909B–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–901

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
ICB01										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	19–DEC–09 04:00	121909B–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	19–DEC–09 04:00	121909B–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	19–DEC–09 04:00	121909B–1
	Boron	10.0	+/–50	U	10.0	50.0	SOL	P	19–DEC–09 04:00	121909B–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	19–DEC–09 04:00	121909B–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	19–DEC–09 04:00	121909B–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	19–DEC–09 04:00	121909B–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	19–DEC–09 04:00	121909B–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	19–DEC–09 04:00	121909B–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	19–DEC–09 04:00	121909B–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	19–DEC–09 04:00	121909B–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	19–DEC–09 04:00	121909B–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	19–DEC–09 04:00	121909B–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	19–DEC–09 04:00	121909B–1
	Silicon	15.0	+/–100	U	15.0	100	SOL	P	19–DEC–09 04:00	121909B–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	19–DEC–09 04:00	121909B–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	19–DEC–09 04:00	121909B–1
	Titanium	1.0	+/–5	U	1.0	5.0	SOL	P	19–DEC–09 04:00	121909B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	19–DEC–09 04:00	121909B–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	19–DEC–09 04:00	121909B–1
	Mercury	0.068	+/–.2	U	0.068	0.2	SOL	AV	23–DEC–09 08:52	122309S1–4
	Arsenic	1.0	+/–5	U	1.0	5.0	SOL	MS	30–DEC–09 22:46	091230–2
	Nickel	0.5	+/–2	U	0.5	2.0	SOL	MS	30–DEC–09 22:46	091230–2
	Selenium	2.5	+/–5	U	2.5	5.0	SOL	MS	30–DEC–09 22:46	091230–2
	Thallium	0.3	+/–1	U	0.3	1.0	SOL	MS	30–DEC–09 22:46	091230–2
	Beryllium	0.1	+/–.5	U	0.1	0.5	SOL	MS	31–DEC–09 14:17	091231–3
	Lithium	2.0	+/–10	U	2.0	10.0	SOL	MS	31–DEC–09 14:17	091231–3
	Uranium	0.066	+/–.2	U	0.066	0.2	SOL	MS	31–DEC–09 14:17	091231–3
CCB01										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	19–DEC–09 04:23	121909B–1
	Antimony	6.11	+/–10	J	3.3	10.0	SOL	P	19–DEC–09 04:23	121909B–1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10-901

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Barium	2.75	+/-5	J	1.0	5.0	SOL	P	19-DEC-09 04:23	121909B-1
	Boron	10.0	+/-50	U	10.0	50.0	SOL	P	19-DEC-09 04:23	121909B-1
	Cadmium	2.15	+/-5	J	1.0	5.0	SOL	P	19-DEC-09 04:23	121909B-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	19-DEC-09 04:23	121909B-1
	Chromium	4.21	+/-5	J	1.5	5.0	SOL	P	19-DEC-09 04:23	121909B-1
	Cobalt	1.71	+/-5	J	1.5	5.0	SOL	P	19-DEC-09 04:23	121909B-1
	Copper	3.61	+/-10	J	3.0	10.0	SOL	P	19-DEC-09 04:23	121909B-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	19-DEC-09 04:23	121909B-1
	Lead	5.88	+/-10	J	2.5	10.0	SOL	P	19-DEC-09 04:23	121909B-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	19-DEC-09 04:23	121909B-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	19-DEC-09 04:23	121909B-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	19-DEC-09 04:23	121909B-1
	Silicon	15.0	+/-100	U	15.0	100	SOL	P	19-DEC-09 04:23	121909B-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	19-DEC-09 04:23	121909B-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	19-DEC-09 04:23	121909B-1
	Titanium	2.12	+/-5	J	1.0	5.0	SOL	P	19-DEC-09 04:23	121909B-1
	Vanadium	1.47	+/-5	J	1.0	5.0	SOL	P	19-DEC-09 04:23	121909B-1
	Zinc	3.44	+/-10	J	3.3	10.0	SOL	P	19-DEC-09 04:23	121909B-1
	Mercury	0.068	+/-.2	U	0.068	0.2	SOL	AV	23-DEC-09 08:57	122309S1-4
	Arsenic	1.0	+/-5	U	1.0	5.0	SOL	MS	30-DEC-09 23:17	091230-2
	Nickel	0.5	+/-2	U	0.5	2.0	SOL	MS	30-DEC-09 23:17	091230-2
	Selenium	2.5	+/-5	U	2.5	5.0	SOL	MS	30-DEC-09 23:17	091230-2
	Thallium	0.3	+/-1	U	0.3	1.0	SOL	MS	30-DEC-09 23:17	091230-2
	Beryllium	0.1	+/-.5	U	0.1	0.5	SOL	MS	31-DEC-09 14:29	091231-3
	Lithium	2.0	+/-10	U	2.0	10.0	SOL	MS	31-DEC-09 14:29	091231-3
	Uranium	0.066	+/-.2	U	0.066	0.2	SOL	MS	31-DEC-09 14:29	091231-3
CCB02										
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	19-DEC-09 04:56	121909B-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	19-DEC-09 04:56	121909B-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	19-DEC-09 04:56	121909B-1
	Boron	10.0	+/-50	U	10.0	50.0	SOL	P	19-DEC-09 04:56	121909B-1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10–901

Contract: LANL01004 **Lab Code: GEL**

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	19–DEC–09 04:56	121909B–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	19–DEC–09 04:56	121909B–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	19–DEC–09 04:56	121909B–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	19–DEC–09 04:56	121909B–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	19–DEC–09 04:56	121909B–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	19–DEC–09 04:56	121909B–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	19–DEC–09 04:56	121909B–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	19–DEC–09 04:56	121909B–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	19–DEC–09 04:56	121909B–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	19–DEC–09 04:56	121909B–1
	Silicon	15.0	+/–100	U	15.0	100	SOL	P	19–DEC–09 04:56	121909B–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	19–DEC–09 04:56	121909B–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	19–DEC–09 04:56	121909B–1
	Titanium	1.0	+/–5	U	1.0	5.0	SOL	P	19–DEC–09 04:56	121909B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	19–DEC–09 04:56	121909B–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	19–DEC–09 04:56	121909B–1
	Mercury	0.068	+/–.2	U	0.068	0.2	SOL	AV	23–DEC–09 09:17	122309S1–4
	Arsenic	1.0	+/–5	U	1.0	5.0	SOL	MS	30–DEC–09 23:35	091230–2
	Nickel	0.5	+/–2	U	0.5	2.0	SOL	MS	30–DEC–09 23:35	091230–2
	Selenium	2.5	+/–5	U	2.5	5.0	SOL	MS	30–DEC–09 23:35	091230–2
	Thallium	0.3	+/–1	U	0.3	1.0	SOL	MS	30–DEC–09 23:35	091230–2
	Beryllium	0.1	+/–.5	U	0.1	0.5	SOL	MS	31–DEC–09 14:44	091231–3
	Lithium	2.0	+/–10	U	2.0	10.0	SOL	MS	31–DEC–09 14:44	091231–3
	Uranium	0.066	+/–.2	U	0.066	0.2	SOL	MS	31–DEC–09 14:44	091231–3
CCB03										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	19–DEC–09 05:30	121909B–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	19–DEC–09 05:30	121909B–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	19–DEC–09 05:30	121909B–1
	Boron	10.0	+/–50	U	10.0	50.0	SOL	P	19–DEC–09 05:30	121909B–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	19–DEC–09 05:30	121909B–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	19–DEC–09 05:30	121909B–1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10-901

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	19-DEC-09 05:30	121909B-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	19-DEC-09 05:30	121909B-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	19-DEC-09 05:30	121909B-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	19-DEC-09 05:30	121909B-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	19-DEC-09 05:30	121909B-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	19-DEC-09 05:30	121909B-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	19-DEC-09 05:30	121909B-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	19-DEC-09 05:30	121909B-1
	Silicon	15.0	+/-100	U	15.0	100	SOL	P	19-DEC-09 05:30	121909B-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	19-DEC-09 05:30	121909B-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	19-DEC-09 05:30	121909B-1
	Titanium	1.0	+/-5	U	1.0	5.0	SOL	P	19-DEC-09 05:30	121909B-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	19-DEC-09 05:30	121909B-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	19-DEC-09 05:30	121909B-1
	Mercury	0.068	+/-.2	U	0.068	0.2	SOL	AV	23-DEC-09 09:37	122309S1-4
	Arsenic	-1.07	+/-5	J	1.0	5.0	SOL	MS	31-DEC-09 00:13	091230-2
	Nickel	0.5	+/-2	U	0.5	2.0	SOL	MS	31-DEC-09 00:13	091230-2
	Selenium	2.5	+/-5	U	2.5	5.0	SOL	MS	31-DEC-09 00:13	091230-2
	Thallium	0.416	+/-1	J	0.3	1.0	SOL	MS	31-DEC-09 00:13	091230-2
	Beryllium	0.1	+/-.5	U	0.1	0.5	SOL	MS	31-DEC-09 15:06	091231-3
	Lithium	2.0	+/-10	U	2.0	10.0	SOL	MS	31-DEC-09 15:06	091231-3
	Uranium	0.066	+/-.2	U	0.066	0.2	SOL	MS	31-DEC-09 15:06	091231-3
CCB04										
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	19-DEC-09 06:00	121909B-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	19-DEC-09 06:00	121909B-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	19-DEC-09 06:00	121909B-1
	Boron	10.0	+/-50	U	10.0	50.0	SOL	P	19-DEC-09 06:00	121909B-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	19-DEC-09 06:00	121909B-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	19-DEC-09 06:00	121909B-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	19-DEC-09 06:00	121909B-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	19-DEC-09 06:00	121909B-1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–901

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	19–DEC–09 06:00	121909B–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	19–DEC–09 06:00	121909B–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	19–DEC–09 06:00	121909B–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	19–DEC–09 06:00	121909B–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	19–DEC–09 06:00	121909B–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	19–DEC–09 06:00	121909B–1
	Silicon	15.0	+/–100	U	15.0	100	SOL	P	19–DEC–09 06:00	121909B–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	19–DEC–09 06:00	121909B–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	19–DEC–09 06:00	121909B–1
	Titanium	1.0	+/–5	U	1.0	5.0	SOL	P	19–DEC–09 06:00	121909B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	19–DEC–09 06:00	121909B–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	19–DEC–09 06:00	121909B–1
	Mercury	0.068	+/–.2	U	0.068	0.2	SOL	AV	23–DEC–09 09:57	122309S1–4
	Arsenic	–1.47	+/–5	J	1.0	5.0	SOL	MS	31–DEC–09 01:09	091230–2
	Nickel	0.5	+/–2	U	0.5	2.0	SOL	MS	31–DEC–09 01:09	091230–2
	Selenium	2.5	+/–5	U	2.5	5.0	SOL	MS	31–DEC–09 01:09	091230–2
	Thallium	0.3	+/–1	U	0.3	1.0	SOL	MS	31–DEC–09 01:09	091230–2
CCB05										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	19–DEC–09 06:29	121909B–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	19–DEC–09 06:29	121909B–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	19–DEC–09 06:29	121909B–1
	Boron	10.0	+/–50	U	10.0	50.0	SOL	P	19–DEC–09 06:29	121909B–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	19–DEC–09 06:29	121909B–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	19–DEC–09 06:29	121909B–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	19–DEC–09 06:29	121909B–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	19–DEC–09 06:29	121909B–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	19–DEC–09 06:29	121909B–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	19–DEC–09 06:29	121909B–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	19–DEC–09 06:29	121909B–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	19–DEC–09 06:29	121909B–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	19–DEC–09 06:29	121909B–1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10-901

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	19-DEC-09 06:29	121909B-1
	Silicon	15.0	+/-100	U	15.0	100	SOL	P	19-DEC-09 06:29	121909B-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	19-DEC-09 06:29	121909B-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	19-DEC-09 06:29	121909B-1
	Titanium	1.0	+/-5	U	1.0	5.0	SOL	P	19-DEC-09 06:29	121909B-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	19-DEC-09 06:29	121909B-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	19-DEC-09 06:29	121909B-1
	Mercury	0.068	+/-.2	U	0.068	0.2	SOL	AV	23-DEC-09 10:10	122309S1-4
CCB06										
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	19-DEC-09 07:04	121909B-1
	Antimony	4.45	+/-10	J	3.3	10.0	SOL	P	19-DEC-09 07:04	121909B-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	19-DEC-09 07:04	121909B-1
	Boron	10.0	+/-50	U	10.0	50.0	SOL	P	19-DEC-09 07:04	121909B-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	19-DEC-09 07:04	121909B-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	19-DEC-09 07:04	121909B-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	19-DEC-09 07:04	121909B-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	19-DEC-09 07:04	121909B-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	19-DEC-09 07:04	121909B-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	19-DEC-09 07:04	121909B-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	19-DEC-09 07:04	121909B-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	19-DEC-09 07:04	121909B-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	19-DEC-09 07:04	121909B-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	19-DEC-09 07:04	121909B-1
	Silicon	15.0	+/-100	U	15.0	100	SOL	P	19-DEC-09 07:04	121909B-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	19-DEC-09 07:04	121909B-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	19-DEC-09 07:04	121909B-1
	Titanium	1.0	+/-5	U	1.0	5.0	SOL	P	19-DEC-09 07:04	121909B-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	19-DEC-09 07:04	121909B-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	19-DEC-09 07:04	121909B-1
	Mercury	0.068	+/-.2	U	0.068	0.2	SOL	AV	23-DEC-09 10:30	122309S1-4

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–901

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
CCB07										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	19–DEC–09 07:33	121909B–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	19–DEC–09 07:33	121909B–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	19–DEC–09 07:33	121909B–1
	Boron	10.0	+/–50	U	10.0	50.0	SOL	P	19–DEC–09 07:33	121909B–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	19–DEC–09 07:33	121909B–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	19–DEC–09 07:33	121909B–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	19–DEC–09 07:33	121909B–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	19–DEC–09 07:33	121909B–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	19–DEC–09 07:33	121909B–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	19–DEC–09 07:33	121909B–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	19–DEC–09 07:33	121909B–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	19–DEC–09 07:33	121909B–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	19–DEC–09 07:33	121909B–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	19–DEC–09 07:33	121909B–1
	Silicon	15.0	+/–100	U	15.0	100	SOL	P	19–DEC–09 07:33	121909B–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	19–DEC–09 07:33	121909B–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	19–DEC–09 07:33	121909B–1
	Titanium	1.0	+/–5	U	1.0	5.0	SOL	P	19–DEC–09 07:33	121909B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	19–DEC–09 07:33	121909B–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	19–DEC–09 07:33	121909B–1
	Mercury	0.068	+/–.2	U	0.068	0.2	SOL	AV	23–DEC–09 10:50	122309S1–4
CCB08										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	19–DEC–09 08:15	121909B–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	19–DEC–09 08:15	121909B–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	19–DEC–09 08:15	121909B–1
	Boron	10.0	+/–50	U	10.0	50.0	SOL	P	19–DEC–09 08:15	121909B–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	19–DEC–09 08:15	121909B–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	19–DEC–09 08:15	121909B–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	19–DEC–09 08:15	121909B–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	19–DEC–09 08:15	121909B–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	19–DEC–09 08:15	121909B–1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10-901

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Iron	80.0	+/-250	U	80.0	250	SOL	P	19-DEC-09 08:15	121909B-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	19-DEC-09 08:15	121909B-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	19-DEC-09 08:15	121909B-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	19-DEC-09 08:15	121909B-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	19-DEC-09 08:15	121909B-1
	Silicon	15.0	+/-100	U	15.0	100	SOL	P	19-DEC-09 08:15	121909B-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	19-DEC-09 08:15	121909B-1
	Sodium	142.69	+/-250	J	70.0	250	SOL	P	19-DEC-09 08:15	121909B-1
	Titanium	1.0	+/-5	U	1.0	5.0	SOL	P	19-DEC-09 08:15	121909B-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	19-DEC-09 08:15	121909B-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	19-DEC-09 08:15	121909B-1
	Mercury	0.068	+/-.2	U	0.068	0.2	SOL	AV	23-DEC-09 11:01	122309S1-4
CCB09										
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	19-DEC-09 08:28	121909B-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	19-DEC-09 08:28	121909B-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	19-DEC-09 08:28	121909B-1
	Boron	10.0	+/-50	U	10.0	50.0	SOL	P	19-DEC-09 08:28	121909B-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	19-DEC-09 08:28	121909B-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	19-DEC-09 08:28	121909B-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	19-DEC-09 08:28	121909B-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	19-DEC-09 08:28	121909B-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	19-DEC-09 08:28	121909B-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	19-DEC-09 08:28	121909B-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	19-DEC-09 08:28	121909B-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	19-DEC-09 08:28	121909B-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	19-DEC-09 08:28	121909B-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	19-DEC-09 08:28	121909B-1
	Silicon	15.0	+/-100	U	15.0	100	SOL	P	19-DEC-09 08:28	121909B-1
	Silver	1.02	+/-5	J	1.0	5.0	SOL	P	19-DEC-09 08:28	121909B-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	19-DEC-09 08:28	121909B-1
	Titanium	1.0	+/-5	U	1.0	5.0	SOL	P	19-DEC-09 08:28	121909B-1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10–901

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	19–DEC–09 08:28	121909B–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	19–DEC–09 08:28	121909B–1
	Mercury	0.068	+/–.2	U	0.068	0.2	SOL	AV	23–DEC–09 11:19	122309S1–4
CCB10										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	19–DEC–09 09:12	121909B–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	19–DEC–09 09:12	121909B–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	19–DEC–09 09:12	121909B–1
	Boron	10.0	+/–50	U	10.0	50.0	SOL	P	19–DEC–09 09:12	121909B–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	19–DEC–09 09:12	121909B–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	19–DEC–09 09:12	121909B–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	19–DEC–09 09:12	121909B–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	19–DEC–09 09:12	121909B–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	19–DEC–09 09:12	121909B–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	19–DEC–09 09:12	121909B–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	19–DEC–09 09:12	121909B–1
	Magnesium	86.77	+/–300	J	85.0	300	SOL	P	19–DEC–09 09:12	121909B–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	19–DEC–09 09:12	121909B–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	19–DEC–09 09:12	121909B–1
	Silicon	15.0	+/–100	U	15.0	100	SOL	P	19–DEC–09 09:12	121909B–1
	Silver	1.22	+/–5	J	1.0	5.0	SOL	P	19–DEC–09 09:12	121909B–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	19–DEC–09 09:12	121909B–1
	Titanium	1.0	+/–5	U	1.0	5.0	SOL	P	19–DEC–09 09:12	121909B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	19–DEC–09 09:12	121909B–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	19–DEC–09 09:12	121909B–1
	Mercury	0.068	+/–.2	U	0.068	0.2	SOL	AV	23–DEC–09 11:32	122309S1–4
CCB11										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	19–DEC–09 09:45	121909B–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	19–DEC–09 09:45	121909B–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	19–DEC–09 09:45	121909B–1
	Boron	10.0	+/–50	U	10.0	50.0	SOL	P	19–DEC–09 09:45	121909B–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	19–DEC–09 09:45	121909B–1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10-901

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	19-DEC-09 09:45	121909B-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	19-DEC-09 09:45	121909B-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	19-DEC-09 09:45	121909B-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	19-DEC-09 09:45	121909B-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	19-DEC-09 09:45	121909B-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	19-DEC-09 09:45	121909B-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	19-DEC-09 09:45	121909B-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	19-DEC-09 09:45	121909B-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	19-DEC-09 09:45	121909B-1
	Silicon	15.0	+/-100	U	15.0	100	SOL	P	19-DEC-09 09:45	121909B-1
	Silver	1.36	+/-5	J	1.0	5.0	SOL	P	19-DEC-09 09:45	121909B-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	19-DEC-09 09:45	121909B-1
	Titanium	1.0	+/-5	U	1.0	5.0	SOL	P	19-DEC-09 09:45	121909B-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	19-DEC-09 09:45	121909B-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	19-DEC-09 09:45	121909B-1
	Mercury	0.068	+/-.2	U	0.068	0.2	SOL	AV	23-DEC-09 11:52	122309S1-4
CCB12										
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	19-DEC-09 10:30	121909B-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	19-DEC-09 10:30	121909B-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	19-DEC-09 10:30	121909B-1
	Boron	10.0	+/-50	U	10.0	50.0	SOL	P	19-DEC-09 10:30	121909B-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	19-DEC-09 10:30	121909B-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	19-DEC-09 10:30	121909B-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	19-DEC-09 10:30	121909B-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	19-DEC-09 10:30	121909B-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	19-DEC-09 10:30	121909B-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	19-DEC-09 10:30	121909B-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	19-DEC-09 10:30	121909B-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	19-DEC-09 10:30	121909B-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	19-DEC-09 10:30	121909B-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	19-DEC-09 10:30	121909B-1

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-901

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Silicon	15.0	+/-100	U	15.0	100	SOL	P	19-DEC-09 10:30	121909B-1
	Silver	1.03	+/-5	J	1.0	5.0	SOL	P	19-DEC-09 10:30	121909B-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	19-DEC-09 10:30	121909B-1
	Titanium	1.0	+/-5	U	1.0	5.0	SOL	P	19-DEC-09 10:30	121909B-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	19-DEC-09 10:30	121909B-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	19-DEC-09 10:30	121909B-1
	Mercury	0.068	+/-.2	U	0.068	0.2	SOL	AV	23-DEC-09 12:12	122309S1-4
CCB13	Mercury	0.068	+/-.2	U	0.068	0.2	SOL	AV	23-DEC-09 12:32	122309S1-4
CCB14	Mercury	0.068	+/-.2	U	0.068	0.2	SOL	AV	23-DEC-09 12:52	122309S1-4

METALS
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PREPARATION BLANK SUMMARY

SDG NO. 10–901
Contract: LANL01004
Matrix: SOIL

Sample ID	Analyte	Result	Units	Acceptance Window	Conc Qual	M	MDL	RDL
1201995825								
	Aluminum	6510	ug/Kg	+/–19200	U	P	6510	19200
	Antimony	316	ug/Kg	+/–958	U	P	316	958
	Barium	95.8	ug/Kg	+/–479	U	P	95.8	479
	Boron	958	ug/Kg	+/–4790	U	P	958	4790
	Cadmium	95.8	ug/Kg	+/–479	U	P	95.8	479
	Calcium	7660	ug/Kg	+/–23900	U	P	7660	23900
	Chromium	144	ug/Kg	+/–479	U	P	144	479
	Cobalt	144	ug/Kg	+/–479	U	P	144	479
	Copper	287	ug/Kg	+/–958	U	P	287	958
	Iron	7660	ug/Kg	+/–23900	U	P	7660	23900
	Lead	239	ug/Kg	+/–958	U	P	239	958
	Magnesium	8140	ug/Kg	+/–28700	U	P	8140	28700
	Manganese	192	ug/Kg	+/–958	U	P	192	958
	Potassium	6130	ug/Kg	+/–23900	U	P	6130	23900
	Silicon	1440	ug/Kg	+/–9580	U	P	1440	9580
	Silver	95.8	ug/Kg	+/–479	U	P	95.8	479
	Sodium	6700	ug/Kg	+/–23900	U	P	6700	23900
	Titanium	95.8	ug/Kg	+/–479	U	P	95.8	479
	Vanadium	95.8	ug/Kg	+/–479	U	P	95.8	479
	Zinc	316	ug/Kg	+/–958	U	P	316	958
1201995836								
	Arsenic	0.199	mg/kg	+/–0.996	U	MS	0.199	0.996
	Beryllium	0.0199	mg/kg	+/–0.0996	U	MS	0.0199	0.0996
	Lithium	0.398	mg/kg	+/–1.99	U	MS	0.398	1.99
	Nickel	0.0996	mg/kg	+/–0.398	U	MS	0.0996	0.398
	Selenium	0.498	mg/kg	+/–0.996	U	MS	0.498	0.996
	Thallium	0.0598	mg/kg	+/–0.199	U	MS	0.0598	0.199
	Uranium	0.0132	mg/kg	+/–0.0398	U	MS	0.0132	0.0398
1202000180								
	Mercury	3.98	ug/kg	+/–11.7	U	AV	3.98	11.7

METALS
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Interference Check Sample

SDG No: 10–901

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Aluminum	516000	ug/L	500000	ug/L	103	80.0 – 120.0	19–DEC–09 04:07	121909B–1
	Antimony	–3.15	ug/L					19–DEC–09 04:07	121909B–1
	Barium	5.67	ug/L					19–DEC–09 04:07	121909B–1
	Boron	24.8	ug/L					19–DEC–09 04:07	121909B–1
	Cadmium	2.22	ug/L					19–DEC–09 04:07	121909B–1
	Calcium	492000	ug/L	500000	ug/L	98.3	80.0 – 120.0	19–DEC–09 04:07	121909B–1
	Chromium	–2.34	ug/L					19–DEC–09 04:07	121909B–1
	Cobalt	–1.73	ug/L					19–DEC–09 04:07	121909B–1
	Copper	7.59	ug/L					19–DEC–09 04:07	121909B–1
	Iron	192000	ug/L	200000	ug/L	95.9	80.0 – 120.0	19–DEC–09 04:07	121909B–1
	Lead	10.1	ug/L					19–DEC–09 04:07	121909B–1
	Magnesium	495000	ug/L	500000	ug/L	99	80.0 – 120.0	19–DEC–09 04:07	121909B–1
	Manganese	17.4	ug/L					19–DEC–09 04:07	121909B–1
	Potassium	–73.9	ug/L					19–DEC–09 04:07	121909B–1
	Silicon	16.3	ug/L					19–DEC–09 04:07	121909B–1
	Silver	–4.79	ug/L					19–DEC–09 04:07	121909B–1
	Sodium	23.9	ug/L					19–DEC–09 04:07	121909B–1
	Titanium	–1.41	ug/L					19–DEC–09 04:07	121909B–1
	Vanadium	–1.18	ug/L					19–DEC–09 04:07	121909B–1
	Zinc	3.01	ug/L					19–DEC–09 04:07	121909B–1
ICSAB01									
	Aluminum	515000	ug/L	500000	ug/L	103	80.0 – 120.0	19–DEC–09 04:10	121909B–1
	Antimony	513	ug/L	500	ug/L	103	80.0 – 120.0	19–DEC–09 04:10	121909B–1
	Barium	508	ug/L	500	ug/L	102	80.0 – 120.0	19–DEC–09 04:10	121909B–1
	Boron	557	ug/L	500	ug/L	111	80.0 – 120.0	19–DEC–09 04:10	121909B–1
	Cadmium	485	ug/L	500	ug/L	96.9	80.0 – 120.0	19–DEC–09 04:10	121909B–1
	Calcium	491000	ug/L	500000	ug/L	98.2	80.0 – 120.0	19–DEC–09 04:10	121909B–1
	Chromium	496	ug/L	500	ug/L	99.2	80.0 – 120.0	19–DEC–09 04:10	121909B–1
	Cobalt	446	ug/L	500	ug/L	89.2	80.0 – 120.0	19–DEC–09 04:10	121909B–1

METALS
-4-
Interference Check Sample

SDG No: 10-901

Contract: LANL01004 **Lab Code:** GEL

ICS:

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
	Copper	555	ug/L	500	ug/L	111	80.0 – 120.0	19-DEC-09 04:10	121909B-1
	Iron	192000	ug/L	200000	ug/L	96	80.0 – 120.0	19-DEC-09 04:10	121909B-1
	Lead	497	ug/L	500	ug/L	99.4	80.0 – 120.0	19-DEC-09 04:10	121909B-1
	Magnesium	495000	ug/L	500000	ug/L	99	80.0 – 120.0	19-DEC-09 04:10	121909B-1
	Manganese	490	ug/L	500	ug/L	98.1	80.0 – 120.0	19-DEC-09 04:10	121909B-1
	Potassium	5210	ug/L	5000	ug/L	104	80.0 – 120.0	19-DEC-09 04:10	121909B-1
	Silicon	5240	ug/L	5000	ug/L	105	80.0 – 120.0	19-DEC-09 04:10	121909B-1
	Silver	269	ug/L	250	ug/L	108	80.0 – 120.0	19-DEC-09 04:10	121909B-1
	Sodium	5230	ug/L	5000	ug/L	105	80.0 – 120.0	19-DEC-09 04:10	121909B-1
	Titanium	501	ug/L	500	ug/L	100	80.0 – 120.0	19-DEC-09 04:10	121909B-1
	Vanadium	528	ug/L	500	ug/L	106	80.0 – 120.0	19-DEC-09 04:10	121909B-1
	Zinc	494	ug/L	500	ug/L	98.8	80.0 – 120.0	19-DEC-09 04:10	121909B-1

METALS
–4–
Interference Check Sample

SDG No: 10–901

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: ICPMS4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Arsenic	0.353	ug/L					30–DEC–09 22:58	091230–2
	Nickel	3.43	ug/L					30–DEC–09 22:58	091230–2
	Selenium	–0.276	ug/L					30–DEC–09 22:58	091230–2
	Thallium	0.004	ug/L					30–DEC–09 22:58	091230–2
ICSAB01									
	Arsenic	19.7	ug/L	20	ug/L	98.3	80.0 – 120.0	30–DEC–09 23:04	091230–2
	Nickel	21.9	ug/L	22.7	ug/L	96.3	80.0 – 120.0	30–DEC–09 23:04	091230–2
	Selenium	21.1	ug/L	20	ug/L	105	80.0 – 120.0	30–DEC–09 23:04	091230–2
	Thallium	17.9	ug/L	20	ug/L	89.7	80.0 – 120.0	30–DEC–09 23:04	091230–2

METALS
-4-
Interference Check Sample

SDG No: 10-901

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: ICPMS4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Beryllium	0.052	ug/L					31-DEC-09 14:22	091231-3
	Lithium	0.074	ug/L					31-DEC-09 14:22	091231-3
	Uranium	-0.017	ug/L					31-DEC-09 14:22	091231-3
ICSAB01									
	Beryllium	19.8	ug/L	20	ug/L	98.8	80.0 - 120.0	31-DEC-09 14:24	091231-3
	Lithium	18.7	ug/L	20	ug/L	93.3	80.0 - 120.0	31-DEC-09 14:24	091231-3
	Uranium	20.6	ug/L	20	ug/L	103	80.0 - 120.0	31-DEC-09 14:24	091231-3

METALS
–5a–
Matrix Spike Summary

SDG NO. 10–901 **Client ID** RE03–09–13470S

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 95.6

Sample ID: 242794001 **Spike ID:** 1201995828

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Potassium	ug/Kg	75–125	725000		153000		504000	113		P
Aluminum	ug/Kg	75–125	1320000		470000		504000	169	N	P
Antimony	ug/Kg	75–125	52000		794	J	50400	102		P
Barium	ug/Kg	75–125	69700		14800		50400	109		P
Boron	ug/Kg	75–125	53500		1030	U	50400	105		P
Cadmium	ug/Kg	75–125	53400		122	J	50400	106		P
Calcium	ug/Kg	75–125	892000		320000		504000	114		P
Chromium	ug/Kg	75–125	53000		605		50400	104		P
Cobalt	ug/Kg	75–125	52300		356	J	50400	103		P
Copper	ug/Kg	75–125	54400		1300		50400	105		P
Iron	ug/Kg		7810000		6670000		504000	227	N/A	P
Lead	ug/Kg	75–125	59200		4910		50400	108		P
Magnesium	ug/Kg	75–125	801000		268000		504000	106		P
Manganese	ug/Kg	75–125	268000		181000		50400	172	N	P
Silicon	ug/Kg	75–125	1120000		474000		504000	128	N	P
Silver	ug/Kg	75–125	52900		104	J	50400	105		P
Sodium	ug/Kg	75–125	663000		72600		504000	117		P
Titanium	ug/Kg		345000		262000		50400	165	N/A	P
Vanadium	ug/Kg	75–125	54500		2260		50400	104		P
Zinc	ug/Kg	75–125	93700		34900		50400	117		P

METALS
-5a-
Matrix Spike Duplicate Summary

SDG NO. 10-901 **Client ID** RE03-09-13470SD

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 95.6

Sample ID: 242794001 **Spike ID:** 1201995829

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Aluminum	ug/Kg	75-125	1010000		470000		522000	104		P
Antimony	ug/Kg	75-125	54000		794	J	52200	102		P
Barium	ug/Kg	75-125	66300		14800		52200	98.7		P
Boron	ug/Kg	75-125	55000		1030	U	52200	104		P
Cadmium	ug/Kg	75-125	55200		122	J	52200	106		P
Calcium	ug/Kg	75-125	844000		320000		522000	100		P
Chromium	ug/Kg	75-125	54300		605		52200	103		P
Cobalt	ug/Kg	75-125	53900		356	J	52200	103		P
Copper	ug/Kg	75-125	55700		1300		52200	104		P
Iron	ug/Kg		6990000		6670000		522000	62	N/A	P
Lead	ug/Kg	75-125	60500		4910		52200	107		P
Manganese	ug/Kg	75-125	221000		181000		52200	76.2		P
Potassium	ug/Kg	75-125	716000		153000		522000	108		P
Silicon	ug/Kg	75-125	1050000		474000		522000	111		P
Silver	ug/Kg	75-125	54500		104	J	52200	104		P
Sodium	ug/Kg	75-125	685000		72600		522000	117		P
Titanium	ug/Kg		293000		262000		52200	59.8	N/A	P
Vanadium	ug/Kg	75-125	55600		2260		52200	102		P
Zinc	ug/Kg	75-125	89500		34900		52200	105		P
Magnesium	ug/Kg	75-125	773000		268000		522000	96.9		P

METALS
–5a–

Matrix Spike Summary

SDG NO. 10–901 **Client ID** RE03–09–13470S

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 95.6

Sample ID: 242794001 **Spike ID:** 1201995839

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Arsenic	mg/kg	75–125	8.11		0.609	J	7.97	94.1		MS
Beryllium	mg/kg	75–125	5.49		0.287		4.98	104		MS
Lithium	mg/kg	75–125	7.6		4.33		4.98	65.6	N	MS
Nickel	mg/kg	75–125	5.98		1.93		4.98	81.4		MS
Selenium	mg/kg	75–125	2.12		0.507	U	1.99	95.3		MS
Thallium	mg/kg	75–125	9.1		0.164	J	9.96	89.8		MS
Uranium	mg/kg	75–125	5.71		0.456		4.98	106		MS

METALS
-5a-
Matrix Spike Duplicate Summary

SDG NO. 10-901 **Client ID** RE03-09-13470SD

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 95.6

Sample ID: 242794001 **Spike ID:** 1201995840

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Arsenic	mg/kg	75-125	8.43		0.609	J	8.07	96.8		MS
Beryllium	mg/kg	75-125	5.55		0.287		5.05	104		MS
Lithium	mg/kg	75-125	9.4		4.33		5.05	101		MS
Nickel	mg/kg	75-125	5.8		1.93		5.05	76.8		MS
Selenium	mg/kg	75-125	2.27		0.507	U	2.02	102		MS
Thallium	mg/kg	75-125	9.14		0.164	J	10.1	88.9		MS
Uranium	mg/kg	75-125	5.83		0.456		5.05	107		MS

METALS
-5a-
Matrix Spike Summary

SDG NO. 10-901 **Client ID** RE03-09-13470S

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 95.6

Sample ID: 242794001 **Spike ID:** 1202000183

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Mercury	ug/kg	75-125	121		4.14	U	122	96.2		AV

METALS
–5a–
Matrix Spike Duplicate Summary

SDG NO. 10–901 **Client ID** RE03–09–13470SD

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 95.6

Sample ID: 242794001 **Spike ID:** 1202000185

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Mercury	ug/kg	75–125	118		4.14	U	116	98.9		AV

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–901

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE03–09–13470D

Sample ID: 242794001 **Duplicate ID:** 1201995826 **Percent Solids for Dup:** 95.6

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	ug/Kg	+/–20%	470000		309000		41.2	*	P
Antimony	ug/Kg	+/–996	794	J	695	J	13.3		P
Barium	ug/Kg	+/–20%	14800		13500		8.92		P
Boron	ug/Kg		1030	U	996	U			P
Cadmium	ug/Kg	+/–498	122	J	114	J	6.56		P
Calcium	ug/Kg	+/–20%	320000		298000		7.22		P
Chromium	ug/Kg	+/–498	605		296	J	68.5		P
Cobalt	ug/Kg	+/–498	356	J	317	J	11.6		P
Copper	ug/Kg	+/–996	1300		1070		18.9		P
Iron	ug/Kg	+/–20%	6670000		6310000		5.57		P
Lead	ug/Kg	+/–996	4910		3510		33.2	*	P
Magnesium	ug/Kg	+/–20%	268000		179000		39.7	*	P
Manganese	ug/Kg	+/–20%	181000		196000		8.12		P
Potassium	ug/Kg	+/–24900	153000		95700		46.2	*	P
Silicon	ug/Kg	+/–20%	474000		413000		13.8		P
Silver	ug/Kg		104	J	99.6	U	200		P
Sodium	ug/Kg	+/–24900	72600		66600		8.58		P
Titanium	ug/Kg	+/–20%	262000		260000		.968		P
Vanadium	ug/Kg	+/–498	2260		1840		20.1		P
Zinc	ug/Kg	+/–20%	34900		35800		2.65		P

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–901

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE03–09–13470SD

Sample ID: 1201995828 **Duplicate ID:** 1201995829 **Percent Solids for Dup:** 95.6

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	ug/Kg	+/–20	1320000		1010000		26.5	*	P
Antimony	ug/Kg	+/–20	52000		54000		3.85		P
Barium	ug/Kg	+/–20	69700		66300		5.03		P
Boron	ug/Kg	+/–20	53500		55000		2.75		P
Cadmium	ug/Kg	+/–20	53400		55200		3.32		P
Calcium	ug/Kg	+/–20	892000		844000		5.52		P
Chromium	ug/Kg	+/–20	53000		54300		2.52		P
Cobalt	ug/Kg	+/–20	52300		53900		2.93		P
Copper	ug/Kg	+/–20	54400		55700		2.4		P
Iron	ug/Kg	+/–20	7810000		6990000		11		P
Lead	ug/Kg	+/–20	59200		60500		2.23		P
Magnesium	ug/Kg	+/–20	801000		773000		3.56		P
Manganese	ug/Kg	+/–20	268000		221000		19.3		P
Potassium	ug/Kg	+/–20	725000		716000		1.14		P
Silicon	ug/Kg	+/–20	1120000		1050000		6.03		P
Silver	ug/Kg	+/–20	52900		54500		3.05		P
Sodium	ug/Kg	+/–20	663000		685000		3.35		P
Titanium	ug/Kg	+/–20	345000		293000		16.2		P
Vanadium	ug/Kg	+/–20	54500		55600		2.08		P
Zinc	ug/Kg	+/–20	93700		89500		4.59		P

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–901

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE03–09–13470D

Sample ID: 242794001 **Duplicate ID:** 1201995837 **Percent Solids for Dup:** 95.6

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Arsenic	mg/kg	+/–1.02	0.609	J	0.213	J	96.3		MS
Beryllium	mg/kg	+/–.102	0.287		0.205		33.5		MS
Lithium	mg/kg	+/–2.04	4.33		2.51		53.1		MS
Nickel	mg/kg	+/–.408	1.93		0.902		72.5	*	MS
Selenium	mg/kg		0.507	U	0.511	U			MS
Thallium	mg/kg	+/–.204	0.164	J	0.0674	J	83.7		MS
Uranium	mg/kg	+/–20%	0.456		0.459		.689		MS

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–901

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE03–09–13470SD

Sample ID: 1201995839 **Duplicate ID:** 1201995840 **Percent Solids for Dup:** 95.6

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Arsenic	mg/kg	+/–20	8.11		8.43		3.86		MS
Beryllium	mg/kg	+/–20	5.49		5.55		1.03		MS
Lithium	mg/kg	+/–20	7.6		9.4		21.3	*	MS
Nickel	mg/kg	+/–20	5.98		5.8		3		MS
Selenium	mg/kg	+/–20	2.12		2.27		7.12		MS
Thallium	mg/kg	+/–20	9.1		9.14		.402		MS
Uranium	mg/kg	+/–20	5.71		5.83		2.1		MS

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–901

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE03–09–13470D

Sample ID: 242794001 **Duplicate ID:** 1202000182 **Percent Solids for Dup:** 95.6

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Mercury	ug/kg		4.14	U	6.46	J	200		AV

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–901

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE03–09–13470SD

Sample ID: 1202000183 **Duplicate ID:** 1202000185 **Percent Solids for Dup:** 95.6

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Mercury	ug/kg	+/–20	121		118		2.56		AV

METALS
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Laboratory Control Sample Summary

SDG NO. 10-901

Contract: LANL01004

Aqueous LCS Source: **Solid LCS Source:** ERA

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1201995830								
	Cadmium	ug/Kg	60700	65100		107	81-120	P
	Calcium	ug/Kg	9870000	10400000		105	83-117	P
	Chromium	ug/Kg	236000	262000		111	80-120	P
	Cobalt	ug/Kg	91200	100000		110	81-120	P
	Copper	ug/Kg	174000	195000		112	81-118	P
	Iron	ug/Kg	18000000	20100000		112	51-149	P
	Lead	ug/Kg	86000	88700		103	79-121	P
	Magnesium	ug/Kg	4000000	3970000		99.4	79-122	P
	Manganese	ug/Kg	558000	566000		101	81-119	P
	Potassium	ug/Kg	4300000	4220000		98	74-127	P
	Silicon	ug/Kg	1210000	1340000		111	10-190	P
	Silver	ug/Kg	30100	32900		109	66-134	P
	Sodium	ug/Kg	1020000	1070000		105	74-127	P
	Titanium	ug/Kg	462000	584000		126	39-161	P
	Vanadium	ug/Kg	115000	131000		113	79-121	P
	Zinc	ug/Kg	594000	624000		105	80-121	P
	Antimony	ug/Kg	173000	184000		106	71-130	P
	Barium	ug/Kg	198000	199000		100	80-120	P
	Aluminum	ug/Kg	10500000	8920000		84.9	56-144	P
	Boron	ug/Kg	141000	161000		114	75-125	P

METALS
-7-
Laboratory Control Sample Summary

SDG NO. 10-901

Contract: LANL01004

Aqueous LCS Source: **Solid LCS Source:** ERA

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1201995841								
	Arsenic	mg/kg	104	112		107	83-120	MS
	Beryllium	mg/kg	77.6	84.6		109	81.2-126.8	MS
	Lithium	mg/kg	10.6	11.2	J	106	66.7-133.7	MS
	Nickel	mg/kg	134	151		112	83.3-121.4	MS
	Selenium	mg/kg	286	314		110	80.2-125.9	MS
	Thallium	mg/kg	121	124		102	78-123.2	MS
	Uranium	mg/kg	2.13	2.09		98	61.9-130.7	MS

METALS
–7–
Laboratory Control Sample Summary

SDG NO. 10–901

Contract: LANL01004

Aqueous LCS Source: **Solid LCS Source:** ERA

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202000181								
	Mercury	ug/kg	5150	6530		127	71.6–128.3	AV

METALS
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Serial Dilution Sample Summary

SDG NO. 10–901 **Client ID** RE03–09–13470L

Contract: LANL01004

Matrix: SOLID **Level:** Low

Sample ID: 242794001 **Serial Dilution ID:** 1201995827

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Aluminum	4570		4510		1.31		10	P
Antimony	7.72	J	16.5	U	100			P
Barium	144		137		4.86		10	P
Boron	10	U	50	U				P
Cadmium	1.19	J	5	U	100			P
Calcium	3110		3120		.322			P
Chromium	5.88		7.5	U	100			P
Cobalt	3.46	J	7.5	U	100			P
Copper	12.6		15	U	100			P
Iron	64800		65500		1.08		10	P
Lead	47.7		39.9	J	16.4			P
Magnesium	2600		2600		.192			P
Manganese	1760		1710		3.13		10	P
Potassium	1490		1510		1.34			P
Silicon	4610		4570		.976		10	P
Silver	1.01	J	6.7	J	563			P
Sodium	706		730	J	3.4			P
Titanium	2550		2510		1.76		10	P
Vanadium	21.9		19.5	J	11.2			P
Zinc	339		324		4.57		10	P

METALS
–9–
Serial Dilution Sample Summary

SDG NO. 10–901 **Client ID:** RE03–09–13470L

Contract: LANL01004

Matrix: SOLID **Level:** Low

Sample ID: 242794001 **Serial Dilution ID:** 1201995838

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Arsenic	3.01	J	5	U	100			MS
Beryllium	1.42		.975	J	31.3			MS
Lithium	21.4		23.1	J	7.94			MS
Nickel	9.51		9.35	J	1.68			MS
Selenium	2.5	U	12.5	U				MS
Thallium	.811	J	2.4	J	196			MS
Uranium	2.25		2.28		1.11			MS

METALS
-9-
Serial Dilution Sample Summary

SDG NO. 10-901 **Client ID** RE03-09-13470L

Contract: LANL01004

Matrix: SOLID **Level:** Low

Sample ID: 242794001 **Serial Dilution ID:** 1202000184

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Mercury	.068	U	.525	J				AV

METALS
–13–
SAMPLE PREPARATION SUMMARY

SDG No: 10–901 **Method Type:** P

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number	932934						
1201995825	MB for batch 932934	MB	S	17–DEC–09	.522g	50mL	
1201995830	LCS for batch 932934	LCS	S	17–DEC–09	.521g	50mL	
1201995828	RE03–09–13470S	MS	S	17–DEC–09	.519g	50mL	
1201995829	RE03–09–13470SD	MSD	S	17–DEC–09	.501g	50mL	
1201995826	RE03–09–13470D	DUP	S	17–DEC–09	.525g	50mL	
242794001	RE03–09–13470	SAMPLE	S	17–DEC–09	.508g	50mL	
242794002	RE03–09–13471	SAMPLE	S	17–DEC–09	.506g	50mL	
242794003	RE03–09–13472	SAMPLE	S	17–DEC–09	.515g	50mL	
242794004	RE03–09–13469	SAMPLE	S	17–DEC–09	.525g	50mL	

METALS
-13-
SAMPLE PREPARATION SUMMARY

SDG No: 10-901 **Method Type:** MS

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number 932936							
1201995836	MB for batch 932936	MB	S	17-DEC-09	.502g	50mL	
1201995841	LCS for batch 932936	LCS	S	17-DEC-09	.525g	50mL	
1201995839	RE03-09-13470S	MS	S	17-DEC-09	.525g	50mL	
1201995840	RE03-09-13470SD	MSD	S	17-DEC-09	.518g	50mL	
1201995837	RE03-09-13470D	DUP	S	17-DEC-09	.512g	50mL	
242794001	RE03-09-13470	SAMPLE	S	17-DEC-09	.516g	50mL	
242794002	RE03-09-13471	SAMPLE	S	17-DEC-09	.507g	50mL	
242794003	RE03-09-13472	SAMPLE	S	17-DEC-09	.512g	50mL	
242794004	RE03-09-13469	SAMPLE	S	17-DEC-09	.51g	50mL	

METALS
-13-
SAMPLE PREPARATION SUMMARY

SDG No: 10-901 **Method Type:** AV

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number	934870						
1202000180	MB for batch 934870	MB	S	22-DEC-09	.513g	30mL	
1202000181	LCS for batch 934870	LCS	S	22-DEC-09	.201g	30mL	
1202000183	RE03-09-13470S	MS	S	22-DEC-09	.514g	30mL	
1202000185	RE03-09-13470SD	MSD	S	22-DEC-09	.543g	30mL	
1202000182	RE03-09-13470D	DUP	S	22-DEC-09	.515g	30mL	
242794001	RE03-09-13470	SAMPLE	S	22-DEC-09	.515g	30mL	
242794002	RE03-09-13471	SAMPLE	S	22-DEC-09	.534g	30mL	
242794003	RE03-09-13472	SAMPLE	S	22-DEC-09	.5g	30mL	
242794004	RE03-09-13469	SAMPLE	S	22-DEC-09	.536g	30mL	

Metals
–14–
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: HG3
Start Date: 23–DEC–09 **End Date:** 23–DEC–09

Client Sdg: 10–901
Method AV
Data File: 122309S1–4

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Li	Mg	Mn	Hg	Ni	K	Se	Si	Ag	Na	Tl	Ti	U	V	Zn
S0.0	1	08:40																	X											
S0.2	1	08:42																	X											
S0.5	1	08:43																	X											
S2.0	1	08:45																	X											
S5.0	1	08:47																	X											
S10.0	1	08:48																	X											
ICV01	1	08:50																	X											
ICB01	1	08:52																	X											
CRDL01	1	08:53																	X											
CCV01	1	08:55																	X											
CCB01	1	08:57																	X											
ZZZZZZ	1	08:58																												
ZZZZZZ	10	09:00																												
ZZZZZZ	1	09:02																												
ZZZZZZ	1	09:03																												
ZZZZZZ	1	09:05																												
ZZZZZZ	1	09:07																												
ZZZZZZ	5	09:08																												
ZZZZZZ	1	09:10																												
ZZZZZZ	1	09:12																												
ZZZZZZ	1	09:13																												
CCV02	1	09:15																	X											
CCB02	1	09:17																	X											
ZZZZZZ	1	09:18																												
ZZZZZZ	1	09:20																												
ZZZZZZ	1	09:22																												
ZZZZZZ	1	09:23																												
ZZZZZZ	1	09:25																												
ZZZZZZ	1	09:27																												
ZZZZZZ	1	09:28																												
ZZZZZZ	1	09:30																												
ZZZZZZ	1	09:32																												
ZZZZZZ	1	09:33																												
CCV03	1	09:35																	X											
CCB03	1	09:37																	X											
ZZZZZZ	1	09:38																												
ZZZZZZ	1	09:40																												
ZZZZZZ	1	09:42																												
ZZZZZZ	1	09:43																												
ZZZZZZ	1	09:45																												

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time																												
ZZZZZZ	1	09:47																												
ZZZZZZ	1	09:49																												
ZZZZZZ	1	09:50																												
ZZZZZZ	1	09:52																												
ZZZZZZ	1	09:54																												
CCV04	1	09:55																X												
CCB04	1	09:57																X												
ZZZZZZ	1	09:59																												
ZZZZZZ	1	10:00																												
ZZZZZZ	1	10:02																												
ZZZZZZ	1	10:04																												
CCV05	1	10:08																X												
CCB05	1	10:10																X												
ZZZZZZ	1	10:11																												
ZZZZZZ	10	10:13																												
ZZZZZZ	1	10:15																												
ZZZZZZ	1	10:16																												
ZZZZZZ	1	10:18																												
ZZZZZZ	1	10:20																												
ZZZZZZ	1	10:21																												
ZZZZZZ	1	10:23																												
ZZZZZZ	1	10:25																												
ZZZZZZ	1	10:26																												
CCV06	1	10:28																X												
CCB06	1	10:30																X												
ZZZZZZ	1	10:31																												
ZZZZZZ	5	10:33																												
ZZZZZZ	1	10:35																												
ZZZZZZ	1	10:36																												
ZZZZZZ	1	10:38																												
ZZZZZZ	1	10:40																												
ZZZZZZ	1	10:41																												
ZZZZZZ	1	10:43																												
ZZZZZZ	1	10:45																												
ZZZZZZ	1	10:46																												
CCV07	1	10:48																X												
CCB07	1	10:50																X												
ZZZZZZ	1	10:51																												
CCV08	1	10:59																X												
CCB08	1	11:01																X												

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Li	Mg	Mn	Hg	Ni	K	Se	Si	Ag	Na	Tl	Ti	U	V	Zn
ZZZZZZ	1	11:02																												
ZZZZZZ	5	11:04																												
ZZZZZZ	10	11:06																												
ZZZZZZ	1	11:07																												
ZZZZZZ	1	11:09																												
ZZZZZZ	1	11:11																												
ZZZZZZ	1	11:12																												
ZZZZZZ	1	11:14																												
ZZZZZZ	1	11:15																												
CCV09	1	11:17																	X											
CCB09	1	11:19																	X											
ZZZZZZ	1	11:21																												
ZZZZZZ	5	11:22																												
ZZZZZZ	10	11:24																												
CCV10	1	11:30																	X											
CCB10	1	11:32																	X											
ZZZZZZ	1	11:33																												
ZZZZZZ	5	11:35																												
ZZZZZZ	10	11:37																												
ZZZZZZ	1	11:38																												
ZZZZZZ	1	11:40																												
ZZZZZZ	1	11:42																												
ZZZZZZ	1	11:43																												
ZZZZZZ	1	11:45																												
ZZZZZZ	1	11:47																												
ZZZZZZ	1	11:48																												
CCV11	1	11:50																	X											
CCB11	1	11:52																	X											
ZZZZZZ	1	11:53																												
ZZZZZZ	1	11:55																												
ZZZZZZ	1	11:57																												
ZZZZZZ	1	11:58																												
ZZZZZZ	1	12:00																												
1202000180	1	12:02																	X											
1202000181	10	12:04																	X											
ZZZZZZ	1	12:05																												
ZZZZZZ	1	12:07																												
ZZZZZZ	1	12:09																												
CCV12	1	12:10																	X											
CCB12	1	12:12																	X											

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time																												
ZZZZZZ	1	12:14																												
ZZZZZZ	1	12:15																												
ZZZZZZ	1	12:17																												
ZZZZZZ	1	12:19																												
242794001	1	12:20																X												
1202000182	1	12:22																X												
1202000183	1	12:24																X												
1202000185	1	12:25																X												
1202000184	5	12:27																X												
242794002	1	12:29																X												
CCV13	1	12:30																X												
CCB13	1	12:32																X												
242794003	1	12:34																X												
242794004	1	12:35																X												
ZZZZZZ	1	12:37																												
ZZZZZZ	10	12:39																												
ZZZZZZ	1	12:40																												
ZZZZZZ	1	12:42																												
ZZZZZZ	1	12:44																												
ZZZZZZ	1	12:46																												
ZZZZZZ	5	12:47																												
ZZZZZZ	1	12:49																												
CCV14	1	12:51																X												
CCB14	1	12:52																X												

Metals
–14–
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: ICPMS4
Start Date: 30–DEC–09 **End Date:** 31–DEC–09

Client Sdg: 10–901
Method MS
Data File: 091230–2

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Li	Mg	Mn	Hg	Ni	K	Se	Si	Ag	Na	Tl	Ti	U	V	Zn
S0.0	1	22:21			X															X		X				X				
S10	1	22:27			X															X		X				X				
S100	1	22:34			X															X		X				X				
ICV01	1	22:40			X															X		X				X				
ICB01	1	22:46			X															X		X				X				
CRDL01	1	22:52			X															X		X				X				
ICSA01	1	22:58			X															X		X				X				
ICSAB01	1	23:04			X															X		X				X				
CCV01	1	23:11			X															X		X				X				
CCB01	1	23:17			X															X		X				X				
LR01	1	23:23			X															X		X				X				
CCV02	1	23:29			X															X		X				X				
CCB02	1	23:35			X															X		X				X				
1201995836	2	23:42			X															X		X				X				
1201995841	40	23:48			X															X		X				X				
ZZZZZZ	20	23:54																												
242794001	2	00:00			X															X		X				X				
CCV03	1	00:07			X															X		X				X				
CCB03	1	00:13			X															X		X				X				
1201995837	2	00:19			X															X		X				X				
1201995839	2	00:25			X															X		X				X				
1201995840	2	00:31			X															X		X				X				
1201995838	10	00:38			X															X		X				X				
242794002	2	00:44			X															X		X				X				
242794003	2	00:50			X															X		X				X				
242794004	2	00:56			X															X		X				X				
CCV04	1	01:03			X															X		X				X				
CCB04	1	01:09			X															X		X				X				

Metals
–14–
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: ICPMS4
Start Date: 31–DEC–09 **End Date:** 31–DEC–09

Client Sdg: 10–901
Method MS
Data File: 091231–3

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Li	Mg	Mn	Hg	Ni	K	Se	Si	Ag	Na	Tl	Ti	U	V	Zn
S0.0	1	14:07					X									X												X		
S10	1	14:09					X									X												X		
S100	1	14:12					X									X												X		
ICV01	1	14:14					X									X												X		
ICB01	1	14:17					X									X												X		
CRDL01	1	14:19					X									X												X		
ICSA01	1	14:22					X									X												X		
ICSAB01	1	14:24					X									X												X		
CCV01	1	14:27					X									X												X		
CCB01	1	14:29					X									X												X		
1201995836	2	14:32					X									X												X		
1201995841	40	14:34					X																					X		
1201995841	20	14:36														X														
242794001	2	14:39					X									X												X		
CCV02	1	14:41					X									X												X		
CCB02	1	14:44					X									X												X		
1201995837	2	14:46					X									X												X		
1201995839	2	14:49					X									X												X		
1201995840	2	14:51					X									X												X		
1201995838	10	14:54					X									X												X		
242794002	2	14:56					X									X												X		
242794003	2	14:59					X									X												X		
242794004	2	15:01					X									X												X		
CCV03	1	15:04					X									X												X		
CCB03	1	15:06					X									X												X		

Metals
–14–
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: OPTIMA1
Start Date: 19–DEC–09
End Date: 19–DEC–09
Client Sdg: 10–901
Method P
Data File: 121909B–1

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Li	Mg	Mn	Hg	Ni	K	Se	Si	Ag	Na	Tl	Ti	U	V	Zn
S0.0	1	03:41	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
S0.1	1	03:45		X		X		X	X		X	X	X		X			X			X		X	X			X		X	X
S0.5	1	03:47	X	X		X		X	X	X	X	X	X		X		X	X			X		X	X			X		X	X
SCAL	1	03:51	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
S10	1	03:55	X							X				X			X								X					
ICV01	1	03:56	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
ICB01	1	04:00	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
PQL01	1	04:04	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
ICSA01	1	04:07	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
ICSAB01	1	04:10	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
LR01	1	04:13	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
LR02	1	04:16	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
CCV01	1	04:20	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
CCB01	1	04:23	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
ZZZZZZ	1	04:30																												
ZZZZZZ	1	04:34																												
ZZZZZZ	1	04:38																												
ZZZZZZ	1	04:41																												
ZZZZZZ	1	04:45																												
CCV02	1	04:49	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
PQL02	1	04:53	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
CCB02	1	04:56	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
ZZZZZZ	1	05:00																												
ZZZZZZ	1	05:04																												
ZZZZZZ	1	05:08																												
ZZZZZZ	1	05:12																												
ZZZZZZ	5	05:15																												
ZZZZZZ	1	05:19																												
CCV03	1	05:23	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
PQL03	1	05:26	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
CCB03	1	05:30	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
ZZZZZZ	1	05:34																												
ZZZZZZ	1	05:37																												
ZZZZZZ	1	05:41																												
ZZZZZZ	1	05:45																												
ZZZZZZ	1	05:49																												
ZZZZZZ	5	05:52																												
CCV04	1	05:56	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
CCB04	1	06:00	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
ZZZZZZ	1	06:03																												

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time																												
ZZZZZZ	1	06:07																												
ZZZZZZ	1	06:11																												
ZZZZZZ	1	06:14																												
ZZZZZZ	1	06:18																												
ZZZZZZ	5	06:22																												
CCV05	1	06:25	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
CCB05	1	06:29	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
ZZZZZZ	1	06:38																												
ZZZZZZ	1	06:42																												
ZZZZZZ	1	06:46																												
ZZZZZZ	1	06:49																												
ZZZZZZ	1	06:53																												
ZZZZZZ	5	06:56																												
CCV06	1	07:00	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
CCB06	1	07:04	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
ZZZZZZ	1	07:07																												
ZZZZZZ	1	07:11																												
ZZZZZZ	1	07:14																												
ZZZZZZ	1	07:17																												
ZZZZZZ	1	07:20																												
ZZZZZZ	1	07:23																												
ZZZZZZ	5	07:26																												
CCV07	1	07:29	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
CCB07	1	07:33	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
ZZZZZZ	1	07:37																												
ZZZZZZ	1	07:40																												
ZZZZZZ	1	07:44																												
ZZZZZZ	1	07:48																												
ZZZZZZ	1	07:52																												
ZZZZZZ	1	07:55																												
ZZZZZZ	1	07:59																												
ZZZZZZ	1	08:03																												
ZZZZZZ	5	08:07																												
CCV08	1	08:11	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
CCB08	1	08:15	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
ZZZZZZ	1	08:18																												
ZZZZZZ	1	08:21																												
CCV09	1	08:24	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
CCB09	1	08:28	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
ZZZZZZ	20	08:32																												

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Li	Mg	Mn	Hg	Ni	K	Se	Si	Ag	Na	Tl	Ti	U	V	Zn
ZZZZZZ	1	08:36																												
ZZZZZZ	1	08:40																												
ZZZZZZ	20	08:43																												
ZZZZZZ	20	08:47																												
ZZZZZZ	20	08:51																												
ZZZZZZ	100	08:55																												
ZZZZZZ	5	08:59																												
ZZZZZZ	1	09:02																												
ZZZZZZ	1	09:05																												
CCV10	1	09:08	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
CCB10	1	09:12	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
ZZZZZZ	1	09:16																												
ZZZZZZ	1	09:19																												
ZZZZZZ	1	09:23																												
ZZZZZZ	1	09:27																												
ZZZZZZ	1	09:30																												
ZZZZZZ	5	09:34																												
ZZZZZZ	1	09:37																												
CCV11	1	09:41	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
CCB11	1	09:45	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
1201995825	1	09:48	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
1201995830	1	09:52	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
242794001	1	09:55	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
1201995826	1	09:58	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
1201995828	1	10:02	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
1201995829	1	10:06	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
1201995827	5	10:09	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
242794002	1	10:13	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
242794003	1	10:17	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
242794004	1	10:23	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
CCV12	1	10:27	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
CCB12	1	10:30	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X

Standards

METALS
-10-
Instrument Detection Limits

SDG NO. 10-901

Contract: LANL01004 **Lab Code: GEL** **MDL Effective Date:** 01-JUL-09

ICP/MS	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
SOLID	Aluminum		15.0	50
	Antimony		0.5	3
	Arsenic		1.0	5
	Barium		0.5	2
	Beryllium		0.1	.5
	Boron		4.0	15
	Cadmium		0.1	1
	Calcium		33.0	100
	Chromium		1.0	3
	Cobalt		0.3	1
	Copper		0.33	1
	Iron		25.0	100
	Lead		0.5	2
	Lithium		2.0	10
	Magnesium		7.5	25
	Manganese		1.0	5
	Nickel		0.5	2
	Potassium		80.0	300
	Selenium		2.5	5
	Silver		0.2	1
	Sodium		80.0	250
	Thallium		0.3	1
	Titanium		2.0	10
	Uranium		0.066	.2
	Vanadium		2.0	10
	Zinc		2.0	10

METALS
-10-
Instrument Detection Limits

SDG NO. 10-901

Contract: LANL01004 **Lab Code: GEL** **MDL Effective Date:** 15-JUN-09

MERCURY	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
SOLID	Mercury		0.068	.2

METALS
-10-
Instrument Detection Limits

SDG NO. 10-901

Contract: LANL01004 **Lab Code: GEL** **MDL Effective Date:** 01-JUL-09

ICP	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
SOLID	Aluminum	396.153	68.0	200
	Antimony	206.836	3.3	10
	Arsenic	188.979	5.0	30
	Barium	233.527	1.0	5
	Beryllium	313.107	1.0	5
	Boron	249.677	10.0	50
	Cadmium	226.502	1.0	5
	Calcium	317.933	80.0	250
	Chromium	267.716	1.5	5
	Cobalt	228.616	1.5	5
	Copper	324.752	3.0	10
	Iron	238.204	80.0	250
	Lead	220.353	2.5	10
	Magnesium	279.077	85.0	300
	Manganese	257.61	2.0	10
	Nickel	231.604	1.5	5
	Potassium	766.49	64.0	250
	Selenium	196.026	5.0	30
	Silicon	251.611	15.0	100
	Silver	328.068	1.0	5
	Sodium	589.592	70.0	250
	Thallium	190.801	5.0	20
	Titanium	334.94	1.0	5
	Uranium	409.014	10.0	50
	Vanadium	292.402	1.0	5
	Zinc	213.857	3.3	10

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA1
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-901
Effective Dates: 01-NOV-09

Parmname	Wavelength	Aluminum	Antimony	Arsenic	Barium	Beryllium
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	-0.08714	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	-0.36980	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	-0.02864	0.00000	0.00000	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA1
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-901
Effective Dates: 01-NOV-09

Parmname	Wavelength	Boron	Cadmium	Chromium	Cobalt	Copper
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	4.75140	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	-33.0980	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	1.36057
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.03970	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	122.96
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	4.07230	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	1.45160

METALS
-11-
Interelement Correction Factors

Lab Code: GEL **GEL Job No:** 10-901
Contract: LANL01004
Instrument: OPTIMA1 **Effective Dates:** 01-NOV-09
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Parmname	Wavelength	Iron	Lead	Magnesium	Manganese	Molybdenum
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	38.0301
Antimony	206.836	0.00000	0.00000	0.00000	0.00000	1.47380
Arsenic	188.979	-0.82061	0.00000	0.00000	0.00000	1.83900
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.31446	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.07749	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	-2.33110
Copper	324.752	-0.24488	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.01248	0.00000	0.00000	0.00000	-2.95230
Magnesium	279.077	1.47510	0.00000	0.00000	0.00000	-24.9658
Manganese	257.61	-0.12666	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	-0.03930	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	1.17810	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	-0.61937	0.00000	0.41160	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	17.0660
Silver	328.068	-0.07890	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.14830	0.00000	0.14260	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	-4.63400	0.00000
Tin	189.927	-0.09214	0.00000	-0.16050	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.18670	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	-0.08158	0.00000	0.00000	0.00000	-6.97050
Zinc	213.857	0.06940	0.00000	0.02727	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA1
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-901
Effective Dates: 01-NOV-09

Parmname	Wavelength	Nickel	Phosphorous	Selenium	Silicon	Silver
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	-1.09390	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	5.19130	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA1
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-901
Effective Dates: 01-NOV-09

Parmname	Wavelength	Sulfur	Thallium	Tin	Titanium	Uranium
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	-3.74360	-0.55870
Arsenic	188.979	0.00000	0.00000	0.00000	-2.71110	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.37024	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	-0.71290
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	2.08900	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	0.84100
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	-21.8313	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	38.5869	36.0710	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	-7.24690	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	-1.61770
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	0.00000

METALS
–11–
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA1
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10–901
Effective Dates: 01–NOV–09

Parmname	Wavelength	Vanadium	Zinc
Aluminum	396.153	0.00000	0.00000
Antimony	206.836	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000
Barium	233.527	–2.10080	0.00000
Beryllium	313.107	0.00000	0.00000
Boron	249.677	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000
Chromium	267.716	–2.34600	0.00000
Cobalt	228.616	0.00000	0.00000
Copper	324.752	0.00000	0.00000
Iron	238.204	0.00000	0.00000
Lead	220.353	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000
Manganese	257.61	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000
Nickel	231.604	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000
Selenium	196.026	0.00000	0.00000
Silicon	251.611	0.00000	0.00000
Silver	328.068	–6.85200	0.00000
Sulfur	181.975	0.00000	0.00000
Thallium	190.801	0.00000	0.00000
Tin	189.927	0.00000	0.00000
Titanium	334.94	0.00000	0.00000
Uranium	409.014	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000
Zinc	213.857	0.00000	0.00000

METALS
–12–
Linear Ranges

SDG NO. 10–901

Contract: LANL01004 **Lab Code: GEL**

Instrument ID ICPMS4

Analyte	Integration Time (msec)	LDR	Units	Effective Date
Antimony	1000	250	ug/L	01–NOV–09
Arsenic	1000	1000	ug/L	01–NOV–09
Aluminum	1	50000	ug/L	01–NOV–09
Barium	1000	1000	ug/L	01–NOV–09
Beryllium	1000	1000	ug/L	01–NOV–09
Boron	1000	200	ug/L	01–NOV–09
Cadmium	1000	1000	ug/L	01–NOV–09
Calcium	500	50000	ug/L	01–NOV–09
Chromium	1000	1000	ug/L	01–NOV–09
Cobalt	1000	1000	ug/L	01–NOV–09
Copper	1000	1000	ug/L	01–NOV–09
Iron	500	50000	ug/L	01–NOV–09
Lead	1000	5000	ug/L	01–NOV–09
Lithium	1000	1000	ug/L	01–NOV–09
Magnesium	1	50000	ug/L	01–NOV–09
Manganese	1000	1000	ug/L	01–NOV–09
Nickel	1000	1000	ug/L	01–NOV–09
Potassium	1	50000	ug/L	01–NOV–09
Selenium	1000	500	ug/L	01–NOV–09
Silver	1000	250	ug/L	01–NOV–09
Sodium	1	50000	ug/L	01–NOV–09
Thallium	1000	500	ug/L	01–NOV–09
Titanium	1000	100	ug/L	01–NOV–09
Uranium	1000	5000	ug/L	01–NOV–09
Vanadium	1000	100	ug/L	01–NOV–09
Zinc	1000	2500	ug/L	01–NOV–09

METALS
–12–
Linear Ranges

SDG NO. 10–901

Contract: LANL01004 **Lab Code: GEL**

Instrument ID OPTIMA1

Analyte	Integration Time (sec)	LDR	Units	Effective Date
Copper	20	20000	ug/L	01–NOV–09
Iron	20	500000	ug/L	01–NOV–09
Lead	20	25000	ug/L	01–NOV–09
Magnesium	20	500000	ug/L	01–NOV–09
Manganese	20	10000	ug/L	01–NOV–09
Nickel	20	10000	ug/L	01–NOV–09
Potassium	20	300000	ug/L	01–NOV–09
Selenium	20	10000	ug/L	01–NOV–09
Silicon	20	50000	ug/L	01–NOV–09
Silver	20	1000	ug/L	01–NOV–09
Sodium	20	500000	ug/L	01–NOV–09
Thallium	20	10000	ug/L	01–NOV–09
Titanium	20	10000	ug/L	01–NOV–09
Uranium	20	15000	ug/L	01–NOV–09
Vanadium	20	10000	ug/L	01–NOV–09
Zinc	20	15000	ug/L	01–NOV–09
Aluminum	20	500000	ug/L	01–NOV–09
Antimony	20	10000	ug/L	01–NOV–09
Arsenic	20	10000	ug/L	01–NOV–09
Barium	20	15000	ug/L	01–NOV–09
Beryllium	20	3000	ug/L	01–NOV–09
Boron	20	5000	ug/L	01–NOV–09
Cadmium	20	10000	ug/L	01–NOV–09
Calcium	20	500000	ug/L	01–NOV–09
Chromium	20	25000	ug/L	01–NOV–09
Cobalt	20	10000	ug/L	01–NOV–09

Raw Data

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Analysis Begun

Start Time: 12/19/2009 03:41:33 **Plasma On Time: 12/18/2009 22:44:08**
Logged In Analyst: optima **Technique: ICP Continuous**
Spectrometer Model: Optima 4300 DV, S/N 077N1030502Autosampler Model: AS-93plus

Sample Information File: C:\pe\optima1\Sample Information\121809H.SIF
Batch ID:
Results Data Set: 121909B
Results Library: c:\pe\optima1\Results\Results.mdb

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Sequence No.: 1 **Autosampler Location: 8**
Sample ID: S0 **Date Collected: 12/19/2009 03:41:34**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: S0

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	124721.5	124721.5	99.9	%	03:42:18
1	Al 396.153Radial†	233.8	233.9	[0.00]	µg/L	03:42:18
1	Ca 317.933Radial†	449.7	450.0	[0.00]	µg/L	03:42:39
1	Fe 238.204 Radial†	7.1	7.1	[0.00]	µg/L	03:42:39
1	K 766.490 Radial†	823.4	823.8	[0.00]	µg/L	03:42:18
1	Mg 279.077 IEC†	19.2	19.2	[0.00]	µg/L	03:42:39
1	Na 589.592 Radial†	-736.3	-736.7	[0.00]	µg/L	03:42:18
1	Sr 421.552†	-110.0	-110.0	[0.00]	µg/L	03:42:18
1	Sc 361.383	2185215.7	2185215.7	100.22	%	03:43:41
1	Y 371.029	1329010.8	1329010.8	100.23	%	03:43:41
1	Ag 328.068†	40.0	39.9	[0.00]	µg/L	03:43:46
1	As 188.979†	2.3	2.3	[0.00]	µg/L	03:44:07
1	B 249.677†	178.9	178.6	[0.00]	µg/L	03:43:46
1	Ba 233.527†	-82.1	-81.9	[0.00]	µg/L	03:44:07
1	Be 313.107†	3573.5	3565.8	[0.00]	µg/L	03:43:46
1	Cd 226.502†	-108.5	-108.3	[0.00]	µg/L	03:44:07
1	Co 228.616†	-71.7	-71.6	[0.00]	µg/L	03:44:07
1	Cr 267.716†	-157.7	-157.4	[0.00]	µg/L	03:43:46
1	Cu 324.752†	3426.4	3419.1	[0.00]	µg/L	03:43:46
1	Mn 257.610†	-221.6	-221.1	[0.00]	µg/L	03:44:07
1	Mo 202.031†	-5.7	-5.7	[0.00]	µg/L	03:44:07
1	Ni 231.604†	331.0	330.3	[0.00]	µg/L	03:44:07
1	P 214.914†	211.6	211.1	[0.00]	µg/L	03:44:07
1	Pb 220.353†	50.5	50.4	[0.00]	µg/L	03:44:07
1	S 181.975 Axial†	27.2	27.1	[0.00]	µg/L	03:44:07
1	Sb 206.836†	22.3	22.3	[0.00]	µg/L	03:44:07
1	Se 196.026†	12.3	12.3	[0.00]	µg/L	03:44:07
1	SiO2†	2113.1	2108.5	[0.00]	µg/L	03:43:46
1	Si 251.611†	373.0	372.2	[0.00]	µg/L	03:44:07
1	Sn 189.927†	22.1	22.0	[0.00]	µg/L	03:44:07
1	Ti 334.940†	903.0	901.0	[0.00]	µg/L	03:43:46
1	Tl 190.801†	-25.8	-25.7	[0.00]	µg/L	03:44:07
1	U 409.014†	903.8	901.8	[0.00]	µg/L	03:43:46
1	V 292.402†	-113.7	-113.5	[0.00]	µg/L	03:43:46
1	Zn 213.857†	597.7	596.4	[0.00]	µg/L	03:44:07
2	Sc RADIAL	125034.9	125034.9	100	%	03:42:44
2	Al 396.153Radial†	171.9	171.6	[0.00]	µg/L	03:42:44
2	Ca 317.933Radial†	447.1	446.2	[0.00]	µg/L	03:43:05
2	Fe 238.204 Radial†	8.6	8.5	[0.00]	µg/L	03:43:05
2	K 766.490 Radial†	819.3	817.6	[0.00]	µg/L	03:42:44
2	Mg 279.077 IEC†	16.7	16.7	[0.00]	µg/L	03:43:05
2	Na 589.592 Radial†	-758.0	-756.5	[0.00]	µg/L	03:42:44
2	Sr 421.552†	-99.0	-98.8	[0.00]	µg/L	03:42:44
2	Sc 361.383	2171409.1	2171409.1	99.583	%	03:44:13
2	Y 371.029	1320495.9	1320495.9	99.591	%	03:44:13
2	Ag 328.068†	84.7	85.0	[0.00]	µg/L	03:44:18
2	As 188.979†	1.4	1.4	[0.00]	µg/L	03:44:39

2	B 249.677†	137.0	137.6	[0.00]	µg/L	03:44:18
2	Ba 233.527†	-86.1	-86.4	[0.00]	µg/L	03:44:39
2	Be 313.107†	3616.1	3631.3	[0.00]	µg/L	03:44:18
2	Cd 226.502†	-116.0	-116.5	[0.00]	µg/L	03:44:39
2	Co 228.616†	-70.9	-71.2	[0.00]	µg/L	03:44:39
2	Cr 267.716†	-135.7	-136.3	[0.00]	µg/L	03:44:18
2	Cu 324.752†	3389.6	3403.8	[0.00]	µg/L	03:44:18
2	Mn 257.610†	-218.9	-219.8	[0.00]	µg/L	03:44:39
2	Mo 202.031†	-2.8	-2.9	[0.00]	µg/L	03:44:39
2	Ni 231.604†	336.3	337.7	[0.00]	µg/L	03:44:39
2	P 214.914†	210.0	210.9	[0.00]	µg/L	03:44:39
2	Pb 220.353†	52.5	52.7	[0.00]	µg/L	03:44:39
2	S 181.975 Axial†	22.1	22.2	[0.00]	µg/L	03:44:39
2	Sb 206.836†	25.0	25.1	[0.00]	µg/L	03:44:39
2	Se 196.026†	17.0	17.1	[0.00]	µg/L	03:44:39
2	SiO2†	2108.1	2116.9	[0.00]	µg/L	03:44:18
2	Si 251.611†	385.6	387.2	[0.00]	µg/L	03:44:39
2	Sn 189.927†	19.0	19.1	[0.00]	µg/L	03:44:39
2	Ti 334.940†	925.6	929.5	[0.00]	µg/L	03:44:18
2	Tl 190.801†	-24.0	-24.1	[0.00]	µg/L	03:44:39
2	U 409.014†	915.6	919.5	[0.00]	µg/L	03:44:18
2	V 292.402†	-95.3	-95.7	[0.00]	µg/L	03:44:18
2	Zn 213.857†	597.3	599.9	[0.00]	µg/L	03:44:39
3	Sc RADIAL	124598.9	124598.9	99.9	%	03:43:10
3	Al 396.153Radial†	216.4	216.8	[0.00]	µg/L	03:43:10
3	Ca 317.933Radial†	435.5	436.1	[0.00]	µg/L	03:43:31
3	Fe 238.204 Radial†	9.1	9.1	[0.00]	µg/L	03:43:31
3	K 766.490 Radial†	854.7	856.0	[0.00]	µg/L	03:43:10
3	Mg 279.077 IEC†	11.1	11.1	[0.00]	µg/L	03:43:31
3	Na 589.592 Radial†	-742.0	-743.2	[0.00]	µg/L	03:43:10
3	Sr 421.552†	-122.5	-122.7	[0.00]	µg/L	03:43:10
3	Sc 361.383	2184906.1	2184906.1	100.20	%	03:44:45
3	Y 371.029	1328241.9	1328241.9	100.18	%	03:44:45
3	Ag 328.068†	117.6	117.3	[0.00]	µg/L	03:44:51
3	As 188.979†	-0.6	-0.6	[0.00]	µg/L	03:45:11
3	B 249.677†	182.9	182.5	[0.00]	µg/L	03:44:51
3	Ba 233.527†	-93.6	-93.4	[0.00]	µg/L	03:45:11
3	Be 313.107†	3737.1	3729.6	[0.00]	µg/L	03:44:51
3	Cd 226.502†	-105.2	-105.0	[0.00]	µg/L	03:45:11
3	Co 228.616†	-84.5	-84.4	[0.00]	µg/L	03:45:11
3	Cr 267.716†	-113.4	-113.2	[0.00]	µg/L	03:44:51
3	Cu 324.752†	3394.3	3387.5	[0.00]	µg/L	03:44:51
3	Mn 257.610†	-224.1	-223.6	[0.00]	µg/L	03:45:11
3	Mo 202.031†	5.4	5.4	[0.00]	µg/L	03:45:11
3	Ni 231.604†	332.9	332.2	[0.00]	µg/L	03:45:11
3	P 214.914†	214.2	213.7	[0.00]	µg/L	03:45:11
3	Pb 220.353†	51.8	51.7	[0.00]	µg/L	03:45:11
3	S 181.975 Axial†	27.9	27.8	[0.00]	µg/L	03:45:11
3	Sb 206.836†	20.9	20.9	[0.00]	µg/L	03:45:11
3	Se 196.026†	7.9	7.9	[0.00]	µg/L	03:45:11
3	SiO2†	2160.9	2156.6	[0.00]	µg/L	03:44:51
3	Si 251.611†	378.3	377.5	[0.00]	µg/L	03:45:11
3	Sn 189.927†	25.5	25.4	[0.00]	µg/L	03:45:11
3	Ti 334.940†	821.3	819.6	[0.00]	µg/L	03:44:51
3	Tl 190.801†	-21.0	-21.0	[0.00]	µg/L	03:45:11
3	U 409.014†	990.2	988.2	[0.00]	µg/L	03:44:51
3	V 292.402†	-80.3	-80.1	[0.00]	µg/L	03:44:51
3	Zn 213.857†	593.7	592.5	[0.00]	µg/L	03:45:11

Mean Data: S0

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	2180510.3	7883.38	0.36%	100.00	%
Sc RADIAL	124785.1	224.82	0.18%	100	%
Y 371.029	1325916.2	4709.82	0.36%	100.00	%
Ag 328.068†	80.8	38.87	48.14%	[0.00]	µg/L
Al 396.153Radial†	207.4	32.19	15.52%	[0.00]	µg/L
As 188.979†	1.0	1.50	142.68%	[0.00]	µg/L
B 249.677†	166.2	24.91	14.98%	[0.00]	µg/L
Ba 233.527†	-87.2	5.77	6.61%	[0.00]	µg/L

Be 313.107†	3642.2	82.45	2.26%	[0.00] µg/L
Ca 317.933Radial†	444.1	7.18	1.62%	[0.00] µg/L
Cd 226.502†	-109.9	5.93	5.40%	[0.00] µg/L
Co 228.616†	-75.7	7.49	9.90%	[0.00] µg/L
Cr 267.716†	-135.6	22.09	16.29%	[0.00] µg/L
Cu 324.752†	3403.4	15.79	0.46%	[0.00] µg/L
Fe 238.204 Radial†	8.3	1.02	12.35%	[0.00] µg/L
K 766.490 Radial†	832.5	20.61	2.48%	[0.00] µg/L
Mg 279.077 IEC†	15.7	4.11	26.26%	[0.00] µg/L
Mn 257.610†	-221.5	1.96	0.88%	[0.00] µg/L
Mo 202.031†	-1.1	5.78	547.29%	[0.00] µg/L
Na 589.592 Radial†	-745.5	10.10	1.36%	[0.00] µg/L
Ni 231.604†	333.4	3.83	1.15%	[0.00] µg/L
P 214.914†	211.9	1.58	0.75%	[0.00] µg/L
Pb 220.353†	51.6	1.19	2.31%	[0.00] µg/L
S 181.975 Axial†	25.7	3.05	11.86%	[0.00] µg/L
Sb 206.836†	22.8	2.16	9.47%	[0.00] µg/L
Se 196.026†	12.4	4.58	36.93%	[0.00] µg/L
SiO2†	2127.3	25.66	1.21%	[0.00] µg/L
Si 251.611†	379.0	7.61	2.01%	[0.00] µg/L
Sn 189.927†	22.2	3.18	14.35%	[0.00] µg/L
Sr 421.552†	-110.5	11.98	10.84%	[0.00] µg/L
Ti 334.940†	883.4	57.02	6.45%	[0.00] µg/L
Tl 190.801†	-23.6	2.40	10.19%	[0.00] µg/L
U 409.014†	936.5	45.65	4.87%	[0.00] µg/L
V 292.402†	-96.4	16.69	17.30%	[0.00] µg/L
Zn 213.857†	596.2	3.69	0.62%	[0.00] µg/L

Sequence No.: 2
Sample ID: S0.1
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 2
Date Collected: 12/19/2009 03:45:20
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	128281.1	128281.1	103	%	03:45:55
1	K 766.490 Radial†	2741.6	1834.4	[1000]	µg/L	03:45:55
1	Sr 421.552†	19484.9	19064.3	[100]	µg/L	03:45:55
1	Sc 361.383	2196995.8	2196995.8	100.76	%	03:46:17
1	Y 371.029	1335931.0	1335931.0	100.76	%	03:46:17
1	Ag 328.068†	11528.4	11361.1	[100]	µg/L	03:46:23
1	As 188.979†	56.6	55.1	[100]	µg/L	03:46:43
1	B 249.677†	2456.1	2271.4	[100]	µg/L	03:46:23
1	Ba 233.527†	4063.5	4120.3	[100]	µg/L	03:46:23
1	Be 313.107†	171307.4	166379.7	[100]	µg/L	03:46:17
1	Cd 226.502†	3954.4	4034.7	[100]	µg/L	03:46:23
1	Co 228.616†	2094.8	2154.8	[100]	µg/L	03:46:43
1	Cr 267.716†	4883.1	4982.1	[100]	µg/L	03:46:23
1	Cu 324.752†	18300.1	14759.4	[100]	µg/L	03:46:23
1	Mn 257.610†	32668.4	32644.7	[100]	µg/L	03:46:23
1	Mo 202.031†	913.2	907.4	[100]	µg/L	03:46:43
1	Ni 231.604†	2285.8	1935.3	[100]	µg/L	03:46:23
1	P 214.914†	450.4	235.1	[500]	µg/L	03:46:43
1	Pb 220.353†	487.7	432.4	[100]	µg/L	03:46:43
1	S 181.975 Axial†	67.9	41.7	[200]	µg/L	03:46:43
1	Sb 206.836†	126.8	103.1	[100]	µg/L	03:46:43
1	Se 196.026†	90.4	77.3	[100]	µg/L	03:46:43
1	SiO2†	7886.8	5700.3	[1069.5]	µg/L	03:46:23
1	Si 251.611†	7111.1	6678.7	[500]	µg/L	03:46:23
1	Sn 189.927†	238.2	214.2	[100]	µg/L	03:46:43
1	Ti 334.940†	46536.6	45304.1	[100]	µg/L	03:46:23
1	Tl 190.801†	45.9	69.2	[100]	µg/L	03:46:43
1	U 409.014†	2032.0	1080.2	[100]	µg/L	03:46:23
1	V 292.402†	9044.6	9073.2	[100]	µg/L	03:46:23
1	Zn 213.857†	4538.6	3908.3	[100]	µg/L	03:46:23
2	Sc RADIAL	128152.2	128152.2	103	%	03:46:01
2	K 766.490 Radial†	2768.1	1862.9	[1000]	µg/L	03:46:01
2	Sr 421.552†	19566.0	19162.4	[100]	µg/L	03:46:01
2	Sc 361.383	2183238.2	2183238.2	100.13	%	03:46:50
2	Y 371.029	1327924.2	1327924.2	100.15	%	03:46:50
2	Ag 328.068†	11679.2	11583.9	[100]	µg/L	03:46:55
2	As 188.979†	53.4	52.2	[100]	µg/L	03:47:16
2	B 249.677†	2496.4	2327.0	[100]	µg/L	03:46:55
2	Ba 233.527†	4120.2	4202.3	[100]	µg/L	03:46:55
2	Be 313.107†	170280.0	166425.1	[100]	µg/L	03:46:50
2	Cd 226.502†	4015.4	4120.3	[100]	µg/L	03:46:55
2	Co 228.616†	2051.3	2124.5	[100]	µg/L	03:47:16
2	Cr 267.716†	4911.3	5040.8	[100]	µg/L	03:46:55
2	Cu 324.752†	18380.2	14953.8	[100]	µg/L	03:46:55
2	Mn 257.610†	33009.6	33189.9	[100]	µg/L	03:46:55
2	Mo 202.031†	911.5	911.4	[100]	µg/L	03:47:16
2	Ni 231.604†	2317.4	1981.1	[100]	µg/L	03:46:55
2	P 214.914†	453.9	241.4	[500]	µg/L	03:47:16
2	Pb 220.353†	459.9	407.7	[100]	µg/L	03:47:16
2	S 181.975 Axial†	66.2	40.4	[200]	µg/L	03:47:16
2	Sb 206.836†	118.4	95.5	[100]	µg/L	03:47:16
2	Se 196.026†	85.4	72.9	[100]	µg/L	03:47:16
2	SiO2†	7972.4	5835.1	[1069.5]	µg/L	03:46:55
2	Si 251.611†	7151.6	6763.6	[500]	µg/L	03:46:55
2	Sn 189.927†	239.5	217.1	[100]	µg/L	03:47:16
2	Ti 334.940†	47095.6	46153.4	[100]	µg/L	03:46:55
2	Tl 190.801†	52.1	75.6	[100]	µg/L	03:47:16
2	U 409.014†	2002.8	1063.8	[100]	µg/L	03:46:55
2	V 292.402†	9104.7	9189.7	[100]	µg/L	03:46:55

2	Zn 213.857†	4555.5	3953.6	[100]	µg/L	03:46:55
3	Sc RADIAL	127459.0	127459.0	102	%	03:46:06
3	K 766.490 Radial†	2700.2	1811.1	[1000]	µg/L	03:46:06
3	Sr 421.552†	19451.3	19153.8	[100]	µg/L	03:46:06
3	Sc 361.383	2226209.8	2226209.8	102.10	%	03:47:22
3	Y 371.029	1354428.8	1354428.8	102.15	%	03:47:22
3	Ag 328.068†	11580.3	11261.8	[100]	µg/L	03:47:28
3	As 188.979†	57.4	55.2	[100]	µg/L	03:47:48
3	B 249.677†	2433.9	2217.7	[100]	µg/L	03:47:28
3	Ba 233.527†	4052.1	4056.2	[100]	µg/L	03:47:28
3	Be 313.107†	171123.5	163968.4	[100]	µg/L	03:47:22
3	Cd 226.502†	3933.8	3963.0	[100]	µg/L	03:47:28
3	Co 228.616†	2092.9	2125.6	[100]	µg/L	03:47:48
3	Cr 267.716†	4847.9	4884.0	[100]	µg/L	03:47:28
3	Cu 324.752†	18166.1	14389.7	[100]	µg/L	03:47:28
3	Mn 257.610†	32680.6	32231.2	[100]	µg/L	03:47:28
3	Mo 202.031†	920.6	902.7	[100]	µg/L	03:47:48
3	Ni 231.604†	2311.7	1930.8	[100]	µg/L	03:47:28
3	P 214.914†	454.3	233.1	[500]	µg/L	03:47:48
3	Pb 220.353†	471.2	409.9	[100]	µg/L	03:47:48
3	S 181.975 Axial†	68.2	41.0	[200]	µg/L	03:47:48
3	Sb 206.836†	130.5	105.1	[100]	µg/L	03:47:48
3	Se 196.026†	87.0	72.8	[100]	µg/L	03:47:48
3	SiO2†	7916.8	5626.9	[1069.5]	µg/L	03:47:28
3	Si 251.611†	7058.7	6534.8	[500]	µg/L	03:47:28
3	Sn 189.927†	243.6	216.5	[100]	µg/L	03:47:48
3	Ti 334.940†	46533.3	44694.7	[100]	µg/L	03:47:28
3	Tl 190.801†	48.5	71.1	[100]	µg/L	03:47:48
3	U 409.014†	2032.9	1054.7	[100]	µg/L	03:47:28
3	V 292.402†	9073.5	8983.7	[100]	µg/L	03:47:28
3	Zn 213.857†	4530.8	3841.6	[100]	µg/L	03:47:28

Mean Data: S0.1

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	2202147.9	21944.16	1.00%	100.99	%
Sc RADIAL	127964.1	442.19	0.35%	103	%
Y 371.029	1339428.0	13593.94	1.01%	101.02	%
Ag 328.068†	11402.3	164.92	1.45%	[100]	µg/L
As 188.979†	54.2	1.68	3.09%	[100]	µg/L
B 249.677†	2272.0	54.67	2.41%	[100]	µg/L
Ba 233.527†	4126.3	73.22	1.77%	[100]	µg/L
Be 313.107†	165591.1	1405.43	0.85%	[100]	µg/L
Cd 226.502†	4039.3	78.75	1.95%	[100]	µg/L
Co 228.616†	2135.0	17.20	0.81%	[100]	µg/L
Cr 267.716†	4969.0	79.23	1.59%	[100]	µg/L
Cu 324.752†	14701.0	286.53	1.95%	[100]	µg/L
K 766.490 Radial†	1836.1	25.93	1.41%	[1000]	µg/L
Mn 257.610†	32688.6	480.82	1.47%	[100]	µg/L
Mo 202.031†	907.2	4.33	0.48%	[100]	µg/L
Ni 231.604†	1949.1	27.83	1.43%	[100]	µg/L
P 214.914†	236.5	4.34	1.83%	[500]	µg/L
Pb 220.353†	416.7	13.68	3.28%	[100]	µg/L
S 181.975 Axial†	41.0	0.62	1.51%	[200]	µg/L
Sb 206.836†	101.2	5.06	5.00%	[100]	µg/L
Se 196.026†	74.3	2.60	3.50%	[100]	µg/L
SiO2†	5720.8	105.59	1.85%	[1069.5]	µg/L
Si 251.611†	6659.1	115.66	1.74%	[500]	µg/L
Sn 189.927†	215.9	1.50	0.69%	[100]	µg/L
Sr 421.552†	19126.8	54.29	0.28%	[100]	µg/L
Ti 334.940†	45384.0	732.62	1.61%	[100]	µg/L
Tl 190.801†	71.9	3.29	4.57%	[100]	µg/L
U 409.014†	1066.2	12.95	1.21%	[100]	µg/L
V 292.402†	9082.2	103.30	1.14%	[100]	µg/L
Zn 213.857†	3901.2	56.37	1.44%	[100]	µg/L

Sequence No.: 3
Sample ID: S0.5
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 3
Date Collected: 12/19/2009 03:47:58
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	126677.2	126677.2	102	%	03:48:30
1	Al 396.153Radial†	10812.3	10443.4	[5000]	µg/L	03:48:51
1	Ca 317.933Radial†	14533.6	13872.4	[5000]	µg/L	03:48:51
1	K 766.490 Radial†	10510.8	9521.3	[5000]	µg/L	03:48:30
1	Mg 279.077 IEC†	1001.5	970.8	[5000]	µg/L	03:48:51
1	Sr 421.552†	96348.8	95020.1	[500]	µg/L	03:48:30
1	Sc 361.383	2211393.1	2211393.1	101.42	%	03:49:54
1	Y 371.029	1337377.6	1337377.6	100.86	%	03:49:54
1	Ag 328.068†	57104.4	56226.1	[500]	µg/L	03:50:00
1	As 188.979†	282.4	277.4	[500]	µg/L	03:50:20
1	B 249.677†	11949.5	11616.4	[500]	µg/L	03:50:00
1	Ba 233.527†	20655.3	20454.1	[500]	µg/L	03:50:00
1	Be 313.107†	853379.6	837819.7	[500]	µg/L	03:49:54
1	Cd 226.502†	20164.3	19992.6	[500]	µg/L	03:50:00
1	Co 228.616†	10847.7	10771.9	[500]	µg/L	03:50:00
1	Cr 267.716†	24897.3	24685.2	[500]	µg/L	03:50:00
1	Cu 324.752†	76273.0	71804.4	[500]	µg/L	03:50:00
1	Mn 257.610†	165177.4	163092.2	[500]	µg/L	03:49:54
1	Mo 202.031†	4588.1	4525.1	[500]	µg/L	03:50:20
1	Ni 231.604†	10042.6	9569.0	[500]	µg/L	03:50:00
1	P 214.914†	1446.2	1214.1	[2500]	µg/L	03:50:20
1	Pb 220.353†	2135.9	2054.5	[500]	µg/L	03:50:20
1	S 181.975 Axial†	230.8	201.8	[1000]	µg/L	03:50:20
1	Sb 206.836†	541.3	511.0	[500]	µg/L	03:50:20
1	Se 196.026†	382.3	364.5	[500]	µg/L	03:50:20
1	SiO2†	30987.4	28427.3	[5347.5]	µg/L	03:50:00
1	Si 251.611†	34054.3	33199.7	[2500]	µg/L	03:50:00
1	Sn 189.927†	1103.9	1066.4	[500]	µg/L	03:50:20
1	Ti 334.940†	235142.4	230975.2	[500]	µg/L	03:49:54
1	Tl 190.801†	325.7	344.7	[500]	µg/L	03:50:20
1	U 409.014†	6335.3	5310.4	[500]	µg/L	03:50:00
1	V 292.402†	45818.2	45274.7	[500]	µg/L	03:50:00
1	Zn 213.857†	20375.9	19495.1	[500]	µg/L	03:50:00
2	Sc RADIAL	125706.5	125706.5	101	%	03:48:56
2	Al 396.153Radial†	10902.9	10615.5	[5000]	µg/L	03:49:17
2	Ca 317.933Radial†	14680.8	14129.1	[5000]	µg/L	03:49:17
2	K 766.490 Radial†	10460.9	9551.7	[5000]	µg/L	03:48:56
2	Mg 279.077 IEC†	1013.0	989.9	[5000]	µg/L	03:49:17
2	Sr 421.552†	96214.9	95620.1	[500]	µg/L	03:48:56
2	Sc 361.383	2201586.7	2201586.7	100.97	%	03:50:27
2	Y 371.029	1331137.7	1331137.7	100.39	%	03:50:27
2	Ag 328.068†	57373.0	56743.0	[500]	µg/L	03:50:33
2	As 188.979†	286.4	282.6	[500]	µg/L	03:50:53
2	B 249.677†	11943.9	11663.4	[500]	µg/L	03:50:33
2	Ba 233.527†	20761.4	20649.8	[500]	µg/L	03:50:33
2	Be 313.107†	849807.5	838029.9	[500]	µg/L	03:50:27
2	Cd 226.502†	20201.6	20118.1	[500]	µg/L	03:50:33
2	Co 228.616†	10899.3	10870.6	[500]	µg/L	03:50:33
2	Cr 267.716†	24901.8	24799.0	[500]	µg/L	03:50:33
2	Cu 324.752†	76632.0	72494.9	[500]	µg/L	03:50:33
2	Mn 257.610†	164498.8	163145.5	[500]	µg/L	03:50:27
2	Mo 202.031†	4541.3	4498.9	[500]	µg/L	03:50:53
2	Ni 231.604†	10070.6	9640.8	[500]	µg/L	03:50:33
2	P 214.914†	1442.2	1216.5	[2500]	µg/L	03:50:53
2	Pb 220.353†	2127.5	2055.6	[500]	µg/L	03:50:53
2	S 181.975 Axial†	226.8	198.9	[1000]	µg/L	03:50:53
2	Sb 206.836†	541.1	513.1	[500]	µg/L	03:50:53
2	Se 196.026†	390.0	373.8	[500]	µg/L	03:50:53
2	SiO2†	31117.7	28692.5	[5347.5]	µg/L	03:50:33

2	Si 251.611†	34073.8	33368.6	[2500]	µg/L	03:50:33
2	Sn 189.927†	1095.6	1062.9	[500]	µg/L	03:50:53
2	Ti 334.940†	234252.8	231126.9	[500]	µg/L	03:50:27
2	Tl 190.801†	332.1	352.5	[500]	µg/L	03:50:53
2	U 409.014†	6436.0	5437.9	[500]	µg/L	03:50:33
2	V 292.402†	46146.4	45801.0	[500]	µg/L	03:50:33
2	Zn 213.857†	20425.0	19633.2	[500]	µg/L	03:50:33
3	Sc RADIAL	124797.3	124797.3	100	%	03:49:22
3	Al 396.153Radial†	10879.6	10671.1	[5000]	µg/L	03:49:42
3	Ca 317.933Radial†	14614.0	14168.5	[5000]	µg/L	03:49:42
3	K 766.490 Radial†	10561.7	9728.1	[5000]	µg/L	03:49:22
3	Mg 279.077 IEC†	1011.8	996.0	[5000]	µg/L	03:49:42
3	Sr 421.552†	97064.8	97165.8	[500]	µg/L	03:49:22
3	Sc 361.383	2192595.4	2192595.4	100.55	%	03:51:01
3	Y 371.029	1326240.5	1326240.5	100.02	%	03:51:01
3	Ag 328.068†	54875.7	54492.5	[500]	µg/L	03:51:06
3	As 188.979†	241.5	239.2	[500]	µg/L	03:51:27
3	B 249.677†	11404.7	11175.6	[500]	µg/L	03:51:06
3	Ba 233.527†	19430.1	19410.2	[500]	µg/L	03:51:06
3	Be 313.107†	810003.7	801896.9	[500]	µg/L	03:51:01
3	Cd 226.502†	18803.8	18810.0	[500]	µg/L	03:51:06
3	Co 228.616†	10115.7	10135.7	[500]	µg/L	03:51:06
3	Cr 267.716†	22575.5	22586.7	[500]	µg/L	03:51:06
3	Cu 324.752†	71401.8	67604.8	[500]	µg/L	03:51:06
3	Mn 257.610†	157133.6	156489.0	[500]	µg/L	03:51:01
3	Mo 202.031†	3891.0	3870.6	[500]	µg/L	03:51:27
3	Ni 231.604†	9364.8	8979.8	[500]	µg/L	03:51:06
3	P 214.914†	1275.7	1056.8	[2500]	µg/L	03:51:27
3	Pb 220.353†	1892.4	1830.4	[500]	µg/L	03:51:27
3	S 181.975 Axial†	215.5	188.6	[1000]	µg/L	03:51:27
3	Sb 206.836†	474.4	449.0	[500]	µg/L	03:51:27
3	Se 196.026†	348.4	334.1	[500]	µg/L	03:51:27
3	SiO2†	29445.9	27156.3	[5347.5]	µg/L	03:51:06
3	Si 251.611†	32219.5	31662.9	[2500]	µg/L	03:51:06
3	Sn 189.927†	930.7	903.4	[500]	µg/L	03:51:27
3	Ti 334.940†	222455.6	220346.1	[500]	µg/L	03:51:01
3	Tl 190.801†	299.9	321.8	[500]	µg/L	03:51:27
3	U 409.014†	5881.9	4913.0	[500]	µg/L	03:51:06
3	V 292.402†	42571.2	42433.0	[500]	µg/L	03:51:06
3	Zn 213.857†	19028.4	18327.3	[500]	µg/L	03:51:06

Mean Data: S0.5

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	2201858.4	9401.80	0.43%	100.98	%
Sc RADIAL	125727.0	940.12	0.75%	101	%
Y 371.029	1331585.3	5582.01	0.42%	100.43	%
Ag 328.068†	55820.5	1178.80	2.11%	[500]	µg/L
Al 396.153Radial†	10576.7	118.73	1.12%	[5000]	µg/L
As 188.979†	266.4	23.72	8.90%	[500]	µg/L
B 249.677†	11485.1	269.07	2.34%	[500]	µg/L
Ba 233.527†	20171.4	666.41	3.30%	[500]	µg/L
Be 313.107†	825915.5	20800.95	2.52%	[500]	µg/L
Ca 317.933Radial†	14056.7	160.77	1.14%	[5000]	µg/L
Cd 226.502†	19640.3	721.73	3.67%	[500]	µg/L
Co 228.616†	10592.8	398.89	3.77%	[500]	µg/L
Cr 267.716†	24023.6	1245.72	5.19%	[500]	µg/L
Cu 324.752†	70634.7	2646.59	3.75%	[500]	µg/L
K 766.490 Radial†	9600.4	111.69	1.16%	[5000]	µg/L
Mg 279.077 IEC†	985.6	13.13	1.33%	[5000]	µg/L
Mn 257.610†	160908.9	3827.84	2.38%	[500]	µg/L
Mo 202.031†	4298.2	370.57	8.62%	[500]	µg/L
Ni 231.604†	9396.5	362.67	3.86%	[500]	µg/L
P 214.914†	1162.5	91.53	7.87%	[2500]	µg/L
Pb 220.353†	1980.1	129.70	6.55%	[500]	µg/L
S 181.975 Axial†	196.4	6.96	3.54%	[1000]	µg/L
Sb 206.836†	491.0	36.41	7.42%	[500]	µg/L
Se 196.026†	357.5	20.80	5.82%	[500]	µg/L
SiO2†	28092.0	821.16	2.92%	[5347.5]	µg/L
Si 251.611†	32743.7	939.83	2.87%	[2500]	µg/L

Sn 189.927†	1010.9	93.10	9.21%	[500] µg/L
Sr 421.552†	95935.3	1107.01	1.15%	[500] µg/L
Ti 334.940†	227482.7	6180.97	2.72%	[500] µg/L
Tl 190.801†	339.7	15.96	4.70%	[500] µg/L
U 409.014†	5220.4	273.76	5.24%	[500] µg/L
V 292.402†	44502.9	1811.84	4.07%	[500] µg/L
Zn 213.857†	19151.8	717.44	3.75%	[500] µg/L

Sequence No.: 4
Sample ID: SCAL
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 4
Date Collected: 12/19/2009 03:51:36
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: SCAL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	128742.9	128742.9	103	%	03:52:09
1	Al 396.153Radial†	21326.3	20463.2	[10000]	µg/L	03:52:09
1	Ca 317.933Radial†	28360.3	27044.3	[10000]	µg/L	03:52:29
1	Fe 238.204 Radial†	2043.5	1972.4	[10000]	µg/L	03:52:29
1	K 766.490 Radial†	20023.9	18575.8	[10000]	µg/L	03:52:09
1	Mg 279.077 IEC†	1955.1	1879.3	[10000]	µg/L	03:52:29
1	Na 589.592 Radial†	39078.0	38622.2	[10000]	µg/L	03:52:09
1	Sr 421.552†	191282.9	185513.0	[1000]	µg/L	03:52:09
1	Sc 361.383	2188097.2	2188097.2	100.35	%	03:53:34
1	Y 371.029	1320339.2	1320339.2	99.579	%	03:53:34
1	Ag 328.068†	109578.7	109118.0	[1000]	µg/L	03:53:39
1	As 188.979†	551.8	548.9	[1000]	µg/L	03:54:00
1	B 249.677†	22866.9	22621.4	[1000]	µg/L	03:53:39
1	Ba 233.527†	39607.6	39557.5	[1000]	µg/L	03:53:39
1	Be 313.107†	1665657.5	1656239.8	[1000]	µg/L	03:53:34
1	Cd 226.502†	38173.0	38150.5	[1000]	µg/L	03:53:39
1	Co 228.616†	20744.2	20748.0	[1000]	µg/L	03:53:39
1	Cr 267.716†	47881.5	47851.1	[1000]	µg/L	03:53:39
1	Cu 324.752†	150655.9	146730.1	[1000]	µg/L	03:53:34
1	Mn 257.610†	324337.2	323434.1	[1000]	µg/L	03:53:34
1	Mo 202.031†	8899.4	8869.6	[1000]	µg/L	03:53:39
1	Ni 231.604†	18820.7	18422.0	[1000]	µg/L	03:53:39
1	P 214.914†	2614.2	2393.3	[5000]	µg/L	03:54:00
1	Pb 220.353†	4135.9	4070.0	[1000]	µg/L	03:54:00
1	S 181.975 Axial†	430.2	402.9	[2000]	µg/L	03:54:00
1	Sb 206.836†	1056.8	1030.3	[1000]	µg/L	03:54:00
1	Se 196.026†	737.8	722.8	[1000]	µg/L	03:54:00
1	SiO2†	57584.6	55257.6	[10695]	µg/L	03:53:39
1	Si 251.611†	65003.6	64399.2	[5000]	µg/L	03:53:39
1	Sn 189.927†	2162.2	2132.6	[1000]	µg/L	03:54:00
1	Ti 334.940†	466336.2	463835.9	[1000]	µg/L	03:53:34
1	Tl 190.801†	659.3	680.6	[1000]	µg/L	03:54:00
1	U 409.014†	11440.2	10464.0	[1000]	µg/L	03:53:39
1	V 292.402†	88227.1	88017.6	[1000]	µg/L	03:53:39
1	Zn 213.857†	37490.1	36763.8	[1000]	µg/L	03:53:39
2	Sc RADIAL	127891.2	127891.2	102	%	03:52:35
2	Al 396.153Radial†	21281.0	20556.7	[10000]	µg/L	03:52:35
2	Ca 317.933Radial†	28437.0	27302.3	[10000]	µg/L	03:52:55
2	Fe 238.204 Radial†	2047.1	1989.1	[10000]	µg/L	03:52:55
2	K 766.490 Radial†	19859.8	18545.0	[10000]	µg/L	03:52:35
2	Mg 279.077 IEC†	1976.5	1912.8	[10000]	µg/L	03:52:55
2	Na 589.592 Radial†	39102.5	38898.3	[10000]	µg/L	03:52:35
2	Sr 421.552†	191066.4	186536.4	[1000]	µg/L	03:52:35
2	Sc 361.383	2190658.9	2190658.9	100.47	%	03:54:07
2	Y 371.029	1323260.0	1323260.0	99.800	%	03:54:07
2	Ag 328.068†	112685.9	112083.1	[1000]	µg/L	03:54:13
2	As 188.979†	551.3	547.7	[1000]	µg/L	03:54:33
2	B 249.677†	23433.7	23159.0	[1000]	µg/L	03:54:13
2	Ba 233.527†	40618.5	40517.6	[1000]	µg/L	03:54:13
2	Be 313.107†	1654323.0	1643016.8	[1000]	µg/L	03:54:07
2	Cd 226.502†	39261.3	39189.4	[1000]	µg/L	03:54:13
2	Co 228.616†	21300.2	21277.2	[1000]	µg/L	03:54:13
2	Cr 267.716†	49190.2	49097.9	[1000]	µg/L	03:54:13
2	Cu 324.752†	149621.9	145525.4	[1000]	µg/L	03:54:07
2	Mn 257.610†	322293.1	321021.5	[1000]	µg/L	03:54:07
2	Mo 202.031†	9144.5	9103.2	[1000]	µg/L	03:54:13
2	Ni 231.604†	19317.0	18894.1	[1000]	µg/L	03:54:13
2	P 214.914†	2606.2	2382.2	[5000]	µg/L	03:54:33
2	Pb 220.353†	4128.3	4057.6	[1000]	µg/L	03:54:33

2	S 181.975 Axial†	436.7	408.9	[2000]	µg/L	03:54:33
2	Sb 206.836†	1048.6	1021.0	[1000]	µg/L	03:54:33
2	Se 196.026†	743.5	727.6	[1000]	µg/L	03:54:33
2	SiO2†	59110.6	56709.4	[10695]	µg/L	03:54:13
2	Si 251.611†	66752.0	66063.8	[5000]	µg/L	03:54:13
2	Sn 189.927†	2148.3	2116.1	[1000]	µg/L	03:54:33
2	Ti 334.940†	463199.9	460170.7	[1000]	µg/L	03:54:07
2	Tl 190.801†	666.5	686.9	[1000]	µg/L	03:54:33
2	U 409.014†	11722.5	10731.7	[1000]	µg/L	03:54:13
2	V 292.402†	90645.5	90322.0	[1000]	µg/L	03:54:13
2	Zn 213.857†	38768.4	37992.6	[1000]	µg/L	03:54:13
3	Sc RADIAL	128455.3	128455.3	103	%	03:53:01
3	Al 396.153Radial†	21380.5	20562.2	[10000]	µg/L	03:53:01
3	Ca 317.933Radial†	28105.7	26858.5	[10000]	µg/L	03:53:21
3	Fe 238.204 Radial†	2028.7	1962.5	[10000]	µg/L	03:53:21
3	K 766.490 Radial†	20105.5	18698.5	[10000]	µg/L	03:53:01
3	Mg 279.077 IEC†	1952.6	1881.2	[10000]	µg/L	03:53:21
3	Na 589.592 Radial†	39270.8	38894.2	[10000]	µg/L	03:53:01
3	Sr 421.552†	192301.0	186917.0	[1000]	µg/L	03:53:01
3	Sc 361.383	2183100.8	2183100.8	100.12	%	03:54:40
3	Y 371.029	1319398.0	1319398.0	99.508	%	03:54:40
3	Ag 328.068†	109254.5	109044.1	[1000]	µg/L	03:54:46
3	As 188.979†	496.6	495.0	[1000]	µg/L	03:55:07
3	B 249.677†	22592.7	22399.7	[1000]	µg/L	03:54:46
3	Ba 233.527†	38596.3	38637.8	[1000]	µg/L	03:54:46
3	Be 313.107†	1599521.7	1593981.5	[1000]	µg/L	03:54:40
3	Cd 226.502†	37256.1	37321.8	[1000]	µg/L	03:54:46
3	Co 228.616†	20062.9	20114.8	[1000]	µg/L	03:54:46
3	Cr 267.716†	45647.8	45729.2	[1000]	µg/L	03:54:46
3	Cu 324.752†	145046.5	141470.9	[1000]	µg/L	03:54:40
3	Mn 257.610†	312209.6	312060.7	[1000]	µg/L	03:54:40
3	Mo 202.031†	8585.2	8576.1	[1000]	µg/L	03:54:46
3	Ni 231.604†	18189.2	17834.2	[1000]	µg/L	03:54:46
3	P 214.914†	2379.8	2165.1	[5000]	µg/L	03:55:07
3	Pb 220.353†	3769.1	3713.0	[1000]	µg/L	03:55:07
3	S 181.975 Axial†	399.7	373.5	[2000]	µg/L	03:55:07
3	Sb 206.836†	952.4	928.5	[1000]	µg/L	03:55:07
3	Se 196.026†	680.0	666.8	[1000]	µg/L	03:55:07
3	SiO2†	56716.6	54522.0	[10695]	µg/L	03:54:46
3	Si 251.611†	63897.3	63442.5	[5000]	µg/L	03:54:46
3	Sn 189.927†	1893.9	1869.5	[1000]	µg/L	03:55:07
3	Ti 334.940†	446508.5	445095.3	[1000]	µg/L	03:54:40
3	Tl 190.801†	623.4	646.3	[1000]	µg/L	03:55:07
3	U 409.014†	10884.7	9935.3	[1000]	µg/L	03:54:46
3	V 292.402†	85051.0	85046.5	[1000]	µg/L	03:54:46
3	Zn 213.857†	36530.6	35891.0	[1000]	µg/L	03:54:46

Mean Data: SCAL

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	2187285.6	3843.88	0.18%	100.31	%
Sc RADIAL	128363.2	433.25	0.34%	103	%
Y 371.029	1320999.1	2013.82	0.15%	99.629	%
Ag 328.068†	110081.8	1733.64	1.57%	[1000]	µg/L
Al 396.153Radial†	20527.4	55.62	0.27%	[10000]	µg/L
As 188.979†	530.5	30.78	5.80%	[1000]	µg/L
B 249.677†	22726.7	390.45	1.72%	[1000]	µg/L
Ba 233.527†	39571.0	940.00	2.38%	[1000]	µg/L
Be 313.107†	1631079.4	32800.97	2.01%	[1000]	µg/L
Ca 317.933Radial†	27068.4	222.84	0.82%	[10000]	µg/L
Cd 226.502†	38220.6	935.74	2.45%	[1000]	µg/L
Co 228.616†	20713.3	582.01	2.81%	[1000]	µg/L
Cr 267.716†	47559.4	1703.17	3.58%	[1000]	µg/L
Cu 324.752†	144575.5	2755.26	1.91%	[1000]	µg/L
Fe 238.204 Radial†	1974.7	13.44	0.68%	[10000]	µg/L
K 766.490 Radial†	18606.4	81.23	0.44%	[10000]	µg/L
Mg 279.077 IEC†	1891.1	18.84	1.00%	[10000]	µg/L
Mn 257.610†	318838.8	5992.66	1.88%	[1000]	µg/L
Mo 202.031†	8849.6	264.10	2.98%	[1000]	µg/L
Na 589.592 Radial†	38804.9	158.25	0.41%	[10000]	µg/L

Ni 231.604†	18383.4	531.01	2.89%	[1000] µg/L
P 214.914†	2313.5	128.68	5.56%	[5000] µg/L
Pb 220.353†	3946.9	202.59	5.13%	[1000] µg/L
S 181.975 Axial†	395.1	18.95	4.80%	[2000] µg/L
Sb 206.836†	993.3	56.27	5.67%	[1000] µg/L
Se 196.026†	705.7	33.81	4.79%	[1000] µg/L
SiO2†	55496.3	1113.08	2.01%	[10695] µg/L
Si 251.611†	64635.2	1326.47	2.05%	[5000] µg/L
Sn 189.927†	2039.4	147.37	7.23%	[1000] µg/L
Sr 421.552†	186322.1	726.13	0.39%	[1000] µg/L
Ti 334.940†	456367.3	9932.36	2.18%	[1000] µg/L
Tl 190.801†	671.3	21.88	3.26%	[1000] µg/L
U 409.014†	10377.0	405.28	3.91%	[1000] µg/L
V 292.402†	87795.4	2644.76	3.01%	[1000] µg/L
Zn 213.857†	36882.5	1055.83	2.86%	[1000] µg/L

Sequence No.: 5
Sample ID: S10
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 5
Date Collected: 12/19/2009 03:55:15
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S10

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	127302.3	127302.3	102	%	03:55:48
1	Al 396.153Radial†	104375.6	102104.3	[50000]	µg/L	03:55:48
1	Ca 317.933Radial†	139604.1	136399.5	[50000]	µg/L	03:55:48
1	Fe 238.204 Radial†	4051.2	3962.9	[20000]	µg/L	03:55:54
1	Mg 279.077 IEC†	9549.9	9345.4	[50000]	µg/L	03:55:54
1	Na 589.592 Radial†	77426.1	76640.5	[20000]	µg/L	03:55:48
1	Sc 361.383	2194678.7	2194678.7	100.65	%	03:56:27
1	Y 371.029	1316779.4	1316779.4	99.311	%	03:56:27
2	Sc RADIAL	126607.5	126607.5	101	%	03:55:59
2	Al 396.153Radial†	104442.3	102731.5	[50000]	µg/L	03:55:59
2	Ca 317.933Radial†	139523.7	137071.3	[50000]	µg/L	03:55:59
2	Fe 238.204 Radial†	4045.6	3979.2	[20000]	µg/L	03:56:05
2	Mg 279.077 IEC†	9506.4	9353.9	[50000]	µg/L	03:56:05
2	Na 589.592 Radial†	77389.7	77021.2	[20000]	µg/L	03:55:59
2	Sc 361.383	2202329.4	2202329.4	101.00	%	03:56:35
2	Y 371.029	1321131.3	1321131.3	99.639	%	03:56:35
3	Sc RADIAL	126369.0	126369.0	101	%	03:56:10
3	Al 396.153Radial†	104886.0	103363.9	[50000]	µg/L	03:56:10
3	Ca 317.933Radial†	140029.1	137829.8	[50000]	µg/L	03:56:10
3	Fe 238.204 Radial†	4066.8	4007.5	[20000]	µg/L	03:56:16
3	Mg 279.077 IEC†	9577.7	9442.0	[50000]	µg/L	03:56:16
3	Na 589.592 Radial†	77755.9	77526.7	[20000]	µg/L	03:56:10
3	Sc 361.383	2201799.1	2201799.1	100.98	%	03:56:43
3	Y 371.029	1320713.6	1320713.6	99.608	%	03:56:43

Mean Data: S10

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	2199602.4	4272.27	0.19%	100.88	%
Sc RADIAL	126759.6	484.88	0.38%	102	%
Y 371.029	1319541.5	2401.08	0.18%	99.519	%
Al 396.153Radial†	102733.2	629.80	0.61%	[50000]	µg/L
Ca 317.933Radial†	137100.2	715.60	0.52%	[50000]	µg/L
Fe 238.204 Radial†	3983.2	22.61	0.57%	[20000]	µg/L
Mg 279.077 IEC†	9380.4	53.45	0.57%	[50000]	µg/L
Na 589.592 Radial†	77062.8	444.57	0.58%	[20000]	µg/L

Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 328.068	3	Lin Thru 0	0.0	110.4	0.00000	0.999980	
Al 396.153Radial	3	Lin Thru 0	0.0	2.055	0.00000	0.999996	
As 188.979	3	Lin Thru 0	0.0	0.5310	0.00000	0.999997	
B 249.677	3	Lin Thru 0	0.0	22.77	0.00000	0.999991	
Ba 233.527	3	Lin Thru 0	0.0	39.74	0.00000	0.999964	
Be 313.107	3	Lin Thru 0	0.0	1635	0.00000	0.999987	
Ca 317.933Radial	3	Lin Thru 0	0.0	2.741	0.00000	0.999994	
Cd 226.502	3	Lin Thru 0	0.0	38.45	0.00000	0.999929	
Co 228.616	3	Lin Thru 0	0.0	20.81	0.00000	0.999956	
Cr 267.716	3	Lin Thru 0	0.0	47.67	0.00000	0.999985	
Cu 324.752	3	Lin Thru 0	0.0	143.9	0.00000	0.999956	
Fe 238.204 Radia	2	Lin Thru 0	0.0	0.1988	0.00000	0.999994	
K 766.490 Radial	3	Lin Thru 0	0.0	1.872	0.00000	0.999919	
Mg 279.077 IEC	3	Lin Thru 0	0.0	0.1878	0.00000	0.999987	
Mn 257.610	3	Lin Thru 0	0.0	319.5	0.00000	0.999991	
Mo 202.031	3	Lin Thru 0	0.0	8.801	0.00000	0.999931	
Na 589.592 Radia	2	Lin Thru 0	0.0	3.859	0.00000	0.999996	

Ni 231.604	3	Lin Thru 0	0.0	18.47	0.00000	0.999949
P 214.914	3	Lin Thru 0	0.0	0.4632	0.00000	0.999996
Pb 220.353	3	Lin Thru 0	0.0	3.951	0.00000	0.999987
S 181.975 Axial	3	Lin Thru 0	0.0	0.1974	0.00000	0.999991
Sb 206.836	3	Lin Thru 0	0.0	0.9912	0.00000	0.999988
Se 196.026	3	Lin Thru 0	0.0	0.7079	0.00000	0.999977
SiO2	3	Lin Thru 0	0.0	5.203	0.00000	0.999985
Si 251.611	3	Lin Thru 0	0.0	12.96	0.00000	0.999983
Sn 189.927	3	Lin Thru 0	0.0	2.037	0.00000	0.999980
Sr 421.552	3	Lin Thru 0	0.0	187.5	0.00000	0.999929
Ti 334.940	3	Lin Thru 0	0.0	456.1	0.00000	0.999999
Tl 190.801	3	Lin Thru 0	0.0	0.6733	0.00000	0.999970
U 409.014	3	Lin Thru 0	0.0	10.39	0.00000	0.999994
V 292.402	3	Lin Thru 0	0.0	88.06	0.00000	0.999981
Zn 213.857	3	Lin Thru 0	0.0	37.18	0.00000	0.999874

Sequence No.: 6
Sample ID: ICV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 9
Date Collected: 12/19/2009 03:56:52
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	127159.1	127159.1	102	%			03:57:26
1	Al 396.153Radial†	10983.4	10571.0	5122.8	µg/L	5122.8	ppb	03:57:26
1	Ca 317.933Radial†	14385.0	13672.3	4987.5	µg/L	4987.5	ppb	03:57:46
1	Fe 238.204 Radial†	1043.1	1015.4	5124.4	µg/L	5124.4	ppb	03:57:46
1	K 766.490 Radial†	5532.5	4596.8	2455.2	µg/L	2455.2	ppb	03:57:26
1	Mg 279.077 IEC†	1019.6	984.9	5251.5	µg/L	5251.5	ppb	03:57:46
1	Na 589.592 Radial†	9205.0	9778.6	2534.2	µg/L	2534.2	ppb	03:57:26
1	Sr 421.552†	101297.0	99516.4	530.86	µg/L	530.86	ppb	03:57:26
1	Sc 361.383	2182305.8	2182305.8	100.08	%			03:58:50
1	Y 371.029	1320802.3	1320802.3	99.614	%			03:58:50
1	Ag 328.068†	28381.8	28277.7	260.01	µg/L	260.01	ppb	03:58:56
1	As 188.979†	264.7	263.5	494.98	µg/L	494.98	ppb	03:59:16
1	B 249.677†	12149.1	11972.9	524.10	µg/L	524.10	ppb	03:58:56
1	Ba 233.527†	20483.1	20553.5	518.31	µg/L	518.31	ppb	03:58:56
1	Be 313.107†	431612.9	427615.6	261.29	µg/L	261.29	ppb	03:58:50
1	Cd 226.502†	19434.6	19528.5	508.43	µg/L	508.43	ppb	03:58:56
1	Co 228.616†	10755.5	10822.3	520.24	µg/L	520.24	ppb	03:58:56
1	Cr 267.716†	23820.4	23936.4	503.30	µg/L	503.30	ppb	03:58:56
1	Cu 324.752†	75535.2	72069.7	501.79	µg/L	501.79	ppb	03:58:56
1	Mn 257.610†	163243.3	163330.5	511.86	µg/L	511.86	ppb	03:58:50
1	Mo 202.031†	4804.7	4801.8	545.79	µg/L	545.79	ppb	03:59:16
1	Ni 231.604†	9668.7	9327.3	504.88	µg/L	504.88	ppb	03:58:56
1	P 214.914†	1431.6	1218.5	2576.9	µg/L	2576.9	ppb	03:59:16
1	Pb 220.353†	2101.6	2048.3	519.28	µg/L	519.28	ppb	03:59:16
1	S 181.975 Axial†	526.0	499.8	2530.6	µg/L	2530.6	ppb	03:59:16
1	Sb 206.836†	535.9	512.7	515.67	µg/L	515.67	ppb	03:59:16
1	Se 196.026†	1852.0	1838.0	2598.7	µg/L	2598.7	ppb	03:59:16
1	SiO2†	58003.2	55828.2	10730	µg/L	10730	ppb	03:58:56
1	Si 251.611†	65335.8	64903.1	4956.9	µg/L	4956.9	ppb	03:58:56
1	Sn 189.927†	1153.7	1130.5	557.80	µg/L	557.80	ppb	03:59:16
1	Ti 334.940†	227054.8	225984.6	495.22	µg/L	495.22	ppb	03:58:50
1	Tl 190.801†	336.4	359.7	536.57	µg/L	536.57	ppb	03:59:16
1	U 409.014†	6154.5	5213.0	500.80	µg/L	500.80	ppb	03:58:56
1	V 292.402†	45125.5	45184.8	518.15	µg/L	518.15	ppb	03:58:56
1	Zn 213.857†	19799.9	19187.3	512.01	µg/L	512.01	ppb	03:58:56
2	Sc RADIAL	127418.1	127418.1	102	%			03:57:52
2	Al 396.153Radial†	10989.7	10555.2	5115.2	µg/L	5115.2	ppb	03:57:52
2	Ca 317.933Radial†	14412.2	13670.3	4986.8	µg/L	4986.8	ppb	03:58:12
2	Fe 238.204 Radial†	1049.9	1020.0	5147.6	µg/L	5147.6	ppb	03:58:12
2	K 766.490 Radial†	5539.9	4592.9	2453.2	µg/L	2453.2	ppb	03:57:52
2	Mg 279.077 IEC†	1006.5	970.0	5172.4	µg/L	5172.4	ppb	03:58:12
2	Na 589.592 Radial†	9163.7	9719.8	2519.0	µg/L	2519.0	ppb	03:57:52
2	Sr 421.552†	101446.3	99460.5	530.56	µg/L	530.56	ppb	03:57:52
2	Sc 361.383	2189190.1	2189190.1	100.40	%			03:59:23
2	Y 371.029	1325508.1	1325508.1	99.969	%			03:59:23
2	Ag 328.068†	29043.9	28848.0	265.23	µg/L	265.23	ppb	03:59:29
2	As 188.979†	263.1	261.0	490.25	µg/L	490.25	ppb	03:59:49
2	B 249.677†	12347.0	12131.8	531.07	µg/L	531.07	ppb	03:59:29
2	Ba 233.527†	20910.2	20914.6	527.42	µg/L	527.42	ppb	03:59:29
2	Be 313.107†	434428.8	429064.1	262.18	µg/L	262.18	ppb	03:59:23
2	Cd 226.502†	19961.3	19992.1	520.50	µg/L	520.50	ppb	03:59:29
2	Co 228.616†	10981.7	11013.9	529.44	µg/L	529.44	ppb	03:59:29
2	Cr 267.716†	24344.8	24383.9	512.71	µg/L	512.71	ppb	03:59:29
2	Cu 324.752†	77001.2	73292.5	510.29	µg/L	510.29	ppb	03:59:29
2	Mn 257.610†	164329.8	163899.7	513.64	µg/L	513.64	ppb	03:59:23
2	Mo 202.031†	4809.7	4791.7	544.64	µg/L	544.64	ppb	03:59:49
2	Ni 231.604†	9858.2	9485.7	513.46	µg/L	513.46	ppb	03:59:29
2	P 214.914†	1431.2	1213.6	2565.0	µg/L	2565.0	ppb	03:59:49
2	Pb 220.353†	2109.6	2049.7	519.61	µg/L	519.61	ppb	03:59:49

2	S 181.975 Axial†	529.3	501.4	2538.7 µg/L	2538.7 ppb	03:59:49
2	Sb 206.836†	538.9	514.0	517.00 µg/L	517.00 ppb	03:59:49
2	Se 196.026†	1853.1	1833.4	2592.2 µg/L	2592.2 ppb	03:59:49
2	SiO2†	59146.9	56785.1	10914 µg/L	10914 ppb	03:59:29
2	Si 251.611†	66661.9	66018.7	5043.1 µg/L	5043.1 ppb	03:59:29
2	Sn 189.927†	1149.2	1122.5	553.81 µg/L	553.81 ppb	03:59:49
2	Ti 334.940†	228393.8	226604.9	496.58 µg/L	496.58 ppb	03:59:23
2	Tl 190.801†	335.1	357.3	533.00 µg/L	533.00 ppb	03:59:49
2	U 409.014†	6209.6	5248.5	504.21 µg/L	504.21 ppb	03:59:29
2	V 292.402†	46066.6	45980.4	527.18 µg/L	527.18 ppb	03:59:29
2	Zn 213.857†	20214.4	19538.0	521.39 µg/L	521.39 ppb	03:59:29
3	Sc RADIAL	126791.1	126791.1	102 %		03:58:18
3	Al 396.153Radial†	11013.1	10631.4	5154.9 µg/L	5154.9 ppb	03:58:18
3	Ca 317.933Radial†	14349.5	13678.4	4989.7 µg/L	4989.7 ppb	03:58:38
3	Fe 238.204 Radial†	1036.2	1011.6	5104.2 µg/L	5104.2 ppb	03:58:38
3	K 766.490 Radial†	5542.9	4622.7	2469.1 µg/L	2469.1 ppb	03:58:18
3	Mg 279.077 IEC†	1008.6	977.0	5207.8 µg/L	5207.8 ppb	03:58:38
3	Na 589.592 Radial†	9213.4	9813.1	2543.2 µg/L	2543.2 ppb	03:58:18
3	Sr 421.552†	101290.9	99798.8	532.37 µg/L	532.37 ppb	03:58:18
3	Sc 361.383	2156881.8	2156881.8	98.916 %		03:59:56
3	Y 371.029	1304751.2	1304751.2	98.404 %		03:59:56
3	Ag 328.068†	27722.6	27945.5	256.80 µg/L	256.80 ppb	04:00:02
3	As 188.979†	235.6	237.1	445.40 µg/L	445.40 ppb	04:00:23
3	B 249.677†	11703.8	11665.8	510.62 µg/L	510.62 ppb	04:00:02
3	Ba 233.527†	19466.9	19767.4	498.47 µg/L	498.47 ppb	04:00:02
3	Be 313.107†	420108.2	421068.2	257.29 µg/L	257.29 ppb	03:59:56
3	Cd 226.502†	18491.4	18803.9	489.53 µg/L	489.53 ppb	04:00:02
3	Co 228.616†	10114.0	10300.5	495.03 µg/L	495.03 ppb	04:00:02
3	Cr 267.716†	21990.3	22366.8	470.31 µg/L	470.31 ppb	04:00:02
3	Cu 324.752†	71598.5	68979.4	480.32 µg/L	480.32 ppb	04:00:02
3	Mn 257.610†	159214.3	161180.0	505.13 µg/L	505.13 ppb	03:59:56
3	Mo 202.031†	4152.3	4198.9	477.28 µg/L	477.28 ppb	04:00:23
3	Ni 231.604†	9130.4	8897.0	481.59 µg/L	481.59 ppb	04:00:02
3	P 214.914†	1298.4	1100.7	2323.7 µg/L	2323.7 ppb	04:00:23
3	Pb 220.353†	1883.7	1852.7	469.65 µg/L	469.65 ppb	04:00:23
3	S 181.975 Axial†	486.6	466.2	2360.2 µg/L	2360.2 ppb	04:00:23
3	Sb 206.836†	475.6	458.0	460.74 µg/L	460.74 ppb	04:00:23
3	Se 196.026†	1682.8	1688.9	2388.0 µg/L	2388.0 ppb	04:00:23
3	SiO2†	55755.7	54239.1	10425 µg/L	10425 ppb	04:00:02
3	Si 251.611†	62787.5	63096.3	4821.9 µg/L	4821.9 ppb	04:00:02
3	Sn 189.927†	993.7	982.4	485.08 µg/L	485.08 ppb	04:00:23
3	Ti 334.940†	220054.8	221582.1	485.57 µg/L	485.57 ppb	03:59:56
3	Tl 190.801†	311.2	338.2	504.66 µg/L	504.66 ppb	04:00:23
3	U 409.014†	5649.5	4774.9	458.65 µg/L	458.65 ppb	04:00:02
3	V 292.402†	42145.2	42703.3	489.42 µg/L	489.42 ppb	04:00:02
3	Zn 213.857†	18705.9	18314.5	488.69 µg/L	488.69 ppb	04:00:02

Mean Data: ICV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2176125.9	99.799	%	0.7804				0.78%
Sc RADIAL	127122.7	102	%	0.3				0.25%
Y 371.029	1317020.5	99.329	%	0.8208				0.83%
Ag 328.068†	28357.1	260.68	µg/L	4.256	260.68	ppb	4.256	1.63%
QC value within limits for Ag 328.068 Recovery = 104.27%								
Al 396.153Radial†	10585.8	5131.0	µg/L	21.04	5131.0	ppb	21.04	0.41%
QC value within limits for Al 396.153Radial Recovery = 102.62%								
As 188.979†	253.8	476.88	µg/L	27.365	476.88	ppb	27.365	5.74%
QC value within limits for As 188.979 Recovery = 95.38%								
B 249.677†	11923.5	521.93	µg/L	10.394	521.93	ppb	10.394	1.99%
QC value within limits for B 249.677 Recovery = 104.39%								
Ba 233.527†	20411.8	514.73	µg/L	14.802	514.73	ppb	14.802	2.88%
QC value within limits for Ba 233.527 Recovery = 102.95%								
Be 313.107†	425916.0	260.25	µg/L	2.603	260.25	ppb	2.603	1.00%
QC value within limits for Be 313.107 Recovery = 104.10%								
Ca 317.933Radial†	13673.7	4988.0	µg/L	1.53	4988.0	ppb	1.53	0.03%
QC value within limits for Ca 317.933Radial Recovery = 99.76%								
Cd 226.502†	19441.5	506.16	µg/L	15.609	506.16	ppb	15.609	3.08%
QC value within limits for Cd 226.502 Recovery = 101.23%								
Co 228.616†	10712.2	514.90	µg/L	17.815	514.90	ppb	17.815	3.46%

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   QC value within limits for Co 228.616  Recovery = 102.98%
Cr 267.716†            23562.3      495.44 µg/L        22.266      495.44 ppb        22.266   4.49%
   QC value within limits for Cr 267.716  Recovery = 99.09%
Cu 324.752†            71447.2      497.47 µg/L        15.448      497.47 ppb        15.448   3.11%
   QC value within limits for Cu 324.752  Recovery = 99.49%
Fe 238.204 Radial†      1015.7      5125.4 µg/L         21.75      5125.4 ppb         21.75   0.42%
   QC value within limits for Fe 238.204 Radial  Recovery = 102.51%
K 766.490 Radial†       4604.1      2459.2 µg/L          8.67      2459.2 ppb          8.67   0.35%
   QC value within limits for K 766.490 Radial  Recovery = 98.37%
Mg 279.077 IEC†          977.3      5210.6 µg/L         39.61      5210.6 ppb         39.61   0.76%
   QC value within limits for Mg 279.077 IEC  Recovery = 104.21%
Mn 257.610†           162803.4      510.21 µg/L         4.492      510.21 ppb         4.492   0.88%
   QC value within limits for Mn 257.610  Recovery = 102.04%
Mo 202.031†             4597.4      522.57 µg/L        39.226      522.57 ppb        39.226   7.51%
   QC value within limits for Mo 202.031  Recovery = 104.51%
Na 589.592 Radial†      9770.5      2532.1 µg/L         12.23      2532.1 ppb         12.23   0.48%
   QC value within limits for Na 589.592 Radial  Recovery = 101.29%
Ni 231.604†             9236.7      499.98 µg/L        16.490      499.98 ppb        16.490   3.30%
   QC value within limits for Ni 231.604  Recovery = 100.00%
P 214.914†              1177.6      2488.5 µg/L        142.87      2488.5 ppb        142.87   5.74%
   QC value within limits for P 214.914  Recovery = 99.54%
Pb 220.353†             1983.6      502.85 µg/L        28.750      502.85 ppb        28.750   5.72%
   QC value within limits for Pb 220.353  Recovery = 100.57%
S 181.975 Axial†         489.1      2476.5 µg/L        100.78      2476.5 ppb        100.78   4.07%
   QC value within limits for S 181.975 Axial  Recovery = 99.06%
Sb 206.836†              494.9      497.80 µg/L        32.104      497.80 ppb        32.104   6.45%
   QC value within limits for Sb 206.836  Recovery = 99.56%
Se 196.026†             1786.8      2526.3 µg/L        119.82      2526.3 ppb        119.82   4.74%
   QC value within limits for Se 196.026  Recovery = 101.05%
SiO2†                  55617.5       10689 µg/L         247.2       10689 ppb         247.2   2.31%
   QC value within limits for SiO2  Recovery = 99.95%
Si 251.611†            64672.7      4940.6 µg/L        111.51      4940.6 ppb        111.51   2.26%
   QC value within limits for Si 251.611  Recovery = 98.81%
Sn 189.927†             1078.5      532.23 µg/L        40.885      532.23 ppb        40.885   7.68%
   QC value within limits for Sn 189.927  Recovery = 106.45%
Sr 421.552†            99591.9      531.26 µg/L         0.968      531.26 ppb         0.968   0.18%
   QC value within limits for Sr 421.552  Recovery = 106.25%
Ti 334.940†           224723.9      492.46 µg/L         6.005      492.46 ppb         6.005   1.22%
   QC value within limits for Ti 334.940  Recovery = 98.49%
Tl 190.801†              351.7      524.74 µg/L        17.485      524.74 ppb        17.485   3.33%
   QC value within limits for Tl 190.801  Recovery = 104.95%
U 409.014†              5078.8      487.89 µg/L        25.380      487.89 ppb        25.380   5.20%
   QC value within limits for U 409.014  Recovery = 97.58%
V 292.402†             44622.8      511.58 µg/L        19.718      511.58 ppb        19.718   3.85%
   QC value within limits for V 292.402  Recovery = 102.32%
Zn 213.857†            19013.3      507.36 µg/L        16.835      507.36 ppb        16.835   3.32%
   QC value within limits for Zn 213.857  Recovery = 101.47%
All analyte(s) passed QC.
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Sequence No.: 7
Sample ID: ICB
Analyst: JWJ
Initial Sample Wt:
Dilution:

Autosampler Location: 10
Date Collected: 12/19/2009 04:00:32
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	123696.3	123696.3	99.1	%			04:01:04
1	Al 396.153Radial†	186.3	-19.5	-9.4628	µg/L	-9.4628	ppb	04:01:04
1	Ca 317.933Radial†	475.4	35.4	12.930	µg/L	12.930	ppb	04:01:25
1	Fe 238.204 Radial†	9.5	1.3	6.6524	µg/L	6.6524	ppb	04:01:25
1	K 766.490 Radial†	830.3	5.2	2.7511	µg/L	2.7511	ppb	04:01:04
1	Mg 279.077 IEC†	16.8	1.3	6.9331	µg/L	6.9331	ppb	04:01:25
1	Na 589.592 Radial†	-704.0	35.2	9.1320	µg/L	9.1320	ppb	04:01:04
1	Sr 421.552†	-80.4	29.4	0.1568	µg/L	0.1568	ppb	04:01:04
1	Sc 361.383	2178938.2	2178938.2	99.928	%			04:02:27
1	Y 371.029	1324358.1	1324358.1	99.882	%			04:02:27
1	Ag 328.068†	79.5	-1.2	-0.0093	µg/L	-0.0093	ppb	04:02:32
1	As 188.979†	0.2	-0.8	-1.5238	µg/L	-1.5238	ppb	04:02:53
1	B 249.677†	165.3	-0.8	-0.0383	µg/L	-0.0383	ppb	04:02:32
1	Ba 233.527†	-72.2	15.0	0.3774	µg/L	0.3774	ppb	04:02:53
1	Be 313.107†	3804.0	164.5	0.1006	µg/L	0.1006	ppb	04:02:32
1	Cd 226.502†	-108.6	1.2	0.0248	µg/L	0.0248	ppb	04:02:53
1	Co 228.616†	-64.9	10.7	0.5146	µg/L	0.5146	ppb	04:02:53
1	Cr 267.716†	-138.2	-2.7	-0.0560	µg/L	-0.0560	ppb	04:02:32
1	Cu 324.752†	3362.3	-38.7	-0.2672	µg/L	-0.2672	ppb	04:02:32
1	Mn 257.610†	-181.1	40.3	0.1269	µg/L	0.1269	ppb	04:02:53
1	Mo 202.031†	-2.2	-1.2	-0.1314	µg/L	-0.1314	ppb	04:02:53
1	Ni 231.604†	334.1	0.9	0.0487	µg/L	0.0487	ppb	04:02:53
1	P 214.914†	210.4	-1.4	-3.0129	µg/L	-3.0129	ppb	04:02:53
1	Pb 220.353†	61.9	10.3	2.6155	µg/L	2.6155	ppb	04:02:53
1	S 181.975 Axial†	27.2	1.5	7.5530	µg/L	7.5530	ppb	04:02:53
1	Sb 206.836†	22.7	-0.0	-0.0413	µg/L	-0.0413	ppb	04:02:53
1	Se 196.026†	7.3	-5.1	-7.2557	µg/L	-7.2557	ppb	04:02:53
1	SiO2†	2152.5	26.7	5.1371	µg/L	5.1371	ppb	04:02:32
1	Si 251.611†	398.3	19.6	1.5269	µg/L	1.5269	ppb	04:02:53
1	Sn 189.927†	21.2	-0.9	-0.4469	µg/L	-0.4469	ppb	04:02:53
1	Ti 334.940†	927.1	44.4	0.0967	µg/L	0.0967	ppb	04:02:32
1	Tl 190.801†	-21.5	2.0	3.0248	µg/L	3.0248	ppb	04:02:53
1	U 409.014†	835.2	-100.7	-9.6877	µg/L	-9.6877	ppb	04:02:32
1	V 292.402†	-87.5	8.9	0.0846	µg/L	0.0846	ppb	04:02:32
1	Zn 213.857†	615.1	19.3	0.5177	µg/L	0.5177	ppb	04:02:53
2	Sc RADIAL	125697.9	125697.9	101	%			04:01:30
2	Al 396.153Radial†	191.8	-17.0	-8.2347	µg/L	-8.2347	ppb	04:01:30
2	Ca 317.933Radial†	470.8	23.2	8.4774	µg/L	8.4774	ppb	04:01:51
2	Fe 238.204 Radial†	8.6	0.2	1.2455	µg/L	1.2455	ppb	04:01:51
2	K 766.490 Radial†	817.6	-20.8	-11.122	µg/L	-11.122	ppb	04:01:30
2	Mg 279.077 IEC†	18.3	2.5	13.163	µg/L	13.163	ppb	04:01:51
2	Na 589.592 Radial†	-725.0	25.7	6.6673	µg/L	6.6673	ppb	04:01:30
2	Sr 421.552†	-70.5	40.5	0.2162	µg/L	0.2162	ppb	04:01:30
2	Sc 361.383	2162404.4	2162404.4	99.170	%			04:02:59
2	Y 371.029	1314849.6	1314849.6	99.165	%			04:02:59
2	Ag 328.068†	133.0	53.4	0.4822	µg/L	0.4822	ppb	04:03:05
2	As 188.979†	4.6	3.6	6.7772	µg/L	6.7772	ppb	04:03:25
2	B 249.677†	165.7	0.8	0.0357	µg/L	0.0357	ppb	04:03:05
2	Ba 233.527†	-73.9	12.7	0.3189	µg/L	0.3189	ppb	04:03:25
2	Be 313.107†	3767.4	156.8	0.0958	µg/L	0.0958	ppb	04:03:05
2	Cd 226.502†	-106.8	2.2	0.0492	µg/L	0.0492	ppb	04:03:25
2	Co 228.616†	-70.2	4.9	0.2351	µg/L	0.2351	ppb	04:03:25
2	Cr 267.716†	-101.9	32.8	0.6881	µg/L	0.6881	ppb	04:03:05
2	Cu 324.752†	3384.1	9.0	0.0626	µg/L	0.0626	ppb	04:03:05
2	Mn 257.610†	-178.4	41.7	0.1306	µg/L	0.1306	ppb	04:03:25
2	Mo 202.031†	-5.1	-4.1	-0.4655	µg/L	-0.4655	ppb	04:03:25
2	Ni 231.604†	328.9	-1.7	-0.0942	µg/L	-0.0942	ppb	04:03:25
2	P 214.914†	214.8	4.7	10.079	µg/L	10.079	ppb	04:03:25
2	Pb 220.353†	55.4	4.3	1.0917	µg/L	1.0917	ppb	04:03:25

2	S 181.975 Axial†	28.1	2.6	13.168 µg/L	13.168 ppb	04:03:25
2	Sb 206.836†	26.5	4.0	3.9874 µg/L	3.9874 ppb	04:03:25
2	Se 196.026†	15.8	3.5	5.0087 µg/L	5.0087 ppb	04:03:25
2	SiO2†	2160.0	50.8	9.7550 µg/L	9.7550 ppb	04:03:05
2	Si 251.611†	395.6	19.9	1.5200 µg/L	1.5200 ppb	04:03:25
2	Sn 189.927†	23.5	1.5	0.7418 µg/L	0.7418 ppb	04:03:25
2	Ti 334.940†	903.4	27.6	0.0601 µg/L	0.0601 ppb	04:03:05
2	Tl 190.801†	-17.5	5.9	8.7378 µg/L	8.7378 ppb	04:03:25
2	U 409.014†	806.7	-123.0	-11.840 µg/L	-11.840 ppb	04:03:05
2	V 292.402†	-110.2	-14.7	-0.1890 µg/L	-0.1890 ppb	04:03:05
2	Zn 213.857†	616.8	25.7	0.6918 µg/L	0.6918 ppb	04:03:25
3	Sc RADIAL	124526.0	124526.0	99.8 %		04:01:56
3	Al 396.153Radial†	187.3	-19.7	-9.5622 µg/L	-9.5622 ppb	04:01:56
3	Ca 317.933Radial†	467.8	24.7	8.9953 µg/L	8.9953 ppb	04:02:17
3	Fe 238.204 Radial†	10.0	1.7	8.6735 µg/L	8.6735 ppb	04:02:17
3	K 766.490 Radial†	779.1	-51.8	-27.664 µg/L	-27.664 ppb	04:01:56
3	Mg 279.077 IEC†	21.0	5.4	28.571 µg/L	28.571 ppb	04:02:17
3	Na 589.592 Radial†	-751.3	-7.4	-1.9238 µg/L	-1.9238 ppb	04:01:56
3	Sr 421.552†	-67.7	42.6	0.2274 µg/L	0.2274 ppb	04:01:56
3	Sc 361.383	2181175.8	2181175.8	100.03 %		04:03:31
3	Y 371.029	1326301.6	1326301.6	100.03 %		04:03:31
3	Ag 328.068†	136.8	56.0	0.5073 µg/L	0.5073 ppb	04:03:37
3	As 188.979†	2.5	1.5	2.7675 µg/L	2.7675 ppb	04:03:57
3	B 249.677†	190.8	24.5	1.0738 µg/L	1.0738 ppb	04:03:37
3	Ba 233.527†	-69.0	18.2	0.4589 µg/L	0.4589 ppb	04:03:57
3	Be 313.107†	3795.7	152.3	0.0931 µg/L	0.0931 ppb	04:03:37
3	Cd 226.502†	-99.5	10.4	0.2662 µg/L	0.2662 ppb	04:03:57
3	Co 228.616†	-85.2	-9.5	-0.4568 µg/L	-0.4568 ppb	04:03:57
3	Cr 267.716†	-138.7	-3.1	-0.0641 µg/L	-0.0641 ppb	04:03:37
3	Cu 324.752†	3405.6	1.1	0.0094 µg/L	0.0094 ppb	04:03:37
3	Mn 257.610†	-170.1	51.5	0.1623 µg/L	0.1623 ppb	04:03:57
3	Mo 202.031†	-5.8	-4.8	-0.5441 µg/L	-0.5441 ppb	04:03:57
3	Ni 231.604†	334.6	1.1	0.0590 µg/L	0.0590 ppb	04:03:57
3	P 214.914†	208.5	-3.5	-7.5703 µg/L	-7.5703 ppb	04:03:57
3	Pb 220.353†	57.3	5.7	1.4354 µg/L	1.4354 ppb	04:03:57
3	S 181.975 Axial†	29.0	3.3	16.471 µg/L	16.471 ppb	04:03:57
3	Sb 206.836†	24.7	1.9	1.8991 µg/L	1.8991 ppb	04:03:57
3	Se 196.026†	8.5	-3.9	-5.5696 µg/L	-5.5696 ppb	04:03:57
3	SiO2†	2091.1	-36.9	-7.0927 µg/L	-7.0927 ppb	04:03:37
3	Si 251.611†	405.9	26.8	2.1391 µg/L	2.1391 ppb	04:03:57
3	Sn 189.927†	19.3	-2.8	-1.3831 µg/L	-1.3831 ppb	04:03:57
3	Ti 334.940†	906.5	22.9	0.0497 µg/L	0.0497 ppb	04:03:37
3	Tl 190.801†	-20.4	3.2	4.7228 µg/L	4.7228 ppb	04:03:57
3	U 409.014†	868.3	-68.5	-6.5933 µg/L	-6.5933 ppb	04:03:37
3	V 292.402†	-101.0	-4.5	-0.0653 µg/L	-0.0653 ppb	04:03:37
3	Zn 213.857†	617.7	21.3	0.5711 µg/L	0.5711 ppb	04:03:57

Mean Data: ICB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2174172.8	99.709	%	0.4702				0.47%
Sc RADIAL	124640.1	99.9	%	0.81				0.81%
Y 371.029	1321836.4	99.692	%	0.4622				0.46%
Ag 328.068†	36.1	0.3267	µg/L	0.29125	0.3267	ppb	0.29125	89.14%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-18.7	-9.0866	µg/L	0.73939	-9.0866	ppb	0.73939	8.14%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	1.4	2.6736	µg/L	4.15131	2.6736	ppb	4.15131	155.27%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	8.2	0.3571	µg/L	0.62182	0.3571	ppb	0.62182	174.14%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	15.3	0.3851	µg/L	0.07030	0.3851	ppb	0.07030	18.26%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	157.9	0.0965	µg/L	0.00377	0.0965	ppb	0.00377	3.91%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	27.8	10.134	µg/L	2.4351	10.134	ppb	2.4351	24.03%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	4.6	0.1134	µg/L	0.13287	0.1134	ppb	0.13287	117.19%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	2.1	0.0976	µg/L	0.50008	0.0976	ppb	0.50008	512.14%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                 9.0      0.1893 µg/L       0.43199      0.1893 ppb        0.43199 228.16%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†                -9.5     -0.0651 µg/L       0.17705     -0.0651 ppb        0.17705 272.15%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          1.1      5.5238 µg/L       3.84046      5.5238 ppb        3.84046  69.53%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         -22.5     -12.012 µg/L       15.2270     -12.012 ppb        15.2270 126.77%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             3.0      16.222 µg/L       11.1386      16.222 ppb        11.1386  68.66%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                44.5      0.1400 µg/L       0.01945      0.1400 ppb        0.01945  13.90%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                -3.3     -0.3803 µg/L       0.21912     -0.3803 ppb        0.21912  57.61%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†         17.8      4.6252 µg/L       5.80393      4.6252 ppb        5.80393 125.48%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                 0.1      0.0045 µg/L       0.08564      0.0045 ppb        0.08564 >999.9%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -0.1     -0.1682 µg/L       9.16191     -0.1682 ppb        9.16191 >999.9%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                 6.7      1.7142 µg/L       0.79919      1.7142 ppb        0.79919  46.62%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            2.4      12.397 µg/L        4.5087      12.397 ppb         4.5087  36.37%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 1.9      1.9484 µg/L       2.01476      1.9484 ppb        2.01476 103.41%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -1.8     -2.6055 µg/L       6.64780     -2.6055 ppb        6.64780 255.15%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                      13.5      2.5998 µg/L       8.70575      2.5998 ppb        8.70575 334.86%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†                22.1      1.7287 µg/L       0.35544      1.7287 ppb        0.35544  20.56%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                -0.8     -0.3628 µg/L       1.06493     -0.3628 ppb        1.06493 293.57%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                37.5      0.2001 µg/L       0.03795      0.2001 ppb        0.03795  18.96%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                31.7      0.0688 µg/L       0.02470      0.0688 ppb        0.02470  35.88%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 3.7      5.4951 µg/L       2.93377      5.4951 ppb        2.93377  53.39%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                -97.4     -9.3737 µg/L       2.63753     -9.3737 ppb        2.63753  28.14%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 -3.5     -0.0566 µg/L       0.13703     -0.0566 ppb        0.13703 242.22%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                22.1      0.5935 µg/L       0.08921      0.5935 ppb        0.08921  15.03%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 8
Sample ID: PQL
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 101
Date Collected: 12/19/2009 04:04:06
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: PQL

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	124730.5	124730.5	100.0	%			04:04:39
1	Al 396.153Radial†	629.9	422.8	205.32	µg/L	205.32	ppb	04:04:39
1	Ca 317.933Radial†	1037.3	593.6	216.55	µg/L	216.55	ppb	04:04:59
1	Fe 238.204 Radial†	30.8	22.6	113.76	µg/L	113.76	ppb	04:04:59
1	K 766.490 Radial†	1105.5	273.5	146.10	µg/L	146.10	ppb	04:04:39
1	Mg 279.077 IEC†	76.2	60.6	322.80	µg/L	322.80	ppb	04:04:59
1	Na 589.592 Radial†	542.6	1288.3	333.89	µg/L	333.89	ppb	04:04:39
1	Sr 421.552†	931.9	1042.8	5.5626	µg/L	5.5626	ppb	04:04:39
1	Sc 361.383	2183444.5	2183444.5	100.13	%			04:06:01
1	Y 371.029	1328832.9	1328832.9	100.22	%			04:06:01
1	Ag 328.068†	665.6	584.0	5.3321	µg/L	5.3321	ppb	04:06:07
1	As 188.979†	13.8	12.8	23.977	µg/L	23.977	ppb	04:06:27
1	B 249.677†	1336.1	1168.1	51.254	µg/L	51.254	ppb	04:06:07
1	Ba 233.527†	126.7	213.8	5.3907	µg/L	5.3907	ppb	04:06:27
1	Be 313.107†	12176.5	8517.9	5.2066	µg/L	5.2066	ppb	04:06:07
1	Cd 226.502†	100.2	210.0	5.4981	µg/L	5.4981	ppb	04:06:27
1	Co 228.616†	31.3	107.0	5.1549	µg/L	5.1549	ppb	04:06:27
1	Cr 267.716†	121.9	257.4	5.4106	µg/L	5.4106	ppb	04:06:07
1	Cu 324.752†	4981.6	1571.5	10.942	µg/L	10.942	ppb	04:06:07
1	Mn 257.610†	3257.9	3475.0	10.891	µg/L	10.891	ppb	04:06:07
1	Mo 202.031†	86.6	87.5	9.9458	µg/L	9.9458	ppb	04:06:27
1	Ni 231.604†	432.6	98.6	5.3356	µg/L	5.3356	ppb	04:06:27
1	P 214.914†	283.1	70.8	151.69	µg/L	151.69	ppb	04:06:27
1	Pb 220.353†	96.6	44.8	11.329	µg/L	11.329	ppb	04:06:27
1	S 181.975 Axial†	51.6	25.8	130.70	µg/L	130.70	ppb	04:06:27
1	Sb 206.836†	30.9	8.1	8.1362	µg/L	8.1362	ppb	04:06:27
1	Se 196.026†	30.3	17.9	25.232	µg/L	25.232	ppb	04:06:27
1	SiO2†	3344.0	1212.2	232.98	µg/L	232.98	ppb	04:06:07
1	Si 251.611†	1776.6	1395.2	106.74	µg/L	106.74	ppb	04:06:07
1	Sn 189.927†	47.8	25.6	12.692	µg/L	12.692	ppb	04:06:27
1	Ti 334.940†	3142.0	2254.4	4.9309	µg/L	4.9309	ppb	04:06:07
1	Tl 190.801†	-5.9	17.7	26.241	µg/L	26.241	ppb	04:06:27
1	U 409.014†	1520.8	582.2	56.012	µg/L	56.012	ppb	04:06:07
1	V 292.402†	348.8	444.7	5.2192	µg/L	5.2192	ppb	04:06:07
1	Zn 213.857†	1004.3	406.7	10.875	µg/L	10.875	ppb	04:06:27
2	Sc RADIAL	123860.4	123860.4	99.3	%			04:05:05
2	Al 396.153Radial†	614.4	411.6	199.90	µg/L	199.90	ppb	04:05:05
2	Ca 317.933Radial†	1030.3	593.8	216.63	µg/L	216.63	ppb	04:05:25
2	Fe 238.204 Radial†	32.7	24.6	124.16	µg/L	124.16	ppb	04:05:25
2	K 766.490 Radial†	1090.4	266.0	142.09	µg/L	142.09	ppb	04:05:05
2	Mg 279.077 IEC†	82.4	67.3	358.57	µg/L	358.57	ppb	04:05:25
2	Na 589.592 Radial†	459.8	1208.7	313.26	µg/L	313.26	ppb	04:05:05
2	Sr 421.552†	954.1	1071.8	5.7172	µg/L	5.7172	ppb	04:05:05
2	Sc 361.383	2174717.6	2174717.6	99.734	%			04:06:33
2	Y 371.029	1322997.3	1322997.3	99.780	%			04:06:33
2	Ag 328.068†	672.4	593.4	5.4168	µg/L	5.4168	ppb	04:06:39
2	As 188.979†	12.4	11.3	21.296	µg/L	21.296	ppb	04:06:59
2	B 249.677†	1395.7	1233.2	54.109	µg/L	54.109	ppb	04:06:39
2	Ba 233.527†	134.4	222.0	5.5966	µg/L	5.5966	ppb	04:06:59
2	Be 313.107†	12245.7	8636.1	5.2788	µg/L	5.2788	ppb	04:06:39
2	Cd 226.502†	95.2	205.4	5.3787	µg/L	5.3787	ppb	04:06:59
2	Co 228.616†	37.7	113.5	5.4668	µg/L	5.4668	ppb	04:06:59
2	Cr 267.716†	120.7	256.6	5.3940	µg/L	5.3940	ppb	04:06:39
2	Cu 324.752†	4943.6	1553.3	10.818	µg/L	10.818	ppb	04:06:39
2	Mn 257.610†	3268.3	3498.5	10.966	µg/L	10.966	ppb	04:06:39
2	Mo 202.031†	87.0	88.3	10.042	µg/L	10.042	ppb	04:06:59
2	Ni 231.604†	437.4	105.1	5.6891	µg/L	5.6891	ppb	04:06:59
2	P 214.914†	285.8	74.6	159.92	µg/L	159.92	ppb	04:06:59
2	Pb 220.353†	92.0	40.6	10.268	µg/L	10.268	ppb	04:06:59

2	S 181.975 Axial†	47.9	22.3	112.76 µg/L	112.76 ppb	04:06:59
2	Sb 206.836†	32.2	9.6	9.6392 µg/L	9.6392 ppb	04:06:59
2	Se 196.026†	37.3	25.0	35.318 µg/L	35.318 ppb	04:06:59
2	SiO2†	3322.5	1204.0	231.41 µg/L	231.41 ppb	04:06:39
2	Si 251.611†	1784.3	1410.0	107.97 µg/L	107.97 ppb	04:06:39
2	Sn 189.927†	42.1	20.1	9.9996 µg/L	9.9996 ppb	04:06:59
2	Ti 334.940†	3266.4	2391.8	5.2321 µg/L	5.2321 ppb	04:06:39
2	Tl 190.801†	-8.7	14.9	22.133 µg/L	22.133 ppb	04:06:59
2	U 409.014†	1523.3	590.9	56.840 µg/L	56.840 ppb	04:06:39
2	V 292.402†	326.0	423.3	4.9793 µg/L	4.9793 ppb	04:06:39
2	Zn 213.857†	1009.6	416.0	11.120 µg/L	11.120 ppb	04:06:59
3	Sc RADIAL	125646.9	125646.9	101 %		04:05:31
3	Al 396.153Radial†	605.7	394.2	191.46 µg/L	191.46 ppb	04:05:31
3	Ca 317.933Radial†	1026.2	575.1	209.77 µg/L	209.77 ppb	04:05:51
3	Fe 238.204 Radial†	29.9	21.4	107.88 µg/L	107.88 ppb	04:05:51
3	K 766.490 Radial†	1051.5	211.8	113.13 µg/L	113.13 ppb	04:05:31
3	Mg 279.077 IEC†	73.9	57.7	307.60 µg/L	307.60 ppb	04:05:51
3	Na 589.592 Radial†	498.9	1240.9	321.59 µg/L	321.59 ppb	04:05:31
3	Sr 421.552†	891.3	995.7	5.3112 µg/L	5.3112 ppb	04:05:31
3	Sc 361.383	2191513.8	2191513.8	100.50 %		04:07:05
3	Y 371.029	1333215.0	1333215.0	100.55 %		04:07:05
3	Ag 328.068†	639.0	555.1	5.0660 µg/L	5.0660 ppb	04:07:11
3	As 188.979†	11.5	10.4	19.475 µg/L	19.475 ppb	04:07:31
3	B 249.677†	1289.5	1116.8	49.003 µg/L	49.003 ppb	04:07:11
3	Ba 233.527†	98.1	184.9	4.6617 µg/L	4.6617 ppb	04:07:31
3	Be 313.107†	11366.6	7667.3	4.6866 µg/L	4.6866 ppb	04:07:11
3	Cd 226.502†	75.8	185.4	4.8470 µg/L	4.8470 ppb	04:07:31
3	Co 228.616†	18.4	94.0	4.5268 µg/L	4.5268 ppb	04:07:31
3	Cr 267.716†	121.6	256.6	5.3927 µg/L	5.3927 ppb	04:07:11
3	Cu 324.752†	4822.0	1394.3	9.7101 µg/L	9.7101 ppb	04:07:11
3	Mn 257.610†	2961.0	3167.6	9.9281 µg/L	9.9281 ppb	04:07:11
3	Mo 202.031†	77.5	78.1	8.8821 µg/L	8.8821 ppb	04:07:31
3	Ni 231.604†	422.0	86.5	4.6810 µg/L	4.6810 ppb	04:07:31
3	P 214.914†	268.8	55.5	118.83 µg/L	118.83 ppb	04:07:31
3	Pb 220.353†	87.0	34.9	8.8360 µg/L	8.8360 ppb	04:07:31
3	S 181.975 Axial†	44.5	18.6	94.030 µg/L	94.030 ppb	04:07:31
3	Sb 206.836†	35.0	12.0	12.102 µg/L	12.102 ppb	04:07:31
3	Se 196.026†	36.7	24.1	33.989 µg/L	33.989 ppb	04:07:31
3	SiO2†	3227.3	1083.7	208.29 µg/L	208.29 ppb	04:07:11
3	Si 251.611†	1674.5	1287.1	98.559 µg/L	98.559 ppb	04:07:11
3	Sn 189.927†	41.3	18.9	9.3934 µg/L	9.3934 ppb	04:07:31
3	Ti 334.940†	3064.9	2166.2	4.7379 µg/L	4.7379 ppb	04:07:11
3	Tl 190.801†	-8.3	15.3	22.719 µg/L	22.719 ppb	04:07:31
3	U 409.014†	1357.7	414.4	39.859 µg/L	39.859 ppb	04:07:11
3	V 292.402†	298.4	393.3	4.6014 µg/L	4.6014 ppb	04:07:11
3	Zn 213.857†	938.5	337.5	9.0199 µg/L	9.0199 ppb	04:07:31

Mean Data: PQL

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2183225.3	100.12	%	0.385				0.38%
Sc RADIAL	124745.9	100.0	%	0.72				0.72%
Y 371.029	1328348.4	100.18	%	0.387				0.39%
Ag 328.068†	577.5	5.2716	µg/L	0.18304	5.2716	ppb	0.18304	3.47%
QC value within limits for Ag 328.068 Recovery = 105.43%								
Al 396.153Radial†	409.5	198.89	µg/L	6.988	198.89	ppb	6.988	3.51%
QC value within limits for Al 396.153Radial Recovery = 99.45%								
As 188.979†	11.5	21.583	µg/L	2.2646	21.583	ppb	2.2646	10.49%
QC value within limits for As 188.979 Recovery = 71.94%								
B 249.677†	1172.7	51.455	µg/L	2.5587	51.455	ppb	2.5587	4.97%
QC value within limits for B 249.677 Recovery = 102.91%								
Ba 233.527†	206.9	5.2164	µg/L	0.49122	5.2164	ppb	0.49122	9.42%
QC value within limits for Ba 233.527 Recovery = 104.33%								
Be 313.107†	8273.8	5.0573	µg/L	0.32311	5.0573	ppb	0.32311	6.39%
QC value within limits for Be 313.107 Recovery = 101.15%								
Ca 317.933Radial†	587.5	214.32	µg/L	3.937	214.32	ppb	3.937	1.84%
QC value within limits for Ca 317.933Radial Recovery = 107.16%								
Cd 226.502†	200.2	5.2412	µg/L	0.34664	5.2412	ppb	0.34664	6.61%
QC value within limits for Cd 226.502 Recovery = 104.82%								
Co 228.616†	104.8	5.0495	µg/L	0.47875	5.0495	ppb	0.47875	9.48%

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   QC value within limits for Co 228.616  Recovery = 100.99%
Cr 267.716†              256.9      5.3991 µg/L       0.00996      5.3991 ppb        0.00996   0.18%
   QC value within limits for Cr 267.716  Recovery = 107.98%
Cu 324.752†             1506.4      10.490 µg/L        0.6783      10.490 ppb         0.6783   6.47%
   QC value within limits for Cu 324.752  Recovery = 104.90%
Fe 238.204 Radial†        22.9      115.26 µg/L         8.242      115.26 ppb          8.242   7.15%
   QC value within limits for Fe 238.204 Radial  Recovery = 115.26%
K 766.490 Radial†        250.5      133.77 µg/L        17.985      133.77 ppb         17.985  13.44%
   QC value within limits for K 766.490 Radial  Recovery = 89.18%
Mg 279.077 IEC†           61.9      329.65 µg/L        26.170      329.65 ppb         26.170   7.94%
   QC value within limits for Mg 279.077 IEC  Recovery = 109.88%
Mn 257.610†             3380.4      10.595 µg/L        0.5787      10.595 ppb         0.5787   5.46%
   QC value within limits for Mn 257.610  Recovery = 105.95%
Mo 202.031†               84.7      9.6232 µg/L       0.64357      9.6232 ppb        0.64357   6.69%
   QC value within limits for Mo 202.031  Recovery = 96.23%
Na 589.592 Radial†      1246.0      322.91 µg/L        10.379      322.91 ppb         10.379   3.21%
   QC value within limits for Na 589.592 Radial  Recovery = 107.64%
Ni 231.604†               96.7      5.2352 µg/L       0.51145      5.2352 ppb        0.51145   9.77%
   QC value within limits for Ni 231.604  Recovery = 104.70%
P 214.914†                67.0      143.48 µg/L        21.743      143.48 ppb         21.743  15.15%
   QC value within limits for P 214.914  Recovery = 95.65%
Pb 220.353†               40.1      10.144 µg/L        1.2510      10.144 ppb         1.2510  12.33%
   QC value within limits for Pb 220.353  Recovery = 101.44%
S 181.975 Axial†          22.2      112.50 µg/L        18.337      112.50 ppb         18.337  16.30%
   QC value within limits for S 181.975 Axial  Recovery = 112.50%
Sb 206.836†                9.9      9.9592 µg/L       2.00216      9.9592 ppb        2.00216  20.10%
   QC value within limits for Sb 206.836  Recovery = 99.59%
Se 196.026†               22.3      31.513 µg/L        5.4798      31.513 ppb         5.4798  17.39%
   QC value within limits for Se 196.026  Recovery = 105.04%
SiO2†                   1166.7      224.23 µg/L        13.823      224.23 ppb         13.823   6.16%
   QC value within limits for SiO2  Recovery = 105.27%
Si 251.611†             1364.1      104.42 µg/L         5.115      104.42 ppb          5.115   4.90%
   QC value within limits for Si 251.611  Recovery = 104.42%
Sn 189.927†               21.5      10.695 µg/L        1.7559      10.695 ppb         1.7559  16.42%
   QC value within limits for Sn 189.927  Recovery = 106.95%
Sr 421.552†             1036.7      5.5304 µg/L       0.20491      5.5304 ppb        0.20491   3.71%
   QC value within limits for Sr 421.552  Recovery = 110.61%
Ti 334.940†             2270.8      4.9670 µg/L       0.24909      4.9670 ppb        0.24909   5.01%
   QC value within limits for Ti 334.940  Recovery = 99.34%
Tl 190.801†               15.9      23.698 µg/L        2.2222      23.698 ppb         2.2222   9.38%
   QC value within limits for Tl 190.801  Recovery = 118.49%
U 409.014†               529.2      50.904 µg/L        9.5740      50.904 ppb         9.5740  18.81%
   QC value within limits for U 409.014  Recovery = 101.81%
V 292.402†               420.4      4.9333 µg/L       0.31146      4.9333 ppb        0.31146   6.31%
   QC value within limits for V 292.402  Recovery = 98.67%
Zn 213.857†              386.8      10.338 µg/L        1.1484      10.338 ppb         1.1484  11.11%
   QC value within limits for Zn 213.857  Recovery = 103.38%
All analyte(s) passed QC.
```

Sequence No.: 9
Sample ID: ICSA
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 103
Date Collected: 12/19/2009 04:07:40
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSA

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	121185.8	121185.8	97.1	%			04:08:22
1	Al 396.153Radial†	1024321.2	1054536.8	513110	µg/L	513110	ppb	04:08:16
1	Ca 317.933Radial†	1300308.6	1338484.5	488260	µg/L	488260	ppb	04:08:16
1	Fe 238.204 Radial†	37042.3	38134.2	191800	µg/L	191800	ppb	04:08:22
1	K 766.490 Radial†	752.4	-57.7	-30.841	µg/L	-30.841	ppb	04:08:22
1	Mg 279.077 IEC†	90247.3	92912.0	494570	µg/L	494570	ppb	04:08:22
1	Na 589.592 Radial†	-636.7	89.8	23.273	µg/L	23.273	ppb	04:08:22
1	Sr 421.552†	653.6	783.5	4.1795	µg/L	4.1795	ppb	04:08:22
1	Sc 361.383	2008502.6	2008502.6	92.112	%			04:08:55
1	Y 371.029	1204446.5	1204446.5	90.839	%			04:08:55
1	Ag 328.068†	-1940.9	-2187.9	-4.7959	µg/L	-4.7959	ppb	04:09:01
1	As 188.979†	28.8	30.2	-45.009	µg/L	-45.009	ppb	04:09:22
1	B 249.677†	1932.8	1932.1	24.522	µg/L	24.522	ppb	04:09:01
1	Ba 233.527†	129.8	228.1	5.7059	µg/L	5.7059	ppb	04:09:22
1	Be 313.107†	2663.8	-750.3	-0.4686	µg/L	-0.4686	ppb	04:09:01
1	Cd 226.502†	500.3	653.1	2.1123	µg/L	2.1123	ppb	04:09:22
1	Co 228.616†	-108.7	-42.3	-2.1208	µg/L	-2.1208	ppb	04:09:22
1	Cr 267.716†	-216.8	-99.8	-2.1331	µg/L	-2.1331	ppb	04:09:22
1	Cu 324.752†	-1326.4	-4843.4	7.5501	µg/L	7.5501	ppb	04:09:01
1	Mn 257.610†	-2150.0	-2112.6	17.497	µg/L	17.497	ppb	04:09:01
1	Mo 202.031†	-121.4	-130.7	-7.3131	µg/L	-7.3131	ppb	04:09:22
1	Ni 231.604†	278.4	-31.2	-1.6883	µg/L	-1.6883	ppb	04:09:22
1	P 214.914†	222.8	30.0	27.602	µg/L	27.602	ppb	04:09:22
1	Pb 220.353†	-65.8	-123.1	11.188	µg/L	11.188	ppb	04:09:22
1	S 181.975 Axial†	62.5	42.2	114.57	µg/L	114.57	ppb	04:09:22
1	Sb 206.836†	60.1	42.5	-2.8751	µg/L	-2.8751	ppb	04:09:22
1	Se 196.026†	36.2	26.9	36.839	µg/L	36.839	ppb	04:09:22
1	SiO2†	1863.6	-104.2	-20.019	µg/L	-20.019	ppb	04:09:22
1	Si 251.611†	438.5	97.1	15.714	µg/L	15.714	ppb	04:09:22
1	Sn 189.927†	-413.0	-470.5	-1.1803	µg/L	-1.1803	ppb	04:09:22
1	Ti 334.940†	11938.9	12078.0	-0.9722	µg/L	-0.9722	ppb	04:09:01
1	Tl 190.801†	24.5	50.1	9.3159	µg/L	9.3159	ppb	04:09:22
1	U 409.014†	722.4	-152.3	-38.894	µg/L	-38.894	ppb	04:09:01
1	V 292.402†	-1457.4	-1485.8	-1.3525	µg/L	-1.3525	ppb	04:09:01
1	Zn 213.857†	1815.3	1374.5	3.1081	µg/L	3.1081	ppb	04:09:22
2	Sc RADIAL	121697.1	121697.1	97.5	%			04:08:34
2	Al 396.153Radial†	1032358.1	1058346.3	514970	µg/L	514970	ppb	04:08:28
2	Ca 317.933Radial†	1311074.9	1343898.6	490240	µg/L	490240	ppb	04:08:28
2	Fe 238.204 Radial†	37146.4	38080.7	191530	µg/L	191530	ppb	04:08:34
2	K 766.490 Radial†	633.2	-183.2	-97.869	µg/L	-97.869	ppb	04:08:34
2	Mg 279.077 IEC†	90574.4	92857.0	494280	µg/L	494280	ppb	04:08:34
2	Na 589.592 Radial†	-636.2	93.2	24.141	µg/L	24.141	ppb	04:08:34
2	Sr 421.552†	709.2	837.7	4.4684	µg/L	4.4684	ppb	04:08:34
2	Sc 361.383	2028986.6	2028986.6	93.051	%			04:09:28
2	Y 371.029	1216948.1	1216948.1	91.782	%			04:09:28
2	Ag 328.068†	-1928.8	-2153.6	-4.5036	µg/L	-4.5036	ppb	04:09:33
2	As 188.979†	42.5	44.6	-18.248	µg/L	-18.248	ppb	04:09:54
2	B 249.677†	1975.1	1956.4	25.672	µg/L	25.672	ppb	04:09:33
2	Ba 233.527†	129.8	226.7	5.6704	µg/L	5.6704	ppb	04:09:54
2	Be 313.107†	2716.2	-723.2	-0.4518	µg/L	-0.4518	ppb	04:09:33
2	Cd 226.502†	498.5	645.6	1.9452	µg/L	1.9452	ppb	04:09:54
2	Co 228.616†	-104.6	-36.7	-1.8530	µg/L	-1.8530	ppb	04:09:54
2	Cr 267.716†	-231.4	-113.1	-2.4109	µg/L	-2.4109	ppb	04:09:54
2	Cu 324.752†	-1327.6	-4830.1	7.5843	µg/L	7.5843	ppb	04:09:33
2	Mn 257.610†	-2230.6	-2175.6	17.266	µg/L	17.266	ppb	04:09:33
2	Mo 202.031†	-130.4	-139.0	-8.2718	µg/L	-8.2718	ppb	04:09:54
2	Ni 231.604†	287.1	-24.8	-1.3445	µg/L	-1.3445	ppb	04:09:54
2	P 214.914†	217.3	21.6	10.486	µg/L	10.486	ppb	04:09:54
2	Pb 220.353†	-79.9	-137.5	7.6893	µg/L	7.6893	ppb	04:09:54

2	S 181.975 Axial†	65.5	44.6	127.23 µg/L	127.23 ppb	04:09:54
2	Sb 206.836†	66.4	48.6	3.1154 µg/L	3.1154 ppb	04:09:54
2	Se 196.026†	22.9	12.2	16.256 µg/L	16.256 ppb	04:09:54
2	SiO2†	1847.9	-141.4	-27.179 µg/L	-27.179 ppb	04:09:54
2	Si 251.611†	444.8	99.0	15.936 µg/L	15.936 ppb	04:09:54
2	Sn 189.927†	-417.6	-471.0	-1.0807 µg/L	-1.0807 ppb	04:09:54
2	Ti 334.940†	11776.5	11772.6	-1.7528 µg/L	-1.7528 ppb	04:09:33
2	Tl 190.801†	9.8	34.1	-14.733 µg/L	-14.733 ppb	04:09:54
2	U 409.014†	824.2	-50.7	-29.026 µg/L	-29.026 ppb	04:09:33
2	V 292.402†	-1436.7	-1447.6	-0.9313 µg/L	-0.9313 ppb	04:09:33
2	Zn 213.857†	1821.2	1361.0	2.7782 µg/L	2.7782 ppb	04:09:54
3	Sc RADIAL	120274.2	120274.2	96.4 %		04:08:45
3	Al 396.153Radial†	1031457.0	1069934.7	520610 µg/L	520610 ppb	04:08:40
3	Ca 317.933Radial†	1311035.2	1359761.8	496020 µg/L	496020 ppb	04:08:40
3	Fe 238.204 Radial†	36760.0	38130.4	191780 µg/L	191780 ppb	04:08:45
3	K 766.490 Radial†	634.4	-174.3	-93.091 µg/L	-93.091 ppb	04:08:45
3	Mg 279.077 IEC†	89786.8	93138.6	495780 µg/L	495780 ppb	04:08:45
3	Na 589.592 Radial†	-628.5	93.4	24.209 µg/L	24.209 ppb	04:08:45
3	Sr 421.552†	666.5	802.0	4.2783 µg/L	4.2783 ppb	04:08:45
3	Sc 361.383	2020032.7	2020032.7	92.640 %		04:10:00
3	Y 371.029	1212317.6	1212317.6	91.432 %		04:10:00
3	Ag 328.068†	-1979.8	-2217.8	-5.0686 µg/L	-5.0686 ppb	04:10:06
3	As 188.979†	31.7	33.2	-40.692 µg/L	-40.692 ppb	04:10:26
3	B 249.677†	1938.6	1926.4	24.275 µg/L	24.275 ppb	04:10:06
3	Ba 233.527†	128.3	225.8	5.6462 µg/L	5.6462 ppb	04:10:26
3	Be 313.107†	2709.5	-717.4	-0.4485 µg/L	-0.4485 ppb	04:10:06
3	Cd 226.502†	520.7	672.0	2.6163 µg/L	2.6163 ppb	04:10:26
3	Co 228.616†	-92.2	-23.8	-1.2269 µg/L	-1.2269 ppb	04:10:26
3	Cr 267.716†	-233.8	-116.7	-2.4876 µg/L	-2.4876 ppb	04:10:26
3	Cu 324.752†	-1322.9	-4831.4	7.6292 µg/L	7.6292 ppb	04:10:06
3	Mn 257.610†	-2186.5	-2138.7	17.413 µg/L	17.413 ppb	04:10:06
3	Mo 202.031†	-103.1	-110.3	-4.9919 µg/L	-4.9919 ppb	04:10:26
3	Ni 231.604†	292.9	-17.3	-0.9349 µg/L	-0.9349 ppb	04:10:26
3	P 214.914†	227.8	34.0	39.141 µg/L	39.141 ppb	04:10:26
3	Pb 220.353†	-67.2	-124.2	11.553 µg/L	11.553 ppb	04:10:26
3	S 181.975 Axial†	65.3	44.8	127.53 µg/L	127.53 ppb	04:10:26
3	Sb 206.836†	54.8	36.4	-9.6833 µg/L	-9.6833 ppb	04:10:26
3	Se 196.026†	31.4	21.5	29.710 µg/L	29.710 ppb	04:10:26
3	SiO2†	1846.6	-134.0	-25.763 µg/L	-25.763 ppb	04:10:26
3	Si 251.611†	459.4	117.0	17.113 µg/L	17.113 ppb	04:10:26
3	Sn 189.927†	-409.6	-464.3	3.8277 µg/L	3.8277 ppb	04:10:26
3	Ti 334.940†	11965.9	12033.1	-1.5069 µg/L	-1.5069 ppb	04:10:06
3	Tl 190.801†	27.6	53.4	13.113 µg/L	13.113 ppb	04:10:26
3	U 409.014†	859.8	-8.4	-24.859 µg/L	-24.859 ppb	04:10:06
3	V 292.402†	-1461.1	-1480.7	-1.2580 µg/L	-1.2580 ppb	04:10:06
3	Zn 213.857†	1828.2	1377.2	3.1462 µg/L	3.1462 ppb	04:10:26

Mean Data: ICSA

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2019174.0	92.601	%	0.4709				0.51%
Sc RADIAL	121052.3	97.0	%	0.58				0.60%
Y 371.029	1211237.4	91.351	%	0.4767				0.52%
Ag 328.068†	-2186.4	-4.7894	µg/L	0.28253	-4.7894	ppb	0.28253	5.90%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	1060939.3	516230	µg/L	3902.2	516230	ppb	3902.2	0.76%
QC value within limits for Al 396.153Radial Recovery = 103.25%								
As 188.979†	36.0	-34.650	µg/L	14.3675	-34.650	ppb	14.3675	41.46%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	1938.3	24.823	µg/L	0.7451	24.823	ppb	0.7451	3.00%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	226.9	5.6742	µg/L	0.03003	5.6742	ppb	0.03003	0.53%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-730.3	-0.4563	µg/L	0.01079	-0.4563	ppb	0.01079	2.36%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	1347381.7	491510	µg/L	4033.8	491510	ppb	4033.8	0.82%
QC value within limits for Ca 317.933Radial Recovery = 98.30%								
Cd 226.502†	656.9	2.2246	µg/L	0.34935	2.2246	ppb	0.34935	15.70%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	-34.2	-1.7336	µg/L	0.45877	-1.7336	ppb	0.45877	26.46%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†            -109.9     -2.3438 µg/L      0.18653     -2.3438 ppb       0.18653   7.96%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†           -4835.0      7.5879 µg/L      0.03972      7.5879 ppb       0.03972   0.52%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†    38115.1      191710 µg/L        150.2      191710 ppb         150.2   0.08%
   QC value within limits for Fe 238.204 Radial  Recovery = 95.85%
K 766.490 Radial†      -138.4     -73.934 µg/L      37.3958     -73.934 ppb      37.3958  50.58%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†       92969.2      494880 µg/L        794.9      494880 ppb         794.9   0.16%
   QC value within limits for Mg 279.077 IEC  Recovery = 98.98%
Mn 257.610†           -2142.3      17.392 µg/L       0.1170      17.392 ppb        0.1170   0.67%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†            -126.7     -6.8589 µg/L      1.68646     -6.8589 ppb       1.68646  24.59%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       92.1      23.874 µg/L       0.5221      23.874 ppb        0.5221   2.19%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†             -24.4     -1.3226 µg/L      0.37716     -1.3226 ppb       0.37716  28.52%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               28.5      25.743 µg/L      14.4175      25.743 ppb       14.4175  56.01%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†            -128.2      10.143 µg/L       2.1332      10.143 ppb        2.1332  21.03%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         43.9      123.11 µg/L        7.401      123.11 ppb         7.401   6.01%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              42.5     -3.1477 µg/L      6.40365     -3.1477 ppb      6.40365 203.44%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              20.2      27.602 µg/L      10.4519      27.602 ppb      10.4519  37.87%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                  -126.5     -24.320 µg/L       3.7914     -24.320 ppb       3.7914  15.59%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             104.4      16.255 µg/L       0.7520      16.255 ppb        0.7520   4.63%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†            -468.6      0.5222 µg/L      2.86308      0.5222 ppb      2.86308 548.24%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             807.7      4.3088 µg/L      0.14682      4.3088 ppb       0.14682   3.41%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†           11961.2     -1.4107 µg/L      0.39910     -1.4107 ppb       0.39910  28.29%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              45.9      2.5654 µg/L     15.10051      2.5654 ppb      15.10051 588.62%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              -70.4     -30.926 µg/L       7.2077     -30.926 ppb       7.2077  23.31%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†            -1471.4     -1.1806 µg/L      0.22099     -1.1806 ppb       0.22099  18.72%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†            1370.9      3.0108 µg/L      0.20237      3.0108 ppb       0.20237   6.72%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 10
Sample ID: ICSAB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 104
Date Collected: 12/19/2009 04:10:35
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSAB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	121458.2	121458.2	97.3	%			04:11:15
1	Al 396.153Radial†	1026952.6	1054874.8	513260	µg/L	513260	ppb	04:11:09
1	Ca 317.933Radial†	1306509.4	1341852.3	489490	µg/L	489490	ppb	04:11:09
1	Fe 238.204 Radial†	37144.4	38153.6	191910	µg/L	191910	ppb	04:11:15
1	K 766.490 Radial†	10292.7	9742.2	5203.5	µg/L	5203.5	ppb	04:11:15
1	Mg 279.077 IEC†	90449.4	92911.3	494580	µg/L	494580	ppb	04:11:15
1	Na 589.592 Radial†	18930.7	20194.7	5233.7	µg/L	5233.7	ppb	04:11:15
1	Sr 421.552†	92694.6	95344.1	508.60	µg/L	508.60	ppb	04:11:15
1	Sc 361.383	2001530.9	2001530.9	91.792	%			04:11:49
1	Y 371.029	1203098.5	1203098.5	90.737	%			04:11:49
1	Ag 328.068†	25374.6	27562.9	268.23	µg/L	268.23	ppb	04:11:55
1	As 188.979†	294.5	319.8	500.44	µg/L	500.44	ppb	04:12:16
1	B 249.677†	12998.9	13995.0	554.15	µg/L	554.15	ppb	04:11:55
1	Ba 233.527†	18356.8	20085.5	506.52	µg/L	506.52	ppb	04:11:55
1	Be 313.107†	369536.3	398938.5	243.75	µg/L	243.75	ppb	04:11:49
1	Cd 226.502†	17408.4	19075.0	482.10	µg/L	482.10	ppb	04:11:55
1	Co 228.616†	8456.3	9288.1	446.33	µg/L	446.33	ppb	04:12:16
1	Cr 267.716†	21439.3	23492.1	493.96	µg/L	493.96	ppb	04:11:55
1	Cu 324.752†	70942.5	73882.9	554.51	µg/L	554.51	ppb	04:11:55
1	Mn 257.610†	136175.3	148573.8	489.15	µg/L	489.15	ppb	04:11:55
1	Mo 202.031†	3982.0	4339.1	500.56	µg/L	500.56	ppb	04:12:16
1	Ni 231.604†	7949.8	8327.2	450.75	µg/L	450.75	ppb	04:12:16
1	P 214.914†	1337.4	1245.1	2594.8	µg/L	2594.8	ppb	04:12:16
1	Pb 220.353†	1693.5	1793.4	496.54	µg/L	496.54	ppb	04:12:16
1	S 181.975 Axial†	548.9	572.2	2800.0	µg/L	2800.0	ppb	04:12:16
1	Sb 206.836†	519.1	542.8	500.80	µg/L	500.80	ppb	04:12:16
1	Se 196.026†	1588.6	1718.3	2426.5	µg/L	2426.5	ppb	04:12:16
1	SiO2†	55718.4	58573.5	11258	µg/L	11258	ppb	04:11:55
1	Si 251.611†	63066.0	68326.5	5229.9	µg/L	5229.9	ppb	04:11:55
1	Sn 189.927†	562.6	590.7	520.09	µg/L	520.09	ppb	04:12:16
1	Ti 334.940†	221444.7	240363.2	499.51	µg/L	499.51	ppb	04:11:55
1	Tl 190.801†	304.5	355.4	465.65	µg/L	465.65	ppb	04:12:16
1	U 409.014†	5641.0	5209.0	477.02	µg/L	477.02	ppb	04:11:55
1	V 292.402†	40858.2	44608.2	526.47	µg/L	526.47	ppb	04:11:55
1	Zn 213.857†	18602.4	19669.6	492.00	µg/L	492.00	ppb	04:11:55
2	Sc RADIAL	121538.0	121538.0	97.4	%			04:11:26
2	Al 396.153Radial†	1030309.8	1057628.6	514600	µg/L	514600	ppb	04:11:21
2	Ca 317.933Radial†	1309787.6	1344336.4	490400	µg/L	490400	ppb	04:11:21
2	Fe 238.204 Radial†	37142.6	38126.7	191780	µg/L	191780	ppb	04:11:26
2	K 766.490 Radial†	10334.9	9778.5	5222.9	µg/L	5222.9	ppb	04:11:26
2	Mg 279.077 IEC†	90535.0	92938.2	494720	µg/L	494720	ppb	04:11:26
2	Na 589.592 Radial†	18908.5	20159.1	5224.5	µg/L	5224.5	ppb	04:11:26
2	Sr 421.552†	92844.7	95435.7	509.09	µg/L	509.09	ppb	04:11:26
2	Sc 361.383	2008485.2	2008485.2	92.111	%			04:12:22
2	Y 371.029	1206895.3	1206895.3	91.023	%			04:12:22
2	Ag 328.068†	25577.4	27687.3	269.36	µg/L	269.36	ppb	04:12:28
2	As 188.979†	286.6	310.1	482.13	µg/L	482.13	ppb	04:12:48
2	B 249.677†	13127.8	14086.0	558.18	µg/L	558.18	ppb	04:12:28
2	Ba 233.527†	18512.1	20184.9	509.03	µg/L	509.03	ppb	04:12:28
2	Be 313.107†	372106.0	400334.3	244.60	µg/L	244.60	ppb	04:12:22
2	Cd 226.502†	17620.7	19239.8	486.39	µg/L	486.39	ppb	04:12:28
2	Co 228.616†	8465.5	9266.3	445.28	µg/L	445.28	ppb	04:12:48
2	Cr 267.716†	21657.8	23648.4	497.25	µg/L	497.25	ppb	04:12:28
2	Cu 324.752†	71427.1	74141.4	556.28	µg/L	556.28	ppb	04:12:28
2	Mn 257.610†	137148.9	149117.2	490.83	µg/L	490.83	ppb	04:12:28
2	Mo 202.031†	3980.3	4322.3	498.64	µg/L	498.64	ppb	04:12:48
2	Ni 231.604†	7949.9	8297.4	449.13	µg/L	449.13	ppb	04:12:48
2	P 214.914†	1345.0	1248.3	2602.3	µg/L	2602.3	ppb	04:12:48
2	Pb 220.353†	1712.4	1807.4	500.22	µg/L	500.22	ppb	04:12:48

2	S 181.975 Axial†	542.7	563.5	2755.7 µg/L	2755.7 ppb	04:12:48
2	Sb 206.836†	531.0	553.7	511.74 µg/L	511.74 ppb	04:12:48
2	Se 196.026†	1613.5	1739.3	2456.1 µg/L	2456.1 ppb	04:12:48
2	SiO2†	56054.7	58728.4	11287 µg/L	11287 ppb	04:12:28
2	Si 251.611†	63588.2	68655.5	5255.0 µg/L	5255.0 ppb	04:12:28
2	Sn 189.927†	574.7	601.8	525.75 µg/L	525.75 ppb	04:12:48
2	Ti 334.940†	223152.6	241382.1	501.69 µg/L	501.69 ppb	04:12:28
2	Tl 190.801†	306.1	355.9	466.43 µg/L	466.43 ppb	04:12:48
2	U 409.014†	5609.2	5153.1	471.69 µg/L	471.69 ppb	04:12:28
2	V 292.402†	41171.9	44794.6	528.56 µg/L	528.56 ppb	04:12:28
2	Zn 213.857†	18768.8	19780.1	494.99 µg/L	494.99 ppb	04:12:28
3	Sc RADIAL	121154.6	121154.6	97.1 %		04:11:38
3	Al 396.153Radial†	1031802.1	1062513.7	516980 µg/L	516980 ppb	04:11:33
3	Ca 317.933Radial†	1312696.0	1351588.2	493040 µg/L	493040 ppb	04:11:33
3	Fe 238.204 Radial†	37090.7	38193.9	192120 µg/L	192120 ppb	04:11:38
3	K 766.490 Radial†	10280.7	9756.3	5211.0 µg/L	5211.0 ppb	04:11:38
3	Mg 279.077 IEC†	90446.8	93141.5	495810 µg/L	495810 ppb	04:11:38
3	Na 589.592 Radial†	18897.6	20209.3	5237.5 µg/L	5237.5 ppb	04:11:38
3	Sr 421.552†	92596.6	95481.9	509.34 µg/L	509.34 ppb	04:11:38
3	Sc 361.383	2007633.4	2007633.4	92.072 %		04:12:55
3	Y 371.029	1206255.9	1206255.9	90.975 %		04:12:55
3	Ag 328.068†	25557.1	27677.1	269.29 µg/L	269.29 ppb	04:13:00
3	As 188.979†	298.7	323.3	506.59 µg/L	506.59 ppb	04:13:21
3	B 249.677†	13104.3	14066.4	557.22 µg/L	557.22 ppb	04:13:00
3	Ba 233.527†	18497.2	20177.3	508.83 µg/L	508.83 ppb	04:13:00
3	Be 313.107†	372541.6	400978.8	244.99 µg/L	244.99 ppb	04:12:55
3	Cd 226.502†	17566.3	19188.9	485.04 µg/L	485.04 ppb	04:13:00
3	Co 228.616†	8467.6	9272.5	445.58 µg/L	445.58 ppb	04:13:21
3	Cr 267.716†	21619.0	23616.3	496.57 µg/L	496.57 ppb	04:13:00
3	Cu 324.752†	71278.9	74013.2	555.46 µg/L	555.46 ppb	04:13:00
3	Mn 257.610†	137095.0	149121.8	490.89 µg/L	490.89 ppb	04:13:00
3	Mo 202.031†	3987.6	4332.0	499.76 µg/L	499.76 ppb	04:13:21
3	Ni 231.604†	7932.3	8282.0	448.30 µg/L	448.30 ppb	04:13:21
3	P 214.914†	1333.9	1236.8	2578.1 µg/L	2578.1 ppb	04:13:21
3	Pb 220.353†	1689.1	1782.9	494.23 µg/L	494.23 ppb	04:13:21
3	S 181.975 Axial†	550.0	571.6	2796.4 µg/L	2796.4 ppb	04:13:21
3	Sb 206.836†	543.4	567.4	525.32 µg/L	525.32 ppb	04:13:21
3	Se 196.026†	1594.0	1718.9	2427.4 µg/L	2427.4 ppb	04:13:21
3	SiO2†	55947.7	58638.0	11270 µg/L	11270 ppb	04:13:00
3	Si 251.611†	63410.7	68491.9	5242.5 µg/L	5242.5 ppb	04:13:00
3	Sn 189.927†	572.2	599.3	525.38 µg/L	525.38 ppb	04:13:21
3	Ti 334.940†	223054.7	241378.5	501.53 µg/L	501.53 ppb	04:13:00
3	Tl 190.801†	312.7	363.2	476.88 µg/L	476.88 ppb	04:13:21
3	U 409.014†	5515.0	5053.4	462.10 µg/L	462.10 ppb	04:13:00
3	V 292.402†	41148.0	44787.7	528.50 µg/L	528.50 ppb	04:13:00
3	Zn 213.857†	18759.9	19779.1	494.91 µg/L	494.91 ppb	04:13:00

Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2005883.2	91.991	%	0.1740				0.19%
Sc RADIAL	121383.6	97.3	%	0.16				0.17%
Y 371.029	1205416.6	90.912	%	0.1533				0.17%
Ag 328.068†	27642.5	268.96	µg/L	0.634	268.96	ppb	0.634	0.24%
QC value within limits for Ag 328.068 Recovery = 107.58%								
Al 396.153Radial†	1058339.1	514950	µg/L	1882.4	514950	ppb	1882.4	0.37%
QC value within limits for Al 396.153Radial Recovery = 102.99%								
As 188.979†	317.7	496.39	µg/L	12.721	496.39	ppb	12.721	2.56%
QC value within limits for As 188.979 Recovery = 99.28%								
B 249.677†	14049.1	556.52	µg/L	2.107	556.52	ppb	2.107	0.38%
QC value within limits for B 249.677 Recovery = 111.30%								
Ba 233.527†	20149.2	508.13	µg/L	1.394	508.13	ppb	1.394	0.27%
QC value within limits for Ba 233.527 Recovery = 101.63%								
Be 313.107†	400083.9	244.45	µg/L	0.637	244.45	ppb	0.637	0.26%
QC value within limits for Be 313.107 Recovery = 97.78%								
Ca 317.933Radial†	1345925.6	490980	µg/L	1845.4	490980	ppb	1845.4	0.38%
QC value within limits for Ca 317.933Radial Recovery = 98.20%								
Cd 226.502†	19167.9	484.51	µg/L	2.193	484.51	ppb	2.193	0.45%
QC value within limits for Cd 226.502 Recovery = 96.90%								
Co 228.616†	9275.6	445.73	µg/L	0.546	445.73	ppb	0.546	0.12%

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   QC value within limits for Co 228.616  Recovery = 89.15%
Cr 267.716†            23585.6      495.93 µg/L        1.735      495.93 ppb          1.735   0.35%
   QC value within limits for Cr 267.716  Recovery = 99.19%
Cu 324.752†            74012.5      555.42 µg/L        0.884      555.42 ppb          0.884   0.16%
   QC value within limits for Cu 324.752  Recovery = 111.08%
Fe 238.204 Radial†     38158.0      191940 µg/L        170.1      191940 ppb          170.1   0.09%
   QC value within limits for Fe 238.204 Radial  Recovery = 95.97%
K 766.490 Radial†       9759.0      5212.5 µg/L         9.78      5212.5 ppb           9.78   0.19%
   QC value within limits for K 766.490 Radial  Recovery = 104.25%
Mg 279.077 IEC†        92997.0      495040 µg/L        670.3      495040 ppb          670.3   0.14%
   QC value within limits for Mg 279.077 IEC  Recovery = 99.01%
Mn 257.610†           148937.6      490.29 µg/L        0.989      490.29 ppb          0.989   0.20%
   QC value within limits for Mn 257.610  Recovery = 98.06%
Mo 202.031†             4331.1      499.65 µg/L        0.963      499.65 ppb          0.963   0.19%
   QC value within limits for Mo 202.031  Recovery = 99.93%
Na 589.592 Radial†     20187.7      5231.9 µg/L         6.69      5231.9 ppb           6.69   0.13%
   QC value within limits for Na 589.592 Radial  Recovery = 104.64%
Ni 231.604†             8302.2      449.39 µg/L        1.245      449.39 ppb          1.245   0.28%
   QC value within limits for Ni 231.604  Recovery = 89.88%
P 214.914†              1243.4      2591.7 µg/L        12.38      2591.7 ppb          12.38   0.48%
   QC value within limits for P 214.914  Recovery = 103.67%
Pb 220.353†             1794.6      496.99 µg/L        3.022      496.99 ppb          3.022   0.61%
   QC value within limits for Pb 220.353  Recovery = 99.40%
S 181.975 Axial†         569.1      2784.0 µg/L        24.63      2784.0 ppb          24.63   0.88%
   QC value within limits for S 181.975 Axial  Recovery = 111.36%
Sb 206.836†              554.6      512.62 µg/L       12.285      512.62 ppb         12.285   2.40%
   QC value within limits for Sb 206.836  Recovery = 102.52%
Se 196.026†             1725.5      2436.7 µg/L        16.86      2436.7 ppb          16.86   0.69%
   QC value within limits for Se 196.026  Recovery = 97.47%
SiO2†                  58646.6       11272 µg/L         15.0       11272 ppb           15.0   0.13%
   QC value within limits for SiO2  Recovery = 105.39%
Si 251.611†            68491.3      5242.5 µg/L        12.56      5242.5 ppb          12.56   0.24%
   QC value within limits for Si 251.611  Recovery = 104.85%
Sn 189.927†              597.3      523.74 µg/L        3.166      523.74 ppb          3.166   0.60%
   QC value within limits for Sn 189.927  Recovery = 104.75%
Sr 421.552†            95420.5      509.01 µg/L        0.374      509.01 ppb          0.374   0.07%
   QC value within limits for Sr 421.552  Recovery = 101.80%
Ti 334.940†           241041.3      500.91 µg/L        1.218      500.91 ppb          1.218   0.24%
   QC value within limits for Ti 334.940  Recovery = 100.18%
Tl 190.801†              358.2      469.65 µg/L        6.268      469.65 ppb          6.268   1.33%
   QC value within limits for Tl 190.801  Recovery = 93.93%
U 409.014†              5138.5      470.27 µg/L        7.563      470.27 ppb          7.563   1.61%
   QC value within limits for U 409.014  Recovery = 94.05%
V 292.402†             44730.2      527.84 µg/L        1.186      527.84 ppb          1.186   0.22%
   QC value within limits for V 292.402  Recovery = 105.57%
Zn 213.857†            19742.9      493.97 µg/L        1.701      493.97 ppb          1.701   0.34%
   QC value within limits for Zn 213.857  Recovery = 98.79%
All analyte(s) passed QC.
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Sequence No.: 11
Sample ID: LR1
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 105
Date Collected: 12/19/2009 04:13:30
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	121515.5	121515.5	97.4	%			04:14:11
1	Al 396.153Radial†	1004489.4	1031309.1	501810	µg/L	501810	ppb	04:14:06
1	Ca 317.933Radial†	1285898.9	1320053.7	481540	µg/L	481540	ppb	04:14:06
1	Fe 238.204 Radial†	90109.7	92526.0	465370	µg/L	465370	ppb	04:14:11
1	K 766.490 Radial†	701.1	-112.6	-60.119	µg/L	-60.119	ppb	04:14:11
1	Mg 279.077 IEC†	89525.4	91918.5	488880	µg/L	488880	ppb	04:14:11
1	Na 589.592 Radial†	1831892.9	1881928.0	487720	µg/L	487720	ppb	04:14:06
1	Sr 421.552†	965.0	1101.5	5.8758	µg/L	5.8758	ppb	04:14:11
1	Sc 361.383	2032014.9	2032014.9	93.190	%			04:14:47
1	Y 371.029	1212201.0	1212201.0	91.424	%			04:14:47
1	Ag 328.068†	-3747.7	-4102.4	-0.8353	µg/L	-0.8353	ppb	04:14:53
1	As 188.979†	24.5	25.2	-93.132	µg/L	-93.132	ppb	04:15:13
1	B 249.677†	4454.8	4614.2	56.257	µg/L	56.257	ppb	04:14:53
1	Ba 233.527†	278.0	385.5	9.5783	µg/L	9.5783	ppb	04:15:13
1	Be 313.107†	-2127.6	-5925.3	-3.6382	µg/L	-3.6382	ppb	04:14:53
1	Cd 226.502†	1311.5	1517.3	13.759	µg/L	13.759	ppb	04:14:53
1	Co 228.616†	47.1	126.3	5.9247	µg/L	5.9247	ppb	04:15:13
1	Cr 267.716†	-301.3	-187.7	-4.0742	µg/L	-4.0742	ppb	04:15:13
1	Cu 324.752†	-8816.4	-12864.2	10.590	µg/L	10.590	ppb	04:14:53
1	Mn 257.610†	-13511.9	-14277.8	13.809	µg/L	13.809	ppb	04:14:53
1	Mo 202.031†	-206.8	-220.8	-6.8014	µg/L	-6.8014	ppb	04:15:13
1	Ni 231.604†	262.3	-52.0	-2.8150	µg/L	-2.8150	ppb	04:15:13
1	P 214.914†	386.6	202.9	80.763	µg/L	80.763	ppb	04:15:13
1	Pb 220.353†	15.2	-35.3	16.823	µg/L	16.823	ppb	04:15:13
1	S 181.975 Axial†	65.3	44.4	85.988	µg/L	85.988	ppb	04:15:13
1	Sb 206.836†	62.4	44.2	7.6828	µg/L	7.6828	ppb	04:15:13
1	Se 196.026†	-114.6	-135.3	0.5514	µg/L	0.5514	ppb	04:15:13
1	SiO2†	1682.6	-321.7	-61.838	µg/L	-61.838	ppb	04:15:13
1	Si 251.611†	-232.0	-627.9	-39.556	µg/L	-39.556	ppb	04:15:13
1	Sn 189.927†	-465.8	-522.0	3.0192	µg/L	3.0192	ppb	04:15:13
1	Ti 334.940†	18053.5	18489.5	13.464	µg/L	13.464	ppb	04:14:53
1	Tl 190.801†	8.5	32.6	-15.886	µg/L	-15.886	ppb	04:15:13
1	U 409.014†	141602.2	151013.7	14456	µg/L	14456	ppb	04:14:53
1	V 292.402†	-4902.6	-5164.4	2.6512	µg/L	2.6512	ppb	04:14:53
1	Zn 213.857†	3035.7	2661.3	8.8171	µg/L	8.8171	ppb	04:15:13
2	Sc RADIAL	120115.6	120115.6	96.3	%			04:14:24
2	Al 396.153Radial†	1011326.9	1050434.6	511120	µg/L	511120	ppb	04:14:18
2	Ca 317.933Radial†	1296620.2	1346581.9	491220	µg/L	491220	ppb	04:14:18
2	Fe 238.204 Radial†	89005.7	92457.5	465030	µg/L	465030	ppb	04:14:24
2	K 766.490 Radial†	714.3	-90.4	-48.294	µg/L	-48.294	ppb	04:14:24
2	Mg 279.077 IEC†	88596.5	92025.0	489440	µg/L	489440	ppb	04:14:24
2	Na 589.592 Radial†	1842302.8	1914667.3	496210	µg/L	496210	ppb	04:14:18
2	Sr 421.552†	885.3	1030.2	5.4957	µg/L	5.4957	ppb	04:14:24
2	Sc 361.383	1990581.8	1990581.8	91.290	%			04:15:19
2	Y 371.029	1187464.9	1187464.9	89.558	%			04:15:19
2	Ag 328.068†	-3835.1	-4281.8	-2.4899	µg/L	-2.4899	ppb	04:15:25
2	As 188.979†	38.5	41.1	-64.719	µg/L	-64.719	ppb	04:15:46
2	B 249.677†	4398.8	4652.3	58.041	µg/L	58.041	ppb	04:15:25
2	Ba 233.527†	263.7	376.2	9.3420	µg/L	9.3420	ppb	04:15:46
2	Be 313.107†	-2217.7	-6071.5	-3.7277	µg/L	-3.7277	ppb	04:15:25
2	Cd 226.502†	1287.4	1520.2	14.069	µg/L	14.069	ppb	04:15:25
2	Co 228.616†	31.2	109.9	5.1346	µg/L	5.1346	ppb	04:15:46
2	Cr 267.716†	-275.4	-166.1	-3.6220	µg/L	-3.6220	ppb	04:15:46
2	Cu 324.752†	-8871.2	-13121.1	8.7308	µg/L	8.7308	ppb	04:15:25
2	Mn 257.610†	-13528.1	-14597.3	12.765	µg/L	12.765	ppb	04:15:25
2	Mo 202.031†	-215.8	-235.3	-8.4586	µg/L	-8.4586	ppb	04:15:46
2	Ni 231.604†	276.0	-31.1	-1.6811	µg/L	-1.6811	ppb	04:15:46
2	P 214.914†	393.1	218.7	119.01	µg/L	119.01	ppb	04:15:46
2	Pb 220.353†	9.3	-41.4	15.833	µg/L	15.833	ppb	04:15:46

2	S 181.975 Axial†	67.5	48.2	105.28 µg/L	105.28 ppb	04:15:46
2	Sb 206.836†	56.8	39.5	2.2023 µg/L	2.2023 ppb	04:15:46
2	Se 196.026†	-93.3	-114.6	30.763 µg/L	30.763 ppb	04:15:46
2	SiO2†	1657.1	-312.1	-59.988 µg/L	-59.988 ppb	04:15:46
2	Si 251.611†	-262.3	-666.3	-42.561 µg/L	-42.561 ppb	04:15:46
2	Sn 189.927†	-453.5	-519.0	6.7246 µg/L	6.7246 ppb	04:15:46
2	Ti 334.940†	17802.3	18617.5	13.201 µg/L	13.201 ppb	04:15:25
2	Tl 190.801†	3.4	27.2	-25.218 µg/L	-25.218 ppb	04:15:46
2	U 409.014†	141480.7	154043.4	14748 µg/L	14748 ppb	04:15:25
2	V 292.402†	-4832.3	-5196.9	2.7145 µg/L	2.7145 ppb	04:15:25
2	Zn 213.857†	3030.0	2722.8	10.490 µg/L	10.490 ppb	04:15:46
3	Sc RADIAL	120800.6	120800.6	96.8 %		04:14:37
3	Al 396.153Radial†	1007496.2	1040519.9	506300 µg/L	506300 ppb	04:14:31
3	Ca 317.933Radial†	1288729.2	1330792.5	485460 µg/L	485460 ppb	04:14:31
3	Fe 238.204 Radial†	89512.2	92456.4	465020 µg/L	465020 ppb	04:14:37
3	K 766.490 Radial†	722.8	-85.9	-45.882 µg/L	-45.882 ppb	04:14:37
3	Mg 279.077 IEC†	89141.9	92066.5	489660 µg/L	489660 ppb	04:14:37
3	Na 589.592 Radial†	1835111.4	1896386.0	491470 µg/L	491470 ppb	04:14:31
3	Sr 421.552†	924.8	1065.8	5.6853 µg/L	5.6853 ppb	04:14:37
3	Sc 361.383	1992966.0	1992966.0	91.399 %		04:15:52
3	Y 371.029	1188067.3	1188067.3	89.604 %		04:15:52
3	Ag 328.068†	-3635.7	-4058.6	-0.4676 µg/L	-0.4676 ppb	04:15:58
3	As 188.979†	28.8	30.5	-83.775 µg/L	-83.775 ppb	04:16:18
3	B 249.677†	4410.7	4659.5	58.359 µg/L	58.359 ppb	04:15:58
3	Ba 233.527†	268.5	381.0	9.4637 µg/L	9.4637 ppb	04:16:18
3	Be 313.107†	-2192.2	-6040.8	-3.7087 µg/L	-3.7087 ppb	04:15:58
3	Cd 226.502†	1249.0	1476.5	12.813 µg/L	12.813 ppb	04:15:58
3	Co 228.616†	33.0	111.8	5.2237 µg/L	5.2237 ppb	04:16:18
3	Cr 267.716†	-275.7	-166.0	-3.6201 µg/L	-3.6201 ppb	04:16:18
3	Cu 324.752†	-8614.4	-12828.5	10.762 µg/L	10.762 ppb	04:15:58
3	Mn 257.610†	-13427.4	-14469.4	13.165 µg/L	13.165 ppb	04:15:58
3	Mo 202.031†	-222.5	-242.3	-9.2602 µg/L	-9.2602 ppb	04:16:18
3	Ni 231.604†	269.0	-39.2	-2.1203 µg/L	-2.1203 ppb	04:16:18
3	P 214.914†	388.1	212.7	103.85 µg/L	103.85 ppb	04:16:18
3	Pb 220.353†	25.6	-23.6	20.061 µg/L	20.061 ppb	04:16:18
3	S 181.975 Axial†	66.6	47.1	99.636 µg/L	99.636 ppb	04:16:18
3	Sb 206.836†	59.7	42.6	5.7849 µg/L	5.7849 ppb	04:16:18
3	Se 196.026†	-118.8	-142.4	-9.4135 µg/L	-9.4135 ppb	04:16:18
3	SiO2†	1657.9	-313.4	-60.227 µg/L	-60.227 ppb	04:16:18
3	Si 251.611†	-264.0	-667.8	-42.612 µg/L	-42.612 ppb	04:16:18
3	Sn 189.927†	-455.9	-520.9	4.5373 µg/L	4.5373 ppb	04:16:18
3	Ti 334.940†	17646.7	18423.9	13.100 µg/L	13.100 ppb	04:15:58
3	Tl 190.801†	13.2	38.1	-8.3613 µg/L	-8.3613 ppb	04:16:18
3	U 409.014†	140048.2	152290.7	14579 µg/L	14579 ppb	04:15:58
3	V 292.402†	-4822.5	-5179.9	2.6293 µg/L	2.6293 ppb	04:15:58
3	Zn 213.857†	3013.6	2701.0	9.8961 µg/L	9.8961 ppb	04:16:18

Mean Data: LR1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2005187.6	91.960	%	1.0669				1.16%
Sc RADIAL	120810.6	96.8	%	0.56				0.58%
Y 371.029	1195911.1	90.195	%	1.0642				1.18%
Ag 328.068†	-4147.6	-1.2643	µg/L	1.07724	-1.2643	ppb	1.07724	85.21%
Al 396.153Radial†	1040754.6	506410	µg/L	4654.1	506410	ppb	4654.1	0.92%
QC value within limits for Al 396.153Radial Recovery = 101.28%								
As 188.979†	32.3	-80.542	µg/L	14.4795	-80.542	ppb	14.4795	17.98%
B 249.677†	4642.0	57.552	µg/L	1.1333	57.552	ppb	1.1333	1.97%
Ba 233.527†	380.9	9.4613	µg/L	0.11820	9.4613	ppb	0.11820	1.25%
Be 313.107†	-6012.5	-3.6915	µg/L	0.04715	-3.6915	ppb	0.04715	1.28%
Ca 317.933Radial†	1332476.0	486070	µg/L	4867.7	486070	ppb	4867.7	1.00%
QC value within limits for Ca 317.933Radial Recovery = 97.21%								
Cd 226.502†	1504.7	13.547	µg/L	0.6543	13.547	ppb	0.6543	4.83%
Co 228.616†	116.0	5.4277	µg/L	0.43277	5.4277	ppb	0.43277	7.97%
Cr 267.716†	-173.2	-3.7721	µg/L	0.26163	-3.7721	ppb	0.26163	6.94%
Cu 324.752†	-12937.9	10.028	µg/L	1.1265	10.028	ppb	1.1265	11.23%
Fe 238.204 Radial†	92480.0	465140	µg/L	200.5	465140	ppb	200.5	0.04%
QC value within limits for Fe 238.204 Radial Recovery = 93.03%								
K 766.490 Radial†	-96.3	-51.432	µg/L	7.6193	-51.432	ppb	7.6193	14.81%
Mg 279.077 IEC†	92003.3	489330	µg/L	406.8	489330	ppb	406.8	0.08%

QC value within limits for Mg 279.077 IEC Recovery = 97.87%

Mn 257.610†	-14448.2	13.246 µg/L	0.5264	13.246 ppb	0.5264	3.97%
Mo 202.031†	-232.8	-8.1734 µg/L	1.25398	-8.1734 ppb	1.25398	15.34%
Na 589.592 Radial†	1897660.4	491800 µg/L	4252.0	491800 ppb	4252.0	0.86%

QC value within limits for Na 589.592 Radial Recovery = 98.36%

Ni 231.604†	-40.7	-2.2054 µg/L	0.57174	-2.2054 ppb	0.57174	25.92%
P 214.914†	211.4	101.21 µg/L	19.260	101.21 ppb	19.260	19.03%
Pb 220.353†	-33.4	17.572 µg/L	2.2116	17.572 ppb	2.2116	12.59%
S 181.975 Axial†	46.6	96.970 µg/L	9.9205	96.970 ppb	9.9205	10.23%
Sb 206.836†	42.1	5.2233 µg/L	2.78307	5.2233 ppb	2.78307	53.28%
Se 196.026†	-130.8	7.3003 µg/L	20.92117	7.3003 ppb	20.92117	286.58%
SiO2†	-315.7	-60.684 µg/L	1.0060	-60.684 ppb	1.0060	1.66%
Si 251.611†	-654.0	-41.576 µg/L	1.7497	-41.576 ppb	1.7497	4.21%
Sn 189.927†	-520.7	4.7604 µg/L	1.86273	4.7604 ppb	1.86273	39.13%
Sr 421.552†	1065.8	5.6856 µg/L	0.19005	5.6856 ppb	0.19005	3.34%
Ti 334.940†	18510.3	13.255 µg/L	0.1879	13.255 ppb	0.1879	1.42%
Tl 190.801†	32.7	-16.489 µg/L	8.4447	-16.489 ppb	8.4447	51.21%
U 409.014†	152449.3	14595 µg/L	146.5	14595 ppb	146.5	1.00%

QC value within limits for U 409.014 Recovery = 97.30%

V 292.402†	-5180.4	2.6650 µg/L	0.04428	2.6650 ppb	0.04428	1.66%
Zn 213.857†	2695.0	9.7343 µg/L	0.84801	9.7343 ppb	0.84801	8.71%

All analyte(s) passed QC.

Sequence No.: 12
Sample ID: LR2
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 108
Date Collected: 12/19/2009 04:16:27
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR2

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	125336.6	125336.6	100	%			04:17:10
1	Al 396.153Radial†	1159.7	947.1	79.074	µg/L	79.074	ppb	04:17:10
1	Ca 317.933Radial†	1006.4	557.9	203.51	µg/L	203.51	ppb	04:17:30
1	Fe 238.204 Radial†	17.3	8.9	371.08	µg/L	371.08	ppb	04:17:30
1	K 766.490 Radial†	564089.6	560775.1	299520	µg/L	299520	ppb	04:17:04
1	Mg 279.077 IEC†	-18.0	-33.5	71.896	µg/L	71.896	ppb	04:17:30
1	Na 589.592 Radial†	90.9	836.0	216.65	µg/L	216.65	ppb	04:17:10
1	Sr 421.552†	1832253.8	1824302.3	9731.6	µg/L	9731.6	ppb	04:17:04
1	Sc 361.383	2147672.0	2147672.0	98.494	%			04:19:01
1	Y 371.029	1287539.7	1287539.7	97.106	%			04:19:01
1	Ag 328.068†	-7341.2	-7534.2	2.6533	µg/L	2.6533	ppb	04:19:01
1	As 188.979†	5314.8	5395.1	10167	µg/L	10167	ppb	04:19:07
1	B 249.677†	113563.1	115133.3	5055.2	µg/L	5055.2	ppb	04:19:01
1	Ba 233.527†	554447.9	563012.8	14190	µg/L	14190	ppb	04:19:01
1	Be 313.107†	4715825.5	4784289.2	2921.8	µg/L	2921.8	ppb	04:18:51
1	Cd 226.502†	379724.9	385640.9	10041	µg/L	10041	ppb	04:19:01
1	Co 228.616†	201967.6	205131.4	9859.2	µg/L	9859.2	ppb	04:19:01
1	Cr 267.716†	1175347.6	1193454.5	25058	µg/L	25058	ppb	04:19:01
1	Cu 324.752†	2910991.1	2952097.3	20509	µg/L	20509	ppb	04:19:01
1	Mn 257.610†	2992091.6	3038062.8	9509.0	µg/L	9509.0	ppb	04:19:01
1	Mo 202.031†	87023.1	88354.8	10039	µg/L	10039	ppb	04:19:01
1	Ni 231.604†	182325.3	184779.7	10002	µg/L	10002	ppb	04:19:01
1	P 214.914†	8543.7	8462.5	15984	µg/L	15984	ppb	04:19:07
1	Pb 220.353†	99679.0	101151.5	25601	µg/L	25601	ppb	04:19:01
1	S 181.975 Axial†	10105.9	10234.7	51850	µg/L	51850	ppb	04:19:07
1	Sb 206.836†	10161.0	10293.6	10288	µg/L	10288	ppb	04:19:07
1	Se 196.026†	6960.7	7054.8	9966.4	µg/L	9966.4	ppb	04:19:07
1	SiO2†	525640.9	531550.7	102160	µg/L	102160	ppb	04:19:01
1	Si 251.611†	608185.6	617105.9	46543	µg/L	46543	ppb	04:19:01
1	Sn 189.927†	21833.4	22145.0	10872	µg/L	10872	ppb	04:19:07
1	Ti 334.940†	4431857.0	4498737.6	9864.1	µg/L	9864.1	ppb	04:18:51
1	Tl 190.801†	6395.1	6516.5	9738.0	µg/L	9738.0	ppb	04:19:07
1	U 409.014†	2057.2	1152.1	110.86	µg/L	110.86	ppb	04:19:01
1	V 292.402†	897117.1	910930.6	10415	µg/L	10415	ppb	04:19:01
1	Zn 213.857†	562163.9	570163.3	15253	µg/L	15253	ppb	04:19:01
2	Sc RADIAL	123958.3	123958.3	99.3	%			04:17:42
2	Al 396.153Radial†	1052.0	851.6	29.958	µg/L	29.958	ppb	04:17:42
2	Ca 317.933Radial†	993.6	556.1	202.85	µg/L	202.85	ppb	04:18:02
2	Fe 238.204 Radial†	15.7	7.6	366.57	µg/L	366.57	ppb	04:18:02
2	K 766.490 Radial†	563868.8	566797.5	302740	µg/L	302740	ppb	04:17:36
2	Mg 279.077 IEC†	-28.5	-44.3	16.268	µg/L	16.268	ppb	04:18:02
2	Na 589.592 Radial†	17.4	763.0	197.74	µg/L	197.74	ppb	04:17:42
2	Sr 421.552†	1833213.5	1845552.0	9844.9	µg/L	9844.9	ppb	04:17:36
2	Sc 361.383	2137492.1	2137492.1	98.027	%			04:19:26
2	Y 371.029	1282208.1	1282208.1	96.704	%			04:19:26
2	Ag 328.068†	-7260.0	-7486.9	3.5804	µg/L	3.5804	ppb	04:19:26
2	As 188.979†	5275.1	5380.2	10140	µg/L	10140	ppb	04:19:32
2	B 249.677†	113594.7	115714.6	5080.8	µg/L	5080.8	ppb	04:19:26
2	Ba 233.527†	555869.2	567143.6	14294	µg/L	14294	ppb	04:19:26
2	Be 313.107†	4767307.6	4859610.1	2967.8	µg/L	2967.8	ppb	04:19:16
2	Cd 226.502†	380489.7	388257.2	10109	µg/L	10109	ppb	04:19:26
2	Co 228.616†	202433.6	206583.4	9928.8	µg/L	9928.8	ppb	04:19:26
2	Cr 267.716†	1178543.2	1202397.6	25246	µg/L	25246	ppb	04:19:26
2	Cu 324.752†	2914064.5	2969308.2	20629	µg/L	20629	ppb	04:19:26
2	Mn 257.610†	2998590.0	3059159.8	9575.0	µg/L	9575.0	ppb	04:19:26
2	Mo 202.031†	87202.9	88959.0	10108	µg/L	10108	ppb	04:19:26
2	Ni 231.604†	182833.5	186179.7	10078	µg/L	10078	ppb	04:19:26
2	P 214.914†	8502.0	8461.2	15965	µg/L	15965	ppb	04:19:32
2	Pb 220.353†	100083.2	102045.9	25828	µg/L	25828	ppb	04:19:26

2	S 181.975 Axial†	10058.0	10234.7	51849 µg/L	51849	ppb	04:19:32
2	Sb 206.836†	10048.0	10227.4	10221 µg/L	10221	ppb	04:19:32
2	Se 196.026†	6928.0	7055.0	9966.7 µg/L	9966.7	ppb	04:19:32
2	SiO2†	526400.7	534867.5	102800 µg/L	102800	ppb	04:19:26
2	Si 251.611†	609289.1	621172.5	46852 µg/L	46852	ppb	04:19:26
2	Sn 189.927†	21576.7	21988.7	10795 µg/L	10795	ppb	04:19:32
2	Ti 334.940†	4472198.2	4561320.3	10001 µg/L	10001	ppb	04:19:16
2	Tl 190.801†	6383.5	6535.5	9767.2 µg/L	9767.2	ppb	04:19:32
2	U 409.014†	2034.0	1138.4	109.54 µg/L	109.54	ppb	04:19:26
2	V 292.402†	899156.8	917349.2	10488 µg/L	10488	ppb	04:19:26
2	Zn 213.857†	563403.1	574145.6	15360 µg/L	15360	ppb	04:19:26
3	Sc RADIAL	126129.6	126129.6	101 %			04:18:13
3	Al 396.153Radial†	1052.1	833.5	63.230 µg/L	63.230	ppb	04:18:13
3	Ca 317.933Radial†	897.3	443.6	161.82 µg/L	161.82	ppb	04:18:34
3	Fe 238.204 Radial†	9.7	1.3	298.70 µg/L	298.70	ppb	04:18:34
3	K 766.490 Radial†	549237.4	542550.4	289790 µg/L	289790	ppb	04:18:08
3	Mg 279.077 IEC†	-29.7	-45.1	-15.307 µg/L	-15.307	ppb	04:18:34
3	Na 589.592 Radial†	12.0	757.3	196.27 µg/L	196.27	ppb	04:18:13
3	Sr 421.552†	1789283.8	1770321.6	9443.6 µg/L	9443.6	ppb	04:18:08
3	Sc 361.383	2097471.5	2097471.5	96.192 %			04:19:51
3	Y 371.029	1259437.5	1259437.5	94.986 %			04:19:51
3	Ag 328.068†	-6385.5	-6719.0	2.5150 µg/L	2.5150	ppb	04:19:51
3	As 188.979†	4604.6	4785.9	9021.6 µg/L	9021.6	ppb	04:19:57
3	B 249.677†	103672.7	107610.9	4725.0 µg/L	4725.0	ppb	04:19:51
3	Ba 233.527†	492092.8	511662.0	12895 µg/L	12895	ppb	04:19:51
3	Be 313.107†	4484131.1	4658015.4	2844.7 µg/L	2844.7	ppb	04:19:41
3	Cd 226.502†	334736.0	348098.1	9063.6 µg/L	9063.6	ppb	04:19:51
3	Co 228.616†	176665.8	183735.7	8829.3 µg/L	8829.3	ppb	04:19:51
3	Cr 267.716†	1003793.3	1043669.1	21914 µg/L	21914	ppb	04:19:51
3	Cu 324.752†	2553190.6	2650867.9	18417 µg/L	18417	ppb	04:19:51
3	Mn 257.610†	2622631.0	2726682.3	8534.4 µg/L	8534.4	ppb	04:19:51
3	Mo 202.031†	76205.7	79223.7	9001.5 µg/L	9001.5	ppb	04:19:51
3	Ni 231.604†	159396.7	165373.8	8951.6 µg/L	8951.6	ppb	04:19:51
3	P 214.914†	7223.7	7297.8	13690 µg/L	13690	ppb	04:19:57
3	Pb 220.353†	89357.8	92843.9	23499 µg/L	23499	ppb	04:19:51
3	S 181.975 Axial†	8844.3	9168.7	46449 µg/L	46449	ppb	04:19:57
3	Sb 206.836†	8738.1	9061.3	9060.2 µg/L	9060.2	ppb	04:19:57
3	Se 196.026†	6060.7	6288.3	8883.5 µg/L	8883.5	ppb	04:19:57
3	SiO2†	472863.8	489457.2	94072 µg/L	94072	ppb	04:19:51
3	Si 251.611†	546779.0	568047.0	42856 µg/L	42856	ppb	04:19:51
3	Sn 189.927†	17963.5	18652.5	9157.5 µg/L	9157.5	ppb	04:19:57
3	Ti 334.940†	4211479.7	4377328.6	9597.9 µg/L	9597.9	ppb	04:19:41
3	Tl 190.801†	5810.7	6064.3	9065.8 µg/L	9065.8	ppb	04:19:57
3	U 409.014†	1944.8	1085.2	104.43 µg/L	104.43	ppb	04:19:51
3	V 292.402†	783215.2	814319.1	9310.3 µg/L	9310.3	ppb	04:19:51
3	Zn 213.857†	494842.4	513836.9	13747 µg/L	13747	ppb	04:19:51

Mean Data: LR2

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2127545.2	97.571	%	1.2170				1.25%
Sc RADIAL	125141.5	100	%	0.9				0.88%
Y 371.029	1276395.1	96.265	%	1.1257				1.17%
Ag 328.068†	-7246.7	2.9162	µg/L	0.57933	2.9162	ppb	0.57933	19.87%
Al 396.153Radial†	877.4	57.420	µg/L	25.0681	57.420	ppb	25.0681	43.66%
As 188.979†	5187.0	9776.3	µg/L	653.72	9776.3	ppb	653.72	6.69%
QC value within limits for As 188.979 Recovery = 97.76%								
B 249.677†	112819.6	4953.7	µg/L	198.47	4953.7	ppb	198.47	4.01%
QC value within limits for B 249.677 Recovery = 99.07%								
Ba 233.527†	547272.8	13793	µg/L	779.2	13793	ppb	779.2	5.65%
QC value within limits for Ba 233.527 Recovery = 91.95%								
Be 313.107†	4767304.9	2911.4	µg/L	62.21	2911.4	ppb	62.21	2.14%
QC value within limits for Be 313.107 Recovery = 97.05%								
Ca 317.933Radial†	519.2	189.39	µg/L	23.885	189.39	ppb	23.885	12.61%
Cd 226.502†	373998.7	9738.0	µg/L	585.08	9738.0	ppb	585.08	6.01%
QC value within limits for Cd 226.502 Recovery = 97.38%								
Co 228.616†	198483.5	9539.1	µg/L	615.71	9539.1	ppb	615.71	6.45%
QC value within limits for Co 228.616 Recovery = 95.39%								
Cr 267.716†	1146507.1	24073	µg/L	1872.0	24073	ppb	1872.0	7.78%
QC value within limits for Cr 267.716 Recovery = 96.29%								

Cu 324.752†	2857424.5	19852 µg/L	1244.2	19852 ppb	1244.2	6.27%
QC value within limits for Cu 324.752 Recovery = 99.26%						
Fe 238.204 Radial†	5.9	345.45 µg/L	40.551	345.45 ppb	40.551	11.74%
K 766.490 Radial†	556707.6	297350 µg/L	6743.2	297350 ppb	6743.2	2.27%
QC value within limits for K 766.490 Radial Recovery = 99.12%						
Mg 279.077 IEC†	-41.0	24.286 µg/L	44.1510	24.286 ppb	44.1510	181.80%
Mn 257.610†	2941301.7	9206.1 µg/L	582.69	9206.1 ppb	582.69	6.33%
QC value within limits for Mn 257.610 Recovery = 92.06%						
Mo 202.031†	85512.5	9716.1 µg/L	619.77	9716.1 ppb	619.77	6.38%
QC value within limits for Mo 202.031 Recovery = 97.16%						
Na 589.592 Radial†	785.4	203.55 µg/L	11.363	203.55 ppb	11.363	5.58%
Ni 231.604†	178777.7	9677.2 µg/L	629.48	9677.2 ppb	629.48	6.50%
QC value within limits for Ni 231.604 Recovery = 96.77%						
P 214.914†	8073.8	15213 µg/L	1319.1	15213 ppb	1319.1	8.67%
QC value within limits for P 214.914 Recovery = 101.42%						
Pb 220.353†	98680.4	24976 µg/L	1284.4	24976 ppb	1284.4	5.14%
QC value within limits for Pb 220.353 Recovery = 99.90%						
S 181.975 Axial†	9879.4	50049 µg/L	3117.8	50049 ppb	3117.8	6.23%
QC value within limits for S 181.975 Axial Recovery = 100.10%						
Sb 206.836†	9860.7	9856.3 µg/L	690.27	9856.3 ppb	690.27	7.00%
QC value within limits for Sb 206.836 Recovery = 98.56%						
Se 196.026†	6799.3	9605.5 µg/L	625.26	9605.5 ppb	625.26	6.51%
QC value within limits for Se 196.026 Recovery = 96.06%						
SiO2†	518625.1	99678 µg/L	4865.4	99678 ppb	4865.4	4.88%
QC value within limits for SiO2 Recovery = 93.16%						
Si 251.611†	602108.4	45417 µg/L	2223.5	45417 ppb	2223.5	4.90%
QC value within limits for Si 251.611 Recovery = 90.83%						
Sn 189.927†	20928.8	10275 µg/L	968.6	10275 ppb	968.6	9.43%
QC value within limits for Sn 189.927 Recovery = 102.75%						
Sr 421.552†	1813392.0	9673.4 µg/L	206.89	9673.4 ppb	206.89	2.14%
QC value within limits for Sr 421.552 Recovery = 96.73%						
Ti 334.940†	4479128.8	9821.2 µg/L	205.12	9821.2 ppb	205.12	2.09%
QC value within limits for Ti 334.940 Recovery = 98.21%						
Tl 190.801†	6372.1	9523.7 µg/L	396.78	9523.7 ppb	396.78	4.17%
QC value within limits for Tl 190.801 Recovery = 95.24%						
U 409.014†	1125.3	108.28 µg/L	3.395	108.28 ppb	3.395	3.14%
V 292.402†	880866.3	10071 µg/L	659.8	10071 ppb	659.8	6.55%
QC value within limits for V 292.402 Recovery = 100.71%						
Zn 213.857†	552715.3	14786 µg/L	902.1	14786 ppb	902.1	6.10%
QC value within limits for Zn 213.857 Recovery = 98.58%						

All analyte(s) passed QC.

Sequence No.: 13
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 12/19/2009 04:20:05
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	123596.3	123596.3	99.0	%			04:20:43
1	Al 396.153Radial†	10988.2	10886.5	5277.4	µg/L	5277.4	ppb	04:20:43
1	Ca 317.933Radial†	14868.0	14566.9	5313.8	µg/L	5313.8	ppb	04:20:43
1	Fe 238.204 Radial†	1064.9	1066.9	5383.2	µg/L	5383.2	ppb	04:21:03
1	K 766.490 Radial†	10673.8	9944.0	5311.3	µg/L	5311.3	ppb	04:20:43
1	Mg 279.077 IEC†	1029.5	1023.7	5457.5	µg/L	5457.5	ppb	04:21:03
1	Na 589.592 Radial†	39417.0	40541.5	10507	µg/L	10507	ppb	04:20:43
1	Sr 421.552†	96331.3	97368.3	519.40	µg/L	519.40	ppb	04:20:43
1	Sc 361.383	2194211.3	2194211.3	100.63	%			04:22:07
1	Y 371.029	1329360.9	1329360.9	100.26	%			04:22:07
1	Ag 328.068†	57074.4	56637.3	516.91	µg/L	516.91	ppb	04:22:13
1	As 188.979†	289.4	286.6	538.48	µg/L	538.48	ppb	04:22:33
1	B 249.677†	12031.3	11789.9	515.98	µg/L	515.98	ppb	04:22:13
1	Ba 233.527†	20771.7	20729.2	522.75	µg/L	522.75	ppb	04:22:13
1	Be 313.107†	846935.6	838005.0	512.23	µg/L	512.23	ppb	04:22:07
1	Cd 226.502†	20196.7	20180.5	525.40	µg/L	525.40	ppb	04:22:13
1	Co 228.616†	10885.8	10893.5	523.57	µg/L	523.57	ppb	04:22:13
1	Cr 267.716†	25072.0	25051.0	526.70	µg/L	526.70	ppb	04:22:13
1	Cu 324.752†	76778.6	72895.7	507.59	µg/L	507.59	ppb	04:22:13
1	Mn 257.610†	164301.4	163497.0	512.41	µg/L	512.41	ppb	04:22:07
1	Mo 202.031†	4584.5	4556.9	517.97	µg/L	517.97	ppb	04:22:33
1	Ni 231.604†	10046.9	9650.7	522.39	µg/L	522.39	ppb	04:22:13
1	P 214.914†	1437.8	1216.9	2571.9	µg/L	2571.9	ppb	04:22:33
1	Pb 220.353†	2168.8	2103.6	533.19	µg/L	533.19	ppb	04:22:33
1	S 181.975 Axial†	239.6	212.4	1074.2	µg/L	1074.2	ppb	04:22:33
1	Sb 206.836†	549.3	523.1	526.15	µg/L	526.15	ppb	04:22:33
1	Se 196.026†	389.2	374.3	531.08	µg/L	531.08	ppb	04:22:33
1	SiO2†	31139.9	28818.1	5538.7	µg/L	5538.7	ppb	04:22:13
1	Si 251.611†	34212.2	33619.5	2543.6	µg/L	2543.6	ppb	04:22:13
1	Sn 189.927†	1109.8	1080.7	533.45	µg/L	533.45	ppb	04:22:33
1	Ti 334.940†	234697.9	232349.0	509.16	µg/L	509.16	ppb	04:22:07
1	Tl 190.801†	332.3	353.8	527.87	µg/L	527.87	ppb	04:22:33
1	U 409.014†	6403.4	5426.9	521.35	µg/L	521.35	ppb	04:22:13
1	V 292.402†	46090.3	45898.9	526.12	µg/L	526.12	ppb	04:22:13
1	Zn 213.857†	20510.4	19786.1	527.98	µg/L	527.98	ppb	04:22:13
2	Sc RADIAL	125246.9	125246.9	100	%			04:21:09
2	Al 396.153Radial†	11095.6	10847.2	5258.5	µg/L	5258.5	ppb	04:21:09
2	Ca 317.933Radial†	15095.2	14595.5	5324.2	µg/L	5324.2	ppb	04:21:09
2	Fe 238.204 Radial†	1052.3	1040.1	5248.8	µg/L	5248.8	ppb	04:21:29
2	K 766.490 Radial†	10772.6	9900.4	5288.0	µg/L	5288.0	ppb	04:21:09
2	Mg 279.077 IEC†	1030.8	1011.4	5391.7	µg/L	5391.7	ppb	04:21:29
2	Na 589.592 Radial†	39820.1	40418.8	10475	µg/L	10475	ppb	04:21:09
2	Sr 421.552†	97494.5	97245.5	518.75	µg/L	518.75	ppb	04:21:09
2	Sc 361.383	2202617.1	2202617.1	101.01	%			04:22:40
2	Y 371.029	1332273.3	1332273.3	100.48	%			04:22:40
2	Ag 328.068†	57087.2	56433.5	515.03	µg/L	515.03	ppb	04:22:46
2	As 188.979†	284.4	280.5	526.99	µg/L	526.99	ppb	04:23:07
2	B 249.677†	12042.1	11755.0	514.49	µg/L	514.49	ppb	04:22:46
2	Ba 233.527†	20762.9	20641.8	520.54	µg/L	520.54	ppb	04:22:46
2	Be 313.107†	849636.8	837467.1	511.90	µg/L	511.90	ppb	04:22:40
2	Cd 226.502†	20209.7	20116.8	523.75	µg/L	523.75	ppb	04:22:46
2	Co 228.616†	10888.2	10854.6	521.69	µg/L	521.69	ppb	04:22:46
2	Cr 267.716†	25013.6	24898.1	523.48	µg/L	523.48	ppb	04:22:46
2	Cu 324.752†	76572.4	72400.4	504.12	µg/L	504.12	ppb	04:22:46
2	Mn 257.610†	164824.5	163391.7	512.07	µg/L	512.07	ppb	04:22:40
2	Mo 202.031†	4561.2	4516.5	513.37	µg/L	513.37	ppb	04:23:07
2	Ni 231.604†	10038.0	9603.8	519.85	µg/L	519.85	ppb	04:22:46
2	P 214.914†	1429.5	1203.2	2542.8	µg/L	2542.8	ppb	04:23:07
2	Pb 220.353†	2152.3	2079.1	526.98	µg/L	526.98	ppb	04:23:07

2	S 181.975 Axial†	237.0	208.9	1056.7 µg/L	1056.7 ppb	04:23:07
2	Sb 206.836†	547.7	519.5	522.51 µg/L	522.51 ppb	04:23:07
2	Se 196.026†	382.9	366.6	520.13 µg/L	520.13 ppb	04:23:07
2	SiO2†	31114.5	28674.9	5511.2 µg/L	5511.2 ppb	04:22:46
2	Si 251.611†	34097.1	33375.9	2525.3 µg/L	2525.3 ppb	04:22:46
2	Sn 189.927†	1093.4	1060.2	523.39 µg/L	523.39 ppb	04:23:07
2	Ti 334.940†	235256.9	232012.4	508.42 µg/L	508.42 ppb	04:22:40
2	Tl 190.801†	327.1	347.4	518.36 µg/L	518.36 ppb	04:23:07
2	U 409.014†	6307.7	5307.9	509.92 µg/L	509.92 ppb	04:22:46
2	V 292.402†	45964.9	45600.0	522.66 µg/L	522.66 ppb	04:22:46
2	Zn 213.857†	20478.1	19676.3	525.07 µg/L	525.07 ppb	04:22:46
3	Sc RADIAL	127177.0	127177.0	102 %		04:21:35
3	Al 396.153Radial†	10696.9	10288.3	4989.4 µg/L	4989.4 ppb	04:21:35
3	Ca 317.933Radial†	14568.2	13850.1	5052.4 µg/L	5052.4 ppb	04:21:35
3	Fe 238.204 Radial†	1050.2	1022.2	5157.0 µg/L	5157.0 ppb	04:21:55
3	K 766.490 Radial†	10599.3	9567.4	5110.2 µg/L	5110.2 ppb	04:21:35
3	Mg 279.077 IEC†	1029.3	994.3	5299.2 µg/L	5299.2 ppb	04:21:55
3	Na 589.592 Radial†	38623.1	38642.1	10015 µg/L	10015 ppb	04:21:35
3	Sr 421.552†	94378.0	92713.5	494.57 µg/L	494.57 ppb	04:21:35
3	Sc 361.383	2185340.4	2185340.4	100.22 %		04:23:14
3	Y 371.029	1322463.6	1322463.6	99.740 %		04:23:14
3	Ag 328.068†	54074.3	53874.0	491.56 µg/L	491.56 ppb	04:23:19
3	As 188.979†	242.0	240.4	451.67 µg/L	451.67 ppb	04:23:40
3	B 249.677†	11328.3	11137.0	487.39 µg/L	487.39 ppb	04:23:19
3	Ba 233.527†	19180.2	19225.1	484.80 µg/L	484.80 ppb	04:23:19
3	Be 313.107†	807127.9	801701.8	490.04 µg/L	490.04 ppb	04:23:14
3	Cd 226.502†	18576.5	18645.4	485.41 µg/L	485.41 ppb	04:23:19
3	Co 228.616†	9973.6	10027.3	481.81 µg/L	481.81 ppb	04:23:19
3	Cr 267.716†	22403.9	22490.0	472.87 µg/L	472.87 ppb	04:23:19
3	Cu 324.752†	70719.0	67159.3	467.69 µg/L	467.69 ppb	04:23:19
3	Mn 257.610†	156980.1	156854.7	491.59 µg/L	491.59 ppb	04:23:14
3	Mo 202.031†	3871.7	3864.2	439.26 µg/L	439.26 ppb	04:23:40
3	Ni 231.604†	9244.8	8890.9	481.26 µg/L	481.26 ppb	04:23:19
3	P 214.914†	1274.5	1059.8	2236.0 µg/L	2236.0 ppb	04:23:40
3	Pb 220.353†	1890.6	1834.8	465.00 µg/L	465.00 ppb	04:23:40
3	S 181.975 Axial†	210.1	183.9	930.13 µg/L	930.13 ppb	04:23:40
3	Sb 206.836†	478.7	454.8	457.59 µg/L	457.59 ppb	04:23:40
3	Se 196.026†	352.1	338.9	480.94 µg/L	480.94 ppb	04:23:40
3	SiO2†	29200.9	27009.1	5191.0 µg/L	5191.0 ppb	04:23:19
3	Si 251.611†	31853.2	31403.8	2378.3 µg/L	2378.3 ppb	04:23:19
3	Sn 189.927†	930.2	906.0	447.59 µg/L	447.59 ppb	04:23:40
3	Ti 334.940†	222387.2	221012.3	484.32 µg/L	484.32 ppb	04:23:14
3	Tl 190.801†	301.1	324.0	483.61 µg/L	483.61 ppb	04:23:40
3	U 409.014†	5818.2	4868.8	467.68 µg/L	467.68 ppb	04:23:19
3	V 292.402†	41888.0	41891.8	479.96 µg/L	479.96 ppb	04:23:19
3	Zn 213.857†	18826.3	18188.4	485.31 µg/L	485.31 ppb	04:23:19

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2194056.3	100.62	%	0.396				0.39%
Sc RADIAL	125340.1	100	%	1.4				1.43%
Y 371.029	1328032.6	100.16	%	0.380				0.38%
Ag 328.068†	55648.3	507.83	µg/L	14.127	507.83	ppb	14.127	2.78%
QC value within limits for Ag 328.068 Recovery = 101.57%								
Al 396.153Radial†	10674.0	5175.1	µg/L	161.13	5175.1	ppb	161.13	3.11%
QC value within limits for Al 396.153Radial Recovery = 103.50%								
As 188.979†	269.1	505.71	µg/L	47.153	505.71	ppb	47.153	9.32%
QC value within limits for As 188.979 Recovery = 101.14%								
B 249.677†	11560.6	505.95	µg/L	16.098	505.95	ppb	16.098	3.18%
QC value within limits for B 249.677 Recovery = 101.19%								
Ba 233.527†	20198.7	509.36	µg/L	21.300	509.36	ppb	21.300	4.18%
QC value within limits for Ba 233.527 Recovery = 101.87%								
Be 313.107†	825724.6	504.72	µg/L	12.717	504.72	ppb	12.717	2.52%
QC value within limits for Be 313.107 Recovery = 100.94%								
Ca 317.933Radial†	14337.5	5230.1	µg/L	154.05	5230.1	ppb	154.05	2.95%
QC value within limits for Ca 317.933Radial Recovery = 104.60%								
Cd 226.502†	19647.6	511.52	µg/L	22.627	511.52	ppb	22.627	4.42%
QC value within limits for Cd 226.502 Recovery = 102.30%								
Co 228.616†	10591.8	509.02	µg/L	23.584	509.02	ppb	23.584	4.63%

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   QC value within limits for Co 228.616  Recovery = 101.80%
Cr 267.716†            24146.4      507.68 µg/L        30.192      507.68 ppb         30.192   5.95%
   QC value within limits for Cr 267.716  Recovery = 101.54%
Cu 324.752†            70818.5      493.13 µg/L        22.104      493.13 ppb         22.104   4.48%
   QC value within limits for Cu 324.752  Recovery = 98.63%
Fe 238.204 Radial†      1043.0      5263.0 µg/L        113.77      5263.0 ppb         113.77   2.16%
   QC value within limits for Fe 238.204 Radial  Recovery = 105.26%
K 766.490 Radial†       9803.9      5236.5 µg/L        110.01      5236.5 ppb         110.01   2.10%
   QC value within limits for K 766.490 Radial  Recovery = 104.73%
Mg 279.077 IEC†         1009.8      5382.8 µg/L         79.53      5382.8 ppb          79.53   1.48%
   QC value within limits for Mg 279.077 IEC  Recovery = 107.66%
Mn 257.610†           161247.8      505.36 µg/L        11.921      505.36 ppb         11.921   2.36%
   QC value within limits for Mn 257.610  Recovery = 101.07%
Mo 202.031†             4312.5      490.20 µg/L        44.176      490.20 ppb         44.176   9.01%
   QC value within limits for Mo 202.031  Recovery = 98.04%
Na 589.592 Radial†     39867.5       10332 µg/L         275.5       10332 ppb          275.5   2.67%
   QC value within limits for Na 589.592 Radial  Recovery = 103.32%
Ni 231.604†             9381.8      507.83 µg/L        23.048      507.83 ppb         23.048   4.54%
   QC value within limits for Ni 231.604  Recovery = 101.57%
P 214.914†              1160.0      2450.2 µg/L        186.09      2450.2 ppb         186.09   7.59%
   QC value within limits for P 214.914  Recovery = 98.01%
Pb 220.353†             2005.8      508.39 µg/L        37.704      508.39 ppb         37.704   7.42%
   QC value within limits for Pb 220.353  Recovery = 101.68%
S 181.975 Axial†         201.7      1020.4 µg/L         78.63      1020.4 ppb          78.63   7.71%
   QC value within limits for S 181.975 Axial  Recovery = 102.04%
Sb 206.836†              499.1      502.08 µg/L        38.577      502.08 ppb         38.577   7.68%
   QC value within limits for Sb 206.836  Recovery = 100.42%
Se 196.026†              360.0      510.72 µg/L        26.362      510.72 ppb         26.362   5.16%
   QC value within limits for Se 196.026  Recovery = 102.14%
SiO2†                  28167.4      5413.6 µg/L        193.28      5413.6 ppb         193.28   3.57%
   QC value within limits for SiO2  Recovery = 101.24%
Si 251.611†            32799.8      2482.4 µg/L         90.61      2482.4 ppb          90.61   3.65%
   QC value within limits for Si 251.611  Recovery = 99.30%
Sn 189.927†             1015.6      501.47 µg/L        46.938      501.47 ppb         46.938   9.36%
   QC value within limits for Sn 189.927  Recovery = 100.29%
Sr 421.552†            95775.8      510.91 µg/L        14.151      510.91 ppb         14.151   2.77%
   QC value within limits for Sr 421.552  Recovery = 102.18%
Ti 334.940†           228457.9      500.63 µg/L        14.135      500.63 ppb         14.135   2.82%
   QC value within limits for Ti 334.940  Recovery = 100.13%
Tl 190.801†              341.7      509.95 µg/L        23.296      509.95 ppb         23.296   4.57%
   QC value within limits for Tl 190.801  Recovery = 101.99%
U 409.014†              5201.2      499.65 µg/L        28.272      499.65 ppb         28.272   5.66%
   QC value within limits for U 409.014  Recovery = 99.93%
V 292.402†             44463.6      509.58 µg/L        25.710      509.58 ppb         25.710   5.05%
   QC value within limits for V 292.402  Recovery = 101.92%
Zn 213.857†            19217.0      512.79 µg/L        23.837      512.79 ppb         23.837   4.65%
   QC value within limits for Zn 213.857  Recovery = 102.56%
All analyte(s) passed QC.
```

Sequence No.: 14
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 12/19/2009 04:23:49
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	125483.4	125483.4	101	%			04:24:22
1	Al 396.153Radial†	244.0	35.2	17.078	µg/L	17.078	ppb	04:24:22
1	Ca 317.933Radial†	553.5	106.3	38.788	µg/L	38.788	ppb	04:24:42
1	Fe 238.204 Radial†	14.9	6.6	33.269	µg/L	33.269	ppb	04:24:42
1	K 766.490 Radial†	942.2	104.5	55.821	µg/L	55.821	ppb	04:24:22
1	Mg 279.077 IEC†	30.4	14.5	77.438	µg/L	77.438	ppb	04:24:42
1	Na 589.592 Radial†	-566.8	181.8	47.106	µg/L	47.106	ppb	04:24:22
1	Sr 421.552†	158.1	267.7	1.4283	µg/L	1.4283	ppb	04:24:22
1	Sc 361.383	2173388.1	2173388.1	99.673	%			04:25:44
1	Y 371.029	1321951.7	1321951.7	99.701	%			04:25:44
1	Ag 328.068†	68.5	-12.0	-0.0952	µg/L	-0.0952	ppb	04:25:50
1	As 188.979†	2.9	1.8	3.4175	µg/L	3.4175	ppb	04:26:10
1	B 249.677†	243.1	77.7	3.4009	µg/L	3.4009	ppb	04:25:50
1	Ba 233.527†	26.9	114.2	2.8774	µg/L	2.8774	ppb	04:26:10
1	Be 313.107†	4550.4	923.1	0.5637	µg/L	0.5637	ppb	04:25:50
1	Cd 226.502†	-20.6	89.3	2.3211	µg/L	2.3211	ppb	04:26:10
1	Co 228.616†	-41.5	34.1	1.6377	µg/L	1.6377	ppb	04:26:10
1	Cr 267.716†	74.2	210.0	4.4091	µg/L	4.4091	ppb	04:25:50
1	Cu 324.752†	3865.4	474.6	3.3043	µg/L	3.3043	ppb	04:25:50
1	Mn 257.610†	367.5	590.2	1.8514	µg/L	1.8514	ppb	04:26:10
1	Mo 202.031†	10.5	11.6	1.3239	µg/L	1.3239	ppb	04:26:10
1	Ni 231.604†	380.9	48.7	2.6388	µg/L	2.6388	ppb	04:26:10
1	P 214.914†	212.7	1.5	2.8544	µg/L	2.8544	ppb	04:26:10
1	Pb 220.353†	73.0	21.6	5.4742	µg/L	5.4742	ppb	04:26:10
1	S 181.975 Axial†	27.5	1.9	9.6487	µg/L	9.6487	ppb	04:26:10
1	Sb 206.836†	29.1	6.4	6.4578	µg/L	6.4578	ppb	04:26:10
1	Se 196.026†	12.5	0.2	0.2252	µg/L	0.2252	ppb	04:26:10
1	SiO2†	2244.8	124.8	23.986	µg/L	23.986	ppb	04:25:50
1	Si 251.611†	531.7	154.5	11.649	µg/L	11.649	ppb	04:26:10
1	Sn 189.927†	30.0	7.9	3.9025	µg/L	3.9025	ppb	04:26:10
1	Ti 334.940†	1797.7	920.2	2.0155	µg/L	2.0155	ppb	04:25:50
1	Tl 190.801†	-21.3	2.2	3.2703	µg/L	3.2703	ppb	04:26:10
1	U 409.014†	925.5	-8.0	-0.7721	µg/L	-0.7721	ppb	04:25:50
1	V 292.402†	42.4	138.9	1.5886	µg/L	1.5886	ppb	04:25:50
1	Zn 213.857†	729.7	135.8	3.6292	µg/L	3.6292	ppb	04:26:10
2	Sc RADIAL	123249.7	123249.7	98.8	%			04:24:48
2	Al 396.153Radial†	250.1	45.8	22.208	µg/L	22.208	ppb	04:24:48
2	Ca 317.933Radial†	555.1	117.9	42.996	µg/L	42.996	ppb	04:25:08
2	Fe 238.204 Radial†	15.7	7.7	38.564	µg/L	38.564	ppb	04:25:08
2	K 766.490 Radial†	899.3	78.0	41.647	µg/L	41.647	ppb	04:24:48
2	Mg 279.077 IEC†	25.8	10.5	55.714	µg/L	55.714	ppb	04:25:08
2	Na 589.592 Radial†	-593.5	144.5	37.459	µg/L	37.459	ppb	04:24:48
2	Sr 421.552†	124.2	236.2	1.2600	µg/L	1.2600	ppb	04:24:48
2	Sc 361.383	2159137.1	2159137.1	99.020	%			04:26:16
2	Y 371.029	1313297.7	1313297.7	99.048	%			04:26:16
2	Ag 328.068†	94.7	14.9	0.1482	µg/L	0.1482	ppb	04:26:22
2	As 188.979†	5.3	4.3	8.0797	µg/L	8.0797	ppb	04:26:42
2	B 249.677†	234.6	70.7	3.0927	µg/L	3.0927	ppb	04:26:22
2	Ba 233.527†	25.5	113.0	2.8468	µg/L	2.8468	ppb	04:26:42
2	Be 313.107†	4520.1	922.6	0.5633	µg/L	0.5633	ppb	04:26:22
2	Cd 226.502†	-27.9	81.7	2.1181	µg/L	2.1181	ppb	04:26:42
2	Co 228.616†	-38.1	37.3	1.7897	µg/L	1.7897	ppb	04:26:42
2	Cr 267.716†	72.1	208.4	4.3759	µg/L	4.3759	ppb	04:26:22
2	Cu 324.752†	3902.7	537.9	3.7453	µg/L	3.7453	ppb	04:26:22
2	Mn 257.610†	350.1	575.1	1.8049	µg/L	1.8049	ppb	04:26:42
2	Mo 202.031†	16.9	18.1	2.0622	µg/L	2.0622	ppb	04:26:42
2	Ni 231.604†	360.0	30.1	1.6294	µg/L	1.6294	ppb	04:26:42
2	P 214.914†	213.0	3.2	6.3958	µg/L	6.3958	ppb	04:26:42
2	Pb 220.353†	74.0	23.1	5.8584	µg/L	5.8584	ppb	04:26:42

2	S 181.975 Axial†	27.8	2.3	11.695 µg/L	11.695 ppb	04:26:42
2	Sb 206.836†	29.7	7.2	7.2589 µg/L	7.2589 ppb	04:26:42
2	Se 196.026†	16.1	3.8	5.4447 µg/L	5.4447 ppb	04:26:42
2	SiO2†	2281.0	176.3	33.876 µg/L	33.876 ppb	04:26:22
2	Si 251.611†	534.3	160.6	12.158 µg/L	12.158 ppb	04:26:42
2	Sn 189.927†	26.7	4.8	2.3944 µg/L	2.3944 ppb	04:26:42
2	Ti 334.940†	1950.5	1086.4	2.3797 µg/L	2.3797 ppb	04:26:22
2	Tl 190.801†	-15.5	7.9	11.798 µg/L	11.798 ppb	04:26:42
2	U 409.014†	840.2	-88.0	-8.4777 µg/L	-8.4777 ppb	04:26:22
2	V 292.402†	36.8	133.6	1.5207 µg/L	1.5207 ppb	04:26:22
2	Zn 213.857†	712.1	122.9	3.2848 µg/L	3.2848 ppb	04:26:42
3	Sc RADIAL	122238.1	122238.1	98.0 %		04:25:14
3	Al 396.153Radial†	284.3	82.9	40.237 µg/L	40.237 ppb	04:25:14
3	Ca 317.933Radial†	570.1	137.9	50.299 µg/L	50.299 ppb	04:25:34
3	Fe 238.204 Radial†	18.0	10.1	50.878 µg/L	50.878 ppb	04:25:34
3	K 766.490 Radial†	902.8	89.2	47.619 µg/L	47.619 ppb	04:25:14
3	Mg 279.077 IEC†	28.4	13.3	70.747 µg/L	70.747 ppb	04:25:34
3	Na 589.592 Radial†	-577.7	155.7	40.357 µg/L	40.357 ppb	04:25:14
3	Sr 421.552†	227.3	342.6	1.8273 µg/L	1.8273 ppb	04:25:14
3	Sc 361.383	2156283.3	2156283.3	98.889 %		04:26:48
3	Y 371.029	1312130.6	1312130.6	98.960 %		04:26:48
3	Ag 328.068†	99.4	19.8	0.1918 µg/L	0.1918 ppb	04:26:54
3	As 188.979†	-2.2	-3.3	-6.2045 µg/L	-6.2045 ppb	04:27:14
3	B 249.677†	240.9	77.4	3.3824 µg/L	3.3824 ppb	04:26:54
3	Ba 233.527†	12.5	99.9	2.5157 µg/L	2.5157 ppb	04:27:14
3	Be 313.107†	4527.1	935.8	0.5715 µg/L	0.5715 ppb	04:26:54
3	Cd 226.502†	-31.9	77.7	2.0173 µg/L	2.0173 ppb	04:27:14
3	Co 228.616†	-39.6	35.7	1.7137 µg/L	1.7137 ppb	04:27:14
3	Cr 267.716†	47.7	183.8	3.8590 µg/L	3.8590 ppb	04:26:54
3	Cu 324.752†	3900.7	541.1	3.7701 µg/L	3.7701 ppb	04:26:54
3	Mn 257.610†	314.8	539.8	1.6960 µg/L	1.6960 ppb	04:27:14
3	Mo 202.031†	16.8	18.1	2.0581 µg/L	2.0581 ppb	04:27:14
3	Ni 231.604†	359.9	30.6	1.6539 µg/L	1.6539 ppb	04:27:14
3	P 214.914†	211.8	2.3	4.4368 µg/L	4.4368 ppb	04:27:14
3	Pb 220.353†	75.6	24.9	6.2988 µg/L	6.2988 ppb	04:27:14
3	S 181.975 Axial†	30.1	4.7	24.024 µg/L	24.024 ppb	04:27:14
3	Sb 206.836†	27.1	4.6	4.6278 µg/L	4.6278 ppb	04:27:14
3	Se 196.026†	17.8	5.6	7.9194 µg/L	7.9194 ppb	04:27:14
3	SiO2†	2232.1	129.9	24.957 µg/L	24.957 ppb	04:26:54
3	Si 251.611†	499.6	126.2	9.5563 µg/L	9.5563 ppb	04:27:14
3	Sn 189.927†	24.8	2.9	1.4637 µg/L	1.4637 ppb	04:27:14
3	Ti 334.940†	1763.0	899.4	1.9693 µg/L	1.9693 ppb	04:26:54
3	Tl 190.801†	-17.6	5.7	8.5294 µg/L	8.5294 ppb	04:27:14
3	U 409.014†	906.3	-20.0	-1.9319 µg/L	-1.9319 ppb	04:26:54
3	V 292.402†	16.0	112.6	1.2945 µg/L	1.2945 ppb	04:26:54
3	Zn 213.857†	715.3	127.1	3.3972 µg/L	3.3972 ppb	04:27:14

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2162936.2	99.194	%	0.4202				0.42%
Sc RADIAL	123657.1	99.1	%	1.33				1.34%
Y 371.029	1315793.3	99.237	%	0.4046				0.41%
Ag 328.068†	7.6	0.0816	µg/L	0.15467	0.0816	ppb	0.15467	189.51%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	54.6	26.507	µg/L	12.1634	26.507	ppb	12.1634	45.89%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	0.9	1.7642	µg/L	7.28419	1.7642	ppb	7.28419	412.89%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	75.3	3.2920	µg/L	0.17288	3.2920	ppb	0.17288	5.25%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	109.0	2.7467	µg/L	0.20059	2.7467	ppb	0.20059	7.30%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	927.2	0.5662	µg/L	0.00461	0.5662	ppb	0.00461	0.82%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	120.7	44.028	µg/L	5.8242	44.028	ppb	5.8242	13.23%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	82.9	2.1522	µg/L	0.15474	2.1522	ppb	0.15474	7.19%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	35.7	1.7137	µg/L	0.07604	1.7137	ppb	0.07604	4.44%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              200.8      4.2146 µg/L       0.30848      4.2146 ppb        0.30848   7.32%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              517.9      3.6066 µg/L       0.26208      3.6066 ppb        0.26208   7.27%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         8.1      40.903 µg/L        9.0346      40.903 ppb         9.0346  22.09%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         90.5      48.362 µg/L        7.1161      48.362 ppb         7.1161  14.71%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           12.8      67.966 µg/L       11.1258      67.966 ppb        11.1258  16.37%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              568.4      1.7841 µg/L       0.07976      1.7841 ppb        0.07976   4.47%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               16.0      1.8147 µg/L       0.42508      1.8147 ppb        0.42508  23.42%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       160.7      41.641 µg/L        4.9499      41.641 ppb         4.9499  11.89%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               36.5      1.9740 µg/L       0.57584      1.9740 ppb        0.57584  29.17%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 2.3      4.5623 µg/L       1.77405      4.5623 ppb        1.77405  38.88%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               23.2      5.8771 µg/L       0.41265      5.8771 ppb        0.41265   7.02%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           3.0      15.123 µg/L        7.7765      15.123 ppb         7.7765  51.42%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                6.1      6.1148 µg/L       1.34866      6.1148 ppb        1.34866  22.06%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                3.2      4.5298 µg/L       3.92782      4.5298 ppb        3.92782  86.71%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    143.6      27.606 µg/L        5.4516      27.606 ppb         5.4516  19.75%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†              147.1      11.121 µg/L        1.3790      11.121 ppb         1.3790  12.40%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                5.2      2.5869 µg/L       1.23073      2.5869 ppb        1.23073  47.58%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              282.2      1.5052 µg/L       0.29140      1.5052 ppb        0.29140  19.36%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              968.7      2.1215 µg/L       0.22482      2.1215 ppb        0.22482  10.60%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                5.3      7.8660 µg/L       4.30253      7.8660 ppb        4.30253  54.70%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -38.7     -3.7272 µg/L       4.15468     -3.7272 ppb        4.15468 111.47%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               128.4      1.4679 µg/L       0.15397      1.4679 ppb        0.15397  10.49%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              128.6      3.4371 µg/L       0.17566      3.4371 ppb        0.17566   5.11%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 6
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 12/19/2009 04:49:21
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	126121.6	126121.6	101	%			04:50:01
1	Al 396.153Radial†	11155.1	10829.5	5249.4	µg/L	5249.4	ppb	04:50:01
1	Ca 317.933Radial†	15225.1	14619.6	5333.0	µg/L	5333.0	ppb	04:50:01
1	Fe 238.204 Radial†	1053.6	1034.2	5219.1	µg/L	5219.1	ppb	04:50:21
1	K 766.490 Radial†	10650.8	9705.5	5183.9	µg/L	5183.9	ppb	04:50:01
1	Mg 279.077 IEC†	1019.3	992.8	5293.3	µg/L	5293.3	ppb	04:50:21
1	Na 589.592 Radial†	40355.3	40673.1	10541	µg/L	10541	ppb	04:50:01
1	Sr 421.552†	98180.5	97250.6	518.77	µg/L	518.77	ppb	04:50:01
1	Sc 361.383	2180810.8	2180810.8	100.01	%			04:51:25
1	Y 371.029	1319254.1	1319254.1	99.498	%			04:51:25
1	Ag 328.068†	57848.9	57760.2	527.10	µg/L	527.10	ppb	04:51:31
1	As 188.979†	292.8	291.7	548.12	µg/L	548.12	ppb	04:51:51
1	B 249.677†	12019.4	11851.5	518.74	µg/L	518.74	ppb	04:51:31
1	Ba 233.527†	20749.2	20833.6	525.39	µg/L	525.39	ppb	04:51:31
1	Be 313.107†	855342.3	851582.2	520.53	µg/L	520.53	ppb	04:51:25
1	Cd 226.502†	20235.2	20342.3	529.63	µg/L	529.63	ppb	04:51:31
1	Co 228.616†	10898.9	10973.1	527.40	µg/L	527.40	ppb	04:51:31
1	Cr 267.716†	25077.1	25209.3	530.03	µg/L	530.03	ppb	04:51:31
1	Cu 324.752†	77257.0	73842.9	514.13	µg/L	514.13	ppb	04:51:31
1	Mn 257.610†	165164.7	165363.4	518.23	µg/L	518.23	ppb	04:51:25
1	Mo 202.031†	4632.6	4633.0	526.61	µg/L	526.61	ppb	04:51:51
1	Ni 231.604†	10076.3	9741.5	527.30	µg/L	527.30	ppb	04:51:31
1	P 214.914†	1445.5	1233.4	2607.0	µg/L	2607.0	ppb	04:51:51
1	Pb 220.353†	2164.5	2112.6	535.48	µg/L	535.48	ppb	04:51:51
1	S 181.975 Axial†	238.9	213.2	1078.3	µg/L	1078.3	ppb	04:51:51
1	Sb 206.836†	549.2	526.4	529.51	µg/L	529.51	ppb	04:51:51
1	Se 196.026†	398.8	386.4	548.06	µg/L	548.06	ppb	04:51:51
1	SiO2†	31275.7	29144.1	5601.4	µg/L	5601.4	ppb	04:51:31
1	Si 251.611†	34326.2	33942.5	2568.0	µg/L	2568.0	ppb	04:51:31
1	Sn 189.927†	1115.3	1093.0	539.46	µg/L	539.46	ppb	04:51:51
1	Ti 334.940†	236336.6	235420.7	515.90	µg/L	515.90	ppb	04:51:25
1	Tl 190.801†	337.3	360.9	538.41	µg/L	538.41	ppb	04:51:51
1	U 409.014†	6397.8	5460.4	524.60	µg/L	524.60	ppb	04:51:31
1	V 292.402†	46268.7	46358.8	531.39	µg/L	531.39	ppb	04:51:31
1	Zn 213.857†	20493.1	19894.0	530.87	µg/L	530.87	ppb	04:51:31
2	Sc RADIAL	124383.5	124383.5	99.7	%			04:50:27
2	Al 396.153Radial†	11001.3	10829.4	5249.5	µg/L	5249.5	ppb	04:50:27
2	Ca 317.933Radial†	15051.1	14655.6	5346.2	µg/L	5346.2	ppb	04:50:27
2	Fe 238.204 Radial†	1060.3	1055.4	5325.8	µg/L	5325.8	ppb	04:50:47
2	K 766.490 Radial†	10595.0	9796.7	5232.6	µg/L	5232.6	ppb	04:50:27
2	Mg 279.077 IEC†	1025.8	1013.4	5402.7	µg/L	5402.7	ppb	04:50:47
2	Na 589.592 Radial†	39893.9	40768.2	10566	µg/L	10566	ppb	04:50:27
2	Sr 421.552†	96901.4	97324.7	519.17	µg/L	519.17	ppb	04:50:27
2	Sc 361.383	2186149.3	2186149.3	100.26	%			04:51:58
2	Y 371.029	1322253.4	1322253.4	99.724	%			04:51:58
2	Ag 328.068†	57690.3	57460.7	524.39	µg/L	524.39	ppb	04:52:04
2	As 188.979†	284.5	282.8	531.30	µg/L	531.30	ppb	04:52:25
2	B 249.677†	11986.6	11789.5	515.98	µg/L	515.98	ppb	04:52:04
2	Ba 233.527†	20717.2	20751.0	523.30	µg/L	523.30	ppb	04:52:04
2	Be 313.107†	858238.9	852382.9	521.02	µg/L	521.02	ppb	04:51:58
2	Cd 226.502†	20126.6	20184.6	525.52	µg/L	525.52	ppb	04:52:04
2	Co 228.616†	10885.7	10933.3	525.47	µg/L	525.47	ppb	04:52:04
2	Cr 267.716†	24977.6	25048.8	526.66	µg/L	526.66	ppb	04:52:04
2	Cu 324.752†	77132.7	73530.4	511.98	µg/L	511.98	ppb	04:52:04
2	Mn 257.610†	166052.9	165846.1	519.76	µg/L	519.76	ppb	04:51:58
2	Mo 202.031†	4598.7	4587.9	521.49	µg/L	521.49	ppb	04:52:25
2	Ni 231.604†	10052.3	9692.9	524.67	µg/L	524.67	ppb	04:52:04
2	P 214.914†	1442.6	1226.9	2593.0	µg/L	2593.0	ppb	04:52:25
2	Pb 220.353†	2138.2	2081.1	527.48	µg/L	527.48	ppb	04:52:25

2	S 181.975 Axial†	239.3	213.0	1077.3 µg/L	1077.3 ppb	04:52:25
2	Sb 206.836†	549.5	525.3	528.41 µg/L	528.41 ppb	04:52:25
2	Se 196.026†	402.8	389.3	552.22 µg/L	552.22 ppb	04:52:25
2	SiO2†	31260.4	29052.4	5583.8 µg/L	5583.8 ppb	04:52:04
2	Si 251.611†	34212.0	33744.8	2553.2 µg/L	2553.2 ppb	04:52:04
2	Sn 189.927†	1096.9	1071.9	529.13 µg/L	529.13 ppb	04:52:25
2	Ti 334.940†	236993.2	235498.5	516.07 µg/L	516.07 ppb	04:51:58
2	Tl 190.801†	334.0	356.7	532.19 µg/L	532.19 ppb	04:52:25
2	U 409.014†	6439.4	5486.3	527.07 µg/L	527.07 ppb	04:52:04
2	V 292.402†	46233.7	46210.8	529.69 µg/L	529.69 ppb	04:52:04
2	Zn 213.857†	20432.7	19783.7	527.91 µg/L	527.91 ppb	04:52:04
3	Sc RADIAL	124462.2	124462.2	99.7 %		04:50:53
3	Al 396.153Radial†	10968.5	10789.6	5233.2 µg/L	5233.2 ppb	04:50:53
3	Ca 317.933Radial†	14990.6	14585.4	5320.6 µg/L	5320.6 ppb	04:50:53
3	Fe 238.204 Radial†	1061.6	1056.1	5327.7 µg/L	5327.7 ppb	04:51:13
3	K 766.490 Radial†	10602.6	9797.6	5233.1 µg/L	5233.1 ppb	04:50:53
3	Mg 279.077 IEC†	1022.4	1009.4	5379.5 µg/L	5379.5 ppb	04:51:13
3	Na 589.592 Radial†	39738.9	40587.4	10519 µg/L	10519 ppb	04:50:53
3	Sr 421.552†	96597.8	96958.9	517.22 µg/L	517.22 ppb	04:50:53
3	Sc 361.383	2183538.4	2183538.4	100.14 %		04:52:32
3	Y 371.029	1320748.4	1320748.4	99.610 %		04:52:32
3	Ag 328.068†	55138.8	54981.6	501.64 µg/L	501.64 ppb	04:52:37
3	As 188.979†	246.4	245.1	460.38 µg/L	460.38 ppb	04:52:58
3	B 249.677†	11432.6	11250.6	492.32 µg/L	492.32 ppb	04:52:37
3	Ba 233.527†	19334.6	19395.0	489.09 µg/L	489.09 ppb	04:52:37
3	Be 313.107†	814109.3	809338.1	494.71 µg/L	494.71 ppb	04:52:32
3	Cd 226.502†	18794.6	18878.5	491.47 µg/L	491.47 ppb	04:52:37
3	Co 228.616†	10059.8	10121.6	486.34 µg/L	486.34 ppb	04:52:37
3	Cr 267.716†	22522.4	22626.8	475.75 µg/L	475.75 ppb	04:52:37
3	Cu 324.752†	71791.1	68288.1	475.57 µg/L	475.57 ppb	04:52:37
3	Mn 257.610†	157725.1	157727.8	494.35 µg/L	494.35 ppb	04:52:32
3	Mo 202.031†	3888.3	3883.9	441.51 µg/L	441.51 ppb	04:52:58
3	Ni 231.604†	9321.3	8975.0	485.81 µg/L	485.81 ppb	04:52:37
3	P 214.914†	1279.7	1066.0	2248.1 µg/L	2248.1 ppb	04:52:58
3	Pb 220.353†	1876.1	1821.9	461.76 µg/L	461.76 ppb	04:52:58
3	S 181.975 Axial†	219.1	193.1	976.51 µg/L	976.51 ppb	04:52:58
3	Sb 206.836†	472.3	448.9	451.59 µg/L	451.59 ppb	04:52:58
3	Se 196.026†	357.7	344.8	489.34 µg/L	489.34 ppb	04:52:58
3	SiO2†	29484.1	27315.8	5250.0 µg/L	5250.0 ppb	04:52:37
3	Si 251.611†	32219.3	31795.6	2408.6 µg/L	2408.6 ppb	04:52:37
3	Sn 189.927†	915.0	891.6	440.60 µg/L	440.60 ppb	04:52:58
3	Ti 334.940†	224073.0	222878.9	488.40 µg/L	488.40 ppb	04:52:32
3	Tl 190.801†	297.3	320.4	478.29 µg/L	478.29 ppb	04:52:58
3	U 409.014†	5830.3	4885.7	469.28 µg/L	469.28 ppb	04:52:37
3	V 292.402†	42338.3	42376.0	485.49 µg/L	485.49 ppb	04:52:37
3	Zn 213.857†	18965.5	18342.9	489.41 µg/L	489.41 ppb	04:52:37

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2183499.5	100.14	%	0.122				0.12%
Sc RADIAL	124989.1	100	%	0.8				0.79%
Y 371.029	1320752.0	99.611	%	0.1131				0.11%
Ag 328.068†	56734.2	517.71	µg/L	13.984	517.71	ppb	13.984	2.70%
QC value within limits for Ag 328.068 Recovery = 103.54%								
Al 396.153Radial†	10816.1	5244.0	µg/L	9.38	5244.0	ppb	9.38	0.18%
QC value within limits for Al 396.153Radial Recovery = 104.88%								
As 188.979†	273.2	513.27	µg/L	46.563	513.27	ppb	46.563	9.07%
QC value within limits for As 188.979 Recovery = 102.65%								
B 249.677†	11630.5	509.01	µg/L	14.524	509.01	ppb	14.524	2.85%
QC value within limits for B 249.677 Recovery = 101.80%								
Ba 233.527†	20326.5	512.59	µg/L	20.382	512.59	ppb	20.382	3.98%
QC value within limits for Ba 233.527 Recovery = 102.52%								
Be 313.107†	837767.7	512.09	µg/L	15.051	512.09	ppb	15.051	2.94%
QC value within limits for Be 313.107 Recovery = 102.42%								
Ca 317.933Radial†	14620.2	5333.3	µg/L	12.80	5333.3	ppb	12.80	0.24%
QC value within limits for Ca 317.933Radial Recovery = 106.67%								
Cd 226.502†	19801.8	515.54	µg/L	20.950	515.54	ppb	20.950	4.06%
QC value within limits for Cd 226.502 Recovery = 103.11%								
Co 228.616†	10676.0	513.07	µg/L	23.169	513.07	ppb	23.169	4.52%

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   QC value within limits for Co 228.616  Recovery = 102.61%
Cr 267.716†            24294.9      510.81 µg/L        30.410      510.81 ppb         30.410   5.95%
   QC value within limits for Cr 267.716  Recovery = 102.16%
Cu 324.752†            71887.1      500.56 µg/L        21.674      500.56 ppb         21.674   4.33%
   QC value within limits for Cu 324.752  Recovery = 100.11%
Fe 238.204 Radial†      1048.6      5290.9 µg/L         62.14      5290.9 ppb          62.14   1.17%
   QC value within limits for Fe 238.204 Radial  Recovery = 105.82%
K 766.490 Radial†       9766.6      5216.5 µg/L         28.27      5216.5 ppb          28.27   0.54%
   QC value within limits for K 766.490 Radial  Recovery = 104.33%
Mg 279.077 IEC†         1005.2      5358.5 µg/L         57.65      5358.5 ppb          57.65   1.08%
   QC value within limits for Mg 279.077 IEC  Recovery = 107.17%
Mn 257.610†           162979.1      510.78 µg/L        14.250      510.78 ppb         14.250   2.79%
   QC value within limits for Mn 257.610  Recovery = 102.16%
Mo 202.031†             4368.3      496.54 µg/L        47.728      496.54 ppb         47.728   9.61%
   QC value within limits for Mo 202.031  Recovery = 99.31%
Na 589.592 Radial†     40676.2       10542 µg/L          23.4       10542 ppb           23.4   0.22%
   QC value within limits for Na 589.592 Radial  Recovery = 105.42%
Ni 231.604†             9469.8      512.60 µg/L        23.233      512.60 ppb         23.233   4.53%
   QC value within limits for Ni 231.604  Recovery = 102.52%
P 214.914†              1175.4      2482.7 µg/L        203.26      2482.7 ppb         203.26   8.19%
   QC value within limits for P 214.914  Recovery = 99.31%
Pb 220.353†             2005.2      508.24 µg/L        40.454      508.24 ppb         40.454   7.96%
   QC value within limits for Pb 220.353  Recovery = 101.65%
S 181.975 Axial†         206.4      1044.1 µg/L         58.50      1044.1 ppb          58.50   5.60%
   QC value within limits for S 181.975 Axial  Recovery = 104.41%
Sb 206.836†              500.2      503.17 µg/L        44.673      503.17 ppb         44.673   8.88%
   QC value within limits for Sb 206.836  Recovery = 100.63%
Se 196.026†              373.5      529.87 µg/L        35.165      529.87 ppb         35.165   6.64%
   QC value within limits for Se 196.026  Recovery = 105.97%
SiO2†                  28504.1      5478.4 µg/L        197.98      5478.4 ppb         197.98   3.61%
   QC value within limits for SiO2  Recovery = 102.45%
Si 251.611†            33161.0      2509.9 µg/L         88.05      2509.9 ppb          88.05   3.51%
   QC value within limits for Si 251.611  Recovery = 100.40%
Sn 189.927†             1018.8      503.06 µg/L        54.341      503.06 ppb         54.341  10.80%
   QC value within limits for Sn 189.927  Recovery = 100.61%
Sr 421.552†            97178.1      518.39 µg/L         1.032      518.39 ppb          1.032   0.20%
   QC value within limits for Sr 421.552  Recovery = 103.68%
Ti 334.940†           231266.0      506.79 µg/L        15.926      506.79 ppb         15.926   3.14%
   QC value within limits for Ti 334.940  Recovery = 101.36%
Tl 190.801†              346.0      516.30 µg/L        33.059      516.30 ppb         33.059   6.40%
   QC value within limits for Tl 190.801  Recovery = 103.26%
U 409.014†              5277.5      506.98 µg/L        32.677      506.98 ppb         32.677   6.45%
   QC value within limits for U 409.014  Recovery = 101.40%
V 292.402†             44981.9      515.52 µg/L        26.024      515.52 ppb         26.024   5.05%
   QC value within limits for V 292.402  Recovery = 103.10%
Zn 213.857†            19340.2      516.07 µg/L        23.129      516.07 ppb         23.129   4.48%
   QC value within limits for Zn 213.857  Recovery = 103.21%
All analyte(s) passed QC.
```

Sequence No.: 7
Sample ID: PQL
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 101
Date Collected: 12/19/2009 04:53:08
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: PQL

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	123842.5	123842.5	99.2	%			04:53:42
1	Al 396.153Radial†	609.3	406.5	197.43	µg/L	197.43	ppb	04:53:42
1	Ca 317.933Radial†	1072.0	636.0	232.02	µg/L	232.02	ppb	04:54:03
1	Fe 238.204 Radial†	29.3	21.3	107.16	µg/L	107.16	ppb	04:54:03
1	K 766.490 Radial†	1144.2	320.4	171.15	µg/L	171.15	ppb	04:53:42
1	Mg 279.077 IEC†	78.5	63.4	337.74	µg/L	337.74	ppb	04:54:03
1	Na 589.592 Radial†	553.0	1302.6	337.59	µg/L	337.59	ppb	04:53:42
1	Sr 421.552†	916.8	1034.2	5.5170	µg/L	5.5170	ppb	04:53:42
1	Sc 361.383	2187199.4	2187199.4	100.31	%			04:55:04
1	Y 371.029	1331792.6	1331792.6	100.44	%			04:55:04
1	Ag 328.068†	735.7	652.7	5.9543	µg/L	5.9543	ppb	04:55:10
1	As 188.979†	18.9	17.8	33.463	µg/L	33.463	ppb	04:55:31
1	B 249.677†	1332.9	1162.6	51.014	µg/L	51.014	ppb	04:55:10
1	Ba 233.527†	132.8	219.7	5.5387	µg/L	5.5387	ppb	04:55:31
1	Be 313.107†	12220.3	8540.7	5.2204	µg/L	5.2204	ppb	04:55:10
1	Cd 226.502†	101.8	211.4	5.5288	µg/L	5.5288	ppb	04:55:31
1	Co 228.616†	28.1	103.8	4.9971	µg/L	4.9971	ppb	04:55:31
1	Cr 267.716†	125.4	260.6	5.4783	µg/L	5.4783	ppb	04:55:10
1	Cu 324.752†	4965.2	1546.6	10.768	µg/L	10.768	ppb	04:55:10
1	Mn 257.610†	3212.3	3424.0	10.730	µg/L	10.730	ppb	04:55:10
1	Mo 202.031†	85.1	85.9	9.7651	µg/L	9.7651	ppb	04:55:31
1	Ni 231.604†	432.7	98.0	5.3029	µg/L	5.3029	ppb	04:55:31
1	P 214.914†	278.2	65.5	140.19	µg/L	140.19	ppb	04:55:31
1	Pb 220.353†	89.0	37.1	9.3834	µg/L	9.3834	ppb	04:55:31
1	S 181.975 Axial†	52.0	26.1	132.12	µg/L	132.12	ppb	04:55:31
1	Sb 206.836†	36.9	14.1	14.159	µg/L	14.159	ppb	04:55:31
1	Se 196.026†	36.0	23.5	33.211	µg/L	33.211	ppb	04:55:31
1	SiO2†	3385.2	1247.5	239.77	µg/L	239.77	ppb	04:55:10
1	Si 251.611†	1754.2	1369.8	104.81	µg/L	104.81	ppb	04:55:31
1	Sn 189.927†	45.1	22.8	11.335	µg/L	11.335	ppb	04:55:31
1	Ti 334.940†	3341.1	2447.5	5.3535	µg/L	5.3535	ppb	04:55:10
1	Tl 190.801†	-8.6	15.0	22.229	µg/L	22.229	ppb	04:55:31
1	U 409.014†	1409.8	469.0	45.116	µg/L	45.116	ppb	04:55:10
1	V 292.402†	351.0	446.4	5.2185	µg/L	5.2185	ppb	04:55:10
1	Zn 213.857†	1000.6	401.3	10.728	µg/L	10.728	ppb	04:55:31
2	Sc RADIAL	122899.7	122899.7	98.5	%			04:54:08
2	Al 396.153Radial†	646.1	448.6	217.90	µg/L	217.90	ppb	04:54:08
2	Ca 317.933Radial†	1062.1	634.3	231.37	µg/L	231.37	ppb	04:54:29
2	Fe 238.204 Radial†	31.1	23.3	117.23	µg/L	117.23	ppb	04:54:29
2	K 766.490 Radial†	1066.6	250.5	133.79	µg/L	133.79	ppb	04:54:08
2	Mg 279.077 IEC†	83.9	69.5	370.16	µg/L	370.16	ppb	04:54:29
2	Na 589.592 Radial†	576.5	1330.8	344.89	µg/L	344.89	ppb	04:54:08
2	Sr 421.552†	901.9	1026.2	5.4741	µg/L	5.4741	ppb	04:54:08
2	Sc 361.383	2192236.8	2192236.8	100.54	%			04:55:37
2	Y 371.029	1335512.5	1335512.5	100.72	%			04:55:37
2	Ag 328.068†	710.8	626.3	5.7141	µg/L	5.7141	ppb	04:55:42
2	As 188.979†	18.2	17.0	32.046	µg/L	32.046	ppb	04:56:03
2	B 249.677†	1362.7	1189.2	52.177	µg/L	52.177	ppb	04:55:42
2	Ba 233.527†	132.6	219.1	5.5243	µg/L	5.5243	ppb	04:56:03
2	Be 313.107†	12213.9	8506.4	5.1995	µg/L	5.1995	ppb	04:55:42
2	Cd 226.502†	93.5	202.9	5.3141	µg/L	5.3141	ppb	04:56:03
2	Co 228.616†	39.4	114.9	5.5329	µg/L	5.5329	ppb	04:56:03
2	Cr 267.716†	114.6	249.6	5.2460	µg/L	5.2460	ppb	04:55:42
2	Cu 324.752†	4997.6	1567.4	10.915	µg/L	10.915	ppb	04:55:42
2	Mn 257.610†	3263.1	3467.2	10.867	µg/L	10.867	ppb	04:55:42
2	Mo 202.031†	84.7	85.3	9.6930	µg/L	9.6930	ppb	04:56:03
2	Ni 231.604†	449.1	113.3	6.1332	µg/L	6.1332	ppb	04:56:03
2	P 214.914†	285.7	72.2	154.76	µg/L	154.76	ppb	04:56:03
2	Pb 220.353†	92.6	40.5	10.239	µg/L	10.239	ppb	04:56:03

2	S 181.975 Axial†	52.4	26.3	133.42 µg/L	133.42 ppb	04:56:03
2	Sb 206.836†	30.6	7.7	7.7536 µg/L	7.7536 ppb	04:56:03
2	Se 196.026†	33.8	21.2	29.868 µg/L	29.868 ppb	04:56:03
2	SiO2†	3355.5	1210.2	232.60 µg/L	232.60 ppb	04:55:42
2	Si 251.611†	1753.6	1365.3	104.56 µg/L	104.56 ppb	04:56:03
2	Sn 189.927†	41.1	18.7	9.3107 µg/L	9.3107 ppb	04:56:03
2	Ti 334.940†	3276.5	2375.6	5.1958 µg/L	5.1958 ppb	04:55:42
2	Tl 190.801†	-6.8	16.8	25.019 µg/L	25.019 ppb	04:56:03
2	U 409.014†	1508.9	564.3	54.290 µg/L	54.290 ppb	04:55:42
2	V 292.402†	331.7	426.4	5.0066 µg/L	5.0066 ppb	04:55:42
2	Zn 213.857†	1008.8	407.2	10.882 µg/L	10.882 ppb	04:56:03
3	Sc RADIAL	124001.7	124001.7	99.4 %		04:54:34
3	Al 396.153Radial†	619.4	415.9	202.02 µg/L	202.02 ppb	04:54:34
3	Ca 317.933Radial†	1055.9	618.5	225.62 µg/L	225.62 ppb	04:54:54
3	Fe 238.204 Radial†	30.0	21.9	110.40 µg/L	110.40 ppb	04:54:54
3	K 766.490 Radial†	1040.6	214.7	114.66 µg/L	114.66 ppb	04:54:34
3	Mg 279.077 IEC†	80.5	65.4	348.29 µg/L	348.29 ppb	04:54:54
3	Na 589.592 Radial†	529.7	1278.6	331.35 µg/L	331.35 ppb	04:54:34
3	Sr 421.552†	910.0	1026.2	5.4744 µg/L	5.4744 ppb	04:54:34
3	Sc 361.383	2165585.9	2165585.9	99.316 %		04:56:09
3	Y 371.029	1318550.4	1318550.4	99.444 %		04:56:09
3	Ag 328.068†	648.0	571.7	5.2162 µg/L	5.2162 ppb	04:56:14
3	As 188.979†	21.5	20.6	38.661 µg/L	38.661 ppb	04:56:35
3	B 249.677†	1300.7	1143.5	50.172 µg/L	50.172 ppb	04:56:14
3	Ba 233.527†	112.8	200.8	5.0633 µg/L	5.0633 ppb	04:56:35
3	Be 313.107†	11543.6	7980.9	4.8783 µg/L	4.8783 ppb	04:56:14
3	Cd 226.502†	63.1	173.5	4.5404 µg/L	4.5404 ppb	04:56:35
3	Co 228.616†	23.0	98.9	4.7633 µg/L	4.7633 ppb	04:56:35
3	Cr 267.716†	104.4	240.8	5.0608 µg/L	5.0608 ppb	04:56:14
3	Cu 324.752†	4852.0	1482.0	10.320 µg/L	10.320 ppb	04:56:14
3	Mn 257.610†	2949.7	3191.5	10.003 µg/L	10.003 ppb	04:56:14
3	Mo 202.031†	78.3	79.9	9.0843 µg/L	9.0843 ppb	04:56:35
3	Ni 231.604†	420.2	89.7	4.8553 µg/L	4.8553 ppb	04:56:35
3	P 214.914†	268.5	58.4	125.08 µg/L	125.08 ppb	04:56:35
3	Pb 220.353†	88.8	37.8	9.5533 µg/L	9.5533 ppb	04:56:35
3	S 181.975 Axial†	45.8	20.4	103.20 µg/L	103.20 ppb	04:56:35
3	Sb 206.836†	35.4	12.9	13.012 µg/L	13.012 ppb	04:56:35
3	Se 196.026†	36.2	24.0	33.869 µg/L	33.869 ppb	04:56:35
3	SiO2†	3235.2	1130.2	217.22 µg/L	217.22 ppb	04:56:14
3	Si 251.611†	1571.9	1203.7	92.062 µg/L	92.062 ppb	04:56:35
3	Sn 189.927†	43.9	22.1	10.973 µg/L	10.973 ppb	04:56:35
3	Ti 334.940†	3075.1	2212.9	4.8395 µg/L	4.8395 ppb	04:56:14
3	Tl 190.801†	-7.6	15.9	23.669 µg/L	23.669 ppb	04:56:35
3	U 409.014†	1382.9	455.9	43.860 µg/L	43.860 ppb	04:56:14
3	V 292.402†	284.9	383.3	4.4961 µg/L	4.4961 ppb	04:56:14
3	Zn 213.857†	955.4	365.8	9.7763 µg/L	9.7763 ppb	04:56:35

Mean Data: PQL

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2181674.0	100.05	%	0.649				0.65%
Sc RADIAL	123581.3	99.0	%	0.48				0.48%
Y 371.029	1328618.5	100.20	%	0.672				0.67%
Ag 328.068†	616.9	5.6282	µg/L	0.37650	5.6282	ppb	0.37650	6.69%
QC value within limits for Ag 328.068 Recovery = 112.56%								
Al 396.153Radial†	423.7	205.78	µg/L	10.741	205.78	ppb	10.741	5.22%
QC value within limits for Al 396.153Radial Recovery = 102.89%								
As 188.979†	18.5	34.723	µg/L	3.4832	34.723	ppb	3.4832	10.03%
QC value within limits for As 188.979 Recovery = 115.74%								
B 249.677†	1165.1	51.121	µg/L	1.0066	51.121	ppb	1.0066	1.97%
QC value within limits for B 249.677 Recovery = 102.24%								
Ba 233.527†	213.2	5.3754	µg/L	0.27039	5.3754	ppb	0.27039	5.03%
QC value within limits for Ba 233.527 Recovery = 107.51%								
Be 313.107†	8342.7	5.0994	µg/L	0.19176	5.0994	ppb	0.19176	3.76%
QC value within limits for Be 313.107 Recovery = 101.99%								
Ca 317.933Radial†	629.6	229.67	µg/L	3.523	229.67	ppb	3.523	1.53%
QC value within limits for Ca 317.933Radial Recovery = 114.84%								
Cd 226.502†	195.9	5.1278	µg/L	0.51986	5.1278	ppb	0.51986	10.14%
QC value within limits for Cd 226.502 Recovery = 102.56%								
Co 228.616†	105.9	5.0978	µg/L	0.39460	5.0978	ppb	0.39460	7.74%

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   QC value within limits for Co 228.616  Recovery = 101.96%
Cr 267.716†              250.3      5.2617 µg/L       0.20918      5.2617 ppb        0.20918   3.98%
   QC value within limits for Cr 267.716  Recovery = 105.23%
Cu 324.752†             1532.0      10.667 µg/L        0.3100      10.667 ppb         0.3100   2.91%
   QC value within limits for Cu 324.752  Recovery = 106.67%
Fe 238.204 Radial†        22.2      111.60 µg/L         5.140      111.60 ppb          5.140   4.61%
   QC value within limits for Fe 238.204 Radial  Recovery = 111.60%
K 766.490 Radial†        261.9      139.87 µg/L        28.731      139.87 ppb         28.731  20.54%
   QC value within limits for K 766.490 Radial  Recovery = 93.24%
Mg 279.077 IEC†           66.1      352.06 µg/L        16.533      352.06 ppb         16.533   4.70%
   QC value within limits for Mg 279.077 IEC  Recovery = 117.35%
Mn 257.610†             3360.9      10.533 µg/L        0.4642      10.533 ppb         0.4642   4.41%
   QC value within limits for Mn 257.610  Recovery = 105.33%
Mo 202.031†               83.7      9.5142 µg/L       0.37397      9.5142 ppb        0.37397   3.93%
   QC value within limits for Mo 202.031  Recovery = 95.14%
Na 589.592 Radial†      1304.0      337.94 µg/L         6.777      337.94 ppb          6.777   2.01%
   QC value within limits for Na 589.592 Radial  Recovery = 112.65%
Ni 231.604†              100.3      5.4305 µg/L       0.64843      5.4305 ppb        0.64843  11.94%
   QC value within limits for Ni 231.604  Recovery = 108.61%
P 214.914†                65.4      140.01 µg/L        14.840      140.01 ppb         14.840  10.60%
   QC value within limits for P 214.914  Recovery = 93.34%
Pb 220.353†               38.5      9.7251 µg/L       0.45279      9.7251 ppb        0.45279   4.66%
   QC value within limits for Pb 220.353  Recovery = 97.25%
S 181.975 Axial†          24.3      122.91 µg/L        17.085      122.91 ppb         17.085  13.90%
   QC value within limits for S 181.975 Axial  Recovery = 122.91%
Sb 206.836†               11.6      11.641 µg/L        3.4155      11.641 ppb         3.4155  29.34%
   QC value within limits for Sb 206.836  Recovery = 116.41%
Se 196.026†               22.9      32.316 µg/L        2.1453      32.316 ppb         2.1453   6.64%
   QC value within limits for Se 196.026  Recovery = 107.72%
SiO2†                   1196.0      229.86 µg/L        11.522      229.86 ppb         11.522   5.01%
   QC value within limits for SiO2  Recovery = 107.92%
Si 251.611†             1312.9      100.48 µg/L         7.288      100.48 ppb          7.288   7.25%
   QC value within limits for Si 251.611  Recovery = 100.48%
Sn 189.927†               21.2      10.540 µg/L        1.0797      10.540 ppb         1.0797  10.24%
   QC value within limits for Sn 189.927  Recovery = 105.40%
Sr 421.552†             1028.9      5.4885 µg/L       0.02467      5.4885 ppb        0.02467   0.45%
   QC value within limits for Sr 421.552  Recovery = 109.77%
Ti 334.940†             2345.3      5.1296 µg/L       0.26331      5.1296 ppb        0.26331   5.13%
   QC value within limits for Ti 334.940  Recovery = 102.59%
Tl 190.801†               15.9      23.639 µg/L        1.3951      23.639 ppb         1.3951   5.90%
   QC value within limits for Tl 190.801  Recovery = 118.20%
U 409.014†               496.4      47.755 µg/L        5.6940      47.755 ppb         5.6940  11.92%
   QC value within limits for U 409.014  Recovery = 95.51%
V 292.402†               418.7      4.9071 µg/L       0.37135      4.9071 ppb        0.37135   7.57%
   QC value within limits for V 292.402  Recovery = 98.14%
Zn 213.857†              391.4      10.462 µg/L        0.5988      10.462 ppb         0.5988   5.72%
   QC value within limits for Zn 213.857  Recovery = 104.62%
All analyte(s) passed QC.
```

Sequence No.: 8
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 12/19/2009 04:56:44
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	122499.0	122499.0	98.2	%			04:57:17
1	Al 396.153Radial†	198.8	-4.9	-2.4003	µg/L	-2.4003	ppb	04:57:17
1	Ca 317.933Radial†	469.6	34.2	12.492	µg/L	12.492	ppb	04:57:37
1	Fe 238.204 Radial†	8.5	0.4	2.1752	µg/L	2.1752	ppb	04:57:37
1	K 766.490 Radial†	808.6	-8.8	-4.6961	µg/L	-4.6961	ppb	04:57:17
1	Mg 279.077 IEC†	13.9	-1.5	-8.1386	µg/L	-8.1386	ppb	04:57:37
1	Na 589.592 Radial†	-654.6	78.6	20.368	µg/L	20.368	ppb	04:57:17
1	Sr 421.552†	-70.8	38.4	0.2048	µg/L	0.2048	ppb	04:57:17
1	Sc 361.383	2184413.0	2184413.0	100.18	%			04:58:39
1	Y 371.029	1328213.9	1328213.9	100.17	%			04:58:39
1	Ag 328.068†	74.0	-6.9	-0.0605	µg/L	-0.0605	ppb	04:58:45
1	As 188.979†	0.9	-0.2	-0.3403	µg/L	-0.3403	ppb	04:59:05
1	B 249.677†	158.4	-8.1	-0.3578	µg/L	-0.3578	ppb	04:58:45
1	Ba 233.527†	-77.1	10.3	0.2598	µg/L	0.2598	ppb	04:59:05
1	Be 313.107†	3689.2	40.4	0.0247	µg/L	0.0247	ppb	04:58:45
1	Cd 226.502†	-115.2	-5.0	-0.1327	µg/L	-0.1327	ppb	04:59:05
1	Co 228.616†	-72.2	3.7	0.1756	µg/L	0.1756	ppb	04:59:05
1	Cr 267.716†	-133.8	2.0	0.0435	µg/L	0.0435	ppb	04:58:45
1	Cu 324.752†	3337.9	-71.5	-0.4962	µg/L	-0.4962	ppb	04:58:45
1	Mn 257.610†	-234.5	-12.5	-0.0389	µg/L	-0.0389	ppb	04:58:45
1	Mo 202.031†	0.4	1.4	0.1628	µg/L	0.1628	ppb	04:59:05
1	Ni 231.604†	334.3	0.3	0.0144	µg/L	0.0144	ppb	04:59:05
1	P 214.914†	200.8	-11.5	-24.715	µg/L	-24.715	ppb	04:59:05
1	Pb 220.353†	65.4	13.7	3.4647	µg/L	3.4647	ppb	04:59:05
1	S 181.975 Axial†	32.5	6.7	33.809	µg/L	33.809	ppb	04:59:05
1	Sb 206.836†	26.4	3.6	3.6411	µg/L	3.6411	ppb	04:59:05
1	Se 196.026†	14.9	2.5	3.5106	µg/L	3.5106	ppb	04:59:05
1	SiO2†	2066.1	-64.9	-12.477	µg/L	-12.477	ppb	04:58:45
1	Si 251.611†	394.9	15.2	1.0384	µg/L	1.0384	ppb	04:59:05
1	Sn 189.927†	29.0	6.8	3.3497	µg/L	3.3497	ppb	04:59:05
1	Ti 334.940†	926.9	41.8	0.0910	µg/L	0.0910	ppb	04:58:45
1	Tl 190.801†	-20.3	3.3	4.8450	µg/L	4.8450	ppb	04:59:05
1	U 409.014†	908.8	-29.4	-2.8245	µg/L	-2.8245	ppb	04:58:45
1	V 292.402†	-72.6	24.0	0.2688	µg/L	0.2688	ppb	04:58:45
1	Zn 213.857†	602.9	5.6	0.1510	µg/L	0.1510	ppb	04:59:05
2	Sc RADIAL	122572.2	122572.2	98.2	%			04:57:43
2	Al 396.153Radial†	192.6	-11.4	-5.5418	µg/L	-5.5418	ppb	04:57:43
2	Ca 317.933Radial†	470.5	34.8	12.709	µg/L	12.709	ppb	04:58:03
2	Fe 238.204 Radial†	8.1	0.0	0.1302	µg/L	0.1302	ppb	04:58:03
2	K 766.490 Radial†	770.2	-48.3	-25.820	µg/L	-25.820	ppb	04:57:43
2	Mg 279.077 IEC†	14.7	-0.7	-3.5977	µg/L	-3.5977	ppb	04:58:03
2	Na 589.592 Radial†	-661.0	72.6	18.807	µg/L	18.807	ppb	04:57:43
2	Sr 421.552†	-98.2	10.5	0.0559	µg/L	0.0559	ppb	04:57:43
2	Sc 361.383	2185529.3	2185529.3	100.23	%			04:59:11
2	Y 371.029	1329337.9	1329337.9	100.26	%			04:59:11
2	Ag 328.068†	163.7	82.5	0.7497	µg/L	0.7497	ppb	04:59:17
2	As 188.979†	-2.7	-3.8	-7.0847	µg/L	-7.0847	ppb	04:59:38
2	B 249.677†	174.9	8.3	0.3648	µg/L	0.3648	ppb	04:59:17
2	Ba 233.527†	-83.0	4.4	0.1119	µg/L	0.1119	ppb	04:59:38
2	Be 313.107†	3689.4	38.7	0.0237	µg/L	0.0237	ppb	04:59:17
2	Cd 226.502†	-110.8	-0.6	-0.0221	µg/L	-0.0221	ppb	04:59:38
2	Co 228.616†	-76.1	-0.2	-0.0088	µg/L	-0.0088	ppb	04:59:38
2	Cr 267.716†	-116.7	19.1	0.4024	µg/L	0.4024	ppb	04:59:17
2	Cu 324.752†	3352.0	-59.2	-0.4110	µg/L	-0.4110	ppb	04:59:17
2	Mn 257.610†	-224.0	-2.0	-0.0062	µg/L	-0.0062	ppb	04:59:17
2	Mo 202.031†	-0.0	1.0	0.1190	µg/L	0.1190	ppb	04:59:38
2	Ni 231.604†	349.9	15.7	0.8483	µg/L	0.8483	ppb	04:59:38
2	P 214.914†	202.9	-9.5	-20.502	µg/L	-20.502	ppb	04:59:38
2	Pb 220.353†	56.2	4.4	1.1319	µg/L	1.1319	ppb	04:59:38

2	S 181.975 Axial†	34.0	8.1	41.282 µg/L	41.282 ppb	04:59:38
2	Sb 206.836†	22.8	-0.0	-0.0226 µg/L	-0.0226 ppb	04:59:38
2	Se 196.026†	14.0	1.5	2.1895 µg/L	2.1895 ppb	04:59:38
2	SiO2†	2134.0	1.7	0.3358 µg/L	0.3358 ppb	04:59:17
2	Si 251.611†	374.4	-5.5	-0.4373 µg/L	-0.4373 ppb	04:59:38
2	Sn 189.927†	23.6	1.3	0.6625 µg/L	0.6625 ppb	04:59:38
2	Ti 334.940†	857.9	-27.5	-0.0610 µg/L	-0.0610 ppb	04:59:17
2	Tl 190.801†	-24.8	-1.1	-1.6922 µg/L	-1.6922 ppb	04:59:38
2	U 409.014†	844.1	-94.3	-9.0773 µg/L	-9.0773 ppb	04:59:17
2	V 292.402†	-68.2	28.4	0.3089 µg/L	0.3089 ppb	04:59:17
2	Zn 213.857†	612.7	15.0	0.4009 µg/L	0.4009 ppb	04:59:38
3	Sc RADIAL	122864.2	122864.2	98.5 %		04:58:09
3	Al 396.153Radial†	181.0	-23.6	-11.499 µg/L	-11.499 ppb	04:58:09
3	Ca 317.933Radial†	479.6	43.0	15.701 µg/L	15.701 ppb	04:58:29
3	Fe 238.204 Radial†	6.8	-1.4	-6.8700 µg/L	-6.8700 ppb	04:58:29
3	K 766.490 Radial†	825.4	5.9	3.1278 µg/L	3.1278 ppb	04:58:09
3	Mg 279.077 IEC†	14.2	-1.2	-6.6317 µg/L	-6.6317 ppb	04:58:29
3	Na 589.592 Radial†	-693.4	41.2	10.672 µg/L	10.672 ppb	04:58:09
3	Sr 421.552†	-119.3	-10.7	-0.0569 µg/L	-0.0569 ppb	04:58:09
3	Sc 361.383	2189543.8	2189543.8	100.41 %		04:59:44
3	Y 371.029	1331620.1	1331620.1	100.43 %		04:59:44
3	Ag 328.068†	166.3	84.9	0.7651 µg/L	0.7651 ppb	04:59:49
3	As 188.979†	-4.4	-5.4	-10.138 µg/L	-10.138 ppb	05:00:10
3	B 249.677†	176.6	9.6	0.4242 µg/L	0.4242 ppb	04:59:49
3	Ba 233.527†	-80.1	7.5	0.1874 µg/L	0.1874 ppb	05:00:10
3	Be 313.107†	3671.5	14.2	0.0086 µg/L	0.0086 ppb	04:59:49
3	Cd 226.502†	-108.3	2.1	0.0469 µg/L	0.0469 ppb	05:00:10
3	Co 228.616†	-74.5	1.5	0.0715 µg/L	0.0715 ppb	05:00:10
3	Cr 267.716†	-161.3	-25.0	-0.5262 µg/L	-0.5262 ppb	04:59:49
3	Cu 324.752†	3310.3	-106.8	-0.7436 µg/L	-0.7436 ppb	04:59:49
3	Mn 257.610†	-225.1	-2.6	-0.0091 µg/L	-0.0091 ppb	04:59:49
3	Mo 202.031†	-0.2	0.9	0.1017 µg/L	0.1017 ppb	05:00:10
3	Ni 231.604†	347.0	12.2	0.6582 µg/L	0.6582 ppb	05:00:10
3	P 214.914†	213.9	1.1	2.5453 µg/L	2.5453 ppb	05:00:10
3	Pb 220.353†	46.3	-5.5	-1.3720 µg/L	-1.3720 ppb	05:00:10
3	S 181.975 Axial†	29.2	3.3	16.961 µg/L	16.961 ppb	05:00:10
3	Sb 206.836†	24.2	1.4	1.3920 µg/L	1.3920 ppb	05:00:10
3	Se 196.026†	12.7	0.2	0.3079 µg/L	0.3079 ppb	05:00:10
3	SiO2†	2153.8	17.6	3.3879 µg/L	3.3879 ppb	04:59:49
3	Si 251.611†	386.7	6.2	0.4119 µg/L	0.4119 ppb	05:00:10
3	Sn 189.927†	25.4	3.1	1.5218 µg/L	1.5218 ppb	05:00:10
3	Ti 334.940†	911.5	24.4	0.0525 µg/L	0.0525 ppb	04:59:49
3	Tl 190.801†	-17.5	6.2	9.1905 µg/L	9.1905 ppb	05:00:10
3	U 409.014†	821.5	-118.4	-11.387 µg/L	-11.387 ppb	04:59:49
3	V 292.402†	-135.5	-38.5	-0.4555 µg/L	-0.4555 ppb	04:59:49
3	Zn 213.857†	609.0	10.2	0.2737 µg/L	0.2737 ppb	05:00:10

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2186495.3	100.27	%	0.124				0.12%
Sc RADIAL	122645.2	98.3	%	0.15				0.16%
Y 371.029	1329724.0	100.29	%	0.131				0.13%
Ag 328.068†	53.5	0.4848	µg/L	0.47230	0.4848	ppb	0.47230	97.43%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-13.3	-6.4802	µg/L	4.62124	-6.4802	ppb	4.62124	71.31%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-3.1	-5.8543	µg/L	5.01332	-5.8543	ppb	5.01332	85.64%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	3.3	0.1437	µg/L	0.43535	0.1437	ppb	0.43535	302.94%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	7.4	0.1863	µg/L	0.07394	0.1863	ppb	0.07394	39.68%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	31.1	0.0190	µg/L	0.00899	0.0190	ppb	0.00899	47.32%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	37.4	13.634	µg/L	1.7932	13.634	ppb	1.7932	13.15%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	-1.2	-0.0360	µg/L	0.09057	-0.0360	ppb	0.09057	251.85%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	1.6	0.0794	µg/L	0.09247	0.0794	ppb	0.09247	116.45%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -1.3     -0.0268 µg/L       0.46828     -0.0268 ppb        0.46828 >999.9%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -79.2     -0.5502 µg/L       0.17276     -0.5502 ppb        0.17276  31.40%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       -0.3     -1.5215 µg/L       4.74339     -1.5215 ppb        4.74339 311.75%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       -17.1     -9.1296 µg/L      14.97474     -9.1296 ppb       14.97474 164.02%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          -1.2     -6.1227 µg/L       2.31284     -6.1227 ppb        2.31284  37.78%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              -5.7     -0.0181 µg/L       0.01807     -0.0181 ppb        0.01807  99.90%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               1.1      0.1278 µg/L       0.03147      0.1278 ppb        0.03147  24.62%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       64.1     16.616 µg/L        5.2060     16.616 ppb         5.2060  31.33%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               9.4      0.5070 µg/L       0.43702      0.5070 ppb        0.43702  86.20%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -6.6     -14.224 µg/L       14.6745     -14.224 ppb       14.6745 103.17%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               4.2      1.0748 µg/L       2.41887      1.0748 ppb        2.41887 225.04%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          6.1      30.684 µg/L       12.4580      30.684 ppb       12.4580  40.60%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               1.7      1.6702 µg/L       1.84763      1.6702 ppb        1.84763 110.63%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               1.4      2.0027 µg/L       1.60955      2.0027 ppb        1.60955  80.37%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                   -15.2     -2.9179 µg/L       8.41815     -2.9179 ppb        8.41815 288.51%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               5.3      0.3377 µg/L       0.74064      0.3377 ppb        0.74064 219.33%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               3.8      1.8446 µg/L       1.37242      1.8446 ppb        1.37242  74.40%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              12.7      0.0679 µg/L       0.13129      0.0679 ppb        0.13129 193.27%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              12.9      0.0275 µg/L       0.07902      0.0275 ppb        0.07902 286.97%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               2.8      4.1144 µg/L       5.47804      4.1144 ppb        5.47804 133.14%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -80.7     -7.7630 µg/L       4.43004     -7.7630 ppb        4.43004  57.07%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                4.6      0.0407 µg/L       0.43019      0.0407 ppb        0.43019 >999.9%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              10.3      0.2752 µg/L       0.12491      0.2752 ppb        0.12491  45.39%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 15
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 12/19/2009 05:23:07
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	123320.3	123320.3	98.8	%			05:23:45
1	Al 396.153Radial†	10767.2	10687.7	5180.7	µg/L	5180.7	ppb	05:23:45
1	Ca 317.933Radial†	14507.2	14235.4	5192.9	µg/L	5192.9	ppb	05:23:45
1	Fe 238.204 Radial†	1029.4	1033.4	5215.1	µg/L	5215.1	ppb	05:24:06
1	K 766.490 Radial†	10412.3	9703.4	5182.8	µg/L	5182.8	ppb	05:23:45
1	Mg 279.077 IEC†	990.7	986.9	5261.3	µg/L	5261.3	ppb	05:24:06
1	Na 589.592 Radial†	39253.3	40465.1	10487	µg/L	10487	ppb	05:23:45
1	Sr 421.552†	94155.1	95384.0	508.82	µg/L	508.82	ppb	05:23:45
1	Sc 361.383	2161997.2	2161997.2	99.151	%			05:25:10
1	Y 371.029	1309020.3	1309020.3	98.726	%			05:25:10
1	Ag 328.068†	56968.5	57375.6	523.61	µg/L	523.61	ppb	05:25:16
1	As 188.979†	278.3	279.7	525.53	µg/L	525.53	ppb	05:25:36
1	B 249.677†	11911.6	11847.3	518.56	µg/L	518.56	ppb	05:25:16
1	Ba 233.527†	20503.0	20765.8	523.68	µg/L	523.68	ppb	05:25:16
1	Be 313.107†	835293.8	838804.2	512.72	µg/L	512.72	ppb	05:25:10
1	Cd 226.502†	19902.0	20182.4	525.47	µg/L	525.47	ppb	05:25:16
1	Co 228.616†	10800.8	10969.0	527.20	µg/L	527.20	ppb	05:25:16
1	Cr 267.716†	24692.6	25039.7	526.47	µg/L	526.47	ppb	05:25:16
1	Cu 324.752†	76106.2	73354.4	510.74	µg/L	510.74	ppb	05:25:16
1	Mn 257.610†	161615.8	163221.2	511.53	µg/L	511.53	ppb	05:25:10
1	Mo 202.031†	4523.0	4562.8	518.64	µg/L	518.64	ppb	05:25:36
1	Ni 231.604†	9994.7	9746.9	527.59	µg/L	527.59	ppb	05:25:16
1	P 214.914†	1412.4	1212.6	2562.2	µg/L	2562.2	ppb	05:25:36
1	Pb 220.353†	2109.2	2075.6	526.10	µg/L	526.10	ppb	05:25:36
1	S 181.975 Axial†	236.9	213.2	1078.7	µg/L	1078.7	ppb	05:25:36
1	Sb 206.836†	538.1	520.0	523.05	µg/L	523.05	ppb	05:25:36
1	Se 196.026†	390.8	381.7	541.48	µg/L	541.48	ppb	05:25:36
1	SiO2†	30869.3	29006.3	5574.9	µg/L	5574.9	ppb	05:25:16
1	Si 251.611†	33864.5	33775.5	2555.9	µg/L	2555.9	ppb	05:25:16
1	Sn 189.927†	1083.8	1071.0	528.60	µg/L	528.60	ppb	05:25:36
1	Ti 334.940†	231015.8	232110.6	508.65	µg/L	508.65	ppb	05:25:10
1	Tl 190.801†	324.2	350.5	522.96	µg/L	522.96	ppb	05:25:36
1	U 409.014†	6238.8	5355.7	514.53	µg/L	514.53	ppb	05:25:16
1	V 292.402†	45729.8	46217.8	529.72	µg/L	529.72	ppb	05:25:16
1	Zn 213.857†	20211.4	19788.2	528.03	µg/L	528.03	ppb	05:25:16
2	Sc RADIAL	124103.2	124103.2	99.5	%			05:24:12
2	Al 396.153Radial†	10878.0	10730.4	5201.6	µg/L	5201.6	ppb	05:24:12
2	Ca 317.933Radial†	14693.0	14329.6	5227.3	µg/L	5227.3	ppb	05:24:12
2	Fe 238.204 Radial†	1023.0	1020.3	5149.4	µg/L	5149.4	ppb	05:24:32
2	K 766.490 Radial†	10499.3	9724.5	5194.1	µg/L	5194.1	ppb	05:24:12
2	Mg 279.077 IEC†	1007.6	997.5	5318.0	µg/L	5318.0	ppb	05:24:32
2	Na 589.592 Radial†	39415.3	40377.4	10464	µg/L	10464	ppb	05:24:12
2	Sr 421.552†	95128.9	95762.0	510.83	µg/L	510.83	ppb	05:24:12
2	Sc 361.383	2159832.7	2159832.7	99.052	%			05:25:43
2	Y 371.029	1307642.7	1307642.7	98.622	%			05:25:43
2	Ag 328.068†	57248.6	57716.0	526.70	µg/L	526.70	ppb	05:25:49
2	As 188.979†	274.5	276.1	518.80	µg/L	518.80	ppb	05:26:09
2	B 249.677†	11962.4	11910.7	521.36	µg/L	521.36	ppb	05:25:49
2	Ba 233.527†	20594.5	20879.0	526.53	µg/L	526.53	ppb	05:25:49
2	Be 313.107†	837197.1	841569.9	514.41	µg/L	514.41	ppb	05:25:43
2	Cd 226.502†	20092.9	20395.2	531.01	µg/L	531.01	ppb	05:25:49
2	Co 228.616†	10837.7	11017.2	529.50	µg/L	529.50	ppb	05:25:49
2	Cr 267.716†	24836.0	25209.4	530.04	µg/L	530.04	ppb	05:25:49
2	Cu 324.752†	76642.7	73973.0	515.02	µg/L	515.02	ppb	05:25:49
2	Mn 257.610†	161790.3	163560.8	512.58	µg/L	512.58	ppb	05:25:43
2	Mo 202.031†	4491.3	4535.4	515.52	µg/L	515.52	ppb	05:26:09
2	Ni 231.604†	9949.7	9711.6	525.68	µg/L	525.68	ppb	05:25:49
2	P 214.914†	1407.1	1208.6	2553.1	µg/L	2553.1	ppb	05:26:09
2	Pb 220.353†	2104.8	2073.4	525.50	µg/L	525.50	ppb	05:26:09

2	S 181.975 Axial†	233.8	210.3	1064.0 µg/L	1064.0 ppb	05:26:09
2	Sb 206.836†	536.3	518.6	521.67 µg/L	521.67 ppb	05:26:09
2	Se 196.026†	384.8	376.1	533.41 µg/L	533.41 ppb	05:26:09
2	SiO2†	31007.0	29176.5	5607.6 µg/L	5607.6 ppb	05:25:49
2	Si 251.611†	33994.9	33941.4	2569.0 µg/L	2569.0 ppb	05:25:49
2	Sn 189.927†	1068.8	1056.9	521.69 µg/L	521.69 ppb	05:26:09
2	Ti 334.940†	231244.5	232575.0	509.66 µg/L	509.66 ppb	05:25:43
2	Tl 190.801†	336.1	362.9	541.35 µg/L	541.35 ppb	05:26:09
2	U 409.014†	6298.8	5422.6	520.98 µg/L	520.98 ppb	05:25:49
2	V 292.402†	45933.9	46470.0	532.57 µg/L	532.57 ppb	05:25:49
2	Zn 213.857†	20303.8	19902.0	531.10 µg/L	531.10 ppb	05:25:49
3	Sc RADIAL	122903.4	122903.4	98.5 %		05:24:38
3	Al 396.153Radial†	10874.6	10833.7	5254.8 µg/L	5254.8 ppb	05:24:38
3	Ca 317.933Radial†	14632.8	14412.8	5257.6 µg/L	5257.6 ppb	05:24:38
3	Fe 238.204 Radial†	1025.3	1032.8	5210.4 µg/L	5210.4 ppb	05:24:58
3	K 766.490 Radial†	10471.5	9799.4	5234.0 µg/L	5234.0 ppb	05:24:38
3	Mg 279.077 IEC†	993.7	993.3	5293.6 µg/L	5293.6 ppb	05:24:58
3	Na 589.592 Radial†	39344.3	40692.1	10546 µg/L	10546 ppb	05:24:38
3	Sr 421.552†	94791.7	96353.5	513.99 µg/L	513.99 ppb	05:24:38
3	Sc 361.383	2170480.8	2170480.8	99.540 %		05:26:16
3	Y 371.029	1314554.9	1314554.9	99.143 %		05:26:16
3	Ag 328.068†	54307.1	54477.3	497.04 µg/L	497.04 ppb	05:26:22
3	As 188.979†	245.3	245.4	461.06 µg/L	461.06 ppb	05:26:43
3	B 249.677†	11232.2	11117.9	486.53 µg/L	486.53 ppb	05:26:22
3	Ba 233.527†	19046.7	19221.9	484.73 µg/L	484.73 ppb	05:26:22
3	Be 313.107†	799317.9	799369.2	488.61 µg/L	488.61 ppb	05:26:16
3	Cd 226.502†	18465.5	18660.8	485.81 µg/L	485.81 ppb	05:26:22
3	Co 228.616†	9914.2	10035.7	482.22 µg/L	482.22 ppb	05:26:22
3	Cr 267.716†	22206.2	22444.4	471.92 µg/L	471.92 ppb	05:26:22
3	Cu 324.752†	70738.0	67661.4	471.19 µg/L	471.19 ppb	05:26:22
3	Mn 257.610†	154830.6	155767.6	488.20 µg/L	488.20 ppb	05:26:16
3	Mo 202.031†	3826.3	3845.1	437.09 µg/L	437.09 ppb	05:26:43
3	Ni 231.604†	9156.0	8864.8	479.85 µg/L	479.85 ppb	05:26:22
3	P 214.914†	1249.5	1043.3	2199.8 µg/L	2199.8 ppb	05:26:43
3	Pb 220.353†	1859.0	1816.0	460.24 µg/L	460.24 ppb	05:26:43
3	S 181.975 Axial†	215.7	190.9	965.80 µg/L	965.80 ppb	05:26:43
3	Sb 206.836†	469.1	448.5	451.15 µg/L	451.15 ppb	05:26:43
3	Se 196.026†	344.7	333.9	473.85 µg/L	473.85 ppb	05:26:43
3	SiO2†	29101.4	27108.6	5210.2 µg/L	5210.2 ppb	05:26:22
3	Si 251.611†	31704.3	31471.8	2384.0 µg/L	2384.0 ppb	05:26:22
3	Sn 189.927†	904.0	886.0	437.80 µg/L	437.80 ppb	05:26:43
3	Ti 334.940†	219947.6	220080.6	482.26 µg/L	482.26 ppb	05:26:16
3	Tl 190.801†	296.4	321.3	479.59 µg/L	479.59 ppb	05:26:43
3	U 409.014†	5844.2	4934.7	474.01 µg/L	474.01 ppb	05:26:22
3	V 292.402†	41878.9	42168.8	483.10 µg/L	483.10 ppb	05:26:22
3	Zn 213.857†	18726.3	18216.5	486.07 µg/L	486.07 ppb	05:26:22

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2164103.6	99.248	%	0.2581				0.26%
Sc RADIAL	123442.3	98.9	%	0.49				0.49%
Y 371.029	1310406.0	98.830	%	0.2759				0.28%
Ag 328.068†	56523.0	515.79	µg/L	16.304	515.79	ppb	16.304	3.16%
QC value within limits for Ag 328.068 Recovery = 103.16%								
Al 396.153Radial†	10750.6	5212.4	µg/L	38.23	5212.4	ppb	38.23	0.73%
QC value within limits for Al 396.153Radial Recovery = 104.25%								
As 188.979†	267.1	501.80	µg/L	35.440	501.80	ppb	35.440	7.06%
QC value within limits for As 188.979 Recovery = 100.36%								
B 249.677†	11625.3	508.81	µg/L	19.351	508.81	ppb	19.351	3.80%
QC value within limits for B 249.677 Recovery = 101.76%								
Ba 233.527†	20288.9	511.65	µg/L	23.354	511.65	ppb	23.354	4.56%
QC value within limits for Ba 233.527 Recovery = 102.33%								
Be 313.107†	826581.1	505.25	µg/L	14.429	505.25	ppb	14.429	2.86%
QC value within limits for Be 313.107 Recovery = 101.05%								
Ca 317.933Radial†	14325.9	5225.9	µg/L	32.37	5225.9	ppb	32.37	0.62%
QC value within limits for Ca 317.933Radial Recovery = 104.52%								
Cd 226.502†	19746.1	514.10	µg/L	24.651	514.10	ppb	24.651	4.80%
QC value within limits for Cd 226.502 Recovery = 102.82%								
Co 228.616†	10674.0	512.97	µg/L	26.661	512.97	ppb	26.661	5.20%

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   QC value within limits for Co 228.616  Recovery = 102.59%
Cr 267.716†            24231.2      509.48 µg/L        32.571      509.48 ppb        32.571   6.39%
   QC value within limits for Cr 267.716  Recovery = 101.90%
Cu 324.752†            71663.0      498.98 µg/L        24.167      498.98 ppb        24.167   4.84%
   QC value within limits for Cu 324.752  Recovery = 99.80%
Fe 238.204 Radial†      1028.8      5191.6 µg/L         36.64      5191.6 ppb         36.64   0.71%
   QC value within limits for Fe 238.204 Radial  Recovery = 103.83%
K 766.490 Radial†       9742.4      5203.6 µg/L         26.92      5203.6 ppb         26.92   0.52%
   QC value within limits for K 766.490 Radial  Recovery = 104.07%
Mg 279.077 IEC†          992.5      5291.0 µg/L         28.44      5291.0 ppb         28.44   0.54%
   QC value within limits for Mg 279.077 IEC  Recovery = 105.82%
Mn 257.610†           160849.9      504.10 µg/L        13.784      504.10 ppb        13.784   2.73%
   QC value within limits for Mn 257.610  Recovery = 100.82%
Mo 202.031†             4314.4      490.41 µg/L        46.211      490.41 ppb        46.211   9.42%
   QC value within limits for Mo 202.031  Recovery = 98.08%
Na 589.592 Radial†     40511.5       10499 µg/L          42.1       10499 ppb          42.1   0.40%
   QC value within limits for Na 589.592 Radial  Recovery = 104.99%
Ni 231.604†             9441.1      511.04 µg/L        27.030      511.04 ppb        27.030   5.29%
   QC value within limits for Ni 231.604  Recovery = 102.21%
P 214.914†              1154.8      2438.4 µg/L        206.66      2438.4 ppb        206.66   8.48%
   QC value within limits for P 214.914  Recovery = 97.54%
Pb 220.353†             1988.3      503.95 µg/L        37.852      503.95 ppb        37.852   7.51%
   QC value within limits for Pb 220.353  Recovery = 100.79%
S 181.975 Axial†         204.8      1036.2 µg/L         61.40      1036.2 ppb         61.40   5.93%
   QC value within limits for S 181.975 Axial  Recovery = 103.62%
Sb 206.836†              495.7      498.62 µg/L        41.115      498.62 ppb        41.115   8.25%
   QC value within limits for Sb 206.836  Recovery = 99.72%
Se 196.026†              363.9      516.25 µg/L        36.939      516.25 ppb        36.939   7.16%
   QC value within limits for Se 196.026  Recovery = 103.25%
SiO2†                  28430.5      5464.2 µg/L        220.63      5464.2 ppb        220.63   4.04%
   QC value within limits for SiO2  Recovery = 102.18%
Si 251.611†            33062.9      2503.0 µg/L        103.21      2503.0 ppb        103.21   4.12%
   QC value within limits for Si 251.611  Recovery = 100.12%
Sn 189.927†             1004.6      496.03 µg/L        50.549      496.03 ppb        50.549  10.19%
   QC value within limits for Sn 189.927  Recovery = 99.21%
Sr 421.552†            95833.2      511.21 µg/L         2.607      511.21 ppb         2.607   0.51%
   QC value within limits for Sr 421.552  Recovery = 102.24%
Ti 334.940†           228255.4      500.19 µg/L        15.533      500.19 ppb        15.533   3.11%
   QC value within limits for Ti 334.940  Recovery = 100.04%
Tl 190.801†              344.9      514.63 µg/L        31.709      514.63 ppb        31.709   6.16%
   QC value within limits for Tl 190.801  Recovery = 102.93%
U 409.014†              5237.7      503.17 µg/L        25.458      503.17 ppb        25.458   5.06%
   QC value within limits for U 409.014  Recovery = 100.63%
V 292.402†             44952.2      515.13 µg/L        27.772      515.13 ppb        27.772   5.39%
   QC value within limits for V 292.402  Recovery = 103.03%
Zn 213.857†            19302.2      515.07 µg/L        25.162      515.07 ppb        25.162   4.89%
   QC value within limits for Zn 213.857  Recovery = 103.01%
All analyte(s) passed QC.
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Sequence No.: 16
Sample ID: PQL
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 101
Date Collected: 12/19/2009 05:26:52
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: PQL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	121671.4	121671.4	97.5	%			05:27:26
1	Al 396.153Radial†	600.4	408.3	198.28	µg/L	198.28	ppb	05:27:26
1	Ca 317.933Radial†	1044.3	626.9	228.67	µg/L	228.67	ppb	05:27:46
1	Fe 238.204 Radial†	27.3	19.7	99.492	µg/L	99.492	ppb	05:27:46
1	K 766.490 Radial†	1103.9	299.7	160.08	µg/L	160.08	ppb	05:27:26
1	Mg 279.077 IEC†	76.6	62.9	335.20	µg/L	335.20	ppb	05:27:46
1	Na 589.592 Radial†	616.8	1378.1	357.14	µg/L	357.14	ppb	05:27:26
1	Sr 421.552†	878.4	1011.4	5.3952	µg/L	5.3952	ppb	05:27:26
1	Sc 361.383	2162156.7	2162156.7	99.158	%			05:28:48
1	Y 371.029	1317185.9	1317185.9	99.342	%			05:28:48
1	Ag 328.068†	676.8	601.8	5.4930	µg/L	5.4930	ppb	05:28:54
1	As 188.979†	18.1	17.2	32.269	µg/L	32.269	ppb	05:29:14
1	B 249.677†	1335.8	1180.9	51.819	µg/L	51.819	ppb	05:28:54
1	Ba 233.527†	143.8	232.3	5.8571	µg/L	5.8571	ppb	05:29:14
1	Be 313.107†	12303.2	8765.4	5.3579	µg/L	5.3579	ppb	05:28:54
1	Cd 226.502†	94.9	205.6	5.3868	µg/L	5.3868	ppb	05:29:14
1	Co 228.616†	27.0	102.9	4.9580	µg/L	4.9580	ppb	05:29:14
1	Cr 267.716†	117.3	253.9	5.3384	µg/L	5.3384	ppb	05:28:54
1	Cu 324.752†	4947.5	1586.1	11.040	µg/L	11.040	ppb	05:28:54
1	Mn 257.610†	3185.9	3434.5	10.762	µg/L	10.762	ppb	05:28:54
1	Mo 202.031†	89.5	91.3	10.381	µg/L	10.381	ppb	05:29:14
1	Ni 231.604†	438.6	108.9	5.8937	µg/L	5.8937	ppb	05:29:14
1	P 214.914†	276.7	67.1	143.68	µg/L	143.68	ppb	05:29:14
1	Pb 220.353†	102.9	52.2	13.189	µg/L	13.189	ppb	05:29:14
1	S 181.975 Axial†	54.5	29.2	147.97	µg/L	147.97	ppb	05:29:14
1	Sb 206.836†	36.5	14.1	14.200	µg/L	14.200	ppb	05:29:14
1	Se 196.026†	20.6	8.3	11.748	µg/L	11.748	ppb	05:29:14
1	SiO2†	3304.7	1205.5	231.68	µg/L	231.68	ppb	05:28:54
1	Si 251.611†	1774.2	1410.3	107.91	µg/L	107.91	ppb	05:28:54
1	Sn 189.927†	45.8	24.0	11.925	µg/L	11.925	ppb	05:29:14
1	Ti 334.940†	3243.9	2388.1	5.2234	µg/L	5.2234	ppb	05:28:54
1	Tl 190.801†	-9.7	13.8	20.517	µg/L	20.517	ppb	05:29:14
1	U 409.014†	1513.3	589.6	56.726	µg/L	56.726	ppb	05:28:54
1	V 292.402†	356.1	455.5	5.3452	µg/L	5.3452	ppb	05:28:54
1	Zn 213.857†	1010.4	422.7	11.303	µg/L	11.303	ppb	05:29:14
2	Sc RADIAL	120331.0	120331.0	96.4	%			05:27:52
2	Al 396.153Radial†	646.2	462.7	224.77	µg/L	224.77	ppb	05:27:52
2	Ca 317.933Radial†	1056.5	651.5	237.65	µg/L	237.65	ppb	05:28:12
2	Fe 238.204 Radial†	30.9	23.8	119.73	µg/L	119.73	ppb	05:28:12
2	K 766.490 Radial†	1049.6	255.9	136.69	µg/L	136.69	ppb	05:27:52
2	Mg 279.077 IEC†	73.8	60.9	324.24	µg/L	324.24	ppb	05:28:12
2	Na 589.592 Radial†	571.8	1338.4	346.86	µg/L	346.86	ppb	05:27:52
2	Sr 421.552†	849.9	991.8	5.2908	µg/L	5.2908	ppb	05:27:52
2	Sc 361.383	2164686.6	2164686.6	99.274	%			05:29:20
2	Y 371.029	1317877.2	1317877.2	99.394	%			05:29:20
2	Ag 328.068†	749.4	674.2	6.1482	µg/L	6.1482	ppb	05:29:26
2	As 188.979†	15.2	14.2	26.772	µg/L	26.772	ppb	05:29:46
2	B 249.677†	1325.1	1168.5	51.271	µg/L	51.271	ppb	05:29:26
2	Ba 233.527†	134.0	222.3	5.6038	µg/L	5.6038	ppb	05:29:46
2	Be 313.107†	12232.5	8679.7	5.3054	µg/L	5.3054	ppb	05:29:26
2	Cd 226.502†	94.6	205.2	5.3648	µg/L	5.3648	ppb	05:29:46
2	Co 228.616†	21.6	97.4	4.6946	µg/L	4.6946	ppb	05:29:46
2	Cr 267.716†	116.3	252.7	5.3125	µg/L	5.3125	ppb	05:29:26
2	Cu 324.752†	4926.4	1559.0	10.857	µg/L	10.857	ppb	05:29:26
2	Mn 257.610†	3161.9	3406.5	10.677	µg/L	10.677	ppb	05:29:26
2	Mo 202.031†	88.8	90.5	10.289	µg/L	10.289	ppb	05:29:46
2	Ni 231.604†	443.6	113.4	6.1400	µg/L	6.1400	ppb	05:29:46
2	P 214.914†	287.3	77.5	166.06	µg/L	166.06	ppb	05:29:46
2	Pb 220.353†	96.7	45.8	11.592	µg/L	11.592	ppb	05:29:46

2	S 181.975 Axial†	52.9	27.5	139.44 µg/L	139.44 ppb	05:29:46
2	Sb 206.836†	39.3	16.9	17.003 µg/L	17.003 ppb	05:29:46
2	Se 196.026†	43.6	31.5	44.437 µg/L	44.437 ppb	05:29:46
2	SiO2†	3271.3	1167.9	224.47 µg/L	224.47 ppb	05:29:26
2	Si 251.611†	1761.1	1395.0	106.84 µg/L	106.84 ppb	05:29:26
2	Sn 189.927†	40.5	18.6	9.2538 µg/L	9.2538 ppb	05:29:46
2	Ti 334.940†	3271.0	2411.6	5.2744 µg/L	5.2744 ppb	05:29:26
2	Tl 190.801†	-10.7	12.8	19.004 µg/L	19.004 ppb	05:29:46
2	U 409.014†	1377.1	450.7	43.352 µg/L	43.352 ppb	05:29:26
2	V 292.402†	332.0	430.8	5.0442 µg/L	5.0442 ppb	05:29:26
2	Zn 213.857†	1002.5	413.6	11.054 µg/L	11.054 ppb	05:29:46
3	Sc RADIAL	121475.4	121475.4	97.3 %		05:28:18
3	Al 396.153Radial†	618.7	428.2	208.02 µg/L	208.02 ppb	05:28:18
3	Ca 317.933Radial†	1054.8	639.4	233.24 µg/L	233.24 ppb	05:28:38
3	Fe 238.204 Radial†	31.3	23.9	120.14 µg/L	120.14 ppb	05:28:38
3	K 766.490 Radial†	1119.9	317.9	169.79 µg/L	169.79 ppb	05:28:18
3	Mg 279.077 IEC†	71.1	57.4	305.55 µg/L	305.55 ppb	05:28:38
3	Na 589.592 Radial†	607.3	1369.3	354.86 µg/L	354.86 ppb	05:28:18
3	Sr 421.552†	943.3	1079.5	5.7584 µg/L	5.7584 ppb	05:28:18
3	Sc 361.383	2138780.3	2138780.3	98.086 %		05:29:52
3	Y 371.029	1302349.6	1302349.6	98.223 %		05:29:52
3	Ag 328.068†	704.8	637.8	5.8158 µg/L	5.8158 ppb	05:29:58
3	As 188.979†	16.1	15.4	28.909 µg/L	28.909 ppb	05:30:19
3	B 249.677†	1264.8	1123.3	49.282 µg/L	49.282 ppb	05:29:58
3	Ba 233.527†	111.4	200.8	5.0633 µg/L	5.0633 ppb	05:30:19
3	Be 313.107†	11571.8	8155.3	4.9849 µg/L	4.9849 ppb	05:29:58
3	Cd 226.502†	73.1	184.5	4.8246 µg/L	4.8246 ppb	05:30:19
3	Co 228.616†	17.0	93.0	4.4777 µg/L	4.4777 ppb	05:30:19
3	Cr 267.716†	119.9	257.9	5.4202 µg/L	5.4202 ppb	05:29:58
3	Cu 324.752†	4793.3	1483.4	10.331 µg/L	10.331 ppb	05:29:58
3	Mn 257.610†	2991.6	3271.5	10.255 µg/L	10.255 ppb	05:29:58
3	Mo 202.031†	69.7	72.1	8.2006 µg/L	8.2006 ppb	05:30:19
3	Ni 231.604†	433.1	108.1	5.8536 µg/L	5.8536 ppb	05:30:19
3	P 214.914†	271.2	64.6	138.34 µg/L	138.34 ppb	05:30:19
3	Pb 220.353†	94.8	45.1	11.405 µg/L	11.405 ppb	05:30:19
3	S 181.975 Axial†	46.3	21.5	108.64 µg/L	108.64 ppb	05:30:19
3	Sb 206.836†	32.8	10.7	10.745 µg/L	10.745 ppb	05:30:19
3	Se 196.026†	34.0	22.3	31.443 µg/L	31.443 ppb	05:30:19
3	SiO2†	3232.8	1168.6	224.59 µg/L	224.59 ppb	05:29:58
3	Si 251.611†	1692.7	1346.7	103.15 µg/L	103.15 ppb	05:29:58
3	Sn 189.927†	39.7	18.3	9.0942 µg/L	9.0942 ppb	05:30:19
3	Ti 334.940†	3115.3	2292.7	5.0139 µg/L	5.0139 ppb	05:29:58
3	Tl 190.801†	-7.7	15.7	23.360 µg/L	23.360 ppb	05:30:19
3	U 409.014†	1348.4	438.2	42.149 µg/L	42.149 ppb	05:29:58
3	V 292.402†	289.3	391.3	4.5789 µg/L	4.5789 ppb	05:29:58
3	Zn 213.857†	946.5	368.8	9.8516 µg/L	9.8516 ppb	05:30:19

Mean Data: PQL

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2155207.9	98.840	%	0.6550				0.66%
Sc RADIAL	121159.3	97.1	%	0.58				0.60%
Y 371.029	1312470.9	98.986	%	0.6616				0.67%
Ag 328.068†	637.9	5.8190	µg/L	0.32764	5.8190	ppb	0.32764	5.63%
QC value within limits for Ag 328.068 Recovery = 116.38%								
Al 396.153Radial†	433.1	210.36	µg/L	13.398	210.36	ppb	13.398	6.37%
QC value within limits for Al 396.153Radial Recovery = 105.18%								
As 188.979†	15.6	29.317	µg/L	2.7709	29.317	ppb	2.7709	9.45%
QC value within limits for As 188.979 Recovery = 97.72%								
B 249.677†	1157.6	50.791	µg/L	1.3350	50.791	ppb	1.3350	2.63%
QC value within limits for B 249.677 Recovery = 101.58%								
Ba 233.527†	218.5	5.5081	µg/L	0.40547	5.5081	ppb	0.40547	7.36%
QC value within limits for Ba 233.527 Recovery = 110.16%								
Be 313.107†	8533.5	5.2161	µg/L	0.20190	5.2161	ppb	0.20190	3.87%
QC value within limits for Be 313.107 Recovery = 104.32%								
Ca 317.933Radial†	639.2	233.19	µg/L	4.488	233.19	ppb	4.488	1.92%
QC value within limits for Ca 317.933Radial Recovery = 116.59%								
Cd 226.502†	198.4	5.1921	µg/L	0.31846	5.1921	ppb	0.31846	6.13%
QC value within limits for Cd 226.502 Recovery = 103.84%								
Co 228.616†	97.8	4.7101	µg/L	0.24050	4.7101	ppb	0.24050	5.11%

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   QC value within limits for Co 228.616  Recovery = 94.20%
Cr 267.716†              254.8      5.3570 µg/L       0.05622      5.3570 ppb        0.05622   1.05%
   QC value within limits for Cr 267.716  Recovery = 107.14%
Cu 324.752†             1542.8      10.743 µg/L        0.3680      10.743 ppb         0.3680   3.43%
   QC value within limits for Cu 324.752  Recovery = 107.43%
Fe 238.204 Radial†        22.5      113.12 µg/L        11.805      113.12 ppb         11.805  10.44%
   QC value within limits for Fe 238.204 Radial  Recovery = 113.12%
K 766.490 Radial†        291.2      155.52 µg/L        17.014      155.52 ppb         17.014  10.94%
   QC value within limits for K 766.490 Radial  Recovery = 103.68%
Mg 279.077 IEC†           60.4      321.66 µg/L        14.992      321.66 ppb         14.992   4.66%
   QC value within limits for Mg 279.077 IEC  Recovery = 107.22%
Mn 257.610†             3370.8      10.565 µg/L        0.2719      10.565 ppb         0.2719   2.57%
   QC value within limits for Mn 257.610  Recovery = 105.65%
Mo 202.031†               84.7      9.6234 µg/L       1.23307      9.6234 ppb        1.23307  12.81%
   QC value within limits for Mo 202.031  Recovery = 96.23%
Na 589.592 Radial†      1361.9      352.96 µg/L         5.399      352.96 ppb          5.399   1.53%
   QC value within limits for Na 589.592 Radial  Recovery = 117.65%
Ni 231.604†              110.1      5.9624 µg/L       0.15509      5.9624 ppb        0.15509   2.60%
   QC value within limits for Ni 231.604  Recovery = 119.25%
P 214.914†                69.7      149.36 µg/L        14.706      149.36 ppb         14.706   9.85%
   QC value within limits for P 214.914  Recovery = 99.57%
Pb 220.353†               47.7      12.062 µg/L        0.9808      12.062 ppb         0.9808   8.13%
   QC value within limits for Pb 220.353  Recovery = 120.62%
S 181.975 Axial†          26.1      132.01 µg/L        20.691      132.01 ppb         20.691  15.67%
   QC value greater than the upper limit for S 181.975 Axial  Recovery = 132.01%
Sb 206.836†               13.9      13.983 µg/L        3.1346      13.983 ppb         3.1346  22.42%
   QC value greater than the upper limit for Sb 206.836  Recovery = 139.83%
Se 196.026†               20.7      29.209 µg/L       16.4585      29.209 ppb        16.4585  56.35%
   QC value within limits for Se 196.026  Recovery = 97.36%
SiO2†                   1180.7      226.92 µg/L         4.129      226.92 ppb          4.129   1.82%
   QC value within limits for SiO2  Recovery = 106.53%
Si 251.611†             1384.0      105.97 µg/L         2.496      105.97 ppb          2.496   2.36%
   QC value within limits for Si 251.611  Recovery = 105.97%
Sn 189.927†               20.3      10.091 µg/L        1.5901      10.091 ppb         1.5901  15.76%
   QC value within limits for Sn 189.927  Recovery = 100.91%
Sr 421.552†             1027.6      5.4814 µg/L       0.24545      5.4814 ppb        0.24545   4.48%
   QC value within limits for Sr 421.552  Recovery = 109.63%
Ti 334.940†             2364.1      5.1706 µg/L       0.13803      5.1706 ppb        0.13803   2.67%
   QC value within limits for Ti 334.940  Recovery = 103.41%
Tl 190.801†               14.1      20.960 µg/L        2.2116      20.960 ppb         2.2116  10.55%
   QC value within limits for Tl 190.801  Recovery = 104.80%
U 409.014†               492.8      47.409 µg/L        8.0909      47.409 ppb         8.0909  17.07%
   QC value within limits for U 409.014  Recovery = 94.82%
V 292.402†               425.9      4.9894 µg/L       0.38604      4.9894 ppb        0.38604   7.74%
   QC value within limits for V 292.402  Recovery = 99.79%
Zn 213.857†              401.7      10.736 µg/L        0.7763      10.736 ppb         0.7763   7.23%
   QC value within limits for Zn 213.857  Recovery = 107.36%
QC Failed.  Continue with analysis.
```

Sequence No.: 17
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 12/19/2009 05:30:27
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	120857.5	120857.5	96.9	%			05:31:01
1	Al 396.153Radial†	223.5	23.4	11.350	µg/L	11.350	ppb	05:31:01
1	Ca 317.933Radial†	492.6	64.5	23.543	µg/L	23.543	ppb	05:31:22
1	Fe 238.204 Radial†	9.0	1.1	5.3209	µg/L	5.3209	ppb	05:31:22
1	K 766.490 Radial†	719.2	-89.9	-48.025	µg/L	-48.025	ppb	05:31:01
1	Mg 279.077 IEC†	18.0	3.0	15.758	µg/L	15.758	ppb	05:31:22
1	Na 589.592 Radial†	-682.2	41.1	10.661	µg/L	10.661	ppb	05:31:01
1	Sr 421.552†	-88.0	19.6	0.1045	µg/L	0.1045	ppb	05:31:01
1	Sc 361.383	2155619.2	2155619.2	98.858	%			05:32:24
1	Y 371.029	1311523.1	1311523.1	98.914	%			05:32:24
1	Ag 328.068†	122.6	43.3	0.3909	µg/L	0.3909	ppb	05:32:29
1	As 188.979†	5.8	4.8	9.0168	µg/L	9.0168	ppb	05:32:50
1	B 249.677†	132.2	-32.5	-1.4305	µg/L	-1.4305	ppb	05:32:29
1	Ba 233.527†	-73.5	12.9	0.3244	µg/L	0.3244	ppb	05:32:50
1	Be 313.107†	3674.5	74.7	0.0457	µg/L	0.0457	ppb	05:32:29
1	Cd 226.502†	-114.7	-6.1	-0.1634	µg/L	-0.1634	ppb	05:32:50
1	Co 228.616†	-74.7	0.1	0.0063	µg/L	0.0063	ppb	05:32:50
1	Cr 267.716†	-150.0	-16.1	-0.3386	µg/L	-0.3386	ppb	05:32:29
1	Cu 324.752†	3373.0	8.5	0.0600	µg/L	0.0600	ppb	05:32:29
1	Mn 257.610†	-188.1	31.3	0.0986	µg/L	0.0986	ppb	05:32:29
1	Mo 202.031†	2.3	3.4	0.3883	µg/L	0.3883	ppb	05:32:50
1	Ni 231.604†	344.8	15.3	0.8286	µg/L	0.8286	ppb	05:32:50
1	P 214.914†	207.0	-2.6	-5.5352	µg/L	-5.5352	ppb	05:32:50
1	Pb 220.353†	56.4	5.5	1.3906	µg/L	1.3906	ppb	05:32:50
1	S 181.975 Axial†	31.1	5.7	29.041	µg/L	29.041	ppb	05:32:50
1	Sb 206.836†	23.9	1.5	1.4575	µg/L	1.4575	ppb	05:32:50
1	Se 196.026†	3.7	-8.7	-12.257	µg/L	-12.257	ppb	05:32:50
1	SiO2†	2069.3	-34.2	-6.5691	µg/L	-6.5691	ppb	05:32:29
1	Si 251.611†	374.1	-0.5	-0.0375	µg/L	-0.0375	ppb	05:32:50
1	Sn 189.927†	22.5	0.6	0.3220	µg/L	0.3220	ppb	05:32:50
1	Ti 334.940†	833.6	-40.2	-0.0894	µg/L	-0.0894	ppb	05:32:29
1	Tl 190.801†	-18.6	4.7	6.9991	µg/L	6.9991	ppb	05:32:50
1	U 409.014†	839.5	-87.3	-8.3989	µg/L	-8.3989	ppb	05:32:29
1	V 292.402†	-110.9	-15.7	-0.1889	µg/L	-0.1889	ppb	05:32:29
1	Zn 213.857†	609.7	20.5	0.5467	µg/L	0.5467	ppb	05:32:50
2	Sc RADIAL	122216.2	122216.2	97.9	%			05:31:27
2	Al 396.153Radial†	231.4	28.9	14.080	µg/L	14.080	ppb	05:31:27
2	Ca 317.933Radial†	477.7	43.6	15.907	µg/L	15.907	ppb	05:31:48
2	Fe 238.204 Radial†	7.9	-0.2	-1.1449	µg/L	-1.1449	ppb	05:31:48
2	K 766.490 Radial†	813.0	-2.4	-1.3071	µg/L	-1.3071	ppb	05:31:27
2	Mg 279.077 IEC†	21.2	6.0	31.960	µg/L	31.960	ppb	05:31:48
2	Na 589.592 Radial†	-661.0	70.5	18.280	µg/L	18.280	ppb	05:31:27
2	Sr 421.552†	-93.6	14.9	0.0794	µg/L	0.0794	ppb	05:31:27
2	Sc 361.383	2162267.7	2162267.7	99.163	%			05:32:56
2	Y 371.029	1315240.2	1315240.2	99.195	%			05:32:56
2	Ag 328.068†	113.2	33.4	0.3014	µg/L	0.3014	ppb	05:33:01
2	As 188.979†	4.3	3.3	6.2472	µg/L	6.2472	ppb	05:33:22
2	B 249.677†	154.0	-10.9	-0.4786	µg/L	-0.4786	ppb	05:33:01
2	Ba 233.527†	-86.4	0.1	0.0015	µg/L	0.0015	ppb	05:33:22
2	Be 313.107†	3703.3	92.3	0.0564	µg/L	0.0564	ppb	05:33:01
2	Cd 226.502†	-116.2	-7.2	-0.1885	µg/L	-0.1885	ppb	05:33:22
2	Co 228.616†	-88.5	-13.6	-0.6531	µg/L	-0.6531	ppb	05:33:22
2	Cr 267.716†	-158.1	-23.8	-0.4990	µg/L	-0.4990	ppb	05:33:01
2	Cu 324.752†	3377.1	2.1	0.0146	µg/L	0.0146	ppb	05:33:01
2	Mn 257.610†	-212.2	7.5	0.0234	µg/L	0.0234	ppb	05:33:01
2	Mo 202.031†	-5.3	-4.3	-0.4877	µg/L	-0.4877	ppb	05:33:22
2	Ni 231.604†	336.7	6.1	0.3322	µg/L	0.3322	ppb	05:33:22
2	P 214.914†	206.8	-3.4	-7.3753	µg/L	-7.3753	ppb	05:33:22
2	Pb 220.353†	51.1	-0.1	-0.0143	µg/L	-0.0143	ppb	05:33:22

2	S 181.975 Axial†	26.8	1.3	6.7818 µg/L	6.7818 ppb	05:33:22
2	Sb 206.836†	28.9	6.4	6.4272 µg/L	6.4272 ppb	05:33:22
2	Se 196.026†	20.8	8.6	12.068 µg/L	12.068 ppb	05:33:22
2	SiO2†	2047.6	-62.4	-11.995 µg/L	-11.995 ppb	05:33:01
2	Si 251.611†	377.7	2.0	0.2448 µg/L	0.2448 ppb	05:33:22
2	Sn 189.927†	17.4	-4.6	-2.2649 µg/L	-2.2649 ppb	05:33:22
2	Ti 334.940†	908.2	32.5	0.0705 µg/L	0.0705 ppb	05:33:01
2	Tl 190.801†	-20.0	3.4	5.1206 µg/L	5.1206 ppb	05:33:22
2	U 409.014†	920.4	-8.3	-0.8026 µg/L	-0.8026 ppb	05:33:01
2	V 292.402†	-103.5	-7.9	-0.0950 µg/L	-0.0950 ppb	05:33:01
2	Zn 213.857†	610.7	19.6	0.5237 µg/L	0.5237 ppb	05:33:22
3	Sc RADIAL	123044.7	123044.7	98.6 %		05:31:53
3	Al 396.153Radial†	183.3	-21.5	-10.471 µg/L	-10.471 ppb	05:31:53
3	Ca 317.933Radial†	486.3	49.1	17.903 µg/L	17.903 ppb	05:32:14
3	Fe 238.204 Radial†	6.1	-2.1	-10.624 µg/L	-10.624 ppb	05:32:14
3	K 766.490 Radial†	715.6	-106.8	-57.039 µg/L	-57.039 ppb	05:31:53
3	Mg 279.077 IEC†	18.0	2.6	13.777 µg/L	13.777 ppb	05:32:14
3	Na 589.592 Radial†	-655.7	80.5	20.858 µg/L	20.858 ppb	05:31:53
3	Sr 421.552†	-85.4	23.9	0.1277 µg/L	0.1277 ppb	05:31:53
3	Sc 361.383	2174926.7	2174926.7	99.744 %		05:33:28
3	Y 371.029	1323417.5	1323417.5	99.812 %		05:33:28
3	Ag 328.068†	147.4	67.0	0.6027 µg/L	0.6027 ppb	05:33:34
3	As 188.979†	0.2	-0.9	-1.6468 µg/L	-1.6468 ppb	05:33:54
3	B 249.677†	151.9	-14.0	-0.6095 µg/L	-0.6095 ppb	05:33:34
3	Ba 233.527†	-80.8	6.2	0.1560 µg/L	0.1560 ppb	05:33:54
3	Be 313.107†	3614.9	-18.1	-0.0110 µg/L	-0.0110 ppb	05:33:34
3	Cd 226.502†	-116.9	-7.3	-0.1851 µg/L	-0.1851 ppb	05:33:54
3	Co 228.616†	-66.8	8.8	0.4214 µg/L	0.4214 ppb	05:33:54
3	Cr 267.716†	-152.4	-17.2	-0.3610 µg/L	-0.3610 ppb	05:33:34
3	Cu 324.752†	3354.2	-40.6	-0.2845 µg/L	-0.2845 ppb	05:33:34
3	Mn 257.610†	-212.9	8.1	0.0241 µg/L	0.0241 ppb	05:33:34
3	Mo 202.031†	-3.0	-1.9	-0.2194 µg/L	-0.2194 ppb	05:33:54
3	Ni 231.604†	343.7	11.2	0.6066 µg/L	0.6066 ppb	05:33:54
3	P 214.914†	203.3	-8.1	-17.489 µg/L	-17.489 ppb	05:33:54
3	Pb 220.353†	55.9	4.5	1.1253 µg/L	1.1253 ppb	05:33:54
3	S 181.975 Axial†	32.3	6.6	33.504 µg/L	33.504 ppb	05:33:54
3	Sb 206.836†	20.8	-1.9	-1.9310 µg/L	-1.9310 ppb	05:33:54
3	Se 196.026†	13.4	1.0	1.4156 µg/L	1.4156 ppb	05:33:54
3	SiO2†	2089.5	-32.4	-6.2335 µg/L	-6.2335 ppb	05:33:34
3	Si 251.611†	373.7	-4.3	-0.2940 µg/L	-0.2940 ppb	05:33:54
3	Sn 189.927†	21.6	-0.5	-0.2431 µg/L	-0.2431 ppb	05:33:54
3	Ti 334.940†	852.9	-28.3	-0.0630 µg/L	-0.0630 ppb	05:33:34
3	Tl 190.801†	-17.7	5.8	8.6211 µg/L	8.6211 ppb	05:33:54
3	U 409.014†	963.4	29.4	2.8305 µg/L	2.8305 ppb	05:33:34
3	V 292.402†	-137.3	-41.2	-0.4656 µg/L	-0.4656 ppb	05:33:34
3	Zn 213.857†	614.3	19.6	0.5255 µg/L	0.5255 ppb	05:33:54

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2164271.2	99.255	%	0.4498				0.45%
Sc RADIAL	122039.4	97.8	%	0.88				0.90%
Y 371.029	1316726.9	99.307	%	0.4589				0.46%
Ag 328.068†	47.9	0.4317	µg/L	0.15474	0.4317	ppb	0.15474	35.84%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	10.2	4.9862	µg/L	13.45608	4.9862	ppb	13.45608	269.87%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	2.4	4.5391	µg/L	5.53318	4.5391	ppb	5.53318	121.90%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-19.1	-0.8395	µg/L	0.51597	-0.8395	ppb	0.51597	61.46%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	6.4	0.1607	µg/L	0.16150	0.1607	ppb	0.16150	100.53%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	49.7	0.0304	µg/L	0.03626	0.0304	ppb	0.03626	119.39%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	52.4	19.118	µg/L	3.9601	19.118	ppb	3.9601	20.71%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	-6.9	-0.1790	µg/L	0.01362	-0.1790	ppb	0.01362	7.61%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	-1.6	-0.0751	µg/L	0.54187	-0.0751	ppb	0.54187	721.22%

```
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -19.0     -0.3995 µg/L       0.08686     -0.3995 ppb        0.08686  21.74%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -10.0     -0.0700 µg/L       0.18713     -0.0700 ppb        0.18713 267.46%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        -0.4     -2.1493 µg/L       8.01970     -2.1493 ppb        8.01970 373.14%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        -66.4     -35.457 µg/L       29.9162     -35.457 ppb        29.9162  84.37%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           3.8      20.498 µg/L        9.9752      20.498 ppb         9.9752  48.66%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              15.6      0.0487 µg/L       0.04321      0.0487 ppb        0.04321  88.76%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               -0.9     -0.1063 µg/L       0.44884     -0.1063 ppb        0.44884 422.30%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        64.1      16.600 µg/L        5.3022      16.600 ppb         5.3022  31.94%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              10.9      0.5891 µg/L       0.24865      0.5891 ppb        0.24865  42.21%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -4.7     -10.133 µg/L        6.4362     -10.133 ppb         6.4362  63.52%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               3.3      0.8339 µg/L       0.74642      0.8339 ppb        0.74642  89.51%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          4.6      23.109 µg/L       14.3147      23.109 ppb        14.3147  61.94%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               2.0      1.9846 µg/L       4.20392      1.9846 ppb        4.20392 211.83%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               0.3      0.4088 µg/L      12.19397      0.4088 ppb       12.19397 >999.9%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    -43.0     -8.2659 µg/L       3.23398     -8.2659 ppb        3.23398  39.12%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               -1.0     -0.0289 µg/L       0.26947     -0.0289 ppb        0.26947 932.41%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               -1.5     -0.7287 µg/L       1.36012     -0.7287 ppb        1.36012 186.66%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              19.5      0.1039 µg/L       0.02415      0.1039 ppb        0.02415  23.25%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              -12.0     -0.0273 µg/L       0.08567     -0.0273 ppb        0.08567 313.87%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               4.7      6.9136 µg/L       1.75181      6.9136 ppb        1.75181  25.34%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -22.1     -2.1237 µg/L       5.73005     -2.1237 ppb        5.73005 269.82%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               -21.6     -0.2498 µg/L       0.19266     -0.2498 ppb        0.19266  77.12%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              19.9      0.5320 µg/L       0.01279      0.5320 ppb        0.01279   2.40%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 24
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 12/19/2009 05:56:22
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	122402.2	122402.2	98.1	%			05:57:01
1	Al 396.153Radial†	10608.2	10607.3	5141.5	µg/L	5141.5	ppb	05:57:01
1	Ca 317.933Radial†	14078.2	13908.2	5073.5	µg/L	5073.5	ppb	05:57:21
1	Fe 238.204 Radial†	1016.6	1028.2	5188.6	µg/L	5188.6	ppb	05:57:21
1	K 766.490 Radial†	10250.7	9617.8	5137.0	µg/L	5137.0	ppb	05:57:01
1	Mg 279.077 IEC†	981.9	985.4	5253.7	µg/L	5253.7	ppb	05:57:21
1	Na 589.592 Radial†	38562.6	40058.8	10382	µg/L	10382	ppb	05:57:01
1	Sr 421.552†	92778.9	94695.6	505.14	µg/L	505.14	ppb	05:57:01
1	Sc 361.383	2149316.2	2149316.2	98.569	%			05:58:25
1	Y 371.029	1300298.7	1300298.7	98.068	%			05:58:25
1	Ag 328.068†	56363.7	57101.0	521.09	µg/L	521.09	ppb	05:58:30
1	As 188.979†	282.1	285.1	535.83	µg/L	535.83	ppb	05:58:51
1	B 249.677†	11776.6	11781.3	515.66	µg/L	515.66	ppb	05:58:30
1	Ba 233.527†	20175.1	20555.2	518.37	µg/L	518.37	ppb	05:58:30
1	Be 313.107†	828461.4	836843.0	511.52	µg/L	511.52	ppb	05:58:25
1	Cd 226.502†	19625.4	20020.1	521.24	µg/L	521.24	ppb	05:58:30
1	Co 228.616†	10647.6	10877.8	522.82	µg/L	522.82	ppb	05:58:30
1	Cr 267.716†	24371.1	24860.5	522.70	µg/L	522.70	ppb	05:58:30
1	Cu 324.752†	75441.5	73133.0	509.19	µg/L	509.19	ppb	05:58:30
1	Mn 257.610†	160114.7	162660.0	509.77	µg/L	509.77	ppb	05:58:25
1	Mo 202.031†	4503.8	4570.2	519.48	µg/L	519.48	ppb	05:58:51
1	Ni 231.604†	9785.2	9593.8	519.31	µg/L	519.31	ppb	05:58:30
1	P 214.914†	1400.0	1208.4	2553.4	µg/L	2553.4	ppb	05:58:51
1	Pb 220.353†	2086.3	2065.0	523.39	µg/L	523.39	ppb	05:58:51
1	S 181.975 Axial†	228.8	206.4	1043.9	µg/L	1043.9	ppb	05:58:51
1	Sb 206.836†	539.4	524.4	527.57	µg/L	527.57	ppb	05:58:51
1	Se 196.026†	393.9	387.2	549.23	µg/L	549.23	ppb	05:58:51
1	SiO2†	30448.4	28763.0	5528.1	µg/L	5528.1	ppb	05:58:30
1	Si 251.611†	33371.0	33476.4	2533.0	µg/L	2533.0	ppb	05:58:30
1	Sn 189.927†	1073.2	1066.6	526.42	µg/L	526.42	ppb	05:58:51
1	Ti 334.940†	229218.1	231661.5	507.67	µg/L	507.67	ppb	05:58:25
1	Tl 190.801†	325.7	354.0	528.11	µg/L	528.11	ppb	05:58:51
1	U 409.014†	6236.9	5390.9	517.92	µg/L	517.92	ppb	05:58:30
1	V 292.402†	45074.5	45825.1	525.27	µg/L	525.27	ppb	05:58:30
1	Zn 213.857†	19953.0	19646.3	524.26	µg/L	524.26	ppb	05:58:30
2	Sc RADIAL	122087.8	122087.8	97.8	%			05:57:27
2	Al 396.153Radial†	10642.2	10669.9	5172.2	µg/L	5172.2	ppb	05:57:27
2	Ca 317.933Radial†	14093.9	13961.2	5092.9	µg/L	5092.9	ppb	05:57:47
2	Fe 238.204 Radial†	1019.9	1034.1	5218.6	µg/L	5218.6	ppb	05:57:47
2	K 766.490 Radial†	10390.4	9787.5	5227.7	µg/L	5227.7	ppb	05:57:27
2	Mg 279.077 IEC†	984.1	990.2	5279.0	µg/L	5279.0	ppb	05:57:47
2	Na 589.592 Radial†	38584.3	40182.3	10414	µg/L	10414	ppb	05:57:27
2	Sr 421.552†	92976.4	95141.1	507.52	µg/L	507.52	ppb	05:57:27
2	Sc 361.383	2148453.8	2148453.8	98.530	%			05:58:58
2	Y 371.029	1299753.8	1299753.8	98.027	%			05:58:58
2	Ag 328.068†	56550.6	57313.6	523.03	µg/L	523.03	ppb	05:59:03
2	As 188.979†	269.6	272.6	512.26	µg/L	512.26	ppb	05:59:24
2	B 249.677†	11814.8	11824.8	517.57	µg/L	517.57	ppb	05:59:03
2	Ba 233.527†	20294.4	20684.5	521.62	µg/L	521.62	ppb	05:59:03
2	Be 313.107†	827201.2	835901.4	510.94	µg/L	510.94	ppb	05:58:58
2	Cd 226.502†	19742.4	20146.9	524.54	µg/L	524.54	ppb	05:59:03
2	Co 228.616†	10650.0	10884.6	523.13	µg/L	523.13	ppb	05:59:03
2	Cr 267.716†	24417.3	24917.2	523.89	µg/L	523.89	ppb	05:59:03
2	Cu 324.752†	75604.5	73329.1	510.56	µg/L	510.56	ppb	05:59:03
2	Mn 257.610†	159799.6	162405.5	508.98	µg/L	508.98	ppb	05:58:58
2	Mo 202.031†	4456.5	4524.1	514.24	µg/L	514.24	ppb	05:59:24
2	Ni 231.604†	9859.3	9673.0	523.59	µg/L	523.59	ppb	05:59:03
2	P 214.914†	1406.8	1215.9	2569.4	µg/L	2569.4	ppb	05:59:24
2	Pb 220.353†	2071.4	2050.7	519.76	µg/L	519.76	ppb	05:59:24

2	S 181.975 Axial†	232.0	209.8	1061.2 µg/L	1061.2 ppb	05:59:24
2	Sb 206.836†	530.5	515.7	518.70 µg/L	518.70 ppb	05:59:24
2	Se 196.026†	380.7	374.0	530.56 µg/L	530.56 ppb	05:59:24
2	SiO2†	30633.0	28962.8	5566.5 µg/L	5566.5 ppb	05:59:03
2	Si 251.611†	33418.3	33537.9	2537.9 µg/L	2537.9 ppb	05:59:03
2	Sn 189.927†	1067.2	1061.0	523.68 µg/L	523.68 ppb	05:59:24
2	Ti 334.940†	228764.1	231294.1	506.86 µg/L	506.86 ppb	05:58:58
2	Tl 190.801†	324.3	352.7	526.20 µg/L	526.20 ppb	05:59:24
2	U 409.014†	6248.2	5404.9	519.26 µg/L	519.26 ppb	05:59:03
2	V 292.402†	45215.6	45986.7	527.07 µg/L	527.07 ppb	05:59:03
2	Zn 213.857†	20035.5	19738.2	526.71 µg/L	526.71 ppb	05:59:03
3	Sc RADIAL	122612.1	122612.1	98.3 %		05:57:53
3	Al 396.153Radial†	10731.5	10714.3	5196.6 µg/L	5196.6 ppb	05:57:53
3	Ca 317.933Radial†	14065.3	13870.5	5059.8 µg/L	5059.8 ppb	05:58:13
3	Fe 238.204 Radial†	1017.2	1026.9	5181.1 µg/L	5181.1 ppb	05:58:13
3	K 766.490 Radial†	10318.9	9669.3	5164.6 µg/L	5164.6 ppb	05:57:53
3	Mg 279.077 IEC†	985.9	987.7	5264.2 µg/L	5264.2 ppb	05:58:13
3	Na 589.592 Radial†	38869.1	40303.4	10445 µg/L	10445 ppb	05:57:53
3	Sr 421.552†	93515.1	95282.9	508.28 µg/L	508.28 ppb	05:57:53
3	Sc 361.383	2141206.2	2141206.2	98.197 %		05:59:31
3	Y 371.029	1295328.4	1295328.4	97.693 %		05:59:31
3	Ag 328.068†	54149.5	55062.7	502.37 µg/L	502.37 ppb	05:59:37
3	As 188.979†	239.7	243.1	456.70 µg/L	456.70 ppb	05:59:57
3	B 249.677†	11220.8	11260.5	492.80 µg/L	492.80 ppb	05:59:37
3	Ba 233.527†	18966.6	19402.0	489.27 µg/L	489.27 ppb	05:59:37
3	Be 313.107†	790383.2	801249.4	489.76 µg/L	489.76 ppb	05:59:31
3	Cd 226.502†	18385.0	18832.4	490.29 µg/L	490.29 ppb	05:59:37
3	Co 228.616†	9848.9	10105.4	485.57 µg/L	485.57 ppb	05:59:37
3	Cr 267.716†	22134.1	22676.0	476.79 µg/L	476.79 ppb	05:59:37
3	Cu 324.752†	70549.2	68440.8	476.59 µg/L	476.59 ppb	05:59:37
3	Mn 257.610†	152978.5	156008.1	488.95 µg/L	488.95 ppb	05:59:31
3	Mo 202.031†	3809.1	3880.0	441.06 µg/L	441.06 ppb	05:59:57
3	Ni 231.604†	9127.6	8961.7	485.09 µg/L	485.09 ppb	05:59:37
3	P 214.914†	1239.4	1050.3	2214.2 µg/L	2214.2 ppb	05:59:57
3	Pb 220.353†	1847.0	1829.3	463.60 µg/L	463.60 ppb	05:59:57
3	S 181.975 Axial†	212.9	191.1	966.43 µg/L	966.43 ppb	05:59:57
3	Sb 206.836†	471.6	457.4	460.20 µg/L	460.20 ppb	05:59:57
3	Se 196.026†	352.3	346.4	491.51 µg/L	491.51 ppb	05:59:57
3	SiO2†	28910.2	27313.5	5249.5 µg/L	5249.5 ppb	05:59:37
3	Si 251.611†	31630.8	31832.5	2411.6 µg/L	2411.6 ppb	05:59:37
3	Sn 189.927†	899.3	893.7	441.53 µg/L	441.53 ppb	05:59:57
3	Ti 334.940†	217985.7	221103.6	484.52 µg/L	484.52 ppb	05:59:31
3	Tl 190.801†	295.8	324.8	484.72 µg/L	484.72 ppb	05:59:57
3	U 409.014†	5906.2	5078.1	487.82 µg/L	487.82 ppb	05:59:37
3	V 292.402†	41675.0	42536.4	487.33 µg/L	487.33 ppb	05:59:37
3	Zn 213.857†	18667.4	18413.8	491.34 µg/L	491.34 ppb	05:59:37

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2146325.4	98.432	%	0.2043				0.21%
Sc RADIAL	122367.3	98.1	%	0.21				0.22%
Y 371.029	1298460.3	97.929	%	0.2056				0.21%
Ag 328.068†	56492.5	515.50	µg/L	11.407	515.50	ppb	11.407	2.21%
QC value within limits for Ag 328.068 Recovery = 103.10%								
Al 396.153Radial†	10663.8	5170.1	µg/L	27.56	5170.1	ppb	27.56	0.53%
QC value within limits for Al 396.153Radial Recovery = 103.40%								
As 188.979†	266.9	501.60	µg/L	40.627	501.60	ppb	40.627	8.10%
QC value within limits for As 188.979 Recovery = 100.32%								
B 249.677†	11622.2	508.68	µg/L	13.783	508.68	ppb	13.783	2.71%
QC value within limits for B 249.677 Recovery = 101.74%								
Ba 233.527†	20213.9	509.75	µg/L	17.814	509.75	ppb	17.814	3.49%
QC value within limits for Ba 233.527 Recovery = 101.95%								
Be 313.107†	824664.6	504.08	µg/L	12.398	504.08	ppb	12.398	2.46%
QC value within limits for Be 313.107 Recovery = 100.82%								
Ca 317.933Radial†	13913.3	5075.4	µg/L	16.63	5075.4	ppb	16.63	0.33%
QC value within limits for Ca 317.933Radial Recovery = 101.51%								
Cd 226.502†	19666.5	512.02	µg/L	18.894	512.02	ppb	18.894	3.69%
QC value within limits for Cd 226.502 Recovery = 102.40%								
Co 228.616†	10622.6	510.51	µg/L	21.596	510.51	ppb	21.596	4.23%

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   QC value within limits for Co 228.616  Recovery = 102.10%
Cr 267.716†            24151.2      507.79 µg/L        26.858      507.79 ppb        26.858   5.29%
   QC value within limits for Cr 267.716  Recovery = 101.56%
Cu 324.752†            71634.3      498.78 µg/L        19.229      498.78 ppb        19.229   3.86%
   QC value within limits for Cu 324.752  Recovery = 99.76%
Fe 238.204 Radial†      1029.7      5196.1 µg/L         19.83      5196.1 ppb         19.83   0.38%
   QC value within limits for Fe 238.204 Radial  Recovery = 103.92%
K 766.490 Radial†       9691.5      5176.4 µg/L         46.47      5176.4 ppb         46.47   0.90%
   QC value within limits for K 766.490 Radial  Recovery = 103.53%
Mg 279.077 IEC†          987.8      5265.6 µg/L         12.72      5265.6 ppb         12.72   0.24%
   QC value within limits for Mg 279.077 IEC  Recovery = 105.31%
Mn 257.610†           160357.9      502.56 µg/L        11.799      502.56 ppb        11.799   2.35%
   QC value within limits for Mn 257.610  Recovery = 100.51%
Mo 202.031†            4324.8      491.59 µg/L        43.840      491.59 ppb        43.840   8.92%
   QC value within limits for Mo 202.031  Recovery = 98.32%
Na 589.592 Radial†     40181.5       10413 µg/L          31.7       10413 ppb          31.7   0.30%
   QC value within limits for Na 589.592 Radial  Recovery = 104.13%
Ni 231.604†            9409.5      509.33 µg/L        21.100      509.33 ppb        21.100   4.14%
   QC value within limits for Ni 231.604  Recovery = 101.87%
P 214.914†             1158.2      2445.7 µg/L        200.58      2445.7 ppb        200.58   8.20%
   QC value within limits for P 214.914  Recovery = 97.83%
Pb 220.353†            1981.6      502.25 µg/L        33.521      502.25 ppb        33.521   6.67%
   QC value within limits for Pb 220.353  Recovery = 100.45%
S 181.975 Axial†        202.4      1023.9 µg/L         50.49      1023.9 ppb         50.49   4.93%
   QC value within limits for S 181.975 Axial  Recovery = 102.39%
Sb 206.836†             499.2      502.16 µg/L        36.603      502.16 ppb        36.603   7.29%
   QC value within limits for Sb 206.836  Recovery = 100.43%
Se 196.026†             369.2      523.77 µg/L        29.451      523.77 ppb        29.451   5.62%
   QC value within limits for Se 196.026  Recovery = 104.75%
SiO2†                  28346.4      5448.1 µg/L        172.99      5448.1 ppb        172.99   3.18%
   QC value within limits for SiO2  Recovery = 101.88%
Si 251.611†            32948.9      2494.1 µg/L         71.54      2494.1 ppb         71.54   2.87%
   QC value within limits for Si 251.611  Recovery = 99.77%
Sn 189.927†            1007.1      497.21 µg/L        48.237      497.21 ppb        48.237   9.70%
   QC value within limits for Sn 189.927  Recovery = 99.44%
Sr 421.552†            95039.9      506.98 µg/L         1.635      506.98 ppb         1.635   0.32%
   QC value within limits for Sr 421.552  Recovery = 101.40%
Ti 334.940†           228019.7      499.68 µg/L        13.138      499.68 ppb        13.138   2.63%
   QC value within limits for Ti 334.940  Recovery = 99.94%
Tl 190.801†             343.8      513.01 µg/L        24.516      513.01 ppb        24.516   4.78%
   QC value within limits for Tl 190.801  Recovery = 102.60%
U 409.014†             5291.3      508.33 µg/L        17.777      508.33 ppb        17.777   3.50%
   QC value within limits for U 409.014  Recovery = 101.67%
V 292.402†             44782.7      513.22 µg/L        22.444      513.22 ppb        22.444   4.37%
   QC value within limits for V 292.402  Recovery = 102.64%
Zn 213.857†            19266.1      514.10 µg/L        19.752      514.10 ppb        19.752   3.84%
   QC value within limits for Zn 213.857  Recovery = 102.82%
All analyte(s) passed QC.
```

Sequence No.: 25
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 12/19/2009 06:00:07
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	120834.7	120834.7	96.8	%			06:00:41
1	Al 396.153Radial†	212.9	12.5	6.0581	µg/L	6.0581	ppb	06:00:41
1	Ca 317.933Radial†	479.9	51.4	18.763	µg/L	18.763	ppb	06:01:02
1	Fe 238.204 Radial†	6.0	-2.1	-10.452	µg/L	-10.452	ppb	06:01:02
1	K 766.490 Radial†	828.4	23.0	12.285	µg/L	12.285	ppb	06:00:41
1	Mg 279.077 IEC†	19.0	4.0	21.144	µg/L	21.144	ppb	06:01:02
1	Na 589.592 Radial†	-621.8	103.4	26.787	µg/L	26.787	ppb	06:00:41
1	Sr 421.552†	-53.6	55.1	0.2940	µg/L	0.2940	ppb	06:00:41
1	Sc 361.383	2147688.8	2147688.8	98.495	%			06:02:03
1	Y 371.029	1306917.4	1306917.4	98.567	%			06:02:03
1	Ag 328.068†	166.0	87.8	0.7914	µg/L	0.7914	ppb	06:02:09
1	As 188.979†	0.6	-0.5	-0.9047	µg/L	-0.9047	ppb	06:02:30
1	B 249.677†	183.2	19.8	0.8714	µg/L	0.8714	ppb	06:02:09
1	Ba 233.527†	-81.0	5.0	0.1244	µg/L	0.1244	ppb	06:02:30
1	Be 313.107†	3819.6	235.7	0.1441	µg/L	0.1441	ppb	06:02:09
1	Cd 226.502†	-109.3	-1.1	-0.0278	µg/L	-0.0278	ppb	06:02:30
1	Co 228.616†	-74.9	-0.3	-0.0142	µg/L	-0.0142	ppb	06:02:30
1	Cr 267.716†	-141.6	-8.2	-0.1727	µg/L	-0.1727	ppb	06:02:09
1	Cu 324.752†	3345.0	-7.3	-0.0527	µg/L	-0.0527	ppb	06:02:09
1	Mn 257.610†	-184.4	34.4	0.1062	µg/L	0.1062	ppb	06:02:30
1	Mo 202.031†	-0.3	0.8	0.0850	µg/L	0.0850	ppb	06:02:30
1	Ni 231.604†	350.3	22.3	1.2052	µg/L	1.2052	ppb	06:02:30
1	P 214.914†	209.6	0.9	1.8980	µg/L	1.8980	ppb	06:02:30
1	Pb 220.353†	53.6	2.8	0.7203	µg/L	0.7203	ppb	06:02:30
1	S 181.975 Axial†	26.1	0.7	3.6543	µg/L	3.6543	ppb	06:02:30
1	Sb 206.836†	18.3	-4.2	-4.2718	µg/L	-4.2718	ppb	06:02:30
1	Se 196.026†	15.8	3.7	5.1644	µg/L	5.1644	ppb	06:02:30
1	SiO2†	2113.2	18.2	3.5015	µg/L	3.5015	ppb	06:02:09
1	Si 251.611†	395.9	23.0	1.8065	µg/L	1.8065	ppb	06:02:30
1	Sn 189.927†	19.3	-2.6	-1.2521	µg/L	-1.2521	ppb	06:02:30
1	Ti 334.940†	968.6	100.0	0.2182	µg/L	0.2182	ppb	06:02:09
1	Tl 190.801†	-21.3	2.0	2.9462	µg/L	2.9462	ppb	06:02:30
1	U 409.014†	891.9	-31.0	-2.9822	µg/L	-2.9822	ppb	06:02:09
1	V 292.402†	-133.1	-38.7	-0.4446	µg/L	-0.4446	ppb	06:02:09
1	Zn 213.857†	622.7	36.0	0.9620	µg/L	0.9620	ppb	06:02:30
2	Sc RADIAL	119727.3	119727.3	95.9	%			06:01:07
2	Al 396.153Radial†	182.6	-17.1	-8.3248	µg/L	-8.3248	ppb	06:01:07
2	Ca 317.933Radial†	473.6	49.5	18.075	µg/L	18.075	ppb	06:01:28
2	Fe 238.204 Radial†	12.4	4.6	23.365	µg/L	23.365	ppb	06:01:28
2	K 766.490 Radial†	748.8	-52.0	-27.798	µg/L	-27.798	ppb	06:01:07
2	Mg 279.077 IEC†	17.7	2.7	14.597	µg/L	14.597	ppb	06:01:28
2	Na 589.592 Radial†	-627.7	91.2	23.636	µg/L	23.636	ppb	06:01:07
2	Sr 421.552†	-69.4	38.2	0.2038	µg/L	0.2038	ppb	06:01:07
2	Sc 361.383	2147425.6	2147425.6	98.483	%			06:02:36
2	Y 371.029	1307397.8	1307397.8	98.603	%			06:02:36
2	Ag 328.068†	173.5	95.4	0.8648	µg/L	0.8648	ppb	06:02:41
2	As 188.979†	-1.4	-2.4	-4.5648	µg/L	-4.5648	ppb	06:03:02
2	B 249.677†	147.9	-16.1	-0.7126	µg/L	-0.7126	ppb	06:02:41
2	Ba 233.527†	-74.5	11.6	0.2910	µg/L	0.2910	ppb	06:03:02
2	Be 313.107†	3802.8	219.2	0.1340	µg/L	0.1340	ppb	06:02:41
2	Cd 226.502†	-98.3	10.1	0.2546	µg/L	0.2546	ppb	06:03:02
2	Co 228.616†	-76.1	-1.5	-0.0737	µg/L	-0.0737	ppb	06:03:02
2	Cr 267.716†	-144.5	-11.1	-0.2326	µg/L	-0.2326	ppb	06:02:41
2	Cu 324.752†	3339.2	-12.8	-0.0839	µg/L	-0.0839	ppb	06:02:41
2	Mn 257.610†	-168.9	50.0	0.1594	µg/L	0.1594	ppb	06:03:02
2	Mo 202.031†	-3.2	-2.2	-0.2489	µg/L	-0.2489	ppb	06:03:02
2	Ni 231.604†	328.7	0.3	0.0187	µg/L	0.0187	ppb	06:03:02
2	P 214.914†	205.0	-3.8	-8.1854	µg/L	-8.1854	ppb	06:03:02
2	Pb 220.353†	50.1	-0.7	-0.1780	µg/L	-0.1780	ppb	06:03:02

2	S 181.975 Axial†	28.1	2.8	13.971 µg/L	13.971 ppb	06:03:02
2	Sb 206.836†	23.6	1.2	1.2325 µg/L	1.2325 ppb	06:03:02
2	Se 196.026†	14.8	2.6	3.6701 µg/L	3.6701 ppb	06:03:02
2	SiO2†	2125.6	31.0	5.9662 µg/L	5.9662 ppb	06:02:41
2	Si 251.611†	393.3	20.3	1.4981 µg/L	1.4981 ppb	06:03:02
2	Sn 189.927†	26.3	4.6	2.2443 µg/L	2.2443 ppb	06:03:02
2	Ti 334.940†	858.0	-12.1	-0.0277 µg/L	-0.0277 ppb	06:02:41
2	Tl 190.801†	-18.9	4.4	6.5671 µg/L	6.5671 ppb	06:03:02
2	U 409.014†	823.2	-100.6	-9.6866 µg/L	-9.6866 ppb	06:02:41
2	V 292.402†	-106.3	-11.5	-0.1463 µg/L	-0.1463 ppb	06:02:41
2	Zn 213.857†	618.2	31.5	0.8442 µg/L	0.8442 ppb	06:03:02
3	Sc RADIAL	120556.0	120556.0	96.6 %		06:01:33
3	Al 396.153Radial†	211.1	11.1	5.3898 µg/L	5.3898 ppb	06:01:33
3	Ca 317.933Radial†	479.0	51.7	18.855 µg/L	18.855 ppb	06:01:53
3	Fe 238.204 Radial†	8.3	0.4	1.8162 µg/L	1.8162 ppb	06:01:53
3	K 766.490 Radial†	844.3	41.4	22.122 µg/L	22.122 ppb	06:01:33
3	Mg 279.077 IEC†	17.7	2.6	13.952 µg/L	13.952 ppb	06:01:53
3	Na 589.592 Radial†	-630.1	93.2	24.155 µg/L	24.155 ppb	06:01:33
3	Sr 421.552†	-64.3	43.9	0.2344 µg/L	0.2344 ppb	06:01:33
3	Sc 361.383	2156000.1	2156000.1	98.876 %		06:03:08
3	Y 371.029	1312051.3	1312051.3	98.954 %		06:03:08
3	Ag 328.068†	178.5	99.8	0.9055 µg/L	0.9055 ppb	06:03:13
3	As 188.979†	3.5	2.5	4.6645 µg/L	4.6645 ppb	06:03:34
3	B 249.677†	215.0	51.2	2.2495 µg/L	2.2495 ppb	06:03:13
3	Ba 233.527†	-82.9	3.4	0.0863 µg/L	0.0863 ppb	06:03:34
3	Be 313.107†	3718.5	118.6	0.0724 µg/L	0.0724 ppb	06:03:13
3	Cd 226.502†	-89.4	19.5	0.5042 µg/L	0.5042 ppb	06:03:34
3	Co 228.616†	-77.6	-2.8	-0.1344 µg/L	-0.1344 ppb	06:03:34
3	Cr 267.716†	-139.9	-5.9	-0.1221 µg/L	-0.1221 ppb	06:03:13
3	Cu 324.752†	3387.1	22.2	0.1547 µg/L	0.1547 ppb	06:03:13
3	Mn 257.610†	-196.2	23.0	0.0724 µg/L	0.0724 ppb	06:03:34
3	Mo 202.031†	1.8	2.8	0.3226 µg/L	0.3226 ppb	06:03:34
3	Ni 231.604†	340.7	11.1	0.6016 µg/L	0.6016 ppb	06:03:34
3	P 214.914†	201.7	-7.9	-17.107 µg/L	-17.107 ppb	06:03:34
3	Pb 220.353†	55.9	4.9	1.2542 µg/L	1.2542 ppb	06:03:34
3	S 181.975 Axial†	26.9	1.5	7.6345 µg/L	7.6345 ppb	06:03:34
3	Sb 206.836†	25.2	2.8	2.7902 µg/L	2.7902 ppb	06:03:34
3	Se 196.026†	11.0	-1.3	-1.8162 µg/L	-1.8162 ppb	06:03:34
3	SiO2†	2153.6	50.7	9.7531 µg/L	9.7531 ppb	06:03:13
3	Si 251.611†	385.4	10.8	0.8040 µg/L	0.8040 ppb	06:03:34
3	Sn 189.927†	22.4	0.4	0.2241 µg/L	0.2241 ppb	06:03:34
3	Ti 334.940†	983.7	111.5	0.2434 µg/L	0.2434 ppb	06:03:13
3	Tl 190.801†	-19.0	4.3	6.4114 µg/L	6.4114 ppb	06:03:34
3	U 409.014†	862.0	-64.7	-6.2261 µg/L	-6.2261 ppb	06:03:13
3	V 292.402†	-71.4	24.2	0.2671 µg/L	0.2671 ppb	06:03:13
3	Zn 213.857†	607.7	18.4	0.4898 µg/L	0.4898 ppb	06:03:34

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2150371.5	98.618	%	0.2236				0.23%
Sc RADIAL	120372.6	96.5	%	0.46				0.48%
Y 371.029	1308788.8	98.708	%	0.2139				0.22%
Ag 328.068†	94.3	0.8539	µg/L	0.05779	0.8539	ppb	0.05779	6.77%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	2.1	1.0410	µg/L	8.11790	1.0410	ppb	8.11790	779.79%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-0.1	-0.2683	µg/L	4.64746	-0.2683	ppb	4.64746	>999.9%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	18.3	0.8028	µg/L	1.48221	0.8028	ppb	1.48221	184.64%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	6.7	0.1672	µg/L	0.10886	0.1672	ppb	0.10886	65.09%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	191.2	0.1168	µg/L	0.03880	0.1168	ppb	0.03880	33.21%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	50.9	18.564	µg/L	0.4265	18.564	ppb	0.4265	2.30%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	9.5	0.2437	µg/L	0.26617	0.2437	ppb	0.26617	109.23%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	-1.5	-0.0741	µg/L	0.06011	-0.0741	ppb	0.06011	81.13%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                -8.4     -0.1758 µg/L       0.05530     -0.1758 ppb        0.05530  31.46%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†                 0.7      0.0060 µg/L       0.12967      0.0060 ppb        0.12967 >999.9%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          1.0      4.9095 µg/L      17.11933      4.9095 ppb       17.11933 348.70%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†           4.1      2.2027 µg/L      26.44310      2.2027 ppb       26.44310 >999.9%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             3.1      16.564 µg/L        3.9791      16.564 ppb        3.9791  24.02%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                35.8      0.1126 µg/L       0.04386      0.1126 ppb        0.04386  38.93%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 0.5      0.0529 µg/L       0.28708      0.0529 ppb        0.28708 542.60%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†         95.9      24.859 µg/L        1.6895      24.859 ppb         1.6895   6.80%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                11.2      0.6085 µg/L       0.59327      0.6085 ppb        0.59327  97.49%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -3.6     -7.7982 µg/L       9.50846     -7.7982 ppb        9.50846 121.93%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                 2.3      0.5988 µg/L       0.72381      0.5988 ppb        0.72381 120.87%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            1.7      8.4198 µg/L       5.20280      8.4198 ppb        5.20280  61.79%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                -0.1     -0.0830 µg/L       3.71026     -0.0830 ppb        3.71026 >999.9%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 1.7      2.3394 µg/L       3.67563      2.3394 ppb        3.67563 157.12%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                      33.3      6.4069 µg/L       3.14903      6.4069 ppb        3.14903  49.15%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†                18.0      1.3695 µg/L       0.51349      1.3695 ppb        0.51349  37.49%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 0.8      0.4054 µg/L       1.75525      0.4054 ppb        1.75525 432.93%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                45.8      0.2441 µg/L       0.04584      0.2441 ppb        0.04584  18.78%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                66.4      0.1446 µg/L       0.14973      0.1446 ppb        0.14973 103.53%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 3.6      5.3082 µg/L       2.04704      5.3082 ppb        2.04704  38.56%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                -65.4     -6.2983 µg/L       3.35280     -6.2983 ppb        3.35280  53.23%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 -8.7     -0.1080 µg/L       0.35740     -0.1080 ppb        0.35740 331.07%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                28.6      0.7653 µg/L       0.24577      0.7653 ppb        0.24577  32.11%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 32
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 12/19/2009 06:25:52
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	121919.5	121919.5	97.7	%			06:26:32
1	Al 396.153Radial†	10751.0	10796.2	5233.2	µg/L	5233.2	ppb	06:26:32
1	Ca 317.933Radial†	14224.0	14114.2	5148.7	µg/L	5148.7	ppb	06:26:52
1	Fe 238.204 Radial†	1028.4	1044.3	5270.1	µg/L	5270.1	ppb	06:26:52
1	K 766.490 Radial†	10376.0	9787.4	5227.6	µg/L	5227.6	ppb	06:26:32
1	Mg 279.077 IEC†	996.6	1004.4	5354.6	µg/L	5354.6	ppb	06:26:52
1	Na 589.592 Radial†	39136.4	40801.7	10574	µg/L	10574	ppb	06:26:32
1	Sr 421.552†	94428.2	96758.1	516.15	µg/L	516.15	ppb	06:26:32
1	Sc 361.383	2144029.0	2144029.0	98.327	%			06:27:56
1	Y 371.029	1300202.0	1300202.0	98.061	%			06:27:56
1	Ag 328.068†	56976.7	57865.4	528.07	µg/L	528.07	ppb	06:28:02
1	As 188.979†	284.7	288.5	542.12	µg/L	542.12	ppb	06:28:22
1	B 249.677†	11910.5	11946.9	522.91	µg/L	522.91	ppb	06:28:02
1	Ba 233.527†	20521.3	20957.7	528.51	µg/L	528.51	ppb	06:28:02
1	Be 313.107†	841014.2	851682.1	520.59	µg/L	520.59	ppb	06:27:56
1	Cd 226.502†	19938.6	20387.8	530.81	µg/L	530.81	ppb	06:28:02
1	Co 228.616†	10727.7	10986.0	528.02	µg/L	528.02	ppb	06:28:02
1	Cr 267.716†	24677.0	25232.5	530.52	µg/L	530.52	ppb	06:28:02
1	Cu 324.752†	76136.0	74028.1	515.43	µg/L	515.43	ppb	06:28:02
1	Mn 257.610†	162459.5	165445.3	518.50	µg/L	518.50	ppb	06:27:56
1	Mo 202.031†	4553.6	4632.2	526.52	µg/L	526.52	ppb	06:28:22
1	Ni 231.604†	9913.8	9749.0	527.71	µg/L	527.71	ppb	06:28:02
1	P 214.914†	1420.7	1233.0	2605.8	µg/L	2605.8	ppb	06:28:22
1	Pb 220.353†	2122.7	2107.2	534.10	µg/L	534.10	ppb	06:28:22
1	S 181.975 Axial†	241.5	219.9	1112.5	µg/L	1112.5	ppb	06:28:22
1	Sb 206.836†	541.7	528.2	531.28	µg/L	531.28	ppb	06:28:22
1	Se 196.026†	399.7	394.1	558.99	µg/L	558.99	ppb	06:28:22
1	SiO2†	30848.0	29245.6	5620.9	µg/L	5620.9	ppb	06:28:02
1	Si 251.611†	33809.9	34006.2	2573.1	µg/L	2573.1	ppb	06:28:02
1	Sn 189.927†	1084.1	1080.4	533.27	µg/L	533.27	ppb	06:28:22
1	Ti 334.940†	232322.8	235392.5	515.84	µg/L	515.84	ppb	06:27:56
1	Tl 190.801†	326.4	355.5	530.44	µg/L	530.44	ppb	06:28:22
1	U 409.014†	6308.8	5479.6	526.44	µg/L	526.44	ppb	06:28:02
1	V 292.402†	45627.9	46500.7	533.01	µg/L	533.01	ppb	06:28:02
1	Zn 213.857†	20203.7	19951.2	532.40	µg/L	532.40	ppb	06:28:02
2	Sc RADIAL	121730.3	121730.3	97.6	%			06:26:58
2	Al 396.153Radial†	10771.1	10833.9	5251.9	µg/L	5251.9	ppb	06:26:58
2	Ca 317.933Radial†	14150.6	14061.6	5129.5	µg/L	5129.5	ppb	06:27:18
2	Fe 238.204 Radial†	1021.0	1038.4	5240.5	µg/L	5240.5	ppb	06:27:18
2	K 766.490 Radial†	10492.1	9922.9	5300.0	µg/L	5300.0	ppb	06:26:58
2	Mg 279.077 IEC†	997.7	1007.1	5369.2	µg/L	5369.2	ppb	06:27:18
2	Na 589.592 Radial†	39200.8	40930.0	10607	µg/L	10607	ppb	06:26:58
2	Sr 421.552†	94483.2	96964.7	517.25	µg/L	517.25	ppb	06:26:58
2	Sc 361.383	2151932.9	2151932.9	98.689	%			06:28:29
2	Y 371.029	1303684.1	1303684.1	98.323	%			06:28:29
2	Ag 328.068†	57579.1	58263.0	531.70	µg/L	531.70	ppb	06:28:35
2	As 188.979†	273.4	276.0	518.60	µg/L	518.60	ppb	06:28:55
2	B 249.677†	12022.4	12015.8	525.95	µg/L	525.95	ppb	06:28:35
2	Ba 233.527†	20701.8	21063.9	531.20	µg/L	531.20	ppb	06:28:35
2	Be 313.107†	843212.8	850768.3	520.03	µg/L	520.03	ppb	06:28:29
2	Cd 226.502†	20196.3	20574.4	535.68	µg/L	535.68	ppb	06:28:35
2	Co 228.616†	10903.9	11124.4	534.65	µg/L	534.65	ppb	06:28:35
2	Cr 267.716†	24985.6	25453.0	535.16	µg/L	535.16	ppb	06:28:35
2	Cu 324.752†	77030.2	74649.7	519.74	µg/L	519.74	ppb	06:28:35
2	Mn 257.610†	162940.1	165325.5	518.12	µg/L	518.12	ppb	06:28:29
2	Mo 202.031†	4497.5	4558.3	518.12	µg/L	518.12	ppb	06:28:55
2	Ni 231.604†	10093.3	9894.0	535.55	µg/L	535.55	ppb	06:28:35
2	P 214.914†	1401.3	1208.0	2551.2	µg/L	2551.2	ppb	06:28:55
2	Pb 220.353†	2087.4	2063.5	523.01	µg/L	523.01	ppb	06:28:55

2	S 181.975 Axial†	231.8	209.1	1057.9 µg/L	1057.9 ppb	06:28:55
2	Sb 206.836†	543.6	528.0	531.16 µg/L	531.16 ppb	06:28:55
2	Se 196.026†	388.8	381.6	541.26 µg/L	541.26 ppb	06:28:55
2	SiO2†	31273.7	29561.7	5681.6 µg/L	5681.6 ppb	06:28:35
2	Si 251.611†	34172.5	34247.3	2592.0 µg/L	2592.0 ppb	06:28:35
2	Sn 189.927†	1078.7	1070.9	528.57 µg/L	528.57 ppb	06:28:55
2	Ti 334.940†	232815.1	235023.5	515.04 µg/L	515.04 ppb	06:28:29
2	Tl 190.801†	325.8	353.7	527.73 µg/L	527.73 ppb	06:28:55
2	U 409.014†	6317.5	5464.9	525.03 µg/L	525.03 ppb	06:28:35
2	V 292.402†	46218.3	46928.5	537.80 µg/L	537.80 ppb	06:28:35
2	Zn 213.857†	20449.0	20124.4	537.01 µg/L	537.01 ppb	06:28:35
3	Sc RADIAL	120814.4	120814.4	96.8 %		06:27:24
3	Al 396.153Radial†	10717.6	10862.5	5268.5 µg/L	5268.5 ppb	06:27:24
3	Ca 317.933Radial†	14219.9	14243.2	5195.7 µg/L	5195.7 ppb	06:27:44
3	Fe 238.204 Radial†	1024.3	1049.7	5296.0 µg/L	5296.0 ppb	06:27:44
3	K 766.490 Radial†	10339.5	9846.8	5259.4 µg/L	5259.4 ppb	06:27:24
3	Mg 279.077 IEC†	1000.3	1017.5	5422.9 µg/L	5422.9 ppb	06:27:44
3	Na 589.592 Radial†	38920.2	40944.8	10611 µg/L	10611 ppb	06:27:24
3	Sr 421.552†	93708.5	96898.8	516.90 µg/L	516.90 ppb	06:27:24
3	Sc 361.383	2146883.5	2146883.5	98.458 %		06:29:02
3	Y 371.029	1300005.7	1300005.7	98.046 %		06:29:02
3	Ag 328.068†	54351.2	55121.7	502.93 µg/L	502.93 ppb	06:29:08
3	As 188.979†	244.4	247.2	464.43 µg/L	464.43 ppb	06:29:28
3	B 249.677†	11294.0	11304.7	494.70 µg/L	494.70 ppb	06:29:08
3	Ba 233.527†	19094.9	19481.3	491.27 µg/L	491.27 ppb	06:29:08
3	Be 313.107†	801817.2	810733.9	495.56 µg/L	495.56 ppb	06:29:02
3	Cd 226.502†	18550.6	18951.1	493.36 µg/L	493.36 ppb	06:29:08
3	Co 228.616†	9973.2	10205.1	490.36 µg/L	490.36 ppb	06:29:08
3	Cr 267.716†	22332.2	22817.6	479.76 µg/L	479.76 ppb	06:29:08
3	Cu 324.752†	70866.5	68573.1	477.54 µg/L	477.54 ppb	06:29:08
3	Mn 257.610†	155051.3	157701.4	494.26 µg/L	494.26 ppb	06:29:02
3	Mo 202.031†	3861.7	3923.2	445.97 µg/L	445.97 ppb	06:29:28
3	Ni 231.604†	9215.6	9026.6	488.60 µg/L	488.60 ppb	06:29:08
3	P 214.914†	1261.1	1069.0	2254.5 µg/L	2254.5 ppb	06:29:28
3	Pb 220.353†	1867.2	1844.9	467.57 µg/L	467.57 ppb	06:29:28
3	S 181.975 Axial†	209.0	186.6	943.61 µg/L	943.61 ppb	06:29:28
3	Sb 206.836†	481.7	466.5	469.27 µg/L	469.27 ppb	06:29:28
3	Se 196.026†	350.3	343.4	487.25 µg/L	487.25 ppb	06:29:28
3	SiO2†	29154.5	27483.8	5282.3 µg/L	5282.3 ppb	06:29:08
3	Si 251.611†	31867.7	31987.9	2423.1 µg/L	2423.1 ppb	06:29:08
3	Sn 189.927†	911.8	903.9	446.65 µg/L	446.65 ppb	06:29:28
3	Ti 334.940†	220482.7	223052.7	488.78 µg/L	488.78 ppb	06:29:02
3	Tl 190.801†	297.6	325.8	486.33 µg/L	486.33 ppb	06:29:28
3	U 409.014†	5803.8	4958.2	476.25 µg/L	476.25 ppb	06:29:08
3	V 292.402†	41945.1	42698.5	489.19 µg/L	489.19 ppb	06:29:08
3	Zn 213.857†	18730.6	18427.7	491.68 µg/L	491.68 ppb	06:29:08

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2147615.1	98.491	%	0.1836				0.19%
Sc RADIAL	121488.1	97.4	%	0.47				0.49%
Y 371.029	1301297.2	98.143	%	0.1561				0.16%
Ag 328.068†	57083.4	520.90	µg/L	15.669	520.90	ppb	15.669	3.01%
QC value within limits for Ag 328.068 Recovery = 104.18%								
Al 396.153Radial†	10830.9	5251.2	µg/L	17.65	5251.2	ppb	17.65	0.34%
QC value within limits for Al 396.153Radial Recovery = 105.02%								
As 188.979†	270.6	508.38	µg/L	39.837	508.38	ppb	39.837	7.84%
QC value within limits for As 188.979 Recovery = 101.68%								
B 249.677†	11755.8	514.52	µg/L	17.229	514.52	ppb	17.229	3.35%
QC value within limits for B 249.677 Recovery = 102.90%								
Ba 233.527†	20501.0	516.99	µg/L	22.319	516.99	ppb	22.319	4.32%
QC value within limits for Ba 233.527 Recovery = 103.40%								
Be 313.107†	837728.1	512.06	µg/L	14.292	512.06	ppb	14.292	2.79%
QC value within limits for Be 313.107 Recovery = 102.41%								
Ca 317.933Radial†	14139.7	5158.0	µg/L	34.08	5158.0	ppb	34.08	0.66%
QC value within limits for Ca 317.933Radial Recovery = 103.16%								
Cd 226.502†	19971.1	519.95	µg/L	23.153	519.95	ppb	23.153	4.45%
QC value within limits for Cd 226.502 Recovery = 103.99%								
Co 228.616†	10771.8	517.68	µg/L	23.884	517.68	ppb	23.884	4.61%

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   QC value within limits for Co 228.616  Recovery = 103.54%
Cr 267.716†            24501.0      515.15 µg/L        30.731      515.15 ppb         30.731   5.97%
   QC value within limits for Cr 267.716  Recovery = 103.03%
Cu 324.752†            72417.0      504.24 µg/L        23.222      504.24 ppb         23.222   4.61%
   QC value within limits for Cu 324.752  Recovery = 100.85%
Fe 238.204 Radial†      1044.2      5268.9 µg/L         27.78      5268.9 ppb          27.78   0.53%
   QC value within limits for Fe 238.204 Radial  Recovery = 105.38%
K 766.490 Radial†       9852.3      5262.3 µg/L         36.27      5262.3 ppb          36.27   0.69%
   QC value within limits for K 766.490 Radial  Recovery = 105.25%
Mg 279.077 IEC†         1009.7      5382.2 µg/L         35.92      5382.2 ppb          35.92   0.67%
   QC value within limits for Mg 279.077 IEC  Recovery = 107.64%
Mn 257.610†           162824.0      510.29 µg/L        13.884      510.29 ppb         13.884   2.72%
   QC value within limits for Mn 257.610  Recovery = 102.06%
Mo 202.031†             4371.2      496.87 µg/L        44.282      496.87 ppb         44.282   8.91%
   QC value within limits for Mo 202.031  Recovery = 99.37%
Na 589.592 Radial†     40892.1       10598 µg/L          20.4       10598 ppb           20.4   0.19%
   QC value within limits for Na 589.592 Radial  Recovery = 105.98%
Ni 231.604†             9556.5      517.29 µg/L        25.151      517.29 ppb         25.151   4.86%
   QC value within limits for Ni 231.604  Recovery = 103.46%
P 214.914†              1170.0      2470.5 µg/L        189.07      2470.5 ppb         189.07   7.65%
   QC value within limits for P 214.914  Recovery = 98.82%
Pb 220.353†             2005.2      508.23 µg/L        35.645      508.23 ppb         35.645   7.01%
   QC value within limits for Pb 220.353  Recovery = 101.65%
S 181.975 Axial†         205.2      1038.0 µg/L         86.20      1038.0 ppb          86.20   8.30%
   QC value within limits for S 181.975 Axial  Recovery = 103.80%
Sb 206.836†              507.6      510.57 µg/L        35.765      510.57 ppb         35.765   7.00%
   QC value within limits for Sb 206.836  Recovery = 102.11%
Se 196.026†              373.0      529.17 µg/L        37.370      529.17 ppb         37.370   7.06%
   QC value within limits for Se 196.026  Recovery = 105.83%
SiO2†                  28763.7      5528.3 µg/L        215.19      5528.3 ppb         215.19   3.89%
   QC value within limits for SiO2  Recovery = 103.38%
Si 251.611†            33413.8      2529.4 µg/L         92.55      2529.4 ppb          92.55   3.66%
   QC value within limits for Si 251.611  Recovery = 101.18%
Sn 189.927†             1018.4      502.83 µg/L        48.709      502.83 ppb         48.709   9.69%
   QC value within limits for Sn 189.927  Recovery = 100.57%
Sr 421.552†            96873.9      516.76 µg/L         0.563      516.76 ppb          0.563   0.11%
   QC value within limits for Sr 421.552  Recovery = 103.35%
Ti 334.940†           231156.2      506.55 µg/L        15.395      506.55 ppb         15.395   3.04%
   QC value within limits for Ti 334.940  Recovery = 101.31%
Tl 190.801†              345.0      514.83 µg/L        24.719      514.83 ppb         24.719   4.80%
   QC value within limits for Tl 190.801  Recovery = 102.97%
U 409.014†              5300.9      509.24 µg/L        28.576      509.24 ppb         28.576   5.61%
   QC value within limits for U 409.014  Recovery = 101.85%
V 292.402†             45375.9      520.00 µg/L        26.790      520.00 ppb         26.790   5.15%
   QC value within limits for V 292.402  Recovery = 104.00%
Zn 213.857†            19501.1      520.36 µg/L        24.949      520.36 ppb         24.949   4.79%
   QC value within limits for Zn 213.857  Recovery = 104.07%
All analyte(s) passed QC.
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Sequence No.: 33
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 12/19/2009 06:29:38
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	120212.0	120212.0	96.3	%			06:30:12
1	Al 396.153Radial†	203.0	3.3	1.5964	µg/L	1.5964	ppb	06:30:12
1	Ca 317.933Radial†	463.9	37.5	13.670	µg/L	13.670	ppb	06:30:33
1	Fe 238.204 Radial†	5.7	-2.3	-11.707	µg/L	-11.707	ppb	06:30:33
1	K 766.490 Radial†	868.4	68.9	36.798	µg/L	36.798	ppb	06:30:12
1	Mg 279.077 IEC†	17.3	2.3	12.210	µg/L	12.210	ppb	06:30:33
1	Na 589.592 Radial†	-592.7	130.2	33.735	µg/L	33.735	ppb	06:30:12
1	Sr 421.552†	-90.6	16.4	0.0876	µg/L	0.0876	ppb	06:30:12
1	Sc 361.383	2137213.5	2137213.5	98.014	%			06:31:34
1	Y 371.029	1300836.6	1300836.6	98.109	%			06:31:34
1	Ag 328.068†	119.8	41.5	0.3756	µg/L	0.3756	ppb	06:31:40
1	As 188.979†	4.0	3.1	5.7709	µg/L	5.7709	ppb	06:32:01
1	B 249.677†	175.1	12.4	0.5493	µg/L	0.5493	ppb	06:31:40
1	Ba 233.527†	-74.9	10.9	0.2740	µg/L	0.2740	ppb	06:32:01
1	Be 313.107†	3716.0	149.1	0.0912	µg/L	0.0912	ppb	06:31:40
1	Cd 226.502†	-102.3	5.6	0.1428	µg/L	0.1428	ppb	06:32:01
1	Co 228.616†	-70.4	3.9	0.1884	µg/L	0.1884	ppb	06:32:01
1	Cr 267.716†	-140.9	-8.2	-0.1714	µg/L	-0.1714	ppb	06:31:40
1	Cu 324.752†	3338.6	2.8	0.0172	µg/L	0.0172	ppb	06:31:40
1	Mn 257.610†	-198.7	18.8	0.0573	µg/L	0.0573	ppb	06:32:01
1	Mo 202.031†	0.3	1.3	0.1521	µg/L	0.1521	ppb	06:32:01
1	Ni 231.604†	334.4	7.8	0.4217	µg/L	0.4217	ppb	06:32:01
1	P 214.914†	202.0	-5.8	-12.499	µg/L	-12.499	ppb	06:32:01
1	Pb 220.353†	44.6	-6.1	-1.5470	µg/L	-1.5470	ppb	06:32:01
1	S 181.975 Axial†	25.9	0.7	3.6692	µg/L	3.6692	ppb	06:32:01
1	Sb 206.836†	23.0	0.7	0.6872	µg/L	0.6872	ppb	06:32:01
1	Se 196.026†	10.5	-1.7	-2.3646	µg/L	-2.3646	ppb	06:32:01
1	SiO2†	2128.3	44.1	8.4740	µg/L	8.4740	ppb	06:31:40
1	Si 251.611†	399.9	29.0	2.2357	µg/L	2.2357	ppb	06:32:01
1	Sn 189.927†	21.1	-0.6	-0.3103	µg/L	-0.3103	ppb	06:32:01
1	Ti 334.940†	856.1	-10.0	-0.0226	µg/L	-0.0226	ppb	06:31:40
1	Tl 190.801†	-21.0	2.2	3.2470	µg/L	3.2470	ppb	06:32:01
1	U 409.014†	856.6	-62.6	-6.0171	µg/L	-6.0171	ppb	06:31:40
1	V 292.402†	-87.9	6.7	0.0666	µg/L	0.0666	ppb	06:31:40
1	Zn 213.857†	607.8	23.9	0.6409	µg/L	0.6409	ppb	06:32:01
2	Sc RADIAL	118742.0	118742.0	95.2	%			06:30:38
2	Al 396.153Radial†	209.4	12.7	6.1757	µg/L	6.1757	ppb	06:30:38
2	Ca 317.933Radial†	462.8	42.3	15.413	µg/L	15.413	ppb	06:30:59
2	Fe 238.204 Radial†	7.6	-0.3	-1.5943	µg/L	-1.5943	ppb	06:30:59
2	K 766.490 Radial†	799.7	7.9	4.2279	µg/L	4.2279	ppb	06:30:38
2	Mg 279.077 IEC†	17.8	3.1	16.284	µg/L	16.284	ppb	06:30:59
2	Na 589.592 Radial†	-642.1	70.7	18.314	µg/L	18.314	ppb	06:30:38
2	Sr 421.552†	-35.2	73.5	0.3918	µg/L	0.3918	ppb	06:30:38
2	Sc 361.383	2144292.8	2144292.8	98.339	%			06:32:07
2	Y 371.029	1305763.1	1305763.1	98.480	%			06:32:07
2	Ag 328.068†	116.7	37.9	0.3426	µg/L	0.3426	ppb	06:32:12
2	As 188.979†	4.0	3.0	5.7181	µg/L	5.7181	ppb	06:32:33
2	B 249.677†	178.4	15.1	0.6655	µg/L	0.6655	ppb	06:32:12
2	Ba 233.527†	-77.3	8.6	0.2173	µg/L	0.2173	ppb	06:32:33
2	Be 313.107†	3635.0	54.1	0.0331	µg/L	0.0331	ppb	06:32:12
2	Cd 226.502†	-112.7	-4.6	-0.1207	µg/L	-0.1207	ppb	06:32:33
2	Co 228.616†	-76.5	-2.1	-0.0993	µg/L	-0.0993	ppb	06:32:33
2	Cr 267.716†	-133.6	-0.3	-0.0063	µg/L	-0.0063	ppb	06:32:12
2	Cu 324.752†	3366.9	20.3	0.1409	µg/L	0.1409	ppb	06:32:12
2	Mn 257.610†	-198.4	19.8	0.0618	µg/L	0.0618	ppb	06:32:33
2	Mo 202.031†	-0.8	0.2	0.0250	µg/L	0.0250	ppb	06:32:33
2	Ni 231.604†	341.8	14.1	0.7648	µg/L	0.7648	ppb	06:32:33
2	P 214.914†	208.3	-0.1	-0.1877	µg/L	-0.1877	ppb	06:32:33
2	Pb 220.353†	48.5	-2.2	-0.5664	µg/L	-0.5664	ppb	06:32:33

2	S 181.975 Axial†	30.6	5.3	27.087 µg/L	27.087 ppb	06:32:33
2	Sb 206.836†	25.7	3.4	3.4057 µg/L	3.4057 ppb	06:32:33
2	Se 196.026†	16.1	3.9	5.5272 µg/L	5.5272 ppb	06:32:33
2	SiO2†	2078.4	-13.8	-2.6605 µg/L	-2.6605 ppb	06:32:12
2	Si 251.611†	411.5	39.4	2.9417 µg/L	2.9417 ppb	06:32:33
2	Sn 189.927†	26.8	5.1	2.5088 µg/L	2.5088 ppb	06:32:33
2	Ti 334.940†	876.7	8.2	0.0170 µg/L	0.0170 ppb	06:32:12
2	Tl 190.801†	-21.3	1.9	2.8350 µg/L	2.8350 ppb	06:32:33
2	U 409.014†	908.3	-12.8	-1.2323 µg/L	-1.2323 ppb	06:32:12
2	V 292.402†	-100.2	-5.4	-0.0637 µg/L	-0.0637 ppb	06:32:12
2	Zn 213.857†	616.4	30.6	0.8181 µg/L	0.8181 ppb	06:32:33
3	Sc RADIAL	114977.9	114977.9	92.1 %		06:31:04
3	Al 396.153Radial†	212.9	23.7	11.521 µg/L	11.521 ppb	06:31:04
3	Ca 317.933Radial†	458.8	53.8	19.638 µg/L	19.638 ppb	06:31:24
3	Fe 238.204 Radial†	9.7	2.3	11.426 µg/L	11.426 ppb	06:31:24
3	K 766.490 Radial†	793.2	28.3	15.123 µg/L	15.123 ppb	06:31:04
3	Mg 279.077 IEC†	16.5	2.3	12.073 µg/L	12.073 ppb	06:31:24
3	Na 589.592 Radial†	-624.0	68.2	17.672 µg/L	17.672 ppb	06:31:04
3	Sr 421.552†	-99.9	2.1	0.0111 µg/L	0.0111 ppb	06:31:04
3	Sc 361.383	2122939.6	2122939.6	97.360 %		06:32:39
3	Y 371.029	1292084.5	1292084.5	97.448 %		06:32:39
3	Ag 328.068†	158.2	81.7	0.7369 µg/L	0.7369 ppb	06:32:44
3	As 188.979†	-0.6	-1.7	-3.1303 µg/L	-3.1303 ppb	06:33:05
3	B 249.677†	173.3	11.7	0.5117 µg/L	0.5117 ppb	06:32:44
3	Ba 233.527†	-81.8	3.3	0.0810 µg/L	0.0810 ppb	06:33:05
3	Be 313.107†	3665.2	122.4	0.0749 µg/L	0.0749 ppb	06:32:44
3	Cd 226.502†	-109.1	-2.1	-0.0648 µg/L	-0.0648 ppb	06:33:05
3	Co 228.616†	-66.1	7.8	0.3736 µg/L	0.3736 ppb	06:33:05
3	Cr 267.716†	-124.7	7.5	0.1558 µg/L	0.1558 ppb	06:32:44
3	Cu 324.752†	3326.0	12.8	0.0911 µg/L	0.0911 ppb	06:32:44
3	Mn 257.610†	-206.8	9.1	0.0298 µg/L	0.0298 ppb	06:33:05
3	Mo 202.031†	0.3	1.3	0.1501 µg/L	0.1501 ppb	06:33:05
3	Ni 231.604†	344.6	20.5	1.1083 µg/L	1.1083 ppb	06:33:05
3	P 214.914†	207.0	0.7	1.5083 µg/L	1.5083 ppb	06:33:05
3	Pb 220.353†	45.6	-4.7	-1.1838 µg/L	-1.1838 ppb	06:33:05
3	S 181.975 Axial†	33.0	8.1	41.277 µg/L	41.277 ppb	06:33:05
3	Sb 206.836†	19.8	-2.4	-2.4674 µg/L	-2.4674 ppb	06:33:05
3	Se 196.026†	16.2	4.2	5.9976 µg/L	5.9976 ppb	06:33:05
3	SiO2†	2129.5	59.9	11.518 µg/L	11.518 ppb	06:32:44
3	Si 251.611†	398.8	30.6	2.3807 µg/L	2.3807 ppb	06:33:05
3	Sn 189.927†	20.2	-1.4	-0.7019 µg/L	-0.7019 ppb	06:33:05
3	Ti 334.940†	861.7	1.7	0.0025 µg/L	0.0025 ppb	06:32:44
3	Tl 190.801†	-18.6	4.4	6.5634 µg/L	6.5634 ppb	06:33:05
3	U 409.014†	779.0	-136.4	-13.124 µg/L	-13.124 ppb	06:32:44
3	V 292.402†	-145.6	-53.1	-0.6221 µg/L	-0.6221 ppb	06:32:44
3	Zn 213.857†	606.3	26.5	0.7041 µg/L	0.7041 ppb	06:33:05

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2134815.3	97.904	%	0.4988				0.51%
Sc RADIAL	117977.3	94.5	%	2.16				2.29%
Y 371.029	1299561.4	98.012	%	0.5225				0.53%
Ag 328.068†	53.7	0.4850	µg/L	0.21872	0.4850	ppb	0.21872	45.09%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	13.2	6.4311	µg/L	4.96725	6.4311	ppb	4.96725	77.24%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	1.5	2.7862	µg/L	5.12392	2.7862	ppb	5.12392	183.90%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	13.1	0.5755	µg/L	0.08018	0.5755	ppb	0.08018	13.93%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	7.6	0.1908	µg/L	0.09918	0.1908	ppb	0.09918	51.99%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	108.5	0.0664	µg/L	0.02995	0.0664	ppb	0.02995	45.13%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	44.5	16.240	µg/L	3.0692	16.240	ppb	3.0692	18.90%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	-0.4	-0.0142	µg/L	0.13883	-0.0142	ppb	0.13883	976.91%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	3.2	0.1542	µg/L	0.23831	0.1542	ppb	0.23831	154.52%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -0.3     -0.0073 µg/L      0.16357     -0.0073 ppb       0.16357 >999.9%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              12.0      0.0831 µg/L      0.06221      0.0831 ppb       0.06221  74.90%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       -0.1     -0.6248 µg/L     11.59694     -0.6248 ppb      11.59694 >999.9%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        35.0      18.716 µg/L      16.5797      18.716 ppb       16.5797  88.58%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           2.5      13.522 µg/L       2.3925      13.522 ppb        2.3925  17.69%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              15.9      0.0496 µg/L      0.01730      0.0496 ppb       0.01730  34.87%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               1.0      0.1091 µg/L      0.07280      0.1091 ppb       0.07280  66.73%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       89.7      23.241 µg/L       9.0946      23.241 ppb        9.0946  39.13%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              14.1      0.7649 µg/L      0.34331      0.7649 ppb       0.34331  44.88%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -1.7     -3.7260 µg/L      7.64446     -3.7260 ppb       7.64446 205.16%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -4.4     -1.0991 µg/L      0.49573     -1.0991 ppb       0.49573  45.10%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          4.7      24.011 µg/L      18.9915      24.011 ppb       18.9915  79.10%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               0.5      0.5418 µg/L      2.93926      0.5418 ppb       2.93926 542.45%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               2.2      3.0534 µg/L      4.69804      3.0534 ppb       4.69804 153.86%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    30.1      5.7771 µg/L      7.46399      5.7771 ppb       7.46399 129.20%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†              33.0      2.5194 µg/L      0.37284      2.5194 ppb       0.37284  14.80%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               1.0      0.4988 µg/L      1.75163      0.4988 ppb       1.75163 351.13%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              30.7      0.1635 µg/L      0.20141      0.1635 ppb       0.20141 123.19%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              -0.0     -0.0010 µg/L      0.02006     -0.0010 ppb       0.02006 >999.9%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               2.8      4.2151 µg/L      2.04404      4.2151 ppb       2.04404  48.49%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              -70.6     -6.7912 µg/L      5.98362     -6.7912 ppb       5.98362  88.11%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              -17.3     -0.2064 µg/L      0.36588     -0.2064 ppb       0.36588 177.27%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              27.0      0.7210 µg/L      0.08982      0.7210 ppb       0.08982  12.46%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 7
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 12/19/2009 07:00:32
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	122442.0	122442.0	98.1	%			07:01:09
1	Al 396.153Radial†	10944.0	10946.0	5306.0	µg/L	5306.0	ppb	07:01:09
1	Ca 317.933Radial†	14239.2	14067.6	5131.7	µg/L	5131.7	ppb	07:01:30
1	Fe 238.204 Radial†	1038.1	1049.7	5297.6	µg/L	5297.6	ppb	07:01:30
1	K 766.490 Radial†	10542.4	9911.7	5294.0	µg/L	5294.0	ppb	07:01:09
1	Mg 279.077 IEC†	1008.0	1011.7	5393.6	µg/L	5393.6	ppb	07:01:30
1	Na 589.592 Radial†	39721.1	41226.7	10684	µg/L	10684	ppb	07:01:09
1	Sr 421.552†	95419.7	97356.2	519.34	µg/L	519.34	ppb	07:01:09
1	Sc 361.383	2146571.0	2146571.0	98.444	%			07:02:33
1	Y 371.029	1300773.1	1300773.1	98.104	%			07:02:33
1	Ag 328.068†	57808.0	58641.3	535.15	µg/L	535.15	ppb	07:02:39
1	As 188.979†	279.9	283.3	532.32	µg/L	532.32	ppb	07:03:00
1	B 249.677†	12063.5	12088.0	529.10	µg/L	529.10	ppb	07:02:39
1	Ba 233.527†	20761.8	21177.3	534.06	µg/L	534.06	ppb	07:02:39
1	Be 313.107†	848734.0	858511.0	524.76	µg/L	524.76	ppb	07:02:33
1	Cd 226.502†	20257.5	20687.8	538.63	µg/L	538.63	ppb	07:02:39
1	Co 228.616†	10940.7	11189.4	537.79	µg/L	537.79	ppb	07:02:39
1	Cr 267.716†	25071.1	25603.2	538.31	µg/L	538.31	ppb	07:02:39
1	Cu 324.752†	77242.9	75060.7	522.61	µg/L	522.61	ppb	07:02:39
1	Mn 257.610†	163740.3	166550.7	521.96	µg/L	521.96	ppb	07:02:33
1	Mo 202.031†	4582.6	4656.1	529.25	µg/L	529.25	ppb	07:03:00
1	Ni 231.604†	10055.6	9881.1	534.86	µg/L	534.86	ppb	07:02:39
1	P 214.914†	1423.8	1234.4	2608.1	µg/L	2608.1	ppb	07:03:00
1	Pb 220.353†	2118.9	2100.8	532.48	µg/L	532.48	ppb	07:03:00
1	S 181.975 Axial†	235.2	213.2	1078.5	µg/L	1078.5	ppb	07:03:00
1	Sb 206.836†	545.1	531.0	534.10	µg/L	534.10	ppb	07:03:00
1	Se 196.026†	393.3	387.1	549.00	µg/L	549.00	ppb	07:03:00
1	SiO2†	31256.9	29623.7	5693.6	µg/L	5693.6	ppb	07:02:39
1	Si 251.611†	34291.9	34455.1	2607.3	µg/L	2607.3	ppb	07:02:39
1	Sn 189.927†	1095.9	1091.1	538.50	µg/L	538.50	ppb	07:03:00
1	Ti 334.940†	234617.4	237443.5	520.34	µg/L	520.34	ppb	07:02:33
1	Tl 190.801†	326.5	355.2	530.09	µg/L	530.09	ppb	07:03:00
1	U 409.014†	6429.7	5594.9	537.52	µg/L	537.52	ppb	07:02:39
1	V 292.402†	46379.5	47209.3	541.10	µg/L	541.10	ppb	07:02:39
1	Zn 213.857†	20507.2	20235.2	539.99	µg/L	539.99	ppb	07:02:39
2	Sc RADIAL	121097.8	121097.8	97.0	%			07:01:35
2	Al 396.153Radial†	10857.8	10981.0	5323.1	µg/L	5323.1	ppb	07:01:35
2	Ca 317.933Radial†	14257.0	14247.0	5197.1	µg/L	5197.1	ppb	07:01:56
2	Fe 238.204 Radial†	1035.6	1058.9	5343.7	µg/L	5343.7	ppb	07:01:56
2	K 766.490 Radial†	10416.3	9901.0	5288.3	µg/L	5288.3	ppb	07:01:35
2	Mg 279.077 IEC†	1004.8	1019.7	5436.3	µg/L	5436.3	ppb	07:01:56
2	Na 589.592 Radial†	39263.0	41204.0	10678	µg/L	10678	ppb	07:01:35
2	Sr 421.552†	94567.6	97557.6	520.41	µg/L	520.41	ppb	07:01:35
2	Sc 361.383	2133366.0	2133366.0	97.838	%			07:03:07
2	Y 371.029	1293019.4	1293019.4	97.519	%			07:03:07
2	Ag 328.068†	57545.6	58736.5	536.02	µg/L	536.02	ppb	07:03:12
2	As 188.979†	277.7	282.8	531.36	µg/L	531.36	ppb	07:03:33
2	B 249.677†	12007.0	12106.1	529.88	µg/L	529.88	ppb	07:03:12
2	Ba 233.527†	20655.4	21199.1	534.60	µg/L	534.60	ppb	07:03:12
2	Be 313.107†	845637.6	860682.7	526.09	µg/L	526.09	ppb	07:03:07
2	Cd 226.502†	20128.5	20683.2	538.50	µg/L	538.50	ppb	07:03:12
2	Co 228.616†	10888.8	11205.1	538.53	µg/L	538.53	ppb	07:03:12
2	Cr 267.716†	24857.6	25542.5	537.04	µg/L	537.04	ppb	07:03:12
2	Cu 324.752†	76858.4	75153.4	523.26	µg/L	523.26	ppb	07:03:12
2	Mn 257.610†	163226.0	167054.6	523.54	µg/L	523.54	ppb	07:03:07
2	Mo 202.031†	4535.4	4636.7	527.04	µg/L	527.04	ppb	07:03:33
2	Ni 231.604†	10016.6	9904.6	536.13	µg/L	536.13	ppb	07:03:12
2	P 214.914†	1415.5	1234.9	2608.9	µg/L	2608.9	ppb	07:03:33
2	Pb 220.353†	2115.3	2110.4	534.92	µg/L	534.92	ppb	07:03:33

2	S 181.975 Axial†	233.1	212.5	1075.2 µg/L	1075.2 ppb	07:03:33
2	Sb 206.836†	540.2	529.3	532.48 µg/L	532.48 ppb	07:03:33
2	Se 196.026†	397.5	393.9	558.66 µg/L	558.66 ppb	07:03:33
2	SiO2†	31065.2	29624.3	5693.7 µg/L	5693.7 ppb	07:03:12
2	Si 251.611†	34064.5	34438.3	2606.2 µg/L	2606.2 ppb	07:03:12
2	Sn 189.927†	1078.1	1079.8	532.99 µg/L	532.99 ppb	07:03:33
2	Ti 334.940†	233856.4	238140.9	521.87 µg/L	521.87 ppb	07:03:07
2	Tl 190.801†	330.9	361.8	539.79 µg/L	539.79 ppb	07:03:33
2	U 409.014†	6296.8	5499.5	528.33 µg/L	528.33 ppb	07:03:12
2	V 292.402†	46088.4	47203.3	541.00 µg/L	541.00 ppb	07:03:12
2	Zn 213.857†	20359.1	20212.7	539.37 µg/L	539.37 ppb	07:03:12
3	Sc RADIAL	121719.5	121719.5	97.5 %		07:02:01
3	Al 396.153Radial†	10960.0	11028.7	5349.2 µg/L	5349.2 ppb	07:02:01
3	Ca 317.933Radial†	14312.7	14229.1	5190.6 µg/L	5190.6 ppb	07:02:22
3	Fe 238.204 Radial†	1031.8	1049.6	5295.2 µg/L	5295.2 ppb	07:02:22
3	K 766.490 Radial†	10468.0	9899.2	5287.4 µg/L	5287.4 ppb	07:02:01
3	Mg 279.077 IEC†	1018.0	1028.0	5478.4 µg/L	5478.4 ppb	07:02:22
3	Na 589.592 Radial†	39513.5	41254.1	10691 µg/L	10691 ppb	07:02:01
3	Sr 421.552†	95271.9	97781.8	521.61 µg/L	521.61 ppb	07:02:01
3	Sc 361.383	2145711.9	2145711.9	98.404 %		07:03:40
3	Y 371.029	1299581.0	1299581.0	98.014 %		07:03:40
3	Ag 328.068†	54878.1	55687.3	508.08 µg/L	508.08 ppb	07:03:46
3	As 188.979†	239.3	242.1	454.85 µg/L	454.85 ppb	07:04:06
3	B 249.677†	11360.1	11378.2	497.93 µg/L	497.93 ppb	07:03:46
3	Ba 233.527†	19285.7	19685.7	496.42 µg/L	496.42 ppb	07:03:46
3	Be 313.107†	806697.6	816138.1	498.86 µg/L	498.86 ppb	07:03:40
3	Cd 226.502†	18719.2	19132.7	498.10 µg/L	498.10 ppb	07:03:46
3	Co 228.616†	10007.3	10245.3	492.30 µg/L	492.30 ppb	07:03:46
3	Cr 267.716†	22437.0	22936.5	482.27 µg/L	482.27 ppb	07:03:46
3	Cu 324.752†	71383.4	69137.6	481.46 µg/L	481.46 ppb	07:03:46
3	Mn 257.610†	156271.3	159027.2	498.41 µg/L	498.41 ppb	07:03:40
3	Mo 202.031†	3894.5	3958.8	450.01 µg/L	450.01 ppb	07:04:06
3	Ni 231.604†	9271.1	9088.1	491.93 µg/L	491.93 ppb	07:03:46
3	P 214.914†	1265.7	1074.3	2265.6 µg/L	2265.6 ppb	07:04:06
3	Pb 220.353†	1891.8	1870.9	474.16 µg/L	474.16 ppb	07:04:06
3	S 181.975 Axial†	209.3	187.0	945.73 µg/L	945.73 ppb	07:04:06
3	Sb 206.836†	477.8	462.8	465.59 µg/L	465.59 ppb	07:04:06
3	Se 196.026†	352.7	346.0	491.03 µg/L	491.03 ppb	07:04:06
3	SiO2†	29324.4	27672.6	5318.6 µg/L	5318.6 ppb	07:03:46
3	Si 251.611†	32135.4	32277.6	2445.1 µg/L	2445.1 ppb	07:03:46
3	Sn 189.927†	917.7	910.4	449.84 µg/L	449.84 ppb	07:04:06
3	Ti 334.940†	222044.5	224762.2	492.53 µg/L	492.53 ppb	07:03:40
3	Tl 190.801†	300.2	328.7	490.54 µg/L	490.54 ppb	07:04:06
3	U 409.014†	5848.2	5006.6	480.91 µg/L	480.91 ppb	07:03:46
3	V 292.402†	42274.7	43056.7	493.30 µg/L	493.30 ppb	07:03:46
3	Zn 213.857†	18902.8	18613.1	496.64 µg/L	496.64 ppb	07:03:46

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2141883.0	98.229	%	0.3388				0.34%
Sc RADIAL	121753.1	97.6	%	0.54				0.55%
Y 371.029	1297791.1	97.879	%	0.3149				0.32%
Ag 328.068†	57688.4	526.42	µg/L	15.887	526.42	ppb	15.887	3.02%
QC value within limits for Ag 328.068 Recovery = 105.28%								
Al 396.153Radial†	10985.2	5326.1	µg/L	21.77	5326.1	ppb	21.77	0.41%
QC value within limits for Al 396.153Radial Recovery = 106.52%								
As 188.979†	269.4	506.18	µg/L	44.454	506.18	ppb	44.454	8.78%
QC value within limits for As 188.979 Recovery = 101.24%								
B 249.677†	11857.4	518.97	µg/L	18.224	518.97	ppb	18.224	3.51%
QC value within limits for B 249.677 Recovery = 103.79%								
Ba 233.527†	20687.4	521.69	µg/L	21.889	521.69	ppb	21.889	4.20%
QC value within limits for Ba 233.527 Recovery = 104.34%								
Be 313.107†	845110.6	516.57	µg/L	15.351	516.57	ppb	15.351	2.97%
QC value within limits for Be 313.107 Recovery = 103.31%								
Ca 317.933Radial†	14181.2	5173.1	µg/L	36.06	5173.1	ppb	36.06	0.70%
QC value within limits for Ca 317.933Radial Recovery = 103.46%								
Cd 226.502†	20167.9	525.08	µg/L	23.365	525.08	ppb	23.365	4.45%
QC value within limits for Cd 226.502 Recovery = 105.02%								
Co 228.616†	10879.9	522.87	µg/L	26.482	522.87	ppb	26.482	5.06%

```
   QC value within limits for Co 228.616  Recovery = 104.57%
Cr 267.716†            24694.0      519.21 µg/L        31.998      519.21 ppb        31.998   6.16%
   QC value within limits for Cr 267.716  Recovery = 103.84%
Cu 324.752†            73117.3      509.11 µg/L        23.949      509.11 ppb        23.949   4.70%
   QC value within limits for Cu 324.752  Recovery = 101.82%
Fe 238.204 Radial†      1052.7      5312.2 µg/L         27.34      5312.2 ppb         27.34   0.51%
   QC value within limits for Fe 238.204 Radial  Recovery = 106.24%
K 766.490 Radial†       9903.9      5289.9 µg/L          3.61      5289.9 ppb          3.61   0.07%
   QC value within limits for K 766.490 Radial  Recovery = 105.80%
Mg 279.077 IEC†         1019.8      5436.1 µg/L         42.38      5436.1 ppb         42.38   0.78%
   QC value within limits for Mg 279.077 IEC  Recovery = 108.72%
Mn 257.610†           164210.8      514.64 µg/L        14.075      514.64 ppb        14.075   2.73%
   QC value within limits for Mn 257.610  Recovery = 102.93%
Mo 202.031†             4417.2      502.10 µg/L        45.124      502.10 ppb        45.124   8.99%
   QC value within limits for Mo 202.031  Recovery = 100.42%
Na 589.592 Radial†     41228.3       10685 µg/L           6.5       10685 ppb           6.5   0.06%
   QC value within limits for Na 589.592 Radial  Recovery = 106.85%
Ni 231.604†             9624.6      520.97 µg/L        25.159      520.97 ppb        25.159   4.83%
   QC value within limits for Ni 231.604  Recovery = 104.19%
P 214.914†              1181.2      2494.2 µg/L       197.99      2494.2 ppb       197.99   7.94%
   QC value within limits for P 214.914  Recovery = 99.77%
Pb 220.353†             2027.4      513.85 µg/L        34.393      513.85 ppb        34.393   6.69%
   QC value within limits for Pb 220.353  Recovery = 102.77%
S 181.975 Axial†         204.2      1033.1 µg/L         75.71      1033.1 ppb         75.71   7.33%
   QC value within limits for S 181.975 Axial  Recovery = 103.31%
Sb 206.836†              507.7      510.72 µg/L        39.092      510.72 ppb        39.092   7.65%
   QC value within limits for Sb 206.836  Recovery = 102.14%
Se 196.026†              375.7      532.90 µg/L        36.580      532.90 ppb        36.580   6.86%
   QC value within limits for Se 196.026  Recovery = 106.58%
SiO2†                  28973.6      5568.6 µg/L       216.54      5568.6 ppb       216.54   3.89%
   QC value within limits for SiO2  Recovery = 104.13%
Si 251.611†            33723.7      2552.9 µg/L        93.32      2552.9 ppb        93.32   3.66%
   QC value within limits for Si 251.611  Recovery = 102.12%
Sn 189.927†             1027.1      507.11 µg/L        49.678      507.11 ppb        49.678   9.80%
   QC value within limits for Sn 189.927  Recovery = 101.42%
Sr 421.552†            97565.2      520.45 µg/L         1.136      520.45 ppb         1.136   0.22%
   QC value within limits for Sr 421.552  Recovery = 104.09%
Ti 334.940†           233448.9      511.58 µg/L        16.514      511.58 ppb        16.514   3.23%
   QC value within limits for Ti 334.940  Recovery = 102.32%
Tl 190.801†              348.6      520.14 µg/L        26.088      520.14 ppb        26.088   5.02%
   QC value within limits for Tl 190.801  Recovery = 104.03%
U 409.014†              5367.0      515.59 µg/L        30.380      515.59 ppb        30.380   5.89%
   QC value within limits for U 409.014  Recovery = 103.12%
V 292.402†             45823.1      525.13 µg/L        27.570      525.13 ppb        27.570   5.25%
   QC value within limits for V 292.402  Recovery = 105.03%
Zn 213.857†            19687.0      525.33 µg/L        24.849      525.33 ppb        24.849   4.73%
   QC value within limits for Zn 213.857  Recovery = 105.07%
All analyte(s) passed QC.
```

Sequence No.: 8
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 12/19/2009 07:04:16
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	120327.6	120327.6	96.4	%			07:04:48
1	Al 396.153Radial†	228.1	29.1	14.187	µg/L	14.187	ppb	07:04:48
1	Ca 317.933Radial†	445.6	18.0	6.5795	µg/L	6.5795	ppb	07:05:09
1	Fe 238.204 Radial†	10.3	2.5	12.374	µg/L	12.374	ppb	07:05:09
1	K 766.490 Radial†	780.2	-23.3	-12.468	µg/L	-12.468	ppb	07:04:48
1	Mg 279.077 IEC†	21.1	6.2	33.054	µg/L	33.054	ppb	07:05:09
1	Na 589.592 Radial†	-747.5	-29.8	-7.7142	µg/L	-7.7142	ppb	07:04:48
1	Sr 421.552†	-93.4	13.6	0.0725	µg/L	0.0725	ppb	07:04:48
1	Sc 361.383	2146973.6	2146973.6	98.462	%			07:06:11
1	Y 371.029	1306786.2	1306786.2	98.557	%			07:06:11
1	Ag 328.068†	155.9	77.6	0.6998	µg/L	0.6998	ppb	07:06:16
1	As 188.979†	1.9	0.9	1.6444	µg/L	1.6444	ppb	07:06:37
1	B 249.677†	167.9	4.3	0.1861	µg/L	0.1861	ppb	07:06:16
1	Ba 233.527†	-72.6	13.6	0.3403	µg/L	0.3403	ppb	07:06:37
1	Be 313.107†	3752.7	169.1	0.1034	µg/L	0.1034	ppb	07:06:16
1	Cd 226.502†	-108.5	-0.2	-0.0094	µg/L	-0.0094	ppb	07:06:37
1	Co 228.616†	-68.2	6.4	0.3072	µg/L	0.3072	ppb	07:06:37
1	Cr 267.716†	-102.9	31.2	0.6523	µg/L	0.6523	ppb	07:06:16
1	Cu 324.752†	3350.3	-0.8	-0.0028	µg/L	-0.0028	ppb	07:06:16
1	Mn 257.610†	-196.2	22.3	0.0713	µg/L	0.0713	ppb	07:06:37
1	Mo 202.031†	-3.7	-2.7	-0.3085	µg/L	-0.3085	ppb	07:06:37
1	Ni 231.604†	343.7	15.7	0.8483	µg/L	0.8483	ppb	07:06:37
1	P 214.914†	206.7	-2.0	-4.3045	µg/L	-4.3045	ppb	07:06:37
1	Pb 220.353†	54.9	4.2	1.0597	µg/L	1.0597	ppb	07:06:37
1	S 181.975 Axial†	27.9	2.6	13.267	µg/L	13.267	ppb	07:06:37
1	Sb 206.836†	25.4	3.0	3.0673	µg/L	3.0673	ppb	07:06:37
1	Se 196.026†	14.9	2.7	3.8807	µg/L	3.8807	ppb	07:06:37
1	SiO2†	2096.7	2.1	0.4086	µg/L	0.4086	ppb	07:06:16
1	Si 251.611†	401.3	28.6	2.1450	µg/L	2.1450	ppb	07:06:37
1	Sn 189.927†	25.3	3.5	1.7523	µg/L	1.7523	ppb	07:06:37
1	Ti 334.940†	893.9	24.4	0.0532	µg/L	0.0532	ppb	07:06:16
1	Tl 190.801†	-18.6	4.7	7.0265	µg/L	7.0265	ppb	07:06:37
1	U 409.014†	867.7	-55.2	-5.3175	µg/L	-5.3175	ppb	07:06:16
1	V 292.402†	-139.4	-45.2	-0.5228	µg/L	-0.5228	ppb	07:06:16
1	Zn 213.857†	615.1	28.4	0.7578	µg/L	0.7578	ppb	07:06:37
2	Sc RADIAL	120506.5	120506.5	96.6	%			07:05:14
2	Al 396.153Radial†	176.1	-25.1	-12.179	µg/L	-12.179	ppb	07:05:14
2	Ca 317.933Radial†	451.3	23.2	8.4562	µg/L	8.4562	ppb	07:05:35
2	Fe 238.204 Radial†	9.0	1.1	5.4146	µg/L	5.4146	ppb	07:05:35
2	K 766.490 Radial†	802.2	-1.8	-0.9762	µg/L	-0.9762	ppb	07:05:14
2	Mg 279.077 IEC†	15.5	0.4	2.2552	µg/L	2.2552	ppb	07:05:35
2	Na 589.592 Radial†	-731.7	-12.2	-3.1557	µg/L	-3.1557	ppb	07:05:14
2	Sr 421.552†	-71.4	36.6	0.1950	µg/L	0.1950	ppb	07:05:14
2	Sc 361.383	2139066.0	2139066.0	98.099	%			07:06:43
2	Y 371.029	1302962.1	1302962.1	98.269	%			07:06:43
2	Ag 328.068†	157.2	79.5	0.7185	µg/L	0.7185	ppb	07:06:48
2	As 188.979†	0.8	-0.2	-0.4193	µg/L	-0.4193	ppb	07:07:09
2	B 249.677†	214.3	52.3	2.2931	µg/L	2.2931	ppb	07:06:48
2	Ba 233.527†	-77.3	8.4	0.2108	µg/L	0.2108	ppb	07:07:09
2	Be 313.107†	3741.3	171.6	0.1049	µg/L	0.1049	ppb	07:06:48
2	Cd 226.502†	-102.2	5.7	0.1464	µg/L	0.1464	ppb	07:07:09
2	Co 228.616†	-69.2	5.2	0.2461	µg/L	0.2461	ppb	07:07:09
2	Cr 267.716†	-97.4	36.4	0.7620	µg/L	0.7620	ppb	07:06:48
2	Cu 324.752†	3328.2	-10.8	-0.0736	µg/L	-0.0736	ppb	07:06:48
2	Mn 257.610†	-188.4	29.5	0.0930	µg/L	0.0930	ppb	07:07:09
2	Mo 202.031†	-6.6	-5.7	-0.6486	µg/L	-0.6486	ppb	07:07:09
2	Ni 231.604†	336.4	9.5	0.5160	µg/L	0.5160	ppb	07:07:09
2	P 214.914†	199.8	-8.2	-17.759	µg/L	-17.759	ppb	07:07:09
2	Pb 220.353†	47.7	-3.0	-0.7629	µg/L	-0.7629	ppb	07:07:09

2	S 181.975 Axial†	32.0	6.8	34.660 µg/L	34.660 ppb	07:07:09
2	Sb 206.836†	29.4	7.3	7.3117 µg/L	7.3117 ppb	07:07:09
2	Se 196.026†	11.0	-1.2	-1.6542 µg/L	-1.6542 ppb	07:07:09
2	SiO2†	2150.7	65.0	12.495 µg/L	12.495 ppb	07:06:48
2	Si 251.611†	395.2	23.9	1.8631 µg/L	1.8631 ppb	07:07:09
2	Sn 189.927†	21.1	-0.7	-0.3385 µg/L	-0.3385 ppb	07:07:09
2	Ti 334.940†	936.7	71.4	0.1562 µg/L	0.1562 ppb	07:06:48
2	Tl 190.801†	-21.4	1.7	2.5418 µg/L	2.5418 ppb	07:07:09
2	U 409.014†	875.7	-43.8	-4.2192 µg/L	-4.2192 ppb	07:06:48
2	V 292.402†	-119.5	-25.4	-0.2991 µg/L	-0.2991 ppb	07:06:48
2	Zn 213.857†	614.4	30.1	0.8060 µg/L	0.8060 ppb	07:07:09
3	Sc RADIAL	119825.5	119825.5	96.0 %		07:05:40
3	Al 396.153Radial†	203.6	4.6	2.2389 µg/L	2.2389 ppb	07:05:40
3	Ca 317.933Radial†	469.2	44.5	16.249 µg/L	16.249 ppb	07:06:00
3	Fe 238.204 Radial†	9.2	1.3	6.4284 µg/L	6.4284 ppb	07:06:00
3	K 766.490 Radial†	813.6	14.8	7.8830 µg/L	7.8830 ppb	07:05:40
3	Mg 279.077 IEC†	17.8	2.9	15.224 µg/L	15.224 ppb	07:06:00
3	Na 589.592 Radial†	-682.0	35.3	9.1431 µg/L	9.1431 ppb	07:05:40
3	Sr 421.552†	-79.2	28.0	0.1493 µg/L	0.1493 ppb	07:05:40
3	Sc 361.383	2152260.3	2152260.3	98.704 %		07:07:15
3	Y 371.029	1310268.1	1310268.1	98.820 %		07:07:15
3	Ag 328.068†	158.8	80.1	0.7253 µg/L	0.7253 ppb	07:07:20
3	As 188.979†	-3.3	-4.4	-8.2632 µg/L	-8.2632 ppb	07:07:41
3	B 249.677†	171.0	7.0	0.3062 µg/L	0.3062 ppb	07:07:20
3	Ba 233.527†	-76.9	9.4	0.2352 µg/L	0.2352 ppb	07:07:41
3	Be 313.107†	3789.8	197.3	0.1207 µg/L	0.1207 ppb	07:07:20
3	Cd 226.502†	-97.5	11.1	0.2825 µg/L	0.2825 ppb	07:07:41
3	Co 228.616†	-76.6	-1.9	-0.0885 µg/L	-0.0885 ppb	07:07:41
3	Cr 267.716†	-156.1	-22.6	-0.4735 µg/L	-0.4735 ppb	07:07:20
3	Cu 324.752†	3307.1	-52.9	-0.3662 µg/L	-0.3662 ppb	07:07:20
3	Mn 257.610†	-200.8	18.0	0.0573 µg/L	0.0573 ppb	07:07:41
3	Mo 202.031†	1.9	2.9	0.3334 µg/L	0.3334 ppb	07:07:41
3	Ni 231.604†	336.4	7.4	0.3993 µg/L	0.3993 ppb	07:07:41
3	P 214.914†	206.9	-2.3	-5.0836 µg/L	-5.0836 ppb	07:07:41
3	Pb 220.353†	50.9	-0.0	-0.0019 µg/L	-0.0019 ppb	07:07:41
3	S 181.975 Axial†	26.6	1.3	6.3528 µg/L	6.3528 ppb	07:07:41
3	Sb 206.836†	25.4	3.0	2.9847 µg/L	2.9847 ppb	07:07:41
3	Se 196.026†	7.8	-4.5	-6.4027 µg/L	-6.4027 ppb	07:07:41
3	SiO2†	2119.3	19.7	3.7948 µg/L	3.7948 ppb	07:07:20
3	Si 251.611†	394.5	20.7	1.6774 µg/L	1.6774 ppb	07:07:41
3	Sn 189.927†	17.1	-4.8	-2.3499 µg/L	-2.3499 ppb	07:07:41
3	Ti 334.940†	849.5	-22.7	-0.0508 µg/L	-0.0508 ppb	07:07:20
3	Tl 190.801†	-19.1	4.2	6.2908 µg/L	6.2908 ppb	07:07:41
3	U 409.014†	824.4	-101.3	-9.7463 µg/L	-9.7463 ppb	07:07:20
3	V 292.402†	-103.8	-8.7	-0.1120 µg/L	-0.1120 ppb	07:07:20
3	Zn 213.857†	612.2	24.0	0.6423 µg/L	0.6423 ppb	07:07:41

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2146100.0	98.422	%	0.3045				0.31%
Sc RADIAL	120219.9	96.3	%	0.28				0.29%
Y 371.029	1306672.1	98.549	%	0.2756				0.28%
Ag 328.068†	79.1	0.7145	µg/L	0.01320	0.7145	ppb	0.01320	1.85%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	2.9	1.4157	µg/L	13.20261	1.4157	ppb	13.20261	932.58%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-1.2	-2.3460	µg/L	5.22727	-2.3460	ppb	5.22727	222.81%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	21.2	0.9285	µg/L	1.18335	0.9285	ppb	1.18335	127.45%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	10.4	0.2621	µg/L	0.06879	0.2621	ppb	0.06879	26.25%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	179.3	0.1096	µg/L	0.00959	0.1096	ppb	0.00959	8.75%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	28.6	10.428	µg/L	5.1275	10.428	ppb	5.1275	49.17%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	5.6	0.1398	µg/L	0.14603	0.1398	ppb	0.14603	104.43%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	3.2	0.1549	µg/L	0.21300	0.1549	ppb	0.21300	137.49%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                15.0      0.3136 µg/L       0.68385      0.3136 ppb        0.68385 218.08%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               -21.5     -0.1475 µg/L       0.19263     -0.1475 ppb        0.19263 130.59%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          1.6      8.0722 µg/L       3.75946      8.0722 ppb        3.75946  46.57%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          -3.5     -1.8537 µg/L      10.20381     -1.8537 ppb       10.20381 550.44%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             3.2      16.844 µg/L       15.4633      16.844 ppb        15.4633  91.80%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                23.3      0.0739 µg/L       0.01802      0.0739 ppb        0.01802  24.40%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                -1.8     -0.2079 µg/L       0.49866     -0.2079 ppb        0.49866 239.87%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†         -2.2     -0.5756 µg/L       8.71980     -0.5756 ppb        8.71980 >999.9%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                10.9      0.5879 µg/L       0.23294      0.5879 ppb        0.23294  39.62%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -4.2     -9.0489 µg/L       7.55286     -9.0489 ppb        7.55286  83.47%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                 0.4      0.0983 µg/L       0.91540      0.0983 ppb        0.91540 931.29%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            3.6      18.093 µg/L       14.7581      18.093 ppb        14.7581  81.57%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 4.4      4.4546 µg/L       2.47473      4.4546 ppb        2.47473  55.56%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -1.0     -1.3920 µg/L       5.14671     -1.3920 ppb        5.14671 369.72%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                      29.0      5.5663 µg/L       6.23506      5.5663 ppb        6.23506 112.02%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†                24.4      1.8952 µg/L       0.23541      1.8952 ppb        0.23541  12.42%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                -0.6     -0.3121 µg/L       2.05123     -0.3121 ppb        2.05123 657.30%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                26.0      0.1389 µg/L       0.06188      0.1389 ppb        0.06188  44.55%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                24.4      0.0529 µg/L       0.10349      0.0529 ppb        0.10349 195.73%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 3.6      5.2864 µg/L       2.40517      5.2864 ppb        2.40517  45.50%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                -66.8     -6.4277 µg/L       2.92601     -6.4277 ppb        2.92601  45.52%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                -26.4     -0.3113 µg/L       0.20568     -0.3113 ppb        0.20568  66.08%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                27.5      0.7354 µg/L       0.08412      0.7354 ppb        0.08412  11.44%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 16
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 12/19/2009 07:29:45
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	120352.2	120352.2	96.4	%			07:30:22
1	Al 396.153Radial†	10842.4	11034.3	5348.9	µg/L	5348.9	ppb	07:30:22
1	Ca 317.933Radial†	14443.2	14531.1	5300.8	µg/L	5300.8	ppb	07:30:22
1	Fe 238.204 Radial†	1030.6	1060.3	5350.8	µg/L	5350.8	ppb	07:30:42
1	K 766.490 Radial†	10401.5	9952.1	5315.6	µg/L	5315.6	ppb	07:30:22
1	Mg 279.077 IEC†	1003.8	1025.1	5465.0	µg/L	5465.0	ppb	07:30:42
1	Na 589.592 Radial†	39081.0	41265.9	10694	µg/L	10694	ppb	07:30:22
1	Sr 421.552†	94127.3	97704.8	521.20	µg/L	521.20	ppb	07:30:22
1	Sc 361.383	2128232.4	2128232.4	97.602	%			07:31:46
1	Y 371.029	1289964.0	1289964.0	97.289	%			07:31:46
1	Ag 328.068†	57480.9	58812.1	536.71	µg/L	536.71	ppb	07:31:51
1	As 188.979†	283.1	289.0	543.03	µg/L	543.03	ppb	07:32:12
1	B 249.677†	11992.3	12120.7	530.52	µg/L	530.52	ppb	07:31:51
1	Ba 233.527†	20665.9	21260.8	536.16	µg/L	536.16	ppb	07:31:51
1	Be 313.107†	844587.4	861691.6	526.71	µg/L	526.71	ppb	07:31:46
1	Cd 226.502†	20098.6	20702.2	539.00	µg/L	539.00	ppb	07:31:51
1	Co 228.616†	10835.3	11177.2	537.20	µg/L	537.20	ppb	07:31:51
1	Cr 267.716†	24924.8	25672.6	539.77	µg/L	539.77	ppb	07:31:51
1	Cu 324.752†	76963.2	75450.3	525.33	µg/L	525.33	ppb	07:31:51
1	Mn 257.610†	162915.0	167138.3	523.81	µg/L	523.81	ppb	07:31:46
1	Mo 202.031†	4561.0	4674.1	531.29	µg/L	531.29	ppb	07:32:12
1	Ni 231.604†	10021.9	9934.6	537.76	µg/L	537.76	ppb	07:31:51
1	P 214.914†	1427.4	1250.5	2642.5	µg/L	2642.5	ppb	07:32:12
1	Pb 220.353†	2096.8	2096.7	531.44	µg/L	531.44	ppb	07:32:12
1	S 181.975 Axial†	236.8	216.9	1097.1	µg/L	1097.1	ppb	07:32:12
1	Sb 206.836†	548.8	539.6	542.76	µg/L	542.76	ppb	07:32:12
1	Se 196.026†	399.4	396.8	562.85	µg/L	562.85	ppb	07:32:12
1	SiO2†	31183.7	29822.4	5731.7	µg/L	5731.7	ppb	07:31:51
1	Si 251.611†	34247.6	34709.9	2626.8	µg/L	2626.8	ppb	07:31:51
1	Sn 189.927†	1091.1	1095.8	540.87	µg/L	540.87	ppb	07:32:12
1	Ti 334.940†	233467.0	238318.5	522.25	µg/L	522.25	ppb	07:31:46
1	Tl 190.801†	333.3	365.0	544.62	µg/L	544.62	ppb	07:32:12
1	U 409.014†	6305.2	5523.6	530.66	µg/L	530.66	ppb	07:31:51
1	V 292.402†	46022.3	47249.2	541.56	µg/L	541.56	ppb	07:31:51
1	Zn 213.857†	20438.0	20343.8	542.88	µg/L	542.88	ppb	07:31:51
2	Sc RADIAL	120851.8	120851.8	96.8	%			07:30:48
2	Al 396.153Radial†	10841.9	10987.3	5326.1	µg/L	5326.1	ppb	07:30:48
2	Ca 317.933Radial†	14508.8	14536.9	5302.9	µg/L	5302.9	ppb	07:30:48
2	Fe 238.204 Radial†	1027.9	1053.1	5314.4	µg/L	5314.4	ppb	07:31:08
2	K 766.490 Radial†	10482.3	9991.0	5336.4	µg/L	5336.4	ppb	07:30:48
2	Mg 279.077 IEC†	1008.4	1025.5	5467.4	µg/L	5467.4	ppb	07:31:08
2	Na 589.592 Radial†	39346.5	41372.5	10722	µg/L	10722	ppb	07:30:48
2	Sr 421.552†	94780.5	97975.7	522.64	µg/L	522.64	ppb	07:30:48
2	Sc 361.383	2119788.7	2119788.7	97.215	%			07:32:19
2	Y 371.029	1284343.6	1284343.6	96.865	%			07:32:19
2	Ag 328.068†	56865.6	58413.8	533.07	µg/L	533.07	ppb	07:32:24
2	As 188.979†	275.4	282.2	530.32	µg/L	530.32	ppb	07:32:45
2	B 249.677†	11891.2	12065.6	528.11	µg/L	528.11	ppb	07:32:24
2	Ba 233.527†	20379.1	21050.1	530.85	µg/L	530.85	ppb	07:32:24
2	Be 313.107†	840301.3	860729.7	526.12	µg/L	526.12	ppb	07:32:19
2	Cd 226.502†	19816.9	20494.5	533.59	µg/L	533.59	ppb	07:32:24
2	Co 228.616†	10731.6	11114.7	534.19	µg/L	534.19	ppb	07:32:24
2	Cr 267.716†	24626.8	25467.8	535.47	µg/L	535.47	ppb	07:32:24
2	Cu 324.752†	76139.1	74916.7	521.61	µg/L	521.61	ppb	07:32:24
2	Mn 257.610†	162167.1	167034.0	523.47	µg/L	523.47	ppb	07:32:19
2	Mo 202.031†	4526.1	4656.8	529.32	µg/L	529.32	ppb	07:32:45
2	Ni 231.604†	9884.1	9833.8	532.30	µg/L	532.30	ppb	07:32:24
2	P 214.914†	1410.9	1239.4	2619.0	µg/L	2619.0	ppb	07:32:45
2	Pb 220.353†	2115.1	2124.1	538.37	µg/L	538.37	ppb	07:32:45

2	S 181.975 Axial†	233.1	214.1	1083.0 µg/L	1083.0 ppb	07:32:45
2	Sb 206.836†	544.8	537.7	540.89 µg/L	540.89 ppb	07:32:45
2	Se 196.026†	385.5	384.1	544.85 µg/L	544.85 ppb	07:32:45
2	SiO2†	30876.3	29633.4	5695.4 µg/L	5695.4 ppb	07:32:24
2	Si 251.611†	33908.6	34500.9	2610.7 µg/L	2610.7 ppb	07:32:24
2	Sn 189.927†	1083.0	1091.8	538.94 µg/L	538.94 ppb	07:32:45
2	Ti 334.940†	232421.0	238195.3	521.98 µg/L	521.98 ppb	07:32:19
2	Tl 190.801†	326.0	358.9	535.53 µg/L	535.53 ppb	07:32:45
2	U 409.014†	6291.0	5534.7	531.73 µg/L	531.73 ppb	07:32:24
2	V 292.402†	45517.7	46918.0	537.78 µg/L	537.78 ppb	07:32:24
2	Zn 213.857†	20154.1	20135.2	537.31 µg/L	537.31 ppb	07:32:24
3	Sc RADIAL	120865.4	120865.4	96.9 %		07:31:14
3	Al 396.153Radial†	10924.6	11071.4	5369.9 µg/L	5369.9 ppb	07:31:14
3	Ca 317.933Radial†	14533.9	14561.1	5311.7 µg/L	5311.7 ppb	07:31:14
3	Fe 238.204 Radial†	1022.5	1047.4	5284.5 µg/L	5284.5 ppb	07:31:34
3	K 766.490 Radial†	10537.6	10046.9	5366.2 µg/L	5366.2 ppb	07:31:14
3	Mg 279.077 IEC†	1000.9	1017.7	5423.6 µg/L	5423.6 ppb	07:31:34
3	Na 589.592 Radial†	39316.8	41337.3	10713 µg/L	10713 ppb	07:31:14
3	Sr 421.552†	94624.0	97803.2	521.72 µg/L	521.72 ppb	07:31:14
3	Sc 361.383	2125086.9	2125086.9	97.458 %		07:32:52
3	Y 371.029	1287602.1	1287602.1	97.110 %		07:32:52
3	Ag 328.068†	54719.9	56066.3	511.52 µg/L	511.52 ppb	07:32:58
3	As 188.979†	245.3	250.6	470.86 µg/L	470.86 ppb	07:33:18
3	B 249.677†	11348.8	11478.5	502.34 µg/L	502.34 ppb	07:32:58
3	Ba 233.527†	19238.8	19827.8	500.00 µg/L	500.00 ppb	07:32:58
3	Be 313.107†	802933.4	820232.2	501.37 µg/L	501.37 ppb	07:32:52
3	Cd 226.502†	18629.8	19225.6	500.52 µg/L	500.52 ppb	07:32:58
3	Co 228.616†	10009.2	10346.0	497.13 µg/L	497.13 ppb	07:32:58
3	Cr 267.716†	22397.8	23117.6	486.07 µg/L	486.07 ppb	07:32:58
3	Cu 324.752†	71196.0	69649.4	485.01 µg/L	485.01 ppb	07:32:58
3	Mn 257.610†	155257.6	159528.3	499.98 µg/L	499.98 ppb	07:32:52
3	Mo 202.031†	3878.2	3980.4	452.46 µg/L	452.46 ppb	07:33:18
3	Ni 231.604†	9243.4	9151.0	495.34 µg/L	495.34 ppb	07:32:58
3	P 214.914†	1256.6	1077.5	2272.2 µg/L	2272.2 ppb	07:33:18
3	Pb 220.353†	1879.1	1876.6	475.60 µg/L	475.60 ppb	07:33:18
3	S 181.975 Axial†	215.4	195.3	987.69 µg/L	987.69 ppb	07:33:18
3	Sb 206.836†	479.6	469.3	472.14 µg/L	472.14 ppb	07:33:18
3	Se 196.026†	349.6	346.3	491.46 µg/L	491.46 ppb	07:33:18
3	SiO2†	29320.1	27957.5	5373.3 µg/L	5373.3 ppb	07:32:58
3	Si 251.611†	32055.4	32512.5	2462.8 µg/L	2462.8 ppb	07:32:58
3	Sn 189.927†	924.1	926.0	457.51 µg/L	457.51 ppb	07:33:18
3	Ti 334.940†	221310.0	226198.5	495.68 µg/L	495.68 ppb	07:32:52
3	Tl 190.801†	299.8	331.2	494.26 µg/L	494.26 ppb	07:33:18
3	U 409.014†	5837.2	5052.9	485.38 µg/L	485.38 ppb	07:32:58
3	V 292.402†	42034.1	43226.8	495.25 µg/L	495.25 ppb	07:32:58
3	Zn 213.857†	18885.2	18781.4	501.15 µg/L	501.15 ppb	07:32:58

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	2124369.3	97.425	%	0.1957				0.20%
Sc RADIAL	120689.8	96.7	%	0.23				0.24%
Y 371.029	1287303.2	97.088	%	0.2128				0.22%
Ag 328.068†	57764.0	527.10	µg/L	13.613	527.10	ppb	13.613	2.58%
QC value within limits for Ag 328.068 Recovery = 105.42%								
Al 396.153Radial†	11031.0	5348.3	µg/L	21.94	5348.3	ppb	21.94	0.41%
QC value within limits for Al 396.153Radial Recovery = 106.97%								
As 188.979†	273.9	514.74	µg/L	38.528	514.74	ppb	38.528	7.48%
QC value within limits for As 188.979 Recovery = 102.95%								
B 249.677†	11888.3	520.32	µg/L	15.619	520.32	ppb	15.619	3.00%
QC value within limits for B 249.677 Recovery = 104.06%								
Ba 233.527†	20712.9	522.34	µg/L	19.524	522.34	ppb	19.524	3.74%
QC value within limits for Ba 233.527 Recovery = 104.47%								
Be 313.107†	847551.1	518.06	µg/L	14.464	518.06	ppb	14.464	2.79%
QC value within limits for Be 313.107 Recovery = 103.61%								
Ca 317.933Radial†	14543.0	5305.1	µg/L	5.81	5305.1	ppb	5.81	0.11%
QC value within limits for Ca 317.933Radial Recovery = 106.10%								
Cd 226.502†	20140.8	524.37	µg/L	20.832	524.37	ppb	20.832	3.97%
QC value within limits for Cd 226.502 Recovery = 104.87%								
Co 228.616†	10879.3	522.84	µg/L	22.316	522.84	ppb	22.316	4.27%

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   QC value within limits for Co 228.616  Recovery = 104.57%
Cr 267.716†            24752.7      520.44 µg/L        29.840      520.44 ppb        29.840   5.73%
   QC value within limits for Cr 267.716  Recovery = 104.09%
Cu 324.752†            73338.8      510.65 µg/L        22.281      510.65 ppb        22.281   4.36%
   QC value within limits for Cu 324.752  Recovery = 102.13%
Fe 238.204 Radial†      1053.6      5316.6 µg/L         33.20      5316.6 ppb         33.20   0.62%
   QC value within limits for Fe 238.204 Radial  Recovery = 106.33%
K 766.490 Radial†       9996.7      5339.4 µg/L         25.44      5339.4 ppb         25.44   0.48%
   QC value within limits for K 766.490 Radial  Recovery = 106.79%
Mg 279.077 IEC†         1022.8      5452.0 µg/L         24.62      5452.0 ppb         24.62   0.45%
   QC value within limits for Mg 279.077 IEC  Recovery = 109.04%
Mn 257.610†           164566.9      515.75 µg/L        13.662      515.75 ppb        13.662   2.65%
   QC value within limits for Mn 257.610  Recovery = 103.15%
Mo 202.031†             4437.1      504.36 µg/L        44.954      504.36 ppb        44.954   8.91%
   QC value within limits for Mo 202.031  Recovery = 100.87%
Na 589.592 Radial†     41325.2       10710 µg/L          14.1       10710 ppb          14.1   0.13%
   QC value within limits for Na 589.592 Radial  Recovery = 107.10%
Ni 231.604†             9639.8      521.80 µg/L        23.075      521.80 ppb        23.075   4.42%
   QC value within limits for Ni 231.604  Recovery = 104.36%
P 214.914†              1189.1      2511.2 µg/L        207.35      2511.2 ppb        207.35   8.26%
   QC value within limits for P 214.914  Recovery = 100.45%
Pb 220.353†             2032.4      515.14 µg/L        34.417      515.14 ppb        34.417   6.68%
   QC value within limits for Pb 220.353  Recovery = 103.03%
S 181.975 Axial†         208.7      1055.9 µg/L         59.53      1055.9 ppb         59.53   5.64%
   QC value within limits for S 181.975 Axial  Recovery = 105.59%
Sb 206.836†              515.5      518.60 µg/L        40.244      518.60 ppb        40.244   7.76%
   QC value within limits for Sb 206.836  Recovery = 103.72%
Se 196.026†              375.8      533.05 µg/L        37.128      533.05 ppb        37.128   6.97%
   QC value within limits for Se 196.026  Recovery = 106.61%
SiO2†                  29137.8      5600.2 µg/L        197.29      5600.2 ppb        197.29   3.52%
   QC value within limits for SiO2  Recovery = 104.72%
Si 251.611†            33907.8      2566.8 µg/L         90.42      2566.8 ppb         90.42   3.52%
   QC value within limits for Si 251.611  Recovery = 102.67%
Sn 189.927†             1037.9      512.44 µg/L        47.579      512.44 ppb        47.579   9.28%
   QC value within limits for Sn 189.927  Recovery = 102.49%
Sr 421.552†            97827.9      521.85 µg/L         0.732      521.85 ppb         0.732   0.14%
   QC value within limits for Sr 421.552  Recovery = 104.37%
Ti 334.940†           234237.5      513.30 µg/L        15.266      513.30 ppb        15.266   2.97%
   QC value within limits for Ti 334.940  Recovery = 102.66%
Tl 190.801†              351.7      524.80 µg/L        26.836      524.80 ppb        26.836   5.11%
   QC value within limits for Tl 190.801  Recovery = 104.96%
U 409.014†              5370.4      515.92 µg/L        26.456      515.92 ppb        26.456   5.13%
   QC value within limits for U 409.014  Recovery = 103.18%
V 292.402†             45798.0      524.86 µg/L        25.714      524.86 ppb        25.714   4.90%
   QC value within limits for V 292.402  Recovery = 104.97%
Zn 213.857†            19753.5      527.11 µg/L        22.658      527.11 ppb        22.658   4.30%
   QC value within limits for Zn 213.857  Recovery = 105.42%
All analyte(s) passed QC.
```

Sequence No.: 17
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 12/19/2009 07:33:27
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	118505.5	118505.5	95.0	%			07:34:00
1	Al 396.153Radial†	232.6	37.5	18.200	µg/L	18.200	ppb	07:34:00
1	Ca 317.933Radial†	451.5	31.3	11.427	µg/L	11.427	ppb	07:34:20
1	Fe 238.204 Radial†	7.1	-0.8	-3.8563	µg/L	-3.8563	ppb	07:34:20
1	K 766.490 Radial†	781.3	-9.8	-5.2227	µg/L	-5.2227	ppb	07:34:00
1	Mg 279.077 IEC†	19.5	4.8	25.784	µg/L	25.784	ppb	07:34:20
1	Na 589.592 Radial†	-710.3	-2.5	-0.6525	µg/L	-0.6525	ppb	07:34:00
1	Sr 421.552†	-57.3	50.1	0.2673	µg/L	0.2673	ppb	07:34:00
1	Sc 361.383	2142587.6	2142587.6	98.261	%			07:35:22
1	Y 371.029	1303526.6	1303526.6	98.311	%			07:35:22
1	Ag 328.068†	180.8	103.2	0.9319	µg/L	0.9319	ppb	07:35:28
1	As 188.979†	-4.0	-5.1	-9.5667	µg/L	-9.5667	ppb	07:35:48
1	B 249.677†	170.4	7.2	0.3157	µg/L	0.3157	ppb	07:35:28
1	Ba 233.527†	-75.7	10.2	0.2553	µg/L	0.2553	ppb	07:35:48
1	Be 313.107†	3761.5	185.8	0.1135	µg/L	0.1135	ppb	07:35:28
1	Cd 226.502†	-105.6	2.4	0.0611	µg/L	0.0611	ppb	07:35:48
1	Co 228.616†	-74.5	-0.1	-0.0026	µg/L	-0.0026	ppb	07:35:48
1	Cr 267.716†	-133.9	-0.6	-0.0139	µg/L	-0.0139	ppb	07:35:28
1	Cu 324.752†	3271.6	-73.9	-0.5145	µg/L	-0.5145	ppb	07:35:28
1	Mn 257.610†	-184.2	34.1	0.1063	µg/L	0.1063	ppb	07:35:48
1	Mo 202.031†	6.3	7.5	0.8482	µg/L	0.8482	ppb	07:35:48
1	Ni 231.604†	339.0	11.6	0.6288	µg/L	0.6288	ppb	07:35:48
1	P 214.914†	200.9	-7.4	-15.971	µg/L	-15.971	ppb	07:35:48
1	Pb 220.353†	56.1	5.4	1.3880	µg/L	1.3880	ppb	07:35:48
1	S 181.975 Axial†	27.8	2.5	12.798	µg/L	12.798	ppb	07:35:48
1	Sb 206.836†	17.5	-5.0	-5.0296	µg/L	-5.0296	ppb	07:35:48
1	Se 196.026†	11.0	-1.2	-1.7673	µg/L	-1.7673	ppb	07:35:48
1	SiO2†	2213.6	125.4	24.106	µg/L	24.106	ppb	07:35:28
1	Si 251.611†	480.0	109.5	8.4092	µg/L	8.4092	ppb	07:35:48
1	Sn 189.927†	22.5	0.7	0.3660	µg/L	0.3660	ppb	07:35:48
1	Ti 334.940†	1010.9	145.4	0.3181	µg/L	0.3181	ppb	07:35:28
1	Tl 190.801†	-23.2	-0.0	-0.0073	µg/L	-0.0073	ppb	07:35:48
1	U 409.014†	870.6	-50.5	-4.8598	µg/L	-4.8598	ppb	07:35:28
1	V 292.402†	-128.0	-33.8	-0.3864	µg/L	-0.3864	ppb	07:35:28
1	Zn 213.857†	620.9	35.6	0.9552	µg/L	0.9552	ppb	07:35:48
2	Sc RADIAL	119703.8	119703.8	95.9	%			07:34:26
2	Al 396.153Radial†	184.7	-14.8	-7.2171	µg/L	-7.2171	ppb	07:34:26
2	Ca 317.933Radial†	454.2	29.4	10.725	µg/L	10.725	ppb	07:34:46
2	Fe 238.204 Radial†	8.5	0.6	2.8845	µg/L	2.8845	ppb	07:34:46
2	K 766.490 Radial†	808.6	10.4	5.5705	µg/L	5.5705	ppb	07:34:26
2	Mg 279.077 IEC†	14.5	-0.6	-3.0375	µg/L	-3.0375	ppb	07:34:46
2	Na 589.592 Radial†	-749.7	-36.0	-9.3416	µg/L	-9.3416	ppb	07:34:26
2	Sr 421.552†	-54.4	53.8	0.2869	µg/L	0.2869	ppb	07:34:26
2	Sc 361.383	2132019.8	2132019.8	97.776	%			07:35:54
2	Y 371.029	1297538.0	1297538.0	97.860	%			07:35:54
2	Ag 328.068†	150.2	72.9	0.6584	µg/L	0.6584	ppb	07:36:00
2	As 188.979†	4.2	3.3	6.1514	µg/L	6.1514	ppb	07:36:21
2	B 249.677†	141.6	-21.4	-0.9399	µg/L	-0.9399	ppb	07:36:00
2	Ba 233.527†	-62.0	23.8	0.5996	µg/L	0.5996	ppb	07:36:21
2	Be 313.107†	3737.7	180.5	0.1103	µg/L	0.1103	ppb	07:36:00
2	Cd 226.502†	-105.0	2.5	0.0580	µg/L	0.0580	ppb	07:36:21
2	Co 228.616†	-67.4	6.7	0.3225	µg/L	0.3225	ppb	07:36:21
2	Cr 267.716†	-145.6	-13.3	-0.2790	µg/L	-0.2790	ppb	07:36:00
2	Cu 324.752†	3324.0	-3.8	-0.0259	µg/L	-0.0259	ppb	07:36:00
2	Mn 257.610†	-159.5	58.4	0.1831	µg/L	0.1831	ppb	07:36:21
2	Mo 202.031†	-1.5	-0.5	-0.0529	µg/L	-0.0529	ppb	07:36:21
2	Ni 231.604†	338.8	13.1	0.7066	µg/L	0.7066	ppb	07:36:21
2	P 214.914†	195.6	-11.8	-25.503	µg/L	-25.503	ppb	07:36:21
2	Pb 220.353†	56.4	6.1	1.5512	µg/L	1.5512	ppb	07:36:21

2	S 181.975 Axial†	31.0	6.0	30.364 µg/L	30.364 ppb	07:36:21
2	Sb 206.836†	28.3	6.2	6.2255 µg/L	6.2255 ppb	07:36:21
2	Se 196.026†	5.6	-6.7	-9.4821 µg/L	-9.4821 ppb	07:36:21
2	SiO2†	2144.4	65.9	12.658 µg/L	12.658 ppb	07:36:00
2	Si 251.611†	461.3	92.8	7.0493 µg/L	7.0493 ppb	07:36:21
2	Sn 189.927†	26.9	5.3	2.6211 µg/L	2.6211 ppb	07:36:21
2	Ti 334.940†	968.7	107.4	0.2349 µg/L	0.2349 ppb	07:36:00
2	Tl 190.801†	-18.5	4.7	6.9319 µg/L	6.9319 ppb	07:36:21
2	U 409.014†	805.9	-112.3	-10.804 µg/L	-10.804 ppb	07:36:00
2	V 292.402†	-116.1	-22.3	-0.2708 µg/L	-0.2708 ppb	07:36:00
2	Zn 213.857†	623.2	41.2	1.1032 µg/L	1.1032 ppb	07:36:21
3	Sc RADIAL	119573.7	119573.7	95.8 %		07:34:52
3	Al 396.153Radial†	182.3	-17.2	-8.3568 µg/L	-8.3568 ppb	07:34:52
3	Ca 317.933Radial†	457.9	33.8	12.327 µg/L	12.327 ppb	07:35:12
3	Fe 238.204 Radial†	8.6	0.7	3.6802 µg/L	3.6802 ppb	07:35:12
3	K 766.490 Radial†	708.7	-92.9	-49.639 µg/L	-49.639 ppb	07:34:52
3	Mg 279.077 IEC†	15.6	0.6	3.0388 µg/L	3.0388 ppb	07:35:12
3	Na 589.592 Radial†	-697.8	17.2	4.4625 µg/L	4.4625 ppb	07:34:52
3	Sr 421.552†	-104.4	1.5	0.0083 µg/L	0.0083 ppb	07:34:52
3	Sc 361.383	2135441.2	2135441.2	97.933 %		07:36:27
3	Y 371.029	1299623.9	1299623.9	98.017 %		07:36:27
3	Ag 328.068†	185.8	109.0	0.9855 µg/L	0.9855 ppb	07:36:32
3	As 188.979†	1.8	0.7	1.4014 µg/L	1.4014 ppb	07:36:53
3	B 249.677†	142.2	-21.1	-0.9256 µg/L	-0.9256 ppb	07:36:32
3	Ba 233.527†	-64.3	21.6	0.5418 µg/L	0.5418 ppb	07:36:53
3	Be 313.107†	3773.5	210.9	0.1289 µg/L	0.1289 ppb	07:36:32
3	Cd 226.502†	-99.1	8.7	0.2195 µg/L	0.2195 ppb	07:36:53
3	Co 228.616†	-79.8	-5.7	-0.2768 µg/L	-0.2768 ppb	07:36:53
3	Cr 267.716†	-123.1	10.0	0.2084 µg/L	0.2084 ppb	07:36:32
3	Cu 324.752†	3320.7	-12.7	-0.0871 µg/L	-0.0871 ppb	07:36:32
3	Mn 257.610†	-169.9	48.0	0.1508 µg/L	0.1508 ppb	07:36:53
3	Mo 202.031†	-3.2	-2.2	-0.2458 µg/L	-0.2458 ppb	07:36:53
3	Ni 231.604†	356.6	30.7	1.6644 µg/L	1.6644 ppb	07:36:53
3	P 214.914†	197.2	-10.5	-22.743 µg/L	-22.743 ppb	07:36:53
3	Pb 220.353†	41.4	-9.3	-2.3394 µg/L	-2.3394 ppb	07:36:53
3	S 181.975 Axial†	28.6	3.5	17.691 µg/L	17.691 ppb	07:36:53
3	Sb 206.836†	17.5	-4.9	-4.9379 µg/L	-4.9379 ppb	07:36:53
3	Se 196.026†	9.0	-3.2	-4.4832 µg/L	-4.4832 ppb	07:36:53
3	SiO2†	2164.6	83.0	15.949 µg/L	15.949 ppb	07:36:32
3	Si 251.611†	471.2	102.1	7.8478 µg/L	7.8478 ppb	07:36:53
3	Sn 189.927†	23.7	2.0	1.0001 µg/L	1.0001 ppb	07:36:53
3	Ti 334.940†	1026.8	165.1	0.3614 µg/L	0.3614 ppb	07:36:32
3	Tl 190.801†	-16.6	6.7	9.8951 µg/L	9.8951 ppb	07:36:53
3	U 409.014†	785.8	-134.2	-12.911 µg/L	-12.911 ppb	07:36:32
3	V 292.402†	-117.3	-23.3	-0.2873 µg/L	-0.2873 ppb	07:36:32
3	Zn 213.857†	618.8	35.6	0.9495 µg/L	0.9495 ppb	07:36:53

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2136682.9	97.990	%	0.2473				0.25%
Sc RADIAL	119261.0	95.6	%	0.53				0.55%
Y 371.029	1300229.5	98.063	%	0.2293				0.23%
Ag 328.068†	95.0	0.8586	µg/L	0.17547	0.8586	ppb	0.17547	20.44%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	1.8	0.8752	µg/L	15.01417	0.8752	ppb	15.01417	>999.9%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-0.4	-0.6713	µg/L	8.06144	-0.6713	ppb	8.06144	>999.9%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-11.8	-0.5166	µg/L	0.72079	-0.5166	ppb	0.72079	139.53%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	18.5	0.4656	µg/L	0.18433	0.4656	ppb	0.18433	39.59%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	192.4	0.1175	µg/L	0.00993	0.1175	ppb	0.00993	8.45%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	31.5	11.493	µg/L	0.8030	11.493	ppb	0.8030	6.99%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	4.6	0.1128	µg/L	0.09235	0.1128	ppb	0.09235	81.84%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	0.3	0.0144	µg/L	0.30001	0.0144	ppb	0.30001	>999.9%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -1.3     -0.0282 µg/L       0.24400     -0.0282 ppb        0.24400 866.37%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -30.1     -0.2092 µg/L       0.26621     -0.2092 ppb        0.26621 127.27%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        0.2      0.9028 µg/L       4.14068      0.9028 ppb        4.14068 458.66%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       -30.8     -16.430 µg/L       29.2612     -16.430 ppb        29.2612 178.09%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           1.6      8.5949 µg/L      15.19264      8.5949 ppb       15.19264 176.76%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              46.8      0.1467 µg/L       0.03860      0.1467 ppb        0.03860  26.30%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               1.6      0.1832 µg/L       0.58396      0.1832 ppb        0.58396 318.84%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       -7.1     -1.8439 µg/L       6.97876     -1.8439 ppb        6.97876 378.49%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              18.5      0.9999 µg/L       0.57677      0.9999 ppb        0.57677  57.68%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -9.9     -21.406 µg/L        4.9043     -21.406 ppb         4.9043  22.91%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               0.8      0.1999 µg/L       2.20066      0.1999 ppb        2.20066 >999.9%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          4.0      20.284 µg/L        9.0654      20.284 ppb         9.0654  44.69%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -1.2     -1.2473 µg/L       6.47181     -1.2473 ppb        6.47181 518.85%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              -3.7     -5.2442 µg/L       3.91334     -5.2442 ppb        3.91334  74.62%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    91.4      17.571 µg/L        5.8939      17.571 ppb         5.8939  33.54%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             101.5      7.7688 µg/L       0.68337      7.7688 ppb        0.68337   8.80%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               2.7      1.3291 µg/L       1.16297      1.3291 ppb        1.16297  87.50%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              35.1      0.1875 µg/L       0.15552      0.1875 ppb        0.15552  82.95%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             139.3      0.3048 µg/L       0.06428      0.3048 ppb        0.06428  21.09%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               3.8      5.6066 µg/L       5.08251      5.6066 ppb        5.08251  90.65%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              -99.0     -9.5251 µg/L       4.17538     -9.5251 ppb        4.17538  43.84%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              -26.5     -0.3148 µg/L       0.06251     -0.3148 ppb        0.06251  19.86%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              37.5      1.0027 µg/L       0.08715      1.0027 ppb        0.08715   8.69%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 27
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 12/19/2009 08:11:30
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	124061.7	124061.7	99.4	%			08:12:09
1	Al 396.153Radial†	10789.8	10645.3	5160.4	µg/L	5160.4	ppb	08:12:09
1	Ca 317.933Radial†	14113.5	13751.7	5016.4	µg/L	5016.4	ppb	08:12:30
1	Fe 238.204 Radial†	1015.1	1012.7	5110.8	µg/L	5110.8	ppb	08:12:30
1	K 766.490 Radial†	10639.5	9869.1	5271.3	µg/L	5271.3	ppb	08:12:09
1	Mg 279.077 IEC†	989.9	980.1	5225.1	µg/L	5225.1	ppb	08:12:30
1	Na 589.592 Radial†	40001.3	40979.9	10620	µg/L	10620	ppb	08:12:09
1	Sr 421.552†	94154.3	94813.8	505.78	µg/L	505.78	ppb	08:12:09
1	Sc 361.383	2181298.2	2181298.2	100.04	%			08:13:33
1	Y 371.029	1319238.4	1319238.4	99.496	%			08:13:33
1	Ag 328.068†	56361.8	56260.7	513.42	µg/L	513.42	ppb	08:13:39
1	As 188.979†	277.1	276.0	518.59	µg/L	518.59	ppb	08:13:59
1	B 249.677†	11812.4	11641.9	509.57	µg/L	509.57	ppb	08:13:39
1	Ba 233.527†	20207.7	20287.7	511.62	µg/L	511.62	ppb	08:13:39
1	Be 313.107†	834577.2	830633.5	507.72	µg/L	507.72	ppb	08:13:33
1	Cd 226.502†	19784.8	19887.6	517.79	µg/L	517.79	ppb	08:13:39
1	Co 228.616†	10647.7	10719.6	515.20	µg/L	515.20	ppb	08:13:39
1	Cr 267.716†	24412.6	24539.4	515.95	µg/L	515.95	ppb	08:13:39
1	Cu 324.752†	75240.3	71809.7	499.98	µg/L	499.98	ppb	08:13:39
1	Mn 257.610†	160925.1	161088.5	504.84	µg/L	504.84	ppb	08:13:33
1	Mo 202.031†	4490.3	4489.7	510.33	µg/L	510.33	ppb	08:13:59
1	Ni 231.604†	9822.6	9485.6	513.45	µg/L	513.45	ppb	08:13:39
1	P 214.914†	1413.0	1200.6	2537.6	µg/L	2537.6	ppb	08:13:59
1	Pb 220.353†	2092.7	2040.3	517.15	µg/L	517.15	ppb	08:13:59
1	S 181.975 Axial†	228.6	202.8	1025.7	µg/L	1025.7	ppb	08:13:59
1	Sb 206.836†	546.2	523.2	526.38	µg/L	526.38	ppb	08:13:59
1	Se 196.026†	393.3	380.8	540.06	µg/L	540.06	ppb	08:13:59
1	SiO2†	30502.3	28364.0	5451.4	µg/L	5451.4	ppb	08:13:39
1	Si 251.611†	33371.1	32980.0	2495.1	µg/L	2495.1	ppb	08:13:39
1	Sn 189.927†	1083.0	1060.5	523.39	µg/L	523.39	ppb	08:13:59
1	Ti 334.940†	229895.4	228929.0	501.68	µg/L	501.68	ppb	08:13:33
1	Tl 190.801†	327.6	351.1	523.86	µg/L	523.86	ppb	08:13:59
1	U 409.014†	6240.4	5301.7	509.34	µg/L	509.34	ppb	08:13:39
1	V 292.402†	45096.8	45176.9	517.82	µg/L	517.82	ppb	08:13:39
1	Zn 213.857†	20025.2	19421.8	518.28	µg/L	518.28	ppb	08:13:39
2	Sc RADIAL	123709.8	123709.8	99.1	%			08:12:35
2	Al 396.153Radial†	10823.6	10710.3	5191.8	µg/L	5191.8	ppb	08:12:35
2	Ca 317.933Radial†	14138.3	13817.1	5040.3	µg/L	5040.3	ppb	08:12:56
2	Fe 238.204 Radial†	1018.3	1018.9	5142.3	µg/L	5142.3	ppb	08:12:56
2	K 766.490 Radial†	10547.1	9806.3	5237.7	µg/L	5237.7	ppb	08:12:35
2	Mg 279.077 IEC†	995.7	988.7	5271.2	µg/L	5271.2	ppb	08:12:56
2	Na 589.592 Radial†	39937.1	41029.7	10633	µg/L	10633	ppb	08:12:35
2	Sr 421.552†	94488.2	95420.0	509.01	µg/L	509.01	ppb	08:12:35
2	Sc 361.383	2159191.5	2159191.5	99.022	%			08:14:06
2	Y 371.029	1305099.3	1305099.3	98.430	%			08:14:06
2	Ag 328.068†	57138.7	57622.1	525.84	µg/L	525.84	ppb	08:14:12
2	As 188.979†	274.3	275.9	518.54	µg/L	518.54	ppb	08:14:33
2	B 249.677†	11902.6	11853.9	518.87	µg/L	518.87	ppb	08:14:12
2	Ba 233.527†	20525.7	20815.6	524.93	µg/L	524.93	ppb	08:14:12
2	Be 313.107†	836135.8	840749.2	513.91	µg/L	513.91	ppb	08:14:06
2	Cd 226.502†	20117.3	20425.9	531.81	µg/L	531.81	ppb	08:14:12
2	Co 228.616†	10822.5	11005.1	528.92	µg/L	528.92	ppb	08:14:12
2	Cr 267.716†	24772.6	25152.9	528.84	µg/L	528.84	ppb	08:14:12
2	Cu 324.752†	76375.5	73726.2	513.31	µg/L	513.31	ppb	08:14:12
2	Mn 257.610†	161060.2	162872.0	510.43	µg/L	510.43	ppb	08:14:06
2	Mo 202.031†	4479.8	4525.1	514.35	µg/L	514.35	ppb	08:14:33
2	Ni 231.604†	10010.6	9776.0	529.17	µg/L	529.17	ppb	08:14:12
2	P 214.914†	1398.3	1200.2	2535.2	µg/L	2535.2	ppb	08:14:33
2	Pb 220.353†	2092.7	2061.8	522.57	µg/L	522.57	ppb	08:14:33

2	S 181.975 Axial†	234.6	211.2	1068.5 µg/L	1068.5 ppb	08:14:33
2	Sb 206.836†	535.2	517.7	520.76 µg/L	520.76 ppb	08:14:33
2	Se 196.026†	386.8	378.2	536.46 µg/L	536.46 ppb	08:14:33
2	SiO2†	30989.8	29168.4	5606.1 µg/L	5606.1 ppb	08:14:12
2	Si 251.611†	33985.4	33942.0	2569.0 µg/L	2569.0 ppb	08:14:12
2	Sn 189.927†	1074.4	1062.8	524.55 µg/L	524.55 ppb	08:14:33
2	Ti 334.940†	230513.3	231905.9	508.21 µg/L	508.21 ppb	08:14:06
2	Tl 190.801†	327.9	354.7	529.18 µg/L	529.18 ppb	08:14:33
2	U 409.014†	6286.4	5412.0	519.95 µg/L	519.95 ppb	08:14:12
2	V 292.402†	45776.9	46325.3	530.91 µg/L	530.91 ppb	08:14:12
2	Zn 213.857†	20369.4	19974.3	533.03 µg/L	533.03 ppb	08:14:12
3	Sc RADIAL	122655.7	122655.7	98.3 %		08:13:01
3	Al 396.153Radial†	10694.2	10672.4	5176.2 µg/L	5176.2 ppb	08:13:01
3	Ca 317.933Radial†	14231.0	14033.9	5119.4 µg/L	5119.4 ppb	08:13:22
3	Fe 238.204 Radial†	1025.0	1034.5	5219.2 µg/L	5219.2 ppb	08:13:22
3	K 766.490 Radial†	10613.5	9965.3	5322.6 µg/L	5322.6 ppb	08:13:01
3	Mg 279.077 IEC†	1006.1	1007.9	5371.4 µg/L	5371.4 ppb	08:13:22
3	Na 589.592 Radial†	39526.8	40958.4	10615 µg/L	10615 ppb	08:13:01
3	Sr 421.552†	93338.7	95069.6	507.14 µg/L	507.14 ppb	08:13:01
3	Sc 361.383	2163954.5	2163954.5	99.241 %		08:14:40
3	Y 371.029	1308589.4	1308589.4	98.693 %		08:14:40
3	Ag 328.068†	53886.8	54218.3	494.68 µg/L	494.68 ppb	08:14:45
3	As 188.979†	242.4	243.2	456.96 µg/L	456.96 ppb	08:15:06
3	B 249.677†	11255.2	11175.1	489.04 µg/L	489.04 ppb	08:14:45
3	Ba 233.527†	18917.1	19149.1	482.89 µg/L	482.89 ppb	08:14:45
3	Be 313.107†	798871.2	801340.9	489.82 µg/L	489.82 ppb	08:14:40
3	Cd 226.502†	18447.5	18698.6	486.79 µg/L	486.79 ppb	08:14:45
3	Co 228.616†	9885.3	10036.7	482.27 µg/L	482.27 ppb	08:14:45
3	Cr 267.716†	22090.6	22395.2	470.88 µg/L	470.88 ppb	08:14:45
3	Cu 324.752†	70180.2	67313.7	468.77 µg/L	468.77 ppb	08:14:45
3	Mn 257.610†	154212.0	155613.4	487.72 µg/L	487.72 ppb	08:14:40
3	Mo 202.031†	3848.7	3879.2	440.96 µg/L	440.96 ppb	08:15:06
3	Ni 231.604†	9127.7	8864.1	479.81 µg/L	479.81 ppb	08:14:45
3	P 214.914†	1254.3	1052.0	2218.9 µg/L	2218.9 ppb	08:15:06
3	Pb 220.353†	1856.2	1818.8	460.97 µg/L	460.97 ppb	08:15:06
3	S 181.975 Axial†	207.2	183.1	925.98 µg/L	925.98 ppb	08:15:06
3	Sb 206.836†	474.0	454.9	457.64 µg/L	457.64 ppb	08:15:06
3	Se 196.026†	345.8	336.0	476.82 µg/L	476.82 ppb	08:15:06
3	SiO2†	28922.9	27016.8	5192.5 µg/L	5192.5 ppb	08:14:45
3	Si 251.611†	31488.3	31350.2	2374.3 µg/L	2374.3 ppb	08:14:45
3	Sn 189.927†	915.4	900.2	444.80 µg/L	444.80 ppb	08:15:06
3	Ti 334.940†	219421.2	220216.6	482.57 µg/L	482.57 ppb	08:14:40
3	Tl 190.801†	299.6	325.4	485.73 µg/L	485.73 ppb	08:15:06
3	U 409.014†	5804.0	4911.9	471.82 µg/L	471.82 ppb	08:14:45
3	V 292.402†	41465.4	41879.1	479.84 µg/L	479.84 ppb	08:14:45
3	Zn 213.857†	18610.7	18156.8	484.46 µg/L	484.46 ppb	08:14:45

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2168148.1	99.433	%	0.5336				0.54%
Sc RADIAL	123475.7	99.0	%	0.59				0.59%
Y 371.029	1310975.7	98.873	%	0.5555				0.56%
Ag 328.068†	56033.7	511.31	µg/L	15.689	511.31	ppb	15.689	3.07%
QC value within limits for Ag 328.068 Recovery = 102.26%								
Al 396.153Radial†	10676.0	5176.1	µg/L	15.74	5176.1	ppb	15.74	0.30%
QC value within limits for Al 396.153Radial Recovery = 103.52%								
As 188.979†	265.0	498.03	µg/L	35.566	498.03	ppb	35.566	7.14%
QC value within limits for As 188.979 Recovery = 99.61%								
B 249.677†	11557.0	505.82	µg/L	15.262	505.82	ppb	15.262	3.02%
QC value within limits for B 249.677 Recovery = 101.16%								
Ba 233.527†	20084.1	506.48	µg/L	21.488	506.48	ppb	21.488	4.24%
QC value within limits for Ba 233.527 Recovery = 101.30%								
Be 313.107†	824241.2	503.82	µg/L	12.510	503.82	ppb	12.510	2.48%
QC value within limits for Be 313.107 Recovery = 100.76%								
Ca 317.933Radial†	13867.6	5058.7	µg/L	53.90	5058.7	ppb	53.90	1.07%
QC value within limits for Ca 317.933Radial Recovery = 101.17%								
Cd 226.502†	19670.7	512.13	µg/L	23.037	512.13	ppb	23.037	4.50%
QC value within limits for Cd 226.502 Recovery = 102.43%								
Co 228.616†	10587.1	508.80	µg/L	23.976	508.80	ppb	23.976	4.71%

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   QC value within limits for Co 228.616  Recovery = 101.76%
Cr 267.716†            24029.1      505.22 µg/L        30.433      505.22 ppb         30.433   6.02%
   QC value within limits for Cr 267.716  Recovery = 101.04%
Cu 324.752†            70949.9      494.02 µg/L        22.858      494.02 ppb         22.858   4.63%
   QC value within limits for Cu 324.752  Recovery = 98.80%
Fe 238.204 Radial†      1022.1      5157.5 µg/L         55.78      5157.5 ppb          55.78   1.08%
   QC value within limits for Fe 238.204 Radial  Recovery = 103.15%
K 766.490 Radial†       9880.2      5277.2 µg/L         42.78      5277.2 ppb          42.78   0.81%
   QC value within limits for K 766.490 Radial  Recovery = 105.54%
Mg 279.077 IEC†          992.2      5289.2 µg/L         74.82      5289.2 ppb          74.82   1.41%
   QC value within limits for Mg 279.077 IEC  Recovery = 105.78%
Mn 257.610†           159857.9      500.99 µg/L        11.833      500.99 ppb         11.833   2.36%
   QC value within limits for Mn 257.610  Recovery = 100.20%
Mo 202.031†             4298.0      488.55 µg/L        41.258      488.55 ppb         41.258   8.44%
   QC value within limits for Mo 202.031  Recovery = 97.71%
Na 589.592 Radial†     40989.3       10623 µg/L           9.5       10623 ppb            9.5   0.09%
   QC value within limits for Na 589.592 Radial  Recovery = 106.23%
Ni 231.604†             9375.3      507.48 µg/L        25.218      507.48 ppb         25.218   4.97%
   QC value within limits for Ni 231.604  Recovery = 101.50%
P 214.914†              1150.9      2430.6 µg/L        183.30      2430.6 ppb         183.30   7.54%
   QC value within limits for P 214.914  Recovery = 97.22%
Pb 220.353†             1973.6      500.23 µg/L        34.111      500.23 ppb         34.111   6.82%
   QC value within limits for Pb 220.353  Recovery = 100.05%
S 181.975 Axial†         199.0      1006.7 µg/L         73.13      1006.7 ppb          73.13   7.26%
   QC value within limits for S 181.975 Axial  Recovery = 100.67%
Sb 206.836†              498.6      501.59 µg/L        38.170      501.59 ppb         38.170   7.61%
   QC value within limits for Sb 206.836  Recovery = 100.32%
Se 196.026†              365.0      517.78 µg/L        35.518      517.78 ppb         35.518   6.86%
   QC value within limits for Se 196.026  Recovery = 103.56%
SiO2†                   28183.1      5416.7 µg/L        208.94      5416.7 ppb         208.94   3.86%
   QC value within limits for SiO2  Recovery = 101.29%
Si 251.611†             32757.4      2479.5 µg/L         98.29      2479.5 ppb          98.29   3.96%
   QC value within limits for Si 251.611  Recovery = 99.18%
Sn 189.927†             1007.8      497.58 µg/L        45.716      497.58 ppb         45.716   9.19%
   QC value within limits for Sn 189.927  Recovery = 99.52%
Sr 421.552†            95101.1      507.31 µg/L         1.623      507.31 ppb          1.623   0.32%
   QC value within limits for Sr 421.552  Recovery = 101.46%
Ti 334.940†           227017.2      497.48 µg/L        13.322      497.48 ppb         13.322   2.68%
   QC value within limits for Ti 334.940  Recovery = 99.50%
Tl 190.801†              343.7      512.92 µg/L        23.701      512.92 ppb         23.701   4.62%
   QC value within limits for Tl 190.801  Recovery = 102.58%
U 409.014†              5208.5      500.37 µg/L        25.288      500.37 ppb         25.288   5.05%
   QC value within limits for U 409.014  Recovery = 100.07%
V 292.402†             44460.4      509.52 µg/L        26.529      509.52 ppb         26.529   5.21%
   QC value within limits for V 292.402  Recovery = 101.90%
Zn 213.857†            19184.3      511.92 µg/L        24.901      511.92 ppb         24.901   4.86%
   QC value within limits for Zn 213.857  Recovery = 102.38%
All analyte(s) passed QC.
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Sequence No.: 28
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 12/19/2009 08:15:17
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	120582.8	120582.8	96.6	%			08:15:49
1	Al 396.153Radial†	212.8	12.8	6.2085	µg/L	6.2085	ppb	08:15:49
1	Ca 317.933Radial†	463.2	35.3	12.870	µg/L	12.870	ppb	08:16:10
1	Fe 238.204 Radial†	8.0	0.0	0.2111	µg/L	0.2111	ppb	08:16:10
1	K 766.490 Radial†	925.7	125.5	67.017	µg/L	67.017	ppb	08:15:49
1	Mg 279.077 IEC†	13.6	-1.5	-8.2056	µg/L	-8.2056	ppb	08:16:10
1	Na 589.592 Radial†	-174.5	564.9	146.39	µg/L	146.39	ppb	08:15:49
1	Sr 421.552†	-98.0	9.0	0.0482	µg/L	0.0482	ppb	08:15:49
1	Sc 361.383	2161104.7	2161104.7	99.110	%			08:17:11
1	Y 371.029	1314834.1	1314834.1	99.164	%			08:17:11
1	Ag 328.068†	189.8	110.8	0.9995	µg/L	0.9995	ppb	08:17:17
1	As 188.979†	-4.7	-5.8	-10.906	µg/L	-10.906	ppb	08:17:38
1	B 249.677†	172.5	7.8	0.3437	µg/L	0.3437	ppb	08:17:17
1	Ba 233.527†	-72.7	13.9	0.3491	µg/L	0.3491	ppb	08:17:38
1	Be 313.107†	3731.1	122.3	0.0747	µg/L	0.0747	ppb	08:17:17
1	Cd 226.502†	-104.5	4.5	0.1121	µg/L	0.1121	ppb	08:17:38
1	Co 228.616†	-73.8	1.3	0.0620	µg/L	0.0620	ppb	08:17:38
1	Cr 267.716†	-153.9	-19.6	-0.4133	µg/L	-0.4133	ppb	08:17:17
1	Cu 324.752†	3384.6	11.5	0.0800	µg/L	0.0800	ppb	08:17:17
1	Mn 257.610†	-180.6	39.3	0.1230	µg/L	0.1230	ppb	08:17:38
1	Mo 202.031†	2.8	3.9	0.4459	µg/L	0.4459	ppb	08:17:38
1	Ni 231.604†	357.6	27.4	1.4851	µg/L	1.4851	ppb	08:17:38
1	P 214.914†	200.0	-10.2	-21.923	µg/L	-21.923	ppb	08:17:38
1	Pb 220.353†	53.7	2.6	0.6623	µg/L	0.6623	ppb	08:17:38
1	S 181.975 Axial†	26.6	1.1	5.5971	µg/L	5.5971	ppb	08:17:38
1	Sb 206.836†	17.3	-5.3	-5.3711	µg/L	-5.3711	ppb	08:17:38
1	Se 196.026†	13.8	1.5	2.1102	µg/L	2.1102	ppb	08:17:38
1	SiO2†	2151.8	43.8	8.4266	µg/L	8.4266	ppb	08:17:17
1	Si 251.611†	411.0	35.7	2.6407	µg/L	2.6407	ppb	08:17:38
1	Sn 189.927†	25.8	3.9	1.8976	µg/L	1.8976	ppb	08:17:38
1	Ti 334.940†	967.8	93.1	0.2035	µg/L	0.2035	ppb	08:17:17
1	Tl 190.801†	-19.7	3.7	5.5532	µg/L	5.5532	ppb	08:17:38
1	U 409.014†	824.6	-104.5	-10.057	µg/L	-10.057	ppb	08:17:17
1	V 292.402†	-141.0	-45.8	-0.5338	µg/L	-0.5338	ppb	08:17:17
1	Zn 213.857†	626.3	35.7	0.9521	µg/L	0.9521	ppb	08:17:38
2	Sc RADIAL	119332.4	119332.4	95.6	%			08:16:15
2	Al 396.153Radial†	209.8	11.9	5.7906	µg/L	5.7906	ppb	08:16:15
2	Ca 317.933Radial†	471.9	49.3	17.992	µg/L	17.992	ppb	08:16:35
2	Fe 238.204 Radial†	10.2	2.4	11.902	µg/L	11.902	ppb	08:16:35
2	K 766.490 Radial†	868.8	76.0	40.595	µg/L	40.595	ppb	08:16:15
2	Mg 279.077 IEC†	15.8	0.9	4.8179	µg/L	4.8179	ppb	08:16:35
2	Na 589.592 Radial†	-142.9	596.0	154.47	µg/L	154.47	ppb	08:16:15
2	Sr 421.552†	-64.0	43.6	0.2327	µg/L	0.2327	ppb	08:16:15
2	Sc 361.383	2158740.7	2158740.7	99.002	%			08:17:44
2	Y 371.029	1313913.9	1313913.9	99.095	%			08:17:44
2	Ag 328.068†	129.2	49.8	0.4483	µg/L	0.4483	ppb	08:17:49
2	As 188.979†	-0.9	-1.9	-3.6648	µg/L	-3.6648	ppb	08:18:10
2	B 249.677†	160.3	-4.3	-0.1910	µg/L	-0.1910	ppb	08:17:49
2	Ba 233.527†	-62.7	23.9	0.6015	µg/L	0.6015	ppb	08:18:10
2	Be 313.107†	3758.8	154.5	0.0944	µg/L	0.0944	ppb	08:17:49
2	Cd 226.502†	-97.2	11.7	0.3014	µg/L	0.3014	ppb	08:18:10
2	Co 228.616†	-78.7	-3.7	-0.1797	µg/L	-0.1797	ppb	08:18:10
2	Cr 267.716†	-87.3	47.5	0.9944	µg/L	0.9944	ppb	08:17:49
2	Cu 324.752†	3346.4	-23.3	-0.1591	µg/L	-0.1591	ppb	08:17:49
2	Mn 257.610†	-190.9	28.7	0.0912	µg/L	0.0912	ppb	08:18:10
2	Mo 202.031†	2.0	3.0	0.3446	µg/L	0.3446	ppb	08:18:10
2	Ni 231.604†	334.1	4.1	0.2213	µg/L	0.2213	ppb	08:18:10
2	P 214.914†	198.4	-11.6	-24.996	µg/L	-24.996	ppb	08:18:10
2	Pb 220.353†	42.6	-8.6	-2.1729	µg/L	-2.1729	ppb	08:18:10

2	S 181.975 Axial†	31.0	5.6	28.340 µg/L	28.340 ppb	08:18:10
2	Sb 206.836†	21.3	-1.2	-1.2188 µg/L	-1.2188 ppb	08:18:10
2	Se 196.026†	14.4	2.1	3.0303 µg/L	3.0303 ppb	08:18:10
2	SiO2†	2127.1	21.2	4.0767 µg/L	4.0767 ppb	08:17:49
2	Si 251.611†	400.4	25.4	2.0003 µg/L	2.0003 ppb	08:18:10
2	Sn 189.927†	18.5	-3.5	-1.7088 µg/L	-1.7088 ppb	08:18:10
2	Ti 334.940†	951.3	77.5	0.1689 µg/L	0.1689 ppb	08:17:49
2	Tl 190.801†	-17.1	6.3	9.2991 µg/L	9.2991 ppb	08:18:10
2	U 409.014†	884.8	-42.8	-4.1158 µg/L	-4.1158 ppb	08:17:49
2	V 292.402†	-136.3	-41.2	-0.4712 µg/L	-0.4712 ppb	08:17:49
2	Zn 213.857†	609.0	18.9	0.5067 µg/L	0.5067 ppb	08:18:10
3	Sc RADIAL	121162.7	121162.7	97.1 %		08:16:41
3	Al 396.153Radial†	196.7	-4.8	-2.3535 µg/L	-2.3535 ppb	08:16:41
3	Ca 317.933Radial†	463.1	32.8	11.980 µg/L	11.980 ppb	08:17:01
3	Fe 238.204 Radial†	8.6	0.6	2.9335 µg/L	2.9335 ppb	08:17:01
3	K 766.490 Radial†	935.7	131.2	70.081 µg/L	70.081 ppb	08:16:41
3	Mg 279.077 IEC†	17.0	1.8	9.8388 µg/L	9.8388 ppb	08:17:01
3	Na 589.592 Radial†	-247.2	490.9	127.21 µg/L	127.21 ppb	08:16:41
3	Sr 421.552†	-107.3	-0.0	-0.0001 µg/L	-0.0001 ppb	08:16:41
3	Sc 361.383	2171804.8	2171804.8	99.601 %		08:18:16
3	Y 371.029	1322849.3	1322849.3	99.769 %		08:18:16
3	Ag 328.068†	170.9	90.8	0.8206 µg/L	0.8206 ppb	08:18:22
3	As 188.979†	4.4	3.3	6.2521 µg/L	6.2521 ppb	08:18:42
3	B 249.677†	166.5	0.9	0.0400 µg/L	0.0400 ppb	08:18:22
3	Ba 233.527†	-71.0	16.0	0.4010 µg/L	0.4010 ppb	08:18:42
3	Be 313.107†	3781.1	154.1	0.0941 µg/L	0.0941 ppb	08:18:22
3	Cd 226.502†	-109.5	-0.0	-0.0053 µg/L	-0.0053 ppb	08:18:42
3	Co 228.616†	-72.0	3.5	0.1656 µg/L	0.1656 ppb	08:18:42
3	Cr 267.716†	-117.7	17.5	0.3655 µg/L	0.3655 ppb	08:18:22
3	Cu 324.752†	3331.9	-58.2	-0.4034 µg/L	-0.4034 ppb	08:18:22
3	Mn 257.610†	-207.1	13.6	0.0428 µg/L	0.0428 ppb	08:18:42
3	Mo 202.031†	-2.1	-1.1	-0.1203 µg/L	-0.1203 ppb	08:18:42
3	Ni 231.604†	330.5	-1.6	-0.0852 µg/L	-0.0852 ppb	08:18:42
3	P 214.914†	199.1	-12.1	-25.963 µg/L	-25.963 ppb	08:18:42
3	Pb 220.353†	37.9	-13.6	-3.4258 µg/L	-3.4258 ppb	08:18:42
3	S 181.975 Axial†	30.2	4.6	23.104 µg/L	23.104 ppb	08:18:42
3	Sb 206.836†	26.0	3.4	3.3935 µg/L	3.3935 ppb	08:18:42
3	Se 196.026†	15.2	2.9	4.0774 µg/L	4.0774 ppb	08:18:42
3	SiO2†	2102.9	-16.0	-3.0715 µg/L	-3.0715 ppb	08:18:22
3	Si 251.611†	404.8	27.4	2.0513 µg/L	2.0513 ppb	08:18:42
3	Sn 189.927†	23.6	1.5	0.7327 µg/L	0.7327 ppb	08:18:42
3	Ti 334.940†	1010.2	130.8	0.2862 µg/L	0.2862 ppb	08:18:22
3	Tl 190.801†	-15.7	7.8	11.638 µg/L	11.638 ppb	08:18:42
3	U 409.014†	866.9	-66.2	-6.3669 µg/L	-6.3669 ppb	08:18:22
3	V 292.402†	-119.9	-24.0	-0.2831 µg/L	-0.2831 ppb	08:18:22
3	Zn 213.857†	615.7	21.9	0.5895 µg/L	0.5895 ppb	08:18:42

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2163883.4	99.237	%	0.3192				0.32%
Sc RADIAL	120359.3	96.5	%	0.75				0.78%
Y 371.029	1317199.1	99.343	%	0.3707				0.37%
Ag 328.068†	83.8	0.7561	µg/L	0.28120	0.7561	ppb	0.28120	37.19%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	6.6	3.2152	µg/L	4.82718	3.2152	ppb	4.82718	150.14%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-1.5	-2.7729	µg/L	8.61369	-2.7729	ppb	8.61369	310.64%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	1.5	0.0643	µg/L	0.26814	0.0643	ppb	0.26814	417.33%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	17.9	0.4506	µg/L	0.13330	0.4506	ppb	0.13330	29.58%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	143.6	0.0877	µg/L	0.01127	0.0877	ppb	0.01127	12.84%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	39.1	14.280	µg/L	3.2446	14.280	ppb	3.2446	22.72%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	5.4	0.1361	µg/L	0.15470	0.1361	ppb	0.15470	113.69%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	0.3	0.0160	µg/L	0.17718	0.0160	ppb	0.17718	>999.9%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              15.1      0.3156 µg/L       0.70518      0.3156 ppb        0.70518 223.48%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -23.3     -0.1608 µg/L       0.24172     -0.1608 ppb        0.24172 150.30%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        1.0      5.0155 µg/L       6.11722      5.0155 ppb        6.11722 121.97%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       110.9     59.231 µg/L       16.2120     59.231 ppb        16.2120  27.37%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           0.4      2.1504 µg/L       9.31330      2.1504 ppb        9.31330 433.10%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              27.2      0.0857 µg/L       0.04036      0.0857 ppb        0.04036  47.12%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               2.0      0.2234 µg/L       0.30189      0.2234 ppb        0.30189 135.14%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      550.6     142.69 µg/L        14.002     142.69 ppb         14.002   9.81%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              10.0      0.5404 µg/L       0.83237      0.5404 ppb        0.83237 154.02%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†              -11.3     -24.294 µg/L        2.1096     -24.294 ppb         2.1096   8.68%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -6.5     -1.6455 µg/L       2.09445     -1.6455 ppb        2.09445 127.29%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          3.8      19.014 µg/L       11.9103      19.014 ppb        11.9103  62.64%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -1.0     -1.0655 µg/L       4.38431     -1.0655 ppb        4.38431 411.50%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               2.2      3.0726 µg/L       0.98431      3.0726 ppb        0.98431  32.03%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    16.4      3.1439 µg/L       5.80557      3.1439 ppb        5.80557 184.66%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†              29.5      2.2308 µg/L       0.35594      2.2308 ppb        0.35594  15.96%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               0.6      0.3071 µg/L       1.84048      0.3071 ppb        1.84048 599.22%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              17.5      0.0936 µg/L       0.12286      0.0936 ppb        0.12286 131.24%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             100.5      0.2195 µg/L       0.06028      0.2195 ppb        0.06028  27.46%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               5.9      8.8301 µg/L       3.06935      8.8301 ppb        3.06935  34.76%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              -71.1     -6.8466 µg/L       2.99967     -6.8466 ppb        2.99967  43.81%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              -37.0     -0.4294 µg/L       0.13048     -0.4294 ppb        0.13048  30.39%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              25.5      0.6828 µg/L       0.23689      0.6828 ppb        0.23689  34.70%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 31
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 12/19/2009 08:24:40
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	123301.1	123301.1	98.8	%			08:25:16
1	Al 396.153Radial†	11220.9	11148.6	5404.9	µg/L	5404.9	ppb	08:25:16
1	Ca 317.933Radial†	15125.8	14863.7	5422.1	µg/L	5422.1	ppb	08:25:16
1	Fe 238.204 Radial†	1046.4	1050.8	5302.3	µg/L	5302.3	ppb	08:25:37
1	K 766.490 Radial†	10502.2	9796.1	5232.3	µg/L	5232.3	ppb	08:25:16
1	Mg 279.077 IEC†	1034.1	1030.9	5495.8	µg/L	5495.8	ppb	08:25:37
1	Na 589.592 Radial†	39353.3	40572.4	10515	µg/L	10515	ppb	08:25:16
1	Sr 421.552†	94513.7	95761.8	510.83	µg/L	510.83	ppb	08:25:16
1	Sc 361.383	2181076.1	2181076.1	100.03	%			08:26:40
1	Y 371.029	1321567.2	1321567.2	99.672	%			08:26:40
1	Ag 328.068†	57035.5	56939.9	519.63	µg/L	519.63	ppb	08:26:46
1	As 188.979†	284.7	283.6	532.80	µg/L	532.80	ppb	08:27:06
1	B 249.677†	11900.1	11730.8	513.41	µg/L	513.41	ppb	08:26:46
1	Ba 233.527†	20519.6	20601.5	519.53	µg/L	519.53	ppb	08:26:46
1	Be 313.107†	850545.1	846682.3	517.53	µg/L	517.53	ppb	08:26:40
1	Cd 226.502†	19950.3	20055.1	522.14	µg/L	522.14	ppb	08:26:46
1	Co 228.616†	10836.0	10908.9	524.30	µg/L	524.30	ppb	08:26:46
1	Cr 267.716†	24748.8	24878.0	523.06	µg/L	523.06	ppb	08:26:46
1	Cu 324.752†	76028.2	72605.1	505.55	µg/L	505.55	ppb	08:26:46
1	Mn 257.610†	163745.5	163924.5	513.74	µg/L	513.74	ppb	08:26:40
1	Mo 202.031†	4566.5	4566.3	519.04	µg/L	519.04	ppb	08:27:06
1	Ni 231.604†	9976.4	9640.4	521.83	µg/L	521.83	ppb	08:26:46
1	P 214.914†	1418.3	1206.0	2548.8	µg/L	2548.8	ppb	08:27:06
1	Pb 220.353†	2110.0	2057.9	521.64	µg/L	521.64	ppb	08:27:06
1	S 181.975 Axial†	236.3	210.5	1064.9	µg/L	1064.9	ppb	08:27:06
1	Sb 206.836†	549.1	526.2	529.33	µg/L	529.33	ppb	08:27:06
1	Se 196.026†	398.8	386.3	547.90	µg/L	547.90	ppb	08:27:06
1	SiO2†	30846.3	28710.9	5518.1	µg/L	5518.1	ppb	08:26:46
1	Si 251.611†	33852.5	33464.7	2531.7	µg/L	2531.7	ppb	08:26:46
1	Sn 189.927†	1099.6	1077.1	531.74	µg/L	531.74	ppb	08:27:06
1	Ti 334.940†	234363.6	233419.5	511.50	µg/L	511.50	ppb	08:26:40
1	Tl 190.801†	334.6	358.1	534.30	µg/L	534.30	ppb	08:27:06
1	U 409.014†	6289.2	5351.1	514.07	µg/L	514.07	ppb	08:26:46
1	V 292.402†	45692.7	45777.2	524.72	µg/L	524.72	ppb	08:26:46
1	Zn 213.857†	20254.9	19653.4	524.43	µg/L	524.43	ppb	08:26:46
2	Sc RADIAL	122486.5	122486.5	98.2	%			08:25:42
2	Al 396.153Radial†	11054.4	11054.4	5359.0	µg/L	5359.0	ppb	08:25:42
2	Ca 317.933Radial†	14903.0	14738.6	5376.4	µg/L	5376.4	ppb	08:25:42
2	Fe 238.204 Radial†	1043.3	1054.6	5321.9	µg/L	5321.9	ppb	08:26:03
2	K 766.490 Radial†	10422.5	9785.6	5226.7	µg/L	5226.7	ppb	08:25:42
2	Mg 279.077 IEC†	1030.3	1034.0	5512.2	µg/L	5512.2	ppb	08:26:03
2	Na 589.592 Radial†	39377.9	40862.3	10590	µg/L	10590	ppb	08:25:42
2	Sr 421.552†	94360.8	96242.1	513.39	µg/L	513.39	ppb	08:25:42
2	Sc 361.383	2149557.6	2149557.6	98.580	%			08:27:14
2	Y 371.029	1301845.0	1301845.0	98.185	%			08:27:14
2	Ag 328.068†	57832.1	58584.1	534.63	µg/L	534.63	ppb	08:27:19
2	As 188.979†	282.5	285.5	536.53	µg/L	536.53	ppb	08:27:40
2	B 249.677†	12087.4	12095.3	529.41	µg/L	529.41	ppb	08:27:19
2	Ba 233.527†	20830.9	21218.1	535.08	µg/L	535.08	ppb	08:27:19
2	Be 313.107†	837765.5	846186.7	517.23	µg/L	517.23	ppb	08:27:14
2	Cd 226.502†	20363.1	20766.2	540.66	µg/L	540.66	ppb	08:27:19
2	Co 228.616†	10960.8	11194.4	538.02	µg/L	538.02	ppb	08:27:19
2	Cr 267.716†	25019.7	25515.6	536.48	µg/L	536.48	ppb	08:27:19
2	Cu 324.752†	77231.9	74940.5	521.78	µg/L	521.78	ppb	08:27:19
2	Mn 257.610†	161378.3	163923.6	513.74	µg/L	513.74	ppb	08:27:14
2	Mo 202.031†	4517.9	4584.0	521.05	µg/L	521.05	ppb	08:27:40
2	Ni 231.604†	10102.0	9914.0	536.64	µg/L	536.64	ppb	08:27:19
2	P 214.914†	1414.1	1222.5	2582.3	µg/L	2582.3	ppb	08:27:40
2	Pb 220.353†	2097.2	2075.8	526.14	µg/L	526.14	ppb	08:27:40

2	S 181.975 Axial†	232.2	209.8	1061.4 µg/L	1061.4 ppb	08:27:40
2	Sb 206.836†	545.5	530.6	533.72 µg/L	533.72 ppb	08:27:40
2	Se 196.026†	398.5	391.9	555.79 µg/L	555.79 ppb	08:27:40
2	SiO2†	31311.3	29634.8	5695.7 µg/L	5695.7 ppb	08:27:19
2	Si 251.611†	34336.4	34451.9	2607.9 µg/L	2607.9 ppb	08:27:19
2	Sn 189.927†	1078.3	1071.7	529.06 µg/L	529.06 ppb	08:27:40
2	Ti 334.940†	231273.2	233720.1	512.16 µg/L	512.16 ppb	08:27:14
2	Tl 190.801†	327.4	355.6	530.56 µg/L	530.56 ppb	08:27:40
2	U 409.014†	6234.5	5387.8	517.60 µg/L	517.60 ppb	08:27:19
2	V 292.402†	46372.7	47136.9	540.19 µg/L	540.19 ppb	08:27:19
2	Zn 213.857†	20524.4	20223.7	539.66 µg/L	539.66 ppb	08:27:19
3	Sc RADIAL	122948.1	122948.1	98.5 %		08:26:08
3	Al 396.153Radial†	11061.4	11019.3	5344.9 µg/L	5344.9 ppb	08:26:08
3	Ca 317.933Radial†	14862.8	14640.8	5340.8 µg/L	5340.8 ppb	08:26:08
3	Fe 238.204 Radial†	1042.1	1049.4	5294.5 µg/L	5294.5 ppb	08:26:29
3	K 766.490 Radial†	10495.2	9819.5	5244.8 µg/L	5244.8 ppb	08:26:08
3	Mg 279.077 IEC†	1034.7	1034.5	5512.9 µg/L	5512.9 ppb	08:26:29
3	Na 589.592 Radial†	39382.6	40716.5	10552 µg/L	10552 ppb	08:26:08
3	Sr 421.552†	94209.5	95727.6	510.65 µg/L	510.65 ppb	08:26:08
3	Sc 361.383	2164600.7	2164600.7	99.270 %		08:27:47
3	Y 371.029	1311138.4	1311138.4	98.885 %		08:27:47
3	Ag 328.068†	55067.6	55391.6	505.39 µg/L	505.39 ppb	08:27:52
3	As 188.979†	250.1	250.8	471.28 µg/L	471.28 ppb	08:28:13
3	B 249.677†	11470.0	11388.1	498.37 µg/L	498.37 ppb	08:27:52
3	Ba 233.527†	19409.4	19639.3	495.25 µg/L	495.25 ppb	08:27:52
3	Be 313.107†	807123.2	809413.3	494.75 µg/L	494.75 ppb	08:27:47
3	Cd 226.502†	18943.2	19192.3	499.65 µg/L	499.65 ppb	08:27:52
3	Co 228.616†	10072.8	10222.5	491.20 µg/L	491.20 ppb	08:27:52
3	Cr 267.716†	22614.9	22916.7	481.85 µg/L	481.85 ppb	08:27:52
3	Cu 324.752†	71575.0	68697.6	478.40 µg/L	478.40 ppb	08:27:52
3	Mn 257.610†	155849.8	157216.8	492.74 µg/L	492.74 ppb	08:27:47
3	Mo 202.031†	3864.7	3894.2	442.67 µg/L	442.67 ppb	08:28:13
3	Ni 231.604†	9360.9	9096.3	492.38 µg/L	492.38 ppb	08:27:52
3	P 214.914†	1255.1	1052.4	2218.6 µg/L	2218.6 ppb	08:28:13
3	Pb 220.353†	1878.7	1840.9	466.56 µg/L	466.56 ppb	08:28:13
3	S 181.975 Axial†	215.9	191.8	970.00 µg/L	970.00 ppb	08:28:13
3	Sb 206.836†	481.1	461.9	464.65 µg/L	464.65 ppb	08:28:13
3	Se 196.026†	350.5	340.6	483.39 µg/L	483.39 ppb	08:28:13
3	SiO2†	29479.8	27569.1	5298.7 µg/L	5298.7 ppb	08:27:52
3	Si 251.611†	32258.9	32117.0	2433.3 µg/L	2433.3 ppb	08:27:52
3	Sn 189.927†	913.4	898.0	443.77 µg/L	443.77 ppb	08:28:13
3	Ti 334.940†	221707.3	222453.5	487.46 µg/L	487.46 ppb	08:27:47
3	Tl 190.801†	301.0	326.7	487.63 µg/L	487.63 ppb	08:28:13
3	U 409.014†	5864.1	4970.7	477.46 µg/L	477.46 ppb	08:27:52
3	V 292.402†	42489.6	42898.3	491.44 µg/L	491.44 ppb	08:27:52
3	Zn 213.857†	19079.9	18623.9	496.93 µg/L	496.93 ppb	08:27:52

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2165078.1	99.292	%	0.7230				0.73%
Sc RADIAL	122911.9	98.5	%	0.33				0.33%
Y 371.029	1311516.8	98.914	%	0.7441				0.75%
Ag 328.068†	56971.9	519.88	µg/L	14.623	519.88	ppb	14.623	2.81%
QC value within limits for Ag 328.068 Recovery = 103.98%								
Al 396.153Radial†	11074.1	5369.6	µg/L	31.38	5369.6	ppb	31.38	0.58%
QC value within limits for Al 396.153Radial Recovery = 107.39%								
As 188.979†	273.3	513.54	µg/L	36.642	513.54	ppb	36.642	7.14%
QC value within limits for As 188.979 Recovery = 102.71%								
B 249.677†	11738.0	513.73	µg/L	15.525	513.73	ppb	15.525	3.02%
QC value within limits for B 249.677 Recovery = 102.75%								
Ba 233.527†	20486.3	516.62	µg/L	20.074	516.62	ppb	20.074	3.89%
QC value within limits for Ba 233.527 Recovery = 103.32%								
Be 313.107†	834094.1	509.84	µg/L	13.065	509.84	ppb	13.065	2.56%
QC value within limits for Be 313.107 Recovery = 101.97%								
Ca 317.933Radial†	14747.7	5379.8	µg/L	40.77	5379.8	ppb	40.77	0.76%
QC value within limits for Ca 317.933Radial Recovery = 107.60%								
Cd 226.502†	20004.5	520.81	µg/L	20.537	520.81	ppb	20.537	3.94%
QC value within limits for Cd 226.502 Recovery = 104.16%								
Co 228.616†	10775.3	517.84	µg/L	24.073	517.84	ppb	24.073	4.65%

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   QC value within limits for Co 228.616  Recovery = 103.57%
Cr 267.716†            24436.8      513.80 µg/L        28.469      513.80 ppb         28.469   5.54%
   QC value within limits for Cr 267.716  Recovery = 102.76%
Cu 324.752†            72081.1      501.91 µg/L        21.916      501.91 ppb         21.916   4.37%
   QC value within limits for Cu 324.752  Recovery = 100.38%
Fe 238.204 Radial†      1051.6      5306.2 µg/L         14.12      5306.2 ppb          14.12   0.27%
   QC value within limits for Fe 238.204 Radial  Recovery = 106.12%
K 766.490 Radial†       9800.4      5234.6 µg/L          9.28      5234.6 ppb           9.28   0.18%
   QC value within limits for K 766.490 Radial  Recovery = 104.69%
Mg 279.077 IEC†         1033.1      5507.0 µg/L          9.69      5507.0 ppb           9.69   0.18%
   QC value greater than the upper limit for Mg 279.077 IEC  Recovery = 110.14%
Mn 257.610†           161688.3      506.74 µg/L        12.122      506.74 ppb         12.122   2.39%
   QC value within limits for Mn 257.610  Recovery = 101.35%
Mo 202.031†             4348.2      494.25 µg/L        44.683      494.25 ppb         44.683   9.04%
   QC value within limits for Mo 202.031  Recovery = 98.85%
Na 589.592 Radial†     40717.1       10552 µg/L          37.6       10552 ppb           37.6   0.36%
   QC value within limits for Na 589.592 Radial  Recovery = 105.52%
Ni 231.604†             9550.2      516.95 µg/L        22.531      516.95 ppb         22.531   4.36%
   QC value within limits for Ni 231.604  Recovery = 103.39%
P 214.914†              1160.3      2449.9 µg/L        201.02      2449.9 ppb         201.02   8.21%
   QC value within limits for P 214.914  Recovery = 98.00%
Pb 220.353†             1991.5      504.78 µg/L        33.175      504.78 ppb         33.175   6.57%
   QC value within limits for Pb 220.353  Recovery = 100.96%
S 181.975 Axial†         204.0      1032.1 µg/L         53.80      1032.1 ppb          53.80   5.21%
   QC value within limits for S 181.975 Axial  Recovery = 103.21%
Sb 206.836†              506.2      509.23 µg/L        38.674      509.23 ppb         38.674   7.59%
   QC value within limits for Sb 206.836  Recovery = 101.85%
Se 196.026†              372.9      529.02 µg/L        39.716      529.02 ppb         39.716   7.51%
   QC value within limits for Se 196.026  Recovery = 105.80%
SiO2†                  28638.3      5504.2 µg/L        198.88      5504.2 ppb         198.88   3.61%
   QC value within limits for SiO2  Recovery = 102.93%
Si 251.611†            33344.5      2524.3 µg/L         87.53      2524.3 ppb          87.53   3.47%
   QC value within limits for Si 251.611  Recovery = 100.97%
Sn 189.927†             1015.6      501.52 µg/L        50.033      501.52 ppb         50.033   9.98%
   QC value within limits for Sn 189.927  Recovery = 100.30%
Sr 421.552†            95910.5      511.63 µg/L         1.535      511.63 ppb          1.535   0.30%
   QC value within limits for Sr 421.552  Recovery = 102.33%
Ti 334.940†           229864.3      503.71 µg/L        14.074      503.71 ppb         14.074   2.79%
   QC value within limits for Ti 334.940  Recovery = 100.74%
Tl 190.801†              346.8      517.50 µg/L        25.933      517.50 ppb         25.933   5.01%
   QC value within limits for Tl 190.801  Recovery = 103.50%
U 409.014†              5236.5      503.04 µg/L        22.223      503.04 ppb         22.223   4.42%
   QC value within limits for U 409.014  Recovery = 100.61%
V 292.402†             45270.8      518.78 µg/L        24.910      518.78 ppb         24.910   4.80%
   QC value within limits for V 292.402  Recovery = 103.76%
Zn 213.857†            19500.4      520.34 µg/L        21.657      520.34 ppb         21.657   4.16%
   QC value within limits for Zn 213.857  Recovery = 104.07%
QC Failed.  Continue with analysis.
```

Sequence No.: 32
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 12/19/2009 08:28:23
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	120942.8	120942.8	96.9	%			08:28:55
1	Al 396.153Radial†	209.3	8.5	4.1327	µg/L	4.1327	ppb	08:28:55
1	Ca 317.933Radial†	470.7	41.6	15.165	µg/L	15.165	ppb	08:29:16
1	Fe 238.204 Radial†	8.3	0.3	1.3764	µg/L	1.3764	ppb	08:29:16
1	K 766.490 Radial†	806.4	-0.5	-0.2623	µg/L	-0.2623	ppb	08:28:55
1	Mg 279.077 IEC†	21.8	6.9	36.645	µg/L	36.645	ppb	08:29:16
1	Na 589.592 Radial†	-489.6	240.3	62.286	µg/L	62.286	ppb	08:28:55
1	Sr 421.552†	-80.7	27.2	0.1450	µg/L	0.1450	ppb	08:28:55
1	Sc 361.383	2163461.2	2163461.2	99.218	%			08:30:17
1	Y 371.029	1316997.8	1316997.8	99.327	%			08:30:17
1	Ag 328.068†	176.7	97.3	0.8795	µg/L	0.8795	ppb	08:30:23
1	As 188.979†	-3.6	-4.7	-8.8638	µg/L	-8.8638	ppb	08:30:44
1	B 249.677†	159.3	-5.7	-0.2492	µg/L	-0.2492	ppb	08:30:23
1	Ba 233.527†	-81.7	4.9	0.1238	µg/L	0.1238	ppb	08:30:44
1	Be 313.107†	3718.4	105.5	0.0645	µg/L	0.0645	ppb	08:30:23
1	Cd 226.502†	-107.4	1.7	0.0370	µg/L	0.0370	ppb	08:30:44
1	Co 228.616†	-73.3	1.8	0.0885	µg/L	0.0885	ppb	08:30:44
1	Cr 267.716†	-147.4	-12.9	-0.2713	µg/L	-0.2713	ppb	08:30:23
1	Cu 324.752†	3410.1	33.5	0.2331	µg/L	0.2331	ppb	08:30:23
1	Mn 257.610†	-204.1	15.8	0.0497	µg/L	0.0497	ppb	08:30:23
1	Mo 202.031†	4.9	5.9	0.6757	µg/L	0.6757	ppb	08:30:44
1	Ni 231.604†	343.5	12.8	0.6910	µg/L	0.6910	ppb	08:30:44
1	P 214.914†	196.4	-13.9	-30.175	µg/L	-30.175	ppb	08:30:44
1	Pb 220.353†	49.8	-1.4	-0.3353	µg/L	-0.3353	ppb	08:30:44
1	S 181.975 Axial†	28.8	3.3	16.910	µg/L	16.910	ppb	08:30:44
1	Sb 206.836†	25.1	2.5	2.5373	µg/L	2.5373	ppb	08:30:44
1	Se 196.026†	14.4	2.1	2.9323	µg/L	2.9323	ppb	08:30:44
1	SiO2†	2118.9	8.3	1.5955	µg/L	1.5955	ppb	08:30:23
1	Si 251.611†	398.2	22.3	1.7804	µg/L	1.7804	ppb	08:30:44
1	Sn 189.927†	18.2	-3.8	-1.8525	µg/L	-1.8525	ppb	08:30:44
1	Ti 334.940†	920.7	44.5	0.0968	µg/L	0.0968	ppb	08:30:23
1	Tl 190.801†	-17.7	5.7	8.5076	µg/L	8.5076	ppb	08:30:44
1	U 409.014†	812.5	-117.6	-11.313	µg/L	-11.313	ppb	08:30:23
1	V 292.402†	-118.5	-23.0	-0.2745	µg/L	-0.2745	ppb	08:30:23
1	Zn 213.857†	616.8	25.4	0.6792	µg/L	0.6792	ppb	08:30:44
2	Sc RADIAL	120902.5	120902.5	96.9	%			08:29:21
2	Al 396.153Radial†	227.5	27.4	13.355	µg/L	13.355	ppb	08:29:21
2	Ca 317.933Radial†	475.5	46.6	17.014	µg/L	17.014	ppb	08:29:41
2	Fe 238.204 Radial†	9.0	1.0	5.0027	µg/L	5.0027	ppb	08:29:41
2	K 766.490 Radial†	789.5	-17.6	-9.3952	µg/L	-9.3952	ppb	08:29:21
2	Mg 279.077 IEC†	17.6	2.6	13.608	µg/L	13.608	ppb	08:29:41
2	Na 589.592 Radial†	-507.0	222.1	57.571	µg/L	57.571	ppb	08:29:21
2	Sr 421.552†	-57.5	51.2	0.2730	µg/L	0.2730	ppb	08:29:21
2	Sc 361.383	2159761.7	2159761.7	99.048	%			08:30:50
2	Y 371.029	1316433.7	1316433.7	99.285	%			08:30:50
2	Ag 328.068†	144.4	65.1	0.5857	µg/L	0.5857	ppb	08:30:55
2	As 188.979†	1.5	0.5	0.9490	µg/L	0.9490	ppb	08:31:16
2	B 249.677†	152.6	-12.1	-0.5346	µg/L	-0.5346	ppb	08:30:55
2	Ba 233.527†	-67.7	18.9	0.4753	µg/L	0.4753	ppb	08:31:16
2	Be 313.107†	3751.6	145.4	0.0889	µg/L	0.0889	ppb	08:30:55
2	Cd 226.502†	-101.1	7.9	0.1999	µg/L	0.1999	ppb	08:31:16
2	Co 228.616†	-75.8	-0.8	-0.0390	µg/L	-0.0390	ppb	08:31:16
2	Cr 267.716†	-109.4	25.2	0.5275	µg/L	0.5275	ppb	08:30:55
2	Cu 324.752†	3301.0	-70.7	-0.4900	µg/L	-0.4900	ppb	08:30:55
2	Mn 257.610†	-199.1	20.5	0.0649	µg/L	0.0649	ppb	08:30:55
2	Mo 202.031†	-7.2	-6.2	-0.7044	µg/L	-0.7044	ppb	08:31:16
2	Ni 231.604†	357.0	27.1	1.4644	µg/L	1.4644	ppb	08:31:16
2	P 214.914†	201.3	-8.7	-18.800	µg/L	-18.800	ppb	08:31:16
2	Pb 220.353†	41.1	-10.1	-2.5507	µg/L	-2.5507	ppb	08:31:16

2	S 181.975 Axial†	23.4	-2.1	-10.757 µg/L	-10.757 ppb	08:31:16
2	Sb 206.836†	22.2	-0.4	-0.3651 µg/L	-0.3651 ppb	08:31:16
2	Se 196.026†	14.8	2.5	3.5639 µg/L	3.5639 ppb	08:31:16
2	SiO2†	2129.6	22.7	4.3607 µg/L	4.3607 ppb	08:30:55
2	Si 251.611†	389.1	13.8	1.0829 µg/L	1.0829 ppb	08:31:16
2	Sn 189.927†	21.7	-0.3	-0.1418 µg/L	-0.1418 ppb	08:31:16
2	Ti 334.940†	936.4	62.0	0.1350 µg/L	0.1350 ppb	08:30:55
2	Tl 190.801†	-20.1	3.3	4.9464 µg/L	4.9464 ppb	08:31:16
2	U 409.014†	835.1	-93.4	-8.9858 µg/L	-8.9858 ppb	08:30:55
2	V 292.402†	-145.2	-50.1	-0.5883 µg/L	-0.5883 ppb	08:30:55
2	Zn 213.857†	610.3	20.0	0.5288 µg/L	0.5288 ppb	08:31:16
3	Sc RADIAL	120148.1	120148.1	96.3 %		08:29:47
3	Al 396.153Radial†	200.8	1.1	0.5599 µg/L	0.5599 ppb	08:29:47
3	Ca 317.933Radial†	476.2	50.5	18.427 µg/L	18.427 ppb	08:30:07
3	Fe 238.204 Radial†	12.2	4.4	22.261 µg/L	22.261 ppb	08:30:07
3	K 766.490 Radial†	890.1	92.0	49.123 µg/L	49.123 ppb	08:29:47
3	Mg 279.077 IEC†	20.8	5.9	31.595 µg/L	31.595 ppb	08:30:07
3	Na 589.592 Radial†	-536.5	188.3	48.791 µg/L	48.791 ppb	08:29:47
3	Sr 421.552†	-95.7	11.1	0.0593 µg/L	0.0593 ppb	08:29:47
3	Sc 361.383	2144415.4	2144415.4	98.345 %		08:31:22
3	Y 371.029	1305720.8	1305720.8	98.477 %		08:31:22
3	Ag 328.068†	251.1	174.6	1.5803 µg/L	1.5803 ppb	08:31:27
3	As 188.979†	-1.6	-2.7	-5.1092 µg/L	-5.1092 ppb	08:31:48
3	B 249.677†	179.9	16.7	0.7254 µg/L	0.7254 ppb	08:31:27
3	Ba 233.527†	-66.9	19.2	0.4817 µg/L	0.4817 ppb	08:31:48
3	Be 313.107†	3776.8	198.1	0.1211 µg/L	0.1211 ppb	08:31:27
3	Cd 226.502†	-104.2	4.0	0.1021 µg/L	0.1021 ppb	08:31:48
3	Co 228.616†	-80.8	-6.4	-0.3110 µg/L	-0.3110 ppb	08:31:48
3	Cr 267.716†	-127.7	5.8	0.1209 µg/L	0.1209 ppb	08:31:27
3	Cu 324.752†	3409.3	63.3	0.4442 µg/L	0.4442 ppb	08:31:27
3	Mn 257.610†	-210.3	7.7	0.0269 µg/L	0.0269 ppb	08:31:27
3	Mo 202.031†	-6.7	-5.8	-0.6570 µg/L	-0.6570 ppb	08:31:48
3	Ni 231.604†	334.4	6.6	0.3591 µg/L	0.3591 ppb	08:31:48
3	P 214.914†	195.9	-12.7	-27.533 µg/L	-27.533 ppb	08:31:48
3	Pb 220.353†	48.6	-2.1	-0.5415 µg/L	-0.5415 ppb	08:31:48
3	S 181.975 Axial†	27.4	2.1	10.603 µg/L	10.603 ppb	08:31:48
3	Sb 206.836†	23.4	1.1	1.0729 µg/L	1.0729 ppb	08:31:48
3	Se 196.026†	6.4	-5.9	-8.3958 µg/L	-8.3958 ppb	08:31:48
3	SiO2†	2157.5	66.5	12.788 µg/L	12.788 ppb	08:31:27
3	Si 251.611†	394.2	21.9	1.6347 µg/L	1.6347 ppb	08:31:48
3	Sn 189.927†	23.8	2.0	1.0023 µg/L	1.0023 ppb	08:31:48
3	Ti 334.940†	943.0	75.5	0.1644 µg/L	0.1644 ppb	08:31:27
3	Tl 190.801†	-16.2	7.1	10.502 µg/L	10.502 ppb	08:31:48
3	U 409.014†	922.0	1.0	0.0927 µg/L	0.0927 ppb	08:31:27
3	V 292.402†	-128.8	-34.5	-0.3946 µg/L	-0.3946 ppb	08:31:27
3	Zn 213.857†	619.4	33.5	0.8965 µg/L	0.8965 ppb	08:31:48

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2155879.4	98.870	%	0.4631				0.47%
Sc RADIAL	120664.4	96.7	%	0.36				0.37%
Y 371.029	1313050.8	99.030	%	0.4792				0.48%
Ag 328.068†	112.3	1.0152	µg/L	0.51099	1.0152	ppb	0.51099	50.34%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	12.3	6.0159	µg/L	6.60215	6.0159	ppb	6.60215	109.75%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-2.3	-4.3413	µg/L	4.95125	-4.3413	ppb	4.95125	114.05%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-0.4	-0.0195	µg/L	0.66066	-0.0195	ppb	0.66066	>999.9%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	14.3	0.3602	µg/L	0.20480	0.3602	ppb	0.20480	56.85%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	149.7	0.0915	µg/L	0.02840	0.0915	ppb	0.02840	31.04%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	46.2	16.869	µg/L	1.6356	16.869	ppb	1.6356	9.70%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	4.5	0.1130	µg/L	0.08202	0.1130	ppb	0.08202	72.58%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	-1.8	-0.0872	µg/L	0.20406	-0.0872	ppb	0.20406	234.08%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                 6.0      0.1257 µg/L       0.39940      0.1257 ppb        0.39940 317.76%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†                 8.7      0.0624 µg/L       0.48994      0.0624 ppb        0.48994 784.60%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          1.9      9.5467 µg/L      11.15923      9.5467 ppb       11.15923 116.89%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          24.6      13.155 µg/L       31.4821      13.155 ppb        31.4821 239.31%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             5.1      27.283 µg/L       12.1086      27.283 ppb        12.1086  44.38%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                14.7      0.0472 µg/L       0.01910      0.0472 ppb        0.01910  40.48%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                -2.0     -0.2286 µg/L       0.78344     -0.2286 ppb        0.78344 342.77%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        216.9      56.216 µg/L        6.8485      56.216 ppb         6.8485  12.18%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                15.5      0.8382 µg/L       0.56717      0.8382 ppb        0.56717  67.67%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -11.8     -25.503 µg/L        5.9529     -25.503 ppb         5.9529  23.34%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -4.5     -1.1425 µg/L       1.22387     -1.1425 ppb        1.22387 107.12%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            1.1      5.5852 µg/L      14.50009      5.5852 ppb       14.50009 259.62%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 1.1      1.0817 µg/L       1.45122      1.0817 ppb        1.45122 134.16%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -0.4     -0.6332 µg/L       6.73003     -0.6332 ppb        6.73003 >999.9%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                      32.5      6.2480 µg/L       5.83004      6.2480 ppb        5.83004  93.31%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†                19.3      1.4993 µg/L       0.36795      1.4993 ppb        0.36795  24.54%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                -0.7     -0.3306 µg/L       1.43674     -0.3306 ppb        1.43674 434.53%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                29.8      0.1591 µg/L       0.10752      0.1591 ppb        0.10752  67.57%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                60.7      0.1321 µg/L       0.03390      0.1321 ppb        0.03390  25.67%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 5.4      7.9855 µg/L       2.81463      7.9855 ppb        2.81463  35.25%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                -70.0     -6.7355 µg/L       6.02681     -6.7355 ppb        6.02681  89.48%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                -35.9     -0.4191 µg/L       0.15833     -0.4191 ppb        0.15833  37.78%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                26.3      0.7015 µg/L       0.18487      0.7015 ppb        0.18487  26.35%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 11
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 12/19/2009 09:08:51
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	122422.5	122422.5	98.1	%			09:09:27
1	Al 396.153Radial†	11245.7	11255.4	5456.6	µg/L	5456.6	ppb	09:09:27
1	Ca 317.933Radial†	14624.7	14462.9	5275.9	µg/L	5275.9	ppb	09:09:47
1	Fe 238.204 Radial†	1035.4	1047.2	5284.4	µg/L	5284.4	ppb	09:09:47
1	K 766.490 Radial†	10327.8	9694.7	5178.1	µg/L	5178.1	ppb	09:09:27
1	Mg 279.077 IEC†	1040.2	1044.6	5569.0	µg/L	5569.0	ppb	09:09:47
1	Na 589.592 Radial†	39210.9	40713.0	10551	µg/L	10551	ppb	09:09:27
1	Sr 421.552†	94021.7	95946.7	511.82	µg/L	511.82	ppb	09:09:27
1	Sc 361.383	2143926.0	2143926.0	98.322	%			09:10:51
1	Y 371.029	1298335.1	1298335.1	97.920	%			09:10:51
1	Ag 328.068†	57059.0	57951.9	528.85	µg/L	528.85	ppb	09:10:57
1	As 188.979†	283.1	286.8	539.00	µg/L	539.00	ppb	09:11:17
1	B 249.677†	11949.4	11987.0	524.67	µg/L	524.67	ppb	09:10:57
1	Ba 233.527†	20473.6	20910.2	527.32	µg/L	527.32	ppb	09:10:57
1	Be 313.107†	838725.6	849395.5	519.19	µg/L	519.19	ppb	09:10:51
1	Cd 226.502†	20017.6	20469.1	532.93	µg/L	532.93	ppb	09:10:57
1	Co 228.616†	10792.8	11052.7	531.22	µg/L	531.22	ppb	09:10:57
1	Cr 267.716†	24681.4	25238.2	530.64	µg/L	530.64	ppb	09:10:57
1	Cu 324.752†	76268.4	74166.4	516.39	µg/L	516.39	ppb	09:10:57
1	Mn 257.610†	161448.1	164424.6	515.30	µg/L	515.30	ppb	09:10:51
1	Mo 202.031†	4543.1	4621.7	525.33	µg/L	525.33	ppb	09:11:17
1	Ni 231.604†	9956.5	9792.9	530.09	µg/L	530.09	ppb	09:10:57
1	P 214.914†	1414.8	1227.1	2592.9	µg/L	2592.9	ppb	09:11:17
1	Pb 220.353†	2105.9	2090.3	529.83	µg/L	529.83	ppb	09:11:17
1	S 181.975 Axial†	228.8	207.0	1047.0	µg/L	1047.0	ppb	09:11:17
1	Sb 206.836†	533.4	519.7	522.77	µg/L	522.77	ppb	09:11:17
1	Se 196.026†	395.0	389.3	552.09	µg/L	552.09	ppb	09:11:17
1	SiO2†	30867.2	29266.5	5624.9	µg/L	5624.9	ppb	09:10:57
1	Si 251.611†	33825.5	34023.7	2574.6	µg/L	2574.6	ppb	09:10:57
1	Sn 189.927†	1082.0	1078.3	532.29	µg/L	532.29	ppb	09:11:17
1	Ti 334.940†	231363.5	234428.1	513.72	µg/L	513.72	ppb	09:10:51
1	Tl 190.801†	332.3	361.5	539.37	µg/L	539.37	ppb	09:11:17
1	U 409.014†	6251.6	5421.8	520.87	µg/L	520.87	ppb	09:10:57
1	V 292.402†	45629.0	46504.1	533.03	µg/L	533.03	ppb	09:10:57
1	Zn 213.857†	20236.6	19985.7	533.31	µg/L	533.31	ppb	09:10:57
2	Sc RADIAL	122293.9	122293.9	98.0	%			09:09:53
2	Al 396.153Radial†	10999.0	11015.7	5340.0	µg/L	5340.0	ppb	09:09:53
2	Ca 317.933Radial†	14289.6	14136.6	5156.8	µg/L	5156.8	ppb	09:10:13
2	Fe 238.204 Radial†	1024.2	1036.8	5232.1	µg/L	5232.1	ppb	09:10:13
2	K 766.490 Radial†	10441.7	9821.9	5246.1	µg/L	5246.1	ppb	09:09:53
2	Mg 279.077 IEC†	1010.7	1015.6	5414.7	µg/L	5414.7	ppb	09:10:13
2	Na 589.592 Radial†	39339.7	40886.5	10596	µg/L	10596	ppb	09:09:53
2	Sr 421.552†	94269.7	96300.6	513.71	µg/L	513.71	ppb	09:09:53
2	Sc 361.383	2131506.6	2131506.6	97.753	%			09:11:24
2	Y 371.029	1290781.1	1290781.1	97.350	%			09:11:24
2	Ag 328.068†	56755.1	57979.2	529.09	µg/L	529.09	ppb	09:11:30
2	As 188.979†	279.4	284.8	535.20	µg/L	535.20	ppb	09:11:50
2	B 249.677†	11846.3	11952.4	523.17	µg/L	523.17	ppb	09:11:30
2	Ba 233.527†	20333.6	20888.3	526.77	µg/L	526.77	ppb	09:11:30
2	Be 313.107†	834258.8	849796.4	519.44	µg/L	519.44	ppb	09:11:24
2	Cd 226.502†	19842.8	20408.9	531.36	µg/L	531.36	ppb	09:11:30
2	Co 228.616†	10721.2	11043.4	530.77	µg/L	530.77	ppb	09:11:30
2	Cr 267.716†	24485.8	25184.3	529.51	µg/L	529.51	ppb	09:11:30
2	Cu 324.752†	75818.8	74158.5	516.33	µg/L	516.33	ppb	09:11:30
2	Mn 257.610†	160655.0	164570.0	515.75	µg/L	515.75	ppb	09:11:24
2	Mo 202.031†	4518.0	4622.9	525.47	µg/L	525.47	ppb	09:11:50
2	Ni 231.604†	9863.3	9756.6	528.12	µg/L	528.12	ppb	09:11:30
2	P 214.914†	1409.0	1229.5	2598.2	µg/L	2598.2	ppb	09:11:50
2	Pb 220.353†	2095.0	2091.6	530.16	µg/L	530.16	ppb	09:11:50

2	S 181.975 Axial†	231.3	210.9	1066.9 µg/L	1066.9 ppb	09:11:50
2	Sb 206.836†	544.4	534.2	537.36 µg/L	537.36 ppb	09:11:50
2	Se 196.026†	388.9	385.4	546.66 µg/L	546.66 ppb	09:11:50
2	SiO2†	30666.8	29244.5	5620.7 µg/L	5620.7 ppb	09:11:30
2	Si 251.611†	33527.8	33919.6	2566.3 µg/L	2566.3 ppb	09:11:30
2	Sn 189.927†	1086.1	1088.9	537.44 µg/L	537.44 ppb	09:11:50
2	Ti 334.940†	230276.6	234687.3	514.30 µg/L	514.30 ppb	09:11:24
2	Tl 190.801†	324.7	355.7	530.76 µg/L	530.76 ppb	09:11:50
2	U 409.014†	6219.1	5425.5	521.24 µg/L	521.24 ppb	09:11:30
2	V 292.402†	45305.2	46443.2	532.34 µg/L	532.34 ppb	09:11:30
2	Zn 213.857†	20102.0	19967.9	532.85 µg/L	532.85 ppb	09:11:30
3	Sc RADIAL	121990.7	121990.7	97.8 %		09:10:19
3	Al 396.153Radial†	10921.9	10964.7	5318.2 µg/L	5318.2 ppb	09:10:19
3	Ca 317.933Radial†	14308.8	14192.5	5177.2 µg/L	5177.2 ppb	09:10:39
3	Fe 238.204 Radial†	1023.2	1038.3	5238.9 µg/L	5238.9 ppb	09:10:39
3	K 766.490 Radial†	10432.0	9838.5	5254.9 µg/L	5254.9 ppb	09:10:19
3	Mg 279.077 IEC†	1012.1	1019.6	5433.9 µg/L	5433.9 ppb	09:10:39
3	Na 589.592 Radial†	39396.7	41044.6	10637 µg/L	10637 ppb	09:10:19
3	Sr 421.552†	94063.8	96328.9	513.86 µg/L	513.86 ppb	09:10:19
3	Sc 361.383	2127524.7	2127524.7	97.570 %		09:11:58
3	Y 371.029	1289719.5	1289719.5	97.270 %		09:11:58
3	Ag 328.068†	54364.5	55637.7	507.62 µg/L	507.62 ppb	09:12:03
3	As 188.979†	241.7	246.7	463.51 µg/L	463.51 ppb	09:12:24
3	B 249.677†	11324.9	11440.7	500.70 µg/L	500.70 ppb	09:12:03
3	Ba 233.527†	19124.6	19688.1	496.48 µg/L	496.48 ppb	09:12:03
3	Be 313.107†	798806.0	815057.9	498.20 µg/L	498.20 ppb	09:11:58
3	Cd 226.502†	18596.2	19169.3	499.05 µg/L	499.05 ppb	09:12:03
3	Co 228.616†	9975.6	10299.7	494.91 µg/L	494.91 ppb	09:12:03
3	Cr 267.716†	22261.7	22951.7	482.59 µg/L	482.59 ppb	09:12:03
3	Cu 324.752†	70811.1	69171.2	481.68 µg/L	481.68 ppb	09:12:03
3	Mn 257.610†	154064.2	158122.7	495.57 µg/L	495.57 ppb	09:11:58
3	Mo 202.031†	3835.1	3931.7	446.93 µg/L	446.93 ppb	09:12:24
3	Ni 231.604†	9237.1	9133.7	494.40 µg/L	494.40 ppb	09:12:03
3	P 214.914†	1245.4	1064.5	2244.5 µg/L	2244.5 ppb	09:12:24
3	Pb 220.353†	1853.3	1847.9	468.33 µg/L	468.33 ppb	09:12:24
3	S 181.975 Axial†	208.0	187.4	947.82 µg/L	947.82 ppb	09:12:24
3	Sb 206.836†	478.3	467.5	470.27 µg/L	470.27 ppb	09:12:24
3	Se 196.026†	347.9	344.1	488.31 µg/L	488.31 ppb	09:12:24
3	SiO2†	29177.6	27776.9	5338.6 µg/L	5338.6 ppb	09:12:03
3	Si 251.611†	31805.3	32218.4	2440.6 µg/L	2440.6 ppb	09:12:03
3	Sn 189.927†	911.9	912.4	450.80 µg/L	450.80 ppb	09:12:24
3	Ti 334.940†	219609.9	224195.9	491.29 µg/L	491.29 ppb	09:11:58
3	Tl 190.801†	298.7	329.8	492.17 µg/L	492.17 ppb	09:12:24
3	U 409.014†	5787.4	4995.1	479.82 µg/L	479.82 ppb	09:12:03
3	V 292.402†	41897.4	43037.2	493.05 µg/L	493.05 ppb	09:12:03
3	Zn 213.857†	18765.9	18637.0	497.28 µg/L	497.28 ppb	09:12:03

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2134319.1	97.882	%	0.3923				0.40%
Sc RADIAL	122235.7	98.0	%	0.18				0.18%
Y 371.029	1292945.2	97.513	%	0.3543				0.36%
Ag 328.068†	57189.6	521.86	µg/L	12.327	521.86	ppb	12.327	2.36%
QC value within limits for Ag 328.068 Recovery = 104.37%								
Al 396.153Radial†	11078.6	5371.6	µg/L	74.45	5371.6	ppb	74.45	1.39%
QC value within limits for Al 396.153Radial Recovery = 107.43%								
As 188.979†	272.8	512.57	µg/L	42.528	512.57	ppb	42.528	8.30%
QC value within limits for As 188.979 Recovery = 102.51%								
B 249.677†	11793.4	516.18	µg/L	13.428	516.18	ppb	13.428	2.60%
QC value within limits for B 249.677 Recovery = 103.24%								
Ba 233.527†	20495.6	516.86	µg/L	17.647	516.86	ppb	17.647	3.41%
QC value within limits for Ba 233.527 Recovery = 103.37%								
Be 313.107†	838083.3	512.28	µg/L	12.189	512.28	ppb	12.189	2.38%
QC value within limits for Be 313.107 Recovery = 102.46%								
Ca 317.933Radial†	14264.0	5203.3	µg/L	63.65	5203.3	ppb	63.65	1.22%
QC value within limits for Ca 317.933Radial Recovery = 104.07%								
Cd 226.502†	20015.8	521.11	µg/L	19.121	521.11	ppb	19.121	3.67%
QC value within limits for Cd 226.502 Recovery = 104.22%								
Co 228.616†	10798.6	518.97	µg/L	20.838	518.97	ppb	20.838	4.02%

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   QC value within limits for Co 228.616  Recovery = 103.79%
Cr 267.716†            24458.1      514.24 µg/L        27.423      514.24 ppb        27.423   5.33%
   QC value within limits for Cr 267.716  Recovery = 102.85%
Cu 324.752†            72498.7      504.80 µg/L        20.023      504.80 ppb        20.023   3.97%
   QC value within limits for Cu 324.752  Recovery = 100.96%
Fe 238.204 Radial†      1040.8      5251.8 µg/L         28.46      5251.8 ppb         28.46   0.54%
   QC value within limits for Fe 238.204 Radial  Recovery = 105.04%
K 766.490 Radial†       9785.0      5226.4 µg/L         42.02      5226.4 ppb         42.02   0.80%
   QC value within limits for K 766.490 Radial  Recovery = 104.53%
Mg 279.077 IEC†         1026.6      5472.5 µg/L         84.10      5472.5 ppb         84.10   1.54%
   QC value within limits for Mg 279.077 IEC  Recovery = 109.45%
Mn 257.610†           162372.5      508.88 µg/L        11.523      508.88 ppb        11.523   2.26%
   QC value within limits for Mn 257.610  Recovery = 101.78%
Mo 202.031†             4392.1      499.24 µg/L        45.302      499.24 ppb        45.302   9.07%
   QC value within limits for Mo 202.031  Recovery = 99.85%
Na 589.592 Radial†     40881.4       10595 µg/L          43.0       10595 ppb          43.0   0.41%
   QC value within limits for Na 589.592 Radial  Recovery = 105.95%
Ni 231.604†             9561.1      517.54 µg/L        20.059      517.54 ppb        20.059   3.88%
   QC value within limits for Ni 231.604  Recovery = 103.51%
P 214.914†              1173.7      2478.5 µg/L        202.72      2478.5 ppb        202.72   8.18%
   QC value within limits for P 214.914  Recovery = 99.14%
Pb 220.353†             2009.9      509.44 µg/L        35.605      509.44 ppb        35.605   6.99%
   QC value within limits for Pb 220.353  Recovery = 101.89%
S 181.975 Axial†         201.8      1020.5 µg/L         63.77      1020.5 ppb         63.77   6.25%
   QC value within limits for S 181.975 Axial  Recovery = 102.05%
Sb 206.836†              507.1      510.13 µg/L        35.285      510.13 ppb        35.285   6.92%
   QC value within limits for Sb 206.836  Recovery = 102.03%
Se 196.026†              373.0      529.02 µg/L        35.361      529.02 ppb        35.361   6.68%
   QC value within limits for Se 196.026  Recovery = 105.80%
SiO2†                  28762.6      5528.1 µg/L        164.09      5528.1 ppb        164.09   2.97%
   QC value within limits for SiO2  Recovery = 103.38%
Si 251.611†            33387.3      2527.2 µg/L         75.09      2527.2 ppb         75.09   2.97%
   QC value within limits for Si 251.611  Recovery = 101.09%
Sn 189.927†             1026.5      506.84 µg/L        48.601      506.84 ppb        48.601   9.59%
   QC value within limits for Sn 189.927  Recovery = 101.37%
Sr 421.552†            96192.1      513.13 µg/L         1.136      513.13 ppb         1.136   0.22%
   QC value within limits for Sr 421.552  Recovery = 102.63%
Ti 334.940†           231103.8      506.44 µg/L        13.119      506.44 ppb        13.119   2.59%
   QC value within limits for Ti 334.940  Recovery = 101.29%
Tl 190.801†              349.0      520.77 µg/L        25.139      520.77 ppb        25.139   4.83%
   QC value within limits for Tl 190.801  Recovery = 104.15%
U 409.014†              5280.8      507.31 µg/L        23.811      507.31 ppb        23.811   4.69%
   QC value within limits for U 409.014  Recovery = 101.46%
V 292.402†             45328.2      519.47 µg/L        22.888      519.47 ppb        22.888   4.41%
   QC value within limits for V 292.402  Recovery = 103.89%
Zn 213.857†            19530.2      521.15 µg/L        20.670      521.15 ppb        20.670   3.97%
   QC value within limits for Zn 213.857  Recovery = 104.23%
All analyte(s) passed QC.
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Sequence No.: 12
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 12/19/2009 09:12:33
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	118994.7	118994.7	95.4	%			09:13:05
1	Al 396.153Radial†	300.3	107.5	52.323	µg/L	52.323	ppb	09:13:05
1	Ca 317.933Radial†	617.2	203.1	74.104	µg/L	74.104	ppb	09:13:26
1	Fe 238.204 Radial†	13.9	6.4	31.970	µg/L	31.970	ppb	09:13:26
1	K 766.490 Radial†	811.9	18.9	10.113	µg/L	10.113	ppb	09:13:05
1	Mg 279.077 IEC†	30.0	15.8	84.211	µg/L	84.211	ppb	09:13:26
1	Na 589.592 Radial†	-584.0	133.0	34.478	µg/L	34.478	ppb	09:13:05
1	Sr 421.552†	-81.5	25.0	0.1336	µg/L	0.1336	ppb	09:13:05
1	Sc 361.383	2143583.8	2143583.8	98.307	%			09:14:28
1	Y 371.029	1305939.3	1305939.3	98.493	%			09:14:28
1	Ag 328.068†	215.4	138.3	1.2533	µg/L	1.2533	ppb	09:14:33
1	As 188.979†	4.8	3.9	7.2398	µg/L	7.2398	ppb	09:14:54
1	B 249.677†	129.4	-34.5	-1.5270	µg/L	-1.5270	ppb	09:14:33
1	Ba 233.527†	-79.4	6.5	0.1619	µg/L	0.1619	ppb	09:14:54
1	Be 313.107†	3784.7	207.6	0.1269	µg/L	0.1269	ppb	09:14:33
1	Cd 226.502†	-100.9	7.3	0.1786	µg/L	0.1786	ppb	09:14:54
1	Co 228.616†	-78.1	-3.7	-0.1793	µg/L	-0.1793	ppb	09:14:54
1	Cr 267.716†	-142.2	-9.0	-0.1899	µg/L	-0.1899	ppb	09:14:33
1	Cu 324.752†	3369.6	24.2	0.1752	µg/L	0.1752	ppb	09:14:33
1	Mn 257.610†	-184.6	33.8	0.1097	µg/L	0.1097	ppb	09:14:54
1	Mo 202.031†	-0.2	0.8	0.0958	µg/L	0.0958	ppb	09:14:54
1	Ni 231.604†	337.6	10.0	0.5399	µg/L	0.5399	ppb	09:14:54
1	P 214.914†	189.9	-18.8	-40.477	µg/L	-40.477	ppb	09:14:54
1	Pb 220.353†	44.0	-6.8	-1.7160	µg/L	-1.7160	ppb	09:14:54
1	S 181.975 Axial†	29.9	4.7	23.808	µg/L	23.808	ppb	09:14:54
1	Sb 206.836†	25.6	3.3	3.3331	µg/L	3.3331	ppb	09:14:54
1	Se 196.026†	13.4	1.2	1.7155	µg/L	1.7155	ppb	09:14:54
1	SiO2†	2104.0	12.9	2.4800	µg/L	2.4800	ppb	09:14:33
1	Si 251.611†	400.8	28.7	2.1050	µg/L	2.1050	ppb	09:14:54
1	Sn 189.927†	27.1	5.4	2.6638	µg/L	2.6638	ppb	09:14:54
1	Ti 334.940†	901.3	33.5	0.0693	µg/L	0.0693	ppb	09:14:33
1	Tl 190.801†	-15.5	7.8	11.640	µg/L	11.640	ppb	09:14:54
1	U 409.014†	803.4	-119.3	-11.483	µg/L	-11.483	ppb	09:14:33
1	V 292.402†	-121.8	-27.5	-0.3279	µg/L	-0.3279	ppb	09:14:33
1	Zn 213.857†	617.5	31.9	0.8503	µg/L	0.8503	ppb	09:14:54
2	Sc RADIAL	120095.3	120095.3	96.2	%			09:13:31
2	Al 396.153Radial†	331.3	136.8	66.575	µg/L	66.575	ppb	09:13:31
2	Ca 317.933Radial†	573.5	151.8	55.360	µg/L	55.360	ppb	09:13:51
2	Fe 238.204 Radial†	14.7	7.0	35.453	µg/L	35.453	ppb	09:13:51
2	K 766.490 Radial†	797.9	-3.4	-1.8293	µg/L	-1.8293	ppb	09:13:31
2	Mg 279.077 IEC†	30.9	16.5	87.811	µg/L	87.811	ppb	09:13:51
2	Na 589.592 Radial†	-606.5	115.2	29.864	µg/L	29.864	ppb	09:13:31
2	Sr 421.552†	-49.6	58.9	0.3143	µg/L	0.3143	ppb	09:13:31
2	Sc 361.383	2141569.7	2141569.7	98.214	%			09:15:00
2	Y 371.029	1304994.0	1304994.0	98.422	%			09:15:00
2	Ag 328.068†	230.0	153.4	1.3897	µg/L	1.3897	ppb	09:15:05
2	As 188.979†	1.2	0.1	0.2230	µg/L	0.2230	ppb	09:15:26
2	B 249.677†	185.5	22.6	0.9820	µg/L	0.9820	ppb	09:15:05
2	Ba 233.527†	-72.0	13.9	0.3500	µg/L	0.3500	ppb	09:15:26
2	Be 313.107†	3821.2	248.5	0.1519	µg/L	0.1519	ppb	09:15:05
2	Cd 226.502†	-110.9	-3.0	-0.0788	µg/L	-0.0788	ppb	09:15:26
2	Co 228.616†	-69.3	5.2	0.2462	µg/L	0.2462	ppb	09:15:26
2	Cr 267.716†	-164.7	-32.1	-0.6736	µg/L	-0.6736	ppb	09:15:05
2	Cu 324.752†	3354.3	11.8	0.0897	µg/L	0.0897	ppb	09:15:05
2	Mn 257.610†	-183.1	35.1	0.1142	µg/L	0.1142	ppb	09:15:26
2	Mo 202.031†	-5.6	-4.6	-0.5254	µg/L	-0.5254	ppb	09:15:26
2	Ni 231.604†	345.8	18.6	1.0080	µg/L	1.0080	ppb	09:15:26
2	P 214.914†	194.5	-13.9	-29.959	µg/L	-29.959	ppb	09:15:26
2	Pb 220.353†	48.6	-2.1	-0.5348	µg/L	-0.5348	ppb	09:15:26

2	S 181.975 Axial†	26.6	1.3	6.8048	µg/L	6.8048 ppb	09:15:26
2	Sb 206.836†	20.7	-1.6	-1.6555	µg/L	-1.6555 ppb	09:15:26
2	Se 196.026†	13.4	1.3	1.7810	µg/L	1.7810 ppb	09:15:26
2	SiO2†	2133.9	45.4	8.7309	µg/L	8.7309 ppb	09:15:05
2	Si 251.611†	402.2	30.5	2.2672	µg/L	2.2672 ppb	09:15:26
2	Sn 189.927†	26.5	4.8	2.3758	µg/L	2.3758 ppb	09:15:26
2	Ti 334.940†	925.9	59.4	0.1271	µg/L	0.1271 ppb	09:15:05
2	Tl 190.801†	-20.3	2.9	4.2829	µg/L	4.2829 ppb	09:15:26
2	U 409.014†	919.0	-0.8	-0.0794	µg/L	-0.0794 ppb	09:15:05
2	V 292.402†	-127.5	-33.4	-0.3799	µg/L	-0.3799 ppb	09:15:05
2	Zn 213.857†	620.5	35.5	0.9441	µg/L	0.9441 ppb	09:15:26
3	Sc RADIAL	119075.4	119075.4	95.4	%		09:13:57
3	Al 396.153Radial†	287.2	93.5	45.500	µg/L	45.500 ppb	09:13:57
3	Ca 317.933Radial†	566.4	149.5	54.520	µg/L	54.520 ppb	09:14:17
3	Fe 238.204 Radial†	9.7	1.9	9.3556	µg/L	9.3556 ppb	09:14:17
3	K 766.490 Radial†	827.0	34.1	18.235	µg/L	18.235 ppb	09:13:57
3	Mg 279.077 IEC†	30.8	16.6	88.292	µg/L	88.292 ppb	09:14:17
3	Na 589.592 Radial†	-610.7	105.4	27.321	µg/L	27.321 ppb	09:13:57
3	Sr 421.552†	-34.4	74.4	0.3971	µg/L	0.3971 ppb	09:13:57
3	Sc 361.383	2157023.0	2157023.0	98.923	%		09:15:32
3	Y 371.029	1313764.3	1313764.3	99.084	%		09:15:32
3	Ag 328.068†	190.9	112.2	1.0158	µg/L	1.0158 ppb	09:15:38
3	As 188.979†	1.6	0.5	0.9778	µg/L	0.9778 ppb	09:15:58
3	B 249.677†	152.3	-12.3	-0.5434	µg/L	-0.5434 ppb	09:15:38
3	Ba 233.527†	-67.9	18.7	0.4691	µg/L	0.4691 ppb	09:15:58
3	Be 313.107†	3812.9	212.2	0.1297	µg/L	0.1297 ppb	09:15:38
3	Cd 226.502†	-121.4	-12.8	-0.3324	µg/L	-0.3324 ppb	09:15:58
3	Co 228.616†	-75.6	-0.7	-0.0342	µg/L	-0.0342 ppb	09:15:58
3	Cr 267.716†	-155.4	-21.4	-0.4504	µg/L	-0.4504 ppb	09:15:38
3	Cu 324.752†	3334.8	-32.4	-0.2229	µg/L	-0.2229 ppb	09:15:38
3	Mn 257.610†	-214.6	4.6	0.0156	µg/L	0.0156 ppb	09:15:58
3	Mo 202.031†	-1.0	0.1	0.0110	µg/L	0.0110 ppb	09:15:58
3	Ni 231.604†	350.1	20.5	1.1071	µg/L	1.1071 ppb	09:15:58
3	P 214.914†	191.4	-18.5	-39.843	µg/L	-39.843 ppb	09:15:58
3	Pb 220.353†	42.8	-8.4	-2.1154	µg/L	-2.1154 ppb	09:15:58
3	S 181.975 Axial†	28.8	3.4	17.063	µg/L	17.063 ppb	09:15:58
3	Sb 206.836†	28.4	5.9	5.9731	µg/L	5.9731 ppb	09:15:58
3	Se 196.026†	12.8	0.6	0.7956	µg/L	0.7956 ppb	09:15:58
3	SiO2†	2079.7	-25.0	-4.8044	µg/L	-4.8044 ppb	09:15:38
3	Si 251.611†	396.4	21.8	1.6844	µg/L	1.6844 ppb	09:15:58
3	Sn 189.927†	21.0	-0.9	-0.4187	µg/L	-0.4187 ppb	09:15:58
3	Ti 334.940†	935.5	62.4	0.1337	µg/L	0.1337 ppb	09:15:38
3	Tl 190.801†	-17.6	5.7	8.5290	µg/L	8.5290 ppb	09:15:58
3	U 409.014†	912.8	-13.8	-1.3249	µg/L	-1.3249 ppb	09:15:38
3	V 292.402†	-113.8	-18.6	-0.2129	µg/L	-0.2129 ppb	09:15:38
3	Zn 213.857†	612.8	23.2	0.6149	µg/L	0.6149 ppb	09:15:58

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2147392.1	98.481	%	0.3853				0.39%
Sc RADIAL	119388.5	95.7	%	0.49				0.51%
Y 371.029	1308232.5	98.666	%	0.3631				0.37%
Ag 328.068†	134.7	1.2196	µg/L	0.18924	1.2196	ppb	0.18924	15.52%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	112.6	54.800	µg/L	10.7531	54.800	ppb	10.7531	19.62%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	1.5	2.8135	µg/L	3.85179	2.8135	ppb	3.85179	136.90%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-8.1	-0.3628	µg/L	1.26419	-0.3628	ppb	1.26419	348.45%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	13.0	0.3270	µg/L	0.15487	0.3270	ppb	0.15487	47.36%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	222.8	0.1362	µg/L	0.01368	0.1362	ppb	0.01368	10.04%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	168.1	61.328	µg/L	11.0723	61.328	ppb	11.0723	18.05%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	-2.8	-0.0776	µg/L	0.25551	-0.0776	ppb	0.25551	329.46%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	0.2	0.0109	µg/L	0.21627	0.0109	ppb	0.21627	>999.9%

```
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -20.8     -0.4380 µg/L       0.24209     -0.4380 ppb        0.24209  55.28%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†                1.2      0.0140 µg/L       0.20956      0.0140 ppb        0.20956 >999.9%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         5.1      25.593 µg/L       14.1696      25.593 ppb        14.1696  55.36%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         16.5      8.8395 µg/L      10.09252      8.8395 ppb       10.09252 114.18%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           16.3      86.771 µg/L        2.2303      86.771 ppb         2.2303   2.57%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               24.5      0.0798 µg/L       0.05566      0.0798 ppb        0.05566  69.72%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               -1.2     -0.1395 µg/L       0.33687     -0.1395 ppb        0.33687 241.41%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       117.9      30.554 µg/L        3.6281      30.554 ppb         3.6281  11.87%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               16.3      0.8850 µg/L       0.30293      0.8850 ppb        0.30293  34.23%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -17.0     -36.760 µg/L        5.8980     -36.760 ppb         5.8980  16.04%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               -5.8     -1.4554 µg/L       0.82191     -1.4554 ppb        0.82191  56.47%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           3.1      15.892 µg/L        8.5617      15.892 ppb         8.5617  53.87%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                2.5      2.5503 µg/L       3.87411      2.5503 ppb        3.87411 151.91%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                1.0      1.4307 µg/L       0.55096      1.4307 ppb        0.55096  38.51%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     11.1      2.1355 µg/L       6.77419      2.1355 ppb        6.77419 317.22%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               27.0      2.0189 µg/L       0.30083      2.0189 ppb        0.30083  14.90%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                3.1      1.5403 µg/L       1.70266      1.5403 ppb        1.70266 110.54%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               52.8      0.2816 µg/L       0.13472      0.2816 ppb        0.13472  47.83%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               51.8      0.1100 µg/L       0.03542      0.1100 ppb        0.03542  32.19%
   QC value within limits for Ti 334,940  Recovery = Not calculated
Tl 190.801†                5.5      8.1506 µg/L       3.69306      8.1506 ppb        3.69306  45.31%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -44.6     -4.2958 µg/L       6.25555     -4.2958 ppb        6.25555 145.62%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               -26.5     -0.3069 µg/L       0.08549     -0.3069 ppb        0.08549  27.86%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               30.2      0.8031 µg/L       0.16961      0.8031 ppb        0.16961  21.12%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 20
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 12/19/2009 09:41:22
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	121751.1	121751.1	97.6	%			09:41:59
1	Al 396.153Radial†	10824.8	10887.1	5277.5	µg/L	5277.5	ppb	09:41:59
1	Ca 317.933Radial†	14311.8	14224.3	5188.9	µg/L	5188.9	ppb	09:42:20
1	Fe 238.204 Radial†	1029.5	1046.9	5283.3	µg/L	5283.3	ppb	09:42:20
1	K 766.490 Radial†	10467.1	9895.4	5285.3	µg/L	5285.3	ppb	09:41:59
1	Mg 279.077 IEC†	1006.9	1016.4	5418.6	µg/L	5418.6	ppb	09:42:20
1	Na 589.592 Radial†	39467.1	41196.1	10676	µg/L	10676	ppb	09:41:59
1	Sr 421.552†	94391.8	96854.5	516.66	µg/L	516.66	ppb	09:41:59
1	Sc 361.383	2165637.9	2165637.9	99.318	%			09:43:23
1	Y 371.029	1312418.8	1312418.8	98.982	%			09:43:23
1	Ag 328.068†	57950.8	58268.0	531.74	µg/L	531.74	ppb	09:43:29
1	As 188.979†	282.5	283.4	532.58	µg/L	532.58	ppb	09:43:49
1	B 249.677†	12133.4	12050.5	527.46	µg/L	527.46	ppb	09:43:29
1	Ba 233.527†	20792.8	21022.9	530.16	µg/L	530.16	ppb	09:43:29
1	Be 313.107†	853461.8	855680.7	523.03	µg/L	523.03	ppb	09:43:23
1	Cd 226.502†	20345.8	20595.5	536.22	µg/L	536.22	ppb	09:43:29
1	Co 228.616†	10959.2	11110.2	533.97	µg/L	533.97	ppb	09:43:29
1	Cr 267.716†	25180.3	25488.8	535.90	µg/L	535.90	ppb	09:43:29
1	Cu 324.752†	77241.1	74368.1	517.80	µg/L	517.80	ppb	09:43:29
1	Mn 257.610†	164311.7	165661.6	519.17	µg/L	519.17	ppb	09:43:23
1	Mo 202.031†	4568.5	4600.9	522.97	µg/L	522.97	ppb	09:43:49
1	Ni 231.604†	10109.7	9845.7	532.94	µg/L	532.94	ppb	09:43:29
1	P 214.914†	1410.1	1207.8	2551.2	µg/L	2551.2	ppb	09:43:49
1	Pb 220.353†	2121.3	2084.2	528.28	µg/L	528.28	ppb	09:43:49
1	S 181.975 Axial†	234.2	210.0	1062.5	µg/L	1062.5	ppb	09:43:49
1	Sb 206.836†	549.5	530.5	533.68	µg/L	533.68	ppb	09:43:49
1	Se 196.026†	391.8	382.0	541.89	µg/L	541.89	ppb	09:43:49
1	SiO2†	31356.0	29444.0	5659.0	µg/L	5659.0	ppb	09:43:29
1	Si 251.611†	34353.6	34210.6	2588.9	µg/L	2588.9	ppb	09:43:29
1	Sn 189.927†	1094.6	1080.0	533.06	µg/L	533.06	ppb	09:43:49
1	Ti 334.940†	235010.1	235740.6	516.60	µg/L	516.60	ppb	09:43:23
1	Tl 190.801†	334.0	359.9	536.90	µg/L	536.90	ppb	09:43:49
1	U 409.014†	6341.7	5448.7	523.46	µg/L	523.46	ppb	09:43:29
1	V 292.402†	46381.6	46796.6	536.34	µg/L	536.34	ppb	09:43:29
1	Zn 213.857†	20543.3	20088.2	536.05	µg/L	536.05	ppb	09:43:29
2	Sc RADIAL	121251.1	121251.1	97.2	%			09:42:25
2	Al 396.153Radial†	10845.6	10954.3	5310.2	µg/L	5310.2	ppb	09:42:25
2	Ca 317.933Radial†	14270.3	14242.1	5195.3	µg/L	5195.3	ppb	09:42:46
2	Fe 238.204 Radial†	1029.0	1050.8	5302.4	µg/L	5302.4	ppb	09:42:46
2	K 766.490 Radial†	10557.3	10032.5	5358.6	µg/L	5358.6	ppb	09:42:25
2	Mg 279.077 IEC†	1013.7	1027.6	5478.4	µg/L	5478.4	ppb	09:42:46
2	Na 589.592 Radial†	39460.9	41356.5	10718	µg/L	10718	ppb	09:42:25
2	Sr 421.552†	94466.4	97330.3	519.20	µg/L	519.20	ppb	09:42:25
2	Sc 361.383	2151991.4	2151991.4	98.692	%			09:43:56
2	Y 371.029	1303744.4	1303744.4	98.328	%			09:43:56
2	Ag 328.068†	56866.5	57539.4	525.09	µg/L	525.09	ppb	09:44:02
2	As 188.979†	278.3	280.9	527.86	µg/L	527.86	ppb	09:44:22
2	B 249.677†	11882.2	11873.4	519.68	µg/L	519.68	ppb	09:44:02
2	Ba 233.527†	20379.0	20736.3	522.93	µg/L	522.93	ppb	09:44:02
2	Be 313.107†	850079.6	857702.9	524.27	µg/L	524.27	ppb	09:43:56
2	Cd 226.502†	19949.0	20323.3	529.12	µg/L	529.12	ppb	09:44:02
2	Co 228.616†	10748.3	10966.4	527.07	µg/L	527.07	ppb	09:44:02
2	Cr 267.716†	24616.4	25078.2	527.28	µg/L	527.28	ppb	09:44:02
2	Cu 324.752†	75941.8	73544.8	512.08	µg/L	512.08	ppb	09:44:02
2	Mn 257.610†	163697.7	166088.6	520.51	µg/L	520.51	ppb	09:43:56
2	Mo 202.031†	4550.2	4611.6	524.18	µg/L	524.18	ppb	09:44:22
2	Ni 231.604†	9924.7	9722.8	526.29	µg/L	526.29	ppb	09:44:02
2	P 214.914†	1412.2	1219.0	2576.1	µg/L	2576.1	ppb	09:44:22
2	Pb 220.353†	2116.1	2092.5	530.40	µg/L	530.40	ppb	09:44:22

2	S 181.975 Axial†	232.5	209.8	1061.4 µg/L	1061.4 ppb	09:44:22
2	Sb 206.836†	546.7	531.2	534.34 µg/L	534.34 ppb	09:44:22
2	Se 196.026†	392.8	385.6	546.89 µg/L	546.89 ppb	09:44:22
2	SiO2†	30766.7	29047.1	5582.7 µg/L	5582.7 ppb	09:44:02
2	Si 251.611†	33791.0	33859.8	2561.5 µg/L	2561.5 ppb	09:44:02
2	Sn 189.927†	1101.7	1094.1	540.04 µg/L	540.04 ppb	09:44:22
2	Ti 334.940†	234160.4	236380.2	518.01 µg/L	518.01 ppb	09:43:56
2	Tl 190.801†	331.8	359.8	536.82 µg/L	536.82 ppb	09:44:22
2	U 409.014†	6186.0	5331.4	512.17 µg/L	512.17 ppb	09:44:02
2	V 292.402†	45482.8	46182.0	529.35 µg/L	529.35 ppb	09:44:02
2	Zn 213.857†	20164.5	19835.5	529.29 µg/L	529.29 ppb	09:44:02
3	Sc RADIAL	121617.0	121617.0	97.5 %		09:42:51
3	Al 396.153Radial†	10796.9	10870.8	5272.5 µg/L	5272.5 ppb	09:42:51
3	Ca 317.933Radial†	14287.0	14215.0	5185.5 µg/L	5185.5 ppb	09:43:12
3	Fe 238.204 Radial†	1025.5	1044.0	5267.0 µg/L	5267.0 ppb	09:43:12
3	K 766.490 Radial†	10503.2	9944.3	5311.4 µg/L	5311.4 ppb	09:42:51
3	Mg 279.077 IEC†	1008.7	1019.4	5432.6 µg/L	5432.6 ppb	09:43:12
3	Na 589.592 Radial†	39497.4	41271.7	10696 µg/L	10696 ppb	09:42:51
3	Sr 421.552†	94453.1	97024.0	517.57 µg/L	517.57 ppb	09:42:51
3	Sc 361.383	2155454.5	2155454.5	98.851 %		09:44:30
3	Y 371.029	1305744.4	1305744.4	98.479 %		09:44:30
3	Ag 328.068†	54509.4	55062.3	502.38 µg/L	502.38 ppb	09:44:35
3	As 188.979†	246.9	248.7	467.25 µg/L	467.25 ppb	09:44:56
3	B 249.677†	11333.1	11298.7	494.45 µg/L	494.45 ppb	09:44:35
3	Ba 233.527†	19173.8	19483.9	491.33 µg/L	491.33 ppb	09:44:35
3	Be 313.107†	812215.6	818014.9	500.01 µg/L	500.01 ppb	09:44:30
3	Cd 226.502†	18660.9	18987.7	494.32 µg/L	494.32 ppb	09:44:35
3	Co 228.616†	9977.7	10169.3	488.64 µg/L	488.64 ppb	09:44:35
3	Cr 267.716†	22366.6	22762.2	478.60 µg/L	478.60 ppb	09:44:35
3	Cu 324.752†	70975.1	68396.7	476.31 µg/L	476.31 ppb	09:44:35
3	Mn 257.610†	156544.1	158585.4	497.02 µg/L	497.02 ppb	09:44:30
3	Mo 202.031†	3890.6	3936.9	447.52 µg/L	447.52 ppb	09:44:56
3	Ni 231.604†	9232.2	9006.0	487.49 µg/L	487.49 ppb	09:44:35
3	P 214.914†	1271.1	1073.9	2265.5 µg/L	2265.5 ppb	09:44:56
3	Pb 220.353†	1872.2	1842.3	466.93 µg/L	466.93 ppb	09:44:56
3	S 181.975 Axial†	214.1	190.9	965.55 µg/L	965.55 ppb	09:44:56
3	Sb 206.836†	472.5	455.2	457.97 µg/L	457.97 ppb	09:44:56
3	Se 196.026†	361.5	353.3	501.22 µg/L	501.22 ppb	09:44:56
3	SiO2†	29171.0	27382.7	5262.8 µg/L	5262.8 ppb	09:44:35
3	Si 251.611†	31873.2	31864.7	2413.1 µg/L	2413.1 ppb	09:44:35
3	Sn 189.927†	929.9	918.6	453.82 µg/L	453.82 ppb	09:44:56
3	Ti 334.940†	223198.4	224909.6	492.86 µg/L	492.86 ppb	09:44:30
3	Tl 190.801†	298.0	325.0	485.12 µg/L	485.12 ppb	09:44:56
3	U 409.014†	5830.6	4961.8	476.61 µg/L	476.61 ppb	09:44:35
3	V 292.402†	42040.6	42625.7	488.37 µg/L	488.37 ppb	09:44:35
3	Zn 213.857†	18830.6	18453.3	492.38 µg/L	492.38 ppb	09:44:35

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2157694.6	98.954	%	0.3253				0.33%
Sc RADIAL	121539.7	97.4	%	0.21				0.21%
Y 371.029	1307302.5	98.596	%	0.3426				0.35%
Ag 328.068†	56956.6	519.74	µg/L	15.394	519.74	ppb	15.394	2.96%
QC value within limits for Ag 328.068 Recovery = 103.95%								
Al 396.153Radial†	10904.0	5286.7	µg/L	20.47	5286.7	ppb	20.47	0.39%
QC value within limits for Al 396.153Radial Recovery = 105.73%								
As 188.979†	271.0	509.23	µg/L	36.433	509.23	ppb	36.433	7.15%
QC value within limits for As 188.979 Recovery = 101.85%								
B 249.677†	11740.9	513.86	µg/L	17.255	513.86	ppb	17.255	3.36%
QC value within limits for B 249.677 Recovery = 102.77%								
Ba 233.527†	20414.4	514.81	µg/L	20.650	514.81	ppb	20.650	4.01%
QC value within limits for Ba 233.527 Recovery = 102.96%								
Be 313.107†	843799.5	515.77	µg/L	13.663	515.77	ppb	13.663	2.65%
QC value within limits for Be 313.107 Recovery = 103.15%								
Ca 317.933Radial†	14227.2	5189.9	µg/L	5.02	5189.9	ppb	5.02	0.10%
QC value within limits for Ca 317.933Radial Recovery = 103.80%								
Cd 226.502†	19968.9	519.89	µg/L	22.424	519.89	ppb	22.424	4.31%
QC value within limits for Cd 226.502 Recovery = 103.98%								
Co 228.616†	10748.6	516.56	µg/L	24.424	516.56	ppb	24.424	4.73%

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   QC value within limits for Co 228.616  Recovery = 103.31%
Cr 267.716†            24443.1      513.93 µg/L        30.896      513.93 ppb        30.896   6.01%
   QC value within limits for Cr 267.716  Recovery = 102.79%
Cu 324.752†            72103.2      502.06 µg/L        22.486      502.06 ppb        22.486   4.48%
   QC value within limits for Cu 324.752  Recovery = 100.41%
Fe 238.204 Radial†      1047.2      5284.2 µg/L         17.73      5284.2 ppb         17.73   0.34%
   QC value within limits for Fe 238.204 Radial  Recovery = 105.68%
K 766.490 Radial†       9957.4      5318.5 µg/L         37.13      5318.5 ppb         37.13   0.70%
   QC value within limits for K 766.490 Radial  Recovery = 106.37%
Mg 279.077 IEC†         1021.1      5443.2 µg/L         31.31      5443.2 ppb         31.31   0.58%
   QC value within limits for Mg 279.077 IEC  Recovery = 108.86%
Mn 257.610†           163445.2      512.24 µg/L        13.192      512.24 ppb        13.192   2.58%
   QC value within limits for Mn 257.610  Recovery = 102.45%
Mo 202.031†             4383.1      498.22 µg/L        43.916      498.22 ppb        43.916   8.81%
   QC value within limits for Mo 202.031  Recovery = 99.64%
Na 589.592 Radial†     41274.8       10697 µg/L          20.8       10697 ppb          20.8   0.19%
   QC value within limits for Na 589.592 Radial  Recovery = 106.97%
Ni 231.604†             9524.9      515.58 µg/L        24.547      515.58 ppb        24.547   4.76%
   QC value within limits for Ni 231.604  Recovery = 103.12%
P 214.914†              1166.9      2464.3 µg/L        172.57      2464.3 ppb        172.57   7.00%
   QC value within limits for P 214.914  Recovery = 98.57%
Pb 220.353†             2006.4      508.54 µg/L        36.047      508.54 ppb        36.047   7.09%
   QC value within limits for Pb 220.353  Recovery = 101.71%
S 181.975 Axial†         203.6      1029.8 µg/L         55.65      1029.8 ppb         55.65   5.40%
   QC value within limits for S 181.975 Axial  Recovery = 102.98%
Sb 206.836†              505.7      508.66 µg/L        43.899      508.66 ppb        43.899   8.63%
   QC value within limits for Sb 206.836  Recovery = 101.73%
Se 196.026†              373.6      530.00 µg/L        25.050      530.00 ppb        25.050   4.73%
   QC value within limits for Se 196.026  Recovery = 106.00%
SiO2†                  28624.6      5501.5 µg/L        210.20      5501.5 ppb        210.20   3.82%
   QC value within limits for SiO2  Recovery = 102.88%
Si 251.611†            33311.7      2521.2 µg/L         94.56      2521.2 ppb         94.56   3.75%
   QC value within limits for Si 251.611  Recovery = 100.85%
Sn 189.927†             1030.9      508.97 µg/L        47.890      508.97 ppb        47.890   9.41%
   QC value within limits for Sn 189.927  Recovery = 101.79%
Sr 421.552†            97069.6      517.81 µg/L         1.286      517.81 ppb         1.286   0.25%
   QC value within limits for Sr 421.552  Recovery = 103.56%
Ti 334.940†           232343.5      509.16 µg/L        14.133      509.16 ppb        14.133   2.78%
   QC value within limits for Ti 334.940  Recovery = 101.83%
Tl 190.801†              348.2      519.61 µg/L        29.873      519.61 ppb        29.873   5.75%
   QC value within limits for Tl 190.801  Recovery = 103.92%
U 409.014†              5247.3      504.08 µg/L        24.449      504.08 ppb        24.449   4.85%
   QC value within limits for U 409.014  Recovery = 100.82%
V 292.402†             45201.4      518.02 µg/L        25.914      518.02 ppb        25.914   5.00%
   QC value within limits for V 292.402  Recovery = 103.60%
Zn 213.857†            19459.0      519.24 µg/L        23.508      519.24 ppb        23.508   4.53%
   QC value within limits for Zn 213.857  Recovery = 103.85%
All analyte(s) passed QC.
```

Sequence No.: 21
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 12/19/2009 09:45:05
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Rep1#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	120111.1	120111.1	96.3	%			09:45:37
1	Al 396.153Radial†	217.4	18.4	8.9651	µg/L	8.9651	ppb	09:45:37
1	Ca 317.933Radial†	465.2	39.2	14.296	µg/L	14.296	ppb	09:45:57
1	Fe 238.204 Radial†	5.5	-2.6	-13.008	µg/L	-13.008	ppb	09:45:57
1	K 766.490 Radial†	828.0	27.8	14.834	µg/L	14.834	ppb	09:45:37
1	Mg 279.077 IEC†	20.6	5.7	30.399	µg/L	30.399	ppb	09:45:57
1	Na 589.592 Radial†	-650.4	69.7	18.075	µg/L	18.075	ppb	09:45:37
1	Sr 421.552†	-102.2	4.3	0.0232	µg/L	0.0232	ppb	09:45:37
1	Sc 361.383	2158639.9	2158639.9	98.997	%			09:46:59
1	Y 371.029	1314104.6	1314104.6	99.109	%			09:46:59
1	Ag 328.068†	240.7	162.4	1.4670	µg/L	1.4670	ppb	09:47:05
1	As 188.979†	1.3	0.2	0.4024	µg/L	0.4024	ppb	09:47:25
1	B 249.677†	166.0	1.5	0.0691	µg/L	0.0691	ppb	09:47:05
1	Ba 233.527†	-78.7	7.7	0.1938	µg/L	0.1938	ppb	09:47:25
1	Be 313.107†	3730.5	126.0	0.0771	µg/L	0.0771	ppb	09:47:05
1	Cd 226.502†	-106.4	2.4	0.0581	µg/L	0.0581	ppb	09:47:25
1	Co 228.616†	-63.0	12.0	0.5787	µg/L	0.5787	ppb	09:47:25
1	Cr 267.716†	-146.0	-11.8	-0.2491	µg/L	-0.2491	ppb	09:47:05
1	Cu 324.752†	3360.5	-8.9	-0.0646	µg/L	-0.0646	ppb	09:47:05
1	Mn 257.610†	-211.1	8.3	0.0243	µg/L	0.0243	ppb	09:47:25
1	Mo 202.031†	-1.6	-0.6	-0.0682	µg/L	-0.0682	ppb	09:47:25
1	Ni 231.604†	330.1	0.1	0.0031	µg/L	0.0031	ppb	09:47:25
1	P 214.914†	191.4	-18.6	-39.981	µg/L	-39.981	ppb	09:47:25
1	Pb 220.353†	42.7	-8.5	-2.1361	µg/L	-2.1361	ppb	09:47:25
1	S 181.975 Axial†	26.9	1.4	7.2016	µg/L	7.2016	ppb	09:47:25
1	Sb 206.836†	25.4	2.9	2.8997	µg/L	2.8997	ppb	09:47:25
1	Se 196.026†	11.7	-0.5	-0.7879	µg/L	-0.7879	ppb	09:47:25
1	SiO2†	2109.6	3.7	0.7101	µg/L	0.7101	ppb	09:47:05
1	Si 251.611†	409.4	34.5	2.5895	µg/L	2.5895	ppb	09:47:25
1	Sn 189.927†	25.8	3.9	1.9050	µg/L	1.9050	ppb	09:47:25
1	Ti 334.940†	815.7	-59.4	-0.1310	µg/L	-0.1310	ppb	09:47:05
1	Tl 190.801†	-19.0	4.4	6.4902	µg/L	6.4902	ppb	09:47:25
1	U 409.014†	841.1	-86.8	-8.3535	µg/L	-8.3535	ppb	09:47:05
1	V 292.402†	-131.9	-36.8	-0.4334	µg/L	-0.4334	ppb	09:47:05
1	Zn 213.857†	615.9	25.9	0.6973	µg/L	0.6973	ppb	09:47:25
2	Sc RADIAL	120350.3	120350.3	96.4	%			09:46:03
2	Al 396.153Radial†	181.3	-19.4	-9.4416	µg/L	-9.4416	ppb	09:46:03
2	Ca 317.933Radial†	451.1	23.6	8.6048	µg/L	8.6048	ppb	09:46:23
2	Fe 238.204 Radial†	9.6	1.7	8.6296	µg/L	8.6296	ppb	09:46:23
2	K 766.490 Radial†	848.8	47.5	25.390	µg/L	25.390	ppb	09:46:03
2	Mg 279.077 IEC†	16.6	1.5	8.0598	µg/L	8.0598	ppb	09:46:23
2	Na 589.592 Radial†	-675.1	45.5	11.784	µg/L	11.784	ppb	09:46:03
2	Sr 421.552†	-89.5	17.7	0.0945	µg/L	0.0945	ppb	09:46:03
2	Sc 361.383	2166599.2	2166599.2	99.362	%			09:47:31
2	Y 371.029	1318869.2	1318869.2	99.469	%			09:47:31
2	Ag 328.068†	242.4	163.2	1.4755	µg/L	1.4755	ppb	09:47:37
2	As 188.979†	2.1	1.1	2.0137	µg/L	2.0137	ppb	09:47:57
2	B 249.677†	147.3	-17.9	-0.7902	µg/L	-0.7902	ppb	09:47:37
2	Ba 233.527†	-72.8	14.0	0.3519	µg/L	0.3519	ppb	09:47:57
2	Be 313.107†	3792.8	174.9	0.1069	µg/L	0.1069	ppb	09:47:37
2	Cd 226.502†	-115.5	-6.3	-0.1733	µg/L	-0.1733	ppb	09:47:57
2	Co 228.616†	-75.1	0.2	0.0083	µg/L	0.0083	ppb	09:47:57
2	Cr 267.716†	-150.2	-15.6	-0.3279	µg/L	-0.3279	ppb	09:47:37
2	Cu 324.752†	3395.7	14.1	0.0996	µg/L	0.0996	ppb	09:47:37
2	Mn 257.610†	-213.0	7.1	0.0234	µg/L	0.0234	ppb	09:47:57
2	Mo 202.031†	-0.1	0.9	0.1039	µg/L	0.1039	ppb	09:47:57
2	Ni 231.604†	359.3	28.2	1.5258	µg/L	1.5258	ppb	09:47:57
2	P 214.914†	195.0	-15.6	-33.726	µg/L	-33.726	ppb	09:47:57
2	Pb 220.353†	40.1	-11.3	-2.8369	µg/L	-2.8369	ppb	09:47:57

2	S 181.975 Axial†	25.2	-0.4	-2.1066 µg/L	-2.1066 ppb	09:47:57
2	Sb 206.836†	21.2	-1.5	-1.4763 µg/L	-1.4763 ppb	09:47:57
2	Se 196.026†	12.9	0.5	0.7538 µg/L	0.7538 ppb	09:47:57
2	SiO2†	2132.8	19.2	3.6822 µg/L	3.6822 ppb	09:47:37
2	Si 251.611†	398.2	21.8	1.5570 µg/L	1.5570 ppb	09:47:57
2	Sn 189.927†	27.7	5.7	2.7966 µg/L	2.7966 ppb	09:47:57
2	Ti 334.940†	943.3	66.0	0.1442 µg/L	0.1442 ppb	09:47:37
2	Tl 190.801†	-19.2	4.3	6.3192 µg/L	6.3192 ppb	09:47:57
2	U 409.014†	784.7	-146.8	-14.125 µg/L	-14.125 ppb	09:47:37
2	V 292.402†	-132.7	-37.1	-0.4429 µg/L	-0.4429 ppb	09:47:37
2	Zn 213.857†	617.5	25.2	0.6681 µg/L	0.6681 ppb	09:47:57
3	Sc RADIAL	119496.9	119496.9	95.8 %		09:46:29
3	Al 396.153Radial†	224.1	26.7	12.961 µg/L	12.961 ppb	09:46:29
3	Ca 317.933Radial†	462.1	38.5	14.042 µg/L	14.042 ppb	09:46:49
3	Fe 238.204 Radial†	8.2	0.3	1.6728 µg/L	1.6728 ppb	09:46:49
3	K 766.490 Radial†	782.3	-15.6	-8.3107 µg/L	-8.3107 ppb	09:46:29
3	Mg 279.077 IEC†	13.8	-1.2	-6.4130 µg/L	-6.4130 ppb	09:46:49
3	Na 589.592 Radial†	-650.6	66.1	17.128 µg/L	17.128 ppb	09:46:29
3	Sr 421.552†	-77.3	29.8	0.1589 µg/L	0.1589 ppb	09:46:29
3	Sc 361.383	2172451.8	2172451.8	99.630 %		09:48:03
3	Y 371.029	1322892.1	1322892.1	99.772 %		09:48:03
3	Ag 328.068†	205.9	125.9	1.1343 µg/L	1.1343 ppb	09:48:09
3	As 188.979†	0.2	-0.8	-1.5818 µg/L	-1.5818 ppb	09:48:30
3	B 249.677†	149.6	-16.0	-0.7040 µg/L	-0.7040 ppb	09:48:09
3	Ba 233.527†	-74.0	12.9	0.3239 µg/L	0.3239 ppb	09:48:30
3	Be 313.107†	3778.2	150.0	0.0917 µg/L	0.0917 ppb	09:48:09
3	Cd 226.502†	-114.0	-4.5	-0.1269 µg/L	-0.1269 ppb	09:48:30
3	Co 228.616†	-81.8	-6.4	-0.3064 µg/L	-0.3064 ppb	09:48:30
3	Cr 267.716†	-107.4	27.9	0.5823 µg/L	0.5823 ppb	09:48:09
3	Cu 324.752†	3285.7	-105.6	-0.7331 µg/L	-0.7331 ppb	09:48:09
3	Mn 257.610†	-235.3	-14.7	-0.0457 µg/L	-0.0457 ppb	09:48:30
3	Mo 202.031†	0.7	1.8	0.2002 µg/L	0.2002 ppb	09:48:30
3	Ni 231.604†	340.3	8.2	0.4425 µg/L	0.4425 ppb	09:48:30
3	P 214.914†	193.4	-17.8	-38.279 µg/L	-38.279 ppb	09:48:30
3	Pb 220.353†	55.8	4.4	1.1386 µg/L	1.1386 ppb	09:48:30
3	S 181.975 Axial†	28.9	3.3	16.780 µg/L	16.780 ppb	09:48:30
3	Sb 206.836†	25.1	2.4	2.3993 µg/L	2.3993 ppb	09:48:30
3	Se 196.026†	15.7	3.4	4.8027 µg/L	4.8027 ppb	09:48:30
3	SiO2†	2134.8	15.4	2.9537 µg/L	2.9537 ppb	09:48:09
3	Si 251.611†	378.3	0.7	0.0544 µg/L	0.0544 ppb	09:48:30
3	Sn 189.927†	22.1	-0.0	-0.0133 µg/L	-0.0133 ppb	09:48:30
3	Ti 334.940†	924.9	44.9	0.0977 µg/L	0.0977 ppb	09:48:09
3	Tl 190.801†	-19.1	4.4	6.4877 µg/L	6.4877 ppb	09:48:30
3	U 409.014†	771.8	-161.9	-15.576 µg/L	-15.576 ppb	09:48:09
3	V 292.402†	-170.8	-75.0	-0.8755 µg/L	-0.8755 ppb	09:48:09
3	Zn 213.857†	618.8	24.8	0.6659 µg/L	0.6659 ppb	09:48:30

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2165897.0	99.330	%	0.3179				0.32%
Sc RADIAL	119986.1	96.2	%	0.35				0.37%
Y 371.029	1318622.0	99.450	%	0.3318				0.33%
Ag 328.068†	150.5	1.3589	µg/L	0.19457	1.3589	ppb	0.19457	14.32%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	8.6	4.1614	µg/L	11.94868	4.1614	ppb	11.94868	287.13%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	0.1	0.2781	µg/L	1.80095	0.2781	ppb	1.80095	647.58%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-10.8	-0.4750	µg/L	0.47318	-0.4750	ppb	0.47318	99.61%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	11.6	0.2899	µg/L	0.08436	0.2899	ppb	0.08436	29.10%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	150.3	0.0919	µg/L	0.01489	0.0919	ppb	0.01489	16.20%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	33.8	12.314	µg/L	3.2147	12.314	ppb	3.2147	26.11%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	-2.8	-0.0807	µg/L	0.12244	-0.0807	ppb	0.12244	151.72%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	1.9	0.0935	µg/L	0.44869	0.0935	ppb	0.44869	479.82%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                0.1      0.0018 µg/L       0.50431      0.0018 ppb        0.50431 >999.9%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -33.5     -0.2327 µg/L       0.44103     -0.2327 ppb        0.44103 189.52%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        -0.2     -0.9017 µg/L      11.04604     -0.9017 ppb       11.04604 >999.9%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         19.9      10.638 µg/L       17.2379      10.638 ppb        17.2379 162.04%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            2.0      10.682 µg/L       18.5456      10.682 ppb        18.5456 173.62%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                0.3      0.0007 µg/L       0.04015      0.0007 ppb        0.04015 >999.9%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                0.7      0.0786 µg/L       0.13593      0.0786 ppb        0.13593 172.88%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        60.4      15.662 µg/L        3.3919      15.662 ppb         3.3919  21.66%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               12.1      0.6571 µg/L       0.78373      0.6571 ppb        0.78373 119.27%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -17.3     -37.329 µg/L        3.2338     -37.329 ppb         3.2338   8.66%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               -5.1     -1.2782 µg/L       2.12208     -1.2782 ppb        2.12208 166.03%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           1.4      7.2915 µg/L       9.44340      7.2915 ppb        9.44340 129.51%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                1.3      1.2742 µg/L       2.39510      1.2742 ppb        2.39510 187.97%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                1.1      1.5895 µg/L       2.88747      1.5895 ppb        2.88747 181.66%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     12.7      2.4487 µg/L       1.54908      2.4487 ppb        1.54908  63.26%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               19.0      1.4003 µg/L       1.27480      1.4003 ppb        1.27480  91.04%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                3.2      1.5628 µg/L       1.43587      1.5628 ppb        1.43587  91.88%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               17.3      0.0922 µg/L       0.06789      0.0922 ppb        0.06789  73.62%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               17.2      0.0369 µg/L       0.14732      0.0369 ppb        0.14732 398.75%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                4.3      6.4323 µg/L       0.09802      6.4323 ppb        0.09802   1.52%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              -131.8     -12.685 µg/L        3.8204     -12.685 ppb         3.8204  30.12%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               -49.7     -0.5840 µg/L       0.25252     -0.5840 ppb        0.25252  43.24%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               25.3      0.6771 µg/L       0.01756      0.6771 ppb        0.01756   2.59%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 22
Sample ID: 1201995825|932935|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 152
Date Collected: 12/19/2009 09:48:38
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1201995825|932935|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	119453.9	119453.9	95.7	%			09:49:16
1	Al 396.153Radial†	193.8	-5.0	-2.4321	µg/L	-2.4321	ppb	09:49:16
1	Ca 317.933Radial†	470.5	47.4	17.303	µg/L	17.303	ppb	09:49:36
1	Fe 238.204 Radial†	14.9	7.3	36.493	µg/L	36.493	ppb	09:49:36
1	K 766.490 Radial†	757.9	-40.8	-21.781	µg/L	-21.781	ppb	09:49:16
1	Mg 279.077 IEC†	14.1	-0.9	-4.9309	µg/L	-4.9309	ppb	09:49:36
1	Na 589.592 Radial†	-636.8	80.2	20.787	µg/L	20.787	ppb	09:49:16
1	Sr 421.552†	-101.5	4.4	0.0236	µg/L	0.0236	ppb	09:49:16
1	Sc 361.383	2137439.7	2137439.7	98.025	%			09:50:38
1	Y 371.029	1300071.3	1300071.3	98.051	%			09:50:38
1	Ag 328.068†	182.9	105.9	0.9603	µg/L	0.9603	ppb	09:50:44
1	As 188.979†	5.2	4.2	7.9186	µg/L	7.9186	ppb	09:51:04
1	B 249.677†	175.6	13.0	0.5579	µg/L	0.5579	ppb	09:50:44
1	Ba 233.527†	-70.7	15.1	0.3798	µg/L	0.3798	ppb	09:51:04
1	Be 313.107†	3652.8	84.2	0.0514	µg/L	0.0514	ppb	09:50:44
1	Cd 226.502†	-105.6	2.2	0.0550	µg/L	0.0550	ppb	09:51:04
1	Co 228.616†	-83.4	-9.4	-0.4531	µg/L	-0.4531	ppb	09:51:04
1	Cr 267.716†	-121.8	11.4	0.2381	µg/L	0.2381	ppb	09:50:44
1	Cu 324.752†	3345.1	9.1	0.0710	µg/L	0.0710	ppb	09:50:44
1	Mn 257.610†	-143.0	75.7	0.2414	µg/L	0.2414	ppb	09:51:04
1	Mo 202.031†	-1.6	-0.6	-0.0622	µg/L	-0.0622	ppb	09:51:04
1	Ni 231.604†	340.3	13.8	0.7451	µg/L	0.7451	ppb	09:51:04
1	P 214.914†	199.0	-8.9	-19.328	µg/L	-19.328	ppb	09:51:04
1	Pb 220.353†	46.1	-4.6	-1.1616	µg/L	-1.1616	ppb	09:51:04
1	S 181.975 Axial†	29.8	4.7	23.694	µg/L	23.694	ppb	09:51:04
1	Sb 206.836†	22.6	0.3	0.3068	µg/L	0.3068	ppb	09:51:04
1	Se 196.026†	14.6	2.5	3.5674	µg/L	3.5674	ppb	09:51:04
1	SiO2†	2199.2	116.2	22.327	µg/L	22.327	ppb	09:50:44
1	Si 251.611†	484.7	115.5	8.9295	µg/L	8.9295	ppb	09:51:04
1	Sn 189.927†	20.5	-1.2	-0.6023	µg/L	-0.6023	ppb	09:51:04
1	Ti 334.940†	1002.8	139.7	0.3053	µg/L	0.3053	ppb	09:50:44
1	Tl 190.801†	-16.9	6.4	9.4381	µg/L	9.4381	ppb	09:51:04
1	U 409.014†	903.3	-15.0	-1.4461	µg/L	-1.4461	ppb	09:50:44
1	V 292.402†	-109.3	-15.1	-0.1710	µg/L	-0.1710	ppb	09:50:44
1	Zn 213.857†	677.1	94.5	2.5345	µg/L	2.5345	ppb	09:51:04
2	Sc RADIAL	120529.2	120529.2	96.6	%			09:49:41
2	Al 396.153Radial†	202.3	2.0	0.9864	µg/L	0.9864	ppb	09:49:41
2	Ca 317.933Radial†	469.1	41.6	15.162	µg/L	15.162	ppb	09:50:02
2	Fe 238.204 Radial†	12.6	4.8	24.097	µg/L	24.097	ppb	09:50:02
2	K 766.490 Radial†	853.2	50.9	27.172	µg/L	27.172	ppb	09:49:41
2	Mg 279.077 IEC†	13.8	-1.4	-7.3682	µg/L	-7.3682	ppb	09:50:02
2	Na 589.592 Radial†	-724.6	-4.7	-1.2202	µg/L	-1.2202	ppb	09:49:41
2	Sr 421.552†	-77.0	30.8	0.1641	µg/L	0.1641	ppb	09:49:41
2	Sc 361.383	2122032.5	2122032.5	97.318	%			09:51:10
2	Y 371.029	1290816.5	1290816.5	97.353	%			09:51:10
2	Ag 328.068†	160.8	84.5	0.7674	µg/L	0.7674	ppb	09:51:16
2	As 188.979†	2.9	1.9	3.5516	µg/L	3.5516	ppb	09:51:37
2	B 249.677†	140.8	-21.5	-0.9511	µg/L	-0.9511	ppb	09:51:16
2	Ba 233.527†	-73.2	12.0	0.3029	µg/L	0.3029	ppb	09:51:37
2	Be 313.107†	3676.2	135.2	0.0825	µg/L	0.0825	ppb	09:51:16
2	Cd 226.502†	-108.7	-1.8	-0.0538	µg/L	-0.0538	ppb	09:51:37
2	Co 228.616†	-78.5	-5.0	-0.2394	µg/L	-0.2394	ppb	09:51:37
2	Cr 267.716†	-114.2	18.2	0.3825	µg/L	0.3825	ppb	09:51:16
2	Cu 324.752†	3295.9	-16.7	-0.1108	µg/L	-0.1108	ppb	09:51:16
2	Mn 257.610†	-149.8	67.6	0.2146	µg/L	0.2146	ppb	09:51:37
2	Mo 202.031†	-1.4	-0.4	-0.0432	µg/L	-0.0432	ppb	09:51:37
2	Ni 231.604†	341.2	17.2	0.9325	µg/L	0.9325	ppb	09:51:37
2	P 214.914†	206.1	-0.2	-0.4314	µg/L	-0.4314	ppb	09:51:37
2	Pb 220.353†	43.2	-7.2	-1.8104	µg/L	-1.8104	ppb	09:51:37

2	S 181.975 Axial†	27.3	2.3	11.678 µg/L	11.678 ppb	09:51:37
2	Sb 206.836†	22.7	0.6	0.5999 µg/L	0.5999 ppb	09:51:37
2	Se 196.026†	18.1	6.1	8.7039 µg/L	8.7039 ppb	09:51:37
2	SiO2†	2191.1	124.2	23.869 µg/L	23.869 ppb	09:51:16
2	Si 251.611†	488.5	123.0	9.5279 µg/L	9.5279 ppb	09:51:37
2	Sn 189.927†	18.1	-3.6	-1.7394 µg/L	-1.7394 ppb	09:51:37
2	Ti 334.940†	1062.7	208.6	0.4565 µg/L	0.4565 ppb	09:51:16
2	Tl 190.801†	-19.1	3.9	5.7910 µg/L	5.7910 ppb	09:51:37
2	U 409.014†	829.9	-83.8	-8.0633 µg/L	-8.0633 ppb	09:51:16
2	V 292.402†	-91.5	2.4	0.0157 µg/L	0.0157 ppb	09:51:16
2	Zn 213.857†	659.6	81.5	2.1854 µg/L	2.1854 ppb	09:51:37
3	Sc RADIAL	118981.9	118981.9	95.3 %		09:50:08
3	Al 396.153Radial†	210.2	13.1	6.3999 µg/L	6.3999 ppb	09:50:08
3	Ca 317.933Radial†	472.1	51.1	18.623 µg/L	18.623 ppb	09:50:28
3	Fe 238.204 Radial†	11.6	4.0	19.873 µg/L	19.873 ppb	09:50:28
3	K 766.490 Radial†	816.2	23.5	12.553 µg/L	12.553 ppb	09:50:08
3	Mg 279.077 IEC†	19.2	4.5	23.888 µg/L	23.888 ppb	09:50:28
3	Na 589.592 Radial†	-622.9	92.2	23.900 µg/L	23.900 ppb	09:50:08
3	Sr 421.552†	-116.6	-11.8	-0.0630 µg/L	-0.0630 ppb	09:50:08
3	Sc 361.383	2129409.9	2129409.9	97.656 %		09:51:43
3	Y 371.029	1295027.0	1295027.0	97.670 %		09:51:43
3	Ag 328.068†	174.5	97.9	0.8849 µg/L	0.8849 ppb	09:51:48
3	As 188.979†	-0.1	-1.2	-2.2382 µg/L	-2.2382 ppb	09:52:09
3	B 249.677†	154.5	-8.0	-0.3597 µg/L	-0.3597 ppb	09:51:48
3	Ba 233.527†	-66.1	19.6	0.4911 µg/L	0.4911 ppb	09:52:09
3	Be 313.107†	3756.4	204.3	0.1248 µg/L	0.1248 ppb	09:51:48
3	Cd 226.502†	-119.8	-12.8	-0.3434 µg/L	-0.3434 ppb	09:52:09
3	Co 228.616†	-81.8	-8.0	-0.3898 µg/L	-0.3898 ppb	09:52:09
3	Cr 267.716†	-124.3	8.4	0.1746 µg/L	0.1746 ppb	09:51:48
3	Cu 324.752†	3376.8	54.4	0.3825 µg/L	0.3825 ppb	09:51:48
3	Mn 257.610†	-155.5	62.3	0.1974 µg/L	0.1974 ppb	09:52:09
3	Mo 202.031†	-11.2	-10.4	-1.1773 µg/L	-1.1773 ppb	09:52:09
3	Ni 231.604†	347.3	22.2	1.2031 µg/L	1.2031 ppb	09:52:09
3	P 214.914†	201.5	-5.5	-12.051 µg/L	-12.051 ppb	09:52:09
3	Pb 220.353†	46.2	-4.3	-1.0792 µg/L	-1.0792 ppb	09:52:09
3	S 181.975 Axial†	29.8	4.8	24.101 µg/L	24.101 ppb	09:52:09
3	Sb 206.836†	26.4	4.3	4.3164 µg/L	4.3164 ppb	09:52:09
3	Se 196.026†	17.9	5.9	8.3372 µg/L	8.3372 ppb	09:52:09
3	SiO2†	2165.1	89.8	17.254 µg/L	17.254 ppb	09:51:48
3	Si 251.611†	485.7	118.4	9.1751 µg/L	9.1751 ppb	09:52:09
3	Sn 189.927†	19.7	-2.0	-0.9556 µg/L	-0.9556 ppb	09:52:09
3	Ti 334.940†	999.6	140.3	0.3065 µg/L	0.3065 ppb	09:51:48
3	Tl 190.801†	-20.1	3.0	4.4046 µg/L	4.4046 ppb	09:52:09
3	U 409.014†	758.1	-160.2	-15.418 µg/L	-15.418 ppb	09:51:48
3	V 292.402†	-135.5	-42.3	-0.5119 µg/L	-0.5119 ppb	09:51:48
3	Zn 213.857†	664.7	84.4	2.2601 µg/L	2.2601 ppb	09:52:09

Mean Data: 1201995825|932935|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2129627.3	97.666	%	0.3534				0.36%
Sc RADIAL	119655.0	95.9	%	0.64				0.66%
Y 371.029	1295304.9	97.691	%	0.3495				0.36%
Ag 328.068†	96.1	0.8709	µg/L	0.09724	0.8709	ppb	0.09724	11.17%
Al 396.153Radial†	3.4	1.6514	µg/L	4.45341	1.6514	ppb	4.45341	269.68%
As 188.979†	1.6	3.0773	µg/L	5.09498	3.0773	ppb	5.09498	165.56%
B 249.677†	-5.5	-0.2510	µg/L	0.76037	-0.2510	ppb	0.76037	302.97%
Ba 233.527†	15.6	0.3912	µg/L	0.09461	0.3912	ppb	0.09461	24.18%
Be 313.107†	141.3	0.0862	µg/L	0.03686	0.0862	ppb	0.03686	42.73%
Ca 317.933Radial†	46.7	17.029	µg/L	1.7467	17.029	ppb	1.7467	10.26%
Cd 226.502†	-4.1	-0.1141	µg/L	0.20593	-0.1141	ppb	0.20593	180.56%
Co 228.616†	-7.5	-0.3608	µg/L	0.10973	-0.3608	ppb	0.10973	30.41%
Cr 267.716†	12.7	0.2650	µg/L	0.10653	0.2650	ppb	0.10653	40.19%
Cu 324.752†	15.6	0.1142	µg/L	0.24951	0.1142	ppb	0.24951	218.43%
Fe 238.204 Radial†	5.3	26.821	µg/L	8.6387	26.821	ppb	8.6387	32.21%
K 766.490 Radial†	11.2	5.9814	µg/L	25.12989	5.9814	ppb	25.12989	420.14%
Mg 279.077 IEC†	0.7	3.8631	µg/L	17.38519	3.8631	ppb	17.38519	450.04%
Mn 257.610†	68.5	0.2178	µg/L	0.02216	0.2178	ppb	0.02216	10.17%
Mo 202.031†	-3.8	-0.4276	µg/L	0.64938	-0.4276	ppb	0.64938	151.87%
Na 589.592 Radial†	55.9	14.489	µg/L	13.6932	14.489	ppb	13.6932	94.51%

Ni 231.604†	17.7	0.9602	µg/L	0.23029	0.9602	ppb	0.23029 23.98%
P 214.914†	-4.9	-10.603	µg/L	9.5309	-10.603	ppb	9.5309 89.89%
Pb 220.353†	-5.4	-1.3504	µg/L	0.40048	-1.3504	ppb	0.40048 29.66%
S 181.975 Axial†	3.9	19.824	µg/L	7.0579	19.824	ppb	7.0579 35.60%
Sb 206.836†	1.7	1.7411	µg/L	2.23516	1.7411	ppb	2.23516 128.38%
Se 196.026†	4.8	6.8695	µg/L	2.86557	6.8695	ppb	2.86557 41.71%
SiO2†	110.0	21.150	µg/L	3.4611	21.150	ppb	3.4611 16.36%
Si 251.611†	119.0	9.2108	µg/L	0.30079	9.2108	ppb	0.30079 3.27%
Sn 189.927†	-2.3	-1.0991	µg/L	0.58198	-1.0991	ppb	0.58198 52.95%
Sr 421.552†	7.8	0.0415	µg/L	0.11459	0.0415	ppb	0.11459 275.85%
Ti 334.940†	162.8	0.3561	µg/L	0.08697	0.3561	ppb	0.08697 24.42%
Tl 190.801†	4.4	6.5446	µg/L	2.59994	6.5446	ppb	2.59994 39.73%
U 409.014†	-86.3	-8.3092	µg/L	6.98922	-8.3092	ppb	6.98922 84.11%
V 292.402†	-18.3	-0.2224	µg/L	0.26752	-0.2224	ppb	0.26752 120.28%
Zn 213.857†	86.8	2.3267	µg/L	0.18382	2.3267	ppb	0.18382 7.90%

Sequence No.: 23
Sample ID: 1201995830|932935|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 153
Date Collected: 12/19/2009 09:52:17
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1201995830|932935|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	120777.2	120777.2	96.8	%			09:52:56
1	Al 396.153Radial†	183228.2	189101.1	91990	µg/L	91990	ppb	09:52:51
1	Ca 317.933Radial†	284915.2	293925.9	107220	µg/L	107220	ppb	09:52:51
1	Fe 238.204 Radial†	40111.2	41434.0	208430	µg/L	208430	ppb	09:52:56
1	K 766.490 Radial†	79672.5	81483.9	43522	µg/L	43522	ppb	09:52:51
1	Mg 279.077 IEC†	7570.6	7806.2	41283	µg/L	41283	ppb	09:52:56
1	Na 589.592 Radial†	40859.2	42960.6	11134	µg/L	11134	ppb	09:52:56
1	Sr 421.552†	450602.6	465666.1	2484.1	µg/L	2484.1	ppb	09:52:51
1	Sc 361.383	2138533.2	2138533.2	98.075	%			09:53:31
1	Y 371.029	1316464.7	1316464.7	99.287	%			09:53:31
1	Ag 328.068†	34307.7	34900.4	341.66	µg/L	341.66	ppb	09:53:37
1	As 188.979†	618.1	629.2	1153.3	µg/L	1153.3	ppb	09:53:58
1	B 249.677†	39007.0	39606.4	1673.5	µg/L	1673.5	ppb	09:53:37
1	Ba 233.527†	80174.6	81835.6	2062.2	µg/L	2062.2	ppb	09:53:37
1	Be 313.107†	1370309.8	1393565.3	849.92	µg/L	849.92	ppb	09:53:31
1	Cd 226.502†	25958.5	26577.9	676.75	µg/L	676.75	ppb	09:53:37
1	Co 228.616†	21410.9	21906.9	1041.5	µg/L	1041.5	ppb	09:53:37
1	Cr 267.716†	127047.8	129677.2	2723.3	µg/L	2723.3	ppb	09:53:37
1	Cu 324.752†	282705.7	284851.5	2023.7	µg/L	2023.7	ppb	09:53:37
1	Mn 257.610†	1802108.3	1837703.2	5778.1	µg/L	5778.1	ppb	09:53:31
1	Mo 202.031†	5085.0	5185.9	597.42	µg/L	597.42	ppb	09:53:58
1	Ni 231.604†	28110.0	28328.4	1533.4	µg/L	1533.4	ppb	09:53:37
1	P 214.914†	4250.0	4121.5	8466.3	µg/L	8466.3	ppb	09:53:58
1	Pb 220.353†	3607.2	3626.4	922.31	µg/L	922.31	ppb	09:53:58
1	S 181.975 Axial†	882.5	874.1	4391.3	µg/L	4391.3	ppb	09:53:58
1	Sb 206.836†	1888.3	1902.6	1917.9	µg/L	1917.9	ppb	09:53:58
1	Se 196.026†	2218.2	2249.4	3321.5	µg/L	3321.5	ppb	09:53:58
1	SiO2†	158174.7	159152.2	30588	µg/L	30588	ppb	09:53:37
1	Si 251.611†	181074.7	184250.0	13929	µg/L	13929	ppb	09:53:37
1	Sn 189.927†	2201.0	2222.0	1147.3	µg/L	1147.3	ppb	09:53:58
1	Ti 334.940†	2673719.7	2725318.6	5969.6	µg/L	5969.6	ppb	09:53:31
1	Tl 190.801†	857.7	898.1	1380.4	µg/L	1380.4	ppb	09:53:58
1	U 409.014†	192.6	-740.1	-107.59	µg/L	-107.59	ppb	09:53:37
1	V 292.402†	115259.5	117618.3	1356.7	µg/L	1356.7	ppb	09:53:37
1	Zn 213.857†	238160.3	242238.9	6480.9	µg/L	6480.9	ppb	09:53:37
2	Sc RADIAL	119657.7	119657.7	95.9	%			09:53:07
2	Al 396.153Radial†	184519.4	192218.7	93507	µg/L	93507	ppb	09:53:02
2	Ca 317.933Radial†	287299.6	299166.4	109130	µg/L	109130	ppb	09:53:02
2	Fe 238.204 Radial†	39942.8	41646.1	209500	µg/L	209500	ppb	09:53:07
2	K 766.490 Radial†	80192.2	82796.0	44223	µg/L	44223	ppb	09:53:02
2	Mg 279.077 IEC†	7546.7	7854.5	41539	µg/L	41539	ppb	09:53:07
2	Na 589.592 Radial†	40777.2	43270.0	11214	µg/L	11214	ppb	09:53:07
2	Sr 421.552†	454484.1	474069.4	2528.9	µg/L	2528.9	ppb	09:53:02
2	Sc 361.383	2121153.5	2121153.5	97.278	%			09:54:05
2	Y 371.029	1306408.1	1306408.1	98.529	%			09:54:05
2	Ag 328.068†	34330.1	35210.0	344.60	µg/L	344.60	ppb	09:54:11
2	As 188.979†	633.7	650.4	1193.4	µg/L	1193.4	ppb	09:54:31
2	B 249.677†	38861.3	39782.6	1680.9	µg/L	1680.9	ppb	09:54:11
2	Ba 233.527†	80099.7	82428.4	2077.1	µg/L	2077.1	ppb	09:54:11
2	Be 313.107†	1404635.7	1440299.8	878.42	µg/L	878.42	ppb	09:54:05
2	Cd 226.502†	25926.0	26761.4	681.44	µg/L	681.44	ppb	09:54:11
2	Co 228.616†	21353.7	22027.0	1046.9	µg/L	1046.9	ppb	09:54:11
2	Cr 267.716†	126841.0	130526.0	2741.1	µg/L	2741.1	ppb	09:54:11
2	Cu 324.752†	281766.4	286247.7	2033.7	µg/L	2033.7	ppb	09:54:11
2	Mn 257.610†	1844318.3	1896149.9	5961.2	µg/L	5961.2	ppb	09:54:05
2	Mo 202.031†	5061.1	5203.8	599.50	µg/L	599.50	ppb	09:54:31
2	Ni 231.604†	28040.9	28492.2	1542.3	µg/L	1542.3	ppb	09:54:11
2	P 214.914†	4230.3	4136.8	8497.4	µg/L	8497.4	ppb	09:54:31
2	Pb 220.353†	3602.0	3651.2	928.69	µg/L	928.69	ppb	09:54:31

2	S 181.975 Axial†	877.0	875.8	4399.9 µg/L	4399.9 ppb	09:54:31
2	Sb 206.836†	1877.9	1907.7	1923.5 µg/L	1923.5 ppb	09:54:31
2	Se 196.026†	2216.2	2265.8	3345.6 µg/L	3345.6 ppb	09:54:31
2	SiO2†	157803.5	160092.0	30769 µg/L	30769 ppb	09:54:11
2	Si 251.611†	180701.8	185379.5	14008 µg/L	14008 ppb	09:54:11
2	Sn 189.927†	2186.8	2225.8	1149.8 µg/L	1149.8 ppb	09:54:31
2	Ti 334.940†	2735307.4	2810966.9	6157.3 µg/L	6157.3 ppb	09:54:05
2	Tl 190.801†	852.9	900.4	1385.5 µg/L	1385.5 ppb	09:54:31
2	U 409.014†	143.9	-788.6	-112.40 µg/L	-112.40 ppb	09:54:11
2	V 292.402†	114952.6	118265.7	1364.1 µg/L	1364.1 ppb	09:54:11
2	Zn 213.857†	237757.4	243814.4	6523.1 µg/L	6523.1 ppb	09:54:11
3	Sc RADIAL	120222.5	120222.5	96.3 %		09:53:19
3	Al 396.153Radial†	184917.1	191727.6	93268 µg/L	93268 ppb	09:53:13
3	Ca 317.933Radial†	287337.2	297798.0	108630 µg/L	108630 ppb	09:53:13
3	Fe 238.204 Radial†	40175.6	41692.1	209730 µg/L	209730 ppb	09:53:19
3	K 766.490 Radial†	80245.6	82458.5	44043 µg/L	44043 ppb	09:53:13
3	Mg 279.077 IEC†	7560.5	7831.8	41418 µg/L	41418 ppb	09:53:19
3	Na 589.592 Radial†	40940.8	43240.1	11206 µg/L	11206 ppb	09:53:19
3	Sr 421.552†	454643.0	472007.9	2517.9 µg/L	2517.9 ppb	09:53:13
3	Sc 361.383	2124425.7	2124425.7	97.428 %		09:54:38
3	Y 371.029	1309337.8	1309337.8	98.750 %		09:54:38
3	Ag 328.068†	34226.8	35049.7	343.13 µg/L	343.13 ppb	09:54:44
3	As 188.979†	626.6	642.1	1177.6 µg/L	1177.6 ppb	09:55:05
3	B 249.677†	38802.5	39660.7	1675.5 µg/L	1675.5 ppb	09:54:44
3	Ba 233.527†	79781.8	81975.3	2065.7 µg/L	2065.7 ppb	09:54:44
3	Be 313.107†	1405250.4	1438706.7	877.45 µg/L	877.45 ppb	09:54:38
3	Cd 226.502†	25834.0	26625.9	677.89 µg/L	677.89 ppb	09:54:44
3	Co 228.616†	21309.0	21947.3	1043.1 µg/L	1043.1 ppb	09:54:44
3	Cr 267.716†	126400.6	129873.2	2727.4 µg/L	2727.4 ppb	09:54:44
3	Cu 324.752†	281552.6	285582.2	2029.1 µg/L	2029.1 ppb	09:54:44
3	Mn 257.610†	1844264.0	1893174.0	5951.9 µg/L	5951.9 ppb	09:54:38
3	Mo 202.031†	5043.0	5177.2	596.48 µg/L	596.48 ppb	09:55:05
3	Ni 231.604†	27997.1	28402.8	1537.4 µg/L	1537.4 ppb	09:54:44
3	P 214.914†	4213.3	4112.7	8445.3 µg/L	8445.3 ppb	09:55:05
3	Pb 220.353†	3585.5	3628.6	922.95 µg/L	922.95 ppb	09:55:05
3	S 181.975 Axial†	872.8	870.1	4371.0 µg/L	4371.0 ppb	09:55:05
3	Sb 206.836†	1866.3	1892.8	1908.6 µg/L	1908.6 ppb	09:55:05
3	Se 196.026†	2196.9	2242.5	3312.8 µg/L	3312.8 ppb	09:55:05
3	SiO2†	157235.6	159259.3	30609 µg/L	30609 ppb	09:54:44
3	Si 251.611†	179975.2	184347.6	13930 µg/L	13930 ppb	09:54:44
3	Sn 189.927†	2176.9	2212.2	1143.0 µg/L	1143.0 ppb	09:55:05
3	Ti 334.940†	2732817.3	2804080.1	6142.3 µg/L	6142.3 ppb	09:54:38
3	Tl 190.801†	855.9	902.1	1388.0 µg/L	1388.0 ppb	09:55:05
3	U 409.014†	148.1	-784.5	-112.07 µg/L	-112.07 ppb	09:54:44
3	V 292.402†	114700.9	117825.4	1359.1 µg/L	1359.1 ppb	09:54:44
3	Zn 213.857†	237283.9	242951.9	6499.9 µg/L	6499.9 ppb	09:54:44

Mean Data: 1201995830|932935|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2128037.5	97.594	%	0.4236				0.43%
Sc RADIAL	120219.1	96.3	%	0.45				0.47%
Y 371.029	1310736.9	98.855	%	0.3901				0.39%
Ag 328.068†	35053.4	343.13	µg/L	1.469	343.13	ppb	1.469	0.43%
Al 396.153Radial†	191015.8	92922	µg/L	815.6	92922	ppb	815.6	0.88%
As 188.979†	640.6	1174.8	µg/L	20.19	1174.8	ppb	20.19	1.72%
B 249.677†	39683.2	1676.6	µg/L	3.83	1676.6	ppb	3.83	0.23%
Ba 233.527†	82079.8	2068.4	µg/L	7.81	2068.4	ppb	7.81	0.38%
Be 313.107†	1424190.6	868.60	µg/L	16.186	868.60	ppb	16.186	1.86%
Ca 317.933Radial†	296963.4	108330	µg/L	991.5	108330	ppb	991.5	0.92%
Cd 226.502†	26655.1	678.69	µg/L	2.448	678.69	ppb	2.448	0.36%
Co 228.616†	21960.4	1043.8	µg/L	2.77	1043.8	ppb	2.77	0.27%
Cr 267.716†	130025.5	2730.6	µg/L	9.33	2730.6	ppb	9.33	0.34%
Cu 324.752†	285560.5	2028.8	µg/L	4.97	2028.8	ppb	4.97	0.24%
Fe 238.204 Radial†	41590.7	209220	µg/L	692.4	209220	ppb	692.4	0.33%
K 766.490 Radial†	82246.1	43929	µg/L	363.9	43929	ppb	363.9	0.83%
Mg 279.077 IEC†	7830.8	41413	µg/L	127.8	41413	ppb	127.8	0.31%
Mn 257.610†	1875675.7	5897.1	µg/L	103.12	5897.1	ppb	103.12	1.75%
Mo 202.031†	5189.0	597.80	µg/L	1.543	597.80	ppb	1.543	0.26%
Na 589.592 Radial†	43156.9	11185	µg/L	44.2	11185	ppb	44.2	0.40%

Ni 231.604†	28407.8	1537.7	µg/L	4.44	1537.7	ppb	4.44	0.29%
P 214.914†	4123.7	8469.7	µg/L	26.17	8469.7	ppb	26.17	0.31%
Pb 220.353†	3635.4	924.65	µg/L	3.512	924.65	ppb	3.512	0.38%
S 181.975 Axial†	873.3	4387.4	µg/L	14.85	4387.4	ppb	14.85	0.34%
Sb 206.836†	1901.0	1916.7	µg/L	7.53	1916.7	ppb	7.53	0.39%
Se 196.026†	2252.5	3326.7	µg/L	16.98	3326.7	ppb	16.98	0.51%
SiO2†	159501.2	30655	µg/L	98.9	30655	ppb	98.9	0.32%
Si 251.611†	184659.0	13956	µg/L	45.8	13956	ppb	45.8	0.33%
Sn 189.927†	2220.0	1146.7	µg/L	3.43	1146.7	ppb	3.43	0.30%
Sr 421.552†	470581.1	2510.3	µg/L	23.36	2510.3	ppb	23.36	0.93%
Ti 334.940†	2780121.8	6089.7	µg/L	104.28	6089.7	ppb	104.28	1.71%
Tl 190.801†	900.2	1384.6	µg/L	3.87	1384.6	ppb	3.87	0.28%
U 409.014†	-771.1	-110.69	µg/L	2.691	-110.69	ppb	2.691	2.43%
V 292.402†	117903.1	1360.0	µg/L	3.80	1360.0	ppb	3.80	0.28%
Zn 213.857†	243001.7	6501.3	µg/L	21.13	6501.3	ppb	21.13	0.33%

Sequence No.: 24
Sample ID: 242794001|932935|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 154
Date Collected: 12/19/2009 09:55:13
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 242794001|932935|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	119643.4	119643.4	95.9	%			09:55:46
1	Al 396.153Radial†	9193.3	9381.0	4564.1	µg/L	4564.1	ppb	09:55:46
1	Ca 317.933Radial†	8614.5	8540.6	3115.5	µg/L	3115.5	ppb	09:56:06
1	Fe 238.204 Radial†	12380.0	12903.7	64902	µg/L	64902	ppb	09:56:06
1	K 766.490 Radial†	3462.5	2778.9	1484.2	µg/L	1484.2	ppb	09:55:46
1	Mg 279.077 IEC†	498.1	503.9	2588.4	µg/L	2588.4	ppb	09:56:06
1	Na 589.592 Radial†	1929.3	2757.7	714.68	µg/L	714.68	ppb	09:55:46
1	Sr 421.552†	2348.7	2560.1	13.657	µg/L	13.657	ppb	09:55:46
1	Sc 361.383	2146764.2	2146764.2	98.452	%			09:57:10
1	Y 371.029	1387811.8	1387811.8	104.67	%			09:57:10
1	Ag 328.068†	-379.4	-466.1	1.0173	µg/L	1.0173	ppb	09:57:16
1	As 188.979†	5.5	4.5	5.4660	µg/L	5.4660	ppb	09:57:36
1	B 249.677†	792.2	638.4	7.6218	µg/L	7.6218	ppb	09:57:16
1	Ba 233.527†	5627.7	5803.4	146.08	µg/L	146.08	ppb	09:57:16
1	Be 313.107†	8609.8	5102.9	2.1740	µg/L	2.1740	ppb	09:57:16
1	Cd 226.502†	110.7	222.4	0.7223	µg/L	0.7223	ppb	09:57:16
1	Co 228.616†	112.3	189.8	3.8087	µg/L	3.8087	ppb	09:57:36
1	Cr 267.716†	161.8	299.9	6.3314	µg/L	6.3314	ppb	09:57:16
1	Cu 324.752†	3159.4	-194.3	12.591	µg/L	12.591	ppb	09:57:16
1	Mn 257.610†	551723.5	560617.8	1762.9	µg/L	1762.9	ppb	09:57:10
1	Mo 202.031†	104.5	107.2	14.728	µg/L	14.728	ppb	09:57:36
1	Ni 231.604†	485.0	159.2	8.6156	µg/L	8.6156	ppb	09:57:36
1	P 214.914†	433.1	228.0	417.40	µg/L	417.40	ppb	09:57:36
1	Pb 220.353†	236.5	188.7	47.422	µg/L	47.422	ppb	09:57:36
1	S 181.975 Axial†	30.7	5.4	17.451	µg/L	17.451	ppb	09:57:36
1	Sb 206.836†	22.6	0.2	9.3528	µg/L	9.3528	ppb	09:57:36
1	Se 196.026†	-21.5	-34.2	-3.4999	µg/L	-3.4999	ppb	09:57:36
1	SiO2†	54510.3	53239.9	10232	µg/L	10232	ppb	09:57:16
1	Si 251.611†	61040.2	61620.7	4660.7	µg/L	4660.7	ppb	09:57:16
1	Sn 189.927†	-1.4	-23.6	-2.7600	µg/L	-2.7600	ppb	09:57:36
1	Ti 334.940†	1148509.7	1165680.4	2555.8	µg/L	2555.8	ppb	09:57:10
1	Tl 190.801†	-37.5	-14.5	3.4414	µg/L	3.4414	ppb	09:57:36
1	U 409.014†	320.1	-611.4	-70.874	µg/L	-70.874	ppb	09:57:10
1	V 292.402†	1390.6	1508.9	22.420	µg/L	22.420	ppb	09:57:16
1	Zn 213.857†	13514.2	13130.4	346.12	µg/L	346.12	ppb	09:57:16
2	Sc RADIAL	119774.8	119774.8	96.0	%			09:56:12
2	Al 396.153Radial†	9224.3	9402.8	4574.7	µg/L	4574.7	ppb	09:56:12
2	Ca 317.933Radial†	8581.1	8496.0	3099.2	µg/L	3099.2	ppb	09:56:32
2	Fe 238.204 Radial†	12337.1	12844.9	64606	µg/L	64606	ppb	09:56:32
2	K 766.490 Radial†	3472.2	2784.9	1487.5	µg/L	1487.5	ppb	09:56:12
2	Mg 279.077 IEC†	504.0	509.4	2618.2	µg/L	2618.2	ppb	09:56:32
2	Na 589.592 Radial†	1861.8	2685.1	695.88	µg/L	695.88	ppb	09:56:12
2	Sr 421.552†	2307.3	2514.3	13.412	µg/L	13.412	ppb	09:56:12
2	Sc 361.383	2158832.1	2158832.1	99.006	%			09:57:44
2	Y 371.029	1396516.5	1396516.5	105.32	%			09:57:44
2	Ag 328.068†	-400.6	-485.4	0.8150	µg/L	0.8150	ppb	09:57:49
2	As 188.979†	8.1	7.1	10.419	µg/L	10.419	ppb	09:58:10
2	B 249.677†	788.0	629.7	7.3346	µg/L	7.3346	ppb	09:57:49
2	Ba 233.527†	5545.0	5687.9	143.17	µg/L	143.17	ppb	09:57:49
2	Be 313.107†	8633.5	5078.0	2.1547	µg/L	2.1547	ppb	09:57:49
2	Cd 226.502†	135.0	246.3	1.3613	µg/L	1.3613	ppb	09:57:49
2	Co 228.616†	105.3	182.0	3.4154	µg/L	3.4154	ppb	09:58:10
2	Cr 267.716†	144.7	281.7	5.9484	µg/L	5.9484	ppb	09:57:49
2	Cu 324.752†	3134.0	-237.9	12.224	µg/L	12.224	ppb	09:57:49
2	Mn 257.610†	557022.1	562837.1	1769.8	µg/L	1769.8	ppb	09:57:44
2	Mo 202.031†	111.3	113.5	15.434	µg/L	15.434	ppb	09:58:10
2	Ni 231.604†	475.1	146.5	7.9275	µg/L	7.9275	ppb	09:58:10
2	P 214.914†	433.3	225.7	412.84	µg/L	412.84	ppb	09:58:10
2	Pb 220.353†	245.9	196.8	49.497	µg/L	49.497	ppb	09:58:10

2	S 181.975 Axial†	32.6	7.2	26.280 µg/L	26.280 ppb		09:58:10
2	Sb 206.836†	22.4	-0.1	9.0980 µg/L	9.0980 ppb		09:58:10
2	Se 196.026†	-13.1	-25.6	8.4334 µg/L	8.4334 ppb		09:58:10
2	SiO2†	53700.0	52111.9	10016 µg/L	10016 ppb		09:57:49
2	Si 251.611†	60210.3	60435.9	4568.7 µg/L	4568.7 ppb		09:57:49
2	Sn 189.927†	9.2	-12.8	2.4938 µg/L	2.4938 ppb		09:58:10
2	Ti 334.940†	1159837.8	1170601.1	2566.5 µg/L	2566.5 ppb		09:57:44
2	Tl 190.801†	-35.4	-12.2	6.9454 µg/L	6.9454 ppb		09:58:10
2	U 409.014†	246.2	-687.8	-78.174 µg/L	-78.174 ppb		09:57:44
2	V 292.402†	1350.1	1460.1	21.834 µg/L	21.834 ppb		09:57:49
2	Zn 213.857†	13161.8	12697.7	334.52 µg/L	334.52 ppb		09:57:49
3	Sc RADIAL	119519.5	119519.5	95.8 %			09:56:37
3	Al 396.153Radial†	9181.9	9379.0	4563.2 µg/L	4563.2 ppb		09:56:37
3	Ca 317.933Radial†	8593.2	8527.7	3110.8 µg/L	3110.8 ppb		09:56:58
3	Fe 238.204 Radial†	12365.0	12901.5	64890 µg/L	64890 ppb		09:56:58
3	K 766.490 Radial†	3478.7	2799.5	1495.3 µg/L	1495.3 ppb		09:56:37
3	Mg 279.077 IEC†	500.9	507.3	2606.4 µg/L	2606.4 ppb		09:56:58
3	Na 589.592 Radial†	1895.4	2724.4	706.06 µg/L	706.06 ppb		09:56:37
3	Sr 421.552†	2296.4	2508.1	13.379 µg/L	13.379 ppb		09:56:37
3	Sc 361.383	2139235.2	2139235.2	98.107 %			09:58:17
3	Y 371.029	1382929.7	1382929.7	104.30 %			09:58:17
3	Ag 328.068†	-356.7	-444.4	1.2071 µg/L	1.2071 ppb		09:58:23
3	As 188.979†	1.9	0.9	-1.3323 µg/L	-1.3323 ppb		09:58:43
3	B 249.677†	781.6	630.5	7.2769 µg/L	7.2769 ppb		09:58:23
3	Ba 233.527†	5457.4	5649.9	142.22 µg/L	142.22 ppb		09:58:23
3	Be 313.107†	8620.8	5144.9	2.2122 µg/L	2.2122 ppb		09:58:23
3	Cd 226.502†	138.8	251.4	1.4798 µg/L	1.4798 ppb		09:58:23
3	Co 228.616†	96.9	174.5	3.1437 µg/L	3.1437 ppb		09:58:43
3	Cr 267.716†	116.4	254.2	5.3713 µg/L	5.3713 ppb		09:58:23
3	Cu 324.752†	3199.6	-142.1	12.951 µg/L	12.951 ppb		09:58:23
3	Mn 257.610†	544036.3	554754.7	1744.5 µg/L	1744.5 ppb		09:58:17
3	Mo 202.031†	96.9	99.8	13.891 µg/L	13.891 ppb		09:58:43
3	Ni 231.604†	473.2	148.9	8.0583 µg/L	8.0583 ppb		09:58:43
3	P 214.914†	422.1	218.3	396.46 µg/L	396.46 ppb		09:58:43
3	Pb 220.353†	230.9	183.8	46.178 µg/L	46.178 ppb		09:58:43
3	S 181.975 Axial†	34.5	9.4	37.761 µg/L	37.761 ppb		09:58:43
3	Sb 206.836†	18.1	-4.3	4.7096 µg/L	4.7096 ppb		09:58:43
3	Se 196.026†	-14.4	-27.1	6.5626 µg/L	6.5626 ppb		09:58:43
3	SiO2†	53535.7	52441.3	10079 µg/L	10079 ppb		09:58:23
3	Si 251.611†	59874.2	60650.5	4587.0 µg/L	4587.0 ppb		09:58:23
3	Sn 189.927†	6.7	-15.3	1.3141 µg/L	1.3141 ppb		09:58:43
3	Ti 334.940†	1129305.6	1150211.4	2521.8 µg/L	2521.8 ppb		09:58:17
3	Tl 190.801†	-38.5	-15.7	1.3759 µg/L	1.3759 ppb		09:58:43
3	U 409.014†	345.6	-584.3	-68.264 µg/L	-68.264 ppb		09:58:17
3	V 292.402†	1311.2	1432.9	21.553 µg/L	21.553 ppb		09:58:23
3	Zn 213.857†	13139.2	12796.5	337.14 µg/L	337.14 ppb		09:58:23

Mean Data: 242794001|932935|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2148277.1	98.522	%	0.4534				0.46%
Sc RADIAL	119645.9	95.9	%	0.10				0.11%
Y 371.029	1389086.0	104.76	%	0.519				0.50%
Ag 328.068†	-465.3	1.0131	µg/L	0.19607	1.0131	ppb	0.19607	19.35%
Al 396.153Radial†	9387.6	4567.3	µg/L	6.40	4567.3	ppb	6.40	0.14%
As 188.979†	4.2	4.8511	µg/L	5.89996	4.8511	ppb	5.89996	121.62%
B 249.677†	632.9	7.4111	µg/L	0.18473	7.4111	ppb	0.18473	2.49%
Ba 233.527†	5713.8	143.82	µg/L	2.012	143.82	ppb	2.012	1.40%
Be 313.107†	5108.6	2.1803	µg/L	0.02925	2.1803	ppb	0.02925	1.34%
Ca 317.933Radial†	8521.4	3108.5	µg/L	8.39	3108.5	ppb	8.39	0.27%
Cd 226.502†	240.0	1.1878	µg/L	0.40747	1.1878	ppb	0.40747	34.31%
Co 228.616†	182.1	3.4559	µg/L	0.33437	3.4559	ppb	0.33437	9.68%
Cr 267.716†	278.6	5.8837	µg/L	0.48333	5.8837	ppb	0.48333	8.21%
Cu 324.752†	-191.4	12.589	µg/L	0.3637	12.589	ppb	0.3637	2.89%
Fe 238.204 Radial†	12883.4	64799	µg/L	167.7	64799	ppb	167.7	0.26%
K 766.490 Radial†	2787.8	1489.0	µg/L	5.67	1489.0	ppb	5.67	0.38%
Mg 279.077 IEC†	506.9	2604.3	µg/L	15.02	2604.3	ppb	15.02	0.58%
Mn 257.610†	559403.2	1759.1	µg/L	13.06	1759.1	ppb	13.06	0.74%
Mo 202.031†	106.8	14.684	µg/L	0.7720	14.684	ppb	0.7720	5.26%
Na 589.592 Radial†	2722.4	705.54	µg/L	9.407	705.54	ppb	9.407	1.33%

Ni 231.604†	151.5	8.2005	µg/L	0.36541	8.2005	ppb	0.36541	4.46%
P 214.914†	224.0	408.90	µg/L	11.010	408.90	ppb	11.010	2.69%
Pb 220.353†	189.7	47.699	µg/L	1.6766	47.699	ppb	1.6766	3.51%
S 181.975 Axial†	7.3	27.164	µg/L	10.1837	27.164	ppb	10.1837	37.49%
Sb 206.836†	-1.4	7.7201	µg/L	2.61031	7.7201	ppb	2.61031	33.81%
Se 196.026†	-28.9	3.8321	µg/L	6.41815	3.8321	ppb	6.41815	167.49%
SiO2†	52597.7	10109	µg/L	111.5	10109	ppb	111.5	1.10%
Si 251.611†	60902.4	4605.5	µg/L	48.71	4605.5	ppb	48.71	1.06%
Sn 189.927†	-17.3	0.3493	µg/L	2.75655	0.3493	ppb	2.75655	789.15%
Sr 421.552†	2527.5	13.483	µg/L	0.1517	13.483	ppb	0.1517	1.12%
Ti 334.940†	1162164.3	2548.0	µg/L	23.33	2548.0	ppb	23.33	0.92%
Tl 190.801†	-14.1	3.9209	µg/L	2.81554	3.9209	ppb	2.81554	71.81%
U 409.014†	-627.8	-72.437	µg/L	5.1367	-72.437	ppb	5.1367	7.09%
V 292.402†	1467.3	21.936	µg/L	0.4419	21.936	ppb	0.4419	2.01%
Zn 213.857†	12874.9	339.26	µg/L	6.084	339.26	ppb	6.084	1.79%

Sequence No.: 25
Sample ID: 1201995826|932935|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 155
Date Collected: 12/19/2009 09:58:53
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1201995826|932935|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	121005.7	121005.7	97.0	%			09:59:25
1	Al 396.153Radial†	6378.7	6370.5	3099.3	µg/L	3099.3	ppb	09:59:25
1	Ca 317.933Radial†	8400.0	8218.2	2997.9	µg/L	2997.9	ppb	09:59:46
1	Fe 238.204 Radial†	12248.3	12622.6	63488	µg/L	63488	ppb	09:59:46
1	K 766.490 Radial†	2583.7	1831.9	978.48	µg/L	978.48	ppb	09:59:25
1	Mg 279.077 IEC†	363.7	359.4	1820.9	µg/L	1820.9	ppb	09:59:46
1	Na 589.592 Radial†	1747.4	2547.4	660.20	µg/L	660.20	ppb	09:59:25
1	Sr 421.552†	2049.4	2223.9	11.863	µg/L	11.863	ppb	09:59:25
1	Sc 361.383	2161957.9	2161957.9	99.149	%			10:00:50
1	Y 371.029	1403949.8	1403949.8	105.89	%			10:00:50
1	Ag 328.068†	-377.6	-461.6	0.9206	µg/L	0.9206	ppb	10:00:55
1	As 188.979†	1.6	0.6	-1.4901	µg/L	-1.4901	ppb	10:01:16
1	B 249.677†	747.8	588.0	5.8517	µg/L	5.8517	ppb	10:00:55
1	Ba 233.527†	5333.8	5466.8	137.60	µg/L	137.60	ppb	10:00:55
1	Be 313.107†	8814.3	5247.7	2.2388	µg/L	2.2388	ppb	10:00:55
1	Cd 226.502†	134.3	245.3	1.4298	µg/L	1.4298	ppb	10:00:55
1	Co 228.616†	109.8	186.5	3.5130	µg/L	3.5130	ppb	10:01:16
1	Cr 267.716†	9.0	144.7	3.0663	µg/L	3.0663	ppb	10:00:55
1	Cu 324.752†	2977.1	-400.8	10.853	µg/L	10.853	ppb	10:00:55
1	Mn 257.610†	624450.4	630030.6	1979.9	µg/L	1979.9	ppb	10:00:50
1	Mo 202.031†	96.5	98.4	13.678	µg/L	13.678	ppb	10:01:16
1	Ni 231.604†	507.6	178.5	9.6624	µg/L	9.6624	ppb	10:01:16
1	P 214.914†	490.8	283.1	537.70	µg/L	537.70	ppb	10:01:16
1	Pb 220.353†	198.5	148.6	37.184	µg/L	37.184	ppb	10:01:16
1	S 181.975 Axial†	33.3	7.9	30.114	µg/L	30.114	ppb	10:01:16
1	Sb 206.836†	20.5	-2.1	7.3695	µg/L	7.3695	ppb	10:01:16
1	Se 196.026†	-18.6	-31.2	0.0502	µg/L	0.0502	ppb	10:01:16
1	SiO2†	49591.3	47889.6	9204.2	µg/L	9204.2	ppb	10:00:55
1	Si 251.611†	55338.4	55434.3	4181.4	µg/L	4181.4	ppb	10:00:55
1	Sn 189.927†	1.2	-21.0	-1.8154	µg/L	-1.8154	ppb	10:01:16
1	Ti 334.940†	1185610.3	1194901.1	2619.8	µg/L	2619.8	ppb	10:00:50
1	Tl 190.801†	-39.3	-16.1	2.4394	µg/L	2.4394	ppb	10:01:16
1	U 409.014†	319.7	-614.1	-70.872	µg/L	-70.872	ppb	10:00:50
1	V 292.402†	1074.4	1180.0	18.562	µg/L	18.562	ppb	10:00:55
1	Zn 213.857†	14275.4	13801.7	364.34	µg/L	364.34	ppb	10:00:55
2	Sc RADIAL	121122.7	121122.7	97.1	%			09:59:51
2	Al 396.153Radial†	6424.0	6410.9	3118.9	µg/L	3118.9	ppb	09:59:51
2	Ca 317.933Radial†	8351.1	8159.5	2976.5	µg/L	2976.5	ppb	10:00:11
2	Fe 238.204 Radial†	12198.2	12558.8	63167	µg/L	63167	ppb	10:00:11
2	K 766.490 Radial†	2553.7	1798.4	960.59	µg/L	960.59	ppb	09:59:51
2	Mg 279.077 IEC†	355.8	350.9	1776.0	µg/L	1776.0	ppb	10:00:11
2	Na 589.592 Radial†	1817.3	2617.7	678.41	µg/L	678.41	ppb	09:59:51
2	Sr 421.552†	2062.2	2235.0	11.922	µg/L	11.922	ppb	09:59:51
2	Sc 361.383	2150834.7	2150834.7	98.639	%			10:01:23
2	Y 371.029	1396425.6	1396425.6	105.32	%			10:01:23
2	Ag 328.068†	-423.2	-509.8	0.4605	µg/L	0.4605	ppb	10:01:29
2	As 188.979†	1.7	0.7	-1.2251	µg/L	-1.2251	ppb	10:01:49
2	B 249.677†	716.0	559.7	4.7109	µg/L	4.7109	ppb	10:01:29
2	Ba 233.527†	5287.3	5447.5	137.12	µg/L	137.12	ppb	10:01:29
2	Be 313.107†	8778.8	5257.7	2.2399	µg/L	2.2399	ppb	10:01:29
2	Cd 226.502†	116.3	227.9	0.9976	µg/L	0.9976	ppb	10:01:29
2	Co 228.616†	107.3	184.5	3.3903	µg/L	3.3903	ppb	10:01:49
2	Cr 267.716†	7.2	142.9	3.0302	µg/L	3.0302	ppb	10:01:29
2	Cu 324.752†	2966.8	-395.7	10.819	µg/L	10.819	ppb	10:01:29
2	Mn 257.610†	623917.3	632747.2	1988.4	µg/L	1988.4	ppb	10:01:23
2	Mo 202.031†	97.9	100.3	13.883	µg/L	13.883	ppb	10:01:49
2	Ni 231.604†	512.3	185.9	10.065	µg/L	10.065	ppb	10:01:49
2	P 214.914†	490.6	285.4	543.03	µg/L	543.03	ppb	10:01:49
2	Pb 220.353†	189.9	140.9	35.242	µg/L	35.242	ppb	10:01:49

2	S 181.975 Axial†	30.7	5.4	17.767 µg/L	17.767 ppb	10:01:49
2	Sb 206.836†	19.5	-3.0	6.4876 µg/L	6.4876 ppb	10:01:49
2	Se 196.026†	-20.3	-33.0	-2.7369 µg/L	-2.7369 ppb	10:01:49
2	SiO2†	49424.8	47979.4	9221.4 µg/L	9221.4 ppb	10:01:29
2	Si 251.611†	55145.9	55527.7	4188.0 µg/L	4188.0 ppb	10:01:29
2	Sn 189.927†	4.3	-17.8	-0.2944 µg/L	-0.2944 ppb	10:01:49
2	Ti 334.940†	1185633.4	1201108.5	2633.4 µg/L	2633.4 ppb	10:01:23
2	Tl 190.801†	-44.1	-21.2	-5.0172 µg/L	-5.0172 ppb	10:01:49
2	U 409.014†	275.8	-656.9	-74.937 µg/L	-74.937 ppb	10:01:23
2	V 292.402†	1090.2	1201.7	18.777 µg/L	18.777 ppb	10:01:29
2	Zn 213.857†	14195.1	13794.7	364.19 µg/L	364.19 ppb	10:01:29
3	Sc RADIAL	120705.0	120705.0	96.7 %		10:00:17
3	Al 396.153Radial†	6369.5	6377.4	3102.7 µg/L	3102.7 ppb	10:00:17
3	Ca 317.933Radial†	8362.8	8201.4	2991.8 µg/L	2991.8 ppb	10:00:37
3	Fe 238.204 Radial†	12193.4	12597.3	63360 µg/L	63360 ppb	10:00:37
3	K 766.490 Radial†	2514.6	1767.1	943.87 µg/L	943.87 ppb	10:00:17
3	Mg 279.077 IEC†	359.5	356.0	1802.6 µg/L	1802.6 ppb	10:00:37
3	Na 589.592 Radial†	1775.4	2580.9	668.86 µg/L	668.86 ppb	10:00:17
3	Sr 421.552†	2028.2	2207.2	11.774 µg/L	11.774 ppb	10:00:17
3	Sc 361.383	2156713.5	2156713.5	98.909 %		10:01:57
3	Y 371.029	1397930.2	1397930.2	105.43 %		10:01:57
3	Ag 328.068†	-390.0	-475.1	0.7864 µg/L	0.7864 ppb	10:02:02
3	As 188.979†	-4.0	-5.0	-12.228 µg/L	-12.228 ppb	10:02:23
3	B 249.677†	713.5	555.2	4.4528 µg/L	4.4528 ppb	10:02:02
3	Ba 233.527†	5144.4	5288.4	133.11 µg/L	133.11 ppb	10:02:02
3	Be 313.107†	8574.4	5026.8	2.1220 µg/L	2.1220 ppb	10:02:02
3	Cd 226.502†	118.5	229.8	1.0215 µg/L	1.0215 ppb	10:02:02
3	Co 228.616†	89.5	166.2	2.6383 µg/L	2.6383 ppb	10:02:23
3	Cr 267.716†	-1.9	133.7	2.8362 µg/L	2.8362 ppb	10:02:02
3	Cu 324.752†	2940.4	-430.6	10.618 µg/L	10.618 ppb	10:02:02
3	Mn 257.610†	612628.1	619609.3	1947.3 µg/L	1947.3 ppb	10:01:57
3	Mo 202.031†	83.3	85.3	12.183 µg/L	12.183 ppb	10:02:23
3	Ni 231.604†	495.4	167.5	9.0643 µg/L	9.0643 ppb	10:02:23
3	P 214.914†	475.2	268.5	506.34 µg/L	506.34 ppb	10:02:23
3	Pb 220.353†	183.1	133.6	33.380 µg/L	33.380 ppb	10:02:23
3	S 181.975 Axial†	32.6	7.3	27.139 µg/L	27.139 ppb	10:02:23
3	Sb 206.836†	20.4	-2.2	7.0876 µg/L	7.0876 ppb	10:02:23
3	Se 196.026†	-12.9	-25.5	8.0217 µg/L	8.0217 ppb	10:02:23
3	SiO2†	48232.0	46636.8	8963.4 µg/L	8963.4 ppb	10:02:02
3	Si 251.611†	53700.8	53914.3	4065.9 µg/L	4065.9 ppb	10:02:02
3	Sn 189.927†	4.0	-18.2	-0.4525 µg/L	-0.4525 ppb	10:02:23
3	Ti 334.940†	1160479.2	1172400.4	2570.5 µg/L	2570.5 ppb	10:01:57
3	Tl 190.801†	-31.9	-8.6	12.989 µg/L	12.989 ppb	10:02:23
3	U 409.014†	141.2	-793.8	-88.140 µg/L	-88.140 ppb	10:01:57
3	V 292.402†	1047.8	1155.8	18.238 µg/L	18.238 ppb	10:02:02
3	Zn 213.857†	13769.3	13325.0	351.54 µg/L	351.54 ppb	10:02:02

Mean Data: 1201995826|932935|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2156502.0	98.899	%	0.2552				0.26%
Sc RADIAL	120944.4	96.9	%	0.17				0.18%
Y 371.029	1399435.2	105.54	%	0.300				0.28%
Ag 328.068†	-482.2	0.7225	µg/L	0.23661	0.7225	ppb	0.23661	32.75%
Al 396.153Radial†	6386.3	3107.0	µg/L	10.49	3107.0	ppb	10.49	0.34%
As 188.979†	-1.3	-4.9811	µg/L	6.27748	-4.9811	ppb	6.27748	126.03%
B 249.677†	567.6	5.0051	µg/L	0.74442	5.0051	ppb	0.74442	14.87%
Ba 233.527†	5400.9	135.94	µg/L	2.465	135.94	ppb	2.465	1.81%
Be 313.107†	5177.4	2.2002	µg/L	0.06774	2.2002	ppb	0.06774	3.08%
Ca 317.933Radial†	8193.0	2988.7	µg/L	11.02	2988.7	ppb	11.02	0.37%
Cd 226.502†	234.3	1.1496	µg/L	0.24292	1.1496	ppb	0.24292	21.13%
Co 228.616†	179.1	3.1805	µg/L	0.47359	3.1805	ppb	0.47359	14.89%
Cr 267.716†	140.5	2.9776	µg/L	0.12377	2.9776	ppb	0.12377	4.16%
Cu 324.752†	-409.0	10.763	µg/L	0.1269	10.763	ppb	0.1269	1.18%
Fe 238.204 Radial†	12592.9	63338	µg/L	161.8	63338	ppb	161.8	0.26%
K 766.490 Radial†	1799.2	960.98	µg/L	17.310	960.98	ppb	17.310	1.80%
Mg 279.077 IEC†	355.4	1799.8	µg/L	22.60	1799.8	ppb	22.60	1.26%
Mn 257.610†	627462.3	1971.9	µg/L	21.70	1971.9	ppb	21.70	1.10%
Mo 202.031†	94.7	13.248	µg/L	0.9281	13.248	ppb	0.9281	7.01%
Na 589.592 Radial†	2582.0	669.15	µg/L	9.108	669.15	ppb	9.108	1.36%

Ni 231.604†	177.3	9.5974	µg/L	0.50368	9.5974	ppb	0.50368	5.25%
P 214.914†	279.0	529.02	µg/L	19.824	529.02	ppb	19.824	3.75%
Pb 220.353†	141.0	35.269	µg/L	1.9024	35.269	ppb	1.9024	5.39%
S 181.975 Axial†	6.8	25.007	µg/L	6.4440	25.007	ppb	6.4440	25.77%
Sb 206.836†	-2.4	6.9816	µg/L	0.45040	6.9816	ppb	0.45040	6.45%
Se 196.026†	-29.9	1.7783	µg/L	5.58358	1.7783	ppb	5.58358	313.98%
SiO2†	47501.9	9129.7	µg/L	144.25	9129.7	ppb	144.25	1.58%
Si 251.611†	54958.8	4145.1	µg/L	68.68	4145.1	ppb	68.68	1.66%
Sn 189.927†	-19.0	-0.8541	µg/L	0.83629	-0.8541	ppb	0.83629	97.92%
Sr 421.552†	2222.1	11.853	µg/L	0.0746	11.853	ppb	0.0746	0.63%
Ti 334.940†	1189470.0	2607.9	µg/L	33.12	2607.9	ppb	33.12	1.27%
Tl 190.801†	-15.3	3.4706	µg/L	9.04751	3.4706	ppb	9.04751	260.69%
U 409.014†	-688.2	-77.983	µg/L	9.0281	-77.983	ppb	9.0281	11.58%
V 292.402†	1179.2	18.526	µg/L	0.2712	18.526	ppb	0.2712	1.46%
Zn 213.857†	13640.5	360.02	µg/L	7.348	360.02	ppb	7.348	2.04%

Sequence No.: 26
Sample ID: 1201995828|932935|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 156
Date Collected: 12/19/2009 10:02:32
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1201995828|932935|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	122478.6	122478.6	98.2	%			10:03:05
1	Al 396.153Radial†	26637.8	26932.1	13085	µg/L	13085	ppb	10:03:05
1	Ca 317.933Radial†	24167.1	24178.1	8819.9	µg/L	8819.9	ppb	10:03:25
1	Fe 238.204 Radial†	15081.7	15357.4	77260	µg/L	77260	ppb	10:03:25
1	K 766.490 Radial†	13988.6	13419.5	7167.6	µg/L	7167.6	ppb	10:03:05
1	Mg 279.077 IEC†	1502.3	1515.0	7967.6	µg/L	7967.6	ppb	10:03:25
1	Na 589.592 Radial†	24093.3	25292.5	6554.8	µg/L	6554.8	ppb	10:03:05
1	Sr 421.552†	96741.8	98674.0	526.37	µg/L	526.37	ppb	10:03:05
1	Sc 361.383	2173334.6	2173334.6	99.671	%			10:04:30
1	Y 371.029	1455838.9	1455838.9	109.80	%			10:04:30
1	Ag 328.068†	56613.8	56720.0	523.41	µg/L	523.41	ppb	10:04:36
1	As 188.979†	279.3	279.1	521.43	µg/L	521.43	ppb	10:04:56
1	B 249.677†	12810.9	12687.0	532.77	µg/L	532.77	ppb	10:04:36
1	Ba 233.527†	27314.7	27492.2	692.96	µg/L	692.96	ppb	10:04:36
1	Be 313.107†	863087.6	862295.0	525.99	µg/L	525.99	ppb	10:04:30
1	Cd 226.502†	20426.3	20603.7	530.79	µg/L	530.79	ppb	10:04:36
1	Co 228.616†	10871.3	10982.9	521.72	µg/L	521.72	ppb	10:04:36
1	Cr 267.716†	24961.5	25179.5	529.42	µg/L	529.42	ppb	10:04:36
1	Cu 324.752†	78691.8	75548.1	541.45	µg/L	541.45	ppb	10:04:36
1	Mn 257.610†	847508.6	850528.3	2671.8	µg/L	2671.8	ppb	10:04:30
1	Mo 202.031†	4508.0	4523.9	517.05	µg/L	517.05	ppb	10:04:56
1	Ni 231.604†	10143.6	9843.7	532.83	µg/L	532.83	ppb	10:04:36
1	P 214.914†	774.4	565.0	1080.4	µg/L	1080.4	ppb	10:04:56
1	Pb 220.353†	2386.8	2343.1	593.62	µg/L	593.62	ppb	10:04:56
1	S 181.975 Axial†	1062.4	1040.1	5256.8	µg/L	5256.8	ppb	10:04:56
1	Sb 206.836†	527.6	506.6	520.16	µg/L	520.16	ppb	10:04:56
1	Se 196.026†	356.5	345.3	539.77	µg/L	539.77	ppb	10:04:56
1	SiO2†	128269.1	126565.3	24325	µg/L	24325	ppb	10:04:36
1	Si 251.611†	146139.4	146243.0	11125	µg/L	11125	ppb	10:04:36
1	Sn 189.927†	1083.6	1065.1	535.51	µg/L	535.51	ppb	10:04:56
1	Ti 334.940†	1567547.4	1571839.6	3446.0	µg/L	3446.0	ppb	10:04:30
1	Tl 190.801†	316.8	341.4	538.73	µg/L	538.73	ppb	10:04:56
1	U 409.014†	5455.1	4536.6	422.34	µg/L	422.34	ppb	10:04:30
1	V 292.402†	46674.6	46925.2	543.47	µg/L	543.47	ppb	10:04:36
1	Zn 213.857†	35606.0	35127.3	932.78	µg/L	932.78	ppb	10:04:36
2	Sc RADIAL	121819.2	121819.2	97.6	%			10:03:31
2	Al 396.153Radial†	26639.8	27081.0	13157	µg/L	13157	ppb	10:03:31
2	Ca 317.933Radial†	24294.2	24441.5	8916.0	µg/L	8916.0	ppb	10:03:51
2	Fe 238.204 Radial†	15149.9	15510.5	78030	µg/L	78030	ppb	10:03:51
2	K 766.490 Radial†	13950.9	13458.0	7188.2	µg/L	7188.2	ppb	10:03:31
2	Mg 279.077 IEC†	1500.1	1521.0	7998.9	µg/L	7998.9	ppb	10:03:51
2	Na 589.592 Radial†	24183.1	25517.3	6613.1	µg/L	6613.1	ppb	10:03:31
2	Sr 421.552†	96835.7	99303.8	529.73	µg/L	529.73	ppb	10:03:31
2	Sc 361.383	2153421.1	2153421.1	98.758	%			10:05:04
2	Y 371.029	1443337.7	1443337.7	108.86	%			10:05:04
2	Ag 328.068†	56824.6	57458.6	530.20	µg/L	530.20	ppb	10:05:10
2	As 188.979†	275.7	278.1	519.35	µg/L	519.35	ppb	10:05:30
2	B 249.677†	12786.5	12781.1	536.66	µg/L	536.66	ppb	10:05:10
2	Ba 233.527†	27426.2	27858.5	702.20	µg/L	702.20	ppb	10:05:10
2	Be 313.107†	855998.7	863124.6	526.50	µg/L	526.50	ppb	10:05:04
2	Cd 226.502†	20490.7	20858.4	537.36	µg/L	537.36	ppb	10:05:10
2	Co 228.616†	10911.8	11124.8	528.53	µg/L	528.53	ppb	10:05:10
2	Cr 267.716†	25039.8	25490.5	535.96	µg/L	535.96	ppb	10:05:10
2	Cu 324.752†	78767.6	76355.0	547.23	µg/L	547.23	ppb	10:05:10
2	Mn 257.610†	840934.4	851734.6	2675.7	µg/L	2675.7	ppb	10:05:04
2	Mo 202.031†	4522.7	4580.7	523.53	µg/L	523.53	ppb	10:05:30
2	Ni 231.604†	10212.2	10007.2	541.69	µg/L	541.69	ppb	10:05:10
2	P 214.914†	784.9	582.8	1117.7	µg/L	1117.7	ppb	10:05:30
2	Pb 220.353†	2396.6	2375.1	601.73	µg/L	601.73	ppb	10:05:30

2	S 181.975 Axial†	1063.8	1051.5	5314.1 µg/L	5314.1 ppb	10:05:30
2	Sb 206.836†	526.9	510.8	524.35 µg/L	524.35 ppb	10:05:30
2	Se 196.026†	356.3	348.4	544.69 µg/L	544.69 ppb	10:05:30
2	SiO2†	128595.2	128085.5	24618 µg/L	24618 ppb	10:05:10
2	Si 251.611†	146272.9	147734.0	11239 µg/L	11239 ppb	10:05:10
2	Sn 189.927†	1106.2	1098.0	551.79 µg/L	551.79 ppb	10:05:30
2	Ti 334.940†	1556337.6	1575032.4	3453.0 µg/L	3453.0 ppb	10:05:04
2	Tl 190.801†	310.8	338.3	534.12 µg/L	534.12 ppb	10:05:30
2	U 409.014†	5371.9	4503.0	418.96 µg/L	418.96 ppb	10:05:04
2	V 292.402†	46818.7	47504.1	550.15 µg/L	550.15 ppb	10:05:10
2	Zn 213.857†	35721.9	35575.0	944.69 µg/L	944.69 ppb	10:05:10
3	Sc RADIAL	122358.2	122358.2	98.1 %		10:03:57
3	Al 396.153Radial†	26658.8	26980.2	13110 µg/L	13110 ppb	10:03:57
3	Ca 317.933Radial†	24148.9	24183.8	8821.9 µg/L	8821.9 ppb	10:04:17
3	Fe 238.204 Radial†	15073.6	15364.3	77294 µg/L	77294 ppb	10:04:17
3	K 766.490 Radial†	14081.3	13528.1	7225.6 µg/L	7225.6 ppb	10:03:57
3	Mg 279.077 IEC†	1489.2	1503.0	7903.3 µg/L	7903.3 ppb	10:04:17
3	Na 589.592 Radial†	24126.7	25350.7	6569.9 µg/L	6569.9 ppb	10:03:57
3	Sr 421.552†	96728.1	98757.2	526.81 µg/L	526.81 ppb	10:03:57
3	Sc 361.383	2157029.7	2157029.7	98.923 %		10:05:38
3	Y 371.029	1442876.8	1442876.8	108.82 %		10:05:38
3	Ag 328.068†	56061.4	56590.9	522.14 µg/L	522.14 ppb	10:05:44
3	As 188.979†	265.8	267.7	499.72 µg/L	499.72 ppb	10:06:04
3	B 249.677†	12533.2	12503.4	524.70 µg/L	524.70 ppb	10:05:44
3	Ba 233.527†	26624.7	27001.8	680.59 µg/L	680.59 ppb	10:05:44
3	Be 313.107†	841233.5	846748.6	516.51 µg/L	516.51 ppb	10:05:38
3	Cd 226.502†	19985.9	20313.4	523.21 µg/L	523.21 ppb	10:05:44
3	Co 228.616†	10517.9	10708.1	508.57 µg/L	508.57 ppb	10:05:44
3	Cr 267.716†	23979.0	24375.7	512.52 µg/L	512.52 ppb	10:05:44
3	Cu 324.752†	76542.4	73972.1	530.51 µg/L	530.51 ppb	10:05:44
3	Mn 257.610†	828045.5	837280.8	2630.4 µg/L	2630.4 ppb	10:05:38
3	Mo 202.031†	4214.2	4261.1	487.19 µg/L	487.19 ppb	10:06:04
3	Ni 231.604†	9844.1	9617.8	520.61 µg/L	520.61 ppb	10:05:44
3	P 214.914†	730.8	526.9	998.87 µg/L	998.87 ppb	10:06:04
3	Pb 220.353†	2266.3	2239.4	567.30 µg/L	567.30 ppb	10:06:04
3	S 181.975 Axial†	1016.5	1001.9	5062.9 µg/L	5062.9 ppb	10:06:04
3	Sb 206.836†	507.2	490.0	503.26 µg/L	503.26 ppb	10:06:04
3	Se 196.026†	331.7	322.9	508.29 µg/L	508.29 ppb	10:06:04
3	SiO2†	125460.2	124698.6	23967 µg/L	23967 ppb	10:05:44
3	Si 251.611†	142928.3	144105.2	10964 µg/L	10964 ppb	10:05:44
3	Sn 189.927†	1024.0	1012.9	509.92 µg/L	509.92 ppb	10:06:04
3	Ti 334.940†	1527440.9	1543184.6	3383.2 µg/L	3383.2 ppb	10:05:38
3	Tl 190.801†	295.3	322.1	509.54 µg/L	509.54 ppb	10:06:04
3	U 409.014†	5275.5	4396.5	408.85 µg/L	408.85 ppb	10:05:38
3	V 292.402†	45046.7	45633.5	528.58 µg/L	528.58 ppb	10:05:44
3	Zn 213.857†	34665.3	34446.5	914.55 µg/L	914.55 ppb	10:05:44

Mean Data: 1201995828|932935|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2161261.8	99.117	%	0.4866				0.49%
Sc RADIAL	122218.7	97.9	%	0.28				0.29%
Y 371.029	1447351.2	109.16	%	0.555				0.51%
Ag 328.068†	56923.2	525.25	µg/L	4.335	525.25	ppb	4.335	0.83%
Al 396.153Radial†	26997.7	13117	µg/L	36.7	13117	ppb	36.7	0.28%
As 188.979†	275.0	513.50	µg/L	11.984	513.50	ppb	11.984	2.33%
B 249.677†	12657.2	531.37	µg/L	6.102	531.37	ppb	6.102	1.15%
Ba 233.527†	27450.8	691.92	µg/L	10.839	691.92	ppb	10.839	1.57%
Be 313.107†	857389.4	523.00	µg/L	5.626	523.00	ppb	5.626	1.08%
Ca 317.933Radial†	24267.8	8852.6	µg/L	54.89	8852.6	ppb	54.89	0.62%
Cd 226.502†	20591.8	530.46	µg/L	7.080	530.46	ppb	7.080	1.33%
Co 228.616†	10938.6	519.61	µg/L	10.146	519.61	ppb	10.146	1.95%
Cr 267.716†	25015.2	525.97	µg/L	12.092	525.97	ppb	12.092	2.30%
Cu 324.752†	75291.8	539.73	µg/L	8.489	539.73	ppb	8.489	1.57%
Fe 238.204 Radial†	15410.8	77528	µg/L	435.2	77528	ppb	435.2	0.56%
K 766.490 Radial†	13468.5	7193.8	µg/L	29.42	7193.8	ppb	29.42	0.41%
Mg 279.077 IEC†	1513.0	7956.6	µg/L	48.72	7956.6	ppb	48.72	0.61%
Mn 257.610†	846514.6	2659.3	µg/L	25.13	2659.3	ppb	25.13	0.94%
Mo 202.031†	4455.2	509.26	µg/L	19.382	509.26	ppb	19.382	3.81%
Na 589.592 Radial†	25386.8	6579.3	µg/L	30.24	6579.3	ppb	30.24	0.46%

Ni 231.604†	9822.9	531.71	µg/L	10.583	531.71	ppb	10.583	1.99%
P 214.914†	558.2	1065.6	µg/L	60.76	1065.6	ppb	60.76	5.70%
Pb 220.353†	2319.2	587.55	µg/L	18.000	587.55	ppb	18.000	3.06%
S 181.975 Axial†	1031.2	5211.3	µg/L	131.69	5211.3	ppb	131.69	2.53%
Sb 206.836†	502.5	515.93	µg/L	11.166	515.93	ppb	11.166	2.16%
Se 196.026†	338.8	530.92	µg/L	19.749	530.92	ppb	19.749	3.72%
SiO2†	126449.8	24303	µg/L	326.0	24303	ppb	326.0	1.34%
Si 251.611†	146027.4	11109	µg/L	138.3	11109	ppb	138.3	1.24%
Sn 189.927†	1058.7	532.41	µg/L	21.107	532.41	ppb	21.107	3.96%
Sr 421.552†	98911.7	527.64	µg/L	1.825	527.64	ppb	1.825	0.35%
Ti 334.940†	1563352.2	3427.4	µg/L	38.45	3427.4	ppb	38.45	1.12%
Tl 190.801†	333.9	527.46	µg/L	15.689	527.46	ppb	15.689	2.97%
U 409.014†	4478.7	416.72	µg/L	7.022	416.72	ppb	7.022	1.69%
V 292.402†	46687.6	540.73	µg/L	11.044	540.73	ppb	11.044	2.04%
Zn 213.857†	35049.6	930.67	µg/L	15.180	930.67	ppb	15.180	1.63%

Sequence No.: 27
Sample ID: 1201995829|932935|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 157
Date Collected: 12/19/2009 10:06:13
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1201995829|932935|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	122150.4	122150.4	97.9	%			10:06:46
1	Al 396.153Radial†	19700.9	19918.4	9672.2	µg/L	9672.2	ppb	10:06:46
1	Ca 317.933Radial†	22305.6	22342.6	8150.3	µg/L	8150.3	ppb	10:07:07
1	Fe 238.204 Radial†	13141.9	13417.1	67501	µg/L	67501	ppb	10:07:07
1	K 766.490 Radial†	13388.6	12844.9	6860.7	µg/L	6860.7	ppb	10:06:46
1	Mg 279.077 IEC†	1404.9	1419.6	7474.2	µg/L	7474.2	ppb	10:07:07
1	Na 589.592 Radial†	23994.2	25257.2	6545.7	µg/L	6545.7	ppb	10:06:46
1	Sr 421.552†	96325.4	98513.6	525.51	µg/L	525.51	ppb	10:06:46
1	Sc 361.383	2174378.3	2174378.3	99.719	%			10:08:12
1	Y 371.029	1434761.1	1434761.1	108.21	%			10:08:12
1	Ag 328.068†	56744.8	56824.1	523.56	µg/L	523.56	ppb	10:08:18
1	As 188.979†	280.9	280.7	524.26	µg/L	524.26	ppb	10:08:38
1	B 249.677†	12700.8	12570.4	530.72	µg/L	530.72	ppb	10:08:18
1	Ba 233.527†	25239.5	25397.9	640.25	µg/L	640.25	ppb	10:08:18
1	Be 313.107†	870119.0	868930.6	530.28	µg/L	530.28	ppb	10:08:12
1	Cd 226.502†	20474.3	20642.0	532.56	µg/L	532.56	ppb	10:08:18
1	Co 228.616†	10834.5	10940.8	520.96	µg/L	520.96	ppb	10:08:18
1	Cr 267.716†	24864.0	25069.7	527.11	µg/L	527.11	ppb	10:08:18
1	Cu 324.752†	78510.6	75328.6	537.83	µg/L	537.83	ppb	10:08:18
1	Mn 257.610†	678567.0	680702.2	2139.0	µg/L	2139.0	ppb	10:08:12
1	Mo 202.031†	4539.6	4553.4	520.02	µg/L	520.02	ppb	10:08:38
1	Ni 231.604†	10150.1	9845.3	532.92	µg/L	532.92	ppb	10:08:18
1	P 214.914†	699.7	489.8	928.69	µg/L	928.69	ppb	10:08:38
1	Pb 220.353†	2368.5	2323.6	588.50	µg/L	588.50	ppb	10:08:38
1	S 181.975 Axial†	1068.0	1045.3	5284.5	µg/L	5284.5	ppb	10:08:38
1	Sb 206.836†	532.2	510.9	522.33	µg/L	522.33	ppb	10:08:38
1	Se 196.026†	364.3	352.9	543.84	µg/L	543.84	ppb	10:08:38
1	SiO2†	117325.1	115528.6	22204	µg/L	22204	ppb	10:08:18
1	Si 251.611†	133484.8	133482.2	10162	µg/L	10162	ppb	10:08:18
1	Sn 189.927†	1111.2	1092.2	547.44	µg/L	547.44	ppb	10:08:38
1	Ti 334.940†	1293547.1	1296311.7	2841.9	µg/L	2841.9	ppb	10:08:12
1	Tl 190.801†	311.5	335.9	524.24	µg/L	524.24	ppb	10:08:38
1	U 409.014†	5688.0	4767.5	446.36	µg/L	446.36	ppb	10:08:12
1	V 292.402†	46354.2	46581.4	538.83	µg/L	538.83	ppb	10:08:18
1	Zn 213.857†	33035.3	32532.3	864.04	µg/L	864.04	ppb	10:08:18
2	Sc RADIAL	122946.0	122946.0	98.5	%			10:07:12
2	Al 396.153Radial†	19907.4	19997.7	9710.6	µg/L	9710.6	ppb	10:07:12
2	Ca 317.933Radial†	22164.7	22052.1	8044.3	µg/L	8044.3	ppb	10:07:33
2	Fe 238.204 Radial†	13067.3	13254.5	66683	µg/L	66683	ppb	10:07:33
2	K 766.490 Radial†	13441.8	12810.3	6842.2	µg/L	6842.2	ppb	10:07:12
2	Mg 279.077 IEC†	1398.8	1404.1	7393.0	µg/L	7393.0	ppb	10:07:33
2	Na 589.592 Radial†	24256.9	25365.2	6573.7	µg/L	6573.7	ppb	10:07:12
2	Sr 421.552†	97320.1	98886.3	527.50	µg/L	527.50	ppb	10:07:12
2	Sc 361.383	2158816.7	2158816.7	99.005	%			10:08:46
2	Y 371.029	1424250.8	1424250.8	107.42	%			10:08:46
2	Ag 328.068†	56986.1	57478.0	529.45	µg/L	529.45	ppb	10:08:52
2	As 188.979†	275.4	277.1	517.57	µg/L	517.57	ppb	10:09:12
2	B 249.677†	12730.6	12692.4	536.33	µg/L	536.33	ppb	10:08:52
2	Ba 233.527†	25331.5	25673.3	647.20	µg/L	647.20	ppb	10:08:52
2	Be 313.107†	860808.9	865816.8	528.37	µg/L	528.37	ppb	10:08:46
2	Cd 226.502†	20566.8	20883.4	538.91	µg/L	538.91	ppb	10:08:52
2	Co 228.616†	10887.1	11072.2	527.30	µg/L	527.30	ppb	10:08:52
2	Cr 267.716†	24921.3	25307.3	532.10	µg/L	532.10	ppb	10:08:52
2	Cu 324.752†	78843.3	76232.2	543.93	µg/L	543.93	ppb	10:08:52
2	Mn 257.610†	671206.1	678172.5	2131.0	µg/L	2131.0	ppb	10:08:46
2	Mo 202.031†	4550.6	4597.4	524.98	µg/L	524.98	ppb	10:09:12
2	Ni 231.604†	10176.4	9945.2	538.33	µg/L	538.33	ppb	10:08:52
2	P 214.914†	700.6	495.8	941.94	µg/L	941.94	ppb	10:09:12
2	Pb 220.353†	2369.0	2341.2	592.97	µg/L	592.97	ppb	10:09:12

2	S 181.975 Axial†	1072.2	1057.3	5345.3 µg/L	5345.3 ppb	10:09:12
2	Sb 206.836†	537.4	520.0	531.48 µg/L	531.48 ppb	10:09:12
2	Se 196.026†	370.3	361.7	555.67 µg/L	555.67 ppb	10:09:12
2	SiO2†	117730.0	116785.7	22446 µg/L	22446 ppb	10:08:52
2	Si 251.611†	133847.1	134813.1	10264 µg/L	10264 ppb	10:08:52
2	Sn 189.927†	1110.3	1099.3	550.77 µg/L	550.77 ppb	10:09:12
2	Ti 334.940†	1281607.4	1293602.7	2836.0 µg/L	2836.0 ppb	10:08:46
2	Tl 190.801†	324.7	351.6	547.36 µg/L	547.36 ppb	10:09:12
2	U 409.014†	5623.2	4743.2	444.18 µg/L	444.18 ppb	10:08:46
2	V 292.402†	46508.2	47071.9	544.36 µg/L	544.36 ppb	10:08:52
2	Zn 213.857†	33153.1	32890.0	873.72 µg/L	873.72 ppb	10:08:52
3	Sc RADIAL	122990.5	122990.5	98.6 %		10:07:39
3	Al 396.153Radial†	19935.4	20018.8	9722.3 µg/L	9722.3 ppb	10:07:39
3	Ca 317.933Radial†	22225.6	22105.8	8063.9 µg/L	8063.9 ppb	10:07:59
3	Fe 238.204 Radial†	13100.4	13283.3	66827 µg/L	66827 ppb	10:07:59
3	K 766.490 Radial†	13541.9	12907.0	6893.9 µg/L	6893.9 ppb	10:07:39
3	Mg 279.077 IEC†	1395.3	1400.0	7369.9 µg/L	7369.9 ppb	10:07:59
3	Na 589.592 Radial†	24304.7	25404.8	6583.9 µg/L	6583.9 ppb	10:07:39
3	Sr 421.552†	97597.6	99132.2	528.81 µg/L	528.81 ppb	10:07:39
3	Sc 361.383	2168269.9	2168269.9	99.439 %		10:09:20
3	Y 371.029	1427127.1	1427127.1	107.63 %		10:09:20
3	Ag 328.068†	55687.7	55921.3	515.17 µg/L	515.17 ppb	10:09:25
3	As 188.979†	266.2	266.7	497.82 µg/L	497.82 ppb	10:09:46
3	B 249.677†	12297.0	12200.2	514.68 µg/L	514.68 ppb	10:09:25
3	Ba 233.527†	24291.7	24516.1	618.01 µg/L	618.01 ppb	10:09:25
3	Be 313.107†	842120.2	843231.9	514.59 µg/L	514.59 ppb	10:09:20
3	Cd 226.502†	19803.9	20025.7	516.55 µg/L	516.55 ppb	10:09:25
3	Co 228.616†	10393.5	10527.9	501.22 µg/L	501.22 ppb	10:09:25
3	Cr 267.716†	23646.3	23915.4	502.84 µg/L	502.84 ppb	10:09:25
3	Cu 324.752†	75644.8	72668.3	519.21 µg/L	519.21 ppb	10:09:25
3	Mn 257.610†	657344.9	661277.3	2078.2 µg/L	2078.2 ppb	10:09:20
3	Mo 202.031†	4239.0	4263.9	487.10 µg/L	487.10 ppb	10:09:46
3	Ni 231.604†	9720.1	9441.6	511.07 µg/L	511.07 ppb	10:09:25
3	P 214.914†	666.8	458.7	864.02 µg/L	864.02 ppb	10:09:46
3	Pb 220.353†	2243.7	2204.8	558.37 µg/L	558.37 ppb	10:09:46
3	S 181.975 Axial†	1026.0	1006.0	5085.5 µg/L	5085.5 ppb	10:09:46
3	Sb 206.836†	507.8	487.9	498.97 µg/L	498.97 ppb	10:09:46
3	Se 196.026†	355.6	345.2	532.58 µg/L	532.58 ppb	10:09:46
3	SiO2†	113761.6	112276.5	21579 µg/L	21579 ppb	10:09:25
3	Si 251.611†	129179.6	129529.9	9861.7 µg/L	9861.7 ppb	10:09:25
3	Sn 189.927†	1046.0	1029.7	516.64 µg/L	516.64 ppb	10:09:46
3	Ti 334.940†	1251821.3	1258004.7	2757.9 µg/L	2757.9 ppb	10:09:20
3	Tl 190.801†	298.1	323.4	504.88 µg/L	504.88 ppb	10:09:46
3	U 409.014†	5512.3	4606.9	431.04 µg/L	431.04 ppb	10:09:20
3	V 292.402†	44215.9	44562.0	515.59 µg/L	515.59 ppb	10:09:25
3	Zn 213.857†	31914.1	31498.0	836.44 µg/L	836.44 ppb	10:09:25

Mean Data: 1201995829|932935|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2167155.0	99.388	%	0.3596				0.36%
Sc RADIAL	122695.7	98.3	%	0.38				0.39%
Y 371.029	1428713.0	107.75	%	0.410				0.38%
Ag 328.068†	56741.1	522.73	µg/L	7.177	522.73	ppb	7.177	1.37%
Al 396.153Radial†	19978.3	9701.7	µg/L	26.21	9701.7	ppb	26.21	0.27%
As 188.979†	274.8	513.21	µg/L	13.748	513.21	ppb	13.748	2.68%
B 249.677†	12487.7	527.24	µg/L	11.239	527.24	ppb	11.239	2.13%
Ba 233.527†	25195.8	635.15	µg/L	15.245	635.15	ppb	15.245	2.40%
Be 313.107†	859326.5	524.41	µg/L	8.559	524.41	ppb	8.559	1.63%
Ca 317.933Radial†	22166.8	8086.2	µg/L	56.37	8086.2	ppb	56.37	0.70%
Cd 226.502†	20517.0	529.34	µg/L	11.523	529.34	ppb	11.523	2.18%
Co 228.616†	10847.0	516.50	µg/L	13.600	516.50	ppb	13.600	2.63%
Cr 267.716†	24764.1	520.68	µg/L	15.654	520.68	ppb	15.654	3.01%
Cu 324.752†	74743.0	533.66	µg/L	12.882	533.66	ppb	12.882	2.41%
Fe 238.204 Radial†	13318.3	67004	µg/L	436.6	67004	ppb	436.6	0.65%
K 766.490 Radial†	12854.1	6865.6	µg/L	26.15	6865.6	ppb	26.15	0.38%
Mg 279.077 IEC†	1407.9	7412.3	µg/L	54.79	7412.3	ppb	54.79	0.74%
Mn 257.610†	673384.0	2116.1	µg/L	33.08	2116.1	ppb	33.08	1.56%
Mo 202.031†	4471.6	510.70	µg/L	20.588	510.70	ppb	20.588	4.03%
Na 589.592 Radial†	25342.4	6567.8	µg/L	19.80	6567.8	ppb	19.80	0.30%

Ni 231.604†	9744.0	527.44 µg/L	14.435	527.44 ppb	14.435	2.74%
P 214.914†	481.4	911.55 µg/L	41.694	911.55 ppb	41.694	4.57%
Pb 220.353†	2289.9	579.95 µg/L	18.820	579.95 ppb	18.820	3.25%
S 181.975 Axial†	1036.2	5238.4 µg/L	135.88	5238.4 ppb	135.88	2.59%
Sb 206.836†	506.3	517.59 µg/L	16.764	517.59 ppb	16.764	3.24%
Se 196.026†	353.3	544.03 µg/L	11.547	544.03 ppb	11.547	2.12%
SiO2†	114863.6	22076 µg/L	447.2	22076 ppb	447.2	2.03%
Si 251.611†	132608.4	10096 µg/L	209.3	10096 ppb	209.3	2.07%
Sn 189.927†	1073.7	538.29 µg/L	18.820	538.29 ppb	18.820	3.50%
Sr 421.552†	98844.0	527.27 µg/L	1.661	527.27 ppb	1.661	0.32%
Ti 334.940†	1282639.7	2811.9 µg/L	46.87	2811.9 ppb	46.87	1.67%
Tl 190.801†	337.0	525.49 µg/L	21.270	525.49 ppb	21.270	4.05%
U 409.014†	4705.9	440.53 µg/L	8.291	440.53 ppb	8.291	1.88%
V 292.402†	46071.8	532.93 µg/L	15.269	532.93 ppb	15.269	2.87%
Zn 213.857†	32306.7	858.07 µg/L	19.342	858.07 ppb	19.342	2.25%

Sequence No.: 28
Sample ID: 1201995827|932935|5
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 158
Date Collected: 12/19/2009 10:09:55
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1201995827|932935|5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	121543.8	121543.8	97.4	%			10:10:28
1	Al 396.153Radial†	1985.7	1831.3	890.95	µg/L	890.95	ppb	10:10:28
1	Ca 317.933Radial†	2104.3	1716.3	626.07	µg/L	626.07	ppb	10:10:48
1	Fe 238.204 Radial†	2536.3	2595.7	13055	µg/L	13055	ppb	10:10:48
1	K 766.490 Radial†	1327.1	529.9	283.05	µg/L	283.05	ppb	10:10:28
1	Mg 279.077 IEC†	111.3	98.6	505.97	µg/L	505.97	ppb	10:10:48
1	Na 589.592 Radial†	-165.4	575.6	149.18	µg/L	149.18	ppb	10:10:28
1	Sr 421.552†	413.8	535.3	2.8558	µg/L	2.8558	ppb	10:10:28
1	Sc 361.383	2176347.7	2176347.7	99.809	%			10:11:51
1	Y 371.029	1340534.5	1340534.5	101.10	%			10:11:51
1	Ag 328.068†	132.5	52.0	1.5235	µg/L	1.5235	ppb	10:11:56
1	As 188.979†	-4.0	-5.1	-10.188	µg/L	-10.188	ppb	10:12:17
1	B 249.677†	295.1	129.4	1.5777	µg/L	1.5777	ppb	10:11:56
1	Ba 233.527†	1061.9	1151.2	28.977	µg/L	28.977	ppb	10:12:17
1	Be 313.107†	4982.9	1350.2	0.6356	µg/L	0.6356	ppb	10:11:56
1	Cd 226.502†	-66.3	43.5	0.1049	µg/L	0.1049	ppb	10:12:17
1	Co 228.616†	-35.4	40.2	0.8688	µg/L	0.8688	ppb	10:12:17
1	Cr 267.716†	-57.7	77.8	1.6400	µg/L	1.6400	ppb	10:11:56
1	Cu 324.752†	3443.2	46.4	3.1265	µg/L	3.1265	ppb	10:11:56
1	Mn 257.610†	112241.3	112677.5	354.32	µg/L	354.32	ppb	10:11:56
1	Mo 202.031†	25.3	26.4	3.5080	µg/L	3.5080	ppb	10:12:17
1	Ni 231.604†	383.0	50.3	2.7246	µg/L	2.7246	ppb	10:12:17
1	P 214.914†	242.4	31.0	51.737	µg/L	51.737	ppb	10:12:17
1	Pb 220.353†	87.1	35.7	8.9705	µg/L	8.9705	ppb	10:12:17
1	S 181.975 Axial†	31.6	5.9	27.881	µg/L	27.881	ppb	10:12:17
1	Sb 206.836†	25.2	2.5	4.3845	µg/L	4.3845	ppb	10:12:17
1	Se 196.026†	7.4	-5.0	1.9952	µg/L	1.9952	ppb	10:12:17
1	SiO2†	12858.5	10755.8	2067.2	µg/L	2067.2	ppb	10:11:56
1	Si 251.611†	12893.9	12539.6	948.71	µg/L	948.71	ppb	10:11:56
1	Sn 189.927†	16.6	-5.5	-0.9237	µg/L	-0.9237	ppb	10:12:17
1	Ti 334.940†	234430.2	233995.3	513.03	µg/L	513.03	ppb	10:11:51
1	Tl 190.801†	-21.3	2.2	8.2573	µg/L	8.2573	ppb	10:12:17
1	U 409.014†	691.1	-244.1	-25.908	µg/L	-25.908	ppb	10:11:56
1	V 292.402†	197.3	294.1	4.3882	µg/L	4.3882	ppb	10:11:56
1	Zn 213.857†	3211.8	2621.7	69.092	µg/L	69.092	ppb	10:12:17
2	Sc RADIAL	122027.4	122027.4	97.8	%			10:10:54
2	Al 396.153Radial†	2030.2	1868.7	909.14	µg/L	909.14	ppb	10:10:54
2	Ca 317.933Radial†	2085.7	1688.7	616.03	µg/L	616.03	ppb	10:11:14
2	Fe 238.204 Radial†	2530.5	2579.4	12974	µg/L	12974	ppb	10:11:14
2	K 766.490 Radial†	1362.0	560.3	299.25	µg/L	299.25	ppb	10:10:54
2	Mg 279.077 IEC†	111.8	98.7	506.37	µg/L	506.37	ppb	10:11:14
2	Na 589.592 Radial†	-159.4	582.4	150.94	µg/L	150.94	ppb	10:10:54
2	Sr 421.552†	446.7	567.2	3.0259	µg/L	3.0259	ppb	10:10:54
2	Sc 361.383	2180000.7	2180000.7	99.977	%			10:12:23
2	Y 371.029	1344169.7	1344169.7	101.38	%			10:12:23
2	Ag 328.068†	94.5	13.8	1.1689	µg/L	1.1689	ppb	10:12:29
2	As 188.979†	2.6	1.5	2.2482	µg/L	2.2482	ppb	10:12:49
2	B 249.677†	247.0	80.8	-0.5313	µg/L	-0.5313	ppb	10:12:29
2	Ba 233.527†	1046.6	1134.0	28.545	µg/L	28.545	ppb	10:12:49
2	Be 313.107†	5022.7	1381.6	0.6564	µg/L	0.6564	ppb	10:12:29
2	Cd 226.502†	-54.8	55.1	0.4128	µg/L	0.4128	ppb	10:12:49
2	Co 228.616†	-36.0	39.7	0.8519	µg/L	0.8519	ppb	10:12:49
2	Cr 267.716†	-80.9	54.7	1.1536	µg/L	1.1536	ppb	10:12:29
2	Cu 324.752†	3350.6	-52.1	2.4248	µg/L	2.4248	ppb	10:12:29
2	Mn 257.610†	110528.1	110775.4	348.35	µg/L	348.35	ppb	10:12:29
2	Mo 202.031†	23.2	24.2	3.2618	µg/L	3.2618	ppb	10:12:49
2	Ni 231.604†	373.7	40.4	2.1862	µg/L	2.1862	ppb	10:12:49
2	P 214.914†	244.4	32.5	55.291	µg/L	55.291	ppb	10:12:49
2	Pb 220.353†	86.3	34.7	8.7365	µg/L	8.7365	ppb	10:12:49

2	S 181.975 Axial†	33.0	7.3	34.953 µg/L	34.953 ppb	10:12:49
2	Sb 206.836†	24.2	1.4	3.2784 µg/L	3.2784 ppb	10:12:49
2	Se 196.026†	13.1	0.7	9.9294 µg/L	9.9294 ppb	10:12:49
2	SiO2†	12770.5	10646.2	2046.2 µg/L	2046.2 ppb	10:12:29
2	Si 251.611†	12676.0	12299.9	930.32 µg/L	930.32 ppb	10:12:29
2	Sn 189.927†	19.2	-3.0	0.3051 µg/L	0.3051 ppb	10:12:49
2	Ti 334.940†	232957.5	232128.6	508.94 µg/L	508.94 ppb	10:12:23
2	Tl 190.801†	-25.2	-1.6	2.6008 µg/L	2.6008 ppb	10:12:49
2	U 409.014†	679.8	-256.6	-27.097 µg/L	-27.097 ppb	10:12:29
2	V 292.402†	164.0	260.4	3.9952 µg/L	3.9952 ppb	10:12:29
2	Zn 213.857†	3163.3	2567.8	67.656 µg/L	67.656 ppb	10:12:49
3	Sc RADIAL	120930.9	120930.9	96.9 %		10:11:20
3	Al 396.153Radial†	2003.6	1860.1	905.00 µg/L	905.00 ppb	10:11:20
3	Ca 317.933Radial†	2105.4	1728.4	630.50 µg/L	630.50 ppb	10:11:40
3	Fe 238.204 Radial†	2556.9	2630.2	13229 µg/L	13229 ppb	10:11:40
3	K 766.490 Radial†	1393.4	605.4	323.33 µg/L	323.33 ppb	10:11:20
3	Mg 279.077 IEC†	117.8	105.9	544.50 µg/L	544.50 ppb	10:11:40
3	Na 589.592 Radial†	-207.4	531.5	137.73 µg/L	137.73 ppb	10:11:20
3	Sr 421.552†	420.0	543.9	2.9012 µg/L	2.9012 ppb	10:11:20
3	Sc 361.383	2193670.3	2193670.3	100.60 %		10:12:56
3	Y 371.029	1350516.9	1350516.9	101.86 %		10:12:56
3	Ag 328.068†	111.0	29.6	1.3268 µg/L	1.3268 ppb	10:13:01
3	As 188.979†	5.8	4.7	8.1062 µg/L	8.1062 ppb	10:13:22
3	B 249.677†	288.0	120.0	1.1099 µg/L	1.1099 ppb	10:13:01
3	Ba 233.527†	904.0	985.8	24.813 µg/L	24.813 ppb	10:13:22
3	Be 313.107†	4831.1	1159.9	0.5310 µg/L	0.5310 ppb	10:13:01
3	Cd 226.502†	-71.3	39.0	-0.0285 µg/L	-0.0285 ppb	10:13:22
3	Co 228.616†	-42.4	33.6	0.6116 µg/L	0.6116 ppb	10:13:22
3	Cr 267.716†	-87.6	48.5	1.0226 µg/L	1.0226 ppb	10:13:01
3	Cu 324.752†	3396.9	-26.9	2.6545 µg/L	2.6545 ppb	10:13:01
3	Mn 257.610†	101739.0	101350.2	318.88 µg/L	318.88 ppb	10:13:01
3	Mo 202.031†	13.5	14.5	2.1633 µg/L	2.1633 ppb	10:13:22
3	Ni 231.604†	370.4	34.8	1.8826 µg/L	1.8826 ppb	10:13:22
3	P 214.914†	233.3	19.9	27.765 µg/L	27.765 ppb	10:13:22
3	Pb 220.353†	76.9	24.9	6.2358 µg/L	6.2358 ppb	10:13:22
3	S 181.975 Axial†	28.7	2.7	11.869 µg/L	11.869 ppb	10:13:22
3	Sb 206.836†	11.2	-11.6	-9.9877 µg/L	-9.9877 ppb	10:13:22
3	Se 196.026†	4.3	-8.1	-2.3486 µg/L	-2.3486 ppb	10:13:22
3	SiO2†	11982.3	9783.1	1880.3 µg/L	1880.3 ppb	10:13:01
3	Si 251.611†	11823.2	11373.3	859.89 µg/L	859.89 ppb	10:13:01
3	Sn 189.927†	17.1	-5.2	-0.7475 µg/L	-0.7475 ppb	10:13:22
3	Ti 334.940†	221708.0	219494.6	481.24 µg/L	481.24 ppb	10:12:56
3	Tl 190.801†	-19.9	3.8	10.280 µg/L	10.280 ppb	10:13:22
3	U 409.014†	644.8	-295.6	-30.902 µg/L	-30.902 ppb	10:13:01
3	V 292.402†	101.8	197.6	3.2885 µg/L	3.2885 ppb	10:13:01
3	Zn 213.857†	2800.1	2187.1	57.389 µg/L	57.389 ppb	10:13:22

Mean Data: 1201995827|932935|5

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2183339.6	100.13	%	0.419				0.42%
Sc RADIAL	121500.7	97.4	%	0.44				0.45%
Y 371.029	1345073.7	101.44	%	0.381				0.38%
Ag 328.068†	31.8	1.3397	µg/L	0.17763	1.3397	ppb	0.17763	13.26%
Al 396.153Radial†	1853.3	901.70	µg/L	9.535	901.70	ppb	9.535	1.06%
As 188.979†	0.4	0.0556	µg/L	9.34200	0.0556	ppb	9.34200	>999.9%
B 249.677†	110.1	0.7188	µg/L	1.10758	0.7188	ppb	1.10758	154.09%
Ba 233.527†	1090.4	27.445	µg/L	2.2894	27.445	ppb	2.2894	8.34%
Be 313.107†	1297.2	0.6077	µg/L	0.06718	0.6077	ppb	0.06718	11.06%
Ca 317.933Radial†	1711.1	624.20	µg/L	7.415	624.20	ppb	7.415	1.19%
Cd 226.502†	45.9	0.1631	µg/L	0.22630	0.1631	ppb	0.22630	138.78%
Co 228.616†	37.8	0.7775	µg/L	0.14385	0.7775	ppb	0.14385	18.50%
Cr 267.716†	60.3	1.2721	µg/L	0.32533	1.2721	ppb	0.32533	25.57%
Cu 324.752†	-10.9	2.7353	µg/L	0.35778	2.7353	ppb	0.35778	13.08%
Fe 238.204 Radial†	2601.8	13086	µg/L	130.3	13086	ppb	130.3	1.00%
K 766.490 Radial†	565.2	301.88	µg/L	20.266	301.88	ppb	20.266	6.71%
Mg 279.077 IEC†	101.0	518.94	µg/L	22.130	518.94	ppb	22.130	4.26%
Mn 257.610†	108267.7	340.52	µg/L	18.971	340.52	ppb	18.971	5.57%
Mo 202.031†	21.7	2.9777	µg/L	0.71597	2.9777	ppb	0.71597	24.04%
Na 589.592 Radial†	563.2	145.95	µg/L	7.172	145.95	ppb	7.172	4.91%

Ni 231.604†	41.8	2.2644	µg/L	0.42643	2.2644	ppb	0.42643	18.83%
P 214.914†	27.8	44.931	µg/L	14.9722	44.931	ppb	14.9722	33.32%
Pb 220.353†	31.8	7.9809	µg/L	1.51581	7.9809	ppb	1.51581	18.99%
S 181.975 Axial†	5.3	24.901	µg/L	11.8268	24.901	ppb	11.8268	47.49%
Sb 206.836†	-2.5	-0.7749	µg/L	7.99764	-0.7749	ppb	7.99764	>999.9%
Se 196.026†	-4.1	3.1920	µg/L	6.22592	3.1920	ppb	6.22592	195.05%
SiO2†	10395.0	1997.9	µg/L	102.39	1997.9	ppb	102.39	5.13%
Si 251.611†	12070.9	912.97	µg/L	46.881	912.97	ppb	46.881	5.13%
Sn 189.927†	-4.6	-0.4554	µg/L	0.66446	-0.4554	ppb	0.66446	145.92%
Sr 421.552†	548.8	2.9276	µg/L	0.08809	2.9276	ppb	0.08809	3.01%
Ti 334.940†	228539.5	501.07	µg/L	17.297	501.07	ppb	17.297	3.45%
Tl 190.801†	1.5	7.0460	µg/L	3.98021	7.0460	ppb	3.98021	56.49%
U 409.014†	-265.4	-27.969	µg/L	2.6086	-27.969	ppb	2.6086	9.33%
V 292.402†	250.7	3.8906	µg/L	0.55722	3.8906	ppb	0.55722	14.32%
Zn 213.857†	2458.9	64.712	µg/L	6.3827	64.712	ppb	6.3827	9.86%

Sequence No.: 29
Sample ID: 242794002|932935|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 159
Date Collected: 12/19/2009 10:13:31
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 242794002|932935|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	121890.2	121890.2	97.7	%			10:14:04
1	Al 396.153Radial†	49809.6	50785.2	24711	µg/L	24711	ppb	10:14:04
1	Ca 317.933Radial†	27392.4	27598.9	10068	µg/L	10068	ppb	10:14:24
1	Fe 238.204 Radial†	14296.3	14627.5	73572	µg/L	73572	ppb	10:14:24
1	K 766.490 Radial†	7253.1	6592.9	3521.4	µg/L	3521.4	ppb	10:14:04
1	Mg 279.077 IEC†	1049.3	1058.6	5529.6	µg/L	5529.6	ppb	10:14:24
1	Na 589.592 Radial†	11317.0	12331.2	3195.8	µg/L	3195.8	ppb	10:14:04
1	Sr 421.552†	10625.2	10988.1	58.615	µg/L	58.615	ppb	10:14:24
1	Sc 361.383	2183129.6	2183129.6	100.12	%			10:15:29
1	Y 371.029	1393058.7	1393058.7	105.06	%			10:15:29
1	Ag 328.068†	-434.2	-514.4	1.4214	µg/L	1.4214	ppb	10:15:34
1	As 188.979†	4.0	2.9	-0.7987	µg/L	-0.7987	ppb	10:15:55
1	B 249.677†	929.2	761.9	10.319	µg/L	10.319	ppb	10:15:34
1	Ba 233.527†	11443.1	11516.6	289.90	µg/L	289.90	ppb	10:15:34
1	Be 313.107†	12024.8	8368.1	4.3103	µg/L	4.3103	ppb	10:15:34
1	Cd 226.502†	149.3	259.1	1.0149	µg/L	1.0149	ppb	10:15:55
1	Co 228.616†	188.3	263.8	8.1450	µg/L	8.1450	ppb	10:15:55
1	Cr 267.716†	667.0	801.8	16.913	µg/L	16.913	ppb	10:15:55
1	Cu 324.752†	3876.1	468.0	19.055	µg/L	19.055	ppb	10:15:34
1	Mn 257.610†	569501.0	569039.3	1790.3	µg/L	1790.3	ppb	10:15:29
1	Mo 202.031†	84.6	85.6	12.618	µg/L	12.618	ppb	10:15:55
1	Ni 231.604†	702.9	368.6	19.952	µg/L	19.952	ppb	10:15:55
1	P 214.914†	586.7	374.1	729.10	µg/L	729.10	ppb	10:15:55
1	Pb 220.353†	288.0	236.0	61.043	µg/L	61.043	ppb	10:15:55
1	S 181.975 Axial†	63.3	37.4	177.99	µg/L	177.99	ppb	10:15:55
1	Sb 206.836†	18.4	-4.4	2.6488	µg/L	2.6488	ppb	10:15:55
1	Se 196.026†	-25.8	-38.1	-3.2257	µg/L	-3.2257	ppb	10:15:55
1	SiO2†	102460.0	100209.7	19260	µg/L	19260	ppb	10:15:34
1	Si 251.611†	116271.1	115752.6	8849.6	µg/L	8849.6	ppb	10:15:34
1	Sn 189.927†	-24.8	-46.9	-11.071	µg/L	-11.071	ppb	10:15:55
1	Ti 334.940†	995678.4	993600.4	2178.1	µg/L	2178.1	ppb	10:15:29
1	Tl 190.801†	-33.8	-10.2	6.4948	µg/L	6.4948	ppb	10:15:55
1	U 409.014†	298.2	-638.7	-74.959	µg/L	-74.959	ppb	10:15:29
1	V 292.402†	3445.8	3538.1	46.149	µg/L	46.149	ppb	10:15:34
1	Zn 213.857†	14186.4	13573.1	356.95	µg/L	356.95	ppb	10:15:34
2	Sc RADIAL	121201.7	121201.7	97.1	%			10:14:30
2	Al 396.153Radial†	50215.8	51493.1	25055	µg/L	25055	ppb	10:14:30
2	Ca 317.933Radial†	27200.7	27560.8	10054	µg/L	10054	ppb	10:14:50
2	Fe 238.204 Radial†	14191.5	14602.8	73448	µg/L	73448	ppb	10:14:50
2	K 766.490 Radial†	7355.8	6740.7	3600.4	µg/L	3600.4	ppb	10:14:30
2	Mg 279.077 IEC†	1043.9	1059.2	5533.0	µg/L	5533.0	ppb	10:14:50
2	Na 589.592 Radial†	11379.3	12461.2	3229.5	µg/L	3229.5	ppb	10:14:30
2	Sr 421.552†	10573.1	10996.2	58.658	µg/L	58.658	ppb	10:14:50
2	Sc 361.383	2187992.9	2187992.9	100.34	%			10:16:02
2	Y 371.029	1396015.4	1396015.4	105.29	%			10:16:02
2	Ag 328.068†	-464.3	-543.5	1.1512	µg/L	1.1512	ppb	10:16:07
2	As 188.979†	7.2	6.1	5.1806	µg/L	5.1806	ppb	10:16:28
2	B 249.677†	905.6	736.3	9.2314	µg/L	9.2314	ppb	10:16:07
2	Ba 233.527†	11451.9	11500.0	289.48	µg/L	289.48	ppb	10:16:07
2	Be 313.107†	12019.8	8336.5	4.2909	µg/L	4.2909	ppb	10:16:07
2	Cd 226.502†	154.3	263.7	1.1385	µg/L	1.1385	ppb	10:16:28
2	Co 228.616†	203.3	278.3	8.8419	µg/L	8.8419	ppb	10:16:28
2	Cr 267.716†	660.6	793.9	16.749	µg/L	16.749	ppb	10:16:28
2	Cu 324.752†	3857.9	441.3	18.842	µg/L	18.842	ppb	10:16:07
2	Mn 257.610†	570556.9	568827.2	1789.6	µg/L	1789.6	ppb	10:16:02
2	Mo 202.031†	83.4	84.2	12.455	µg/L	12.455	ppb	10:16:28
2	Ni 231.604†	697.8	362.0	19.596	µg/L	19.596	ppb	10:16:28
2	P 214.914†	584.6	370.7	722.21	µg/L	722.21	ppb	10:16:28
2	Pb 220.353†	297.5	244.9	63.338	µg/L	63.338	ppb	10:16:28

2	S 181.975 Axial†	62.6	36.6	173.78 µg/L	173.78 ppb	10:16:28
2	Sb 206.836†	24.9	2.1	9.1795 µg/L	9.1795 ppb	10:16:28
2	Se 196.026†	-23.6	-35.9	-0.2395 µg/L	-0.2395 ppb	10:16:28
2	SiO2†	102651.3	100172.9	19253 µg/L	19253 ppb	10:16:07
2	Si 251.611†	116544.1	115766.6	8850.6 µg/L	8850.6 ppb	10:16:07
2	Sn 189.927†	-18.9	-41.0	-8.1769 µg/L	-8.1769 ppb	10:16:28
2	Ti 334.940†	997888.9	993592.9	2178.0 µg/L	2178.0 ppb	10:16:02
2	Tl 190.801†	-34.3	-10.6	5.9429 µg/L	5.9429 ppb	10:16:28
2	U 409.014†	219.3	-717.9	-82.561 µg/L	-82.561 ppb	10:16:02
2	V 292.402†	3490.0	3574.4	46.538 µg/L	46.538 ppb	10:16:07
2	Zn 213.857†	14196.2	13551.4	356.39 µg/L	356.39 ppb	10:16:07
3	Sc RADIAL	122269.4	122269.4	98.0 %		10:14:56
3	Al 396.153Radial†	50266.0	51092.8	24860 µg/L	24860 ppb	10:14:56
3	Ca 317.933Radial†	27282.7	27399.9	9995.1 µg/L	9995.1 ppb	10:15:16
3	Fe 238.204 Radial†	14223.3	14507.7	72969 µg/L	72969 ppb	10:15:16
3	K 766.490 Radial†	7360.3	6679.3	3567.5 µg/L	3567.5 ppb	10:14:56
3	Mg 279.077 IEC†	1050.2	1056.2	5517.7 µg/L	5517.7 ppb	10:15:16
3	Na 589.592 Radial†	11454.6	12435.8	3222.9 µg/L	3222.9 ppb	10:14:56
3	Sr 421.552†	10600.4	10929.0	58.300 µg/L	58.300 ppb	10:15:16
3	Sc 361.383	2180095.7	2180095.7	99.981 %		10:16:35
3	Y 371.029	1389160.5	1389160.5	104.77 %		10:16:35
3	Ag 328.068†	-436.6	-517.4	1.3428 µg/L	1.3428 ppb	10:16:41
3	As 188.979†	10.4	9.3	11.229 µg/L	11.229 ppb	10:17:01
3	B 249.677†	915.0	749.0	9.9407 µg/L	9.9407 ppb	10:16:41
3	Ba 233.527†	11033.0	11122.3	279.98 µg/L	279.98 ppb	10:16:41
3	Be 313.107†	11660.1	8020.1	4.1142 µg/L	4.1142 ppb	10:16:41
3	Cd 226.502†	136.9	246.8	0.7510 µg/L	0.7510 ppb	10:17:01
3	Co 228.616†	173.7	249.4	7.5477 µg/L	7.5477 ppb	10:17:01
3	Cr 267.716†	588.5	724.2	15.283 µg/L	15.283 ppb	10:17:01
3	Cu 324.752†	3871.8	469.1	18.933 µg/L	18.933 ppb	10:16:41
3	Mn 257.610†	558236.3	558564.0	1757.5 µg/L	1757.5 ppb	10:16:35
3	Mo 202.031†	78.0	79.1	11.851 µg/L	11.851 ppb	10:17:01
3	Ni 231.604†	669.2	335.9	18.184 µg/L	18.184 ppb	10:17:01
3	P 214.914†	575.5	363.6	707.43 µg/L	707.43 ppb	10:17:01
3	Pb 220.353†	289.7	238.2	61.603 µg/L	61.603 ppb	10:17:01
3	S 181.975 Axial†	62.1	36.4	172.66 µg/L	172.66 ppb	10:17:01
3	Sb 206.836†	21.1	-1.6	5.3000 µg/L	5.3000 ppb	10:17:01
3	Se 196.026†	-23.9	-36.3	-1.0582 µg/L	-1.0582 ppb	10:17:01
3	SiO2†	99298.6	97190.1	18680 µg/L	18680 ppb	10:16:41
3	Si 251.611†	112519.7	112162.1	8574.1 µg/L	8574.1 ppb	10:16:41
3	Sn 189.927†	-17.2	-39.4	-7.4364 µg/L	-7.4364 ppb	10:17:01
3	Ti 334.940†	973758.4	973060.3	2133.0 µg/L	2133.0 ppb	10:16:35
3	Tl 190.801†	-34.4	-10.9	5.0350 µg/L	5.0350 ppb	10:17:01
3	U 409.014†	443.7	-492.7	-60.800 µg/L	-60.800 ppb	10:16:35
3	V 292.402†	3390.5	3487.6	45.544 µg/L	45.544 ppb	10:16:41
3	Zn 213.857†	13649.5	13055.9	343.12 µg/L	343.12 ppb	10:16:41

Mean Data: 242794002|932935|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2183739.4	100.15	%	0.183				0.18%
Sc RADIAL	121787.1	97.6	%	0.43				0.44%
Y 371.029	1392744.9	105.04	%	0.259				0.25%
Ag 328.068†	-525.1	1.3051	µg/L	0.13901	1.3051	ppb	0.13901	10.65%
Al 396.153Radial†	51123.7	24875	µg/L	172.7	24875	ppb	172.7	0.69%
As 188.979†	6.1	5.2036	µg/L	6.01384	5.2036	ppb	6.01384	115.57%
B 249.677†	749.1	9.8302	µg/L	0.55195	9.8302	ppb	0.55195	5.61%
Ba 233.527†	11379.7	286.45	µg/L	5.613	286.45	ppb	5.613	1.96%
Be 313.107†	8241.6	4.2385	µg/L	0.10808	4.2385	ppb	0.10808	2.55%
Ca 317.933Radial†	27519.9	10039	µg/L	38.5	10039	ppb	38.5	0.38%
Cd 226.502†	256.5	0.9681	µg/L	0.19793	0.9681	ppb	0.19793	20.44%
Co 228.616†	263.8	8.1782	µg/L	0.64774	8.1782	ppb	0.64774	7.92%
Cr 267.716†	773.3	16.315	µg/L	0.8971	16.315	ppb	0.8971	5.50%
Cu 324.752†	459.5	18.943	µg/L	0.1066	18.943	ppb	0.1066	0.56%
Fe 238.204 Radial†	14579.4	73330	µg/L	318.3	73330	ppb	318.3	0.43%
K 766.490 Radial†	6671.0	3563.1	µg/L	39.68	3563.1	ppb	39.68	1.11%
Mg 279.077 IEC†	1058.0	5526.8	µg/L	8.04	5526.8	ppb	8.04	0.15%
Mn 257.610†	565476.8	1779.1	µg/L	18.78	1779.1	ppb	18.78	1.06%
Mo 202.031†	83.0	12.308	µg/L	0.4039	12.308	ppb	0.4039	3.28%
Na 589.592 Radial†	12409.4	3216.0	µg/L	17.86	3216.0	ppb	17.86	0.56%

Ni 231.604†	355.5	19.244	µg/L	0.9351	19.244	ppb	0.9351	4.86%
P 214.914†	369.5	719.58	µg/L	11.072	719.58	ppb	11.072	1.54%
Pb 220.353†	239.7	61.994	µg/L	1.1965	61.994	ppb	1.1965	1.93%
S 181.975 Axial†	36.8	174.81	µg/L	2.812	174.81	ppb	2.812	1.61%
Sb 206.836†	-1.3	5.7094	µg/L	3.28453	5.7094	ppb	3.28453	57.53%
Se 196.026†	-36.8	-1.5078	µg/L	1.54303	-1.5078	ppb	1.54303	102.34%
SiO2†	99190.9	19064	µg/L	333.0	19064	ppb	333.0	1.75%
Si 251.611†	114560.4	8758.1	µg/L	159.32	8758.1	ppb	159.32	1.82%
Sn 189.927†	-42.4	-8.8949	µg/L	1.92090	-8.8949	ppb	1.92090	21.60%
Sr 421.552†	10971.1	58.524	µg/L	0.1957	58.524	ppb	0.1957	0.33%
Ti 334.940†	986751.2	2163.0	µg/L	26.00	2163.0	ppb	26.00	1.20%
Tl 190.801†	-10.5	5.8242	µg/L	0.73711	5.8242	ppb	0.73711	12.66%
U 409.014†	-616.5	-72.773	µg/L	11.0442	-72.773	ppb	11.0442	15.18%
V 292.402†	3533.4	46.077	µg/L	0.5011	46.077	ppb	0.5011	1.09%
Zn 213.857†	13393.4	352.15	µg/L	7.830	352.15	ppb	7.830	2.22%

Sequence No.: 30
Sample ID: 242794003|932935|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 160
Date Collected: 12/19/2009 10:17:10
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 242794003|932935|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	120599.7	120599.7	96.6	%			10:17:43
1	Al 396.153Radial†	21280.1	21811.2	10612	µg/L	10612	ppb	10:17:43
1	Ca 317.933Radial†	12963.0	12968.8	4730.8	µg/L	4730.8	ppb	10:18:03
1	Fe 238.204 Radial†	12756.1	13190.6	66344	µg/L	66344	ppb	10:18:03
1	K 766.490 Radial†	4168.4	3480.5	1859.0	µg/L	1859.0	ppb	10:17:43
1	Mg 279.077 IEC†	549.4	552.8	2846.6	µg/L	2846.6	ppb	10:18:03
1	Na 589.592 Radial†	2109.2	2927.8	758.78	µg/L	758.78	ppb	10:17:43
1	Sr 421.552†	4545.3	4813.5	25.677	µg/L	25.677	ppb	10:17:43
1	Sc 361.383	2170362.5	2170362.5	99.535	%			10:19:07
1	Y 371.029	1399219.0	1399219.0	105.53	%			10:19:07
1	Ag 328.068†	-414.2	-496.9	0.8821	µg/L	0.8821	ppb	10:19:13
1	As 188.979†	6.1	5.1	5.9880	µg/L	5.9880	ppb	10:19:34
1	B 249.677†	791.4	628.9	6.7490	µg/L	6.7490	ppb	10:19:13
1	Ba 233.527†	6736.4	6855.1	172.56	µg/L	172.56	ppb	10:19:13
1	Be 313.107†	10776.7	7184.8	3.4585	µg/L	3.4585	ppb	10:19:13
1	Cd 226.502†	142.5	253.1	1.3985	µg/L	1.3985	ppb	10:19:13
1	Co 228.616†	122.8	199.1	4.3207	µg/L	4.3207	ppb	10:19:34
1	Cr 267.716†	243.5	380.3	8.0271	µg/L	8.0271	ppb	10:19:13
1	Cu 324.752†	3231.0	-157.4	13.157	µg/L	13.157	ppb	10:19:13
1	Mn 257.610†	644882.1	648118.9	2036.9	µg/L	2036.9	ppb	10:19:07
1	Mo 202.031†	112.6	114.2	15.584	µg/L	15.584	ppb	10:19:34
1	Ni 231.604†	535.6	204.7	11.080	µg/L	11.080	ppb	10:19:34
1	P 214.914†	494.8	285.2	541.25	µg/L	541.25	ppb	10:19:34
1	Pb 220.353†	323.7	273.7	69.462	µg/L	69.462	ppb	10:19:34
1	S 181.975 Axial†	32.8	7.2	26.392	µg/L	26.392	ppb	10:19:34
1	Sb 206.836†	24.6	1.9	10.858	µg/L	10.858	ppb	10:19:34
1	Se 196.026†	-20.6	-33.1	-0.8406	µg/L	-0.8406	ppb	10:19:34
1	SiO2†	71481.3	69688.2	13394	µg/L	13394	ppb	10:19:13
1	Si 251.611†	80546.9	80544.6	6121.4	µg/L	6121.4	ppb	10:19:13
1	Sn 189.927†	1.7	-20.4	-0.6285	µg/L	-0.6285	ppb	10:19:34
1	Ti 334.940†	1147084.6	1151564.6	2524.7	µg/L	2524.7	ppb	10:19:07
1	Tl 190.801†	-36.5	-13.1	6.1732	µg/L	6.1732	ppb	10:19:34
1	U 409.014†	122.7	-813.2	-90.529	µg/L	-90.529	ppb	10:19:07
1	V 292.402†	1787.3	1892.1	26.862	µg/L	26.862	ppb	10:19:13
1	Zn 213.857†	14238.7	13709.0	361.51	µg/L	361.51	ppb	10:19:13
2	Sc RADIAL	120660.7	120660.7	96.7	%			10:18:09
2	Al 396.153Radial†	21343.3	21865.4	10639	µg/L	10639	ppb	10:18:09
2	Ca 317.933Radial†	12904.5	12901.5	4706.3	µg/L	4706.3	ppb	10:18:29
2	Fe 238.204 Radial†	12681.2	13106.5	65921	µg/L	65921	ppb	10:18:29
2	K 766.490 Radial†	4142.4	3451.5	1843.5	µg/L	1843.5	ppb	10:18:09
2	Mg 279.077 IEC†	550.0	553.1	2849.0	µg/L	2849.0	ppb	10:18:29
2	Na 589.592 Radial†	2179.8	2999.8	777.43	µg/L	777.43	ppb	10:18:09
2	Sr 421.552†	4556.1	4822.4	25.724	µg/L	25.724	ppb	10:18:09
2	Sc 361.383	2177652.6	2177652.6	99.869	%			10:19:41
2	Y 371.029	1401724.8	1401724.8	105.72	%			10:19:41
2	Ag 328.068†	-405.2	-486.5	0.9431	µg/L	0.9431	ppb	10:19:47
2	As 188.979†	4.4	3.3	2.7189	µg/L	2.7189	ppb	10:20:07
2	B 249.677†	765.7	600.5	5.6381	µg/L	5.6381	ppb	10:19:47
2	Ba 233.527†	6789.8	6885.9	173.33	µg/L	173.33	ppb	10:19:47
2	Be 313.107†	10874.6	7246.6	3.5030	µg/L	3.5030	ppb	10:19:47
2	Cd 226.502†	136.1	246.2	1.2556	µg/L	1.2556	ppb	10:19:47
2	Co 228.616†	128.9	204.8	4.6339	µg/L	4.6339	ppb	10:20:07
2	Cr 267.716†	240.8	376.7	7.9528	µg/L	7.9528	ppb	10:19:47
2	Cu 324.752†	3134.3	-265.1	12.318	µg/L	12.318	ppb	10:19:47
2	Mn 257.610†	642621.6	643686.4	2023.0	µg/L	2023.0	ppb	10:19:41
2	Mo 202.031†	111.5	112.7	15.398	µg/L	15.398	ppb	10:20:07
2	Ni 231.604†	566.9	234.2	12.679	µg/L	12.679	ppb	10:20:07
2	P 214.914†	491.3	280.0	530.69	µg/L	530.69	ppb	10:20:07
2	Pb 220.353†	331.8	280.6	71.220	µg/L	71.220	ppb	10:20:07

2	S 181.975 Axial†	35.4	9.7	38.794 µg/L	38.794 ppb	10:20:07
2	Sb 206.836†	19.9	-2.9	5.9558 µg/L	5.9558 ppb	10:20:07
2	Se 196.026†	-28.4	-40.9	-12.126 µg/L	-12.126 ppb	10:20:07
2	SiO2†	72362.3	70329.9	13517 µg/L	13517 ppb	10:19:47
2	Si 251.611†	81566.8	81294.8	6179.9 µg/L	6179.9 ppb	10:19:47
2	Sn 189.927†	-0.9	-23.1	-1.9651 µg/L	-1.9651 ppb	10:20:07
2	Ti 334.940†	1142698.5	1143314.7	2506.6 µg/L	2506.6 ppb	10:19:41
2	Tl 190.801†	-31.7	-8.2	13.307 µg/L	13.307 ppb	10:20:07
2	U 409.014†	168.2	-768.1	-86.111 µg/L	-86.111 ppb	10:19:41
2	V 292.402†	1802.3	1901.1	26.936 µg/L	26.936 ppb	10:19:47
2	Zn 213.857†	14399.6	13822.2	364.59 µg/L	364.59 ppb	10:19:47
3	Sc RADIAL	121216.9	121216.9	97.1 %		10:18:35
3	Al 396.153Radial†	21431.9	21855.4	10634 µg/L	10634 ppb	10:18:35
3	Ca 317.933Radial†	12906.0	12841.8	4684.5 µg/L	4684.5 ppb	10:18:55
3	Fe 238.204 Radial†	12695.3	13060.7	65691 µg/L	65691 ppb	10:18:55
3	K 766.490 Radial†	4099.8	3388.0	1809.6 µg/L	1809.6 ppb	10:18:35
3	Mg 279.077 IEC†	548.5	548.9	2827.1 µg/L	2827.1 ppb	10:18:55
3	Na 589.592 Radial†	2183.4	2993.1	775.70 µg/L	775.70 ppb	10:18:35
3	Sr 421.552†	4620.5	4867.0	25.963 µg/L	25.963 ppb	10:18:35
3	Sc 361.383	2193945.0	2193945.0	100.62 %		10:20:14
3	Y 371.029	1409820.2	1409820.2	106.33 %		10:20:14
3	Ag 328.068†	-346.9	-425.5	1.4691 µg/L	1.4691 ppb	10:20:20
3	As 188.979†	15.0	13.8	22.357 µg/L	22.357 ppb	10:20:41
3	B 249.677†	749.9	579.1	4.7703 µg/L	4.7703 ppb	10:20:20
3	Ba 233.527†	6515.5	6562.9	165.20 µg/L	165.20 ppb	10:20:20
3	Be 313.107†	10475.0	6768.6	3.2401 µg/L	3.2401 ppb	10:20:20
3	Cd 226.502†	124.0	233.2	0.9397 µg/L	0.9397 ppb	10:20:20
3	Co 228.616†	115.6	190.6	4.1155 µg/L	4.1155 ppb	10:20:41
3	Cr 267.716†	229.6	363.8	7.6782 µg/L	7.6782 ppb	10:20:20
3	Cu 324.752†	3189.6	-233.3	12.489 µg/L	12.489 ppb	10:20:20
3	Mn 257.610†	628831.1	625202.0	1965.1 µg/L	1965.1 ppb	10:20:14
3	Mo 202.031†	100.3	100.7	14.026 µg/L	14.026 ppb	10:20:41
3	Ni 231.604†	539.1	202.4	10.955 µg/L	10.955 ppb	10:20:41
3	P 214.914†	475.3	260.5	488.83 µg/L	488.83 ppb	10:20:41
3	Pb 220.353†	312.2	258.7	65.678 µg/L	65.678 ppb	10:20:41
3	S 181.975 Axial†	33.0	7.1	25.873 µg/L	25.873 ppb	10:20:41
3	Sb 206.836†	16.4	-6.5	2.0387 µg/L	2.0387 ppb	10:20:41
3	Se 196.026†	-20.4	-32.7	-0.6974 µg/L	-0.6974 ppb	10:20:41
3	SiO2†	69699.5	67145.4	12905 µg/L	12905 ppb	10:20:20
3	Si 251.611†	78493.1	77633.4	5900.4 µg/L	5900.4 ppb	10:20:20
3	Sn 189.927†	2.3	-19.8	-0.4207 µg/L	-0.4207 ppb	10:20:41
3	Ti 334.940†	1114768.3	1107058.7	2427.1 µg/L	2427.1 ppb	10:20:14
3	Tl 190.801†	-35.5	-11.7	7.3340 µg/L	7.3340 ppb	10:20:41
3	U 409.014†	266.8	-671.3	-76.757 µg/L	-76.757 ppb	10:20:14
3	V 292.402†	1704.6	1790.6	25.668 µg/L	25.668 ppb	10:20:20
3	Zn 213.857†	13876.4	13195.1	347.76 µg/L	347.76 ppb	10:20:20

Mean Data: 242794003|932935|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2180653.4	100.01	%	0.554				0.55%
Sc RADIAL	120825.7	96.8	%	0.27				0.28%
Y 371.029	1403588.0	105.86	%	0.418				0.39%
Ag 328.068†	-469.6	1.0981	µg/L	0.32271	1.0981	ppb	0.32271	29.39%
Al 396.153Radial†	21844.0	10628	µg/L	14.0	10628	ppb	14.0	0.13%
As 188.979†	7.4	10.355	µg/L	10.5220	10.355	ppb	10.5220	101.62%
B 249.677†	602.8	5.7191	µg/L	0.99184	5.7191	ppb	0.99184	17.34%
Ba 233.527†	6768.0	170.36	µg/L	4.489	170.36	ppb	4.489	2.63%
Be 313.107†	7066.7	3.4005	µg/L	0.14069	3.4005	ppb	0.14069	4.14%
Ca 317.933Radial†	12904.0	4707.2	µg/L	23.17	4707.2	ppb	23.17	0.49%
Cd 226.502†	244.1	1.1980	µg/L	0.23477	1.1980	ppb	0.23477	19.60%
Co 228.616†	198.2	4.3567	µg/L	0.26109	4.3567	ppb	0.26109	5.99%
Cr 267.716†	373.6	7.8860	µg/L	0.18377	7.8860	ppb	0.18377	2.33%
Cu 324.752†	-218.6	12.655	µg/L	0.4434	12.655	ppb	0.4434	3.50%
Fe 238.204 Radial†	13119.3	65986	µg/L	331.2	65986	ppb	331.2	0.50%
K 766.490 Radial†	3440.0	1837.4	µg/L	25.29	1837.4	ppb	25.29	1.38%
Mg 279.077 IEC†	551.6	2840.9	µg/L	12.02	2840.9	ppb	12.02	0.42%
Mn 257.610†	639002.4	2008.3	µg/L	38.08	2008.3	ppb	38.08	1.90%
Mo 202.031†	109.2	15.003	µg/L	0.8508	15.003	ppb	0.8508	5.67%
Na 589.592 Radial†	2973.6	770.64	µg/L	10.307	770.64	ppb	10.307	1.34%

Ni 231.604†	213.8	11.571	µg/L	0.9613	11.571	ppb	0.9613	8.31%
P 214.914†	275.2	520.25	µg/L	27.724	520.25	ppb	27.724	5.33%
Pb 220.353†	271.0	68.786	µg/L	2.8320	68.786	ppb	2.8320	4.12%
S 181.975 Axial†	8.0	30.353	µg/L	7.3145	30.353	ppb	7.3145	24.10%
Sb 206.836†	-2.5	6.2840	µg/L	4.41856	6.2840	ppb	4.41856	70.31%
Se 196.026†	-35.6	-4.5545	µg/L	6.55714	-4.5545	ppb	6.55714	143.97%
SiO2†	69054.5	13272	µg/L	323.7	13272	ppb	323.7	2.44%
Si 251.611†	79824.3	6067.2	µg/L	147.45	6067.2	ppb	147.45	2.43%
Sn 189.927†	-21.1	-1.0048	µg/L	0.83813	-1.0048	ppb	0.83813	83.42%
Sr 421.552†	4834.3	25.788	µg/L	0.1530	25.788	ppb	0.1530	0.59%
Ti 334.940†	1133979.3	2486.2	µg/L	51.91	2486.2	ppb	51.91	2.09%
Tl 190.801†	-11.0	8.9381	µg/L	3.82794	8.9381	ppb	3.82794	42.83%
U 409.014†	-750.9	-84.465	µg/L	7.0320	-84.465	ppb	7.0320	8.33%
V 292.402†	1861.3	26.489	µg/L	0.7116	26.489	ppb	0.7116	2.69%
Zn 213.857†	13575.4	357.95	µg/L	8.961	357.95	ppb	8.961	2.50%

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Analysis Begun

Start Time: 12/19/2009 10:23:22 **Plasma On Time:** 12/18/2009 22:44:08
Logged In Analyst: optima **Technique:** ICP Continuous
Spectrometer Model: Optima 4300 DV, S/N 077N1030502**Autosampler Model:** AS-93plus

Sample Information File: C:\pe\optima1\Sample Information\121809H.SIF
Batch ID:
Results Data Set: 121909B
Results Library: c:\pe\optima1\Results\Results.mdb

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Sequence No.: 1 **Autosampler Location:** 201
Sample ID: 242794004|932935|1 **Date Collected:** 12/19/2009 10:23:22
Analyst: HSC **Data Type:** Original
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: 242794004|932935|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	123355.6	123355.6	98.9	%			10:24:05
1	Al 396.153Radial†	161470.3	163134.1	79377	µg/L	79377	ppb	10:24:05
1	Ca 317.933Radial†	61593.9	61863.6	22567	µg/L	22567	ppb	10:24:05
1	Fe 238.204 Radial†	23431.7	23695.0	119180	µg/L	119180	ppb	10:24:26
1	K 766.490 Radial†	23012.8	22447.0	11989	µg/L	11989	ppb	10:24:05
1	Mg 279.077 IEC†	3027.5	3046.9	16052	µg/L	16052	ppb	10:24:26
1	Na 589.592 Radial†	6655.9	7478.5	1938.1	µg/L	1938.1	ppb	10:24:05
1	Sr 421.552†	40727.9	41310.4	220.37	µg/L	220.37	ppb	10:24:05
1	Sc 361.383	2175517.5	2175517.5	99.771	%			10:25:31
1	Y 371.029	1355714.6	1355714.6	102.25	%			10:25:31
1	Ag 328.068†	-881.5	-964.3	2.1270	µg/L	2.1270	ppb	10:25:36
1	As 188.979†	10.2	9.2	7.6217	µg/L	7.6217	ppb	10:25:57
1	B 249.677†	1544.3	1381.6	23.186	µg/L	23.186	ppb	10:25:36
1	Ba 233.527†	53369.8	53579.6	1348.8	µg/L	1348.8	ppb	10:25:36
1	Be 313.107†	18806.1	15207.0	7.7756	µg/L	7.7756	ppb	10:25:36
1	Cd 226.502†	321.6	432.3	2.0449	µg/L	2.0449	ppb	10:25:57
1	Co 228.616†	1083.8	1162.0	47.241	µg/L	47.241	ppb	10:25:57
1	Cr 267.716†	3484.4	3628.0	76.601	µg/L	76.601	ppb	10:25:36
1	Cu 324.752†	8071.3	4686.3	58.157	µg/L	58.157	ppb	10:25:36
1	Mn 257.610†	1101782.9	1104533.0	3472.1	µg/L	3472.1	ppb	10:25:31
1	Mo 202.031†	1.3	2.3	4.9483	µg/L	4.9483	ppb	10:25:57
1	Ni 231.604†	1464.8	1134.7	61.421	µg/L	61.421	ppb	10:25:57
1	P 214.914†	794.0	583.9	1144.2	µg/L	1144.2	ppb	10:25:57
1	Pb 220.353†	533.5	483.1	127.69	µg/L	127.69	ppb	10:25:57
1	S 181.975 Axial†	147.5	122.1	598.74	µg/L	598.74	ppb	10:25:57
1	Sb 206.836†	29.1	6.4	19.353	µg/L	19.353	ppb	10:25:57
1	Se 196.026†	-40.3	-52.8	5.3916	µg/L	5.3916	ppb	10:25:57
1	SiO2†	141150.0	139346.6	26782	µg/L	26782	ppb	10:25:31
1	Si 251.611†	158360.5	158345.0	12064	µg/L	12064	ppb	10:25:36
1	Sn 189.927†	-96.3	-118.7	-36.066	µg/L	-36.066	ppb	10:25:57
1	Ti 334.940†	1872778.0	1876192.7	4112.6	µg/L	4112.6	ppb	10:25:31
1	Tl 190.801†	-46.8	-23.4	6.4215	µg/L	6.4215	ppb	10:25:57
1	U 409.014†	499.8	-435.6	-63.631	µg/L	-63.631	ppb	10:25:31
1	V 292.402†	18584.8	18723.9	222.28	µg/L	222.28	ppb	10:25:36
1	Zn 213.857†	12361.9	11794.0	303.70	µg/L	303.70	ppb	10:25:36
2	Sc RADIAL	124403.8	124403.8	99.7	%			10:24:31
2	Al 396.153Radial†	163253.7	163546.6	79578	µg/L	79578	ppb	10:24:31
2	Ca 317.933Radial†	62294.5	62041.3	22632	µg/L	22632	ppb	10:24:31
2	Fe 238.204 Radial†	23357.0	23420.3	117800	µg/L	117800	ppb	10:24:52
2	K 766.490 Radial†	23309.1	22548.1	12043	µg/L	12043	ppb	10:24:31
2	Mg 279.077 IEC†	3011.8	3005.4	15833	µg/L	15833	ppb	10:24:52
2	Na 589.592 Radial†	6721.5	7487.6	1940.5	µg/L	1940.5	ppb	10:24:31
2	Sr 421.552†	41226.0	41462.8	221.18	µg/L	221.18	ppb	10:24:31
2	Sc 361.383	2185766.7	2185766.7	100.24	%			10:26:04
2	Y 371.029	1362725.7	1362725.7	102.78	%			10:26:04
2	Ag 328.068†	-928.6	-1007.1	1.6233	µg/L	1.6233	ppb	10:26:10
2	As 188.979†	17.1	16.0	20.623	µg/L	20.623	ppb	10:26:30

2	B 249.677†	1543.3	1373.4	23.260 µg/L	23.260 ppb	10:26:10
2	Ba 233.527†	53312.9	53272.0	1341.0 µg/L	1341.0 ppb	10:26:10
2	Be 313.107†	18874.1	15186.5	7.7663 µg/L	7.7663 ppb	10:26:10
2	Cd 226.502†	308.7	417.9	1.7806 µg/L	1.7806 ppb	10:26:30
2	Co 228.616†	1075.7	1148.8	46.624 µg/L	46.624 ppb	10:26:30
2	Cr 267.716†	3487.0	3614.2	76.309 µg/L	76.309 ppb	10:26:10
2	Cu 324.752†	8053.1	4630.3	57.471 µg/L	57.471 ppb	10:26:10
2	Mn 257.610†	1104897.4	1102461.9	3465.5 µg/L	3465.5 ppb	10:26:04
2	Mo 202.031†	6.6	7.7	5.4992 µg/L	5.4992 ppb	10:26:30
2	Ni 231.604†	1477.6	1140.6	61.741 µg/L	61.741 ppb	10:26:30
2	P 214.914†	792.7	578.8	1135.1 µg/L	1135.1 ppb	10:26:30
2	Pb 220.353†	543.3	490.4	129.58 µg/L	129.58 ppb	10:26:30
2	S 181.975 Axial†	144.0	118.0	577.86 µg/L	577.86 ppb	10:26:30
2	Sb 206.836†	30.1	7.3	20.225 µg/L	20.225 ppb	10:26:30
2	Se 196.026†	-38.0	-50.4	7.9708 µg/L	7.9708 ppb	10:26:30
2	SiO2†	141609.6	139141.8	26742 µg/L	26742 ppb	10:26:04
2	Si 251.611†	158215.1	157455.7	11995 µg/L	11995 ppb	10:26:10
2	Sn 189.927†	-89.3	-111.3	-32.614 µg/L	-32.614 ppb	10:26:30
2	Ti 334.940†	1877534.0	1872135.5	4103.7 µg/L	4103.7 ppb	10:26:04
2	Tl 190.801†	-34.2	-10.6	25.363 µg/L	25.363 ppb	10:26:30
2	U 409.014†	534.2	-403.6	-60.295 µg/L	-60.295 ppb	10:26:04
2	V 292.402†	18583.0	18634.7	221.17 µg/L	221.17 ppb	10:26:10
2	Zn 213.857†	12379.8	11753.8	302.77 µg/L	302.77 ppb	10:26:10
3	Sc RADIAL	123870.4	123870.4	99.3 %		10:24:57
3	Al 396.153Radial†	163594.3	164594.9	80088 µg/L	80088 ppb	10:24:57
3	Ca 317.933Radial†	62403.4	62420.1	22770 µg/L	22770 ppb	10:24:57
3	Fe 238.204 Radial†	23532.4	23697.9	119190 µg/L	119190 ppb	10:25:18
3	K 766.490 Radial†	23271.5	22610.8	12077 µg/L	12077 ppb	10:24:57
3	Mg 279.077 IEC†	3034.7	3041.4	16023 µg/L	16023 ppb	10:25:18
3	Na 589.592 Radial†	6711.5	7506.5	1945.4 µg/L	1945.4 ppb	10:24:57
3	Sr 421.552†	41205.4	41620.2	222.02 µg/L	222.02 ppb	10:24:57
3	Sc 361.383	2187848.4	2187848.4	100.34 %		10:26:38
3	Y 371.029	1362448.2	1362448.2	102.76 %		10:26:38
3	Ag 328.068†	-894.5	-972.2	2.0116 µg/L	2.0116 ppb	10:26:43
3	As 188.979†	20.4	19.3	26.445 µg/L	26.445 ppb	10:27:04
3	B 249.677†	1479.1	1307.9	19.948 µg/L	19.948 ppb	10:26:43
3	Ba 233.527†	52410.0	52321.5	1317.1 µg/L	1317.1 ppb	10:26:43
3	Be 313.107†	18460.0	14755.8	7.5366 µg/L	7.5366 ppb	10:26:43
3	Cd 226.502†	298.6	407.5	1.3981 µg/L	1.3981 ppb	10:27:04
3	Co 228.616†	1014.7	1087.0	43.842 µg/L	43.842 ppb	10:27:04
3	Cr 267.716†	3354.6	3479.0	73.459 µg/L	73.459 ppb	10:26:43
3	Cu 324.752†	8046.9	4616.5	57.675 µg/L	57.675 ppb	10:26:43
3	Mn 257.610†	1084287.0	1080871.8	3398.1 µg/L	3398.1 ppb	10:26:38
3	Mo 202.031†	1.5	2.5	4.9714 µg/L	4.9714 ppb	10:27:04
3	Ni 231.604†	1394.8	1056.7	57.199 µg/L	57.199 ppb	10:27:04
3	P 214.914†	757.8	543.4	1057.1 µg/L	1057.1 ppb	10:27:04
3	Pb 220.353†	510.3	457.0	121.15 µg/L	121.15 ppb	10:27:04
3	S 181.975 Axial†	142.6	116.4	569.80 µg/L	569.80 ppb	10:27:04
3	Sb 206.836†	19.4	-3.4	9.0552 µg/L	9.0552 ppb	10:27:04
3	Se 196.026†	-25.5	-37.8	26.589 µg/L	26.589 ppb	10:27:04
3	SiO2†	139622.5	137026.9	26336 µg/L	26336 ppb	10:26:38
3	Si 251.611†	155923.2	155021.2	11811 µg/L	11811 ppb	10:26:43
3	Sn 189.927†	-85.8	-107.6	-30.596 µg/L	-30.596 ppb	10:27:04
3	Ti 334.940†	1837799.0	1830751.6	4012.9 µg/L	4012.9 ppb	10:26:38
3	Tl 190.801†	-44.4	-20.7	9.4360 µg/L	9.4360 ppb	10:27:04
3	U 409.014†	544.5	-393.9	-59.616 µg/L	-59.616 ppb	10:26:38
3	V 292.402†	18109.5	18145.2	215.72 µg/L	215.72 ppb	10:26:43
3	Zn 213.857†	12099.7	11462.9	294.82 µg/L	294.82 ppb	10:26:43

Mean Data: 242794004|932935|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2183044.2	100.12	%	0.303				0.30%
Sc RADIAL	123876.6	99.3	%	0.42				0.42%
Y 371.029	1360296.1	102.59	%	0.299				0.29%
Ag 328.068†	-981.2	1.9207	µg/L	0.26387	1.9207	ppb	0.26387	13.74%
Al 396.153Radial†	163758.5	79681	µg/L	366.4	79681	ppb	366.4	0.46%
As 188.979†	14.8	18.230	µg/L	9.6371	18.230	ppb	9.6371	52.86%
B 249.677†	1354.3	22.132	µg/L	1.8913	22.132	ppb	1.8913	8.55%
Ba 233.527†	53057.7	1335.6	µg/L	16.51	1335.6	ppb	16.51	1.24%

Be 313.107†	15049.8	7.6928	µg/L	0.13539	7.6928	ppb	0.13539	1.76%
Ca 317.933Radial†	62108.3	22656	µg/L	103.7	22656	ppb	103.7	0.46%
Cd 226.502†	419.2	1.7412	µg/L	0.32520	1.7412	ppb	0.32520	18.68%
Co 228.616†	1132.6	45.902	µg/L	1.8106	45.902	ppb	1.8106	3.94%
Cr 267.716†	3573.7	75.456	µg/L	1.7357	75.456	ppb	1.7357	2.30%
Cu 324.752†	4644.4	57.768	µg/L	0.3525	57.768	ppb	0.3525	0.61%
Fe 238.204 Radial†	23604.4	118720	µg/L	802.0	118720	ppb	802.0	0.68%
K 766.490 Radial†	22535.3	12037	µg/L	44.1	12037	ppb	44.1	0.37%
Mg 279.077 IEC†	3031.3	15970	µg/L	119.0	15970	ppb	119.0	0.75%
Mn 257.610†	1095955.6	3445.2	µg/L	40.97	3445.2	ppb	40.97	1.19%
Mo 202.031†	4.2	5.1396	µg/L	0.31165	5.1396	ppb	0.31165	6.06%
Na 589.592 Radial†	7490.9	1941.3	µg/L	3.70	1941.3	ppb	3.70	0.19%
Ni 231.604†	1110.7	60.121	µg/L	2.5348	60.121	ppb	2.5348	4.22%
P 214.914†	568.7	1112.1	µg/L	47.86	1112.1	ppb	47.86	4.30%
Pb 220.353†	476.9	126.14	µg/L	4.424	126.14	ppb	4.424	3.51%
S 181.975 Axial†	118.8	582.13	µg/L	14.934	582.13	ppb	14.934	2.57%
Sb 206.836†	3.4	16.211	µg/L	6.2127	16.211	ppb	6.2127	38.32%
Se 196.026†	-47.0	13.317	µg/L	11.5657	13.317	ppb	11.5657	86.85%
SiO2†	138505.1	26620	µg/L	246.8	26620	ppb	246.8	0.93%
Si 251.611†	156940.6	11956	µg/L	130.9	11956	ppb	130.9	1.09%
Sn 189.927†	-112.5	-33.092	µg/L	2.7661	-33.092	ppb	2.7661	8.36%
Sr 421.552†	41464.4	221.19	µg/L	0.826	221.19	ppb	0.826	0.37%
Ti 334.940†	1859693.3	4076.4	µg/L	55.14	4076.4	ppb	55.14	1.35%
Tl 190.801†	-18.2	13.740	µg/L	10.1781	13.740	ppb	10.1781	74.08%
U 409.014†	-411.0	-61.180	µg/L	2.1493	-61.180	ppb	2.1493	3.51%
V 292.402†	18501.3	219.72	µg/L	3.512	219.72	ppb	3.512	1.60%
Zn 213.857†	11670.2	300.43	µg/L	4.883	300.43	ppb	4.883	1.63%

Sequence No.: 2
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 12/19/2009 10:27:12
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	123759.3	123759.3	99.2	%			10:27:51
1	Al 396.153Radial†	11026.8	10910.7	5289.0	µg/L	5289.0	ppb	10:27:51
1	Ca 317.933Radial†	14697.6	14375.3	5243.9	µg/L	5243.9	ppb	10:27:51
1	Fe 238.204 Radial†	1044.6	1045.0	5273.2	µg/L	5273.2	ppb	10:28:12
1	K 766.490 Radial†	10507.7	9762.3	5214.3	µg/L	5214.3	ppb	10:27:51
1	Mg 279.077 IEC†	1011.5	1004.3	5354.0	µg/L	5354.0	ppb	10:28:12
1	Na 589.592 Radial†	39768.8	40843.9	10585	µg/L	10585	ppb	10:27:51
1	Sr 421.552†	95253.5	96153.5	512.92	µg/L	512.92	ppb	10:27:51
1	Sc 361.383	2194142.9	2194142.9	100.63	%			10:29:15
1	Y 371.029	1331336.5	1331336.5	100.41	%			10:29:15
1	Ag 328.068†	57187.3	56751.3	517.91	µg/L	517.91	ppb	10:29:21
1	As 188.979†	288.7	285.8	537.07	µg/L	537.07	ppb	10:29:41
1	B 249.677†	11882.8	11642.8	509.56	µg/L	509.56	ppb	10:29:21
1	Ba 233.527†	20576.6	20536.0	517.88	µg/L	517.88	ppb	10:29:21
1	Be 313.107†	858876.4	849897.9	519.50	µg/L	519.50	ppb	10:29:15
1	Cd 226.502†	20101.3	20086.3	522.95	µg/L	522.95	ppb	10:29:21
1	Co 228.616†	10811.3	10819.8	520.03	µg/L	520.03	ppb	10:29:21
1	Cr 267.716†	24826.8	24808.2	521.60	µg/L	521.60	ppb	10:29:21
1	Cu 324.752†	76169.3	72292.6	503.37	µg/L	503.37	ppb	10:29:21
1	Mn 257.610†	165526.2	164719.3	516.22	µg/L	516.22	ppb	10:29:15
1	Mo 202.031†	4630.0	4602.3	523.12	µg/L	523.12	ppb	10:29:41
1	Ni 231.604†	10014.5	9618.8	520.66	µg/L	520.66	ppb	10:29:21
1	P 214.914†	1436.0	1215.1	2568.8	µg/L	2568.8	ppb	10:29:41
1	Pb 220.353†	2149.0	2084.1	528.28	µg/L	528.28	ppb	10:29:41
1	S 181.975 Axial†	238.6	211.4	1069.4	µg/L	1069.4	ppb	10:29:41
1	Sb 206.836†	554.3	528.1	531.21	µg/L	531.21	ppb	10:29:41
1	Se 196.026†	398.7	383.8	544.40	µg/L	544.40	ppb	10:29:41
1	SiO2†	30980.9	28661.1	5508.6	µg/L	5508.6	ppb	10:29:21
1	Si 251.611†	33925.3	33335.5	2521.4	µg/L	2521.4	ppb	10:29:21
1	Sn 189.927†	1112.4	1083.3	534.70	µg/L	534.70	ppb	10:29:41
1	Ti 334.940†	237049.0	234692.8	514.30	µg/L	514.30	ppb	10:29:15
1	Tl 190.801†	336.8	358.3	534.58	µg/L	534.58	ppb	10:29:41
1	U 409.014†	6265.1	5289.7	508.16	µg/L	508.16	ppb	10:29:21
1	V 292.402†	45773.0	45585.0	522.56	µg/L	522.56	ppb	10:29:21
1	Zn 213.857†	20286.6	19564.3	522.05	µg/L	522.05	ppb	10:29:21
2	Sc RADIAL	124849.4	124849.4	100	%			10:28:17
2	Al 396.153Radial†	11038.3	10825.2	5247.3	µg/L	5247.3	ppb	10:28:17
2	Ca 317.933Radial†	14856.5	14404.8	5254.7	µg/L	5254.7	ppb	10:28:17
2	Fe 238.204 Radial†	1044.8	1036.0	5227.9	µg/L	5227.9	ppb	10:28:37
2	K 766.490 Radial†	10676.2	9838.2	5254.8	µg/L	5254.8	ppb	10:28:17
2	Mg 279.077 IEC†	1010.8	994.7	5303.1	µg/L	5303.1	ppb	10:28:37
2	Na 589.592 Radial†	39935.3	40660.2	10538	µg/L	10538	ppb	10:28:17
2	Sr 421.552†	96098.9	96159.9	512.96	µg/L	512.96	ppb	10:28:17
2	Sc 361.383	2179239.6	2179239.6	99.942	%			10:29:48
2	Y 371.029	1321521.6	1321521.6	99.669	%			10:29:48
2	Ag 328.068†	57320.2	57272.9	522.68	µg/L	522.68	ppb	10:29:54
2	As 188.979†	284.1	283.2	532.18	µg/L	532.18	ppb	10:30:14
2	B 249.677†	11967.9	11808.7	516.85	µg/L	516.85	ppb	10:29:54
2	Ba 233.527†	20705.3	20804.6	524.65	µg/L	524.65	ppb	10:29:54
2	Be 313.107†	855477.7	852334.3	520.99	µg/L	520.99	ppb	10:29:48
2	Cd 226.502†	20209.0	20330.7	529.32	µg/L	529.32	ppb	10:29:54
2	Co 228.616†	10887.0	10969.1	527.20	µg/L	527.20	ppb	10:29:54
2	Cr 267.716†	24929.5	25079.7	527.31	µg/L	527.31	ppb	10:29:54
2	Cu 324.752†	76556.9	73198.1	509.66	µg/L	509.66	ppb	10:29:54
2	Mn 257.610†	164955.6	165273.3	517.95	µg/L	517.95	ppb	10:29:48
2	Mo 202.031†	4622.5	4626.2	525.84	µg/L	525.84	ppb	10:30:14
2	Ni 231.604†	10007.2	9679.6	523.95	µg/L	523.95	ppb	10:29:54
2	P 214.914†	1426.4	1215.3	2568.5	µg/L	2568.5	ppb	10:30:14
2	Pb 220.353†	2151.2	2100.9	532.52	µg/L	532.52	ppb	10:30:14

2	S 181.975 Axial†	238.9	213.3	1079.0 µg/L	1079.0 ppb	10:30:14
2	Sb 206.836†	551.0	528.6	531.70 µg/L	531.70 ppb	10:30:14
2	Se 196.026†	400.0	387.8	550.10 µg/L	550.10 ppb	10:30:14
2	SiO2†	31077.4	28968.2	5567.6 µg/L	5567.6 ppb	10:29:54
2	Si 251.611†	34068.8	33709.7	2550.0 µg/L	2550.0 ppb	10:29:54
2	Sn 189.927†	1117.0	1095.5	540.68 µg/L	540.68 ppb	10:30:14
2	Ti 334.940†	236129.0	235383.3	515.82 µg/L	515.82 ppb	10:29:48
2	Tl 190.801†	335.1	358.8	535.39 µg/L	535.39 ppb	10:30:14
2	U 409.014†	6333.5	5400.7	518.86 µg/L	518.86 ppb	10:29:54
2	V 292.402†	46096.4	46219.7	529.80 µg/L	529.80 ppb	10:29:54
2	Zn 213.857†	20406.1	19821.7	528.95 µg/L	528.95 ppb	10:29:54
3	Sc RADIAL	123428.1	123428.1	98.9 %		10:28:43
3	Al 396.153Radial†	10928.8	10841.5	5258.2 µg/L	5258.2 ppb	10:28:43
3	Ca 317.933Radial†	14772.0	14490.3	5285.9 µg/L	5285.9 ppb	10:28:43
3	Fe 238.204 Radial†	1046.7	1049.9	5297.2 µg/L	5297.2 ppb	10:29:03
3	K 766.490 Radial†	10575.4	9859.2	5266.0 µg/L	5266.0 ppb	10:28:43
3	Mg 279.077 IEC†	1016.6	1012.1	5394.1 µg/L	5394.1 ppb	10:29:03
3	Na 589.592 Radial†	39760.3	40942.8	10611 µg/L	10611 ppb	10:28:43
3	Sr 421.552†	95496.3	96656.7	515.61 µg/L	515.61 ppb	10:28:43
3	Sc 361.383	2168520.9	2168520.9	99.450 %		10:30:22
3	Y 371.029	1315324.4	1315324.4	99.201 %		10:30:22
3	Ag 328.068†	55216.9	55441.4	505.84 µg/L	505.84 ppb	10:30:27
3	As 188.979†	240.4	240.7	452.19 µg/L	452.19 ppb	10:30:48
3	B 249.677†	11495.5	11392.9	498.58 µg/L	498.58 ppb	10:30:27
3	Ba 233.527†	19493.2	19688.2	496.48 µg/L	496.48 ppb	10:30:27
3	Be 313.107†	819397.6	820285.7	501.40 µg/L	501.40 ppb	10:30:22
3	Cd 226.502†	18972.4	19187.2	499.51 µg/L	499.51 ppb	10:30:27
3	Co 228.616†	10113.9	10245.5	492.30 µg/L	492.30 ppb	10:30:27
3	Cr 267.716†	22629.1	22889.9	481.29 µg/L	481.29 ppb	10:30:27
3	Cu 324.752†	71805.4	68799.0	479.11 µg/L	479.11 ppb	10:30:27
3	Mn 257.610†	158188.7	159284.8	499.22 µg/L	499.22 ppb	10:30:22
3	Mo 202.031†	3927.9	3950.7	449.09 µg/L	449.09 ppb	10:30:48
3	Ni 231.604†	9383.7	9102.2	492.70 µg/L	492.70 ppb	10:30:27
3	P 214.914†	1267.5	1062.6	2240.6 µg/L	2240.6 ppb	10:30:48
3	Pb 220.353†	1896.0	1854.9	470.11 µg/L	470.11 ppb	10:30:48
3	S 181.975 Axial†	205.9	181.3	917.16 µg/L	917.16 ppb	10:30:48
3	Sb 206.836†	482.6	462.5	465.27 µg/L	465.27 ppb	10:30:48
3	Se 196.026†	366.5	356.1	505.27 µg/L	505.27 ppb	10:30:48
3	SiO2†	29586.1	27622.3	5308.9 µg/L	5308.9 ppb	10:30:27
3	Si 251.611†	32354.5	32154.4	2435.6 µg/L	2435.6 ppb	10:30:27
3	Sn 189.927†	928.0	911.0	450.11 µg/L	450.11 ppb	10:30:48
3	Ti 334.940†	225266.8	225628.9	494.43 µg/L	494.43 ppb	10:30:22
3	Tl 190.801†	306.2	331.5	494.78 µg/L	494.78 ppb	10:30:48
3	U 409.014†	5814.7	4910.3	471.65 µg/L	471.65 ppb	10:30:27
3	V 292.402†	42591.4	42923.3	491.76 µg/L	491.76 ppb	10:30:27
3	Zn 213.857†	19098.6	18607.9	496.50 µg/L	496.50 ppb	10:30:27

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2180634.5	100.01	%	0.590				0.59%
Sc RADIAL	124012.3	99.4	%	0.60				0.60%
Y 371.029	1322727.5	99.760	%	0.6089				0.61%
Ag 328.068†	56488.5	515.48	µg/L	8.678	515.48	ppb	8.678	1.68%
QC value within limits for Ag 328.068 Recovery = 103.10%								
Al 396.153Radial†	10859.2	5264.8	µg/L	21.65	5264.8	ppb	21.65	0.41%
QC value within limits for Al 396.153Radial Recovery = 105.30%								
As 188.979†	269.9	507.15	µg/L	47.653	507.15	ppb	47.653	9.40%
QC value within limits for As 188.979 Recovery = 101.43%								
B 249.677†	11614.8	508.33	µg/L	9.201	508.33	ppb	9.201	1.81%
QC value within limits for B 249.677 Recovery = 101.67%								
Ba 233.527†	20343.0	513.00	µg/L	14.706	513.00	ppb	14.706	2.87%
QC value within limits for Ba 233.527 Recovery = 102.60%								
Be 313.107†	840839.3	513.96	µg/L	10.905	513.96	ppb	10.905	2.12%
QC value within limits for Be 313.107 Recovery = 102.79%								
Ca 317.933Radial†	14423.5	5261.5	µg/L	21.79	5261.5	ppb	21.79	0.41%
QC value within limits for Ca 317.933Radial Recovery = 105.23%								
Cd 226.502†	19868.1	517.26	µg/L	15.701	517.26	ppb	15.701	3.04%
QC value within limits for Cd 226.502 Recovery = 103.45%								
Co 228.616†	10678.1	513.18	µg/L	18.431	513.18	ppb	18.431	3.59%

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   QC value within limits for Co 228.616  Recovery = 102.64%
Cr 267.716†            24259.2      510.06 µg/L        25.085      510.06 ppb        25.085   4.92%
   QC value within limits for Cr 267.716  Recovery = 102.01%
Cu 324.752†            71429.9      497.38 µg/L        16.132      497.38 ppb        16.132   3.24%
   QC value within limits for Cu 324.752  Recovery = 99.48%
Fe 238.204 Radial†      1043.6      5266.1 µg/L         35.16      5266.1 ppb         35.16   0.67%
   QC value within limits for Fe 238.204 Radial  Recovery = 105.32%
K 766.490 Radial†       9819.9      5245.0 µg/L         27.22      5245.0 ppb         27.22   0.52%
   QC value within limits for K 766.490 Radial  Recovery = 104.90%
Mg 279.077 IEC†         1003.7      5350.4 µg/L         45.61      5350.4 ppb         45.61   0.85%
   QC value within limits for Mg 279.077 IEC  Recovery = 107.01%
Mn 257.610†           163092.4      511.13 µg/L        10.354      511.13 ppb        10.354   2.03%
   QC value within limits for Mn 257.610  Recovery = 102.23%
Mo 202.031†             4393.1      499.35 µg/L        43.551      499.35 ppb        43.551   8.72%
   QC value within limits for Mo 202.031  Recovery = 99.87%
Na 589.592 Radial†     40815.6       10578 µg/L          37.2       10578 ppb          37.2   0.35%
   QC value within limits for Na 589.592 Radial  Recovery = 105.78%
Ni 231.604†             9466.9      512.44 µg/L        17.175      512.44 ppb        17.175   3.35%
   QC value within limits for Ni 231.604  Recovery = 102.49%
P 214.914†              1164.4      2459.3 µg/L        189.38      2459.3 ppb        189.38   7.70%
   QC value within limits for P 214.914  Recovery = 98.37%
Pb 220.353†             2013.3      510.30 µg/L        34.873      510.30 ppb        34.873   6.83%
   QC value within limits for Pb 220.353  Recovery = 102.06%
S 181.975 Axial†         202.0      1021.9 µg/L         90.80      1021.9 ppb         90.80   8.89%
   QC value within limits for S 181.975 Axial  Recovery = 102.19%
Sb 206.836†              506.4      509.39 µg/L        38.213      509.39 ppb        38.213   7.50%
   QC value within limits for Sb 206.836  Recovery = 101.88%
Se 196.026†              375.9      533.26 µg/L        24.409      533.26 ppb        24.409   4.58%
   QC value within limits for Se 196.026  Recovery = 106.65%
SiO2†                  28417.2      5461.7 µg/L        135.56      5461.7 ppb        135.56   2.48%
   QC value within limits for SiO2  Recovery = 102.14%
Si 251.611†            33066.5      2502.3 µg/L         59.55      2502.3 ppb         59.55   2.38%
   QC value within limits for Si 251.611  Recovery = 100.09%
Sn 189.927†             1029.9      508.50 µg/L        50.649      508.50 ppb        50.649   9.96%
   QC value within limits for Sn 189.927  Recovery = 101.70%
Sr 421.552†            96323.4      513.83 µg/L         1.540      513.83 ppb         1.540   0.30%
   QC value within limits for Sr 421.552  Recovery = 102.77%
Ti 334.940†           231901.7      508.18 µg/L        11.936      508.18 ppb        11.936   2.35%
   QC value within limits for Ti 334.940  Recovery = 101.64%
Tl 190.801†              349.5      521.58 µg/L        23.218      521.58 ppb        23.218   4.45%
   QC value within limits for Tl 190.801  Recovery = 104.32%
U 409.014†              5200.3      499.56 µg/L        24.750      499.56 ppb        24.750   4.95%
   QC value within limits for U 409.014  Recovery = 99.91%
V 292.402†             44909.3      514.71 µg/L        20.199      514.71 ppb        20.199   3.92%
   QC value within limits for V 292.402  Recovery = 102.94%
Zn 213.857†            19331.3      515.83 µg/L        17.094      515.83 ppb        17.094   3.31%
   QC value within limits for Zn 213.857  Recovery = 103.17%
All analyte(s) passed QC.
```

Sequence No.: 3
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 12/19/2009 10:30:56
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	119930.5	119930.5	96.1	%			10:31:29
1	Al 396.153Radial†	172.2	-28.2	-13.728	µg/L	-13.728	ppb	10:31:29
1	Ca 317.933Radial†	466.4	41.2	15.036	µg/L	15.036	ppb	10:31:49
1	Fe 238.204 Radial†	10.1	2.3	11.523	µg/L	11.523	ppb	10:31:49
1	K 766.490 Radial†	761.6	-40.1	-21.398	µg/L	-21.398	ppb	10:31:29
1	Mg 279.077 IEC†	22.6	7.8	41.692	µg/L	41.692	ppb	10:31:49
1	Na 589.592 Radial†	-704.1	12.9	3.3397	µg/L	3.3397	ppb	10:31:29
1	Sr 421.552†	-76.9	30.5	0.1624	µg/L	0.1624	ppb	10:31:29
1	Sc 361.383	2172438.9	2172438.9	99.630	%			10:32:51
1	Y 371.029	1323729.7	1323729.7	99.835	%			10:32:51
1	Ag 328.068†	181.1	101.0	0.9118	µg/L	0.9118	ppb	10:32:57
1	As 188.979†	-1.2	-2.2	-4.2024	µg/L	-4.2024	ppb	10:33:17
1	B 249.677†	174.0	8.5	0.3678	µg/L	0.3678	ppb	10:32:57
1	Ba 233.527†	-77.5	9.5	0.2372	µg/L	0.2372	ppb	10:33:17
1	Be 313.107†	3778.6	150.4	0.0918	µg/L	0.0918	ppb	10:32:57
1	Cd 226.502†	-102.3	7.3	0.1860	µg/L	0.1860	ppb	10:33:17
1	Co 228.616†	-81.4	-6.0	-0.2912	µg/L	-0.2912	ppb	10:33:17
1	Cr 267.716†	-140.1	-5.0	-0.1060	µg/L	-0.1060	ppb	10:32:57
1	Cu 324.752†	3340.7	-50.3	-0.3470	µg/L	-0.3470	ppb	10:32:57
1	Mn 257.610†	-198.6	22.2	0.0709	µg/L	0.0709	ppb	10:33:17
1	Mo 202.031†	-3.6	-2.6	-0.2946	µg/L	-0.2946	ppb	10:33:17
1	Ni 231.604†	356.9	24.9	1.3453	µg/L	1.3453	ppb	10:33:17
1	P 214.914†	196.0	-15.2	-32.890	µg/L	-32.890	ppb	10:33:17
1	Pb 220.353†	51.3	-0.1	-0.0263	µg/L	-0.0263	ppb	10:33:17
1	S 181.975 Axial†	32.3	6.7	33.968	µg/L	33.968	ppb	10:33:17
1	Sb 206.836†	21.9	-0.8	-0.8060	µg/L	-0.8060	ppb	10:33:17
1	Se 196.026†	4.5	-7.9	-11.129	µg/L	-11.129	ppb	10:33:17
1	SiO2†	2118.9	-0.6	-0.1117	µg/L	-0.1117	ppb	10:32:57
1	Si 251.611†	404.4	27.0	2.1342	µg/L	2.1342	ppb	10:33:17
1	Sn 189.927†	19.1	-3.0	-1.4499	µg/L	-1.4499	ppb	10:33:17
1	Ti 334.940†	1064.0	184.6	0.4039	µg/L	0.4039	ppb	10:32:57
1	Tl 190.801†	-16.9	6.6	9.8321	µg/L	9.8321	ppb	10:33:17
1	U 409.014†	880.3	-53.0	-5.0976	µg/L	-5.0976	ppb	10:32:57
1	V 292.402†	-150.0	-54.1	-0.6239	µg/L	-0.6239	ppb	10:32:57
1	Zn 213.857†	610.1	16.1	0.4242	µg/L	0.4242	ppb	10:33:17
2	Sc RADIAL	120042.2	120042.2	96.2	%			10:31:55
2	Al 396.153Radial†	206.1	6.9	3.3527	µg/L	3.3527	ppb	10:31:55
2	Ca 317.933Radial†	462.4	36.6	13.342	µg/L	13.342	ppb	10:32:15
2	Fe 238.204 Radial†	9.3	1.4	7.0967	µg/L	7.0967	ppb	10:32:15
2	K 766.490 Radial†	784.3	-17.2	-9.1744	µg/L	-9.1744	ppb	10:31:55
2	Mg 279.077 IEC†	15.8	0.8	4.0715	µg/L	4.0715	ppb	10:32:15
2	Na 589.592 Radial†	-756.5	-41.0	-10.616	µg/L	-10.616	ppb	10:31:55
2	Sr 421.552†	7.1	117.9	0.6287	µg/L	0.6287	ppb	10:31:55
2	Sc 361.383	2191357.2	2191357.2	100.50	%			10:33:23
2	Y 371.029	1335263.4	1335263.4	100.70	%			10:33:23
2	Ag 328.068†	191.2	109.5	0.9884	µg/L	0.9884	ppb	10:33:29
2	As 188.979†	-2.7	-3.8	-7.0698	µg/L	-7.0698	ppb	10:33:49
2	B 249.677†	166.7	-0.4	-0.0184	µg/L	-0.0184	ppb	10:33:29
2	Ba 233.527†	-71.8	15.8	0.3958	µg/L	0.3958	ppb	10:33:49
2	Be 313.107†	3750.8	90.0	0.0550	µg/L	0.0550	ppb	10:33:29
2	Cd 226.502†	-104.9	5.6	0.1355	µg/L	0.1355	ppb	10:33:49
2	Co 228.616†	-82.5	-6.4	-0.3101	µg/L	-0.3101	ppb	10:33:49
2	Cr 267.716†	-152.2	-15.9	-0.3338	µg/L	-0.3338	ppb	10:33:29
2	Cu 324.752†	3451.7	31.2	0.2182	µg/L	0.2182	ppb	10:33:29
2	Mn 257.610†	-192.0	30.4	0.0962	µg/L	0.0962	ppb	10:33:49
2	Mo 202.031†	-3.4	-2.3	-0.2616	µg/L	-0.2616	ppb	10:33:49
2	Ni 231.604†	345.7	10.5	0.5709	µg/L	0.5709	ppb	10:33:49
2	P 214.914†	194.6	-18.2	-39.442	µg/L	-39.442	ppb	10:33:49
2	Pb 220.353†	47.0	-4.8	-1.2161	µg/L	-1.2161	ppb	10:33:49

2	S 181.975 Axial†	27.2	1.4	6.9108 µg/L	6.9108 ppb	10:33:49
2	Sb 206.836†	23.6	0.8	0.7672 µg/L	0.7672 ppb	10:33:49
2	Se 196.026†	16.6	4.1	5.8098 µg/L	5.8098 ppb	10:33:49
2	SiO2†	2149.2	11.2	2.1573 µg/L	2.1573 ppb	10:33:29
2	Si 251.611†	397.0	16.1	1.2851 µg/L	1.2851 ppb	10:33:49
2	Sn 189.927†	19.9	-2.4	-1.1657 µg/L	-1.1657 ppb	10:33:49
2	Ti 334.940†	987.4	99.1	0.2166 µg/L	0.2166 ppb	10:33:29
2	Tl 190.801†	-14.3	9.3	13.840 µg/L	13.840 ppb	10:33:49
2	U 409.014†	802.4	-138.1	-13.289 µg/L	-13.289 ppb	10:33:29
2	V 292.402†	-144.6	-47.5	-0.5621 µg/L	-0.5621 ppb	10:33:29
2	Zn 213.857†	616.6	17.3	0.4620 µg/L	0.4620 ppb	10:33:49
3	Sc RADIAL	120128.9	120128.9	96.3 %		10:32:21
3	Al 396.153Radial†	166.1	-34.9	-17.018 µg/L	-17.018 ppb	10:32:21
3	Ca 317.933Radial†	456.4	30.0	10.927 µg/L	10.927 ppb	10:32:41
3	Fe 238.204 Radial†	8.7	0.8	4.0220 µg/L	4.0220 ppb	10:32:41
3	K 766.490 Radial†	812.9	11.9	6.3669 µg/L	6.3669 ppb	10:32:21
3	Mg 279.077 IEC†	13.2	-1.9	-10.111 µg/L	-10.111 ppb	10:32:41
3	Na 589.592 Radial†	-742.2	-25.5	-6.6142 µg/L	-6.6142 ppb	10:32:21
3	Sr 421.552†	-90.7	16.3	0.0870 µg/L	0.0870 ppb	10:32:21
3	Sc 361.383	2175436.3	2175436.3	99.767 %		10:33:55
3	Y 371.029	1325862.8	1325862.8	99.996 %		10:33:55
3	Ag 328.068†	212.4	132.1	1.1965 µg/L	1.1965 ppb	10:34:01
3	As 188.979†	-1.6	-2.6	-4.9809 µg/L	-4.9809 ppb	10:34:22
3	B 249.677†	147.1	-18.8	-0.8262 µg/L	-0.8262 ppb	10:34:01
3	Ba 233.527†	-70.3	16.8	0.4217 µg/L	0.4217 ppb	10:34:22
3	Be 313.107†	3734.2	100.7	0.0615 µg/L	0.0615 ppb	10:34:01
3	Cd 226.502†	-114.9	-5.2	-0.1434 µg/L	-0.1434 ppb	10:34:22
3	Co 228.616†	-69.6	5.9	0.2865 µg/L	0.2865 ppb	10:34:22
3	Cr 267.716†	-154.1	-18.8	-0.3943 µg/L	-0.3943 ppb	10:34:01
3	Cu 324.752†	3382.9	-12.7	-0.0872 µg/L	-0.0872 ppb	10:34:01
3	Mn 257.610†	-212.1	8.9	0.0284 µg/L	0.0284 ppb	10:34:22
3	Mo 202.031†	5.3	6.3	0.7190 µg/L	0.7190 ppb	10:34:22
3	Ni 231.604†	351.5	18.9	1.0248 µg/L	1.0248 ppb	10:34:22
3	P 214.914†	196.8	-14.6	-31.611 µg/L	-31.611 ppb	10:34:22
3	Pb 220.353†	42.9	-8.6	-2.1661 µg/L	-2.1661 ppb	10:34:22
3	S 181.975 Axial†	27.8	2.1	10.707 µg/L	10.707 ppb	10:34:22
3	Sb 206.836†	17.2	-5.5	-5.5672 µg/L	-5.5672 ppb	10:34:22
3	Se 196.026†	14.4	2.1	2.9322 µg/L	2.9322 ppb	10:34:22
3	SiO2†	2121.0	-1.4	-0.2620 µg/L	-0.2620 ppb	10:34:01
3	Si 251.611†	397.0	19.0	1.4462 µg/L	1.4462 ppb	10:34:22
3	Sn 189.927†	21.7	-0.4	-0.1868 µg/L	-0.1868 ppb	10:34:22
3	Ti 334.940†	987.9	106.9	0.2337 µg/L	0.2337 ppb	10:34:01
3	Tl 190.801†	-19.8	3.7	5.5284 µg/L	5.5284 ppb	10:34:22
3	U 409.014†	821.0	-113.6	-10.931 µg/L	-10.931 ppb	10:34:01
3	V 292.402†	-96.6	-0.4	-0.0174 µg/L	-0.0174 ppb	10:34:01
3	Zn 213.857†	617.1	22.3	0.5946 µg/L	0.5946 ppb	10:34:22

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2179744.2	99.965	%	0.4663				0.47%
Sc RADIAL	120033.9	96.2	%	0.08				0.08%
Y 371.029	1328285.3	100.18	%	0.463				0.46%
Ag 328.068†	114.2	1.0322	µg/L	0.14735	1.0322	ppb	0.14735	14.27%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-18.8	-9.1311	µg/L	10.93577	-9.1311	ppb	10.93577	119.76%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-2.9	-5.4177	µg/L	1.48279	-5.4177	ppb	1.48279	27.37%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-3.6	-0.1589	µg/L	0.60931	-0.1589	ppb	0.60931	383.43%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	14.0	0.3516	µg/L	0.09987	0.3516	ppb	0.09987	28.41%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	113.7	0.0694	µg/L	0.01968	0.0694	ppb	0.01968	28.33%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	35.9	13.102	µg/L	2.0654	13.102	ppb	2.0654	15.76%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	2.5	0.0594	µg/L	0.17739	0.0594	ppb	0.17739	298.74%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	-2.2	-0.1049	µg/L	0.33912	-0.1049	ppb	0.33912	323.14%

```
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -13.2     -0.2781 µg/L       0.15204     -0.2781 ppb        0.15204  54.68%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -10.6     -0.0720 µg/L       0.28288     -0.0720 ppb        0.28288 392.88%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         1.5      7.5471 µg/L       3.77055      7.5471 ppb        3.77055  49.96%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        -15.1     -8.0686 µg/L      13.91568     -8.0686 ppb       13.91568 172.47%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            2.2      11.884 µg/L       26.7707      11.884 ppb        26.7707 225.27%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               20.5      0.0652 µg/L       0.03424      0.0652 ppb        0.03424  52.52%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                0.5      0.0542 µg/L       0.57591      0.0542 ppb        0.57591 >999.9%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       -17.9     -4.6302 µg/L       7.18631     -4.6302 ppb        7.18631 155.21%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               18.1      0.9803 µg/L       0.38911      0.9803 ppb        0.38911  39.69%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -16.0     -34.648 µg/L        4.2010     -34.648 ppb         4.2010  12.12%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               -4.5     -1.1362 µg/L       1.07214     -1.1362 ppb        1.07214  94.36%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           3.4      17.195 µg/L       14.6491      17.195 ppb        14.6491  85.19%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               -1.8     -1.8687 µg/L       3.29818     -1.8687 ppb        3.29818 176.50%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               -0.6     -0.7956 µg/L       9.06379     -0.7956 ppb        9.06379 >999.9%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                      3.1      0.5946 µg/L       1.35545      0.5946 ppb        1.35545 227.98%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               20.7      1.6219 µg/L       0.45094      1.6219 ppb        0.45094  27.80%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               -1.9     -0.9341 µg/L       0.66261     -0.9341 ppb        0.66261  70.93%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               54.9      0.2927 µg/L       0.29341      0.2927 ppb        0.29341 100.24%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              130.2      0.2847 µg/L       0.10354      0.2847 ppb        0.10354  36.36%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                6.6      9.7335 µg/L       4.15659      9.7335 ppb        4.15659  42.70%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              -101.5     -9.7727 µg/L       4.21693     -9.7727 ppb        4.21693  43.15%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               -34.0     -0.4011 µg/L       0.33373     -0.4011 ppb        0.33373  83.20%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               18.6      0.4936 µg/L       0.08951      0.4936 ppb        0.08951  18.13%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Daily Performance Report

Sample ID: Sample
Sample Date/Time: Wednesday, December 30, 2009 10:52:28
Sample Description:
Method File: c:\elandata\Method\daily2.mth
Dataset File: c:\elandata\Dataset\090811\Sample.339
Tuning File: c:\elandata\Tuning\default2.tun
Optimization File: c:\elandata\Optimize\default.dac
Dual Detector Mode: Pulse
Acq. Dead Time(ns): 35
Current Dead Time (ns): 35

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Be	9.0	482.8	482.808	13.256	2.7
	Mg	24.0	15281.2	15281.170	209.340	1.4
	Co	58.9	52946.4	52946.352	787.353	1.5
	Rh	102.9	90138.7	90138.725	1267.467	1.4
	In	114.9	106414.9	106414.904	1048.065	1.0
	Pb	208.0	55655.2	55655.211	575.965	1.0
⌈>	Ba	137.9	92409.9	92409.939	805.257	0.9
⌊	Ba++	69.0	1870.1	0.020	0.000	1.9
⌈>	Ce	139.9	110008.8	110008.754	641.660	0.6
⌊	CeO	155.9	2602.1	0.024	0.000	1.9
	Bkgd	220.0	4.6	4.600	1.782	38.7

Current Optimization File Data

Current Value	Description
0.84	Nebulizer Gas Flow
6.00	Lens Voltage
1000.00	ICP RF Power
-1875.00	Analog Stage Voltage
1100.00	Pulse Stage Voltage
50.00	Discriminator Threshold
-2.00	AC Rod Offset

Current AutoLens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	17	6.5	1089.0
Co	59	17	8.3	36716.1
In	115	17	9.8	80518.6

ICPMS #4 TUNING REPORT

File Name: default2.tun
File Path: c:\elandata\Tuning

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas Peak W
He	3.0	3.0	606	2060	0.612
Be	9.0	8.9	2032	2055	0.658
Mg	24.0	24.0	5673	2065	0.631
Mg	25.0	25.0	5935	2070	0.643
Mg	26.0	26.0	6159	2085	0.614
Co	58.9	58.9	14164	2120	0.670
Rh	102.9	102.9	24876	2220	0.650
In	114.9	114.8	27766	2255	0.632
Ce	139.9	139.9	33862	2300	0.634
Pb	206.0	205.9	49919	2460	0.688
Pb	207.0	207.0	50125	2380	0.661
Pb	208.0	208.0	50436	2490	0.648
U	238.1	238.1	57688	2480	0.703

ICPMS#4 - Summary Report

Sample ID: Blank
Sample Date/Time: Wednesday, December 30, 2009 22:21:41
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\091230\Blank.162

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7		ug/L		6	
	Be	9		ug/L		2	
	B	11		ug/L		50	
	Na	23		ug/L		36047	
	Mg	24		ug/L		3000	
	Al	27		ug/L		3334	
	P	31		ug/L		3252	
	K	39		ug/L		399900	
	Ca	43		ug/L		580	
>	Sc	45		ug/L		857625	
	Ti	47		ug/L		239	
	V	51		ug/L		-2693	
	Cr	52		ug/L		1870	
	Cr	53		ug/L		212637	
	Mn	55		ug/L		1088	
	Fe	57		ug/L		3124	
	Co	59		ug/L		131	
	Ni	60		ug/L		45	
	Cu	63		ug/L		136	
	Cu	65		ug/L		64	
	Zn	66		ug/L		90	
	Zn	67		ug/L		8651	
	Zn	68		ug/L		677	
>	Ge	74		ug/L		129667	
	As	75		ug/L		454	
	Se	77		ug/L		10403	
	Se	82		ug/L		-1	
	Kr	83		ug/L		52	
	Sr	88		ug/L		156	
	Y	89		ug/L		19	
	Zr	90		ug/L		183	
	Mo	98		ug/L		55	
	Ag	107		ug/L		67	
	Cd	111		ug/L		12	
	Cd	114		ug/L		25	
>	In	115		ug/L		83400	
	Sn	120		ug/L		179	
	Sb	121		ug/L		360	
	Sb	123		ug/L		331	
	Ba	135		ug/L		14	
	Ba	137		ug/L		31	
	Ho	165		ug/L		14	
>	Lu	175		ug/L		89805	
	Tl	205		ug/L		352	
	Pb	208		ug/L		347	
	Bi	209		ug/L		30	
	Th	232		ug/L		357	
	U	238		ug/L		197	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	0.9995
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45					
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115					
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175					
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Wednesday, December 30, 2009 22:27:53
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\091230\Standard 1.163

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	10.000	ug/L	7.824	515	0.001
	Be	9	10.000	ug/L	5.268	231	0.000
	B	11	20.000	ug/L	4.142	572	0.001
	Na	23	1000.000	ug/L	9.505	1117043	1.248
	Mg	24	1000.000	ug/L	3.971	735151	0.847
	Al	27	1000.000	ug/L	4.919	930018	1.072
	P	31	1000.000	ug/L	0.946	52977	0.058
	K	39	1000.000	ug/L	9.170	2268660	2.161
	Ca	43	1000.000	ug/L	4.142	4323	0.004
>	Sc	45		ug/L		864449	864448.955
	Ti	47	10.000	ug/L	1.185	2079	0.002
	V	51	10.000	ug/L	23.785	14675	0.020
	Cr	52	10.000	ug/L	2.692	20894	0.022
	Cr	53		ug/L		215630	0.001
	Mn	55	10.000	ug/L	1.556	30665	0.034
	Fe	57	1000.000	ug/L	1.080	63432	0.070
	Co	59	10.000	ug/L	1.853	24163	0.028
	Ni	60	10.000	ug/L	2.681	5161	0.006
	Cu	63		ug/L		11802	0.014
	Cu	65	10.000	ug/L	1.658	5590	0.006
	Zn	66	10.000	ug/L	1.397	2789	0.021
	Zn	67		ug/L		9052	0.003
	Zn	68		ug/L		2537	0.014
>	Ge	74		ug/L		130716	130715.997
	As	75	10.000	ug/L	19.291	3154	0.021
	Se	77		ug/L		10544	0.000
	Se	82	10.000	ug/L	5.687	255	0.002
	Kr	83		ug/L		64	0.000
	Sr	88	10.000	ug/L	1.634	47560	0.570
	Y	89		ug/L		23	0.000
	Zr	90	10.000	ug/L	3.438	26231	0.313
	Mo	98	10.000	ug/L	0.862	11314	0.135
	Ag	107	10.000	ug/L	0.982	18539	0.222
	Cd	111	10.000	ug/L	1.090	4017	0.048
	Cd	114		ug/L		9250	0.111
>	In	115		ug/L		83200	83200.097
	Sn	120	10.000	ug/L	1.822	18383	0.219
	Sb	121	10.000	ug/L	2.365	14218	0.167
	Sb	123		ug/L		10989	0.128
	Ba	135		ug/L		4609	0.051
	Ba	137	10.000	ug/L	0.846	8042	0.089
	Ho	165		ug/L		13	-0.000
>	Lu	175		ug/L		90251	90251.469
	Tl	205	10.000	ug/L	2.039	33210	0.364
	Pb	208	10.000	ug/L	1.393	57710	0.636
	Bi	209		ug/L		31	0.000
	Th	232	10.000	ug/L	2.033	69726	0.769
	U	238	10.000	ug/L	2.526	70568	0.780

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45					
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115					
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175					
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Wednesday, December 30, 2009 22:34:02
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\091230\Standard 2.164

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**99.971**	ug/L	11.318	4959	0.006
	Be	9	**100.009**	ug/L	3.034	2319	0.003
	B	11	**199.904**	ug/L	2.965	5023	0.006
	Na	23	**9998.890**	ug/L	5.765	10726549	12.347
	Mg	24	**9996.734**	ug/L	6.557	7100586	8.195
	Al	27	**10001.078**	ug/L	6.136	9367441	10.842
	P	31	**9997.803**	ug/L	0.370	489815	0.563
	K	39	**9992.858**	ug/L	3.838	17820815	20.157
	Ca	43	**9996.782**	ug/L	0.146	36806	0.042
>	Sc	45		ug/L		864893	864893.136
	Ti	47	**99.998**	ug/L	0.940	18607	0.021
	V	51	**100.069**	ug/L	1.513	183654	0.216
	Cr	52	**99.971**	ug/L	3.083	186649	0.214
	Cr	53		ug/L		219571	0.006
	Mn	55	**99.969**	ug/L	3.127	287737	0.332
	Fe	57	**9999.089**	ug/L	3.768	600378	0.691
	Co	59	**99.968**	ug/L	2.304	232918	0.269
	Ni	60	**99.958**	ug/L	2.404	49157	0.057
	Cu	63		ug/L		112587	0.130
	Cu	65	**99.960**	ug/L	2.879	53143	0.061
	Zn	66	**99.976**	ug/L	1.659	26072	0.201
	Zn	67		ug/L		12864	0.033
	Zn	68		ug/L		19169	0.143
>	Ge	74		ug/L		128983	128983.320
	As	75	**100.162**	ug/L	1.996	32284	0.247
	Se	77		ug/L		11051	0.005
	Se	82	**100.129**	ug/L	0.565	2901	0.022
	Kr	83		ug/L		67	0.000
	Sr	88	**99.991**	ug/L	0.370	459671	5.645
	Y	89		ug/L		56	0.000
	Zr	90	**100.025**	ug/L	0.525	261758	3.213
	Mo	98	**100.040**	ug/L	0.728	114867	1.410
	Ag	107	**100.008**	ug/L	0.954	182286	2.238
	Cd	111	**100.018**	ug/L	1.524	39935	0.490
	Cd	114		ug/L		91517	1.124
>	In	115		ug/L		81410	81409.899
	Sn	120	**100.012**	ug/L	0.440	180430	2.214
	Sb	121	**100.071**	ug/L	1.121	146486	1.795
	Sb	123		ug/L		113011	1.384
	Ba	135		ug/L		45594	0.506
	Ba	137	**99.991**	ug/L	1.837	79333	0.880
	Ho	165		ug/L		13	-0.000
>	Lu	175		ug/L		90137	90136.754
	Tl	205	**99.992**	ug/L	1.857	325746	3.611
	Pb	208	**99.988**	ug/L	1.333	566280	6.280
	Bi	209		ug/L		74	0.000
	Th	232	**100.004**	ug/L	3.003	695902	7.719
	U	238	**99.987**	ug/L	1.571	693892	7.697

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	0.9999
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	0.9999
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45					
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115					
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175					
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Wednesday, December 30, 2009 22:40:11
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\091230\QC Std 1.165

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**53.325**	ug/L	13.248	2621	0.003
	Be	9	**50.378**	ug/L	5.554	1158	0.001
	B	11	**106.754**	ug/L	4.795	2682	0.003
	Na	23	**4825.388**	ug/L	2.708	5147729	5.958
	Mg	24	**5235.006**	ug/L	5.135	3685020	4.291
	Al	27	**4841.730**	ug/L	5.503	4504140	5.249
	P	31	**4978.514**	ug/L	1.905	243410	0.280
	K	39	**5032.118**	ug/L	3.417	9102478	10.150
	Ca	43	**5057.447**	ug/L	0.065	18748	0.021
>	Sc	45		ug/L		857504	857503.569
	Ti	47	**49.745**	ug/L	2.836	9293	0.011
	V	51	**49.425**	ug/L	9.740	88441	0.106
	Cr	52	**51.505**	ug/L	2.004	96263	0.110
	Cr	53		ug/L		204979	-0.009
	Mn	55	**52.095**	ug/L	1.708	149242	0.173
	Fe	57	**5046.130**	ug/L	2.803	302061	0.349
	Co	59	**50.472**	ug/L	2.967	116660	0.136
	Ni	60	**52.257**	ug/L	2.827	25501	0.030
	Cu	63		ug/L		57036	0.066
	Cu	65	**51.206**	ug/L	1.606	27039	0.031
	Zn	66	**50.549**	ug/L	1.404	13345	0.102
	Zn	67		ug/L		10329	0.013
	Zn	68		ug/L		10272	0.074
>	Ge	74		ug/L		130122	130122.232
	As	75	**45.966**	ug/L	5.615	15193	0.113
	Se	77		ug/L		9644	-0.006
	Se	82	**49.929**	ug/L	2.936	1459	0.011
	Kr	83		ug/L		57	0.000
	Sr	88	**51.195**	ug/L	0.504	237415	2.890
	Y	89		ug/L		31	0.000
	Zr	90	**49.222**	ug/L	1.112	129980	1.581
	Mo	98	**48.857**	ug/L	0.721	56602	0.689
	Ag	107	**49.560**	ug/L	2.159	91124	1.109
	Cd	111	**49.589**	ug/L	0.210	19974	0.243
	Cd	114		ug/L		45715	0.557
>	In	115		ug/L		82099	82099.194
	Sn	120	**50.773**	ug/L	1.223	92458	1.124
	Sb	121	**49.877**	ug/L	0.596	73811	0.895
	Sb	123		ug/L		56674	0.686
	Ba	135		ug/L		22886	0.253
	Ba	137	**49.936**	ug/L	0.842	39730	0.439
	Ho	165		ug/L		17	0.000
>	Lu	175		ug/L		90339	90339.323
	Tl	205	**48.554**	ug/L	2.125	158736	1.753
	Pb	208	**51.373**	ug/L	0.579	291810	3.226
	Bi	209		ug/L		69	0.000
	Th	232	**52.188**	ug/L	1.293	364250	4.028
	U	238	**53.588**	ug/L	1.860	372843	4.125

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	0.9999
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	0.9999
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7	106.650				
	Be	9	100.756				
	B	11	106.754				
	Na	23	96.508				
	Mg	24	104.700				
	Al	27	95.876				
	P	31	99.570				
	K	39	100.642				
	Ca	43	101.149				
>	Sc	45		100.0			
	Ti	47	99.491				
	V	51	98.851				
	Cr	52	103.010				
	Cr	53					
	Mn	55	104.189				
	Fe	57	100.923				
	Co	59	100.945				
	Ni	60	104.514				
	Cu	63					
	Cu	65	102.411				
	Zn	66	101.098				
	Zn	67					
	Zn	68					
>	Ge	74		100.4			
	As	75	91.932				
	Se	77					
	Se	82	99.857				
	Kr	83					
	Sr	88	102.390				
	Y	89					
	Zr	90	98.444				
	Mo	98	97.714				
	Ag	107	99.121				
	Cd	111	99.178				
	Cd	114					
>	In	115		98.4			
	Sn	120	101.545				
	Sb	121	99.754				
	Sb	123					
	Ba	135					
	Ba	137	99.872				
	Ho	165					
>	Lu	175		100.6			
	Tl	205	97.109				
	Pb	208	102.747				
	Bi	209					
	Th	232	104.375				
	U	238	107.175				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Wednesday, December 30, 2009 22:46:23
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\091230\QC Std 2.166

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**-0.014**	ug/L	234.266	5	-0.000
	Be	9	**0.130**	ug/L	84.367	5	0.000
	B	11	**4.518**	ug/L	5.036	162	0.000
	Na	23	**0.149**	ug/L	3762.074	36381	0.000
	Mg	24	**-1.428**	ug/L	101.325	2000	-0.001
	Al	27	**2.498**	ug/L	29.271	5668	0.003
	P	31	**-1.564**	ug/L	219.050	3187	-0.000
	K	39	**2.599**	ug/L	982.441	405722	0.005
	Ca	43	**-3.866**	ug/L	151.548	568	-0.000
>	Sc	45		ug/L		860674	860673.864
	Ti	47	**-0.009**	ug/L	1354.922	238	-0.000
	V	51	**-0.207**	ug/L	2957.222	-3044	-0.000
	Cr	52	**-0.308**	ug/L	3.441	1310	-0.001
	Cr	53		ug/L		197437	-0.019
	Mn	55	**-0.024**	ug/L	40.714	1024	-0.000
	Fe	57	**1.242**	ug/L	80.116	3209	0.000
	Co	59	**0.007**	ug/L	68.336	147	0.000
	Ni	60	**0.022**	ug/L	46.940	56	0.000
	Cu	63		ug/L		141	0.000
	Cu	65	**0.004**	ug/L	336.656	67	0.000
	Zn	66	**0.018**	ug/L	344.496	95	0.000
	Zn	67		ug/L		8319	-0.003
	Zn	68		ug/L		672	-0.000
>	Ge	74		ug/L		129649	129649.353
	As	75	**-0.495**	ug/L	427.098	291	-0.001
	Se	77		ug/L		8755	-0.013
	Se	82	**-0.160**	ug/L	67.417	-6	-0.000
	Kr	83		ug/L		52	0.000
	Sr	88	**0.003**	ug/L	131.897	169	0.000
	Y	89		ug/L		16	-0.000
	Zr	90	**0.139**	ug/L	20.877	551	0.004
	Mo	98	**0.033**	ug/L	16.142	93	0.000
	Ag	107	**0.015**	ug/L	68.040	95	0.000
	Cd	111	**0.024**	ug/L	108.879	22	0.000
	Cd	114		ug/L		29	0.000
>	In	115		ug/L		82726	82726.244
	Sn	120	**0.097**	ug/L	18.675	354	0.002
	Sb	121	**0.641**	ug/L	15.522	1309	0.012
	Sb	123		ug/L		1046	0.009
	Ba	135		ug/L		23	0.000
	Ba	137	**0.005**	ug/L	86.593	35	0.000
	Ho	165		ug/L		18	0.000
>	Lu	175		ug/L		90645	90644.916
	Tl	205	**0.159**	ug/L	24.064	878	0.006
	Pb	208	**0.006**	ug/L	108.785	385	0.000
	Bi	209		ug/L		23	-0.000
	Th	232	**0.121**	ug/L	25.805	1205	0.009
	U	238	**0.010**	ug/L	9.958	269	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	0.9999
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	0.9999
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Li	7					
|	Be	9					
|	B	11					
|	Na	23					
|	Mg	24					
|	Al	27					
|	P	31					
|	K	39					
|	Ca	43					
|>	Sc	45		100.4			
|	Ti	47					
|	V	51					
|	Cr	52					
|	Cr	53					
|	Mn	55					
|	Fe	57					
|	Co	59					
|	Ni	60					
|	Cu	63					
⌊	Cu	65					
⌈	Zn	66					
|	Zn	67					
|	Zn	68					
|>	Ge	74		100.0			
|	As	75					
|	Se	77					
|	Se	82					
⌊	Kr	83					
⌈	Sr	88					
|	Y	89					
|	Zr	90					
|	Mo	98					
|	Ag	107					
|	Cd	111					
|	Cd	114					
|>	In	115		99.2			
|	Sn	120					
|	Sb	121					
⌊	Sb	123					
⌈	Ba	135					
|	Ba	137					
|	Ho	165					
|>	Lu	175		100.9			
|	Tl	205					
|	Pb	208					
|	Bi	209					
|	Th	232					
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Wednesday, December 30, 2009 22:52:35
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\091230\QC Std 3.167

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	11.464	ug/L	10.973	574	0.001
	Be	9	0.630	ug/L	34.046	16	0.000
	B	11	17.938	ug/L	5.031	498	0.001
	Na	23	269.951	ug/L	11.674	325701	0.333
	Mg	24	16.367	ug/L	12.508	14674	0.013
	Al	27	34.401	ug/L	30.233	35713	0.037
	P	31	50.735	ug/L	5.434	5765	0.003
	K	39	341.233	ug/L	14.048	1001781	0.688
	Ca	43	199.097	ug/L	6.686	1310	0.001
>	Sc	45		ug/L		867240	867239.756
	Ti	47	9.293	ug/L	3.835	1953	0.002
	V	51	12.957	ug/L	17.116	21472	0.028
	Cr	52	10.609	ug/L	0.718	21562	0.023
	Cr	53		ug/L		195899	-0.022
	Mn	55	5.579	ug/L	0.248	17151	0.019
	Fe	57	106.702	ug/L	2.829	9554	0.007
	Co	59	1.066	ug/L	2.329	2624	0.003
	Ni	60	2.155	ug/L	1.492	1107	0.001
	Cu	63		ug/L		1383	0.001
	Cu	65	1.076	ug/L	5.352	639	0.001
	Zn	66	11.134	ug/L	0.714	3024	0.022
	Zn	67		ug/L		8595	-0.001
	Zn	68		ug/L		2689	0.015
>	Ge	74		ug/L		130751	130751.289
	As	75	4.841	ug/L	23.812	2019	0.012
	Se	77		ug/L		8889	-0.012
	Se	82	5.274	ug/L	15.584	154	0.001
	Kr	83		ug/L		58	0.000
	Sr	88	11.140	ug/L	1.429	51781	0.629
	Y	89		ug/L		21	0.000
	Zr	90	2.034	ug/L	1.413	5546	0.065
	Mo	98	0.551	ug/L	2.411	693	0.008
	Ag	107	1.027	ug/L	2.261	1954	0.023
	Cd	111	1.057	ug/L	6.855	437	0.005
	Cd	114		ug/L		1005	0.012
>	In	115		ug/L		82105	82104.963
	Sn	120	5.245	ug/L	2.250	9709	0.116
	Sb	121	3.081	ug/L	4.740	4893	0.055
	Sb	123		ug/L		3868	0.043
	Ba	135		ug/L		979	0.011
	Ba	137	2.057	ug/L	1.159	1682	0.018
	Ho	165		ug/L		11	-0.000
>	Lu	175		ug/L		91216	91216.237
	Tl	205	1.074	ug/L	1.788	3894	0.039
	Pb	208	2.160	ug/L	2.784	12724	0.136
	Bi	209		ug/L		28	-0.000
	Th	232	1.089	ug/L	1.697	8031	0.084
	U	238	0.218	ug/L	3.019	1733	0.017

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	0.9999
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	0.9999
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7	114.645				
	Be	9	125.960				
	B	11	119.588				
	Na	23	107.980				
	Mg	24	109.115				
	Al	27	114.671				
	P	31	101.470				
	K	39	113.744				
	Ca	43	99.549				
>	Sc	45		101.1			
	Ti	47	92.926				
	V	51	129.571				
	Cr	52	106.089				
	Cr	53					
	Mn	55	111.574				
	Fe	57	106.702				
	Co	59	106.627				
	Ni	60	107.759				
	Cu	63					
	Cu	65	107.631				
	Zn	66	111.340				
	Zn	67					
	Zn	68					
>	Ge	74		100.8			
	As	75	96.828				
	Se	77					
	Se	82	105.488				
	Kr	83					
	Sr	88	111.395				
	Y	89					
	Zr	90	101.719				
	Mo	98	110.292				
	Ag	107	102.740				
	Cd	111	105.696				
	Cd	114					
>	In	115		98.4			
	Sn	120	104.903				
	Sb	121	102.716				
	Sb	123					
	Ba	135					
	Ba	137	102.848				
	Ho	165					
>	Lu	175		101.6			
	Tl	205	107.354				
	Pb	208	108.006				
	Bi	209					
	Th	232	108.915				
	U	238	109.195				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Wednesday, December 30, 2009 22:58:46
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\091230\QC Std 4.168

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.101**	ug/L	88.207	10	0.000
	Be	9	**0.081**	ug/L	34.799	3	0.000
	B	11	**1.525**	ug/L	24.051	83	0.000
	Na	23	**96381.759**	ug/L	8.820	96785611	119.011
	Mg	24	**96127.363**	ug/L	3.426	64030025	78.800
	Al	27	**98187.600**	ug/L	4.093	86496517	106.447
	P	31	**99809.426**	ug/L	0.790	4565551	5.616
	K	39	**104158.166**	ug/L	6.042	171026377	210.101
	Ca	43	**97233.443**	ug/L	0.858	331488	0.407
>	Sc	45		ug/L		812371	812371.377
	Ti	47	**1495.855**	ug/L	0.115	258293	0.318
	V	51	**1.688**	ug/L	132.409	367	0.004
	Cr	52	**4.463**	ug/L	2.158	9524	0.010
	Cr	53		ug/L		168964	-0.040
	Mn	55	**5.744**	ug/L	1.456	16512	0.019
	Fe	57	**97500.969**	ug/L	1.802	5478062	6.739
	Co	59	**0.268**	ug/L	4.423	712	0.001
	Ni	60	**3.433**	ug/L	2.894	1627	0.002
	Cu	63		ug/L		2308	0.003
	Cu	65	**2.562**	ug/L	0.782	1340	0.002
	Zn	66	**4.154**	ug/L	3.853	1087	0.008
	Zn	67		ug/L		7615	-0.003
	Zn	68		ug/L		798	0.001
>	Ge	74		ug/L		119915	119915.484
	As	75	**0.353**	ug/L	763.418	529	0.001
	Se	77		ug/L		7304	-0.019
	Se	82	**-0.276**	ug/L	159.738	-8	-0.000
	Kr	83		ug/L		82	0.000
	Sr	88	**1.149**	ug/L	3.496	5051	0.065
	Y	89		ug/L		151	0.002
	Zr	90	**0.398**	ug/L	48.803	1135	0.013
	Mo	98	**2029.935**	ug/L	0.801	2165844	28.616
	Ag	107	**0.060**	ug/L	2.231	163	0.001
	Cd	111	**0.267**	ug/L	62.460	110	0.001
	Cd	114		ug/L		2530	0.033
>	In	115		ug/L		75682	75682.391
	Sn	120	**0.219**	ug/L	2.324	529	0.005
	Sb	121	**0.200**	ug/L	10.823	598	0.004
	Sb	123		ug/L		538	0.003
	Ba	135		ug/L		299	0.003
	Ba	137	**0.617**	ug/L	3.428	509	0.005
	Ho	165		ug/L		244	0.003
>	Lu	175		ug/L		88248	88248.303
	Tl	205	**0.004**	ug/L	137.309	359	0.000
	Pb	208	**0.150**	ug/L	3.120	1173	0.009
	Bi	209		ug/L		198	0.002
	Th	232	**0.066**	ug/L	43.601	804	0.005
	U	238	**-0.021**	ug/L	1.930	50	-0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	0.9999
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	0.9999
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23	96.382				
	Mg	24	96.127				
	Al	27	98.188				
	P	31	99.809				
	K	39	104.158				
	Ca	43	97.233				
>	Sc	45			94.7		
	Ti	47	74.793				
	V	51					
	Cr	52	120.622				
	Cr	53					
	Mn	55	99.028				
	Fe	57	97.501				
	Co	59	107.360				
	Ni	60	127.130				
	Cu	63					
	Cu	65	88.351				
	Zn	66	115.386				
	Zn	67					
	Zn	68					
>	Ge	74			92.5		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88	95.767				
	Y	89					
	Zr	90					
	Mo	98	101.497				
	Ag	107					
	Cd	111	66.638				
	Cd	114					
>	In	115			90.7		
	Sn	120					
	Sb	121	199.549				
	Sb	123					
	Ba	135					
	Ba	137	92.119				
	Ho	165					
>	Lu	175			98.3		
	Tl	205					
	Pb	208	75.079				
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
QC Std 4	Ti	47ICSA is out of limits

QC Action

QC Action Line: Continue

ICPMS#4 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Wednesday, December 30, 2009 23:04:57
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\091230\QC Std 5.169

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**20.084**	ug/L	12.822	961	0.001
	Be	9	**21.138**	ug/L	4.441	472	0.001
	B	11	**20.859**	ug/L	2.362	548	0.001
	Na	23	**97157.830**	ug/L	8.808	99883931	119.970
	Mg	24	**99474.458**	ug/L	6.580	67862246	81.544
	Al	27	**100789.957**	ug/L	8.118	90923504	109.268
	P	31	**100479.609**	ug/L	2.376	4706758	5.654
	K	39	**103161.327**	ug/L	3.919	173520511	208.090
	Ca	43	**98504.138**	ug/L	2.336	343901	0.413
>	Sc	45		ug/L		831857	831856.643
	Ti	47	**1492.940**	ug/L	0.141	263969	0.317
	V	51	**18.833**	ug/L	11.881	31158	0.041
	Cr	52	**23.839**	ug/L	0.417	44214	0.051
	Cr	53		ug/L		164676	-0.050
	Mn	55	**25.432**	ug/L	1.160	71242	0.084
	Fe	57	**96684.578**	ug/L	1.108	5562402	6.683
	Co	59	**19.463**	ug/L	0.706	43739	0.052
	Ni	60	**21.850**	ug/L	1.000	10373	0.012
	Cu	63		ug/L		22370	0.027
	Cu	65	**20.967**	ug/L	0.969	10777	0.013
	Zn	66	**22.941**	ug/L	1.596	5738	0.046
	Zn	67		ug/L		8283	0.001
	Zn	68		ug/L		4043	0.028
>	Ge	74		ug/L		122296	122295.814
	As	75	**19.658**	ug/L	6.141	6350	0.048
	Se	77		ug/L		7287	-0.021
	Se	82	**21.094**	ug/L	3.720	579	0.005
	Kr	83		ug/L		82	0.000
	Sr	88	**22.261**	ug/L	1.187	96323	1.257
	Y	89		ug/L		155	0.002
	Zr	90	**21.304**	ug/L	2.152	52537	0.684
	Mo	98	**2063.794**	ug/L	1.545	2226593	29.093
	Ag	107	**19.010**	ug/L	1.617	32624	0.425
	Cd	111	**19.821**	ug/L	1.277	7450	0.097
	Cd	114		ug/L		18958	0.247
>	In	115		ug/L		76546	76545.948
	Sn	120	**20.585**	ug/L	3.842	35032	0.456
	Sb	121	**21.092**	ug/L	2.547	29283	0.378
	Sb	123		ug/L		22608	0.291
	Ba	135		ug/L		8829	0.098
	Ba	137	**19.558**	ug/L	0.382	15512	0.172
	Ho	165		ug/L		247	0.003
>	Lu	175		ug/L		89939	89938.804
	Tl	205	**17.938**	ug/L	1.247	58612	0.648
	Pb	208	**19.063**	ug/L	1.360	108014	1.197
	Bi	209		ug/L		261	0.003
	Th	232	**20.354**	ug/L	1.257	141648	1.571
	U	238	**20.904**	ug/L	1.625	144922	1.609

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	0.9999
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	0.9999
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7	100.419				
	Be	9	105.688				
	B	11	104.295				
	Na	23	97.158				
	Mg	24	99.474				
	Al	27	100.790				
	P	31	100.480				
	K	39	103.161				
	Ca	43	98.504				
>	Sc	45		97.0			
	Ti	47	74.647				
	V	51	94.166				
	Cr	52	100.588				
	Cr	53					
	Mn	55	98.574				
	Fe	57	96.685				
	Co	59	96.113				
	Ni	60	96.254				
	Cu	63					
	Cu	65	91.558				
	Zn	66	97.206				
	Zn	67					
	Zn	68					
>	Ge	74		94.3			
	As	75	98.291				
	Se	77					
	Se	82	105.470				
	Kr	83					
	Sr	88	105.005				
	Y	89					
	Zr	90	106.520				
	Mo	98	103.190				
	Ag	107	95.048				
	Cd	111	97.164				
	Cd	114					
>	In	115		91.8			
	Sn	120	102.927				
	Sb	121	104.936				
	Sb	123					
	Ba	135					
	Ba	137	94.622				
	Ho	165					
>	Lu	175		100.1			
	Tl	205	89.689				
	Pb	208	94.369				
	Bi	209					
	Th	232	101.769				
	U	238	104.522				

QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
QC Std 5	Ti	47ICSAB is out of limits

QC Action

QC Action Line: Continue

ICPMS#4 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Wednesday, December 30, 2009 23:11:09
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\091230\QC Std 6.170

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**51.726**	ug/L	10.517	2570	0.003
	Be	9	**49.570**	ug/L	4.919	1152	0.001
	B	11	**102.971**	ug/L	2.964	2616	0.003
	Na	23	**4661.934**	ug/L	8.465	5030159	5.757
	Mg	24	**5013.708**	ug/L	10.372	3560273	4.110
	Al	27	**4861.444**	ug/L	1.541	4567991	5.270
	P	31	**4962.603**	ug/L	0.743	245129	0.279
	K	39	**4898.333**	ug/L	0.797	8963296	9.881
	Ca	43	**4993.080**	ug/L	1.152	18702	0.021
>	Sc	45		ug/L		866215	866215.018
	Ti	47	**50.955**	ug/L	1.312	9613	0.011
	V	51	**48.072**	ug/L	7.094	86915	0.104
	Cr	52	**50.281**	ug/L	1.184	94995	0.108
	Cr	53		ug/L		182432	-0.037
	Mn	55	**51.038**	ug/L	2.192	147716	0.169
	Fe	57	**4999.561**	ug/L	1.829	302417	0.346
	Co	59	**49.332**	ug/L	1.968	115205	0.133
	Ni	60	**51.369**	ug/L	2.797	25323	0.029
	Cu	63		ug/L		57032	0.066
	Cu	65	**50.383**	ug/L	1.872	26869	0.031
	Zn	66	**51.143**	ug/L	1.166	13560	0.103
	Zn	67		ug/L		9848	0.009
	Zn	68		ug/L		10082	0.072
>	Ge	74		ug/L		130687	130687.401
	As	75	**45.630**	ug/L	0.541	15149	0.112
	Se	77		ug/L		7964	-0.019
	Se	82	**49.209**	ug/L	2.703	1444	0.011
	Kr	83		ug/L		59	0.000
	Sr	88	**51.238**	ug/L	0.483	237726	2.892
	Y	89		ug/L		50	0.000
	Zr	90	**49.319**	ug/L	0.755	130304	1.584
	Mo	98	**49.742**	ug/L	1.571	57651	0.701
	Ag	107	**49.887**	ug/L	0.855	91777	1.117
	Cd	111	**49.656**	ug/L	1.449	20011	0.243
	Cd	114		ug/L		45903	0.559
>	In	115		ug/L		82135	82134.629
	Sn	120	**50.652**	ug/L	0.909	92284	1.121
	Sb	121	**48.553**	ug/L	0.716	71891	0.871
	Sb	123		ug/L		54922	0.665
	Ba	135		ug/L		23412	0.255
	Ba	137	**49.371**	ug/L	1.857	39949	0.434
	Ho	165		ug/L		25	0.000
>	Lu	175		ug/L		91869	91869.389
	Tl	205	**48.291**	ug/L	0.899	160555	1.744
	Pb	208	**50.586**	ug/L	0.350	292213	3.177
	Bi	209		ug/L		90	0.001
	Th	232	**51.605**	ug/L	1.001	366327	3.983
	U	238	**52.952**	ug/L	0.632	374722	4.076

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	0.9999
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	0.9999
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7	103.452				
	Be	9	99.140				
	B	11	102.971				
	Na	23	93.239				
	Mg	24	100.274				
	Al	27	96.266				
	P	31	99.252				
	K	39	97.967				
	Ca	43	99.862				
>	Sc	45		101.0			
	Ti	47	101.910				
	V	51	96.145				
	Cr	52	100.562				
	Cr	53					
	Mn	55	102.077				
	Fe	57	99.991				
	Co	59	98.665				
	Ni	60	102.738				
	Cu	63					
	Cu	65	100.767				
	Zn	66	102.286				
	Zn	67					
	Zn	68					
>	Ge	74		100.8			
	As	75	91.261				
	Se	77					
	Se	82	98.418				
	Kr	83					
	Sr	88	102.476				
	Y	89					
	Zr	90	98.638				
	Mo	98	99.484				
	Ag	107	99.775				
	Cd	111	99.311				
	Cd	114					
>	In	115		98.5			
	Sn	120	101.305				
	Sb	121	97.106				
	Sb	123					
	Ba	135					
	Ba	137	98.742				
	Ho	165					
>	Lu	175		102.3			
	Tl	205	96.582				
	Pb	208	101.171				
	Bi	209					
	Th	232	103.210				
	U	238	105.905				

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Wednesday, December 30, 2009 23:17:23
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\091230\QC Std 7.171

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.069**	ug/L	110.822	9	0.000
	Be	9	**0.088**	ug/L	31.767	4	0.000
	B	11	**2.711**	ug/L	27.102	117	0.000
	Na	23	**-7.161**	ug/L	69.896	28362	-0.009
	Mg	24	**0.044**	ug/L	3430.447	3000	0.000
	Al	27	**0.404**	ug/L	424.652	3667	0.000
	P	31	**-4.846**	ug/L	20.068	3001	-0.000
	K	39	**38.431**	ug/L	130.660	463210	0.078
	Ca	43	**-0.787**	ug/L	964.071	574	-0.000
>	Sc	45		ug/L		852508	852508.133
	Ti	47	**0.048**	ug/L	149.980	246	0.000
	V	51	**0.859**	ug/L	265.765	-1045	0.002
	Cr	52	**-0.515**	ug/L	7.425	920	-0.001
	Cr	53		ug/L		173981	-0.044
	Mn	55	**-0.055**	ug/L	17.562	927	-0.000
	Fe	57	**7.892**	ug/L	34.907	3570	0.001
	Co	59	**0.004**	ug/L	73.524	140	0.000
	Ni	60	**-0.009**	ug/L	130.423	40	-0.000
	Cu	63		ug/L		113	-0.000
	Cu	65	**0.014**	ug/L	80.547	71	0.000
	Zn	66	**0.098**	ug/L	3.442	115	0.000
	Zn	67		ug/L		7800	-0.006
	Zn	68		ug/L		649	-0.000
>	Ge	74		ug/L		129127	129126.630
	As	75	**-0.619**	ug/L	75.196	256	-0.002
	Se	77		ug/L		7125	-0.025
	Se	82	**-0.439**	ug/L	84.186	-14	-0.000
	Kr	83		ug/L		59	0.000
	Sr	88	**0.007**	ug/L	28.274	188	0.000
	Y	89		ug/L		14	-0.000
	Zr	90	**0.101**	ug/L	28.307	447	0.003
	Mo	98	**0.121**	ug/L	12.270	195	0.002
	Ag	107	**0.007**	ug/L	91.790	80	0.000
	Cd	111	**0.007**	ug/L	205.573	15	0.000
	Cd	114		ug/L		35	0.000
>	In	115		ug/L		82252	82251.947
	Sn	120	**0.081**	ug/L	29.292	324	0.002
	Sb	121	**0.288**	ug/L	19.885	780	0.005
	Sb	123		ug/L		651	0.004
	Ba	135		ug/L		25	0.000
	Ba	137	**0.007**	ug/L	93.220	37	0.000
	Ho	165		ug/L		14	0.000
>	Lu	175		ug/L		90336	90335.657
	Tl	205	**0.147**	ug/L	20.432	833	0.005
	Pb	208	**0.007**	ug/L	10.359	387	0.000
	Bi	209		ug/L		23	-0.000
	Th	232	**0.073**	ug/L	25.481	872	0.006
	U	238	**0.012**	ug/L	15.477	281	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	0.9999
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	0.9999
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45			99.4		
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74			99.6		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115			98.6		
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175			100.6		
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 10
Sample Date/Time: Wednesday, December 30, 2009 23:23:34
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\091230\QC Std 10.172

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**1030.720**	ug/L	10.424	47453	0.059
	Be	9	**1010.676**	ug/L	4.459	21763	0.027
	B	11	**1.442**	ug/L	55.327	81	0.000
	Na	23	**44594.804**	ug/L	2.471	44261712	55.065
	Mg	24	**48441.338**	ug/L	3.999	31935174	39.710
	Al	27	**46563.172**	ug/L	2.632	40523959	50.480
	P	31	**24066.824**	ug/L	0.307	1090978	1.354
	K	39	**50779.695**	ug/L	0.613	82662749	102.430
	Ca	43	**48824.154**	ug/L	0.372	164870	0.205
>	Sc	45		ug/L		803353	803353.407
	Ti	47	**36.072**	ug/L	2.875	6376	0.008
	V	51	**966.801**	ug/L	3.552	1668518	2.082
	Cr	52	**953.047**	ug/L	2.865	1637264	2.038
	Cr	53		ug/L		357633	0.197
	Mn	55	**976.002**	ug/L	2.500	2600233	3.238
	Fe	57	**48952.988**	ug/L	3.621	2718223	3.384
	Co	59	**932.359**	ug/L	2.097	2016551	2.512
	Ni	60	**955.172**	ug/L	4.420	435592	0.543
	Cu	63		ug/L		965606	1.203
	Cu	65	**945.469**	ug/L	2.546	466342	0.581
	Zn	66	**2332.344**	ug/L	2.758	577478	4.700
	Zn	67		ug/L		98223	0.733
	Zn	68		ug/L		406168	3.301
>	Ge	74		ug/L		122857	122857.044
	As	75	**923.667**	ug/L	1.472	279979	2.276
	Se	77		ug/L		15789	0.048
	Se	82	**483.236**	ug/L	3.093	13334	0.109
	Kr	83		ug/L		72	0.000
	Sr	88	**1005.795**	ug/L	1.065	4335518	56.778
	Y	89		ug/L		149	0.002
	Zr	90	**507.713**	ug/L	1.125	1245433	16.309
	Mo	98	**996.697**	ug/L	1.455	1072842	14.051
	Ag	107	**240.842**	ug/L	1.045	411657	5.391
	Cd	111	**971.290**	ug/L	1.517	363668	4.763
	Cd	114		ug/L		830809	10.879
>	In	115		ug/L		76366	76366.369
	Sn	120	**1016.056**	ug/L	0.853	1717816	22.495
	Sb	121	**252.755**	ug/L	2.665	346454	4.534
	Sb	123		ug/L		267537	3.501
	Ba	135		ug/L		426982	4.730
	Ba	137	**919.441**	ug/L	1.361	730446	8.092
	Ho	165		ug/L		88	0.001
>	Lu	175		ug/L		90272	90271.557
	Tl	205	**462.520**	ug/L	0.219	1508068	16.702
	Pb	208	**4787.898**	ug/L	0.255	27144210	300.694
	Bi	209		ug/L		657	0.007
	Th	232	**2471.521**	ug/L	1.242	17220785	190.772
	U	238	**5131.952**	ug/L	1.733	35661571	395.077

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	0.9999
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	0.9999
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7	103.072				
	Be	9	101.068				
	B	11					
	Na	23	89.190				
	Mg	24	96.883				
	Al	27	93.126				
	P	31	96.267				
	K	39	101.559				
	Ca	43	97.648				
>	Sc	45		93.7			
	Ti	47					
	V	51	96.680				
	Cr	52	95.305				
	Cr	53					
	Mn	55	97.600				
	Fe	57	97.906				
	Co	59	93.236				
	Ni	60	95.517				
	Cu	63					
	Cu	65	94.547				
	Zn	66	93.294				
	Zn	67					
	Zn	68					
>	Ge	74		94.7			
	As	75	92.367				
	Se	77					
	Se	82	96.647				
	Kr	83					
	Sr	88	100.580				
	Y	89					
	Zr	90	101.543				
	Mo	98	99.670				
	Ag	107	96.337				
	Cd	111	97.129				
	Cd	114					
>	In	115		91.6			
	Sn	120	101.606				
	Sb	121	101.102				
	Sb	123					
	Ba	135					
	Ba	137	91.944				
	Ho	165					
>	Lu	175		100.5			
	Tl	205	92.504				
	Pb	208	95.758				
	Bi	209					
	Th	232	98.861				
	U	238	102.639				

QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
QC Std 10	Na	23LRS is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#4 - Summary Report

Sample ID: QC Std 11
Sample Date/Time: Wednesday, December 30, 2009 23:29:44
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\091230\QC Std 11.173

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**55.655**	ug/L	17.779	2576	0.003
	Be	9	**52.962**	ug/L	11.226	1149	0.001
	B	11	**105.238**	ug/L	10.034	2497	0.003
	Na	23	**4786.954**	ug/L	11.427	4818072	5.911
	Mg	24	**5142.878**	ug/L	10.779	3415567	4.216
	Al	27	**5214.214**	ug/L	8.839	4581293	5.653
	P	31	**5234.019**	ug/L	6.629	241631	0.294
	K	39	**5527.216**	ug/L	7.963	9408678	11.149
	Ca	43	**5193.195**	ug/L	5.540	18176	0.022
>	Sc	45		ug/L		811087	811086.742
	Ti	47	**52.018**	ug/L	2.333	9182	0.011
	V	51	**50.311**	ug/L	6.569	85226	0.108
	Cr	52	**52.655**	ug/L	4.091	93009	0.113
	Cr	53		ug/L		179805	-0.026
	Mn	55	**54.784**	ug/L	4.964	148303	0.182
	Fe	57	**5308.936**	ug/L	4.022	300352	0.367
	Co	59	**53.165**	ug/L	4.747	116178	0.143
	Ni	60	**54.126**	ug/L	3.968	24975	0.031
	Cu	63		ug/L		56569	0.070
	Cu	65	**53.685**	ug/L	3.710	26795	0.033
	Zn	66	**52.081**	ug/L	4.571	13312	0.105
	Zn	67		ug/L		9891	0.012
	Zn	68		ug/L		10085	0.075
>	Ge	74		ug/L		126145	126145.216
	As	75	**50.645**	ug/L	0.587	16180	0.125
	Se	77		ug/L		7367	-0.022
	Se	82	**51.478**	ug/L	4.760	1457	0.012
	Kr	83		ug/L		59	0.000
	Sr	88	**53.618**	ug/L	5.423	238377	3.027
	Y	89		ug/L		29	0.000
	Zr	90	**53.264**	ug/L	7.383	134740	1.711
	Mo	98	**51.025**	ug/L	5.941	56653	0.719
	Ag	107	**51.425**	ug/L	5.369	90651	1.151
	Cd	111	**51.957**	ug/L	3.758	20074	0.255
	Cd	114		ug/L		45553	0.579
>	In	115		ug/L		78851	78850.560
	Sn	120	**53.936**	ug/L	6.249	94120	1.194
	Sb	121	**53.462**	ug/L	3.986	75858	0.959
	Sb	123		ug/L		58488	0.739
	Ba	135		ug/L		23561	0.265
	Ba	137	**51.380**	ug/L	4.802	40185	0.452
	Ho	165		ug/L		19	0.000
>	Lu	175		ug/L		88948	88947.748
	Tl	205	**51.312**	ug/L	4.301	164918	1.853
	Pb	208	**53.447**	ug/L	6.159	298284	3.357
	Bi	209		ug/L		67	0.000
	Th	232	**56.081**	ug/L	6.679	384518	4.329
	U	238	**57.110**	ug/L	6.878	390339	4.397

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	0.9999
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	0.9999
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7	111.311				
	Be	9	105.924				
	B	11	105.238				
	Na	23	95.739				
	Mg	24	102.858				
	Al	27	103.252				
	P	31	104.680				
	K	39	110.544				
	Ca	43	103.864				
>	Sc	45			94.6		
	Ti	47	104.037				
	V	51	100.622				
	Cr	52	105.310				
	Cr	53					
	Mn	55	109.568				
	Fe	57	106.179				
	Co	59	106.330				
	Ni	60	108.252				
	Cu	63					
	Cu	65	107.369				
	Zn	66	104.162				
	Zn	67					
	Zn	68					
>	Ge	74			97.3		
	As	75	101.290				
	Se	77					
	Se	82	102.957				
	Kr	83					
	Sr	88	107.237				
	Y	89					
	Zr	90	106.529				
	Mo	98	102.049				
	Ag	107	102.850				
	Cd	111	103.915				
	Cd	114					
>	In	115			94.5		
	Sn	120	107.872				
	Sb	121	106.924				
	Sb	123					
	Ba	135					
	Ba	137	102.760				
	Ho	165					
>	Lu	175			99.0		
	Tl	205	102.624				
	Pb	208	106.894				
	Bi	209					
	Th	232	112.163				
	U	238	114.219				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 11	Li	7	CCV is out of limits (+/- 10%)
QC Std 11	K	39	CCV is out of limits (+/- 10%)
QC Std 11	Th	232	CCV is out of limits (+/- 10%)
QC Std 11	U	238	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#4 - Summary Report

Sample ID: QC Std 12
Sample Date/Time: Wednesday, December 30, 2009 23:35:56
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\091230\QC Std 12.174

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.183**	ug/L	77.435	15	0.000
	Be	9	**0.076**	ug/L	189.394	3	0.000
	B	11	**2.560**	ug/L	24.409	112	0.000
	Na	23	**-6.468**	ug/L	16.917	28696	-0.008
	Mg	24	**-0.901**	ug/L	182.969	2334	-0.001
	Al	27	**1.573**	ug/L	248.624	4668	0.002
	P	31	**-9.169**	ug/L	17.236	2761	-0.001
	K	39	**8.253**	ug/L	138.677	407065	0.017
	Ca	43	**-0.646**	ug/L	1563.695	568	-0.000
>	Sc	45		ug/L		842652	842652.250
	Ti	47	**-0.228**	ug/L	36.192	194	-0.000
	V	51	**-1.843**	ug/L	231.462	-6088	-0.004
	Cr	52	**-0.658**	ug/L	27.182	648	-0.001
	Cr	53		ug/L		172231	-0.044
	Mn	55	**-0.043**	ug/L	14.065	948	-0.000
	Fe	57	**5.930**	ug/L	20.849	3415	0.000
	Co	59	**0.023**	ug/L	11.461	181	0.000
	Ni	60	**0.018**	ug/L	61.668	52	0.000
	Cu	63		ug/L		123	-0.000
	Cu	65	**0.041**	ug/L	63.837	84	0.000
	Zn	66	**0.108**	ug/L	32.765	117	0.000
	Zn	67		ug/L		7750	-0.007
	Zn	68		ug/L		665	-0.000
>	Ge	74		ug/L		128777	128776.506
	As	75	**0.568**	ug/L	116.475	633	0.001
	Se	77		ug/L		6680	-0.028
	Se	82	**-0.500**	ug/L	60.964	-16	-0.000
	Kr	83		ug/L		58	0.000
	Sr	88	**0.011**	ug/L	13.485	202	0.001
	Y	89		ug/L		13	-0.000
	Zr	90	**0.218**	ug/L	18.089	746	0.007
	Mo	98	**0.120**	ug/L	26.499	191	0.002
	Ag	107	**0.020**	ug/L	25.270	101	0.000
	Cd	111	**0.057**	ug/L	13.266	34	0.000
	Cd	114		ug/L		49	0.000
>	In	115		ug/L		80939	80939.350
	Sn	120	**0.423**	ug/L	9.753	932	0.009
	Sb	121	**1.074**	ug/L	9.289	1909	0.019
	Sb	123		ug/L		1552	0.015
	Ba	135		ug/L		22	0.000
	Ba	137	**0.010**	ug/L	55.892	39	0.000
	Ho	165		ug/L		12	-0.000
>	Lu	175		ug/L		90280	90280.333
	Tl	205	**0.294**	ug/L	22.821	1314	0.011
	Pb	208	**0.207**	ug/L	10.209	1524	0.013
	Bi	209		ug/L		31	0.000
	Th	232	**0.251**	ug/L	23.486	2111	0.019
	U	238	**0.076**	ug/L	10.351	727	0.006

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	0.9999
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	0.9999
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45			98.3		
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74			99.3		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115			97.1		
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175			100.5		
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 1201995836
Sample Date/Time: Wednesday, December 30, 2009 23:42:10
Sample Type:
Sample Description: LANL 6020 MB
Number of Replicates: 3
Batch ID: 932937|2|sk|
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\091230\1201995836.175

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	0.014	ug/L	321.831	7	0.000
	Be	9	0.044	ug/L	118.811	3	0.000
	B	11	0.724	ug/L	36.030	68	0.000
	Na	23	-5.440	ug/L	70.006	30366	-0.007
	Mg	24	0.476	ug/L	186.627	3334	0.000
	Al	27	0.701	ug/L	143.612	4001	0.001
	P	31	11.322	ug/L	23.677	3803	0.001
	K	39	0.672	ug/L	1715.846	401576	0.001
	Ca	43	-18.977	ug/L	71.917	513	-0.000
>	Sc	45		ug/L		858703	858702.798
	Ti	47	0.299	ug/L	123.740	294	0.000
	V	51	2.179	ug/L	53.363	1326	0.005
	Cr	52	-0.040	ug/L	228.101	1798	-0.000
	Cr	53		ug/L		139152	-0.086
	Mn	55	0.304	ug/L	2.193	1955	0.001
	Fe	57	37.910	ug/L	3.088	5378	0.003
	Co	59	0.002	ug/L	371.802	136	0.000
	Ni	60	0.126	ug/L	13.350	106	0.000
	Cu	63		ug/L		1892	0.002
	Cu	65	1.566	ug/L	4.045	891	0.001
	Zn	66	3.165	ug/L	6.442	904	0.006
	Zn	67		ug/L		6579	-0.015
	Zn	68		ug/L		1108	0.003
>	Ge	74		ug/L		127845	127844.777
	As	75	-0.606	ug/L	246.920	256	-0.001
	Se	77		ug/L		5064	-0.041
	Se	82	-0.315	ug/L	128.319	-10	-0.000
	Kr	83		ug/L		57	0.000
	Sr	88	0.037	ug/L	2.987	328	0.002
	Y	89		ug/L		26	0.000
	Zr	90	0.511	ug/L	27.363	1538	0.016
	Mo	98	0.146	ug/L	16.680	225	0.002
	Ag	107	-0.002	ug/L	254.688	62	-0.000
	Cd	111	0.020	ug/L	128.897	20	0.000
	Cd	114		ug/L		33	0.000
>	In	115		ug/L		82662	82662.068
	Sn	120	0.305	ug/L	2.805	736	0.007
	Sb	121	0.070	ug/L	27.354	461	0.001
	Sb	123		ug/L		409	0.001
	Ba	135		ug/L		150	0.001
	Ba	137	0.303	ug/L	10.102	276	0.003
	Ho	165		ug/L		15	0.000
>	Lu	175		ug/L		91734	91733.512
	Tl	205	0.146	ug/L	5.673	844	0.005
	Pb	208	0.155	ug/L	8.752	1249	0.010
	Bi	209		ug/L		55	0.000
	Th	232	0.218	ug/L	17.988	1909	0.017
	U	238	0.041	ug/L	17.189	490	0.003

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	0.9999
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	0.9999
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45			100.1		
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74			98.6		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115			99.1		
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175			102.1		
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 1201995841
Sample Date/Time: Wednesday, December 30, 2009 23:48:23
Sample Type:
Sample Description: LANL 6020 LCS
Number of Replicates: 3
Batch ID: 932937|40|sk|
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\091230\1201995841.176

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**3.065**	ug/L	12.235	159	0.000
	Be	9	**23.057**	ug/L	7.282	540	0.001
	B	11	**43.793**	ug/L	6.558	1150	0.001
	Na	23	**252.941**	ug/L	11.993	309349	0.312
	Mg	24	**1190.063**	ug/L	6.515	854251	0.976
	Al	27	**3110.475**	ug/L	4.073	2942457	3.372
	P	31	**213.834**	ug/L	1.658	13794	0.012
	K	39	**1387.748**	ug/L	5.109	2844872	2.799
	Ca	43	**2818.791**	ug/L	0.820	10883	0.012
>	Sc	45		ug/L		871772	871772.198
	Ti	47	**137.166**	ug/L	1.008	25633	0.029
	V	51	**24.362**	ug/L	2.420	42986	0.052
	Cr	52	**66.561**	ug/L	1.120	125942	0.142
	Cr	53		ug/L		176480	-0.046
	Mn	55	**158.018**	ug/L	0.202	458106	0.524
	Fe	57	**5070.955**	ug/L	1.766	308708	0.351
	Co	59	**26.597**	ug/L	0.902	62587	0.072
	Ni	60	**39.532**	ug/L	2.858	19626	0.022
	Cu	63		ug/L		56924	0.065
	Cu	65	**50.892**	ug/L	1.779	27315	0.031
	Zn	66	**168.465**	ug/L	2.185	44562	0.339
	Zn	67		ug/L		13997	0.040
	Zn	68		ug/L		31302	0.234
>	Ge	74		ug/L		131029	131029.296
	As	75	**29.317**	ug/L	2.186	9925	0.072
	Se	77		ug/L		8136	-0.018
	Se	82	**82.416**	ug/L	1.435	2426	0.019
	Kr	83		ug/L		59	0.000
	Sr	88	**65.136**	ug/L	1.073	307464	3.677
	Y	89		ug/L		15719	0.188
	Zr	90	**2.455**	ug/L	1.420	6773	0.079
	Mo	98	**13.874**	ug/L	2.437	16400	0.196
	Ag	107	**4.794**	ug/L	2.070	9035	0.107
	Cd	111	**16.243**	ug/L	3.106	6668	0.080
	Cd	114		ug/L		15522	0.185
>	In	115		ug/L		83577	83576.800
	Sn	120	**8.726**	ug/L	0.785	16324	0.193
	Sb	121	**15.072**	ug/L	2.671	22954	0.270
	Sb	123		ug/L		17491	0.205
	Ba	135		ug/L		25071	0.268
	Ba	137	**52.534**	ug/L	1.697	43327	0.462
	Ho	165		ug/L		730	0.008
>	Lu	175		ug/L		93652	93652.259
	Tl	205	**32.508**	ug/L	2.733	110285	1.174
	Pb	208	**24.190**	ug/L	2.279	142617	1.519
	Bi	209		ug/L		1109	0.012
	Th	232	**2.541**	ug/L	0.762	18739	0.196
	U	238	**0.549**	ug/L	3.275	4166	0.042

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	0.9999
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	0.9999
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		101.6			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		101.1			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		100.2			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		104.3			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Ti 47 Upper, S, EEE	Ti	47	Sample is out of limits (over linear range)

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 242794001
Sample Date/Time: Thursday, December 31, 2009 00:00:53
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 932937|2|skj
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\091230\242794001.178

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**21.666**	ug/L	11.489	1123	0.001
	Be	9	**1.599**	ug/L	8.745	40	0.000
	B	11	**6.168**	ug/L	13.969	213	0.000
	Na	23	**749.951**	ug/L	5.621	873283	0.926
	Mg	24	**2456.905**	ug/L	2.967	1819647	2.014
	Al	27	**14305.064**	ug/L	1.101	13993962	15.508
	P	31	**491.164**	ug/L	1.125	28350	0.028
	K	39	**2597.418**	ug/L	4.385	5146936	5.239
	Ca	43	**3135.050**	ug/L	2.901	12459	0.013
>	Sc	45		ug/L		902063	902063.497
	Ti	47	**789.027**	ug/L	1.102	151402	0.168
	V	51	**24.554**	ug/L	9.081	44844	0.053
	Cr	52	**7.584**	ug/L	3.950	16590	0.016
	Cr	53		ug/L		132268	-0.101
	Mn	55	**1037.833**	ug/L	0.513	3106900	3.443
	Fe	57	**24191.261**	ug/L	0.505	1511570	1.672
	Co	59	**5.267**	ug/L	1.349	12937	0.014
	Ni	60	**9.511**	ug/L	2.126	4923	0.005
	Cu	63		ug/L		10184	0.011
	Cu	65	**8.825**	ug/L	2.274	4958	0.005
	Zn	66	**96.890**	ug/L	1.603	25429	0.195
	Zn	67		ug/L		10307	0.013
	Zn	68		ug/L		18695	0.139
>	Ge	74		ug/L		129787	129787.213
	As	75	**3.005**	ug/L	29.369	1417	0.007
	Se	77		ug/L		4751	-0.044
	Se	82	**1.072**	ug/L	59.144	30	0.000
	Kr	83		ug/L		106	0.000
	Sr	88	**23.858**	ug/L	0.993	112046	1.347
	Y	89		ug/L		448978	5.404
	Zr	90	**44.029**	ug/L	2.195	117664	1.414
	Mo	98	**4.056**	ug/L	1.424	4806	0.057
	Ag	107	**0.191**	ug/L	2.540	423	0.004
	Cd	111	**1.092**	ug/L	4.038	457	0.005
	Cd	114		ug/L		184	0.002
>	In	115		ug/L		83087	83086.947
	Sn	120	**3.499**	ug/L	1.761	6613	0.077
	Sb	121	**0.217**	ug/L	8.478	682	0.004
	Sb	123		ug/L		562	0.003
	Ba	135		ug/L		72931	0.736
	Ba	137	**146.012**	ug/L	0.616	127279	1.285
	Ho	165		ug/L		18597	0.188
>	Lu	175		ug/L		99027	99027.376
	Tl	205	**0.811**	ug/L	14.602	3286	0.029
	Pb	208	**21.866**	ug/L	0.951	136371	1.373
	Bi	209		ug/L		1223	0.012
	Th	232	**21.179**	ug/L	1.419	162293	1.635
	U	238	**2.259**	ug/L	0.663	17436	0.174

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	0.9999
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	0.9999
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		105.2			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		100.1			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		99.6			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		110.3			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Ti 47 Upper, S, EEE	Ti	47	Sample is out of limits (over linear range)
Mn 55 Upper, S, EEI	Mn	55	Sample is out of limits (over linear range)

QC Action

QC Action Line: Continue

ICPMS#4 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Thursday, December 31, 2009 00:07:06
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\091230\QC Std 6.179

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**54.520**	ug/L	11.778	2884	0.003
	Be	9	**52.418**	ug/L	3.892	1297	0.001
	B	11	**107.898**	ug/L	1.203	2916	0.003
	Na	23	**5032.300**	ug/L	4.503	5770160	6.214
	Mg	24	**4915.363**	ug/L	4.035	3722444	4.029
	Al	27	**5339.370**	ug/L	8.590	5344842	5.789
	P	31	**5028.522**	ug/L	0.692	264572	0.283
	K	39	**5487.134**	ug/L	8.469	10630692	11.068
	Ca	43	**4982.449**	ug/L	1.348	19879	0.021
>	Sc	45		ug/L		922655	922654.531
	Ti	47	**49.545**	ug/L	0.322	9964	0.011
	V	51	**47.407**	ug/L	0.135	91303	0.102
	Cr	52	**49.106**	ug/L	1.426	98862	0.105
	Cr	53		ug/L		168728	-0.065
	Mn	55	**51.244**	ug/L	1.682	157991	0.170
	Fe	57	**4907.193**	ug/L	2.976	316184	0.339
	Co	59	**47.696**	ug/L	3.085	118638	0.128
	Ni	60	**49.071**	ug/L	3.233	25770	0.028
	Cu	63		ug/L		57676	0.062
	Cu	65	**47.952**	ug/L	0.249	27251	0.029
	Zn	66	**51.162**	ug/L	1.583	13958	0.103
	Zn	67		ug/L		9409	0.003
	Zn	68		ug/L		10418	0.072
>	Ge	74		ug/L		134491	134490.616
	As	75	**45.844**	ug/L	1.972	15660	0.113
	Se	77		ug/L		7667	-0.023
	Se	82	**49.212**	ug/L	2.468	1486	0.011
	Kr	83		ug/L		54	0.000
	Sr	88	**52.626**	ug/L	2.017	249168	2.971
	Y	89		ug/L		110	0.001
	Zr	90	**50.121**	ug/L	0.218	135146	1.610
	Mo	98	**48.939**	ug/L	0.621	57888	0.690
	Ag	107	**48.301**	ug/L	0.721	90689	1.081
	Cd	111	**49.189**	ug/L	0.563	20230	0.241
	Cd	114		ug/L		46524	0.555
>	In	115		ug/L		83827	83826.511
	Sn	120	**50.187**	ug/L	0.629	93321	1.111
	Sb	121	**48.288**	ug/L	1.271	72972	0.866
	Sb	123		ug/L		56153	0.666
	Ba	135		ug/L		23023	0.242
	Ba	137	**47.892**	ug/L	2.355	40187	0.421
	Ho	165		ug/L		21	0.000
>	Lu	175		ug/L		95302	95301.869
	Tl	205	**48.308**	ug/L	2.020	166580	1.744
	Pb	208	**50.035**	ug/L	2.028	299757	3.142
	Bi	209		ug/L		90	0.001
	Th	232	**51.321**	ug/L	1.174	377850	3.961
	U	238	**52.639**	ug/L	2.190	386292	4.052

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	0.9999
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	0.9999
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7	109.040				
	Be	9	104.837				
	B	11	107.898				
	Na	23	100.646				
	Mg	24	98.307				
	Al	27	105.730				
	P	31	100.570				
	K	39	109.743				
	Ca	43	99.649				
>	Sc	45			107.6		
	Ti	47	99.089				
	V	51	94.815				
	Cr	52	98.212				
	Cr	53					
	Mn	55	102.487				
	Fe	57	98.144				
	Co	59	95.392				
	Ni	60	98.142				
	Cu	63					
	Cu	65	95.905				
	Zn	66	102.324				
	Zn	67					
	Zn	68					
>	Ge	74			103.7		
	As	75	91.688				
	Se	77					
	Se	82	98.425				
	Kr	83					
	Sr	88	105.251				
	Y	89					
	Zr	90	100.241				
	Mo	98	97.877				
	Ag	107	96.603				
	Cd	111	98.378				
	Cd	114					
>	In	115			100.5		
	Sn	120	100.374				
	Sb	121	96.576				
	Sb	123					
	Ba	135					
	Ba	137	95.784				
	Ho	165					
>	Lu	175			106.1		
	Tl	205	96.616				
	Pb	208	100.070				
	Bi	209					
	Th	232	102.643				
	U	238	105.279				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Thursday, December 31, 2009 00:13:19
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\091230\QC Std 7.180

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	0.121	ug/L	63.701	13	0.000
	Be	9	0.036	ug/L	324.305	3	0.000
	B	11	2.717	ug/L	21.653	125	0.000
	Na	23	-13.346	ug/L	13.181	23352	-0.016
	Mg	24	-1.175	ug/L	167.689	2334	-0.001
	Al	27	0.106	ug/L	498.856	3667	0.000
	P	31	-12.143	ug/L	11.772	2845	-0.001
	K	39	-6.505	ug/L	106.120	414602	-0.013
	Ca	43	-32.139	ug/L	26.607	496	-0.000
>	Sc	45		ug/L		914936	914936.005
	Ti	47	-0.333	ug/L	23.790	190	-0.000
	V	51	-0.735	ug/L	361.141	-4347	-0.002
	Cr	52	-0.207	ug/L	43.288	1589	-0.000
	Cr	53		ug/L		166358	-0.066
	Mn	55	-0.067	ug/L	17.588	957	-0.000
	Fe	57	1.701	ug/L	87.465	3440	0.000
	Co	59	0.003	ug/L	49.628	146	0.000
	Ni	60	0.012	ug/L	137.646	54	0.000
	Cu	63		ug/L		115	-0.000
	Cu	65	-0.005	ug/L	27.293	66	-0.000
	Zn	66	0.029	ug/L	123.704	101	0.000
	Zn	67		ug/L		7546	-0.010
	Zn	68		ug/L		619	-0.001
>	Ge	74		ug/L		133694	133694.053
	As	75	-1.070	ug/L	62.070	115	-0.003
	Se	77		ug/L		6878	-0.029
	Se	82	-0.412	ug/L	55.255	-14	-0.000
	Kr	83		ug/L		61	0.000
	Sr	88	0.007	ug/L	35.461	189	0.000
	Y	89		ug/L		21	0.000
	Zr	90	0.133	ug/L	18.444	534	0.004
	Mo	98	0.043	ug/L	21.796	104	0.001
	Ag	107	0.006	ug/L	38.747	77	0.000
	Cd	111	0.016	ug/L	65.685	18	0.000
	Cd	114		ug/L		45	0.000
>	In	115		ug/L		82537	82536.641
	Sn	120	0.091	ug/L	10.101	343	0.002
	Sb	121	0.211	ug/L	20.044	668	0.004
	Sb	123		ug/L		536	0.003
	Ba	135		ug/L		19	0.000
	Ba	137	0.005	ug/L	327.467	35	0.000
	Ho	165		ug/L		10	-0.000
>	Lu	175		ug/L		91044	91044.136
	Tl	205	0.416	ug/L	12.319	1723	0.015
	Pb	208	0.049	ug/L	11.724	631	0.003
	Bi	209		ug/L		21	-0.000
	Th	232	0.093	ug/L	23.216	1014	0.007
	U	238	0.019	ug/L	23.431	334	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	0.9999
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	0.9999
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		106.7			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		103.1			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		99.0			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		101.4			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 1201995837
Sample Date/Time: Thursday, December 31, 2009 00:19:32
Sample Type:
Sample Description: LANL 6020 DUP
Number of Replicates: 3
Batch ID: 932937|2|skj
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\091230\1201995837.181

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**13.090**	ug/L	16.638	700	0.001
	Be	9	**1.042**	ug/L	20.710	28	0.000
	B	11	**1.919**	ug/L	6.257	106	0.000
	Na	23	**842.783**	ug/L	9.382	1004612	1.041
	Mg	24	**1203.454**	ug/L	1.572	918980	0.987
	Al	27	**3701.978**	ug/L	10.101	3727289	4.013
	P	31	**295.426**	ug/L	2.150	18946	0.017
	K	39	**1563.370**	ug/L	7.946	3359844	3.154
	Ca	43	**1694.913**	ug/L	1.259	7218	0.007
>	Sc	45		ug/L		928174	928173.502
	Ti	47	**565.921**	ug/L	1.252	111800	0.120
	V	51	**9.233**	ug/L	23.574	15515	0.020
	Cr	52	**1.631**	ug/L	8.046	5260	0.003
	Cr	53		ug/L		134416	-0.103
	Mn	55	**905.762**	ug/L	0.721	2790165	3.005
	Fe	57	**18133.840**	ug/L	2.672	1166579	1.253
	Co	59	**1.351**	ug/L	2.686	3520	0.004
	Ni	60	**4.415**	ug/L	3.609	2377	0.003
	Cu	63		ug/L		6886	0.007
	Cu	65	**5.976**	ug/L	1.098	3477	0.004
	Zn	66	**96.131**	ug/L	1.215	25896	0.194
	Zn	67		ug/L		10265	0.010
	Zn	68		ug/L		18942	0.137
>	Ge	74		ug/L		133212	133212.213
	As	75	**1.044**	ug/L	143.341	811	0.003
	Se	77		ug/L		5077	-0.042
	Se	82	**0.715**	ug/L	71.122	20	0.000
	Kr	83		ug/L		123	0.001
	Sr	88	**8.374**	ug/L	0.116	40100	0.473
	Y	89		ug/L		486329	5.756
	Zr	90	**40.187**	ug/L	1.319	109259	1.291
	Mo	98	**4.428**	ug/L	1.362	5330	0.062
	Ag	107	**0.168**	ug/L	3.582	385	0.004
	Cd	111	**1.058**	ug/L	1.922	450	0.005
	Cd	114		ug/L		167	0.002
>	In	115		ug/L		84492	84491.856
	Sn	120	**4.705**	ug/L	1.364	8983	0.104
	Sb	121	**0.291**	ug/L	8.968	805	0.005
	Sb	123		ug/L		669	0.004
	Ba	135		ug/L		41972	0.419
	Ba	137	**82.381**	ug/L	0.372	72688	0.725
	Ho	165		ug/L		20234	0.202
>	Lu	175		ug/L		100211	100211.259
	Tl	205	**0.330**	ug/L	3.008	1588	0.012
	Pb	208	**17.788**	ug/L	0.856	112336	1.117
	Bi	209		ug/L		862	0.008
	Th	232	**19.384**	ug/L	1.311	150330	1.496
	U	238	**2.236**	ug/L	1.989	17467	0.172

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	0.9999
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	0.9999
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		108.2			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		102.7			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		101.3			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		111.6			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type Analyte	Mass	Out of Limits Message
Ti 47 Upper, S, EEETi	47	Sample is out of limits (over linear range)

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 1201995839
Sample Date/Time: Thursday, December 31, 2009 00:25:45
Sample Type:
Sample Description: LANL 6020 MS
Number of Replicates: 3
Batch ID: 932937|2|skj
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\091230\1201995839.182

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**39.476**	ug/L	18.649	2180	0.002
	Be	9	**27.206**	ug/L	5.325	704	0.001
	B	11	**60.400**	ug/L	4.188	1730	0.002
	Na	23	**1904.250**	ug/L	1.203	2307603	2.351
	Mg	24	**2127.337**	ug/L	9.606	1685051	1.744
	Al	27	**4487.539**	ug/L	9.277	4693032	4.865
	P	31	**1278.070**	ug/L	1.245	72991	0.072
	K	39	**2502.345**	ug/L	14.538	5313954	5.048
	Ca	43	**2756.401**	ug/L	2.110	11786	0.012
>	Sc	45		ug/L		964196	964195.918
	Ti	47	**634.961**	ug/L	0.993	130280	0.135
	V	51	**32.755**	ug/L	3.467	64986	0.071
	Cr	52	**26.962**	ug/L	0.858	57682	0.058
	Cr	53		ug/L		129605	-0.113
	Mn	55	**1065.750**	ug/L	0.624	3410331	3.536
	Fe	57	**20577.679**	ug/L	1.006	1374861	1.422
	Co	59	**25.733**	ug/L	0.724	66984	0.069
	Ni	60	**30.017**	ug/L	0.782	16500	0.017
	Cu	63		ug/L		37147	0.038
	Cu	65	**30.103**	ug/L	0.316	17904	0.018
	Zn	66	**136.302**	ug/L	0.833	37223	0.275
	Zn	67		ug/L		11457	0.018
	Zn	68		ug/L		26898	0.194
>	Ge	74		ug/L		135194	135194.088
	As	75	**40.707**	ug/L	3.498	14031	0.100
	Se	77		ug/L		5129	-0.042
	Se	82	**10.621**	ug/L	4.881	322	0.002
	Kr	83		ug/L		124	0.001
	Sr	88	**35.917**	ug/L	1.239	172668	2.028
	Y	89		ug/L		583648	6.860
	Zr	90	**69.831**	ug/L	2.607	191019	2.243
	Mo	98	**29.615**	ug/L	1.772	35574	0.417
	Ag	107	**24.629**	ug/L	0.763	46969	0.551
	Cd	111	**6.395**	ug/L	0.123	2680	0.031
	Cd	114		ug/L		5049	0.059
>	In	115		ug/L		85083	85082.785
	Sn	120	**31.479**	ug/L	1.853	59474	0.697
	Sb	121	**96.515**	ug/L	1.717	147665	1.731
	Sb	123		ug/L		113433	1.329
	Ba	135		ug/L		51800	0.503
	Ba	137	**99.365**	ug/L	2.422	89974	0.874
	Ho	165		ug/L		24226	0.235
>	Lu	175		ug/L		102865	102864.754
	Tl	205	**45.717**	ug/L	0.881	170233	1.651
	Pb	208	**110.038**	ug/L	1.361	711211	6.911
	Bi	209		ug/L		549	0.005
	Th	232	**48.397**	ug/L	1.146	384645	3.736
	U	238	**28.948**	ug/L	0.933	229446	2.229

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	0.9999
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	0.9999
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45			112.4		
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74			104.3		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115			102.0		
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175			114.5		
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type Analyte	Mass	Out of Limits Message
Ti 47 Upper, S, EEETi	47	Sample is out of limits (over linear range)
Mn 55 Upper, S, EEIMn	55	Sample is out of limits (over linear range)

QC Action

QC Action Line: Continue

ICPMS#4 - Summary Report

Sample ID: 1201995840
Sample Date/Time: Thursday, December 31, 2009 00:31:58
Sample Type:
Sample Description: LANL 6020 MSD
Number of Replicates: 3
Batch ID: 932937|2|sk|
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\091230\1201995840.183

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**47.348**	ug/L	17.465	2638	0.003
	Be	9	**28.529**	ug/L	7.733	745	0.001
	B	11	**61.896**	ug/L	4.351	1789	0.002
	Na	23	**2035.682**	ug/L	4.593	2487416	2.514
	Mg	24	**2377.876**	ug/L	10.363	1899954	1.949
	Al	27	**4730.447**	ug/L	5.571	4996323	5.128
	P	31	**1348.111**	ug/L	1.645	77520	0.076
	K	39	**2682.870**	ug/L	5.364	5720365	5.412
	Ca	43	**3136.244**	ug/L	2.134	13446	0.013
>	Sc	45		ug/L		973381	973381.132
	Ti	47	**744.112**	ug/L	0.697	154093	0.158
	V	51	**31.612**	ug/L	3.366	63208	0.068
	Cr	52	**26.908**	ug/L	0.790	58123	0.058
	Cr	53		ug/L		129402	-0.115
	Mn	55	**929.091**	ug/L	0.520	3001466	3.082
	Fe	57	**22913.589**	ug/L	0.684	1545150	1.584
	Co	59	**25.654**	ug/L	0.079	67416	0.069
	Ni	60	**28.742**	ug/L	1.500	15951	0.016
	Cu	63		ug/L		37456	0.038
	Cu	65	**30.069**	ug/L	0.469	18055	0.018
	Zn	66	**146.084**	ug/L	0.874	40421	0.294
	Zn	67		ug/L		12075	0.021
	Zn	68		ug/L		29357	0.209
>	Ge	74		ug/L		136996	136996.456
	As	75	**41.747**	ug/L	1.948	14570	0.103
	Se	77		ug/L		5055	-0.043
	Se	82	**11.253**	ug/L	8.972	345	0.003
	Kr	83		ug/L		124	0.001
	Sr	88	**36.097**	ug/L	2.057	174890	2.038
	Y	89		ug/L		615594	7.179
	Zr	90	**70.461**	ug/L	1.339	194275	2.263
	Mo	98	**29.643**	ug/L	0.976	35891	0.418
	Ag	107	**24.284**	ug/L	1.035	46678	0.544
	Cd	111	**6.333**	ug/L	0.499	2675	0.031
	Cd	114		ug/L		4912	0.057
>	In	115		ug/L		85754	85754.214
	Sn	120	**31.272**	ug/L	1.503	59550	0.692
	Sb	121	**93.373**	ug/L	1.640	143998	1.675
	Sb	123		ug/L		110631	1.286
	Ba	135		ug/L		56623	0.548
	Ba	137	**108.287**	ug/L	2.056	98542	0.953
	Ho	165		ug/L		25410	0.246
>	Lu	175		ug/L		103384	103383.803
	Tl	205	**45.289**	ug/L	3.763	169431	1.635
	Pb	208	**114.183**	ug/L	1.957	741661	7.171
	Bi	209		ug/L		749	0.007
	Th	232	**48.180**	ug/L	1.262	384850	3.719
	U	238	**28.718**	ug/L	0.582	228780	2.211

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	0.9999
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	0.9999
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		113.5			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		105.7			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		102.8			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		115.1			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type Analyte	Mass	Out of Limits Message
Ti 47 Upper, S, EEE Ti	47	Sample is out of limits (over linear range)

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 1201995838
Sample Date/Time: Thursday, December 31, 2009 00:38:12
Sample Type:
Sample Description: LANL 6020 SDILT
Number of Replicates: 3
Batch ID: 932937|10|skj
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\091230\1201995838.184

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**4.965**	ug/L	12.531	277	0.000
	Be	9	**0.307**	ug/L	20.436	10	0.000
	B	11	**2.722**	ug/L	24.046	130	0.000
	Na	23	**156.679**	ug/L	7.559	224762	0.193
	Mg	24	**519.965**	ug/L	6.661	409459	0.426
	Al	27	**3033.090**	ug/L	7.151	3136669	3.288
	P	31	**95.200**	ug/L	8.891	8719	0.005
	K	39	**493.649**	ug/L	4.115	1393841	0.996
	Ca	43	**604.092**	ug/L	2.973	3058	0.003
>	Sc	45		ug/L		953697	953697.326
	Ti	47	**156.160**	ug/L	3.094	31879	0.033
	V	51	**3.447**	ug/L	39.953	4079	0.007
	Cr	52	**1.408**	ug/L	4.582	4953	0.003
	Cr	53		ug/L		148780	-0.092
	Mn	55	**207.427**	ug/L	2.506	657274	0.688
	Fe	57	**4880.048**	ug/L	3.049	325021	0.337
	Co	59	**1.005**	ug/L	1.808	2728	0.003
	Ni	60	**1.868**	ug/L	2.447	1062	0.001
	Cu	63		ug/L		2168	0.002
	Cu	65	**1.754**	ug/L	2.908	1099	0.001
	Zn	66	**19.890**	ug/L	5.451	5560	0.040
	Zn	67		ug/L		7543	-0.011
	Zn	68		ug/L		4472	0.028
>	Ge	74		ug/L		136479	136478.774
	As	75	**-0.137**	ug/L	340.977	434	-0.000
	Se	77		ug/L		6407	-0.033
	Se	82	**0.021**	ug/L	1264.982	-1	0.000
	Kr	83		ug/L		71	0.000
	Sr	88	**4.873**	ug/L	1.395	22887	0.275
	Y	89		ug/L		92286	1.116
	Zr	90	**8.516**	ug/L	1.330	22792	0.274
	Mo	98	**0.817**	ug/L	1.261	1007	0.012
	Ag	107	**0.027**	ug/L	13.110	116	0.001
	Cd	111	**0.209**	ug/L	6.900	96	0.001
	Cd	114		ug/L		43	0.000
>	In	115		ug/L		82650	82649.972
	Sn	120	**0.735**	ug/L	0.181	1522	0.016
	Sb	121	**0.055**	ug/L	60.186	439	0.001
	Sb	123		ug/L		402	0.001
	Ba	135		ug/L		14301	0.152
	Ba	137	**30.111**	ug/L	0.672	24967	0.265
	Ho	165		ug/L		3718	0.039
>	Lu	175		ug/L		94100	94099.514
	Tl	205	**0.480**	ug/L	12.690	1997	0.017
	Pb	208	**4.530**	ug/L	0.965	27132	0.284
	Bi	209		ug/L		258	0.002
	Th	232	**4.341**	ug/L	0.791	31902	0.335
	U	238	**0.447**	ug/L	3.455	3445	0.034

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	0.9999
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	0.9999
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45			111.2		
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74			105.3		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115			99.1		
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175			104.8		
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Ti 47 Upper, S, EEE	Ti	47	Sample is out of limits (over linear range)

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 242794002
Sample Date/Time: Thursday, December 31, 2009 00:44:26
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 932937|2|skj
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\091230\242794002.185

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**43.555**	ug/L	12.103	2454	0.002
	Be	9	**2.461**	ug/L	15.426	67	0.000
	B	11	**8.150**	ug/L	8.035	288	0.000
	Na	23	**2118.299**	ug/L	1.111	2611902	2.616
	Mg	24	**4192.044**	ug/L	2.712	3380638	3.436
	Al	27	**23815.362**	ug/L	4.009	25370041	25.819
	P	31	**426.128**	ug/L	1.372	27288	0.024
	K	39	**3474.803**	ug/L	2.453	7346006	7.009
	Ca	43	**6451.785**	ug/L	0.793	27225	0.027
>	Sc	45		ug/L		982722	982722.044
	Ti	47	**644.226**	ug/L	1.146	134712	0.137
	V	51	**22.734**	ug/L	1.661	45026	0.049
	Cr	52	**10.762**	ug/L	2.298	24752	0.023
	Cr	53		ug/L		126084	-0.120
	Mn	55	**726.252**	ug/L	1.572	2368783	2.409
	Fe	57	**25381.929**	ug/L	2.143	1727446	1.754
	Co	59	**3.722**	ug/L	1.300	10003	0.010
	Ni	60	**10.851**	ug/L	0.318	6112	0.006
	Cu	63		ug/L		12114	0.012
	Cu	65	**9.625**	ug/L	0.417	5885	0.006
	Zn	66	**151.285**	ug/L	1.663	41828	0.305
	Zn	67		ug/L		12155	0.022
	Zn	68		ug/L		30190	0.215
>	Ge	74		ug/L		136907	136906.945
	As	75	**2.528**	ug/L	22.109	1333	0.006
	Se	77		ug/L		4757	-0.045
	Se	82	**1.372**	ug/L	48.766	41	0.000
	Kr	83		ug/L		102	0.000
	Sr	88	**46.136**	ug/L	0.968	218553	2.604
	Y	89		ug/L		487530	5.814
	Zr	90	**55.715**	ug/L	1.600	150256	1.790
	Mo	98	**3.737**	ug/L	1.402	4474	0.053
	Ag	107	**0.239**	ug/L	3.002	516	0.005
	Cd	111	**1.170**	ug/L	13.283	493	0.006
	Cd	114		ug/L		140	0.001
>	In	115		ug/L		83860	83859.755
	Sn	120	**2.232**	ug/L	3.112	4323	0.049
	Sb	121	**0.125**	ug/L	7.188	550	0.002
	Sb	123		ug/L		434	0.001
	Ba	135		ug/L		76490	0.756
	Ba	137	**147.765**	ug/L	1.601	131542	1.300
	Ho	165		ug/L		20016	0.198
>	Lu	175		ug/L		101150	101149.940
	Tl	205	**0.749**	ug/L	4.010	3131	0.027
	Pb	208	**29.056**	ug/L	2.766	184901	1.825
	Bi	209		ug/L		19855	0.196
	Th	232	**21.532**	ug/L	2.504	168461	1.662
	U	238	**2.443**	ug/L	1.948	19240	0.188

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	0.9999
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	0.9999
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		114.6			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		105.6			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		100.6			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		112.6			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Ti 47 Upper, S, EEE	Ti	47	Sample is out of limits (over linear range)

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 242794003
Sample Date/Time: Thursday, December 31, 2009 00:50:41
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 932937|2|skj
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\091230\242794003.186

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**29.994**	ug/L	17.988	1724	0.002
	Be	9	**1.619**	ug/L	9.057	45	0.000
	B	11	**4.855**	ug/L	15.423	199	0.000
	Na	23	**708.431**	ug/L	3.701	918632	0.875
	Mg	24	**2696.255**	ug/L	3.181	2217998	2.210
	Al	27	**14191.215**	ug/L	5.414	15417302	15.385
	P	31	**346.098**	ug/L	1.275	23317	0.019
	K	39	**2228.488**	ug/L	1.800	4971568	4.495
	Ca	43	**3033.554**	ug/L	1.608	13413	0.013
>	Sc	45		ug/L		1002220	1002220.059
	Ti	47	**671.359**	ug/L	0.345	143171	0.143
	V	51	**14.265**	ug/L	6.972	27618	0.031
	Cr	52	**6.571**	ug/L	2.691	16262	0.014
	Cr	53		ug/L		119242	-0.129
	Mn	55	**770.778**	ug/L	1.624	2563602	2.557
	Fe	57	**22572.204**	ug/L	2.021	1567088	1.560
	Co	59	**2.552**	ug/L	0.828	7042	0.007
	Ni	60	**7.418**	ug/L	1.907	4277	0.004
	Cu	63		ug/L		9152	0.009
	Cu	65	**7.174**	ug/L	1.406	4493	0.004
	Zn	66	**120.172**	ug/L	1.315	33574	0.242
	Zn	67		ug/L		10487	0.009
	Zn	68		ug/L		24698	0.173
>	Ge	74		ug/L		138260	138259.560
	As	75	**2.361**	ug/L	48.151	1290	0.006
	Se	77		ug/L		4605	-0.047
	Se	82	**1.023**	ug/L	44.958	31	0.000
	Kr	83		ug/L		114	0.000
	Sr	88	**18.863**	ug/L	1.448	90575	1.065
	Y	89		ug/L		486695	5.732
	Zr	90	**45.381**	ug/L	1.418	123960	1.458
	Mo	98	**5.492**	ug/L	3.132	6628	0.077
	Ag	107	**0.205**	ug/L	7.600	457	0.005
	Cd	111	**0.997**	ug/L	8.157	427	0.005
	Cd	114		ug/L		171	0.002
>	In	115		ug/L		84917	84916.878
	Sn	120	**3.842**	ug/L	2.019	7405	0.085
	Sb	121	**0.070**	ug/L	9.680	473	0.001
	Sb	123		ug/L		428	0.001
	Ba	135		ug/L		44393	0.428
	Ba	137	**84.291**	ug/L	2.524	76875	0.742
	Ho	165		ug/L		20427	0.197
>	Lu	175		ug/L		103618	103617.899
	Tl	205	**0.527**	ug/L	3.557	2378	0.019
	Pb	208	**27.772**	ug/L	2.404	181069	1.744
	Bi	209		ug/L		10133	0.097
	Th	232	**20.457**	ug/L	1.245	164001	1.579
	U	238	**2.452**	ug/L	1.051	19786	0.189

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	0.9999
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	0.9999
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45			116.9		
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74			106.6		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115			101.8		
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175			115.4		
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Ti 47 Upper, S, EEE	Ti	47	Sample is out of limits (over linear range)

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 242794004
Sample Date/Time: Thursday, December 31, 2009 00:56:57
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 932937|2|sk|
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\091230\242794004.187

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**76.796**	ug/L	14.259	4414	0.004
	Be	9	**4.521**	ug/L	6.557	124	0.000
	B	11	**19.982**	ug/L	6.703	636	0.001
	Na	23	**1214.451**	ug/L	5.210	1550261	1.500
	Mg	24	**11011.421**	ug/L	3.167	9079070	9.027
	Al	27	**77787.247**	ug/L	4.297	84793829	84.331
	P	31	**1670.678**	ug/L	1.063	98330	0.094
	K	39	**9792.981**	ug/L	2.284	20331651	19.754
	Ca	43	**12049.152**	ug/L	0.800	51438	0.050
>	Sc	45		ug/L		1005508	1005508.450
	Ti	47	**1669.512**	ug/L	0.841	356775	0.355
	V	51	**102.300**	ug/L	1.129	218380	0.220
	Cr	52	**43.251**	ug/L	1.414	95172	0.092
	Cr	53		ug/L		126624	-0.122
	Mn	55	**1576.564**	ug/L	1.629	5259869	5.230
	Fe	57	**52871.472**	ug/L	1.931	3677807	3.654
	Co	59	**20.019**	ug/L	1.213	54375	0.054
	Ni	60	**33.619**	ug/L	1.423	19265	0.019
	Cu	63		ug/L		36801	0.036
	Cu	65	**29.211**	ug/L	1.442	18119	0.018
	Zn	66	**144.149**	ug/L	1.294	39409	0.290
	Zn	67		ug/L		12548	0.026
	Zn	68		ug/L		30410	0.219
>	Ge	74		ug/L		135354	135353.895
	As	75	**8.328**	ug/L	13.204	3251	0.021
	Se	77		ug/L		4448	-0.047
	Se	82	**0.268**	ug/L	118.250	7	0.000
	Kr	83		ug/L		113	0.000
	Sr	88	**136.507**	ug/L	1.378	631249	7.706
	Y	89		ug/L		323817	3.954
	Zr	90	**87.247**	ug/L	2.937	229679	2.803
	Mo	98	**2.138**	ug/L	3.096	2523	0.030
	Ag	107	**0.398**	ug/L	6.964	796	0.009
	Cd	111	**1.614**	ug/L	4.573	660	0.008
	Cd	114		ug/L		261	0.003
>	In	115		ug/L		81903	81903.371
	Sn	120	**0.992**	ug/L	6.069	1973	0.022
	Sb	121	**0.101**	ug/L	8.808	502	0.002
	Sb	123		ug/L		454	0.002
	Ba	135		ug/L		298548	2.993
	Ba	137	**581.745**	ug/L	1.193	510636	5.120
	Ho	165		ug/L		13354	0.134
>	Lu	175		ug/L		99734	99733.589
	Tl	205	**0.843**	ug/L	1.658	3425	0.030
	Pb	208	**56.757**	ug/L	1.075	355881	3.565
	Bi	209		ug/L		4477	0.045
	Th	232	**32.487**	ug/L	1.596	250481	2.508
	U	238	**3.691**	ug/L	1.808	28561	0.284

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	0.9999
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	0.9999
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		117.2			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		104.4			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		98.2			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		111.1			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type Analyte	Mass	Out of Limits Message
Al 27 Upper, S, EEEAl	27	Sample is out of limits (over linear range)
Ti 47 Upper, S, EEETi	47	Sample is out of limits (over linear range)
V 51 Upper, S, EEE V	51	Sample is out of limits (over linear range)
Mn 55 Upper, S, EEIMn	55	Sample is out of limits (over linear range)
Fe 57 Upper, S, EEEFe	57	Sample is out of limits (over linear range)

QC Action

QC Action Line: Continue

ICPMS#4 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Thursday, December 31, 2009 01:03:11
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\091230\QC Std 6.188

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**55.230**	ug/L	12.359	3114	0.003
	Be	9	**57.208**	ug/L	3.366	1510	0.002
	B	11	**116.977**	ug/L	2.941	3370	0.003
	Na	23	**4906.181**	ug/L	4.360	6009911	6.058
	Mg	24	**5161.657**	ug/L	2.919	4171532	4.231
	Al	27	**5172.119**	ug/L	4.424	5528413	5.607
	P	31	**5199.815**	ug/L	1.172	291955	0.293
	K	39	**5360.510**	ug/L	3.219	11112261	10.813
	Ca	43	**5081.198**	ug/L	0.205	21637	0.021
>	Sc	45		ug/L		985151	985151.277
	Ti	47	**47.441**	ug/L	0.854	10199	0.010
	V	51	**46.564**	ug/L	2.166	95693	0.100
	Cr	52	**48.117**	ug/L	1.746	103488	0.103
	Cr	53		ug/L		164262	-0.081
	Mn	55	**50.342**	ug/L	1.844	165770	0.167
	Fe	57	**4802.792**	ug/L	0.577	330622	0.332
	Co	59	**46.080**	ug/L	0.671	122434	0.124
	Ni	60	**47.275**	ug/L	1.896	26521	0.027
	Cu	63		ug/L		59240	0.060
	Cu	65	**45.750**	ug/L	0.589	27764	0.028
	Zn	66	**51.468**	ug/L	3.458	14621	0.104
	Zn	67		ug/L		9189	-0.001
	Zn	68		ug/L		10679	0.071
>	Ge	74		ug/L		140083	140083.287
	As	75	**46.416**	ug/L	1.710	16511	0.114
	Se	77		ug/L		7427	-0.027
	Se	82	**50.490**	ug/L	5.865	1588	0.011
	Kr	83		ug/L		53	-0.000
	Sr	88	**53.663**	ug/L	0.299	252493	3.029
	Y	89		ug/L		129	0.001
	Zr	90	**51.294**	ug/L	1.102	137429	1.648
	Mo	98	**49.835**	ug/L	0.553	58574	0.703
	Ag	107	**48.931**	ug/L	0.731	91291	1.095
	Cd	111	**50.012**	ug/L	1.058	20440	0.245
	Cd	114		ug/L		46117	0.553
>	In	115		ug/L		83298	83298.194
	Sn	120	**50.200**	ug/L	1.094	92752	1.111
	Sb	121	**48.688**	ug/L	1.529	73113	0.873
	Sb	123		ug/L		56371	0.673
	Ba	135		ug/L		23317	0.246
	Ba	137	**48.487**	ug/L	0.681	40444	0.427
	Ho	165		ug/L		24	0.000
>	Lu	175		ug/L		94704	94703.816
	Tl	205	**47.438**	ug/L	0.905	162597	1.713
	Pb	208	**50.153**	ug/L	0.284	298659	3.150
	Bi	209		ug/L		106	0.001
	Th	232	**51.908**	ug/L	1.403	379821	4.007
	U	238	**53.760**	ug/L	1.282	392152	4.139

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	0.9999
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	0.9999
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7	110.461				
	Be	9	114.416				
	B	11	116.977				
	Na	23	98.124				
	Mg	24	103.233				
	Al	27	102.418				
	P	31	103.996				
	K	39	107.210				
	Ca	43	101.624				
>	Sc	45		114.9			
	Ti	47	94.883				
	V	51	93.128				
	Cr	52	96.234				
	Cr	53					
	Mn	55	100.684				
	Fe	57	96.056				
	Co	59	92.159				
	Ni	60	94.551				
	Cu	63					
	Cu	65	91.500				
	Zn	66	102.936				
	Zn	67					
	Zn	68					
>	Ge	74		108.0			
	As	75	92.832				
	Se	77					
	Se	82	100.980				
	Kr	83					
	Sr	88	107.326				
	Y	89					
	Zr	90	102.588				
	Mo	98	99.670				
	Ag	107	97.862				
	Cd	111	100.024				
	Cd	114					
>	In	115		99.9			
	Sn	120	100.400				
	Sb	121	97.376				
	Sb	123					
	Ba	135					
	Ba	137	96.974				
	Ho	165					
>	Lu	175		105.5			
	Tl	205	94.875				
	Pb	208	100.306				
	Bi	209					
	Th	232	103.816				
	U	238	107.520				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 6	Li	7	CCV is out of limits (+/- 10%)
QC Std 6	Be	9	CCV is out of limits (+/- 10%)
QC Std 6	B	11	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#4 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Thursday, December 31, 2009 01:09:24
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\091230\QC Std 7.189

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.133**	**ug/L**	82.706	14	0.000
	Be	9	**-0.022**	**ug/L**	100.004	1	-0.000
	B	11	**2.567**	**ug/L**	25.920	130	0.000
	Na	23	**-11.524**	**ug/L**	10.016	27360	-0.014
	Mg	24	**0.700**	**ug/L**	532.770	4001	0.001
	Al	27	**0.793**	**ug/L**	138.899	4667	0.001
	P	31	**-13.323**	**ug/L**	12.858	2994	-0.001
	K	39	**-9.831**	**ug/L**	68.564	439325	-0.020
	Ca	43	**-30.127**	**ug/L**	55.002	541	-0.000
>	Sc	45		**ug/L**		983955	983955.017
	Ti	47	**-0.280**	**ug/L**	61.833	215	-0.000
	V	51	**-2.016**	**ug/L**	21.475	-7365	-0.004
	Cr	52	**-0.375**	**ug/L**	25.932	1356	-0.001
	Cr	53		**ug/L**		158614	-0.087
	Mn	55	**-0.070**	**ug/L**	30.377	1020	-0.000
	Fe	57	**4.546**	**ug/L**	47.694	3893	0.000
	Co	59	**0.005**	**ug/L**	82.763	165	0.000
	Ni	60	**-0.006**	**ug/L**	299.074	48	-0.000
	Cu	63		**ug/L**		112	-0.000
	Cu	65	**-0.019**	**ug/L**	112.549	62	-0.000
	Zn	66	**0.000**	**ug/L**	3966.351	95	0.000
	Zn	67		**ug/L**		7228	-0.014
	Zn	68		**ug/L**		610	-0.001
>	Ge	74		**ug/L**		136340	136339.926
	As	75	**-1.466**	**ug/L**	26.531	-13	-0.004
	Se	77		**ug/L**		6525	-0.032
	Se	82	**-0.100**	**ug/L**	388.950	-4	-0.000
	Kr	83		**ug/L**		56	0.000
	Sr	88	**0.010**	**ug/L**	13.954	202	0.001
	Y	89		**ug/L**		23	0.000
	Zr	90	**0.138**	**ug/L**	16.933	550	0.004
	Mo	98	**0.044**	**ug/L**	15.284	106	0.001
	Ag	107	**0.011**	**ug/L**	74.055	86	0.000
	Cd	111	**0.017**	**ug/L**	81.148	19	0.000
	Cd	114		**ug/L**		33	0.000
>	In	115		**ug/L**		82705	82704.860
	Sn	120	**0.071**	**ug/L**	11.839	307	0.002
	Sb	121	**0.208**	**ug/L**	18.976	667	0.004
	Sb	123		**ug/L**		559	0.003
	Ba	135		**ug/L**		29	0.000
	Ba	137	**0.018**	**ug/L**	67.629	47	0.000
	Ho	165		**ug/L**		11	-0.000
>	Lu	175		**ug/L**		93415	93415.465
	Tl	205	**0.194**	**ug/L**	19.767	1022	0.007
	Pb	208	**0.028**	**ug/L**	14.798	527	0.002
	Bi	209		**ug/L**		27	-0.000
	Th	232	**0.077**	**ug/L**	21.071	930	0.006
	U	238	**0.016**	**ug/L**	10.827	320	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	0.9999
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	0.9999
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		114.7			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		105.1			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		99.2			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		104.0			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

Daily Performance Report

Sample ID: Sample
Sample Date/Time: Thursday, December 31, 2009 11:09:45
Sample Description:
Method File: c:\elandata\Method\daily2.mth
Dataset File: c:\elandata\Dataset\090811\Sample.341
Tuning File: c:\elandata\Tuning\default2.tun
Optimization File: c:\elandata\Optimize\default.dac
Dual Detector Mode: Pulse

Acq. Dead Time(ns): 35
Current Dead Time (ns): 35

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Be	9.0	787.2	787.222	23.521	3.0
	Mg	24.0	17954.7	17954.679	328.562	1.8
	Co	58.9	52662.5	52662.500	638.671	1.2
	Rh	102.9	85840.8	85840.751	876.424	1.0
	In	114.9	107225.9	107225.935	1057.281	1.0
	Pb	208.0	59486.6	59486.611	738.160	1.2
⌈>	Ba	137.9	92930.2	92930.213	918.587	1.0
⌊	Ba++	69.0	1974.5	0.021	0.000	1.1
⌈>	Ce	139.9	110614.8	110614.809	682.543	0.6
⌊	CeO	155.9	2629.3	0.024	0.001	2.3
	Bkgd	220.0	6.9	6.900	1.557	22.6

Current Optimization File Data

Current Value	Description
0.84	Nebulizer Gas Flow
6.00	Lens Voltage
1000.00	ICP RF Power
-1875.00	Analog Stage Voltage
1100.00	Pulse Stage Voltage
50.00	Discriminator Threshold
-2.00	AC Rod Offset

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	21	7.5	894.7
Co	59	21	8.5	32687.7
In	115	21	10.0	82053.3

ICPMS #4 TUNING REPORT

File Name: default2.tun
File Path: c:\elandata\Tuning

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas Peak W
He	3.0	3.0	607	2060	0.696
Be	9.0	9.1	2058	2055	0.648
Mg	24.0	24.0	5683	2065	0.642
Mg	25.0	25.1	5957	2070	0.630
Mg	26.0	26.0	6169	2085	0.633
Co	58.9	59.0	14186	2120	0.689
Rh	102.9	102.9	24869	2220	0.692
In	114.9	115.0	27784	2255	0.667
Ce	139.9	139.9	33855	2300	0.685
Pb	206.0	206.0	49932	2460	0.699
Pb	207.0	207.0	50125	2380	0.660
Pb	208.0	208.0	50436	2490	0.762
U	238.1	238.1	57706	2480	0.753

ICPMS#4 - Summary Report

Sample ID: Blank
Sample Date/Time: Thursday, December 31, 2009 14:07:29
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li,be,ni,tl,u.mth
Dataset File: C:\elandata\Dataset\091231\Blank.063

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7		ug/L		15	
	Be	9		ug/L		4	
>	Sc	45		ug/L		1062812	
	Ni	60		ug/L		63	
>	Lu	175		ug/L		88341	
	Tl	205		ug/L		406	
	U	238		ug/L		158	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Simple Linear	
Be	9	Simple Linear	
Sc	45	Linear Thru Zero	
Ni	60	Simple Linear	
Lu	175	Simple Linear	
Tl	205	Simple Linear	
U	238	Simple Linear	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
>	Sc	45					
	Ni	60					
>	Lu	175					
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Thursday, December 31, 2009 14:09:56
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li,be,ni,tl,u.mth
Dataset File: C:\elandata\Dataset\091231\Standard 1.064

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	10.000	ug/L	2.565	1817	0.002
	Be	9	10.000	ug/L	4.656	553	0.001
>	Sc	45		ug/L		1069415	1069415.051
	Ni	60	10.000	ug/L	0.949	5675	0.005
>	Lu	175		ug/L		87693	87692.543
	Tl	205	10.000	ug/L	1.010	24082	0.270
	U	238	10.000	ug/L	0.819	70072	0.797

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
>	Sc	45					
	Ni	60					
>	Lu	175					
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Thursday, December 31, 2009 14:12:21
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li,be,ni,tl,u.mth
Dataset File: C:\elandata\Dataset\091231\Standard 2.065

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**100.008**	**ug/L**	3.248	17681	0.017
	Be	9	**100.027**	**ug/L**	1.986	5494	0.005
>	Sc	45		**ug/L**		1040158	1040158.116
	Ni	60	**99.963**	**ug/L**	0.737	52671	0.051
>	Lu	175		**ug/L**		87523	87522.844
	Tl	205	**100.002**	**ug/L**	1.409	237106	2.704
	U	238	**99.992**	**ug/L**	1.599	692402	7.910

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
>	Sc	45					
	Ni	60					
>	Lu	175					
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Thursday, December 31, 2009 14:14:46
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li,be,ni,tl,u.mth
Dataset File: C:\elandata\Dataset\091231\QC Std 1.066

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**51.439**	**ug/L**	1.331	9261	0.009
	Be	9	**51.362**	**ug/L**	1.699	2872	0.003
>	Sc	45		**ug/L**		1057961	1057960.742
	Ni	60	**51.139**	**ug/L**	1.155	27437	0.026
>	Lu	175		**ug/L**		86877	86876.572
	Tl	205	**48.688**	**ug/L**	0.907	114795	1.317
	U	238	**53.165**	**ug/L**	1.609	365559	4.206

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7	102.879				
	Be	9	102.723				
>	Sc	45			99.5		
	Ni	60	102.277				
>	Lu	175			98.3		
	Tl	205	97.376				
	U	238	106.329				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Thursday, December 31, 2009 14:17:13
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li,be,ni,tl,u.mth
Dataset File: C:\elandata\Dataset\091231\QC Std 2.067

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	-0.009	ug/L	119.968	13	-0.000
	Be	9	-0.005	ug/L	531.002	3	-0.000
>	Sc	45		ug/L		1058478	1058477.708
	Ni	60	-0.037	ug/L	24.298	43	-0.000
>	Lu	175		ug/L		86525	86525.107
	Tl	205	0.024	ug/L	24.903	454	0.001
	U	238	0.003	ug/L	33.447	177	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
>	Sc	45			99.6		
	Ni	60					
>	Lu	175			97.9		
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Thursday, December 31, 2009 14:19:41
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li,be,ni,tl,u.mth
Dataset File: C:\elandata\Dataset\091231\QC Std 3.068

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**11.032**	**ug/L**	0.803	1984	0.002
	Be	9	**0.504**	**ug/L**	20.578	32	0.000
>	Sc	45		**ug/L**		1050533	1050533.382
	Ni	60	**2.168**	**ug/L**	0.970	1215	0.001
>	Lu	175		**ug/L**		87744	87744.219
	Tl	205	**0.956**	**ug/L**	3.471	2671	0.026
	U	238	**0.216**	**ug/L**	2.326	1653	0.017

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7	110.321				
	Be	9	100.790				
>	Sc	45			98.8		
	Ni	60	108.417				
>	Lu	175			99.3		
	Tl	205	95.593				
	U	238	107.832				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Thursday, December 31, 2009 14:22:07
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li,be,ni,tl,u.mth
Dataset File: C:\elandata\Dataset\091231\QC Std 4.069

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.074**	**ug/L**	50.824	27	0.000
	Be	9	**0.052**	**ug/L**	91.920	6	0.000
>	Sc	45		**ug/L**		1023689	1023688.587
	Ni	60	**3.462**	**ug/L**	1.888	1854	0.002
>	Lu	175		**ug/L**		86110	86110.294
	Tl	205	**-0.084**	**ug/L**	3.513	201	-0.002
	U	238	**-0.017**	**ug/L**	4.363	41	-0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
>	Sc	45			96.3		
	Ni	60	128.219				
>	Lu	175			97.5		
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Thursday, December 31, 2009 14:24:34
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li,be,ni,tl,u.mth
Dataset File: C:\elandata\Dataset\091231\QC Std 5.070

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**18.663**	**ug/L**	2.234	3262	0.003
	Be	9	**19.758**	**ug/L**	3.130	1072	0.001
>	Sc	45		**ug/L**		1024433	1024432.657
	Ni	60	**22.237**	**ug/L**	1.949	11586	0.011
>	Lu	175		**ug/L**		85290	85289.702
	Tl	205	**17.535**	**ug/L**	0.765	40837	0.474
	U	238	**20.628**	**ug/L**	0.200	139331	1.632

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7	93.316				
	Be	9	98.788				
>	Sc	45			96.4		
	Ni	60	97.958				
>	Lu	175			96.5		
	Tl	205	87.675				
	U	238	103.141				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Thursday, December 31, 2009 14:27:02
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li,be,ni,tl,u.mth
Dataset File: C:\elandata\Dataset\091231\QC Std 6.071

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**50.098**	**ug/L**	3.416	9030	0.009
	Be	9	**49.952**	**ug/L**	0.939	2797	0.003
>	Sc	45		**ug/L**		1059534	1059533.565
	Ni	60	**51.597**	**ug/L**	0.739	27724	0.026
>	Lu	175		**ug/L**		87437	87437.008
	Tl	205	**48.287**	**ug/L**	0.744	114592	1.306
	U	238	**52.837**	**ug/L**	0.629	365645	4.180

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7	100.196				
	Be	9	99.904				
>	Sc	45			99.7		
	Ni	60	103.195				
>	Lu	175			99.0		
	Tl	205	96.575				
	U	238	105.674				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Thursday, December 31, 2009 14:29:31
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li,be,ni,tl,u.mth
Dataset File: C:\elandata\Dataset\091231\QC Std 7.072

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.021**	**ug/L**	101.564	18	0.000
	Be	9	**-0.012**	**ug/L**	6.469	3	-0.000
>	Sc	45		**ug/L**		1062201	1062201.487
	Ni	60	**-0.017**	**ug/L**	133.282	54	-0.000
>	Lu	175		**ug/L**		86854	86853.782
	Tl	205	**0.032**	**ug/L**	28.769	474	0.001
	U	238	**0.006**	**ug/L**	41.418	194	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
>	Sc	45			99.9		
	Ni	60					
>	Lu	175			98.3		
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 1201995836
Sample Date/Time: Thursday, December 31, 2009 14:32:00
Sample Type:
Sample Description: LANL 6020 MB
Number of Replicates: 3
Batch ID: 932937|2|skj
Method File: c:\elandata\Method\li,be,ni,tl,u.mth
Dataset File: C:\elandata\Dataset\091231\1201995836.073

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	-0.002	ug/L	669.038	14	-0.000
	Be	9	-0.006	ug/L	157.097	3	-0.000
>	Sc	45		ug/L		1068887	1068887.314
	Ni	60	0.097	ug/L	18.620	116	0.000
>	Lu	175		ug/L		87260	87259.628
	Tl	205	-0.060	ug/L	21.413	260	-0.002
	U	238	0.028	ug/L	3.433	352	0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
>	Sc	45		100.6			
	Ni	60					
>	Lu	175		98.8			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 1201995841
Sample Date/Time: Thursday, December 31, 2009 14:34:29
Sample Type:
Sample Description: LANL 6020 LCS
Number of Replicates: 3
Batch ID: 932937|40|skj
Method File: c:\elandata\Method\li,be,ni,tl,u.mth
Dataset File: C:\elandata\Dataset\091231\1201995841.074

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**2.642**	**ug/L**	4.781	501	0.000
	Be	9	**22.209**	**ug/L**	2.818	1274	0.001
>	Sc	45		**ug/L**		1083188	1083187.566
	Ni	60	**39.695**	**ug/L**	1.116	21822	0.020
>	Lu	175		**ug/L**		87838	87837.789
	Tl	205	**31.929**	**ug/L**	1.302	76251	0.863
	U	238	**0.548**	**ug/L**	3.809	3964	0.043

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
>	Sc	45		101.9			
	Ni	60					
>	Lu	175		99.4			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 1201995841
Sample Date/Time: Thursday, December 31, 2009 14:36:59
Sample Type:
Sample Description: LANL 6020 LCS
Number of Replicates: 3
Batch ID: 932937|20|sk|
Method File: c:\elandata\Method\li,be,ni,tl,u.mth
Dataset File: C:\elandata\Dataset\091231\1201995841.075

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**5.899**	**ug/L**	5.155	1085	0.001
	Be	9	**45.770**	**ug/L**	2.093	2584	0.002
>	Sc	45		**ug/L**		1067936	1067936.490
	Ni	60	**79.637**	**ug/L**	0.623	43099	0.040
>	Lu	175		**ug/L**		87705	87704.949
	Tl	205	**65.788**	**ug/L**	1.910	156443	1.779
	U	238	**1.119**	**ug/L**	2.421	7921	0.089

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
>	Sc	45		100.5			
	Ni	60					
>	Lu	175		99.3			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 242794001
Sample Date/Time: Thursday, December 31, 2009 14:39:30
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 932937|2|sk|
Method File: c:\elandata\Method\li,be,ni,tl,u.mth
Dataset File: C:\elandata\Dataset\091231\242794001.076

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**21.367**	**ug/L**	5.339	3935	0.004
	Be	9	**1.418**	**ug/L**	9.408	85	0.000
>	Sc	45		**ug/L**		1080792	1080791.900
	Ni	60	**9.718**	**ug/L**	1.390	5380	0.005
>	Lu	175		**ug/L**		92362	92362.231
	Tl	205	**0.708**	**ug/L**	5.611	2191	0.019
	U	238	**2.250**	**ug/L**	1.784	16602	0.178

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
>	Sc	45		101.7			
	Ni	60					
>	Lu	175		104.6			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Thursday, December 31, 2009 14:41:59
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li,be,ni,tl,u.mth
Dataset File: C:\elandata\Dataset\091231\QC Std 6.077

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**50.109**	**ug/L**	2.955	9235	0.009
	Be	9	**50.572**	**ug/L**	1.333	2895	0.003
>	Sc	45		**ug/L**		1083199	1083199.443
	Ni	60	**51.482**	**ug/L**	0.633	28282	0.026
>	Lu	175		**ug/L**		88235	88234.627
	Tl	205	**48.746**	**ug/L**	1.087	116711	1.318
	U	238	**52.969**	**ug/L**	2.960	369718	4.190

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7	100.218				
	Be	9	101.145				
>	Sc	45			101.9		
	Ni	60	102.964				
>	Lu	175			99.9		
	Tl	205	97.492				
	U	238	105.938				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Thursday, December 31, 2009 14:44:28
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li,be,ni,tl,u.mth
Dataset File: C:\elandata\Dataset\091231\QC Std 7.078

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.006**	**ug/L**	90.319	16	0.000
	Be	9	**-0.007**	**ug/L**	144.353	3	-0.000
>	Sc	45		**ug/L**		1075196	1075196.131
	Ni	60	**-0.017**	**ug/L**	83.525	55	-0.000
>	Lu	175		**ug/L**		88116	88115.830
	Tl	205	**0.115**	**ug/L**	3.263	678	0.003
	U	238	**-0.003**	**ug/L**	87.077	135	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
>	Sc	45		101.2			
	Ni	60					
>	Lu	175		99.7			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 1201995837
Sample Date/Time: Thursday, December 31, 2009 14:46:57
Sample Type:
Sample Description: LANL 6020 DUP
Number of Replicates: 3
Batch ID: 932937|2|skj
Method File: c:\elandata\Method\li,be,ni,tl,u.mth
Dataset File: C:\elandata\Dataset\091231\1201995837.079

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**12.310**	**ug/L**	2.683	2275	0.002
	Be	9	**1.003**	**ug/L**	9.084	61	0.000
>	Sc	45		**ug/L**		1080687	1080687.008
	Ni	60	**4.644**	**ug/L**	2.601	2604	0.002
>	Lu	175		**ug/L**		93194	93194.270
	Tl	205	**0.125**	**ug/L**	7.892	743	0.003
	U	238	**2.248**	**ug/L**	1.683	16739	0.178

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
>	Sc	45		101.7			
	Ni	60					
>	Lu	175		105.5			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 1201995839
Sample Date/Time: Thursday, December 31, 2009 14:49:26
Sample Type:
Sample Description: LANL 6020 MS
Number of Replicates: 3
Batch ID: 932937|2|skj
Method File: c:\elandata\Method\li,be,ni,tl,u.mth
Dataset File: C:\elandata\Dataset\091231\1201995839.080

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**38.139**	**ug/L**	2.434	6946	0.006
	Be	9	**27.561**	**ug/L**	0.702	1560	0.001
>	Sc	45		**ug/L**		1069758	1069757.795
	Ni	60	**33.245**	**ug/L**	0.934	18060	0.017
>	Lu	175		**ug/L**		94934	94934.380
	Tl	205	**46.201**	**ug/L**	1.435	119059	1.249
	U	238	**28.667**	**ug/L**	1.024	215465	2.268

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
>	Sc	45		100.7			
	Ni	60					
>	Lu	175		107.5			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 1201995840
Sample Date/Time: Thursday, December 31, 2009 14:51:55
Sample Type:
Sample Description: LANL 6020 MSD
Number of Replicates: 3
Batch ID: 932937|2|skj
Method File: c:\elandata\Method\li,be,ni,tl,u.mth
Dataset File: C:\elandata\Dataset\091231\1201995840.081

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Li	7	**46.582**	**ug/L**	1.865	8384	0.008
|	Be	9	**27.474**	**ug/L**	1.567	1538	0.001
|>	Sc	45		**ug/L**		1057569	1057569.337
⌊	Ni	60	**31.683**	**ug/L**	1.346	17015	0.016
⌈>	Lu	175		**ug/L**		94541	94541.085
|	Tl	205	**46.104**	**ug/L**	1.051	118306	1.247
⌊	U	238	**28.884**	**ug/L**	0.406	216193	2.285

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Li	7					
|	Be	9					
|>	Sc	45		99.5			
⌊	Ni	60					
⌈>	Lu	175		107.0			
|	Tl	205					
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 1201995838
Sample Date/Time: Thursday, December 31, 2009 14:54:24
Sample Type:
Sample Description: LANL 6020 SDILT
Number of Replicates: 3
Batch ID: 932937|10|skj
Method File: c:\elandata\Method\li,be,ni,tl,u.mth
Dataset File: C:\elandata\Dataset\091231\1201995838.082

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**4.615**	**ug/L**	2.258	835	0.001
	Be	9	**0.195**	**ug/L**	35.957	14	0.000
>	Sc	45		**ug/L**		1045995	1045995.175
	Ni	60	**1.969**	**ug/L**	1.478	1105	0.001
>	Lu	175		**ug/L**		88066	88065.828
	Tl	205	**0.308**	**ug/L**	1.648	1137	0.008
	U	238	**0.455**	**ug/L**	5.440	3328	0.036

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
>	Sc	45			98.4		
	Ni	60					
>	Lu	175			99.7		
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 242794002
Sample Date/Time: Thursday, December 31, 2009 14:56:54
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 932937|2|sk|
Method File: c:\elandata\Method\li,be,ni,tl,u.mth
Dataset File: C:\elandata\Dataset\091231\242794002.083

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**43.181**	**ug/L**	1.134	7775	0.007
	Be	9	**2.221**	**ug/L**	6.527	128	0.000
>	Sc	45		**ug/L**		1057566	1057566.250
	Ni	60	**11.458**	**ug/L**	0.751	6195	0.006
>	Lu	175		**ug/L**		92796	92796.018
	Tl	205	**0.639**	**ug/L**	4.478	2029	0.017
	U	238	**2.447**	**ug/L**	1.940	18125	0.194

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
>	Sc	45		99.5			
	Ni	60					
>	Lu	175		105.0			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 242794003
Sample Date/Time: Thursday, December 31, 2009 14:59:25
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 932937|2|skj
Method File: c:\elandata\Method\li,be,ni,tl,u.mth
Dataset File: C:\elandata\Dataset\091231\242794003.084

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**30.691**	**ug/L**	1.384	5338	0.005
	Be	9	**1.690**	**ug/L**	10.348	95	0.000
>	Sc	45		**ug/L**		1020929	1020929.023
	Ni	60	**8.218**	**ug/L**	1.914	4307	0.004
>	Lu	175		**ug/L**		91038	91038.418
	Tl	205	**0.424**	**ug/L**	6.244	1461	0.011
	U	238	**2.462**	**ug/L**	1.089	17891	0.195

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
>	Sc	45		96.1			
	Ni	60					
>	Lu	175		103.1			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 242794004
Sample Date/Time: Thursday, December 31, 2009 15:01:56
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 932937|2|skj
Method File: c:\elandata\Method\li,be,ni,tl,u.mth
Dataset File: C:\elandata\Dataset\091231\242794004.085

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**74.702**	**ug/L**	2.223	13044	0.013
	Be	9	**4.486**	**ug/L**	12.525	246	0.000
>	Sc	45		**ug/L**		1026775	1026775.468
	Ni	60	**36.522**	**ug/L**	0.494	19036	0.018
>	Lu	175		**ug/L**		88532	88531.711
	Tl	205	**0.728**	**ug/L**	1.519	2150	0.020
	U	238	**3.753**	**ug/L**	2.313	26442	0.297

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
>	Sc	45		96.6			
	Ni	60					
>	Lu	175		100.2			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Thursday, December 31, 2009 15:04:26
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li,be,ni,tl,u.mth
Dataset File: C:\elandata\Dataset\091231\QC Std 6.086

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**54.449**	**ug/L**	0.256	9549	0.009
	Be	9	**53.035**	**ug/L**	1.375	2889	0.003
>	Sc	45		**ug/L**		1030570	1030570.035
	Ni	60	**51.932**	**ug/L**	0.849	27144	0.026
>	Lu	175		**ug/L**		86128	86128.401
	Tl	205	**48.641**	**ug/L**	1.298	113690	1.315
	U	238	**53.163**	**ug/L**	1.938	362348	4.206

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7	108.898				
	Be	9	106.069				
>	Sc	45			97.0		
	Ni	60	103.865				
>	Lu	175			97.5		
	Tl	205	97.282				
	U	238	106.327				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Thursday, December 31, 2009 15:06:55
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li,be,ni,tl,u.mth
Dataset File: C:\elandata\Dataset\091231\QC Std 7.087

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	0.008	ug/L	302.601	15	0.000
	Be	9	-0.028	ug/L	117.998	2	-0.000
>	Sc	45		ug/L		1019094	1019094.220
	Ni	60	-0.025	ug/L	85.056	48	-0.000
>	Lu	175		ug/L		84747	84747.182
	Tl	205	0.074	ug/L	6.946	558	0.002
	U	238	-0.005	ug/L	42.643	119	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
>	Sc	45			95.9		
	Ni	60					
>	Lu	175			95.9		
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

Analysis Begun

Logged In Analyst: Administrator **Technique: AA FIMS-MHS**
Spectrometer Model: FIMS-100, S/N B050-9550 **Autosampler Model: S10**

Sample Information File: C:\data-AA\Administrator\Sample Information\122309.sif
Batch ID:
Results Data Set: 122309S1
Results Library: C:\data-AA\Administrator\Results\Results.mdb

Method Loaded
Method Name: SOIL **Method Last Saved: 12/7/2009 16:18:28**
Method Description: 7471A, ILM04 ANALYST JXL1

Sequence No.: 1 **Autosampler Location: 1**
Sample ID: Calib Blank **Date Collected: 12/23/2009 08:39:08**
Analyst: **Data Type: Original**

Replicate Data: Calib Blank

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.00]	0.0001	-0.0000	0.0001	08:39:58	Yes
2		[0.00]	0.0001	-0.0001	0.0001	08:40:28	Yes
Mean:		[0.00]	0.0001				
SD:		0.00	0.0000				
%RSD:		0.00	16.01				

Auto-zero performed.

Sequence No.: 2 **Autosampler Location: 2**
Sample ID: S0.2 **Date Collected: 12/23/2009 08:40:47**
Analyst: **Data Type: Original**

Replicate Data: S0.2

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.2]	0.0016	0.0070	0.0017	08:41:38	Yes
2		[0.2]	0.0016	0.0067	0.0017	08:42:07	Yes
Mean:		[0.2]	0.0016				
SD:		0.0	0.0000				
%RSD:		0.0	0.67				

Standard number 1 applied. [0.2]
Correlation Coef.: 1.000000 Slope: 0.00808 Intercept: 0.00000

Sequence No.: 3 **Autosampler Location: 3**
Sample ID: S0.5 **Date Collected: 12/23/2009 08:42:27**
Analyst: **Data Type: Original**

Replicate Data: S0.5

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.5]	0.0041	0.0173	0.0042	08:43:17	Yes
2		[0.5]	0.0041	0.0174	0.0042	08:43:47	Yes
Mean:		[0.5]	0.0041				
SD:		0.0	0.0000				
%RSD:		0.0	0.64				

Standard number 2 applied. [0.5]
Correlation Coef.: 0.999975 Slope: 0.00822 Intercept: -0.00001

==========

Sequence No.: 4 **Autosampler Location: 4**
Sample ID: S2.0 **Date Collected: 12/23/2009 08:44:06**
Analyst: **Data Type: Original**

Replicate Data: S2.0

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[2.0]	0.0166	0.0702	0.0167	08:44:57	Yes
2		[2.0]	0.0166	0.0701	0.0167	08:45:27	Yes
Mean:		[2.0]	0.0166				
SD:		0.0	0.0000				
%RSD:		0.0	0.03				

Standard number 3 applied. [2.0]
Correlation Coef.: 0.999994 Slope: 0.00833 Intercept: -0.00003

==========

Sequence No.: 5 **Autosampler Location: 5**
Sample ID: S5.0 **Date Collected: 12/23/2009 08:45:47**
Analyst: **Data Type: Original**

Replicate Data: S5.0

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[5.0]	0.0414	0.1746	0.0415	08:46:39	Yes
2		[5.0]	0.0409	0.1728	0.0410	08:47:08	Yes
Mean:		[5.0]	0.0412				
SD:		0.0	0.0003				
%RSD:		0.0	0.80				

Standard number 4 applied. [5.0]
Correlation Coef.: 0.999989 Slope: 0.00824 Intercept: 0.00002

==========

Sequence No.: 6 **Autosampler Location: 6**
Sample ID: S10.0 **Date Collected: 12/23/2009 08:47:29**
Analyst: **Data Type: Original**

2	[10.0]	0.0808	0.3413	0.0808	08:48:48	Yes
Mean:	[10.0]	0.0808				
SD:	0.0	0.0000				
%RSD:	0.0	0.02				

Standard number 5 applied. [10.0]
Correlation Coef.: 0.999947 Slope: 0.00809 Intercept: 0.00018

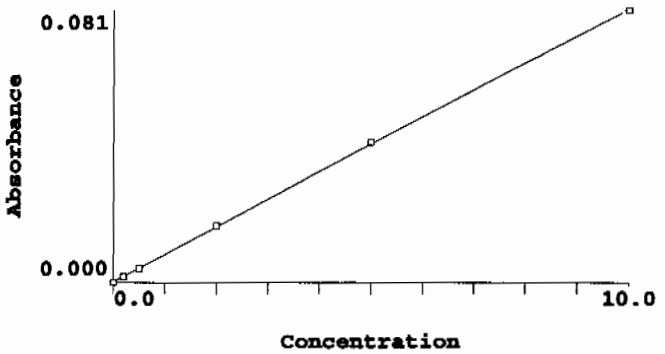

Calibration data for Hg 253.7 **Equation: Linear, Calculated Intercept**

ID	Mean Signal (Abs)	Entered Conc. ug/L	Calculated Conc. ug/L	Standard Deviation	%RSD
Calib Blank	0.0000	0	-0.023	0.00	16.0
S0.2	0.0016	0.2	0.177	0.00	0.7
S0.5	0.0041	0.5	0.485	0.00	0.6
S2.0	0.0166	2.0	2.034	0.00	0.0
S5.0	0.0412	5.0	5.065	0.00	0.8
S10.0	0.0808	10.0	9.962	0.00	0.0

Correlation Coef.: 0.999947 Slope: 0.00809 Intercept: 0.00018

Sequence No.: 7 **Autosampler Location: 9**
Sample ID: ICV **Date Collected: 12/23/2009 08:49:07**
Analyst: **Data Type: Original**

Replicate Data: ICV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.228	5.228	0.0425	0.1808	0.0426	08:49:58	Yes
2	5.198	5.198	0.0422	0.1791	0.0423	08:50:28	Yes
Mean:	5.213	5.213	0.0423				
SD:	0.021	0.021	0.0002				
%RSD:	0.400	0.400	0.40				

QC value within limits for Hg 253.7 Recovery = 104.26%
All analyte(s) passed QC.

Sequence No.: 8 **Autosampler Location: 10**
Sample ID: ICB **Date Collected: 12/23/2009 08:50:47**
Analyst: **Data Type: Original**

Replicate Data: ICB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.010	-0.010	0.0001	0.0001	0.0002	08:51:39	Yes
2	-0.015	-0.015	0.0001	0.0003	0.0002	08:52:09	Yes
Mean:	-0.012	-0.012	0.0001				
SD:	0.003	0.003	0.0000				
%RSD:	28.27	28.27	32.93				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 9 **Autosampler Location: 11**

Sample ID: CRDL
Analyst:
Date Collected: 12/23/2009 08:52:28
Data Type: Original

Replicate Data: CRDL

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.190	0.190	0.0017	0.0075	0.0018	08:53:20	Yes
2	0.178	0.178	0.0016	0.0066	0.0017	08:53:50	Yes
Mean:	0.184	0.184	0.0017				
SD:	0.009	0.009	0.0001				
%RSD:	4.816	4.816	4.28				

QC value within limits for Hg 253.7 Recovery = 91.91%
All analyte(s) passed QC.

Sequence No.: 10
Sample ID: CCV
Analyst:
Autosampler Location: 7
Date Collected: 12/23/2009 08:54:10
Data Type: Original

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.084	5.084	0.0413	0.1751	0.0414	08:55:00	Yes
2	5.032	5.032	0.0409	0.1735	0.0410	08:55:30	Yes
Mean:	5.058	5.058	0.0411				
SD:	0.036	0.036	0.0003				
%RSD:	0.718	0.718	0.71				

QC value within limits for Hg 253.7 Recovery = 101.16%
All analyte(s) passed QC.

Sequence No.: 11
Sample ID: CCB
Analyst:
Autosampler Location: 8
Date Collected: 12/23/2009 08:55:49
Data Type: Original

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.017	-0.017	0.0000	0.0000	0.0001	08:56:40	Yes
2	-0.015	-0.015	0.0001	0.0003	0.0002	08:57:10	Yes
Mean:	-0.016	-0.016	0.0001				
SD:	0.001	0.001	0.0000				
%RSD:	9.537	9.537	20.71				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 12
Sample ID: 1202000143|934855|1
Analyst: ETL
Autosampler Location: 12
Date Collected: 12/23/2009 08:57:29
Data Type: Original

Replicate Data: 1202000143|934855|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.013	-0.013	0.0001	0.0004	0.0002	08:58:21	Yes
2	-0.013	-0.013	0.0001	0.0003	0.0002	08:58:51	Yes
Mean:	-0.013	-0.013	0.0001				
SD:	0.000	0.000	0.0000				
%RSD:	3.423	3.423	4.54				

Sequence No.: 13
Sample ID: 1202000144|934855|1
Analyst: ETL
Autosampler Location: 13
Date Collected: 12/23/2009 08:59:11
Data Type: Original

Replicate Data: 1202000144|934855|1

Analyst: ETL Data Type: Original

Replicate Data: 1202000147|934855|5

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.066	0.066	0.0007	0.0029	0.0008	09:08:21	Yes
2	0.069	0.069	0.0007	0.0031	0.0008	09:08:51	Yes
Mean:	0.068	0.068	0.0007				
SD:	0.002	0.002	0.0000				
%RSD:	2.963	2.963	2.22				

Sequence No.: 19 Autosampler Location: 19
Sample ID: 242661002|934855|1 Date Collected: 12/23/2009 09:09:10
Analyst: ETL Data Type: Original

Replicate Data: 242661002|934855|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.293	0.293	0.0026	0.0107	0.0026	09:10:01	Yes
2	0.299	0.299	0.0026	0.0113	0.0027	09:10:31	Yes
Mean:	0.296	0.296	0.0026				
SD:	0.004	0.004	0.0000				
%RSD:	1.362	1.362	1.26				

Sequence No.: 20 Autosampler Location: 20
Sample ID: 242661003|934855|1 Date Collected: 12/23/2009 09:10:50
Analyst: ETL Data Type: Original

Replicate Data: 242661003|934855|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.518	0.518	0.0044	0.0188	0.0045	09:11:41	Yes
2	0.526	0.526	0.0044	0.0193	0.0045	09:12:11	Yes
Mean:	0.522	0.522	0.0044				
SD:	0.006	0.006	0.0000				
%RSD:	1.177	1.177	1.13				

Sequence No.: 21 Autosampler Location: 21
Sample ID: 242661004|934855|1 Date Collected: 12/23/2009 09:12:30
Analyst: ETL Data Type: Original

Replicate Data: 242661004|934855|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.664	0.664	0.0056	0.0237	0.0056	09:13:21	Yes
2	0.659	0.659	0.0055	0.0235	0.0056	09:13:51	Yes
Mean:	0.661	0.661	0.0055				
SD:	0.003	0.003	0.0000				
%RSD:	0.518	0.518	0.50				

Sequence No.: 22 Autosampler Location: 7
Sample ID: CCV Date Collected: 12/23/2009 09:14:11
Analyst: Data Type: Original

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.042	5.042	0.0410	0.1748	0.0411	09:15:01	Yes
2	5.017	5.017	0.0408	0.1739	0.0409	09:15:31	Yes
Mean:	5.030	5.030	0.0409				
SD:	0.017	0.017	0.0001				
%RSD:	0.348	0.348	0.35				

QC value within limits for Hg 253.7 Recovery = 100.59%
All analyte(s) passed QC.

Sequence No.: 23 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 12/23/2009 09:15:50**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.016	-0.016	0.0001	0.0005	0.0001	09:16:41	Yes
2	-0.020	-0.020	0.0000	-0.0001	0.0001	09:17:11	Yes
Mean:	-0.018	-0.018	0.0000				
SD:	0.003	0.003	0.0000				
%RSD:	15.69	15.69	53.45				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 24 **Autosampler Location: 22**
Sample ID: 242661005|934855|1 **Date Collected: 12/23/2009 09:17:30**
Analyst: ETL **Data Type: Original**

Replicate Data: 242661005|934855|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.199	0.199	0.0018	0.0074	0.0019	09:18:22	Yes
2	0.202	0.202	0.0018	0.0081	0.0019	09:18:51	Yes
Mean:	0.201	0.201	0.0018				
SD:	0.002	0.002	0.0000				
%RSD:	0.960	0.960	0.86				

Sequence No.: 25 **Autosampler Location: 23**
Sample ID: 242661006|934855|1 **Date Collected: 12/23/2009 09:19:11**
Analyst: ETL **Data Type: Original**

Replicate Data: 242661006|934855|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.252	0.252	0.0022	0.0094	0.0023	09:20:03	Yes
2	0.258	0.258	0.0023	0.0097	0.0024	09:20:33	Yes
Mean:	0.255	0.255	0.0022				
SD:	0.004	0.004	0.0000				
%RSD:	1.583	1.583	1.45				

Sequence No.: 26 **Autosampler Location: 24**
Sample ID: 242661007|934855|1 **Date Collected: 12/23/2009 09:20:53**
Analyst: ETL **Data Type: Original**

Replicate Data: 242661007|934855|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.627	0.627	0.0053	0.0224	0.0053	09:21:44	Yes
2	0.630	0.630	0.0053	0.0224	0.0054	09:22:14	Yes
Mean:	0.629	0.629	0.0053				
SD:	0.002	0.002	0.0000				
%RSD:	0.337	0.337	0.33				

Sequence No.: 27 **Autosampler Location: 25**
Sample ID: 242661008|934855|1 **Date Collected: 12/23/2009 09:22:34**
Analyst: ETL **Data Type: Original**

Sample ID: 242661013|934855|1 Date Collected: 12/23/2009 09:30:54
Analyst: ETL Data Type: Original

Replicate Data: 242661013|934855|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.070	0.070	0.0008	0.0032	0.0008	09:31:45	Yes
2	0.066	0.066	0.0007	0.0032	0.0008	09:32:15	Yes
Mean:	0.068	0.068	0.0007				
SD:	0.003	0.003	0.0000				
%RSD:	4.733	4.733	3.54				

Sequence No.: 33 Autosampler Location: 31
Sample ID: 242661014|934855|1 Date Collected: 12/23/2009 09:32:34
Analyst: ETL Data Type: Original

Replicate Data: 242661014|934855|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.237	0.237	0.0021	0.0094	0.0022	09:33:25	Yes
2	0.247	0.247	0.0022	0.0099	0.0023	09:33:55	Yes
Mean:	0.242	0.242	0.0021				
SD:	0.007	0.007	0.0001				
%RSD:	3.009	3.009	2.75				

Sequence No.: 34 Autosampler Location: 7
Sample ID: CCV Date Collected: 12/23/2009 09:34:14
Analyst: Data Type: Original

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	4.994	4.994	0.0406	0.1751	0.0407	09:35:05	Yes
2	5.001	5.001	0.0406	0.1746	0.0407	09:35:35	Yes
Mean:	4.997	4.997	0.0406				
SD:	0.005	0.005	0.0000				
%RSD:	0.092	0.092	0.09				

QC value within limits for Hg 253.7 Recovery = 99.95%
All analyte(s) passed QC.

Sequence No.: 35 Autosampler Location: 8
Sample ID: CCB Date Collected: 12/23/2009 09:35:54
Analyst: Data Type: Original

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.009	-0.009	0.0001	0.0007	0.0002	09:36:44	Yes
2	-0.010	-0.010	0.0001	0.0004	0.0002	09:37:14	Yes
Mean:	-0.009	-0.009	0.0001				
SD:	0.001	0.001	0.0000				
%RSD:	7.506	7.506	5.15				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 36 Autosampler Location: 32
Sample ID: 242661015|934855|1 Date Collected: 12/23/2009 09:37:33
Analyst: ETL Data Type: Original

Replicate Data: 242661015|934855|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored

Sequence No.: 46
Sample ID: CCV
Analyst:

Autosampler Location: 7
Date Collected: 12/23/2009 09:54:22
Data Type: Original

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.030	5.030	0.0409	0.1751	0.0410	09:55:12	Yes
2	5.038	5.038	0.0409	0.1749	0.0410	09:55:42	Yes
Mean:	5.034	5.034	0.0409				
SD:	0.005	0.005	0.0000				
%RSD:	0.108	0.108	0.11				

QC value within limits for Hg 253.7 Recovery = 100.68%
All analyte(s) passed QC.

Sequence No.: 47
Sample ID: CCB
Analyst:

Autosampler Location: 8
Date Collected: 12/23/2009 09:56:01
Data Type: Original

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.002	-0.002	0.0002	0.0008	0.0003	09:56:52	Yes
2	-0.011	-0.011	0.0001	0.0003	0.0002	09:57:22	Yes
Mean:	-0.007	-0.007	0.0001				
SD:	0.006	0.006	0.0001				
%RSD:	97.48	97.48	39.16				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 48
Sample ID: 242750003|934867|1
Analyst: ETL

Autosampler Location: 42
Date Collected: 12/23/2009 09:57:41
Data Type: Original

Replicate Data: 242750003|934867|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.148	0.148	0.0014	0.0062	0.0015	09:58:32	Yes
2	0.147	0.147	0.0014	0.0059	0.0015	09:59:02	Yes
Mean:	0.147	0.147	0.0014				
SD:	0.001	0.001	0.0000				
%RSD:	0.623	0.623	0.54				

Sequence No.: 49
Sample ID: 242750004|934867|1
Analyst: ETL

Autosampler Location: 43
Date Collected: 12/23/2009 09:59:22
Data Type: Original

Replicate Data: 242750004|934867|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.280	0.280	0.0025	0.0108	0.0025	10:00:12	Yes
2	0.279	0.279	0.0024	0.0107	0.0025	10:00:42	Yes
Mean:	0.280	0.280	0.0024				
SD:	0.001	0.001	0.0000				
%RSD:	0.368	0.368	0.34				

Sequence No.: 50
Sample ID: 242750005|934867|1
Analyst: ETL

Autosampler Location: 44
Date Collected: 12/23/2009 10:01:02
Data Type: Original

Replicate Data: 242750005|934867|1

Repl	SampleConc	StndConc	BlnkCorr	Peak	Peak	Time	Peak

==========

Analysis Begun

Logged In Analyst: Administrator **Technique: AA FIMS-MHS**
Spectrometer Model: FIMS-100, S/N B050-9550 **Autosampler Model: S10**

Sample Information File: C:\data-AA\Administrator\Sample Information\122309.sif
Batch ID:
Results Data Set: 122309S1
Results Library: C:\data-AA\Administrator\Results\Results.mdb

==========

Method Loaded
Method Name: SOIL **Method Last Saved: 12/7/2009 16:18:28**
Method Description: 7471A, ILM04 ANALYST JXL1

==========

Sequence No.: 1 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 12/23/2009 10:07:01**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.027	5.027	0.0408	0.1751	0.0409	10:07:51	Yes
2	5.026	5.026	0.0408	0.1745	0.0409	10:08:21	Yes
Mean:	5.026	5.026	0.0408				
SD:	0.001	0.001	0.0000				
%RSD:	0.013	0.013	0.01				

QC value within limits for Hg 253.7 Recovery = 100.52%
All analyte(s) passed QC.

==========

Sequence No.: 2 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 12/23/2009 10:08:40**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.006	-0.006	0.0001	0.0010	0.0002	10:09:31	Yes
2	-0.011	-0.011	0.0001	0.0004	0.0002	10:10:01	Yes
Mean:	-0.008	-0.008	0.0001				
SD:	0.003	0.003	0.0000				
%RSD:	40.05	40.05	22.96				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

==========

Sequence No.: 3 **Autosampler Location: 38**
Sample ID: 1202000174|934867|1 **Date Collected: 12/23/2009 10:10:20**
Analyst: ETL **Data Type: Original**

Replicate Data: 1202000174|934867|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.018	-0.018	0.0000	0.0003	0.0001	10:11:11	Yes
2	-0.018	-0.018	0.0000	0.0003	0.0001	10:11:41	Yes
Mean:	-0.018	-0.018	0.0000				
SD:	0.000	0.000	0.0000				
%RSD:	0.677	0.677	2.49				

==========

Sequence No.: 4 **Autosampler Location: 39**
Sample ID: 1202000175|934867|1 **Date Collected: 12/23/2009 10:12:00**
Analyst: ETL **Data Type: Original**

Sequence No.: 9
Sample ID: 242750005|934867|1
Analyst: ETL

Autosampler Location: 44
Date Collected: 12/23/2009 10:20:23
Data Type: Original

Replicate Data: 242750005|934867|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.264	0.264	0.0023	0.0102	0.0024	10:21:13	Yes
2	0.278	0.278	0.0024	0.0110	0.0025	10:21:43	Yes
Mean:	0.271	0.271	0.0024				
SD:	0.010	0.010	0.0001				
%RSD:	3.691	3.691	3.40				

Sequence No.: 10
Sample ID: 243113001|934867|1
Analyst: ETL

Autosampler Location: 45
Date Collected: 12/23/2009 10:22:02
Data Type: Original

Replicate Data: 243113001|934867|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.622	0.622	0.0052	0.0226	0.0053	10:22:53	Yes
2	0.624	0.624	0.0052	0.0226	0.0053	10:23:23	Yes
Mean:	0.623	0.623	0.0052				
SD:	0.001	0.001	0.0000				
%RSD:	0.215	0.215	0.21				

Sequence No.: 11
Sample ID: 1202000176|934867|1
Analyst: ETL

Autosampler Location: 46
Date Collected: 12/23/2009 10:23:43
Data Type: Original

Replicate Data: 1202000176|934867|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.627	0.627	0.0053	0.0231	0.0053	10:24:34	Yes
2	0.626	0.626	0.0053	0.0230	0.0053	10:25:04	Yes
Mean:	0.627	0.627	0.0053				
SD:	0.001	0.001	0.0000				
%RSD:	0.090	0.090	0.09				

Sequence No.: 12
Sample ID: 1202000177|934867|1
Analyst: ETL

Autosampler Location: 47
Date Collected: 12/23/2009 10:25:24
Data Type: Original

Replicate Data: 1202000177|934867|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.502	2.502	0.0204	0.0890	0.0205	10:26:16	Yes
2	2.511	2.511	0.0205	0.0889	0.0206	10:26:46	Yes
Mean:	2.507	2.507	0.0205				
SD:	0.006	0.006	0.0001				
%RSD:	0.259	0.259	0.26				

Sequence No.: 13
Sample ID: CCV
Analyst:

Autosampler Location: 7
Date Collected: 12/23/2009 10:27:05
Data Type: Original

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	4.992	4.992	0.0406	0.1756	0.0407	10:27:56	Yes
2	4.992	4.992	0.0406	0.1757	0.0407	10:28:25	Yes
Mean:	4.992	4.992	0.0406				

SD:	0.001	0.001	0.0000
%RSD:	0.010	0.010	0.01

QC value within limits for Hg 253.7 Recovery = 99.84%
All analyte(s) passed QC.

==========

Sequence No.: 14 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 12/23/2009 10:28:44**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.026	-0.026	-0.0000	-0.0003	0.0001	10:29:35	Yes
2	-0.025	-0.025	-0.0000	0.0002	0.0001	10:30:05	Yes
Mean:	-0.026	-0.026	-0.0000				
SD:	0.001	0.001	0.0000				
%RSD:	3.019	3.019	27.09				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

==========

Sequence No.: 15 **Autosampler Location: 48**
Sample ID: 1202000179|934867|1 **Date Collected: 12/23/2009 10:30:24**
Analyst: ETL **Data Type: Original**

Replicate Data: 1202000179|934867|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.577	2.577	0.0210	0.0908	0.0211	10:31:16	Yes
2	2.576	2.576	0.0210	0.0911	0.0211	10:31:46	Yes
Mean:	2.576	2.576	0.0210				
SD:	0.001	0.001	0.0000				
%RSD:	0.029	0.029	0.03				

==========

Sequence No.: 16 **Autosampler Location: 49**
Sample ID: 1202000178|934867|5 **Date Collected: 12/23/2009 10:32:06**
Analyst: ETL **Data Type: Original**

Replicate Data: 1202000178|934867|5

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.110	0.110	0.0011	0.0047	0.0012	10:32:58	Yes
2	0.110	0.110	0.0011	0.0050	0.0012	10:33:28	Yes
Mean:	0.110	0.110	0.0011				
SD:	0.000	0.000	0.0000				
%RSD:	0.261	0.261	0.22				

==========

Sequence No.: 17 **Autosampler Location: 50**
Sample ID: 243113002|934867|1 **Date Collected: 12/23/2009 10:33:48**
Analyst: ETL **Data Type: Original**

Replicate Data: 243113002|934867|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	35.82	35.82	0.2899	1.2895	0.2900	10:34:39	Yes
	Sample concentration is greater than that of the highest standard.						
2	35.54	35.54	0.2876	1.2806	0.2877	10:35:09	Yes
	Sample concentration is greater than that of the highest standard.						
Mean:	35.68	35.68	0.2888				
SD:	0.201	0.201	0.0016				
%RSD:	0.563	0.563	0.56				

Sample concentration is greater than that of the highest standard.

==========

SD:	0.001	0.001	0.0000
%RSD:	0.488	0.488	0.45

==========

Sequence No.: 23 **Autosampler Location: 56**
Sample ID: 243113008|934867|1 **Date Collected: 12/23/2009 10:43:52**
Analyst: ETL **Data Type: Original**

Replicate Data: 243113008|934867|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.436	0.436	0.0037	0.0265	0.0038	10:44:43	Yes
2	0.444	0.444	0.0038	0.0229	0.0039	10:45:12	Yes
Mean:	0.440	0.440	0.0037				
SD:	0.006	0.006	0.0000				
%RSD:	1.315	1.315	1.25				

==========

Sequence No.: 24 **Autosampler Location: 57**
Sample ID: 243113009|934867|1 **Date Collected: 12/23/2009 10:45:32**
Analyst: ETL **Data Type: Original**

Replicate Data: 243113009|934867|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	6.723	6.723	0.0546	0.3048	0.0547	10:46:23	Yes
2	6.021	6.021	0.0489	0.2891	0.0490	10:46:53	Yes
Mean:	6.372	6.372	0.0517				
SD:	0.496	0.496	0.0040				
%RSD:	7.788	7.788	7.76				

==========

Sequence No.: 25 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 12/23/2009 10:47:12**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	3.600	3.600	0.0293	0.1636	0.0294	10:48:03	Yes
2	2.508	2.508	0.0205	0.1401	0.0206	10:48:33	Yes
Mean:	3.054	3.054	0.0249				
SD:	0.772	0.772	0.0062				
%RSD:	25.29	25.29	25.11				

QC value less than the lower limit for Hg 253.7 Recovery = 61.08%
QC Failed. Continue with analysis.

==========

Sequence No.: 26 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 12/23/2009 10:48:51**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.024	-0.024	-0.0000	0.0001	0.0001	10:49:42	Yes
2	-0.027	-0.027	-0.0000	0.0000	0.0001	10:50:12	Yes
Mean:	-0.026	-0.026	-0.0000				
SD:	0.002	0.002	0.0000				
%RSD:	8.900	8.900	79.50				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

==========

Sequence No.: 27 **Autosampler Location: 58**
Sample ID: 243113010|934867|1 **Date Collected: 12/23/2009 10:50:31**
Analyst: ETL **Data Type: Original**

Analysis Begun

Logged In Analyst: Administrator **Technique: AA FIMS-MHS**
Spectrometer Model: FIMS-100, S/N B050-9550 **Autosampler Model: S10**

Sample Information File: C:\data-AA\Administrator\Sample Information\122309.sif
Batch ID:
Results Data Set: 122309S1
Results Library: C:\data-AA\Administrator\Results\Results.mdb

Sequence No.: 1 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 12/23/2009 10:58:05**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.959	2.959	0.0241	0.1526	0.0242	10:58:55	Yes
2	3.046	3.046	0.0248	0.1604	0.0249	10:59:25	Yes
Mean:	3.003	3.003	0.0245				
SD:	0.062	0.062	0.0005				
%RSD:	2.053	2.053	2.04				

QC value less than the lower limit for Hg 253.7 Recovery = 60.06%
QC Failed. Continue with analysis.

Sequence No.: 2 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 12/23/2009 10:59:44**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.070	0.070	0.0008	0.0056	0.0008	11:00:35	Yes
2	-0.003	-0.003	0.0002	0.0015	0.0003	11:01:05	Yes
Mean:	0.034	0.034	0.0005				
SD:	0.052	0.052	0.0004				
%RSD:	153.5	153.5	91.64				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 3 **Autosampler Location: 48**
Sample ID: 1202000179|934867|1 **Date Collected: 12/23/2009 11:01:24**
Analyst: ETL **Data Type: Original**

Replicate Data: 1202000179|934867|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	1.546	1.546	0.0127	0.0805	0.0128	11:02:15	Yes
2	1.574	1.574	0.0129	0.0846	0.0130	11:02:45	Yes
Mean:	1.560	1.560	0.0128				
SD:	0.020	0.020	0.0002				
%RSD:	1.279	1.279	1.26				

Sequence No.: 4 **Autosampler Location: 49**
Sample ID: 1202000178|934867|5 **Date Collected: 12/23/2009 11:03:05**
Analyst: ETL **Data Type: Original**

Replicate Data: 1202000178|934867|5

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.041	0.041	0.0005	0.0010	0.0006	11:03:57	Yes

Analysis Begun

Logged In Analyst: Administrator
Technique: AA FIMS-MHS
Spectrometer Model: FIMS-100, S/N B050-9550
Autosampler Model: S10

Sample Information File: C:\data-AA\Administrator\Sample Information\122309.sif
Batch ID:
Results Data Set: 122309S1
Results Library: C:\data-AA\Administrator\Results\Results.mdb

Sequence No.: 1
Autosampler Location: 7
Sample ID: CCV
Date Collected: 12/23/2009 11:16:35
Analyst:
Data Type: Original

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	4.803	4.803	0.0390	0.1767	0.0391	11:17:25	Yes
2	4.802	4.802	0.0390	0.1759	0.0391	11:17:55	Yes
Mean:	4.803	4.803	0.0390				
SD:	0.001	0.001	0.0000				
%RSD:	0.015	0.015	0.01				

QC value within limits for Hg 253.7 Recovery = 96.06%
All analyte(s) passed QC.

Sequence No.: 2
Autosampler Location: 8
Sample ID: CCB
Date Collected: 12/23/2009 11:18:14
Analyst:
Data Type: Original

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.012	0.012	0.0003	0.0023	0.0004	11:19:04	Yes
2	0.012	0.012	0.0003	0.0021	0.0004	11:19:34	Yes
Mean:	0.012	0.012	0.0003				
SD:	0.000	0.000	0.0000				
%RSD:	1.044	1.044	0.36				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 3
Autosampler Location: 48
Sample ID: 1202000179|934867|1
Date Collected: 12/23/2009 11:19:54
Analyst: ETL
Data Type: Original

Replicate Data: 1202000179|934867|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.207	0.207	0.0019	0.0056	0.0020	11:20:45	Yes
2	-0.007	-0.007	0.0001	0.0009	0.0002	11:21:15	Yes
Mean:	0.100	0.100	0.0010				
SD:	0.152	0.152	0.0012				
%RSD:	151.5	151.5	123.38				

Sequence No.: 4
Autosampler Location: 49
Sample ID: 1202000178|934867|5
Date Collected: 12/23/2009 11:21:35
Analyst: ETL
Data Type: Original

Replicate Data: 1202000178|934867|5

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.025	-0.025	-0.0000	0.0003	0.0001	11:22:27	Yes

Analysis Begun

Logged In Analyst: Administrator
Technique: AA FIMS-MHS
Spectrometer Model: FIMS-100, S/N B050-9550
Autosampler Model: S10

Sample Information File: C:\data-AA\Administrator\Sample Information\122309.sif
Batch ID:
Results Data Set: 122309S1
Results Library: C:\data-AA\Administrator\Results\Results.mdb

Sequence No.: 1
Autosampler Location: 7
Sample ID: CCV
Date Collected: 12/23/2009 11:29:05
Analyst:
Data Type: Original

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	4.655	4.655	0.0378	0.1721	0.0379	11:29:56	Yes
2	4.676	4.676	0.0380	0.1728	0.0381	11:30:26	Yes
Mean:	4.665	4.665	0.0379				
SD:	0.015	0.015	0.0001				
%RSD:	0.318	0.318	0.32				

QC value within limits for Hg 253.7 Recovery = 93.31%
All analyte(s) passed QC.

Sequence No.: 2
Autosampler Location: 8
Sample ID: CCB
Date Collected: 12/23/2009 11:30:45
Analyst:
Data Type: Original

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.017	0.017	0.0003	0.0026	0.0004	11:31:36	Yes
2	0.015	0.015	0.0003	0.0022	0.0004	11:32:06	Yes
Mean:	0.016	0.016	0.0003				
SD:	0.002	0.002	0.0000				
%RSD:	11.05	11.05	4.56				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 3
Autosampler Location: 48
Sample ID: 1202000179|934867|1
Date Collected: 12/23/2009 11:32:25
Analyst: ETL
Data Type: Original

Replicate Data: 1202000179|934867|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.337	2.337	0.0191	0.0878	0.0192	11:33:17	Yes
2	2.315	2.315	0.0189	0.0856	0.0190	11:33:47	Yes
Mean:	2.326	2.326	0.0190				
SD:	0.015	0.015	0.0001				
%RSD:	0.641	0.641	0.63				

Sequence No.: 4
Autosampler Location: 49
Sample ID: 1202000178|934867|5
Date Collected: 12/23/2009 11:34:07
Analyst: ETL
Data Type: Original

Replicate Data: 1202000178|934867|5

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.296	0.296	0.0026	0.0124	0.0027	11:34:59	Yes

Replicate Data: 243113006|934867|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.693	0.693	0.0058	0.0274	0.0059	11:43:22	Yes
2	0.699	0.699	0.0058	0.0282	0.0059	11:43:51	Yes
Mean:	0.696	0.696	0.0058				
SD:	0.004	0.004	0.0000				
%RSD:	0.572	0.572	0.55				

==========

Sequence No.: 10 Autosampler Location: 55
Sample ID: 243113007|934867|1 Date Collected: 12/23/2009 11:44:11
Analyst: ETL Data Type: Original

Replicate Data: 243113007|934867|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.271	0.271	0.0024	0.0117	0.0025	11:45:02	Yes
2	0.276	0.276	0.0024	0.0114	0.0025	11:45:32	Yes
Mean:	0.273	0.273	0.0024				
SD:	0.003	0.003	0.0000				
%RSD:	1.230	1.230	1.14				

==========

Sequence No.: 11 Autosampler Location: 56
Sample ID: 243113008|934867|1 Date Collected: 12/23/2009 11:45:52
Analyst: ETL Data Type: Original

Replicate Data: 243113008|934867|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.604	0.604	0.0051	0.0240	0.0052	11:46:43	Yes
2	0.603	0.603	0.0051	0.0243	0.0052	11:47:13	Yes
Mean:	0.603	0.603	0.0051				
SD:	0.000	0.000	0.0000				
%RSD:	0.026	0.026	0.03				

==========

Sequence No.: 12 Autosampler Location: 57
Sample ID: 243113009|934867|1 Date Collected: 12/23/2009 11:47:32
Analyst: ETL Data Type: Original

Replicate Data: 243113009|934867|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	8.374	8.374	0.0679	0.3100	0.0680	11:48:23	Yes
2	8.367	8.367	0.0679	0.3098	0.0680	11:48:53	Yes
Mean:	8.371	8.371	0.0679				
SD:	0.005	0.005	0.0000				
%RSD:	0.055	0.055	0.05				

==========

Sequence No.: 13 Autosampler Location: 7
Sample ID: CCV Date Collected: 12/23/2009 11:49:12
Analyst: Data Type: Original

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	4.676	4.676	0.0380	0.1734	0.0381	11:50:03	Yes
2	4.687	4.687	0.0381	0.1731	0.0382	11:50:33	Yes
Mean:	4.681	4.681	0.0380				
SD:	0.008	0.008	0.0001				
%RSD:	0.167	0.167	0.17				

QC value within limits for Hg 253.7 Recovery = 93.63%
All analyte(s) passed QC.

Sequence No.: 14
Sample ID: CCB
Analyst:
Autosampler Location: 8
Date Collected: 12/23/2009 11:50:52
Data Type: Original

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.012	0.012	0.0003	0.0019	0.0004	11:51:43	Yes
2	0.013	0.013	0.0003	0.0020	0.0004	11:52:13	Yes
Mean:	0.013	0.013	0.0003				
SD:	0.001	0.001	0.0000				
%RSD:	7.182	7.182	2.57				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 15
Sample ID: 243113010|934867|1
Analyst: ETL
Autosampler Location: 58
Date Collected: 12/23/2009 11:52:32
Data Type: Original

Replicate Data: 243113010|934867|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.080	0.080	0.0008	0.0040	0.0009	11:53:23	Yes
2	0.092	0.092	0.0009	0.0053	0.0010	11:53:53	Yes
Mean:	0.086	0.086	0.0009				
SD:	0.008	0.008	0.0001				
%RSD:	9.573	9.573	7.57				

Sequence No.: 16
Sample ID: 243113011|934867|1
Analyst: ETL
Autosampler Location: 59
Date Collected: 12/23/2009 11:54:13
Data Type: Original

Replicate Data: 243113011|934867|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.105	0.105	0.0010	0.0055	0.0011	11:55:04	Yes
2	0.103	0.103	0.0010	0.0050	0.0011	11:55:34	Yes
Mean:	0.104	0.104	0.0010				
SD:	0.002	0.002	0.0000				
%RSD:	1.896	1.896	1.56				

Sequence No.: 17
Sample ID: 243113012|934867|1
Analyst: ETL
Autosampler Location: 60
Date Collected: 12/23/2009 11:55:54
Data Type: Original

Replicate Data: 243113012|934867|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	28.43	28.43	0.2302	1.0638	0.2303	11:56:45	Yes
	Sample concentration is greater than that of the highest standard.						
2	28.36	28.36	0.2296	1.0555	0.2297	11:57:15	Yes
	Sample concentration is greater than that of the highest standard.						
Mean:	28.40	28.40	0.2299				
SD:	0.050	0.050	0.0004				
%RSD:	0.175	0.175	0.18				

Sample concentration is greater than that of the highest standard.

Sequence No.: 18
Sample ID: 243113013|934867|1
Analyst: ETL
Autosampler Location: 61
Date Collected: 12/23/2009 11:57:35
Data Type: Original

Replicate Data: 243113013|934867|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	7.407	7.407	0.0601	0.2730	0.0602	11:58:27	Yes
2	7.399	7.399	0.0600	0.2728	0.0601	11:58:57	Yes
Mean:	7.403	7.403	0.0601				
SD:	0.005	0.005	0.0000				
%RSD:	0.072	0.072	0.07				

Sequence No.: 19 Autosampler Location: 62
Sample ID: 243113014|934867|1 Date Collected: 12/23/2009 11:59:17
Analyst: ETL Data Type: Original

Replicate Data: 243113014|934867|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	1.541	1.541	0.0126	0.0573	0.0127	12:00:08	Yes
2	1.551	1.551	0.0127	0.0584	0.0128	12:00:38	Yes
Mean:	1.546	1.546	0.0127				
SD:	0.007	0.007	0.0001				
%RSD:	0.439	0.439	0.43				

Sequence No.: 20 Autosampler Location: 63
Sample ID: 1202000180|934871|1 Date Collected: 12/23/2009 12:00:57
Analyst: ETL Data Type: Original

Replicate Data: 1202000180|934871|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.002	-0.002	0.0002	0.0013	0.0003	12:01:49	Yes
2	-0.005	-0.005	0.0001	0.0009	0.0002	12:02:19	Yes
Mean:	-0.004	-0.004	0.0002				
SD:	0.002	0.002	0.0000				
%RSD:	51.45	51.45	9.43				

Sequence No.: 21 Autosampler Location: 64
Sample ID: 1202000181|934871|1 Date Collected: 12/23/2009 12:02:39
Analyst: ETL Data Type: Original

Replicate Data: 1202000181|934871|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	4.382	4.382	0.0356	0.1614	0.0357	12:03:30	Yes
2	4.367	4.367	0.0355	0.1609	0.0356	12:04:00	Yes
Mean:	4.375	4.375	0.0356				
SD:	0.011	0.011	0.0001				
%RSD:	0.258	0.258	0.26				

Sequence No.: 22 Autosampler Location: 65
Sample ID: 242781001|934871|1 Date Collected: 12/23/2009 12:04:20
Analyst: ETL Data Type: Original

Replicate Data: 242781001|934871|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.199	0.199	0.0018	0.0083	0.0019	12:05:12	Yes
2	0.198	0.198	0.0018	0.0081	0.0019	12:05:41	Yes
Mean:	0.198	0.198	0.0018				
SD:	0.001	0.001	0.0000				
%RSD:	0.287	0.287	0.26				

Sequence No.: 23 Autosampler Location: 66

Replicate Data: 243113013|934867|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	7.407	7.407	0.0601	0.2730	0.0602	11:58:27	Yes
2	7.399	7.399	0.0600	0.2728	0.0601	11:58:57	Yes
Mean:	7.403	7.403	0.0601				
SD:	0.005	0.005	0.0000				
%RSD:	0.072	0.072	0.07				

Sequence No.: 19 Autosampler Location: 62
Sample ID: 243113014|934867|1 Date Collected: 12/23/2009 11:59:17
Analyst: ETL Data Type: Original

Replicate Data: 243113014|934867|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	1.541	1.541	0.0126	0.0573	0.0127	12:00:08	Yes
2	1.551	1.551	0.0127	0.0584	0.0128	12:00:38	Yes
Mean:	1.546	1.546	0.0127				
SD:	0.007	0.007	0.0001				
%RSD:	0.439	0.439	0.43				

Sequence No.: 20 Autosampler Location: 63
Sample ID: 1202000180|934871|1 Date Collected: 12/23/2009 12:00:57
Analyst: ETL Data Type: Original

Replicate Data: 1202000180|934871|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.002	-0.002	0.0002	0.0013	0.0003	12:01:49	Yes
2	-0.005	-0.005	0.0001	0.0009	0.0002	12:02:19	Yes
Mean:	-0.004	-0.004	0.0002				
SD:	0.002	0.002	0.0000				
%RSD:	51.45	51.45	9.43				

Sequence No.: 21 Autosampler Location: 64
Sample ID: 1202000181|934871|10 Date Collected: 12/23/2009 12:02:39
Analyst: ETL Data Type: Original

Type Em 12/23/09

Replicate Data: 1202000181|934871|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	4.382	4.382	0.0356	0.1614	0.0357	12:03:30	Yes
2	4.367	4.367	0.0355	0.1609	0.0356	12:04:00	Yes
Mean:	4.375	4.375	0.0356				
SD:	0.011	0.011	0.0001				
%RSD:	0.258	0.258	0.26				

Sequence No.: 22 Autosampler Location: 65
Sample ID: 242781001|934871|1 Date Collected: 12/23/2009 12:04:20
Analyst: ETL Data Type: Original

Replicate Data: 242781001|934871|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.199	0.199	0.0018	0.0083	0.0019	12:05:12	Yes
2	0.198	0.198	0.0018	0.0081	0.0019	12:05:41	Yes
Mean:	0.198	0.198	0.0018				
SD:	0.001	0.001	0.0000				
%RSD:	0.287	0.287	0.26				

Sequence No.: 23 Autosampler Location: 66

Sample ID: 242781002|934871|1 Date Collected: 12/23/2009 12:06:01
Analyst: ETL Data Type: Original

Replicate Data: 242781002|934871|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.533	0.533	0.0045	0.0209	0.0046	12:06:52	Yes
2	0.532	0.532	0.0045	0.0210	0.0046	12:07:22	Yes
Mean:	0.533	0.533	0.0045				
SD:	0.001	0.001	0.0000				
%RSD:	0.111	0.111	0.11				

Sequence No.: 24 Autosampler Location: 67
Sample ID: 242781003|934871|1 Date Collected: 12/23/2009 12:07:42
Analyst: ETL Data Type: Original

Replicate Data: 242781003|934871|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.100	0.100	0.0010	0.0048	0.0011	12:08:33	Yes
2	0.099	0.099	0.0010	0.0048	0.0011	12:09:03	Yes
Mean:	0.099	0.099	0.0010				
SD:	0.001	0.001	0.0000				
%RSD:	1.341	1.341	1.09				

Sequence No.: 25 Autosampler Location: 7
Sample ID: CCV Date Collected: 12/23/2009 12:09:22
Analyst: Data Type: Original

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	4.725	4.725	0.0384	0.1750	0.0385	12:10:13	Yes
2	4.722	4.722	0.0384	0.1742	0.0385	12:10:43	Yes
Mean:	4.723	4.723	0.0384				
SD:	0.002	0.002	0.0000				
%RSD:	0.045	0.045	0.04				

QC value within limits for Hg 253.7 Recovery = 94.47%
All analyte(s) passed QC.

Sequence No.: 26 Autosampler Location: 8
Sample ID: CCB Date Collected: 12/23/2009 12:11:02
Analyst: Data Type: Original

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.004	-0.004	0.0002	0.0005	0.0002	12:11:52	Yes
2	0.010	0.010	0.0003	0.0018	0.0004	12:12:22	Yes
Mean:	0.003	0.003	0.0002				
SD:	0.010	0.010	0.0001				
%RSD:	359.0	359.0	37.96				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 27 Autosampler Location: 68
Sample ID: 242781004|934871|1 Date Collected: 12/23/2009 12:12:41
Analyst: ETL Data Type: Original

Replicate Data: 242781004|934871|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored

1	0.067	0.067	0.0007	0.0038	0.0008	12:13:32	Yes
2	0.065	0.065	0.0007	0.0034	0.0008	12:14:02	Yes
Mean:	0.066	0.066	0.0007				
SD:	0.001	0.001	0.0000				
%RSD:	2.017	2.017	1.50				

==========

Sequence No.: 28 **Autosampler Location: 69**
Sample ID: 242781005|934871|1 **Date Collected: 12/23/2009 12:14:22**
Analyst: ETL **Data Type: Original**

Replicate Data: 242781005|934871|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.059	0.059	0.0007	0.0038	0.0008	12:15:13	Yes
2	0.051	0.051	0.0006	0.0027	0.0007	12:15:43	Yes
Mean:	0.055	0.055	0.0006				
SD:	0.006	0.006	0.0000				
%RSD:	11.06	11.06	7.82				

==========

Sequence No.: 29 **Autosampler Location: 70**
Sample ID: 242781006|934871|1 **Date Collected: 12/23/2009 12:16:03**
Analyst: ETL **Data Type: Original**

Replicate Data: 242781006|934871|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.166	0.166	0.0015	0.0073	0.0016	12:16:54	Yes
2	0.167	0.167	0.0015	0.0074	0.0016	12:17:24	Yes
Mean:	0.167	0.167	0.0015				
SD:	0.001	0.001	0.0000				
%RSD:	0.723	0.723	0.64				

==========

Sequence No.: 30 **Autosampler Location: 71**
Sample ID: 242781007|934871|1 **Date Collected: 12/23/2009 12:17:43**
Analyst: ETL **Data Type: Original**

Replicate Data: 242781007|934871|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.458	0.458	0.0039	0.0177	0.0040	12:18:35	Yes
2	0.466	0.466	0.0040	0.0181	0.0040	12:19:04	Yes
Mean:	0.462	0.462	0.0039				
SD:	0.005	0.005	0.0000				
%RSD:	1.175	1.175	1.12				

==========

Sequence No.: 31 **Autosampler Location: 72**
Sample ID: 242794001|934871|1 **Date Collected: 12/23/2009 12:19:24**
Analyst: ETL **Data Type: Original**

Replicate Data: 242794001|934871|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.058	0.058	0.0007	0.0031	0.0007	12:20:16	Yes
2	0.060	0.060	0.0007	0.0035	0.0008	12:20:45	Yes
Mean:	0.059	0.059	0.0007				
SD:	0.001	0.001	0.0000				
%RSD:	2.287	2.287	1.65				

==========

Sequence No.: 32 **Autosampler Location: 73**
Sample ID: 1202000182|934871|1 **Date Collected: 12/23/2009 12:21:06**
Analyst: ETL **Data Type: Original**

Replicate Data: 1202000182|934871|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.106	0.106	0.0010	0.0050	0.0011	12:21:58	Yes
2	0.107	0.107	0.0010	0.0049	0.0011	12:22:28	Yes
Mean:	0.106	0.106	0.0010				
SD:	0.001	0.001	0.0000				
%RSD:	0.736	0.736	0.61				

Sequence No.: 33
Sample ID: 1202000183|934871|1
Analyst: ETL
Autosampler Location: 74
Date Collected: 12/23/2009 12:22:48
Data Type: Original

Replicate Data: 1202000183|934871|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	1.977	1.977	0.0162	0.0739	0.0163	12:23:39	Yes
2	1.986	1.986	0.0162	0.0747	0.0163	12:24:09	Yes
Mean:	1.982	1.982	0.0162				
SD:	0.006	0.006	0.0001				
%RSD:	0.323	0.323	0.32				

Sequence No.: 34
Sample ID: 1202000185|934871|1
Analyst: ETL
Autosampler Location: 75
Date Collected: 12/23/2009 12:24:29
Data Type: Original

Replicate Data: 1202000185|934871|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.038	2.038	0.0167	0.0765	0.0168	12:25:20	Yes
2	2.044	2.044	0.0167	0.0768	0.0168	12:25:50	Yes
Mean:	2.041	2.041	0.0167				
SD:	0.004	0.004	0.0000				
%RSD:	0.209	0.209	0.21				

Sequence No.: 35
Sample ID: 1202000184|934871|5
Analyst: ETL
Autosampler Location: 76
Date Collected: 12/23/2009 12:26:10
Data Type: Original

Replicate Data: 1202000184|934871|5

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.106	0.106	0.0010	0.0053	0.0011	12:27:01	Yes
2	0.104	0.104	0.0010	0.0051	0.0011	12:27:31	Yes
Mean:	0.105	0.105	0.0010				
SD:	0.002	0.002	0.0000				
%RSD:	1.908	1.908	1.57				

Sequence No.: 36
Sample ID: 242794002|934871|1
Analyst: ETL
Autosampler Location: 77
Date Collected: 12/23/2009 12:27:51
Data Type: Original

Replicate Data: 242794002|934871|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.002	-0.002	0.0002	0.0011	0.0003	12:28:42	Yes
2	0.009	0.009	0.0003	0.0020	0.0004	12:29:12	Yes
Mean:	0.004	0.004	0.0002				
SD:	0.008	0.008	0.0001				
%RSD:	199.6	199.6	28.72				

Sequence No.: 37
Sample ID: CCV
Analyst:

Autosampler Location: 7
Date Collected: 12/23/2009 12:29:32
Data Type: Original

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	4.699	4.699	0.0382	0.1758	0.0383	12:30:22	Yes
2	4.678	4.678	0.0380	0.1751	0.0381	12:30:52	Yes
Mean:	4.688	4.688	0.0381				
SD:	0.014	0.014	0.0001				
%RSD:	0.308	0.308	0.31				

QC value within limits for Hg 253.7 Recovery = 93.77%
All analyte(s) passed QC.

Sequence No.: 38
Sample ID: CCB
Analyst:

Autosampler Location: 8
Date Collected: 12/23/2009 12:31:11
Data Type: Original

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.001	0.001	0.0002	0.0013	0.0003	12:32:01	Yes
2	0.007	0.007	0.0002	0.0016	0.0003	12:32:31	Yes
Mean:	0.004	0.004	0.0002				
SD:	0.004	0.004	0.0000				
%RSD:	114.2	114.2	16.54				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 39
Sample ID: 242794003|934871|1
Analyst: ETL

Autosampler Location: 78
Date Collected: 12/23/2009 12:32:50
Data Type: Original

Replicate Data: 242794003|934871|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.079	0.079	0.0008	0.0045	0.0009	12:33:42	Yes
2	0.077	0.077	0.0008	0.0042	0.0009	12:34:11	Yes
Mean:	0.078	0.078	0.0008				
SD:	0.001	0.001	0.0000				
%RSD:	1.919	1.919	1.48				

Sequence No.: 40
Sample ID: 242794004|934871|1
Analyst: ETL

Autosampler Location: 79
Date Collected: 12/23/2009 12:34:31
Data Type: Original

Replicate Data: 242794004|934871|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.267	0.267	0.0023	0.0107	0.0024	12:35:23	Yes
2	0.268	0.268	0.0024	0.0111	0.0024	12:35:53	Yes
Mean:	0.268	0.268	0.0023				
SD:	0.001	0.001	0.0000				
%RSD:	0.307	0.307	0.28				

Sequence No.: 41
Sample ID: 1202000131|934849|1
Analyst: ETL

Autosampler Location: 80
Date Collected: 12/23/2009 12:36:13
Data Type: Original

Replicate Data: 1202000131|934849|1

Repl	SampleConc	StndConc	BlnkCorr	Peak	Peak	Time	Peak

Replicate Data: 1202000136|934849|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.342	2.342	0.0191	0.0857	0.0192	12:45:31	Yes
2	2.357	2.357	0.0193	0.0891	0.0193	12:46:01	Yes
Mean:	2.350	2.350	0.0192				
SD:	0.011	0.011	0.0001				
%RSD:	0.449	0.449	0.44				

Sequence No.: 47 **Autosampler Location: 86**
Sample ID: 1202000135|934849|5 **Date Collected: 12/23/2009 12:46:21**
Analyst: ETL **Data Type: Original**

Replicate Data: 1202000135|934849|5

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.081	0.081	0.0008	0.0038	0.0009	12:47:13	Yes
2	0.087	0.087	0.0009	0.0041	0.0010	12:47:43	Yes
Mean:	0.084	0.084	0.0009				
SD:	0.005	0.005	0.0000				
%RSD:	5.660	5.660	4.45				

Sequence No.: 48 **Autosampler Location: 87**
Sample ID: 243030002|934849|1 **Date Collected: 12/23/2009 12:48:03**
Analyst: ETL **Data Type: Original**

Replicate Data: 243030002|934849|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	3.943	3.943	0.0321	0.1477	0.0322	12:48:54	Yes
2	3.931	3.931	0.0320	0.1463	0.0321	12:49:24	Yes
Mean:	3.937	3.937	0.0320				
SD:	0.008	0.008	0.0001				
%RSD:	0.214	0.214	0.21				

Sequence No.: 49 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 12/23/2009 12:49:44**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	4.631	4.631	0.0376	0.1726	0.0377	12:50:34	Yes
2	4.650	4.650	0.0378	0.1728	0.0379	12:51:04	Yes
Mean:	4.641	4.641	0.0377				
SD:	0.014	0.014	0.0001				
%RSD:	0.292	0.292	0.29				

QC value within limits for Hg 253.7 Recovery = 92.81%
All analyte(s) passed QC.

Sequence No.: 50 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 12/23/2009 12:51:23**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.005	0.005	0.0002	0.0015	0.0003	12:52:13	Yes
2	-0.003	-0.003	0.0002	0.0005	0.0003	12:52:43	Yes
Mean:	0.001	0.001	0.0002				
SD:	0.006	0.006	0.0000				

%RSD: 624.3 624.3 23.64
QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

==========

Sequence No.: 51 **Autosampler Location: 88**
Sample ID: 243030003|934849|1 **Date Collected: 12/23/2009 12:53:02**
Analyst: ETL **Data Type: Original**

Replicate Data: 243030003|934849|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.300	0.300	0.0026	0.0122	0.0027	12:53:54	Yes
2	0.297	0.297	0.0026	0.0125	0.0027	12:54:24	Yes
Mean:	0.298	0.298	0.0026				
SD:	0.002	0.002	0.0000				
%RSD:	0.641	0.641	0.60				

==========

Sequence No.: 52 **Autosampler Location: 89**
Sample ID: 243030004|934849|1 **Date Collected: 12/23/2009 12:54:44**
Analyst: ETL **Data Type: Original**

Replicate Data: 243030004|934849|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.520	0.520	0.0044	0.0208	0.0045	12:55:35	Yes
2	0.522	0.522	0.0044	0.0205	0.0045	12:56:05	Yes
Mean:	0.521	0.521	0.0044				
SD:	0.001	0.001	0.0000				
%RSD:	0.283	0.283	0.27				

==========

Sequence No.: 53 **Autosampler Location: 90**
Sample ID: 243030005|934849|1 **Date Collected: 12/23/2009 12:56:25**
Analyst: ETL **Data Type: Original**

Replicate Data: 243030005|934849|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.775	0.775	0.0064	0.0294	0.0065	12:57:17	Yes
2	0.772	0.772	0.0064	0.0296	0.0065	12:57:47	Yes
Mean:	0.774	0.774	0.0064				
SD:	0.002	0.002	0.0000				
%RSD:	0.197	0.197	0.19				

==========

Sequence No.: 54 **Autosampler Location: 91**
Sample ID: 243030006|934849|1 **Date Collected: 12/23/2009 12:58:07**
Analyst: ETL **Data Type: Original**

Replicate Data: 243030006|934849|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.239	0.239	0.0021	0.0105	0.0022	12:58:58	Yes
2	0.235	0.235	0.0021	0.0101	0.0022	12:59:28	Yes
Mean:	0.237	0.237	0.0021				
SD:	0.003	0.003	0.0000				
%RSD:	1.256	1.256	1.15				

==========

Sequence No.: 55 **Autosampler Location: 92**
Sample ID: 243030007|934849|1 **Date Collected: 12/23/2009 12:59:48**
Analyst: ETL **Data Type: Original**

Replicate Data: 243030007|934849|1

Miscellaneous

Prep LogBook

Analyst: FGA Verified by:_____

Batch: 932934

Lab SOP: GL-MA-E-009 REV# 19

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1201995830	UI062540-1	.521	g
MS	1201995828	UI091124-01	.25	mL
MS	1201995828	UI091124-06	.25	mL
MSD	1201995829	UI091124-01	.25	mL
MSD	1201995829	UI091124-06	.25	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1201995825		SW846 3050B	17-DEC-2009 13:00	0.522 g	50 mL	95.78544	SOIL
LCS	1201995830		SW846 3050B	17-DEC-2009 13:00	0.521 g	50 mL	95.96929	SOIL
SAMPLE	242794001		SW846 3050B	17-DEC-2009 13:00	0.508 g	50 mL	98.4252	SOIL
DUP	1201995826	242794001	SW846 3050B	17-DEC-2009 13:00	0.525 g	50 mL	95.2381	SOIL
SDILT	1201995827	242794001	SW846 3050B	17-DEC-2009 13:00	0.508 g	50 mL	98.4252	SOIL
MS	1201995828	242794001	SW846 3050B	17-DEC-2009 13:00	0.519 g	50 mL	96.33911	SOIL
MSD	1201995829	242794001	SW846 3050B	17-DEC-2009 13:00	0.501 g	50 mL	99.8004	SOIL
SAMPLE	242794002		SW846 3050B	17-DEC-2009 13:00	0.506 g	50 mL	98.81423	SOIL
SAMPLE	242794003		SW846 3050B	17-DEC-2009 13:00	0.515 g	50 mL	97.08738	SOIL
SAMPLE	242794004		SW846 3050B	17-DEC-2009 13:00	0.525 g	50 mL	95.2381	SOIL

Reagent/Solvent Lot ID	Amount	Description
1238341	10 mL	HYDROCHLORIC ACID
1238345	1.25 mL	Nitric Acid CONC.

Comments Gray,rocky soil.

Prep LogBook

Analyst: FGA Verified by:_____

Batch: 932936

Lab SOP: GL-MA-E-009 REV# 19

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1201995841	UI062540-MS	.525	g
MS	1201995839	UI090611-A	.5	mL
MS	1201995839	UI090611-B	.5	mL
MSD	1201995840	UI090611-A	.5	mL
MSD	1201995840	UI090611-B	.5	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1201995836		SW846 3050B	17-DEC-2009 13:00	0.502 g	50 mL	99.60159	SOIL
LCS	1201995841		SW846 3050B	17-DEC-2009 13:00	0.525 g	50 mL	95.2381	SOIL
SAMPLE	242794001		SW846 3050B	17-DEC-2009 13:00	0.516 g	50 mL	96.89922	SOIL
DUP	1201995837	242794001	SW846 3050B	17-DEC-2009 13:00	0.512 g	50 mL	97.65625	SOIL
SDILT	1201995838	242794001	SW846 3050B	17-DEC-2009 13:00	0.516 g	50 mL	96.89922	SOIL
MS	1201995839	242794001	SW846 3050B	17-DEC-2009 13:00	0.525 g	50 mL	95.2381	SOIL
MSD	1201995840	242794001	SW846 3050B	17-DEC-2009 13:00	0.518 g	50 mL	96.5251	SOIL
SAMPLE	242794002		SW846 3050B	17-DEC-2009 13:00	0.507 g	50 mL	98.61933	SOIL
SAMPLE	242794003		SW846 3050B	17-DEC-2009 13:00	0.512 g	50 mL	97.65625	SOIL
SAMPLE	242794004		SW846 3050B	17-DEC-2009 13:00	0.51 g	50 mL	98.03922	SOIL

Reagent/Solvent Lot ID	Amount	Description
1203655-02	1.5 mL	Hydrogen Peroxide 30%
1238345	5 mL	Nitric Acid CONC.

Comments. Gray,rocky soil.

Prep LogBook

Analyst: TXB3 Verified by:_____

Batch: 934870

Lab SOP: GL-MA-E-010 REV# 23

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1202000181	UI031809A	.201	g
MS	1202000183	WHG091222-14	.3	mL
MSD	1202000185	WHG091222-14	.3	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1202000180		SW846 7471A Prep	22-DEC-2009 11:45	0.513 g	30 mL	58.47953	SOIL
LCS	1202000181		SW846 7471A Prep	22-DEC-2009 11:45	0.201 g	30 mL	149.25373	SOIL
SAMPLE	242781001		SW846 7471A Prep	22-DEC-2009 11:45	0.557 g	30 mL	53.85996	SOIL
SAMPLE	242781002		SW846 7471A Prep	22-DEC-2009 11:45	0.501 g	30 mL	59.88024	SOIL
SAMPLE	242781003		SW846 7471A Prep	22-DEC-2009 11:45	0.559 g	30 mL	53.66726	SOIL
SAMPLE	242781004		SW846 7471A Prep	22-DEC-2009 11:45	0.51 g	30 mL	58.82353	SOIL
SAMPLE	242781005		SW846 7471A Prep	22-DEC-2009 11:45	0.516 g	30 mL	58.13953	SOIL
SAMPLE	242781006		SW846 7471A Prep	22-DEC-2009 11:45	0.512 g	30 mL	58.59375	SOIL
SAMPLE	242781007		SW846 7471A Prep	22-DEC-2009 11:45	0.511 g	30 mL	58.70841	SOIL
SAMPLE	242794001		SW846 7471A Prep	22-DEC-2009 11:45	0.515 g	30 mL	58.25243	SOIL
DUP	1202000182	242794001	SW846 7471A Prep	22-DEC-2009 11:45	0.515 g	30 mL	58.25243	SOIL
MS	1202000183	242794001	SW846 7471A Prep	22-DEC-2009 11:45	0.514 g	30 mL	58.36576	SOIL
MSD	1202000185	242794001	SW846 7471A Prep	22-DEC-2009 11:45	0.543 g	30 mL	55.24862	SOIL
SDILT	1202000184	242794001	SW846 7471A Prep	22-DEC-2009 11:45	0.515 g	30 mL	58.25243	SOIL
SAMPLE	242794002		SW846 7471A Prep	22-DEC-2009 11:45	0.534 g	30 mL	56.17978	SOIL
SAMPLE	242794003		SW846 7471A Prep	22-DEC-2009 11:45	0.5 g	30 mL	60	SOIL
SAMPLE	242794004		SW846 7471A Prep	22-DEC-2009 11:45	0.536 g	30 mL	55.97015	SOIL

Reagent/Solvent Lot ID	Amount	Description
1236355-A	1.125 mL	Hydrochloric Acid Conc.
1240182-1	.375 mL	NITRIC ACID
1244904-C	7.5 mL	5% KMnO4 solution
1206350-C	2 mL	Hg reducing agent
WHG091222-07	30 uL	Mercury Working Standard 1st Source CAL S 0.2/CRA
WHG091222-08	75 uL	Mercury Working Standard 1st Source CAL S 0.5
WHG091222-11	1.5 mL	Mercury Working 1st Source CAL S 10.0
WHG091222-09	300 uL	Mercury Working 1st Source CAL S 2.0
WHG091222-10	750 uL	Mercury Working 1st Source CAL S 5.0/CCV
WHG091222-12	750 uL	Mercury Working 2nd Source S 5.0/ICV

Comments: Sample 242794001 is a rocky brown soil.
Digestion Start Date: 22-DEC-09 11:45
Digestion End Date: 22-DEC-09 12:15

NCR Report No.: 776470
Revision No.:

COMPANY - WIDE NONCONFORMANCE REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
04-JAN-10	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
ICP/MS	SW846 3050B/6020	Solid	LANL
Batch ID:	**Sample Numbers:**		
932937	See Below		

Potentially affected work order(s)(SDG): 242794(10-901)

Application Issues:

Failed Recovery for MS/PS

Failed RPD for MS/MSD, or PS/PSD

Failed RPD for DUP

Specification and Requirements Nonconformance Description:	NRG Disposition:
1. Failed Recovery for MS/PS: QC 1201995839MS 2. Failed RPD for DUP: QC 1201995837DUP 3. Failed RPD for MS/MSD, or PS/PSD: QC 1201995840MSD	The matrix spike recovery failed outside of the control limits for Li due to possible matrix interferences and/or non-homogeneity. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported. The sample and sample duplicate % RPD failed outside the control limits for Ni due to possible sample non-homogeneity and/or matrix interference. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported. The matrix spike and matrix spike duplicate % RPD failed outside of the control limits for Li due to possible matrix interferences and/or sample non-homogeneity. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported.

Originator's Name:
Samantha Jacobs 06-JAN-10

Data Validator/Group Leader:
Elizabeth Janssen 07-JAN-10

COMPANY - WIDE NONCONFORMANCE REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
06-JAN-10	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
ICP	SW846 3050B/6010B	Solid	LANL
Batch ID:	**Sample Numbers:**		
932935	See Below		

Potentially affected work order(s)(SDG): 242794(10-901)

Application Issues:

Failed Recovery for MS/PS

Failed RPD for MS/MSD, or PS/PSD

Failed RPD for DUP

Specification and Requirements Nonconformance Description:	NRG Disposition:
1. Failed Recovery for MS/PS: QC 1201995828MS 2. Failed RPD for DUP: QC 1201995826DUP 3. Failed RPD for MS/MSD, or PS/PSD: QC 1201995829MSD	1. The matrix spike recovery failed outside of the control limits for aluminum,manganese and silicon due to possible matrix interferences and/or non-homogeneity. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported. 2. The sample and sample duplicate % RPD failed outside the control limits for aluminum,lead,magnesium and potassium due to possible sample non-homogeneity and/or matrix interference. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported. 3. The matrix spike and matrix spike duplicate % RPD failed outside of the control limits for aluminum due to possible matrix interferences and/or sample non-homogeneity. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported.

Originator's Name:
Helen Camello 06-JAN-10

Data Validator/Group Leader:
Eric Lawson 08-JAN-10

Standard Logbook

Serial ID: UHG1167639-01 **Opened:** 13-AUG-09 **Amount :** 125 mL
Name: MHGSTOCK1 **Received:** 13-AUG-09 **Catalog Number :** PLHG4-2Y
Type: Source Material **Expires:** 13-AUG-10 **Lot Number :** 15-37HG
Employee: Bryan Davis **Solvent :** 10% HNO3
Supplier: Spex
Description: Mercury Source Standard #1 1,000 mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Mercury	1000 mg/L		

Serial ID: UHG1167641-02 **Opened:** 13-AUG-09 **Amount :** 100 mL
Name: MHGSTOCK2 **Received:** 13-AUG-09 **Catalog Number :** AHG1KN-100
Type: Source Material **Expires:** 13-AUG-10 **Lot Number :** 4905530
Employee: Bryan Davis **Solvent :** 3% HNO3
Supplier: Ricca Chemical Company
Description: Mercury Source Standard #2 1,000 mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Mercury	999.7 mg/L		

Serial ID: UI031809A **Opened:** 18-MAR-09 **Catalog Number :** 540
Name: METALSOILSRM **Received:** 18-MAR-09 **Lot Number :** D061-540
Type: Source Material **Expires:** 10-OCT-10
Employee: Jamie Johnson
Supplier: ERA
Description: Metals LCS Soil SRM
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	10600 mg/kg	Antimony	126 mg/kg
Arsenic	225 mg/kg	Barium	565 mg/kg
Beryllium	162 mg/kg	Boron	107 mg/kg
Cadmium	69.1 mg/kg	Calcium	10000 mg/kg
Chromium	124 mg/kg	Cobalt	115 mg/kg
Copper	66.7 mg/kg	Iron	17600 mg/kg
Lead	223 mg/kg	Magnesium	4260 mg/kg
Manganese	368 mg/kg	Mercury	5.15 mg/kg
Molybdenum	107 mg/kg	Nickel	172 mg/kg
Potassium	4090 mg/kg	Selenium	147 mg/kg
Silver	35.2 mg/kg	Sodium	538 mg/kg
Strontium	117 mg/kg	Thallium	173 mg/kg
Tin	164 mg/kg	Titanium	381 mg/kg
Vanadium	93.9 mg/kg	Zinc	349 mg/kg

Standard Logbook

Serial ID: UI062540-I **Opened:** 12-JUN-09 **Amount :** 80 g
Name: ICP SOIL SRM **Received:** 12-JUN-09 **Lot Number :** D062-540
Type: Source Material **Expires:** 31-JAN-12
Employee: Bryan Davis
Supplier: ERA
Description: Metals Soil LCS SRM ICP/Hg
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	10500 mg/kg	Antimony	173 mg/kg
Arsenic	104 mg/kg	Barium	198 mg/kg
Beryllium	77.6 mg/kg	Boron	141 mg/kg
Cadmium	60.7 mg/kg	Calcium	9870 mg/kg
Chromium	236 mg/kg	Cobalt	91.2 mg/kg
Copper	174 mg/kg	Iron	18000 mg/kg
Lead	86 mg/kg	Magnesium	4000 mg/kg
Manganese	558 mg/kg	Mercury	8.46 mg/kg
Molybdenum	48.6 mg/kg	Nickel	134 mg/kg
Phosphorous	736 mg/kg	Potassium	4300 mg/kg
Selenium	286 mg/kg	Silica	2591 mg/kg
Silicon	1211 mg/kg	Silver	30.1 mg/kg
Sodium	1020 mg/kg	Strontium	227 mg/kg
Sulfur	385 mg/kg	Thallium	121 mg/kg
Tin	104 mg/kg	Titanium	462 mg/kg
Vanadium	115 mg/kg	Zinc	594 mg/kg

Serial ID: UI062540-MS **Opened:** 12-JUN-09 **Lot Number :** D062-540
Name: ICPMS SOIL SRM **Received:** 12-JUN-09
Type: Source Material **Expires:** 31-JAN-12
Employee: Bryan Davis
Supplier: ERA
Description: Metals Soil LCS SRM ICPMS
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	10500 mg/kg	Antimony	67.4 mg/kg
Arsenic	104 mg/kg	Barium	198 mg/kg
Beryllium	77.6 mg/kg	Boron	141 mg/kg
Cadmium	60.6 mg/kg	Calcium	9870 mg/kg
Chromium	236 mg/kg	Cobalt	91.2 mg/kg
Copper	174 mg/kg	Iron	18000 mg/kg
Lead	86 mg/kg	Lithium	10.6 mg/kg
Magnesium	4000 mg/kg	Manganese	558 mg/kg
Mercury	8.46 mg/kg	Molybdenum	48.6 mg/kg
Nickel	134 mg/kg	Phosphorous	755 mg/kg
Potassium	4300 mg/kg	Selenium	286 mg/kg
Silver	30.1 mg/kg	Sodium	1020 mg/kg

Analyte	Concentration	Analyte	Concentration
Strontium	227 mg/kg	Thallium	121 mg/kg
Thorium	9.84 mg/kg	Tin	104 mg/kg
Titanium	462 mg/kg	Uranium	2.13 mg/kg
Uranium-235	.0153 mg/kg	Uranium-238	2.11 mg/kg
Vanadium	92.4 mg/kg	Zinc	594 mg/kg
Zirconium	10.6 mg/kg		

Serial ID: UI090610-03 **Opened:** 10-JUN-09 **Catalog Number :** 060074-06-01
Name: ICPMS Tungsten - 10mg/L S **Received:** 10-JUN-09 **Lot Number :** 1016338
Type: Source Material **Expires:** 10-JUN-10 **Solvent :** 2% HNO3
Employee: Paul Boyd
Supplier: O2SI
Description: ICPMS Tungsten standard SPIKE - 10mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Tungsten	10 mg/L		

Serial ID: UI090611-A **Opened:** 11-JUN-09 **Catalog Number :** 160067-03
Name: ICP-MS DOE SOIL SPIKE **Received:** 11-JUN-09 **Lot Number :** 1015749
Type: Source Material **Expires:** 11-JUN-10
Employee: Francena Armstrong
Supplier: 02si
Description: ICP-MS Spike for soil products.
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	200 mg/L	Arsenic	8 mg/L
Barium	5 mg/L	Beryllium	5 mg/L
Boron	10 mg/L	Cadmium	1 mg/L
Calcium	200 mg/L	Chromium	5 mg/L
Cobalt	5 mg/L	Copper	5 mg/L
Iron	200 mg/L	Lead	20 mg/L
Lithium	5 mg/L	Magnesium	200 mg/L
Manganese	5 mg/L	Nickel	5 mg/L
Phosphorus, Total as P	200 mg/L	Potassium	200 mg/L
Selenium	2 mg/L	Sodium	200 mg/L
Strontium	5 mg/L	Thallium	10 mg/L
Thorium	5 mg/L	Uranium	5 mg/L
Uranium-235	.036 mg/L	Uranium-238	4.964 mg/L
Vanadium	5 mg/L	Zinc	5 mg/L

Standard Logbook

Serial ID: UI090611-B **Opened:** 11-JUN-09 **Catalog Number :** 160067-03
Name: ICP-MS DOE SOIL SPIKE **Received:** 11-JUN-09 **Lot Number :** 1015749
Type: Source Material **Expires:** 11-JUN-10
Employee: Francena Armstrong
Supplier: 02si
Description: ICP-MS Spike for Soil Products
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	20 mg/L	Molybdenum	5 mg/L
Silicon	200 mg/L	Silver	5 mg/L
Tin	5 mg/L	Zirconium	5 mg/L

Serial ID: UI090701-09 **Opened:** 01-JUL-09 **Amount :** 250 mL
Name: ICP-MS CRDL Master #1 **Received:** 01-JUL-09 **Catalog Number :** 160044-09-02
Type: Source Material **Expires:** 01-JUL-10 **Lot Number :** 1016477
Employee: Paul Boyd **Solvent :** +/- 0.5% IN 2% HNO3
Supplier: 02SI
Description: ICPMS CRDL Master Soln #1
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	15 mg/L	Arsenic	5 mg/L
Barium	2 mg/L	Beryllium	.5 mg/L
Boron	15 mg/L	Cadmium	1 mg/L
Calcium	100 mg/L	Chromium	3 mg/L
Cobalt	1 mg/L	Copper	1 mg/L
Iron	25 mg/L	Lead	2 mg/L
Lithium	10 mg/L	Magnesium	15 mg/L
Manganese	5 mg/L	Nickel	2 mg/L
Phosphorous	50 mg/L	Potassium	300 mg/L
Selenium	5 mg/L	Sodium	250 mg/L
Strontium	10 mg/L	Thallium	1 mg/L
Thorium	1 mg/L	Uranium	.2 mg/L
Vanadium	10 mg/L	Zinc	10 mg/L

Serial ID: UI090701-10 **Opened:** 01-JUL-09 **Amount :** 250 mL
Name: ICP-MS CRDL Master #2 **Received:** 01-JUL-09 **Catalog Number :** 160044-08-02
Type: Source Material **Expires:** 01-JUL-10 **Lot Number :** 1016476
Employee: Paul Boyd **Solvent :** +/- 0.5% IN 2% HNO3
Supplier: 02SI
Description: ICPMS CRDL Soln #2
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	2 mg/L	Molybdenum	.5 mg/L

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Silver	1 mg/L	Tin	2 mg/L
Titanium	10 mg/L	Tungsten	5 mg/L
Zirconium	2 mg/L		

Serial ID: UI090828-42 **Opened:** 16-SEP-09 **Amount :** 500 mL
Name: TRACE ICP Na-1000SOUR **Received:** 27-AUG-09 **Catalog Number :** 060011-02-03
Type: Source Material **Expires:** 16-SEP-10 **Lot Number :** 1017098
Employee: Helen Camello **Solvent :** 1%HNO3
Supplier: 02SI
Description: Sodium 1000 +/- 3 ug/mL in 1% HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Sodium	1000 ug/mL		

Serial ID: UI091015-42 **Opened:** 28-OCT-09 **Amount :** 500 mL
Name: SI 1000mg/L **Received:** 15-OCT-09 **Catalog Number :** 060014-02-03
Type: Source Material **Expires:** 28-OCT-10 **Lot Number :** 1017581
Employee: Helen Camello **Solvent :** 0.3%H2O(NH4)2SiF6
Supplier: o2si
Description: Silicon 1000mg/L+/-0.3%in H2O(NH4)2SiF6
Comments: None

Analyte	Concentration	Analyte	Concentration
Silica	2139 mg/L	Silicon	1000 mg/L

Serial ID: UI091102-40 **Opened:** 16-NOV-09 **Amount :** 500 mL
Name: TRACE CALSTD#1A SOUF **Received:** 02-NOV-09 **Catalog Number :** HP2270-1-500
Type: Source Material **Expires:** 31-OCT-10 **Lot Number :** 0930215
Employee: Helen Camello **Solvent :** HNO3
Supplier: Environmental Express
Description: Trace Calibration Std #1A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	2000 mg/L	Arsenic	200 mg/L
Barium	200 mg/L	Beryllium	200 mg/L
Boron	200 mg/L	Cadmium	200 mg/L
Calcium	2000 mg/L	Chromium	200 mg/L
Cobalt	200 mg/L	Copper	200 mg/L
Iron	2000 mg/L	Lead	200 mg/L
Magnesium	2000 mg/L	Manganese	200 mg/L
Nickel	200 mg/L	Phosphorous	1000 mg/L
Potassium	2000 mg/L	Selenium	200 mg/L

Analyte	Concentration	Analyte	Concentration
Sodium	2000 mg/L	Strontium	200 mg/L
Thallium	200 mg/L	Uranium	200 mg/L
Vanadium	200 mg/L	Zinc	200 mg/L

Serial ID: UI091102-41 **Opened:** 16-NOV-09 **Amount :** 500 mL
Name: TRACE CALSTD#1B SOUF **Received:** 02-NOV-09 **Catalog Number :** HP2270-2-500
Type: Source Material **Expires:** 31-OCT-10 **Lot Number :** 0930216
Employee: Helen Camello **Solvent :** HNO3
Supplier: Environmental Express
Description: Trace Calibration Standard #1B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	200 mg/L	Molybdenum	200 mg/L
Silver	200 mg/L	Sulfur	400 mg/L
Tin	200 mg/L	Titanium	200 mg/L

Serial ID: UI091124-01 **Opened:** 24-NOV-09 **Lot Number :** 1017642
Name: METALSPIKE-1 **Received:** 24-NOV-09
Type: Source Material **Expires:** 24-NOV-10
Employee: Francena Armstrong
Supplier: OS2I
Description: Metals Spike Mix I
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 ug/mL	Arsenic	100 ug/mL
Barium	100 ug/mL	Beryllium	100 ug/mL
Boron	100 ug/mL	Cadmium	100 ug/mL
Calcium	1000 ug/mL	Cobalt	100 ug/mL
Iron	1000 ug/mL	Lead	100 ug/mL
Magnesium	1000 ug/mL	Phosphorous	100 ug/mL
Potassium	1000 ug/mL	Silver	100 ug/mL
Sodium	1000 ug/mL	Strontium	100 ug/mL

Serial ID: UI091124-06 **Opened:** 24-NOV-09 **Lot Number :** 1017643
Name: METALSPIKE-2 **Received:** 24-NOV-09
Type: Source Material **Expires:** 24-NOV-10
Employee: Francena Armstrong
Supplier: OS2I
Description: Metals Spike Mix II
Comments: None

Analyte	Concentration	Analyte	Concentration

Analyte	Concentration	Analyte	Concentration
Antimony	100 ug/mL	Chromium	100 ug/mL
Copper	100 ug/mL	Manganese	100 ug/mL
Molybdenum	100 ug/mL	Nickel	100 ug/mL
Selenium	100 ug/mL	Silica	2141 ug/mL
Silicon	1000 ug/mL	Sulfur	1000 ug/mL
Thallium	100 ug/mL	Tin	100 ug/mL
Titanium	100 ug/mL	Uranium	100 ug/mL
Vanadium	100 ug/mL	Zinc	100 ug/mL

Serial ID: UI091130-48 **Opened:** 11-DEC-09 **Amount :** 1000 mL
Name: Trace ICP ICSA **Received:** 01-DEC-09 **Catalog Number :** 160005-02
Type: Source Material **Expires:** 01-JAN-10 **Lot Number :** 1018045
Employee: Helen Camello **Solvent :** 3% HCl + 1% HNO3
Supplier: o2si
Description: Trace ICP Interferent Check Standard A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 UG/L	Calcium	500000 UG/L
Iron	200000 UG/L	Magnesium	500000 UG/L

Serial ID: UI091211-40 **Opened:** 11-DEC-09 **Amount :** 500 mL
Name: ICP HIGH RANGE STD-A **Received:** 09-DEC-09 **Catalog Number :** 160211-05-03
Type: Source Material **Expires:** 11-DEC-10 **Lot Number :** 1017958
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3
Supplier: 02SI
Description: ICP HIGH RANGE STD SOLUTION A
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	10000 ug/L	Arsenic	10000 ug/L
Barium	15000 ug/L	Beryllium	3000 ug/L
Boron	5000 ug/L	Cadmium	10000 ug/L
Chromium	25000 ug/L	Cobalt	10000 ug/L
Copper	20000 ug/L	Lead	25000 ug/L
Manganese	10000 ug/L	Molybdenum	10000 ug/L
Nickel	10000 ug/L	Phosphorous	15000 ug/L
Potassium	300000 ug/L	Selenium	10000 ug/L
Silica	107000 ug/L	Silicon	50000 ug/L
Silver	1000 ug/L	Strontium	10000 ug/L
Sulfur	50000 ug/L	Thallium	10000 ug/L
Tin	10000 ug/L	Titanium	10000 ug/L
Vanadium	10000 ug/L	Zinc	15000 ug/L

Standard Logbook

Serial ID: UI091211-41 **Opened:** 11-DEC-09 **Amount :** 500 mL
Name: ICP HIGH RANGE STD B **Received:** 09-DEC-09 **Catalog Number :** 160211-05-03
Type: Source Material **Expires:** 11-DEC-10 **Lot Number :** 1017958
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3
Supplier: 02SI
Description: ICP HIGH RANGE STD SOLUTION B
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 ug/L	Calcium	500000 ug/L
Iron	500000 ug/L	Magnesium	500000 ug/L
Sodium	500000 ug/L	Uranium	15000 ug/L

Serial ID: UI091212-11 **Opened:** 12-DEC-09 **Amount :** 1000 mL
Name: ICP-MS ICSA Master A **Received:** 12-DEC-09 **Catalog Number :** 160013-01-01L
Type: Source Material **Expires:** 12-DEC-10 **Lot Number :** 1015303
Employee: Paul Boyd **Solvent :** 2% HNO3
Supplier: 02SI
Description: ICP-MS ICSA Master A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Calcium	1000 mg/L
Carbon	2000 mg/L	Chloride	10000 mg/L
Iron	1000 mg/L	Magnesium	1000 mg/L
Molybdenum	20 mg/L	Phosphorous	1000 mg/L
Potassium	1000 mg/L	Sodium	1000 mg/L
Sulfur	1000 mg/L	Titanium	20 mg/L

Serial ID: UI091212-60 **Opened:** 12-DEC-09 **Amount :** .5 mL
Name: ICPMS High Range Standa **Received:** 12-DEC-09 **Catalog Number :** 160212-02-01
Type: Source Material **Expires:** 12-DEC-10 **Lot Number :** 1018064
Employee: Paul Boyd **Solvent :** 2%HNO3 + Tr HF
Supplier: O2SI
Description: Linear Range Standard A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	5000 mg/L	Arsenic	100 mg/L
Barium	250 mg/L	Beryllium	100 mg/L
Cadmium	100 mg/L	Calcium	5000 mg/L
Chromium	100 mg/L	Cobalt	100 mg/L
Copper	100 mg/L	Iron	5000 mg/L
Lead	500 mg/L	Lithium	100 mg/L
Magnesium	5000 mg/L	Manganese	100 mg/L
Nickel	100 mg/L	Phosphorous	2500 mg/L

Analyte	Concentration	Analyte	Concentration
Potassium	5000 mg/L	Selenium	50 mg/L
Sodium	5000 mg/L	Strontium	100 mg/L
Thallium	50 mg/L	Thorium	250 mg/L
Uranium	500 mg/L	Vanadium	100 mg/L
Zinc	250 mg/L		

Serial ID: UI091212-61 **Opened:** 12-DEC-09 **Amount :** .5 mL
Name: ICPMS High Range Standa **Received:** 12-DEC-09 **Catalog Number :** 160212-02-01
Type: Source Material **Expires:** 12-DEC-10 **Lot Number :** 1018064
Employee: Paul Boyd **Solvent :** 2%HNO3 + Tr HF
Supplier: O2SI
Description: Linear Range Standard B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	25 mg/L	Molybdenum	100 mg/L
Silver	25 mg/L	Tin	100 mg/L
Tungsten	100 mg/L	Zirconium	50 mg/L

Serial ID: UI091217-06 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master A **Received:** 17-DEC-09 **Catalog Number :** 160055-01
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018209
Employee: Paul Boyd **Solvent :** +/- 0.5% in 5% HNO3 100 cm2
Supplier: 02SI
Description: ICPMS ICV/CCV SOLN A - 10ppm
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	2020 mg/L	Calcium	2000 mg/L
Iron	2000 mg/L	Magnesium	2000 mg/L
Phosphorous	2000 mg/L	Potassium	2000 mg/L
Sodium	2000 mg/L		

Serial ID: UI091217-07 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master B **Received:** 17-DEC-09 **Catalog Number :** 160054-02
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018210
Employee: Paul Boyd **Solvent :** +/- 0.5% in 5% HNO3 100 cm2
Supplier: 02SI
Description: ICPMS ICV/CCV Soln B - 10ppm
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	20 mg/L	Barium	20 mg/L
Beryllium	20 mg/L	Boron	40 mg/L

Analyte	Concentration	Analyte	Concentration
Cadmium	20 mg/L	Chromium	20 mg/L
Cobalt	20 mg/L	Copper	20 mg/L
Lead	20 mg/L	Lithium	20 mg/L
Manganese	20 mg/L	Nickel	20 mg/L
Selenium	20 mg/L	Strontium	20 mg/L
Thallium	20 mg/L	Thorium	20 mg/L
Uranium	20 mg/L	Vanadium	20 mg/L
Zinc	20 mg/L		

Serial ID: UI091217-08 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master C **Received:** 17-DEC-09 **Catalog Number :** 160054-03
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018211
Employee: Paul Boyd **Solvent :** +/- 0.5% in 5% HNO3 100 cm2
Supplier: 02SI
Description: ICPMS ICV/CCV Soln C - 10ppm
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	20 mg/L	Molybdenum	20 mg/L
Silver	20 mg/L	Tin	20 mg/L
Titanium	20 mg/L	Tungsten	20 mg/L
Zirconium	20 mg/L		

Serial ID: UI091217-12 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICSAB Master B **Received:** 17-DEC-09 **Catalog Number :** 160033-02
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018212
Employee: Paul Boyd **Solvent :** +/- 0.5% in 2% HNO3
Supplier: 02SI
Description: ICPMS ICSAB Master B
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	2 mg/L	Barium	2 mg/L
Beryllium	2 mg/L	Boron	2 mg/L
Cadmium	2 mg/L	Chromium	2 mg/L
Cobalt	2 mg/L	Copper	2 mg/L
Lead	2 mg/L	Lithium	2 mg/L
Manganese	2 mg/L	Nickel	2 mg/L
Selenium	2 mg/L	Strontium	2 mg/L
Thallium	2 mg/L	Thorium	2 mg/L
Uranium	2 mg/L	Vanadium	2 mg/L
Zinc	2 mg/L		

Standard Logbook

Serial ID: UI091217-13 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICSAB Master C **Received:** 17-DEC-09 **Catalog Number :** 160033-03
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1016926
Employee: Paul Boyd **Solvent :** +/- 0.5% in 2% HNO3
Supplier: 02SI
Description: ICPMS ICSAB Master C
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	2 mg/L	Silver	2 mg/L
Tin	2 mg/L	Tungsten	2 mg/L
Zirconium	2 mg/L		

Serial ID: UMS090303-01 **Opened:** 03-MAR-09 **Amount :** 250 mL
Name: ICPMSCalSPIKEB **Received:** 03-MAR-09 **Catalog Number :** ZGEL-100-250
Type: Source Material **Expires:** 28-FEB-10 **Lot Number :** 14-81JB
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution B
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	10 mg/L	Barium	10 mg/L
Beryllium	10 mg/L	Boron	20 mg/L
Cadmium	10 mg/L	Chromium	10 mg/L
Cobalt	10 mg/L	Copper	10 mg/L
Lead	10 mg/L	Lithium	10 mg/L
Manganese	10 mg/L	Nickel	10 mg/L
Selenium	10 mg/L	Silver	10 mg/L
Strontium	10 mg/L	Thallium	10 mg/L
Thorium	10 mg/L	Uranium	10 mg/L
Vanadium	10 mg/L	Zinc	10 mg/L

Serial ID: UMS090303-02 **Opened:** 03-MAR-09 **Catalog Number :** ZGEL-102-250
Name: ICPMSCalSPIKEA **Received:** 03-MAR-09 **Lot Number :** 14-83JB
Type: Source Material **Expires:** 28-FEB-10
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Calcium	1000 mg/L
Iron	1000 mg/L	Magnesium	1000 mg/L
Phosphorous	1000 mg/L	Potassium	1000 mg/L
Sodium	1000 mg/L		

Standard Logbook

Serial ID: UMS090303-03 **Opened:** 03-MAR-09 **Amount :** 250 ml
Name: ICPMSCalSPIKEC **Received:** 03-MAR-09 **Catalog Number :** ZGEL-101-250
Type: Source Material **Expires:** 28-FEB-10 **Lot Number :** 15-199JB
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution C
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	10 mg/L	Molybdenum	10 mg/L
Tin	10 mg/L	Titanium	10 mg/L
Zirconium	10 mg/L		

Serial ID: IHG091222-01 **Opened:** 22-DEC-09 **Instrument Id :** Mercury
Name: MHGINTER1 **Received:** 22-DEC-09 **Pipet Id :** Minou1
Type: Intermediate **Expires:** 23-DEC-09 **Solvent :** 1mL HNO3 + Typel H2O
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Intermediate 1st Source 200 ug/L
Comments: Prepare fresh daily

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167639-01	Mercury	1000 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: IHG091222-02 **Opened:** 22-DEC-09 **Pipet Id :** Minou1
Name: MHGINTER2 **Received:** 22-DEC-09 **Solvent :** 2% HNO3-1240182
Type: Intermediate **Expires:** 23-DEC-09
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Intermediate 2nd Source 200 ug/L
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167641-02	Mercury	999.7 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: WHG091222-07 **Opened:** 22-DEC-09 **Pipet Id :** Hg1289245
Name: MHGWORKCALS0.2CRA **Received:** 22-DEC-09 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 28-DEC-09
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working Standard 1st Source CAL S 0.2/CRA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG091222-01	Mercury	200 ug/L	30 uL	30 mL	.2 ug/L

Standard Logbook

Serial ID: WHG091222-08 **Opened:** 22-DEC-09 **Pipet Id :** Hg1289245
Name: MHGWORKCALS0.5 **Received:** 22-DEC-09 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 28-DEC-09
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working Standard 1st Source CAL S 0.5
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG091222-01	Mercury	200 ug/L	75 uL	30 mL	.5 ug/L

Serial ID: WHG091222-09 **Opened:** 22-DEC-09 **Pipet Id :** Hg1289245
Name: MHGWORKCALS2.0 **Received:** 22-DEC-09 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 28-DEC-09
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL S 2.0
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG091222-01	Mercury	200 ug/L	300 uL	30 mL	2 ug/L

Serial ID: WHG091222-10 **Opened:** 22-DEC-09 **Pipet Id :** Hg1289245
Name: MHGWORKCALS5.0CCV **Received:** 22-DEC-09 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 28-DEC-09
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL S 5.0/CCV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG091222-01	Mercury	200 ug/L	750 uL	30 mL	5 ug/L

Serial ID: WHG091222-11 **Opened:** 22-DEC-09 **Pipet Id :** Hg1289245
Name: MHGWORKCALS10.0 **Received:** 22-DEC-09 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 28-DEC-09
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working 1st Source CAL S 10.0
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG091222-01	Mercury	200 ug/L	1500 uL	30 mL	10 ug/L

Standard Logbook

Serial ID: WHG091222-12 **Opened:** 22-DEC-09 **Pipet Id :** Hg1289245
Name: MHGWORKS5.0ICV **Received:** 22-DEC-09 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 28-DEC-09
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 2nd Source S 5.0/ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG091222-02	Mercury	200 ug/L	750 uL	30 mL	5 ug/L

Serial ID: WHG091222-14 **Opened:** 22-DEC-09 **Pipet Id :** Hg1289245
Name: MHGSOILMSSPIKE **Received:** 22-DEC-09 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 28-DEC-09
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury soil working intermediate standard for MS
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167639-01	Mercury	1000 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: WI091219-43 **Opened:** 19-DEC-09 **Balance Id :** 216
Name: TRACE ICP 0.5/CCV STD. **Received:** 02-NOV-09 **Pipet Id :** 1099667
Type: Working **Expires:** 20-DEC-09 **Solvent :** 3%HCL and 1%HNO3 -1242318
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP O.5/CCV CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090828-42	Sodium	1000 ug/mL	5 mL	1000 mL	5000 UG/L
UI091015-42	Silica	2139 mg/L	2.5 mL	1000 mL	5348.25 UG/L
UI091015-42	Silicon	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI091102-40	Aluminum	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Arsenic	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Barium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Beryllium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Boron	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Cadmium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Calcium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Chromium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Cobalt	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Copper	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Iron	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Lead	200 mg/L	2.5 mL	1000 mL	500 UG/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091102-40	Magnesium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Manganese	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Nickel	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Phosphorous	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI091102-40	Potassium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Selenium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Sodium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Strontium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Thallium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Uranium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Vanadium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Zinc	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Antimony	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Molybdenum	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Silver	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Sulfur	400 mg/L	2.5 mL	1000 mL	1000 UG/L
UI091102-41	Tin	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Titanium	200 mg/L	2.5 mL	1000 mL	500 UG/L

Serial ID: WMS091230-04 **Opened:** 30-DEC-09 **Amount :** 50 mL
Name: ICPMS Cal Standard 100 **Received:** 30-DEC-09 **Balance Id :** 4025216
Type: Working **Expires:** 31-DEC-09 **Pipet Id :** 3541598
Employee: Elizabeth Janssen **Solvent :** 2%HNO3/1%HCl-1247304
Supplier: GEL
Description: ICPMS Calibration Standard (100 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090610-03	Tungsten	10 mg/L	.5 mL	50 mL	100 ug/L
UMS090303-01	Arsenic	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Barium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Beryllium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Boron	20 mg/L	.5 mL	50 mL	200 ug/l
UMS090303-01	Cadmium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Chromium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Cobalt	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Copper	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Lead	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Lithium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Manganese	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Nickel	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Selenium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Silver	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Strontium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Thallium	10 mg/L	.5 mL	50 mL	100 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UMS090303-01	Thorium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Uranium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Vanadium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Zinc	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-02	Aluminum	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Calcium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Iron	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Magnesium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Phosphorous	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Potassium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Sodium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-03	Antimony	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Molybdenum	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Tin	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Titanium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Zirconium	10 mg/L	.5 mL	50 mL	100 ug/l

Serial ID: WMS091230-04A **Opened:** 30-DEC-09 **Balance Id :** 4025216
Name: ICPMS Cal Standard 10 **Received:** 30-DEC-09 **Pipet Id :** 3541598
Type: Working **Expires:** 31-DEC-09 **Solvent :** 2%HNO3/1%HCl - 1247304
Employee: Elizabeth Janssen
Supplier: GEL
Description: ICPMS Calibration Standard (10 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS091230-04	Aluminum	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS091230-04	Antimony	100 ug/l	5 mL	50 mL	10 ug/l
WMS091230-04	Arsenic	100 ug/l	5 mL	50 mL	10 ug/l
WMS091230-04	Barium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091230-04	Beryllium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091230-04	Boron	200 ug/l	5 mL	50 mL	20 ug/l
WMS091230-04	Cadmium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091230-04	Calcium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS091230-04	Chromium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091230-04	Cobalt	100 ug/l	5 mL	50 mL	10 ug/l
WMS091230-04	Copper	100 ug/l	5 mL	50 mL	10 ug/l
WMS091230-04	Iron	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS091230-04	Lead	100 ug/l	5 mL	50 mL	10 ug/l
WMS091230-04	Lithium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091230-04	Magnesium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS091230-04	Manganese	100 ug/l	5 mL	50 mL	10 ug/l
WMS091230-04	Molybdenum	100 ug/l	5 mL	50 mL	10 ug/l
WMS091230-04	Nickel	100 ug/l	5 mL	50 mL	10 ug/l
WMS091230-04	Phosphorous	10000 ug/l	5 mL	50 mL	1000 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS091230-04	Potassium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS091230-04	Selenium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091230-04	Silver	100 ug/l	5 mL	50 mL	10 ug/l
WMS091230-04	Sodium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS091230-04	Strontium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091230-04	Thallium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091230-04	Thorium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091230-04	Tin	100 ug/l	5 mL	50 mL	10 ug/l
WMS091230-04	Titanium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091230-04	Tungsten	100 ug/L	5 mL	50 mL	10 ug/L
WMS091230-04	Uranium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091230-04	Vanadium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091230-04	Zinc	100 ug/l	5 mL	50 mL	10 ug/l
WMS091230-04	Zirconium	100 ug/l	5 mL	50 mL	10 ug/l

Serial ID: WMS091230-05 **Opened:** 30-DEC-09 **Balance Id :** 40245216
Name: ICPMS ICV **Received:** 30-DEC-09 **Pipet Id :** 3541598
Type: Working **Expires:** 31-DEC-09 **Solvent :** 2%HNO3/1%HCl - 1247304
Employee: Elizabeth Janssen
Supplier: GEL
Description: ICPMS ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-06	Aluminum	2020 mg/L	.125 mL	50 mL	5050 ug/L
UI091217-06	Calcium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Iron	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Magnesium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Phosphorous	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Potassium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Sodium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-07	Arsenic	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Barium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Beryllium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Boron	40 mg/L	.125 mL	50 mL	100 ug/L
UI091217-07	Cadmium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Chromium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Cobalt	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Copper	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lead	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lithium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Manganese	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Nickel	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Selenium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Strontium	20 mg/L	.125 mL	50 mL	50 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-07	Thallium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thorium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Uranium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Vanadium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Zinc	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Antimony	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Molybdenum	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Silver	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tin	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Titanium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tungsten	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Zirconium	20 mg/L	.125 mL	50 mL	50 ug/L

Serial ID: WMS091230-06 **Opened:** 30-DEC-09 **Balance Id :** 40245216
Name: ICPMS CRDL **Received:** 30-DEC-09 **Pipet Id :** 3820544
Type: Working **Expires:** 31-DEC-09 **Solvent :** 2%HNO3/1%HCl - 1247304
Employee: Elizabeth Janssen
Supplier: GEL
Description: ICPMS CRDL
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Aluminum	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Arsenic	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Barium	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Beryllium	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-09	Boron	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Cadmium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Calcium	100 mg/L	.05 mL	50 mL	100 ug/L
UI090701-09	Chromium	3 mg/L	.05 mL	50 mL	3 ug/L
UI090701-09	Cobalt	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Copper	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Iron	25 mg/L	.05 mL	50 mL	25 ug/L
UI090701-09	Lead	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Lithium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Magnesium	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Manganese	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Nickel	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Phosphorous	50 mg/L	.05 mL	50 mL	50 ug/L
UI090701-09	Potassium	300 mg/L	.05 mL	50 mL	300 ug/L
UI090701-09	Selenium	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Sodium	250 mg/L	.05 mL	50 mL	250 ug/L
UI090701-09	Strontium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Thallium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Thorium	1 mg/L	.05 mL	50 mL	1 ug/L

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Uranium	.2 mg/L	.05 mL	50 mL	.2 ug/L
UI090701-09	Vanadium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Zinc	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Antimony	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-10	Molybdenum	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-10	Silver	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-10	Tin	2 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Titanium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Tungsten	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Zirconium	2 mg/L	.05 mL	50 mL	2 ug/L

Serial ID: WMS091230-07 **Opened:** 30-DEC-09 **Balance Id :** 40245216
Name: ICPMS ICSA **Received:** 30-DEC-09 **Lot Number :** 1010773
Type: Working **Expires:** 31-DEC-09 **Pipet Id :** 3541598
Employee: Elizabeth Janssen **Solvent :** 2%HNO3/1%HCl - 1247304
Supplier: GEL
Description: ICPMS ICSA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI091212-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI091212-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: WMS091230-08 **Opened:** 30-DEC-09 **Balance Id :** 40245216
Name: ICPMS ICSAB **Received:** 30-DEC-09 **Pipet Id :** 1758088
Type: Working **Expires:** 31-DEC-09 **Solvent :** 2%HNO3/1%HCl - 1247304
Employee: Elizabeth Janssen
Supplier: GEL
Description: ICPMS ICSAB
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI091212-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI091212-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L
UI091217-12	Arsenic	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Barium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Beryllium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Boron	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Cadmium	2 mg/L	.5 mL	50 mL	20.2 ug/L
UI091217-12	Chromium	2 mg/L	.5 mL	50 mL	22.2 ug/L
UI091217-12	Cobalt	2 mg/L	.5 mL	50 mL	20.4 ug/L
UI091217-12	Copper	2 mg/L	.5 mL	50 mL	23.4 ug/L
UI091217-12	Lead	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Lithium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Manganese	2 mg/L	.5 mL	50 mL	22.7 ug/L
UI091217-12	Nickel	2 mg/L	.5 mL	50 mL	22.4 ug/L
UI091217-12	Selenium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Strontium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thallium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thorium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Uranium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Vanadium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Zinc	2 mg/L	.5 mL	50 mL	27 ug/L
UI091217-13	Antimony	2 mg/L	.5 mL	50 mL	20.5 ug/L
UI091217-13	Silver	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tin	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tungsten	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Zirconium	2 mg/L	.5 mL	50 mL	20 ug/L

Serial ID: WMS091230-70 **Opened:** 30-DEC-09 **Balance Id :** 40245216
Name: ICPMS LINEAR RANGE ST **Received:** 30-DEC-09 **Pipet Id :** 1758088
Type: Working **Expires:** 31-DEC-09 **Solvent :** 2%HNO3/1%HCl - 1247304
Employee: Elizabeth Janssen
Supplier: 02SI
Description: ICPMS LINEAR RANGE STANDARD
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-60	Aluminum	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Arsenic	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Barium	250 mg/L	.5 mL	50 mL	2500 ug/L
UI091212-60	Beryllium	100 mg/L	.5 mL	50 mL	1000 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-60	Cadmium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Calcium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Chromium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Cobalt	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Copper	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Iron	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Lead	500 mg/L	.5 mL	50 mL	5000 ug/L
UI091212-60	Lithium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Magnesium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Manganese	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Nickel	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Phosphorous	2500 mg/L	.5 mL	50 mL	25000 ug/L
UI091212-60	Potassium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Selenium	50 mg/L	.5 mL	50 mL	500 ug/L
UI091212-60	Sodium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Strontium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Thallium	50 mg/L	.5 mL	50 mL	500 ug/L
UI091212-60	Thorium	250 mg/L	.5 mL	50 mL	2500 ug/L
UI091212-60	Uranium	500 mg/L	.5 mL	50 mL	5000 ug/L
UI091212-60	Vanadium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Zinc	250 mg/L	.5 mL	50 mL	2500 ug/L
UI091212-61	Antimony	25 mg/L	.5 mL	50 mL	250 ug/L
UI091212-61	Molybdenum	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-61	Silver	25 mg/L	.5 mL	50 mL	250 ug/L
UI091212-61	Tin	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-61	Tungsten	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-61	Zirconium	50 mg/L	.5 mL	50 mL	500 ug/L

Serial ID: WMS091231-04 **Opened:** 31-DEC-09 **Amount :** 50 mL
Name: ICPMS Cal Standard 100 **Received:** 31-DEC-09 **Balance Id :** 4025216
Type: Working **Expires:** 01-JAN-10 **Pipet Id :** 3541598
Employee: Elizabeth Janssen **Solvent :** 2%HNO3/1%HCl-1247304
Supplier: GEL
Description: ICPMS Calibration Standard (100 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090610-03	Tungsten	10 mg/L	.5 mL	50 mL	100 ug/L
UMS090303-01	Arsenic	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Barium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Beryllium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Boron	20 mg/L	.5 mL	50 mL	200 ug/l
UMS090303-01	Cadmium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Chromium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Cobalt	10 mg/L	.5 mL	50 mL	100 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UMS090303-01	Copper	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Lead	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Lithium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Manganese	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Nickel	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Selenium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Silver	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Strontium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Thallium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Thorium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Uranium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Vanadium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Zinc	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-02	Aluminum	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Calcium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Iron	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Magnesium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Phosphorous	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Potassium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Sodium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-03	Antimony	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Molybdenum	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Tin	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Titanium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Zirconium	10 mg/L	.5 mL	50 mL	100 ug/l

Serial ID: WMS091231-04A **Opened:** 31-DEC-09 **Balance Id :** 4025216
Name: ICPMS Cal Standard 10 **Received:** 31-DEC-09 **Pipet Id :** 3541598
Type: Working **Expires:** 01-JAN-10 **Solvent :** 2%HNO3/1%HCl - 1247304
Employee: Elizabeth Janssen
Supplier: GEL
Description: ICPMS Calibration Standard (10 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS091231-04	Aluminum	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS091231-04	Antimony	100 ug/l	5 mL	50 mL	10 ug/l
WMS091231-04	Arsenic	100 ug/l	5 mL	50 mL	10 ug/l
WMS091231-04	Barium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091231-04	Beryllium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091231-04	Boron	200 ug/l	5 mL	50 mL	20 ug/l
WMS091231-04	Cadmium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091231-04	Calcium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS091231-04	Chromium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091231-04	Cobalt	100 ug/l	5 mL	50 mL	10 ug/l

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS091231-04	Copper	100 ug/l	5 mL	50 mL	10 ug/l
WMS091231-04	Iron	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS091231-04	Lead	100 ug/l	5 mL	50 mL	10 ug/l
WMS091231-04	Lithium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091231-04	Magnesium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS091231-04	Manganese	100 ug/l	5 mL	50 mL	10 ug/l
WMS091231-04	Molybdenum	100 ug/l	5 mL	50 mL	10 ug/l
WMS091231-04	Nickel	100 ug/l	5 mL	50 mL	10 ug/l
WMS091231-04	Phosphorous	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS091231-04	Potassium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS091231-04	Selenium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091231-04	Silver	100 ug/l	5 mL	50 mL	10 ug/l
WMS091231-04	Sodium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS091231-04	Strontium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091231-04	Thallium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091231-04	Thorium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091231-04	Tin	100 ug/l	5 mL	50 mL	10 ug/l
WMS091231-04	Titanium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091231-04	Tungsten	100 ug/L	5 mL	50 mL	10 ug/L
WMS091231-04	Uranium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091231-04	Vanadium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091231-04	Zinc	100 ug/l	5 mL	50 mL	10 ug/l
WMS091231-04	Zirconium	100 ug/l	5 mL	50 mL	10 ug/l

Serial ID: WMS091231-05 **Opened:** 31-DEC-09 **Balance Id :** 40245216
Name: ICPMS ICV **Received:** 31-DEC-09 **Pipet Id :** 3541598
Type: Working **Expires:** 01-JAN-10 **Solvent :** 2%HNO3/1%HCl - 1247304
Employee: Elizabeth Janssen
Supplier: GEL
Description: ICPMS ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-06	Aluminum	2020 mg/L	.125 mL	50 mL	5050 ug/L
UI091217-06	Calcium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Iron	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Magnesium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Phosphorous	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Potassium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Sodium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-07	Arsenic	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Barium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Beryllium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Boron	40 mg/L	.125 mL	50 mL	100 ug/L
UI091217-07	Cadmium	20 mg/L	.125 mL	50 mL	50 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-07	Chromium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Cobalt	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Copper	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lead	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lithium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Manganese	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Nickel	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Selenium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Strontium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thallium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thorium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Uranium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Vanadium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Zinc	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Antimony	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Molybdenum	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Silver	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tin	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Titanium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tungsten	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Zirconium	20 mg/L	.125 mL	50 mL	50 ug/L

Serial ID: WMS091231-06 **Opened:** 31-DEC-09 **Balance Id :** 40245216
Name: ICPMS CRDL **Received:** 31-DEC-09 **Pipet Id :** 3820544
Type: Working **Expires:** 01-JAN-10 **Solvent :** 2%HNO3/1%HCl - 1247304
Employee: Elizabeth Janssen
Supplier: GEL
Description: ICPMS CRDL
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Aluminum	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Arsenic	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Barium	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Beryllium	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-09	Boron	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Cadmium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Calcium	100 mg/L	.05 mL	50 mL	100 ug/L
UI090701-09	Chromium	3 mg/L	.05 mL	50 mL	3 ug/L
UI090701-09	Cobalt	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Copper	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Iron	25 mg/L	.05 mL	50 mL	25 ug/L
UI090701-09	Lead	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Lithium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Magnesium	15 mg/L	.05 mL	50 mL	15 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Manganese	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Nickel	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Phosphorous	50 mg/L	.05 mL	50 mL	50 ug/L
UI090701-09	Potassium	300 mg/L	.05 mL	50 mL	300 ug/L
UI090701-09	Selenium	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Sodium	250 mg/L	.05 mL	50 mL	250 ug/L
UI090701-09	Strontium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Thallium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Thorium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Uranium	.2 mg/L	.05 mL	50 mL	.2 ug/L
UI090701-09	Vanadium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Zinc	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Antimony	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-10	Molybdenum	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-10	Silver	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-10	Tin	2 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Titanium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Tungsten	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Zirconium	2 mg/L	.05 mL	50 mL	2 ug/L

Serial ID: WMS091231-07 **Opened:** 31-DEC-09 **Balance Id :** 40245216
Name: ICPMS ICSA **Received:** 31-DEC-09 **Lot Number :** 1010773
Type: Working **Expires:** 01-JAN-10 **Pipet Id :** 3541598
Employee: Elizabeth Janssen **Solvent :** 2%HNO3/1%HCl - 1247304
Supplier: GEL
Description: ICPMS ICSA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI091212-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI091212-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Standard Logbook

Serial ID: WMS091231-08 **Opened:** 31-DEC-09 **Balance Id :** 40245216
Name: ICPMS ICSAB **Received:** 31-DEC-09 **Pipet Id :** 1758088
Type: Working **Expires:** 01-JAN-10 **Solvent :** 2%HNO3/1%HCl - 1247304
Employee: Elizabeth Janssen
Supplier: GEL
Description: ICPMS ICSAB
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI091212-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI091212-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L
UI091217-12	Arsenic	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Barium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Beryllium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Boron	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Cadmium	2 mg/L	.5 mL	50 mL	20.2 ug/L
UI091217-12	Chromium	2 mg/L	.5 mL	50 mL	22.2 ug/L
UI091217-12	Cobalt	2 mg/L	.5 mL	50 mL	20.4 ug/L
UI091217-12	Copper	2 mg/L	.5 mL	50 mL	23.4 ug/L
UI091217-12	Lead	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Lithium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Manganese	2 mg/L	.5 mL	50 mL	22.7 ug/L
UI091217-12	Nickel	2 mg/L	.5 mL	50 mL	22.4 ug/L
UI091217-12	Selenium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Strontium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thallium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thorium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Uranium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Vanadium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Zinc	2 mg/L	.5 mL	50 mL	27 ug/L
UI091217-13	Antimony	2 mg/L	.5 mL	50 mL	20.5 ug/L
UI091217-13	Silver	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tin	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tungsten	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Zirconium	2 mg/L	.5 mL	50 mL	20 ug/L

Standard Logbook

Serial ID: 1156689-A **Opened:** 20-JUL-09 **Lot Number :** 41226920
Name: B-KMnO4(VWR)-MER **Received:** 20-JUL-09
Type: Reagent/Solvent **Expires:** 20-JUL-10
Employee: Tara Griffin **Verified:** 07-AUG-07
Supplier: VWR
Description: Potassium Permanganate
Comments: None

Serial ID: 1164796-A **Opened:** 06-AUG-09 **Lot Number :** 49149927
Name: B-NH2OH.HCl-MER **Received:** 06-AUG-09
Type: Reagent/Solvent **Expires:** 06-AUG-10
Employee: Tara Griffin
Supplier: Fisher Scientific
Description: Hydroxlyamine Hydrochloride
Comments: None

Serial ID: 1203655-02 **Opened:** 15-OCT-09 **Lot Number :** ZU74081198 mL
Name: B-H2O2 **Received:** 15-OCT-09
Type: Reagent/Solvent **Expires:** 15-OCT-10
Employee: Francena Armstrong
Supplier: EM SCIENCE
Description: Hydrogen Peroxide 30%
Comments: None

Serial ID: 1206350-C **Opened:** 22-OCT-09 **Balance Id :** BAL-002
Name: B-NaCl.NH2OH.HCl-MER **Received:** 22-OCT-09
Type: Reagent/Solvent **Expires:** 06-AUG-10
Employee: Tara Griffin
Supplier: GEL
Description: Hg reducing agent
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1164796-A	B-NH2OH.HCl-MER	N/A	120 g	1000 mL	N/A

Serial ID: 1236355-A **Opened:** 01-DEC-09 **Lot Number :** 200930201
Name: B-HCl-MER **Received:** 01-DEC-09
Type: Reagent/Solvent **Expires:** 01-DEC-10
Employee: Tara Griffin
Supplier: Aristar
Description: Hydrochloric Acid Conc.
Comments: None

Standard Logbook

Serial ID: 1238341 **Opened:** 04-DEC-09 **Lot Number :** H44032
Name: I-HCL **Received:** 04-DEC-09 **Preservative_Id :** 5 none
Type: Reagent/Solvent **Expires:** 04-DEC-10
Employee: Francena Armstrong
Supplier: J.T. BAKER
Description: HYDROCHLORIC ACID
Comments: None

Serial ID: 1238345 **Opened:** 04-DEC-09 **Lot Number :** H20053 L
Name: I-HNO3 **Received:** 04-DEC-09
Type: Reagent/Solvent **Expires:** 04-DEC-10
Employee: Francena Armstrong
Supplier: BAKER
Description: Nitric Acid CONC.
Comments: None

Serial ID: 1240182-1 **Opened:** 09-DEC-09 **Instrument Id :** MERCURY
Name: B-HNO3-MER **Received:** 09-DEC-09 **Lot Number :** H34040
Type: Reagent/Solvent **Expires:** 09-DEC-10
Employee: Tara Griffin
Supplier: Mallinckrodt Chemicals
Description: NITRIC ACID
Comments: None

Serial ID: 1242318 **Opened:** 14-DEC-09 **Amount :** 20 L
Name: B-ICP-RINSE SOLN **Received:** 01-DEC-09 **Lot Number :** H04040+G34050
Type: Reagent/Solvent **Expires:** 20-DEC-09 **Solvent :** 3%HCL+1%HNO3
Employee: Helen Camello
Supplier: GEL
Description: 3%HCL+1%HNO3 RINSE SOLN.
Comments: None

Serial ID: 1244904-C **Opened:** 18-DEC-09 **Balance Id :** BAL-002
Name: B-KMnO4-MER **Received:** 18-DEC-09
Type: Reagent/Solvent **Expires:** 18-JUN-10
Employee: Tara Griffin
Supplier: GEL
Description: 5% KMnO4 solution
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1156689-A	B-KMnO4(VWR)-MER	Crystals	50 g	1000 mL	3%

Standard Logbook

Serial ID: 1244970 **Opened:** 18-DEC-09 **Lot Number :** H41032
Name: I-HCL **Received:** 18-DEC-09 **Preservative_Id :** 5 none
Type: Reagent/Solvent **Expires:** 18-DEC-10
Employee: Francena Armstrong
Supplier: J.T. BAKER
Description: HYDROCHLORIC ACID
Comments: None

Serial ID: 1247304 **Opened:** 28-DEC-09 **Solvent :** Type I Water
Name: B-2%HNO3/1%HCl-ICPMS **Received:** 28-DEC-09
Type: Reagent/Solvent **Expires:** 04-JAN-10
Employee: Elizabeth Janssen
Supplier: GEL
Description: 2%HNO3/1%HCl Solution (Type I Water)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1238345	I-HNO3	69.0-70.0	180 mL	9 l	N/A
1244970	I-HCL	36.5-38.0	90 mL	9 l	N/A

General Chemistry Analysis

Case Narrative

General Chemistry Narrative
Los Alamos National Laboratory (LANL)
SDG 10-901

Method/Analysis Information

Product:	**Cyanide, Total**		
Analytical Batch:	932527	**Method:**	SW846 9012A
Prep Batch :	932526	**Method:**	SW846 9010B Prep

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 9012A:

Sample ID	Client ID
242794001	RE03-09-13470
242794002	RE03-09-13471
242794003	RE03-09-13472
242794004	RE03-09-13469
1201994740	Method Blank (MB)
1201994741	242750002(RE03-09-13466) Sample Duplicate (DUP)
1201994742	242750003(RE03-09-13468) Sample Duplicate (DUP)
1201994743	242750002(RE03-09-13466) Matrix Spike (MS)
1201994744	242750003(RE03-09-13468) Matrix Spike (MS)
1201994745	242750002(RE03-09-13466) Matrix Spike Duplicate (MSD)
1201994746	242750003(RE03-09-13468) Matrix Spike Duplicate (MSD)
1201994747	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on a "dry weight" basis.

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-095 REV# 12.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

The Flow Injection analysis was performed on a Lachat QuickChem FIA+ 8000 Series.

Initial Calibration

All initial calibration requirements have been met for this SDG.

Continuing Calibration Blanks
All continuing calibration blanks (CCBs) associated with reported data from this batch were within acceptance limits.

Calibration Verification Information (CCV)
All continuing calibration verification standards (CCVs) associated with reported data from this batch were within acceptance limits.

Y Intercept Rule
The absolute value of the intercept is less than 3 times the MDL.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recovery met the acceptance limits.

Quality Control (QC) Designation
The following samples were selected for QC analysis: 242750002 (RE03-09-13466) and 242750003 (RE03-09-13468).

Matrix Spike (MS)/Post Spike (PS) Recovery Statement
The MS/PS recoveries for this sample set were within the required acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recoveries for this sample set were within the required acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPDs between the spike and spike duplicate met the acceptance limits.

Duplicate Relative Percent Difference (RPD) Statement
The values for the sample and duplicate are less than the Practical Quantitation Limit (PQL); therefore, the RPD is not applicable. 1201994741 (RE03-09-13466) and 1201994742 (RE03-09-13468).

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times
All samples in this SDG met the specified holding time.

Sample Preservation/Integrity
All the samples from this sample group met the preservation and integrity requirements of the method.

Sample Dilutions

The following sample in this sample group was diluted due to high concentration: 1201994747 (LCS).

Sample Re-analysis
The following sample was re-analyzed due to instrument failure: 242794001 (RE03-09-13470).

Miscellaneous Information

Nonconformance (NCR) Documentation
An NCR was not required for this SDG.

Additional Comments
Additional comments were not required for this SDG.

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:
Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Tom Lewis, Jr. **Date:** 07Jan10

Sample Data Summary

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis Report
for

LANL010 Los Alamos National Laboratory (72733-001-09)

Client SDG: 10-901 GEL Work Order: 242794

The Qualifiers in this report are defined as follows:

* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.

** Indicates the analyte is a surrogate compound.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the detection limit.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Valerie Davis.

Reviewed by _____

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: January 2, 2010

Client SDG: 10-901

Client Sample ID:	RE03-09-13470	Project:	LANL01004
Sample ID:	242794001	Client ID:	LANL010
Matrix:	S		
Collect Date:	10-DEC-09 12:00		
Receive Date:	12-DEC-09		
Collector:	Client		
Moisture:	4.36%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total Federal "Dry Weight Corrected"										
Cyanide, Total	U	ND	69.7	256	ug/kg	1	AXC2 12/17/09	1026	932527	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	SXJ1	12/16/09	1230	932526

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: January 2, 2010

Client SDG: 10-901

Client Sample ID:	RE03-09-13471	Proiect:	LANL01004
Sample ID:	242794002	Client ID:	LANL010
Matrix:	S		
Collect Date:	10-DEC-09 12:00		
Receive Date:	12-DEC-09		
Collector:	Client		
Moisture:	4.29%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total Federal "Dry Weight Corrected"										
Cyanide, Total	U	ND	71.1	261	ug/kg	1	AXC2 12/17/09	1010	932527	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	SXJ1	12/16/09	1230	932526

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: January 2, 2010

Client SDG: 10-901

Client Sample ID:	RE03-09-13472	Project:	LANL01004
Sample ID:	242794003	Client ID:	LANL010
Matrix:	S		
Collect Date:	10-DEC-09 12:00		
Receive Date:	12-DEC-09		
Collector:	Client		
Moisture:	7.7%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total Federal "Dry Weight Corrected"										
Cyanide, Total	U	ND	68.2	251	ug/kg	1	AXC2 12/17/09	1010	932527	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	SXJ1	12/16/09	1230	932526

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: January 2, 2010

Client SDG: 10-901

Client Sample ID:	RE03-09-13469	Project:	LANL01004
Sample ID:	242794004	Client ID:	LANL010
Matrix:	S		
Collect Date:	10-DEC-09 12:00		
Receive Date:	12-DEC-09		
Collector:	Client		
Moisture:	6.42%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total Federal "Dry Weight Corrected"										
Cyanide, Total	U	ND	72.7	267	ug/kg	1	AXC2 12/17/09	1011	932527	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	SXJ1	12/16/09	1230	932526

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

Quality Control Summary

GEL LABORATORIES LLC

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QC Summary

Report Date: January 2, 2010
Page 1 of 2

Los Alamos National Laboratory
PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico

Contact: Ms. Joylene Valdez

Workorder: 242794

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Flow Injection Analysis										
Batch 932527										
QC1201994741 242750002 DUP										
Cyanide, Total	U	ND	U	ND	ug/kg	N/A			AXC2	12/17/09 09:44
QC1201994742 242750003 DUP										
Cyanide, Total	U	ND	U	ND	ug/kg	N/A				12/17/09 09:47
QC1201994747 LCS										
Cyanide, Total	67900			79500	ug/kg		117	(46%-145%)		12/17/09 09:38
QC1201994740 MB										
Cyanide, Total			U	250	ug/kg					12/17/09 09:37
QC1201994743 242750002 MS										
Cyanide, Total	5470 U	ND		5120	ug/kg		93.6	(50%-130%)		12/17/09 09:45
QC1201994744 242750003 MS										
Cyanide, Total	5510 U	ND		5620	ug/kg		102	(50%-130%)		12/17/09 09:48
QC1201994745 242750002 MSD										
Cyanide, Total	5470 U	ND		4770	ug/kg	7.07	87.2	(0%-30%)		12/17/09 09:46
QC1201994746 242750003 MSD										
Cyanide, Total	5510 U	ND		5490	ug/kg	2.48	99.5	(0%-30%)		12/17/09 09:49

Notes:
RER is calculated at the 95% confidence level (2-sigma).
The Qualifiers in this report are defined as follows:

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
- E Organics--Concentration of the target analyte exceeds the instrument calibration range
- F Estimated Value
- H Analytical holding time was exceeded
- J Value is estimated
- M M if above MDC and less than LLD
- M Matrix Related Failure
- N Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor

QC Summary

Workorder: 242794

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time

N/A	RPD or %Recovery limits do not apply.
ND	Analyte concentration is not detected above the detection limit
NJ	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
P	Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%
R	Sample results are rejected
U	Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI	Gamma Spectroscopy--Uncertain identification
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
Z	Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d	5-day BOD--The 2:1 depletion requirement was not met for this sample
h	Preparation or preservation holding time was exceeded

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more.
^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.
* Indicates that a Quality Control parameter was not within specifications.
For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

Instrument QC Data Summary

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Report Run On: 02-JAN-2010 14:33

GEL Laboratories LLC

Contract: LANL01004

SDG #: 10-901

Flow Injection Analysis

Method: SW846 9012A Concentration Units:ug/L

Instrument: Lachat QuickChem FIA+ 8000 Series

Parmname: Cyanide, Total

Sample Type	Run Date	Data File	Result	Nominal	Recovery	Limits	Within Limits
ICV	**17-DEC-2009 09:12:57**	**OM_12-17-2009_09-04-52**	**141**	**150**	**94**	**(90%-110%)**	**Yes**
CCV	17-DEC-2009 09:27:16	OM_12-17-2009_09-04-52	96.3	100	96	(90%-110%)	Yes
CCV	17-DEC-2009 09:39:42	OM_12-17-2009_09-04-52	97.5	100	98	(90%-110%)	Yes
CCV	17-DEC-2009 09:52:05	OM_12-17-2009_09-04-52	97.4	100	97	(90%-110%)	Yes
CCV	17-DEC-2009 10:04:37	OM_12-17-2009_09-04-52	97.2	100	97	(90%-110%)	Yes
CCV	17-DEC-2009 10:17:07	OM_12-17-2009_09-04-52	97.4	100	97	(90%-110%)	Yes
CCV	17-DEC-2009 10:29:35	OM_12-17-2009_09-04-52	100	100	100	(90%-110%)	Yes

Sample Type	Run Date	Data File	Result	Limits	Within Limits
ICB	**17-DEC-2009 09:14:48**	**OM_12-17-2009_09-04-52**	**-0.0961**	**5**	**Yes**
CCB	17-DEC-2009 09:29:07	OM_12-17-2009_09-04-52	-0.252	5	Yes
CCB	17-DEC-2009 09:41:32	OM_12-17-2009_09-04-52	-0.749	5	Yes
CCB	17-DEC-2009 09:53:56	OM_12-17-2009_09-04-52	-0.638	5	Yes
CCB	17-DEC-2009 10:06:27	OM_12-17-2009_09-04-52	-0.0716	5	Yes
CCB	17-DEC-2009 10:18:57	OM_12-17-2009_09-04-52	-0.772	5	Yes
CCB	17-DEC-2009 10:31:26	OM_12-17-2009_09-04-52	0.0318	5	Yes

Cyanide, Total

Prep LogBook

Analyst: SXJ1 Verified by:_____

Batch: 932526

Lab SOP: GL-GC-E-067 REV# 13

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1201994747	URF1200957-01	.25	g
MS	1201994743	URF1184831-02	.025	mL
MS	1201994744	URF1184831-02	.025	mL
MSD	1201994745	URF1184831-02	.025	mL
MSD	1201994746	URF1184831-02	.025	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Ph	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1201994740		SW846 9010B Prep	16-DEC-2009 12:30	>12	0.5 g	25 mL	50	SOIL
LCS	1201994747		SW846 9010B Prep	16-DEC-2009 12:30	>12	0.25 g	25 mL	100	SOIL
SAMPLE	242750002		SW846 9010B Prep	16-DEC-2009 12:30	>12	0.5 g	25 mL	50	SOIL
DUP	1201994741	242750002	SW846 9010B Prep	16-DEC-2009 12:30	>12	0.5 g	25 mL	50	SOIL
MS	1201994743	242750002	SW846 9010B Prep	16-DEC-2009 12:30	>12	0.5 g	25 mL	50	SOIL
MSD	1201994745	242750002	SW846 9010B Prep	16-DEC-2009 12:30	>12	0.5 g	25 mL	50	SOIL
SAMPLE	242750003		SW846 9010B Prep	16-DEC-2009 12:30	>12	0.5 g	25 mL	50	SOIL
DUP	1201994742	242750003	SW846 9010B Prep	16-DEC-2009 12:30	>12	0.5 g	25 mL	50	SOIL
MS	1201994744	242750003	SW846 9010B Prep	16-DEC-2009 12:30	>12	0.5 g	25 mL	50	SOIL
MSD	1201994746	242750003	SW846 9010B Prep	16-DEC-2009 12:30	>12	0.5 g	25 mL	50	SOIL
SAMPLE	242750004		SW846 9010B Prep	16-DEC-2009 12:30	>12	0.5 g	25 mL	50	SOIL
SAMPLE	242781001		SW846 9010B Prep	16-DEC-2009 12:30	>12	0.5 g	25 mL	50	SOIL
SAMPLE	242781002		SW846 9010B Prep	16-DEC-2009 12:30	>12	0.5 g	25 mL	50	SOIL
SAMPLE	242781003		SW846 9010B Prep	16-DEC-2009 12:30	>12	0.56 g	25 mL	44.64286	SOIL
SAMPLE	242781004		SW846 9010B Prep	16-DEC-2009 12:30	>12	0.53 g	25 mL	47.16981	SOIL
SAMPLE	242781005		SW846 9010B Prep	16-DEC-2009 12:30	>12	0.5 g	25 mL	50	SOIL
SAMPLE	242781006		SW846 9010B Prep	16-DEC-2009 12:30	>12	0.51 g	25 mL	49.01961	SOIL
SAMPLE	242781007		SW846 9010B Prep	16-DEC-2009 12:30	>12	0.52 g	25 mL	48.07692	SOIL
SAMPLE	242786001		SW846 9010B Prep	16-DEC-2009 12:30	>12	0.5 g	25 mL	50	SOIL
SAMPLE	242786002		SW846 9010B Prep	16-DEC-2009 12:30	>12	0.57 g	25 mL	43.85965	SOIL
SAMPLE	242791001		SW846 9010B Prep	16-DEC-2009 12:30	>12	0.52 g	25 mL	48.07692	SOIL
SAMPLE	242791002		SW846 9010B Prep	16-DEC-2009 12:30	>12	0.56 g	25 mL	44.64286	SOIL
SAMPLE	242792002		SW846 9010B Prep	16-DEC-2009 12:30	>12	0.51 g	25 mL	49.01961	SOIL
SAMPLE	242794001		SW846 9010B Prep	16-DEC-2009 12:30	>12	0.51 g	25 mL	49.01961	SOIL
SAMPLE	242794002		SW846 9010B Prep	16-DEC-2009 12:30	>12	0.5 g	25 mL	50	SOIL
SAMPLE	242794003		SW846 9010B Prep	16-DEC-2009 12:30	>12	0.54 g	25 mL	46.2963	SOIL
SAMPLE	242794004		SW846 9010B Prep	16-DEC-2009 12:30	>12	0.5 g	25 mL	50	SOIL

Prep LogBook

Reagent/Solvent Lot ID	Amount	Description
091211-C	25 mL	0.25N Sodium Hydroxide Solution
1176724-C	1.25 mL	0.8N H3NO3S
1238146-C	2.5 mL	50% H2SO4 CN Prep
1176778-C	1 mL	51% MgCl2 Soln
1238142-C	1.25 mL	Bismuth Nitrate Solution

Comments:

This is runlog Lachat1

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
200 ppb		1	axc2	12/17/2009 9:05:48	OM_12-17-2009_09-04-52
150 ppb		1	axc2	12/17/2009 9:06:40	OM_12-17-2009_09-04-52
100 ppb		1	axc2	12/17/2009 9:07:33	OM_12-17-2009_09-04-52
50 ppb		1	axc2	12/17/2009 9:08:26	OM_12-17-2009_09-04-52
10 ppb		1	axc2	12/17/2009 9:09:19	OM_12-17-2009_09-04-52
CRDL 5.0 ppb		1	axc2	12/17/2009 9:10:12	OM_12-17-2009_09-04-52
ICAL-00		1	axc2	12/17/2009 9:11:07	OM_12-17-2009_09-04-52
ICV		1	axc2	12/17/2009 9:12:57	OM_12-17-2009_09-04-52
ICB		1	axc2	12/17/2009 9:14:48	OM_12-17-2009_09-04-52
CRDL		1	axc2	12/17/2009 9:16:38	OM_12-17-2009_09-04-52
1201997429	933603	1	axc2	12/17/2009 9:18:29	OM_12-17-2009_09-04-52
1201997433	933603	1	axc2	12/17/2009 9:19:22	OM_12-17-2009_09-04-52
242779001	933603	1	axc2	12/17/2009 9:20:15	OM_12-17-2009_09-04-52
242927007	933603	1	axc2	12/17/2009 9:21:08	OM_12-17-2009_09-04-52
1201997430	933603	1	axc2	12/17/2009 9:22:01	OM_12-17-2009_09-04-52
1201997431	933603	1	axc2	12/17/2009 9:22:54	OM_12-17-2009_09-04-52
1201997432	933603	1	axc2	12/17/2009 9:23:46	OM_12-17-2009_09-04-52
242934001	933603	1	axc2	12/17/2009 9:24:39	OM_12-17-2009_09-04-52
1201997545	933603	1	axc2	12/17/2009 9:25:31	OM_12-17-2009_09-04-52
1201997547	933603	1	axc2	12/17/2009 9:26:24	OM_12-17-2009_09-04-52
CCV		1	axc2	12/17/2009 9:27:16	OM_12-17-2009_09-04-52
CCB		1	axc2	12/17/2009 9:29:07	OM_12-17-2009_09-04-52
1201997549	933603	1	axc2	12/17/2009 9:30:55	OM_12-17-2009_09-04-52
242936001	933603	1	axc2	12/17/2009 9:31:47	OM_12-17-2009_09-04-52
242940001	933603	1	axc2	12/17/2009 9:32:40	OM_12-17-2009_09-04-52
1201997546	933603	1	axc2	12/17/2009 9:33:31	OM_12-17-2009_09-04-52
1201997548	933603	1	axc2	12/17/2009 9:34:22	OM_12-17-2009_09-04-52
1201997550	933603	1	axc2	12/17/2009 9:35:16	OM_12-17-2009_09-04-52
242940002	933603	1	axc2	12/17/2009 9:36:10	OM_12-17-2009_09-04-52
242954002	933603	1	axc2	12/17/2009 9:37:03	OM_12-17-2009_09-04-52
1201994740	932527	1	axc2	12/17/2009 9:37:57	OM_12-17-2009_09-04-52
1201994747	932527	25	axc2	12/17/2009 9:38:50	OM_12-17-2009_09-04-52
CCV		1	axc2	12/17/2009 9:39:42	OM_12-17-2009_09-04-52
CCB		1	axc2	12/17/2009 9:41:32	OM_12-17-2009_09-04-52
242750002	932527	1	axc2	12/17/2009 9:43:21	OM_12-17-2009_09-04-52
1201994741	932527	1	axc2	12/17/2009 9:44:15	OM_12-17-2009_09-04-52
1201994743	932527	1	axc2	12/17/2009 9:45:07	OM_12-17-2009_09-04-52
1201994745	932527	1	axc2	12/17/2009 9:46:00	OM_12-17-2009_09-04-52
242750003	932527	1	axc2	12/17/2009 9:46:53	OM_12-17-2009_09-04-52
1201994742	932527	1	axc2	12/17/2009 9:47:45	OM_12-17-2009_09-04-52
1201994744	932527	1	axc2	12/17/2009 9:48:37	OM_12-17-2009_09-04-52
1201994746	932527	1	axc2	12/17/2009 9:49:29	OM_12-17-2009_09-04-52
242750004	932527	1	axc2	12/17/2009 9:50:21	OM_12-17-2009_09-04-52
242781001	932527	1	axc2	12/17/2009 9:51:13	OM_12-17-2009_09-04-52
CCV		1	axc2	12/17/2009 9:52:05	OM_12-17-2009_09-04-52
CCB		1	axc2	12/17/2009 9:53:56	OM_12-17-2009_09-04-52
242781002	932527	1	axc2	12/17/2009 9:55:46	OM_12-17-2009_09-04-52
242781003	932527	1	axc2	12/17/2009 9:56:40	OM_12-17-2009_09-04-52
242781004	932527	1	axc2	12/17/2009 9:57:34	OM_12-17-2009_09-04-52
242781005	932527	1	axc2	12/17/2009 9:58:27	OM_12-17-2009_09-04-52
242781006	932527	1	axc2	12/17/2009 9:59:20	OM_12-17-2009_09-04-52
242781007	932527	1	axc2	12/17/2009 10:00:14	OM_12-17-2009_09-04-52
242786001	932527	1	axc2	12/17/2009 10:01:07	OM_12-17-2009_09-04-52
242786002*	932527	1	axc2	12/17/2009 10:02:00	OM_12-17-2009_09-04-52
242791001	932527	1	axc2	12/17/2009 10:02:52	OM_12-17-2009_09-04-52
242791002	932527	1	axc2	12/17/2009 10:03:44	OM_12-17-2009_09-04-52
CCV		1	axc2	12/17/2009 10:04:37	OM_12-17-2009_09-04-52
CCB		1	axc2	12/17/2009 10:06:27	OM_12-17-2009_09-04-52

242792002	932527	1	axc2	12/17/2009	10:08:17	OM_12-17-2009_09-04-52
242794001*	932527	1	axc2	12/17/2009	10:09:09	OM_12-17-2009_09-04-52
242794002	932527	1	axc2	12/17/2009	10:10:02	OM_12-17-2009_09-04-52
242794003	932527	1	axc2	12/17/2009	10:10:53	OM_12-17-2009_09-04-52
242794004	932527	1	axc2	12/17/2009	10:11:45	OM_12-17-2009_09-04-52
1201996318	933146	1	axc2	12/17/2009	10:12:39	OM_12-17-2009_09-04-52
1201996322	933146	25	axc2	12/17/2009	10:13:33	OM_12-17-2009_09-04-52
242817001	933146	1	axc2	12/17/2009	10:14:28	OM_12-17-2009_09-04-52
1201996319	933146	1	axc2	12/17/2009	10:15:21	OM_12-17-2009_09-04-52
1201996320	933146	1	axc2	12/17/2009	10:16:14	OM_12-17-2009_09-04-52
CCV		1	axc2	12/17/2009	10:17:07	OM_12-17-2009_09-04-52
CCB		1	axc2	12/17/2009	10:18:57	OM_12-17-2009_09-04-52
1201996321	933146	1	axc2	12/17/2009	10:20:46	OM_12-17-2009_09-04-52
242817002	933146	1	axc2	12/17/2009	10:21:39	OM_12-17-2009_09-04-52
242817003*	933146	1	axc2	12/17/2009	10:22:33	OM_12-17-2009_09-04-52
242817004	933146	1	axc2	12/17/2009	10:23:27	OM_12-17-2009_09-04-52
242817005	933146	1	axc2	12/17/2009	10:24:19	OM_12-17-2009_09-04-52
242817006	933146	1	axc2	12/17/2009	10:25:11	OM_12-17-2009_09-04-52
242786002	932527	1	axc2	12/17/2009	10:26:05	OM_12-17-2009_09-04-52
242794001	932527	1	axc2	12/17/2009	10:26:57	OM_12-17-2009_09-04-52
242817002*	933146	10	axc2	12/17/2009	10:27:50	OM_12-17-2009_09-04-52
242817006*	933146	10	axc2	12/17/2009	10:28:44	OM_12-17-2009_09-04-52
CCV		1	axc2	12/17/2009	10:29:35	OM_12-17-2009_09-04-52
CCB		1	axc2	12/17/2009	10:31:26	OM_12-17-2009_09-04-52

Author: axc2 Date : 12/17/2009

Original Run Filename: OM_12-17-2009_09-04-52.OMN created 12/17/2009 09:04:52
Original Run Author's Signature: [axc2]
Current Run Filename: OM_12-17-2009_09-04-52.OMN last modified 12/17/2009 10:32:30
Current Run Author's Signature: [axc2]
Description: GL-GC-E-095 EPA 335.1, 335.3, 335.4, 9012A, CLP335.2-M
Liquid LCS nominal 50 ug/L

Sample	Rep.	Cup No.	Channel 1 TCYANIDE Conc. (ug/L)	Area (Vs)	Detection Time	ADF	MDF	Description
WCN091217-01	1	S1	200	8.92	12/17/2009@09:05:48			200 ppb
WCN091217-02	1	S2	150	6.63	12/17/2009@09:06:40			150 ppb
WCN091217-03	1	S3	100	4.19	12/17/2009@09:07:33			100 ppb
WCN091217-04	1	S4	50.0	2.28	12/17/2009@09:08:26			50 ppb
WCN091217-05	1	S5	10.0	0.532	12/17/2009@09:09:19			10 ppb
WCN091217-06	1	S6	5.00	0.294	12/17/2009@09:10:12			CRDL 5.0 ppb
WCN091217-08	1	S7	0.00	0.0339	12/17/2009@09:11:07			0.0 ppb
DQM Test: Minimum Correlation Coefficient								
		Result:	0.99949 > 0.99500					
		Message	Pass					
		Action	Continue					
WCN091217-07	1	S8	141	6.22	12/17/2009@09:12:57			ICV
		Known Conc:	150					
DQM Test: > + Percent Relative Difference								
		Result:	-6.2 < 10.0					
		Message	ICV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	-6.2 < 10.0					
		Message	ICV Passed					
		Action	Continue					
		Calibration:	Table/Fig. 1					
WCN091217-08	1	S7	-0.0961	0.0296	12/17/2009@09:14:48			ICB/CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-0.0961 < 5.01					
		Message	ICB/CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-0.0961 > -5.01					
		Message	ICB/CCB Passed					
		Action	Continue					
WCN091217-06	1	S6	5.68	0.284	12/17/2009@09:16:38			CRDL
		Known Conc:	5.00					
DQM Test: > + Concentration Limit								
		Result:	5.68 < 7.50					
		Message	CRDL Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	5.68 > 2.50					
		Message	Pass					
		Action	None					
1201997429|933603|MB	1	1	-0.0867	0.0300	12/17/2009@09:18:29			
1201997433||LCS	1	2	51.1	2.28	12/17/2009@09:19:22			
242779001	1	3	3.20	0.175	12/17/2009@09:20:15			
242927007	1	4	-0.763	2.59e-4	12/17/2009@09:21:08			
1201997430||DUP	1	5	0.209	0.0430	12/17/2009@09:22:01			
1201997431||MS	1	6	69.5	3.09	12/17/2009@09:22:54			
1201997432||MSD	1	7	78.7	3.49	12/17/2009@09:23:46			
242934001	1	8	-0.0322	0.0324	12/17/2009@09:24:39			
1201997545||DUP	1	9	-0.625	0.00630	12/17/2009@09:25:31			
1201997547||MS	1	10	96.7	4.29	12/17/2009@09:26:24			
WCN091217-03	1	S3	96.3	4.27	12/17/2009@09:27:16			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	-3.7 < 10.0					

		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Percent Relative Difference					
		Result:	-3.7 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN091217-08	1	S7	-0.252	0.0227	12/17/2009@09:29:07			CCB
		Known Conc:	0.00					
			DQM Test: > + Concentration Limit					
		Result:	-0.252 < 5.00					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	-0.252 > -5.00					
		Message	CCB Passed					
		Action	Continue					
1201997549||MSD	1	11	98.7	4.37	12/17/2009@09:30:55			
242936001	1	12	0.295	0.0468	12/17/2009@09:31:47			
242940001	1	13	0.160	0.0408	12/17/2009@09:32:40			
1201997546||DUP	1	14	-2.02	-0.0549	12/17/2009@09:33:31			
1201997548||MS	1	15	103	4.57	12/17/2009@09:34:22			
1201997550||MSD	1	16	101	4.47	12/17/2009@09:35:16			
242940002	1	17	-0.0515	0.0315	12/17/2009@09:36:10			
242954002	1	18	1.94	0.119	12/17/2009@09:37:03			
1201994740|932527|MB	1	19	-0.0260	0.0327	12/17/2009@09:37:57			
1201994747||LCS	1	20	31.8	1.43	12/17/2009@09:38:50		25.00	
WCN091217-03	1	S3	97.5	4.32	12/17/2009@09:39:42			CCV
		Known Conc:	100					
			DQM Test: > + Percent Relative Difference					
		Result:	-2.5 < 10.0					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Percent Relative Difference					
		Result:	-2.5 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN091217-08	1	S7	-0.749	8.61e-4	12/17/2009@09:41:32			CCB
		Known Conc:	0.00					
			DQM Test: > + Concentration Limit					
		Result:	-0.749 < 5.00					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	-0.749 > -5.00					
		Message	CCB Passed					
		Action	Continue					
242750002	1	21	0.121	0.0391	12/17/2009@09:43:21			
1201994741||DUP	1	22	-0.116	0.0287	12/17/2009@09:44:15			
1201994743||MS	1	23	93.7	4.16	12/17/2009@09:45:07			
1201994745||MSD	1	24	87.3	3.87	12/17/2009@09:46:00			
242750003	1	25	-0.120	0.0285	12/17/2009@09:46:53			
1201994742||DUP	1	26	0.0762	0.0371	12/17/2009@09:47:45			
1201994744||MS	1	27	102	4.51	12/17/2009@09:48:37			
1201994746||MSD	1	28	99.5	4.41	12/17/2009@09:49:29			
242750004	1	29	0.0863	0.0376	12/17/2009@09:50:21			
242781001	1	30	4.92	0.250	12/17/2009@09:51:13			
WCN091217-03	1	S3	97.4	4.32	12/17/2009@09:52:05			CCV
		Known Conc:	100					
			DQM Test: > + Percent Relative Difference					
		Result:	-2.6 < 10.0					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Percent Relative Difference					
		Result:	-2.6 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN091217-08	1	S7	-0.638	0.00575	12/17/2009@09:53:56			CCB
		Known Conc:	0.00					

DQM Test: > + Concentration Limit								
Result:			-0.638 < 5.00					
Message			CCB Passed					
Action			Continue					
DQM Test: < - Concentration Limit								
Result:			-0.638 > -5.00					
Message			CCB Passed					
Action			Continue					
242781002	1	31	2.76	0.155	12/17/2009@09:55:46			
242781003	1	32	0.849	0.0711	12/17/2009@09:56:40			
242781004	1	33	0.204	0.0428	12/17/2009@09:57:34			
242781005	1	34	-0.302	0.0205	12/17/2009@09:58:27			
242781006	1	35	3.92	0.206	12/17/2009@09:59:20			
242781007	1	36	21.0	0.956	12/17/2009@10:00:14			
242786001	1	37	-0.149	0.0272	12/17/2009@10:01:07			
242786002	1	38	5.62	0.281	12/17/2009@10:02:00			
242791001	1	39	2.06	0.124	12/17/2009@10:02:52			
242791002	1	40	0.902	0.0735	12/17/2009@10:03:44			
WCN091217-03	1	S3	97.2	4.31	12/17/2009@10:04:37			CCV
Known Conc:			100					
DQM Test: > + Percent Relative Difference								
Result:			-2.8 < 10.0					
Message			CCV Passed					
Action			Continue					
DQM Test: < - Percent Relative Difference								
Result:			-2.8 < 10.0					
Message			CCV Passed					
Action			Continue					
WCN091217-08	1	S7	-0.0716	0.0307	12/17/2009@10:06:27			CCB
Known Conc:			0.00					
DQM Test: > + Concentration Limit								
Result:			-0.0716 < 5.00					
Message			CCB Passed					
Action			Continue					
DQM Test: < - Concentration Limit								
Result:			-0.0716 > -5.00					
Message			CCB Passed					
Action			Continue					
242792002	1	41	5.12	0.259	12/17/2009@10:08:17			
242794001	1	42	4.47	0.230	12/17/2009@10:09:09			
242794002	1	43	0.0223	0.0348	12/17/2009@10:10:02			
242794003	1	44	-0.0868	0.0300	12/17/2009@10:10:53			
242794004	1	45	0.203	0.0427	12/17/2009@10:11:45			
1201996318|933146|MB	1	46	0.585	0.0595	12/17/2009@10:12:39			
1201996322||LCS	1	47	37.0	1.66	12/17/2009@10:13:33		25.00	
242817001	1	48	18.9	0.865	12/17/2009@10:14:28			
1201996319||DUP	1	49	13.4	0.623	12/17/2009@10:15:21			
1201996320||MS	1	50	96.0	4.26	12/17/2009@10:16:14			
WCN091217-03	1	S3	97.4	4.32	12/17/2009@10:17:07			CCV
Known Conc:			100					
DQM Test: > + Percent Relative Difference								
Result:			-2.6 < 10.0					
Message			CCV Passed					
Action			Continue					
DQM Test: < - Percent Relative Difference								
Result:			-2.6 < 10.0					
Message			CCV Passed					
Action			Continue					
WCN091217-08	1	S7	-0.772	-1.56e-4	12/17/2009@10:18:57			CCB
Known Conc:			0.00					
DQM Test: > + Concentration Limit								
Result:			-0.772 < 5.00					
Message			CCB Passed					
Action			Continue					
DQM Test: < - Concentration Limit								
Result:			-0.772 > -5.00					
Message			CCB Passed					
Action			Continue					

1201996321||MSD	1	51	98.7	4.37	12/17/2009@10:20:46			
242817002	1	52	313	13.8	12/17/2009@10:21:39			
242817003	1	53	27.0	1.22	12/17/2009@10:22:33			
242817004	1	54	1.78	0.112	12/17/2009@10:23:27			
242817005	1	55	145	6.40	12/17/2009@10:24:19			
242817006	1	56	522	23.0	12/17/2009@10:25:11			
242786002|932527|	1	38	1.50	0.0998	12/17/2009@10:26:05			
242794001	1	42	-0.567	0.00887	12/17/2009@10:26:57			
242817002	1	52	493	21.7	12/17/2009@10:27:50		10.00	
242817006	1	56	526	23.2	12/17/2009@10:28:44		10.00	
WCN091217-03	1	S3	100	4.43	12/17/2009@10:29:35			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	0.0 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	0.0 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN091217-08	1	S7	0.0318	0.0352	12/17/2009@10:31:26			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	0.0318 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	0.0318 > -5.00					
		Message	CCB Passed					
		Action	Continue					

Analyte Properties Table for OM_12-17-2009_09-04-52.OMN

Property	Channel 1
	TCYANIDE
Concentration Units	ug/L
Callibration Fit Type	First Order
Clear Calibration	True
Force Through Zero	False
Calibration Weighting	None
Auto Dilution Trigger	True
% of High Standard	100
Quik Chem Method	10-204-00-1-A
Chemistry	Direct/Bipolar
Calibration by Height	False
Inject to Peak Start	22
Peak Base Width	39

Author: axc2 Date : 12/17/2009

Channel 1: Current View

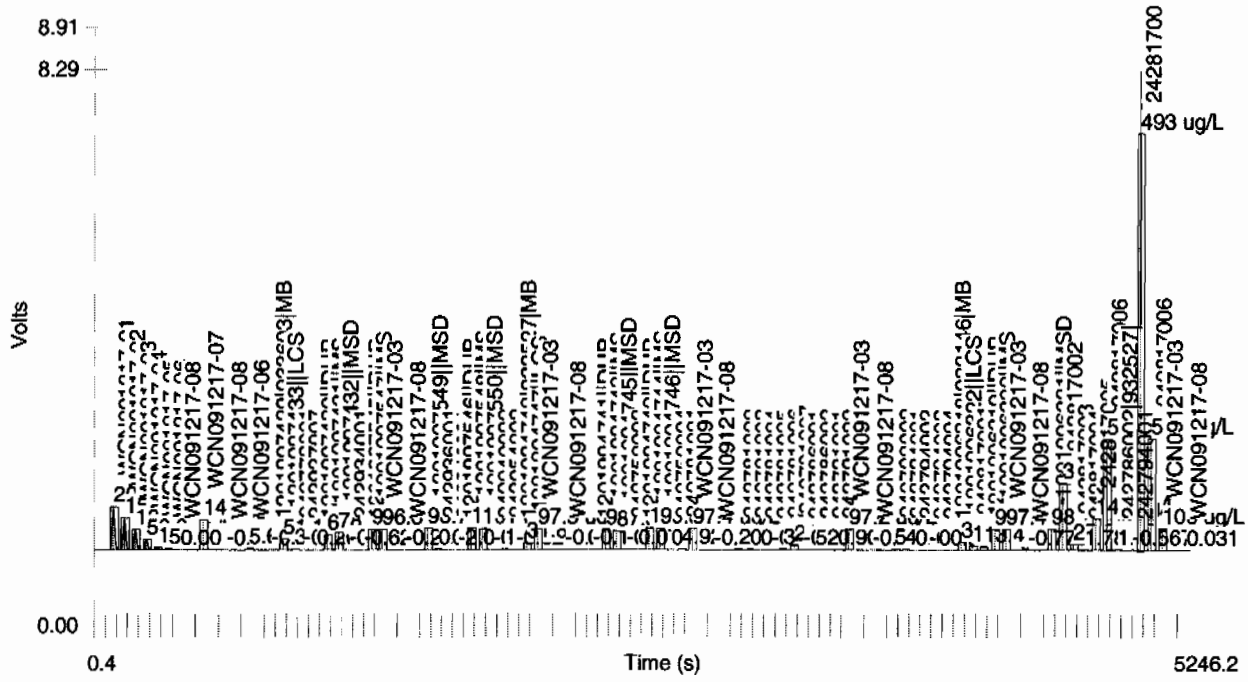

Table 1: TCYANIDE

	Conc. (ug/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	200	1	8.92	0.647	-1.2	12/17/2009	09:06:51
2	150	1	6.63	0.482	-0.1	12/17/2009	09:07:43
3	100	1	4.19	0.305	5.4	12/17/2009	09:08:36
4	50.0	1	2.28	0.164	-1.9	12/17/2009	09:09:29
5	10.0	1	0.532	0.0379	-11.6	12/17/2009	09:10:22
6	5.00	1	0.294	0.0216	-14.6	12/17/2009	09:11:16
7	0.00	1	0.0339	0.00143		12/17/2009	09:12:10

Figure 1: TCYANIDE

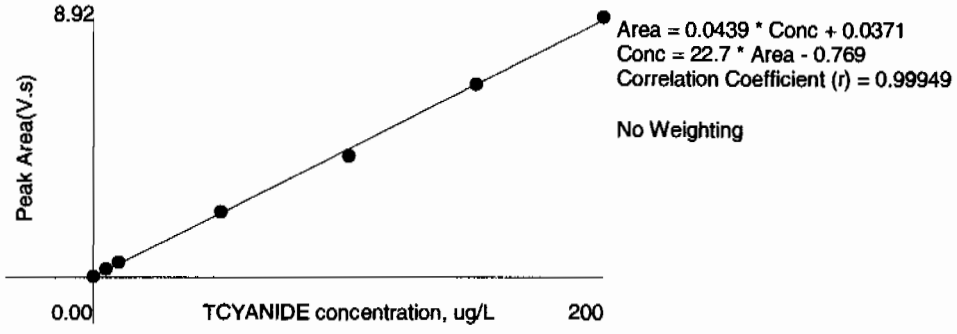

Friday, December 11, 2009

REQUEST NUMBER: 10-899

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

These Samples are on:

LANL Request Number:10-899

Per Agreement Number:126310011

Project Cost Code: MR2A054196D0

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 12/11/2009

TURNAROUND/REPORT DUE: 12/26/2009

TURNAROUND REQ'D: 15 Days

RAD SCREENING: Yes, Below Background

LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:

Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8015M_EXTRACTABLE	1	WST03-10-2145	R	12/10/2009	
		1	WST03-10-2146	R	12/10/2009	
	SW-846:8015M_PURGEABLE	1	WST03-10-2145	R	12/10/2009	
		2	WST03-10-2145	R	12/10/2009	
		1	WST03-10-2146	R	12/10/2009	
		2	WST03-10-2146	R	12/10/2009	

Friday, December 11, 2009

REQUEST NUMBER: 10-899

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8081A	1	WST03-10-2145	R	12/10/2009	
		1	WST03-10-2146	R	12/10/2009	
	SW-846:8081A_TCLP	1	WST03-10-2145	R	12/10/2009	
		1	WST03-10-2146	R	12/10/2009	
	SW-846:8082	1	WST03-10-2145	R	12/10/2009	
		1	WST03-10-2146	R	12/10/2009	
	SW-846:8151A	1	WST03-10-2145	R	12/10/2009	
		1	WST03-10-2146	R	12/10/2009	
	SW-846:8151A_TCLP	1	WST03-10-2145	R	12/10/2009	
		1	WST03-10-2146	R	12/10/2009	
	SW-846:8260B	1	WST03-10-2145	R	12/10/2009	
		2	WST03-10-2145	R	12/10/2009	
		1	WST03-10-2146	R	12/10/2009	
		2	WST03-10-2146	R	12/10/2009	
		1	WST03-10-2198	S	12/10/2009	
		2	WST03-10-2198	S	12/10/2009	
		1	WST03-10-2199	S	12/10/2009	
		2	WST03-10-2199	S	12/10/2009	
	SW-846:8260B_TCLP	1	WST03-10-2145	R	12/10/2009	
		1	WST03-10-2146	R	12/10/2009	
	SW-846:8270C	1	WST03-10-2145	R	12/10/2009	
		1	WST03-10-2146	R	12/10/2009	
	SW-846:8270C_TCLP	1	WST03-10-2145	R	12/10/2009	
		1	WST03-10-2146	R	12/10/2009	

Final Page of REQUEST NUMBER 10-899

Friday, December 11, 2009

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-899C

REQUEST NUMBER: 10-899

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 12/26/2009

TURNAROUND REQ'D: 15

LAB REQUEST COMMENTS:

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
WST03-10-2199	1	SEPTUM AMBER GLASS	8260B Trip Blank	Ice	S
WST03-10-2199	2	SEPTUM AMBER GLASS	8260B Trip Blank	Ice	S
WST03-10-2198	1	SEPTUM AMBER GLASS	8260B Trip Blank	Ice	S
WST03-10-2198	2	SEPTUM AMBER GLASS	8260B Trip Blank	Ice	S
WST03-10-2145	1	GLASS	8081A+8151A	Ice	R
WST03-10-2145	1	GLASS	8260B+TPH-GRO	Ice	R
WST03-10-2145	2	GLASS	8260B+TPH-GRO	Ice	R
WST03-10-2145	1	GLASS	8270C+8082+TPH-DRO	Ice	R
WST03-10-2145	1	AMBER GLASS	TCLP ORGANICS P/H/S/V	Ice	R
WST03-10-2146	1	GLASS	8081A+8151A	Ice	R
WST03-10-2146	1	GLASS	8260B+TPH-GRO	Ice	R
WST03-10-2146	2	GLASS	8260B+TPH-GRO	Ice	R
WST03-10-2146	1	GLASS	8270C+8082+TPH-DRO	Ice	R
WST03-10-2146	1	AMBER GLASS	TCLP ORGANICS P/H/S/V	Ice	R

Relinquished By:	Date	Time	Received By:	Date	Time
[signature]	12/11/09	3:00			
Printed Name / Signature			Printed Name / Signature		
Printed Name / Signature			Printed Name / Signature		
Printed Name / Signature			Printed Name / Signature		

Received for DISPOSAL By: **Date** **Time** **Remarks:**

Printed Name Signature

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2350 **EVENT NAME:** Upper Sandia Cyn Aggregate Area - Waste Characterization

SAMPLE ID: WST03-10-2146 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12-10-09	MEDIA:	NA	ok
TIME COLLECTED (HH:MM)		1015	SUB-MEDIA:	OTHER	
PRS ID:		03-007(b)	SAMPLE TECH CODE:	HA	
LOCATION ID:	WST-600902	OK	FIELD QC TYPE:	NA	
LOCATION TYPE:	GENERIC		FIELD PREP:	NA	
TOP DEPTH:	0		SAMPLE USAGE:	WST	
BOTTOM DEPTH:	0		SCREEN/PORT DESC:	NA	
FIELD MATRIX:	R		EXCAVATED: YES / NO (NA)		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO (NA)

BOREHOLE: YES / NO (NA) BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8081A+8151A	500 ML GLASS	Ice	Y	
2		8260B+TPH-GRO	125 ML GLASS	Ice	Y	
1		8270C+8082+TPH-DRO	500 ML GLASS	Ice	Y	
1		AM-241+ISOPU+ISOU+SR90	1 LITER POLY	None	Y	
1		H3	500 ML POLY	Ice	Y	
1		TAL metals + TCLP metals	1 LITER POLY	Ice	Y	
1		TCLP ORGANICS P/H/S/V	500 ML AMBER GLASS	Ice	Y	
1		TCN	125 ML POLY	Ice	Y	

SAMPLE DESC: Drum ID: 10106303

SAMPLE COMMENTS: ~~10~~ 15 mr 12/10/09 DAY TURNAROUND

LOCATION DESC: 03-007(b)

FIELD SCREENING/MEASUREMENT RESULTS: PID = 0.0 ppm Sample: <MDA

Background α : 44
β : 1130

COLLECTED BY (PRINT) L. Horne **REVIEWED BY (PRINT)** M. Nauck

RELINQUISHED BY (Printed Name)	Date/Time	RECEIVED BY (Printed Name)	Date/Time
M. Nauck	12-10-09 1530	Jeff W. Cy.	12-10-09 1530

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2350 **EVENT NAME:** Upper Sandia Cyn Aggregate Area - Waste Characterization

SAMPLE ID: WST03-10-2198 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12-10-09	MEDIA:	ALLH	ok
TIME COLLECTED (HH:MM)		1005	SUB-MEDIA:	SOIL	↓
PRS ID:		03-009i	SAMPLE TECH CODE:	DC	↓
LOCATION ID:	WST-600902	ok	FIELD QC TYPE:	FTB	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	↓	SAMPLE USAGE:	QC	↓
BOTTOM DEPTH:	0	↓	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	S		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	2 mr 12/10/09	8260B Trip Blank	40 ML SEPTUM AMBER GLASS	Ice	Y	

SAMPLE DESC: QC Sample of WST03-10-2145

SAMPLE COMMENTS: ~~10~~ 15 mr 12/10/09 **DAY TURNAROUND**

LOCATION DESC: 03-009i

FIELD SCREENING/MEASUREMENT RESULTS: NA

COLLECTED BY (PRINT) M. Rains **REVIEWED BY (PRINT)** M. Nauck

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) M. Nauck (Signature)	12-10-09 1530	(Printed Name) (Signature)	12-10-09 1530
RELINQUISHED BY (Printed Name) (Signature)	**Date/Time**	**RECEIVED BY** (Printed Name) (Signature)	**Date/Time**

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2350 **EVENT NAME:** Upper Sandia Cyn Aggregate Area - Waste Characterization

SAMPLE ID: WST03-10-2199 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12-10-09	MEDIA:	ALLH	ok
TIME COLLECTED (HH:MM)		1015	SUB-MEDIA:	SOIL	
PRS ID:		03-007(b)	SAMPLE TECH CODE:	DC	
LOCATION ID:	WST-600902	ok	FIELD QC TYPE:	FTB	
LOCATION TYPE:	GENERIC		FIELD PREP:	NA	
TOP DEPTH:	0		SAMPLE USAGE:	QC	
BOTTOM DEPTH:	0		SCREEN/PORT DESC:	NA	
FIELD MATRIX:	S		EXCAVATED: YES / NO (NA)		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO (NA)

BOREHOLE: YES / NO / (NA) BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	2 mr 12/10/09	8260B Trip Blank	40 ML SEPTUM AMBER GLASS	Ice	Y	

SAMPLE DESC: QC Sample of WST03-10-2146

SAMPLE COMMENTS: ~~10~~ 15 mr 12/10/09 DAY TURNAROUND

LOCATION DESC: 03-007 (b)

FIELD SCREENING/MEASUREMENT RESULTS: NA

COLLECTED BY (PRINT) M. Rains REVIEWED BY (PRINT) M. Nauck

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) M. Nauck (Signature)	12-10-09 1530	(Printed Name) (Signature)	12-10-09 1530
RELINQUISHED BY (Printed Name) (Signature)	Date/Time	RECEIVED BY (Printed Name) (Signature)	Date/Time

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2350 **EVENT NAME:** Upper Sandia Cyn Aggregate Area - Waste Characterization

SAMPLE ID: WST03-10-2145 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12-10-09	MEDIA:	NA	ok
TIME COLLECTED (HH:MM)		1005	SUB-MEDIA:	OTHER	
PRS ID:		03-009(i)	SAMPLE TECH CODE:	HA	
LOCATION ID:	WST-600902	ok	FIELD QC TYPE:	NA	
LOCATION TYPE:	GENERIC		FIELD PREP:	NA	
TOP DEPTH:	0		SAMPLE USAGE:	WST	
BOTTOM DEPTH:	0		SCREEN/PORT DESC:		
FIELD MATRIX:	R		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO NA

BOREHOLE: YES / NO NA BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8081A+8151A	500 ML GLASS	Ice	Y	
2		8260B+TPH-GRO	125 ML GLASS	Ice	Y	
1		8270C+8082+TPH-DRO	500 ML GLASS	Ice	Y	
1		AM-241+ISOPU+ISOU+SR90	1 LITER POLY	None	Y	
1		H3	500 ML POLY	Ice	Y	
1		TAL metals + TCLP metals	1 LITER POLY	Ice	Y	
1		TCLP ORGANICS P/H/S/V	500 ML AMBER GLASS	Ice	Y	
1		TCN	125 ML POLY	Ice	Y	

SAMPLE DESC: Drum ID: 10106307

SAMPLE COMMENTS: ~~10~~ 15 DAY TURNAROUND 12/10/09

LOCATION DESC: 03-009(i)

FIELD SCREENING/MEASUREMENT RESULTS: PID = 1.6 ppm

COLLECTED BY (PRINT) L. Horne **REVIEWED BY (PRINT)** M. Vanck

RELINQUISHED BY (Printed Name)	Date/Time	RECEIVED BY (Printed Name)	Date/Time
M. Vanck	12-10-09 1530	[illegible]	12-10-09 1530

DATA VALIDATION COVER SHEET

5114-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-899 VALIDATION DATE: 1/13/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Eric T. Mink ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☒ OTHER (DESCRIBE): TCLP and non-TCLP VOCs

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☒	☐	☐	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☒	☐	☐	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. In the FTBs, samples WST03-10-2198 and -2199, associated with samples -2145 and -2146 respectively, acetone was detected. The acetone result for sample -2145 was a detect ≤10X the blank concentration and, thus, was qualified U,V4d. The other associated sample result was an ND and, thus, was not qualified.
2. The non-TCLP ICV and/or CCV %Ds were >20% for dichlorodifluoromethane; chloromethane; acetone; 2-butanone and trichlorotrifluoroethane. The acetone results for samples -2198 and -2199 were detects and, thus, were qualified J,V7c. All the other associated sample results were either ND or qualified ND and, thus, were qualified UJ,V7c.

Reviewed by: Mary Donivan Level: I Date: 01/13/10

VALIDATOR'S SIGNATURE: Eric T. Mink DATE: 1/13/10

VOLATILE ORGANIC COMPOUND (VOC) ANALYTICAL DATA VALIDATION CHECKLIST

5114-2

Volatile Organic Compound (VOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, V9	J-, V9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, V9a	J-, V9a
☐	☐	☒	3. The instrument performance sample did not pass method acceptance criteria.	R, V16	R, V16
☐	☐	☒	4. Samples were analyzed outside specific method tune time criteria.	N/A	J, V16b
☐	☐	☒	5. The required instrument performance sample information is missing. Contact the SMO or external laboratory for information.	R, V16c	R, V16c
☐	☒	☐	6. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ or R, V7	J, V7
☐	☒	☐	7. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, V7a	J, V7a
☐	☒	☐	8. The affected analytes were analyzed with an RRF of <0.05 in the initial calibration and/or CCV.	R, V7b	J, V7b
☒	☐	☐	9. The Initial Calibration Verification (ICV) and/or Continuing Calibration Verification (CCV) were recovered outside the method-specific limits.	UJ, V7c	J, V7c
☐	☒	☐	10. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, V7d	J, V7d
☐	☒	☐	11. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, V7f	R, V7f

VOLATILE ORGANIC COMPOUND (VOC) ANALYTICAL DATA VALIDATION CHECKLIST

5114-2 Volatile Organic Compound (VOC) Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	12. The sample result is ≤5X (10X for common organic laboratory contaminants) the concentration of the related analyte in the method blank.	U, V4	N/A
☐	☒	☐	13. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X (10X for common laboratory contaminants).	N/A	J, V4a
☒	☐	☐	14. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, and/or equipment blank.	U, V4d	N/A
☐	☒	☐	15. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V4e	R, V4e
☐	☒	☐	16. The IS retention time has shifted by more than 30 seconds.	UJ, V0	J, V0
☐	☐	☒	17. Analyte is positively confirmed but outside the IS retention time window; however, spectral matches must be provided.	N/A	J, V0a
☐	☒	☐	18. Required IS retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V0b	R, V0b
☐	☐	☒	19. The quantitating IS are count is <10% of the expected value, which indicates increased potential for false negative results and other possible problems with sample quantitation. Follow method-specific windows.	R, V1a	J, V1a
☐	☐	☒	20. The IS area count for the quantitating IS is <50% but >10% for organics window relation to the previous continuing calibration. Follow the method-specific windows.	UJ, V1b	J, V1b

VOLATILE ORGANIC COMPOUND (VOC) ANALYTICAL DATA VALIDATION CHECKLIST

5114-2

Volatile Organic Compound (VOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	21. The IS area count for the quantitating IS is >200% of the area count for the previous organic continuing calibration. Follow the method-specific windows.	UJ, V1c	J, V1c
☐	☐	☒	22. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V1d	R, V1d
☐	☒	☐	23. The surrogate is <10%R. Follow the external laboratory limits located within the associated data package.	R, V3	J-, V3
☐	☒	☐	24. The surrogate is < the Lower Acceptance Limit (LAL) but ≥10%R. Follow the external laboratory limits located within the associated data package.	UJ, V3a	J-, V3a
☐	☒	☐	25. The surrogate %R is > the Upper Acceptance Limit (UAL) Follow the external laboratory limits located within the associated data package.	N/A	J+, V3b
☐	☒	☐	26. At least one surrogate is > the UAL and one surrogate is < the LAL. Follow the external laboratory limits located within the associated data package.	UJ, V3c	J, V3c
☐	☒	☐	27. Required surrogate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V3d	R, V3d
☐	☒	☐	28. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, V12	J-, V12
☐	☒	☐	29. The LCS percent recovery was < the LAL but > 10%. Follow the external laboratory limits located within the associated data package.	UV, V12a	J-, V12a
☐	☒	☐	30. The LCS percent recover was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, V12b

VOLATILE ORGANIC COMPOUND (VOC) ANALYTICAL DATA VALIDATION CHECKLIST

5114-2 Volatile Organic Compound (VOC) Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	31. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V12c	R, V12c
☐	☒	☐	32. The affected analyte is considered not detected because mass spectrum did not meet specifications.	N/A	U, V8
☐	☒	☐	33. The mass spectrum column documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V8a	R, V8a
☐	☒	☐	34. Duplicate, dilution, or reanalysis.	UJ, V88	J, V88
☐	☐	☒	35. The affected analytes have elevated detection limits and may not meet project DQOs because the sample was diluted without any target analytees identified due to matrix interference. Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.	UJ, R, V15	R, V15
☒	☐	☐	36. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB, NQ, NQ
☐	☒	☐	37. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.	UJ, R, V19	J, R, V19

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-899**	**Date Collected:**	**12/10/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242784001**	**Date Received:**	**12/12/2009 09:35**		
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**WST03-10-2199**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**934291**	**Inst:**	**VOA6.I**	**Dilution:**	**1**
Run Date:	**12/17/2009 19:34**	**Analyst:**	**RXD1**	**Purge Vol:**	**5 mL**
Prep Date:	**12/17/2009 15:16**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**121709V6\6P420.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
75-71-8	Dichlorodifluoromethane	U	1.00	ug/kg	0.340	1.00	UJ,V7c
74-87-3	Chloromethane	U	1.00	ug/kg	0.300	1.00	UJ,V7c
75-01-4	Vinyl chloride	U	1.00	ug/kg	0.300	1.00	
74-83-9	Bromomethane	U	1.00	ug/kg	0.300	1.00	
75-00-3	Chloroethane	U	1.00	ug/kg	0.300	1.00	
75-69-4	Trichlorofluoromethane	U	1.00	ug/kg	0.300	1.00	
67-64-1	Acetone	J	4.62	ug/kg	1.66	5.00	J,V7c
75-35-4	1,1-Dichloroethylene	U	1.00	ug/kg	0.300	1.00	
74-88-4	Iodomethane	U	5.00	ug/kg	1.60	5.00	
75-09-2	Methylene chloride	U	5.00	ug/kg	2.00	5.00	
75-15-0	Carbon disulfide	U	5.00	ug/kg	1.25	5.00	
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00	
75-34-3	1,1-Dichloroethane	U	1.00	ug/kg	0.300	1.00	
78-93-3	2-Butanone	U	5.00	ug/kg	1.50	5.00	UJ,V7c
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00	
594-20-7	2,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00	
67-66-3	Chloroform	U	1.00	ug/kg	0.300	1.00	
74-97-5	Bromochloromethane	U	1.00	ug/kg	0.330	1.00	
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/kg	0.300	1.00	
563-58-6	1,1-Dichloropropene	U	1.00	ug/kg	0.300	1.00	
56-23-5	Carbon tetrachloride	U	1.00	ug/kg	0.300	1.00	
107-06-2	1,2-Dichloroethane	U	1.00	ug/kg	0.300	1.00	
71-43-2	Benzene	U	1.00	ug/kg	0.300	1.00	
79-01-6	Trichloroethylene	U	1.00	ug/kg	0.330	1.00	
78-87-5	1,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00	
75-27-4	Bromodichloromethane	U	1.00	ug/kg	0.300	1.00	
74-95-3	Dibromomethane	U	1.00	ug/kg	0.300	1.00	
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/kg	1.25	5.00	
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00	
108-88-3	Toluene	U	1.00	ug/kg	0.300	1.00	
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00	
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/kg	0.300	1.00	
591-78-6	2-Hexanone	U	5.00	ug/kg	1.50	5.00	
142-28-9	1,3-Dichloropropane	U	1.00	ug/kg	0.300	1.00	
127-18-4	Tetrachloroethylene	U	1.00	ug/kg	0.300	1.00	
124-48-1	Dibromochloromethane	U	1.00	ug/kg	0.300	1.00	
106-93-4	1,2-Dibromoethane	U	1.00	ug/kg	0.300	1.00	
108-90-7	Chlorobenzene	U	1.00	ug/kg	0.300	1.00	

ETM
1/13/10

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-899**	**Date Collected:**	**12/10/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242784001**	**Date Received:**	**12/12/2009 09:35**		
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**WST03-10-2199**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**934291**	**Inst:**	**VOA6.I**	**Dilution:**	**1**
Run Date:	**12/17/2009 19:34**	**Analyst:**	**RXD1**	**Purge Vol:**	**5 mL**
Prep Date:	**12/17/2009 15:16**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**121709V6\6P420.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
100-41-4	Ethylbenzene	U	1.00	ug/kg	0.300	1.00	
179601-23-1	m,p-Xylenes	U	2.00	ug/kg	0.300	2.00	
95-47-6	o-Xylene	U	1.00	ug/kg	0.300	1.00	
100-42-5	Styrene	U	1.00	ug/kg	0.300	1.00	
75-25-2	Bromoform	U	1.00	ug/kg	0.300	1.00	
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00	
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/kg	0.300	1.00	
108-86-1	Bromobenzene	U	1.00	ug/kg	0.300	1.00	
103-65-1	n-Propylbenzene	U	1.00	ug/kg	0.300	1.00	
95-49-8	2-Chlorotoluene	U	1.00	ug/kg	0.300	1.00	
98-82-8	Isopropylbenzene	U	1.00	ug/kg	0.300	1.00	
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00	
106-43-4	4-Chlorotoluene	U	1.00	ug/kg	0.300	1.00	
98-06-6	tert-Butylbenzene	U	1.00	ug/kg	0.300	1.00	
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00	
135-98-8	sec-Butylbenzene	U	1.00	ug/kg	0.300	1.00	
99-87-6	4-Isopropyltoluene	U	1.00	ug/kg	0.300	1.00	
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00	
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00	
104-51-8	n-Butylbenzene	U	1.00	ug/kg	0.300	1.00	
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/kg	0.300	1.00	
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.00	ug/kg	1.60	5.00	UJ,V7c
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00	
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Flt	Qual
	unknown siloxane	16.17	13.3	ug/kg	0	J

ETM
1/13/10

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-899	**Date Collected:**	12/10/2009 12:00	**Matrix:**	S
Lab Sample ID:	242784002	**Date Received:**	12/12/2009 09:35		
		Client:	LANL010	**Project:**	LANL01004
Client ID:	WST03-10-2198	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	934291	**Inst:**	VOA6.I	**Dilution:**	1
Run Date:	12/17/2009 20:02	**Analyst:**	RXD1	**Purge Vol:**	5 mL
Prep Date:	12/17/2009 15:18	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	121709V6\6P421.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
75-71-8	Dichlorodifluoromethane	U	1.00	ug/kg	0.340	1.00	UJ,V7c
74-87-3	Chloromethane	U	1.00	ug/kg	0.300	1.00	UJ,V7c
75-01-4	Vinyl chloride	U	1.00	ug/kg	0.300	1.00	
74-83-9	Bromomethane	U	1.00	ug/kg	0.300	1.00	
75-00-3	Chloroethane	U	1.00	ug/kg	0.300	1.00	
75-69-4	Trichlorofluoromethane	U	1.00	ug/kg	0.300	1.00	
67-64-1	Acetone	J	3.21	ug/kg	1.66	5.00	J,V7c
75-35-4	1,1-Dichloroethylene	U	1.00	ug/kg	0.300	1.00	
74-88-4	Iodomethane	U	5.00	ug/kg	1.60	5.00	
75-09-2	Methylene chloride	U	5.00	ug/kg	2.00	5.00	
75-15-0	Carbon disulfide	U	5.00	ug/kg	1.25	5.00	
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00	
75-34-3	1,1-Dichloroethane	U	1.00	ug/kg	0.300	1.00	
78-93-3	2-Butanone	U	5.00	ug/kg	1.50	5.00	UJ,V7c
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00	
594-20-7	2,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00	
67-66-3	Chloroform	U	1.00	ug/kg	0.300	1.00	
74-97-5	Bromochloromethane	U	1.00	ug/kg	0.330	1.00	
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/kg	0.300	1.00	
563-58-6	1,1-Dichloropropene	U	1.00	ug/kg	0.300	1.00	
56-23-5	Carbon tetrachloride	U	1.00	ug/kg	0.300	1.00	
107-06-2	1,2-Dichloroethane	U	1.00	ug/kg	0.300	1.00	
71-43-2	Benzene	U	1.00	ug/kg	0.300	1.00	
79-01-6	Trichloroethylene	U	1.00	ug/kg	0.330	1.00	
78-87-5	1,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00	
75-27-4	Bromodichloromethane	U	1.00	ug/kg	0.300	1.00	
74-95-3	Dibromomethane	U	1.00	ug/kg	0.300	1.00	
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/kg	1.25	5.00	
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00	
108-88-3	Toluene	U	1.00	ug/kg	0.300	1.00	
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00	
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/kg	0.300	1.00	
591-78-6	2-Hexanone	U	5.00	ug/kg	1.50	5.00	
142-28-9	1,3-Dichloropropane	U	1.00	ug/kg	0.300	1.00	
127-18-4	Tetrachloroethylene	U	1.00	ug/kg	0.300	1.00	
124-48-1	Dibromochloromethane	U	1.00	ug/kg	0.300	1.00	
106-93-4	1,2-Dibromoethane	U	1.00	ug/kg	0.300	1.00	
108-90-7	Chlorobenzene	U	1.00	ug/kg	0.300	1.00	

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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-899	**Date Collected:**	12/10/2009 12:00	**Matrix:**	S
Lab Sample ID:	242784002	**Date Received:**	12/12/2009 09:35		
		Client:	LANL010	**Project:**	LANL01004
Client ID:	WST03-10-2198	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	934291	**Inst:**	VOA6.I	**Dilution:**	1
Run Date:	12/17/2009 20:02	**Analyst:**	RXD1	**Purge Vol:**	5 mL
Prep Date:	12/17/2009 15:18	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	121709V6\6P421.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
100-41-4	Ethylbenzene	U	1.00	ug/kg	0.300	1.00	
179601-23-1	m,p-Xylenes	U	2.00	ug/kg	0.300	2.00	
95-47-6	o-Xylene	U	1.00	ug/kg	0.300	1.00	
100-42-5	Styrene	U	1.00	ug/kg	0.300	1.00	
75-25-2	Bromoform	U	1.00	ug/kg	0.300	1.00	
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00	
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/kg	0.300	1.00	
108-86-1	Bromobenzene	U	1.00	ug/kg	0.300	1.00	
103-65-1	n-Propylbenzene	U	1.00	ug/kg	0.300	1.00	
95-49-8	2-Chlorotoluene	U	1.00	ug/kg	0.300	1.00	
98-82-8	Isopropylbenzene	U	1.00	ug/kg	0.300	1.00	
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00	
106-43-4	4-Chlorotoluene	U	1.00	ug/kg	0.300	1.00	
98-06-6	tert-Butylbenzene	U	1.00	ug/kg	0.300	1.00	
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00	
135-98-8	sec-Butylbenzene	U	1.00	ug/kg	0.300	1.00	
99-87-6	4-Isopropyltoluene	U	1.00	ug/kg	0.300	1.00	
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00	
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00	
104-51-8	n-Butylbenzene	U	1.00	ug/kg	0.300	1.00	
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/kg	0.300	1.00	
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.00	ug/kg	1.60	5.00	UJ,V7c
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00	
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	No Tentatively Identified Compounds Found			ug/kg		

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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-899	**Date Collected:**	12/10/2009 12:00	**Matrix:**	R
Lab Sample ID:	242784003	**Date Received:**	12/12/2009 09:35	**%Moisture:**	6.7
		Client:	LANL010	**Project:**	LANL01004
Client ID:	WST03-10-2145	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	934291	**Inst:**	VOA6.I	**Dilution:**	1
Run Date:	12/17/2009 20:30	**Analyst:**	RXD1	**Purge Vol:**	5 mL
Prep Date:	12/17/2009 15:20	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	121709V6\6P422.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
75-71-8	Dichlorodifluoromethane	U	1.07	ug/kg	0.364	1.07	UJ,V7c
74-87-3	Chloromethane	U	1.07	ug/kg	0.322	1.07	UJ,V7c
75-01-4	Vinyl chloride	U	1.07	ug/kg	0.322	1.07	
74-83-9	Bromomethane	U	1.07	ug/kg	0.322	1.07	
75-00-3	Chloroethane	U	1.07	ug/kg	0.322	1.07	
75-69-4	Trichlorofluoromethane	U	1.07	ug/kg	0.322	1.07	
67-64-1	Acetone		12.5	ug/kg	1.78	5.36	U,V4d
75-35-4	1,1-Dichloroethylene	U	1.07	ug/kg	0.322	1.07	
74-88-4	Iodomethane	U	5.36	ug/kg	1.71	5.36	
75-09-2	Methylene chloride	U	5.36	ug/kg	2.14	5.36	
75-15-0	Carbon disulfide	U	5.36	ug/kg	1.34	5.36	
156-60-5	trans-1,2-Dichloroethylene	U	1.07	ug/kg	0.322	1.07	
75-34-3	1,1-Dichloroethane	U	1.07	ug/kg	0.322	1.07	
78-93-3	2-Butanone	U	5.36	ug/kg	1.61	5.36	UJ,V7c
156-59-2	cis-1,2-Dichloroethylene	U	1.07	ug/kg	0.322	1.07	
594-20-7	2,2-Dichloropropane	U	1.07	ug/kg	0.322	1.07	
67-66-3	Chloroform	U	1.07	ug/kg	0.322	1.07	
74-97-5	Bromochloromethane	U	1.07	ug/kg	0.354	1.07	
71-55-6	1,1,1-Trichloroethane	U	1.07	ug/kg	0.322	1.07	
563-58-6	1,1-Dichloropropene	U	1.07	ug/kg	0.322	1.07	
56-23-5	Carbon tetrachloride	U	1.07	ug/kg	0.322	1.07	
107-06-2	1,2-Dichloroethane	U	1.07	ug/kg	0.322	1.07	
71-43-2	Benzene	U	1.07	ug/kg	0.322	1.07	
79-01-6	Trichloroethylene	U	1.07	ug/kg	0.354	1.07	
78-87-5	1,2-Dichloropropane	U	1.07	ug/kg	0.322	1.07	
75-27-4	Bromodichloromethane	U	1.07	ug/kg	0.322	1.07	
74-95-3	Dibromomethane	U	1.07	ug/kg	0.322	1.07	
108-10-1	4-Methyl-2-pentanone	U	5.36	ug/kg	1.34	5.36	
10061-01-5	cis-1,3-Dichloropropylene	U	1.07	ug/kg	0.322	1.07	
108-88-3	Toluene	U	1.07	ug/kg	0.322	1.07	
10061-02-6	trans-1,3-Dichloropropylene	U	1.07	ug/kg	0.322	1.07	
79-00-5	1,1,2-Trichloroethane	U	1.07	ug/kg	0.322	1.07	
591-78-6	2-Hexanone	U	5.36	ug/kg	1.61	5.36	
142-28-9	1,3-Dichloropropane	U	1.07	ug/kg	0.322	1.07	
127-18-4	Tetrachloroethylene	U	1.07	ug/kg	0.322	1.07	
124-48-1	Dibromochloromethane	U	1.07	ug/kg	0.322	1.07	
106-93-4	1,2-Dibromoethane	U	1.07	ug/kg	0.322	1.07	
108-90-7	Chlorobenzene	U	1.07	ug/kg	0.322	1.07	

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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-899**	**Date Collected:**	**12/10/2009 12:00**	**Matrix:**	**R**
Lab Sample ID:	**242784003**	**Date Received:**	**12/12/2009 09:35**	**%Moisture:**	**6.7**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**WST03-10-2145**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**934291**	**Inst:**	**VOA6.I**	**Dilution:**	**1**
Run Date:	**12/17/2009 20:30**	**Analyst:**	**RXD1**	**Purge Vol:**	**5 mL**
Prep Date:	**12/17/2009 15:20**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**121709V6\6P422.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
100-41-4	Ethylbenzene	U	1.07	ug/kg	0.322	1.07	
179601-23-1	m,p-Xylenes	U	2.14	ug/kg	0.322	2.14	
95-47-6	o-Xylene	U	1.07	ug/kg	0.322	1.07	
100-42-5	Styrene	U	1.07	ug/kg	0.322	1.07	
75-25-2	Bromoform	U	1.07	ug/kg	0.322	1.07	
79-34-5	1,1,2,2-Tetrachloroethane	U	1.07	ug/kg	0.322	1.07	
96-18-4	1,2,3-Trichloropropane	U	1.07	ug/kg	0.322	1.07	
108-86-1	Bromobenzene	U	1.07	ug/kg	0.322	1.07	
103-65-1	n-Propylbenzene	U	1.07	ug/kg	0.322	1.07	
95-49-8	2-Chlorotoluene	U	1.07	ug/kg	0.322	1.07	
98-82-8	Isopropylbenzene	U	1.07	ug/kg	0.322	1.07	
108-67-8	1,3,5-Trimethylbenzene	U	1.07	ug/kg	0.322	1.07	
106-43-4	4-Chlorotoluene	U	1.07	ug/kg	0.322	1.07	
98-06-6	tert-Butylbenzene	U	1.07	ug/kg	0.322	1.07	
95-63-6	1,2,4-Trimethylbenzene	U	1.07	ug/kg	0.322	1.07	
135-98-8	sec-Butylbenzene	U	1.07	ug/kg	0.322	1.07	
99-87-6	4-Isopropyltoluene	U	1.07	ug/kg	0.322	1.07	
541-73-1	1,3-Dichlorobenzene	U	1.07	ug/kg	0.322	1.07	
106-46-7	1,4-Dichlorobenzene	U	1.07	ug/kg	0.322	1.07	
104-51-8	n-Butylbenzene	U	1.07	ug/kg	0.322	1.07	
96-12-8	1,2-Dibromo-3-chloropropane	U	1.07	ug/kg	0.322	1.07	
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.36	ug/kg	1.71	5.36	UJ,V7c
630-20-6	1,1,1,2-Tetrachloroethane	U	1.07	ug/kg	0.322	1.07	
95-50-1	1,2-Dichlorobenzene	U	1.07	ug/kg	0.322	1.07	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown siloxane	14.24	20	ug/kg	0	J
	unknown siloxane	16.17	5.67	ug/kg	0	J

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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-899	Date Collected:	12/10/2009 12:00	Matrix:	R
Lab Sample ID:	242784004	Date Received:	12/12/2009 09:35	%Moisture:	9.8
		Client:	LANL010	Project:	LANL01004
Client ID:	WST03-10-2146	Method:	SW846 8260B	SOP Ref:	GL-OA-E-038
Batch ID:	934291	Inst:	VOA6.I	Dilution:	1
Run Date:	12/17/2009 20:58	Analyst:	RXD1	Purge Vol:	5 mL
Prep Date:	12/17/2009 15:26	Aliquot:	5 g	Final Volume:	5 mL
Data File:	121709V6\6P423.D	Column:	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
75-71-8	Dichlorodifluoromethane	U	1.11	ug/kg	0.377	1.11	UJ,V7c
74-87-3	Chloromethane	U	1.11	ug/kg	0.333	1.11	UJ,V7c
75-01-4	Vinyl chloride	U	1.11	ug/kg	0.333	1.11	
74-83-9	Bromomethane	U	1.11	ug/kg	0.333	1.11	
75-00-3	Chloroethane	U	1.11	ug/kg	0.333	1.11	
75-69-4	Trichlorofluoromethane	U	1.11	ug/kg	0.333	1.11	
67-64-1	Acetone	U	5.54	ug/kg	1.84	5.54	UJ,V7c
75-35-4	1,1-Dichloroethylene	U	1.11	ug/kg	0.333	1.11	
74-88-4	Iodomethane	U	5.54	ug/kg	1.77	5.54	
75-09-2	Methylene chloride	U	5.54	ug/kg	2.22	5.54	
75-15-0	Carbon disulfide	U	5.54	ug/kg	1.39	5.54	
156-60-5	trans-1,2-Dichloroethylene	U	1.11	ug/kg	0.333	1.11	
75-34-3	1,1-Dichloroethane	U	1.11	ug/kg	0.333	1.11	
78-93-3	2-Butanone	U	5.54	ug/kg	1.66	5.54	UJ,V7c
156-59-2	cis-1,2-Dichloroethylene	U	1.11	ug/kg	0.333	1.11	
594-20-7	2,2-Dichloropropane	U	1.11	ug/kg	0.333	1.11	
67-66-3	Chloroform	U	1.11	ug/kg	0.333	1.11	
74-97-5	Bromochloromethane	U	1.11	ug/kg	0.366	1.11	
71-55-6	1,1,1-Trichloroethane	U	1.11	ug/kg	0.333	1.11	
563-58-6	1,1-Dichloropropene	U	1.11	ug/kg	0.333	1.11	
56-23-5	Carbon tetrachloride	U	1.11	ug/kg	0.333	1.11	
107-06-2	1,2-Dichloroethane	U	1.11	ug/kg	0.333	1.11	
71-43-2	Benzene	U	1.11	ug/kg	0.333	1.11	
79-01-6	Trichloroethylene	U	1.11	ug/kg	0.366	1.11	
78-87-5	1,2-Dichloropropane	U	1.11	ug/kg	0.333	1.11	
75-27-4	Bromodichloromethane	U	1.11	ug/kg	0.333	1.11	
74-95-3	Dibromomethane	U	1.11	ug/kg	0.333	1.11	
108-10-1	4-Methyl-2-pentanone	U	5.54	ug/kg	1.39	5.54	
10061-01-5	cis-1,3-Dichloropropylene	U	1.11	ug/kg	0.333	1.11	
108-88-3	Toluene	U	1.11	ug/kg	0.333	1.11	
10061-02-6	trans-1,3-Dichloropropylene	U	1.11	ug/kg	0.333	1.11	
79-00-5	1,1,2-Trichloroethane	U	1.11	ug/kg	0.333	1.11	
591-78-6	2-Hexanone	U	5.54	ug/kg	1.66	5.54	
142-28-9	1,3-Dichloropropane	U	1.11	ug/kg	0.333	1.11	
127-18-4	Tetrachloroethylene	U	1.11	ug/kg	0.333	1.11	
124-48-1	Dibromochloromethane	U	1.11	ug/kg	0.333	1.11	
106-93-4	1,2-Dibromoethane	U	1.11	ug/kg	0.333	1.11	
108-90-7	Chlorobenzene	U	1.11	ug/kg	0.333	1.11	

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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-899	**Date Collected:**	12/10/2009 12:00	**Matrix:**	R
Lab Sample ID:	242784004	**Date Received:**	12/12/2009 09:35	**%Moisture:**	9.8
		Client:	LANL010	**Project:**	LANL01004
Client ID:	WST03-10-2146	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	934291	**Inst:**	VOA6.I	**Dilution:**	1
Run Date:	12/17/2009 20:58	**Analyst:**	RXD1	**Purge Vol:**	5 mL
Prep Date:	12/17/2009 15:26	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	121709V6\6P423.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
100-41-4	Ethylbenzene	U	1.11	ug/kg	0.333	1.11	
179601-23-1	m,p-Xylenes	U	2.22	ug/kg	0.333	2.22	
95-47-6	o-Xylene	U	1.11	ug/kg	0.333	1.11	
100-42-5	Styrene	U	1.11	ug/kg	0.333	1.11	
75-25-2	Bromoform	U	1.11	ug/kg	0.333	1.11	
79-34-5	1,1,2,2-Tetrachloroethane	U	1.11	ug/kg	0.333	1.11	
96-18-4	1,2,3-Trichloropropane	U	1.11	ug/kg	0.333	1.11	
108-86-1	Bromobenzene	U	1.11	ug/kg	0.333	1.11	
103-65-1	n-Propylbenzene	U	1.11	ug/kg	0.333	1.11	
95-49-8	2-Chlorotoluene	U	1.11	ug/kg	0.333	1.11	
98-82-8	Isopropylbenzene	U	1.11	ug/kg	0.333	1.11	
108-67-8	1,3,5-Trimethylbenzene	U	1.11	ug/kg	0.333	1.11	
106-43-4	4-Chlorotoluene	U	1.11	ug/kg	0.333	1.11	
98-06-6	tert-Butylbenzene	U	1.11	ug/kg	0.333	1.11	
95-63-6	1,2,4-Trimethylbenzene	U	1.11	ug/kg	0.333	1.11	
135-98-8	sec-Butylbenzene	U	1.11	ug/kg	0.333	1.11	
99-87-6	4-Isopropyltoluene	U	1.11	ug/kg	0.333	1.11	
541-73-1	1,3-Dichlorobenzene	U	1.11	ug/kg	0.333	1.11	
106-46-7	1,4-Dichlorobenzene	U	1.11	ug/kg	0.333	1.11	
104-51-8	n-Butylbenzene	U	1.11	ug/kg	0.333	1.11	
96-12-8	1,2-Dibromo-3-chloropropane	U	1.11	ug/kg	0.333	1.11	
76-13-1	1,I,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.54	ug/kg	1.77	5.54	UJ,V7c
630-20-6	1,1,1,2-Tetrachloroethane	U	1.11	ug/kg	0.333	1.11	
95-50-1	1,2-Dichlorobenzene	U	1.11	ug/kg	0.333	1.11	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Flt	Qual
	unknown siloxane	14.24	32.4	ug/kg	0	J
	unknown siloxane	16.17	7.76	ug/kg	0	J

ETM
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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-899-1**	**Date Collected:**	**12/10/2009 12:00**	**Matrix:**	**TCLP R**
Lab Sample ID:	**242785001**	**Date Received:**	**12/12/2009 09:35**		
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**WST03-10-2145**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**934318**	**Inst:**	**VOA6.I**	**Dilution:**	**10**
Run Date:	**12/18/2009 18:12**	**Analyst:**	**RXD1**	**Purge Vol:**	**5 mL**
Prep Date:	**12/15/2009 09:00**				
Data File:	**121809V6\6P516.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-01-4	Vinyl chloride	U	0.010	mg/L	0.005	0.010
75-35-4	1,1-Dichloroethylene	U	0.010	mg/L	0.003	0.010
78-93-3	2-Butanone	U	0.050	mg/L	0.0125	0.050
67-66-3	Chloroform	U	0.010	mg/L	0.0025	0.010
56-23-5	Carbon tetrachloride	U	0.010	mg/L	0.003	0.010
107-06-2	1,2-Dichloroethane	U	0.010	mg/L	0.0025	0.010
71-43-2	Benzene	U	0.010	mg/L	0.003	0.010
79-01-6	Trichloroethylene	U	0.010	mg/L	0.0025	0.010
127-18-4	Tetrachloroethylene	U	0.010	mg/L	0.003	0.010
108-90-7	Chlorobenzene	U	0.010	mg/L	0.0025	0.010
106-46-7	1,4-Dichlorobenzene	U	0.010	mg/L	0.0025	0.010

ETM
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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-899-1**	**Date Collected:**	**12/10/2009 12:00**	**Matrix:**	**TCLP R**
Lab Sample ID:	**242785002**	**Date Received:**	**12/12/2009 09:35**		
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**WST03-10-2146**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**934318**	**Inst:**	**VOA6.I**	**Dilution:**	**10**
Run Date:	**12/18/2009 18:39**	**Analyst:**	**RXD1**	**Purge Vol:**	**5 mL**
Prep Date:	**12/15/2009 09:00**				
Data File:	**121809V6\6P517.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-01-4	Vinyl chloride	U	0.010	mg/L	0.005	0.010
75-35-4	1,1-Dichloroethylene	U	0.010	mg/L	0.003	0.010
78-93-3	2-Butanone	U	0.050	mg/L	0.0125	0.050
67-66-3	Chloroform	U	0.010	mg/L	0.0025	0.010
56-23-5	Carbon tetrachloride	U	0.010	mg/L	0.003	0.010
107-06-2	1,2-Dichloroethane	U	0.010	mg/L	0.0025	0.010
71-43-2	Benzene	U	0.010	mg/L	0.003	0.010
79-01-6	Trichloroethylene	U	0.010	mg/L	0.0025	0.010
127-18-4	Tetrachloroethylene	U	0.010	mg/L	0.003	0.010
108-90-7	Chlorobenzene	U	0.010	mg/L	0.0025	0.010
106-46-7	1,4-Dichlorobenzene	U	0.010	mg/L	0.0025	0.010

ETM
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DATA VALIDATION COVER SHEET

5115-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-899 VALIDATION DATE: 1/13/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Eric T. Mink ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☒ OTHER (DESCRIBE): non-TCLP and TCLP SVOCs

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☒	☐	☐	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☒	☐	☐	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. In the ICV and/or CCV associated with the non-TCLP samples, the %Ds were >20% for benzoic acid, hexachlorocyclopentadiene and 2-methyl-4,6-dinitrophenol. In the ICV associated with the TCLP samples, the %D was >20% for pyridine. All the associated sample results were NDs and, thus, were qualified UJ,SV7c.
2. It should be noted that a few non-TCLP MS/MSD %Rs and RPDs were not within the laboratory's QC limits. It should also be noted that the non-TCLP MS/MSD analyses were performed on a LANL sample from a different RN. Also, the raw data for the parent sample was not provided in the data package. However, MS/MSD analyses are not required for this analysis and, thus, no sample data were qualified.

Reviewed by: Mary Donivan Level: I Date: 01/13/10

VALIDATOR'S SIGNATURE: Eric T. Mink DATE: 1/13/10

SEMIVOLATILE ORGANIC COMPOUND (SVOC) ANALYTICAL DATA VALIDATION CHECKLIST

5115-2

Semivolatile Organic Compound (SVOC) Analytical Data Validation Checklist

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Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, SV9	J-, SV9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, SV9a	J-, SV9a
☐	☒	☐	3. The affected analytes are regarded as rejected because the analytical holding time was exceeded.	R, SV9b	R, SV9b
☐	☐	☒	4. The instrument performance sample did not pass method acceptance criteria.	R, SV16	R, SV16
☐	☐	☒	5. Samples were analyzed outside specific method tune time criteria.	N/A	J, SV16b
☐	☐	☒	6. The required instrument performance sample information is missing. Contact the SMO or external laboratory for information.	R, SV16c	R, SV16c
☐	☒	☐	7. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, SV7	J, SV7
☐	☒	☐	8. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, SV7a	J, SV7a
☐	☒	☐	9. The affected analytes were analyzed with an RRF of <0.05 in the initial calibration and/or Continuing Calibration Verification (CCV).	R, SV7b	J, SV7b
☒	☐	☐	10. The Initial Calibration Verification (ICV) and/or CCV were recovered outside the method-specific limits.	UJ, SV7c	J, SV7c
☐	☒	☐	11. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, SV7d	J, SV7d

SEMIVOLATILE ORGANIC COMPOUND (SVOC) ANALYTICAL DATA VALIDATION CHECKLIST

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Semivolatile Organic Compound (SVOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	12. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, SV7f	R, SV7f
☐	☒	☐	13. The sample result is ≤5X (10X for common organic laboratory contaminates) the concentration of the related analyte in the method blank.	U, SV4	J, V4a
☐	☒	☐	14. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was greater than 5X (10X for common laboratory contaminates).	N/A	J, SV4a
☐	☐	☒	15. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	UJ, SV4d	N/A
☐	☒	☐	16. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV4e	R, SV4e
☐	☒	☐	17. The IS retention time has shifted by more than 30 seconds.	UJ, SV0	J, SV0
☐	☐	☒	18. Analyte is positively confirmed but outside the IS retention time window; however, spectral matches must be provided.	N/A	J, SV0a
☐	☒	☐	19. Required IS retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV0b	R, SV0b
☐	☐	☒	20. The quantitating IS area count is <10% of the expected value, which indicates increased potential for false negative results and other possible problems with sample quantitation. Follow method-specific windows.	R, SV1a	J, SV1a

SEMIVOLATILE ORGANIC COMPOUND (SVOC) ANALYTICAL DATA VALIDATION CHECKLIST

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Semivolatile Organic Compound (SVOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	21. The IS area count for the quantitating IS is <50% but >10% for organics window relation to the previous continuing calibration. Follow method-specific windows.	UJ, SV1b	J, SV1b
☐	☐	☒	22. The IS area count for the quantitating IS is >200% of the area count for the previous continuing calibration. Follow method-specific windows.	UJ, SV1c	J, SV1c
☐	☐	☒	23. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV1d	R, SV1d
☐	☒	☐	24. The surrogate is <10%R. Follow the external laboratory limits located within the associated data package.	R, SV3	J-, SV3
☐	☒	☐	25. The surrogate is < the Lower Acceptance Level (LAL) but ≥10%R. Follow the external laboratory limits located within the associated data package.	UJ, SV3a	J-, SV3a
☐	☒	☐	26. The surrogate %R value is > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, SV3b
☐	☒	☐	27. At least one surrogate is > the Upper Acceptance Limit (UAL) and one surrogate is < the LAL. Follow the external laboratory limits located within the associated data package.	UJ, SV3c	J, SV3c
☐	☒	☐	28. Required surrogate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV3d	R, SV3d
☐	☒	☐	29. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, SV12	J-, SV12

SEMIVOLATILE ORGANIC COMPOUND (SVOC) ANALYTICAL DATA VALIDATION CHECKLIST

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Semivolatile Organic Compound (SVOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	30. The LCS percent recovery was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, SV12a	J-, SV12a
☐	☒	☐	31. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, SV12b
☐	☒	☐	32. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV12c	R, SV12c
☐	☐	☒	33. The affected analyte is considered not detected because mass spectrum did not meet specifications.	N/A	U, SV8
☐	☐	☒	34. The mass spectrum column documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV8a	R, SV8a
☐	☒	☐	35. Duplicate, dilution, or reanalysis.	UJ, SV88	J, SV88
☐	☐	☒	36. The affected analytes have elevated detection limits and may not meet project DQOs because the sample was diluted without any target analytees identified due to matrix interference. Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.	UJ, R, SV15	R, SV15
☒	☐	☐	37. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB, NQ, NQ
☐	☒	☐	38. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.	UJ, R, SV19	J, R, SV19

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-899**	**Date Collected:**	**12/10/2009 12:00**	**Matrix:**	**R**
Lab Sample ID:	**242784003**	**Date Received:**	**12/12/2009 09:35**	**%Moisture:**	**6.7**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**WST03-10-2145**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**932444**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**12/16/2009 21:23**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/14/2009 09:47**	**Aliquot:**	**30.03 g**	**Final Volume:**	**1 mL**
Data File:	**s611626.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
62-75-9	N-Methyl-N-nitrosomethylamine	U	357	ug/kg	71.4	357	
108-95-2	Phenol	U	357	ug/kg	71.4	357	
95-57-8	2-Chlorophenol	U	357	ug/kg	71.4	357	
106-46-7	1,4-Dichlorobenzene	U	357	ug/kg	71.4	357	
621-64-7	N-Nitrosodipropylamine	U	357	ug/kg	71.4	357	
59-50-7	4-Chloro-3-methylphenol	U	357	ug/kg	71.4	357	
83-32-9	Acenaphthene	U	35.7	ug/kg	11.8	35.7	
121-14-2	2,4-Dinitrotoluene	U	357	ug/kg	35.7	357	
100-02-7	4-Nitrophenol	U	357	ug/kg	118	357	
87-86-5	Pentachlorophenol	U	357	ug/kg	89.2	357	
129-00-0	Pyrene	U	35.7	ug/kg	10.7	35.7	
110-86-1	Pyridine	U	357	ug/kg	71.4	357	
62-53-3	Aniline	U	357	ug/kg	107	357	
111-44-4	bis(2-Chloroethyl) ether	U	357	ug/kg	71.4	357	
541-73-1	1,3-Dichlorobenzene	U	357	ug/kg	71.4	357	
100-51-6	Benzyl alcohol	U	357	ug/kg	107	357	
95-50-1	1,2-Dichlorobenzene	U	357	ug/kg	71.4	357	
108-60-1	bis(2-Chloroisopropyl)ether	U	357	ug/kg	71.4	357	
95-48-7	o-Cresol	U	357	ug/kg	71.4	357	
65794-96-9	m,p-Cresols	U	357	ug/kg	107	357	
67-72-1	Hexachloroethane	U	357	ug/kg	71.4	357	
98-95-3	Nitrobenzene	U	357	ug/kg	71.4	357	
78-59-1	Isophorone	U	357	ug/kg	71.4	357	
88-75-5	2-Nitrophenol	U	357	ug/kg	71.4	357	
105-67-9	2,4-Dimethylphenol	U	357	ug/kg	125	357	
111-91-1	bis(2-Chloroethoxy)methane	U	357	ug/kg	71.4	357	
120-83-2	2,4-Dichlorophenol	U	357	ug/kg	71.4	357	
65-85-0	Benzoic acid	U	714	ug/kg	178	714	UJ,SV7c
91-20-3	Naphthalene	U	35.7	ug/kg	10.7	35.7	
106-47-8	4-Chloroaniline	U	357	ug/kg	71.4	357	
87-68-3	Hexachlorobutadiene	U	357	ug/kg	71.4	357	
91-57-6	2-Methylnaphthalene	U	35.7	ug/kg	7.14	35.7	
77-47-4	Hexachlorocyclopentadiene	U	357	ug/kg	71.4	357	UJ,SV7c
88-06-2	2,4,6-Trichlorophenol	U	357	ug/kg	71.4	357	
95-95-4	2,4,5-Trichlorophenol	U	357	ug/kg	71.4	357	
91-58-7	2-Chloronaphthalene	U	35.7	ug/kg	11.8	35.7	
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	357	ug/kg	71.4	357	
99-09-2	3-Nitroaniline	U	357	ug/kg	71.4	357	

ETM
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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-899**	**Date Collected:**	**12/10/2009 12:00**	**Matrix:**	**R**
Lab Sample ID:	**242784003**	**Date Received:**	**12/12/2009 09:35**	**%Moisture:**	**6.7**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**WST03-10-2145**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**932444**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**12/16/2009 21:23**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/14/2009 09:47**	**Aliquot:**	**30.03 g**	**Final Volume:**	**1 mL**
Data File:	**s611626.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
	m-Nitroaniline						
131-11-3	Dimethylphthalate	U	357	ug/kg	71.4	357	
606-20-2	2,6-Dinitrotoluene	U	357	ug/kg	35.7	357	
208-96-8	Acenaphthylene	U	35.7	ug/kg	10.7	35.7	
51-28-5	2,4-Dinitrophenol	U	714	ug/kg	136	714	
132-64-9	Dibenzofuran	U	357	ug/kg	71.4	357	
84-66-2	Diethylphthalate	U	357	ug/kg	71.4	357	
86-73-7	Fluorene	U	35.7	ug/kg	10.7	35.7	
7005-72-3	4-Chlorophenylphenylether	U	357	ug/kg	71.4	357	
534-52-1	2-Methyl-4,6-dinitrophenol	U	357	ug/kg	71.4	357	UJ,SV7c
100-01-6	4-Nitroaniline	U	357	ug/kg	107	357	
	p-Nitroaniline						
122-39-4	Diphenylamine	U	357	ug/kg	71.4	357	
122-66-7	Azobenzene	U	357	ug/kg	71.4	357	
	1,2-Diphenylhydrazine						
101-55-3	4-Bromophenylphenylether	U	357	ug/kg	71.4	357	
118-74-1	Hexachlorobenzene	U	357	ug/kg	71.4	357	
85-01-8	Phenanthrene	U	35.7	ug/kg	10.7	35.7	
120-12-7	Anthracene	U	35.7	ug/kg	7.14	35.7	
84-74-2	Di-n-butylphthalate	U	357	ug/kg	71.4	357	
206-44-0	Fluoranthene	U	35.7	ug/kg	10.7	35.7	
85-68-7	Butylbenzylphthalate	U	357	ug/kg	71.4	357	
56-55-3	Benzo(a)anthracene	U	35.7	ug/kg	10.7	35.7	
91-94-1	3,3'-Dichlorobenzidine	U	357	ug/kg	107	357	
218-01-9	Chrysene	U	35.7	ug/kg	10.7	35.7	
117-81-7	bis(2-Ethylhexyl)phthalate	U	357	ug/kg	71.4	357	
117-84-0	Di-n-octylphthalate	U	357	ug/kg	71.4	357	
205-99-2	Benzo(b)fluoranthene	U	35.7	ug/kg	10.7	35.7	
207-08-9	Benzo(k)fluoranthene	U	35.7	ug/kg	10.7	35.7	
50-32-8	Benzo(a)pyrene	U	35.7	ug/kg	10.7	35.7	
193-39-5	Indeno(1,2,3-cd)pyrene	U	35.7	ug/kg	10.7	35.7	
53-70-3	Dibenzo(a,h)anthracene	U	35.7	ug/kg	10.7	35.7	
191-24-2	Benzo(ghi)perylene	U	35.7	ug/kg	10.7	35.7	
120-82-1	1,2,4-Trichlorobenzene	U	357	ug/kg	71.4	357	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Flt	Qual
	Unknown Aldol Condensate	3.45	350	ug/kg		JA
301-02-0	9-Octadecenamide, (Z)-	11.85	170	ug/kg	87	NJ

ETM
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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-899	Date Collected:	12/10/2009 12:00	Matrix:	R
Lab Sample ID:	242784004	Date Received:	12/12/2009 09:35	%Moisture:	9.8
		Client:	LANL010	Project:	LANL01004
Client ID:	WST03-10-2146	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	932444	Inst:	MSD6.I	Dilution:	1
Run Date:	12/16/2009 21:51	Analyst:	NAG1	Inj. Vol:	.5 uL
Prep Date:	12/14/2009 09:47	Aliquot:	30 g	Final Volume:	1 mL
Data File:	s611627.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
62-75-9	N-Methyl-N-nitrosomethylamine	U	370	ug/kg	73.9	370	
108-95-2	Phenol	U	370	ug/kg	73.9	370	
95-57-8	2-Chlorophenol	U	370	ug/kg	73.9	370	
106-46-7	1,4-Dichlorobenzene	U	370	ug/kg	73.9	370	
621-64-7	N-Nitrosodipropylamine	U	370	ug/kg	73.9	370	
59-50-7	4-Chloro-3-methylphenol	U	370	ug/kg	73.9	370	
83-32-9	Acenaphthene	U	37.0	ug/kg	12.2	37.0	
121-14-2	2,4-Dinitrotoluene	U	370	ug/kg	37.0	370	
100-02-7	4-Nitrophenol	U	370	ug/kg	122	370	
87-86-5	Pentachlorophenol	U	370	ug/kg	92.4	370	
129-00-0	Pyrene		79.5	ug/kg	11.1	37.0	
110-86-1	Pyridine	U	370	ug/kg	73.9	370	
62-53-3	Aniline	U	370	ug/kg	111	370	
111-44-4	bis(2-Chloroethyl) ether	U	370	ug/kg	73.9	370	
541-73-1	1,3-Dichlorobenzene	U	370	ug/kg	73.9	370	
100-51-6	Benzyl alcohol	U	370	ug/kg	111	370	
95-50-1	1,2-Dichlorobenzene	U	370	ug/kg	73.9	370	
108-60-1	bis(2-Chloroisopropyl)ether	U	370	ug/kg	73.9	370	
95-48-7	o-Cresol	U	370	ug/kg	73.9	370	
65794-96-9	m,p-Cresols	U	370	ug/kg	111	370	
67-72-1	Hexachloroethane	U	370	ug/kg	73.9	370	
98-95-3	Nitrobenzene	U	370	ug/kg	73.9	370	
78-59-1	Isophorone	U	370	ug/kg	73.9	370	
88-75-5	2-Nitrophenol	U	370	ug/kg	73.9	370	
105-67-9	2,4-Dimethylphenol	U	370	ug/kg	129	370	
111-91-1	bis(2-Chloroethoxy)methane	U	370	ug/kg	73.9	370	
120-83-2	2,4-Dichlorophenol	U	370	ug/kg	73.9	370	
65-85-0	Benzoic acid	U	739	ug/kg	185	739	UJ,SV7c
91-20-3	Naphthalene	U	37.0	ug/kg	11.1	37.0	
106-47-8	4-Chloroaniline	U	370	ug/kg	73.9	370	
87-68-3	Hexachlorobutadiene	U	370	ug/kg	73.9	370	
91-57-6	2-Methylnaphthalene	U	37.0	ug/kg	7.39	37.0	
77-47-4	Hexachlorocyclopentadiene	U	370	ug/kg	73.9	370	UJ,SV7c
88-06-2	2,4,6-Trichlorophenol	U	370	ug/kg	73.9	370	
95-95-4	2,4,5-Trichlorophenol	U	370	ug/kg	73.9	370	
91-58-7	2-Chloronaphthalene	U	37.0	ug/kg	12.2	37.0	
88-74-4	2-Nitroaniline	U	370	ug/kg	73.9	370	
	o-Nitroaniline						
99-09-2	3-Nitroaniline	U	370	ug/kg	73.9	370	

ETM
1/13/10

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-899	**Date Collected:**	12/10/2009 12:00	**Matrix:**	R
Lab Sample ID:	242784004	**Date Received:**	12/12/2009 09:35	**%Moisture:**	9.8
		Client:	LANL010	**Project:**	LANL01004
Client ID:	WST03-10-2146	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	932444	**Inst:**	MSD6.I	**Dilution:**	1
Run Date:	12/16/2009 21:51	**Analyst:**	NAG1	**Inj. Vol:**	.5 uL
Prep Date:	12/14/2009 09:47	**Aliquot:**	30 g	**Final Volume:**	1 mL
Data File:	s611627.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
	m-Nitroaniline						
131-11-3	Dimethylphthalate	U	370	ug/kg	73.9	370	
606-20-2	2,6-Dinitrotoluene	U	370	ug/kg	37.0	370	
208-96-8	Acenaphthylene	U	37.0	ug/kg	11.1	37.0	
51-28-5	2,4-Dinitrophenol	U	739	ug/kg	140	739	
132-64-9	Dibenzofuran	U	370	ug/kg	73.9	370	
84-66-2	Diethylphthalate	U	370	ug/kg	73.9	370	
86-73-7	Fluorene	U	37.0	ug/kg	11.1	37.0	
7005-72-3	4-Chlorophenylphenylether	U	370	ug/kg	73.9	370	
534-52-1	2-Methyl-4,6-dinitrophenol	U	370	ug/kg	73.9	370	UJ,SV7c
100-01-6	4-Nitroaniline	U	370	ug/kg	111	370	
	p-Nitroaniline						
122-39-4	Diphenylamine	U	370	ug/kg	73.9	370	
122-66-7	Azobenzene	U	370	ug/kg	73.9	370	
	1,2-Diphenylhydrazine						
101-55-3	4-Bromophenylphenylether	U	370	ug/kg	73.9	370	
118-74-1	Hexachlorobenzene	U	370	ug/kg	73.9	370	
85-01-8	Phenanthrene		73.5	ug/kg	11.1	37.0	
120-12-7	Anthracene	J	12.2	ug/kg	7.39	37.0	
84-74-2	Di-n-butylphthalate	U	370	ug/kg	73.9	370	
206-44-0	Fluoranthene		106	ug/kg	11.1	37.0	
85-68-7	Butylbenzylphthalate	U	370	ug/kg	73.9	370	
56-55-3	Benzo(a)anthracene	U	37.0	ug/kg	11.1	37.0	
91-94-1	3,3'-Dichlorobenzidine	U	370	ug/kg	111	370	
218-01-9	Chrysene	J	36.4	ug/kg	11.1	37.0	
117-81-7	bis(2-Ethylhexyl)phthalate	U	370	ug/kg	73.9	370	
117-84-0	Di-n-octylphthalate	U	370	ug/kg	73.9	370	
205-99-2	Benzo(b)fluoranthene	J	19.8	ug/kg	11.1	37.0	
207-08-9	Benzo(k)fluoranthene	U	37.0	ug/kg	11.1	37.0	
50-32-8	Benzo(a)pyrene	J	12.6	ug/kg	11.1	37.0	
193-39-5	Indeno(1,2,3-cd)pyrene		126	ug/kg	11.1	37.0	
53-70-3	Dibenzo(a,h)anthracene	U	37.0	ug/kg	11.1	37.0	
191-24-2	Benzo(ghi)perylene	J	19.2	ug/kg	11.1	37.0	
120-82-1	1,2,4-Trichlorobenzene	U	370	ug/kg	73.9	370	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	3.45	277	ug/kg		JA
7785-70-8	1R-.alpha.-Pinene	4.22	218	ug/kg	97	NJ

ETM
1/13/10

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-899**	**Date Collected:**	**12/10/2009 12:00**	**Matrix:**	**R**
Lab Sample ID:	**242784004**	**Date Received:**	**12/12/2009 09:35**	**%Moisture:**	**9.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**WST03-10-2146**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**932444**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**12/16/2009 21:51**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/14/2009 09:47**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**s611627.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
13466-78-9	3-Carene	4.79	154	ug/kg	96	NJ
475-20-7	1,4-Methanoazulene, decahydro-4,8,8-trim	7.6	213	ug/kg	97	NJ
301-02-0	9-Octadecenamide, (Z)-	11.86	154	ug/kg	95	NJ
	Unknown	12.24	184	ug/kg		J
1740-19-8	1-Phenanthrenecarboxylic acid, 1,2,3,4,4	12.35	169	ug/kg	93	NJ
	Unknown	17.2	162	ug/kg		J

ETM
1/13/10

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-899-1**	**Date Collected:**	**12/10/2009 12:00**	**Matrix:**	**TCLP R**
Lab Sample ID:	**242785001**	**Date Received:**	**12/12/2009 09:35**		
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**WST03-10-2145**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**934629**	**Inst:**	**MSD1.I**	**Dilution:**	**1**
Run Date:	**12/19/2009 18:38**	**Analyst:**	**AMY**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/18/2009 19:52**	**Aliquot:**	**200 mL**	**Final Volume:**	**1 mL**
Data File:	**s111924.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
106-46-7	1,4-Dichlorobenzene	U	0.050	mg/L	0.010	0.050	
121-14-2	2,4-Dinitrotoluene	U	0.050	mg/L	0.010	0.050	
87-86-5	Pentachlorophenol	U	0.050	mg/L	0.010	0.050	
110-86-1	Pyridine	U	0.050	mg/L	0.015	0.050	UJ,SV7c
95-48-7	o-Cresol	U	0.050	mg/L	0.010	0.050	
65794-96-9	m,p-Cresols	U	0.050	mg/L	0.015	0.050	
67-72-1	Hexachloroethane	U	0.050	mg/L	0.010	0.050	
98-95-3	Nitrobenzene	U	0.050	mg/L	0.015	0.050	
87-68-3	Hexachlorobutadiene	U	0.050	mg/L	0.010	0.050	
88-06-2	2,4,6-Trichlorophenol	U	0.050	mg/L	0.010	0.050	
95-95-4	2,4,5-Trichlorophenol	U	0.050	mg/L	0.010	0.050	
118-74-1	Hexachlorobenzene	U	0.050	mg/L	0.010	0.050	

ETM
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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-899-1**	**Date Collected:**	**12/10/2009 12:00**	**Matrix:**	**TCLP R**
Lab Sample ID:	**242785002**	**Date Received:**	**12/12/2009 09:35**		
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**WST03-10-2146**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**934629**	**Inst:**	**MSD1.I**	**Dilution:**	**1**
Run Date:	**12/19/2009 19:47**	**Analyst:**	**AMY**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/18/2009 19:52**	**Aliquot:**	**200 mL**	**Final Volume:**	**1 mL**
Data File:	**s111927.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
106-46-7	1,4-Dichlorobenzene	U	0.050	mg/L	0.010	0.050	
121-14-2	2,4-Dinitrotoluene	U	0.050	mg/L	0.010	0.050	
87-86-5	Pentachlorophenol	U	0.050	mg/L	0.010	0.050	
110-86-1	Pyridine	U	0.050	mg/L	0.015	0.050	UJ,SV7c
95-48-7	o-Cresol	U	0.050	mg/L	0.010	0.050	
65794-96-9	m,p-Cresols	U	0.050	mg/L	0.015	0.050	
67-72-1	Hexachloroethane	U	0.050	mg/L	0.010	0.050	
98-95-3	Nitrobenzene	U	0.050	mg/L	0.015	0.050	
87-68-3	Hexachlorobutadiene	U	0.050	mg/L	0.010	0.050	
88-06-2	2,4,6-Trichlorophenol	U	0.050	mg/L	0.010	0.050	
95-95-4	2,4,5-Trichlorophenol	U	0.050	mg/L	0.010	0.050	
118-74-1	Hexachlorobenzene	U	0.050	mg/L	0.010	0.050	

ETM
1/13/10

DATA VALIDATION COVER SHEET

5130-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY

Section I.

REQUEST NUMBER: 10-899 VALIDATION DATE: 1/13/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Eric T. Mink ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☒ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE):

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. It should be noted that the MS/MSD analyses were performed on a LANL sample from a different RN. Also, the raw data for the parent sample was not provided in the data package. No sample data were qualified.

Reviewed by: Mary Donivan Level: I Date: 01/13/10

VALIDATOR'S SIGNATURE: Eric T. Mink DATE: 1/13/10

TPH GRO AND DRO ANALYTICAL DATA VALIDATION CHECKLIST

5130-2

TPH GRO and DRO Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The retention time criteria were not met.	R, DR0 or GR0	R, DR0 or GR0
☐	☒	☐	2. Required retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, DR0b	R, GR0b
☐	☒	☐	3. The surrogate is less than 10%R. Follow external laboratory limits.	R, DR3 or GR3	J-, DR3 or GR3
☐	☒	☐	4. The surrogate is less than the Lower Acceptance Limit, but greater than or equal to 10%R. Follow external laboratory limits.	UJ, DR3a or GR3a	J-, DR3a or GR3a
☐	☒	☐	5. The surrogate %R value is greater than the Upper Acceptance Limit. Follow external laboratory limits.	N/A	J+, DR3b or GR3b
☐	☒	☐	6. Required surrogate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, DR3d or GR3d	R, DR3d or GR3d
☐	☒	☐	7. The sample result is less than or equal to 5 times the concentration of the related analyte in the method blank.	U, DR4 or GR4	N/A
☐	☒	☐	8. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank, but was greater than 5x.	N/A	J+, DR4a or GR4a
☐	☐	☒	9. The sample result is less than or equal to 5 times the concentration of the related analyte in the trip blank, rinsate blank or equipment blank.	U, DR4d or GR4d	N/A
☐	☒	☐	10. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, DR4e or GR4e	R, DR4e or GR4e
☐	☒	☐	11. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ or R, DR7 or GR7	J, DR7 or GR7

TPH GRO AND DRO ANALYTICAL DATA VALIDATION CHECKLIST

5130-2

TPH GRO and DRO Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	12. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is less than 0.995.	UJ, DR7a or GR7a	J, DR7a or GR7a
☐	☒	☐	13. The ICV and/or CCV were recovered outside the method specific limits.	UJ, DR7c or GR7c	J, DR7c or GR7c
☐	☒	☐	14. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, DR7d or GR7d	J, DR7d or GR7d
☐	☒	☐	15. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, DR7f or GR7f	R, DR7f or GR7f
☐	☒	☐	16. The holding time was greater than 1 and less than or equal to 2 times the applicable holding time requirement.	UJ, DR9 or GR9	J-, DR9 or GR9
☐	☒	☐	17. The holding time was greater than 2 times the applicable holding time requirement.	R, DR9a or GR9a	J-, DR9a or GR9a
☐	☒	☐	18. The LCS percent recovery was less than 10%. Follow the external laboratory limits.	R, DR12 or GR12	J-, DR12 or GR12
☐	☒	☐	19. The LCS percent recovery was less than the Lower Acceptance Limit, but greater than 10%. Follow the external laboratory limits.	UJ, DR12a or GR12a	J-, DR12a or GR12a
☐	☒	☐	20. The LCS percent recovery was greater than the Upper Acceptance Limit. Follow the external laboratory limits.	N/A	J+, DR12b or GR12b
☐	☒	☐	21. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or the external laboratory for information.	R, DR12c or GR12c	R, DR12c or GR12c
☐	☒	☐	22. The MS/MSD percent recovery was less than 10%.	R, DR12d or GR12d	R, DR12d or Gr12d
☐	☒	☐	23. The MS/MSD percent recovery was greater than 10%, but less than 70%.	UJ, DR12e or GR12e	J, DR12e or GR12e

TPH GRO AND DRO ANALYTICAL DATA VALIDATION CHECKLIST	
5130-2 **TPH GRO and DRO Analytical Data Validation Checklist**	Records Use only Los Alamos NATIONAL LABORATORY EST 1942

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	24. The MS/MSD percent recovery was greater than 70%.	N/A	J+, DR12f or GR12f
☐	☒	☐	25. The MS/MSD relative percent difference was greater than 30%.	UJ, DR12g or GR12g	J, DR12g or GR12g
☐	☐	☒	26. The affected analytes have elevated detection limits and may not meet project DQOs because the sample was diluted without any target analytes identified due to matrix interference. (Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.)	UJ, R, DR15 or GR15	R, DR15 or GR15
☐	☒	☐	27. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.	UJ, R, DR19 or GR19	J, R, DR19 or GR19
☐	☒	☐	28. Duplicate, dilution, or reanalysis.	UJ, DR88 or GR88	J, DR88 or GR88

Flame Ionization Detector
Certificate of Analysis
Sample Summary

SDG Number:	10-899	Date Collected:	12/10/2009 12:00	Matrix:	R
Lab Sample ID:	242784003	Date Received:	12/12/2009 09:35	%Moisture:	6.7
		Client:	LANL010	Project:	LANL01004
Client ID:	WST03-10-2145	Method:	SW846 8015A/B SVOC	SOP Ref:	GL-OA-E-003
Batch ID:	933001	Inst:	FID7.I	Dilution:	1
Run Date:	12/17/2009 01:23	Analyst:	KXR2	Inj. Vol:	1 uL
Prep Date:	12/15/2009 16:56	Aliquot:	30 g	Final Volume:	1 mL
Data File:	016f1601.d	Column:	DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics	J	2.61	mg/kg	2.32	7.15

ETM
1/13/10

Flame Ionization Detector
Certificate of Analysis
Sample Summary

SDG Number:	10–899	Date Collected:	12/10/2009 12:00	Matrix:	R
Lab Sample ID:	242784004	Date Received:	12/12/2009 09:35	%Moisture:	9.8
		Client:	LANL010	Project:	LANL01004
Client ID:	WST03–10–2146	Method:	SW846 8015A/B SVOC	SOP Ref:	GL–OA–E–003
Batch ID:	933001	Inst:	FID7.I	Dilution:	5
Run Date:	12/17/2009 02:00	Analyst:	KXR2	Inj. Vol:	1 uL
Prep Date:	12/15/2009 16:56	Aliquot:	30.01 g	Final Volume:	1 mL
Data File:	017f1701.d	Column:	DB–5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics	J	13.9	mg/kg	12.0	36.9

ETM
1/13/10

DATA VALIDATION COVER SHEET

5130-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-899 VALIDATION DATE: 1/13/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Eric T. Mink ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☒ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE):

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. It should be noted that the MS/MSD analyses were performed on a LANL sample from a different RN. Also, the raw data for the parent sample was not provided in the data package. No sample data were qualified.

Reviewed by: Mary Donivan Level: I Date: 01/13/10

VALIDATOR'S SIGNATURE: Eric T. Mink DATE: 1/13/10

TPH GRO AND DRO ANALYTICAL DATA VALIDATION CHECKLIST

5130-2

TPH GRO and DRO Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The retention time criteria were not met.	R, DR0 or GR0	R, DR0 or GR0
☐	☒	☐	2. Required retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, DR0b	R, GR0b
☐	☒	☐	3. The surrogate is less than 10%R. Follow external laboratory limits.	R, DR3 or GR3	J-, DR3 or GR3
☐	☒	☐	4. The surrogate is less than the Lower Acceptance Limit, but greater than or equal to 10%R. Follow external laboratory limits.	UJ, DR3a or GR3a	J-, DR3a or GR3a
☐	☒	☐	5. The surrogate %R value is greater than the Upper Acceptance Limit. Follow external laboratory limits.	N/A	J+, DR3b or GR3b
☐	☒	☐	6. Required surrogate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, DR3d or GR3d	R, DR3d or GR3d
☐	☒	☐	7. The sample result is less than or equal to 5 times the concentration of the related analyte in the method blank.	U, DR4 or GR4	N/A
☐	☒	☐	8. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank, but was greater than 5x.	N/A	J+, DR4a or GR4a
☐	☐	☒	9. The sample result is less than or equal to 5 times the concentration of the related analyte in the trip blank, rinsate blank or equipment blank.	U, DR4d or GR4d	N/A
☐	☒	☐	10. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, DR4e or GR4e	R, DR4e or GR4e
☐	☒	☐	11. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ or R, DR7 or GR7	J, DR7 or GR7

TPH GRO AND DRO ANALYTICAL DATA VALIDATION CHECKLIST	
5130-2 **TPH GRO and DRO Analytical Data Validation Checklist**	Records Use only Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	12. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is less than 0.995.	UJ, DR7a or GR7a	J, DR7a or GR7a
☐	☒	☐	13. The ICV and/or CCV were recovered outside the method specific limits.	UJ, DR7c or GR7c	J, DR7c or GR7c
☐	☒	☐	14. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, DR7d or GR7d	J, DR7d or GR7d
☐	☒	☐	15. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, DR7f or GR7f	R, DR7f or GR7f
☐	☒	☐	16. The holding time was greater than 1 and less than or equal to 2 times the applicable holding time requirement.	UJ, DR9 or GR9	J-, DR9 or GR9
☐	☒	☐	17. The holding time was greater than 2 times the applicable holding time requirement.	R, DR9a or GR9a	J-, DR9a or GR9a
☐	☒	☐	18. The LCS percent recovery was less than 10%. Follow the external laboratory limits.	R, DR12 or GR12	J-, DR12 or GR12
☐	☒	☐	19. The LCS percent recovery was less than the Lower Acceptance Limit, but greater than 10%. Follow the external laboratory limits.	UJ, DR12a or GR12a	J-, DR12a or GR12a
☐	☒	☐	20. The LCS percent recovery was greater than the Upper Acceptance Limit. Follow the external laboratory limits.	N/A	J+, DR12b or GR12b
☐	☒	☐	21. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or the external laboratory for information.	R, DR12c or GR12c	R, DR12c or GR12c
☐	☒	☐	22. The MS/MSD percent recovery was less than 10%.	R, DR12d or GR12d	R, DR12d or Gr12d
☐	☒	☐	23. The MS/MSD percent recovery was greater than 10%, but less than 70%.	UJ, DR12e or GR12e	J, DR12e or GR12e

TPH GRO AND DRO ANALYTICAL DATA VALIDATION CHECKLIST	
5130-2 TPH GRO and DRO Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	24. The MS/MSD percent recovery was greater than 70%.	N/A	J+, DR12f or GR12f
☐	☒	☐	25. The MS/MSD relative percent difference was greater than 30%.	UJ, DR12g or GR12g	J, DR12g or GR12g
☐	☐	☒	26. The affected analytes have elevated detection limits and may not meet project DQOs because the sample was diluted without any target analytes identified due to matrix interference. (Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.)	UJ, R, DR15 or GR15	R, DR15 or GR15
☐	☒	☐	27. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.	UJ, R, DR19 or GR19	J, R, DR19 or GR19
☐	☒	☐	28. Duplicate, dilution, or reanalysis.	UJ, DR88 or GR88	J, DR88 or GR88

GC Volatiles (GRO)
Certificate of Analysis
Sample Summary

SDG Number:	**10-899**	**Date Collected:**	**12/10/2009 12:00**	**Matrix:**	**R**
Lab Sample ID:	**242784003**	**Date Received:**	**12/12/2009 09:35**	**%Moisture:**	**6.7**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**WST03-10-2145**	**Method:**	**SW846 8015A/B VOC**	**SOP Ref:**	**GL-OA-E-004**
Batch ID:	**933924**	**Inst:**	**VOC4A.I**	**Dilution:**	**1**
Run Date:	**12/18/2009 00:43**	**Analyst:**	**ACJ**	**Aliquot:**	**5 mL**
Prep Date:	**12/17/2009 21:19**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**4p400011.d**	**Column:**	**Rtx-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
TPH-GRO	Gasoline Range Organics	J	20.6	ug/kg	12.0	53.6

ETM
1/13/10

GC Volatiles (GRO)
Certificate of Analysis
Sample Summary

SDG Number:	10-899	**Date Collected:**	12/10/2009 12:00	**Matrix:**	R
Lab Sample ID:	242784004	**Date Received:**	12/12/2009 09:35	**%Moisture:**	9.8
		Client:	LANL010	**Project:**	LANL01004
Client ID:	WST03-10-2146	**Method:**	SW846 8015A/B VOC	**SOP Ref:**	GL-OA-E-004
Batch ID:	933924	**Inst:**	VOC4A.I	**Dilution:**	1
Run Date:	12/18/2009 01:12	**Analyst:**	ACJ	**Aliquot:**	5 mL
Prep Date:	12/17/2009 21:20	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	4p400012.d	**Column:**	Rtx-Volatiles	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
TPH-GRO	Gasoline Range Organics	J	39.2	ug/kg	12.4	55.4

ETM
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DATA VALIDATION COVER SHEET

5116-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-899 VALIDATION DATE: 1/13/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Eric T. Mink ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

☐ TPH-GRO	☐ HIGH EXPLOSIVES	☐ DIOXIN FURANS	☐ LCMSMS PERCHLORATES
☐ TPH-DRO	☐ METALS	☐ PCB CONGENERS	☒ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
☐ GENERAL CHEMISTRY	☐ RADIOCHEMISTRY	☐ LCMSMS HIGH EXPLOSIVES	

☐ OTHER (DESCRIBE): non-TCLP and TCLP Pesticides

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. In the CCV associated with the non-TCLP samples, the %Ds were >15% for methoxychlor on both columns. The associated sample results were NDs and, thus, were qualified UJ,P7c. In the CCV associated with the non-TCLP samples, the %Ds were >15% for 4,4'-DDT and endrin ketone on one column only. In the CCV associated with the TCLP samples, the %D was >15% for methoxychlor on one column only. All the associated sample results were NDs and, thus, were not qualified.
2. The TCLP MS/MSD RPDs were outside the laboratory's acceptance limit for heptachlor and methoxychlor. It should be noted that toxaphene was not spiked into the non-TCLP MS/MSD. It should also be noted that the TCLP MS/MSD analyses were performed on a LANL sample from a different RN. However, MS/MSD analyses are not required for these analyses and, thus, no sample data were qualified.

Reviewed by: Mary Donivan Level: I Date: 01/13/10

VALIDATOR'S SIGNATURE: Eric T. Mink DATE: 1/13/10

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2

Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, P9	J-, P9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, P9	J-, P9a
☐	☒	☐	3. The affected analytes are regarded as rejected because the analytical holding time was exceeded.	R, P9b	R, P9b
☐	☒	☐	4. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, P7	J, P7
☐	☒	☐	5. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, P7a	J, P7a
☒	☐	☐	6. The Initial Calibration Verification (ICV) and/or Continuing Calibration Verification (CCV) were recovered outside the method-specific limits.	UJ, P7c	J, P7c
☐	☒	☐	7. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, P7d	J, P7d
☐	☐	☒	8. The multicomponent standard was not analyzed within 72 hours of the initial analysis.	R, P7e	J, P7e
☐	☒	☐	9. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, P7f	R, P7f
☐	☐	☒	10. The breakdown criteria have been exceeded. This can cause low bias in reported results. If compound is detected, qualify J-. If compound is not present, but breakdown products are present, qualify R. If no compounds or breakdown products are present, qualify UJ (4,4' DDT and Endrin).	UJ, R, P13	J-, P13

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2

Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	11. The breakdown criteria have been exceeded. This can cause high bias in the reported results and potential false positive results for the breakdown products Endrin ketone, Endrin aldehyde, DDD, and DDE.	UJ, P13a	J+, P13a
☐	☐	☒	12. The breakdown documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P13b	R, P13b
☐	☒	☐	13. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, P4	N/A
☐	☒	☐	14. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was greater than 5X.	N/A	J, P4a
☐	☐	☒	15. The sample result is ≤5X the concentration of the related analyte in the instrument blank and continuing calibration blank.	UJ, P4b	N/A
☐	☐	☒	16. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	UJ, P4d	N/A
☐	☒	☐	17. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P4e	R, P4e
☐	☒	☐	18. The analyte RT shifted by more than 0.05 minutes from the mid-level standard of the initial calibration.	R, P0	J, P0
☐	☒	☐	19. Required retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P0b	R, P0b
☐	☒	☐	20. The surrogate is <10%R. Follow the external laboratory limits located within the associated data package.	R, P3	J-, P3

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2

Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	21. The surrogate is < the Lower Acceptance Level (LAL) but ≥10%R. Follow the external laboratory limits located within the associated data package.	UJ, P3a	J-, P3a
☐	☒	☐	22. The surrogate %R value is > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, P3b
☐	☒	☐	23. At least one surrogate is > the Upper Acceptance Limit (UAL) and one surrogate is < the LAL. Follow the external laboratory limits located within the associated data package.	UJ, P3c	J, P3c
☐	☒	☐	24. Required surrogate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P3d	R, P3d
☐	☒	☐	25. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, P12	J-, P12
☐	☒	☐	26. The LCS percent recovery was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, P12a	J-, P12a
☐	☒	☐	27. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, P12b
☐	☒	☐	28. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P12c	R, P12c
☐	☐	☒	29. The analyte was not confirmed on a second dissimilar column.	N/A	R, P8
☐	☐	☒	30. The second dissimilar column documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P8a	R, P8a
☐	☒	☐	31. Duplicate, Dilution, or reanalysis.	UJ, P88	J, P88

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2 Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	32. The affected analytes have elevated detection limits and may not meet project DQOs because the sample was diluted without any target analytees identified due to matrix interference. Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.	UJ, R, P15	R, P15
☒	☐	☐	33. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB, NQ, NQ
☐	☒	☐	34. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.	UJ, R, P19	J, R, P19

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	10-899	Date Collected:	12/10/2009 12:00	Matrix:	R
Lab Sample ID:	242784003	Date Received:	12/12/2009 09:35	%Moisture:	6.7
		Client:	LANL010	Project:	LANL01004
Client ID:	WST03-10-2145	Method:	SW846 8081A	SOP Ref:	GL-OA-E-041
Batch ID:	932994	Inst:	ECD7A.I	Dilution:	5
Run Date:	12/16/2009 21:36	Analyst:	JXM	Inj. Vol:	1 uL
Prep Date:	12/15/2009 10:35	Aliquot:	30 g	Final Volume:	5 mL
Data File:	030f3001.d	Column:	1 CLP-1	Level:	LOW
	030b3001.d		2 CLP-2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ		Column
319-84-6	alpha-BHC	U	3.57	ug/kg	0.893	3.57		1
58-89-9	gamma-BHC (Lindane)	U	3.57	ug/kg	0.893	3.57		1
319-85-7	beta-BHC	U	3.57	ug/kg	0.893	3.57		1
319-86-8	delta-BHC	U	3.57	ug/kg	0.893	3.57		1
76-44-8	Heptachlor	U	3.57	ug/kg	0.893	3.57		1
309-00-2	Aldrin	U	3.57	ug/kg	0.893	3.57		1
1024-57-3	Heptachlor epoxide	U	3.57	ug/kg	1.12	3.57		1
5103-74-2	gamma-Chlordane	U	3.57	ug/kg	0.893	3.57		1
5103-71-9	alpha-Chlordane	U	3.57	ug/kg	0.893	3.57		1
959-98-8	Endosulfan I	U	3.57	ug/kg	0.893	3.57		1
72-55-9	4,4'-DDE	U	7.15	ug/kg	1.79	7.15		1
60-57-1	Dieldrin	U	7.15	ug/kg	1.79	7.15		1
72-20-8	Endrin	U	7.15	ug/kg	1.79	7.15		1
72-54-8	4,4'-DDD	U	7.15	ug/kg	1.79	7.15		1
33213-65-9	Endosulfan II	U	7.15	ug/kg	1.79	7.15		1
7421-93-4	Endrin aldehyde	U	7.15	ug/kg	1.79	7.15		1
50-29-3	4,4'-DDT	U	7.15	ug/kg	1.79	7.15		1
1031-07-8	Endosulfan sulfate	U	7.15	ug/kg	1.79	7.15		1
72-43-5	Methoxychlor	U	35.7	ug/kg	8.93	35.7	UJ,P7c	1
53494-70-5	Endrin ketone	U	7.15	ug/kg	1.79	7.15		1
8001-35-2	Toxaphene	U	89.3	ug/kg	29.7	89.3		1

ETM
1/13/10

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	10-899	**Date Collected:**	12/10/2009 12:00	**Matrix:**	R
Lab Sample ID:	242784004	**Date Received:**	12/12/2009 09:35	**%Moisture:**	9.8
		Client:	LANL010	**Project:**	LANL01004
Client ID:	WST03-10-2146	**Method:**	SW846 8081A	**SOP Ref:**	GL-OA-E-041
Batch ID:	932994	**Inst:**	ECD7A.I	**Dilution:**	5
Run Date:	12/16/2009 22:20	**Analyst:**	JXM	**Inj. Vol:**	1 uL
Prep Date:	12/15/2009 10:35	**Aliquot:**	30.01 g	**Final Volume:**	5 mL
Data File:	033f3301.d	**Column:**	1 CLP-1	**Level:**	LOW
	033b3301.d		2 CLP-2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ		Column
319-84-6	alpha-BHC	U	3.69	ug/kg	0.924	3.69		1
58-89-9	gamma-BHC (Lindane)	U	3.69	ug/kg	0.924	3.69		1
319-85-7	beta-BHC	U	3.69	ug/kg	0.924	3.69		1
319-86-8	delta-BHC	U	3.69	ug/kg	0.924	3.69		1
76-44-8	Heptachlor	U	3.69	ug/kg	0.924	3.69		1
309-00-2	Aldrin	U	3.69	ug/kg	0.924	3.69		1
1024-57-3	Heptachlor epoxide	U	3.69	ug/kg	1.15	3.69		1
5103-74-2	gamma-Chlordane	U	3.69	ug/kg	0.924	3.69		1
5103-71-9	alpha-Chlordane	U	3.69	ug/kg	0.924	3.69		1
959-98-8	Endosulfan I	U	3.69	ug/kg	0.924	3.69		1
72-55-9	4,4'-DDE	U	7.39	ug/kg	1.85	7.39		1
60-57-1	Dieldrin	U	7.39	ug/kg	1.85	7.39		1
72-20-8	Endrin	U	7.39	ug/kg	1.85	7.39		1
72-54-8	4,4'-DDD	U	7.39	ug/kg	1.85	7.39		1
33213-65-9	Endosulfan II	U	7.39	ug/kg	1.85	7.39		1
7421-93-4	Endrin aldehyde	U	7.39	ug/kg	1.85	7.39		1
50-29-3	4,4'-DDT	U	7.39	ug/kg	1.85	7.39		1
1031-07-8	Endosulfan sulfate	U	7.39	ug/kg	1.85	7.39		1
72-43-5	Methoxychlor	U	36.9	ug/kg	9.24	36.9	UJ,P7c	1
53494-70-5	Endrin ketone	U	7.39	ug/kg	1.85	7.39		1
8001-35-2	Toxaphene	U	92.4	ug/kg	30.8	92.4		1

ETM
1/13/10

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	10–899–1	**Date Collected:**	12/10/2009 12:00	**Matrix:**	TCLP R
Lab Sample ID:	242785001	**Date Received:**	12/12/2009 09:35		
		Client:	LANL010	**Project:**	LANL01004
Client ID:	WST03–10–2145	**Method:**	SW846 8081A	**SOP Ref:**	GL–OA–E–041
Batch ID:	934315	**Inst:**	ECD5A.I	**Dilution:**	5
Run Date:	12/22/2009 19:29	**Analyst:**	CXC2	**Inj. Vol:**	1 uL
Prep Date:	12/22/2009 17:25	**Aliquot:**	20 mL	**Final Volume:**	1 mL
Data File:	027f2701.d	**Column:**	1 CLP–1	**Level:**	LOW
	027b2701.d		2 CLP–2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
58–89–9	gamma–BHC (Lindane)	U	0.001	mg/L	0.00025	0.001	1
76–44–8	Heptachlor	U	0.001	mg/L	0.00025	0.001	1
1024–57–3	Heptachlor epoxide	U	0.001	mg/L	0.00025	0.001	1
72–20–8	Endrin	U	0.002	mg/L	0.0005	0.002	1
72–43–5	Methoxychlor	U	0.010	mg/L	0.0025	0.010	1
57–74–9	Chlordane (tech.)	U	0.0125	mg/L	0.00383	0.0125	1
8001–35–2	Toxaphene	U	0.025	mg/L	0.0075	0.025	1

ETM
1/13/10

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	10-899-1	**Date Collected:**	12/10/2009 12:00	**Matrix:**	TCLP R
Lab Sample ID:	242785002	**Date Received:**	12/12/2009 09:35		
		Client:	LANL010	**Project:**	LANL01004
Client ID:	WST03-10-2146	**Method:**	SW846 8081A	**SOP Ref:**	GL-OA-E-041
Batch ID:	934315	**Inst:**	ECD5A.I	**Dilution:**	5
Run Date:	12/22/2009 19:41	**Analyst:**	CXC2	**Inj. Vol:**	1 uL
Prep Date:	12/22/2009 17:25	**Aliquot:**	20 mL	**Final Volume:**	1 mL
Data File:	028f2801.d	**Column:**	1 CLP-1	**Level:**	LOW
	028b2801.d		2 CLP-2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
58-89-9	gamma-BHC (Lindane)	U	0.001	mg/L	0.00025	0.001	1
76-44-8	Heptachlor	U	0.001	mg/L	0.00025	0.001	1
1024-57-3	Heptachlor epoxide	U	0.001	mg/L	0.00025	0.001	1
72-20-8	Endrin	U	0.002	mg/L	0.0005	0.002	1
72-43-5	Methoxychlor	U	0.010	mg/L	0.0025	0.010	1
57-74-9	Chlordane (tech.)	U	0.0125	mg/L	0.00383	0.0125	1
8001-35-2	Toxaphene	U	0.025	mg/L	0.0075	0.025	1

ETM
1/13/10

DATA VALIDATION COVER SHEET

5116-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-899 VALIDATION DATE: 1/13/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Eric T. Mink ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☒ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE): PCBs

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. It should be noted that the MS/MSD analyses were performed on a LANL sample from a different RN. Also, the raw data for the parent sample was not provided in the data package. However, MS/MSD analyses are not required for this analysis and, thus, no sample data were qualified.

Reviewed by: Mary Donivan Level: I Date: 01/13/10

VALIDATOR'S SIGNATURE: Eric T. Mink DATE: 1/13/10

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2

Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, P9	J-, P9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, P9	J-, P9a
☐	☒	☐	3. The affected analytes are regarded as rejected because the analytical holding time was exceeded.	R, P9b	R, P9b
☐	☒	☐	4. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, P7	J, P7
☐	☒	☐	5. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, P7a	J, P7a
☐	☒	☐	6. The Initial Calibration Verification (ICV) and/or Continuing Calibration Verification (CCV) were recovered outside the method-specific limits.	UJ, P7c	J, P7c
☐	☒	☐	7. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, P7d	J, P7d
☐	☐	☒	8. The multicomponent standard was not analyzed within 72 hours of the initial analysis.	R, P7e	J, P7e
☐	☒	☐	9. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, P7f	R, P7f
☐	☐	☒	10. The breakdown criteria have been exceeded. This can cause low bias in reported results. If compound is detected, qualify J-. If compound is not present, but breakdown products are present, qualify R. If no compounds or breakdown products are present, qualify UJ (4,4' DDT and Endrin).	UJ, R, P13	J-, P13

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2

Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	11. The breakdown criteria have been exceeded. This can cause high bias in the reported results and potential false positive results for the breakdown products Endrin ketone, Endrin aldehyde, DDD, and DDE.	UJ, P13a	J+, P13a
☐	☐	☒	12. The breakdown documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P13b	R, P13b
☐	☒	☐	13. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, P4	N/A
☐	☒	☐	14. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was greater than 5X.	N/A	J, P4a
☐	☐	☒	15. The sample result is ≤5X the concentration of the related analyte in the instrument blank and continuing calibration blank.	UJ, P4b	N/A
☐	☐	☒	16. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	UJ, P4d	N/A
☐	☒	☐	17. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P4e	R, P4e
☐	☒	☐	18. The analyte RT shifted by more than 0.05 minutes from the mid-level standard of the initial calibration.	R, P0	J, P0
☐	☒	☐	19. Required retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P0b	R, P0b
☐	☒	☐	20. The surrogate is <10%R. Follow the external laboratory limits located within the associated data package.	R, P3	J-, P3

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2

Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	21. The surrogate is < the Lower Acceptance Level (LAL) but ≥10%R. Follow the external laboratory limits located within the associated data package.	UJ, P3a	J-, P3a
☐	☒	☐	22. The surrogate %R value is > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, P3b
☐	☒	☐	23. At least one surrogate is > the Upper Acceptance Limit (UAL) and one surrogate is < the LAL. Follow the external laboratory limits located within the associated data package.	UJ, P3c	J, P3c
☐	☒	☐	24. Required surrogate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P3d	R, P3d
☐	☒	☐	25. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, P12	J-, P12
☐	☒	☐	26. The LCS percent recovery was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, P12a	J-, P12a
☐	☒	☐	27. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, P12b
☐	☒	☐	28. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P12c	R, P12c
☐	☐	☒	29. The analyte was not confirmed on a second dissimilar column.	N/A	R, P8
☐	☐	☒	30. The second dissimilar column documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P8a	R, P8a
☐	☒	☐	31. Duplicate, Dilution, or reanalysis.	UJ, P88	J, P88

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2 Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	32. The affected analytes have elevated detection limits and may not meet project DQOs because the sample was diluted without any target analytees identified due to matrix interference. Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.	UJ, R, P15	R, P15
☒	☐	☐	33. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB, NQ, NQ
☐	☒	☐	34. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.	UJ, R, P19	J, R, P19

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10-899	**Date Collected:**	12/10/2009 12:00	**Matrix:**	R
Lab Sample ID:	242784003	**Date Received:**	12/12/2009 09:35	**%Moisture:**	6.7
		Client:	LANL010	**Project:**	LANL01004
Client ID:	WST03-10-2145	**Method:**	SW846 8082	**SOP Ref:**	GL-OA-E-040
Batch ID:	933402	**Inst:**	ECD2A.I	**Dilution:**	5
Run Date:	12/16/2009 18:07	**Analyst:**	JAOC	**Inj. Vol:**	1 uL
Prep Date:	12/16/2009 09:01	**Aliquot:**	30.01 g	**Final Volume:**	1 mL
Data File:	057f5701.d	**Column:**	1 CLP1	**Level:**	LOW
	057b5701.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	17.9	ug/kg	5.95	17.9	1
11104-28-2	Aroclor-1221	U	17.9	ug/kg	5.95	17.9	1
11141-16-5	Aroclor-1232	U	17.9	ug/kg	5.95	17.9	1
53469-21-9	Aroclor-1242	U	17.9	ug/kg	5.95	17.9	1
12672-29-6	Aroclor-1248	U	17.9	ug/kg	5.95	17.9	1
11097-69-1	Aroclor-1254	U	17.9	ug/kg	5.95	17.9	1
11096-82-5	Aroclor-1260	U	17.9	ug/kg	5.95	17.9	1

ETM
1/13/10

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10-899	**Date Collected:**	12/10/2009 12:00	**Matrix:**	R
Lab Sample ID:	242784004	**Date Received:**	12/12/2009 09:35	**%Moisture:**	9.8
		Client:	LANL010	**Project:**	LANL01004
Client ID:	WST03-10-2146	**Method:**	SW846 8082	**SOP Ref:**	GL-OA-E-040
Batch ID:	933402	**Inst:**	ECD2A.I	**Dilution:**	5
Run Date:	12/16/2009 18:18	**Analyst:**	JAOC	**Inj. Vol:**	1 uL
Prep Date:	12/16/2009 09:01	**Aliquot:**	30 g	**Final Volume:**	1 mL
Data File:	058f5801.d	**Column:**	1 CLP1	**Level:**	LOW
	058b5801.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	18.5	ug/kg	6.15	18.5	1
11104-28-2	Aroclor-1221	U	18.5	ug/kg	6.15	18.5	1
11141-16-5	Aroclor-1232	U	18.5	ug/kg	6.15	18.5	1
53469-21-9	Aroclor-1242	U	18.5	ug/kg	6.15	18.5	1
12672-29-6	Aroclor-1248	U	18.5	ug/kg	6.15	18.5	1
11097-69-1	Aroclor-1254	U	18.5	ug/kg	6.15	18.5	1
11096-82-5	Aroclor-1260	U	18.5	ug/kg	6.15	18.5	1

ETM
1/13/10

DATA VALIDATION COVER SHEET

5116-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-899 VALIDATION DATE: 1/13/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Eric T. Mink ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☒ OTHER (DESCRIBE): non-TCLP and TCLP Herbicides

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. In the CCV associated with the non-TCLP samples, the %D for dinoseb was >15% on one column only. In the CCV associated with the TCLP samples, the %D for 2,4,5-TP was >15% on one column only. The associated sample results were NDs and, thus, were not qualified.
2. It should be noted that the non-TCLP MS/MSD %Rs for MCPP were not within the laboratory's QC limits. It should also be noted that the TCLP MS/MSD analyses were performed on a LANL samples from a different RN. However, MS/MSD analyses are not required for this analysis and, thus, no sample data were qualified.

Reviewed by: Mary Donivan Level: I Date: 01/13/10

VALIDATOR'S SIGNATURE: Eric T. Mink DATE: 1/13/10

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2

Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, P9	J-, P9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, P9	J-, P9a
☐	☒	☐	3. The affected analytes are regarded as rejected because the analytical holding time was exceeded.	R, P9b	R, P9b
☐	☒	☐	4. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, P7	J, P7
☐	☒	☐	5. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, P7a	J, P7a
☒	☐	☐	6. The Initial Calibration Verification (ICV) and/or Continuing Calibration Verification (CCV) were recovered outside the method-specific limits.	UJ, P7c	J, P7c
☐	☒	☐	7. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, P7d	J, P7d
☐	☐	☒	8. The multicomponent standard was not analyzed within 72 hours of the initial analysis.	R, P7e	J, P7e
☐	☒	☐	9. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, P7f	R, P7f
☐	☐	☒	10. The breakdown criteria have been exceeded. This can cause low bias in reported results. If compound is detected, qualify J-. If compound is not present, but breakdown products are present, qualify R. If no compounds or breakdown products are present, qualify UJ (4,4' DDT and Endrin).	UJ, R, P13	J-, P13

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2

Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	11. The breakdown criteria have been exceeded. This can cause high bias in the reported results and potential false positive results for the breakdown products Endrin ketone, Endrin aldehyde, DDD, and DDE.	UJ, P13a	J+, P13a
☐	☐	☒	12. The breakdown documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P13b	R, P13b
☐	☒	☐	13. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, P4	N/A
☐	☒	☐	14. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was greater than 5X.	N/A	J, P4a
☐	☐	☒	15. The sample result is ≤5X the concentration of the related analyte in the instrument blank and continuing calibration blank.	UJ, P4b	N/A
☐	☐	☒	16. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	UJ, P4d	N/A
☐	☒	☐	17. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P4e	R, P4e
☐	☒	☐	18. The analyte RT shifted by more than 0.05 minutes from the mid-level standard of the initial calibration.	R, P0	J, P0
☐	☒	☐	19. Required retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P0b	R, P0b
☐	☒	☐	20. The surrogate is <10%R. Follow the external laboratory limits located within the associated data package.	R, P3	J-, P3

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2

Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below if Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	21. The surrogate is < the Lower Acceptance Level (LAL) but ≥10%R. Follow the external laboratory limits located within the associated data package.	UJ, P3a	J-, P3a
☐	☒	☐	22. The surrogate %R value is > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, P3b
☐	☐	☒	23. At least one surrogate is > the Upper Acceptance Limit (UAL) and one surrogate is < the LAL. Follow the external laboratory limits located within the associated data package.	UJ, P3c	J, P3c
☐	☒	☐	24. Required surrogate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P3d	R, P3d
☐	☒	☐	25. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, P12	J-, P12
☐	☒	☐	26. The LCS percent recovery was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, P12a	J-, P12a
☐	☒	☐	27. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, P12b
☐	☒	☐	28. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P12c	R, P12c
☐	☐	☒	29. The analyte was not confirmed on a second dissimilar column.	N/A	R, P8
☐	☐	☒	30. The second dissimilar column documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P8a	R, P8a
☐	☒	☐	31. Duplicate, Dilution, or reanalysis.	UJ, P88	J, P88

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2

Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	**32. The affected analytes have elevated detection limits and may not meet project DQOs because the sample was diluted without any target analytees identified due to matrix interference. Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.**	**UJ, R, P15**	**R, P15**
☒	☐	☐	**33. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.**	**U, U_LAB**	**J, J_LAB, NQ, NQ**
☐	☒	☐	**34. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.**	**UJ, R, P19**	**J, R, P19**

Herbicide
Certificate of Analysis
Sample Summary

SDG Number:	10-899	**Date Collected:**	12/10/2009 12:00	**Matrix:**	R
Lab Sample ID:	242784003	**Date Received:**	12/12/2009 09:35	**%Moisture:**	6.7
		Client:	LANL010	**Project:**	LANL01004
Client ID:	WST03-10-2145	**Method:**	SW846 8151A	**SOP Ref:**	GL-OA-E-011
Batch ID:	932999	**Inst:**	ECD6A.I	**Dilution:**	1
Run Date:	12/23/2009 04:52	**Analyst:**	HXJ1	**Inj. Vol:**	1 uL
Prep Date:	12/15/2009 16:48	**Aliquot:**	50.01 g	**Final Volume:**	10 mL
Data File:	019f1901.d	**Column:**	1 Rtx-CLP	**Level:**	LOW
	019b1901.d		2 Rtx-CLPII		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
75-99-0	Dalapon	U	107	ug/kg	21.4	107	1
1918-00-9	Dicamba	U	5.36	ug/kg	1.78	5.36	1
93-65-2	MCPP	U	1070	ug/kg	214	1070	1
94-74-6	MCPA	U	1070	ug/kg	246	1070	1
120-36-5	Dichlorprop	U	5.36	ug/kg	1.78	5.36	1
94-75-7	2,4-D	U	5.36	ug/kg	1.78	5.36	1
93-72-1	2,4,5-TP	U	5.36	ug/kg	1.78	5.36	1
93-76-5	2,4,5-T	U	5.36	ug/kg	1.78	5.36	1
94-82-6	2,4-DB	U	5.36	ug/kg	1.78	5.36	1
88-85-7	Dinoseb	U	5.36	ug/kg	1.78	5.36	1

ETM
1/13/10

Herbicide
Certificate of Analysis
Sample Summary

SDG Number:	10-899	**Date Collected:**	12/10/2009 12:00	**Matrix:**	R
Lab Sample ID:	242784004	**Date Received:**	12/12/2009 09:35	**%Moisture:**	9.8
		Client:	LANL010	**Project:**	LANL01004
Client ID:	WST03-10-2146	**Method:**	SW846 8151A	**SOP Ref:**	GL-OA-E-011
Batch ID:	932999	**Inst:**	ECD6A.I	**Dilution:**	10
Run Date:	12/23/2009 05:20	**Analyst:**	HXJ1	**Inj. Vol:**	1 uL
Prep Date:	12/15/2009 16:48	**Aliquot:**	50 g	**Final Volume:**	10 mL
Data File:	020f2001.d	**Column:**	1 Rtx-CLP	**Level:**	LOW
	020b2001.d		2 Rtx-CLPII		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
75-99-0	Dalapon	U	1110	ug/kg	222	1110	1
1918-00-9	Dicamba	U	55.4	ug/kg	18.4	55.4	1
93-65-2	MCPP	U	11100	ug/kg	2220	11100	1
94-74-6	MCPA	U	11100	ug/kg	2550	11100	1
120-36-5	Dichlorprop	U	55.4	ug/kg	18.4	55.4	1
94-75-7	2,4-D	U	55.4	ug/kg	18.4	55.4	1
93-72-1	2,4,5-TP	U	55.4	ug/kg	18.4	55.4	1
93-76-5	2,4,5-T	U	55.4	ug/kg	18.4	55.4	1
94-82-6	2,4-DB	U	55.4	ug/kg	18.4	55.4	1
88-85-7	Dinoseb	U	55.4	ug/kg	18.4	55.4	1

ETM
1/13/10

Herbicide
Certificate of Analysis
Sample Summary

SDG Number:	10-899-1	Date Collected:	12/10/2009 12:00	Matrix:	TCLP R
Lab Sample ID:	242785001	Date Received:	12/12/2009 09:35		
		Client:	LANL010	Project:	LANL01004
Client ID:	WST03-10-2145	Method:	SW846 8151A	SOP Ref:	GL-OA-E-011
Batch ID:	934950	Inst:	ECD3A.I	Dilution:	1
Run Date:	12/23/2009 04:55	Analyst:	HXJ1	Inj. Vol:	1 uL
Prep Date:	12/21/2009 18:40	Aliquot:	5 mL	Final Volume:	10 mL
Data File:	027f2701.d	Column:	1 Rtx-CLPI	Level:	LOW
	027b2701.d		2 Rtx-CLPII		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
94-75-7	2,4-D	U	0.050	mg/L	0.0166	0.050	1
93-72-1	2,4,5-TP	U	0.050	mg/L	0.0166	0.050	1

ETM
1/13/10

Herbicide
Certificate of Analysis
Sample Summary

SDG Number:	10-899-1	**Date Collected:**	12/10/2009 12:00	**Matrix:**	TCLP R
Lab Sample ID:	242785002	**Date Received:**	12/12/2009 09:35		
		Client:	LANL010	**Project:**	LANL01004
Client ID:	WST03-10-2146	**Method:**	SW846 8151A	**SOP Ref:**	GL-OA-E-011
Batch ID:	934950	**Inst:**	ECD3A.I	**Dilution:**	1
Run Date:	12/23/2009 05:20	**Analyst:**	HXJ1	**Inj. Vol:**	1 uL
Prep Date:	12/21/2009 18:40	**Aliquot:**	5 mL	**Final Volume:**	10 mL
Data File:	028f2801.d	**Column:**	1 Rtx-CLPI	**Level:**	LOW
	028b2801.d		2 Rtx-CLPII		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
94-75-7	2,4-D	U	0.050	mg/L	0.0166	0.050	1
93-72-1	2,4,5-TP	U	0.050	mg/L	0.0166	0.050	1

ETM
1/13/10

Friday, December 11, 2009

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-899C

REQUEST NUMBER: 10-899

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 12/26/2009

TURNAROUND REQ'D: 15

LAB REQUEST COMMENTS: 242784, 242785

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
WST03-10-2199	1	SEPTUM AMBER GLASS	8260B Trip Blank	Ice	S
WST03-10-2199	2	SEPTUM AMBER GLASS	8260B Trip Blank	Ice	S
WST03-10-2198	1	SEPTUM AMBER GLASS	8260B Trip Blank	Ice	S
WST03-10-2198	2	SEPTUM AMBER GLASS	8260B Trip Blank	Ice	S
WST03-10-2145	1	GLASS	8081A+8151A	Ice	R
WST03-10-2145	1	GLASS	8260B+TPH-GRO	Ice	R
WST03-10-2145	2	GLASS	8260B+TPH-GRO	Ice	R
WST03-10-2145	1	GLASS	8270C+8082+TPH-DRO	Ice	R
WST03-10-2145	1	AMBER GLASS	TCLP ORGANICS P/H/S/V	Ice	R
WST03-10-2146	1	GLASS	8081A+8151A	Ice	R
WST03-10-2146	1	GLASS	8260B+TPH-GRO	Ice	R
WST03-10-2146	2	GLASS	8260B+TPH-GRO	Ice	R
WST03-10-2146	1	GLASS	8270C+8082+TPH-DRO	Ice	R
WST03-10-2146	1	AMBER GLASS	TCLP ORGANICS P/H/S/V	Ice	R

Relinquished By:	Date	Time	Received By:	Date	Time
[illegible]	12/11/09	3:00	Patricia Dover-Dent P. D. Dent	12-12-09	09:35
Printed Name / Signature			Printed Name / Signature		
Printed Name / Signature			Printed Name / Signature		
Printed Name / Signature			Printed Name / Signature		

Received for DISPOSAL By: **Date** **Time** **Remarks:**

Printed Name / Signature

Friday, December 11, 2009

REQUEST NUMBER: 10-899

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis
General Engineering Laboratories, Inc., Charleston, SC.
2040 Savage Rd
Charleston, SC 29407

These Samples are on:
LANL Request Number:10-899
Per Agreement Number:126310011
Project Cost Code: MR2A054196D0

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 12/11/2009
TURNAROUND/REPORT DUE: 12/26/2009
TURNAROUND REQ'D: 15 Days

RAD SCREENING: Yes, Below Background
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8015M_EXTRACTABLE	1	WST03-10-2145	R	12/10/2009	
		1	WST03-10-2146	R	12/10/2009	
	SW-846:8015M_PURGEABLE	1	WST03-10-2145	R	12/10/2009	
		2	WST03-10-2145	R	12/10/2009	
		1	WST03-10-2146	R	12/10/2009	
		2	WST03-10-2146	R	12/10/2009	

Friday, December 11, 2009

REQUEST NUMBER: 10-899

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8081A	1	WST03-10-2145	R	12/10/2009	
		1	WST03-10-2146	R	12/10/2009	
	SW-846:8081A_TCLP	1	WST03-10-2145	R	12/10/2009	
		1	WST03-10-2146	R	12/10/2009	
	SW-846:8082	1	WST03-10-2145	R	12/10/2009	
		1	WST03-10-2146	R	12/10/2009	
	SW-846:8151A	1	WST03-10-2145	R	12/10/2009	
		1	WST03-10-2146	R	12/10/2009	
	SW-846:8151A_TCLP	1	WST03-10-2145	R	12/10/2009	
		1	WST03-10-2146	R	12/10/2009	
	SW-846:8260B	1	WST03-10-2145	R	12/10/2009	
		2	WST03-10-2145	R	12/10/2009	
		1	WST03-10-2146	R	12/10/2009	
		2	WST03-10-2146	R	12/10/2009	
		1	WST03-10-2198	S	12/10/2009	
		2	WST03-10-2198	S	12/10/2009	
		1	WST03-10-2199	S	12/10/2009	
		2	WST03-10-2199	S	12/10/2009	
	SW-846:8260B_TCLP	1	WST03-10-2145	R	12/10/2009	
		1	WST03-10-2146	R	12/10/2009	
	SW-846:8270C	1	WST03-10-2145	R	12/10/2009	
		1	WST03-10-2146	R	12/10/2009	
	SW-846:8270C_TCLP	1	WST03-10-2145	R	12/10/2009	
		1	WST03-10-2146	R	12/10/2009	

Final Page of REQUEST NUMBER 10-899

GEL Laboratories LLC

a member of The GEL Group INC

PO Box 30712 Charleston, SC 29417
2040 Savage Road Charleston, SC 29407

P 843.556.8171 F 843.766.1178

www.gel.com

December 19, 2009

Ms. Joylene Valdez
Los Alamos National Laboratory
PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545

Re: LANL ER Project
Work Orders: 242784 242785
SDG: 10-899

Dear Ms. Valdez:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the following analytical results for the sample(s) we received on December 12, 2009, and analyzed for FID Flame Ionization Detector, GC Semivolatile Herbicide, GC Semivolatile PCB, GC Semivolatile Pesticide, GC Volatiles (GRO), GC/MS Semivolatile and GC/MS Volatile. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 4485.

Sincerely,

for

Valerie Davis
Project Manager

Purchase Order: 72733-001-09
Chain of Custody: 10-899
Enclosures

problem solved

Los Alamos National Laboratory (72733-001-09)
LANL ER Project
Work Order #: 242784 and 242785
SDG: 10-899

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- Quality Control Summary 28
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- Standards 93
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- Case Narrative 210
- Sample Data Summary 216
- Quality Control Summary 219
- Sample Data 228
- Standards 244
- Quality Control Data 271
- Miscellaneous 302

GC/MS Semivolatile Analysis **306**
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- QC Summary 319
- Sample Data 338
- Standard Data 377
- QC Data 430
- Miscellaneous Data 459

GC/MS Semivolatile Analysis **475**
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- QC Summary 485
- Sample Data 495
- Standard Data 504
- QC Data 546
- Miscellaneous Data 580

GC Semivolatile DRO Analysis **589**

Sample Data Summary 594
Quality Control Summary..... 597
Sample Data 603
Standards Data..... 614
Quality Control Data 631
Miscellaneous Data 638

GC Volatile GRO Analysis..... 648
Sample Data Summary 654
QC Summary..... 657
Sample Data 663
Standard Data 670
QC Data..... 684
Miscellaneous Data 691

GC Semivolatile Pesticide Analysis..... 702
Sample Data Summary 708
Quality Control Summary..... 711
Sample Data 718
Standards Data..... 729
Quality Control Data 827
Miscellaneous Data 877

GC Semivolatile Pesticide Analysis..... 883
Sample Data Summary 890
Quality Control Summary..... 893
Sample Data 905
Standards Data..... 916
Quality Control Data 1040
Miscellaneous Data 1082

GC Semivolatile PCB Analysis 1126
Sample Data Summary 1132
Quality Control Summary..... 1135
Sample Data 1141
Standards Data..... 1152
Quality Control Data 1212
Miscellaneous Data 1225

GC Semivolatile Herbicide Analysis 1246
Sample Data Summary 1252

Quality Control Summary 1255
Sample Data 1261
Standards Data 1272
Quality Control Data 1322
Miscellaneous Data 1355

GC Semivolatile Herbicide Analysis 1360
Sample Data Summary 1367
Quality Control Summary 1370
Sample Data 1376
Standards Data 1387
Quality Control Data 1427
Miscellaneous Data 1443

Case Narrative

Case Narrative for
Los Alamos National Laboratory (72733-001-09)
LANL ER Project
Workorder #: 242784 and 242785
SDG # : 10-899

December 19, 2009

Laboratory Identification:

GEL Laboratories LLC
2040 Savage Road
Charleston, South Carolina 29407
(843) 556-8171

Summary

Sample receipt The samples arrived at GEL Laboratories LLC, Charleston, South Carolina on December 12, 2009 for analysis. The samples were prepared/analyzed within the required holding time. Shipping container temperatures were checked, documented, and within specifications. The samples were screened according to GEL Standard Operating Procedure. There were discrepancies with the number of containers received. Please see attached e-mail. All sample containers arrived without any visible signs of tampering or breakage. Containers were checked for pH, where appropriate, and matched the preservative as documented on the accompanying chain of custody. Shipping container temperature was within specification (0 - 6C).

Sample Identification The laboratory received the following samples:

Laboratory ID	Client ID
242784001	WST03-10-2199
242784002	WST03-10-2198
242784003	WST03-10-2145
242784004	WST03-10-2146
242785001	WST03-10-2145
242785002	WST03-10-2146

Case Narrative

Sample analyses were conducted using methodology as outlined in GEL Laboratories, LLC (GEL) Standard Operating Procedures. Any technical or administrative problems during analysis, data review, and reduction are contained in the analytical case narratives in the enclosed data package.

Data Package The enclosed data package contains the following sections: Case Narrative, Chain of Custody, Cooler Receipt Checklist, Data Package Qualifier Definitions and data from the following fractions: FID Flame Ionization Detector, GC Semivolatile Herbicide, GC Semivolatile PCB, GC Semivolatile Pesticide, GC Volatiles (GRO), GC/MS Semivolatile and GC/MS Volatile.

I certify that this data report is in compliance with the terms and conditions of the subcontract and task order, both technically and for completeness, for other than the conditions detailed in the attached case narrative.

for

Valerie Davis

Project Manager

List of current GEL Certifications as of 19 December 2009

State	Certification
Arizona	AZ0668
Arkansas	88-0651
CLIA	42D0904046
California – NELAP	01151CA
Colorado	GEL
Connecticut	PH-0169
Dept. of Navy	NFESC 413
EPA Region 5	WG-15J
Florida – NELAP	E87156
Georgia	E87156 (FL/NELAP)
Georgia DW	967
Hawaii	N/A
ISO 17025	2567.01
Idaho	SC00012
Illinois – NELAP	200029
Indiana	C-SC-01
Kansas – NELAP	E-10332
Kentucky	90129
Louisiana – NELAP	03046
Maryland	270
Massachusetts	M-SC012
Nevada	SC00012
New Jersey – NELAP	SC002
New Mexico	FL NELAP E87156
New York – NELAP	11501
North Carolina	233
North Carolina DW	45709
Oklahoma	9904
Pennsylvania – NELAP	68-00485
South Carolina	10120001/10120002
Tennessee	TN 02934
Texas – NELAP	T104704235-07B-TX
U.S. Dept. of Agriculture	S-52597
Utah – NELAP	GEL
Vermont	VT87156
Virginia	00151
Washington	C1641

Chain of Custody and Supporting Documentation

Friday, December 11, 2009

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-899C

REQUEST NUMBER: 10-899

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 12/26/2009

TURNAROUND REQ'D: 15

LAB REQUEST COMMENTS: 242784, 242785

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
WST03-10-2199	1	SEPTUM AMBER GLASS	8260B Trip Blank	Ice	S
WST03-10-2199	2	SEPTUM AMBER GLASS	8260B Trip Blank	Ice	S
WST03-10-2198	1	SEPTUM AMBER GLASS	8260B Trip Blank	Ice	S
WST03-10-2198	2	SEPTUM AMBER GLASS	8260B Trip Blank	Ice	S
WST03-10-2145	1	GLASS	8081A+8151A	Ice	R
WST03-10-2145	1	GLASS	8260B+TPH-GRO	Ice	R
WST03-10-2145	2	GLASS	8260B+TPH-GRO	Ice	R
WST03-10-2145	1	GLASS	8270C+8082+TPH-DRO	Ice	R
WST03-10-2145	1	AMBER GLASS	TCLP ORGANICS P/H/S/V	Ice	R
WST03-10-2146	1	GLASS	8081A+8151A	Ice	R
WST03-10-2146	1	GLASS	8260B+TPH-GRO	Ice	R
WST03-10-2146	2	GLASS	8260B+TPH-GRO	Ice	R
WST03-10-2146	1	GLASS	8270C+8082+TPH-DRO	Ice	R
WST03-10-2146	1	AMBER GLASS	TCLP ORGANICS P/H/S/V	Ice	R

Relinquished By:	Date	Time	Received By:	Date	Time
[signature]	12/11/09	3:00	Patricia Dover-Dent P.D. Dent	12-12-09	09:35
Printed Name / Signature			Printed Name / Signature		
Printed Name / Signature			Printed Name / Signature		
Printed Name / Signature			Printed Name / Signature		

Received for DISPOSAL By: **Date** **Time** **Remarks:**

Printed Name / Signature

Friday, December 11, 2009

REQUEST NUMBER: 10-899

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis
General Engineering Laboratories, Inc., Charleston, SC.
2040 Savage Rd
Charleston, SC 29407

These Samples are on:
LANL Request Number:10-899
Per Agreement Number:126310011
Project Cost Code: MR2A054196D0

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 12/11/2009
TURNAROUND/REPORT DUE: 12/26/2009
TURNAROUND REQ'D: 15 Days

RAD SCREENING: Yes, Below Background
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8015M_EXTRACTABLE	1	WST03-10-2145	R	12/10/2009	
		1	WST03-10-2146	R	12/10/2009	
	SW-846:8015M_PURGEABLE	1	WST03-10-2145	R	12/10/2009	
		2	WST03-10-2145	R	12/10/2009	
		1	WST03-10-2146	R	12/10/2009	
		2	WST03-10-2146	R	12/10/2009	

Friday, December 11, 2009

REQUEST NUMBER: 10-899

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8081A	1	WST03-10-2145	R	12/10/2009	
		1	WST03-10-2146	R	12/10/2009	
	SW-846:8081A_TCLP	1	WST03-10-2145	R	12/10/2009	
		1	WST03-10-2146	R	12/10/2009	
	SW-846:8082	1	WST03-10-2145	R	12/10/2009	
		1	WST03-10-2146	R	12/10/2009	
	SW-846:8151A	1	WST03-10-2145	R	12/10/2009	
		1	WST03-10-2146	R	12/10/2009	
	SW-846:8151A_TCLP	1	WST03-10-2145	R	12/10/2009	
		1	WST03-10-2146	R	12/10/2009	
	SW-846:8260B	1	WST03-10-2145	R	12/10/2009	
		2	WST03-10-2145	R	12/10/2009	
		1	WST03-10-2146	R	12/10/2009	
		2	WST03-10-2146	R	12/10/2009	
		1	WST03-10-2198	S	12/10/2009	
		2	WST03-10-2198	S	12/10/2009	
		1	WST03-10-2199	S	12/10/2009	
		2	WST03-10-2199	S	12/10/2009	
	SW-846:8260B_TCLP	1	WST03-10-2145	R	12/10/2009	
		1	WST03-10-2146	R	12/10/2009	
	SW-846:8270C	1	WST03-10-2145	R	12/10/2009	
		1	WST03-10-2146	R	12/10/2009	
	SW-846:8270C_TCLP	1	WST03-10-2145	R	12/10/2009	
		1	WST03-10-2146	R	12/10/2009	

Final Page of REQUEST NUMBER 10-899

GEL Laboratories LLC

SAMPLE RECEIPT & REVIEW FORM

Client:LANL	**SDG/ARCOC/Work Order:10-899**
Received By:Patricia Dover-Dent	**Date Received:December 12, 2009**

Suspected Hazard Information	**Yes**	**No**	*If Counts > x2 area background on samples not marked "radioactive", contact the Radiation Safety Group of further
COC/Samples marked as radioactive?		X	Maximum Counts Observed*:30 CPM
Classified Radioactive II by RSO?		X	
COC/Samples marked containing PCBs?		X	
Shipped as a DOT Hazardous?		X	Hazard Class Shipped: UN#:
Samples identified as Foreign Soil?		X	

	Sample Receipt Criteria	**Yes**	**NA**	**No**	**Comments/Qualifiers (Required for Non-Conforming Items)**
1	Shipping containers received intact and sealed?	X			Circle Applicable: seals broken damaged container leaking container other (describe
2	Samples requiring cold preservation within (0 < 6 deg. C?	X			Preservation Method: ice bags **BLUE ICE** dry ice **NONE** other (describe) **1,2C**
3	Chain of custody documents included with shipment?	X			
4	Sample containers intact and sealed?	X			Circle Applicable: seals broken damaged container leaking container other (describe)
5	Samples requiring chemical preservation at proper pH?		X		Sample ID's, containers affected and observed pH. If Preservative added, Lot#:
6	VOA vials free of headspace (defined as < 6mm bubble)?		X		Sample ID's and containers affected:
7	Are Encore containers present?			X	(If yes, immediately deliver to Volatiles laboratory)
8	Samples received within holding time?	X			Id's and tests affected:
9	Sample ID's on COC match ID's on bottles?	X			Sample ID's and containers affected:
10	Date & time on COC match date & time on bottles?		X		Sample ID's affected: **No Time on Chain of Custody**
11	Number of containers received match number indicated on COC?			X	Sample ID's affected: **WST03-10-2198,2199 for 8260B the chain of custody states (2)-40ml Vial, the lab only rec'd (1)each.**
12	COC form is properly signed in relinquished/received sections?	X			

Comments:FED EX #'S
7209 7849 2141 1C
7209 7849 2174 1C
7209 7849 2185 1C
7209 7849 2163 2C
7209 7849 2196 2C

PM (or PMA) review: Initials GRT Date 12-15-09

ORIGIN ID: SAFA (505)665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 11DEC09
ACTWGT: .97 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843)556-8171
REF: 6B010AWE6L1155000

1c

FedEx Express

SATURDAY ### A1
PRIORITY OVERNIGHT

TRK# 0201 7209 7849 2141

X0 CHSA

29407
SC-US
CHS

ORIGIN ID: SAFA (505)665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 11DEC09
ACTWGT: 57.0 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843)556-8171
REF: 6B010AMR2A054196D0

1c

FedEx Express

SATURDAY ### A1
3 of 3
PRIORITY OVERNIGHT

MPS# 0263 7209 7849 2174
Matr# 7209 7849 2152 0201

X0 CHSA

29407
SC-US
CHS

ORIGIN ID: SAFA (505)665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 11DEC09
ACTWGT: 52.0 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843)556-8171
REF: 6B010AMR1A015AGMM0

1c

FedEx Express

SATURDAY ### A1
1 of 2
PRIORITY OVERNIGHT

TRK# 0201 7209 7849 2185
MASTER

X0 CHSA

29407
SC-US
CHS

ORIGIN ID: SAFA (505)665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 11DEC09
ACTWGT: 55.0 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843)556-8171
REF: 6B010AMR2A054196D0

2c

FedEx Express

SATURDAY ### A1
2 of 3
PRIORITY OVERNIGHT

MPS# 0263 7209 7849 2163
Matr# 7209 7849 2152 0201

X0 CHSA

29407
SC-US
CHS

ORIGIN ID: SAFA (505)665-9968
JOYLENE VACDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 11DEC09
ACTWGT: 60.0 LB MAN
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GENERAL ENGINEERING LAB
2040 SAVAGE RD

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2 of 2

SATURDAY ### A1
PRIORITY OVERNIGHT

MPS# 0263 7209 7649 2196

Mstr# 7209 7649 2185 0201

29407
SC-US
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Data Review Qualifier Flag Definition Sheet

Data Review Qualifier Definitions

Qualifier	Explanation
*	A quality control analyte recovery is outside of specified acceptance criteria
**	Analyte is a surrogate compound
<	Result is less than value reported
>	Result is greater than value reported
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL
A	The TIC is a suspected aldol-condensation product
B	Target analyte was detected in the associated blank
B	Metals-Either presence of analyte detected in the associated blank, or MDL/IDL < sample value < PQL
BD	Results are either below the MDC or tracer recovery is low
C	Analyte has been confirmed by GC/MS analysis
D	Results are reported from a diluted aliquot of the sample
d	5-day BOD-The 2:1 depletion requirement was not met for this sample
E	Organics-Concentration of the target analyte exceeds the instrument calibration range
E	Metals-%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
H	Analytical holding time was exceeded
h	Preparation or preservation holding time was exceeded
J	Value is estimated
N	Metals-The Matrix spike sample recovery is not within specified control limits
N	Organics-Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A	Spike recovery limits do not apply. Sample concentration exceeds spike concentration by 4X or more
ND	Analyte concentration is not detected above the reporting limit
UI	Gamma Spectroscopy-Uncertain identification
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
Z	Paint Filter Test-Particulates passed through the filter, however no free liquids were observed.

GC/MS Volatile Analysis

Case Narrative

ChemStation Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-899

Method/Analysis Information

Procedure:	Volatile Organic Compounds (VOC) by Gas Chromatograph/Mass Spectrometer
Analytical Method:	SW846 8260B
Prep Method:	SW846 5030
Analytical Batch Number:	934291
Prep Batch Number:	934286

Sample Analysis

The following client and quality control samples were analyzed to complete this SDG using the methods referenced in the Analysis Information section:

Sample ID	Client ID
242784001	WST03-10-2199
242784002	WST03-10-2198
242784003	WST03-10-2145
242784004	WST03-10-2146
1201998922	Method Blank (MB)
1201998925	Laboratory Control Sample (LCS)
1201998926	Laboratory Control Sample (LCS)
1202002451	Method Blank (MB)
1202002452	Laboratory Control Sample (LCS)
1202002453	Laboratory Control Sample (LCS)
1201998923	242784003(WST03-10-2145) Post Spike (PS)
1201998924	242784003(WST03-10-2145) Post Spike Duplicate (PSD)

NOTE: For volatile organic analyses the matrix spike designations may be indicated as "PS" or "PSD". The "PS" designation (post spike) indicates that the matrix was fortified prior to analysis but after applying any prep factors, such as a dilution. The laboratory considers the MS/MSD and PS/PSD designations interchangeable.
Samples 242784 003 and 004 in this SDG were analyzed on an "dry weight" basis. Samples 242784 001 and 002 in this SDG were analyzed on a "as received" basis.

Preparation/Analytical Method Verification

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-038 REV# 13.

Raw data reports are processed and reviewed by the analyst using the Chemstation software package. False positives have been removed from the quantitation reports per standard operating procedures (SOP) section 19.1.2. False positive analytes are designated on the quantitation report with a 'd' qualifier.

Calibration Information

Please note that the 'Cal Date' indicated on each quantitation report reflects the date and time of the most recent calibrated analyte(s) in the processing method. Since the laboratory may calibrate with multiple solutions on different days using the same processing method, the software will update the 'Cal Date' to the last calibration file, date and time. The correct dates and times for all calibration files are located on the Calibration History report in the Standard Data section in the data package.

The surrogate compounds were calibrated using a minimum five-point calibration curve. The surrogates were added by the auto sampler at a concentration of 50 ug/L. GEL Laboratories LLC will not have

surrogate recoveries reported for Dibromofluoromethane. This is due to increased regulations for this analyte and an industry shortage.

A complete list of the initial calibration data files are shown in the Calibration History report located in the Standard Data section of the data package.

Initial Calibration
All initial calibration requirements have been met for this sample delivery groups (SDG). A second source initial calibration verification (ICV) was included in the standard section directly behind the initial calibration.

Continuing Calibration Verification Requirements
All associated calibration verification standard(s) (ICV or CCV) met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MBs analyzed with this SDG met the acceptance criteria.

Surrogate Recoveries
Surrogate recoveries in all client and quality control samples were within the acceptance limits.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

QC Sample Designation
Sample 242784003 (WST03-10-2145) was designated for spike analysis in this SDG.

Matrix Spike (PS) Recovery Statement
The spike recoveries for this SDG were within the required acceptance limits.

Matrix Spike Duplicate (PSD) Recovery Statement
The spike duplicate recoveries for this SDG were within the required acceptance limits.

Relative Percent Difference (RPD) Statement
The RPD(s) between the matrix spike pair met the acceptance limits.

Internal Standard (ISTD) Acceptance
The internal standard responses in all client and quality control samples met the required acceptance criteria.

Technical Information

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection or sample receipt. Those holding times expressed in hours are calculated in the ALPHALIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Sample Preservation and Integrity
All samples met the sample preservation and integrity requirements.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-extraction/Re-analysis
QC samples 1201998923 (WST03-10-2145MS) and 1201998924 (WST03-10-2145MSD) were re-analyzed due to unacceptable recoveries in the initial analysis.

Miscellaneous Information

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted: Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. An electronic signature page inserted after the case narrative will include the data validator's signature and title. The signature page also includes the data qualifiers used in the fractional package. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Nonconformance (NCR) Documentation
A nonconformance report was not required for this SDG.

Manual Integrations
Data files associated with the initial calibration, continuing calibration check, and samples did not require manual integrations.

TIC Comment
Tentatively identified compounds (TIC) were required for this sample delivery group/work order. Please note that non-requested target analytes that are reported on the quantitation reports will not be present on the Form I. These detected analytes are included in the calibrated method and as a result cannot be reported on the TIC quantitation report.

Additional Comments
Additional comments were not required for this SDG.

Residual Chlorine
Residual Chlorine was not detected in any of the samples in this SDG.

System Configuration
The Volatile-GC/MS analysis was performed on the following instrument configuration:

Instrument ID	Instrument	System Configuration	Column ID	Column Description	P & T Trap
VOA6.I	Gas Chromatograph/Mass Spectrometer	HP6890N/HP5975	DB-624	J&W, 60m x 0.25mm x 1.4um	Trap 10

Certification Statement
Where the analytical method has been performed under NELAP certification, the analysis has met all the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis Report
for

LANL010 Los Alamos National Laboratory (72733-001-09)

Client SDG: 10-899 GEL Work Order: 242784

The Qualifiers in this report are defined as follows:

* A quality control analyte recovery is outside of specified acceptance criteria

** Analyte is a surrogate compound

E Organics--Concentration of the target analyte exceeds the instrument calibration range

J Value is estimated

U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

Review/Validation

GEL requires all analytical data to be verified by a qualified data reviewer. In addition, all CLP-like deliverables receive a third level review of the fractional data package.

The following data validator verified the information presented in this case narrative:

Signature: Erin Haubert **Name: Erin Haubert**

Date: 23 DEC 2009 **Title: Data Validator**

Sample Data Summary

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-899	**Date Collected:**	12/10/2009 12:00	**Matrix:**	S
Lab Sample ID:	242784001	**Date Received:**	12/12/2009 09:35		
		Client:	LANL010	**Project:**	LANL01004
Client ID:	WST03-10-2199	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	934291	**Inst:**	VOA6.I	**Dilution:**	1
Run Date:	12/17/2009 19:34	**Analyst:**	RXD1	**Purge Vol:**	5 mL
Prep Date:	12/17/2009 15:16	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	121709V6\6P420.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/kg	0.340	1.00
74-87-3	Chloromethane	U	1.00	ug/kg	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/kg	0.300	1.00
74-83-9	Bromomethane	U	1.00	ug/kg	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/kg	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/kg	0.300	1.00
67-64-1	Acetone	J	4.62	ug/kg	1.66	5.00
75-35-4	1,1-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/kg	1.60	5.00
75-09-2	Methylene chloride	U	5.00	ug/kg	2.00	5.00
75-15-0	Carbon disulfide	U	5.00	ug/kg	1.25	5.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/kg	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/kg	1.50	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/kg	0.300	1.00
74-97-5	Bromochloromethane	U	1.00	ug/kg	0.330	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/kg	0.300	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/kg	0.300	1.00
56-23-5	Carbon tetrachloride	U	1.00	ug/kg	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/kg	0.300	1.00
71-43-2	Benzene	U	1.00	ug/kg	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/kg	0.330	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/kg	0.300	1.00
74-95-3	Dibromomethane	U	1.00	ug/kg	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/kg	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
108-88-3	Toluene	U	1.00	ug/kg	0.300	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/kg	0.300	1.00
591-78-6	2-Hexanone	U	5.00	ug/kg	1.50	5.00
142-28-9	1,3-Dichloropropane	U	1.00	ug/kg	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/kg	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/kg	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/kg	0.300	1.00
108-90-7	Chlorobenzene	U	1.00	ug/kg	0.300	1.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-899**	**Date Collected:**	**12/10/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242784001**	**Date Received:**	**12/12/2009 09:35**		
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**WST03-10-2199**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**934291**	**Inst:**	**VOA6.I**	**Dilution:**	**1**
Run Date:	**12/17/2009 19:34**	**Analyst:**	**RXD1**	**Purge Vol:**	**5 mL**
Prep Date:	**12/17/2009 15:16**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**121709V6\6P420.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.00	ug/kg	0.300	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/kg	0.300	2.00
95-47-6	o-Xylene	U	1.00	ug/kg	0.300	1.00
100-42-5	Styrene	U	1.00	ug/kg	0.300	1.00
75-25-2	Bromoform	U	1.00	ug/kg	0.300	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/kg	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/kg	0.300	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/kg	0.300	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/kg	0.300	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/kg	0.300	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/kg	0.300	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/kg	0.300	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/kg	0.300	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/kg	0.300	1.00
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.00	ug/kg	1.60	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown siloxane	16.17	13.3	ug/kg	0	J

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-899	**Date Collected:**	12/10/2009 12:00	**Matrix:**	S
Lab Sample ID:	242784002	**Date Received:**	12/12/2009 09:35		
		Client:	LANL010	**Project:**	LANL01004
Client ID:	WST03-10-2198	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	934291	**Inst:**	VOA6.I	**Dilution:**	1
Run Date:	12/17/2009 20:02	**Analyst:**	RXD1	**Purge Vol:**	5 mL
Prep Date:	12/17/2009 15:18	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	121709V6\6P421.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/kg	0.340	1.00
74-87-3	Chloromethane	U	1.00	ug/kg	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/kg	0.300	1.00
74-83-9	Bromomethane	U	1.00	ug/kg	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/kg	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/kg	0.300	1.00
67-64-1	Acetone	J	3.21	ug/kg	1.66	5.00
75-35-4	1,1-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/kg	1.60	5.00
75-09-2	Methylene chloride	U	5.00	ug/kg	2.00	5.00
75-15-0	Carbon disulfide	U	5.00	ug/kg	1.25	5.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/kg	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/kg	1.50	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/kg	0.300	1.00
74-97-5	Bromochloromethane	U	1.00	ug/kg	0.330	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/kg	0.300	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/kg	0.300	1.00
56-23-5	Carbon tetrachloride	U	1.00	ug/kg	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/kg	0.300	1.00
71-43-2	Benzene	U	1.00	ug/kg	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/kg	0.330	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/kg	0.300	1.00
74-95-3	Dibromomethane	U	1.00	ug/kg	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/kg	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
108-88-3	Toluene	U	1.00	ug/kg	0.300	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/kg	0.300	1.00
591-78-6	2-Hexanone	U	5.00	ug/kg	1.50	5.00
142-28-9	1,3-Dichloropropane	U	1.00	ug/kg	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/kg	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/kg	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/kg	0.300	1.00
108-90-7	Chlorobenzene	U	1.00	ug/kg	0.300	1.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-899**	**Date Collected:**	**12/10/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242784002**	**Date Received:**	**12/12/2009 09:35**		
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**WST03-10-2198**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**934291**	**Inst:**	**VOA6.I**	**Dilution:**	**1**
Run Date:	**12/17/2009 20:02**	**Analyst:**	**RXD1**	**Purge Vol:**	**5 mL**
Prep Date:	**12/17/2009 15:18**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**121709V6\6P421.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.00	ug/kg	0.300	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/kg	0.300	2.00
95-47-6	o-Xylene	U	1.00	ug/kg	0.300	1.00
100-42-5	Styrene	U	1.00	ug/kg	0.300	1.00
75-25-2	Bromoform	U	1.00	ug/kg	0.300	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/kg	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/kg	0.300	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/kg	0.300	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/kg	0.300	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/kg	0.300	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/kg	0.300	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/kg	0.300	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/kg	0.300	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/kg	0.300	1.00
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.00	ug/kg	1.60	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated Units	Fit	Qual
	No Tentatively Identified Compounds Found		ug/kg		

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-899	Date Collected:	12/10/2009 12:00	Matrix:	R
Lab Sample ID:	242784003	Date Received:	12/12/2009 09:35	%Moisture:	6.7
		Client:	LANL010	Project:	LANL01004
Client ID:	WST03-10-2145	Method:	SW846 8260B	SOP Ref:	GL-OA-E-038
Batch ID:	934291	Inst:	VOA6.1	Dilution:	1
Run Date:	12/17/2009 20:30	Analyst:	RXD1	Purge Vol:	5 mL
Prep Date:	12/17/2009 15:20	Aliquot:	5 g	Final Volume:	5 mL
Data File:	121709V6\6P422.D	Column:	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.07	ug/kg	0.364	1.07
74-87-3	Chloromethane	U	1.07	ug/kg	0.322	1.07
75-01-4	Vinyl chloride	U	1.07	ug/kg	0.322	1.07
74-83-9	Bromomethane	U	1.07	ug/kg	0.322	1.07
75-00-3	Chloroethane	U	1.07	ug/kg	0.322	1.07
75-69-4	Trichlorofluoromethane	U	1.07	ug/kg	0.322	1.07
67-64-1	Acetone		12.5	ug/kg	1.78	5.36
75-35-4	1,1-Dichloroethylene	U	1.07	ug/kg	0.322	1.07
74-88-4	Iodomethane	U	5.36	ug/kg	1.71	5.36
75-09-2	Methylene chloride	U	5.36	ug/kg	2.14	5.36
75-15-0	Carbon disulfide	U	5.36	ug/kg	1.34	5.36
156-60-5	trans-1,2-Dichloroethylene	U	1.07	ug/kg	0.322	1.07
75-34-3	1,1-Dichloroethane	U	1.07	ug/kg	0.322	1.07
78-93-3	2-Butanone	U	5.36	ug/kg	1.61	5.36
156-59-2	cis-1,2-Dichloroethylene	U	1.07	ug/kg	0.322	1.07
594-20-7	2,2-Dichloropropane	U	1.07	ug/kg	0.322	1.07
67-66-3	Chloroform	U	1.07	ug/kg	0.322	1.07
74-97-5	Bromochloromethane	U	1.07	ug/kg	0.354	1.07
71-55-6	1,1,1-Trichloroethane	U	1.07	ug/kg	0.322	1.07
563-58-6	1,1-Dichloropropene	U	1.07	ug/kg	0.322	1.07
56-23-5	Carbon tetrachloride	U	1.07	ug/kg	0.322	1.07
107-06-2	1,2-Dichloroethane	U	1.07	ug/kg	0.322	1.07
71-43-2	Benzene	U	1.07	ug/kg	0.322	1.07
79-01-6	Trichloroethylene	U	1.07	ug/kg	0.354	1.07
78-87-5	1,2-Dichloropropane	U	1.07	ug/kg	0.322	1.07
75-27-4	Bromodichloromethane	U	1.07	ug/kg	0.322	1.07
74-95-3	Dibromomethane	U	1.07	ug/kg	0.322	1.07
108-10-1	4-Methyl-2-pentanone	U	5.36	ug/kg	1.34	5.36
10061-01-5	cis-1,3-Dichloropropylene	U	1.07	ug/kg	0.322	1.07
108-88-3	Toluene	U	1.07	ug/kg	0.322	1.07
10061-02-6	trans-1,3-Dichloropropylene	U	1.07	ug/kg	0.322	1.07
79-00-5	1,1,2-Trichloroethane	U	1.07	ug/kg	0.322	1.07
591-78-6	2-Hexanone	U	5.36	ug/kg	1.61	5.36
142-28-9	1,3-Dichloropropane	U	1.07	ug/kg	0.322	1.07
127-18-4	Tetrachloroethylene	U	1.07	ug/kg	0.322	1.07
124-48-1	Dibromochloromethane	U	1.07	ug/kg	0.322	1.07
106-93-4	1,2-Dibromoethane	U	1.07	ug/kg	0.322	1.07
108-90-7	Chlorobenzene	U	1.07	ug/kg	0.322	1.07

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-899**	**Date Collected:**	**12/10/2009 12:00**	**Matrix:**	**R**
Lab Sample ID:	**242784003**	**Date Received:**	**12/12/2009 09:35**	**%Moisture:**	**6.7**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**WST03-10-2145**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**934291**	**Inst:**	**VOA6.I**	**Dilution:**	**1**
Run Date:	**12/17/2009 20:30**	**Analyst:**	**RXD1**	**Purge Vol:**	**5 mL**
Prep Date:	**12/17/2009 15:20**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**121709V6\6P422.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.07	ug/kg	0.322	1.07
179601-23-1	m,p-Xylenes	U	2.14	ug/kg	0.322	2.14
95-47-6	o-Xylene	U	1.07	ug/kg	0.322	1.07
100-42-5	Styrene	U	1.07	ug/kg	0.322	1.07
75-25-2	Bromoform	U	1.07	ug/kg	0.322	1.07
79-34-5	1,1,2,2-Tetrachloroethane	U	1.07	ug/kg	0.322	1.07
96-18-4	1,2,3-Trichloropropane	U	1.07	ug/kg	0.322	1.07
108-86-1	Bromobenzene	U	1.07	ug/kg	0.322	1.07
103-65-1	n-Propylbenzene	U	1.07	ug/kg	0.322	1.07
95-49-8	2-Chlorotoluene	U	1.07	ug/kg	0.322	1.07
98-82-8	Isopropylbenzene	U	1.07	ug/kg	0.322	1.07
108-67-8	1,3,5-Trimethylbenzene	U	1.07	ug/kg	0.322	1.07
106-43-4	4-Chlorotoluene	U	1.07	ug/kg	0.322	1.07
98-06-6	tert-Butylbenzene	U	1.07	ug/kg	0.322	1.07
95-63-6	1,2,4-Trimethylbenzene	U	1.07	ug/kg	0.322	1.07
135-98-8	sec-Butylbenzene	U	1.07	ug/kg	0.322	1.07
99-87-6	4-Isopropyltoluene	U	1.07	ug/kg	0.322	1.07
541-73-1	1,3-Dichlorobenzene	U	1.07	ug/kg	0.322	1.07
106-46-7	1,4-Dichlorobenzene	U	1.07	ug/kg	0.322	1.07
104-51-8	n-Butylbenzene	U	1.07	ug/kg	0.322	1.07
96-12-8	1,2-Dibromo-3-chloropropane	U	1.07	ug/kg	0.322	1.07
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.36	ug/kg	1.71	5.36
630-20-6	1,1,1,2-Tetrachloroethane	U	1.07	ug/kg	0.322	1.07
95-50-1	1,2-Dichlorobenzene	U	1.07	ug/kg	0.322	1.07

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown siloxane	14.24	20	ug/kg	0	J
	unknown siloxane	16.17	5.67	ug/kg	0	J

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-899	**Date Collected:**	12/10/2009 12:00	**Matrix:**	R
Lab Sample ID:	242784004	**Date Received:**	12/12/2009 09:35	**%Moisture:**	9.8
		Client:	LANL010	**Project:**	LANL01004
Client ID:	WST03-10-2146	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	934291	**Inst:**	VOA6.I	**Dilution:**	1
Run Date:	12/17/2009 20:58	**Analyst:**	RXD1	**Purge Vol:**	5 mL
Prep Date:	12/17/2009 15:26	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	121709V6\6P423.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.11	ug/kg	0.377	1.11
74-87-3	Chloromethane	U	1.11	ug/kg	0.333	1.11
75-01-4	Vinyl chloride	U	1.11	ug/kg	0.333	1.11
74-83-9	Bromomethane	U	1.11	ug/kg	0.333	1.11
75-00-3	Chloroethane	U	1.11	ug/kg	0.333	1.11
75-69-4	Trichlorofluoromethane	U	1.11	ug/kg	0.333	1.11
67-64-1	Acetone	U	5.54	ug/kg	1.84	5.54
75-35-4	1,1-Dichloroethylene	U	1.11	ug/kg	0.333	1.11
74-88-4	Iodomethane	U	5.54	ug/kg	1.77	5.54
75-09-2	Methylene chloride	U	5.54	ug/kg	2.22	5.54
75-15-0	Carbon disulfide	U	5.54	ug/kg	1.39	5.54
156-60-5	trans-1,2-Dichloroethylene	U	1.11	ug/kg	0.333	1.11
75-34-3	1,1-Dichloroethane	U	1.11	ug/kg	0.333	1.11
78-93-3	2-Butanone	U	5.54	ug/kg	1.66	5.54
156-59-2	cis-1,2-Dichloroethylene	U	1.11	ug/kg	0.333	1.11
594-20-7	2,2-Dichloropropane	U	1.11	ug/kg	0.333	1.11
67-66-3	Chloroform	U	1.11	ug/kg	0.333	1.11
74-97-5	Bromochloromethane	U	1.11	ug/kg	0.366	1.11
71-55-6	1,1,1-Trichloroethane	U	1.11	ug/kg	0.333	1.11
563-58-6	1,1-Dichloropropene	U	1.11	ug/kg	0.333	1.11
56-23-5	Carbon tetrachloride	U	1.11	ug/kg	0.333	1.11
107-06-2	1,2-Dichloroethane	U	1.11	ug/kg	0.333	1.11
71-43-2	Benzene	U	1.11	ug/kg	0.333	1.11
79-01-6	Trichloroethylene	U	1.11	ug/kg	0.366	1.11
78-87-5	1,2-Dichloropropane	U	1.11	ug/kg	0.333	1.11
75-27-4	Bromodichloromethane	U	1.11	ug/kg	0.333	1.11
74-95-3	Dibromomethane	U	1.11	ug/kg	0.333	1.11
108-10-1	4-Methyl-2-pentanone	U	5.54	ug/kg	1.39	5.54
10061-01-5	cis-1,3-Dichloropropylene	U	1.11	ug/kg	0.333	1.11
108-88-3	Toluene	U	1.11	ug/kg	0.333	1.11
10061-02-6	trans-1,3-Dichloropropylene	U	1.11	ug/kg	0.333	1.11
79-00-5	1,1,2-Trichloroethane	U	1.11	ug/kg	0.333	1.11
591-78-6	2-Hexanone	U	5.54	ug/kg	1.66	5.54
142-28-9	1,3-Dichloropropane	U	1.11	ug/kg	0.333	1.11
127-18-4	Tetrachloroethylene	U	1.11	ug/kg	0.333	1.11
124-48-1	Dibromochloromethane	U	1.11	ug/kg	0.333	1.11
106-93-4	1,2-Dibromoethane	U	1.11	ug/kg	0.333	1.11
108-90-7	Chlorobenzene	U	1.11	ug/kg	0.333	1.11

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-899	Date Collected:	12/10/2009 12:00	Matrix:	R
Lab Sample ID:	242784004	Date Received:	12/12/2009 09:35	%Moisture:	9.8
		Client:	LANL010	Project:	LANL01004
Client ID:	WST03-10-2146	Method:	SW846 8260B	SOP Ref:	GL-OA-E-038
Batch ID:	934291	Inst:	VOA6.I	Dilution:	1
Run Date:	12/17/2009 20:58	Analyst:	RXD1	Purge Vol:	5 mL
Prep Date:	12/17/2009 15:26	Aliquot:	5 g	Final Volume:	5 mL
Data File:	121709V6\6P423.D	Column:	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.11	ug/kg	0.333	1.11
179601-23-1	m,p-Xylenes	U	2.22	ug/kg	0.333	2.22
95-47-6	o-Xylene	U	1.11	ug/kg	0.333	1.11
100-42-5	Styrene	U	1.11	ug/kg	0.333	1.11
75-25-2	Bromoform	U	1.11	ug/kg	0.333	1.11
79-34-5	1,1,2,2-Tetrachloroethane	U	1.11	ug/kg	0.333	1.11
96-18-4	1,2,3-Trichloropropane	U	1.11	ug/kg	0.333	1.11
108-86-1	Bromobenzene	U	1.11	ug/kg	0.333	1.11
103-65-1	n-Propylbenzene	U	1.11	ug/kg	0.333	1.11
95-49-8	2-Chlorotoluene	U	1.11	ug/kg	0.333	1.11
98-82-8	Isopropylbenzene	U	1.11	ug/kg	0.333	1.11
108-67-8	1,3,5-Trimethylbenzene	U	1.11	ug/kg	0.333	1.11
106-43-4	4-Chlorotoluene	U	1.11	ug/kg	0.333	1.11
98-06-6	tert-Butylbenzene	U	1.11	ug/kg	0.333	1.11
95-63-6	1,2,4-Trimethylbenzene	U	1.11	ug/kg	0.333	1.11
135-98-8	sec-Butylbenzene	U	1.11	ug/kg	0.333	1.11
99-87-6	4-Isopropyltoluene	U	1.11	ug/kg	0.333	1.11
541-73-1	1,3-Dichlorobenzene	U	1.11	ug/kg	0.333	1.11
106-46-7	1,4-Dichlorobenzene	U	1.11	ug/kg	0.333	1.11
104-51-8	n-Butylbenzene	U	1.11	ug/kg	0.333	1.11
96-12-8	1,2-Dibromo-3-chloropropane	U	1.11	ug/kg	0.333	1.11
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.54	ug/kg	1.77	5.54
630-20-6	1,1,1,2-Tetrachloroethane	U	1.11	ug/kg	0.333	1.11
95-50-1	1,2-Dichlorobenzene	U	1.11	ug/kg	0.333	1.11

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown siloxane	14.24	32.4	ug/kg	0	J
	unknown siloxane	16.17	7.76	ug/kg	0	J

Quality Control Summary

Volatile

Surrogate Recovery Report

SDG Number: 10-899

Matrix Type: SOLID

Sample ID	Client ID	DCED4 %REC	TOL %REC	BFB %REC
1201998925	LCS for batch 934286	102	97	99
1201998926	LCS for batch 934286	103	94	100
1201998922	MB for batch 934286	101	96	101
242784001	WST03-10-2199	98	97	102
242784002	WST03-10-2198	99	96	101
242784003	WST03-10-2145	96	95	103
242784004	WST03-10-2146	98	94	105
1202002452	LCS for batch 934286	100	97	99
1202002453	LCS for batch 934286	103	97	101
1202002451	MB for batch 934286	99	96	98
1201998923	WST03-10-2145PS	98	95	100
1201998924	WST03-10-2145PSD	102	98	101

Surrogate		Acceptance Limits
DCED4	= 1,2-Dichloroethane-d4	(68%-131%)
TOL	= Toluene-d8	(75%-129%)
BFB	= Bromofluorobenzene	(68%-133%)

* Recovery outside Acceptance Limits
# Column to be used to flag recovery values
D Sample Diluted

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-899
Client ID: WST03-10-2145PS
Lab Sample ID: 1201998923
Instrument: VOA6.I
Analyst: RXD1
Purge Vol: 5 mL

Sample Type: Post Spike
Matrix: R
%Moisture: 6.7
Analysis Date: 12/18/2009 20:31
Prep Batch ID: 934286
Batch ID: 934291
Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
75-71-8	PS	Dichlorodifluoromethane	50.0	0.00	U	42.3	85	25-149
74-87-3	PS	Chloromethane	50.0	0.00	U	42.6	85	39-140
75-01-4	PS	Vinyl chloride	50.0	0.00	U	48.1	96	47-129
74-83-9	PS	Bromomethane	50.0	0.00	U	45.3	91	31-135
75-00-3	PS	Chloroethane	50.0	0.00	U	46.4	93	53-128
75-69-4	PS	Trichlorofluoromethane	50.0	0.00	U	46.3	93	51-151
67-64-1	PS	Acetone	250	11.7		185	69	21-153
75-35-4	PS	1,1-Dichloroethylene	50.0	0.00	U	46.1	92	61-125
74-88-4	PS	Iodomethane	250	0.00	U	224	90	53-142
75-09-2	PS	Methylene chloride	50.0	0.00	U	43.5	87	59-136
75-15-0	PS	Carbon disulfide	250	0.00	U	241	96	46-129
156-60-5	PS	trans-1,2-Dichloroethylene	50.0	0.00	U	46.2	92	56-126
75-34-3	PS	1,1-Dichloroethane	50.0	0.00	U	46.8	94	62-125
78-93-3	PS	2-Butanone	250	0.00	U	226	90	26-152
156-59-2	PS	cis-1,2-Dichloroethylene	50.0	0.00	U	47.1	94	60-130
594-20-7	PS	2,2-Dichloropropane	50.0	0.00	U	51.2	102	55-135
67-66-3	PS	Chloroform	50.0	0.00	U	46.7	93	60-127
74-97-5	PS	Bromochloromethane	50.0	0.00	U	46.9	94	61-131
71-55-6	PS	1,1,1-Trichloroethane	50.0	0.00	U	49.7	99	59-131
563-58-6	PS	1,1-Dichloropropene	50.0	0.00	U	48.0	96	57-128
56-23-5	PS	Carbon tetrachloride	50.0	0.00	U	50.7	101	58-136
107-06-2	PS	1,2-Dichloroethane	50.0	0.00	U	46.0	92	58-126

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-899
Client ID: WST03-10-2145PS
Lab Sample ID: 1201998923
Instrument: VOA6.I
Analyst: RXD1
Purge Vol: 5 mL

Sample Type: Post Spike
Matrix: R
%Moisture: 6.7
Analysis Date: 12/18/2009 20:31
Prep Batch ID 934286
Batch ID: 934291
Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
71-43-2	PS	Benzene	50.0	0.00	U	44.9	90	56-123
79-01-6	PS	Trichloroethylene	50.0	0.00	U	46.3	93	51-137
78-87-5	PS	1,2-Dichloropropane	50.0	0.00	U	47.3	95	60-126
75-27-4	PS	Bromodichloromethane	50.0	0.00	U	51.0	102	55-138
74-95-3	PS	Dibromomethane	50.0	0.00	U	47.3	95	60-132
108-10-1	PS	4-Methyl-2-pentanone	250	0.00	U	240	96	58-136
10061-01-5	PS	cis-1,3-Dichloropropylene	50.0	0.00	U	47.8	96	54-133
108-88-3	PS	Toluene	50.0	0.00	U	44.3	89	52-128
10061-02-6	PS	trans-1,3-Dichloropropylene	50.0	0.00	U	49.0	98	53-137
79-00-5	PS	1,1,2-Trichloroethane	50.0	0.00	U	46.3	93	59-130
591-78-6	PS	2-Hexanone	250	0.00	U	178	71	31-148
142-28-9	PS	1,3-Dichloropropane	50.0	0.00	U	45.7	91	57-127
127-18-4	PS	Tetrachloroethylene	50.0	0.00	U	45.1	90	51-128
124-48-1	PS	Dibromochloromethane	50.0	0.00	U	52.7	105	59-139
106-93-4	PS	1,2-Dibromoethane	50.0	0.00	U	47.2	94	57-133
108-90-7	PS	Chlorobenzene	50.0	0.00	U	46.2	92	53-122
100-41-4	PS	Ethylbenzene	50.0	0.00	U	46.4	93	51-125
179601-23-1	PS	m,p-Xylenes	100	0.00	U	92.6	93	50-126
95-47-6	PS	o-Xylene	50.0	0.00	U	46.8	94	52-127
100-42-5	PS	Styrene	50.0	0.00	U	47.7	95	49-135
75-25-2	PS	Bromoform	50.0	0.00	U	55.8	112	57-149
79-34-5	PS	1,1,2,2-Tetrachloroethane	50.0	0.00	U	48.1	96	63-127

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-899
Client ID: WST03-10-2145PS
Lab Sample ID: 1201998923
Instrument: VOA6.I
Analyst: RXD1
Purge Vol: 5 mL

Sample Type: Post Spike
Matrix: R
%Moisture: 6.7
Analysis Date: 12/18/2009 20:31
Prep Batch ID 934286
Batch ID: 934291
Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
96-18-4	PS	1,2,3-Trichloropropane	50.0	0.00	U	48.7	97	57-149
108-86-1	PS	Bromobenzene	50.0	0.00	U	46.2	92	49-131
103-65-1	PS	n-Propylbenzene	50.0	0.00	U	46.0	92	40-136
95-49-8	PS	2-Chlorotoluene	50.0	0.00	U	47.2	94	44-135
98-82-8	PS	Isopropylbenzene	50.0	0.00	U	46.6	93	44-140
108-67-8	PS	1,3,5-Trimethylbenzene	50.0	0.00	U	46.4	93	42-140
106-43-4	PS	4-Chlorotoluene	50.0	0.00	U	46.7	93	44-132
98-06-6	PS	tert-Butylbenzene	50.0	0.00	U	45.8	92	42-142
95-63-6	PS	1,2,4-Trimethylbenzene	50.0	0.00	U	45.1	90	43-137
135-98-8	PS	sec-Butylbenzene	50.0	0.00	U	45.5	91	39-139
99-87-6	PS	4-Isopropyltoluene	50.0	0.00	U	44.9	90	38-145
541-73-1	PS	1,3-Dichlorobenzene	50.0	0.00	U	44.8	90	43-129
106-46-7	PS	1,4-Dichlorobenzene	50.0	0.00	U	44.0	88	44-125
104-51-8	PS	n-Butylbenzene	50.0	0.00	U	44.4	89	36-141
96-12-8	PS	1,2-Dibromo-3-chloropropane	50.0	0.00	U	52.2	104	47-151
630-20-6	PS	1,1,1,2-Tetrachloroethane	50.0	0.00	U	49.0	98	59-131
95-50-1	PS	1,2-Dichlorobenzene	50.0	0.00	U	43.9	88	43-129

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-899
Client ID: WST03-10-2145PSD
Lab Sample ID: 1201998924
Instrument: VOA6.I
Analyst: RXD1
Purge Vol: 5 mL

Sample Type: Post Spike Duplicate
Matrix: R
%Moisture: 6.7
Analysis Date: 12/18/2009 20:59
Prep Batch ID: 934286
Batch ID: 934291
Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
75-71-8	PSD	Dichlorodifluoromethane	50.0	0.00	U	43.0	86	25-149	2	0-25
74-87-3	PSD	Chloromethane	50.0	0.00	U	43.1	86	39-140	1	0-25
75-01-4	PSD	Vinyl chloride	50.0	0.00	U	48.4	97	47-129	1	0-25
74-83-9	PSD	Bromomethane	50.0	0.00	U	46.2	92	31-135	2	0-25
75-00-3	PSD	Chloroethane	50.0	0.00	U	47.6	95	53-128	3	0-25
75-69-4	PSD	Trichlorofluoromethane	50.0	0.00	U	47.5	95	51-151	2	0-25
67-64-1	PSD	Acetone	250	11.7		188	71	21-153	2	0-25
75-35-4	PSD	1,1-Dichloroethylene	50.0	0.00	U	47.7	95	61-125	3	0-25
74-88-4	PSD	Iodomethane	250	0.00	U	228	91	53-142	2	0-25
75-09-2	PSD	Methylene chloride	50.0	0.00	U	43.9	88	59-136	1	0-25
75-15-0	PSD	Carbon disulfide	250	0.00	U	247	99	46-129	2	0-25
156-60-5	PSD	trans-1,2-Dichloroethylene	50.0	0.00	U	47.3	95	56-126	2	0-25
75-34-3	PSD	1,1-Dichloroethane	50.0	0.00	U	47.5	95	62-125	2	0-25
78-93-3	PSD	2-Butanone	250	0.00	U	227	91	26-152	0	0-25
156-59-2	PSD	cis-1,2-Dichloroethylene	50.0	0.00	U	47.6	95	60-130	1	0-25
594-20-7	PSD	2,2-Dichloropropane	50.0	0.00	U	52.1	104	55-135	2	0-25
67-66-3	PSD	Chloroform	50.0	0.00	U	47.9	96	60-127	2	0-25
74-97-5	PSD	Bromochloromethane	50.0	0.00	U	47.5	95	61-131	1	0-25
71-55-6	PSD	1,1,1-Trichloroethane	50.0	0.00	U	50.9	102	59-131	2	0-25
563-58-6	PSD	1,1-Dichloropropene	50.0	0.00	U	49.2	98	57-128	2	0-25
56-23-5	PSD	Carbon tetrachloride	50.0	0.00	U	51.6	103	58-136	2	0-25
107-06-2	PSD	1,2-Dichloroethane	50.0	0.00	U	46.9	94	58-126	2	0-25

Volatile

Quality Control Summary

Spike Recovery Report

SDG Number: 10-899
Client ID: WST03-10-2145PSD
Lab Sample ID: 1201998924
Instrument: VOA6.I
Analyst: RXD1
Purge Vol: 5 mL

Sample Type: Post Spike Duplicate
Matrix: R
%Moisture: 6.7
Analysis Date: 12/18/2009 20:59
Dilution: 1
Prep Batch ID: 934286
Batch ID: 934291

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
71-43-2	PSD	Benzene	50.0	0.00	U	45.8	92	56-123	2	0-25
79-01-6	PSD	Trichloroethylene	50.0	0.00	U	48.0	96	51-137	4	0-25
78-87-5	PSD	1,2-Dichloropropane	50.0	0.00	U	47.5	95	60-126	1	0-25
75-27-4	PSD	Bromodichloromethane	50.0	0.00	U	51.3	103	55-138	1	0-25
74-95-3	PSD	Dibromomethane	50.0	0.00	U	47.9	96	60-132	1	0-25
108-10-1	PSD	4-Methyl-2-pentanone	250	0.00	U	240	96	58-136	0	0-25
10061-01-5	PSD	cis-1,3-Dichloropropylene	50.0	0.00	U	48.0	96	54-133	0	0-25
108-88-3	PSD	Toluene	50.0	0.00	U	44.8	90	52-128	1	0-25
10061-02-6	PSD	trans-1,3-Dichloropropylene	50.0	0.00	U	49.1	98	53-137	0	0-25
79-00-5	PSD	1,1,2-Trichloroethane	50.0	0.00	U	46.4	93	59-130	0	0-25
591-78-6	PSD	2-Hexanone	250	0.00	U	176	70	31-148	1	0-25
142-28-9	PSD	1,3-Dichloropropane	50.0	0.00	U	45.9	92	57-127	0	0-25
127-18-4	PSD	Tetrachloroethylene	50.0	0.00	U	45.6	91	51-128	1	0-25
124-48-1	PSD	Dibromochloromethane	50.0	0.00	U	51.8	104	59-139	2	0-25
106-93-4	PSD	1,2-Dibromoethane	50.0	0.00	U	47.0	94	57-133	0	0-25
108-90-7	PSD	Chlorobenzene	50.0	0.00	U	46.5	93	53-122	1	0-25
100-41-4	PSD	Ethylbenzene	50.0	0.00	U	46.6	93	51-125	1	0-25
179601-23-1	PSD	m,p-Xylenes	100	0.00	U	93.1	93	50-126	0	0-25
95-47-6	PSD	o-Xylene	50.0	0.00	U	46.8	94	52-127	0	0-25
100-42-5	PSD	Styrene	50.0	0.00	U	47.9	96	49-135	0	0-25
75-25-2	PSD	Bromoform	50.0	0.00	U	54.9	110	57-149	2	0-25
79-34-5	PSD	1,1,2,2-Tetrachloroethane	50.0	0.00	U	47.3	95	63-127	2	0-25

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-899
Client ID: WST03-10-2145PSD
Lab Sample ID: 1201998924
Instrument: VOA6.I
Analyst: RXD1
Purge Vol: 5 mL

Sample Type: Post Spike Duplicate
Matrix: R
%Moisture: 6.7
Analysis Date: 12/18/2009 20:59
Prep Batch ID: 934286
Batch ID: 934291
Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
96-18-4	PSD	1,2,3-Trichloropropane	50.0	0.00	U	48.7	97	57-149	0	0-25
108-86-1	PSD	Bromobenzene	50.0	0.00	U	45.5	91	49-131	1	0-25
103-65-1	PSD	n-Propylbenzene	50.0	0.00	U	46.0	92	40-136	0	0-25
95-49-8	PSD	2-Chlorotoluene	50.0	0.00	U	47.0	94	44-135	0	0-25
98-82-8	PSD	Isopropylbenzene	50.0	0.00	U	46.6	93	44-140	0	0-25
108-67-8	PSD	1,3,5-Trimethylbenzene	50.0	0.00	U	46.7	93	42-140	1	0-25
106-43-4	PSD	4-Chlorotoluene	50.0	0.00	U	46.2	92	44-132	1	0-25
98-06-6	PSD	tert-Butylbenzene	50.0	0.00	U	46.7	93	42-142	2	0-25
95-63-6	PSD	1,2,4-Trimethylbenzene	50.0	0.00	U	45.2	90	43-137	0	0-25
135-98-8	PSD	sec-Butylbenzene	50.0	0.00	U	45.5	91	39-139	0	0-25
99-87-6	PSD	4-Isopropyltoluene	50.0	0.00	U	45.0	90	38-145	0	0-25
541-73-1	PSD	1,3-Dichlorobenzene	50.0	0.00	U	44.5	89	43-129	1	0-25
106-46-7	PSD	1,4-Dichlorobenzene	50.0	0.00	U	43.9	88	44-125	0	0-25
104-51-8	PSD	n-Butylbenzene	50.0	0.00	U	44.3	89	36-141	0	0-25
96-12-8	PSD	1,2-Dibromo-3-chloropropane	50.0	0.00	U	53.2	106	47-151	2	0-25
630-20-6	PSD	1,1,1,2-Tetrachloroethane	50.0	0.00	U	49.6	99	59-131	1	0-25
95-50-1	PSD	1,2-Dichlorobenzene	50.0	0.00	U	43.8	88	43-129	0	0-25

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-899
Client ID: LCS for batch 934286
Lab Sample ID: 1201998925
Instrument: VOA6.I
Analyst: RXD1
Purge Vol: 5 mL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 12/17/2009 11:42
Dilution: 1
Prep Batch ID: 934286
Batch ID: 934291

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
75-71-8	LCS	Dichlorodifluoromethane	50.0	0.0	35.2	70	33-155
74-87-3	LCS	Chloromethane	50.0	0.0	38.3	77	53-132
75-01-4	LCS	Vinyl chloride	50.0	0.0	44.9	90	61-128
74-83-9	LCS	Bromomethane	50.0	0.0	42.9	86	63-126
75-00-3	LCS	Chloroethane	50.0	0.0	44.4	89	67-124
75-69-4	LCS	Trichlorofluoromethane	50.0	0.0	45.9	92	67-151
67-64-1	LCS	Acetone	250	0.0	162	65	29-160
75-35-4	LCS	1,1-Dichloroethylene	50.0	0.0	45.2	90	70-125
74-88-4	LCS	Iodomethane	250	0.0	217	87	74-131
75-09-2	LCS	Methylene chloride	50.0	0.0	40.3	81	72-127
75-15-0	LCS	Carbon disulfide	250	0.0	234	94	64-127
156-60-5	LCS	trans-1,2-Dichloroethylene	50.0	0.0	45.7	91	71-122
75-34-3	LCS	1,1-Dichloroethane	50.0	0.0	44.9	90	75-120
78-93-3	LCS	2-Butanone	250	0.0	201	80	35-162
156-59-2	LCS	cis-1,2-Dichloroethylene	50.0	0.0	45.8	92	76-122
594-20-7	LCS	2,2-Dichloropropane	50.0	0.0	51.1	102	74-135
67-66-3	LCS	Chloroform	50.0	0.0	45.1	90	77-120
74-97-5	LCS	Bromochloromethane	50.0	0.0	44.4	89	76-122
71-55-6	LCS	1,1,1-Trichloroethane	50.0	0.0	49.3	99	75-128
563-58-6	LCS	1,1-Dichloropropene	50.0	0.0	48.3	97	77-125
56-23-5	LCS	Carbon tetrachloride	50.0	0.0	50.5	101	77-134
107-06-2	LCS	1,2-Dichloroethane	50.0	0.0	43.6	87	72-120

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-899 **Sample Type:** Laboratory Control Sample

Client ID: LCS for batch 934286 **Matrix:** SOIL

Lab Sample ID: 1201998925

Instrument: VOA6.I **Analysis Date:** 12/17/2009 11:42 **Dilution:** 1

Analyst: RXD1 **Prep Batch ID:** 934286

Purge Vol: 5 mL **Batch ID:** 934291

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
71-43-2	LCS	Benzene	50.0	0.0	43.8	88	72-120
79-01-6	LCS	Trichloroethylene	50.0	0.0	45.7	91	78-121
78-87-5	LCS	1,2-Dichloropropane	50.0	0.0	45.4	91	74-120
75-27-4	LCS	Bromodichloromethane	50.0	0.0	48.3	97	79-125
74-95-3	LCS	Dibromomethane	50.0	0.0	43.9	88	78-122
108-10-1	LCS	4-Methyl-2-pentanone	250	0.0	231	92	71-134
10061-01-5	LCS	cis-1,3-Dichloropropylene	50.0	0.0	48.1	96	80-125
108-88-3	LCS	Toluene	50.0	0.0	42.6	85	65-124
10061-02-6	LCS	trans-1,3-Dichloropropylene	50.0	0.0	45.9	92	71-134
79-00-5	LCS	1,1,2-Trichloroethane	50.0	0.0	42.3	85	76-120
591-78-6	LCS	2-Hexanone	250	0.0	221	88	42-159
142-28-9	LCS	1,3-Dichloropropane	50.0	0.0	42.6	85	72-120
127-18-4	LCS	Tetrachloroethylene	50.0	0.0	44.9	90	74-123
124-48-1	LCS	Dibromochloromethane	50.0	0.0	48.2	96	83-128
106-93-4	LCS	1,2-Dibromoethane	50.0	0.0	43.7	87	79-121
108-90-7	LCS	Chlorobenzene	50.0	0.0	44.2	88	75-120
100-41-4	LCS	Ethylbenzene	50.0	0.0	45.0	90	74-120
179601-23-1	LCS	m,p-Xylenes	100	0.0	90.7	91	74-120
95-47-6	LCS	o-Xylene	50.0	0.0	45.0	90	74-120
100-42-5	LCS	Styrene	50.0	0.0	46.6	93	76-125
75-25-2	LCS	Bromoform	50.0	0.0	49.2	98	77-138
79-34-5	LCS	1,1,2,2-Tetrachloroethane	50.0	0.0	43.8	88	72-122

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-899 **Sample Type:** Laboratory Control Sample

Client ID: LCS for batch 934286 **Matrix:** SOIL

Lab Sample ID: 1201998925

Instrument: VOA6.I **Analysis Date:** 12/17/2009 11:42 **Dilution:** 1

Analyst: RXD1 **Prep Batch ID** 934286

Purge Vol: 5 mL **Batch ID:** 934291

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
96-18-4	LCS	1,2,3-Trichloropropane	50.0	0.0	43.2	86	75-135
108-86-1	LCS	Bromobenzene	50.0	0.0	42.2	84	73-120
103-65-1	LCS	n-Propylbenzene	50.0	0.0	44.3	89	68-121
95-49-8	LCS	2-Chlorotoluene	50.0	0.0	44.0	88	69-120
98-82-8	LCS	Isopropylbenzene	50.0	0.0	44.4	89	66-127
108-67-8	LCS	1,3,5-Trimethylbenzene	50.0	0.0	43.8	88	67-126
106-43-4	LCS	4-Chlorotoluene	50.0	0.0	44.1	88	72-120
98-06-6	LCS	tert-Butylbenzene	50.0	0.0	43.9	88	72-124
95-63-6	LCS	1,2,4-Trimethylbenzene	50.0	0.0	43.2	86	72-122
135-98-8	LCS	sec-Butylbenzene	50.0	0.0	44.2	88	71-124
99-87-6	LCS	4-Isopropyltoluene	50.0	0.0	44.7	89	72-130
541-73-1	LCS	1,3-Dichlorobenzene	50.0	0.0	43.0	86	73-120
106-46-7	LCS	1,4-Dichlorobenzene	50.0	0.0	42.3	85	73-120
104-51-8	LCS	n-Butylbenzene	50.0	0.0	45.1	90	72-128
96-12-8	LCS	1,2-Dibromo-3-chloropropane	50.0	0.0	50.5	101	68-145
630-20-6	LCS	1,1,1,2-Tetrachloroethane	50.0	0.0	46.0	92	78-121
95-50-1	LCS	1,2-Dichlorobenzene	50.0	0.0	42.1	84	74-120

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-899
Client ID: LCS for batch 934286
Lab Sample ID: 1201998926
Instrument: VOA6.I
Analyst: RXD1
Purge Vol: 5 mL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 12/17/2009 12:37
Dilution: 1
Prep Batch ID: 934286
Batch ID: 934291

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
76-13-1	LCS	1,1,2-Trichloro-1,2,2-Trifluor *Trichlorotrifluoroethane*	250	0.0	314	125	52-139

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-899
Client ID: LCS for batch 934286
Lab Sample ID: 1202002452
Instrument: VOA6.I
Analyst: RXD1
Purge Vol: 5 mL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 12/18/2009 11:48
Dilution: 1
Prep Batch ID: 934286
Batch ID: 934291

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
75-71-8	LCS	Dichlorodifluoromethane	50.0	0.0	47.5	95	33-155
74-87-3	LCS	Chloromethane	50.0	0.0	46.6	93	53-132
75-01-4	LCS	Vinyl chloride	50.0	0.0	53.0	106	61-128
74-83-9	LCS	Bromomethane	50.0	0.0	48.7	97	63-126
75-00-3	LCS	Chloroethane	50.0	0.0	49.0	98	67-124
75-69-4	LCS	Trichlorofluoromethane	50.0	0.0	50.7	101	67-151
67-64-1	LCS	Acetone	250	0.0	190	76	29-160
75-35-4	LCS	1,1-Dichloroethylene	50.0	0.0	49.9	100	70-125
74-88-4	LCS	Iodomethane	250	0.0	238	95	74-131
75-09-2	LCS	Methylene chloride	50.0	0.0	43.9	88	72-127
75-15-0	LCS	Carbon disulfide	250	0.0	260	104	64-127
156-60-5	LCS	trans-1,2-Dichloroethylene	50.0	0.0	49.4	99	71-122
75-34-3	LCS	1,1-Dichloroethane	50.0	0.0	48.4	97	75-120
78-93-3	LCS	2-Butanone	250	0.0	237	95	35-162
156-59-2	LCS	cis-1,2-Dichloroethylene	50.0	0.0	48.8	98	76-122
594-20-7	LCS	2,2-Dichloropropane	50.0	0.0	55.6	111	74-135
67-66-3	LCS	Chloroform	50.0	0.0	48.1	96	77-120
74-97-5	LCS	Bromochloromethane	50.0	0.0	47.6	95	76-122
71-55-6	LCS	1,1,1-Trichloroethane	50.0	0.0	52.8	106	75-128
563-58-6	LCS	1,1-Dichloropropene	50.0	0.0	52.1	104	77-125
56-23-5	LCS	Carbon tetrachloride	50.0	0.0	54.3	109	77-134
107-06-2	LCS	1,2-Dichloroethane	50.0	0.0	46.8	94	72-120

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-899 **Sample Type:** Laboratory Control Sample

Client ID: LCS for batch 934286 **Matrix:** SOIL

Lab Sample ID: 1202002452

Instrument: VOA6.I **Analysis Date:** 12/18/2009 11:48 **Dilution:** 1

Analyst: RXD1 **Prep Batch ID:** 934286

Purge Vol: 5 mL **Batch ID:** 934291

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
71-43-2	LCS	Benzene	50.0	0.0	47.0	94	72-120
79-01-6	LCS	Trichloroethylene	50.0	0.0	49.2	98	78-121
78-87-5	LCS	1,2-Dichloropropane	50.0	0.0	48.4	97	74-120
75-27-4	LCS	Bromodichloromethane	50.0	0.0	51.3	103	79-125
74-95-3	LCS	Dibromomethane	50.0	0.0	47.8	96	78-122
108-10-1	LCS	4-Methyl-2-pentanone	250	0.0	247	99	71-134
10061-01-5	LCS	cis-1,3-Dichloropropylene	50.0	0.0	50.7	101	80-125
108-88-3	LCS	Toluene	50.0	0.0	46.6	93	65-124
10061-02-6	LCS	trans-1,3-Dichloropropylene	50.0	0.0	50.9	102	71-134
79-00-5	LCS	1,1,2-Trichloroethane	50.0	0.0	46.5	93	76-120
591-78-6	LCS	2-Hexanone	250	0.0	242	97	42-159
142-28-9	LCS	1,3-Dichloropropane	50.0	0.0	46.0	92	72-120
127-18-4	LCS	Tetrachloroethylene	50.0	0.0	49.0	98	74-123
124-48-1	LCS	Dibromochloromethane	50.0	0.0	52.6	105	83-128
106-93-4	LCS	1,2-Dibromoethane	50.0	0.0	48.7	97	79-121
108-90-7	LCS	Chlorobenzene	50.0	0.0	48.4	97	75-120
100-41-4	LCS	Ethylbenzene	50.0	0.0	49.4	99	74-120
179601-23-1	LCS	m,p-Xylenes	100	0.0	98.5	98	74-120
95-47-6	LCS	o-Xylene	50.0	0.0	48.9	98	74-120
100-42-5	LCS	Styrene	50.0	0.0	50.8	102	76-125
75-25-2	LCS	Bromoform	50.0	0.0	54.8	110	77-138
79-34-5	LCS	1,1,2,2-Tetrachloroethane	50.0	0.0	47.3	95	72-122

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-899 **Sample Type:** Laboratory Control Sample

Client ID: LCS for batch 934286 **Matrix:** SOIL

Lab Sample ID: 1202002452

Instrument: VOA6.I **Analysis Date:** 12/18/2009 11:48 **Dilution:** 1

Analyst: RXD1 **Prep Batch ID:** 934286

Purge Vol: 5 mL **Batch ID:** 934291

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
96-18-4	LCS	1,2,3-Trichloropropane	50.0	0.0	47.8	96	75-135
108-86-1	LCS	Bromobenzene	50.0	0.0	46.6	93	73-120
103-65-1	LCS	n-Propylbenzene	50.0	0.0	48.6	97	68-121
95-49-8	LCS	2-Chlorotoluene	50.0	0.0	48.0	96	69-120
98-82-8	LCS	Isopropylbenzene	50.0	0.0	48.6	97	66-127
108-67-8	LCS	1,3,5-Trimethylbenzene	50.0	0.0	48.3	97	67-126
106-43-4	LCS	4-Chlorotoluene	50.0	0.0	48.2	96	72-120
98-06-6	LCS	tert-Butylbenzene	50.0	0.0	47.0	94	72-124
95-63-6	LCS	1,2,4-Trimethylbenzene	50.0	0.0	47.2	94	72-122
135-98-8	LCS	sec-Butylbenzene	50.0	0.0	47.8	96	71-124
99-87-6	LCS	4-Isopropyltoluene	50.0	0.0	48.4	97	72-130
541-73-1	LCS	1,3-Dichlorobenzene	50.0	0.0	46.8	94	73-120
106-46-7	LCS	1,4-Dichlorobenzene	50.0	0.0	46.7	93	73-120
104-51-8	LCS	n-Butylbenzene	50.0	0.0	48.1	96	72-128
96-12-8	LCS	1,2-Dibromo-3-chloropropane	50.0	0.0	53.1	106	68-145
630-20-6	LCS	1,1,1,2-Tetrachloroethane	50.0	0.0	50.0	100	78-121
95-50-1	LCS	1,2-Dichlorobenzene	50.0	0.0	45.8	92	74-120

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-899
Client ID: LCS for batch 934286
Lab Sample ID: 1202002453
Instrument: VOA6.I
Analyst: RXD1
Purge Vol: 5 mL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 12/18/2009 12:43
Dilution: 1
Prep Batch ID: 934286
Batch ID: 934291

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
76-13-1	LCS	1,1,2-Trichloro-1,2,2-Trifluor *Trichlorotrifluoroethane*	250	0.0	300	120	52-139

Method Blank Summary

SDG Number:	10-899	Client:	LANL010	Matrix:	SOIL
Client ID:	MB for batch 934286	Instrument ID:	VOA6.I	Data File:	121709V6\6P406BL2.D
Lab Sample ID:	1201998922	Prep Date:	12/17/2009 09:26	Analyzed:	12/17/09 13:05
Column:	DB-624				

This method blank applies to the following samples and quality control samples:

Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01 LCS for batch 934286	1201998925	121709V6\6P403LL2.D	12/17/09	1142
02 LCS for batch 934286	1201998926	121709V6\6P405SL2.D	12/17/09	1237
03 WST03-10-2199	242784001	121709V6\6P420.D	12/17/09	1934
04 WST03-10-2198	242784002	121709V6\6P421.D	12/17/09	2002
05 WST03-10-2145	242784003	121709V6\6P422.D	12/17/09	2030
06 WST03-10-2146	242784004	121709V6\6P423.D	12/17/09	2058

Method Blank Summary

SDG Number:	10-899	Client:	LANL010	Matrix:	SOIL
Client ID:	MB for batch 934286	Instrument ID:	VOA6.I	Data File:	121809V6\6P506BL2.D
Lab Sample ID:	1202002451	Prep Date:	12/18/2009 09:38	Analyzed:	12/18/09 13:11
Column:	DB-624				

This method blank applies to the following samples and quality control samples:

Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01 LCS for batch 934286	1202002452	121809V6\6P503LL2.D	12/18/09	1148
02 LCS for batch 934286	1202002453	121809V6\6P505SL2.D	12/18/09	1243
03 WST03-10-2145PS	1201998923	121809V6\6P521.D	12/18/09	2031
04 WST03-10-2145PSD	1201998924	121809V6\6P522.D	12/18/09	2059

Instrument Performance Check

BFB

Lab Name GEL Laboratories LLC **Client SDG:** 10-899

Instrument ID: VOA6.I **Injection Date/Time:** 10-DEC-09 10:12

Column Description: DB-624 **Lab File ID** 121009V6\6O404.D

m/e	Ion Abundance Criteria	% Relative Abundance
50	15.0 - 40.0% of mass 95	20
75	30.0 - 60.0% of mass 95	48.2
95	Base Peak, 100% Relative Abundance	100
96	5.0 - 9.0% of mass 95	6.7
173	Less than 2.0% of mass 174	0.8
174	50.0 - 100.0% of mass 95	84.2
175	5.0 -9.0% of mass 174	7.2
176	95.0 - 101.0% of mass 174	96.8
177	5.0 - 9.0% of mass 176	6.6

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
ICALMIX[A]	W6VM091210-03	121009V6\6O407.D	10-DEC-09 11:34
ICALMIX[A]	W6VM091210-04	121009V6\6O408.D	10-DEC-09 12:02
ICALMIX[A]	W6VM091210-05	121009V6\6O409.D	10-DEC-09 12:30
ICALMIX[A]	W6VM091210-06	121009V6\6O410.D	10-DEC-09 12:58
ICALMIX[A]	W6VM091210-07	121009V6\6O411.D	10-DEC-09 13:26
ICALMIX[A]	W6VM091210-08	121009V6\6O412.D	10-DEC-09 13:54
ICALMIX[A]	W6VM091210-09	121009V6\6O414.D	10-DEC-09 14:49
ICALMIX[A]	W6VM091210-10	121009V6\6O415.D	10-DEC-09 15:17
ICVMIX[A]01	W6VM091210-11	121009V6\6O416.D	10-DEC-09 15:45
ICALMIX[B]	W6VM091210-13	121009V6\6O418.D	10-DEC-09 16:40
ICALMIX[B]	W6VM091210-14	121009V6\6O419.D	10-DEC-09 17:08
ICALMIX[B]	W6VM091210-15	121009V6\6O420.D	10-DEC-09 17:36
ICALMIX[B]	W6VM091210-16	121009V6\6O421.D	10-DEC-09 18:04
ICALMIX[B]	W6VM091210-17	121009V6\6O422.D	10-DEC-09 18:32
ICALMIX[B]	W6VM091210-18	121009V6\6O423.D	10-DEC-09 19:00
ICALMIX[B]	W6VM091210-19	121009V6\6O424.D	10-DEC-09 19:28
ICVMIX[B]02	W6VM091210-20	121009V6\6O426.D	10-DEC-09 20:23

Instrument Performance Check

BFB

Lab Name GEL Laboratories LLC **Client SDG:** 10-899

Instrument ID: VOA6.I **Injection Date/Time:** 17-DEC-09 10:46

Column Description: DB-624 **Lab File ID** 121709V6\6P401.D

m/e	Ion Abundance Criteria	% Relative Abundance
50	15.0 - 40.0% of mass 95	20.5
75	30.0 - 60.0% of mass 95	49.1
95	Base Peak, 100% Relative Abundance	100
96	5.0 - 9.0% of mass 95	6.5
173	Less than 2.0% of mass 174	0.8
174	50.0 - 100.0% of mass 95	84.9
175	5.0 -9.0% of mass 174	7.1
176	95.0 - 101.0% of mass 174	97.8
177	5.0 - 9.0% of mass 176	6.4

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
CCVMIX[A]01	W6VM091217-01	121709V6\6P402.D	17-DEC-09 11:14
BLK01LCS	1201998925	121709V6\6P403LL2.D	17-DEC-09 11:42
CCVMIX[B]02	W6VM091217-03	121709V6\6P404.D	17-DEC-09 12:10
BLK01SLCS	1201998926	121709V6\6P405SL2.D	17-DEC-09 12:37
BLK01	1201998922	121709V6\6P406BL2.D	17-DEC-09 13:05
WST03-10-2199	242784001	121709V6\6P420.D	17-DEC-09 19:34
WST03-10-2198	242784002	121709V6\6P421.D	17-DEC-09 20:02
WST03-10-2145	242784003	121709V6\6P422.D	17-DEC-09 20:30
WST03-10-2146	242784004	121709V6\6P423.D	17-DEC-09 20:58

Instrument Performance Check

BFB

Lab Name GEL Laboratories LLC **Client SDG:** 10-899

Instrument ID: VOA6.I **Injection Date/Time:** 18-DEC-09 10:52

Column Description: DB-624 **Lab File ID** 121809V6\6P501.D

m/e	Ion Abundance Criteria	% Relative Abundance
50	15.0 - 40.0% of mass 95	19.8
75	30.0 - 60.0% of mass 95	48.1
95	Base Peak, 100% Relative Abundance	100
96	5.0 - 9.0% of mass 95	6.6
173	Less than 2.0% of mass 174	0.8
174	50.0 - 100.0% of mass 95	83.5
175	5.0 -9.0% of mass 174	7.3
176	95.0 - 101.0% of mass 174	97.1
177	5.0 - 9.0% of mass 176	6.4

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
CCVMIX[A]04	W6VM091218-01	121809V6\6P502.D	18-DEC-09 11:20
BLK02LCS	1202002452	121809V6\6P503LL2.D	18-DEC-09 11:48
CCVMIX[B]05	W6VM091218-03	121809V6\6P504.D	18-DEC-09 12:15
BLK02SLCS	1202002453	121809V6\6P505SL2.D	18-DEC-09 12:43
BLK02	1202002451	121809V6\6P506BL2.D	18-DEC-09 13:11
WST03-10-2145MS	1201998923	121809V6\6P521.D	18-DEC-09 20:31
WST03-10-2145MSD	1201998924	121809V6\6P522.D	18-DEC-09 20:59

Internal Standard
Area and RT Summary

Lab Name : GEL Laboratories LLC

Instrument: VOA6.I

GC Column: DB-624

Client SDG: 10-899

STD Analysis Time: 17-DEC-09 11:14

Data File: C:\msdchem\1\DATA\121709V6\6P402.D

	Fluorobenzene			Chlorobenzene-d5			1,4-Dichlorobenzene-d4		
	Area	#	RT #	Area	#	RT #	Area	#	RT #
12 Hour STD	1670512		9.97	1253032		13.2	720492		15.6
Upper Limit	3341024		10.5	2506064		13.7	1440984		16.1
Lower Limit	835256		9.47	626516		12.7	360246		15.1
Sample ID									
BLK01LCS	1741980		9.97	1312287		13.2	754412		15.6
BLK01SLCS	1737188		9.97	1322114		13.2	768556		15.6
BLK01	1744687		9.97	1296481		13.2	729399		15.6
WST03-10-2199	1702395		9.97	1269164		13.2	698093		15.6
WST03-10-2198	1695914		9.97	1265782		13.2	706524		15.6
WST03-10-2145	1710628		9.97	1263993		13.2	674773		15.6
WST03-10-2146	1723909		9.97	1266400		13.2	661275		15.6

Area Upper Limit = +100% of internal standard area
Area Lower Limit = - 50% of internal standard area

RT Upper Limit = + 0.50 minutes of internal standard RT
RT Lower Limit = - 0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Value outside of QC Limits

Internal Standard
Area and RT Summary

Lab Name : GEL Laboratories LLC

Instrument: VOA6.I

GC Column: DB-624

Client SDG: 10-899

STD Analysis Time: 18-DEC-09 11:20

Data File: C:\msdchem\1\DATA\121809V6\6P502.D

	Fluorobenzene			Chlorobenzene-d5			1,4-Dichlorobenzene-d4		
	Area	#	RT #	Area	#	RT #	Area	#	RT #
12 Hour STD	1713482		9.97	1247065		13.2	704131		15.6
Upper Limit	3426964		10.5	2494130		13.7	1408262		16.1
Lower Limit	856741		9.47	623533		12.7	352066		15.1
Sample ID									
BLK02LCS	1737181		9.98	1276459		13.2	727076		15.6
BLK02SLCS	1695933		9.97	1248996		13.2	711326		15.6
BLK02	1727308		9.97	1238076		13.2	679088		15.6
WST03-10-2145MS	1684611		9.98	1232010		13.2	678052		15.6
WST03-10-2145MSD	1619743		9.98	1182916		13.2	653742		15.6

Area Upper Limit = +100% of internal standard area
Area Lower Limit = - 50% of internal standard area

RT Upper Limit = + 0.50 minutes of internal standard RT
RT Lower Limit = - 0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Value outside of QC Limits

Sample Data

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-899	Date Collected:	12/10/2009 12:00	Matrix:	S
Lab Sample ID:	242784001	Date Received:	12/12/2009 09:35		
		Client:	LANL010	Project:	LANL01004
Client ID:	WST03-10-2199	Method:	SW846 8260B	SOP Ref:	GL-OA-E-038
Batch ID:	934291	Inst:	VOA6.I	Dilution:	1
Run Date:	12/17/2009 19:34	Analyst:	RXD1	Purge Vol:	5 mL
Prep Date:	12/17/2009 15:16	Aliquot:	5 g	Final Volume:	5 mL
Data File:	121709V6\6P420.D	Column:	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/kg	0.340	1.00
74-87-3	Chloromethane	U	1.00	ug/kg	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/kg	0.300	1.00
74-83-9	Bromomethane	U	1.00	ug/kg	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/kg	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/kg	0.300	1.00
67-64-1	Acetone	J	4.62	ug/kg	1.66	5.00
75-35-4	1,1-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/kg	1.60	5.00
75-09-2	Methylene chloride	U	5.00	ug/kg	2.00	5.00
75-15-0	Carbon disulfide	U	5.00	ug/kg	1.25	5.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/kg	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/kg	1.50	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/kg	0.300	1.00
74-97-5	Bromochloromethane	U	1.00	ug/kg	0.330	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/kg	0.300	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/kg	0.300	1.00
56-23-5	Carbon tetrachloride	U	1.00	ug/kg	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/kg	0.300	1.00
71-43-2	Benzene	U	1.00	ug/kg	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/kg	0.330	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/kg	0.300	1.00
74-95-3	Dibromomethane	U	1.00	ug/kg	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/kg	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
108-88-3	Toluene	U	1.00	ug/kg	0.300	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/kg	0.300	1.00
591-78-6	2-Hexanone	U	5.00	ug/kg	1.50	5.00
142-28-9	1,3-Dichloropropane	U	1.00	ug/kg	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/kg	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/kg	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/kg	0.300	1.00
108-90-7	Chlorobenzene	U	1.00	ug/kg	0.300	1.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-899**	**Date Collected:**	**12/10/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242784001**	**Date Received:**	**12/12/2009 09:35**		
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**WST03-10-2199**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**934291**	**Inst:**	**VOA6.I**	**Dilution:**	**1**
Run Date:	**12/17/2009 19:34**	**Analyst:**	**RXD1**	**Purge Vol:**	**5 mL**
Prep Date:	**12/17/2009 15:16**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**121709V6\6P420.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.00	ug/kg	0.300	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/kg	0.300	2.00
95-47-6	o-Xylene	U	1.00	ug/kg	0.300	1.00
100-42-5	Styrene	U	1.00	ug/kg	0.300	1.00
75-25-2	Bromoform	U	1.00	ug/kg	0.300	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/kg	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/kg	0.300	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/kg	0.300	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/kg	0.300	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/kg	0.300	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/kg	0.300	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/kg	0.300	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/kg	0.300	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/kg	0.300	1.00
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.00	ug/kg	1.60	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown siloxane	16.17	13.3	ug/kg	0	J

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709V6\
Data File : 6P420.D
Acq On : 17 Dec 2009 7:34 pm
Operator : RXD1
InstName : VOA6
Sample : |242784001|934291|1|VOAF|1|VOA8260BS|
Misc : LANL 5g N/A SOIL
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Dec 18 10:00:53 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Fluorobenzene	9.974	96	1704567	50.00 ug/L	0.00
41) Chlorobenzene-d5	13.156	117	1269164	50.00 ug/L	0.00
58) 1,4-Dichlorobenzene-d4	15.576	152	698093	50.00 ug/L	0.00
82) B Fluorobenzene	9.974	96	1702395	50.00 ug/L	0.00
103) B Chlorobenzene-d5	13.156	117	1269164	50.00 ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	15.576	152	698093	50.00 ug/L	0.00
System Monitoring Compounds					
29) 1,2-Dichloroethane-d4	9.626	65	494065	49.13 ug/L	0.00
Spiked Amount 50.000	Range 68 - 131		Recovery = 98.26%		
43) Toluene-d8	11.626	98	1700217	48.32 ug/L	0.00
Spiked Amount 50.000	Range 75 - 129		Recovery = 96.64%		
61) Bromofluorobenzene	14.357	95	688283	51.16 ug/L	0.00
Spiked Amount 50.000	Range 68 - 133		Recovery = 102.32%		
Target Compounds					Qvalue
2) Dichlorodifluoromethane	0.000		0	N.D.	
3) Chloromethane	4.652	50	719	N.D.	
4) Vinyl chloride	0.000		0	N.D.	
5) Bromomethane	0.000		0	N.D.	
6) Chloroethane	0.000		0	N.D.	
7) Trichlorofluoromethane	0.000		0	N.D.	
8) Ethyl ether	0.000		0	N.D.	
9) Acetone	6.718	43	14322	4.62 ug/L	90
10) 1,1-Dichloroethylene	0.000		0	N.D.	
11) Iodomethane	0.000		0	N.D.	
12) Acetonitrile	7.090	41	189	N.D.	
13) Methyl acetate	0.000		0	N.D.	
14) Carbon disulfide	7.072	76	2159	N.D.	
15) Methylene chloride	7.285	84	13605	N.D.	
16) tert-Butyl methyl ether	0.000		0	N.D.	
17) trans-1,2-Dichloroethy...	0.000		0	N.D.	
18) Vinyl acetate	0.000		0	N.D.	
19) 1,1-Dichloroethane	0.000		0	N.D.	
20) 2-Butanone	8.694	43	1441	N.D.	
21) cis-1,2-Dichloroethylene	0.000		0	N.D.	
22) 2,2-Dichloropropane	0.000		0	N.D.	
23) Bromochloromethane	0.000		0	N.D.	
24) Chloroform	0.000		0	N.D.	
25) 1,1,1-Trichloroethane	0.000		0	N.D.	
26) Cyclohexane	0.000		0	N.D.	
27) 1,1-Dichloropropene	0.000		0	N.D.	
28) Carbon tetrachloride	0.000		0	N.D.	
30) 1,2-Dichloroethane	0.000		0	N.D.	
31) Benzene	9.724	78	519	N.D.	
32) Cyclohexene	0.000		0	N.D.	
33) n-Butyl alcohol	0.000		0	N.D.	
34) Trichloroethylene	0.000		0	N.D.	
35) 1,2-Dichloropropane	0.000		0	N.D.	
36) Methylcyclohexane	0.000		0	N.D.	
37) Dibromomethane	0.000		0	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709V6\
Data File : 6P420.D
Acq On : 17 Dec 2009 7:34 pm
Operator : RXD1
InstName : VOA6
Sample : |242784001|934291|1|VOAF|1|VOA8260BS|
Misc : LANL 5g N/A SOIL
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Dec 18 10:00:53 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
38) Bromodichloromethane	0.000		0	N.D.	
39) 2-Chloroethylvinyl ether	0.000		0	N.D.	
40) cis-1,3-Dichloropropylene	0.000		0	N.D.	
42) 4-Methyl-2-pentanone	0.000		0	N.D.	
44) Toluene	11.699	91	2919	N.D.	
45) trans-1,3-Dichloroprop...	0.000		0	N.D.	
46) 1,1,2-Trichloroethane	0.000		0	N.D.	
47) 2-Hexanone	12.260	43	1405	N.D.	
48) 1,3-Dichloropropane	0.000		0	N.D.	
49) Tetrachloroethylene	0.000		0	N.D.	
50) Dibromochloromethane	0.000		0	N.D.	
51) 1,2-Dibromoethane	0.000		0	N.D.	
52) Chlorobenzene	13.180	112	407	N.D.	
53) 1,1,1,2-Tetrachloroethane	0.000		0	N.D.	
54) Ethylbenzene	13.254	91	2191	N.D.	
55) m,p-Xylenes	13.351	106	1767	N.D.	
56) o-Xylene	13.790	106	196	N.D.	
57) Styrene	13.796	104	1676	N.D.	
59) Bromoform	0.000		0	N.D.	
60) Isopropylbenzene	14.150	105	2968	N.D.	
62) 1,1,2,2-Tetrachloroethane	0.000		0	N.D.	
63) 1,2,3-Trichloropropane	0.000		0	N.D.	
64) Bromobenzene	14.570	156	191	N.D.	
65) n-Propylbenzene	14.583	91	5220	N.D.	
66) 1,3,5-Trimethylbenzene	14.741	105	3265	N.D.	
67) 2-Chlorotoluene	0.000		0	N.D.	
68) 4-Chlorotoluene	14.833	91	2499	N.D.	
69) tert-Butylbenzene	15.113	134	439	N.D.	
70) 1,2,4-Trimethylbenzene	15.150	105	4033	N.D.	
71) sec-Butylbenzene	15.333	105	4454	N.D.	
72) 4-Isopropyltoluene	15.454	119	3360	N.D.	
73) 1,3-Dichlorobenzene	15.515	146	1898	N.D.	
74) 1,4-Dichlorobenzene	15.601	146	2241	N.D.	
75) n-Butylbenzene	15.887	91	3024	N.D.	
76) 1,2-Dichlorobenzene	16.021	146	1387	N.D.	
77) 1,2-Dibromo-3-chloropr...	0.000		0	N.D.	
78) 1,2,4-Trichlorobenzene	17.911	180	3173	N.D.	
79) Hexachlorobutadiene	18.070	225	970	N.D.	
80) Naphthalene	0.000		0m	N.D. d	
81) 1,2,3-Trichlorobenzene	18.618	180	5356	0.41 ug/L	89
83) Chlorotrifluoroethylene	0.000		0	N.D.	
84) 2-Chloro-1,1,1-trifluo...	0.000		0	N.D.	
85) Acrolein	0.000		0	N.D.	
86) Trichlorotrifluoroethane	0.000		0	N.D.	
87) Isopropyl Alcohol	0.000		0	N.D.	
88) Allyl chloride	7.090	41	189	N.D.	
89) tert-Butyl Alcohol	0.000		0	N.D.	
90) Acrylonitrile	0.000		0	N.D.	
91) Isopropyl ether	0.000		0	N.D.	
92) 2-Chloro-1,3-butadiene	0.000		0	N.D.	
93) Ethyl tert-butyl ether	0.000		0	N.D.	
94) Ethyl acetate	8.694	43	1441	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709V6\
Data File : 6P420.D
Acq On : 17 Dec 2009 7:34 pm
Operator : RXD1
InstName : VOA6
Sample : |242784001|934291|1|VOAF|1|VOA8260BS|
Misc : LANL 5g N/A SOIL
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Dec 18 10:00:53 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
95)	Propionitrile	0.000		0	N.D.	
96)	Methacrylonitrile	0.000		0	N.D.	
97)	Tetrahydrofuran	0.000		0	N.D.	
98)	Isobutyl alcohol	0.000		0	N.D.	
99)	Methyl tert-amyl ether	0.000		0	N.D.	
100)	Methyl methacrylate	0.000		0	N.D.	
101)	1,4-Dioxane	0.000		0	N.D.	
102)	2-Nitropropane	0.000		0	N.D.	
104)	Ethyl methacrylate	0.000		0	N.D.	
106)	1-Chlorohexane	0.000		0	N.D.	
107)	cis-1,4-Dichloro-2-butene	0.000		0	N.D.	
108)	Cyclohexanone	0.000		0	N.D.	
109)	trans-1,4-Dichloro-2-b...	0.000		0	N.D.	
110)	Pentachloroethane	0.000		0	N.D.	
111)	Benzyl chloride	0.000		0m	N.D.	d
112)	bis(2-Chloroisopropyl)...	0.000		0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709V6\
Data File : 6P420.D
Acq On : 17 Dec 2009 7:34 pm
Operator : RXD1
InstName : VOA6
Sample : |242784001|934291|1|VOAF|1|VOA8260BS|
Misc : LANL 5g N/A SOIL
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Dec 18 10:00:53 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

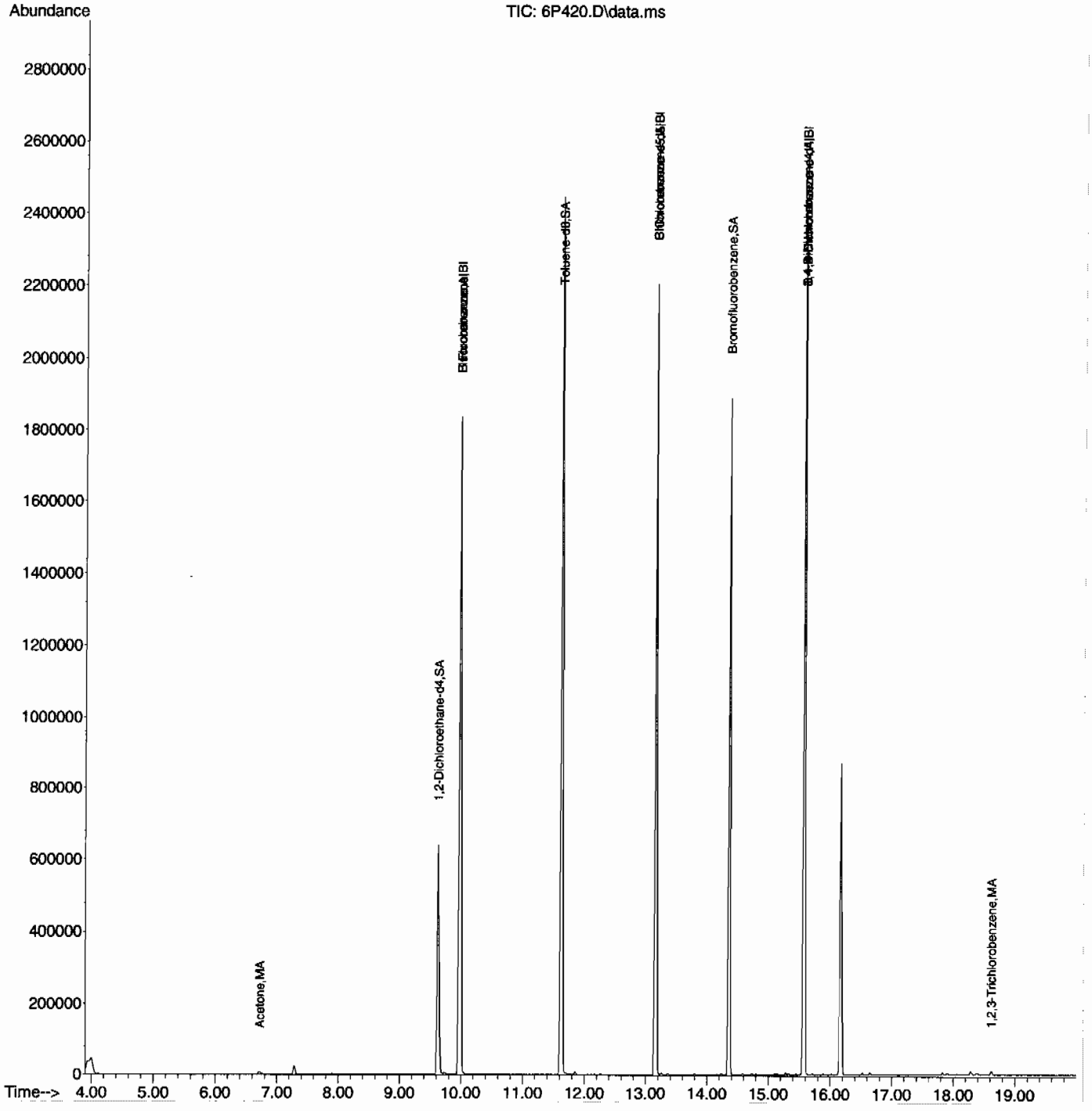

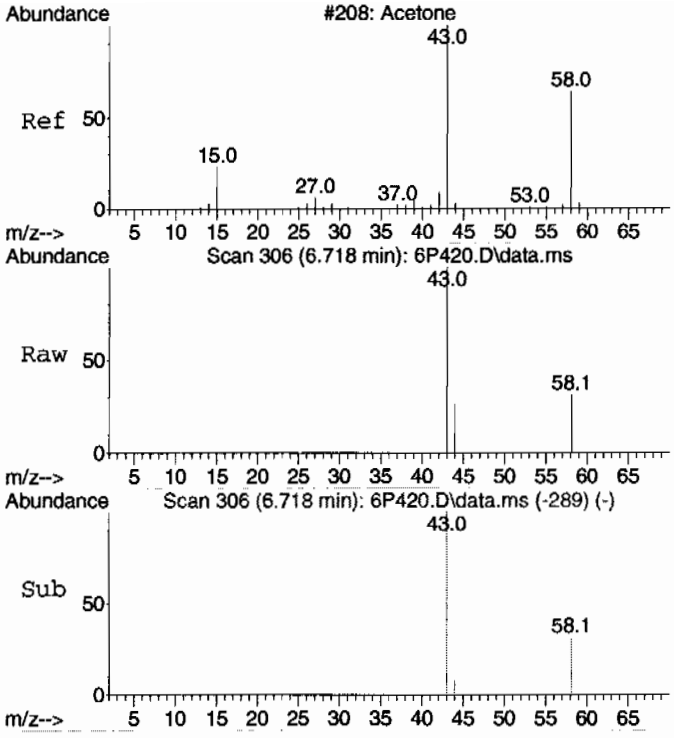

#9
Acetone
Concen: 4.62 ug/L
RT: 6.718 min Scan# 306
Delta R.T. 0.006 min
Lab File: 6P420.D
Acq: 17 Dec 2009 7:34 pm

Tgt Ion: 43 Resp: 14322

Ion	Ratio	Lower	Upper
43	100		
58	25.2	0.4	60.4

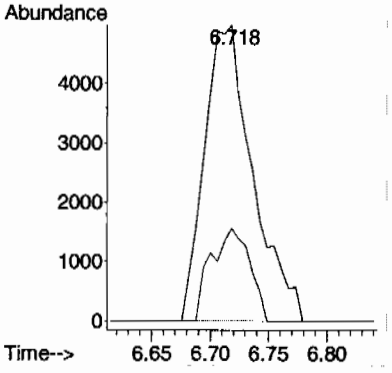

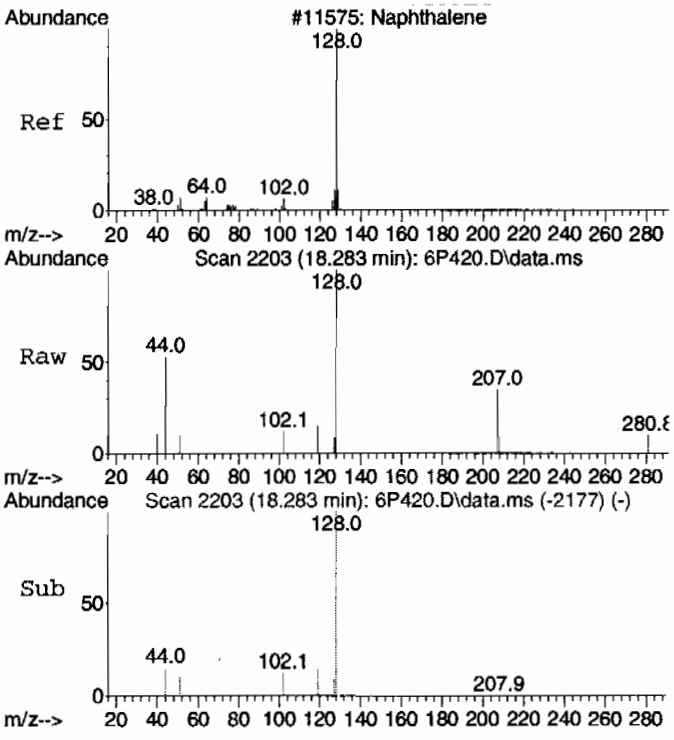

#80 BEFORE analyst DELETION
Naphthalene
Concen: 0.37 ug/L
RT: 18.283 min Scan# 2203
Delta R.T. -0.006 min
Lab File: 6P420.D
Acq: 17 Dec 2009 7:34 pm

Tgt Ion:128 Resp: 11525

Ion	Ratio	Lower	Upper
128	100		
127	12.0	0.0	42.6
129	1.8	0.0	40.9

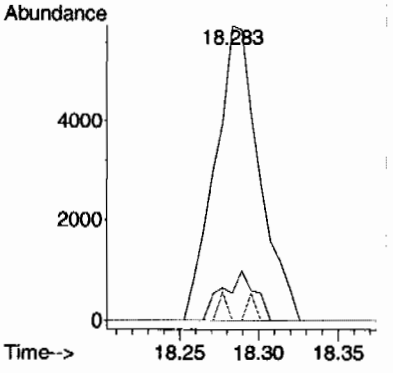

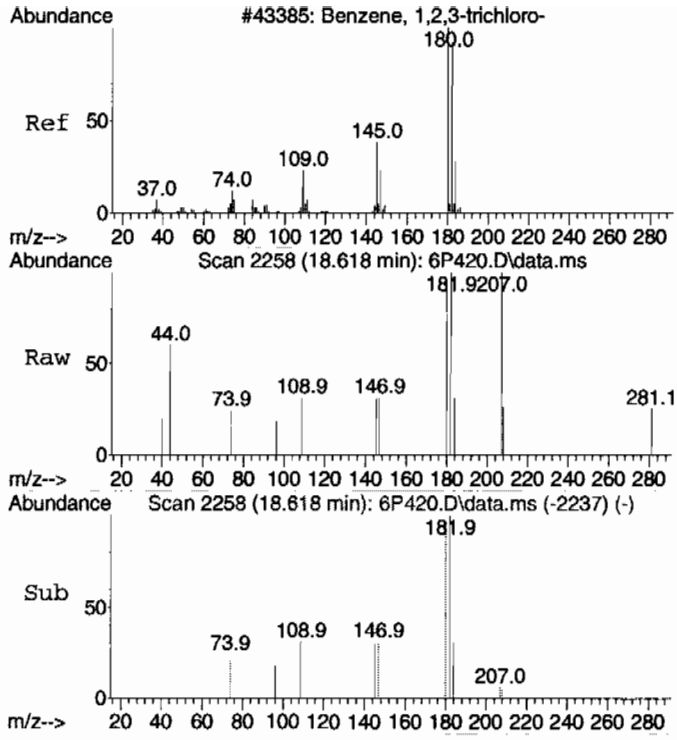

#81
1,2,3-Trichlorobenzene
Concen: 0.41 ug/L
RT: 18.618 min Scan# 2258
Delta R.T. -0.001 min
Lab File: 6P420.D
Acq: 17 Dec 2009 7:34 pm

Tgt Ion:180 Resp: 5356

Ion	Ratio	Lower	Upper
180	100		
182	102.3	64.7	124.7
145	19.6	1.0	61.0

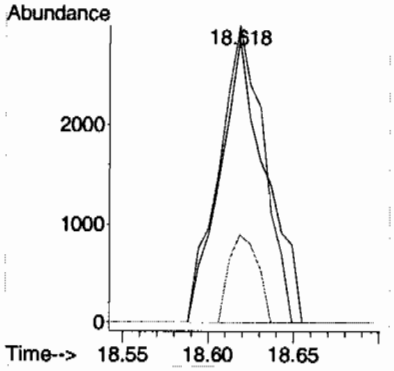

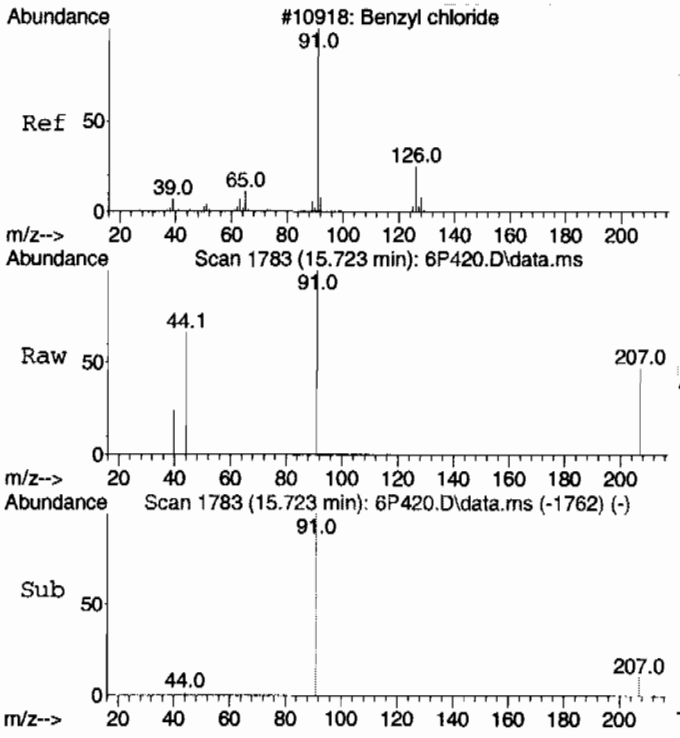

#111 BEFORE analyst DELETION
Benzyl chloride
Concen: 0.23 ug/L
RT: 15.723 min Scan# 1783
Delta R.T. 0.007 min
Lab File: 6P420.D
Acq: 17 Dec 2009 7:34 pm

Tgt Ion: 91 Resp: 4181

Ion	Ratio	Lower	Upper
91	100		
126	14.6	0.0	52.6
65	0.0	0.0	42.9

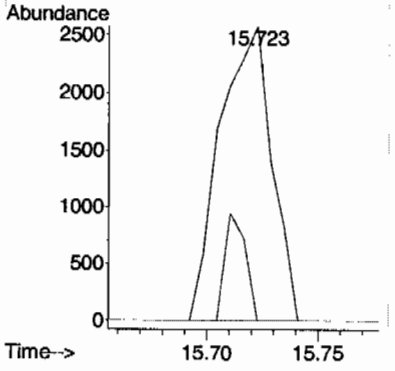

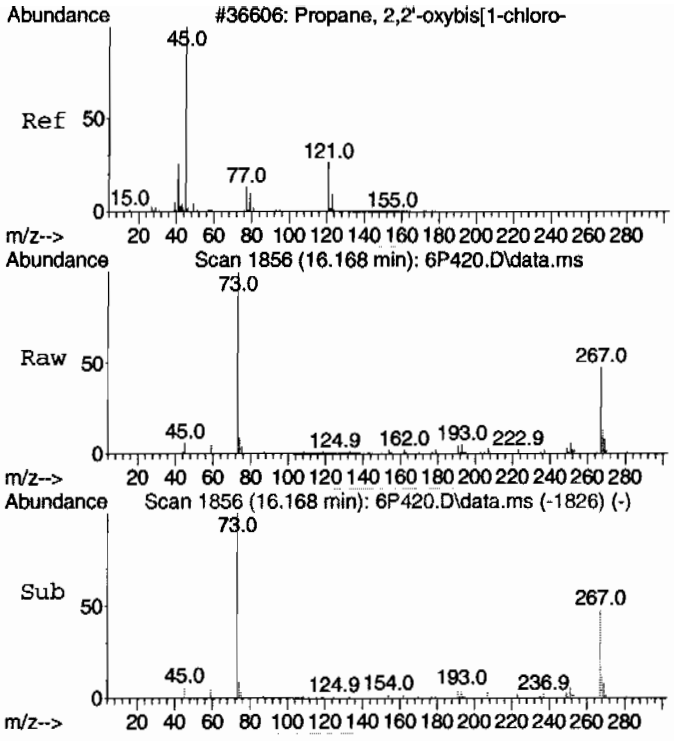

#112 BEFORE analyst DELETION
bis(2-Chloroisopropyl)ether
Concen: 6.57 ug/L
RT: 16.168 min Scan# 1856
Delta R.T. 0.055 min
Lab File: 6P420.D
Acq: 17 Dec 2009 7:34 pm

Tgt Ion: 45 Resp: 34801

Ion	Ratio	Lower	Upper
45	100		
121	0.6	0.0	53.0

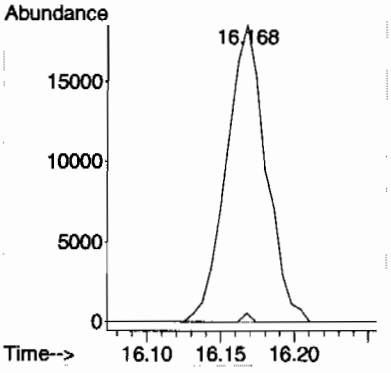

Library Search Compound Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709V6\
Data File : 6P420.D
Acq On : 17 Dec 2009 7:34 pm
Operator : RXD1
Sample : |242784001|934291|1|VOAF|1|VOA8260BS|
Misc : LANL 5g N/A SOIL
ALS Vial : 20 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

****
Peak Number 1 unknown siloxane Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
16.168	13.31 ug/L	1099630	B 1,4-Dichlorobenzene-d4	15.576

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzeneethanamine, N-[(pentafluo...	475	C21H26F5NO2Si2	055429-85-1	37
2	Tetrasiloxane, 1,1,3,3,5,5,7,7-o...	282	C8H26O3Si4	001000-05-1	16
3	1-Boraindane, 3-methyl-1-[1-(tri...	266	C17H23BSi	190316-36-0	10
4	11H-Dibenzo[b,e][1,4]diazepin-11...	267	C16H17N3O	013450-73-2	9
5	3,5-Dimethoxyphenylacetic acid, ...	268	C13H20O4Si	1000071-82-4	9

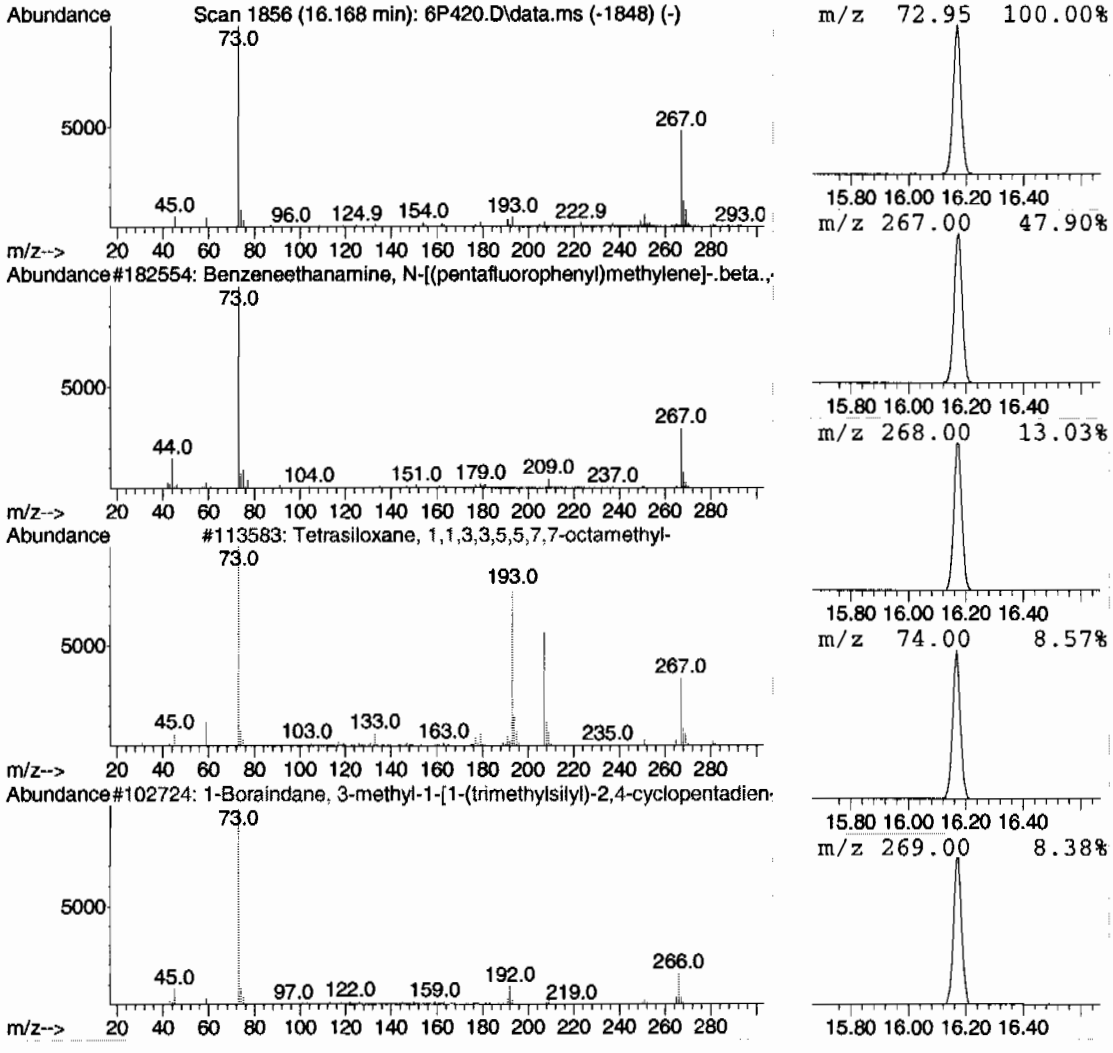

Tentatively Identified Compound (LSC) summary
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709V6\
Data File : 6P420.D
Acq On : 17 Dec 2009 7:34 pm
Operator : RXD1
Sample : |242784001|934291|1|VOAF|1|VOA8260BS|
Misc : LANL 5g N/A SOIL
ALS Vial : 20 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

TIC Top Hit name	RT	EstConc	Units	Response	--Internal Standard--- #	RT	Resp	Conc
unknown siloxane	16.168	13.3	ug/L	1099630	6	15.576	4130490	50.0

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-899	Date Collected:	12/10/2009 12:00	Matrix:	S
Lab Sample ID:	242784002	Date Received:	12/12/2009 09:35		
		Client:	LANL010	Project:	LANL01004
Client ID:	WST03-10-2198	Method:	SW846 8260B	SOP Ref:	GL-OA-E-038
Batch ID:	934291	Inst:	VOA6.I	Dilution:	1
Run Date:	12/17/2009 20:02	Analyst:	RXD1	Purge Vol:	5 mL
Prep Date:	12/17/2009 15:18	Aliquot:	5 g	Final Volume:	5 mL
Data File:	121709V6\6P421.D	Column:	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/kg	0.340	1.00
74-87-3	Chloromethane	U	1.00	ug/kg	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/kg	0.300	1.00
74-83-9	Bromomethane	U	1.00	ug/kg	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/kg	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/kg	0.300	1.00
67-64-1	Acetone	J	3.21	ug/kg	1.66	5.00
75-35-4	1,1-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/kg	1.60	5.00
75-09-2	Methylene chloride	U	5.00	ug/kg	2.00	5.00
75-15-0	Carbon disulfide	U	5.00	ug/kg	1.25	5.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/kg	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/kg	1.50	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/kg	0.300	1.00
74-97-5	Bromochloromethane	U	1.00	ug/kg	0.330	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/kg	0.300	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/kg	0.300	1.00
56-23-5	Carbon tetrachloride	U	1.00	ug/kg	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/kg	0.300	1.00
71-43-2	Benzene	U	1.00	ug/kg	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/kg	0.330	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/kg	0.300	1.00
74-95-3	Dibromomethane	U	1.00	ug/kg	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/kg	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
108-88-3	Toluene	U	1.00	ug/kg	0.300	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/kg	0.300	1.00
591-78-6	2-Hexanone	U	5.00	ug/kg	1.50	5.00
142-28-9	1,3-Dichloropropane	U	1.00	ug/kg	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/kg	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/kg	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/kg	0.300	1.00
108-90-7	Chlorobenzene	U	1.00	ug/kg	0.300	1.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-899**	**Date Collected:**	**12/10/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242784002**	**Date Received:**	**12/12/2009 09:35**		
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**WST03-10-2198**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**934291**	**Inst:**	**VOA6.I**	**Dilution:**	**1**
Run Date:	**12/17/2009 20:02**	**Analyst:**	**RXD1**	**Purge Vol:**	**5 mL**
Prep Date:	**12/17/2009 15:18**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**121709V6\6P421.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.00	ug/kg	0.300	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/kg	0.300	2.00
95-47-6	o-Xylene	U	1.00	ug/kg	0.300	1.00
100-42-5	Styrene	U	1.00	ug/kg	0.300	1.00
75-25-2	Bromoform	U	1.00	ug/kg	0.300	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/kg	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/kg	0.300	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/kg	0.300	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/kg	0.300	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/kg	0.300	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/kg	0.300	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/kg	0.300	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/kg	0.300	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/kg	0.300	1.00
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.00	ug/kg	1.60	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated Units	Fit	Qual
	No Tentatively Identified Compounds Found		ug/kg		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709V6\
Data File : 6P421.D
Acq On : 17 Dec 2009 8:02 pm
Operator : RXD1
InstName : VOA6
Sample : |242784002|934291|1|VOAF|1|VOA8260BS|
Misc : LANL 5g N/A SOIL
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Dec 18 10:02:00 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Fluorobenzene	9.974	96	1697374	50.00 ug/L	0.00
41) Chlorobenzene-d5	13.156	117	1265782	50.00 ug/L	0.00
58) 1,4-Dichlorobenzene-d4	15.576	152	706524	50.00 ug/L	0.00
82) B Fluorobenzene	9.974	96	1695914	50.00 ug/L	0.00
103) B Chlorobenzene-d5	13.156	117	1265782	50.00 ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	15.576	152	706524	50.00 ug/L	0.00
System Monitoring Compounds					
29) 1,2-Dichloroethane-d4	9.626	65	496726	49.60 ug/L	0.00
Spiked Amount 50.000	Range 68 - 131		Recovery = 99.20%		
43) Toluene-d8	11.626	98	1691906	48.21 ug/L	0.00
Spiked Amount 50.000	Range 75 - 129		Recovery = 96.42%		
61) Bromofluorobenzene	14.357	95	686762	50.44 ug/L	0.00
Spiked Amount 50.000	Range 68 - 133		Recovery = 100.88%		
Target Compounds					Qvalue
2) Dichlorodifluoromethane	0.000		0	N.D.	
3) Chloromethane	4.652	50	733	N.D.	
4) Vinyl chloride	0.000		0	N.D.	
5) Bromomethane	0.000		0	N.D.	
6) Chloroethane	0.000		0	N.D.	
7) Trichlorofluoromethane	0.000		0	N.D.	
8) Ethyl ether	0.000		0	N.D.	
9) Acetone	6.718	43	9897	3.21 ug/L	92
10) 1,1-Dichloroethylene	0.000		0	N.D.	
11) Iodomethane	0.000		0	N.D.	
12) Acetonitrile	0.000		0	N.D.	
13) Methyl acetate	0.000		0	N.D.	
14) Carbon disulfide	7.090	76	2084	N.D.	
15) Methylene chloride	7.279	84	13079	N.D.	
16) tert-Butyl methyl ether	7.584	73	212	N.D.	
17) trans-1,2-Dichloroethy...	0.000		0	N.D.	
18) Vinyl acetate	0.000		0	N.D.	
19) 1,1-Dichloroethane	0.000		0	N.D.	
20) 2-Butanone	8.700	43	740	N.D.	
21) cis-1,2-Dichloroethylene	0.000		0	N.D.	
22) 2,2-Dichloropropane	0.000		0	N.D.	
23) Bromochloromethane	0.000		0	N.D.	
24) Chloroform	0.000		0	N.D.	
25) 1,1,1-Trichloroethane	0.000		0	N.D.	
26) Cyclohexane	0.000		0	N.D.	
27) 1,1-Dichloropropene	0.000		0	N.D.	
28) Carbon tetrachloride	0.000		0	N.D.	
30) 1,2-Dichloroethane	0.000		0	N.D.	
31) Benzene	9.718	78	5786	N.D.	
32) Cyclohexene	0.000		0	N.D.	
33) n-Butyl alcohol	0.000		0	N.D.	
34) Trichloroethylene	0.000		0	N.D.	
35) 1,2-Dichloropropane	0.000		0	N.D.	
36) Methylcyclohexane	0.000		0	N.D.	
37) Dibromomethane	0.000		0	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709V6\
Data File : 6P421.D
Acq On : 17 Dec 2009 8:02 pm
Operator : RXD1
InstName : VOA6
Sample : |242784002|934291|1|VOAF|1|VOA8260BS|
Misc : LANL 5g N/A SOIL
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Dec 18 10:02:00 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
38)	Bromodichloromethane	0.000		0	N.D.	
39)	2-Chloroethylvinyl ether	0.000		0	N.D.	
40)	cis-1,3-Dichloropropylene	0.000		0	N.D.	
42)	4-Methyl-2-pentanone	0.000		0	N.D.	
44)	Toluene	11.699	91	2280	N.D.	
45)	trans-1,3-Dichloroprop...	0.000		0	N.D.	
46)	1,1,2-Trichloroethane	0.000		0	N.D.	
47)	2-Hexanone	12.260	43	643	N.D.	
48)	1,3-Dichloropropane	0.000		0	N.D.	
49)	Tetrachloroethylene	0.000		0	N.D.	
50)	Dibromochloromethane	0.000		0	N.D.	
51)	1,2-Dibromoethane	0.000		0	N.D.	
52)	Chlorobenzene	13.193	112	185	N.D.	
53)	1,1,1,2-Tetrachloroethane	0.000		0	N.D.	
54)	Ethylbenzene	13.254	91	1267	N.D.	
55)	m,p-Xylenes	13.357	106	677	N.D.	
56)	o-Xylene	0.000		0	N.D.	
57)	Styrene	13.796	104	960	N.D.	
59)	Bromoform	0.000		0	N.D.	
60)	Isopropylbenzene	14.156	105	1732	N.D.	
62)	1,1,2,2-Tetrachloroethane	0.000		0	N.D.	
63)	1,2,3-Trichloropropane	0.000		0	N.D.	
64)	Bromobenzene	0.000		0	N.D.	
65)	n-Propylbenzene	14.583	91	3399	N.D.	
66)	1,3,5-Trimethylbenzene	14.729	105	1853	N.D.	
67)	2-Chlorotoluene	0.000		0	N.D.	
68)	4-Chlorotoluene	14.826	91	1498	N.D.	
69)	tert-Butylbenzene	0.000		0	N.D.	
70)	1,2,4-Trimethylbenzene	15.150	105	3531	N.D.	
71)	sec-Butylbenzene	15.339	105	2989	N.D.	
72)	4-Isopropyltoluene	15.448	119	2112	N.D.	
73)	1,3-Dichlorobenzene	15.515	146	454	N.D.	
74)	1,4-Dichlorobenzene	15.601	146	1479	N.D.	
75)	n-Butylbenzene	15.887	91	1920	N.D.	
76)	1,2-Dichlorobenzene	16.015	146	186	N.D.	
77)	1,2-Dibromo-3-chloropr...	0.000		0	N.D.	
78)	1,2,4-Trichlorobenzene	17.905	180	414	N.D.	
79)	Hexachlorobutadiene	0.000		0	N.D.	
80)	Naphthalene	18.295	128	4753	N.D.	
81)	1,2,3-Trichlorobenzene	18.624	180	1417	N.D.	
83)	Chlorotrifluoroethylene	0.000		0	N.D.	
84)	2-Chloro-1,1,1-trifluo...	0.000		0	N.D.	
85)	Acrolein	0.000		0	N.D.	
86)	Trichlorotrifluoroethane	0.000		0	N.D.	
87)	Isopropyl Alcohol	0.000		0	N.D.	
88)	Allyl chloride	0.000		0	N.D.	
89)	tert-Butyl Alcohol	0.000		0	N.D.	
90)	Acrylonitrile	0.000		0	N.D.	
91)	Isopropyl ether	0.000		0	N.D.	
92)	2-Chloro-1,3-butadiene	0.000		0	N.D.	
93)	Ethyl tert-butyl ether	0.000		0	N.D.	
94)	Ethyl acetate	8.700	43	740	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709V6\
Data File : 6P421.D
Acq On : 17 Dec 2009 8:02 pm
Operator : RXD1
InstName : VOA6
Sample : |242784002|934291|1|VOAF|1|VOA8260BS|
Misc : LANL 5g N/A SOIL
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Dec 18 10:02:00 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
95)	Propionitrile	0.000		0	N.D.	
96)	Methacrylonitrile	0.000		0	N.D.	
97)	Tetrahydrofuran	9.071	42	202	N.D.	
98)	Isobutyl alcohol	0.000		0	N.D.	
99)	Methyl tert-amyl ether	0.000		0	N.D.	
100)	Methyl methacrylate	0.000		0	N.D.	
101)	1,4-Dioxane	0.000		0	N.D.	
102)	2-Nitropropane	0.000		0	N.D.	
104)	Ethyl methacrylate	0.000		0	N.D.	
106)	1-Chlorohexane	0.000		0	N.D.	
107)	cis-1,4-Dichloro-2-butene	0.000		0	N.D.	
108)	Cyclohexanone	0.000		0	N.D.	
109)	trans-1,4-Dichloro-2-b...	0.000		0	N.D.	
110)	Pentachloroethane	0.000		0	N.D.	
111)	Benzyl chloride	0.000		0m	N.D.	d
112)	bis(2-Chloroisopropyl)...	16.168	45	7919	N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709V6\
Data File : 6P421.D
Acq On : 17 Dec 2009 8:02 pm
Operator : RXD1
InstName : VOA6
Sample : |242784002|934291|1|VOAF|1|VOA8260BS|
Misc : LANL 5g N/A SOIL
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Dec 18 10:02:00 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

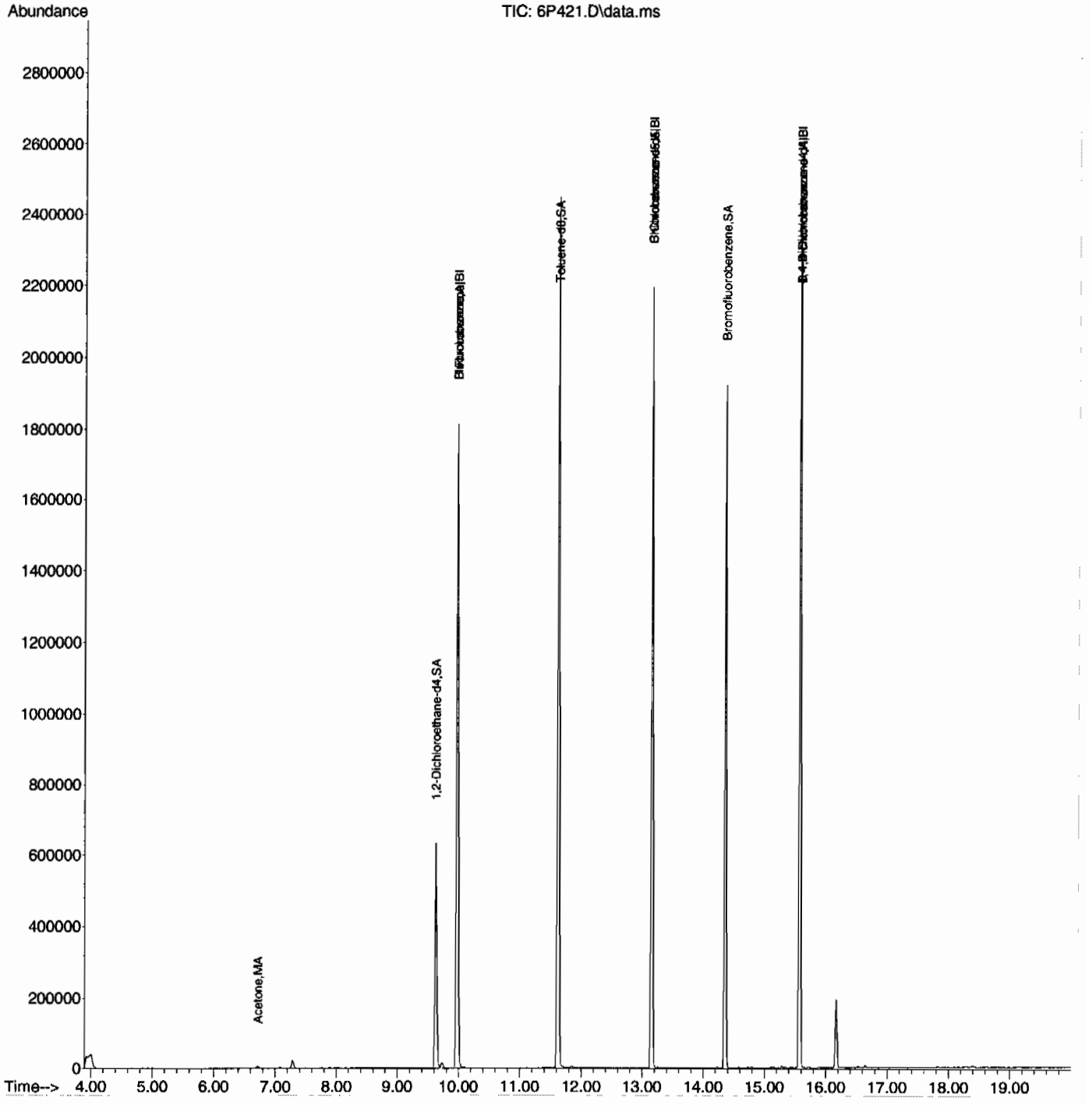

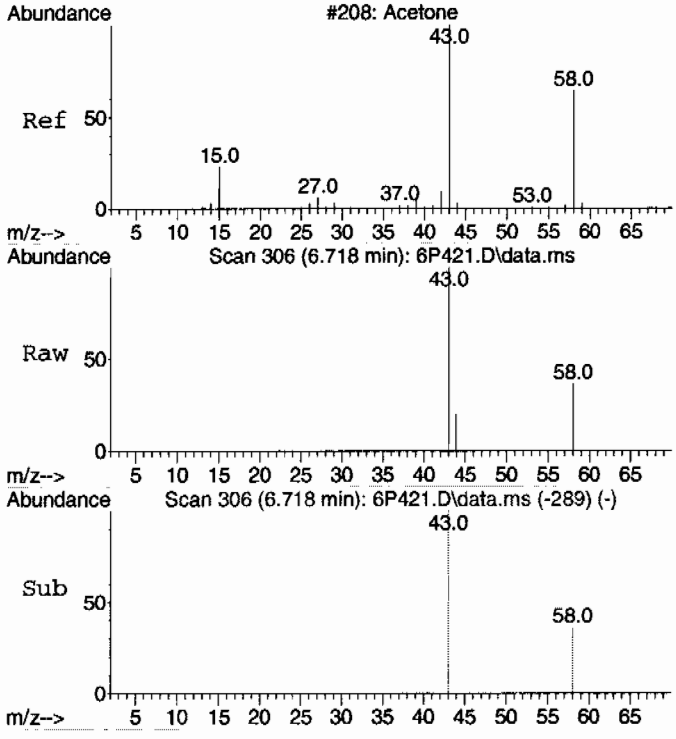

#9
Acetone
Concen: 3.21 ug/L
RT: 6.718 min Scan# 306
Delta R.T. 0.006 min
Lab File: 6P421.D
Acq: 17 Dec 2009 8:02 pm

Tgt Ion: 43 Resp: 9897

Ion	Ratio	Lower	Upper
43	100		
58	25.8	0.4	60.4

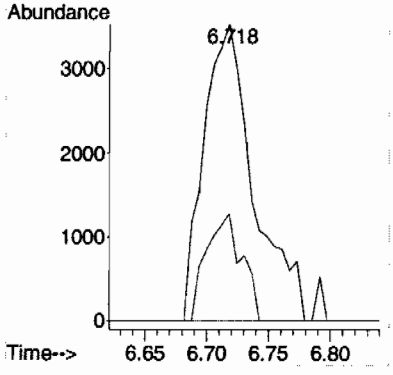

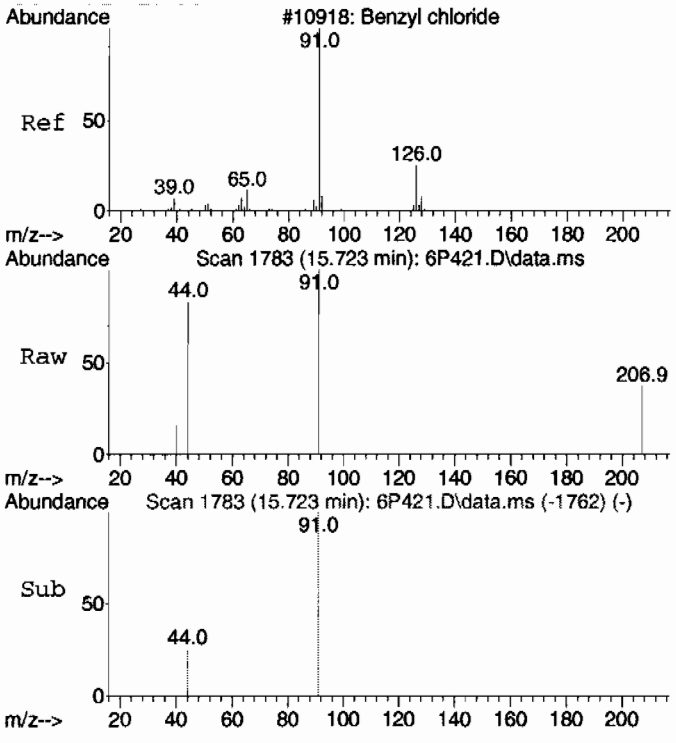

#111 BEFORE analyst DELETION
Benzyl chloride
Concen: 0.25 ug/L
RT: 15.723 min Scan# 1783
Delta R.T. 0.007 min
Lab File: 6P421.D
Acq: 17 Dec 2009 8:02 pm

Tgt Ion: 91 Resp: 4627

Ion	Ratio	Lower	Upper
91	100		
126	4.1	0.0	52.6
65	0.0	0.0	42.9

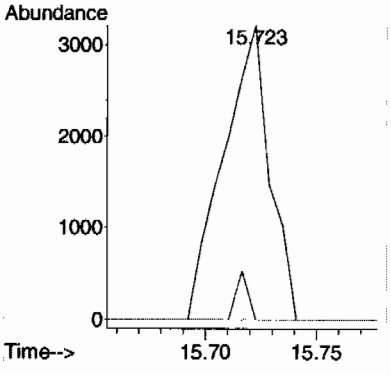

Library Search Compound Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709V6\
Data File : 6P421.D
Acq On : 17 Dec 2009 8:02 pm
Operator : RXD1
Sample : |242784002|934291|1|VOAF|1|VOA8260BS|
Misc : LANL 5g N/A SOIL
ALS Vial : 21 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

No Library Search Compounds Detected
****

Tentatively Identified Compound (LSC) summary
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709V6\
Data File : 6P421.D
Acq On : 17 Dec 2009 8:02 pm
Operator : RXD1
Sample : |242784002|934291|1|VOAF|1|VOA8260BS|
Misc : LANL 5g N/A SOIL
ALS Vial : 21 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

TIC Top Hit name	RT	EstConc	Units	Response	--Internal Standard--- #	RT	Resp	Conc

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-899	**Date Collected:**	12/10/2009 12:00	**Matrix:**	R
Lab Sample ID:	242784003	**Date Received:**	12/12/2009 09:35	**%Moisture:**	6.7
		Client:	LANL010	**Project:**	LANL01004
Client ID:	WST03-10-2145	**Method:**	SW846 8260B	**SOP Ref:**	GL-OÀ-E-038
Batch ID:	934291	**Inst:**	VOA6.I	**Dilution:**	1
Run Date:	12/17/2009 20:30	**Analyst:**	RXD1	**Purge Vol:**	5 mL
Prep Date:	12/17/2009 15:20	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	121709V6\6P422.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.07	ug/kg	0.364	1.07
74-87-3	Chloromethane	U	1.07	ug/kg	0.322	1.07
75-01-4	Vinyl chloride	U	1.07	ug/kg	0.322	1.07
74-83-9	Bromomethane	U	1.07	ug/kg	0.322	1.07
75-00-3	Chloroethane	U	1.07	ug/kg	0.322	1.07
75-69-4	Trichlorofluoromethane	U	1.07	ug/kg	0.322	1.07
67-64-1	Acetone		12.5	ug/kg	1.78	5.36
75-35-4	1,1-Dichloroethylene	U	1.07	ug/kg	0.322	1.07
74-88-4	Iodomethane	U	5.36	ug/kg	1.71	5.36
75-09-2	Methylene chloride	U	5.36	ug/kg	2.14	5.36
75-15-0	Carbon disulfide	U	5.36	ug/kg	1.34	5.36
156-60-5	trans-1,2-Dichloroethylene	U	1.07	ug/kg	0.322	1.07
75-34-3	1,1-Dichloroethane	U	1.07	ug/kg	0.322	1.07
78-93-3	2-Butanone	U	5.36	ug/kg	1.61	5.36
156-59-2	cis-1,2-Dichloroethylene	U	1.07	ug/kg	0.322	1.07
594-20-7	2,2-Dichloropropane	U	1.07	ug/kg	0.322	1.07
67-66-3	Chloroform	U	1.07	ug/kg	0.322	1.07
74-97-5	Bromochloromethane	U	1.07	ug/kg	0.354	1.07
71-55-6	1,1,1-Trichloroethane	U	1.07	ug/kg	0.322	1.07
563-58-6	1,1-Dichloropropene	U	1.07	ug/kg	0.322	1.07
56-23-5	Carbon tetrachloride	U	1.07	ug/kg	0.322	1.07
107-06-2	1,2-Dichloroethane	U	1.07	ug/kg	0.322	1.07
71-43-2	Benzene	U	1.07	ug/kg	0.322	1.07
79-01-6	Trichloroethylene	U	1.07	ug/kg	0.354	1.07
78-87-5	1,2-Dichloropropane	U	1.07	ug/kg	0.322	1.07
75-27-4	Bromodichloromethane	U	1.07	ug/kg	0.322	1.07
74-95-3	Dibromomethane	U	1.07	ug/kg	0.322	1.07
108-10-1	4-Methyl-2-pentanone	U	5.36	ug/kg	1.34	5.36
10061-01-5	cis-1,3-Dichloropropylene	U	1.07	ug/kg	0.322	1.07
108-88-3	Toluene	U	1.07	ug/kg	0.322	1.07
10061-02-6	trans-1,3-Dichloropropylene	U	1.07	ug/kg	0.322	1.07
79-00-5	1,1,2-Trichloroethane	U	1.07	ug/kg	0.322	1.07
591-78-6	2-Hexanone	U	5.36	ug/kg	1.61	5.36
142-28-9	1,3-Dichloropropane	U	1.07	ug/kg	0.322	1.07
127-18-4	Tetrachloroethylene	U	1.07	ug/kg	0.322	1.07
124-48-1	Dibromochloromethane	U	1.07	ug/kg	0.322	1.07
106-93-4	1,2-Dibromoethane	U	1.07	ug/kg	0.322	1.07
108-90-7	Chlorobenzene	U	1.07	ug/kg	0.322	1.07

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-899	**Date Collected:**	12/10/2009 12:00	**Matrix:**	R
Lab Sample ID:	242784003	**Date Received:**	12/12/2009 09:35	**%Moisture:**	6.7
		Client:	LANL010	**Project:**	LANL01004
Client ID:	WST03-10-2145	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	934291	**Inst:**	VOA6.I	**Dilution:**	1
Run Date:	12/17/2009 20:30	**Analyst:**	RXD1	**Purge Vol:**	5 mL
Prep Date:	12/17/2009 15:20	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	121709V6\6P422.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.07	ug/kg	0.322	1.07
179601-23-1	m,p-Xylenes	U	2.14	ug/kg	0.322	2.14
95-47-6	o-Xylene	U	1.07	ug/kg	0.322	1.07
100-42-5	Styrene	U	1.07	ug/kg	0.322	1.07
75-25-2	Bromoform	U	1.07	ug/kg	0.322	1.07
79-34-5	1,1,2,2-Tetrachloroethane	U	1.07	ug/kg	0.322	1.07
96-18-4	1,2,3-Trichloropropane	U	1.07	ug/kg	0.322	1.07
108-86-1	Bromobenzene	U	1.07	ug/kg	0.322	1.07
103-65-1	n-Propylbenzene	U	1.07	ug/kg	0.322	1.07
95-49-8	2-Chlorotoluene	U	1.07	ug/kg	0.322	1.07
98-82-8	Isopropylbenzene	U	1.07	ug/kg	0.322	1.07
108-67-8	1,3,5-Trimethylbenzene	U	1.07	ug/kg	0.322	1.07
106-43-4	4-Chlorotoluene	U	1.07	ug/kg	0.322	1.07
98-06-6	tert-Butylbenzene	U	1.07	ug/kg	0.322	1.07
95-63-6	1,2,4-Trimethylbenzene	U	1.07	ug/kg	0.322	1.07
135-98-8	sec-Butylbenzene	U	1.07	ug/kg	0.322	1.07
99-87-6	4-Isopropyltoluene	U	1.07	ug/kg	0.322	1.07
541-73-1	1,3-Dichlorobenzene	U	1.07	ug/kg	0.322	1.07
106-46-7	1,4-Dichlorobenzene	U	1.07	ug/kg	0.322	1.07
104-51-8	n-Butylbenzene	U	1.07	ug/kg	0.322	1.07
96-12-8	1,2-Dibromo-3-chloropropane	U	1.07	ug/kg	0.322	1.07
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.36	ug/kg	1.71	5.36
630-20-6	1,1,1,2-Tetrachloroethane	U	1.07	ug/kg	0.322	1.07
95-50-1	1,2-Dichlorobenzene	U	1.07	ug/kg	0.322	1.07

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown siloxane	14.24	20	ug/kg	0	J
	unknown siloxane	16.17	5.67	ug/kg	0	J

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709V6\
Data File : 6P422.D
Acq On : 17 Dec 2009 8:30 pm
Operator : RXD1
InstName : VOA6
Sample : |242784003|934291|1|VOAF|1|VOA8260BS|
Misc : LANL 5g N/A SOIL
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Dec 18 10:02:34 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Fluorobenzene	9.974	96	1711630	50.00 ug/L	0.00
41) Chlorobenzene-d5	13.156	117	1263993	50.00 ug/L	0.00
58) 1,4-Dichlorobenzene-d4	15.576	152	674773	50.00 ug/L	0.00
82) B Fluorobenzene	9.974	96	1710628	50.00 ug/L	0.00
103) B Chlorobenzene-d5	13.156	117	1263993	50.00 ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	15.576	152	674773	50.00 ug/L	0.00
System Monitoring Compounds					
29) 1,2-Dichloroethane-d4	9.626	65	482629	47.79 ug/L	0.00
Spiked Amount 50.000	Range 68 - 131		Recovery = 95.58%		
43) Toluene-d8	11.626	98	1660192	47.37 ug/L	0.00
Spiked Amount 50.000	Range 75 - 129		Recovery = 94.74%		
61) Bromofluorobenzene	14.357	95	669382	51.48 ug/L	0.00
Spiked Amount 50.000	Range 68 - 133		Recovery = 102.96%		
Target Compounds					Qvalue
2) Dichlorodifluoromethane	0.000		0	N.D.	
3) Chloromethane	4.652	50	372	N.D.	
4) Vinyl chloride	0.000		0	N.D.	
5) Bromomethane	0.000		0	N.D.	
6) Chloroethane	0.000		0	N.D.	
7) Trichlorofluoromethane	0.000		0	N.D.	
8) Ethyl ether	0.000		0	N.D.	
9) Acetone	6.706	43	36396	11.69 ug/L	96
10) 1,1-Dichloroethylene	0.000		0	N.D.	
11) Iodomethane	0.000		0	N.D.	
12) Acetonitrile	0.000		0	N.D.	
13) Methyl acetate	0.000		0	N.D.	
14) Carbon disulfide	7.084	76	1695	N.D.	
15) Methylene chloride	7.285	84	12446	N.D.	
16) tert-Butyl methyl ether	0.000		0	N.D.	
17) trans-1,2-Dichloroethy...	0.000		0	N.D.	
18) Vinyl acetate	0.000		0	N.D.	
19) 1,1-Dichloroethane	0.000		0	N.D.	
20) 2-Butanone	8.700	43	852	N.D.	
21) cis-1,2-Dichloroethylene	0.000		0	N.D.	
22) 2,2-Dichloropropane	0.000		0	N.D.	
23) Bromochloromethane	0.000		0	N.D.	
24) Chloroform	0.000		0	N.D.	
25) 1,1,1-Trichloroethane	0.000		0	N.D.	
26) Cyclohexane	0.000		0	N.D.	
27) 1,1-Dichloropropene	0.000		0	N.D.	
28) Carbon tetrachloride	0.000		0	N.D.	
30) 1,2-Dichloroethane	0.000		0	N.D.	
31) Benzene	0.000		0	N.D.	
32) Cyclohexene	0.000		0	N.D.	
33) n-Butyl alcohol	0.000		0	N.D.	
34) Trichloroethylene	0.000		0	N.D.	
35) 1,2-Dichloropropane	0.000		0	N.D.	
36) Methylcyclohexane	0.000		0	N.D.	
37) Dibromomethane	0.000		0	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709V6\
Data File : 6P422.D
Acq On : 17 Dec 2009 8:30 pm
Operator : RXD1
InstName : VOA6
Sample : |242784003|934291|1|VOAF|1|VOA8260BS|
Misc : LANL 5g N/A SOIL
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Dec 18 10:02:34 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
38)	Bromodichloromethane	0.000		0	N.D.	
39)	2-Chloroethylvinyl ether	0.000		0	N.D.	
40)	cis-1,3-Dichloropropylene	0.000		0	N.D.	
42)	4-Methyl-2-pentanone	0.000		0	N.D.	
44)	Toluene	11.699	91	1150	N.D.	
45)	trans-1,3-Dichloroprop...	0.000		0	N.D.	
46)	1,1,2-Trichloroethane	0.000		0	N.D.	
47)	2-Hexanone	12.260	43	1311	N.D.	
48)	1,3-Dichloropropane	0.000		0	N.D.	
49)	Tetrachloroethylene	0.000		0	N.D.	
50)	Dibromochloromethane	0.000		0	N.D.	
51)	1,2-Dibromoethane	0.000		0	N.D.	
52)	Chlorobenzene	0.000		0	N.D.	
53)	1,1,1,2-Tetrachloroethane	0.000		0	N.D.	
54)	Ethylbenzene	13.248	91	494	N.D.	
55)	m,p-Xylenes	13.357	106	650	N.D.	
56)	o-Xylene	0.000		0	N.D.	
57)	Styrene	13.802	104	925	N.D.	
59)	Bromoform	0.000		0	N.D.	
60)	Isopropylbenzene	14.235	105	1507	N.D.	
62)	1,1,2,2-Tetrachloroethane	0.000		0	N.D.	
63)	1,2,3-Trichloropropane	0.000		0	N.D.	
64)	Bromobenzene	0.000		0	N.D.	
65)	n-Propylbenzene	14.583	91	2750	N.D.	
66)	1,3,5-Trimethylbenzene	14.735	105	1363	N.D.	
67)	2-Chlorotoluene	0.000		0	N.D.	
68)	4-Chlorotoluene	14.839	91	1134	N.D.	
69)	tert-Butylbenzene	0.000		0	N.D.	
70)	1,2,4-Trimethylbenzene	15.156	105	3646	N.D.	
71)	sec-Butylbenzene	15.326	105	2347	N.D.	
72)	4-Isopropyltoluene	15.448	119	1547	N.D.	
73)	1,3-Dichlorobenzene	15.515	146	289	N.D.	
74)	1,4-Dichlorobenzene	15.601	146	749	N.D.	
75)	n-Butylbenzene	15.887	91	1378	N.D.	
76)	1,2-Dichlorobenzene	16.021	146	213	N.D.	
77)	1,2-Dibromo-3-chloropr...	0.000		0	N.D.	
78)	1,2,4-Trichlorobenzene	17.905	180	208	N.D.	
79)	Hexachlorobutadiene	0.000		0	N.D.	
80)	Naphthalene	18.277	128	2271	N.D.	
81)	1,2,3-Trichlorobenzene	0.000		0	N.D.	
83)	Chlorotrifluoroethylene	0.000		0	N.D.	
84)	2-Chloro-1,1,1-trifluo...	0.000		0	N.D.	
85)	Acrolein	0.000		0	N.D.	
86)	Trichlorotrifluoroethane	0.000		0	N.D.	
87)	Isopropyl Alcohol	0.000		0	N.D.	
88)	Allyl chloride	0.000		0	N.D.	
89)	tert-Butyl Alcohol	0.000		0	N.D.	
90)	Acrylonitrile	0.000		0	N.D.	
91)	Isopropyl ether	0.000		0	N.D.	
92)	2-Chloro-1,3-butadiene	0.000		0	N.D.	
93)	Ethyl tert-butyl ether	0.000		0	N.D.	
94)	Ethyl acetate	8.700	43	852	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709V6\
Data File : 6P422.D
Acq On : 17 Dec 2009 8:30 pm
Operator : RXD1
InstName : VOA6
Sample : |242784003|934291|1|VOAF|1|VOA8260BS|
Misc : LANL 5g N/A SOIL
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Dec 18 10:02:34 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
95)	Propionitrile	0.000		0	N.D.	
96)	Methacrylonitrile	0.000		0	N.D.	
97)	Tetrahydrofuran	0.000		0	N.D.	
98)	Isobutyl alcohol	0.000		0	N.D.	
99)	Methyl tert-amyl ether	0.000		0	N.D.	
100)	Methyl methacrylate	0.000		0	N.D.	
101)	1,4-Dioxane	0.000		0	N.D.	
102)	2-Nitropropane	0.000		0	N.D.	
104)	Ethyl methacrylate	0.000		0	N.D.	
106)	1-Chlorohexane	0.000		0	N.D.	
107)	cis-1,4-Dichloro-2-butene	0.000		0	N.D.	
108)	Cyclohexanone	0.000		0	N.D.	
109)	trans-1,4-Dichloro-2-b...	0.000		0	N.D.	
110)	Pentachloroethane	0.000		0	N.D.	
111)	Benzyl chloride	0.000		0m	N.D. d	
112)	bis(2-Chloroisopropyl)...	0.000		0m	N.D. d	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709V6\
Data File : 6P422.D
Acq On : 17 Dec 2009 8:30 pm
Operator : RXD1
InstName : VOA6
Sample : |242784003|934291|1|VOAF|1|VOA8260BS|
Misc : LANL 5g N/A SOIL
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Dec 18 10:02:34 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

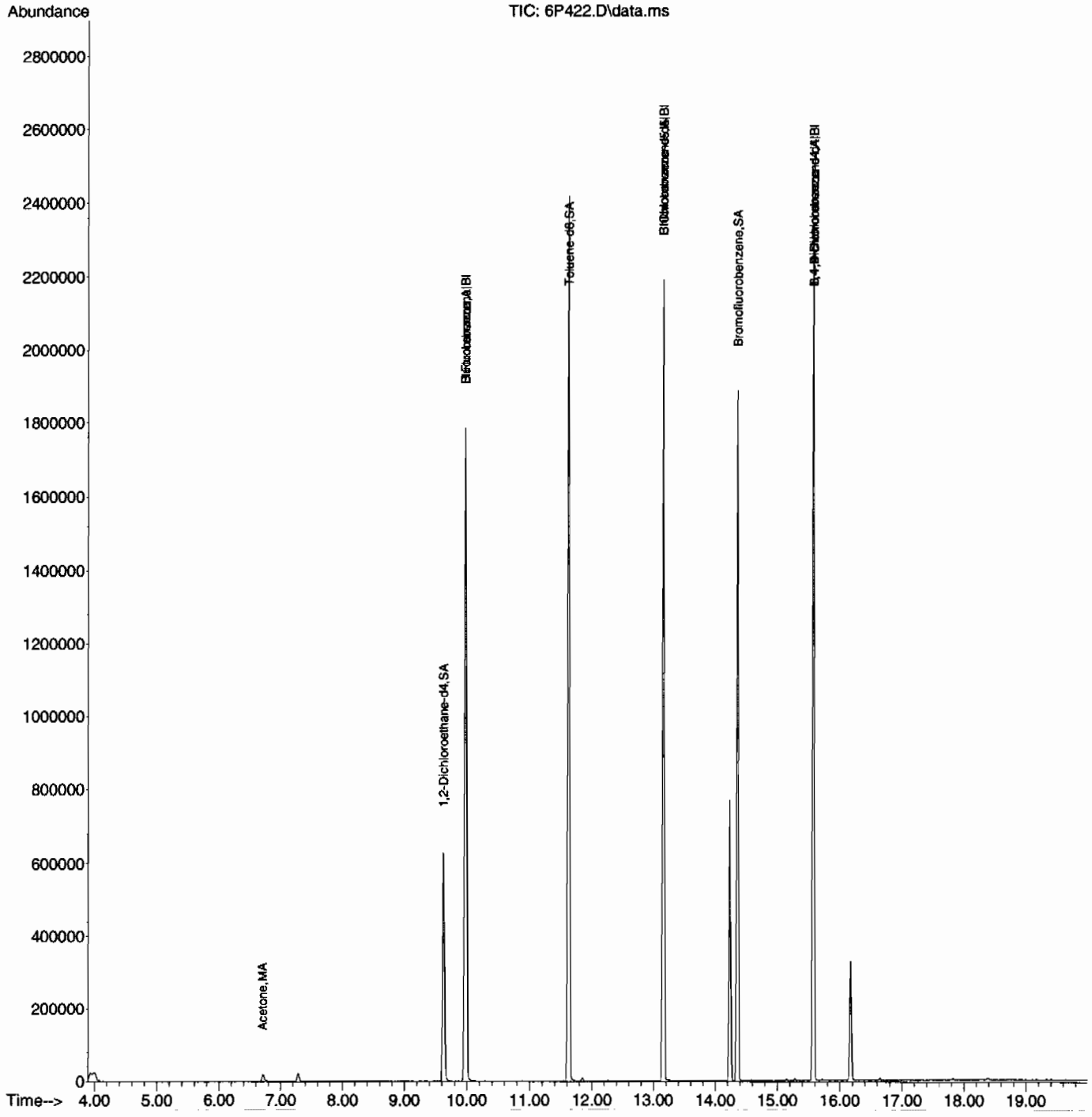

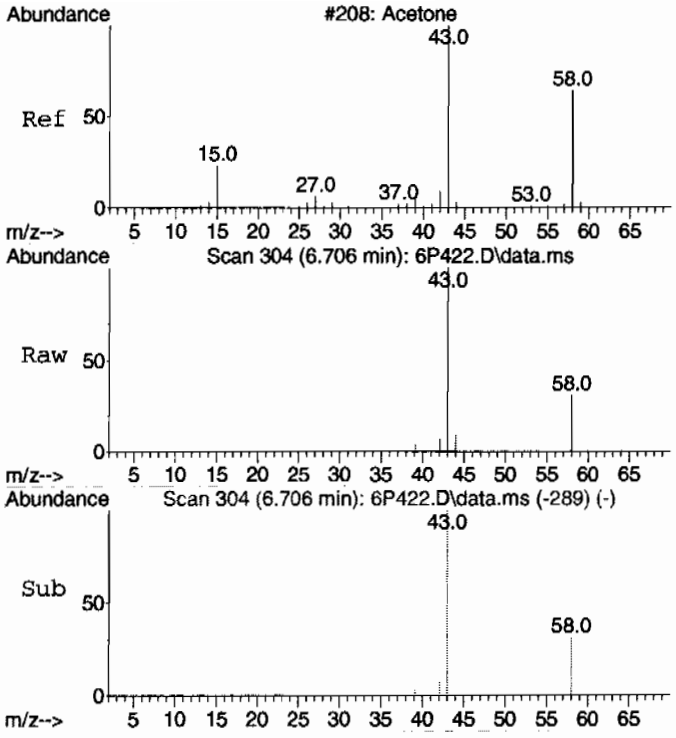

#9
Acetone
Concen: 11.69 ug/L
RT: 6.706 min Scan# 304
Delta R.T. -0.006 min
Lab File: 6P422.D
Acq: 17 Dec 2009 8:30 pm

Tgt Ion: 43 Resp: 36396

Ion	Ratio	Lower	Upper
43	100		
58	28.3	0.4	60.4

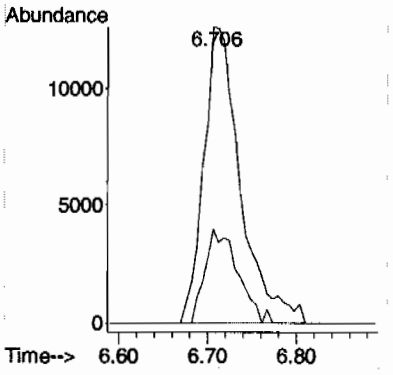

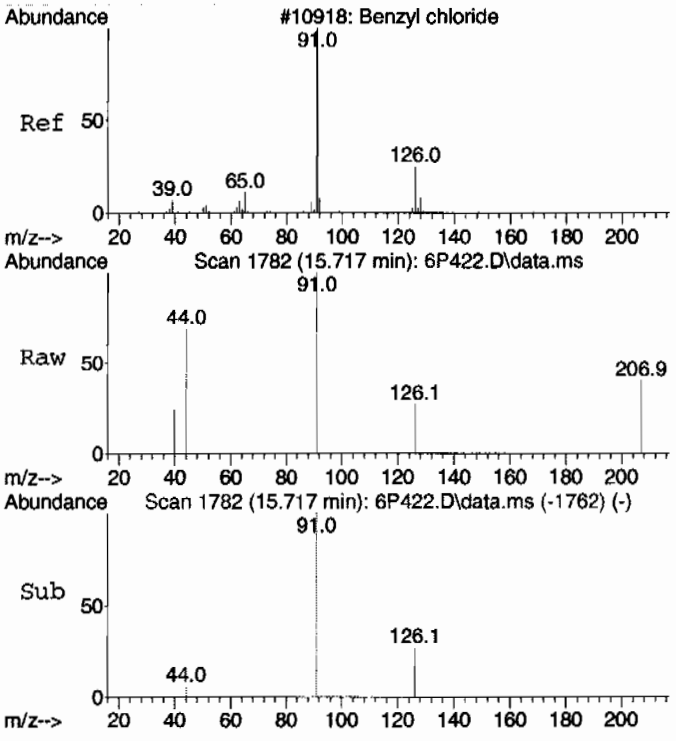

#111 BEFORE analyst DELETION
Benzyl chloride
Concen: 0.25 ug/L
RT: 15.717 min Scan# 1782
Delta R.T. 0.001 min
Lab File: 6P422.D
Acq: 17 Dec 2009 8:30 pm

Tgt Ion: 91 Resp: 4413

Ion	Ratio	Lower	Upper
91	100		
126	11.2	0.0	52.6
65	0.0	0.0	42.9

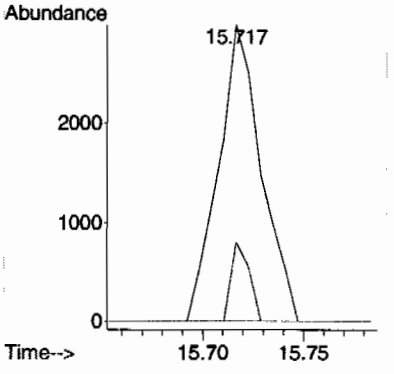

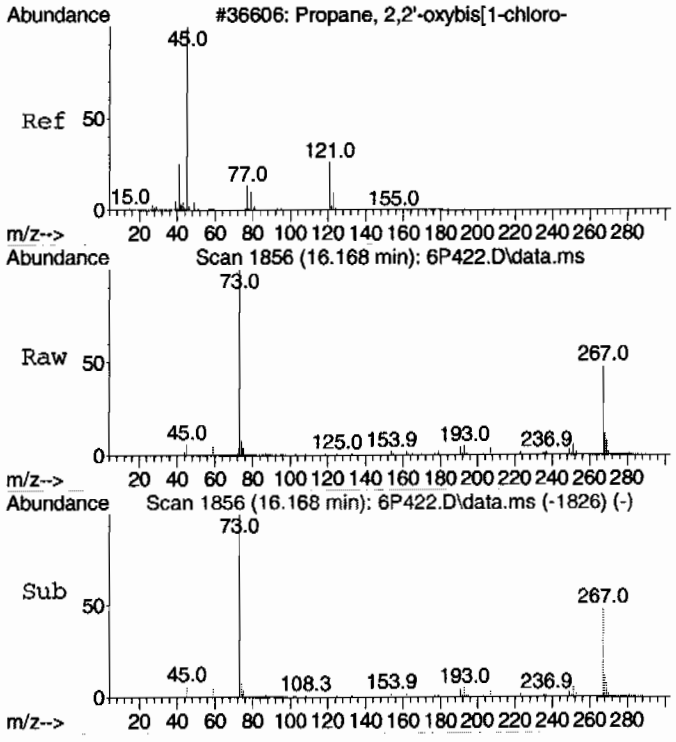

#112 BEFORE analyst DELETION
bis(2-Chloroisopropyl)ether
Concen: 2.66 ug/L
RT: 16.168 min Scan# 1856
Delta R.T. 0.055 min
Lab File: 6P422.D
Acq: 17 Dec 2009 8:30 pm

Tgt Ion: 45 Resp: 13606

Ion	Ratio	Lower	Upper
45	100		
121	0.0	0.0	53.0

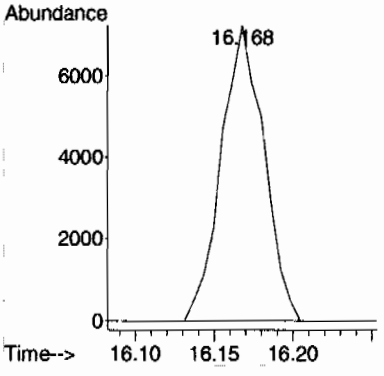

Library Search Compound Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709V6\
Data File : 6P422.D
Acq On : 17 Dec 2009 8:30 pm
Operator : RXD1
Sample : |242784003|934291|1|VOAF|1|VOA8260BS|
Misc : LANL 5g N/A SOIL
ALS Vial : 22 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

****
Peak Number 1 unknown siloxane Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
14.235	18.62 ug/L	1443380	B Chlorobenzene-d5	13.156

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclotetrasiloxane, octamethyl-	296	C8H24O4Si4	000556-67-2	91
2	Cyclotetrasiloxane, octamethyl-	296	C8H24O4Si4	000556-67-2	83
3	7H-Dibenzo[b,g]carbazole, 7-methyl-	281	C21H15N	003557-49-1	64
4	Cyclotetrasiloxane, octamethyl-	296	C8H24O4Si4	000556-67-2	64
5	4H-1,2,4-Triazole-3-thiol, 4-all...	281	C16H15N3S	031803-13-1	53

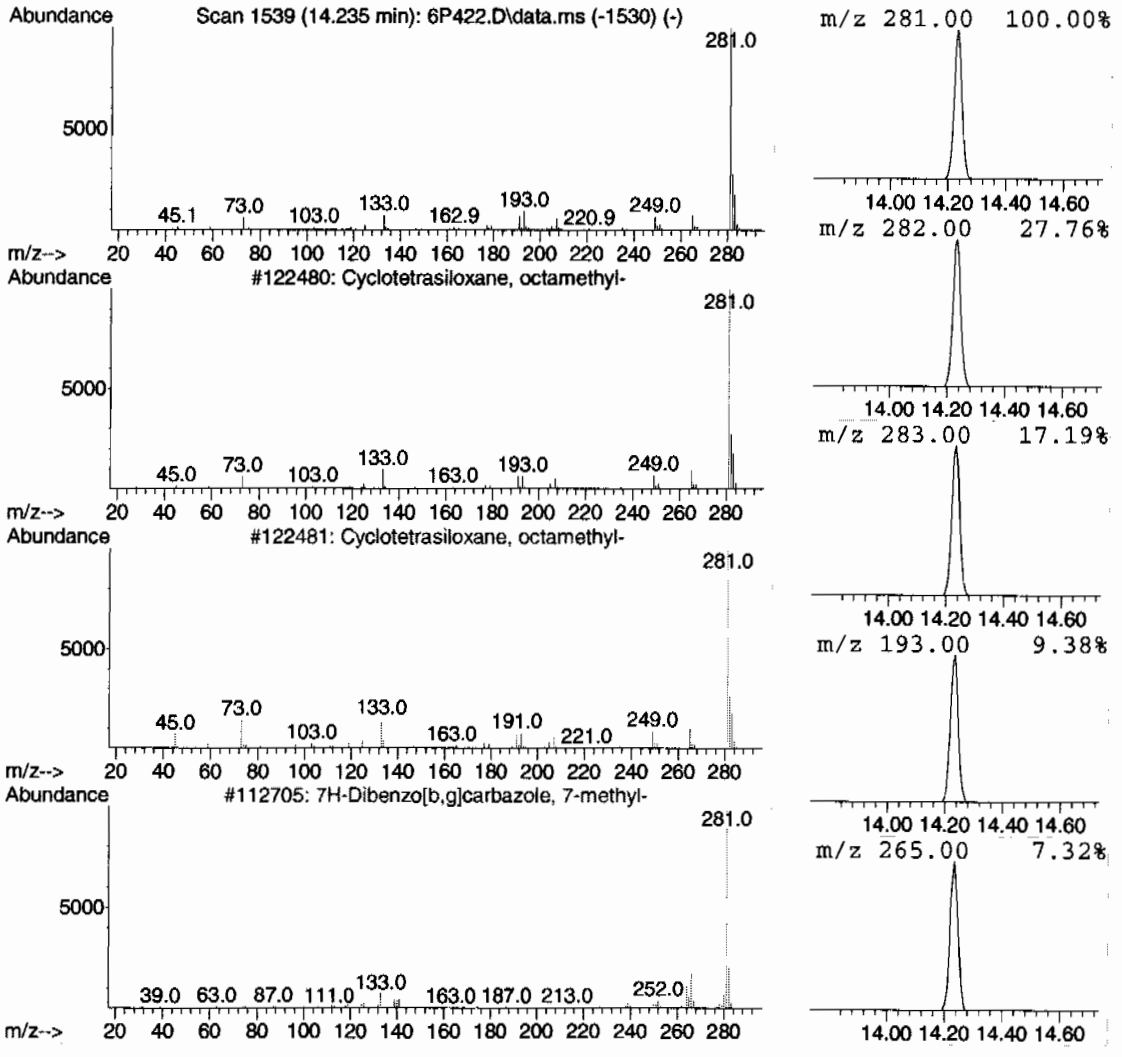

Library Search Compound Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709V6\
Data File : 6P422.D
Acq On : 17 Dec 2009 8:30 pm
Operator : RXD1
Sample : |242784003|934291|1|VOAF|1|VOA8260BS|
Misc : LANL 5g N/A SOIL
ALS Vial : 22 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

****
Peak Number 2 unknown siloxane Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
16.168	5.29 ug/L	421608	B 1,4-Dichlorobenzene-d4	15.576

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzoic acid, 2-[(trimethylsilyl...	282	C13H22O3Si2	003789-85-3	50
2	Benzoic acid, 4-[(trimethylsilyl...	282	C13H22O3Si2	002078-13-9	36
3	Benzeneethanamine, N-[(pentafluo...	475	C21H26F5NO2Si2	055429-85-1	17
4	3,5-Dimethoxyphenylacetic acid, ...	268	C13H20O4Si	1000071-82-4	10
5	11H-Dibenzo[b,e][1,4]diazepin-11...	267	C16H17N3O	013450-73-2	9

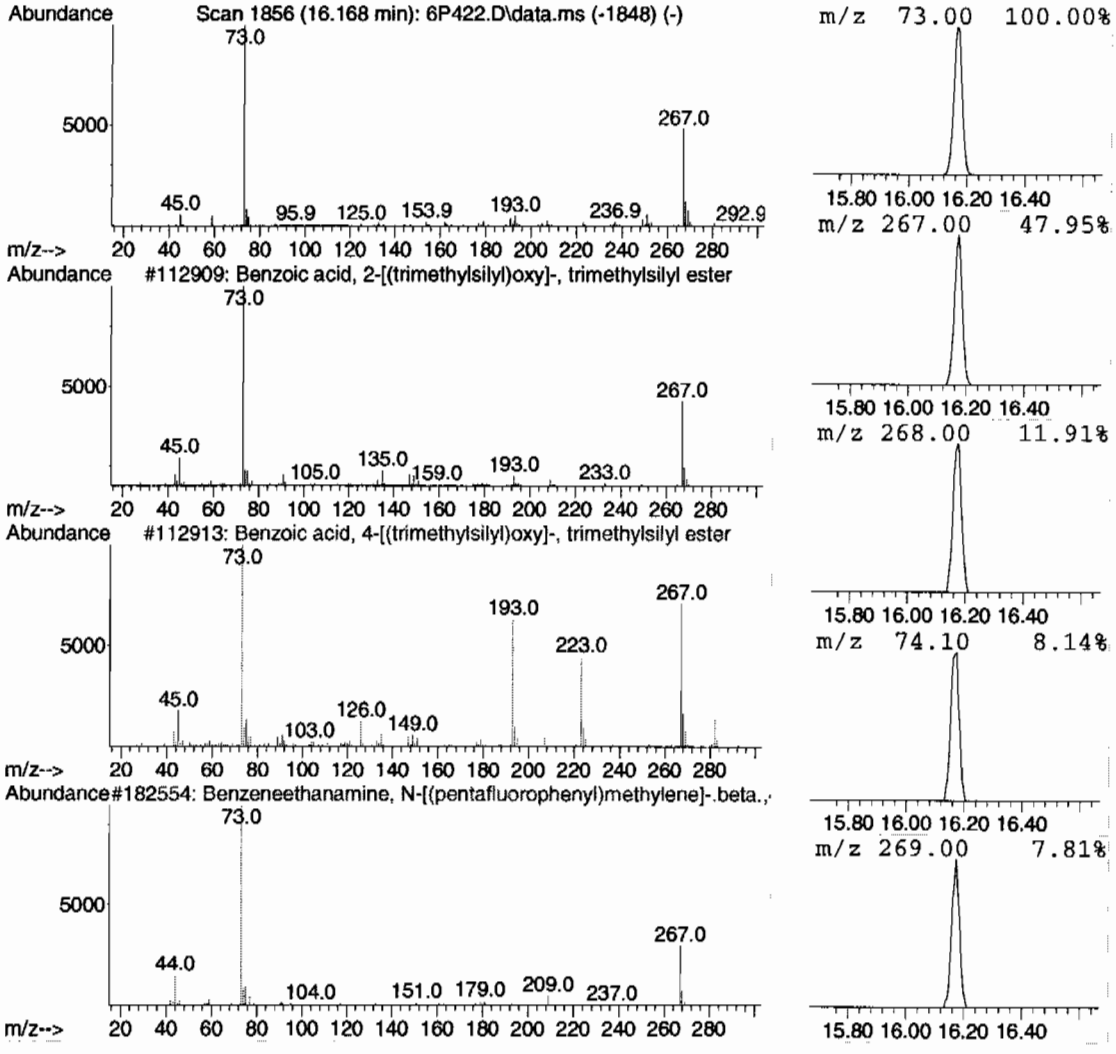

Tentatively Identified Compound (LSC) summary
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709V6\
Data File : 6P422.D
Acq On : 17 Dec 2009 8:30 pm
Operator : RXD1
Sample : |242784003|934291|1|VOAF|1|VOA8260BS|
Misc : LANL 5g N/A SOIL
ALS Vial : 22 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

TIC Top Hit name	RT	EstConc	Units	Response	--Internal Standard--- #	RT	Resp	Conc
unknown siloxane	14.235	18.6	ug/L	1443380	4	13.156	3876810	50.0
unknown siloxane	16.168	5.3	ug/L	421608	6	15.576	3986480	50.0

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-899	**Date Collected:**	12/10/2009 12:00	**Matrix:**	R
Lab Sample ID:	242784004	**Date Received:**	12/12/2009 09:35	**%Moisture:**	9.8
		Client:	LANL010	**Project:**	LANL01004
Client ID:	WST03-10-2146	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	934291	**Inst:**	VOA6.I	**Dilution:**	1
Run Date:	12/17/2009 20:58	**Analyst:**	RXD1	**Purge Vol:**	5 mL
Prep Date:	12/17/2009 15:26	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	121709V6\6P423.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.11	ug/kg	0.377	1.11
74-87-3	Chloromethane	U	1.11	ug/kg	0.333	1.11
75-01-4	Vinyl chloride	U	1.11	ug/kg	0.333	1.11
74-83-9	Bromomethane	U	1.11	ug/kg	0.333	1.11
75-00-3	Chloroethane	U	1.11	ug/kg	0.333	1.11
75-69-4	Trichlorofluoromethane	U	1.11	ug/kg	0.333	1.11
67-64-1	Acetone	U	5.54	ug/kg	1.84	5.54
75-35-4	1,1-Dichloroethylene	U	1.11	ug/kg	0.333	1.11
74-88-4	Iodomethane	U	5.54	ug/kg	1.77	5.54
75-09-2	Methylene chloride	U	5.54	ug/kg	2.22	5.54
75-15-0	Carbon disulfide	U	5.54	ug/kg	1.39	5.54
156-60-5	trans-1,2-Dichloroethylene	U	1.11	ug/kg	0.333	1.11
75-34-3	1,1-Dichloroethane	U	1.11	ug/kg	0.333	1.11
78-93-3	2-Butanone	U	5.54	ug/kg	1.66	5.54
156-59-2	cis-1,2-Dichloroethylene	U	1.11	ug/kg	0.333	1.11
594-20-7	2,2-Dichloropropane	U	1.11	ug/kg	0.333	1.11
67-66-3	Chloroform	U	1.11	ug/kg	0.333	1.11
74-97-5	Bromochloromethane	U	1.11	ug/kg	0.366	1.11
71-55-6	1,1,1-Trichloroethane	U	1.11	ug/kg	0.333	1.11
563-58-6	1,1-Dichloropropene	U	1.11	ug/kg	0.333	1.11
56-23-5	Carbon tetrachloride	U	1.11	ug/kg	0.333	1.11
107-06-2	1,2-Dichloroethane	U	1.11	ug/kg	0.333	1.11
71-43-2	Benzene	U	1.11	ug/kg	0.333	1.11
79-01-6	Trichloroethylene	U	1.11	ug/kg	0.366	1.11
78-87-5	1,2-Dichloropropane	U	1.11	ug/kg	0.333	1.11
75-27-4	Bromodichloromethane	U	1.11	ug/kg	0.333	1.11
74-95-3	Dibromomethane	U	1.11	ug/kg	0.333	1.11
108-10-1	4-Methyl-2-pentanone	U	5.54	ug/kg	1.39	5.54
10061-01-5	cis-1,3-Dichloropropylene	U	1.11	ug/kg	0.333	1.11
108-88-3	Toluene	U	1.11	ug/kg	0.333	1.11
10061-02-6	trans-1,3-Dichloropropylene	U	1.11	ug/kg	0.333	1.11
79-00-5	1,1,2-Trichloroethane	U	1.11	ug/kg	0.333	1.11
591-78-6	2-Hexanone	U	5.54	ug/kg	1.66	5.54
142-28-9	1,3-Dichloropropane	U	1.11	ug/kg	0.333	1.11
127-18-4	Tetrachloroethylene	U	1.11	ug/kg	0.333	1.11
124-48-1	Dibromochloromethane	U	1.11	ug/kg	0.333	1.11
106-93-4	1,2-Dibromoethane	U	1.11	ug/kg	0.333	1.11
108-90-7	Chlorobenzene	U	1.11	ug/kg	0.333	1.11

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-899	**Date Collected:**	12/10/2009 12:00	**Matrix:**	R
Lab Sample ID:	242784004	**Date Received:**	12/12/2009 09:35	**%Moisture:**	9.8
		Client:	LANL010	**Project:**	LANL01004
Client ID:	WST03-10-2146	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	934291	**Inst:**	VOA6.I	**Dilution:**	1
Run Date:	12/17/2009 20:58	**Analyst:**	RXD1	**Purge Vol:**	5 mL
Prep Date:	12/17/2009 15:26	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	121709V6\6P423.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.11	ug/kg	0.333	1.11
179601-23-1	m,p-Xylenes	U	2.22	ug/kg	0.333	2.22
95-47-6	o-Xylene	U	1.11	ug/kg	0.333	1.11
100-42-5	Styrene	U	1.11	ug/kg	0.333	1.11
75-25-2	Bromoform	U	1.11	ug/kg	0.333	1.11
79-34-5	1,1,2,2-Tetrachloroethane	U	1.11	ug/kg	0.333	1.11
96-18-4	1,2,3-Trichloropropane	U	1.11	ug/kg	0.333	1.11
108-86-1	Bromobenzene	U	1.11	ug/kg	0.333	1.11
103-65-1	n-Propylbenzene	U	1.11	ug/kg	0.333	1.11
95-49-8	2-Chlorotoluene	U	1.11	ug/kg	0.333	1.11
98-82-8	Isopropylbenzene	U	1.11	ug/kg	0.333	1.11
108-67-8	1,3,5-Trimethylbenzene	U	1.11	ug/kg	0.333	1.11
106-43-4	4-Chlorotoluene	U	1.11	ug/kg	0.333	1.11
98-06-6	tert-Butylbenzene	U	1.11	ug/kg	0.333	1.11
95-63-6	1,2,4-Trimethylbenzene	U	1.11	ug/kg	0.333	1.11
135-98-8	sec-Butylbenzene	U	1.11	ug/kg	0.333	1.11
99-87-6	4-Isopropyltoluene	U	1.11	ug/kg	0.333	1.11
541-73-1	1,3-Dichlorobenzene	U	1.11	ug/kg	0.333	1.11
106-46-7	1,4-Dichlorobenzene	U	1.11	ug/kg	0.333	1.11
104-51-8	n-Butylbenzene	U	1.11	ug/kg	0.333	1.11
96-12-8	1,2-Dibromo-3-chloropropane	U	1.11	ug/kg	0.333	1.11
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.54	ug/kg	1.77	5.54
630-20-6	1,1,1,2-Tetrachloroethane	U	1.11	ug/kg	0.333	1.11
95-50-1	1,2-Dichlorobenzene	U	1.11	ug/kg	0.333	1.11

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown siloxane	14.24	32.4	ug/kg	0	J
	unknown siloxane	16.17	7.76	ug/kg	0	J

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709V6\
Data File : 6P423.D
Acq On : 17 Dec 2009 8:58 pm
Operator : RXD1
InstName : VOA6
Sample : |242784004|934291|1|VOAF|1|VOA8260BS|
Misc : LANL 5g N/A SOIL
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Dec 18 10:03:33 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Fluorobenzene	9.974	96	1725926	50.00 ug/L	0.00
41) Chlorobenzene-d5	13.156	117	1266400	50.00 ug/L	0.00
58) 1,4-Dichlorobenzene-d4	15.576	152	661275	50.00 ug/L	0.00
82) B Fluorobenzene	9.974	96	1723909	50.00 ug/L	0.00
103) B Chlorobenzene-d5	13.156	117	1266400	50.00 ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	15.576	152	661275	50.00 ug/L	0.00
System Monitoring Compounds					
29) 1,2-Dichloroethane-d4	9.626	65	499488	49.05 ug/L	0.00
Spiked Amount 50.000	Range 68 - 131		Recovery = 98.10%		
43) Toluene-d8	11.626	98	1658096	47.22 ug/L	0.00
Spiked Amount 50.000	Range 75 - 129		Recovery = 94.44%		
61) Bromofluorobenzene	14.357	95	666071	52.27 ug/L	0.00
Spiked Amount 50.000	Range 68 - 133		Recovery = 104.54%		
Target Compounds					Qvalue
2) Dichlorodifluoromethane	0.000		0	N.D.	
3) Chloromethane	4.662	50	575	N.D.	
4) Vinyl chloride	0.000		0	N.D.	
5) Bromomethane	0.000		0	N.D.	
6) Chloroethane	0.000		0	N.D.	
7) Trichlorofluoromethane	0.000		0	N.D.	
8) Ethyl ether	0.000		0	N.D.	
9) Acetone	6.718	43	3054	N.D.	
10) 1,1-Dichloroethylene	0.000		0	N.D.	
11) Iodomethane	0.000		0	N.D.	
12) Acetonitrile	0.000		0	N.D.	
13) Methyl acetate	0.000		0	N.D.	
14) Carbon disulfide	7.078	76	2056	N.D.	
15) Methylene chloride	7.292	84	12648	N.D.	
16) tert-Butyl methyl ether	0.000		0	N.D.	
17) trans-1,2-Dichloroethy...	0.000		0	N.D.	
18) Vinyl acetate	0.000		0	N.D.	
19) 1,1-Dichloroethane	0.000		0	N.D.	
20) 2-Butanone	8.700	43	433	N.D.	
21) cis-1,2-Dichloroethylene	0.000		0	N.D.	
22) 2,2-Dichloropropane	0.000		0	N.D.	
23) Bromochloromethane	0.000		0	N.D.	
24) Chloroform	0.000		0	N.D.	
25) 1,1,1-Trichloroethane	0.000		0	N.D.	
26) Cyclohexane	0.000		0	N.D.	
27) 1,1-Dichloropropene	0.000		0	N.D.	
28) Carbon tetrachloride	0.000		0	N.D.	
30) 1,2-Dichloroethane	0.000		0	N.D.	
31) Benzene	9.724	78	419	N.D.	
32) Cyclohexene	0.000		0	N.D.	
33) n-Butyl alcohol	0.000		0	N.D.	
34) Trichloroethylene	0.000		0	N.D.	
35) 1,2-Dichloropropane	0.000		0	N.D.	
36) Methylcyclohexane	0.000		0	N.D.	
37) Dibromomethane	0.000		0	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709V6\
Data File : 6P423.D
Acq On : 17 Dec 2009 8:58 pm
Operator : RXD1
InstName : VOA6
Sample : |242784004|934291|1|VOAF|1|VOA8260BS|
Misc : LANL 5g N/A SOIL
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Dec 18 10:03:33 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
38) Bromodichloromethane	0.000		0	N.D.	
39) 2-Chloroethylvinyl ether	0.000		0	N.D.	
40) cis-1,3-Dichloropropylene	0.000		0	N.D.	
42) 4-Methyl-2-pentanone	0.000		0	N.D.	
44) Toluene	11.699	91	3695	N.D.	
45) trans-1,3-Dichloroprop...	0.000		0	N.D.	
46) 1,1,2-Trichloroethane	0.000		0	N.D.	
47) 2-Hexanone	0.000		0	N.D.	
48) 1,3-Dichloropropane	0.000		0	N.D.	
49) Tetrachloroethylene	0.000		0	N.D.	
50) Dibromochloromethane	0.000		0	N.D.	
51) 1,2-Dibromoethane	0.000		0	N.D.	
52) Chlorobenzene	0.000		0	N.D.	
53) 1,1,1,2-Tetrachloroethane	0.000		0	N.D.	
54) Ethylbenzene	13.254	91	1066	N.D.	
55) m,p-Xylenes	13.357	106	1246	N.D.	
56) o-Xylene	13.809	106	205	N.D.	
57) Styrene	13.796	104	945	N.D.	
59) Bromoform	0.000		0	N.D.	
60) Isopropylbenzene	14.235	105	3023	N.D.	
62) 1,1,2,2-Tetrachloroethane	0.000		0	N.D.	
63) 1,2,3-Trichloropropane	0.000		0	N.D.	
64) Bromobenzene	0.000		0	N.D.	
65) n-Propylbenzene	14.583	91	2770	N.D.	
66) 1,3,5-Trimethylbenzene	14.735	105	1601	N.D.	
67) 2-Chlorotoluene	0.000		0	N.D.	
68) 4-Chlorotoluene	14.833	91	685	N.D.	
69) tert-Butylbenzene	15.192	134	187	N.D.	
70) 1,2,4-Trimethylbenzene	15.144	105	3612	N.D.	
71) sec-Butylbenzene	15.333	105	1934	N.D.	
72) 4-Isopropyltoluene	15.448	119	2804	N.D.	
73) 1,3-Dichlorobenzene	0.000		0	N.D.	
74) 1,4-Dichlorobenzene	15.601	146	590	N.D.	
75) n-Butylbenzene	15.881	91	1401	N.D.	
76) 1,2-Dichlorobenzene	0.000		0	N.D.	
77) 1,2-Dibromo-3-chloropr...	0.000		0	N.D.	
78) 1,2,4-Trichlorobenzene	0.000		0	N.D.	
79) Hexachlorobutadiene	0.000		0	N.D.	
80) Naphthalene	18.277	128	2200	N.D.	
81) 1,2,3-Trichlorobenzene	0.000		0	N.D.	
83) Chlorotrifluoroethylene	0.000		0	N.D.	
84) 2-Chloro-1,1,1-trifluo...	0.000		0	N.D.	
85) Acrolein	0.000		0	N.D.	
86) Trichlorotrifluoroethane	0.000		0	N.D.	
87) Isopropyl Alcohol	0.000		0	N.D.	
88) Allyl chloride	0.000		0	N.D.	
89) tert-Butyl Alcohol	0.000		0	N.D.	
90) Acrylonitrile	0.000		0	N.D.	
91) Isopropyl ether	0.000		0	N.D.	
92) 2-Chloro-1,3-butadiene	0.000		0	N.D.	
93) Ethyl tert-butyl ether	0.000		0	N.D.	
94) Ethyl acetate	8.700	43	433	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709V6\
Data File : 6P423.D
Acq On : 17 Dec 2009 8:58 pm
Operator : RXD1
InstName : VOA6
Sample : |242784004|934291|1|VOAF|1|VOA8260BS|
Misc : LANL 5g N/A SOIL
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Dec 18 10:03:33 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
95)	Propionitrile	0.000		0	N.D.	
96)	Methacrylonitrile	0.000		0	N.D.	
97)	Tetrahydrofuran	0.000		0	N.D.	
98)	Isobutyl alcohol	0.000		0	N.D.	
99)	Methyl tert-amyl ether	0.000		0	N.D.	
100)	Methyl methacrylate	0.000		0	N.D.	
101)	1,4-Dioxane	0.000		0	N.D.	
102)	2-Nitropropane	0.000		0	N.D.	
104)	Ethyl methacrylate	0.000		0	N.D.	
106)	1-Chlorohexane	0.000		0	N.D.	
107)	cis-1,4-Dichloro-2-butene	14.174	53	2757	N.D.	
108)	Cyclohexanone	0.000		0	N.D.	
109)	trans-1,4-Dichloro-2-b...	0.000		0	N.D.	
110)	Pentachloroethane	0.000		0	N.D.	
111)	Benzyl chloride	0.000		0m	N.D.	d
112)	bis(2-Chloroisopropyl)...	0.000		0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709V6\
Data File : 6P423.D
Acq On : 17 Dec 2009 8:58 pm
Operator : RXD1
InstName : VOA6
Sample : |242784004|934291|1|VOAF|1|VOA8260BS|
Misc : LANL 5g N/A SOIL
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Dec 18 10:03:33 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

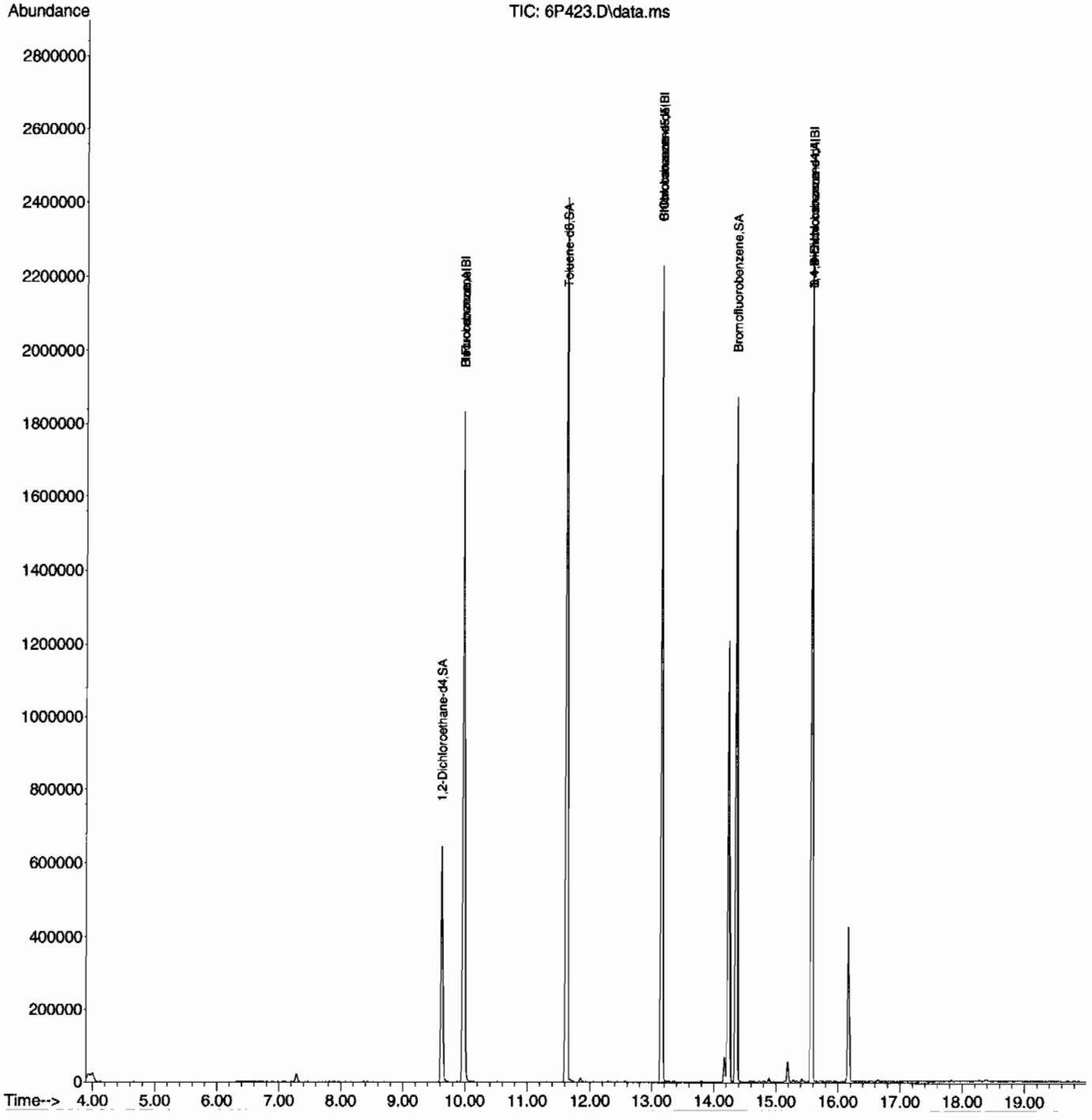

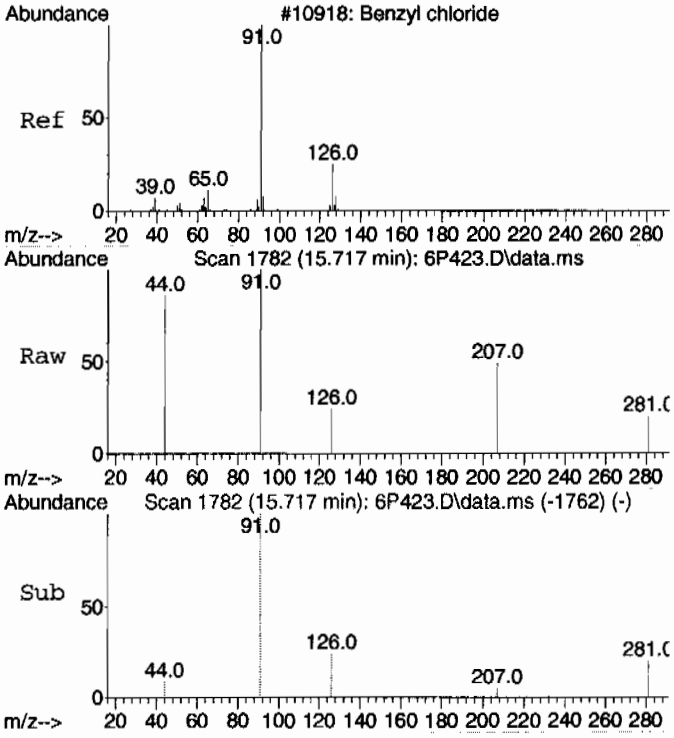

#111 BEFORE analyst DELETION
Benzyl chloride
Concen: 0.23 ug/L
RT: 15.717 min Scan# 1782
Delta R.T. 0.001 min
Lab File: 6P423.D
Acq: 17 Dec 2009 8:58 pm

Tgt Ion: 91 Resp: 3899

Ion	Ratio	Lower	Upper
91	100		
126	10.8	0.0	52.6
65	0.0	0.0	42.9

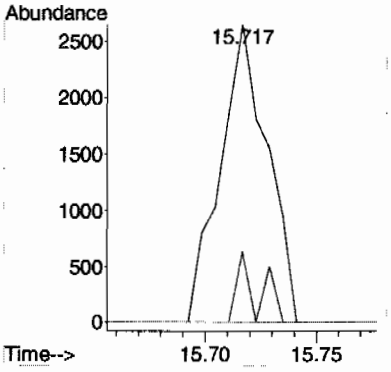

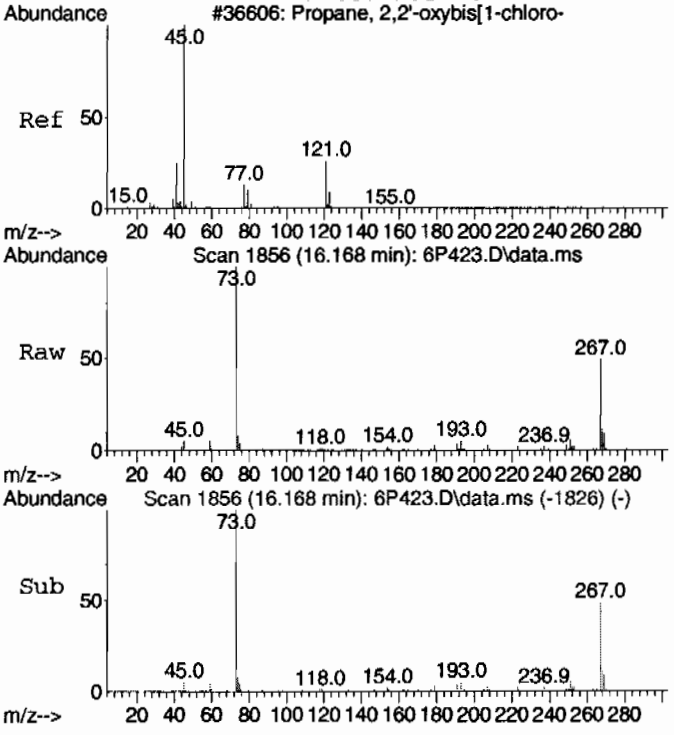

#112 BEFORE analyst DELETION
bis(2-Chloroisopropyl)ether
Concen: 3.25 ug/L
RT: 16.168 min Scan# 1856
Delta R.T. 0.055 min
Lab File: 6P423.D
Acq: 17 Dec 2009 8:58 pm

Tgt Ion: 45 Resp: 16308

Ion	Ratio	Lower	Upper
45	100		
121	0.0	0.0	53.0

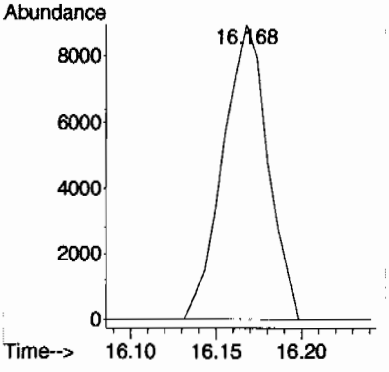

Library Search Compound Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709V6\
Data File : 6P423.D
Acq On : 17 Dec 2009 8:58 pm
Operator : RXD1
Sample : |242784004|934291|1|VOAF|1|VOA8260BS|
Misc : LANL 5g N/A SOIL
ALS Vial : 23 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

****
Peak Number 1 unknown siloxane Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
14.235	29.21 ug/L	2271860	B Chlorobenzene-d5	13.156

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclotetrasiloxane, octamethyl-	296	C8H24O4Si4	000556-67-2	91
2	Cyclotetrasiloxane, octamethyl-	296	C8H24O4Si4	000556-67-2	86
3	7H-Dibenzo[b,g]carbazole, 7-methyl-	281	C21H15N	003557-49-1	59
4	4H-1,2,4-Triazole-3-thiol, 4-all...	281	C16H15N3S	031803-13-1	53
5	5H-Naphtho[2,3-c]carbazole, 5-me...	281	C21H15N	100025-44-3	45

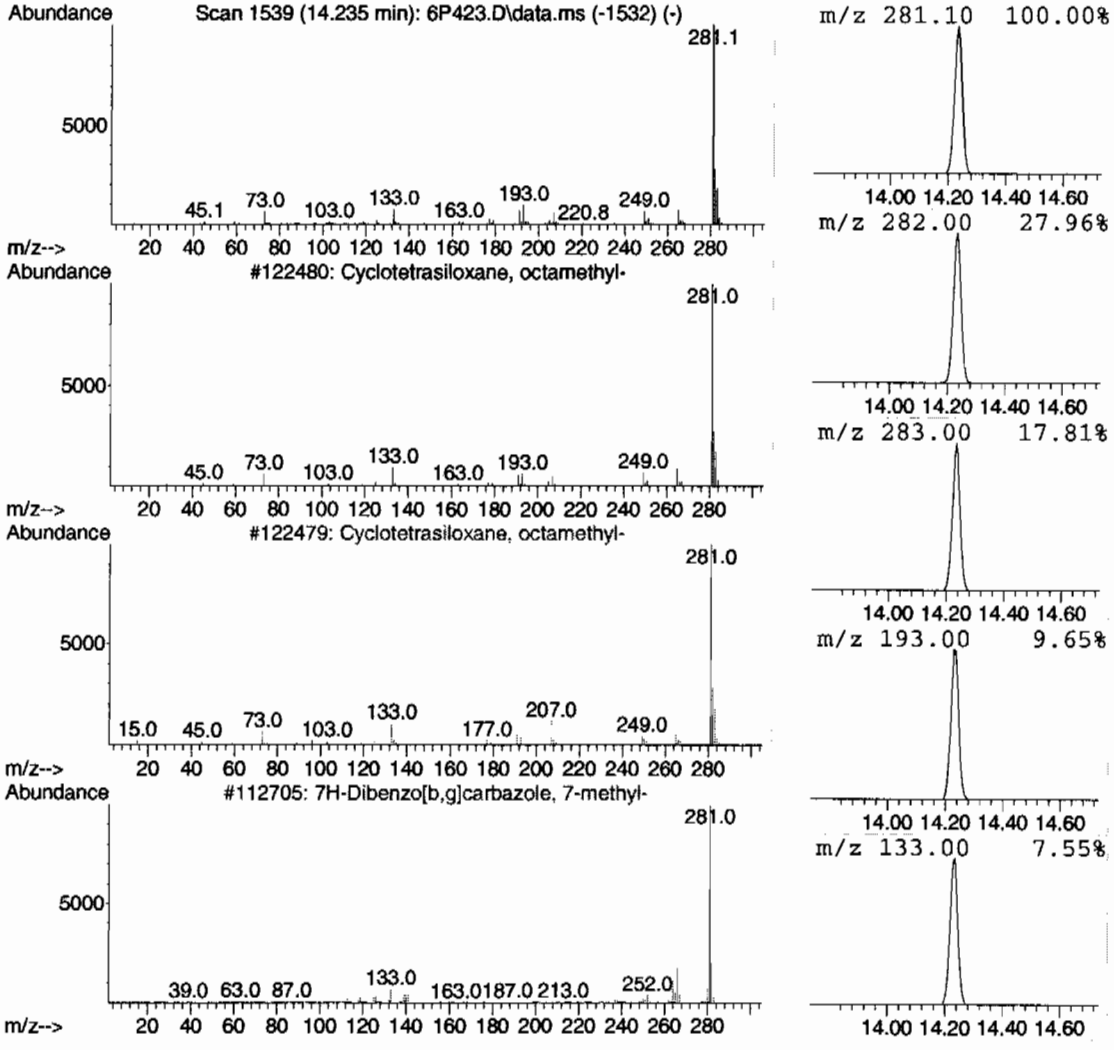

Library Search Compound Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709V6\
Data File : 6P423.D
Acq On : 17 Dec 2009 8:58 pm
Operator : RXD1
Sample : |242784004|934291|1|VOAF|1|VOA8260BS|
Misc : LANL 5g N/A SOIL
ALS Vial : 23 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

****

Peak Number 2 unknown siloxane Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
16.168	7.00 ug/L	548514	B 1,4-Dichlorobenzene-d4	15.576

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzoic acid, 4-[(trimethylsilyl...	282	C13H22O3Si2	002078-13-9	40
2	Benzoic acid, 2-[(trimethylsilyl...	282	C13H22O3Si2	003789-85-3	38
3	Benzeneethanamine, N-[(pentafluo...	475	C21H26F5NO2Si2	055429-85-1	32
4	Tetrasiloxane, 1,1,3,3,5,5,7,7-o...	282	C8H26O3Si4	001000-05-1	10
5	3,5-Dimethoxyphenylacetic acid, ...	268	C13H20O4Si	1000071-82-4	10

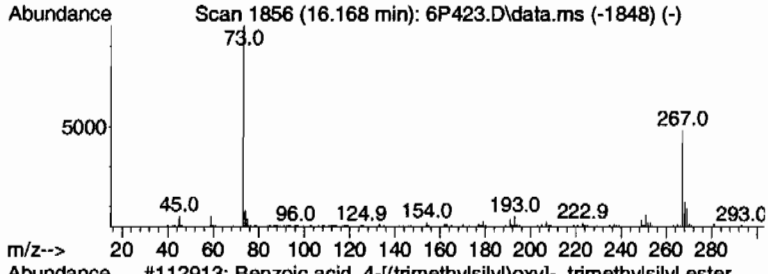

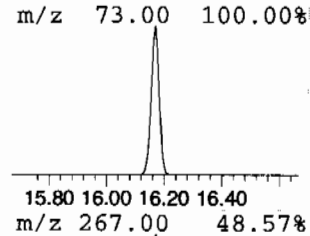

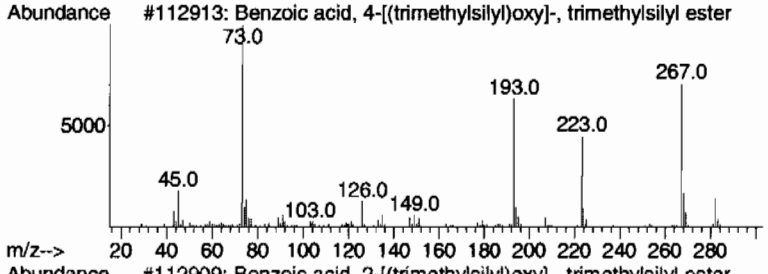

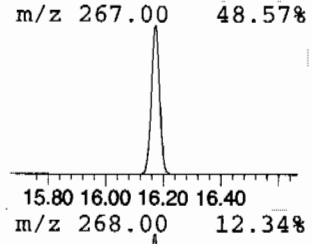

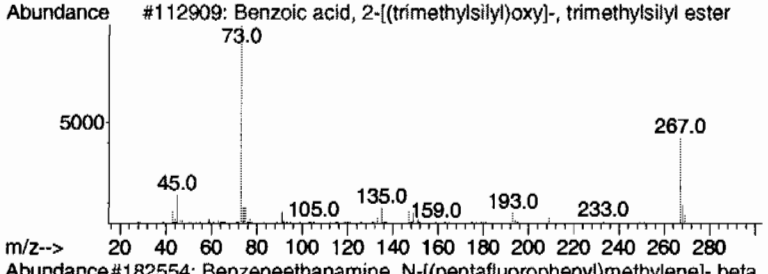

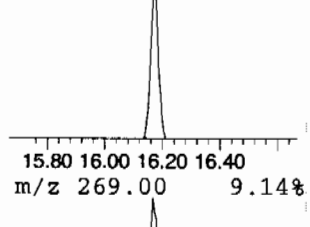

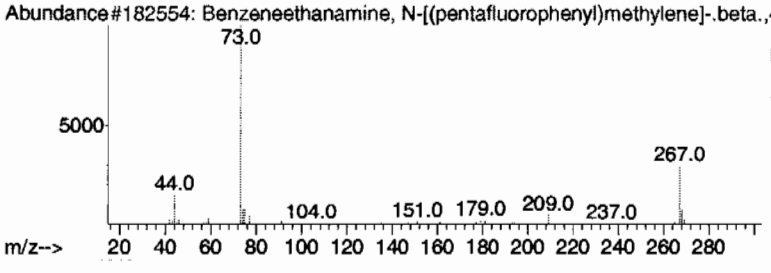

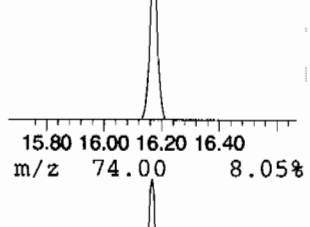

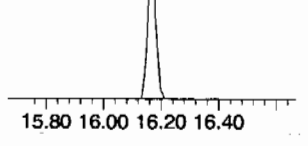

Tentatively Identified Compound (LSC) summary
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709V6\
Data File : 6P423.D
Acq On : 17 Dec 2009 8:58 pm
Operator : RXD1
Sample : |242784004|934291|1|VOAF|1|VOA8260BS|
Misc : LANL 5g N/A SOIL
ALS Vial : 23 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

TIC Top Hit name	RT	EstConc	Units	Response	--Internal Standard--- #	RT	Resp	Conc
unknown siloxane	14.235	29.2	ug/L	2271860	4	13.156	3888370	50.0
unknown siloxane	16.168	7.0	ug/L	548514	6	15.576	3918280	50.0

Standards

EPA 524.2/Low level SW846 8260B and Regular level 8260B and EPA 624
Calibration Standard Concentration Levels

	Level 1	Level 1a	Level 2	Level 3	Level 4 #	Level 5	Level 6	Level 7 !	Level 7a
Fluorobenzene (IS)									
1,2-Dichloroethane-d4(surr)		0.5	1	2	5	10	20	50	100
Dichlorodifluoromethane		0.5	1	2	5	10	20	50	100
Chloromethane		0.5	1	2	5	10	20	50	100
Vinyl chloride		0.5	1	2	5	10	20	50	100
Bromomethane		0.5	1	2	5	10	20	50	100
Chloroethane		0.5	1	2	5	10	20	50	100
Trichlorofluoromethane		0.5	1	2	5	10	20	50	100
1,1-Dichloroethene		0.5	1	2	5	10	20	50	100
Acetone	1	2.5	5	10	25	50	100	250	500
Iodomethane	1	2.5	5	10	25	50	100	250	500
Carbon disulfide	1	2.5	5	10	25	50	100	250	500
Methylene chloride		0.5	1	2	5	10	20	50	100
trans-1,2-Dichloroethene		0.5	1	2	5	10	20	50	100
1,1-Dichloroethane		0.5	1	2	5	10	20	50	100
Ethyl ether		0.5	1	2	5	10	20	50	100
Vinyl acetate	1	2.5	5	10	25	50	100	250	500
cis-1,2-Dichloroethene		0.5	1	2	5	10	20	50	100
1,2-Dichloroethene (total)		1	2	4	10	20	40	100	200
Cyclohexene		0.5	1	2	5	10	20	50	100
2-Chloroethylvinyl ether			5	10	25	50	100	250	500
2,2-Dichloropropane		0.5	1	2	5	10	20	50	100
2-Butanone	1	2.5	5	10	25	50	100	250	500
Bromochloromethane		0.5	1	2	5	10	20	50	100
Chloroform		0.5	1	2	5	10	20	50	100
1,1,1-Trichloroethane		0.5	1	2	5	10	20	50	100
1,1-Dichloropropene		0.5	1	2	5	10	20	50	100
Carbon tetrachloride		0.5	1	2	5	10	20	50	100
Benzene		0.5	1	2	5	10	20	50	100
1,2-Dichloroethane		0.5	1	2	5	10	20	50	100
Trichloroethene		0.5	1	2	5	10	20	50	100
1,2-Dichloropropane		0.5	1	2	5	10	20	50	100
Dibromomethane		0.5	1	2	5	10	20	50	100
Bromodichloromethane		0.5	1	2	5	10	20	50	100
cis-1,3-Dichloropropene		0.5	1	2	5	10	20	50	100
tert-Butylmethylether		0.5	1	2	5	10	20	50	100
Ethyl Ether			1	2	5	10	20	50	100
Acetonitrile			25	50	125	250	500	1250	2500
Methyl acetate			5	10	25	50	100	250	500
Cyclohexane			1	2	5	10	20	50	100
Methylcyclohexane			1	2	5	10	20	50	100
n-Butyl alcohol			50	100	250	500	1000	2500	5000
2-Nitropropane			5	10	25	50	100	250	500
Ethyl acetate			5	10	25	50	100	250	500
Acrolein			5	10	25	50	100	250	500
Trichlorotrifluoroethane			5	10	25	50	100	250	500
Allyl chloride			5	10	25	50	100	250	500
Acrylonitrile			5	10	25	50	100	250	500
1,4-Dioxane			50	100	250	500	1000	2500	5000
Isobutyl alcohol			50	100	250	500	1000	2500	5000
Methacrylonitrile			5	10	25	50	100	250	500
Propionitrile			5	10	25	50	100	250	500
Methyl methacrylate			5	10	25	50	100	250	500
Chlorotrifluoroethylene			5	10	25	50	100	250	500
2-Chloro-1,1,1-trifluoroethane			5	10	25	50	100	250	500

tert-Butyl alcohol			50	100	250	500	1000	2500	5000
Isopropyl ether			1	2	5	10	20	50	100
Ethyl tert-butyl ether			1	2	5	10	20	50	100
Isopropyl alcohol			50	100	250	500	1000	2500	5000
Methyl tert-amyl ether			1	2	5	10	20	50	100
1-Chlorohexane			1	2	5	10	20	50	100
2-Chloro-1,3-butadiene(chloroprene)			1	2	5	10	20	50	100
Chlorobenzene-d5 (IS)									
Toluene-d8 (surr)		0.5	1	2	5	10	20	50	100
4-Methyl-2-pentanone	1	2.5	5	10	25	50	100	250	500
Toluene		0.5	1	2	5	10	20	50	100
trans-1,3-Dichloropropene		0.5	1	2	5	10	20	50	100
1,1,2-Trichloroethane		0.5	1	2	5	10	20	50	100
Tetrachloroethene		0.5	1	2	5	10	20	50	100
1,3-Dichloropropane		0.5	1	2	5	10	20	50	100
2-Hexanone	1	2.5	5	10	25	50	20	250	500
Dibromochloromethane		0.5	1	2	5	10	20	50	100
1,2-Dibromoethane		0.5	1	2	5	10	20	50	100
Chlorobenzene		0.5	1	2	5	10	20	50	100
1,1,1,2-Tetrachloroethane		0.5	1	2	5	10	20	50	100
Ethylbenzene		0.5	1	2	5	10	20	50	100
m,p-Xylene		1	2	4	10	20	20	100	200
o-Xylene		0.5	1	2	5	10	20	50	100
Xylenes (total)		1.5	3	6	15	30	60	150	300
Stryene		0.5	1	2	5	10	20	50	100
Cyclohexanone			50	100	250	500	1000	2500	5000
Ethyl methacrylate			5	10	25	50	100	250	500
1,4-Dichlorobenzene-d4 (IS)									
Bromofluorobenzene (surr)		0.5	1	2	5	10	20	50	100
Bromoform		0.5	1	2	5	10	20	50	100
Isopropylbenzene		0.5	1	2	5	10	20	50	100
1,1,2,2-Tetrachloroethane		0.5	1	2	5	10	20	50	100
Bromobenzene		0.5	1	2	5	10	20	50	100
1,2,3-Trichloropropane		0.5	1	2	5	10	20	50	100
n-Propylbenzene		0.5	1	2	5	10	20	50	100
2-Chlorotoluene		0.5	1	2	5	10	20	50	100
1,3,5-Trimethylbenzene		0.5	1	2	5	10	20	50	100
4-Chlorotoluene		0.5	1	2	5	10	20	50	100
1,2,4-Trimethylbenzene		0.5	1	2	5	10	20	50	100
sec-Butylbenzene		0.5	1	2	5	10	20	50	100
1,3-Dichlorobenzene		0.5	1	2	5	10	20	50	100
tert-Butylbenzene		0.5	1	2	5	10	20	50	100
Isopropyltoluene		0.5	1	2	5	10	20	50	100
1,4-Dichlorobenzene		0.5	1	2	5	10	20	50	100
n-Butylbenzene		0.5	1	2	5	10	20	50	100
1,2-Dichlorobenzene		0.5	1	2	5	10	20	50	100
1,2-Dibromo-3-chloropropa		0.5	1	2	5	10	20	50	100
1,2,4-Trichlorobenzene		0.5	1	2	5	10	20	50	100
Hexachlorobutadiene		0.5	1	2	5	10	20	50	100
Naphthalene		0.5	1	2	5	10	20	50	100
1,2,3-Trichlorobenzene		0.5	1	2	5	10	20	50	100
cis-1,4-Dichloro-2-butene			5	10	25	50	100	250	500
trans-1,4-Dichloro-2-butene			5	10	25	50	100	250	500
Tetrahydrofuran			5	10	25	50	100	250	500
Pentachloroethane			5	10	25	50	100	250	500
Benzyl chloride			5	10	25	50	100	250	500
bis(2-Chloro-isopropyl)ether			5	10	25	50	100	250	500

Method	PQL	Concentration range
EPA 524.2	Level 1a	Levels 1a -> 7a
SW 846 8260B low level	Level 1a	Levels 1-> 7a
EPA 624	Level 2	Levels 2-> 7a
SW846 8260B	Level 2	Levels 2-> 7a

#: Indicates calibration verification concentration level used for low level analysis

!: Indicates calibration verification concentration level used for regular level analysis

Calibration History Report VOA6
GEL Laboratories, LLC

Method File : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Last Update : Mon Dec 14 12:44:52 2009
Integrator : (RTE Integrator) Response via : Initial Calibration

Cal Lvl:8 Amt:-1 Last Updated with: C:\msdchem\1\DATA\121009V6\60414.D

Injection Date	Mix	Calibration File
10 Dec 2009 2:49 pm	A	C:\msdchem\1\DATA\121009V6\60414.D

Cal Lvl:1 Amt:1 Last Updated with: C:\msdchem\1\DATA\121009V6\60418.D

Injection Date	Mix	Calibration File
10 Dec 2009 3:17 pm	A	C:\msdchem\1\DATA\121009V6\60415.D
10 Dec 2009 4:40 pm	B	C:\msdchem\1\DATA\121009V6\60418.D

Cal Lvl:2 Amt:2 Last Updated with: C:\msdchem\1\DATA\121009V6\60419.D

Injection Date	Mix	Calibration File
10 Dec 2009 11:34 am	A	C:\msdchem\1\DATA\121009V6\60407.D
10 Dec 2009 5:08 pm	B	C:\msdchem\1\DATA\121009V6\60419.D

Cal Lvl:3 Amt:5 Last Updated with: C:\msdchem\1\DATA\121009V6\60420.D

Injection Date	Mix	Calibration File
10 Dec 2009 12:02 pm	A	C:\msdchem\1\DATA\121009V6\60408.D
10 Dec 2009 5:36 pm	B	C:\msdchem\1\DATA\121009V6\60420.D

Cal Lvl:4 Amt:10 Last Updated with: C:\msdchem\1\DATA\121009V6\60421.D

Injection Date	Mix	Calibration File
10 Dec 2009 12:30 pm	A	C:\msdchem\1\DATA\121009V6\60409.D
10 Dec 2009 6:04 pm	B	C:\msdchem\1\DATA\121009V6\60421.D

Cal Lvl:5 Amt:20 Last Updated with: C:\msdchem\1\DATA\121009V6\60422.D

Injection Date	Mix	Calibration File
10 Dec 2009 12:58 pm	A	C:\msdchem\1\DATA\121009V6\60410.D
10 Dec 2009 6:32 pm	B	C:\msdchem\1\DATA\121009V6\60422.D

Cal Lvl:6 Amt:50 Last Updated with: C:\msdchem\1\DATA\121009V6\60423.D

Injection Date	Mix	Calibration File
10 Dec 2009 1:26 pm	A	C:\msdchem\1\DATA\121009V6\60411.D
10 Dec 2009 7:00 pm	B	C:\msdchem\1\DATA\121009V6\60423.D

Cal Lvl:7 Amt:100 Last Updated with: C:\msdchem\1\DATA\121009V6\60424.D

Injection Date	Mix	Calibration File
10 Dec 2009 1:54 pm	A	C:\msdchem\1\DATA\121009V6\60412.D
10 Dec 2009 7:28 pm	B	C:\msdchem\1\DATA\121009V6\60424.D

Response Factor Report VOA6
GEL Laboratories, LLC

Method File : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Last Update : Mon Dec 14 12:44:52 2009
Integrator : (RTE Integrator) Response via : Initial Calibration

For Linear Calibration: y = concentration ratio, x = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
2)MA Dichlorodifluoromethane	0.2122344	0.2232812 0.2116585	0.2246314	0.2792048	0.2086322	0.2094071	0.2241	AVRG		11.2099
3)MPA Chloromethane	0.3018661	0.3377571 0.3004831	0.3107589	0.3220134	0.2922306	0.2928066	0.3083	AVRG		5.3998
4)MCA Vinyl chloride	0.2701427	0.2854050 0.2661185	0.2798535	0.2793538	0.2574013	0.2562340	0.2706	AVRG		4.2191
5)MA Bromomethane	0.2055878	0.2082186 0.2001872	0.2035578	0.2044313	0.1953195	0.1956995	0.2019	AVRG		2.4550
6)MA Chloroethane	0.2053181	0.1952824 0.2012262	0.1986611	0.2015154	0.2002854	0.2038765	0.2009	AVRG		1.6487
7)MA Trichlorofluoromethane	0.3997047	0.3941850 0.3884566	0.4116021	0.3975569	0.3941101	0.3917678	0.3968	AVRG		1.8892
8)MA Ethyl ether	0.2476936	0.2981892 0.2357482	0.2773795	0.2492815	0.2442189	0.2520515	0.2578	AVRG		8.5179
9)MA Acetone		0.1105217	0.0983102	0.0841360	0.0810798	0.0807655	0.0910	AVRG		14.3843
10)MCA 1,1-Dichloroethylene	0.3759820	0.3796793 0.3524014	0.3629430	0.3459163	0.3753148	0.3696478	0.3660	AVRG		3.4999
11)MA Iodomethane	0.3943182	0.4027922 0.3607777	0.4129224	0.3859253	0.4079415	0.3958907	0.3944	AVRG		4.3937
12)MA Acetonitrile	0.0374099	0.0381593 0.0355251	0.0364691	0.0362921	0.0381896	0.0389799	0.0373	AVRG		3.3243
13)MA Methyl acetate	0.2119610	0.2062288 0.1961051	0.1959205	0.2011061	0.2042341	0.2165080	0.2046	AVRG		3.7782
14)MA Carbon disulfide	0.7342336	0.7427821 0.6535432	0.7701791	0.7148046	0.7816045	0.7437036	0.7344	AVRG		5.7197
15)MA Methylene chloride	0.2650295	0.2504097	0.3586873	0.2965955	0.2843227	0.2716573	0.2878	AVRG		13.2697
16)MA tert-Butyl methyl ether	0.7178414	0.7916862 0.6912656	0.7640083	0.6846200	0.7126300	0.7280524	0.7272	AVRG		5.3019

Response Factor Report VOA6
GEL Laboratories, LLC

Method File : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Last Update : Mon Dec 14 12:44:52 2009
Integrator : (RTE Integrator) Response via : Initial Calibration

For Linear Calibration: y = concentration ratio, x = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
17)MA trans-1,2-Dichloroethyle	0.3776554	0.3683886 0.3524416	0.4015524	0.3537796	0.3876870	0.3732115	0.3735	AVRG		4.7187
18)MA Vinyl acetate	0.5608365	0.4905047 0.5259008	0.5108814	0.5558842	0.5450210	0.5774248	0.5381	AVRG		5.6690
19)MPA 1,1-Dichloroethane	0.4689507	0.4735992 0.4394961	0.4838472	0.4549248	0.4839184	0.4670680	0.4674	AVRG		3.4037
20)MA 2-Butanone	0.1105573	0.1213262 0.1040462	0.1148871	0.1185865	0.1150297	0.1212154	0.1151	AVRG		5.3934
21)MA cis-1,2-Dichloroethylene	0.4182469	0.4195003 0.3964212	0.4236643	0.4068955	0.4278609	0.4198225	0.4161	AVRG		2.5915
22)MA 2,2-Dichloropropane	0.3501550	0.3275044 0.3303592	0.3362806	0.3210795	0.3478993	0.3436341	0.3367	AVRG		3.2613
23)MA Bromochloromethane	0.1316678	0.1243742 0.1258530	0.1254803	0.1274374	0.1331449	0.1291842	0.1282	AVRG		2.5792
24)MCA Chloroform	0.4357051	0.4327655 0.4088180	0.4517753	0.4320750	0.4466964	0.4384843	0.4352	AVRG		3.1530
25)MA 1,1,1-Trichloroethane	0.3766651	0.3545665 0.3564585	0.3781073	0.3429955	0.3752445	0.3724629	0.3652	AVRG		3.7646
26)MA Cyclohexane	0.4872574	0.4658020 0.4538365	0.4746435	0.4533501	0.4920645	0.4789968	0.4723	AVRG		3.2424
27)MA 1,1-Dichloropropene	0.3373146	0.3267449 0.3157520	0.3460611	0.3219637	0.3460734	0.3330388	0.3324	AVRG		3.5086
28)MA Carbon tetrachloride	0.3318274	0.3260108 0.3186325	0.3191166	0.3100868	0.3287754	0.3271430	0.3231	AVRG		2.3243
29)SA 1,2-Dichloroethane-d4	0.2962702	0.2993517 0.2883697	0.2966709	0.2953114	0.2955918	0.2934623	0.2950	AVRG		1.1588
30)MA 1,2-Dichloroethane	0.3560932	0.3729201 0.3353587	0.3560339	0.3576492	0.3613600	0.3581947	0.3568	AVRG		3.1212
31)MA Benzene	1.0999736 0.9930403	1.0415992 0.9179240	1.0414520	1.0006924	1.0382904	1.0154085	1.0185	AVRG		5.1392

Response Factor Report VOA6
GEL Laboratories, LLC

Method File : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Last Update : Mon Dec 14 12:44:52 2009
Integrator : (RTE Integrator) Response via : Initial Calibration

For Linear Calibration: y = concentration ratio, x = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
32)MA Cyclohexene		0.4667640	0.4824499	0.4619734	0.5039427	0.5027549				
	0.5019296	0.4716311					0.4845	AVRG		3.7748
33)MA n-Butyl alcohol	13494	22120	45316	125907	295915	713263				
-0.0092 | 0.0086 | 0.00	1762453	3606257						LINR	#	0.9997
34)MA Trichloroethylene		0.2695070	0.2586517	0.2446072	0.2599620	0.2537951				
	0.2551409	0.2379508					0.2542	AVRG		4.0764
35)MCA 1,2-Dichloropropane		0.2681400	0.2688681	0.2668460	0.2754567	0.2731595				
	0.2733027	0.2586003					0.2692	AVRG		2.0947
36)MA Methylcyclohexane		0.4399298	0.4571718	0.4146793	0.4625598	0.4491111				
	0.4528596	0.4205278					0.4424	AVRG		4.1597
37)MA Dibromomethane		0.1361965	0.1387731	0.1434422	0.1437514	0.1473206				
	0.1493533	0.1421583					0.1430	AVRG		3.1875
38)MA Bromodichloromethane		0.2757345	0.2864166	0.2900783	0.3029399	0.3149084				
	0.3274031	0.3128155					0.3015	AVRG		6.0602
39)MA 2-Chloroethylvinyl ether		0.1437961	0.1445594	0.1936062	0.1634662	0.1718516				
	0.1727019	0.1640503					0.1649	AVRG		10.4918
40)MA cis-1,3-Dichloropropylen		0.3609206	0.3482530	0.3701967	0.3849783	0.3963204				
	0.4096143	0.3927613					0.3804	AVRG		5.6760
42)MA 4-Methyl-2-pentanone		0.1241555	0.1169303	0.1298552	0.1358418	0.1424309				
	0.1368731	0.1328924					0.1313	AVRG		6.5061
43)SA Toluene-d8		1.4063658	1.4037116	1.3758963	1.3859025	1.3803183				
	1.3826016	1.3692128					1.3863	AVRG		1.0011
44)MCA Toluene		1.6072192	1.5996153	1.4745282	1.5061227	1.4893060				
	1.4288332	1.3239846					1.4899	AVRG		6.5737
45)MA trans-1,3-Dichloropropyl		0.4513267	0.4482156	0.4467542	0.4897035	0.5151138				
	0.5194597	0.5012892					0.4817	AVRG		6.7030
46)MA 1,1,2-Trichloroethane		0.2526383	0.2452014	0.2379916	0.2436152	0.2524711				
	0.2456732	0.2379460					0.2451	AVRG		2.4449
47)MA 2-Hexanone		0.2341341	0.2145162	0.2349889	0.2425614	0.2670615				
	0.2519791	0.2397697					0.2407	AVRG		6.7580

Response Factor Report VOA6
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Integrator : (RTE Integrator) Response via : Initial Calibration

For Linear Calibration: y = concentration ratio, x = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
48)MA 1,3-Dichloropropane		0.5277262	0.5198835	0.5294688	0.5366747	0.5355168				
	0.5182872	0.4833653					0.5216	AVRG		3.4972
49)MA Tetrachloroethylene		0.3219671	0.3198263	0.2944521	0.3145210	0.3003462				
	0.2867699	0.2694709					0.3011	AVRG		6.3847
50)MA Dibromochloromethane		0.2618656	0.2782664	0.2837730	0.3144298	0.3301487				
	0.3485497	0.3433980					0.3086	AVRG		11.0874
51)MA 1,2-Dibromoethane		0.2847395	0.2904709	0.2867757	0.2994790	0.3035953				
	0.3063965	0.2970674					0.2955	AVRG		2.8305
52)MPA Chlorobenzene		0.9700730	1.0085837	0.9725408	0.9735874	0.9741070				
	0.9505480	0.8950379					0.9635	AVRG		3.6020
53)MA 1,1,1,2-Tetrachloroethan		0.2998710	0.3281956	0.3291800	0.3414970	0.3486527				
	0.3532770	0.3340249					0.3335	AVRG		5.2827
54)MCA Ethylbenzene		1.6835128	1.6688459	1.6127534	1.7068395	1.6597100				
	1.6174875	1.4859878					1.6336	AVRG		4.4888
55)MA m,p-Xylenes		0.6638384	0.6584253	0.6422963	0.6747784	0.6753009				
	0.6551259	0.6036628					0.6533	AVRG		3.7859
56)MA o-Xylene		0.6611161	0.6142579	0.6238887	0.6636513	0.6637868				
	0.6530015	0.6096110					0.6413	AVRG		3.8053
57)MA Styrene		0.9809620	0.9430807	0.9912570	1.0599807	1.0877000				
	1.0764753	1.0120490					1.0216	AVRG		5.3137
59)MPA Bromoform		0.2977739	0.3003833	0.3111675	0.3463784	0.3890668				
	0.4129312	0.4168101					0.3535	AVRG		14.8681
60)MA Isopropylbenzene		3.0934768	3.0640796	2.9850060	3.1810630	3.1851114				
	3.0509839	2.7744449					3.0477	AVRG		4.5944
61)SA Bromofluorobenzene		0.9796877	0.9668644	0.9652127	0.9606038	0.9666108				
	0.9668800	0.9391525					0.9636	AVRG		1.2700
62)MPA 1,1,2,2-Tetrachloroethan		0.6497580	0.6785578	0.6772856	0.6866139	0.7187445				
	0.7003404	0.6714973					0.6833	AVRG		3.2069
63)MA 1,2,3-Trichloropropane		0.1611670	0.1973369	0.1998901	0.1957398	0.2040378				
	0.1964037	0.1907103					0.1922	AVRG		7.4232

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Integrator : (RTE Integrator) Response via : Initial Calibration

For Linear Calibration: y = concentration ratio, x = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
64)MA Bromobenzene		0.8413387	0.8187846	0.7620473	0.7933353	0.7923493				
	0.7696909	0.7077793					0.7836	AVRG		5.5012
65)MA n-Propylbenzene		3.7621957	3.6484124	3.5249531	3.7005892	3.6840295				
	3.5156399	3.1628154					3.5712	AVRG		5.6458
66)MA 1,3,5-Trimethylbenzene		2.7105701	2.6419943	2.5446442	2.7125708	2.6942284				
	2.6038213	2.3810487					2.6127	AVRG		4.5671
67)MA 2-Chlorotoluene		0.7793660	0.7646150	0.7553678	0.7855246	0.7866550				
	0.7510140	0.6930984					0.7594	AVRG		4.2785
68)MA 4-Chlorotoluene		2.3003674	2.2344153	2.1711396	2.2741567	2.2514575				
	2.1634039	1.9979894					2.1990	AVRG		4.6368
69)MA tert-Butylbenzene		0.6374780	0.5556470	0.5469296	0.5969844	0.5948356				
	0.5865540	0.5500763					0.5812	AVRG		5.6311
70)MA 1,2,4-Trimethylbenzene		2.9025961	2.8455061	2.7107079	2.8226597	2.7878638				
	2.7008576	2.4985635					2.7527	AVRG		4.8343
71)MA sec-Butylbenzene		3.6647193	3.5222670	3.4220850	3.6614145	3.6096166				
	3.5077111	3.2018291					3.5128	AVRG		4.6427
72)MA 4-Isopropyltoluene		3.0039538	2.8435132	2.7611634	2.9810390	2.9650620				
	2.8893721	2.6637164					2.8725	AVRG		4.3745
73)MA 1,3-Dichlorobenzene		1.6471735	1.5794464	1.5207738	1.5572737	1.5462071				
	1.4810019	1.3887383					1.5315	AVRG		5.3050
74)MA 1,4-Dichlorobenzene		1.7340242	1.6203186	1.5941590	1.5891533	1.5468635				
	1.5004775	1.4068187					1.5703	AVRG		6.4936
75)MA n-Butylbenzene		2.8738367	2.7836913	2.6970713	2.9236329	2.8680236				
	2.7968535	2.5716912					2.7878	AVRG		4.3273
76)MA 1,2-Dichlorobenzene		1.5622316	1.5360911	1.4861645	1.5057432	1.4982778				
	1.4471145	1.3570774					1.4847	AVRG		4.5168
77)MA 1,2-Dibromo-3-chloroprop		0.1010395	0.1073264	0.1228811	0.1269645	0.1400227				
	0.1493914						0.1246	AVRG		14.8610
78)MA 1,2,4-Trichlorobenzene		1.3000887	1.1132870	1.0888211	1.1105460	1.0936020				
	1.0959346	1.0145764					1.1167	AVRG		7.8283

Response Factor Report VOA6
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Integrator : (RTE Integrator) Response via : Initial Calibration

For Linear Calibration: y = concentration ratio, x = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
79)MA Hexachlorobutadiene	0.6922023	0.7926004 0.6317986	0.7317473	0.7046472	0.7222174	0.6878052	0.7090	AVRG		6.9077
80)MA Naphthalene	2.2616887	2.6711850 2.1625424	1.9890184	2.1503816	2.2126319	2.2623259	2.2443	AVRG		9.3561
81)MA 1,2,3-Trichlorobenzene	0.9162040	1.1336407 0.8601809	0.9105267	0.8813930	0.9286071	0.9152550	0.9351	AVRG		9.6948
83)B Chlorotrifluoroethylene	0.1881216	0.1490342	0.1816961	0.1788430	0.1898346	0.1848474	0.1787	AVRG		8.4468
84)B 2-Chloro-1,1,1-trifluoro	0.3264422	0.2824525 0.2908168	0.2879324	0.2875075	0.3110905	0.2998157	0.2980	AVRG		5.2851
85)B Acrolein	0.0395317	0.0356113 0.0363122	0.0359365	0.0356931	0.0348688	0.0373620	0.0365	AVRG		4.2451
86)B Trichlorotrifluoroethane	0.0922475	0.1000504 0.0891276	0.0967221	0.0905673	0.0939880	0.0911033	0.0934	AVRG		4.1117
87)B Isopropyl Alcohol	0.0215827	0.0196008 0.0194556	0.0187955	0.0177190	0.0189093	0.0196533	0.0194	AVRG		6.0674
88)B Allyl chloride	0.4383010	0.4550005 0.4124570	0.4406552	0.4273726	0.4484022	0.4377811	0.4371	AVRG		3.1871
89)B tert-Butyl Alcohol	0.0330042	0.0290000 0.0290688	0.0295413	0.0276804	0.0285352	0.0302175	0.0296	AVRG		5.7625
90)B Acrylonitrile	0.0978829	0.0914371 0.0898519	0.0936750	0.0907006	0.0926063	0.0939948	0.0929	AVRG		2.8817
91)B Isopropyl ether	1.0445233	0.9702112 0.9845102	0.9702464	0.9587353	1.0107760	1.0272262	0.9952	AVRG		3.2798
92)B 2-Chloro-1,3-butadiene	0.3994571	0.3469645 0.3937049	0.3501799	0.3461045	0.3820921	0.3856556	0.3720	AVRG		6.2913
93)B Ethyl tert-butyl ether	0.8972627	0.8171915 0.8476037	0.8171509	0.8112386	0.8577802	0.8677665	0.8451	AVRG		3.7754
94)B Ethyl acetate	0.2700764	0.2945890 0.2417925	0.2773388	0.2549074	0.2572784	0.2613638	0.2653	AVRG		6.4659

Response Factor Report VOA6
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Integrator : (RTE Integrator) Response via : Initial Calibration

For Linear Calibration: y = concentration ratio, x = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
95)B Propionitrile	0.0384242	0.0353437 0.0354602	0.0364254	0.0339544	0.0363230	0.0367154	0.0361	AVRG		3.8393
96)B Methacrylonitrile	0.1675008	0.1506741 0.1527979	0.1625637	0.1539664	0.1616947	0.1620017	0.1587	AVRG		3.9332
97)B Tetrahydrofuran	0.0864598	0.0896706 0.0775202	0.0877985	0.0827308	0.0816822	0.0841379	0.0843	AVRG		4.8691
98)B Isobutyl alcohol	0.0106873	0.0090225 0.0093963	0.0095742	0.0089893	0.0091716	0.0098651	0.0095	AVRG	#	6.2815
99)B Methyl tert-amyl ether	0.7785884	0.6722986 0.7250961	0.6932561	0.6933257	0.7362331	0.7538752	0.7218	AVRG		5.2294
100)B Methyl methacrylate	0.1644996	0.1431557 0.1476097	0.1466455	0.1462899	0.1539413	0.1602513	0.1518	AVRG		5.2882
101)B 1,4-Dioxane	0.0024191	0.0024798 0.0022436	0.0024445	0.0023123	0.0022142	0.0023018	0.0023	AVRG	#	4.4001
102)B 2-Nitropropane -0.0058 | 0.0780 | 0.00	831550	11509 1561467	24133	59867	127906	294691		LINR		0.9983
104)B Ethyl methacrylate	0.4180230	0.3499429 0.3693288	0.3833601	0.3903187	0.4136001	0.4152529	0.3914	AVRG		6.6315
106)B 1-Chlorohexane	0.7159302	0.6241483 0.7024941	0.6720327	0.6761025	0.7303460	0.7123984	0.6905	AVRG		5.2246
107)B cis-1,4-Dichloro-2-buten	0.2492203	0.2250675 0.2345680	0.2295042	0.2248694	0.2388553	0.2451969	0.2353	AVRG		4.0759
108)B Cyclohexanone	0.0212890	0.0183082 0.0197798	0.0189898	0.0173811	0.0187546	0.0202618	0.0193	AVRG		6.7576
109)B trans-1,4-Dichloro-2-but	0.2381868	0.2140663 0.2222904	0.2271296	0.2192916	0.2301195	0.2313238	0.2261	AVRG		3.5950
110)B Pentachloroethane	0.3483537	0.3198791 0.3218054	0.3046995	0.3480490	0.3529256	0.3443905	0.3343	AVRG		5.5636
111)B Benzyl chloride	1.3269105	1.2676355 1.1561169	1.3106652	1.2969449	1.3396149	1.3571593	1.2936	AVRG		5.1997

Response Factor Report VOA6
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Method File : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Last Update : Mon Dec 14 12:44:52 2009
Integrator : (RTE Integrator) Response via : Initial Calibration

For Linear Calibration: y = concentration ratio, x = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
112)B bis(2-Chloroisopropyl)et		0.3888848	0.3923756	0.3593955	0.3612045	0.3881230				
	0.4024800	0.3645249					0.3796	AVRG		4.5878

(#) = Out of Range

Continuing Calibration Summary

Client SDG: 10-899

Instrument ID: VOA6.I **Injection Date** 10-DEC-09 15:45

Data File: 121009V6\6O416.D **Init. Cal. Date(s)** 10-DEC-09 11:34 - 10-DEC-09 19:2

Lab Sample ID W6VM091210-11 **Quant Type** ISTD **Method:** VOA6-8260-121009.M

	Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type	
S	1,2-Dichloroethane-d4	0.295	0.28522		.01		-3.31525	30		Averaged	
S	Toluene-d8	1.3863	1.37374		.01		-0.90601	30		Averaged	
S	Bromofluorobenzene	0.9636	0.96409		.01		0.05085	30		Averaged	
	Dichlorodifluoromethane	0.2241	0.17489		.01		-21.95895	30		Averaged	
	Chloromethane	0.3083	0.24044		.1		-22.01103	30		Averaged	spcc
	Vinyl chloride	0.2706	0.24311		.01		-10.15891	20		Averaged	ccc
	Bromomethane	0.2019	0.18278		.01		-9.47003	30		Averaged	
	Chloroethane	0.2009	0.18563		.01		-7.6008	30		Averaged	
	Trichlorofluoromethane	0.3968	0.372		.01		-6.25	30		Averaged	
	Ethyl ether	0.2578	0.2312		.01		-10.31808	30		Averaged	
	Acetone	0.091	0.07078		.01		-22.21978	40		Averaged	
	1,1-Dichloroethylene	0.366	0.34543		.01		-5.62022	20		Averaged	ccc
	Iodomethane	0.3944	0.36435		.01		-7.61917	30		Averaged	
	Acetonitrile	0.0373	0.03702		.01		-0.75067	30		Averaged	
	Carbon disulfide	0.7344	0.7168		.01		-2.39651	30		Averaged	
	Methyl acetate	0.2046	0.20258		.01		-0.98729	40		Averaged	
	Methylene chloride	0.2878	0.25012		.01		-13.09243	30		Averaged	
	tert-Butyl methyl ether	0.7272	0.68144		.01		-6.29263	30		Averaged	
	trans-1,2-Dichloroethylene	0.3735	0.35831		.01		-4.06693	30		Averaged	
	Vinyl acetate	0.5381	0.58958		.01		9.56699	40		Averaged	
	1,1-Dichloroethane	0.4674	0.44799		.1		-4.15276	30		Averaged	spcc
	2-Butanone	0.1151	0.1155		.01		0.34752	40		Averaged	
	cis-1,2-Dichloroethylene	0.4161	0.40307		.01		-3.13146	30		Averaged	
	2,2-Dichloropropane	0.3367	0.35182		.01		4.49064	30		Averaged	
	Bromochloromethane	0.1282	0.12437		.01		-2.98752	30		Averaged	
	Chloroform	0.4352	0.41847		.01		-3.84421	20		Averaged	ccc
	1,1,1-Trichloroethane	0.3652	0.36984		.01		1.27054	30		Averaged	
	Cyclohexane	0.4723	0.48637		.01		2.97904	30		Averaged	
	1,1-Dichloropropene	0.3324	0.33568		.01		0.98676	30		Averaged	
	Carbon tetrachloride	0.3231	0.32867		.01		1.72392	30		Averaged	
	1,2-Dichloroethane	0.3568	0.33679		.01		-5.60818	30		Averaged	
	Benzene	1.0185	0.96132		.01		-5.61414	30		Averaged	
	Cyclohexene	0.4845	0.48291		.01		-0.32817	30		Averaged	
	n-Butyl alcohol	5000	5176.1	5000			3.522	40		Linear	
	Trichloroethylene	0.2542	0.24527		.01		-3.51298	30		Averaged	
	Methylcyclohexane	0.4424	0.45818		.01		3.56691	30		Averaged	
	1,2-Dichloropropane	0.2692	0.26546		.01		-1.3893	20		Averaged	ccc

Continuing Calibration Summary

Instrument ID: VOA6.I **Injection Date** 10-DEC-09 15:45

Data File: 121009V6\6O416.D **Init. Cal. Date(s)** 10-DEC-09 11:34 10-DEC-09 19:2

Lab Sample ID W6VM091210-11 **Quant Type** ISTD **Method:** VOA6-8260-121009.M

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type	
Dibromomethane	0.143	0.1431		.01		0.06993	30		Averaged	
Bromodichloromethane	0.3015	0.31168		.01		3.37645	30		Averaged	
2-Chloroethylvinyl ether	0.1649	0.1587		.01		-3.75985	30		Averaged	
cis-1,3-Dichloropropylene	0.3804	0.39161		.01		2.9469	30		Averaged	
4-Methyl-2-pentanone	0.1313	0.14172		.01		7.93602	40		Averaged	
Toluene	1.4899	1.40874		.01		-5.44735	20		Averaged	ccc
trans-1,3-Dichloropropylene	0.4817	0.50939		.01		5.74839	30		Averaged	
1,1,2-Trichloroethane	0.2451	0.24367		.01		-0.58344	30		Averaged	
2-Hexanone	0.2407	0.2584		.01		7.35355	40		Averaged	
1,3-Dichloropropane	0.5216	0.50181		.01		-3.7941	30		Averaged	
Tetrachloroethylene	0.3011	0.29232		.01		-2.91597	30		Averaged	
Dibromochloromethane	0.3086	0.33407		.01		8.2534	30		Averaged	
1,2-Dibromoethane	0.2955	0.29919		.01		1.24873	30		Averaged	
Chlorobenzene	0.9635	0.95414		.3		-0.97146	30		Averaged	spcc
1,1,1,2-Tetrachloroethane	0.3335	0.34501		.01		3.45127	30		Averaged	
Ethylbenzene	1.6336	1.60387		.01		-1.81991	20		Averaged	ccc
m,p-Xylenes	0.6533	0.64511		.01		-1.25364	30		Averaged	
o-Xylene	0.6413	0.64163		.01		0.05146	30		Averaged	
Styrene	1.0216	1.06105		.01		3.86159	30		Averaged	
Bromoform	0.3535	0.40598		.1		14.84583	30		Averaged	spcc
Isopropylbenzene	3.0477	3.05443		.01		0.22082	30		Averaged	
1,1,2,2-Tetrachloroethane	0.6833	0.69191		.3		1.26006	30		Averaged	spcc
1,2,3-Trichloropropane	0.1922	0.19345		.01		0.65036	30		Averaged	
Bromobenzene	0.7836	0.762		.01		-2.75651	30		Averaged	
n-Propylbenzene	3.5712	3.52957		.01		-1.16571	30		Averaged	
2-Chlorotoluene	0.7594	0.7636		.01		0.55307	30		Averaged	
1,3,5-Trimethylbenzene	2.6127	2.61898		.01		0.24036	30		Averaged	
4-Chlorotoluene	2.199	2.19172		.01		-0.33106	30		Averaged	
tert-Butylbenzene	0.5812	0.58558		.01		0.75361	30		Averaged	
1,2,4-Trimethylbenzene	2.7527	2.70923		.01		-1.57918	30		Averaged	
sec-Butylbenzene	3.5128	3.57971		.01		1.90475	30		Averaged	
4-Isopropyltoluene	2.8725	2.93059		.01		2.02228	30		Averaged	
1,3-Dichlorobenzene	1.5315	1.50041		.01		-2.03004	30		Averaged	
1,4-Dichlorobenzene	1.5703	1.51104		.01		-3.7738	30		Averaged	
n-Butylbenzene	2.7878	2.86819		.01		2.88364	30		Averaged	
1,2-Dichlorobenzene	1.4847	1.45009		.01		-2.33111	30		Averaged	
1,2-Dibromo-3-chloropropane	0.1246	0.14729		.01		18.21027	30		Averaged	

Continuing Calibration Summary

Instrument ID: VOA6.I **Injection Date** 10-DEC-09 15:45

Data File: 121009V6\6O416.D **Init. Cal. Date(s)** 10-DEC-09 11:34 10-DEC-09 19:2

Lab Sample ID W6VM091210-11 **Quant Type** ISTD **Method:** VOA6-8260-121009.M

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
1,2,4-Trichlorobenzene	1.1167	1.09445		.01		-1.99248	30		Averaged
Hexachlorobutadiene	0.709	0.70257		.01		-0.90691	30		Averaged
Naphthalene	2.2443	2.17025		.01		-3.29947	30		Averaged
1,2,3-Trichlorobenzene	0.9351	0.90939		.01		-2.74944	30		Averaged

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121009V6\
Data File : 60416.D
Acq On : 10 Dec 2009 3:45 pm
Operator : RXD1
InstName : VOA6
Sample : |W6VM091210-11|ICV|1|VOAF|1|VOA8260BLF|
Misc : ICV 5uL N/A MIX[A] 1129-01C+1209-01
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Dec 18 14:01:52 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Fluorobenzene	9.974	96	2076762	50.00 ug/L	0.00
41) Chlorobenzene-d5	13.156	117	1479289	50.00 ug/L	0.00
58) 1,4-Dichlorobenzene-d4	15.576	152	821790	50.00 ug/L	0.00
82) B Fluorobenzene	9.974	96	2074029	50.00 ug/L	0.00
103) B Chlorobenzene-d5	13.156	117	1479289	50.00 ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	15.576	152	821790	50.00 ug/L	0.00
System Monitoring Compounds					
29) 1,2-Dichloroethane-d4	9.626	65	592342	48.34 ug/L	0.00
43) Toluene-d8	11.626	98	2032165	49.55 ug/L	0.00
61) Bromofluorobenzene	14.357	95	792283	50.03 ug/L	0.00
Target Compounds					Qvalue
2) Dichlorodifluoromethane	4.350	85	363203	39.01 ug/L	99
3) Chloromethane	4.672	50	499344	39.00 ug/L	100
4) Vinyl chloride	4.904	62	504880	44.91 ug/L	99
5) Bromomethane	5.468	94	379588	45.27 ug/L	99
6) Chloroethane	5.609	64	385512	46.20 ug/L	100
7) Trichlorofluoromethane	6.022	101	772555	46.88 ug/L	100
8) Ethyl ether	6.328	59	480153	44.84 ug/L	98
9) Acetone	6.706	43	734983	194.53 ug/L	99 E
10) 1,1-Dichloroethylene	6.706	61	717365	47.19 ug/L	99
11) Iodomethane	6.956	142	3783308	230.97 ug/L	99
12) Acetonitrile	7.066	41	1921932	1240.90 ug/L	100
13) Methyl acetate	7.096	43	2103597	247.56 ug/L	99
14) Carbon disulfide	7.078	76	7443145	244.01 ug/L	100
15) Methylene chloride	7.285	84	519443	43.46 ug/L	99
16) tert-Butyl methyl ether	7.572	73	1415189	46.86 ug/L	100
17) trans-1,2-Dichloroethy...	7.615	61	744131	47.96 ug/L	100
18) Vinyl acetate	8.060	43	6122051	273.93 ug/L	98
19) 1,1-Dichloroethane	8.102	63	930374	47.92 ug/L	100
20) 2-Butanone	8.694	43	1199321	250.88 ug/L	100
21) cis-1,2-Dichloroethylene	8.742	61	837075	48.44 ug/L	99
22) 2,2-Dichloropropane	8.767	77	730642	52.24 ug/L	100
23) Bromochloromethane	9.017	128	258291	48.52 ug/L	99
24) Chloroform	9.053	83	869059	48.08 ug/L	99
25) 1,1,1-Trichloroethane	9.322	97	768065	50.63 ug/L	99
26) Cyclohexane	9.413	56	1010074	51.49 ug/L	99
27) 1,1-Dichloropropene	9.480	75	697122	50.49 ug/L	99
28) Carbon tetrachloride	9.510	117	682571	50.86 ug/L	100
30) 1,2-Dichloroethane	9.712	62	699424	47.20 ug/L	100
31) Benzene	9.724	78	1996431	47.19 ug/L	100
32) Cyclohexene	9.834	67	1002879	49.84 ug/L	100
33) n-Butyl alcohol	10.084	56	1821129	5176.10 ug/L	99
34) Trichloroethylene	10.364	95	509356	48.24 ug/L	99
35) 1,2-Dichloropropane	10.614	63	551304	49.31 ug/L	100
36) Methylcyclohexane	10.602	83	951526	51.78 ug/L	99
37) Dibromomethane	10.748	93	297183	50.03 ug/L	99
38) Bromodichloromethane	10.864	83	647276	51.69 ug/L	100
39) 2-Chloroethylvinyl ether	11.089	63	1647879	240.65 ug/L	99
40) cis-1,3-Dichloropropylene	11.315	75	813271	51.47 ug/L	99

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121009V6\
Data File : 60416.D
Acq On : 10 Dec 2009 3:45 pm
Operator : RXD1
InstName : VOA6
Sample : |W6VM091210-11|ICV|1|VOAF|1|VOA8260BLF|
Misc : ICV 5uL N/A MIX[A] 1129-01C+1209-01
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Dec 18 14:01:52 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)	
42)	4-Methyl-2-pentanone	11.413	58	1048244	269.88 ug/L	98	
44)	Toluene	11.699	91	2083933	47.27 ug/L	99	
45)	trans-1,3-Dichloroprop...	11.858	75	753539	52.88 ug/L	100	
46)	1,1,2-Trichloroethane	12.083	83	360461	49.71 ug/L	99	
47)	2-Hexanone	12.260	43	1911268	268.37 ug/L	98	
48)	1,3-Dichloropropane	12.272	76	742316	48.11 ug/L	99	
49)	Tetrachloroethylene	12.290	164	432420	48.55 ug/L	100	
50)	Dibromochloromethane	12.540	129	494184	54.12 ug/L	99	
51)	1,2-Dibromoethane	12.705	107	442584	50.62 ug/L	100	
52)	Chlorobenzene	13.187	112	1411452	49.51 ug/L	100	
53)	1,1,1,2-Tetrachloroethane	13.241	131	510375	51.72 ug/L	100	
54)	Ethylbenzene	13.254	91	2372593	49.09 ug/L	100	
55)	m,p-Xylenes	13.363	106	1908607	98.74 ug/L	99	
56)	o-Xylene	13.796	106	949151	50.02 ug/L	100	
57)	Styrene	13.802	104	1569605	51.93 ug/L	100	
59)	Bromoform	14.064	173	333633	57.42 ug/L	99	
60)	Isopropylbenzene	14.156	105	2510102	50.11 ug/L	100	
62)	1,1,2,2-Tetrachloroethane	14.442	83	568603	50.63 ug/L	100	
63)	1,2,3-Trichloropropane	14.528	110	158978	50.33 ug/L	98	
64)	Bromobenzene	14.564	156	626203	48.62 ug/L	99	
65)	n-Propylbenzene	14.583	91	2900567	49.42 ug/L	100	
66)	1,3,5-Trimethylbenzene	14.735	105	2152253	50.12 ug/L	100	
67)	2-Chlorotoluene	14.729	126	627521	50.28 ug/L	100	
68)	4-Chlorotoluene	14.833	91	1801130	49.83 ug/L	100	
69)	tert-Butylbenzene	15.107	134	481226	50.38 ug/L #	92	
70)	1,2,4-Trimethylbenzene	15.150	105	2226416	49.21 ug/L	100	
71)	sec-Butylbenzene	15.333	105	2941769	50.95 ug/L	99	
72)	4-Isopropyltoluene	15.454	119	2408327	51.01 ug/L	100	
73)	1,3-Dichlorobenzene	15.515	146	1233026	48.98 ug/L	100	
74)	1,4-Dichlorobenzene	15.601	146	1241759	48.11 ug/L	100	
75)	n-Butylbenzene	15.887	91	2357048	51.44 ug/L	100	
76)	1,2-Dichlorobenzene	16.021	146	1191666	48.84 ug/L	100	
77)	1,2-Dibromo-3-chloropr...	16.881	157	121043	59.10 ug/L	100	E
78)	1,2,4-Trichlorobenzene	17.911	180	899407	49.00 ug/L	99	
79)	Hexachlorobutadiene	18.076	225	577367	49.55 ug/L	100	
80)	Naphthalene	18.283	128	1783489	48.35 ug/L	100	
81)	1,2,3-Trichlorobenzene	18.618	180	747330	48.62 ug/L	99	
83)	Chlorotrifluoroethylene	0.000		0	N.D.		
84)	2-Chloro-1,1,1-trifluo...	0.000		0	N.D.		
85)	Acrolein	6.474		0m	N.D. d		
86)	Trichlorotrifluoroethane	0.000		0	N.D.		
87)	Isopropyl Alcohol	6.700		0m	N.D. d		
88)	Allyl chloride	7.066		0m	N.D. d		
89)	tert-Butyl Alcohol	7.298		0m	N.D. d		
90)	Acrylonitrile	7.578		0m	N.D. d		
91)	Isopropyl ether	8.060		0m	N.D. d		
92)	2-Chloro-1,3-butadiene	8.212		0m	N.D. d		
93)	Ethyl tert-butyl ether	0.000		0	N.D.		
94)	Ethyl acetate	8.694		0m	N.D. d		
95)	Propionitrile	8.694		0m	N.D. d		
96)	Methacrylonitrile	0.000		0	N.D.		
97)	Tetrahydrofuran	9.053		0m	N.D. d		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121009V6\
Data File : 60416.D
Acq On : 10 Dec 2009 3:45 pm
Operator : RXD1
InstName : VOA6
Sample : |W6VM091210-11|ICV|1|VOAF|1|VOA8260BLF|
Misc : ICV 5uL N/A MIX[A] 1129-01C+1209-01
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Dec 18 14:01:52 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
98)	Isobutyl alcohol	9.413		0m	N.D.	d
99)	Methyl tert-amyl ether	9.724		0m	N.D.	d
100)	Methyl methacrylate	10.602		0m	N.D.	d
101)	1,4-Dioxane	10.748		0m	N.D.	d
102)	2-Nitropropane	11.089		0m	N.D.	d
104)	Ethyl methacrylate	11.797		0m	N.D.	d
106)	1-Chlorohexane	0.000		0	N.D.	
107)	cis-1,4-Dichloro-2-butene	14.156		0m	N.D.	d
108)	Cyclohexanone	0.000		0	N.D.	
109)	trans-1,4-Dichloro-2-b...	14.577		0m	N.D.	d
110)	Pentachloroethane	15.180		0m	N.D.	d
111)	Benzyl chloride	15.717		0m	N.D.	d
112)	bis(2-Chloroisopropyl)...	16.168		0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121009V6\
Data File : 6O416.D
Acq On : 10 Dec 2009 3:45 pm
Operator : RXD1
InstName : VOA6
Sample : |W6VM091210-11|ICV|1|VOAF|1|VOA8260BLF|
Misc : ICV 5uL N/A MIX[A] 1129-01C+1209-01
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Dec 18 14:01:52 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

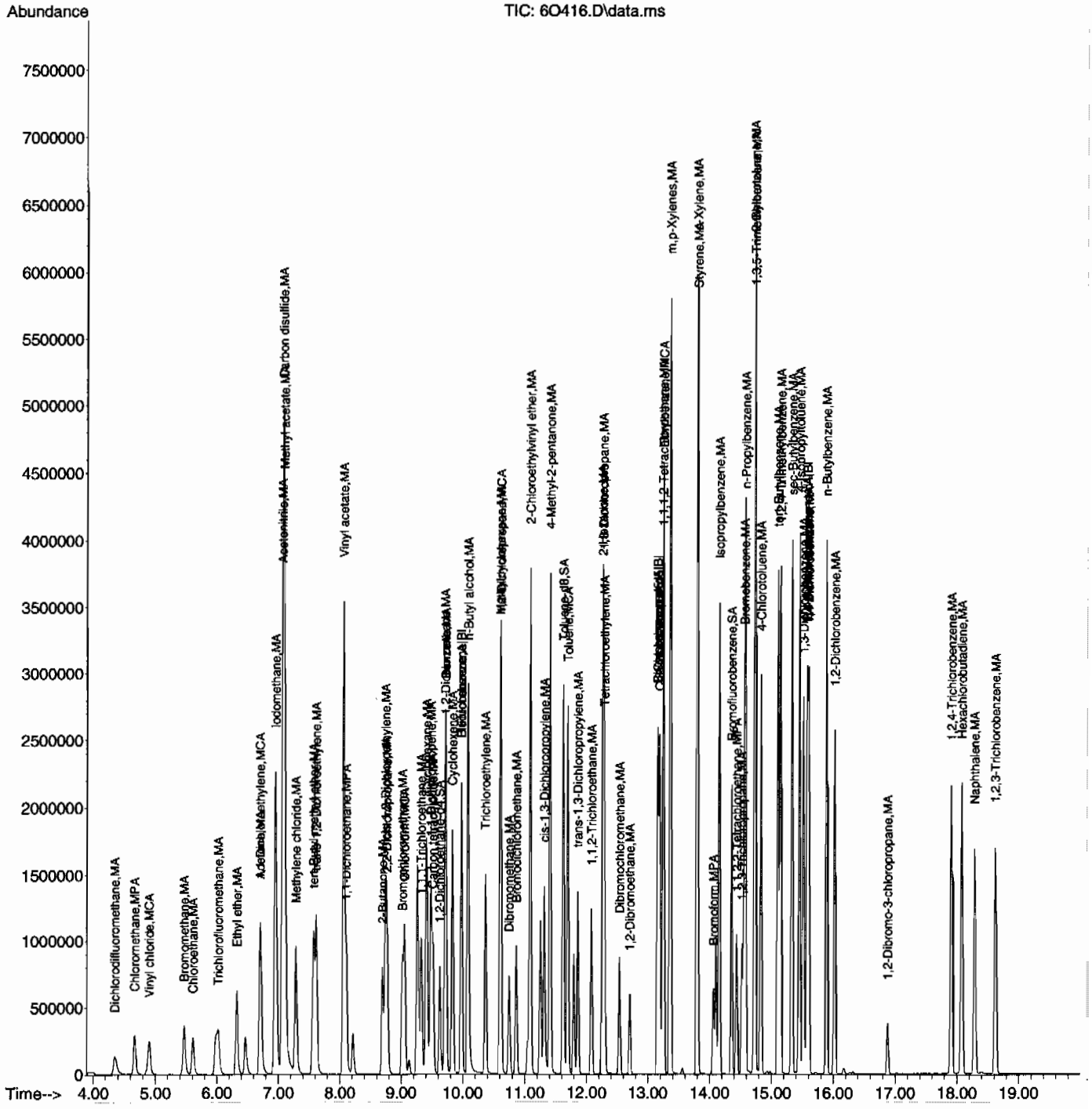

Continuing Calibration Summary

Client SDG: 10-899

Instrument ID: VOA6.1 **Injection Date** 10-DEC-09 20:23

Data File: 121009V6\6O426.D **Init. Cal. Date(s)** 10-DEC-09 11:34 - 10-DEC-09 19:2

Lab Sample ID W6VM091210-20 **Quant Type** ISTD **Method:** VOA6-8260-121009.M

	Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
S	1,2-Dichloroethane-d4	0.295	0.28775		.01		-2.45763	30		Averaged
S	Toluene-d8	1.3863	1.32236		.01		-4.61228	30		Averaged
S	Bromofluorobenzene	0.9636	0.9473		.01		-1.69157	30		Averaged
	Chlorotrifluoroethylene	0.1787	0.17081		.01		-4.41522	30		Averaged
	2-Chloro-1,1,1-trifluoroethane	0.298	0.3032		.01		1.74497	30		Averaged
	Acrolein	0.0365	0.03752		.01		2.79452	30		Averaged
	Trichlorotrifluoroethane	0.0934	0.09837		.01		5.3212	30		Averaged
	Isopropyl Alcohol	0.0194	0.01952		.01		0.61856	40		Averaged
	Allyl chloride	0.4371	0.43895		.01		0.42324	30		Averaged
	tert-Butyl Alcohol	0.0296	0.02942		.01		-0.60811	40		Averaged
	Acrylonitrile	0.0929	0.09193		.01		-1.04413	30		Averaged
	Isopropyl ether	0.9952	1.00769		.01		1.25502	30		Averaged
	2-Chloro-1,3-butadiene	0.372	0.39445		.01		6.03495	30		Averaged
	Ethyl tert-butyl ether	0.8451	0.86472		.01		2.32162	30		Averaged
	Ethyl acetate	0.2653	0.23815		.01		-10.2337	40		Averaged
	Propionitrile	0.0361	0.03522		.01		-2.43767	30		Averaged
	Methacrylonitrile	0.1587	0.15541		.01		-2.07309	30		Averaged
	Tetrahydrofuran	0.0843	0.08134		.01		-3.51127	30		Averaged
	Isobutyl alcohol	0.0095	0.00935		.01		-1.57895	40		Averaged
	Methyl tert-amyl ether	0.7218	0.74518		.01		3.23912	30		Averaged
	Methyl methacrylate	0.1518	0.15186		.01		0.03953	30		Averaged
	1,4-Dioxane	0.0023	0.00225		.01		-2.17391	40		Averaged
	2-Nitropropane	250	241.39	250			-3.444	30		Linear
	Ethyl methacrylate	0.3914	0.38964		.01		-0.44967	30		Averaged
	1-Chlorohexane	0.6905	0.6849		.01		-0.81101	30		Averaged
	cis-1,4-Dichloro-2-butene	0.2353	0.24021		.01		2.0867	30		Averaged
	Cyclohexanone	0.0193	0.01686		.01		-12.64249	40		Averaged
	trans-1,4-Dichloro-2-butene	0.2261	0.23045		.01		1.92393	30		Averaged
	Pentachloroethane	0.3343	0.31118		.01		-6.91594	30		Averaged
	Benzyl chloride	1.2936	1.12957		.01		-12.68012	30		Averaged
	bis(2-Chloroisopropyl)ether	0.3796	0.36692		.01		-3.34036	30		Averaged

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121009V6\
Data File : 60426.D
Acq On : 10 Dec 2009 8:23 pm
Operator : RXD1
InstName : VOA6
Sample : |W6VM091210-20|ICV|1|VOAF|1|VOA8260BLF|
Misc : ICV 5uL N/A MIX[B] 1118-08B+1105-02D
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Dec 18 14:02:16 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Fluorobenzene	9.974	96	2070691	50.00 ug/L	0.00
41) Chlorobenzene-d5	13.156	117	1510228	50.00 ug/L	0.00
58) 1,4-Dichlorobenzene-d4	15.576	152	850667	50.00 ug/L	0.00
82) B Fluorobenzene	9.974	96	2067712	50.00 ug/L	0.00
103) B Chlorobenzene-d5	13.156	117	1510228	50.00 ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	15.576	152	850667	50.00 ug/L	0.00
System Monitoring Compounds					
29) 1,2-Dichloroethane-d4	9.626	65	595841	48.77 ug/L	0.00
43) Toluene-d8	11.626	98	1997061	47.69 ug/L	0.00
61) Bromofluorobenzene	14.357	95	805834	49.16 ug/L	0.00

Target Compounds				Qvalue
2) Dichlorodifluoromethane	4.269	0m	N.D. d	
3) Chloromethane	4.652	0m	N.D. d	
4) Vinyl chloride	4.894	0m	N.D. d	
5) Bromomethane	0.000	0	N.D.	
6) Chloroethane	0.000	0	N.D.	
7) Trichlorofluoromethane	0.000	0	N.D.	
8) Ethyl ether	0.000	0	N.D.	
9) Acetone	6.676	0m	N.D. d	
10) 1,1-Dichloroethylene	6.663	0m	N.D. d	
11) Iodomethane	6.956	0m	N.D. d	
12) Acetonitrile	7.054	0m	N.D. d	
13) Methyl acetate	7.102	0m	N.D. d	
14) Carbon disulfide	7.139	0m	N.D. d	
15) Methylene chloride	7.285	0m	N.D. d	
16) tert-Butyl methyl ether	7.572	0m	N.D. d	
17) trans-1,2-Dichloroethy...	0.000	0	N.D.	
18) Vinyl acetate	8.078	0m	N.D. d	
19) 1,1-Dichloroethane	8.206	0m	N.D. d	
20) 2-Butanone	8.700	0m	N.D. d	
21) cis-1,2-Dichloroethylene	8.700	0m	N.D. d	
22) 2,2-Dichloropropane	0.000	0	N.D.	
23) Bromochloromethane	0.000	0	N.D.	
24) Chloroform	9.047	0m	N.D. d	
25) 1,1,1-Trichloroethane	0.000	0	N.D.	
26) Cyclohexane	9.389	0m	N.D. d	
27) 1,1-Dichloropropene	0.000	0	N.D.	
28) Carbon tetrachloride	0.000	0	N.D.	
30) 1,2-Dichloroethane	9.736	0m	N.D. d	
31) Benzene	9.724	0m	N.D. d	
32) Cyclohexene	0.000	0	N.D.	
33) n-Butyl alcohol	0.000	0	N.D.	
34) Trichloroethylene	10.370	0m	N.D. d	
35) 1,2-Dichloropropane	0.000	0	N.D.	
36) Methylcyclohexane	10.590	0m	N.D. d	
37) Dibromomethane	0.000	0	N.D.	
38) Bromodichloromethane	0.000	0	N.D.	
39) 2-Chloroethylvinyl ether	11.096	0m	N.D. d	
40) cis-1,3-Dichloropropylene	0.000	0	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121009V6\
Data File : 60426.D
Acq On : 10 Dec 2009 8:23 pm
Operator : RXD1
InstName : VOA6
Sample : |W6VM091210-20|ICV|1|VOAF|1|VOA8260BLF|
Misc : ICV 5uL N/A MIX[B] 1118-08B+1105-02D
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Dec 18 14:02:16 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
42) 4-Methyl-2-pentanone	0.000		0	N.D.	
44) Toluene	11.699		0m	N.D. d	
45) trans-1,3-Dichloroprop...	11.852		0m	N.D. d	
46) 1,1,2-Trichloroethane	0.000		0	N.D.	
47) 2-Hexanone	12.260		0m	N.D. d	
48) 1,3-Dichloropropane	12.309		0m	N.D. d	
49) Tetrachloroethylene	12.290		0m	N.D. d	
50) Dibromochloromethane	0.000		0	N.D.	
51) 1,2-Dibromoethane	12.705		0m	N.D. d	
52) Chlorobenzene	13.187		0m	N.D. d	
53) 1,1,1,2-Tetrachloroethane	0.000		0	N.D.	
54) Ethylbenzene	13.248		0m	N.D. d	
55) m,p-Xylenes	13.363		0m	N.D. d	
56) o-Xylene	0.000		0	N.D.	
57) Styrene	13.796		0m	N.D. d	
59) Bromoform	0.000		0	N.D.	
60) Isopropylbenzene	14.156		0m	N.D. d	
62) 1,1,2,2-Tetrachloroethane	14.491		0m	N.D. d	
63) 1,2,3-Trichloropropane	0.000		0	N.D.	
64) Bromobenzene	0.000		0	N.D.	
65) n-Propylbenzene	14.583		0m	N.D. d	
66) 1,3,5-Trimethylbenzene	14.735		0m	N.D. d	
67) 2-Chlorotoluene	14.729		0m	N.D. d	
68) 4-Chlorotoluene	14.833		0m	N.D. d	
69) tert-Butylbenzene	15.180		0m	N.D. d	
70) 1,2,4-Trimethylbenzene	15.150		0m	N.D. d	
71) sec-Butylbenzene	15.333		0m	N.D. d	
72) 4-Isopropyltoluene	15.454		0m	N.D. d	
73) 1,3-Dichlorobenzene	15.515		0m	N.D. d	
74) 1,4-Dichlorobenzene	15.601		0m	N.D. d	
75) n-Butylbenzene	0.000		0	N.D.	
76) 1,2-Dichlorobenzene	16.015		0m	N.D. d	
77) 1,2-Dibromo-3-chloropr...	0.000		0	N.D.	
78) 1,2,4-Trichlorobenzene	0.000		0	N.D.	
79) Hexachlorobutadiene	0.000		0	N.D.	
80) Naphthalene	18.283		0m	N.D. d	
81) 1,2,3-Trichlorobenzene	0.000		0	N.D.	
83) Chlorotrifluoroethylene	4.280	116	1059558	143.35 ug/L	100
84) 2-Chloro-1,1,1-trifluo...	5.025	118	1880817	152.62 ug/L	100
85) Acrolein	6.535	56	387873	257.15 ug/L	99
86) Trichlorotrifluoroethane	6.676	85	1016953	263.29 ug/L	99
87) Isopropyl Alcohol	6.785	45	2017620	2516.44 ug/L	100
88) Allyl chloride	7.139	41	4538143	251.04 ug/L	100
89) tert-Butyl Alcohol	7.285	59	3041617	2486.64 ug/L	100
90) Acrylonitrile	7.541	53	950443	247.45 ug/L	100
91) Isopropyl ether	8.078	45	2083609	50.63 ug/L	99
92) 2-Chloro-1,3-butadiene	8.206	53	815608	53.01 ug/L	99
93) Ethyl tert-butyl ether	8.486	59	1787994	51.16 ug/L	100
94) Ethyl acetate	8.700	43	2462110	224.38 ug/L	100
95) Propionitrile	8.773	54	364096	243.94 ug/L	100
96) Methacrylonitrile	8.950	41	1606705	244.75 ug/L	100
97) Tetrahydrofuran	9.059	42	840938	241.26 ug/L	99

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121009V6\
Data File : 60426.D
Acq On : 10 Dec 2009 8:23 pm
Operator : RXD1
InstName : VOA6
Sample : |W6VM091210-20|ICV|1|VOAF|1|VOA8260BLF|
Misc : ICV 5uL N/A MIX[B] 1118-08B+1105-02D
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Dec 18 14:02:16 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
98)	Isobutyl alcohol	9.389	41	966349	2452.14 ug/L	99
99)	Methyl tert-amyl ether	9.742	73	1540810	51.62 ug/L	99
100)	Methyl methacrylate	10.590	69	1570042	250.15 ug/L	99
101)	1,4-Dioxane	10.699	88	232295	2395.33 ug/L	99
102)	2-Nitropropane	11.071	43	766103	241.39 ug/L	98
104)	Ethyl methacrylate	11.858	69	2942230	248.87 ug/L	100
106)	1-Chlorohexane	13.052	55	582623	49.60 ug/L	99
107)	cis-1,4-Dichloro-2-butene	14.205	53	1021686	255.19 ug/L	100
108)	Cyclohexanone	14.314	42	358486	1094.48 ug/L	98
109)	trans-1,4-Dichloro-2-b...	14.491	53	980168	254.85 ug/L	99
110)	Pentachloroethane	15.180	167	1323559	232.71 ug/L	99
111)	Benzyl chloride	15.717	91	4804424	218.30 ug/L	100
112)	bis(2-Chloroisopropyl)...	16.113	45	1560613	241.67 ug/L	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121009V6\
Data File : 6O426.D
Acq On : 10 Dec 2009 8:23 pm
Operator : RXD1
InstName : VOA6
Sample : |W6VM091210-20|ICV|1|VOAF|1|VOA8260BLF|
Misc : ICV 5uL N/A MIX[B] 1118-08B+1105-02D
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Dec 18 14:02:16 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

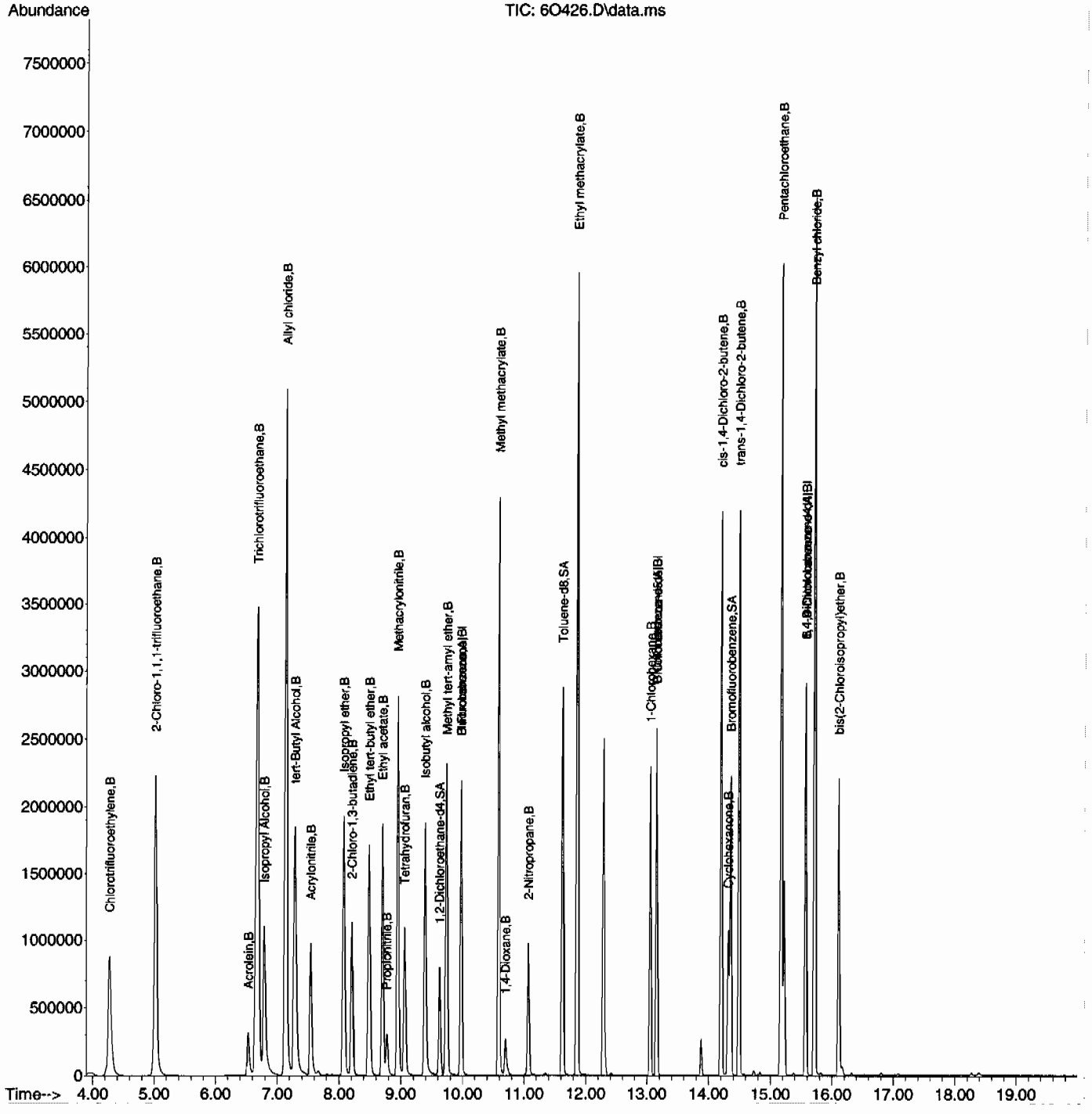

Continuing Calibration Summary

Client SDG: 10-899

Instrument ID: VOA6.I **Injection Date** 17-DEC-09 11:14

Data File: 121709V6\6P402.D **Init. Cal. Date(s)** 10-DEC-09 11:34 - 10-DEC-09 19:2

Lab Sample ID W6VM091217-01 **Quant Type** ISTD **Method:** VOA6-8260-121009.M

	Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type	
S	1,2-Dichloroethane-d4	0.295	0.30086		.01		1.98644	30		Averaged	
S	Toluene-d8	1.3863	1.39077		.01		0.32244	30		Averaged	
S	Bromofluorobenzene	0.9636	0.98165		.01		1.87318	30		Averaged	
	Dichlorodifluoromethane	0.2241	0.17107		.01		-23.66354	30		Averaged	
	Chloromethane	0.3083	0.2541		.1		-17.58028	30		Averaged	spcc
	Vinyl chloride	0.2706	0.25929		.01		-4.1796	20		Averaged	ccc
	Bromomethane	0.2019	0.18835		.01		-6.71124	30		Averaged	
	Chloroethane	0.2009	0.19032		.01		-5.2663	30		Averaged	
	Trichlorofluoromethane	0.3968	0.39192		.01		-1.22984	30		Averaged	
	Ethyl ether	0.2578	0.2176		.01		-15.59348	30		Averaged	
	Acetone	0.091	0.05796		.01		-36.30769	40		Averaged	
	1,1-Dichloroethylene	0.366	0.35854		.01		-2.03825	20		Averaged	ccc
	Iodomethane	0.3944	0.36982		.01		-6.23225	30		Averaged	
	Acetonitrile	0.0373	0.03323		.01		-10.91153	30		Averaged	
	Carbon disulfide	0.7344	0.74269		.01		1.12881	30		Averaged	
	Methyl acetate	0.2046	0.18008		.01		-11.98436	40		Averaged	
	Methylene chloride	0.2878	0.25267		.01		-12.20639	30		Averaged	
	tert-Butyl methyl ether	0.7272	0.63815		.01		-12.2456	30		Averaged	
	trans-1,2-Dichloroethylene	0.3735	0.36412		.01		-2.51138	30		Averaged	
	Vinyl acetate	0.5381	0.5499		.01		2.1929	40		Averaged	
	1,1-Dichloroethane	0.4674	0.45636		.1		-2.362	30		Averaged	spcc
	2-Butanone	0.1151	0.08688		.01		-24.51781	40		Averaged	
	cis-1,2-Dichloroethylene	0.4161	0.40616		.01		-2.38885	30		Averaged	
	2,2-Dichloropropane	0.3367	0.37199		.01		10.48114	30		Averaged	
	Bromochloromethane	0.1282	0.1209		.01		-5.69423	30		Averaged	
	Chloroform	0.4352	0.42443		.01		-2.47472	20		Averaged	ccc
	1,1,1-Trichloroethane	0.3652	0.38757		.01		6.12541	30		Averaged	
	Cyclohexane	0.4723	0.4882		.01		3.3665	30		Averaged	
	1,1-Dichloropropene	0.3324	0.34398		.01		3.48375	30		Averaged	
	Carbon tetrachloride	0.3231	0.35044		.01		8.46178	30		Averaged	
	1,2-Dichloroethane	0.3568	0.32994		.01		-7.52803	30		Averaged	
	Benzene	1.0185	0.96418		.01		-5.33333	30		Averaged	
	Cyclohexene	0.4845	0.49361		.01		1.88029	30		Averaged	
	n-Butyl alcohol	5000	4329.6	5000			-13.408	40		Linear	
	Trichloroethylene	0.2542	0.25001		.01		-1.64831	30		Averaged	
	Methylcyclohexane	0.4424	0.46197		.01		4.4236	30		Averaged	
	1,2-Dichloropropane	0.2692	0.26045		.01		-3.25037	20		Averaged	ccc

Continuing Calibration Summary

Instrument ID: VOA6.I **Injection Date** 17-DEC-09 11:14

Data File: 121709V6\6P402.D **Init. Cal. Date(s)** 10-DEC-09 11:34 10-DEC-09 19:2

Lab Sample ID W6VM091217-01 **Quant Type** ISTD **Method:** VOA6-8260-121009.M

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type	
Dibromomethane	0.143	0.13698		.01		-4.20979	30		Averaged	
Bromodichloromethane	0.3015	0.31172		.01		3.38972	30		Averaged	
2-Chloroethylvinyl ether	0.1649	0.14965		.01		-9.24803	30		Averaged	
cis-1,3-Dichloropropylene	0.3804	0.38937		.01		2.35804	30		Averaged	
4-Methyl-2-pentanone	0.1313	0.11884		.01		-9.48972	40		Averaged	
Toluene	1.4899	1.37174		.01		-7.93073	20		Averaged	ccc
trans-1,3-Dichloropropylene	0.4817	0.4783		.01		-0.70583	30		Averaged	
1,1,2-Trichloroethane	0.2451	0.21923		.01		-10.55488	30		Averaged	
2-Hexanone	0.2407	0.19517		.01		-18.91566	40		Averaged	
1,3-Dichloropropane	0.5216	0.46872		.01		-10.13804	30		Averaged	
Tetrachloroethylene	0.3011	0.28921		.01		-3.94885	30		Averaged	
Dibromochloromethane	0.3086	0.31571		.01		2.30395	30		Averaged	
1,2-Dibromoethane	0.2955	0.26825		.01		-9.22166	30		Averaged	
Chlorobenzene	0.9635	0.92601		.3		-3.89102	30		Averaged	spcc
1,1,1,2-Tetrachloroethane	0.3335	0.33067		.01		-0.84858	30		Averaged	
Ethylbenzene	1.6336	1.5884		.01		-2.7669	20		Averaged	ccc
m,p-Xylenes	0.6533	0.64127		.01		-1.84142	30		Averaged	
o-Xylene	0.6413	0.62026		.01		-3.28084	30		Averaged	
Styrene	1.0216	1.02824		.01		0.64996	30		Averaged	
Bromoform	0.3535	0.36074		.1		2.04809	30		Averaged	spcc
Isopropylbenzene	3.0477	2.9318		.01		-3.80287	30		Averaged	
1,1,2,2-Tetrachloroethane	0.6833	0.61174		.3		-10.47271	30		Averaged	spcc
1,2,3-Trichloropropane	0.1922	0.17049		.01		-11.29553	30		Averaged	
Bromobenzene	0.7836	0.71558		.01		-8.68045	30		Averaged	
n-Propylbenzene	3.5712	3.42931		.01		-3.97317	30		Averaged	
2-Chlorotoluene	0.7594	0.72004		.01		-5.18304	30		Averaged	
1,3,5-Trimethylbenzene	2.6127	2.49268		.01		-4.59372	30		Averaged	
4-Chlorotoluene	2.199	2.09583		.01		-4.69168	30		Averaged	
tert-Butylbenzene	0.5812	0.54453		.01		-6.30936	30		Averaged	
1,2,4-Trimethylbenzene	2.7527	2.56857		.01		-6.68907	30		Averaged	
sec-Butylbenzene	3.5128	3.37351		.01		-3.96521	30		Averaged	
4-Isopropyltoluene	2.8725	2.77909		.01		-3.25187	30		Averaged	
1,3-Dichlorobenzene	1.5315	1.42302		.01		-7.08325	30		Averaged	
1,4-Dichlorobenzene	1.5703	1.4369		.01		-8.49519	30		Averaged	
n-Butylbenzene	2.7878	2.73334		.01		-1.95351	30		Averaged	
1,2-Dichlorobenzene	1.4847	1.33168		.01		-10.30646	30		Averaged	
1,2-Dibromo-3-chloropropane	0.1246	0.11748		.01		-5.71429	30		Averaged	

Continuing Calibration Summary

Instrument ID: VOA6.I **Injection Dat** 17-DEC-09 11:14

Data File: 121709V6\6P402.D **Init. Cal. Date(s)** 10-DEC-09 11:34 10-DEC-09 19:2

Lab Sample ID W6VM091217-01 **Quant Type** ISTD **Method:** VOA6-8260-121009.M

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
1,2,4-Trichlorobenzene	1.1167	0.96827		.01		-13.29184	30		Averaged
Hexachlorobutadiene	0.709	0.63933		.01		-9.82652	30		Averaged
Naphthalene	2.2443	1.8187		.01		-18.9636	30		Averaged
1,2,3-Trichlorobenzene	0.9351	0.80534		.01		-13.87659	30		Averaged

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709V6\
Data File : 6P402.D
Acq On : 17 Dec 2009 11:14 am
Operator : RXD1
InstName : VOA6
Sample : |W6VM091217-01|CCV|1|VOAF|1|VOA8260BS|
Misc : CCV 5mL N/A MIX[A] 1129-01E+1214-01
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 17 11:43:54 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)	
Internal Standards						
1) Fluorobenzene	9.974	96	1672314	50.00 ug/L	0.00	
41) Chlorobenzene-d5	13.156	117	1253032	50.00 ug/L	0.00	
58) 1,4-Dichlorobenzene-d4	15.576	152	720492	50.00 ug/L	0.00	
82) B Fluorobenzene	9.974	96	1670512	50.00 ug/L	0.00	
103) B Chlorobenzene-d5	13.156	117	1253032	50.00 ug/L	0.00	
105) B 1,4-Dichlorobenzene-d4	15.576	152	720492	50.00 ug/L	0.00	
System Monitoring Compounds						
29) 1,2-Dichloroethane-d4	9.626	65	503131	50.99 ug/L	0.00	
43) Toluene-d8	11.626	98	1742681	50.16 ug/L	0.00	
61) Bromofluorobenzene	14.357	95	707274	50.94 ug/L	0.00	
Target Compounds					Qvalue	
2) Dichlorodifluoromethane	4.360	85	286090	38.16 ug/L	100	
3) Chloromethane	4.672	50	424941	41.21 ug/L	100	
4) Vinyl chloride	4.914	62	433610	47.90 ug/L	100	
5) Bromomethane	5.468	94	314979	46.65 ug/L	99	
6) Chloroethane	5.609	64	318267	47.37 ug/L	99	
7) Trichlorofluoromethane	6.022	101	655420	49.39 ug/L	100	
8) Ethyl ether	6.328	59	363887	42.20 ug/L	97	
9) Acetone	6.712	43	484663	159.30 ug/L	97	E
10) 1,1-Dichloroethylene	6.706	61	599594	48.98 ug/L	100	
11) Iodomethane	6.950	142	3092243	234.44 ug/L	99	
12) Acetonitrile	7.072	41	1389477	1114.09 ug/L	100	
13) Methyl acetate	7.096	43	1505763	220.06 ug/L	100	
14) Carbon disulfide	7.078	76	6210082	252.82 ug/L	100	
15) Methylene chloride	7.285	84	422549	43.90 ug/L	99	
16) tert-Butyl methyl ether	7.572	73	1067192	43.88 ug/L	99	
17) trans-1,2-Dichloroethy...	7.621	61	608930	48.74 ug/L	100	
18) Vinyl acetate	8.060	43	4598022	255.50 ug/L	97	
19) 1,1-Dichloroethane	8.102	63	763169	48.82 ug/L	99	
20) 2-Butanone	8.694	43	726474	188.72 ug/L	100	
21) cis-1,2-Dichloroethylene	8.742	61	679222	48.81 ug/L	99	
22) 2,2-Dichloropropane	8.767	77	622076	55.24 ug/L	99	
23) Bromochloromethane	9.017	128	202175	47.16 ug/L	100	
24) Chloroform	9.053	83	709778	48.76 ug/L	99	
25) 1,1,1-Trichloroethane	9.322	97	648144	53.06 ug/L	100	
26) Cyclohexane	9.413	56	816415	51.69 ug/L	99	
27) 1,1-Dichloropropene	9.480	75	575246	51.74 ug/L	99	
28) Carbon tetrachloride	9.517	117	586045	54.23 ug/L	99	
30) 1,2-Dichloroethane	9.706	62	551761	46.24 ug/L	100	
31) Benzene	9.724	78	1612416	47.33 ug/L	99	
32) Cyclohexene	9.834	67	825476	50.94 ug/L	99	
33) n-Butyl alcohol	10.078	56	1224120	4329.60 ug/L	99	
34) Trichloroethylene	10.364	95	418097	49.17 ug/L	100	
35) 1,2-Dichloropropane	10.614	63	435558	48.38 ug/L	100	
36) Methylcyclohexane	10.602	83	772561	52.21 ug/L	99	
37) Dibromomethane	10.748	93	229072	47.89 ug/L	99	
38) Bromodichloromethane	10.864	83	521297	51.70 ug/L	99	
39) 2-Chloroethylvinyl ether	11.090	63	1251268	226.93 ug/L	99	
40) cis-1,3-Dichloropropylene	11.315	75	651152	51.17 ug/L	100	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709V6\
Data File : 6P402.D
Acq On : 17 Dec 2009 11:14 am
Operator : RXD1
InstName : VOA6
Sample : |W6VM091217-01|CCV|1|VOAF|1|VOA8260BS|
Misc : CCV 5mL N/A MIX[A] 1129-01E+1214-01
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 17 11:43:54 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
42) 4-Methyl-2-pentanone	11.407	58	744578	226.31 ug/L	98
44) Toluene	11.699	91	1718838	46.03 ug/L	100
45) trans-1,3-Dichloroprop...	11.858	75	599325	49.65 ug/L	100
46) 1,1,2-Trichloroethane	12.077	83	274696	44.73 ug/L	99
47) 2-Hexanone	12.260	43	1222785	202.70 ug/L	98
48) 1,3-Dichloropropane	12.272	76	587323	44.93 ug/L	94
49) Tetrachloroethylene	12.291	164	362390	48.03 ug/L	99
50) Dibromochloromethane	12.540	129	395600	51.15 ug/L	99
51) 1,2-Dibromoethane	12.705	107	336129	45.39 ug/L	99
52) Chlorobenzene	13.187	112	1160320	48.05 ug/L	100
53) 1,1,1,2-Tetrachloroethane	13.242	131	414341	49.57 ug/L	99
54) Ethylbenzene	13.254	91	1990320	48.62 ug/L	100
55) m,p-Xylenes	13.363	106	1607069	98.15 ug/L	99
56) o-Xylene	13.796	106	777200	48.36 ug/L	97
57) Styrene	13.802	104	1288422	50.32 ug/L	99
59) Bromoform	14.058	173	259913	51.02 ug/L	100
60) Isopropylbenzene	14.156	105	2112338	48.10 ug/L	100
62) 1,1,2,2-Tetrachloroethane	14.436	83	440750	44.77 ug/L	99
63) 1,2,3-Trichloropropane	14.528	110	122838	44.36 ug/L #	89
64) Bromobenzene	14.564	156	515566	45.66 ug/L	100
65) n-Propylbenzene	14.583	91	2470794	48.01 ug/L	100
66) 1,3,5-Trimethylbenzene	14.735	105	1795955	47.70 ug/L	99
67) 2-Chlorotoluene	14.729	126	518782	47.41 ug/L	98
68) 4-Chlorotoluene	14.833	91	1510031	47.65 ug/L	100
69) tert-Butylbenzene	15.107	134	392327	46.84 ug/L #	90
70) 1,2,4-Trimethylbenzene	15.150	105	1850633	46.66 ug/L	99
71) sec-Butylbenzene	15.333	105	2430589	48.02 ug/L	99
72) 4-Isopropyltoluene	15.455	119	2002313	48.37 ug/L	99
73) 1,3-Dichlorobenzene	15.515	146	1025273	46.46 ug/L	100
74) 1,4-Dichlorobenzene	15.601	146	1035275	45.75 ug/L	100
75) n-Butylbenzene	15.887	91	1969351	49.02 ug/L	99
76) 1,2-Dichlorobenzene	16.022	146	959465	44.85 ug/L	100
77) 1,2-Dibromo-3-chloropr...	16.881	157	84641	47.14 ug/L	99
78) 1,2,4-Trichlorobenzene	17.905	180	697629	43.35 ug/L	99
79) Hexachlorobutadiene	18.076	225	460633	45.09 ug/L	99
80) Naphthalene	18.283	128	1310358	40.52 ug/L	100
81) 1,2,3-Trichlorobenzene	18.619	180	580242	43.06 ug/L	99
83) Chlorotrifluoroethylene	0.000		0	N.D.	
84) 2-Chloro-1,1,1-trifluo...	0.000		0	N.D.	
85) Acrolein	0.000		0	N.D.	
86) Trichlorotrifluoroethane	0.000		0	N.D.	
87) Isopropyl Alcohol	6.712		0m	N.D. d	
88) Allyl chloride	7.072		0m	N.D. d	
89) tert-Butyl Alcohol	0.000		0	N.D.	
90) Acrylonitrile	7.566		0m	N.D. d	
91) Isopropyl ether	8.066		0m	N.D. d	
92) 2-Chloro-1,3-butadiene	8.212		0m	N.D. d	
93) Ethyl tert-butyl ether	0.000		0	N.D.	
94) Ethyl acetate	8.694		0m	N.D. d	
95) Propionitrile	8.694		0m	N.D. d	
96) Methacrylonitrile	8.944		0m	N.D. d	
97) Tetrahydrofuran	9.059		0m	N.D. d	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709V6\
Data File : 6P402.D
Acq On : 17 Dec 2009 11:14 am
Operator : RXD1
InstName : VOA6
Sample : |W6VM091217-01|CCV|1|VOAF|1|VOA8260BS|
Misc : CCV 5mL N/A MIX[A] 1129-01E+1214-01
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 17 11:43:54 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
98)	Isobutyl alcohol	9.413		0m	N.D.	d
99)	Methyl tert-amyl ether	9.724		0m	N.D.	d
100)	Methyl methacrylate	10.602		0m	N.D.	d
101)	1,4-Dioxane	10.699		0m	N.D.	d
102)	2-Nitropropane	11.090		0m	N.D.	d
104)	Ethyl methacrylate	11.858		0m	N.D.	d
106)	1-Chlorohexane	0.000		0	N.D.	
107)	cis-1,4-Dichloro-2-butene	14.150		0m	N.D.	d
108)	Cyclohexanone	0.000		0	N.D.	
109)	trans-1,4-Dichloro-2-b...	0.000		0	N.D.	
110)	Pentachloroethane	15.180		0m	N.D.	d
111)	Benzyl chloride	15.717		0m	N.D.	d
112)	bis(2-Chloroisopropyl)...	16.113		0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709V6\
Data File : 6P402.D
Acq On : 17 Dec 2009 11:14 am
Operator : RXD1
InstName : VOA6
Sample : |W6VM091217-01|CCV|1|VOAF|1|VOA8260BS|
Misc : CCV 5mL N/A MIX[A] 1129-01E+1214-01
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 17 11:43:54 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

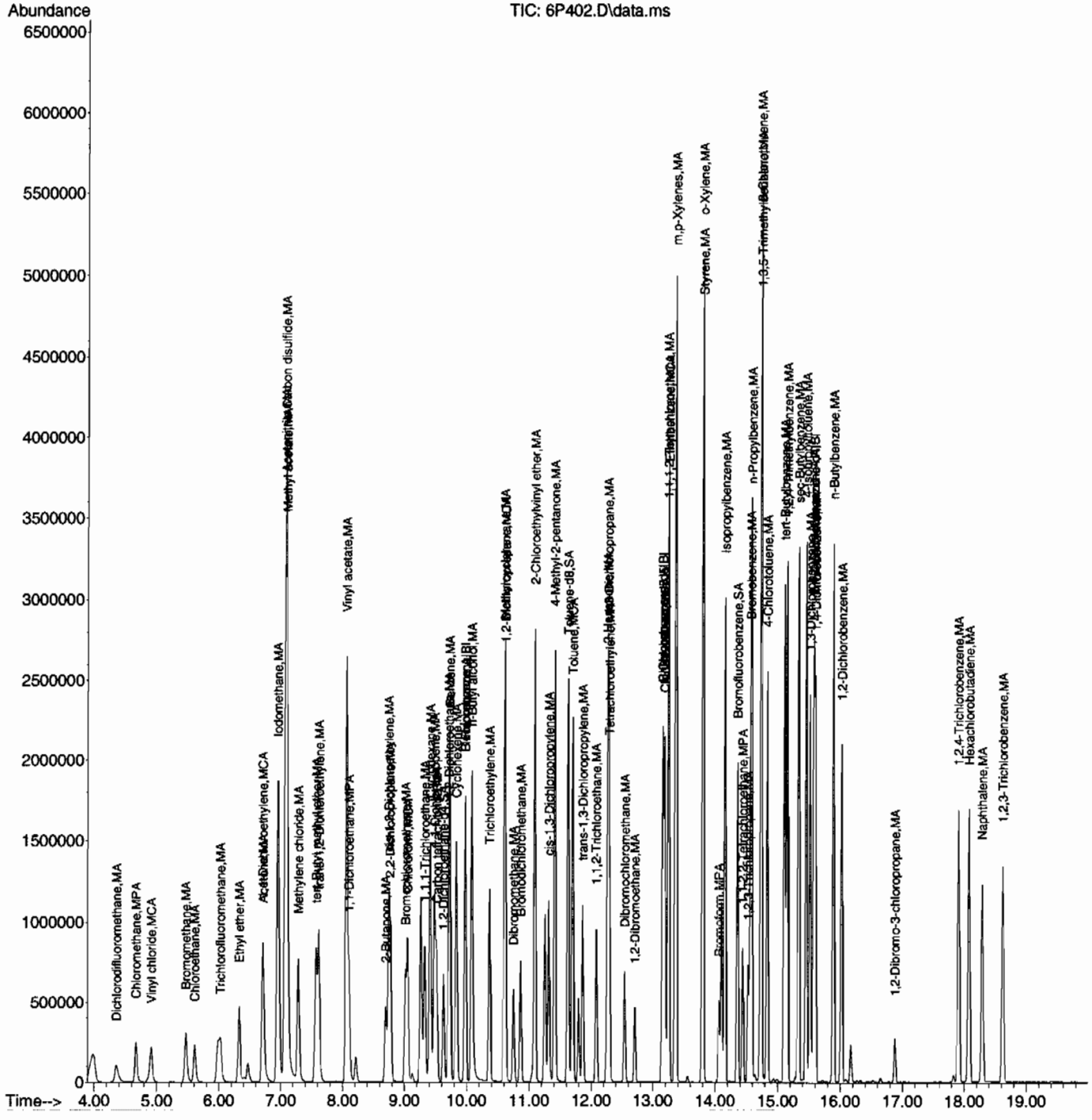

Continuing Calibration Summary

Client SDG: 10-899

Instrument ID: VOA6.I **Injection Date** 17-DEC-09 12:10

Data File: 121709V6\6P404.D **Init. Cal. Date(s)** 10-DEC-09 11:34 - 10-DEC-09 19:2

Lab Sample ID W6VM091217-03 **Quant Type** ISTD **Method:** VOA6-8260-121009.M

	Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
S	1,2-Dichloroethane-d4	0.295	0.28588		.01		-3.09153	30		Averaged
S	Toluene-d8	1.3863	1.33184		.01		-3.92844	30		Averaged
S	Bromofluorobenzene	0.9636	0.9616		.01		-0.20756	30		Averaged
	Acrolein	0.0365	0.04305		.01		17.94521	30		Averaged
	Trichlorotrifluoroethane	0.0934	0.12189		.01		30.50321	30	*	Averaged
	Allyl chloride	0.4371	0.50713		.01		16.02151	30		Averaged
	Acrylonitrile	0.0929	0.09444		.01		1.6577	30		Averaged
	2-Chloro-1,3-butadiene	0.372	0.46341		.01		24.57258	30		Averaged
	Ethyl acetate	0.2653	0.24696		.01		-6.91293	40		Averaged
	Propionitrile	0.0361	0.03575		.01		-0.96953	30		Averaged
	Methacrylonitrile	0.1587	0.16142		.01		1.71393	30		Averaged
	Tetrahydrofuran	0.0843	0.08363		.01		-0.79478	30		Averaged
	Isobutyl alcohol	0.0095	0.00981		.01		3.26316	40		Averaged
	Methyl methacrylate	0.1518	0.15823		.01		4.23584	30		Averaged
	1,4-Dioxane	0.0023	0.00253		.01		10	40		Averaged
	2-Nitropropane	250	264.95	250			5.98	30		Linear
	Ethyl methacrylate	0.3914	0.40891		.01		4.47368	30		Averaged
	cis-1,4-Dichloro-2-butene	0.2353	0.2624		.01		11.51721	30		Averaged
	Cyclohexanone	0.0193	0.01608		.01		-16.68394	40		Averaged
	trans-1,4-Dichloro-2-butene	0.2261	0.24946		.01		10.33171	30		Averaged
	Pentachloroethane	0.3343	0.47388		.01		41.75292	30	*	Averaged
	Benzyl chloride	1.2936	1.35457		.01		4.7132	30		Averaged
	bis(2-Chloroisopropyl)ether	0.3796	0.35696		.01		-5.96417	30		Averaged

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709V6\
Data File : 6P404.D
Acq On : 17 Dec 2009 12:10 pm
Operator : RXD1
InstName : VOA6
Sample : |W6VM091217-03|CCV|1|VOAF|1|VOA8260BS|
Misc : CCV 5mL N/A MIX[B] 1118-08C
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Dec 17 13:16:39 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Fluorobenzene	9.974	96	1749690	50.00 ug/L	0.00
41) Chlorobenzene-d5	13.156	117	1292119	50.00 ug/L	0.00
58) 1,4-Dichlorobenzene-d4	15.576	152	743260	50.00 ug/L	0.00
82) B Fluorobenzene	9.974	96	1749449	50.00 ug/L	0.00
103) B Chlorobenzene-d5	13.156	117	1292119	50.00 ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	15.576	152	743260	50.00 ug/L	0.00
System Monitoring Compounds					
29) 1,2-Dichloroethane-d4	9.626	65	500201	48.45 ug/L	0.00
43) Toluene-d8	11.626	98	1720891	48.04 ug/L	0.00
61) Bromofluorobenzene	14.357	95	714718	49.90 ug/L	0.00

Target Compounds			Qvalue
2) Dichlorodifluoromethane	0.000	0	N.D.
3) Chloromethane	4.652	0m	N.D. d
4) Vinyl chloride	4.904	0m	N.D. d
5) Bromomethane	0.000	0	N.D.
6) Chloroethane	0.000	0	N.D.
7) Trichlorofluoromethane	0.000	0	N.D.
8) Ethyl ether	0.000	0	N.D.
9) Acetone	6.682	0m	N.D. d
10) 1,1-Dichloroethylene	6.676	0m	N.D. d
11) Iodomethane	6.950	0m	N.D. d
12) Acetonitrile	7.139	0m	N.D. d
13) Methyl acetate	7.102	0m	N.D. d
14) Carbon disulfide	7.139	0m	N.D. d
15) Methylene chloride	7.291	0m	N.D. d
16) tert-Butyl methyl ether	7.560	0m	N.D. d
17) trans-1,2-Dichloroethy...	0.000	0	N.D.
18) Vinyl acetate	8.060	0m	N.D. d
19) 1,1-Dichloroethane	8.206	0m	N.D. d
20) 2-Butanone	8.700	0m	N.D. d
21) cis-1,2-Dichloroethylene	8.700	0m	N.D. d
22) 2,2-Dichloropropane	0.000	0	N.D.
23) Bromochloromethane	0.000	0	N.D.
24) Chloroform	9.059	0m	N.D. d
25) 1,1,1-Trichloroethane	0.000	0	N.D.
26) Cyclohexane	9.395	0m	N.D. d
27) 1,1-Dichloropropene	0.000	0	N.D.
28) Carbon tetrachloride	0.000	0	N.D.
30) 1,2-Dichloroethane	0.000	0	N.D.
31) Benzene	9.718	0m	N.D. d
32) Cyclohexene	0.000	0	N.D.
33) n-Butyl alcohol	10.071	0m	N.D. d
34) Trichloroethylene	10.364	0m	N.D. d
35) 1,2-Dichloropropane	0.000	0	N.D.
36) Methylcyclohexane	10.589	0m	N.D. d
37) Dibromomethane	0.000	0	N.D.
38) Bromodichloromethane	0.000	0	N.D.
39) 2-Chloroethylvinyl ether	11.077	0m	N.D. d
40) cis-1,3-Dichloropropylene	11.315	0m	N.D. d

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709V6\
Data File : 6P404.D
Acq On : 17 Dec 2009 12:10 pm
Operator : RXD1
InstName : VOA6
Sample : |W6VM091217-03|CCV|1|VOAF|1|VOA8260BS|
Misc : CCV 5mL N/A MIX[B] 1118-08C
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Dec 17 13:16:39 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
42)	4-Methyl-2-pentanone	11.413		0m	N.D. d	
44)	Toluene	11.693		0m	N.D. d	
45)	trans-1,3-Dichloroprop...	11.851		0m	N.D. d	
46)	1,1,2-Trichloroethane	0.000		0	N.D.	
47)	2-Hexanone	12.260		0m	N.D. d	
48)	1,3-Dichloropropane	12.321		0m	N.D. d	
49)	Tetrachloroethylene	12.290		0m	N.D. d	
50)	Dibromochloromethane	12.534		0m	N.D. d	
51)	1,2-Dibromoethane	12.705		0m	N.D. d	
52)	Chlorobenzene	13.199		0m	N.D. d	
53)	1,1,1,2-Tetrachloroethane	13.241		0m	N.D. d	
54)	Ethylbenzene	13.254		0m	N.D. d	
55)	m,p-Xylenes	13.357		0m	N.D. d	
56)	o-Xylene	13.790		0m	N.D. d	
57)	Styrene	13.796		0m	N.D. d	
59)	Bromoform	14.052		0m	N.D. d	
60)	Isopropylbenzene	14.150		0m	N.D. d	
62)	1,1,2,2-Tetrachloroethane	14.436		0m	N.D. d	
63)	1,2,3-Trichloropropane	14.516		0m	N.D. d	
64)	Bromobenzene	14.564		0m	N.D. d	
65)	n-Propylbenzene	14.583		0m	N.D. d	
66)	1,3,5-Trimethylbenzene	14.735		0m	N.D. d	
67)	2-Chlorotoluene	14.729		0m	N.D. d	
68)	4-Chlorotoluene	14.833		0m	N.D. d	
69)	tert-Butylbenzene	15.113		0m	N.D. d	
70)	1,2,4-Trimethylbenzene	15.150		0m	N.D. d	
71)	sec-Butylbenzene	15.332		0m	N.D. d	
72)	4-Isopropyltoluene	15.454		0m	N.D. d	
73)	1,3-Dichlorobenzene	15.521		0m	N.D. d	
74)	1,4-Dichlorobenzene	15.601		0m	N.D. d	
75)	n-Butylbenzene	15.881		0m	N.D. d	
76)	1,2-Dichlorobenzene	16.021		0m	N.D. d	
77)	1,2-Dibromo-3-chloropr...	16.875		0m	N.D. d	
78)	1,2,4-Trichlorobenzene	17.911		0m	N.D. d	
79)	Hexachlorobutadiene	18.076		0m	N.D. d	
80)	Naphthalene	18.283		0m	N.D. d	
81)	1,2,3-Trichlorobenzene	18.618		0m	N.D. d	
83)	Chlorotrifluoroethylene	0.000		0	N.D.	
84)	2-Chloro-1,1,1-trifluo...	0.000		0	N.D.	
85)	Acrolein	6.535	56	376529	295.04 ug/L	97
86)	Trichlorotrifluoroethane	6.676	85	1066203	326.26 ug/L	99
87)	Isopropyl Alcohol	0.000		0m	N.D. d	
88)	Allyl chloride	7.139	41	4435998	290.03 ug/L	99
89)	tert-Butyl Alcohol	0.000		0	N.D.	
90)	Acrylonitrile	7.541	53	826070	254.20 ug/L	99
91)	Isopropyl ether	0.000		0	N.D.	
92)	2-Chloro-1,3-butadiene	8.206	53	810710	62.28 ug/L	99
93)	Ethyl tert-butyl ether	0.000		0	N.D.	
94)	Ethyl acetate	8.700	43	2160172	232.68 ug/L	100
95)	Propionitrile	8.773	54	312709	247.62 ug/L	100
96)	Methacrylonitrile	8.950	41	1411963	254.21 ug/L	100
97)	Tetrahydrofuran	9.059	42	731490	248.04 ug/L	99

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709V6\
Data File : 6P404.D
Acq On : 17 Dec 2009 12:10 pm
Operator : RXD1
InstName : VOA6
Sample : |W6VM091217-03|CCV|1|VOAF|1|VOA8260BS|
Misc : CCV 5mL N/A MIX[B] 1118-08C
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Dec 17 13:16:39 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
98)	Isobutyl alcohol	9.389	41	857995	2573.26 ug/L	100
99)	Methyl tert-amyl ether	9.736	73	1496	N.D.	
100)	Methyl methacrylate	10.589	69	1384063	260.64 ug/L	99
101)	1,4-Dioxane	10.699	88	220879	2691.96 ug/L	100
102)	2-Nitropropane	11.071	43	712443	264.95 ug/L	99
104)	Ethyl methacrylate	11.858	69	2641793	261.18 ug/L	100
106)	1-Chlorohexane	0.000		0	N.D.	
107)	cis-1,4-Dichloro-2-butene	14.199	53	975166	278.76 ug/L	99
108)	Cyclohexanone	14.314	42	298814	1044.13 ug/L	99
109)	trans-1,4-Dichloro-2-b...	14.491	53	927059	275.88 ug/L	99
110)	Pentachloroethane	15.180	167	1761063	354.38 ug/L	99
111)	Benzyl chloride	15.717	91	5033975	261.79 ug/L	100
112)	bis(2-Chloroisopropyl)...	16.113	45	1326575	235.11 ug/L	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709V6\
Data File : 6P404.D
Acq On : 17 Dec 2009 12:10 pm
Operator : RXD1
InstName : VOA6
Sample : |W6VM091217-03|CCV|1|VOAF|1|VOA8260BS|
Misc : CCV 5mL N/A MIX[B] 1118-08C
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Dec 17 13:16:39 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

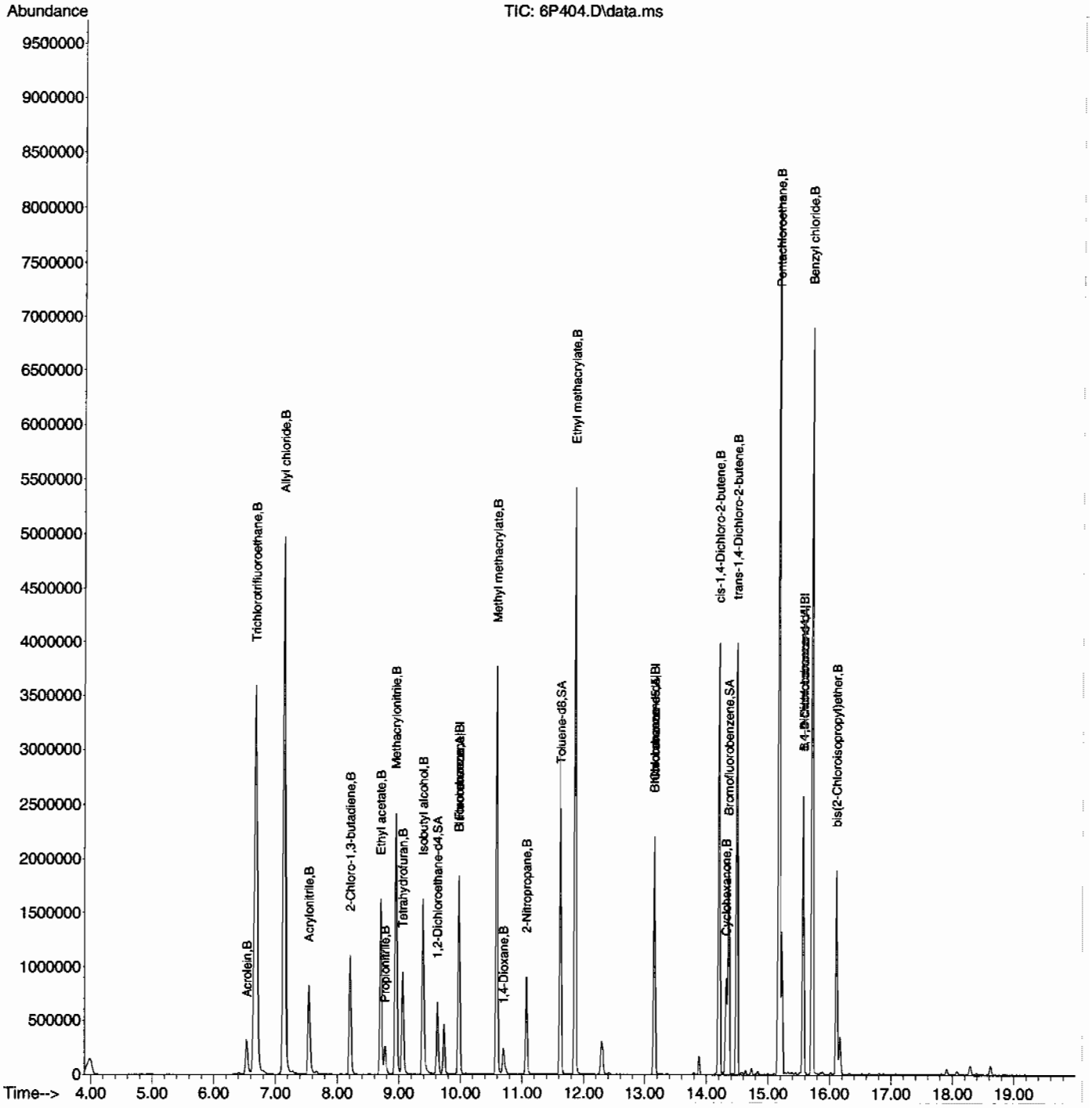

Continuing Calibration Summary

Client SDG: 10-899

Instrument ID: VOA6.I **Injection Dat** 18-DEC-09 11:20

Data File: 121809V6\6P502.D **Init. Cal. Date(s)** 10-DEC-09 11:34 - 10-DEC-09 19:2

Lab Sample ID W6VM091218-01 **Quant Type** ISTD **Method:** VOA6-8260-121009.M

	Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type	
S	1,2-Dichloroethane-d4	0.295	0.29097		.01		-1.3661	30		Averaged	
S	Toluene-d8	1.3863	1.3562		.01		-2.17125	30		Averaged	
S	Bromofluorobenzene	0.9636	0.94913		.01		-1.50166	30		Averaged	
	Dichlorodifluoromethane	0.2241	0.2171		.01		-3.12361	30		Averaged	
	Chloromethane	0.3083	0.2975		.1		-3.50308	30		Averaged	spcc
	Vinyl chloride	0.2706	0.29005		.01		7.18773	20		Averaged	ccc
	Bromomethane	0.2019	0.20587		.01		1.96632	30		Averaged	
	Chloroethane	0.2009	0.20409		.01		1.58785	30		Averaged	
	Trichlorofluoromethane	0.3968	0.41421		.01		4.3876	30		Averaged	
	Ethyl ether	0.2578	0.22736		.01		-11.8076	30		Averaged	
	Acetone	0.091	0.06707		.01		-26.2967	40		Averaged	
	1,1-Dichloroethylene	0.366	0.37729		.01		3.0847	20		Averaged	ccc
	Iodomethane	0.3944	0.38689		.01		-1.90416	30		Averaged	
	Acetonitrile	0.0373	0.03299		.01		-11.55496	30		Averaged	
	Carbon disulfide	0.7344	0.79086		.01		7.68791	30		Averaged	
	Methyl acetate	0.2046	0.18292		.01		-10.59629	40		Averaged	
	Methylene chloride	0.2878	0.2591		.01		-9.9722	30		Averaged	
	tert-Butyl methyl ether	0.7272	0.65113		.01		-10.46067	30		Averaged	
	trans-1,2-Dichloroethylene	0.3735	0.3773		.01		1.0174	30		Averaged	
	Vinyl acetate	0.5381	0.57055		.01		6.03048	40		Averaged	
	1,1-Dichloroethane	0.4674	0.46329		.1		-0.87933	30		Averaged	spcc
	2-Butanone	0.1151	0.10328		.01		-10.26933	40		Averaged	
	cis-1,2-Dichloroethylene	0.4161	0.41863		.01		0.60803	30		Averaged	
	2,2-Dichloropropane	0.3367	0.38686		.01		14.89753	30		Averaged	
	Bromochloromethane	0.1282	0.12494		.01		-2.5429	30		Averaged	
	Chloroform	0.4352	0.43364		.01		-0.35846	20		Averaged	ccc
	1,1,1-Trichloroethane	0.3652	0.39614		.01		8.47207	30		Averaged	
	Cyclohexane	0.4723	0.51672		.01		9.40504	30		Averaged	
	1,1-Dichloropropene	0.3324	0.35425		.01		6.57341	30		Averaged	
	Carbon tetrachloride	0.3231	0.36264		.01		12.2377	30		Averaged	
	1,2-Dichloroethane	0.3568	0.33529		.01		-6.02859	30		Averaged	
	Benzene	1.0185	0.99231		.01		-2.57143	30		Averaged	
	Cyclohexene	0.4845	0.51009		.01		5.28173	30		Averaged	
	n-Butyl alcohol	5000	4160.92	5000			-16.7816	40		Linear	
	Trichloroethylene	0.2542	0.25638		.01		0.85759	30		Averaged	
	Methylcyclohexane	0.4424	0.47361		.01		7.0547	30		Averaged	
	1,2-Dichloropropane	0.2692	0.26578		.01		-1.27043	20		Averaged	ccc

Continuing Calibration Summary

Instrument ID: VOA6.I **Injection Date** 18-DEC-09 11:20

Data File: 121809V6\6P502.D **Init. Cal. Date(s)** 10-DEC-09 11:34 10-DEC-09 19:2

Lab Sample ID W6VM091218-01 **Quant Type** ISTD **Method:** VOA6-8260-121009.M

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type	
Dibromomethane	0.143	0.13704		.01		-4.16783	30		Averaged	
Bromodichloromethane	0.3015	0.31545		.01		4.62687	30		Averaged	
2-Chloroethylvinyl ether	0.1649	0.14638		.01		-11.23105	30		Averaged	
cis-1,3-Dichloropropylene	0.3804	0.39188		.01		3.01788	30		Averaged	
4-Methyl-2-pentanone	0.1313	0.12427		.01		-5.35415	40		Averaged	
Toluene	1.4899	1.43506		.01		-3.68078	20		Averaged	ccc
trans-1,3-Dichloropropylene	0.4817	0.49773		.01		3.3278	30		Averaged	
1,1,2-Trichloroethane	0.2451	0.2278		.01		-7.05834	30		Averaged	
2-Hexanone	0.2407	0.22387		.01		-6.99211	40		Averaged	
1,3-Dichloropropane	0.5216	0.48642		.01		-6.74463	30		Averaged	
Tetrachloroethylene	0.3011	0.30561		.01		1.49784	30		Averaged	
Dibromochloromethane	0.3086	0.32867		.01		6.50356	30		Averaged	
1,2-Dibromoethane	0.2955	0.28249		.01		-4.40271	30		Averaged	
Chlorobenzene	0.9635	0.95456		.3		-0.92787	30		Averaged	spcc
1,1,1,2-Tetrachloroethane	0.3335	0.34458		.01		3.32234	30		Averaged	
Ethylbenzene	1.6336	1.66951		.01		2.19821	20		Averaged	ccc
m,p-Xylenes	0.6533	0.66278		.01		1.45109	30		Averaged	
o-Xylene	0.6413	0.64555		.01		0.66272	30		Averaged	
Styrene	1.0216	1.06784		.01		4.52623	30		Averaged	
Bromoform	0.3535	0.38414		.1		8.66761	30		Averaged	spcc
Isopropylbenzene	3.0477	3.08736		.01		1.30131	30		Averaged	
1,1,2,2-Tetrachloroethane	0.6833	0.64123		.3		-6.15689	30		Averaged	spcc
1,2,3-Trichloropropane	0.1922	0.1813		.01		-5.67118	30		Averaged	
Bromobenzene	0.7836	0.75003		.01		-4.28407	30		Averaged	
n-Propylbenzene	3.5712	3.64057		.01		1.94248	30		Averaged	
2-Chlorotoluene	0.7594	0.77006		.01		1.40374	30		Averaged	
1,3,5-Trimethylbenzene	2.6127	2.63256		.01		0.76013	30		Averaged	
4-Chlorotoluene	2.199	2.22129		.01		1.01364	30		Averaged	
tert-Butylbenzene	0.5812	0.57705		.01		-0.71404	30		Averaged	
1,2,4-Trimethylbenzene	2.7527	2.69522		.01		-2.08813	30		Averaged	
sec-Butylbenzene	3.5128	3.55529		.01		1.20958	30		Averaged	
4-Isopropyltoluene	2.8725	2.91538		.01		1.49278	30		Averaged	
1,3-Dichlorobenzene	1.5315	1.47335		.01		-3.79693	30		Averaged	
1,4-Dichlorobenzene	1.5703	1.50093		.01		-4.41763	30		Averaged	
n-Butylbenzene	2.7878	2.83839		.01		1.81469	30		Averaged	
1,2-Dichlorobenzene	1.4847	1.38175		.01		-6.93406	30		Averaged	
1,2-Dibromo-3-chloropropane	0.1246	0.11975		.01		-3.89246	30		Averaged	

Continuing Calibration Summary

Instrument ID: VOA6.I **Injection Dat** 18-DEC-09 11:20

Data File: 121809V6\6P502.D **Init. Cal. Date(s)** 10-DEC-09 11:34 10-DEC-09 19:2

Lab Sample ID W6VM091218-01 **Quant Type** ISTD **Method:** VOA6-8260-121009.M

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
1,2,4-Trichlorobenzene	1.1167	0.99142		.01		-11.21877	30		Averaged
Hexachlorobutadiene	0.709	0.6581		.01		-7.17913	30		Averaged
Naphthalene	2.2443	1.83888		.01		-18.06443	30		Averaged
1,2,3-Trichlorobenzene	0.9351	0.81857		.01		-12.46177	30		Averaged

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121809V6\
Data File : 6P502.D
Acq On : 18 Dec 2009 11:20 am
Operator : RXD1
InstName : VOA6
Sample : |W6VM091218-01|CCV|1|VOAF|1|VOA8260BS|
Misc : CCV 5mL N/A MIX[A] 1214-01A+1217-01
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 18 11:39:59 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)	
Internal Standards						
1) Fluorobenzene	9.974	96	1715128	50.00 ug/L	0.00	
41) Chlorobenzene-d5	13.156	117	1247065	50.00 ug/L	0.00	
58) 1,4-Dichlorobenzene-d4	15.576	152	704131	50.00 ug/L	0.00	
82) B Fluorobenzene	9.974	96	1713482	50.00 ug/L	0.00	
103) B Chlorobenzene-d5	13.156	117	1247065	50.00 ug/L	0.00	
105) B 1,4-Dichlorobenzene-d4	15.576	152	704131	50.00 ug/L	0.00	
System Monitoring Compounds						
29) 1,2-Dichloroethane-d4	9.626	65	499052	49.32 ug/L	0.00	
43) Toluene-d8	11.626	98	1691268	48.91 ug/L	0.00	
61) Bromofluorobenzene	14.357	95	668314	49.25 ug/L	0.00	
Target Compounds					Qvalue	
2) Dichlorodifluoromethane	4.360	85	372358	48.43 ug/L	99	
3) Chloromethane	4.672	50	510242	48.25 ug/L	100	
4) Vinyl chloride	4.914	62	497471	53.58 ug/L	100	
5) Bromomethane	5.468	94	353096	50.99 ug/L	99	
6) Chloroethane	5.609	64	350032	50.80 ug/L	100	
7) Trichlorofluoromethane	6.022	101	710415	52.20 ug/L	100	
8) Ethyl ether	6.328	59	389952	44.10 ug/L	100	
9) Acetone	6.712	43	575203	184.35 ug/L	98	E
10) 1,1-Dichloroethylene	6.706	61	647104	51.54 ug/L	99	
11) Iodomethane	6.956	142	3317862	245.26 ug/L	99	
12) Acetonitrile	7.072	41	1414621	1105.93 ug/L	98	
13) Methyl acetate	7.096	43	1568627	223.53 ug/L	100	
14) Carbon disulfide	7.078	76	6782121	269.22 ug/L	100	
15) Methylene chloride	7.285	84	444394	45.02 ug/L	99	
16) tert-Butyl methyl ether	7.572	73	1116765	44.77 ug/L	100	
17) trans-1,2-Dichloroethy...	7.621	61	647122	50.50 ug/L	98	
18) Vinyl acetate	8.060	43	4892853	265.09 ug/L	95	
19) 1,1-Dichloroethane	8.102	63	794608	49.56 ug/L	99	
20) 2-Butanone	8.694	43	885711	224.35 ug/L	100	
21) cis-1,2-Dichloroethylene	8.742	61	717997	50.31 ug/L	98	
22) 2,2-Dichloropropane	8.767	77	663514	57.45 ug/L	100	
23) Bromochloromethane	9.017	128	214282	48.74 ug/L	99	
24) Chloroform	9.053	83	743740	49.82 ug/L	100	
25) 1,1,1-Trichloroethane	9.322	97	679434	54.23 ug/L	100	
26) Cyclohexane	9.407	56	886246	54.71 ug/L	100	
27) 1,1-Dichloropropene	9.480	75	607589	53.28 ug/L	98	
28) Carbon tetrachloride	9.517	117	621978	56.12 ug/L	99	
30) 1,2-Dichloroethane	9.712	62	575061	46.99 ug/L	100	
31) Benzene	9.724	78	1701935	48.71 ug/L	100	
32) Cyclohexene	9.834	67	874868	52.64 ug/L	100	
33) n-Butyl alcohol	10.078	56	1205934	4160.92 ug/L	100	
34) Trichloroethylene	10.364	95	439732	50.42 ug/L	99	
35) 1,2-Dichloropropane	10.614	63	455842	49.36 ug/L	100	
36) Methylcyclohexane	10.602	83	812308	53.53 ug/L	99	
37) Dibromomethane	10.748	93	235045	47.92 ug/L	100	
38) Bromodichloromethane	10.864	83	541037	52.32 ug/L	100	
39) 2-Chloroethylvinyl ether	11.090	63	1255275	221.97 ug/L	99	
40) cis-1,3-Dichloropropylene	11.315	75	672115	51.50 ug/L	99	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121809V6\
Data File : 6P502.D
Acq On : 18 Dec 2009 11:20 am
Operator : RXD1
InstName : VOA6
Sample : |W6VM091218-01|CCV|1|VOAF|1|VOA8260BS|
Misc : CCV 5mL N/A MIX[A] 1214-01A+1217-01
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 18 11:39:59 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
42)	4-Methyl-2-pentanone	11.413	58	774863	236.65	ug/L		98
44)	Toluene	11.699	91	1789612	48.16	ug/L		100
45)	trans-1,3-Dichloroprop...	11.858	75	620700	51.66	ug/L		100
46)	1,1,2-Trichloroethane	12.077	83	284077	46.47	ug/L		99
47)	2-Hexanone	12.260	43	1395919	232.51	ug/L		98
48)	1,3-Dichloropropane	12.272	76	606598	46.63	ug/L		97
49)	Tetrachloroethylene	12.291	164	381118	50.76	ug/L		99
50)	Dibromochloromethane	12.541	129	409873	53.25	ug/L		100
51)	1,2-Dibromoethane	12.705	107	352277	47.80	ug/L		100
52)	Chlorobenzene	13.187	112	1190397	49.54	ug/L		100
53)	1,1,1,2-Tetrachloroethane	13.242	131	429719	51.66	ug/L		99
54)	Ethylbenzene	13.254	91	2081990	51.10	ug/L		100
55)	m,p-Xylenes	13.364	106	1653059	101.44	ug/L		97
56)	o-Xylene	13.796	106	805044	50.33	ug/L		98
57)	Styrene	13.802	104	1331663	52.26	ug/L		99
59)	Bromoform	14.059	173	270486	54.33	ug/L		100
60)	Isopropylbenzene	14.156	105	2173906	50.65	ug/L		99
62)	1,1,2,2-Tetrachloroethane	14.436	83	451510	46.92	ug/L		98
63)	1,2,3-Trichloropropane	14.528	110	127660	47.17	ug/L	#	91
64)	Bromobenzene	14.565	156	528120	47.86	ug/L		99
65)	n-Propylbenzene	14.583	91	2563440	50.97	ug/L		100
66)	1,3,5-Trimethylbenzene	14.735	105	1853667	50.38	ug/L		100
67)	2-Chlorotoluene	14.729	126	542223	50.70	ug/L		99
68)	4-Chlorotoluene	14.833	91	1564076	50.51	ug/L		100
69)	tert-Butylbenzene	15.107	134	406321	49.64	ug/L	#	91
70)	1,2,4-Trimethylbenzene	15.150	105	1897790	48.96	ug/L		100
71)	sec-Butylbenzene	15.333	105	2503387	50.60	ug/L		99
72)	4-Isopropyltoluene	15.455	119	2052812	50.75	ug/L		99
73)	1,3-Dichlorobenzene	15.516	146	1037431	48.10	ug/L		100
74)	1,4-Dichlorobenzene	15.601	146	1056848	47.79	ug/L		99
75)	n-Butylbenzene	15.887	91	1998596	50.91	ug/L		100
76)	1,2-Dichlorobenzene	16.022	146	972933	46.53	ug/L		100
77)	1,2-Dibromo-3-chloropr...	16.881	157	84319	48.05	ug/L		98
78)	1,2,4-Trichlorobenzene	17.911	180	698087	44.39	ug/L		100
79)	Hexachlorobutadiene	18.076	225	463385	46.41	ug/L		99
80)	Naphthalene	18.283	128	1294812	40.97	ug/L		100
81)	1,2,3-Trichlorobenzene	18.619	180	576378	43.77	ug/L		100
83)	Chlorotrifluoroethylene	0.000		0	N.D.			
84)	2-Chloro-1,1,1-trifluo...	0.000		0	N.D.			
85)	Acrolein	0.000		0	N.D.			
86)	Trichlorotrifluoroethane	0.000		0	N.D.			
87)	Isopropyl Alcohol	6.779		0m	N.D.		d	
88)	Allyl chloride	7.072		0m	N.D.		d	
89)	tert-Butyl Alcohol	7.267		0m	N.D.		d	
90)	Acrylonitrile	7.572		0m	N.D.		d	
91)	Isopropyl ether	8.060		0m	N.D.		d	
92)	2-Chloro-1,3-butadiene	8.218		0m	N.D.		d	
93)	Ethyl tert-butyl ether	0.000		0	N.D.			
94)	Ethyl acetate	8.694		0m	N.D.		d	
95)	Propionitrile	8.700		0m	N.D.		d	
96)	Methacrylonitrile	0.000		0	N.D.			
97)	Tetrahydrofuran	9.059		0m	N.D.		d	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121809V6\
Data File : 6P502.D
Acq On : 18 Dec 2009 11:20 am
Operator : RXD1
InstName : VOA6
Sample : |W6VM091218-01|CCV|1|VOAF|1|VOA8260BS|
Misc : CCV 5mL N/A MIX[A] 1214-01A+1217-01
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 18 11:39:59 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
98)	Isobutyl alcohol	9.407		0m	N.D. d	
99)	Methyl tert-amyl ether	9.718		0m	N.D. d	
100)	Methyl methacrylate	10.602		0m	N.D. d	
101)	1,4-Dioxane	10.760		0m	N.D. d	
102)	2-Nitropropane	11.090		0m	N.D. d	
104)	Ethyl methacrylate	11.858		0m	N.D. d	
106)	1-Chlorohexane	0.000		0	N.D.	
107)	cis-1,4-Dichloro-2-butene	14.156		0m	N.D. d	
108)	Cyclohexanone	14.308		0m	N.D. d	
109)	trans-1,4-Dichloro-2-b...	14.491		0m	N.D. d	
110)	Pentachloroethane	15.180		0m	N.D. d	
111)	Benzyl chloride	15.717		0m	N.D. d	
112)	bis(2-Chloroisopropyl)...	16.113		0m	N.D. d	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121809V6\
Data File : 6P502.D
Acq On : 18 Dec 2009 11:20 am
Operator : RXD1
InstName : VOA6
Sample : |W6VM091218-01|CCV|1|VOAF|1|VOA8260BS|
Misc : CCV 5mL N/A MIX[A] 1214-01A+1217-01
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 18 11:39:59 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

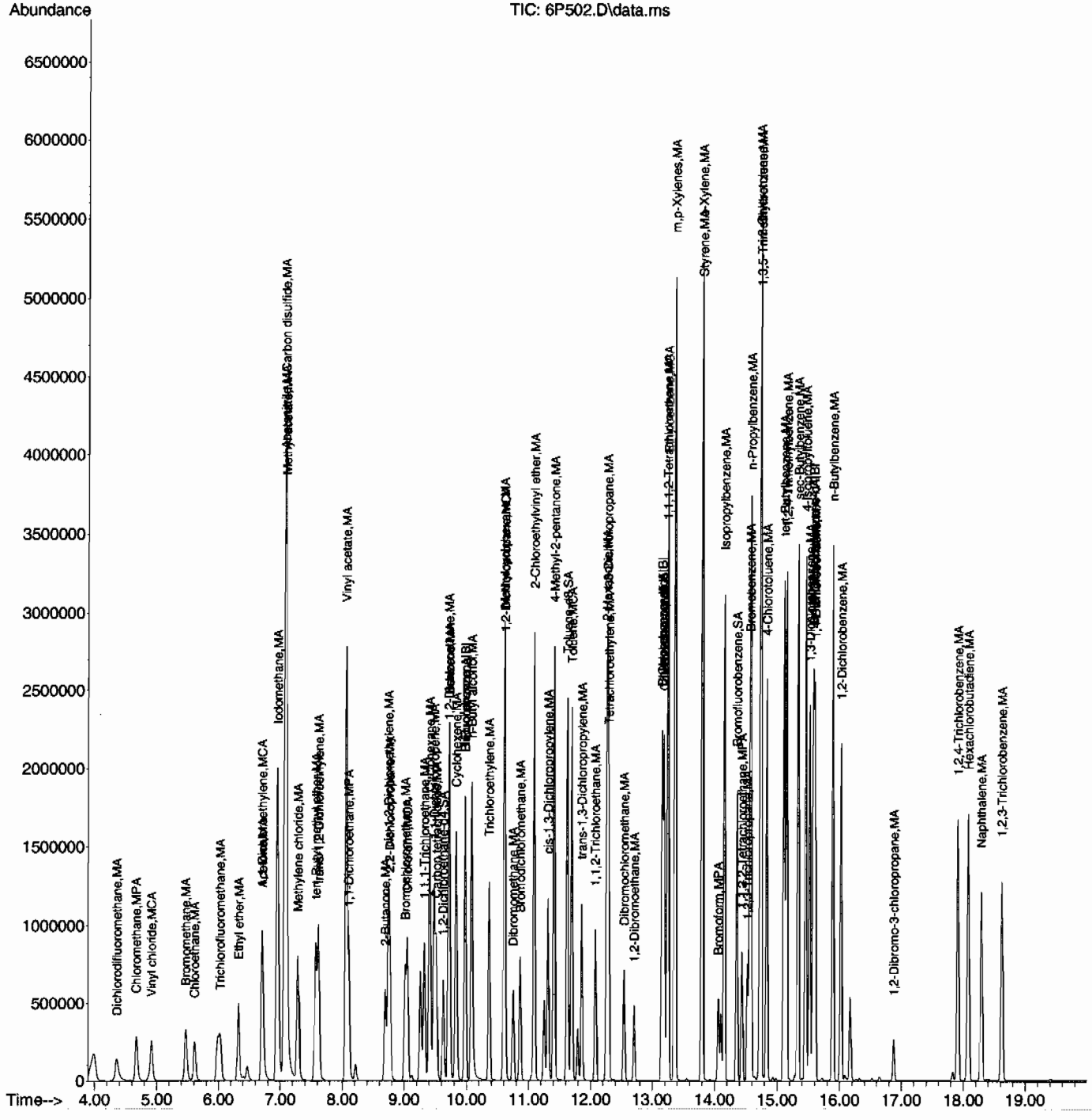

Continuing Calibration Summary

Client SDG: 10-899

Instrument ID: VOA6.I **Injection Date** 18-DEC-09 12:15

Data File: 121809V6\6P504.D **Init. Cal. Date(s)** 10-DEC-09 11:34 - 10-DEC-09 19:2

Lab Sample ID W6VM091218-03 **Quant Type** ISTD **Method:** VOA6-8260-121009.M

	Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
S	1,2-Dichloroethane-d4	0.295	0.28977		.01		-1.77288	30		Averaged
S	Toluene-d8	1.3863	1.33935		.01		-3.38671	30		Averaged
S	Bromofluorobenzene	0.9636	0.94476		.01		-1.95517	30		Averaged
	Acrolein	0.0365	0.03907		.01		7.0411	30		Averaged
	Trichlorotrifluoroethane	0.0934	0.11347		.01		21.48822	30		Averaged
	Allyl chloride	0.4371	0.47791		.01		9.33654	30		Averaged
	Acrylonitrile	0.0929	0.08841		.01		-4.83315	30		Averaged
	2-Chloro-1,3-butadiene	0.372	0.4322		.01		16.1828	30		Averaged
	Ethyl acetate	0.2653	0.23097		.01		-12.94007	40		Averaged
	Propionitrile	0.0361	0.03294		.01		-8.75346	30		Averaged
	Methacrylonitrile	0.1587	0.15065		.01		-5.07246	30		Averaged
	Tetrahydrofuran	0.0843	0.07698		.01		-8.68327	30		Averaged
	Isobutyl alcohol	0.0095	0.00885		.01		-6.84211	40		Averaged
	Methyl methacrylate	0.1518	0.14835		.01		-2.27273	30		Averaged
	1,4-Dioxane	0.0023	0.00219		.01		-4.78261	40		Averaged
	2-Nitropropane	250	247.33	250			-1.068	30		Linear
	Ethyl methacrylate	0.3914	0.39507		.01		0.93766	30		Averaged
	cis-1,4-Dichloro-2-butene	0.2353	0.24868		.01		5.68636	30		Averaged
	Cyclohexanone	0.0193	0.01476		.01		-23.52332	40		Averaged
	trans-1,4-Dichloro-2-butene	0.2261	0.23805		.01		5.28527	30		Averaged
	Pentachloroethane	0.3343	0.45895		.01		37.28687	30	*	Averaged
	Benzyl chloride	1.2936	1.31136		.01		1.37291	30		Averaged
	bis(2-Chloroisopropyl)ether	0.3796	0.35188		.01		-7.30242	30		Averaged

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121809V6\
Data File : 6P504.D
Acq On : 18 Dec 2009 12:15 pm
Operator : RXD1
InstName : VOA6
Sample : |W6VM091218-03|CCV|1|VOAF|1|VOA8260BS|
Misc : CCV 5mL N/A MIX[B] 1118-08C
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Dec 18 12:56:07 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Fluorobenzene	9.980	96	1730091	50.00 ug/L	0.00
41) Chlorobenzene-d5	13.156	117	1244711	50.00 ug/L	0.00
58) 1,4-Dichlorobenzene-d4	15.576	152	709109	50.00 ug/L	0.00
82) B Fluorobenzene	9.980	96	1729548	50.00 ug/L	0.00
103) B Chlorobenzene-d5	13.156	117	1244711	50.00 ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	15.576	152	709109	50.00 ug/L	0.00
System Monitoring Compounds					
29) 1,2-Dichloroethane-d4	9.626	65	501330	49.11 ug/L	0.00
43) Toluene-d8	11.626	98	1667098	48.31 ug/L	0.00
61) Bromofluorobenzene	14.357	95	669938	49.02 ug/L	0.00

Target Compounds				Qvalue
2) Dichlorodifluoromethane	0.000	0	N.D.	
3) Chloromethane	4.652	0m	N.D. d	
4) Vinyl chloride	4.884	0m	N.D. d	
5) Bromomethane	0.000	0	N.D.	
6) Chloroethane	0.000	0	N.D.	
7) Trichlorofluoromethane	0.000	0	N.D.	
8) Ethyl ether	0.000	0	N.D.	
9) Acetone	6.682	0m	N.D. d	
10) 1,1-Dichloroethylene	6.682	0m	N.D. d	
11) Iodomethane	6.950	0m	N.D. d	
12) Acetonitrile	7.139	0m	N.D. d	
13) Methyl acetate	7.103	0m	N.D. d	
14) Carbon disulfide	7.139	0m	N.D. d	
15) Methylene chloride	7.285	0m	N.D. d	
16) tert-Butyl methyl ether	7.572	0m	N.D. d	
17) trans-1,2-Dichloroethy...	0.000	0	N.D.	
18) Vinyl acetate	8.066	0m	N.D. d	
19) 1,1-Dichloroethane	8.212	0m	N.D. d	
20) 2-Butanone	8.700	0m	N.D. d	
21) cis-1,2-Dichloroethylene	8.700	0m	N.D. d	
22) 2,2-Dichloropropane	0.000	0	N.D.	
23) Bromochloromethane	0.000	0	N.D.	
24) Chloroform	9.059	0m	N.D. d	
25) 1,1,1-Trichloroethane	0.000	0	N.D.	
26) Cyclohexane	9.389	0m	N.D. d	
27) 1,1-Dichloropropene	0.000	0	N.D.	
28) Carbon tetrachloride	0.000	0	N.D.	
30) 1,2-Dichloroethane	0.000	0	N.D.	
31) Benzene	9.730	0m	N.D. d	
32) Cyclohexene	0.000	0	N.D.	
33) n-Butyl alcohol	10.090	0m	N.D. d	
34) Trichloroethylene	10.364	0m	N.D. d	
35) 1,2-Dichloropropane	0.000	0	N.D.	
36) Methylcyclohexane	10.590	0m	N.D. d	
37) Dibromomethane	0.000	0	N.D.	
38) Bromodichloromethane	0.000	0	N.D.	
39) 2-Chloroethylvinyl ether	11.090	0m	N.D. d	
40) cis-1,3-Dichloropropylene	11.309	0m	N.D. d	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121809V6\
Data File : 6P504.D
Acq On : 18 Dec 2009 12:15 pm
Operator : RXD1
InstName : VOA6
Sample : |W6VM091218-03|CCV|1|VOAF|1|VOA8260BS|
Misc : CCV 5mL N/A MIX[B] 1118-08C
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Dec 18 12:56:07 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
42)	4-Methyl-2-pentanone	11.413		0m	N.D. d	
44)	Toluene	11.693		0m	N.D. d	
45)	trans-1,3-Dichloroprop...	11.858		0m	N.D. d	
46)	1,1,2-Trichloroethane	0.000		0	N.D.	
47)	2-Hexanone	12.266		0m	N.D. d	
48)	1,3-Dichloropropane	12.315		0m	N.D. d	
49)	Tetrachloroethylene	12.291		0m	N.D. d	
50)	Dibromochloromethane	0.000		0	N.D.	
51)	1,2-Dibromoethane	12.705		0m	N.D. d	
52)	Chlorobenzene	13.187		0m	N.D. d	
53)	1,1,1,2-Tetrachloroethane	13.248		0m	N.D. d	
54)	Ethylbenzene	13.254		0m	N.D. d	
55)	m,p-Xylenes	13.363		0m	N.D. d	
56)	o-Xylene	13.796		0m	N.D. d	
57)	Styrene	13.802		0m	N.D. d	
59)	Bromoform	14.058		0m	N.D. d	
60)	Isopropylbenzene	14.156		0m	N.D. d	
62)	1,1,2,2-Tetrachloroethane	14.443		0m	N.D. d	
63)	1,2,3-Trichloropropane	14.528		0m	N.D. d	
64)	Bromobenzene	14.564		0m	N.D. d	
65)	n-Propylbenzene	14.583		0m	N.D. d	
66)	1,3,5-Trimethylbenzene	14.741		0m	N.D. d	
67)	2-Chlorotoluene	14.735		0m	N.D. d	
68)	4-Chlorotoluene	14.833		0m	N.D. d	
69)	tert-Butylbenzene	15.113		0m	N.D. d	
70)	1,2,4-Trimethylbenzene	15.150		0m	N.D. d	
71)	sec-Butylbenzene	15.333		0m	N.D. d	
72)	4-Isopropyltoluene	15.455		0m	N.D. d	
73)	1,3-Dichlorobenzene	15.515		0m	N.D. d	
74)	1,4-Dichlorobenzene	15.607		0m	N.D. d	
75)	n-Butylbenzene	15.887		0m	N.D. d	
76)	1,2-Dichlorobenzene	16.015		0m	N.D. d	
77)	1,2-Dibromo-3-chloropr...	16.875		0m	N.D. d	
78)	1,2,4-Trichlorobenzene	17.911		0m	N.D. d	
79)	Hexachlorobutadiene	18.076		0m	N.D. d	
80)	Naphthalene	18.289		0m	N.D. d	
81)	1,2,3-Trichlorobenzene	18.619		0m	N.D. d	
83)	Chlorotrifluoroethylene	0.000		0	N.D.	
84)	2-Chloro-1,1,1-trifluo...	0.000		0	N.D.	
85)	Acrolein	6.536	56	337879	267.81 ug/L	98
86)	Trichlorotrifluoroethane	6.676	85	981231	303.71 ug/L	99
87)	Isopropyl Alcohol	0.000		0m	N.D. d	
88)	Allyl chloride	7.139	41	4132874	273.32 ug/L	99
89)	tert-Butyl Alcohol	0.000		0	N.D.	
90)	Acrylonitrile	7.541	53	764514	237.96 ug/L	100
91)	Isopropyl ether	0.000		0	N.D.	
92)	2-Chloro-1,3-butadiene	8.206	53	747503	58.09 ug/L	99
93)	Ethyl tert-butyl ether	0.000		0	N.D.	
94)	Ethyl acetate	8.700	43	1997350	217.62 ug/L	100
95)	Propionitrile	8.779	54	284878	228.18 ug/L	99
96)	Methacrylonitrile	8.950	41	1302751	237.25 ug/L	99
97)	Tetrahydrofuran	9.066	42	665712	228.33 ug/L	99

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121809V6\
Data File : 6P504.D
Acq On : 18 Dec 2009 12:15 pm
Operator : RXD1
InstName : VOA6
Sample : |W6VM091218-03|CCV|1|VOAF|1|VOA8260BS|
Misc : CCV 5mL N/A MIX[B] 1118-08C
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Dec 18 12:56:07 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
98)	Isobutyl alcohol	9.389	41	765553	2322.43 ug/L	99
99)	Methyl tert-amyl ether	9.730	73	1307	N.D.	
100)	Methyl methacrylate	10.590	69	1282927	244.37 ug/L	99
101)	1,4-Dioxane	10.699	88	189467	2335.70 ug/L	98
102)	2-Nitropropane	11.071	43	656825	247.33 ug/L	99
104)	Ethyl methacrylate	11.858	69	2458749	252.34 ug/L	100
106)	1-Chlorohexane	0.000		0	N.D.	
107)	cis-1,4-Dichloro-2-butene	14.205	53	881700	264.18 ug/L	98
108)	Cyclohexanone	14.315	42	261719	958.55 ug/L	98
109)	trans-1,4-Dichloro-2-b...	14.491	53	844023	263.26 ug/L	99
110)	Pentachloroethane	15.180	167	1627237	343.22 ug/L	99
111)	Benzyl chloride	15.717	91	4649485	253.44 ug/L	100
112)	bis(2-Chloroisopropyl)...	16.113	45	1247610	231.76 ug/L	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121809V6\
Data File : 6P504.D
Acq On : 18 Dec 2009 12:15 pm
Operator : RXD1
InstName : VOA6
Sample : |W6VM091218-03|CCV|1|VOAF|1|VOA8260BS|
Misc : CCV 5mL N/A MIX[B] 1118-08C
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Dec 18 12:56:07 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

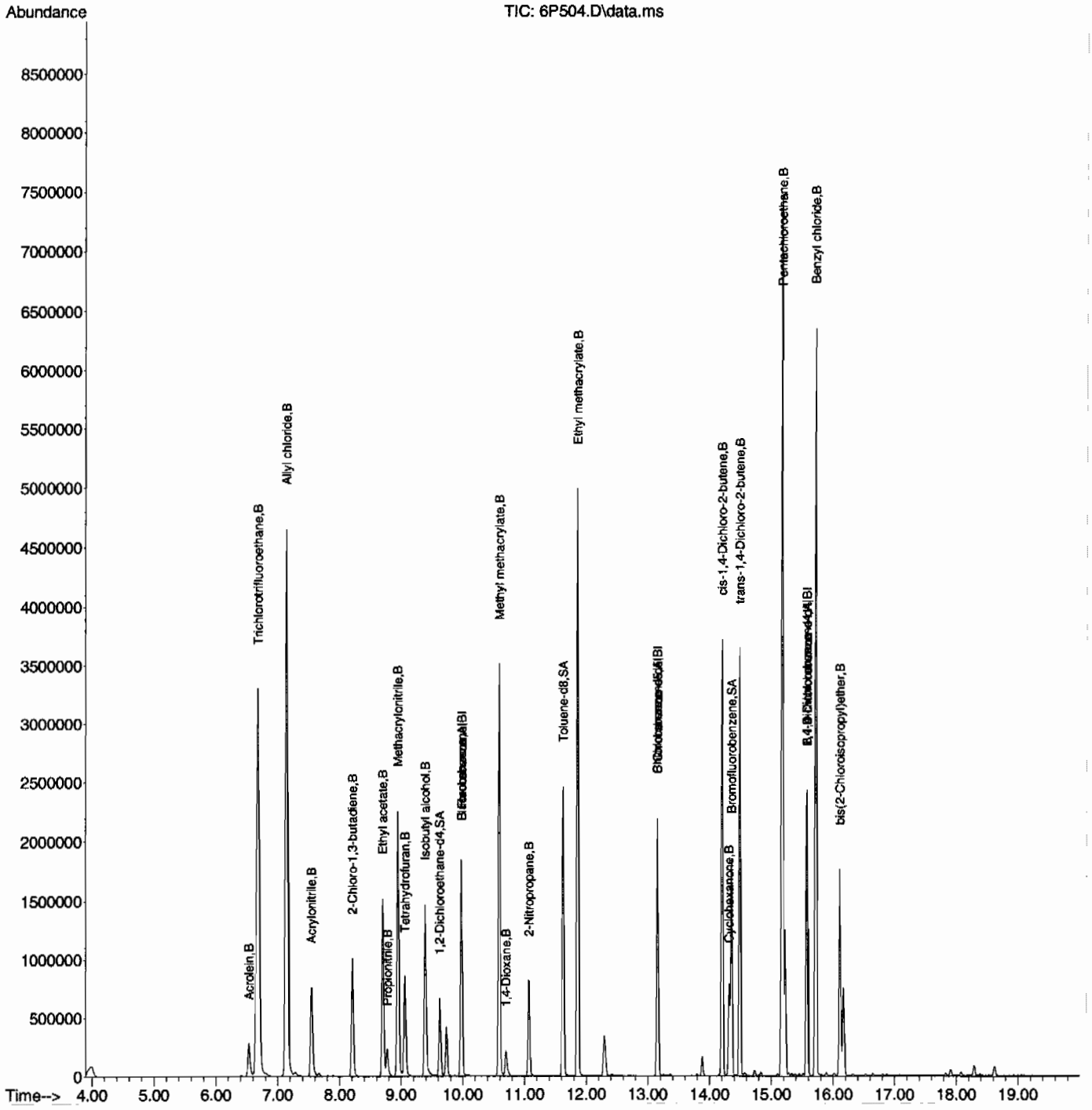

Quality Control Data

Tune Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121009V6\
Data File : 6O404.D
Acq On : 10 Dec 2009 10:12 am
Operator : RXD1
Sample : |UVM091020-02|BFB|1|VOAF|1|VOA8260BLF|
Misc : GEL 5mL N/A BFB
ALS Vial : 4 Sample Multiplier: 1

Integration File: default.P

Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Title : Volatile Organics 8260B SubList :
Last Update : Mon Dec 14 12:44:52 2009

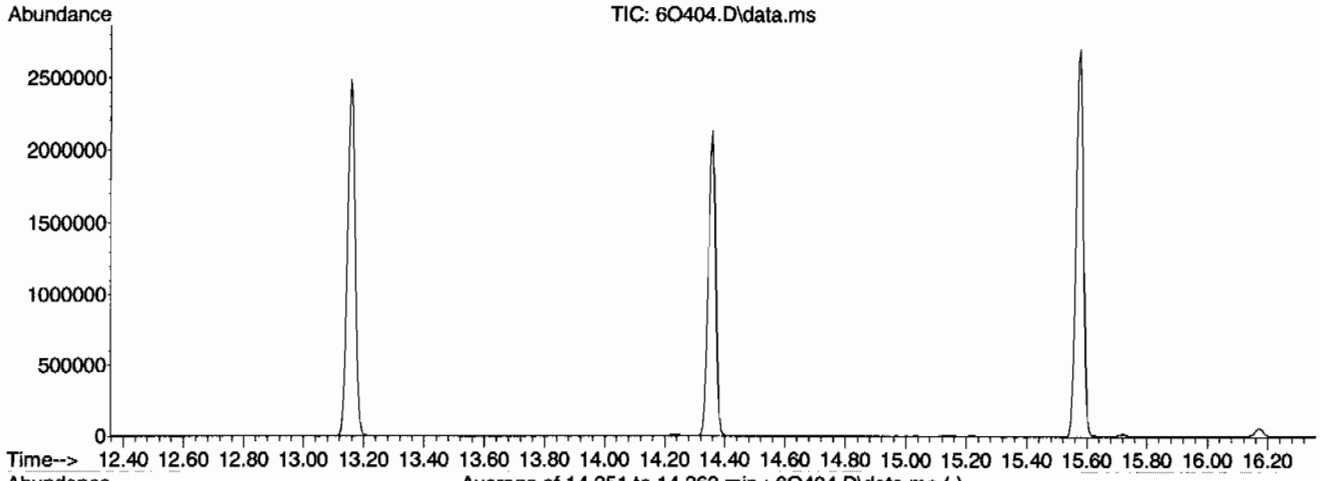

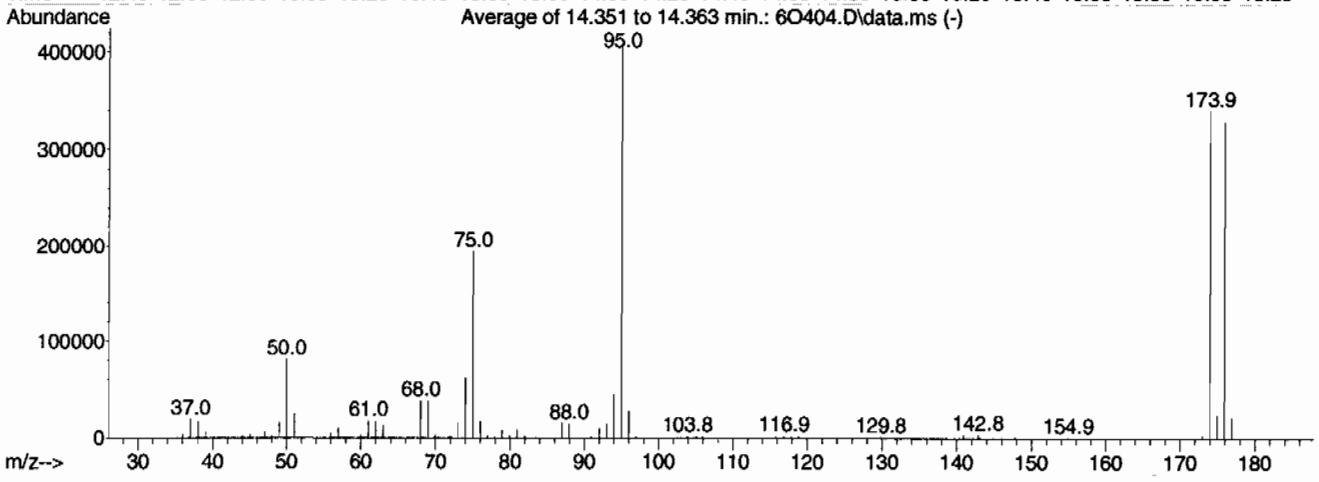

AutoFind: Scans 1558, 1559, 1560; Background Corrected with Scan 1550

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	20.0	80893	PASS
75	95	30	60	48.2	194667	PASS
95	95	100	100	100.0	404032	PASS
96	95	5	9	6.7	27179	PASS
173	174	0.00	2	0.8	2837	PASS
174	95	50	100	84.2	340352	PASS
175	174	5	9	7.2	24547	PASS
176	174	95	101	96.8	329472	PASS
177	176	5	9	6.6	21595	PASS

Tune Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709V6\
Data File : 6P401.D
Acq On : 17 Dec 2009 10:46 am
Operator : RXD1
Sample : |UVM091020-02|BFB|1|VOAF|1|
Misc : GEL 5mL N/A BFB
ALS Vial : 1 Sample Multiplier: 1

Integration File: default.P

Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Title : Volatile Organics 8260B SubList :
Last Update : Mon Dec 14 12:44:52 2009

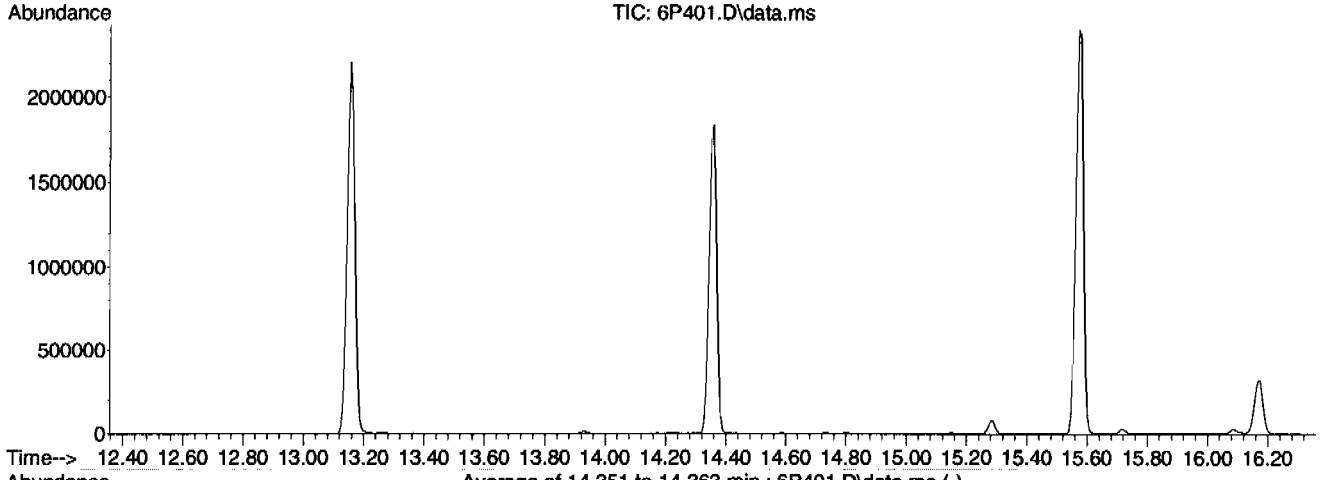

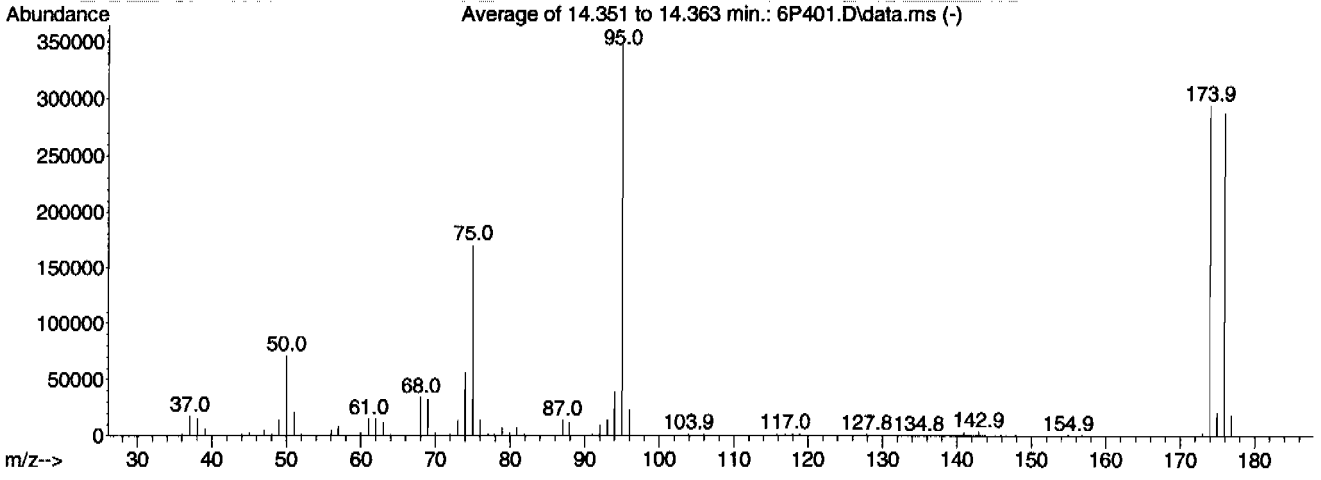

AutoFind: Scans 1558, 1559, 1560; Background Corrected with Scan 1549

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	20.5	71136	PASS
75	95	30	60	49.1	170368	PASS
95	95	100	100	100.0	346859	PASS
96	95	5	9	6.5	22507	PASS
173	174	0.00	2	0.8	2479	PASS
174	95	50	100	84.9	294528	PASS
175	174	5	9	7.1	21003	PASS
176	174	95	101	97.8	287957	PASS
177	176	5	9	6.4	18317	PASS

Tune Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121809V6\
Data File : 6P501.D
Acq On : 18 Dec 2009 10:52 am
Operator : RXD1
Sample : |UVM091020-02|BFB|1|VOAF|1|
Misc : GEL 5mL N/A BFB
ALS Vial : 1 Sample Multiplier: 1

Integration File: default.P

Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Title : Volatile Organics 8260B SubList :
Last Update : Mon Dec 14 12:44:52 2009

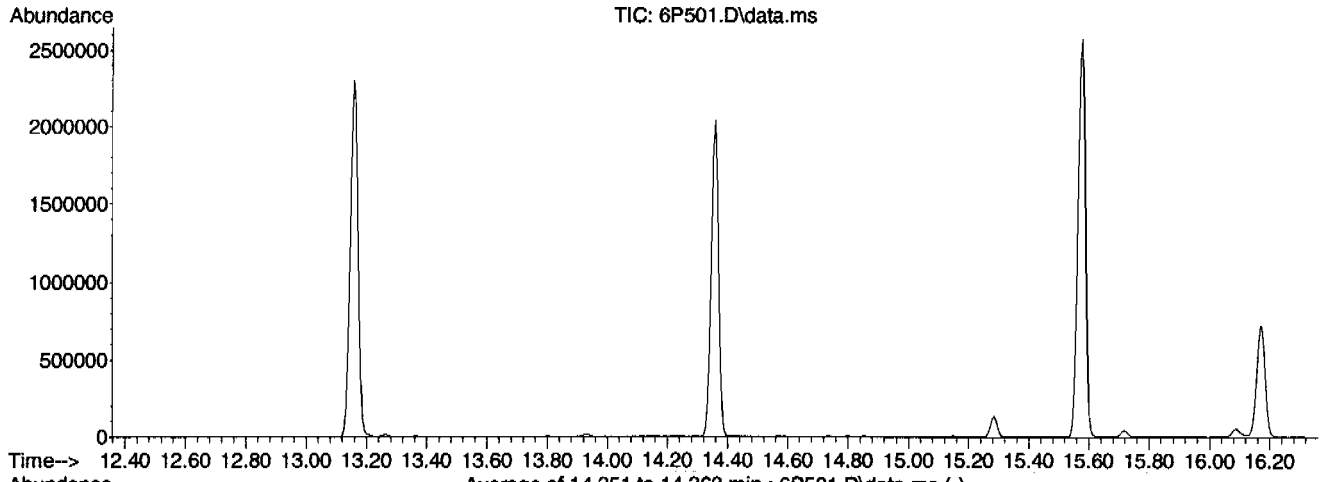

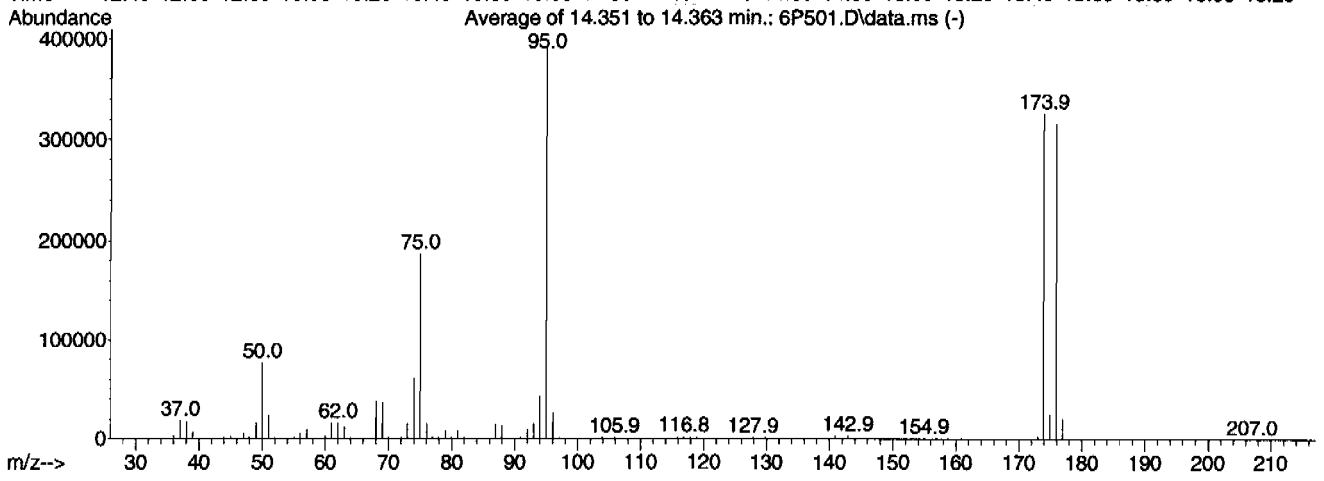

AutoFind: Scans 1558, 1559, 1560; Background Corrected with Scan 1549

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	19.8	77168	PASS
75	95	30	60	48.1	187413	PASS
95	95	100	100	100.0	390016	PASS
96	95	5	9	6.6	25752	PASS
173	174	0.00	2	0.8	2753	PASS
174	95	50	100	83.5	325675	PASS
175	174	5	9	7.3	23920	PASS
176	174	95	101	97.1	316181	PASS
177	176	5	9	6.4	20123	PASS

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-899**			**Matrix:**	**SOIL**
Lab Sample ID:	**1201998922**				
Client Sample:	**QC for batch 934286**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 934286**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**934291**	**Inst:**	**VOA6.I**	**Dilution:**	**1**
Run Date:	**12/17/2009 13:05**	**Analyst:**	**RXD1**	**Purge Vol:**	**5 mL**
Prep Date:	**12/17/2009 09:26**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**121709V6\6P406BL2.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/kg	0.340	1.00
74-87-3	Chloromethane	U	1.00	ug/kg	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/kg	0.300	1.00
74-83-9	Bromomethane	U	1.00	ug/kg	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/kg	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/kg	0.300	1.00
67-64-1	Acetone	U	5.00	ug/kg	1.66	5.00
75-35-4	1,1-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/kg	1.60	5.00
75-09-2	Methylene chloride	U	5.00	ug/kg	2.00	5.00
75-15-0	Carbon disulfide	U	5.00	ug/kg	1.25	5.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/kg	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/kg	1.50	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/kg	0.300	1.00
74-97-5	Bromochloromethane	U	1.00	ug/kg	0.330	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/kg	0.300	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/kg	0.300	1.00
56-23-5	Carbon tetrachloride	U	1.00	ug/kg	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/kg	0.300	1.00
71-43-2	Benzene	U	1.00	ug/kg	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/kg	0.330	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/kg	0.300	1.00
74-95-3	Dibromomethane	U	1.00	ug/kg	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/kg	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
108-88-3	Toluene	U	1.00	ug/kg	0.300	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/kg	0.300	1.00
591-78-6	2-Hexanone	U	5.00	ug/kg	1.50	5.00
142-28-9	1,3-Dichloropropane	U	1.00	ug/kg	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/kg	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/kg	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/kg	0.300	1.00
108-90-7	Chlorobenzene	U	1.00	ug/kg	0.300	1.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-899**			**Matrix:**	**SOIL**
Lab Sample ID:	**1201998922**				
Client Sample:	**QC for batch 934286**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 934286**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**934291**	**Inst:**	**VOA6.I**	**Dilution:**	**1**
Run Date:	**12/17/2009 13:05**	**Analyst:**	**RXD1**	**Purge Vol:**	**5 mL**
Prep Date:	**12/17/2009 09:26**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**121709V6\6P406BL2.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.00	ug/kg	0.300	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/kg	0.300	2.00
95-47-6	o-Xylene	U	1.00	ug/kg	0.300	1.00
100-42-5	Styrene	U	1.00	ug/kg	0.300	1.00
75-25-2	Bromoform	U	1.00	ug/kg	0.300	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/kg	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/kg	0.300	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/kg	0.300	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/kg	0.300	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/kg	0.300	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/kg	0.300	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/kg	0.300	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/kg	0.300	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/kg	0.300	1.00
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.00	ug/kg	1.60	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown siloxane	16.17	13.2	ug/kg	0	J

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709V6\
Data File : 6P406BL2.D
Acq On : 17 Dec 2009 1:05 pm
Operator : RXD1
InstName : VOA6
Sample : |1201998922|934291|1|VOAF|1|VOA8260BS|
Misc : BLANK 5g N/A SOIL
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Dec 17 14:10:31 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	9.974	96	1745039	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.156	117	1296481	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	15.576	152	729399	50.00	ug/L	0.00
82) B Fluorobenzene	9.974	96	1744687	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.156	117	1296481	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	15.576	152	729399	50.00	ug/L	0.00
System Monitoring Compounds						
29) 1,2-Dichloroethane-d4	9.626	65	517754	50.29	ug/L	0.00
Spiked Amount 50.000	Range 68 - 131		Recovery = 100.58%			
43) Toluene-d8	11.626	98	1731455	48.17	ug/L	0.00
Spiked Amount 50.000	Range 75 - 129		Recovery = 96.34%			
61) Bromofluorobenzene	14.357	95	710666	50.56	ug/L	0.00
Spiked Amount 50.000	Range 68 - 133		Recovery = 101.12%			

Target Compounds				Qvalue
2) Dichlorodifluoromethane	0.000		0	N.D.
3) Chloromethane	4.662	50	891	N.D.
4) Vinyl chloride	4.894	62	555	N.D.
5) Bromomethane	0.000		0	N.D.
6) Chloroethane	0.000		0	N.D.
7) Trichlorofluoromethane	0.000		0	N.D.
8) Ethyl ether	0.000		0	N.D.
9) Acetone	6.706	43	3945	N.D.
10) 1,1-Dichloroethylene	0.000		0	N.D.
11) Iodomethane	0.000		0	N.D.
12) Acetonitrile	7.127	41	1559	N.D.
13) Methyl acetate	0.000		0	N.D.
14) Carbon disulfide	7.072	76	620	N.D.
15) Methylene chloride	7.285	84	7818	N.D.
16) tert-Butyl methyl ether	0.000		0	N.D.
17) trans-1,2-Dichloroethy...	0.000		0	N.D.
18) Vinyl acetate	0.000		0	N.D.
19) 1,1-Dichloroethane	0.000		0	N.D.
20) 2-Butanone	8.706	43	4347	N.D.
21) cis-1,2-Dichloroethylene	0.000		0	N.D.
22) 2,2-Dichloropropane	0.000		0	N.D.
23) Bromochloromethane	0.000		0	N.D.
24) Chloroform	0.000		0	N.D.
25) 1,1,1-Trichloroethane	0.000		0	N.D.
26) Cyclohexane	0.000		0	N.D.
27) 1,1-Dichloropropene	0.000		0	N.D.
28) Carbon tetrachloride	0.000		0	N.D.
30) 1,2-Dichloroethane	0.000		0	N.D.
31) Benzene	0.000		0	N.D.
32) Cyclohexene	0.000		0	N.D.
33) n-Butyl alcohol	0.000		0	N.D.
34) Trichloroethylene	0.000		0	N.D.
35) 1,2-Dichloropropane	0.000		0	N.D.
36) Methylcyclohexane	0.000		0	N.D.
37) Dibromomethane	0.000		0	N.D.

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709V6\
Data File : 6P406BL2.D
Acq On : 17 Dec 2009 1:05 pm
Operator : RXD1
InstName : VOA6
Sample : |1201998922|934291|1|VOAF|1|VOA8260BS|
Misc : BLANK 5g N/A SOIL
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Dec 17 14:10:31 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
38)	Bromodichloromethane	0.000		0	N.D.	
39)	2-Chloroethylvinyl ether	0.000		0	N.D.	
40)	cis-1,3-Dichloropropylene	0.000		0	N.D.	
42)	4-Methyl-2-pentanone	0.000		0	N.D.	
44)	Toluene	11.693	91	640	N.D.	
45)	trans-1,3-Dichloroprop...	0.000		0	N.D.	
46)	1,1,2-Trichloroethane	0.000		0	N.D.	
47)	2-Hexanone	12.260	43	899	N.D.	
48)	1,3-Dichloropropane	0.000		0	N.D.	
49)	Tetrachloroethylene	12.284	164	188	N.D.	
50)	Dibromochloromethane	0.000		0	N.D.	
51)	1,2-Dibromoethane	0.000		0	N.D.	
52)	Chlorobenzene	0.000		0	N.D.	
53)	1,1,1,2-Tetrachloroethane	0.000		0	N.D.	
54)	Ethylbenzene	13.254	91	490	N.D.	
55)	m,p-Xylenes	13.363	106	255	N.D.	
56)	o-Xylene	0.000		0	N.D.	
57)	Styrene	13.808	104	514	N.D.	
59)	Bromoform	0.000		0	N.D.	
60)	Isopropylbenzene	14.150	105	1043	N.D.	
62)	1,1,2,2-Tetrachloroethane	0.000		0	N.D.	
63)	1,2,3-Trichloropropane	0.000		0	N.D.	
64)	Bromobenzene	0.000		0	N.D.	
65)	n-Propylbenzene	14.577	91	2861	N.D.	
66)	1,3,5-Trimethylbenzene	14.735	105	1644	N.D.	
67)	2-Chlorotoluene	0.000		0	N.D.	
68)	4-Chlorotoluene	14.839	91	1448	N.D.	
69)	tert-Butylbenzene	15.180	134	653	N.D.	
70)	1,2,4-Trimethylbenzene	15.150	105	3394	N.D.	
71)	sec-Butylbenzene	15.333	105	2614	N.D.	
72)	4-Isopropyltoluene	15.454	119	1684	N.D.	
73)	1,3-Dichlorobenzene	15.522	146	454	N.D.	
74)	1,4-Dichlorobenzene	15.595	146	1370	N.D.	
75)	n-Butylbenzene	15.881	91	1664	N.D.	
76)	1,2-Dichlorobenzene	16.015	146	451	N.D.	
77)	1,2-Dibromo-3-chloropr...	0.000		0	N.D.	
78)	1,2,4-Trichlorobenzene	17.905	180	646	N.D.	
79)	Hexachlorobutadiene	0.000		0	N.D.	
80)	Naphthalene	18.289	128	4127	N.D.	
81)	1,2,3-Trichlorobenzene	18.612	180	1768	N.D.	
83)	Chlorotrifluoroethylene	0.000		0	N.D.	
84)	2-Chloro-1,1,1-trifluo...	0.000		0	N.D.	
85)	Acrolein	0.000		0	N.D.	
86)	Trichlorotrifluoroethane	0.000		0	N.D.	
87)	Isopropyl Alcohol	0.000		0	N.D.	
88)	Allyl chloride	7.127	41	1559	N.D.	
89)	tert-Butyl Alcohol	0.000		0	N.D.	
90)	Acrylonitrile	7.541	53	401	N.D.	
91)	Isopropyl ether	0.000		0	N.D.	
92)	2-Chloro-1,3-butadiene	0.000		0	N.D.	
93)	Ethyl tert-butyl ether	0.000		0	N.D.	
94)	Ethyl acetate	8.706	43	4347	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709V6\
Data File : 6P406BL2.D
Acq On : 17 Dec 2009 1:05 pm
Operator : RXD1
InstName : VOA6
Sample : |1201998922|934291|1|VOAF|1|VOA8260BS|
Misc : BLANK 5g N/A SOIL
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Dec 17 14:10:31 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
95)	Propionitrile	0.000		0	N.D.	
96)	Methacrylonitrile	8.956	41	1644	N.D.	
97)	Tetrahydrofuran	9.053	42	441	N.D.	
98)	Isobutyl alcohol	0.000		0m	N.D. d	
99)	Methyl tert-amyl ether	0.000		0	N.D.	
100)	Methyl methacrylate	10.596	69	1817	N.D.	
101)	1,4-Dioxane	0.000		0	N.D.	
102)	2-Nitropropane	0.000		0m	N.D. d	
104)	Ethyl methacrylate	11.864	69	3927	N.D.	
106)	1-Chlorohexane	0.000		0	N.D.	
107)	cis-1,4-Dichloro-2-butene	14.205	53	2866	N.D.	
108)	Cyclohexanone	14.314	42	1211	N.D.	
109)	trans-1,4-Dichloro-2-b...	14.491	53	4947	1.50 ug/L	73
110)	Pentachloroethane	15.180	167	5658	1.16 ug/L	77
111)	Benzyl chloride	15.717	91	41224	2.18 ug/L	97
112)	bis(2-Chloroisopropyl)...	16.113	45	18841	3.40 ug/L	92

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709V6\
Data File : 6P406BL2.D
Acq On : 17 Dec 2009 1:05 pm
Operator : RXD1
InstName : VOA6
Sample : |1201998922|934291|1|VOAF|1|VOA8260BS|
Misc : BLANK 5g N/A SOIL
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Dec 17 14:10:31 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

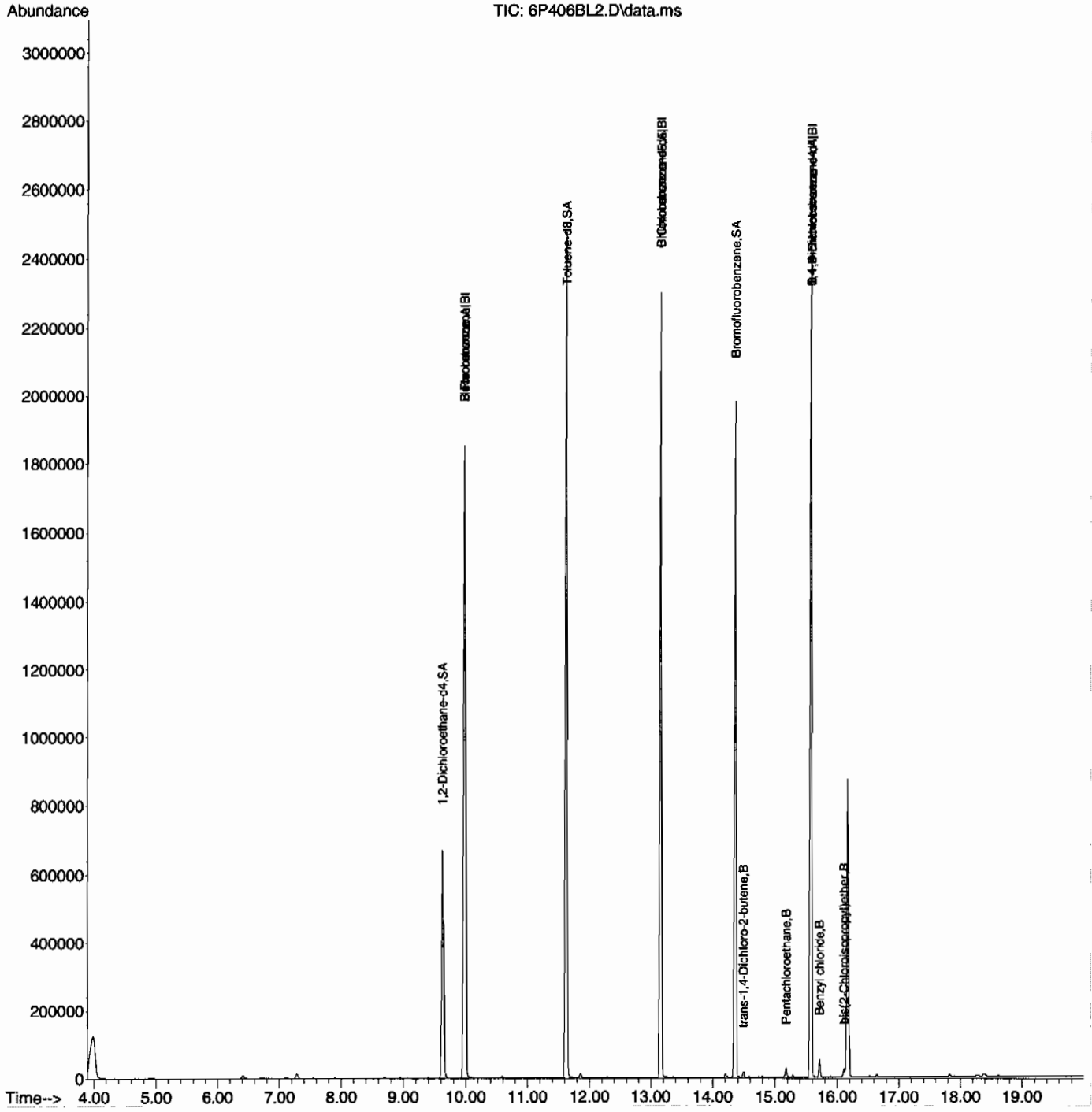

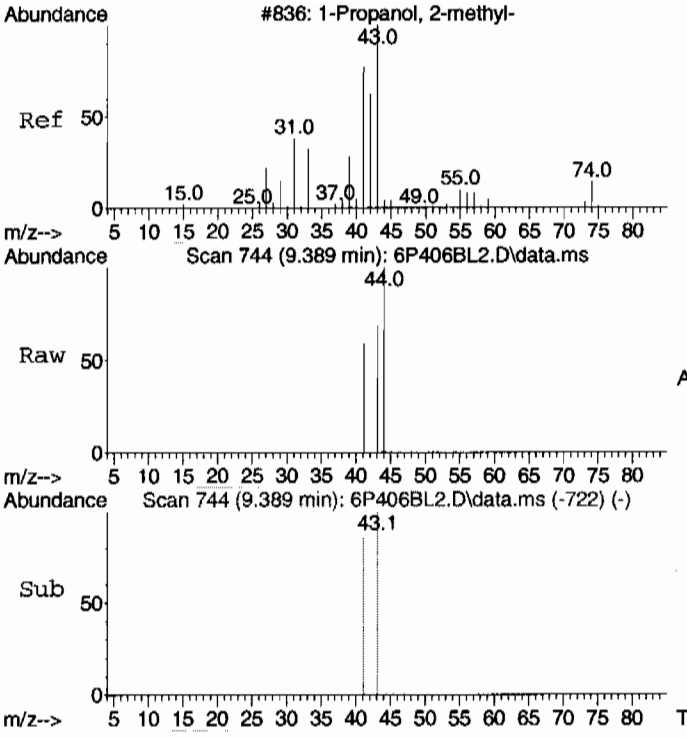

#98 BEFORE analyst DELETION
Isobutyl alcohol
Concen: 1.34 ug/L
RT: 9.389 min Scan# 744
Delta R.T. 0.001 min
Lab File: 6P406BL2.D
Acq: 17 Dec 2009 1:05 pm

Tgt Ion: 41 Resp: 444

Ion	Ratio	Lower	Upper
41	100		
43	329.1	111.2	171.2#

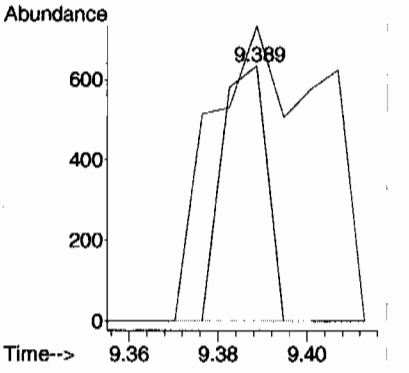

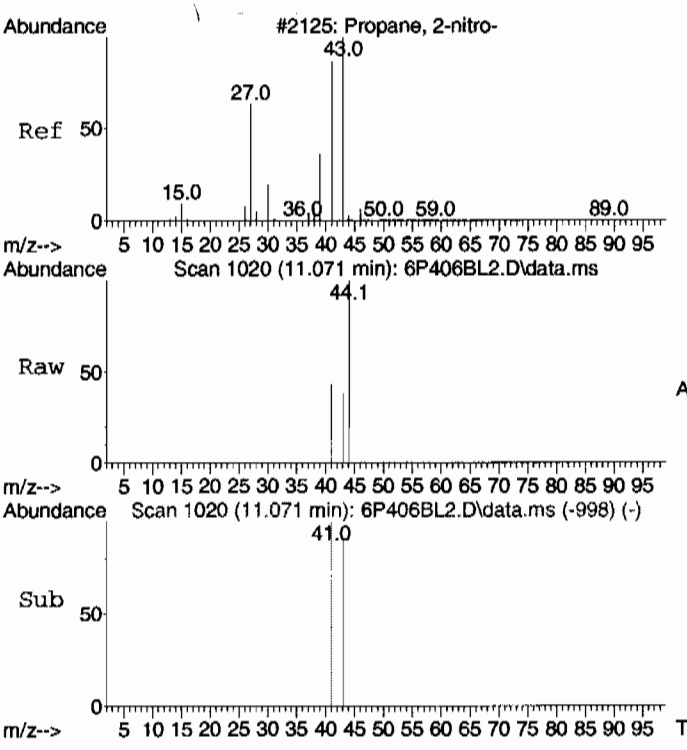

#102 BEFORE analyst DELETION
2-Nitropropane
Concen: 3.81 ug/L
RT: 11.071 min Scan# 1020
Delta R.T. 0.000 min
Lab File: 6P406BL2.D
Acq: 17 Dec 2009 1:05 pm

Tgt Ion: 43 Resp: 200

Ion	Ratio	Lower	Upper
43	100		
41	111.0	52.2	112.2

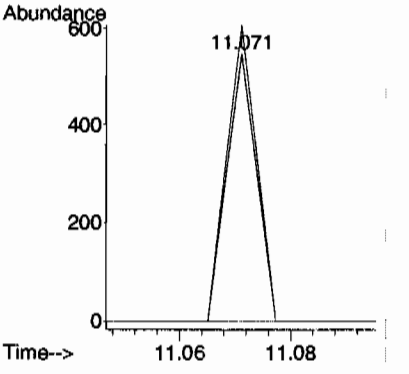

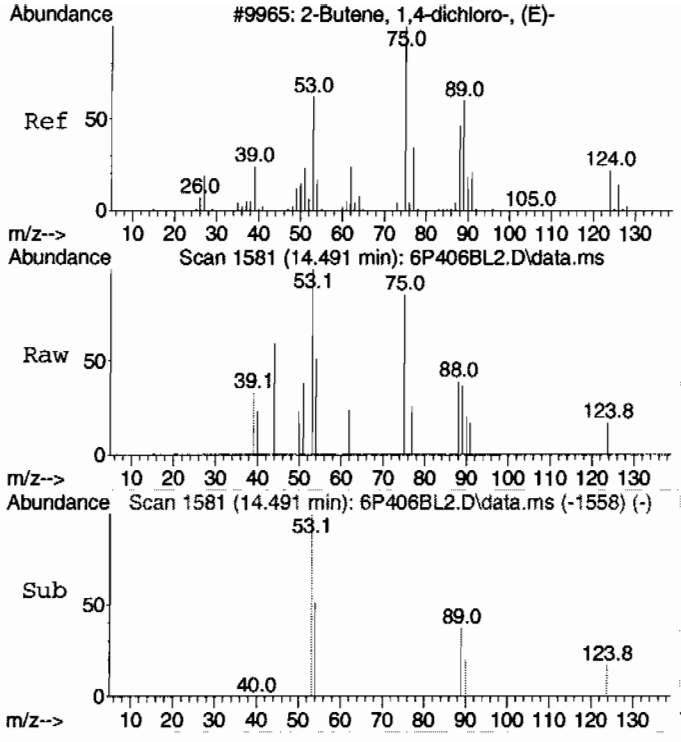

#109
trans-1,4-Dichloro-2-butene
Concen: 1.50 ug/L
RT: 14.491 min Scan# 1581
Delta R.T. 0.000 min
Lab File: 6P406BL2.D
Acq: 17 Dec 2009 1:05 pm

Tgt Ion: 53 Resp: 4947

Ion	Ratio	Lower	Upper
53	100		
88	31.2	19.8	79.8
75	91.8	91.6	151.6

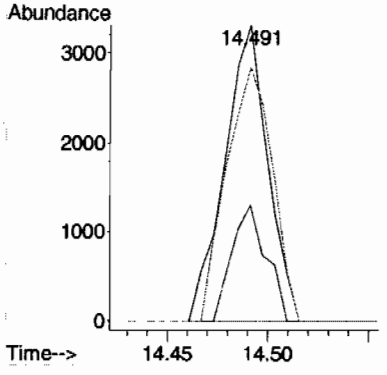

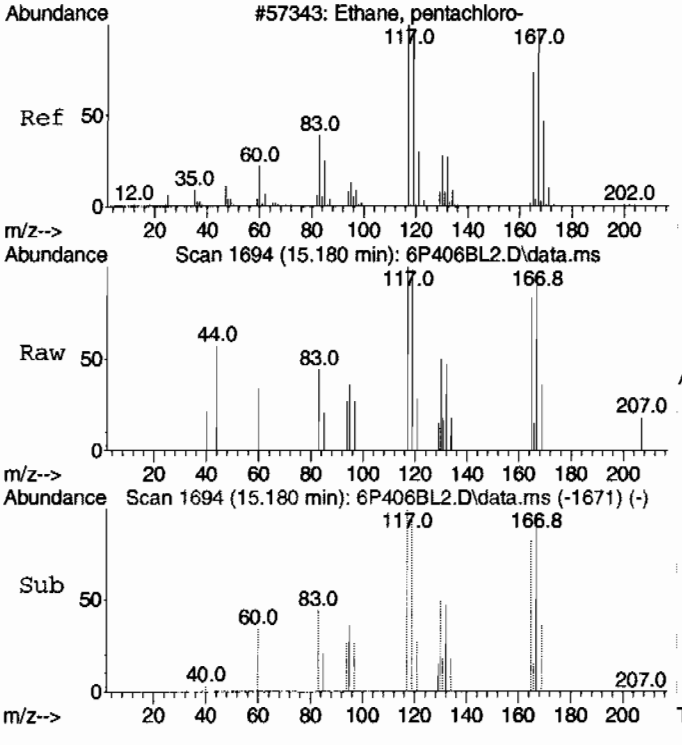

#110
Pentachloroethane
Concen: 1.16 ug/L
RT: 15.180 min Scan# 1694
Delta R.T. 0.000 min
Lab File: 6P406BL2.D
Acq: 17 Dec 2009 1:05 pm

Tgt Ion:167 Resp: 5658

Ion	Ratio	Lower	Upper
167	100		
130	57.8	10.0	70.0
132	48.0	7.5	67.5

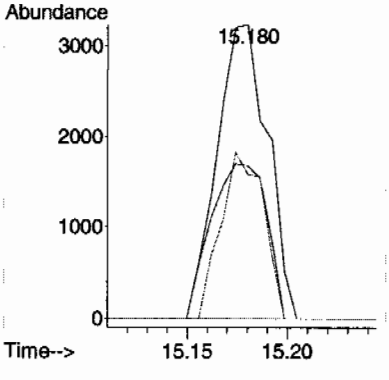

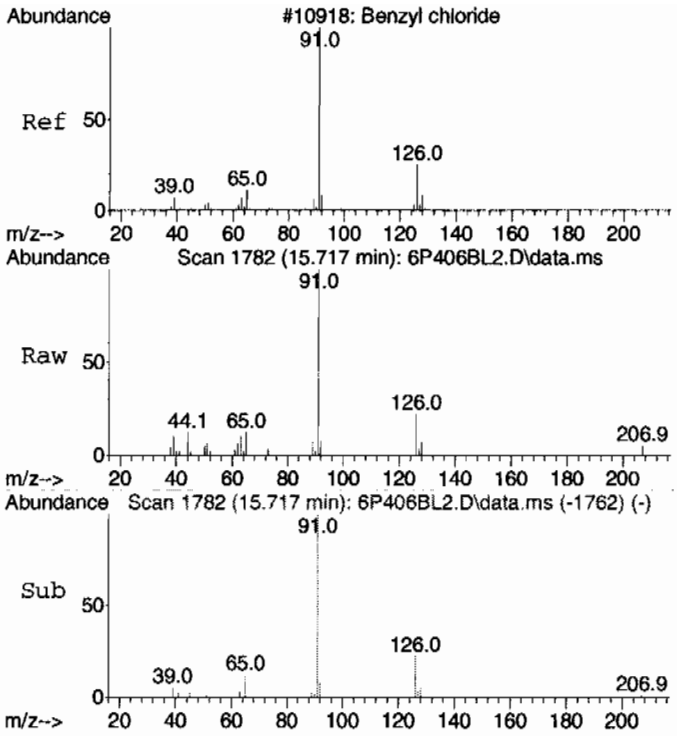

#111
Benzyl chloride
Concen: 2.18 ug/L
RT: 15.717 min Scan# 1782
Delta R.T. 0.001 min
Lab File: 6P406BL2.D
Acq: 17 Dec 2009 1:05 pm

Tgt Ion: 91 Resp: 41224

Ion	Ratio	Lower	Upper
91	100		
126	21.5	0.0	52.6
65	11.5	0.0	42.9

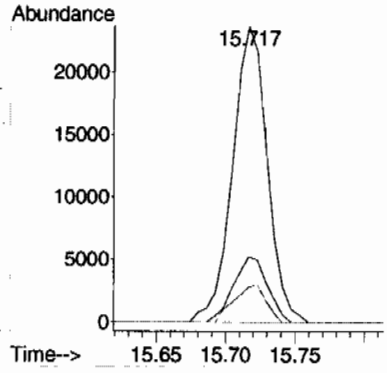

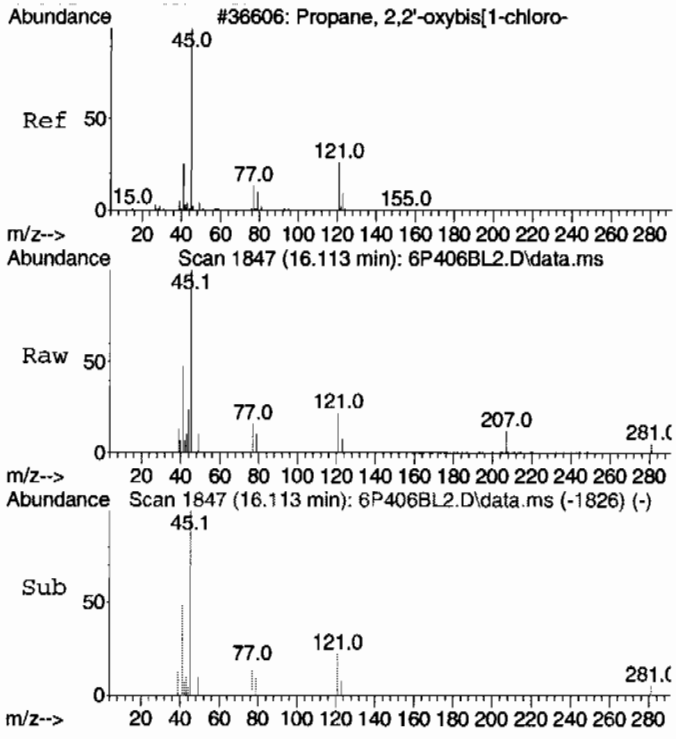

#112
bis(2-Chloroisopropyl)ether
Concen: 3.40 ug/L
RT: 16.113 min Scan# 1847
Delta R.T. -0.000 min
Lab File: 6P406BL2.D
Acq: 17 Dec 2009 1:05 pm

Tgt Ion: 45 Resp: 18841

Ion	Ratio	Lower	Upper
45	100		
121	19.2	0.0	53.0

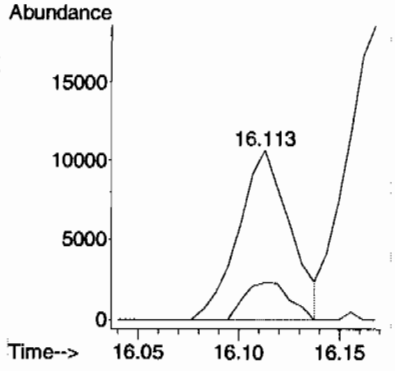

Library Search Compound Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709V6\
Data File : 6P406BL2.D
Acq On : 17 Dec 2009 1:05 pm
Operator : RXD1
Sample : |1201998922|934291|1|VOAF|1|VOA8260BS|
Misc : BLANK 5g N/A SOIL
ALS Vial : 6 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

****
Peak Number 1 unknown siloxane Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
16.168	13.17 ug/L	1137670	B 1,4-Dichlorobenzene-d4	15.576

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzoic acid, 2-[(trimethylsilyl...	282	C13H22O3Si2	003789-85-3	56
2	Benzeneethanamine, N-[(pentafluo...	475	C21H26F5NO2Si2	055429-85-1	37
3	Benzoic acid, 4-[(trimethylsilyl...	282	C13H22O3Si2	002078-13-9	36
4	Tetrasiloxane, 1,1,3,3,5,5,7,7-o...	282	C8H26O3Si4	001000-05-1	27
5	1-Boraindane, 3-methyl-1-[1-(tri...	266	C17H23BSi	190316-36-0	14

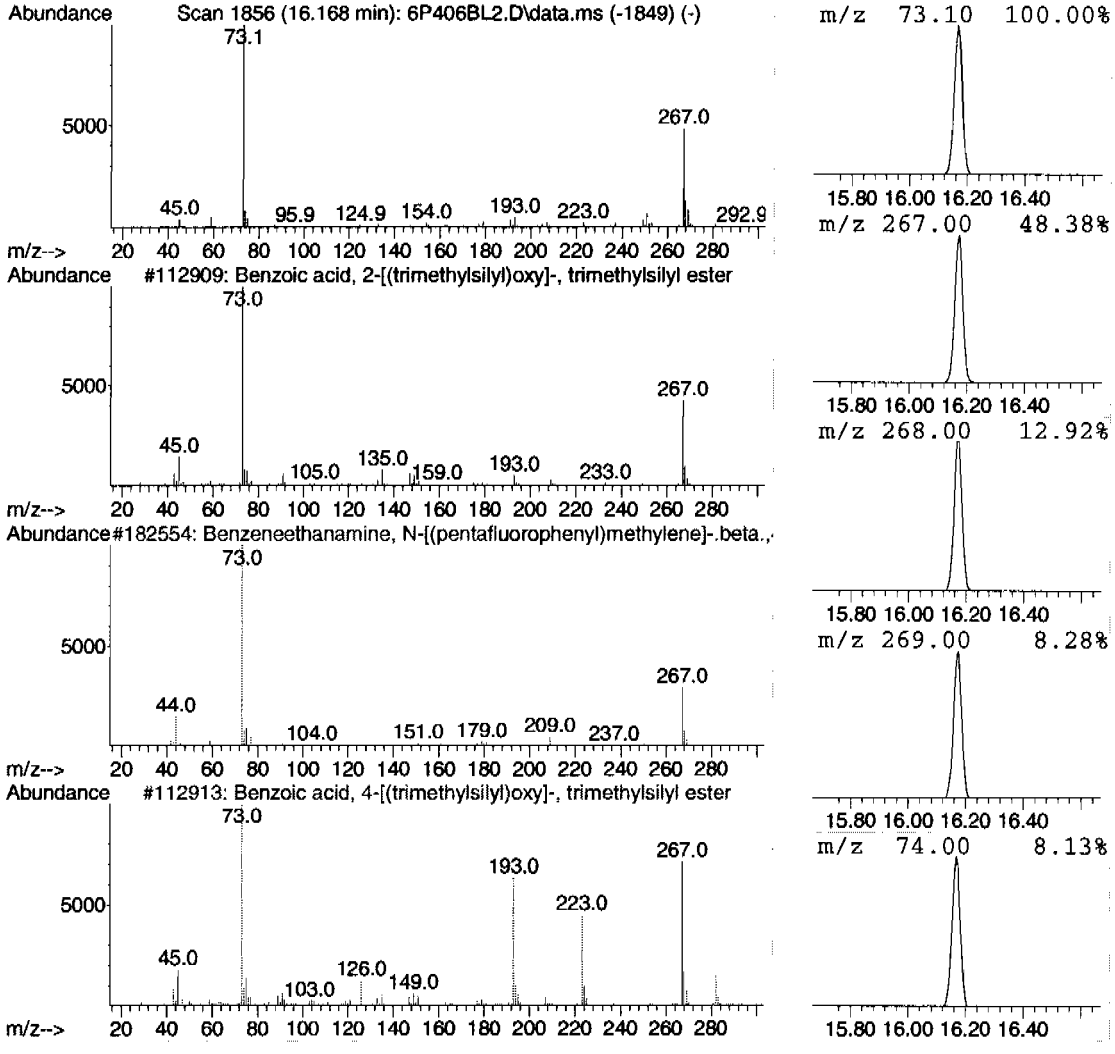

Tentatively Identified Compound (LSC) summary
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709V6\
Data File : 6P406BL2.D
Acq On : 17 Dec 2009 1:05 pm
Operator : RXD1
Sample : |1201998922|934291|1|VOAF|1|VOA8260BS|
Misc : BLANK 5g N/A SOIL
ALS Vial : 6 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

TIC Top Hit name	RT	EstConc	Units	Response	--Internal Standard--- #	RT	Resp	Conc
unknown siloxane	16.168	13.2	ug/L	1137670	6	15.576	4319010	50.0

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-899**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202002451**				
Client Sample:	**QC for batch 934286**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 934286**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**934291**	**Inst:**	**VOA6.I**	**Dilution:**	**1**
Run Date:	**12/18/2009 13:11**	**Analyst:**	**RXD1**	**Purge Vol:**	**5 mL**
Prep Date:	**12/18/2009 09:38**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**121809V6\6P506BL2.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/kg	0.340	1.00
74-87-3	Chloromethane	U	1.00	ug/kg	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/kg	0.300	1.00
74-83-9	Bromomethane	U	1.00	ug/kg	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/kg	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/kg	0.300	1.00
67-64-1	Acetone	U	5.00	ug/kg	1.66	5.00
75-35-4	1,1-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/kg	1.60	5.00
75-09-2	Methylene chloride	U	5.00	ug/kg	2.00	5.00
75-15-0	Carbon disulfide	U	5.00	ug/kg	1.25	5.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/kg	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/kg	1.50	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/kg	0.300	1.00
74-97-5	Bromochloromethane	U	1.00	ug/kg	0.330	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/kg	0.300	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/kg	0.300	1.00
56-23-5	Carbon tetrachloride	U	1.00	ug/kg	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/kg	0.300	1.00
71-43-2	Benzene	U	1.00	ug/kg	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/kg	0.330	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/kg	0.300	1.00
74-95-3	Dibromomethane	U	1.00	ug/kg	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/kg	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
108-88-3	Toluene	U	1.00	ug/kg	0.300	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/kg	0.300	1.00
591-78-6	2-Hexanone	U	5.00	ug/kg	1.50	5.00
142-28-9	1,3-Dichloropropane	U	1.00	ug/kg	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/kg	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/kg	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/kg	0.300	1.00
108-90-7	Chlorobenzene	U	1.00	ug/kg	0.300	1.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-899**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202002451**				
Client Sample:	**QC for batch 934286**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 934286**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**934291**	**Inst:**	**VOA6.I**	**Dilution:**	**1**
Run Date:	**12/18/2009 13:11**	**Analyst:**	**RXD1**	**Purge Vol:**	**5 mL**
Prep Date:	**12/18/2009 09:38**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**121809V6\6P506BL2.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.00	ug/kg	0.300	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/kg	0.300	2.00
95-47-6	o-Xylene	U	1.00	ug/kg	0.300	1.00
100-42-5	Styrene	U	1.00	ug/kg	0.300	1.00
75-25-2	Bromoform	U	1.00	ug/kg	0.300	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/kg	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/kg	0.300	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/kg	0.300	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/kg	0.300	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/kg	0.300	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/kg	0.300	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/kg	0.300	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/kg	0.300	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/kg	0.300	1.00
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.00	ug/kg	1.60	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated Units	Fit	Qual
	No Tentatively Identified Compounds Found		ug/kg		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121809V6\
Data File : 6P506BL2.D
Acq On : 18 Dec 2009 1:11 pm
Operator : RXD1
InstName : VOA6
Sample : |1202002451|934291|1|VOAF|1|VOA8260BS|
Misc : BLANK 5g N/A SOIL
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Dec 18 14:12:31 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	9.974	96	1728771	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.156	117	1238076	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	15.576	152	679088	50.00	ug/L	0.00
82) B Fluorobenzene	9.974	96	1727308	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.156	117	1238076	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	15.576	152	679088	50.00	ug/L	0.00
System Monitoring Compounds						
29) 1,2-Dichloroethane-d4	9.626	65	507211	49.73	ug/L	0.00
Spiked Amount 50.000	Range 68 - 131		Recovery = 99.46%			
43) Toluene-d8	11.626	98	1644609	47.91	ug/L	0.00
Spiked Amount 50.000	Range 75 - 129		Recovery = 95.82%			
61) Bromofluorobenzene	14.357	95	643714	49.19	ug/L	0.00
Spiked Amount 50.000	Range 68 - 133		Recovery = 98.38%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	0.000		0	N.D.		
3) Chloromethane	4.652	50	833	N.D.		
4) Vinyl chloride	4.904	62	549	N.D.		
5) Bromomethane	0.000		0	N.D.		
6) Chloroethane	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000		0	N.D.		
8) Ethyl ether	0.000		0	N.D.		
9) Acetone	6.718	43	3235	N.D.		
10) 1,1-Dichloroethylene	0.000		0	N.D.		
11) Iodomethane	6.950	142	194	N.D.		
12) Acetonitrile	7.139	41	704	N.D.		
13) Methyl acetate	0.000		0	N.D.		
14) Carbon disulfide	7.078	76	938	N.D.		
15) Methylene chloride	7.285	84	13140	N.D.		
16) tert-Butyl methyl ether	0.000		0	N.D.		
17) trans-1,2-Dichloroethy...	0.000		0	N.D.		
18) Vinyl acetate	0.000		0	N.D.		
19) 1,1-Dichloroethane	0.000		0	N.D.		
20) 2-Butanone	8.700	43	3181	N.D.		
21) cis-1,2-Dichloroethylene	0.000		0	N.D.		
22) 2,2-Dichloropropane	0.000		0	N.D.		
23) Bromochloromethane	0.000		0	N.D.		
24) Chloroform	0.000		0	N.D.		
25) 1,1,1-Trichloroethane	0.000		0	N.D.		
26) Cyclohexane	0.000		0	N.D.		
27) 1,1-Dichloropropene	0.000		0	N.D.		
28) Carbon tetrachloride	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000		0	N.D.		
31) Benzene	0.000		0	N.D.		
32) Cyclohexene	0.000		0	N.D.		
33) n-Butyl alcohol	0.000		0	N.D.		
34) Trichloroethylene	0.000		0	N.D.		
35) 1,2-Dichloropropane	0.000		0	N.D.		
36) Methylcyclohexane	0.000		0	N.D.		
37) Dibromomethane	0.000		0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121809V6\
Data File : 6P506BL2.D
Acq On : 18 Dec 2009 1:11 pm
Operator : RXD1
InstName : VOA6
Sample : |1202002451|934291|1|VOAF|1|VOA8260BS|
Misc : BLANK 5g N/A SOIL
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Dec 18 14:12:31 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc Units Dev(Min)
38) Bromodichloromethane	0.000		0	N.D.
39) 2-Chloroethylvinyl ether	0.000		0	N.D.
40) cis-1,3-Dichloropropylene	0.000		0	N.D.
42) 4-Methyl-2-pentanone	0.000		0	N.D.
44) Toluene	11.693	91	251	N.D.
45) trans-1,3-Dichloroprop...	0.000		0	N.D.
46) 1,1,2-Trichloroethane	0.000		0	N.D.
47) 2-Hexanone	12.272	43	675	N.D.
48) 1,3-Dichloropropane	0.000		0	N.D.
49) Tetrachloroethylene	12.290	164	195	N.D.
50) Dibromochloromethane	0.000		0	N.D.
51) 1,2-Dibromoethane	0.000		0	N.D.
52) Chlorobenzene	0.000		0	N.D.
53) 1,1,1,2-Tetrachloroethane	0.000		0	N.D.
54) Ethylbenzene	13.241	91	236	N.D.
55) m,p-Xylenes	13.357	106	406	N.D.
56) o-Xylene	0.000		0	N.D.
57) Styrene	13.796	104	1092	N.D.
59) Bromoform	0.000		0	N.D.
60) Isopropylbenzene	14.156	105	1586	N.D.
62) 1,1,2,2-Tetrachloroethane	0.000		0	N.D.
63) 1,2,3-Trichloropropane	0.000		0	N.D.
64) Bromobenzene	0.000		0	N.D.
65) n-Propylbenzene	14.583	91	3618	N.D.
66) 1,3,5-Trimethylbenzene	14.741	105	2218	N.D.
67) 2-Chlorotoluene	0.000		0	N.D.
68) 4-Chlorotoluene	14.833	91	1656	N.D.
69) tert-Butylbenzene	15.174	134	382	N.D.
70) 1,2,4-Trimethylbenzene	15.150	105	3473	N.D.
71) sec-Butylbenzene	15.332	105	2759	N.D.
72) 4-Isopropyltoluene	15.454	119	1829	N.D.
73) 1,3-Dichlorobenzene	15.515	146	473	N.D.
74) 1,4-Dichlorobenzene	15.601	146	987	N.D.
75) n-Butylbenzene	15.893	91	2065	N.D.
76) 1,2-Dichlorobenzene	16.015	146	499	N.D.
77) 1,2-Dibromo-3-chloropr...	0.000		0	N.D.
78) 1,2,4-Trichlorobenzene	17.905	180	185	N.D.
79) Hexachlorobutadiene	0.000		0	N.D.
80) Naphthalene	18.289	128	3754	N.D.
81) 1,2,3-Trichlorobenzene	18.612	180	1606	N.D.
83) Chlorotrifluoroethylene	0.000		0	N.D.
84) 2-Chloro-1,1,1-trifluo...	0.000		0	N.D.
85) Acrolein	0.000		0	N.D.
86) Trichlorotrifluoroethane	0.000		0	N.D.
87) Isopropyl Alcohol	0.000		0	N.D.
88) Allyl chloride	7.139	41	704	N.D.
89) tert-Butyl Alcohol	0.000		0	N.D.
90) Acrylonitrile	7.541	53	580	N.D.
91) Isopropyl ether	0.000		0	N.D.
92) 2-Chloro-1,3-butadiene	0.000		0	N.D.
93) Ethyl tert-butyl ether	0.000		0	N.D.
94) Ethyl acetate	8.700	43	3181	N.D.

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121809V6\
Data File : 6P506BL2.D
Acq On : 18 Dec 2009 1:11 pm
Operator : RXD1
InstName : VOA6
Sample : |1202002451|934291|1|VOAF|1|VOA8260BS|
Misc : BLANK 5g N/A SOIL
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Dec 18 14:12:31 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
95)	Propionitrile	0.000		0	N.D.	
96)	Methacrylonitrile	8.950	41	1393	N.D.	
97)	Tetrahydrofuran	9.072	42	881	N.D.	
98)	Isobutyl alcohol	0.000		0m	N.D. d	
99)	Methyl tert-amyl ether	0.000		0	N.D.	
100)	Methyl methacrylate	10.589	69	1441	N.D.	
101)	1,4-Dioxane	0.000		0	N.D.	
102)	2-Nitropropane	0.000		0m	N.D. d	
104)	Ethyl methacrylate	11.851	69	3419	N.D.	
106)	1-Chlorohexane	0.000		0	N.D.	
107)	cis-1,4-Dichloro-2-butene	14.205	53	2653	N.D.	
108)	Cyclohexanone	14.314	42	949	N.D.	
109)	trans-1,4-Dichloro-2-b...	14.485	53	3971	1.29 ug/L	78
110)	Pentachloroethane	15.180	167	5353	1.18 ug/L	76
111)	Benzyl chloride	15.717	91	38081	2.17 ug/L	94
112)	bis(2-Chloroisopropyl)...	16.113	45	15281	2.96 ug/L	96

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121809V6\
Data File : 6P506BL2.D
Acq On : 18 Dec 2009 1:11 pm
Operator : RXD1
InstName : VOA6
Sample : |1202002451|934291|1|VOAF|1|VOA8260BS|
Misc : BLANK 5g N/A SOIL
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Dec 18 14:12:31 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

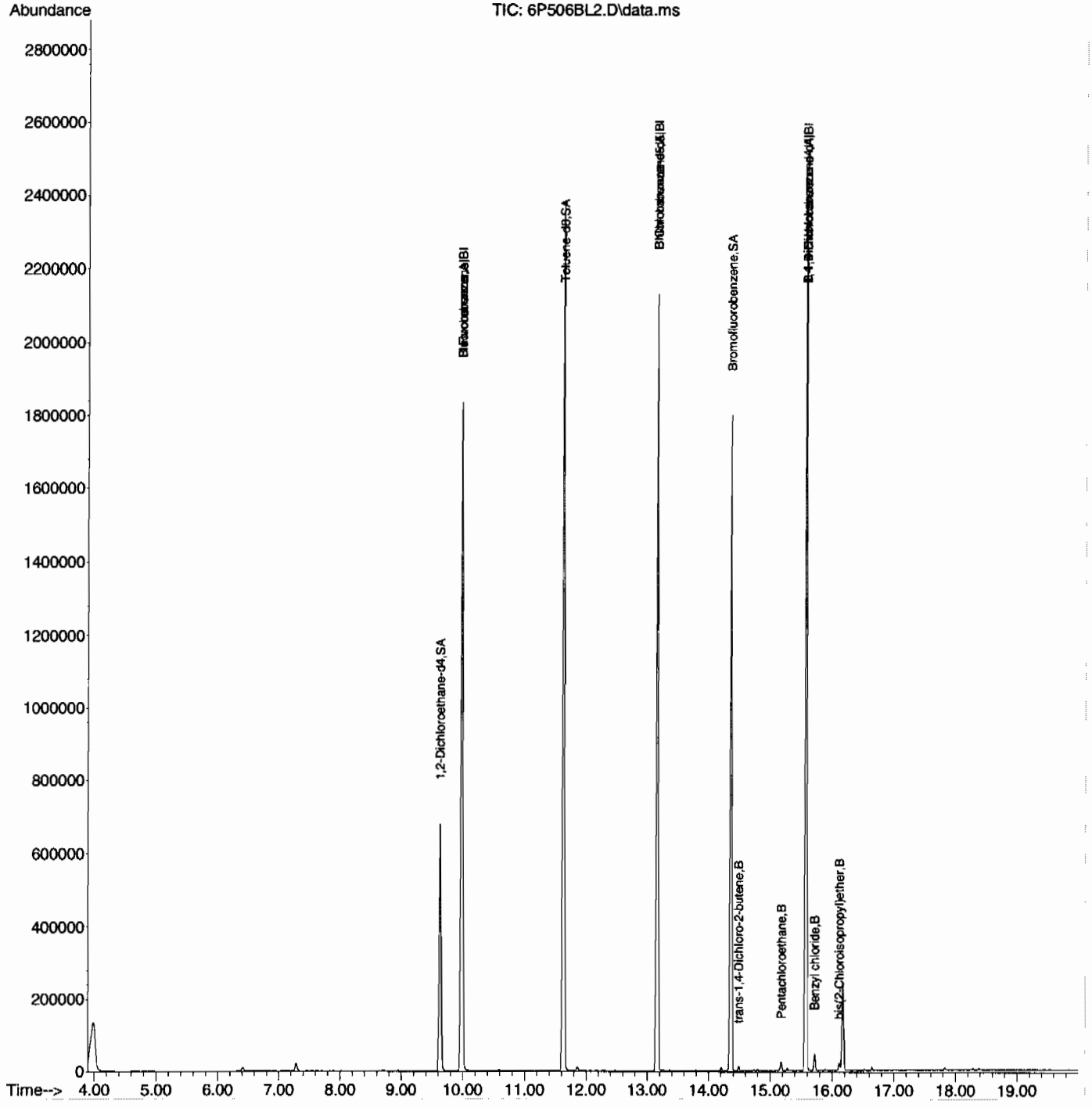

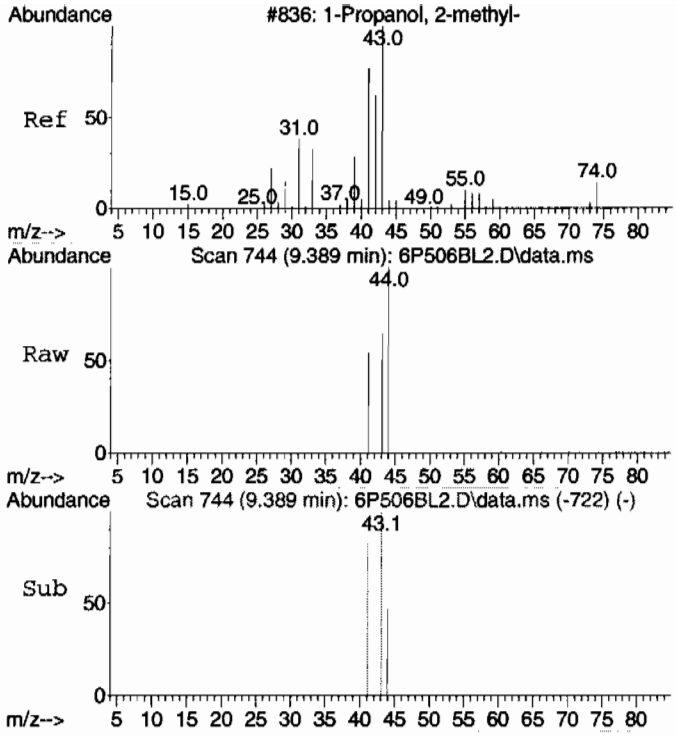

#98 BEFORE analyst DELETION
Isobutyl alcohol
Concen: 2.59 ug/L
RT: 9.389 min Scan# 744
Delta R.T. 0.001 min
Lab File: 6P506BL2.D
Acq: 18 Dec 2009 1:11 pm

Tgt Ion: 41 Resp: 853

Ion	Ratio	Lower	Upper
41	100		
43	94.5	111.2	171.2#

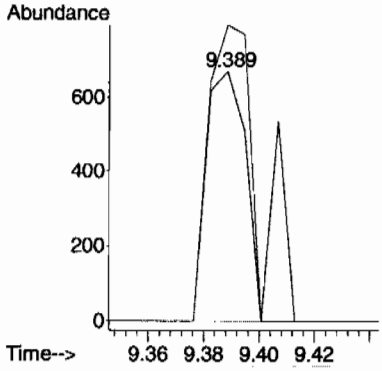

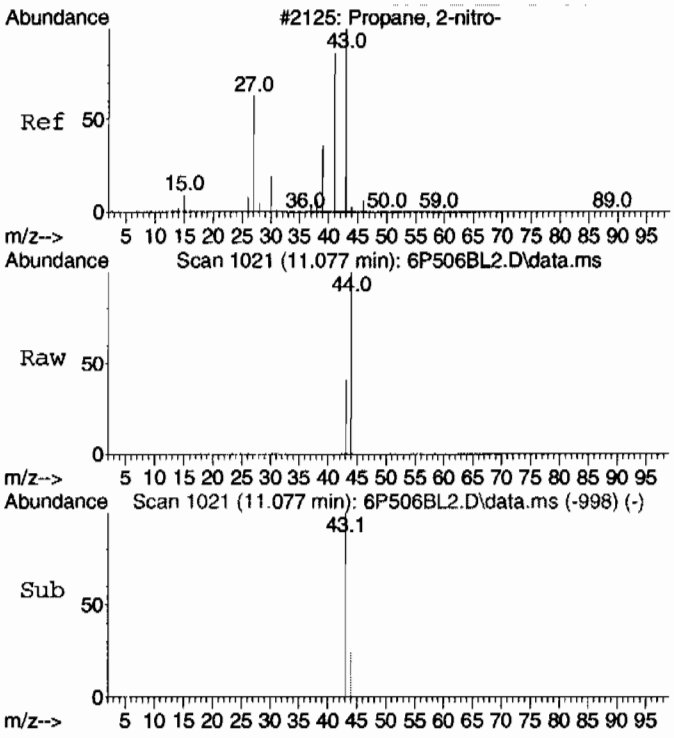

#102 BEFORE analyst DELETION
2-Nitropropane
Concen: 3.81 ug/L
RT: 11.077 min Scan# 1021
Delta R.T. 0.006 min
Lab File: 6P506BL2.D
Acq: 18 Dec 2009 1:11 pm

Tgt Ion: 43 Resp: 192

Ion	Ratio	Lower	Upper
43	100		
41	0.0	52.2	112.2#

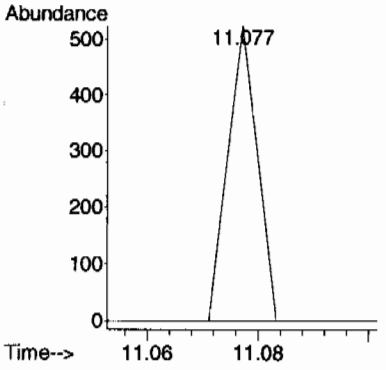

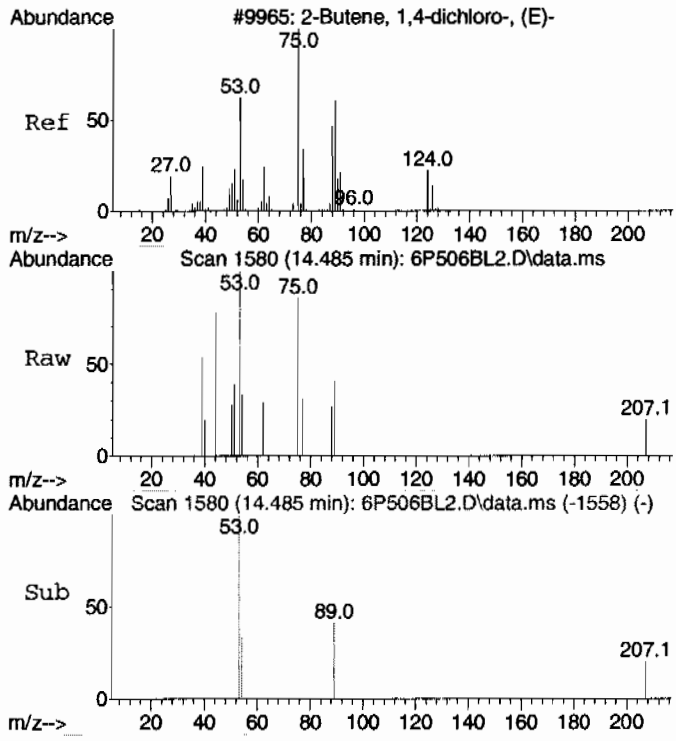

#109
trans-1,4-Dichloro-2-butene
Concen: 1.29 ug/L
RT: 14.485 min Scan# 1580
Delta R.T. -0.006 min
Lab File: 6P506BL2.D
Acq: 18 Dec 2009 1:11 pm

Tgt Ion: 53 Resp: 3971

Ion	Ratio	Lower	Upper
53	100		
88	30.9	19.8	79.8
75	99.2	91.6	151.6

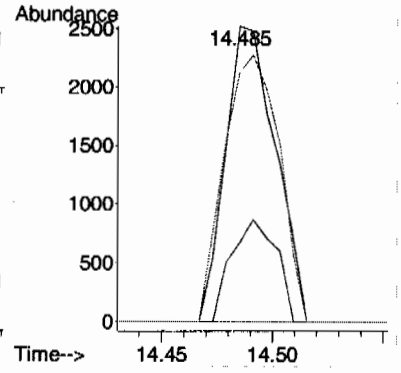

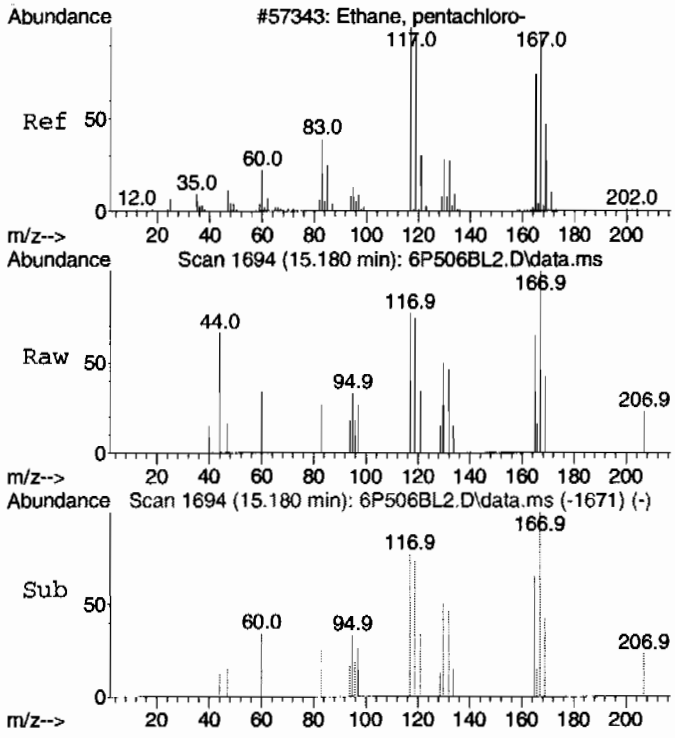

#110
Pentachloroethane
Concen: 1.18 ug/L
RT: 15.180 min Scan# 1694
Delta R.T. 0.000 min
Lab File: 6P506BL2.D
Acq: 18 Dec 2009 1:11 pm

Tgt Ion:167 Resp: 5353

Ion	Ratio	Lower	Upper
167	100		
130	55.2	10.0	70.0
132	51.3	7.5	67.5

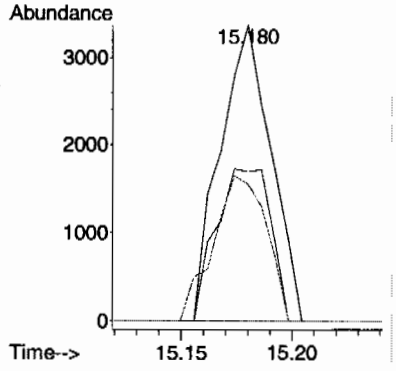

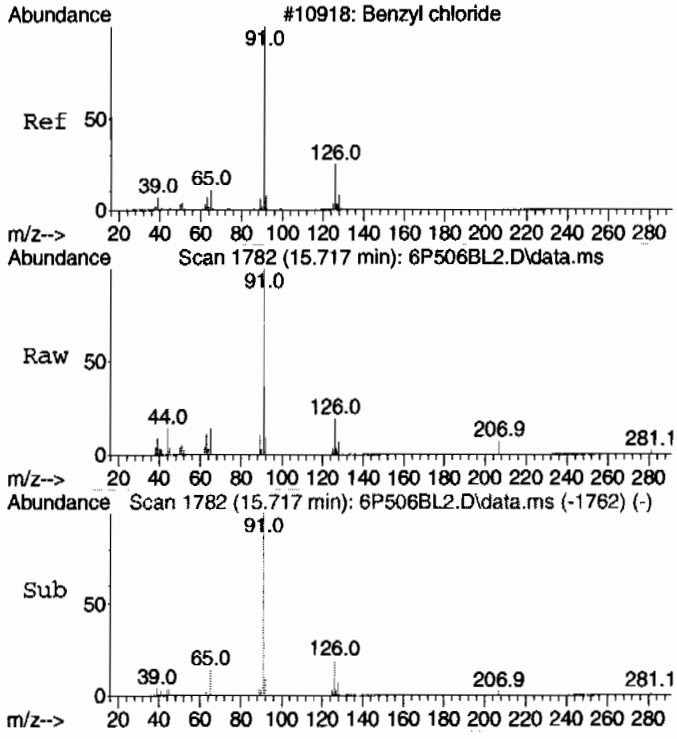

#111
Benzyl chloride
Concen: 2.17 ug/L
RT: 15.717 min Scan# 1782
Delta R.T. 0.001 min
Lab File: 6P506BL2.D
Acq: 18 Dec 2009 1:11 pm

Tgt Ion: 91 Resp: 38081

Ion	Ratio	Lower	Upper
91	100		
126	18.7	0.0	52.6
65	12.3	0.0	42.9

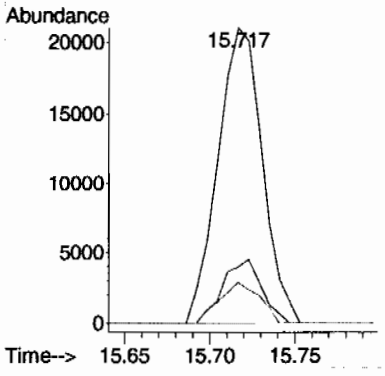

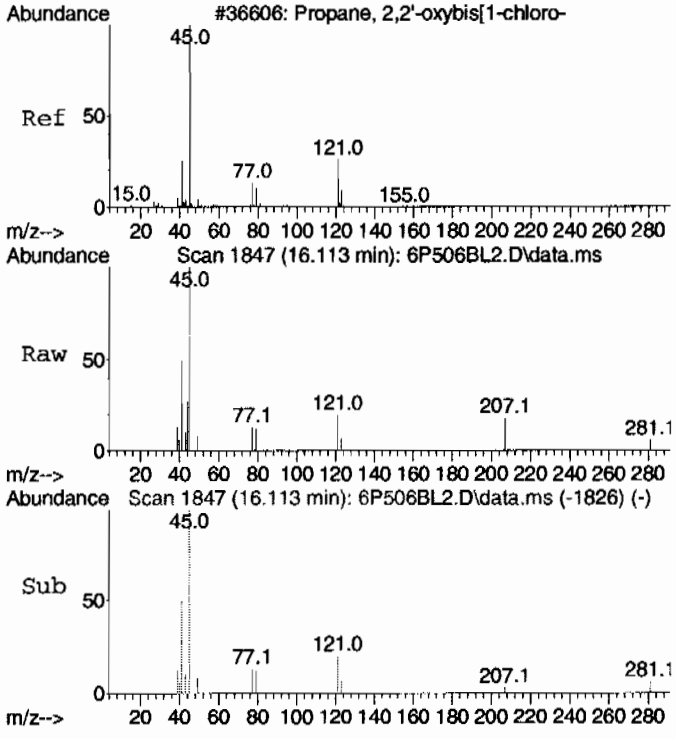

#112
bis(2-Chloroisopropyl)ether
Concen: 2.96 ug/L
RT: 16.113 min Scan# 1847
Delta R.T. -0.000 min
Lab File: 6P506BL2.D
Acq: 18 Dec 2009 1:11 pm

Tgt Ion: 45 Resp: 15281

Ion	Ratio	Lower	Upper
45	100		
121	21.1	0.0	53.0

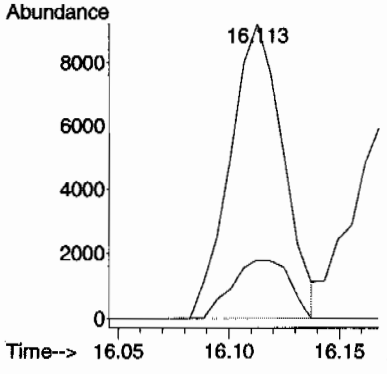

Library Search Compound Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121809V6\
Data File : 6P506BL2.D
Acq On : 18 Dec 2009 1:11 pm
Operator : RXD1
Sample : |1202002451|934291|1|VOAF|1|VOA8260BS|
Misc : BLANK 5g N/A SOIL
ALS Vial : 6 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

No Library Search Compounds Detected
****

Tentatively Identified Compound (LSC) summary
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121809V6\
Data File : 6P506BL2.D
Acq On : 18 Dec 2009 1:11 pm
Operator : RXD1
Sample : |1202002451|934291|1|VOAF|1|VOA8260BS|
Misc : BLANK 5g N/A SOIL
ALS Vial : 6 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

TIC Top Hit name	RT	EstConc	Units	Response	--Internal Standard--- #	RT	Resp	Conc

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-899			**Matrix:**	SOIL
Lab Sample ID:	1201998925				
Client Sample:	QC for batch 934286	**Client:**	LANL010	**Project:**	QC
Client ID:	LCS for batch 934286	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	934291	**Inst:**	VOA6.I	**Dilution:**	1
Run Date:	12/17/2009 11:42	**Analyst:**	RXD1	**Purge Vol:**	5 mL
Prep Date:	12/17/2009 09:22	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	121709V6\6P403LL2.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane		35.2	ug/kg	0.340	1.00
74-87-3	Chloromethane		38.3	ug/kg	0.300	1.00
75-01-4	Vinyl chloride		44.9	ug/kg	0.300	1.00
74-83-9	Bromomethane		42.9	ug/kg	0.300	1.00
75-00-3	Chloroethane		44.4	ug/kg	0.300	1.00
75-69-4	Trichlorofluoromethane		45.9	ug/kg	0.300	1.00
67-64-1	Acetone	E	162	ug/kg	1.66	5.00
75-35-4	1,1-Dichloroethylene		45.2	ug/kg	0.300	1.00
74-88-4	Iodomethane		217	ug/kg	1.60	5.00
75-09-2	Methylene chloride		40.3	ug/kg	2.00	5.00
75-15-0	Carbon disulfide		234	ug/kg	1.25	5.00
156-60-5	trans-1,2-Dichloroethylene		45.7	ug/kg	0.300	1.00
75-34-3	1,1-Dichloroethane		44.9	ug/kg	0.300	1.00
78-93-3	2-Butanone		201	ug/kg	1.50	5.00
156-59-2	cis-1,2-Dichloroethylene		45.8	ug/kg	0.300	1.00
594-20-7	2,2-Dichloropropane		51.1	ug/kg	0.300	1.00
67-66-3	Chloroform		45.1	ug/kg	0.300	1.00
74-97-5	Bromochloromethane		44.4	ug/kg	0.330	1.00
71-55-6	1,1,1-Trichloroethane		49.3	ug/kg	0.300	1.00
563-58-6	1,1-Dichloropropene		48.3	ug/kg	0.300	1.00
56-23-5	Carbon tetrachloride		50.5	ug/kg	0.300	1.00
107-06-2	1,2-Dichloroethane		43.6	ug/kg	0.300	1.00
71-43-2	Benzene		43.8	ug/kg	0.300	1.00
79-01-6	Trichloroethylene		45.7	ug/kg	0.330	1.00
78-87-5	1,2-Dichloropropane		45.4	ug/kg	0.300	1.00
75-27-4	Bromodichloromethane		48.3	ug/kg	0.300	1.00
74-95-3	Dibromomethane		43.9	ug/kg	0.300	1.00
108-10-1	4-Methyl-2-pentanone		231	ug/kg	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene		48.1	ug/kg	0.300	1.00
108-88-3	Toluene		42.6	ug/kg	0.300	1.00
10061-02-6	trans-1,3-Dichloropropylene		45.9	ug/kg	0.300	1.00
79-00-5	1,1,2-Trichloroethane		42.3	ug/kg	0.300	1.00
591-78-6	2-Hexanone		221	ug/kg	1.50	5.00
142-28-9	1,3-Dichloropropane		42.6	ug/kg	0.300	1.00
127-18-4	Tetrachloroethylene		44.9	ug/kg	0.300	1.00
124-48-1	Dibromochloromethane		48.2	ug/kg	0.300	1.00
106-93-4	1,2-Dibromoethane		43.7	ug/kg	0.300	1.00
108-90-7	Chlorobenzene		44.2	ug/kg	0.300	1.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-899**			**Matrix:**	**SOIL**
Lab Sample ID:	**1201998925**				
Client Sample:	**QC for batch 934286**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 934286**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**934291**	**Inst:**	**VOA6.I**	**Dilution:**	**1**
Run Date:	**12/17/2009 11:42**	**Analyst:**	**RXD1**	**Purge Vol:**	**5 mL**
Prep Date:	**12/17/2009 09:22**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**121709V6\6P403LL2.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene		45.0	ug/kg	0.300	1.00
179601-23-1	m,p-Xylenes		90.7	ug/kg	0.300	2.00
95-47-6	o-Xylene		45.0	ug/kg	0.300	1.00
100-42-5	Styrene		46.6	ug/kg	0.300	1.00
75-25-2	Bromoform		49.2	ug/kg	0.300	1.00
79-34-5	1,1,2,2-Tetrachloroethane		43.8	ug/kg	0.300	1.00
96-18-4	1,2,3-Trichloropropane		43.2	ug/kg	0.300	1.00
108-86-1	Bromobenzene		42.2	ug/kg	0.300	1.00
103-65-1	n-Propylbenzene		44.3	ug/kg	0.300	1.00
95-49-8	2-Chlorotoluene		44.0	ug/kg	0.300	1.00
98-82-8	Isopropylbenzene		44.4	ug/kg	0.300	1.00
108-67-8	1,3,5-Trimethylbenzene		43.8	ug/kg	0.300	1.00
106-43-4	4-Chlorotoluene		44.1	ug/kg	0.300	1.00
98-06-6	tert-Butylbenzene		43.9	ug/kg	0.300	1.00
95-63-6	1,2,4-Trimethylbenzene		43.2	ug/kg	0.300	1.00
135-98-8	sec-Butylbenzene		44.2	ug/kg	0.300	1.00
99-87-6	4-Isopropyltoluene		44.7	ug/kg	0.300	1.00
541-73-1	1,3-Dichlorobenzene		43.0	ug/kg	0.300	1.00
106-46-7	1,4-Dichlorobenzene		42.3	ug/kg	0.300	1.00
104-51-8	n-Butylbenzene		45.1	ug/kg	0.300	1.00
96-12-8	1,2-Dibromo-3-chloropropane	E	50.5	ug/kg	0.300	1.00
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.00	ug/kg	1.60	5.00
630-20-6	1,1,1,2-Tetrachloroethane		46.0	ug/kg	0.300	1.00
95-50-1	1,2-Dichlorobenzene		42.1	ug/kg	0.300	1.00

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709V6\
Data File : 6P403LL2.D
Acq On : 17 Dec 2009 11:42 am
Operator : RXD1
InstName : VOA6
Sample : |1201998925|934291|1|VOAF|1|VOA8260BS|
Misc : LCS 5g N/A MIX[A] SOIL 1129-01E+1214-01
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Dec 17 11:58:55 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	9.974	96	1743338	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.156	117	1312287	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	15.576	152	754412	50.00	ug/L	0.00
82) B Fluorobenzene	9.974	96	1741980	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.156	117	1312287	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	15.576	152	754412	50.00	ug/L	0.00
System Monitoring Compounds						
29) 1,2-Dichloroethane-d4	9.626	65	522112	50.76	ug/L	0.00
Spiked Amount 50.000	Range 68 - 131		Recovery = 101.52%			
43) Toluene-d8	11.626	98	1757450	48.30	ug/L	0.00
Spiked Amount 50.000	Range 75 - 129		Recovery = 96.60%			
61) Bromofluorobenzene	14.357	95	720048	49.53	ug/L	0.00
Spiked Amount 50.000	Range 68 - 133		Recovery = 99.06%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	4.360	85	275348	35.23	ug/L	100
3) Chloromethane	4.672	50	411413	38.28	ug/L	100
4) Vinyl chloride	4.914	62	423249	44.85	ug/L	99
5) Bromomethane	5.468	94	302148	42.93	ug/L	99
6) Chloroethane	5.609	64	310891	44.39	ug/L	99
7) Trichlorofluoromethane	6.022	101	634577	45.87	ug/L	99
8) Ethyl ether	6.328	59	370828	41.26	ug/L	97
9) Acetone	6.712	43	514086	162.09	ug/L	98 E
10) 1,1-Dichloroethylene	6.706	61	576988	45.22	ug/L	99
11) Iodomethane	6.956	142	2981864	216.86	ug/L	99
12) Acetonitrile	7.072	41	1403826	1079.74	ug/L	98
13) Methyl acetate	7.096	43	1563344	219.17	ug/L	100
14) Carbon disulfide	7.078	76	5993439	234.06	ug/L	100
15) Methylene chloride	7.285	84	404478	40.31	ug/L	99
16) tert-Butyl methyl ether	7.578	73	1066222	42.05	ug/L	99
17) trans-1,2-Dichloroethy...	7.621	61	594732	45.66	ug/L	100
18) Vinyl acetate	8.060	43	4647508	247.73	ug/L	96
19) 1,1-Dichloroethane	8.102	63	732348	44.94	ug/L	100
20) 2-Butanone	8.694	43	804609	200.51	ug/L	99
21) cis-1,2-Dichloroethylene	8.742	61	665017	45.84	ug/L	99
22) 2,2-Dichloropropane	8.767	77	600370	51.14	ug/L	99
23) Bromochloromethane	9.017	128	198581	44.44	ug/L	99
24) Chloroform	9.053	83	683933	45.07	ug/L	99
25) 1,1,1-Trichloroethane	9.322	97	627347	49.27	ug/L	99
26) Cyclohexane	9.413	56	806617	48.98	ug/L	99
27) 1,1-Dichloropropene	9.480	75	560281	48.34	ug/L	99
28) Carbon tetrachloride	9.517	117	569103	50.52	ug/L	99
30) 1,2-Dichloroethane	9.712	62	541760	43.55	ug/L	100
31) Benzene	9.724	78	1555706	43.81	ug/L	100
32) Cyclohexene	9.834	67	806657	47.75	ug/L	99
33) n-Butyl alcohol	10.077	56	1443741	4891.28	ug/L	100
34) Trichloroethylene	10.364	95	405220	45.71	ug/L	99
35) 1,2-Dichloropropane	10.614	63	425881	45.37	ug/L	98
36) Methylcyclohexane	10.602	83	752702	48.80	ug/L	99
37) Dibromomethane	10.748	93	218653	43.85	ug/L	98

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709V6\
Data File : 6P403LL2.D
Acq On : 17 Dec 2009 11:42 am
Operator : RXD1
InstName : VOA6
Sample : |1201998925|934291|1|VOAF|1|VOA8260BS|
Misc : LCS 5g N/A MIX[A] SOIL 1129-01E+1214-01
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Dec 17 11:58:55 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
38)	Bromodichloromethane	10.864	83	508156	48.34	ug/L	99	
39)	2-Chloroethylvinyl ether	11.089	63	1256207	218.54	ug/L	99	
40)	cis-1,3-Dichloropropylene	11.315	75	637985	48.10	ug/L	99	
42)	4-Methyl-2-pentanone	11.413	58	794615	230.62	ug/L	98	
44)	Toluene	11.699	91	1664468	42.56	ug/L	99	
45)	trans-1,3-Dichloroprop...	11.858	75	580523	45.92	ug/L	99	
46)	1,1,2-Trichloroethane	12.077	83	272308	42.34	ug/L	100	
47)	2-Hexanone	12.260	43	1395983	220.96	ug/L	98	
48)	1,3-Dichloropropane	12.272	76	583094	42.60	ug/L	97	
49)	Tetrachloroethylene	12.290	164	354571	44.88	ug/L	99	
50)	Dibromochloromethane	12.540	129	390486	48.21	ug/L	99	
51)	1,2-Dibromoethane	12.705	107	338536	43.65	ug/L	100	
52)	Chlorobenzene	13.193	112	1117097	44.18	ug/L	100	
53)	1,1,1,2-Tetrachloroethane	13.241	131	403038	46.04	ug/L	99	
54)	Ethylbenzene	13.254	91	1928750	44.99	ug/L	100	
55)	m,p-Xylenes	13.363	106	1555331	90.70	ug/L	99	
56)	o-Xylene	13.796	106	757687	45.01	ug/L	98	
57)	Styrene	13.802	104	1250015	46.62	ug/L	100	
59)	Bromoform	14.058	173	262354	49.19	ug/L	99	
60)	Isopropylbenzene	14.156	105	2039881	44.36	ug/L	100	
62)	1,1,2,2-Tetrachloroethane	14.436	83	451531	43.80	ug/L	100	
63)	1,2,3-Trichloropropane	14.528	110	125156	43.16	ug/L	97	
64)	Bromobenzene	14.564	156	498790	42.19	ug/L	99	
65)	n-Propylbenzene	14.583	91	2387880	44.32	ug/L	100	
66)	1,3,5-Trimethylbenzene	14.735	105	1727880	43.83	ug/L	100	
67)	2-Chlorotoluene	14.729	126	504028	43.99	ug/L	98	
68)	4-Chlorotoluene	14.833	91	1462566	44.08	ug/L	99	
69)	tert-Butylbenzene	15.107	134	384774	43.88	ug/L	99	
70)	1,2,4-Trimethylbenzene	15.150	105	1793907	43.19	ug/L	99	
71)	sec-Butylbenzene	15.333	105	2344024	44.23	ug/L	99	
72)	4-Isopropyltoluene	15.454	119	1939237	44.74	ug/L	99	
73)	1,3-Dichlorobenzene	15.515	146	993672	43.00	ug/L	100	
74)	1,4-Dichlorobenzene	15.601	146	1002536	42.31	ug/L	100	
75)	n-Butylbenzene	15.887	91	1897390	45.11	ug/L	99	
76)	1,2-Dichlorobenzene	16.021	146	943955	42.14	ug/L	99	
77)	1,2-Dibromo-3-chloropr...	16.881	157	94933	50.49	ug/L	99	E
78)	1,2,4-Trichlorobenzene	17.905	180	706560	41.93	ug/L	100	
79)	Hexachlorobutadiene	18.076	225	450105	42.08	ug/L	98	
80)	Naphthalene	18.283	128	1426546	42.13	ug/L	100	
81)	1,2,3-Trichlorobenzene	18.618	180	608419	43.12	ug/L	99	
83)	Chlorotrifluoroethylene	0.000		0	N.D.			
84)	2-Chloro-1,1,1-trifluo...	0.000		0	N.D.			
85)	Acrolein	0.000		0	N.D.			
86)	Trichlorotrifluoroethane	0.000		0	N.D.			
87)	Isopropyl Alcohol	6.706		0m	N.D.	d		
88)	Allyl chloride	7.072		0m	N.D.	d		
89)	tert-Butyl Alcohol	0.000		0	N.D.			
90)	Acrylonitrile	7.572		0m	N.D.	d		
91)	Isopropyl ether	8.060		0m	N.D.	d		
92)	2-Chloro-1,3-butadiene	8.218		0m	N.D.	d		
93)	Ethyl tert-butyl ether	0.000		0	N.D.			
94)	Ethyl acetate	8.694		0m	N.D.	d		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709V6\
Data File : 6P403LL2.D
Acq On : 17 Dec 2009 11:42 am
Operator : RXD1
InstName : VOA6
Sample : |1201998925|934291|1|VOAF|1|VOA8260BS|
Misc : LCS 5g N/A MIX[A] SOIL 1129-01E+1214-01
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Dec 17 11:58:55 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
95)	Propionitrile	8.688		0m	N.D.	d	
96)	Methacrylonitrile	8.950		0m	N.D.	d	
97)	Tetrahydrofuran	9.059		0m	N.D.	d	
98)	Isobutyl alcohol	9.407		0m	N.D.	d	
99)	Methyl tert-amyl ether	9.724		0m	N.D.	d	
100)	Methyl methacrylate	10.602		0m	N.D.	d	
101)	1,4-Dioxane	10.754		0m	N.D.	d	
102)	2-Nitropropane	11.089		0m	N.D.	d	
104)	Ethyl methacrylate	11.864		0m	N.D.	d	
106)	1-Chlorohexane	0.000		0	N.D.		
107)	cis-1,4-Dichloro-2-butene	14.156		0m	N.D.	d	
108)	Cyclohexanone	0.000		0	N.D.		
109)	trans-1,4-Dichloro-2-b...	0.000		0	N.D.		
110)	Pentachloroethane	15.174		0m	N.D.	d	
111)	Benzyl chloride	15.717		0m	N.D.	d	
112)	bis(2-Chloroisopropyl)...	16.107		0m	N.D.	d	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709V6\
Data File : 6P403LL2.D
Acq On : 17 Dec 2009 11:42 am
Operator : RXD1
InstName : VOA6
Sample : |1201998925|934291|1|VOAF|1|VOA8260BS|
Misc : LCS 5g N/A MIX[A] SOIL 1129-01E+1214-01
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Dec 17 11:58:55 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

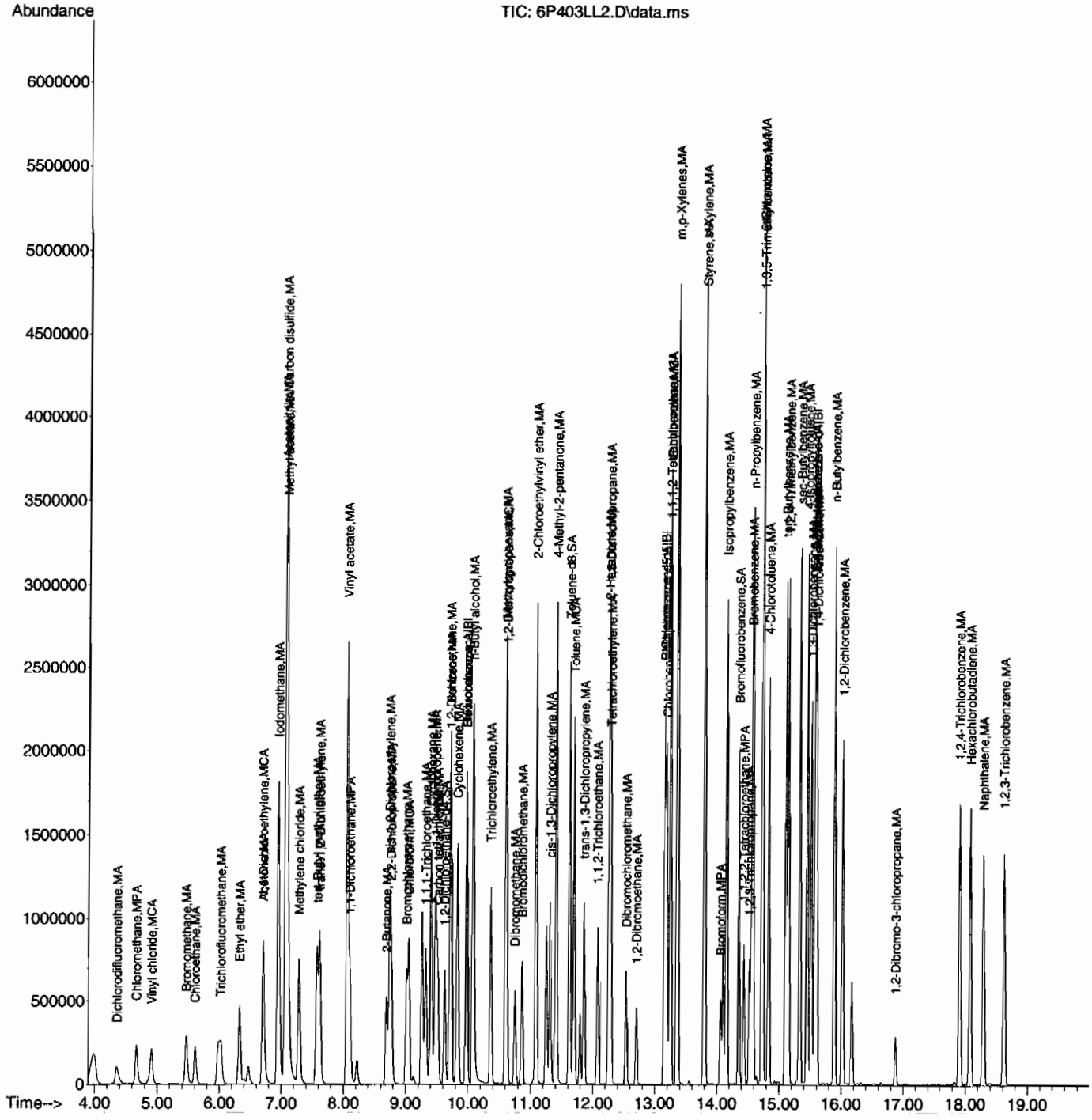

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-899**			**Matrix:**	**SOIL**
Lab Sample ID:	**1201998926**				
Client Sample:	**QC for batch 934286**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 934286**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**934291**	**Inst:**	**VOA6.I**	**Dilution:**	**1**
Run Date:	**12/17/2009 12:37**	**Analyst:**	**RXD1**	**Purge Vol:**	**5 mL**
Prep Date:	**12/17/2009 09:23**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**121709V6\6P405SL2.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/kg	0.340	1.00
74-87-3	Chloromethane	U	1.00	ug/kg	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/kg	0.300	1.00
74-83-9	Bromomethane	U	1.00	ug/kg	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/kg	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/kg	0.300	1.00
67-64-1	Acetone	U	5.00	ug/kg	1.66	5.00
75-35-4	1,1-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/kg	1.60	5.00
75-09-2	Methylene chloride	U	5.00	ug/kg	2.00	5.00
75-15-0	Carbon disulfide	U	5.00	ug/kg	1.25	5.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/kg	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/kg	1.50	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/kg	0.300	1.00
74-97-5	Bromochloromethane	U	1.00	ug/kg	0.330	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/kg	0.300	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/kg	0.300	1.00
56-23-5	Carbon tetrachloride	U	1.00	ug/kg	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/kg	0.300	1.00
71-43-2	Benzene	U	1.00	ug/kg	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/kg	0.330	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/kg	0.300	1.00
74-95-3	Dibromomethane	U	1.00	ug/kg	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/kg	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
108-88-3	Toluene	U	1.00	ug/kg	0.300	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/kg	0.300	1.00
591-78-6	2-Hexanone	U	5.00	ug/kg	1.50	5.00
142-28-9	1,3-Dichloropropane	U	1.00	ug/kg	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/kg	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/kg	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/kg	0.300	1.00
108-90-7	Chlorobenzene	U	1.00	ug/kg	0.300	1.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-899**			**Matrix:**	**SOIL**
Lab Sample ID:	**1201998926**				
Client Sample:	**QC for batch 934286**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 934286**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**934291**	**Inst:**	**VOA6.I**	**Dilution:**	**1**
Run Date:	**12/17/2009 12:37**	**Analyst:**	**RXD1**	**Purge Vol:**	**5 mL**
Prep Date:	**12/17/2009 09:23**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**121709V6\6P405SL2.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.00	ug/kg	0.300	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/kg	0.300	2.00
95-47-6	o-Xylene	U	1.00	ug/kg	0.300	1.00
100-42-5	Styrene	U	1.00	ug/kg	0.300	1.00
75-25-2	Bromoform	U	1.00	ug/kg	0.300	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/kg	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/kg	0.300	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/kg	0.300	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/kg	0.300	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/kg	0.300	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/kg	0.300	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/kg	0.300	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/kg	0.300	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/kg	0.300	1.00
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*		314	ug/kg	1.60	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709V6\
Data File : 6P405SL2.D
Acq On : 17 Dec 2009 12:37 pm
Operator : RXD1
InstName : VOA6
Sample : |1201998926|934291|1|VOAF|1|VOA8260BS|
Misc : LCS 5g N/A MIX[B] SOIL 1118-08C
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Dec 17 13:17:39 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	9.974	96	1738685	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.156	117	1322114	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	15.576	152	768556	50.00	ug/L	0.00
82) B Fluorobenzene	9.974	96	1737188	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.156	117	1322114	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	15.576	152	768556	50.00	ug/L	0.00
System Monitoring Compounds						
29) 1,2-Dichloroethane-d4	9.626	65	529708	51.64	ug/L	0.00
Spiked Amount 50.000	Range 68 - 131		Recovery = 103.28%			
43) Toluene-d8	11.626	98	1728801	47.16	ug/L	0.00
Spiked Amount 50.000	Range 75 - 129		Recovery = 94.32%			
61) Bromofluorobenzene	14.357	95	741032	50.03	ug/L	0.00
Spiked Amount 50.000	Range 68 - 133		Recovery = 100.06%			

Target Compounds			Qvalue
2) Dichlorodifluoromethane	0.000	0	N.D.
3) Chloromethane	4.662	0m	N.D. d
4) Vinyl chloride	4.904	0m	N.D. d
5) Bromomethane	0.000	0	N.D.
6) Chloroethane	0.000	0	N.D.
7) Trichlorofluoromethane	0.000	0	N.D.
8) Ethyl ether	0.000	0	N.D.
9) Acetone	6.670	0m	N.D. d
10) 1,1-Dichloroethylene	6.670	0m	N.D. d
11) Iodomethane	6.950	0m	N.D. d
12) Acetonitrile	7.139	0m	N.D. d
13) Methyl acetate	7.096	0m	N.D. d
14) Carbon disulfide	7.139	0m	N.D. d
15) Methylene chloride	7.285	0m	N.D. d
16) tert-Butyl methyl ether	0.000	0	N.D.
17) trans-1,2-Dichloroethy...	0.000	0	N.D.
18) Vinyl acetate	8.060	0m	N.D. d
19) 1,1-Dichloroethane	8.212	0m	N.D. d
20) 2-Butanone	8.700	0m	N.D. d
21) cis-1,2-Dichloroethylene	8.700	0m	N.D. d
22) 2,2-Dichloropropane	0.000	0	N.D.
23) Bromochloromethane	0.000	0	N.D.
24) Chloroform	9.053	0m	N.D. d
25) 1,1,1-Trichloroethane	0.000	0	N.D.
26) Cyclohexane	9.389	0m	N.D. d
27) 1,1-Dichloropropene	0.000	0	N.D.
28) Carbon tetrachloride	0.000	0	N.D.
30) 1,2-Dichloroethane	0.000	0	N.D.
31) Benzene	9.724	0m	N.D. d
32) Cyclohexene	0.000	0	N.D.
33) n-Butyl alcohol	10.090	0m	N.D. d
34) Trichloroethylene	10.364	0m	N.D. d
35) 1,2-Dichloropropane	0.000	0	N.D.
36) Methylcyclohexane	10.583	0m	N.D. d
37) Dibromomethane	0.000	0	N.D.

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709V6\
Data File : 6P405SL2.D
Acq On : 17 Dec 2009 12:37 pm
Operator : RXD1
InstName : VOA6
Sample : |1201998926|934291|1|VOAF|1|VOA8260BS|
Misc : LCS 5g N/A MIX[B] SOIL 1118-08C
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Dec 17 13:17:39 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
38)	Bromodichloromethane	0.000		0	N.D.	
39)	2-Chloroethylvinyl ether	0.000		0	N.D.	
40)	cis-1,3-Dichloropropylene	0.000		0	N.D.	
42)	4-Methyl-2-pentanone	11.406		0m	N.D. d	
44)	Toluene	11.699		0m	N.D. d	
45)	trans-1,3-Dichloroprop...	11.858		0m	N.D. d	
46)	1,1,2-Trichloroethane	0.000		0	N.D.	
47)	2-Hexanone	12.260		0m	N.D. d	
48)	1,3-Dichloropropane	12.309		0m	N.D. d	
49)	Tetrachloroethylene	12.290		0m	N.D. d	
50)	Dibromochloromethane	0.000		0	N.D.	
51)	1,2-Dibromoethane	12.705		0m	N.D. d	
52)	Chlorobenzene	13.187		0m	N.D. d	
53)	1,1,1,2-Tetrachloroethane	0.000		0	N.D.	
54)	Ethylbenzene	13.254		0m	N.D. d	
55)	m,p-Xylenes	13.370		0m	N.D. d	
56)	o-Xylene	13.796		0m	N.D. d	
57)	Styrene	13.808		0m	N.D. d	
59)	Bromoform	0.000		0	N.D.	
60)	Isopropylbenzene	14.156		0m	N.D. d	
62)	1,1,2,2-Tetrachloroethane	14.442		0m	N.D. d	
63)	1,2,3-Trichloropropane	0.000		0	N.D.	
64)	Bromobenzene	0.000		0	N.D.	
65)	n-Propylbenzene	14.583		0m	N.D. d	
66)	1,3,5-Trimethylbenzene	14.735		0m	N.D. d	
67)	2-Chlorotoluene	14.735		0m	N.D. d	
68)	4-Chlorotoluene	14.833		0m	N.D. d	
69)	tert-Butylbenzene	15.101		0m	N.D. d	
70)	1,2,4-Trimethylbenzene	15.150		0m	N.D. d	
71)	sec-Butylbenzene	15.333		0m	N.D. d	
72)	4-Isopropyltoluene	15.454		0m	N.D. d	
73)	1,3-Dichlorobenzene	15.515		0m	N.D. d	
74)	1,4-Dichlorobenzene	15.601		0m	N.D. d	
75)	n-Butylbenzene	0.000		0	N.D.	
76)	1,2-Dichlorobenzene	16.021		0m	N.D. d	
77)	1,2-Dibromo-3-chloropr...	0.000		0	N.D.	
78)	1,2,4-Trichlorobenzene	17.911		0m	N.D. d	
79)	Hexachlorobutadiene	18.076		0m	N.D. d	
80)	Naphthalene	18.283		0m	N.D. d	
81)	1,2,3-Trichlorobenzene	18.619		0m	N.D. d	
83)	Chlorotrifluoroethylene	0.000		0	N.D.	
84)	2-Chloro-1,1,1-trifluo...	0.000		0	N.D.	
85)	Acrolein	6.529	56	395734	312.28 ug/L	99
86)	Trichlorotrifluoroethane	6.676	85	1017581	313.57 ug/L	99
87)	Isopropyl Alcohol	0.000		0m	N.D. d	
88)	Allyl chloride	7.139	41	4266819	280.94 ug/L	99
89)	tert-Butyl Alcohol	0.000		0	N.D.	
90)	Acrylonitrile	7.541	53	880904	272.98 ug/L	100
91)	Isopropyl ether	0.000		0	N.D.	
92)	2-Chloro-1,3-butadiene	8.206	53	778613	60.24 ug/L	99
93)	Ethyl tert-butyl ether	0.000		0	N.D.	
94)	Ethyl acetate	8.700	43	2328550	252.59 ug/L	99

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709V6\
Data File : 6P405SL2.D
Acq On : 17 Dec 2009 12:37 pm
Operator : RXD1
InstName : VOA6
Sample : |1201998926|934291|1|VOAF|1|VOA8260BS|
Misc : LCS 5g N/A MIX[B] SOIL 1118-08C
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Dec 17 13:17:39 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
95)	Propionitrile	8.773	54	340201	271.30 ug/L	100
96)	Methacrylonitrile	8.950	41	1478851	268.14 ug/L	100
97)	Tetrahydrofuran	9.059	42	796965	272.15 ug/L	99
98)	Isobutyl alcohol	9.389	41	965045	2914.75 ug/L	99
99)	Methyl tert-amyl ether	9.736	73	1771	N.D.	
100)	Methyl methacrylate	10.590	69	1467421	278.29 ug/L	100
101)	1,4-Dioxane	10.699	88	225406	2766.52 ug/L	99
102)	2-Nitropropane	11.071	43	771383	288.55 ug/L	99
104)	Ethyl methacrylate	11.858	69	2745306	265.26 ug/L	100
106)	1-Chlorohexane	0.000		0	N.D.	
107)	cis-1,4-Dichloro-2-butene	14.205	53	1017132	281.19 ug/L	99
108)	Cyclohexanone	14.321	42	330368	1116.39 ug/L	99
109)	trans-1,4-Dichloro-2-b...	14.491	53	972799	279.96 ug/L	99
110)	Pentachloroethane	15.180	167	1727065	336.10 ug/L	99
111)	Benzyl chloride	15.717	91	5187529	260.89 ug/L	100
112)	bis(2-Chloroisopropyl)...	16.113	45	1543814	264.60 ug/L	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121709V6\
Data File : 6P405SL2.D
Acq On : 17 Dec 2009 12:37 pm
Operator : RXD1
InstName : VOA6
Sample : |1201998926|934291|1|VOAF|1|VOA8260BS|
Misc : LCS 5g N/A MIX[B] SOIL 1118-08C
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Dec 17 13:17:39 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

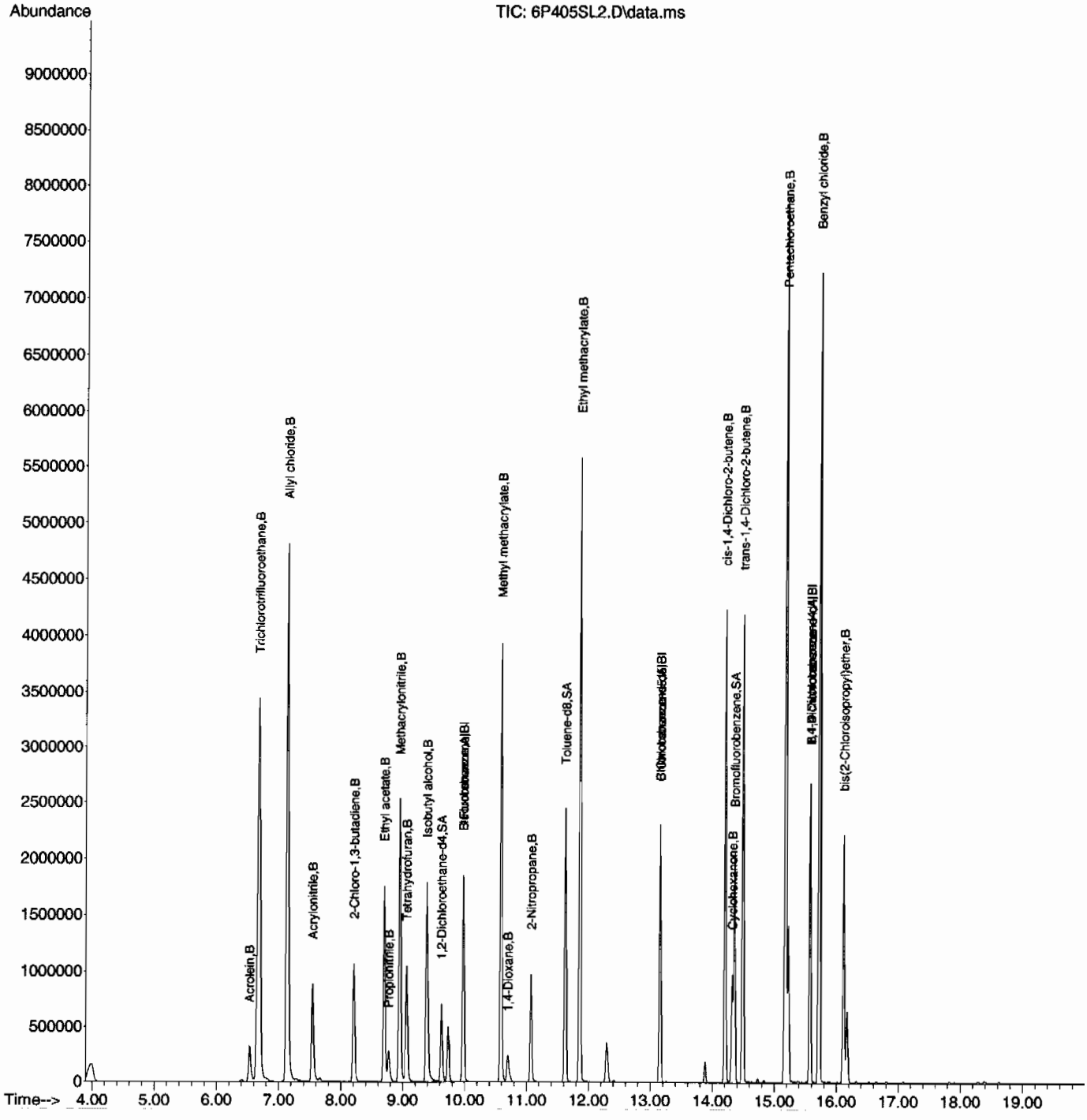

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-899**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202002452**				
Client Sample:	**QC for batch 934286**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 934286**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**934291**	**Inst:**	**VOA6.I**	**Dilution:**	**1**
Run Date:	**12/18/2009 11:48**	**Analyst:**	**RXD1**	**Purge Vol:**	**5 mL**
Prep Date:	**12/18/2009 09:34**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**121809V6\6P503LL2.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane		47.5	ug/kg	0.340	1.00
74-87-3	Chloromethane		46.6	ug/kg	0.300	1.00
75-01-4	Vinyl chloride		53.0	ug/kg	0.300	1.00
74-83-9	Bromomethane		48.7	ug/kg	0.300	1.00
75-00-3	Chloroethane		49.0	ug/kg	0.300	1.00
75-69-4	Trichlorofluoromethane		50.7	ug/kg	0.300	1.00
67-64-1	Acetone	E	190	ug/kg	1.66	5.00
75-35-4	1,1-Dichloroethylene		49.9	ug/kg	0.300	1.00
74-88-4	Iodomethane		238	ug/kg	1.60	5.00
75-09-2	Methylene chloride		43.9	ug/kg	2.00	5.00
75-15-0	Carbon disulfide		260	ug/kg	1.25	5.00
156-60-5	trans-1,2-Dichloroethylene		49.4	ug/kg	0.300	1.00
75-34-3	1,1-Dichloroethane		48.4	ug/kg	0.300	1.00
78-93-3	2-Butanone		237	ug/kg	1.50	5.00
156-59-2	cis-1,2-Dichloroethylene		48.8	ug/kg	0.300	1.00
594-20-7	2,2-Dichloropropane		55.6	ug/kg	0.300	1.00
67-66-3	Chloroform		48.1	ug/kg	0.300	1.00
74-97-5	Bromochloromethane		47.6	ug/kg	0.330	1.00
71-55-6	1,1,1-Trichloroethane		52.8	ug/kg	0.300	1.00
563-58-6	1,1-Dichloropropene		52.1	ug/kg	0.300	1.00
56-23-5	Carbon tetrachloride		54.3	ug/kg	0.300	1.00
107-06-2	1,2-Dichloroethane		46.8	ug/kg	0.300	1.00
71-43-2	Benzene		47.0	ug/kg	0.300	1.00
79-01-6	Trichloroethylene		49.2	ug/kg	0.330	1.00
78-87-5	1,2-Dichloropropane		48.4	ug/kg	0.300	1.00
75-27-4	Bromodichloromethane		51.3	ug/kg	0.300	1.00
74-95-3	Dibromomethane		47.8	ug/kg	0.300	1.00
108-10-1	4-Methyl-2-pentanone		247	ug/kg	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene		50.7	ug/kg	0.300	1.00
108-88-3	Toluene		46.6	ug/kg	0.300	1.00
10061-02-6	trans-1,3-Dichloropropylene		50.9	ug/kg	0.300	1.00
79-00-5	1,1,2-Trichloroethane		46.5	ug/kg	0.300	1.00
591-78-6	2-Hexanone		242	ug/kg	1.50	5.00
142-28-9	1,3-Dichloropropane		46.0	ug/kg	0.300	1.00
127-18-4	Tetrachloroethylene		49.0	ug/kg	0.300	1.00
124-48-1	Dibromochloromethane		52.6	ug/kg	0.300	1.00
106-93-4	1,2-Dibromoethane		48.7	ug/kg	0.300	1.00
108-90-7	Chlorobenzene		48.4	ug/kg	0.300	1.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-899**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202002452**				
Client Sample:	**QC for batch 934286**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 934286**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**934291**	**Inst:**	**VOA6.I**	**Dilution:**	**1**
Run Date:	**12/18/2009 11:48**	**Analyst:**	**RXD1**	**Purge Vol:**	**5 mL**
Prep Date:	**12/18/2009 09:34**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**121809V6\6P503LL2.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene		49.4	ug/kg	0.300	1.00
179601-23-1	m,p-Xylenes		98.5	ug/kg	0.300	2.00
95-47-6	o-Xylene		48.9	ug/kg	0.300	1.00
100-42-5	Styrene		50.8	ug/kg	0.300	1.00
75-25-2	Bromoform		54.8	ug/kg	0.300	1.00
79-34-5	1,1,2,2-Tetrachloroethane		47.3	ug/kg	0.300	1.00
96-18-4	1,2,3-Trichloropropane		47.8	ug/kg	0.300	1.00
108-86-1	Bromobenzene		46.6	ug/kg	0.300	1.00
103-65-1	n-Propylbenzene		48.6	ug/kg	0.300	1.00
95-49-8	2-Chlorotoluene		48.0	ug/kg	0.300	1.00
98-82-8	Isopropylbenzene		48.6	ug/kg	0.300	1.00
108-67-8	1,3,5-Trimethylbenzene		48.3	ug/kg	0.300	1.00
106-43-4	4-Chlorotoluene		48.2	ug/kg	0.300	1.00
98-06-6	tert-Butylbenzene		47.0	ug/kg	0.300	1.00
95-63-6	1,2,4-Trimethylbenzene		47.2	ug/kg	0.300	1.00
135-98-8	sec-Butylbenzene		47.8	ug/kg	0.300	1.00
99-87-6	4-Isopropyltoluene		48.4	ug/kg	0.300	1.00
541-73-1	1,3-Dichlorobenzene		46.8	ug/kg	0.300	1.00
106-46-7	1,4-Dichlorobenzene		46.7	ug/kg	0.300	1.00
104-51-8	n-Butylbenzene		48.1	ug/kg	0.300	1.00
96-12-8	1,2-Dibromo-3-chloropropane	E	53.1	ug/kg	0.300	1.00
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.00	ug/kg	1.60	5.00
630-20-6	1,1,1,2-Tetrachloroethane		50.0	ug/kg	0.300	1.00
95-50-1	1,2-Dichlorobenzene		45.8	ug/kg	0.300	1.00

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121809V6\
Data File : 6P503LL2.D
Acq On : 18 Dec 2009 11:48 am
Operator : RXD1
InstName : VOA6
Sample : |1202002452|934291|1|VOAF|1|VOA8260BS|
Misc : LCS 5g N/A MIX[A] SOIL 1214-01A+1217-01
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Dec 18 12:55:11 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	9.980	96	1739522	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.156	117	1276459	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	15.577	152	727076	50.00	ug/L	0.00
82) B Fluorobenzene	9.980	96	1737181	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.156	117	1276459	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	15.577	152	727076	50.00	ug/L	0.00
System Monitoring Compounds						
29) 1,2-Dichloroethane-d4	9.626	65	514541	50.13	ug/L	0.00
Spiked Amount 50.000	Range 68 - 131		Recovery = 100.26%			
43) Toluene-d8	11.626	98	1714272	48.44	ug/L	0.00
Spiked Amount 50.000	Range 75 - 129		Recovery = 96.88%			
61) Bromofluorobenzene	14.357	95	692071	49.39	ug/L	0.00
Spiked Amount 50.000	Range 68 - 133		Recovery = 98.78%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	4.360	85	370043	47.45	ug/L	100
3) Chloromethane	4.672	50	500074	46.63	ug/L	99
4) Vinyl chloride	4.914	62	498531	52.95	ug/L	100
5) Bromomethane	5.468	94	341840	48.68	ug/L	100
6) Chloroethane	5.609	64	342608	49.02	ug/L	100
7) Trichlorofluoromethane	6.022	101	699510	50.68	ug/L	100
8) Ethyl ether	6.328	59	394824	44.02	ug/L	99
9) Acetone	6.712	43	599838	189.54	ug/L	98 E
10) 1,1-Dichloroethylene	6.706	61	634800	49.86	ug/L	99
11) Iodomethane	6.956	142	3267846	238.18	ug/L	99
12) Acetonitrile	7.072	41	1492990	1150.83	ug/L	98
13) Methyl acetate	7.096	43	1672448	234.98	ug/L	100
14) Carbon disulfide	7.078	76	6653651	260.41	ug/L	100
15) Methylene chloride	7.285	84	439461	43.89	ug/L	99
16) tert-Butyl methyl ether	7.578	73	1148991	45.42	ug/L	100
17) trans-1,2-Dichloroethy...	7.621	61	641296	49.35	ug/L	99
18) Vinyl acetate	8.066	43	5036059	269.03	ug/L	95
19) 1,1-Dichloroethane	8.102	63	786587	48.37	ug/L	100
20) 2-Butanone	8.694	43	949412	237.11	ug/L	100
21) cis-1,2-Dichloroethylene	8.742	61	706110	48.78	ug/L	99
22) 2,2-Dichloropropane	8.767	77	651494	55.62	ug/L	100
23) Bromochloromethane	9.017	128	212012	47.55	ug/L	100
24) Chloroform	9.053	83	728461	48.11	ug/L	99
25) 1,1,1-Trichloroethane	9.328	97	670285	52.75	ug/L	100
26) Cyclohexane	9.413	56	874985	53.25	ug/L	100
27) 1,1-Dichloropropene	9.480	75	602147	52.07	ug/L	99
28) Carbon tetrachloride	9.517	117	610615	54.32	ug/L	100
30) 1,2-Dichloroethane	9.712	62	580318	46.75	ug/L	99
31) Benzene	9.724	78	1665031	46.99	ug/L	100
32) Cyclohexene	9.834	67	868920	51.55	ug/L	100
33) n-Butyl alcohol	10.084	56	1376082	4674.69	ug/L	99
34) Trichloroethylene	10.364	95	434895	49.17	ug/L	98
35) 1,2-Dichloropropane	10.614	63	453120	48.38	ug/L	99
36) Methylcyclohexane	10.602	83	795103	51.66	ug/L	99
37) Dibromomethane	10.748	93	237863	47.81	ug/L	99

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121809V6\
Data File : 6P503LL2.D
Acq On : 18 Dec 2009 11:48 am
Operator : RXD1
InstName : VOA6
Sample : |1202002452|934291|1|VOAF|1|VOA8260BS|
Misc : LCS 5g N/A MIX[A] SOIL 1214-01A+1217-01
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Dec 18 12:55:11 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)	
38)	Bromodichloromethane	10.864	83	538235	51.32	ug/L		99	
39)	2-Chloroethylvinyl ether	11.090	63	1277812	222.79	ug/L		99	
40)	cis-1,3-Dichloropropylene	11.315	75	670663	50.67	ug/L		100	
42)	4-Methyl-2-pentanone	11.413	58	828960	247.34	ug/L		97	
44)	Toluene	11.699	91	1770565	46.55	ug/L		100	
45)	trans-1,3-Dichloroprop...	11.858	75	625439	50.86	ug/L		99	
46)	1,1,2-Trichloroethane	12.083	83	290824	46.48	ug/L		99	
47)	2-Hexanone	12.260	43	1489425	242.37	ug/L		97	
48)	1,3-Dichloropropane	12.272	76	611992	45.96	ug/L		99	
49)	Tetrachloroethylene	12.291	164	376356	48.97	ug/L		99	
50)	Dibromochloromethane	12.541	129	414400	52.59	ug/L		100	
51)	1,2-Dibromoethane	12.711	107	366994	48.65	ug/L		97	
52)	Chlorobenzene	13.193	112	1190415	48.40	ug/L		100	
53)	1,1,1,2-Tetrachloroethane	13.248	131	425550	49.98	ug/L		99	
54)	Ethylbenzene	13.254	91	2060406	49.41	ug/L		100	
55)	m,p-Xylenes	13.364	106	1642201	98.46	ug/L		99	
56)	o-Xylene	13.796	106	799947	48.86	ug/L		98	
57)	Styrene	13.802	104	1323922	50.76	ug/L		100	
59)	Bromoform	14.065	173	281634	54.79	ug/L		100	
60)	Isopropylbenzene	14.156	105	2154876	48.62	ug/L		100	
62)	1,1,2,2-Tetrachloroethane	14.443	83	469716	47.28	ug/L		100	
63)	1,2,3-Trichloropropane	14.528	110	133582	47.80	ug/L		96	
64)	Bromobenzene	14.565	156	530736	46.58	ug/L		99	
65)	n-Propylbenzene	14.583	91	2524615	48.61	ug/L		100	
66)	1,3,5-Trimethylbenzene	14.735	105	1836278	48.33	ug/L		100	
67)	2-Chlorotoluene	14.729	126	529626	47.96	ug/L		98	
68)	4-Chlorotoluene	14.833	91	1539801	48.15	ug/L		100	
69)	tert-Butylbenzene	15.107	134	397084	46.98	ug/L	#	89	
70)	1,2,4-Trimethylbenzene	15.150	105	1888410	47.18	ug/L		99	
71)	sec-Butylbenzene	15.333	105	2441176	47.79	ug/L		99	
72)	4-Isopropyltoluene	15.455	119	2022466	48.42	ug/L		99	
73)	1,3-Dichlorobenzene	15.516	146	1041198	46.75	ug/L		100	
74)	1,4-Dichlorobenzene	15.601	146	1065953	46.68	ug/L		99	
75)	n-Butylbenzene	15.887	91	1950150	48.11	ug/L		100	
76)	1,2-Dichlorobenzene	16.022	146	987751	45.75	ug/L		99	
77)	1,2-Dibromo-3-chloropr...	16.881	157	96128	53.05	ug/L		99	E
78)	1,2,4-Trichlorobenzene	17.911	180	702411	43.26	ug/L		99	
79)	Hexachlorobutadiene	18.076	225	413978	40.15	ug/L		99	
80)	Naphthalene	18.289	128	1430183	43.82	ug/L		100	
81)	1,2,3-Trichlorobenzene	18.619	180	604560	44.46	ug/L		100	
83)	Chlorotrifluoroethylene	0.000		0	N.D.				
84)	2-Chloro-1,1,1-trifluo...	0.000		0	N.D.				
85)	Acrolein	0.000		0	N.D.				
86)	Trichlorotrifluoroethane	0.000		0	N.D.				
87)	Isopropyl Alcohol	6.712		0m	N.D.	d			
88)	Allyl chloride	7.072		0m	N.D.	d			
89)	tert-Butyl Alcohol	7.285		0m	N.D.	d			
90)	Acrylonitrile	7.572		0m	N.D.	d			
91)	Isopropyl ether	8.066		0m	N.D.	d			
92)	2-Chloro-1,3-butadiene	8.212		0m	N.D.	d			
93)	Ethyl tert-butyl ether	0.000		0	N.D.				
94)	Ethyl acetate	8.694		0m	N.D.	d			

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121809V6\
Data File : 6P503LL2.D
Acq On : 18 Dec 2009 11:48 am
Operator : RXD1
InstName : VOA6
Sample : |1202002452|934291|1|VOAF|1|VOA8260BS|
Misc : LCS 5g N/A MIX[A] SOIL 1214-01A+1217-01
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Dec 18 12:55:11 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
95)	Propionitrile	8.688		0m	N.D.	d	
96)	Methacrylonitrile	8.883		0m	N.D.	d	
97)	Tetrahydrofuran	9.059		0m	N.D.	d	
98)	Isobutyl alcohol	9.413		0m	N.D.	d	
99)	Methyl tert-amyl ether	9.724		0m	N.D.	d	
100)	Methyl methacrylate	10.602		0m	N.D.	d	
101)	1,4-Dioxane	10.742		0m	N.D.	d	
102)	2-Nitropropane	11.090		0m	N.D.	d	
104)	Ethyl methacrylate	11.791		0m	N.D.	d	
106)	1-Chlorohexane	0.000		0	N.D.		
107)	cis-1,4-Dichloro-2-butene	14.156		0m	N.D.	d	
108)	Cyclohexanone	0.000		0	N.D.		
109)	trans-1,4-Dichloro-2-b...	0.000		0	N.D.		
110)	Pentachloroethane	15.180		0m	N.D.	d	
111)	Benzyl chloride	15.717		0m	N.D.	d	
112)	bis(2-Chloroisopropyl)...	16.119		0m	N.D.	d	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121809V6\
Data File : 6P503LL2.D
Acq On : 18 Dec 2009 11:48 am
Operator : RXD1
InstName : VOA6
Sample : |1202002452|934291|1|VOAF|1|VOA8260BS|
Misc : LCS 5g N/A MIX[A] SOIL 1214-01A+1217-01
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Dec 18 12:55:11 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

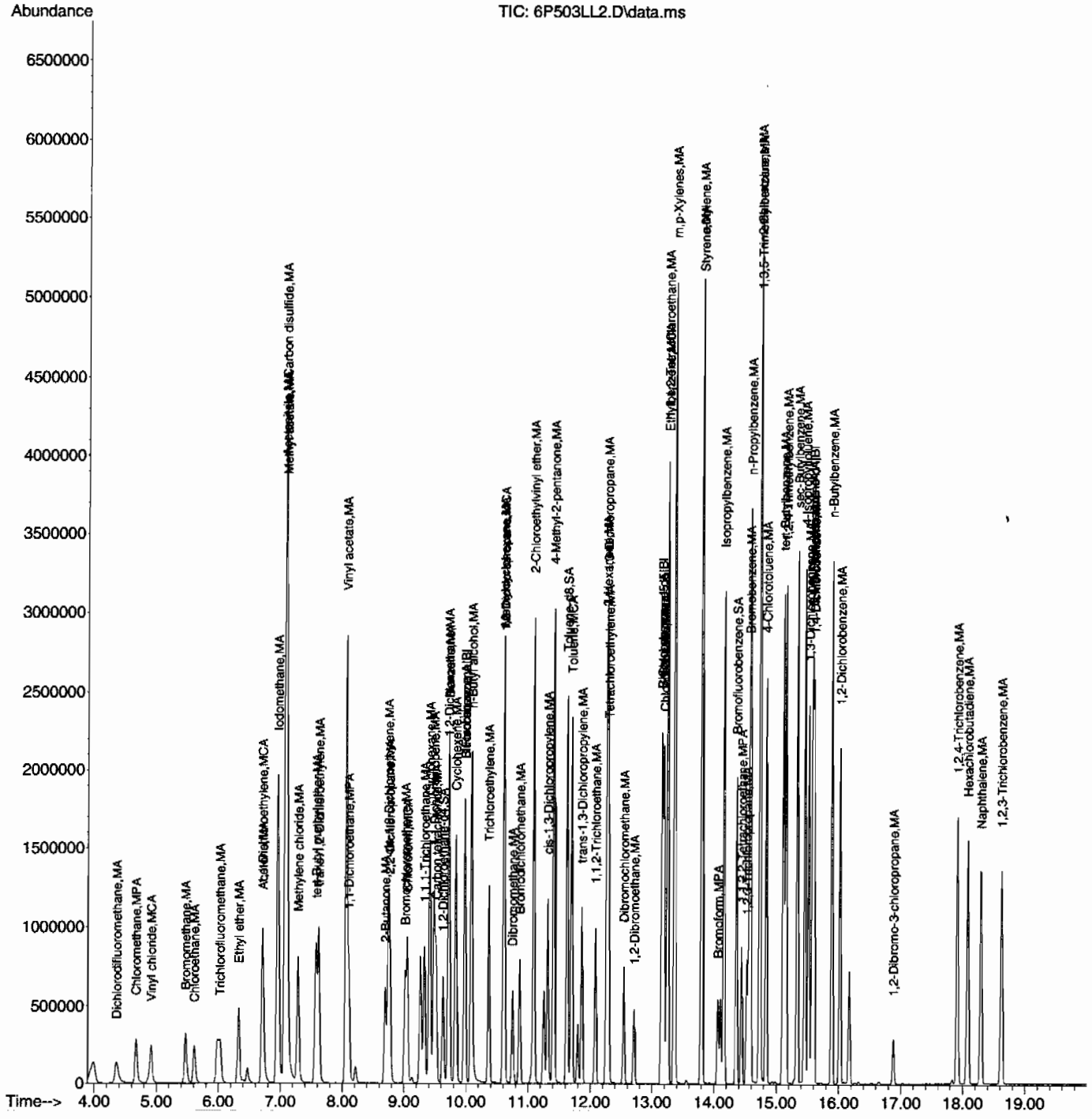

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-899**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202002453**				
Client Sample:	**QC for batch 934286**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 934286**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**934291**	**Inst:**	**VOA6.I**	**Dilution:**	**1**
Run Date:	**12/18/2009 12:43**	**Analyst:**	**RXD1**	**Purge Vol:**	**5 mL**
Prep Date:	**12/18/2009 09:35**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**121809V6\6P505SL2.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/kg	0.340	1.00
74-87-3	Chloromethane	U	1.00	ug/kg	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/kg	0.300	1.00
74-83-9	Bromomethane	U	1.00	ug/kg	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/kg	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/kg	0.300	1.00
67-64-1	Acetone	U	5.00	ug/kg	1.66	5.00
75-35-4	1,1-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/kg	1.60	5.00
75-09-2	Methylene chloride	U	5.00	ug/kg	2.00	5.00
75-15-0	Carbon disulfide	U	5.00	ug/kg	1.25	5.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/kg	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/kg	1.50	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/kg	0.300	1.00
74-97-5	Bromochloromethane	U	1.00	ug/kg	0.330	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/kg	0.300	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/kg	0.300	1.00
56-23-5	Carbon tetrachloride	U	1.00	ug/kg	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/kg	0.300	1.00
71-43-2	Benzene	U	1.00	ug/kg	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/kg	0.330	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/kg	0.300	1.00
74-95-3	Dibromomethane	U	1.00	ug/kg	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/kg	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
108-88-3	Toluene	U	1.00	ug/kg	0.300	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/kg	0.300	1.00
591-78-6	2-Hexanone	U	5.00	ug/kg	1.50	5.00
142-28-9	1,3-Dichloropropane	U	1.00	ug/kg	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/kg	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/kg	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/kg	0.300	1.00
108-90-7	Chlorobenzene	U	1.00	ug/kg	0.300	1.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-899**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202002453**				
Client Sample:	**QC for batch 934286**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 934286**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**934291**	**Inst:**	**VOA6.I**	**Dilution:**	**1**
Run Date:	**12/18/2009 12:43**	**Analyst:**	**RXD1**	**Purge Vol:**	**5 mL**
Prep Date:	**12/18/2009 09:35**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**121809V6\6P505SL2.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.00	ug/kg	0.300	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/kg	0.300	2.00
95-47-6	o-Xylene	U	1.00	ug/kg	0.300	1.00
100-42-5	Styrene	U	1.00	ug/kg	0.300	1.00
75-25-2	Bromoform	U	1.00	ug/kg	0.300	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/kg	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/kg	0.300	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/kg	0.300	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/kg	0.300	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/kg	0.300	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/kg	0.300	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/kg	0.300	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/kg	0.300	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/kg	0.300	1.00
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*		300	ug/kg	1.60	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121809V6\
Data File : 6P505SL2.D
Acq On : 18 Dec 2009 12:43 pm
Operator : RXD1
InstName : VOA6
Sample : |1202002453|934291|1|VOAF|1|VOA8260BS|
Misc : LCS 5g N/A MIX[B] SOIL 1118-08C
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Dec 18 13:05:21 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	9.974	96	1696967	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.156	117	1248996	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	15.576	152	711326	50.00	ug/L	0.00
82) B Fluorobenzene	9.974	96	1695933	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.156	117	1248996	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	15.576	152	711326	50.00	ug/L	0.00
System Monitoring Compounds						
29) 1,2-Dichloroethane-d4	9.626	65	513145	51.25	ug/L	0.00
Spiked Amount 50.000	Range 68 - 131		Recovery = 102.50%			
43) Toluene-d8	11.626	98	1677303	48.44	ug/L	0.00
Spiked Amount 50.000	Range 75 - 129		Recovery = 96.88%			
61) Bromofluorobenzene	14.357	95	689933	50.33	ug/L	0.00
Spiked Amount 50.000	Range 68 - 133		Recovery = 100.66%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	0.000		0	N.D.		
3) Chloromethane	4.672		0m	N.D.	d	
4) Vinyl chloride	4.904		0m	N.D.	d	
5) Bromomethane	0.000		0	N.D.		
6) Chloroethane	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000		0	N.D.		
8) Ethyl ether	0.000		0	N.D.		
9) Acetone	6.676		0m	N.D.	d	
10) 1,1-Dichloroethylene	6.682		0m	N.D.	d	
11) Iodomethane	6.956		0m	N.D.	d	
12) Acetonitrile	7.139		0m	N.D.	d	
13) Methyl acetate	7.096		0m	N.D.	d	
14) Carbon disulfide	7.139		0m	N.D.	d	
15) Methylene chloride	7.291		0m	N.D.	d	
16) tert-Butyl methyl ether	0.000		0	N.D.		
17) trans-1,2-Dichloroethy...	0.000		0	N.D.		
18) Vinyl acetate	8.066		0m	N.D.	d	
19) 1,1-Dichloroethane	8.206		0m	N.D.	d	
20) 2-Butanone	8.700		0m	N.D.	d	
21) cis-1,2-Dichloroethylene	8.700		0m	N.D.	d	
22) 2,2-Dichloropropane	0.000		0	N.D.		
23) Bromochloromethane	0.000		0	N.D.		
24) Chloroform	0.000		0	N.D.		
25) 1,1,1-Trichloroethane	0.000		0	N.D.		
26) Cyclohexane	9.389		0m	N.D.	d	
27) 1,1-Dichloropropene	0.000		0	N.D.		
28) Carbon tetrachloride	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000		0	N.D.		
31) Benzene	9.724		0m	N.D.	d	
32) Cyclohexene	0.000		0	N.D.		
33) n-Butyl alcohol	10.090		0m	N.D.	d	
34) Trichloroethylene	10.370		0m	N.D.	d	
35) 1,2-Dichloropropane	0.000		0	N.D.		
36) Methylcyclohexane	10.589		0m	N.D.	d	
37) Dibromomethane	0.000		0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121809V6\
Data File : 6P505SL2.D
Acq On : 18 Dec 2009 12:43 pm
Operator : RXD1
InstName : VOA6
Sample : |1202002453|934291|1|VOAF|1|VOA8260BS|
Misc : LCS 5g N/A MIX[B] SOIL 1118-08C
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Dec 18 13:05:21 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
38)	Bromodichloromethane	0.000		0	N.D.	
39)	2-Chloroethylvinyl ether	0.000		0	N.D.	
40)	cis-1,3-Dichloropropylene	0.000		0	N.D.	
42)	4-Methyl-2-pentanone	11.413		0m	N.D. d	
44)	Toluene	11.693		0m	N.D. d	
45)	trans-1,3-Dichloroprop...	0.000		0	N.D.	
46)	1,1,2-Trichloroethane	0.000		0	N.D.	
47)	2-Hexanone	12.260		0m	N.D. d	
48)	1,3-Dichloropropane	12.315		0m	N.D. d	
49)	Tetrachloroethylene	12.290		0m	N.D. d	
50)	Dibromochloromethane	0.000		0	N.D.	
51)	1,2-Dibromoethane	12.705		0m	N.D. d	
52)	Chlorobenzene	13.187		0m	N.D. d	
53)	1,1,1,2-Tetrachloroethane	0.000		0	N.D.	
54)	Ethylbenzene	13.248		0m	N.D. d	
55)	m,p-Xylenes	13.357		0m	N.D. d	
56)	o-Xylene	13.802		0m	N.D. d	
57)	Styrene	13.802		0m	N.D. d	
59)	Bromoform	0.000		0	N.D.	
60)	Isopropylbenzene	14.162		0m	N.D. d	
62)	1,1,2,2-Tetrachloroethane	14.448		0m	N.D. d	
63)	1,2,3-Trichloropropane	0.000		0	N.D.	
64)	Bromobenzene	0.000		0	N.D.	
65)	n-Propylbenzene	14.583		0m	N.D. d	
66)	1,3,5-Trimethylbenzene	14.735		0m	N.D. d	
67)	2-Chlorotoluene	14.729		0m	N.D. d	
68)	4-Chlorotoluene	14.833		0m	N.D. d	
69)	tert-Butylbenzene	15.180		0m	N.D. d	
70)	1,2,4-Trimethylbenzene	15.150		0m	N.D. d	
71)	sec-Butylbenzene	15.326		0m	N.D. d	
72)	4-Isopropyltoluene	15.454		0m	N.D. d	
73)	1,3-Dichlorobenzene	15.521		0m	N.D. d	
74)	1,4-Dichlorobenzene	15.601		0m	N.D. d	
75)	n-Butylbenzene	0.000		0	N.D.	
76)	1,2-Dichlorobenzene	16.027		0m	N.D. d	
77)	1,2-Dibromo-3-chloropr...	0.000		0	N.D.	
78)	1,2,4-Trichlorobenzene	17.911		0m	N.D. d	
79)	Hexachlorobutadiene	18.076		0m	N.D. d	
80)	Naphthalene	18.289		0m	N.D. d	
81)	1,2,3-Trichlorobenzene	18.625		0m	N.D. d	
83)	Chlorotrifluoroethylene	0.000		0	N.D.	
84)	2-Chloro-1,1,1-trifluo...	0.000		0	N.D.	
85)	Acrolein	6.535	56	338952	273.98 ug/L	99
86)	Trichlorotrifluoroethane	6.676	85	949397	299.68 ug/L	98
87)	Isopropyl Alcohol	0.000		0m	N.D. d	
88)	Allyl chloride	7.139	41	3943553	265.97 ug/L	99
89)	tert-Butyl Alcohol	0.000		0	N.D.	
90)	Acrylonitrile	7.547	53	765608	243.03 ug/L	100
91)	Isopropyl ether	0.000		0	N.D.	
92)	2-Chloro-1,3-butadiene	8.212	53	723509	57.34 ug/L	98
93)	Ethyl tert-butyl ether	0.000		0	N.D.	
94)	Ethyl acetate	8.700	43	2022214	224.70 ug/L	99

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121809V6\
Data File : 6P505SL2.D
Acq On : 18 Dec 2009 12:43 pm
Operator : RXD1
InstName : VOA6
Sample : |1202002453|934291|1|VOAF|1|VOA8260BS|
Misc : LCS 5g N/A MIX[B] SOIL 1118-08C
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Dec 18 13:05:21 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
95)	Propionitrile	8.779	54	287059	234.49 ug/L	100
96)	Methacrylonitrile	8.950	41	1295149	240.54 ug/L	100
97)	Tetrahydrofuran	9.059	42	680605	238.07 ug/L	99
98)	Isobutyl alcohol	9.389	41	797728	2468.01 ug/L	100
99)	Methyl tert-amyl ether	9.730	73	1572	N.D.	
100)	Methyl methacrylate	10.589	69	1285840	249.78 ug/L	100
101)	1,4-Dioxane	10.699	88	183163	2302.74 ug/L	99
102)	2-Nitropropane	11.071	43	663529	254.69 ug/L	99
104)	Ethyl methacrylate	11.858	69	2422219	247.74 ug/L	99
106)	1-Chlorohexane	0.000		0	N.D.	
107)	cis-1,4-Dichloro-2-butene	14.205	53	896797	267.87 ug/L	99
108)	Cyclohexanone	14.320	42	273663	999.17 ug/L	99
109)	trans-1,4-Dichloro-2-b...	14.491	53	853123	265.27 ug/L	99
110)	Pentachloroethane	15.180	167	1561156	328.25 ug/L	99
111)	Benzyl chloride	15.717	91	4571960	248.43 ug/L	100
112)	bis(2-Chloroisopropyl)...	16.113	45	1271748	235.51 ug/L	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121809V6\
Data File : 6P505SL2.D
Acq On : 18 Dec 2009 12:43 pm
Operator : RXD1
InstName : VOA6
Sample : |1202002453|934291|1|VOAF|1|VOA8260BS|
Misc : LCS 5g N/A MIX[B] SOIL 1118-08C
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Dec 18 13:05:21 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

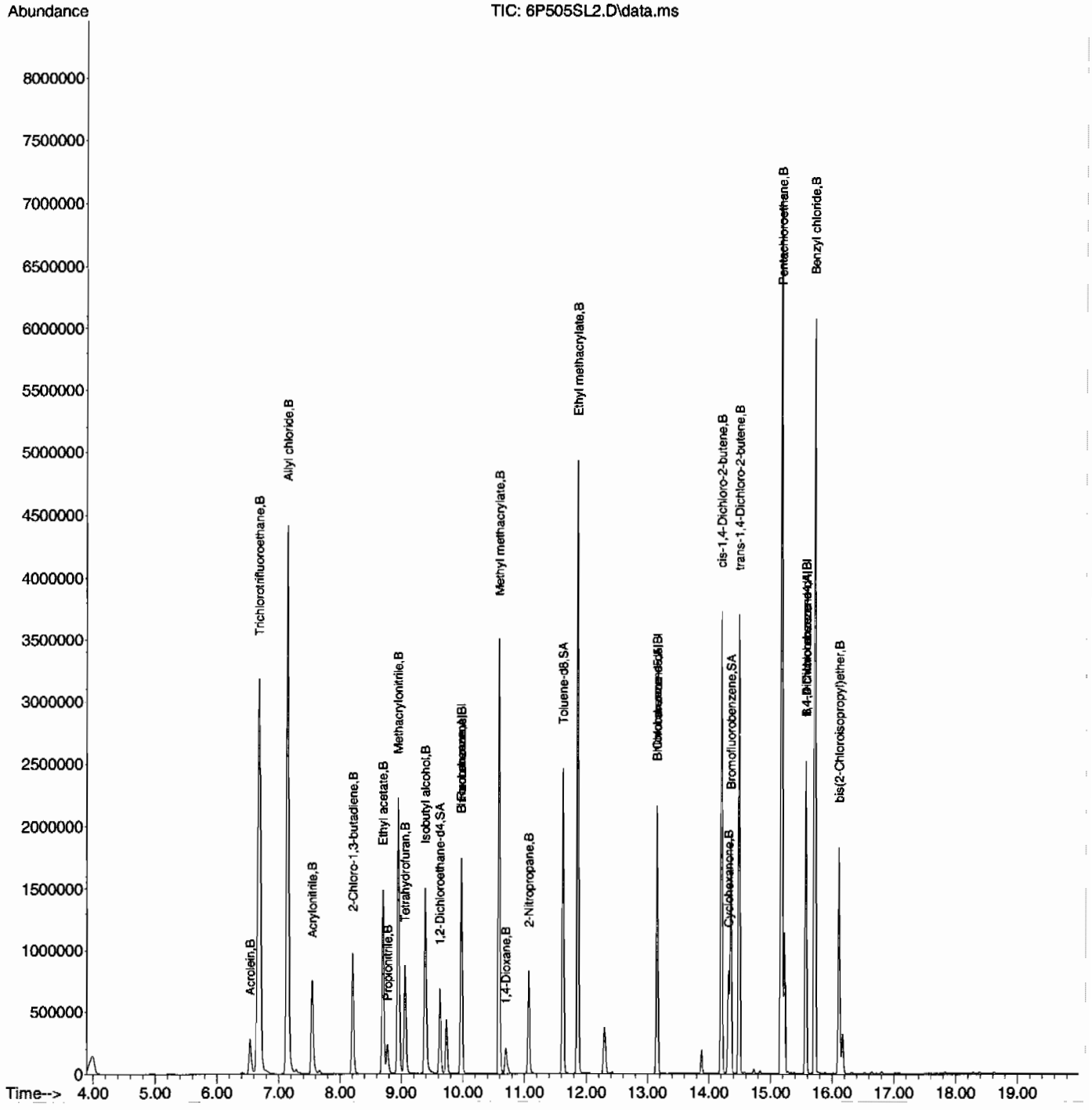

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-899	**Date Collected:**	12/10/2009 12:00	**Matrix:**	R
Lab Sample ID:	1201998923	**Date Received:**	12/12/2009 09:35	**%Moisture:**	6.7
Client Sample:	QC for batch 934286	**Client:**	LANL010	**Project:**	QC
Client ID:	WST03-10-2145PS	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	934291	**Inst:**	VOA6.I	**Dilution:**	1
Run Date:	12/18/2009 20:31	**Analyst:**	RXD1	**Purge Vol:**	5 mL
Prep Date:	12/18/2009 12:51	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	121809V6\6P521.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane		45.3	ug/kg	0.364	1.07
74-87-3	Chloromethane		45.7	ug/kg	0.322	1.07
75-01-4	Vinyl chloride		51.5	ug/kg	0.322	1.07
74-83-9	Bromomethane		48.6	ug/kg	0.322	1.07
75-00-3	Chloroethane		49.7	ug/kg	0.322	1.07
75-69-4	Trichlorofluoromethane		49.7	ug/kg	0.322	1.07
67-64-1	Acetone	E	198	ug/kg	1.78	5.36
75-35-4	1,1-Dichloroethylene		49.4	ug/kg	0.322	1.07
74-88-4	Iodomethane		240	ug/kg	1.71	5.36
75-09-2	Methylene chloride		46.7	ug/kg	2.14	5.36
75-15-0	Carbon disulfide		258	ug/kg	1.34	5.36
156-60-5	trans-1,2-Dichloroethylene		49.5	ug/kg	0.322	1.07
75-34-3	1,1-Dichloroethane		50.1	ug/kg	0.322	1.07
78-93-3	2-Butanone		242	ug/kg	1.61	5.36
156-59-2	cis-1,2-Dichloroethylene		50.5	ug/kg	0.322	1.07
594-20-7	2,2-Dichloropropane		54.9	ug/kg	0.322	1.07
67-66-3	Chloroform		50.1	ug/kg	0.322	1.07
74-97-5	Bromochloromethane		50.3	ug/kg	0.354	1.07
71-55-6	1,1,1-Trichloroethane		53.2	ug/kg	0.322	1.07
563-58-6	1,1-Dichloropropene		51.4	ug/kg	0.322	1.07
56-23-5	Carbon tetrachloride		54.3	ug/kg	0.322	1.07
107-06-2	1,2-Dichloroethane		49.3	ug/kg	0.322	1.07
71-43-2	Benzene		48.1	ug/kg	0.322	1.07
79-01-6	Trichloroethylene		49.6	ug/kg	0.354	1.07
78-87-5	1,2-Dichloropropane		50.6	ug/kg	0.322	1.07
75-27-4	Bromodichloromethane		54.6	ug/kg	0.322	1.07
74-95-3	Dibromomethane		50.7	ug/kg	0.322	1.07
108-10-1	4-Methyl-2-pentanone		257	ug/kg	1.34	5.36
10061-01-5	cis-1,3-Dichloropropylene		51.2	ug/kg	0.322	1.07
108-88-3	Toluene		47.5	ug/kg	0.322	1.07
10061-02-6	trans-1,3-Dichloropropylene		52.5	ug/kg	0.322	1.07
79-00-5	1,1,2-Trichloroethane		49.6	ug/kg	0.322	1.07
591-78-6	2-Hexanone		191	ug/kg	1.61	5.36
142-28-9	1,3-Dichloropropane		49.0	ug/kg	0.322	1.07
127-18-4	Tetrachloroethylene		48.4	ug/kg	0.322	1.07
124-48-1	Dibromochloromethane		56.5	ug/kg	0.322	1.07
106-93-4	1,2-Dibromoethane		50.6	ug/kg	0.322	1.07
108-90-7	Chlorobenzene		49.5	ug/kg	0.322	1.07

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-899**	**Date Collected:**	**12/10/2009 12:00**	**Matrix:**	**R**
Lab Sample ID:	**1201998923**	**Date Received:**	**12/12/2009 09:35**	**%Moisture:**	**6.7**
Client Sample:	**QC for batch 934286**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**WST03-10-2145PS**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**934291**	**Inst:**	**VOA6.I**	**Dilution:**	**1**
Run Date:	**12/18/2009 20:31**	**Analyst:**	**RXD1**	**Purge Vol:**	**5 mL**
Prep Date:	**12/18/2009 12:51**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**121809V6\6P521.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene		49.7	ug/kg	0.322	1.07
179601-23-1	m,p-Xylenes		99.3	ug/kg	0.322	2.14
95-47-6	o-Xylene		50.2	ug/kg	0.322	1.07
100-42-5	Styrene		51.2	ug/kg	0.322	1.07
75-25-2	Bromoform		59.8	ug/kg	0.322	1.07
79-34-5	1,1,2,2-Tetrachloroethane		51.6	ug/kg	0.322	1.07
96-18-4	1,2,3-Trichloropropane		52.2	ug/kg	0.322	1.07
108-86-1	Bromobenzene		49.5	ug/kg	0.322	1.07
103-65-1	n-Propylbenzene		49.3	ug/kg	0.322	1.07
95-49-8	2-Chlorotoluene		50.6	ug/kg	0.322	1.07
98-82-8	Isopropylbenzene		49.9	ug/kg	0.322	1.07
108-67-8	1,3,5-Trimethylbenzene		49.7	ug/kg	0.322	1.07
106-43-4	4-Chlorotoluene		50.1	ug/kg	0.322	1.07
98-06-6	tert-Butylbenzene		49.0	ug/kg	0.322	1.07
95-63-6	1,2,4-Trimethylbenzene		48.4	ug/kg	0.322	1.07
135-98-8	sec-Butylbenzene		48.8	ug/kg	0.322	1.07
99-87-6	4-Isopropyltoluene		48.1	ug/kg	0.322	1.07
541-73-1	1,3-Dichlorobenzene		48.0	ug/kg	0.322	1.07
106-46-7	1,4-Dichlorobenzene		47.1	ug/kg	0.322	1.07
104-51-8	n-Butylbenzene		47.5	ug/kg	0.322	1.07
96-12-8	1,2-Dibromo-3-chloropropane	E	56.0	ug/kg	0.322	1.07
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.36	ug/kg	1.71	5.36
630-20-6	1,1,1,2-Tetrachloroethane		52.5	ug/kg	0.322	1.07
95-50-1	1,2-Dichlorobenzene		47.1	ug/kg	0.322	1.07

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121809V6\
Data File : 6P521.D
Acq On : 18 Dec 2009 8:31 pm
Operator : RXD1
InstName : VOA6
Sample : |1201998923|934291|1|VOAF|1|VOA8260BS|
Misc : LANL 5g N/A SOIL MIX[A] MS 242784003
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Dec 20 11:02:36 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	9.980	96	1686888	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.156	117	1232010	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	15.576	152	678052	50.00	ug/L	0.00
82) B Fluorobenzene	9.980	96	1684611	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.156	117	1232010	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	15.576	152	678052	50.00	ug/L	0.00
System Monitoring Compounds						
29) 1,2-Dichloroethane-d4	9.626	65	487898	49.02	ug/L	0.00
Spiked Amount 50.000	Range 68 - 131		Recovery = 98.04%			
43) Toluene-d8	11.626	98	1621484	47.47	ug/L	0.00
Spiked Amount 50.000	Range 75 - 129		Recovery = 94.94%			
61) Bromofluorobenzene	14.357	95	650909	49.81	ug/L	0.00
Spiked Amount 50.000	Range 68 - 133		Recovery = 99.62%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	4.360	85	319514	42.25	ug/L	99
3) Chloromethane	4.672	50	443045	42.60	ug/L	100
4) Vinyl chloride	4.914	62	439135	48.09	ug/L	100
5) Bromomethane	5.468	94	308532	45.30	ug/L	100
6) Chloroethane	5.619	64	314490	46.40	ug/L	99
7) Trichlorofluoromethane	6.032	101	620371	46.34	ug/L	100
8) Ethyl ether	6.334	59	384972	44.26	ug/L	99
9) Acetone	6.712	43	566910	184.73	ug/L	98 E
10) 1,1-Dichloroethylene	6.706	61	569171	46.10	ug/L	100
11) Iodomethane	6.956	142	2984629	224.32	ug/L	99
12) Acetonitrile	7.072	41	1412955	1123.12	ug/L	99
13) Methyl acetate	7.096	43	1932375	279.97	ug/L	100
14) Carbon disulfide	7.084	76	5967610	240.85	ug/L	100
15) Methylene chloride	7.285	84	422634	43.53	ug/L	99
16) tert-Butyl methyl ether	7.578	73	1114576	45.43	ug/L	100
17) trans-1,2-Dichloroethy...	7.621	61	581897	46.17	ug/L	99
18) Vinyl acetate	8.066	43	193374	10.65	ug/L	90
19) 1,1-Dichloroethane	8.108	63	737132	46.75	ug/L	100
20) 2-Butanone	8.694	43	876912	225.84	ug/L	100
21) cis-1,2-Dichloroethylene	8.742	61	660905	47.08	ug/L	99
22) 2,2-Dichloropropane	8.767	77	581989	51.23	ug/L	100
23) Bromochloromethane	9.017	128	202890	46.92	ug/L	99
24) Chloroform	9.053	83	686223	46.74	ug/L	99
25) 1,1,1-Trichloroethane	9.328	97	611732	49.65	ug/L	99
26) Cyclohexane	9.413	56	761490	47.79	ug/L	99
27) 1,1-Dichloropropene	9.480	75	538350	48.00	ug/L	99
28) Carbon tetrachloride	9.517	117	552249	50.66	ug/L	99
30) 1,2-Dichloroethane	9.712	62	554091	46.03	ug/L	99
31) Benzene	9.724	78	1543508	44.92	ug/L	100
32) Cyclohexene	9.834	67	770005	47.11	ug/L	100
33) n-Butyl alcohol	10.084	56	1271164	4455.56	ug/L	99
34) Trichloroethylene	10.364	95	396694	46.25	ug/L	98
35) 1,2-Dichloropropane	10.614	63	429163	47.25	ug/L	99
36) Methylcyclohexane	10.608	83	698024	46.77	ug/L	99
37) Dibromomethane	10.748	93	228365	47.33	ug/L	100

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121809V6\
Data File : 6P521.D
Acq On : 18 Dec 2009 8:31 pm
Operator : RXD1
InstName : VOA6
Sample : |1201998923|934291|1|VOAF|1|VOA8260BS|
Misc : LANL 5g N/A SOIL MIX[A] MS 242784003
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Dec 20 11:02:36 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)	
38)	Bromodichloromethane	10.864	83	518377	50.97 ug/L	100	
39)	2-Chloroethylvinyl ether	11.090	63	1214743	218.40 ug/L	99	
40)	cis-1,3-Dichloropropylene	11.315	75	613169	47.77 ug/L	100	
42)	4-Methyl-2-pentanone	11.413	58	775011	239.58 ug/L	98	
44)	Toluene	11.699	91	1625088	44.27 ug/L	100	
45)	trans-1,3-Dichloroprop...	11.864	75	581197	48.97 ug/L	99	
46)	1,1,2-Trichloroethane	12.083	83	279529	46.29 ug/L	99	
47)	2-Hexanone	12.260	43	1057223	178.25 ug/L	98	
48)	1,3-Dichloropropane	12.272	76	587785	45.74 ug/L	91	
49)	Tetrachloroethylene	12.291	164	334733	45.12 ug/L	99	
50)	Dibromochloromethane	12.540	129	400833	52.71 ug/L	99	
51)	1,2-Dibromoethane	12.711	107	343687	47.20 ug/L	99	
52)	Chlorobenzene	13.193	112	1096220	46.17 ug/L	99	
53)	1,1,1,2-Tetrachloroethane	13.242	131	402738	49.01 ug/L	99	
54)	Ethylbenzene	13.254	91	1865545	46.35 ug/L	99	
55)	m,p-Xylenes	13.363	106	1491126	92.62 ug/L	99	
56)	o-Xylene	13.796	106	739879	46.82 ug/L	98	
57)	Styrene	13.802	104	1201713	47.74 ug/L	99	
59)	Bromoform	14.065	173	267387	55.78 ug/L	100	
60)	Isopropylbenzene	14.156	105	1924628	46.57 ug/L	100	
62)	1,1,2,2-Tetrachloroethane	14.443	83	445823	48.12 ug/L	98	
63)	1,2,3-Trichloropropane	14.528	110	126853	48.67 ug/L #	1	
64)	Bromobenzene	14.564	156	490399	46.15 ug/L	99	
65)	n-Propylbenzene	14.583	91	2225998	45.96 ug/L	100	
66)	1,3,5-Trimethylbenzene	14.735	105	1643784	46.39 ug/L	100	
67)	2-Chlorotoluene	14.735	126	486267	47.22 ug/L	99	
68)	4-Chlorotoluene	14.833	91	1393235	46.72 ug/L	99	
69)	tert-Butylbenzene	15.107	134	360700	45.76 ug/L	98	
70)	1,2,4-Trimethylbenzene	15.150	105	1685113	45.14 ug/L	97	
71)	sec-Butylbenzene	15.333	105	2168810	45.53 ug/L	99	
72)	4-Isopropyltoluene	15.455	119	1749904	44.92 ug/L	99	
73)	1,3-Dichlorobenzene	15.515	146	929933	44.78 ug/L	100	
74)	1,4-Dichlorobenzene	15.601	146	935957	43.95 ug/L	99	
75)	n-Butylbenzene	15.887	91	1676945	44.36 ug/L	100	
76)	1,2-Dichlorobenzene	16.022	146	884157	43.91 ug/L	99	
77)	1,2-Dibromo-3-chloropr...	16.881	157	88252	52.23 ug/L	98	E
78)	1,2,4-Trichlorobenzene	17.911	180	548242	36.20 ug/L	99	
79)	Hexachlorobutadiene	18.076	225	352707	36.68 ug/L	99	
80)	Naphthalene	18.289	128	1213302	39.87 ug/L	100	
81)	1,2,3-Trichlorobenzene	18.625	180	471681	37.20 ug/L	99	
83)	Chlorotrifluoroethylene	0.000		0	N.D.		
84)	2-Chloro-1,1,1-trifluo...	0.000		0	N.D.		
85)	Acrolein	0.000		0	N.D.		
86)	Trichlorotrifluoroethane	0.000		0	N.D.		
87)	Isopropyl Alcohol	6.792		0m	N.D. d		
88)	Allyl chloride	7.072		0m	N.D. d		
89)	tert-Butyl Alcohol	7.206		0m	N.D. d		
90)	Acrylonitrile	7.572		0m	N.D. d		
91)	Isopropyl ether	8.078		0m	N.D. d		
92)	2-Chloro-1,3-butadiene	8.218		0m	N.D. d		
93)	Ethyl tert-butyl ether	0.000		0	N.D.		
94)	Ethyl acetate	8.694		0m	N.D. d		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121809V6\
Data File : 6P521.D
Acq On : 18 Dec 2009 8:31 pm
Operator : RXD1
InstName : VOA6
Sample : |1201998923|934291|1|VOAF|1|VOA8260BS|
Misc : LANL 5g N/A SOIL MIX[A] MS 242784003
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Dec 20 11:02:36 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
95)	Propionitrile	8.694		0m	N.D.	d	
96)	Methacrylonitrile	8.889		0m	N.D.	d	
97)	Tetrahydrofuran	9.059		0m	N.D.	d	
98)	Isobutyl alcohol	9.413		0m	N.D.	d	
99)	Methyl tert-amyl ether	9.724		0m	N.D.	d	
100)	Methyl methacrylate	10.608		0m	N.D.	d	
101)	1,4-Dioxane	10.748		0m	N.D.	d	
102)	2-Nitropropane	11.090		0m	N.D.	d	
104)	Ethyl methacrylate	11.797		0m	N.D.	d	
106)	1-Chlorohexane	0.000		0	N.D.		
107)	cis-1,4-Dichloro-2-butene	14.156		0m	N.D.	d	
108)	Cyclohexanone	0.000		0	N.D.		
109)	trans-1,4-Dichloro-2-b...	0.000		0	N.D.		
110)	Pentachloroethane	15.174		0m	N.D.	d	
111)	Benzyl chloride	15.717		0m	N.D.	d	
112)	bis(2-Chloroisopropyl)...	16.168		0m	N.D.	d	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121809V6\
Data File : 6P521.D
Acq On : 18 Dec 2009 8:31 pm
Operator : RXD1
InstName : VOA6
Sample : |1201998923|934291|1|VOAF|1|VOA8260BS|
Misc : LANL 5g N/A SOIL MIX[A] MS 242784003
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Dec 20 11:02:36 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

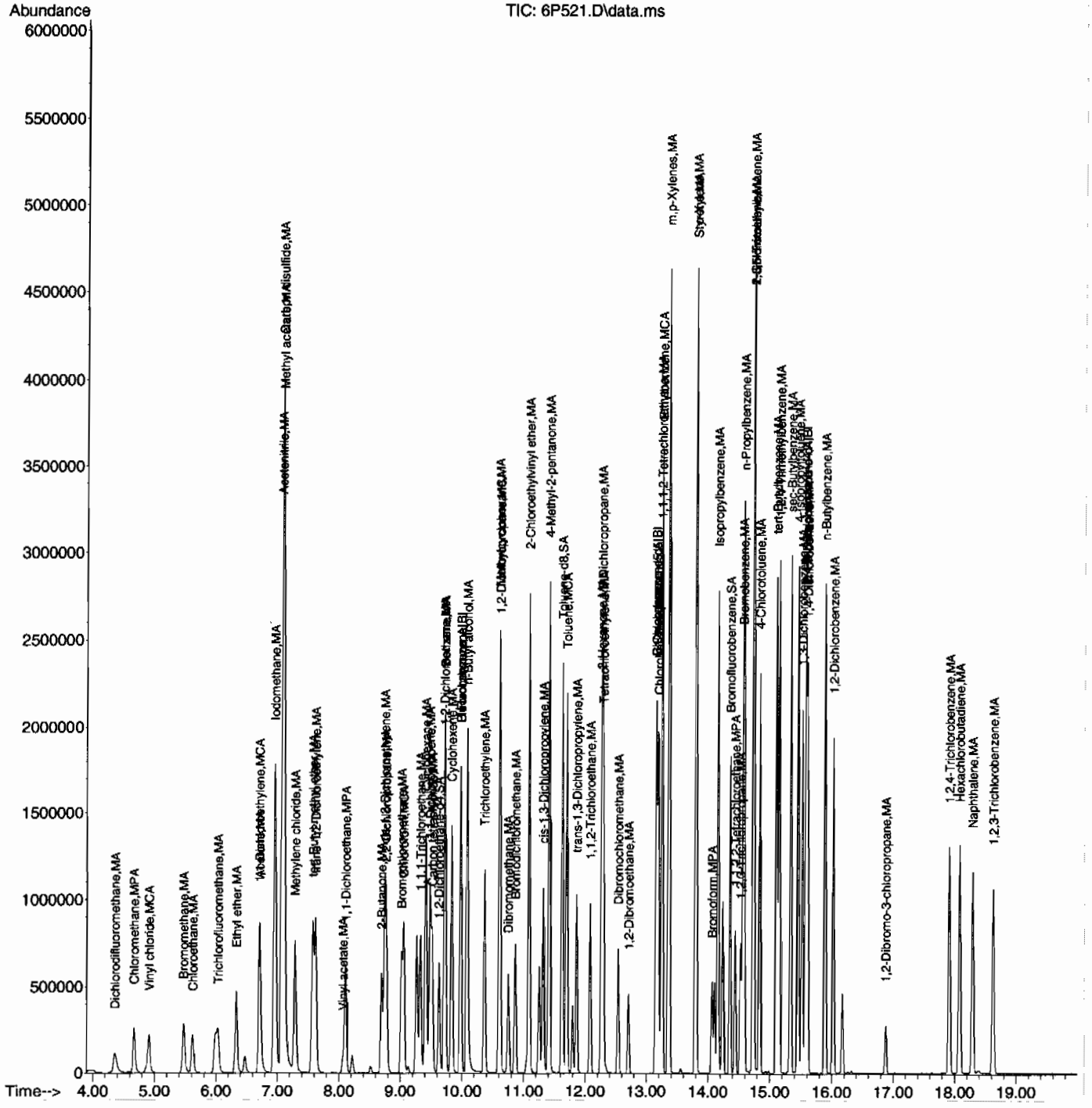

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-899	Date Collected:	12/10/2009 12:00	Matrix:	R
Lab Sample ID:	1201998924	Date Received:	12/12/2009 09:35	%Moisture:	6.7
Client Sample:	QC for batch 934286	Client:	LANL010	Project:	QC
Client ID:	WST03-10-2145PSD	Method:	SW846 8260B	SOP Ref:	GL-OA-E-038
Batch ID:	934291	Inst:	VOA6.I	Dilution:	1
Run Date:	12/18/2009 20:59	Analyst:	RXD1	Purge Vol:	5 mL
Prep Date:	12/18/2009 12:53	Aliquot:	5 g	Final Volume:	5 mL
Data File:	121809V6\6P522.D	Column:	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane		46.1	ug/kg	0.364	1.07
74-87-3	Chloromethane		46.2	ug/kg	0.322	1.07
75-01-4	Vinyl chloride		51.8	ug/kg	0.322	1.07
74-83-9	Bromomethane		49.5	ug/kg	0.322	1.07
75-00-3	Chloroethane		51.1	ug/kg	0.322	1.07
75-69-4	Trichlorofluoromethane		50.9	ug/kg	0.322	1.07
67-64-1	Acetone	E	202	ug/kg	1.78	5.36
75-35-4	1,1-Dichloroethylene		51.2	ug/kg	0.322	1.07
74-88-4	Iodomethane		244	ug/kg	1.71	5.36
75-09-2	Methylene chloride		47.1	ug/kg	2.14	5.36
75-15-0	Carbon disulfide		264	ug/kg	1.34	5.36
156-60-5	trans-1,2-Dichloroethylene		50.7	ug/kg	0.322	1.07
75-34-3	1,1-Dichloroethane		50.9	ug/kg	0.322	1.07
78-93-3	2-Butanone		243	ug/kg	1.61	5.36
156-59-2	cis-1,2-Dichloroethylene		51.0	ug/kg	0.322	1.07
594-20-7	2,2-Dichloropropane		55.9	ug/kg	0.322	1.07
67-66-3	Chloroform		51.3	ug/kg	0.322	1.07
74-97-5	Bromochloromethane		50.9	ug/kg	0.354	1.07
71-55-6	1,1,1-Trichloroethane		54.5	ug/kg	0.322	1.07
563-58-6	1,1-Dichloropropene		52.7	ug/kg	0.322	1.07
56-23-5	Carbon tetrachloride		55.3	ug/kg	0.322	1.07
107-06-2	1,2-Dichloroethane		50.2	ug/kg	0.322	1.07
71-43-2	Benzene		49.1	ug/kg	0.322	1.07
79-01-6	Trichloroethylene		51.4	ug/kg	0.354	1.07
78-87-5	1,2-Dichloropropane		51.0	ug/kg	0.322	1.07
75-27-4	Bromodichloromethane		55.0	ug/kg	0.322	1.07
74-95-3	Dibromomethane		51.4	ug/kg	0.322	1.07
108-10-1	4-Methyl-2-pentanone		258	ug/kg	1.34	5.36
10061-01-5	cis-1,3-Dichloropropylene		51.4	ug/kg	0.322	1.07
108-88-3	Toluene		48.0	ug/kg	0.322	1.07
10061-02-6	trans-1,3-Dichloropropylene		52.6	ug/kg	0.322	1.07
79-00-5	1,1,2-Trichloroethane		49.8	ug/kg	0.322	1.07
591-78-6	2-Hexanone		189	ug/kg	1.61	5.36
142-28-9	1,3-Dichloropropane		49.2	ug/kg	0.322	1.07
127-18-4	Tetrachloroethylene		48.9	ug/kg	0.322	1.07
124-48-1	Dibromochloromethane		55.5	ug/kg	0.322	1.07
106-93-4	1,2-Dibromoethane		50.4	ug/kg	0.322	1.07
108-90-7	Chlorobenzene		49.8	ug/kg	0.322	1.07

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-899	**Date Collected:**	12/10/2009 12:00	**Matrix:**	R
Lab Sample ID:	1201998924	**Date Received:**	12/12/2009 09:35	**%Moisture:**	6.7
Client Sample:	QC for batch 934286	**Client:**	LANL010	**Project:**	QC
Client ID:	WST03-10-2145PSD	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	934291	**Inst:**	VOA6.I	**Dilution:**	1
Run Date:	12/18/2009 20:59	**Analyst:**	RXD1	**Purge Vol:**	5 mL
Prep Date:	12/18/2009 12:53	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	121809V6\6P522.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene		50.0	ug/kg	0.322	1.07
179601-23-1	m,p-Xylenes		99.7	ug/kg	0.322	2.14
95-47-6	o-Xylene		50.2	ug/kg	0.322	1.07
100-42-5	Styrene		51.3	ug/kg	0.322	1.07
75-25-2	Bromoform		58.8	ug/kg	0.322	1.07
79-34-5	1,1,2,2-Tetrachloroethane		50.7	ug/kg	0.322	1.07
96-18-4	1,2,3-Trichloropropane		52.2	ug/kg	0.322	1.07
108-86-1	Bromobenzene		48.8	ug/kg	0.322	1.07
103-65-1	n-Propylbenzene		49.3	ug/kg	0.322	1.07
95-49-8	2-Chlorotoluene		50.4	ug/kg	0.322	1.07
98-82-8	Isopropylbenzene		49.9	ug/kg	0.322	1.07
108-67-8	1,3,5-Trimethylbenzene		50.1	ug/kg	0.322	1.07
106-43-4	4-Chlorotoluene		49.5	ug/kg	0.322	1.07
98-06-6	tert-Butylbenzene		50.1	ug/kg	0.322	1.07
95-63-6	1,2,4-Trimethylbenzene		48.5	ug/kg	0.322	1.07
135-98-8	sec-Butylbenzene		48.8	ug/kg	0.322	1.07
99-87-6	4-Isopropyltoluene		48.2	ug/kg	0.322	1.07
541-73-1	1,3-Dichlorobenzene		47.7	ug/kg	0.322	1.07
106-46-7	1,4-Dichlorobenzene		47.0	ug/kg	0.322	1.07
104-51-8	n-Butylbenzene		47.5	ug/kg	0.322	1.07
96-12-8	1,2-Dibromo-3-chloropropane	E	57.1	ug/kg	0.322	1.07
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.36	ug/kg	1.71	5.36
630-20-6	1,1,1,2-Tetrachloroethane		53.1	ug/kg	0.322	1.07
95-50-1	1,2-Dichlorobenzene		46.9	ug/kg	0.322	1.07

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121809V6\
Data File : 6P522.D
Acq On : 18 Dec 2009 8:59 pm
Operator : RXD1
InstName : VOA6
Sample : |1201998924|934291|1|VOAF|1|VOA8260BS|
Misc : LANL 5g N/A SOIL MIX[A] MSD 242784003
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Dec 20 11:02:39 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	9.980	96	1621584	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.156	117	1182916	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	15.576	152	653742	50.00	ug/L	0.00
82) B Fluorobenzene	9.980	96	1619743	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.156	117	1182916	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	15.576	152	653742	50.00	ug/L	0.00
System Monitoring Compounds						
29) 1,2-Dichloroethane-d4	9.626	65	489231	51.13	ug/L	0.00
Spiked Amount 50.000	Range 68 - 131		Recovery = 102.26%			
43) Toluene-d8	11.626	98	1609575	49.08	ug/L	0.00
Spiked Amount 50.000	Range 75 - 129		Recovery = 98.16%			
61) Bromofluorobenzene	14.357	95	639192	50.74	ug/L	0.00
Spiked Amount 50.000	Range 68 - 133		Recovery = 101.48%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	4.360	85	312503	42.99	ug/L	100
3) Chloromethane	4.672	50	431253	43.13	ug/L	100
4) Vinyl chloride	4.914	62	424415	48.35	ug/L	100
5) Bromomethane	5.468	94	302519	46.21	ug/L	100
6) Chloroethane	5.619	64	310323	47.63	ug/L	99
7) Trichlorofluoromethane	6.032	101	611405	47.51	ug/L	100
8) Ethyl ether	6.334	59	379626	45.41	ug/L	98
9) Acetone	6.712	43	555160	188.19	ug/L	98 E
10) 1,1-Dichloroethylene	6.712	61	566583	47.73	ug/L	100
11) Iodomethane	6.956	142	2915471	227.95	ug/L	100
12) Acetonitrile	7.072	41	1403032	1160.15	ug/L	100
13) Methyl acetate	7.096	43	1820715	274.42	ug/L	100
14) Carbon disulfide	7.084	76	5876974	246.74	ug/L	100
15) Methylene chloride	7.285	84	409746	43.90	ug/L	100
16) tert-Butyl methyl ether	7.578	73	1089450	46.20	ug/L	100
17) trans-1,2-Dichloroethy...	7.621	61	573082	47.31	ug/L	99
18) Vinyl acetate	8.066	43	130001	7.45	ug/L	96
19) 1,1-Dichloroethane	8.108	63	720381	47.52	ug/L	100
20) 2-Butanone	8.694	43	846923	226.90	ug/L	99
21) cis-1,2-Dichloroethylene	8.742	61	642205	47.59	ug/L	99
22) 2,2-Dichloropropane	8.767	77	569233	52.13	ug/L	100
23) Bromochloromethane	9.017	128	197308	47.47	ug/L	99
24) Chloroform	9.053	83	675547	47.86	ug/L	100
25) 1,1,1-Trichloroethane	9.328	97	602706	50.88	ug/L	99
26) Cyclohexane	9.413	56	756561	49.39	ug/L	100
27) 1,1-Dichloropropene	9.480	75	530013	49.16	ug/L	98
28) Carbon tetrachloride	9.517	117	540649	51.60	ug/L	99
30) 1,2-Dichloroethane	9.712	62	542098	46.85	ug/L	100
31) Benzene	9.724	78	1514049	45.83	ug/L	100
32) Cyclohexene	9.834	67	763471	48.59	ug/L	100
33) n-Butyl alcohol	10.084	56	1253007	4567.42	ug/L	98
34) Trichloroethylene	10.364	95	395735	48.00	ug/L	99
35) 1,2-Dichloropropane	10.614	63	415013	47.54	ug/L	99
36) Methylcyclohexane	10.608	83	675694	47.09	ug/L	99
37) Dibromomethane	10.754	93	222234	47.92	ug/L	100

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121809V6\
Data File : 6P522.D
Acq On : 18 Dec 2009 8:59 pm
Operator : RXD1
InstName : VOA6
Sample : |1201998924|934291|1|VOAF|1|VOA8260BS|
Misc : LANL 5g N/A SOIL MIX[A] MSD 242784003
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Dec 20 11:02:39 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)	
38)	Bromodichloromethane	10.864	83	501758	51.32 ug/L	100	
39)	2-Chloroethylvinyl ether	11.090	63	1174638	219.69 ug/L	99	
40)	cis-1,3-Dichloropropylene	11.315	75	591611	47.95 ug/L	100	
42)	4-Methyl-2-pentanone	11.407	58	746563	240.37 ug/L	98	
44)	Toluene	11.699	91	1580016	44.82 ug/L	100	
45)	trans-1,3-Dichloroprop...	11.864	75	559802	49.12 ug/L	100	
46)	1,1,2-Trichloroethane	12.083	83	269146	46.42 ug/L	99	
47)	2-Hexanone	12.260	43	1001874	175.92 ug/L	99	
48)	1,3-Dichloropropane	12.272	76	566626	45.92 ug/L	91	
49)	Tetrachloroethylene	12.291	164	325093	45.64 ug/L	99	
50)	Dibromochloromethane	12.540	129	377965	51.76 ug/L	100	
51)	1,2-Dibromoethane	12.711	107	328886	47.04 ug/L	99	
52)	Chlorobenzene	13.193	112	1059411	46.48 ug/L	100	
53)	1,1,1,2-Tetrachloroethane	13.248	131	391036	49.56 ug/L	100	
54)	Ethylbenzene	13.254	91	1801560	46.61 ug/L	99	
55)	m,p-Xylenes	13.364	106	1438301	93.05 ug/L	98	
56)	o-Xylene	13.796	106	710038	46.80 ug/L	97	
57)	Styrene	13.802	104	1156664	47.85 ug/L	99	
59)	Bromoform	14.065	173	253543	54.86 ug/L	99	
60)	Isopropylbenzene	14.156	105	1856717	46.59 ug/L	100	
62)	1,1,2,2-Tetrachloroethane	14.443	83	422442	47.29 ug/L	99	
63)	1,2,3-Trichloropropane	14.528	110	122414	48.72 ug/L	96	
64)	Bromobenzene	14.564	156	466540	45.54 ug/L	99	
65)	n-Propylbenzene	14.583	91	2148397	46.01 ug/L	100	
66)	1,3,5-Trimethylbenzene	14.735	105	1595885	46.72 ug/L	99	
67)	2-Chlorotoluene	14.735	126	466787	47.01 ug/L	99	
68)	4-Chlorotoluene	14.833	91	1328430	46.20 ug/L	100	
69)	tert-Butylbenzene	15.107	134	355042	46.72 ug/L #	91	
70)	1,2,4-Trimethylbenzene	15.150	105	1627577	45.22 ug/L	99	
71)	sec-Butylbenzene	15.333	105	2090803	45.52 ug/L	99	
72)	4-Isopropyltoluene	15.455	119	1689183	44.98 ug/L	99	
73)	1,3-Dichlorobenzene	15.516	146	890837	44.49 ug/L	99	
74)	1,4-Dichlorobenzene	15.601	146	900654	43.87 ug/L	99	
75)	n-Butylbenzene	15.887	91	1615484	44.32 ug/L	100	
76)	1,2-Dichlorobenzene	16.022	146	850027	43.79 ug/L	99	
77)	1,2-Dibromo-3-chloropr...	16.881	157	86728	53.23 ug/L	99	E
78)	1,2,4-Trichlorobenzene	17.911	180	529699	36.28 ug/L	100	
79)	Hexachlorobutadiene	18.076	225	341043	36.79 ug/L	99	
80)	Naphthalene	18.289	128	1183448	40.33 ug/L	100	
81)	1,2,3-Trichlorobenzene	18.625	180	457970	37.46 ug/L	99	
83)	Chlorotrifluoroethylene	0.000		0	N.D.		
84)	2-Chloro-1,1,1-trifluo...	0.000		0	N.D.		
85)	Acrolein	6.462		0m	N.D. d		
86)	Trichlorotrifluoroethane	0.000		0	N.D.		
87)	Isopropyl Alcohol	6.804		0m	N.D. d		
88)	Allyl chloride	7.072		0m	N.D. d		
89)	tert-Butyl Alcohol	0.000		0	N.D.		
90)	Acrylonitrile	7.572		0m	N.D. d		
91)	Isopropyl ether	8.072		0m	N.D. d		
92)	2-Chloro-1,3-butadiene	8.218		0m	N.D. d		
93)	Ethyl tert-butyl ether	0.000		0	N.D.		
94)	Ethyl acetate	8.694		0m	N.D. d		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121809V6\
Data File : 6P522.D
Acq On : 18 Dec 2009 8:59 pm
Operator : RXD1
InstName : VOA6
Sample : |1201998924|934291|1|VOAF|1|VOA8260BS|
Misc : LANL 5g N/A SOIL MIX[A] MSD 242784003
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Dec 20 11:02:39 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
95)	Propionitrile	8.706		0m	N.D. d	
96)	Methacrylonitrile	0.000		0	N.D.	
97)	Tetrahydrofuran	9.059		0m	N.D. d	
98)	Isobutyl alcohol	9.413		0m	N.D. d	
99)	Methyl tert-amyl ether	9.724		0m	N.D. d	
100)	Methyl methacrylate	10.608		0m	N.D. d	
101)	1,4-Dioxane	10.748		0m	N.D. d	
102)	2-Nitropropane	11.090		0m	N.D. d	
104)	Ethyl methacrylate	11.803		0m	N.D. d	
106)	1-Chlorohexane	0.000		0	N.D.	
107)	cis-1,4-Dichloro-2-butene	14.156		0m	N.D. d	
108)	Cyclohexanone	0.000		0	N.D.	
109)	trans-1,4-Dichloro-2-b...	0.000		0	N.D.	
110)	Pentachloroethane	15.174		0m	N.D. d	
111)	Benzyl chloride	15.717		0m	N.D. d	
112)	bis(2-Chloroisopropyl)...	16.168		0m	N.D. d	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121809V6\
Data File : 6P522.D
Acq On : 18 Dec 2009 8:59 pm
Operator : RXD1
InstName : VOA6
Sample : |1201998924|934291|1|VOAF|1|VOA8260BS|
Misc : LANL 5g N/A SOIL MIX[A] MSD 242784003
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Dec 20 11:02:39 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

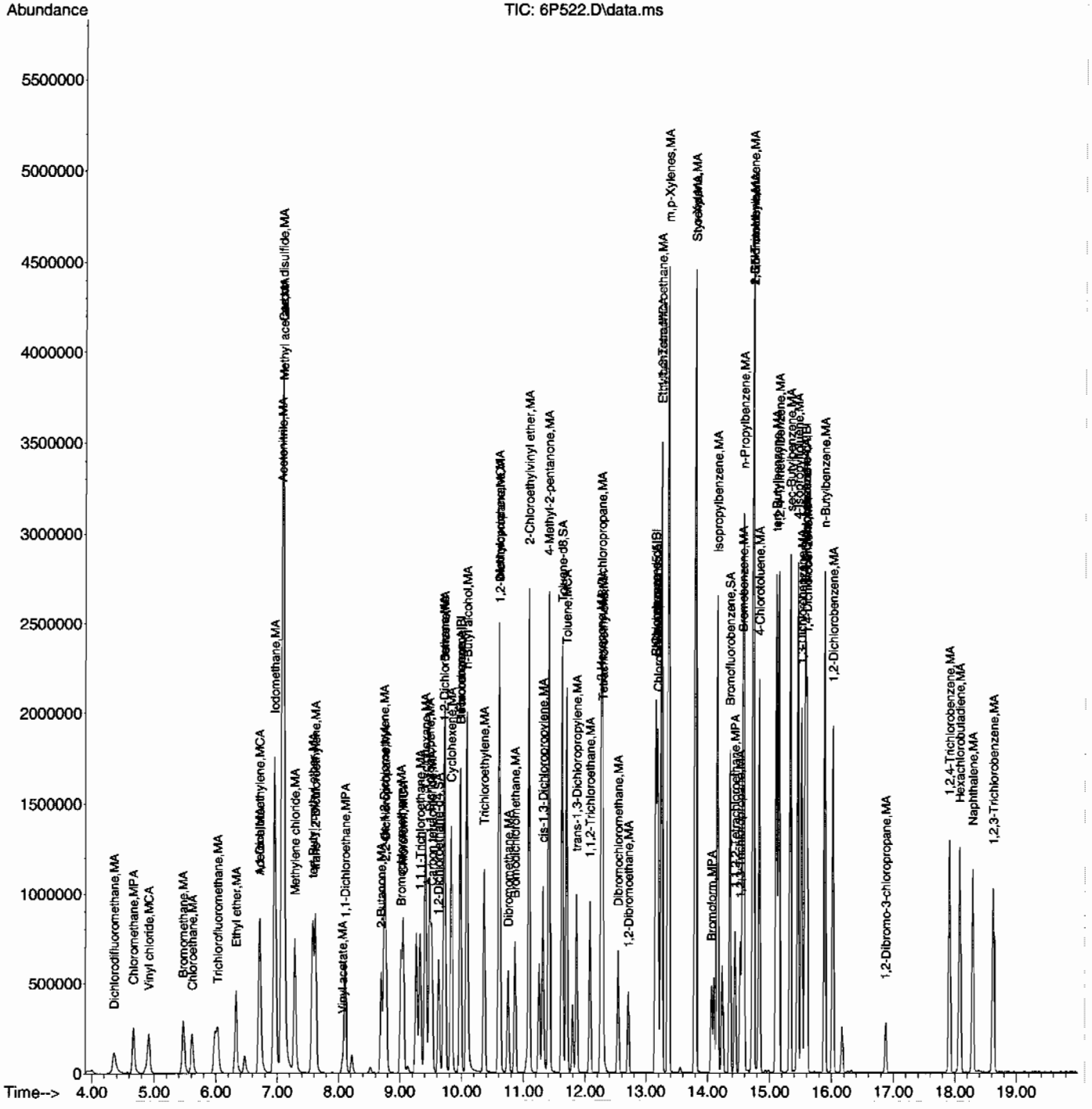

Miscellaneous

Prep Logbook

Volatile Organic Compounds (VOC) by Gas Chromatograph/Mass Spectrometer

Batch ID: **934286** Verified by: _____

Analyst: Ryan Dushak
Method: SW846 5030
Lab SOP: GL-OA-E-038 REV# 13
Instrument: Sartorius Balance B-001

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units

Sample ID	Run Date	Matrix	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check 1
1201998925 LCS	17-DEC-2009 09:22:00	Soil	5	5	1	
1201998926 LCS	17-DEC-2009 09:23:00	Soil	5	5	1	
1201998922 MB	17-DEC-2009 09:26:00	Soil	5	5	1	
242784001	17-DEC-2009 15:16:00	Soil	5	5	1	
242784002	17-DEC-2009 15:18:00	Soil	5	5	1	
242784003	17-DEC-2009 15:20:00	Soil	5	5	1	
242784004	17-DEC-2009 15:26:00	Soil	5	5	1	
1202002452 LCS	18-DEC-2009 09:34:00	Soil	5	5	1	
1202002453 LCS	18-DEC-2009 09:35:00	Soil	5	5	1	
1202002451 MB	18-DEC-2009 09:38:00	Soil	5	5	1	
1201998923 PS (242784003)	18-DEC-2009 12:51:00	Soil	5	5	1	
1201998924 PSD (242784003)	18-DEC-2009 12:53:00	Soil	5	5	1	

Reagent/Solvent Lot ID	Description	Amount

Comments:

GEL Laboratories, LLC
Revision:11/22/04

ORGANIC RUN LOG - INSTRUMENT ID#VOA6

Date: 12/10/2009 Method 8260B/624 Operator: RXD1

REVIEWED BY: _____
DATE: _____

HARDWARE CONFIGURATION & METHOD CONDITIONS SUMMARY No# 4

Daily Instrument Readings:
Multiplier Voltage: 1624

CALIBRATION & CC INFORMATION:

Initial Calibration Date: 12/10/2009

(See pg. for ICAL Std. Sci. Ids)

NaHSO4 lot # n/a
Cl test lot # 72612
Sequence Number: 121009V6

Daily Standard — Volume Added for Purge (ul)

	Solution ID#	Blk/ Smpl	CCV	MS/ LCS	BFB
L-ICV	W6VM091210-11		5+5		
IS	UVM091203-01	1	1		
SS	UVM091020-02	1	1		
S-ICV	W6VM091210-20		5+5		
BFB	UVM091020-02				1
N/A					
N/A					

Purge Amount

5	Water Purge Vol:ML
N/A	Soil Purge Wt.:G
N/A	Mid level ext. MeOH Vol:
N/A	ul
N/A	Methanol Lot #
x	Heated Purge

Analysis Date	Time	Data File	Lab Sample ID	Client	Batch #	Wt.(g) or Vol(ml/ul)	Dil. Factor	pH	AS Slot #	Matrix w or s	Analyst	Cl test (Y/N)	Acceptable (O/X)	Comments
12/10/2009	8:31	6O401.D	12019--	BLANK	BLANK	5mL	1	N/A	1	w	RXD1	N/A	X	RINSE
12/10/2009	8:59	6O402.D	W6VM091210-00	GEL	CCV	5mL	1	N/A	2	w	RXD1	N/A	X	MIX[A] UVM091129-01C+IVM091209-01
12/10/2009	9:26	6O403.D	12019--	BLANK	BLANK	5mL	1	N/A	3	w	RXD1	N/A	X	RINSE
12/10/2009	10:12	6O404.D	UVM091020-02	GEL	BFB	5mL	1	N/A	4	w	RXD1	N/A	O	BFB
12/10/2009	10:39	6O405.D	W6VM091210-01	VSTD001	ICAL	5uL	1	N/A	5	w	RXD1	N/A	X	MIX[A] UVM090911-02C+UVM091130-02B, see 6O415
12/10/2009	11:07	6O406.D	W6VM091210-02	VSTD001	ICAL	5uL	1	N/A	6	w	RXD1	N/A	X	MIX[A] UVM090911-02C+UVM091130-02B, see 6O415
12/10/2009	11:34	6O407.D	W6VM091210-03	VSTD002	ICAL	5uL	1	N/A	7	w	RXD1	N/A	O	MIX[A] UVM090911-03C+UVM091130-03B
12/10/2009	12:02	6O408.D	W6VM091210-04	VSTD005	ICAL	5uL	1	N/A	8	w	RXD1	N/A	O	MIX[A] UVM090911-04C+UVM091130-04B
12/10/2009	12:30	6O409.D	W6VM091210-05	VSTD010	ICAL	5uL	1	N/A	9	w	RXD1	N/A	O	MIX[A] UVM090911-05C+UVM091130-05B
12/10/2009	12:58	6O410.D	W6VM091210-06	VSTD020	ICAL	5uL	1	N/A	10	w	RXD1	N/A	O	MIX[A] UVM090911-06C+UVM091130-06B
12/10/2009	13:26	6O411.D	W6VM091210-07	VSTD050	ICAL	5uL	1	N/A	11	w	RXD1	N/A	O	MIX[A] UVM090911-07C+UVM091130-07B
12/10/2009	13:54	6O412.D	W6VM091210-08	VSTD100	ICAL	5uL	1	N/A	12	w	RXD1	N/A	O	MIX[A] UVM090911-08C+UVM091130-08B
12/10/2009	14:22	6O413.D	12019--	BLANK	BLANK	5mL	1	N/A	13	w	RXD1	N/A	X	RINSE
12/10/2009	14:49	6O414.D	W6VM091210-09	VSTD0005	ICAL	5uL	1	N/A	14	w	RXD1	N/A	O	MIX[A] UVM090911-01C+UVM091130-01B
12/10/2009	15:17	6O415.D	W6VM091210-10	VSTD001	ICAL	2.5uL	1	N/A	15	w	RXD1	N/A	O	MIX[A] UVM090911-03C+UVM091130-03B
12/10/2009	15:45	6O416.D	W6VM091210-11	ICV	ICV	5uL	1	N/A	16	w	RXD1	N/A	O	MIX[A] UVM091129-01C+IVM091209-01
12/10/2009	16:13	6O417.D	W6VM091210-12	ICV	ICV	5uL	1	N/A	17	w	RXD1	N/A	X	MIX[A] UVM091105-01D+IVM091209-01
12/10/2009	16:40	6O418.D	W6VM091210-13	VSTD005S	ICAL	5uL	1	N/A	18	w	RXD1	N/A	O	MIX[B] UVM091118-01+UVM091110-01B
12/10/2009	17:08	6O419.D	W6VM091210-14	VSTD010S	ICAL	5uL	1	N/A	19	w	RXD1	N/A	O	MIX[B] UVM091118-02+UVM091110-02B
12/10/2009	17:36	6O420.D	W6VM091210-15	VSTD025S	ICAL	5uL	1	N/A	20	w	RXD1	N/A	O	MIX[B] UVM091118-03+UVM091110-03B
12/10/2009	18:04	6O421.D	W6VM091210-16	VSTD050S	ICAL	5uL	1	N/A	21	w	RXD1	N/A	O	MIX[B] UVM091118-04+UVM091110-04B
12/10/2009	18:32	6O422.D	W6VM091210-17	VSTD100S	ICAL	5uL	1	N/A	22	w	RXD1	N/A	O	MIX[B] UVM091118-05+UVM091110-05B
12/10/2009	19:00	6O423.D	W6VM091210-18	VSTD250S	ICAL	5uL	1	N/A	23	w	RXD1	N/A	O	MIX[B] UVM091118-06+UVM091110-06B
12/10/2009	19:28	6O424.D	W6VM091210-19	VSTD500S	ICAL	5uL	1	N/A	24	w	RXD1	N/A	O	MIX[B] UVM091118-07+UVM091110-07B
12/10/2009	19:56	6O425.D	12019--	BLANK	BLANK	5mL	1	N/A	25	w	RXD1	N/A	X	RINSE
12/10/2009	20:23	6O426.D	W6VM091210-20	ICV	ICV	5uL	1	N/A	26	w	RXD1	N/A	O	MIX[B] UVM091118-08B+UVM091105-02D
12/10/2009	20:51	6O427.D	12019--	BLANK	BLANK	5mL	1	N/A	27	w	RXD1	N/A	X	RINSE

GEL Laboratories, LLC
Revision:11/22/04

ORGANIC RUN LOG - INSTRUMENT ID#VOA6

Date: 12/17/2009 Method 8260B/624 Operator: RXD1

REVIEWED BY: _____
DATE: _____

HARDWARE CONFIGURATION & METHOD CONDITIONS SUMMARY No# 4

Daily Instrument Readings:
Multiplier Voltage: 1647

CALIBRATION & CC INFORMATION:

Initial Calibration Date: 12/10/2009

(See pg. 234 for ICAL Std. Sci. Ids)

NaHSO4 lot # n/a
Cl test lot # 72612
Sequence Number: 121709V6

Daily Standard — Volume Added for Purge (ul)

	Solution ID#	Blk/ Smpl	CCV	MS/ LCS	BFB
CCV	W6VM091217-01		5+5		
IS	UVM091203-01	1	1	1	
SS	UVM091020-02	1	1	1	
LCS/MS	W6VM091217-01/02			5+5	
BFB	UVM091020-02				1
SHORT	W6VM091217-03		5	5	
DHEC	N/A		5		

Purge Amount

5	Water Purge Vol:ML
varied	Soil Purge Wt.:G
x	Mid level ext. MeOH Vol:
100	ul
CZ937	Methanol Lot #
x	Heated Purge

Analysis Date Time	Data File	Lab Sample ID	Client	Batch #	Wt.(g) or Vol(ml/ul)	Dil. Factor	pH	AS Slot #	Matrix w or s	Analyst	Cl test (Y/N)	Acceptable (O/X)	Comments
12/17/2009 10:46	6P401.D	UVM091020-02	GEL	BFB	5mL	1	N/A	1	w	RXD1	N/A	O	BFB
12/17/2009 11:14	6P402.D	W6VM091217-01	GEL	CCV/LCS	5mL	1	N/A	2	w	RXD1	N/A	O	MIX[A] UVM091129-01E+IVM091214-01
12/17/2009 11:42	6P403.D	W6VM091217-02	GEL	LCS	5g	1	N/A	3	s	RXD1	N/A	O	MIX[A] SOIL UVM091129-01E+IVM091214-01
12/17/2009 12:10	6P404.D	W6VM091217-03	GEL	CCV	5mL	1	N/A	4	w	RXD1	N/A	O	MIX[B] UVM091118-08C
12/17/2009 12:37	6P405.D	W6VM091217-04	GEL	LCS	5g	1	N/A	5	s	RXD1	N/A	O	MIX[B] SOIL UVM091118-08C
12/17/2009 13:05	6P406.D	12019--	BLANK	BLANK	5g	1	N/A	6	s	RXD1	N/A	O	SOIL
12/17/2009 13:33	6P407.D	12019--	BLANK	BLANK	5mL	1	N/A	7	w	RXD1	N/A	O	
12/17/2009 14:01	6P408.D	12019--	HB	HB	100uL	50	N/A	8	w	RXD1	N/A	O	SOIL
12/17/2009 14:29	6P409.D	242439006	LANL	933744	100uL	50	N/A	9	w	RXD1	N/A	O	SOIL, dilution of 6P313
12/17/2009 14:56	6P410.D	242439017	LANL	933744	5g	1	N/A	10	s	RXD1	N/A	O	SOIL, RR of 6P324
12/17/2009 15:24	6P411.D	242439001	LANL	933744	5g	1	N/A	11	s	RXD1	N/A	O	SOIL, RR of 6P308
12/17/2009 15:52	6P412.D	242439004	LANL	933744	5g	1	N/A	12	s	RXD1	N/A	O	SOIL, RR of 6P311
12/17/2009 16:20	6P413.D	242439005	LANL	933744	5g	1	N/A	13	s	RXD1	N/A	O	SOIL, RR of 6P312
12/17/2009 16:48	6P414.D	242439006	LANL	933744	5g	1	N/A	14	s	RXD1	N/A	O	SOIL, IS low, confirmation of 6P313
12/17/2009 17:15	6P415.D	1201997808	LANL	933744	5g	1	N/A	15	s	RXD1	N/A	x	SOIL MIX[A] MS 242439001, RPD failures confirmation of 6P326
12/17/2009 17:43	6P416.D	1201997809	LANL	933744	5g	1	N/A	16	s	RXD1	N/A	x	SOIL MIX[A] MSD 242439001
12/17/2009 18:11	6P417.D	1201997860	LANL	933769	5mL	1	pH2	17	w	RXD1	N	O	MIX[A] MS 242651002
12/17/2009 18:39	6P418.D	1201997861	LANL	933769	5mL	1	pH2	18	w	RXD1	N	O	MIX[A] MSD 242651002
12/17/2009 19:06	6P419.D	12019--	BLANK	BLANK	5mL	1	N/A	19	w	RXD1	N/A	X	RINSE
12/17/2009 19:34	6P420.D	242784001	LANL	934291	5g	1	N/A	20	s	RXD1	N/A	O	SOIL
12/17/2009 20:02	6P421.D	242784002	LANL	934291	5g	1	N/A	21	s	RXD1	N/A	O	SOIL
12/17/2009 20:30	6P422.D	242784003	LANL	934291	5g	1	N/A	22	s	RXD1	N/A	O	SOIL
12/17/2009 20:58	6P423.D	242784004	LANL	934291	5g	1	N/A	23	s	RXD1	N/A	O	SOIL
12/17/2009 21:25	6P424.D	1201998923	LANL	934291	5g	1	N/A	24	s	RXD1	N/A	x	SOIL MIX[A] MS 242784003, IS low see 121809V6
12/17/2009 21:53	6P425.D	1201998924	LANL	934291	5g	1	N/A	25	s	RXD1	N/A	x	SOIL MIX[A] MSD 242784003
12/17/2009 22:21	6P426.D	12019--	BLANK	BLANK	5mL	1	N/A	26	w	RXD1	N/A	X	RINSE

GEL Laboratories, LLC
Revision:11/22/04

ORGANIC RUN LOG - INSTRUMENT ID#VOA6

Date: 12/18/2009 Method 8260B/624 Operator: RXD1

REVIEWED BY: _____
DATE: _____

HARDWARE CONFIGURATION & METHOD CONDITIONS SUMMARY No# 4

Daily Instrument Readings:
Multiplier Voltage: 1647

CALIBRATION & CC INFORMATION:

Initial Calibration Date: 12/10/2009

(See pg. 234 for ICAL Std. Sci. Ids)

NaHSO4 lot # n/a
CI test lot # 72612
Sequence Number: 121809V6

Daily Standard	Solution ID#	Volume Added for Purge (ul) Blk/ Smpl	CCV	MS/ LCS	BFB
CCV	W6VM091218-01		5+5		
IS	UVM091203-01	1	1	1	
SS	UVM091020-02	1	1	1	
LCS/MS	W6VM091218-01/02			5+5	
BFB	UVM091020-02				1
SHORT	W6VM091218-03/04		5	5	
DHEC	N/A		0		

Purge Amount	
5	Water Purge Vol:ML
5	Soil Purge Wt.:G
N/A	Mid level ext. MeOH Vol:
N/A	ul
N/A	Methanol Lot #
x	Heated Purge

Analysis Date	Time	Data File	Lab Sample ID	Client	Batch #	Wt.(g) or Vol(ml/ul)	Dil. Factor	pH	AS Slot #	Matrix w or s	Analyst	CI test (Y/N)	Acceptable (O/X)	Comments
12/18/2009	10:52	6P501.D	UVM091020-02	GEL	BFB	5mL	1	N/A	1	w	RXD1	N/A	O	BFB
12/18/2009	11:20	6P502.D	W6VM091218-01	GEL	CCV/LCS	5mL	1	N/A	2	w	RXD1	N/A	O	MIX[A] UVM091214-01A+IVM091217-01
12/18/2009	11:48	6P503.D	W6VM091218-02	GEL	LCS	5g	1	N/A	3	s	RXD1	N/A	O	MIX[A] SOIL UVM091214-01A+IVM091217-01
12/18/2009	12:15	6P504.D	W6VM091218-03	GEL	CCV	5mL	1	N/A	4	w	RXD1	N/A	O	MIX[B] UVM091118-08C
12/18/2009	12:43	6P505.D	W6VM091218-04	GEL	LCS	5g	1	N/A	5	s	RXD1	N/A	O	MIX[B] SOIL UVM091118-08C
12/18/2009	13:11	6P506.D	12019--	BLANK	BLANK	5g	1	N/A	6	s	RXD1	N/A	O	SOIL
12/18/2009	13:39	6P507.D	12019--	BLANK	BLANK	5mL	1	N/A	7	w	RXD1	N/A	O	
12/18/2009	14:29	6P508.D	1201995801	LANL	934318	500uL	10	N/A	8	w	RXD1	N/A	O	TCLPBLANK
12/18/2009	14:57	6P509.D	1201996841	LANL	934318	500uL	10	N/A	9	w	RXD1	N/A	O	TCLPBLANK
12/18/2009	15:25	6P510.D	242168001	LANL	934318	500uL	10	N/A	10	w	RXD1	N/A	O	
12/18/2009	15:53	6P511.D	242168002	LANL	934318	500uL	10	N/A	11	w	RXD1	N/A	O	
12/18/2009	16:20	6P512.D	242306001	LANL	934318	500uL	10	N/A	12	w	RXD1	N/A	O	
12/18/2009	16:48	6P513.D	242306002	LANL	934318	500uL	10	N/A	13	w	RXD1	N/A	O	
12/18/2009	17:16	6P514.D	242306003	LANL	934318	500uL	10	N/A	14	w	RXD1	N/A	O	
12/18/2009	17:44	6P515.D	242446001	LANL	934318	500uL	10	N/A	15	w	RXD1	N/A	O	
12/18/2009	18:12	6P516.D	242785001	LANL	934318	500uL	10	N/A	16	w	RXD1	N/A	O	
12/18/2009	18:39	6P517.D	242785002	LANL	934318	500uL	10	N/A	17	w	RXD1	N/A	O	
12/18/2009	19:07	6P518.D	242969001	CARE	934812	100uL	50	pH11	18	w	RXD1	N/A	O	
12/18/2009	19:35	6P519.D	1201998988	LANL	934318	500uL	10	N/A	19	w	RXD1	N/A	O	MIX[A] MS 242785001
12/18/2009	20:03	6P520.D	1201998989	LANL	934318	500uL	10	N/A	20	w	RXD1	N/A	O	MIX[A] MSD 242785001
12/18/2009	20:31	6P521.D	1201998923	LANL	934291	5g	1	N/A	21	s	RXD1	N/A	O	SOIL MIX[A] MS 242784003, RR of 6P424
12/18/2009	20:59	6P522.D	1201998924	LANL	934291	5g	1	N/A	22	s	RXD1	N/A	O	SOIL MIX[A] MSD 242784003, RR of 6P425
12/18/2009	21:27	6P523.D	1202000038	CARE	934812	100uL	50	pH11	23	w	RXD1	N/A	O	MIX[A] MS 242969001
12/18/2009	21:54	6P524.D	1202000039	CARE	934812	100uL	50	pH11	24	w	RXD1	N/A	O	MIX[A] MSD 242969001
12/18/2009	22:22	6P525.D	12019--	BLANK	BLANK	5mL	1	N/A	25	w	RXD1	N/A	X	RINSE

GC/MS Volatile Analysis

Case Narrative

ChemStation Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-899-1

Method/Analysis Information

Procedure:	Volatile Organic Compounds (VOC) by Gas Chromatograph/Mass Spectrometer
Analytical Method:	SW846 8260B
Prep Method:	SW846 1311 / 5030B
Analytical Batch Number:	934318
Prep Batch Number:	933330

Sample Analysis

The following client and quality control samples were analyzed to complete this SDG using the methods referenced in the Analysis Information section:

Sample ID	Client ID
242785001	WST03-10-2145
242785002	WST03-10-2146
1201996841	Tumbling Blank (TB)
1201998987	Method Blank (MB)
1201998990	Laboratory Control Sample (LCS)
1201998988	242785001(WST03-10-2145) Post Spike (PS)
1201998989	242785001(WST03-10-2145) Post Spike Duplicate (PSD)

NOTE: For volatile organic analyses the matrix spike designations may be indicated as "PS" or "PSD". The "PS" designation (post spike) indicates that the matrix was fortified prior to analysis but after applying any prep factors, such as a dilution. The laboratory considers the MS/MSD and PS/PSD designations interchangeable.
The samples in this SDG were analyzed on an "as received" basis.

Preparation/Analytical Method Verification

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-038 REV# 13.

Raw data reports are processed and reviewed by the analyst using the Chemstation software package. False positives have been removed from the quantitation reports per standard operating procedures (SOP) section 19.1.2. False positive analytes are designated on the quantitation report with a 'd' qualifier.

Calibration Information

Please note that the 'Cal Date' indicated on each quantitation report reflects the date and time of the most recent calibrated analyte(s) in the Target processing method. Since the laboratory may calibrate with multiple solutions on different days using the same processing method, the Target software will update the 'Cal Date' to the last calibration file, date and time. The correct dates and times for all calibration files are located on the Calibration History report in the Standard Data section in the data package.

The surrogate compounds were calibrated using a minimum five-point calibration curve. The surrogates were added by the auto sampler at a concentration of 50 ug/L. GEL Laboratories LLC will not have surrogate recoveries reported for Dibromofluoromethane. This is due to increased regulations for this analyte and an industry shortage.

Due to software limitations, the Calibration Summary Form 6 may not indicate all the calibration files comprising the initial calibration. A complete list of the initial calibration data files are shown in the Calibration History report located in the Standard Data section of the data package.

The linear equation used in Target and indicated on the initial calibration summary form is not a conventional linear equation (slope intercept formula) and does not match the equation found in SW-846 method 8000B. The x and y axes are inversed in Target, so that the instrument response is treated as the independent variable (x) and the concentration ratio is treated as the dependent variable (y). The equation used in Target to calculate sample results is adjusted to account for the linear equation inversion and reciprocal slope. The adjusted calculation has been independently verified to produce valid results.

Initial Calibration
All initial calibration requirements have been met for this sample delivery groups (SDG). A second source initial calibration verification (ICV) was included in the standard section directly behind the initial calibration.

Continuing Calibration Verification Requirements
All associated calibration verification standard(s) (ICV or CCV) met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Surrogate Recoveries
Surrogate recoveries in all client and quality control samples were within the acceptance limits.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

QC Sample Designation
Sample 242785001 (WST03-10-2145) was designated for spike analysis in this SDG.

Matrix Spike (PS) Recovery Statement
The spike recoveries for this SDG were within the required acceptance limits.

Matrix Spike Duplicate (PSD) Recovery Statement
The spike duplicate recoveries for this SDG were within the required acceptance limits.

Relative Percent Difference (RPD) Statement
The RPD(s) between the matrix spike pair met the acceptance limits.

Internal Standard (ISTD) Acceptance
The internal standard responses in all client and quality control samples met the required acceptance criteria.

Technical Information

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from

sample collection or sample receipt. Those holding times expressed in hours are calculated in the ALPHALIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Sample Preservation and Integrity
All samples met the sample preservation and integrity requirements.

Sample Dilutions
Due to problems associated with the nature of the TCLP matrix, volatile extracts are routinely diluted before analysis. The dilution factor does not increase detection limits above the regulatory limits required by the client.

Sample Re-extraction/Re-analysis
Re-analyses were not required for samples in this SDG.

Miscellaneous Information

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted: Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. An electronic signature page inserted after the case narrative will include the data validator's signature and title. The signature page also includes the data qualifiers used in the fractional package. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Nonconformance (NCR) Documentation
A nonconformance report was not required for this SDG.

Manual Integrations
Data files associated with the initial calibration, continuing calibration check, and samples did not require manual integrations.

TIC Comment
Tentatively identified compounds (TIC) were not required for this SDG.

Additional Comments
Additional comments were not required for this SDG.

Residual Chlorine
Residual Chlorine was not detected in any of the samples in this SDG.

System Configuration
The Volatile-GC/MS analysis was performed on the following instrument configuration:

Instrument ID	Instrument	System Configuration	Column ID	Column Description	P & T Trap
VOA6.I	Gas Chromatograph/Mass Spectrometer	HP6890N/HP5975	DB-624	J&W, 60m x 0.25mm x 1.4um	Trap 10

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis Report
for

LANL010 Los Alamos National Laboratory (72733-001-09)

Client SDG: 10-899-1 GEL Work Order: 242785

The Qualifiers in this report are defined as follows:

* A quality control analyte recovery is outside of specified acceptance criteria

** Analyte is a surrogate compound

U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

Review/Validation

GEL requires all analytical data to be verified by a qualified data reviewer. In addition, all CLP-like deliverables receive a third level review of the fractional data package.

The following data validator verified the information presented in this case narrative:

Signature: Stacy Calloway **Name: Stacy Calloway**

Date: 23 DEC 2009 **Title: Data Validator**

Sample Data Summary

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-899-1**	**Date Collected:**	**12/10/2009 12:00**	**Matrix:**	**TCLP R**
Lab Sample ID:	**242785001**	**Date Received:**	**12/12/2009 09:35**		
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**WST03-10-2145**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**934318**	**Inst:**	**VOA6.I**	**Dilution:**	**10**
Run Date:	**12/18/2009 18:12**	**Analyst:**	**RXD1**	**Purge Vol:**	**5 mL**
Prep Date:	**12/15/2009 09:00**				
Data File:	**121809V6\6P516.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-01-4	Vinyl chloride	U	0.010	mg/L	0.005	0.010
75-35-4	1,1-Dichloroethylene	U	0.010	mg/L	0.003	0.010
78-93-3	2-Butanone	U	0.050	mg/L	0.0125	0.050
67-66-3	Chloroform	U	0.010	mg/L	0.0025	0.010
56-23-5	Carbon tetrachloride	U	0.010	mg/L	0.003	0.010
107-06-2	1,2-Dichloroethane	U	0.010	mg/L	0.0025	0.010
71-43-2	Benzene	U	0.010	mg/L	0.003	0.010
79-01-6	Trichloroethylene	U	0.010	mg/L	0.0025	0.010
127-18-4	Tetrachloroethylene	U	0.010	mg/L	0.003	0.010
108-90-7	Chlorobenzene	U	0.010	mg/L	0.0025	0.010
106-46-7	1,4-Dichlorobenzene	U	0.010	mg/L	0.0025	0.010

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-899-1**	**Date Collected:**	**12/10/2009 12:00**	**Matrix:**	**TCLP R**
Lab Sample ID:	**242785002**	**Date Received:**	**12/12/2009 09:35**		
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**WST03-10-2146**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**934318**	**Inst:**	**VOA6.I**	**Dilution:**	**10**
Run Date:	**12/18/2009 18:39**	**Analyst:**	**RXD1**	**Purge Vol:**	**5 mL**
Prep Date:	**12/15/2009 09:00**				
Data File:	**121809V6\6P517.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-01-4	Vinyl chloride	U	0.010	mg/L	0.005	0.010
75-35-4	1,1-Dichloroethylene	U	0.010	mg/L	0.003	0.010
78-93-3	2-Butanone	U	0.050	mg/L	0.0125	0.050
67-66-3	Chloroform	U	0.010	mg/L	0.0025	0.010
56-23-5	Carbon tetrachloride	U	0.010	mg/L	0.003	0.010
107-06-2	1,2-Dichloroethane	U	0.010	mg/L	0.0025	0.010
71-43-2	Benzene	U	0.010	mg/L	0.003	0.010
79-01-6	Trichloroethylene	U	0.010	mg/L	0.0025	0.010
127-18-4	Tetrachloroethylene	U	0.010	mg/L	0.003	0.010
108-90-7	Chlorobenzene	U	0.010	mg/L	0.0025	0.010
106-46-7	1,4-Dichlorobenzene	U	0.010	mg/L	0.0025	0.010

Quality Control Summary

Volatile

Surrogate Recovery Report

SDG Number: 10-899-1

Matrix Type: TCLP SOLID

Sample ID	Client ID	DCED4 %REC		TOL %REC		BFB %REC	
1201998990	LCS for batch 934318	99		98		99	
1201998987	MB for batch 934318	100		99		102	
1201996841	TB for batch 933330	100	D	98	D	99	D
242785001	WST03-10-2145	104	D	99	D	103	D
242785002	WST03-10-2146	99	D	96	D	100	D
1201998988	WST03-10-2145PS	99	D	97	D	98	D
1201998989	WST03-10-2145PSD	100	D	98	D	99	D

Surrogate		Acceptance Limits
DCED4	= 1,2-Dichloroethane-d4	(59%-130%)
TOL	= Toluene-d8	(76%-129%)
BFB	= Bromofluorobenzene	(71%-126%)

* Recovery outside Acceptance Limits

\# Column to be used to flag recovery values

D Sample Diluted

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-899-1
Client ID: WST03-10-2145PS
Lab Sample ID: 1201998988
Instrument: VOA6.I
Analyst: RXD1
Purge Vol: 5 mL

Sample Type: Post Spike
Matrix: TCLP R
Analysis Date: 12/18/2009 19:35
Prep Batch ID: 933330
Batch ID: 934318
Dilution: 10

CAS No		Parmname	Amount Added mg/L	Sample Conc. mg/L		Spike Conc. mg/L	Recovery %	Acceptance Limits
75-01-4	PS	Vinyl chloride	0.050	0.00	U	0.0527	105	51-134
75-35-4	PS	1,1-Dichloroethylene	0.050	0.00	U	0.0504	101	61-129
78-93-3	PS	2-Butanone	0.250	0.00	U	0.276	110	11-151
67-66-3	PS	Chloroform	0.050	0.00	U	0.0516	103	70-126
56-23-5	PS	Carbon tetrachloride	0.050	0.00	U	0.0548	110	66-138
107-06-2	PS	1,2-Dichloroethane	0.050	0.00	U	0.0509	102	65-129
71-43-2	PS	Benzene	0.050	0.00	U	0.0499	100	66-121
79-01-6	PS	Trichloroethylene	0.050	0.00	U	0.0506	101	66-127
127-18-4	PS	Tetrachloroethylene	0.050	0.00	U	0.0498	100	63-126
108-90-7	PS	Chlorobenzene	0.050	0.00	U	0.0515	103	69-120
106-46-7	PS	1,4-Dichlorobenzene	0.050	0.00	U	0.0497	99	64-120

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-899-1
Client ID: WST03-10-2145PSD
Lab Sample ID: 1201998989
Instrument: VOA6.I
Analyst: RXD1
Purge Vol: 5 mL

Sample Type: Post Spike Duplicate
Matrix: TCLP R
Analysis Date: 12/18/2009 20:03
Dilution: 10
Prep Batch ID: 933330
Batch ID: 934318

CAS No		Parmname	Amount Added mg/L	Sample Conc. mg/L		Spike Conc. mg/L	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
75-01-4	PSD	Vinyl chloride	0.050	0.00	U	0.0511	102	51-134	3	0-20
75-35-4	PSD	1,1-Dichloroethylene	0.050	0.00	U	0.0486	97	61-129	4	0-20
78-93-3	PSD	2-Butanone	0.250	0.00	U	0.275	110	11-151	0	0-20
67-66-3	PSD	Chloroform	0.050	0.00	U	0.0498	100	70-126	3	0-20
56-23-5	PSD	Carbon tetrachloride	0.050	0.00	U	0.0532	106	66-138	3	0-20
107-06-2	PSD	1,2-Dichloroethane	0.050	0.00	U	0.0496	99	65-129	3	0-20
71-43-2	PSD	Benzene	0.050	0.00	U	0.0481	96	66-121	4	0-20
79-01-6	PSD	Trichloroethylene	0.050	0.00	U	0.0486	97	66-127	4	0-20
127-18-4	PSD	Tetrachloroethylene	0.050	0.00	U	0.0481	96	63-126	3	0-20
108-90-7	PSD	Chlorobenzene	0.050	0.00	U	0.0498	100	69-120	3	0-20
106-46-7	PSD	1,4-Dichlorobenzene	0.050	0.00	U	0.0479	96	64-120	4	0-20

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-899-1
Client ID: LCS for batch 934318
Lab Sample ID: 1201998990
Instrument: VOA6.I
Analyst: RXD1
Purge Vol: 5 mL

Sample Type: Laboratory Control Sample
Matrix: TCLP SOIL
Analysis Date: 12/18/2009 11:20
Dilution: 1
Prep Batch ID: 933330
Batch ID: 934318

CAS No		Parmname	Amount Added mg/L	Sample Conc. mg/L	Spike Conc. mg/L	Recovery %	Acceptance Limits
75-01-4	LCS	Vinyl chloride	0.050	0.0	0.0536	107	61-131
75-35-4	LCS	1,1-Dichloroethylene	0.050	0.0	0.0515	103	70-128
78-93-3	LCS	2-Butanone	0.250	0.0	0.224	90	31-160
67-66-3	LCS	Chloroform	0.050	0.0	0.0498	100	76-121
56-23-5	LCS	Carbon tetrachloride	0.050	0.0	0.0561	112	75-139
107-06-2	LCS	1,2-Dichloroethane	0.050	0.0	0.047	94	70-123
71-43-2	LCS	Benzene	0.050	0.0	0.0487	97	72-120
79-01-6	LCS	Trichloroethylene	0.050	0.0	0.0504	101	76-123
127-18-4	LCS	Tetrachloroethylene	0.050	0.0	0.0508	102	72-126
108-90-7	LCS	Chlorobenzene	0.050	0.0	0.0495	99	76-120
106-46-7	LCS	1,4-Dichlorobenzene	0.050	0.0	0.0478	96	74-120

Method Blank Summary

SDG Number:	10-899-1	Client:	LANL010	Matrix:	TCLP SOIL
Client ID:	MB for batch 934318	Instrument ID:	VOA6.I	Data File:	121809V6\6P507BL.D
Lab Sample ID:	1201998987	Prep Date:	12/18/2009 13:39	Analyzed:	12/18/09 13:39
Column:	DB-624				

This method blank applies to the following samples and quality control samples:

Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01 LCS for batch 934318	1201998990	121809V6\6P502LL.D	12/18/09	1120
02 TB for batch 933330	1201996841	121809V6\6P509.D	12/18/09	1457
03 WST03-10-2145	242785001	121809V6\6P516.D	12/18/09	1812
04 WST03-10-2146	242785002	121809V6\6P517.D	12/18/09	1839
05 WST03-10-2145PS	1201998988	121809V6\6P519.D	12/18/09	1935
06 WST03-10-2145PSD	1201998989	121809V6\6P520.D	12/18/09	2003

Instrument Performance Check

BFB

Lab Name GEL Laboratories LLC **Client SDG:** 10-899-1

Instrument ID: VOA6.I **Injection Date/Time:** 10-DEC-09 10:12

Column Description: DB-624 **Lab File ID** 121009V6\6O404.D

m/e	Ion Abundance Criteria	% Relative Abundance
50	15.0 - 40.0% of mass 95	20
75	30.0 - 60.0% of mass 95	48.2
95	Base Peak, 100% Relative Abundance	100
96	5.0 - 9.0% of mass 95	6.7
173	Less than 2.0% of mass 174	0.8
174	50.0 - 100.0% of mass 95	84.2
175	5.0 -9.0% of mass 174	7.2
176	95.0 - 101.0% of mass 174	96.8
177	5.0 - 9.0% of mass 176	6.6

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
ICALMIX[A]	W6VM091210-03	121009V6\6O407.D	10-DEC-09 11:34
ICALMIX[A]	W6VM091210-04	121009V6\6O408.D	10-DEC-09 12:02
ICALMIX[A]	W6VM091210-05	121009V6\6O409.D	10-DEC-09 12:30
ICALMIX[A]	W6VM091210-06	121009V6\6O410.D	10-DEC-09 12:58
ICALMIX[A]	W6VM091210-07	121009V6\6O411.D	10-DEC-09 13:26
ICALMIX[A]	W6VM091210-08	121009V6\6O412.D	10-DEC-09 13:54
ICALMIX[A]	W6VM091210-09	121009V6\6O414.D	10-DEC-09 14:49
ICALMIX[A]	W6VM091210-10	121009V6\6O415.D	10-DEC-09 15:17
ICVMIX[A]01	W6VM091210-11	121009V6\6O416.D	10-DEC-09 15:45

Instrument Performance Check

BFB

Lab Name GEL Laboratories LLC **Client SDG:** 10-899-1

Instrument ID: VOA6.I **Injection Date/Time:** 18-DEC-09 10:52

Column Description: DB-624 **Lab File ID** 121809V6\6P501.D

m/e	Ion Abundance Criteria	% Relative Abundance
50	15.0 - 40.0% of mass 95	19.8
75	30.0 - 60.0% of mass 95	48.1
95	Base Peak, 100% Relative Abundance	100
96	5.0 - 9.0% of mass 95	6.6
173	Less than 2.0% of mass 174	0.8
174	50.0 - 100.0% of mass 95	83.5
175	5.0 -9.0% of mass 174	7.3
176	95.0 - 101.0% of mass 174	97.1
177	5.0 - 9.0% of mass 176	6.4

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
CCVMIX[A]04	W6VM091218-01	121809V6\6P502.D	18-DEC-09 11:20
BLK01LCS	1201998990	121809V6\6P502LL.D	18-DEC-09 11:20
BLK01	1201998987	121809V6\6P507BL.D	18-DEC-09 13:39
TBLK01	1201996841	121809V6\6P509.D	18-DEC-09 14:57
WST03-10-2145	242785001	121809V6\6P516.D	18-DEC-09 18:12
WST03-10-2146	242785002	121809V6\6P517.D	18-DEC-09 18:39
WST03-10-2145MS	1201998988	121809V6\6P519.D	18-DEC-09 19:35
WST03-10-2145MSD	1201998989	121809V6\6P520.D	18-DEC-09 20:03

Internal Standard
Area and RT Summary

Lab Name : GEL Laboratories LLC

Instrument: VOA6.I

GC Column: DB-624

Client SDG: 10-899-1

STD Analysis Time: 18-DEC-09 11:20

Data File: C:\msdchem\1\DATA\121809V6\6P502.D

	Fluorobenzene			Chlorobenzene-d5			1,4-Dichlorobenzene-d4		
	Area	#	RT #	Area	#	RT #	Area	#	RT #
12 Hour STD	1713482		9.97	1247065		13.2	704131		15.6
Upper Limit	3426964		10.5	2494130		13.7	1408262		16.1
Lower Limit	856741		9.47	623533		12.7	352066		15.1
Sample ID									
BLK01LCS	1713482		9.97	1247065		13.2	704131		15.6
BLK01	1641718		9.98	1189773		13.2	654952		15.6
TBLK01	1632093		9.98	1184342		13.2	652106		15.6
WST03-10-2145	1541928		9.98	1133148		13.2	608559		15.6
WST03-10-2146	1578470		9.98	1156455		13.2	624481		15.6
WST03-10-2145MS	1591770		9.98	1171309		13.2	662581		15.6
WST03-10-2145MSD	1608196		9.97	1163540		13.2	654706		15.6

Area Upper Limit = +100% of internal standard area
Area Lower Limit = - 50% of internal standard area

RT Upper Limit = + 0.50 minutes of internal standard RT
RT Lower Limit = - 0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Value outside of QC Limits

Sample Data

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-899-1**	**Date Collected:**	**12/10/2009 12:00**	**Matrix:**	**TCLP R**
Lab Sample ID:	**242785001**	**Date Received:**	**12/12/2009 09:35**		
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**WST03-10-2145**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**934318**	**Inst:**	**VOA6.I**	**Dilution:**	**10**
Run Date:	**12/18/2009 18:12**	**Analyst:**	**RXD1**	**Purge Vol:**	**5 mL**
Prep Date:	**12/15/2009 09:00**				
Data File:	**121809V6\6P516.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-01-4	Vinyl chloride	U	0.010	mg/L	0.005	0.010
75-35-4	1,1-Dichloroethylene	U	0.010	mg/L	0.003	0.010
78-93-3	2-Butanone	U	0.050	mg/L	0.0125	0.050
67-66-3	Chloroform	U	0.010	mg/L	0.0025	0.010
56-23-5	Carbon tetrachloride	U	0.010	mg/L	0.003	0.010
107-06-2	1,2-Dichloroethane	U	0.010	mg/L	0.0025	0.010
71-43-2	Benzene	U	0.010	mg/L	0.003	0.010
79-01-6	Trichloroethylene	U	0.010	mg/L	0.0025	0.010
127-18-4	Tetrachloroethylene	U	0.010	mg/L	0.003	0.010
108-90-7	Chlorobenzene	U	0.010	mg/L	0.0025	0.010
106-46-7	1,4-Dichlorobenzene	U	0.010	mg/L	0.0025	0.010

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121809V6\
Data File : 6P516.D
Acq On : 18 Dec 2009 6:12 pm
Operator : RXD1
InstName : VOA6
Sample : |242785001|934318|10|VOAF|1|VOATCLPL|
Misc : LANL 500uL N/A
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Dec 20 11:12:41 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Fluorobenzene	9.980	96	1543615	50.00 ug/L	0.00
41) Chlorobenzene-d5	13.156	117	1133148	50.00 ug/L	0.00
58) 1,4-Dichlorobenzene-d4	15.576	152	608559	50.00 ug/L	0.00
82) B Fluorobenzene	9.980	96	1541928	50.00 ug/L	0.00
103) B Chlorobenzene-d5	13.156	117	1133148	50.00 ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	15.576	152	608559	50.00 ug/L	0.00
System Monitoring Compounds					
29) 1,2-Dichloroethane-d4	9.626	65	472755	51.91 ug/L	0.00
Spiked Amount 50.000	Range 59 - 130		Recovery = 103.82%		
43) Toluene-d8	11.626	98	1547860	49.27 ug/L	0.00
Spiked Amount 50.000	Range 76 - 129		Recovery = 98.54%		
61) Bromofluorobenzene	14.357	95	604698	51.56 ug/L	0.00
Spiked Amount 50.000	Range 71 - 126		Recovery = 103.12%		
Target Compounds					Qvalue
2) Dichlorodifluoromethane	0.000		0	N.D.	
3) Chloromethane	4.682	50	534	N.D.	
4) Vinyl chloride	4.894	62	660	N.D.	
5) Bromomethane	0.000		0	N.D.	
6) Chloroethane	0.000		0	N.D.	
7) Trichlorofluoromethane	0.000		0	N.D.	
8) Ethyl ether	0.000		0	N.D.	
9) Acetone	6.718	43	5977	2.13 ug/L	65
10) 1,1-Dichloroethylene	0.000		0	N.D.	
11) Iodomethane	0.000		0	N.D.	
12) Acetonitrile	7.279	41	425	N.D.	
13) Methyl acetate	7.096	43	894	N.D.	
14) Carbon disulfide	7.084	76	3474	N.D.	
15) Methylene chloride	7.285	84	13693	N.D.	
16) tert-Butyl methyl ether	0.000		0	N.D.	
17) trans-1,2-Dichloroethy...	0.000		0	N.D.	
18) Vinyl acetate	0.000		0	N.D.	
19) 1,1-Dichloroethane	0.000		0	N.D.	
20) 2-Butanone	8.700	43	1039	N.D.	
21) cis-1,2-Dichloroethylene	0.000		0	N.D.	
22) 2,2-Dichloropropane	0.000		0	N.D.	
23) Bromochloromethane	0.000		0	N.D.	
24) Chloroform	0.000		0	N.D.	
25) 1,1,1-Trichloroethane	0.000		0	N.D.	
26) Cyclohexane	0.000		0	N.D.	
27) 1,1-Dichloropropene	0.000		0	N.D.	
28) Carbon tetrachloride	0.000		0	N.D.	
30) 1,2-Dichloroethane	0.000		0	N.D.	
31) Benzene	9.724	78	460	N.D.	
32) Cyclohexene	0.000		0	N.D.	
33) n-Butyl alcohol	0.000		0	N.D.	
34) Trichloroethylene	0.000		0	N.D.	
35) 1,2-Dichloropropane	0.000		0	N.D.	
36) Methylcyclohexane	0.000		0	N.D.	
37) Dibromomethane	0.000		0	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121809V6\
Data File : 6P516.D
Acq On : 18 Dec 2009 6:12 pm
Operator : RXD1
InstName : VOA6
Sample : |242785001|934318|10|VOAF|1|VOATCLPL|
Misc : LANL 500uL N/A
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Dec 20 11:12:41 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
38)	Bromodichloromethane	0.000		0	N.D.	
39)	2-Chloroethylvinyl ether	11.102	63	218	N.D.	
40)	cis-1,3-Dichloropropylene	0.000		0m	N.D.	d
42)	4-Methyl-2-pentanone	0.000		0	N.D.	
44)	Toluene	11.699	91	3648	N.D.	
45)	trans-1,3-Dichloroprop...	0.000		0	N.D.	
46)	1,1,2-Trichloroethane	0.000		0	N.D.	
47)	2-Hexanone	0.000		0m	N.D.	d
48)	1,3-Dichloropropane	0.000		0	N.D.	
49)	Tetrachloroethylene	0.000		0	N.D.	
50)	Dibromochloromethane	0.000		0	N.D.	
51)	1,2-Dibromoethane	0.000		0	N.D.	
52)	Chlorobenzene	0.000		0	N.D.	
53)	1,1,1,2-Tetrachloroethane	0.000		0	N.D.	
54)	Ethylbenzene	0.000		0	N.D.	
55)	m,p-Xylenes	0.000		0	N.D.	
56)	o-Xylene	0.000		0	N.D.	
57)	Styrene	0.000		0	N.D.	
59)	Bromoform	0.000		0	N.D.	
60)	Isopropylbenzene	0.000		0	N.D.	
62)	1,1,2,2-Tetrachloroethane	0.000		0	N.D.	
63)	1,2,3-Trichloropropane	0.000		0	N.D.	
64)	Bromobenzene	0.000		0	N.D.	
65)	n-Propylbenzene	14.583	91	914	N.D.	
66)	1,3,5-Trimethylbenzene	14.741	105	664	N.D.	
67)	2-Chlorotoluene	0.000		0	N.D.	
68)	4-Chlorotoluene	14.833	91	395	N.D.	
69)	tert-Butylbenzene	0.000		0	N.D.	
70)	1,2,4-Trimethylbenzene	15.143	105	2184	N.D.	
71)	sec-Butylbenzene	15.339	105	1151	N.D.	
72)	4-Isopropyltoluene	15.454	119	703	N.D.	
73)	1,3-Dichlorobenzene	0.000		0	N.D.	
74)	1,4-Dichlorobenzene	15.601	146	195	N.D.	
75)	n-Butylbenzene	15.893	91	506	N.D.	
76)	1,2-Dichlorobenzene	0.000		0	N.D.	
77)	1,2-Dibromo-3-chloropr...	0.000		0	N.D.	
78)	1,2,4-Trichlorobenzene	0.000		0	N.D.	
79)	Hexachlorobutadiene	0.000		0	N.D.	
80)	Naphthalene	18.277	128	390	N.D.	
81)	1,2,3-Trichlorobenzene	0.000		0	N.D.	
83)	Chlorotrifluoroethylene	0.000		0	N.D.	
84)	2-Chloro-1,1,1-trifluo...	0.000		0	N.D.	
85)	Acrolein	0.000		0	N.D.	
86)	Trichlorotrifluoroethane	0.000		0	N.D.	
87)	Isopropyl Alcohol	0.000		0	N.D.	
88)	Allyl chloride	7.279	41	425	N.D.	
89)	tert-Butyl Alcohol	0.000		0	N.D.	
90)	Acrylonitrile	0.000		0	N.D.	
91)	Isopropyl ether	0.000		0	N.D.	
92)	2-Chloro-1,3-butadiene	0.000		0	N.D.	
93)	Ethyl tert-butyl ether	0.000		0	N.D.	
94)	Ethyl acetate	8.700	43	1039	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121809V6\
Data File : 6P516.D
Acq On : 18 Dec 2009 6:12 pm
Operator : RXD1
InstName : VOA6
Sample : |242785001|934318|10|VOAF|1|VOATCLPL|
Misc : LANL 500uL N/A
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Dec 20 11:12:41 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
95)	Propionitrile	0.000		0	N.D.	
96)	Methacrylonitrile	0.000		0	N.D.	
97)	Tetrahydrofuran	0.000		0	N.D.	
98)	Isobutyl alcohol	0.000		0	N.D.	
99)	Methyl tert-amyl ether	0.000		0	N.D.	
100)	Methyl methacrylate	0.000		0	N.D.	
101)	1,4-Dioxane	0.000		0	N.D.	
102)	2-Nitropropane	0.000		0m	N.D. d	
104)	Ethyl methacrylate	0.000		0	N.D.	
106)	1-Chlorohexane	0.000		0	N.D.	
107)	cis-1,4-Dichloro-2-butene	0.000		0	N.D.	
108)	Cyclohexanone	0.000		0	N.D.	
109)	trans-1,4-Dichloro-2-b...	0.000		0	N.D.	
110)	Pentachloroethane	0.000		0	N.D.	
111)	Benzyl chloride	0.000		0m	N.D. d	
112)	bis(2-Chloroisopropyl)...	16.168	45	740	N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121809V6\
Data File : 6P516.D
Acq On : 18 Dec 2009 6:12 pm
Operator : RXD1
InstName : VOA6
Sample : |242785001|934318|10|VOAF|1|VOATCLPL|
Misc : LANL 500uL N/A
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Dec 20 11:12:41 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

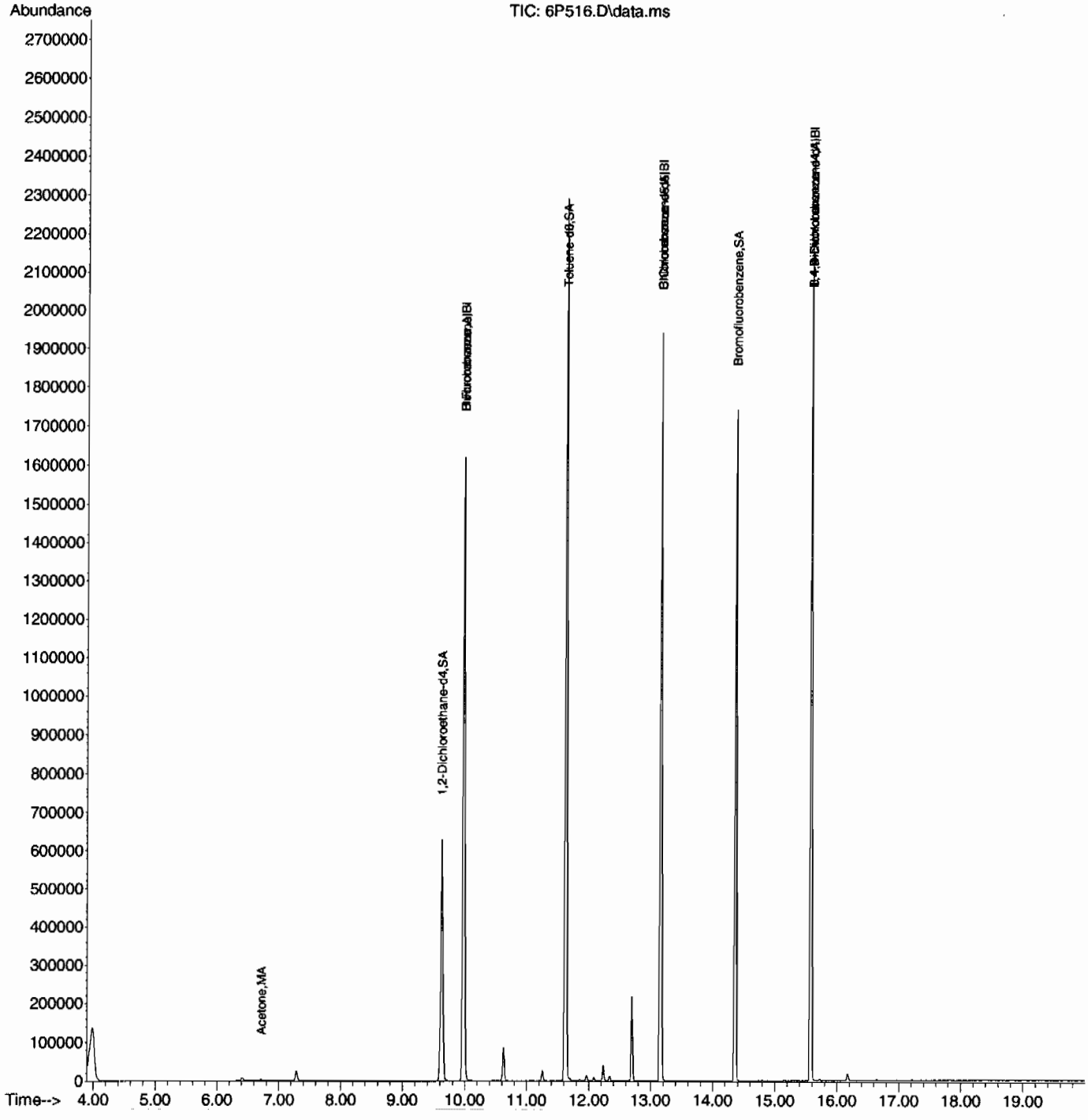

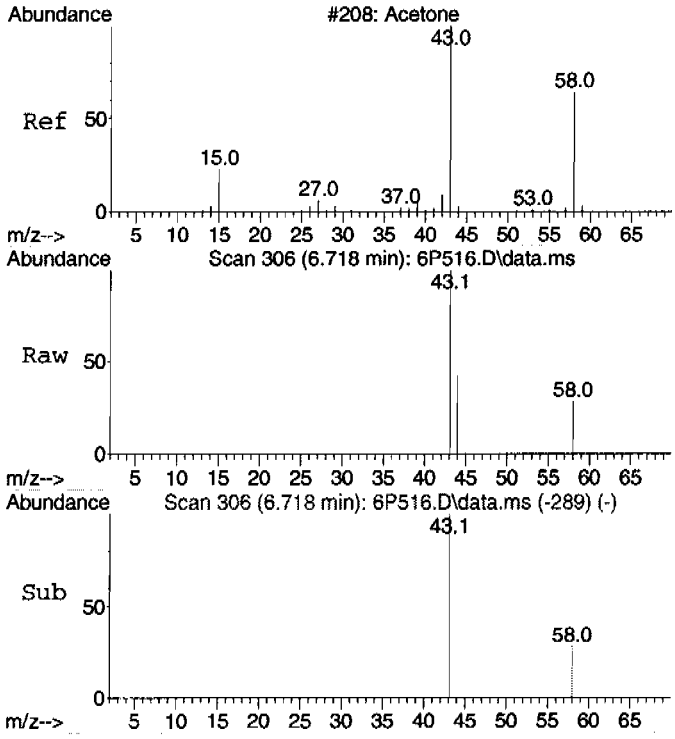

#9
Acetone
Concen: 2.13 ug/L
RT: 6.718 min Scan# 306
Delta R.T. 0.006 min
Lab File: 6P516.D
Acq: 18 Dec 2009 6:12 pm

Tgt Ion: 43 Resp: 5977

Ion	Ratio	Lower	Upper
43	100		
58	11.1	0.4	60.4

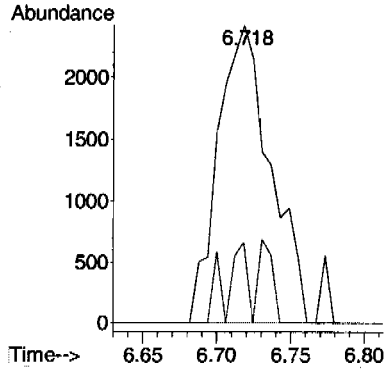

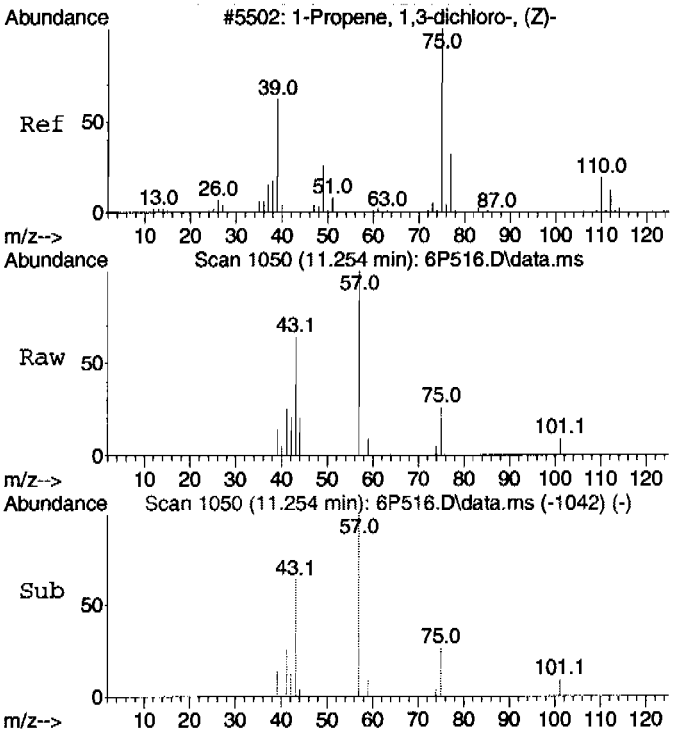

#40 BEFORE analyst DELETION
cis-1,3-Dichloropropylene
Concen: 0.39 ug/L
RT: 11.254 min Scan# 1050
Delta R.T. -0.061 min
Lab File: 6P516.D
Acq: 18 Dec 2009 6:12 pm

Tgt Ion: 75 Resp: 4591

Ion	Ratio	Lower	Upper
75	100		
39	43.2	26.8	86.8
77	0.0	1.7	61.7#

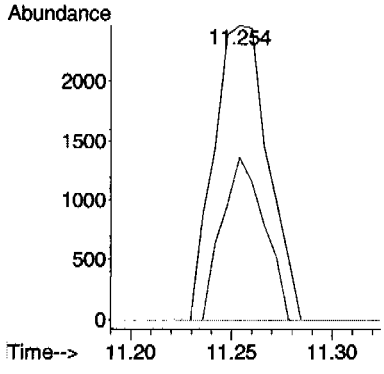

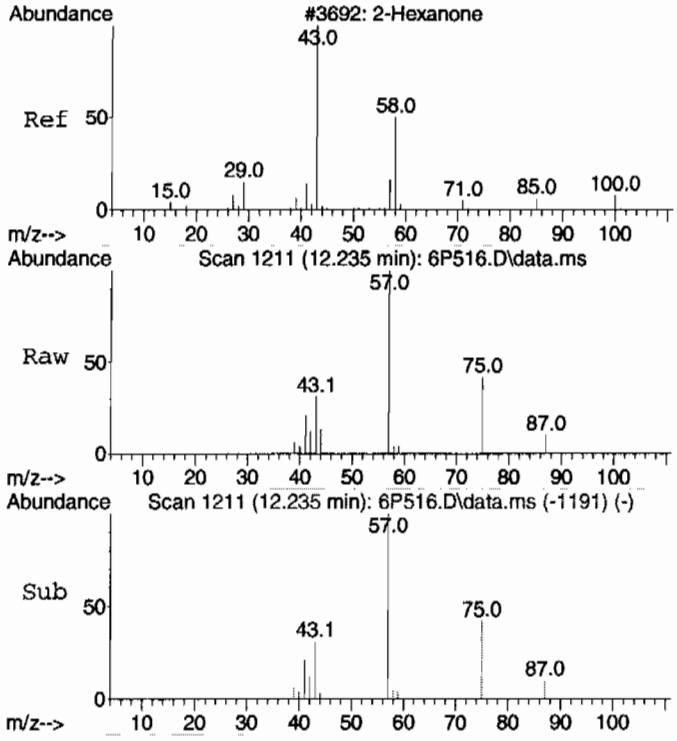

#47 BEFORE analyst DELETION
2-Hexanone
Concen: 1.77 ug/L
RT: 12.235 min Scan# 1211
Delta R.T. -0.025 min
Lab File: 6P516.D
Acq: 18 Dec 2009 6:12 pm

Tgt Ion: 43 Resp: 9682

Ion	Ratio	Lower	Upper
43	100		
58	6.7	17.3	77.3#
57	302.9	0.0	47.0#
100	0.0	0.0	39.2

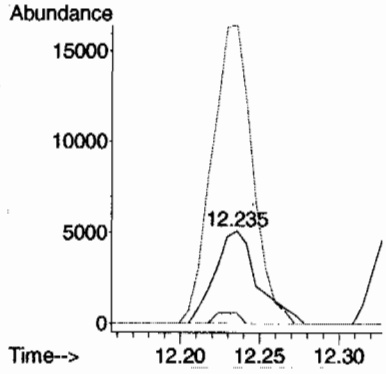

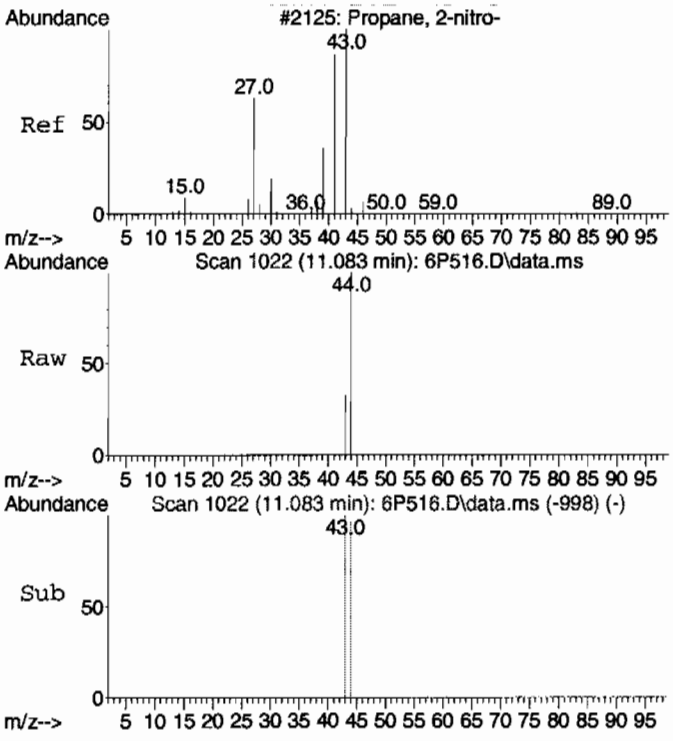

#102 BEFORE analyst DELETION
2-Nitropropane
Concen: 3.81 ug/L
RT: 11.083 min Scan# 1022
Delta R.T. 0.012 min
Lab File: 6P516.D
Acq: 18 Dec 2009 6:12 pm

Tgt Ion: 43 Resp: 184

Ion	Ratio	Lower	Upper
43	100		
41	0.0	52.2	112.2#

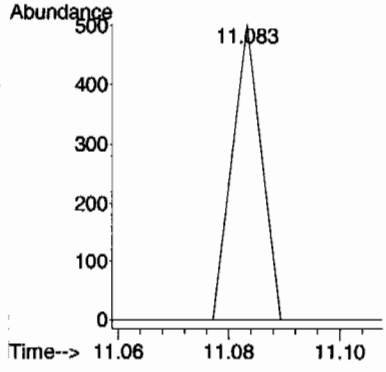

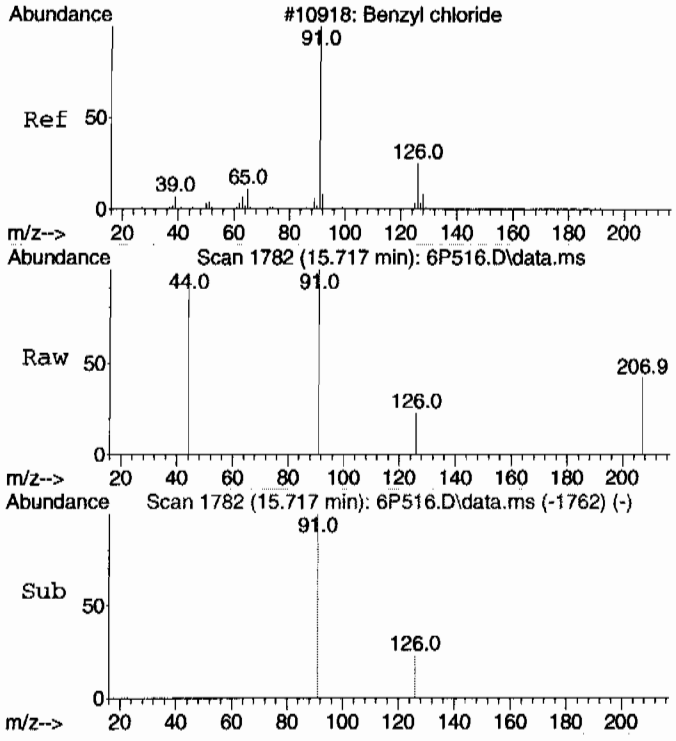

#111 BEFORE analyst DELETION
Benzyl chloride
Concen: 0.30 ug/L
RT: 15.717 min Scan# 1782
Delta R.T. 0.001 min
Lab File: 6P516.D
Acq: 18 Dec 2009 6:12 pm

Tgt Ion: 91 Resp: 4719

Ion	Ratio	Lower	Upper
91	100		
126	4.8	0.0	52.6
65	0.0	0.0	42.9

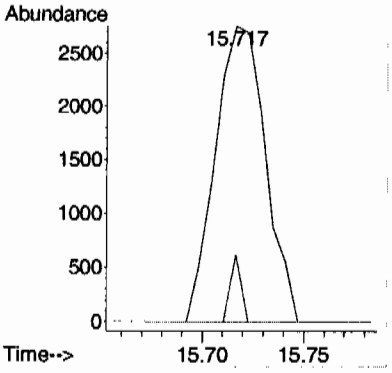

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-899-1	**Date Collected:**	12/10/2009 12:00	**Matrix:**	TCLP R
Lab Sample ID:	242785002	**Date Received:**	12/12/2009 09:35		
		Client:	LANL010	**Project:**	LANL01004
Client ID:	WST03-10-2146	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	934318	**Inst:**	VOA6.I	**Dilution:**	10
Run Date:	12/18/2009 18:39	**Analyst:**	RXD1	**Purge Vol:**	5 mL
Prep Date:	12/15/2009 09:00				
Data File:	121809V6\6P517.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-01-4	Vinyl chloride	U	0.010	mg/L	0.005	0.010
75-35-4	1,1-Dichloroethylene	U	0.010	mg/L	0.003	0.010
78-93-3	2-Butanone	U	0.050	mg/L	0.0125	0.050
67-66-3	Chloroform	U	0.010	mg/L	0.0025	0.010
56-23-5	Carbon tetrachloride	U	0.010	mg/L	0.003	0.010
107-06-2	1,2-Dichloroethane	U	0.010	mg/L	0.0025	0.010
71-43-2	Benzene	U	0.010	mg/L	0.003	0.010
79-01-6	Trichloroethylene	U	0.010	mg/L	0.0025	0.010
127-18-4	Tetrachloroethylene	U	0.010	mg/L	0.003	0.010
108-90-7	Chlorobenzene	U	0.010	mg/L	0.0025	0.010
106-46-7	1,4-Dichlorobenzene	U	0.010	mg/L	0.0025	0.010

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121809V6\
Data File : 6P517.D
Acq On : 18 Dec 2009 6:39 pm
Operator : RXD1
InstName : VOA6
Sample : |242785002|934318|10|VOAF|1|VOATCLPL|
Misc : LANL 500uL N/A
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Dec 20 11:13:37 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Fluorobenzene	9.980	96	1580433	50.00 ug/L	0.00
41) Chlorobenzene-d5	13.156	117	1156455	50.00 ug/L	0.00
58) 1,4-Dichlorobenzene-d4	15.576	152	624481	50.00 ug/L	0.00
82) B Fluorobenzene	9.980	96	1578470	50.00 ug/L	0.00
103) B Chlorobenzene-d5	13.156	117	1156455	50.00 ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	15.576	152	624481	50.00 ug/L	0.00
System Monitoring Compounds					
29) 1,2-Dichloroethane-d4	9.626	65	461196	49.46 ug/L	0.00
Spiked Amount 50.000	Range 59 - 130		Recovery = 98.92%		
43) Toluene-d8	11.626	98	1543823	48.15 ug/L	0.00
Spiked Amount 50.000	Range 76 - 129		Recovery = 96.30%		
61) Bromofluorobenzene	14.357	95	599617	49.82 ug/L	0.00
Spiked Amount 50.000	Range 71 - 126		Recovery = 99.64%		
Target Compounds					Qvalue
2) Dichlorodifluoromethane	0.000		0	N.D.	
3) Chloromethane	4.672	50	581	N.D.	
4) Vinyl chloride	4.924	62	338	N.D.	
5) Bromomethane	0.000		0	N.D.	
6) Chloroethane	0.000		0	N.D.	
7) Trichlorofluoromethane	0.000		0	N.D.	
8) Ethyl ether	0.000		0	N.D.	
9) Acetone	6.712	43	5832	2.03 ug/L	68
10) 1,1-Dichloroethylene	0.000		0	N.D.	
11) Iodomethane	0.000		0	N.D.	
12) Acetonitrile	7.291	41	227	N.D.	
13) Methyl acetate	0.000		0	N.D.	
14) Carbon disulfide	7.078	76	3382	N.D.	
15) Methylene chloride	7.291	84	15135	N.D.	
16) tert-Butyl methyl ether	0.000		0	N.D.	
17) trans-1,2-Dichloroethy...	0.000		0	N.D.	
18) Vinyl acetate	0.000		0	N.D.	
19) 1,1-Dichloroethane	0.000		0	N.D.	
20) 2-Butanone	8.694	43	374	N.D.	
21) cis-1,2-Dichloroethylene	0.000		0	N.D.	
22) 2,2-Dichloropropane	0.000		0	N.D.	
23) Bromochloromethane	0.000		0	N.D.	
24) Chloroform	0.000		0	N.D.	
25) 1,1,1-Trichloroethane	0.000		0	N.D.	
26) Cyclohexane	0.000		0	N.D.	
27) 1,1-Dichloropropene	0.000		0	N.D.	
28) Carbon tetrachloride	0.000		0	N.D.	
30) 1,2-Dichloroethane	0.000		0	N.D.	
31) Benzene	9.730	78	431	N.D.	
32) Cyclohexene	0.000		0	N.D.	
33) n-Butyl alcohol	0.000		0	N.D.	
34) Trichloroethylene	0.000		0	N.D.	
35) 1,2-Dichloropropane	0.000		0	N.D.	
36) Methylcyclohexane	0.000		0	N.D.	
37) Dibromomethane	0.000		0	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121809V6\
Data File : 6P517.D
Acq On : 18 Dec 2009 6:39 pm
Operator : RXD1
InstName : VOA6
Sample : |242785002|934318|10|VOAF|1|VOATCLPL|
Misc : LANL 500uL N/A
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Dec 20 11:13:37 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
38)	Bromodichloromethane	0.000		0	N.D.	
39)	2-Chloroethylvinyl ether	0.000		0	N.D.	
40)	cis-1,3-Dichloropropylene	0.000		0m	N.D.	d
42)	4-Methyl-2-pentanone	0.000		0	N.D.	
44)	Toluene	11.699	91	3675	N.D.	
45)	trans-1,3-Dichloroprop...	0.000		0	N.D.	
46)	1,1,2-Trichloroethane	0.000		0	N.D.	
47)	2-Hexanone	0.000		0m	N.D.	d
48)	1,3-Dichloropropane	0.000		0	N.D.	
49)	Tetrachloroethylene	0.000		0	N.D.	
50)	Dibromochloromethane	0.000		0	N.D.	
51)	1,2-Dibromoethane	0.000		0	N.D.	
52)	Chlorobenzene	0.000		0	N.D.	
53)	1,1,1,2-Tetrachloroethane	0.000		0	N.D.	
54)	Ethylbenzene	0.000		0	N.D.	
55)	m,p-Xylenes	0.000		0	N.D.	
56)	o-Xylene	0.000		0	N.D.	
57)	Styrene	0.000		0	N.D.	
59)	Bromoform	0.000		0	N.D.	
60)	Isopropylbenzene	0.000		0	N.D.	
62)	1,1,2,2-Tetrachloroethane	0.000		0	N.D.	
63)	1,2,3-Trichloropropane	0.000		0	N.D.	
64)	Bromobenzene	0.000		0	N.D.	
65)	n-Propylbenzene	14.583	91	709	N.D.	
66)	1,3,5-Trimethylbenzene	14.735	105	213	N.D.	
67)	2-Chlorotoluene	0.000		0	N.D.	
68)	4-Chlorotoluene	0.000		0	N.D.	
69)	tert-Butylbenzene	0.000		0	N.D.	
70)	1,2,4-Trimethylbenzene	15.150	105	1629	N.D.	
71)	sec-Butylbenzene	15.333	105	244	N.D.	
72)	4-Isopropyltoluene	15.455	119	447	N.D.	
73)	1,3-Dichlorobenzene	0.000		0	N.D.	
74)	1,4-Dichlorobenzene	15.601	146	185	N.D.	
75)	n-Butylbenzene	15.887	91	458	N.D.	
76)	1,2-Dichlorobenzene	0.000		0	N.D.	
77)	1,2-Dibromo-3-chloropr...	0.000		0	N.D.	
78)	1,2,4-Trichlorobenzene	0.000		0	N.D.	
79)	Hexachlorobutadiene	0.000		0	N.D.	
80)	Naphthalene	0.000		0	N.D.	
81)	1,2,3-Trichlorobenzene	0.000		0	N.D.	
83)	Chlorotrifluoroethylene	0.000		0	N.D.	
84)	2-Chloro-1,1,1-trifluo...	0.000		0	N.D.	
85)	Acrolein	0.000		0	N.D.	
86)	Trichlorotrifluoroethane	0.000		0	N.D.	
87)	Isopropyl Alcohol	0.000		0	N.D.	
88)	Allyl chloride	7.291	41	227	N.D.	
89)	tert-Butyl Alcohol	0.000		0	N.D.	
90)	Acrylonitrile	0.000		0	N.D.	
91)	Isopropyl ether	0.000		0	N.D.	
92)	2-Chloro-1,3-butadiene	0.000		0	N.D.	
93)	Ethyl tert-butyl ether	0.000		0	N.D.	
94)	Ethyl acetate	8.694	43	374	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121809V6\
Data File : 6P517.D
Acq On : 18 Dec 2009 6:39 pm
Operator : RXD1
InstName : VOA6
Sample : |242785002|934318|10|VOAF|1|VOATCLPL|
Misc : LANL 500uL N/A
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Dec 20 11:13:37 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
95)	Propionitrile	0.000		0	N.D.	
96)	Methacrylonitrile	0.000		0	N.D.	
97)	Tetrahydrofuran	0.000		0	N.D.	
98)	Isobutyl alcohol	0.000		0	N.D.	
99)	Methyl tert-amyl ether	0.000		0	N.D.	
100)	Methyl methacrylate	0.000		0	N.D.	
101)	1,4-Dioxane	0.000		0	N.D.	
102)	2-Nitropropane	0.000		0	N.D.	
104)	Ethyl methacrylate	0.000		0	N.D.	
106)	1-Chlorohexane	0.000		0	N.D.	
107)	cis-1,4-Dichloro-2-butene	0.000		0	N.D.	
108)	Cyclohexanone	0.000		0	N.D.	
109)	trans-1,4-Dichloro-2-b...	0.000		0	N.D.	
110)	Pentachloroethane	0.000		0	N.D.	
111)	Benzyl chloride	0.000		0m	N.D.	d
112)	bis(2-Chloroisopropyl)...	16.168	45	1347	N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121809V6\
Data File : 6P517.D
Acq On : 18 Dec 2009 6:39 pm
Operator : RXD1
InstName : VOA6
Sample : |242785002|934318|10|VOAF|1|VOATCLPL|
Misc : LANL 500uL N/A
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Dec 20 11:13:37 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

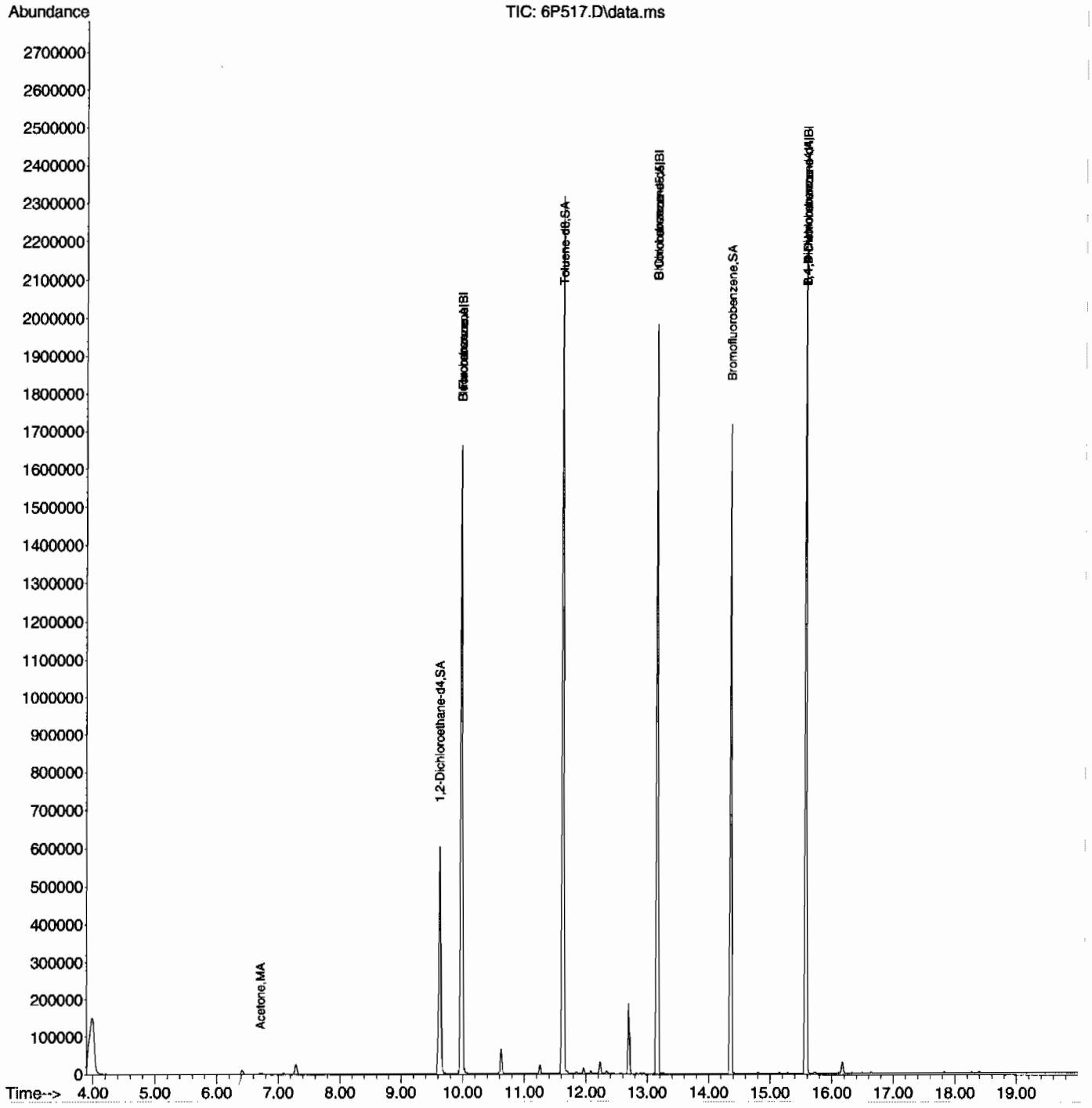

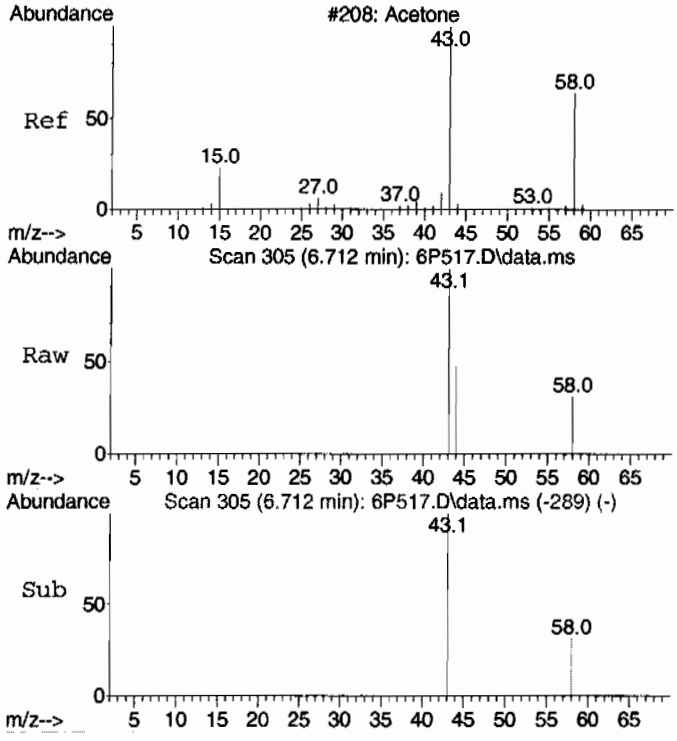

#9
Acetone
Concen: 2.03 ug/L
RT: 6.712 min Scan# 305
Delta R.T. 0.000 min
Lab File: 6P517.D
Acq: 18 Dec 2009 6:39 pm

Tgt Ion: 43 Resp: 5832

Ion	Ratio	Lower	Upper
43	100		
58	12.8	0.4	60.4

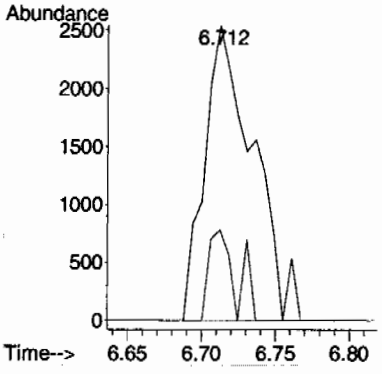

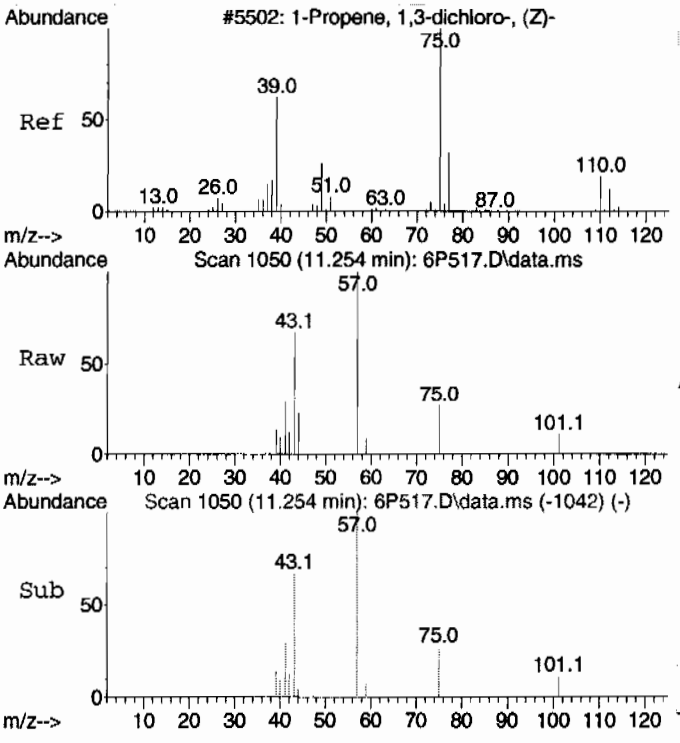

#40 BEFORE analyst DELETION
cis-1,3-Dichloropropylene
Concen: 0.32 ug/L
RT: 11.254 min Scan# 1050
Delta R.T. -0.061 min
Lab File: 6P517.D
Acq: 18 Dec 2009 6:39 pm

Tgt Ion: 75 Resp: 3807

Ion	Ratio	Lower	Upper
75	100		
39	47.5	26.8	86.8
77	0.0	1.7	61.7#

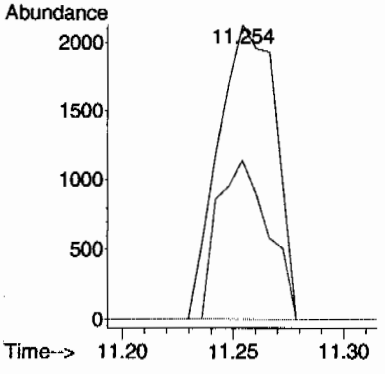

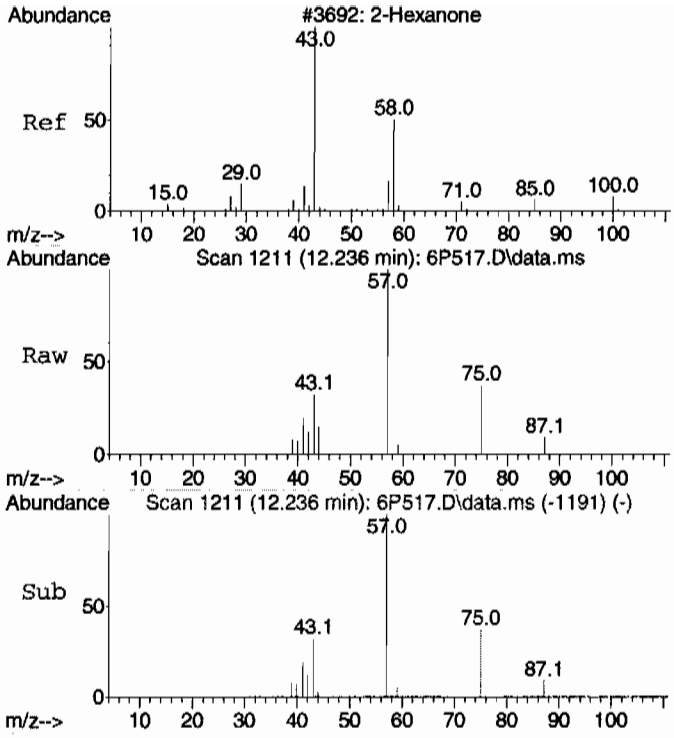

#47 BEFORE analyst DELETION
2-Hexanone
Concen: 1.41 ug/L
RT: 12.236 min Scan# 1211
Delta R.T. -0.024 min
Lab File: 6P517.D
Acq: 18 Dec 2009 6:39 pm

Tgt Ion: 43 Resp: 7831

Ion	Ratio	Lower	Upper
43	100		
58	6.1	17.3	77.3#
57	302.7	0.0	47.0#
100	0.0	0.0	39.2

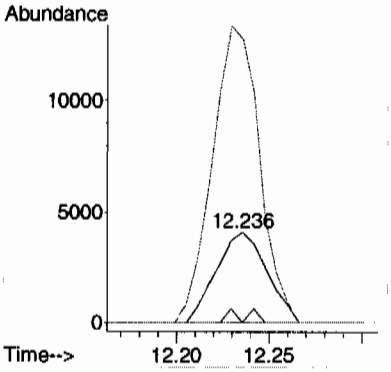

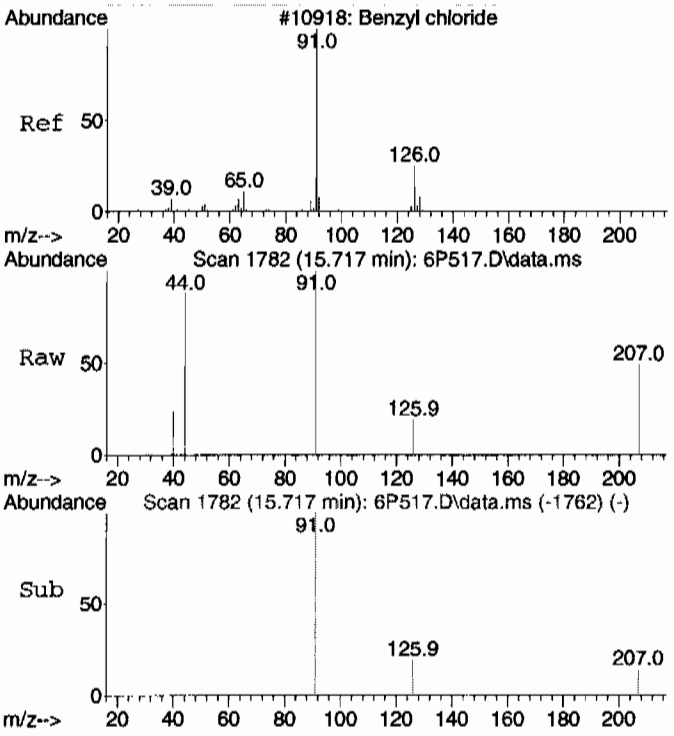

#111 BEFORE analyst DELETION
Benzyl chloride
Concen: 0.24 ug/L
RT: 15.717 min Scan# 1782
Delta R.T. 0.001 min
Lab File: 6P517.D
Acq: 18 Dec 2009 6:39 pm

Tgt Ion: 91 Resp: 3875

Ion	Ratio	Lower	Upper
91	100		
126	10.1	0.0	52.6
65	0.0	0.0	42.9

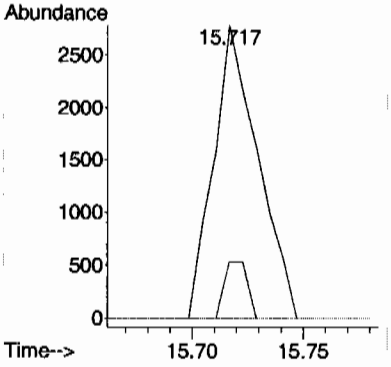

Standards

EPA 524.2/Low level SW846 8260B and Regular level 8260B and EPA 624
Calibration Standard Concentration Levels

	Level 1	Level 1a	Level 2	Level 3	Level 4 #	Level 5	Level 6	Level 7 !	Level 7a
Fluorobenzene (IS)									
1,2-Dichloroethane-d4(surr)		0.5	1	2	5	10	20	50	100
Dichlorodifluoromethane		0.5	1	2	5	10	20	50	100
Chloromethane		0.5	1	2	5	10	20	50	100
Vinyl chloride		0.5	1	2	5	10	20	50	100
Bromomethane		0.5	1	2	5	10	20	50	100
Chloroethane		0.5	1	2	5	10	20	50	100
Trichlorofluoromethane		0.5	1	2	5	10	20	50	100
1,1-Dichloroethene		0.5	1	2	5	10	20	50	100
Acetone	1	2.5	5	10	25	50	100	250	500
Iodomethane	1	2.5	5	10	25	50	100	250	500
Carbon disulfide	1	2.5	5	10	25	50	100	250	500
Methylene chloride		0.5	1	2	5	10	20	50	100
trans-1,2-Dichloroethene		0.5	1	2	5	10	20	50	100
1,1-Dichloroethane		0.5	1	2	5	10	20	50	100
Ethyl ether		0.5	1	2	5	10	20	50	100
Vinyl acetate	1	2.5	5	10	25	50	100	250	500
cis-1,2-Dichloroethene		0.5	1	2	5	10	20	50	100
1,2-Dichloroethene (total)		1	2	4	10	20	40	100	200
Cyclohexene		0.5	1	2	5	10	20	50	100
2-Chloroethylvinyl ether			5	10	25	50	100	250	500
2,2-Dichloropropane		0.5	1	2	5	10	20	50	100
2-Butanone	1	2.5	5	10	25	50	100	250	500
Bromochloromethane		0.5	1	2	5	10	20	50	100
Chloroform		0.5	1	2	5	10	20	50	100
1,1,1-Trichloroethane		0.5	1	2	5	10	20	50	100
1,1-Dichloropropene		0.5	1	2	5	10	20	50	100
Carbon tetrachloride		0.5	1	2	5	10	20	50	100
Benzene		0.5	1	2	5	10	20	50	100
1,2-Dichloroethane		0.5	1	2	5	10	20	50	100
Trichloroethene		0.5	1	2	5	10	20	50	100
1,2-Dichloropropane		0.5	1	2	5	10	20	50	100
Dibromomethane		0.5	1	2	5	10	20	50	100
Bromodichloromethane		0.5	1	2	5	10	20	50	100
cis-1,3-Dichloropropene		0.5	1	2	5	10	20	50	100
tert-Butylmethylether		0.5	1	2	5	10	20	50	100
Ethyl Ether			1	2	5	10	20	50	100
Acetonitrile			25	50	125	250	500	1250	2500
Methyl acetate			5	10	25	50	100	250	500
Cyclohexane			1	2	5	10	20	50	100
Methylcyclohexane			1	2	5	10	20	50	100
n-Butyl alcohol			50	100	250	500	1000	2500	5000
2-Nitropropane			5	10	25	50	100	250	500
Ethyl acetate			5	10	25	50	100	250	500
Acrolein			5	10	25	50	100	250	500
Trichlorotrifluoroethane			5	10	25	50	100	250	500
Allyl chloride			5	10	25	50	100	250	500
Acrylonitrile			5	10	25	50	100	250	500
1,4-Dioxane			50	100	250	500	1000	2500	5000
Isobutyl alcohol			50	100	250	500	1000	2500	5000
Methacrylonitrile			5	10	25	50	100	250	500
Propionitrile			5	10	25	50	100	250	500
Methyl methacrylate			5	10	25	50	100	250	500
Chlorotrifluoroethylene			5	10	25	50	100	250	500
2-Chloro-1,1,1-trifluoroethane			5	10	25	50	100	250	500

tert-Butyl alcohol			50	100	250	500	1000	2500	5000
Isopropyl ether			1	2	5	10	20	50	100
Ethyl tert-butyl ether			1	2	5	10	20	50	100
Isopropyl alcohol			50	100	250	500	1000	2500	5000
Methyl tert-amyl ether			1	2	5	10	20	50	100
1-Chlorohexane			1	2	5	10	20	50	100
2-Chloro-1,3-butadiene(chloroprene)			1	2	5	10	20	50	100
Chlorobenzene-d5 (IS)									
Toluene-d8 (surr)		0.5	1	2	5	10	20	50	100
4-Methyl-2-pentanone	1	2.5	5	10	25	50	100	250	500
Toluene		0.5	1	2	5	10	20	50	100
trans-1,3-Dichloropropene		0.5	1	2	5	10	20	50	100
1,1,2-Trichloroethane		0.5	1	2	5	10	20	50	100
Tetrachloroethene		0.5	1	2	5	10	20	50	100
1,3-Dichloropropane		0.5	1	2	5	10	20	50	100
2-Hexanone	1	2.5	5	10	25	50	20	250	500
Dibromochloromethane		0.5	1	2	5	10	20	50	100
1,2-Dibromoethane		0.5	1	2	5	10	20	50	100
Chlorobenzene		0.5	1	2	5	10	20	50	100
1,1,1,2-Tetrachloroethane		0.5	1	2	5	10	20	50	100
Ethylbenzene		0.5	1	2	5	10	20	50	100
m,p-Xylene		1	2	4	10	20	20	100	200
o-Xylene		0.5	1	2	5	10	20	50	100
Xylenes (total)		1.5	3	6	15	30	60	150	300
Stryene		0.5	1	2	5	10	20	50	100
Cyclohexanone			50	100	250	500	1000	2500	5000
Ethyl methacrylate			5	10	25	50	100	250	500
1,4-Dichlorobenzene-d4 (IS)									
Bromofluorobenzene (surr)		0.5	1	2	5	10	20	50	100
Bromoform		0.5	1	2	5	10	20	50	100
Isopropylbenzene		0.5	1	2	5	10	20	50	100
1,1,2,2-Tetrachloroethane		0.5	1	2	5	10	20	50	100
Bromobenzene		0.5	1	2	5	10	20	50	100
1,2,3-Trichloropropane		0.5	1	2	5	10	20	50	100
n-Propylbenzene		0.5	1	2	5	10	20	50	100
2-Chlorotoluene		0.5	1	2	5	10	20	50	100
1,3,5-Trimethylbenzene		0.5	1	2	5	10	20	50	100
4-Chlorotoluene		0.5	1	2	5	10	20	50	100
1,2,4-Trimethylbenzene		0.5	1	2	5	10	20	50	100
sec-Butylbenzene		0.5	1	2	5	10	20	50	100
1,3-Dichlorobenzene		0.5	1	2	5	10	20	50	100
tert-Butylbenzene		0.5	1	2	5	10	20	50	100
Isopropyltoluene		0.5	1	2	5	10	20	50	100
1,4-Dichlorobenzene		0.5	1	2	5	10	20	50	100
n-Butylbenzene		0.5	1	2	5	10	20	50	100
1,2-Dichlorobenzene		0.5	1	2	5	10	20	50	100
1,2-Dibromo-3-chloropropa		0.5	1	2	5	10	20	50	100
1,2,4-Trichlorobenzene		0.5	1	2	5	10	20	50	100
Hexachlorobutadiene		0.5	1	2	5	10	20	50	100
Naphthalene		0.5	1	2	5	10	20	50	100
1,2,3-Trichlorobenzene		0.5	1	2	5	10	20	50	100
cis-1,4-Dichloro-2-butene			5	10	25	50	100	250	500
trans-1,4-Dichloro-2-butene			5	10	25	50	100	250	500
Tetrahydrofuran			5	10	25	50	100	250	500
Pentachloroethane			5	10	25	50	100	250	500
Benzyl chloride			5	10	25	50	100	250	500
bis(2-Chloro-isopropyl)ether			5	10	25	50	100	250	500

Method	PQL	Concentration range
EPA 524.2	Level 1a	Levels 1a -> 7a
SW 846 8260B low level	Level 1a	Levels 1-> 7a
EPA 624	Level 2	Levels 2-> 7a
SW846 8260B	Level 2	Levels 2-> 7a

#: Indicates calibration verification concentration level used for low level analysis

!: Indicates calibration verification concentration level used for regular level analysis

Calibration History Report VOA6
GEL Laboratories, LLC

Method File : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Last Update : Mon Dec 14 12:44:52 2009
Integrator : (RTE Integrator) Response via : Initial Calibration

Cal Lvl:8 Amt:-1 Last Updated with: C:\msdchem\1\DATA\121009V6\60414.D

Injection Date	Mix	Calibration File
10 Dec 2009 2:49 pm	A	C:\msdchem\1\DATA\121009V6\60414.D

Cal Lvl:1 Amt:1 Last Updated with: C:\msdchem\1\DATA\121009V6\60418.D

Injection Date	Mix	Calibration File
10 Dec 2009 3:17 pm	A	C:\msdchem\1\DATA\121009V6\60415.D
10 Dec 2009 4:40 pm	B	C:\msdchem\1\DATA\121009V6\60418.D

Cal Lvl:2 Amt:2 Last Updated with: C:\msdchem\1\DATA\121009V6\60419.D

Injection Date	Mix	Calibration File
10 Dec 2009 11:34 am	A	C:\msdchem\1\DATA\121009V6\60407.D
10 Dec 2009 5:08 pm	B	C:\msdchem\1\DATA\121009V6\60419.D

Cal Lvl:3 Amt:5 Last Updated with: C:\msdchem\1\DATA\121009V6\60420.D

Injection Date	Mix	Calibration File
10 Dec 2009 12:02 pm	A	C:\msdchem\1\DATA\121009V6\60408.D
10 Dec 2009 5:36 pm	B	C:\msdchem\1\DATA\121009V6\60420.D

Cal Lvl:4 Amt:10 Last Updated with: C:\msdchem\1\DATA\121009V6\60421.D

Injection Date	Mix	Calibration File
10 Dec 2009 12:30 pm	A	C:\msdchem\1\DATA\121009V6\60409.D
10 Dec 2009 6:04 pm	B	C:\msdchem\1\DATA\121009V6\60421.D

Cal Lvl:5 Amt:20 Last Updated with: C:\msdchem\1\DATA\121009V6\60422.D

Injection Date	Mix	Calibration File
10 Dec 2009 12:58 pm	A	C:\msdchem\1\DATA\121009V6\60410.D
10 Dec 2009 6:32 pm	B	C:\msdchem\1\DATA\121009V6\60422.D

Cal Lvl:6 Amt:50 Last Updated with: C:\msdchem\1\DATA\121009V6\60423.D

Injection Date	Mix	Calibration File
10 Dec 2009 1:26 pm	A	C:\msdchem\1\DATA\121009V6\60411.D
10 Dec 2009 7:00 pm	B	C:\msdchem\1\DATA\121009V6\60423.D

Cal Lvl:7 Amt:100 Last Updated with: C:\msdchem\1\DATA\121009V6\60424.D

Injection Date	Mix	Calibration File
10 Dec 2009 1:54 pm	A	C:\msdchem\1\DATA\121009V6\60412.D
10 Dec 2009 7:28 pm	B	C:\msdchem\1\DATA\121009V6\60424.D

Response Factor Report VOA6
GEL Laboratories, LLC

Method File : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Last Update : Mon Dec 14 12:44:52 2009
Integrator : (RTE Integrator) Response via : Initial Calibration

For Linear Calibration: y = concentration ratio, x = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
2)MA Dichlorodifluoromethane	0.2122344	0.2232812 0.2116585	0.2246314	0.2792048	0.2086322	0.2094071	0.2241	AVRG		11.2099
3)MPA Chloromethane	0.3018661	0.3377571 0.3004831	0.3107589	0.3220134	0.2922306	0.2928066	0.3083	AVRG		5.3998
4)MCA Vinyl chloride	0.2701427	0.2854050 0.2661185	0.2798535	0.2793538	0.2574013	0.2562340	0.2706	AVRG		4.2191
5)MA Bromomethane	0.2055878	0.2082186 0.2001872	0.2035578	0.2044313	0.1953195	0.1956995	0.2019	AVRG		2.4550
6)MA Chloroethane	0.2053181	0.1952824 0.2012262	0.1986611	0.2015154	0.2002854	0.2038765	0.2009	AVRG		1.6487
7)MA Trichlorofluoromethane	0.3997047	0.3941850 0.3884566	0.4116021	0.3975569	0.3941101	0.3917678	0.3968	AVRG		1.8892
8)MA Ethyl ether	0.2476936	0.2981892 0.2357482	0.2773795	0.2492815	0.2442189	0.2520515	0.2578	AVRG		8.5179
9)MA Acetone		0.1105217	0.0983102	0.0841360	0.0810798	0.0807655	0.0910	AVRG		14.3843
10)MCA 1,1-Dichloroethylene	0.3759820	0.3796793 0.3524014	0.3629430	0.3459163	0.3753148	0.3696478	0.3660	AVRG		3.4999
11)MA Iodomethane	0.3943182	0.4027922 0.3607777	0.4129224	0.3859253	0.4079415	0.3958907	0.3944	AVRG		4.3937
12)MA Acetonitrile	0.0374099	0.0381593 0.0355251	0.0364691	0.0362921	0.0381896	0.0389799	0.0373	AVRG		3.3243
13)MA Methyl acetate	0.2119610	0.2062288 0.1961051	0.1959205	0.2011061	0.2042341	0.2165080	0.2046	AVRG		3.7782
14)MA Carbon disulfide	0.7342336	0.7427821 0.6535432	0.7701791	0.7148046	0.7816045	0.7437036	0.7344	AVRG		5.7197
15)MA Methylene chloride	0.2650295	0.2504097	0.3586873	0.2965955	0.2843227	0.2716573	0.2878	AVRG		13.2697
16)MA tert-Butyl methyl ether	0.7178414	0.7916862 0.6912656	0.7640083	0.6846200	0.7126300	0.7280524	0.7272	AVRG		5.3019

Response Factor Report VOA6
GEL Laboratories, LLC

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Last Update : Mon Dec 14 12:44:52 2009
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For Linear Calibration: y = concentration ratio, x = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
17)MA trans-1,2-Dichloroethyle		0.3683886	0.4015524	0.3537796	0.3876870	0.3732115				
	0.3776554	0.3524416					0.3735	AVRG		4.7187
18)MA Vinyl acetate		0.4905047	0.5108814	0.5558842	0.5450210	0.5774248				
	0.5608365	0.5259008					0.5381	AVRG		5.6690
19)MPA 1,1-Dichloroethane		0.4735992	0.4838472	0.4549248	0.4839184	0.4670680				
	0.4689507	0.4394961					0.4674	AVRG		3.4037
20)MA 2-Butanone		0.1213262	0.1148871	0.1185865	0.1150297	0.1212154				
	0.1105573	0.1040462					0.1151	AVRG		5.3934
21)MA cis-1,2-Dichloroethylene		0.4195003	0.4236643	0.4068955	0.4278609	0.4198225				
	0.4182469	0.3964212					0.4161	AVRG		2.5915
22)MA 2,2-Dichloropropane		0.3275044	0.3362806	0.3210795	0.3478993	0.3436341				
	0.3501550	0.3303592					0.3367	AVRG		3.2613
23)MA Bromochloromethane		0.1243742	0.1254803	0.1274374	0.1331449	0.1291842				
	0.1316678	0.1258530					0.1282	AVRG		2.5792
24)MCA Chloroform		0.4327655	0.4517753	0.4320750	0.4466964	0.4384843				
	0.4357051	0.4088180					0.4352	AVRG		3.1530
25)MA 1,1,1-Trichloroethane		0.3545665	0.3781073	0.3429955	0.3752445	0.3724629				
	0.3766651	0.3564585					0.3652	AVRG		3.7646
26)MA Cyclohexane		0.4658020	0.4746435	0.4533501	0.4920645	0.4789968				
	0.4872574	0.4538365					0.4723	AVRG		3.2424
27)MA 1,1-Dichloropropene		0.3267449	0.3460611	0.3219637	0.3460734	0.3330388				
	0.3373146	0.3157520					0.3324	AVRG		3.5086
28)MA Carbon tetrachloride		0.3260108	0.3191166	0.3100868	0.3287754	0.3271430				
	0.3318274	0.3186325					0.3231	AVRG		2.3243
29)SA 1,2-Dichloroethane-d4		0.2993517	0.2966709	0.2953114	0.2955918	0.2934623				
	0.2962702	0.2883697					0.2950	AVRG		1.1588
30)MA 1,2-Dichloroethane		0.3729201	0.3560339	0.3576492	0.3613600	0.3581947				
	0.3560932	0.3353587					0.3568	AVRG		3.1212
31)MA Benzene	1.0999736	1.0415992	1.0414520	1.0006924	1.0382904	1.0154085				
	0.9930403	0.9179240					1.0185	AVRG		5.1392

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For Linear Calibration: y = concentration ratio, x = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
32)MA Cyclohexene	0.5019296	0.4667640 0.4716311	0.4824499	0.4619734	0.5039427	0.5027549	0.4845	AVRG		3.7748
33)MA n-Butyl alcohol -0.0092 | 0.0086 | 0.00	13494 1762453	22120 3606257	45316	125907	295915	713263		LINR	#	0.9997
34)MA Trichloroethylene	0.2551409	0.2695070 0.2379508	0.2586517	0.2446072	0.2599620	0.2537951	0.2542	AVRG		4.0764
35)MCA 1,2-Dichloropropane	0.2733027	0.2681400 0.2586003	0.2688681	0.2668460	0.2754567	0.2731595	0.2692	AVRG		2.0947
36)MA Methylcyclohexane	0.4528596	0.4399298 0.4205278	0.4571718	0.4146793	0.4625598	0.4491111	0.4424	AVRG		4.1597
37)MA Dibromomethane	0.1493533	0.1361965 0.1421583	0.1387731	0.1434422	0.1437514	0.1473206	0.1430	AVRG		3.1875
38)MA Bromodichloromethane	0.3274031	0.2757345 0.3128155	0.2864166	0.2900783	0.3029399	0.3149084	0.3015	AVRG		6.0602
39)MA 2-Chloroethylvinyl ether	0.1727019	0.1437961 0.1640503	0.1445594	0.1936062	0.1634662	0.1718516	0.1649	AVRG		10.4918
40)MA cis-1,3-Dichloropropylen	0.4096143	0.3609206 0.3927613	0.3482530	0.3701967	0.3849783	0.3963204	0.3804	AVRG		5.6760
42)MA 4-Methyl-2-pentanone	0.1368731	0.1241555 0.1328924	0.1169303	0.1298552	0.1358418	0.1424309	0.1313	AVRG		6.5061
43)SA Toluene-d8	1.3826016	1.4063658 1.3692128	1.4037116	1.3758963	1.3859025	1.3803183	1.3863	AVRG		1.0011
44)MCA Toluene	1.4288332	1.6072192 1.3239846	1.5996153	1.4745282	1.5061227	1.4893060	1.4899	AVRG		6.5737
45)MA trans-1,3-Dichloropropyl	0.5194597	0.4513267 0.5012892	0.4482156	0.4467542	0.4897035	0.5151138	0.4817	AVRG		6.7030
46)MA 1,1,2-Trichloroethane	0.2456732	0.2526383 0.2379460	0.2452014	0.2379916	0.2436152	0.2524711	0.2451	AVRG		2.4449
47)MA 2-Hexanone	0.2519791	0.2341341 0.2397697	0.2145162	0.2349889	0.2425614	0.2670615	0.2407	AVRG		6.7580

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For Linear Calibration: y = concentration ratio, x = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
48)MA 1,3-Dichloropropane	0.5182872	0.5277262 0.4833653	0.5198835	0.5294688	0.5366747	0.5355168	0.5216	AVRG		3.4972
49)MA Tetrachloroethylene	0.2867699	0.3219671 0.2694709	0.3198263	0.2944521	0.3145210	0.3003462	0.3011	AVRG		6.3847
50)MA Dibromochloromethane	0.3485497	0.2618656 0.3433980	0.2782664	0.2837730	0.3144298	0.3301487	0.3086	AVRG		11.0874
51)MA 1,2-Dibromoethane	0.3063965	0.2847395 0.2970674	0.2904709	0.2867757	0.2994790	0.3035953	0.2955	AVRG		2.8305
52)MPA Chlorobenzene	0.9505480	0.9700730 0.8950379	1.0085837	0.9725408	0.9735874	0.9741070	0.9635	AVRG		3.6020
53)MA 1,1,1,2-Tetrachloroethan	0.3532770	0.2998710 0.3340249	0.3281956	0.3291800	0.3414970	0.3486527	0.3335	AVRG		5.2827
54)MCA Ethylbenzene	1.6174875	1.6835128 1.4859878	1.6688459	1.6127534	1.7068395	1.6597100	1.6336	AVRG		4.4888
55)MA m,p-Xylenes	0.6551259	0.6638384 0.6036628	0.6584253	0.6422963	0.6747784	0.6753009	0.6533	AVRG		3.7859
56)MA o-Xylene	0.6530015	0.6611161 0.6096110	0.6142579	0.6238887	0.6636513	0.6637868	0.6413	AVRG		3.8053
57)MA Styrene	1.0764753	0.9809620 1.0120490	0.9430807	0.9912570	1.0599807	1.0877000	1.0216	AVRG		5.3137
59)MPA Bromoform	0.4129312	0.2977739 0.4168101	0.3003833	0.3111675	0.3463784	0.3890668	0.3535	AVRG		14.8681
60)MA Isopropylbenzene	3.0509839	3.0934768 2.7744449	3.0640796	2.9850060	3.1810630	3.1851114	3.0477	AVRG		4.5944
61)SA Bromofluorobenzene	0.9668800	0.9796877 0.9391525	0.9668644	0.9652127	0.9606038	0.9666108	0.9636	AVRG		1.2700
62)MPA 1,1,2,2-Tetrachloroethan	0.7003404	0.6497580 0.6714973	0.6785578	0.6772856	0.6866139	0.7187445	0.6833	AVRG		3.2069
63)MA 1,2,3-Trichloropropane	0.1964037	0.1611670 0.1907103	0.1973369	0.1998901	0.1957398	0.2040378	0.1922	AVRG		7.4232

Response Factor Report VOA6
GEL Laboratories, LLC

Method File : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Last Update : Mon Dec 14 12:44:52 2009
Integrator : (RTE Integrator) Response via : Initial Calibration

For Linear Calibration: y = concentration ratio, x = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
64)MA Bromobenzene		0.8413387	0.8187846	0.7620473	0.7933353	0.7923493				
	0.7696909	0.7077793					0.7836	AVRG		5.5012
65)MA n-Propylbenzene		3.7621957	3.6484124	3.5249531	3.7005892	3.6840295				
	3.5156399	3.1628154					3.5712	AVRG		5.6458
66)MA 1,3,5-Trimethylbenzene		2.7105701	2.6419943	2.5446442	2.7125708	2.6942284				
	2.6038213	2.3810487					2.6127	AVRG		4.5671
67)MA 2-Chlorotoluene		0.7793660	0.7646150	0.7553678	0.7855246	0.7866550				
	0.7510140	0.6930984					0.7594	AVRG		4.2785
68)MA 4-Chlorotoluene		2.3003674	2.2344153	2.1711396	2.2741567	2.2514575				
	2.1634039	1.9979894					2.1990	AVRG		4.6368
69)MA tert-Butylbenzene		0.6374780	0.5556470	0.5469296	0.5969844	0.5948356				
	0.5865540	0.5500763					0.5812	AVRG		5.6311
70)MA 1,2,4-Trimethylbenzene		2.9025961	2.8455061	2.7107079	2.8226597	2.7878638				
	2.7008576	2.4985635					2.7527	AVRG		4.8343
71)MA sec-Butylbenzene		3.6647193	3.5222670	3.4220850	3.6614145	3.6096166				
	3.5077111	3.2018291					3.5128	AVRG		4.6427
72)MA 4-Isopropyltoluene		3.0039538	2.8435132	2.7611634	2.9810390	2.9650620				
	2.8893721	2.6637164					2.8725	AVRG		4.3745
73)MA 1,3-Dichlorobenzene		1.6471735	1.5794464	1.5207738	1.5572737	1.5462071				
	1.4810019	1.3887383					1.5315	AVRG		5.3050
74)MA 1,4-Dichlorobenzene		1.7340242	1.6203186	1.5941590	1.5891533	1.5468635				
	1.5004775	1.4068187					1.5703	AVRG		6.4936
75)MA n-Butylbenzene		2.8738367	2.7836913	2.6970713	2.9236329	2.8680236				
	2.7968535	2.5716912					2.7878	AVRG		4.3273
76)MA 1,2-Dichlorobenzene		1.5622316	1.5360911	1.4861645	1.5057432	1.4982778				
	1.4471145	1.3570774					1.4847	AVRG		4.5168
77)MA 1,2-Dibromo-3-chloroprop		0.1010395	0.1073264	0.1228811	0.1269645	0.1400227				
	0.1493914						0.1246	AVRG		14.8610
78)MA 1,2,4-Trichlorobenzene		1.3000887	1.1132870	1.0888211	1.1105460	1.0936020				
	1.0959346	1.0145764					1.1167	AVRG		7.8283

Response Factor Report VOA6
GEL Laboratories, LLC

Method File : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Last Update : Mon Dec 14 12:44:52 2009
Integrator : (RTE Integrator) Response via : Initial Calibration

For Linear Calibration: y = concentration ratio, x = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
79)MA Hexachlorobutadiene		0.7926004	0.7317473	0.7046472	0.7222174	0.6878052				
	0.6922023	0.6317986					0.7090	AVRG		6.9077
80)MA Naphthalene		2.6711850	1.9890184	2.1503816	2.2126319	2.2623259				
	2.2616887	2.1625424					2.2443	AVRG		9.3561
81)MA 1,2,3-Trichlorobenzene		1.1336407	0.9105267	0.8813930	0.9286071	0.9152550				
	0.9162040	0.8601809					0.9351	AVRG		9.6948
83)B Chlorotrifluoroethylene		0.1490342	0.1816961	0.1788430	0.1898346	0.1848474				
	0.1881216						0.1787	AVRG		8.4468
84)B 2-Chloro-1,1,1-trifluoro		0.2824525	0.2879324	0.2875075	0.3110905	0.2998157				
	0.3264422	0.2908168					0.2980	AVRG		5.2851
85)B Acrolein		0.0356113	0.0359365	0.0356931	0.0348688	0.0373620				
	0.0395317	0.0363122					0.0365	AVRG		4.2451
86)B Trichlorotrifluoroethane		0.1000504	0.0967221	0.0905673	0.0939880	0.0911033				
	0.0922475	0.0891276					0.0934	AVRG		4.1117
87)B Isopropyl Alcohol		0.0196008	0.0187955	0.0177190	0.0189093	0.0196533				
	0.0215827	0.0194556					0.0194	AVRG		6.0674
88)B Allyl chloride		0.4550005	0.4406552	0.4273726	0.4484022	0.4377811				
	0.4383010	0.4124570					0.4371	AVRG		3.1871
89)B tert-Butyl Alcohol		0.0290000	0.0295413	0.0276804	0.0285352	0.0302175				
	0.0330042	0.0290688					0.0296	AVRG		5.7625
90)B Acrylonitrile		0.0914371	0.0936750	0.0907006	0.0926063	0.0939948				
	0.0978829	0.0898519					0.0929	AVRG		2.8817
91)B Isopropyl ether		0.9702112	0.9702464	0.9587353	1.0107760	1.0272262				
	1.0445233	0.9845102					0.9952	AVRG		3.2798
92)B 2-Chloro-1,3-butadiene		0.3469645	0.3501799	0.3461045	0.3820921	0.3856556				
	0.3994571	0.3937049					0.3720	AVRG		6.2913
93)B Ethyl tert-butyl ether		0.8171915	0.8171509	0.8112386	0.8577802	0.8677665				
	0.8972627	0.8476037					0.8451	AVRG		3.7754
94)B Ethyl acetate		0.2945890	0.2773388	0.2549074	0.2572784	0.2613638				
	0.2700764	0.2417925					0.2653	AVRG		6.4659

Response Factor Report VOA6
GEL Laboratories, LLC

Method File : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Last Update : Mon Dec 14 12:44:52 2009
Integrator : (RTE Integrator) Response via : Initial Calibration

For Linear Calibration: y = concentration ratio, x = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
95)B Propionitrile	0.0384242	0.0353437 0.0354602	0.0364254	0.0339544	0.0363230	0.0367154	0.0361	AVRG		3.8393
96)B Methacrylonitrile	0.1675008	0.1506741 0.1527979	0.1625637	0.1539664	0.1616947	0.1620017	0.1587	AVRG		3.9332
97)B Tetrahydrofuran	0.0864598	0.0896706 0.0775202	0.0877985	0.0827308	0.0816822	0.0841379	0.0843	AVRG		4.8691
98)B Isobutyl alcohol	0.0106873	0.0090225 0.0093963	0.0095742	0.0089893	0.0091716	0.0098651	0.0095	AVRG	#	6.2815
99)B Methyl tert-amyl ether	0.7785884	0.6722986 0.7250961	0.6932561	0.6933257	0.7362331	0.7538752	0.7218	AVRG		5.2294
100)B Methyl methacrylate	0.1644996	0.1431557 0.1476097	0.1466455	0.1462899	0.1539413	0.1602513	0.1518	AVRG		5.2882
101)B 1,4-Dioxane	0.0024191	0.0024798 0.0022436	0.0024445	0.0023123	0.0022142	0.0023018	0.0023	AVRG	#	4.4001
102)B 2-Nitropropane -0.0058 | 0.0780 | 0.00	831550	11509 1561467	24133	59867	127906	294691		LINR		0.9983
104)B Ethyl methacrylate	0.4180230	0.3499429 0.3693288	0.3833601	0.3903187	0.4136001	0.4152529	0.3914	AVRG		6.6315
106)B 1-Chlorohexane	0.7159302	0.6241483 0.7024941	0.6720327	0.6761025	0.7303460	0.7123984	0.6905	AVRG		5.2246
107)B cis-1,4-Dichloro-2-buten	0.2492203	0.2250675 0.2345680	0.2295042	0.2248694	0.2388553	0.2451969	0.2353	AVRG		4.0759
108)B Cyclohexanone	0.0212890	0.0183082 0.0197798	0.0189898	0.0173811	0.0187546	0.0202618	0.0193	AVRG		6.7576
109)B trans-1,4-Dichloro-2-but	0.2381868	0.2140663 0.2222904	0.2271296	0.2192916	0.2301195	0.2313238	0.2261	AVRG		3.5950
110)B Pentachloroethane	0.3483537	0.3198791 0.3218054	0.3046995	0.3480490	0.3529256	0.3443905	0.3343	AVRG		5.5636
111)B Benzyl chloride	1.3269105	1.2676355 1.1561169	1.3106652	1.2969449	1.3396149	1.3571593	1.2936	AVRG		5.1997

Response Factor Report VOA6
GEL Laboratories, LLC

Method File : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Last Update : Mon Dec 14 12:44:52 2009
Integrator : (RTE Integrator) Response via : Initial Calibration

For Linear Calibration: y = concentration ratio, x = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
112)B bis(2-Chloroisopropyl)et		0.3888848	0.3923756	0.3593955	0.3612045	0.3881230				
	0.4024800	0.3645249					0.3796	AVRG		4.5878

(#) = Out of Range

Continuing Calibration Summary

Client SDG: 10-899-1

Instrument ID: VOA6.I **Injection Date** 10-DEC-09 15:45

Data File: 121009V6\6O416.D **Init. Cal. Date(s)** 10-DEC-09 11:34 - 10-DEC-09 15:1

Lab Sample ID W6VM091210-11 **Quant Type** ISTD **Method:** VOA6-8260-121009.M

	Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type	
S	1,2-Dichloroethane-d4	0.295	0.28522		.01		-3.31525	30		Averaged	
S	Toluene-d8	1.3863	1.37374		.01		-0.90601	30		Averaged	
S	Bromofluorobenzene	0.9636	0.96409		.01		0.05085	30		Averaged	
	Dichlorodifluoromethane	0.2241	0.17489		.01		-21.95895	30		Averaged	
	Chloromethane	0.3083	0.24044		.1		-22.01103	30		Averaged	spcc
	Vinyl chloride	0.2706	0.24311		.01		-10.15891	20		Averaged	ccc
	Bromomethane	0.2019	0.18278		.01		-9.47003	30		Averaged	
	Chloroethane	0.2009	0.18563		.01		-7.6008	30		Averaged	
	Trichlorofluoromethane	0.3968	0.372		.01		-6.25	30		Averaged	
	Ethyl ether	0.2578	0.2312		.01		-10.31808	30		Averaged	
	Acetone	0.091	0.07078		.01		-22.21978	40		Averaged	
	1,1-Dichloroethylene	0.366	0.34543		.01		-5.62022	20		Averaged	ccc
	Iodomethane	0.3944	0.36435		.01		-7.61917	30		Averaged	
	Acetonitrile	0.0373	0.03702		.01		-0.75067	30		Averaged	
	Carbon disulfide	0.7344	0.7168		.01		-2.39651	30		Averaged	
	Methyl acetate	0.2046	0.20258		.01		-0.98729	40		Averaged	
	Methylene chloride	0.2878	0.25012		.01		-13.09243	30		Averaged	
	tert-Butyl methyl ether	0.7272	0.68144		.01		-6.29263	30		Averaged	
	trans-1,2-Dichloroethylene	0.3735	0.35831		.01		-4.06693	30		Averaged	
	Vinyl acetate	0.5381	0.58958		.01		9.56699	40		Averaged	
	1,1-Dichloroethane	0.4674	0.44799		.1		-4.15276	30		Averaged	spcc
	2-Butanone	0.1151	0.1155		.01		0.34752	40		Averaged	
	cis-1,2-Dichloroethylene	0.4161	0.40307		.01		-3.13146	30		Averaged	
	2,2-Dichloropropane	0.3367	0.35182		.01		4.49064	30		Averaged	
	Bromochloromethane	0.1282	0.12437		.01		-2.98752	30		Averaged	
	Chloroform	0.4352	0.41847		.01		-3.84421	20		Averaged	ccc
	1,1,1-Trichloroethane	0.3652	0.36984		.01		1.27054	30		Averaged	
	Cyclohexane	0.4723	0.48637		.01		2.97904	30		Averaged	
	1,1-Dichloropropene	0.3324	0.33568		.01		0.98676	30		Averaged	
	Carbon tetrachloride	0.3231	0.32867		.01		1.72392	30		Averaged	
	1,2-Dichloroethane	0.3568	0.33679		.01		-5.60818	30		Averaged	
	Benzene	1.0185	0.96132		.01		-5.61414	30		Averaged	
	Cyclohexene	0.4845	0.48291		.01		-0.32817	30		Averaged	
	n-Butyl alcohol	5000	5176.1	5000			3.522	40		Linear	
	Trichloroethylene	0.2542	0.24527		.01		-3.51298	30		Averaged	
	Methylcyclohexane	0.4424	0.45818		.01		3.56691	30		Averaged	
	1,2-Dichloropropane	0.2692	0.26546		.01		-1.3893	20		Averaged	ccc

Continuing Calibration Summary

Instrument ID: VOA6.I **Injection Date** 10-DEC-09 15:45

Data File: 121009V6\6O416.D **Init. Cal. Date(s)** 10-DEC-09 11:34 10-DEC-09 15:1

Lab Sample ID W6VM091210-11 **Quant Type** ISTD **Method:** VOA6-8260-121009.M

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type	
Dibromomethane	0.143	0.1431		.01		0.06993	30		Averaged	
Bromodichloromethane	0.3015	0.31168		.01		3.37645	30		Averaged	
2-Chloroethylvinyl ether	0.1649	0.1587		.01		-3.75985	30		Averaged	
cis-1,3-Dichloropropylene	0.3804	0.39161		.01		2.9469	30		Averaged	
4-Methyl-2-pentanone	0.1313	0.14172		.01		7.93602	40		Averaged	
Toluene	1.4899	1.40874		.01		-5.44735	20		Averaged	ccc
trans-1,3-Dichloropropylene	0.4817	0.50939		.01		5.74839	30		Averaged	
1,1,2-Trichloroethane	0.2451	0.24367		.01		-0.58344	30		Averaged	
2-Hexanone	0.2407	0.2584		.01		7.35355	40		Averaged	
1,3-Dichloropropane	0.5216	0.50181		.01		-3.7941	30		Averaged	
Tetrachloroethylene	0.3011	0.29232		.01		-2.91597	30		Averaged	
Dibromochloromethane	0.3086	0.33407		.01		8.2534	30		Averaged	
1,2-Dibromoethane	0.2955	0.29919		.01		1.24873	30		Averaged	
Chlorobenzene	0.9635	0.95414		.3		-0.97146	30		Averaged	spcc
1,1,1,2-Tetrachloroethane	0.3335	0.34501		.01		3.45127	30		Averaged	
Ethylbenzene	1.6336	1.60387		.01		-1.81991	20		Averaged	ccc
m,p-Xylenes	0.6533	0.64511		.01		-1.25364	30		Averaged	
o-Xylene	0.6413	0.64163		.01		0.05146	30		Averaged	
Styrene	1.0216	1.06105		.01		3.86159	30		Averaged	
Bromoform	0.3535	0.40598		.1		14.84583	30		Averaged	spcc
Isopropylbenzene	3.0477	3.05443		.01		0.22082	30		Averaged	
1,1,2,2-Tetrachloroethane	0.6833	0.69191		.3		1.26006	30		Averaged	spcc
1,2,3-Trichloropropane	0.1922	0.19345		.01		0.65036	30		Averaged	
Bromobenzene	0.7836	0.762		.01		-2.75651	30		Averaged	
n-Propylbenzene	3.5712	3.52957		.01		-1.16571	30		Averaged	
2-Chlorotoluene	0.7594	0.7636		.01		0.55307	30		Averaged	
1,3,5-Trimethylbenzene	2.6127	2.61898		.01		0.24036	30		Averaged	
4-Chlorotoluene	2.199	2.19172		.01		-0.33106	30		Averaged	
tert-Butylbenzene	0.5812	0.58558		.01		0.75361	30		Averaged	
1,2,4-Trimethylbenzene	2.7527	2.70923		.01		-1.57918	30		Averaged	
sec-Butylbenzene	3.5128	3.57971		.01		1.90475	30		Averaged	
4-Isopropyltoluene	2.8725	2.93059		.01		2.02228	30		Averaged	
1,3-Dichlorobenzene	1.5315	1.50041		.01		-2.03004	30		Averaged	
1,4-Dichlorobenzene	1.5703	1.51104		.01		-3.7738	30		Averaged	
n-Butylbenzene	2.7878	2.86819		.01		2.88364	30		Averaged	
1,2-Dichlorobenzene	1.4847	1.45009		.01		-2.33111	30		Averaged	
1,2-Dibromo-3-chloropropane	0.1246	0.14729		.01		18.21027	30		Averaged	

Continuing Calibration Summary

Instrument ID: VOA6.I **Injection Dat** 10-DEC-09 15:45

Data File: 121009V6\6O416.D **Init. Cal. Date(s)** 10-DEC-09 11:34 10-DEC-09 15:1

Lab Sample ID W6VM091210-11 **Quant Type** ISTD **Method:** VOA6-8260-121009.M

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
1,2,4-Trichlorobenzene	1.1167	1.09445		.01		-1.99248	30		Averaged
Hexachlorobutadiene	0.709	0.70257		.01		-0.90691	30		Averaged
Naphthalene	2.2443	2.17025		.01		-3.29947	30		Averaged
1,2,3-Trichlorobenzene	0.9351	0.90939		.01		-2.74944	30		Averaged

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121009V6\
Data File : 60416.D
Acq On : 10 Dec 2009 3:45 pm
Operator : RXD1
InstName : VOA6
Sample : |W6VM091210-11|ICV|1|VOAF|1|VOA8260BLF|
Misc : ICV 5uL N/A MIX[A] 1129-01C+1209-01
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Dec 18 14:01:52 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)	
Internal Standards						
1) Fluorobenzene	9.974	96	2076762	50.00 ug/L	0.00	
41) Chlorobenzene-d5	13.156	117	1479289	50.00 ug/L	0.00	
58) 1,4-Dichlorobenzene-d4	15.576	152	821790	50.00 ug/L	0.00	
82) B Fluorobenzene	9.974	96	2074029	50.00 ug/L	0.00	
103) B Chlorobenzene-d5	13.156	117	1479289	50.00 ug/L	0.00	
105) B 1,4-Dichlorobenzene-d4	15.576	152	821790	50.00 ug/L	0.00	
System Monitoring Compounds						
29) 1,2-Dichloroethane-d4	9.626	65	592342	48.34 ug/L	0.00	
43) Toluene-d8	11.626	98	2032165	49.55 ug/L	0.00	
61) Bromofluorobenzene	14.357	95	792283	50.03 ug/L	0.00	
Target Compounds					Qvalue	
2) Dichlorodifluoromethane	4.350	85	363203	39.01 ug/L	99	
3) Chloromethane	4.672	50	499344	39.00 ug/L	100	
4) Vinyl chloride	4.904	62	504880	44.91 ug/L	99	
5) Bromomethane	5.468	94	379588	45.27 ug/L	99	
6) Chloroethane	5.609	64	385512	46.20 ug/L	100	
7) Trichlorofluoromethane	6.022	101	772555	46.88 ug/L	100	
8) Ethyl ether	6.328	59	480153	44.84 ug/L	98	
9) Acetone	6.706	43	734983	194.53 ug/L	99	E
10) 1,1-Dichloroethylene	6.706	61	717365	47.19 ug/L	99	
11) Iodomethane	6.956	142	3783308	230.97 ug/L	99	
12) Acetonitrile	7.066	41	1921932	1240.90 ug/L	100	
13) Methyl acetate	7.096	43	2103597	247.56 ug/L	99	
14) Carbon disulfide	7.078	76	7443145	244.01 ug/L	100	
15) Methylene chloride	7.285	84	519443	43.46 ug/L	99	
16) tert-Butyl methyl ether	7.572	73	1415189	46.86 ug/L	100	
17) trans-1,2-Dichloroethy...	7.615	61	744131	47.96 ug/L	100	
18) Vinyl acetate	8.060	43	6122051	273.93 ug/L	98	
19) 1,1-Dichloroethane	8.102	63	930374	47.92 ug/L	100	
20) 2-Butanone	8.694	43	1199321	250.88 ug/L	100	
21) cis-1,2-Dichloroethylene	8.742	61	837075	48.44 ug/L	99	
22) 2,2-Dichloropropane	8.767	77	730642	52.24 ug/L	100	
23) Bromochloromethane	9.017	128	258291	48.52 ug/L	99	
24) Chloroform	9.053	83	869059	48.08 ug/L	99	
25) 1,1,1-Trichloroethane	9.322	97	768065	50.63 ug/L	99	
26) Cyclohexane	9.413	56	1010074	51.49 ug/L	99	
27) 1,1-Dichloropropene	9.480	75	697122	50.49 ug/L	99	
28) Carbon tetrachloride	9.510	117	682571	50.86 ug/L	100	
30) 1,2-Dichloroethane	9.712	62	699424	47.20 ug/L	100	
31) Benzene	9.724	78	1996431	47.19 ug/L	100	
32) Cyclohexene	9.834	67	1002879	49.84 ug/L	100	
33) n-Butyl alcohol	10.084	56	1821129	5176.10 ug/L	99	
34) Trichloroethylene	10.364	95	509356	48.24 ug/L	99	
35) 1,2-Dichloropropane	10.614	63	551304	49.31 ug/L	100	
36) Methylcyclohexane	10.602	83	951526	51.78 ug/L	99	
37) Dibromomethane	10.748	93	297183	50.03 ug/L	99	
38) Bromodichloromethane	10.864	83	647276	51.69 ug/L	100	
39) 2-Chloroethylvinyl ether	11.089	63	1647879	240.65 ug/L	99	
40) cis-1,3-Dichloropropylene	11.315	75	813271	51.47 ug/L	99	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121009V6\
Data File : 60416.D
Acq On : 10 Dec 2009 3:45 pm
Operator : RXD1
InstName : VOA6
Sample : |W6VM091210-11|ICV|1|VOAF|1|VOA8260BLF|
Misc : ICV 5uL N/A MIX[A] 1129-01C+1209-01
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Dec 18 14:01:52 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)	
42)	4-Methyl-2-pentanone	11.413	58	1048244	269.88 ug/L	98	
44)	Toluene	11.699	91	2083933	47.27 ug/L	99	
45)	trans-1,3-Dichloroprop...	11.858	75	753539	52.88 ug/L	100	
46)	1,1,2-Trichloroethane	12.083	83	360461	49.71 ug/L	99	
47)	2-Hexanone	12.260	43	1911268	268.37 ug/L	98	
48)	1,3-Dichloropropane	12.272	76	742316	48.11 ug/L	99	
49)	Tetrachloroethylene	12.290	164	432420	48.55 ug/L	100	
50)	Dibromochloromethane	12.540	129	494184	54.12 ug/L	99	
51)	1,2-Dibromoethane	12.705	107	442584	50.62 ug/L	100	
52)	Chlorobenzene	13.187	112	1411452	49.51 ug/L	100	
53)	1,1,1,2-Tetrachloroethane	13.241	131	510375	51.72 ug/L	100	
54)	Ethylbenzene	13.254	91	2372593	49.09 ug/L	100	
55)	m,p-Xylenes	13.363	106	1908607	98.74 ug/L	99	
56)	o-Xylene	13.796	106	949151	50.02 ug/L	100	
57)	Styrene	13.802	104	1569605	51.93 ug/L	100	
59)	Bromoform	14.064	173	333633	57.42 ug/L	99	
60)	Isopropylbenzene	14.156	105	2510102	50.11 ug/L	100	
62)	1,1,2,2-Tetrachloroethane	14.442	83	568603	50.63 ug/L	100	
63)	1,2,3-Trichloropropane	14.528	110	158978	50.33 ug/L	98	
64)	Bromobenzene	14.564	156	626203	48.62 ug/L	99	
65)	n-Propylbenzene	14.583	91	2900567	49.42 ug/L	100	
66)	1,3,5-Trimethylbenzene	14.735	105	2152253	50.12 ug/L	100	
67)	2-Chlorotoluene	14.729	126	627521	50.28 ug/L	100	
68)	4-Chlorotoluene	14.833	91	1801130	49.83 ug/L	100	
69)	tert-Butylbenzene	15.107	134	481226	50.38 ug/L #	92	
70)	1,2,4-Trimethylbenzene	15.150	105	2226416	49.21 ug/L	100	
71)	sec-Butylbenzene	15.333	105	2941769	50.95 ug/L	99	
72)	4-Isopropyltoluene	15.454	119	2408327	51.01 ug/L	100	
73)	1,3-Dichlorobenzene	15.515	146	1233026	48.98 ug/L	100	
74)	1,4-Dichlorobenzene	15.601	146	1241759	48.11 ug/L	100	
75)	n-Butylbenzene	15.887	91	2357048	51.44 ug/L	100	
76)	1,2-Dichlorobenzene	16.021	146	1191666	48.84 ug/L	100	
77)	1,2-Dibromo-3-chloropr...	16.881	157	121043	59.10 ug/L	100	E
78)	1,2,4-Trichlorobenzene	17.911	180	899407	49.00 ug/L	99	
79)	Hexachlorobutadiene	18.076	225	577367	49.55 ug/L	100	
80)	Naphthalene	18.283	128	1783489	48.35 ug/L	100	
81)	1,2,3-Trichlorobenzene	18.618	180	747330	48.62 ug/L	99	
83)	Chlorotrifluoroethylene	0.000		0	N.D.		
84)	2-Chloro-1,1,1-trifluo...	0.000		0	N.D.		
85)	Acrolein	6.474		0m	N.D. d		
86)	Trichlorotrifluoroethane	0.000		0	N.D.		
87)	Isopropyl Alcohol	6.700		0m	N.D. d		
88)	Allyl chloride	7.066		0m	N.D. d		
89)	tert-Butyl Alcohol	7.298		0m	N.D. d		
90)	Acrylonitrile	7.578		0m	N.D. d		
91)	Isopropyl ether	8.060		0m	N.D. d		
92)	2-Chloro-1,3-butadiene	8.212		0m	N.D. d		
93)	Ethyl tert-butyl ether	0.000		0	N.D.		
94)	Ethyl acetate	8.694		0m	N.D. d		
95)	Propionitrile	8.694		0m	N.D. d		
96)	Methacrylonitrile	0.000		0	N.D.		
97)	Tetrahydrofuran	9.053		0m	N.D. d		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121009V6\
Data File : 60416.D
Acq On : 10 Dec 2009 3:45 pm
Operator : RXD1
InstName : VOA6
Sample : |W6VM091210-11|ICV|1|VOAF|1|VOA8260BLF|
Misc : ICV 5uL N/A MIX[A] 1129-01C+1209-01
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Dec 18 14:01:52 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
98)	Isobutyl alcohol	9.413		0m	N.D.	d
99)	Methyl tert-amyl ether	9.724		0m	N.D.	d
100)	Methyl methacrylate	10.602		0m	N.D.	d
101)	1,4-Dioxane	10.748		0m	N.D.	d
102)	2-Nitropropane	11.089		0m	N.D.	d
104)	Ethyl methacrylate	11.797		0m	N.D.	d
106)	1-Chlorohexane	0.000		0	N.D.	
107)	cis-1,4-Dichloro-2-butene	14.156		0m	N.D.	d
108)	Cyclohexanone	0.000		0	N.D.	
109)	trans-1,4-Dichloro-2-b...	14.577		0m	N.D.	d
110)	Pentachloroethane	15.180		0m	N.D.	d
111)	Benzyl chloride	15.717		0m	N.D.	d
112)	bis(2-Chloroisopropyl)...	16.168		0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121009V6\
Data File : 6O416.D
Acq On : 10 Dec 2009 3:45 pm
Operator : RXD1
InstName : VOA6
Sample : |W6VM091210-11|ICV|1|VOAF|1|VOA8260BLF|
Misc : ICV 5uL N/A MIX[A] 1129-01C+1209-01
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Dec 18 14:01:52 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

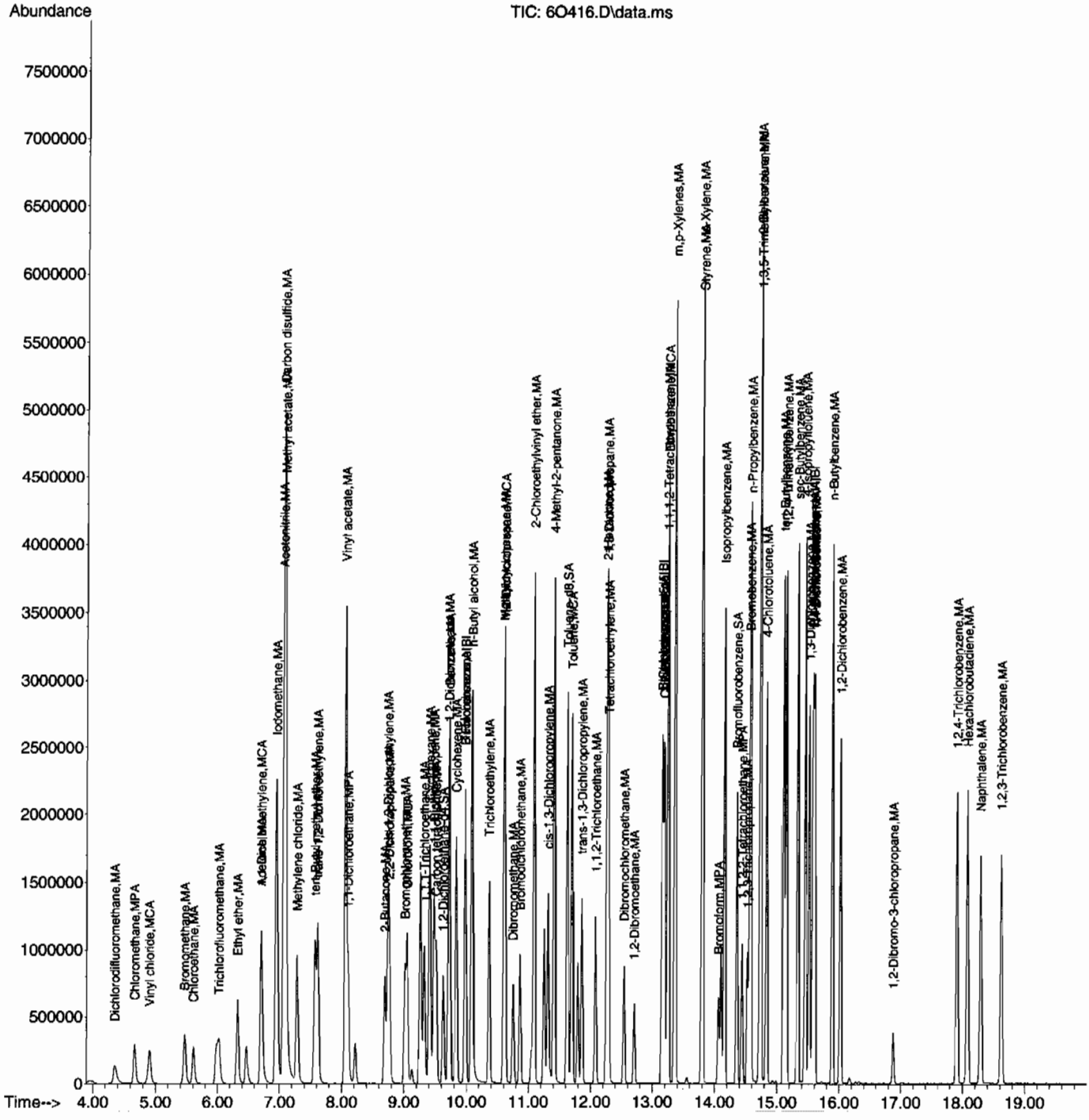

Continuing Calibration Summary

Client SDG: 10-899-1

Instrument ID: VOA6.I

Injection Dat 18-DEC-09 11:20

Data File: 121809V6\6P502.D

Init. Cal. Date(s) 10-DEC-09 11:34 - 10-DEC-09 15:1

Lab Sample ID W6VM091218-01 **Quant Type** ISTD

Method: VOA6-8260-121009.M

	Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type	
S	1,2-Dichloroethane-d4	0.295	0.29097		.01		-1.3661	30		Averaged	
S	Toluene-d8	1.3863	1.3562		.01		-2.17125	30		Averaged	
S	Bromofluorobenzene	0.9636	0.94913		.01		-1.50166	30		Averaged	
	Dichlorodifluoromethane	0.2241	0.2171		.01		-3.12361	30		Averaged	
	Chloromethane	0.3083	0.2975		.1		-3.50308	30		Averaged	spcc
	Vinyl chloride	0.2706	0.29005		.01		7.18773	20		Averaged	ccc
	Bromomethane	0.2019	0.20587		.01		1.96632	30		Averaged	
	Chloroethane	0.2009	0.20409		.01		1.58785	30		Averaged	
	Trichlorofluoromethane	0.3968	0.41421		.01		4.3876	30		Averaged	
	Ethyl ether	0.2578	0.22736		.01		-11.8076	30		Averaged	
	Acetone	0.091	0.06707		.01		-26.2967	40		Averaged	
	1,1-Dichloroethylene	0.366	0.37729		.01		3.0847	20		Averaged	ccc
	Iodomethane	0.3944	0.38689		.01		-1.90416	30		Averaged	
	Acetonitrile	0.0373	0.03299		.01		-11.55496	30		Averaged	
	Carbon disulfide	0.7344	0.79086		.01		7.68791	30		Averaged	
	Methyl acetate	0.2046	0.18292		.01		-10.59629	40		Averaged	
	Methylene chloride	0.2878	0.2591		.01		-9.9722	30		Averaged	
	tert-Butyl methyl ether	0.7272	0.65113		.01		-10.46067	30		Averaged	
	trans-1,2-Dichloroethylene	0.3735	0.3773		.01		1.0174	30		Averaged	
	Vinyl acetate	0.5381	0.57055		.01		6.03048	40		Averaged	
	1,1-Dichloroethane	0.4674	0.46329		.1		-0.87933	30		Averaged	spcc
	2-Butanone	0.1151	0.10328		.01		-10.26933	40		Averaged	
	cis-1,2-Dichloroethylene	0.4161	0.41863		.01		0.60803	30		Averaged	
	2,2-Dichloropropane	0.3367	0.38686		.01		14.89753	30		Averaged	
	Bromochloromethane	0.1282	0.12494		.01		-2.5429	30		Averaged	
	Chloroform	0.4352	0.43364		.01		-0.35846	20		Averaged	ccc
	1,1,1-Trichloroethane	0.3652	0.39614		.01		8.47207	30		Averaged	
	Cyclohexane	0.4723	0.51672		.01		9.40504	30		Averaged	
	1,1-Dichloropropene	0.3324	0.35425		.01		6.57341	30		Averaged	
	Carbon tetrachloride	0.3231	0.36264		.01		12.2377	30		Averaged	
	1,2-Dichloroethane	0.3568	0.33529		.01		-6.02859	30		Averaged	
	Benzene	1.0185	0.99231		.01		-2.57143	30		Averaged	
	Cyclohexene	0.4845	0.51009		.01		5.28173	30		Averaged	
	n-Butyl alcohol	5000	4160.92	5000			-16.7816	40		Linear	
	Trichloroethylene	0.2542	0.25638		.01		0.85759	30		Averaged	
	Methylcyclohexane	0.4424	0.47361		.01		7.0547	30		Averaged	
	1,2-Dichloropropane	0.2692	0.26578		.01		-1.27043	20		Averaged	ccc

Continuing Calibration Summary

Instrument ID: VOA6.I **Injection Date** 18-DEC-09 11:20

Data File: 121809V6\6P502.D **Init. Cal. Date(s)** 10-DEC-09 11:34 10-DEC-09 15:1

Lab Sample ID W6VM091218-01 **Quant Type** ISTD **Method:** VOA6-8260-121009.M

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type	
Dibromomethane	0.143	0.13704		.01		-4.16783	30		Averaged	
Bromodichloromethane	0.3015	0.31545		.01		4.62687	30		Averaged	
2-Chloroethylvinyl ether	0.1649	0.14638		.01		-11.23105	30		Averaged	
cis-1,3-Dichloropropylene	0.3804	0.39188		.01		3.01788	30		Averaged	
4-Methyl-2-pentanone	0.1313	0.12427		.01		-5.35415	40		Averaged	
Toluene	1.4899	1.43506		.01		-3.68078	20		Averaged	ccc
trans-1,3-Dichloropropylene	0.4817	0.49773		.01		3.3278	30		Averaged	
1,1,2-Trichloroethane	0.2451	0.2278		.01		-7.05834	30		Averaged	
2-Hexanone	0.2407	0.22387		.01		-6.99211	40		Averaged	
1,3-Dichloropropane	0.5216	0.48642		.01		-6.74463	30		Averaged	
Tetrachloroethylene	0.3011	0.30561		.01		1.49784	30		Averaged	
Dibromochloromethane	0.3086	0.32867		.01		6.50356	30		Averaged	
1,2-Dibromoethane	0.2955	0.28249		.01		-4.40271	30		Averaged	
Chlorobenzene	0.9635	0.95456		.3		-0.92787	30		Averaged	spcc
1,1,1,2-Tetrachloroethane	0.3335	0.34458		.01		3.32234	30		Averaged	
Ethylbenzene	1.6336	1.66951		.01		2.19821	20		Averaged	ccc
m,p-Xylenes	0.6533	0.66278		.01		1.45109	30		Averaged	
o-Xylene	0.6413	0.64555		.01		0.66272	30		Averaged	
Styrene	1.0216	1.06784		.01		4.52623	30		Averaged	
Bromoform	0.3535	0.38414		.1		8.66761	30		Averaged	spcc
Isopropylbenzene	3.0477	3.08736		.01		1.30131	30		Averaged	
1,1,2,2-Tetrachloroethane	0.6833	0.64123		.3		-6.15689	30		Averaged	spcc
1,2,3-Trichloropropane	0.1922	0.1813		.01		-5.67118	30		Averaged	
Bromobenzene	0.7836	0.75003		.01		-4.28407	30		Averaged	
n-Propylbenzene	3.5712	3.64057		.01		1.94248	30		Averaged	
2-Chlorotoluene	0.7594	0.77006		.01		1.40374	30		Averaged	
1,3,5-Trimethylbenzene	2.6127	2.63256		.01		0.76013	30		Averaged	
4-Chlorotoluene	2.199	2.22129		.01		1.01364	30		Averaged	
tert-Butylbenzene	0.5812	0.57705		.01		-0.71404	30		Averaged	
1,2,4-Trimethylbenzene	2.7527	2.69522		.01		-2.08813	30		Averaged	
sec-Butylbenzene	3.5128	3.55529		.01		1.20958	30		Averaged	
4-Isopropyltoluene	2.8725	2.91538		.01		1.49278	30		Averaged	
1,3-Dichlorobenzene	1.5315	1.47335		.01		-3.79693	30		Averaged	
1,4-Dichlorobenzene	1.5703	1.50093		.01		-4.41763	30		Averaged	
n-Butylbenzene	2.7878	2.83839		.01		1.81469	30		Averaged	
1,2-Dichlorobenzene	1.4847	1.38175		.01		-6.93406	30		Averaged	
1,2-Dibromo-3-chloropropane	0.1246	0.11975		.01		-3.89246	30		Averaged	

Continuing Calibration Summary

Instrument ID: VOA6.I **Injection Dat** 18-DEC-09 11:20

Data File: 121809V6\6P502.D **Init. Cal. Date(s)** 10-DEC-09 11:34 10-DEC-09 15:1

Lab Sample ID W6VM091218-01 **Quant Type** ISTD **Method:** VOA6-8260-121009.M

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
1,2,4-Trichlorobenzene	1.1167	0.99142		.01		-11.21877	30		Averaged
Hexachlorobutadiene	0.709	0.6581		.01		-7.17913	30		Averaged
Naphthalene	2.2443	1.83888		.01		-18.06443	30		Averaged
1,2,3-Trichlorobenzene	0.9351	0.81857		.01		-12.46177	30		Averaged

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121809V6\
Data File : 6P502.D
Acq On : 18 Dec 2009 11:20 am
Operator : RXD1
InstName : VOA6
Sample : |W6VM091218-01|CCV|1|VOAF|1|VOA8260BS|
Misc : CCV 5mL N/A MIX[A] 1214-01A+1217-01
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 18 11:39:59 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)	
Internal Standards						
1) Fluorobenzene	9.974	96	1715128	50.00 ug/L	0.00	
41) Chlorobenzene-d5	13.156	117	1247065	50.00 ug/L	0.00	
58) 1,4-Dichlorobenzene-d4	15.576	152	704131	50.00 ug/L	0.00	
82) B Fluorobenzene	9.974	96	1713482	50.00 ug/L	0.00	
103) B Chlorobenzene-d5	13.156	117	1247065	50.00 ug/L	0.00	
105) B 1,4-Dichlorobenzene-d4	15.576	152	704131	50.00 ug/L	0.00	
System Monitoring Compounds						
29) 1,2-Dichloroethane-d4	9.626	65	499052	49.32 ug/L	0.00	
43) Toluene-d8	11.626	98	1691268	48.91 ug/L	0.00	
61) Bromofluorobenzene	14.357	95	668314	49.25 ug/L	0.00	
Target Compounds					Qvalue	
2) Dichlorodifluoromethane	4.360	85	372358	48.43 ug/L	99	
3) Chloromethane	4.672	50	510242	48.25 ug/L	100	
4) Vinyl chloride	4.914	62	497471	53.58 ug/L	100	
5) Bromomethane	5.468	94	353096	50.99 ug/L	99	
6) Chloroethane	5.609	64	350032	50.80 ug/L	100	
7) Trichlorofluoromethane	6.022	101	710415	52.20 ug/L	100	
8) Ethyl ether	6.328	59	389952	44.10 ug/L	100	
9) Acetone	6.712	43	575203	184.35 ug/L	98	E
10) 1,1-Dichloroethylene	6.706	61	647104	51.54 ug/L	99	
11) Iodomethane	6.956	142	3317862	245.26 ug/L	99	
12) Acetonitrile	7.072	41	1414621	1105.93 ug/L	98	
13) Methyl acetate	7.096	43	1568627	223.53 ug/L	100	
14) Carbon disulfide	7.078	76	6782121	269.22 ug/L	100	
15) Methylene chloride	7.285	84	444394	45.02 ug/L	99	
16) tert-Butyl methyl ether	7.572	73	1116765	44.77 ug/L	100	
17) trans-1,2-Dichloroethy...	7.621	61	647122	50.50 ug/L	98	
18) Vinyl acetate	8.060	43	4892853	265.09 ug/L	95	
19) 1,1-Dichloroethane	8.102	63	794608	49.56 ug/L	99	
20) 2-Butanone	8.694	43	885711	224.35 ug/L	100	
21) cis-1,2-Dichloroethylene	8.742	61	717997	50.31 ug/L	98	
22) 2,2-Dichloropropane	8.767	77	663514	57.45 ug/L	100	
23) Bromochloromethane	9.017	128	214282	48.74 ug/L	99	
24) Chloroform	9.053	83	743740	49.82 ug/L	100	
25) 1,1,1-Trichloroethane	9.322	97	679434	54.23 ug/L	100	
26) Cyclohexane	9.407	56	886246	54.71 ug/L	100	
27) 1,1-Dichloropropene	9.480	75	607589	53.28 ug/L	98	
28) Carbon tetrachloride	9.517	117	621978	56.12 ug/L	99	
30) 1,2-Dichloroethane	9.712	62	575061	46.99 ug/L	100	
31) Benzene	9.724	78	1701935	48.71 ug/L	100	
32) Cyclohexene	9.834	67	874868	52.64 ug/L	100	
33) n-Butyl alcohol	10.078	56	1205934	4160.92 ug/L	100	
34) Trichloroethylene	10.364	95	439732	50.42 ug/L	99	
35) 1,2-Dichloropropane	10.614	63	455842	49.36 ug/L	100	
36) Methylcyclohexane	10.602	83	812308	53.53 ug/L	99	
37) Dibromomethane	10.748	93	235045	47.92 ug/L	100	
38) Bromodichloromethane	10.864	83	541037	52.32 ug/L	100	
39) 2-Chloroethylvinyl ether	11.090	63	1255275	221.97 ug/L	99	
40) cis-1,3-Dichloropropylene	11.315	75	672115	51.50 ug/L	99	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121809V6\
Data File : 6P502.D
Acq On : 18 Dec 2009 11:20 am
Operator : RXD1
InstName : VOA6
Sample : |W6VM091218-01|CCV|1|VOAF|1|VOA8260BS|
Misc : CCV 5mL N/A MIX[A] 1214-01A+1217-01
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 18 11:39:59 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
42) 4-Methyl-2-pentanone	11.413	58	774863	236.65 ug/L	98
44) Toluene	11.699	91	1789612	48.16 ug/L	100
45) trans-1,3-Dichloroprop...	11.858	75	620700	51.66 ug/L	100
46) 1,1,2-Trichloroethane	12.077	83	284077	46.47 ug/L	99
47) 2-Hexanone	12.260	43	1395919	232.51 ug/L	98
48) 1,3-Dichloropropane	12.272	76	606598	46.63 ug/L	97
49) Tetrachloroethylene	12.291	164	381118	50.76 ug/L	99
50) Dibromochloromethane	12.541	129	409873	53.25 ug/L	100
51) 1,2-Dibromoethane	12.705	107	352277	47.80 ug/L	100
52) Chlorobenzene	13.187	112	1190397	49.54 ug/L	100
53) 1,1,1,2-Tetrachloroethane	13.242	131	429719	51.66 ug/L	99
54) Ethylbenzene	13.254	91	2081990	51.10 ug/L	100
55) m,p-Xylenes	13.364	106	1653059	101.44 ug/L	97
56) o-Xylene	13.796	106	805044	50.33 ug/L	98
57) Styrene	13.802	104	1331663	52.26 ug/L	99
59) Bromoform	14.059	173	270486	54.33 ug/L	100
60) Isopropylbenzene	14.156	105	2173906	50.65 ug/L	99
62) 1,1,2,2-Tetrachloroethane	14.436	83	451510	46.92 ug/L	98
63) 1,2,3-Trichloropropane	14.528	110	127660	47.17 ug/L #	91
64) Bromobenzene	14.565	156	528120	47.86 ug/L	99
65) n-Propylbenzene	14.583	91	2563440	50.97 ug/L	100
66) 1,3,5-Trimethylbenzene	14.735	105	1853667	50.38 ug/L	100
67) 2-Chlorotoluene	14.729	126	542223	50.70 ug/L	99
68) 4-Chlorotoluene	14.833	91	1564076	50.51 ug/L	100
69) tert-Butylbenzene	15.107	134	406321	49.64 ug/L #	91
70) 1,2,4-Trimethylbenzene	15.150	105	1897790	48.96 ug/L	100
71) sec-Butylbenzene	15.333	105	2503387	50.60 ug/L	99
72) 4-Isopropyltoluene	15.455	119	2052812	50.75 ug/L	99
73) 1,3-Dichlorobenzene	15.516	146	1037431	48.10 ug/L	100
74) 1,4-Dichlorobenzene	15.601	146	1056848	47.79 ug/L	99
75) n-Butylbenzene	15.887	91	1998596	50.91 ug/L	100
76) 1,2-Dichlorobenzene	16.022	146	972933	46.53 ug/L	100
77) 1,2-Dibromo-3-chloropr...	16.881	157	84319	48.05 ug/L	98
78) 1,2,4-Trichlorobenzene	17.911	180	698087	44.39 ug/L	100
79) Hexachlorobutadiene	18.076	225	463385	46.41 ug/L	99
80) Naphthalene	18.283	128	1294812	40.97 ug/L	100
81) 1,2,3-Trichlorobenzene	18.619	180	576378	43.77 ug/L	100
83) Chlorotrifluoroethylene	0.000		0	N.D.	
84) 2-Chloro-1,1,1-trifluo...	0.000		0	N.D.	
85) Acrolein	0.000		0	N.D.	
86) Trichlorotrifluoroethane	0.000		0	N.D.	
87) Isopropyl Alcohol	6.779		0m	N.D. d	
88) Allyl chloride	7.072		0m	N.D. d	
89) tert-Butyl Alcohol	7.267		0m	N.D. d	
90) Acrylonitrile	7.572		0m	N.D. d	
91) Isopropyl ether	8.060		0m	N.D. d	
92) 2-Chloro-1,3-butadiene	8.218		0m	N.D. d	
93) Ethyl tert-butyl ether	0.000		0	N.D.	
94) Ethyl acetate	8.694		0m	N.D. d	
95) Propionitrile	8.700		0m	N.D. d	
96) Methacrylonitrile	0.000		0	N.D.	
97) Tetrahydrofuran	9.059		0m	N.D. d	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121809V6\
Data File : 6P502.D
Acq On : 18 Dec 2009 11:20 am
Operator : RXD1
InstName : VOA6
Sample : |W6VM091218-01|CCV|1|VOAF|1|VOA8260BS|
Misc : CCV 5mL N/A MIX[A] 1214-01A+1217-01
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 18 11:39:59 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
98)	Isobutyl alcohol	9.407		0m	N.D.	d	
99)	Methyl tert-amyl ether	9.718		0m	N.D.	d	
100)	Methyl methacrylate	10.602		0m	N.D.	d	
101)	1,4-Dioxane	10.760		0m	N.D.	d	
102)	2-Nitropropane	11.090		0m	N.D.	d	
104)	Ethyl methacrylate	11.858		0m	N.D.	d	
106)	1-Chlorohexane	0.000		0	N.D.		
107)	cis-1,4-Dichloro-2-butene	14.156		0m	N.D.	d	
108)	Cyclohexanone	14.308		0m	N.D.	d	
109)	trans-1,4-Dichloro-2-b...	14.491		0m	N.D.	d	
110)	Pentachloroethane	15.180		0m	N.D.	d	
111)	Benzyl chloride	15.717		0m	N.D.	d	
112)	bis(2-Chloroisopropyl)...	16.113		0m	N.D.	d	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121809V6\
Data File : 6P502.D
Acq On : 18 Dec 2009 11:20 am
Operator : RXD1
InstName : VOA6
Sample : |W6VM091218-01|CCV|1|VOAF|1|VOA8260BS|
Misc : CCV 5mL N/A MIX[A] 1214-01A+1217-01
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 18 11:39:59 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

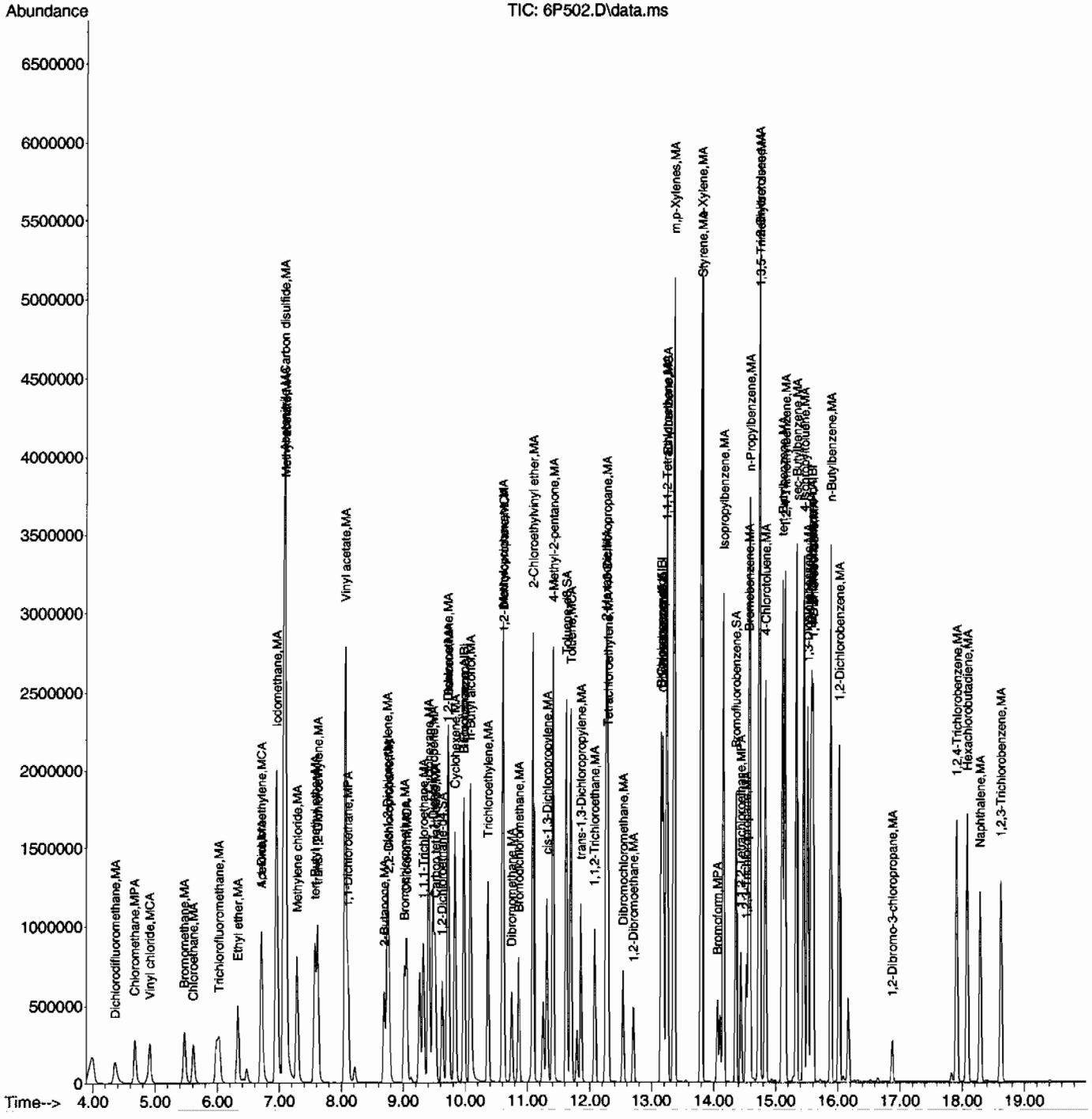

Quality Control Data

Tune Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121009V6\
Data File : 6O404.D
Acq On : 10 Dec 2009 10:12 am
Operator : RXD1
Sample : |UVM091020-02|BFB|1|VOAF|1|VOA8260BLF|
Misc : GEL 5mL N/A BFB
ALS Vial : 4 Sample Multiplier: 1

Integration File: default.P

Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Title : Volatile Organics 8260B SubList :
Last Update : Mon Dec 14 12:44:52 2009

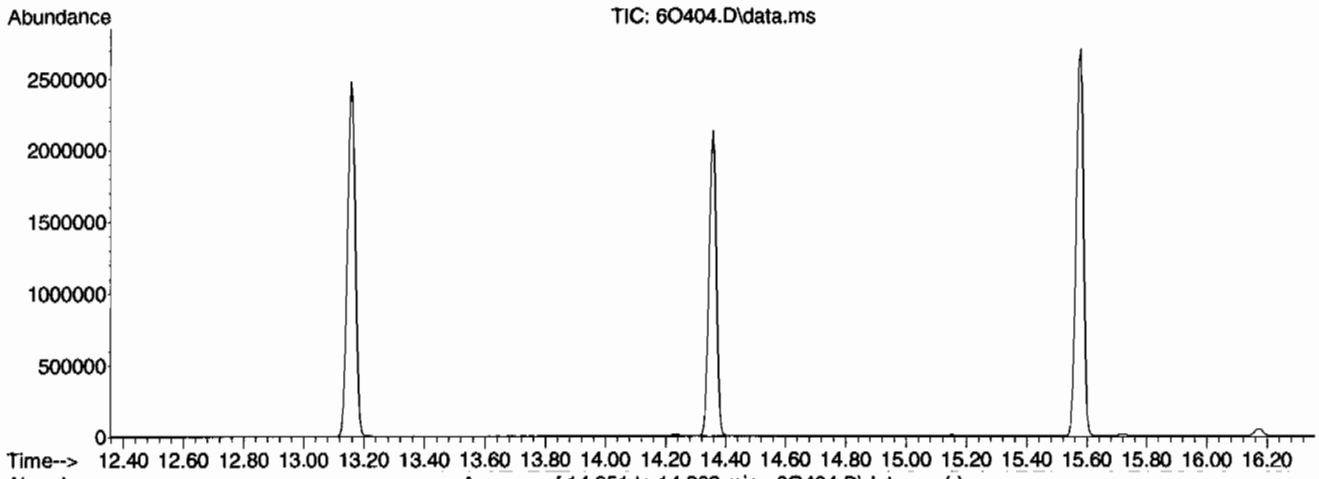

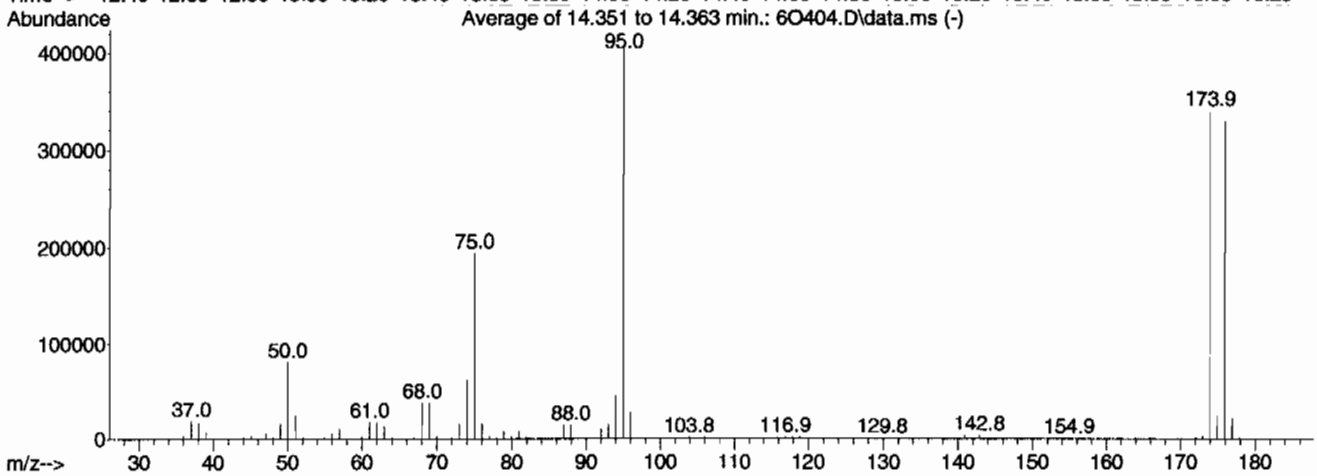

AutoFind: Scans 1558, 1559, 1560; Background Corrected with Scan 1550

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	20.0	80893	PASS
75	95	30	60	48.2	194667	PASS
95	95	100	100	100.0	404032	PASS
96	95	5	9	6.7	27179	PASS
173	174	0.00	2	0.8	2837	PASS
174	95	50	100	84.2	340352	PASS
175	174	5	9	7.2	24547	PASS
176	174	95	101	96.8	329472	PASS
177	176	5	9	6.6	21595	PASS

Tune Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121809V6\
Data File : 6P501.D
Acq On : 18 Dec 2009 10:52 am
Operator : RXD1
Sample : |UVM091020-02|BFB|1|VOAF|1|
Misc : GEL 5mL N/A BFB
ALS Vial : 1 Sample Multiplier: 1

Integration File: default.P

Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Title : Volatile Organics 8260B SubList :
Last Update : Mon Dec 14 12:44:52 2009

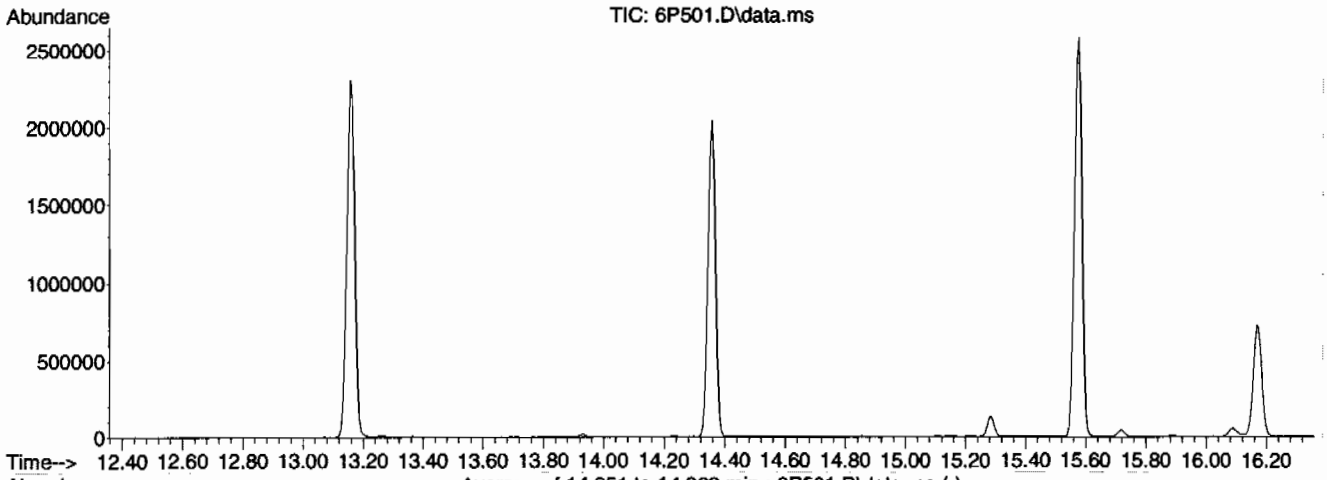

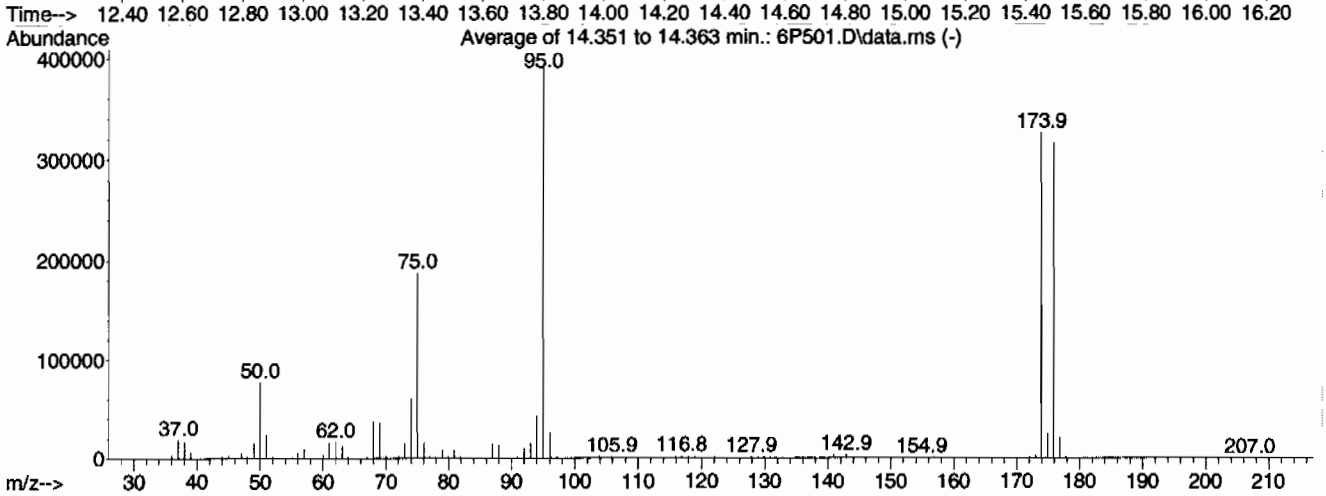

AutoFind: Scans 1558, 1559, 1560; Background Corrected with Scan 1549

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	19.8	77168	PASS
75	95	30	60	48.1	187413	PASS
95	95	100	100	100.0	390016	PASS
96	95	5	9	6.6	25752	PASS
173	174	0.00	2	0.8	2753	PASS
174	95	50	100	83.5	325675	PASS
175	174	5	9	7.3	23920	PASS
176	174	95	101	97.1	316181	PASS
177	176	5	9	6.4	20123	PASS

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-899-1**			**Matrix:**	**TCLP SOIL**
Lab Sample ID:	**1201998987**				
Client Sample:	**QC for batch 934318**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 934318**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**934318**	**Inst:**	**VOA6.I**	**Dilution:**	**1**
Run Date:	**12/18/2009 13:39**	**Analyst:**	**RXD1**	**Purge Vol:**	**5 mL**
Prep Date:	**12/18/2009 13:39**				
Data File:	**121809V6\6P507BL.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-01-4	Vinyl chloride	U	0.001	mg/L	0.0005	0.001
75-35-4	1,1-Dichloroethylene	U	0.001	mg/L	0.0003	0.001
78-93-3	2-Butanone	U	0.005	mg/L	0.00125	0.005
67-66-3	Chloroform	U	0.001	mg/L	0.00025	0.001
56-23-5	Carbon tetrachloride	U	0.001	mg/L	0.0003	0.001
107-06-2	1,2-Dichloroethane	U	0.001	mg/L	0.00025	0.001
71-43-2	Benzene	U	0.001	mg/L	0.0003	0.001
79-01-6	Trichloroethylene	U	0.001	mg/L	0.00025	0.001
127-18-4	Tetrachloroethylene	U	0.001	mg/L	0.0003	0.001
108-90-7	Chlorobenzene	U	0.001	mg/L	0.00025	0.001
106-46-7	1,4-Dichlorobenzene	U	0.001	mg/L	0.00025	0.001

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121809V6\
Data File : 6P507BL.D
Acq On : 18 Dec 2009 1:39 pm
Operator : RXD1
InstName : VOA6
Sample : |1201998987|934318|1|VOAF|1|VOATCLPL|
Misc : BLANK 5mL N/A
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Dec 18 14:13:42 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Fluorobenzene	9.980	96	1643746	50.00 ug/L	0.00
41) Chlorobenzene-d5	13.156	117	1189773	50.00 ug/L	0.00
58) 1,4-Dichlorobenzene-d4	15.576	152	654952	50.00 ug/L	0.00
82) B Fluorobenzene	9.980	96	1641718	50.00 ug/L	0.00
103) B Chlorobenzene-d5	13.156	117	1189773	50.00 ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	15.576	152	654952	50.00 ug/L	0.00
System Monitoring Compounds					
29) 1,2-Dichloroethane-d4	9.626	65	485667	50.08 ug/L	0.00
Spiked Amount 50.000	Range 59 - 130		Recovery = 100.16%		
43) Toluene-d8	11.626	98	1624588	49.25 ug/L	0.00
Spiked Amount 50.000	Range 76 - 129		Recovery = 98.50%		
61) Bromofluorobenzene	14.357	95	641240	50.80 ug/L	0.00
Spiked Amount 50.000	Range 71 - 126		Recovery = 101.60%		
Target Compounds					Qvalue
2) Dichlorodifluoromethane	0.000		0	N.D.	
3) Chloromethane	4.662	50	968	N.D.	
4) Vinyl chloride	4.904	62	717	N.D.	
5) Bromomethane	0.000		0	N.D.	
6) Chloroethane	0.000		0	N.D.	
7) Trichlorofluoromethane	0.000		0	N.D.	
8) Ethyl ether	0.000		0	N.D.	
9) Acetone	6.724	43	3890	N.D.	
10) 1,1-Dichloroethylene	0.000		0	N.D.	
11) Iodomethane	0.000		0	N.D.	
12) Acetonitrile	0.000		0	N.D.	
13) Methyl acetate	0.000		0	N.D.	
14) Carbon disulfide	7.078	76	1253	N.D.	
15) Methylene chloride	7.291	84	12599	N.D.	
16) tert-Butyl methyl ether	0.000		0	N.D.	
17) trans-1,2-Dichloroethy...	0.000		0	N.D.	
18) Vinyl acetate	0.000		0	N.D.	
19) 1,1-Dichloroethane	0.000		0	N.D.	
20) 2-Butanone	8.712	43	770	N.D.	
21) cis-1,2-Dichloroethylene	0.000		0	N.D.	
22) 2,2-Dichloropropane	0.000		0	N.D.	
23) Bromochloromethane	0.000		0	N.D.	
24) Chloroform	0.000		0	N.D.	
25) 1,1,1-Trichloroethane	0.000		0	N.D.	
26) Cyclohexane	0.000		0	N.D.	
27) 1,1-Dichloropropene	0.000		0	N.D.	
28) Carbon tetrachloride	0.000		0	N.D.	
30) 1,2-Dichloroethane	0.000		0	N.D.	
31) Benzene	0.000		0	N.D.	
32) Cyclohexene	0.000		0	N.D.	
33) n-Butyl alcohol	0.000		0	N.D.	
34) Trichloroethylene	0.000		0	N.D.	
35) 1,2-Dichloropropane	0.000		0	N.D.	
36) Methylcyclohexane	0.000		0	N.D.	
37) Dibromomethane	0.000		0	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121809V6\
Data File : 6P507BL.D
Acq On : 18 Dec 2009 1:39 pm
Operator : RXD1
InstName : VOA6
Sample : |1201998987|934318|1|VOAF|1|VOATCLPL|
Misc : BLANK 5mL N/A
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Dec 18 14:13:42 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
38)	Bromodichloromethane	0.000		0	N.D.	
39)	2-Chloroethylvinyl ether	0.000		0	N.D.	
40)	cis-1,3-Dichloropropylene	0.000		0	N.D.	
42)	4-Methyl-2-pentanone	0.000		0	N.D.	
44)	Toluene	0.000		0	N.D.	
45)	trans-1,3-Dichloroprop...	0.000		0	N.D.	
46)	1,1,2-Trichloroethane	0.000		0	N.D.	
47)	2-Hexanone	0.000		0	N.D.	
48)	1,3-Dichloropropane	0.000		0	N.D.	
49)	Tetrachloroethylene	0.000		0	N.D.	
50)	Dibromochloromethane	0.000		0	N.D.	
51)	1,2-Dibromoethane	0.000		0	N.D.	
52)	Chlorobenzene	0.000		0	N.D.	
53)	1,1,1,2-Tetrachloroethane	0.000		0	N.D.	
54)	Ethylbenzene	13.247	91	199	N.D.	
55)	m,p-Xylenes	13.357	106	259	N.D.	
56)	o-Xylene	0.000		0	N.D.	
57)	Styrene	13.802	104	211	N.D.	
59)	Bromoform	0.000		0	N.D.	
60)	Isopropylbenzene	14.156	105	744	N.D.	
62)	1,1,2,2-Tetrachloroethane	0.000		0	N.D.	
63)	1,2,3-Trichloropropane	0.000		0	N.D.	
64)	Bromobenzene	0.000		0	N.D.	
65)	n-Propylbenzene	14.583	91	2543	N.D.	
66)	1,3,5-Trimethylbenzene	14.741	105	1450	N.D.	
67)	2-Chlorotoluene	0.000		0	N.D.	
68)	4-Chlorotoluene	14.832	91	1031	N.D.	
69)	tert-Butylbenzene	0.000		0	N.D.	
70)	1,2,4-Trimethylbenzene	15.149	105	2983	N.D.	
71)	sec-Butylbenzene	15.338	105	2294	N.D.	
72)	4-Isopropyltoluene	15.448	119	1545	N.D.	
73)	1,3-Dichlorobenzene	15.521	146	255	N.D.	
74)	1,4-Dichlorobenzene	15.601	146	797	N.D.	
75)	n-Butylbenzene	15.893	91	1588	N.D.	
76)	1,2-Dichlorobenzene	16.009	146	211	N.D.	
77)	1,2-Dibromo-3-chloropr...	0.000		0	N.D.	
78)	1,2,4-Trichlorobenzene	0.000		0	N.D.	
79)	Hexachlorobutadiene	0.000		0	N.D.	
80)	Naphthalene	18.277	128	2259	N.D.	
81)	1,2,3-Trichlorobenzene	0.000		0	N.D.	
83)	Chlorotrifluoroethylene	0.000		0	N.D.	
84)	2-Chloro-1,1,1-trifluo...	0.000		0	N.D.	
85)	Acrolein	0.000		0	N.D.	
86)	Trichlorotrifluoroethane	0.000		0	N.D.	
87)	Isopropyl Alcohol	0.000		0	N.D.	
88)	Allyl chloride	0.000		0	N.D.	
89)	tert-Butyl Alcohol	0.000		0	N.D.	
90)	Acrylonitrile	0.000		0	N.D.	
91)	Isopropyl ether	0.000		0	N.D.	
92)	2-Chloro-1,3-butadiene	0.000		0	N.D.	
93)	Ethyl tert-butyl ether	0.000		0	N.D.	
94)	Ethyl acetate	8.712	43	770	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121809V6\
Data File : 6P507BL.D
Acq On : 18 Dec 2009 1:39 pm
Operator : RXD1
InstName : VOA6
Sample : |1201998987|934318|1|VOAF|1|VOATCLPL|
Misc : BLANK 5mL N/A
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Dec 18 14:13:42 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
95)	Propionitrile	0.000		0	N.D.	
96)	Methacrylonitrile	0.000		0	N.D.	
97)	Tetrahydrofuran	9.065	42	187	N.D.	
98)	Isobutyl alcohol	0.000		0	N.D.	
99)	Methyl tert-amyl ether	0.000		0	N.D.	
100)	Methyl methacrylate	0.000		0	N.D.	
101)	1,4-Dioxane	0.000		0	N.D.	
102)	2-Nitropropane	0.000		0	N.D.	
104)	Ethyl methacrylate	11.870	69	1102	N.D.	
106)	1-Chlorohexane	0.000		0	N.D.	
107)	cis-1,4-Dichloro-2-butene	0.000		0	N.D.	
108)	Cyclohexanone	0.000		0	N.D.	
109)	trans-1,4-Dichloro-2-b...	14.491	53	384	N.D.	
110)	Pentachloroethane	0.000		0m	N.D. d	
111)	Benzyl chloride	15.723	91	7968	0.47 ug/L	86
112)	bis(2-Chloroisopropyl)...	16.113	45	1336	N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121809V6\
Data File : 6P507BL.D
Acq On : 18 Dec 2009 1:39 pm
Operator : RXD1
InstName : VOA6
Sample : |1201998987|934318|1|VOAF|1|VOATCLPL|
Misc : BLANK 5mL N/A
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Dec 18 14:13:42 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

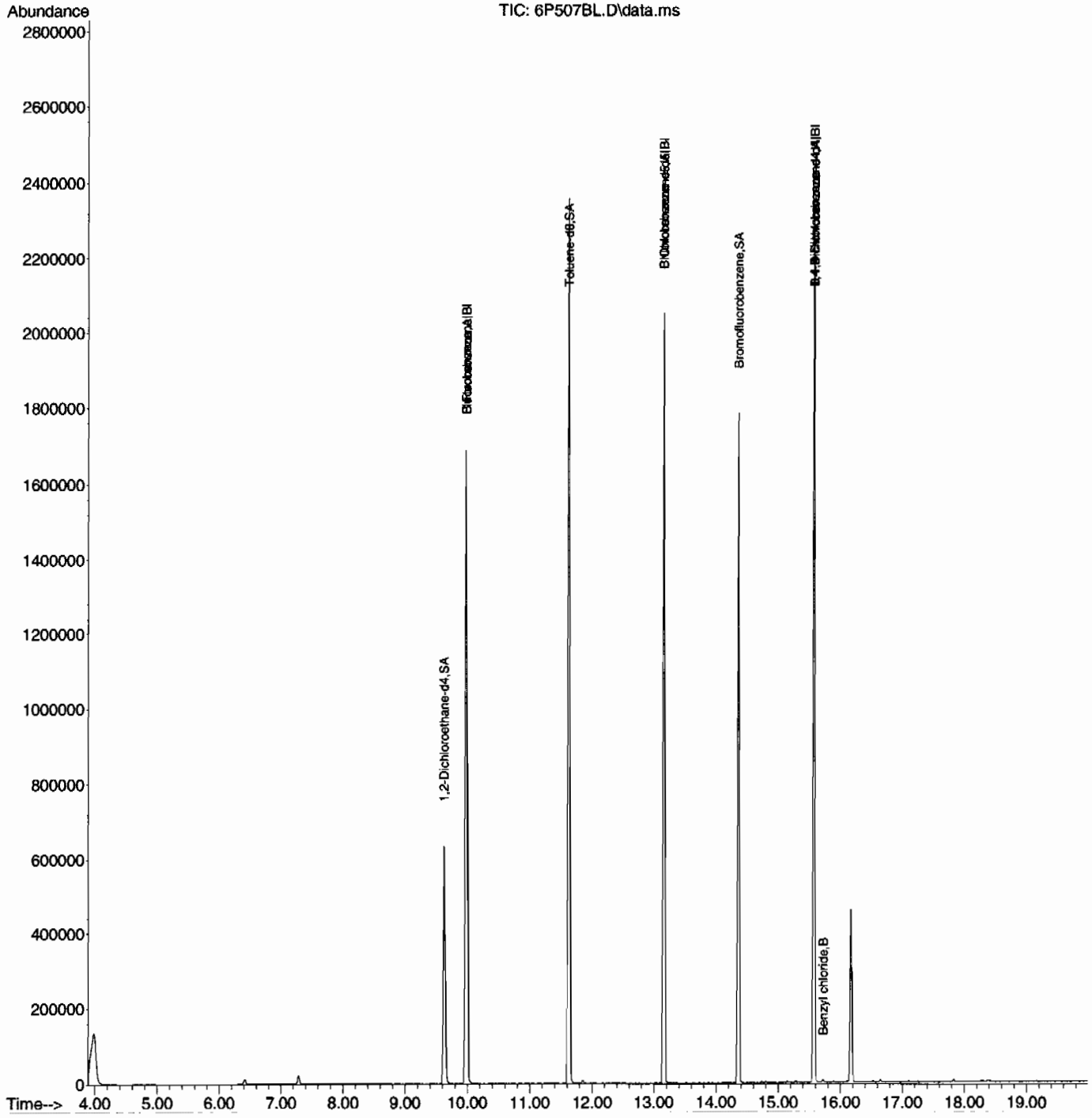

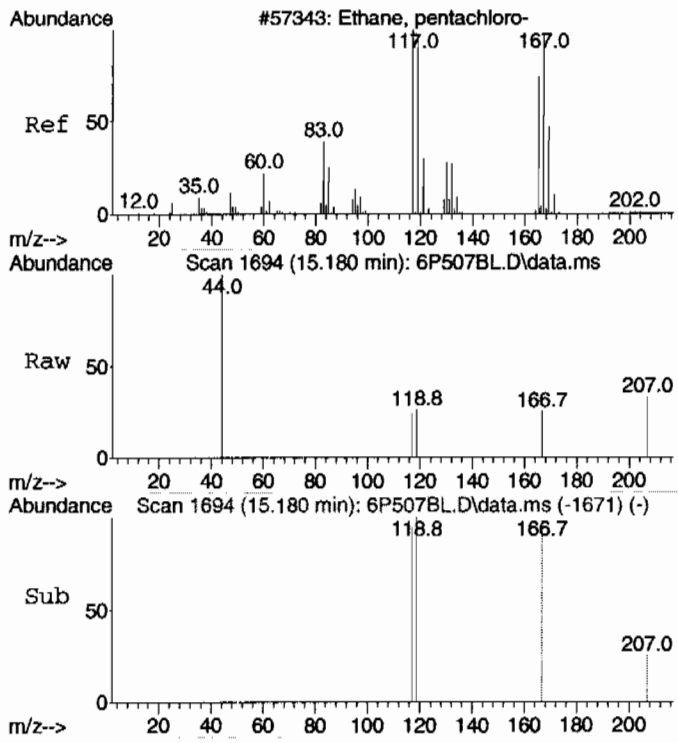

#110 BEFORE analyst DELETION
Pentachloroethane
Concen: 0.05 ug/L
RT: 15.180 min Scan# 1694
Delta R.T. -0.000 min
Lab File: 6P507BL.D
Acq: 18 Dec 2009 1:39 pm

Tgt Ion:167 Resp: 201

Ion	Ratio	Lower	Upper
167	100		
130	0.0	10.0	70.0#
132	0.0	7.5	67.5#

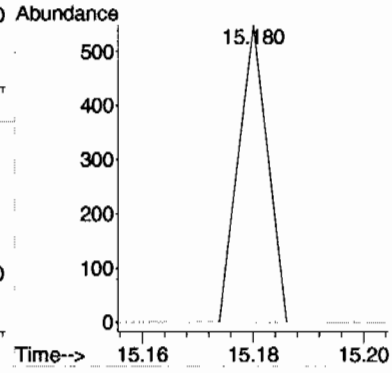

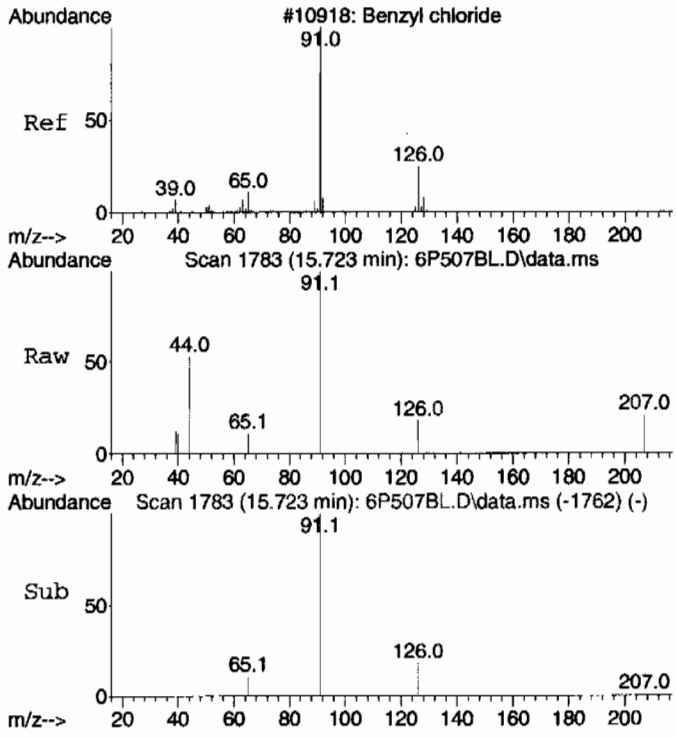

#111
Benzyl chloride
Concen: 0.47 ug/L
RT: 15.723 min Scan# 1783
Delta R.T. 0.007 min
Lab File: 6P507BL.D
Acq: 18 Dec 2009 1:39 pm

Tgt Ion: 91 Resp: 7968

Ion	Ratio	Lower	Upper
91	100		
126	15.5	0.0	52.6
65	7.9	0.0	42.9

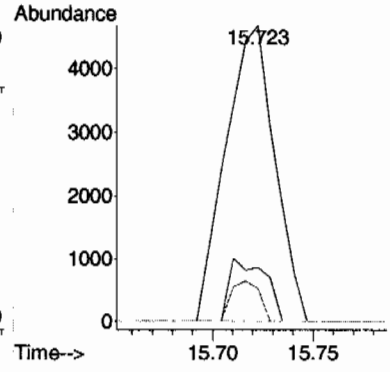

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-899-1**			**Matrix:**	**TCLP SOIL**
Lab Sample ID:	**1201996841**				
Client Sample:	**QC for batch 933330**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**TB for batch 933330**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**934318**	**Inst:**	**VOA6.I**	**Dilution:**	**10**
Run Date:	**12/18/2009 14:57**	**Analyst:**	**RXD1**	**Purge Vol:**	**5 mL**
Prep Date:	**12/15/2009 09:00**				
Data File:	**121809V6\6P509.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-01-4	Vinyl chloride	U	0.010	mg/L	0.005	0.010
75-35-4	1,1-Dichloroethylene	U	0.010	mg/L	0.003	0.010
78-93-3	2-Butanone	U	0.050	mg/L	0.0125	0.050
67-66-3	Chloroform	U	0.010	mg/L	0.0025	0.010
56-23-5	Carbon tetrachloride	U	0.010	mg/L	0.003	0.010
107-06-2	1,2-Dichloroethane	U	0.010	mg/L	0.0025	0.010
71-43-2	Benzene	U	0.010	mg/L	0.003	0.010
79-01-6	Trichloroethylene	U	0.010	mg/L	0.0025	0.010
127-18-4	Tetrachloroethylene	U	0.010	mg/L	0.003	0.010
108-90-7	Chlorobenzene	U	0.010	mg/L	0.0025	0.010
106-46-7	1,4-Dichlorobenzene	U	0.010	mg/L	0.0025	0.010

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121809V6\
Data File : 6P509.D
Acq On : 18 Dec 2009 2:57 pm
Operator : RXD1
InstName : VOA6
Sample : |1201996841|934318|10|VOAF|1|VOATCLPL|
Misc : LANL 500uL N/A TCLPBLANK
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Dec 20 11:07:11 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Fluorobenzene	9.980	96	1633335	50.00 ug/L	0.00
41) Chlorobenzene-d5	13.156	117	1184342	50.00 ug/L	0.00
58) 1,4-Dichlorobenzene-d4	15.576	152	652106	50.00 ug/L	0.00
82) B Fluorobenzene	9.980	96	1632093	50.00 ug/L	0.00
103) B Chlorobenzene-d5	13.156	117	1184342	50.00 ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	15.576	152	652106	50.00 ug/L	0.00
System Monitoring Compounds					
29) 1,2-Dichloroethane-d4	9.626	65	480758	49.89 ug/L	0.00
Spiked Amount 50.000	Range 59 - 130		Recovery = 99.78%		
43) Toluene-d8	11.626	98	1612672	49.11 ug/L	0.00
Spiked Amount 50.000	Range 76 - 129		Recovery = 98.22%		
61) Bromofluorobenzene	14.357	95	620522	49.38 ug/L	0.00
Spiked Amount 50.000	Range 71 - 126		Recovery = 98.76%		
Target Compounds					Qvalue
2) Dichlorodifluoromethane	0.000		0	N.D.	
3) Chloromethane	4.662	50	984	N.D.	
4) Vinyl chloride	4.914	62	352	N.D.	
5) Bromomethane	0.000		0	N.D.	
6) Chloroethane	0.000		0	N.D.	
7) Trichlorofluoromethane	0.000		0	N.D.	
8) Ethyl ether	0.000		0	N.D.	
9) Acetone	6.706	43	4693	1.58 ug/L	54
10) 1,1-Dichloroethylene	0.000		0	N.D.	
11) Iodomethane	0.000		0	N.D.	
12) Acetonitrile	0.000		0	N.D.	
13) Methyl acetate	7.102	43	193	N.D.	
14) Carbon disulfide	7.078	76	631	N.D.	
15) Methylene chloride	7.285	84	7294	N.D.	
16) tert-Butyl methyl ether	0.000		0	N.D.	
17) trans-1,2-Dichloroethy...	0.000		0	N.D.	
18) Vinyl acetate	0.000		0	N.D.	
19) 1,1-Dichloroethane	0.000		0	N.D.	
20) 2-Butanone	8.700	43	1099	N.D.	
21) cis-1,2-Dichloroethylene	0.000		0	N.D.	
22) 2,2-Dichloropropane	0.000		0	N.D.	
23) Bromochloromethane	0.000		0	N.D.	
24) Chloroform	0.000		0	N.D.	
25) 1,1,1-Trichloroethane	0.000		0	N.D.	
26) Cyclohexane	0.000		0	N.D.	
27) 1,1-Dichloropropene	0.000		0	N.D.	
28) Carbon tetrachloride	0.000		0	N.D.	
30) 1,2-Dichloroethane	0.000		0	N.D.	
31) Benzene	0.000		0	N.D.	
32) Cyclohexene	0.000		0	N.D.	
33) n-Butyl alcohol	0.000		0	N.D.	
34) Trichloroethylene	0.000		0	N.D.	
35) 1,2-Dichloropropane	0.000		0	N.D.	
36) Methylcyclohexane	0.000		0	N.D.	
37) Dibromomethane	0.000		0	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121809V6\
Data File : 6P509.D
Acq On : 18 Dec 2009 2:57 pm
Operator : RXD1
InstName : VOA6
Sample : |1201996841|934318|10|VOAF|1|VOATCLPL|
Misc : LANL 500uL N/A TCLPBLANK
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Dec 20 11:07:11 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
38)	Bromodichloromethane	0.000		0	N.D.	
39)	2-Chloroethylvinyl ether	0.000		0	N.D.	
40)	cis-1,3-Dichloropropylene	11.260	75	1820	N.D.	
42)	4-Methyl-2-pentanone	0.000		0	N.D.	
44)	Toluene	11.699	91	192	N.D.	
45)	trans-1,3-Dichloroprop...	0.000		0	N.D.	
46)	1,1,2-Trichloroethane	0.000		0	N.D.	
47)	2-Hexanone	0.000		0m	N.D.	d
48)	1,3-Dichloropropane	0.000		0	N.D.	
49)	Tetrachloroethylene	0.000		0	N.D.	
50)	Dibromochloromethane	0.000		0	N.D.	
51)	1,2-Dibromoethane	0.000		0	N.D.	
52)	Chlorobenzene	0.000		0	N.D.	
53)	1,1,1,2-Tetrachloroethane	0.000		0	N.D.	
54)	Ethylbenzene	0.000		0	N.D.	
55)	m,p-Xylenes	0.000		0	N.D.	
56)	o-Xylene	0.000		0	N.D.	
57)	Styrene	0.000		0	N.D.	
59)	Bromoform	0.000		0	N.D.	
60)	Isopropylbenzene	14.156	105	429	N.D.	
62)	1,1,2,2-Tetrachloroethane	0.000		0	N.D.	
63)	1,2,3-Trichloropropane	0.000		0	N.D.	
64)	Bromobenzene	0.000		0	N.D.	
65)	n-Propylbenzene	14.583	91	1804	N.D.	
66)	1,3,5-Trimethylbenzene	14.741	105	1300	N.D.	
67)	2-Chlorotoluene	0.000		0	N.D.	
68)	4-Chlorotoluene	14.839	91	649	N.D.	
69)	tert-Butylbenzene	0.000		0	N.D.	
70)	1,2,4-Trimethylbenzene	15.150	105	2566	N.D.	
71)	sec-Butylbenzene	15.326	105	1235	N.D.	
72)	4-Isopropyltoluene	15.454	119	1026	N.D.	
73)	1,3-Dichlorobenzene	15.515	146	183	N.D.	
74)	1,4-Dichlorobenzene	15.601	146	1644	N.D.	
75)	n-Butylbenzene	15.893	91	1066	N.D.	
76)	1,2-Dichlorobenzene	0.000		0	N.D.	
77)	1,2-Dibromo-3-chloropr...	0.000		0	N.D.	
78)	1,2,4-Trichlorobenzene	0.000		0	N.D.	
79)	Hexachlorobutadiene	0.000		0	N.D.	
80)	Naphthalene	18.283	128	1084	N.D.	
81)	1,2,3-Trichlorobenzene	0.000		0	N.D.	
83)	Chlorotrifluoroethylene	0.000		0	N.D.	
84)	2-Chloro-1,1,1-trifluo...	0.000		0	N.D.	
85)	Acrolein	0.000		0	N.D.	
86)	Trichlorotrifluoroethane	0.000		0	N.D.	
87)	Isopropyl Alcohol	0.000		0	N.D.	
88)	Allyl chloride	0.000		0	N.D.	
89)	tert-Butyl Alcohol	0.000		0	N.D.	
90)	Acrylonitrile	0.000		0	N.D.	
91)	Isopropyl ether	0.000		0	N.D.	
92)	2-Chloro-1,3-butadiene	0.000		0	N.D.	
93)	Ethyl tert-butyl ether	0.000		0	N.D.	
94)	Ethyl acetate	8.700	43	1099	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121809V6\
Data File : 6P509.D
Acq On : 18 Dec 2009 2:57 pm
Operator : RXD1
InstName : VOA6
Sample : |1201996841|934318|10|VOAF|1|VOATCLPL|
Misc : LANL 500uL N/A TCLPBLANK
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Dec 20 11:07:11 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
95)	Propionitrile	0.000		0	N.D.	
96)	Methacrylonitrile	0.000		0	N.D.	
97)	Tetrahydrofuran	0.000		0	N.D.	
98)	Isobutyl alcohol	0.000		0	N.D.	
99)	Methyl tert-amyl ether	0.000		0	N.D.	
100)	Methyl methacrylate	0.000		0	N.D.	
101)	1,4-Dioxane	0.000		0	N.D.	
102)	2-Nitropropane	0.000		0	N.D.	
104)	Ethyl methacrylate	0.000		0	N.D.	
106)	1-Chlorohexane	0.000		0	N.D.	
107)	cis-1,4-Dichloro-2-butene	0.000		0	N.D.	
108)	Cyclohexanone	0.000		0	N.D.	
109)	trans-1,4-Dichloro-2-b...	0.000		0	N.D.	
110)	Pentachloroethane	0.000		0	N.D.	
111)	Benzyl chloride	0.000		0m	N.D.	d
112)	bis(2-Chloroisopropyl)...	16.174	45	4104	N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121809V6\
Data File : 6P509.D
Acq On : 18 Dec 2009 2:57 pm
Operator : RXD1
InstName : VOA6
Sample : |1201996841|934318|10|VOAF|1|VOATCLPL|
Misc : LANL 500uL N/A TCLPBLANK
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Dec 20 11:07:11 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

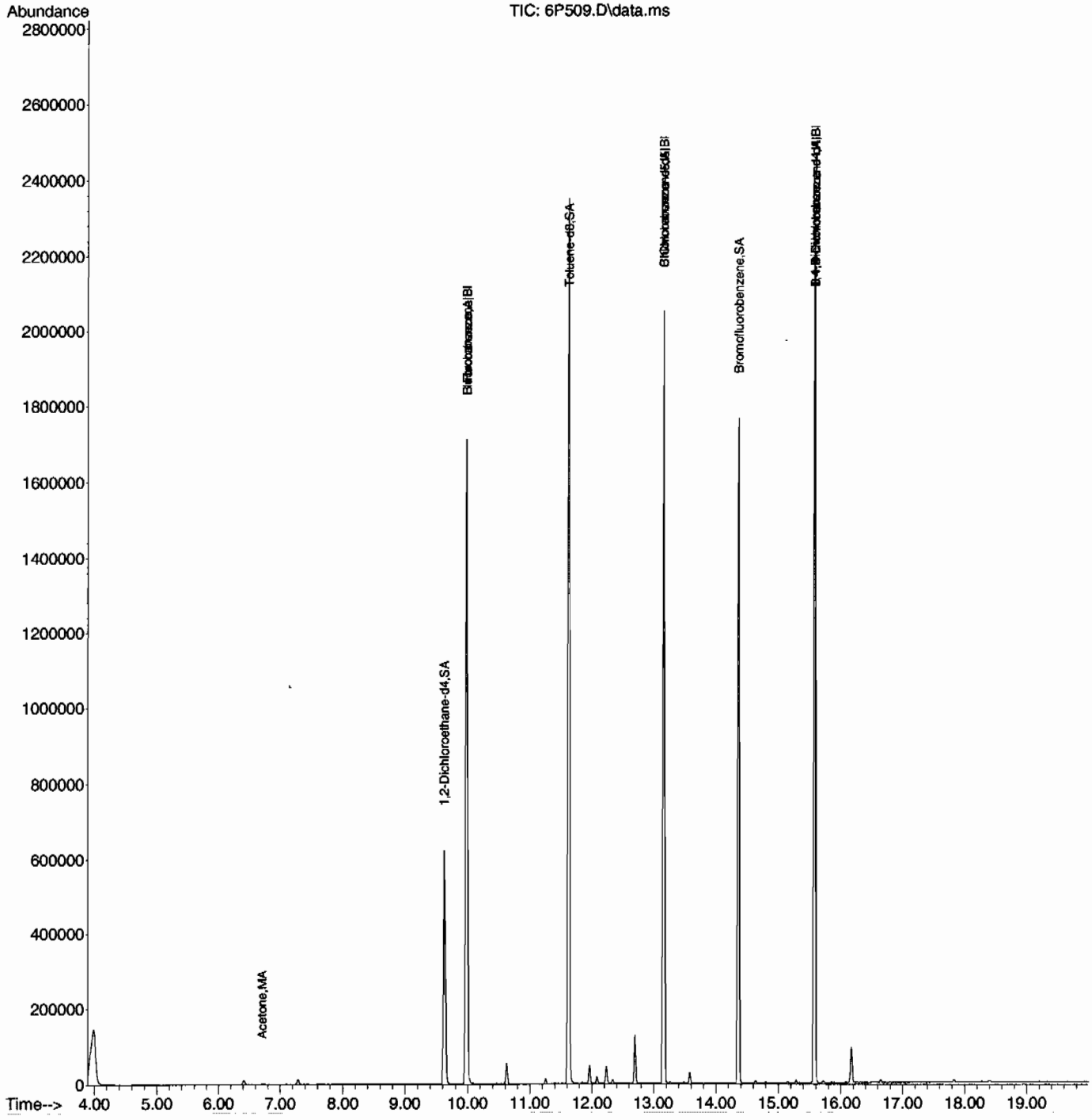

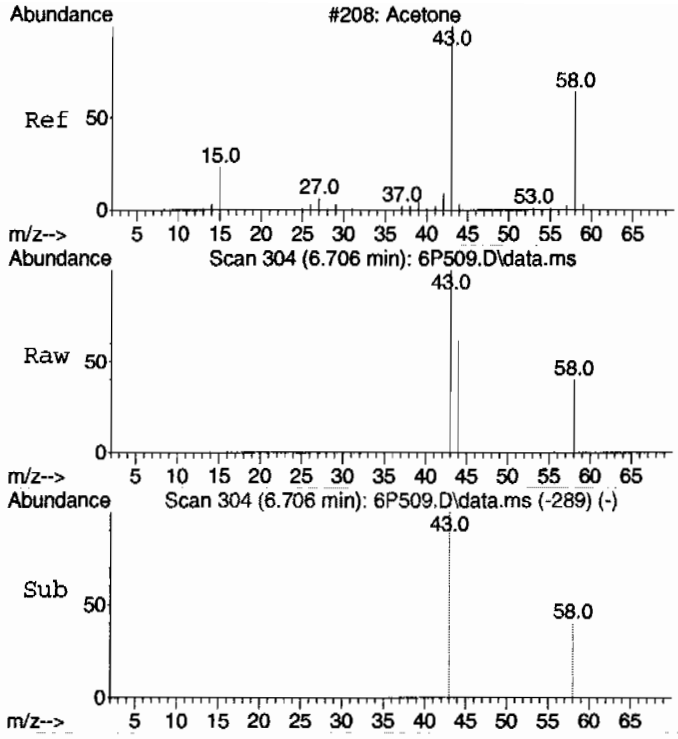

#9
Acetone
Concen: 1.58 ug/L
RT: 6.706 min Scan# 304
Delta R.T. -0.006 min
Lab File: 6P509.D
Acq: 18 Dec 2009 2:57 pm

Tgt Ion: 43 Resp: 4693

Ion	Ratio	Lower	Upper
43	100		
58	5.5	0.4	60.4

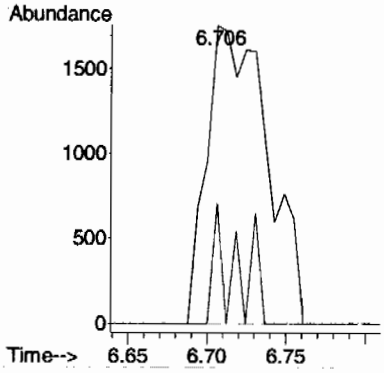

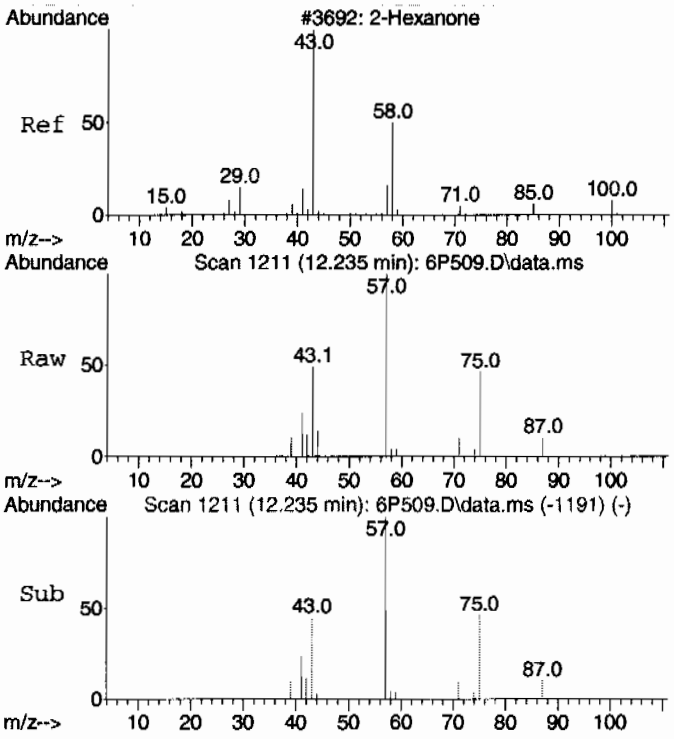

#47 BEFORE analyst DELETION
2-Hexanone
Concen: 2.93 ug/L
RT: 12.235 min Scan# 1211
Delta R.T. -0.025 min
Lab File: 6P509.D
Acq: 18 Dec 2009 2:57 pm

Tgt Ion: 43 Resp: 16694

Ion	Ratio	Lower	Upper
43	100		
58	5.5	17.3	77.3#
57	181.8	0.0	47.0#
100	0.0	0.0	39.2

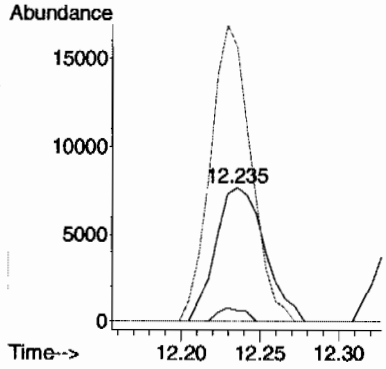

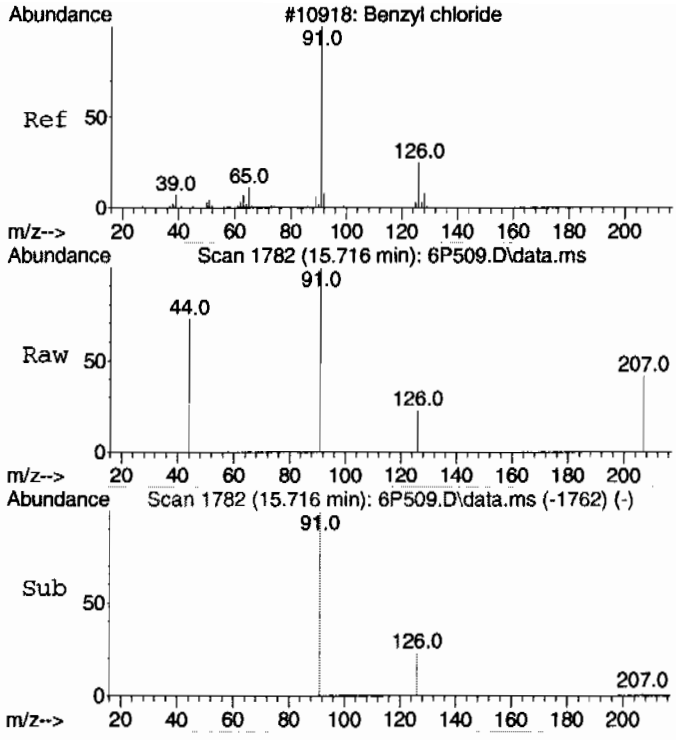

#111 BEFORE analyst DELETION
Benzyl chloride
Concen: 0.34 ug/L
RT: 15.716 min Scan# 1782
Delta R.T. 0.000 min
Lab File: 6P509.D
Acq: 18 Dec 2009 2:57 pm

Tgt Ion: 91 Resp: 5730

Ion	Ratio	Lower	Upper
91	100		
126	9.0	0.0	52.6
65	0.0	0.0	42.9

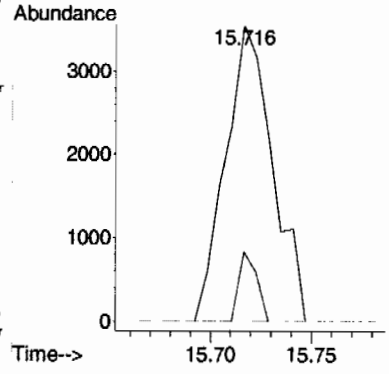

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-899-1**			**Matrix:**	**TCLP SOIL**
Lab Sample ID:	**1201998990**				
Client Sample:	**QC for batch 934318**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 934318**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**934318**	**Inst:**	**VOA6.I**	**Dilution:**	**1**
Run Date:	**12/18/2009 11:20**	**Analyst:**	**RXD1**	**Purge Vol:**	**5 mL**
Prep Date:	**12/18/2009 11:20**				
Data File:	**121809V6\6P502LL.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-01-4	Vinyl chloride		0.0536	mg/L	0.0005	0.001
75-35-4	1,1-Dichloroethylene		0.0515	mg/L	0.0003	0.001
78-93-3	2-Butanone		0.224	mg/L	0.00125	0.005
67-66-3	Chloroform		0.0498	mg/L	0.00025	0.001
56-23-5	Carbon tetrachloride		0.0561	mg/L	0.0003	0.001
107-06-2	1,2-Dichloroethane		0.047	mg/L	0.00025	0.001
71-43-2	Benzene		0.0487	mg/L	0.0003	0.001
79-01-6	Trichloroethylene		0.0504	mg/L	0.00025	0.001
127-18-4	Tetrachloroethylene		0.0508	mg/L	0.0003	0.001
108-90-7	Chlorobenzene		0.0495	mg/L	0.00025	0.001
106-46-7	1,4-Dichlorobenzene		0.0478	mg/L	0.00025	0.001

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121809V6\
Data File : 6P502LL.D
Acq On : 18 Dec 2009 11:20 am
Operator : RXD1
InstName : VOA6
Sample : |1201998990|934318|1|VOAF|1|VOATCLPL|
Misc : LCS 5mL N/A MIX[A] 1214-01A+1217-01
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 18 11:39:59 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	9.974	96	1715128	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.156	117	1247065	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	15.576	152	704131	50.00	ug/L	0.00
82) B Fluorobenzene	9.974	96	1713482	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.156	117	1247065	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	15.576	152	704131	50.00	ug/L	0.00
System Monitoring Compounds						
29) 1,2-Dichloroethane-d4	9.626	65	499052	49.32	ug/L	0.00
Spiked Amount 50.000	Range 59 - 130		Recovery = 98.64%			
43) Toluene-d8	11.626	98	1691268	48.91	ug/L	0.00
Spiked Amount 50.000	Range 76 - 129		Recovery = 97.82%			
61) Bromofluorobenzene	14.357	95	668314	49.25	ug/L	0.00
Spiked Amount 50.000	Range 71 - 126		Recovery = 98.50%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	4.360	85	372358	48.43	ug/L	99
3) Chloromethane	4.672	50	510242	48.25	ug/L	100
4) Vinyl chloride	4.914	62	497471	53.58	ug/L	100
5) Bromomethane	5.468	94	353096	50.99	ug/L	99
6) Chloroethane	5.609	64	350032	50.80	ug/L	100
7) Trichlorofluoromethane	6.022	101	710415	52.20	ug/L	100
8) Ethyl ether	6.328	59	389952	44.10	ug/L	100
9) Acetone	6.712	43	575203	184.35	ug/L	98 E
10) 1,1-Dichloroethylene	6.706	61	647104	51.54	ug/L	99
11) Iodomethane	6.956	142	3317862	245.26	ug/L	99
12) Acetonitrile	7.072	41	1414621	1105.93	ug/L	98
13) Methyl acetate	7.096	43	1568627	223.53	ug/L	100
14) Carbon disulfide	7.078	76	6782121	269.22	ug/L	100
15) Methylene chloride	7.285	84	444394	45.02	ug/L	99
16) tert-Butyl methyl ether	7.572	73	1116765	44.77	ug/L	100
17) trans-1,2-Dichloroethy...	7.621	61	647122	50.50	ug/L	98
18) Vinyl acetate	8.060	43	4892853	265.09	ug/L	95
19) 1,1-Dichloroethane	8.102	63	794608	49.56	ug/L	99
20) 2-Butanone	8.694	43	885711	224.35	ug/L	100
21) cis-1,2-Dichloroethylene	8.742	61	717997	50.31	ug/L	98
22) 2,2-Dichloropropane	8.767	77	663514	57.45	ug/L	100
23) Bromochloromethane	9.017	128	214282	48.74	ug/L	99
24) Chloroform	9.053	83	743740	49.82	ug/L	100
25) 1,1,1-Trichloroethane	9.322	97	679434	54.23	ug/L	100
26) Cyclohexane	9.407	56	886246	54.71	ug/L	100
27) 1,1-Dichloropropene	9.480	75	607589	53.28	ug/L	98
28) Carbon tetrachloride	9.517	117	621978	56.12	ug/L	99
30) 1,2-Dichloroethane	9.712	62	575061	46.99	ug/L	100
31) Benzene	9.724	78	1701935	48.71	ug/L	100
32) Cyclohexene	9.834	67	874868	52.64	ug/L	100
33) n-Butyl alcohol	10.078	56	1205934	4160.92	ug/L	100
34) Trichloroethylene	10.364	95	439732	50.42	ug/L	99
35) 1,2-Dichloropropane	10.614	63	455842	49.36	ug/L	100
36) Methylcyclohexane	10.602	83	812308	53.53	ug/L	99
37) Dibromomethane	10.748	93	235045	47.92	ug/L	100

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121809V6\
Data File : 6P502LL.D
Acq On : 18 Dec 2009 11:20 am
Operator : RXD1
InstName : VOA6
Sample : |1201998990|934318|1|VOAF|1|VOATCLPL|
Misc : LCS 5mL N/A MIX[A] 1214-01A+1217-01
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 18 11:39:59 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
38)	Bromodichloromethane	10.864	83	541037	52.32 ug/L	100
39)	2-Chloroethylvinyl ether	11.090	63	1255275	221.97 ug/L	99
40)	cis-1,3-Dichloropropylene	11.315	75	672115	51.50 ug/L	99
42)	4-Methyl-2-pentanone	11.413	58	774863	236.65 ug/L	98
44)	Toluene	11.699	91	1789612	48.16 ug/L	100
45)	trans-1,3-Dichloroprop...	11.858	75	620700	51.66 ug/L	100
46)	1,1,2-Trichloroethane	12.077	83	284077	46.47 ug/L	99
47)	2-Hexanone	12.260	43	1395919	232.51 ug/L	98
48)	1,3-Dichloropropane	12.272	76	606598	46.63 ug/L	97
49)	Tetrachloroethylene	12.291	164	381118	50.76 ug/L	99
50)	Dibromochloromethane	12.541	129	409873	53.25 ug/L	100
51)	1,2-Dibromoethane	12.705	107	352277	47.80 ug/L	100
52)	Chlorobenzene	13.187	112	1190397	49.54 ug/L	100
53)	1,1,1,2-Tetrachloroethane	13.242	131	429719	51.66 ug/L	99
54)	Ethylbenzene	13.254	91	2081990	51.10 ug/L	100
55)	m,p-Xylenes	13.364	106	1653059	101.44 ug/L	97
56)	o-Xylene	13.796	106	805044	50.33 ug/L	98
57)	Styrene	13.802	104	1331663	52.26 ug/L	99
59)	Bromoform	14.059	173	270486	54.33 ug/L	100
60)	Isopropylbenzene	14.156	105	2173906	50.65 ug/L	99
62)	1,1,2,2-Tetrachloroethane	14.436	83	451510	46.92 ug/L	98
63)	1,2,3-Trichloropropane	14.528	110	127660	47.17 ug/L #	91
64)	Bromobenzene	14.565	156	528120	47.86 ug/L	99
65)	n-Propylbenzene	14.583	91	2563440	50.97 ug/L	100
66)	1,3,5-Trimethylbenzene	14.735	105	1853667	50.38 ug/L	100
67)	2-Chlorotoluene	14.729	126	542223	50.70 ug/L	99
68)	4-Chlorotoluene	14.833	91	1564076	50.51 ug/L	100
69)	tert-Butylbenzene	15.107	134	406321	49.64 ug/L #	91
70)	1,2,4-Trimethylbenzene	15.150	105	1897790	48.96 ug/L	100
71)	sec-Butylbenzene	15.333	105	2503387	50.60 ug/L	99
72)	4-Isopropyltoluene	15.455	119	2052812	50.75 ug/L	99
73)	1,3-Dichlorobenzene	15.516	146	1037431	48.10 ug/L	100
74)	1,4-Dichlorobenzene	15.601	146	1056848	47.79 ug/L	99
75)	n-Butylbenzene	15.887	91	1998596	50.91 ug/L	100
76)	1,2-Dichlorobenzene	16.022	146	972933	46.53 ug/L	100
77)	1,2-Dibromo-3-chloropr...	16.881	157	84319	48.05 ug/L	98
78)	1,2,4-Trichlorobenzene	17.911	180	698087	44.39 ug/L	100
79)	Hexachlorobutadiene	18.076	225	463385	46.41 ug/L	99
80)	Naphthalene	18.283	128	1294812	40.97 ug/L	100
81)	1,2,3-Trichlorobenzene	18.619	180	576378	43.77 ug/L	100
83)	Chlorotrifluoroethylene	0.000		0	N.D.	
84)	2-Chloro-1,1,1-trifluo...	0.000		0	N.D.	
85)	Acrolein	0.000		0	N.D.	
86)	Trichlorotrifluoroethane	0.000		0	N.D.	
87)	Isopropyl Alcohol	6.779		0m	N.D. d	
88)	Allyl chloride	7.072		0m	N.D. d	
89)	tert-Butyl Alcohol	7.267		0m	N.D. d	
90)	Acrylonitrile	7.572		0m	N.D. d	
91)	Isopropyl ether	8.060		0m	N.D. d	
92)	2-Chloro-1,3-butadiene	8.218		0m	N.D. d	
93)	Ethyl tert-butyl ether	0.000		0	N.D.	
94)	Ethyl acetate	8.694		0m	N.D. d	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121809V6\
Data File : 6P502LL.D
Acq On : 18 Dec 2009 11:20 am
Operator : RXD1
InstName : VOA6
Sample : |1201998990|934318|1|VOAF|1|VOATCLPL|
Misc : LCS 5mL N/A MIX[A] 1214-01A+1217-01
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 18 11:39:59 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
95)	Propionitrile	8.700		0m	N.D.		d
96)	Methacrylonitrile	0.000		0	N.D.		
97)	Tetrahydrofuran	9.059		0m	N.D.		d
98)	Isobutyl alcohol	9.407		0m	N.D.		d
99)	Methyl tert-amyl ether	9.718		0m	N.D.		d
100)	Methyl methacrylate	10.602		0m	N.D.		d
101)	1,4-Dioxane	10.760		0m	N.D.		d
102)	2-Nitropropane	11.090		0m	N.D.		d
104)	Ethyl methacrylate	11.858		0m	N.D.		d
106)	1-Chlorohexane	0.000		0	N.D.		
107)	cis-1,4-Dichloro-2-butene	14.156		0m	N.D.		d
108)	Cyclohexanone	14.308		0m	N.D.		d
109)	trans-1,4-Dichloro-2-b...	14.491		0m	N.D.		d
110)	Pentachloroethane	15.180		0m	N.D.		d
111)	Benzyl chloride	15.717		0m	N.D.		d
112)	bis(2-Chloroisopropyl)...	16.113		0m	N.D.		d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121809V6\
Data File : 6P502LL.D
Acq On : 18 Dec 2009 11:20 am
Operator : RXD1
InstName : VOA6
Sample : |1201998990|934318|1|VOAF|1|VOATCLPL|
Misc : LCS 5mL N/A MIX[A] 1214-01A+1217-01
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 18 11:39:59 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

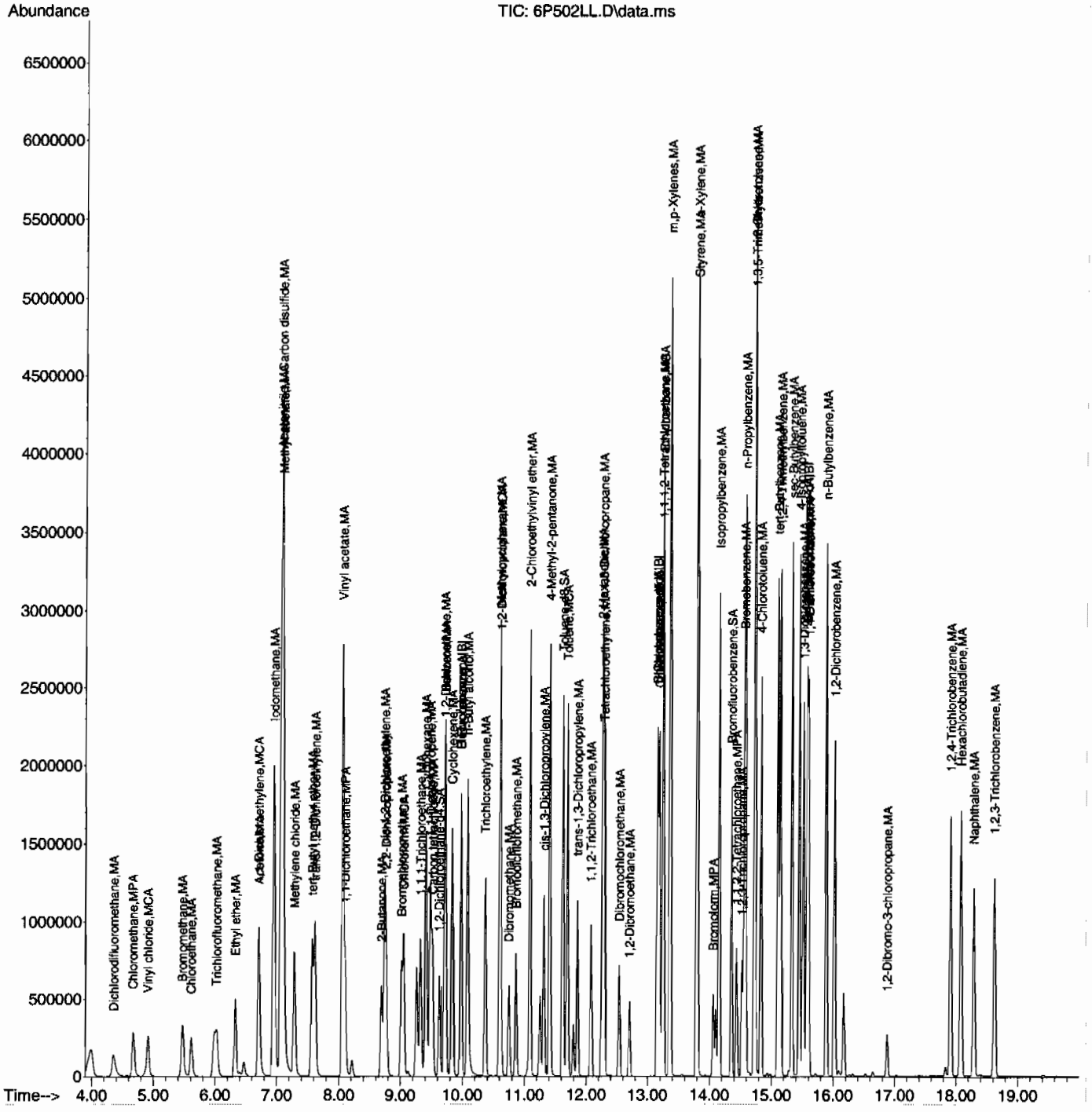

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-899-1**	**Date Collected:**	**12/10/2009 12:00**	**Matrix:**	**TCLP R**
Lab Sample ID:	**1201998988**	**Date Received:**	**12/12/2009 09:35**		
Client Sample:	**QC for batch 934318**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**WST03-10-2145PS**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**934318**	**Inst:**	**VOA6.I**	**Dilution:**	**10**
Run Date:	**12/18/2009 19:35**	**Analyst:**	**RXD1**	**Purge Vol:**	**5 mL**
Prep Date:	**12/18/2009 19:35**				
Data File:	**121809V6\6P519.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-01-4	Vinyl chloride		0.527	mg/L	0.005	0.010
75-35-4	1,1-Dichloroethylene		0.504	mg/L	0.003	0.010
78-93-3	2-Butanone		2.76	mg/L	0.0125	0.050
67-66-3	Chloroform		0.516	mg/L	0.0025	0.010
56-23-5	Carbon tetrachloride		0.548	mg/L	0.003	0.010
107-06-2	1,2-Dichloroethane		0.509	mg/L	0.0025	0.010
71-43-2	Benzene		0.499	mg/L	0.003	0.010
79-01-6	Trichloroethylene		0.506	mg/L	0.0025	0.010
127-18-4	Tetrachloroethylene		0.498	mg/L	0.003	0.010
108-90-7	Chlorobenzene		0.515	mg/L	0.0025	0.010
106-46-7	1,4-Dichlorobenzene		0.497	mg/L	0.0025	0.010

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121809V6\
Data File : 6P519.D
Acq On : 18 Dec 2009 7:35 pm
Operator : RXD1
InstName : VOA6
Sample : |1201998988|934318|10|VOAF|1|VOATCLPL|
Misc : LANL 500uL N/A MIX[A] MS 242785001
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Dec 20 11:02:28 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	9.980	96	1593805	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.156	117	1171309	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	15.576	152	662581	50.00	ug/L	0.00
82) B Fluorobenzene	9.980	96	1591770	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.156	117	1171309	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	15.576	152	662581	50.00	ug/L	0.00
System Monitoring Compounds						
29) 1,2-Dichloroethane-d4	9.626	65	466276	49.58	ug/L	0.00
Spiked Amount 50.000	Range 59 - 130		Recovery = 99.16%			
43) Toluene-d8	11.626	98	1580603	48.67	ug/L	0.00
Spiked Amount 50.000	Range 76 - 129		Recovery = 97.34%			
61) Bromofluorobenzene	14.357	95	625568	48.99	ug/L	0.00
Spiked Amount 50.000	Range 71 - 126		Recovery = 97.98%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	4.360	85	332466	46.53	ug/L	99
3) Chloromethane	4.682	50	485792	49.44	ug/L	99
4) Vinyl chloride	4.924	62	454985	52.74	ug/L	99
5) Bromomethane	5.478	94	329785	51.25	ug/L	100
6) Chloroethane	5.619	64	327340	51.12	ug/L	99
7) Trichlorofluoromethane	6.022	101	641871	50.75	ug/L	100
8) Ethyl ether	6.328	59	383087	46.62	ug/L	99
9) Acetone	6.706	43	621385	214.31	ug/L	98 E
10) 1,1-Dichloroethylene	6.706	61	587385	50.35	ug/L	99
11) Iodomethane	6.956	142	3165715	251.83	ug/L	99
12) Acetonitrile	7.072	41	1507548	1268.30	ug/L	100
13) Methyl acetate	7.096	43	1633528	250.49	ug/L	100
14) Carbon disulfide	7.084	76	6260707	267.44	ug/L	100
15) Methylene chloride	7.285	84	440331	48.00	ug/L	99
16) tert-Butyl methyl ether	7.572	73	1129710	48.74	ug/L	100
17) trans-1,2-Dichloroethy...	7.621	61	602514	50.60	ug/L	99
18) Vinyl acetate	8.066	43	4959098	289.14	ug/L	94
19) 1,1-Dichloroethane	8.102	63	759550	50.98	ug/L	100
20) 2-Butanone	8.694	43	1012052	275.86	ug/L	100
21) cis-1,2-Dichloroethylene	8.742	61	687273	51.82	ug/L	99
22) 2,2-Dichloropropane	8.767	77	598981	55.81	ug/L	98
23) Bromochloromethane	9.017	128	208164	50.95	ug/L	98
24) Chloroform	9.053	83	715188	51.56	ug/L	100
25) 1,1,1-Trichloroethane	9.328	97	623798	53.58	ug/L	100
26) Cyclohexane	9.413	56	782032	51.95	ug/L	99
27) 1,1-Dichloropropene	9.480	75	554236	52.30	ug/L	99
28) Carbon tetrachloride	9.517	117	563998	54.76	ug/L	99
30) 1,2-Dichloroethane	9.712	62	578749	50.89	ug/L	100
31) Benzene	9.724	78	1619637	49.89	ug/L	100
32) Cyclohexene	9.834	67	789340	51.11	ug/L	99
33) n-Butyl alcohol	10.084	56	1287338	4771.91	ug/L	99
34) Trichloroethylene	10.364	95	410208	50.62	ug/L	99
35) 1,2-Dichloropropane	10.614	63	445500	51.92	ug/L	99
36) Methylcyclohexane	10.608	83	731210	51.85	ug/L	99
37) Dibromomethane	10.748	93	237288	52.06	ug/L	100

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121809V6\
Data File : 6P519.D
Acq On : 18 Dec 2009 7:35 pm
Operator : RXD1
InstName : VOA6
Sample : |1201998988|934318|10|VOAF|1|VOATCLPL|
Misc : LANL 500uL N/A MIX[A] MS 242785001
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Dec 20 11:02:28 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)	
38)	Bromodichloromethane	10.864	83	535753	55.75 ug/L	99	
39)	2-Chloroethylvinyl ether	11.089	63	1199365	228.23 ug/L	99	
40)	cis-1,3-Dichloropropylene	11.315	75	660565	54.47 ug/L	99	
42)	4-Methyl-2-pentanone	11.413	58	811608	263.90 ug/L	97	
44)	Toluene	11.699	91	1717865	49.22 ug/L	99	
45)	trans-1,3-Dichloroprop...	11.864	75	615967	54.59 ug/L	99	
46)	1,1,2-Trichloroethane	12.083	83	291240	50.73 ug/L	99	
47)	2-Hexanone	12.260	43	1596693	283.15 ug/L	96	
48)	1,3-Dichloropropane	12.272	76	613798	50.24 ug/L	98	
49)	Tetrachloroethylene	12.290	164	351142	49.79 ug/L	99	
50)	Dibromochloromethane	12.540	129	414300	57.30 ug/L	100	
51)	1,2-Dibromoethane	12.711	107	359668	51.96 ug/L	100	
52)	Chlorobenzene	13.193	112	1163224	51.54 ug/L	99	
53)	1,1,1,2-Tetrachloroethane	13.248	131	422866	54.12 ug/L	99	
54)	Ethylbenzene	13.254	91	1976033	51.64 ug/L	99	
55)	m,p-Xylenes	13.363	106	1574491	102.87 ug/L	98	
56)	o-Xylene	13.796	106	776137	51.66 ug/L	97	
57)	Styrene	13.802	104	1299493	54.30 ug/L	99	
59)	Bromoform	14.065	173	274886	58.68 ug/L	100	
60)	Isopropylbenzene	14.156	105	2033099	50.34 ug/L	100	
62)	1,1,2,2-Tetrachloroethane	14.442	83	463221	51.16 ug/L	99	
63)	1,2,3-Trichloropropane	14.528	110	128638	50.51 ug/L	95	
64)	Bromobenzene	14.564	156	524251	50.49 ug/L	100	
65)	n-Propylbenzene	14.583	91	2394824	50.60 ug/L	99	
66)	1,3,5-Trimethylbenzene	14.735	105	1744269	50.38 ug/L	99	
67)	2-Chlorotoluene	14.735	126	518607	51.54 ug/L	99	
68)	4-Chlorotoluene	14.833	91	1488621	51.08 ug/L	100	
69)	tert-Butylbenzene	15.107	134	383924	49.85 ug/L #	91	
70)	1,2,4-Trimethylbenzene	15.150	105	1819389	49.88 ug/L	99	
71)	sec-Butylbenzene	15.333	105	2336982	50.20 ug/L	99	
72)	4-Isopropyltoluene	15.454	119	1919942	50.44 ug/L	99	
73)	1,3-Dichlorobenzene	15.515	146	1015954	50.06 ug/L	99	
74)	1,4-Dichlorobenzene	15.601	146	1034001	49.69 ug/L	99	
75)	n-Butylbenzene	15.887	91	1865918	50.51 ug/L	99	
76)	1,2-Dichlorobenzene	16.021	146	968158	49.21 ug/L	99	
77)	1,2-Dibromo-3-chloropr...	16.881	157	88938	53.86 ug/L	98	E
78)	1,2,4-Trichlorobenzene	17.911	180	665812	44.99 ug/L	99	
79)	Hexachlorobutadiene	18.076	225	429396	45.70 ug/L	99	
80)	Naphthalene	18.289	128	1332291	44.80 ug/L	100	
81)	1,2,3-Trichlorobenzene	18.625	180	570250	46.02 ug/L	99	
83)	Chlorotrifluoroethylene	0.000		0	N.D.		
84)	2-Chloro-1,1,1-trifluo...	0.000		0	N.D.		
85)	Acrolein	0.000		0	N.D.		
86)	Trichlorotrifluoroethane	0.000		0	N.D.		
87)	Isopropyl Alcohol	6.785		0m	N.D. d		
88)	Allyl chloride	7.072		0m	N.D. d		
89)	tert-Butyl Alcohol	0.000		0	N.D.		
90)	Acrylonitrile	7.578		0m	N.D. d		
91)	Isopropyl ether	8.060		0m	N.D. d		
92)	2-Chloro-1,3-butadiene	0.000		0	N.D.		
93)	Ethyl tert-butyl ether	0.000		0	N.D.		
94)	Ethyl acetate	8.694		0m	N.D. d		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121809V6\
Data File : 6P519.D
Acq On : 18 Dec 2009 7:35 pm
Operator : RXD1
InstName : VOA6
Sample : |1201998988|934318|10|VOAF|1|VOATCLPL|
Misc : LANL 500uL N/A MIX[A] MS 242785001
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Dec 20 11:02:28 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
95)	Propionitrile	8.700		0m	N.D. d	
96)	Methacrylonitrile	0.000		0	N.D.	
97)	Tetrahydrofuran	9.053		0m	N.D. d	
98)	Isobutyl alcohol	9.413		0m	N.D. d	
99)	Methyl tert-amyl ether	9.724		0m	N.D. d	
100)	Methyl methacrylate	10.608		0m	N.D. d	
101)	1,4-Dioxane	10.760		0m	N.D. d	
102)	2-Nitropropane	11.089		0m	N.D. d	
104)	Ethyl methacrylate	0.000		0	N.D.	
106)	1-Chlorohexane	0.000		0	N.D.	
107)	cis-1,4-Dichloro-2-butene	14.156		0m	N.D. d	
108)	Cyclohexanone	0.000		0	N.D.	
109)	trans-1,4-Dichloro-2-b...	0.000		0	N.D.	
110)	Pentachloroethane	15.180		0m	N.D. d	
111)	Benzyl chloride	15.723		0m	N.D. d	
112)	bis(2-Chloroisopropyl)...	16.162		0m	N.D. d	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121809V6\
Data File : 6P519.D
Acq On : 18 Dec 2009 7:35 pm
Operator : RXD1
InstName : VOA6
Sample : |1201998988|934318|10|VOAF|1|VOATCLPL|
Misc : LANL 500uL N/A MIX[A] MS 242785001
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Dec 20 11:02:28 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

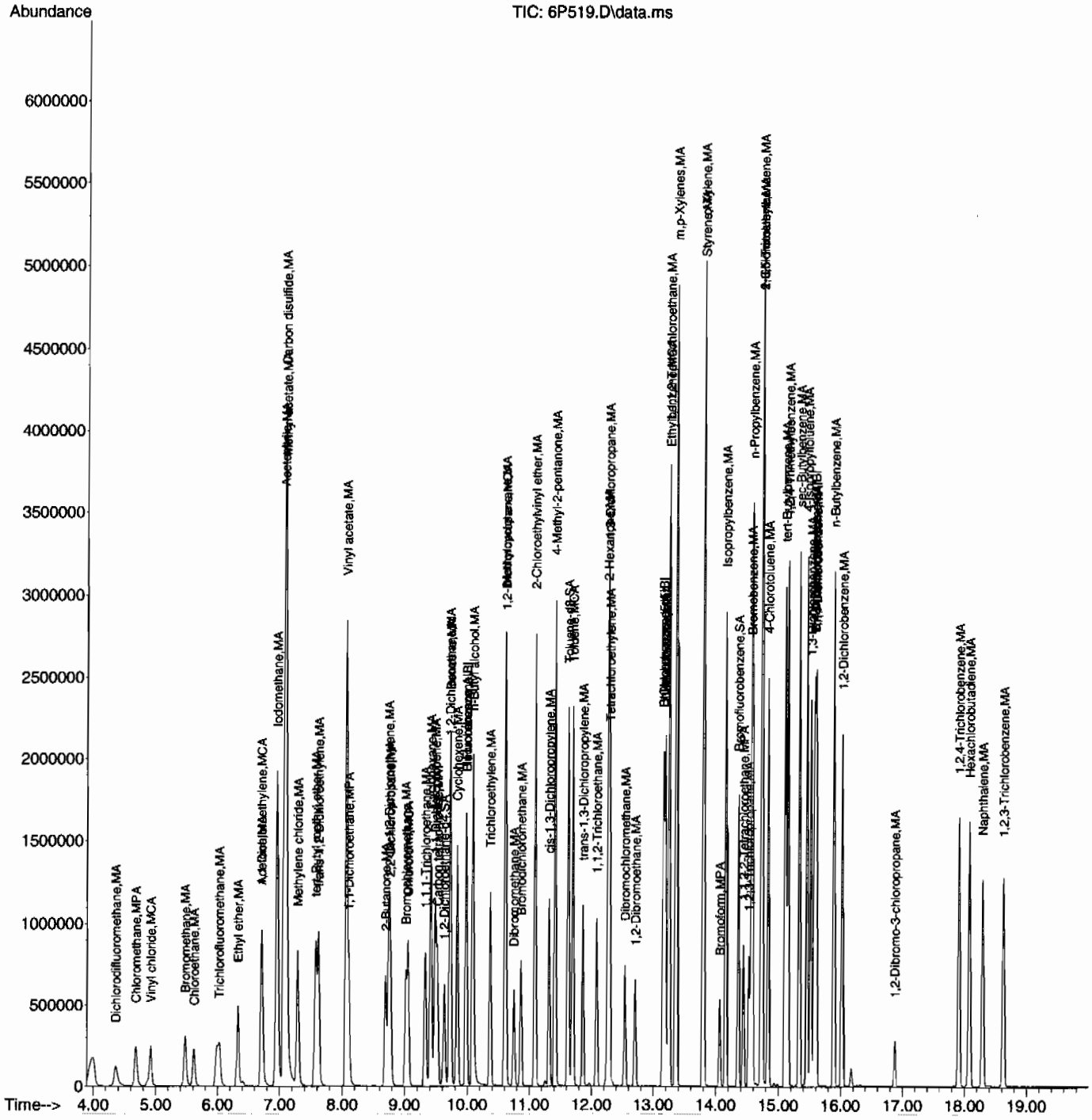

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-899-1	**Date Collected:**	12/10/2009 12:00	**Matrix:**	TCLP R
Lab Sample ID:	1201998989	**Date Received:**	12/12/2009 09:35		
Client Sample:	QC for batch 934318	**Client:**	LANL010	**Project:**	QC
Client ID:	WST03-10-2145PSD	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	934318	**Inst:**	VOA6.I	**Dilution:**	10
Run Date:	12/18/2009 20:03	**Analyst:**	RXD1	**Purge Vol:**	5 mL
Prep Date:	12/18/2009 20:03				
Data File:	121809V6\6P520.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-01-4	Vinyl chloride		0.511	mg/L	0.005	0.010
75-35-4	1,1-Dichloroethylene		0.486	mg/L	0.003	0.010
78-93-3	2-Butanone		2.75	mg/L	0.0125	0.050
67-66-3	Chloroform		0.498	mg/L	0.0025	0.010
56-23-5	Carbon tetrachloride		0.532	mg/L	0.003	0.010
107-06-2	1,2-Dichloroethane		0.496	mg/L	0.0025	0.010
71-43-2	Benzene		0.481	mg/L	0.003	0.010
79-01-6	Trichloroethylene		0.486	mg/L	0.0025	0.010
127-18-4	Tetrachloroethylene		0.481	mg/L	0.003	0.010
108-90-7	Chlorobenzene		0.498	mg/L	0.0025	0.010
106-46-7	1,4-Dichlorobenzene		0.479	mg/L	0.0025	0.010

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121809V6\
Data File : 6P520.D
Acq On : 18 Dec 2009 8:03 pm
Operator : RXD1
InstName : VOA6
Sample : |1201998989|934318|10|VOAF|1|VOATCLPL|
Misc : LANL 500uL N/A MIX[A] MSD 242785001
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Dec 20 11:02:32 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	9.974	96	1609894	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.156	117	1163540	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	15.576	152	654706	50.00	ug/L	0.00
82) B Fluorobenzene	9.974	96	1608196	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.156	117	1163540	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	15.576	152	654706	50.00	ug/L	0.00
System Monitoring Compounds						
29) 1,2-Dichloroethane-d4	9.626	65	476746	50.19	ug/L	0.00
Spiked Amount 50.000	Range 59 - 130		Recovery = 100.38%			
43) Toluene-d8	11.626	98	1586803	49.19	ug/L	0.00
Spiked Amount 50.000	Range 76 - 129		Recovery = 98.38%			
61) Bromofluorobenzene	14.357	95	621591	49.27	ug/L	0.00
Spiked Amount 50.000	Range 71 - 126		Recovery = 98.54%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	4.360	85	329243	45.62	ug/L	100
3) Chloromethane	4.682	50	469335	47.28	ug/L	99
4) Vinyl chloride	4.924	62	445531	51.13	ug/L	99
5) Bromomethane	5.478	94	319998	49.24	ug/L	100
6) Chloroethane	5.609	64	319208	49.35	ug/L	100
7) Trichlorofluoromethane	6.022	101	631727	49.45	ug/L	100
8) Ethyl ether	6.328	59	388484	46.80	ug/L	100
9) Acetone	6.706	43	619089	211.38	ug/L	99 E
10) 1,1-Dichloroethylene	6.706	61	572598	48.59	ug/L	100
11) Iodomethane	6.956	142	3095643	243.79	ug/L	99
12) Acetonitrile	7.072	41	1503515	1252.27	ug/L	100
13) Methyl acetate	7.096	43	1637430	248.58	ug/L	100
14) Carbon disulfide	7.084	76	6079958	257.12	ug/L	100
15) Methylene chloride	7.285	84	434801	46.92	ug/L	99
16) tert-Butyl methyl ether	7.578	73	1124168	48.01	ug/L	100
17) trans-1,2-Dichloroethy...	7.621	61	592827	49.29	ug/L	100
18) Vinyl acetate	8.059	43	4927917	284.45	ug/L	94
19) 1,1-Dichloroethane	8.102	63	745472	49.54	ug/L	99
20) 2-Butanone	8.694	43	1018362	274.81	ug/L	100
21) cis-1,2-Dichloroethylene	8.742	61	676341	50.49	ug/L	99
22) 2,2-Dichloropropane	8.767	77	587786	54.22	ug/L	100
23) Bromochloromethane	9.017	128	209401	50.74	ug/L	99
24) Chloroform	9.053	83	697657	49.79	ug/L	100
25) 1,1,1-Trichloroethane	9.328	97	606717	51.60	ug/L	100
26) Cyclohexane	9.413	56	771548	50.74	ug/L	99
27) 1,1-Dichloropropene	9.480	75	546111	51.02	ug/L	99
28) Carbon tetrachloride	9.517	117	552947	53.15	ug/L	99
30) 1,2-Dichloroethane	9.712	62	569712	49.59	ug/L	99
31) Benzene	9.724	78	1576775	48.08	ug/L	99
32) Cyclohexene	9.834	67	776256	49.76	ug/L	100
33) n-Butyl alcohol	10.083	56	1302088	4778.28	ug/L	100
34) Trichloroethylene	10.364	95	398080	48.63	ug/L	100
35) 1,2-Dichloropropane	10.614	63	435399	50.23	ug/L	100
36) Methylcyclohexane	10.602	83	714705	50.17	ug/L	100
37) Dibromomethane	10.748	93	232438	50.48	ug/L	100

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121809V6\
Data File : 6P520.D
Acq On : 18 Dec 2009 8:03 pm
Operator : RXD1
InstName : VOA6
Sample : |1201998989|934318|10|VOAF|1|VOATCLPL|
Misc : LANL 500uL N/A MIX[A] MSD 242785001
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Dec 20 11:02:32 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)	
38)	Bromodichloromethane	10.864	83	523928	53.98 ug/L	99	
39)	2-Chloroethylvinyl ether	11.089	63	1174751	221.31 ug/L	99	
40)	cis-1,3-Dichloropropylene	11.315	75	639308	52.19 ug/L	99	
42)	4-Methyl-2-pentanone	11.413	58	803575	263.03 ug/L	96	
44)	Toluene	11.699	91	1655951	47.76 ug/L	100	
45)	trans-1,3-Dichloroprop...	11.858	75	600028	53.53 ug/L	99	
46)	1,1,2-Trichloroethane	12.083	83	281484	49.36 ug/L	100	
47)	2-Hexanone	12.260	43	1580588	282.16 ug/L	96	
48)	1,3-Dichloropropane	12.272	76	592574	48.82 ug/L	98	
49)	Tetrachloroethylene	12.290	164	337195	48.13 ug/L	99	
50)	Dibromochloromethane	12.540	129	398140	55.43 ug/L	100	
51)	1,2-Dibromoethane	12.705	107	348364	50.66 ug/L	100	
52)	Chlorobenzene	13.193	112	1117160	49.83 ug/L	100	
53)	1,1,1,2-Tetrachloroethane	13.248	131	408081	52.58 ug/L	99	
54)	Ethylbenzene	13.254	91	1890696	49.74 ug/L	99	
55)	m,p-Xylenes	13.363	106	1502237	98.81 ug/L	97	
56)	o-Xylene	13.796	106	746643	50.03 ug/L	98	
57)	Styrene	13.802	104	1235928	51.99 ug/L	99	
59)	Bromoform	14.064	173	266505	57.58 ug/L	100	
60)	Isopropylbenzene	14.156	105	1947199	48.79 ug/L	100	
62)	1,1,2,2-Tetrachloroethane	14.442	83	455359	50.90 ug/L	98	
63)	1,2,3-Trichloropropane	14.528	110	127239	50.56 ug/L	99	
64)	Bromobenzene	14.564	156	499205	48.65 ug/L	99	
65)	n-Propylbenzene	14.583	91	2282925	48.82 ug/L	100	
66)	1,3,5-Trimethylbenzene	14.735	105	1683032	49.20 ug/L	99	
67)	2-Chlorotoluene	14.735	126	489663	49.25 ug/L	97	
68)	4-Chlorotoluene	14.833	91	1414995	49.14 ug/L	99	
69)	tert-Butylbenzene	15.107	134	371056	48.76 ug/L #	90	
70)	1,2,4-Trimethylbenzene	15.150	105	1746095	48.44 ug/L	99	
71)	sec-Butylbenzene	15.332	105	2241998	48.74 ug/L	100	
72)	4-Isopropyltoluene	15.454	119	1848526	49.15 ug/L	99	
73)	1,3-Dichlorobenzene	15.515	146	973630	48.55 ug/L	99	
74)	1,4-Dichlorobenzene	15.601	146	983774	47.85 ug/L	100	
75)	n-Butylbenzene	15.887	91	1797703	49.25 ug/L	99	
76)	1,2-Dichlorobenzene	16.021	146	941845	48.45 ug/L	100	
77)	1,2-Dibromo-3-chloropr...	16.881	157	93063	57.04 ug/L	98	E
78)	1,2,4-Trichlorobenzene	17.911	180	669252	45.77 ug/L	99	
79)	Hexachlorobutadiene	18.076	225	423978	45.67 ug/L	99	
80)	Naphthalene	18.289	128	1410645	48.00 ug/L	100	
81)	1,2,3-Trichlorobenzene	18.625	180	596302	48.70 ug/L	99	
83)	Chlorotrifluoroethylene	0.000		0	N.D.		
84)	2-Chloro-1,1,1-trifluo...	0.000		0	N.D.		
85)	Acrolein	0.000		0	N.D.		
86)	Trichlorotrifluoroethane	0.000		0	N.D.		
87)	Isopropyl Alcohol	6.700		0m	N.D. d		
88)	Allyl chloride	7.072		0m	N.D. d		
89)	tert-Butyl Alcohol	0.000		0	N.D.		
90)	Acrylonitrile	7.572		0m	N.D. d		
91)	Isopropyl ether	8.066		0m	N.D. d		
92)	2-Chloro-1,3-butadiene	0.000		0	N.D.		
93)	Ethyl tert-butyl ether	0.000		0	N.D.		
94)	Ethyl acetate	8.694		0m	N.D. d		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121809V6\
Data File : 6P520.D
Acq On : 18 Dec 2009 8:03 pm
Operator : RXD1
InstName : VOA6
Sample : |1201998989|934318|10|VOAF|1|VOATCLPL|
Misc : LANL 500uL N/A MIX[A] MSD 242785001
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Dec 20 11:02:32 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
95)	Propionitrile	8.687		0m	N.D.	d
96)	Methacrylonitrile	0.000		0	N.D.	
97)	Tetrahydrofuran	9.065		0m	N.D.	d
98)	Isobutyl alcohol	9.413		0m	N.D.	d
99)	Methyl tert-amyl ether	9.718		0m	N.D.	d
100)	Methyl methacrylate	10.602		0m	N.D.	d
101)	1,4-Dioxane	10.754		0m	N.D.	d
102)	2-Nitropropane	10.998		0m	N.D.	d
104)	Ethyl methacrylate	0.000		0	N.D.	
106)	1-Chlorohexane	0.000		0	N.D.	
107)	cis-1,4-Dichloro-2-butene	14.156		0m	N.D.	d
108)	Cyclohexanone	0.000		0	N.D.	
109)	trans-1,4-Dichloro-2-b...	0.000		0	N.D.	
110)	Pentachloroethane	15.180		0m	N.D.	d
111)	Benzyl chloride	15.717		0m	N.D.	d
112)	bis(2-Chloroisopropyl)...	16.168		0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121809V6\
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InstName : VOA6
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Misc : LANL 500uL N/A MIX[A] MSD 242785001
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Dec 20 11:02:32 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

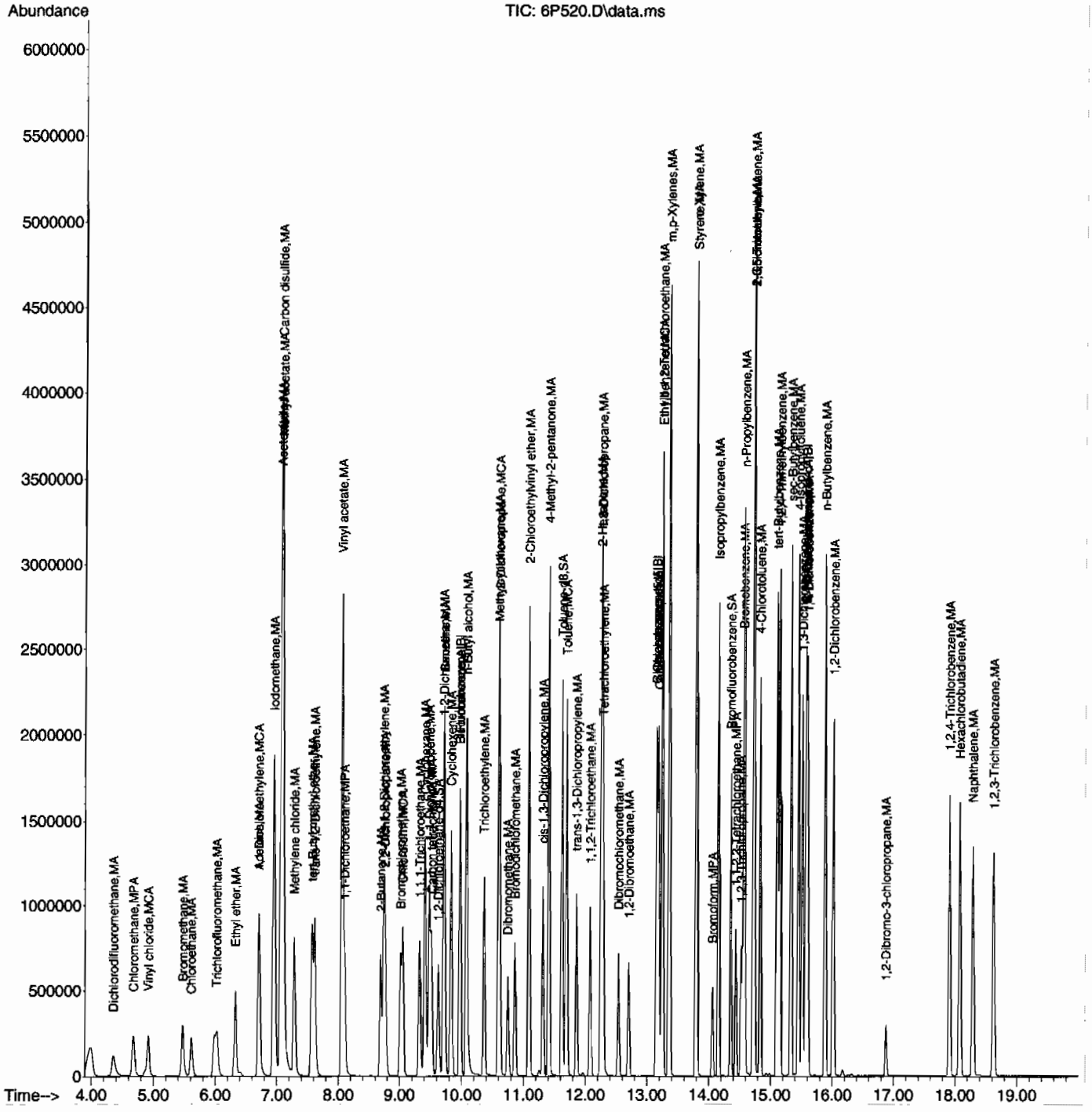

Miscellaneous

Prep Logbook

Toxicity Characteristic Leaching Procedure Preparation

Batch ID: 933330 **Verified by:** _____
Analyst: Richard Dollinger
Method: SW846 1311

Lab SOP: GL-LB-E-006 REV# 13
Instrument: TCLP Tumbler #105

Sample ID Analysis Start Date	1201996841 TB 15-DEC-2009 09:00:44	242446001 15-DEC-2009 09:00:44	242785001 15-DEC-2009 09:00:44	242785002 15-DEC-2009 09:00:44
100% Solid Y/N		y	y	y
(I) Sub Sample Aliquot I=G-H (g)		25	25	25
Initial pH (su)	4.94			
pH Temperature (celsius)	4.94			
Filtrate pH (su)	5	5	5	5
Final pH (su)	4.94			
Tumbler Speed	28	28	28	28
Sample Properties <>/= Water	tclp#1	Solid	Solid	Solid
(J) 20X Wet Solid Weight 20XC (g)	500	500	500	500
Filtrate Volume (mL)	40	40	40	40
VOA Positive Pressure Y/N	y	y	y	y
ZHE Vessle ID	1	2	3	4

Type	Sample Id	Description	Serial Number	Spike Amt	Units
RGNT	All	TCLP EXTRACTION FLUID 1	1018062ZHE	500	mL

Comments:

Extration End Date: 16-DEC-09 9:00:01
Filtration End Date: 16-DEC-09 15:00:01
Bottle Lot Number: B-9-195-01VB
Filter Lot Number: 521112
Extration Start Temperature: 23 C
Extration End Temperature: 23 C
Filtration End Temperature: 23 C

GEL Laboratories, LLC
Revision:11/22/04

ORGANIC RUN LOG - INSTRUMENT ID#VOA6

Date: 12/10/2009 Method 8260B/624 Operator: RXD1

REVIEWED BY: _____
DATE: _____

HARDWARE CONFIGURATION & METHOD CONDITIONS SUMMARY No# 4

Daily Instrument Readings:
Multiplier Voltage: 1624

CALIBRATION & CC INFORMATION:

Initial Calibration Date: 12/10/2009

(See pg. for ICAL Std. Sci. Ids)

NaHSO4 lot # n/a
Cl test lot # 72612
Sequence Number: 121009V6

Daily Standard Solution ID#		Volume Added for Purge (ul) Blk/ Smpl	CCV	MS/ LCS	BFB
L-ICV	W6VM091210-11		5+5		
IS	UVM091203-01	1	1		
SS	UVM091020-02	1	1		
S-ICV	W6VM091210-20		5+5		
BFB	UVM091020-02				1
N/A					
N/A					

Purge Amount	
5	Water Purge Vol:ML
N/A	Soil Purge Wt.:G
N/A	Mid level ext. MeOH Vol:
N/A	ul
N/A	Methanol Lot #
x	Heated Purge

Analysis Date Time	Data File	Lab Sample ID	Client	Batch #	Wt.(g) or Vol(ml/ul)	Dil. Factor	pH	AS Slot #	Matrix w or s	Analyst	Cl test (Y/N)	Acceptable (O/X)	Comments
12/10/2009 8:31	6O401.D	12019--	BLANK	BLANK	5mL	1	N/A	1	w	RXD1	N/A	X	RINSE
12/10/2009 8:59	6O402.D	W6VM091210-00	GEL	CCV	5mL	1	N/A	2	w	RXD1	N/A	X	MIX[A] UVM091129-01C+IVM091209-01
12/10/2009 9:26	6O403.D	12019--	BLANK	BLANK	5mL	1	N/A	3	w	RXD1	N/A	X	RINSE
12/10/2009 10:12	6O404.D	UVM091020-02	GEL	BFB	5mL	1	N/A	4	w	RXD1	N/A	O	BFB
12/10/2009 10:39	6O405.D	W6VM091210-01	VSTD001	ICAL	5uL	1	N/A	5	w	RXD1	N/A	X	MIX[A] UVM090911-02C+UVM091130-02B, see 6O415
12/10/2009 11:07	6O406.D	W6VM091210-02	VSTD001	ICAL	5uL	1	N/A	6	w	RXD1	N/A	X	MIX[A] UVM090911-02C+UVM091130-02B, see 6O415
12/10/2009 11:34	6O407.D	W6VM091210-03	VSTD002	ICAL	5uL	1	N/A	7	w	RXD1	N/A	O	MIX[A] UVM090911-03C+UVM091130-03B
12/10/2009 12:02	6O408.D	W6VM091210-04	VSTD005	ICAL	5uL	1	N/A	8	w	RXD1	N/A	O	MIX[A] UVM090911-04C+UVM091130-04B
12/10/2009 12:30	6O409.D	W6VM091210-05	VSTD010	ICAL	5uL	1	N/A	9	w	RXD1	N/A	O	MIX[A] UVM090911-05C+UVM091130-05B
12/10/2009 12:58	6O410.D	W6VM091210-06	VSTD020	ICAL	5uL	1	N/A	10	w	RXD1	N/A	O	MIX[A] UVM090911-06C+UVM091130-06B
12/10/2009 13:26	6O411.D	W6VM091210-07	VSTD050	ICAL	5uL	1	N/A	11	w	RXD1	N/A	O	MIX[A] UVM090911-07C+UVM091130-07B
12/10/2009 13:54	6O412.D	W6VM091210-08	VSTD100	ICAL	5uL	1	N/A	12	w	RXD1	N/A	O	MIX[A] UVM090911-08C+UVM091130-08B
12/10/2009 14:22	6O413.D	12019--	BLANK	BLANK	5mL	1	N/A	13	w	RXD1	N/A	X	RINSE
12/10/2009 14:49	6O414.D	W6VM091210-09	VSTD0005	ICAL	5uL	1	N/A	14	w	RXD1	N/A	O	MIX[A] UVM090911-01C+UVM091130-01B
12/10/2009 15:17	6O415.D	W6VM091210-10	VSTD001	ICAL	2.5uL	1	N/A	15	w	RXD1	N/A	O	MIX[A] UVM090911-03C+UVM091130-03B
12/10/2009 15:45	6O416.D	W6VM091210-11	ICV	ICV	5uL	1	N/A	16	w	RXD1	N/A	O	MIX[A] UVM091129-01C+IVM091209-01
12/10/2009 16:13	6O417.D	W6VM091210-12	ICV	ICV	5uL	1	N/A	17	w	RXD1	N/A	X	MIX[A] UVM091105-01D+IVM091209-01
12/10/2009 16:40	6O418.D	W6VM091210-13	VSTD005S	ICAL	5uL	1	N/A	18	w	RXD1	N/A	O	MIX[B] UVM091118-01+UVM091110-01B
12/10/2009 17:08	6O419.D	W6VM091210-14	VSTD010S	ICAL	5uL	1	N/A	19	w	RXD1	N/A	O	MIX[B] UVM091118-02+UVM091110-02B
12/10/2009 17:36	6O420.D	W6VM091210-15	VSTD025S	ICAL	5uL	1	N/A	20	w	RXD1	N/A	O	MIX[B] UVM091118-03+UVM091110-03B
12/10/2009 18:04	6O421.D	W6VM091210-16	VSTD050S	ICAL	5uL	1	N/A	21	w	RXD1	N/A	O	MIX[B] UVM091118-04+UVM091110-04B
12/10/2009 18:32	6O422.D	W6VM091210-17	VSTD100S	ICAL	5uL	1	N/A	22	w	RXD1	N/A	O	MIX[B] UVM091118-05+UVM091110-05B
12/10/2009 19:00	6O423.D	W6VM091210-18	VSTD250S	ICAL	5uL	1	N/A	23	w	RXD1	N/A	O	MIX[B] UVM091118-06+UVM091110-06B
12/10/2009 19:28	6O424.D	W6VM091210-19	VSTD500S	ICAL	5uL	1	N/A	24	w	RXD1	N/A	O	MIX[B] UVM091118-07+UVM091110-07B
12/10/2009 19:56	6O425.D	12019--	BLANK	BLANK	5mL	1	N/A	25	w	RXD1	N/A	X	RINSE
12/10/2009 20:23	6O426.D	W6VM091210-20	ICV	ICV	5uL	1	N/A	26	w	RXD1	N/A	O	MIX[B] UVM091118-08B+UVM091105-02D
12/10/2009 20:51	6O427.D	12019--	BLANK	BLANK	5mL	1	N/A	27	w	RXD1	N/A	X	RINSE

GEL Laboratories, LLC
Revision:11/22/04

ORGANIC RUN LOG - INSTRUMENT ID#VOA6

Date: 12/18/2009 Method 8260B/624 Operator: RXD1

REVIEWED BY: _____
DATE: _____

HARDWARE CONFIGURATION & METHOD CONDITIONS SUMMARY No# 4

Daily Instrument Readings:
Multiplier Voltage: 1647

CALIBRATION & CC INFORMATION:

Initial Calibration Date: 12/10/2009

(See pg. 234 for ICAL Std. Sci. Ids)

NaHSO4 lot # n/a
CI test lot # 72612
Sequence Number: 121809V6

Daily Standard Solution ID#		Volume Added for Purge (ul) Blk/ Smpl	CCV	MS/ LCS	BFB
CCV	W6VM091218-01		5+5		
IS	UVM091203-01	1	1	1	
SS	UVM091020-02	1	1	1	
LCS/MS	W6VM091218-01/02			5+5	
BFB	UVM091020-02				1
SHORT	W6VM091218-03/04		5	5	
DHEC	N/A		0		

Purge Amount	
5	Water Purge Vol:ML
5	Soil Purge Wt.:G
N/A	Mid level ext. MeOH Vol:
N/A	ul
N/A	Methanol Lot #
x	Heated Purge

Analysis Date	Time	Data File	Lab Sample ID	Client	Batch #	Wt.(g) or Vol(ml/ul)	Dil. Factor	pH	AS Slot #	Matrix w or s	Analyst	CI test (Y/N)	Acceptable (O/X)	Comments
12/18/2009	10:52	6P501.D	UVM091020-02	GEL	BFB	5mL	1	N/A	1	w	RXD1	N/A	O	BFB
12/18/2009	11:20	6P502.D	W6VM091218-01	GEL	CCV/LCS	5mL	1	N/A	2	w	RXD1	N/A	O	MIX[A] UVM091214-01A+IVM091217-01
12/18/2009	11:48	6P503.D	W6VM091218-02	GEL	LCS	5g	1	N/A	3	s	RXD1	N/A	O	MIX[A] SOIL UVM091214-01A+IVM091217-01
12/18/2009	12:15	6P504.D	W6VM091218-03	GEL	CCV	5mL	1	N/A	4	w	RXD1	N/A	O	MIX[B] UVM091118-08C
12/18/2009	12:43	6P505.D	W6VM091218-04	GEL	LCS	5g	1	N/A	5	s	RXD1	N/A	O	MIX[B] SOIL UVM091118-08C
12/18/2009	13:11	6P506.D	12019--	BLANK	BLANK	5g	1	N/A	6	s	RXD1	N/A	O	SOIL
12/18/2009	13:39	6P507.D	12019--	BLANK	BLANK	5mL	1	N/A	7	w	RXD1	N/A	O	
12/18/2009	14:29	6P508.D	1201995801	LANL	934318	500uL	10	N/A	8	w	RXD1	N/A	O	TCLPBLANK
12/18/2009	14:57	6P509.D	1201996841	LANL	934318	500uL	10	N/A	9	w	RXD1	N/A	O	TCLPBLANK
12/18/2009	15:25	6P510.D	242168001	LANL	934318	500uL	10	N/A	10	w	RXD1	N/A	O	
12/18/2009	15:53	6P511.D	242168002	LANL	934318	500uL	10	N/A	11	w	RXD1	N/A	O	
12/18/2009	16:20	6P512.D	242306001	LANL	934318	500uL	10	N/A	12	w	RXD1	N/A	O	
12/18/2009	16:48	6P513.D	242306002	LANL	934318	500uL	10	N/A	13	w	RXD1	N/A	O	
12/18/2009	17:16	6P514.D	242306003	LANL	934318	500uL	10	N/A	14	w	RXD1	N/A	O	
12/18/2009	17:44	6P515.D	242446001	LANL	934318	500uL	10	N/A	15	w	RXD1	N/A	O	
12/18/2009	18:12	6P516.D	242785001	LANL	934318	500uL	10	N/A	16	w	RXD1	N/A	O	
12/18/2009	18:39	6P517.D	242785002	LANL	934318	500uL	10	N/A	17	w	RXD1	N/A	O	
12/18/2009	19:07	6P518.D	242969001	CARE	934812	100uL	50	pH11	18	w	RXD1	N/A	O	
12/18/2009	19:35	6P519.D	1201998988	LANL	934318	500uL	10	N/A	19	w	RXD1	N/A	O	MIX[A] MS 242785001
12/18/2009	20:03	6P520.D	1201998989	LANL	934318	500uL	10	N/A	20	w	RXD1	N/A	O	MIX[A] MSD 242785001
12/18/2009	20:31	6P521.D	1201998923	LANL	934291	5g	1	N/A	21	s	RXD1	N/A	O	SOIL MIX[A] MS 242784003, RR of 6P424
12/18/2009	20:59	6P522.D	1201998924	LANL	934291	5g	1	N/A	22	s	RXD1	N/A	O	SOIL MIX[A] MSD 242784003, RR of 6P425
12/18/2009	21:27	6P523.D	1202000038	CARE	934812	100uL	50	pH11	23	w	RXD1	N/A	O	MIX[A] MS 242969001
12/18/2009	21:54	6P524.D	1202000039	CARE	934812	100uL	50	pH11	24	w	RXD1	N/A	O	MIX[A] MSD 242969001
12/18/2009	22:22	6P525.D	12019--	BLANK	BLANK	5mL	1	N/A	25	w	RXD1	N/A	X	RINSE

GC/MS Semivolatile Analysis

Semi-Volatile Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-899

Method/Analysis Information

Procedure:	**Analysis of Semivolatile Organic Compounds by Gas Chromatography/Mass Spectrometry**
Analytical Method:	SW846 8270C
Prep Method:	SW846 3550B
Analytical Batch Number:	932444
Prep Batch Number:	932443

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 8270C:

Sample ID	Client ID
242784003	WST03-10-2145
242784004	WST03-10-2146
1201994527	Method Blank (MB)
1201994528	Laboratory Control Sample (LCS)
1201994529	242791001(RE16-10-2878) Matrix Spike (MS)
1201994530	242791001(RE16-10-2878) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on a "dry weight" basis.

Preparation/Analytical Method Verification

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-009 REV# 23.

Raw data reports are processed and reviewed by the analyst using the Target software package. False positives have been removed from the Target quantitation reports per standard operating procedures (SOP) section 18.2.

Calibration Information

Please note that the 'Cal Date' indicated on each quantitation report reflects the date and time of the most recent calibrated analyte(s) in the Target processing method. Since the laboratory may calibrate with multiple solutions on different days using the same processing method, the Target software will update the 'Cal Date' to the last calibration file, date and time. The correct dates and times for all calibration files are located on the Calibration History report in the Standard Data section in the data package.

Due to software limitations, the Calibration Summary Form 6 may not indicate all the calibration files comprising the initial calibration. A complete list of the initial calibration data files are shown in the Calibration History report located in the Standard Data section of the data package. Please note that the second level of the initial calibration (5 mg/L) is only used for n-Nitrosodipropylamine. The various calibration mixes may not be calibrated using all of the calibration levels. In addition, not all of the mixes are calibrated using the same levels.

Diphenylamine has now superseded N-Nitroso-diphenylamine as a CCC on Quantitation Reports, Initial Calibration Reports, Calibration Check Standard Reports, etc. Previous versions of EPA Method 8270 (prior to 8270C) listed N-Nitroso-diphenylamine as a CCC. However, as stated in EPA Method 8270C, Revision 3, December, 1996, Section 1.4.5, "N-Nitroso-diphenylamine decomposes in the gas chromatographic inlet and cannot be separated from Diphenylamine." Studies of these two compounds at GEL, both independent of each other and together, show that they not only co-elute, but also have similar mass spectra. N-Nitroso-diphenylamine and Diphenylamine will be reported as Diphenylamine on all reports and forms.

The linear equation used in Target and indicated on the initial calibration summary form is not a conventional linear equation (slope intercept formula) and does not match the equation found in SW-846 method 8000B. The x and y axes are inversed in Target, so that the instrument response is treated as the independent variable (x) and the concentration ratio is treated as the dependent variable (y). The equation used in Target to calculate sample results is adjusted to account for the linear equation inversion and reciprocal slope. The adjusted calculation has been independently verified to produce valid results.

Initial Calibration
All initial calibration requirements have been met for this sample delivery group (SDG). A second source initial calibration verification (ICV) was included in the standard section directly behind the initial calibration.

CCV Requirements
All associated calibration verification standard(s) (ICV or CCV) met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Surrogate Recoveries
All the surrogate recoveries were within the established acceptance criteria for this SDG.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

QC Sample Designation
The non-SDG sample 242791001(RE16-10-2878) was selected for analysis as the matrix spike and matrix spike duplicate.

Matrix Spike (MS) Recovery Statement
The MS recoveries were not within the acceptance limits. The MS and MSD both displayed multiple failures. Therefore, the failures were attributed to matrix interference and the data were reported. Please see the spike recovery report for the specific failures.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recoveries were not within the acceptance limits. The MS and MSD both displayed multiple failures. Therefore, the failures were attributed to matrix interference and the data were reported. Please see the spike recovery report for the specific failures.

MS/MSD Relative Percent Difference (RPD) Statement
Multiple MS/MSD RPD values were not within their established acceptance limit. The failures were attributed to sample matrix interference and the data were reported. Please see the spike recovery report for the specific failures.

Internal Standard (ISTD) Acceptance
The internal standard responses were within the acceptance criteria for the samples reported in this SDG.

Technical Information

Holding Time Specifications
All samples in this SDG met the specified holding time. GEL assigns holding times based on the associated methodology that assigns the date and time from sample collection or sample receipt. Those holding times expressed in hours are calculated in the ALPHALIMS system. Those holding times expressed as days expire at midnight on the day of expiration.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-extraction/Re-analysis
Re-extractions or re-analyses were not required in this SDG except for confirmations and/or dilutions.

Miscellaneous Information

Nonconformance (NCR) Documentation
A non-conformance report was not required for the samples reported with this SDG.

Manual Integrations
Some initial calibration standards, continuing calibration standards, and/or samples may require manual integrations due to software limitations. Please see the raw data in the Miscellaneous Section.

Additional Comments
Additional comments were not required for this SDG.

Electronic Package Comment
The following package was generated using an electronic data processing program referred to as "virtual packaging". In an effort to increase quality and efficiency, the laboratory is developing systems to eventually generate all data packages electronically. The following change from "traditional" packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. An electronic signature page inserted after the case narrative of each electronic package will indicate the analyst, reviewer, and report specialist names associated with the generation of the data and package. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

System Configuration
The samples reported in this SDG were analyzed on one or more of the following instrument systems. Instrument systems are referenced in the raw data and individual form headers by the Instrument ID designations listed below:

Instrument ID	Instrument	System Configuration	Column ID	Column Description
MSD6.I	HP Mass Spectrometer	HP6890/HP5973	DB-5MS	25m x 0.20mm x 0.33 um (5% Phenylmethylpolysiloxane)

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

Reviewer: Dan Beuchem **Date:** 12-23-09

Roadmap for LANL 10-899 SVOA

This roadmap was analyzed by nat00999 on 12-18-2009, 14:16.
This roadmap was reviewed by bar00895 on 12-21-2009, 07:14.

Sample

exclude	manual	datafile	smpid	injdate	injtime	sublist	clientid	dilution	batchid	comment
☐	N	/chem/MSD6.i/s121609.b/s611626.d	242784003	16-DEC-2009	21:23	10-899.sub	WST03-10-2145	1	932444	
☐	N	/chem/MSD6.i/s121609.b/s611627.d	242784004	16-DEC-2009	21:51	10-899.sub	WST03-10-2146	1	932444	

QC Sample

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	batchid	comment
☐	N	/chem/MSD6.i/s121609.b/s611613-5.d	1201994527	mb	16-DEC-2009	15:15	10-899.sub	SBLK01	1	932444	
☐	N	/chem/MSD6.i/s121609.b/s611614-5.d	1201994528	lcs	16-DEC-2009	15:45	10-899.sub	SBLK01LCS	1	932444	

Sample Data Summary

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-899	Date Collected:	12/10/2009 12:00	Matrix:	R
Lab Sample ID:	242784003	Date Received:	12/12/2009 09:35	%Moisture:	6.7
		Client:	LANL010	Project:	LANL01004
Client ID:	WST03-10-2145	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	932444	Inst:	MSD6.I	Dilution:	1
Run Date:	12/16/2009 21:23	Analyst:	NAG1	Inj. Vol:	.5 uL
Prep Date:	12/14/2009 09:47	Aliquot:	30.03 g	Final Volume:	1 mL
Data File:	s6l1626.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	357	ug/kg	71.4	357
108-95-2	Phenol	U	357	ug/kg	71.4	357
95-57-8	2-Chlorophenol	U	357	ug/kg	71.4	357
106-46-7	1,4-Dichlorobenzene	U	357	ug/kg	71.4	357
621-64-7	N-Nitrosodipropylamine	U	357	ug/kg	71.4	357
59-50-7	4-Chloro-3-methylphenol	U	357	ug/kg	71.4	357
83-32-9	Acenaphthene	U	35.7	ug/kg	11.8	35.7
121-14-2	2,4-Dinitrotoluene	U	357	ug/kg	35.7	357
100-02-7	4-Nitrophenol	U	357	ug/kg	118	357
87-86-5	Pentachlorophenol	U	357	ug/kg	89.2	357
129-00-0	Pyrene	U	35.7	ug/kg	10.7	35.7
110-86-1	Pyridine	U	357	ug/kg	71.4	357
62-53-3	Aniline	U	357	ug/kg	107	357
111-44-4	bis(2-Chloroethyl) ether	U	357	ug/kg	71.4	357
541-73-1	1,3-Dichlorobenzene	U	357	ug/kg	71.4	357
100-51-6	Benzyl alcohol	U	357	ug/kg	107	357
95-50-1	1,2-Dichlorobenzene	U	357	ug/kg	71.4	357
108-60-1	bis(2-Chloroisopropyl)ether	U	357	ug/kg	71.4	357
95-48-7	o-Cresol	U	357	ug/kg	71.4	357
65794-96-9	m,p-Cresols	U	357	ug/kg	107	357
67-72-1	Hexachloroethane	U	357	ug/kg	71.4	357
98-95-3	Nitrobenzene	U	357	ug/kg	71.4	357
78-59-1	Isophorone	U	357	ug/kg	71.4	357
88-75-5	2-Nitrophenol	U	357	ug/kg	71.4	357
105-67-9	2,4-Dimethylphenol	U	357	ug/kg	125	357
111-91-1	bis(2-Chloroethoxy)methane	U	357	ug/kg	71.4	357
120-83-2	2,4-Dichlorophenol	U	357	ug/kg	71.4	357
65-85-0	Benzoic acid	U	714	ug/kg	178	714
91-20-3	Naphthalene	U	35.7	ug/kg	10.7	35.7
106-47-8	4-Chloroaniline	U	357	ug/kg	71.4	357
87-68-3	Hexachlorobutadiene	U	357	ug/kg	71.4	357
91-57-6	2-Methylnaphthalene	U	35.7	ug/kg	7.14	35.7
77-47-4	Hexachlorocyclopentadiene	U	357	ug/kg	71.4	357
88-06-2	2,4,6-Trichlorophenol	U	357	ug/kg	71.4	357
95-95-4	2,4,5-Trichlorophenol	U	357	ug/kg	71.4	357
91-58-7	2-Chloronaphthalene	U	35.7	ug/kg	11.8	35.7
88-74-4	2-Nitroaniline	U	357	ug/kg	71.4	357
	o-Nitroaniline					
99-09-2	3-Nitroaniline	U	357	ug/kg	71.4	357

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-899	Date Collected:	12/10/2009 12:00	Matrix:	R
Lab Sample ID:	242784003	Date Received:	12/12/2009 09:35	%Moisture:	6.7
		Client:	LANL010	Project:	LANL01004
Client ID:	WST03-10-2145	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	932444	Inst:	MSD6.I	Dilution:	1
Run Date:	12/16/2009 21:23	Analyst:	NAG1	Inj. Vol:	.5 uL
Prep Date:	12/14/2009 09:47	Aliquot:	30.03 g	Final Volume:	1 mL
Data File:	s6l1626.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	357	ug/kg	71.4	357
606-20-2	2,6-Dinitrotoluene	U	357	ug/kg	35.7	357
208-96-8	Acenaphthylene	U	35.7	ug/kg	10.7	35.7
51-28-5	2,4-Dinitrophenol	U	714	ug/kg	136	714
132-64-9	Dibenzofuran	U	357	ug/kg	71.4	357
84-66-2	Diethylphthalate	U	357	ug/kg	71.4	357
86-73-7	Fluorene	U	35.7	ug/kg	10.7	35.7
7005-72-3	4-Chlorophenylphenylether	U	357	ug/kg	71.4	357
534-52-1	2-Methyl-4,6-dinitrophenol	U	357	ug/kg	71.4	357
100-01-6	4-Nitroaniline	U	357	ug/kg	107	357
	p-Nitroaniline					
122-39-4	Diphenylamine	U	357	ug/kg	71.4	357
122-66-7	Azobenzene	U	357	ug/kg	71.4	357
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	357	ug/kg	71.4	357
118-74-1	Hexachlorobenzene	U	357	ug/kg	71.4	357
85-01-8	Phenanthrene	U	35.7	ug/kg	10.7	35.7
120-12-7	Anthracene	U	35.7	ug/kg	7.14	35.7
84-74-2	Di-n-butylphthalate	U	357	ug/kg	71.4	357
206-44-0	Fluoranthene	U	35.7	ug/kg	10.7	35.7
85-68-7	Butylbenzylphthalate	U	357	ug/kg	71.4	357
56-55-3	Benzo(a)anthracene	U	35.7	ug/kg	10.7	35.7
91-94-1	3,3'-Dichlorobenzidine	U	357	ug/kg	107	357
218-01-9	Chrysene	U	35.7	ug/kg	10.7	35.7
117-81-7	bis(2-Ethylhexyl)phthalate	U	357	ug/kg	71.4	357
117-84-0	Di-n-octylphthalate	U	357	ug/kg	71.4	357
205-99-2	Benzo(b)fluoranthene	U	35.7	ug/kg	10.7	35.7
207-08-9	Benzo(k)fluoranthene	U	35.7	ug/kg	10.7	35.7
50-32-8	Benzo(a)pyrene	U	35.7	ug/kg	10.7	35.7
193-39-5	Indeno(1,2,3-cd)pyrene	U	35.7	ug/kg	10.7	35.7
53-70-3	Dibenzo(a,h)anthracene	U	35.7	ug/kg	10.7	35.7
191-24-2	Benzo(ghi)perylene	U	35.7	ug/kg	10.7	35.7
120-82-1	1,2,4-Trichlorobenzene	U	357	ug/kg	71.4	357

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	3.45	350	ug/kg		JA
301-02-0	9-Octadecenamide, (Z)-	11.85	170	ug/kg	87	NJ

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-899	Date Collected:	12/10/2009 12:00	Matrix:	R
Lab Sample ID:	242784004	Date Received:	12/12/2009 09:35	%Moisture:	9.8
		Client:	LANL010	Project:	LANL01004
Client ID:	WST03-10-2146	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	932444	Inst:	MSD6.I	Dilution:	1
Run Date:	12/16/2009 21:51	Analyst:	NAG1	Inj. Vol:	.5 uL
Prep Date:	12/14/2009 09:47	Aliquot:	30 g	Final Volume:	1 mL
Data File:	s6l1627.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	370	ug/kg	73.9	370
108-95-2	Phenol	U	370	ug/kg	73.9	370
95-57-8	2-Chlorophenol	U	370	ug/kg	73.9	370
106-46-7	1,4-Dichlorobenzene	U	370	ug/kg	73.9	370
621-64-7	N-Nitrosodipropylamine	U	370	ug/kg	73.9	370
59-50-7	4-Chloro-3-methylphenol	U	370	ug/kg	73.9	370
83-32-9	Acenaphthene	U	37.0	ug/kg	12.2	37.0
121-14-2	2,4-Dinitrotoluene	U	370	ug/kg	37.0	370
100-02-7	4-Nitrophenol	U	370	ug/kg	122	370
87-86-5	Pentachlorophenol	U	370	ug/kg	92.4	370
129-00-0	Pyrene		79.5	ug/kg	11.1	37.0
110-86-1	Pyridine	U	370	ug/kg	73.9	370
62-53-3	Aniline	U	370	ug/kg	111	370
111-44-4	bis(2-Chloroethyl) ether	U	370	ug/kg	73.9	370
541-73-1	1,3-Dichlorobenzene	U	370	ug/kg	73.9	370
100-51-6	Benzyl alcohol	U	370	ug/kg	111	370
95-50-1	1,2-Dichlorobenzene	U	370	ug/kg	73.9	370
108-60-1	bis(2-Chloroisopropyl)ether	U	370	ug/kg	73.9	370
95-48-7	o-Cresol	U	370	ug/kg	73.9	370
65794-96-9	m,p-Cresols	U	370	ug/kg	111	370
67-72-1	Hexachloroethane	U	370	ug/kg	73.9	370
98-95-3	Nitrobenzene	U	370	ug/kg	73.9	370
78-59-1	Isophorone	U	370	ug/kg	73.9	370
88-75-5	2-Nitrophenol	U	370	ug/kg	73.9	370
105-67-9	2,4-Dimethylphenol	U	370	ug/kg	129	370
111-91-1	bis(2-Chloroethoxy)methane	U	370	ug/kg	73.9	370
120-83-2	2,4-Dichlorophenol	U	370	ug/kg	73.9	370
65-85-0	Benzoic acid	U	739	ug/kg	185	739
91-20-3	Naphthalene	U	37.0	ug/kg	11.1	37.0
106-47-8	4-Chloroaniline	U	370	ug/kg	73.9	370
87-68-3	Hexachlorobutadiene	U	370	ug/kg	73.9	370
91-57-6	2-Methylnaphthalene	U	37.0	ug/kg	7.39	37.0
77-47-4	Hexachlorocyclopentadiene	U	370	ug/kg	73.9	370
88-06-2	2,4,6-Trichlorophenol	U	370	ug/kg	73.9	370
95-95-4	2,4,5-Trichlorophenol	U	370	ug/kg	73.9	370
91-58-7	2-Chloronaphthalene	U	37.0	ug/kg	12.2	37.0
88-74-4	2-Nitroaniline	U	370	ug/kg	73.9	370
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	370	ug/kg	73.9	370

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-899	Date Collected:	12/10/2009 12:00	Matrix:	R
Lab Sample ID:	242784004	Date Received:	12/12/2009 09:35	%Moisture:	9.8
		Client:	LANL010	Project:	LANL01004
Client ID:	WST03-10-2146	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	932444	Inst:	MSD6.I	Dilution:	1
Run Date:	12/16/2009 21:51	Analyst:	NAG1	Inj. Vol:	.5 uL
Prep Date:	12/14/2009 09:47	Aliquot:	30 g	Final Volume:	1 mL
Data File:	s6l1627.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	370	ug/kg	73.9	370
606-20-2	2,6-Dinitrotoluene	U	370	ug/kg	37.0	370
208-96-8	Acenaphthylene	U	37.0	ug/kg	11.1	37.0
51-28-5	2,4-Dinitrophenol	U	739	ug/kg	140	739
132-64-9	Dibenzofuran	U	370	ug/kg	73.9	370
84-66-2	Diethylphthalate	U	370	ug/kg	73.9	370
86-73-7	Fluorene	U	37.0	ug/kg	11.1	37.0
7005-72-3	4-Chlorophenylphenylether	U	370	ug/kg	73.9	370
534-52-1	2-Methyl-4,6-dinitrophenol	U	370	ug/kg	73.9	370
100-01-6	4-Nitroaniline	U	370	ug/kg	111	370
	p-Nitroaniline					
122-39-4	Diphenylamine	U	370	ug/kg	73.9	370
122-66-7	Azobenzene	U	370	ug/kg	73.9	370
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	370	ug/kg	73.9	370
118-74-1	Hexachlorobenzene	U	370	ug/kg	73.9	370
85-01-8	Phenanthrene		73.5	ug/kg	11.1	37.0
120-12-7	Anthracene	J	12.2	ug/kg	7.39	37.0
84-74-2	Di-n-butylphthalate	U	370	ug/kg	73.9	370
206-44-0	Fluoranthene		106	ug/kg	11.1	37.0
85-68-7	Butylbenzylphthalate	U	370	ug/kg	73.9	370
56-55-3	Benzo(a)anthracene	U	37.0	ug/kg	11.1	37.0
91-94-1	3,3'-Dichlorobenzidine	U	370	ug/kg	111	370
218-01-9	Chrysene	J	36.4	ug/kg	11.1	37.0
117-81-7	bis(2-Ethylhexyl)phthalate	U	370	ug/kg	73.9	370
117-84-0	Di-n-octylphthalate	U	370	ug/kg	73.9	370
205-99-2	Benzo(b)fluoranthene	J	19.8	ug/kg	11.1	37.0
207-08-9	Benzo(k)fluoranthene	U	37.0	ug/kg	11.1	37.0
50-32-8	Benzo(a)pyrene	J	12.6	ug/kg	11.1	37.0
193-39-5	Indeno(1,2,3-cd)pyrene		126	ug/kg	11.1	37.0
53-70-3	Dibenzo(a,h)anthracene	U	37.0	ug/kg	11.1	37.0
191-24-2	Benzo(ghi)perylene	J	19.2	ug/kg	11.1	37.0
120-82-1	1,2,4-Trichlorobenzene	U	370	ug/kg	73.9	370

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	3.45	277	ug/kg		JA
7785-70-8	1R-.alpha.-Pinene	4.22	218	ug/kg	97	NJ

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-899**	**Date Collected:**	**12/10/2009 12:00**	**Matrix:**	**R**
Lab Sample ID:	**242784004**	**Date Received:**	**12/12/2009 09:35**	**%Moisture:**	**9.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**WST03-10-2146**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**932444**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**12/16/2009 21:51**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/14/2009 09:47**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**s611627.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
13466-78-9	3-Carene	4.79	154	ug/kg	96	NJ
475-20-7	1,4-Methanoazulene, decahydro-4,8,8-trim	7.6	213	ug/kg	97	NJ
301-02-0	9-Octadecenamide, (Z)-	11.86	154	ug/kg	95	NJ
	Unknown	12.24	184	ug/kg		J
1740-19-8	1-Phenanthrenecarboxylic acid, 1,2,3,4,4	12.35	169	ug/kg	93	NJ
	Unknown	17.2	162	ug/kg		J

QC Summary

Semi-Volatile

Surrogate Recovery Report

SDG Number: 10-899

Matrix Type: SOLID

CAP Column (1) : J&W DB-5MS

Sample ID	Client ID	2FP %REC	PHL %REC	NBZ %REC	FBP %REC	TBP %REC	TPH %REC
1201994527	MB for batch 932443	67	68	68	69	71	86
1201994528	LCS for batch 932443	67	67	66	65	85	85
242784003	WST03-10-2145	51	48	51	53	56	72
242784004	WST03-10-2146	47	40	43	49	62	64

Surrogate		Acceptance Limits
2FP	= 2-Fluorophenol	(35%-96%)
PHL	= Phenol-d5	(36%-96%)
NBZ	= Nitrobenzene-d5	(34%-104%)
FBP	= 2-Fluorobiphenyl	(36%-100%)
TBP	= 2,4,6-Tribromophenol	(37%-106%)
TPH	= p-Terphenyl-d14	(40%-124%)

* Recovery outside Acceptance Limits

\# Column to be used to flag recovery values

D Sample Diluted

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-899
Sample Type: Laboratory Control Sample
Client ID: LCS for batch 932443
Matrix: SOIL
Lab Sample ID: 1201994528
Instrument: MSD6.I
Analysis Date: 12/16/2009 15:45
Dilution: 1
Analyst: NAG1
Prep Batch ID: 932443
Inj. Vol: .5 uL
Batch ID: 932444

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
62-75-9	LCS	N-Methyl-N-nitrosomethylam	1670	0.0	946	57	31-95
108-95-2	LCS	Phenol	1670	0.0	1190	71	37-104
95-57-8	LCS	2-Chlorophenol	1670	0.0	1160	69	40-105
106-46-7	LCS	1,4-Dichlorobenzene	1670	0.0	964	58	34-103
621-64-7	LCS	N-Nitrosodipropylamine	1670	0.0	996	60	36-110
59-50-7	LCS	4-Chloro-3-methylphenol	1670	0.0	1200	72	46-114
83-32-9	LCS	Acenaphthene	1670	0.0	1180	71	40-105
121-14-2	LCS	2,4-Dinitrotoluene	1670	0.0	1340	81	49-107
100-02-7	LCS	4-Nitrophenol	1670	0.0	1340	81	33-110
87-86-5	LCS	Pentachlorophenol	1670	0.0	1250	75	38-116
129-00-0	LCS	Pyrene	1670	0.0	1230	74	43-108
110-86-1	LCS	Pyridine	1670	0.0	897	54	13-129
62-53-3	LCS	Aniline	1670	0.0	1120	67	30-121
111-44-4	LCS	bis(2-Chloroethyl) ether	1670	0.0	1010	61	37-106
541-73-1	LCS	1,3-Dichlorobenzene	1670	0.0	950	57	33-103
100-51-6	LCS	Benzyl alcohol	1670	0.0	1390	84	31-100
95-50-1	LCS	1,2-Dichlorobenzene	1670	0.0	1020	61	34-108
108-60-1	LCS	bis(2-Chloroisopropyl)ether	1670	0.0	1070	64	34-120
95-48-7	LCS	o-Cresol	1670	0.0	866	52	39-111
65794-96-9	LCS	m,p-Cresols	1670	0.0	1250	75	43-118
67-72-1	LCS	Hexachloroethane	1670	0.0	944	57	34-105
98-95-3	LCS	Nitrobenzene	1670	0.0	1100	66	37-110

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-899
Client ID: LCS for batch 932443
Lab Sample ID: 1201994528
Instrument: MSD6.I
Analyst: NAG1
Inj. Vol: .5 uL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 12/16/2009 15:45
Dilution: 1
Prep Batch ID: 932443
Batch ID: 932444

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
78-59-1	LCS	Isophorone	1670	0.0	940	56	41-108
88-75-5	LCS	2-Nitrophenol	1670	0.0	1180	71	35-112
105-67-9	LCS	2,4-Dimethylphenol	1670	0.0	1030	62	35-114
111-91-1	LCS	bis(2-Chloroethoxy)methane	1670	0.0	865	52	40-109
120-83-2	LCS	2,4-Dichlorophenol	1670	0.0	1200	72	45-109
65-85-0	LCS	Benzoic acid	3330	0.0	3080	92	27-137
91-20-3	LCS	Naphthalene	1670	0.0	1020	61	35-105
106-47-8	LCS	4-Chloroaniline	1670	0.0	1140	69	30-122
87-68-3	LCS	Hexachlorobutadiene	1670	0.0	1060	63	37-111
91-57-6	LCS	2-Methylnaphthalene	1670	0.0	1060	63	40-106
77-47-4	LCS	Hexachlorocyclopentadiene	1670	0.0	1040	62	24-135
88-06-2	LCS	2,4,6-Trichlorophenol	1670	0.0	1180	71	46-107
95-95-4	LCS	2,4,5-Trichlorophenol	1670	0.0	1190	71	44-110
91-58-7	LCS	2-Chloronaphthalene	1670	0.0	1090	65	44-104
88-74-4	LCS	2-Nitroaniline *o-Nitroaniline*	1670	0.0	1100	66	44-113
99-09-2	LCS	3-Nitroaniline *m-Nitroaniline*	1670	0.0	1380	83	48-113
131-11-3	LCS	Dimethylphthalate	1670	0.0	1240	75	47-104
606-20-2	LCS	2,6-Dinitrotoluene	1670	0.0	1210	72	47-103
208-96-8	LCS	Acenaphthylene	1670	0.0	1220	73	43-104
51-28-5	LCS	2,4-Dinitrophenol	1670	0.0	1500	90	32-114
132-64-9	LCS	Dibenzofuran	1670	0.0	1500	90	47-112
84-66-2	LCS	Diethylphthalate	1670	0.0	1300	78	50-108

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-899
Client ID: LCS for batch 932443
Lab Sample ID: 1201994528
Instrument: MSD6.I
Analyst: NAG1
Inj. Vol: .5 uL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 12/16/2009 15:45
Dilution: 1
Prep Batch ID: 932443
Batch ID: 932444

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
86-73-7	LCS	Fluorene	1670	0.0	1280	77	49-102
7005-72-3	LCS	4-Chlorophenylphenylether	1670	0.0	1300	78	50-109
534-52-1	LCS	2-Methyl-4,6-dinitrophenol	1670	0.0	1250	75	35-114
100-01-6	LCS	4-Nitroaniline *p-Nitroaniline*	1670	0.0	1500	90	44-139
122-39-4	LCS	Diphenylamine	1670	0.0	1200	72	46-111
122-66-7	LCS	Azobenzene *1,2-Diphenylhydrazine*	1670	0.0	1250	75	40-119
101-55-3	LCS	4-Bromophenylphenylether	1670	0.0	1250	75	45-112
118-74-1	LCS	Hexachlorobenzene	1670	0.0	1220	73	44-115
85-01-8	LCS	Phenanthrene	1670	0.0	1190	72	45-107
120-12-7	LCS	Anthracene	1670	0.0	1220	73	46-106
84-74-2	LCS	Di-n-butylphthalate	1670	0.0	1390	84	52-115
206-44-0	LCS	Fluoranthene	1670	0.0	1360	82	50-115
85-68-7	LCS	Butylbenzylphthalate	1670	0.0	1410	85	49-115
56-55-3	LCS	Benzo(a)anthracene	1670	0.0	1390	83	48-105
91-94-1	LCS	3,3'-Dichlorobenzidine	1670	0.0	1070	64	45-98
218-01-9	LCS	Chrysene	1670	0.0	1300	78	48-105
117-81-7	LCS	bis(2-Ethylhexyl)phthalate	1670	0.0	1460	88	50-117
117-84-0	LCS	Di-n-octylphthalate	1670	0.0	1480	89	39-123
205-99-2	LCS	Benzo(b)fluoranthene	1670	0.0	1430	86	46-111
207-08-9	LCS	Benzo(k)fluoranthene	1670	0.0	1320	79	46-114
50-32-8	LCS	Benzo(a)pyrene	1670	0.0	1440	87	49-112
193-39-5	LCS	Indeno(1,2,3-cd)pyrene	1670	0.0	1430	86	45-128

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-899
Client ID: LCS for batch 932443
Lab Sample ID: 1201994528
Instrument: MSD6.I
Analyst: NAG1
Inj. Vol: .5 uL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 12/16/2009 15:45
Dilution: 1
Prep Batch ID: 932443
Batch ID: 932444

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
53-70-3	LCS	Dibenzo(a,h)anthracene	1670	0.0	1350	81	44-131
191-24-2	LCS	Benzo(ghi)perylene	1670	0.0	1490	89	42-128
120-82-1	LCS	1,2,4-Trichlorobenzene	1670	0.0	1060	63	36-109

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-899
Client ID: RE16-10-2878MS
Lab Sample ID: 1201994529
Instrument: MSD6.I
Analyst: NAG1
Inj. Vol: .5 uL

Sample Type: Matrix Spike
Matrix: S
%Moisture: 12.6
Analysis Date: 12/16/2009 22:46
Prep Batch ID 932443
Batch ID: 932444
Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
62-75-9	MS	N-Methyl-N-nitrosomethylam	1900	0.00	U	961	51	32-90
108-95-2	MS	Phenol	1900	0.00	U	1310	69	32-105
95-57-8	MS	2-Chlorophenol	1900	0.00	U	1140	60	33-106
106-46-7	MS	1,4-Dichlorobenzene	1900	0.00	U	637	34	33-95
621-64-7	MS	N-Nitrosodipropylamine	1900	0.00	U	1110	59	31-109
59-50-7	MS	4-Chloro-3-methylphenol	1900	0.00	U	1650	87	38-119
83-32-9	MS	Acenaphthene	1900	0.00	U	1050	56	39-100
121-14-2	MS	2,4-Dinitrotoluene	1900	0.00	U	1250	66	42-107
100-02-7	MS	4-Nitrophenol	1900	0.00	U	1080	57	24-120
87-86-5	MS	Pentachlorophenol	1900	0.00	U	1160	61	26-121
129-00-0	MS	Pyrene	1900	0.00	U	1390	73	34-120
110-86-1	MS	Pyridine	1900	0.00	U	502	26 *	30-95
62-53-3	MS	Aniline	1900	0.00	U	707	37	34-111
111-44-4	MS	bis(2-Chloroethyl) ether	1900	0.00	U	882	46	34-101
541-73-1	MS	1,3-Dichlorobenzene	1900	0.00	U	828	44	31-97
100-51-6	MS	Benzyl alcohol	1900	0.00	U	212	11 *	17-120
95-50-1	MS	1,2-Dichlorobenzene	1900	0.00	U	740	39	32-102
108-60-1	MS	bis(2-Chloroisopropyl)ether	1900	0.00	U	1190	63	32-113
95-48-7	MS	o-Cresol	1900	0.00	U	1330	70	31-119
65794-96-9	MS	m,p-Cresols	1900	0.00	U	1510	79	35-125
67-72-1	MS	Hexachloroethane	1900	0.00	U	605	32	30-100
98-95-3	MS	Nitrobenzene	1900	0.00	U	920	48	33-108

Semi-Volatile

Quality Control Summary

Spike Recovery Report

SDG Number: 10-899

Client ID: RE16-10-2878MS

Lab Sample ID: 1201994529

Instrument: MSD6.I

Analyst: NAG1

Inj. Vol: .5 uL

Sample Type: Matrix Spike

Matrix: S

%Moisture: 12.6

Analysis Date: 12/16/2009 22:46

Prep Batch ID: 932443

Batch ID: 932444

Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
78-59-1	MS	Isophorone	1900	0.00	U	1090	57	34-110
88-75-5	MS	2-Nitrophenol	1900	0.00	U	1020	53	32-108
105-67-9	MS	2,4-Dimethylphenol	1900	0.00	U	936	49	32-115
111-91-1	MS	bis(2-Chloroethoxy)methane	1900	0.00	U	1010	53	35-108
120-83-2	MS	2,4-Dichlorophenol	1900	0.00	U	1300	69	38-110
65-85-0	MS	Benzoic acid	3800	0.00	U	3800	100	18-134
91-20-3	MS	Naphthalene	1900	0.00	U	880	46	31-105
106-47-8	MS	4-Chloroaniline	1900	0.00	U	770	41	29-123
87-68-3	MS	Hexachlorobutadiene	1900	0.00	U	876	46	31-109
91-57-6	MS	2-Methylnaphthalene	1900	0.00	U	1190	63	32-110
77-47-4	MS	Hexachlorocyclopentadiene	1900	0.00	U	263	14 *	21-122
88-06-2	MS	2,4,6-Trichlorophenol	1900	0.00	U	1140	60	37-108
95-95-4	MS	2,4,5-Trichlorophenol	1900	0.00	U	1360	72	37-116
91-58-7	MS	2-Chloronaphthalene	1900	0.00	U	1010	53	37-103
88-74-4	MS	2-Nitroaniline *o-Nitroaniline*	1900	0.00	U	1090	57	36-115
99-09-2	MS	3-Nitroaniline *m-Nitroaniline*	1900	0.00	U	1020	53	39-117
131-11-3	MS	Dimethylphthalate	1900	0.00	U	1240	65	41-105
606-20-2	MS	2,6-Dinitrotoluene	1900	0.00	U	1200	63	41-103
208-96-8	MS	Acenaphthylene	1900	0.00	U	1120	59	41-103
51-28-5	MS	2,4-Dinitrophenol	1900	0.00	U	1080	57	25-104
132-64-9	MS	Dibenzofuran	1900	0.00	U	1440	76	40-114
84-66-2	MS	Diethylphthalate	1900	0.00	U	1340	70	43-110

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-899
Client ID: RE16-10-2878MS
Lab Sample ID: 1201994529
Instrument: MSD6.I
Analyst: NAG1
Inj. Vol: .5 uL

Sample Type: Matrix Spike
Matrix: S
%Moisture: 12.6
Analysis Date: 12/16/2009 22:46
Prep Batch ID: 932443
Batch ID: 932444
Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
86-73-7	MS	Fluorene	1900	0.00	U	1240	65	48-99
7005-72-3	MS	4-Chlorophenylphenylether	1900	0.00	U	1280	67	42-111
534-52-1	MS	2-Methyl-4,6-dinitrophenol	1900	0.00	U	877	46	19-118
100-01-6	MS	4-Nitroaniline *p-Nitroaniline*	1900	0.00	U	1320	69	35-139
122-39-4	MS	Diphenylamine	1900	0.00	U	1120	59	41-112
122-66-7	MS	Azobenzene *1,2-Diphenylhydrazine*	1900	0.00	U	1210	64	37-118
101-55-3	MS	4-Bromophenylphenylether	1900	0.00	U	1200	63	39-112
118-74-1	MS	Hexachlorobenzene	1900	0.00	U	1040	55	38-113
85-01-8	MS	Phenanthrene	1900	0.00	U	1240	65	38-110
120-12-7	MS	Anthracene	1900	0.00	U	1240	65	38-112
84-74-2	MS	Di-n-butylphthalate	1900	0.00	U	1360	72	42-119
206-44-0	MS	Fluoranthene	1900	0.00	U	1260	67	38-119
85-68-7	MS	Butylbenzylphthalate	1900	0.00	U	1610	85	39-126
56-55-3	MS	Benzo(a)anthracene	1900	0.00	U	1210	64	39-110
91-94-1	MS	3,3'-Dichlorobenzidine	1900	0.00	U	0.00	0 *	35-106
218-01-9	MS	Chrysene	1900	0.00	U	1190	62	39-109
117-81-7	MS	bis(2-Ethylhexyl)phthalate	1900	0.00	U	1530	81	40-125
117-84-0	MS	Di-n-octylphthalate	1900	0.00	U	2160	114	30-147
205-99-2	MS	Benzo(b)fluoranthene	1900	0.00	U	1380	73	38-117
207-08-9	MS	Benzo(k)fluoranthene	1900	0.00	U	1410	74	39-120
50-32-8	MS	Benzo(a)pyrene	1900	0.00	U	1270	67	40-115
193-39-5	MS	Indeno(1,2,3-cd)pyrene	1900	0.00	U	970	51	32-120

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-899
Client ID: RE16-10-2878MS
Lab Sample ID: 1201994529
Instrument: MSD6.I
Analyst: NAG1
Inj. Vol: .5 uL

Sample Type: Matrix Spike
Matrix: S
%Moisture: 12.6
Analysis Date: 12/16/2009 22:46
Prep Batch ID: 932443
Batch ID: 932444
Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
53-70-3	MS	Dibenzo(a,h)anthracene	1900	0.00	U	1000	53	32-124
191-24-2	MS	Benzo(ghi)perylene	1900	0.00	U	832	44	28-119
120-82-1	MS	1,2,4-Trichlorobenzene	1900	0.00	U	875	46	31-105

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-899
Client ID: RE16-10-2878MSD
Lab Sample ID: 1201994530
Instrument: MSD6.I
Analyst: NAG1
Inj. Vol: .5 uL

Sample Type: Matrix Spike Duplicate
Matrix: S
%Moisture: 12.6
Analysis Date: 12/17/2009 17:29
Prep Batch ID: 932443
Batch ID: 932444
Dilution: 1

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
62-75-9	MSD N-Methyl-N-nitrosomethylam	1900	0.00	U	476	25 *	32-90	67 *	0-30
108-95-2	MSD Phenol	1900	0.00	U	884	46	32-105	39 *	0-30
95-57-8	MSD 2-Chlorophenol	1900	0.00	U	820	43	33-106	32 *	0-30
106-46-7	MSD 1,4-Dichlorobenzene	1900	0.00	U	498	26 *	33-95	25	0-30
621-64-7	MSD N-Nitrosodipropylamine	1900	0.00	U	861	45	31-109	26	0-30
59-50-7	MSD 4-Chloro-3-methylphenol	1900	0.00	U	1030	54	38-119	46 *	0-30
83-32-9	MSD Acenaphthene	1900	0.00	U	913	48	39-100	14	0-30
121-14-2	MSD 2,4-Dinitrotoluene	1900	0.00	U	1020	54	42-107	20	0-30
100-02-7	MSD 4-Nitrophenol	1900	0.00	U	929	49	24-120	15	0-30
87-86-5	MSD Pentachlorophenol	1900	0.00	U	1100	58	26-121	5	0-30
129-00-0	MSD Pyrene	1900	0.00	U	1180	62	34-120	16	0-30
110-86-1	MSD Pyridine	1900	0.00	U	445	23 *	30-95	12	0-30
62-53-3	MSD Aniline	1900	0.00	U	404	21 *	34-111	55 *	0-30
111-44-4	MSD bis(2-Chloroethyl) ether	1900	0.00	U	648	34	34-101	31 *	0-30
541-73-1	MSD 1,3-Dichlorobenzene	1900	0.00	U	483	25 *	31-97	53 *	0-30
100-51-6	MSD Benzyl alcohol	1900	0.00	U	0.00	0 *	17-120	200 *	0-30
95-50-1	MSD 1,2-Dichlorobenzene	1900	0.00	U	572	30 *	32-102	26	0-30
108-60-1	MSD bis(2-Chloroisopropyl)ether	1900	0.00	U	687	36	32-113	54 *	0-30
95-48-7	MSD o-Cresol	1900	0.00	U	770	40	31-119	53 *	0-30
65794-96-9	MSD m,p-Cresols	1900	0.00	U	930	49	35-125	47 *	0-30
67-72-1	MSD Hexachloroethane	1900	0.00	U	456	24 *	30-100	28	0-30
98-95-3	MSD Nitrobenzene	1900	0.00	U	773	41	33-108	17	0-30

Semi-Volatile
Quality Control Summary
Spike Recovery Report

SDG Number: 10-899
Client ID: RE16-10-2878MSD
Lab Sample ID: 1201994530
Instrument: MSD6.I
Analyst: NAG1
Inj. Vol: .5 uL

Sample Type: Matrix Spike Duplicate
Matrix: S
% Moisture: 12.6
Analysis Date: 12/17/2009 17:29
Dilution: 1
Prep Batch ID: 932443
Batch ID: 932444

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
78-59-1	MSD Isophorone	1900	0.00	U	928	49	34-110	16	0-30
88-75-5	MSD 2-Nitrophenol	1900	0.00	U	824	43	32-108	21	0-30
105-67-9	MSD 2,4-Dimethylphenol	1900	0.00	U	688	36	32-115	30	0-30
111-91-1	MSD bis(2-Chloroethoxy)methane	1900	0.00	U	865	45	35-108	15	0-30
120-83-2	MSD 2,4-Dichlorophenol	1900	0.00	U	982	52	38-110	28	0-30
65-85-0	MSD Benzoic acid	3810	0.00	U	2520	66	18-134	40 *	0-30
91-20-3	MSD Naphthalene	1900	0.00	U	753	40	31-105	16	0-30
106-47-8	MSD 4-Chloroaniline	1900	0.00	U	477	25 *	29-123	47 *	0-30
87-68-3	MSD Hexachlorobutadiene	1900	0.00	U	704	37	31-109	22	0-30
91-57-6	MSD 2-Methylnaphthalene	1900	0.00	U	964	51	32-110	21	0-30
77-47-4	MSD Hexachlorocyclopentadiene	1900	0.00	U	233	12 *	21-122	12	0-30
88-06-2	MSD 2,4,6-Trichlorophenol	1900	0.00	U	985	52	37-108	15	0-30
95-95-4	MSD 2,4,5-Trichlorophenol	1900	0.00	U	918	48	37-116	39 *	0-30
91-58-7	MSD 2-Chloronaphthalene	1900	0.00	U	890	47	37-103	13	0-30
88-74-4	MSD 2-Nitroaniline *o-Nitroaniline*	1900	0.00	U	854	45	36-115	24	0-30
99-09-2	MSD 3-Nitroaniline *m-Nitroaniline*	1900	0.00	U	658	35 *	39-117	43 *	0-30
131-11-3	MSD Dimethylphthalate	1900	0.00	U	1090	57	41-105	13	0-30
606-20-2	MSD 2,6-Dinitrotoluene	1900	0.00	U	999	52	41-103	19	0-30
208-96-8	MSD Acenaphthylene	1900	0.00	U	988	52	41-103	13	0-30
51-28-5	MSD 2,4-Dinitrophenol	1900	0.00	U	889	47	25-104	19	0-30
132-64-9	MSD Dibenzofuran	1900	0.00	U	1200	63	40-114	18	0-30
84-66-2	MSD Diethylphthalate	1900	0.00	U	1130	59	43-110	17	0-30

Semi-Volatile

Quality Control Summary

Spike Recovery Report

SDG Number: 10-899

Client ID: RE16-10-2878MSD

Lab Sample ID: 1201994530

Instrument: MSD6.I

Analyst: NAG1

Inj. Vol: .5 uL

Sample Type: Matrix Spike Duplicate

Matrix: S

%Moisture: 12.6

Analysis Date: 12/17/2009 17:29

Dilution: 1

Prep Batch ID: 932443

Batch ID: 932444

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
86-73-7	MSD	Fluorene	1900	0.00	U	1030	54	48-99	19	0-30
7005-72-3	MSD	4-Chlorophenylphenylether	1900	0.00	U	1040	55	42-111	21	0-30
534-52-1	MSD	2-Methyl-4,6-dinitrophenol	1900	0.00	U	824	43	19-118	6	0-30
100-01-6	MSD	4-Nitroaniline *p-Nitroaniline*	1900	0.00	U	905	48	35-139	37 *	0-30
122-39-4	MSD	Diphenylamine	1900	0.00	U	958	50	41-112	16	0-30
122-66-7	MSD	Azobenzene *1,2-Diphenylhydrazine*	1900	0.00	U	1040	55	37-118	15	0-30
101-55-3	MSD	4-Bromophenylphenylether	1900	0.00	U	1030	54	39-112	15	0-30
118-74-1	MSD	Hexachlorobenzene	1900	0.00	U	955	50	38-113	8	0-30
85-01-8	MSD	Phenanthrene	1900	0.00	U	1050	55	38-110	17	0-30
120-12-7	MSD	Anthracene	1900	0.00	U	1050	55	38-112	16	0-30
84-74-2	MSD	Di-n-butylphthalate	1900	0.00	U	1250	65	42-119	9	0-30
206-44-0	MSD	Fluoranthene	1900	0.00	U	1080	57	38-119	16	0-30
85-68-7	MSD	Butylbenzylphthalate	1900	0.00	U	1370	72	39-126	16	0-30
56-55-3	MSD	Benzo(a)anthracene	1900	0.00	U	1020	54	39-110	17	0-30
91-94-1	MSD	3,3'-Dichlorobenzidine	1900	0.00	U	0.00	0 *	35-106	0	0-30
218-01-9	MSD	Chrysene	1900	0.00	U	1040	54	39-109	14	0-30
117-81-7	MSD	bis(2-Ethylhexyl)phthalate	1900	0.00	U	1220	64	40-125	23	0-30
117-84-0	MSD	Di-n-octylphthalate	1900	0.00	U	1380	72	30-147	44 *	0-30
205-99-2	MSD	Benzo(b)fluoranthene	1900	0.00	U	1110	58	38-117	21	0-30
207-08-9	MSD	Benzo(k)fluoranthene	1900	0.00	U	1190	62	39-120	17	0-30
50-32-8	MSD	Benzo(a)pyrene	1900	0.00	U	1110	58	40-115	14	0-30
193-39-5	MSD	Indeno(1,2,3-cd)pyrene	1900	0.00	U	995	52	32-120	3	0-30

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-899
Client ID: RE16-10-2878MSD
Lab Sample ID: 1201994530
Instrument: MSD6.I
Analyst: NAG1
Inj. Vol: .5 uL

Sample Type: Matrix Spike Duplicate
Matrix: S
%Moisture: 12.6
Analysis Date: 12/17/2009 17:29
Dilution: 1
Prep Batch ID: 932443
Batch ID: 932444

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
53-70-3	MSD Dibenzo(a,h)anthracene	1900	0.00	U	499	26 *	32-124	67 *	0-30
191-24-2	MSD Benzo(ghi)perylene	1900	0.00	U	914	48	28-119	9	0-30
120-82-1	MSD 1,2,4-Trichlorobenzene	1900	0.00	U	740	39	31-105	17	0-30

Method Blank Summary

SDG Number:	10-899	Client:	LANL010	Matrix:	SOIL
Client ID:	MB for batch 932443	Instrument ID:	MSD6.I	Data File:	s6l1613-1.d
Lab Sample ID:	1201994527	Prep Date:	12/14/2009 09:47	Analyzed:	12/16/09 15:15
Column:	J&W DB-5MS	Level:	LOW		

This method blank applies to the following samples and quality control samples:

Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01 LCS for batch 932443	1201994528	s6l1614-1.d	12/16/09	1545
02 WST03-10-2145	242784003	s6l1626.d	12/16/09	2123
03 WST03-10-2146	242784004	s6l1627.d	12/16/09	2151

Instrument Performance Check

DFTPP

Lab Name GEL Laboratories LLC **Client SDG:** 10-899

Instrument ID: MSD6.I **Injection Date/Time:** 09-NOV-09 18:00

Column Description: Phenomenex ZB-5MS **Lab File ID** /chem/MSD6.i/s110909.b/s6k0911.d

m/e	Ion Abundance Criteria	% Relative Abundance
198	Base Peak, 100% Relative Abundance	100
51	30 - 60% of mass 198	45.4
68	Less than 2% of mass 69	1.6
69	Mass 69 Relative Abundance	43
70	Less than 2% of mass 69	0.5
127	40 - 60% of mass 198	51.4
197	0 - 1% of mass 198	0.6
199	5 - 9% of mass 198	6.9
275	10 - 30% of mass 198	23.7
365	Greater than 1% of mass 198	2.4
441	Present, but less than mass 443	73.9
442	Greater than 40% of mass 198	77.9
443	17 - 23% of mass 442	19.2

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
MEGAICAL	WBN091106-08	/chem/MSD6.i/s110909.b/s6k091	09-NOV-09 18:53
MEGAICAL	WBN091106-07	/chem/MSD6.i/s110909.b/s6k091	09-NOV-09 19:31
MEGAICAL	WBN091106-06	/chem/MSD6.i/s110909.b/s6k091	09-NOV-09 20:09
MEGAICAL	WBN091106-05.1	/chem/MSD6.i/s110909.b/s6k091	09-NOV-09 20:46
MEGAICAL	WBN091106-04	/chem/MSD6.i/s110909.b/s6k091	09-NOV-09 21:25
MEGAICAL	WBN091106-03	/chem/MSD6.i/s110909.b/s6k091	09-NOV-09 22:01
MEGAICAL	WBN091106-02	/chem/MSD6.i/s110909.b/s6k091	09-NOV-09 22:39
MEGAICAL	WBN091106-01	/chem/MSD6.i/s110909.b/s6k092	09-NOV-09 23:16

Instrument Performance Check

DFTPP

Lab Name GEL Laboratories LLC **Client SDG:** 10-899

Instrument ID: MSD6.I **Injection Date/Time:** 10-NOV-09 11:07

Column Description: Phenomenex ZB-5MS **Lab File ID** /chem/MSD6.i/s110909.b/s6k0921.d

m/e	Ion Abundance Criteria	% Relative Abundance
198	Base Peak, 100% Relative Abundance	100
51	30 - 60% of mass 198	45.1
68	Less than 2% of mass 69	1.6
69	Mass 69 Relative Abundance	43.1
70	Less than 2% of mass 69	0.5
127	40 - 60% of mass 198	50.9
197	0 - 1% of mass 198	0.4
199	5 - 9% of mass 198	7
275	10 - 30% of mass 198	23.3
365	Greater than 1% of mass 198	2.6
441	Present, but less than mass 443	72.6
442	Greater than 40% of mass 198	76
443	17 - 23% of mass 442	19.9

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
AP12ICAL	WBN091016-01	/chem/MSD6.i/s110909.b/s6k092	10-NOV-09 11:59
AP12ICAL	WBN091016-02	/chem/MSD6.i/s110909.b/s6k092	10-NOV-09 12:36
AP12ICAL	WBN091016-03	/chem/MSD6.i/s110909.b/s6k092	10-NOV-09 13:13
AP12ICAL	WBN091016-04	/chem/MSD6.i/s110909.b/s6k092	10-NOV-09 13:51
AP12ICAL	WBN091016-05	/chem/MSD6.i/s110909.b/s6k092	10-NOV-09 14:30
AP12ICAL	WBN091016-06	/chem/MSD6.i/s110909.b/s6k092	10-NOV-09 15:06
AP12ICAL	WBN091016-07	/chem/MSD6.i/s110909.b/s6k092	10-NOV-09 15:43
MEGAICV	WBN091106-09.1	/chem/MSD6.i/s110909.b/s6k093	10-NOV-09 20:29
AP12ICV	WBN091016-08.1	/chem/MSD6.i/s110909.b/s6k093	10-NOV-09 21:07

Instrument Performance Check

DFTPP

Lab Name GEL Laboratories LLC **Client SDG:** 10-899

Instrument ID: MSD6.I **Injection Date/Time:** 16-DEC-09 14:04

Column Description: Phenomenex ZB-5MS **Lab File ID** /chem/MSD6.i/s121609.b/s611610.d

m/e	Ion Abundance Criteria	% Relative Abundance
198	Base Peak, 100% Relative Abundance	100
51	30 - 60% of mass 198	38.6
68	Less than 2% of mass 69	1.5
69	Mass 69 Relative Abundance	38.9
70	Less than 2% of mass 69	0.5
127	40 - 60% of mass 198	49.8
197	0 - 1% of mass 198	0.4
199	5 - 9% of mass 198	6.9
275	10 - 30% of mass 198	23.9
365	Greater than 1% of mass 198	2.5
441	Present, but less than mass 443	75.4
442	Greater than 40% of mass 198	84.1
443	17 - 23% of mass 442	19.3

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
MEGACVS	WBN091111-17.4	/chem/MSD6.i/s121609.b/s611611	16-DEC-09 14:18
AP12CVS	WBN091201-03.5	/chem/MSD6.i/s121609.b/s611612	16-DEC-09 14:46
SBLK01	1201994527	/chem/MSD6.i/s121609.b/s611613	16-DEC-09 15:15
SBLK01LCS	1201994528	/chem/MSD6.i/s121609.b/s611614	16-DEC-09 15:45
WST03-10-2145	242784003	/chem/MSD6.i/s121609.b/s611626	16-DEC-09 21:23
WST03-10-2146	242784004	/chem/MSD6.i/s121609.b/s611627	16-DEC-09 21:51

Internal Standard
Area and RT Summary

Lab Name : GEL Laboratories LLC

Client SDG: 10-899

Instrument: MSD6.I

STD Analysis Time: 16-DEC-09 14:18

GC Column: J&W DB-5MS

Data File: s611611.d

	1,4-Dichlorobenzene-d4			Naphthalene-d8			Acenaphthene-d10			Phenanthrene-d10			Chrysene-d12			Perylene-d12		
	Area	#	RT #	Area	#	RT #	Area	#	RT #	Area	#	RT #	Area	#	RT #	Area	#	RT #
12 Hour STD	209214		4.85	828674		6.13	435590		8	744475		9.61	599948		12.6	527608		15.0
Upper Limit	418428		5.35	1657348		6.63	871180		8.5	1488950		10.1	1199896		13.1	1055216		15.5
Lower Limit	104607		4.35	414337		5.63	217795		7.5	372238		9.11	299974		12.1	263804		14.5
Sample ID																		
BLK01	213205		4.84	803720		6.13	443898		8	755605		9.61	628686		12.6	545942		15.0
BLK01LCS	222177		4.84	901365		6.13	432311		8	823729		9.61	674416		12.6	578792		15.0
WST03-10-2145	198829		4.85	785658		6.13	435090		8	765950		9.61	641602		12.6	415010		15.0
WST03-10-2146	214680		4.84	517594		6.13	369279		8	720769		9.61	550620		12.6	374247		15.0

Area Upper Limit = +100% of internal standard area
Area Lower Limit = - 50% of internal standard area

RT Upper Limit = + 0.50 minutes of internal standard RT
RT Lower Limit = - 0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Value outside of QC Limits

Sample Data

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-899	Date Collected:	12/10/2009 12:00	Matrix:	R
Lab Sample ID:	242784003	Date Received:	12/12/2009 09:35	%Moisture:	6.7
		Client:	LANL010	Project:	LANL01004
Client ID:	WST03-10-2145	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	932444	Inst:	MSD6.I	Dilution:	1
Run Date:	12/16/2009 21:23	Analyst:	NAG1	Inj. Vol:	.5 uL
Prep Date:	12/14/2009 09:47	Aliquot:	30.03 g	Final Volume:	1 mL
Data File:	s611626.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	357	ug/kg	71.4	357
108-95-2	Phenol	U	357	ug/kg	71.4	357
95-57-8	2-Chlorophenol	U	357	ug/kg	71.4	357
106-46-7	1,4-Dichlorobenzene	U	357	ug/kg	71.4	357
621-64-7	N-Nitrosodipropylamine	U	357	ug/kg	71.4	357
59-50-7	4-Chloro-3-methylphenol	U	357	ug/kg	71.4	357
83-32-9	Acenaphthene	U	35.7	ug/kg	11.8	35.7
121-14-2	2,4-Dinitrotoluene	U	357	ug/kg	35.7	357
100-02-7	4-Nitrophenol	U	357	ug/kg	118	357
87-86-5	Pentachlorophenol	U	357	ug/kg	89.2	357
129-00-0	Pyrene	U	35.7	ug/kg	10.7	35.7
110-86-1	Pyridine	U	357	ug/kg	71.4	357
62-53-3	Aniline	U	357	ug/kg	107	357
111-44-4	bis(2-Chloroethyl) ether	U	357	ug/kg	71.4	357
541-73-1	1,3-Dichlorobenzene	U	357	ug/kg	71.4	357
100-51-6	Benzyl alcohol	U	357	ug/kg	107	357
95-50-1	1,2-Dichlorobenzene	U	357	ug/kg	71.4	357
108-60-1	bis(2-Chloroisopropyl)ether	U	357	ug/kg	71.4	357
95-48-7	o-Cresol	U	357	ug/kg	71.4	357
65794-96-9	m,p-Cresols	U	357	ug/kg	107	357
67-72-1	Hexachloroethane	U	357	ug/kg	71.4	357
98-95-3	Nitrobenzene	U	357	ug/kg	71.4	357
78-59-1	Isophorone	U	357	ug/kg	71.4	357
88-75-5	2-Nitrophenol	U	357	ug/kg	71.4	357
105-67-9	2,4-Dimethylphenol	U	357	ug/kg	125	357
111-91-1	bis(2-Chloroethoxy)methane	U	357	ug/kg	71.4	357
120-83-2	2,4-Dichlorophenol	U	357	ug/kg	71.4	357
65-85-0	Benzoic acid	U	714	ug/kg	178	714
91-20-3	Naphthalene	U	35.7	ug/kg	10.7	35.7
106-47-8	4-Chloroaniline	U	357	ug/kg	71.4	357
87-68-3	Hexachlorobutadiene	U	357	ug/kg	71.4	357
91-57-6	2-Methylnaphthalene	U	35.7	ug/kg	7.14	35.7
77-47-4	Hexachlorocyclopentadiene	U	357	ug/kg	71.4	357
88-06-2	2,4,6-Trichlorophenol	U	357	ug/kg	71.4	357
95-95-4	2,4,5-Trichlorophenol	U	357	ug/kg	71.4	357
91-58-7	2-Chloronaphthalene	U	35.7	ug/kg	11.8	35.7
88-74-4	2-Nitroaniline	U	357	ug/kg	71.4	357
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	357	ug/kg	71.4	357

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-899	Date Collected:	12/10/2009 12:00	Matrix:	R
Lab Sample ID:	242784003	Date Received:	12/12/2009 09:35	%Moisture:	6.7
		Client:	LANL010	Project:	LANL01004
Client ID:	WST03-10-2145	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	932444	Inst:	MSD6.I	Dilution:	1
Run Date:	12/16/2009 21:23	Analyst:	NAG1	Inj. Vol:	.5 uL
Prep Date:	12/14/2009 09:47	Aliquot:	30.03 g	Final Volume:	1 mL
Data File:	s6l1626.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	357	ug/kg	71.4	357
606-20-2	2,6-Dinitrotoluene	U	357	ug/kg	35.7	357
208-96-8	Acenaphthylene	U	35.7	ug/kg	10.7	35.7
51-28-5	2,4-Dinitrophenol	U	714	ug/kg	136	714
132-64-9	Dibenzofuran	U	357	ug/kg	71.4	357
84-66-2	Diethylphthalate	U	357	ug/kg	71.4	357
86-73-7	Fluorene	U	35.7	ug/kg	10.7	35.7
7005-72-3	4-Chlorophenylphenylether	U	357	ug/kg	71.4	357
534-52-1	2-Methyl-4,6-dinitrophenol	U	357	ug/kg	71.4	357
100-01-6	4-Nitroaniline	U	357	ug/kg	107	357
	p-Nitroaniline					
122-39-4	Diphenylamine	U	357	ug/kg	71.4	357
122-66-7	Azobenzene	U	357	ug/kg	71.4	357
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	357	ug/kg	71.4	357
118-74-1	Hexachlorobenzene	U	357	ug/kg	71.4	357
85-01-8	Phenanthrene	U	35.7	ug/kg	10.7	35.7
120-12-7	Anthracene	U	35.7	ug/kg	7.14	35.7
84-74-2	Di-n-butylphthalate	U	357	ug/kg	71.4	357
206-44-0	Fluoranthene	U	35.7	ug/kg	10.7	35.7
85-68-7	Butylbenzylphthalate	U	357	ug/kg	71.4	357
56-55-3	Benzo(a)anthracene	U	35.7	ug/kg	10.7	35.7
91-94-1	3,3'-Dichlorobenzidine	U	357	ug/kg	107	357
218-01-9	Chrysene	U	35.7	ug/kg	10.7	35.7
117-81-7	bis(2-Ethylhexyl)phthalate	U	357	ug/kg	71.4	357
117-84-0	Di-n-octylphthalate	U	357	ug/kg	71.4	357
205-99-2	Benzo(b)fluoranthene	U	35.7	ug/kg	10.7	35.7
207-08-9	Benzo(k)fluoranthene	U	35.7	ug/kg	10.7	35.7
50-32-8	Benzo(a)pyrene	U	35.7	ug/kg	10.7	35.7
193-39-5	Indeno(1,2,3-cd)pyrene	U	35.7	ug/kg	10.7	35.7
53-70-3	Dibenzo(a,h)anthracene	U	35.7	ug/kg	10.7	35.7
191-24-2	Benzo(ghi)perylene	U	35.7	ug/kg	10.7	35.7
120-82-1	1,2,4-Trichlorobenzene	U	357	ug/kg	71.4	357

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	3.45	350	ug/kg		JA
301-02-0	9-Octadecenamide, (Z)-	11.85	170	ug/kg	87	NJ

GEL Laboratories LLC

Data file : /chem/MSD6.i/s121609.b/s611626.d
Lab Smp Id: 242784003 Client Smp ID: WST03-10-2145
Inj Date : 16-DEC-2009 21:23
Operator : nagl Inst ID: MSD6.i
Smp Info : |242784003|932444|1|SVMF|1|LANL
Misc Info : |MSD8270_S|WBN091208-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s121609.b/MSD6-M8270C-AQA-110909.m
Meth Date : 17-Dec-2009 08:11 nat00999 Quant Type: ISTD
Cal Date : 11-NOV-2009 04:38 Cal File: s6k0954.d
Als bottle: 17
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-899.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.03000	weight of sample
M	6.70440	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	4.847	4.849	(1.000)	198829	40.0000	
* 29 Naphthalene-d8	136	6.126	6.131	(1.000)	785658	40.0000	
* 46 Acenaphthene-d10	164	7.999	8.001	(1.000)	435090	40.0000	
* 67 Phenanthrene-d10	188	9.611	9.611	(1.000)	765950	40.0000	
* 91 Chrysene-d12	240	12.631	12.633	(1.000)	641602	40.0000	
* 98 Perylene-d12	264	14.973	14.973	(1.000)	415010	40.0000	
$ 3 2-Fluorophenol	112	3.687	3.674	(0.761)	254951	51.2040	1830
$ 5 Phenol-d5	99	4.462	4.457	(0.921)	299128	47.5990	1700
$ 20 Nitrobenzene-d5	82	5.382	5.389	(0.879)	140608	25.2996	903
$ 39 2-Fluorobiphenyl	172	7.255	7.254	(0.907)	296804	26.4705	945
$ 60 2,4,6-Tribromophenol	329	8.850	8.850	(1.106)	71708	56.4670	2020
$ 81 p-Terphenyl-d14	244	11.319	11.316	(0.896)	374324	36.1774	1290

ION RATIO REPORT

SV REPORT

Data file: s611626.d
Report Date: 12/17/2009 08:28
Lab. ID: 242784003 SampleType: SAMPLE
Injection Date: 16-DEC-2009 21:23
Operator: nagl Instrument: MSD6.i
Sample Info: |242784003|932444|1|SVMF|1|LANL
Miscellaneous Info: |MSD8270_S|WBN091208-01
Comment:
Method used: /chem/MSD6.i/s121609.b/MSD6-M8270C-AQA-110909.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-899
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
4 Aniline		CAS#: 62-53-3				
66	14113	4.46	4.54	80-120	100	(T)
93	281	4.22	4.54	228-288	2	(QT)
17 N-Nitrosodipropylamine				CAS#: 621-64-7		
70	18840	5.38	5.23	80-120	100	(T)
42	11164	5.38	5.23	40-100	59	(T)
22 Isophorone		CAS#: 78-59-1				
82	140608	5.38	5.64	80-120	100	(T)
138	3804	6.13	5.64	0- 49	3	(T)
43 Dimethylphthalate			CAS#: 131-11-3			
163	77319	8.00	7.69	80-120	100	(T)
164	435090	8.00	7.69	0- 40	563	(QT)
47 Acenaphthene			CAS#: 83-32-9			
154	3822	8.00	8.04	80-120	100	( )
153	3099	8.00	8.04	72-132	81	( )
152	2789	8.00	8.04	18- 78	73	( )
50 2,4-Dinitrotoluene			CAS#: 121-14-2			
165	57071	8.00	8.19	80-120	100	(T)
89	782	8.00	8.19	40-100	1	(QT)
63	693	8.00	8.19	17- 77	1	(QT)

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
52 4-Nitrophenol			CAS#: 100-02-7			
139	431	8.00	8.10	80-120	100	(T)
109	898	8.00	8.10	23- 83	208	(QT)
65	1611	8.00	8.10	60-120	374	(QT)
53 Fluorene			CAS#: 86-73-7			
166	4330	8.85	8.59	80-120	100	(T)
165	4589	8.85	8.59	62-122	106	(T)
167	1435	8.85	8.59	0- 44	33	(T)
55 2-Methyl-4,6-dinitrophenol				CAS#: 534-52-1		
198	130	8.86	8.63	80-120	100	(T)
105	422	8.85	8.63	11- 71	323	(QT)
51	430	8.85	8.63	21- 81	329	(QT)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

Data file : /chem/MSD6.i/s121609.b/s611626.d
Lab Smp Id: 242784003 Client Smp ID: WST03-10-2145
Inj Date : 16-DEC-2009 21:23
Operator : nagl Inst ID: MSD6.i
Smp Info : |242784003|932444|1|SVMF|1|LANL
Misc Info : |MSD8270_S|WBN091208-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s121609.b/MSD6-M8270C-AQA-110909.m
Meth Date : 17-Dec-2009 08:11 nat00999 Quant Type: ISTD
Cal Date : 11-NOV-2009 04:38 Cal File: s6k0954.d
Als bottle: 17
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-899.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.03000	weight of sample
M	6.70440	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	4.847	1173979	40.000
* 91 Chrysene-d12	12.631	1715460	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown Aldol Condensate					CAS #:		
3.448	287529	9.79674227	350	0		0	10

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
====	====	==========	==========	====	=======	=========	======
9-Octadecenamide, (Z)-				CAS #: 301-02-0			
11.849	204838	4.77628158	170	87	NIST05.L	112657	91

Data File: /chem/MSD6.i/s121609.b/s611626.d
Date : 16-DEC-2009 21:23
Client ID: WST03-10-2145
Sample Info: |242784003|932444|1|SVHF|1|LANL
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD6.i

Operator: nag1
Column diameter: 0.20

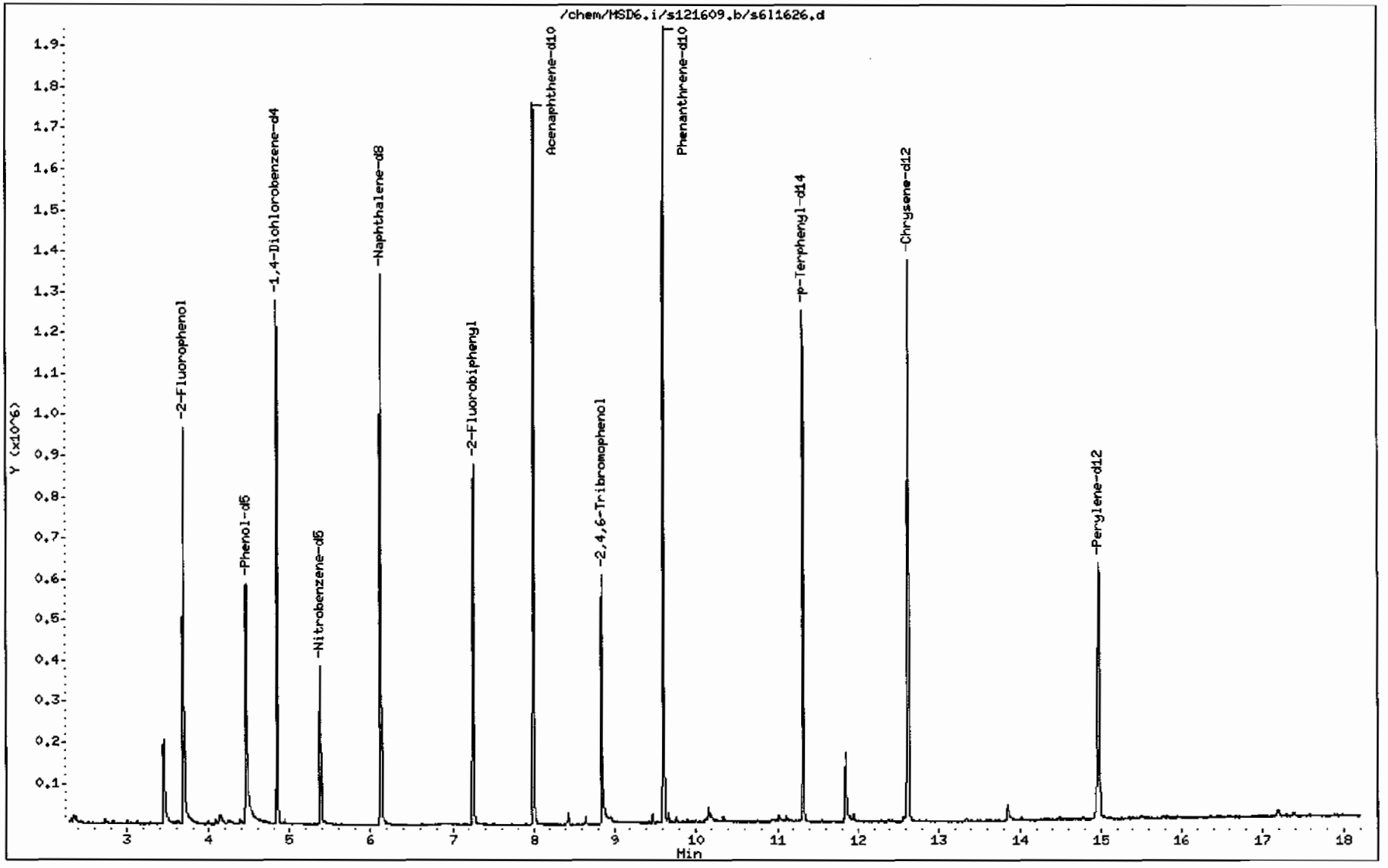

Data File: /chem/MSD6.i/s121609.b/s611626.d

Date : 16-DEC-2009 21:23

Client ID: WST03-10-2145

Instrument: MSD6.i

Sample Info: |2427840031932444|1|SVMF|1|LANL

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	59	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	45	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7945	37	C6H12O2	116

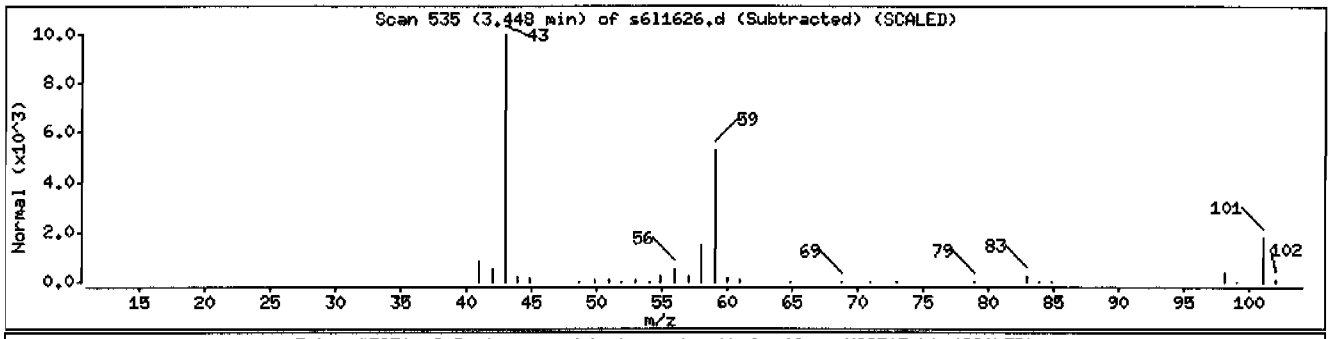

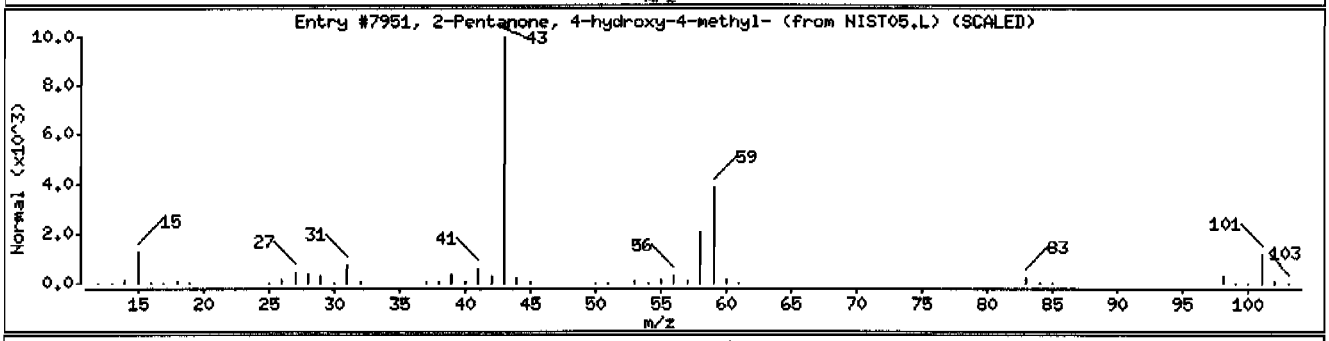

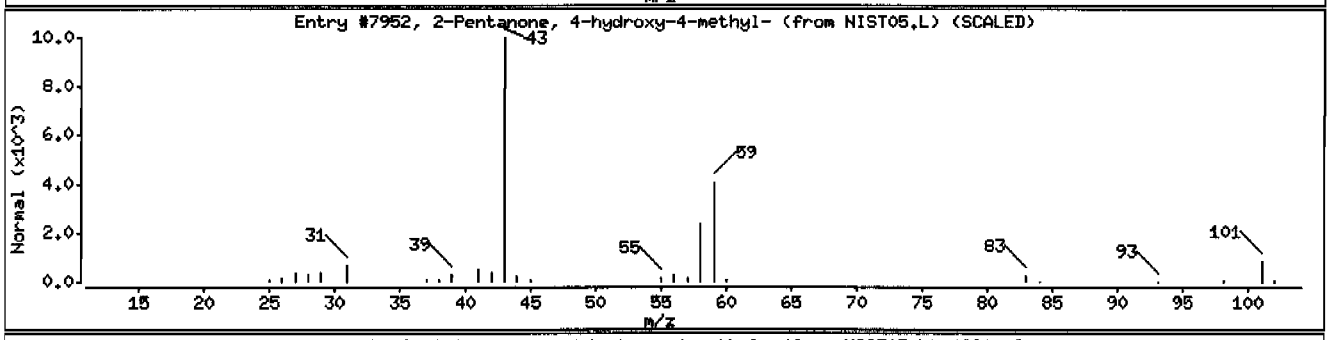

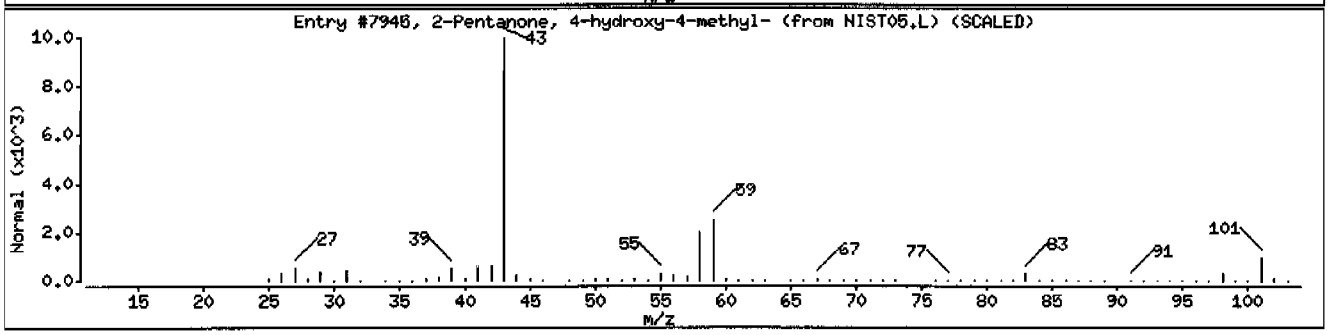

Data File: /chem/MSD6.i/s121609.b/s611626.d

Date : 16-DEC-2009 21:23

Client ID: WST03-10-2145

Instrument: MSD6.i

Sample Info: |2427840031932444|1|SVMF|1|LANL

Volume Injected (uL): 0.5

Operator: nagl

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
9-Octadecenamide, (Z)-	301-02-0	NIST05.L	112657	87	C18H35NO	281
9-Octadecenamide, (Z)-	301-02-0	NIST05.L	112656	81	C18H35NO	281
9-Octadecenamide, (Z)-	301-02-0	NIST05.L	112655	76	C18H35NO	281

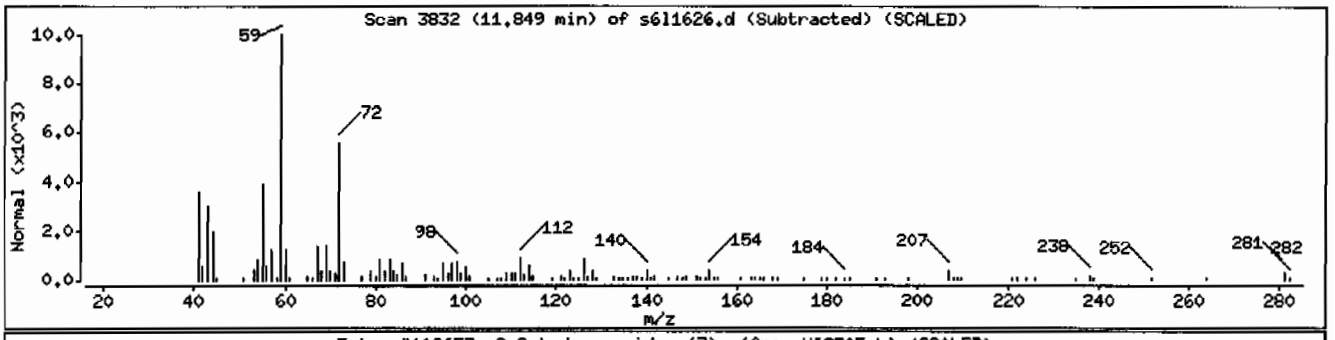

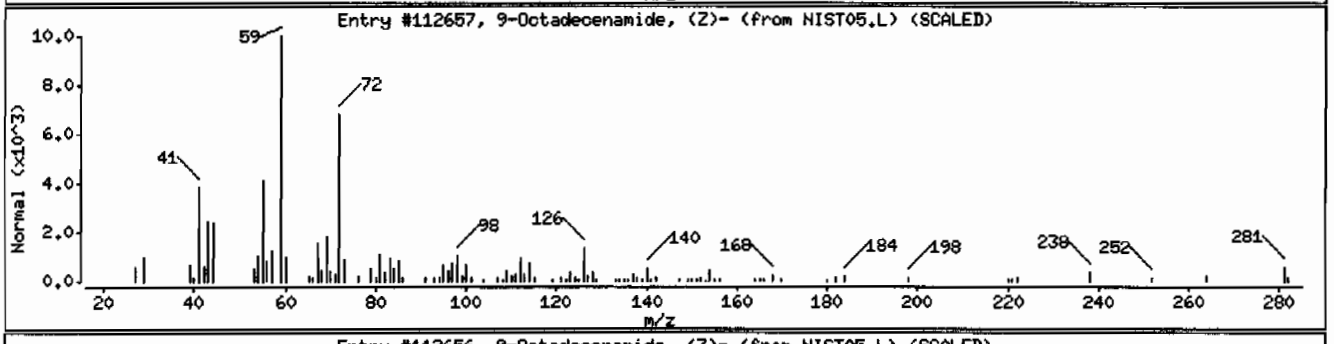

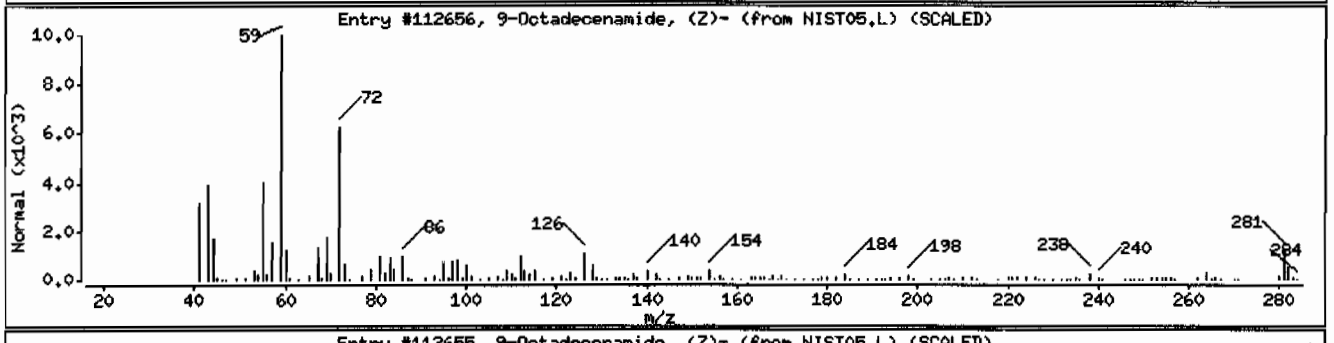

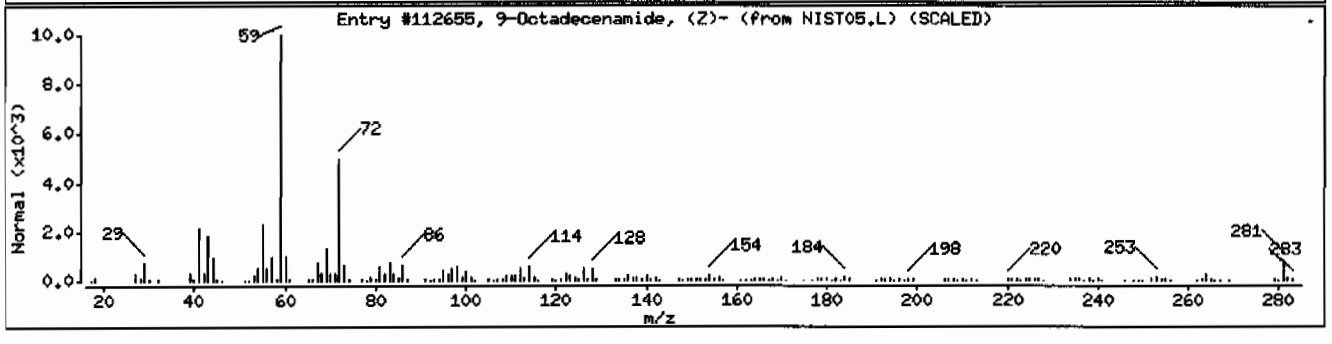

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-899	Date Collected:	12/10/2009 12:00	Matrix:	R
Lab Sample ID:	242784004	Date Received:	12/12/2009 09:35	%Moisture:	9.8
		Client:	LANL010	Project:	LANL01004
Client ID:	WST03-10-2146	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	932444	Inst:	MSD6.I	Dilution:	1
Run Date:	12/16/2009 21:51	Analyst:	NAG1	Inj. Vol:	.5 uL
Prep Date:	12/14/2009 09:47	Aliquot:	30 g	Final Volume:	1 mL
Data File:	s6l1627.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	370	ug/kg	73.9	370
108-95-2	Phenol	U	370	ug/kg	73.9	370
95-57-8	2-Chlorophenol	U	370	ug/kg	73.9	370
106-46-7	1,4-Dichlorobenzene	U	370	ug/kg	73.9	370
621-64-7	N-Nitrosodipropylamine	U	370	ug/kg	73.9	370
59-50-7	4-Chloro-3-methylphenol	U	370	ug/kg	73.9	370
83-32-9	Acenaphthene	U	37.0	ug/kg	12.2	37.0
121-14-2	2,4-Dinitrotoluene	U	370	ug/kg	37.0	370
100-02-7	4-Nitrophenol	U	370	ug/kg	122	370
87-86-5	Pentachlorophenol	U	370	ug/kg	92.4	370
129-00-0	Pyrene		79.5	ug/kg	11.1	37.0
110-86-1	Pyridine	U	370	ug/kg	73.9	370
62-53-3	Aniline	U	370	ug/kg	111	370
111-44-4	bis(2-Chloroethyl) ether	U	370	ug/kg	73.9	370
541-73-1	1,3-Dichlorobenzene	U	370	ug/kg	73.9	370
100-51-6	Benzyl alcohol	U	370	ug/kg	111	370
95-50-1	1,2-Dichlorobenzene	U	370	ug/kg	73.9	370
108-60-1	bis(2-Chloroisopropyl)ether	U	370	ug/kg	73.9	370
95-48-7	o-Cresol	U	370	ug/kg	73.9	370
65794-96-9	m,p-Cresols	U	370	ug/kg	111	370
67-72-1	Hexachloroethane	U	370	ug/kg	73.9	370
98-95-3	Nitrobenzene	U	370	ug/kg	73.9	370
78-59-1	Isophorone	U	370	ug/kg	73.9	370
88-75-5	2-Nitrophenol	U	370	ug/kg	73.9	370
105-67-9	2,4-Dimethylphenol	U	370	ug/kg	129	370
111-91-1	bis(2-Chloroethoxy)methane	U	370	ug/kg	73.9	370
120-83-2	2,4-Dichlorophenol	U	370	ug/kg	73.9	370
65-85-0	Benzoic acid	U	739	ug/kg	185	739
91-20-3	Naphthalene	U	37.0	ug/kg	11.1	37.0
106-47-8	4-Chloroaniline	U	370	ug/kg	73.9	370
87-68-3	Hexachlorobutadiene	U	370	ug/kg	73.9	370
91-57-6	2-Methylnaphthalene	U	37.0	ug/kg	7.39	37.0
77-47-4	Hexachlorocyclopentadiene	U	370	ug/kg	73.9	370
88-06-2	2,4,6-Trichlorophenol	U	370	ug/kg	73.9	370
95-95-4	2,4,5-Trichlorophenol	U	370	ug/kg	73.9	370
91-58-7	2-Chloronaphthalene	U	37.0	ug/kg	12.2	37.0
88-74-4	2-Nitroaniline	U	370	ug/kg	73.9	370
	o-Nitroaniline					
99-09-2	3-Nitroaniline	U	370	ug/kg	73.9	370

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-899	Date Collected:	12/10/2009 12:00	Matrix:	R
Lab Sample ID:	242784004	Date Received:	12/12/2009 09:35	%Moisture:	9.8
		Client:	LANL010	Project:	LANL01004
Client ID:	WST03-10-2146	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	932444	Inst:	MSD6.I	Dilution:	1
Run Date:	12/16/2009 21:51	Analyst:	NAG1	Inj. Vol:	.5 uL
Prep Date:	12/14/2009 09:47	Aliquot:	30 g	Final Volume:	1 mL
Data File:	s611627.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	370	ug/kg	73.9	370
606-20-2	2,6-Dinitrotoluene	U	370	ug/kg	37.0	370
208-96-8	Acenaphthylene	U	37.0	ug/kg	11.1	37.0
51-28-5	2,4-Dinitrophenol	U	739	ug/kg	140	739
132-64-9	Dibenzofuran	U	370	ug/kg	73.9	370
84-66-2	Diethylphthalate	U	370	ug/kg	73.9	370
86-73-7	Fluorene	U	37.0	ug/kg	11.1	37.0
7005-72-3	4-Chlorophenylphenylether	U	370	ug/kg	73.9	370
534-52-1	2-Methyl-4,6-dinitrophenol	U	370	ug/kg	73.9	370
100-01-6	4-Nitroaniline	U	370	ug/kg	111	370
	p-Nitroaniline					
122-39-4	Diphenylamine	U	370	ug/kg	73.9	370
122-66-7	Azobenzene	U	370	ug/kg	73.9	370
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	370	ug/kg	73.9	370
118-74-1	Hexachlorobenzene	U	370	ug/kg	73.9	370
85-01-8	Phenanthrene		73.5	ug/kg	11.1	37.0
120-12-7	Anthracene	J	12.2	ug/kg	7.39	37.0
84-74-2	Di-n-butylphthalate	U	370	ug/kg	73.9	370
206-44-0	Fluoranthene		106	ug/kg	11.1	37.0
85-68-7	Butylbenzylphthalate	U	370	ug/kg	73.9	370
56-55-3	Benzo(a)anthracene	U	37.0	ug/kg	11.1	37.0
91-94-1	3,3'-Dichlorobenzidine	U	370	ug/kg	111	370
218-01-9	Chrysene	J	36.4	ug/kg	11.1	37.0
117-81-7	bis(2-Ethylhexyl)phthalate	U	370	ug/kg	73.9	370
117-84-0	Di-n-octylphthalate	U	370	ug/kg	73.9	370
205-99-2	Benzo(b)fluoranthene	J	19.8	ug/kg	11.1	37.0
207-08-9	Benzo(k)fluoranthene	U	37.0	ug/kg	11.1	37.0
50-32-8	Benzo(a)pyrene	J	12.6	ug/kg	11.1	37.0
193-39-5	Indeno(1,2,3-cd)pyrene		126	ug/kg	11.1	37.0
53-70-3	Dibenzo(a,h)anthracene	U	37.0	ug/kg	11.1	37.0
191-24-2	Benzo(ghi)perylene	J	19.2	ug/kg	11.1	37.0
120-82-1	1,2,4-Trichlorobenzene	U	370	ug/kg	73.9	370

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	3.45	277	ug/kg		JA
7785-70-8	1R-.alpha.-Pinene	4.22	218	ug/kg	97	NJ

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-899**	**Date Collected:**	**12/10/2009 12:00**	**Matrix:**	**R**
Lab Sample ID:	**242784004**	**Date Received:**	**12/12/2009 09:35**	**%Moisture:**	**9.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**WST03-10-2146**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**932444**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**12/16/2009 21:51**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/14/2009 09:47**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**s6l1627.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
13466-78-9	3-Carene	4.79	154	ug/kg	96	NJ
475-20-7	1,4-Methanoazulene, decahydro-4,8,8-trim	7.6	213	ug/kg	97	NJ
301-02-0	9-Octadecenamide, (Z)-	11.86	154	ug/kg	95	NJ
	Unknown	12.24	184	ug/kg		J
1740-19-8	1-Phenanthrenecarboxylic acid, 1,2,3,4,4	12.35	169	ug/kg	93	NJ
	Unknown	17.2	162	ug/kg		J

GEL Laboratories LLC

Data file : /chem/MSD6.i/s121609.b/s611627.d
Lab Smp Id: 242784004 Client Smp ID: WST03-10-2146
Inj Date : 16-DEC-2009 21:51
Operator : nagl Inst ID: MSD6.i
Smp Info : |242784004|932444|1|SVMF|1|LANL
Misc Info : |MSD8270_S|WBN091208-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s121609.b/MSD6-M8270C-AQA-110909.m
Meth Date : 17-Dec-2009 08:11 nat00999 Quant Type: ISTD
Cal Date : 11-NOV-2009 04:38 Cal File: s6k0954.d
Als bottle: 18
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-899.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	9.79830	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	4.839	4.849	(1.000)	214680	40.0000	
* 29 Naphthalene-d8	136	6.126	6.131	(1.000)	517594	40.0000	
* 46 Acenaphthene-d10	164	7.998	8.001	(1.000)	369279	40.0000	
* 67 Phenanthrene-d10	188	9.611	9.611	(1.000)	720769	40.0000	
* 91 Chrysene-d12	240	12.631	12.633	(1.000)	550620	40.0000	
* 98 Perylene-d12	264	14.975	14.973	(1.000)	374247	40.0000	
$ 3 2-Fluorophenol	112	3.685	3.674	(0.761)	253143	47.0870	1740
$ 5 Phenol-d5	99	4.459	4.457	(0.922)	273440	40.2987	1490
$ 20 Nitrobenzene-d5	82	5.384	5.389	(0.879)	78753	21.5088	795
$ 39 2-Fluorobiphenyl	172	7.254	7.254	(0.907)	233790	24.5665	908
$ 60 2,4,6-Tribromophenol	329	8.850	8.850	(1.106)	67347	62.4842	2310
$ 81 p-Terphenyl-d14	244	11.319	11.316	(0.896)	282169	31.7770	1170

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
79 Pyrene	202	11.176	11.176	(0.885)	32572	2.15069	79.5
68 Phenanthrene	178	9.634	9.637	(1.002)	29632	1.98796	73.5
69 Anthracene	178	9.690	9.693	(1.008)	4913	0.32976	12.2(a)
76 Fluoranthene	202	10.924	10.926	(1.137)	40813	2.85830	106
92 Chrysene	228	12.667	12.669	(1.003)	11222	0.98588	36.4(a)
95 Benzo(b)fluoranthene	252	14.297	14.295	(0.955)	4431	0.53509	19.8(a)
97 Benzo(a)pyrene	252	14.876	14.871	(0.993)	2446	0.34198	12.6(a)
99 Indeno(1,2,3-cd)pyrene	276	16.965	16.963	(1.133)	2727	3.40674	126
101 Benzo(ghi)perylene	276	17.477	17.480	(1.167)	2832	0.51828	19.2(aQ)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.

ION RATIO REPORT

SV REPORT

Data file: s611627.d
Report Date: 12/17/2009 08:29
Lab. ID: 242784004 SampleType: SAMPLE
Injection Date: 16-DEC-2009 21:51
Operator: nag1 Instrument: MSD6.i
Sample Info: |242784004|932444|1|SVMF|1|LANL
Miscellaneous Info: |MSD8270_S|WBN091208-01
Comment:
Method used: /chem/MSD6.i/s121609.b/MSD6-M8270C-AQA-110909.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-899
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
1 N-Methyl-N-nitrosomethylamine				CAS#: 62-75-9		
74	7646	2.39	2.70	80-120	100	(T)
42	1048	2.40	2.70	59-119	14	(QT)
43	5670	2.40	2.70	8- 68	74	(QT)
4 Aniline				CAS#: 62-53-3		
66	12577	4.46	4.54	80-120	100	(T)
93	2503	4.51	4.54	228-288	20	(Q)
17 N-Nitrosodipropylamine				CAS#: 621-64-7		
70	8738	5.37	5.23	80-120	100	(T)
42	5259	5.37	5.23	40-100	60	(T)
22 Isophorone				CAS#: 78-59-1		
82	78753	5.38	5.64	80-120	100	(T)
138	1806	6.11	5.64	0- 49	2	(T)
43 Dimethylphthalate				CAS#: 131-11-3		
163	65683	8.00	7.69	80-120	100	(T)
164	369279	8.00	7.69	0- 40	562	(QT)
50 2,4-Dinitrotoluene				CAS#: 121-14-2		
165	48712	8.00	8.19	80-120	100	(T)
89	426	8.00	8.19	40-100	1	(QT)
63	551	8.00	8.19	17- 77	1	(QT)

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
52 4-Nitrophenol			CAS#: 100-02-7			
139	381	8.22	8.10	80-120	100	(T)
109	101	8.41	8.10	23- 83	27	(T)
65	165	8.40	8.10	60-120	43	(QT)
53 Fluorene			CAS#: 86-73-7			
166	4416	8.85	8.59	80-120	100	(T)
165	4511	8.85	8.59	62-122	102	(T)
167	1380	8.85	8.59	0- 44	31	(T)
68 Phenanthrene			CAS#: 85-01-8			
178	29632	9.63	9.64	80-120	100	( )
179	4817	9.63	9.64	0- 46	16	( )
176	5549	9.63	9.64	0- 49	19	( )
69 Anthracene			CAS#: 120-12-7			
178	4913	9.69	9.69	80-120	100	( )
179	431	9.69	9.69	0- 46	9	( )
176	959	9.69	9.69	0- 49	20	( )
76 Fluoranthene			CAS#: 206-44-0			
202	40813	10.92	10.93	80-120	100	( )
203	6911	10.92	10.93	0- 47	17	( )
101	5405	10.92	10.93	0- 43	13	( )
79 Pyrene			CAS#: 129-00-0			
202	32572	11.18	11.18	80-120	100	( )
200	6734	11.18	11.18	0- 51	21	( )
101	4727	11.18	11.18	0- 46	15	( )
89 Benzo(a)anthracene			CAS#: 56-55-3			
228	6796	12.61	12.61	80-120	100	( )
226	2965	12.61	12.61	0- 56	44	( )
229	1246	12.62	12.61	0- 50	18	( )
92 Chrysene			CAS#: 218-01-9			
228	11222	12.67	12.67	80-120	100	( )
229	2170	12.66	12.67	0- 49	19	( )
226	2050	12.66	12.67	0- 59	18	( )
95 Benzo(b)fluoranthene			CAS#: 205-99-2			
252	4431	14.30	14.29	80-120	100	( )
253	620	14.30	14.29	0- 52	14	( )
125	216	14.31	14.29	0- 44	5	( )
96 Benzo(k)fluoranthene			CAS#: 207-08-9			
252	4220	14.34	14.34	80-120	100	( )
253	620	14.30	14.34	0- 51	15	( )
125	179	14.34	14.34	0- 43	4	( )

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
97 Benzo(a)pyrene			CAS#: 50-32-8			
252	2446	14.88	14.87	80-120	100	( )
253	367	14.88	14.87	0- 52	15	( )
125	235	14.88	14.87	0- 30	10	( )
99 Indeno(1,2,3-cd)pyrene			CAS#: 193-39-5			
276	2727	16.97	16.96	80-120	100	( )
138	1311	16.96	16.97	6- 66	48	( )
100 Dibenzo(a,h)anthracene			CAS#: 53-70-3			
278	226	17.00	16.99	80-120	100	( )
139	116	17.07	16.99	0- 30	51	(QT)
101 Benzo(ghi)perylene			CAS#: 191-24-2			
276	2832	17.48	17.48	80-120	100	( )
138	1083	17.47	17.47	0- 30	38	(Q)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

Data file : /chem/MSD6.i/s121609.b/s611627.d
Lab Smp Id: 242784004 Client Smp ID: WST03-10-2146
Inj Date : 16-DEC-2009 21:51
Operator : nag1 Inst ID: MSD6.i
Smp Info : |242784004|932444|1|SVMF|1|LANL
Misc Info : |MSD8270_S|WBN091208-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s121609.b/MSD6-M8270C-AQA-110909.m
Meth Date : 17-Dec-2009 08:11 nat00999 Quant Type: ISTD
Cal Date : 11-NOV-2009 04:38 Cal File: s6k0954.d
Als bottle: 18
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-899.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	9.79830	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	4.839	1258661	40.000
* 46 Acenaphthene-d10	7.998	1544282	40.000
* 91 Chrysene-d12	12.631	1584861	40.000
* 98 Perylene-d12	14.975	999894	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #

RT	AREA	CONCENTRATIONS ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	QUANT LIBRARY	LIB ENTRY	CPND #
Unknown Aldol Condensate					CAS #:		
3.450	235499	7.48411947	276	0		0	10
1R-.alpha.-Pinene					CAS #: 7785-70-8		
4.217	185244	5.88702515	218	97	NIST05.L	15188	10
3-Carene					CAS #: 13466-78-9		
4.785	131140	4.16761459	154	96	NIST05.L	15156	10
1,4-Methanoazulene, decahydro-4,8,8-trim					CAS #: 475-20-7		
7.601	222025	5.75088494	212	97	NIST05.L	60018	46
9-Octadecenamide, (Z)-					CAS #: 301-02-0		
11.856	164678	4.15626840	154	95	NIST05.L	112657	91
Unknown					CAS #:		
12.236	197545	4.98580939	184	0		0	91
1-Phenanthrenecarboxylic acid, 1,2,3,4,4					CAS #: 1740-19-8		
12.348	181597	4.58329510	169	93	NIST05.L	125034	91
Unknown					CAS #:		
17.197	109653	4.38656899	162	0		0	98

Data File: /chem/MSD6.i/s121609.b/s611627.d
Date : 16-DEC-2009 21:51
Client ID: WSTO3-10-2146
Sample Info: 1242784004|932444|1|SVMF|1|LANL
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD6.i
Operator: nagl
Column diameter: 0.20

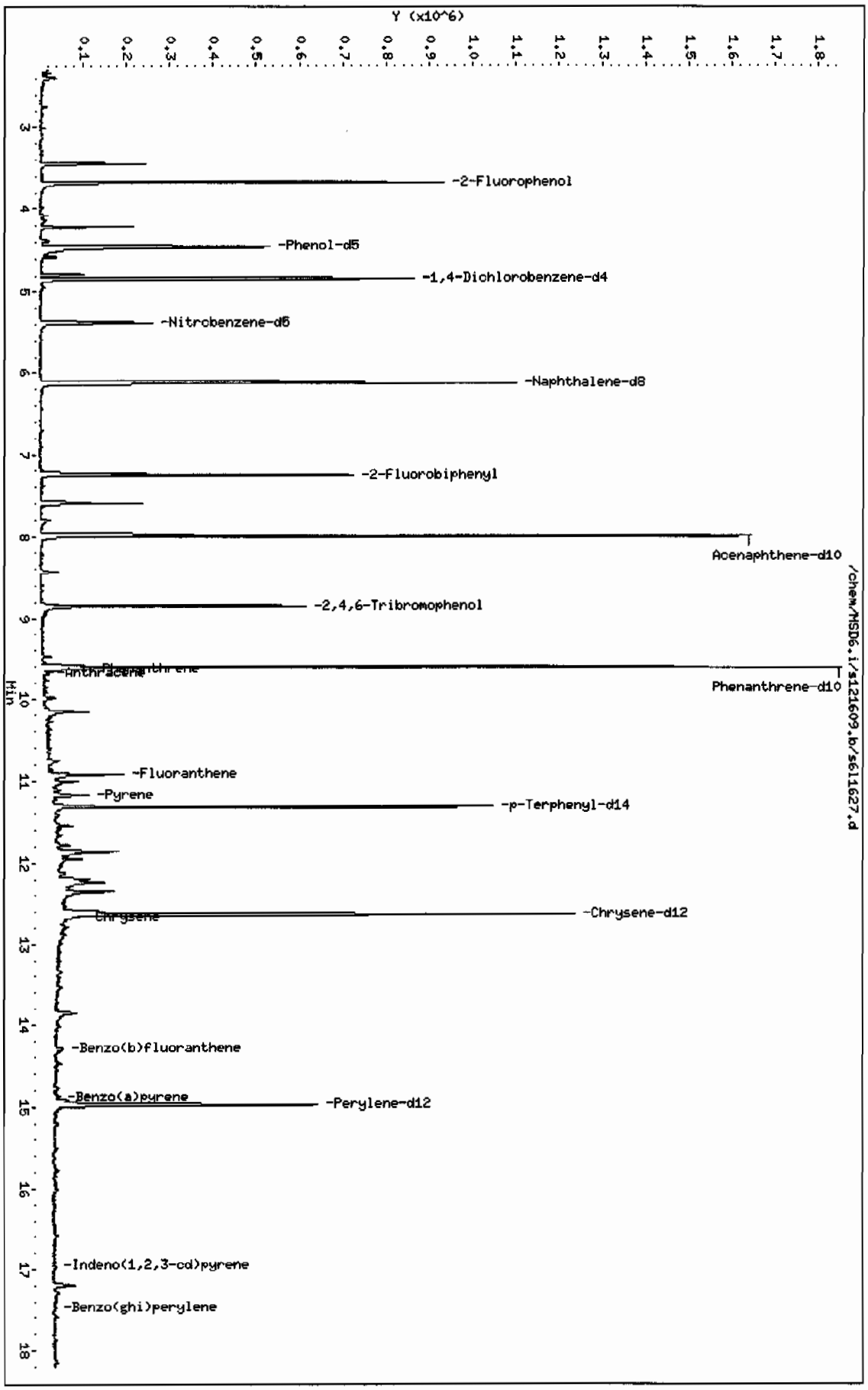

Page 1

Data File: /chem/MSD6.i/s121609.b/s611627.d

Date : 16-DEC-2009 21:51

Client ID: WST03-10-2146

Instrument: MSD6.i

Sample Info: |2427840041932444|1|SVMF|1|LANL

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

79 Pyrene

Concentration: 79.5 ug/Kg

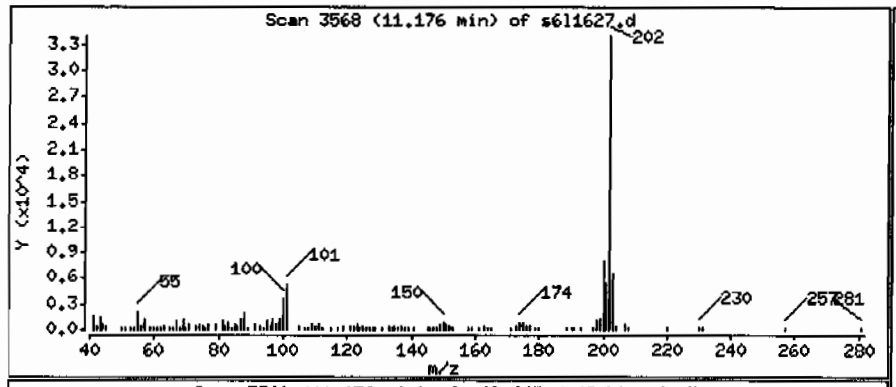

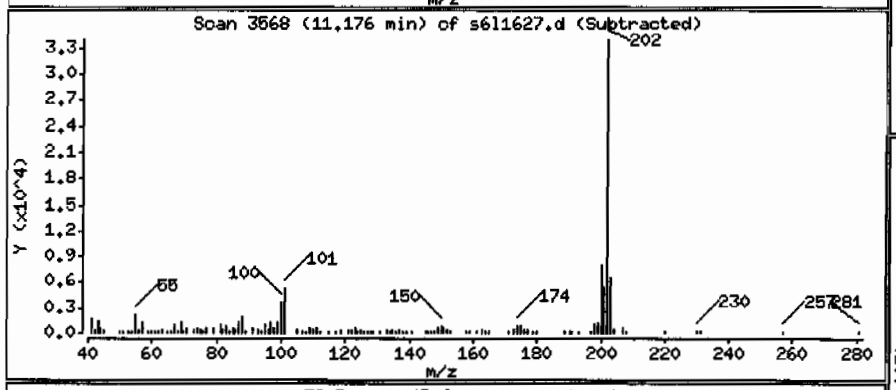

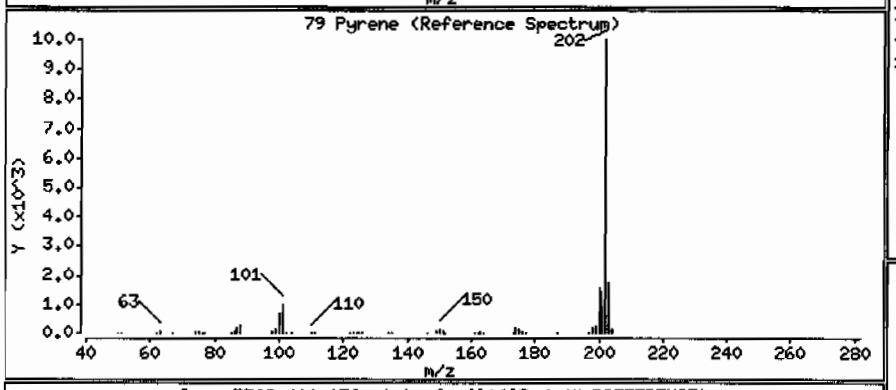

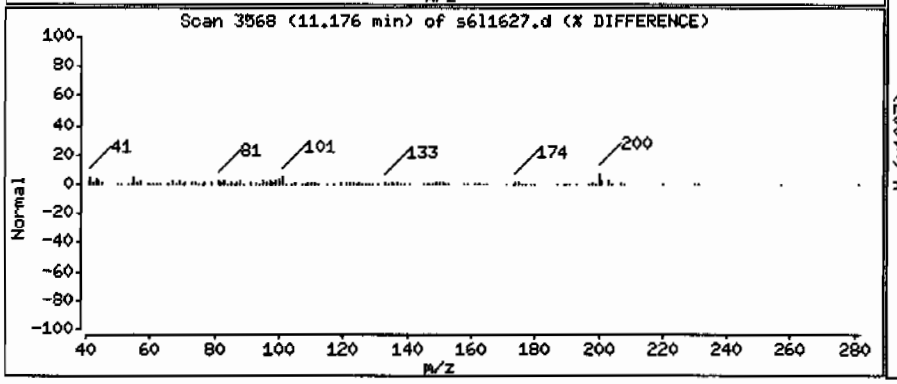

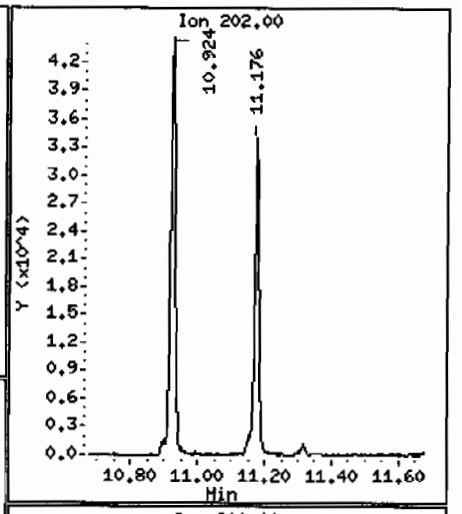

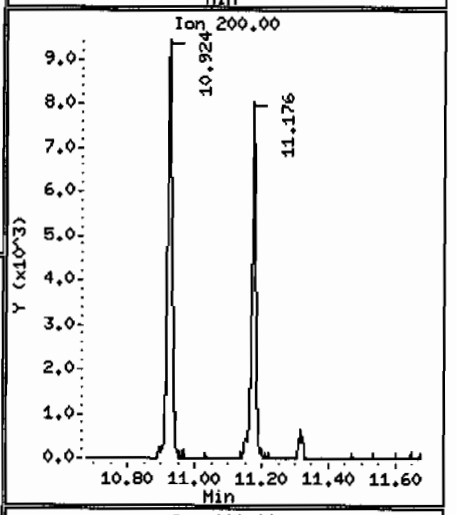

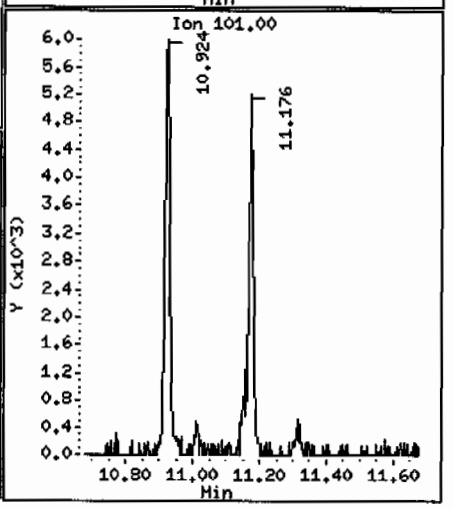

Data File: /chem/MSD6.i/s121609.b/s611627.d

Date : 16-DEC-2009 21:51

Client ID: WST03-10-2146 Instrument: MSD6.i

Sample Info: |2427840041932444|1|SVMF|1|LANL

Volume Injected (uL): 0.5 Operator: nagl

Column phase: J&W DB-5MS Column diameter: 0.20

68 Phenanthrene Concentration: 73.5 ug/Kg

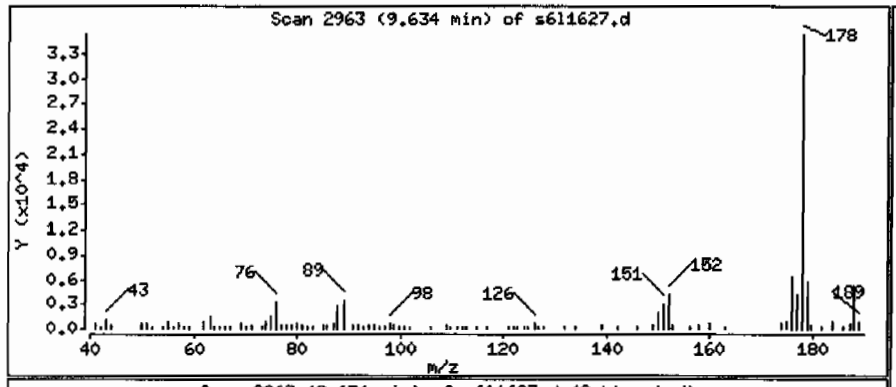

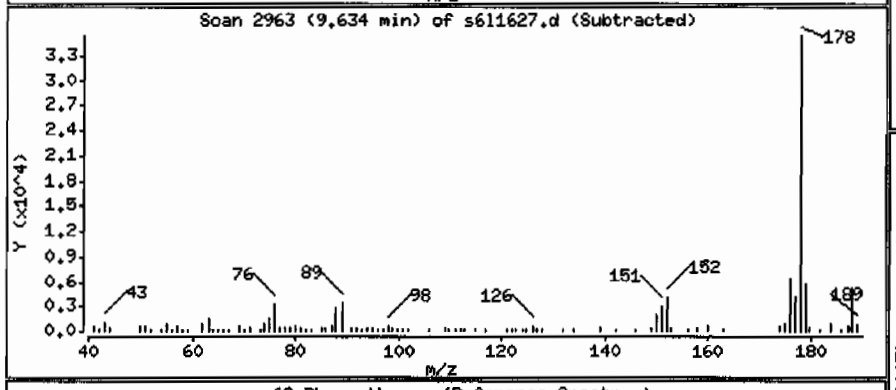

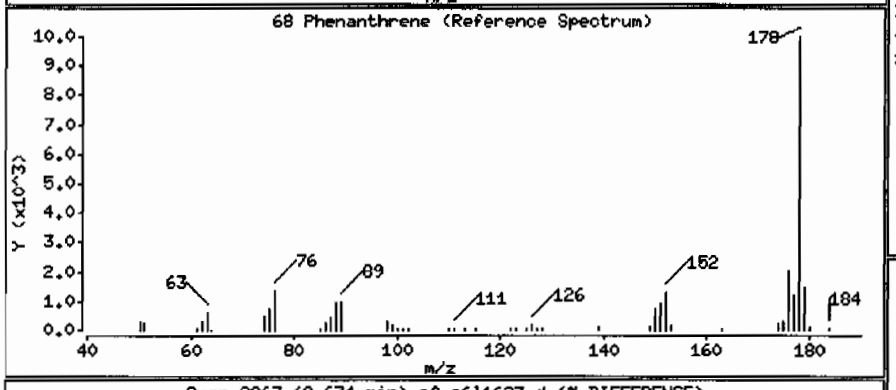

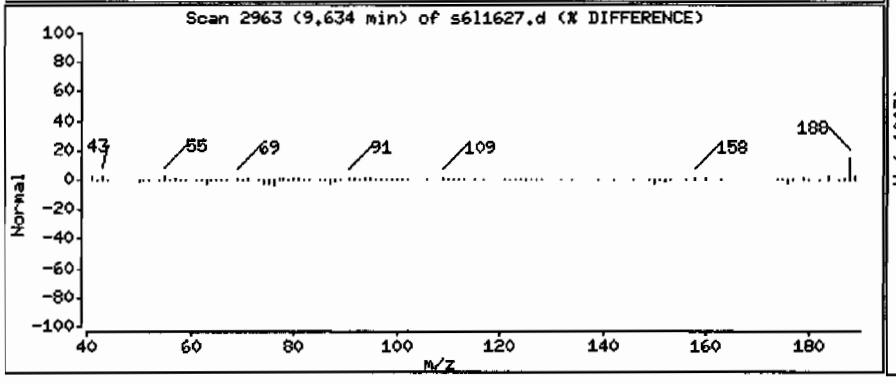

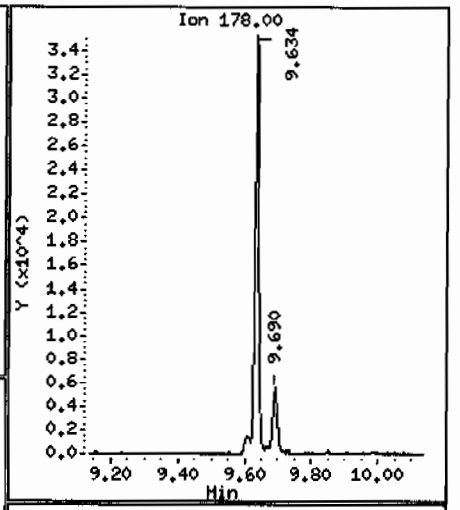

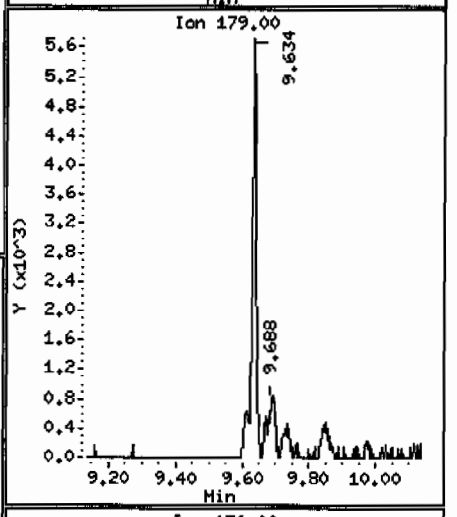

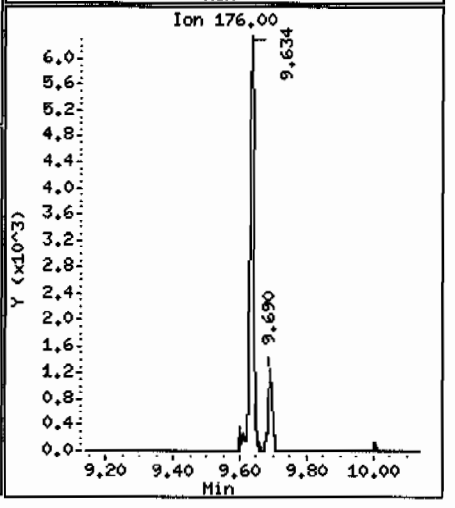

Data File: /chem/MSD6.i/s121609.b/s611627.d

Date : 16-DEC-2009 21:51

Client ID: WST03-10-2146

Instrument: MSD6.i

Sample Info: |2427840041932444|1|SVMF|1|LANL

Volume Injected (uL): 0.5

Operator: nagl

Column phase: J&W DB-5MS

Column diameter: 0.20

69 Anthracene

Concentration: 12.2 ug/Kg

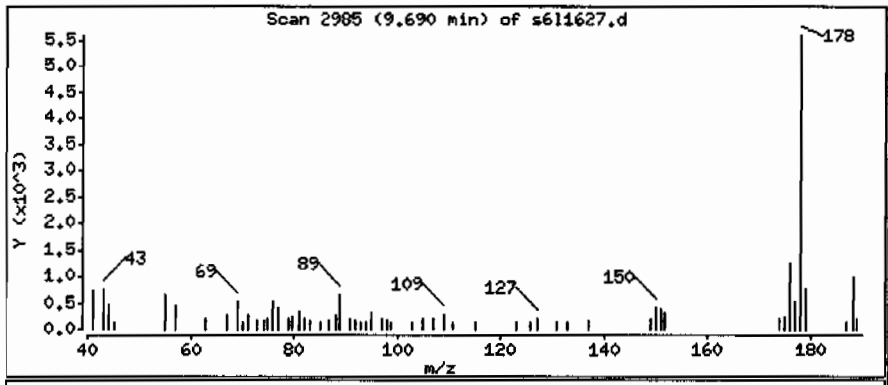

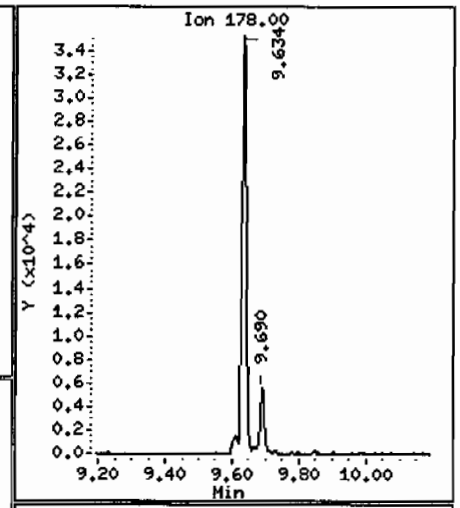

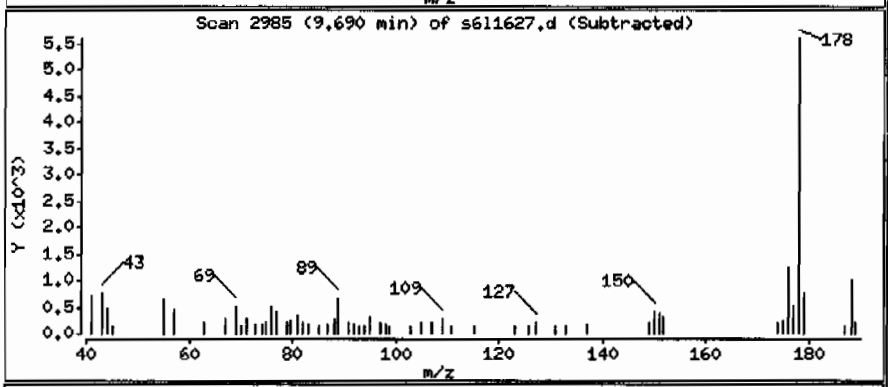

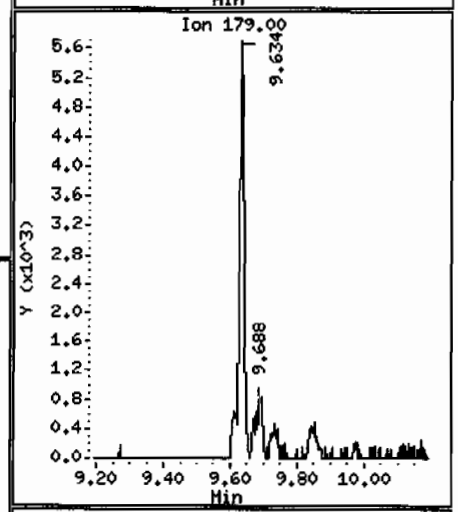

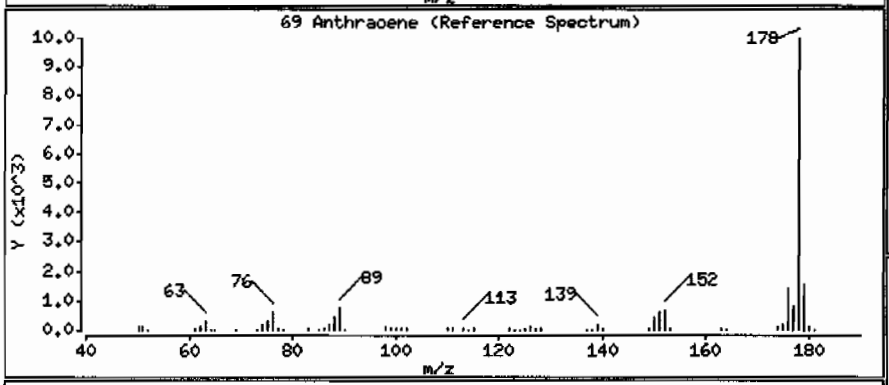

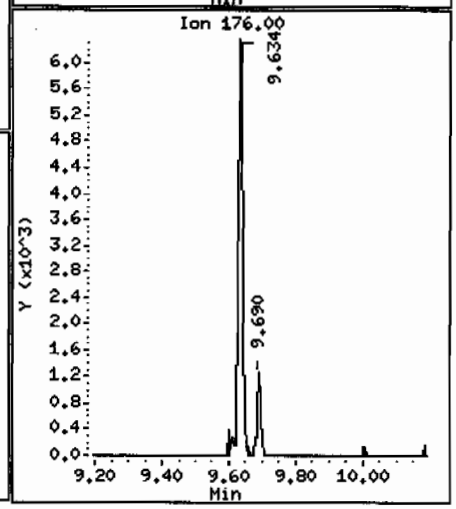

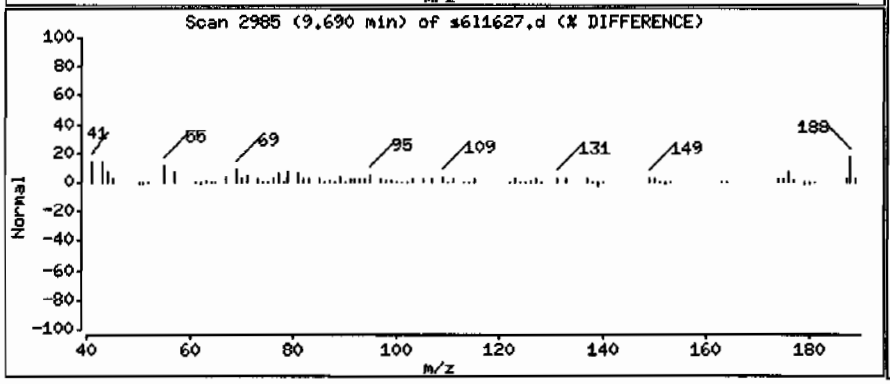

Data File: /chem/MSD6.i/s121609.b/s611627.d

Date : 16-DEC-2009 21:51

Client ID: WST03-10-2146

Instrument: MSD6.i

Sample Info: |2427840041932444|1|SVMF|1|LANL

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

76 Fluoranthene

Concentration: 106 ug/Kg

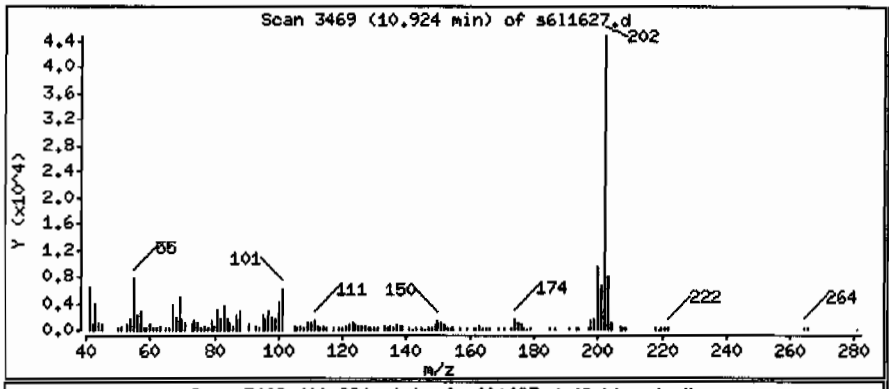

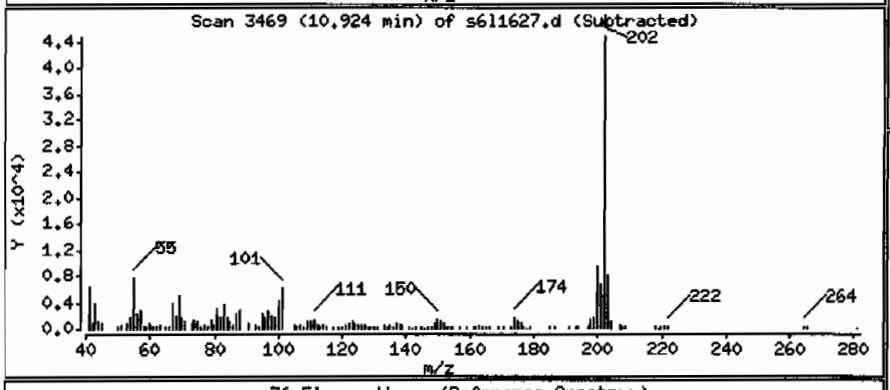

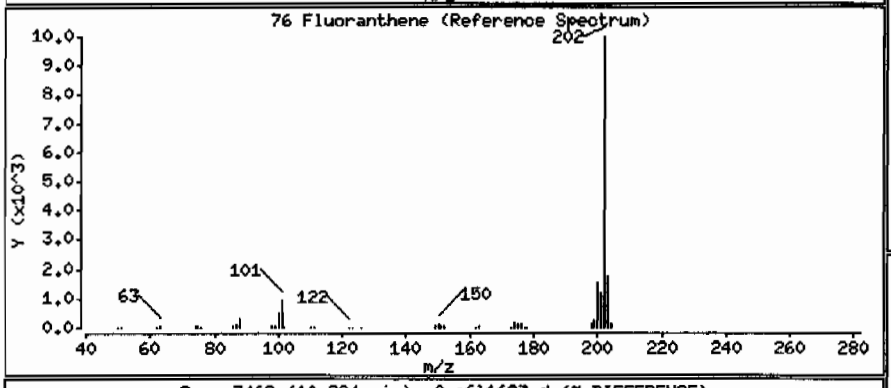

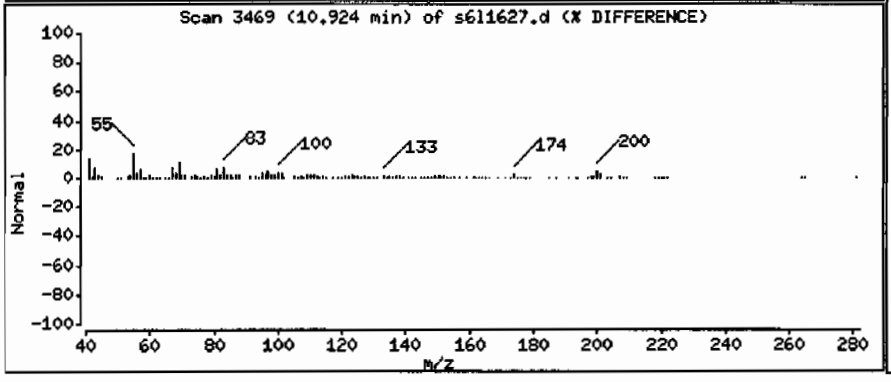

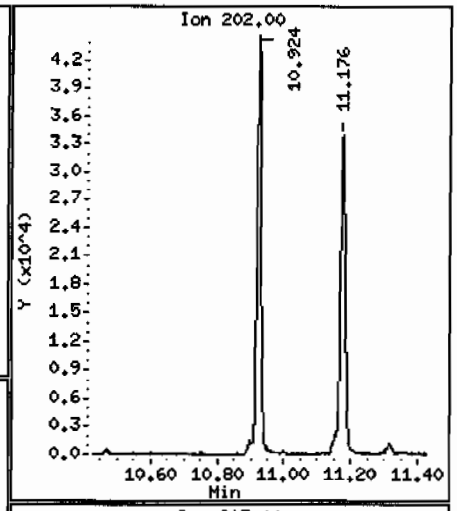

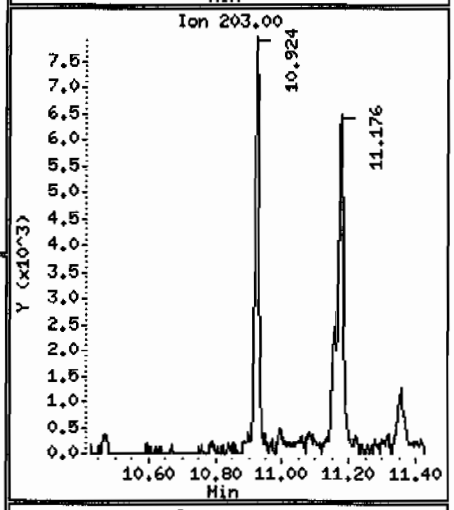

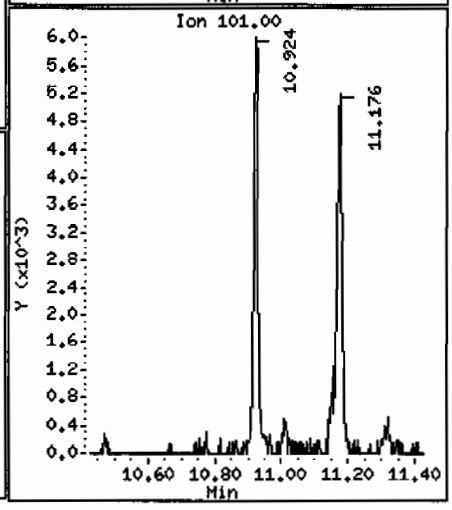

Data File: /chem/MSD6.i/s121609.b/s611627.d

Date : 16-DEC-2009 21:51

Client ID: WST03-10-2146

Instrument: MSD6.i

Sample Info: |2427840041932444|1|SVMF1|1|LANL

Volume Injected (uL): 0.5

Operator: nagi

Column phase: J&W DB-5MS

Column diameter: 0.20

92 Chrysene

Concentration: 36.4 ug/Kg

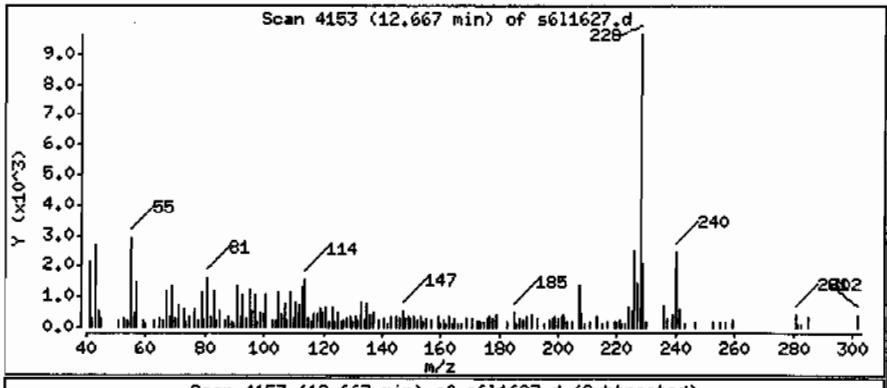

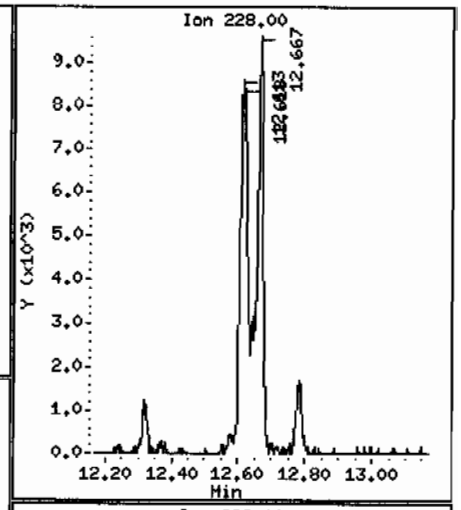

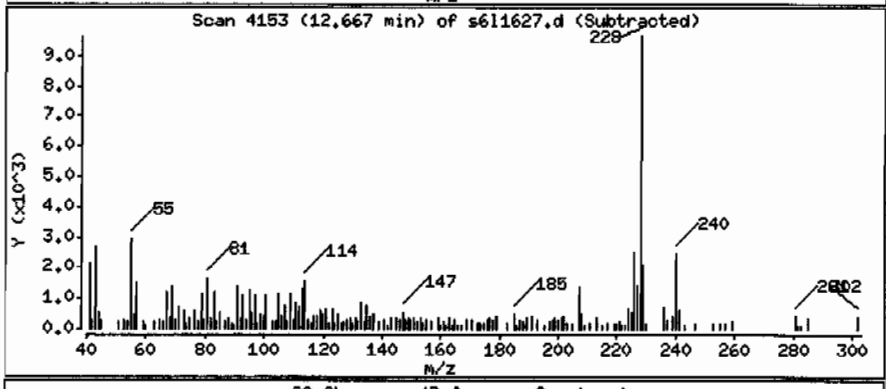

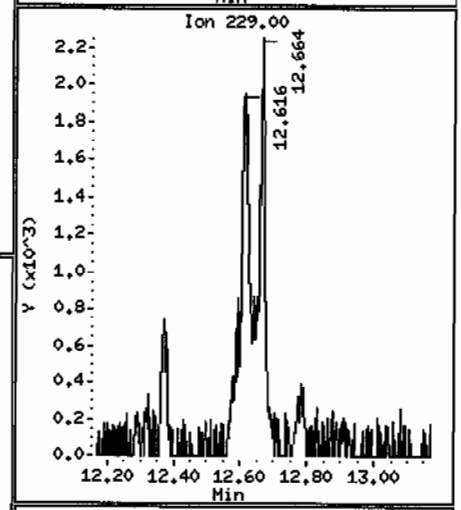

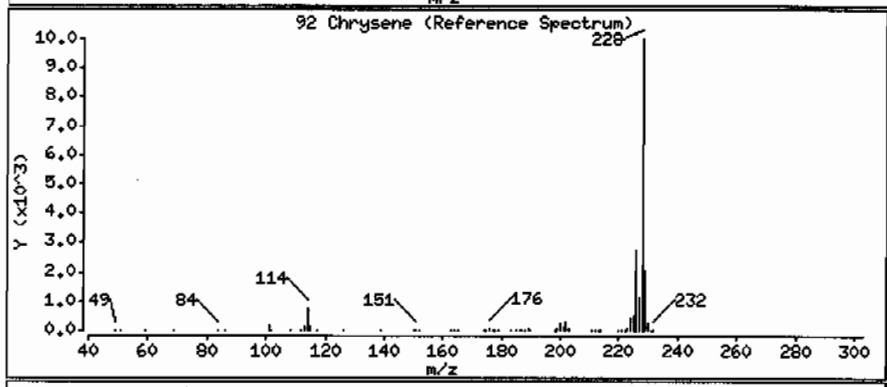

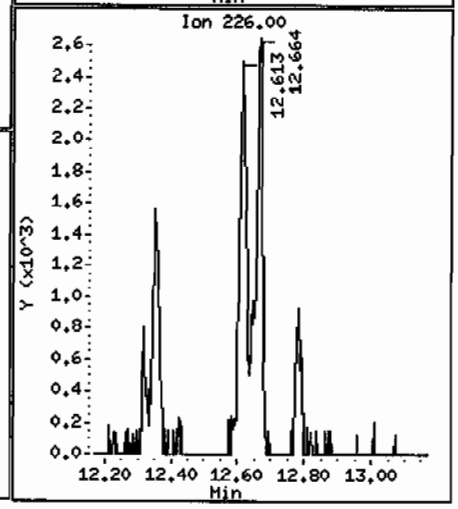

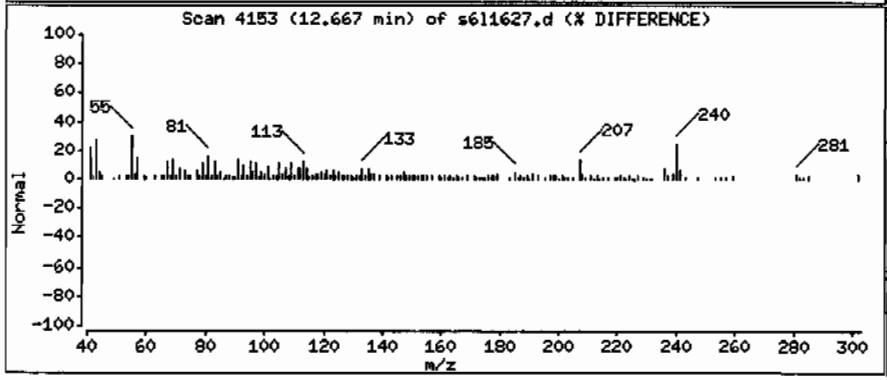

Data File: /chem/MSD6.i/s121609.b/s611627.d

Date : 16-DEC-2009 21:51

Client ID: WST03-10-2146

Instrument: MSD6.i

Sample Info: |2427840041932444|1|SVMF|1|LANL

Volume Injected (uL): 0.5

Operator: nagl

Column phase: J&W DB-5MS

Column diameter: 0.20

95 Benzo(b)fluoranthene

Concentration: 19.8 ug/Kg

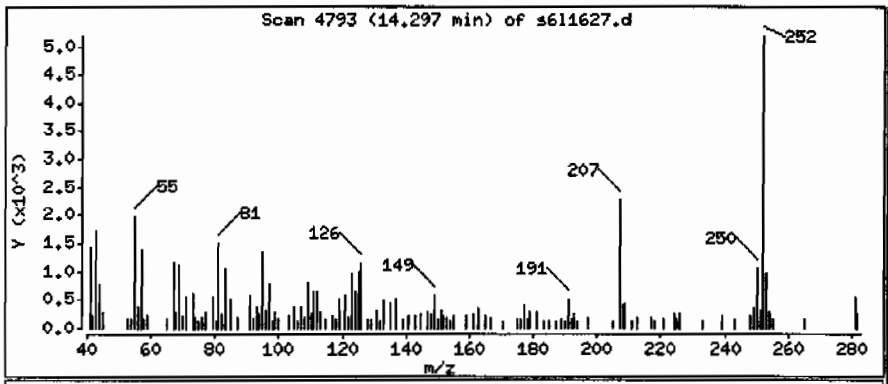

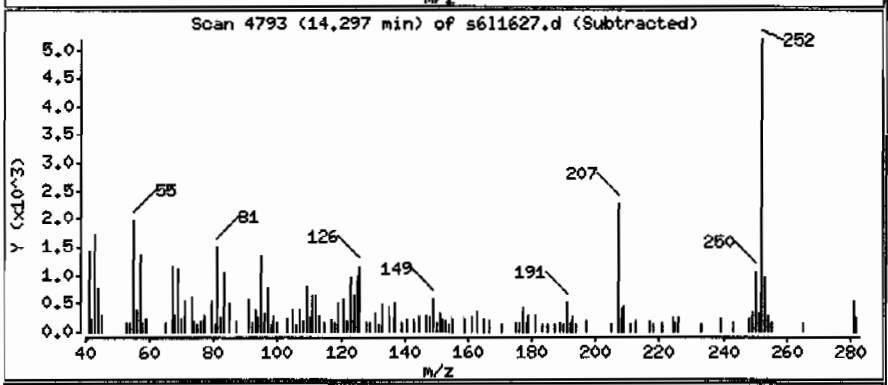

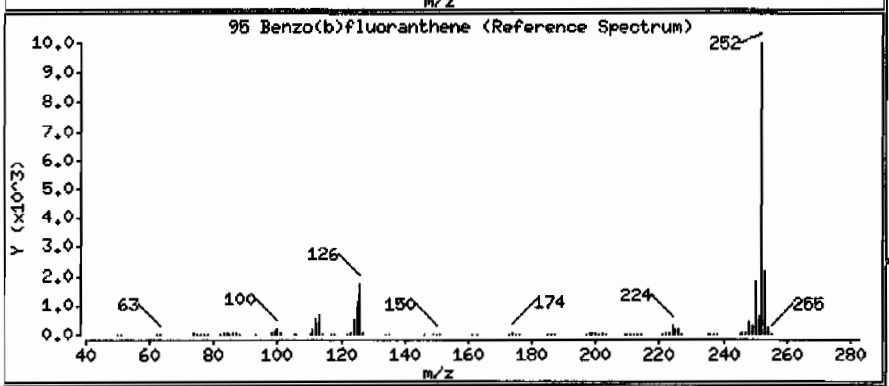

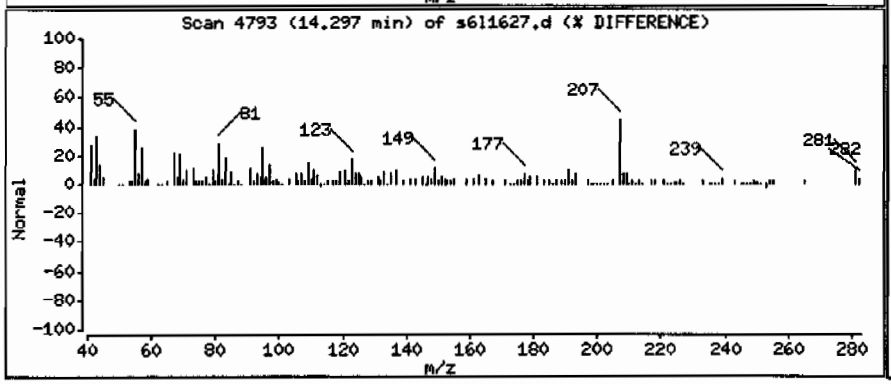

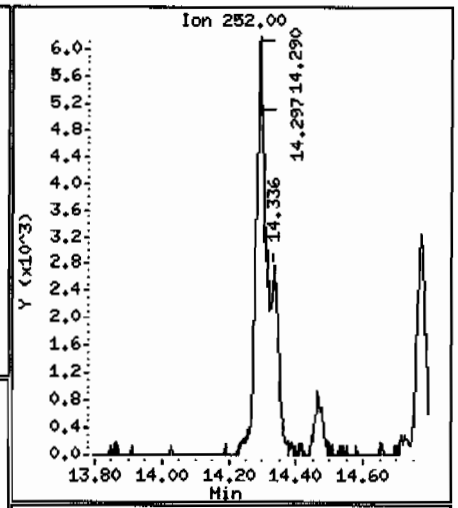

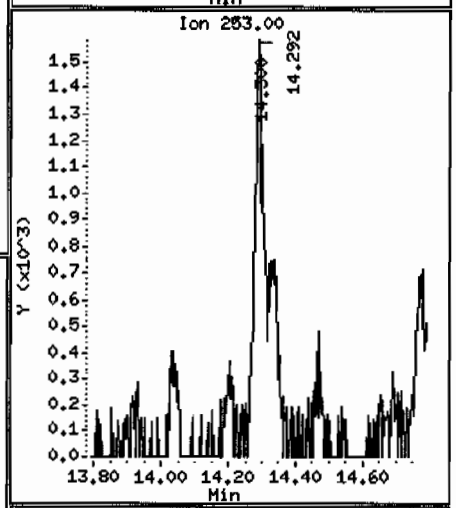

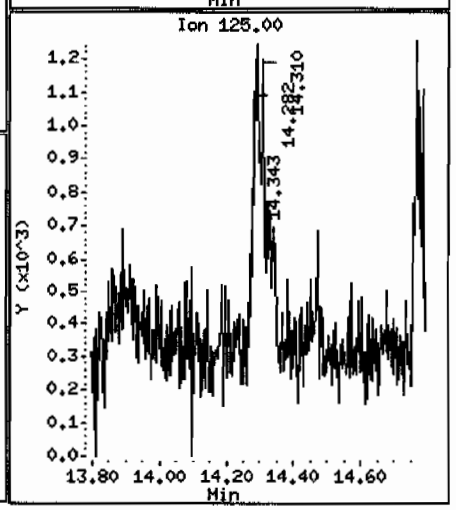

Data File: /chem/MSD6.i/s121609.b/s611627.d

Date : 16-DEC-2009 21:51

Client ID: WST03-10-2146

Instrument: MSD6.i

Sample Info: |2427840041932444|1|SVMF|1|LANL

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

97 Benzo(a)pyrene

Concentration: 12.6 ug/Kg

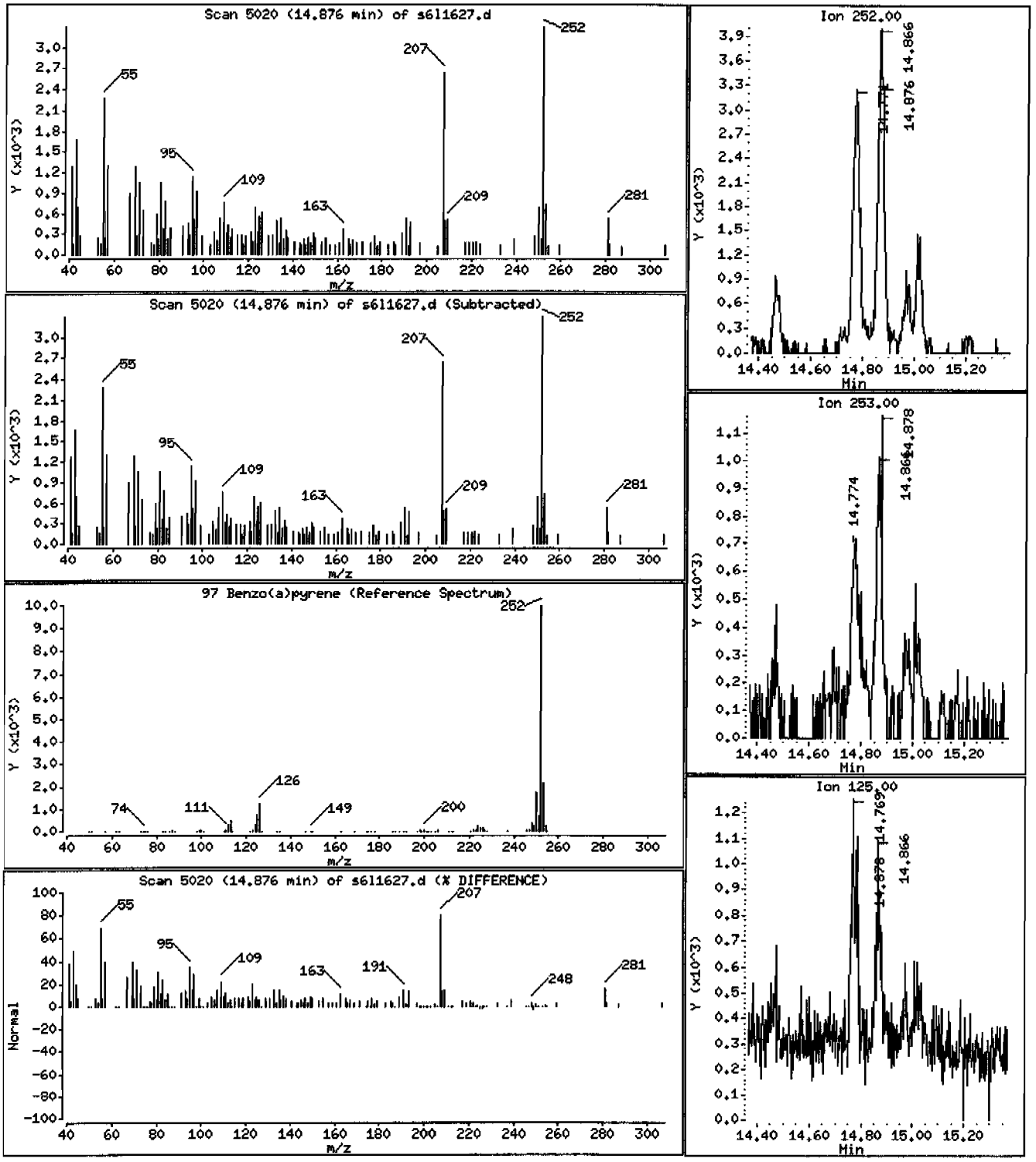

Data File: /chem/MSD6.i/s121609.b/s611627.d

Date : 16-DEC-2009 21:51

Client ID: WST03-10-2146

Instrument: MSD6.i

Sample Info: |2427840041932444|1|SVMF|1|LANL

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

99 Indeno(1,2,3-cd)pyrene

Concentration: 126 ug/Kg

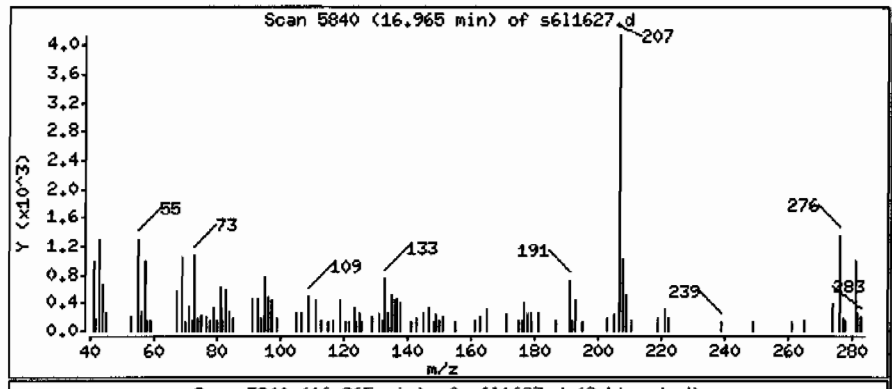

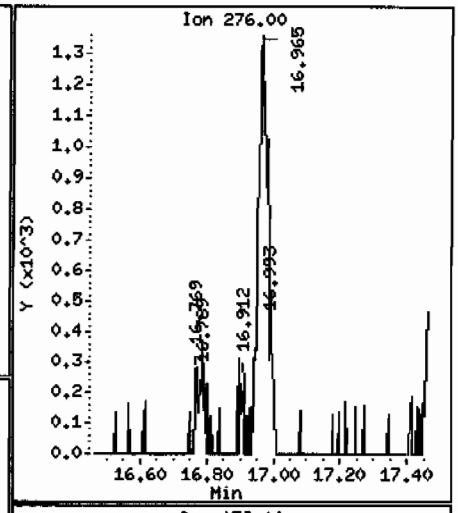

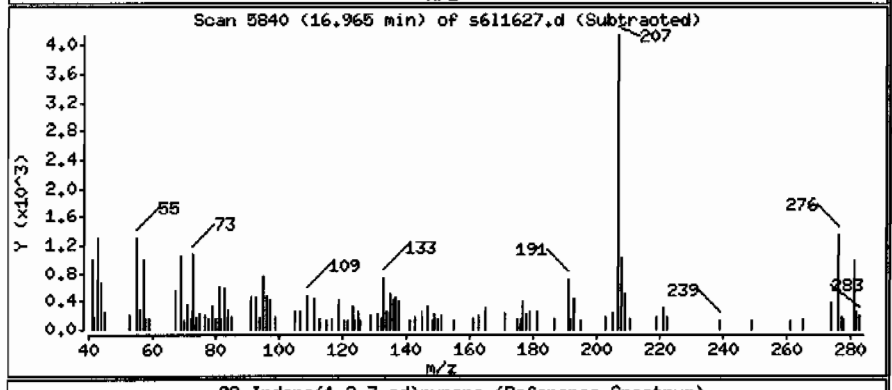

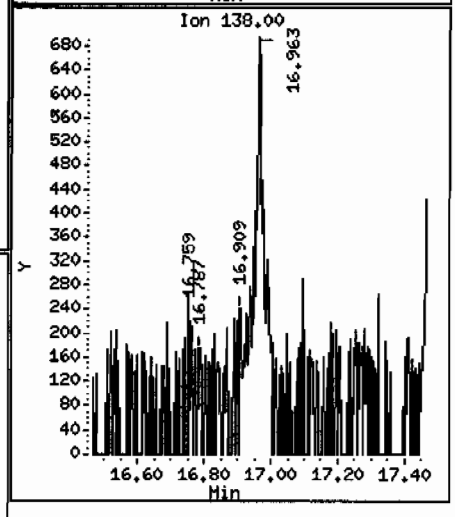

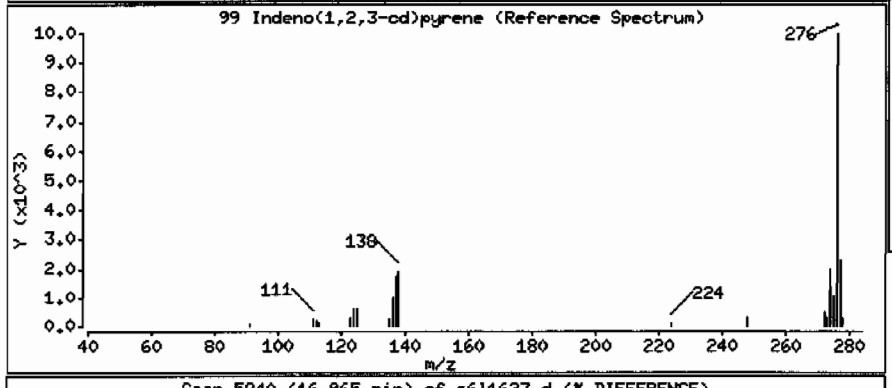

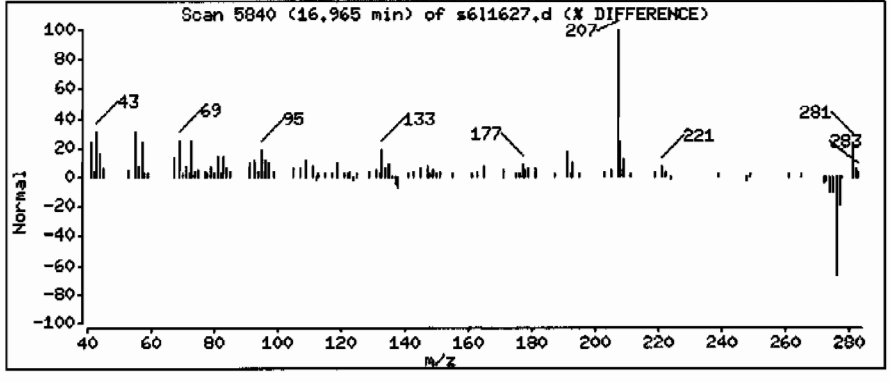

Data File: /chem/MSD6.i/s121609.b/s611627.d

Date : 16-DEC-2009 21:51

Client ID: WST03-10-2146

Instrument: MSD6.i

Sample Info: 1242784004|932444|1|SVMF|1|LANL

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

101 Benzo(ghi)perylene

Concentration: 19.2 ug/Kg

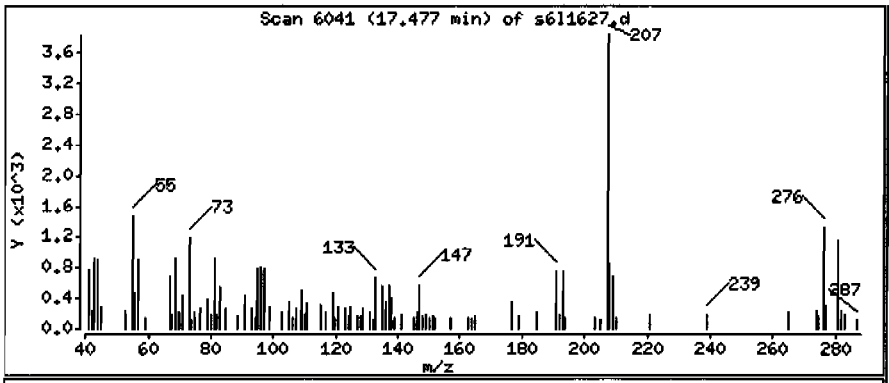

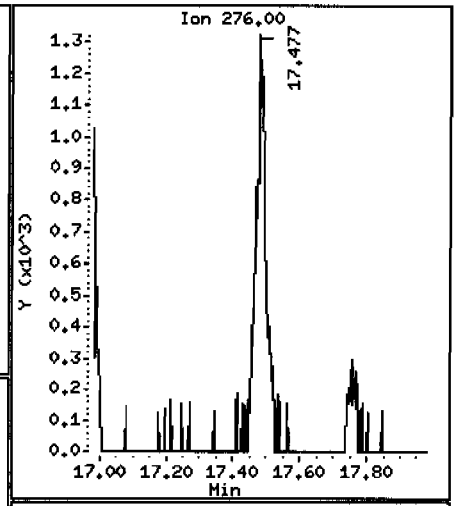

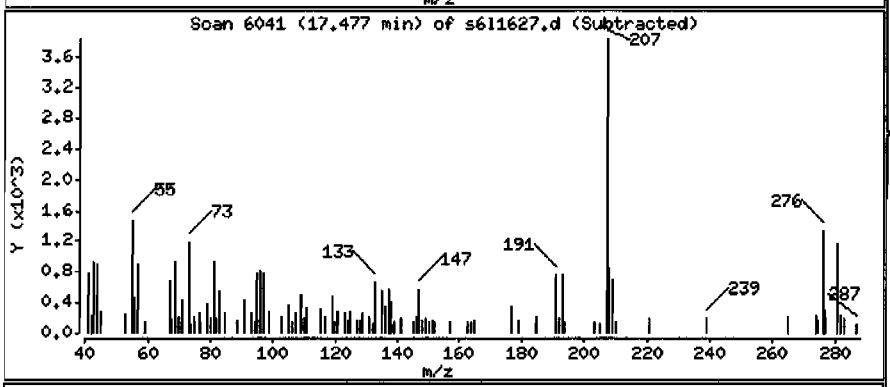

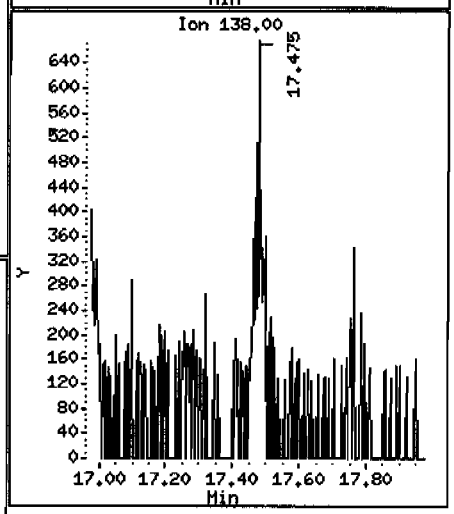

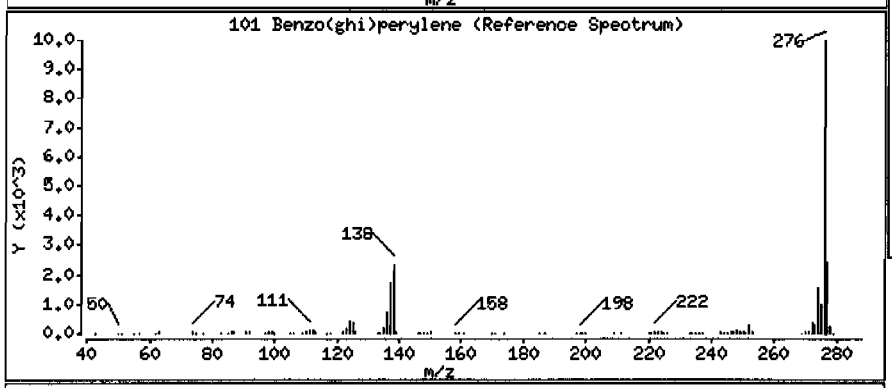

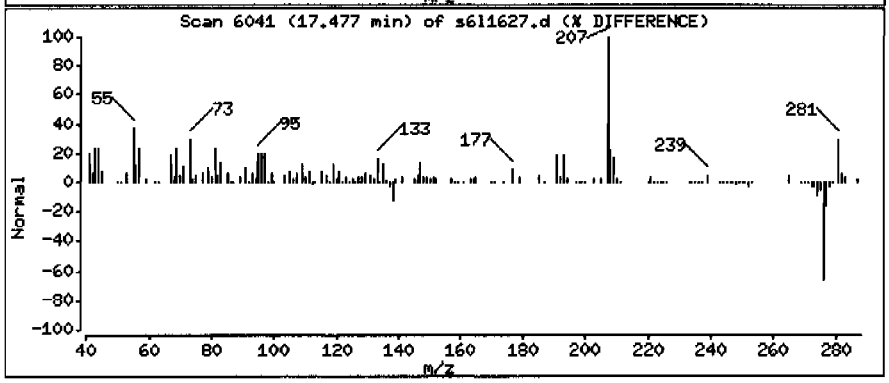

Data File: /chem/MSD6.i/s121609.b/s611627.d

Date : 16-DEC-2009 21:51

Client ID: WST03-10-2146

Instrument: MSD6.i

Sample Info: |2427840041932444|1|SVMF|1|LANL

Volume Injected (uL): 0.5

Operator: nagl

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	64	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	56	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7945	37	C6H12O2	116

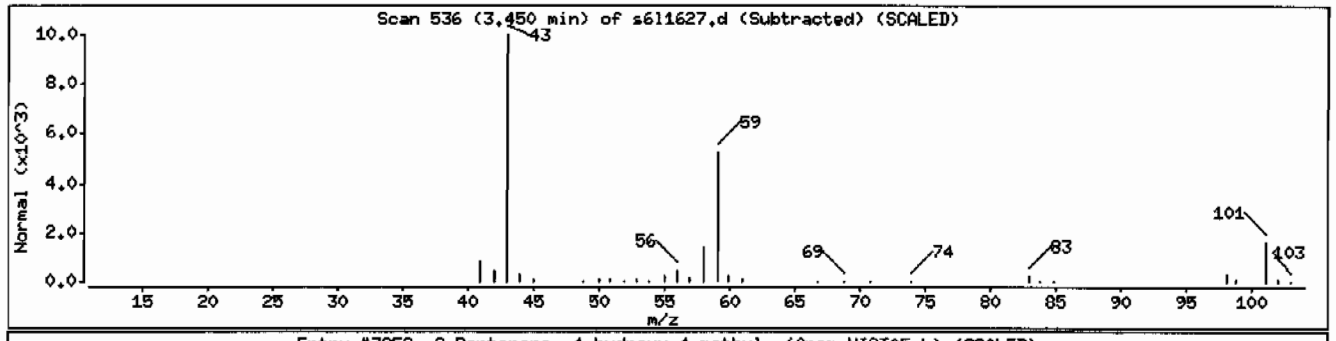

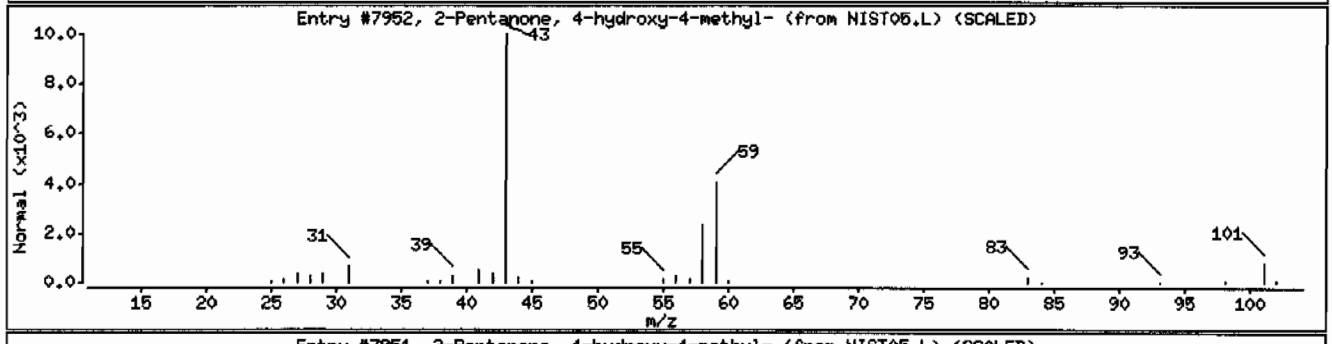

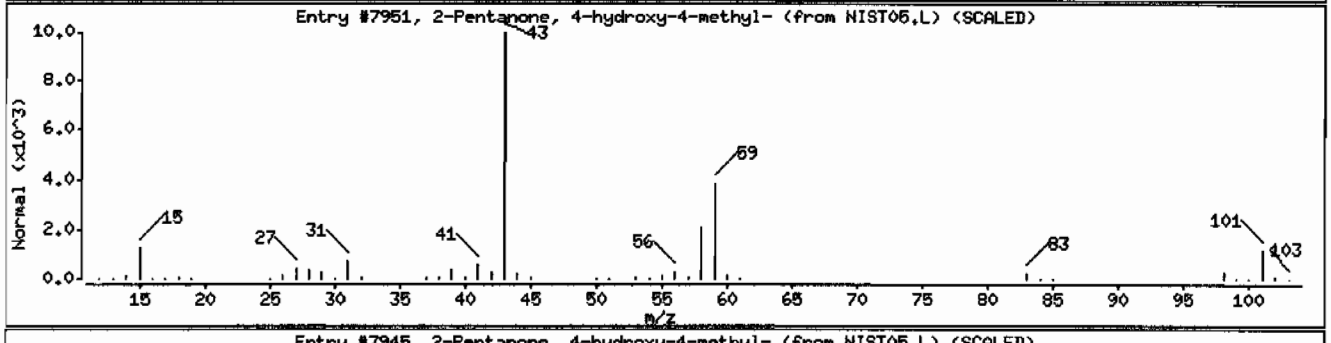

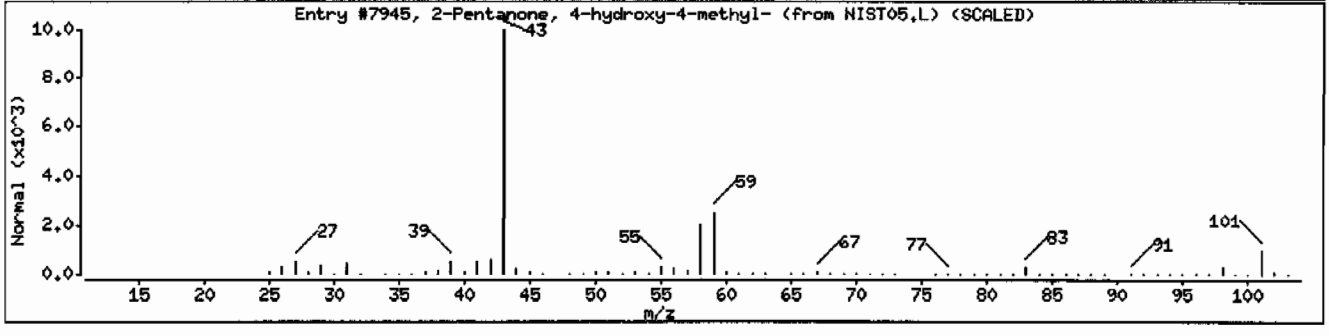

Data File: /chem/MSD6.i/s121609.b/s611627.d

Date : 16-DEC-2009 21:51

Client ID: WST03-10-2146

Instrument: MSD6.i

Sample Info: |2427840041932444|1|SVMF|1|LANL

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
1R-.alpha.-Pinene	7785-70-8	NIST05.L	15188	97	C10H16	136
.alpha.-Pinene	80-56-8	NIST05.L	15178	97	C10H16	136
Bicyclo[3.1.1]hept-2-ene, 2,6,6-trimethy	2437-95-8	NIST05.L	15376	97	C10H16	136

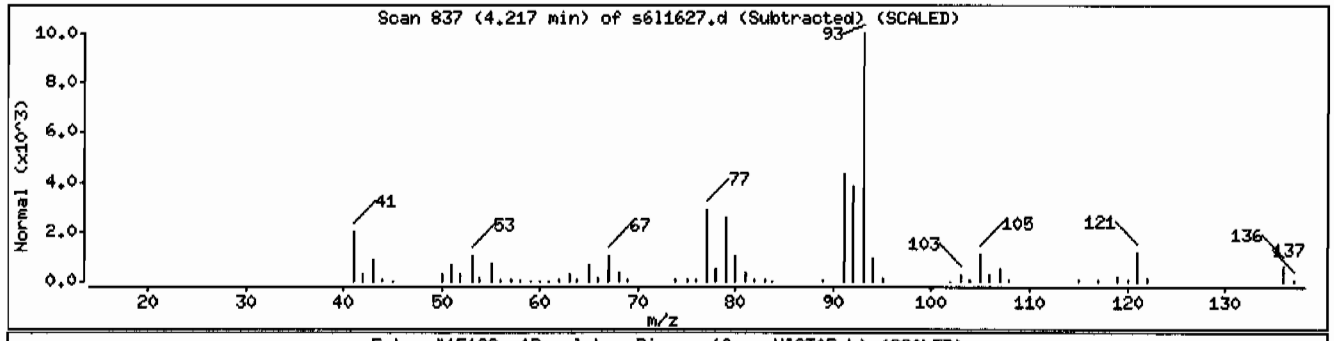

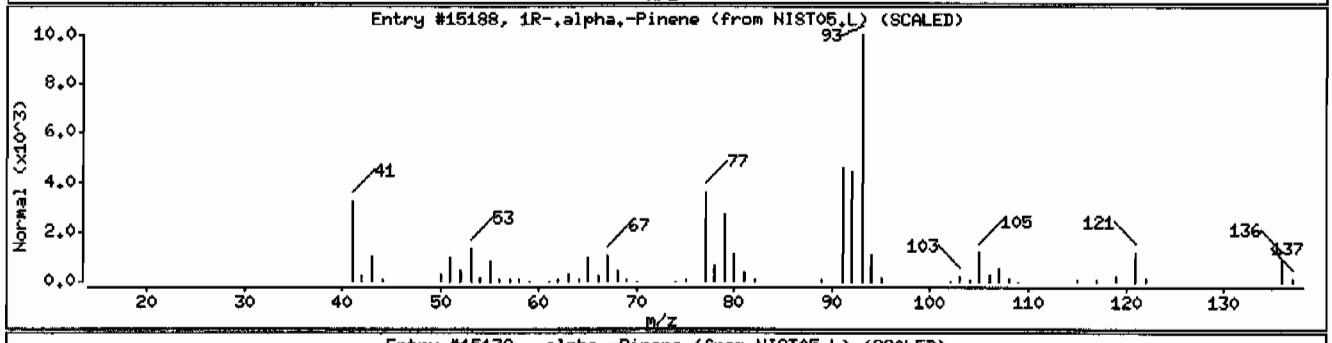

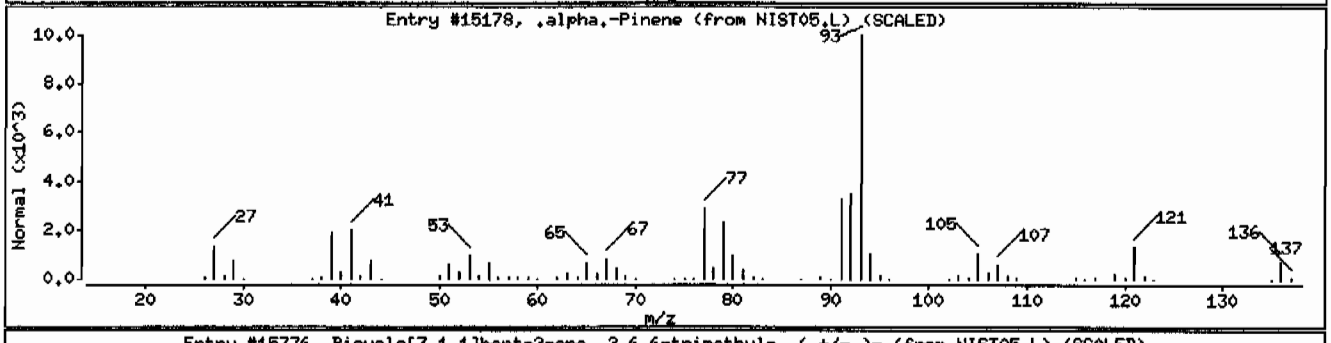

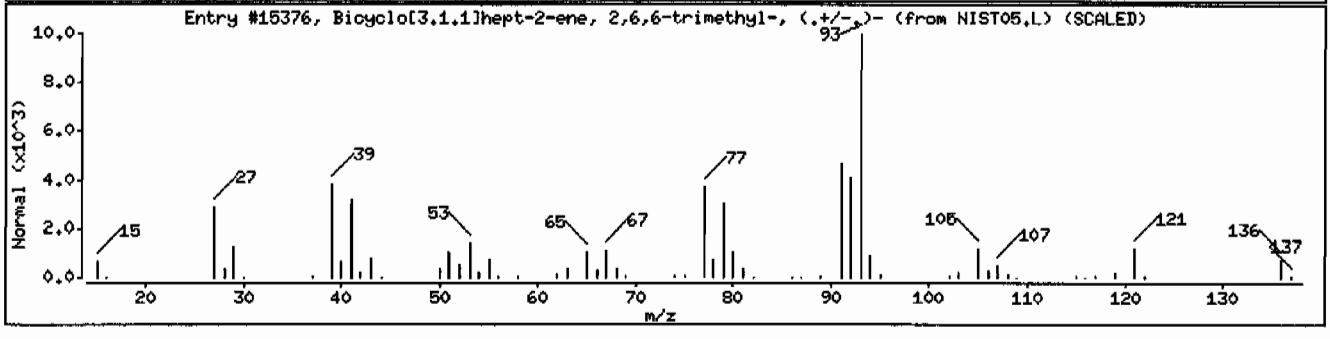

Data File: /chem/MSD6.i/s121609.b/s611627.d

Date : 16-DEC-2009 21:51

Client ID: WST03-10-2146

Instrument: MSD6.i

Sample Info: |2427840041932444|1|SVMF|1|LANL

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
3-Carene	13466-78-9	NIST05.L	15156	96	C10H16	136
1R-.alpha.-Pinene	7785-70-8	NIST05.L	15186	95	C10H16	136
Bicyclo[4.1.0]hept-3-ene, 3,7,7-trimethy	498-15-7	NIST05.L	15369	95	C10H16	136

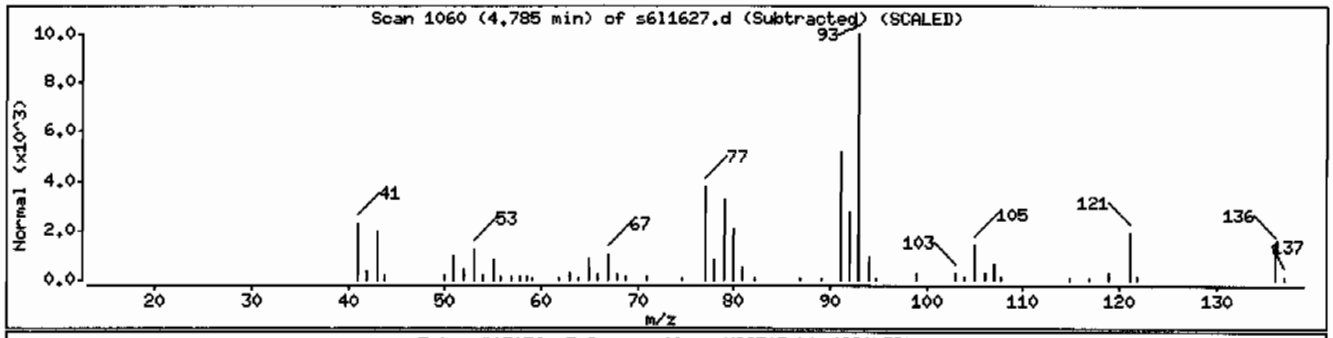

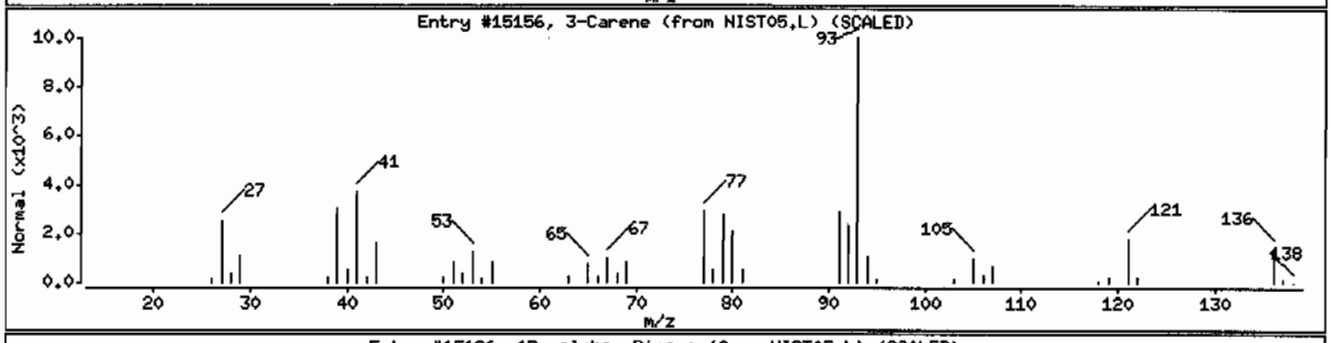

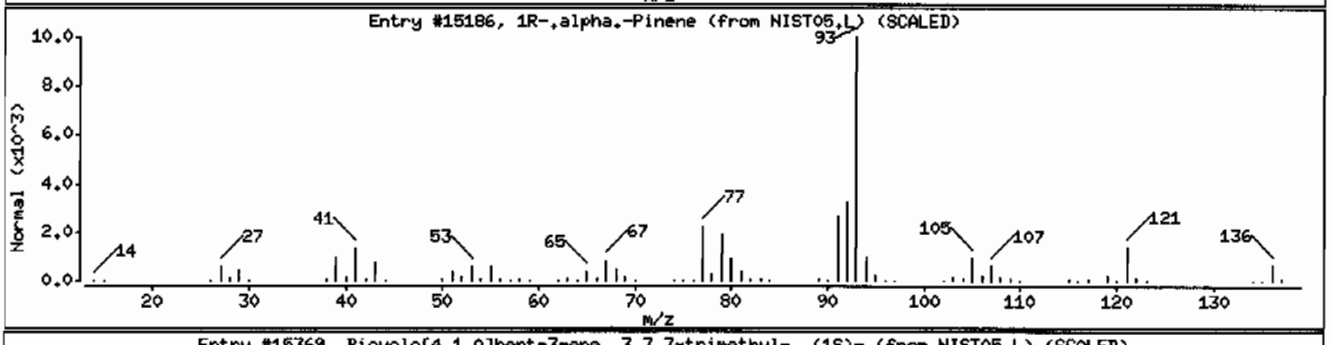

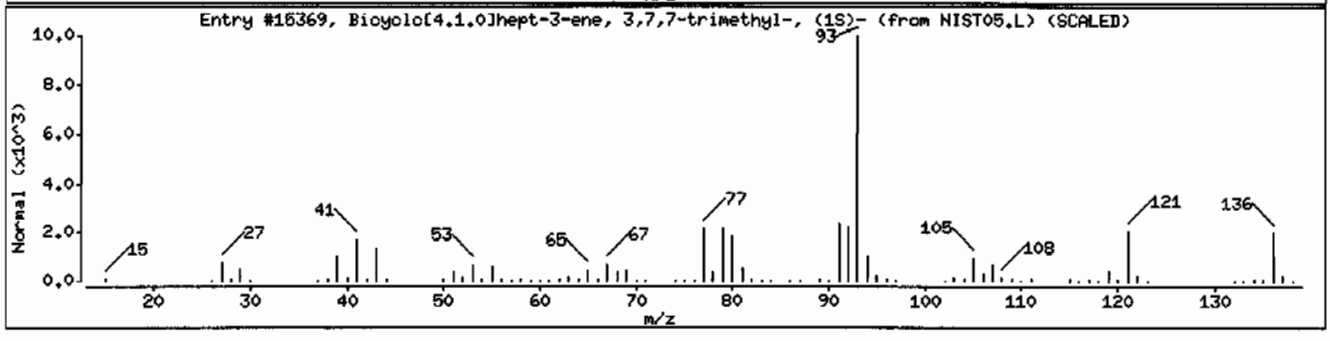

Data File: /chem/MSD6.i/s121609.b/s611627.d

Date : 16-DEC-2009 21:51

Client ID: WST03-10-2146 Instrument: MSD6.i

Sample Info: |2427840041932444|1|SVHF|1|LANL

Volume Injected (uL): 0.5 Operator: nag1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
1,4-Methanoazulene, decahydro-4,8,8-trim	475-20-7	NIST05.L	60018	97	C15H24	204
1H-Cyclopropa[a]naphthalene, decahydro-1	20071-49-2	NIST05.L	60072	95	C15H24	204
1H-Benzocycloheptene, 2,4a,5,6,7,8,9,9a-	3853-83-6	NIST05.L	59998	95	C15H24	204

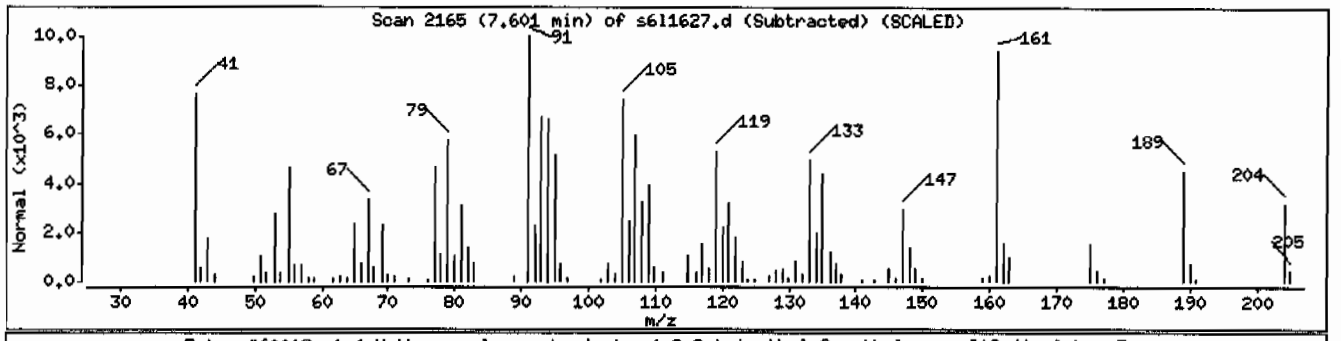

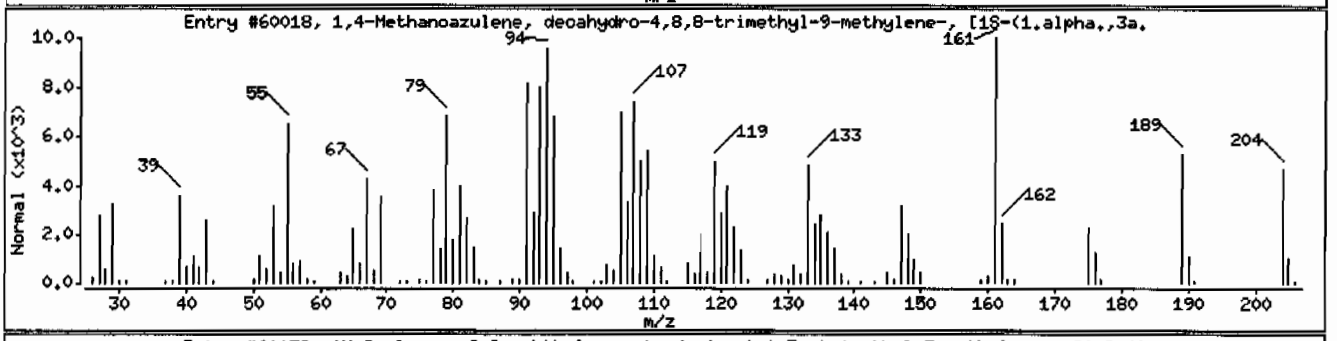

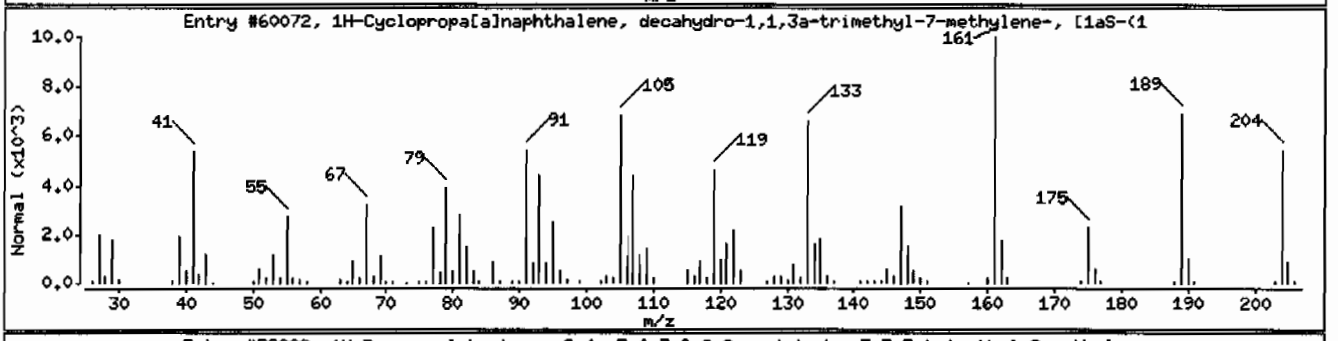

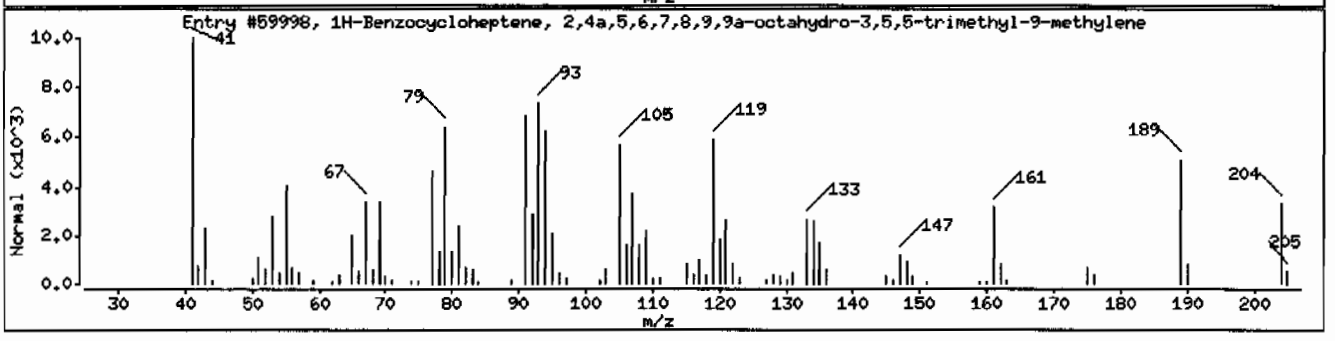

Data File: /chem/MSD6.i/s121609.b/s611627.d

Date : 16-DEC-2009 21:51

Client ID: WST03-10-2146

Instrument: MSD6.i

Sample Info: |2427840041932444|1|SVMF|1|LANL

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
9-Octadecenamide, (Z)-	301-02-0	NIST05.L	112657	95	C18H35NO	281
9-Octadecenamide, (Z)-	301-02-0	NIST05.L	112656	95	C18H35NO	281
9-Octadecenamide, (Z)-	301-02-0	NIST05.L	112655	80	C18H35NO	281

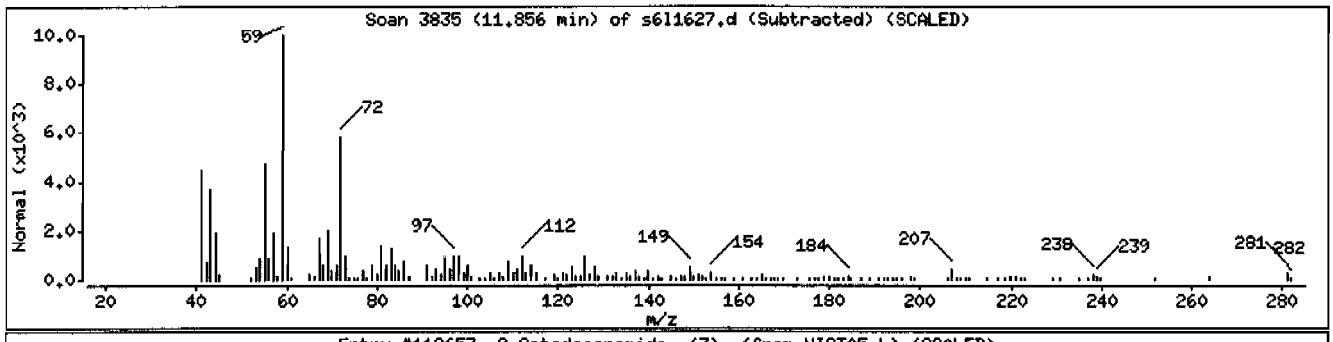

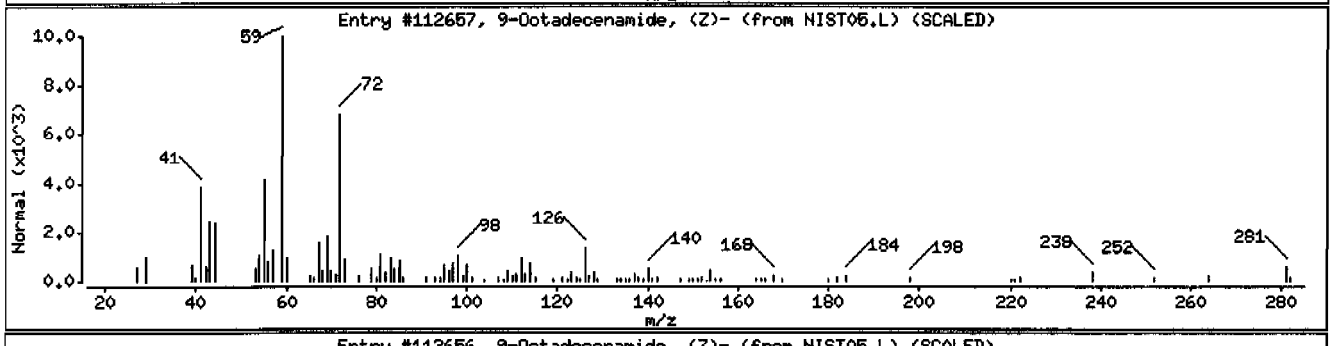

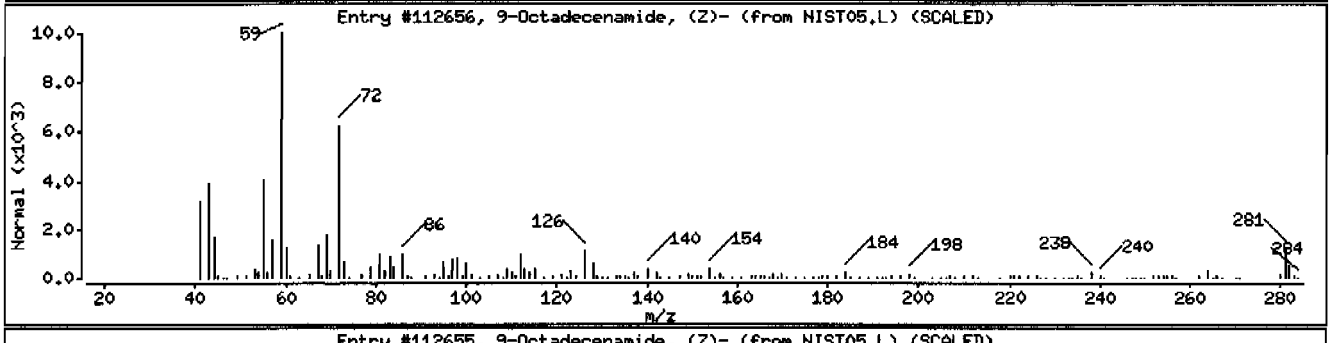

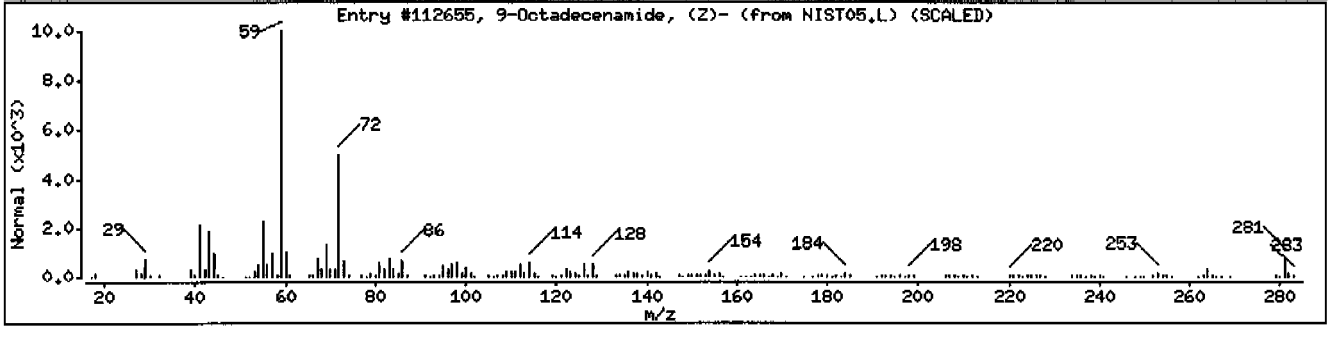

Data File: /chem/MSD6.i/s121609.b/s611627.d

Date : 16-DEC-2009 21:51

Client ID: WST03-10-2146 Instrument: MSD6.i

Sample Info: |2427840041932444|1|SVMF|1|LANL

Volume Injected (uL): 0.5 Operator: nagl

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
7-Ethylidenebicyclo[4.2.1]nona-2,4-diene	94400-10-9	NIST05.L	20835	20	C11H14	146
Pregnan-20-one, (5.alpha.,17.alpha.)-	7704-90-7	NIST05.L	126224	18	C21H340	302
Pregnan-20-one, (5.alpha.,17.alpha.)-	7704-90-7	NIST05.L	126222	18	C21H340	302

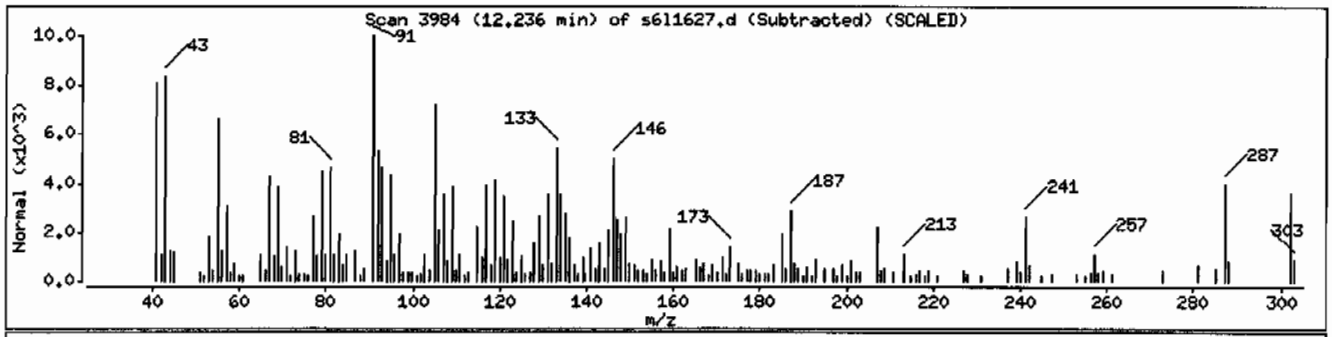

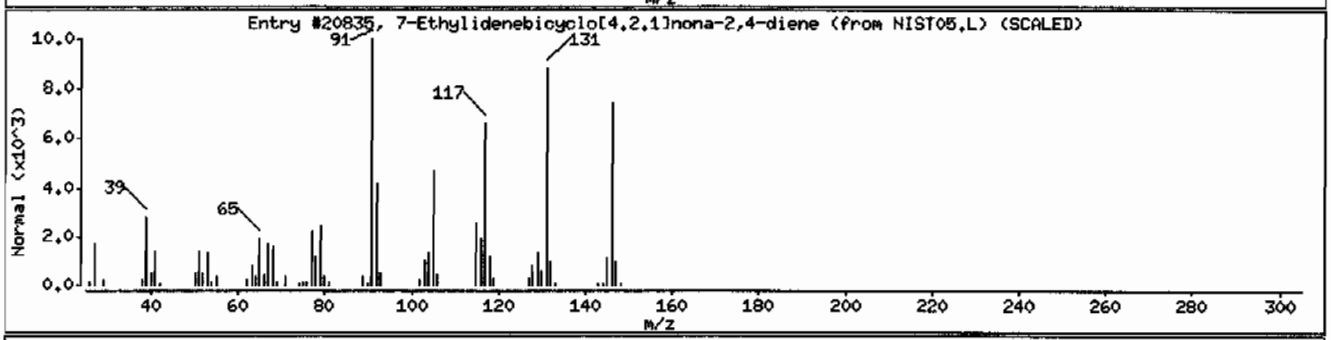

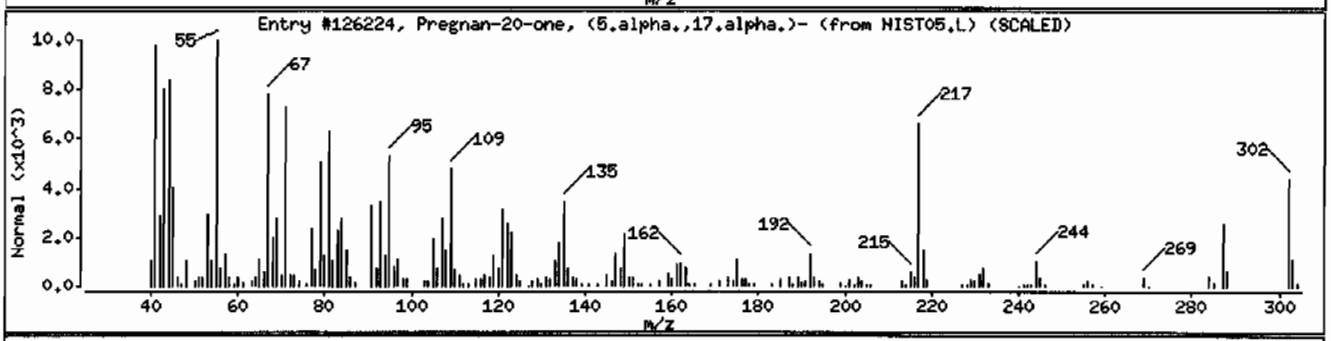

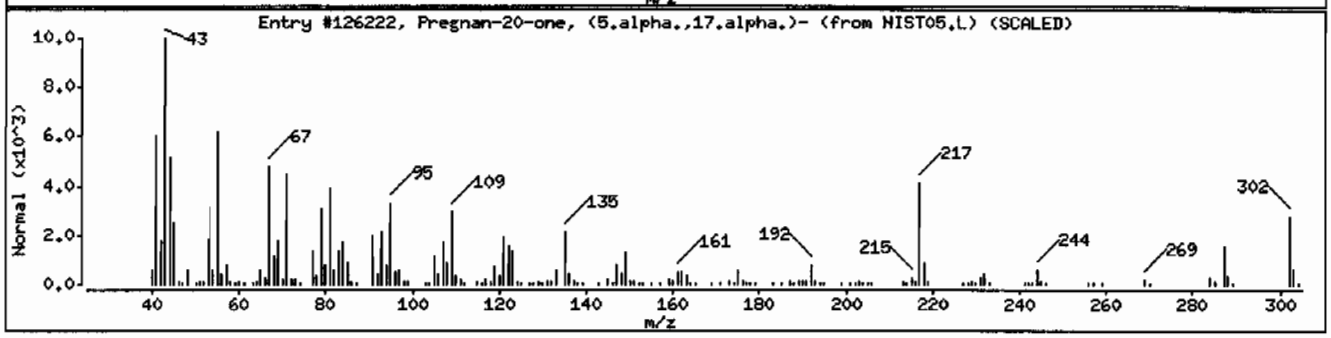

Data File: /chem/MSD6.i/s121609.b/s611627.d

Date : 16-DEC-2009 21:51

Client ID: WST03-10-2146

Instrument: MSD6.i

Sample Info: |2427840041932444|1|SVHF|1|LANL

Volume Injected (uL): 0.5

Operator: nagl

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
1-Phenanthrenecarboxylic acid, 1,2,3,4,4	1740-19-8	NIST05.L	125034	93	C20H2802	300
1-Phenanthrenecarboxylic acid, 1,2,3,4,4	1740-19-8	NIST05.L	125037	91	C20H2802	300
1-Phenanthrenecarboxylic acid, 1,2,3,4,4	1740-19-8	NIST05.L	125036	90	C20H2802	300

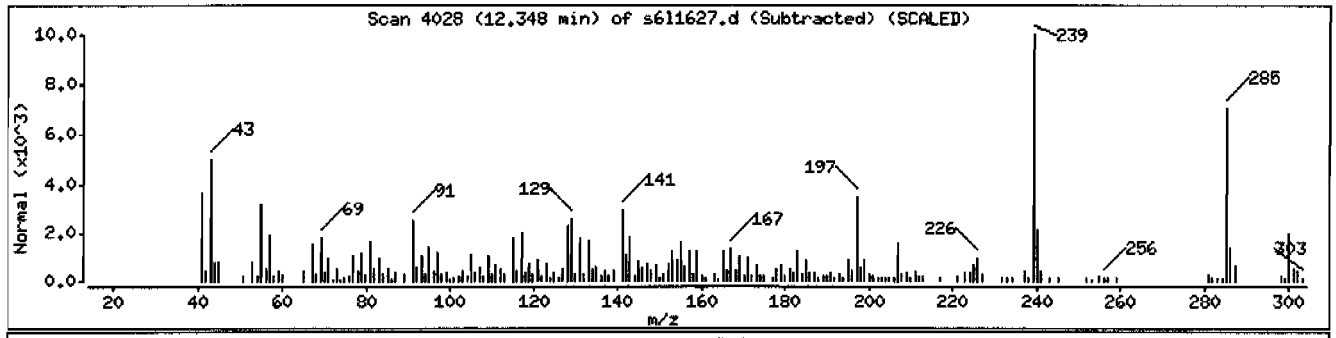

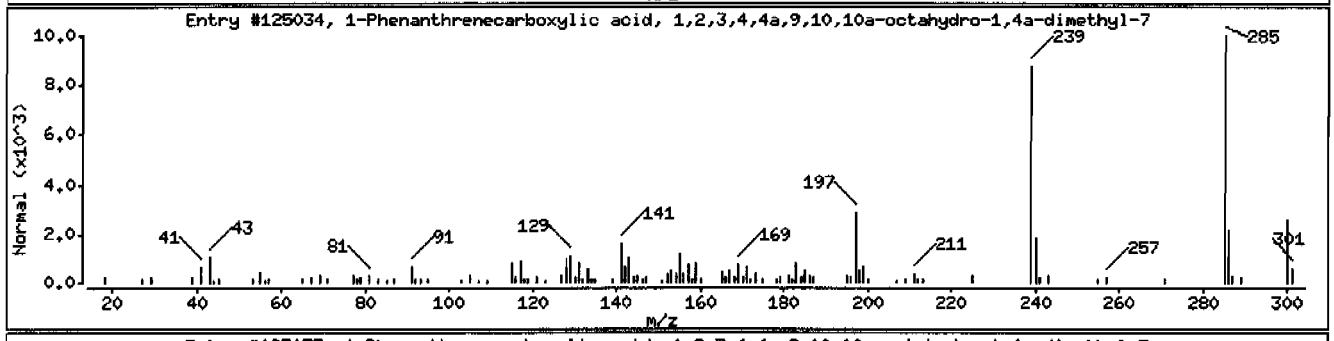

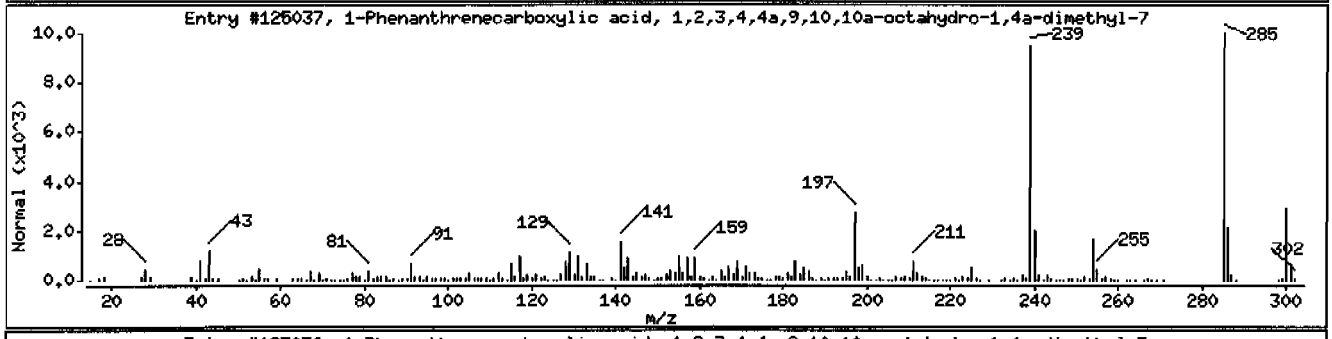

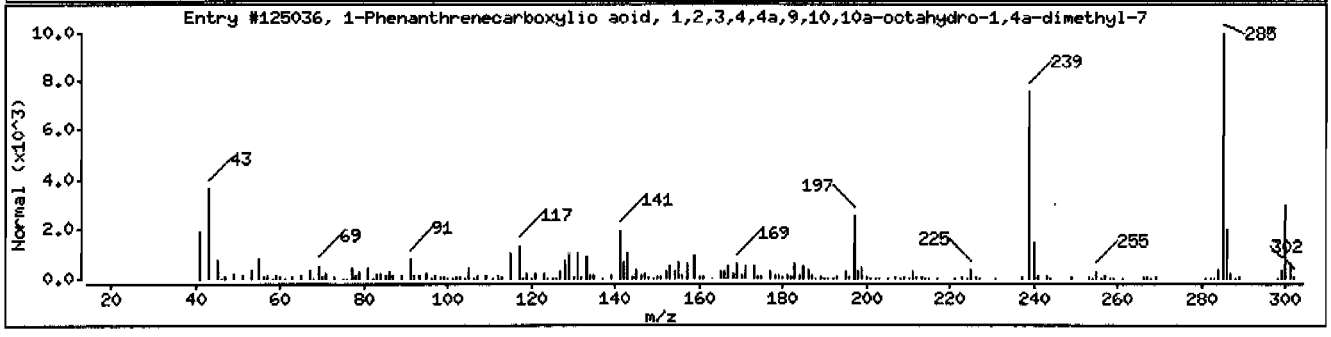

Data File: /chem/MSD6.i/s121609.b/s611627.d

Date : 16-DEC-2009 21:51

Client ID: WST03-10-2146 Instrument: MSD6.i

Sample Info: |2427840041932444|1|SVMF|1|LANL

Volume Injected (uL): 0.5 Operator: nagl

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
1H-Cyclopropl[e]azulene, 1a,2,3,4,4a,5,6,	489-40-7	NIST05.L	60089	42	C15H24	204
Cyclotrisiloxane, hexamethyl-	541-05-9	NIST05.L	73123	35	C6H18O3Si3	222
2-Ethylacridine	55751-83-2	NIST05.L	62222	30	C15H13N	207

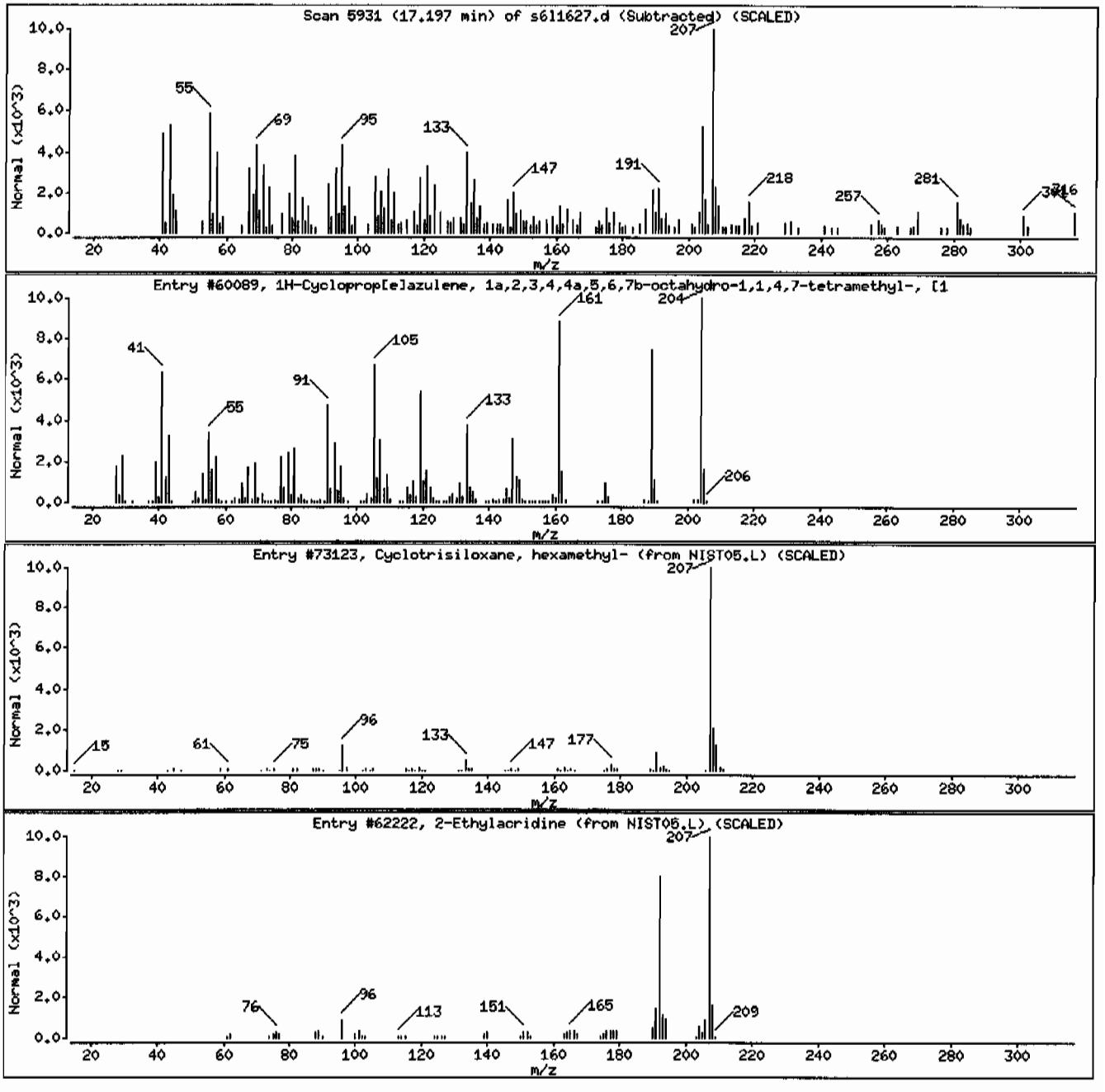

Standard Data

SW846 8270C//8270D/EPA 625								
Calibration Standard Concentration Levels*								
	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
1,4-Dichlorobenzene-d4 (INTERNAL STANDARD)								
Naphthalene-d8 (INTERNAL STANDARD)								
Acenaphthene-d10 (INTERNAL STANDARD)								
Phenanthrene-d10 (INTERNAL STANDARD)								
Chrysene-d12 (INTERNAL STANDARD)								
Perylene-d12 (INTERNAL STANDARD)								
2-Fluorophenol (SURROGATE)		10	20	40	50	80	100	120
Phenol-d5 (SURROGATE)		10	20	40	50	80	100	120
2-Chlorophenol-d4 (CLP SURROGATE)		10	20	40	50	80	100	120
1,2-Dichlorobenzene-d4 (CLP SURROGATE)		10	20	40	50	80	100	120
Nitrobenzene-d5 (SURROGATE)		10	20	40	50	80	100	120
2-Fluorobiphenyl (SURROGATE)		10	20	40	50	80	100	120
2,4,6-Tribromophenol (SURROGATE)		10	20	40	50	80	100	120
p-Terphenyl-d14 (SURROGATE)		10	20	40	50	80	100	120
N-Nitrosodimethylamine		10	20	40	50	80	100	120
Pyridine		10	20	40	50	80	100	120
Aniline		10	20	40	50	80	100	120
Benzaldehyde		10	20	40	50	80	100	120
Phenol		10	20	40	50	80	100	120
bis(2-Chloroethyl)ether	1	10	20	40	50	80	100	120
2-Chlorophenol		10	20	40	50	80	100	120
n-Decane		10	20	40	50	80	100	120
1,3-Dichlorobenzene		10	20	40	50	80	100	120
1,4-Dichlorobenzene		10	20	40	50	80	100	120
Benzyl Alcohol		10	20	40	50	80	100	120
1,2-Dichlorobenzene		10	20	40	50	80	100	120
bis(2-Chloroisopropyl)ether		10	20	40	50	80	100	120
o-Cresol (2-Methylphenol)		10	20	40	50	80	100	120
Acetophenone		10	20	40	50	80	100	120
N-Nitrosodipropylamine	1	10	20	40	50	80	100	120
m,p-Cresols (3-Methylphenol & 4-Methylphenol)		10	20	40	50	80	100	120
Hexachloroethane		10	20	40	50	80	100	120
Nitrobenzene		10	20	40	50	80	100	120
Isophorone		10	20	40	50	80	100	120
2-Nitrophenol		10	20	40	50	80	100	120
2,4-Dimethylphenol		10	20	40	50	80	100	120
bis(2-Chloroethoxy)methane		10	20	40	50	80	100	120
2,4-Dichlorophenol		10	20	40	50	80	100	120
Benzoic Acid			20	40	50	80	100	120
1,2,4-Trichlorobenzene		10	20	40	50	80	100	120
Naphthalene	1	10	20	40	50	80	100	120
alpha-Terpineol		10	20	40	50	80	100	120
4-Chloroaniline		10	20	40	50	80	100	120
Caprolactam		10	20	40	50	80	100	120

SW846 8270C//8270D/EPA 625								
Calibration Standard Concentration Levels*								
	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Hexachlorobutadiene		10	20	40	50	80	100	120
4-Chloro-3-methylphenol		10	20	40	50	80	100	120

2-Methylnaphthalene	1	10	20	40	50	80	100	120
1-Methylnaphthalene	1	10	20	40	50	80	100	120
Hexachlorocyclopentadiene		10	20	40	50	80	100	120
1,1'-Biphenyl		10	20	40	50	80	100	120
2,3-Dichloroaniline		10	20	40	50	80	100	120
2,4,6-Trichlorophenol		10	20	40	50	80	100	120
2,4,5-Trichlorophenol		10	20	40	50	80	100	120
2-Chloronaphthalene	1	10	20	40	50	80	100	120
o-Nitroaniline		10	20	40	50	80	100	120
m-Nitroaniline		10	20	40	50	80	100	120
Dimethylphthalate	1	10	20	40	50	80	100	120
2,6-Dinitrotoluene		10	20	40	50	80	100	120
Acenaphthylene	1	10	20	40	50	80	100	120
Acenaphthene	1	10	20	40	50	80	100	120
2,4-Dinitrophenol			20	40	50	80	100	120
Dibenzofuran		10	20	40	50	80	100	120
2,4-Dinitrotoluene		10	20	40	50	80	100	120
Diethylphthalate	1	10	20	40	50	80	100	120
4-Nitrophenol		10	20	40	50	80	100	120
Fluorene	1	10	20	40	50	80	100	120
4-Chlorophenyl phenyl ether		10	20	40	50	80	100	120
2-Methyl-4,6-dinitrophenol		10	20	40	50	80	100	120
p-Nitroaniline		10	20	40	50	80	100	120
Diphenylamine		10	20	40	50	80	100	120
1,2-Diphenylhydrazine		10	20	40	50	80	100	120
Tributylphosphate		10	20	40	50	80	100	120
4-Bromophenyl phenyether		10	20	40	50	80	100	120
Hexachlorobenzene		10	20	40	50	80	100	120
Atrazine		10	20	40	50	80	100	120
Pentachlorophenol		10	20	40	50	80	100	120
n-Octadecane		10	20	40	50	80	100	120
Phenanthrene	1	10	20	40	50	80	100	120
Anthracene	1	10	20	40	50	80	100	120
Di-n-butylphthalate	1	10	20	40	50	80	100	120
Fluoranthene	1	10	20	40	50	80	100	120
Benzidine		10	20	40	50	80	100	120
Pyrene	1	10	20	40	50	80	100	120
Butylbenzylphthalate	1	10	20	40	50	80	100	120
Benzo(a)anthracene	1	10	20	40	50	80	100	120
3,3'-Dichlorobenzidene		10	20	40	50	80	100	120
Chrysene	1	10	20	40	50	80	100	120
bis (2-Ethylhexyl) phthalate	1	10	20	40	50	80	100	120
Di-n-octylphthalate	1	10	20	40	50	80	100	120

SW846 8270C//8270D/EPA 625								
Calibration Standard Concentration Levels*								
	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Benzo(b)fluoranthene	1	10	20	40	50	80	100	120
Benzo(k)fluoranthene	1	10	20	40	50	80	100	120
Benzo(a)pyrene	1	10	20	40	50	80	100	120
Indeno-(1,2,3-cd)pyrene	1	10	20	40	50	80	100	120
Dibenzo(a,h)anthracene	1	10	20	40	50	80	100	120
Benzo(ghi)perylene	1	10	20	40	50	80	100	120
Carbazole	1	10	20	40	50	80	100	120

APPENDIX IX

1,4-Dioxane		10	20	40	50	80	100	120
Methyl methacrylate		10	20	40	50	80	100	120
Ethyl methacrylate		10	20	40	50	80	100	120
2-Picoline		10	20	40	50	80	100	120
N-Nitrosomethylethylamine		10	20	40	50	80	100	120
Methyl methanesulfonate		10	20	40	50	80	100	120
N-Nitrosodiethylamine		10	20	40	50	80	100	120
Ethyl methanesulfonate		10	20	40	50	80	100	120
Pentachloroethane		10	20	40	50	80	100	120
N-Nitrosopyrrolidine		10	20	40	50	80	100	120
N-Nitrosomorpholine		10	20	40	50	80	100	120
o-Toluidine		10	20	40	50	80	100	120
N-Nitrosopiperidine		10	20	40	50	80	100	120
a,a-Dimethhylphenethylamine		10	20	40	50	80	100	120
Triethylphosphorothioate		10	20	40	50	80	100	120
2,6-Dichlorophenol		10	20	40	50	80	100	120
Hexachloropropene		10	20	40	50	80	100	120
p-Phenylenediamine		10	20	40	50	80	100	120
N-Nitrosodi-n-butylamine		10	20	40	50	80	100	120
Safrole		10	20	40	50	80	100	120
1,2,4,5-Tetrachlorobenzene		10	20	40	50	80	100	120
Isosafrole		10	20	40	50	80	100	120
1,4-Naphthoquinone		10	20	40	50	80	100	120
m-Dinitrobenzene		10	20	40	50	80	100	120
Pentachlorobenzene		10	20	40	50	80	100	120
1-Naphthylamine		10	20	40	50	80	100	120
2-Naphthylamine		10	20	40	50	80	100	120
2,3,4,6-Tetrachlorophenol		10	20	40	50	80	100	120
5-Nitro-o-toluidine		10	20	40	50	80	100	120
Thionazin		10	20	40	50	80	100	120
Sulfotepp		10	20	40	50	80	100	120
Phorate		10	20	40	50	80	100	120
1,3,5-Trinitrobenzene		10	20	40	50	80	100	120
Phenacetin		10	20	40	50	80	100	120
Diallate (cis and trans)		10	20	40	50	80	100	120

SW846 8270C//8270D/EPA 625

Calibration Standard Concentration Levels*

	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Dimethoate		10	20	40	50	80	100	120
4-Aminobiphenyl		10	20	40	50	80	100	120
Pentachloronitrobenzene		10	20	40	50	80	100	120
Pronamide		10	20	40	50	80	100	120
Dinoseb		10	20	40	50	80	100	120
Disulfoton		10	20	40	50	80	100	120
Methyl parathion		10	20	40	50	80	100	120
4-Nitroquinoline oxide		10	20	40	50	80	100	120
Methapyrilene		10	20	40	50	80	100	120
Isodrin		10	20	40	50	80	100	120
Aramite		10	20	40	50	80	100	120
Kepone		10	20	40	50	80	100	120
p-(Dimethylamino)azobenzene		10	20	40	50	80	100	120

Chlorobenzilate		10	20	40	50	80	100	120
3,3'-Dimethylbenzidine		10	20	40	50	80	100	120
Famphur		10	20	40	50	80	100	120
2-Acetylaminofluorene		10	20	40	50	80	100	120
7,12-Dimethylbenz(a)anthracene		10	20	40	50	80	100	120
3-Methylcholanthrene		10	20	40	50	80	100	120
Hexachlorophene		500	1000	1250	1500	1750	2000	
p-Benzoquinone		10	20	40	50	80	100	120
Parathion		10	20	40	50	80	100	120
Methoxychlor		10	20	40	50	80	100	120
2-Ethoxyethanol		50	75	100	125	150	200	250
cis-Diallate		1.5	3	6	7.5	12	15	18
trans-Diallate		8.5	17	34	42	68	85	102
Dibenzo(a,e)pyrene		50	75	100	125	150	200	250
Phthalic anhydride		50	75	100	125	150	200	250
1,4-Dinitrobenzene		50	75	100	125	150	200	250
(2,3-Dibromopropyl)phosphate		50	75	100	125	150	200	250
Methylenebis(2-chloroaniline)		50	75	100	125	150	200	250
p-Toluidine		10	20	40	50	80	100	120
m-Toluidine		10	20	40	50	80	10	120

SW846 8270C//8270D/EPA 625								
Calibration Standard Concentration Levels*								
	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
bis(Chloromethyl)ether		10	20	40	50	80	100	120
Thiophenol		10	20	40	50	80	100	120
4-Chlorothiophenol		10	20	40	50	80	100	120
4-Chlorothio anisole		10	20	40	50	80	100	120
Phthalic acid		10	20	40	50	80	100	120
Hydroxymethyl phthalamide		10	20	40	50	80	100	120
Diphenyl sulfide		10	20	40	50	80	100	120
Diphenyl disulfide		10	20	40	50	80	100	120
Phenyl sulfone		10	20	40	50	80	100	120
Octachlorostyrene		10	20	40	50	80	100	120
2,2'-Dichlorobenzil		10	20	40	50	80	100	120
bis(p-Chlorophenyl)disulfide		10	20	40	50	80	100	120
bis(p-Chlorophenyl)sulfone		10	20	40	50	80	10	120

All values are mg/L without the prep factor.
# Indicates the calibration verification concentration level used
* Usual calibration levels using SCAN methodology
Level 1 may be included at request of client
(06/08)

Report Date: 17-Dec-2009 08:12

Calibration History

Method : /chem/MSD6.i/s121609.b/MSD6-M8270C-AQA-110909.m
Start Cal Date: 09-NOV-2009 18:53
End Cal Date : 11-NOV-2009 04:38

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 1.00000		
09-NOV-2009 18:53	MEGA	/chem/MSD6.i/s110909.b/s6k0913.d
Cal Level: 2 , Cal Amount: 10.00000		
11-NOV-2009 01:47	NEV	/chem/MSD6.i/s110909.b/s6k0948.d
10-NOV-2009 22:55	HEX	/chem/MSD6.i/s110909.b/s6k0942.d
10-NOV-2009 16:20	PEST	/chem/MSD6.i/s110909.b/s6k0930.d
10-NOV-2009 11:59	AP12	/chem/MSD6.i/s110909.b/s6k0923.d
09-NOV-2009 19:31	MEGA	/chem/MSD6.i/s110909.b/s6k0914.d
Cal Level: 3 , Cal Amount: 20.00000		
11-NOV-2009 02:16	NEV	/chem/MSD6.i/s110909.b/s6k0949.d
10-NOV-2009 23:24	HEX	/chem/MSD6.i/s110909.b/s6k0943.d
10-NOV-2009 16:56	PEST	/chem/MSD6.i/s110909.b/s6k0931.d
10-NOV-2009 12:36	AP12	/chem/MSD6.i/s110909.b/s6k0924.d
09-NOV-2009 20:09	MEGA	/chem/MSD6.i/s110909.b/s6k0915.d
Cal Level: 4 , Cal Amount: 40.00000		
11-NOV-2009 02:44	NEV	/chem/MSD6.i/s110909.b/s6k0950.d
10-NOV-2009 23:53	HEX	/chem/MSD6.i/s110909.b/s6k0944.d
10-NOV-2009 17:33	PEST	/chem/MSD6.i/s110909.b/s6k0932.d
10-NOV-2009 13:13	AP12	/chem/MSD6.i/s110909.b/s6k0925.d
09-NOV-2009 20:46	MEGA	/chem/MSD6.i/s110909.b/s6k0916.d
Cal Level: 5 , Cal Amount: 50.00000		
11-NOV-2009 03:12	NEV	/chem/MSD6.i/s110909.b/s6k0951.d
11-NOV-2009 00:21	HEX	/chem/MSD6.i/s110909.b/s6k0945.d
10-NOV-2009 18:09	PEST	/chem/MSD6.i/s110909.b/s6k0933.d
10-NOV-2009 13:51	AP12	/chem/MSD6.i/s110909.b/s6k0926.d
09-NOV-2009 21:25	MEGA	/chem/MSD6.i/s110909.b/s6k0917.d
Cal Level: 6 , Cal Amount: 80.00000		
11-NOV-2009 03:41	NEV	/chem/MSD6.i/s110909.b/s6k0952.d
11-NOV-2009 00:50	HEX	/chem/MSD6.i/s110909.b/s6k0946.d
10-NOV-2009 18:45	PEST	/chem/MSD6.i/s110909.b/s6k0934.d
10-NOV-2009 14:30	AP12	/chem/MSD6.i/s110909.b/s6k0927.d
09-NOV-2009 22:01	MEGA	/chem/MSD6.i/s110909.b/s6k0918.d
Cal Level: 7 , Cal Amount: 100.00000		

11-NOV-2009 04:10	NEV	/chem/MSD6.i/s110909.b/s6k0953.d
11-NOV-2009 01:18	HEX	/chem/MSD6.i/s110909.b/s6k0947.d
10-NOV-2009 19:21	PEST	/chem/MSD6.i/s110909.b/s6k0935.d
10-NOV-2009 15:06	AP12	/chem/MSD6.i/s110909.b/s6k0928.d
09-NOV-2009 22:39	MEGA	/chem/MSD6.i/s110909.b/s6k0919.d

Cal Level: 8 , Cal Amount: 120.00000		
11-NOV-2009 04:38	NEV	/chem/MSD6.i/s110909.b/s6k0954.d
10-NOV-2009 19:58	PEST	/chem/MSD6.i/s110909.b/s6k0936.d
10-NOV-2009 15:43	AP12	/chem/MSD6.i/s110909.b/s6k0929.d
09-NOV-2009 23:16	MEGA	/chem/MSD6.i/s110909.b/s6k0920.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 40.0		
16-DEC-2009 14:18	MEGA	/chem/MSD6.i/s121609.b/s6l1611.d
Ccal Level: 4 , Ccal Amount: 40.0		
16-DEC-2009 14:46	AP12	/chem/MSD6.i/s121609.b/s6l1612.d
Ccal Level: 4 , Ccal Amount: 40.0		
16-DEC-2009 11:57	AP12	/chem/MSD6.i/s121609.b/s6l1607.d
Ccal Level: 4 , Ccal Amount: 40.0		
16-DEC-2009 12:53	PEST	/chem/MSD6.i/s121609.b/s6l1609.d
Ccal Level: 4 , Ccal Amount: 40.0		
16-DEC-2009 12:25	MEGA	/chem/MSD6.i/s121609.b/s6l1608.d
Ccal Level: 4 , Ccal Amount: 40.0		
16-DEC-2009 11:28	MEGA	/chem/MSD6.i/s121609.b/s6l1606.d
Ccal Level: 4 , Ccal Amount: 40.0		
16-DEC-2009 09:38	MEGA	/chem/MSD6.i/s121609.b/s6l1604.d
Ccal Level: 4 , Ccal Amount: 40.0		
16-DEC-2009 08:47	MEGA	/chem/MSD6.i/s121609.b/s6l1602.d

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 09-NOV-2009 18:53
End Cal Date : 11-NOV-2009 04:38
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD6.i/s121609.b/MSD6-M8270C-AQA-110909.m
Cal Date : 17-Dec-2009 08:11 nat00999

Calibration File Names:
Level 1: /chem/MSD6.i/s110909.b/s6k0913.d
Level 2: /chem/MSD6.i/s110909.b/s6k0948.d
Level 3: /chem/MSD6.i/s110909.b/s6k0949.d
Level 4: /chem/MSD6.i/s110909.b/s6k0950.d
Level 5: /chem/MSD6.i/s110909.b/s6k0951.d
Level 6: /chem/MSD6.i/s110909.b/s6k0952.d
Level 7: /chem/MSD6.i/s110909.b/s6k0953.d
Level 8: /chem/MSD6.i/s110909.b/s6k0954.d

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
1 N-Methyl-N-nitrosomethylamine	+++++	0.62711	0.72014	0.69994	0.71294	0.67761					
	0.66245	0.66663					AVRG		0.68098		4.78734
2 Pyridine	+++++	0.78506	0.84345	0.94451	0.94132	0.77430					
	0.82190	0.82246					AVRG		0.84757		8.16958
4 Aniline	+++++	0.51792	0.56281	0.52949	0.53182	0.51964					
	0.51849	0.51247					AVRG		0.52752		3.21865
209 Benzaldehyde	+++++	0.94297	0.91161	0.92064	0.86617	0.84259					
	0.79828	0.74667					AVRG		0.86127		8.23824
6 Phenol	+++++	1.29580	1.38609	1.27955	1.27629	1.24279					
	1.20107	1.21677					AVRG		1.27120		4.82676

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 09-NOV-2009 18:53
End Cal Date : 11-NOV-2009 04:38
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD6.i/s121609.b/MSD6-M8270C-AQA-110909.m
Cal Date : 17-Dec-2009 08:11 nat00999

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
7 bis(2-Chloroethyl) ether	0.93365	0.90056	0.92748	0.85273	0.86174	0.82247					
	0.79075	0.79709					AVRG		0.86081		6.48811
8 2-Chlorophenol	+++++	1.05270	1.10343	1.04994	1.05384	0.99340					
	0.95375	0.94058					AVRG		1.02109		5.85808
203 n-Decane	+++++	1.57696	1.59018	1.40648	1.36249	1.17658					
	+++++	+++++					AVRG		1.42254		11.98709
9 1,3-Dichlorobenzene	+++++	1.22415	1.27608	1.20806	1.21136	1.14335					
	1.08668	1.07881					AVRG		1.17550		6.31837
11 1,4-Dichlorobenzene	+++++	1.27202	1.32037	1.21925	1.20743	1.15141					
	1.09639	1.07447					AVRG		1.19162		7.54222
12 Benzyl alcohol	+++++	0.60900	0.65716	0.63043	0.62465	0.64143					
	0.63021	0.64767					AVRG		0.63436		2.50657
13 1,2-Dichlorobenzene	+++++	1.16666	1.21707	1.13327	1.12016	1.08966					
	1.03460	1.02472					AVRG		1.11231		6.21300
14 bis(2-Chloroisopropyl)ether	+++++	2.07635	2.13325	1.99088	1.97675	1.86028					
	1.72252	1.69272					AVRG		1.92182		8.81925
15 o-Cresol	+++++	0.82992	0.88629	0.84024	0.85639	0.80893					
	0.80386	0.79407					AVRG		0.83139		3.92027

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INITIAL CALIBRATION DATA

Start Cal Date : 09-NOV-2009 18:53
End Cal Date : 11-NOV-2009 04:38
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD6.i/s121609.b/MSD6-M8270C-AQA-110909.m
Cal Date : 17-Dec-2009 08:11 nat00999

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
16 Acetophenone	+++++	1.20921	1.17591	1.21168	1.15285	1.16925					
	1.13524	1.12939					AVRG		1.16908		2.80572
17 N-Nitrosodipropylamine	0.65638	0.74117	0.78851	0.72893	0.73002	0.72328					
	0.70725	0.59369					AVRG		0.70865		8.34285
18 m,p-Cresols	+++++	1.03591	1.12590	1.04958	1.05532	1.04720					
	1.02399	1.03632					AVRG		1.05346		3.18987
19 Hexachloroethane	+++++	0.45806	0.49524	0.47390	0.46960	0.45628					
	0.43995	0.43396					AVRG		0.46100		4.53111
21 Nitrobenzene	+++++	0.31691	0.32516	0.29885	0.29715	0.27038					
	0.24823	0.23966					AVRG		0.28519		11.62250
22 Isophorone	+++++	0.55891	0.57824	0.53268	0.53266	0.49425					
	0.45829	0.38358					AVRG		0.50552		13.23015
23 2-Nitrophenol	+++++	0.13453	0.14214	0.13601	0.13806	0.12888					
	0.12072	0.12047					AVRG		0.13154		6.43934
24 2,4-Dimethylphenol	+++++	0.23987	0.22536	0.21067	0.20421	0.21065					
	0.21868	0.21622					AVRG		0.21795		5.40955
25 bis(2-Chloroethoxy)methane	+++++	0.33208	0.34147	0.30906	0.30442	0.28195					
	0.26036	0.25310					AVRG		0.29749		11.40063

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	100 Level 7	120 Level 8									
26 2,4-Dichlorophenol	+++++	0.19875	0.21444	0.20921	0.20622	0.19391					
	0.18142	0.17985					AVRG		0.19769		6.80078
27 Benzoic acid	+++++	+++++	0.10585	0.12338	0.14032	0.14157					
	0.15049	0.14556					AVRG		0.13453		12.46641
28 1,2,4-Trichlorobenzene	+++++	0.27809	0.27557	0.25214	0.25046	0.22876					
	0.21050	0.20278					AVRG		0.24261		12.25857
30 Naphthalene	0.93577	0.85146	0.85267	0.76017	0.74029	0.64713					
	+++++	+++++					AVRG		0.79792		12.82401
204 alpha-Terpineol	+++++	0.23577	0.25490	0.22003	0.21987	0.20427					
	0.17723	+++++					AVRG		0.21868		12.15593
31 4-Chloroaniline	+++++	0.26389	0.28196	0.26991	0.26064	0.24995					
	0.23771	0.23114					AVRG		0.25646		7.00922
189 Caprolactam	+++++	0.06766	0.07272	0.08214	0.08102	0.07115					
	0.07075	0.07172					AVRG		0.07388		7.43636
32 Hexachlorobutadiene	+++++	0.14265	0.14557	0.13182	0.13097	0.11864					
	0.10931	0.10542					AVRG		0.12634		12.40746
33 4-Chloro-3-methylphenol	+++++	0.20824	0.22585	0.20971	0.20633	0.19424					
	0.17957	0.17303					AVRG		0.19957		9.25582

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
34 2-Methylnaphthalene	0.56779	0.53746	0.54769	0.49857	0.47476	0.43707					
	0.39981	0.38884					AVRG		0.48150		14.15789
35 1-Methylnaphthalene	0.55872	0.52838	0.53208	0.48366	0.46920	0.42612					
	0.38935	0.38051					AVRG		0.47100		14.29869
36 Hexachlorocyclopentadiene	+++++	0.13520	0.17775	0.15114	0.16219	0.15378					
	0.18308	0.16783					AVRG		0.16157		10.19735
208 1,1'-Biphenyl	+++++	1.32152	1.23439	1.25731	1.19710	1.16580					
	1.12776	1.10528					AVRG		1.20131		6.32036
205 2,3-Dichloroaniline	+++++	0.51880	0.53286	0.48272	0.49159	0.46096					
	0.42997	0.43664					AVRG		0.47908		8.16477
37 2,4,6-Trichlorophenol	+++++	0.27570	0.29634	0.28058	0.28008	0.26989					
	0.25242	0.25556					AVRG		0.27294		5.58990
38 2,4,5-Trichlorophenol	+++++	0.28031	0.30282	0.29443	0.29832	0.29160					
	0.28523	0.28197					AVRG		0.29067		2.92500
40 2-Chloronaphthalene	0.91208	0.94921	0.97975	0.90835	0.91949	0.87198					
	0.81926	0.82647					AVRG		0.89832		6.24992
42 o-Nitroaniline	+++++	0.28653	0.32807	0.30812	0.31848	0.31056					
	0.29539	0.30412					AVRG		0.30732		4.50651

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	100 Level 7	120 Level 8									
41 m-Nitroaniline	+++++	0.19029	0.23187	0.23025	0.23197	0.23511					
	0.22216	0.23314					AVRG		0.22497		7.03906
43 Dimethylphthalate	+++++	1.10253	1.11895	1.05121	1.05401	1.01311					
	0.95493	0.88796					AVRG		1.02610		7.97599
44 2,6-Dinitrotoluene	+++++	0.24859	0.25869	0.24751	0.24771	0.24514					
	0.22903	0.23656					AVRG		0.24475		3.87474
45 Acenaphthylene	1.45077	1.53234	1.59736	1.47314	1.47686	1.41153					
	1.30118	1.31187					AVRG		1.44438		7.03164
47 Acenaphthene	0.97754	0.93463	0.97051	0.90906	0.90733	0.85875					
	0.82122	0.83304					AVRG		0.90151		6.58830
48 2,4-Dinitrophenol	+++++	+++++	15920	45695	60199	121040					
	185455	+++++					LINR	0.36255	0.13077		0.99262
49 Dibenzofuran	+++++	1.31036	1.35172	1.24091	1.23630	1.17505					
	1.09035	1.11352					AVRG		1.21689		7.96140
50 2,4-Dinitrotoluene	+++++	0.28688	0.32526	0.31392	0.31582	0.31468					
	0.30077	0.30301					AVRG		0.30862		4.09740
51 Diethylphthalate	+++++	1.08427	1.13193	1.06273	1.05585	1.00787					
	0.93441	0.95637					AVRG		1.03335		6.84784

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	100 Level 7	120 Level 8									
52 4-Nitrophenol	+++++	12277	40572	90802	114423	208122					
	294363	379687					LINR	0.18209	0.20146		0.99664
53 Fluorene	1.06940	1.05468	1.10259	1.00777	1.00699	0.94775					
	0.89677	0.90440					AVRG		0.99879		7.65829
54 4-Chlorophenylphenylether	+++++	0.49941	0.52344	0.48539	0.48490	0.45443					
	0.43029	0.42560					AVRG		0.47192		7.71070
55 2-Methyl-4,6-dinitrophenol	+++++	9251	34357	85168	107219	199515					
	279188	346834					LINR	0.17722	0.10780		0.99957
56 p-Nitroaniline	+++++	18297	49968	114446	144020	267165					
	377942	477974					LINR	0.17663	0.25514		0.99741
133 Diphenylamine	+++++	0.51235	0.51279	0.48995	0.49110	0.46341					
	0.45142	0.45392					AVRG		0.48213		5.41113
58 1,2-Diphenylhydrazine	+++++	0.65288	0.67935	0.62730	0.62752	0.58724					
	0.56393	0.55466					AVRG		0.61327		7.55575
59 Tributylphosphate	+++++	1.19922	1.25332	1.24022	1.27997	1.24188					
	1.19433	1.14050					AVRG		1.22135		3.81011
61 4-Bromophenylphenylether	+++++	0.16321	0.16758	0.15949	0.16092	0.15366					
	0.14977	0.15022					AVRG		0.15784		4.30183

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	100 Level 7	120 Level 8									
63 Hexachlorobenzene	+++++	0.17072	0.17525	0.16702	0.16690	0.16190					
	0.15730	0.15822					AVRG		0.16533		3.97990
207 Atrazine	+++++	0.04466	0.04316	0.04336	0.04050	0.04104					
	0.03746	0.03425					AVRG		0.04063		9.04410
65 Pentachlorophenol	+++++	12427	38945	80211	100581	192628					
	259470	326879					LINR	0.13427	0.09964		0.99838
206 n-Octadecane	+++++	0.51627	0.51598	0.45832	0.46068	0.40718					
	0.37377	0.35992					AVRG		0.44173		14.37986
68 Phenanthrene	0.95060	0.88603	0.89746	0.83221	0.81673	0.77346					
	0.73349	0.72773					AVRG		0.82721		9.72714
69 Anthracene	0.87683	0.86194	0.90534	0.83970	0.83829	0.78921					
	0.75133	0.75196					AVRG		0.82682		6.91971
72 Di-n-butylphthalate	+++++	1.00113	1.04654	0.99105	0.98676	0.92173					
	0.85606	0.84350					AVRG		0.94954		8.15043
76 Fluoranthene	0.78392	0.79487	0.87026	0.82674	0.81613	0.77420					
	0.73596	0.73727					AVRG		0.79242		5.73137
77 Benzidine	+++++	0.35813	0.40641	0.39242	0.37729	0.37701					
	0.39765	0.44234					AVRG		0.39304		6.85454

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	100 Level 7	120 Level 8									
79 Pyrene	1.12114	1.31021	1.22539	1.10007	1.11660	1.02083					
	0.96007	0.94734					AVRG		1.10021		11.38295
85 Butylbenzylphthalate	+++++	0.52543	0.54028	0.51608	0.52406	0.49119					
	0.46906	0.45845					AVRG		0.50351		6.16544
89 Benzo(a)anthracene	0.94221	0.85505	0.89830	0.85692	0.85716	0.83423					
	0.82127	0.83891					AVRG		0.86301		4.55256
90 3,3'-Dichlorobenzidine	+++++	0.23529	0.28074	0.29290	0.29384	0.28532					
	0.28779	0.30173					AVRG		0.28252		7.74710
92 Chrysene	0.87195	0.83557	0.87346	0.82487	0.82639	0.80729					
	0.78155	0.79409					AVRG		0.82690		4.03552
93 bis(2-Ethylhexyl)phthalate	7340	107837	270739	551016	645048	1078889					
	1389660	1700943					WLINR	0.01019	0.70092		0.99014
94 Di-n-octylphthalate	+++++	1.19610	1.35485	1.31605	1.35770	1.25055					
	1.27306	1.15060					AVRG		1.27127		6.18607
95 Benzo(b)fluoranthene	0.74161	0.85750	0.94279	0.90432	0.93361	0.89239					
	0.89332	0.91506					AVRG		0.88507		7.19928
96 Benzo(k)fluoranthene	0.73172	0.86857	0.95518	0.92430	0.92244	0.89945					
	0.88010	0.85909					AVRG		0.88011		7.72381

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
97 Benzo(a)pyrene	0.54179	0.70605	0.81133	0.81358	0.82559	0.80913					
	0.80179	0.80647					AVRG		0.76447		12.74919
99 Indeno(1,2,3-cd)pyrene	5888	60939	200863	402882	510813	1012558					
	1348903	1889688					LINR	0.07592	0.78768		0.99752
100 Dibenzo(a,h)anthracene	3385	46770	157194	361792	411532	815285					
	1094612	1529825					LINR	0.06768	0.63666		0.99908
101 Benzo(ghi)perylene	0.41694	0.53228	0.60870	0.60962	0.60436	0.63133					
	0.62968	0.63931					AVRG		0.58403		12.88683
102 1,4-Dioxane	+++++	0.37671	0.37043	0.39061	0.37803	0.36375					
	0.35237	0.33052					AVRG		0.36606		5.38827
103 Methyl methacrylate	+++++	0.19626	0.19646	0.20436	0.20625	0.18540					
	0.18964	0.17876					AVRG		0.19388		5.13081
104 Ethyl methacrylate	+++++	0.79650	0.81191	0.84398	0.82898	0.80568					
	0.79571	0.75648					AVRG		0.80561		3.45659
105 2-Picoline	+++++	1.39124	1.31746	1.36987	1.31904	1.28927					
	1.27506	1.19912					AVRG		1.30872		4.85814
106 N-Nitrosomethylethylamine	+++++	0.50512	0.48970	0.52453	0.49928	0.51969					
	0.51463	0.52429					AVRG		0.51104		2.61826

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	100 Level 7	120 Level 8									
107 Methyl methanesulfonate	+++++	0.56429	0.53321	0.56316	0.50377	0.53102					
	0.50923	0.49498					AVRG		0.52852		5.24900
108 N-Nitrosodiethylamine	+++++	0.50310	0.47987	0.51154	0.48534	0.49862					
	0.49304	0.49722					AVRG		0.49553		2.15019
109 Ethyl Methanesulfonate	+++++	0.65808	0.64977	0.67344	0.62747	0.66045					
	0.64399	0.64860					AVRG		0.65169		2.21442
110 Pentachloroethane	+++++	0.32209	0.31386	0.33094	0.32010	0.31614					
	0.31148	0.30303					AVRG		0.31681		2.78134
111 N-Nitrosopyrrolidine	+++++	0.44182	0.46376	0.50830	0.47779	0.50143					
	0.49385	0.44600					AVRG		0.47614		5.57640
113 N-Nitrosomorpholine	+++++	0.71032	0.67134	0.71256	0.65887	0.68726					
	0.65974	0.65547					AVRG		0.67936		3.58698
114 o-Toluidine	+++++	1.74797	1.65530	1.71709	1.64005	1.64679					
	1.58070	1.58178					AVRG		1.65281		3.79762
115 N-Nitrosopiperidine	+++++	0.13834	0.13623	0.14736	0.13885	0.14290					
	0.13997	0.14373					AVRG		0.14105		2.69891
116 a,a-Dimethylphenethylamine	+++++	0.78770	0.81587	0.88476	0.87463	0.88336					
	0.86623	0.87565					AVRG		0.85546		4.44785

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	100 Level 7	120 Level 8									
117 Triethylphosphorothioate	+++++	0.14741	0.14492	0.13783	0.14116	0.13439					
	0.12857	0.12370					AVRG		0.13685		6.28357
118 2,6-Dichlorophenol	+++++	0.19682	0.19992	0.21240	0.20960	0.21251					
	0.20568	0.21118					AVRG		0.20687		3.05257
119 Hexachloropropene	+++++	0.08644	0.09499	0.10791	0.10350	0.10830					
	0.10654	0.11112					AVRG		0.10269		8.60612
120 p-Phenylenediamine	+++++	0.19714	0.24091	0.25567	0.24421	0.23168					
	0.22043	0.21678					AVRG		0.22955		8.57933
121 N-Nitrosodi-n-butylamine	+++++	0.22447	0.22501	0.22216	0.21154	0.19839					
	0.19348	0.19524					AVRG		0.21004		6.76180
122 Safrole	+++++	0.18675	0.18585	0.19677	0.19040	0.18675					
	0.17956	0.17958					AVRG		0.18653		3.22597
123 1,2,4,5-Tetrachlorobenzene	+++++	0.45393	0.42422	0.44255	0.41650	0.41676					
	0.40609	0.40229					AVRG		0.42319		4.45863
124 Isosafrole	+++++	0.34011	0.33198	0.35164	0.33779	0.34233					
	0.33627	0.33702					AVRG		0.33959		1.83025
125 1,4-Naphthoquinone	+++++	0.30018	0.32824	0.34894	0.32634	0.29745					
	0.28366	0.26235					AVRG		0.30674		9.65282

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 09-NOV-2009 18:53
End Cal Date : 11-NOV-2009 04:38
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD6.i/s121609.b/MSD6-M8270C-AQA-110909.m
Cal Date : 17-Dec-2009 08:11 nat00999

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
126 m-Dinitrobenzene	+++++	0.15441	0.17500	0.17160	0.17355	0.17392					
	0.16754	0.16904					AVRG		0.16929		4.19006
127 Pentachlorobenzene	+++++	0.38426	0.36575	0.37736	0.36552	0.35674					
	0.35182	0.35035					AVRG		0.36454		3.50537
128 1-Naphthylamine	+++++	0.90674	0.92102	0.95184	0.91692	0.90718					
	0.86367	0.88454					AVRG		0.90742		3.07978
129 2-Naphthylamine	+++++	0.96578	1.00999	1.02440	0.99125	0.97953					
	0.93471	0.95520					AVRG		0.98012		3.19024
130 2,3,4,6-Tetrachlorophenol	+++++	0.20640	0.23481	0.21862	0.21374	0.22201					
	0.21460	0.22254					AVRG		0.21896		4.07356
131 5-Nitro-o-toluidine	+++++	0.22084	0.26615	0.28994	0.29013	0.29251					
	0.28841	0.30508					AVRG		0.27901		10.07623
132 Thionazin	+++++	0.16760	0.17396	0.17237	0.17849	0.17822					
	0.16987	0.16398					AVRG		0.17207		3.11896
134 Sulfotepp	+++++	0.08934	0.08802	0.08507	0.08886	0.08655					
	0.08265	0.08005					AVRG		0.08579		4.00843
135 Phorate	+++++	0.38230	0.38968	0.37391	0.38904	0.37359					
	0.35020	0.32660					AVRG		0.36933		6.25438

GEL Laboratories LLC

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Method file : /chem/MSD6.i/s121609.b/MSD6-M8270C-AQA-110909.m
Cal Date : 17-Dec-2009 08:11 nat00999

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
136 1,3,5-Trinitrobenzene	+++++	14861	45341	104071	130665	222134					
	265730	408609					LINR	0.09141	0.12978		0.99734
137 Phenacetin	+++++	0.21732	0.25812	0.27209	0.26902	0.27044					
	0.26738	0.28241					AVRG		0.26240		8.05167
138 Diallate	+++++	0.26191	0.24374	0.25182	0.23998	0.23522					
	0.22716	0.22410					AVRG		0.24056		5.55643
139 Dimethoate	+++++	0.18955	0.19806	0.21061	0.22946	0.23158					
	0.22398	0.21950					AVRG		0.21468		7.45885
140 4-Aminobiphenyl	+++++	0.50489	0.50584	0.54599	0.56556	0.56494					
	0.53276	0.52934					AVRG		0.53562		4.66298
141 Pentachloronitrobenzene	+++++	0.06195	0.06081	0.06546	0.06329	0.06151					
	0.06084	0.05959					AVRG		0.06192		3.12402
142 Pronamide	+++++	0.26962	0.26582	0.27431	0.26759	0.26151					
	0.25173	0.25174					AVRG		0.26319		3.31411
143 Dinoseb	+++++	11996	47856	123552	154632	280906					
	375481	479562					LINR	0.15482	0.14736		0.99949
144 Disulfoton	+++++	0.31933	0.32969	0.31920	0.32975	0.31125					
	0.29624	0.27823					AVRG		0.31196		6.02930

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INITIAL CALIBRATION DATA

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Method file : /chem/MSD6.i/s121609.b/MSD6-M8270C-AQA-110909.m
Cal Date : 17-Dec-2009 08:11 nat00999

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	100 Level 7	120 Level 8										
145 Methyl parathion	+++++	0.14493	0.15978	0.17270	0.18140	0.18775						
	0.18141	0.17864					AVRG		0.17237		8.70434	
146 4-Nitroquinoline-1-oxide	+++++	0.02012	0.03296	0.02700	0.02533	0.02224						
	0.01930	0.01750					AVRG		0.02349		22.76469	<-
147 Methapyrilene	+++++	0.40623	0.42209	0.41103	0.39768	0.37937						
	0.35132	0.33430					AVRG		0.38600		8.45747	
148 Isodrin	+++++	0.10136	0.09753	0.10130	0.09757	0.09481						
	0.09122	0.09037					AVRG		0.09631		4.58453	
149 Aramite	+++++	0.03841	0.04251	0.04600	0.04566	0.04690						
	0.04564	0.04428					AVRG		0.04420		6.60357	
150 Kepone	+++++	0.05674	0.06191	0.06311	0.06098	0.06085						
	0.06194	0.06656					AVRG		0.06173		4.75009	
151 p-(Dimethylamino)azobenzene	+++++	0.31224	0.31378	0.33288	0.32474	0.31931						
	0.31446	0.30396					AVRG		0.31734		2.95033	
152 Chlorobenzilate	+++++	0.30009	0.27506	0.30295	0.29512	0.29377						
	0.29203	0.28006					AVRG		0.29130		3.50189	
153 3,3'-Dimethylbenzidine	+++++	0.49489	0.52397	0.53487	0.52482	0.53397						
	0.53619	0.54473					AVRG		0.52763		3.04743	

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Method file : /chem/MSD6.i/s121609.b/MSD6-M8270C-AQA-110909.m
Cal Date : 17-Dec-2009 08:11 nat00999

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
154 Famphur	+++++	0.28850	0.33742	0.33640	0.36516	0.37704					
	0.35655	0.33317					AVRG		0.34203		8.41381
155 2-Acetylaminofluorene	+++++	23996	98558	217618	290992	478700					
	598627	953419					LINR	0.12414	0.37309		0.99874
157 7,12Dimethylbenz(a)anthracene	+++++	0.45745	0.44941	0.48919	0.48420	0.49542					
	0.49422	0.48353					AVRG		0.47906		3.80416
158 3-Methylcholanthrene	+++++	0.29343	0.35502	0.37871	0.37695	0.38953					
	0.38995	0.40328					AVRG		0.36955		9.94080
26 Phthalic anhydride	+++++	10939	40864	83487	108159	203846					
	306459	+++++					LINR	0.14938	0.09004		0.99590
173 Carbazole	0.68572	0.63216	0.65059	0.65023	0.64669	0.65901					
	0.65208	0.65947					AVRG		0.65449		2.32370
174 Hexachlorophene	+++++	0.04700	0.06194	0.06687	0.06701	0.06606					
	+++++	+++++					AVRG		0.06178		13.78238
179 Dibenzo(a,e)pyrene	+++++	21397	67635	183254	214017	467062					
	+++++	+++++					LINR	0.16800	0.36891		0.99459
185 (2,3-Dibromopropyl)phosphate	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+00		0.000e+00 <-

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Method file : /chem/MSD6.i/s121609.b/MSD6-M8270C-AQA-110909.m
Cal Date : 17-Dec-2009 08:11 nat00999

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
184 p-Benzoquinone	+++++	0.09983	0.11502	0.14598	0.13665	0.14571					
	0.12211	0.12583					AVRG		0.12730		13.25929
191 Parathion	+++++	0.05089	0.05709	0.06102	0.06360	0.06315					
	0.06253	0.06173					AVRG		0.06000		7.60183
192 Methoxychlor	+++++	0.54663	0.59527	0.57022	0.57190	0.55995					
	0.49223	0.53082					AVRG		0.55243		6.05482
210 m-Toluidine	+++++	1.07152	1.09862	1.08267	1.09477	1.19760					
	1.39731	0.92523					AVRG		1.12396		12.87193
211 p-Toluidine	+++++	0.98878	1.01175	0.93629	0.93823	0.84629					
	0.67790	+++++					AVRG		0.89987		13.64283
212 Cis Diallate	+++++	0.25680	0.24216	0.25774	0.25015	0.25647					
	0.24871	0.25860					AVRG		0.25295		2.41779
213 Trans Diallate	+++++	0.30813	0.28675	0.29626	0.28232	0.27673					
	0.26725	0.26364					AVRG		0.28301		5.55643
214 1,4-Dinitrobenzene	+++++	0.15465	0.18602	0.18671	0.19154	0.19074					
	0.18381	0.19324					AVRG		0.18382		7.23195
215 2-Ethoxyethanol	+++++	0.69474	0.75708	0.72314	0.72734	0.69576					
	0.68979	0.68463					AVRG		0.71035		3.71426

GEL Laboratories LLC

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Integrator : HP RTE
Method file : /chem/MSD6.i/s121609.b/MSD6-M8270C-AQA-110909.m
Cal Date : 17-Dec-2009 08:11 nat00999

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
216 Methylenebis(2-chloroaniline)	+++++	11622	37526	94270	117296	226774					
	306702	394688					LINR	0.14094	0.14618		0.99920
229 2,2'-Dichlorobenzil	+++++	0.65548	0.70788	0.67278	+++++	0.85557					
	0.79635	+++++					AVRG		0.73761		11.58274
230 4-Chlorothioanisole	+++++	65505	120100	275307	+++++	727615					
	828249	+++++					LINR	0.13623	0.30665		0.99347
231 4-Chlorothiophenol	+++++	14955	49890	195788	+++++	593706					
	683100	+++++					LINR	0.29380	0.27176		0.99219
232 bis(p-Chlorophenyl)sulfone	+++++	0.41911	0.42098	0.38909	+++++	0.48605					
	0.44832	+++++					AVRG		0.43271		8.42306
233 bis(p-Chlorophenyl)disulfide	+++++	0.19644	0.20913	0.18244	+++++	0.22594					
	0.20806	+++++					AVRG		0.20440		7.90920
234 Diphenyl disulfide	+++++	0.20078	0.21401	0.19911	+++++	0.24759					
	0.23595	+++++					AVRG		0.21949		9.81334
235 Diphenyl sulfide	+++++	0.77537	0.76082	0.73538	+++++	0.86393					
	0.82035	+++++					AVRG		0.79117		6.45415
236 Phenyl sulfone	+++++	0.43220	0.43102	0.40994	+++++	0.50304					
	0.47114	+++++					AVRG		0.44947		8.28032

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Method file : /chem/MSD6.i/s121609.b/MSD6-M8270C-AQA-110909.m
Cal Date : 17-Dec-2009 08:11 nat00999

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
237 Hydroxymethyl phthalimide	+++++	0.14671	0.15531	0.12673	+++++	0.19818					
	0.17963	+++++					AVRG		0.16131		17.36813 <-
238 Phthalic acid	+++++	13646	40994	115933	+++++	343308					
	402020	+++++					LINR	0.25337	0.15547		0.99358
239 Thiophenol	+++++	41092	104698	327879	+++++	922601					
	1046955	+++++					LINR	0.23456	1.46946		0.99364
240 bis(Chloromethyl)ether	+++++	1.01755	1.00429	0.94829	+++++	1.10480					
	1.05711	+++++					AVRG		1.02641		5.71407
241 Octachlorostyrene	+++++	0.06097	0.06109	0.05953	+++++	0.07399					
	0.07072	+++++					AVRG		0.06526		10.12747
M 225 Trichlorophenols	+++++	0.27800	0.29958	0.28751	0.28920	0.28074					
	0.26883	0.26877					AVRG		0.28180		3.98593
M 226 Tetrachlorophenols	+++++	0.20640	0.23481	0.21862	0.21374	0.22201					
	0.21460	0.22254					AVRG		0.21896		4.07356
M 227 Benzo(b,k)fluoranthene	0.73667	0.86303	0.94898	0.91431	0.92802	0.89592					
	0.88671	0.88707					AVRG		0.88259		7.33906
M 228 TTO Sum Semivolatiles	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+00		0.000e+00 <-

GEL Laboratories LLC

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	100 Level 7	120 Level 8										
$ 3 2-Fluorophenol	+++++	0.98202	1.07204	1.02934	1.03017	0.98830						
	0.95348	0.95648					AVRG		1.00169		4.36295	
$ 5 Phenol-d5	+++++	1.23734	1.34586	1.27212	1.28456	1.26316						
	1.22407	1.22277					AVRG		1.26427		3.41674	
$ 187 2-Chlorophenol-d4	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
$ 188 1,2-Dichlorobenzene-d4	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
$ 20 Nitrobenzene-d5	+++++	0.30745	0.31426	0.29453	0.29315	0.27101						
	0.25359	0.24671					AVRG		0.28296		9.27927	
$ 39 2-Fluorobiphenyl	+++++	1.11512	1.14628	1.04977	1.05601	0.99136						
	0.92488	0.93239					AVRG		1.03083		8.29816	
$ 60 2,4,6-Tribromophenol	+++++	0.10485	0.11685	0.11180	0.11267	0.12310						
	0.12190	0.12607					AVRG		0.11675		6.41378	
$ 81 p-Terphenyl-d14	+++++	0.71309	0.69797	0.64349	0.66522	0.61764						
	0.59401	0.58404					AVRG		0.64507		7.73004	

GEL Laboratories LLC

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Method file : /chem/MSD6.i/s121609.b/MSD6-M8270C-AQA-110909.m
Cal Date : 17-Dec-2009 08:11 nat00999

Curve	Formula	Units
Averaged	Amt = Rsp/ml	Response
Linear	Amt = b + Rsp/ml	Response
Wt Linear	Amt = b + Rsp/ml	Response

Data File: /chem/MSD6.i/s110909.b/s6k0937.d
Report Date: 11-Nov-2009 10:50

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD6.i
Lab File ID: s6k0937.d
Analysis Type:
Lab Sample ID: WBN091106-09.1 Quant Type: ISTD
Method: /chem/MSD6.i/s110909.b/MSD6-M8270C-AQA-110909.m

Injection Date: 10-NOV-2009 20:29
Init. Cal. Date(s): 09-NOV-2009 11-NOV-2009
Init. Cal. Times: 18:53 04:38

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
$ 3 2-Fluorophenol	1.00169	1.03466	1.03466	0.000	3.29147	60.00000	Averaged	
$ 5 Phenol-d5	1.26427	1.24245	1.24245	0.000	-1.72556	60.00000	Averaged	
$ 20 Nitrobenzene-d5	0.28296	0.29902	0.29902	0.000	5.67523	60.00000	Averaged	
$ 39 2-Fluorobiphenyl	1.03083	1.08174	1.08174	0.000	4.93820	60.00000	Averaged	
$ 60 2,4,6-Tribromophenol	0.11675	0.12945	0.12945	0.000	10.88297	60.00000	Averaged	
$ 81 p-Terphenyl-d14	0.64507	0.72359	0.72359	0.000	12.17316	60.00000	Averaged	
1 N-Methyl-N-nitrosomethylami	0.68098	0.64081	0.64081	0.000	-5.89855	60.00000	Averaged	
2 Pyridine	0.84757	0.77144	0.77144	0.000	-8.98267	60.00000	Averaged	
4 Aniline	0.52752	0.51930	0.51930	0.000	-1.55765	60.00000	Averaged	
6 Phenol	1.27120	1.23489	1.23489	0.001	-2.85632	20.00000	Averaged	ccc
7 bis(2-Chloroethyl) ether	0.86081	0.80936	0.80936	0.000	-5.97614	60.00000	Averaged	
8 2-Chlorophenol	1.02109	1.01772	1.01772	0.000	-0.32996	60.00000	Averaged	
203 n-Decane	1.42254	1.44155	1.44155	0.000	1.33631	60.00000	Averaged	
9 1,3-Dichlorobenzene	1.17550	1.19665	1.19665	0.000	1.79939	60.00000	Averaged	
11 1,4-Dichlorobenzene	1.19162	1.18877	1.18877	0.001	-0.23932	20.00000	Averaged	ccc
13 1,2-Dichlorobenzene	1.11231	1.12583	1.12583	0.000	1.21558	60.00000	Averaged	
14 bis(2-Chloroisopropyl)ether	1.92182	1.94108	1.94108	0.000	1.00230	60.00000	Averaged	
12 Benzyl alcohol	0.63436	0.65075	0.65075	0.000	2.58272	60.00000	Averaged	
15 o-Cresol	0.83139	0.83798	0.83798	0.000	0.79318	60.00000	Averaged	
18 m,p-Cresols	1.05346	1.05662	1.05662	0.000	0.29972	60.00000	Averaged	
17 N-Nitrosodipropylamine	0.70865	0.69204	0.69204	0.050	-2.34415	60.00000	Averaged	spcc
19 Hexachloroethane	0.46100	0.44650	0.44650	0.000	-3.14409	60.00000	Averaged	
21 Nitrobenzene	0.28519	0.29957	0.29957	0.000	5.04113	60.00000	Averaged	
22 Isophorone	0.50552	0.52435	0.52435	0.000	3.72478	60.00000	Averaged	
23 2-Nitrophenol	0.13154	0.13639	0.13639	0.001	3.68222	20.00000	Averaged	ccc
24 2,4-Dimethylphenol	0.21795	0.23088	0.23088	0.000	5.93159	60.00000	Averaged	
25 bis(2-Chloroethoxy)methane	0.29749	0.30276	0.30276	0.000	1.77222	60.00000	Averaged	
26 2,4-Dichlorophenol	0.19769	0.20590	0.20590	0.001	4.15386	20.00000	Averaged	ccc
27 Benzoic acid	0.13453	0.14567	0.14567	0.000	8.28081	60.00000	Averaged	
28 1,2,4-Trichlorobenzene	0.24261	0.24953	0.24953	0.000	2.85087	60.00000	Averaged	
30 Naphthalene	0.79792	0.83170	0.83170	0.000	4.23406	60.00000	Averaged	
204 alpha-Terpineol	0.21868	0.21801	0.21801	0.000	-0.30655	60.00000	Averaged	
31 4-Chloroaniline	0.25646	0.26546	0.26546	0.000	3.51176	60.00000	Averaged	
32 Hexachlorobutadiene	0.12634	0.13489	0.13489	0.001	6.77038	20.00000	Averaged	ccc
33 4-Chloro-3-methylphenol	0.19957	0.20148	0.20148	0.001	0.96147	20.00000	Averaged	ccc
34 2-Methylnaphthalene	0.48150	0.55976	0.55976	0.000	16.25394	60.00000	Averaged	

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD6.i Injection Date: 10-NOV-2009 20:29
Lab File ID: s6k0937.d Init. Cal. Date(s): 09-NOV-2009 11-NOV-2009
Analysis Type: Init. Cal. Times: 18:53 04:38
Lab Sample ID: WBN091106-09.1 Quant Type: ISTD
Method: /chem/MSD6.i/s110909.b/MSD6-M8270C-AQA-110909.m

	COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
35	1-Methylnaphthalene	0.47100	0.53047	0.53047	0.000	12.62514	60.00000	Averaged	
36	Hexachlorocyclopentadiene	0.16157	0.12441	0.12441	0.050	-22.99690	60.00000	Averaged	spcc
205	2,3-Dichloroaniline	0.47908	0.48878	0.48878	0.000	2.02564	60.00000	Averaged	
37	2,4,6-Trichlorophenol	0.27294	0.27425	0.27425	0.001	0.48093	20.00000	Averaged	ccc
38	2,4,5-Trichlorophenol	0.29067	0.30912	0.30912	0.000	6.34737	60.00000	Averaged	
40	2-Chloronaphthalene	0.89832	0.89821	0.89821	0.000	-0.01212	60.00000	Averaged	
42	o-Nitroaniline	0.30732	0.29883	0.29883	0.000	-2.76487	60.00000	Averaged	
41	m-Nitroaniline	0.22497	0.22544	0.22544	0.000	0.20968	60.00000	Averaged	
43	Dimethylphthalate	1.02610	1.07233	1.07233	0.000	4.50566	60.00000	Averaged	
44	2,6-Dinitrotoluene	0.24475	0.24571	0.24571	0.000	0.39287	60.00000	Averaged	
50	2,4-Dinitrotoluene	0.30862	0.32387	0.32387	0.000	4.94261	60.00000	Averaged	
45	Acenaphthylene	1.44438	1.60997	1.60997	0.000	11.46448	60.00000	Averaged	
47	Acenaphthene	0.90151	0.96315	0.96315	0.001	6.83729	20.00000	Averaged	ccc
48	2,4-Dinitrophenol	35.88405	40.00000	0.06990	0.050	-10.28987	60.00000	Linear	spcc
49	Dibenzofuran	1.21689	1.24464	1.24464	0.000	2.28092	60.00000	Averaged	
51	Diethylphthalate	1.03335	1.08103	1.08103	0.000	4.61479	60.00000	Averaged	
52	4-Nitrophenol	37.16907	40.00000	0.15052	0.050	-7.07733	60.00000	Linear	spcc
53	Fluorene	0.99879	1.09503	1.09503	0.000	9.63571	60.00000	Averaged	
54	4-Chlorophenylphenylether	0.47192	0.49481	0.49481	0.000	4.84948	60.00000	Averaged	
55	2-Methyl-4,6-dinitrophenol	44.79678	40.00000	0.10162	0.000	11.99194	60.00000	Linear	
56	p-Nitroaniline	37.18126	40.00000	0.19210	0.000	-7.04684	60.00000	Linear	
133	Diphenylamine	0.48213	0.48382	0.48382	0.001	0.34977	20.00000	Averaged	ccc
58	1,2-Diphenylhydrazine	0.61327	0.61966	0.61966	0.000	1.04277	60.00000	Averaged	
61	4-Bromophenylphenylether	0.15784	0.15705	0.15705	0.000	-0.50023	60.00000	Averaged	
63	Hexachlorobenzene	0.16533	0.16268	0.16268	0.000	-1.60406	60.00000	Averaged	
65	Pentachlorophenol	41.23337	40.00000	0.08933	0.001	3.08343	20.00000	Linear	ccc
206	n-Octadecane	0.44173	0.45929	0.45929	0.000	3.97491	60.00000	Averaged	
68	Phenanthrene	0.82721	0.88585	0.88585	0.000	7.08867	60.00000	Averaged	
69	Anthracene	0.82682	0.90991	0.90991	0.000	10.04830	60.00000	Averaged	
72	Di-n-butylphthalate	0.94954	1.02135	1.02135	0.000	7.56331	60.00000	Averaged	
76	Fluoranthene	0.79242	0.90654	0.90654	0.001	14.40110	20.00000	Averaged	ccc
79	Pyrene	1.10021	1.20816	1.20816	0.000	9.81213	60.00000	Averaged	
85	Butylbenzylphthalate	0.50351	0.54090	0.54090	0.000	7.42706	60.00000	Averaged	
89	Benzo(a)anthracene	0.86301	0.92157	0.92157	0.000	6.78546	60.00000	Averaged	
92	Chrysene	0.82690	0.90169	0.90169	0.000	9.04505	60.00000	Averaged	
93	bis(2-Ethylhexyl)phthalate	41.60196	40.00000	0.72185	0.000	4.00491	60.00000	Wt Linear	

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD6.i
Lab File ID: s6k0937.d
Analysis Type:
Lab Sample ID: WBN091106-09.1
Method: /chem/MSD6.i/s110909.b/MSD6-M8270C-AQA-110909.m

Injection Date: 10-NOV-2009 20:29
Init. Cal. Date(s): 09-NOV-2009 11-NOV-2009
Init. Cal. Times: 18:53 04:38
Quant Type: ISTD

	COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
	94 Di-n-octylphthalate	1.27127	1.35676	1.35676	0.001	6.72426	20.00000	Averaged	ccc
	95 Benzo(b)fluoranthene	0.88507	0.99154	0.99154	0.000	12.02912	60.00000	Averaged	
	96 Benzo(k)fluoranthene	0.88011	1.01364	1.01364	0.000	15.17242	60.00000	Averaged	
	97 Benzo(a)pyrene	0.76447	0.88080	0.88080	0.001	15.21790	20.00000	Averaged	ccc
	99 Indeno(1,2,3-cd)pyrene	40.05227	40.00000	0.72891	0.000	0.13069	60.00000	Linear	
	100 Dibenzo(a,h)anthracene	37.95723	40.00000	0.56106	0.000	-5.10692	60.00000	Linear	
	101 Benzo(ghi)perylene	0.58403	0.61594	0.61594	0.000	5.46367	60.00000	Averaged	
	126 m-Dinitrobenzene	0.16929	0.17081	0.17081	0.000	0.89311	60.00000	Averaged	
	130 2,3,4,6-Tetrachlorophenol	0.21896	0.23318	0.23318	0.000	6.49309	60.00000	Averaged	
	143 Dinoseb	37.88463	40.00000	0.11675	0.000	-5.28842	60.00000	Linear	
	173 Carbazole	0.65449	0.70032	0.70032	0.000	7.00193	60.00000	Averaged	
	184 p-Benzoquinone	0.12730	0.14364	0.14364	0.000	12.83157	60.00000	Averaged	
	192 Methoxychlor	0.55243	0.57593	0.57593	0.000	4.25434	60.00000	Averaged	
	211 p-Toluidine	0.89987	0.90823	0.90823	0.000	0.92871	60.00000	Averaged	
	210 m-Toluidine	1.12396	1.11262	1.11262	0.000	-1.00903	60.00000	Averaged	
	26 Phthalic anhydride	71.32284	40.00000	0.14710	0.000	78.30709	60.00000	Linear	<-
	179 Dibenzo(a,e)pyrene	23.04060	40.00000	0.15052	0.000	-42.39851	60.00000	Linear	
	214 1,4-Dinitrobenzene	0.18382	0.17485	0.17485	0.000	-4.87689	60.00000	Averaged	
	215 2-Ethoxyethanol	0.71035	0.75383	0.75383	0.000	6.12038	60.00000	Averaged	
	216 Methylenebis(2-chloroanilin	38.25405	40.00000	0.11920	0.000	-4.36487	60.00000	Linear	
M	225 Trichlorophenols	0.28180	0.29168	0.29168	0.000	3.50642	60.00000	Averaged	
M	226 Tetrachlorophenols	0.21896	0.23318	0.23318	0.000	6.49309	60.00000	Averaged	
M	227 Benzo(b,k)fluoranthene	0.88259	1.00259	1.00259	0.000	13.59635	60.00000	Averaged	

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Data file : /chem/MSD6.i/s110909.b/s6k0937.d
Lab Smp Id: WBN091106-09.1 Client Smp ID: MEGAICV
Inj Date : 10-NOV-2009 20:29
Operator : JMB3 Inst ID: MSD6.i
Smp Info : |WBN091106-09.1|40 PPM|1|SVMF|1|MEGAICV
Misc Info : |MSD8270|WBN091106-10
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s110909.b/MSD6-M8270C-AQA-110909.m
Meth Date : 11-Nov-2009 10:50 nat00999 Quant Type: ISTD
Cal Date : 11-NOV-2009 02:44 Cal File: s6k0950.d
Als bottle: 17 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: MEGA.sub
Target Version: 3.50
Processing Host: hpclp1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	4.834	4.834	(1.000)	267857	40.0000	
* 29 Naphthalene-d8	136	6.116	6.116	(1.000)	1007489	40.0000	
* 46 Acenaphthene-d10	164	7.986	7.986	(1.000)	511035	40.0000	
* 67 Phenanthrene-d10	188	9.599	9.599	(1.000)	891521	40.0000	
* 91 Chrysene-d12	240	12.618	12.618	(1.000)	688764	40.0000	
* 98 Perylene-d12	264	14.955	14.955	(1.000)	524055	40.0000	
$ 3 2-Fluorophenol	112	3.646	3.646	(0.754)	277141	40.0000	41.3
$ 5 Phenol-d5	99	4.431	4.431	(0.917)	332800	40.0000	39.3
$ 20 Nitrobenzene-d5	82	5.371	5.371	(0.878)	301256	40.0000	42.3
$ 39 2-Fluorobiphenyl	172	7.242	7.242	(0.907)	552805	40.0000	42.0
$ 60 2,4,6-Tribromophenol	329	8.834	8.834	(1.106)	66156	40.0000	44.4
$ 81 p-Terphenyl-d14	244	11.306	11.306	(0.896)	498384	40.0000	44.9
1 N-Methyl-N-nitrosomethylamine	74	2.663	2.663	(0.551)	171645	40.0000	37.6
2 Pyridine	79	2.701	2.701	(0.559)	206635	40.0000	36.4
4 Aniline	66	4.518	4.518	(0.935)	139099	40.0000	39.4
6 Phenol	94	4.444	4.444	(0.919)	330773	40.0000	38.8
7 bis(2-Chloroethyl) ether	63	4.559	4.559	(0.943)	216794	40.0000	37.6
8 2-Chlorophenol	128	4.633	4.633	(0.958)	272604	40.0000	39.9
203 n-Decane	43	4.643	4.643	(0.960)	386128	40.0000	40.5
9 1,3-Dichlorobenzene	146	4.783	4.783	(0.989)	320531	40.0000	40.7
11 1,4-Dichlorobenzene	146	4.852	4.852	(1.004)	318420	40.0000	39.9
13 1,2-Dichlorobenzene	146	5.002	5.002	(1.035)	301561	40.0000	40.5
14 bis(2-Chloroisopropyl)ether	45	5.068	5.068	(1.048)	519933	40.0000	40.4
12 Benzyl alcohol	108	4.941	4.941	(1.022)	174307	40.0000	41.0
15 o-Cresol	107	5.025	5.025	(1.040)	224459	40.0000	40.3
18 m,p-Cresols	107	5.180	5.180	(1.072)	283022	40.0000	40.1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
17 N-Nitrosodipropylamine	70	5.206	5.206	(1.077)	185368	40.0000	39.1
19 Hexachloroethane	117	5.338	5.338	(1.104)	119599	40.0000	38.7
21 Nitrobenzene	77	5.392	5.392	(0.882)	301811	40.0000	42.0
22 Isophorone	82	5.626	5.626	(0.920)	528272	40.0000	41.5
23 2-Nitrophenol	139	5.708	5.708	(0.933)	137410	40.0000	41.5
24 2,4-Dimethylphenol	122	5.718	5.718	(0.935)	232609	40.0000	42.4
25 bis(2-Chloroethoxy)methane	93	5.825	5.825	(0.952)	305032	40.0000	40.7
26 2,4-Dichlorophenol	162	5.950	5.950	(0.973)	207439	40.0000	41.7
27 Benzoic acid	105	5.812	5.812	(0.950)	146760	40.0000	43.3(H)
28 1,2,4-Trichlorobenzene	180	6.047	6.047	(0.989)	251400	40.0000	41.1
30 Naphthalene	128	6.138	6.138	(1.004)	837929	40.0000	41.7
204 alpha-Terpineol	59	6.123	6.123	(1.001)	219641	40.0000	39.9
31 4-Chloroaniline	127	6.172	6.172	(1.009)	267452	40.0000	41.4
32 Hexachlorobutadiene	225	6.251	6.251	(1.022)	135904	40.0000	42.7
33 4-Chloro-3-methylphenol	107	6.653	6.653	(1.088)	202993	40.0000	40.4
34 2-Methylnaphthalene	142	6.862	6.862	(1.122)	563953	40.0000	46.5
35 1-Methylnaphthalene	142	6.969	6.969	(1.140)	534441	40.0000	45.0
36 Hexachlorocyclopentadiene	237	7.020	7.020	(0.879)	63579	40.0000	30.8
205 2,3-Dichloroaniline	161	7.155	7.155	(0.896)	249785	40.0000	40.8
37 2,4,6-Trichlorophenol	196	7.147	7.147	(0.895)	140152	40.0000	40.2
38 2,4,5-Trichlorophenol	196	7.183	7.183	(0.899)	157970	40.0000	42.5
40 2-Chloronaphthalene	162	7.384	7.384	(0.925)	459019	40.0000	40.0
42 o-Nitroaniline	65	7.479	7.479	(0.936)	152711	40.0000	38.9
41 m-Nitroaniline	138	7.922	7.922	(0.992)	115209	40.0000	40.1
43 Dimethylphthalate	163	7.670	7.670	(0.960)	548000	40.0000	41.8
44 2,6-Dinitrotoluene	165	7.739	7.739	(0.969)	125566	40.0000	40.2
50 2,4-Dinitrotoluene	165	8.172	8.172	(1.023)	165511	40.0000	42.0
45 Acenaphthylene	152	7.835	7.835	(0.981)	822752	40.0000	44.6
47 Acenaphthene	154	8.024	8.024	(1.005)	492203	40.0000	42.7
48 2,4-Dinitrophenol	184	8.029	8.029	(1.005)	35722	40.0000	35.9
49 Dibenzofuran	168	8.205	8.205	(1.027)	636057	40.0000	40.9
51 Diethylphthalate	149	8.424	8.424	(1.055)	552446	40.0000	41.8
52 4-Nitrophenol	139	8.070	8.070	(1.011)	76920	40.0000	37.2
53 Fluorene	166	8.577	8.577	(1.074)	559601	40.0000	43.8
54 4-Chlorophenylphenylether	204	8.564	8.564	(1.072)	252864	40.0000	41.9
55 2-Methyl-4,6-dinitrophenol	198	8.613	8.613	(0.897)	90597	40.0000	44.8
56 p-Nitroaniline	138	8.582	8.582	(1.075)	98168	40.0000	37.2
133 Diphenylamine	169	8.689	8.689	(0.905)	431336	40.0000	40.1
58 1,2-Diphenylhydrazine	77	8.738	8.738	(0.910)	552443	40.0000	40.4
61 4-Bromophenylphenylether	248	9.094	9.094	(0.947)	140012	40.0000	39.8
63 Hexachlorobenzene	284	9.173	9.173	(0.956)	145031	40.0000	39.4
65 Pentachlorophenol	266	9.375	9.375	(0.977)	79644	40.0000	41.2
206 n-Octadecane	57	9.431	9.431	(0.982)	409467	40.0000	41.6
68 Phenanthrene	178	9.624	9.624	(1.003)	789756	40.0000	42.8
69 Anthracene	178	9.680	9.680	(1.008)	811200	40.0000	44.0
72 Di-n-butylphthalate	149	10.190	10.190	(1.062)	910557	40.0000	43.0
76 Fluoranthene	202	10.914	10.914	(1.137)	808196	40.0000	45.8

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
79 Pyrene	202	11.166	11.166	(0.885)	832137	40.0000	43.9
85 Butylbenzylphthalate	149	11.841	11.841	(0.938)	372553	40.0000	43.0
89 Benzo(a)anthracene	228	12.598	12.598	(0.998)	634741	40.0000	42.7
92 Chrysene	228	12.654	12.654	(1.003)	621053	40.0000	43.6
93 bis(2-Ethylhexyl)phthalate	149	12.570	12.570	(0.996)	497186	40.0000	41.6
94 Di-n-octylphthalate	149	13.561	13.561	(0.907)	711015	40.0000	42.7
95 Benzo(b)fluoranthene	252	14.275	14.275	(0.954)	519622	40.0000	44.8
96 Benzo(k)fluoranthene	252	14.326	14.326	(0.958)	531203	40.0000	46.1
97 Benzo(a)pyrene	252	14.853	14.853	(0.993)	461589	40.0000	46.1
99 Indeno(1,2,3-cd)pyrene	276	16.945	16.945	(1.133)	381990	40.0000	40.0
100 Dibenzo(a,h)anthracene	278	16.978	16.978	(1.135)	294025	40.0000	38.0
101 Benzo(ghi)perylene	276	17.460	17.460	(1.167)	322785	40.0000	42.2
126 m-Dinitrobenzene	168	7.708	7.708	(0.965)	87288	40.0000	40.4
130 2,3,4,6-Tetrachlorophenol	232	8.325	8.325	(1.042)	119161	40.0000	42.6
143 Dinoseb	211	9.561	9.561	(0.996)	104085	40.0000	37.9
173 Carbazole	167	9.841	9.841	(1.025)	624352	40.0000	42.8
184 p-Benzoquinone	54	4.085	4.085	(0.845)	38475	40.0000	45.1
192 Methoxychlor	227	12.468	12.468	(0.988)	396683	40.0000	41.7
211 p-Toluidine	106	5.252	5.252	(1.086)	243276	40.0000	40.4
210 m-Toluidine	106	5.285	5.285	(1.093)	298023	40.0000	39.6
26 Phthalic anhydride	104	6.911	6.911	(1.130)	148201	40.0000	71.3
179 Dibenzo(a,e)pyrene	302	21.182	21.182	(1.416)	78881	40.0000	23.0
214 1,4-Dinitrobenzene	75	7.624	7.624	(0.955)	89355	40.0000	38.0
215 2-Ethoxyethanol	59	2.454	2.454	(0.508)	201919	40.0000	42.4
216 Methylenebis(2-chloroaniline)	231	12.539	12.539	(0.994)	82098	40.0000	38.2
M 225 Trichlorophenols	196				298122	80.0000	82.8
M 226 Tetrachlorophenols	232				119161	40.0000	42.6
M 227 Benzo(b,k)fluoranthene	252				1050825	80.0000	90.9

QC Flag Legend

H - Operator selected an alternate compound hit.

Data File: /chem/MSD6.i/s110909.b/s6k0937.d
Date : 10-NOV-2009 20:29
Client ID: MECAICV
Sample Info: IWBN091106-09.1|40 PPM|1|SVHF1|MECAICV
Column phase: J&W DB-5MS

Instrument: MSD6.i
Operator: JHB3
Column diameter: 0.20

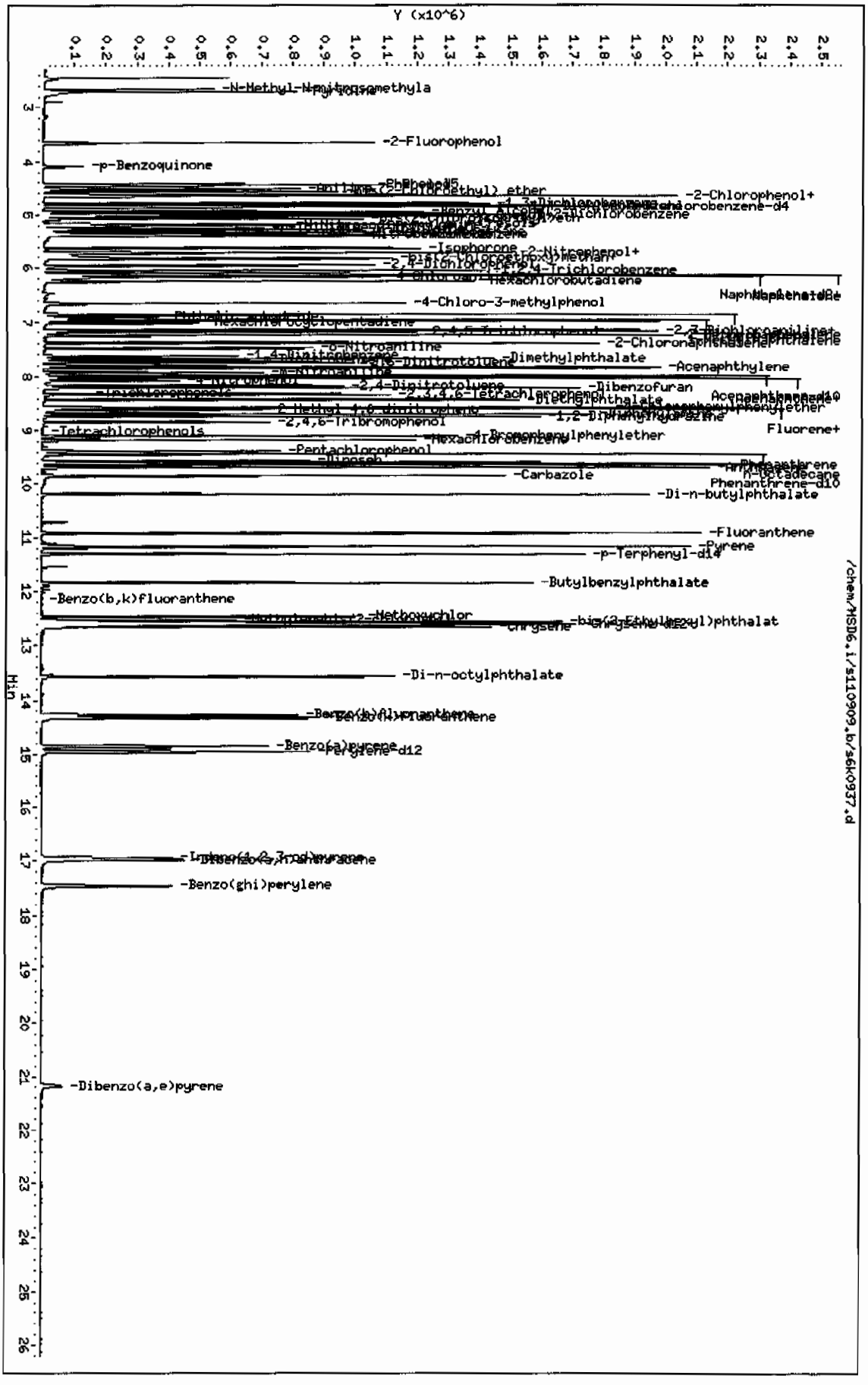

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD6.i Injection Date: 10-NOV-2009 21:07
Lab File ID: s6k0938.d Init. Cal. Date(s): 09-NOV-2009 11-NOV-2009
Analysis Type: Init. Cal. Times: 18:53 04:38
Lab Sample ID: WBN091016-08.1 Quant Type: ISTD
Method: /chem/MSD6.i/s110909.b/MSD6-M8270C-AQA-110909.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
209 Benzaldehyde	0.86127	0.67526	0.67526	0.000	-21.59733	60.00000	Averaged
16 Acetophenone	1.16908	1.08481	1.08481	0.000	-7.20809	60.00000	Averaged
189 Caprolactam	0.07388	0.08118	0.08118	0.000	9.87786	60.00000	Averaged
208 1,1'-Biphenyl	1.20131	1.15865	1.15865	0.000	-3.55099	60.00000	Averaged
207 Atrazine	0.04063	0.03738	0.03738	0.000	-8.01727	60.00000	Averaged
77 Benzidine	0.39304	0.35886	0.35886	0.000	-8.69608	60.00000	Averaged
90 3,3'-Dichlorobenzidine	0.28252	0.30132	0.30132	0.000	6.65684	60.00000	Averaged
102 1,4-Dioxane	0.36606	0.45837	0.45837	0.000	25.21672	60.00000	Averaged
103 Methyl methacrylate	0.19388	0.26059	0.26059	0.000	34.40927	60.00000	Averaged
104 Ethyl methacrylate	0.80561	0.97594	0.97594	0.000	21.14390	60.00000	Averaged
105 2-Picoline	1.30872	1.36092	1.36092	0.000	3.98846	60.00000	Averaged
106 N-Nitrosomethylethylamine	0.51104	0.53755	0.53755	0.000	5.18772	60.00000	Averaged
107 Methyl methanesulfonate	0.52852	0.52223	0.52223	0.000	-1.19058	60.00000	Averaged
108 N-Nitrosodiethylamine	0.49553	0.51026	0.51026	0.000	2.97098	60.00000	Averaged
109 Ethyl Methanesulfonate	0.65169	0.73760	0.73760	0.000	13.18337	60.00000	Averaged
110 Pentachloroethane	0.31681	0.42390	0.42390	0.000	33.80401	60.00000	Averaged
111 N-Nitrosopyrrolidine	0.47614	0.46325	0.46325	0.000	-2.70540	60.00000	Averaged
113 N-Nitrosomorpholine	0.67936	0.65676	0.65676	0.000	-3.32751	60.00000	Averaged
114 o-Toluidine	1.65281	1.64899	1.64899	0.000	-0.23102	60.00000	Averaged
115 N-Nitrosopiperidine	0.14105	0.14180	0.14180	0.000	0.52679	60.00000	Averaged
116 a,a-Dimethylphenethylamine	0.85546	0.87204	0.87204	0.000	1.93819	60.00000	Averaged
118 2,6-Dichlorophenol	0.20687	0.20008	0.20008	0.000	-3.28259	60.00000	Averaged
119 Hexachloropropene	0.10269	0.14537	0.14537	0.000	41.57055	60.00000	Averaged
120 p-Phenylenediamine	0.22955	0.23182	0.23182	0.000	0.99155	60.00000	Averaged
121 N-Nitrosodi-n-butylamine	0.21004	0.21749	0.21749	0.000	3.54470	60.00000	Averaged
122 Safrole	0.18653	0.20933	0.20933	0.000	12.22661	60.00000	Averaged
123 1,2,4,5-Tetrachlorobenzene	0.42319	0.42512	0.42512	0.000	0.45545	60.00000	Averaged
124 Isosafrole	0.33959	0.43257	0.43257	0.000	27.38086	60.00000	Averaged
125 1,4-Naphthoquinone	0.30674	0.30375	0.30375	0.000	-0.97466	60.00000	Averaged
127 Pentachlorobenzene	0.36454	0.36394	0.36394	0.000	-0.16566	60.00000	Averaged
128 1-Naphthylamine	0.90742	0.91190	0.91190	0.000	0.49410	60.00000	Averaged
129 2-Naphthylamine	0.98012	0.91865	0.91865	0.000	-6.27177	60.00000	Averaged
131 5-Nitro-o-toluidine	0.27901	0.28996	0.28996	0.000	3.92480	60.00000	Averaged
136 1,3,5-Trinitrobenzene	46.05690	40.00000	0.13757	0.000	15.14226	60.00000	Linear
137 Phenacetin	0.26240	0.25991	0.25991	0.000	-0.94903	60.00000	Averaged
138 Diallate	0.24056	0.23148	0.23148	0.000	-3.77545	60.00000	Averaged

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD6.i Injection Date: 10-NOV-2009 21:07
Lab File ID: s6k0938.d Init. Cal. Date(s): 09-NOV-2009 11-NOV-2009
Analysis Type: Init. Cal. Times: 18:53 04:38
Lab Sample ID: WBN091016-08.1 Quant Type: ISTD
Method: /chem/MSD6.i/s110909.b/MSD6-M8270C-AQA-110909.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
140 4-Aminobiphenyl	0.53562	0.58994	0.58994	0.000	10.14239	60.00000	Averaged
141 Pentachloronitrobenzene	0.06192	0.06213	0.06213	0.000	0.34079	60.00000	Averaged
142 Pronamide	0.26319	0.26234	0.26234	0.000	-0.32101	60.00000	Averaged
146 4-Nitroquinoline-1-oxide	0.02349	0.02580	0.02580	0.000	9.82299	60.00000	Averaged
147 Methapyrilene	0.38600	0.39422	0.39422	0.000	2.12820	60.00000	Averaged
148 Isodrin	0.09631	0.08838	0.08838	0.000	-8.22821	60.00000	Averaged
149 Aramite	0.04420	0.04155	0.04155	0.000	-5.99495	60.00000	Averaged
150 Kepone	0.06173	0.05889	0.05889	0.000	-4.59530	60.00000	Averaged
151 p-(Dimethylamino)azobenzene	0.31734	0.33079	0.33079	0.000	4.23929	60.00000	Averaged
152 Chlorobenzilate	0.29130	0.29321	0.29321	0.000	0.65640	60.00000	Averaged
153 3,3'-Dimethylbenzidine	0.52763	0.57778	0.57778	0.000	9.50435	60.00000	Averaged
155 2-Acetylaminofluorene	41.44131	40.00000	0.34022	0.000	3.60328	60.00000	Linear
157 7,12Dimethylbenz(a)anthrace	0.47906	0.41447	0.41447	0.000	-13.48259	60.00000	Averaged
158 3-Methylcholanthrene	0.36955	0.35869	0.35869	0.000	-2.93887	60.00000	Averaged
212 Cis Diallate	0.25295	0.25705	0.25705	0.000	1.62146	60.00000	Averaged
213 Trans Diallate	0.28301	0.27233	0.27233	0.000	-3.77545	60.00000	Averaged

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Data file : /chem/MSD6.i/s110909.b/s6k0938.d
Lab Smp Id: WBN091016-08.1 Client Smp ID: AP12ICV
Inj Date : 10-NOV-2009 21:07
Operator : JMB3 Inst ID: MSD6.i
Smp Info : |WBN091016-08.1|40 PPM|1|SVMF|1|AP12ICV
Misc Info : |MSD8270|WBN091106-10
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s110909.b/MSD6-M8270C-AQA-110909.m
Meth Date : 11-Nov-2009 09:25 nat00999 Quant Type: ISTD
Cal Date : 11-NOV-2009 02:44 Cal File: s6k0950.d
Als bottle: 18 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AP12.sub
Target Version: 3.50
Processing Host: hpclp1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	4.834	4.834	(1.000)	282437	40.0000	
* 29 Naphthalene-d8	136	6.113	6.113	(1.000)	974498	40.0000	
* 46 Acenaphthene-d10	164	7.983	7.983	(1.000)	519475	40.0000	
* 67 Phenanthrene-d10	188	9.599	9.599	(1.000)	914999	40.0000	
* 91 Chrysene-d12	240	12.613	12.613	(1.000)	718441	40.0000	
* 98 Perylene-d12	264	14.950	14.950	(1.000)	524113	40.0000	
209 Benzaldehyde	77	4.428	4.428	(0.916)	190719	40.0000	31.4
16 Acetophenone	105	5.211	5.211	(1.078)	306390	40.0000	37.1
189 Caprolactam	113	6.531	6.531	(1.068)	79108	40.0000	44.0
208 1,1'-Biphenyl	154	7.354	7.354	(0.921)	601890	40.0000	38.6
207 Atrazine	173	9.249	9.249	(0.964)	34200	40.0000	36.8
77 Benzidine	184	11.038	11.038	(0.875)	257818	40.0000	36.5
90 3,3'-Dichlorobenzidine	252	12.539	12.539	(0.994)	216482	40.0000	42.7
102 1,4-Dioxane	88	2.456	2.456	(0.508)	129460	40.0000	50.1
103 Methyl methacrylate	100	2.454	2.454	(0.508)	73600	40.0000	53.8
104 Ethyl methacrylate	69	2.971	2.971	(0.615)	275642	40.0000	48.4
105 2-Picoline	93	3.228	3.228	(0.668)	384374	40.0000	41.6
106 N-Nitrosomethylethylamine	88	3.297	3.297	(0.682)	151823	40.0000	42.1
107 Methyl methanesulfonate	80	3.521	3.521	(0.728)	147497	40.0000	39.5
108 N-Nitrosodiethylamine	102	3.858	3.858	(0.798)	144115	40.0000	41.2
109 Ethyl Methanesulfonate	79	4.097	4.097	(0.848)	208326	40.0000	45.3
110 Pentachloroethane	167	4.574	4.574	(0.946)	119725	40.0000	53.5
111 N-Nitrosopyrrolidine	100	5.190	5.190	(1.074)	130840	40.0000	38.9(Q)
113 N-Nitrosomorpholine	56	5.223	5.223	(1.081)	185493	40.0000	38.7
114 o-Toluidine	106	5.249	5.249	(1.086)	465737	40.0000	39.9
115 N-Nitrosopiperidine	114	5.539	5.539	(0.906)	138180	40.0000	40.2

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
116 a,a-Dimethylphenethylamine	58	5.962	5.962	(0.975)	849798	40.0000	40.8
118 2,6-Dichlorophenol	162	6.184	6.184	(1.012)	194979	40.0000	38.7
119 Hexachloropropene	213	6.222	6.222	(1.018)	141665	40.0000	56.6
120 p-Phenylenediamine	108	6.541	6.541	(1.070)	225910	40.0000	40.4
121 N-Nitrosodi-n-butylamine	84	6.515	6.515	(1.066)	211942	40.0000	41.4(T)
122 Safrole	162	6.750	6.750	(1.104)	203993	40.0000	44.9
123 1,2,4,5-Tetrachlorobenzene	216	7.035	7.035	(0.881)	220840	40.0000	40.2
124 Isosafrole	162	7.305	7.305	(0.915)	224711	40.0000	51.0
125 1,4-Naphthoquinone	158	7.565	7.565	(0.948)	157789	40.0000	39.6
127 Pentachlorobenzene	250	8.156	8.156	(1.022)	189057	40.0000	39.9
128 1-Naphthylamine	143	8.284	8.284	(1.038)	473709	40.0000	40.2
129 2-Naphthylamine	143	8.368	8.368	(1.048)	477216	40.0000	37.5
131 5-Nitro-o-toluidine	152	8.574	8.574	(1.074)	150626	40.0000	41.6
136 1,3,5-Trinitrobenzene	75	8.946	8.946	(0.932)	125876	40.0000	46.0
137 Phenacetin	108	9.010	9.010	(0.939)	237813	40.0000	39.6(Q)
138 Diallate	86	8.990	8.990	(0.937)	211803	40.0000	38.5
140 4-Aminobiphenyl	169	9.374	9.374	(0.977)	539794	40.0000	44.0
141 Pentachloronitrobenzene	237	9.392	9.392	(0.978)	56852	40.0000	40.1(Q)
142 Pronamide	173	9.423	9.423	(0.982)	240044	40.0000	39.9
146 4-Nitroquinoline-1-oxide	101	10.445	10.445	(1.088)	23608	40.0000	43.9
147 Methapyrilene	58	10.518	10.518	(1.096)	360709	40.0000	40.8
148 Isodrin	193	10.750	10.750	(1.120)	80870	40.0000	36.7
149 Aramite	185	11.265	11.265	(1.174)	38019	40.0000	37.6
150 Kepone	272	11.933	11.933	(1.243)	53886	40.0000	38.2
151 p-(Dimethylamino)azobenzene	120	11.456	11.456	(0.908)	237654	40.0000	41.7
152 Chlorobenzilate	251	11.499	11.499	(0.912)	210653	40.0000	40.3
153 3,3'-Dimethylbenzidine	212	11.838	11.838	(0.939)	415103	40.0000	43.8
155 2-Acetylaminofluorene	181	12.154	12.154	(0.964)	244425	40.0000	41.4
157 7,12Dimethylbenz(a)anthracene	256	14.251	14.251	(0.953)	217229	40.0000	34.6
158 3-Methylcholanthrene	268	15.477	15.477	(1.035)	187994	40.0000	38.8(Q)
212 Cis Diallate	86	9.092	9.092	(0.947)	35280	6.00000	6.1
213 Trans Diallate	86	8.990	8.990	(0.937)	211803	34.0000	32.7

QC Flag Legend

T - Target compound detected outside RT window.
Q - Qualifier signal failed the ratio test.

Data File: /chem/MSD6.i/s110909.b/s6k0938.d
Date : 10-NOV-2009 21:07
Client ID: AP12ICV
Sample Info: IWBN091016-08.1|40 PPM|1|SVHF|1|AP12ICV

Column phase: J&W DB-5MS

Instrument: MSD6.i
Operator: JMB3
Column diameter: 0.20

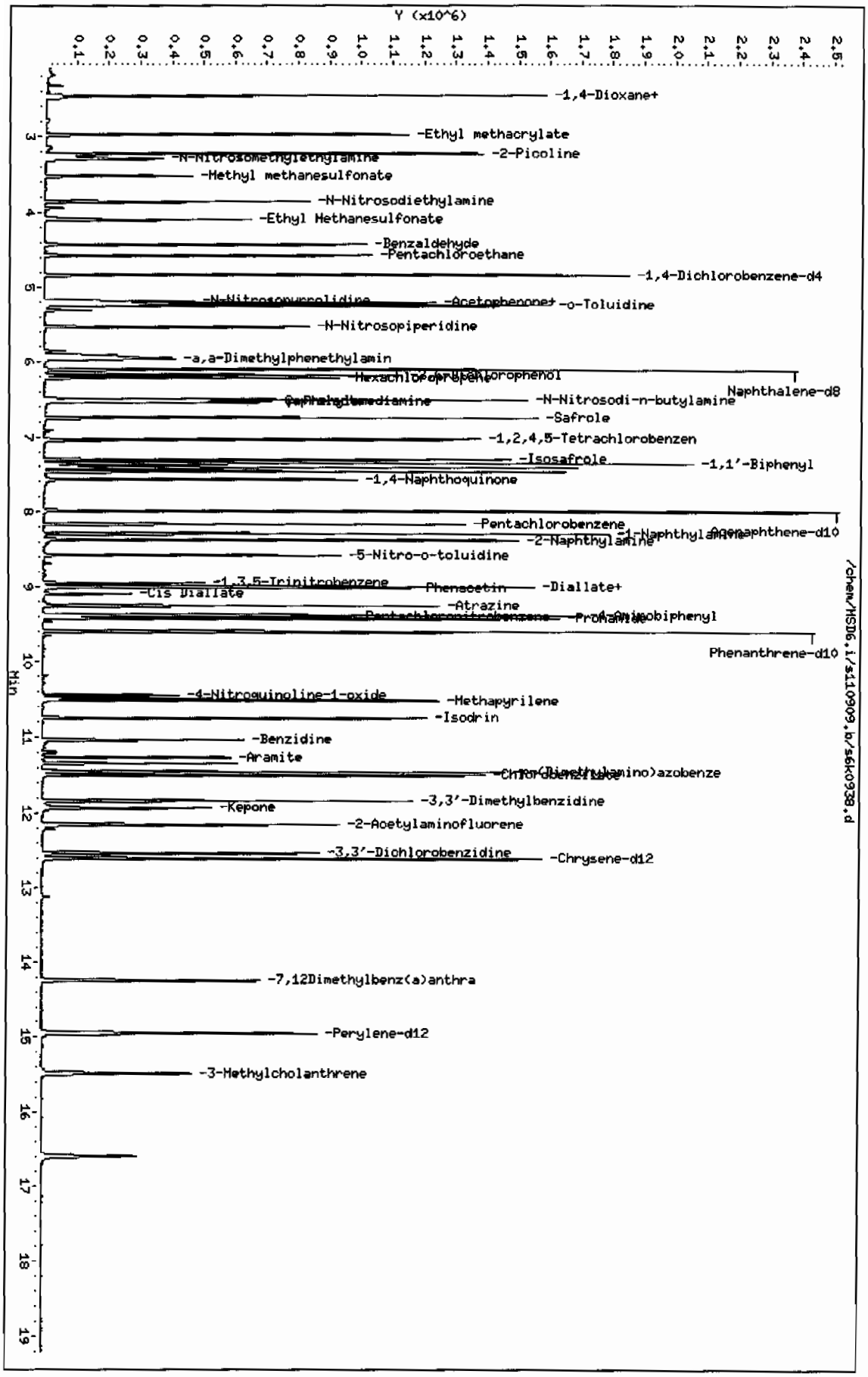

Column phase: J&W DB-5MS

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GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD6.i Injection Date: 16-DEC-2009 14:18
Lab File ID: s611611.d Init. Cal. Date(s): 09-NOV-2009 11-NOV-2009
Analysis Type: WATER Init. Cal. Times: 18:53 04:38
Lab Sample ID: WBN091111-17.4 Quant Type: ISTD
Method: /chem/MSD6.i/s121609.b/MSD6-M8270C-AQA-110909.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
$ 3 2-Fluorophenol	1.00169	0.99383	0.99383	0.000	-0.78474	60.00000	Averaged
$ 5 Phenol-d5	1.26427	1.27179	1.27179	0.000	0.59511	60.00000	Averaged
$ 20 Nitrobenzene-d5	0.28296	0.28440	0.28440	0.000	0.50791	60.00000	Averaged
$ 39 2-Fluorobiphenyl	1.03083	1.07143	1.07143	0.000	3.93838	60.00000	Averaged
$ 60 2,4,6-Tribromophenol	0.11675	0.13188	0.13188	0.000	12.96090	60.00000	Averaged
$ 81 p-Terphenyl-d14	0.64507	0.70417	0.70417	0.000	9.16172	60.00000	Averaged
1 N-Methyl-N-nitrosomethylami	0.68098	0.62678	0.62678	0.000	-7.95869	60.00000	Averaged
2 Pyridine	0.84757	0.74535	0.74535	0.000	-12.06041	60.00000	Averaged
4 Aniline	0.52752	0.50228	0.50228	0.000	-4.78378	60.00000	Averaged
6 Phenol	1.27120	1.27161	1.27161	0.001	0.03272	20.00000	Averaged ccc
7 bis(2-Chloroethyl) ether	0.86081	0.78504	0.78504	0.000	-8.80158	60.00000	Averaged
8 2-Chlorophenol	1.02109	1.00553	1.00553	0.000	-1.52396	60.00000	Averaged
203 n-Decane	1.42254	1.19641	1.19641	0.000	-15.89621	60.00000	Averaged
9 1,3-Dichlorobenzene	1.17550	1.20399	1.20399	0.000	2.42360	60.00000	Averaged
11 1,4-Dichlorobenzene	1.19162	1.20297	1.20297	0.001	0.95238	20.00000	Averaged ccc
13 1,2-Dichlorobenzene	1.11231	1.13899	1.13899	0.000	2.39858	60.00000	Averaged
14 bis(2-Chloroisopropyl)ether	1.92182	1.82850	1.82850	0.000	-4.85585	60.00000	Averaged
12 Benzyl alcohol	0.63436	0.66385	0.66385	0.000	4.64855	60.00000	Averaged
15 o-Cresol	0.83139	0.83695	0.83695	0.000	0.66940	60.00000	Averaged
18 m,p-Cresols	1.05346	1.10132	1.10132	0.000	4.54301	60.00000	Averaged
17 N-Nitrosodipropylamine	0.70865	0.73103	0.73103	0.050	3.15790	60.00000	Averaged spcc
19 Hexachloroethane	0.46100	0.44040	0.44040	0.000	-4.46784	60.00000	Averaged
21 Nitrobenzene	0.28519	0.28894	0.28894	0.000	1.31336	60.00000	Averaged
22 Isophorone	0.50552	0.51771	0.51771	0.000	2.41251	60.00000	Averaged
23 2-Nitrophenol	0.13154	0.14019	0.14019	0.001	6.57497	20.00000	Averaged ccc
24 2,4-Dimethylphenol	0.21795	0.23988	0.23988	0.000	10.06300	60.00000	Averaged
25 bis(2-Chloroethoxy)methane	0.29749	0.30035	0.30035	0.000	0.96047	60.00000	Averaged
26 2,4-Dichlorophenol	0.19769	0.21227	0.21227	0.001	7.37910	20.00000	Averaged ccc
27 Benzoic acid	0.13453	0.17926	0.17926	0.000	33.24910	60.00000	Averaged
28 1,2,4-Trichlorobenzene	0.24261	0.24702	0.24702	0.000	1.81626	60.00000	Averaged
30 Naphthalene	0.79792	0.82601	0.82601	0.000	3.52090	60.00000	Averaged
204 alpha-Terpineol	0.21868	0.20547	0.20547	0.000	-6.03838	60.00000	Averaged
31 4-Chloroaniline	0.25646	0.26906	0.26906	0.000	4.91254	60.00000	Averaged
32 Hexachlorobutadiene	0.12634	0.12994	0.12994	0.001	2.85236	20.00000	Averaged ccc
33 4-Chloro-3-methylphenol	0.19957	0.20185	0.20185	0.001	1.14311	20.00000	Averaged ccc
34 2-Methylnaphthalene	0.48150	0.56492	0.56492	0.000	17.32452	60.00000	Averaged

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD6.i
Lab File ID: s611611.d
Analysis Type: WATER
Lab Sample ID: WBN091111-17.4 Quant Type: ISTD
Method: /chem/MSD6.i/s121609.b/MSD6-M8270C-AQA-110909.m

Injection Date: 16-DEC-2009 14:18
Init. Cal. Date(s): 09-NOV-2009 11-NOV-2009
Init. Cal. Times: 18:53 04:38

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
35 1-Methylnaphthalene	0.47100	0.54136	0.54136	0.000	14.93862	60.00000	Averaged	
36 Hexachlorocyclopentadiene	0.16157	0.11758	0.11758	0.050	-27.22798	60.00000	Averaged	spcc
205 2,3-Dichloroaniline	0.47908	0.48572	0.48572	0.000	1.38553	60.00000	Averaged	
37 2,4,6-Trichlorophenol	0.27294	0.27815	0.27815	0.001	1.90905	20.00000	Averaged	ccc
38 2,4,5-Trichlorophenol	0.29067	0.30694	0.30694	0.000	5.59814	60.00000	Averaged	
40 2-Chloronaphthalene	0.89832	0.90517	0.90517	0.000	0.76191	60.00000	Averaged	
42 o-Nitroaniline	0.30732	0.28055	0.28055	0.000	-8.71181	60.00000	Averaged	
41 m-Nitroaniline	0.22497	0.23011	0.23011	0.000	2.28581	60.00000	Averaged	
43 Dimethylphthalate	1.02610	1.06035	1.06035	0.000	3.33737	60.00000	Averaged	
44 2,6-Dinitrotoluene	0.24475	0.24919	0.24919	0.000	1.81632	60.00000	Averaged	
50 2,4-Dinitrotoluene	0.30862	0.31750	0.31750	0.000	2.87665	60.00000	Averaged	
45 Acenaphthylene	1.44438	1.63158	1.63158	0.000	12.96066	60.00000	Averaged	
47 Acenaphthene	0.90151	0.98114	0.98114	0.001	8.83322	20.00000	Averaged	ccc
48 2,4-Dinitrophenol	44.24466	40.00000	0.09723	0.050	10.61166	60.00000	Linear	spcc
49 Dibenzofuran	1.21689	1.24362	1.24362	0.000	2.19663	60.00000	Averaged	
51 Diethylphthalate	1.03335	1.08027	1.08027	0.000	4.54116	60.00000	Averaged	
52 4-Nitrophenol	41.90769	40.00000	0.17438	0.050	4.76924	60.00000	Linear	spcc
53 Fluorene	0.99879	1.12099	1.12099	0.000	12.23437	60.00000	Averaged	
54 4-Chlorophenylphenylether	0.47192	0.49797	0.49797	0.000	5.51874	60.00000	Averaged	
55 2-Methyl-4,6-dinitrophenol	52.18245	40.00000	0.12152	0.000	30.45612	60.00000	Linear	
56 p-Nitroaniline	38.97065	40.00000	0.20351	0.000	-2.57337	60.00000	Linear	
133 Diphenylamine	0.48213	0.49507	0.49507	0.001	2.68245	20.00000	Averaged	ccc
58 1,2-Diphenylhydrazine	0.61327	0.60577	0.60577	0.000	-1.22350	60.00000	Averaged	
61 4-Bromophenylphenylether	0.15784	0.16120	0.16120	0.000	2.13226	60.00000	Averaged	
63 Hexachlorobenzene	0.16533	0.16912	0.16912	0.000	2.29179	60.00000	Averaged	
65 Pentachlorophenol	41.01949	40.00000	0.08880	0.001	2.54873	20.00000	Linear	ccc
206 n-Octadecane	0.44173	0.43248	0.43248	0.000	-2.09463	60.00000	Averaged	
68 Phenanthrene	0.82721	0.89358	0.89358	0.000	8.02236	60.00000	Averaged	
69 Anthracene	0.82682	0.93056	0.93056	0.000	12.54639	60.00000	Averaged	
72 Di-n-butylphthalate	0.94954	1.05256	1.05256	0.000	10.85042	60.00000	Averaged	
76 Fluoranthene	0.79242	0.92392	0.92392	0.001	16.59515	20.00000	Averaged	ccc
79 Pyrene	1.10021	1.16971	1.16971	0.000	6.31716	60.00000	Averaged	
85 Butylbenzylphthalate	0.50351	0.54745	0.54745	0.000	8.72860	60.00000	Averaged	
89 Benzo(a)anthracene	0.86301	0.95056	0.95056	0.000	10.14528	60.00000	Averaged	
92 Chrysene	0.82690	0.92095	0.92095	0.000	11.37418	60.00000	Averaged	
93 bis(2-Ethylhexyl)phthalate	45.54644	40.00000	0.79097	0.000	13.86609	60.00000	Wt Linear	

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD6.i Injection Date: 16-DEC-2009 14:18
Lab File ID: s611611.d Init. Cal. Date(s): 09-NOV-2009 11-NOV-2009
Analysis Type: WATER Init. Cal. Times: 18:53 04:38
Lab Sample ID: WBN091111-17.4 Quant Type: ISTD
Method: /chem/MSD6.i/s121609.b/MSD6-M8270C-AQA-110909.m

	COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
	94 Di-n-octylphthalate	1.27127	1.40099	1.40099	0.001	10.20395	20.00000	Averaged	ccc
	95 Benzo(b)fluoranthene	0.88507	0.99141	0.99141	0.000	12.01479	60.00000	Averaged	
	96 Benzo(k)fluoranthene	0.88011	1.02279	1.02279	0.000	16.21184	60.00000	Averaged	
	97 Benzo(a)pyrene	0.76447	0.90445	0.90445	0.001	18.31071	20.00000	Averaged	ccc
	99 Indeno(1,2,3-cd)pyrene	44.53953	40.00000	0.81728	0.000	11.34883	60.00000	Linear	
	100 Dibenzo(a,h)anthracene	44.22786	40.00000	0.66086	0.000	10.56964	60.00000	Linear	
	101 Benzo(ghi)perylene	0.58403	0.69184	0.69184	0.000	18.46032	60.00000	Averaged	
	126 m-Dinitrobenzene	0.16929	0.17392	0.17392	0.000	2.73258	60.00000	Averaged	
	130 2,3,4,6-Tetrachlorophenol	0.21896	0.23026	0.23026	0.000	5.16146	60.00000	Averaged	
	143 Dinoseb	42.43059	40.00000	0.13350	0.000	6.07648	60.00000	Linear	
	173 Carbazole	0.65449	0.66231	0.66231	0.000	1.19442	60.00000	Averaged	
	184 p-Benzoquinone	0.12730	0.05012	0.05012	0.000	-60.62921	60.00000	Averaged	<-
	192 Methoxychlor	0.55243	0.49272	0.49272	0.000	-10.80878	60.00000	Averaged	
	211 p-Toluidine	0.89987	0.95511	0.95511	0.000	6.13856	60.00000	Averaged	
	210 m-Toluidine	1.12396	1.14096	1.14096	0.000	1.51251	60.00000	Averaged	
	26 Phthalic anhydride	52.55150	40.00000	0.10484	0.000	31.37875	60.00000	Linear	
	214 1,4-Dinitrobenzene	0.18382	0.17843	0.17843	0.000	-2.93150	60.00000	Averaged	
	215 2-Ethoxyethanol	0.71035	0.59017	0.59017	0.000	-16.91888	60.00000	Averaged	
	216 Methylenebis(2-chloroanilin	41.77903	40.00000	0.13208	0.000	4.44758	60.00000	Linear	
M	225 Trichlorophenols	0.28180	0.29254	0.29254	0.000	3.81162	60.00000	Averaged	
M	226 Tetrachlorophenols	0.21896	0.23026	0.23026	0.000	5.16146	60.00000	Averaged	
M	227 Benzo(b,k)fluoranthene	0.88259	1.00710	1.00710	0.000	14.10741	60.00000	Averaged	

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Data file : /chem/MSD6.i/s121609.b/s611611.d
Lab Smp Id: WBN091111-17.4 Client Smp ID: MEGACVS
Inj Date : 16-DEC-2009 14:18
Operator : nag1 Inst ID: MSD6.i
Smp Info : |WBN091111-17.4|CVS|1|SVMF|1|MEGACVS
Misc Info : |MSD8270|WBN091208-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s121609.b/MSD6-M8270C-AQA-110909.m
Meth Date : 17-Dec-2009 08:11 nat00999 Quant Type: ISTD
Cal Date : 11-NOV-2009 04:38 Cal File: s6k0954.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: MEGA.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vo *Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vo	1000.00000	volume of sample ext
Vi	0.50000	volume injected

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	4.849	4.849	(1.000)	209214	40.0000	
* 29 Naphthalene-d8	136	6.131	6.131	(1.000)	828674	40.0000	
* 46 Acenaphthene-d10	164	8.001	8.001	(1.000)	435590	40.0000	
* 67 Phenanthrene-d10	188	9.611	9.611	(1.000)	744475	40.0000	
* 91 Chrysene-d12	240	12.633	12.633	(1.000)	599948	40.0000	
* 98 Perylene-d12	264	14.973	14.973	(1.000)	527608	40.0000	
$ 3 2-Fluorophenol	112	3.674	3.674	(0.758)	207923	40.0000	39.7
$ 5 Phenol-d5	99	4.457	4.457	(0.919)	266077	40.0000	40.2
$ 20 Nitrobenzene-d5	82	5.389	5.389	(0.879)	235671	40.0000	40.2
$ 39 2-Fluorobiphenyl	172	7.254	7.254	(0.907)	466704	40.0000	41.6
$ 60 2,4,6-Tribromophenol	329	8.850	8.850	(1.106)	57446	40.0000	45.2
$ 81 p-Terphenyl-d14	244	11.316	11.316	(0.896)	422463	40.0000	43.7
1 N-Methyl-N-nitrosomethylamine	74	2.701	2.701	(0.557)	131131	40.0000	36.8

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
2 Pyridine	79	2.737	2.737	(0.564)	155938	40.0000	35.2
4 Aniline	66	4.538	4.538	(0.936)	105085	40.0000	38.1
6 Phenol	94	4.469	4.469	(0.922)	266039	40.0000	40.0
7 bis(2-Chloroethyl) ether	63	4.574	4.574	(0.943)	164242	40.0000	36.5
8 2-Chlorophenol	128	4.650	4.650	(0.959)	210371	40.0000	39.4
203 n-Decane	43	4.655	4.655	(0.960)	250305	40.0000	33.6
9 1,3-Dichlorobenzene	146	4.798	4.798	(0.989)	251891	40.0000	41.0
11 1,4-Dichlorobenzene	146	4.867	4.867	(1.004)	251678	40.0000	40.4
13 1,2-Dichlorobenzene	146	5.017	5.017	(1.035)	238292	40.0000	41.0
14 bis(2-Chloroisopropyl)ether	45	5.083	5.083	(1.048)	382548	40.0000	38.0
12 Benzyl alcohol	108	4.961	4.961	(1.023)	138887	40.0000	41.8
15 o-Cresol	107	5.045	5.045	(1.040)	175102	40.0000	40.3
18 m,p-Cresols	107	5.203	5.203	(1.073)	230411	40.0000	41.8
17 N-Nitrosodipropylamine	70	5.226	5.226	(1.078)	152942	40.0000	41.3
19 Hexachloroethane	117	5.348	5.348	(1.103)	92138	40.0000	38.2
21 Nitrobenzene	77	5.410	5.410	(0.882)	239434	40.0000	40.5
22 Isophorone	82	5.644	5.644	(0.921)	429014	40.0000	41.0
23 2-Nitrophenol	139	5.726	5.726	(0.934)	116175	40.0000	42.6
24 2,4-Dimethylphenol	122	5.736	5.736	(0.936)	198786	40.0000	44.0
25 bis(2-Chloroethoxy)methane	93	5.840	5.840	(0.953)	248892	40.0000	40.4
26 2,4-Dichlorophenol	162	5.968	5.968	(0.973)	175905	40.0000	43.0
27 Benzoic acid	105	5.850	5.850	(0.954)	148547	40.0000	53.3
28 1,2,4-Trichlorobenzene	180	6.062	6.062	(0.989)	204700	40.0000	40.7
30 Naphthalene	128	6.154	6.154	(1.004)	684493	40.0000	41.4
204 alpha-Terpineol	59	6.138	6.138	(1.001)	170271	40.0000	37.6
31 4-Chloroaniline	127	6.189	6.189	(1.010)	222960	40.0000	42.0
32 Hexachlorobutadiene	225	6.261	6.261	(1.021)	107681	40.0000	41.1
33 4-Chloro-3-methylphenol	107	6.676	6.676	(1.089)	167265	40.0000	40.4
34 2-Methylnaphthalene	142	6.875	6.875	(1.121)	468131	40.0000	46.9
35 1-Methylnaphthalene	142	6.984	6.984	(1.139)	448615	40.0000	46.0
36 Hexachlorocyclopentadiene	237	7.033	7.033	(0.879)	51215	40.0000	29.1
205 2,3-Dichloroaniline	161	7.170	7.170	(0.896)	211573	40.0000	40.6
37 2,4,6-Trichlorophenol	196	7.165	7.165	(0.896)	121159	40.0000	40.8
38 2,4,5-Trichlorophenol	196	7.203	7.203	(0.900)	133700	40.0000	42.2
40 2-Chloronaphthalene	162	7.400	7.400	(0.925)	394282	40.0000	40.3
42 o-Nitroaniline	65	7.499	7.499	(0.937)	122205	40.0000	36.5
41 m-Nitroaniline	138	7.942	7.942	(0.993)	100235	40.0000	40.9
43 Dimethylphthalate	163	7.685	7.685	(0.960)	461876	40.0000	41.3
44 2,6-Dinitrotoluene	165	7.756	7.756	(0.969)	108546	40.0000	40.7
50 2,4-Dinitrotoluene	165	8.192	8.192	(1.024)	138299	40.0000	41.2
45 Acenaphthylene	152	7.851	7.851	(0.981)	710701	40.0000	45.2
47 Acenaphthene	154	8.037	8.037	(1.004)	427376	40.0000	43.5
48 2,4-Dinitrophenol	184	8.052	8.052	(1.006)	42354	40.0000	44.2
49 Dibenzofuran	168	8.220	8.220	(1.027)	541708	40.0000	40.9
51 Diethylphthalate	149	8.437	8.437	(1.054)	470556	40.0000	41.8
52 4-Nitrophenol	139	8.103	8.103	(1.013)	75960	40.0000	41.9
53 Fluorene	166	8.592	8.592	(1.074)	488292	40.0000	44.9

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
54 4-Chlorophenylphenylether	204	8.574	8.574	(1.072)	216909	40.0000	42.2
55 2-Methyl-4,6-dinitrophenol	198	8.633	8.633	(0.898)	90472	40.0000	52.2
56 p-Nitroaniline	138	8.605	8.605	(1.075)	88647	40.0000	39.0
133 Diphenylamine	169	8.702	8.702	(0.905)	368565	40.0000	41.1
58 1,2-Diphenylhydrazine	77	8.750	8.750	(0.910)	450977	40.0000	39.5
61 4-Bromophenylphenylether	248	9.107	9.107	(0.948)	120012	40.0000	40.8
63 Hexachlorobenzene	284	9.183	9.183	(0.955)	125905	40.0000	40.9
65 Pentachlorophenol	266	9.390	9.390	(0.977)	66111	40.0000	41.0
206 n-Octadecane	57	9.436	9.436	(0.982)	321970	40.0000	39.2
68 Phenanthrene	178	9.637	9.637	(1.003)	665245	40.0000	43.2
69 Anthracene	178	9.693	9.693	(1.008)	692779	40.0000	45.0
72 Di-n-butylphthalate	149	10.197	10.197	(1.061)	783608	40.0000	44.3
76 Fluoranthene	202	10.926	10.926	(1.137)	687837	40.0000	46.6
79 Pyrene	202	11.176	11.176	(0.885)	701764	40.0000	42.5
85 Butylbenzylphthalate	149	11.849	11.849	(0.938)	328444	40.0000	43.5
89 Benzo(a)anthracene	228	12.613	12.613	(0.998)	570287	40.0000	44.0
92 Chrysene	228	12.669	12.669	(1.003)	552523	40.0000	44.5
93 bis(2-Ethylhexyl)phthalate	149	12.575	12.575	(0.995)	474542	40.0000	45.5
94 Di-n-octylphthalate	149	13.564	13.564	(0.906)	739175	40.0000	44.1
95 Benzo(b)fluoranthene	252	14.295	14.295	(0.955)	523078	40.0000	44.8
96 Benzo(k)fluoranthene	252	14.343	14.343	(0.958)	539631	40.0000	46.5
97 Benzo(a)pyrene	252	14.871	14.871	(0.993)	477193	40.0000	47.3
99 Indeno(1,2,3-cd)pyrene	276	16.963	16.963	(1.133)	431201	40.0000	44.5
100 Dibenzo(a,h)anthracene	278	16.993	16.993	(1.135)	348677	40.0000	44.2
101 Benzo(ghi)perylene	276	17.480	17.480	(1.167)	365021	40.0000	47.4(Q)
126 m-Dinitrobenzene	168	7.728	7.728	(0.966)	75758	40.0000	41.1
130 2,3,4,6-Tetrachlorophenol	232	8.342	8.342	(1.043)	100299	40.0000	42.1
143 Dinoseb	211	9.573	9.573	(0.996)	99385	40.0000	42.4
173 Carbazole	167	9.856	9.856	(1.025)	493075	40.0000	40.5
184 p-Benzoquinone	54	4.107	4.107	(0.847)	10486	40.0000	15.7
192 Methoxychlor	227	12.478	12.478	(0.988)	295607	40.0000	35.7
211 p-Toluidine	106	5.269	5.269	(1.087)	199823	40.0000	42.4
210 m-Toluidine	106	5.303	5.303	(1.094)	238705	40.0000	40.6
26 Phthalic anhydride	104	6.933	6.933	(1.131)	86882	40.0000	52.6
214 1,4-Dinitrobenzene	75	7.647	7.647	(0.956)	77721	40.0000	38.8
215 2-Ethoxyethanol	59	2.487	2.487	(0.513)	123472	40.0000	33.2
216 Methylenebis(2-chloroaniline)	231	12.554	12.554	(0.994)	79240	40.0000	41.8(Q)
M 225 Trichlorophenols	196				254859	80.0000	83.0
M 226 Tetrachlorophenols	232				100299	40.0000	42.1
M 227 Benzo(b,k)fluoranthene	252				1062709	80.0000	91.3

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: /chem/MSD6.i/s121609.b/s611611.d

Date : 16-DEC-2009 14:18

Client ID: MEGACVS

Sample Info: IWBN091111-17.4ICVSI1ISVMFI1IMEGACVS

Volume Injected (uL): 0.5

Column phase: J&W DB-5MS

Instrument: MSD6.i

Operator: nag1

Column diameter: 0.20

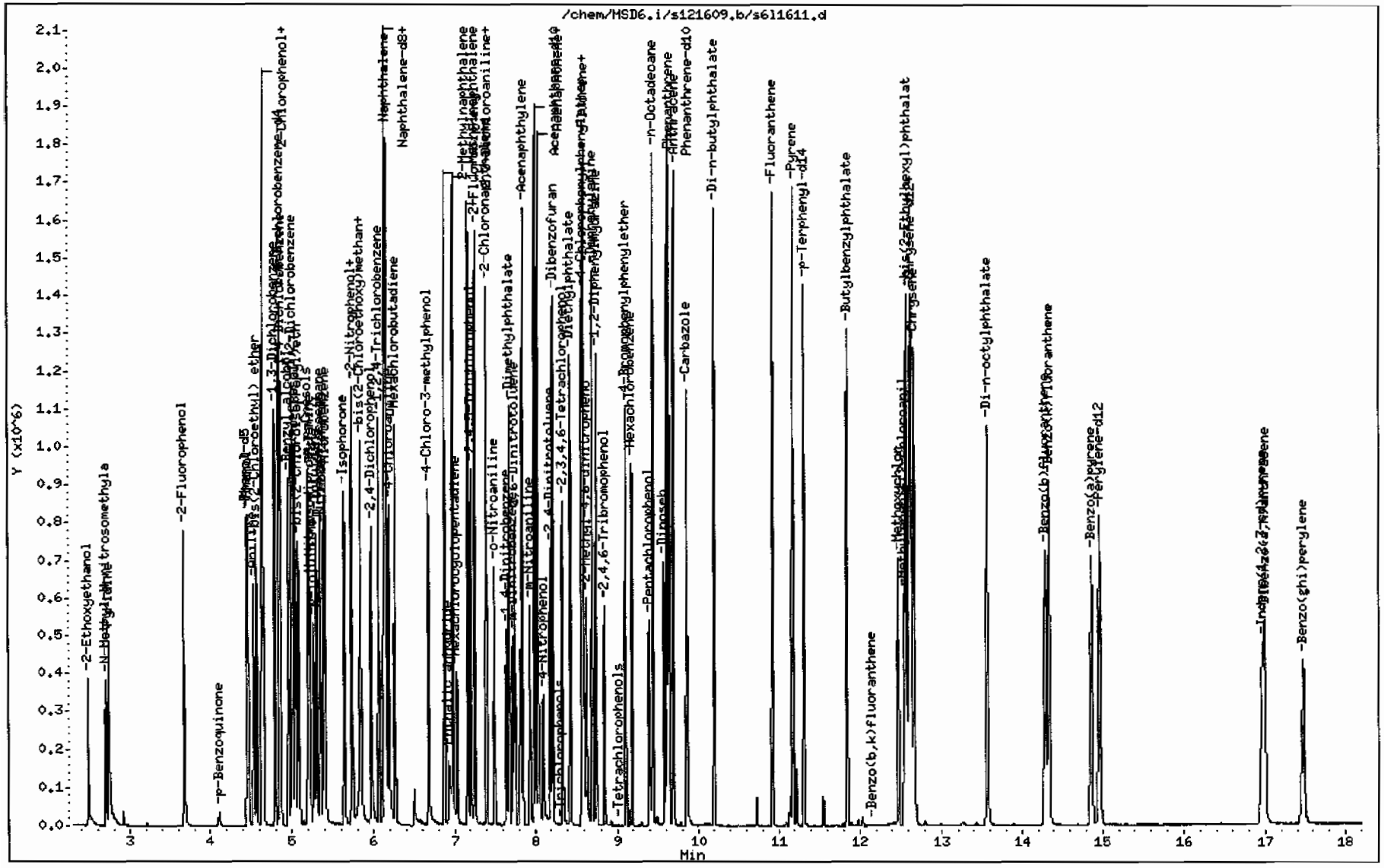

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD6.i Injection Date: 16-DEC-2009 14:46
Lab File ID: s611612.d Init. Cal. Date(s): 09-NOV-2009 11-NOV-2009
Analysis Type: WATER Init. Cal. Times: 18:53 04:38
Lab Sample ID: WBN091201-03.5 Quant Type: ISTD
Method: /chem/MSD6.i/s121609.b/MSD6-M8270C-AQA-110909.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
209 Benzaldehyde	0.86127	0.89433	0.89433	0.000	3.83819	60.00000	Averaged
16 Acetophenone	1.16908	1.20934	1.20934	0.000	3.44420	60.00000	Averaged
189 Caprolactam	0.07388	0.08702	0.08702	0.000	17.78166	60.00000	Averaged
208 1,1'-Biphenyl	1.20131	1.18926	1.18926	0.000	-1.00269	60.00000	Averaged
207 Atrazine	0.04063	0.04262	0.04262	0.000	4.89142	60.00000	Averaged
77 Benzidine	0.39304	0.31459	0.31459	0.000	-19.95903	60.00000	Averaged
90 3,3'-Dichlorobenzidine	0.28252	0.29864	0.29864	0.000	5.70779	60.00000	Averaged
102 1,4-Dioxane	0.36606	0.30348	0.30348	0.000	-17.09632	60.00000	Averaged
103 Methyl methacrylate	0.19388	0.16111	0.16111	0.000	-16.90047	60.00000	Averaged
104 Ethyl methacrylate	0.80561	0.76511	0.76511	0.000	-5.02691	60.00000	Averaged
105 2-Picoline	1.30872	1.28600	1.28600	0.000	-1.73593	60.00000	Averaged
106 N-Nitrosomethylethylamine	0.51104	0.49714	0.49714	0.000	-2.71936	60.00000	Averaged
107 Methyl methanesulfonate	0.52852	0.50298	0.50298	0.000	-4.83357	60.00000	Averaged
108 N-Nitrosodiethylamine	0.49553	0.48965	0.48965	0.000	-1.18636	60.00000	Averaged
109 Ethyl Methanesulfonate	0.65169	0.64864	0.64864	0.000	-0.46754	60.00000	Averaged
110 Pentachloroethane	0.31681	0.32035	0.32035	0.000	1.11932	60.00000	Averaged
111 N-Nitrosopyrrolidine	0.47614	0.52670	0.52670	0.000	10.61979	60.00000	Averaged
113 N-Nitrosomorpholine	0.67936	0.65595	0.65595	0.000	-3.44649	60.00000	Averaged
114 o-Toluidine	1.65281	1.70381	1.70381	0.000	3.08559	60.00000	Averaged
115 N-Nitrosopiperidine	0.14105	0.14355	0.14355	0.000	1.77059	60.00000	Averaged
116 a,a-Dimethylphenethylamine	0.85546	0.81197	0.81197	0.000	-5.08299	60.00000	Averaged
118 2,6-Dichlorophenol	0.20687	0.22230	0.22230	0.000	7.45815	60.00000	Averaged
119 Hexachloropropene	0.10269	0.09458	0.09458	0.000	-7.89586	60.00000	Averaged
120 p-Phenylenediamine	0.22955	0.23919	0.23919	0.000	4.20076	60.00000	Averaged
121 N-Nitrosodi-n-butylamine	0.21004	0.20880	0.20880	0.000	-0.59269	60.00000	Averaged
122 Safrole	0.18653	0.19390	0.19390	0.000	3.95271	60.00000	Averaged
123 1,2,4,5-Tetrachlorobenzene	0.42319	0.41604	0.41604	0.000	-1.68968	60.00000	Averaged
124 Isosafrole	0.33959	0.34019	0.34019	0.000	0.17555	60.00000	Averaged
125 1,4-Naphthoquinone	0.30674	0.33933	0.33933	0.000	10.62648	60.00000	Averaged
127 Pentachlorobenzene	0.36454	0.37434	0.37434	0.000	2.68650	60.00000	Averaged
128 1-Naphthylamine	0.90742	0.95277	0.95277	0.000	4.99866	60.00000	Averaged
129 2-Naphthylamine	0.98012	1.04054	1.04054	0.000	6.16436	60.00000	Averaged
131 5-Nitro-o-toluidine	0.27901	0.30162	0.30162	0.000	8.10290	60.00000	Averaged
136 1,3,5-Trinitrobenzene	41.92332	40.00000	0.12416	0.000	4.80831	60.00000	Linear
137 Phenacetin	0.26240	0.27085	0.27085	0.000	3.22108	60.00000	Averaged
138 Diallate	0.24056	0.23725	0.23725	0.000	-1.37609	60.00000	Averaged

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD6.i Injection Date: 16-DEC-2009 14:46
Lab File ID: s611612.d Init. Cal. Date(s): 09-NOV-2009 11-NOV-2009
Analysis Type: WATER Init. Cal. Times: 18:53 04:38
Lab Sample ID: WBN091201-03.5 Quant Type: ISTD
Method: /chem/MSD6.i/s121609.b/MSD6-M8270C-AQA-110909.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
140 4-Aminobiphenyl	0.53562	0.52632	0.52632	0.000	-1.73602	60.00000	Averaged
141 Pentachloronitrobenzene	0.06192	0.06268	0.06268	0.000	1.21547	60.00000	Averaged
142 Pronamide	0.26319	0.26537	0.26537	0.000	0.82951	60.00000	Averaged
146 4-Nitroquinoline-1-oxide	0.02349	0.02648	0.02648	0.000	12.72728	60.00000	Averaged
147 Methapyrilene	0.38600	0.41378	0.41378	0.000	7.19639	60.00000	Averaged
148 Isodrin	0.09631	0.10285	0.10285	0.000	6.79289	60.00000	Averaged
149 Aramite	0.04420	0.04833	0.04833	0.000	9.33169	60.00000	Averaged
150 Kepone	0.06173	0.07299	0.07299	0.000	18.24238	60.00000	Averaged
151 p-(Dimethylamino)azobenzene	0.31734	0.30077	0.30077	0.000	-5.22199	60.00000	Averaged
152 Chlorobenzilate	0.29130	0.27011	0.27011	0.000	-7.27354	60.00000	Averaged
153 3,3'-Dimethylbenzidine	0.52763	0.46893	0.46893	0.000	-11.12535	60.00000	Averaged
155 2-Acetylaminofluorene	43.62004	40.00000	0.36054	0.000	9.05009	60.00000	Linear
157 7,12Dimethylbenz(a)anthrace	0.47906	0.45602	0.45602	0.000	-4.80852	60.00000	Averaged
158 3-Methylcholanthrene	0.36955	0.40849	0.40849	0.000	10.53626	60.00000	Averaged
212 Cis Diallate	0.25295	0.23891	0.23891	0.000	-5.54879	60.00000	Averaged
213 Trans Diallate	0.28301	0.27912	0.27912	0.000	-1.37609	60.00000	Averaged

GEL Laboratories LLC

Data file : /chem/MSD6.i/s121609.b/s611612.d
Lab Smp Id: WBN091201-03.5 Client Smp ID: AP12CVS
Inj Date : 16-DEC-2009 14:46
Operator : nagl Inst ID: MSD6.i
Smp Info : |WBN091201-03.5|CVS|1|SVMF|1|AP12CVS
Misc Info : |MSD8270|WBN091208-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s121609.b/MSD6-M8270C-AQA-110909.m
Meth Date : 17-Dec-2009 08:10 nat00999 Quant Type: ISTD
Cal Date : 11-NOV-2009 04:38 Cal File: s6k0954.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AP12.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vo *Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vo	1000.00000	volume of sample ext
Vi	0.50000	volume injected

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	4.849	4.849	(1.000)	183991	40.0000	
* 29 Naphthalene-d8	136	6.128	6.128	(1.000)	690217	40.0000	
* 46 Acenaphthene-d10	164	7.999	7.999	(1.000)	389642	40.0000	
* 67 Phenanthrene-d10	188	9.612	9.612	(1.000)	696322	40.0000	
* 91 Chrysene-d12	240	12.626	12.626	(1.000)	639146	40.0000	
* 98 Perylene-d12	264	14.970	14.970	(1.000)	580165	40.0000	
209 Benzaldehyde	77	4.449	4.449	(0.918)	164549	40.0000	41.5
16 Acetophenone	105	5.229	5.229	(1.078)	222508	40.0000	41.4
189 Caprolactam	113	6.551	6.551	(1.069)	60061	40.0000	47.1
208 1,1'-Biphenyl	154	7.367	7.367	(0.921)	463387	40.0000	39.6
207 Atrazine	173	9.268	9.268	(0.964)	29679	40.0000	42.0
77 Benzidine	184	11.051	11.051	(0.875)	201069	40.0000	32.0
90 3,3'-Dichlorobenzidine	252	12.552	12.552	(0.994)	190875	40.0000	42.3

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
102 1,4-Dioxane	88	2.490	2.490	(0.513)	55837	40.0000	33.2
103 Methyl methacrylate	100	2.484	2.484	(0.512)	29643	40.0000	33.2
104 Ethyl methacrylate	69	2.994	2.994	(0.617)	140773	40.0000	38.0
105 2-Picoline	93	3.257	3.257	(0.672)	236613	40.0000	39.3
106 N-Nitrosomethylethylamine	88	3.325	3.325	(0.686)	91469	40.0000	38.9
107 Methyl methanesulfonate	80	3.552	3.552	(0.733)	92543	40.0000	38.1
108 N-Nitrosodiethylamine	102	3.883	3.883	(0.801)	90092	40.0000	39.5
109 Ethyl Methanesulfonate	79	4.120	4.120	(0.850)	119344	40.0000	39.8
110 Pentachloroethane	167	4.592	4.592	(0.947)	58942	40.0000	40.4
111 N-Nitrosopyrrolidine	100	5.211	5.211	(1.075)	96908	40.0000	44.2(Q)
113 N-Nitrosomorpholine	56	5.244	5.244	(1.081)	120689	40.0000	38.6
114 o-Toluidine	106	5.267	5.267	(1.086)	313486	40.0000	41.2
115 N-Nitrosopiperidine	114	5.557	5.557	(0.907)	99081	40.0000	40.7
116 a,a-Dimethylphenethylamine	58	5.930	5.930	(0.968)	560438	40.0000	38.0
118 2,6-Dichlorophenol	162	6.202	6.202	(1.012)	153436	40.0000	43.0
119 Hexachloropropene	213	6.235	6.235	(1.017)	65279	40.0000	36.8
120 p-Phenylenediamine	108	6.561	6.561	(1.071)	165092	40.0000	41.7
121 N-Nitrosodi-n-butylamine	84	6.528	6.528	(1.065)	144116	40.0000	39.8(T)
122 Safrole	162	6.765	6.765	(1.104)	133832	40.0000	41.6
123 1,2,4,5-Tetrachlorobenzene	216	7.051	7.051	(0.881)	162108	40.0000	39.3
124 Isosafrole	162	7.318	7.318	(0.915)	132551	40.0000	40.1
125 1,4-Naphthoquinone	158	7.583	7.583	(0.948)	132218	40.0000	44.2
127 Pentachlorobenzene	250	8.172	8.172	(1.022)	145857	40.0000	41.1
128 1-Naphthylamine	143	8.302	8.302	(1.038)	371241	40.0000	42.0
129 2-Naphthylamine	143	8.386	8.386	(1.048)	405438	40.0000	42.5
131 5-Nitro-o-toluidine	152	8.592	8.592	(1.074)	117522	40.0000	43.2
136 1,3,5-Trinitrobenzene	75	8.972	8.972	(0.933)	86454	40.0000	41.9
137 Phenacetin	108	9.028	9.028	(0.939)	188597	40.0000	41.3(Q)
138 Diallate	86	9.000	9.000	(0.936)	165203	40.0000	39.4
140 4-Aminobiphenyl	169	9.392	9.392	(0.977)	366486	40.0000	39.3
141 Pentachloronitrobenzene	237	9.405	9.405	(0.979)	43642	40.0000	40.5(Q)
142 Pronamide	173	9.433	9.433	(0.981)	184784	40.0000	40.3
146 4-Nitroquinoline-1-oxide	101	10.463	10.463	(1.089)	18441	40.0000	45.1
147 Methapyrilene	58	10.524	10.524	(1.095)	288125	40.0000	42.9
148 Isodrin	193	10.761	10.761	(1.120)	71616	40.0000	42.7
149 Aramite	185	11.273	11.273	(1.173)	33650	40.0000	43.7
150 Kepone	272	11.940	11.940	(1.242)	50824	40.0000	47.3
151 p-(Dimethylamino)azobenzene	120	11.467	11.467	(0.908)	192234	40.0000	37.9
152 Chlorobenzilate	251	11.507	11.507	(0.911)	172639	40.0000	37.1
153 3,3'-Dimethylbenzidine	212	11.851	11.851	(0.939)	299717	40.0000	35.5
155 2-Acetylaminofluorene	181	12.172	12.172	(0.964)	230436	40.0000	43.6
157 7,12Dimethylbenz(a)anthracene	256	14.267	14.267	(0.953)	264569	40.0000	38.1
158 3-Methylcholanthrene	268	15.493	15.493	(1.035)	236990	40.0000	44.2(Q)
212 Cis Diallate	86	9.102	9.102	(0.947)	24954	6.00000	5.7
213 Trans Diallate	86	9.000	9.000	(0.936)	165203	34.0000	33.5

QC Flag Legend

T - Target compound detected outside RT window.
Q - Qualifier signal failed the ratio test.

Data File: /chem/MSD6.i/s121609.b/s611612.d
Date : 16-DEC-2009 14:46
Client ID: AP12CVS
Sample Info: IWBN091201-03,5ICVS1|1SVHF|1|AP12CVS
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD6.i
Operator: nag1
Column diameter: 0.20

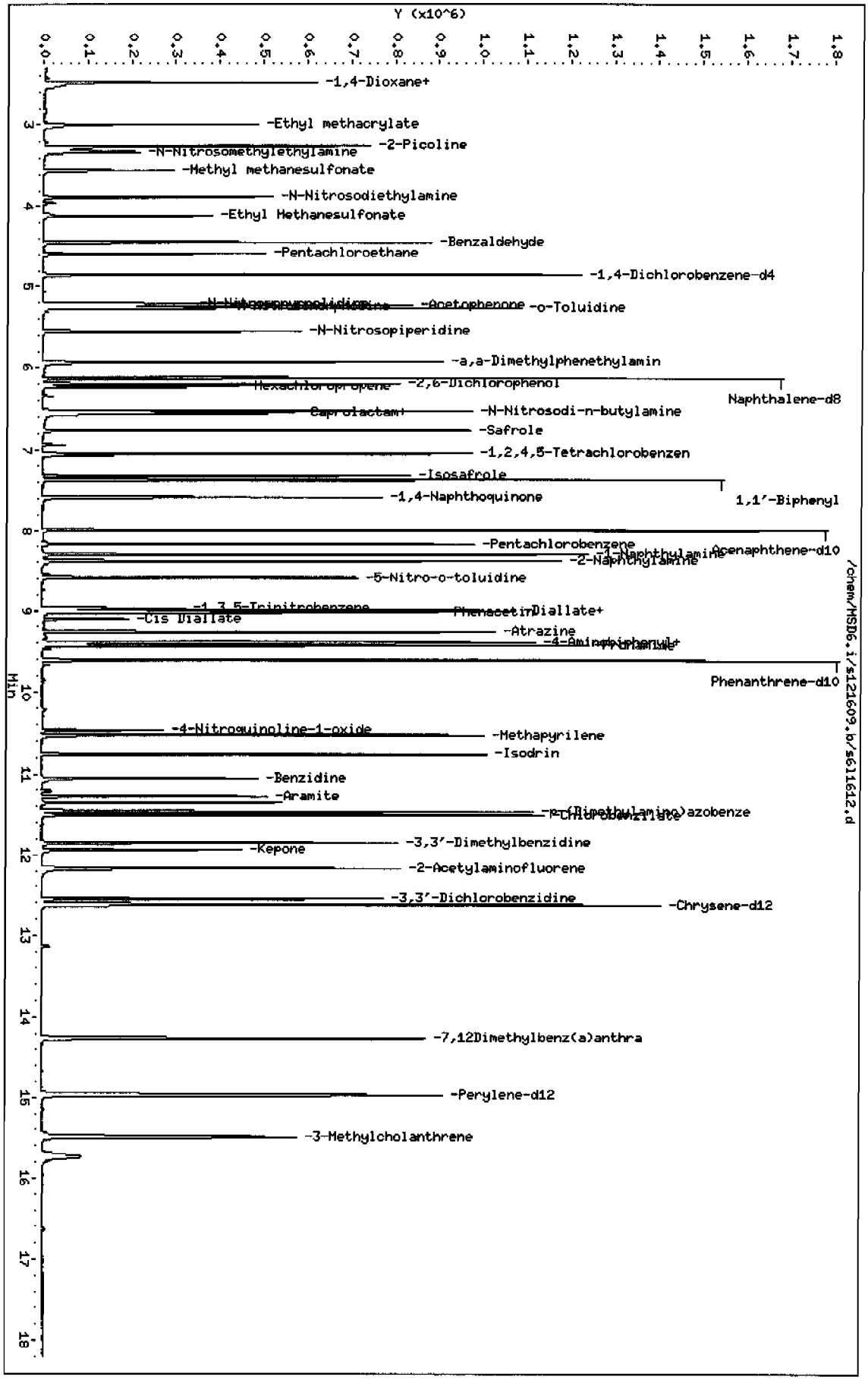

Page 1

QC Data

Data File: /chem/MSD6.i/s110909.b/s6k0911.d

Date : 09-NOV-2009 18:00

Client ID: DFTPP

Instrument: MSD6.i

Sample Info: IWBN091101-01|50 PPM|1|SVMF|1|DFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

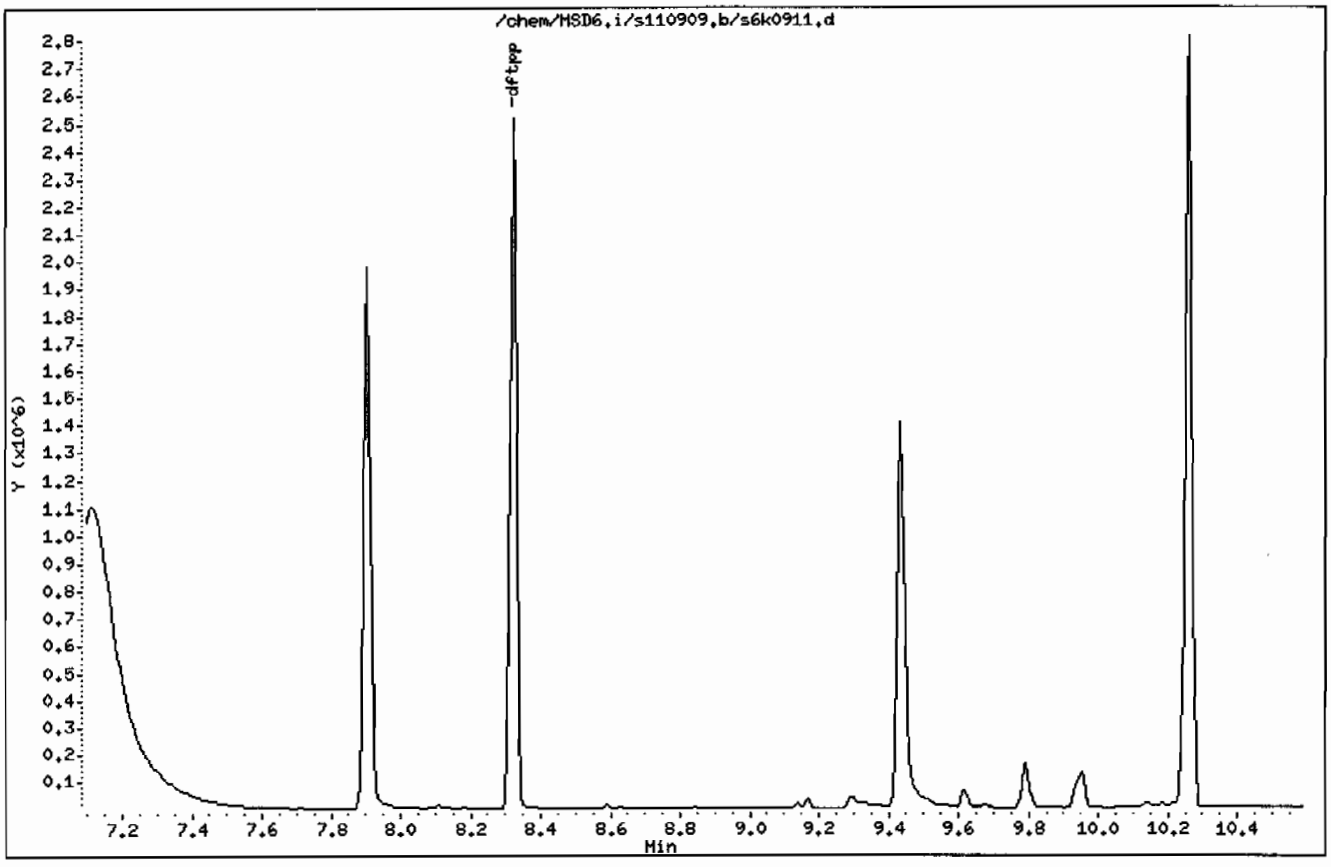

Data File: /chem/MSD6.i/s110909.b/s6k0911.d

Date : 09-NOV-2009 18:00

Client ID: DFTPP

Instrument: MSD6.i

Sample Info: |WBN091101-01|50 PPM|1|SVMF|1|DFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

1 dftpp

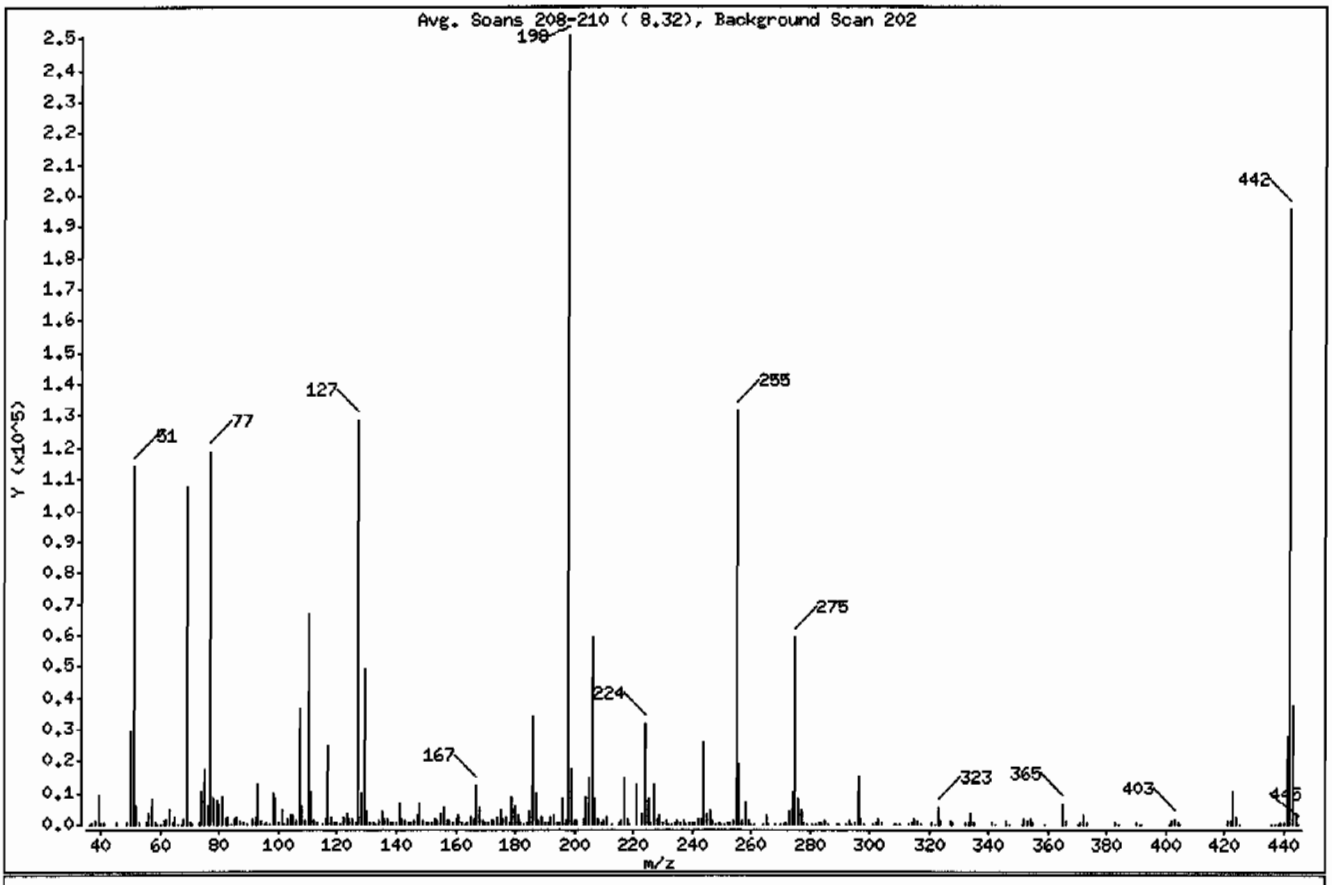

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	45.40
68	Less than 2.00% of mass 69	0.67 (1.56)
69	Mass 69 relative abundance	42.98
70	Less than 2.00% of mass 69	0.23 (0.53)
127	40.00 - 60.00% of mass 198	51.37
197	Less than 1.00% of mass 198	0.57
199	5.00 - 9.00% of mass 198	6.92
275	10.00 - 30.00% of mass 198	23.67
365	Greater than 1.00% of mass 198	2.45
441	Present, but less than mass 443	11.05
442	Greater than 40.00% of mass 198	77.94
443	17.00 - 23.00% of mass 442	14.94 (19.17)

Date : 09-NOV-2009 18:00

Client ID: DFTPP Instrument: MSD6.i

Sample Info: |WBN091101-01|50 PPM|1|SVMF|1|DFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5MS Column diameter: 0.20

Data File: s6k0911.d
Spectrum: Avg. Scans 208-210 (8.32), Background Scan 202
Location of Maximum: 198.00
Number of points: 303

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	8	122.00	2302	198.00	250752	284.00	336
37.00	393	123.00	3695	199.00	17344	285.00	937
38.00	1200	124.00	1621	200.00	1195	286.00	170
39.00	9016	125.00	1448	201.00	1207	289.00	255
40.00	406	126.00	632	203.00	1659	290.00	159
41.00	292	127.00	128832	204.00	8363	292.00	259
46.00	305	128.00	9787	205.00	14289	293.00	1083
49.00	640	129.00	49280	206.00	59576	294.00	255
50.00	29544	130.00	4085	207.00	7878	295.00	324
51.00	113864	131.00	795	208.00	1898	296.00	14712
52.00	5719	132.00	464	209.00	609	297.00	1998
53.00	291	133.00	153	210.00	1016	298.00	48
55.00	556	134.00	1412	211.00	2089	301.00	220
56.00	3212	135.00	3908	213.00	96	302.00	374
57.00	7977	136.00	1609	215.00	674	303.00	1716
58.00	306	137.00	2002	216.00	1188	304.00	518
59.00	43	138.00	459	217.00	14324	308.00	142
60.00	144	139.00	392	218.00	1841	309.00	104
61.00	1384	140.00	751	219.00	194	310.00	127
62.00	1579	141.00	6116	221.00	12869	313.00	98
63.00	4522	142.00	1931	223.00	3368	314.00	758
64.00	592	143.00	1380	224.00	31752	315.00	1571
65.00	2251	144.00	329	225.00	7987	316.00	915
66.00	47	145.00	339	226.00	839	317.00	119
67.00	98	146.00	1032	227.00	12962	321.00	481
68.00	1681	147.00	3100	228.00	1848	322.00	229
69.00	107792	148.00	6347	229.00	2774	323.00	5178
70.00	566	149.00	1410	230.00	478	324.00	998
71.00	154	150.00	411	231.00	1257	327.00	960
73.00	818	151.00	692	232.00	280	328.00	487
74.00	10556	152.00	489	233.00	226	332.00	397
75.00	17208	153.00	1814	234.00	759	333.00	430
76.00	5735	154.00	1411	235.00	1001	334.00	3299
77.00	118792	155.00	3187	236.00	689	335.00	849
78.00	8119	156.00	5061	237.00	1093	341.00	644

Data File: /chem/MSD6.i/s110909.b/s6k0911.d

Date : 09-NOV-2009 18:00

Client ID: DFTPP

Instrument: MSD6.i

Sample Info: |WBN091101-01|50 PPM|1|SVMF|1|DFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

Data File: s6k0911.d
Spectrum: Avg. Scans 208-210 (8.32), Background Scan 202
Location of Maximum: 198.00
Number of points: 303

m/z	Y	m/z	Y	m/z	Y	m/z	Y
79.00	7616	157.00	1047	238.00	176	342.00	184
80.00	6053	158.00	1005	239.00	483	346.00	1112
81.00	8741	159.00	819	240.00	449	347.00	197
82.00	1932	160.00	1690	241.00	776	351.00	99
83.00	2188	161.00	2737	242.00	1684	352.00	1491
84.00	232	162.00	809	243.00	1819	353.00	1169
85.00	1461	163.00	190	244.00	25832	354.00	1725
86.00	2130	164.00	335	245.00	3598	355.00	318
87.00	1162	165.00	2034	246.00	4786	359.00	103
88.00	449	166.00	1979	247.00	980	365.00	6134
89.00	268	167.00	12360	248.00	210	366.00	872
91.00	1835	168.00	5121	249.00	829	370.00	96
92.00	2163	169.00	1038	250.00	174	371.00	434
93.00	12786	170.00	446	251.00	238	372.00	2651
94.00	908	171.00	470	252.00	289	373.00	754
95.00	251	172.00	1064	253.00	569	383.00	711
96.00	626	173.00	1291	254.00	1047	384.00	258
97.00	236	174.00	2515	255.00	131328	390.00	402
98.00	9808	175.00	4789	256.00	18784	391.00	259
99.00	8032	176.00	1446	257.00	1424	392.00	153
100.00	745	177.00	2269	258.00	6873	401.00	116
101.00	4358	178.00	802	259.00	1148	402.00	1140
102.00	258	179.00	8475	260.00	228	403.00	1594
103.00	1616	180.00	5994	261.00	261	404.00	514
104.00	3096	181.00	2983	264.00	141	405.00	98
105.00	2795	182.00	429	265.00	2620	421.00	1430
106.00	910	183.00	259	266.00	251	422.00	1234
107.00	36184	184.00	679	268.00	180	423.00	10131
108.00	5604	185.00	3929	270.00	163	424.00	2144
109.00	997	186.00	34256	271.00	257	425.00	193
110.00	66656	187.00	9747	272.00	290	436.00	45
111.00	10177	188.00	1146	273.00	3906	437.00	191
112.00	1133	189.00	2105	274.00	10561	438.00	232
113.00	472	190.00	292	275.00	59368	439.00	301
115.00	217	191.00	815	276.00	7957	440.00	309

Date : 09-NOV-2009 18:00

Client ID: DFTPP Instrument: MSD6.i

Sample Info: |WBN091101-01|50 PPM|1|SVMF|1|DFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5MS Column diameter: 0.20

Data File: s6k0911.d
Spectrum: Avg. Scans 208-210 (8.32), Background Scan 202
Location of Maximum: 198.00
Number of points: 303

m/z	Y	m/z	Y	m/z	Y	m/z	Y
116.00	1841	192.00	2423	277.00	4641	441.00	27712
117.00	25072	193.00	3008	278.00	676	442.00	195456
118.00	2060	194.00	699	279.00	175	443.00	37472
119.00	345	195.00	448	281.00	87	444.00	3400
120.00	476	196.00	7876	282.00	46	445.00	197
121.00	165	197.00	1433	283.00	505		

Data File: /chem/MSD6.i/s110909.b/s6k0921.d

Date : 10-NOV-2009 11:07

Client ID: DFTPP

Instrument: MSD6.i

Sample Info: |WBN091101-01|50 PPM|1|SVMF|1|DFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

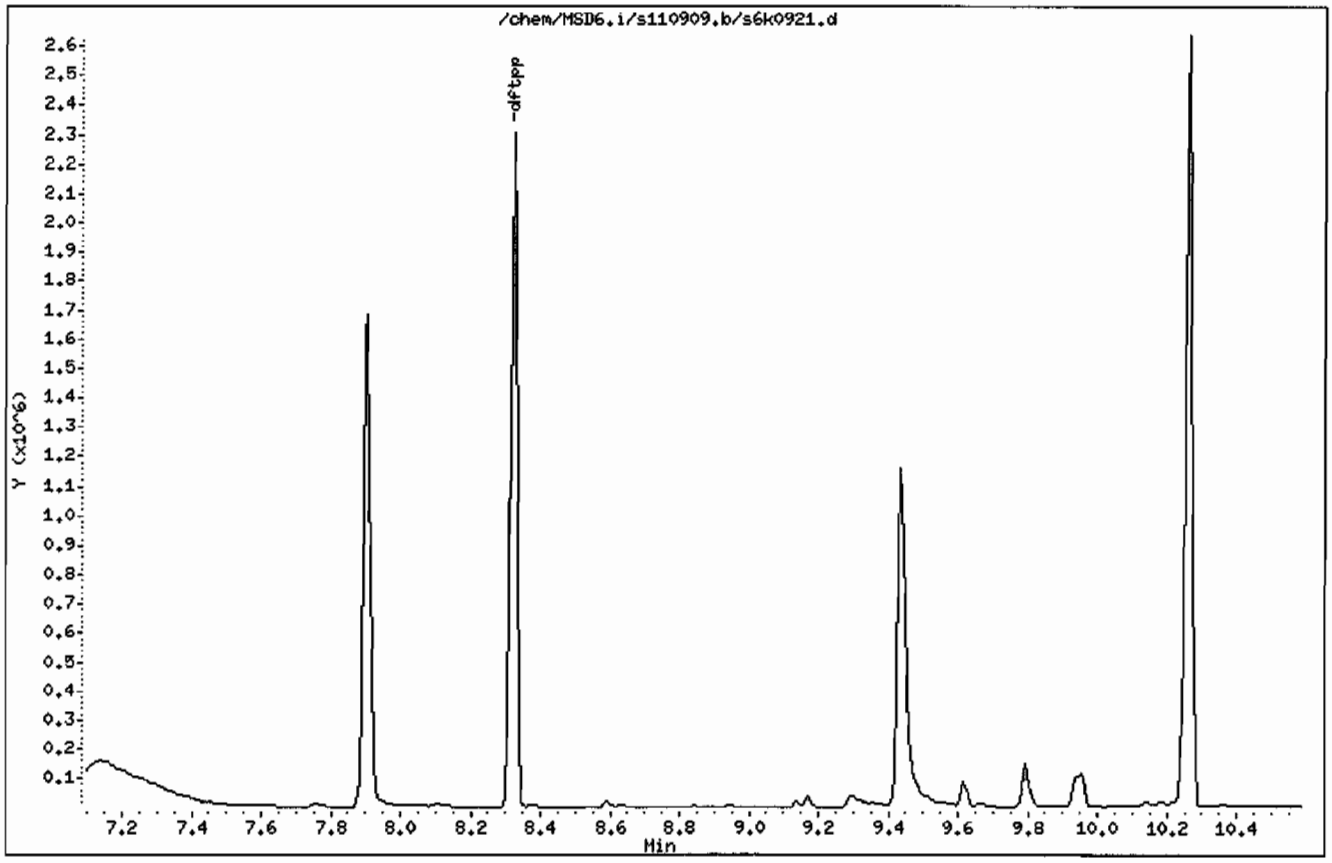

Data File: /chem/MSD6.i/s110909.b/s6k0921.d

Date : 10-NOV-2009 11:07

Client ID: DFTPP

Instrument: MSD6.i

Sample Info: |WBN091101-01|50 PPM|1|SVMF|1|DFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

1 dftpp

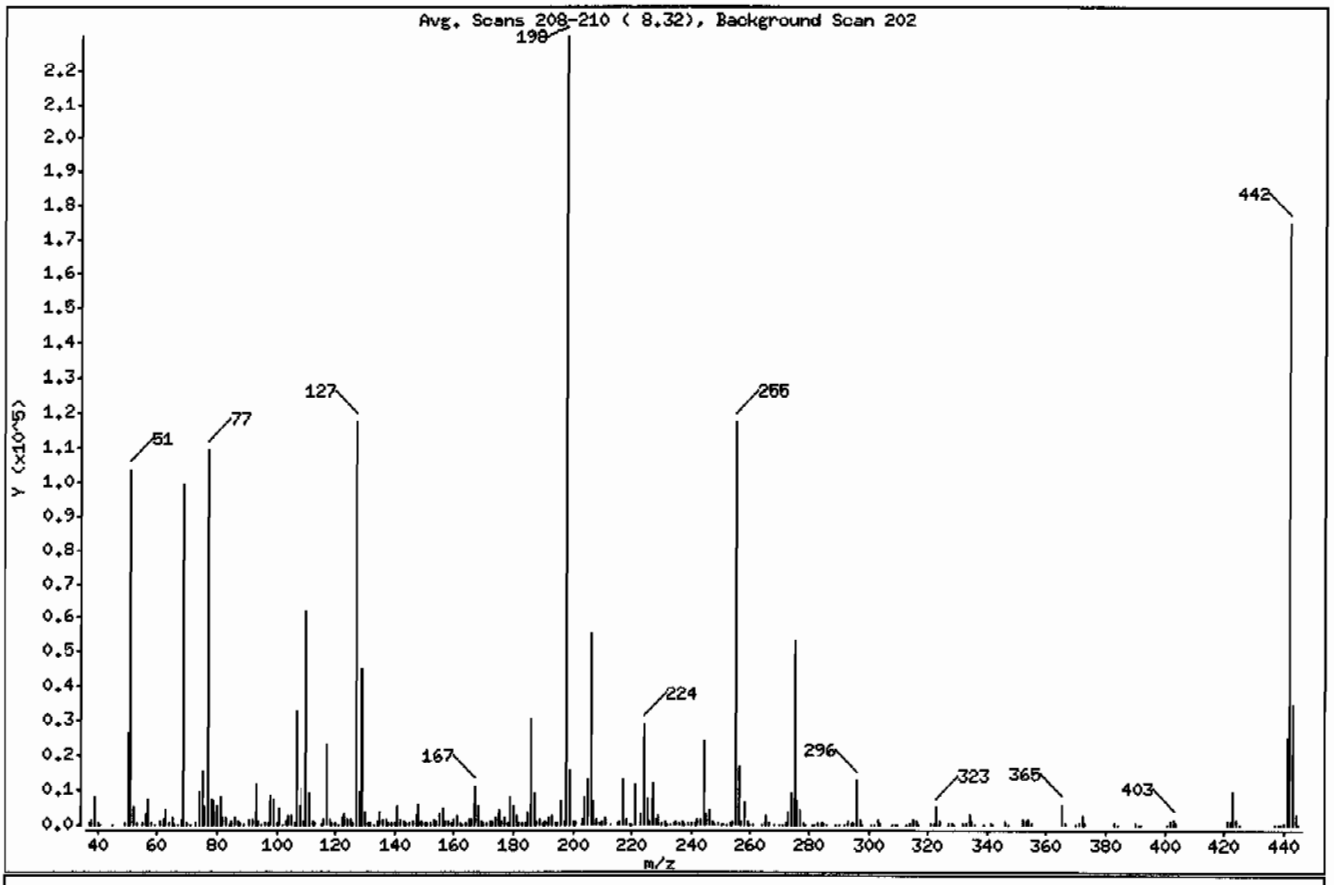

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	45.09
68	Less than 2.00% of mass 69	0.69 (1.59)
69	Mass 69 relative abundance	43.13
70	Less than 2.00% of mass 69	0.21 (0.50)
127	40.00 - 60.00% of mass 198	50.95
197	Less than 1.00% of mass 198	0.38
199	5.00 - 9.00% of mass 198	7.01
275	10.00 - 30.00% of mass 198	23.31
365	Greater than 1.00% of mass 198	2.61
441	Present, but less than mass 443	11.00
442	Greater than 40.00% of mass 198	76.04
443	17.00 - 23.00% of mass 442	15.14 (19.92)

Data File: /chem/MSD6.i/s110909.b/s6k0921.d

Date : 10-NOV-2009 11:07

Client ID: DFTPP

Instrument: MSD6.i

Sample Info: |WBN091101-01|50 PPM|1|SVMF|1|DFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

Data File: s6k0921.d
Spectrum: Avg. Scans 208-210 (8.32), Background Scan 202
Location of Maximum: 198.00
Number of points: 301

m/z	Y	m/z	Y	m/z	Y	m/z	Y
37.00	446	124.00	1597	200.00	1296	285.00	727
38.00	1364	125.00	1527	201.00	1130	286.00	93
39.00	8081	126.00	500	203.00	1398	289.00	109
40.00	429	127.00	117112	204.00	7870	290.00	48
41.00	123	128.00	9305	205.00	12990	292.00	179
45.00	232	129.00	44864	206.00	55704	293.00	996
49.00	676	130.00	3877	207.00	6919	294.00	284
50.00	26328	131.00	762	208.00	1589	295.00	295
51.00	103656	132.00	413	209.00	492	296.00	12743
52.00	5217	133.00	83	210.00	869	297.00	1758
53.00	281	134.00	1179	211.00	2059	298.00	106
55.00	508	135.00	3584	213.00	155	301.00	200
56.00	3141	136.00	1380	215.00	501	302.00	236
57.00	7300	137.00	1770	216.00	1098	303.00	1828
58.00	351	138.00	422	217.00	13179	304.00	578
59.00	89	139.00	313	218.00	1725	308.00	164
61.00	1282	140.00	577	219.00	178	309.00	120
62.00	1522	141.00	5319	220.00	48	310.00	179
63.00	4035	142.00	1826	221.00	11795	313.00	116
64.00	709	143.00	1268	223.00	3181	314.00	633
65.00	2010	144.00	322	224.00	29056	315.00	1462
66.00	201	145.00	315	225.00	7532	316.00	903
67.00	136	146.00	853	226.00	796	317.00	97
68.00	1576	147.00	2856	227.00	12169	321.00	535
69.00	99128	148.00	5895	228.00	1834	322.00	301
70.00	492	149.00	1137	229.00	2389	323.00	5031
71.00	87	150.00	371	230.00	448	324.00	932
73.00	640	151.00	713	231.00	1077	327.00	782
74.00	9704	152.00	430	232.00	217	328.00	460
75.00	15458	153.00	1634	233.00	234	329.00	92
76.00	5031	154.00	1294	234.00	764	332.00	329
77.00	109208	155.00	2977	235.00	895	333.00	541
78.00	7381	156.00	4520	236.00	588	334.00	3026
79.00	6803	157.00	931	237.00	934	335.00	912
80.00	5387	158.00	937	238.00	52	336.00	92

Data File: /chem/MSD6.i/s110909.b/s6k0921.d

Date : 10-NOV-2009 11:07

Client ID: DFTPP

Instrument: MSD6.i

Sample Info: |WBN091101-01|50 PPM|1|SVMF|1|DFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

Data File: s6k0921.d
Spectrum: Avg. Scans 208-210 (8.32), Background Scan 202
Location of Maximum: 198.00
Number of points: 301

m/z	Y	m/z	Y	m/z	Y	m/z	Y
81.00	7979	159.00	792	239.00	457	339.00	88
82.00	2000	160.00	1501	240.00	364	341.00	550
83.00	1851	161.00	2637	241.00	638	342.00	176
84.00	203	162.00	756	242.00	1412	346.00	1020
85.00	1319	163.00	204	243.00	1572	347.00	119
86.00	1985	164.00	328	244.00	24152	352.00	1335
87.00	1000	165.00	1810	245.00	3200	353.00	950
88.00	412	166.00	1695	246.00	4314	354.00	1475
89.00	260	167.00	10891	247.00	844	355.00	296
91.00	1676	168.00	5136	248.00	166	365.00	5995
92.00	1806	169.00	973	249.00	748	366.00	747
93.00	11677	170.00	306	250.00	170	370.00	103
94.00	892	171.00	442	251.00	190	371.00	323
95.00	199	172.00	897	252.00	210	372.00	2543
96.00	636	173.00	1105	253.00	472	373.00	611
97.00	286	174.00	2178	254.00	899	383.00	675
98.00	8556	175.00	4297	255.00	117320	384.00	156
99.00	7312	176.00	1290	256.00	16728	390.00	314
100.00	595	177.00	2105	257.00	1320	391.00	189
101.00	4548	178.00	636	258.00	6484	392.00	157
102.00	251	179.00	8002	259.00	1064	401.00	199
103.00	1289	180.00	5191	260.00	200	402.00	1090
104.00	2626	181.00	2701	261.00	212	403.00	1396
105.00	2533	182.00	448	264.00	192	404.00	427
106.00	724	183.00	312	265.00	2469	421.00	1265
107.00	33008	184.00	599	266.00	401	422.00	1145
108.00	5264	185.00	3797	268.00	43	423.00	9473
109.00	994	186.00	30448	270.00	167	424.00	1846
110.00	61616	187.00	8914	271.00	186	425.00	183
111.00	9026	188.00	970	272.00	329	437.00	54
112.00	1057	189.00	1726	273.00	3492	438.00	170
113.00	367	190.00	298	274.00	9124	439.00	228
115.00	227	191.00	976	275.00	53576	440.00	294
116.00	1610	192.00	2282	276.00	7126	441.00	25272
117.00	23152	193.00	2535	277.00	3970	442.00	174784

Date : 10-NOV-2009 11:07

Client ID: DFTPP Instrument: MSD6.i

Sample Info: IWBN091101-01|50 PPM|1|SVMF|1|DFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5MS Column diameter: 0.20

Data File: s6k0921.d
Spectrum: Avg. Scans 208-210 (8.32), Background Scan 202
Location of Maximum: 198.00
Number of points: 301

m/z	Y	m/z	Y	m/z	Y	m/z	Y
118.00	1681	194.00	518	278.00	653	443.00	34808
119.00	280	195.00	333	279.00	140	444.00	3177
120.00	427	196.00	6863	281.00	140	445.00	129
121.00	176	197.00	878	282.00	42		
122.00	2199	198.00	229824	283.00	507		
123.00	3315	199.00	16104	284.00	294		

Data File: /chem/MSD6.i/s121609.b/s611610.d

Date : 16-DEC-2009 14:04

Client ID: DFTPP

Instrument: MSD6.i

Sample Info: |WBN091213-01|50 PPM|1|SVMF|1|DFTPP

Operator: nag1

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

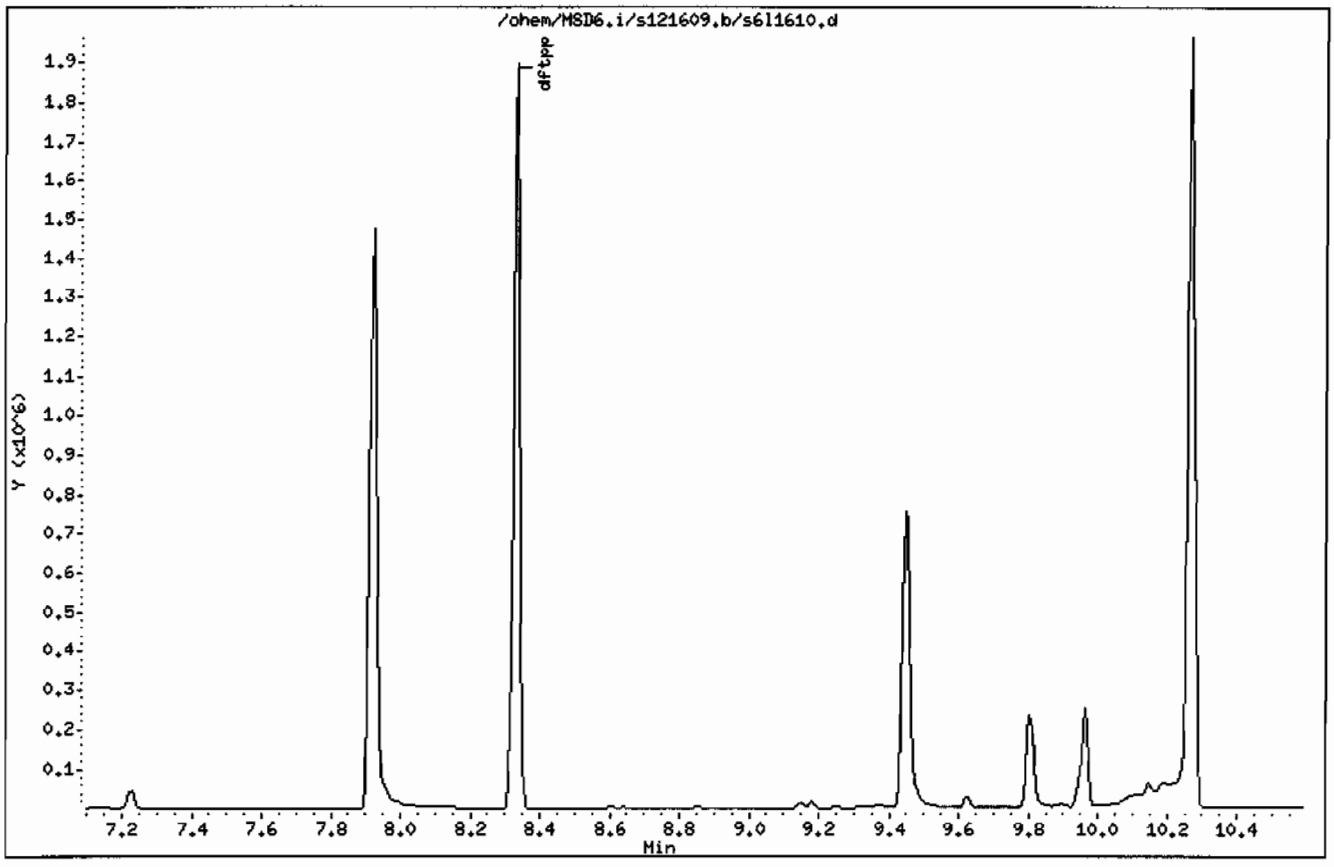

Data File: /chem/MSD6.i/s121609.b/s611610.d

Date : 16-DEC-2009 14:04

Client ID: DFTPP

Instrument: MSD6.i

Sample Info: IWBN091213-01|50 PPM|1|SVMF|1|DFTPP

Operator: nag1

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

1 dftpp

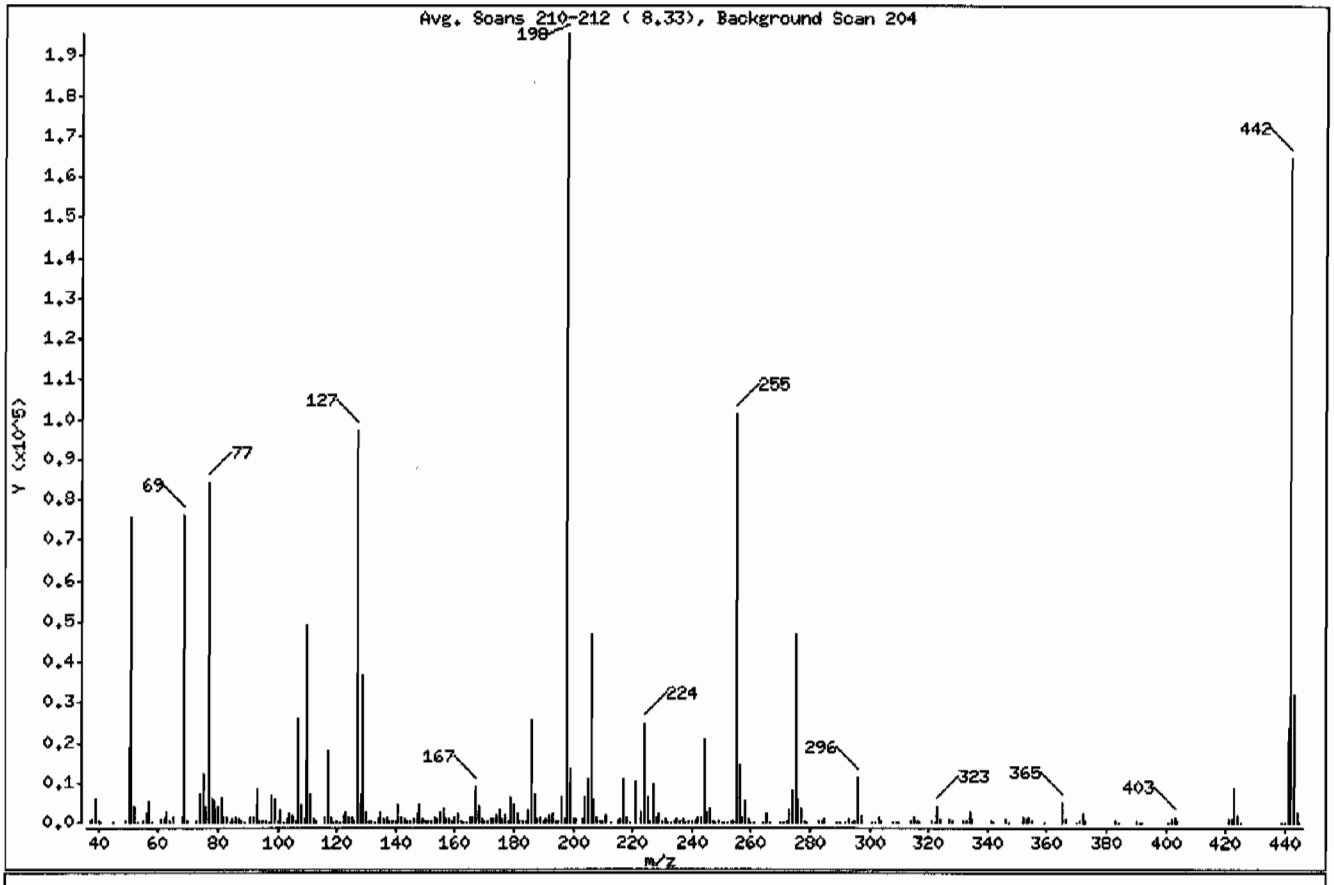

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	38.58
68	Less than 2.00% of mass 69	0.60 (1.55)
69	Mass 69 relative abundance	38.87
70	Less than 2.00% of mass 69	0.18 (0.46)
127	40.00 - 60.00% of mass 198	49.76
197	Less than 1.00% of mass 198	0.39
199	5.00 - 9.00% of mass 198	6.85
275	10.00 - 30.00% of mass 198	23.90
365	Greater than 1.00% of mass 198	2.53
441	Present, but less than mass 443	12.26
442	Greater than 40.00% of mass 198	84.12
443	17.00 - 23.00% of mass 442	16.25 (19.31)

Data File: /chem/MSD6.i/s121609.b/s611610.d

Date : 16-DEC-2009 14:04

Client ID: DFTPP

Instrument: MSD6.i

Sample Info: |WBN091213-01|50 PPM|1|SVMF|1|DFTPP

Operator: nag1

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

Data File: s611610.d
Spectrum: Avg. Scans 210-212 (8.33), Background Scan 204
Location of Maximum: 198.00
Number of points: 285

m/z	Y	m/z	Y	m/z	Y	m/z	Y
37.00	329	125.00	1239	197.00	771	279.00	48
38.00	800	126.00	464	198.00	195520	283.00	389
39.00	5756	127.00	97296	199.00	13402	284.00	282
40.00	317	128.00	7203	200.00	1053	285.00	704
41.00	192	129.00	36776	201.00	1049	289.00	102
45.00	198	130.00	2919	203.00	1095	290.00	94
49.00	521	131.00	574	204.00	6249	292.00	179
50.00	18904	132.00	372	205.00	10640	293.00	808
51.00	75424	133.00	153	206.00	46704	294.00	198
52.00	4067	134.00	944	207.00	5993	295.00	230
53.00	102	135.00	2851	208.00	1490	296.00	11069
55.00	367	136.00	1121	209.00	435	297.00	1610
56.00	2294	137.00	1343	210.00	587	301.00	151
57.00	5603	138.00	353	211.00	1701	302.00	197
58.00	220	139.00	229	213.00	87	303.00	1443
61.00	883	140.00	486	215.00	424	304.00	362
62.00	1006	141.00	4439	216.00	939	308.00	171
63.00	2855	142.00	1382	217.00	10922	309.00	141
64.00	449	143.00	977	218.00	1417	310.00	154
65.00	1519	144.00	282	219.00	189	314.00	585
68.00	1176	145.00	229	221.00	10498	315.00	1178
69.00	75992	146.00	770	223.00	2628	316.00	671
70.00	347	147.00	2140	224.00	24936	317.00	150
73.00	536	148.00	4633	225.00	6382	321.00	364
74.00	7170	149.00	927	226.00	610	322.00	202
75.00	12152	150.00	277	227.00	9674	323.00	4130
76.00	3973	151.00	611	228.00	1407	324.00	746
77.00	84224	152.00	420	229.00	2157	327.00	709
78.00	5895	153.00	1331	230.00	328	328.00	354
79.00	5312	154.00	954	231.00	907	332.00	267
80.00	4022	155.00	2506	232.00	114	333.00	384
81.00	6110	156.00	3759	233.00	187	334.00	2531
82.00	1550	157.00	765	234.00	545	335.00	677
83.00	1500	158.00	843	235.00	701	341.00	469
84.00	196	159.00	601	236.00	448	342.00	151

Data File: /chem/MSD6.i/s121609.b/s611610.d

Date : 16-DEC-2009 14:04

Client ID: DFTPP

Instrument: MSD6.i

Sample Info: |WBN091213-01|50 PPM|1|SVMF|1|DFTPP

Operator: nag1

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

Data File: s611610.d

Spectrum: Avg. Scans 210-212 (8.33), Background Scan 204

Location of Maximum: 198.00

Number of points: 285

m/z	Y	m/z	Y	m/z	Y	m/z	Y
85.00	1077	160.00	1373	237.00	890	346.00	807
86.00	1548	161.00	2161	238.00	42	347.00	105
87.00	796	162.00	584	239.00	365	352.00	1163
88.00	329	163.00	167	240.00	317	353.00	845
89.00	119	164.00	210	241.00	460	354.00	1304
91.00	1416	165.00	1422	242.00	1270	355.00	271
92.00	1386	166.00	1453	243.00	1388	359.00	42
93.00	8764	167.00	8782	244.00	20600	365.00	4950
94.00	622	168.00	3877	245.00	2574	366.00	699
95.00	244	169.00	734	246.00	3645	370.00	47
96.00	492	170.00	285	247.00	671	371.00	312
97.00	132	171.00	320	248.00	91	372.00	2209
98.00	6678	172.00	755	249.00	637	373.00	578
99.00	5704	173.00	1047	250.00	113	383.00	573
100.00	458	174.00	1675	251.00	185	384.00	196
101.00	3366	175.00	3343	252.00	178	390.00	329
102.00	203	176.00	1067	253.00	455	391.00	220
103.00	1104	177.00	1614	254.00	651	392.00	205
104.00	2175	178.00	538	255.00	101120	401.00	47
105.00	1940	179.00	6318	256.00	14592	402.00	889
106.00	607	180.00	4630	257.00	1128	403.00	1334
107.00	25984	181.00	2109	258.00	5317	404.00	418
108.00	4283	182.00	343	259.00	927	421.00	1059
109.00	688	183.00	233	260.00	162	422.00	1010
110.00	49096	184.00	494	261.00	188	423.00	8360
111.00	7198	185.00	2975	264.00	88	424.00	1746
112.00	793	186.00	25656	265.00	2138	425.00	45
113.00	291	187.00	7054	266.00	179	439.00	149
116.00	1473	188.00	750	270.00	141	440.00	195
117.00	17920	189.00	1519	271.00	166	441.00	23968
118.00	1367	190.00	249	272.00	261	442.00	164480
119.00	210	191.00	691	273.00	3040	443.00	31768
120.00	291	192.00	1920	274.00	8204	444.00	2860
121.00	95	193.00	2261	275.00	46720	445.00	104
122.00	1769	194.00	440	276.00	5923		

Data File: /chem/HSD6.i/s121609.b/s611610.d

Date : 16-DEC-2009 14:04

Client ID: DFTPP

Instrument: HSD6.i

Sample Info: |WBN091213-01|50 PPM|1|SVMF|1|DFTPP

Operator: nag1

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

Data File: s611610.d
Spectrum: Avg. Scans 210-212 (8.33), Background Scan 204
Location of Maximum: 198.00
Number of points: 285

m/z	Y	m/z	Y	m/z	Y	m/z	Y
123.00	2762	195.00	266	277.00	3457		
124.00	1194	196.00	6169	278.00	487		

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-899			Matrix:	SOIL
Lab Sample ID:	1201994527				
Client Sample:	QC for batch 932443	Client:	LANL010	Project:	QC
Client ID:	MB for batch 932443	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	932444	Inst:	MSD6.I	Dilution:	1
Run Date:	12/16/2009 15:15	Analyst:	NAG1	Inj. Vol:	.5 uL
Prep Date:	12/14/2009 09:47	Aliquot:	30 g	Final Volume:	1 mL
Data File:	s6l1613-1.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	333	ug/kg	66.7	333
108-95-2	Phenol	U	333	ug/kg	66.7	333
95-57-8	2-Chlorophenol	U	333	ug/kg	66.7	333
106-46-7	1,4-Dichlorobenzene	U	333	ug/kg	66.7	333
621-64-7	N-Nitrosodipropylamine	U	333	ug/kg	66.7	333
59-50-7	4-Chloro-3-methylphenol	U	333	ug/kg	66.7	333
83-32-9	Acenaphthene	U	33.3	ug/kg	11.0	33.3
121-14-2	2,4-Dinitrotoluene	U	333	ug/kg	33.3	333
100-02-7	4-Nitrophenol	U	333	ug/kg	110	333
87-86-5	Pentachlorophenol	U	333	ug/kg	83.3	333
129-00-0	Pyrene	U	33.3	ug/kg	10.0	33.3
110-86-1	Pyridine	U	333	ug/kg	66.7	333
62-53-3	Aniline	U	333	ug/kg	100	333
111-44-4	bis(2-Chloroethyl) ether	U	333	ug/kg	66.7	333
541-73-1	1,3-Dichlorobenzene	U	333	ug/kg	66.7	333
100-51-6	Benzyl alcohol	U	333	ug/kg	100	333
95-50-1	1,2-Dichlorobenzene	U	333	ug/kg	66.7	333
108-60-1	bis(2-Chloroisopropyl)ether	U	333	ug/kg	66.7	333
95-48-7	o-Cresol	U	333	ug/kg	66.7	333
65794-96-9	m,p-Cresols	U	333	ug/kg	100	333
67-72-1	Hexachloroethane	U	333	ug/kg	66.7	333
98-95-3	Nitrobenzene	U	333	ug/kg	66.7	333
78-59-1	Isophorone	U	333	ug/kg	66.7	333
88-75-5	2-Nitrophenol	U	333	ug/kg	66.7	333
105-67-9	2,4-Dimethylphenol	U	333	ug/kg	117	333
111-91-1	bis(2-Chloroethoxy)methane	U	333	ug/kg	66.7	333
120-83-2	2,4-Dichlorophenol	U	333	ug/kg	66.7	333
65-85-0	Benzoic acid	U	667	ug/kg	167	667
91-20-3	Naphthalene	U	33.3	ug/kg	10.0	33.3
106-47-8	4-Chloroaniline	U	333	ug/kg	66.7	333
87-68-3	Hexachlorobutadiene	U	333	ug/kg	66.7	333
91-57-6	2-Methylnaphthalene	U	33.3	ug/kg	6.67	33.3
77-47-4	Hexachlorocyclopentadiene	U	333	ug/kg	66.7	333
88-06-2	2,4,6-Trichlorophenol	U	333	ug/kg	66.7	333
95-95-4	2,4,5-Trichlorophenol	U	333	ug/kg	66.7	333
91-58-7	2-Chloronaphthalene	U	33.3	ug/kg	11.0	33.3
88-74-4	2-Nitroaniline	U	333	ug/kg	66.7	333
	o-Nitroaniline					
99-09-2	3-Nitroaniline	U	333	ug/kg	66.7	333

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-899			Matrix:	SOIL
Lab Sample ID:	1201994527				
Client Sample:	QC for batch 932443	Client:	LANL010	Project:	QC
Client ID:	MB for batch 932443	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	932444	Inst:	MSD6.I	Dilution:	1
Run Date:	12/16/2009 15:15	Analyst:	NAG1	Inj. Vol:	.5 uL
Prep Date:	12/14/2009 09:47	Aliquot:	30 g	Final Volume:	1 mL
Data File:	s6l1613-1.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	333	ug/kg	66.7	333
606-20-2	2,6-Dinitrotoluene	U	333	ug/kg	33.3	333
208-96-8	Acenaphthylene	U	33.3	ug/kg	10.0	33.3
51-28-5	2,4-Dinitrophenol	U	667	ug/kg	127	667
132-64-9	Dibenzofuran	U	333	ug/kg	66.7	333
84-66-2	Diethylphthalate	U	333	ug/kg	66.7	333
86-73-7	Fluorene	U	33.3	ug/kg	10.0	33.3
7005-72-3	4-Chlorophenylphenylether	U	333	ug/kg	66.7	333
534-52-1	2-Methyl-4,6-dinitrophenol	U	333	ug/kg	66.7	333
100-01-6	4-Nitroaniline	U	333	ug/kg	100	333
	p-Nitroaniline					
122-39-4	Diphenylamine	U	333	ug/kg	66.7	333
122-66-7	Azobenzene	U	333	ug/kg	66.7	333
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	333	ug/kg	66.7	333
118-74-1	Hexachlorobenzene	U	333	ug/kg	66.7	333
85-01-8	Phenanthrene	U	33.3	ug/kg	10.0	33.3
120-12-7	Anthracene	U	33.3	ug/kg	6.67	33.3
84-74-2	Di-n-butylphthalate	U	333	ug/kg	66.7	333
206-44-0	Fluoranthene	U	33.3	ug/kg	10.0	33.3
85-68-7	Butylbenzylphthalate	U	333	ug/kg	66.7	333
56-55-3	Benzo(a)anthracene	U	33.3	ug/kg	10.0	33.3
91-94-1	3,3'-Dichlorobenzidine	U	333	ug/kg	100	333
218-01-9	Chrysene	U	33.3	ug/kg	10.0	33.3
117-81-7	bis(2-Ethylhexyl)phthalate	U	333	ug/kg	66.7	333
117-84-0	Di-n-octylphthalate	U	333	ug/kg	66.7	333
205-99-2	Benzo(b)fluoranthene	U	33.3	ug/kg	10.0	33.3
207-08-9	Benzo(k)fluoranthene	U	33.3	ug/kg	10.0	33.3
50-32-8	Benzo(a)pyrene	U	33.3	ug/kg	10.0	33.3
193-39-5	Indeno(1,2,3-cd)pyrene	U	33.3	ug/kg	10.0	33.3
53-70-3	Dibenzo(a,h)anthracene	U	33.3	ug/kg	10.0	33.3
191-24-2	Benzo(ghi)perylene	U	33.3	ug/kg	10.0	33.3
120-82-1	1,2,4-Trichlorobenzene	U	333	ug/kg	66.7	333

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	2.22	401	ug/kg		J
	Unknown Aldol Condensate	3.45	441	ug/kg		JA

GEL Laboratories LLC

Data file : /chem/MSD6.i/s121609.b/s611613-5.d
Lab Smp Id: 1201994527 Client Smp ID: SBLK01
Inj Date : 16-DEC-2009 15:15
Operator : nagl Inst ID: MSD6.i
Smp Info : |1201994527|932444|1|SVMF|1|SBLK01
Misc Info : |MSD8270_S|WBN091208-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s121609.b/MSD6-M8270C-AQA-110909.m
Meth Date : 17-Dec-2009 08:11 nat00999 Quant Type: ISTD
Cal Date : 11-NOV-2009 04:38 Cal File: s6k0954.d
Als bottle: 4 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-899.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	0.00000	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	4.844	4.849	(1.000)	213205	40.0000	
* 29 Naphthalene-d8	136	6.126	6.131	(1.000)	803720	40.0000	
* 46 Acenaphthene-d10	164	7.996	8.001	(1.000)	443898	40.0000	
* 67 Phenanthrene-d10	188	9.606	9.611	(1.000)	755605	40.0000	
* 91 Chrysene-d12	240	12.626	12.633	(1.000)	628686	40.0000	
* 98 Perylene-d12	264	14.968	14.973	(1.000)	545942	40.0000	
$ 3 2-Fluorophenol	112	3.687	3.674	(0.761)	355317	66.5496	2220
$ 5 Phenol-d5	99	4.454	4.457	(0.920)	456839	67.7932	2260
$ 20 Nitrobenzene-d5	82	5.379	5.389	(0.878)	192951	33.9375	1130
$ 39 2-Fluorobiphenyl	172	7.252	7.254	(0.907)	394967	34.5263	1150
$ 60 2,4,6-Tribromophenol	329	8.844	8.850	(1.106)	92216	71.1753	2370
$ 81 p-Terphenyl-d14	244	11.316	11.316	(0.896)	433496	42.7569	1420

GEL Laboratories LLC

Data file : /chem/MSD6.i/s121609.b/s611613-5.d
Lab Smp Id: 1201994527 Client Smp ID: SBLK01
Inj Date : 16-DEC-2009 15:15
Operator : nag1 Inst ID: MSD6.i
Smp Info : |1201994527|932444|1|SVMF|1|SBLK01
Misc Info : |MSD8270_S|WBN091208-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s121609.b/MSD6-M8270C-AQA-110909.m
Meth Date : 17-Dec-2009 08:11 nat00999 Quant Type: ISTD
Cal Date : 11-NOV-2009 04:38 Cal File: s6k0954.d
Als bottle: 4 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-899.sub
Target Version: 3.50
Processing Host: hpclpl

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	0.00000	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	4.844	1235594	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown				CAS #:			
2.224	371635	12.0309580	401	0		0	10
Unknown Aldol Condensate				CAS #:			
3.450	408534	13.2255105	441	0		0	10

Data File: /chem/MSD6.i/s121609.b/s611613-5.d
Date : 16-DEC-2009 15:15
Client ID: SBLK01
Sample Info: |1201994527|932444|1|SVMF|1|SBLK01
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD6.i

Operator: nagi
Column diameter: 0.20

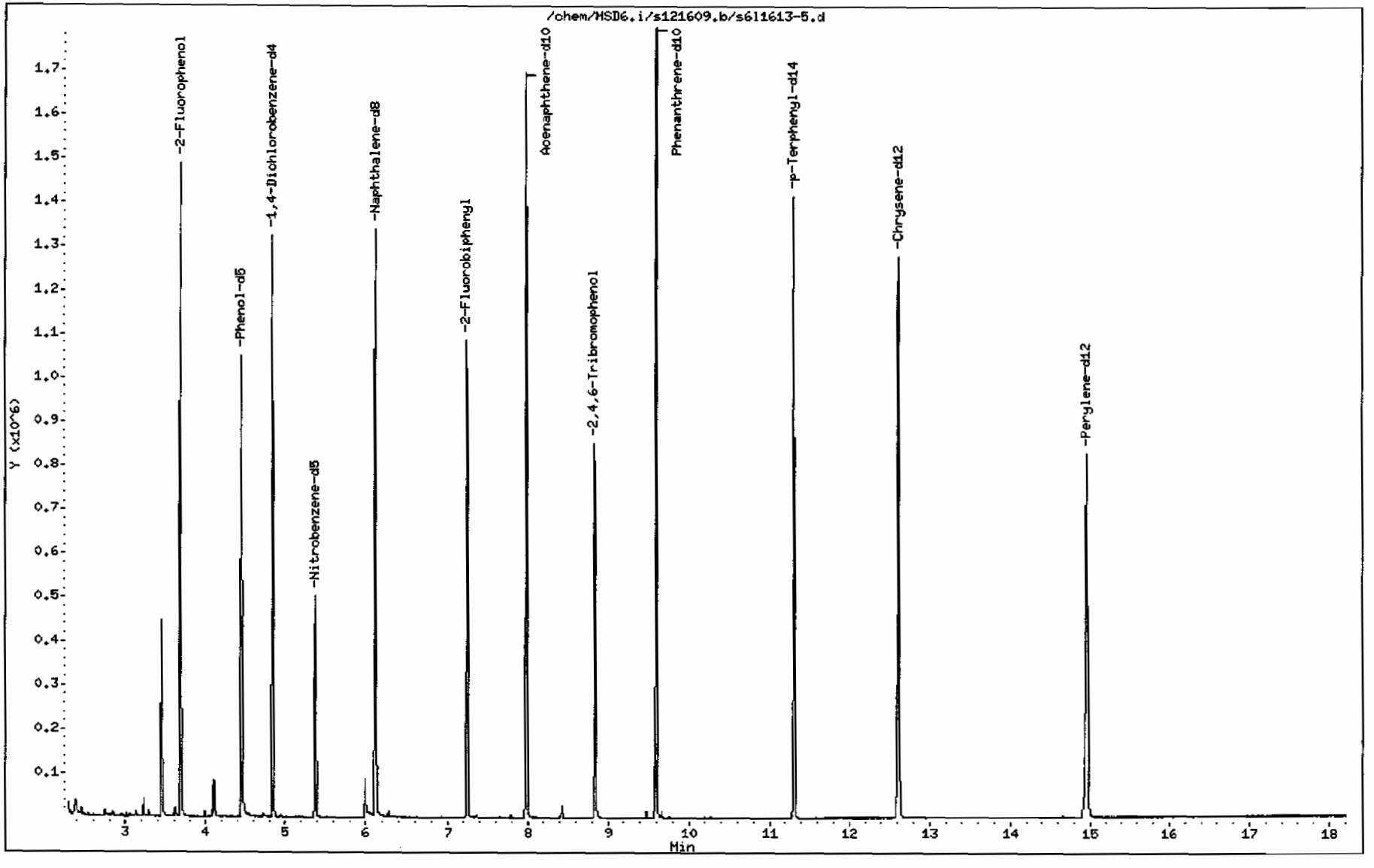

Data File: /chem/HSD6.i/s121609.b/s611613-5.d

Date : 16-DEC-2009 15:15

Client ID: SBLK01

Instrument: HSD6.i

Sample Info: |1201994527|932444|1|SVHF|1|SBLK01

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Propane, 2,2-dimethoxy-	77-76-9	NIST05.L	4663	78	C5H12O2	104
Propane, 2,2-dimethoxy-	77-76-9	NIST05.L	4658	40	C5H12O2	104
Propanoic acid, 2-methyl-, propyl ester	644-49-5	NIST05.L	13119	17	C7H14O2	130

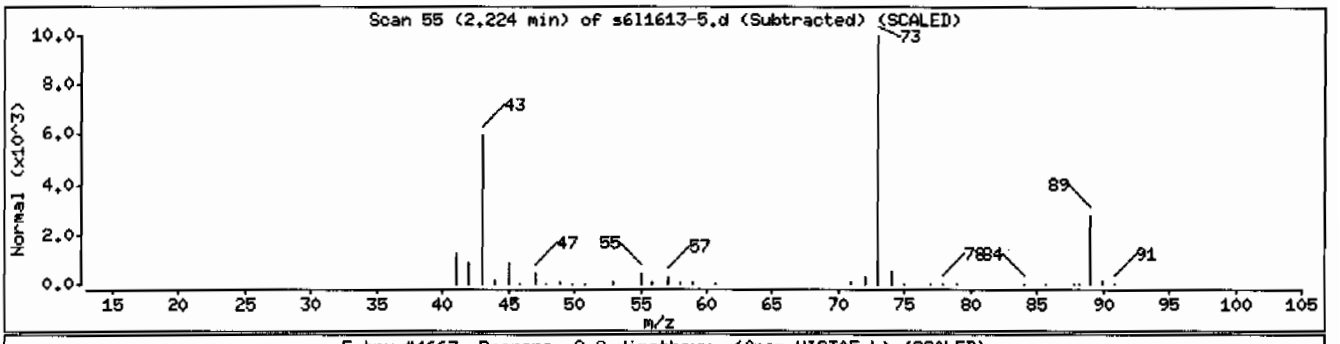

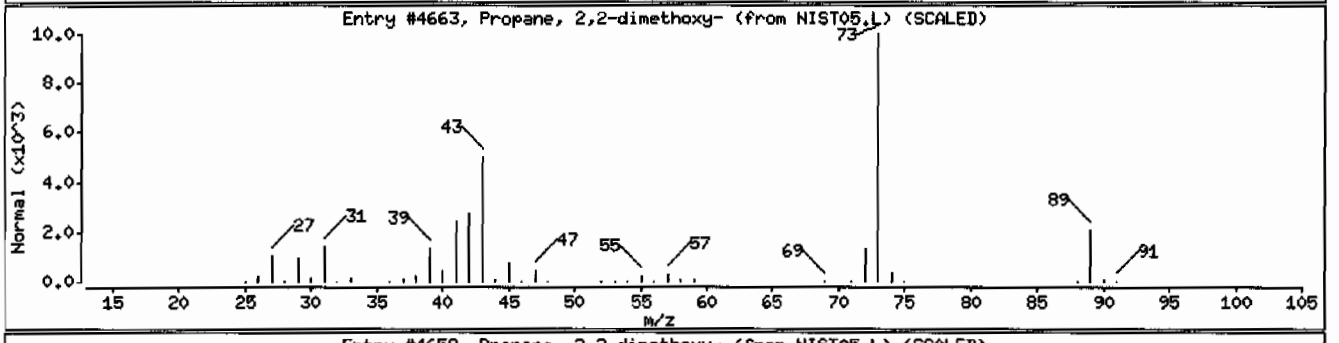

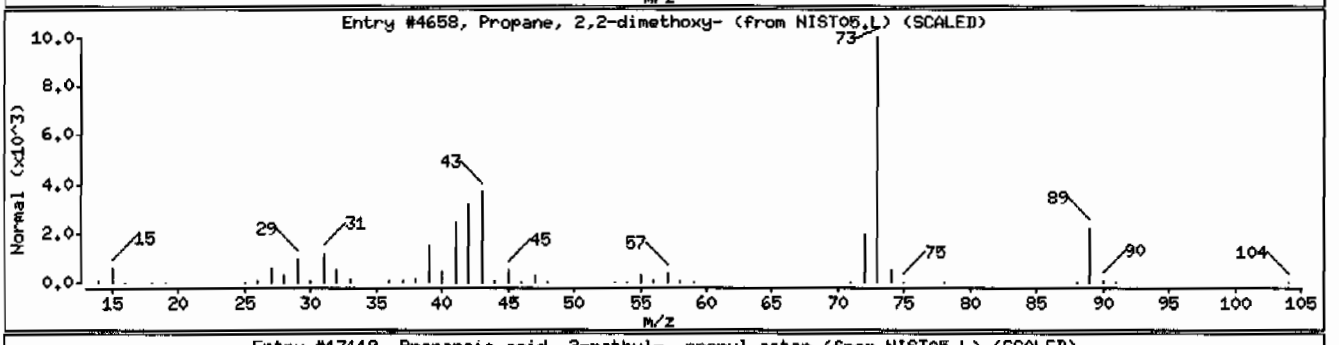

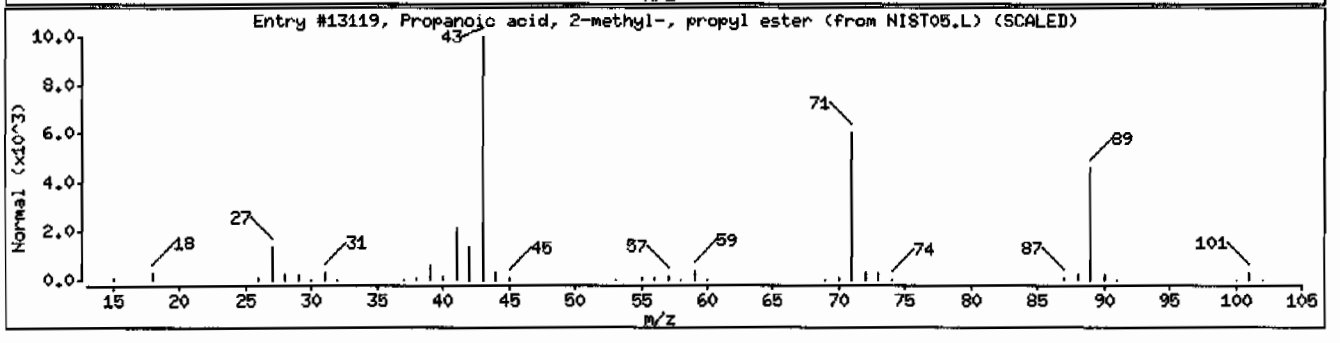

Data File: /chem/MSD6.i/s121609.b/s611613-5.d

Date : 16-DEC-2009 15:15

Client ID: SBLK01

Instrument: MSD6.i

Sample Info: |1201994527|932444|1|SVMF|1|SBLK01

Volume Injected (uL): 0.5

Operator: nagl

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	59	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	38	C6H12O2	116
Acetic acid, cyano-, methyl ester	105-34-0	NIST05.L	3380	9	C4H5NO2	99

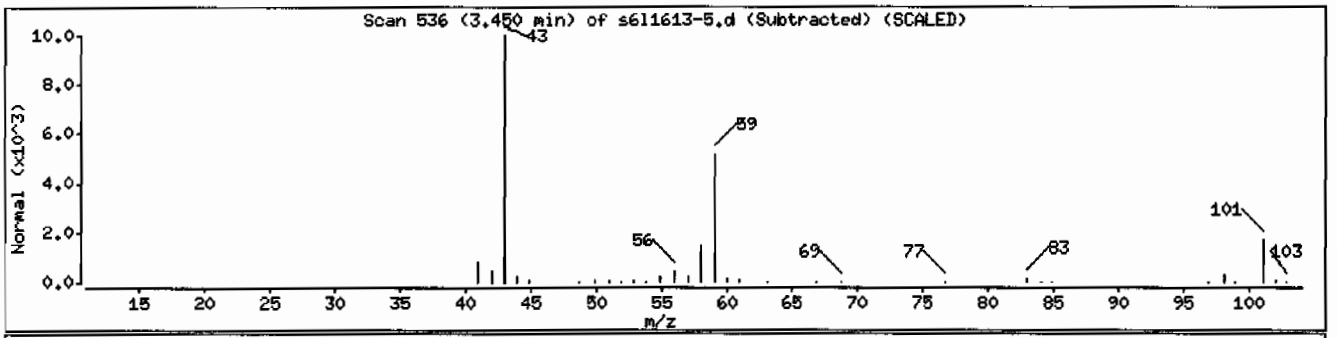

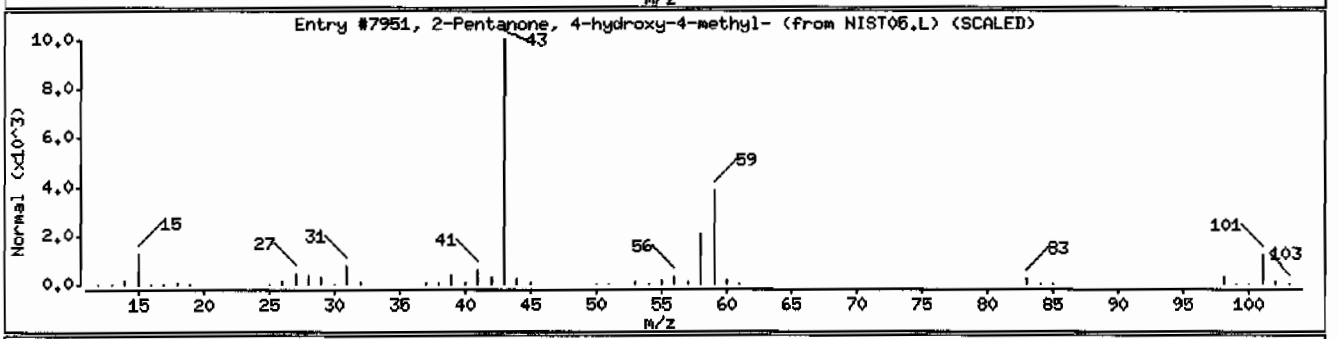

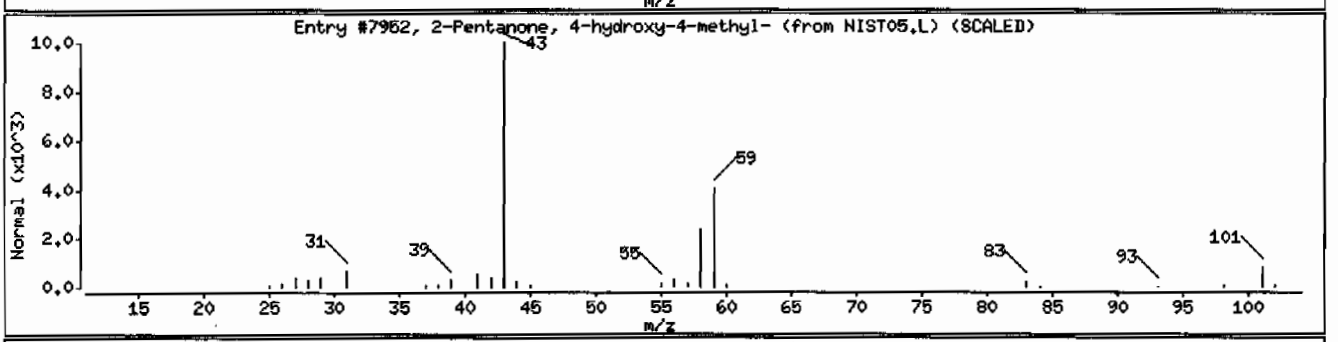

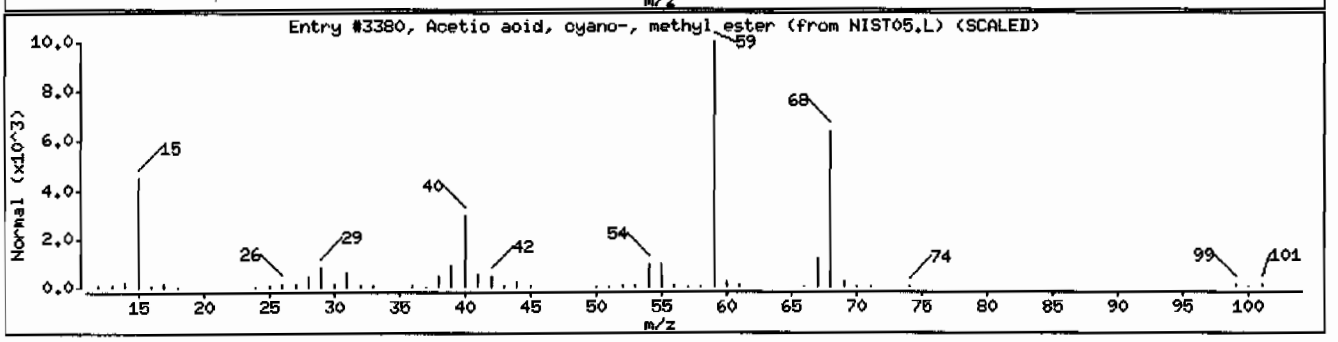

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-899			Matrix:	SOIL
Lab Sample ID:	1201994528				
Client Sample:	QC for batch 932443	Client:	LANL010	Project:	QC
Client ID:	LCS for batch 932443	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	932444	Inst:	MSD6.I	Dilution:	1
Run Date:	12/16/2009 15:45	Analyst:	NAG1	Inj. Vol:	.5 uL
Prep Date:	12/14/2009 09:47	Aliquot:	30 g	Final Volume:	1 mL
Data File:	s6l1614-1.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine		946	ug/kg	66.7	333
108-95-2	Phenol		1190	ug/kg	66.7	333
95-57-8	2-Chlorophenol		1160	ug/kg	66.7	333
106-46-7	1,4-Dichlorobenzene		964	ug/kg	66.7	333
621-64-7	N-Nitrosodipropylamine		996	ug/kg	66.7	333
59-50-7	4-Chloro-3-methylphenol		1200	ug/kg	66.7	333
83-32-9	Acenaphthene		1180	ug/kg	11.0	33.3
121-14-2	2,4-Dinitrotoluene		1340	ug/kg	33.3	333
100-02-7	4-Nitrophenol		1340	ug/kg	110	333
87-86-5	Pentachlorophenol		1250	ug/kg	83.3	333
129-00-0	Pyrene		1230	ug/kg	10.0	33.3
110-86-1	Pyridine		897	ug/kg	66.7	333
62-53-3	Aniline		1120	ug/kg	100	333
111-44-4	bis(2-Chloroethyl) ether		1010	ug/kg	66.7	333
541-73-1	1,3-Dichlorobenzene		950	ug/kg	66.7	333
100-51-6	Benzyl alcohol		1390	ug/kg	100	333
95-50-1	1,2-Dichlorobenzene		1020	ug/kg	66.7	333
108-60-1	bis(2-Chloroisopropyl)ether		1070	ug/kg	66.7	333
95-48-7	o-Cresol		866	ug/kg	66.7	333
65794-96-9	m,p-Cresols		1250	ug/kg	100	333
67-72-1	Hexachloroethane		944	ug/kg	66.7	333
98-95-3	Nitrobenzene		1100	ug/kg	66.7	333
78-59-1	Isophorone		940	ug/kg	66.7	333
88-75-5	2-Nitrophenol		1180	ug/kg	66.7	333
105-67-9	2,4-Dimethylphenol		1030	ug/kg	117	333
111-91-1	bis(2-Chloroethoxy)methane		865	ug/kg	66.7	333
120-83-2	2,4-Dichlorophenol		1200	ug/kg	66.7	333
65-85-0	Benzoic acid		3080	ug/kg	167	667
91-20-3	Naphthalene		1020	ug/kg	10.0	33.3
106-47-8	4-Chloroaniline		1140	ug/kg	66.7	333
87-68-3	Hexachlorobutadiene		1060	ug/kg	66.7	333
91-57-6	2-Methylnaphthalene		1060	ug/kg	6.67	33.3
77-47-4	Hexachlorocyclopentadiene		1040	ug/kg	66.7	333
88-06-2	2,4,6-Trichlorophenol		1180	ug/kg	66.7	333
95-95-4	2,4,5-Trichlorophenol		1190	ug/kg	66.7	333
91-58-7	2-Chloronaphthalene		1090	ug/kg	11.0	33.3
88-74-4	2-Nitroaniline		1100	ug/kg	66.7	333
99-09-2	*o-Nitroaniline* 3-Nitroaniline		1380	ug/kg	66.7	333

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-899			Matrix:	SOIL
Lab Sample ID:	1201994528				
Client Sample:	QC for batch 932443	Client:	LANL010	Project:	QC
Client ID:	LCS for batch 932443	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	932444	Inst:	MSD6.I	Dilution:	1
Run Date:	12/16/2009 15:45	Analyst:	NAG1	Inj. Vol:	.5 uL
Prep Date:	12/14/2009 09:47	Aliquot:	30 g	Final Volume:	1 mL
Data File:	s6l1614-1.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate		1240	ug/kg	66.7	333
606-20-2	2,6-Dinitrotoluene		1210	ug/kg	33.3	333
208-96-8	Acenaphthylene		1220	ug/kg	10.0	33.3
51-28-5	2,4-Dinitrophenol		1500	ug/kg	127	667
132-64-9	Dibenzofuran		1500	ug/kg	66.7	333
84-66-2	Diethylphthalate		1300	ug/kg	66.7	333
86-73-7	Fluorene		1280	ug/kg	10.0	33.3
7005-72-3	4-Chlorophenylphenylether		1300	ug/kg	66.7	333
534-52-1	2-Methyl-4,6-dinitrophenol		1250	ug/kg	66.7	333
100-01-6	4-Nitroaniline		1500	ug/kg	100	333
	p-Nitroaniline					
122-39-4	Diphenylamine		1200	ug/kg	66.7	333
122-66-7	Azobenzene		1250	ug/kg	66.7	333
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether		1250	ug/kg	66.7	333
118-74-1	Hexachlorobenzene		1220	ug/kg	66.7	333
85-01-8	Phenanthrene		1190	ug/kg	10.0	33.3
120-12-7	Anthracene		1220	ug/kg	6.67	33.3
84-74-2	Di-n-butylphthalate		1390	ug/kg	66.7	333
206-44-0	Fluoranthene		1360	ug/kg	10.0	33.3
85-68-7	Butylbenzylphthalate		1410	ug/kg	66.7	333
56-55-3	Benzo(a)anthracene		1390	ug/kg	10.0	33.3
91-94-1	3,3'-Dichlorobenzidine		1070	ug/kg	100	333
218-01-9	Chrysene		1300	ug/kg	10.0	33.3
117-81-7	bis(2-Ethylhexyl)phthalate		1460	ug/kg	66.7	333
117-84-0	Di-n-octylphthalate		1480	ug/kg	66.7	333
205-99-2	Benzo(b)fluoranthene		1430	ug/kg	10.0	33.3
207-08-9	Benzo(k)fluoranthene		1320	ug/kg	10.0	33.3
50-32-8	Benzo(a)pyrene		1440	ug/kg	10.0	33.3
193-39-5	Indeno(1,2,3-cd)pyrene		1430	ug/kg	10.0	33.3
53-70-3	Dibenzo(a,h)anthracene		1350	ug/kg	10.0	33.3
191-24-2	Benzo(ghi)perylene		1490	ug/kg	10.0	33.3
120-82-1	1,2,4-Trichlorobenzene		1060	ug/kg	66.7	333

GEL Laboratories LLC

Data file : /chem/MSD6.i/s121609.b/s611614-5.d
Lab Smp Id: 1201994528 Client Smp ID: SBLK01LCS
Inj Date : 16-DEC-2009 15:45
Operator : nag1 Inst ID: MSD6.i
Smp Info : |1201994528|932444|1|SVMF|1|SBLK01LCS
Misc Info : |MSD8270_S|WBN091208-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s121609.b/MSD6-M8270C-AQA-110909.m
Meth Date : 17-Dec-2009 08:11 nat00999 Quant Type: ISTD
Cal Date : 11-NOV-2009 04:38 Cal File: s6k0954.d
Als bottle: 5 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-899.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	0.00000	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	4.844	4.849	(1.000)	222177	40.0000	
* 29 Naphthalene-d8	136	6.128	6.131	(1.000)	901365	40.0000	
* 46 Acenaphthene-d10	164	8.001	8.001	(1.000)	432311	40.0000	
* 67 Phenanthrene-d10	188	9.611	9.611	(1.000)	823729	40.0000	
* 91 Chrysene-d12	240	12.636	12.633	(1.000)	674416	40.0000	
* 98 Perylene-d12	264	14.975	14.973	(1.000)	578792	40.0000	
$ 3 2-Fluorophenol	112	3.684	3.674	(0.761)	372834	67.0105	2230
$ 5 Phenol-d5	99	4.462	4.457	(0.921)	469261	66.8245	2230
$ 20 Nitrobenzene-d5	82	5.386	5.389	(0.879)	2I1354	33.1473	1100
$ 39 2-Fluorobiphenyl	172	7.254	7.254	(0.907)	362416	32.5299	1080
$ 60 2,4,6-Tribromophenol	329	8.852	8.850	(1.106)	107810	85.4415	2850
$ 81 p-Terphenyl-d14	244	11.316	11.316	(0.896)	463851	42.6487	1420

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
6 Phenol	94	4.474	4.469	(0.924)	252199	35.7184	1190(Q)
8 2-Chlorophenol	128	4.650	4.650	(0.960)	196801	34.6995	1160
11 1,4-Dichlorobenzene	146	4.859	4.867	(1.003)	191411	28.9194	964
17 N-Nitrosodipropylamine	70	5.216	5.226	(1.077)	117602	29.8774	996(Q)
28 1,2,4-Trichlorobenzene	180	6.059	6.062	(0.989)	173287	31.6963	1060
33 4-Chloro-3-methylphenol	107	6.683	6.676	(1.091)	162030	36.0304	1200
47 Acenaphthene	154	8.037	8.037	(1.004)	345185	35.4279	1180
50 2,4-Dinitrotoluene	165	8.189	8.192	(1.024)	134310	40.2669	1340
52 4-Nitrophenol	139	8.110	8.103	(1.014)	71925	40.3171	1340
65 Pentachlorophenol	266	9.395	9.390	(0.977)	66085	37.5769	1250
79 Pyrene	202	11.178	11.176	(0.885)	683973	36.8720	1230
2 Pyridine	79	2.785	2.737	(0.575)	126735	26.9203	897
4 Aniline	66	4.533	4.538	(0.936)	98294	33.5466	1120
7 bis(2-Chloroethyl) ether	63	4.566	4.574	(0.943)	145160	30.3600	1010
9 1,3-Dichlorobenzene	146	4.790	4.798	(0.989)	186152	28.5106	950
12 Benzyl alcohol	108	4.961	4.961	(1.024)	147171	41.7682	1390
13 1,2-Dichlorobenzene	146	5.009	5.017	(1.034)	188857	30.5682	1020
14 bis(2-Chloroisopropyl)ether	45	5.076	5.083	(1.048)	341558	31.9972	1070
15 o-Cresol	107	5.053	5.045	(1.043)	119990	25.9838	866
18 m,p-Cresols	107	5.198	5.203	(1.073)	219772	37.5592	1250
19 Hexachloroethane	117	5.346	5.348	(1.104)	72516	28.3202	944
21 Nitrobenzene	77	5.404	5.410	(0.882)	212840	33.1190	1100
22 Isophorone	82	5.639	5.644	(0.920)	321407	28.2150	940
23 2-Nitrophenol	139	5.723	5.726	(0.934)	105064	35.4437	1180
24 2,4-Dimethylphenol	122	5.738	5.736	(0.936)	152351	31.0201	1030
25 bis(2-Chloroethoxy)methane	93	5.840	5.840	(0.953)	174011	25.9573	865
26 2,4-Dichlorophenol	162	5.970	5.968	(0.974)	160733	36.0819	1200
27 Benzoic acid	105	5.868	5.850	(0.958)	280267	92.4518	3080
30 Naphthalene	128	6.151	6.154	(1.004)	552768	30.7429	1020
31 4-Chloroaniline	127	6.192	6.189	(1.010)	198075	34.2747	1140
32 Hexachlorobutadiene	225	6.261	6.261	(1.022)	90184	31.6773	1060
34 2-Methylnaphthalene	142	6.875	6.875	(1.122)	343818	31.6879	1060
36 Hexachlorocyclopentadiene	237	7.033	7.033	(0.879)	54376	31.1398	1040
37 2,4,6-Trichlorophenol	196	7.168	7.165	(0.896)	104480	35.4186	1180
38 2,4,5-Trichlorophenol	196	7.211	7.203	(0.901)	112266	35.7367	1190
40 2-Chloronaphthalene	162	7.399	7.400	(0.925)	317174	32.6685	1090
42 o-Nitroaniline	65	7.499	7.499	(0.937)	109117	32.8518	1100
41 m-Nitroaniline	138	7.940	7.942	(0.992)	100428	41.3040	1380
43 Dimethylphthalate	163	7.680	7.685	(0.960)	413335	37.2714	1240
44 2,6-Dinitrotoluene	165	7.756	7.756	(0.969)	95775	36.2074	1210
45 Acenaphthylene	152	7.851	7.851	(0.981)	572428	36.6693	1220
48 2,4-Dinitrophenol	184	8.052	8.052	(1.006)	42991	44.9210	1500(Q)
49 Dibenzofuran	168	8.220	8.220	(1.027)	591964	45.0099	1500
51 Diethylphthalate	149	8.437	8.437	(1.054)	434374	38.8939	1300
53 Fluorene	166	8.592	8.592	(1.074)	413862	38.3392	1280
54 4-Chlorophenylphenylether	204	8.574	8.574	(1.072)	199458	39.1062	1300
55 2-Methyl-4,6-dinitrophenol	198	8.635	8.633	(0.898)	67586	37.5343	1250

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
56 p-Nitroaniline	138	8.605	8.605	(1.075)	104686	45.0291	1500
133 Diphenylamine	169	8.704	8.702	(0.906)	358751	36.1327	1200
58 1,2-Diphenylhydrazine	77	8.750	8.750	(0.910)	472482	37.4119	1250
61 4-Bromophenylphenylether	248	9.107	9.107	(0.948)	121862	37.4915	1250
63 Hexachlorobenzene	284	9.186	9.183	(0.956)	124574	36.5890	1220
68 Phenanthrene	178	9.639	9.637	(1.003)	609394	35.7731	1190
69 Anthracene	178	9.693	9.693	(1.008)	624974	36.7049	1220
72 Di-n-butylphthalate	149	10.197	10.197	(1.061)	817015	41.7825	1390
76 Fluoranthene	202	10.926	10.926	(1.137)	666126	40.8204	1360
85 Butylbenzylphthalate	149	11.851	11.849	(0.938)	358880	42.2744	1410
89 Benzo(a)anthracene	228	12.613	12.613	(0.998)	606807	41.7031	1390
90 3,3'-Dichlorobenzidine	252	12.554	12.552	(0.994)	152910	32.1016	1070
92 Chrysene	228	12.669	12.669	(1.003)	544751	39.0731	1300
93 bis(2-Ethylhexyl)phthalate	149	12.575	12.575	(0.995)	514043	43.9048	1460
94 Di-n-octylphthalate	149	13.566	13.564	(0.906)	818399	44.4901	1480
95 Benzo(b)fluoranthene	252	14.292	14.295	(0.954)	551120	43.0332	1430
96 Benzo(k)fluoranthene	252	14.341	14.343	(0.958)	505143	39.6658	1320
97 Benzo(a)pyrene	252	14.873	14.871	(0.993)	478979	43.3007	1440
99 Indeno(1,2,3-cd)pyrene	276	16.965	16.963	(1.133)	453867	42.8580	1430
100 Dibenzo(a,h)anthracene	278	16.998	16.993	(1.135)	347439	40.4217	1350
101 Benzo(ghi)perylene	276	17.485	17.480	(1.168)	377799	44.7059	1490
1 N-Methyl-N-nitrosomethylamine	74	2.734	2.701	(0.564)	107401	28.3947	946

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: /chem/MSD6.i/s121609.b/s611614-5.d
Date : 16-DEC-2009 15:45
Client ID: SBLK01LCS
Sample Info: I120199452819324441ISVMFI1ISBLK01LCS
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD6.i
Operator: nag1
Column diameter: 0.20

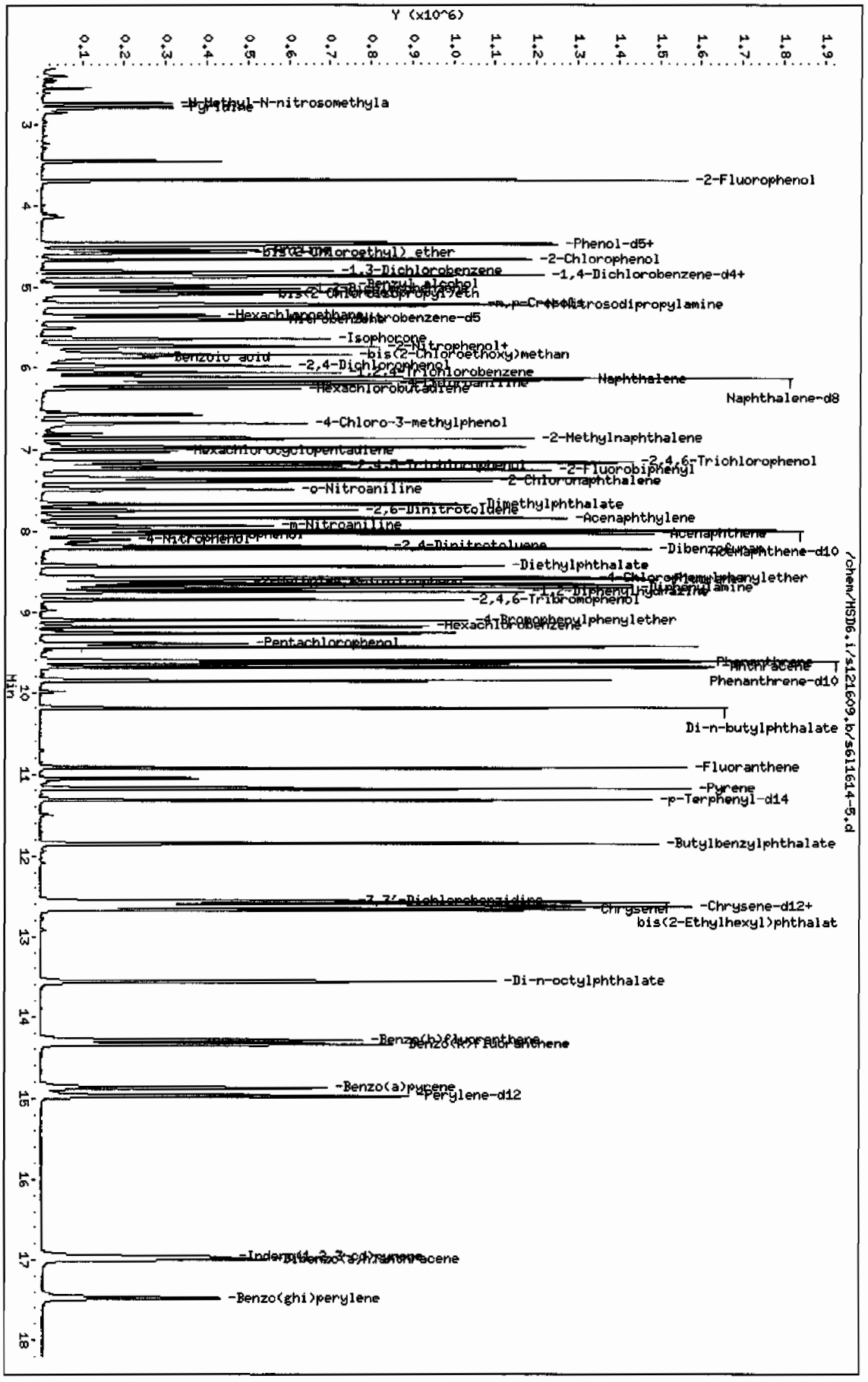

Page 1

Miscellaneous Data

Prep Logbook

Extraction of Semivolatile and Nonvolatile Organic Compounds from Soil, Sludge, and Other Miscellaneous Solid Samples

Batch ID: 932443 **Verified by:** _____

Analyst: Robin Hunt

Method: SW846 3550B

Lab SOP: GL-OA-E-010 REV# 18

Instrument: Semi-Volatiles Manual

Sample ID	Run Date	Aliquot (g)	Prepped Aliquot (mL)	Prepped Factor (mL/g)
1201994527 MB	14-DEC-2009 09:47:05	30	1	0.03333
1201994528 LCS	14-DEC-2009 09:47:05	30	1	0.03333
242298004 - 2	14-DEC-2009 09:47:05	30	1	0.03333
242668001	14-DEC-2009 09:47:05	30.07	1	0.03326
242668002	14-DEC-2009 09:47:05	30.02	1	0.03331
242743002	14-DEC-2009 09:47:05	30.05	1	0.03328
242746001	14-DEC-2009 09:47:05	30.01	1	0.03332
242746002	14-DEC-2009 09:47:05	30.02	1	0.03331
242750001	14-DEC-2009 09:47:05	30.03	1	0.0333
242750002	14-DEC-2009 09:47:05	30.01	1	0.03332
242750003	14-DEC-2009 09:47:05	30	1	0.03333
242750004	14-DEC-2009 09:47:05	30.02	1	0.03331
242750005	14-DEC-2009 09:47:05	30.04	1	0.03329
242784003	14-DEC-2009 09:47:05	30.03	1	0.0333
242784004	14-DEC-2009 09:47:05	30	1	0.03333
242791001	14-DEC-2009 09:47:05	30.03	1	0.0333
1201994529 MS (242791001)	14-DEC-2009 09:47:05	30.09	1	0.03323
1201994530 MSD (242791001)	14-DEC-2009 09:47:05	30.02	1	0.03331
242791002	14-DEC-2009 09:47:05	30.01	1	0.03332
242794001	14-DEC-2009 09:47:05	30.03	1	0.0333
242794002	14-DEC-2009 09:47:05	30.03	1	0.0333
242794003	14-DEC-2009 09:47:05	30	1	0.03333
242794004	14-DEC-2009 09:47:05	30	1	0.03333

Type	Sample Id	Description	Serial Number	Spike Amt	Units
LCS	1201994528	BENZIDINE LCS	UE091130-21	1	mL
LCS	1201994528	BNA LCS w/o Benzidine 50ppm	UE091202-11	1	mL
MS	1201994529	BENZIDINE LCS	UE091130-21	1	mL
MS	1201994529	BNA LCS w/o Benzidine 50ppm	UE091202-11	1	mL
MSD	1201994530	BENZIDINE LCS	UE091130-21	1	mL
MSD	1201994530	BNA LCS w/o Benzidine 50ppm	UE091202-11	1	mL
SURR	All	BNA for all Surrogate	UE091130-10	1	mL
REGNT	All	Acetone	1233927	150	mL
REGNT	All	Methylene Chloride	1239699-D	150	mL
SOURC	All	SODIUM SULFATE	1237409	30	g

Comments:

Verified By: JAM

Final Solvent: CH2Cl2

GEL ORGANIC RUN LOG INSTRUMENT ID: MSD6

DATE: 11/09/2009 METHOD: See raw data OPERATOR: JMB3 REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT:1198658-D
Multiplier Voltage: 1565 Emv Extr. Injection Volume: 0.5, 1.0 ul
DFTPP Solution ID: WBN091101-01 Internal Std ID: WBN091106-10
CALIBRATION & QC INFORMATION:
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.

SOP: GL-OA-E-009 Rev. 22 Sequence Number: /chem/MSD6.i/s110909.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
s6k0901.d	WBN091101-01	JMB3	09-NOV-2009 11:20	50 PPM	s110909	1.0	DFTPP	DUSE
s6k0902.d	inst blk	JMB3	09-NOV-2009 11:35	--------	s110909	1.0	INST BLK	DUSE
s6k0903.d	WBN091106-08	JMB3	09-NOV-2009 12:23	1 PPM	s110909	1.0	MEGAICAL	DUSE
s6k0904.d	WBN091106-07	JMB3	09-NOV-2009 13:00	10 PPM	s110909	1.0	MEGAICAL	DUSE
s6k0905.d	WBN091106-06	JMB3	09-NOV-2009 13:36	20 PPM	s110909	1.0	MEGAICAL	DUSE
s6k0906.d	WBN091106-05.1	JMB3	09-NOV-2009 14:14	40 PPM	s110909	1.0	MEGAICAL	DUSE
s6k0907.d	WBN091106-04	JMB3	09-NOV-2009 14:52	50 PPM	s110909	1.0	MEGAICAL	DUSE
s6k0908.d	WBN091106-03	JMB3	09-NOV-2009 15:30	80 PPM	s110909	1.0	MEGAICAL	DUSE
s6k0909.d	WBN091106-02	JMB3	09-NOV-2009 16:06	100 PPM	s110909	1.0	MEGAICAL	DUSE
s6k0910.d	WBN091106-01	JMB3	09-NOV-2009 16:43	120 PPM	s110909	1.0	MEGAICAL	DUSE
s6k0911-D.d	WBN091101-01	JMB3	09-NOV-2009 18:00	50 PPM	s110909	1.0	DFTPP	
s6k0911.d	WBN091101-01	JMB3	09-NOV-2009 18:00	50 PPM	s110909	1.0	DFTPP	
s6k0912.d	inst blk	JMB3	09-NOV-2009 18:15	--------	s110909	1.0	INST BLK	
s6k0913.d	WBN091106-08	JMB3	09-NOV-2009 18:53	1 PPM	s110909	1.0	MEGAICAL	
s6k0914.d	WBN091106-07	JMB3	09-NOV-2009 19:31	10 PPM	s110909	1.0	MEGAICAL	
s6k0915.d	WBN091106-06	JMB3	09-NOV-2009 20:09	20 PPM	s110909	1.0	MEGAICAL	
s6k0916.d	WBN091106-05.1	JMB3	09-NOV-2009 20:46	40 PPM	s110909	1.0	MEGAICAL	
s6k0917.d	WBN091106-04	JMB3	09-NOV-2009 21:25	50 PPM	s110909	1.0	MEGAICAL	
s6k0918.d	WBN091106-03	JMB3	09-NOV-2009 22:01	80 PPM	s110909	1.0	MEGAICAL	

s6k0919.d	WBN091106-02	JMB3	09-NOV-2009 22:39	100 PPM	s110909	1.0	MEGAICAL	
s6k0920.d	WBN091106-01	JMB3	09-NOV-2009 23:16	120 PPM	s110909	1.0	MEGAICAL	
s6k0921-D.d	WBN091101-01	JMB3	10-NOV-2009 11:07	50 PPM	s110909	1.0	DFTPP	
s6k0921.d	WBN091101-01	JMB3	10-NOV-2009 11:07	50 PPM	s110909	1.0	DFTPP	
s6k0922.d	inst blk	JMB3	10-NOV-2009 11:21	--------	s110909	1.0	INST BLK	
s6k0923.d	WBN091016-01	JMB3	10-NOV-2009 11:59	10 PPM	s110909	1.0	AP12ICAL	
s6k0924.d	WBN091016-02	JMB3	10-NOV-2009 12:36	20 PPM	s110909	1.0	AP12ICAL	
s6k0925.d	WBN091016-03	JMB3	10-NOV-2009 13:13	40 PPM	s110909	1.0	AP12ICAL	
s6k0926.d	WBN091016-04	JMB3	10-NOV-2009 13:51	50 PPM	s110909	1.0	AP12ICAL	
s6k0927.d	WBN091016-05	JMB3	10-NOV-2009 14:30	80 PPM	s110909	1.0	AP12ICAL	
s6k0928.d	WBN091016-06	JMB3	10-NOV-2009 15:06	100 PPM	s110909	1.0	AP12ICAL	
s6k0929.d	WBN091016-07	JMB3	10-NOV-2009 15:43	120 PPM	s110909	1.0	AP12ICAL	
s6k0930.d	WBN091029-25	JMB3	10-NOV-2009 16:20	10 PPM	s110909	1.0	PESTICAL	
s6k0931.d	WBN091029-24	JMB3	10-NOV-2009 16:56	20 PPM	s110909	1.0	PESTICAL	
s6k0932.d	WBN091029-23.1	JMB3	10-NOV-2009 17:33	40 PPM	s110909	1.0	PESTICAL	
s6k0933.d	WBN091029-22	JMB3	10-NOV-2009 18:09	50 PPM	s110909	1.0	PESTICAL	
s6k0934.d	WBN091029-21	JMB3	10-NOV-2009 18:45	80 PPM	s110909	1.0	PESTICAL	
s6k0935.d	WBN091029-20	JMB3	10-NOV-2009 19:21	100 PPM	s110909	1.0	PESTICAL	
s6k0936.d	WBN091029-19	JMB3	10-NOV-2009 19:58	120 PPM	s110909	1.0	PESTICAL	
s6k0937-D.d	WBN091106-09.1	JMB3	10-NOV-2009 20:29	40 PPM	s110909	1.0	MEGAICV	FAILED SC 8270D
s6k0937.d	WBN091106-09.1	JMB3	10-NOV-2009 20:29	40 PPM	s110909	1.0	MEGAICV	
s6k0938-D.d	WBN091016-08.1	JMB3	10-NOV-2009 21:07	40 PPM	s110909	1.0	AP12ICV	
s6k0938.d	WBN091016-08.1	JMB3	10-NOV-2009 21:07	40 PPM	s110909	1.0	AP12ICV	
s6k0939-D.d	WBN091029-26.1	JMB3	10-NOV-2009 21:35	40 PPM	s110909	1.0	PESTICV	
s6k0939.d	WBN091029-26.1	JMB3	10-NOV-2009 21:35	40 PPM	s110909	1.0	PESTICV	
s6k0940-D.d	WBN091101-01	JMB3	10-NOV-2009 22:12	50 PPM	s110909	1.0	DFTPP	
s6k0940.d	WBN091101-01	JMB3	10-NOV-2009 22:12	50 PPM	s110909	1.0	DFTPP	

s6k0941.d	inst blk	JMB3	10-NOV-2009 22:26	--------	s110909		1.0	INST BLK	
s6k0942.d	WBN091016-16	JMB3	10-NOV-2009 22:55	500 PPM	s110909		1.0	HEXICAL	
s6k0943.d	WBN091016-15	JMB3	10-NOV-2009 23:24	1000 PPM	s110909		1.0	HEXICAL	
s6k0944.d	WBN091016-14	JMB3	10-NOV-2009 23:53	1250 PPM	s110909		1.0	HEXICAL	
s6k0945.d	WBN091016-13	JMB3	11-NOV-2009 00:21	1500 PPM	s110909		1.0	HEXICAL	
s6k0946.d	WBN091016-12	JMB3	11-NOV-2009 00:50	1750 PPM	s110909		1.0	HEXICAL	
s6k0947.d	UBN090828-02.4-16	JMB3	11-NOV-2009 01:18	500 PPM	s110909		1.0	HEXICAL	
s6k0948.d	UBN090924-01	JMB3	11-NOV-2009 01:47	10 PPM	s110909		1.0	NEVICAL	
s6k0949.d	UBN090924-02	JMB3	11-NOV-2009 02:16	20 PPM	s110909		1.0	NEVICAL	
s6k0950.d	UBN090924-03	JMB3	11-NOV-2009 02:44	40 PPM	s110909		1.0	NEVICAL	
s6k0951.d	UBN090924-04	JMB3	11-NOV-2009 03:12	50 PPM	s110909		1.0	NEVICAL	DUSE - disabled
s6k0952.d	UBN090924-05	JMB3	11-NOV-2009 03:41	80 PPM	s110909		1.0	NEVICAL	
s6k0953.d	UBN090924-06	JMB3	11-NOV-2009 04:10	100 PPM	s110909		1.0	NEVICAL	
s6k0954.d	UBN090924-07	JMB3	11-NOV-2009 04:38	120 PPM	s110909		1.0	NEVICAL	DUSE - disabled
s6k0955-D.d	WBN091016-10.1	JMB3	11-NOV-2009 05:07	1250 PPM	s110909		1.0	HEXICV	DUSE - failed >70%-130%
s6k0955.d	WBN091016-10.1	JMB3	11-NOV-2009 05:07	1250 PPM	s110909		1.0	HEXICV	

GEL ORGANIC RUN LOG INSTRUMENT ID: MSD6

DATE: 12/16/2009 METHOD: See raw data OPERATOR: nagl REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT:1202440-D
Multiplier Voltage: 1588 Emv Extr. Injection Volume: 0.5, 1.0 ul
DFTPP Solution ID: WBN091213-01 Internal Std ID: WBN091208-01
CALIBRATION & QC INFORMATION:
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.

SOP: GL-OA-E-009 Rev. 23 Sequence Number: /chem/MSD6.i/s121609.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
s611601.d	WBN091213-01	nagl	16-DEC-2009 08:36	50 PPM	s121609	1.0	DFTPP	DUSE
s611602.d	WBN091106-09.1	nagl	16-DEC-2009 08:47	CVS	s121609	1.0	MEGACVS	DUSE
s611603.d	WBN091213-01	nagl	16-DEC-2009 09:25	50 PPM	s121609	1.0	DFTPP	DUSE
s611604.d	WBN091106-09.1	nagl	16-DEC-2009 09:38	CVS	s121609	1.0	MEGACVS	DUSE
s611605.d	WBN091213-01	nagl	16-DEC-2009 11:14	50 PPM	s121609	1.0	DFTPP	DUSE
s611606.d	WBN091106-09.1	nagl	16-DEC-2009 11:28	CVS	s121609	1.0	MEGACVS	DUSE
s611607.d	WBN091201-03.5	nagl	16-DEC-2009 11:57	CVS	s121609	1.0	AP12CVS	DUSE
s611608.d	WBN091106-09.1	nagl	16-DEC-2009 12:25	CVS	s121609	1.0	MEGACVS	DUSE
s611609.d	WBN091202-23.5	nagl	16-DEC-2009 12:53	CVS	s121609	1.0	PESTCVS	DUSE - MAINENTANCE
s611610.d	WBN091213-01	nagl	16-DEC-2009 14:04	50 PPM	s121609	1.0	DFTPP	
s611611.d	WBN091111-17.4	nagl	16-DEC-2009 14:18	CVS	s121609	1.0	MEGACVS	209214
s611612.d	WBN091201-03.5	nagl	16-DEC-2009 14:46	CVS	s121609	1.0	AP12CVS	
s611613-1.d	1201994527	nagl	16-DEC-2009 15:15	932444	10-854	1.0	SBLK01	
s611613-2.d	1201994527	nagl	16-DEC-2009 15:15	932444	10-883	1.0	SBLK01	
s611613-3.d	1201994527	nagl	16-DEC-2009 15:15	932444	10-884	1.0	SBLK01	
s611613-4.d	1201994527	nagl	16-DEC-2009 15:15	932444	10-886	1.0	SBLK01	
s611613-5.d	1201994527	nagl	16-DEC-2009 15:15	932444	10-899	1.0	SBLK01	
s611613-6.d	1201994527	nagl	16-DEC-2009 15:15	932444	10-903	1.0	SBLK01	
s611613-7.d	1201994527	nagl	16-DEC-2009 15:15	932444	10-901	1.0	SBLK01	

s611613.d	1201994527	nag1	16-DEC-2009 15:15	932444	10-788	1.0	SBLK01	
s611614-1.d	1201994528	nag1	16-DEC-2009 15:45	932444	10-854	1.0	SBLK01LCS	
s611614-2.d	1201994528	nag1	16-DEC-2009 15:45	932444	10-883	1.0	SBLK01LCS	
s611614-3.d	1201994528	nag1	16-DEC-2009 15:45	932444	10-884	1.0	SBLK01LCS	
s611614-4.d	1201994528	nag1	16-DEC-2009 15:45	932444	10-886	1.0	SBLK01LCS	
s611614-5.d	1201994528	nag1	16-DEC-2009 15:45	932444	10-899	1.0	SBLK01LCS	
s611614-6.d	1201994528	nag1	16-DEC-2009 15:45	932444	10-903	1.0	SBLK01LCS	
s611614-7.d	1201994528	nag1	16-DEC-2009 15:45	932444	10-901	1.0	SBLK01LCS	
s611614.d	1201994528	nag1	16-DEC-2009 15:45	932444	10-788	1.0	SBLK01LCS	
s611615.d	242298004	nag1	16-DEC-2009 16:13	932444	10-788	1.0	LANLRE	
s611616.d	242668001	nag1	16-DEC-2009 16:42	932444	10-854	1.0	LANL	
s611617.d	242668002	nag1	16-DEC-2009 17:10	932444	10-854	1.0	LANL	
s611618.d	242743002	nag1	16-DEC-2009 17:38	932444	10-883	1.0	LANL	
s611619.d	242746001	nag1	16-DEC-2009 18:07	932444	10-884	1.0	LANL	
s611620.d	242746002	nag1	16-DEC-2009 18:36	932444	10-884	1.0	LANL	
s611621.d	242750001	nag1	16-DEC-2009 19:03	932444	10-886	1.0	LANL	
s611622.d	242750002	nag1	16-DEC-2009 19:31	932444	10-886	1.0	LANL	
s611623.d	242750003	nag1	16-DEC-2009 20:00	932444	10-886	1.0	LANL	
s611624.d	242750004	nag1	16-DEC-2009 20:28	932444	10-886	1.0	LANL	
s611625.d	242750005	nag1	16-DEC-2009 20:56	932444	10-886	1.0	LANL	
s611626.d	242784003	nag1	16-DEC-2009 21:23	932444	10-899	1.0	LANL	
s611627.d	242784004	nag1	16-DEC-2009 21:51	932444	10-899	1.0	LANL	
s611628.d	242791001	nag1	16-DEC-2009 22:19	932444	10-903	1.0	LANL	
s611629.d	1201994529	nag1	16-DEC-2009 22:46	932444	10-903	1.0	LANL_MS	failed spike
s611630.d	1201994530	nag1	16-DEC-2009 23:13	932444	10-903	1.0	LANL_MSD	DUSE - failed IS/spike - RR - see s611717
s611631.d	242791002	nag1	16-DEC-2009 23:41	932444	10-903	1.0	LANL	
s611632.d	242794001	nag1	17-DEC-2009 00:08	932444	10-901	1.0	LANL	

s611633.d	242794002	nag1	17-DEC-2009 00:36	932444	10-901		1.0	LANL
s611634.d	242794003	nag1	17-DEC-2009 01:03	932444	10-901		1.0	LANL
s611635.d	242794004	nag1	17-DEC-2009 01:30	932444	10-901		1.0	LANL

Instrument Batch: /chem/MSD6.i/s121609.b Page: 2

GEL Laboratories LLC

Data file : /chem/MSD6.i/s121609.b/s611629.d
Lab Smp Id: 1201994529 Client Smp ID: RE16-10-2878MS
Inj Date : 16-DEC-2009 22:46
Operator : nagl Inst ID: MSD6.i
Smp Info : |1201994529|932444|1|SVMF|1|LANL_MS
Misc Info : |MSD8270_S|WBN091208-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s121609.b/MSD6-M8270C-AQA-110909.m
Meth Date : 17-Dec-2009 08:11 nat00999 Quant Type: ISTD
Cal Date : 11-NOV-2009 04:38 Cal File: s6k0954.d
Als bottle: 20 QC Sample: MS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-903.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.09000	weight of sample
M	12.55480	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	4.849	4.849	(1.000)	163674	40.0000	
* 29 Naphthalene-d8	136	6.131	6.131	(1.000)	738236	40.0000	
* 46 Acenaphthene-d10	164	8.003	8.001	(1.000)	448525	40.0000	
* 67 Phenanthrene-d10	188	9.616	9.611	(1.000)	817803	40.0000	
* 91 Chrysene-d12	240	12.638	12.633	(1.000)	532879	40.0000	
* 98 Perylene-d12	264	14.978	14.973	(1.000)	292729	40.0000	
$ 3 2-Fluorophenol	112	3.690	3.674	(0.761)	278264	67.8897	2580
$ 5 Phenol-d5	99	4.469	4.457	(0.922)	344249	66.5447	2530(H)
$ 20 Nitrobenzene-d5	82	5.389	5.389	(0.879)	126211	24.1679	918
$ 39 2-Fluorobiphenyl	172	7.257	7.254	(0.907)	314417	27.2014	1030
$ 60 2,4,6-Tribromophenol	329	8.855	8.850	(1.106)	93901	71.7282	2730
$ 81 p-Terphenyl-d14	244	11.319	11.316	(0.896)	361402	42.0550	1600

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
6 Phenol	94	4.479	4.469	(0.924)	179202	34.4517	1310(Q)
8 2-Chlorophenol	128	4.658	4.650	(0.961)	125001	29.9178	1140
11 1,4-Dichlorobenzene	146	4.867	4.867	(1.004)	81762	16.7685	637
17 N-Nitrosodipropylamine	70	5.218	5.226	(1.076)	84897	29.2778	1110(Q)
28 1,2,4-Trichlorobenzene	180	6.062	6.062	(0.989)	103101	23.0256	875
33 4-Chloro-3-methylphenol	107	6.696	6.676	(1.092)	160191	43.4928	1650
47 Acenaphthene	154	8.037	8.037	(1.004)	280590	27.7571	1050
50 2,4-Dinitrotoluene	165	8.195	8.192	(1.024)	114109	32.9738	1250
52 4-Nitrophenol	139	8.139	8.103	(1.017)	47752	28.4222	1080
65 Pentachlorophenol	266	9.402	9.390	(0.978)	51378	30.5911	1160
79 Pyrene	202	11.181	11.176	(0.885)	536884	36.6301	1390
2 Pyridine	79	2.772	2.737	(0.572)	45848	13.2198	502(R)
4 Aniline	66	4.538	4.538	(0.936)	40181	18.6150	707(Q)
7 bis(2-Chloroethyl) ether	63	4.574	4.574	(0.943)	81729	23.2033	882
9 1,3-Dichlorobenzene	146	4.798	4.798	(0.989)	104729	21.7734	827
12 Benzyl alcohol	108	4.969	4.961	(1.025)	14496	5.58458	212(aR)
13 1,2-Dichlorobenzene	146	5.015	5.017	(1.034)	88599	19.4663	740
14 bis(2-Chloroisopropyl)ether	45	5.083	5.083	(1.048)	246197	31.3076	1190
15 o-Cresol	107	5.058	5.045	(1.043)	118735	34.9025	1330
18 m,p-Cresols	107	5.203	5.203	(1.073)	170939	39.6556	1510
19 Hexachloroethane	117	5.348	5.348	(1.103)	30048	15.9293	605
21 Nitrobenzene	77	5.410	5.410	(0.882)	127426	24.2096	920
22 Isophorone	82	5.641	5.644	(0.920)	267366	28.6574	1090
23 2-Nitrophenol	139	5.728	5.726	(0.934)	64927	26.7434	1020
24 2,4-Dimethylphenol	122	5.748	5.736	(0.938)	99016	24.6155	936
25 bis(2-Chloroethoxy)methane	93	5.840	5.840	(0.953)	145323	26.4681	1000
26 2,4-Dichlorophenol	162	5.978	5.968	(0.975)	125218	34.3208	1300
27 Benzoic acid	105	5.876	5.850	(0.958)	248070	99.9133	3800
30 Naphthalene	128	6.154	6.154	(1.004)	340898	23.1490	880
31 4-Chloroaniline	127	6.194	6.189	(1.010)	95865	20.2539	770
32 Hexachlorobutadiene	225	6.261	6.261	(1.021)	53747	23.0504	876
34 2-Methylnaphthalene	142	6.877	6.875	(1.122)	277963	31.2793	1190
36 Hexachlorocyclopentadiene	237	7.033	7.033	(0.879)	12532	6.91734	263(aR)
37 2,4,6-Trichlorophenol	196	7.170	7.165	(0.896)	91938	30.0402	1140
38 2,4,5-Trichlorophenol	196	7.221	7.203	(0.902)	116586	35.7703	1360(H)
40 2-Chloronaphthalene	162	7.402	7.400	(0.925)	268724	26.6776	1010
42 o-Nitroaniline	65	7.504	7.499	(0.938)	98604	28.6135	1090
41 m-Nitroaniline	138	7.945	7.942	(0.993)	67440	26.7341	1020
43 Dimethylphthalate	163	7.682	7.685	(0.960)	376026	32.6814	1240
44 2,6-Dinitrotoluene	165	7.759	7.756	(0.969)	86985	31.6956	1200
45 Acenaphthylene	152	7.851	7.851	(0.981)	479000	29.5752	1120
48 2,4-Dinitrophenol	184	8.060	8.052	(1.007)	20232	28.3001	1080(Q)
49 Dibenzofuran	168	8.223	8.220	(1.027)	517904	37.9552	1440
51 Diethylphthalate	149	8.437	8.437	(1.054)	407695	35.1854	1340
53 Fluorene	166	8.592	8.592	(1.074)	366609	32.7341	1240
54 4-Chlorophenylphenylether	204	8.577	8.574	(1.072)	177882	33.6152	1280
55 2-Methyl-4,6-dinitrophenol	198	8.638	8.633	(0.898)	35208	23.0638	876

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
56 p-Nitroaniline	138	8.610	8.605	(1.076)	78839	34.6223	1320
133 Diphenylamine	169	8.704	8.702	(0.905)	290252	29.4455	1120
58 1,2-Diphenylhydrazine	77	8.753	8.750	(0.910)	398198	31.7585	1210
61 4-Bromophenylphenylether	248	9.109	9.107	(0.947)	101763	31.5348	1200
63 Hexachlorobenzene	284	9.188	9.183	(0.955)	92196	27.2754	1040
68 Phenanthrene	178	9.642	9.637	(1.003)	553469	32.7255	1240
69 Anthracene	178	9.695	9.693	(1.008)	550432	32.5613	1240
72 Di-n-butylphthalate	149	10.200	10.197	(1.061)	696557	35.8803	1360
76 Fluoranthene	202	10.929	10.926	(1.136)	538775	33.2555	1260
85 Butylbenzylphthalate	149	11.851	11.849	(0.938)	284536	42.4194	1610
89 Benzo(a)anthracene	228	12.618	12.613	(0.998)	365948	31.8300	1210
92 Chrysene	228	12.672	12.669	(1.003)	343788	31.2083	1190
93 bis(2-Ethylhexyl)phthalate	149	12.577	12.575	(0.995)	372265	40.2745	1530
94 Di-n-octylphthalate	149	13.566	13.564	(0.906)	529631	56.9284	2160
95 Benzo(b)fluoranthene	252	14.297	14.295	(0.955)	234939	36.2718	1380
96 Benzo(k)fluoranthene	252	14.343	14.343	(0.958)	239075	37.1187	1410
97 Benzo(a)pyrene	252	14.876	14.871	(0.993)	186639	33.3609	1270
99 Indeno(1,2,3-cd)pyrene	276	16.970	16.963	(1.133)	129568	25.5139	970
100 Dibenzo(a,h)anthracene	278	17.001	16.993	(1.135)	110177	26.3542	1000
101 Benzo(ghi)perylene	276	17.488	17.480	(1.168)	93592	21.8977	832
1 N-Methyl-N-nitrosomethylamine	74	2.726	2.701	(0.562)	70428	25.2752	960

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
R - Spike/Surrogate failed recovery limits.
H - Operator selected an alternate compound hit.

Data File: /chem/MSD6.i/s121609.b/s611629.d
Date : 16-DEC-2009 22:46
Client ID: RE16-10-2878MS
Sample Info: |1201994529193244411|SVMF11|LANL_MS
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD6.i

Operator: nag1
Column diameter: 0.20

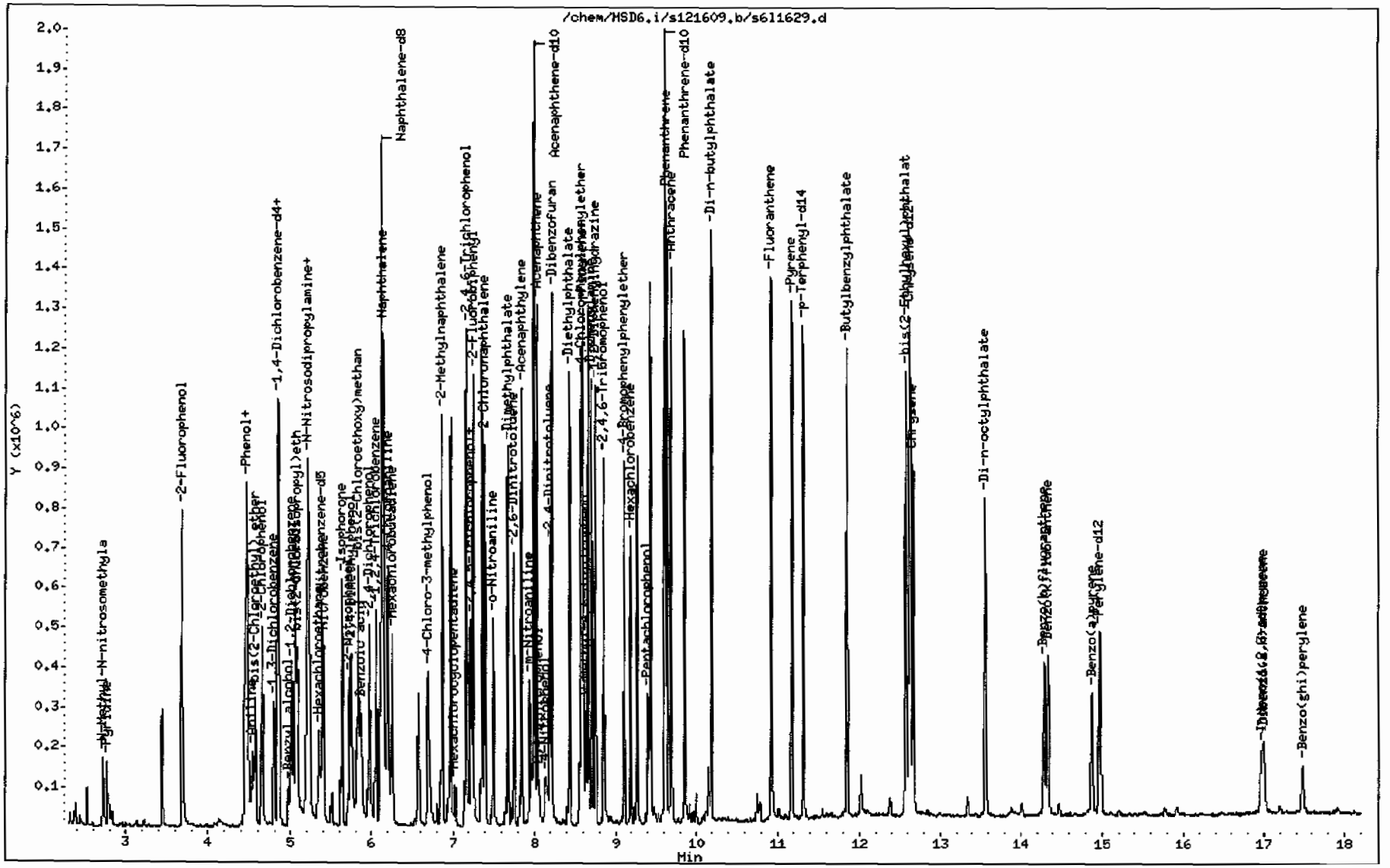

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Data file : /chem/MSD6.i/s121709.b/s611717.d
Lab Smp Id: 1201994530 Client Smp ID: RE16-10-2878MSD
Inj Date : 17-DEC-2009 17:29
Operator : nagl Inst ID: MSD6.i
Smp Info : |1201994530|932444|1|SVMF|1|LANL0001MSD
Misc Info : |MSD8270_S|WBN091208-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s121709.b/MSD6-M8270C-AQA-110909.m
Meth Date : 18-Dec-2009 07:24 nat00999 Quant Type: ISTD
Cal Date : 11-NOV-2009 04:38 Cal File: s6k0954.d
Als bottle: 17 QC Sample: MSD
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-903.sub
Target Version: 3.50
Processing Host: hpclpl

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.02000	weight of sample
M	12.55480	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	4.800	4.800	(1.000)	129085	40.0000	
* 29 Naphthalene-d8	136	6.080	6.080	(1.000)	515847	40.0000	
* 46 Acenaphthene-d10	164	7.950	7.950	(1.000)	279099	40.0000	
* 67 Phenanthrene-d10	188	9.563	9.563	(1.000)	473949	40.0000	
* 91 Chrysene-d12	240	12.575	12.575	(1.000)	311788	40.0000	
* 98 Perylene-d12	264	14.893	14.893	(1.000)	210612	40.0000	
$ 3 2-Fluorophenol	112	3.639	3.626	(0.758)	142945	44.2201	1680
$ 5 Phenol-d5	99	4.416	4.410	(0.920)	199032	48.7829	1860
$ 20 Nitrobenzene-d5	82	5.336	5.338	(0.878)	81738	22.3996	853
$ 39 2-Fluorobiphenyl	172	7.206	7.206	(0.906)	186834	25.9759	990
$ 60 2,4,6-Tribromophenol	329	8.804	8.801	(1.107)	49410	60.6545	2310
$ 81 p-Terphenyl-d14	244	11.273	11.270	(0.896)	177869	35.3750	1350

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
6 Phenol	94	4.428	4.423	(0.922)	95211	23.2091	884(Q)
8 2-Chlorophenol	128	4.604	4.602	(0.959)	70953	21.5323	820
11 1,4-Dichlorobenzene	146	4.818	4.816	(1.004)	50256	13.0688	498(R)
17 N-Nitrosodipropylamine	70	5.165	5.170	(1.076)	51665	22.5916	860(Q)
28 1,2,4-Trichlorobenzene	180	6.011	6.011	(0.989)	60779	19.4257	740
33 4-Chloro-3-methylphenol	107	6.643	6.632	(1.093)	69599	27.0431	1030
47 Acenaphthene	154	7.983	7.986	(1.004)	150738	23.9637	913
50 2,4-Dinitrotoluene	165	8.141	8.143	(1.024)	57739	26.8131	1020
52 4-Nitrophenol	139	8.098	8.062	(1.019)	24033	24.3807	929
65 Pentachlorophenol	266	9.351	9.344	(0.978)	27869	28.9762	1100
79 Pyrene	202	11.130	11.130	(0.885)	266462	31.0715	1180
2 Pyridine	79	2.693	2.685	(0.561)	31930	11.6736	445(R)
4 Aniline	66	4.487	4.487	(0.935)	18044	10.5993	404(QR)
7 bis(2-Chloroethyl) ether	63	4.525	4.525	(0.943)	47236	17.0040	648(R)
9 1,3-Dichlorobenzene	146	4.750	4.749	(0.989)	48125	12.6862	483(R)
13 1,2-Dichlorobenzene	146	4.966	4.966	(1.034)	53925	15.0228	572(R)
14 bis(2-Chloroisopropyl)ether	45	5.035	5.035	(1.049)	111888	18.0408	687
15 o-Cresol	107	5.004	4.999	(1.042)	54212	20.2058	770
18 m,p-Cresols	107	5.152	5.152	(1.073)	83018	24.4196	930
19 Hexachloroethane	117	5.300	5.300	(1.104)	17796	11.9621	456(R)
21 Nitrobenzene	77	5.356	5.358	(0.881)	74606	20.2851	773
22 Isophorone	82	5.588	5.593	(0.919)	158801	24.3589	928
23 2-Nitrophenol	139	5.674	5.674	(0.933)	36689	21.6272	824
24 2,4-Dimethylphenol	122	5.690	5.690	(0.936)	50800	18.0735	688
25 bis(2-Chloroethoxy)methane	93	5.789	5.792	(0.952)	87124	22.7092	865
26 2,4-Dichlorophenol	162	5.924	5.922	(0.974)	65748	25.7897	982
27 Benzoic acid	105	5.797	5.784	(0.953)	114913	66.2357	2520
30 Naphthalene	128	6.100	6.102	(1.003)	203459	19.7724	753
31 4-Chloroaniline	127	6.143	6.141	(1.010)	41429	12.5264	477(R)
32 Hexachlorobutadiene	225	6.212	6.212	(1.022)	30125	18.4895	704
34 2-Methylnaphthalene	142	6.826	6.826	(1.123)	157127	25.3043	964
36 Hexachlorocyclopentadiene	237	6.984	6.984	(0.879)	6893	6.11442	233(aR)
37 2,4,6-Trichlorophenol	196	7.119	7.117	(0.896)	49257	25.8645	985
38 2,4,5-Trichlorophenol	196	7.168	7.157	(0.902)	48885	24.1035	918
40 2-Chloronaphthalene	162	7.349	7.348	(0.924)	146431	23.3616	890
42 o-Nitroaniline	65	7.450	7.450	(0.937)	48092	22.4274	854
41 m-Nitroaniline	138	7.891	7.894	(0.993)	27100	17.2641	658(R)
43 Dimethylphthalate	163	7.629	7.636	(0.960)	205487	28.7009	1090
44 2,6-Dinitrotoluene	165	7.705	7.708	(0.969)	44799	26.2332	999
45 Acenaphthylene	152	7.800	7.802	(0.981)	261489	25.9462	988
48 2,4-Dinitrophenol	184	8.009	8.003	(1.007)	8063	23.3390	889(Q)
49 Dibenzofuran	168	8.169	8.169	(1.028)	267522	31.5072	1200
51 Diethylphthalate	149	8.386	8.391	(1.055)	214336	29.7270	1130
53 Fluorene	166	8.541	8.544	(1.074)	187874	26.9583	1030
54 4-Chlorophenylphenylether	204	8.526	8.528	(1.072)	89752	27.2569	1040
55 2-Methyl-4,6-dinitrophenol	198	8.584	8.584	(0.898)	18588	21.6417	824
56 p-Nitroaniline	138	8.554	8.554	(1.076)	29728	23.7641	905

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
133 Diphenylamine	169	8.653	8.653	(0.905)	143667	25.1488	958
58 1,2-Diphenylhydrazine	77	8.702	8.702	(0.910)	198775	27.3552	1040
61 4-Bromophenylphenylether	248	9.058	9.058	(0.947)	50417	26.9584	1030
63 Hexachlorobenzene	284	9.135	9.137	(0.955)	49117	25.0731	955
68 Phenanthrene	178	9.588	9.588	(1.003)	269212	27.4666	1050
69 Anthracene	178	9.644	9.644	(1.009)	270118	27.5720	1050
72 Di-n-butylphthalate	149	10.154	10.151	(1.062)	368181	32.7249	1250
76 Fluoranthene	202	10.880	10.880	(1.138)	265878	28.3176	1080
85 Butylbenzylphthalate	149	11.803	11.803	(0.939)	141487	36.0507	1370
89 Benzo(a)anthracene	228	12.557	12.557	(0.999)	180956	26.9005	1020
92 Chrysene	228	12.608	12.608	(1.003)	175277	27.1940	1040
93 bis(2-Ethylhexyl)phthalate	149	12.524	12.524	(0.996)	172521	31.9847	1220
94 Di-n-octylphthalate	149	13.505	13.502	(0.907)	242115	36.1709	1380
95 Benzo(b)fluoranthene	252	14.221	14.218	(0.955)	136171	29.2201	1110
96 Benzo(k)fluoranthene	252	14.267	14.267	(0.958)	144222	31.1224	1180
97 Benzo(a)pyrene	252	14.794	14.794	(0.993)	116783	29.0134	1100
99 Indeno(1,2,3-cd)pyrene	276	16.881	16.878	(1.133)	95779	26.1306	995
100 Dibenzo(a,h)anthracene	278	16.907	16.909	(1.135)	34823	13.0952	499(R)
101 Benzo(ghi)perylene	276	17.391	17.388	(1.168)	73803	24.0003	914(Q)
1 N-Methyl-N-nitrosomethylamine	74	2.650	2.650	(0.552)	27471	12.5005	476(R)

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
R - Spike/Surrogate failed recovery limits.

Data File: /chem/MSD6.i/s121709.b/s611717.d
Date : 17-DEC-2009 17:29
Client ID: RE16-10-2878MSD
Sample Info: 1120199453019324441ISVHF11LANL0001MSD
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD6.i
Operator: nag1
Column diameter: 0.20

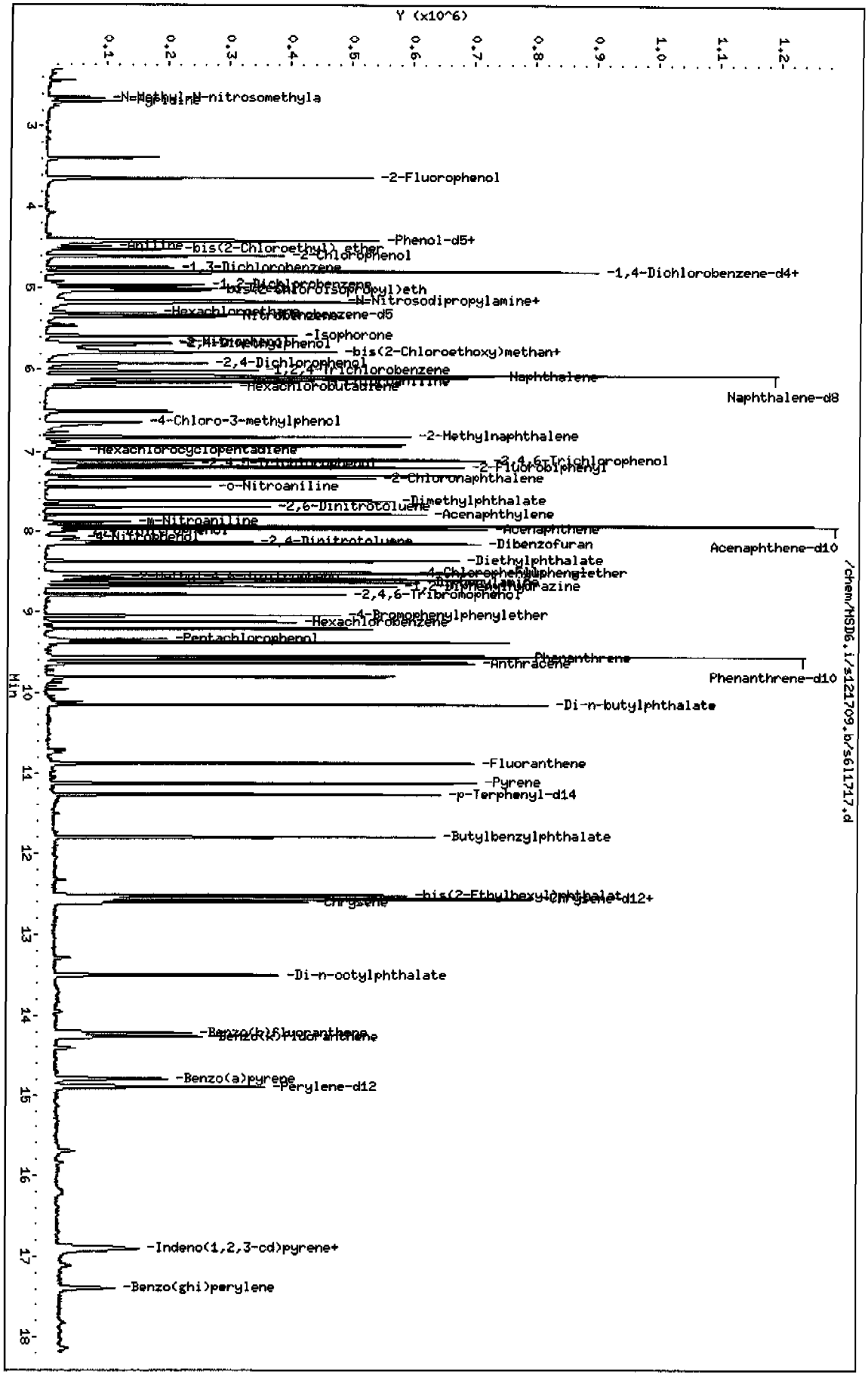

Page 1

GC/MS Semivolatile Analysis

Semi-Volatile Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-899-1

Method/Analysis Information

Procedure:	**Analysis of Semivolatile Organic Compounds by Gas Chromatography/Mass Spectrometry**
Analytical Method:	SW846 8270C
Prep Method:	SW846 3510C
TCLP Prep Method :	SW846 1311
Analytical Batch Number:	934629
Prep Batch Number:	934627
TCLP Prep Batch Number:	933331

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 8270C:

Sample ID	Client ID
242785001	WST03-10-2145
242785002	WST03-10-2146
1201996842	TCLP Blank (TB)
1201999622	Method Blank (MB)
1201999623	Laboratory Control Sample (LCS)
1201999624	242785001(WST03-10-2145) Matrix Spike (MS)
1201999625	242785001(WST03-10-2145) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on an "as received" basis.

Preparation/Analytical Method Verification

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-009 REV# 23.

Raw data reports are processed and reviewed by the analyst using the Target software package. False positives have been removed from the Target quantitation reports per standard operating procedures (SOP) section 18.2.

Calibration Information

Please note that the 'Cal Date' indicated on each quantitation report reflects the date and time of the most recent calibrated analyte(s) in the Target processing method. Since the laboratory may calibrate with multiple solutions on different days using the same processing method, the Target software will update the 'Cal Date' to the last calibration file, date and time. The correct dates and times for all calibration files are located on the Calibration History report in the Standard Data section in the data package.

Due to software limitations, the Calibration Summary Form 6 may not indicate all the calibration files comprising the initial calibration. A complete list of the initial calibration data files are shown in the Calibration History report located in the Standard Data section of the data package. Please note that the second level of the initial calibration (5 mg/L) is only used for n-Nitrosodipropylamine. The various calibration mixes may not be calibrated using all of the calibration levels. In addition, not all of the mixes are calibrated using the same levels.

Diphenylamine has now superseded N-Nitroso-diphenylamine as a CCC on Quantitation Reports, Initial Calibration Reports, Calibration Check Standard Reports, etc. Previous versions of EPA Method 8270 (prior to 8270C) listed N-Nitroso-diphenylamine as a CCC. However, as stated in EPA Method 8270C, Revision 3, December, 1996, Section 1.4.5, "N-Nitroso-diphenylamine decomposes in the gas chromatographic inlet and cannot be separated from Diphenylamine." Studies of these two compounds at GEL, both independent of each other and together, show that they not only co-elute, but also have similar mass spectra. N-Nitroso-diphenylamine and Diphenylamine will be reported as Diphenylamine on all reports and forms.

The linear equation used in Target and indicated on the initial calibration summary form is not a conventional linear equation (slope intercept formula) and does not match the equation found in SW-846 method 8000B. The x and y axes are inversed in Target, so that the instrument response is treated as the independent variable (x) and the concentration ratio is treated as the dependent variable (y). The equation used in Target to calculate sample results is adjusted to account for the linear equation inversion and reciprocal slope. The adjusted calculation has been independently verified to produce valid results.

Initial Calibration
All initial calibration requirements have been met for this sample delivery group (SDG). A second source initial calibration verification (ICV) was included in the standard section directly behind the initial calibration.

CCV Requirements
All associated calibration verification standard(s) (ICV or CCV) met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Surrogate Recoveries
All the surrogate recoveries were within the established acceptance criteria for this SDG.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

QC Sample Designation
Sample 242785001 (WST03-10-2145) was selected for analysis as the matrix spike and matrix spike duplicate.

Matrix Spike (MS) Recovery Statement
The MS recoveries were within the established acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recoveries were within the established acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD(s) between the MS and MSD met the acceptance limits.

Internal Standard (ISTD) Acceptance
The internal standard responses were within the required acceptance criteria for all samples and QC.

Technical Information:

Holding Time Specifications
All samples in this SDG met the specified holding time. GEL assigns holding times based on the associated methodology that assigns the date and time from sample collection or sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-extraction/Re-analysis
Re-extractions or re-analyses were not required in this SDG except for confirmations and/or dilutions.

Miscellaneous Information:

Nonconformance (NCR) Documentation
Nonconformance reports (NCRs) are generated to document procedural anomalies that may deviate from referenced SOP or contractual documents. A nonconformance report (NCR) was not generated for this SDG.

Manual Integrations
Some initial calibration standards, continuing calibration standards, and/or samples may require manual integrations due to software limitations. Please see the raw data in the Miscellaneous Section.

Additional Comments
Additional comments were not required for this SDG.

Electronic Package Comment
The following package was generated using an electronic data processing program referred to as "virtual packaging". In an effort to increase quality and efficiency, the laboratory is developing systems to eventually generate all data packages electronically. The following change from "traditional" packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. An electronic signature page inserted after the case narrative of each electronic package will indicate the analyst, reviewer, and report specialist names associated with the generation of the data and package. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

System Configuration

The samples reported in this SDG were analyzed on one or more of the following instrument systems. Instrument systems are referenced in the raw data and individual form headers by the Instrument ID designations listed below:

Instrument ID	Instrument	System Configuration	Column ID	Column Description
MSD1.I	HP 5973 Mass Spectrometer	HP6890/HP5973	ZB-5ms	25m x 0.2mm, 0.33um (5% Polysilarylene-95% Polydimethylsiloxane)

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

Reviewer: [illegible] **Date:** 12-22-09

Roadmap for LANL 10-899-1 SVOA

This roadmap was packaged by dan01134 on 12-22-2009, 16:07.
This roadmap was reviewed by dan01134 on 12-22-2009, 16:10.

Sample

exclude	manual	datafile	smpid	injdate	injtime	sublist	clientid	dilution	batchid	comment
☐	N	/chem/MSD1.i/s121909.b/s111924.d	242785001	19-DEC-2009	18:38	10-899-1.sub	WST03-10-2145	1	934629	
☐	N	/chem/MSD1.i/s121909.b/s111927.d	242785002	19-DEC-2009	19:47	10-899-1.sub	WST03-10-2146	1	934629	

QC Sample

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	batchid	comment
☐	N	/chem/MSD1.i/s121909.b/s111910.d	1201996842	tb	19-DEC-2009	13:11	10-899-1.sub	TCLPBLANK	1	934629	
☐	N	/chem/MSD1.i/s121909.b/s111911-1.d	1201999622	mb	19-DEC-2009	13:35	10-899-1.sub	SBLK01	1	934629	
☐	N	/chem/MSD1.i/s121909.b/s111912-1.d	1201999623	lcs	19-DEC-2009	13:58	10-899-1.sub	SBLK01LCS	1	934629	
☐	N	/chem/MSD1.i/s121909.b/s111925.d	1201999624	ms	19-DEC-2009	19:01	10-899-1.sub	WST03-10-2145MS	1	934629	
☐	N	/chem/MSD1.i/s121909.b/s111926.d	1201999625	msd	19-DEC-2009	19:24	10-899-1.sub	WST03-10-2145MSD	1	934629	

Sample Data Summary

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-899-1	**Date Collected:**	12/10/2009 12:00	**Matrix:**	TCLP R
Lab Sample ID:	242785001	**Date Received:**	12/12/2009 09:35		
		Client:	LANL010	**Project:**	LANL01004
Client ID:	WST03-10-2145	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	934629	**Inst:**	MSD1.I	**Dilution:**	1
Run Date:	12/19/2009 18:38	**Analyst:**	AMY	**Inj. Vol:**	.5 uL
Prep Date:	12/18/2009 19:52	**Aliquot:**	200 mL	**Final Volume:**	1 mL
Data File:	s111924.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
106-46-7	1,4-Dichlorobenzene	U	0.050	mg/L	0.010	0.050
121-14-2	2,4-Dinitrotoluene	U	0.050	mg/L	0.010	0.050
87-86-5	Pentachlorophenol	U	0.050	mg/L	0.010	0.050
110-86-1	Pyridine	U	0.050	mg/L	0.015	0.050
95-48-7	o-Cresol	U	0.050	mg/L	0.010	0.050
65794-96-9	m,p-Cresols	U	0.050	mg/L	0.015	0.050
67-72-1	Hexachloroethane	U	0.050	mg/L	0.010	0.050
98-95-3	Nitrobenzene	U	0.050	mg/L	0.015	0.050
87-68-3	Hexachlorobutadiene	U	0.050	mg/L	0.010	0.050
88-06-2	2,4,6-Trichlorophenol	U	0.050	mg/L	0.010	0.050
95-95-4	2,4,5-Trichlorophenol	U	0.050	mg/L	0.010	0.050
118-74-1	Hexachlorobenzene	U	0.050	mg/L	0.010	0.050

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-899-1	**Date Collected:**	12/10/2009 12:00	**Matrix:**	TCLP R
Lab Sample ID:	242785002	**Date Received:**	12/12/2009 09:35		
		Client:	LANL010	**Project:**	LANL01004
Client ID:	WST03-10-2146	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	934629	**Inst:**	MSD1.l	**Dilution:**	1
Run Date:	12/19/2009 19:47	**Analyst:**	AMY	**Inj. Vol:**	.5 uL
Prep Date:	12/18/2009 19:52	**Aliquot:**	200 mL	**Final Volume:**	1 mL
Data File:	s1l1927.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
106-46-7	1,4-Dichlorobenzene	U	0.050	mg/L	0.010	0.050
121-14-2	2,4-Dinitrotoluene	U	0.050	mg/L	0.010	0.050
87-86-5	Pentachlorophenol	U	0.050	mg/L	0.010	0.050
110-86-1	Pyridine	U	0.050	mg/L	0.015	0.050
95-48-7	o-Cresol	U	0.050	mg/L	0.010	0.050
65794-96-9	m,p-Cresols	U	0.050	mg/L	0.015	0.050
67-72-1	Hexachloroethane	U	0.050	mg/L	0.010	0.050
98-95-3	Nitrobenzene	U	0.050	mg/L	0.015	0.050
87-68-3	Hexachlorobutadiene	U	0.050	mg/L	0.010	0.050
88-06-2	2,4,6-Trichlorophenol	U	0.050	mg/L	0.010	0.050
95-95-4	2,4,5-Trichlorophenol	U	0.050	mg/L	0.010	0.050
118-74-1	Hexachlorobenzene	U	0.050	mg/L	0.010	0.050

QC Summary

Semi-Volatile

Surrogate Recovery Report

SDG Number: 10-899-1

Matrix Type: TCLP SOLID

CAP Column (1) : J&W DB-5MS

Sample ID	Client ID	2FP %REC	PHL %REC	NBZ %REC	FBP %REC	TBP %REC	TPH %REC
1201996842	TB for batch 933331	45	28	78	77	90	86
1201999622	MB for batch 934627	48	29	85	84	92	97
1201999623	LCS for batch 934627	45	27	79	79	91	97
242785001	WST03-10-2145	44	28	83	82	81	94
1201999624	WST03-10-2145MS	46	29	81	83	91	98
1201999625	WST03-10-2145MSD	51	33	93	92	104	106
242785002	WST03-10-2146	47	30	89	87	97	114

Surrogate			Acceptance Limits
2FP	=	2-Fluorophenol	(25%-92%)
PHL	=	Phenol-d5	(15%-73%)
NBZ	=	Nitrobenzene-d5	(40%-112%)
FBP	=	2-Fluorobiphenyl	(35%-100%)
TBP	=	2,4,6-Tribromophenol	(39%-115%)
TPH	=	p-Terphenyl-d14	(46%-130%)

* Recovery outside Acceptance Limits

\# Column to be used to flag recovery values

D Sample Diluted

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-899-1
Client ID: LCS for batch 934627
Lab Sample ID: 1201999623
Instrument: MSD1.I
Analyst: AMY
Inj. Vol: .5 uL

Sample Type: Laboratory Control Sample
Matrix: TCLP SOIL
Analysis Date: 12/19/2009 13:58
Dilution: 1
Prep Batch ID: 934627
Batch ID: 934629

CAS No	Parmname		Amount Added mg/L	Sample Conc. mg/L	Spike Conc. mg/L	Recovery %	Acceptance Limits
106-46-7	LCS	1,4-Dichlorobenzene	0.100	0.0	0.0579	58	38-88
121-14-2	LCS	2,4-Dinitrotoluene	0.100	0.0	0.0595	59	55-108
87-86-5	LCS	Pentachlorophenol	0.100	0.0	0.0881	88	44-121
110-86-1	LCS	Pyridine	0.100	0.0	0.0642	64	26-103
95-48-7	LCS	o-Cresol	0.100	0.0	0.0603	60	41-94
65794-96-9	LCS	m,p-Cresols	0.100	0.0	0.054	54	38-96
67-72-1	LCS	Hexachloroethane	0.100	0.0	0.0533	53	35-92
98-95-3	LCS	Nitrobenzene	0.100	0.0	0.0735	73	48-112
87-68-3	LCS	Hexachlorobutadiene	0.100	0.0	0.0651	65	33-98
88-06-2	LCS	2,4,6-Trichlorophenol	0.100	0.0	0.0806	81	54-111
95-95-4	LCS	2,4,5-Trichlorophenol	0.100	0.0	0.0758	76	50-111
118-74-1	LCS	Hexachlorobenzene	0.100	0.0	0.0844	84	53-115

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-899-1
Client ID: WST03-10-2145MS
Lab Sample ID: 1201999624
Instrument: MSD1.I
Analyst: AMY
Inj. Vol: .5 uL

Sample Type: Matrix Spike
Matrix: TCLP R
Analysis Date: 12/19/2009 19:01
Prep Batch ID 934627
Batch ID: 934629
Dilution: 1

CAS No		Parmname	Amount Added mg/L	Sample Conc. mg/L		Spike Conc. mg/L	Recovery %	Acceptance Limits
106-46-7	MS	1,4-Dichlorobenzene	0.500	0.00	U	0.284	57	37-91
121-14-2	MS	2,4-Dinitrotoluene	0.500	0.00	U	0.323	65	50-109
87-86-5	MS	Pentachlorophenol	0.500	0.00	U	0.259	52	38-131
110-86-1	MS	Pyridine	0.500	0.00	U	0.297	59	28-110
95-48-7	MS	o-Cresol	0.500	0.00	U	0.311	62	37-105
65794-96-9	MS	m,p-Cresols	0.500	0.00	U	0.283	57	33-110
67-72-1	MS	Hexachloroethane	0.500	0.00	U	0.265	53	34-95
98-95-3	MS	Nitrobenzene	0.500	0.00	U	0.372	74	43-118
87-68-3	MS	Hexachlorobutadiene	0.500	0.00	U	0.334	67	31-106
88-06-2	MS	2,4,6-Trichlorophenol	0.500	0.00	U	0.406	81	46-114
95-95-4	MS	2,4,5-Trichlorophenol	0.500	0.00	U	0.428	86	46-117
118-74-1	MS	Hexachlorobenzene	0.500	0.00	U	0.413	83	47-120

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-899-1
Client ID: WST03-10-2145MSD
Lab Sample ID: 1201999625
Instrument: MSD1.I
Analyst: AMY
Inj. Vol: .5 uL

Sample Type: Matrix Spike Duplicate
Matrix: TCLP R
Analysis Date: 12/19/2009 19:24
Prep Batch ID: 934627
Batch ID: 934629
Dilution: 1

CAS No	Parmname	Amount Added mg/L	Sample Conc. mg/L		Spike Conc. mg/L	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
106-46-7	MSD 1,4-Dichlorobenzene	0.500	0.00	U	0.331	66	37-91	15	0-25
121-14-2	MSD 2,4-Dinitrotoluene	0.500	0.00	U	0.353	71	50-109	9	0-25
87-86-5	MSD Pentachlorophenol	0.500	0.00	U	0.316	63	38-131	20	0-25
110-86-1	MSD Pyridine	0.500	0.00	U	0.365	73	28-110	20	0-25
95-48-7	MSD o-Cresol	0.500	0.00	U	0.360	72	37-105	15	0-25
65794-96-9	MSD m,p-Cresols	0.500	0.00	U	0.325	65	33-110	14	0-25
67-72-1	MSD Hexachloroethane	0.500	0.00	U	0.297	59	34-95	12	0-25
98-95-3	MSD Nitrobenzene	0.500	0.00	U	0.430	86	43-118	15	0-25
87-68-3	MSD Hexachlorobutadiene	0.500	0.00	U	0.374	75	31-106	12	0-25
88-06-2	MSD 2,4,6-Trichlorophenol	0.500	0.00	U	0.466	93	46-114	14	0-25
95-95-4	MSD 2,4,5-Trichlorophenol	0.500	0.00	U	0.499	100	46-117	15	0-25
118-74-1	MSD Hexachlorobenzene	0.500	0.00	U	0.451	90	47-120	9	0-25

Method Blank Summary

SDG Number:	10-899-1	Client:	LANL010	Matrix:	TCLP SOIL
Client ID:	MB for batch 934627	Instrument ID:	MSD1.I	Data File:	s1l1911-1.d
Lab Sample ID:	1201999622	Prep Date:	12/18/2009 19:52	Analyzed:	12/19/09 13:35
Column:	J&W DB-5MS	Level:	LOW		

This method blank applies to the following samples and quality control samples:

Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01 TB for batch 933331	1201996842	s1l1910.d	12/19/09	1311
02 LCS for batch 934627	1201999623	s1l1912-1.d	12/19/09	1358
03 WST03-10-2145	242785001	s1l1924.d	12/19/09	1838
04 WST03-10-2145MS	1201999624	s1l1925.d	12/19/09	1901
05 WST03-10-2145MSD	1201999625	s1l1926.d	12/19/09	1924
06 WST03-10-2146	242785002	s1l1927.d	12/19/09	1947

Instrument Performance Check

DFTPP

Lab Name GEL Laboratories LLC **Client SDG:** 10-899-1

Instrument ID: MSD1.I **Injection Date/Time:** 14-NOV-09 17:38

Column Description: J&W DB-5MS **Lab File ID** /chem/MSD1.i/s111409.b/s1k1201.d

m/e	Ion Abundance Criteria	% Relative Abundance
198	Base Peak, 100% Relative Abundance	100
51	30 - 60% of mass 198	41.3
68	Less than 2% of mass 69	1.8
69	Mass 69 Relative Abundance	36.7
70	Less than 2% of mass 69	0.6
127	40 - 60% of mass 198	48.3
197	0 - 1% of mass 198	0.7
199	5 - 9% of mass 198	6.6
275	10 - 30% of mass 198	23.3
365	Greater than 1% of mass 198	2.2
441	Present, but less than mass 443	74.2
442	Greater than 40% of mass 198	77.4
443	17 - 23% of mass 442	19.2

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
MEGA001	WBN091111-16	/chem/MSD1.i/s111409.b/s1k120	14-NOV-09 18:22
MEGA010	WBN091111-15	/chem/MSD1.i/s111409.b/s1k120	14-NOV-09 18:51
MEGA020	WBN091111-14	/chem/MSD1.i/s111409.b/s1k120	14-NOV-09 19:21
MEGA040	WBN091111-13.1	/chem/MSD1.i/s111409.b/s1k120	14-NOV-09 19:50
MEGA050	WBN091111-12	/chem/MSD1.i/s111409.b/s1k120	14-NOV-09 20:19
MEGA080	WBN091111-11	/chem/MSD1.i/s111409.b/s1k120	14-NOV-09 20:47
MEGA100	WBN091111-10	/chem/MSD1.i/s111409.b/s1k120	14-NOV-09 21:16
MEGA120	WBN091111-09	/chem/MSD1.i/s111409.b/s1k121	14-NOV-09 21:45

Instrument Performance Check

DFTPP

Lab Name GEL Laboratories LLC **Client SDG:** 10-899-1

Instrument ID: MSD1.I **Injection Date/Time:** 17-NOV-09 15:48

Column Description: J&W DB-5MS **Lab File ID** /chem/MSD1.i/s111409.b/s1k1259.d

m/e	Ion Abundance Criteria	% Relative Abundance
198	Base Peak, 100% Relative Abundance	100
51	30 - 60% of mass 198	44.2
68	Less than 2% of mass 69	1.8
69	Mass 69 Relative Abundance	38.5
70	Less than 2% of mass 69	0.6
127	40 - 60% of mass 198	49.6
197	0 - 1% of mass 198	0.7
199	5 - 9% of mass 198	6.7
275	10 - 30% of mass 198	23.8
365	Greater than 1% of mass 198	2.4
441	Present, but less than mass 443	72.4
442	Greater than 40% of mass 198	78.9
443	17 - 23% of mass 442	19.2

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
MEGAICV	WBN091027-09.3	/chem/MSD1.i/s111409.b/s1k126	17-NOV-09 16:27

Instrument Performance Check

DFTPP

Lab Name GEL Laboratories LLC **Client SDG:** 10-899-1

Instrument ID: MSD1.I **Injection Date/Time:** 19-DEC-09 09:55

Column Description: J&W DB-5MS **Lab File ID** /chem/MSD1.i/s121909.b/s111902.d

m/e	Ion Abundance Criteria	% Relative Abundance
198	Base Peak, 100% Relative Abundance	100
51	30 - 60% of mass 198	43.2
68	Less than 2% of mass 69	1.5
69	Mass 69 Relative Abundance	38
70	Less than 2% of mass 69	0.4
127	40 - 60% of mass 198	47
197	0 - 1% of mass 198	0.7
199	5 - 9% of mass 198	6.7
275	10 - 30% of mass 198	23.9
365	Greater than 1% of mass 198	2.4
441	Present, but less than mass 443	76.5
442	Greater than 40% of mass 198	65.8
443	17 - 23% of mass 442	18.8

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
MEGACVS	WBN091201-17.4	/chem/MSD1.i/s121909.b/s111903	19-DEC-09 10:10
TCLPBLANK	1201996842	/chem/MSD1.i/s121909.b/s111910	19-DEC-09 13:11
SBLK01	1201999622	/chem/MSD1.i/s121909.b/s111911	19-DEC-09 13:35
SBLK01LCS	1201999623	/chem/MSD1.i/s121909.b/s111912	19-DEC-09 13:58
WST03-10-2145	242785001	/chem/MSD1.i/s121909.b/s111924	19-DEC-09 18:38
WST03-10-2145MS	1201999624	/chem/MSD1.i/s121909.b/s111925	19-DEC-09 19:01
WST03-10-2145MSD	1201999625	/chem/MSD1.i/s121909.b/s111926	19-DEC-09 19:24
WST03-10-2146	242785002	/chem/MSD1.i/s121909.b/s111927	19-DEC-09 19:47

Internal Standard
Area and RT Summary

Lab Name : GEL Laboratories LLC

Client SDG: 10-899-1

Instrument: MSD1.I

STD Analysis Time: 19-DEC-09 10:10

GC Column: J&W DB-5MS

Data File: s111903.d

	1,4-Dichlorobenzene-d4			Naphthalene-d8			Acenaphthene-d10			Phenanthrene-d10			Chrysene-d12			Perylene-d12		
	Area	#	RT #	Area	#	RT #	Area	#	RT #	Area	#	RT #	Area	#	RT #	Area	#	RT #
12 Hour STD	850761		3.7	3384637		4.56	1782041		5.8	3038058		6.8	2655368		8.4	2298083		9.7
Upper Limit	1701522		4.2	6769274		5.06	3564082		6.3	6076116		7.3	5310736		8.9	4596166		10.2
Lower Limit	425381		3.2	1692319		4.06	891021		5.3	1519029		6.3	1327684		7.9	1149042		9.2
Sample ID																		
TBLK01	722183		3.7	2786714		4.56	1555467		5.8	2702067		6.8	2481483		8.4	2173414		9.7
BLK01	695180		3.7	2589432		4.56	1424159		5.8	2465667		6.8	2131203		8.4	1831685		9.7
BLK01LCS	812253		3.7	3097226		4.56	1703620		5.8	2865709		6.8	2459665		8.4	2102884		9.7
WST03-10-2145	784920		3.7	2970350		4.56	1618224		5.8	2751070		6.8	2482822		8.4	2087987		9.7
WST03-10-2145MS	848736		3.7	3205496		4.56	1744806		5.8	3042616		6.8	2645321		8.4	2123494		9.7
WST03-10-2145MSD	687765		3.7	2652248		4.56	1471821		5.8	2544674		6.8	2239420		8.4	1883395		9.7
WST03-10-2146	787829		3.7	2960511		4.56	1603214		5.8	2700953		6.8	2107474		8.4	1568034		9.7

Area Upper Limit = +100% of internal standard area
Area Lower Limit = - 50% of internal standard area

RT Upper Limit = + 0.50 minutes of internal standard RT
RT Lower Limit = - 0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Value outside of QC Limits

Sample Data

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-899-1**	**Date Collected:**	**12/10/2009 12:00**	**Matrix:**	**TCLP R**
Lab Sample ID:	**242785001**	**Date Received:**	**12/12/2009 09:35**		
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**WST03-10-2145**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**934629**	**Inst:**	**MSD1.I**	**Dilution:**	**1**
Run Date:	**12/19/2009 18:38**	**Analyst:**	**AMY**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/18/2009 19:52**	**Aliquot:**	**200 mL**	**Final Volume:**	**1 mL**
Data File:	**s111924.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
106-46-7	1,4-Dichlorobenzene	U	0.050	mg/L	0.010	0.050
121-14-2	2,4-Dinitrotoluene	U	0.050	mg/L	0.010	0.050
87-86-5	Pentachlorophenol	U	0.050	mg/L	0.010	0.050
110-86-1	Pyridine	U	0.050	mg/L	0.015	0.050
95-48-7	o-Cresol	U	0.050	mg/L	0.010	0.050
65794-96-9	m,p-Cresols	U	0.050	mg/L	0.015	0.050
67-72-1	Hexachloroethane	U	0.050	mg/L	0.010	0.050
98-95-3	Nitrobenzene	U	0.050	mg/L	0.015	0.050
87-68-3	Hexachlorobutadiene	U	0.050	mg/L	0.010	0.050
88-06-2	2,4,6-Trichlorophenol	U	0.050	mg/L	0.010	0.050
95-95-4	2,4,5-Trichlorophenol	U	0.050	mg/L	0.010	0.050
118-74-1	Hexachlorobenzene	U	0.050	mg/L	0.010	0.050

GEL Laboratories LLC

Data file : /chem/MSD1.i/s121909.b/s111924.d
Lab Smp Id: 242785001 Client Smp ID: WST03-10-2145
Inj Date : 19-DEC-2009 18:38
Operator : AMY Inst ID: MSD1.i
Smp Info : |242785001|934629|1|SVMF|1|LANL
Misc Info : |MSDTCLP_L|WBN091128-02|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD1.i/s121909.b/MSD1-M8270AQA-111409.m
Meth Date : 20-Dec-2009 13:59 amy01291 Quant Type: ISTD
Cal Date : 17-NOV-2009 17:42 Cal File: s1k1264.d
Als bottle: 23
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-899-1.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vo *Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	0.50000	ng unit correction factor
Vt	1.00000	volume of final ext
Vo	200.00000	volume of sample ext
Vi	0.50000	volume injected

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (mg/L)
* 10 1,4-Dichlorobenzene-d4	152	3.698	3.698	(1.000)	784920	40.0000	
* 29 Naphthalene-d8	136	4.557	4.563	(1.000)	2970350	40.0000	
* 46 Acenaphthene-d10	164	5.798	5.804	(1.000)	1618224	40.0000	
* 67 Phenanthrene-d10	188	6.798	6.798	(1.000)	2751070	40.0000	
* 91 Chrysene-d12	240	8.398	8.404	(1.000)	2482822	40.0000	
* 98 Perylene-d12	264	9.704	9.704	(1.000)	2087987	40.0000	
$ 3 2-Fluorophenol	112	2.910	2.904	(0.787)	899126	43.8559	0.22
$ 5 Phenol-d5	99	3.440	3.434	(0.930)	709702	28.4815	0.14
$ 20 Nitrobenzene-d5	82	4.063	4.063	(0.892)	813567	41.5618	0.21
$ 39 2-Fluorobiphenyl	172	5.298	5.298	(0.914)	1581422	40.8041	0.20
$ 60 2,4,6-Tribromophenol	329	6.345	6.345	(1.094)	366220	81.0462	0.40
$ 81 p-Terphenyl-d14	244	7.716	7.716	(0.919)	1837763	47.1554	0.24

ION RATIO REPORT

SV REPORT

Data file: s111924.d
Report Date: 12/20/2009 14:22
Lab. ID: 242785001 SampleType: SAMPLE
Injection Date: 19-DEC-2009 18:38
Operator: AMY Instrument: MSD1.i
Sample Info: |242785001|934629|1|SVMF|1|LANL
Miscellaneous Info: |MSDTCLP_L|WBN091128-02|
Comment:
Method used: /chem/MSD1.i/s121909.b/MSD1-M8270AQA-111409.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-899-1
Sample Matrix: WATER

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
50	2,4-Dinitrotoluene			CAS#: 121-14-2		
165	207797	5.80	5.92	80-120	100	(T)
89	2844	5.80	5.92	43-103	1	(QT)
63	9742	5.79	5.92	21- 81	5	(QT)

Q qualifier indicates ion failed ratio requirement

Data File: /chem/MSD1.i/s121909.b/s111924.d
Date : 19-DEC-2009 18:38
Client ID: WST03-10-2145
Sample Info: |2427850011934629|1|SVMF|1|LANL
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Page 1

Instrument: MSD1.i

Operator: AMY
Column diameter: 0.20

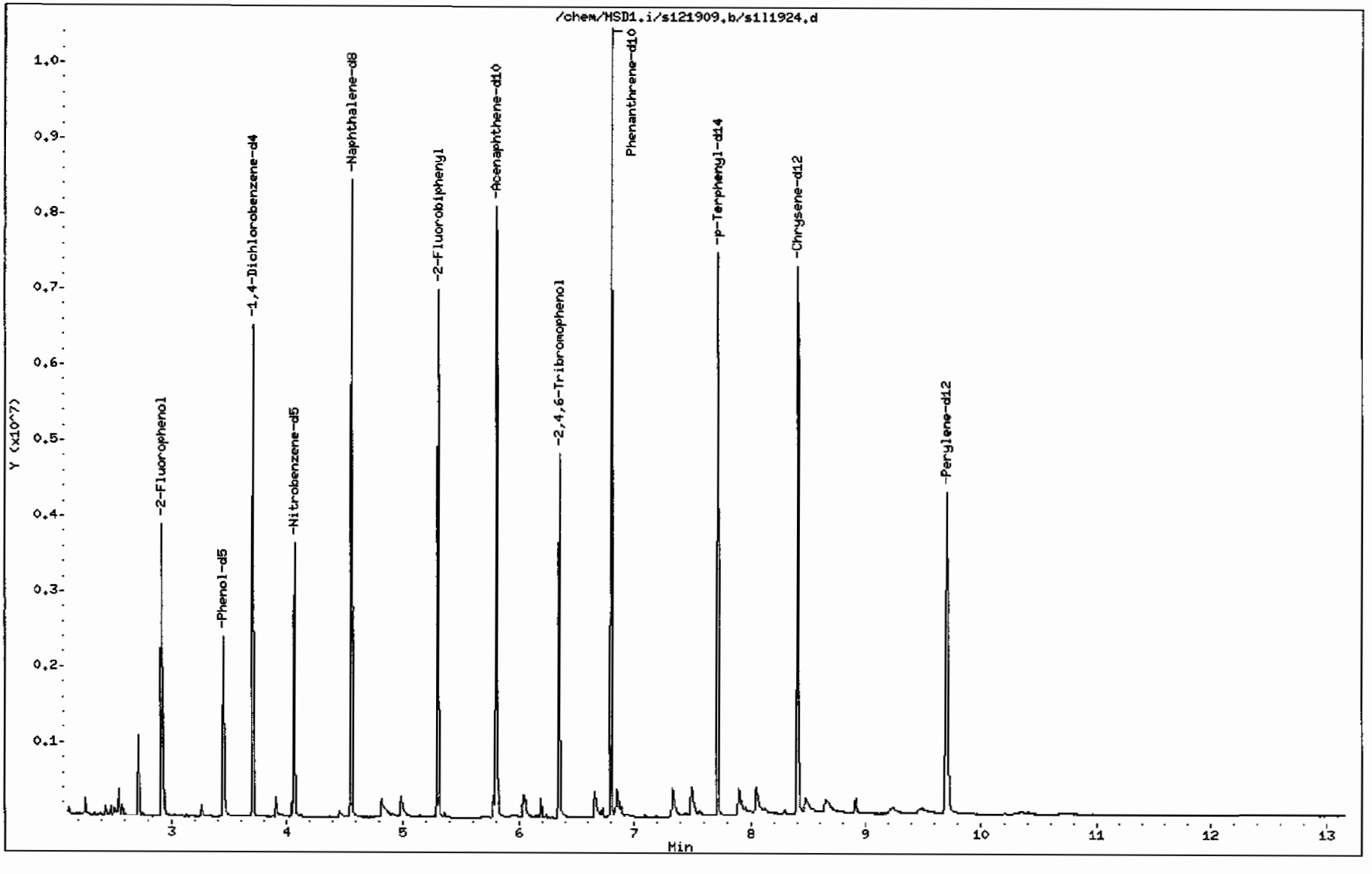

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-899-1	Date Collected:	12/10/2009 12:00	Matrix:	TCLP R
Lab Sample ID:	242785002	Date Received:	12/12/2009 09:35		
		Client:	LANL010	Project:	LANL01004
Client ID:	WST03-10-2146	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	934629	Inst:	MSD1.I	Dilution:	1
Run Date:	12/19/2009 19:47	Analyst:	AMY	Inj. Vol:	.5 uL
Prep Date:	12/18/2009 19:52	Aliquot:	200 mL	Final Volume:	1 mL
Data File:	s1l1927.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
106-46-7	1,4-Dichlorobenzene	U	0.050	mg/L	0.010	0.050
121-14-2	2,4-Dinitrotoluene	U	0.050	mg/L	0.010	0.050
87-86-5	Pentachlorophenol	U	0.050	mg/L	0.010	0.050
110-86-1	Pyridine	U	0.050	mg/L	0.015	0.050
95-48-7	o-Cresol	U	0.050	mg/L	0.010	0.050
65794-96-9	m,p-Cresols	U	0.050	mg/L	0.015	0.050
67-72-1	Hexachloroethane	U	0.050	mg/L	0.010	0.050
98-95-3	Nitrobenzene	U	0.050	mg/L	0.015	0.050
87-68-3	Hexachlorobutadiene	U	0.050	mg/L	0.010	0.050
88-06-2	2,4,6-Trichlorophenol	U	0.050	mg/L	0.010	0.050
95-95-4	2,4,5-Trichlorophenol	U	0.050	mg/L	0.010	0.050
118-74-1	Hexachlorobenzene	U	0.050	mg/L	0.010	0.050

GEL Laboratories LLC

Data file : /chem/MSD1.i/s121909.b/s111927.d
Lab Smp Id: 242785002 Client Smp ID: WST03-10-2146
Inj Date : 19-DEC-2009 19:47
Operator : AMY Inst ID: MSD1.i
Smp Info : |242785002|934629|1|SVMF|1|LANL
Misc Info : |MSDTCLP_L|WBN091128-02|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD1.i/s121909.b/MSD1-M8270AQA-111409.m
Meth Date : 20-Dec-2009 13:59 amy01291 Quant Type: ISTD
Cal Date : 17-NOV-2009 17:42 Cal File: s1k1264.d
Als bottle: 26
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-899-1.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vo *Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	0.50000	ng unit correction factor
Vt	1.00000	volume of final ext
Vo	200.00000	volume of sample ext
Vi	0.50000	volume injected

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (mg/L)
* 10 1,4-Dichlorobenzene-d4	152	3.698	3.698	(1.000)	787829	40.0000	
* 29 Naphthalene-d8	136	4.557	4.563	(1.000)	2960511	40.0000	
* 46 Acenaphthene-d10	164	5.798	5.804	(1.000)	1603214	40.0000	
* 67 Phenanthrene-d10	188	6.798	6.798	(1.000)	2700953	40.0000	
* 91 Chrysene-d12	240	8.398	8.404	(1.000)	2107474	40.0000	
* 98 Perylene-d12	264	9.704	9.704	(1.000)	1568034	40.0000	
$ 3 2-Fluorophenol	112	2.910	2.904	(0.787)	965262	46.9080	0.23
$ 5 Phenol-d5	99	3.440	3.434	(0.930)	754281	30.1588	0.15
$ 20 Nitrobenzene-d5	82	4.063	4.063	(0.892)	869715	44.5778	0.22
$ 39 2-Fluorobiphenyl	172	5.298	5.298	(0.914)	1663750	43.3303	0.22
$ 60 2,4,6-Tribromophenol	329	6.345	6.345	(1.094)	433350	96.8002	0.48
$ 81 p-Terphenyl-d14	244	7.716	7.716	(0.919)	1882501	56.9063	0.28

ION RATIO REPORT

SV REPORT

Data file: s111927.d
Report Date: 12/20/2009 14:22
Lab. ID: 242785002 SampleType: SAMPLE
Injection Date: 19-DEC-2009 19:47
Operator: AMY Instrument: MSD1.i
Sample Info: |242785002|934629|1|SVMF|1|LANL
Miscellaneous Info: |MSDTCLP_L|WBN091128-02|
Comment:
Method used: /chem/MSD1.i/s121909.b/MSD1-M8270AQA-111409.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-899-1
Sample Matrix: WATER

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
50	2,4-Dinitrotoluene			CAS#: 121-14-2		
165	205536	5.80	5.92	80-120	100	(T)
89	2677	5.80	5.92	43-103	1	(QT)
63	2385	5.80	5.92	21- 81	1	(QT)

Q qualifier indicates ion failed ratio requirement

Data File: /chem/MSD1.i/s121909.b/s111927.d
Date : 19-DEC-2009 19:47
Client ID: WST03-10-2146
Sample Info: |2427850021934629|1|SVMF|1|LANL
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

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Instrument: MSD1.i

Operator: AMY
Column diameter: 0.20

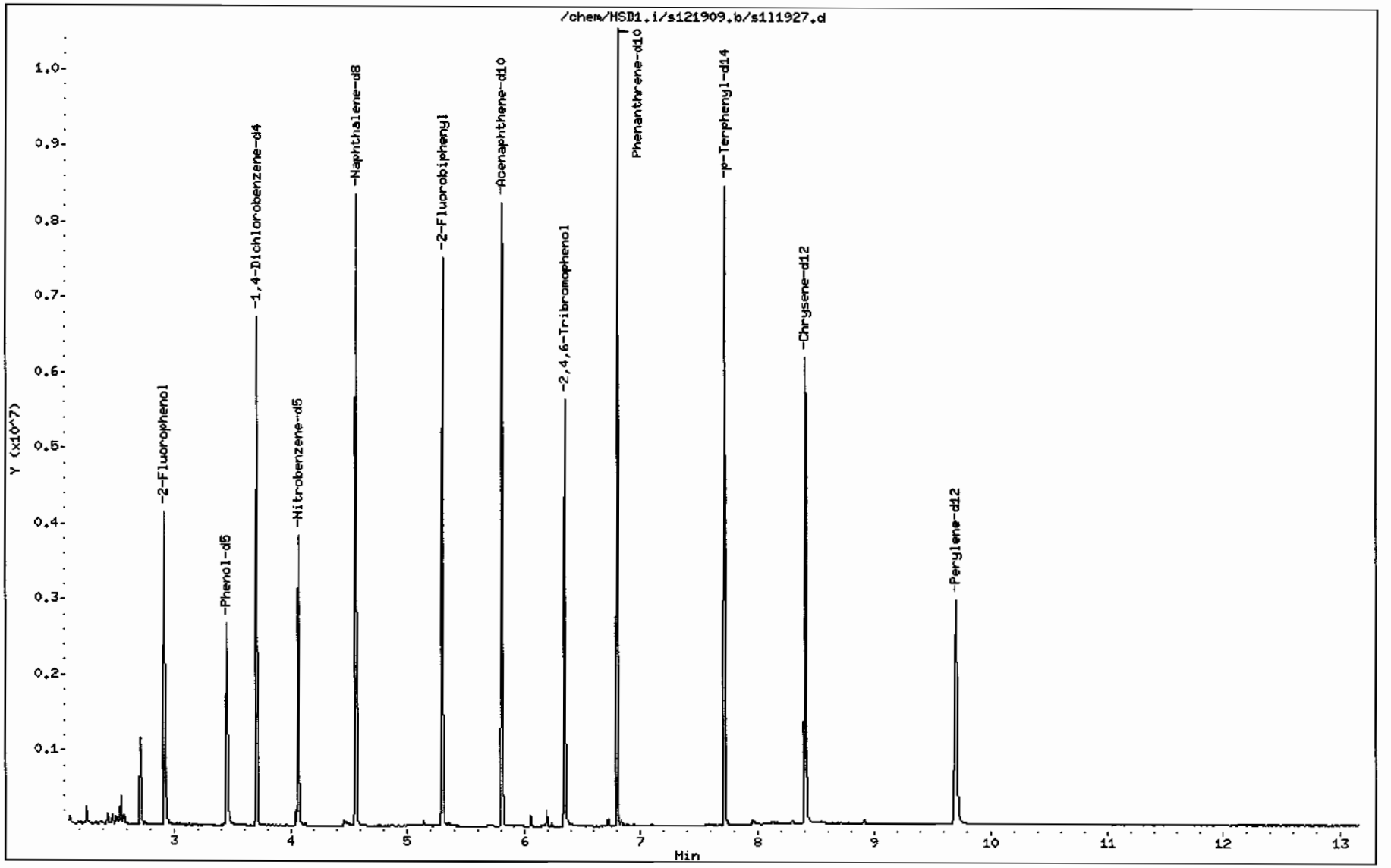

Standard Data

SW846 8270C//8270D/EPA 625								
Calibration Standard Concentration Levels*								
	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
1,4-Dichlorobenzene-d4 (INTERNAL STANDARD)								
Naphthalene-d8 (INTERNAL STANDARD)								
Acenaphthene-d10 (INTERNAL STANDARD)								
Phenanthrene-d10 (INTERNAL STANDARD)								
Chrysene-d12 (INTERNAL STANDARD)								
Perylene-d12 (INTERNAL STANDARD)								
2-Fluorophenol (SURROGATE)		10	20	40	50	80	100	120
Phenol-d5 (SURROGATE)		10	20	40	50	80	100	120
2-Chlorophenol-d4 (CLP SURROGATE)		10	20	40	50	80	100	120
1,2-Dichlorobenzene-d4 (CLP SURROGATE)		10	20	40	50	80	100	120
Nitrobenzene-d5 (SURROGATE)		10	20	40	50	80	100	120
2-Fluorobiphenyl (SURROGATE)		10	20	40	50	80	100	120
2,4,6-Tribromophenol (SURROGATE)		10	20	40	50	80	100	120
p-Terphenyl-d14 (SURROGATE)		10	20	40	50	80	100	120
N-Nitrosodimethylamine		10	20	40	50	80	100	120
Pyridine		10	20	40	50	80	100	120
Aniline		10	20	40	50	80	100	120
Benzaldehyde		10	20	40	50	80	100	120
Phenol		10	20	40	50	80	100	120
bis(2-Chloroethyl)ether	1	10	20	40	50	80	100	120
2-Chlorophenol		10	20	40	50	80	100	120
n-Decane		10	20	40	50	80	100	120
1,3-Dichlorobenzene		10	20	40	50	80	100	120
1,4-Dichlorobenzene		10	20	40	50	80	100	120
Benzyl Alcohol		10	20	40	50	80	100	120
1,2-Dichlorobenzene		10	20	40	50	80	100	120
bis(2-Chloroisopropyl)ether		10	20	40	50	80	100	120
o-Cresol (2-Methylphenol)		10	20	40	50	80	100	120
Acetophenone		10	20	40	50	80	100	120
N-Nitrosodipropylamine	1	10	20	40	50	80	100	120
m,p-Cresols (3-Methylphenol & 4-Methylphenol)		10	20	40	50	80	100	120
Hexachloroethane		10	20	40	50	80	100	120
Nitrobenzene		10	20	40	50	80	100	120
Isophorone		10	20	40	50	80	100	120
2-Nitrophenol		10	20	40	50	80	100	120
2,4-Dimethylphenol		10	20	40	50	80	100	120
bis(2-Chloroethoxy)methane		10	20	40	50	80	100	120
2,4-Dichlorophenol		10	20	40	50	80	100	120
Benzoic Acid			20	40	50	80	100	120
1,2,4-Trichlorobenzene		10	20	40	50	80	100	120
Naphthalene	1	10	20	40	50	80	100	120
alpha-Terpineol		10	20	40	50	80	100	120
4-Chloroaniline		10	20	40	50	80	100	120
Caprolactam		10	20	40	50	80	100	120

SW846 8270C//8270D/EPA 625								
Calibration Standard Concentration Levels*								
	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Hexachlorobutadiene		10	20	40	50	80	100	120
4-Chloro-3-methylphenol		10	20	40	50	80	100	120

2-Methylnaphthalene	1	10	20	40	50	80	100	120
1-Methylnaphthalene	1	10	20	40	50	80	100	120
Hexachlorocyclopentadiene		10	20	40	50	80	100	120
1,1'-Biphenyl		10	20	40	50	80	100	120
2,3-Dichloroaniline		10	20	40	50	80	100	120
2,4,6-Trichlorophenol		10	20	40	50	80	100	120
2,4,5-Trichlorophenol		10	20	40	50	80	100	120
2-Chloronaphthalene	1	10	20	40	50	80	100	120
o-Nitroaniline		10	20	40	50	80	100	120
m-Nitroaniline		10	20	40	50	80	100	120
Dimethylphthalate	1	10	20	40	50	80	100	120
2,6-Dinitrotoluene		10	20	40	50	80	100	120
Acenaphthylene	1	10	20	40	50	80	100	120
Acenaphthene	1	10	20	40	50	80	100	120
2,4-Dinitrophenol			20	40	50	80	100	120
Dibenzofuran		10	20	40	50	80	100	120
2,4-Dinitrotoluene		10	20	40	50	80	100	120
Diethylphthalate	1	10	20	40	50	80	100	120
4-Nitrophenol		10	20	40	50	80	100	120
Fluorene	1	10	20	40	50	80	100	120
4-Chlorophenyl phenyl ether		10	20	40	50	80	100	120
2-Methyl-4,6-dinitrophenol		10	20	40	50	80	100	120
p-Nitroaniline		10	20	40	50	80	100	120
Diphenylamine		10	20	40	50	80	100	120
1,2-Diphenylhydrazine		10	20	40	50	80	100	120
Tributylphosphate		10	20	40	50	80	100	120
4-Bromophenyl phenyether		10	20	40	50	80	100	120
Hexachlorobenzene		10	20	40	50	80	100	120
Atrazine		10	20	40	50	80	100	120
Pentachlorophenol		10	20	40	50	80	100	120
n-Octadecane		10	20	40	50	80	100	120
Phenanthrene	1	10	20	40	50	80	100	120
Anthracene	1	10	20	40	50	80	100	120
Di-n-butylphthalate	1	10	20	40	50	80	100	120
Fluoranthene	1	10	20	40	50	80	100	120
Benzidine		10	20	40	50	80	100	120
Pyrene	1	10	20	40	50	80	100	120
Butylbenzylphthalate	1	10	20	40	50	80	100	120
Benzo(a)anthracene	1	10	20	40	50	80	100	120
3,3'-Dichlorobenzidene		10	20	40	50	80	100	120
Chrysene	1	10	20	40	50	80	100	120
bis (2-Ethylhexyl) phthalate	1	10	20	40	50	80	100	120
Di-n-octylphthalate	1	10	20	40	50	80	100	120

SW846 8270C//8270D/EPA 625								
Calibration Standard Concentration Levels*								
	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Benzo(b)fluoranthene	1	10	20	40	50	80	100	120
Benzo(k)fluoranthene	1	10	20	40	50	80	100	120
Benzo(a)pyrene	1	10	20	40	50	80	100	120
Indeno-(1,2,3-cd)pyrene	1	10	20	40	50	80	100	120
Dibenzo(a,h)anthracene	1	10	20	40	50	80	100	120
Benzo(ghi)perylene	1	10	20	40	50	80	100	120
Carbazole	1	10	20	40	50	80	100	120

APPENDIX IX

1,4-Dioxane		10	20	40	50	80	100	120
Methyl methacrylate		10	20	40	50	80	100	120
Ethyl methacrylate		10	20	40	50	80	100	120
2-Picoline		10	20	40	50	80	100	120
N-Nitrosomethylethylamine		10	20	40	50	80	100	120
Methyl methanesulfonate		10	20	40	50	80	100	120
N-Nitrosodiethylamine		10	20	40	50	80	100	120
Ethyl methanesulfonate		10	20	40	50	80	100	120
Pentachloroethane		10	20	40	50	80	100	120
N-Nitrosopyrrolidine		10	20	40	50	80	100	120
N-Nitrosomorpholine		10	20	40	50	80	100	120
o-Toluidine		10	20	40	50	80	100	120
N-Nitrosopiperidine		10	20	40	50	80	100	120
a,a-Dimethhylphenethylamine		10	20	40	50	80	100	120
Triethylphosphorothioate		10	20	40	50	80	100	120
2,6-Dichlorophenol		10	20	40	50	80	100	120
Hexachloropropene		10	20	40	50	80	100	120
p-Phenylenediamine		10	20	40	50	80	100	120
N-Nitrosodi-n-butylamine		10	20	40	50	80	100	120
Safrole		10	20	40	50	80	100	120
1,2,4,5-Tetrachlorobenzene		10	20	40	50	80	100	120
Isosafrole		10	20	40	50	80	100	120
1,4-Naphthoquinone		10	20	40	50	80	100	120
m-Dinitrobenzene		10	20	40	50	80	100	120
Pentachlorobenzene		10	20	40	50	80	100	120
1-Naphthylamine		10	20	40	50	80	100	120
2-Naphthylamine		10	20	40	50	80	100	120
2,3,4,6-Tetrachlorophenol		10	20	40	50	80	100	120
5-Nitro-o-toluidine		10	20	40	50	80	100	120
Thionazin		10	20	40	50	80	100	120
Sulfotepp		10	20	40	50	80	100	120
Phorate		10	20	40	50	80	100	120
1,3,5-Trinitrobenzene		10	20	40	50	80	100	120
Phenacetin		10	20	40	50	80	100	120
Diallate (cis and trans)		10	20	40	50	80	100	120

SW846 8270C//8270D/EPA 625

Calibration Standard Concentration Levels*

	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Dimethoate		10	20	40	50	80	100	120
4-Aminobiphenyl		10	20	40	50	80	100	120
Pentachloronitrobenzene		10	20	40	50	80	100	120
Pronamide		10	20	40	50	80	100	120
Dinoseb		10	20	40	50	80	100	120
Disulfoton		10	20	40	50	80	100	120
Methyl parathion		10	20	40	50	80	100	120
4-Nitroquinoline oxide		10	20	40	50	80	100	120
Methapyrilene		10	20	40	50	80	100	120
Isodrin		10	20	40	50	80	100	120
Aramite		10	20	40	50	80	100	120
Kepone		10	20	40	50	80	100	120
p-(Dimethylamino)azobenzene		10	20	40	50	80	100	120

Chlorobenzilate		10	20	40	50	80	100	120
3,3'-Dimethylbenzidine		10	20	40	50	80	100	120
Famphur		10	20	40	50	80	100	120
2-Acetylaminofluorene		10	20	40	50	80	100	120
7,12-Dimethylbenz(a)anthracene		10	20	40	50	80	100	120
3-Methylcholanthrene		10	20	40	50	80	100	120
Hexachlorophene		500	1000	1250	1500	1750	2000	
p-Benzoquinone		10	20	40	50	80	100	120
Parathion		10	20	40	50	80	100	120
Methoxychlor		10	20	40	50	80	100	120
2-Ethoxyethanol		50	75	100	125	150	200	250
cis-Diallate		1.5	3	6	7.5	12	15	18
trans-Diallate		8.5	17	34	42	68	85	102
Dibenzo(a,e)pyrene		50	75	100	125	150	200	250
Phthalic anhydride		50	75	100	125	150	200	250
1,4-Dinitrobenzene		50	75	100	125	150	200	250
(2,3-Dibromopropyl)phosphate		50	75	100	125	150	200	250
Methylenebis(2-chloroaniline)		50	75	100	125	150	200	250
p-Toluidine		10	20	40	50	80	100	120
m-Toluidine		10	20	40	50	80	10	120

SW846 8270C//8270D/EPA 625								
Calibration Standard Concentration Levels*								
	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
bis(Chloromethyl)ether		10	20	40	50	80	100	120
Thiophenol		10	20	40	50	80	100	120
4-Chlorothiophenol		10	20	40	50	80	100	120
4-Chlorothio anisole		10	20	40	50	80	100	120
Phthalic acid		10	20	40	50	80	100	120
Hydroxymethyl phthalamide		10	20	40	50	80	100	120
Diphenyl sulfide		10	20	40	50	80	100	120
Diphenyl disulfide		10	20	40	50	80	100	120
Phenyl sulfone		10	20	40	50	80	100	120
Octachlorostyrene		10	20	40	50	80	100	120
2,2'-Dichlorobenzil		10	20	40	50	80	100	120
bis(p-Chlorophenyl)disulfide		10	20	40	50	80	100	120
bis(p-Chlorophenyl)sulfone		10	20	40	50	80	10	120

All values are mg/L without the prep factor.
# Indicates the calibration verification concentration level used
* Usual calibration levels using SCAN methodology
Level 1 may be included at request of client
(06/08)

Report Date: 20-Dec-2009 13:52

Calibration History

Method : /chem/MSD1.i/s121909.b/MSD1-M8270AQA-111409.m
Start Cal Date: 14-NOV-2009 18:22
End Cal Date : 17-NOV-2009 19:15

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 1.00000		
14-NOV-2009 18:22	MEGAIICARE	/chem/MSD1.i/s111409.b/s1k1203.d
Cal Level: 2 , Cal Amount: 10.00000		
17-NOV-2009 16:56	nev	/chem/MSD1.i/s111409.b/s1k1262.d
15-NOV-2009 20:55	hex	/chem/MSD1.i/s111409.b/s1k1229.d
15-NOV-2009 18:11	pest	/chem/MSD1.i/s111409.b/s1k1222.d
15-NOV-2009 15:28	ap12	/chem/MSD1.i/s111409.b/s1k1215.d
14-NOV-2009 18:51	MEGAIICARE	/chem/MSD1.i/s111409.b/s1k1204.d
Cal Level: 3 , Cal Amount: 20.00000		
17-NOV-2009 17:19	nev	/chem/MSD1.i/s111409.b/s1k1263.d
15-NOV-2009 21:18	hex	/chem/MSD1.i/s111409.b/s1k1230.d
15-NOV-2009 18:35	pest	/chem/MSD1.i/s111409.b/s1k1223.d
15-NOV-2009 15:51	ap12	/chem/MSD1.i/s111409.b/s1k1216.d
14-NOV-2009 19:21	MEGAIICARE	/chem/MSD1.i/s111409.b/s1k1205.d
Cal Level: 4 , Cal Amount: 40.00000		
17-NOV-2009 17:42	nev	/chem/MSD1.i/s111409.b/s1k1264.d
15-NOV-2009 21:42	hex	/chem/MSD1.i/s111409.b/s1k1231.d
15-NOV-2009 18:58	pest	/chem/MSD1.i/s111409.b/s1k1224.d
15-NOV-2009 16:14	ap12	/chem/MSD1.i/s111409.b/s1k1217.d
14-NOV-2009 19:50	MEGAIICARE	/chem/MSD1.i/s111409.b/s1k1206.d
Cal Level: 5 , Cal Amount: 50.00000		
17-NOV-2009 18:05	nev	/chem/MSD1.i/s111409.b/s1k1265.d
15-NOV-2009 22:06	hex	/chem/MSD1.i/s111409.b/s1k1232.d
15-NOV-2009 19:21	pest	/chem/MSD1.i/s111409.b/s1k1225.d
15-NOV-2009 16:38	ap12	/chem/MSD1.i/s111409.b/s1k1218.d
14-NOV-2009 20:19	MEGAIICARE	/chem/MSD1.i/s111409.b/s1k1207.d
Cal Level: 6 , Cal Amount: 80.00000		
17-NOV-2009 18:28	nev	/chem/MSD1.i/s111409.b/s1k1266.d
15-NOV-2009 22:30	hex	/chem/MSD1.i/s111409.b/s1k1233.d
15-NOV-2009 19:45	pest	/chem/MSD1.i/s111409.b/s1k1226.d
15-NOV-2009 17:01	ap12	/chem/MSD1.i/s111409.b/s1k1219.d
14-NOV-2009 20:47	MEGAIICARE	/chem/MSD1.i/s111409.b/s1k1208.d
Cal Level: 7 , Cal Amount: 100.00000		

17-NOV-2009 18:52	nev	/chem/MSD1.i/s111409.b/s1k1267.d
15-NOV-2009 22:53	hex	/chem/MSD1.i/s111409.b/s1k1234.d
15-NOV-2009 20:09	pest	/chem/MSD1.i/s111409.b/s1k1227.d
15-NOV-2009 17:24	ap12	/chem/MSD1.i/s111409.b/s1k1220.d
14-NOV-2009 21:16	MEGAIICARE	/chem/MSD1.i/s111409.b/s1k1209.d

Cal Level: 8 , Cal Amount: 120.00000		
17-NOV-2009 19:15	nev	/chem/MSD1.i/s111409.b/s1k1268.d
15-NOV-2009 20:31	pest	/chem/MSD1.i/s111409.b/s1k1228.d
15-NOV-2009 17:47	ap12	/chem/MSD1.i/s111409.b/s1k1221.d
14-NOV-2009 21:45	MEGAIICARE	/chem/MSD1.i/s111409.b/s1k1210.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 40.0		
19-DEC-2009 11:02	pest	/chem/MSD1.i/s121909.b/s111905.d
Ccal Level: 4 , Ccal Amount: 40.0		
19-DEC-2009 10:38	ap12	/chem/MSD1.i/s121909.b/s111904.d
Ccal Level: 4 , Ccal Amount: 40.0		
19-DEC-2009 10:10	MEGAIICARE	/chem/MSD1.i/s121909.b/s111903.d

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 14-NOV-2009 18:22
End Cal Date : 17-NOV-2009 19:15
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD1.i/s121909.b/MSD1-M8270AQA-111409.m
Cal Date : 20-Dec-2009 13:50 amy01291

Calibration File Names:
Level 1: /chem/MSD1.i/s111409.b/s1k1203.d
Level 2: /chem/MSD1.i/s111409.b/s1k1262.d
Level 3: /chem/MSD1.i/s111409.b/s1k1263.d
Level 4: /chem/MSD1.i/s111409.b/s1k1264.d
Level 5: /chem/MSD1.i/s111409.b/s1k1265.d
Level 6: /chem/MSD1.i/s111409.b/s1k1266.d
Level 7: /chem/MSD1.i/s111409.b/s1k1267.d
Level 8: /chem/MSD1.i/s111409.b/s1k1268.d

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
1 N-Methyl-N-nitrosomethylamine	+++++	0.54039	0.59425	0.56483	0.56773	0.57115					
	0.58358	0.54985					AVRG		0.56740		3.25055
2 Pyridine	+++++	0.93895	1.06231	1.03607	0.88870	0.86312					
	1.01434	0.86615					AVRG		0.95281		8.83991
4 Aniline	+++++	0.52437	0.56877	0.55954	0.56752	0.56439					
	0.57920	0.54312					AVRG		0.55813		3.31324
209 Benzaldehyde	+++++	0.85863	0.89515	0.82459	0.84178	+++++					
	0.78498	0.73887					AVRG		0.82400		6.72378
6 Phenol	+++++	1.30044	1.37922	1.37450	1.34330	1.33206					
	1.36293	1.27353					AVRG		1.33800		2.93989

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Cal Date : 20-Dec-2009 13:50 amy01291

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
7 bis(2-Chloroethyl) ether	0.97066	0.92013	0.97374	0.95071	0.94120	0.92474					
	0.92138	0.84393					AVRG		0.93081		4.39644
8 2-Chlorophenol	+++++	1.10018	1.18374	1.15316	1.14675	1.13425					
	1.15576	1.08633					AVRG		1.13717		2.96542
203 n-Decane	+++++	1.60577	1.68138	1.52755	1.45137	1.35767					
	1.27260	1.12485					AVRG		1.43160		13.59167
9 1,3-Dichlorobenzene	+++++	1.34153	1.44138	1.36782	1.35778	1.32788					
	1.29449	1.20929					AVRG		1.33431		5.33878
11 1,4-Dichlorobenzene	+++++	1.33212	1.41388	1.35420	1.32607	1.29299					
	1.26993	1.16675					AVRG		1.30799		5.91221
12 Benzyl alcohol	+++++	0.65002	0.69243	0.70051	0.67929	0.68651					
	0.73179	0.69932					AVRG		0.69141		3.57264
13 1,2-Dichlorobenzene	+++++	1.29605	1.34639	1.26381	1.21944	1.15866					
	1.13607	1.03545					AVRG		1.20798		8.78247
14 bis(2-Chloroisopropyl)ether	+++++	2.32509	2.42028	2.31148	2.26329	2.15456					
	2.11135	1.93355					AVRG		2.21709		7.35350
15 o-Cresol	+++++	0.90774	0.91911	0.87727	0.85502	0.81471					
	0.80779	0.74384					AVRG		0.84650		7.32849

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
16 Acetophenone	+++++	1.16435	1.20208	1.12556	1.15316	+++++					
	1.08411	1.04352					AVRG		1.12880		5.09017
17 N-Nitrosodipropylamine	0.81293	0.75653	0.80116	0.77693	0.78822	0.71050					
	0.77452	0.67823					AVRG		0.76238		6.05014
18 m,p-Cresols	+++++	1.13181	1.16963	1.17353	1.13669	1.14618					
	1.18516	1.11948					AVRG		1.15179		2.12873
19 Hexachloroethane	+++++	0.47556	0.50281	0.48245	0.48088	0.46955					
	0.46206	0.42193					AVRG		0.47075		5.31168
21 Nitrobenzene	+++++	0.28437	0.30442	0.28298	0.28351	0.27052					
	0.25822	0.23858					AVRG		0.27466		7.74785
22 Isophorone	+++++	0.49709	0.51707	0.49540	0.49196	0.47802					
	0.46730	0.41658					AVRG		0.48049		6.70733
23 2-Nitrophenol	+++++	0.14839	0.15989	0.15609	0.15578	0.14421					
	0.13558	0.12065					AVRG		0.14580		9.49803
24 2,4-Dimethylphenol	+++++	0.25377	0.24260	0.23030	0.24361	0.23323					
	0.21824	0.21248					AVRG		0.23346		6.25831
25 bis(2-Chloroethoxy)methane	+++++	0.32659	0.33857	0.32017	0.31630	0.30271					
	0.29085	0.27012					AVRG		0.30933		7.51487

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Cal Date : 20-Dec-2009 13:50 amy01291

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
26 2,4-Dichlorophenol	+++++	0.21991	0.23451	0.22671	0.22578	0.22138					
	0.21025	0.19507					AVRG		0.21909		5.89795
27 Benzoic acid	+++++	+++++	0.12652	0.15647	0.17043	0.17939					
	0.17420	0.15820					AVRG		0.16087		11.85426
28 1,2,4-Trichlorobenzene	+++++	0.25324	0.26639	0.25283	0.25336	0.23817					
	0.22476	0.20597					AVRG		0.24210		8.56147
30 Naphthalene	1.00192	0.89427	0.93446	0.86563	0.83102	0.76369					
	0.73215	0.65539					AVRG		0.83482		13.59329
204 alpha-Terpineol	+++++	0.21791	0.22387	0.20802	0.18690	0.18694					
	0.18377	0.16707					AVRG		0.19635		10.50339
31 4-Chloroaniline	+++++	0.39677	0.40757	0.39487	0.39324	0.37614					
	0.36195	0.33806					AVRG		0.38123		6.35973
189 Caprolactam	+++++	0.06846	0.07656	0.07363	0.07653	+++++					
	0.06782	0.06711					AVRG		0.07169		6.15581
32 Hexachlorobutadiene	+++++	0.13511	0.14100	0.13045	0.12864	0.12021					
	0.11205	0.10277					AVRG		0.12432		10.80535
33 4-Chloro-3-methylphenol	+++++	0.21530	0.22699	0.22627	0.22610	0.21202					
	0.21204	0.17967					AVRG		0.21406		7.75567

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Cal Date : 20-Dec-2009 13:50 amy01291

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
34 2-Methylnaphthalene	0.63189	0.59091	0.61031	0.56805	0.55492	0.51261					
	0.47801	0.44368					AVRG		0.54880		11.97650
35 1-Methylnaphthalene	0.57039	0.52594	0.54774	0.50754	0.49716	0.46294					
	0.43668	0.39804					AVRG		0.49330		11.71827
36 Hexachlorocyclopentadiene	+++++	0.10604	0.13033	0.13014	0.13942	0.12687					
	0.11688	0.10523					AVRG		0.12213		10.70285
208 1,1'-Biphenyl	+++++	1.17951	1.24377	1.14549	1.13585	+++++					
	1.04839	0.97002					AVRG		1.12050		8.68804
205 2,3-Dichloroaniline	+++++	0.46645	0.48933	0.47427	0.46997	0.44649					
	0.43405	0.39749					AVRG		0.45401		6.79831
37 2,4,6-Trichlorophenol	+++++	0.26977	0.29094	0.27785	0.27904	0.25743					
	0.25024	0.23713					AVRG		0.26606		7.03474
38 2,4,5-Trichlorophenol	+++++	0.26905	0.31036	0.32159	0.23043	0.31171					
	0.26900	0.26816					AVRG		0.28290		11.57703
40 2-Chloronaphthalene	1.06866	1.01017	1.06218	1.02382	1.00740	0.95458					
	0.92971	0.84336					AVRG		0.98748		7.61587
42 o-Nitroaniline	+++++	0.29397	0.31274	0.31408	0.31185	0.30784					
	0.31350	0.28932					AVRG		0.30619		3.33957

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Cal Date : 20-Dec-2009 13:50 amy01291

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
41 m-Nitroaniline	+++++	0.27156	0.28234	0.28082	0.27143	0.25979					
	0.28219	0.24573					AVRG		0.27055		5.03620
43 Dimethylphthalate	+++++	1.09522	1.14427	1.12702	1.11254	1.08188					
	1.07235	0.99634					AVRG		1.08995		4.43176
44 2,6-Dinitrotoluene	+++++	0.26660	0.28518	0.28098	0.27933	0.27123					
	0.26992	0.24768					AVRG		0.27156		4.59036
45 Acenaphthylene	1.62784	1.60004	1.67564	1.59865	1.57380	1.47905					
	1.44269	1.32968					AVRG		1.54092		7.42836
47 Acenaphthene	1.00456	0.99034	1.02942	0.97302	0.94853	0.86787					
	0.82882	0.73816					AVRG		0.92259		10.97291
48 2,4-Dinitrophenol	+++++	+++++	0.08843	0.11349	0.11534	0.11082					
	0.11305	0.10198					AVRG		0.10718		9.63049
49 Dibenzofuran	+++++	1.40383	1.45777	1.40759	1.36431	1.30285					
	1.24923	1.15395					AVRG		1.33422		7.92638
50 2,4-Dinitrotoluene	+++++	0.34056	0.36497	0.37079	0.37131	0.36633					
	0.36565	0.33990					AVRG		0.35993		3.80091
51 Diethylphthalate	+++++	1.04278	1.09197	1.06193	1.04018	0.99480					
	0.99307	0.88837					AVRG		1.01616		6.53371

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INITIAL CALIBRATION DATA

Start Cal Date : 14-NOV-2009 18:22
End Cal Date : 17-NOV-2009 19:15
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD1.i/s121909.b/MSD1-M8270AQA-111409.m
Cal Date : 20-Dec-2009 13:50 amy01291

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
52 4-Nitrophenol	+++++	0.13809	0.17287	0.18777	0.19477	0.20369					
	0.21665	0.20716					AVRG		0.18871		14.01343
53 Fluorene	1.22796	1.15355	1.19493	1.10753	1.06188	0.99894					
	0.97721	0.88428					AVRG		1.07578		10.93658
54 4-Chlorophenylphenylether	+++++	0.47537	0.49720	0.47503	0.46785	0.44264					
	0.43218	0.38915					AVRG		0.45420		7.92169
55 2-Methyl-4,6-dinitrophenol	+++++	0.08375	0.09608	0.10582	0.10320	0.10771					
	0.10908	0.10272					AVRG		0.10120		8.67983
56 p-Nitroaniline	+++++	0.24392	0.26348	0.26430	0.28144	0.26774					
	0.27465	0.25651					AVRG		0.26458		4.60021
133 Diphenylamine	+++++	0.55588	0.57977	0.55886	0.54789	0.52659					
	0.50269	0.46310					AVRG		0.53354		7.43632
58 1,2-Diphenylhydrazine	+++++	0.69850	0.71486	0.68099	0.66427	0.63670					
	0.61324	0.54832					AVRG		0.65098		8.77582
59 Tributylphosphate	+++++	1.22698	1.16066	1.10479	1.12684	1.06119					
	1.01440	0.96114					AVRG		1.09371		8.21068
61 4-Bromophenylphenylether	+++++	0.13960	0.14381	0.14105	0.13893	0.13903					
	0.13474	0.12486					AVRG		0.13743		4.49074

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
63 Hexachlorobenzene	+++++	0.18056	0.18610	0.17775	0.16888	0.16686					
	0.15868	0.14199					AVRG		0.16869		8.86819
207 Atrazine	+++++	0.04275	0.04402	0.04191	0.04036	+++++					
	0.03698	0.03447					AVRG		0.04008		9.14364
65 Pentachlorophenol	+++++	0.08713	0.10123	0.10564	0.10198	0.10716					
	0.10688	0.09814					AVRG		0.10117		6.93558
206 n-Octadecane	+++++	0.49445	0.50531	0.45683	0.42873	0.36788					
	0.34975	+++++					AVRG		0.43383		14.85243
68 Phenanthrene	1.08140	0.97577	0.96718	0.91676	0.90684	0.85016					
	0.82329	0.75087					AVRG		0.90903		11.26824
69 Anthracene	1.05572	0.98071	1.00934	0.97561	0.92329	0.88140					
	0.83261	0.73707					AVRG		0.92447		11.24280
72 Di-n-butylphthalate	+++++	1.06714	1.12314	1.06117	1.02135	0.94081					
	0.88726	0.80148					AVRG		0.98605		11.57265
76 Fluoranthene	0.94603	0.94387	0.96313	0.92832	0.88364	0.83514					
	0.79976	0.71979					AVRG		0.87746		9.80038
77 Benzidine	+++++	0.28582	0.36970	0.35152	0.36897	+++++					
	0.43187	0.36504					AVRG		0.36215		12.90005

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	100 Level 7	120 Level 8									
79 Pyrene	1.12921	1.08043	1.13184	1.09423	1.03887	1.05677					
	1.02924	0.94284					AVRG		1.06293		5.79953
85 Butylbenzylphthalate	+++++	0.53253	0.56219	0.50335	0.46569	0.43331					
	0.40529	+++++					AVRG		0.48372		12.38419
89 Benzo(a)anthracene	1.00602	0.91134	0.98073	0.96992	0.98002	0.96903					
	0.95763	0.89850					AVRG		0.95915		3.79585
90 3,3'-Dichlorobenzidine	+++++	0.24634	0.28908	0.28847	0.28710	+++++					
	0.28231	0.25909					AVRG		0.27540		6.60230
92 Chrysene	0.98731	0.93210	0.94599	0.88032	0.86729	0.85456					
	0.87955	0.82465					AVRG		0.89647		6.00506
93 bis(2-Ethylhexyl)phthalate	0.57061	0.72394	0.78180	0.75934	0.74451	0.72196					
	0.68855	0.63132					AVRG		0.70275		10.02985
94 Di-n-octylphthalate	+++++	1.17035	1.39716	1.40560	1.36840	1.34274					
	1.30766	1.16752					AVRG		1.30849		7.70640
95 Benzo(b)fluoranthene	21625	340509	730849	1739197	2305837	3304287					
	3978698	5127789					LINR	0.06661	1.08695		0.99870
96 Benzo(k)fluoranthene	1.03711	1.06722	1.12263	1.01575	1.02623	1.00211					
	0.97020	0.78256					AVRG		1.00298		9.96839

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	100 Level 7	120 Level 8									
97 Benzo(a)pyrene	20918	319721	688146	1504125	2094282	2912657					
	3398226	3934490					LINR	-0.00385	0.87033		0.99612
99 Indeno(1,2,3-cd)pyrene	21578	336515	700258	1580353	2201480	3025334					
	3523403	4020592					LINR	-0.01092	0.89653		0.99431
100 Dibenzo(a,h)anthracene	16162	268427	581631	1325626	1846286	2532762					
	2946699	3397425					LINR	-0.00445	0.75511		0.99519
101 Benzo(ghi)perylene	0.56462	0.70452	0.77602	0.81299	0.83023	0.80394					
	0.79303	0.72783					AVRG		0.75165		11.54879
102 1,4-Dioxane	+++++	0.32550	0.33716	0.30934	0.31455	+++++					
	0.30805	0.28861					AVRG		0.31387		5.27573
103 Methyl methacrylate	+++++	0.17774	0.19107	0.17805	0.17495	+++++					
	0.17326	0.16336					AVRG		0.17640		5.08144
104 Ethyl methacrylate	+++++	0.73346	0.76622	0.70794	0.70643	+++++					
	0.69714	0.66675					AVRG		0.71299		4.73943
105 2-Picoline	+++++	1.18802	1.23130	1.15065	1.15312	+++++					
	1.12223	1.07774					AVRG		1.15384		4.58113
106 N-Nitrosomethylethylamine	+++++	0.42951	0.48460	0.44623	0.45222	+++++					
	0.46395	0.44906					AVRG		0.45426		4.08577

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
107 Methyl methanesulfonate	+++++	0.43204	0.45674	0.42468	0.43227	+++++					
	0.41648	0.39202					AVRG		0.42570		5.00242
108 N-Nitrosodiethylamine	+++++	0.47915	0.50719	0.47065	0.48068	+++++					
	0.47830	0.46128					AVRG		0.47954		3.20356
109 Ethyl Methanesulfonate	+++++	0.59343	0.63202	0.58286	0.59990	+++++					
	0.59568	0.57362					AVRG		0.59625		3.34808
110 Pentachloroethane	+++++	0.30094	0.30775	0.28811	0.28717	+++++					
	0.28774	0.27522					AVRG		0.29115		3.95122
111 N-Nitrosopyrrolidine	+++++	0.47773	0.52978	0.49561	0.51566	+++++					
	0.41369	0.41806					AVRG		0.47509		10.34926
113 N-Nitrosomorpholine	+++++	0.63587	0.69755	0.63481	0.65791	+++++					
	0.54487	0.53392					AVRG		0.61749		10.47980
114 o-Toluidine	+++++	1.64551	1.76888	1.61850	1.65178	+++++					
	1.65679	1.57817					AVRG		1.65327		3.85302
115 N-Nitrosopiperidine	+++++	0.12931	0.13922	0.12850	0.13280	+++++					
	0.13244	0.12709					AVRG		0.13156		3.32124
116 a,a-Dimethylphenethylamine	+++++	0.70597	0.78545	0.76293	0.79408	+++++					
	0.79335	0.76628					AVRG		0.76801		4.32000

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	100 Level 7	120 Level 8										
117 Triethylphosphorothioate	+++++	0.12812	0.12428	0.12751	0.12901	0.12488						
	0.12021	0.11633					AVRG		0.12433		3.70966	
118 2,6-Dichlorophenol	+++++	0.18796	0.20530	0.19528	0.20193	+++++						
	0.20014	0.19147					AVRG		0.19701		3.35416	
119 Hexachloropropene	+++++	0.07891	0.09539	0.09133	0.09091	+++++						
	0.09225	0.08492					AVRG		0.08895		6.72708	
120 p-Phenylenediamine	+++++	0.17417	0.23091	0.21919	0.22009	+++++						
	0.19257	0.17231					AVRG		0.20154		12.55674	
121 N-Nitrosodi-n-butylamine	+++++	0.16926	0.19309	0.16843	0.17454	+++++						
	0.16640	0.15862					AVRG		0.17172		6.79719	
122 Safrole	+++++	0.18021	0.18852	0.17847	0.18253	+++++						
	0.17443	0.16766					AVRG		0.17864		3.98501	
123 1,2,4,5-Tetrachlorobenzene	+++++	0.38048	0.40351	0.37295	0.37017	+++++						
	0.35065	0.32500					AVRG		0.36713		7.29953	
124 Isosafrole	+++++	0.32136	0.34935	0.32718	0.32927	+++++						
	0.32898	0.30952					AVRG		0.32761		3.96520	
125 1,4-Naphthoquinone	+++++	0.37346	0.38046	0.31457	0.30180	+++++						
	0.18844	0.22186					AVRG		0.29676		26.34996	<-

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	100 Level 7	120 Level 8									
126 m-Dinitrobenzene	+++++	0.17349	0.18721	0.19120	0.19440	0.19057					
	0.19238	0.17644					AVRG		0.18653		4.41251
127 Pentachlorobenzene	+++++	0.32992	0.34557	0.31675	0.31835	+++++					
	0.29677	0.27972					AVRG		0.31451		7.45207
128 1-Naphthylamine	+++++	0.82636	0.98891	0.93384	0.93443	+++++					
	0.87178	0.80990					AVRG		0.89420		7.80762
129 2-Naphthylamine	+++++	0.96588	1.05556	1.00159	1.00599	+++++					
	0.94403	0.87535					AVRG		0.97473		6.34557
130 2,3,4,6-Tetrachlorophenol	+++++	0.20567	0.22518	0.22987	0.20102	0.22712					
	0.21818	0.20523					AVRG		0.21604		5.51582
131 5-Nitro-o-toluidine	+++++	0.25535	0.29363	0.28574	0.29496	+++++					
	0.29982	0.28219					AVRG		0.28528		5.60973
132 Thionazin	+++++	0.16358	0.16364	0.16630	0.16880	0.16339					
	0.15554	0.14821					AVRG		0.16135		4.38820
134 Sulfotepp	+++++	0.08562	0.08304	0.08303	0.08467	0.07953					
	0.07427	0.07214					AVRG		0.08033		6.54838
135 Phorate	+++++	0.36567	0.35586	0.35721	0.36683	0.34385					
	0.32742	0.31541					AVRG		0.34747		5.65187

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136 1,3,5-Trinitrobenzene	+++++	0.10196	0.12348	0.12395	0.12006	+++++					
	0.11894	0.10898					AVRG		0.11623		7.60291
137 Phenacetin	+++++	0.22684	0.26317	0.26291	0.26441	+++++					
	0.26599	0.25918					AVRG		0.25708		5.83046
138 Diallate	+++++	0.24760	0.24927	0.23322	0.23010	+++++					
	0.21802	0.20853					AVRG		0.23112		6.94549
139 Dimethoate	+++++	0.21461	0.21994	0.23007	0.23724	0.23858					
	0.23513	0.22967					AVRG		0.22932		3.92960
140 4-Aminobiphenyl	+++++	0.53696	0.55369	0.57677	0.59426	+++++					
	0.49840	0.45674					AVRG		0.53614		9.53476
141 Pentachloronitrobenzene	+++++	0.05720	0.06067	0.05490	0.05533	+++++					
	0.04673	0.04463					AVRG		0.05324		11.71339
142 Pronamide	+++++	0.24822	0.26125	0.24154	0.23765	+++++					
	0.17973	+++++					AVRG		0.23368		13.46482
143 Dinoseb	+++++	0.10297	0.12216	0.13126	0.12950	0.13024					
	0.13017	0.12500					AVRG		0.12447		8.06727
144 Disulfoton	+++++	0.32280	0.31415	0.31231	0.32231	0.30214					
	0.27306	0.26345					AVRG		0.30146		7.92046

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	100 Level 7	120 Level 8									
145 Methyl parathion	+++++	0.18413	0.18908	0.19611	0.20206	0.20472					
	0.19613	0.19053					AVRG		0.19468		3.74715
146 4-Nitroquinoline-1-oxide	+++++	0.00831	0.00998	0.00800	0.01074	+++++					
	0.01133	0.01046					AVRG		0.00980		13.77700
147 Methapyrilene	+++++	0.36466	0.38869	0.39386	0.38311	+++++					
	0.36077	0.31821					AVRG		0.36822		7.55340
148 Isodrin	+++++	0.09085	0.09372	0.08925	0.08743	+++++					
	0.07960	0.07570					AVRG		0.08609		8.09255
149 Aramite	+++++	0.04141	0.04570	0.04371	0.04272	+++++					
	0.04204	0.03972					AVRG		0.04255		4.79399
150 Kepone	+++++	0.06055	0.06732	0.06349	0.06380	+++++					
	0.06458	0.05876					AVRG		0.06308		4.80408
151 p-(Dimethylamino)azobenzene	+++++	0.28782	0.31583	0.29702	0.29097	+++++					
	0.26535	0.24656					AVRG		0.28392		8.62091
152 Chlorobenzilate	+++++	0.21991	0.23787	0.22800	0.23044	+++++					
	0.20814	0.19524					AVRG		0.21994		7.17760
153 3,3'-Dimethylbenzidine	+++++	0.45675	0.51768	0.48413	0.48879	+++++					
	0.49372	0.43564					AVRG		0.47945		6.05117

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	100 Level 7	120 Level 8										
154 Famphur	+++++	0.29819	0.30032	0.31780	0.33430	0.32440						
	0.30595	0.30061					AVRG		0.31165		4.49495	
155 2-Acetylaminofluorene	+++++	0.23107	0.30345	0.31881	0.32045	+++++						
	0.34822	0.32608					AVRG		0.30801		13.11206	
157 7,12Dimethylbenz(a)anthracene	+++++	0.41118	0.44192	0.42666	0.43253	+++++						
	0.40970	0.40537					AVRG		0.42123		3.47443	
158 3-Methylcholanthrene	+++++	0.29680	0.36865	0.37932	0.38459	+++++						
	0.39125	0.38204					AVRG		0.36711		9.59696	
26 Phthalic anhydride	+++++	30283	90214	245905	320454	497228						
	555160	687649					LINR	0.08413	0.10332		0.99692	
173 Carbazole	0.90246	0.82255	0.80875	0.81414	0.83946	0.78812						
	0.78058	0.70109					AVRG		0.80714		7.06036	
174 Hexachlorophene	+++++	0.03640	0.04820	0.05180	0.05353	0.05136						
	0.04905	+++++					AVRG		0.04839		12.77621	
179 Dibenzo(a,e)pyrene	+++++	117900	312429	817402	1225621	1557621						
	1812574	+++++					LINR	0.07449	0.50549		0.99368	
185 (2,3-Dibromopropyl)phosphate	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 14-NOV-2009 18:22
End Cal Date : 17-NOV-2009 19:15
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD1.i/s121909.b/MSD1-M8270AQA-111409.m
Cal Date : 20-Dec-2009 13:50 amy01291

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
184 p-Benzoquinone	+++++	2462	14132	46568	48315	83536					
	96111	113764					LINR	0.17192	0.08067		0.99223
191 Parathion	+++++	0.06169	0.06089	0.06449	0.06621	0.06308					
	0.06173	0.06112					AVRG		0.06274		3.14637
192 Methoxychlor	+++++	0.32535	0.36631	0.33959	0.33867	0.27894					
	0.25594	+++++					AVRG		0.31747		13.10686
210 m-Toluidine	+++++	0.77272	0.88703	0.90355	0.94226	1.01524					
	0.94351	+++++					AVRG		0.91072		8.87324
211 p-Toluidine	+++++	0.69169	0.70617	0.72166	0.71562	0.68688					
	+++++	+++++					AVRG		0.70440		2.12367
212 Cis Diallate	+++++	0.23437	0.24880	0.23465	0.23944	+++++					
	0.24434	0.23833					AVRG		0.23999		2.35508
213 Trans Diallate	+++++	0.29129	0.29326	0.27438	0.27070	+++++					
	0.25649	0.24533					AVRG		0.27191		6.94549
214 1,4-Dinitrobenzene	+++++	0.16000	0.17119	0.17754	0.17866	0.17639					
	0.17966	0.16860					AVRG		0.17315		4.08379
215 2-Ethoxyethanol	+++++	0.57555	0.62918	0.65385	0.56961	0.58718					
	0.62071	0.58595					AVRG		0.60315		5.24047

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 14-NOV-2009 18:22
End Cal Date : 17-NOV-2009 19:15
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD1.i/s121909.b/MSD1-M8270AQA-111409.m
Cal Date : 20-Dec-2009 13:50 amy01291

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
216 Methylenebis(2-chloroaniline)	+++++	0.11447	0.12909	0.13171	0.13536	0.13420					
	0.13376	0.12587					AVRG		0.12921		5.63660
229 2,2'-Dichlorobenzil	+++++	0.67948	0.77608	0.71487	+++++	0.73565					
	+++++	0.63422					AVRG		0.70806		7.63914
230 4-Chlorothioanisole	+++++	0.23155	0.23520	0.23685	+++++	0.23140					
	+++++	0.22159					AVRG		0.23132		2.56050
231 4-Chlorothiophenol	+++++	0.15409	0.17482	0.19368	+++++	0.19893					
	+++++	0.19703					AVRG		0.18371		10.41669
232 bis(p-Chlorophenyl)sulfone	+++++	0.39430	0.43698	0.38579	+++++	0.39600					
	+++++	0.34721					AVRG		0.39206		8.15529
233 bis(p-Chlorophenyl)disulfide	+++++	0.10045	0.11150	0.11707	+++++	0.12020					
	+++++	0.10635					AVRG		0.11111		7.18003
234 Diphenyl disulfide	+++++	0.17804	0.18209	0.18631	+++++	0.17491					
	+++++	0.16341					AVRG		0.17695		4.91531
235 Diphenyl sulfide	+++++	0.71955	0.73103	0.70874	+++++	0.65333					
	+++++	0.61709					AVRG		0.68595		7.09988
236 Phenyl sulfone	+++++	0.43275	0.44078	0.42799	+++++	0.41905					
	+++++	0.39177					AVRG		0.42247		4.46830

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 14-NOV-2009 18:22
End Cal Date : 17-NOV-2009 19:15
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD1.i/s121909.b/MSD1-M8270AQA-111409.m
Cal Date : 20-Dec-2009 13:50 amy01291

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	ml	m2	%RSD or R^2
	100 Level 7	120 Level 8									
237 Hydroxymethyl phthalimide	+++++	0.12384	0.15720	0.10384	+++++	0.13032					
	+++++	0.12669					AVRG		0.12838		14.88299
238 Phthalic acid	+++++	24604	70600	163991	+++++	411903					
	+++++	634014					LINR	0.25540	0.11087		0.99102
239 Thiophenol	+++++	0.94048	1.03561	1.08365	+++++	1.12900					
	+++++	1.09332					AVRG		1.05641		6.89893
240 bis(Chloromethyl)ether	+++++	0.78790	0.79417	0.76917	+++++	0.75455					
	+++++	0.73576					AVRG		0.76831		3.12263
241 Octachlorostyrene	+++++	0.06103	0.06315	0.05827	+++++	0.05420					
	+++++	0.04861					AVRG		0.05705		10.14342
M 225 Trichlorophenols	+++++	0.26941	0.30065	0.29972	0.25473	0.28457					
	0.25962	0.25265					AVRG		0.27448		7.49129
M 226 Tetrachlorophenols	+++++	0.20567	0.22518	0.22987	0.20102	0.22712					
	0.21818	0.20523					AVRG		0.21604		5.51582
M 227 Benzo(b,k)fluoranthene	0.78278	0.93887	1.02131	1.01324	1.00976	1.01479					
	1.00963	0.93381					AVRG		0.96552		8.47131
M 228 TTO Sum Semivolatiles	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+00		0.000e+00 <-

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 14-NOV-2009 18:22
End Cal Date : 17-NOV-2009 19:15
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD1.i/s121909.b/MSD1-M8270AQA-111409.m
Cal Date : 20-Dec-2009 13:50 amy01291

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	100 Level 7	120 Level 8										
$ 3 2-Fluorophenol	++++++	0.97776	1.06271	1.06423	1.06306	1.07281						
	1.07136	1.00157					AVRG		1.04478		3.68308	
$ 5 Phenol-d5	++++++	1.21974	1.33050	1.28249	1.27680	1.26954						
	1.29216	1.21764					AVRG		1.26984		3.15351	
$ 187 2-Chlorophenol-d4	++++++	++++++	++++++	++++++	++++++	++++++						
	++++++	++++++					AVRG		0.000e+00		0.000e+00	<-
$ 188 1,2-Dichlorobenzene-d4	++++++	++++++	++++++	++++++	++++++	++++++						
	++++++	++++++					AVRG		0.000e+00		0.000e+00	<-
$ 20 Nitrobenzene-d5	++++++	0.27426	0.28571	0.27066	0.27231	0.25884						
	0.24945	0.23400					AVRG		0.26360		6.62019	
$ 39 2-Fluorobiphenyl	++++++	0.99823	1.04801	1.00239	0.98618	0.93991						
	0.91199	0.81928					AVRG		0.95800		7.87748	
$ 60 2,4,6-Tribromophenol	++++++	0.10924	0.11530	0.11503	0.10898	0.11186						
	0.11271	0.10874					AVRG		0.11169		2.51418	
$ 81 p-Terphenyl-d14	++++++	0.64452	0.67675	0.65301	0.63863	0.61256						
	0.60853	0.56112					AVRG		0.62787		5.98666	

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 14-NOV-2009 18:22
End Cal Date : 17-NOV-2009 19:15
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD1.i/s121909.b/MSD1-M8270AQA-111409.m
Cal Date : 20-Dec-2009 13:50 amy01291

Curve	Formula	Units
Averaged	Amt = Rsp/ml	Response
Linear	Amt = b + Rsp/ml	Response

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD1.i Injection Date: 17-NOV-2009 16:27
Lab File ID: s1k1261.d Init. Cal. Date(s): 14-NOV-2009 17-NOV-2009
Analysis Type: Init. Cal. Times: 18:22 12:38
Lab Sample ID: WBN091027-09.3 Quant Type: ISTD
Method: /chem/MSD1.i/s111409.b/MSD1-M8270AQA-111409.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
$ 3 2-Fluorophenol	1.04478	0.92701	0.92701	0.000	-11.27306	60.00000	Averaged
$ 5 Phenol-d5	1.26984	1.11829	1.11829	0.000	-11.93416	60.00000	Averaged
$ 20 Nitrobenzene-d5	0.26360	0.25882	0.25882	0.000	-1.81289	60.00000	Averaged
$ 39 2-Fluorobiphenyl	0.95800	0.95545	0.95545	0.000	-0.26619	60.00000	Averaged
$ 60 2,4,6-Tribromophenol	0.11169	0.11397	0.11397	0.000	2.04032	60.00000	Averaged
$ 81 p-Terphenyl-d14	0.62787	0.61091	0.61091	0.000	-2.70233	60.00000	Averaged
1 N-Methyl-N-nitrosomethylami	0.56740	0.52259	0.52259	0.000	-7.89719	60.00000	Averaged
2 Pyridine	0.95281	0.72054	0.72054	0.000	-24.37721	60.00000	Averaged
4 Aniline	0.55813	0.46069	0.46069	0.000	-17.45935	60.00000	Averaged
6 Phenol	1.33800	1.13102	1.13102	0.001	-15.46941	20.00000	Averaged ccc
7 bis(2-Chloroethyl) ether	0.93081	0.78725	0.78725	0.000	-15.42323	60.00000	Averaged
8 2-Chlorophenol	1.13717	0.96631	0.96631	0.000	-15.02517	60.00000	Averaged
203 n-Decane	1.43160	1.33489	1.33489	0.000	-6.75532	60.00000	Averaged
9 1,3-Dichlorobenzene	1.33431	1.14485	1.14485	0.000	-14.19930	60.00000	Averaged
11 1,4-Dichlorobenzene	1.30799	1.12905	1.12905	0.001	-13.68038	20.00000	Averaged ccc
13 1,2-Dichlorobenzene	1.20798	1.02631	1.02631	0.000	-15.03923	60.00000	Averaged
14 bis(2-Chloroisopropyl)ether	2.21709	1.93928	1.93928	0.000	-12.53006	60.00000	Averaged
12 Benzyl alcohol	0.69141	0.59629	0.59629	0.000	-13.75808	60.00000	Averaged
15 o-Cresol	0.84650	0.72216	0.72216	0.000	-14.68816	60.00000	Averaged
18 m,p-Cresols	1.15179	1.00178	1.00178	0.000	-13.02332	60.00000	Averaged
17 N-Nitrosodipropylamine	0.76238	0.61385	0.61385	0.050	-19.48192	60.00000	Averaged spcc
19 Hexachloroethane	0.47075	0.38923	0.38923	0.000	-17.31682	60.00000	Averaged
21 Nitrobenzene	0.27466	0.23975	0.23975	0.000	-12.70858	60.00000	Averaged
22 Isophorone	0.48049	0.42824	0.42824	0.000	-10.87384	60.00000	Averaged
23 2-Nitrophenol	0.14580	0.12443	0.12443	0.001	-14.65471	20.00000	Averaged ccc
24 2,4-Dimethylphenol	0.23346	0.23407	0.23407	0.000	0.25935	60.00000	Averaged
25 bis(2-Chloroethoxy)methane	0.30933	0.25445	0.25445	0.000	-17.74126	60.00000	Averaged
26 2,4-Dichlorophenol	0.21909	0.18847	0.18847	0.001	-13.97781	20.00000	Averaged ccc
27 Benzoic acid	0.16087	0.16553	0.16553	0.000	2.89975	60.00000	Averaged
28 1,2,4-Trichlorobenzene	0.24210	0.21218	0.21218	0.000	-12.36169	60.00000	Averaged
30 Naphthalene	0.83482	0.76679	0.76679	0.000	-8.14910	60.00000	Averaged
204 alpha-Terpineol	0.19635	0.19249	0.19249	0.000	-1.96852	60.00000	Averaged
31 4-Chloroaniline	0.38123	0.34324	0.34324	0.000	-9.96471	60.00000	Averaged
32 Hexachlorobutadiene	0.12432	0.10582	0.10582	0.001	-14.87841	20.00000	Averaged ccc
33 4-Chloro-3-methylphenol	0.21406	0.17276	0.17276	0.001	-19.29025	20.00000	Averaged ccc
34 2-Methylnaphthalene	0.54880	0.51972	0.51972	0.000	-5.29812	60.00000	Averaged

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD1.i Injection Date: 17-NOV-2009 16:27
Lab File ID: s1k1261.d Init. Cal. Date(s): 14-NOV-2009 17-NOV-2009
Analysis Type: Init. Cal. Times: 18:22 12:38
Lab Sample ID: WBN091027-09.3 Quant Type: ISTD
Method: /chem/MSD1.i/s111409.b/MSD1-M8270AQA-111409.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
35 1-Methylnaphthalene	0.49330	0.47920	0.47920	0.000	-2.85884	60.00000	Averaged	
36 Hexachlorocyclopentadiene	0.12213	0.12462	0.12462	0.050	2.03810	60.00000	Averaged	spcc
205 2,3-Dichloroaniline	0.45401	0.44519	0.44519	0.000	-1.94238	60.00000	Averaged	
37 2,4,6-Trichlorophenol	0.26606	0.24935	0.24935	0.001	-6.28041	20.00000	Averaged	ccc
38 2,4,5-Trichlorophenol	0.28290	0.25595	0.25595	0.000	-9.52679	60.00000	Averaged	
40 2-Chloronaphthalene	0.98748	0.82050	0.82050	0.000	-16.91018	60.00000	Averaged	
42 o-Nitroaniline	0.30619	0.24946	0.24946	0.000	-18.52571	60.00000	Averaged	
41 m-Nitroaniline	0.27055	0.22438	0.22438	0.000	-17.06469	60.00000	Averaged	
43 Dimethylphthalate	1.08995	0.95932	0.95932	0.000	-11.98438	60.00000	Averaged	
44 2,6-Dinitrotoluene	0.27156	0.22271	0.22271	0.000	-17.99006	60.00000	Averaged	
50 2,4-Dinitrotoluene	0.35993	0.29440	0.29440	0.000	-18.20706	60.00000	Averaged	
45 Acenaphthylene	1.54092	1.46812	1.46812	0.000	-4.72441	60.00000	Averaged	
47 Acenaphthene	0.92259	0.85781	0.85781	0.001	-7.02192	20.00000	Averaged	ccc
48 2,4-Dinitrophenol	0.10718	0.09229	0.09229	0.050	-13.89853	60.00000	Averaged	spcc
49 Dibenzofuran	1.33422	1.12564	1.12564	0.000	-15.63294	60.00000	Averaged	
51 Diethylphthalate	1.01616	0.93320	0.93320	0.000	-8.16403	60.00000	Averaged	
52 4-Nitrophenol	0.18871	0.18660	0.18660	0.050	-1.12202	60.00000	Averaged	spcc
53 Fluorene	1.07578	0.99783	0.99783	0.000	-7.24582	60.00000	Averaged	
54 4-Chlorophenylphenylether	0.45420	0.42578	0.42578	0.000	-6.25867	60.00000	Averaged	
55 2-Methyl-4,6-dinitrophenol	0.10120	0.09844	0.09844	0.000	-2.71965	60.00000	Averaged	
56 p-Nitroaniline	0.26458	0.21819	0.21819	0.000	-17.53206	60.00000	Averaged	
133 Diphenylamine	0.53354	0.46493	0.46493	0.001	-12.85961	20.00000	Averaged	ccc
58 1,2-Diphenylhydrazine	0.65098	0.55777	0.55777	0.000	-14.31896	60.00000	Averaged	
61 4-Bromophenylphenylether	0.13743	0.14126	0.14126	0.000	2.79050	60.00000	Averaged	
63 Hexachlorobenzene	0.16869	0.14433	0.14433	0.000	-14.43782	60.00000	Averaged	
65 Pentachlorophenol	0.10117	0.09042	0.09042	0.001	-10.61921	20.00000	Averaged	ccc
206 n-Octadecane	0.43383	0.42570	0.42570	0.000	-1.87309	60.00000	Averaged	
68 Phenanthrene	0.90903	0.83581	0.83581	0.000	-8.05558	60.00000	Averaged	
69 Anthracene	0.92447	0.85110	0.85110	0.000	-7.93592	60.00000	Averaged	
72 Di-n-butylphthalate	0.98605	0.95396	0.95396	0.000	-3.25457	60.00000	Averaged	
76 Fluoranthene	0.87746	0.81704	0.81704	0.001	-6.88555	20.00000	Averaged	ccc
79 Pyrene	1.06293	0.98267	0.98267	0.000	-7.55079	60.00000	Averaged	
85 Butylbenzylphthalate	0.48372	0.46739	0.46739	0.000	-3.37649	60.00000	Averaged	
89 Benzo(a)anthracene	0.95915	0.87571	0.87571	0.000	-8.69930	60.00000	Averaged	
92 Chrysene	0.89647	0.82199	0.82199	0.000	-8.30767	60.00000	Averaged	
93 bis(2-Ethylhexyl)phthalate	0.70275	0.65271	0.65271	0.000	-7.12169	60.00000	Averaged	

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD1.i
Lab File ID: s1k1261.d
Analysis Type:
Lab Sample ID: WBN091027-09.3 Quant Type: ISTD
Method: /chem/MSD1.i/s111409.b/MSD1-M8270AQA-111409.m

Injection Date: 17-NOV-2009 16:27
Init. Cal. Date(s): 14-NOV-2009 17-NOV-2009
Init. Cal. Times: 18:22 12:38

	COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
	94 Di-n-octylphthalate	1.30849	1.19375	1.19375	0.001	-8.76858	20.00000	Averaged	ccc
	95 Benzo(b)fluoranthene	34.69168	40.00000	0.87030	0.000	-13.27080	60.00000	Linear	
	96 Benzo(k)fluoranthene	1.00298	0.95633	0.95633	0.000	-4.65112	60.00000	Averaged	
	97 Benzo(a)pyrene	37.92700	40.00000	0.82858	0.001	-5.18249	20.00000	Linear	ccc
	99 Indeno(1,2,3-cd)pyrene	35.83759	40.00000	0.81303	0.000	-10.40601	60.00000	Linear	
	100 Dibenzo(a,h)anthracene	35.09981	40.00000	0.66597	0.000	-12.25048	60.00000	Linear	
	101 Benzo(ghi)perylene	0.75165	0.69836	0.69836	0.000	-7.08991	60.00000	Averaged	
	126 m-Dinitrobenzene	0.18653	0.15696	0.15696	0.000	-15.84920	60.00000	Averaged	
	130 2,3,4,6-Tetrachlorophenol	0.21604	0.19708	0.19708	0.000	-8.77777	60.00000	Averaged	
	143 Dinoseb	0.12447	0.10965	0.10965	0.000	-11.90708	60.00000	Averaged	
	173 Carbazole	0.80714	0.69773	0.69773	0.000	-13.55506	60.00000	Averaged	
	184 p-Benzoquinone	40.49777	40.00000	0.06781	0.000	1.24442	60.00000	Linear	
	192 Methoxychlor	0.31747	0.36177	0.36177	0.000	13.95477	60.00000	Averaged	
	211 p-Toluidine	0.70440	0.95402	0.95402	0.000	35.43664	60.00000	Averaged	
	210 m-Toluidine	0.91072	0.95200	0.95200	0.000	4.53333	60.00000	Averaged	
	26 Phthalic anhydride	42.71723	40.00000	0.10164	0.000	6.79306	60.00000	Linear	
	179 Dibenzo(a,e)pyrene	24.88814	40.00000	0.27687	0.000	-37.77964	60.00000	Linear	
	214 1,4-Dinitrobenzene	0.17315	0.14504	0.14504	0.000	-16.23762	60.00000	Averaged	
	215 2-Ethoxyethanol	0.60315	0.59707	0.59707	0.000	-1.00765	60.00000	Averaged	
	216 Methylenebis(2-chloroanilin	0.12921	0.12373	0.12373	0.000	-4.23543	60.00000	Averaged	
M	225 Trichlorophenols	0.27448	0.25265	0.25265	0.000	-7.95340	60.00000	Averaged	
M	226 Tetrachlorophenols	0.21604	0.19708	0.19708	0.000	-8.77777	60.00000	Averaged	
M	227 Benzo(b,k)fluoranthene	0.96552	0.91331	0.91331	0.000	-5.40733	60.00000	Averaged	

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Data file : /chem/MSD1.i/s111409.b/s1k1261.d
Lab Smp Id: WBN091027-09.3 Client Smp ID: MEGAICV
Inj Date : 17-NOV-2009 16:27
Operator : amy Inst ID: MSD1.i
Smp Info : |WBN091027-09.3|40 PPM|1|SVMF|1|MEGAICV
Misc Info : |MSD8270|WBN091106-10|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD1.i/s111409.b/MSD1-M8270AQA-111409.m
Meth Date : 17-Nov-2009 16:47 llo00884 Quant Type: ISTD
Cal Date : 17-NOV-2009 12:38 Cal File: s1k1256.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: MEGAIICARE.sub
Target Version: 3.50
Processing Host: kilroy

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)	
* 10 1,4-Dichlorobenzene-d4	152	3.928	3.928	(1.000)	530038	40.0000		
* 29 Naphthalene-d8	136	4.793	4.793	(1.000)	2205306	40.0000		
* 46 Acenaphthene-d10	164	6.040	6.040	(1.000)	1135267	40.0000		
* 67 Phenanthrene-d10	188	7.022	7.022	(1.000)	1874551	40.0000		(H)
* 91 Chrysene-d12	240	8.704	8.704	(1.000)	1621760	40.0000		
* 98 Perylene-d12	264	10.198	10.198	(1.000)	1481649	40.0000		
$ 3 2-Fluorophenol	112	3.104	3.104	(0.790)	491348	40.0000	35.5	
$ 5 Phenol-d5	99	3.640	3.640	(0.927)	592737	40.0000	35.2	
$ 20 Nitrobenzene-d5	82	4.287	4.287	(0.894)	570788	40.0000	39.3	
$ 39 2-Fluorobiphenyl	172	5.534	5.534	(0.916)	1084689	40.0000	39.9	
$ 60 2,4,6-Tribromophenol	329	6.575	6.575	(1.089)	129390	40.0000	40.8	
$ 81 p-Terphenyl-d14	244	7.939	7.939	(0.912)	990744	40.0000	38.9	
1 N-Methyl-N-nitrosomethylamine	74	2.410	2.410	(0.614)	276992	40.0000	36.8	
2 Pyridine	79	2.446	2.446	(0.623)	381913	40.0000	30.2	
4 Aniline	66	3.710	3.710	(0.945)	244181	40.0000	33.0	
6 Phenol	94	3.646	3.646	(0.928)	599483	40.0000	33.8	
7 bis(2-Chloroethyl) ether	63	3.722	3.722	(0.948)	417273	40.0000	33.8	
8 2-Chlorophenol	128	3.787	3.787	(0.964)	512179	40.0000	34.0	
203 n-Decane	43	3.775	3.775	(0.961)	707542	40.0000	37.3	
9 1,3-Dichlorobenzene	146	3.893	3.893	(0.991)	606813	40.0000	34.3	
11 1,4-Dichlorobenzene	146	3.934	3.934	(1.001)	598440	40.0000	34.5	
13 1,2-Dichlorobenzene	146	4.040	4.040	(1.028)	543984	40.0000	34.0	
14 bis(2-Chloroisopropyl)ether	45	4.069	4.069	(1.036)	1027894	40.0000	35.0	
12 Benzyl alcohol	108	3.993	3.993	(1.016)	316054	40.0000	34.5	
15 o-Cresol	107	4.040	4.040	(1.028)	382773	40.0000	34.1	
18 m,p-Cresols	107	4.146	4.146	(1.055)	530984	40.0000	34.8	

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
17 N-Nitrosodipropylamine	70	4.163	4.163	(1.060)	325364	40.0000	32.2
19 Hexachloroethane	117	4.269	4.269	(1.087)	206306	40.0000	33.1
21 Nitrobenzene	77	4.304	4.304	(0.898)	528723	40.0000	34.9
22 Isophorone	82	4.457	4.457	(0.930)	944401	40.0000	35.6
23 2-Nitrophenol	139	4.516	4.516	(0.942)	274410	40.0000	34.1
24 2,4-Dimethylphenol	122	4.504	4.504	(0.940)	516190	40.0000	40.1
25 bis(2-Chloroethoxy)methane	93	4.575	4.575	(0.955)	561140	40.0000	32.9
26 2,4-Dichlorophenol	162	4.681	4.681	(0.977)	415624	40.0000	34.4
27 Benzoic acid	105	4.575	4.575	(0.955)	365053	40.0000	41.2
28 1,2,4-Trichlorobenzene	180	4.745	4.745	(0.990)	467914	40.0000	35.0
30 Naphthalene	128	4.810	4.810	(1.004)	1690998	40.0000	36.7
204 alpha-Terpineol	59	4.787	4.787	(0.999)	424496	40.0000	39.2
31 4-Chloroaniline	127	4.822	4.822	(1.006)	756952	40.0000	36.0
32 Hexachlorobutadiene	225	4.875	4.875	(1.017)	233369	40.0000	34.0
33 4-Chloro-3-methylphenol	107	5.134	5.134	(1.071)	380998	40.0000	32.3
34 2-Methylnaphthalene	142	5.293	5.293	(1.104)	1146146	40.0000	37.9
35 1-Methylnaphthalene	142	5.363	5.363	(1.119)	1056787	40.0000	38.8
36 Hexachlorocyclopentadiene	237	5.393	5.393	(0.893)	141475	40.0000	40.8
205 2,3-Dichloroaniline	161	5.487	5.487	(0.908)	505408	40.0000	39.2
37 2,4,6-Trichlorophenol	196	5.475	5.475	(0.906)	283075	40.0000	37.5(H)
38 2,4,5-Trichlorophenol	196	5.504	5.504	(0.911)	290570	40.0000	36.2
40 2-Chloronaphthalene	162	5.645	5.645	(0.935)	931485	40.0000	33.2
42 o-Nitroaniline	65	5.698	5.698	(0.944)	283207	40.0000	32.6
41 m-Nitroaniline	138	5.992	5.992	(0.992)	254734	40.0000	33.2
43 Dimethylphthalate	163	5.810	5.810	(0.962)	1089088	40.0000	35.2
44 2,6-Dinitrotoluene	165	5.863	5.863	(0.971)	252831	40.0000	32.8
50 2,4-Dinitrotoluene	165	6.145	6.145	(1.018)	334220	40.0000	32.7
45 Acenaphthylene	152	5.945	5.945	(0.984)	1666713	40.0000	38.1
47 Acenaphthene	154	6.063	6.063	(1.004)	973838	40.0000	37.2
48 2,4-Dinitrophenol	184	6.057	6.057	(1.003)	104771	40.0000	34.4(Q)
49 Dibenzofuran	168	6.181	6.181	(1.023)	1277902	40.0000	33.7
51 Diethylphthalate	149	6.287	6.287	(1.041)	1059428	40.0000	36.7
52 4-Nitrophenol	139	6.075	6.075	(1.006)	211838	40.0000	39.6
53 Fluorene	166	6.416	6.416	(1.062)	1132809	40.0000	37.1
54 4-Chlorophenylphenylether	204	6.392	6.392	(1.058)	483371	40.0000	37.5
55 2-Methyl-4,6-dinitrophenol	198	6.428	6.428	(0.911)	184539	40.0000	38.9
56 p-Nitroaniline	138	6.410	6.410	(1.061)	247705	40.0000	33.0
133 Diphenylamine	169	6.469	6.469	(0.917)	871532	40.0000	34.8
58 1,2-Diphenylhydrazine	77	6.498	6.498	(0.921)	1045567	40.0000	34.3
61 4-Bromophenylphenylether	248	6.716	6.716	(0.952)	264808	40.0000	41.1(H)
63 Hexachlorobenzene	284	6.775	6.775	(0.960)	270561	40.0000	34.2
65 Pentachlorophenol	266	6.892	6.892	(0.977)	169503	40.0000	35.8
206 n-Octadecane	57	6.869	6.869	(0.973)	797995	40.0000	39.2
68 Phenanthrene	178	7.039	7.039	(0.997)	1566761	40.0000	36.8
69 Anthracene	178	7.069	7.069	(1.002)	1595437	40.0000	36.8
72 Di-n-butylphthalate	149	7.310	7.310	(1.036)	1788243	40.0000	38.7
76 Fluoranthene	202	7.751	7.751	(1.098)	1531590	40.0000	37.2

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
79 Pyrene	202	7.892	7.892	(0.907)	1593654	40.0000	37.0
85 Butylbenzylphthalate	149	8.204	8.204	(0.943)	757996	40.0000	38.6
89 Benzo(a)anthracene	228	8.692	8.692	(0.999)	1420191	40.0000	36.5(H)
92 Chrysene	228	8.728	8.728	(1.003)	1333078	40.0000	36.7
93 bis(2-Ethylhexyl)phthalate	149	8.569	8.569	(0.984)	1058534	40.0000	37.2(H)
94 Di-n-octylphthalate	149	9.110	9.110	(0.893)	1768724	40.0000	36.5
95 Benzo(b)fluoranthene	252	9.716	9.716	(0.953)	1289484	40.0000	34.7(H)
96 Benzo(k)fluoranthene	252	9.745	9.745	(0.956)	1416940	40.0000	38.1
97 Benzo(a)pyrene	252	10.122	10.122	(0.992)	1227658	40.0000	37.9
99 Indeno(1,2,3-cd)pyrene	276	11.863	11.863	(1.163)	1204623	40.0000	35.8(H)
100 Dibenzo(a,h)anthracene	278	11.863	11.863	(1.163)	986733	40.0000	35.1
101 Benzo(ghi)perylene	276	12.380	12.380	(1.214)	1034720	40.0000	37.2
126 m-Dinitrobenzene	168	5.845	5.845	(0.968)	178196	40.0000	33.7
130 2,3,4,6-Tetrachlorophenol	232	6.251	6.251	(1.035)	223733	40.0000	36.5
143 Dinoseb	211	6.981	6.981	(0.989)	205546	40.0000	35.2
173 Carbazole	167	7.151	7.151	(1.013)	1307938	40.0000	34.6
184 p-Benzoquinone	54	3.404	3.404	(0.867)	35940	40.0000	40.5
192 Methoxychlor	227	8.557	8.557	(0.983)	586700	40.0000	45.6
211 p-Toluidine	106	4.204	4.204	(1.070)	505668	40.0000	54.2(H)
210 m-Toluidine	106	4.228	4.228	(1.076)	504598	40.0000	41.8
26 Phthalic anhydride	104	5.322	5.322	(1.110)	224154	40.0000	42.7
179 Dibenzo(a,e)pyrene	302	16.327	16.327	(1.601)	410219	40.0000	24.9(H)
214 1,4-Dinitrobenzene	168	5.787	5.787	(0.958)	164654	40.0000	33.5
215 2-Ethoxyethanol	59	2.257	2.257	(0.575)	316469	40.0000	39.6
216 Methylenebis(2-chloroaniline)	231	8.622	8.622	(0.991)	200666	40.0000	38.3
M 225 Trichlorophenols	196				573645	80.0000	73.6
M 226 Tetrachlorophenols	232				223733	40.0000	36.5
M 227 Benzo(b,k)fluoranthene	252				2706424	80.0000	75.7

QC Flag Legend

Q - Qualifier signal failed the ratio test.
H - Operator selected an alternate compound hit.

Data File: /chem/MSD1.i/s111409.b/s1k1261.d
Date : 17-NOV-2009 16:27
Client ID: MECAICV
Sample Info: IWBN091027-09,3|40 PPM|1|SVHF|1|MECAICV
Column phase: J&W DB-5MS

Instrument: MSD1.i
Operator: amy
Column diameter: 0.20

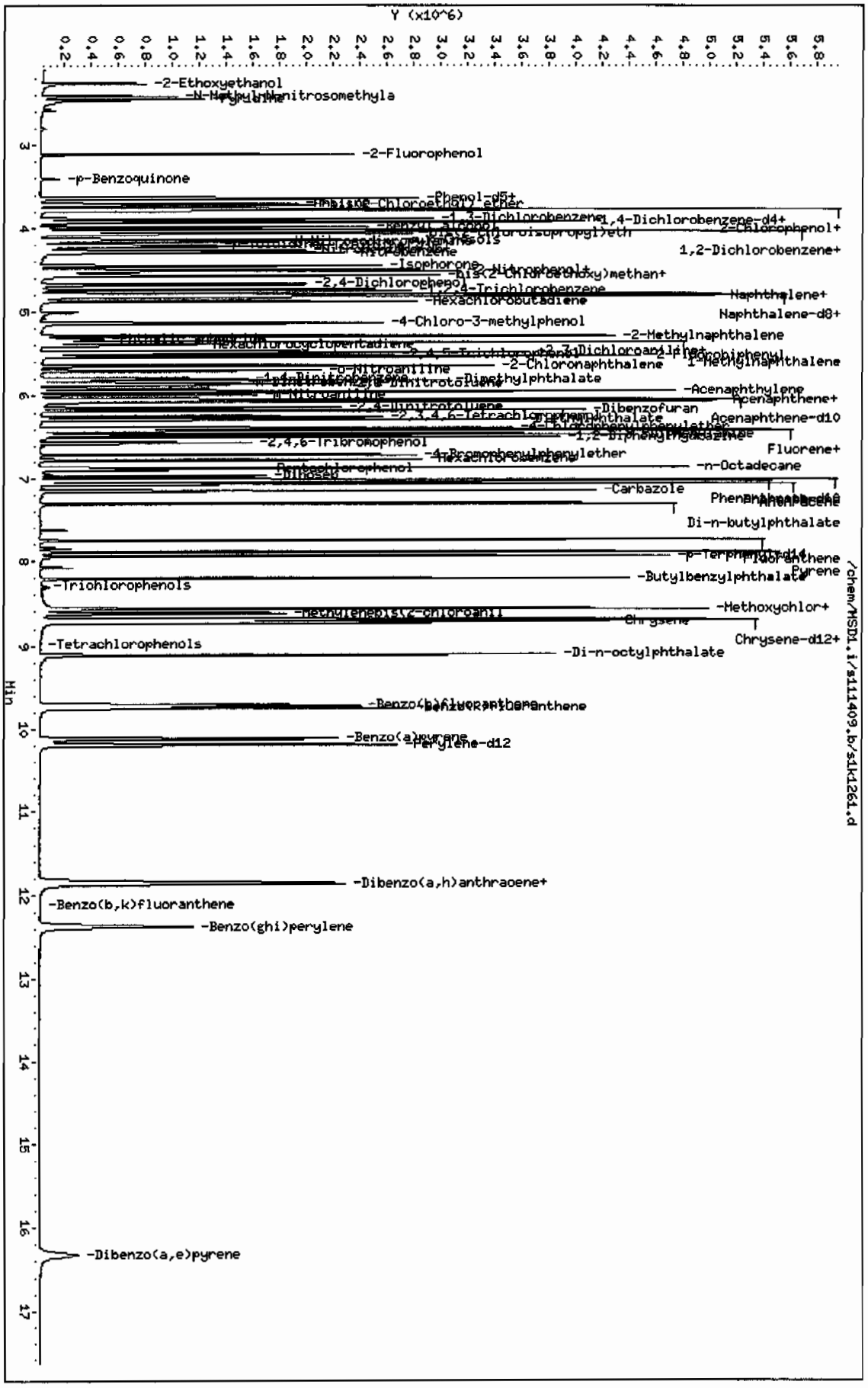

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD1.i Injection Date: 19-DEC-2009 10:10
Lab File ID: s111903.d Init. Cal. Date(s): 14-NOV-2009 17-NOV-2009
Analysis Type: Init. Cal. Times: 18:22 19:15
Lab Sample ID: WBN091201-17.4 Quant Type: ISTD
Method: /chem/MSD1.i/s121909.b/MSD1-M8270AQA-111409.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
$ 3 2-Fluorophenol	1.04478	1.03453	1.03453	0.000	-0.98116	60.00000	Averaged
$ 5 Phenol-d5	1.26984	1.22433	1.22433	0.000	-3.58328	60.00000	Averaged
$ 20 Nitrobenzene-d5	0.26360	0.28527	0.28527	0.000	8.21935	60.00000	Averaged
$ 39 2-Fluorobiphenyl	0.95800	1.06156	1.06156	0.000	10.81053	60.00000	Averaged
$ 60 2,4,6-Tribromophenol	0.11169	0.13531	0.13531	0.000	21.14299	60.00000	Averaged
$ 81 p-Terphenyl-d14	0.62787	0.67321	0.67321	0.000	7.22029	60.00000	Averaged
1 N-Methyl-N-nitrosomethylami	0.56740	0.60236	0.60236	0.000	6.16227	60.00000	Averaged
2 Pyridine	0.95281	0.86618	0.86618	0.000	-9.09220	60.00000	Averaged
4 Aniline	0.55813	0.52760	0.52760	0.000	-5.47005	60.00000	Averaged
6 Phenol	1.33800	1.27340	1.27340	0.001	-4.82802	20.00000	Averaged ccc
7 bis(2-Chloroethyl) ether	0.93081	0.91699	0.91699	0.000	-1.48541	60.00000	Averaged
8 2-Chlorophenol	1.13717	1.05802	1.05802	0.000	-6.96012	60.00000	Averaged
203 n-Decane	1.43160	1.52994	1.52994	0.000	6.86970	60.00000	Averaged
9 1,3-Dichlorobenzene	1.33431	1.19295	1.19295	0.000	-10.59403	60.00000	Averaged
11 1,4-Dichlorobenzene	1.30799	1.18081	1.18081	0.001	-9.72356	20.00000	Averaged ccc
13 1,2-Dichlorobenzene	1.20798	1.10516	1.10516	0.000	-8.51160	60.00000	Averaged
14 bis(2-Chloroisopropyl)ether	2.21709	2.10858	2.10858	0.000	-4.89397	60.00000	Averaged
12 Benzyl alcohol	0.69141	0.66194	0.66194	0.000	-4.26207	60.00000	Averaged
15 o-Cresol	0.84650	0.79775	0.79775	0.000	-5.75816	60.00000	Averaged
18 m,p-Cresols	1.15179	1.06691	1.06691	0.000	-7.36944	60.00000	Averaged
17 N-Nitrosodipropylamine	0.76238	0.69047	0.69047	0.050	-9.43137	60.00000	Averaged spcc
19 Hexachloroethane	0.47075	0.42554	0.42554	0.000	-9.60379	60.00000	Averaged
21 Nitrobenzene	0.27466	0.28639	0.28639	0.000	4.27295	60.00000	Averaged
22 Isophorone	0.48049	0.52003	0.52003	0.000	8.23027	60.00000	Averaged
23 2-Nitrophenol	0.14580	0.13197	0.13197	0.001	-9.48422	20.00000	Averaged ccc
24 2,4-Dimethylphenol	0.23346	0.22915	0.22915	0.000	-1.84693	60.00000	Averaged
25 bis(2-Chloroethoxy)methane	0.30933	0.29837	0.29837	0.000	-3.54350	60.00000	Averaged
26 2,4-Dichlorophenol	0.21909	0.20611	0.20611	0.001	-5.92605	20.00000	Averaged ccc
27 Benzoic acid	0.16087	0.18148	0.18148	0.000	12.81147	60.00000	Averaged
28 1,2,4-Trichlorobenzene	0.24210	0.23711	0.23711	0.000	-2.06141	60.00000	Averaged
30 Naphthalene	0.83482	0.82798	0.82798	0.000	-0.81893	60.00000	Averaged
204 alpha-Terpineol	0.19635	0.21396	0.21396	0.000	8.96486	60.00000	Averaged
31 4-Chloroaniline	0.38123	0.37704	0.37704	0.000	-1.09871	60.00000	Averaged
32 Hexachlorobutadiene	0.12432	0.13259	0.13259	0.001	6.65459	20.00000	Averaged ccc
33 4-Chloro-3-methylphenol	0.21406	0.20324	0.20324	0.001	-5.05374	20.00000	Averaged ccc
34 2-Methylnaphthalene	0.54880	0.57246	0.57246	0.000	4.31252	60.00000	Averaged

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD1.i Injection Date: 19-DEC-2009 10:10
Lab File ID: s111903.d Init. Cal. Date(s): 14-NOV-2009 17-NOV-2009
Analysis Type: Init. Cal. Times: 18:22 19:15
Lab Sample ID: WBN091201-17.4 Quant Type: ISTD
Method: /chem/MSD1.i/s121909.b/MSD1-M8270AQA-111409.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
35 1-Methylnaphthalene	0.49330	0.53917	0.53917	0.000	9.29753	60.00000	Averaged	
36 Hexachlorocyclopentadiene	0.12213	0.12241	0.12241	0.050	0.23349	60.00000	Averaged	spcc
205 2,3-Dichloroaniline	0.45401	0.47328	0.47328	0.000	4.24604	60.00000	Averaged	
37 2,4,6-Trichlorophenol	0.26606	0.27339	0.27339	0.001	2.75507	20.00000	Averaged	ccc
38 2,4,5-Trichlorophenol	0.28290	0.29655	0.29655	0.000	4.82658	60.00000	Averaged	
40 2-Chloronaphthalene	0.98748	0.87461	0.87461	0.000	-11.43066	60.00000	Averaged	
42 o-Nitroaniline	0.30619	0.28003	0.28003	0.000	-8.54394	60.00000	Averaged	
41 m-Nitroaniline	0.27055	0.20948	0.20948	0.000	-22.57334	60.00000	Averaged	
43 Dimethylphthalate	1.08995	1.04018	1.04018	0.000	-4.56636	60.00000	Averaged	
44 2,6-Dinitrotoluene	0.27156	0.23174	0.23174	0.000	-14.66345	60.00000	Averaged	
50 2,4-Dinitrotoluene	0.35993	0.29768	0.29768	0.000	-17.29417	60.00000	Averaged	
45 Acenaphthylene	1.54092	1.61776	1.61776	0.000	4.98647	60.00000	Averaged	
47 Acenaphthene	0.92259	0.93587	0.93587	0.001	1.43932	20.00000	Averaged	ccc
48 2,4-Dinitrophenol	0.10718	0.07851	0.07851	0.050	-26.74803	60.00000	Averaged	spcc
49 Dibenzofuran	1.33422	1.22635	1.22635	0.000	-8.08455	60.00000	Averaged	
51 Diethylphthalate	1.01616	1.06441	1.06441	0.000	4.74902	60.00000	Averaged	
52 4-Nitrophenol	0.18871	0.17376	0.17376	0.050	-7.92310	60.00000	Averaged	spcc
53 Fluorene	1.07578	1.13640	1.13640	0.000	5.63469	60.00000	Averaged	
54 4-Chlorophenylphenylether	0.45420	0.47216	0.47216	0.000	3.95297	60.00000	Averaged	
55 2-Methyl-4,6-dinitrophenol	0.10120	0.08891	0.08891	0.000	-12.14071	60.00000	Averaged	
56 p-Nitroaniline	0.26458	0.16820	0.16820	0.000	-36.42650	60.00000	Averaged	
133 Diphenylamine	0.53354	0.46490	0.46490	0.001	-12.86440	20.00000	Averaged	ccc
58 1,2-Diphenylhydrazine	0.65098	0.62731	0.62731	0.000	-3.63682	60.00000	Averaged	
61 4-Bromophenylphenylether	0.13743	0.15436	0.15436	0.000	12.31772	60.00000	Averaged	
63 Hexachlorobenzene	0.16869	0.16871	0.16871	0.000	0.01023	60.00000	Averaged	
65 Pentachlorophenol	0.10117	0.10933	0.10933	0.001	8.07185	20.00000	Averaged	ccc
206 n-Octadecane	0.43383	0.46015	0.46015	0.000	6.06837	60.00000	Averaged	
68 Phenanthrene	0.90903	0.87130	0.87130	0.000	-4.15127	60.00000	Averaged	
69 Anthracene	0.92447	0.90148	0.90148	0.000	-2.48676	60.00000	Averaged	
72 Di-n-butylphthalate	0.98605	1.06521	1.06521	0.000	8.02814	60.00000	Averaged	
76 Fluoranthene	0.87746	0.94512	0.94512	0.001	7.71084	20.00000	Averaged	ccc
79 Pyrene	1.06293	1.12154	1.12154	0.000	5.51416	60.00000	Averaged	
85 Butylbenzylphthalate	0.48372	0.51320	0.51320	0.000	6.09399	60.00000	Averaged	
89 Benzo(a)anthracene	0.95915	0.94327	0.94327	0.000	-1.65505	60.00000	Averaged	
92 Chrysene	0.89647	0.91412	0.91412	0.000	1.96827	60.00000	Averaged	
93 bis(2-Ethylhexyl)phthalate	0.70275	0.71596	0.71596	0.000	1.87972	60.00000	Averaged	

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD1.i
Lab File ID: s111903.d
Analysis Type:
Lab Sample ID: WBN091201-17.4
Method: /chem/MSD1.i/s121909.b/MSD1-M8270AQA-111409.m

Injection Date: 19-DEC-2009 10:10
Init. Cal. Date(s): 14-NOV-2009 17-NOV-2009
Init. Cal. Times: 18:22 19:15
Quant Type: ISTD

	COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
	94 Di-n-octylphthalate	1.30849	1.37257	1.37257	0.001	4.89699	20.00000	Averaged	ccc
	95 Benzo(b)fluoranthene	37.98756	40.00000	0.95986	0.000	-5.03110	60.00000	Linear	
	96 Benzo(k)fluoranthene	1.00298	1.13275	1.13275	0.000	12.93843	60.00000	Averaged	
	97 Benzo(a)pyrene	41.43553	40.00000	0.90492	0.001	3.58883	20.00000	Linear	ccc
	99 Indeno(1,2,3-cd)pyrene	34.99145	40.00000	0.79406	0.000	-12.52137	60.00000	Linear	
	100 Dibenzo(a,h)anthracene	33.89527	40.00000	0.64323	0.000	-15.26182	60.00000	Linear	
	101 Benzo(ghi)perylene	0.75165	0.68027	0.68027	0.000	-9.49643	60.00000	Averaged	
	126 m-Dinitrobenzene	0.18653	0.16001	0.16001	0.000	-14.21416	60.00000	Averaged	
	130 2,3,4,6-Tetrachlorophenol	0.21604	0.24697	0.24697	0.000	14.31540	60.00000	Averaged	
	143 Dinoseb	0.12447	0.10500	0.10500	0.000	-15.64443	60.00000	Averaged	
	173 Carbazole	0.80714	0.62960	0.62960	0.000	-21.99672	60.00000	Averaged	
	184 p-Benzoquinone	63.35312	40.00000	0.11390	0.000	58.38280	60.00000	Linear	
	192 Methoxychlor	0.31747	0.43282	0.43282	0.000	36.33684	60.00000	Averaged	
	211 p-Toluidine	0.70440	0.87512	0.87512	0.000	24.23555	60.00000	Averaged	
	210 m-Toluidine	0.91072	1.08961	1.08961	0.000	19.64300	60.00000	Averaged	
	26 Phthalic anhydride	49.55864	40.00000	0.11931	0.000	23.89660	60.00000	Linear	
	179 Dibenzo(a,e)pyrene	18.51180	40.00000	0.19629	0.000	-53.72051	60.00000	Linear	
	214 1,4-Dinitrobenzene	0.17315	0.14291	0.14291	0.000	-17.46573	60.00000	Averaged	
	215 2-Ethoxyethanol	0.60315	0.69098	0.69098	0.000	14.56209	60.00000	Averaged	
	216 Methylenebis(2-chloroanilin	0.12921	0.11031	0.11031	0.000	-14.62428	60.00000	Averaged	
M	225 Trichlorophenols	0.27448	0.28497	0.28497	0.000	3.82260	60.00000	Averaged	
M	226 Tetrachlorophenols	0.21604	0.24697	0.24697	0.000	14.31540	60.00000	Averaged	
M	227 Benzo(b,k)fluoranthene	0.96552	1.04630	1.04630	0.000	8.36655	60.00000	Averaged	

GEL Laboratories LLC

Data file : /chem/MSD1.i/s121909.b/s111903.d
Lab Smp Id: WBN091201-17.4 Client Smp ID: MEGACVS
Inj Date : 19-DEC-2009 10:10
Operator : AMY Inst ID: MSD1.i
Smp Info : |WBN091201-17.4|40 PPM|1|SVMF|1|MEGACVS
Misc Info : |MSD8270|WBN091128-02|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD1.i/s121909.b/MSD1-M8270AQA-111409.m
Meth Date : 20-Dec-2009 13:59 amy01291 Quant Type: ISTD
Cal Date : 17-NOV-2009 17:42 Cal File: s1k1264.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: MEGAIICARE.sub
Target Version: 3.50
Processing Host: hpclp1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	3.698	3.698	(1.000)	850761	40.0000	
* 29 Naphthalene-d8	136	4.563	4.563	(1.000)	3384637	40.0000	
* 46 Acenaphthene-d10	164	5.804	5.804	(1.000)	1782041	40.0000	
* 67 Phenanthrene-d10	188	6.798	6.798	(1.000)	3038058	40.0000	
* 91 Chrysene-d12	240	8.404	8.404	(1.000)	2655368	40.0000	
* 98 Perylene-d12	264	9.704	9.704	(1.000)	2298083	40.0000	
$ 3 2-Fluorophenol	112	2.904	2.904	(0.785)	880141	40.0000	39.6
$ 5 Phenol-d5	99	3.434	3.434	(0.928)	1041616	40.0000	38.6
$ 20 Nitrobenzene-d5	82	4.063	4.063	(0.890)	965536	40.0000	43.3
$ 39 2-Fluorobiphenyl	172	5.298	5.298	(0.913)	1891749	40.0000	44.3
$ 60 2,4,6-Tribromophenol	329	6.345	6.345	(1.093)	241127	40.0000	48.4
$ 81 p-Terphenyl-d14	244	7.716	7.716	(0.918)	1787615	40.0000	42.9
1 N-Methyl-N-nitrosomethylamine	74	2.222	2.222	(0.601)	512466	40.0000	42.5
2 Pyridine	79	2.257	2.257	(0.610)	736909	40.0000	36.4
4 Aniline	66	3.493	3.493	(0.944)	448863	40.0000	37.8
6 Phenol	94	3.445	3.445	(0.932)	1083360	40.0000	38.1
7 bis(2-Chloroethyl) ether	63	3.510	3.510	(0.949)	780136	40.0000	39.4
8 2-Chlorophenol	128	3.569	3.569	(0.965)	900122	40.0000	37.2
203 n-Decane	43	3.551	3.551	(0.960)	1301618	40.0000	42.7
9 1,3-Dichlorobenzene	146	3.669	3.669	(0.992)	1014919	40.0000	35.8
11 1,4-Dichlorobenzene	146	3.710	3.710	(1.003)	1004584	40.0000	36.1
13 1,2-Dichlorobenzene	146	3.816	3.816	(1.032)	940231	40.0000	36.6
14 bis(2-Chloroisopropyl)ether	45	3.845	3.845	(1.040)	1793901	40.0000	38.0
12 Benzyl alcohol	108	3.775	3.775	(1.021)	563154	40.0000	38.3
15 o-Cresol	107	3.834	3.834	(1.037)	678698	40.0000	37.7
18 m,p-Cresols	107	3.934	3.934	(1.064)	907682	40.0000	37.0

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
17 N-Nitrosodipropylamine	70	3.945	3.945	(1.067)	587428	40.0000	36.2
19 Hexachloroethane	117	4.040	4.040	(1.092)	362031	40.0000	36.2
21 Nitrobenzene	77	4.081	4.081	(0.894)	969329	40.0000	41.7
22 Isophorone	82	4.228	4.228	(0.927)	1760124	40.0000	43.3
23 2-Nitrophenol	139	4.287	4.287	(0.939)	446671	40.0000	36.2
24 2,4-Dimethylphenol	122	4.293	4.293	(0.941)	775589	40.0000	39.3
25 bis(2-Chloroethoxy)methane	93	4.351	4.351	(0.954)	1009866	40.0000	38.6
26 2,4-Dichlorophenol	162	4.451	4.451	(0.976)	697594	40.0000	37.6
27 Benzoic acid	105	4.369	4.369	(0.957)	614240	40.0000	45.1
28 1,2,4-Trichlorobenzene	180	4.510	4.510	(0.988)	802544	40.0000	39.2
30 Naphthalene	128	4.575	4.575	(1.003)	2802410	40.0000	39.7(Q)
204 alpha-Terpineol	59	4.551	4.551	(0.997)	724165	40.0000	43.6
31 4-Chloroaniline	127	4.598	4.598	(1.008)	1276147	40.0000	39.6
32 Hexachlorobutadiene	225	4.640	4.640	(1.017)	448772	40.0000	42.7
33 4-Chloro-3-methylphenol	107	4.916	4.916	(1.077)	687888	40.0000	38.0
34 2-Methylnaphthalene	142	5.051	5.051	(1.107)	1937586	40.0000	41.7
35 1-Methylnaphthalene	142	5.128	5.128	(1.124)	1824894	40.0000	43.7
36 Hexachlorocyclopentadiene	237	5.157	5.157	(0.889)	218147	40.0000	40.1
205 2,3-Dichloroaniline	161	5.251	5.251	(0.905)	843412	40.0000	41.7
37 2,4,6-Trichlorophenol	196	5.245	5.245	(0.904)	487185	40.0000	41.1
38 2,4,5-Trichlorophenol	196	5.275	5.275	(0.909)	528471	40.0000	41.9
40 2-Chloronaphthalene	162	5.404	5.404	(0.931)	1558587	40.0000	35.4
42 o-Nitroaniline	65	5.469	5.469	(0.942)	499017	40.0000	36.6
41 m-Nitroaniline	138	5.763	5.763	(0.993)	373299	40.0000	31.0
43 Dimethylphthalate	163	5.581	5.581	(0.961)	1853635	40.0000	38.2
44 2,6-Dinitrotoluene	165	5.634	5.634	(0.971)	412970	40.0000	34.1
50 2,4-Dinitrotoluene	165	5.922	5.922	(1.020)	530484	40.0000	33.1
45 Acenaphthylene	152	5.704	5.704	(0.983)	2882917	40.0000	42.0
47 Acenaphthene	154	5.828	5.828	(1.004)	1667754	40.0000	40.6
48 2,4-Dinitrophenol	184	5.834	5.834	(1.005)	139916	40.0000	29.3(Q)
49 Dibenzofuran	168	5.945	5.945	(1.024)	2185409	40.0000	36.8
51 Diethylphthalate	149	6.069	6.069	(1.046)	1896829	40.0000	41.9
52 4-Nitrophenol	139	5.869	5.869	(1.011)	309652	40.0000	36.8
53 Fluorene	166	6.186	6.186	(1.066)	2025113	40.0000	42.2
54 4-Chlorophenylphenylether	204	6.163	6.163	(1.062)	841406	40.0000	41.6
55 2-Methyl-4,6-dinitrophenol	198	6.204	6.204	(0.913)	270115	40.0000	35.1
56 p-Nitroaniline	138	6.192	6.192	(1.067)	299740	40.0000	25.4
133 Diphenylamine	169	6.245	6.245	(0.919)	1412402	40.0000	34.8
58 1,2-Diphenylhydrazine	77	6.275	6.275	(0.923)	1905799	40.0000	38.5
61 4-Bromophenylphenylether	248	6.492	6.492	(0.955)	468948	40.0000	44.9
63 Hexachlorobenzene	284	6.551	6.551	(0.964)	512538	40.0000	40.0
65 Pentachlorophenol	266	6.675	6.675	(0.982)	332157	40.0000	43.2
206 n-Octadecane	57	6.657	6.657	(0.979)	1397966	40.0000	42.4
68 Phenanthrene	178	6.816	6.816	(1.003)	2647053	40.0000	38.3
69 Anthracene	178	6.845	6.845	(1.007)	2738746	40.0000	39.0
72 Di-n-butylphthalate	149	7.098	7.098	(1.044)	3236174	40.0000	43.2
76 Fluoranthene	202	7.528	7.528	(1.107)	2871334	40.0000	43.1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
79 Pyrene	202	7.663	7.663	(0.912)	2978103	40.0000	42.2
85 Butylbenzylphthalate	149	7.963	7.963	(0.948)	1362740	40.0000	42.4
89 Benzo(a)anthracene	228	8.392	8.392	(0.999)	2504741	40.0000	39.3
92 Chrysene	228	8.422	8.422	(1.002)	2427313	40.0000	40.8
93 bis(2-Ethylhexyl)phthalate	149	8.292	8.292	(0.987)	1901149	40.0000	40.8
94 Di-n-octylphthalate	149	8.769	8.769	(0.904)	3154271	40.0000	42.0
95 Benzo(b)fluoranthene	252	9.292	9.292	(0.958)	2205848	40.0000	38.0
96 Benzo(k)fluoranthene	252	9.322	9.322	(0.961)	2603143	40.0000	45.2
97 Benzo(a)pyrene	252	9.645	9.645	(0.994)	2079570	40.0000	41.4
99 Indeno(1,2,3-cd)pyrene	276	11.139	11.139	(1.148)	1824824	40.0000	35.0
100 Dibenzo(a,h)anthracene	278	11.139	11.139	(1.148)	1478197	40.0000	33.9
101 Benzo(ghi)perylene	276	11.586	11.586	(1.194)	1563313	40.0000	36.2
126 m-Dinitrobenzene	168	5.622	5.622	(0.969)	285151	40.0000	34.3
130 2,3,4,6-Tetrachlorophenol	232	6.028	6.028	(1.038)	440102	40.0000	45.7
143 Dinoseb	211	6.763	6.763	(0.995)	318992	40.0000	33.7
173 Carbazole	167	6.934	6.934	(1.020)	1912754	40.0000	31.2
184 p-Benzoquinone	54	3.198	3.198	(0.865)	96902	40.0000	63.4
192 Methoxychlor	227	8.280	8.280	(0.985)	1149304	40.0000	54.5
211 p-Toluidine	106	3.981	3.981	(1.076)	744519	40.0000	49.7
210 m-Toluidine	106	4.004	4.004	(1.083)	926998	40.0000	47.8
26 Phthalic anhydride	104	5.098	5.098	(1.117)	403834	40.0000	49.6
179 Dibenzo(a,e)pyrene	302	14.957	14.957	(1.541)	451083	40.0000	18.5
214 1,4-Dinitrobenzene	168	5.563	5.563	(0.958)	254669	40.0000	33.0
215 2-Ethoxyethanol	59	2.069	2.069	(0.559)	587856	40.0000	45.8
216 Methylenebis(2-chloroaniline)	231	8.339	8.339	(0.992)	292914	40.0000	34.2
M 225 Trichlorophenols	196				1015657	80.0000	83.0
M 226 Tetrachlorophenols	232				440102	40.0000	45.7
M 227 Benzo(b,k)fluoranthene	252				4808992	80.0000	86.7

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: /chem/MSD1.i/s121909.b/s111903.d
Date : 19-DEC-2009 10:10
Client ID: MEGACVS
Sample Info: IWBN091201-17.4140 PPM11;SVMF11;MEGACVS
Column phase: J&W DB-5MS

Instrument: MSD1.i
Operator: AMY
Column diameter: 0.20

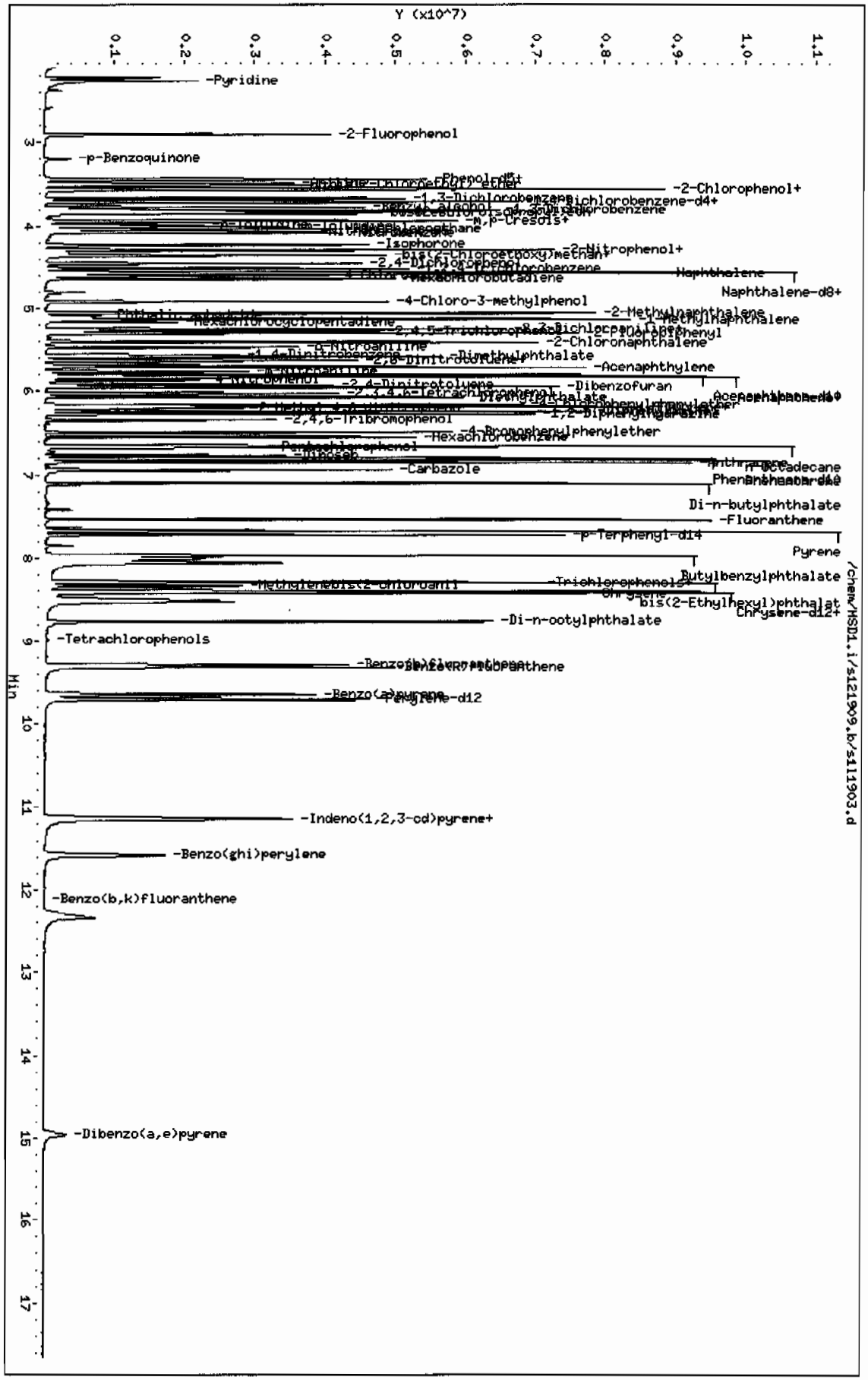

Page 1

QC Data

Data File: /chem/MSD1.i/s111409.b/s1k1201.d

Page 1

Date : 14-NOV-2009 17:38

Client ID: DFTPP

Instrument: MSD1.i

Sample Info: |WBN091101-01|50 PPM|1|SVMF|1|DFTPP

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

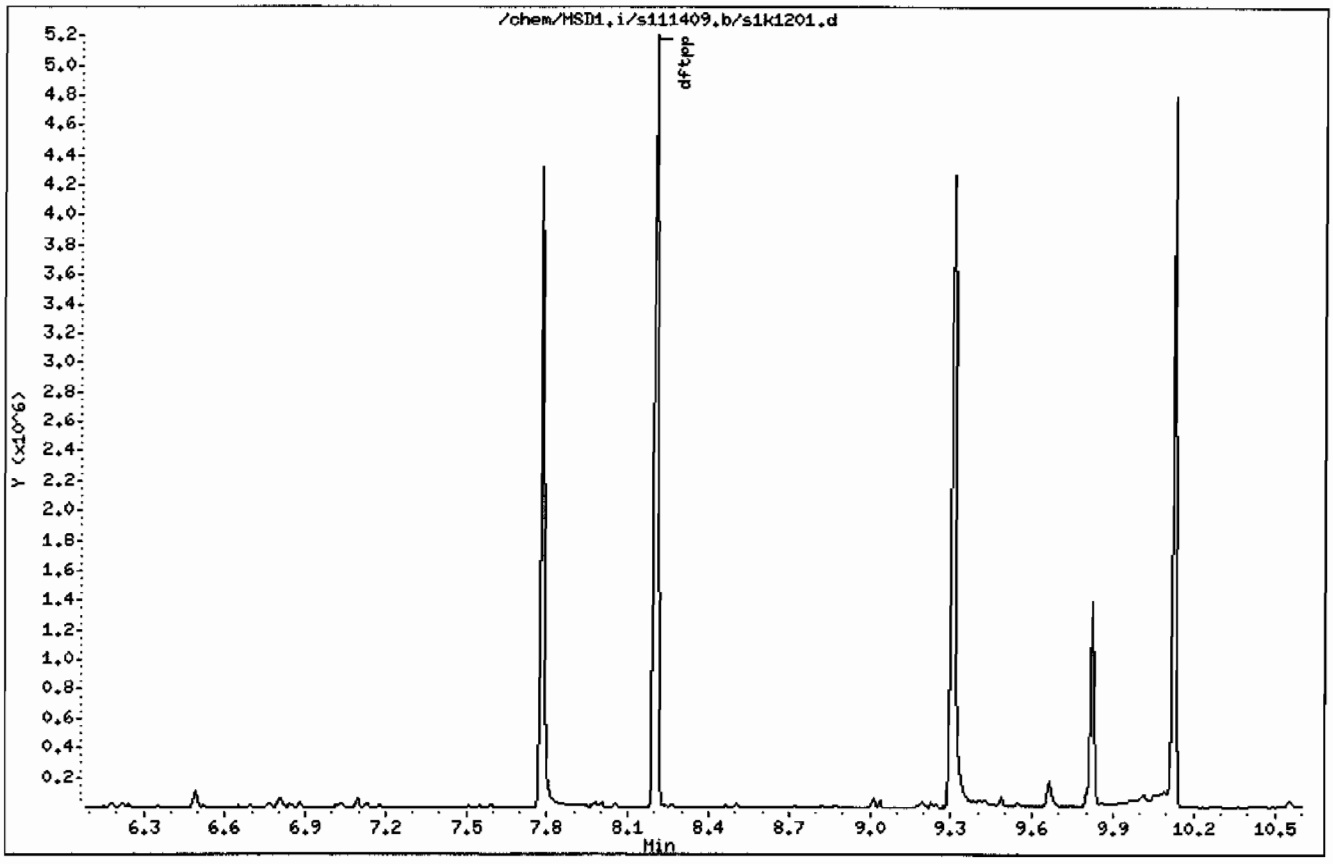

Data File: /chem/MSD1.i/s111409.b/s1k1201.d

Date : 14-NOV-2009 17:38

Client ID: DFTPP

Instrument: MSD1.i

Sample Info: |WBN091101-01|50 PPM|1|SVMF|1|DFTPP

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

1 dftpp

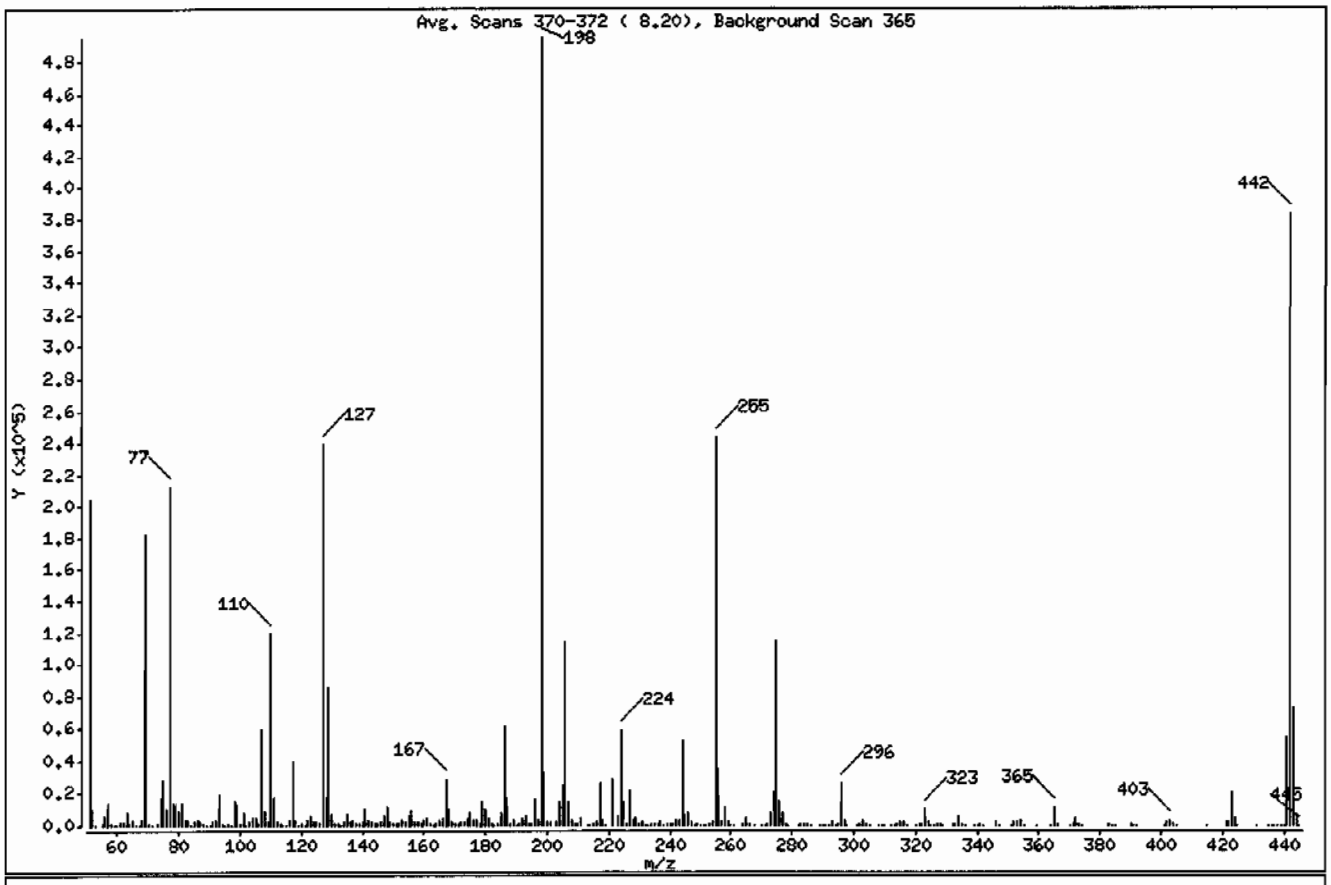

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	41.33
68	Less than 2.00% of mass 69	0.66 (1.81)
69	Mass 69 relative abundance	36.68
70	Less than 2.00% of mass 69	0.20 (0.55)
127	40.00 - 60.00% of mass 198	48.32
197	Less than 1.00% of mass 198	0.69
199	5.00 - 9.00% of mass 198	6.57
275	10.00 - 30.00% of mass 198	23.31
365	Greater than 1.00% of mass 198	2.23
441	Present, but less than mass 443	11.00
442	Greater than 40.00% of mass 198	77.37
443	17.00 - 23.00% of mass 442	14.83 (19.16)

Data File: /chem/MSD1.i/s111409.b/s1k1201.d

Date : 14-NOV-2009 17:38

Client ID: DFTPP

Instrument: MSD1.i

Sample Info: |WBN091101-01|50 PPM|1|SVHF|1|DFTPP

Operator: AHY

Column phase: J&W DB-5MS

Column diameter: 0.20

Data File: s1k1201.d
Spectrum: Avg. Scans 370-372 (8.20), Background Scan 365
Location of Maximum: 198.00
Number of points: 312

m/z	Y	m/z	Y	m/z	Y	m/z	Y
51.00	204544	132.00	849	213.00	322	304.00	857
52.00	10058	133.00	398	214.00	81	305.00	126
53.00	476	134.00	2213	215.00	1065	308.00	339
55.00	808	135.00	6445	216.00	2209	309.00	249
56.00	5675	136.00	2682	217.00	25976	310.00	361
57.00	13163	137.00	3409	218.00	3600	312.00	52
58.00	676	138.00	864	219.00	390	313.00	288
59.00	142	139.00	1285	221.00	28416	314.00	1372
60.00	58	140.00	1711	223.00	5970	315.00	2833
61.00	2414	141.00	10495	224.00	59288	316.00	1731
62.00	2627	142.00	3783	225.00	15318	317.00	279
63.00	7561	143.00	2378	226.00	1533	320.00	54
64.00	1048	144.00	706	227.00	21184	321.00	903
65.00	3902	145.00	666	228.00	3165	322.00	596
66.00	253	146.00	1908	229.00	4804	323.00	9908
67.00	264	147.00	5356	230.00	759	324.00	1942
68.00	3280	148.00	10849	231.00	2133	325.00	119
69.00	181568	149.00	2326	232.00	408	326.00	93
70.00	999	150.00	640	233.00	450	327.00	1701
71.00	119	151.00	1554	234.00	1483	328.00	891
73.00	1219	152.00	808	235.00	1658	329.00	88
74.00	17536	153.00	3187	236.00	1183	332.00	578
75.00	28056	154.00	2701	237.00	1728	333.00	855
76.00	9746	155.00	5991	238.00	324	334.00	5817
77.00	212736	156.00	9066	239.00	813	335.00	1475
78.00	13840	157.00	1942	240.00	775	336.00	75
79.00	12099	158.00	1971	241.00	1214	339.00	62
80.00	9416	159.00	1574	242.00	3186	340.00	77
81.00	13432	160.00	3233	243.00	3508	341.00	1027
82.00	3448	161.00	4832	244.00	51832	342.00	243
83.00	3440	162.00	1519	245.00	6691	346.00	2015
84.00	276	163.00	414	246.00	8221	347.00	283
85.00	2469	164.00	763	247.00	1725	351.00	182
86.00	3499	165.00	3823	248.00	403	352.00	2745
87.00	1914	166.00	4542	249.00	1698	353.00	2043

Data File: /chem/MSD1.i/s111409.b/s1k1201.d

Date : 14-NOV-2009 17:38

Client ID: DFTPP

Instrument: MSD1.i

Sample Info: |WBN091101-01|50 PPM|1|SVMF|1|DFTPP

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

Data File: s1k1201.d
Spectrum: Avg. Scans 370-372 (8.20), Background Scan 365
Location of Maximum: 198.00
Number of points: 312

m/z	Y	m/z	Y	m/z	Y	m/z	Y
88.00	945	167.00	28056	250.00	338	354.00	3347
89.00	408	168.00	9882	251.00	378	355.00	568
90.00	81	169.00	1949	252.00	461	359.00	68
91.00	2811	170.00	666	253.00	965	364.00	82
92.00	3305	171.00	868	254.00	2194	365.00	11049
93.00	19392	172.00	1736	255.00	243712	366.00	1525
94.00	1530	173.00	2151	256.00	34792	370.00	312
95.00	401	174.00	4365	257.00	2654	371.00	749
96.00	1021	175.00	8331	258.00	11699	372.00	5103
97.00	481	176.00	2950	259.00	1976	373.00	1317
98.00	14829	177.00	3734	260.00	354	374.00	211
99.00	12143	178.00	1429	261.00	488	383.00	1475
100.00	1081	179.00	14903	264.00	588	384.00	413
101.00	7582	180.00	10676	265.00	4651	385.00	112
102.00	501	181.00	5074	266.00	630	390.00	664
103.00	2806	182.00	848	268.00	97	391.00	481
104.00	4764	183.00	484	270.00	316	392.00	349
105.00	4470	184.00	1118	271.00	565	401.00	323
106.00	1531	185.00	7578	272.00	574	402.00	2059
107.00	58720	186.00	61632	273.00	7763	403.00	3027
108.00	9198	187.00	16824	274.00	20360	404.00	981
109.00	1983	188.00	1678	275.00	115400	405.00	157
110.00	119360	189.00	3368	276.00	14998	415.00	61
111.00	17336	190.00	542	277.00	8371	421.00	2728
112.00	2224	191.00	1652	278.00	1328	422.00	2498
113.00	793	192.00	4637	279.00	337	423.00	19928
114.00	277	193.00	5425	282.00	172	424.00	3991
115.00	405	194.00	1196	283.00	908	425.00	403
116.00	3276	195.00	960	284.00	671	431.00	50
117.00	39312	196.00	15938	285.00	1513	435.00	182
118.00	2868	197.00	3428	286.00	245	436.00	64
119.00	376	198.00	494976	289.00	275	437.00	123
120.00	724	199.00	32528	290.00	365	438.00	300
121.00	279	200.00	2387	291.00	237	439.00	370
122.00	3763	201.00	2747	292.00	481	440.00	354

Date : 14-NOV-2009 17:38

Client ID: DFTPP Instrument: MSD1.i

Sample Info: |WBN091101-01|50 PPM|1|SVMF|1|DFTPP

Operator: AMY

Column phase: J&W DB-5MS Column diameter: 0.20

Data File: s1k1201.d
Spectrum: Avg. Scans 370-372 (8.20), Background Scan 365
Location of Maximum: 198.00
Number of points: 312

m/z	Y	m/z	Y	m/z	Y	m/z	Y
123.00	6008	203.00	2693	293.00	2054	441.00	54440
124.00	2602	204.00	14604	294.00	532	442.00	382976
125.00	2647	205.00	25208	295.00	657	443.00	73384
126.00	904	206.00	113680	296.00	26240	444.00	6543
127.00	239168	207.00	14454	297.00	3789	445.00	363
128.00	17576	208.00	3160	298.00	253		
129.00	85072	209.00	1021	301.00	417		
130.00	7156	210.00	801	302.00	580		
131.00	1445	211.00	4362	303.00	3041		

Data File: /chem/MSD1.i/s111409.b/s1k1259.d

Page 1

Date : 17-NOV-2009 15:48

Client ID: DFTPP

Instrument: MSD1.i

Sample Info: IWBN091101-01|50 PPM|1|SVMF|1|DFTPP

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

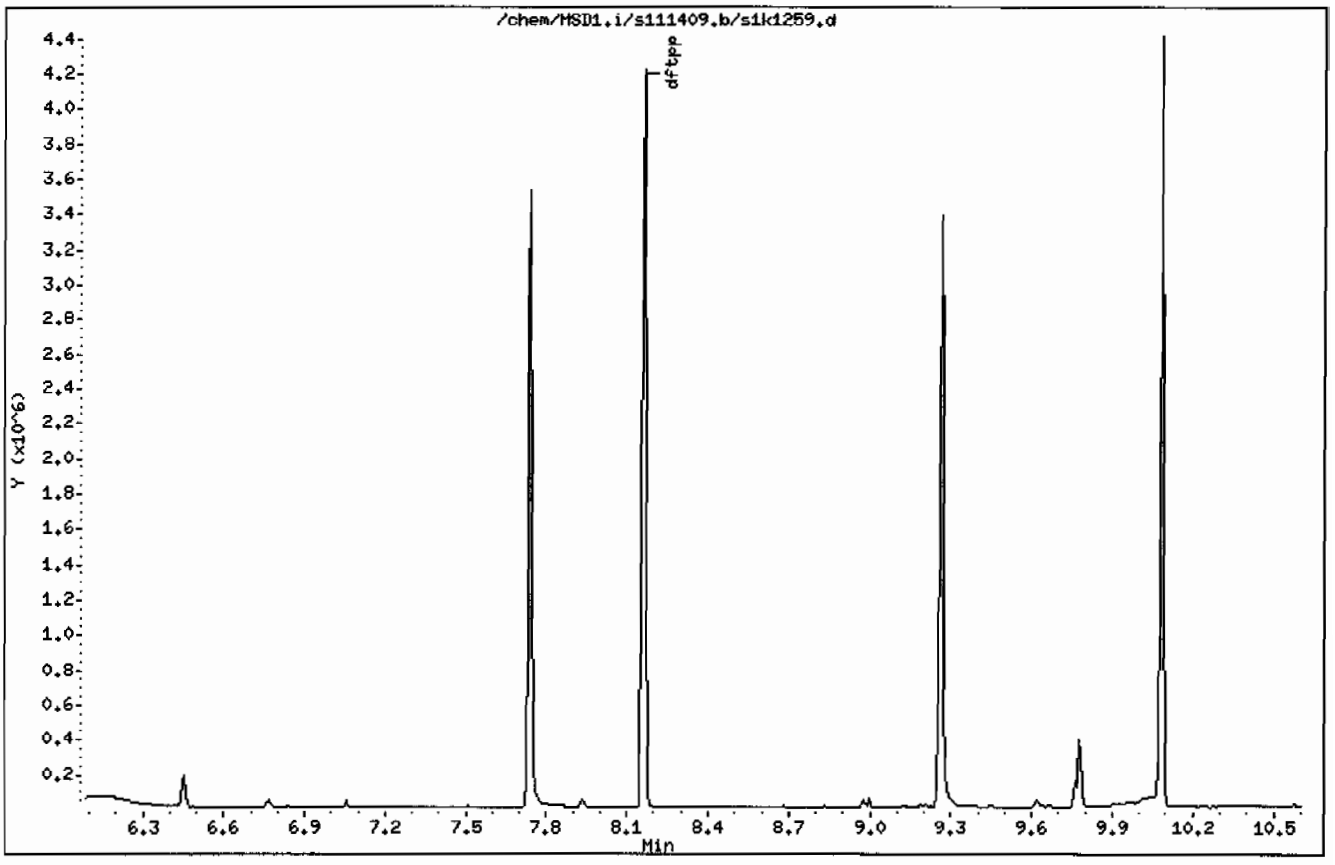

Data File: /chem/MSD1.i/s111409.b/s1k1259.d

Date : 17-NOV-2009 15:48

Client ID: DFTPP

Instrument: MSD1.i

Sample Info: IWBN091101-01|50 PPM|1|SVMF|1|DFTPP

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

1 dftpp

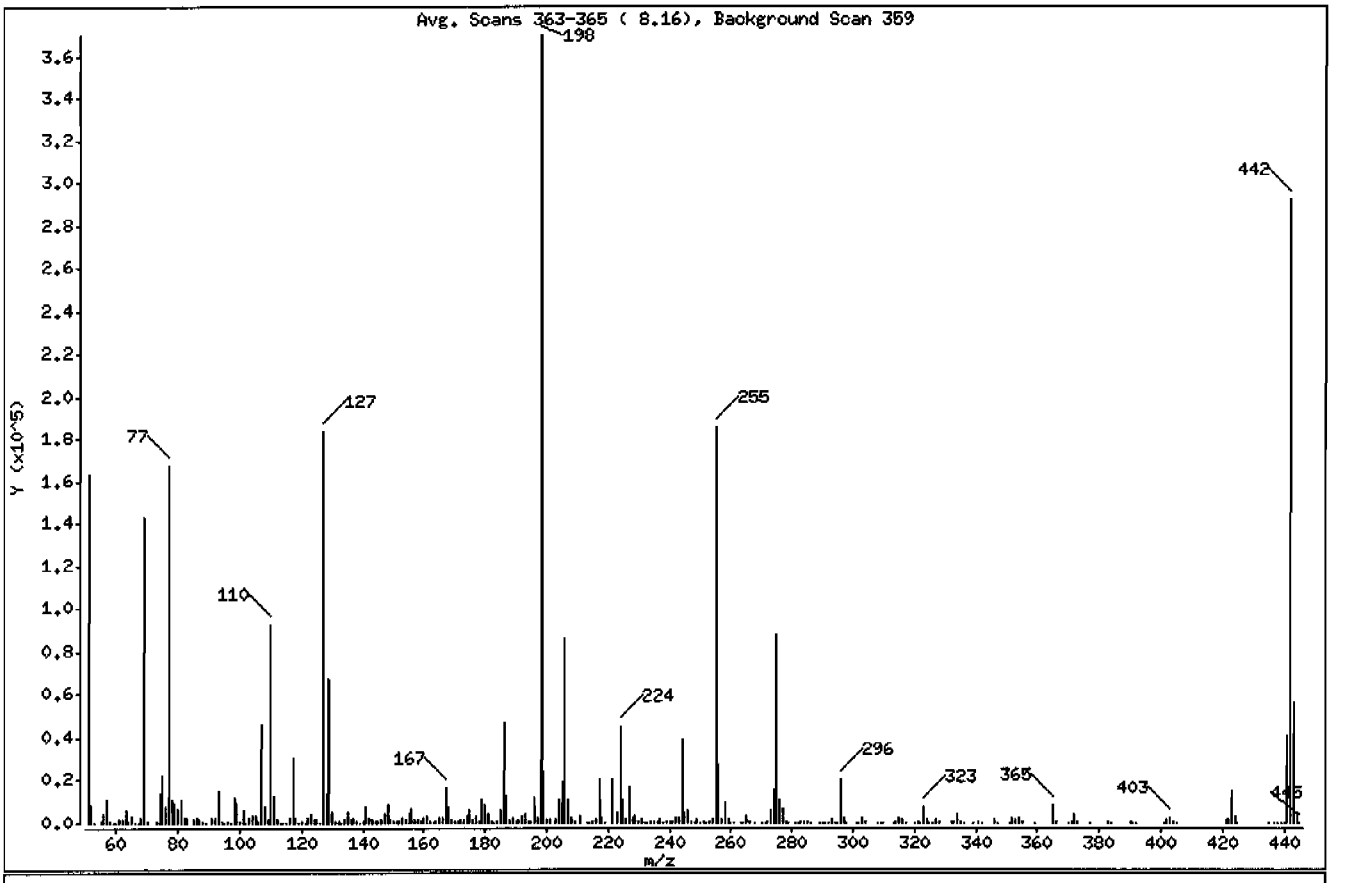

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	44.19
68	Less than 2.00% of mass 69	0.70 (1.82)
69	Mass 69 relative abundance	38.52
70	Less than 2.00% of mass 69	0.22 (0.58)
127	40.00 - 60.00% of mass 198	49.61
197	Less than 1.00% of mass 198	0.73
199	5.00 - 9.00% of mass 198	6.68
275	10.00 - 30.00% of mass 198	23.76
365	Greater than 1.00% of mass 198	2.39
441	Present, but less than mass 443	10.94
442	Greater than 40.00% of mass 198	78.91
443	17.00 - 23.00% of mass 442	15.11 (19.15)

Data File: /chem/MSD1.i/s111409.b/s1k1259.d

Date : 17-NOV-2009 15:48

Client ID: DFTPP

Instrument: MSD1.i

Sample Info: |WBN091101-01|50 PPM|1|SVMF|1|DFTPP

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

Data File: s1k1259.d

Spectrum: Avg. Scans 363-365 (8.16), Background Scan 359

Location of Maximum: 198.00

Number of points: 301

m/z	Y	m/z	Y	m/z	Y	m/z	Y
51.00	163520	132.00	696	209.00	894	295.00	409
52.00	8218	133.00	165	211.00	3176	296.00	20504
53.00	278	134.00	1736	213.00	157	297.00	2961
55.00	768	135.00	5284	214.00	60	298.00	242
56.00	4517	136.00	1990	215.00	896	301.00	228
57.00	10646	137.00	2882	216.00	1633	302.00	377
58.00	486	138.00	608	217.00	20280	303.00	2440
59.00	173	139.00	322	218.00	2791	304.00	779
60.00	130	140.00	728	219.00	287	308.00	333
61.00	1880	141.00	8017	221.00	20640	309.00	180
62.00	1926	142.00	2864	223.00	4752	310.00	288
63.00	5930	143.00	1765	224.00	45496	313.00	172
64.00	771	144.00	446	225.00	11459	314.00	1000
65.00	3009	145.00	462	226.00	1320	315.00	2189
66.00	190	146.00	1638	227.00	16640	316.00	1304
67.00	147	147.00	4131	228.00	2433	317.00	255
68.00	2590	148.00	8419	229.00	3596	320.00	58
69.00	142592	149.00	1752	230.00	541	321.00	701
70.00	823	150.00	512	231.00	1631	322.00	395
73.00	1236	151.00	1272	232.00	323	323.00	7827
74.00	13875	152.00	886	233.00	236	324.00	1465
75.00	21824	153.00	2474	234.00	1059	325.00	55
76.00	7905	154.00	2034	235.00	1215	326.00	117
77.00	167296	155.00	4599	236.00	846	327.00	1319
78.00	11034	156.00	6876	237.00	1279	328.00	683
79.00	9492	157.00	1450	238.00	168	332.00	545
80.00	7131	158.00	1509	239.00	670	333.00	652
81.00	10804	159.00	1113	240.00	518	334.00	4627
82.00	2610	160.00	2655	241.00	1019	335.00	1148
83.00	2719	161.00	3658	242.00	2369	336.00	50
85.00	1896	162.00	1109	243.00	2744	339.00	57
86.00	2616	163.00	339	244.00	39256	341.00	855
87.00	1519	164.00	493	245.00	4982	342.00	192
88.00	684	165.00	2904	246.00	6349	346.00	1554
89.00	219	166.00	2427	247.00	1255	347.00	356

Data File: /chem/MSD1.i/s111409.b/s1k1259.d

Date : 17-NOV-2009 15:48

Client ID: DFTPP

Instrument: MSD1.i

Sample Info: |WBN091101-01|50 PPM|1|SVMF|1|DFTPP

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

Data File: s1k1259.d

Spectrum: Avg. Scans 363-365 (8.16), Background Scan 359

Location of Maximum: 198.00

Number of points: 301

m/z	Y	m/z	Y	m/z	Y	m/z	Y
91.00	2379	167.00	16175	248.00	341	351.00	56
92.00	2447	168.00	7387	249.00	1305	352.00	2339
93.00	14969	169.00	1311	250.00	210	353.00	1624
94.00	1153	170.00	639	251.00	460	354.00	2500
95.00	287	171.00	706	252.00	278	355.00	434
96.00	810	172.00	1473	253.00	769	359.00	83
97.00	388	173.00	1748	254.00	1972	365.00	8863
98.00	11810	174.00	3414	255.00	185216	366.00	1195
99.00	9686	175.00	6350	256.00	27176	370.00	215
100.00	914	176.00	2063	257.00	2039	371.00	581
101.00	5933	177.00	3047	258.00	9022	372.00	4002
102.00	375	178.00	995	259.00	1444	373.00	996
103.00	2163	179.00	11274	260.00	214	377.00	51
104.00	3736	180.00	8159	261.00	279	383.00	974
105.00	3394	181.00	4009	263.00	55	384.00	323
106.00	1190	182.00	670	264.00	157	390.00	592
107.00	46232	183.00	413	265.00	3712	391.00	375
108.00	7538	184.00	909	266.00	481	392.00	323
109.00	1503	185.00	5852	268.00	53	401.00	231
110.00	92872	186.00	47008	270.00	282	402.00	1478
111.00	12963	187.00	12615	271.00	380	403.00	2390
112.00	1503	188.00	1316	272.00	540	404.00	821
113.00	406	189.00	2602	273.00	5676	405.00	134
114.00	121	190.00	427	274.00	15599	421.00	2054
115.00	133	191.00	1281	275.00	87936	422.00	1867
116.00	2637	192.00	3712	276.00	11240	423.00	15373
117.00	30336	193.00	4225	277.00	6439	424.00	3047
118.00	2397	194.00	901	278.00	950	425.00	291
119.00	332	195.00	603	279.00	182	435.00	71
120.00	620	196.00	12028	281.00	60	437.00	71
121.00	175	197.00	2717	282.00	68	438.00	134
122.00	2801	198.00	370176	283.00	713	439.00	238
123.00	4622	199.00	24728	284.00	493	440.00	191
124.00	2083	200.00	1826	285.00	1250	441.00	40480
125.00	1949	201.00	2072	286.00	254	442.00	292096

Data File: /chem/MSD1.i/s111409.b/s1k1259.d

Date : 17-NOV-2009 15:48

Client ID: DFTPP

Instrument: MSD1.i

Sample Info: |WBN091101-01|50 PPM|1|SVMF|1|DFTPP

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

Data File: s1k1259.d

Spectrum: Avg. Scans 363-365 (8.16), Background Scan 359

Location of Maximum: 198.00

Number of points: 301

m/z	Y	m/z	Y	m/z	Y	m/z	Y
126.00	135	203.00	2082	289.00	243	443.00	55944
127.00	183616	204.00	10956	290.00	235	444.00	5034
128.00	13544	205.00	19552	291.00	131	445.00	311
129.00	66872	206.00	85904	292.00	339		
130.00	5516	207.00	10725	293.00	1482		
131.00	1048	208.00	2576	294.00	389		

Data File: /chem/MSD1.i/s121909.b/s111902.d

Page 1

Date : 19-DEC-2009 09:55

Client ID: DFTPP

Instrument: MSD1.i

Sample Info: |WBN091128-01|50 PPM|1|SVMF|1|DFTPP

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

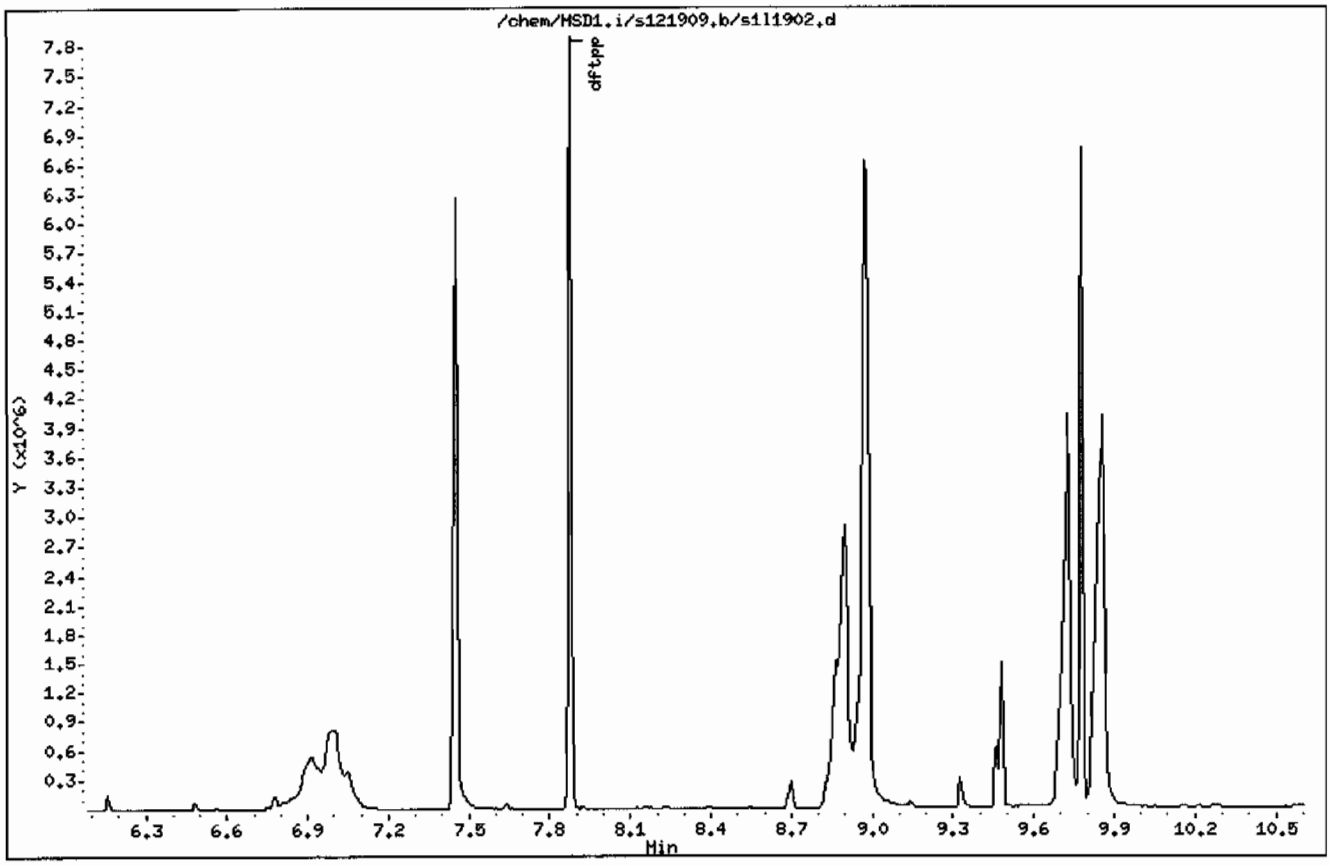

Data File: /chem/MSD1.i/s121909.b/s111902.d

Date : 19-DEC-2009 09:55

Client ID: DFTPP

Instrument: MSD1.i

Sample Info: IWBN091128-01|50 PPM|1|SVMF|1|DFTPP

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

1 dftpp

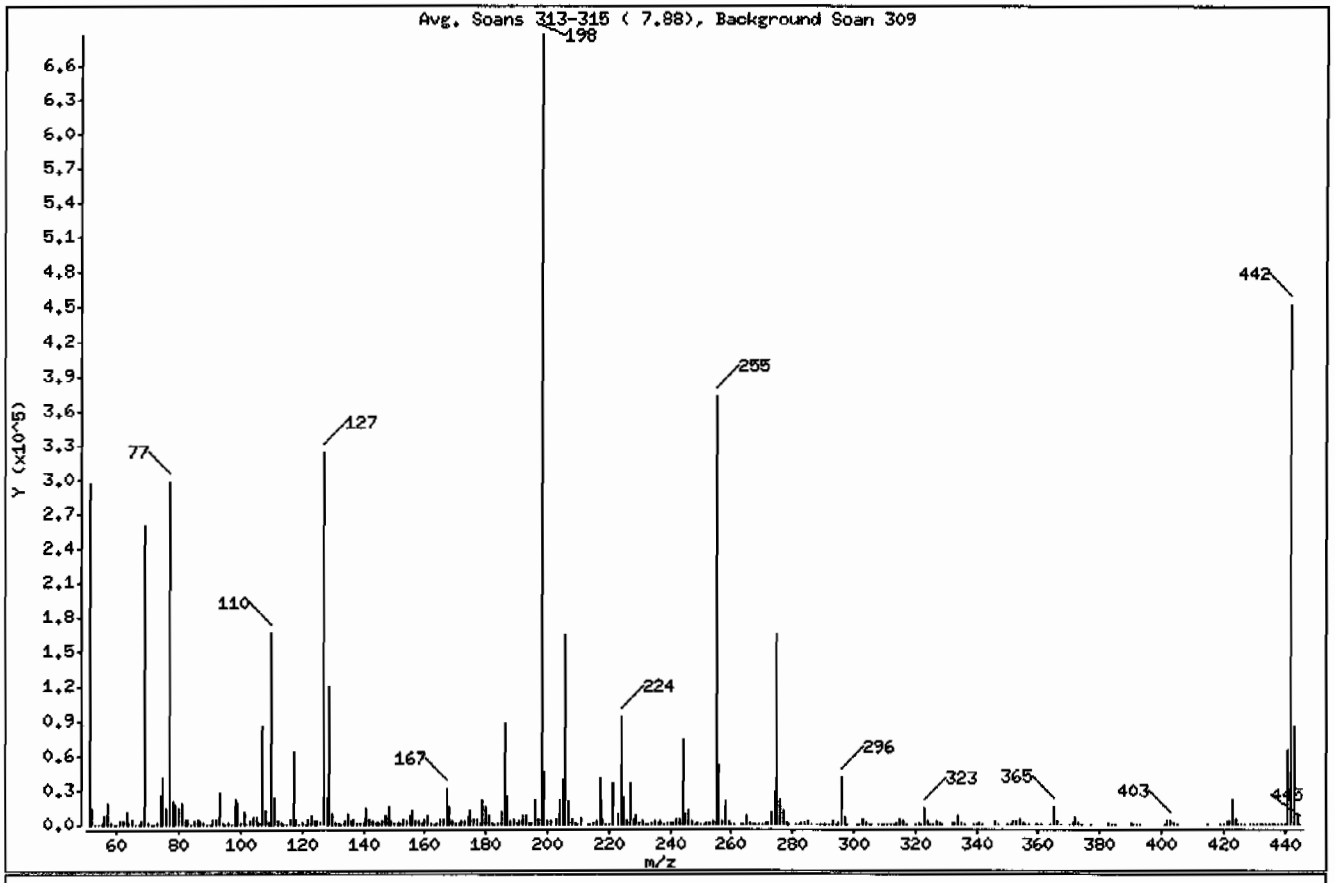

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	43.23
68	Less than 2.00% of mass 69	0.56 (1.46)
69	Mass 69 relative abundance	38.03
70	Less than 2.00% of mass 69	0.16 (0.42)
127	40.00 - 60.00% of mass 198	47.01
197	Less than 1.00% of mass 198	0.74
199	5.00 - 9.00% of mass 198	6.72
275	10.00 - 30.00% of mass 198	23.95
365	Greater than 1.00% of mass 198	2.41
441	Present, but less than mass 443	9.48
442	Greater than 40.00% of mass 198	65.77
443	17.00 - 23.00% of mass 442	12.39 (18.84)

Data File: /chem/MSD1.i/s121909.b/s111902.d

Date : 19-DEC-2009 09:55

Client ID: DFTPP

Instrument: MSD1.i

Sample Info: |WBN091128-01|50 PPM|1|SVMF|1|DFTPP

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

Data File: s111902.d

Spectrum: Avg. Scans 313-315 (7.88), Background Scan 309

Location of Maximum: 198.00

Number of points: 339

m/z	Y	m/z	Y	m/z	Y	m/z	Y
51.00	297152	136.00	3847	224.00	92632	315.00	4372
52.00	14747	137.00	4857	225.00	23200	316.00	2674
53.00	652	138.00	1088	226.00	2438	317.00	373
54.00	55	139.00	805	227.00	35848	320.00	91
55.00	1234	140.00	1653	228.00	5065	321.00	1301
56.00	8346	141.00	14297	229.00	7582	322.00	727
57.00	18552	142.00	5078	230.00	989	323.00	13528
58.00	883	143.00	3298	231.00	3440	324.00	2547
59.00	194	144.00	855	232.00	645	325.00	274
60.00	212	145.00	1065	233.00	590	326.00	295
61.00	3233	146.00	2681	234.00	2337	327.00	2510
62.00	3703	147.00	7251	235.00	2817	328.00	1255
63.00	10808	148.00	15889	236.00	1804	329.00	173
64.00	1475	149.00	3699	237.00	3101	332.00	1008
65.00	5055	150.00	953	238.00	440	333.00	1371
66.00	365	151.00	2022	239.00	1436	334.00	8346
67.00	387	152.00	1188	240.00	1196	335.00	2290
68.00	3821	153.00	4855	241.00	2265	336.00	320
69.00	261440	154.00	3630	242.00	5171	339.00	218
70.00	1100	155.00	8210	243.00	5105	340.00	214
71.00	202	156.00	12739	244.00	74352	341.00	1496
72.00	155	157.00	2529	245.00	9364	342.00	363
73.00	1786	158.00	2927	246.00	12929	346.00	2936
74.00	25048	159.00	2146	247.00	2684	347.00	546
75.00	40800	160.00	4527	248.00	756	350.00	60
76.00	13656	161.00	7190	249.00	2336	351.00	173
77.00	298624	162.00	2100	250.00	480	352.00	3750
78.00	20128	163.00	589	251.00	774	353.00	2655
79.00	17560	164.00	1184	252.00	800	354.00	4157
80.00	13470	165.00	5147	253.00	1754	355.00	846
81.00	19440	166.00	4358	254.00	2998	356.00	54
82.00	4899	167.00	30872	255.00	372352	357.00	50
83.00	4709	168.00	15964	256.00	52720	359.00	342
84.00	406	169.00	2709	257.00	3842	360.00	57
85.00	3195	170.00	1007	258.00	20200	361.00	77

Date : 19-DEC-2009 09:55

Client ID: DFTPP Instrument: MSD1.i

Sample Info: |WBN091128-01|50 PPM|1|SVMF|1|DFTPP

Operator: AMY

Column phase: J&W DB-5MS Column diameter: 0.20

Data File: s111902.d
Spectrum: Avg. Scans 313-315 (7.88), Background Scan 309
Location of Maximum: 198.00
Number of points: 339

m/z	Y	m/z	Y	m/z	Y	m/z	Y
86.00	5398	171.00	1177	259.00	3192	364.00	147
87.00	2567	172.00	2712	260.00	613	365.00	16552
88.00	1264	173.00	3498	261.00	675	366.00	2487
89.00	486	174.00	6526	263.00	263	367.00	154
90.00	136	175.00	12205	264.00	411	370.00	362
91.00	4205	176.00	3957	265.00	7896	371.00	1080
92.00	4757	177.00	5525	266.00	1118	372.00	6743
93.00	29064	178.00	1986	267.00	198	373.00	1493
94.00	2225	179.00	21880	268.00	105	374.00	73
95.00	364	180.00	15766	269.00	72	377.00	231
96.00	1228	181.00	7522	270.00	472	383.00	1700
97.00	689	182.00	1377	271.00	871	384.00	482
98.00	22744	183.00	734	272.00	1042	385.00	135
99.00	18216	184.00	1955	273.00	11370	390.00	792
100.00	1831	185.00	11359	274.00	28264	391.00	560
101.00	11140	186.00	88392	275.00	164608	392.00	362
102.00	666	187.00	24632	276.00	21536	393.00	118
103.00	3798	188.00	2659	277.00	12382	401.00	366
104.00	6590	189.00	5020	278.00	2001	402.00	2892
105.00	6438	190.00	953	279.00	452	403.00	3911
106.00	2075	191.00	2479	281.00	203	404.00	1292
107.00	86120	192.00	7423	282.00	333	405.00	193
108.00	13217	193.00	8489	283.00	1641	415.00	242
109.00	2236	194.00	1680	284.00	1012	419.00	115
110.00	165504	195.00	1332	285.00	2384	420.00	53
111.00	24408	196.00	21360	286.00	460	421.00	2917
112.00	2761	197.00	5110	288.00	65	422.00	3201
113.00	1072	198.00	687488	289.00	640	423.00	22904
114.00	285	199.00	46232	290.00	376	424.00	4795
115.00	547	200.00	3628	291.00	379	425.00	470
116.00	4229	201.00	3140	292.00	670	426.00	54
117.00	62472	203.00	4465	293.00	2993	427.00	76
118.00	4594	204.00	22840	294.00	774	429.00	65
119.00	738	205.00	39328	295.00	915	430.00	133
120.00	1113	206.00	164800	296.00	41440	431.00	88

Data File: /chem/MSD1.i/s121909.b/s111902.d

Date : 19-DEC-2009 09:55

Client ID: DFTPP

Instrument: MSD1.i

Sample Info: |WBN091128-01|50 PPM|1|SVMF|1|DFTPP

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

Data File: s111902.d
Spectrum: Avg. Scans 313-315 (7.88), Background Scan 309
Location of Maximum: 198.00
Number of points: 339

m/z	Y	m/z	Y	m/z	Y	m/z	Y
121.00	410	207.00	20568	297.00	5580	432.00	205
122.00	5327	208.00	5127	298.00	363	433.00	169
123.00	8268	209.00	1587	301.00	604	434.00	231
124.00	3880	210.00	475	302.00	789	435.00	143
125.00	3773	211.00	6224	303.00	4961	436.00	118
126.00	1443	213.00	417	304.00	1372	437.00	237
127.00	323200	214.00	187	305.00	105	438.00	155
128.00	24312	215.00	1717	306.00	50	439.00	301
129.00	119408	216.00	3400	308.00	596	440.00	408
130.00	9673	217.00	41544	309.00	449	441.00	65152
131.00	1979	218.00	5153	310.00	590	442.00	452160
132.00	1110	219.00	478	311.00	73	443.00	85208
133.00	619	220.00	261	312.00	147	444.00	7684
134.00	3110	221.00	36368	313.00	391	445.00	440
135.00	9820	223.00	9840	314.00	2201		

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-899-1**			**Matrix:**	**TCLP SOIL**
Lab Sample ID:	**1201996842**				
Client Sample:	**QC for batch 933331**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**TB for batch 933331**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**934629**	**Inst:**	**MSD1.I**	**Dilution:**	**1**
Run Date:	**12/19/2009 13:11**	**Analyst:**	**AMY**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/18/2009 19:52**	**Aliquot:**	**200 mL**	**Final Volume:**	**1 mL**
Data File:	**s1l1910.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
106-46-7	1,4-Dichlorobenzene	U	0.050	mg/L	0.010	0.050
121-14-2	2,4-Dinitrotoluene	U	0.050	mg/L	0.010	0.050
87-86-5	Pentachlorophenol	U	0.050	mg/L	0.010	0.050
110-86-1	Pyridine	U	0.050	mg/L	0.015	0.050
95-48-7	o-Cresol	U	0.050	mg/L	0.010	0.050
65794-96-9	m,p-Cresols	U	0.050	mg/L	0.015	0.050
67-72-1	Hexachloroethane	U	0.050	mg/L	0.010	0.050
98-95-3	Nitrobenzene	U	0.050	mg/L	0.015	0.050
87-68-3	Hexachlorobutadiene	U	0.050	mg/L	0.010	0.050
88-06-2	2,4,6-Trichlorophenol	U	0.050	mg/L	0.010	0.050
95-95-4	2,4,5-Trichlorophenol	U	0.050	mg/L	0.010	0.050
118-74-1	Hexachlorobenzene	U	0.050	mg/L	0.010	0.050

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Data file : /chem/MSD1.i/s121909.b/s111910.d
Lab Smp Id: 1201996842 Client Smp ID: TCLPBLANK
Inj Date : 19-DEC-2009 13:11
Operator : AMY Inst ID: MSD1.i
Smp Info : |1201996842|934629|1|SVMF|1|TBLK01
Misc Info : |MSDTCLP_L|WBN091128-02|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD1.i/s121909.b/MSD1-M8270AQA-111409.m
Meth Date : 20-Dec-2009 13:59 amy01291 Quant Type: ISTD
Cal Date : 17-NOV-2009 17:42 Cal File: s1k1264.d
Als bottle: 9 QC Sample: TB
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-899-1.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vo *Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	0.50000	ng unit correction factor
Vt	1.00000	volume of final ext
Vo	200.00000	volume of sample ext
Vi	0.50000	volume injected

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (mg/L)
* 10 1,4-Dichlorobenzene-d4	152	3.698	3.698	(1.000)	722183	40.0000	
* 29 Naphthalene-d8	136	4.557	4.563	(1.000)	2786714	40.0000	
* 46 Acenaphthene-d10	164	5.798	5.804	(1.000)	1555467	40.0000	
* 67 Phenanthrene-d10	188	6.798	6.798	(1.000)	2702067	40.0000	
* 91 Chrysene-d12	240	8.398	8.404	(1.000)	2481483	40.0000	
* 98 Perylene-d12	264	9.704	9.704	(1.000)	2173414	40.0000	
$ 3 2-Fluorophenol	112	2.904	2.904	(0.785)	842940	44.6872	0.22
$ 5 Phenol-d5	99	3.434	3.434	(0.928)	633651	27.6386	0.14
$ 20 Nitrobenzene-d5	82	4.063	4.063	(0.892)	715259	38.9475	0.19
$ 39 2-Fluorobiphenyl	172	5.298	5.298	(0.914)	1431883	38.4363	0.19
$ 60 2,4,6-Tribromophenol	329	6.345	6.345	(1.094)	392902	90.4592	0.45
$ 81 p-Terphenyl-d14	244	7.716	7.716	(0.919)	1665500	42.7583	0.21

Data File: /chem/MSD1.i/s121909.b/s111910.d
Date : 19-DEC-2009 13:11
Client ID: TCLPBLANK
Sample Info: #1201996842|934629|1|SVMF|1|TBLK01
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD1.i

Operator: AMY
Column diameter: 0.20

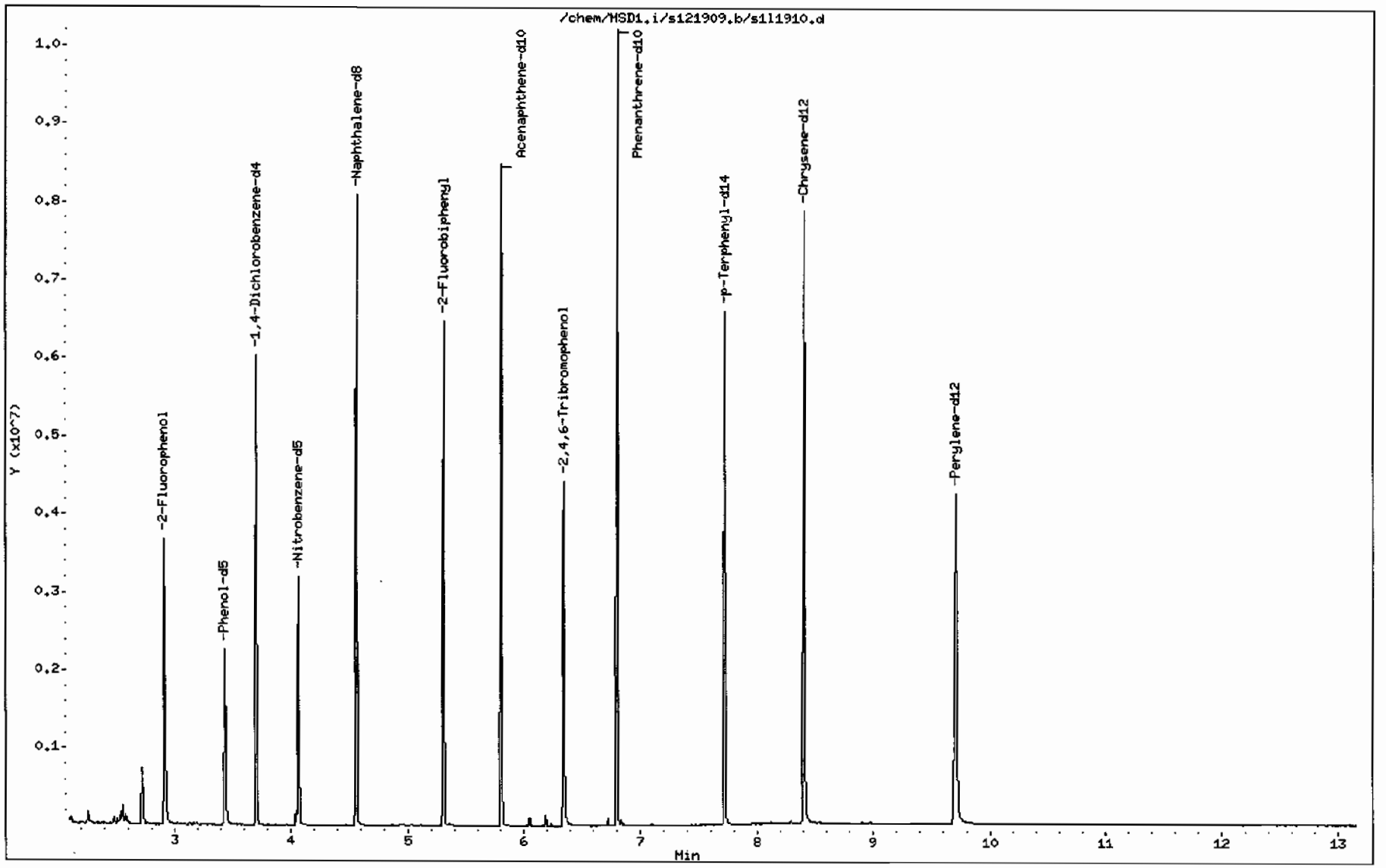

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-899-1**			**Matrix:**	**TCLP SOIL**
Lab Sample ID:	**1201999622**				
Client Sample:	**QC for batch 934627**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 934627**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**934629**	**Inst:**	**MSD1.I**	**Dilution:**	**1**
Run Date:	**12/19/2009 13:35**	**Analyst:**	**AMY**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/18/2009 19:52**	**Aliquot:**	**1000 mL**	**Final Volume:**	**1 mL**
Data File:	**s1l1911-1.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
106-46-7	1,4-Dichlorobenzene	U	0.010	mg/L	0.002	0.010
121-14-2	2,4-Dinitrotoluene	U	0.010	mg/L	0.002	0.010
87-86-5	Pentachlorophenol	U	0.010	mg/L	0.002	0.010
110-86-1	Pyridine	U	0.010	mg/L	0.003	0.010
95-48-7	o-Cresol	U	0.010	mg/L	0.002	0.010
65794-96-9	m,p-Cresols	U	0.010	mg/L	0.003	0.010
67-72-1	Hexachloroethane	U	0.010	mg/L	0.002	0.010
98-95-3	Nitrobenzene	U	0.010	mg/L	0.003	0.010
87-68-3	Hexachlorobutadiene	U	0.010	mg/L	0.002	0.010
88-06-2	2,4,6-Trichlorophenol	U	0.010	mg/L	0.002	0.010
95-95-4	2,4,5-Trichlorophenol	U	0.010	mg/L	0.002	0.010
118-74-1	Hexachlorobenzene	U	0.010	mg/L	0.002	0.010

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Data file : /chem/MSD1.i/s121909.b/s111911-1.d
Lab Smp Id: 1201999622 Client Smp ID: SBLK01
Inj Date : 19-DEC-2009 13:35
Operator : AMY Inst ID: MSD1.i
Smp Info : |1201999622|934629|1|SVMF|1|SBLK01
Misc Info : |MSDTCLP_L|WBN091128-02|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD1.i/s121909.b/MSD1-M8270AQA-111409.m
Meth Date : 20-Dec-2009 13:59 amy01291 Quant Type: ISTD
Cal Date : 17-NOV-2009 17:42 Cal File: s1k1264.d
Als bottle: 10 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-899-1.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vo *Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	0.50000	ng unit correction factor
Vt	1.00000	volume of final ext
Vo	1000.00000	volume of sample ext
Vi	0.50000	volume injected

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (mg/L)
* 10 1,4-Dichlorobenzene-d4	152	3.699	3.698	(1.000)	695180	40.0000	
* 29 Naphthalene-d8	136	4.557	4.563	(1.000)	2589432	40.0000	
* 46 Acenaphthene-d10	164	5.798	5.804	(1.000)	1424159	40.0000	
* 67 Phenanthrene-d10	188	6.798	6.798	(1.000)	2465667	40.0000	
* 91 Chrysene-d12	240	8.398	8.404	(1.000)	2131203	40.0000	
* 98 Perylene-d12	264	9.698	9.704	(1.000)	1831685	40.0000	
$ 3 2-Fluorophenol	112	2.905	2.904	(0.785)	865925	47.6888	0.048
$ 5 Phenol-d5	99	3.434	3.434	(0.928)	645474	29.2479	0.029
$ 20 Nitrobenzene-d5	82	4.063	4.063	(0.892)	727279	42.6192	0.043
$ 39 2-Fluorobiphenyl	172	5.298	5.298	(0.914)	1428472	41.8802	0.042
$ 60 2,4,6-Tribromophenol	329	6.345	6.345	(1.094)	364004	91.5328	0.092
$ 81 p-Terphenyl-d14	244	7.710	7.716	(0.918)	1617796	48.3600	0.048

Data File: /chem/MSD1.i/s121909.b/s111911-1.d
Date : 19-DEC-2009 13:35
Client ID: SBLK01
Sample Info: |1201999622|934629|1|SVMF|1|SBLK01
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD1.i

Operator: AMY
Column diameter: 0.20

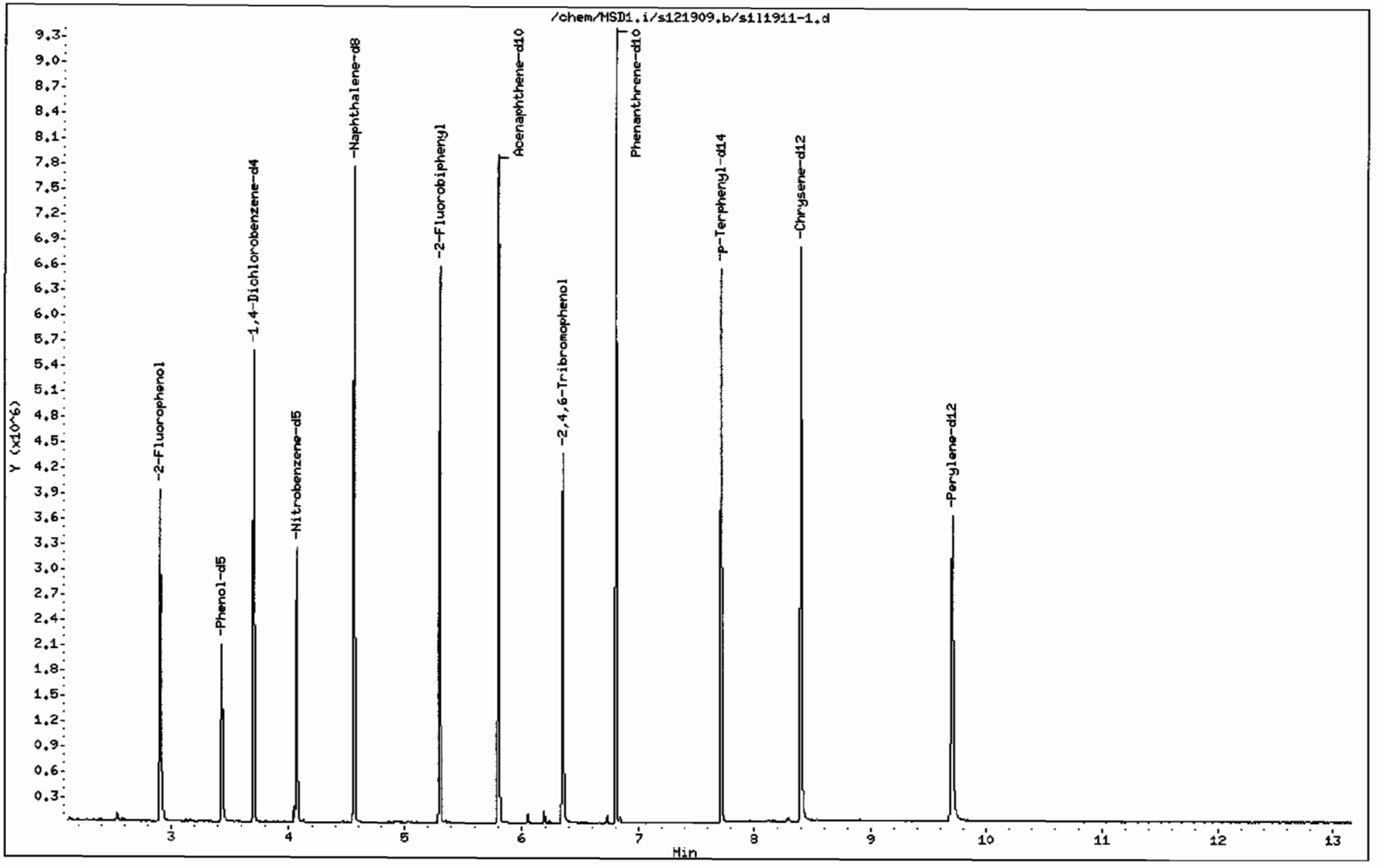

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-899-1**			**Matrix:**	**TCLP SOIL**
Lab Sample ID:	**1201999623**				
Client Sample:	**QC for batch 934627**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 934627**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**934629**	**Inst:**	**MSD1.I**	**Dilution:**	**1**
Run Date:	**12/19/2009 13:58**	**Analyst:**	**AMY**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/18/2009 19:52**	**Aliquot:**	**1000 mL**	**Final Volume:**	**1 mL**
Data File:	**s111912-1.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
106-46-7	1,4-Dichlorobenzene		0.0579	mg/L	0.002	0.010
121-14-2	2,4-Dinitrotoluene		0.0595	mg/L	0.002	0.010
87-86-5	Pentachlorophenol		0.0881	mg/L	0.002	0.010
110-86-1	Pyridine		0.0642	mg/L	0.003	0.010
95-48-7	o-Cresol		0.0603	mg/L	0.002	0.010
65794-96-9	m,p-Cresols		0.054	mg/L	0.003	0.010
67-72-1	Hexachloroethane		0.0533	mg/L	0.002	0.010
98-95-3	Nitrobenzene		0.0735	mg/L	0.003	0.010
87-68-3	Hexachlorobutadiene		0.0651	mg/L	0.002	0.010
88-06-2	2,4,6-Trichlorophenol		0.0806	mg/L	0.002	0.010
95-95-4	2,4,5-Trichlorophenol		0.0758	mg/L	0.002	0.010
118-74-1	Hexachlorobenzene		0.0844	mg/L	0.002	0.010

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Data file : /chem/MSD1.i/s121909.b/s111912-1.d
Lab Smp Id: 1201999623 Client Smp ID: SBLK01LCS
Inj Date : 19-DEC-2009 13:58
Operator : AMY Inst ID: MSD1.i
Smp Info : |1201999623|934629|1|SVMF|1|SBLK01LCS
Misc Info : |MSDTCLP_L|WBN091128-02|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD1.i/s121909.b/MSD1-M8270AQA-111409.m
Meth Date : 20-Dec-2009 13:59 amy01291 Quant Type: ISTD
Cal Date : 17-NOV-2009 17:42 Cal File: s1k1264.d
Als bottle: 11 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-899-1.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vo *Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	0.50000	ng unit correction factor
Vt	1.00000	volume of final ext
Vo	1000.00000	volume of sample ext
Vi	0.50000	volume injected

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (mg/L)
* 10 1,4-Dichlorobenzene-d4	152	3.698	3.698	(1.000)	812253	40.0000	
* 29 Naphthalene-d8	136	4.557	4.563	(1.000)	3097226	40.0000	
* 46 Acenaphthene-d10	164	5.798	5.804	(1.000)	1703620	40.0000	
* 67 Phenanthrene-d10	188	6.798	6.798	(1.000)	2865709	40.0000	
* 91 Chrysene-d12	240	8.398	8.404	(1.000)	2459665	40.0000	
* 98 Perylene-d12	264	9.704	9.704	(1.000)	2102884	40.0000	
$ 3 2-Fluorophenol	112	2.904	2.904	(0.785)	953109	44.9246	0.045
$ 5 Phenol-d5	99	3.434	3.434	(0.928)	708692	27.4839	0.027
$ 20 Nitrobenzene-d5	82	4.063	4.063	(0.892)	801720	39.2788	0.039
$ 39 2-Fluorobiphenyl	172	5.298	5.298	(0.914)	1611444	39.4946	0.039
$ 60 2,4,6-Tribromophenol	329	6.345	6.345	(1.094)	434972	91.4361	0.091
$ 81 p-Terphenyl-d14	244	7.716	7.716	(0.919)	1874991	48.5636	0.048
11 1,4-Dichlorobenzene	146	3.710	3.710	(1.003)	1537001	57.8680	0.058

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (mg/L)
50 2,4-Dinitrotoluene	165	5.922	5.922	(1.021)	911442	59.4563	0.059
65 Pentachlorophenol	266	6.675	6.675	(0.982)	638293	88.0668	0.088
2 Pyridine	79	2.251	2.257	(0.609)	1242785	64.2333	0.064
15 o-Cresol	107	3.828	3.834	(1.035)	1036782	60.3158	0.060
18 m,p-Cresols	107	3.928	3.934	(1.062)	1263169	54.0081	0.054
19 Hexachloroethane	117	4.040	4.040	(1.092)	509335	53.2825	0.053
21 Nitrobenzene	77	4.081	4.081	(0.895)	1562638	73.4781	0.073
32 Hexachlorobutadiene	225	4.640	4.640	(1.018)	626358	65.0691	0.065
37 2,4,6-Trichlorophenol	196	5.245	5.245	(0.905)	912755	80.5505	0.080
38 2,4,5-Trichlorophenol	196	5.275	5.275	(0.910)	913871	75.8472	0.076
63 Hexachlorobenzene	284	6.551	6.551	(0.964)	1019496	84.3582	0.084

Data File: /chem/MSD1.i/s121909,b/s111912-1.d
Date : 19-DEC-2009 13:58
Client ID: SBLK01LCS
Sample Info: !120199962319346291|1|SVMF|1|SBLK01LCS
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD1.i
Operator: AMY
Column diameter: 0.20

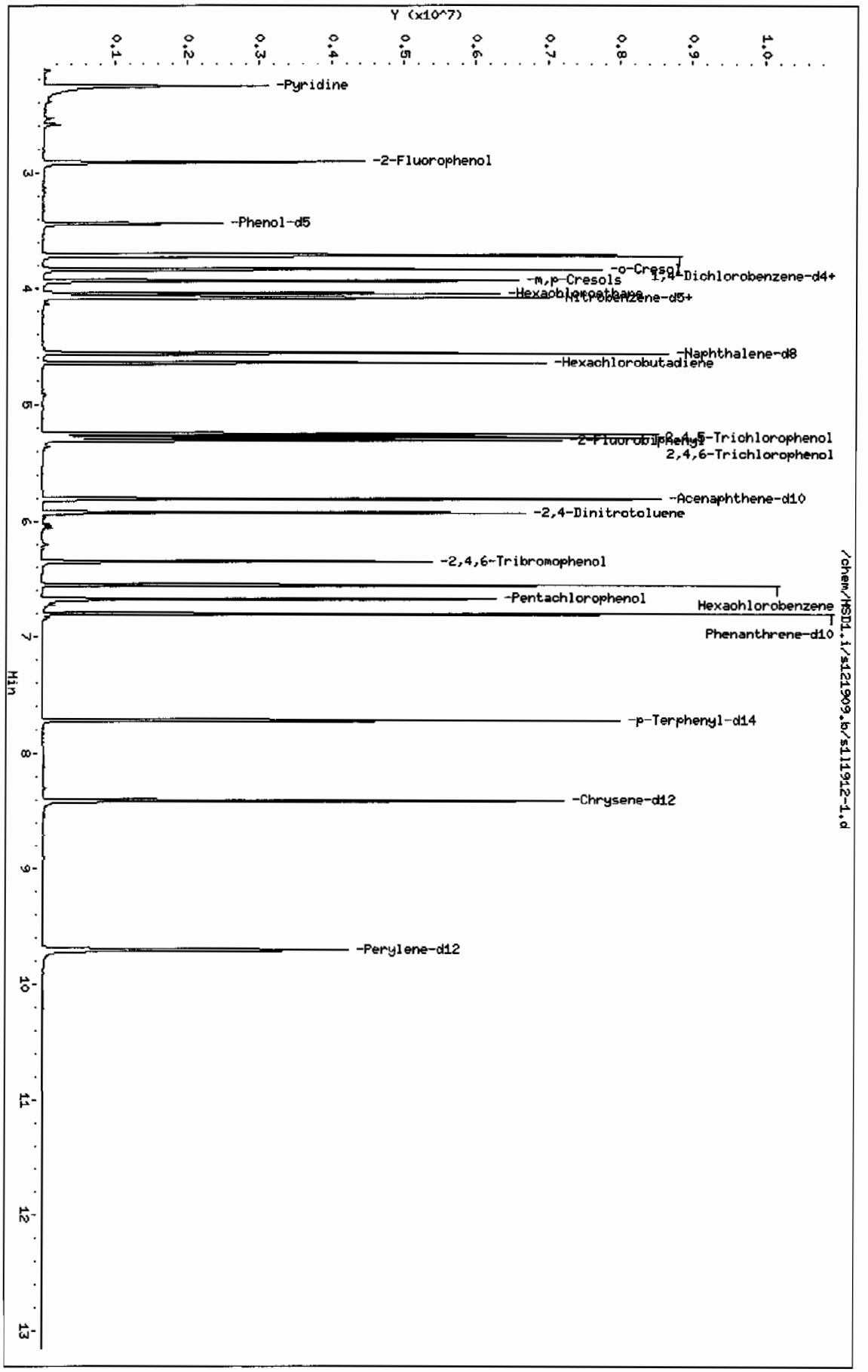

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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-899-1**	**Date Collected:**	**12/10/2009 12:00**	**Matrix:**	**TCLP R**
Lab Sample ID:	**1201999624**	**Date Received:**	**12/12/2009 09:35**		
Client Sample:	**QC for batch 934627**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**WST03-10-2145MS**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**934629**	**Inst:**	**MSD1.I**	**Dilution:**	**1**
Run Date:	**12/19/2009 19:01**	**Analyst:**	**AMY**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/18/2009 19:52**	**Aliquot:**	**200 mL**	**Final Volume:**	**1 mL**
Data File:	**s111925.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
106-46-7	1,4-Dichlorobenzene		0.284	mg/L	0.010	0.050
121-14-2	2,4-Dinitrotoluene		0.323	mg/L	0.010	0.050
87-86-5	Pentachlorophenol		0.259	mg/L	0.010	0.050
110-86-1	Pyridine		0.297	mg/L	0.015	0.050
95-48-7	o-Cresol		0.311	mg/L	0.010	0.050
65794-96-9	m,p-Cresols		0.283	mg/L	0.015	0.050
67-72-1	Hexachloroethane		0.265	mg/L	0.010	0.050
98-95-3	Nitrobenzene		0.372	mg/L	0.015	0.050
87-68-3	Hexachlorobutadiene		0.334	mg/L	0.010	0.050
88-06-2	2,4,6-Trichlorophenol		0.406	mg/L	0.010	0.050
95-95-4	2,4,5-Trichlorophenol		0.428	mg/L	0.010	0.050
118-74-1	Hexachlorobenzene		0.413	mg/L	0.010	0.050

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Data file : /chem/MSD1.i/s121909.b/s111925.d
Lab Smp Id: 1201999624 Client Smp ID: WST03-10-2145MS
Inj Date : 19-DEC-2009 19:01
Operator : AMY Inst ID: MSD1.i
Smp Info : |1201999624|934629|1|SVMF|1|LANL_MS
Misc Info : |MSDTCLP_L|WBN091128-02|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD1.i/s121909.b/MSD1-M8270AQA-111409.m
Meth Date : 20-Dec-2009 13:59 amy01291 Quant Type: ISTD
Cal Date : 17-NOV-2009 17:42 Cal File: s1k1264.d
Als bottle: 24 QC Sample: MS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-899-1.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vo *Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	0.50000	ng unit correction factor
Vt	1.00000	volume of final ext
Vo	200.00000	volume of sample ext
Vi	0.50000	volume injected

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (mg/L)
* 10 1,4-Dichlorobenzene-d4	152	3.699	3.698	(1.000)	848736	40.0000	
* 29 Naphthalene-d8	136	4.557	4.563	(1.000)	3205496	40.0000	
* 46 Acenaphthene-d10	164	5.804	5.804	(1.000)	1744806	40.0000	
* 67 Phenanthrene-d10	188	6.798	6.798	(1.000)	3042616	40.0000	
* 91 Chrysene-d12	240	8.404	8.404	(1.000)	2645321	40.0000	
* 98 Perylene-d12	264	9.704	9.704	(1.000)	2123494	40.0000	
$ 3 2-Fluorophenol	112	2.916	2.904	(0.788)	1010586	45.5863	0.23
$ 5 Phenol-d5	99	3.440	3.434	(0.930)	778730	28.9019	0.14
$ 20 Nitrobenzene-d5	82	4.063	4.063	(0.892)	857838	40.6086	0.20
$ 39 2-Fluorobiphenyl	172	5.298	5.298	(0.913)	1725024	41.2803	0.21
$ 60 2,4,6-Tribromophenol	329	6.345	6.345	(1.093)	441265	90.5694	0.45
$ 81 p-Terphenyl-d14	244	7.716	7.716	(0.918)	2024444	48.7545	0.24
11 1,4-Dichlorobenzene	146	3.710	3.710	(1.003)	1575010	56.7501	0.28

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (mg/L)
50 2,4-Dinitrotoluene	165	5.922	5.922	(1.020)	1012681	64.5011	0.32
65 Pentachlorophenol	266	6.675	6.675	(0.982)	399161	51.8710	0.26
2 Pyridine	79	2.263	2.257	(0.612)	1202164	59.4629	0.30
15 o-Cresol	107	3.834	3.834	(1.037)	1116798	62.1780	0.31
18 m,p-Cresols	107	3.934	3.934	(1.064)	1382810	56.5820	0.28
19 Hexachloroethane	117	4.040	4.040	(1.092)	528893	52.9502	0.26
21 Nitrobenzene	77	4.081	4.081	(0.895)	1635775	74.3191	0.37
32 Hexachlorobutadiene	225	4.640	4.640	(1.018)	664984	66.7485	0.33
37 2,4,6-Trichlorophenol	196	5.251	5.245	(0.905)	942662	81.2261	0.41
38 2,4,5-Trichlorophenol	196	5.281	5.275	(0.910)	1056623	85.6249	0.43
63 Hexachlorobenzene	284	6.551	6.551	(0.964)	1059906	82.6027	0.41

Data File: /chem/MSD1.i/s121909.b/s111925.d
Date : 19-DEC-2009 19:01
Client ID: WST03-10-2145MS
Sample Info: 1120199962419346291 1|SVMF11|LANL_MS
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD1.i
Operator: AMY
Column diameter: 0.20

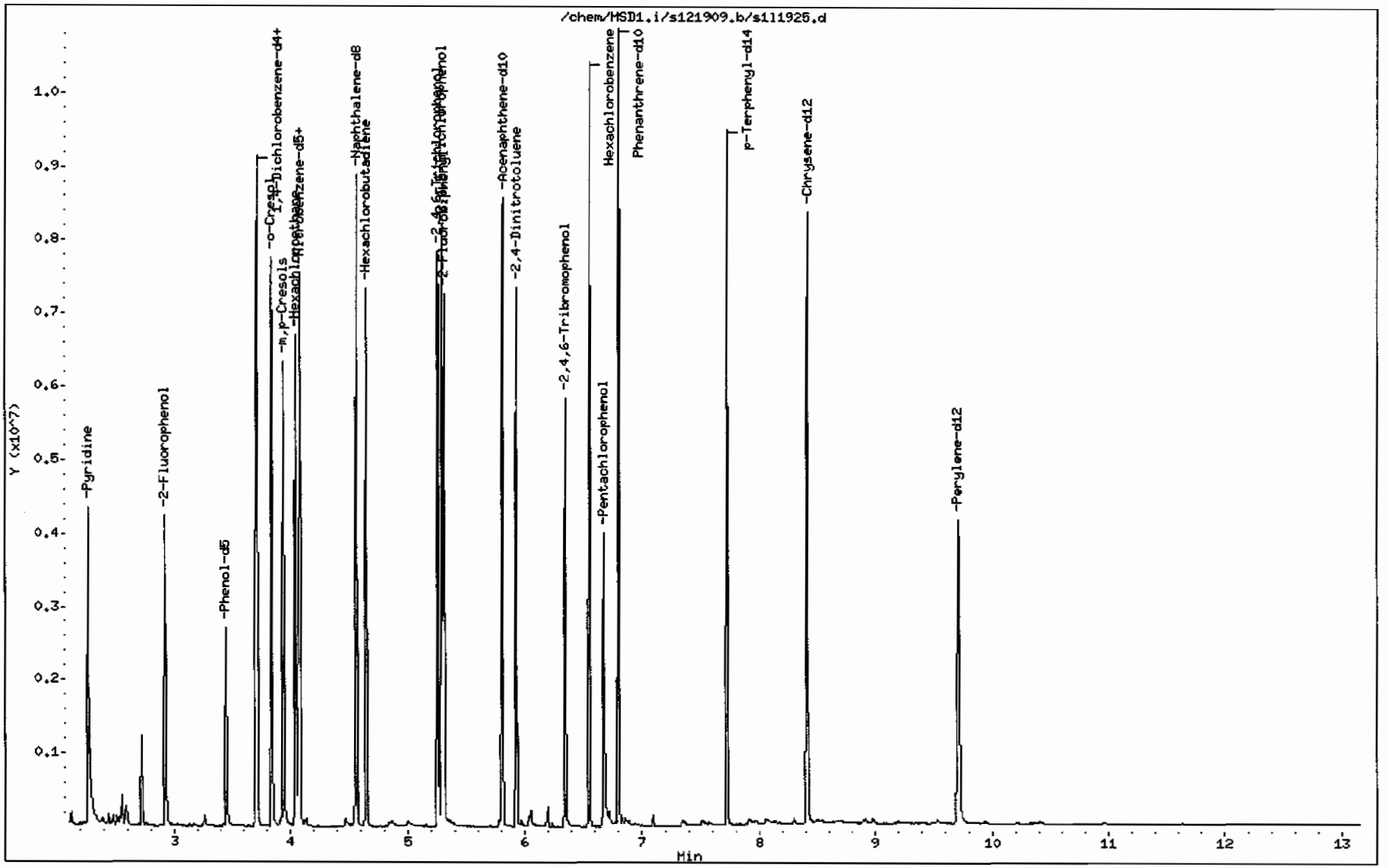

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-899-1**	**Date Collected:**	**12/10/2009 12:00**	**Matrix:**	**TCLP R**
Lab Sample ID:	**1201999625**	**Date Received:**	**12/12/2009 09:35**		
Client Sample:	**QC for batch 934627**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**WST03-10-2145MSD**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**934629**	**Inst:**	**MSD1.I**	**Dilution:**	**1**
Run Date:	**12/19/2009 19:24**	**Analyst:**	**AMY**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/18/2009 19:52**	**Aliquot:**	**200 mL**	**Final Volume:**	**1 mL**
Data File:	**s111926.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
106-46-7	1,4-Dichlorobenzene		0.331	mg/L	0.010	0.050
121-14-2	2,4-Dinitrotoluene		0.353	mg/L	0.010	0.050
87-86-5	Pentachlorophenol		0.316	mg/L	0.010	0.050
110-86-1	Pyridine		0.365	mg/L	0.015	0.050
95-48-7	o-Cresol		0.360	mg/L	0.010	0.050
65794-96-9	m,p-Cresols		0.325	mg/L	0.015	0.050
67-72-1	Hexachloroethane		0.297	mg/L	0.010	0.050
98-95-3	Nitrobenzene		0.430	mg/L	0.015	0.050
87-68-3	Hexachlorobutadiene		0.374	mg/L	0.010	0.050
88-06-2	2,4,6-Trichlorophenol		0.466	mg/L	0.010	0.050
95-95-4	2,4,5-Trichlorophenol		0.499	mg/L	0.010	0.050
118-74-1	Hexachlorobenzene		0.451	mg/L	0.010	0.050

GEL Laboratories LLC

Data file : /chem/MSD1.i/s121909.b/s111926.d
Lab Smp Id: 1201999625 Client Smp ID: WST03-10-2145MSD
Inj Date : 19-DEC-2009 19:24
Operator : AMY Inst ID: MSD1.i
Smp Info : |1201999625|934629|1|SVMF|1|LANL_MSD
Misc Info : |MSDTCLP_L|WBN091128-02|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD1.i/s121909.b/MSD1-M8270AQA-111409.m
Meth Date : 20-Dec-2009 13:59 amy01291 Quant Type: ISTD
Cal Date : 17-NOV-2009 17:42 Cal File: s1k1264.d
Als bottle: 25 QC Sample: MSD
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-899-1.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vo *Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	0.50000	ng unit correction factor
Vt	1.00000	volume of final ext
Vo	200.00000	volume of sample ext
Vi	0.50000	volume injected

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (mg/L)
* 10 1,4-Dichlorobenzene-d4	152	3.699	3.698	(1.000)	687765	40.0000	
* 29 Naphthalene-d8	136	4.557	4.563	(1.000)	2652248	40.0000	
* 46 Acenaphthene-d10	164	5.798	5.804	(1.000)	1471821	40.0000	
* 67 Phenanthrene-d10	188	6.798	6.798	(1.000)	2544674	40.0000	
* 91 Chrysene-d12	240	8.398	8.404	(1.000)	2239420	40.0000	
* 98 Perylene-d12	264	9.698	9.704	(1.000)	1883395	40.0000	
$ 3 2-Fluorophenol	112	2.910	2.904	(0.787)	919959	51.2108	0.26
$ 5 Phenol-d5	99	3.440	3.434	(0.930)	714583	32.7284	0.16
$ 20 Nitrobenzene-d5	82	4.063	4.063	(0.892)	809033	46.2872	0.23
$ 39 2-Fluorobiphenyl	172	5.298	5.298	(0.914)	1628265	46.1918	0.23
$ 60 2,4,6-Tribromophenol	329	6.345	6.345	(1.094)	428837	104.344	0.52
$ 81 p-Terphenyl-d14	244	7.716	7.716	(0.919)	1860761	52.9350	0.26
11 1,4-Dichlorobenzene	146	3.710	3.710	(1.003)	1488375	66.1802	0.33

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (mg/L)
50 2,4-Dinitrotoluene	165	5.922	5.922	(1.021)	934952	70.5953	0.35
65 Pentachlorophenol	266	6.675	6.675	(0.982)	406505	63.1623	0.32
2 Pyridine	79	2.257	2.257	(0.610)	1194912	72.9375	0.36
15 o-Cresol	107	3.834	3.834	(1.037)	1046488	71.9001	0.36
18 m,p-Cresols	107	3.934	3.934	(1.064)	1286541	64.9639	0.32
19 Hexachloroethane	117	4.040	4.040	(1.092)	481418	59.4778	0.30
21 Nitrobenzene	77	4.081	4.081	(0.895)	1567186	86.0555	0.43
32 Hexachlorobutadiene	225	4.640	4.640	(1.018)	617345	74.8927	0.37
37 2,4,6-Trichlorophenol	196	5.246	5.245	(0.905)	911814	93.1404	0.46
38 2,4,5-Trichlorophenol	196	5.281	5.275	(0.911)	1039823	99.8922	0.50
63 Hexachlorobenzene	284	6.551	6.551	(0.964)	968412	90.2406	0.45

Data File: /chem/MSD1.i/s121909.b/s111926.d
Date : 19-DEC-2009 19:24
Client ID: WST03-10-2145MSD
Sample Info: |120199962519346291|SVMF|1|LANL_MSD
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD1.i

Operator: AMY
Column diameter: 0.20

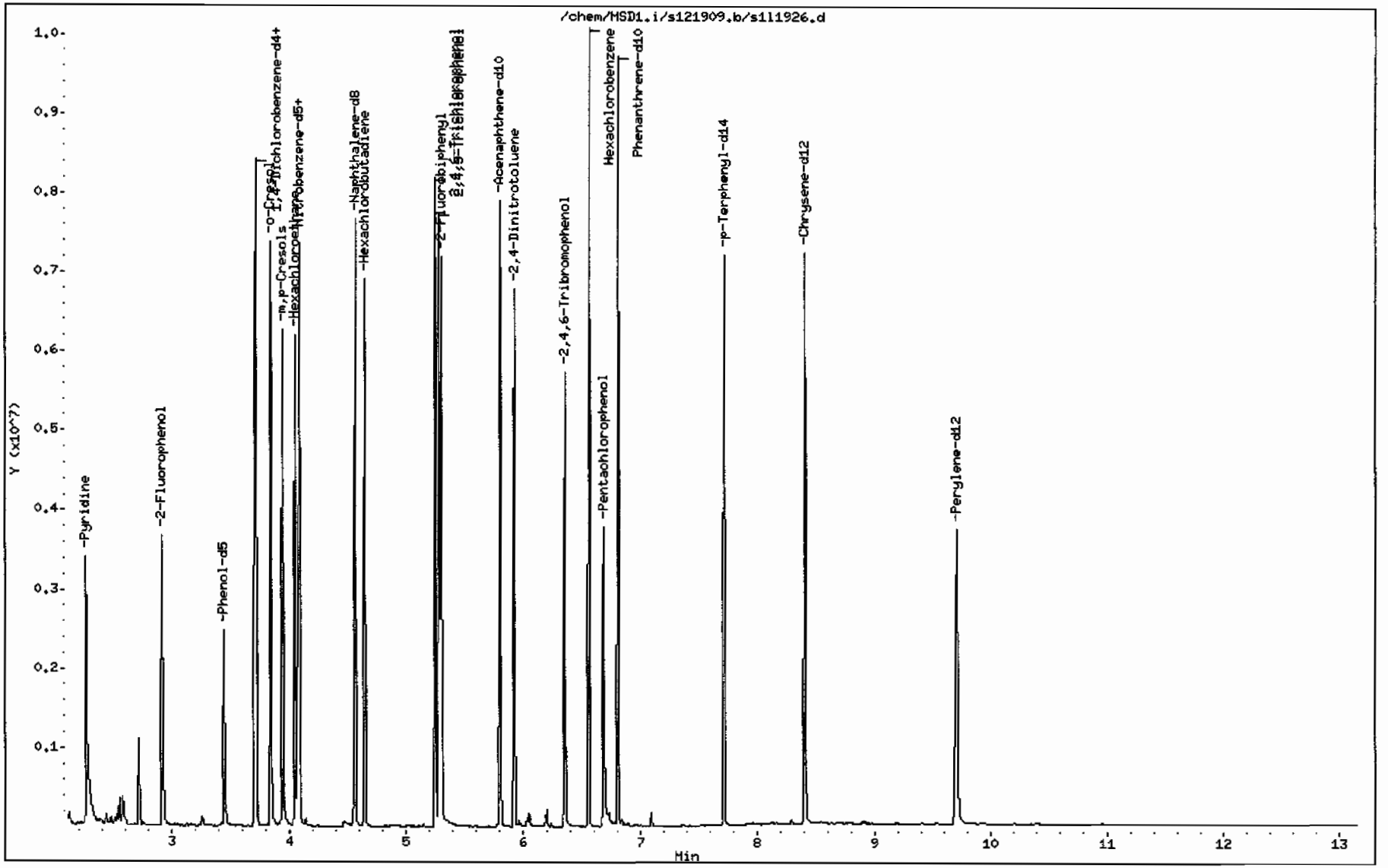

Miscellaneous Data

Prep Logbook

Toxicity Characteristic Leaching Procedure Preparation

Batch ID: 933331 **Verified by:** _____

Analyst: Richard Dollinger

Method: SW846 1311

Lab SOP: GL-LB-E-006 REV# 13

Instrument: TCLP Tumbler #105

Sample ID Analysis Start Date	1201996842 TB 15-DEC-2009 09:00:59	242446001 15-DEC-2009 09:00:59	242785001 15-DEC-2009 09:00:59	242785002 15-DEC-2009 09:00:59
100% Solid Y/N		y	y	y
(I) Sub Sample Aliquot I=G-H (g)	0	100	100	100
Initial pH (su)	4.92	8.63	8.37	7.26
pH Temperature (celsius)		50	50	50
Filtrate pH (su)	4.92	5	5	5
Final pH (su)	4.92	1.8	1.72	1.73
Tumbler Speed	28	28	28	28
Sample Properties <>/= Water	tclp#1	Solid	Solid	Solid
(J) 20X Wet Solid Weight 20XC (g)	2000	2000	2000	2000
Filtrate Volume (mL)	1000	1000	1000	1000

Type	Sample Id	Description	Serial Number	Spike Amt	Units
RGNT	All	TCLP EXTRACTION FLUID 1	1018204	2000	mL
RGNT	All	1N HCl for pH testing	1202901	3.5	mL

Comments:

Extration End Date: 16-DEC-09 9:00:45
Filtration End Date: 16-DEC-09 15:00:45
Bottle Lot Number: h929301db
Filter Lot Number: 9125016
Extration Start Temperature: 23 C
Extration End Temperature: 23 C
Filtration End Temperature: 23 C

Prep Logbook

Extraction of Semivolatile and Nonvolatile Organic Compounds from Groundwater, Wastewater, and Other Aqueous Samples

Batch ID: 934627 **Verified by:** _____

Analyst: Sequan Smalls

Method: SW846 3510C

Lab SOP: GL-OA-E-013 REV# 21

Instrument: Semi-Volatiles Manual

Sample ID	Run Date	Initial Volume (mL)	Initial pH	Int Ext pH	Sec Ext pH	Final Volume (mL)	Prepped Factor (mL/mL)
1201995263 TB	18-DEC-2009 19:52:07	200	5	1	13	1	0.005
1201996842 TB	18-DEC-2009 19:52:07	200	5	1	13	1	0.005
1201999622 MB	18-DEC-2009 19:52:07	1000	5	1	13	1	0.001
1201999623 LCS	18-DEC-2009 19:52:07	1000	5	1	13	1	0.001
242502001	18-DEC-2009 19:52:07	200	5	1	13	1	0.005
242502002	18-DEC-2009 19:52:07	200	5	1	13	1	0.005
242502003	18-DEC-2009 19:52:07	200	5	1	13	1	0.005
242502004	18-DEC-2009 19:52:07	200	5	1	13	1	0.005
242785001	18-DEC-2009 19:52:07	200	5	1	13	1	0.005
1201999624 MS (242785001)	18-DEC-2009 19:52:07	200	5	1	13	1	0.005
1201999625 MSD (242785001)	18-DEC-2009 19:52:07	200	5	1	13	1	0.005
242785002	18-DEC-2009 19:52:07	200	5	1	13	1	0.005

Type	Sample Id	Description	Serial Number	Spike Amt	Units
LCS	1201999623	8270 TCLP Spiking Solution	UE091121-16	1	mL
MS	1201999624	8270 TCLP Spiking Solution	UE091121-16	1	mL
MSD	1201999625	8270 TCLP Spiking Solution	UE091121-16	1	mL
SURR	All	BNA for all Surrogate	UE091215-10	1	mL
REGNT	All	Sulfuric Acid Sol., 1:1	1236751	2	mL
REGNT	All	Methylene Chloride	1242565-D	360	mL
REGNT	All	10 N Sodium Hydroxide Solution	1244536	10	mL
SOURC	All	SODIUM SULFATE	1236563	30	g

Comments:

Verified By: TRA

Final Solvent: CH2CL2

GEL ORGANIC RUN LOG INSTRUMENT ID: MSD1

DATE: 11/14/2009 METHOD: See raw data OPERATOR: AMY REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT:116462-D
Multiplier Voltage: 1400 Emv Extr. Injection Volume: 0.5, 1.0 ul
DFTPP Solution ID: WBN091006-01 Internal Std ID: WBN091024-01
CALIBRATION & QC INFORMATION:
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.

SOP: GL-OA-E-009 Rev. 22 Sequence Number: /chem/MSD1.i/s111409.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
s1k1201-D.d	WBN091101-01	AMY	14-NOV-2009 17:38	50 PPM	s111409	1.0	DFTPP	TUNE-MEGA ICAL
s1k1201.d	WBN091101-01	AMY	14-NOV-2009 17:38	50 PPM	s111409	1.0	DFTPP	TUNE-MEGA ICAL
s1k1202.d	INST BLK	amy	14-NOV-2009 17:53	-----	s111409	1.0	INST BLK	
s1k1203.d	WBN091111-16	amy	14-NOV-2009 18:22	1 PPM	s111409	1.0	MEGA001	
s1k1204.d	WBN091111-15	amy	14-NOV-2009 18:51	10 PPM	s111409	1.0	MEGA010	
s1k1204MRQ.d	WBN091111-15	amy	14-NOV-2009 18:51	10 PPM	s111409	1.0	MEGA010	pass linearity for c26 and c184
s1k1205.d	WBN091111-14	amy	14-NOV-2009 19:21	20 PPM	s111409	1.0	MEGA020	
s1k1206.d	WBN091111-13.1	amy	14-NOV-2009 19:50	40 PPM	s111409	1.0	MEGA040	
s1k1207.d	WBN091111-12	amy	14-NOV-2009 20:19	50 PPM	s111409	1.0	MEGA050	
s1k1208.d	WBN091111-11	amy	14-NOV-2009 20:47	80 PPM	s111409	1.0	MEGA080	
s1k1209.d	WBN091111-10	amy	14-NOV-2009 21:16	100 PPM	s111409	1.0	MEGA100	
s1k1210.d	WBN091111-09	amy	14-NOV-2009 21:45	120 PPM	s111409	1.0	MEGA120	
s1k1211.d	INST BLK	amy	14-NOV-2009 22:14	-----	s111409	1.0	INST BLK	
s1k1212-BOE.d	WBN091111-17.1	amy	14-NOV-2009 22:43	40 PPM	s111409	1.0	MEGAICV	DUSE-fail c65
s1k1212-D.d	WBN091111-17.1	amy	14-NOV-2009 22:43	40 PPM	s111409	1.0	MEGAICV	DUSE-fail c65
s1k1212.d	WBN091111-17.1	amy	14-NOV-2009 22:43	40 PPM	s111409	1.0	MEGAICV	DUSE: fails c65
s1k1213-D.d	WBN091101-01	AMY	15-NOV-2009 14:50	50 PPM	s111409	1.0	DFTPP	TUNE-AP/PEST/HEX ICALS
s1k1213.d	WBN091101-01	AMY	15-NOV-2009 14:50	50 PPM	s111409	1.0	DFTPP	TUNE-AP/PEST/HEX ICALS
s1k1214.d	INST BLK	amy	15-NOV-2009 15:05	-----	s111409	1.0	INST BLK	

s1k1215.d	WBN091111-01	amy	15-NOV-2009 15:28	10 PPM	s111409	1.0	AP010	
s1k1216.d	WBN091111-02	amy	15-NOV-2009 15:51	20 PPM	s111409	1.0	AP020	
s1k1217.d	WBN091111-03.1	amy	15-NOV-2009 16:14	40 PPM	s111409	1.0	AP040	
s1k1218.d	WBN091111-04	amy	15-NOV-2009 16:38	50 PPM	s111409	1.0	AP050	
s1k1219.d	WBN091111-05	amy	15-NOV-2009 17:01	80 PPM	s111409	1.0	AP080	
s1k1220.d	WBN091111-06	amy	15-NOV-2009 17:24	100 PPM	s111409	1.0	AP100	
s1k1221.d	WBN091111-07	amy	15-NOV-2009 17:47	120 PPM	s111409	1.0	AP120	
s1k1222.d	WBN091029-25	amy	15-NOV-2009 18:11	10 PPM	s111409	1.0	PEST010	
s1k1223.d	WBN091029-24	amy	15-NOV-2009 18:35	20 PPM	s111409	1.0	PEST020	
s1k1224.d	WBN091029-23.1	amy	15-NOV-2009 18:58	40 PPM	s111409	1.0	PEST040	
s1k1225.d	WBN091029-22	amy	15-NOV-2009 19:21	50 PPM	s111409	1.0	PEST050	
s1k1226.d	WBN091029-21	amy	15-NOV-2009 19:45	80 PPM	s111409	1.0	PEST080	
s1k1227.d	WBN091029-20	amy	15-NOV-2009 20:09	100 PPM	s111409	1.0	PEST100	
s1k1228.d	WBN091029-19	amy	15-NOV-2009 20:31	120 PPM	s111409	1.0	PEST120	
s1k1229.d	WBN091016-16	amy	15-NOV-2009 20:55	500 PPM	s111409	1.0	HEX500	
s1k1230.d	WBN091016-15	amy	15-NOV-2009 21:18	1000 PPM	s111409	1.0	HEX1000	
s1k1231.d	WBN091016-14	amy	15-NOV-2009 21:42	1250 PPM	s111409	1.0	HEX1250	
s1k1232.d	WBN091016-13	amy	15-NOV-2009 22:06	1500 PPM	s111409	1.0	HEX503	
s1k1233.d	WBN091016-12	amy	15-NOV-2009 22:30	1750 PPM	s111409	1.0	HEX504	
s1k1234.d	UBN090825-02.4	amy	15-NOV-2009 22:53	2000 PPM	s111409	1.0	HEX2000	
s1k1235-D.d	WBN091111-08.1	amy	15-NOV-2009 23:17	40 PPM	s111409	1.0	APICV	
s1k1235.d	WBN091111-08.1	amy	15-NOV-2009 23:17	40 PPM	s111409	1.0	APICV	
s1k1236-D.d	WBN091029-26.1	amy	15-NOV-2009 23:40	40 PPM	s111409	1.0	PESTICV	
s1k1236.d	WBN091029-26.1	amy	15-NOV-2009 23:40	40 PPM	s111409	1.0	PESTICV	
s1k1237-D.d	WBN091016-10.2	amy	16-NOV-2009 00:03	1250 PPM	s111409	1.0	HEXICV	
s1k1237.d	WBN091016-10.2	amy	16-NOV-2009 00:03	1250 PPM	s111409	1.0	HEXICV	
s1k1238-D.d	WBN091101-01	AMY	16-NOV-2009 00:27	50 PPM	s111409	1.0	DFTPP	DUSE: fails breakdown

s1k1238.d	WBN091101-01	AMY	16-NOV-2009 00:27	50 PPM	s111409	1.0	DFTPP	DUSE: fails breakdown
s1k1239.d	INST BLK	amy	16-NOV-2009 00:43	-----	s111409	1.0	INST BLK	
s1k1240.d	UBN090924-01	amy	16-NOV-2009 01:05	10 PPM	s111409	1.0	NEV010	DUSE
s1k1241.d	UBN090924-02	amy	16-NOV-2009 01:28	20 PPM	s111409	1.0	NEV020	DUSE
s1k1242.d	UBN090924-03	amy	16-NOV-2009 01:51	40 PPM	s111409	1.0	NEV040	DUSE
s1k1243.d	UBN090924-04	amy	16-NOV-2009 02:14	50 PPM	s111409	1.0	NEV050	DUSE
s1k1244.d	UBN090924-05	amy	16-NOV-2009 02:38	80 PPM	s111409	1.0	NEV080	DUSE
s1k1245.d	UBN090924-06	amy	16-NOV-2009 03:01	100 PPM	s111409	1.0	NEV100	DUSE
s1k1246.d	UBN090924-07	amy	16-NOV-2009 03:23	120 PPM	s111409	1.0	NEV120	DUSE
s1k1247-D.d	WBN091101-01	AMY	17-NOV-2009 09:05	50 PPM	s111409	1.0	DFTPP	DUSE
s1k1247.d	WBN091101-01	AMY	17-NOV-2009 09:05	50 PPM	s111409	1.0	DFTPP	DUSE
s1k1248.d	INST BLK	amy	17-NOV-2009 09:20	-----	s111409	1.0	INST BLK	
s1k1249.d	WBN091027-09.2	amy	17-NOV-2009 09:48	40 PPM	s111409	1.0	MEGAICV	DUSE: c65 fails
s1k1250.d	UBN090924-01	amy	17-NOV-2009 10:17	10 PPM	s111409	1.0	NEV010	DUSE
s1k1251.d	UBN090924-02	amy	17-NOV-2009 10:41	20 PPM	s111409	1.0	NEV020	DUSE
s1k1252.d	UBN090924-03	amy	17-NOV-2009 11:04	40 PPM	s111409	1.0	NEV040	DUSE
s1k1253.d	UBN090924-04	amy	17-NOV-2009 11:27	50 PPM	s111409	1.0	NEV050	DUSE
s1k1254.d	UBN090924-05	amy	17-NOV-2009 11:50	80 PPM	s111409	1.0	NEV080	DUSE
s1k1255.d	UBN090924-06	amy	17-NOV-2009 12:14	100 PPM	s111409	1.0	NEV100	DUSE
s1k1256.d	UBN090924-07	amy	17-NOV-2009 12:38	120 PPM	s111409	1.0	NEV120	DUSE
s1k1257.d	WBN091027-09.1	amy	17-NOV-2009 13:02	40 PPM	s111409	1.0	MEGAICV	DUSE: c65 fails /clean inj port
s1k1259-D.d	WBN091101-01	AMY	17-NOV-2009 15:48	50 PPM	s111409	1.0	DFTPP	TUNE-MEGAICV/NEV ICAL
s1k1259.d	WBN091101-01	AMY	17-NOV-2009 15:48	50 PPM	s111409	1.0	DFTPP	TUNE-MEGAICV/NEV ICAL
s1k1260.d	INST BLK	amy	17-NOV-2009 16:04	-----	s111409	1.0	INST BLK	
s1k1261-BOE.d	WBN091027-09.3	amy	17-NOV-2009 16:27	40 PPM	s111409	1.0	MEGAICV	
s1k1261-D.d	WBN091027-09.3	amy	17-NOV-2009 16:27	40 PPM	s111409	1.0	MEGAICV	
s1k1261.d	WBN091027-09.3	amy	17-NOV-2009 16:27	40 PPM	s111409	1.0	MEGAICV	pass 530038

s1k1262.d	UBN091117-01	amy	17-NOV-2009 16:56	10 PPM	s111409	1.0	NEV010	
s1k1263.d	UBN091117-02	amy	17-NOV-2009 17:19	20 PPM	s111409	1.0	NEV020	
s1k1264.d	UBN091117-03	amy	17-NOV-2009 17:42	40 PPM	s111409	1.0	NEV040	
s1k1265.d	UBN091117-04	amy	17-NOV-2009 18:05	50 PPM	s111409	1.0	NEV050	DUSE
s1k1266.d	UBN091117-05	amy	17-NOV-2009 18:28	80 PPM	s111409	1.0	NEV080	
s1k1267.d	UBN091117-06	amy	17-NOV-2009 18:52	100 PPM	s111409	1.0	NEV100	DUSE
s1k1268.d	UBN091117-07	amy	17-NOV-2009 19:15	120 PPM	s111409	1.0	NEV120	

GEL ORGANIC RUN LOG INSTRUMENT ID: MSD1

DATE: 12/19/2009 METHOD: See raw data OPERATOR: JMB3 REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT:1202440-D
Multiplier Voltage: 1318 Emv Extr. Injection Volume: 0.5, 1.0 ul
DFTPP Solution ID: WBN091101-01 Internal Std ID: WBN091106-10
CALIBRATION & QC INFORMATION:
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.

SOP: GL-OA-E-009 Rev. 23 Sequence Number: /chem/MSD1.i/s121909.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
s111901.d	WBN091128-01	AMY	19-DEC-2009 09:38	50 PPM	s121909	1.0	DFTPP	DUSE
s111902-D.d	WBN091128-01	AMY	19-DEC-2009 09:55	50 PPM	s121909	1.0	DFTPP	
s111902.d	WBN091128-01	AMY	19-DEC-2009 09:55	50 PPM	s121909	1.0	DFTPP	
s111903-D.d	WBN091201-17.4	AMY	19-DEC-2009 10:10	40 PPM	s121909	1.0	MEGACVS	pass for TCLP batch---last istd fail RT 850761
s111903.d	WBN091201-17.4	AMY	19-DEC-2009 10:10	40 PPM	s121909	1.0	MEGACVS	pass for TCLP batch---last istd fail RT 850761
s111904.d	WBN091201-03.5	AMY	19-DEC-2009 10:38	40 PPM	s121909	1.0	APCVS	not needed
s111905.d	WBN091202-23.5	AMY	19-DEC-2009 11:02	40 PPM	s121909	1.0	PESTCVS	not needed
s111906.d	1201998486	AMY	19-DEC-2009 11:39	934270	242679	1.0	TBLK01	REPORT
s111907.d	1201998881	AMY	19-DEC-2009 12:02	934270	242679	1.0	SBLK01	REPORT
s111908.d	1201998882	AMY	19-DEC-2009 12:25	934270	242679	1.0	SBLK01LCS	REPORT
s111909.d	1201995263	AMY	19-DEC-2009 12:48	934629	242502	1.0	TBLK01	
s111910.d	1201996842	AMY	19-DEC-2009 13:11	934629	10-899-1	1.0	TBLK01	
s111911-1.d	1201999622	AMY	19-DEC-2009 13:35	934629	10-899-1	1.0	SBLK01	
s111911.d	1201999622	AMY	19-DEC-2009 13:35	934629	242502	1.0	SBLK01	
s111912-1.d	1201999623	AMY	19-DEC-2009 13:58	934629	10-899-1	1.0	SBLK01LCS	
s111912.d	1201999623	AMY	19-DEC-2009 13:58	934629	242502	1.0	SBLK01LCS	
s111913.d	1202000016	AMY	19-DEC-2009 14:21	934801	s121909	1.0	SBLK01	DUSE-mega chk fail RT for last istd
s111914.d	1202000017	AMY	19-DEC-2009 14:44	934801	s121909	1.0	SBLK01LCS	DUSE-mega chk fail RT for last istd
s111915.d	242679001	AMY	19-DEC-2009 15:08	934270	242679	1.0	GEEL	REPORT

s111916.d	1201998883	AMY	19-DEC-2009 15:31	934270	242679		1.0	GEEL_MS	REPORT
s111917.d	1201998884	AMY	19-DEC-2009 15:54	934270	242679		1.0	GEEL_MSD	REPORT
s111918.d	242679002	AMY	19-DEC-2009 16:18	934270	242679		1.0	GEEL	REPORT
s111919.d	242679003	AMY	19-DEC-2009 16:41	934270	242679		1.0	GEEL	REPORT -sent for RE due to $ failure. DUSE RE s512124, confirms
s111920.d	242502001	AMY	19-DEC-2009 17:05	934629	242502		1.0	BRKL	
s111921.d	242502002	AMY	19-DEC-2009 17:28	934629	242502		1.0	BRKL	
s111922.d	242502003	AMY	19-DEC-2009 17:51	934629	242502		1.0	BRKL	
s111923.d	242502004	AMY	19-DEC-2009 18:14	934629	242502		1.0	BRKL	
s111924.d	242785001	AMY	19-DEC-2009 18:38	934629	10-899-1		1.0	LANL	
s111925.d	1201999624	AMY	19-DEC-2009 19:01	934629	10-899-1		1.0	LANL_MS	
s111926.d	1201999625	AMY	19-DEC-2009 19:24	934629	10-899-1		1.0	LANL_MSD	
s111927.d	242785002	AMY	19-DEC-2009 19:47	934629	10-899-1		1.0	LANL	
s111928.d	243181001	AMY	19-DEC-2009 20:10	934801	243181		1.0	PROG	DUSE-mega chk fail RT for last istd
s111929.d	243181002	AMY	19-DEC-2009 20:32	934801	243181		1.0	PROG	DUSE-mega chk fail RT for last istd
s111930.d	243181003	AMY	19-DEC-2009 20:55	934801	243181		1.0	PROG	DUSE-mega chk fail RT for last istd

Instrument Batch: /chem/MSD1.i/s121909.b

Page: 1

GC SEMIVOLATILE DRO ANALYSIS

DRO Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-899

Method/Analysis Information

Procedure:	**Analysis of Diesel Range Organics by Flame Ionization Detector**
Analytical Method:	SW846 8015A/B SVOC
Prep Method:	SW846 3550B
Analytical Batch Number:	933001
Prep Batch Number:	933000

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 8015A/B SVOC:

Sample ID	Client ID
242784003	WST03-10-2145
242784004	WST03-10-2146
1201995990	Method Blank (MB)
1201995991	Laboratory Control Sample (LCS)
1201995992	242794001(RE03-09-13470) Matrix Spike (MS)
1201995993	242794001(RE03-09-13470) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on a "dry weight" basis.

Preparation/Analytical Method Verification

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-003 REV# 18.

Raw data reports are processed and reviewed by the analyst using the Target software package. False positives have been removed from the Target quantitation reports per standard operating procedures (SOP) section 23.0.

Calibration Information

Initial Calibration
All initial calibration requirements have been met for this sample delivery group (SDG).

The linear equation used in Target and indicated on the initial calibration summary form is not a conventional linear equation (slope intercept formula) and does not match the equation found in SW-846 method 8000B. The x and y axes are inversed in Target, so that the instrument response is treated as the independent variable (x) and the concentration ratio is treated as the dependent variable (y). The equation used in Target to calculate sample results is adjusted to account for the linear equation inversion and reciprocal slope. The adjusted calculation has been independently verified to produce valid results.

Continuing Calibration Verification (CCV) Requirements
All associated calibration verification standard(s) (ICV or CCV) met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB(s) analyzed with this SDG met the acceptance criteria.

Surrogate Recoveries
All surrogate recoveries were within the established acceptance criteria for this SDG.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

QC Sample Designation
A LANL sample of similar matrix associated with another SDG (#10-901) was selected for the matrix spike and matrix spike duplicate analysis. A Form III and QC raw data are included in the package summarizing the results.

Matrix Spike (MS) Recovery Statement
The MS recovery was within the established acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recovery was within the established acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD(s) between the MS and MSD met the acceptance limits.

Technical Information

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

Sample Dilutions
Sample 242784004 (WST03-10-2146) was diluted at 1:5 due to the extract being thick and oily.

Sample Re-extraction/Re-analysis
Re-extractions or re-analyses were not required in this SDG.

Miscellaneous Information

Electronic Package Comment

The following package was generated using an electronic data processing program referred to as "virtual packaging". In an effort to increase quality and efficiency, the laboratory is developing systems to eventually generate all data packages electronically. The following change from "traditional" packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. An electronic signature page inserted after the case narrative of each electronic package will indicate the analyst, reviewer, and report specialist names associated with the generation of the data and package. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned

and inserted into the electronic package.

Nonconformance (NCR) Documentation
Nonconformance report (NCR) is for documentation of any procedural anomalies that may deviate from referenced SOP or contractual document. A NCR was not required for this SDG.

Manual Integrations
Certain standards and QC samples may have required manual integrations to correctly position the baseline as set in the calibration standard injections. If manual integrations were performed, copies of all manual integration peak profiles are included in the raw data section of this fraction. Some of the samples were manually integrated.

Additional Comments
The additional comments field is used to address special issues associated with each analysis, clarify method/contractual issues pertaining to the analysis, and to list any report documents generated as a result of sample analysis or review. The following additional comments were required:

Due to software limitation, the Form VIIs will display the results either in the % difference or % drift depending on the type of the calibration curve. If the curve of all analytes is generated using an average response factor (RF), the Form VII will display results using the difference calculation (RF). If the curve of one or more analytes is generated using a linear curve, the Form VII will display results using the % drift calculation (by concentration) for all analytes.

System Configuration

The GC-FID analysis was performed on the following instrument configuration:

Instrument ID	Instrument	System Configuration	Column ID	Column Description
FID7.I	Agilent GC FID	Agilent 6890N GC/FID	DB-5MS	30m x 0.25mm, 0.25um(J&W)

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Andy Whitlock **Date:** 12-20-2009

Roadmap for LANL 10-899 DRO

This roadmap was analyzed by kev01577 on 12-17-2009, 14:40.
This roadmap was reviewed by jcb on 12-18-2009, 08:54.
This roadmap was packaged by yml on 12-18-2009, 18:11.

Sample

exclude	manual	datafile	smpid	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/fid7.i/121609dr/016f1601.d	242784003	17-DEC-2009	01:23	10-899.sub	WST03-10-2145	1.00000	933001	USE
☐	N	/chem/fid7.i/121609dr/017f1701.d	242784004	17-DEC-2009	02:00	10-899.sub	WST03-10-2146	5.00000	933001	USE

QC Sample

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/fid7.i/121609dr/005f0501b.d	1201995990	mb	16-DEC-2009	18:39	10-899.sub	DBLK01	1.00000	933001	
☐	N	/chem/fid7.i/121609dr/006f0601b.d	1201995991	lcs	16-DEC-2009	19:16	10-899.sub	DBLK01LCS	1.00000	933001	

SAMPLE DATA SUMMARY

Flame Ionization Detector
Certificate of Analysis
Sample Summary

SDG Number:	10–899	Date Collected:	12/10/2009 12:00	Matrix:	R
Lab Sample ID:	242784003	Date Received:	12/12/2009 09:35	%Moisture:	6.7
		Client:	LANL010	Project:	LANL01004
Client ID:	WST03–10–2145	Method:	SW846 8015A/B SVOC	SOP Ref:	GL–OA–E–003
Batch ID:	933001	Inst:	FID7.I	Dilution:	1
Run Date:	12/17/2009 01:23	Analyst:	KXR2	Inj. Vol:	1 uL
Prep Date:	12/15/2009 16:56	Aliquot:	30 g	Final Volume:	1 mL
Data File:	016f1601.d	Column:	DB–5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics	J	2.61	mg/kg	2.32	7.15

Flame Ionization Detector
Certificate of Analysis
Sample Summary

SDG Number:	10-899	Date Collected:	12/10/2009 12:00	Matrix:	R
Lab Sample ID:	242784004	Date Received:	12/12/2009 09:35	%Moisture:	9.8
		Client:	LANL010	Project:	LANL01004
Client ID:	WST03-10-2146	Method:	SW846 8015A/B SVOC	SOP Ref:	GL-OA-E-003
Batch ID:	933001	Inst:	FID7.I	Dilution:	5
Run Date:	12/17/2009 02:00	Analyst:	KXR2	Inj. Vol:	1 uL
Prep Date:	12/15/2009 16:56	Aliquot:	30.01 g	Final Volume:	1 mL
Data File:	017f1701.d	Column:	DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics	J	13.9	mg/kg	12.0	36.9

QUALITY CONTROL SUMMARY

Flame Ionization Detector

Surrogate Recovery Report

SDG Number: 10–899

Matrix Type: SOLID

CAP Column (1) : DB–5MS

Sample ID	Client ID	OTP %REC	
1201995990	MB for batch 933000	47	
1201995991	LCS for batch 933000	80	
242784003	WST03–10–2145	47	
242784004	WST03–10–2146	57	D

Surrogate	Acceptance Limits
OTP = o–Terphenyl	(24%–124%)

* Recovery outside Acceptance Limits

\# Column to be used to flag recovery values

D Sample Diluted

Flame Ionization Detector

Quality Control Summary

Spike Recovery Report

SDG Number: 10–899 **Sample Type:** Laboratory Control Sample

Client ID: LCS for batch 933000 **Matrix:** SOIL

Lab Sample ID: 1201995991

Instrument: FID7.I **Analysis Date:** 12/16/2009 19:16 **Dilution:** 1

Analyst: KXR2 **Prep Batch ID:** 933000

Inj. Vol: 1 uL **Batch ID:** 933001

CAS No		Parmname	Amount Added mg/kg	Sample Conc. mg/kg	Spike Conc. mg/kg	Recovery %	Acceptance Limits
DRO	LCS	Diesel Range Organics	33.3	0.0	22.2	67	53–114

Flame Ionization Detector
Quality Control Summary
Spike Recovery Report

SDG Number:	**10–901**	**Sample Type:**	**Matrix Spike**	
Client ID:	**RE03–09–13470MS**	**Matrix:**	**S**	
Lab Sample ID:	**1201995992**	**%Moisture:**	**4.4**	
Instrument:	**FID7.I**	**Analysis Date:**	**12/17/2009 03:13**	**Dilution: 1**
Analyst:	**KXR2**	**Prep Batch ID:**	**933000**	
Inj. Vol:	**1 uL**	**Batch ID:**	**933001**	

CAS No		Parmname	Amount Added mg/kg	Sample Conc. mg/kg		Spike Conc. mg/kg	Recovery %	Acceptance Limits
DRO	MS	Diesel Range Organics	34.9	2.86	J	17.3	41	21–122

Flame Ionization Detector
Quality Control Summary
Spike Recovery Report

SDG Number:	10–901	**Sample Type:**	Matrix Spike Duplicate	
Client ID:	RE03–09–13470MSD	**Matrix:**	S	
Lab Sample ID:	1201995993	**%Moisture:**	4.4	
Instrument:	FID7.I	**Analysis Date:**	12/17/2009 03:50	**Dilution:** 1
Analyst:	KXR2	**Prep Batch ID:**	933000	
Inj. Vol:	1 uL	**Batch ID:**	933001	

CAS No	Parmname	Amount Added mg/kg	Sample Conc. mg/kg		Spike Conc. mg/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
DRO	MSD Diesel Range Organics	34.8	2.86	J	18.2	44	21–122	5	0–30

Method Blank Summary

SDG Number:	10–899	Client:	LANL010	Matrix:	SOIL
Client ID:	MB for batch 933000	Instrument ID:	FID7.I	Data File:	005f0501.d
Lab Sample ID:	1201995990	Prep Date:	12/15/2009 16:56	Analyzed:	12/16/09 18:39
Column:	DB–5MS	Level:	LOW		

This method blank applies to the following samples and quality control samples:

Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01 LCS for batch 933000	1201995991	006f0601.d	12/16/09	1916
02 WST03–10–2145	242784003	016f1601.d	12/17/09	0123
03 WST03–10–2146	242784004	017f1701.d	12/17/09	0200

SAMPLE
DATA

Flame Ionization Detector
Certificate of Analysis
Sample Summary

SDG Number:	10–899	Date Collected:	12/10/2009 12:00	Matrix:	R
Lab Sample ID:	242784003	Date Received:	12/12/2009 09:35	%Moisture:	6.7
		Client:	LANL010	Project:	LANL01004
Client ID:	WST03–10–2145	Method:	SW846 8015A/B SVOC	SOP Ref:	GL–OA–E–003
Batch ID:	933001	Inst:	FID7.I	Dilution:	1
Run Date:	12/17/2009 01:23	Analyst:	KXR2	Inj. Vol:	1 uL
Prep Date:	12/15/2009 16:56	Aliquot:	30 g	Final Volume:	1 mL
Data File:	016f1601.d	Column:	DB–5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics	J	2.61	mg/kg	2.32	7.15

GEL Laboratories LLC

DB-5MS .25mm

Data file : /chem/fid7.i/121609dr/016f1601.d
Lab Smp Id: 242784003 Client Smp ID: WST03-10-2145
Inj Date : 17-DEC-2009 01:23
Operator : KXR2 Inst ID: fid7.i
Smp Info : |242784003|1|
Misc Info : |FIDDRO_S|933001|FIDF|LANL|
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fid7.i/121609dr/FID7a.i_b_DRO_121309.m
Meth Date : 17-Dec-2009 11:49 kev01577 Quant Type: ESTD
Cal Date : 13-DEC-2009 18:58 Cal File: 007f0701.d
Als bottle: 16
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-899.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weigth of sample extracted (g)
M	6.70440	% Moisture

Cpnd Variable Local Compound Variable

	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (mg/L)	FINAL (mg/Kg)	
S	1 Diesel Range Organics					CAS #:	
	7.480- 17.855			980764	73.0975	2.6	(a)
$	2 o-Terphenyl					CAS #: 84-15-1	
	13.594	13.597	-0.003	247246	9.37799	0.34	(M)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

Data File: /chem/fid7.i/121609dr/016f1601.d
Date : 17-DEC-2009 01:23
Client ID: WST03-10-2145
Sample Info: 1242784003|1|
Volume Injected (uL): 1.0
Column phase: DB-5MS

Instrument: fid7.i

Operator: KXR2
Column diameter: 0.25

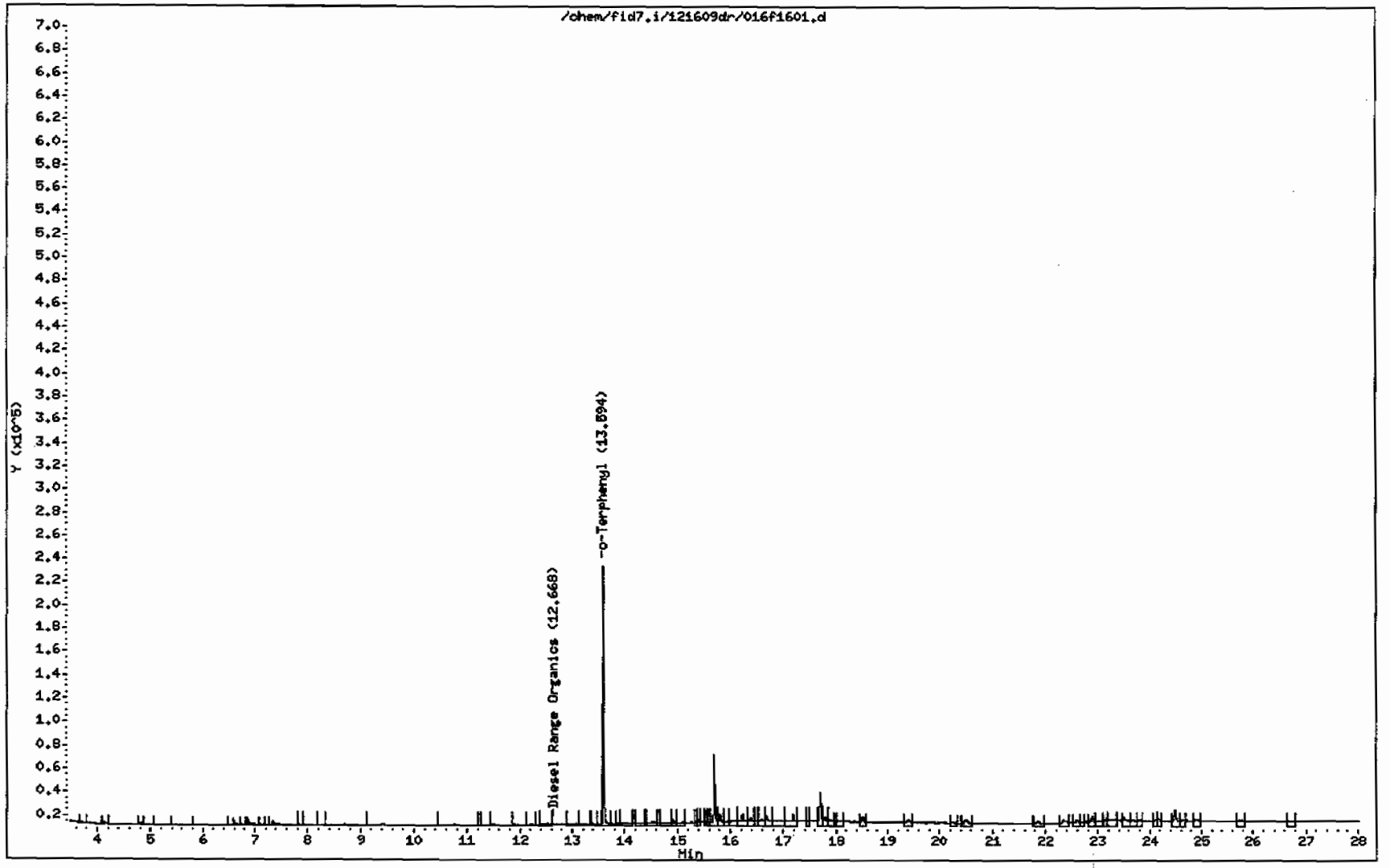

Data File: /chem/fid7.i/121609dr/016f1601.d
Injection Date: 17-DEC-2009 01:23
Instrument: fid7.i
Client Sample ID: WST03-10-2145

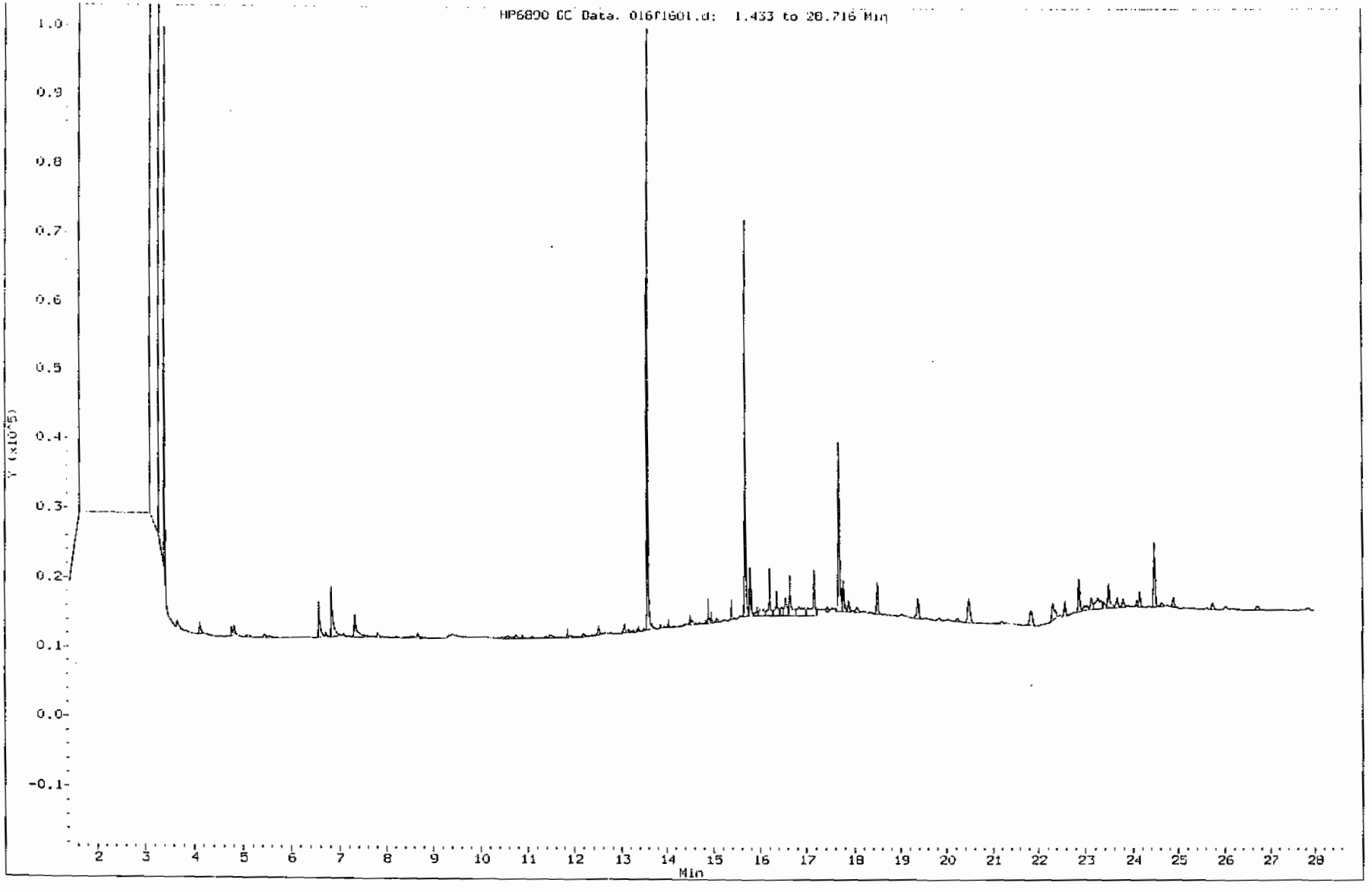

Data File: /chem/Fid7.i/121609dr/016f1601.d
Injection Date: 17-DEC-2009 01:23
Instrument: Fid7.i
Client Sample ID: WST03-10-2145

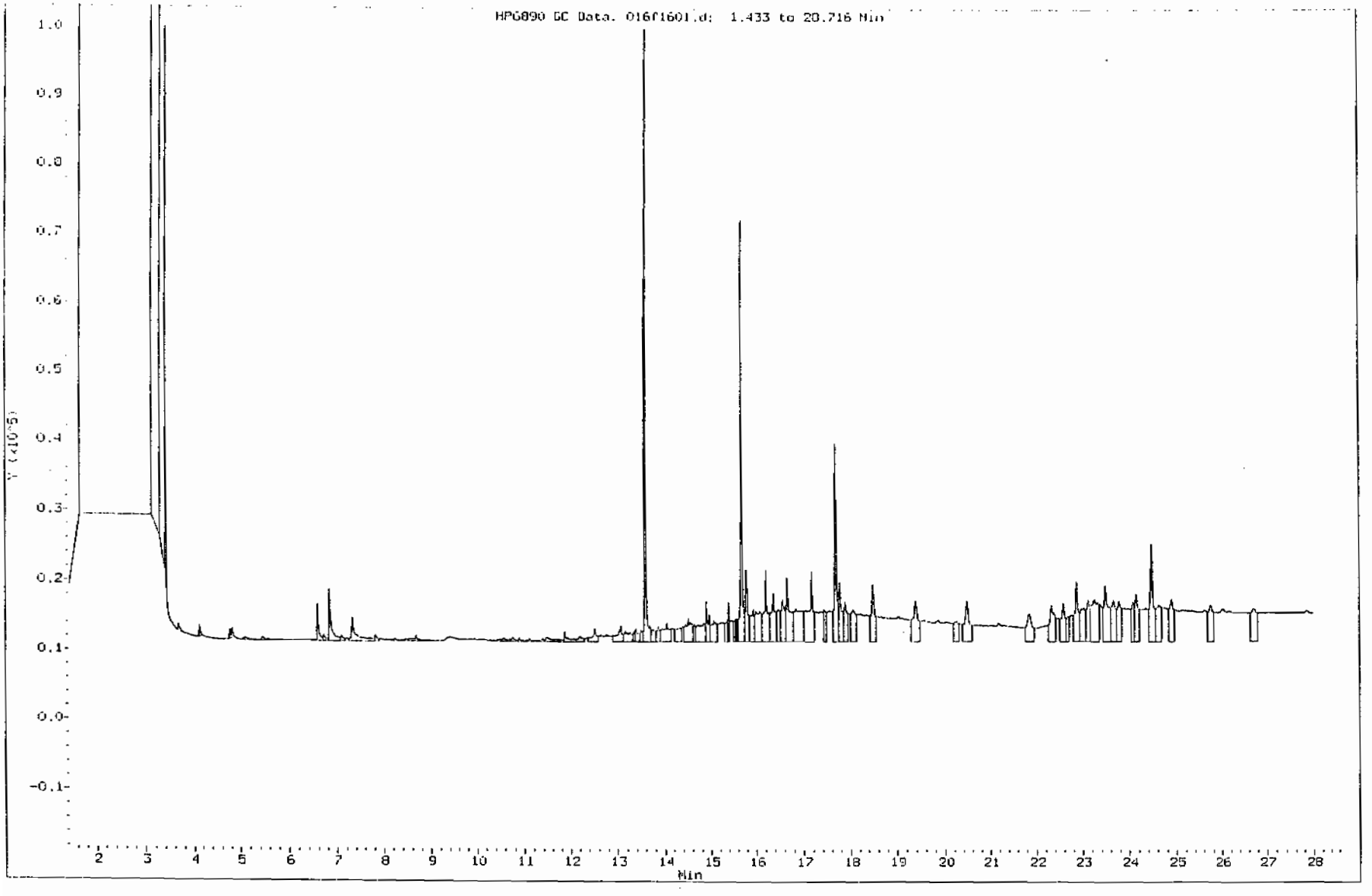

Flame Ionization Detector
Certificate of Analysis
Sample Summary

SDG Number:	10-899	Date Collected:	12/10/2009 12:00	Matrix:	R
Lab Sample ID:	242784004	Date Received:	12/12/2009 09:35	%Moisture:	9.8
		Client:	LANL010	Project:	LANL01004
Client ID:	WST03-10-2146	Method:	SW846 8015A/B SVOC	SOP Ref:	GL-OA-E-003
Batch ID:	933001	Inst:	FID7.I	Dilution:	5
Run Date:	12/17/2009 02:00	Analyst:	KXR2	Inj. Vol:	1 uL
Prep Date:	12/15/2009 16:56	Aliquot:	30.01 g	Final Volume:	1 mL
Data File:	017f1701.d	Column:	DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics	J	13.9	mg/kg	12.0	36.9

GEL Laboratories LLC

DB-5MS .25mm

Data file : /chem/fid7.i/121609dr/017f1701.d
Lab Smp Id: 242784004 Client Smp ID: WST03-10-2146
Inj Date : 17-DEC-2009 02:00
Operator : KXR2 Inst ID: fid7.i
Smp Info : |242784004|5|
Misc Info : |FIDDRO_S|933001|FIDF|LANL|
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fid7.i/121609dr/FID7a.i_b_DRO_121309.m
Meth Date : 17-Dec-2009 11:49 kev01577 Quant Type: ESTD
Cal Date : 13-DEC-2009 18:58 Cal File: 007f0701.d
Als bottle: 17
Dil Factor: 5.00000
Integrator: Falcon Compound Sublist: 10-899.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	5.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.01000	Weigth of sample extracted (g)
M	9.79830	% Moisture

Cpnd Variable Local Compound Variable

	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (mg/L)	FINAL (mg/Kg)	
S	1 Diesel Range Organics					CAS #:	
	7.480- 17.855			1013273	75.5205	13.9	(a)
$	2 o-Terphenyl					CAS #: 84-15-1	
	13.591	13.597	-0.006	59929	2.27313	0.42	(M)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

Data File: /chem/fid7.i/121609dr/017f1701.d
Date : 17-DEC-2009 02:00
Client ID: WST03-10-2146
Sample Info: |2427840041|5|
Volume Injected (uL): 1.0
Column phase: DB-5MS

Instrument: fid7.i

Operator: KXR2
Column diameter: 0.25

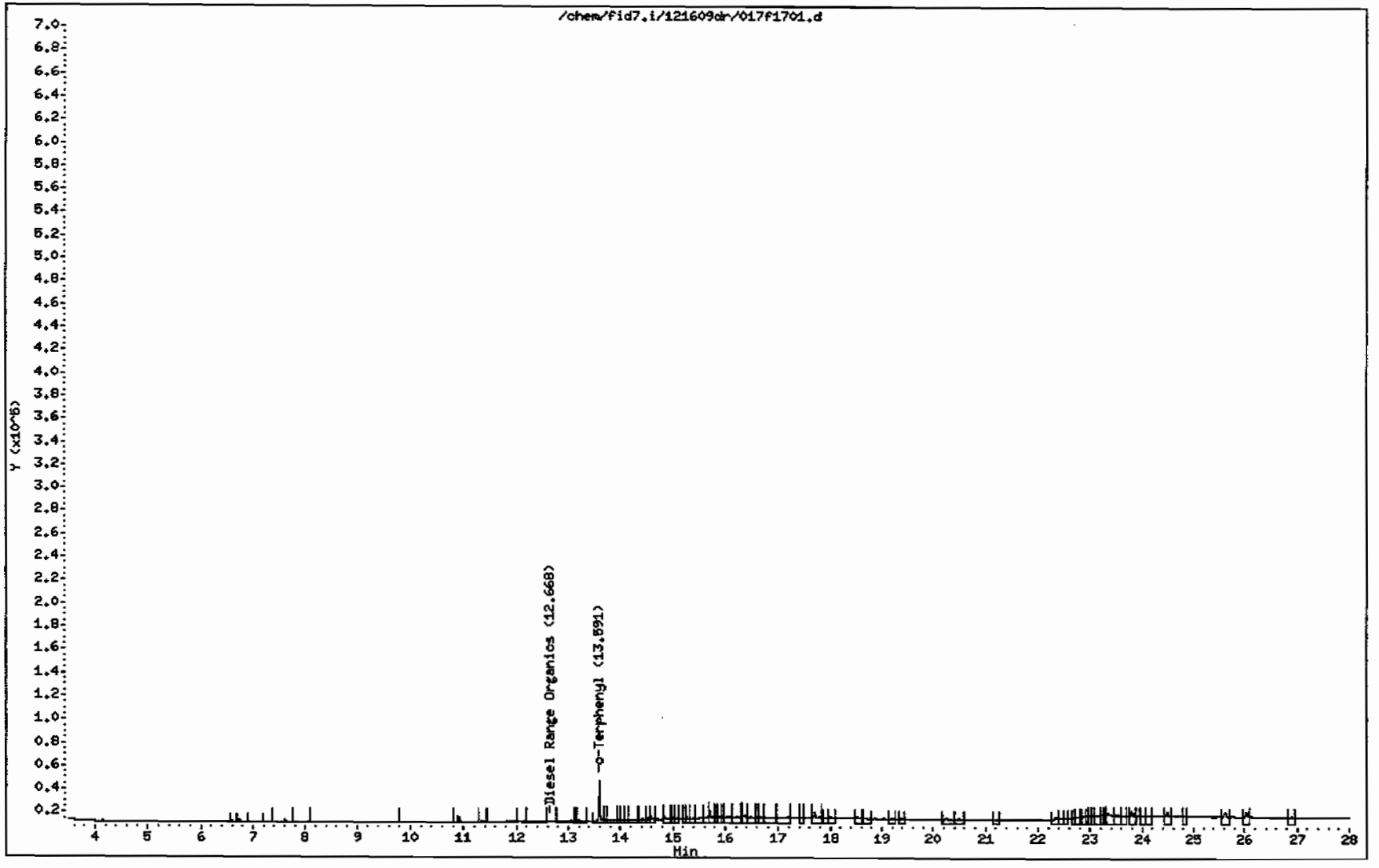

Data File: /chem/fid7.i/121609dr/017f1701.d
Injection Date: 17-DEC-2009 02:00
Instrument: fid7.i
Client Sample ID: WST03-10-2146

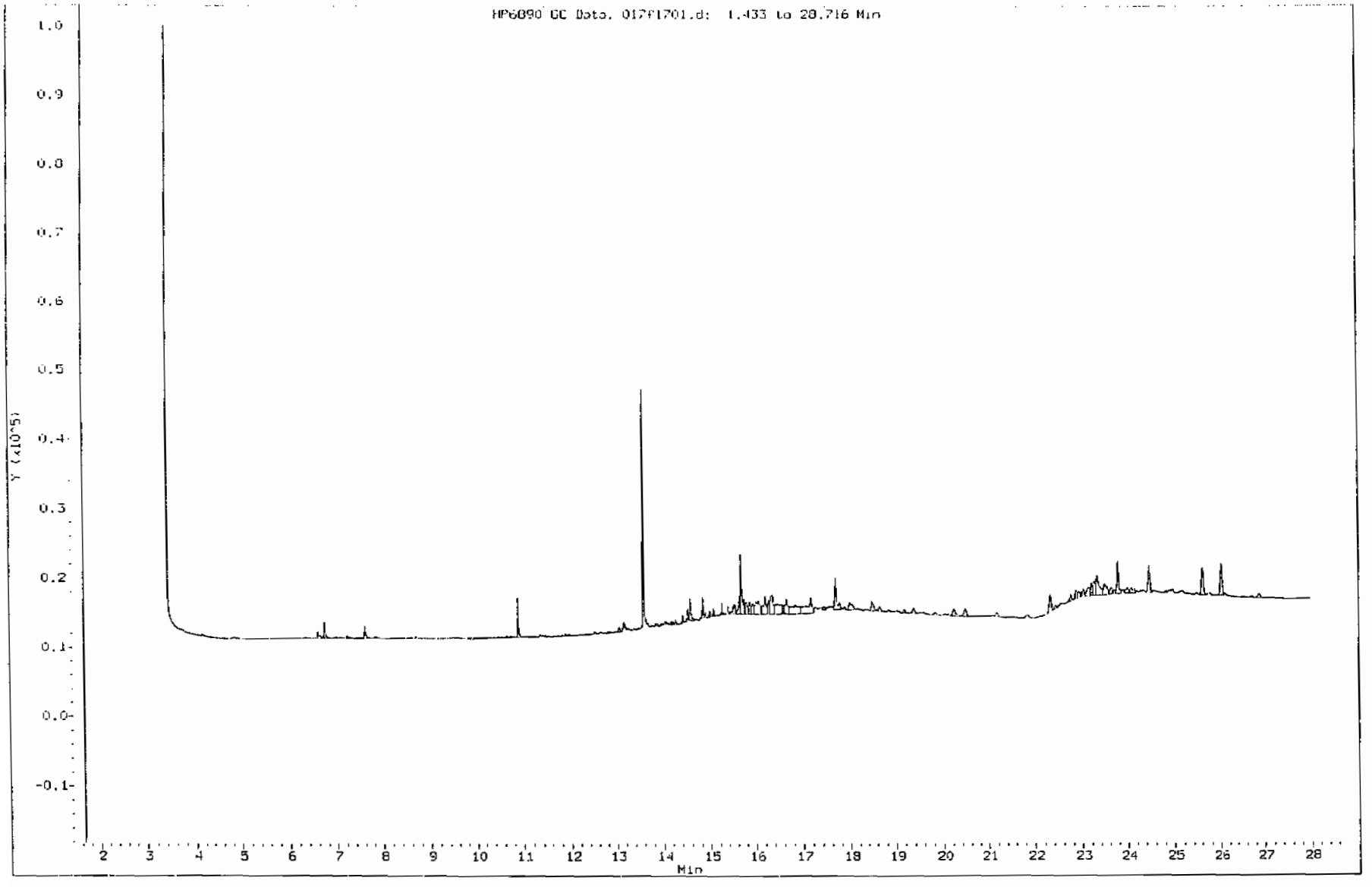

Data File: /chem/fid2.i/121609dr/017F1701.d
Injection Date: 17-DEC-2009 02:00
Instrument: fid2.i
Client Sample ID: WSTD3-10-2146

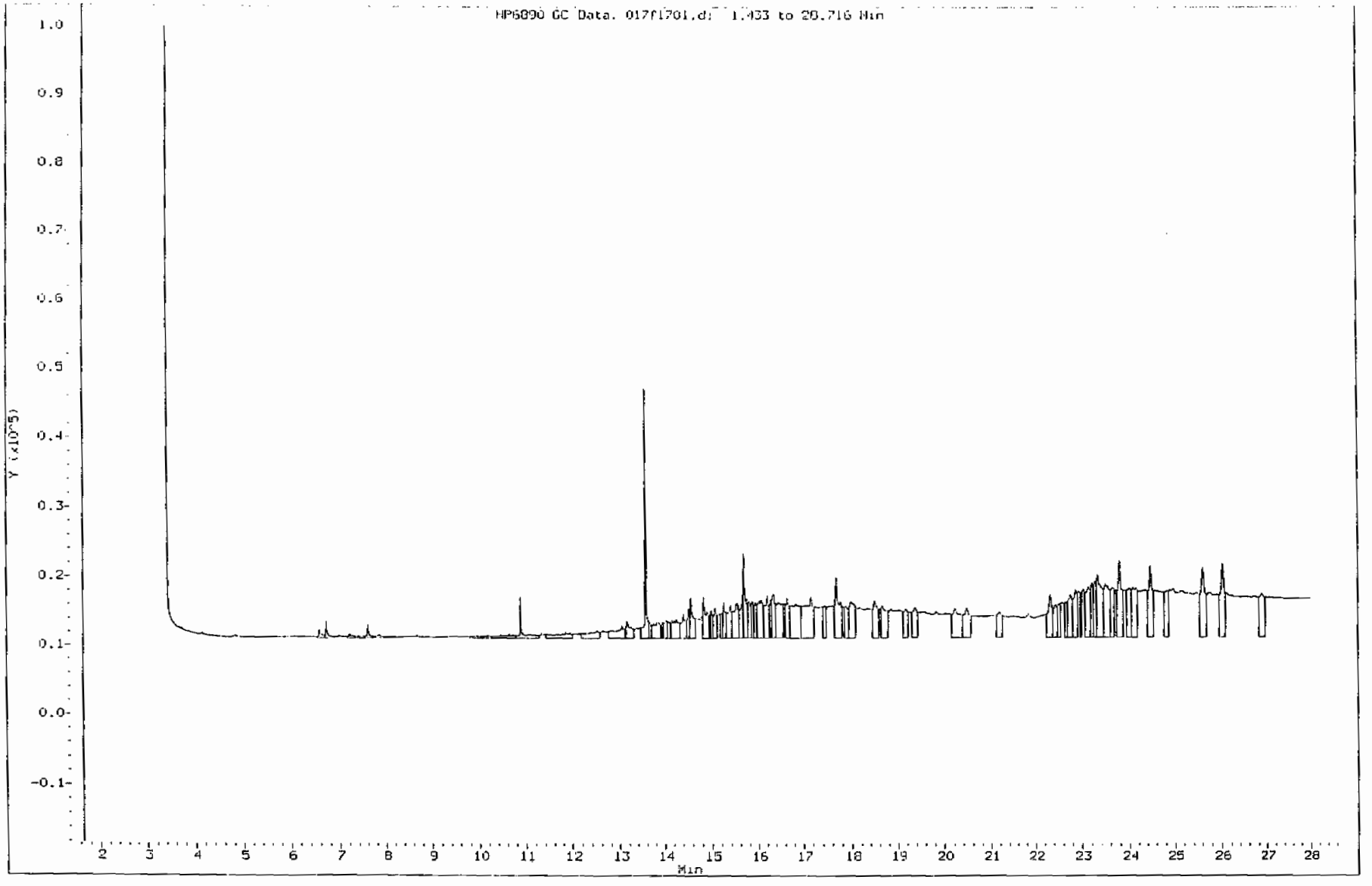

STANDARDS DATA

Report Date: 17-Dec-2009 13:09

Calibration History

Method : /chem/fid7.i/121609dr/FID7a.i_b_DRO_121309.m
Start Cal Date: 13-DEC-2009 16:31
End Cal Date : 13-DEC-2009 18:58

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 3 , Cal Amount: 200.00000		
13-DEC-2009 16:31	dro	/chem/fid7.i/121309dr/003f0301.d
Cal Level: 4 , Cal Amount: 500.00000		
13-DEC-2009 17:07	dro	/chem/fid7.i/121309dr/004f0401.d
Cal Level: 5 , Cal Amount: 1000.00000		
13-DEC-2009 17:45	dro	/chem/fid7.i/121309dr/005f0501.d
Cal Level: 6 , Cal Amount: 2000.00000		
13-DEC-2009 18:22	dro	/chem/fid7.i/121309dr/006f0601.d
Cal Level: 7 , Cal Amount: 5000.00000		
13-DEC-2009 18:58	dro	/chem/fid7.i/121309dr/007f0701.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 5

Ccal Level: 5 , Ccal Amount: 1000		
17-DEC-2009 06:16	dro	/chem/fid7.i/121609dr/024f2401.d
Ccal Level: 5 , Ccal Amount: 1000		
16-DEC-2009 17:24	dro	/chem/fid7.i/121609dr/003f0301.d

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COMPOUND LISTING

Method file : /chem/fid7.i/121609dr/FID7a.i_b_DRO_121309.m
Quant Method : ESTD Target Version : 3.50
Last Update : 17-Dec-2009 11:49 Number of Cpnds : 6
Data Type : GC DATA

Global Integrator : Falcon

Chromat Events	Values
Initial:Start Threshold	100.000000
Initial:End Threshold	50.000000
Initial:Area Threshold	100.000000
Initial:P-P Resolution	1.000000
Initial:Bunch Factor	11.000000
Initial:Negative Peaks	OFF
Initial:Tension	7.000000
5.000:Force Cluster ON	n/a
17.000:Force Cluster OFF	n/a
17.371:Tension	1.000000

	Compound	RT	RT Window	RF
	3 Decane (C10)	7.509	7.479-7.539	
S	1 Diesel Range Organics	12.668	7.480-17.855	1.342e+04
$	2 o-Terphenyl	13.597	13.567-13.627	2.636e+04
	4 Octacosane (C28)	17.825	17.795-17.855	
S	75 JP-4	6.750	3.500-10.000	
S	76 Motor oil	17.000	14.000-20.000	

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INITIAL CALIBRATION DATA

Start Cal Date : 13-DEC-2009 16:31
End Cal Date : 13-DEC-2009 18:58
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/fid7.i/121609dr/FID7a.i_b_DRO_121309.m
Cal Date : 17-Dec-2009 11:49 kev01577
Curve Type : Average

Calibration File Names:
Level 3: /chem/fid7.i/121309dr/003f0301.d
Level 4: /chem/fid7.i/121309dr/004f0401.d
Level 5: /chem/fid7.i/121309dr/005f0501.d
Level 6: /chem/fid7.i/121309dr/006f0601.d
Level 7: /chem/fid7.i/121309dr/007f0701.d

	Compound	200.000 Level 3	500.000 Level 4	1000.000 Level 5	2000.000 Level 6	5000.000 Level 7	RRF	% RSD
	3 Decane (C10)	++++++	++++++	++++++	++++++	++++++	++++++	++++++
S	1 Diesel Range Organics	12370	13330	13518	14106	13763	13417	4.871
	4 Octacosane (C28)	++++++	++++++	++++++	++++++	++++++	++++++	++++++
S	75 JP-4	++++++	++++++	++++++	++++++	++++++	++++++	++++++
S	76 Motor oil	++++++	++++++	++++++	++++++	++++++	++++++	++++++
$	2 o-Terphenyl	24795	27259	25475	26481	27813	26365	4.710

FORM 7
SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-899

Instrument ID: FID7 Calibration Date: 12/16/09 Time: 1724

Lab File ID: 003F0301 Init. Calib. Date(s): 12/13/09 12/13/09

Init. Calib. Times: 1631 1858

GC Column: DB-5MS ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Diesel Range Organics	13417.204	13736.002	0.01	2.4	15.0
o-Terphenyl	26364.536	24730.250	0.01	-6.2	15.0

FORM VII SV

FORM 7
SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-899

Instrument ID: FID7 Calibration Date: 12/17/09 Time: 0010

Lab File ID: 014F1401 Init. Calib. Date(s): 12/13/09 12/13/09

Init. Calib. Times: 1631 1858

GC Column: DB-5MS ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Diesel Range Organics	13417.204	14197.288	0.01	5.8	15.0
o-Terphenyl	26364.536	25633.658	0.01	-2.8	15.0

FORM VII SV

FORM 7
SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-899

Instrument ID: FID7 Calibration Date: 12/17/09 Time: 0616

Lab File ID: 024F2401 Init. Calib. Date(s): 12/13/09 12/13/09

Init. Calib. Times: 1631 1858

GC Column: DB-5MS ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Diesel Range Organics	13417.204	14528.739	0.01	8.3	15.0
o-Terphenyl	26364.536	26429.800	0.01	0.2	15.0

FORM VII SV

GEL Laboratories LLC

DB-5MS .25mm

Data file : /chem/fid7.i/121609dr/003f0301.d
Lab Smp Id: UFI091118-02 D1 Client Smp ID: DTSD01
Inj Date : 16-DEC-2009 17:24
Operator : KXR2 Inst ID: fid7.i
Smp Info : |UFI091118-02 D1
Misc Info :
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fid7.i/121609dr/FID7a.i_b_DRO_121309.m
Meth Date : 17-Dec-2009 11:49 kev01577 Quant Type: ESTD
Cal Date : 13-DEC-2009 18:58 Cal File: 007f0701.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: dro.sub
Target Version: 3.50 Sample Matrix: None

	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (mg/L)	AMOUNTS ON-COL (mg/L)	
S 1 Diesel Range Organics							CAS #:
	7.480- 17.855			13736002	1000.00	1020	
$ 2 o-Terphenyl							CAS #: 84-15-1
	13.597	13.597	0.000	618256	25.0000	23.4	

Data File: /chem/fid7.i/121609dr/003f0301.d
Date : 16-DEC-2009 17:24
Client ID: DTSD01
Sample Info: IUFI091118-02 D1

Column phase: DB-5MS

Instrument: fid7.i

Operator: KXR2
Column diameter: 0.25

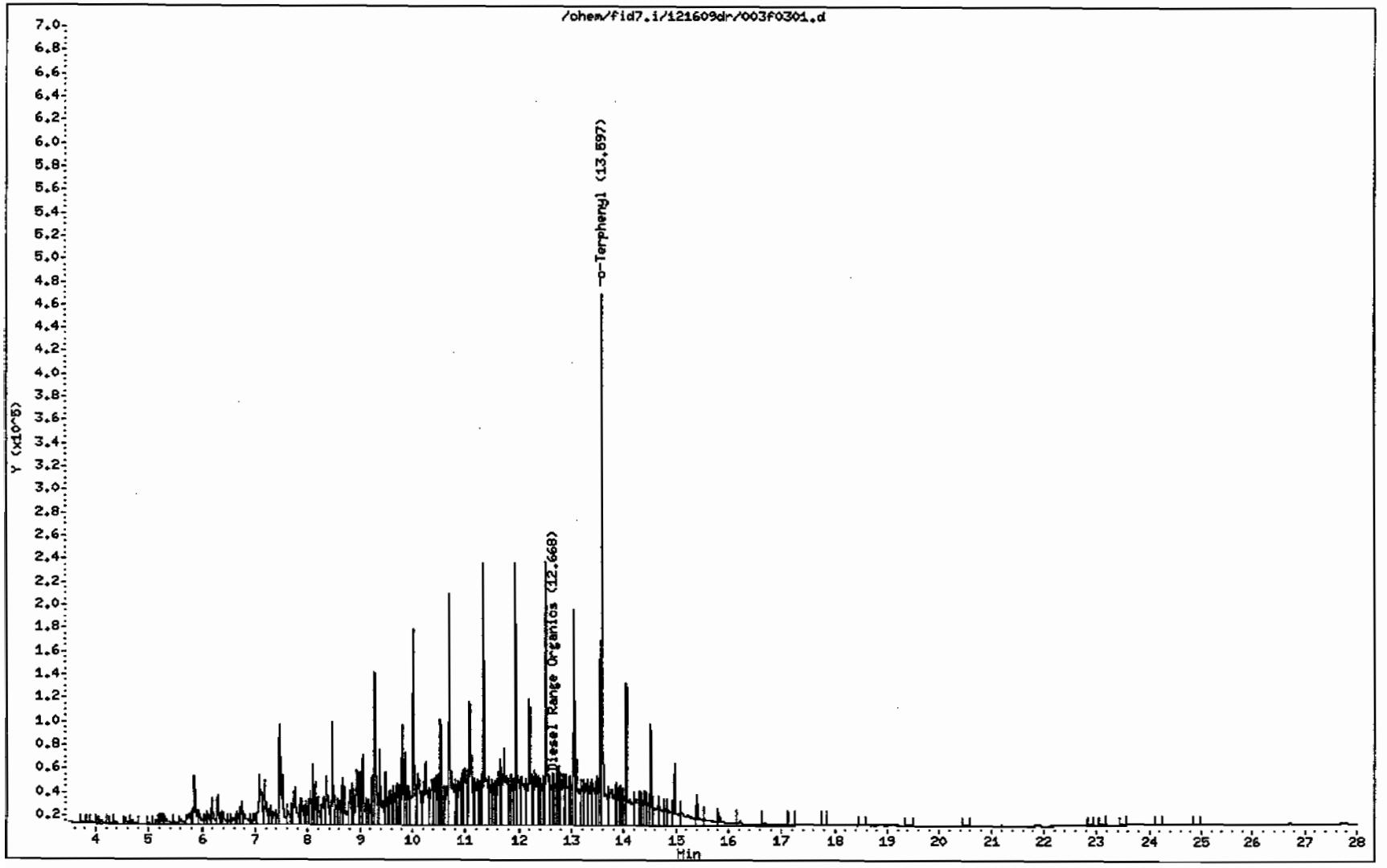

GEL Laboratories LLC

DB-5MS .25mm

Data file : /chem/fid7.i/121609dr/014f1401.d
Lab Smp Id: UFI091118-02 D2 Client Smp ID: DSTD02
Inj Date : 17-DEC-2009 00:10
Operator : KXR2 Inst ID: fid7.i
Smp Info : |UFI091118-02 D2
Misc Info :
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fid7.i/121609dr/FID7a.i_b_DRO_121309.m
Meth Date : 17-Dec-2009 14:05 kev01577 Quant Type: ESTD
Cal Date : 13-DEC-2009 18:58 Cal File: 007f0701.d
Als bottle: 14 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: dro.sub
Target Version: 3.50 Sample Matrix: None

	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (mg/L)	AMOUNTS ON-COL (mg/L)
S	1 Diesel Range Organics					CAS #:
	7.480- 17.855			14197287	1000.00	1060
$	2 o-Terphenyl					CAS #: 84-15-1
	13.598	13.597	0.001	640841	25.0000	24.3

Data File: /chem/fid7.i/121609dr/014f1401.d
Date : 17-DEC-2009 00:10
Client ID: DSTD02
Sample Info: IUFI091118-02 D2

Column phase: DB-5MS

Instrument: fid7.i

Operator: KXR2
Column diameter: 0.25

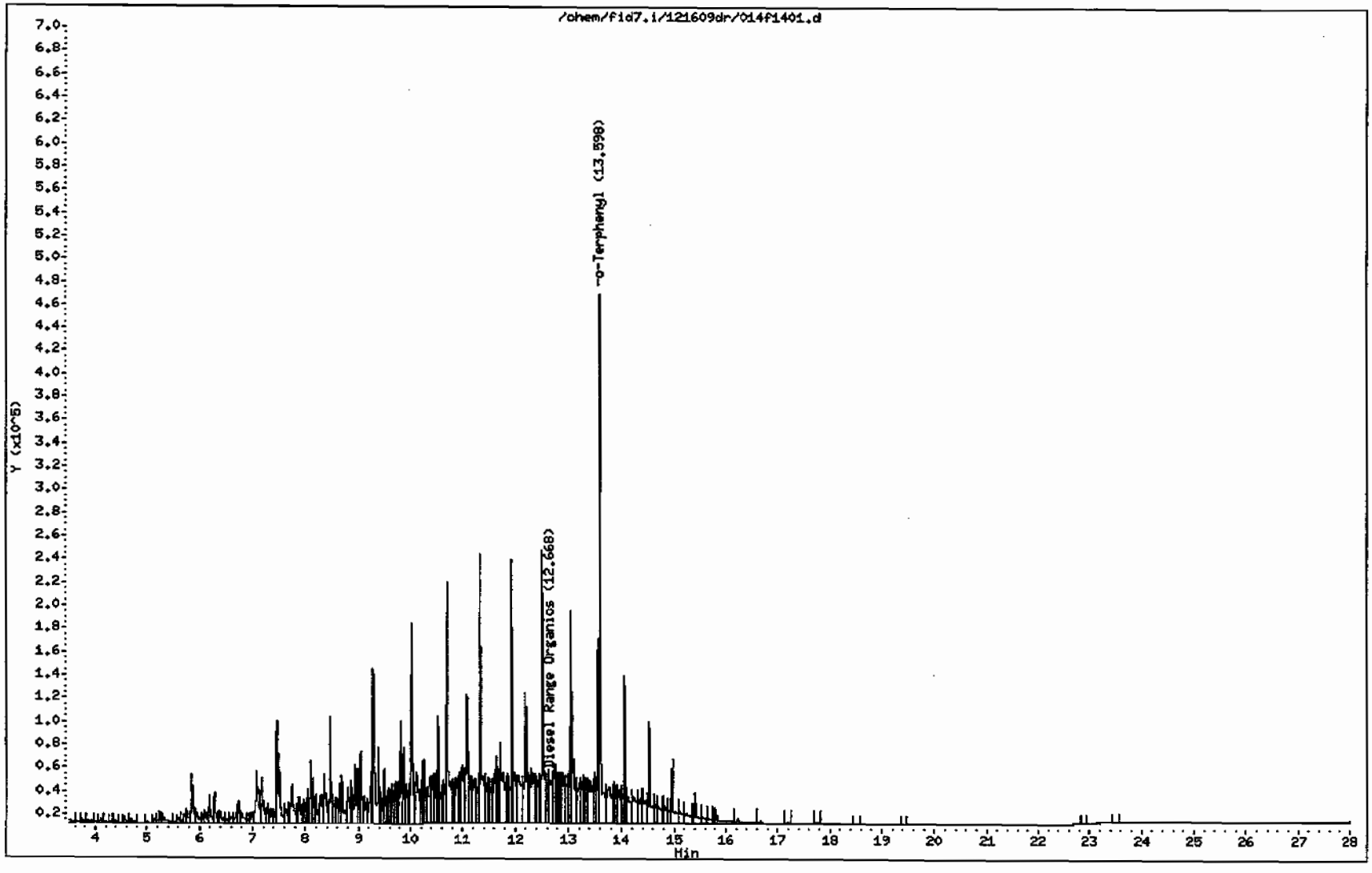

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DB-5MS .25mm

Data file : /chem/fid7.i/121609dr/024f2401.d
Lab Smp Id: UFI091118-02 D3 Client Smp ID: DSTD03
Inj Date : 17-DEC-2009 06:16
Operator : KXR2 Inst ID: fid7.i
Smp Info : |UFI091118-02 D3
Misc Info :
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fid7.i/121609dr/FID7a.i_b_DRO_121309.m
Meth Date : 17-Dec-2009 11:49 kev01577 Quant Type: ESTD
Cal Date : 13-DEC-2009 18:58 Cal File: 007f0701.d
Als bottle: 24 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: dro.sub
Target Version: 3.50 Sample Matrix: None

	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (mg/L)	AMOUNTS ON-COL (mg/L)	
S	1 Diesel Range Organics					CAS #:	
	7.480- 17.855			14528739	1000.00	1080	(M)
$	2 o-Terphenyl					CAS #: 84-15-1	
	13.598	13.597	0.001	660745	25.0000	25.1	(M)

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/fid7.i/121609dr/024f2401.d
Date : 17-DEC-2009 06:16
Client ID: DSTD03
Sample Info: IUFI091118-02 D3

Column phase: DB-5MS

Instrument: fid7.i

Operator: KXR2
Column diameter: 0.25

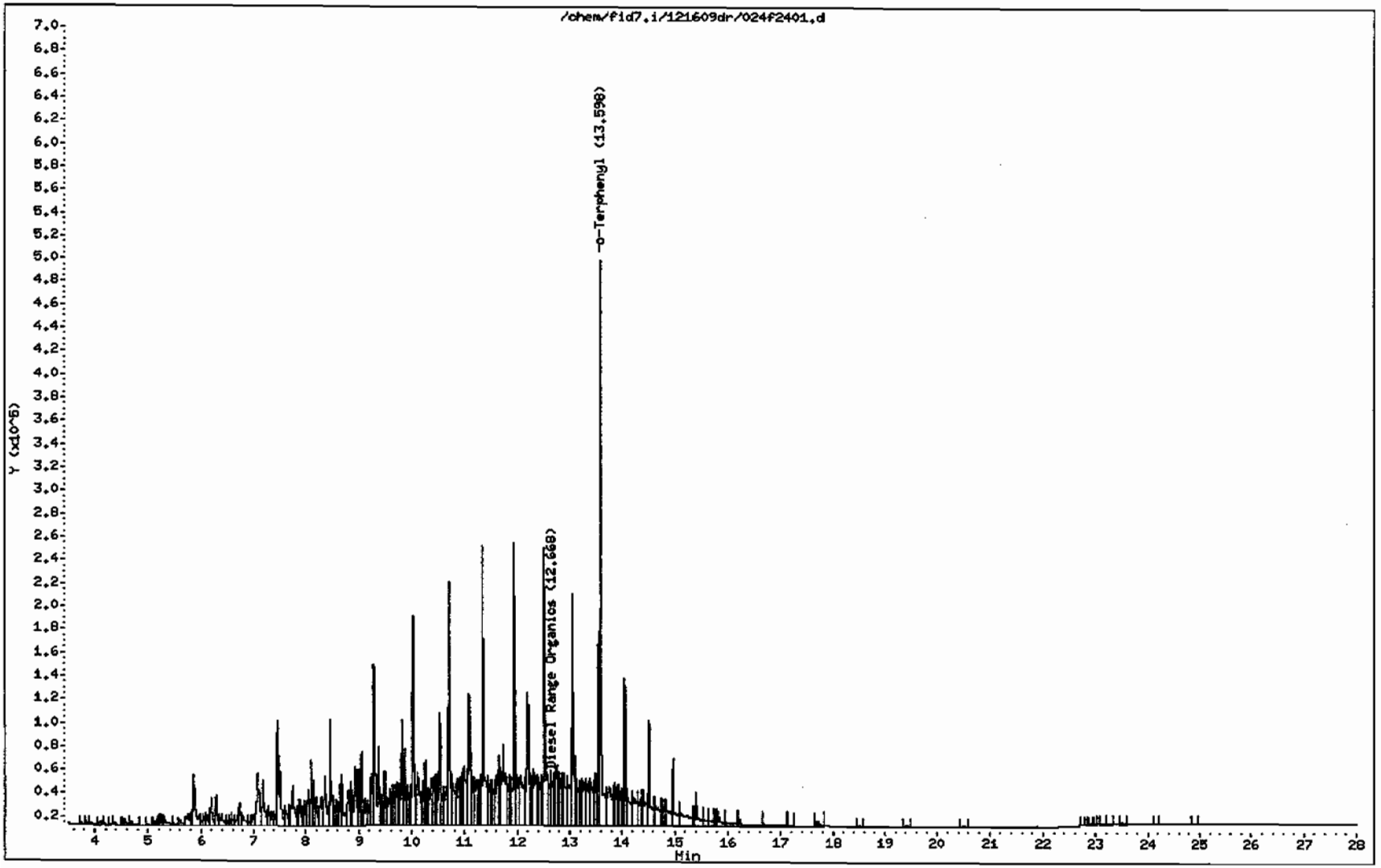

Data File: /chem/fid7.i/121609dr/02402401.d
Injection Date: 17-DEC-2009 06:16
Instrument: fid7.i
Client Sample ID: DSTD03

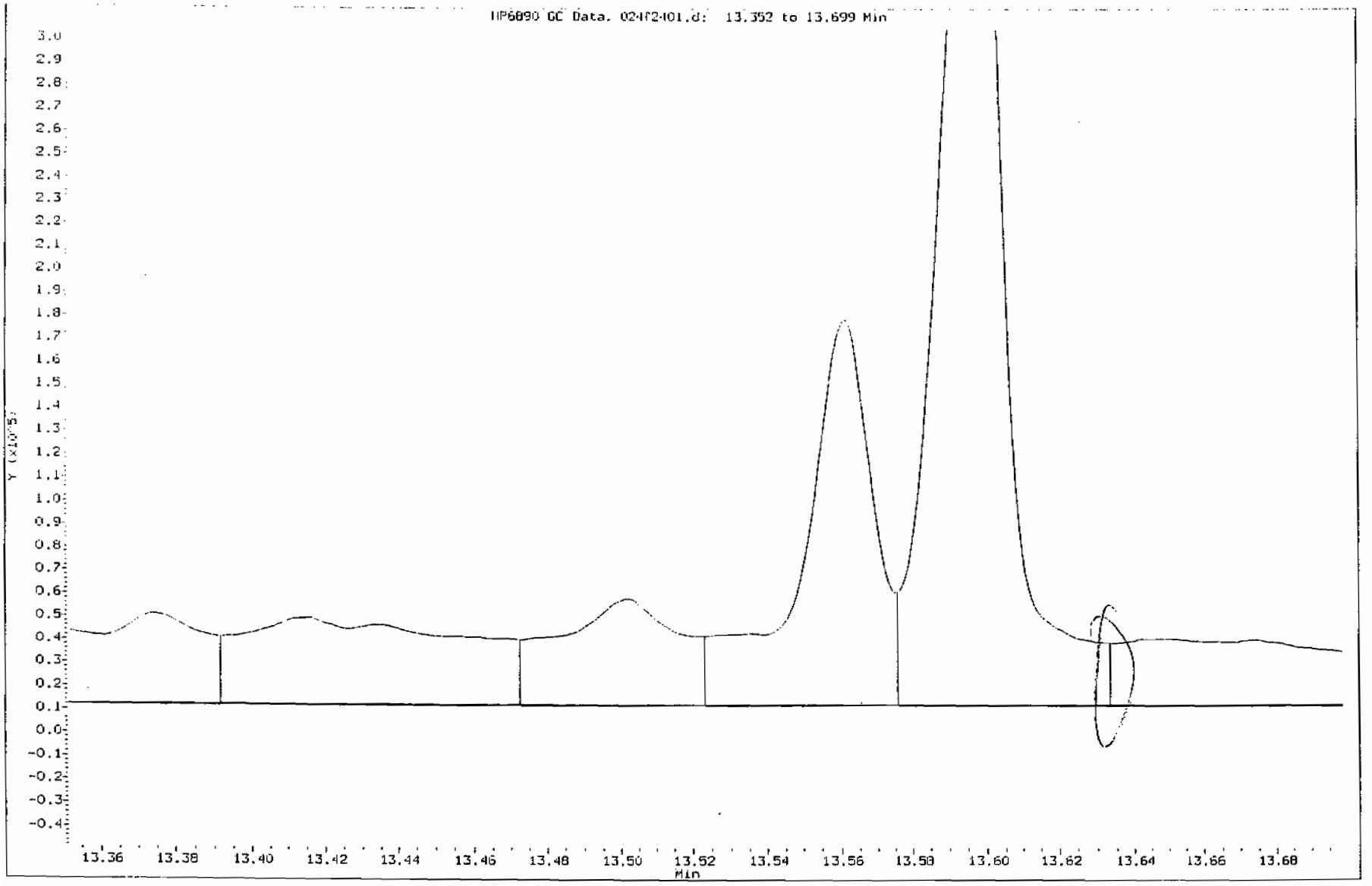

Data File: /chem/Fid7.i/121609de/024f2401.d
Injection Date: 17-DEC-2009 06:16
Instrument: Fid7.i
Client Sample ID: DS1D03

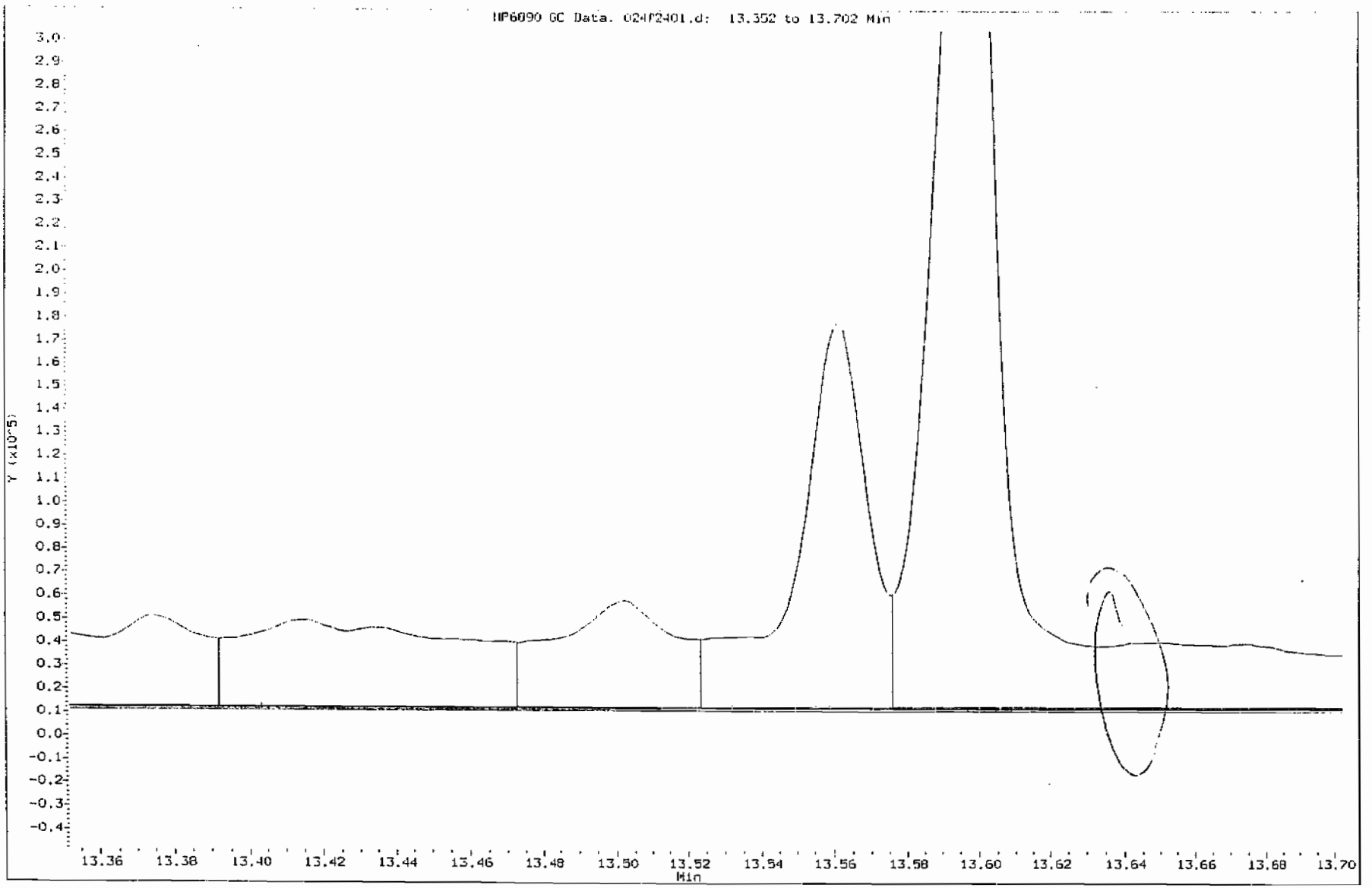

8D
DRO ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-899

GC Column: DB-5MS ID: 0.25 (mm) Init. Calib. Date(s): 12/13/09 12/13/09

Instrument ID: FID7

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 13.60

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	RT
01	DIBLK01	WFI091130-06	12/13/09	1516	13.59	
02	RTMARKER	UFI091013-03	12/13/09	1553		
03	CSTD01	UFI090827-10	12/13/09	1631	13.59	
04	CSTD02	UFI090827-11	12/13/09	1707	13.59	
05	CSTD03	UFI090827-12	12/13/09	1745	13.60	
06	CSTD04	UFI090827-13	12/13/09	1822	13.61	
07	CSTD05	UFI090827-14	12/13/09	1858	13.62	
08	DSTD01	WFI090928-01	12/13/09	1936	13.60	
09	DIBLK02	WFI091130-06	12/13/09	2012	13.59	
10	ZZZZZ	ZZZZZ	12/13/09	2049	13.59	
11	ZZZZZ	ZZZZZ	12/13/09	2126	13.59	
12	ZZZZZ	ZZZZZ	12/13/09	2203	13.59	
13	ZZZZZ	ZZZZZ	12/13/09	2240	13.59	
14	ZZZZZ	ZZZZZ	12/13/09	2318	13.60	
15	ZZZZZ	ZZZZZ	12/13/09	2354	13.59	
16	ZZZZZ	ZZZZZ	12/14/09	0032	13.59	
17	ZZZZZ	ZZZZZ	12/14/09	0109	13.59	
18	ZZZZZ	ZZZZZ	12/14/09	0146	13.59	
19	ZZZZZ	ZZZZZ	12/14/09	0223	13.59	
20	DSTD02	UFI091118-02	12/14/09	0300	13.60	
21	DIBLK03	WFI091130-06	12/14/09	0337	13.60	
22	ZZZZZ	ZZZZZ	12/14/09	0413	13.59	
23	ZZZZZ	ZZZZZ	12/14/09	0450	13.59	
24	ZZZZZ	ZZZZZ	12/14/09	0527	13.59	
25	ZZZZZ	ZZZZZ	12/14/09	0604	13.59	
26	ZZZZZ	ZZZZZ	12/14/09	0641	13.59	
27	ZZZZZ	ZZZZZ	12/14/09	0718	13.59	
28	ZZZZZ	ZZZZZ	12/14/09	0755	13.59	
29	ZZZZZ	ZZZZZ	12/14/09	0832	13.59	
30	ZZZZZ	ZZZZZ	12/14/09	0909	13.59	
31	DSTD03	UFI091118-02	12/14/09	0946	13.60	
32	DIBLK04	WFI091130-06	12/14/09	1023	13.60	

S1 = o-Terphenyl QC LIMITS (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
DRO ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-899

GC Column: DB-5MS ID: 0.25 (mm) Init. Calib. Date(s): 12/13/09 12/13/09

Instrument ID: FID7

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 13.60

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	RT
01	DIBLK01	WFI091130-06	12/16/09	1610	13.59	
02	RTMARKER	UFI091013-03	12/16/09	1647		
03	DTSD01	UFI091118-02	12/16/09	1724	13.60	
04	DIBLK02	WFI091130-06	12/16/09	1801	13.59	
05	DBLK01	1201995990	12/16/09	1839	13.59	
06	DBLK01LCS	1201995991	12/16/09	1916	13.59	
07	ZZZZZ	ZZZZZ	12/16/09	1952	13.59	
08	ZZZZZ	ZZZZZ	12/16/09	2029	13.59	
09	ZZZZZ	ZZZZZ	12/16/09	2106	13.59	
10	ZZZZZ	ZZZZZ	12/16/09	2143	13.59	
11	ZZZZZ	ZZZZZ	12/16/09	2220	13.59	
12	ZZZZZ	ZZZZZ	12/16/09	2256	13.59	
13	ZZZZZ	ZZZZZ	12/16/09	2333	13.59	
14	DSTD02	UFI091118-02	12/17/09	0010	13.60	
15	DIBLK03	WFI091130-06	12/17/09	0047	13.59	
16	WST03-10-2145	242784003	12/17/09	0123	13.59	
17	WST03-10-2146	242784004	12/17/09	0200	13.59	
18	ZZZZZ	ZZZZZ	12/17/09	0236	13.59	
19	ZZZZZ	ZZZZZ	12/17/09	0313	13.59	
20	ZZZZZ	ZZZZZ	12/17/09	0350	13.59	
21	ZZZZZ	ZZZZZ	12/17/09	0427	13.59	
22	ZZZZZ	ZZZZZ	12/17/09	0503	13.59	
23	ZZZZZ	ZZZZZ	12/17/09	0540	13.59	
24	DSTD03	UFI091118-02	12/17/09	0616	13.60	
25	DIBLK04	WFI091130-06	12/17/09	0652	13.59	
26						
27						
28						
29						
30						
31						
32						

S1 = o-Terphenyl QC LIMITS (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

QUALITY CONTROL DATA

Flame Ionization Detector
Certificate of Analysis
Sample Summary

SDG Number:	10–899			**Matrix:**	SOIL
Lab Sample ID:	1201995990				
Client Sample:	QC for batch 933000	**Client:**	LANL010	**Project:**	QC
Client ID:	MB for batch 933000	**Method:**	SW846 8015A/B SVOC	**SOP Ref:**	GL–OA–E–003
Batch ID:	933001	**Inst:**	FID7.I	**Dilution:**	1
Run Date:	12/16/2009 18:39	**Analyst:**	KXR2	**Inj. Vol:**	1 uL
Prep Date:	12/15/2009 16:56	**Aliquot:**	30 g	**Final Volume:**	1 mL
Data File:	005f0501.d	**Column:**	DB–5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics	U	6.67	mg/kg	2.17	6.67

GEL Laboratories LLC

DB-5MS .25mm

Data file : /chem/fid7.i/121609dr/005f0501b.d
Lab Smp Id: 1201995990 Client Smp ID: DBLK01
Inj Date : 16-DEC-2009 18:39
Operator : KXR2 Inst ID: fid7.i
Smp Info : |1201995990|1|
Misc Info : |FIDDRO_S|933001|FIDF|MB|
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fid7.i/121609dr/FID7a.i_b_DRO_121309.m
Meth Date : 17-Dec-2009 14:05 kev01577 Quant Type: ESTD
Cal Date : 13-DEC-2009 18:58 Cal File: 007f0701.d
Als bottle: 5 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-899.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weigth of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (mg/L)	FINAL (mg/Kg)
$ 2 o-Terphenyl					CAS #: 84-15-1
13.592	13.597	-0.005	245909	9.32726	0.31

Data File: /chem/fid7.i/121609dr/005f0501b.d
Date : 16-DEC-2009 18:39
Client ID: DBLK01
Sample Info: |1201995990111
Volume Injected (uL): 1.0
Column phase: DB-5MS

Instrument: fid7.i

Operator: KXR2
Column diameter: 0.25

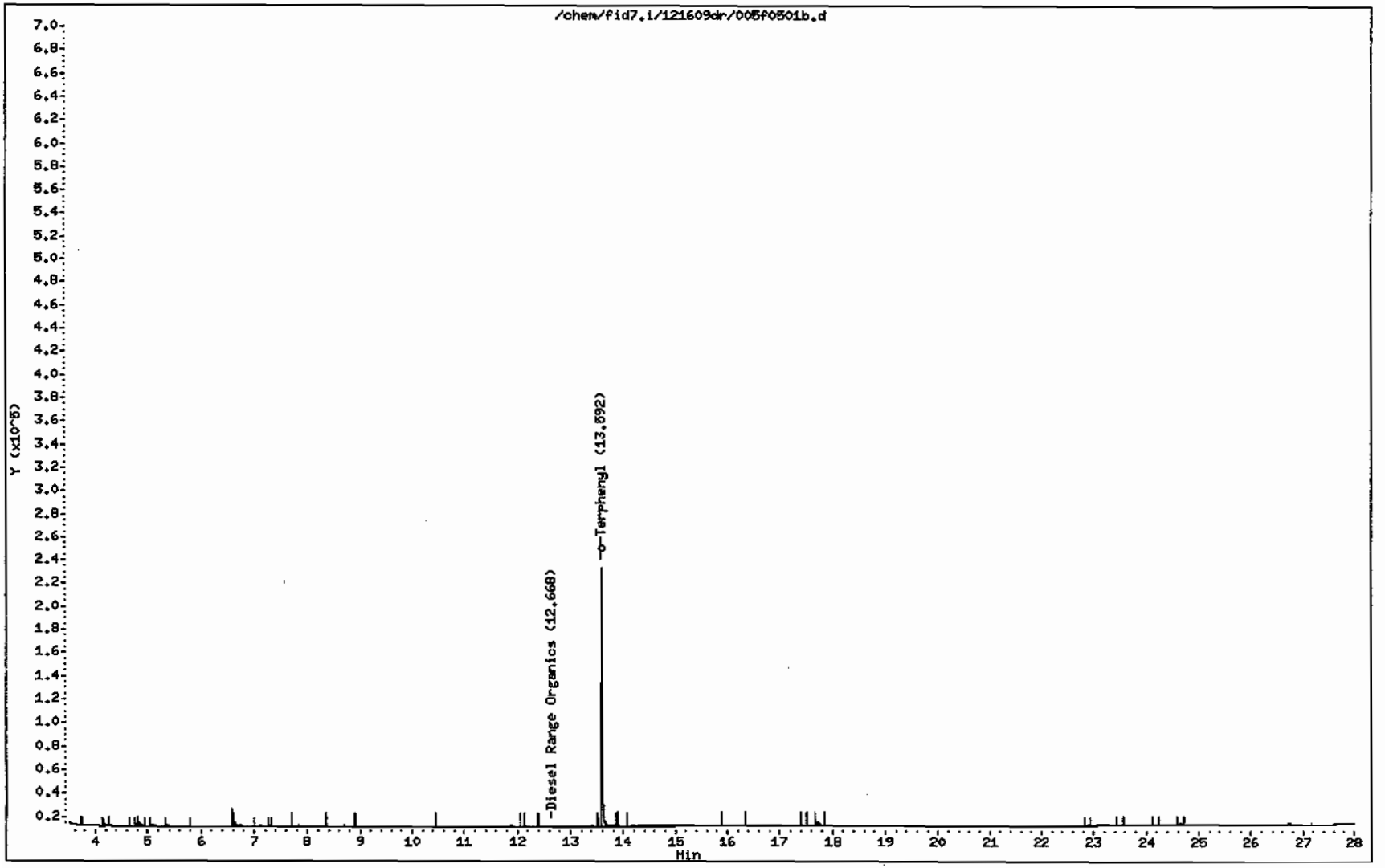

Flame Ionization Detector
Certificate of Analysis
Sample Summary

SDG Number:	10-899			**Matrix:**	SOIL
Lab Sample ID:	1201995991				
Client Sample:	QC for batch 933000	**Client:**	LANL010	**Project:**	QC
Client ID:	LCS for batch 933000	**Method:**	SW846 8015A/B SVOC	**SOP Ref:**	GL-OA-E-003
Batch ID:	933001	**Inst:**	FID7.I	**Dilution:**	1
Run Date:	12/16/2009 19:16	**Analyst:**	KXR2	**Inj. Vol:**	1 uL
Prep Date:	12/15/2009 16:56	**Aliquot:**	30 g	**Final Volume:**	1 mL
Data File:	006f0601.d	**Column:**	DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics		22.2	mg/kg	2.17	6.67

GEL Laboratories LLC

DB-5MS .25mm

Data file : /chem/fid7.i/121609dr/006f0601b.d
Lab Smp Id: 1201995991 Client Smp ID: DBLK01LCS
Inj Date : 16-DEC-2009 19:16
Operator : KXR2 Inst ID: fid7.i
Smp Info : |1201995991|1|
Misc Info : |FIDDRO_S|933001|FIDF|LCS|
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fid7.i/121609dr/FID7a.i_b_DRO_121309.m
Meth Date : 17-Dec-2009 14:05 kev01577 Quant Type: ESTD
Cal Date : 13-DEC-2009 18:58 Cal File: 007f0701.d
Als bottle: 6 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-899.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weigth of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (mg/L)	FINAL (mg/Kg)
S	1 Diesel Range Organics					CAS #:
	7.480- 17.855			8928086	665.421	22.2
$	2 o-Terphenyl					CAS #: 84-15-1
	13.594	13.597	-0.003	423124	16.0490	0.53

Data File: /chem/fid7.i/121609dr/006f0601b.d
Date : 16-DEC-2009 19:16
Client ID: DBLK01LCS
Sample Info: |1201995991|1|
Volume Injected (uL): 1.0
Column phase: DB-5MS

Instrument: fid7.i

Operator: KXR2
Column diameter: 0.25

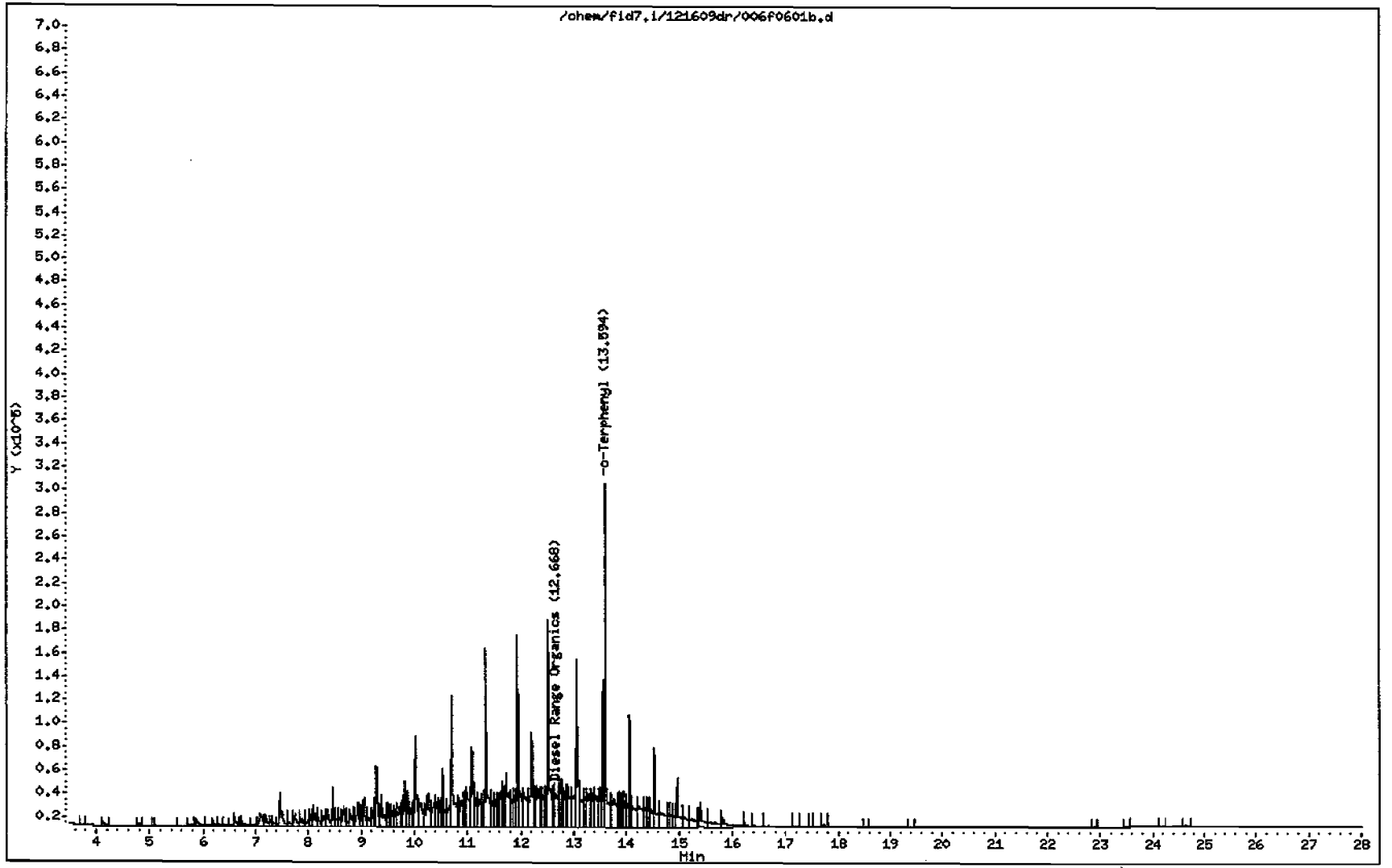

MISCELLANEOUS DATA

GEL ORGANIC RUN LOG INSTRUMENT ID: FID7.i

DATE: 12/14/2009 METHOD: FID7a.i_b_DRO_121309.m OPERATOR:KXR2 REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 16 on pg. 16 Solvent REMAT ID:CH2CL2

Calibration & QC Information
GC Column: DB-5MS 30m x 0.25mm x 0.25um
Initial Calibration Dates: See Calibration History and Standards Log
Initial Calibration Std ID's: See Calibration History and Standards Log
FID analysis of GEL SOP:GL-OA-E-003

Sequence Number:121309DR Injection Volume: 1.0 ul

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001f0101.d	WFI091130-06 B1	KXR2	13-DEC-2009 15:16		SDGa20942	1.0		CLEAN
002f0201.d	UFI091013-03 RT	KXR2	13-DEC-2009 15:53		SDGa20942	1.0		RTMARKER
003f0301.d	UFI090827-10 200	KXR2	13-DEC-2009 16:31		SDGa20942	1.0		CAL. LEVEL 1
004f0401.d	UFI090827-11 500	KXR2	13-DEC-2009 17:07		SDGa20942	1.0		CAL. LEVEL 2
005f0501.d	UFI090827-12 1000	KXR2	13-DEC-2009 17:45		SDGa20942	1.0		CAL. LEVEL 3
006f0601.d	UFI090827-13 2000	KXR2	13-DEC-2009 18:22		SDGa20942	1.0		CAL. LEVEL 4
007f0701.d	UFI090827-14 5000	KXR2	13-DEC-2009 18:58		SDGa20942	1.0		CAL. LEVEL 5
008f0801.d	WFI090928-01 D1	KXR2	13-DEC-2009 19:36		SDGa20942	1.0		PASSES
009f0901.d	WFI091130-06 B2	KXR2	13-DEC-2009 20:12		SDGa20942	1.0		CLEAN
010f1001.d	1201993826	KXR2	13-DEC-2009 20:49	932074	10-830	1.0	MB	USE
011f1101.d	1201993827	KXR2	13-DEC-2009 21:26	932074	10-830	1.0	LCS	USE
012f1201.d	242439002	KXR2	13-DEC-2009 22:03	932074	10-830	1.0	LANL	USE
013f1301.d	1201993828	KXR2	13-DEC-2009 22:40	932074	10-830	1.0	MS	USE
014f1401.d	1201993829	KXR2	13-DEC-2009 23:18	932074	10-830	1.0	MSD	USE
015f1501.d	242439003	KXR2	13-DEC-2009 23:54	932074	10-830	1.0	LANL	USE

Instrument Batch: /chem/fid7.i/121309dr Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
016f1601.d	242439004	KXR2	14-DEC-2009 00:32	932074	10-830	1.0	LANL	USE

017f1701.d	242439005	KXR2	14-DEC-2009 01:09	932074	10-830		5.0	LANL	USE
018f1801.d	242439006	KXR2	14-DEC-2009 01:46	932074	10-830		1.0	LANL	USE
019f1901.d	242439007	KXR2	14-DEC-2009 02:23	932074	10-830		1.0	LANL	USE
020f2001.d	UFI091118-02 D2	KXR2	14-DEC-2009 03:00		SDGa20942		1.0		PASSES
021f2101.d	WFI091130-06 B3	KXR2	14-DEC-2009 03:37		SDGa20942		1.0		CLEAN
022f2201.d	242439008	KXR2	14-DEC-2009 04:13	932074	10-830		1.0	LANL	USE
023f2301.d	242439009	KXR2	14-DEC-2009 04:50	932074	10-830		1.0	LANL	USE
024f2401.d	242439010	KXR2	14-DEC-2009 05:27	932074	10-830		1.0	LANL	USE
025f2501.d	242439011	KXR2	14-DEC-2009 06:04	932074	10-830		1.0	LANL	USE
026f2601.d	242439012	KXR2	14-DEC-2009 06:41	932074	10-830		1.0	LANL	USE
027f2701.d	242439013	KXR2	14-DEC-2009 07:18	932074	10-830		20.0	LANL	USE
028f2801.d	242439014	KXR2	14-DEC-2009 07:55	932074	10-830		1.0	LANL	USE
029f2901.d	242439015	KXR2	14-DEC-2009 08:32	932074	10-830		10.0	LANL	USE
030f3001.d	242439016	KXR2	14-DEC-2009 09:09	932074	10-830		1.0	LANL	USE
031f3101.d	UFI091118-02 D3	KXR2	14-DEC-2009 09:46		SDGa20942		1.0		PASSES
032f3201.d	WFI091130-06 B4	KXR2	14-DEC-2009 10:23		SDGa20942		1.0		CLEAN

GEL ORGANIC RUN LOG INSTRUMENT ID: FID7.1

DATE: 12/17/2009 METHOD: FID7a.i_b_DRO_121309.m OPERATOR:KXR2 REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 16 on pg. 16 Solvent REMAT ID:CH2CL2

Calibration & QC Information
GC Column: DB-5MS 30m x 0.25mm x 0.25um
Initial Calibration Dates: See Calibration History and Standards Log
Initial Calibration Std ID's: See Calibration History and Standards Log
FID analysis of GEL SOP:GL-OA-E-003

Sequence Number:121609DR Injection Volume: 1.0 ul

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001f0101.d	WFI091130-06 B1	KXR2	16-DEC-2009 16:10		SDGa14471	1.0		CLEAN
002f0201.d	UFI091013-03 RT	KXR2	16-DEC-2009 16:47		SDGa14471	1.0		RTMARKER
003f0301.d	UFI091118-02 D1	KXR2	16-DEC-2009 17:24		SDGa14471	1.0		PASSES
004f0401.d	WFI091130-06 B2	KXR2	16-DEC-2009 18:01		SDGa14471	1.0		CLEAN
005f0501.d	1201995990	KXR2	16-DEC-2009 18:39	933001	10-854	1.0	MB	USE
006f0601.d	1201995991	KXR2	16-DEC-2009 19:16	933001	10-854	1.0	LCS	USE
007f0701.d	242668001	KXR2	16-DEC-2009 19:52	933001	10-854	1.0	LANL	USE
008f0801.d	242668002	KXR2	16-DEC-2009 20:29	933001	10-854	10.0	LANL	USE
009f0901.d	242750001	KXR2	16-DEC-2009 21:06	933001	10-886	1.0	LANL	USE
010f1001.d	242750002	KXR2	16-DEC-2009 21:43	933001	10-886	1.0	LANL	USE
011f1101.d	242750003	KXR2	16-DEC-2009 22:20	933001	10-886	1.0	LANL	USE
012f1201.d	242750004	KXR2	16-DEC-2009 22:56	933001	10-886	1.0	LANL	USE
013f1301.d	242750005	KXR2	16-DEC-2009 23:33	933001	10-886	1.0	LANL	USE
014f1401.d	UFI091118-02 D2	KXR2	17-DEC-2009 00:10		SDGa14471	1.0		PASSES
015f1501.d	WFI091130-06 B3	KXR2	17-DEC-2009 00:47		SDGa14471	1.0		CLEAN

Instrument Batch: /chem/fid7.i/121609dr Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
016f1601.d	242784003	KXR2	17-DEC-2009 01:23	933001	10-899	1.0	LANL	USE

017f1701.d	242784004	KXR2	17-DEC-2009 02:00	933001	10-899		5.0	LANL	USE
018f1801.d	242794001	KXR2	17-DEC-2009 02:36	933001	10-901		1.0	LANL	USE
019f1901.d	1201995992	KXR2	17-DEC-2009 03:13	933001	10-901		1.0	LANL	USE
020f2001.d	1201995993	KXR2	17-DEC-2009 03:50	933001	10-901		1.0	LANL	USE
021f2101.d	242794002	KXR2	17-DEC-2009 04:27	933001	10-901		1.0	LANL	USE
022f2201.d	242794003	KXR2	17-DEC-2009 05:03	933001	10-901		1.0	LANL	USE
023f2301.d	242794004	KXR2	17-DEC-2009 05:40	933001	10-901		10.0	LANL	USE
024f2401.d	UFI091118-02 D3	KXR2	17-DEC-2009 06:16		SDGa14471		1.0		PASSES
025f2501.d	WFI091130-06 B4	KXR2	17-DEC-2009 06:52		SDGa14471		1.0		CLEAN

Prep Logbook

Extraction of Semivolatile and Nonvolatile Organic Compounds from Soil, Sludge, and Other Miscellaneous Solid Samples

Batch ID: 933000 **Verified by:** _____

Analyst: Joshua McCartney

Method: SW846 3550B

Lab SOP: GL–OA–E–010 REV# 18

Instrument: Semi–Volatiles Manual

Sample ID	Run Date	Aliquot (g)	Prepped Aliquot (mL)	Prepped Factor (mL/g)
1201995990 MB	15–DEC–2009 16:56:05	30	1	0.03333
1201995991 LCS	15–DEC–2009 16:56:05	30	1	0.03333
242668001	15–DEC–2009 16:56:05	30.08	1	0.03324
242668002	15–DEC–2009 16:56:05	30	1	0.03333
242750001	15–DEC–2009 16:56:05	30	1	0.03333
242750002	15–DEC–2009 16:56:05	30.04	1	0.03329
242750003	15–DEC–2009 16:56:05	30.02	1	0.03331
242750004	15–DEC–2009 16:56:05	30.06	1	0.03327
242750005	15–DEC–2009 16:56:05	30	1	0.03333
242784003	15–DEC–2009 16:56:05	30	1	0.03333
242784004	15–DEC–2009 16:56:05	30.01	1	0.03332
242794001	15–DEC–2009 16:56:05	30.04	1	0.03329
1201995992 MS (242794001)	15–DEC–2009 16:56:05	30	1	0.03333
1201995993 MSD (242794001)	15–DEC–2009 16:56:05	30.02	1	0.03331
242794002	15–DEC–2009 16:56:05	30	1	0.03333
242794003	15–DEC–2009 16:56:05	30	1	0.03333
242794004	15–DEC–2009 16:56:05	30.01	1	0.03332

Type	Sample Id	Description	Serial Number	Spike Amt	Units
LCS	1201995991	TPH DRO LCS	UE091030–08	1	mL
MS	1201995992	TPH DRO LCS	UE091030–08	1	mL
MSD	1201995993	TPH DRO LCS	UE091030–08	1	mL
SURR	All	20 ppm surrogate	WE091210–04	1	mL
REGNT	All	Methylene Chloride	1242565–D	300	mL
SOURC	All	SODIUM SULFATE	1242582	30	g

Comments:

Verified By: RWH

Final Solvent: CH2Cl2

GEL Laboratories LLC

DB-5MS .25mm

Data file : /chem/fid7.i/121609dr/019f1901.d
Lab Smp Id: 1201995992 Client Smp ID: RE03-09-13470MS
Inj Date : 17-DEC-2009 03:13
Operator : KXR2 Inst ID: fid7.i
Smp Info : |1201995992|1|
Misc Info : |FIDDRO_S|933001|FIDF|MS|
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fid7.i/121609dr/FID7a.i_b_DRO_121309.m
Meth Date : 17-Dec-2009 14:05 kev01577 Quant Type: ESTD
Cal Date : 13-DEC-2009 18:58 Cal File: 007f0701.d
Als bottle: 19 QC Sample: MS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-901.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weigth of sample extracted (g)
M	4.36000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (mg/L)	FINAL (mg/Kg)
S 1 Diesel Range Organics					CAS #:
7.480-	17.855		6649131	495.568	17.3
$ 2 o-Terphenyl					CAS #: 84-15-1
13.594	13.597	-0.003	295758	11.2180	0.39

Data File: /chem/fid7.i/121609dr/019f1901.d
Date : 17-DEC-2009 03:13
Client ID: RE03-09-13470HS
Sample Info: |120199599211|
Volume Injected (uL): 1.0
Column phase: DB-5MS

Instrument: fid7.i

Operator: KXR2
Column diameter: 0.25

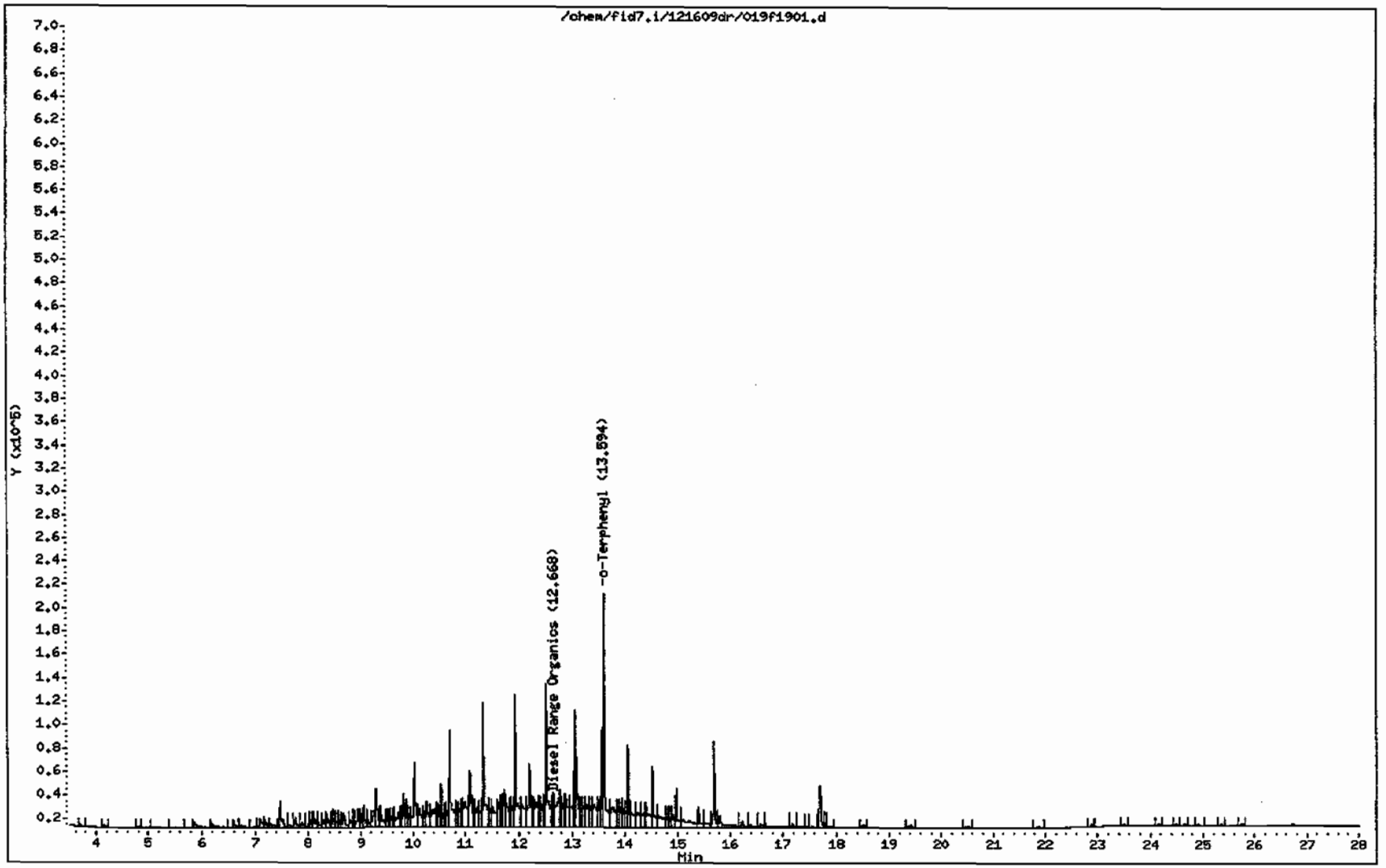

GEL Laboratories LLC

DB-5MS .25mm

Data file : /chem/fid7.i/121609dr/020f2001.d
Lab Smp Id: 1201995993 Client Smp ID: RE03-09-13470MSD
Inj Date : 17-DEC-2009 03:50
Operator : KXR2 Inst ID: fid7.i
Smp Info : |1201995993|1|
Misc Info : |FIDDRO_S|933001|FIDF|MSD|
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fid7.i/121609dr/FID7a.i_b_DRO_121309.m
Meth Date : 17-Dec-2009 14:05 kev01577 Quant Type: ESTD
Cal Date : 13-DEC-2009 18:58 Cal File: 007f0701.d
Als bottle: 20 QC Sample: MSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-901.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.02000	Weigth of sample extracted (g)
M	4.36000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (mg/L)	FINAL (mg/Kg)
S 1 Diesel Range Organics					CAS #:
7.480-	17.855		6996089	521.427	18.2
$ 2 o-Terphenyl					CAS #: 84-15-1
13.593	13.597	-0.004	281166	10.6646	0.37

Data File: /chem/fid7.i/121609dr/020f2001.d
Date : 17-DEC-2009 03:50
Client ID: RE03-09-13470MSD
Sample Info: |1201995993|1|
Volume Injected (uL): 1.0
Column phase: DB-5MS

Instrument: fid7.i

Operator: KXR2
Column diameter: 0.25

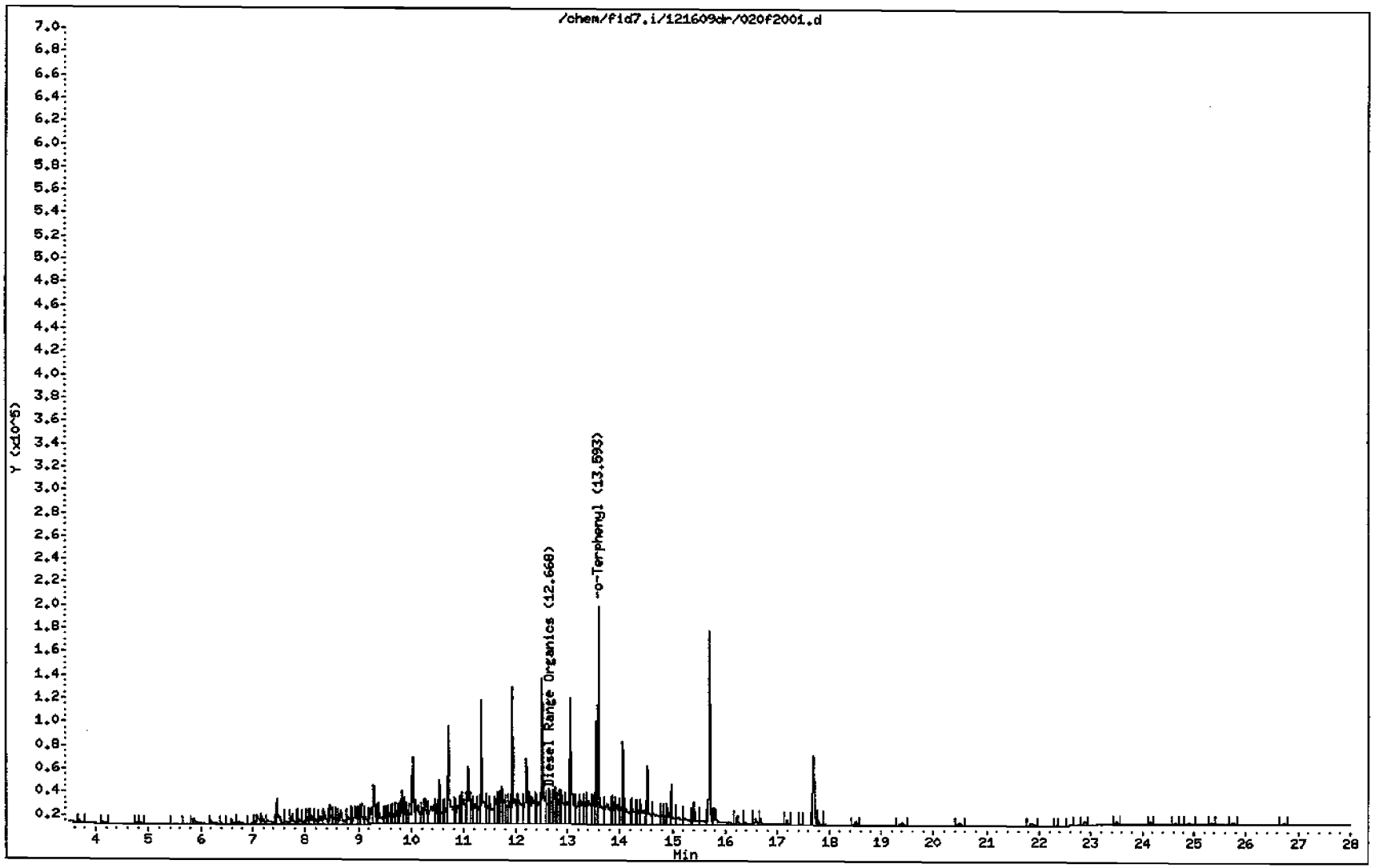

GC Volatile GRO Analysis

GC Volatile Organics
Los Alamos National Laboratory (LANL)
SDG 10-899

Method/Analysis Information

Procedure:	Volatile Total Petroleum Hydrocarbons by Flame Ionization Detector
Analytical Method:	SW846 8015B VOC
Prep Method:	SW846 8015B PREP
Analytical Batch Number:	933924
Prep Batch Number:	933923

Sample Analysis

The following client and quality control samples were analyzed to complete this sample delivery group/work order using the methods referenced in the Analysis Information section:

Sample ID	Client ID
242784003	WST03-10-2145
242784004	WST03-10-2146
1201998165	Method Blank (MB)
1201998169	Laboratory Control Sample (LCS)
1201998166	242439001(RE03-09-14098) Post Spike (PS)
1201998167	242439001(RE03-09-14098) Post Spike Duplicate (PSD)

The samples in this SDG were analyzed on a "dry weight" basis.

NOTE: For volatile organic analyses the matrix spike designations may be indicated as "PS" or "PSD". The "PS" designation (post spike) indicates that the matrix was fortified prior to analysis but after applying any prep factors, such as a dilution. The laboratory considers the MS/MSD and PS/PSD designations interchangeable.

Gasoline Range Organics will be designated as GRO throughout this case narrative.

Raw data reports are processed and reviewed by the analyst using the Target software package. False positives have been removed from the Target quantitation reports per standard operating procedures (SOP) section 20.2.6.

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-004 REV# 18.

Calibration Information

Due to the limited capacity of software, all of the current initial calibration files may not be displayed. If necessary, a calibration history report was inserted, prior to the appropriate Form 6, in the Standards section in the data package.

The linear equation used in Target and indicated on the initial calibration summary form is not a conventional linear equation (slope intercept formula) and does not match the equation found in SW-846 method 8000B. The x and y axes are inversed in Target, so that the instrument response is treated as the independent variable (x) and the concentration ratio is treated as the dependent variable (y). The equation used in Target to calculate sample results is adjusted to account for the linear equation inversion and reciprocal slope. The adjusted calculation has been independently verified to produce valid results.

Initial Calibration

All initial calibration requirements have been met for this sample delivery group (SDG).

CCV Requirements
All associated calibration verification standard(s) (ICV or CCV) met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB(s) analyzed with this SDG met the acceptance criteria.

Surrogate Recoveries
Surrogate recoveries, in all samples and quality control samples, were within the acceptance limits.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

QC Sample Designation
Sample 242439001 (RE03-09-14098) was selected for analysis as the matrix spike.

Matrix Spike (PS) Recovery Statement
The GRO recovery was within the acceptance limits.

Matrix Spike Duplicate (PSD) Recovery Statement
The GRO recovery was within the acceptance limits.

Relative Percent Difference (RPD) Statement
The RPD between the matrix spike pair met the acceptance limits.

Technical Information

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the ALPHALIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-extraction/Re-analysis
Re-extractions or re-analyses were not required in this SDG.

Miscellaneous Information

Electronic Package Comment
The following package was generated using an electronic data processing program referred to as "virtual packaging". In an effort to increase quality and efficiency, the laboratory is developing systems to eventually generate all data packages electronically. The following change from "traditional" packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. An electronic signature page inserted after the case narrative of each electronic package will indicate the analyst, reviewer, and report specialist names associated with the generation of the data and package. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Nonconformance (NCR) Documentation
A NCR was not required for this sample delivery group/work order.

Manual Integrations
Data files associated with the initial calibration, continuing calibration check(s), and samples may have been manually integrated to correct misidentification of peaks by the integration software.

Additional Comments
Additional comments were not required for this SDG.

System Configuration
The GRO Organics analysis was performed on the following instrument configuration:

Instrument ID	Instrument	System Configuration	Column ID	Column Description	P & T Trap
VOC4A.I	Agilent 6890N FID	HP6890N GC/FID	DB-624	0.53mm x 3.0u x 15m	Tekmar #1

Certification Statement
Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis Report
for

LANL010 Los Alamos National Laboratory (72733-001-09)

Client SDG: 10-899 GEL Work Order: 242784

The Qualifiers in this report are defined as follows:

* A quality control analyte recovery is outside of specified acceptance criteria

** Analyte is a surrogate compound

J Value is estimated

U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

Review/Validation

GEL requires all analytical data to be verified by a qualified data reviewer. In addition, all CLP-like deliverables receive a third level review of the fractional data package.

The following data validator verified the information presented in this case narrative:

Signature: Erin Haubert **Name: Erin Haubert**

Date: 23 DEC 2009 **Title: Data Validator**

Roadmap for LANL 10-899 GRO

This roadmap was analyzed by ACJ on 12-22-2009, 18:22.
This roadmap was reviewed by kel00587 on 12-23-2009, 10:54.

Sample

exclude	manual	datafile	smpid	injdate	injtime	sublist	clientid	dilution	comment
☐	N	/chem/voc4a.i/121709/4p400011.d	242784003	18-DEC-2009	00:43	GRO.sub	WST03-10-2145	1	
☐	N	/chem/voc4a.i/121709/4p400012.d	242784004	18-DEC-2009	01:12	GRO.sub	WST03-10-2146	1	

QC Sample

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	comment
☐	Y	/chem/voc4a.i/121709/4p400003L.d	1201998169	lcs	17-DEC-2009	17:44	GRO.sub	LCS	1.00000	
☐	Y	/chem/voc4a.i/121709/4p400004B.d	1201998165	mb	17-DEC-2009	18:14	GRO.sub	BLANK	1.00000	

Sample Data Summary

GC Volatiles (GRO)
Certificate of Analysis
Sample Summary

SDG Number:	10-899	**Date Collected:**	12/10/2009 12:00	**Matrix:**	R
Lab Sample ID:	242784003	**Date Received:**	12/12/2009 09:35	**%Moisture:**	6.7
		Client:	LANL010	**Project:**	LANL01004
Client ID:	WST03-10-2145	**Method:**	SW846 8015A/B VOC	**SOP Ref:**	GL-OA-E-004
Batch ID:	933924	**Inst:**	VOC4A.I	**Dilution:**	1
Run Date:	12/18/2009 00:43	**Analyst:**	ACJ	**Aliquot:**	5 mL
Prep Date:	12/17/2009 21:19	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	4p400011.d	**Column:**	Rtx-Volatiles	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
TPH-GRO	Gasoline Range Organics	J	20.6	ug/kg	12.0	53.6

GC Volatiles (GRO)
Certificate of Analysis
Sample Summary

SDG Number:	10-899	**Date Collected:**	12/10/2009 12:00	**Matrix:**	R
Lab Sample ID:	242784004	**Date Received:**	12/12/2009 09:35	**%Moisture:**	9.8
		Client:	LANL010	**Project:**	LANL01004
Client ID:	WST03-10-2146	**Method:**	SW846 8015A/B VOC	**SOP Ref:**	GL-OA-E-004
Batch ID:	933924	**Inst:**	VOC4A.I	**Dilution:**	1
Run Date:	12/18/2009 01:12	**Analyst:**	ACJ	**Aliquot:**	5 mL
Prep Date:	12/17/2009 21:20	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	4p400012.d	**Column:**	Rtx-Volatiles	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
TPH-GRO	Gasoline Range Organics	J	39.2	ug/kg	12.4	55.4

QC Summary

GC Volatiles (GRO)

Surrogate Recovery Report

SDG Number: 10-899

Matrix Type: SOLID

CAP Column (1) : Rtx-Volatiles

Sample ID	Client ID	BFB %REC
1201998169	LCS for batch 933923	97
1201998165	MB for batch 933923	90
242784003	WST03-10-2145	81
242784004	WST03-10-2146	71

Surrogate	Acceptance Limits
BFB = Bromofluorobenzene	(26%-143%)

* Recovery outside Acceptance Limits

\# Column to be used to flag recovery values

D Sample Diluted

GC Volatiles (GRO)

Quality Control Summary
Spike Recovery Report

SDG Number:	**10-899**	**Sample Type:**	**Post Spike**	
Client ID:	**RE03-09-14098PS**	**Matrix:**	**S**	
Lab Sample ID:	**1201998166**	**%Moisture:**	**9**	
Instrument:	**VOC4A.I**	**Analysis Date:**	**12/17/2009 05:31**	**Dilution: 1**
Analyst:	**ACJ**	**Prep Batch ID**	**933923**	
Aliquot:	**5 mL**	**Batch ID:**	**933924**	

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
	PS	Gasoline Range Organics	500	12.9	J	346	67	5-138

GC Volatiles (GRO)

Quality Control Summary
Spike Recovery Report

SDG Number:	**10-899**	**Sample Type:**	**Post Spike Duplicate**
Client ID:	**RE03-09-14098PSD**	**Matrix:**	**S**
Lab Sample ID:	**1201998167**	**%Moisture:**	**9**
Instrument:	**VOC4A.I**	**Analysis Date:**	**12/17/2009 06:00**
Analyst:	**ACJ**	**Prep Batch ID**	**933923**
Aliquot:	**5 mL**	**Batch ID:**	**933924**

Dilution: 1

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
PSD	Gasoline Range Organics	500	12.9	J	343	66	5-138	1	0-30

GC Volatiles (GRO)

Quality Control Summary

Spike Recovery Report

SDG Number: 10-899 **Sample Type:** Laboratory Control Sample

Client ID: LCS for batch 933923 **Matrix:** SOIL

Lab Sample ID: 1201998169

Instrument: VOC4A.I **Analysis Date:** 12/17/2009 17:44 **Dilution:** 1

Analyst: ACJ **Prep Batch ID:** 933923

Aliquot: 5 mL **Batch ID:** 933924

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
	LCS	Gasoline Range Organics	500	0.0	487	97	85-123

Method Blank Summary

SDG Number:	10-899	Client:	LANL010	Matrix:	SOIL
Client ID:	MB for batch 933923	Instrument ID:	VOC4A.I	Data File:	4p400004B.d
Lab Sample ID:	1201998165	Prep Date:	12/17/2009 16:30	Analyzed:	12/17/09 18:14
Column:	Rtx-Volatiles	Heated Purge:	Yes		

This method blank applies to the following samples and quality control samples:

	Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01	LCS for batch 933923	1201998169	4p400003L.d	12/17/09	1744
02	WST03-10-2145	242784003	4p400011.d	12/18/09	0043
03	WST03-10-2146	242784004	4p400012.d	12/18/09	0112

Sample Data

GC Volatiles (GRO)
Certificate of Analysis
Sample Summary

SDG Number:	**10-899**	**Date Collected:**	**12/10/2009 12:00**	**Matrix:**	**R**
Lab Sample ID:	**242784003**	**Date Received:**	**12/12/2009 09:35**	**%Moisture:**	**6.7**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**WST03-10-2145**	**Method:**	**SW846 8015A/B VOC**	**SOP Ref:**	**GL-OA-E-004**
Batch ID:	**933924**	**Inst:**	**VOC4A.I**	**Dilution:**	**1**
Run Date:	**12/18/2009 00:43**	**Analyst:**	**ACJ**	**Aliquot:**	**5 mL**
Prep Date:	**12/17/2009 21:19**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**4p400011.d**	**Column:**	**Rtx-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
TPH-GRO	Gasoline Range Organics	J	20.6	ug/kg	12.0	53.6

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Data file : /chem/voc4a.i/121709/4p400011.d
Lab Smp Id: 242784003 Client Smp ID: WST03-10-2145
Inj Date : 18-DEC-2009 00:43
Operator : ACJ Inst ID: voc4a.i
Smp Info : |242784003|1|
Misc Info : |VOC8015_LF|933924|GROF|
Comment : FID
Method : /chem/voc4a.i/121709/8015GRO-120709.m
Meth Date : 22-Dec-2009 18:05 amj Quant Type: ESTD
Cal Date : 07-DEC-2009 19:47 Cal File: 4o100008.d
Als bottle: 11
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: GRO.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M)*(Vt/Ws))*Uf * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	6.70440	% Moisture
Vt	5.00000	Purge Volume (mL)
Ws	5.00000	Weight of sample (g)
Uf	1.00000	Unit Correction Factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	
S 1 Gasoline Range Organics					CAS #:	
2.869-	10.944		19693610	19.2468	20.6	(a)
$ 3 Bromofluorobenzene					CAS #: 460-00-4	
9.514	9.511	0.003	32653622	40.6908	43.6	

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

Data File: /chem/voc4a.i/121709/4p400011.d
Date : 18-DEC-2009 00:43
Client ID: WST03-10-2145
Sample Info: |242784003|1|

Column phase: Rtx-Volatiles

Instrument: voc4a.i

Operator: ACJ
Column diameter: 0.25

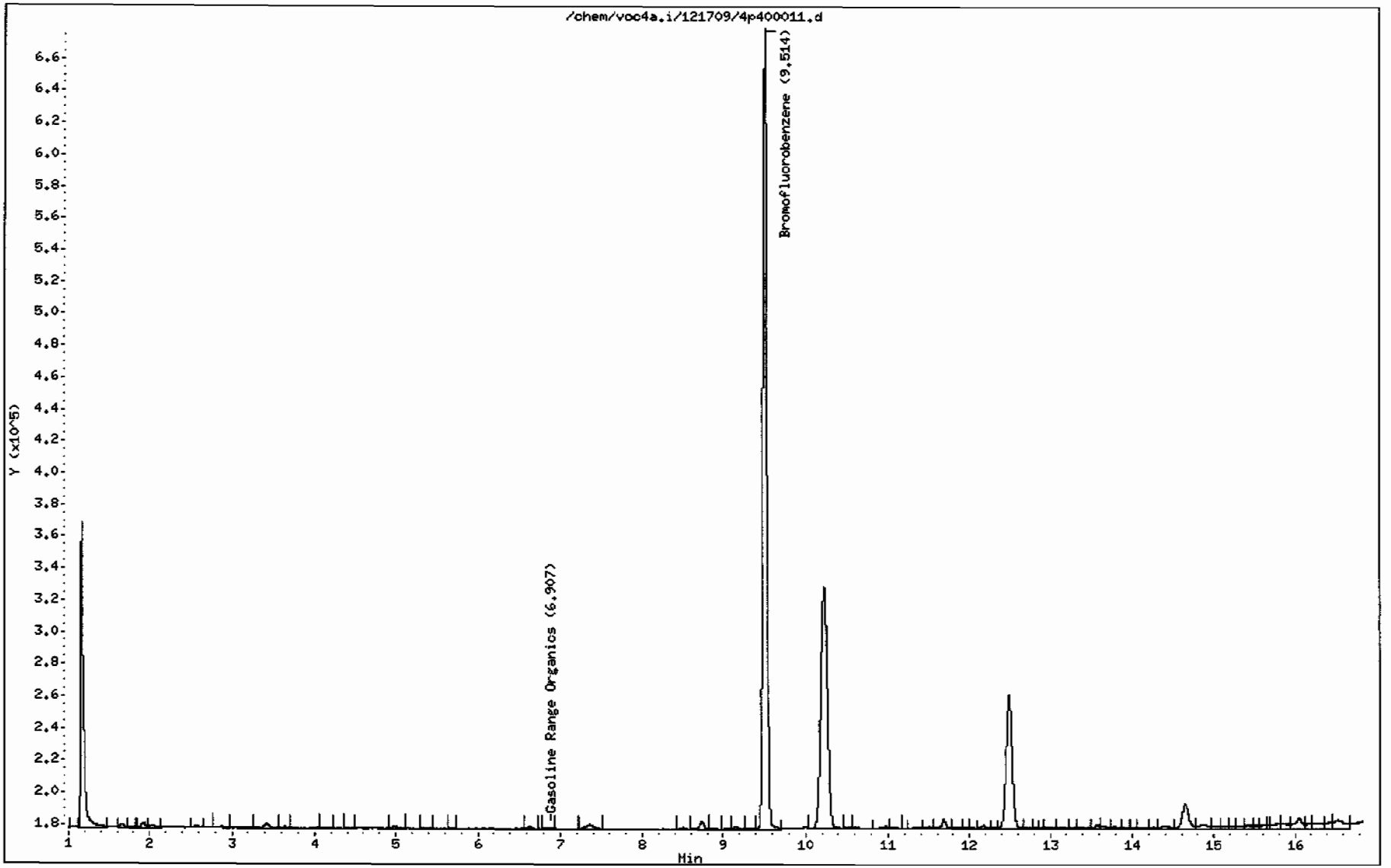

GC Volatiles (GRO)
Certificate of Analysis
Sample Summary

SDG Number:	10-899	**Date Collected:**	12/10/2009 12:00	**Matrix:**	R
Lab Sample ID:	242784004	**Date Received:**	12/12/2009 09:35	**%Moisture:**	9.8
		Client:	LANL010	**Project:**	LANL01004
Client ID:	WST03-10-2146	**Method:**	SW846 8015A/B VOC	**SOP Ref:**	GL-OA-E-004
Batch ID:	933924	**Inst:**	VOC4A.I	**Dilution:**	1
Run Date:	12/18/2009 01:12	**Analyst:**	ACJ	**Aliquot:**	5 mL
Prep Date:	12/17/2009 21:20	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	4p400012.d	**Column:**	Rtx-Volatiles	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
TPH-GRO	Gasoline Range Organics	J	39.2	ug/kg	12.4	55.4

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SW-846 3rd edition 8015 Modified

Data file : /chem/voc4a.i/121709/4p400012.d
Lab Smp Id: 242784004 Client Smp ID: WST03-10-2146
Inj Date : 18-DEC-2009 01:12
Operator : ACJ Inst ID: voc4a.i
Smp Info : |242784004|1|
Misc Info : |VOC8015_LF|933924|GROF|
Comment : FID
Method : /chem/voc4a.i/121709/8015GRO-120709.m
Meth Date : 22-Dec-2009 18:05 amj Quant Type: ESTD
Cal Date : 07-DEC-2009 19:47 Cal File: 4o100008.d
Als bottle: 12
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: GRO.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M)*(Vt/Ws))*Uf * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	9.79830	% Moisture
Vt	5.00000	Purge Volume (mL)
Ws	5.00000	Weight of sample (g)
Uf	1.00000	Unit Correction Factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	
S 1 Gasoline Range Organics					CAS #:	
2.869-	10.944		36144192	35.3241	39.2	(a)
$ 3 Bromofluorobenzene					CAS #: 460-00-4	
9.514	9.511	0.003	28507974	35.5248	39.4	

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

Data File: /chem/voc4a.i/121709/4p400012.d
Date : 18-DEC-2009 01:12
Client ID: WST03-10-2146
Sample Info: |242784004|1|

Column phase: Rtx-Volatiles

Instrument: voc4a.i

Operator: ACJ
Column diameter: 0.25

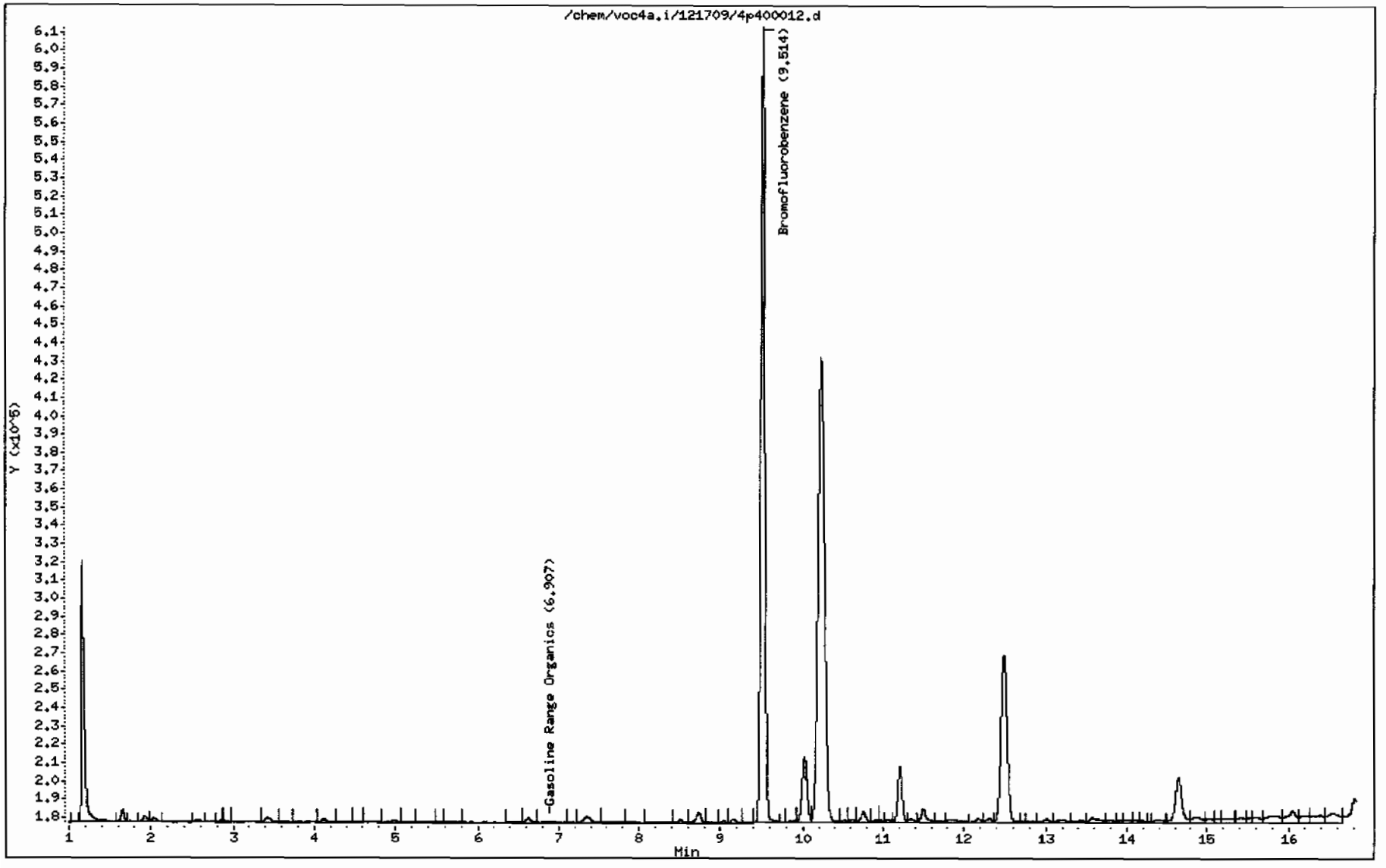

Standard Data

Report Date: 21-Dec-2009 19:17

Calibration History

Method : /chem/voc4a.i/121709/8015GRO-120709.m
Start Cal Date: 07-DEC-2009 16:47
End Cal Date : 07-DEC-2009 19:47

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 50.00000		
07-DEC-2009 16:47	GRO	/chem/voc4a.i/120709/4o100002.d
Cal Level: 2 , Cal Amount: 100.00000		
07-DEC-2009 17:17	GRO	/chem/voc4a.i/120709/4o100003.d
Cal Level: 3 , Cal Amount: 250.00000		
07-DEC-2009 17:48	GRO	/chem/voc4a.i/120709/4o100004.d
Cal Level: 4 , Cal Amount: 500.00000		
07-DEC-2009 18:18	GRO	/chem/voc4a.i/120709/4o100005.d
Cal Level: 5 , Cal Amount: 750.00000		
07-DEC-2009 18:48	GRO	/chem/voc4a.i/120709/4o100006.d
Cal Level: 6 , Cal Amount: 1000.00000		
07-DEC-2009 19:17	GRO	/chem/voc4a.i/120709/4o100007.d
Cal Level: 7 , Cal Amount: 2000.00000		
07-DEC-2009 19:47	GRO	/chem/voc4a.i/120709/4o100008.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 500		
18-DEC-2009 01:42	GRO	/chem/voc4a.i/121709/4p400013.d
Ccal Level: 4 , Ccal Amount: 500		
17-DEC-2009 17:15	GRO	/chem/voc4a.i/121709/4p400002.d

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INITIAL CALIBRATION DATA

Start Cal Date : 07-DEC-2009 16:47
End Cal Date : 07-DEC-2009 19:47
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem/voc4a.i/121709/8015GRO-120709.m
Cal Date : 18-Dec-2009 16:13 amj
Curve Type : Average

Calibration File Names:
Level 1: /chem/voc4a.i/120709/4o100002.d
Level 2: /chem/voc4a.i/120709/4o100003.d
Level 3: /chem/voc4a.i/120709/4o100004.d
Level 4: /chem/voc4a.i/120709/4o100005.d
Level 5: /chem/voc4a.i/120709/4o100006.d
Level 6: /chem/voc4a.i/120709/4o100007.d
Level 7: /chem/voc4a.i/120709/4o100008.d

Compound	50.000 Level 1	100.000 Level 2	250.000 Level 3	500.000 Level 4	750.000 Level 5	1000.000 Level 6	2000.000 Level 7	RRF	% RSD
S 1 Gasoline Range Organics	1082682	1001230	981010	1065173	1033194	941533	1057684	1023215	4.971
2 2-Methylpentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
4 1,2,4-Trimethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
$ 3 Bromofluorobenzene	+++++	857128	835052	792622	785837	766662	777588	802481	4.432

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: voc4a.i Injection Date: 07-DEC-2009 20:47
Lab File ID: 4o100010.d Init. Cal. Date(s): 07-DEC-2009 07-DEC-2009
Analysis Type: WATER Init. Cal. Times: 16:47 19:47
Lab Sample ID: GROICV Quant Type: ESTD
Method: /chem/voc4a.i/120709/8015GRO-120709.m

COMPOUND	RRF / AMOUNT	RF500	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
S 1 Gasoline Range Organics	1023215	1052132	0.010	2.82609	15.00000	Averaged
$ 3 Bromofluorobenzene	802481	794937	0.010	-0.94007	15.00000	Averaged

GEL Laboratories LLC

SW-846 3rd edition 8015 Modified

Data file : /chem/voc4a.i/120709/4o100010.d
Lab Smp Id: GROICV Client Smp ID: SECOND SOURCE
Inj Date : 07-DEC-2009 20:47
Operator : ACJ Inst ID: voc4a.i
Smp Info : |GROICV|
Misc Info : |VOC8015_LF|-----|GROF|
Comment : FID
Method : /chem/voc4a.i/120709/8015GRO-120709.m
Meth Date : 07-Dec-2009 21:00 amj Quant Type: ESTD
Cal Date : 07-DEC-2009 19:47 Cal File: 4o100008.d
Als bottle: 10 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: GRO.sub
Target Version: 3.50 Sample Matrix: WATER
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (Vt/Vo)*Uf * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	5.00000	Purge Volume
Vo	5.00000	Initial sample volume
Uf	1.00000	Unit Correction Factor

Cpnd Variable Local Compound Variable

	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
S 1 Gasoline Range Organics						CAS #:
	2.859-	10.941		526065994	500.000	514
$ 3 Bromofluorobenzene						CAS #: 460-00-4
	9.510	9.507	0.003	39746867	50.0000	49.5

Data File: /chem/voc4a.i/120709/4c100010.d
Date : 07-DEC-2009 20:47
Client ID: SECOND SOURCE
Sample Info: IGROICVI
Purge Volume: 5.0
Column phase: Rtx-Volatiles

Instrument: voc4a.i
Operator: ACJ
Column diameter: 0.25

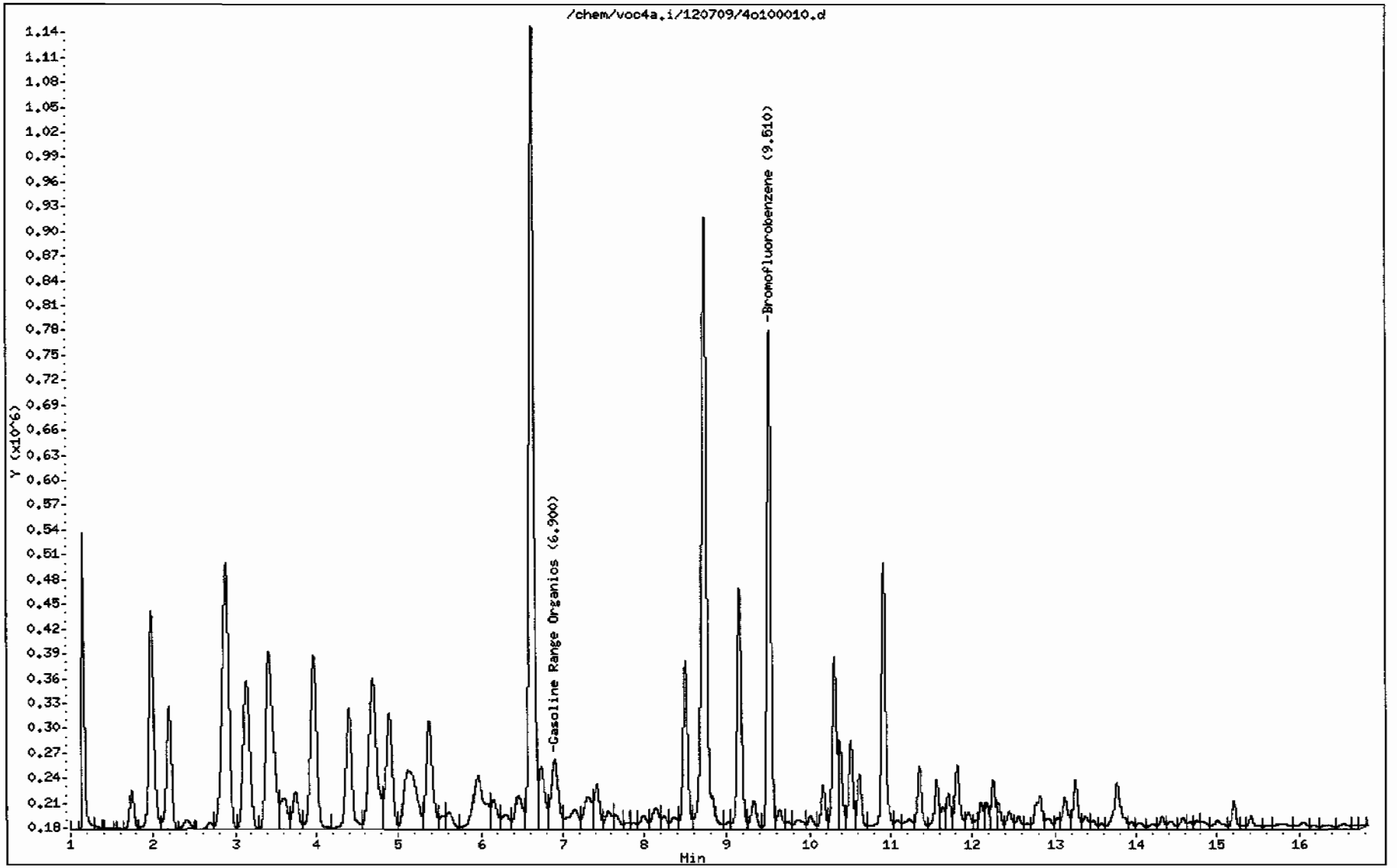

Data File: /chem/voc4a.i/121709/4p400002.d
Report Date: 22-Dec-2009 18:05

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: voc4a.i
Lab File ID: 4p400002.d
Analysis Type: WATER
Lab Sample ID: GROCCV
Method: /chem/voc4a.i/121709/8015GRO-120709.m

Injection Date: 17-DEC-2009 17:15
Init. Cal. Date(s): 07-DEC-2009 07-DEC-2009
Init. Cal. Times: 16:47 19:47
Quant Type: ESTD

COMPOUND	RRF / AMOUNT	RF500	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
$ 1 Gasoline Range Organics	1023215	1086276	0.010	6.16305	15.00000	Averaged
$ 3 Bromofluorobenzene	802481	844850	0.010	5.27970	15.00000	Averaged

GEL Laboratories LLC

SW-846 3rd edition 8015 Modified

Data file : /chem/voc4a.i/121709/4p400002.d
Lab Smp Id: GROCCV Client Smp ID: VSTD0500
Inj Date : 17-DEC-2009 17:15
Operator : ACJ Inst ID: voc4a.i
Smp Info : |GROCCV|
Misc Info : |VOC8015_LF|-----|GROF|
Comment : FID
Method : /chem/voc4a.i/121709/8015GRO-120709.m
Meth Date : 22-Dec-2009 18:05 amj Quant Type: ESTD
Cal Date : 07-DEC-2009 19:47 Cal File: 4o100008.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: GRO.sub
Target Version: 3.50 Sample Matrix: WATER
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (Vt/Vo)*Uf * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	5.00000	Purge Volume
Vo	5.00000	Initial sample volume
Uf	1.00000	Unit Correction Factor

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
$ 1 Gasoline Range Organics					CAS #:
2.869-	10.944		543138149	500.000	531
$ 3 Bromofluorobenzene					CAS #: 460-00-4
9.513	9.511	0.002	42242494	50.0000	52.6

Data File: /chem/voc4a.i/121709/4p400002.d

Date : 17-DEC-2009 17:15

Client ID: VSTD0500

Sample Info: (GROCCV)

Purge Volume: 5.0

Column phase: Rtx-Volatiles

Instrument: voc4a.i

Operator: ACJ

Column diameter: 0.25

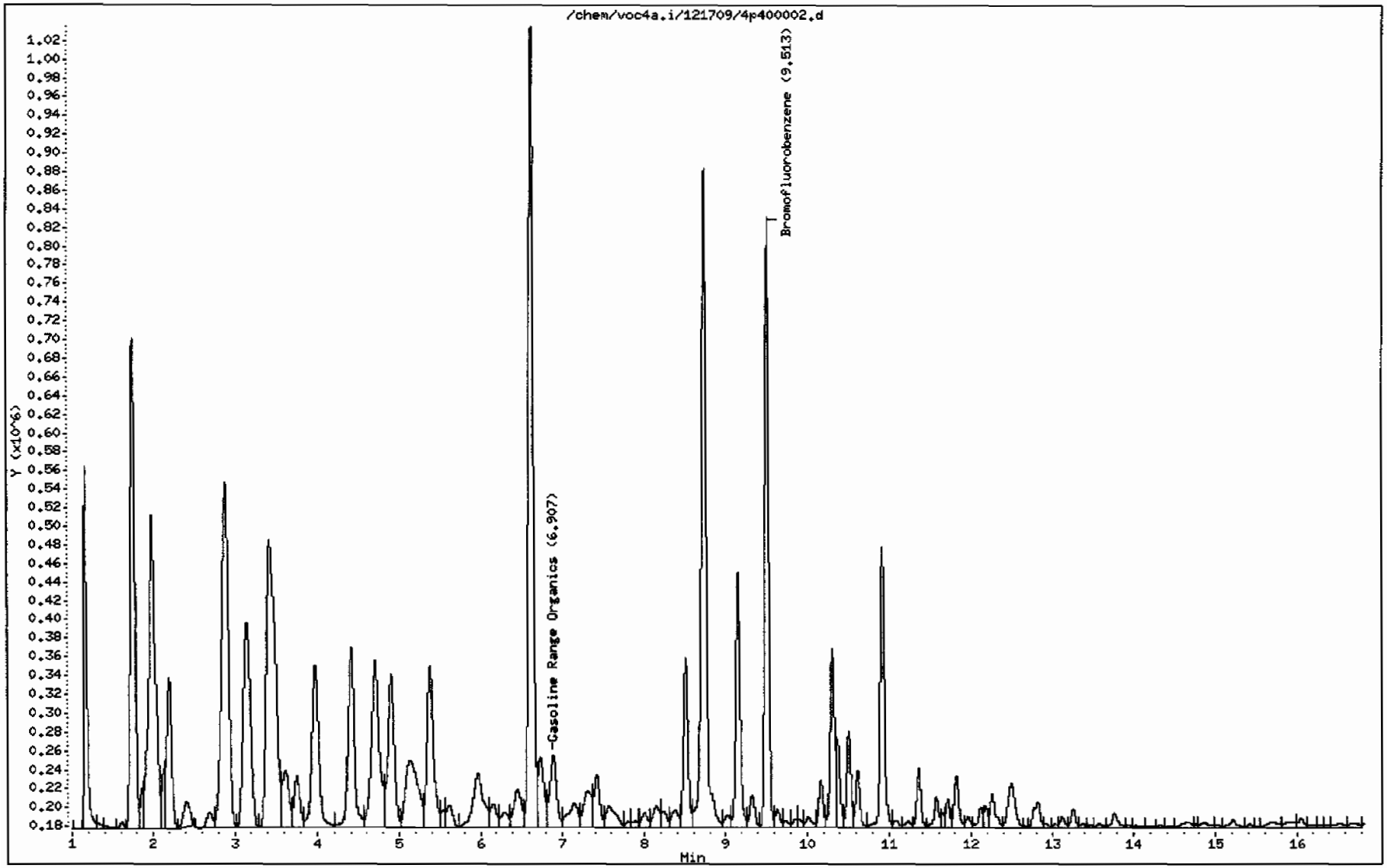

Data File: /chem/voc4a.i/121709/4p400013.d
Report Date: 22-Dec-2009 18:06

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: voc4a.i
Lab File ID: 4p400013.d
Analysis Type: WATER
Lab Sample ID: GROCCV
Method: /chem/voc4a.i/121709/8015GRO-120709.m

Injection Date: 18-DEC-2009 01:42
Init. Cal. Date(s): 07-DEC-2009 07-DEC-2009
Init. Cal. Times: 16:47 19:47
Quant Type: ESTD

COMPOUND	RRF / AMOUNT	RF500	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
S 1 Gasoline Range Organics	1023215	1008936	0.010	-1.39554	15.00000	Averaged
$ 3 Bromofluorobenzene	802481	743595	0.010	-7.33806	15.00000	Averaged

GEL Laboratories LLC

SW-846 3rd edition 8015 Modified

Data file : /chem/voc4a.i/121709/4p400013.d
Lab Smp Id: GROCCV Client Smp ID: VSTD0500
Inj Date : 18-DEC-2009 01:42
Operator : ACJ Inst ID: voc4a.i
Smp Info : |GROCCV|
Misc Info : |VOC8015_LF|-----|GROF|
Comment : FID
Method : /chem/voc4a.i/121709/8015GRO-120709.m
Meth Date : 22-Dec-2009 18:06 amj Quant Type: ESTD
Cal Date : 07-DEC-2009 19:47 Cal File: 4o100008.d
Als bottle: 13 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: GRO.sub
Target Version: 3.50 Sample Matrix: WATER
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (Vt/Vo)*Uf * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	5.00000	Purge Volume
Vo	5.00000	Initial sample volume
Uf	1.00000	Unit Correction Factor

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
S 1 Gasoline Range Organics					CAS #:
2.869-	10.944		504467814	500.000	493
$ 3 Bromofluorobenzene					CAS #: 460-00-4
9.514	9.511	0.003	37179734	50.0000	46.3

Data File: /chem/voc4a.i/121709/4p400013.d
Date : 18-DEC-2009 01:42
Client ID: VSTD0500
Sample Info: IGROCCVI
Purge Volume: 5.0
Column phase: Rtx-Volatiles

Instrument: voc4a.i

Operator: ACJ
Column diameter: 0.25

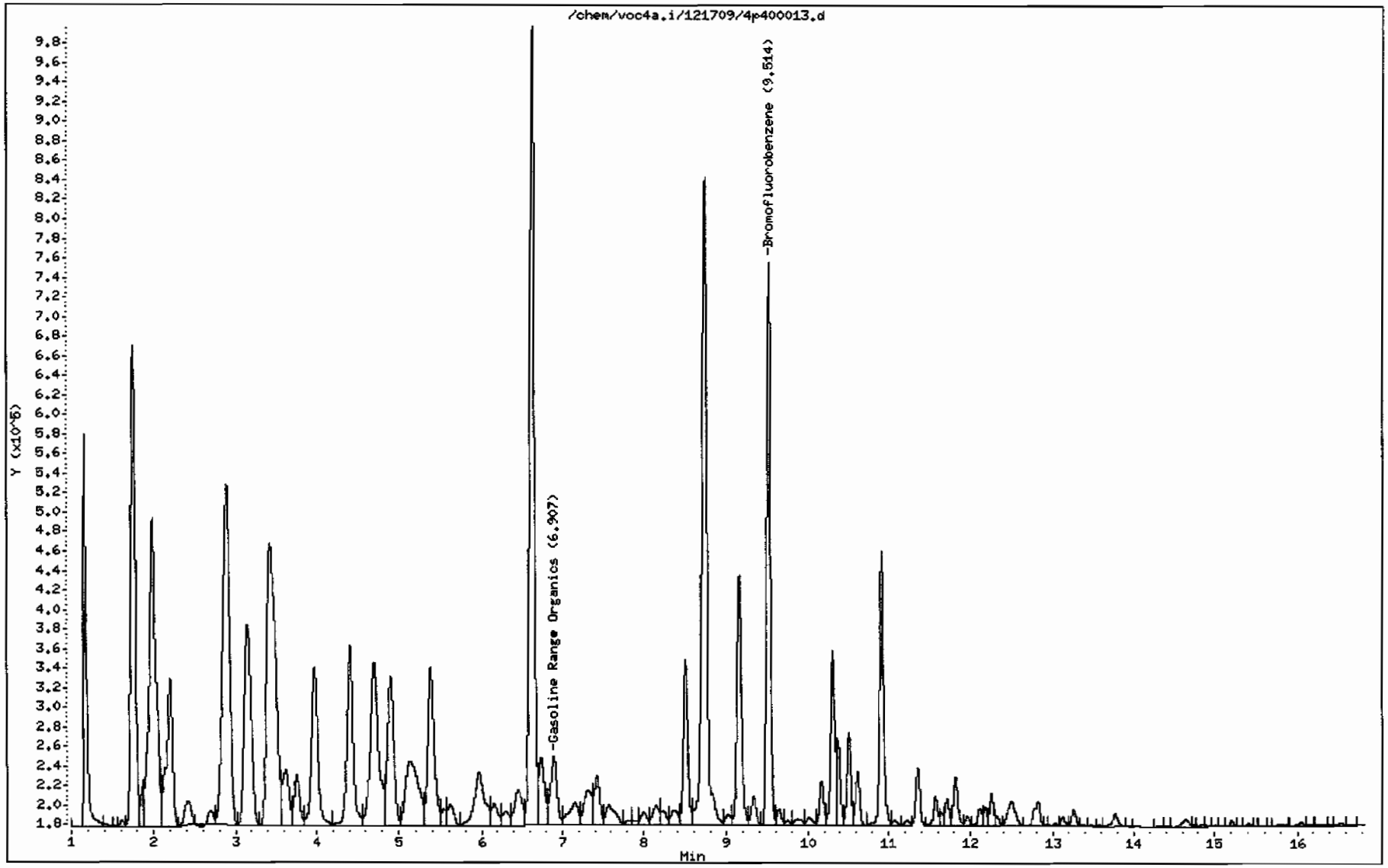

Analytical Sequence

Lab Name: GEL Laboratories LLC **Client SDG:** 10-899

GC Column: Rtx-Volatiles **Init. Calibration Dates:** 07-DEC-09 16:47 - 07-DEC-09 19:47

Instrument ID: VOC4A.

Analytical Sequence for Performance Evaluation Mixtures, Blanks, Samples, and Standards is given below:

	Mean Surrogate RT From Initial Calibration: **RT Range Based on Calibration Verification:**			9.51 9.48 9.54 #
	Sample Number	**Lab Sample ID**	**Analysis Date**	**Bromofluorobenzene**
1	VSTD0050	VSTD0050	07-DEC-09 16:47	9.51
2	VSTD0100	VSTD0100	07-DEC-09 17:17	9.51
3	VSTD0250	VSTD0250	07-DEC-09 17:48	9.51
4	VSTD0500	VSTD0500	07-DEC-09 18:18	9.51
5	VSTD0750	VSTD0750	07-DEC-09 18:48	9.51
6	VSTD1000	VSTD1000	07-DEC-09 19:17	9.51
7	VSTD2000	VSTD2000	07-DEC-09 19:47	9.51
8	VSTD0500	GROICV	07-DEC-09 20:47	9.51

Column used to flag retention time values with an asterisk.

Analytical Sequence

Lab Name: GEL Laboratories LLC **Client SDG:** 10-899

GC Column: Rtx-Volatiles **Init. Calibration Dates:** 07-DEC-09 16:47 - 07-DEC-09 19:47

Instrument ID: VOC4A.

Analytical Sequence for Performance Evaluation Mixtures, Blanks, Samples, and Standards is given below:

	Mean Surrogate RT From Initial Calibration: **RT Range Based on Calibration Verification:**			9.51 9.48 9.54 #
	Sample Number	**Lab Sample ID**	**Analysis Date**	**Bromofluorobenzene**
1	VSTD0500	GROCCV	17-DEC-09 17:15	9.51
2	BLK01LCS	1201998169	17-DEC-09 17:44	9.51
3	BLANK	1201998165	17-DEC-09 18:14	9.51
4	ZZZZZZZ	ZZZZZZZ	17-DEC-09 21:45	9.51
5	ZZZZZZZ	ZZZZZZZ	17-DEC-09 22:15	9.51
6	ZZZZZZZ	ZZZZZZZ	17-DEC-09 22:44	9.51
7	ZZZZZZZ	ZZZZZZZ	17-DEC-09 23:14	9.51
8	ZZZZZZZ	ZZZZZZZ	17-DEC-09 23:44	9.51
9	ZZZZZZZ	ZZZZZZZ	18-DEC-09 00:13	9.51
10	WST03-10-2145	242784003	18-DEC-09 00:43	9.51
11	WST03-10-2146	242784004	18-DEC-09 01:12	9.51
12	VSTD0500	GROCCV	18-DEC-09 01:42	9.51

Column used to flag retention time values with an asterisk.

QC Data

GC Volatiles (GRO)
Certificate of Analysis
Sample Summary

SDG Number:	10-899			**Matrix:**	SOIL
Lab Sample ID:	1201998165				
Client Sample:	QC for batch 933923	**Client:**	LANL010	**Project:**	QC
Client ID:	MB for batch 933923	**Method:**	SW846 8015A/B VOC	**SOP Ref:**	GL-OA-E-004
Batch ID:	933924	**Inst:**	VOC4A.I	**Dilution:**	1
Run Date:	12/17/2009 18:14	**Analyst:**	ACJ	**Aliquot:**	5 mL
Prep Date:	12/17/2009 16:30	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	4p400004B.d	**Column:**	Rtx-Volatiles	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
TPH-GRO	Gasoline Range Organics	U	50.0	ug/kg	11.2	50.0

GEL Laboratories LLC

SW-846 3rd edition 8015 Modified

Data file : /chem/voc4a.i/121709/4p400004B.d
Lab Smp Id: 1201998165 Client Smp ID: BLANK
Inj Date : 17-DEC-2009 18:14
Operator : ACJ Inst ID: voc4a.i
Smp Info : |1201998165|1|
Misc Info : |VOC8015_LF|933924|GROF|
Comment : FID
Method : /chem/voc4a.i/121709/8015GRO-120709.m
Meth Date : 22-Dec-2009 18:05 amj Quant Type: ESTD
Cal Date : 07-DEC-2009 19:47 Cal File: 4o100008.d
Als bottle: 4 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: GRO.sub
Target Version: 3.50 Sample Matrix: SOIL
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M)*(Vt/Ws))*Uf * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	0.00000	% Moisture
Vt	5.00000	Purge Volume (mL)
Ws	5.00000	Weight of sample (g)
Uf	1.00000	Unit Correction Factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)
$ 3 Bromofluorobenzene					CAS #: 460-00-4
9.514	9.511	0.003	36269146	45.1963	45.2

Data File: /chem/voc4a.i/121709/4p400004B.d
Date : 17-DEC-2009 18:14
Client ID: BLANK
Sample Info: |120199816511|

Column phase: Rtx-Volatiles

Instrument: voc4a.i

Operator: ACJ
Column diameter: 0.25

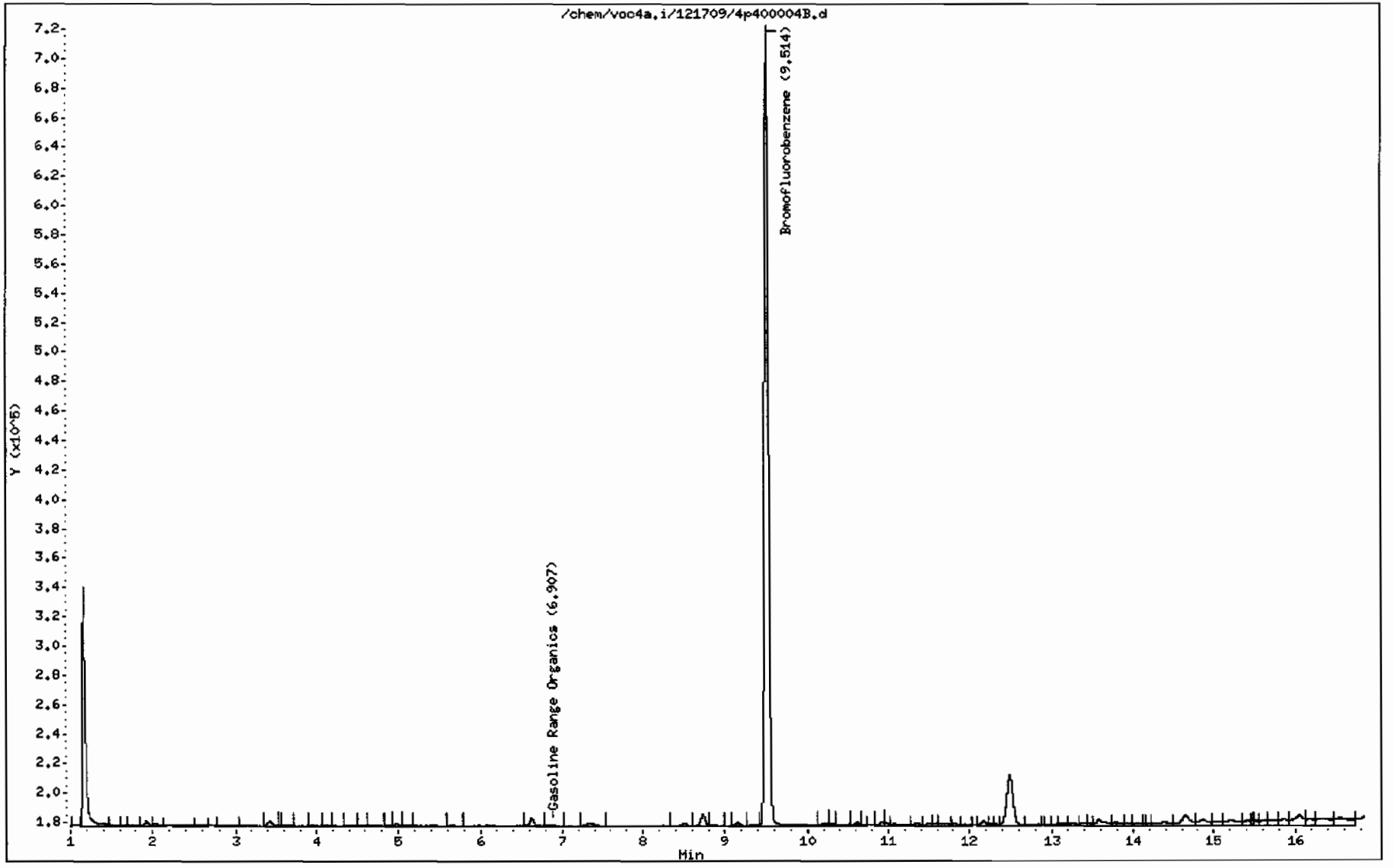

GC Volatiles (GRO)
Certificate of Analysis
Sample Summary

SDG Number:	10-899			**Matrix:**	SOIL
Lab Sample ID:	1201998169				
Client Sample:	QC for batch 933923	**Client:**	LANL010	**Project:**	QC
Client ID:	LCS for batch 933923	**Method:**	SW846 8015A/B VOC	**SOP Ref:**	GL-OA-E-004
Batch ID:	933924	**Inst:**	VOC4A.I	**Dilution:**	1
Run Date:	12/17/2009 17:44	**Analyst:**	ACJ	**Aliquot:**	5 mL
Prep Date:	12/17/2009 16:00	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	4p400003L.d	**Column:**	Rtx-Volatiles	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
TPH-GRO	Gasoline Range Organics		487	ug/kg	11.2	50.0

GEL Laboratories LLC

SW-846 3rd edition 8015 Modified

Data file : /chem/voc4a.i/121709/4p400003L.d
Lab Smp Id: 1201998169 Client Smp ID: LCS
Inj Date : 17-DEC-2009 17:44
Operator : ACJ Inst ID: voc4a.i
Smp Info : |1201998169|1|
Misc Info : |VOC8015_LF|933924|GROF|
Comment : FID
Method : /chem/voc4a.i/121709/8015GRO-120709.m
Meth Date : 22-Dec-2009 18:05 amj Quant Type: ESTD
Cal Date : 07-DEC-2009 19:47 Cal File: 4o100008.d
Als bottle: 3 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: GRO.sub
Target Version: 3.50 Sample Matrix: SOIL
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M)*(Vt/Ws))*Uf * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	0.00000	% Moisture
Vt	5.00000	Purge Volume (mL)
Ws	5.00000	Weight of sample (g)
Uf	1.00000	Unit Correction Factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)
S 1 Gasoline Range Organics					CAS #:
2.869-	10.944		498657443	487.344	487
$ 3 Bromofluorobenzene					CAS #: 460-00-4
9.514	9.511	0.003	38896350	48.4701	48.5

Data File: /chem/voc4a.i/121709/4p400003L.d
Date : 17-DEC-2009 17:44
Client ID: LCS
Sample Info: |120199816911|

Column phase: Rtx-Volatiles

Instrument: voc4a.i

Operator: ACJ
Column diameter: 0.25

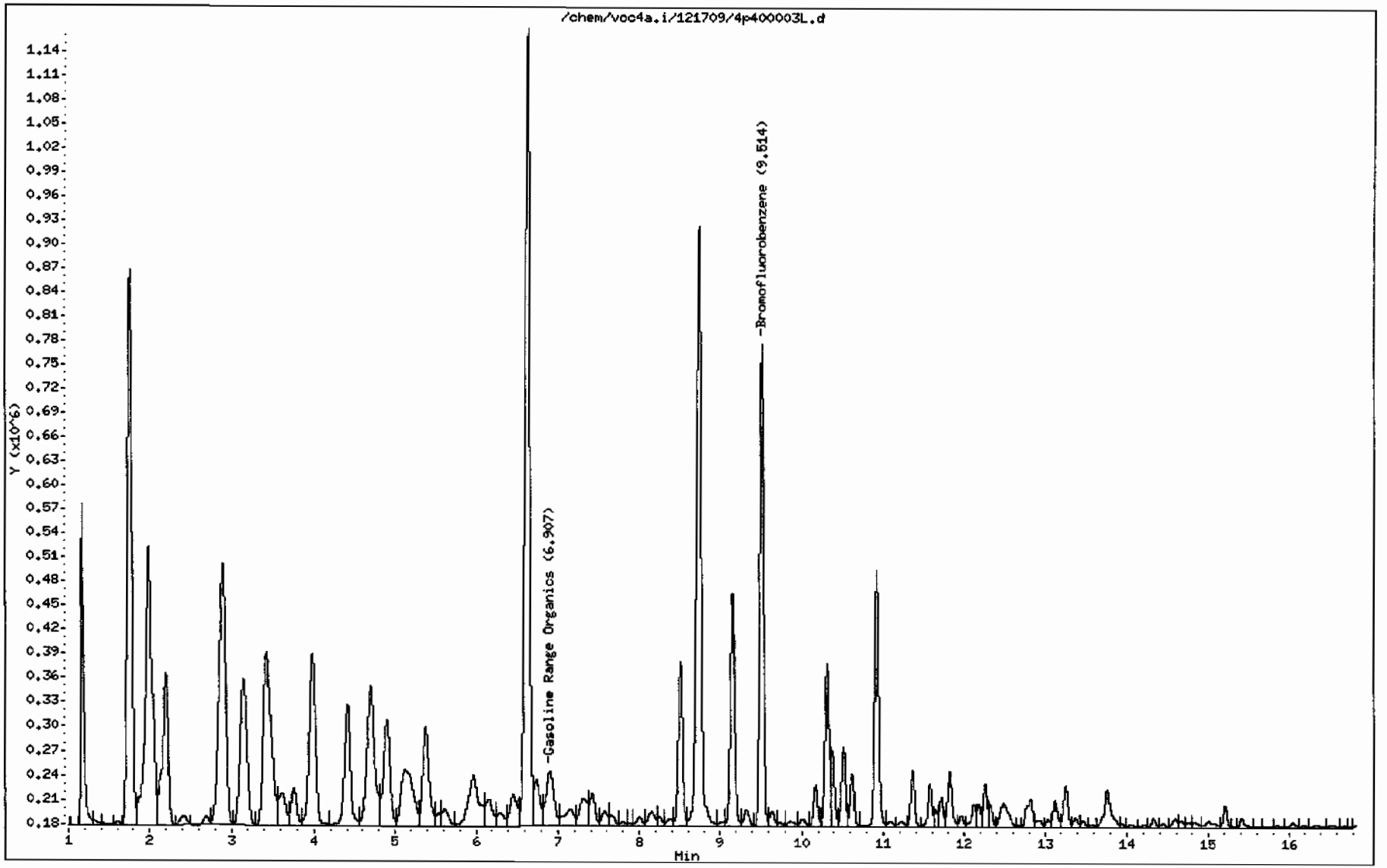

Miscellaneous Data

Prep Logbook

Volatile Total Petroleum Hydrocarbons by Flame Ionization Detector

Batch ID: **933923** Verified by: _____

Analyst: Amy Jamison
Method: SW846 8015A/B PREP
Lab SOP: GL-OA-E-004 REV# 18
Instrument: Sartorius Balance B-001

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units

Sample ID	Run Date	Matrix	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check 1
1201998168 LCS	16-DEC-2009 16:00:00	Soil	5	5	1	
1201998164 MB	16-DEC-2009 16:30:00	Soil	5	5	1	
242439001	16-DEC-2009 22:30:00	Soil	5	5	1	
1201998166 PS (242439001)	16-DEC-2009 22:31:00	Soil	5	5	1	
1201998167 PSD (242439001)	16-DEC-2009 22:32:00	Soil	5	5	1	
242439002	16-DEC-2009 22:33:00	Soil	5	5	1	
242439003	16-DEC-2009 22:34:00	Soil	5	5	1	
242439004	16-DEC-2009 22:35:00	Soil	5	5	1	
242439005	16-DEC-2009 22:36:00	Soil	5	5	1	
242439008	16-DEC-2009 22:39:00	Soil	5	5	1	
242439009	16-DEC-2009 22:40:00	Soil	5	5	1	
242439010	16-DEC-2009 22:41:00	Soil	5	5	1	
242439011	16-DEC-2009 22:42:00	Soil	5	5	1	
242439012	16-DEC-2009 22:43:00	Soil	5	5	1	
1201998169 LCS	17-DEC-2009 16:00:00	Soil	5	5	1	
1201998165 MB	17-DEC-2009 16:30:00	Soil	5	5	1	
1202002107 HB	17-DEC-2009 21:13:00	Soil	5	10	2	
242439006	17-DEC-2009 21:14:00	Soil	5	10	2	
242439007	17-DEC-2009 21:15:00	Soil	5	5	1	
242445002	17-DEC-2009 21:16:00	Soil	5	5	1	
242447001	17-DEC-2009 21:17:00	Soil	5	5	1	
242447003	17-DEC-2009 21:18:00	Soil	5	5	1	
242784003	17-DEC-2009 21:19:00	Soil	5	5	1	
242784004	17-DEC-2009 21:20:00	Soil	5	5	1	

Reagent/Solvent Lot ID	Description	Amount

Comments:

General Engineering Laboratories, LLC
Revision:11/22/04

ORGANIC RUN LOG - INSTRUMENT ID#VOC4A

Date: 12/7/2009 Method 8015 Operator ACJ

REVIEWED BY: _____
DATE: _____

HARDWARE CONFIGURATION & METHOD CONDITIONS SUMMARY No# 1

Daily Instrument Readings:
Multiplier Voltage: N/A

CALIBRATION & CC INFORMATION:

Initial Calibration Date: 12/7/2009

(See pg. 129 for ICAL Std. Sci. Ids)

NaHSO4 lot # N/A

Cl test lot # N/A

Sequence Number: VOC4A 120709

Daily Standard Solution ID#		Volume Added for Purge (ul) Blk/ Smpl	CCV	MS/ LCS	RT
CCV	UVG091112-01A		5		
IS	N/A				
SS	UVG091022-01D	2.5	2.5	2.5	2.5
LCS/MS	UVG091112-01A			5	
RTCHECK	WVG091207-01				5+5
C5/C12 RTCHECK	N/A				5

Purge Amount	
5	Water Purge Vol:
VARIED	Soil Purge Wt.
N/A	Mid level ext. MeOH Vol:
N/A	ul
N/A	Methanol Lot #
x	Heated Purge

Analysis Date Time	Data File	Lab Sample ID	Client	Batch #	Wt.(g) or Vol(ml/ul)	Dil. Factor	pH	AS Slot #	Matrix w or s	Analyst	Cl test (Y/N)	Acceptable(√/X)	Comments
12/7/2009 16:17	4O100001.D	WVG091207-01	GEL	RTCHECK	5ML	1	N/A	1	W	ACJ	N/A	O	UVG090909-01A/UVG081212-02B
12/7/2009 16:47	4O100002.D	VSTD0050	GEL	ICAL	5ML	1	N/A	2	W	ACJ	N/A	O	UVG090915-01C/UVG091022-01D
12/7/2009 17:17	4O100003.D	VSTD0100	GEL	ICAL	5ML	1	N/A	3	W	ACJ	N/A	O	UVG090915-01C/UVG091022-01D
12/7/2009 17:48	4O100004.D	VSTD0250	GEL	ICAL	5ML	1	N/A	4	W	ACJ	N/A	O	UVG090915-01C/UVG091022-01D
12/7/2009 18:18	4O100005.D	VSTD0500	GEL	ICAL	5ML	1	N/A	5	W	ACJ	N/A	O	UVG090915-01C/UVG091022-01D
12/7/2009 18:48	4O100006.D	VSTD0750	GEL	ICAL	5ML	1	N/A	6	W	ACJ	N/A	O	UVG090915-01C/UVG091022-01D
12/7/2009 19:17	4O100007.D	VSTD1000	GEL	ICAL	5ML	1	N/A	7	W	ACJ	N/A	O	UVG090915-01C/UVG091022-01D
12/7/2009 19:47	4O100008.D	VSTD2000	GEL	ICAL	5ML	1	N/A	8	W	ACJ	N/A	O	UVG090915-01C/UVG091022-01D
12/7/2009 20:17	4O100009.D	BLANK	GEL	BLANK	5ML	1	N/A	9	W	ACJ	N/A	X	
12/7/2009 20:47	4O100010.D	UVG091112-01A	GEL	ICV	5ML	1	N/A	10	W	ACJ	N/A	O	
12/7/2009 21:19	4O100011.D	UVG091112-01A	GEL	LCS	5G	1	N/A	11	S	ACJ	N/A	O	
12/7/2009 21:49	4O100012.D	UVG091112-01A	GEL	LCSD	5G	1	N/A	12	S	ACJ	N/A	X	SPIKED USING 2.5UL
12/7/2009 22:18	4O100013.D	BLANK	GEL	BLANK	5G	1	N/A	13	S	ACJ	N/A	X	
12/7/2009 22:48	4O100014.D	UVG091112-01A	GEL	LCSD	5G	1	N/A	14	S	ACJ	N/A	O	
12/7/2009 23:18	4O100015.D	BLANK	GEL	BLANK	5G	1	N/A	15	S	ACJ	N/A	O	
12/7/2009 23:58	4O100016.D	241238002	LANL	930378	5G	1	N/A	16	S	ACJ	N/A	O	
12/8/2009 0:28	4O100017.D	242247001	SLAC	929818	5.4G	1	N/A	17	S	ACJ	N/A	O	
12/8/2009 0:58	4O100018.D	242247002	SLAC	929818	5.4G	1	N/A	18	S	ACJ	N/A	O	
12/8/2009 1:27	4O100019.D	UVG091112-01A	GEL	CCV	5ML	1	N/A	19	W	ACJ	N/A	O	

General Engineering Laboratories, LLC
Revision:11/22/04

ORGANIC RUN LOG - INSTRUMENT ID#VOC4A

Date: 12/16/2009 Method 8015 Operator ACJ

REVIEWED BY: _____
DATE: _____

HARDWARE CONFIGURATION & METHOD CONDITIONS SUMMARY No# 1

Daily Instrument Readings:
Multiplier Voltage: N/A

CALIBRATION & CC INFORMATION:

Initial Calibration Date: 12/7/2009

(See pg. 129 for ICAL Std. Sci. Ids)

NaHSO4 lot # N/A

Cl test lot # N/A

Sequence Number: VOC4A 121609

Daily Standard Solution ID#		Volume Added for Purge (ul) Blk/ Smpl	CCV	MS/ LCS	RT
CCV	UVG090915-01C		5		
IS	N/A				
SS	UVG091022-01D	2.5	2.5	2.5	2.5
LCS/MS	UVG091112-01A			5	
RTCHECK	WVG091216-01				5+5
C5/C12 RTCHECK	N/A				5

Purge Amount	
5	Water Purge Vol:
5G	Soil Purge Wt.
N/A	Mid level ext. MeOH Vol:
N/A	ul
N/A	Methanol Lot #
x	Heated Purge

Analysis Date	Time	Data File	Lab Sample ID	Client	Batch #	Wt.(g) or Vol(ml/ul)	Dil. Factor	pH	AS Slot #	Matrix w or s	Analyst	Cl test (Y/N)	Acceptable(√/X)	Comments
12/16/2009	16:57	4P300001.D	BLANK	GEL	BLANK	5ML	1	N/A	1	W	ACJ	N/A	X	UVG090909-01A/UVG081212-02B
12/16/2009	17:26	4P300002.D	WVG091216-01	GEL	RTCHECK	5ML	1	N/A	2	W	ACJ	N/A	O	UVG090909-01A/UVG081212-02B
12/16/2009	17:56	4P300003.D	UVG090915-01C	GEL	CCV	5ML	1	N/A	3	W	ACJ	N/A	O	
12/16/2009	18:26	4P300004.D	UVG091112-01A	GEL	LCS	5G	1	N/A	4	S	ACJ	N/A	O	
12/16/2009	18:56	4P300005.D	BLANK	GEL	BLANK	5G	1	N/A	5	S	ACJ	N/A	O	
12/16/2009	23:06	4P300006.D	242439001	LANL	933924	5G	1	N/A	6	S	ACJ	N/A	O	
12/16/2009	23:35	4P300007.D	242439002	LANL	933924	5G	1	N/A	7	S	ACJ	N/A	O	
12/17/2009	0:05	4P300008.D	242439003	LANL	933924	5G	1	N/A	8	S	ACJ	N/A	O	
12/17/2009	0:34	4P300009.D	242439004	LANL	933924	5G	1	N/A	9	S	ACJ	N/A	O	
12/17/2009	1:04	4P300010.D	242439005	LANL	933924	5G	1	N/A	10	S	ACJ	N/A	O	
12/17/2009	1:34	4P300011.D	242439006	LANL	933924	5G	1	N/A	11	S	ACJ	N/A	X	RR 50X; SEE 4P400006
12/17/2009	2:03	4P300012.D	242439007	LANL	933924	5G	1	N/A	12	S	ACJ	N/A	X	RR NEAT; SEE 4P400007
12/17/2009	2:33	4P300013.D	UVG090915-01C	GEL	CCV	5ML	1	N/A	13	W	ACJ	N/A	O	
12/17/2009	3:03	4P300014.D	242439008	LANL	933924	5G	1	N/A	14	S	ACJ	N/A	O	
12/17/2009	3:32	4P300015.D	242439009	LANL	933924	5G	1	N/A	15	S	ACJ	N/A	O	
12/17/2009	4:02	4P300016.D	242439010	LANL	933924	5G	1	N/A	16	S	ACJ	N/A	O	
12/17/2009	4:31	4P300017.D	242439011	LANL	933924	5G	1	N/A	17	S	ACJ	N/A	O	
12/17/2009	5:01	4P300018.D	242439012	LANL	933924	5G	1	N/A	18	S	ACJ	N/A	O	
12/17/2009	5:31	4P300019.D	1201998166	LANL	933924	5G	1	N/A	19	S	ACJ	N/A	O	
12/17/2009	6:00	4P300020.D	1201998167	LANL	933924	5G	1	N/A	20	S	ACJ	N/A	O	
12/17/2009	6:30	4P300021.D	UVG090915-01C	GEL	CCV	5ML	1	N/A	21	W	ACJ	N/A	O	

General Engineering Laboratories, LLC
Revision:11/22/04

ORGANIC RUN LOG - INSTRUMENT ID#VOC4A

Date: 12/17/2009 Method 8015 Operator ACJ

REVIEWED BY: _____
DATE: _____

HARDWARE CONFIGURATION & METHOD CONDITIONS SUMMARY No# 1

Daily Instrument Readings:
Multiplier Voltage: N/A

CALIBRATION & CC INFORMATION:

Initial Calibration Date: 12/7/2009

(See pg. 129 for ICAL Std. Sci. Ids)

NaHSO4 lot # N/A

Cl test lot # N/A

Sequence Number: VOC4A 121709

Daily Standard Volume Added for Purge (ul)

	Solution ID#	Blk/ Smpl	CCV	MS/ LCS	RT
CCV	UVG090915-01C		5		
IS	N/A				
SS	UVG091022-01D	2.5	2.5	2.5	2.5
LCS/MS	UVG091112-01A			5	
RTCHECK	WVG091217-01				5+5
C5/C12 RTCHECK	N/A				5

Purge Amount

5	Water Purge Vol:
5G	Soil Purge Wt.
X	Mid level ext. MeOH Vol:
100	ul
CZ937	Methanol Lot #
x	Heated Purge

Analysis Date Time	Data File	Lab Sample ID	Client	Batch #	Wt.(g) or Vol(ml/ul)	Dil. Factor	pH	AS Slot #	Matrix w or s	Analyst	Cl test (Y/N)	Acceptable(√/X)	Comments
12/17/2009 16:45	4P400001.D	WVG091217-01	GEL	RTCHECK	5ML	1	N/A	1	W	ACJ	N/A	O	UVG090909-01A/UVG081212-02B
12/17/2009 17:15	4P400002.D	UVG090915-01C	GEL	CCV	5ML	1	N/A	2	W	ACJ	N/A	O	
12/17/2009 17:44	4P400003.D	UVG091112-01A	GEL	LCS	5G	1	N/A	3	S	ACJ	N/A	O	
12/17/2009 18:14	4P400004.D	BLANK	GEL	BLANK	5G	1	N/A	4	S	ACJ	N/A	O	
12/17/2009 21:45	4P400005.D	HB	GEL	933924	100UL	50	N/A	5	S	ACJ	N/A	O	
12/17/2009 22:15	4P400006.D	242439006	LANL	933924	100UL	50	N/A	6	S	ACJ	N/A	O	
12/17/2009 22:44	4P400007.D	242439007	LANL	933924	5G	1	N/A	7	S	ACJ	N/A	O	
12/17/2009 23:14	4P400008.D	242445002	LANL	933924	5G	1	N/A	8	S	ACJ	N/A	O	
12/17/2009 23:44	4P400009.D	242447001	LANL	933924	5G	1	N/A	9	S	ACJ	N/A	O	
12/18/2009 0:13	4P400010.D	242447003	LANL	933924	5G	1	N/A	10	S	ACJ	N/A	O	
12/18/2009 0:43	4P400011.D	242784003	LANL	933924	5G	1	N/A	11	S	ACJ	N/A	O	
12/18/2009 1:12	4P400012.D	242784004	LANL	933924	5G	1	N/A	12	S	ACJ	N/A	O	
12/18/2009 1:42	4P400013.D	UVG090915-01C	GEL	CCV	5ML	1	N/A	13	W	ACJ	N/A	O	

GEL Laboratories LLC

SW-846 3rd edition 8015 Modified

Data file : /chem/voc4a.i/121609/4p300006.d
Lab Smp Id: 242439001 Client Smp ID: RE03-09-14098
Inj Date : 16-DEC-2009 23:06
Operator : ACJ Inst ID: voc4a.i
Smp Info : |242439001|1|
Misc Info : |VOC8015_LF|933924|GROF|
Comment : FID
Method : /chem/voc4a.i/121609/8015GRO-120709.m
Meth Date : 22-Dec-2009 18:05 amj Quant Type: ESTD
Cal Date : 07-DEC-2009 19:47 Cal File: 4o100008.d
Als bottle: 6
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: GRO.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M)*(Vt/Ws))*Uf * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	8.99500	% Moisture
Vt	5.00000	Purge Volume (mL)
Ws	5.00000	Weight of sample (g)
Uf	1.00000	Unit Correction Factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	
S	1 Gasoline Range Organics					CAS #:	
	2.869- 10.944			13227902	12.9278	14.2	(a)
$	3 Bromofluorobenzene					CAS #: 460-00-4	
	9.511	9.513	-0.002	28229093	35.1773	38.6	

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

Data File: /chem/voc4a.i/121609/4p300006.d
Date : 16-DEC-2009 23:06
Client ID: RE03-09-14098
Sample Info: |242439001|1|

Column phase: Rtx-Volatiles

Instrument: voc4a.i

Operator: ACJ
Column diameter: 0.25

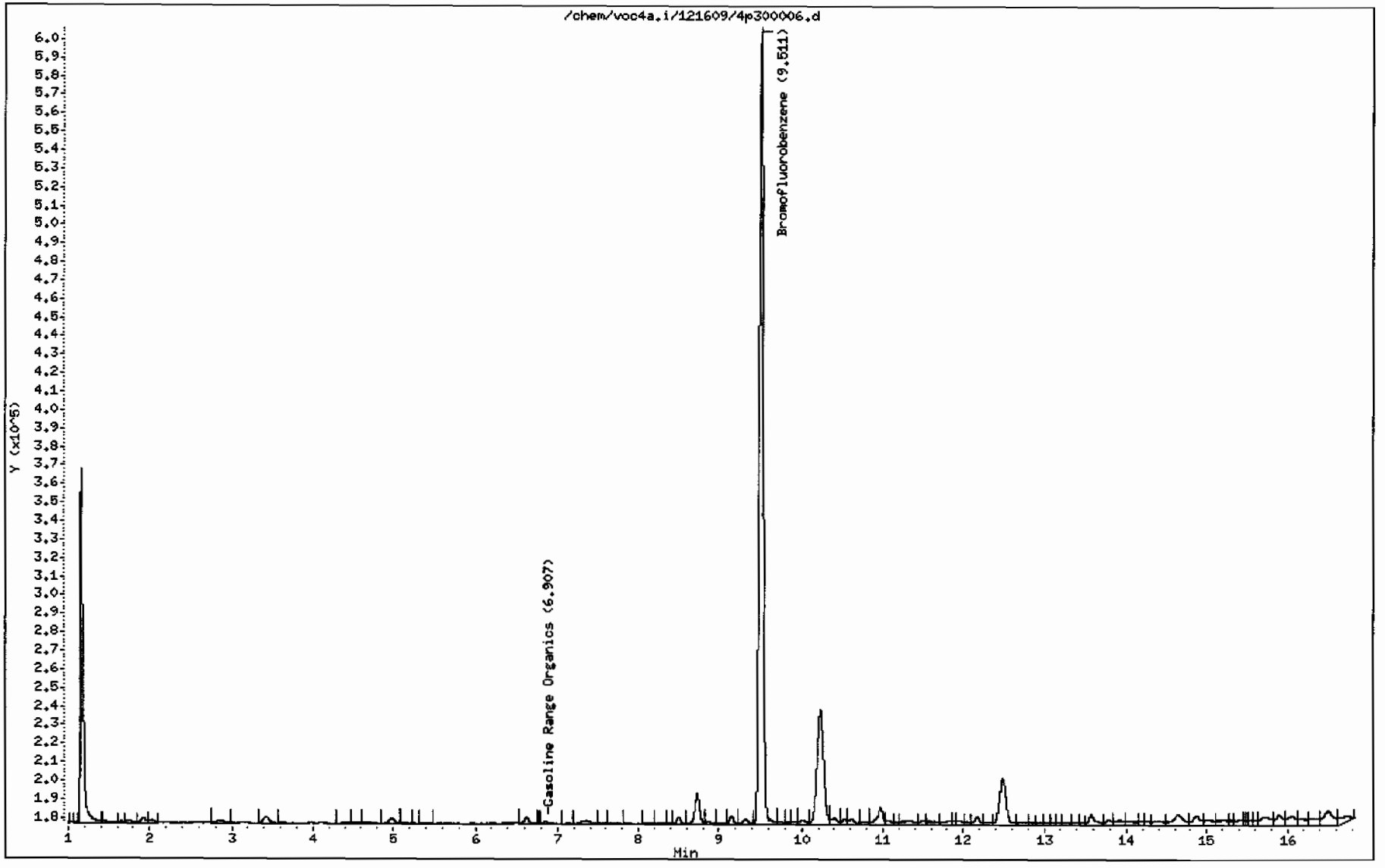

GEL Laboratories LLC

SW-846 3rd edition 8015 Modified

Data file : /chem/voc4a.i/121609/4p300019.d
Lab Smp Id: 1201998166 Client Smp ID: RE03-09-14098MS
Inj Date : 17-DEC-2009 05:31
Operator : ACJ Inst ID: voc4a.i
Smp Info : |1201998166|1|
Misc Info : |VOC8015_LF|933924|GROF|
Comment : FID
Method : /chem/voc4a.i/121609/8015GRO-120709.m
Meth Date : 22-Dec-2009 18:05 amj Quant Type: ESTD
Cal Date : 07-DEC-2009 19:47 Cal File: 4o100008.d
Als bottle: 19 QC Sample: MS
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: GRO.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M)*(Vt/Ws))*Uf * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	8.99500	% Moisture
Vt	5.00000	Purge Volume (mL)
Ws	5.00000	Weight of sample (g)
Uf	1.00000	Unit Correction Factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)
S 1 Gasoline Range Organics					CAS #:
2.869- 10.944			354046773	346.014	380
$ 3 Bromofluorobenzene					CAS #: 460-00-4
9.514	9.513	0.001	22516189	28.0582	30.8

Data File: /chem/voc4a.i/121609/4p300019.d
Date : 17-DEC-2009 05:31
Client ID: RE03-09-14098MS
Sample Info: |120199816611|

Column phase: Rtx-Volatiles

Instrument: voc4a.i

Operator: ACJ
Column diameter: 0.25

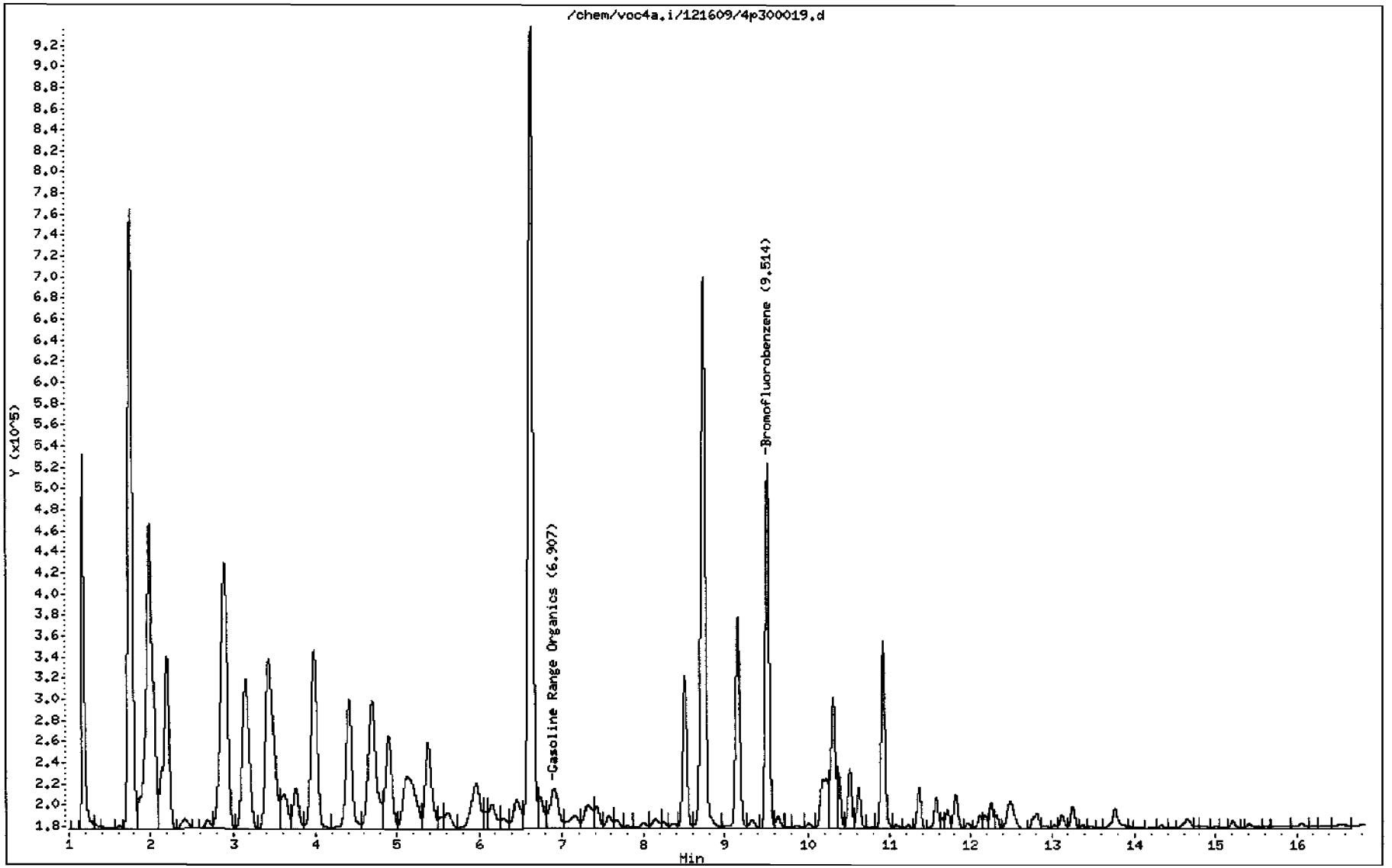

GEL Laboratories LLC

SW-846 3rd edition 8015 Modified

Data file : /chem/voc4a.i/121609/4p300020.d
Lab Smp Id: 1201998167 Client Smp ID: RE03-09-14098MSD
Inj Date : 17-DEC-2009 06:00
Operator : ACJ Inst ID: voc4a.i
Smp Info : |1201998167|1|
Misc Info : |VOC8015_LF|933924|GROF|
Comment : FID
Method : /chem/voc4a.i/121609/8015GRO-120709.m
Meth Date : 22-Dec-2009 18:05 amj Quant Type: ESTD
Cal Date : 07-DEC-2009 19:47 Cal File: 4o100008.d
Als bottle: 20 QC Sample: MSD
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: GRO.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M)*(Vt/Ws))*Uf * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	8.99500	% Moisture
Vt	5.00000	Purge Volume (mL)
Ws	5.00000	Weight of sample (g)
Uf	1.00000	Unit Correction Factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)
S	1 Gasoline Range Organics					CAS #:
	2.869-	10.944		351006124	343.042	377
$	3 Bromofluorobenzene					CAS #: 460-00-4
	9.514	9.513	0.001	23522606	29.3123	32.2

Data File: /chem/voc4a.i/121609/4p300020.d

Page 1

Date : 17-DEC-2009 06:00

Client ID: RE03-09-14098MSD

Instrument: voc4a.i

Sample Info: |1201998167|1|

Operator: ACJ

Column phase: Rtx-Volatiles

Column diameter: 0.25

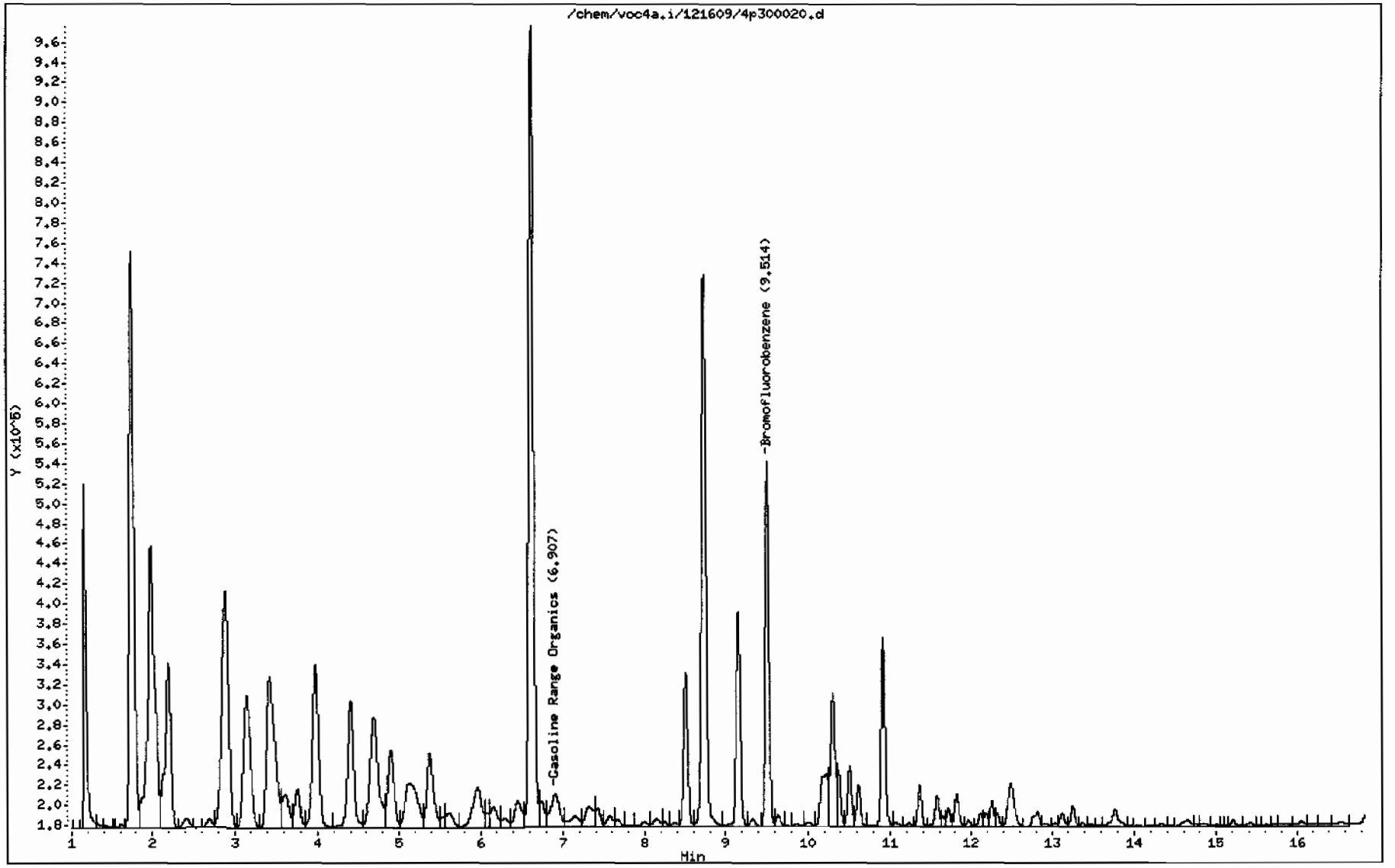

GC SEMIVOLATILE PESTICIDE ANALYSIS

Pesticide Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-899

Method/Analysis Information

Procedure:	**Analysis of Organochlorine Pesticides and Chlorinated Hydrocarbons by ECD**
Analytical Method:	SW846 8081A
Prep Method:	SW846 3550B
Analytical Batch Number:	932994
Prep Batch Number:	932993

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 8081A:

Sample ID	Client ID
242784003	WST03-10-2145
242784004	WST03-10-2146
1201995977	Method Blank (MB)
1201995978	Laboratory Control Sample (LCS)
1201995981	Laboratory Control Sample (LCS)-Toxaphene LCS Only
1201995979	242784003(WST03-10-2145) Matrix Spike (MS)
1201995980	242784003(WST03-10-2145) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on a "dry weight" basis.

Preparation/Analytical Method Verification

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-041 REV# 10.

Raw data reports are processed and reviewed by the analyst using the Target software package. False positives have been removed from the Target quantitation reports per standard operating procedures (SOP) section 23.0.

Calibration Information

Please note that the 'Cal Date' indicated on each quantitation report reflects the date and time of the most recent calibrated analyte(s) in the Target processing method. Since the laboratory may calibrate with multiple solutions on different days using the same processing method, the Target software will update the 'Cal Date' to the last calibration file, date and time. The correct dates and times for all calibration files are located on the Calibration History report in the Standard Data section in the data package.

Due to software limitations, the Calibration Summary Form 6 may not indicate all the calibration files comprising the initial calibration. A complete list of the initial calibration data files are shown in the Calibration History report located in the Standard Data section of the data package.

Initial Calibration
All initial calibration requirements have been met for this sample delivery group (SDG).

The linear equation used in Target and indicated on the initial calibration summary form is not a conventional linear equation (slope intercept formula) and does not match the equation found in SW-846 method 8000B. The x and y axes are inversed in Target, so that the instrument response is treated as the independent variable (x) and the concentration ratio is treated as the dependent variable (y). The equation used in Target to calculate sample results is adjusted to account for the linear equation inversion and reciprocal slope. The adjusted calculation has been independently verified to produce valid results.

Continuing Calibration Verification (CCV) Requirements
All calibration verification standards (CVS, ICV, or CCV) requirements have not been met for this SDG.

Several target analytes failed acceptance criteria with a positive bias in the standards bracketing the samples in this SDG. The positive bias for the analytical data is a result of instrument response increasing after the initial calibration. These target analytes were not detected above the PQL in the samples; therefore, the non-compliance has no adverse effects on the data.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB(s) analyzed with this SDG met the acceptance criteria.

Surrogate Recoveries
All surrogate recoveries were within the established acceptance criteria for this SDG.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

QC Sample Designation
Sample 242784003 (WST03-10-2145) was selected for the matrix spike and matrix spike duplicate analysis.

Matrix Spike (MS) Recovery Statement
The MS recoveries for this SDG were within the established acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recoveries for this SDG were within the established acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD(s) between the MS and MSD met the acceptance limits.

Technical Information:

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP. Additionally, copper was added to all sample extracts to remove sulfur. Florisil was used in the prep step for this batch.

Sample Dilutions
Samples 1201995979 (WST03-10-2145MS), 1201995980 (WST03-10-2145MSD), 242784003 (WST03-10-2145) and 242784004 (WST03-10-2146) were diluted at 1:5 due to the viscous nature of the matrix.

Sample Re-extraction/Re-analysis
Re-extractions or re-analyses were not required in this SDG.

Miscellaneous Information:

Electronic Package Comment

This package was generated using an electronic data processing program referred to as "virtual packaging". In an effort to increase quality and efficiency, the laboratory is developing systems to eventually generate all data packages electronically. The following change from "traditional" packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative.

Nonconformance (NCR) Documentation
Nonconformance reports (NCRs) are for documentation of any procedural anomalies that may deviate from referenced SOP or contractual document. A NCR was not required for this SDG.

Manual Integrations
Certain standards and samples may have required manual integration to correctly position the baseline as set in the calibration standard injections. If manual integration was performed, copies of all manual integration peak profiles are included in the raw data section of this pesticide fraction.

Additional Comments
The additional comments field is used to address special issues associated with each analysis, clarify method/contractual issues pertaining to the analysis, and to list any report documents generated as a result of sample analysis or review. The following additional comments were required:

The lower results from either column have been chosen and reported in the data package for the client samples, MB and LCS. The data reported for the MS and MSD are from the same analytical column as the parent sample.

The data reported on the form I and III may differ slightly from the data reported on the form X. This is due to software limitations in rounding differences between the forms.

Due to software limitation, the Form VIIs will display the results either in the % difference or % drift depending on the type of the calibration curve. If the curve of all analytes is generated using an average response factor (RF), the Form VII will display results using the difference calculation (RF). If the curve of one or more analytes is generated using a linear curve, the Form VII will display results using the % drift calculation (by concentration) for all analytes.

System Configuration

The Semi-Volatiles-Pesticide analysis was performed on the following instrument configuration:

Instrument ID	Instrument	System Configuration	Column ID	Column Description
ECD7A.I_1	HP Gas Chromatograph	HP6890 Series ECD	Rtx-CLP I	30m x 0.25mm, 0.25um (Rtx-CLPesticide I)
ECD7A.I_2	HP Gas Chromatograph	HP6890 Series ECD	Rtx-CLP II	30m x 0.25mm, 0.20um (Rtx-CLPesticide II)

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Andy Whitlock Date: 12-23-2009

Roadmap for LANL 10-899 PEST

This roadmap was analyzed by jam00798 on 12-18-2009, 08:31.
This roadmap was reviewed by jcb on 12-18-2009, 09:19.
This roadmap was packaged by yml on 12-22-2009, 10:51.

Front Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd7a.i/121609.b/030f3001.d	242784003	sample	16-DEC-2009	21:36	10-899.sub	WST03-10-2145	5.00000	932994	USE: LOWER
☐	N	/chem/ecd7a.i/121609.b/033f3301.d	242784004	sample	16-DEC-2009	22:20	10-899.sub	WST03-10-2146	5.00000	932994	USE: LOWER

Back Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd7a.i/121609.b/030b3001.d	242784003	sample	16-DEC-2009	21:36	10-899.sub	WST03-10-2145	5.00000	932994	USE: LOWER
☐	N	/chem/ecd7a.i/121609.b/033b3301.d	242784004	sample	16-DEC-2009	22:20	10-899.sub	WST03-10-2146	5.00000	932994	USE: LOWER

Front QC Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd7a.i/121609.b/026f2601A.d	1201995977	mb	16-DEC-2009	20:37	10-899.sub	PBLK01	1.00000	932994	USE: LOWER
☐	N	/chem/ecd7a.i/121609.b/027f2701A.d	1201995978	lcs	16-DEC-2009	20:51	10-899.sub	PBLK01LCS	1.00000	932994	USE: LOWER
☐	N	/chem/ecd7a.i/121609.b/028f2801A.d	1201995981	lcs	16-DEC-2009	21:06	10-899.sub	PBLK01TLCS	1.00000	932994	USE: LOWER
☐	N	/chem/ecd7a.i/121609.b/031f3101.d	1201995979	ms	16-DEC-2009	21:51	10-899.sub	WST03-10-2145MS	5.00000	932994	USE: LOWER
☐	N	/chem/ecd7a.i/121609.b/032f3201.d	1201995980	msd	16-DEC-2009	22:06	10-899.sub	WST03-10-2145MSD	5.00000	932994	USE: LOWER

Back QC Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd7a.i/121609.b/026b2601A.d	1201995977	mb	16-DEC-2009	20:37	10-899.sub	PBLK01	1.00000	932994	USE: LOWER
☐	N	/chem/ecd7a.i/121609.b/027b2701A.d	1201995978	lcs	16-DEC-2009	20:51	10-899.sub	PBLK01LCS	1.00000	932994	USE: LOWER
☐	N	/chem/ecd7a.i/121609.b/028b2801A.d	1201995981	lcs	16-DEC-2009	21:06	10-899.sub	PBLK01TLCS	1.00000	932994	USE: LOWER
☐	N	/chem/ecd7a.i/121609.b/031b3101.d	1201995979	ms	16-DEC-2009	21:51	10-899.sub	WST03-10-2145MS	5.00000	932994	USE: LOWER
☐	N	/chem/ecd7a.i/121609.b/032b3201.d	1201995980	msd	16-DEC-2009	22:06	10-899.sub	WST03-10-2145MSD	5.00000	932994	USE: LOWER

SAMPLE DATA SUMMARY

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	10-899	**Date Collected:**	12/10/2009 12:00	**Matrix:**	R
Lab Sample ID:	242784003	**Date Received:**	12/12/2009 09:35	**%Moisture:**	6.7
		Client:	LANL010	**Project:**	LANL01004
Client ID:	WST03-10-2145	**Method:**	SW846 8081A	**SOP Ref:**	GL-OA-E-041
Batch ID:	932994	**Inst:**	ECD7A.I	**Dilution:**	5
Run Date:	12/16/2009 21:36	**Analyst:**	JXM	**Inj. Vol:**	1 uL
Prep Date:	12/15/2009 10:35	**Aliquot:**	30 g	**Final Volume:**	5 mL
Data File:	030f3001.d	**Column:**	1 CLP-1	**Level:**	LOW
	030b3001.d		2 CLP-2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
319-84-6	alpha-BHC	U	3.57	ug/kg	0.893	3.57	1
58-89-9	gamma-BHC (Lindane)	U	3.57	ug/kg	0.893	3.57	1
319-85-7	beta-BHC	U	3.57	ug/kg	0.893	3.57	1
319-86-8	delta-BHC	U	3.57	ug/kg	0.893	3.57	1
76-44-8	Heptachlor	U	3.57	ug/kg	0.893	3.57	1
309-00-2	Aldrin	U	3.57	ug/kg	0.893	3.57	1
1024-57-3	Heptachlor epoxide	U	3.57	ug/kg	1.12	3.57	1
5103-74-2	gamma-Chlordane	U	3.57	ug/kg	0.893	3.57	1
5103-71-9	alpha-Chlordane	U	3.57	ug/kg	0.893	3.57	1
959-98-8	Endosulfan I	U	3.57	ug/kg	0.893	3.57	1
72-55-9	4,4'-DDE	U	7.15	ug/kg	1.79	7.15	1
60-57-1	Dieldrin	U	7.15	ug/kg	1.79	7.15	1
72-20-8	Endrin	U	7.15	ug/kg	1.79	7.15	1
72-54-8	4,4'-DDD	U	7.15	ug/kg	1.79	7.15	1
33213-65-9	Endosulfan II	U	7.15	ug/kg	1.79	7.15	1
7421-93-4	Endrin aldehyde	U	7.15	ug/kg	1.79	7.15	1
50-29-3	4,4'-DDT	U	7.15	ug/kg	1.79	7.15	1
1031-07-8	Endosulfan sulfate	U	7.15	ug/kg	1.79	7.15	1
72-43-5	Methoxychlor	U	35.7	ug/kg	8.93	35.7	1
53494-70-5	Endrin ketone	U	7.15	ug/kg	1.79	7.15	1
8001-35-2	Toxaphene	U	89.3	ug/kg	29.7	89.3	1

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	10-899	**Date Collected:**	12/10/2009 12:00	**Matrix:**	R
Lab Sample ID:	242784004	**Date Received:**	12/12/2009 09:35	**%Moisture:**	9.8
		Client:	LANL010	**Project:**	LANL01004
Client ID:	WST03-10-2146	**Method:**	SW846 8081A	**SOP Ref:**	GL-OA-E-041
Batch ID:	932994	**Inst:**	ECD7A.I	**Dilution:**	5
Run Date:	12/16/2009 22:20	**Analyst:**	JXM	**Inj. Vol:**	1 uL
Prep Date:	12/15/2009 10:35	**Aliquot:**	30.01 g	**Final Volume:**	5 mL
Data File:	033f3301.d	**Column:**	1 CLP-1	**Level:**	LOW
	033b3301.d		2 CLP-2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
319-84-6	alpha-BHC	U	3.69	ug/kg	0.924	3.69	1
58-89-9	gamma-BHC (Lindane)	U	3.69	ug/kg	0.924	3.69	1
319-85-7	beta-BHC	U	3.69	ug/kg	0.924	3.69	1
319-86-8	delta-BHC	U	3.69	ug/kg	0.924	3.69	1
76-44-8	Heptachlor	U	3.69	ug/kg	0.924	3.69	1
309-00-2	Aldrin	U	3.69	ug/kg	0.924	3.69	1
1024-57-3	Heptachlor epoxide	U	3.69	ug/kg	1.15	3.69	1
5103-74-2	gamma-Chlordane	U	3.69	ug/kg	0.924	3.69	1
5103-71-9	alpha-Chlordane	U	3.69	ug/kg	0.924	3.69	1
959-98-8	Endosulfan I	U	3.69	ug/kg	0.924	3.69	1
72-55-9	4,4'-DDE	U	7.39	ug/kg	1.85	7.39	1
60-57-1	Dieldrin	U	7.39	ug/kg	1.85	7.39	1
72-20-8	Endrin	U	7.39	ug/kg	1.85	7.39	1
72-54-8	4,4'-DDD	U	7.39	ug/kg	1.85	7.39	1
33213-65-9	Endosulfan II	U	7.39	ug/kg	1.85	7.39	1
7421-93-4	Endrin aldehyde	U	7.39	ug/kg	1.85	7.39	1
50-29-3	4,4'-DDT	U	7.39	ug/kg	1.85	7.39	1
1031-07-8	Endosulfan sulfate	U	7.39	ug/kg	1.85	7.39	1
72-43-5	Methoxychlor	U	36.9	ug/kg	9.24	36.9	1
53494-70-5	Endrin ketone	U	7.39	ug/kg	1.85	7.39	1
8001-35-2	Toxaphene	U	92.4	ug/kg	30.8	92.4	1

QUALITY CONTROL SUMMARY

Pesticide

Surrogate Recovery Report

SDG Number: 10–899

Matrix Type: SOLID

CAP Column (1) : CLP–1 **CAP Column (2) : CLP–2**

Sample ID	Client ID	4CMX 1 %REC #		4CMX 2 %REC #		DCB 1 %REC #		DCB 2 %REC #	
1201995977	MB for batch 932993	68		68		106		101	
1201995978	LCS for batch 932993	82		84		103		106	
1201995981	LCS for batch 932993	79		79		106		104	
242784003	WST03–10–2145	62	D	62	D	85	D	87	D
1201995979	WST03–10–2145MS	71	D	71	D	93	D	89	D
1201995980	WST03–10–2145MSD	73	D	73	D	91	D	93	D
242784004	WST03–10–2146	75	D	74	D	81	D	82	D

Surrogate	Acceptance Limits
4CMX = 4cmx	(34%–105%)
DCB = Decachlorobiphenyl	(33%–115%)

* Recovery outside Acceptance Limits

\# Column to be used to flag recovery values

D Sample Diluted

Pesticide

Quality Control Summary
Spike Recovery Report

SDG Number: 10-899
Client ID: LCS for batch 932993
Lab Sample ID: 1201995978
Instrument: ECD7A.I
Analyst: JXM
Inj. Vol: 1 uL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 12/16/2009 20:51
Dilution: 1
Prep Batch ID: 932993
Batch ID: 932994

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
319-84-6	LCS	alpha-BHC	16.7	0.0	12.8	77	56-129
58-89-9	LCS	gamma-BHC (Lindane)	16.7	0.0	14.4	86	56-127
319-85-7	LCS	beta-BHC	16.7	0.0	13.6	82	54-117
319-86-8	LCS	delta-BHC	16.7	0.0	14.3	86	60-129
76-44-8	LCS	Heptachlor	16.7	0.0	15.5	93	55-127
309-00-2	LCS	Aldrin	16.7	0.0	13.1	78	54-123
1024-57-3	LCS	Heptachlor epoxide	16.7	0.0	13.9	83	58-122
5103-74-2	LCS	gamma-Chlordane	16.7	0.0	14.2	85	55-124
5103-71-9	LCS	alpha-Chlordane	16.7	0.0	14.4	86	56-120
959-98-8	LCS	Endosulfan I	16.7	0.0	14.5	87	51-119
72-55-9	LCS	4,4'-DDE	41.7	0.0	34.5	83	60-128
60-57-1	LCS	Dieldrin	41.7	0.0	34.9	84	59-119
72-20-8	LCS	Endrin	41.7	0.0	37.3	89	63-131
72-54-8	LCS	4,4'-DDD	41.7	0.0	36.7	88	61-131
33213-65-9	LCS	Endosulfan II	41.7	0.0	37.3	90	59-120
7421-93-4	LCS	Endrin aldehyde	41.7	0.0	29.8	72	55-125
50-29-3	LCS	4,4'-DDT	41.7	0.0	42.1	101	63-139
1031-07-8	LCS	Endosulfan sulfate	41.7	0.0	38.0	91	60-127
72-43-5	LCS	Methoxychlor	167	0.0	203	122	59-143
53494-70-5	LCS	Endrin ketone	41.7	0.0	44.9	108	59-132

Pesticide

Quality Control Summary
Spike Recovery Report

SDG Number: 10-899
Client ID: LCS for batch 932993
Lab Sample ID: 1201995981
Instrument: ECD7A.I
Analyst: JXM
Inj. Vol: 1 uL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 12/16/2009 21:06
Dilution: 1
Prep Batch ID: 932993
Batch ID: 932994

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
8001-35-2	LCS Toxaphene	133	0.0	134	101	48-131

Pesticide

Quality Control Summary
Spike Recovery Report

SDG Number: 10-899
Client ID: WST03-10-2145MS
Lab Sample ID: 1201995979
Instrument: ECD7A.I
Analyst: JXM
Inj. Vol: 1 uL

Sample Type: Matrix Spike
Matrix: R
%Moisture: 6.7
Analysis Date: 12/16/2009 21:51
Prep Batch ID: 932993
Batch ID: 932994

Dilution: 5

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
319-84-6	MS	alpha-BHC	17.9	0.00	U	12.5	70	41-132
58-89-9	MS	gamma-BHC (Lindane)	17.9	0.00	U	14.1	79	43-127
319-85-7	MS	beta-BHC	17.9	0.00	U	15.6	87	36-130
319-86-8	MS	delta-BHC	17.9	0.00	U	15.0	84	39-134
76-44-8	MS	Heptachlor	17.9	0.00	U	15.5	87	41-133
309-00-2	MS	Aldrin	17.9	0.00	U	13.7	77	41-128
1024-57-3	MS	Heptachlor epoxide	17.9	0.00	U	14.7	82	39-133
5103-74-2	MS	gamma-Chlordane	17.9	0.00	U	15.2	85	37-133
5103-71-9	MS	alpha-Chlordane	17.9	0.00	U	15.3	85	40-122
959-98-8	MS	Endosulfan I	17.9	0.00	U	15.4	86	32-126
72-55-9	MS	4,4'-DDE	44.6	0.00	U	38.2	86	42-138
60-57-1	MS	Dieldrin	44.6	0.00	U	37.3	84	38-132
72-20-8	MS	Endrin	44.6	0.00	U	42.5	95	45-139
72-54-8	MS	4,4'-DDD	44.6	0.00	U	41.2	92	41-139
33213-65-9	MS	Endosulfan II	44.6	0.00	U	41.2	92	35-130
7421-93-4	MS	Endrin aldehyde	44.6	0.00	U	29.6	66	29-126
50-29-3	MS	4,4'-DDT	44.6	0.00	U	47.0	105	38-155
1031-07-8	MS	Endosulfan sulfate	44.6	0.00	U	37.8	85	39-131
72-43-5	MS	Methoxychlor	179	0.00	U	189	106	44-153
53494-70-5	MS	Endrin ketone	44.6	0.00	U	44.1	99	41-133

Pesticide

Quality Control Summary
Spike Recovery Report

SDG Number:	10-899	**Sample Type:**	Matrix Spike Duplicate
Client ID:	WST03-10-2145MSD	**Matrix:**	R
Lab Sample ID:	1201995980	**%Moisture:**	6.7
Instrument:	ECD7A.I	**Analysis Date:**	12/16/2009 22:06
Analyst:	JXM	**Prep Batch ID**	932993
Inj. Vol:	1 uL	**Batch ID:**	932994

Dilution: 5

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
319-84-6	MSD alpha-BHC	17.9	0.00	U	12.4	70	41-132	0	0-30
58-89-9	MSD gamma-BHC (Lindane)	17.9	0.00	U	14.8	83	43-127	5	0-30
319-85-7	MSD beta-BHC	17.9	0.00	U	16.3	91	36-130	5	0-30
319-86-8	MSD delta-BHC	17.9	0.00	U	15.7	88	39-134	4	0-30
76-44-8	MSD Heptachlor	17.9	0.00	U	15.8	88	41-133	2	0-30
309-00-2	MSD Aldrin	17.9	0.00	U	14.4	80	41-128	5	0-30
1024-57-3	MSD Heptachlor epoxide	17.9	0.00	U	15.3	86	39-133	4	0-30
5103-74-2	MSD gamma-Chlordane	17.9	0.00	U	15.7	88	37-133	4	0-30
5103-71-9	MSD alpha-Chlordane	17.9	0.00	U	15.9	89	40-122	4	0-30
959-98-8	MSD Endosulfan I	17.9	0.00	U	16.1	90	32-126	5	0-30
72-55-9	MSD 4,4'-DDE	44.6	0.00	U	39.3	88	42-138	3	0-30
60-57-1	MSD Dieldrin	44.6	0.00	U	38.4	86	38-132	3	0-30
72-20-8	MSD Endrin	44.6	0.00	U	43.8	98	45-139	3	0-30
72-54-8	MSD 4,4'-DDD	44.6	0.00	U	41.5	93	41-139	1	0-30
33213-65-9	MSD Endosulfan II	44.6	0.00	U	41.7	93	35-130	1	0-30
7421-93-4	MSD Endrin aldehyde	44.6	0.00	U	29.4	66	29-126	1	0-30
50-29-3	MSD 4,4'-DDT	44.6	0.00	U	47.2	106	38-155	0	0-30
1031-07-8	MSD Endosulfan sulfate	44.6	0.00	U	38.5	86	39-131	2	0-30
72-43-5	MSD Methoxychlor	179	0.00	U	191	107	44-153	1	0-30
53494-70-5	MSD Endrin ketone	44.6	0.00	U	45.0	101	41-133	2	0-30

Method Blank Summary

SDG Number:	10-899	Client:	LANL010	Matrix:	SOIL
Client ID:	MB for batch 932993	Instrument ID:	ECD7A.I_2 ECD7A.I_1	Data File:	026b2601.d 026f2601.d
Lab Sample ID:	1201995977				
Column:	CLP-2 CLP-1	Prep Date:	12/15/2009 10:35	Analyzed:	12/16/09 20:37
		Level:	LOW		

This method blank applies to the following samples and quality control samples:

Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01 LCS for batch 932993	1201995978	027f2701.d 027b2701.d	12/16/09	2051
02 LCS for batch 932993	1201995981	028f2801.d 028b2801.d	12/16/09	2106
03 WST03-10-2145	242784003	030f3001.d 030b3001.d	12/16/09	2136
04 WST03-10-2145MS	1201995979	031f3101.d 031b3101.d	12/16/09	2151
05 WST03-10-2145MSD	1201995980	032f3201.d 032b3201.d	12/16/09	2206
06 WST03-10-2146	242784004	033f3301.d 033b3301.d	12/16/09	2220

SAMPLE
DATA

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	10–899	**Date Collected:**	12/10/2009 12:00	**Matrix:**	R
Lab Sample ID:	242784003	**Date Received:**	12/12/2009 09:35	**%Moisture:**	6.7
		Client:	LANL010	**Project:**	LANL01004
Client ID:	WST03–10–2145	**Method:**	SW846 8081A	**SOP Ref:**	GL–OA–E–041
Batch ID:	932994	**Inst:**	ECD7A.I	**Dilution:**	5
Run Date:	12/16/2009 21:36	**Analyst:**	JXM	**Inj. Vol:**	1 uL
Prep Date:	12/15/2009 10:35	**Aliquot:**	30 g	**Final Volume:**	5 mL
Data File:	030f3001.d	**Column:**	1 CLP–1	**Level:**	LOW
	030b3001.d		2 CLP–2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
319–84–6	alpha–BHC	U	3.57	ug/kg	0.893	3.57	1
58–89–9	gamma–BHC (Lindane)	U	3.57	ug/kg	0.893	3.57	1
319–85–7	beta–BHC	U	3.57	ug/kg	0.893	3.57	1
319–86–8	delta–BHC	U	3.57	ug/kg	0.893	3.57	1
76–44–8	Heptachlor	U	3.57	ug/kg	0.893	3.57	1
309–00–2	Aldrin	U	3.57	ug/kg	0.893	3.57	1
1024–57–3	Heptachlor epoxide	U	3.57	ug/kg	1.12	3.57	1
5103–74–2	gamma–Chlordane	U	3.57	ug/kg	0.893	3.57	1
5103–71–9	alpha–Chlordane	U	3.57	ug/kg	0.893	3.57	1
959–98–8	Endosulfan I	U	3.57	ug/kg	0.893	3.57	1
72–55–9	4,4'–DDE	U	7.15	ug/kg	1.79	7.15	1
60–57–1	Dieldrin	U	7.15	ug/kg	1.79	7.15	1
72–20–8	Endrin	U	7.15	ug/kg	1.79	7.15	1
72–54–8	4,4'–DDD	U	7.15	ug/kg	1.79	7.15	1
33213–65–9	Endosulfan II	U	7.15	ug/kg	1.79	7.15	1
7421–93–4	Endrin aldehyde	U	7.15	ug/kg	1.79	7.15	1
50–29–3	4,4'–DDT	U	7.15	ug/kg	1.79	7.15	1
1031–07–8	Endosulfan sulfate	U	7.15	ug/kg	1.79	7.15	1
72–43–5	Methoxychlor	U	35.7	ug/kg	8.93	35.7	1
53494–70–5	Endrin ketone	U	7.15	ug/kg	1.79	7.15	1
8001–35–2	Toxaphene	U	89.3	ug/kg	29.7	89.3	1

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CLP-1

Data file : /chem/ecd7a.i/121609.b/030f3001.d
Lab Smp Id: 242784003 Client Smp ID: WST03-10-2145
Inj Date : 16-DEC-2009 21:36
Operator : JXM Inst ID: ecd7a.i
Smp Info : |242784003|5|
Misc Info : |ECD81A_1S|932994|SVPF|LANL|
Comment :
Method : /chem/ecd7a.i/121609.b/ECD7-F-8081-121609.m
Meth Date : 17-Dec-2009 09:53 jam00798 Quant Type: ESTD
Cal Date : 09-DEC-2009 14:57 Cal File: 025f2501.d
Als bottle: 30
Dil Factor: 5.00000
Integrator: Falcon Compound Sublist: 10-899.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	5.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weigth of sample extracted (g)
M	6.70440	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.811	2.810	0.001	59437944	24.9770	22.3	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
6.509	6.515	-0.006	47388031	34.1744	30.5	80.00- 120.00	100.00

Data File: /chem/ecd7a.i/121609.b/030f3001.d

Date : 16-DEC-2009 21:36

Client ID: WST03-10-2145

Sample Info: 1242784003151

Volume Injected (uL): 1.0

Column phase: CLP-1

Instrument: ecd7a.i

Operator: JXH

Column diameter: 0.25

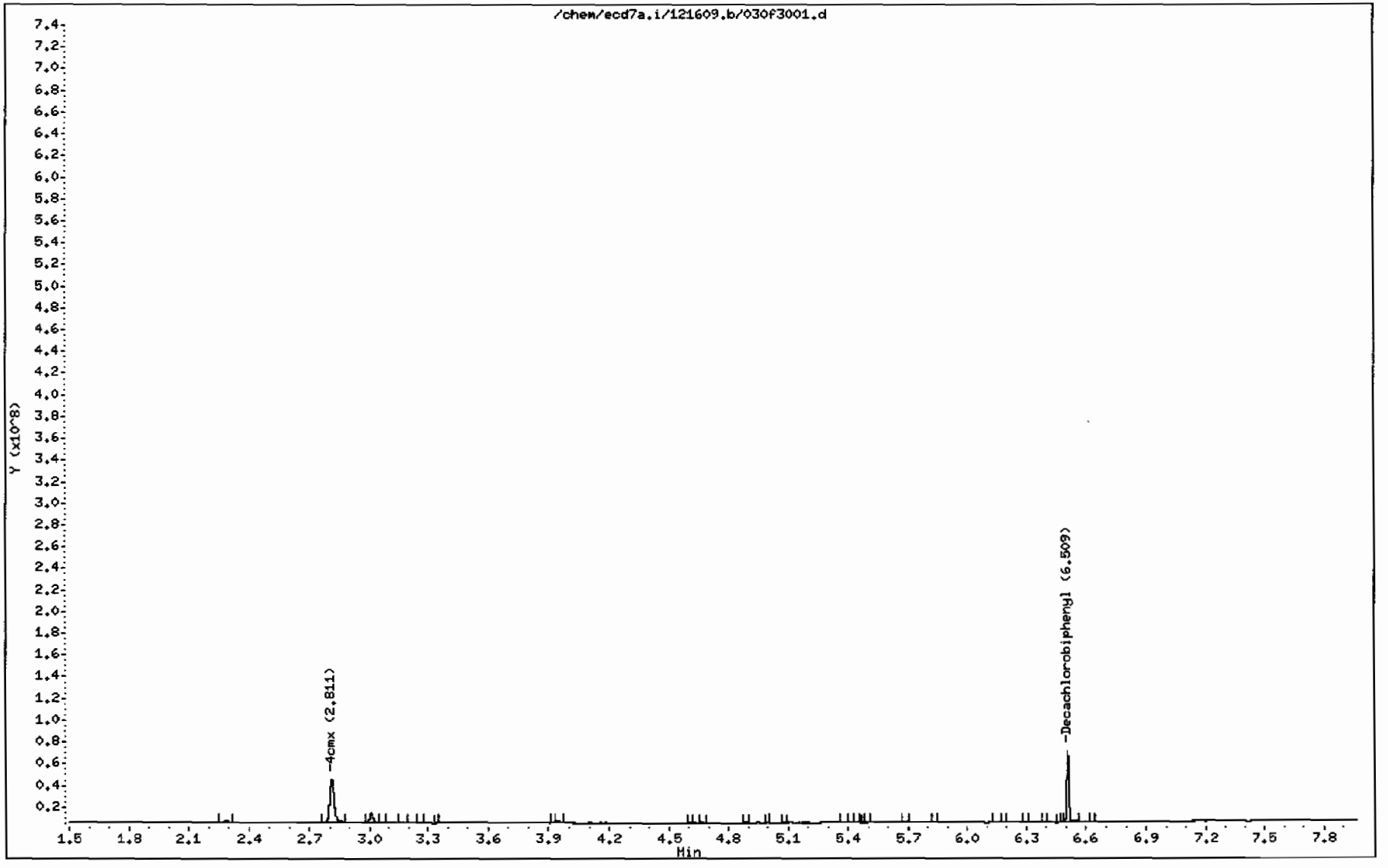

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd7a.i/121609.b/030b3001.d
Lab Smp Id: 242784003 Client Smp ID: WST03-10-2145
Inj Date : 16-DEC-2009 21:36
Operator : JXM Inst ID: ecd7a.i
Smp Info : |242784003|5|
Misc Info : |ECD81A_1S|932994|SVPF|LANL|
Comment :
Method : /chem/ecd7a.i/121609.b/ECD7-B-8081-121609.m
Meth Date : 17-Dec-2009 09:53 jam00798 Quant Type: ESTD
Cal Date : 09-DEC-2009 14:57 Cal File: 025b2501.d
Als bottle: 30
Dil Factor: 5.00000
Integrator: Falcon Compound Sublist: 10-899.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	5.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weigth of sample extracted (g)
M	6.70440	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
3.064	3.063	0.001	70074166	24.7740	22.1	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.019	7.025	-0.006	53065264	34.7657	31.0	80.00- 120.00	100.00

Data File: /chem/ecd7a.i/121609.b/030b3001.d

Page 1

Date : 16-DEC-2009 21:36

Client ID: WST03-10-2145

Instrument: ecd7a.i

Sample Info: |242784003151

Volume Injected (uL): 1.0

Operator: JXM

Column phase: CLP-2

Column diameter: 0.25

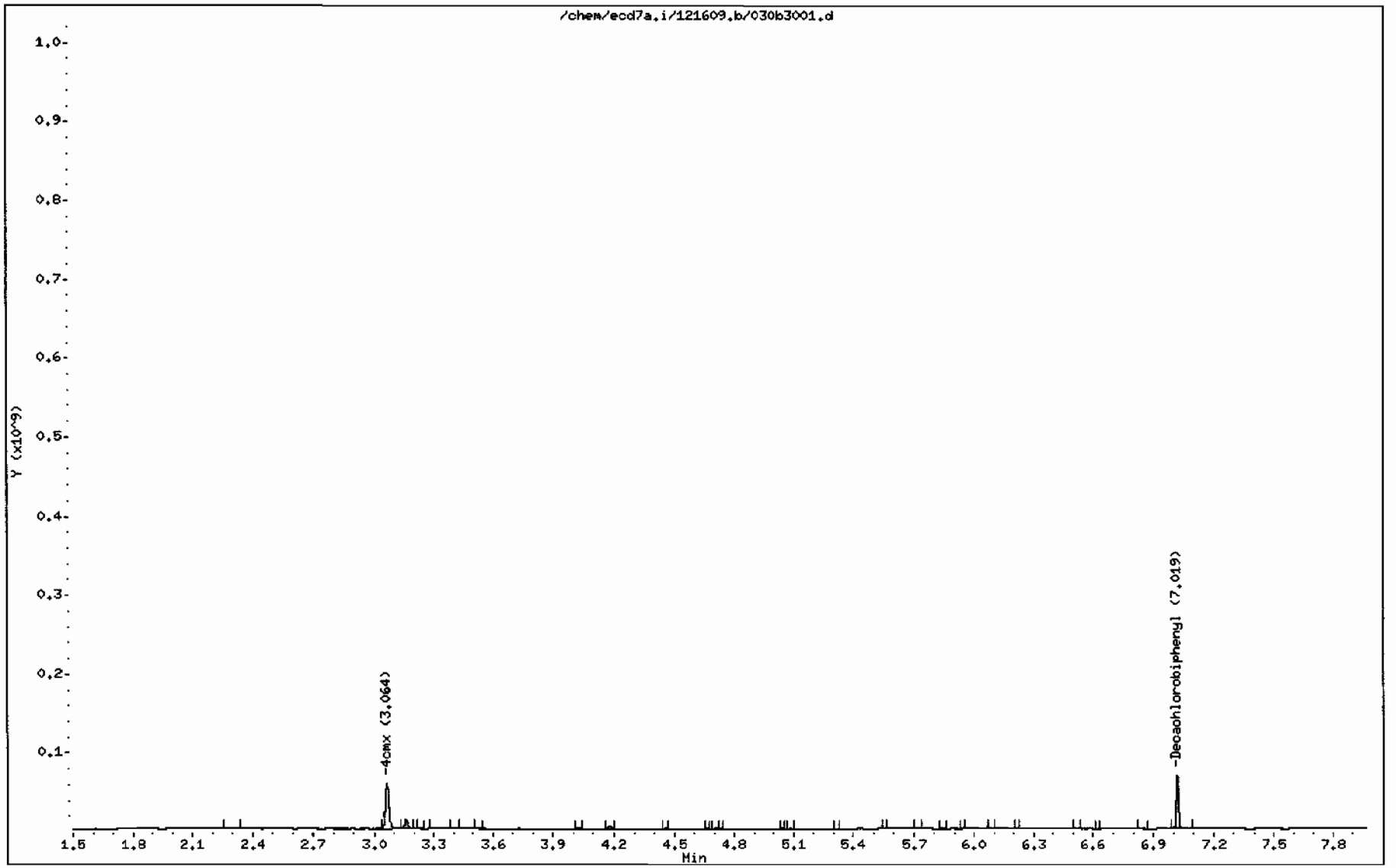

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	10-899	**Date Collected:**	12/10/2009 12:00	**Matrix:**	R
Lab Sample ID:	242784004	**Date Received:**	12/12/2009 09:35	**%Moisture:**	9.8
		Client:	LANL010	**Project:**	LANL01004
Client ID:	WST03-10-2146	**Method:**	SW846 8081A	**SOP Ref:**	GL-OA-E-041
Batch ID:	932994	**Inst:**	ECD7A.I	**Dilution:**	5
Run Date:	12/16/2009 22:20	**Analyst:**	JXM	**Inj. Vol:**	1 uL
Prep Date:	12/15/2009 10:35	**Aliquot:**	30.01 g	**Final Volume:**	5 mL
Data File:	033f3301.d	**Column:**	1 CLP-1	**Level:**	LOW
	033b3301.d		2 CLP-2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
319-84-6	alpha-BHC	U	3.69	ug/kg	0.924	3.69	1
58-89-9	gamma-BHC (Lindane)	U	3.69	ug/kg	0.924	3.69	1
319-85-7	beta-BHC	U	3.69	ug/kg	0.924	3.69	1
319-86-8	delta-BHC	U	3.69	ug/kg	0.924	3.69	1
76-44-8	Heptachlor	U	3.69	ug/kg	0.924	3.69	1
309-00-2	Aldrin	U	3.69	ug/kg	0.924	3.69	1
1024-57-3	Heptachlor epoxide	U	3.69	ug/kg	1.15	3.69	1
5103-74-2	gamma-Chlordane	U	3.69	ug/kg	0.924	3.69	1
5103-71-9	alpha-Chlordane	U	3.69	ug/kg	0.924	3.69	1
959-98-8	Endosulfan I	U	3.69	ug/kg	0.924	3.69	1
72-55-9	4,4'-DDE	U	7.39	ug/kg	1.85	7.39	1
60-57-1	Dieldrin	U	7.39	ug/kg	1.85	7.39	1
72-20-8	Endrin	U	7.39	ug/kg	1.85	7.39	1
72-54-8	4,4'-DDD	U	7.39	ug/kg	1.85	7.39	1
33213-65-9	Endosulfan II	U	7.39	ug/kg	1.85	7.39	1
7421-93-4	Endrin aldehyde	U	7.39	ug/kg	1.85	7.39	1
50-29-3	4,4'-DDT	U	7.39	ug/kg	1.85	7.39	1
1031-07-8	Endosulfan sulfate	U	7.39	ug/kg	1.85	7.39	1
72-43-5	Methoxychlor	U	36.9	ug/kg	9.24	36.9	1
53494-70-5	Endrin ketone	U	7.39	ug/kg	1.85	7.39	1
8001-35-2	Toxaphene	U	92.4	ug/kg	30.8	92.4	1

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd7a.i/121609.b/033f3301.d
Lab Smp Id: 242784004 Client Smp ID: WST03-10-2146
Inj Date : 16-DEC-2009 22:20
Operator : JXM Inst ID: ecd7a.i
Smp Info : |242784004|5|
Misc Info : |ECD81A_1S|932994|SVPF|LANL|
Comment :
Method : /chem/ecd7a.i/121609.b/ECD7-F-8081-121609.m
Meth Date : 17-Dec-2009 09:53 jam00798 Quant Type: ESTD
Cal Date : 09-DEC-2009 14:57 Cal File: 025f2501.d
Als bottle: 33
Dil Factor: 5.00000
Integrator: Falcon Compound Sublist: 10-899.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	5.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.01000	Weigth of sample extracted (g)
M	9.79830	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.808	2.810	-0.002	71646092	30.1071	27.8	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
6.508	6.515	-0.007	44853166	32.3463	29.9	80.00- 120.00	100.00

Data File: /chem/ecd7a.i/121609.b/033f3301.d

Date : 16-DEC-2009 22:20

Client ID: WST03-10-2146

Sample Info: [242784004|5]

Volume Injected (uL): 1.0

Column phase: CLP-1

Instrument: ecd7a.i

Operator: JXM

Column diameter: 0.25

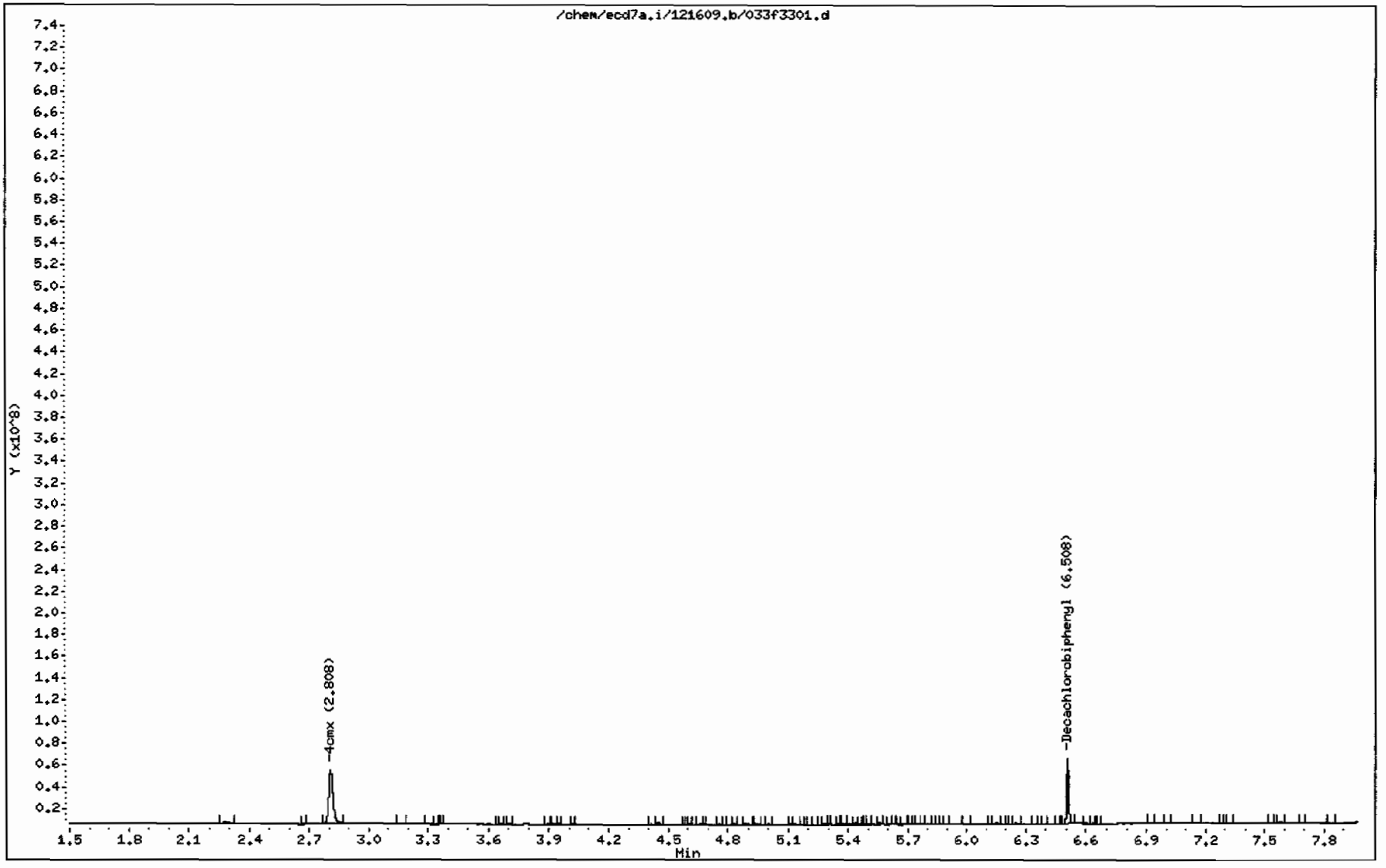

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd7a.i/121609.b/033b3301.d
Lab Smp Id: 242784004 Client Smp ID: WST03-10-2146
Inj Date : 16-DEC-2009 22:20
Operator : JXM Inst ID: ecd7a.i
Smp Info : |242784004|5|
Misc Info : |ECD81A_1S|932994|SVPF|LANL|
Comment :
Method : /chem/ecd7a.i/121609.b/ECD7-B-8081-121609.m
Meth Date : 17-Dec-2009 09:53 jam00798 Quant Type: ESTD
Cal Date : 09-DEC-2009 14:57 Cal File: 025b2501.d
Als bottle: 33
Dil Factor: 5.00000
Integrator: Falcon Compound Sublist: 10-899.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	5.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.01000	Weigth of sample extracted (g)
M	9.79830	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
3.063	3.063	0.000	84129945	29.7433	27.5	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.019	7.025	-0.006	49762288	32.6017	30.1	80.00- 120.00	100.00

Data File: /chem/ecd7a.i/121609.b/033b3301.d

Date : 16-DEC-2009 22:20

Client ID: WST03-10-2146

Sample Info: |242784004|5|

Volume Injected (uL): 1.0

Column phase: CLP-2

Instrument: ecd7a.i

Operator: JXM

Column diameter: 0.25

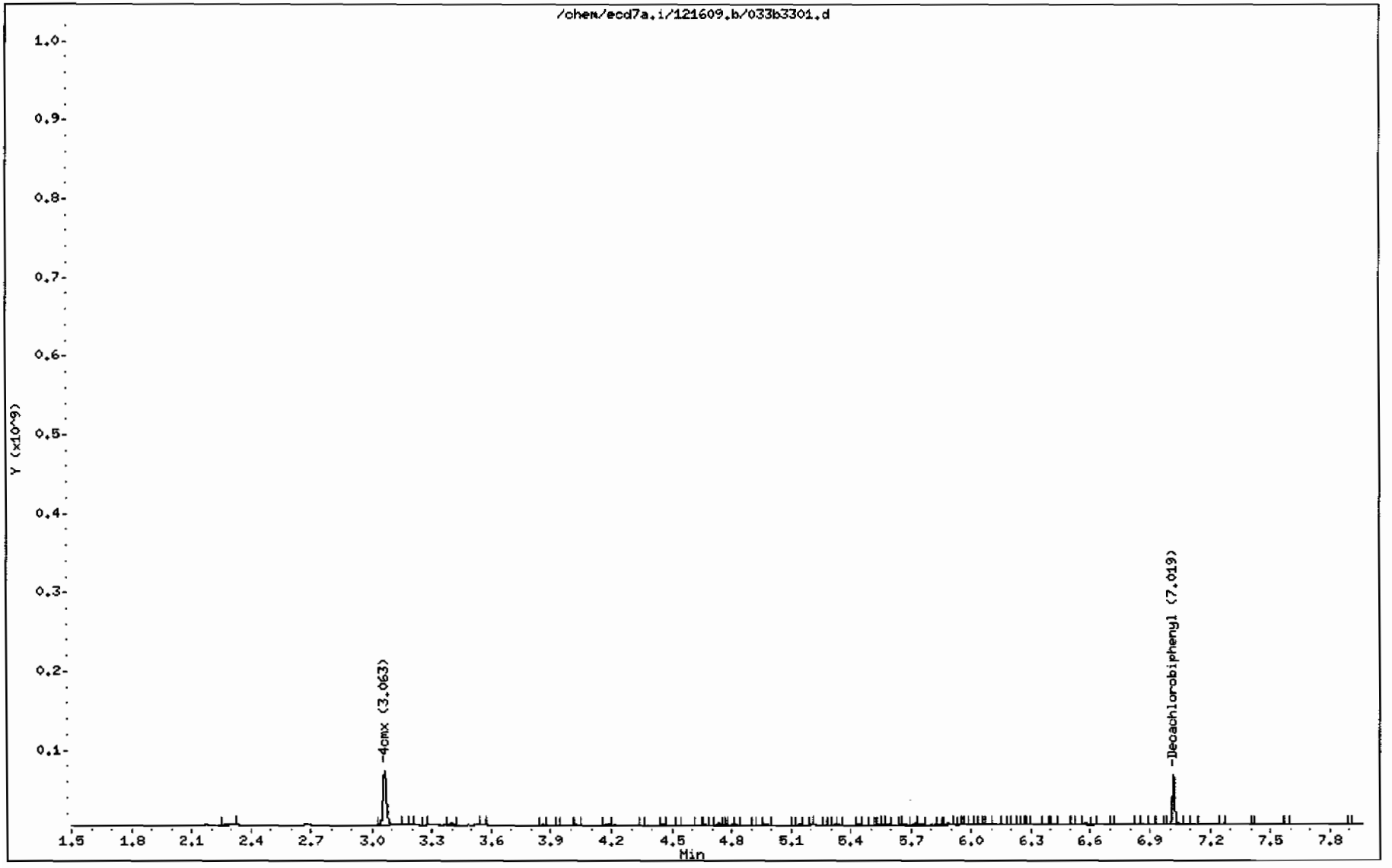

STANDARDS DATA

Report Date: 17-Dec-2009 07:40

Calibration History

Method : /chem/ecd7a.i/121609.b/ECD7-F-8081-121609.m
Start Cal Date: 08-SEP-2009 19:34
End Cal Date : 16-DEC-2009 18:43

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 2.00000		
09-DEC-2009 13:58	ar1660	/chem/ecd7a.i/120909-608.b/021f2101.d
14-DEC-2009 16:09	gapa	/chem/ecd7a.i/121409.b/007f0701.d
16-DEC-2009 17:44	chlor	/chem/ecd7a.i/121609.b/015f1501.d
16-DEC-2009 16:15	tox	/chem/ecd7a.i/121609.b/009f0901.d
16-DEC-2009 14:46	indab	/chem/ecd7a.i/121609.b/003f0301.d
Cal Level: 2 , Cal Amount: 10.00000		
09-DEC-2009 14:13	ar1660	/chem/ecd7a.i/120909-608.b/022f2201.d
14-DEC-2009 16:24	gapa	/chem/ecd7a.i/121409.b/008f0801.d
16-DEC-2009 17:59	chlor	/chem/ecd7a.i/121609.b/016f1601.d
16-DEC-2009 16:30	tox	/chem/ecd7a.i/121609.b/010f1001.d
16-DEC-2009 15:00	indab	/chem/ecd7a.i/121609.b/004f0401.d
Cal Level: 3 , Cal Amount: 50.00000		
09-DEC-2009 14:27	ar1660	/chem/ecd7a.i/120909-608.b/023f2301.d
14-DEC-2009 16:39	gapa	/chem/ecd7a.i/121409.b/009f0901.d
16-DEC-2009 18:14	chlor	/chem/ecd7a.i/121609.b/017f1701.d
16-DEC-2009 16:44	tox	/chem/ecd7a.i/121609.b/011f1101.d
16-DEC-2009 15:15	indab	/chem/ecd7a.i/121609.b/005f0501.d
Cal Level: 4 , Cal Amount: 100.00000		
09-DEC-2009 16:26	ar1221	/chem/ecd7a.i/120909-608.b/031f3101.d
09-DEC-2009 16:11	ar1232	/chem/ecd7a.i/120909-608.b/030f3001.d
09-DEC-2009 15:57	ar1248	/chem/ecd7a.i/120909-608.b/029f2901.d
09-DEC-2009 15:42	ar1242	/chem/ecd7a.i/120909-608.b/028f2801.d
09-DEC-2009 15:27	ar1254	/chem/ecd7a.i/120909-608.b/027f2701.d
09-DEC-2009 14:42	ar1660	/chem/ecd7a.i/120909-608.b/024f2401.d
14-DEC-2009 16:54	gapa	/chem/ecd7a.i/121409.b/010f1001.d
16-DEC-2009 18:29	chlor	/chem/ecd7a.i/121609.b/018f1801.d
16-DEC-2009 16:59	tox	/chem/ecd7a.i/121609.b/012f1201.d
16-DEC-2009 15:30	indab	/chem/ecd7a.i/121609.b/006f0601.d
Cal Level: 5 , Cal Amount: 200.00000		
09-DEC-2009 14:57	ar1660	/chem/ecd7a.i/120909-608.b/025f2501.d
14-DEC-2009 17:09	gapa	/chem/ecd7a.i/121409.b/011f1101.d
16-DEC-2009 18:43	chlor	/chem/ecd7a.i/121609.b/019f1901.d
16-DEC-2009 17:14	tox	/chem/ecd7a.i/121609.b/013f1301.d
16-DEC-2009 15:45	indab	/chem/ecd7a.i/121609.b/007f0701.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 100		
16-DEC-2009 18:58	chlor	/chem/ecd7a.i/121609.b/020f2001.d
Ccal Level: 4 , Ccal Amount: 100		
16-DEC-2009 18:29	chlor	/chem/ecd7a.i/121609.b/018f1801.d
Ccal Level: 4 , Ccal Amount: 100		
16-DEC-2009 17:29	tox	/chem/ecd7a.i/121609.b/014f1401.d
Ccal Level: 4 , Ccal Amount: 100		
16-DEC-2009 16:59	tox	/chem/ecd7a.i/121609.b/012f1201.d
Ccal Level: 4 , Ccal Amount: 100		
16-DEC-2009 16:00	indab	/chem/ecd7a.i/121609.b/008f0801.d
Ccal Level: 4 , Ccal Amount: 100		
16-DEC-2009 15:30	indab	/chem/ecd7a.i/121609.b/006f0601.d

Report Date: 17-Dec-2009 07:38

Calibration History

Method : /chem/ecd7a.i/121609.b/ECD7-B-8081-121609.m
Start Cal Date: 08-SEP-2009 19:34
End Cal Date : 16-DEC-2009 18:43

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 2.00000		
09-DEC-2009 13:58	ar1660	/chem/ecd7a.i/120909-608.b/021b2101.d
14-DEC-2009 16:09	gapa	/chem/ecd7a.i/121409.b/007b0701.d
16-DEC-2009 17:44	chlor	/chem/ecd7a.i/121609.b/015b1501.d
16-DEC-2009 16:15	tox	/chem/ecd7a.i/121609.b/009b0901.d
16-DEC-2009 14:46	indab	/chem/ecd7a.i/121609.b/003b0301.d
Cal Level: 2 , Cal Amount: 10.00000		
09-DEC-2009 14:13	ar1660	/chem/ecd7a.i/120909-608.b/022b2201.d
14-DEC-2009 16:24	gapa	/chem/ecd7a.i/121409.b/008b0801.d
16-DEC-2009 17:59	chlor	/chem/ecd7a.i/121609.b/016b1601.d
16-DEC-2009 16:30	tox	/chem/ecd7a.i/121609.b/010b1001.d
16-DEC-2009 15:00	indab	/chem/ecd7a.i/121609.b/004b0401.d
Cal Level: 3 , Cal Amount: 50.00000		
09-DEC-2009 14:27	ar1660	/chem/ecd7a.i/120909-608.b/023b2301.d
14-DEC-2009 16:39	gapa	/chem/ecd7a.i/121409.b/009b0901.d
16-DEC-2009 18:14	chlor	/chem/ecd7a.i/121609.b/017b1701.d
16-DEC-2009 16:44	tox	/chem/ecd7a.i/121609.b/011b1101.d
16-DEC-2009 15:15	indab	/chem/ecd7a.i/121609.b/005b0501.d
Cal Level: 4 , Cal Amount: 100.00000		
09-DEC-2009 16:26	ar1221	/chem/ecd7a.i/120909-608.b/031b3101.d
09-DEC-2009 16:11	ar1232	/chem/ecd7a.i/120909-608.b/030b3001.d
09-DEC-2009 15:57	ar1248	/chem/ecd7a.i/120909-608.b/029b2901.d
09-DEC-2009 15:42	ar1242	/chem/ecd7a.i/120909-608.b/028b2801.d
09-DEC-2009 15:27	ar1254	/chem/ecd7a.i/120909-608.b/027b2701.d
09-DEC-2009 14:42	ar1660	/chem/ecd7a.i/120909-608.b/024b2401.d
14-DEC-2009 16:54	gapa	/chem/ecd7a.i/121409.b/010b1001.d
16-DEC-2009 18:29	chlor	/chem/ecd7a.i/121609.b/018b1801.d
16-DEC-2009 16:59	tox	/chem/ecd7a.i/121609.b/012b1201.d
16-DEC-2009 15:30	indab	/chem/ecd7a.i/121609.b/006b0601.d
Cal Level: 5 , Cal Amount: 200.00000		
09-DEC-2009 14:57	ar1660	/chem/ecd7a.i/120909-608.b/025b2501.d
14-DEC-2009 17:09	gapa	/chem/ecd7a.i/121409.b/011b1101.d
16-DEC-2009 18:43	chlor	/chem/ecd7a.i/121609.b/019b1901.d
16-DEC-2009 17:14	tox	/chem/ecd7a.i/121609.b/013b1301.d
16-DEC-2009 15:45	indab	/chem/ecd7a.i/121609.b/007b0701.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 100		
16-DEC-2009 18:58	chlor	/chem/ecd7a.i/121609.b/020b2001.d
Ccal Level: 4 , Ccal Amount: 100		
16-DEC-2009 18:29	chlor	/chem/ecd7a.i/121609.b/018b1801.d
Ccal Level: 4 , Ccal Amount: 100		
16-DEC-2009 17:29	tox	/chem/ecd7a.i/121609.b/014b1401.d
Ccal Level: 4 , Ccal Amount: 100		
16-DEC-2009 16:59	tox	/chem/ecd7a.i/121609.b/012b1201.d
Ccal Level: 4 , Ccal Amount: 100		
16-DEC-2009 16:00	indab	/chem/ecd7a.i/121609.b/008b0801.d
Ccal Level: 4 , Ccal Amount: 100		
16-DEC-2009 15:30	indab	/chem/ecd7a.i/121609.b/006b0601.d

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd7a.i/121609.b/ECD7-F-8081-121609.m
Quant Method : ESTD Target Version : 3.50
Last Update : 17-Dec-2009 07:40 Number of Cpnds : 42
Data Type : GC MULTI COMP

Global Integrator : Falcon

Chromat Events	Values
Initial:Start Threshold	10005.000000
Initial:End Threshold	5002.500000
Initial:Area Threshold	100050.000000
Initial:P-P Resolution	1.000000
Initial:Bunch Factor	3.000000
Initial:Negative Peaks	OFF
Initial:Tension	0.000000

Compound	RT	RT Window	RF
$ 1 4cmx	2.810	2.780-2.840	2.380e+06
61 2,4,5-TCP	2.900	2.800-3.000	
59 Hexachlorobenzene	3.201	3.101-3.301	1.992e+06
2 Aroclor-1221	3.026	2.996-3.056	2.919e+04
	3.157	3.127-3.187	1.659e+04
	3.192	3.162-3.222	6.918e+04
3 Aroclor-1016	3.481	3.451-3.511	8.990e+04
	3.829	3.799-3.859	1.094e+05
	3.924	3.894-3.954	7.492e+04
	4.051	4.021-4.081	4.065e+04
	4.204	4.174-4.234	5.694e+04
4 Aroclor-1232	3.192	3.162-3.222	5.238e+04
	3.481	3.451-3.511	4.516e+04
	3.830	3.800-3.860	5.693e+04
	3.924	3.894-3.954	3.760e+04
	3.968	3.938-3.998	2.347e+04
5 alpha-BHC	3.318	3.288-3.348	3.052e+06
6 Aroclor-1242	3.479	3.379-3.579	7.349e+04
	3.829	3.729-3.929	8.658e+04
	3.924	3.824-4.024	6.036e+04
	4.203	4.103-4.303	4.627e+04
	4.497	4.397-4.597	4.689e+04
7 gamma-BHC (Lindane)	3.576	3.546-3.606	2.608e+06

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd7a.i/121609.b/ECD7-F-8081-121609.m

Compound	RT	RT Window	RF
8 Chlordane (tech.)	3.873	3.773-3.973	8.869e+04
	4.509	4.409-4.609	5.077e+04
	4.632	4.532-4.732	2.822e+05
	4.716	4.616-4.816	2.059e+05
	5.195	5.095-5.295	4.998e+04
9 Aroclor-1248	3.814	3.714-3.914	5.908e+04
	4.050	3.950-4.150	7.451e+04
	4.202	4.102-4.302	9.423e+04
	4.478	4.378-4.578	1.091e+05
	4.623	4.523-4.723	8.393e+04
10 Heptachlor	3.930	3.900-3.960	2.042e+06
11 Aldrin	4.143	4.113-4.173	2.653e+06
12 beta-BHC	3.645	3.615-3.675	1.155e+06
13 delta-BHC	3.780	3.750-3.810	2.703e+06
14 Heptachlor epoxide	4.551	4.521-4.581	2.327e+06
15 Aroclor-1254	4.452	4.422-4.482	7.648e+04
	4.616	4.586-4.646	1.321e+05
	4.868	4.838-4.898	1.322e+05
	5.037	5.007-5.067	9.968e+04
	5.318	5.288-5.348	1.279e+05
16 Endosulfan I	4.805	4.775-4.835	2.078e+06
17 gamma-Chlordane	4.631	4.601-4.661	2.265e+06
18 alpha-Chlordane	4.716	4.686-4.746	2.235e+06
19 4,4'-DDE	4.760	4.730-4.790	2.310e+06
20 Dieldrin	4.955	4.925-4.985	2.236e+06
21 Aroclor-1260	4.978	4.878-5.078	1.063e+05
	5.144	5.044-5.244	1.609e+05
	5.533	5.433-5.633	9.296e+04
	5.715	5.615-5.815	1.864e+05
	5.887	5.787-5.987	8.245e+04
22 Endrin	5.100	5.070-5.130	1.848e+06
23 Toxaphene	4.956	4.926-4.986	2.512e+04
	5.011	4.981-5.041	3.279e+04
	5.049	5.019-5.079	4.226e+04
	5.113	5.083-5.143	4.061e+04
	5.232	5.202-5.262	7.314e+04
24 Endosulfan II	5.238	5.208-5.268	1.780e+06
25 4,4'-DDD	5.129	5.099-5.159	1.811e+06
26 4,4'-DDT	5.298	5.268-5.328	1.291e+06
27 Endrin aldehyde	5.491	5.461-5.521	1.456e+06

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd7a.i/121609.b/ECD7-F-8081-121609.m

Compound	RT	RT Window	RF
28 Methoxychlor	5.581	5.551-5.611	4.407e+05
29 Endosulfan sulfate	5.754	5.724-5.784	1.535e+06
30 Aroclor-1268	13.480	13.380-13.580	
	13.587	13.487-13.687	
	13.984	13.884-14.084	
	14.586	14.486-14.686	
	15.182	15.082-15.282	
31 Endrin ketone	5.928	5.898-5.958	1.348e+06
51 Mirex	5.716	5.686-5.746	1.277e+06
52 C-Nonachlor	5.140	5.110-5.170	2.152e+06
53 O-Chlordane	4.509	4.479-4.539	1.650e+06
54 T-Nonachlor	4.728	4.698-4.758	1.831e+06
55 1,2-Dichlorobenzene	6.525	6.495-6.555	
56 2,4-DDE	4.566	4.536-4.596	1.179e+06
58 2,4-DDD	4.893	4.863-4.923	1.059e+06
57 2,4-DDT	5.049	5.019-5.079	1.001e+06
$ 32 Decachlorobiphenyl	6.515	6.485-6.545	1.387e+06

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd7a.i/121609.b/ECD7-B-8081-121609.m
Quant Method : ESTD Target Version : 3.50
Last Update : 17-Dec-2009 07:16 Number of Cpnds : 42
Data Type : GC MULTI COMP

Global Integrator : Falcon

Chromat Events	Values
Initial:Start Threshold	9270.000000
Initial:End Threshold	4635.000000
Initial:Area Threshold	92700.000000
Initial:P-P Resolution	1.000000
Initial:Bunch Factor	3.000000
Initial:Negative Peaks	OFF
Initial:Tension	0.000000

Compound	RT	RT Window	RF
$ 1 4cmx	3.063	3.033-3.093	2.829e+06
60 2,4,5-TCP	3.116	3.016-3.216	
59 Hexachlorobenzene	3.518	3.488-3.548	2.275e+06
2 Aroclor-1221	3.367	3.337-3.397	3.419e+04
	3.483	3.453-3.513	2.072e+04
	3.532	3.502-3.562	8.006e+04
3 Aroclor-1016	3.841	3.811-3.871	1.018e+05
	4.170	4.140-4.200	1.251e+05
	4.262	4.232-4.292	7.914e+04
	4.572	4.542-4.602	6.135e+04
	4.652	4.622-4.682	5.591e+04
4 Aroclor-1232	3.532	3.502-3.562	6.151e+04
	3.842	3.812-3.872	5.320e+04
	4.170	4.140-4.200	6.300e+04
	4.262	4.232-4.292	3.998e+04
	4.332	4.302-4.362	2.525e+04
5 alpha-BHC	3.601	3.571-3.631	3.823e+06
6 Aroclor-1242	3.841	3.811-3.871	8.271e+04
	4.170	4.140-4.200	1.011e+05
	4.261	4.231-4.291	6.384e+04
	4.572	4.542-4.602	4.908e+04
	4.842	4.812-4.872	5.595e+04
7 gamma-BHC (Lindane)	3.880	3.850-3.910	3.228e+06

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd7a.i/121609.b/ECD7-B-8081-121609.m

Compound	RT	RT Window	RF
8 Chlordane (tech.)	4.102	4.072-4.132	1.209e+05
	4.530	4.500-4.560	9.587e+04
	4.785	4.755-4.815	6.849e+04
	4.931	4.901-4.961	3.213e+05
	5.023	4.993-5.053	2.735e+05
9 Aroclor-1248	4.156	4.126-4.186	6.462e+04
	4.391	4.361-4.421	7.759e+04
	4.571	4.541-4.601	9.998e+04
	4.842	4.812-4.872	1.259e+05
	4.988	4.958-5.018	1.157e+05
10 Heptachlor	4.207	4.177-4.237	2.308e+06
11 Aldrin	4.436	4.406-4.466	3.373e+06
12 beta-BHC	3.939	3.909-3.969	1.377e+06
13 delta-BHC	4.155	4.125-4.185	3.297e+06
14 Heptachlor epoxide	4.811	4.781-4.841	2.858e+06
15 Aroclor-1254	4.841	4.811-4.871	9.425e+04
	4.955	4.925-4.985	1.024e+05
	5.245	5.215-5.275	1.513e+05
	5.380	5.350-5.410	1.067e+05
	5.707	5.677-5.737	1.157e+05
16 Endosulfan I	5.065	5.035-5.095	2.473e+06
17 gamma-Chlordane	4.931	4.901-4.961	2.838e+06
18 alpha-Chlordane	5.023	4.993-5.053	2.753e+06
19 4,4'-DDE	5.111	5.081-5.141	2.693e+06
20 Dieldrin	5.235	5.205-5.265	2.749e+06
21 Aroclor-1260	5.362	5.332-5.392	1.161e+05
	5.482	5.452-5.512	1.326e+05
	5.940	5.910-5.970	1.042e+05
	6.084	6.054-6.114	2.264e+05
	6.316	6.286-6.346	1.525e+05
22 Endrin	5.425	5.395-5.455	2.187e+06
23 Toxaphene	5.212	5.182-5.242	4.586e+04
	5.289	5.259-5.319	2.673e+04
	5.326	5.296-5.356	4.536e+04
	5.400	5.370-5.430	3.952e+04
	5.543	5.513-5.573	5.671e+04
24 Endosulfan II	5.551	5.521-5.581	2.087e+06
25 4,4'-DDD	5.464	5.434-5.494	2.022e+06
26 4,4'-DDT	5.657	5.627-5.687	1.149e+06
27 Endrin aldehyde	5.753	5.723-5.783	1.707e+06

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd7a.i/121609.b/ECD7-B-8081-121609.m

	Compound	RT	RT Window	RF
	28 Methoxychlor	6.059	6.029-6.089	3.824e+05
	29 Endosulfan sulfate	5.922	5.892-5.952	1.740e+06
	30 Aroclor-1268	13.562	13.532-13.592	
		13.571	13.541-13.601	
		13.999	13.969-14.029	
		14.579	14.549-14.609	
		15.083	15.053-15.113	
	31 Endrin ketone	6.260	6.230-6.290	1.532e+06
	51 Mirex	6.277	6.247-6.307	1.301e+06
	52 C-Nonachlor	5.496	5.466-5.526	2.457e+06
	53 O-Chlordane	4.782	4.752-4.812	1.941e+06
	54 T-Nonachlor	5.019	4.989-5.049	2.157e+06
	55 1,2-Dichlorobenzene	6.621	6.591-6.651	
	56 2,4-DDE	4.949	4.919-4.979	1.337e+06
	58 2,4-DDD	5.267	5.237-5.297	1.165e+06
	57 2,4-DDT	5.457	5.427-5.487	8.706e+05
$	32 Decachlorobiphenyl	7.025	6.995-7.055	1.526e+06

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 08-SEP-2009 19:34
End Cal Date : 16-DEC-2009 18:43
Quant Method : ESTD
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd7a.i/121609.b/ECD7-F-8081-121609.m
Cal Date : 17-Dec-2009 07:40 jam00798

Calibration File Names:
Level 1: /chem/ecd7a.i/120909-608.b/021f2101.d
Level 2: /chem/ecd7a.i/120909-608.b/022f2201.d
Level 3: /chem/ecd7a.i/120909-608.b/023f2301.d
Level 4: /chem/ecd7a.i/120909-608.b/031f3101.d
Level 5: /chem/ecd7a.i/120909-608.b/025f2501.d

Compound	2 Level 1	10 Level 2	50 Level 3	100 Level 4	200 Level 5	Curve	Coefficients b	m1	m2	%RSD or R^2
61 2,4,5-TCP	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
59 Hexachlorobenzene	2007002	2020317	1952080	1978473	1999998	AVRG		1991574		1.34417
2 Aroclor-1221 (1)	+++++	+++++	+++++	29193	+++++	AVRG		29193		0.000e+00
(2)	+++++	+++++	+++++	16594	+++++	AVRG		16594		0.000e+00
(3)	+++++	+++++	+++++	69180	+++++	AVRG		69180		0.000e+00
3 Aroclor-1016 (1)	104348	95347	91208	84571	74006	AVRG		89896		12.69747
(2)	122894	114543	109892	103378	96206	AVRG		109383		9.35825
(3)	85200	77993	75629	71606	64174	AVRG		74921		10.38360
(4)	46425	42086	40843	38760	35141	AVRG		40651		10.24430
(5)	65341	59291	57121	54034	48905	AVRG		56938		10.72395
4 Aroclor-1232 (1)	+++++	+++++	+++++	52379	+++++	AVRG		52379		0.000e+00
(2)	+++++	+++++	+++++	45164	+++++	AVRG		45164		0.000e+00
(3)	+++++	+++++	+++++	56932	+++++	AVRG		56932		0.000e+00
(4)	+++++	+++++	+++++	37597	+++++	AVRG		37597		0.000e+00
(5)	+++++	+++++	+++++	23469	+++++	AVRG		23469		0.000e+00
5 alpha-BHC	3113758	3144741	2990322	3013211	2997789	AVRG		3051964		2.35496
6 Aroclor-1242 (1)	+++++	+++++	+++++	73486	+++++	AVRG		73486		0.000e+00
(2)	+++++	+++++	+++++	86584	+++++	AVRG		86584		0.000e+00
(3)	+++++	+++++	+++++	60363	+++++	AVRG		60363		0.000e+00
(4)	+++++	+++++	+++++	46269	+++++	AVRG		46269		0.000e+00
(5)	+++++	+++++	+++++	46891	+++++	AVRG		46891		0.000e+00

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 08-SEP-2009 19:34
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Quant Method : ESTD
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd7a.i/121609.b/ECD7-F-8081-121609.m
Cal Date : 17-Dec-2009 07:40 jam00798

Compound	2 Level 1	10 Level 2	50 Level 3	100 Level 4	200 Level 5	Curve	Coefficients b	m1	m2	%RSD or R^2
7 gamma-BHC (Lindane)	2617680	2689567	2544846	2577230	2611479	AVRG		2608160		2.07310
8 Chlordane (tech.) (1)	93211	91913	87567	86290	84462	AVRG		88688		4.20858
(2)	53670	52781	50120	49370	47922	AVRG		50773		4.71753
(3)	302668	295316	273624	271357	267923	AVRG		282177		5.56375
(4)	226955	213695	199891	195071	194069	AVRG		205936		6.85616
(5)	61914	47497	44736	45921	49844	AVRG		49982		13.88207
9 Aroclor-1248 (1)	+++++	+++++	+++++	59084	+++++	AVRG		59084		0.000e+00
(2)	+++++	+++++	+++++	74512	+++++	AVRG		74512		0.000e+00
(3)	+++++	+++++	+++++	94226	+++++	AVRG		94226		0.000e+00
(4)	+++++	+++++	+++++	109058	+++++	AVRG		109058		0.000e+00
(5)	+++++	+++++	+++++	83930	+++++	AVRG		83930		0.000e+00
10 Heptachlor	1975154	2068780	2020606	2057788	2088188	AVRG		2042104		2.19349
11 Aldrin	2795634	2799682	2577979	2565872	2527971	AVRG		2653428		5.01078
12 beta-BHC	1246460	1230391	1114929	1096507	1087302	AVRG		1155118		6.65795
13 delta-BHC	2782444	2802339	2633183	2642549	2654923	AVRG		2703088		3.04053
14 Heptachlor epoxide	2551304	2503817	2259302	2202255	2118498	AVRG		2327035		8.18731
15 Aroclor-1254 (1)	+++++	+++++	+++++	76483	+++++	AVRG		76483		0.000e+00
(2)	+++++	+++++	+++++	132138	+++++	AVRG		132138		0.000e+00
(3)	+++++	+++++	+++++	132199	+++++	AVRG		132199		0.000e+00
(4)	+++++	+++++	+++++	99681	+++++	AVRG		99681		0.000e+00
(5)	+++++	+++++	+++++	127852	+++++	AVRG		127852		0.000e+00
16 Endosulfan I	2264199	2246397	2019302	1967064	1894352	AVRG		2078263		8.06972
17 gamma-Chlordane	2376534	2384052	2182581	2188138	2193211	AVRG		2264903		4.65524
18 alpha-Chlordane	2415582	2332164	2147875	2142583	2137122	AVRG		2235065		5.82336

GEL Laboratories LLC

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Method file : /chem/ecd7a.i/121609.b/ECD7-F-8081-121609.m
Cal Date : 17-Dec-2009 07:40 jam00798

Compound	2 Level 1	10 Level 2	50 Level 3	100 Level 4	200 Level 5	Curve	Coefficients b	m1	m2	%RSD or R^2
19 4,4'-DDE	2454921	2441221	2253651	2230995	2168403	AVRG		2309838		5.63175
20 Dieldrin	2422888	2400421	2189772	2139106	2025959	AVRG		2235629		7.66973
21 Aroclor-1260 (1)	121346	110515	106432	100070	93289	AVRG		106330		10.00022
(2)	183248	166423	160901	151699	142223	AVRG		160899		9.64557
(3)	104426	95248	92939	88167	84011	AVRG		92958		8.32859
(4)	199030	185258	185634	181021	181127	AVRG		186414		3.96155
(5)	95121	86347	81409	76048	73344	AVRG		82454		10.51616
22 Endrin	2051761	1987997	1813251	1741124	1643501	AVRG		1847527		9.20016
23 Toxaphene (1)	28684	26318	24868	23436	22300	AVRG		25121		9.95017
(2)	36357	34897	32210	30939	29552	AVRG		32791		8.54629
(3)	46449	46402	41623	39252	37590	AVRG		42263		9.60816
(4)	43820	42751	40771	38565	37141	AVRG		40609		6.86977
(5)	78346	75823	73427	70552	67572	AVRG		73144		5.80378
24 Endosulfan II	1970063	1849248	1758420	1716469	1605951	AVRG		1780030		7.72913
25 4,4'-DDD	1956420	1788268	1791628	1782355	1738586	AVRG		1811451		4.62715
26 4,4'-DDT	5931092	17638777	103861877	233065353	509675920	LINR	10.83202	1291365		0.99753
27 Endrin aldehyde	1617148	1582140	1397508	1388285	1297032	AVRG		1456423		9.41166
28 Methoxychlor	319072	409849	468234	492977	513167	AVRG		440660		17.75584
29 Endosulfan sulfate	1630004	1627911	1503091	1497275	1414222	AVRG		1534501		6.06845
30 Aroclor-1268 (1)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(2)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(3)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(4)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(5)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 08-SEP-2009 19:34
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Method file : /chem/ecd7a.i/121609.b/ECD7-F-8081-121609.m
Cal Date : 17-Dec-2009 07:40 jam00798

Compound	2 Level 1	10 Level 2	50 Level 3	100 Level 4	200 Level 5	Curve	Coefficients b	m1	m2	%RSD or R^2
31 Endrin ketone	1230664	1376191	1355303	1384606	1392625	AVRG		1347878		4.96956
51 Mirex	1328039	1281209	1249002	1261241	1265846	AVRG		1277067		2.40692
52 C-Nonachlor	2163808	2149036	2147904	2168574	2131084	AVRG		2152081		0.68810
53 O-Chlordane	1719073	1697078	1643517	1627444	1564810	AVRG		1650384		3.68502
54 T-Nonachlor	1853670	1836627	1816727	1833804	1812109	AVRG		1830587		0.91131
55 1,2-Dichlorobenzene	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
56 2,4-DDE	1232354	1226443	1188933	1156005	1089930	AVRG		1178733		4.95732
58 2,4-DDD	1101342	1109161	1059112	1038438	988839	AVRG		1059378		4.63728
57 2,4-DDT	901262	995044	1027656	1047047	1032676	AVRG		1000737		5.87294
$ 1 4cmx	2473469	2480656	2307407	2295107	2341914	AVRG		2379711		3.80494
$ 32 Decachlorobiphenyl	1506022	1434547	1326325	1347975	1318402	AVRG		1386654		5.85168

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Curve	Formula	Units
Averaged	Amt = Rsp/ml	Response
Linear	Amt = b + Rsp/ml	Response

GEL Laboratories LLC

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Cal Date : 17-Dec-2009 09:53 jam00798

Calibration File Names:
Level 1: /chem/ecd7a.i/120909-608.b/021b2101.d
Level 2: /chem/ecd7a.i/120909-608.b/022b2201.d
Level 3: /chem/ecd7a.i/120909-608.b/023b2301.d
Level 4: /chem/ecd7a.i/120909-608.b/031b3101.d
Level 5: /chem/ecd7a.i/120909-608.b/025b2501.d

Compound	2 Level 1	10 Level 2	50 Level 3	100 Level 4	200 Level 5	Curve	Coefficients b	m1	m2	%RSD or R^2
60 2,4,5-TCP	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
59 Hexachlorobenzene	2281278	2236710	2260360	2324602	2273484	AVRG		2275287		1.42113
2 Aroclor-1221 (1)	+++++	+++++	+++++	34191	+++++	AVRG		34191		0.000e+00
(2)	+++++	+++++	+++++	20721	+++++	AVRG		20721		0.000e+00
(3)	+++++	+++++	+++++	80059	+++++	AVRG		80059		0.000e+00
3 Aroclor-1016 (1)	116215	107107	103460	95973	86475	AVRG		101846		11.05997
(2)	133102	124137	128063	123766	116373	AVRG		125089		4.92277
(3)	86743	80572	80072	76640	71657	AVRG		79137		7.00642
(4)	68497	63234	60952	58428	55636	AVRG		61349		7.98408
(5)	62917	57118	55690	53149	50689	AVRG		55913		8.26811
4 Aroclor-1232 (1)	+++++	+++++	+++++	61513	+++++	AVRG		61513		0.000e+00
(2)	+++++	+++++	+++++	53196	+++++	AVRG		53196		0.000e+00
(3)	+++++	+++++	+++++	63001	+++++	AVRG		63001		0.000e+00
(4)	+++++	+++++	+++++	39985	+++++	AVRG		39985		0.000e+00
(5)	+++++	+++++	+++++	25246	+++++	AVRG		25246		0.000e+00
5 alpha-BHC	3801190	3891674	3761893	3792334	3865601	AVRG		3822538		1.41365
6 Aroclor-1242 (1)	+++++	+++++	+++++	82712	+++++	AVRG		82712		0.000e+00
(2)	+++++	+++++	+++++	101114	+++++	AVRG		101114		0.000e+00
(3)	+++++	+++++	+++++	63840	+++++	AVRG		63840		0.000e+00
(4)	+++++	+++++	+++++	49077	+++++	AVRG		49077		0.000e+00
(5)	+++++	+++++	+++++	55954	+++++	AVRG		55954		0.000e+00

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Cal Date : 17-Dec-2009 09:53 jam00798

Compound	2 Level 1	10 Level 2	50 Level 3	100 Level 4	200 Level 5	Curve	Coefficients b	m1	m2	%RSD or R^2
7 gamma-BHC (Lindane)	3198915	3288849	3152656	3213535	3287804	AVRG		3228352		1.83321
8 Chlordane (tech.) (1)	127934	128150	116447	116725	115438	AVRG		120939		5.37641
(2)	104892	106334	90104	90163	87832	AVRG		95865		9.34915
(3)	69957	75792	64662	66347	65703	AVRG		68492		6.62995
(4)	334714	332879	307472	313025	318408	AVRG		321300		3.75440
(5)	284964	285305	261467	266849	268758	AVRG		273469		4.01541
9 Aroclor-1248 (1)	+++++	+++++	+++++	64622	+++++	AVRG		64622		0.000e+00
(2)	+++++	+++++	+++++	77590	+++++	AVRG		77590		0.000e+00
(3)	+++++	+++++	+++++	99978	+++++	AVRG		99978		0.000e+00
(4)	+++++	+++++	+++++	125903	+++++	AVRG		125903		0.000e+00
(5)	+++++	+++++	+++++	115712	+++++	AVRG		115712		0.000e+00
10 Heptachlor	2154638	2311646	2288390	2354344	2428723	AVRG		2307548		4.36806
11 Aldrin	3475380	3491132	3321158	3305981	3269372	AVRG		3372605		3.05107
12 beta-BHC	1488068	1454707	1321589	1307905	1313394	AVRG		1377133		6.31628
13 delta-BHC	3335220	3389611	3228312	3268482	3262504	AVRG		3296826		1.96334
14 Heptachlor epoxide	3052409	3057021	2789511	2729074	2663845	AVRG		2858372		6.46068
15 Aroclor-1254 (1)	+++++	+++++	+++++	94253	+++++	AVRG		94253		0.000e+00
(2)	+++++	+++++	+++++	102390	+++++	AVRG		102390		0.000e+00
(3)	+++++	+++++	+++++	151299	+++++	AVRG		151299		0.000e+00
(4)	+++++	+++++	+++++	106672	+++++	AVRG		106672		0.000e+00
(5)	+++++	+++++	+++++	115708	+++++	AVRG		115708		0.000e+00
16 Endosulfan I	2647926	2636598	2405158	2374710	2298651	AVRG		2472609		6.45900
17 gamma-Chlordane	2894389	2922334	2757064	2786322	2831523	AVRG		2838326		2.46340
18 alpha-Chlordane	2861332	2838057	2660021	2693450	2713766	AVRG		2753325		3.28390

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Cal Date : 17-Dec-2009 09:53 jam00798

Compound	2 Level 1	10 Level 2	50 Level 3	100 Level 4	200 Level 5	Curve	Coefficients b	m1	m2	%RSD or R^2
19 4,4'-DDE	2742384	2841543	2652513	2640606	2587458	AVRG		2692900		3.71473
20 Dieldrin	2883240	2880005	2705789	2681059	2595736	AVRG		2749166		4.64243
21 Aroclor-1260 (1)	129558	118075	115237	108483	109268	AVRG		116124		7.33796
(2)	144149	132671	130346	128861	127206	AVRG		132647		5.07862
(3)	113955	104198	102576	99167	101242	AVRG		104227		5.50914
(4)	242680	224898	223961	218966	221679	AVRG		226437		4.13563
(5)	166256	148923	147610	146027	153712	AVRG		152506		5.38015
22 Endrin	2315515	2369448	2143768	2079091	2025273	AVRG		2186619		6.83974
23 Toxaphene (1)	54732	47196	44398	42245	40738	AVRG		45862		12.03889
(2)	31719	27291	26236	24648	23753	AVRG		26730		11.62817
(3)	52930	46217	44329	42404	40898	AVRG		45355		10.32665
(4)	44731	40528	38477	37257	36595	AVRG		39518		8.29105
(5)	63154	56982	54809	54921	53691	AVRG		56711		6.68669
24 Endosulfan II	2158274	2218017	2062442	2038018	1959415	AVRG		2087233		4.88153
25 4,4'-DDD	2025296	2093194	1972891	2000406	2016331	AVRG		2021624		2.21060
26 4,4'-DDT	4446789	13393479	83743114	193478442	451392666	LINR	15.61947	1148564		0.99383
27 Endrin aldehyde	1848308	1827109	1651838	1628534	1579646	AVRG		1707087		7.16327
28 Methoxychlor	282191	351282	393711	427799	457121	AVRG		382421		17.91861
29 Endosulfan sulfate	1703802	1799926	1633994	1845515	1718085	AVRG		1740264		4.78633
30 Aroclor-1268 (1)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(2)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(3)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(4)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(5)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00

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INITIAL CALIBRATION DATA

Start Cal Date : 08-SEP-2009 19:34
End Cal Date : 16-DEC-2009 18:43
Quant Method : ESTD
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd7a.i/121609.b/ECD7-B-8081-121609.m
Cal Date : 17-Dec-2009 09:53 jam00798

Compound	2 Level 1	10 Level 2	50 Level 3	100 Level 4	200 Level 5	Curve	Coefficients b	m1	m2	%RSD or R^2
31 Endrin ketone	1486768	1534760	1502779	1547287	1586020	AVRG		1531523		2.54106
51 Mirex	1318924	1263711	1270066	1317758	1335477	AVRG		1301187		2.47187
52 C-Nonachlor	2408581	2408511	2458580	2511261	2496607	AVRG		2456708		1.95325
53 O-Chlordane	1931258	1961192	1940355	1959538	1914262	AVRG		1941321		1.01763
54 T-Nonachlor	2113155	2114048	2152410	2200361	2207350	AVRG		2157465		2.09894
55 1,2-Dichlorobenzene	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
56 2,4-DDE	1394243	1378788	1334906	1314864	1260538	AVRG		1336668		3.98746
58 2,4-DDD	1175848	1171111	1160893	1167609	1147739	AVRG		1164640		0.93667
57 2,4-DDT	751310	818332	880426	924140	978940	AVRG		870630		10.21906
$ 1 4cmx	2895116	2889788	2760409	2795337	2802039	AVRG		2828538		2.13813
$ 32 Decachlorobiphenyl	1627432	1579114	1454972	1470064	1500267	AVRG		1526370		4.85261

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 08-SEP-2009 19:34
End Cal Date : 16-DEC-2009 18:43
Quant Method : ESTD
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd7a.i/121609.b/ECD7-B-8081-121609.m
Cal Date : 17-Dec-2009 09:53 jam00798

Curve	Formula	Units
Averaged	Amt = Rsp/ml	Response
Linear	Amt = b + Rsp/ml	Response

7D

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-899

GC Column: CLP-1 ID: 0.25 (mm) Init. Calib. Date(s): 12/16/09 12/16/09

EPA Sample No.(PIBLK): _____ Date Analyzed :_____

Lab Sample ID (PIBLK): _____ Time Analyzed :_____

EPA Sample No.(PEM): PEM01 Date Analyzed :12/16/09

Lab Sample ID (PEM): WPE091109-99 Time Analyzed :1431

PEM COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aldrin	4.14	4.11	4.17	126	100	26.0
4,4'-DDE						
Endrin	5.10	5.07	5.13	121	100	21.0
4,4'-DDD						
4,4'-DDT	5.30	5.27	5.33	86.2	100	-13.8
Endrin ketone						
Endrin aldehyde						

4,4'-DDT % breakdown (1): 4.40 Endrin % breakdown (1): 1.70

Combined % breakdown (1): 6.10

FORM VII PEST-1 OLM03.0

7D

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-899

GC Column: CLP-2 ID: 0.25 (mm) Init. Calib. Date(s): 12/16/09 12/16/09

EPA Sample No.(PIBLK): _____ Date Analyzed :_____

Lab Sample ID (PIBLK): _____ Time Analyzed :_____

EPA Sample No.(PEM): PEM01 Date Analyzed :12/16/09

Lab Sample ID (PEM): WPE091109-99 Time Analyzed :1431

PEM COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aldrin	4.43	4.41	4.47	131	100	31.0
4,4'-DDE						
Endrin	5.42	5.40	5.46	122	100	22.0
4,4'-DDD						
4,4'-DDT	5.66	5.63	5.69	81.4	100	-18.6
Endrin ketone						
Endrin aldehyde						

4,4'-DDT % breakdown (1): 5.40 Endrin % breakdown (1): 1.80

Combined % breakdown (1): 7.20

FORM VII PEST-1 OLM03.0

7D

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-899

GC Column: CLP-1 ID: 0.25 (mm) Init. Calib. Date(s): 12/16/09 12/16/09

EPA Sample No.(PIBLK): _____ Date Analyzed :_____

Lab Sample ID (PIBLK): _____ Time Analyzed :_____

EPA Sample No.(PEM): PEM02 Date Analyzed :12/16/09

Lab Sample ID (PEM): WPE091109-99 Time Analyzed :2022

PEM COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aldrin	4.14	4.11	4.17	125	100	25.0
4,4'-DDE						
Endrin	5.10	5.07	5.13	118	100	18.0
4,4'-DDD						
4,4'-DDT	5.30	5.27	5.33	112	100	12.0
Endrin ketone						
Endrin aldehyde						

4,4'-DDT % breakdown (1): 3.90 Endrin % breakdown (1): 2.90

Combined % breakdown (1): 6.80

FORM VII PEST-1 OLM03.0

7D

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-899

GC Column: CLP-2 ID: 0.25 (mm) Init. Calib. Date(s): 12/16/09 12/16/09

EPA Sample No.(PIBLK): _____ Date Analyzed :_____

Lab Sample ID (PIBLK): _____ Time Analyzed :_____

EPA Sample No.(PEM): PEM02 Date Analyzed :12/16/09

Lab Sample ID (PEM): WPE091109-99 Time Analyzed :2022

PEM COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aldrin	4.43	4.41	4.47	125	100	25.0
4,4'-DDE						
Endrin	5.42	5.40	5.46	119	100	19.0
4,4'-DDD						
4,4'-DDT	5.66	5.63	5.69	122	100	22.0
Endrin ketone						
Endrin aldehyde						

4,4'-DDT % breakdown (1): 7.20 Endrin % breakdown (1): 3.30

Combined % breakdown (1): 10.50

FORM VII PEST-1 OLM03.0

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: Case No.: N/A SAS No.: N/A SDG No.: 10-899

Instrument ID: ECD7A Calibration Date: 12/16/09 Time: 1600

Lab File ID: 008F0801 Init. Calib. Date(s): 12/16/09 12/16/09

Heated Purge: (Y/N) N Init. Calib. Times: 1446 1545

GC Column: CLP-1 ID: 0.25 (mm)

COMPOUND	SAMPLE AMOUNT	CAL100 AMOUNT	CURVE	%D	MAX %d
alpha-BHC	94.7	100	AVRG	-5.3	15.0
beta-BHC	92.6	100	AVRG	-7.4	15.0
delta-BHC	94.2	100	AVRG	-5.8	15.0
gamma-BHC (Lindane)	99.5	100	AVRG	-0.5	15.0
Heptachlor	94.4	100	AVRG	-5.6	15.0
Aldrin	91.1	100	AVRG	-8.9	15.0
Heptachlor epoxide	92.6	100	AVRG	-7.4	15.0
Endosulfan I	96.8	100	AVRG	-3.2	15.0
Dieldrin	186	200	AVRG	-7.0	15.0
4,4'-DDE	190	200	AVRG	-5.0	15.0
Endrin	194	200	AVRG	-3.0	15.0
Endosulfan II	188	200	AVRG	-6.0	15.0
4,4'-DDD	191	200	AVRG	-4.5	15.0
Endosulfan sulfate	187	200	AVRG	-6.5	15.0
4,4'-DDT	203	200	LINR	1.5	15.0
Methoxychlor	1090	1000	AVRG	9.0	15.0
Endrin ketone	200	200	AVRG	0.0	15.0
Endrin aldehyde	177	200	AVRG	-11.5	15.0
gamma-Chlordane	99.1	100	AVRG	-0.9	15.0
alpha-Chlordane	87.9	100	AVRG	-12.1	15.0
4cmx	194	200	AVRG	-3.0	15.0
Decachlorobiphenyl	190	200	AVRG	-5.0	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: Case No.: N/A SAS No.: N/A SDG No.: 10-899

Instrument ID: ECD7A Calibration Date: 12/16/09 Time: 1600

Lab File ID: 008B0801 Init. Calib. Date(s): 12/16/09 12/16/09

Heated Purge: (Y/N) N Init. Calib. Times: 1446 1545

GC Column: CLP-2 ID: 0.25 (mm)

COMPOUND	SAMPLE AMOUNT	CAL100 AMOUNT	CURVE	%D	MAX %d
alpha-BHC	97.4	100	AVRG	-2.6	15.0
beta-BHC	93.0	100	AVRG	-7.0	15.0
delta-BHC	95.5	100	AVRG	-4.5	15.0
gamma-BHC (Lindane)	101	100	AVRG	1.0	15.0
Heptachlor	95.6	100	AVRG	-4.4	15.0
Aldrin	92.4	100	AVRG	-7.6	15.0
Heptachlor epoxide	94.7	100	AVRG	-5.3	15.0
Endosulfan I	98.4	100	AVRG	-1.6	15.0
Dieldrin	190	200	AVRG	-5.0	15.0
4,4'-DDE	194	200	AVRG	-3.0	15.0
Endrin	202	200	AVRG	1.0	15.0
Endosulfan II	196	200	AVRG	-2.0	15.0
4,4'-DDD	197	200	AVRG	-1.5	15.0
Endosulfan sulfate	203	200	AVRG	1.5	15.0
4,4'-DDT	203	200	LINR	1.5	15.0
Methoxychlor	1140	1000	AVRG	14.0	15.0
Endrin ketone	199	200	AVRG	-0.5	15.0
Endrin aldehyde	183	200	AVRG	-8.5	15.0
gamma-Chlordane	101	100	AVRG	1.0	15.0
alpha-Chlordane	90.4	100	AVRG	-9.6	15.0
4cmx	192	200	AVRG	-4.0	15.0
Decachlorobiphenyl	195	200	AVRG	-2.5	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: Case No.: N/A SAS No.: N/A SDG No.: 10-899

Instrument ID: ECD7A Calibration Date: 12/16/09 Time: 1729

Lab File ID: 014F1401 Init. Calib. Date(s): 12/16/09 12/16/09

Heated Purge: (Y/N) N Init. Calib. Times: 1615 1714

GC Column: CLP-1 ID: 0.25 (mm)

COMPOUND	RRF	RRF100	MIN RRF	%D	MAX %D
Toxaphene	25121.201	25673.848	0.01	2.2	15.0
(2)	32790.941	34900.416	0.01	6.4	15.0
(3)	42263.271	39654.386	0.01	-6.2	15.0
(4)	40609.318	40705.670	0.01	0.2	15.0
(5)	73143.881	64057.122	0.01	-12.4	15.0
4cmx	2379710.6	2345116.6	0.01	-1.4	15.0
Decachlorobiphenyl	1386654.3	1357728.7	0.01	-2.1	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: Case No.: N/A SAS No.: N/A SDG No.: 10-899

Instrument ID: ECD7A Calibration Date: 12/16/09 Time: 1729

Lab File ID: 014B1401 Init. Calib. Date(s): 12/16/09 12/16/09

Heated Purge: (Y/N) N Init. Calib. Times: 1615 1714

GC Column: CLP-2 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF100	MIN RRF	%D	MAX %D
Toxaphene	45861.761	47684.646	0.01	4.0	15.0
(2)	26729.616	26435.210	0.01	-1.1	15.0
(3)	45355.439	41762.213	0.01	-7.9	15.0
(4)	39517.696	38629.139	0.01	-2.2	15.0
(5)	56711.495	51536.302	0.01	-9.1	15.0
4cmx	2828537.8	2662529.7	0.01	-5.9	15.0
Decachlorobiphenyl	1526370.0	1484687.8	0.01	-2.7	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: Case No.: N/A SAS No.: N/A SDG No.: 10-899

Instrument ID: ECD7A Calibration Date: 12/16/09 Time: 1952

Lab File ID: 023F2301 Init. Calib. Date(s): 12/16/09 12/16/09

Heated Purge: (Y/N) N Init. Calib. Times: 1446 1545

GC Column: CLP-1 ID: 0.25 (mm)

COMPOUND	SAMPLE AMOUNT	CAL100 AMOUNT	CURVE	%D	MAX %d
alpha-BHC	94.0	100	AVRG	-6.0	15.0
beta-BHC	92.2	100	AVRG	-7.8	15.0
delta-BHC	93.1	100	AVRG	-6.9	15.0
gamma-BHC (Lindane)	98.9	100	AVRG	-1.1	15.0
Heptachlor	94.5	100	AVRG	-5.5	15.0
Aldrin	90.2	100	AVRG	-9.8	15.0
Heptachlor epoxide	91.2	100	AVRG	-8.8	15.0
Endosulfan I	95.4	100	AVRG	-4.6	15.0
Dieldrin	183	200	AVRG	-8.5	15.0
4,4'-DDE	188	200	AVRG	-6.0	15.0
Endrin	187	200	AVRG	-6.5	15.0
Endosulfan II	183	200	AVRG	-8.5	15.0
4,4'-DDD	188	200	AVRG	-6.0	15.0
Endosulfan sulfate	184	200	AVRG	-8.0	15.0
4,4'-DDT	206	200	LINR	3.0	15.0
Methoxychlor	1100	1000	AVRG	10.0	15.0
Endrin ketone	204	200	AVRG	2.0	15.0
Endrin aldehyde	173	200	AVRG	-13.5	15.0
gamma-Chlordane	98.0	100	AVRG	-2.0	15.0
alpha-Chlordane	86.8	100	AVRG	-13.2	15.0
4cmx	190	200	AVRG	-5.0	15.0
Decachlorobiphenyl	195	200	AVRG	-2.5	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: Case No.: N/A SAS No.: N/A SDG No.: 10-899

Instrument ID: ECD7A Calibration Date: 12/16/09 Time: 1952

Lab File ID: 023B2301 Init. Calib. Date(s): 12/16/09 12/16/09

Heated Purge: (Y/N) N Init. Calib. Times: 1446 1545

GC Column: CLP-2 ID: 0.25 (mm)

COMPOUND	SAMPLE AMOUNT	CAL100 AMOUNT	CURVE	%D	MAX %d	
alpha-BHC	95.2	100	AVRG	-4.8	15.0	
beta-BHC	91.1	100	AVRG	-8.9	15.0	
delta-BHC	93.1	100	AVRG	-6.9	15.0	
gamma-BHC (Lindane)	98.7	100	AVRG	-1.3	15.0	
Heptachlor	96.3	100	AVRG	-3.7	15.0	
Aldrin	90.6	100	AVRG	-9.4	15.0	
Heptachlor epoxide	92.2	100	AVRG	-7.8	15.0	
Endosulfan I	95.2	100	AVRG	-4.8	15.0	
Dieldrin	184	200	AVRG	-8.0	15.0	
4,4'-DDE	189	200	AVRG	-5.5	15.0	
Endrin	186	200	AVRG	-7.0	15.0	
Endosulfan II	190	200	AVRG	-5.0	15.0	
4,4'-DDD	192	200	AVRG	-4.0	15.0	
Endosulfan sulfate	193	200	AVRG	-3.5	15.0	
4,4'-DDT	218	200	LINR	9.0	15.0	
Methoxychlor	1190	1000	AVRG	19.0	15.0	<-
Endrin ketone	209	200	AVRG	4.5	15.0	
Endrin aldehyde	176	200	AVRG	-12.0	15.0	
gamma-Chlordane	98.8	100	AVRG	-1.2	15.0	
alpha-Chlordane	87.6	100	AVRG	-12.4	15.0	
4cmx	188	200	AVRG	-6.0	15.0	
Decachlorobiphenyl	195	200	AVRG	-2.5	15.0	

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: Case No.: N/A SAS No.: N/A SDG No.: 10-899

Instrument ID: ECD7A Calibration Date: 12/16/09 Time: 2250

Lab File ID: 035F3501 Init. Calib. Date(s): 12/16/09 12/16/09

Heated Purge: (Y/N) N Init. Calib. Times: 1446 1545

GC Column: CLP-1 ID: 0.25 (mm)

COMPOUND	SAMPLE AMOUNT	CAL100 AMOUNT	CURVE	%D	MAX %d	
alpha-BHC	102	100	AVRG	2.0	15.0	
beta-BHC	99.8	100	AVRG	-0.2	15.0	
delta-BHC	101	100	AVRG	1.0	15.0	
gamma-BHC (Lindane)	109	100	AVRG	9.0	15.0	
Heptachlor	107	100	AVRG	7.0	15.0	
Aldrin	96.1	100	AVRG	-3.9	15.0	
Heptachlor epoxide	97.5	100	AVRG	-2.5	15.0	
Endosulfan I	99.9	100	AVRG	-0.1	15.0	
Dieldrin	193	200	AVRG	-3.5	15.0	
4,4'-DDE	198	200	AVRG	-1.0	15.0	
Endrin	202	200	AVRG	1.0	15.0	
Endosulfan II	187	200	AVRG	-6.5	15.0	
4,4'-DDD	199	200	AVRG	-0.5	15.0	
Endosulfan sulfate	190	200	AVRG	-5.0	15.0	
4,4'-DDT	219	200	LINR	9.5	15.0	
Methoxychlor	1210	1000	AVRG	21.0	15.0	<-
Endrin ketone	221	200	AVRG	10.5	15.0	
Endrin aldehyde	180	200	AVRG	-10.0	15.0	
gamma-Chlordane	105	100	AVRG	5.0	15.0	
alpha-Chlordane	92.1	100	AVRG	-7.9	15.0	
4cmx	210	200	AVRG	5.0	15.0	
Decachlorobiphenyl	198	200	AVRG	-1.0	15.0	

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: Case No.: N/A SAS No.: N/A SDG No.: 10-899

Instrument ID: ECD7A Calibration Date: 12/16/09 Time: 2250

Lab File ID: 035B3501 Init. Calib. Date(s): 12/16/09 12/16/09

Heated Purge: (Y/N) N Init. Calib. Times: 1446 1545

GC Column: CLP-2 ID: 0.25 (mm)

COMPOUND	SAMPLE AMOUNT	CAL100 AMOUNT	CURVE	%D	MAX %d	
alpha-BHC	103	100	AVRG	3.0	15.0	
beta-BHC	99.5	100	AVRG	-0.5	15.0	
delta-BHC	101	100	AVRG	1.0	15.0	
gamma-BHC (Lindane)	109	100	AVRG	9.0	15.0	
Heptachlor	110	100	AVRG	10.0	15.0	
Aldrin	96.3	100	AVRG	-3.7	15.0	
Heptachlor epoxide	98.2	100	AVRG	-1.8	15.0	
Endosulfan I	101	100	AVRG	1.0	15.0	
Dieldrin	197	200	AVRG	-1.5	15.0	
4,4'-DDE	200	200	AVRG	0.0	15.0	
Endrin	210	200	AVRG	5.0	15.0	
Endosulfan II	201	200	AVRG	0.5	15.0	
4,4'-DDD	210	200	AVRG	5.0	15.0	
Endosulfan sulfate	206	200	AVRG	3.0	15.0	
4,4'-DDT	251	200	LINR	25.5	15.0	<-
Methoxychlor	1410	1000	AVRG	41.0	15.0	<-
Endrin ketone	232	200	AVRG	16.0	15.0	<-
Endrin aldehyde	184	200	AVRG	-8.0	15.0	
gamma-Chlordane	105	100	AVRG	5.0	15.0	
alpha-Chlordane	92.1	100	AVRG	-7.9	15.0	
4cmx	202	200	AVRG	1.0	15.0	
Decachlorobiphenyl	201	200	AVRG	0.5	15.0	

FORM VII PEST

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd7a.i/121609.b/002f0201.d
Lab Smp Id: WPE091109-99DG Client Smp ID: PEM01
Inj Date : 16-DEC-2009 14:31
Operator : JXM Inst ID: ecd7a.i
Smp Info : |WPE091109-99DG
Misc Info :
Comment :
Method : /chem/ecd7a.i/121609.b/ECD7-F-8081-121609.m
Meth Date : 17-Dec-2009 08:58 jam00798 Quant Type: ESTD
Cal Date : 09-DEC-2009 13:58 Cal File: 021f2101.d
Als bottle: 2 QC Sample: PEM
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: pem.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
11 Aldrin					CAS #: 309-00-2		
4.140	4.143	-0.003	305625072	126.580	126	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
4.757	4.760	-0.003	817151	0.39195	0.392	80.00- 120.00	100.00(M)
22 Endrin					CAS #: 72-20-8		
5.096	5.100	-0.004	205351487	121.458	121	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.127	5.129	-0.002	3721555	2.20687	2.21	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
5.492	5.491	0.001	1415276	1.04858	1.05	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
5.297	5.298	-0.001	99584090	86.1779	86.2	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
5.932	5.928	0.004	2072085	1.55040	1.55	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
2.808	2.810	-0.002	483343402	222.598	222	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
6.520	6.515	0.005	283897251	229.896	230	80.00- 120.00	100.00

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd7a.i/121609.b/002f0201.d
Date : 16-DEC-2009 14:31
Client ID: PEM01
Sample Info: IWPE091109-99DC

Column phase: CLP-1

Instrument: ecd7a.i

Operator: JXM
Column diameter: 0.25

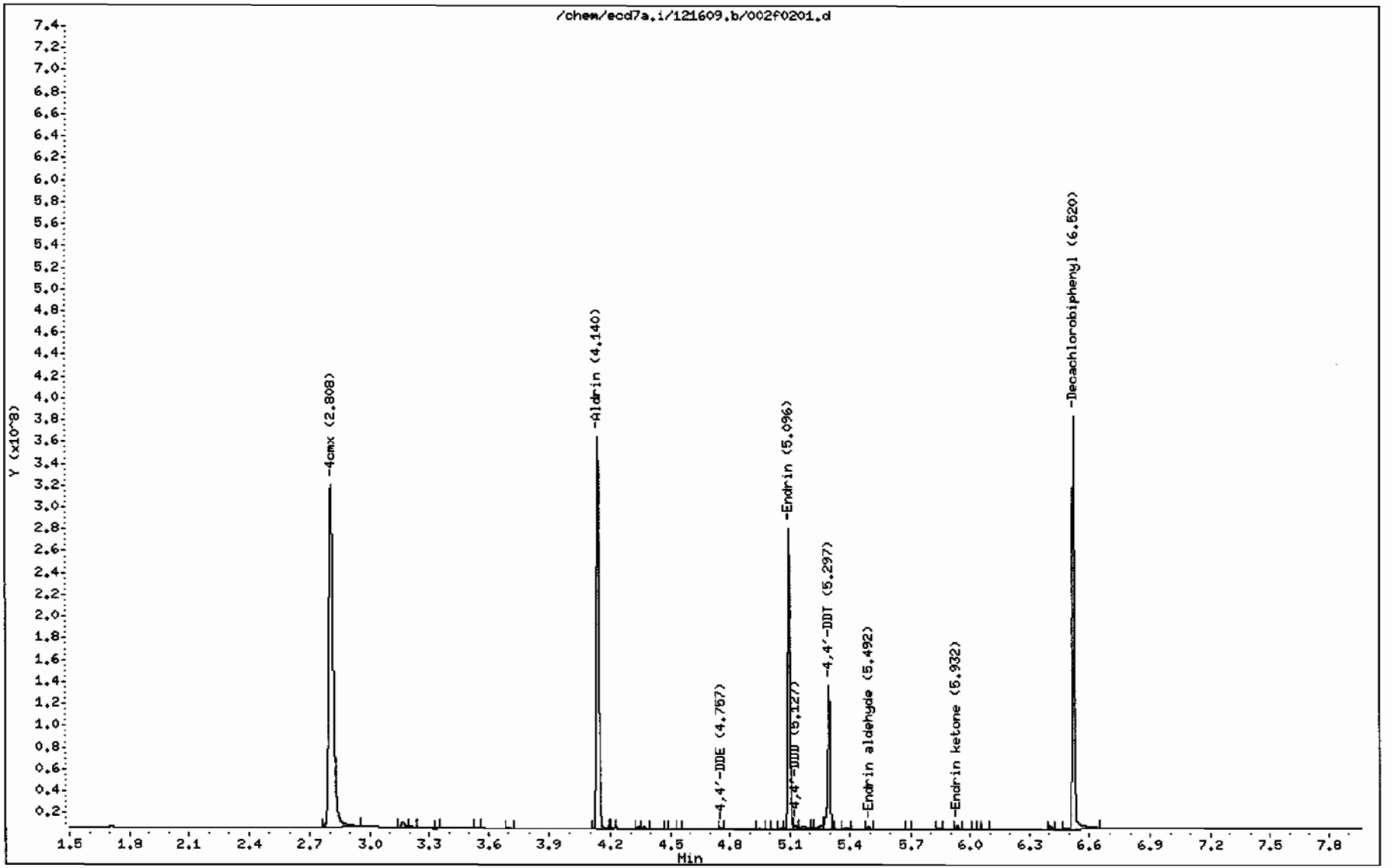

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd7a.i/121609.b/002b0201.d
Lab Smp Id: WPE091109-99DG Client Smp ID: PEM01
Inj Date : 16-DEC-2009 14:31
Operator : JXM Inst ID: ecd7a.i
Smp Info : |WPE091109-99DG
Misc Info :
Comment :
Method : /chem/ecd7a.i/121609.b/ECD7-B-8081-121609.m
Meth Date : 17-Dec-2009 08:38 jam00798 Quant Type: ESTD
Cal Date : 09-DEC-2009 13:58 Cal File: 021b2101.d
Als bottle: 2 QC Sample: PEM
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: pem.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
11 Aldrin					CAS #: 309-00-2		
4.431	4.436	-0.005	383180879	130.827	131	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.107	5.111	-0.004	1023183	0.43331	0.433	80.00- 120.00	100.00(M)
22 Endrin					CAS #: 72-20-8		
5.423	5.425	-0.002	233186727	121.579	122	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.462	5.464	-0.002	3287627	1.80093	1.80	80.00- 120.00	100.00(M)
27 Endrin aldehyde					CAS #: 7421-93-4		
5.754	5.753	0.001	1606521	1.04514	1.04	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
5.657	5.657	0.000	75477597	81.4264	81.4	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
6.265	6.260	0.005	2776548	1.85700	1.86	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
3.059	3.063	-0.004	576252814	227.129	227	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.030	7.025	0.005	303504747	233.986	234	80.00- 120.00	100.00

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd7a.i/121609.b/002b0201.d
Date : 16-DEC-2009 14:31
Client ID: PEM01
Sample Info: IWPE091109-99DG

Column phase: CLP-2

Instrument: ecd7a.i

Operator: JXM
Column diameter: 0.25

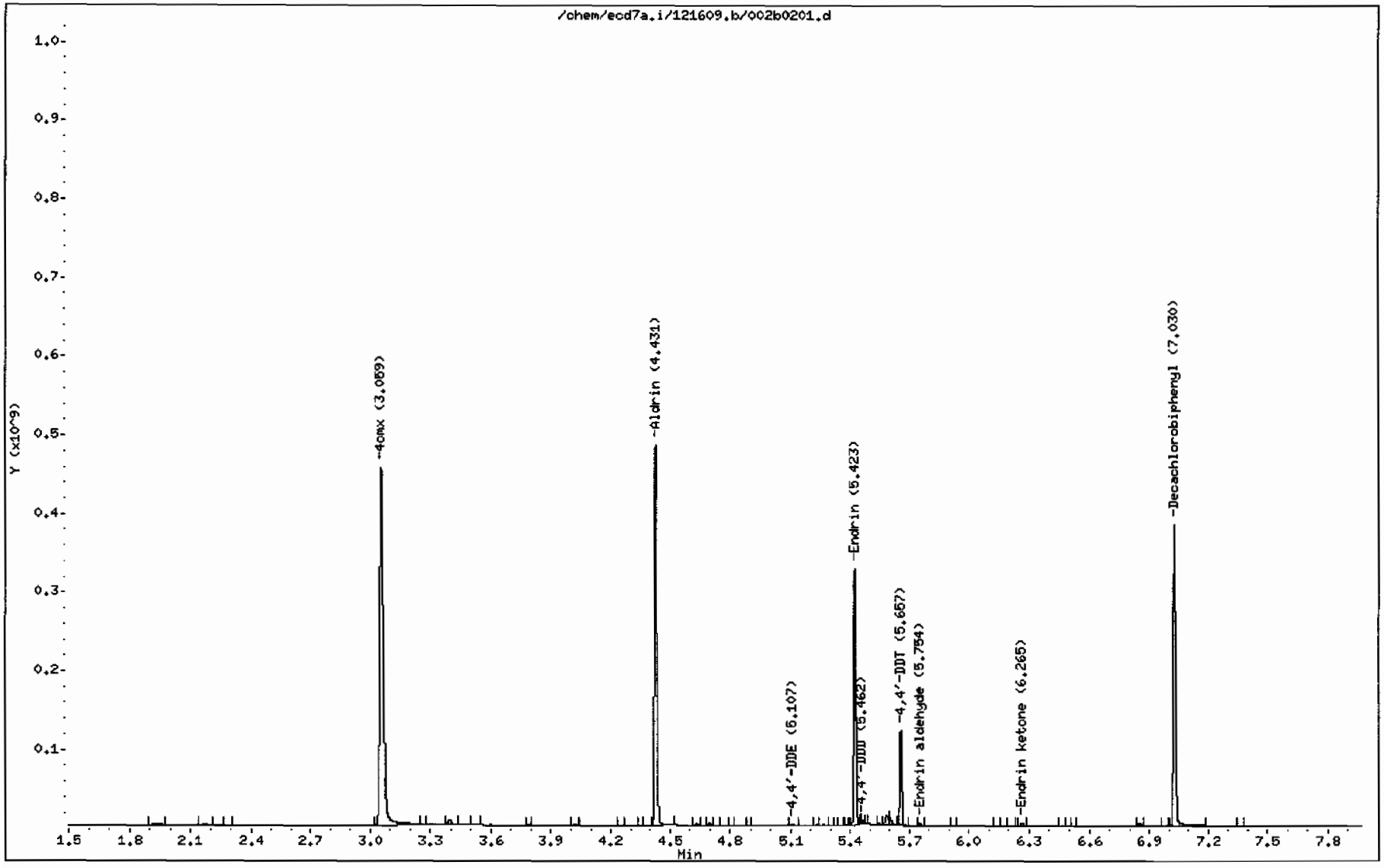

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd7a.i/121609.b/025f2501.d
Lab Smp Id: WPE091109-99DG Client Smp ID: PEM02
Inj Date : 16-DEC-2009 20:22
Operator : JXM Inst ID: ecd7a.i
Smp Info : |WPE091109-99DG
Misc Info :
Comment :
Method : /chem/ecd7a.i/121609.b/ECD7-F-8081-121609.m
Meth Date : 17-Dec-2009 09:15 jam00798 Quant Type: ESTD
Cal Date : 09-DEC-2009 14:57 Cal File: 025f2501.d
Als bottle: 25 QC Sample: PEM
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: pem.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
11 Aldrin					CAS #: 309-00-2		
4.142	4.143	-0.001	331567532	124.958	125	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
4.760	4.760	0.000	922758	0.39949	0.399	80.00- 120.00	100.00(M)
22 Endrin					CAS #: 72-20-8		
5.099	5.100	-0.001	217705644	117.836	118	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.128	5.129	-0.001	4380869	2.41843	2.42	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
5.491	5.491	0.000	2310725	1.58658	1.59	80.00- 120.00	100.00(M)
26 4,4'-DDT					CAS #: 50-29-3		
5.297	5.298	-0.001	130594017	111.961	112	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
5.925	5.928	-0.003	4277451	3.17347	3.17	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
2.808	2.810	-0.002	518275030	217.789	218	80.00- 120.00	100.00(R)
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
6.508	6.515	-0.007	311168358	224.402	224	80.00- 120.00	100.00(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Data File: /chem/ecd7a.i/121609.b/025f2501.d
Date : 16-DEC-2009 20:22
Client ID: PEM02
Sample Info: IWPE091109-99DG

Column phase: CLP-1

Instrument: ecd7a.i

Operator: JXM
Column diameter: 0.25

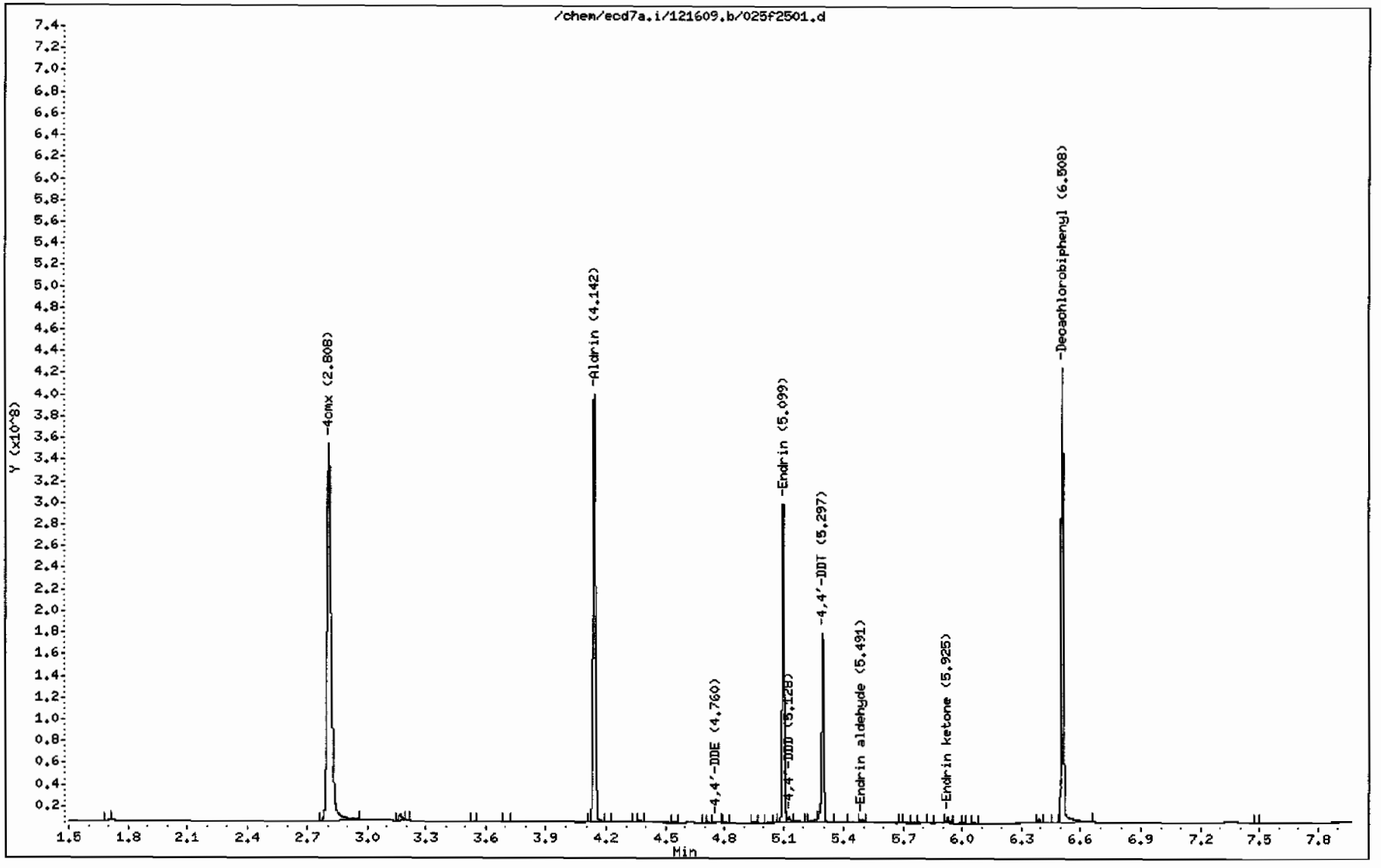

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd7a.i/121609.b/025b2501.d
Lab Smp Id: WPE091109-99DG Client Smp ID: PEM02
Inj Date : 16-DEC-2009 20:22
Operator : JXM Inst ID: ecd7a.i
Smp Info : |WPE091109-99DG
Misc Info :
Comment :
Method : /chem/ecd7a.i/121609.b/ECD7-B-8081-121609.m
Meth Date : 17-Dec-2009 09:15 jam00798 Quant Type: ESTD
Cal Date : 09-DEC-2009 14:57 Cal File: 025b2501.d
Als bottle: 25 QC Sample: PEM
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: pem.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
11 Aldrin					CAS #: 309-00-2		
4.434	4.436	-0.002	420229523	124.601	125	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.110	5.111	-0.001	1063233	0.39483	0.395	80.00- 120.00	100.00(M)
22 Endrin					CAS #: 72-20-8		
5.424	5.425	-0.001	260475121	119.122	119	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.463	5.464	-0.001	8416384	4.16318	4.16	80.00- 120.00	100.00(M)
27 Endrin aldehyde					CAS #: 7421-93-4		
5.750	5.753	-0.003	3113230	1.82371	1.82	80.00- 120.00	100.00(M)
26 4,4'-DDT					CAS #: 50-29-3		
5.655	5.657	-0.002	121660475	121.543	122	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
6.253	6.260	-0.007	5868294	3.83167	3.83	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
3.062	3.063	-0.001	619700517	219.089	219	80.00- 120.00	100.00(R)
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.019	7.025	-0.006	339690909	222.548	222	80.00- 120.00	100.00(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Data File: /chem/ecd7a.i/121609.b/025b2501.d
Date : 16-DEC-2009 20:22
Client ID: PEM02
Sample Info: IWPE091109-99DG

Column phase: CLP-2

Instrument: ecd7a.i

Operator: JXM
Column diameter: 0.25

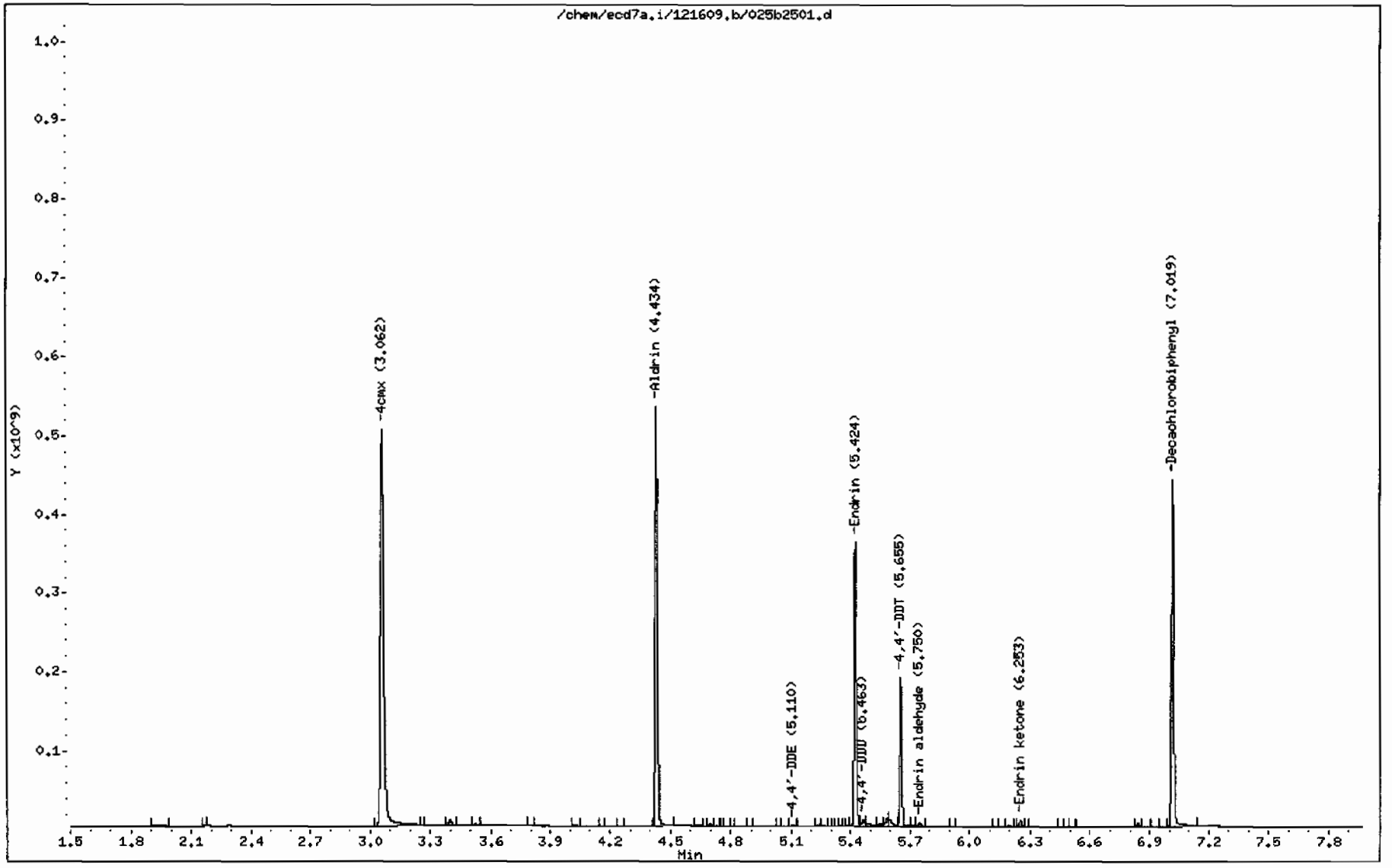

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd7a.i/121609.b/008f0801.d
Lab Smp Id: WPE091207-10AB Client Smp ID: INDAB01
Inj Date : 16-DEC-2009 16:00
Operator : JXM Inst ID: ecd7a.i
Smp Info : |WPE091207-10AB
Misc Info :
Comment :
Method : /chem/ecd7a.i/121609.b/ECD7-F-8081-121609.m
Meth Date : 17-Dec-2009 08:58 jam00798 Quant Type: ESTD
Cal Date : 09-DEC-2009 14:57 Cal File: 025f2501.d
Als bottle: 8 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
3.318	3.318	0.000	289019776	100.000	94.7	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.576	3.576	0.000	259631876	100.000	99.5	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
3.645	3.645	0.000	106908163	100.000	92.6	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
3.930	3.930	0.000	192836980	100.000	94.4	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
3.780	3.780	0.000	254750000	100.000	94.2	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.143	4.143	0.000	241805579	100.000	91.1	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.551	4.551	0.000	215405734	100.000	92.6	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
4.631	4.631	0.000	224420186	100.000	99.1	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
4.716	4.716	0.000	196504341	100.000	87.9	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
16 Endosulfan I					CAS #: 959-98-8		
4.805	4.805	0.000	201143286	100.000	96.8	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
4.760	4.760	0.000	438760094	200.000	190	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
4.955	4.955	0.000	416007146	200.000	186	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.100	5.100	0.000	359271746	200.000	194	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.129	5.129	0.000	345272528	200.000	191	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
5.238	5.238	0.000	334690128	200.000	188	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
5.491	5.491	0.000	257216773	200.000	177	80.00- 120.00	100.00(M)
26 4,4'-DDT					CAS #: 50-29-3		
5.298	5.298	0.000	247832980	200.000	203	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
5.754	5.754	0.000	286416979	200.000	187	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
5.581	5.581	0.000	482016796	1000.00	1090	80.00- 120.00	100.00(M)
31 Endrin ketone					CAS #: 53494-70-5		
5.928	5.928	0.000	269447909	200.000	200	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
2.810	2.810	0.000	460669173	200.000	194	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
6.515	6.515	0.000	263333528	200.000	190	80.00- 120.00	100.00

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd7a.i/121609.b/008f0801.d
Date : 16-DEC-2009 16:00
Client ID: INDAB01
Sample Info: IWFE091207-10AB

Instrument: ecd7a.i
Operator: JXH
Column diameter: 0.25

Column phase: CLP-1

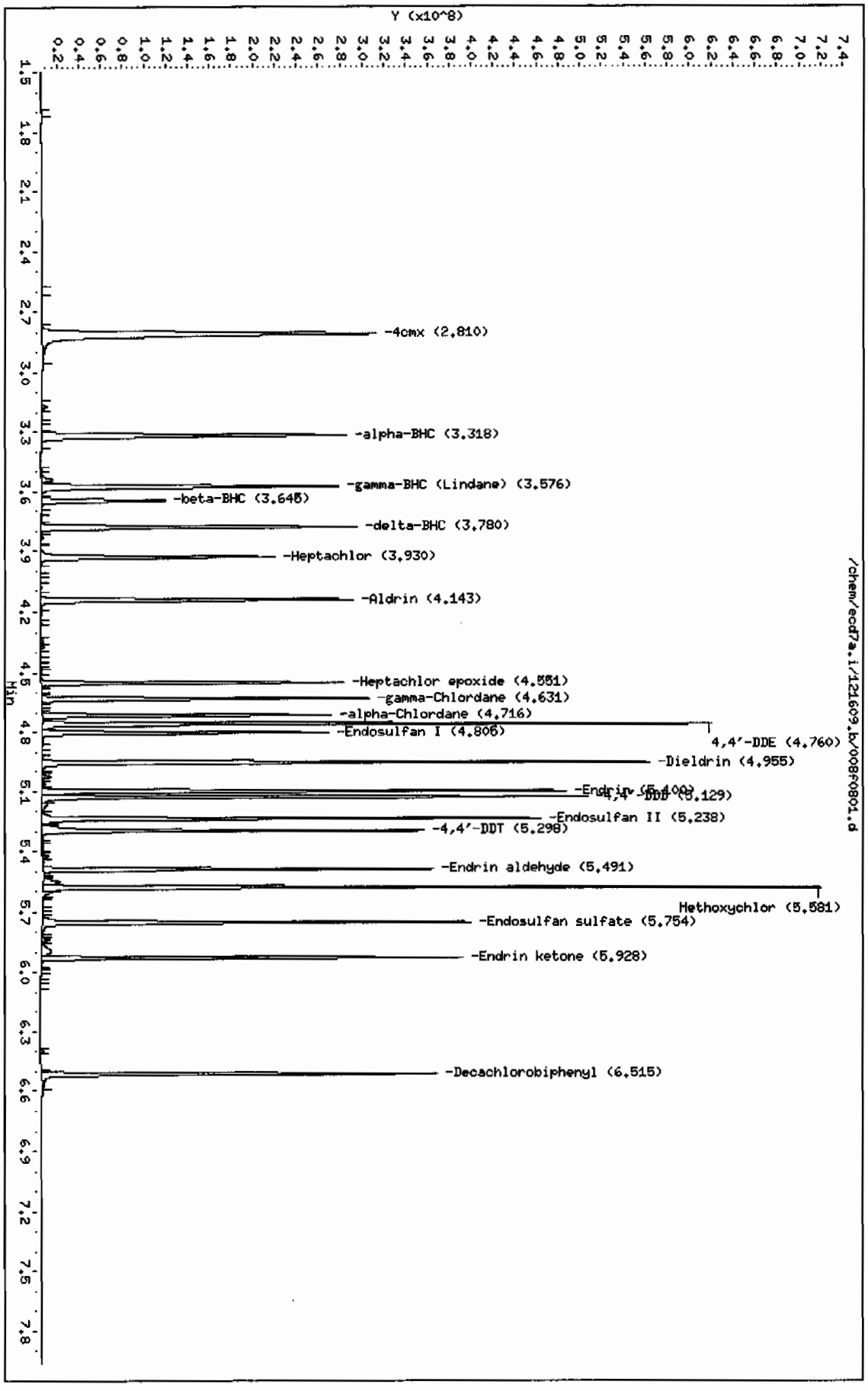

Page 1

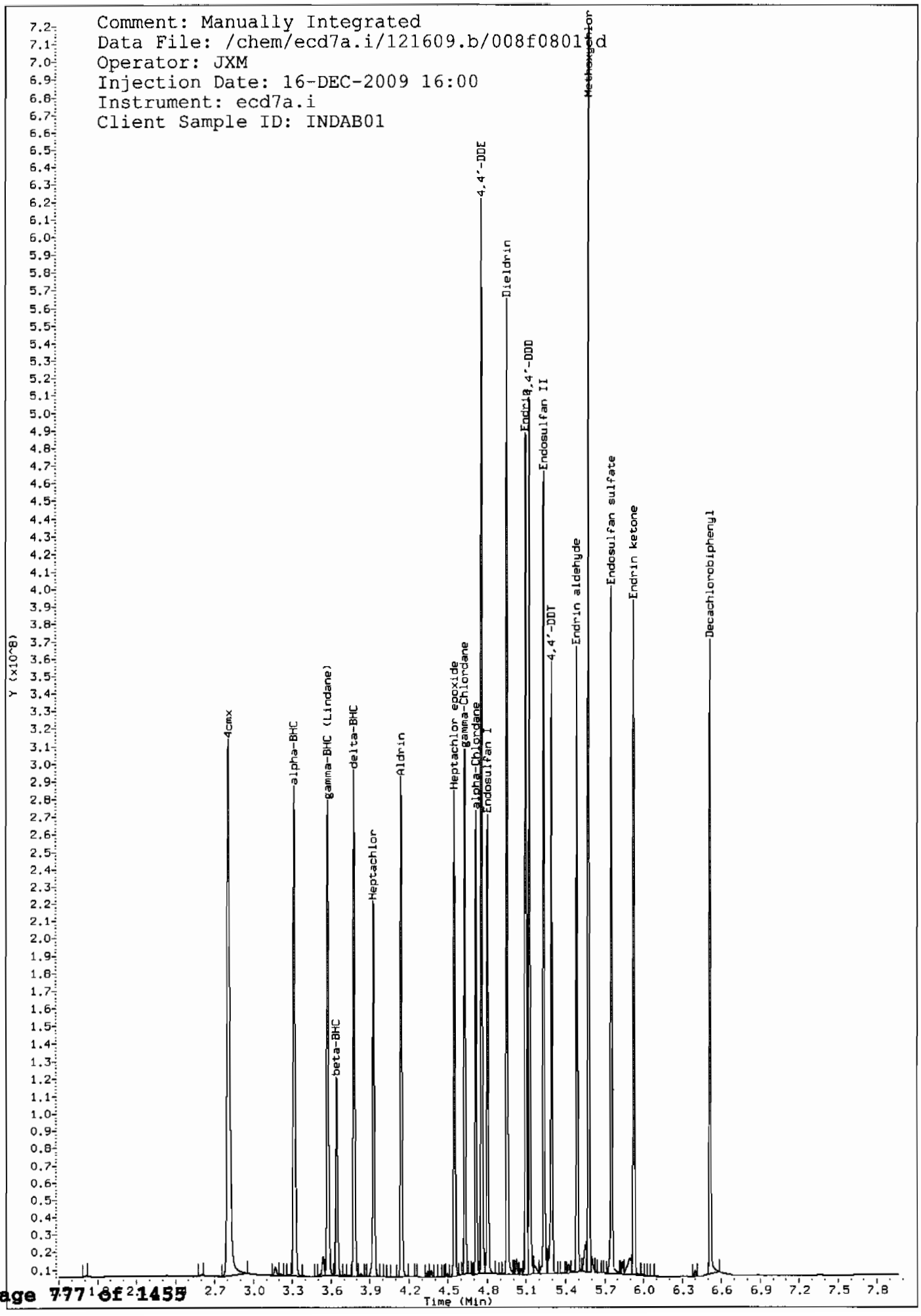
Comment: Manually Integrated
Data File: /chem/ecd7a.i/121609.b/008f0801.d
Operator: JXM
Injection Date: 16-DEC-2009 16:00
Instrument: ecd7a.i
Client Sample ID: INDAB01
Y (x10^8)
Time (Min)
4cmx
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide
gamma-Chlordane
alpha-Chlordane
Endosulfan I
4,4'-DDE
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Methoxychlor
Endosulfan sulfate
Endrin ketone
Decachlorobiphenyl

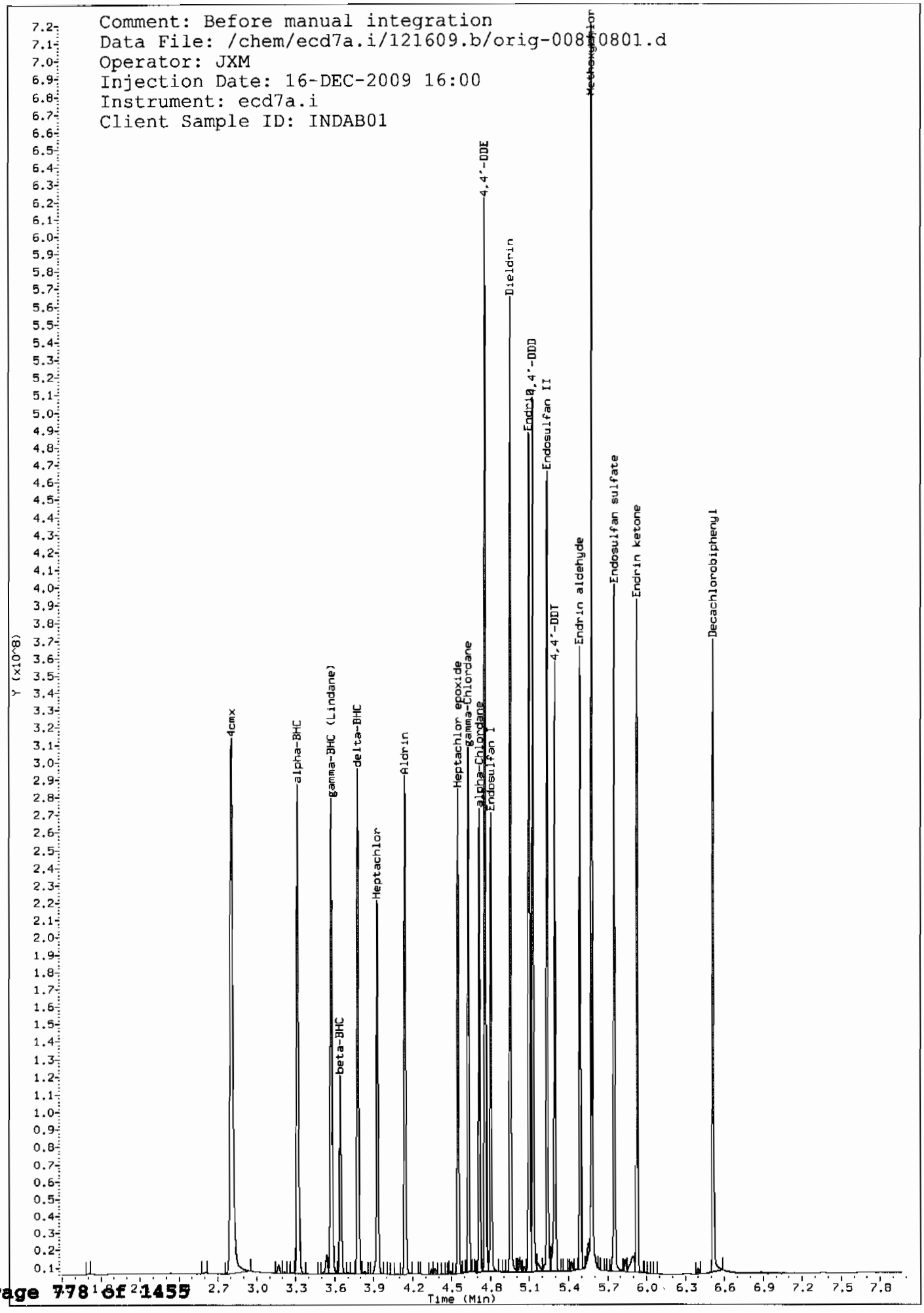
Comment: Before manual integration
Data File: /chem/ecd7a.i/121609.b/orig-00810801.d
Operator: JXM
Injection Date: 16-DEC-2009 16:00
Instrument: ecd7a.i
Client Sample ID: INDAB01
Y (x10^8)
Time (Min)
4cmx
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide
gamma-Chlordane
alpha-Chlordane
Endosulfan I
4,4'-DDE
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Methoxychlor
Endosulfan sulfate
Endrin ketone
Decachlorobiphenyl

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd7a.i/121609.b/008b0801.d
Lab Smp Id: WPE091207-10AB Client Smp ID: INDAB01
Inj Date : 16-DEC-2009 16:00
Operator : JXM Inst ID: ecd7a.i
Smp Info : |WPE091207-10AB
Misc Info :
Comment :
Method : /chem/ecd7a.i/121609.b/ECD7-B-8081-121609.m
Meth Date : 17-Dec-2009 08:38 jam00798 Quant Type: ESTD
Cal Date : 09-DEC-2009 14:57 Cal File: 025b2501.d
Als bottle: 8 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
3.601	3.601	0.000	372327968	100.000	97.4	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.880	3.880	0.000	324995525	100.000	101	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
3.939	3.939	0.000	128140082	100.000	93.0	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
4.207	4.207	0.000	220701963	100.000	95.6	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
4.155	4.155	0.000	314899985	100.000	95.5	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.436	4.436	0.000	311803111	100.000	92.4	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.811	4.811	0.000	270721363	100.000	94.7	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
4.931	4.931	0.000	287338134	100.000	101	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
5.023	5.023	0.000	248934561	100.000	90.4	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
16 Endosulfan I					CAS #: 959-98-8		
5.065	5.065	0.000	243314384	100.000	98.4	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.111	5.111	0.000	522688938	200.000	194	80.00- 120.00	100.00(M)
20 Dieldrin					CAS #: 60-57-1		
5.235	5.235	0.000	523001672	200.000	190	80.00- 120.00	100.00(M)
22 Endrin					CAS #: 72-20-8		
5.425	5.425	0.000	441811918	200.000	202	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.464	5.464	0.000	398966701	200.000	197	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
5.551	5.551	0.000	409100863	200.000	196	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
5.753	5.753	0.000	312872356	200.000	183	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
5.657	5.657	0.000	215722977	200.000	203	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
5.922	5.922	0.000	353816724	200.000	203	80.00- 120.00	100.00(M)
28 Methoxychlor					CAS #: 72-43-5		
6.059	6.059	0.000	436086071	1000.00	1140	80.00- 120.00	100.00(M)
31 Endrin ketone					CAS #: 53494-70-5		
6.260	6.260	0.000	304954563	200.000	199	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
3.063	3.063	0.000	543006989	200.000	192	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.025	7.025	0.000	297230107	200.000	195	80.00- 120.00	100.00

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd7a.i/121609.b/008b0801.d
Date : 16-DEC-2009 16:00
Client ID: INDAB01
Sample Info: IWPE091207-10AB
Column phase: CLP-2

Instrument: ecd7a.i
Operator: JXM
Column diameter: 0.25

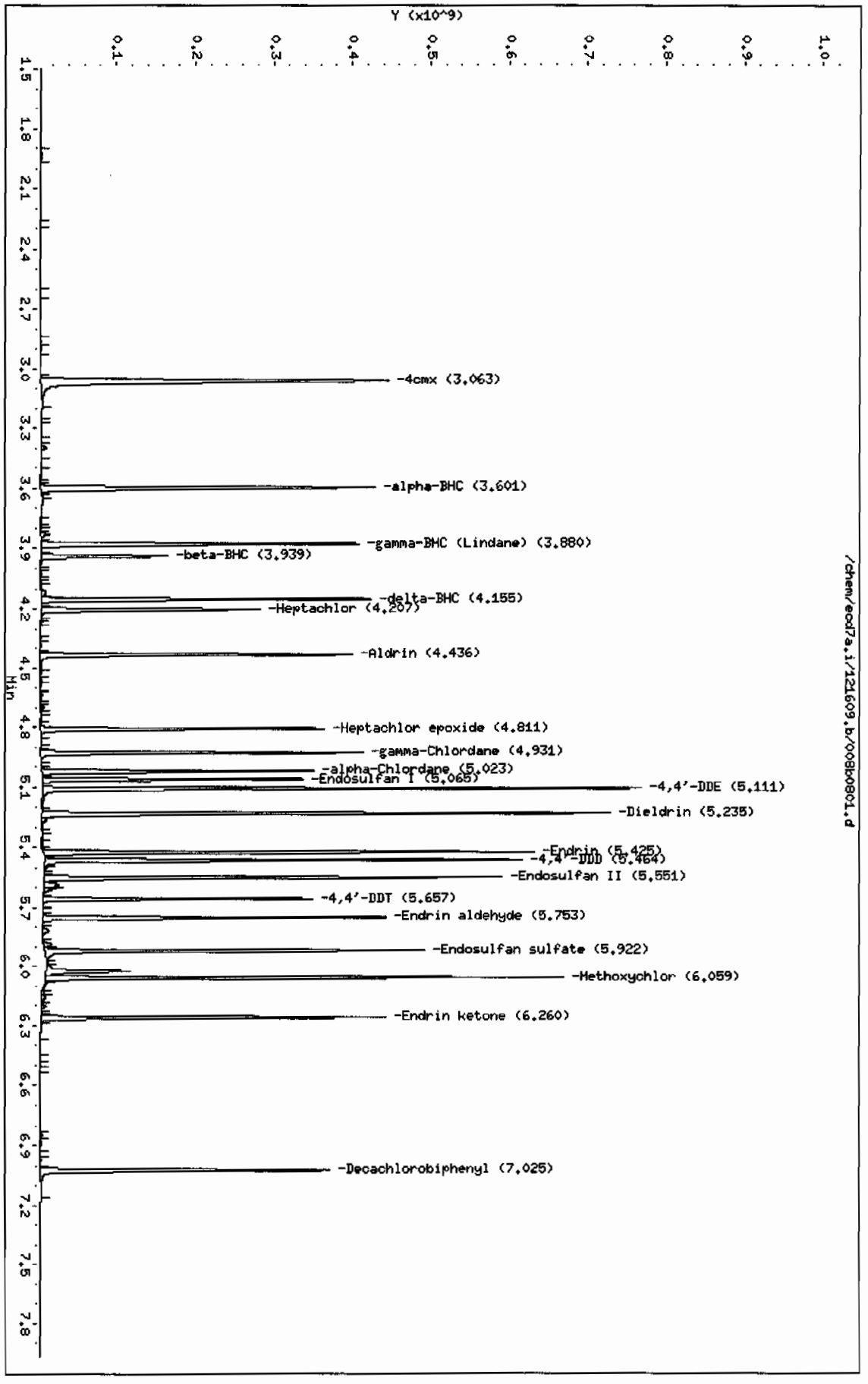

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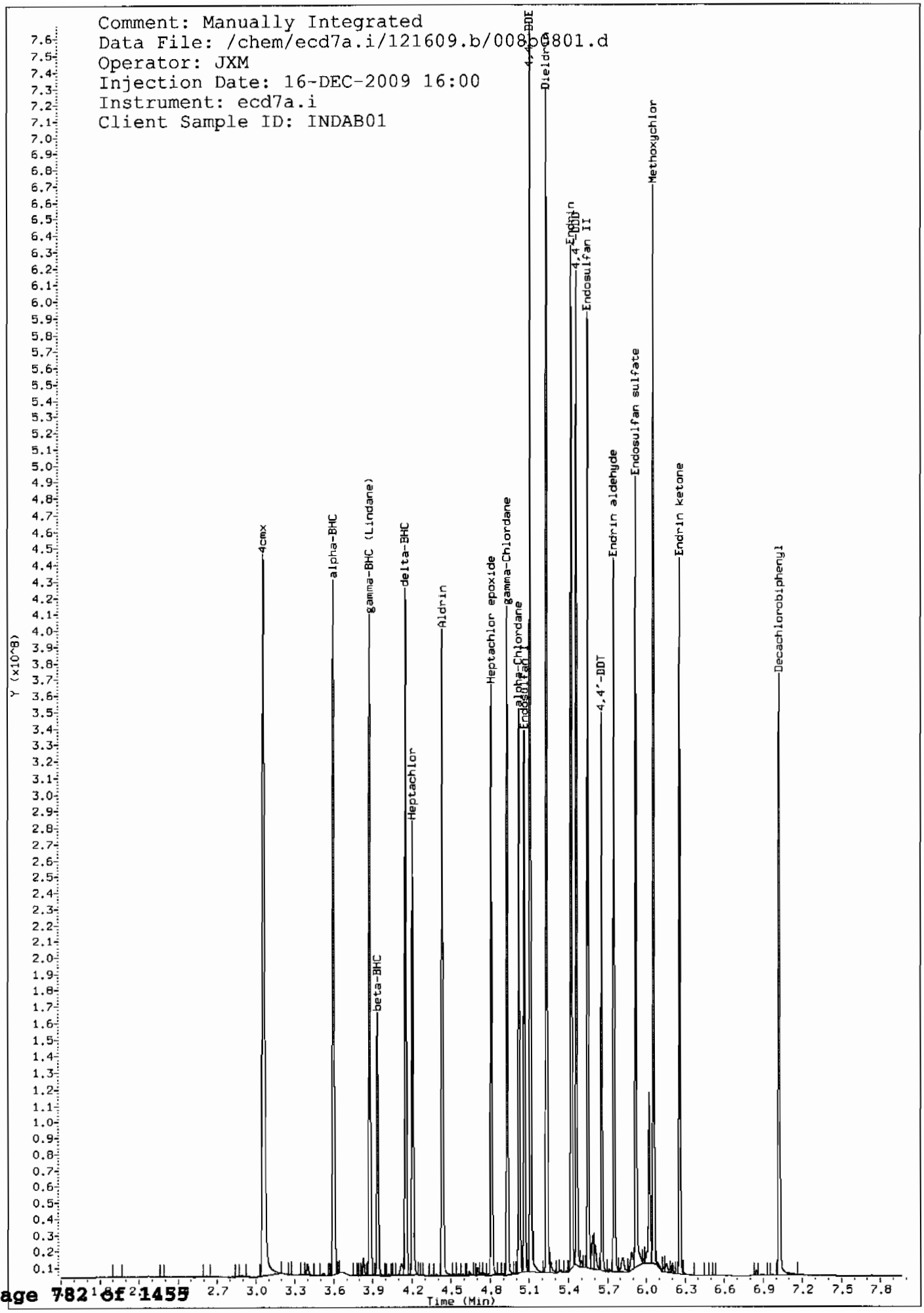
Comment: Manually Integrated
Data File: /chem/ecd7a.i/121609.b/008b0801.d
Operator: JXM
Injection Date: 16-DEC-2009 16:00
Instrument: ecd7a.i
Client Sample ID: INDAB01
Y (x10^8)
Time (Min)
4cmx
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide
gamma-Chlordane
alpha-Chlordane
Endosulfan I
4,4'-DDE
Dieldrin
4,4'-DDD
Endosulfan II
Endosulfan sulfate
4,4'-DDT
Endrin aldehyde
Methoxychlor
Endrin ketone
Decachlorobiphenyl

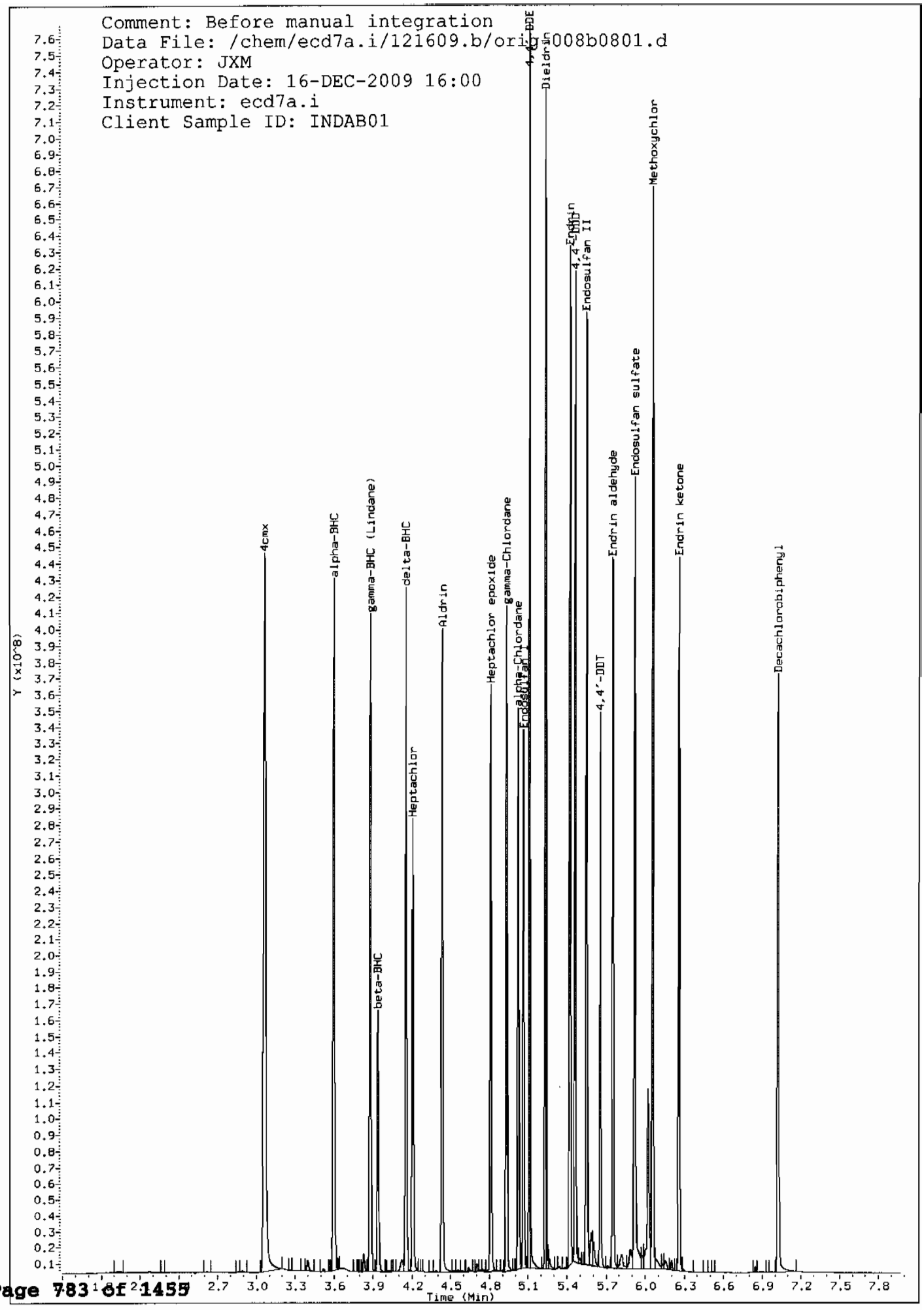
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Operator: JXM
Injection Date: 16-DEC-2009 16:00
Instrument: ecd7a.i
Client Sample ID: INDAB01
Y (x10^8)
Time (Min)
4cmx
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide
gamma-Chlordane
alpha-Chlordane
Endosulfan I
4,4'-DDE
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Endosulfan sulfate
Methoxychlor
Endrin ketone
Decachlorobiphenyl

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd7a.i/121609.b/014f1401.d
Lab Smp Id: WPE091104-52TX Client Smp ID: TOXAPH01
Inj Date : 16-DEC-2009 17:29
Operator : JXM Inst ID: ecd7a.i
Smp Info : |WPE091104-52TX
Misc Info :
Comment :
Method : /chem/ecd7a.i/121609.b/ECD7-F-8081-121609.m
Meth Date : 17-Dec-2009 09:15 jam00798 Quant Type: ESTD
Cal Date : 09-DEC-2009 14:57 Cal File: 025f2501.d
Als bottle: 14 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: tox.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
23 Toxaphene					CAS #: 8001-35-2		
4.956	4.956	0.000	51347697	2000.00	2040	80.00- 120.00	100.00(M)
5.011	5.011	0.000	69800832	2000.00	2130	115.94- 155.94	135.94
5.049	5.049	0.000	79308772	2000.00	1880	134.45- 174.45	154.45
5.113	5.113	0.000	81411341	2000.00	2000	138.55- 178.55	158.55
5.232	5.232	0.000	128114244	2000.00	1750	229.50- 269.50	249.50
Average of Peak Amounts =					1.96e+03		
$ 1 4cmx					CAS #: 877-09-8		
2.811	2.810	0.001	469023317	200.000	197	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
6.510	6.515	-0.005	271545731	200.000	196	80.00- 120.00	100.00

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd7a.i/121609.b/014f1401.d
Date : 16-DEC-2009 17:29
Client ID: TOXAPH01
Sample Info: IWPE091104-52TX

Column phase: CLP-1

Instrument: ecd7a.i

Operator: JXM
Column diameter: 0.25

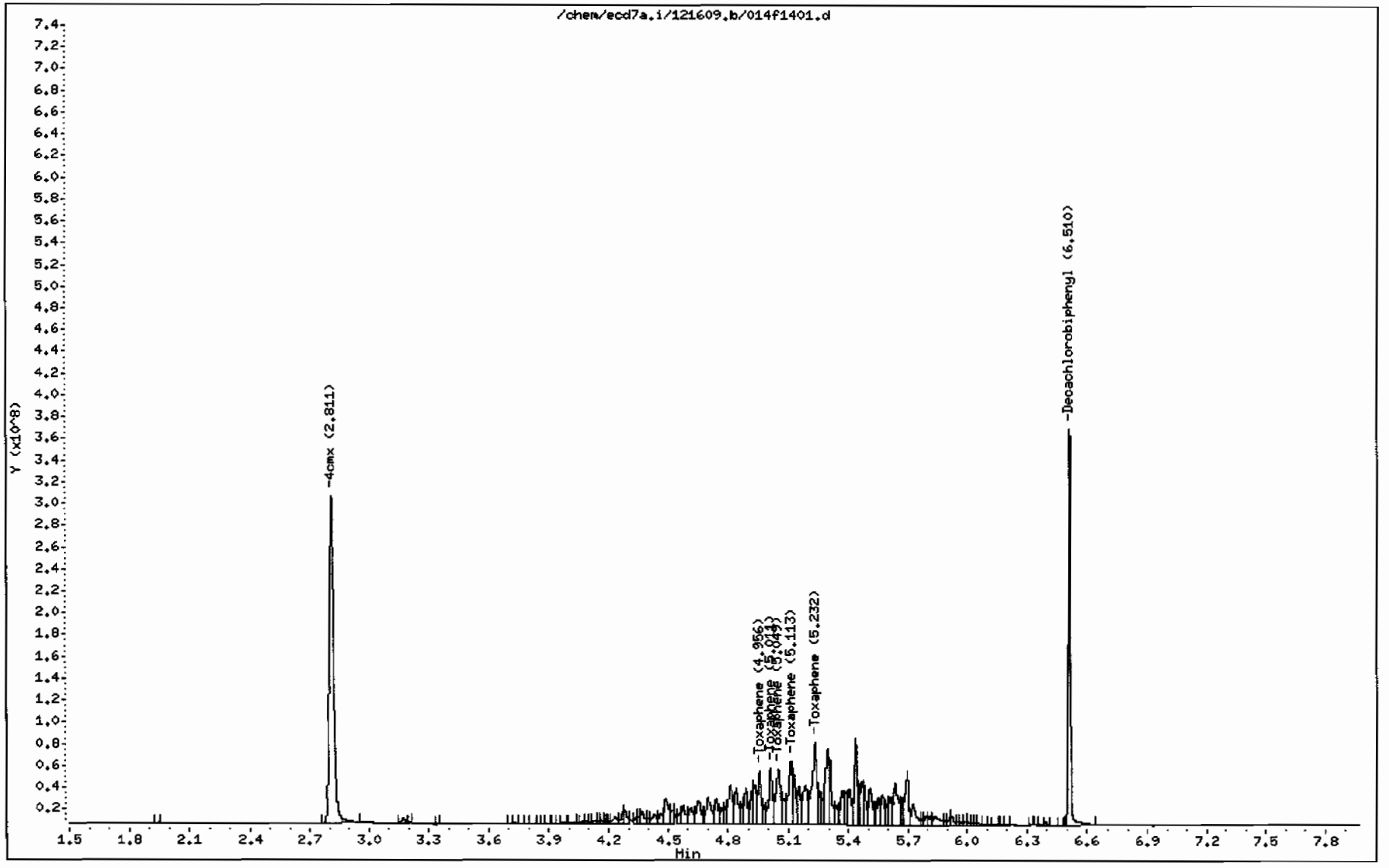

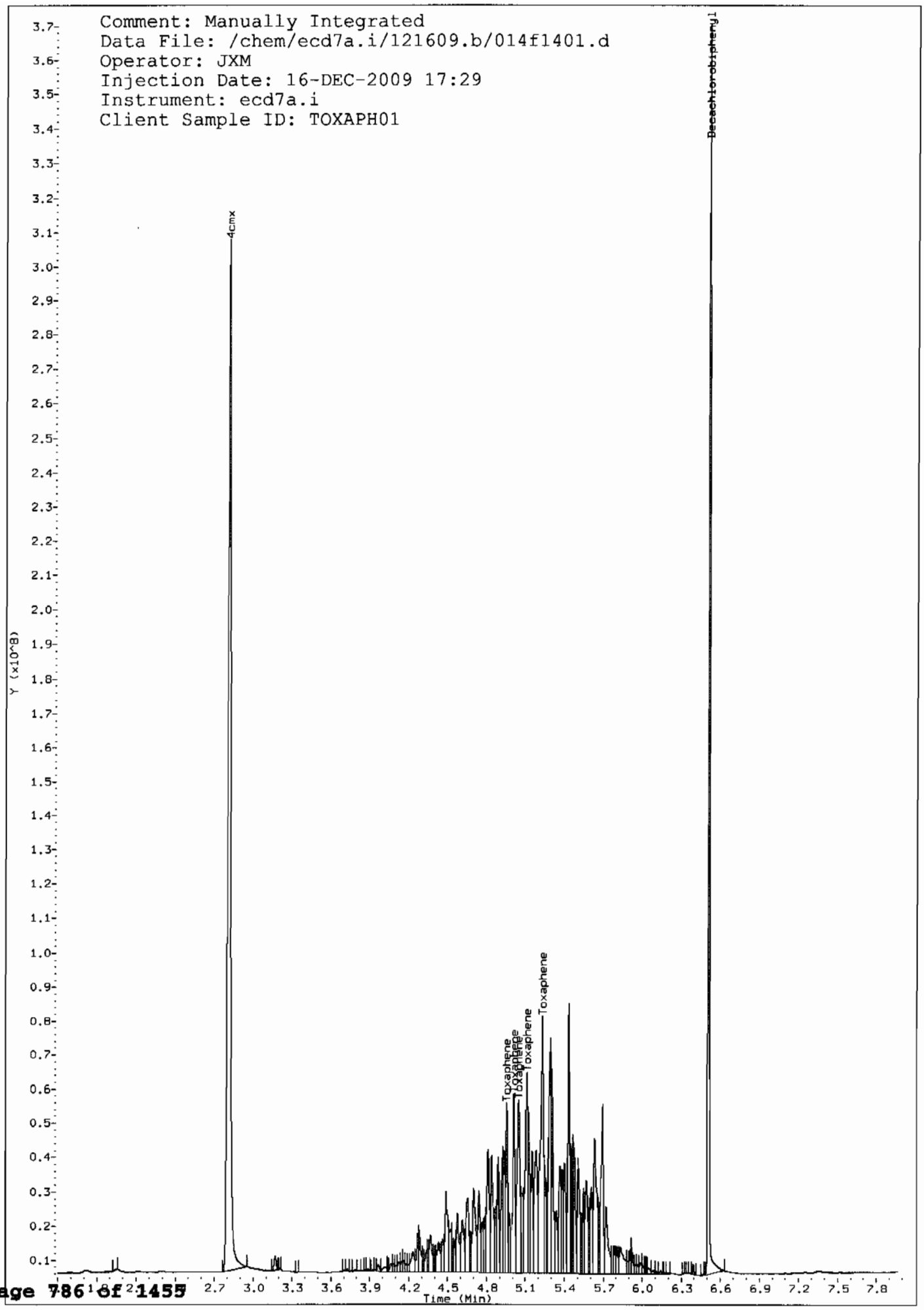
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Operator: JXM
Injection Date: 16-DEC-2009 17:29
Instrument: ecd7a.i
Client Sample ID: TOXAPH01
4cmx
Decachlorobiphenyl
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Y (x10^8)
Time (Min)

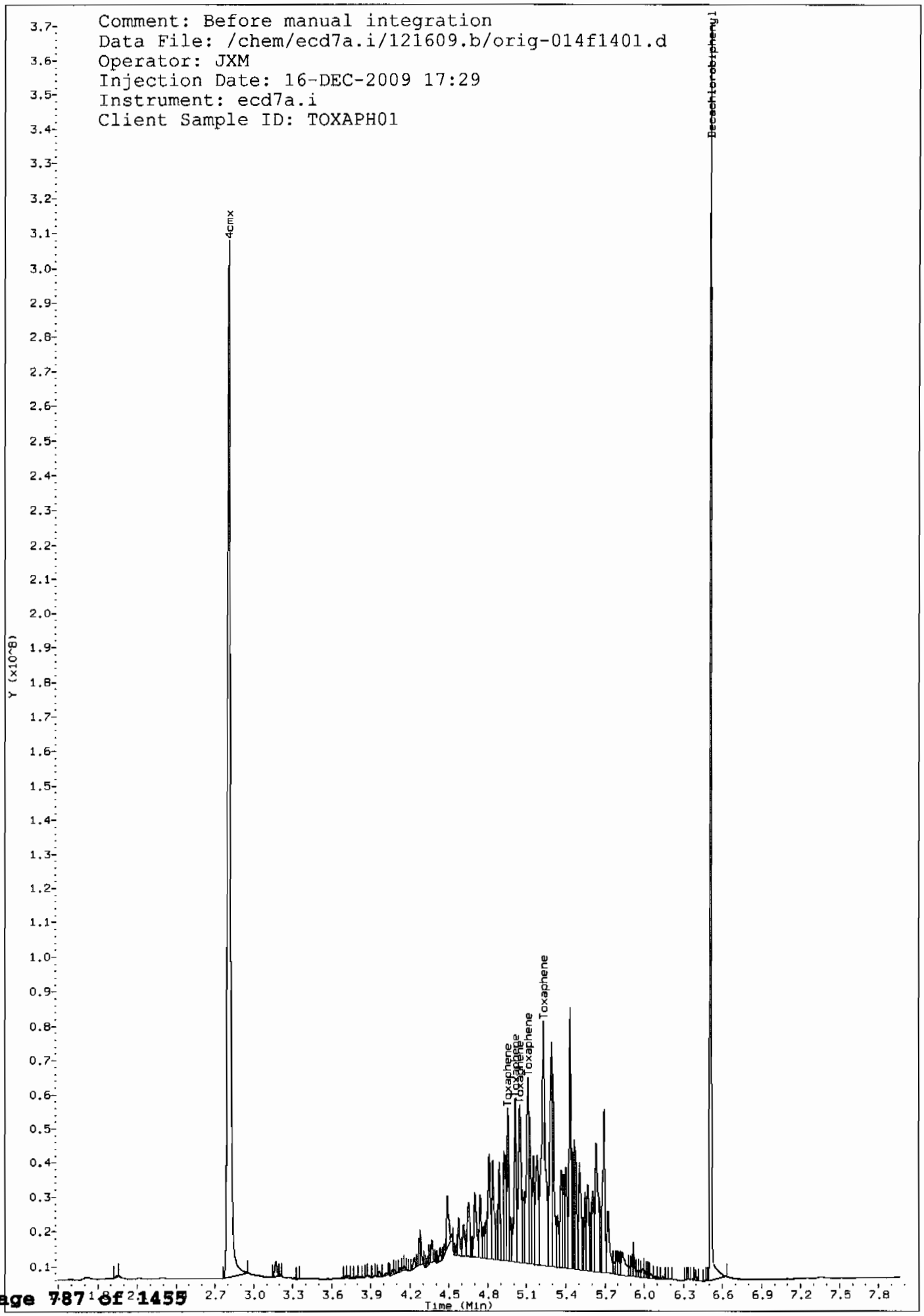
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Operator: JXM
Injection Date: 16-DEC-2009 17:29
Instrument: ecd7a.i
Client Sample ID: TOXAPH01
4cmx
Decachlorobiphenyl
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Y (x10^8)
Time (Min)

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd7a.i/121609.b/014b1401.d
Lab Smp Id: WPE091104-52TX Client Smp ID: TOXAPH01
Inj Date : 16-DEC-2009 17:29
Operator : JXM Inst ID: ecd7a.i
Smp Info : |WPE091104-52TX
Misc Info :
Comment :
Method : /chem/ecd7a.i/121609.b/ECD7-B-8081-121609.m
Meth Date : 17-Dec-2009 09:15 jam00798 Quant Type: ESTD
Cal Date : 09-DEC-2009 14:57 Cal File: 025b2501.d
Als bottle: 14 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: tox.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
23 Toxaphene					CAS #: 8001-35-2		
5.212	5.212	0.000	95369292	2000.00	2080	80.00- 120.00	100.00(M)
5.289	5.289	0.000	52870421	2000.00	1980	35.44- 75.44	55.44
5.326	5.326	0.000	83524426	2000.00	1840	67.58- 107.58	87.58
5.400	5.400	0.000	77258278	2000.00	1960	61.01- 101.01	81.01
5.543	5.543	0.000	103072605	2000.00	1820	88.08- 128.08	108.08
Average of Peak Amounts =					1.93e+03		
$ 1 4cmx					CAS #: 877-09-8		
3.064	3.063	0.001	532505943	200.000	188	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.020	7.025	-0.005	296937555	200.000	194	80.00- 120.00	100.00

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd7a.i/121609.b/014b1401.d
Date : 16-DEC-2009 17:29
Client ID: TOXAPH01
Sample Info: IWPE091104-52TX

Column phase: CLP-2

Instrument: ecd7a.i

Operator: JXM
Column diameter: 0.25

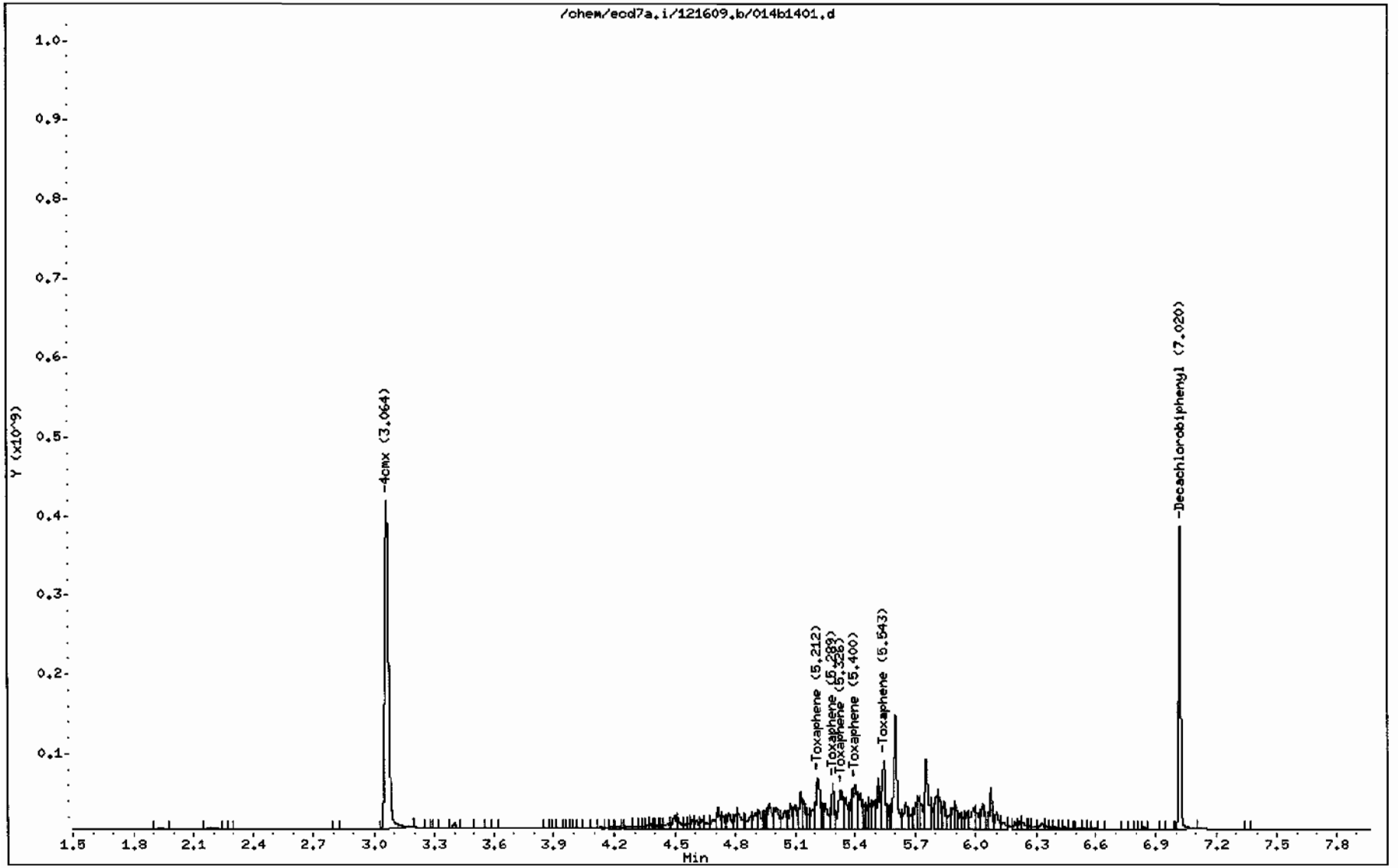

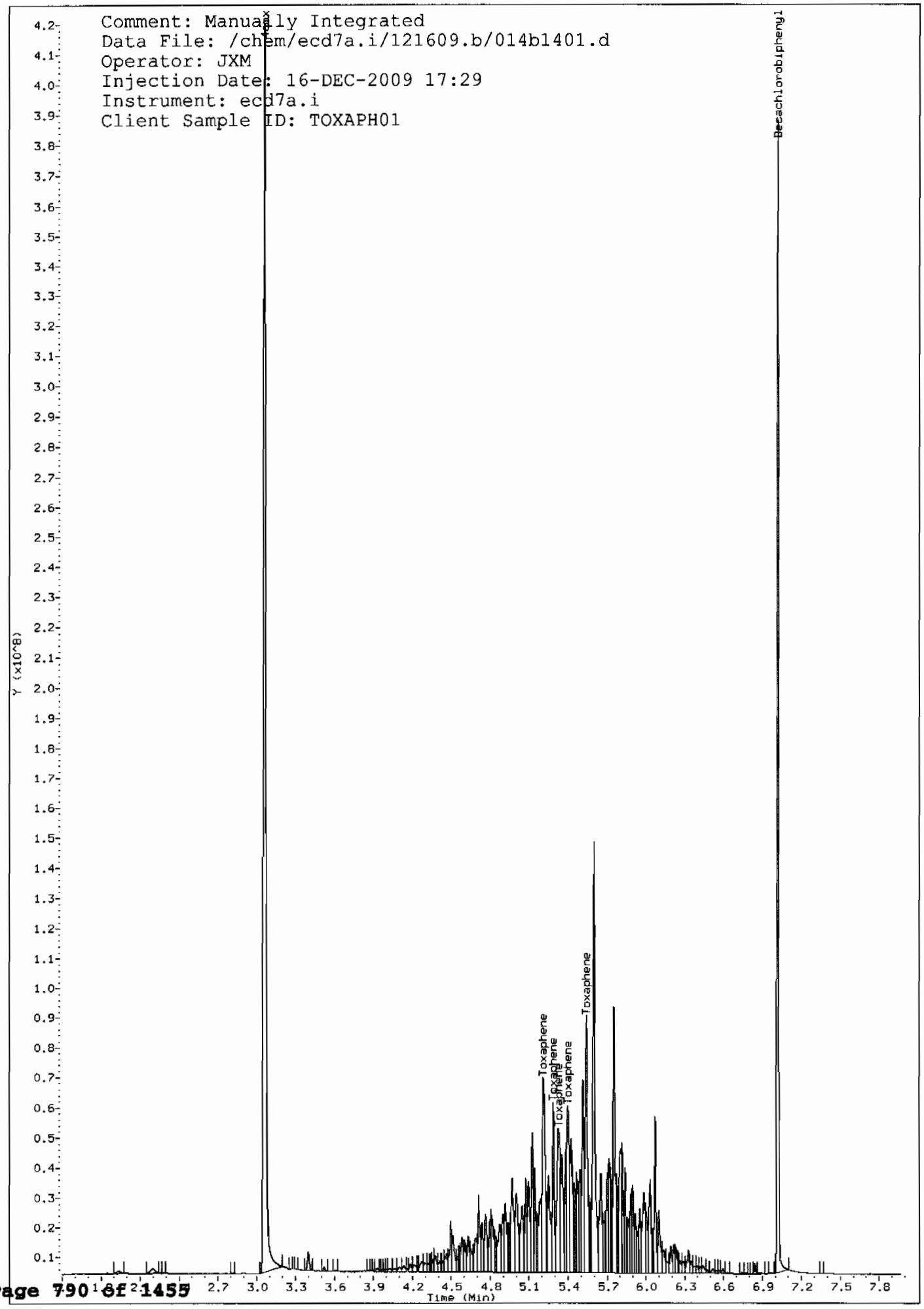
Comment: Manually Integrated
Data File: /chem/ecd7a.i/121609.b/014b1401.d
Operator: JXM
Injection Date: 16-DEC-2009 17:29
Instrument: ecd7a.i
Client Sample ID: TOXAPH01
Decachlorobiphenyl
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Y (x10^8)
Time (Min)

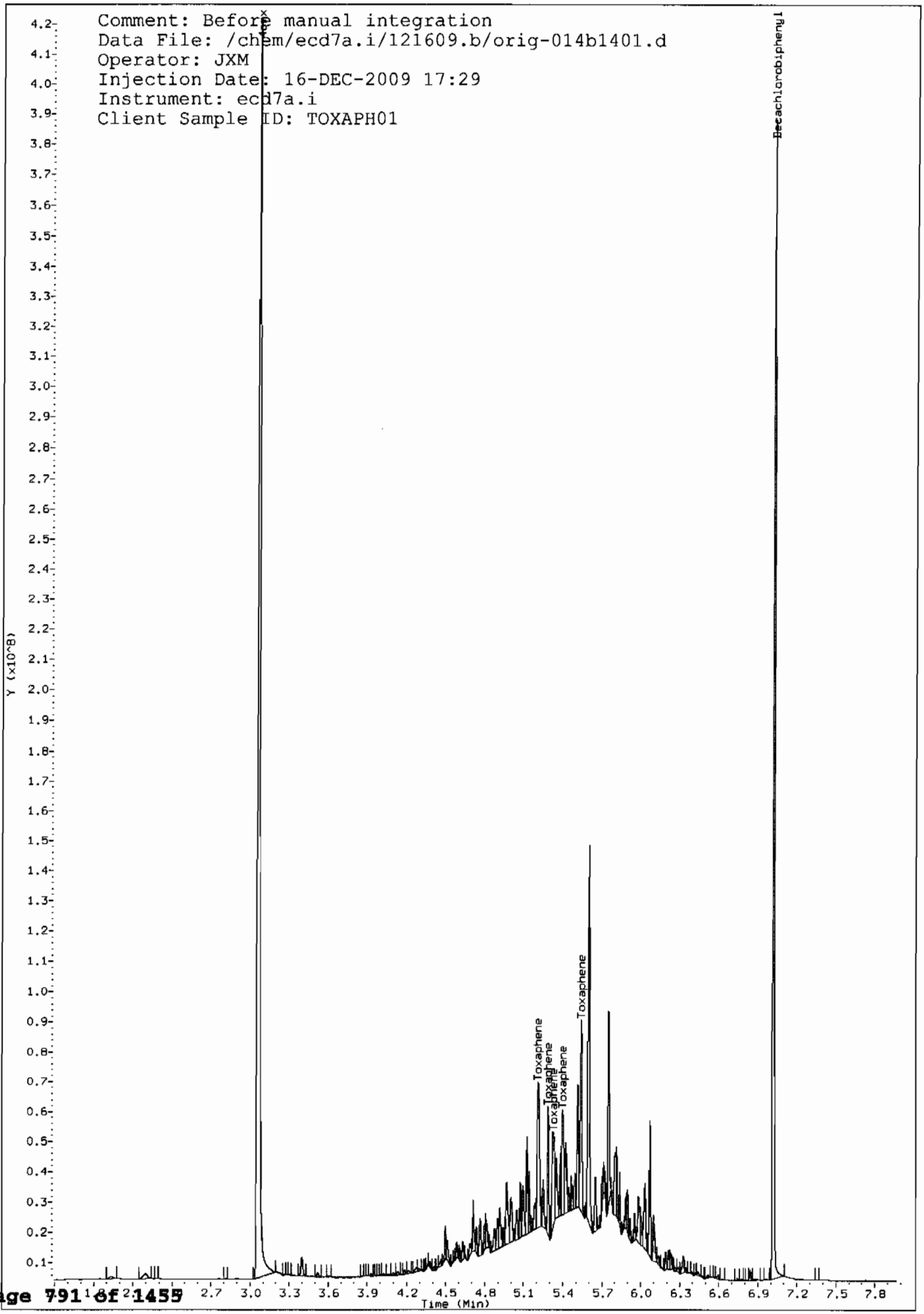
Comment: Before manual integration
Data File: /chem/ecd7a.i/121609.b/orig-014b1401.d
Operator: JXM
Injection Date: 16-DEC-2009 17:29
Instrument: ecd7a.i
Client Sample ID: TOXAPH01
Decachlorobiphenyl
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Y (x10^8)
Time (Min)

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd7a.i/121609.b/023f2301.d
Lab Smp Id: WPE091207-10AB Client Smp ID: INDAB02
Inj Date : 16-DEC-2009 19:52
Operator : JXM Inst ID: ecd7a.i
Smp Info : |WPE091207-10AB
Misc Info :
Comment :
Method : /chem/ecd7a.i/121609.b/ECD7-F-8081-121609.m
Meth Date : 17-Dec-2009 09:15 jam00798 Quant Type: ESTD
Cal Date : 09-DEC-2009 14:57 Cal File: 025f2501.d
Als bottle: 23 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None

AMOUNTS

RT	EXP RT	DLT RT	RESPONSE	CAL-AMT (ug/L)	ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
3.320	3.318	0.002	287055735	100.000	94.0	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.578	3.576	0.002	257994160	100.000	98.9	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
3.648	3.645	0.003	106471119	100.000	92.2	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
3.932	3.930	0.002	193060878	100.000	94.5	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
3.781	3.780	0.001	251706571	100.000	93.1	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.144	4.143	0.001	239372523	100.000	90.2	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.552	4.551	0.001	212256522	100.000	91.2	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
4.632	4.631	0.001	221975327	100.000	98.0	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
4.717	4.716	0.001	194041363	100.000	86.8	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
16 Endosulfan I					CAS #: 959-98-8		
4.806	4.805	0.001	198336665	100.000	95.4	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
4.761	4.760	0.001	433283835	200.000	188	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
4.955	4.955	0.000	409553531	200.000	183	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.101	5.100	0.001	346295183	200.000	187	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.130	5.129	0.001	340981230	200.000	188	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
5.238	5.238	0.000	326384056	200.000	183	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
5.492	5.491	0.001	252436625	200.000	173	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
5.299	5.298	0.001	251962287	200.000	206	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
5.754	5.754	0.000	281779952	200.000	184	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
5.582	5.581	0.001	487094329	1000.00	1100	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
5.929	5.928	0.001	274812776	200.000	204	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
2.812	2.810	0.002	451709294	200.000	190	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
6.517	6.515	0.002	270013917	200.000	195	80.00- 120.00	100.00

Data File: /chem/ecd7a.i/121609.b/023f2301.d
Date : 16-DEC-2009 19:52
Client ID: INDAB02
Sample Info: IWPE091207-10AB

Instrument: ecd7a.i
Operator: JXH
Column diameter: 0.25

Column phase: CLP-1

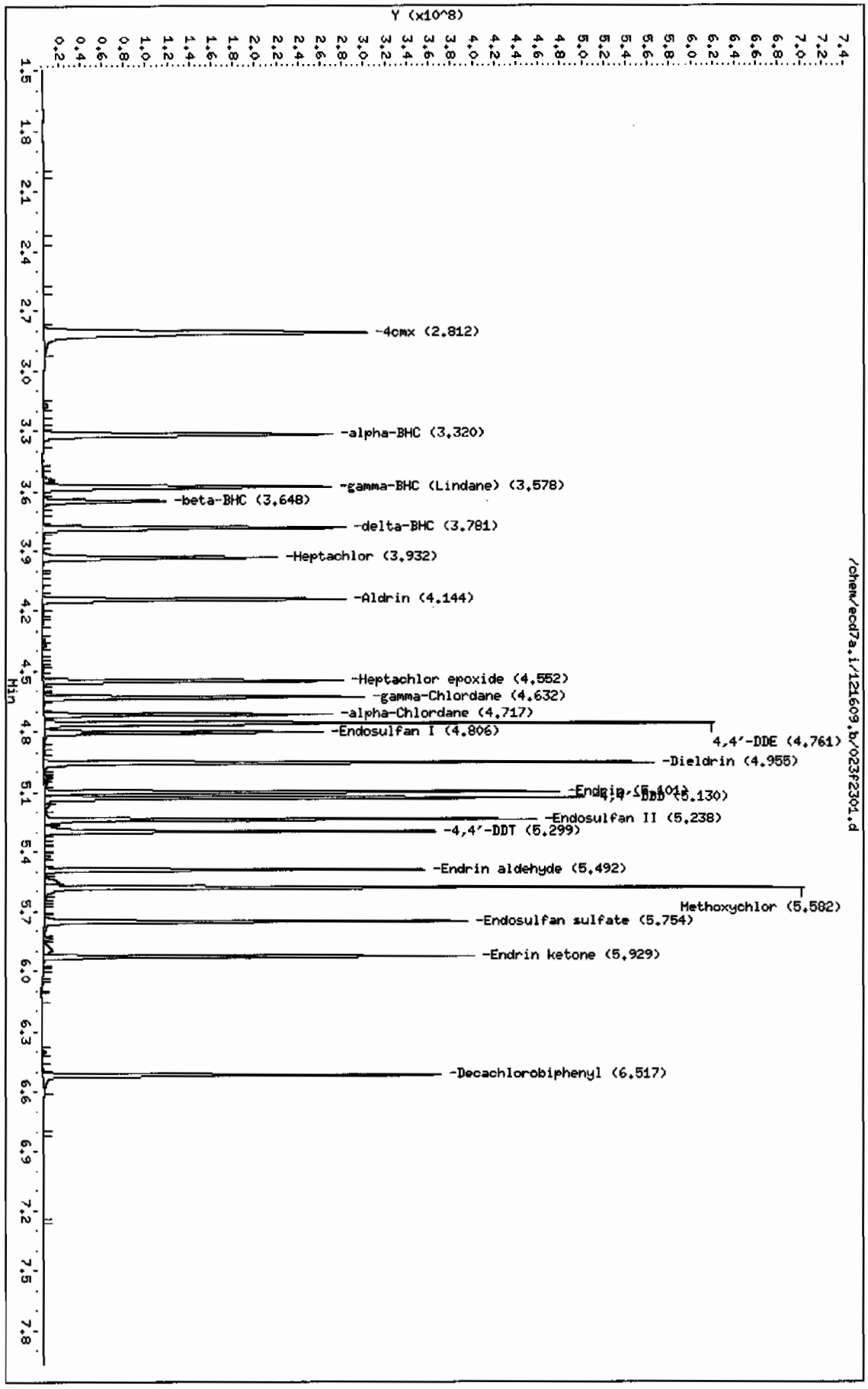

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GEL Laboratories LLC

CLP-2

Data file : /chem/ecd7a.i/121609.b/023b2301.d
Lab Smp Id: WPE091207-10AB Client Smp ID: INDAB02
Inj Date : 16-DEC-2009 19:52
Operator : JXM Inst ID: ecd7a.i
Smp Info : |WPE091207-10AB
Misc Info :
Comment :
Method : /chem/ecd7a.i/121609.b/ECD7-B-8081-121609.m
Meth Date : 17-Dec-2009 09:15 jam00798 Quant Type: ESTD
Cal Date : 09-DEC-2009 14:57 Cal File: 025b2501.d
Als bottle: 23 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
3.600	3.601	-0.001	364015458	100.000	95.2	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.880	3.880	0.000	318749902	100.000	98.7	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
3.938	3.939	-0.001	125469479	100.000	91.1	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
4.207	4.207	0.000	222263442	100.000	96.3	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
4.155	4.155	0.000	307076496	100.000	93.1	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.435	4.436	-0.001	305565839	100.000	90.6	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.810	4.811	-0.001	263675575	100.000	92.2	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
4.930	4.931	-0.001	280550248	100.000	98.8	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
5.022	5.023	-0.001	241066366	100.000	87.6	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
16 Endosulfan I					CAS #: 959-98-8		
5.063	5.065	-0.002	235297669	100.000	95.2	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.111	5.111	0.000	510169269	200.000	189	80.00- 120.00	100.00(M)
20 Dieldrin					CAS #: 60-57-1		
5.234	5.235	-0.001	506282820	200.000	184	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.424	5.425	-0.001	406354409	200.000	186	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.464	5.464	0.000	387907134	200.000	192	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
5.550	5.551	-0.001	397791501	200.000	190	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
5.752	5.753	-0.001	300102058	200.000	176	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
5.657	5.657	0.000	232805064	200.000	218	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
5.920	5.922	-0.002	336015878	200.000	193	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
6.059	6.059	0.000	455350721	1000.00	1190	80.00- 120.00	100.00(M)
31 Endrin ketone					CAS #: 53494-70-5		
6.260	6.260	0.000	320261748	200.000	209	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
3.063	3.063	0.000	533279981	200.000	188	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.026	7.025	0.001	298358219	200.000	195	80.00- 120.00	100.00

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd7a.i/121609.b/023b2301.d
Date : 16-DEC-2009 19:52
Client ID: INDAB02
Sample Info: IWFE091207-10AB
Column phase: CLP-2

Instrument: ecd7a.i
Operator: JXM
Column diameter: 0.25

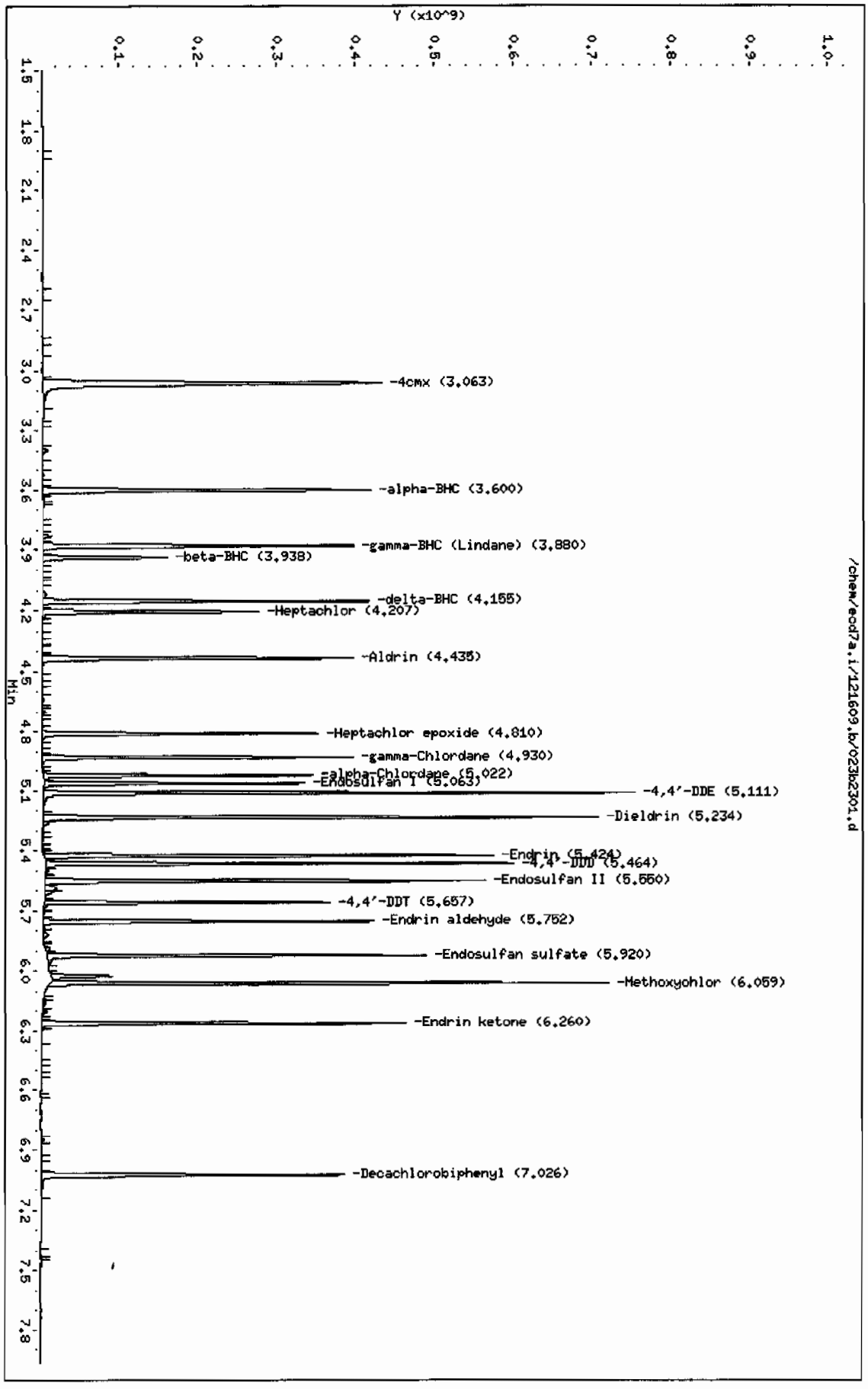

Page 1

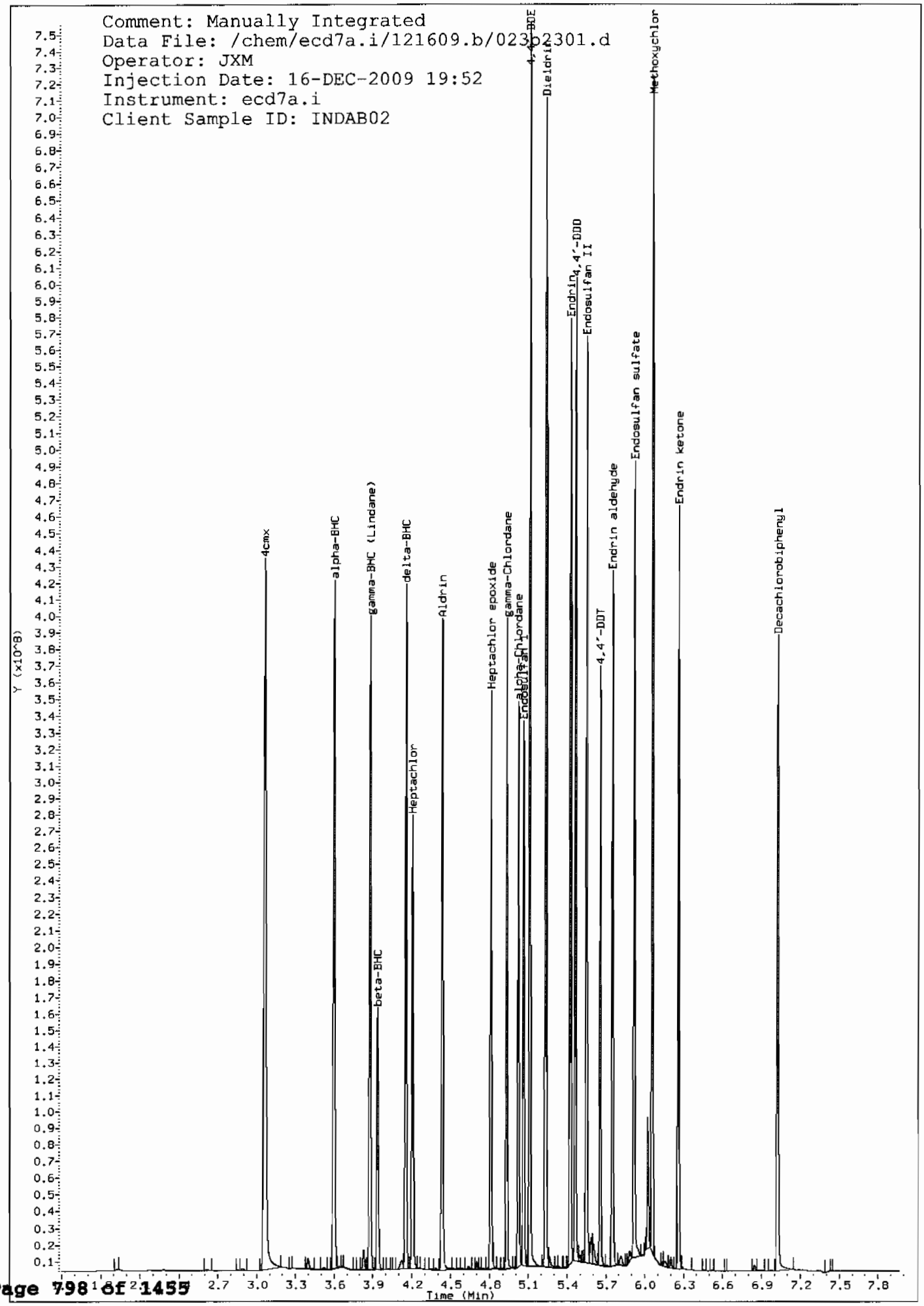
Comment: Manually Integrated
Data File: /chem/ecd7a.i/121609.b/023b2301.d
Operator: JXM
Injection Date: 16-DEC-2009 19:52
Instrument: ecd7a.i
Client Sample ID: INDAB02
4cmx
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide
gamma-Chlordane
alpha-Chlordane
Endosulfan I
4,4'-DDE
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Endosulfan sulfate
Methoxychlor
Endrin ketone
Decachlorobiphenyl
Y (x10^B)
Time (Min)

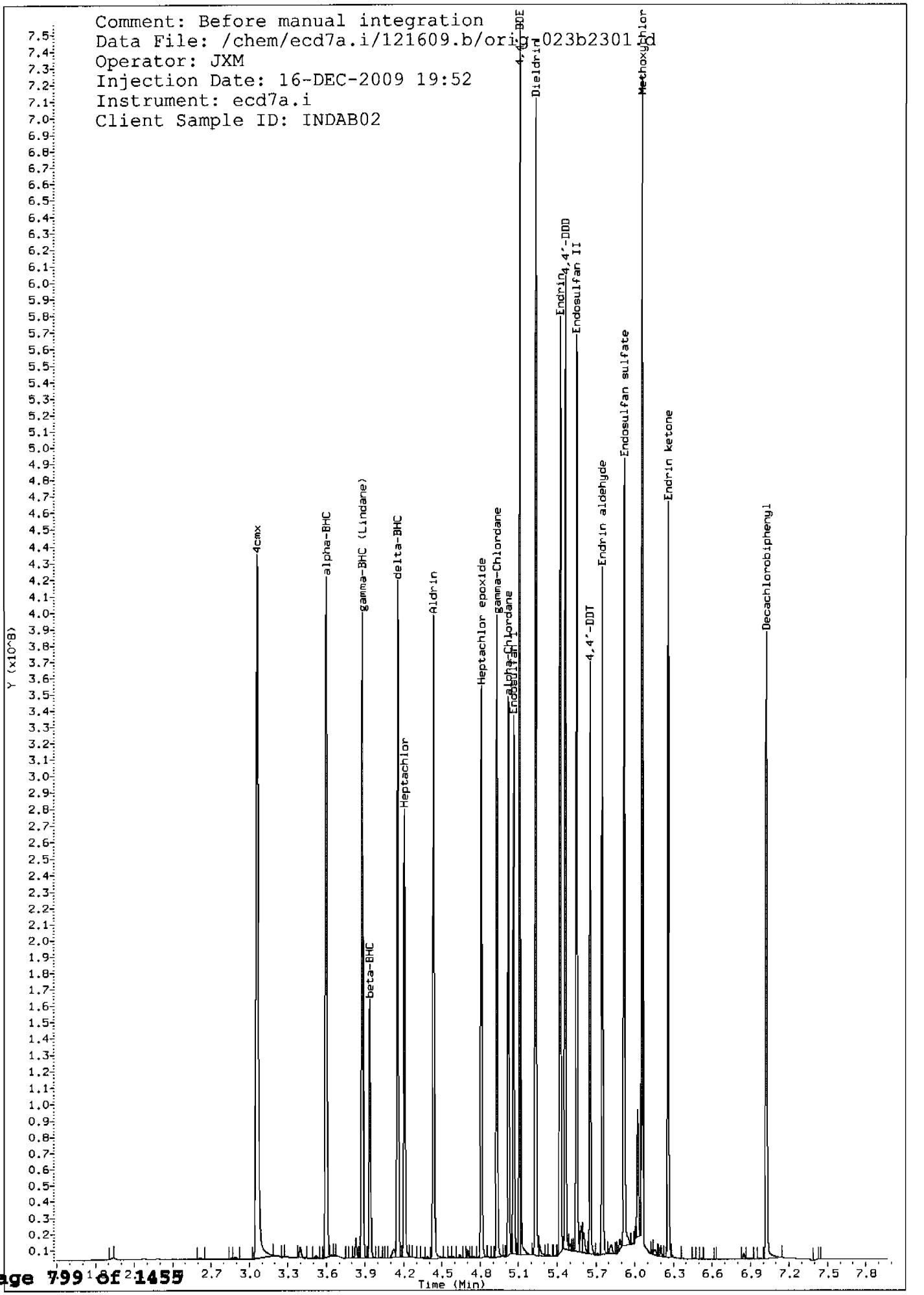
Comment: Before manual integration
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Operator: JXM
Injection Date: 16-DEC-2009 19:52
Instrument: ecd7a.i
Client Sample ID: INDAB02
4,4'-DDE
Dieldrin
Methoxychlor
Endrin
4,4'-DDD
Endosulfan II
Endosulfan sulfate
Endrin ketone
Endrin aldehyde
4,4'-DDT
Decachlorobiphenyl
4cmx
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide
gamma-Chlordane
alpha-Chlordane
Endosulfan I
Y (x10^8)
Time (Min)

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd7a.i/121609.b/035f3501.d
Lab Smp Id: WPE091207-10AB Client Smp ID: INDAB03
Inj Date : 16-DEC-2009 22:50
Operator : JXM Inst ID: ecd7a.i
Smp Info : |WPE091207-10AB
Misc Info :
Comment :
Method : /chem/ecd7a.i/121609.b/ECD7-F-8081-121609.m
Meth Date : 17-Dec-2009 09:53 jam00798 Quant Type: ESTD
Cal Date : 09-DEC-2009 14:57 Cal File: 025f2501.d
Als bottle: 35 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None

AMOUNTS

RT	EXP RT	DLT RT	RESPONSE	CAL-AMT (ug/L)	ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
3.316	3.318	-0.002	310545936	100.000	102	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.575	3.576	-0.001	284272106	100.000	109	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
3.645	3.645	0.000	115292941	100.000	99.8	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
3.929	3.930	-0.001	217865653	100.000	107	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
3.779	3.780	-0.001	274065912	100.000	101	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.142	4.143	-0.001	255023231	100.000	96.1	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.550	4.551	-0.001	226935049	100.000	97.5	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
4.630	4.631	-0.001	238239411	100.000	105	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
4.714	4.716	-0.002	205782029	100.000	92.1	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
16 Endosulfan I					CAS #: 959-98-8		
4.803	4.805	-0.002	207642217	100.000	99.9	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
4.759	4.760	-0.001	456931334	200.000	198	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
4.953	4.955	-0.002	430827468	200.000	193	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.098	5.100	-0.002	373267360	200.000	202	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.128	5.129	-0.001	361178844	200.000	199	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
5.236	5.238	-0.002	332462740	200.000	187	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
5.489	5.491	-0.002	262221623	200.000	180	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
5.296	5.298	-0.002	268359381	200.000	219	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
5.749	5.754	-0.005	291568678	200.000	190	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
5.578	5.581	-0.003	532357295	1000.00	1210	80.00- 120.00	100.00(M)
31 Endrin ketone					CAS #: 53494-70-5		
5.922	5.928	-0.006	298359805	200.000	221	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
2.809	2.810	-0.001	499867619	200.000	210	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
6.506	6.515	-0.009	275063324	200.000	198	80.00- 120.00	100.00

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd7a.i/121609.b/035f3501.d

Date : 16-DEC-2009 22:50

Client ID: INDAB03

Sample Info: IWPE091207-10AB

Column phase: CLP-1

Instrument: ecd7a.i

Operator: JXM

Column diameter: 0.25

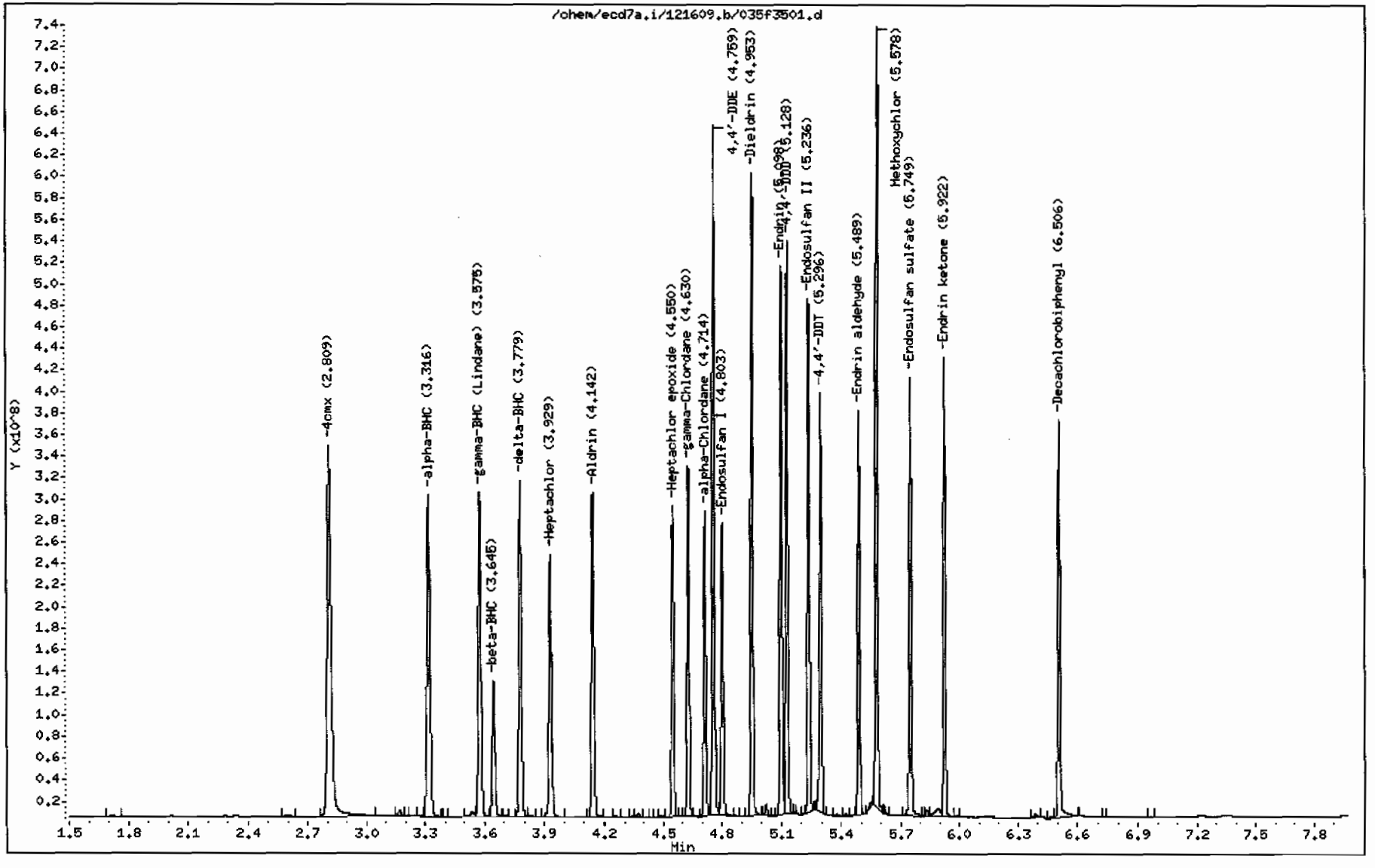

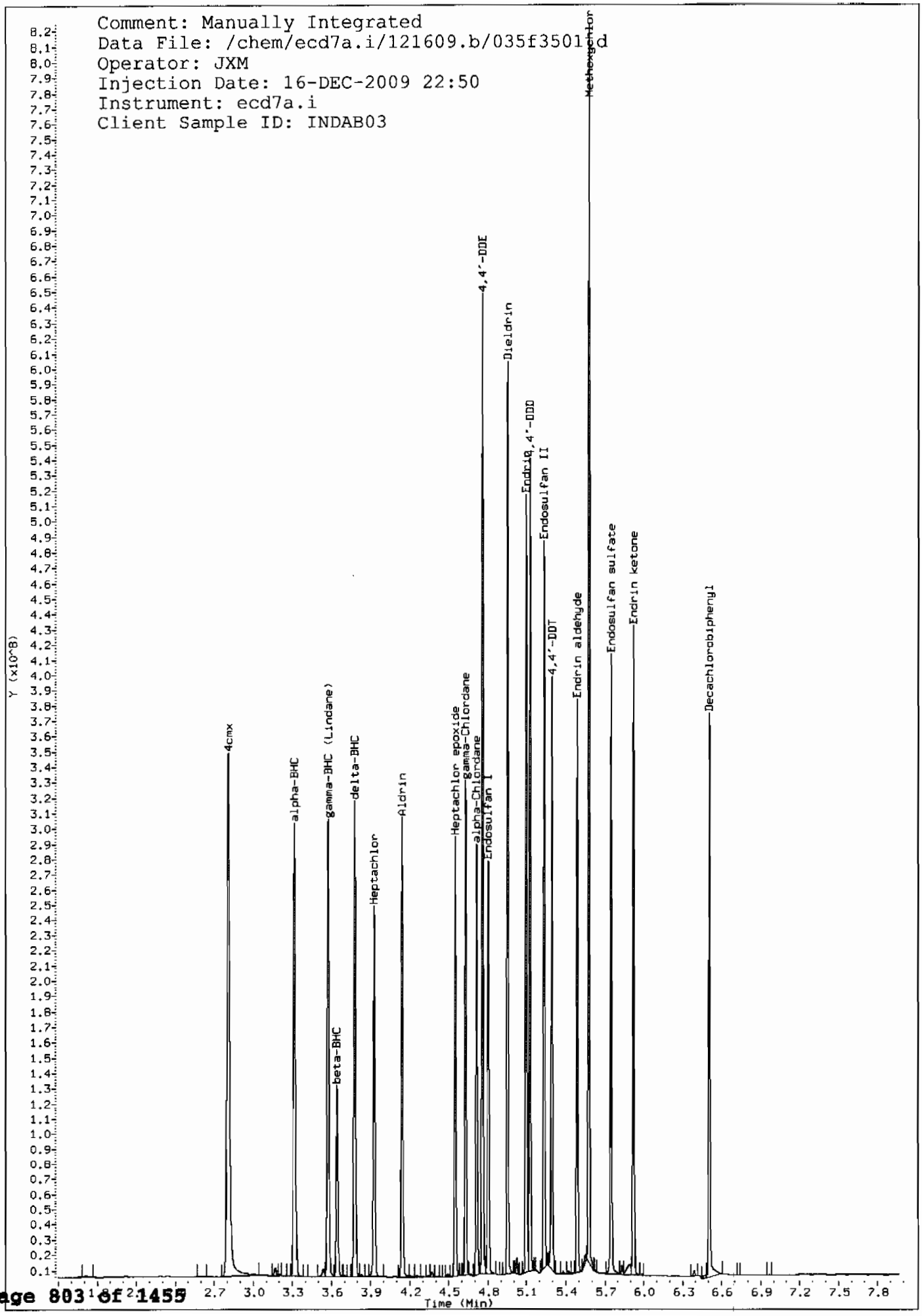
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Data File: /chem/ecd7a.i/121609.b/035f3501.d
Operator: JXM
Injection Date: 16-DEC-2009 22:50
Instrument: ecd7a.i
Client Sample ID: INDAB03
Y (x10^8)
Time (Min)
4cmx
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide
gamma-Chlordane
alpha-Chlordane
Endosulfan I
4,4'-DDE
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Methoxychlor
Endosulfan sulfate
Endrin ketone
Decachlorobiphenyl

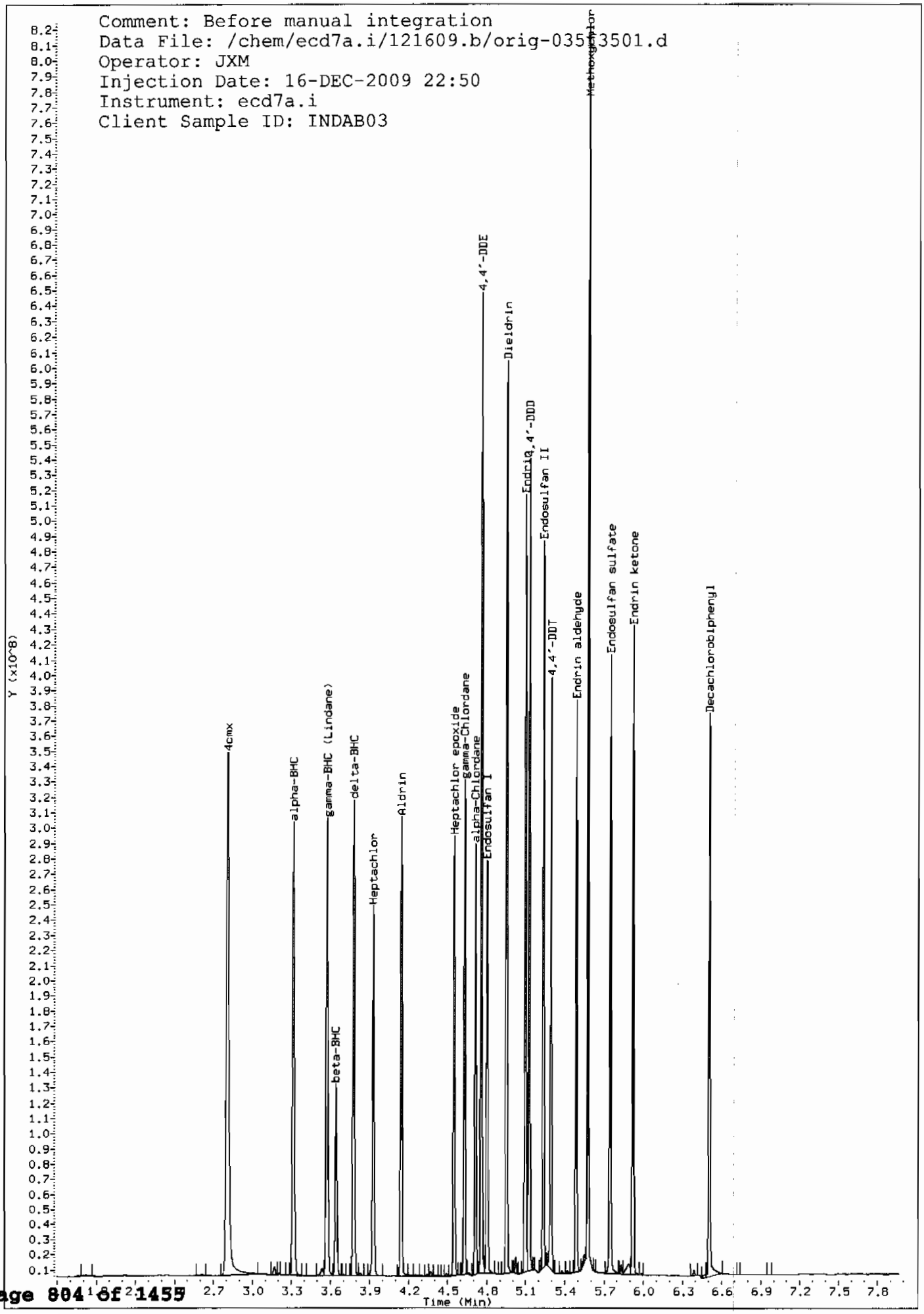
Comment: Before manual integration
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Operator: JXM
Injection Date: 16-DEC-2009 22:50
Instrument: ecd7a.i
Client Sample ID: INDAB03
Y (x10^8)
Time (Min)
4cmx
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide
gamma-Chlordane
alpha-Chlordane
Endosulfan I
4,4'-DDE
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Methoxychlor
Endosulfan sulfate
Endrin ketone
Decachlorobiphenyl

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd7a.i/121609.b/035b3501.d
Lab Smp Id: WPE091207-10AB Client Smp ID: INDAB03
Inj Date : 16-DEC-2009 22:50
Operator : JXM Inst ID: ecd7a.i
Smp Info : |WPE091207-10AB
Misc Info :
Comment :
Method : /chem/ecd7a.i/121609.b/ECD7-B-8081-121609.m
Meth Date : 17-Dec-2009 09:53 jam00798 Quant Type: ESTD
Cal Date : 09-DEC-2009 14:57 Cal File: 025b2501.d
Als bottle: 35 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
3.600	3.601	-0.001	395269438	100.000	103	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.880	3.880	0.000	351649272	100.000	109	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
3.939	3.939	0.000	137032601	100.000	99.5	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
4.206	4.207	-0.001	254988926	100.000	110	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
4.155	4.155	0.000	333460857	100.000	101	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.435	4.436	-0.001	324669246	100.000	96.3	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.810	4.811	-0.001	280560879	100.000	98.2	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
4.930	4.931	-0.001	298550322	100.000	105	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
5.022	5.023	-0.001	253577932	100.000	92.1	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
16 Endosulfan I					CAS #: 959-98-8		
5.064	5.065	-0.001	249695957	100.000	101	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.110	5.111	-0.001	537709378	200.000	200	80.00- 120.00	100.00(M)
20 Dieldrin					CAS #: 60-57-1		
5.234	5.235	-0.001	542754453	200.000	197	80.00- 120.00	100.00(M)
22 Endrin					CAS #: 72-20-8		
5.424	5.425	-0.001	460085358	200.000	210	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.463	5.464	-0.001	424569796	200.000	210	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
5.549	5.551	-0.002	419703803	200.000	201	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
5.749	5.753	-0.004	314706600	200.000	184	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
5.655	5.657	-0.002	270208645	200.000	251	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
5.915	5.922	-0.007	358325493	200.000	206	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
6.051	6.059	-0.008	539813170	1000.00	1410	80.00- 120.00	100.00(M)
31 Endrin ketone					CAS #: 53494-70-5		
6.250	6.260	-0.010	355853318	200.000	232	80.00- 120.00	100.00(M)
$ 1 4cmx					CAS #: 877-09-8		
3.063	3.063	0.000	572208580	200.000	202	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.016	7.025	-0.009	306746292	200.000	201	80.00- 120.00	100.00

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd7a.i/121609.b/035b3501.d
Date : 16-DEC-2009 22:50
Client ID: INDAB03
Sample Info: IWPE091207-10AB
Column phase: CLP-2

Instrument: ecd7a.i
Operator: JXM
Column diameter: 0.25

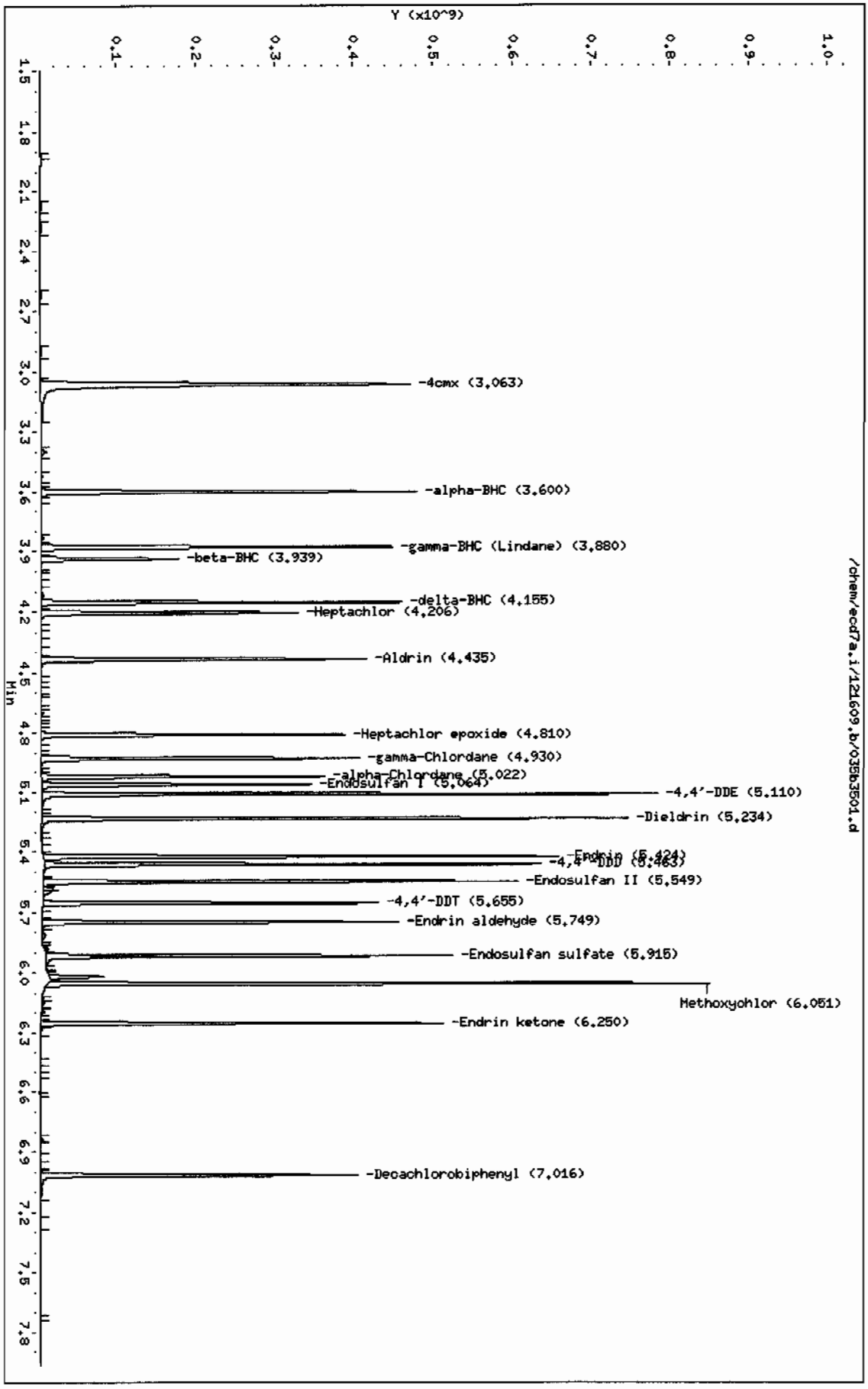

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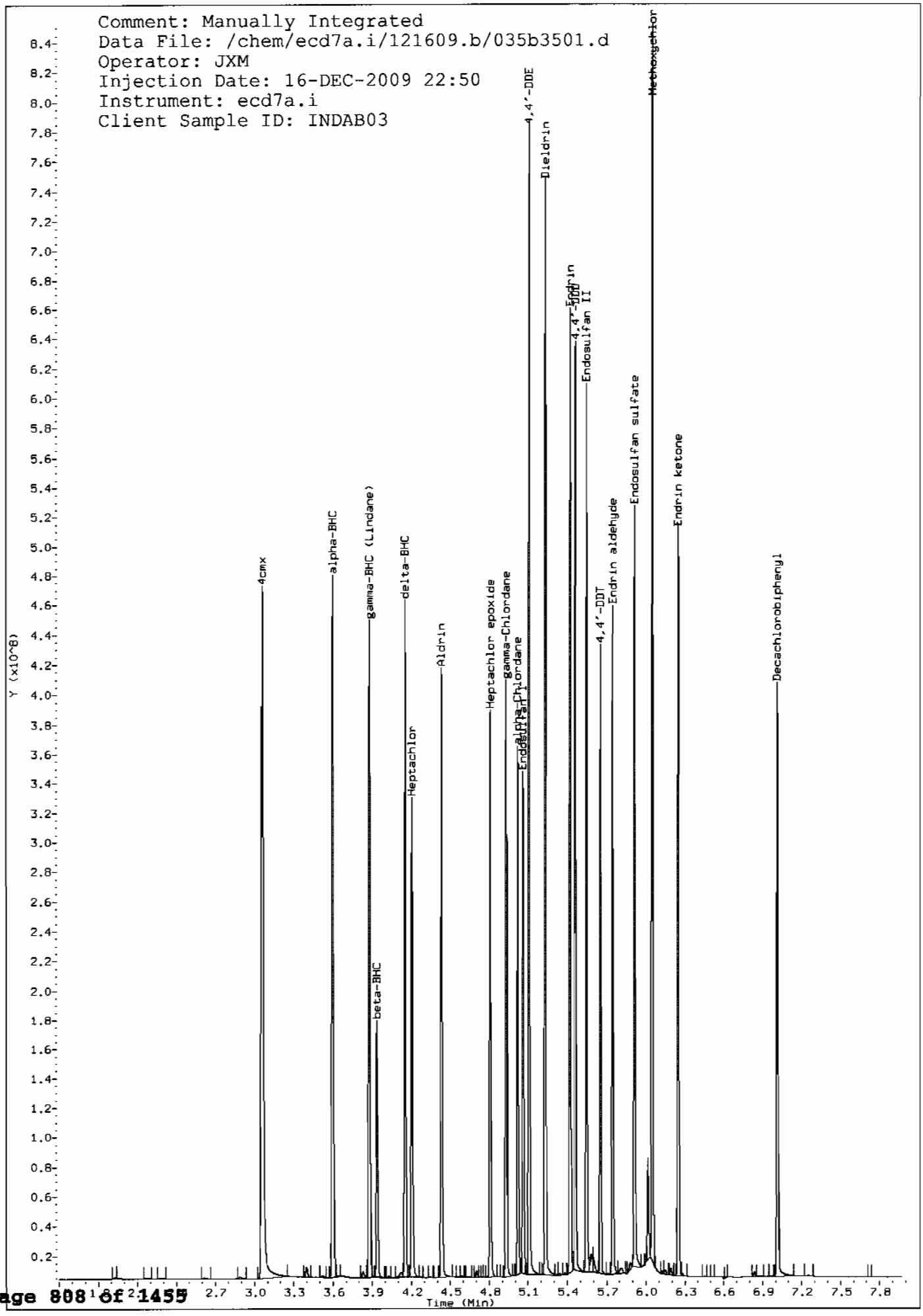
Comment: Manually Integrated
Data File: /chem/ecd7a.i/121609.b/035b3501.d
Operator: JXM
Injection Date: 16-DEC-2009 22:50
Instrument: ecd7a.i
Client Sample ID: INDAB03
Y (x10^8)
Time (Min)
4cmx
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide
gamma-Chlordane
alpha-Chlordane
Endosulfan I
4,4'-DDE
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Endosulfan sulfate
Methoxychlor
Endrin ketone
Decachlorobiphenyl

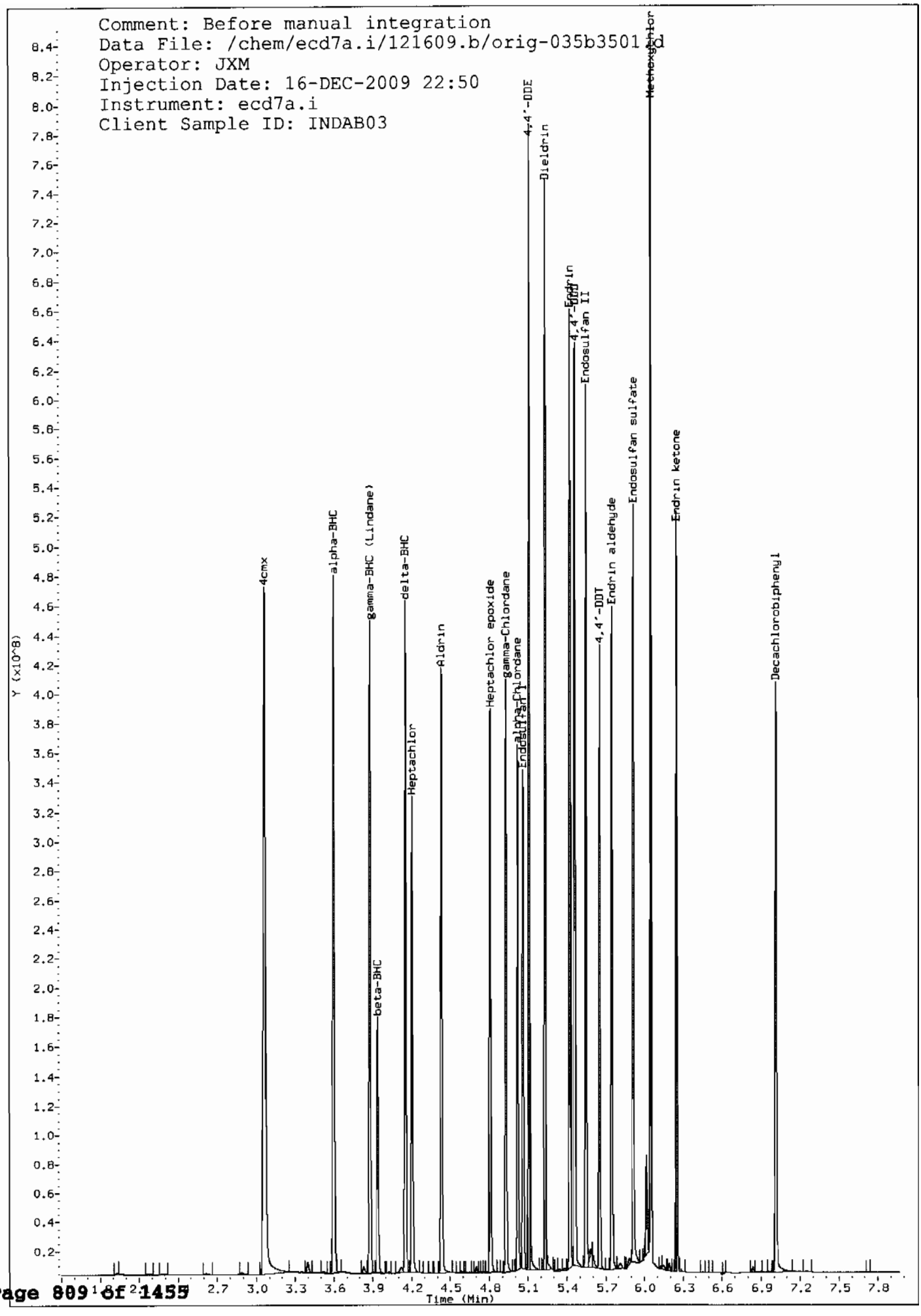
Comment: Before manual integration
Data File: /chem/ecd7a.i/121609.b/orig-035b3501.d
Operator: JXM
Injection Date: 16-DEC-2009 22:50
Instrument: ecd7a.i
Client Sample ID: INDAB03
Y (x10^8)
Time (Min)
4cmx
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide
gamma-Chlordane
alpha-Chlordane
Endosulfan I
4,4'-DDE
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
Endosulfan sulfate
4,4'-DDT
Endrin aldehyde
Methoxychlor
Endrin ketone
Decachlorobiphenyl

8D
PESTICIDE ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-899

GC Column: CLP-1 ID: 0.25 (mm) Init. Calib. Date(s): 12/16/09 12/16/09

Instrument ID: ECD7A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.81 DCB: 6.51

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR091130-99	12/16/09	1416	2.81	6.53
02	PEM01	WPE091109-99	12/16/09	1431	2.81	6.52
03	INDAB01	WPE091216-01	12/16/09	1446	2.81	6.51
04	INDAB02	WPE091216-02	12/16/09	1500	2.81	6.51
05	INDAB03	WPE091216-03	12/16/09	1515	2.81	6.51
06	INDAB04	WPE091216-04	12/16/09	1530	2.81	6.51
07	INDAB05	IPE091128-02	12/16/09	1545	2.81	6.51
08	INDAB01	WPE091207-10	12/16/09	1600	2.81	6.52
09	TOXAPH01	WPE091216-11	12/16/09	1615	2.81	6.51
10	TOXAPH02	WPE091216-12	12/16/09	1630	2.81	6.51
11	TOXAPH03	WPE091216-13	12/16/09	1644	2.81	6.51
12	TOXAPH04	WPE091216-14	12/16/09	1659	2.81	6.51
13	TOXAPH05	IPE091121-40	12/16/09	1714	2.81	6.51
14	TOXAPH01	WPE091104-52	12/16/09	1729	2.81	6.51
15	CHLOR01	WPE091216-21	12/16/09	1744	2.81	6.51
16	CHLOR02	WPE091216-22	12/16/09	1759	2.81	6.51
17	CHLOR03	WPE091216-23	12/16/09	1814	2.81	6.51
18	CHLOR04	WPE091216-24	12/16/09	1829	2.81	6.51
19	CHLOR05	IPE091029-06	12/16/09	1843	2.81	6.51
20	CHLOR01	WPE090916-00	12/16/09	1858	2.81	6.51
21	PIBLK02	WAR091130-99	12/16/09	1913	2.81	6.51
22	ZZZZZ	ZZZZZ	12/16/09	1928	2.81	6.51
23	INDAB02	WPE091207-10	12/16/09	1952	2.81	6.52
24	PIBLK03	WAR091130-99	12/16/09	2007	2.81	6.51
25	PEM02	WPE091109-99	12/16/09	2022	2.81	6.51
26	PBLK01	1201995977	12/16/09	2037	2.81	6.51
27	PBLK01LCS	1201995978	12/16/09	2051	2.81	6.51
28	PBLK01TLCS	1201995981	12/16/09	2106	2.81	6.51
29	ZZZZZ	ZZZZZ	12/16/09	2121	2.81	6.51
30	WST03-10-2145	242784003	12/16/09	2136	2.81	6.51
31	WST03-10-2145MS	1201995979	12/16/09	2151	2.81	6.51
32	WST03-10-2145MSD	1201995980	12/16/09	2206	2.81	6.51

QC LIMITS
S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

8D
PESTICIDE ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-899

GC Column: CLP-1 ID: 0.25 (mm) Init. Calib. Date(s): 12/16/09 12/16/09

Instrument ID: ECD7A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.81 DCB: 6.51

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	WST03-10-2146	242784004	12/16/09	2220	2.81	6.51
02	PIBLK04	WAR091130-99	12/16/09	2235	2.81	6.51
03	INDAB03	WPE091207-10	12/16/09	2250	2.81	6.51
04	PIBLK05	WAR091130-99	12/16/09	2305	2.81	6.51
05	ZZZZZ	ZZZZZ	12/16/09	2320	2.81	6.51
06	ZZZZZ	ZZZZZ	12/16/09	2335	2.81	6.51
07	ZZZZZ	ZZZZZ	12/16/09	2349	2.81	6.51
08	ZZZZZ	ZZZZZ	12/17/09	0004	2.81	6.51
09	ZZZZZ	ZZZZZ	12/17/09	0019	2.81	6.51
10	ZZZZZ	ZZZZZ	12/17/09	0034	2.81	6.51
11	ZZZZZ	ZZZZZ	12/17/09	0049	2.81	6.51
12	ZZZZZ	ZZZZZ	12/17/09	0104	2.81	6.51
13	INDAB04	WPE091207-10	12/17/09	0118	2.81	6.51
14	PIBLK06	WAR091130-99	12/17/09	0133	2.81	6.51
15	ZZZZZ	ZZZZZ	12/17/09	0148	2.81	6.51
16	ZZZZZ	ZZZZZ	12/17/09	0203	2.81	6.51
17	ZZZZZ	ZZZZZ	12/17/09	0218	2.81	6.51
18	ZZZZZ	ZZZZZ	12/17/09	0233	2.81	6.50
19	ZZZZZ	ZZZZZ	12/17/09	0247	2.81	6.51
20	ZZZZZ	ZZZZZ	12/17/09	0302	2.81	6.51
21	PIBLK07	WAR091130-99	12/17/09	0317	2.81	6.51
22	INDAB05	WPE091207-10	12/17/09	0332	2.81	6.51
23	PIBLK08	WAR091130-99	12/17/09	0347	2.81	6.51
24	ZZZZZ	ZZZZZ	12/17/09	0401	2.81	6.51
25	ZZZZZ	ZZZZZ	12/17/09	0416	2.81	6.51
26	ZZZZZ	ZZZZZ	12/17/09	0431	2.81	6.51
27	ZZZZZ	ZZZZZ	12/17/09	0446	2.81	6.51
28	ZZZZZ	ZZZZZ	12/17/09	0501	2.81	6.51
29	PIBLK09	WAR091130-99	12/17/09	0515	2.81	6.51
30	INDAB06	WPE091207-10	12/17/09	0530	2.81	6.51
31	PIBLK10	WAR091130-99	12/17/09	0545	2.81	6.51
32	ZZZZZ	ZZZZZ	12/17/09	0600	2.81	6.51

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII SV OLM03.0

8D
PESTICIDE ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-899

GC Column: CLP-2 ID: 0.25 (mm) Init. Calib. Date(s): 12/16/09 12/16/09

Instrument ID: ECD7A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 3.06 DCB: 7.03

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR091130-99	12/16/09	1416	3.06	7.04
02	PEM01	WPE091109-99	12/16/09	1431	3.06	7.03
03	INDAB01	WPE091216-01	12/16/09	1446	3.06	7.02
04	INDAB02	WPE091216-02	12/16/09	1500	3.06	7.02
05	INDAB03	WPE091216-03	12/16/09	1515	3.06	7.02
06	INDAB04	WPE091216-04	12/16/09	1530	3.06	7.02
07	INDAB05	IPE091128-02	12/16/09	1545	3.06	7.02
08	INDAB01	WPE091207-10	12/16/09	1600	3.06	7.03
09	TOXAPH01	WPE091216-11	12/16/09	1615	3.06	7.02
10	TOXAPH02	WPE091216-12	12/16/09	1630	3.07	7.02
11	TOXAPH03	WPE091216-13	12/16/09	1644	3.06	7.02
12	TOXAPH04	WPE091216-14	12/16/09	1659	3.06	7.02
13	TOXAPH05	IPE091121-40	12/16/09	1714	3.06	7.02
14	TOXAPH01	WPE091104-52	12/16/09	1729	3.06	7.02
15	CHLOR01	WPE091216-21	12/16/09	1744	3.06	7.02
16	CHLOR02	WPE091216-22	12/16/09	1759	3.06	7.02
17	CHLOR03	WPE091216-23	12/16/09	1814	3.06	7.02
18	CHLOR04	WPE091216-24	12/16/09	1829	3.06	7.02
19	CHLOR05	IPE091029-06	12/16/09	1843	3.06	7.02
20	CHLOR01	WPE090916-00	12/16/09	1858	3.06	7.02
21	PIBLK02	WAR091130-99	12/16/09	1913	3.06	7.02
22	ZZZZZ	ZZZZZ	12/16/09	1928	3.06	7.02
23	INDAB02	WPE091207-10	12/16/09	1952	3.06	7.03
24	PIBLK03	WAR091130-99	12/16/09	2007	3.06	7.02
25	PEM02	WPE091109-99	12/16/09	2022	3.06	7.02
26	PBLK01	1201995977	12/16/09	2037	3.06	7.02
27	PBLK01LCS	1201995978	12/16/09	2051	3.06	7.02
28	PBLK01TLCS	1201995981	12/16/09	2106	3.06	7.02
29	ZZZZZ	ZZZZZ	12/16/09	2121	3.06	7.02
30	WST03-10-2145	242784003	12/16/09	2136	3.06	7.02
31	WST03-10-2145MS	1201995979	12/16/09	2151	3.06	7.02
32	WST03-10-2145MSD	1201995980	12/16/09	2206	3.06	7.02

QC LIMITS
S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

8D
PESTICIDE ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-899

GC Column: CLP-2 ID: 0.25 (mm) Init. Calib. Date(s): 12/16/09 12/16/09

Instrument ID: ECD7A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 3.06 DCB: 7.03

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	WST03-10-2146	242784004	12/16/09	2220	3.06	7.02
02	PIBLK04	WAR091130-99	12/16/09	2235	3.06	7.02
03	INDAB03	WPE091207-10	12/16/09	2250	3.06	7.02
04	PIBLK05	WAR091130-99	12/16/09	2305	3.06	7.02
05	ZZZZZ	ZZZZZ	12/16/09	2320	3.06	7.02
06	ZZZZZ	ZZZZZ	12/16/09	2335	3.06	7.02
07	ZZZZZ	ZZZZZ	12/16/09	2349	3.07	7.02
08	ZZZZZ	ZZZZZ	12/17/09	0004	3.06	7.02
09	ZZZZZ	ZZZZZ	12/17/09	0019	3.06	7.02
10	ZZZZZ	ZZZZZ	12/17/09	0034	3.06	7.02
11	ZZZZZ	ZZZZZ	12/17/09	0049	3.06	7.02
12	ZZZZZ	ZZZZZ	12/17/09	0104	3.07	7.02
13	INDAB04	WPE091207-10	12/17/09	0118	3.06	7.02
14	PIBLK06	WAR091130-99	12/17/09	0133	3.06	7.02
15	ZZZZZ	ZZZZZ	12/17/09	0148	3.06	7.02
16	ZZZZZ	ZZZZZ	12/17/09	0203	3.06	7.02
17	ZZZZZ	ZZZZZ	12/17/09	0218	3.06	7.02
18	ZZZZZ	ZZZZZ	12/17/09	0233	3.06	7.01
19	ZZZZZ	ZZZZZ	12/17/09	0247	3.06	7.02
20	ZZZZZ	ZZZZZ	12/17/09	0302	3.06	7.02
21	PIBLK07	WAR091130-99	12/17/09	0317	3.06	7.02
22	INDAB05	WPE091207-10	12/17/09	0332	3.06	7.02
23	PIBLK08	WAR091130-99	12/17/09	0347	3.06	7.02
24	ZZZZZ	ZZZZZ	12/17/09	0401	3.06	7.02
25	ZZZZZ	ZZZZZ	12/17/09	0416	3.06	7.02
26	ZZZZZ	ZZZZZ	12/17/09	0431	3.06	7.02
27	ZZZZZ	ZZZZZ	12/17/09	0446	3.06	7.02
28	ZZZZZ	ZZZZZ	12/17/09	0501	3.06	7.02
29	PIBLK09	WAR091130-99	12/17/09	0515	3.06	7.02
30	INDAB06	WPE091207-10	12/17/09	0530	3.06	7.02
31	PIBLK10	WAR091130-99	12/17/09	0545	3.06	7.02
32	ZZZZZ	ZZZZZ	12/17/09	0600	3.06	7.02

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII SV OLM03.0

Identification Summary

SDG Number: 10–899 **Client ID:** LCS for batch 932993

Lab Sample ID: 1201995978

Data File:	027f2701.d	**Data File:**	027b2701.d
Inst:	ECD7A.I_1	**Inst:**	ECD7A.I_2
Column:	CLP–1	**Column:**	CLP–2
Analyzed:	16–DEC–09 20:51	**Analyzed:**	16–DEC–09 20:51

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
alpha–BHC							10.1
Column 1	1	3.32	3.29 – 3.35	12.8		ug/kg	
Column 2	1	3.6	3.57 – 3.63	14.2		ug/kg	
gamma–BHC (Lindane)							1.91
Column 1	1	3.57	3.55 – 3.61	14.7		ug/kg	
Column 2	1	3.88	3.85 – 3.91	14.4		ug/kg	
beta–BHC							2.89
Column 1	1	3.64	3.62 – 3.68	14		ug/kg	
Column 2	1	3.94	3.91 – 3.97	13.6		ug/kg	
delta–BHC							.753
Column 1	1	3.78	3.75 – 3.81	14.3		ug/kg	
Column 2	1	4.15	4.13 – 4.19	14.4		ug/kg	
Heptachlor							2.75
Column 1	1	3.93	3.9 – 3.96	15.5		ug/kg	
Column 2	1	4.21	4.18 – 4.24	15.9		ug/kg	

Identification Summary

SDG Number: 10-899 **Client ID:** LCS for batch 932993

Lab Sample ID: 1201995978

Data File:	027f2701.d	**Data File:**	027b2701.d
Inst:	ECD7A.I_1	**Inst:**	ECD7A.I_2
Column:	CLP-1	**Column:**	CLP-2
Analyzed:	16-DEC-09 20:51	**Analyzed:**	16-DEC-09 20:51

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aldrin							6.66
Column 1	1	4.14	4.11 – 4.17	13.1		ug/kg	
Column 2	1	4.44	4.41 – 4.47	14		ug/kg	
Heptachlor epoxide							2.06
Column 1	1	4.55	4.52 – 4.58	13.9		ug/kg	
Column 2	1	4.81	4.78 – 4.84	14.2		ug/kg	
gamma-Chlordane							2.7
Column 1	1	4.63	4.6 – 4.66	14.2		ug/kg	
Column 2	1	4.93	4.9 – 4.96	14.6		ug/kg	
alpha-Chlordane							2.79
Column 1	1	4.72	4.69 – 4.75	14.4		ug/kg	
Column 2	1	5.02	4.99 – 5.05	14.8		ug/kg	
Endosulfan I							1.66
Column 1	1	4.8	4.77 – 4.83	14.5		ug/kg	
Column 2	1	5.06	5.03 – 5.09	14.8		ug/kg	

Identification Summary

SDG Number: 10–899 **Client ID:** LCS for batch 932993

Lab Sample ID: 1201995978

Data File:	027f2701.d	**Data File:**	027b2701.d
Inst:	ECD7A.I_1	**Inst:**	ECD7A.I_2
Column:	CLP–1	**Column:**	CLP–2
Analyzed:	16–DEC–09 20:51	**Analyzed:**	16–DEC–09 20:51

Analyte		Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
4,4'–DDE								5.31
	Column 1	1	4.76	4.73 – 4.79	34.5		ug/kg	
	Column 2	1	5.11	5.08 – 5.14	36.4		ug/kg	
Dieldrin								2.66
	Column 1	1	4.95	4.92 – 4.98	34.9		ug/kg	
	Column 2	1	5.23	5.2 – 5.26	35.8		ug/kg	
Endrin								3.73
	Column 1	1	5.1	5.07 – 5.13	37.3		ug/kg	
	Column 2	1	5.42	5.4 – 5.46	38.7		ug/kg	
4,4'–DDD								9.67
	Column 1	1	5.13	5.1 – 5.16	36.7		ug/kg	
	Column 2	1	5.46	5.43 – 5.49	40.4		ug/kg	
Endosulfan II								8.97
	Column 1	1	5.24	5.21 – 5.27	37.3		ug/kg	
	Column 2	1	5.55	5.52 – 5.58	40.8		ug/kg	

Identification Summary

SDG Number: 10-899 **Client ID:** LCS for batch 932993

Lab Sample ID: 1201995978

Data File:	027f2701.d	**Data File:**	027b2701.d
Inst:	ECD7A.I_1	**Inst:**	ECD7A.I_2
Column:	CLP-1	**Column:**	CLP-2
Analyzed:	16-DEC-09 20:51	**Analyzed:**	16-DEC-09 20:51

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Endrin aldehyde							4.36
Column 1	1	5.49	5.46 – 5.52	29.8		ug/kg	
Column 2	1	5.75	5.72 – 5.78	31.1		ug/kg	
4,4'-DDT							9.81
Column 1	1	5.3	5.27 – 5.33	42.1		ug/kg	
Column 2	1	5.66	5.63 – 5.69	46.5		ug/kg	
Endosulfan sulfate							11.1
Column 1	1	5.75	5.72 – 5.78	38		ug/kg	
Column 2	1	5.92	5.89 – 5.95	42.5		ug/kg	
Methoxychlor							12
Column 1	1	5.58	5.55 – 5.61	203		ug/kg	
Column 2	1	6.05	6.03 – 6.09	229		ug/kg	
Endrin ketone							3.77
Column 1	1	5.92	5.9 – 5.96	44.9		ug/kg	
Column 2	1	6.25	6.23 – 6.29	46.6		ug/kg	

Identification Summary

SDG Number: 10–899 **Client ID:** LCS for batch 932993

Lab Sample ID: 1201995981

Data File:	028f2801.d	**Data File:**	028b2801.d
Inst:	ECD7A.I_1	**Inst:**	ECD7A.I_2
Column:	CLP–1	**Column:**	CLP–2
Analyzed:	16–DEC–09 21:06	**Analyzed:**	16–DEC–09 21:06

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Toxaphene							1.04
Column 1	1	4.96	4.93 – 4.99	136		ug/kg	
	2	5.01	4.98 – 5.04	136		ug/kg	
	3	5.05	5.02 – 5.08	131		ug/kg	
	4	5.11	5.08 – 5.14	135		ug/kg	
	5	5.23	5.2 – 5.26	135		ug/kg	
					135		
Column 2	1	5.22	5.18 – 5.24	145		ug/kg	
	2	5.29	5.26 – 5.32	122		ug/kg	
	3	5.33	5.3 – 5.36	110		ug/kg	
	4	5.4	5.37 – 5.43	152		ug/kg	
	5	5.54	5.51 – 5.57	152		ug/kg	
					136		

Identification Summary

SDG Number: 10–899 **Client ID:** WST03–10–2145MS

Lab Sample ID: 1201995979

Data File:	031f3101.d	**Data File:**	031b3101.d
Inst:	ECD7A.I_1	**Inst:**	ECD7A.I_2
Column:	CLP–1	**Column:**	CLP–2
Analyzed:	16–DEC–09 21:51	**Analyzed:**	16–DEC–09 21:51

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
alpha–BHC							6.55
Column 1	1	3.32	3.29 – 3.35	12.5		ug/kg	
Column 2	1	3.6	3.57 – 3.63	13.3		ug/kg	
gamma–BHC (Lindane)							2.86
Column 1	1	3.58	3.55 – 3.61	14.1		ug/kg	
Column 2	1	3.88	3.85 – 3.91	13.7		ug/kg	
beta–BHC							3.55
Column 1	1	3.65	3.62 – 3.68	15.6		ug/kg	
Column 2	1	3.94	3.91 – 3.97	15		ug/kg	
delta–BHC							3.49
Column 1	1	3.78	3.75 – 3.81	15		ug/kg	
Column 2	1	4.15	4.13 – 4.19	14.5		ug/kg	
Heptachlor							7.79
Column 1	1	3.93	3.9 – 3.96	15.5		ug/kg	
Column 2	1	4.21	4.18 – 4.24	14.3		ug/kg	

Identification Summary

SDG Number: 10–899 **Client ID:** WST03–10–2145MS

Lab Sample ID: 1201995979

Data File:	031f3101.d	**Data File:**	031b3101.d
Inst:	ECD7A.I_1	**Inst:**	ECD7A.I_2
Column:	CLP–1	**Column:**	CLP–2
Analyzed:	16–DEC–09 21:51	**Analyzed:**	16–DEC–09 21:51

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aldrin							.975
Column 1	1	4.14	4.11 – 4.17	13.7		ug/kg	
Column 2	1	4.43	4.41 – 4.47	13.6		ug/kg	
Heptachlor epoxide							2.21
Column 1	1	4.55	4.52 – 4.58	14.7		ug/kg	
Column 2	1	4.81	4.78 – 4.84	14.4		ug/kg	
gamma–Chlordane							1.97
Column 1	1	4.63	4.6 – 4.66	15.2		ug/kg	
Column 2	1	4.93	4.9 – 4.96	14.9		ug/kg	
alpha–Chlordane							1.71
Column 1	1	4.71	4.69 – 4.75	15.3		ug/kg	
Column 2	1	5.02	4.99 – 5.05	15		ug/kg	
Endosulfan I							.192
Column 1	1	4.8	4.77 – 4.83	15.4		ug/kg	
Column 2	1	5.06	5.03 – 5.09	15.4		ug/kg	

Identification Summary

SDG Number: 10–899 **Client ID:** WST03–10–2145MS

Lab Sample ID: 1201995979

Data File:	031f3101.d	**Data File:**	031b3101.d
Inst:	ECD7A.I_1	**Inst:**	ECD7A.I_2
Column:	CLP–1	**Column:**	CLP–2
Analyzed:	16–DEC–09 21:51	**Analyzed:**	16–DEC–09 21:51

Analyte		Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
4,4'–DDE								.931
	Column 1	1	4.76	4.73 – 4.79	38.2		ug/kg	
	Column 2	1	5.11	5.08 – 5.14	38.6		ug/kg	
Dieldrin								.38
	Column 1	1	4.95	4.92 – 4.98	37.3		ug/kg	
	Column 2	1	5.23	5.2 – 5.26	37.2		ug/kg	
Endrin								.476
	Column 1	1	5.1	5.07 – 5.13	42.5		ug/kg	
	Column 2	1	5.42	5.4 – 5.46	42.3		ug/kg	
4,4'–DDD								1.06
	Column 1	1	5.13	5.1 – 5.16	41.2		ug/kg	
	Column 2	1	5.46	5.43 – 5.49	40.7		ug/kg	
Endosulfan II								1.52
	Column 1	1	5.24	5.21 – 5.27	41.2		ug/kg	
	Column 2	1	5.55	5.52 – 5.58	41.9		ug/kg	

Identification Summary

SDG Number: 10–899 **Client ID:** WST03–10–2145MS

Lab Sample ID: 1201995979

Data File:	031f3101.d	**Data File:**	031b3101.d
Inst:	ECD7A.I_1	**Inst:**	ECD7A.I_2
Column:	CLP–1	**Column:**	CLP–2
Analyzed:	16–DEC–09 21:51	**Analyzed:**	16–DEC–09 21:51

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Endrin aldehyde							1.34
Column 1	1	5.49	5.46 – 5.52	29.6		ug/kg	
Column 2	1	5.75	5.72 – 5.78	29.2		ug/kg	
4,4'–DDT							7.74
Column 1	1	5.3	5.27 – 5.33	47		ug/kg	
Column 2	1	5.66	5.63 – 5.69	50.8		ug/kg	
Endosulfan sulfate							9.16
Column 1	1	5.75	5.72 – 5.78	37.8		ug/kg	
Column 2	1	5.92	5.89 – 5.95	41.4		ug/kg	
Methoxychlor							8.67
Column 1	1	5.58	5.55 – 5.61	189		ug/kg	
Column 2	1	6.05	6.03 – 6.09	206		ug/kg	
Endrin ketone							1.44
Column 1	1	5.92	5.9 – 5.96	44.1		ug/kg	
Column 2	1	6.25	6.23 – 6.29	44.7		ug/kg	

Identification Summary

SDG Number: 10–899 **Client ID:** WST03–10–2145MSD

Lab Sample ID: 1201995980

Data File:	032f3201.d	**Data File:**	032b3201.d
Inst:	ECD7A.I_1	**Inst:**	ECD7A.I_2
Column:	CLP–1	**Column:**	CLP–2
Analyzed:	16–DEC–09 22:06	**Analyzed:**	16–DEC–09 22:06

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
alpha–BHC							10.8
Column 1	1	3.32	3.29 – 3.35	12.4		ug/kg	
Column 2	1	3.6	3.57 – 3.63	13.8		ug/kg	
gamma–BHC (Lindane)							2.5
Column 1	1	3.58	3.55 – 3.61	14.8		ug/kg	
Column 2	1	3.88	3.85 – 3.91	14.4		ug/kg	
beta–BHC							2.56
Column 1	1	3.64	3.62 – 3.68	16.3		ug/kg	
Column 2	1	3.94	3.91 – 3.97	15.9		ug/kg	
delta–BHC							1.33
Column 1	1	3.78	3.75 – 3.81	15.7		ug/kg	
Column 2	1	4.15	4.13 – 4.19	15.5		ug/kg	
Heptachlor							5.01
Column 1	1	3.93	3.9 – 3.96	15.8		ug/kg	
Column 2	1	4.21	4.18 – 4.24	15		ug/kg	

Identification Summary

SDG Number: 10-899 **Client ID:** WST03-10-2145MSD

Lab Sample ID: 1201995980

Data File:	032f3201.d	**Data File:**	032b3201.d
Inst:	ECD7A.I_1	**Inst:**	ECD7A.I_2
Column:	CLP-1	**Column:**	CLP-2
Analyzed:	16-DEC-09 22:06	**Analyzed:**	16-DEC-09 22:06

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aldrin							.835
Column 1	1	4.14	4.11 – 4.17	14.4		ug/kg	
Column 2	1	4.43	4.41 – 4.47	14.2		ug/kg	
Heptachlor epoxide							.728
Column 1	1	4.55	4.52 – 4.58	15.3		ug/kg	
Column 2	1	4.81	4.78 – 4.84	15.2		ug/kg	
gamma-Chlordane							.645
Column 1	1	4.63	4.6 – 4.66	15.7		ug/kg	
Column 2	1	4.93	4.9 – 4.96	15.6		ug/kg	
alpha-Chlordane							1.09
Column 1	1	4.71	4.69 – 4.75	15.9		ug/kg	
Column 2	1	5.02	4.99 – 5.05	15.8		ug/kg	
Endosulfan I							.376
Column 1	1	4.8	4.77 – 4.83	16.1		ug/kg	
Column 2	1	5.06	5.03 – 5.09	16.2		ug/kg	

Identification Summary

SDG Number: 10–899 **Client ID:** WST03–10–2145MSD

Lab Sample ID: 1201995980

Data File:	032f3201.d	**Data File:**	032b3201.d
Inst:	ECD7A.I_1	**Inst:**	ECD7A.I_2
Column:	CLP–1	**Column:**	CLP–2
Analyzed:	16–DEC–09 22:06	**Analyzed:**	16–DEC–09 22:06

Analyte		Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
4,4'–DDE								1.66
	Column 1	1	4.76	4.73 – 4.79	39.3		ug/kg	
	Column 2	1	5.11	5.08 – 5.14	40		ug/kg	
Dieldrin								.193
	Column 1	1	4.95	4.92 – 4.98	38.4		ug/kg	
	Column 2	1	5.23	5.2 – 5.26	38.5		ug/kg	
Endrin								.234
	Column 1	1	5.1	5.07 – 5.13	43.8		ug/kg	
	Column 2	1	5.42	5.4 – 5.46	43.7		ug/kg	
4,4'–DDD								.278
	Column 1	1	5.13	5.1 – 5.16	41.5		ug/kg	
	Column 2	1	5.46	5.43 – 5.49	41.4		ug/kg	
Endosulfan II								2.62
	Column 1	1	5.24	5.21 – 5.27	41.7		ug/kg	
	Column 2	1	5.55	5.52 – 5.58	42.8		ug/kg	

Identification Summary

SDG Number: 10–899 **Client ID:** WST03–10–2145MSD

Lab Sample ID: 1201995980

Data File:	032f3201.d	**Data File:**	032b3201.d
Inst:	ECD7A.I_1	**Inst:**	ECD7A.I_2
Column:	CLP–1	**Column:**	CLP–2
Analyzed:	16–DEC–09 22:06	**Analyzed:**	16–DEC–09 22:06

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Endrin aldehyde							1.73
Column 1	1	5.49	5.46 – 5.52	29.4		ug/kg	
Column 2	1	5.75	5.72 – 5.78	28.9		ug/kg	
4,4'–DDT							8.41
Column 1	1	5.3	5.27 – 5.33	47.2		ug/kg	
Column 2	1	5.65	5.63 – 5.69	51.3		ug/kg	
Endosulfan sulfate							6.5
Column 1	1	5.75	5.72 – 5.78	38.5		ug/kg	
Column 2	1	5.92	5.89 – 5.95	41.1		ug/kg	
Methoxychlor							7.89
Column 1	1	5.58	5.55 – 5.61	191		ug/kg	
Column 2	1	6.05	6.03 – 6.09	207		ug/kg	
Endrin ketone							1.22
Column 1	1	5.92	5.9 – 5.96	45		ug/kg	
Column 2	1	6.25	6.23 – 6.29	45.5		ug/kg	

QUALITY CONTROL DATA

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	10–899			**Matrix:**	SOIL
Lab Sample ID:	1201995977				
Client Sample:	QC for batch 932993	**Client:**	LANL010	**Project:**	QC
Client ID:	MB for batch 932993	**Method:**	SW846 8081A	**SOP Ref:**	GL–OA–E–041
Batch ID:	932994	**Inst:**	ECD7A.I	**Dilution:**	1
Run Date:	12/16/2009 20:37	**Analyst:**	JXM	**Inj. Vol:**	1 uL
Prep Date:	12/15/2009 10:35	**Aliquot:**	30 g	**Final Volume:**	5 mL
Data File:	026f2601.d	**Column:**	1 CLP–1	**Level:**	LOW
	026b2601.d		2 CLP–2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
319–84–6	alpha–BHC	U	0.667	ug/kg	0.167	0.667	1
58–89–9	gamma–BHC (Lindane)	U	0.667	ug/kg	0.167	0.667	1
319–85–7	beta–BHC	U	0.667	ug/kg	0.167	0.667	1
319–86–8	delta–BHC	U	0.667	ug/kg	0.167	0.667	1
76–44–8	Heptachlor	U	0.667	ug/kg	0.167	0.667	1
309–00–2	Aldrin	U	0.667	ug/kg	0.167	0.667	1
1024–57–3	Heptachlor epoxide	U	0.667	ug/kg	0.208	0.667	1
5103–74–2	gamma–Chlordane	U	0.667	ug/kg	0.167	0.667	1
5103–71–9	alpha–Chlordane	U	0.667	ug/kg	0.167	0.667	1
959–98–8	Endosulfan I	U	0.667	ug/kg	0.167	0.667	1
72–55–9	4,4'–DDE	U	1.33	ug/kg	0.333	1.33	1
60–57–1	Dieldrin	U	1.33	ug/kg	0.333	1.33	1
72–20–8	Endrin	U	1.33	ug/kg	0.333	1.33	1
72–54–8	4,4'–DDD	U	1.33	ug/kg	0.333	1.33	1
33213–65–9	Endosulfan II	U	1.33	ug/kg	0.333	1.33	1
7421–93–4	Endrin aldehyde	U	1.33	ug/kg	0.333	1.33	1
50–29–3	4,4'–DDT	U	1.33	ug/kg	0.333	1.33	1
1031–07–8	Endosulfan sulfate	U	1.33	ug/kg	0.333	1.33	1
72–43–5	Methoxychlor	U	6.67	ug/kg	1.67	6.67	1
53494–70–5	Endrin ketone	U	1.33	ug/kg	0.333	1.33	1
8001–35–2	Toxaphene	U	16.7	ug/kg	5.55	16.7	1

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd7a.i/121609.b/026f2601A.d
Lab Smp Id: 1201995977 Client Smp ID: PBLK01
Inj Date : 16-DEC-2009 20:37
Operator : JXM Inst ID: ecd7a.i
Smp Info : |1201995977|1|
Misc Info : |ECD81A_1S|932994|SVPF|MB|
Comment :
Method : /chem/ecd7a.i/121609.b/ECD7-F-8081-121609.m
Meth Date : 17-Dec-2009 09:53 jam00798 Quant Type: ESTD
Cal Date : 09-DEC-2009 14:57 Cal File: 025f2501.d
Als bottle: 26 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-899.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weigth of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.810	2.810	0.000	322739577	135.621	22.6	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
6.510	6.515	-0.005	294621395	212.469	35.4	80.00- 120.00	100.00

Data File: /chem/ecd7a.i/121609.b/026f2601A.d
Date : 16-DEC-2009 20:37
Client ID: PBLK01
Sample Info: |1201995977|1|
Volume Injected (uL): 1.0
Column phase: CLP-1

Instrument: ecd7a.i

Operator: JXM
Column diameter: 0.25

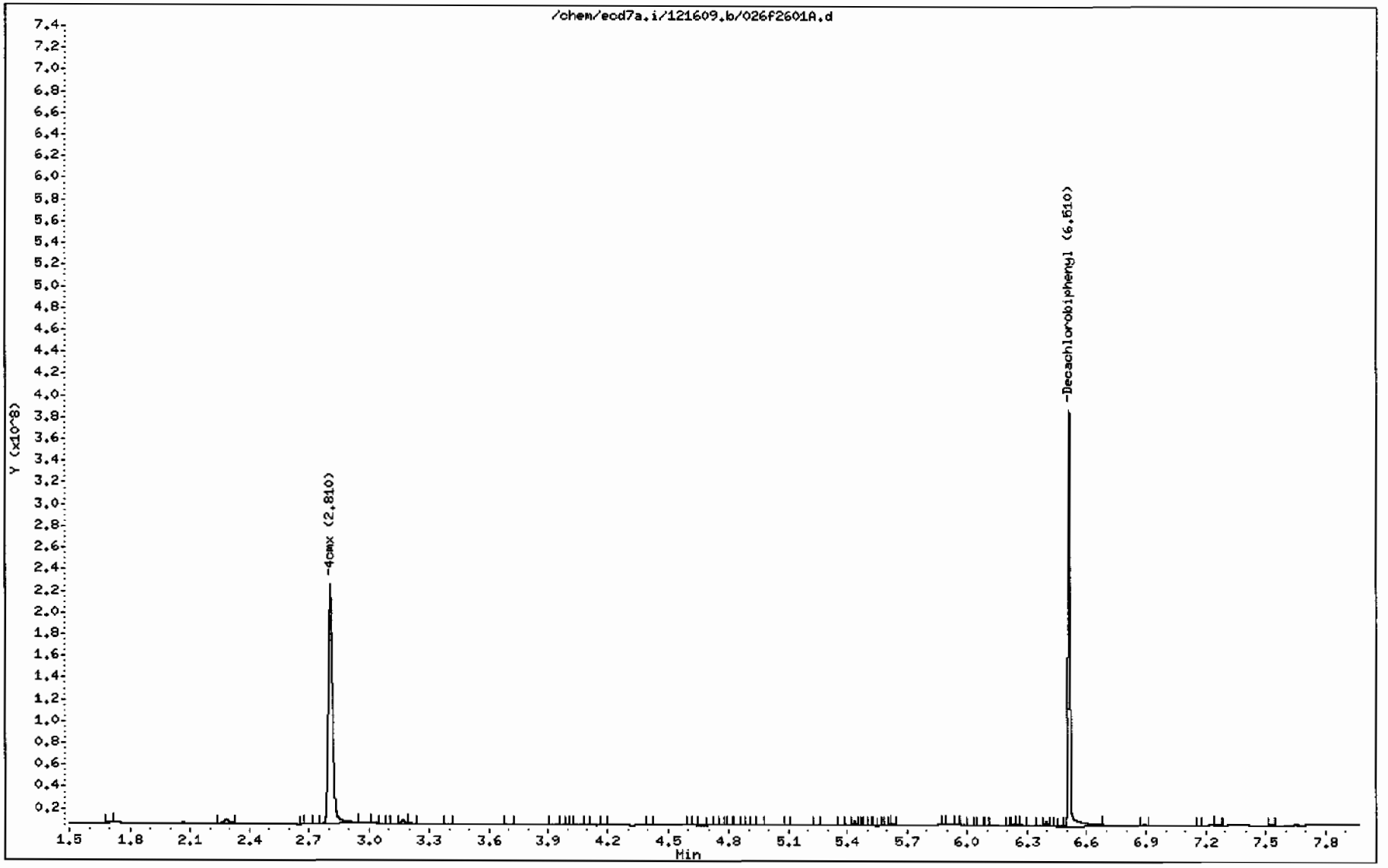

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CLP-2

Data file : /chem/ecd7a.i/121609.b/026b2601A.d
Lab Smp Id: 1201995977 Client Smp ID: PBLK01
Inj Date : 16-DEC-2009 20:37
Operator : JXM Inst ID: ecd7a.i
Smp Info : |1201995977|1|
Misc Info : |ECD81A_1S|932994|SVPF|MB|
Comment :
Method : /chem/ecd7a.i/121609.b/ECD7-B-8081-121609.m
Meth Date : 17-Dec-2009 09:53 jam00798 Quant Type: ESTD
Cal Date : 09-DEC-2009 14:57 Cal File: 025b2501.d
Als bottle: 26 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-899.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weigth of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
3.062	3.063	-0.001	382809730	135.338	22.6	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.021	7.025	-0.004	308991108	202.435	33.7	80.00- 120.00	100.00

Data File: /chem/ecd7a.i/121609.b/026b2601A.d

Date : 16-DEC-2009 20:37

Client ID: PBLK01

Sample Info: |1201995977|1|

Volume Injected (uL): 1.0

Column phase: CLP-2

Instrument: ecd7a.i

Operator: JXH

Column diameter: 0.25

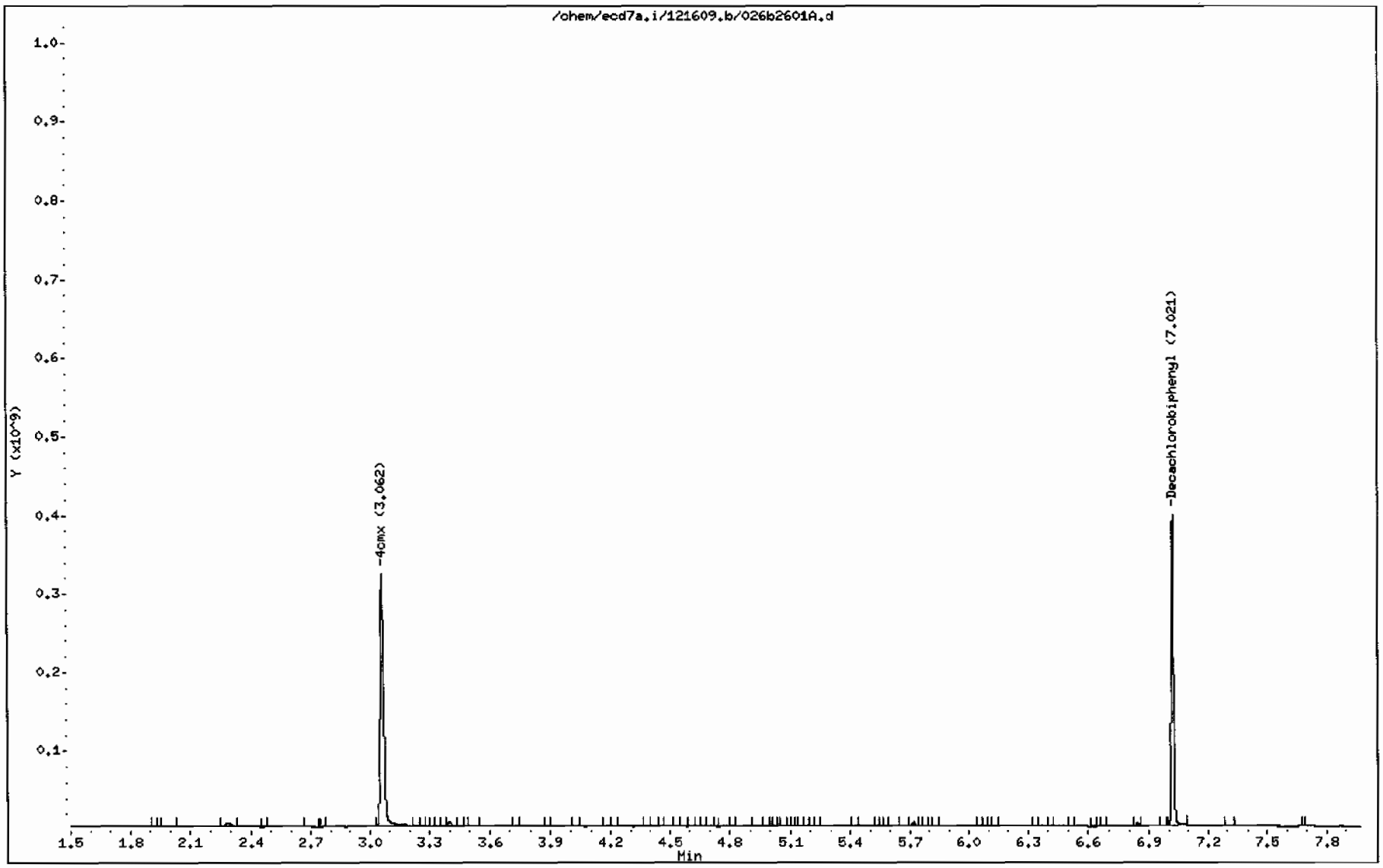

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	10-899			**Matrix:**	SOIL
Lab Sample ID:	1201995978				
Client Sample:	QC for batch 932993	**Client:**	LANL010	**Project:**	QC
Client ID:	LCS for batch 932993	**Method:**	SW846 8081A	**SOP Ref:**	GL-OA-E-041
Batch ID:	932994	**Inst:**	ECD7A.I	**Dilution:**	1
Run Date:	12/16/2009 20:51	**Analyst:**	JXM	**Inj. Vol:**	1 uL
Prep Date:	12/15/2009 10:35	**Aliquot:**	30 g	**Final Volume:**	5 mL
Data File:	027f2701.d	**Column:**	1 CLP-1	**Level:**	LOW
	027b2701.d		2 CLP-2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
319-84-6	alpha-BHC		12.8	ug/kg	0.167	0.667	1
58-89-9	gamma-BHC (Lindane)		14.4	ug/kg	0.167	0.667	2
319-85-7	beta-BHC		13.6	ug/kg	0.167	0.667	2
319-86-8	delta-BHC		14.3	ug/kg	0.167	0.667	1
76-44-8	Heptachlor		15.5	ug/kg	0.167	0.667	1
309-00-2	Aldrin		13.1	ug/kg	0.167	0.667	1
1024-57-3	Heptachlor epoxide		13.9	ug/kg	0.208	0.667	1
5103-74-2	gamma-Chlordane		14.2	ug/kg	0.167	0.667	1
5103-71-9	alpha-Chlordane		14.4	ug/kg	0.167	0.667	1
959-98-8	Endosulfan I		14.5	ug/kg	0.167	0.667	1
72-55-9	4,4'-DDE		34.5	ug/kg	0.333	1.33	1
60-57-1	Dieldrin		34.9	ug/kg	0.333	1.33	1
72-20-8	Endrin		37.3	ug/kg	0.333	1.33	1
72-54-8	4,4'-DDD		36.7	ug/kg	0.333	1.33	1
33213-65-9	Endosulfan II		37.3	ug/kg	0.333	1.33	1
7421-93-4	Endrin aldehyde		29.8	ug/kg	0.333	1.33	1
50-29-3	4,4'-DDT		42.1	ug/kg	0.333	1.33	1
1031-07-8	Endosulfan sulfate		38.0	ug/kg	0.333	1.33	1
72-43-5	Methoxychlor		203	ug/kg	1.67	6.67	1
53494-70-5	Endrin ketone		44.9	ug/kg	0.333	1.33	1
8001-35-2	Toxaphene	U	16.7	ug/kg	5.55	16.7	1

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CLP-1

Data file : /chem/ecd7a.i/121609.b/027f2701A.d
Lab Smp Id: 1201995978 Client Smp ID: PBLK01LCS
Inj Date : 16-DEC-2009 20:51
Operator : JXM Inst ID: ecd7a.i
Smp Info : |1201995978|1|
Misc Info : |ECD81A_1S|932994|SVPF|LCS|
Comment :
Method : /chem/ecd7a.i/121609.b/ECD7-F-8081-121609.m
Meth Date : 17-Dec-2009 09:53 jam00798 Quant Type: ESTD
Cal Date : 09-DEC-2009 14:57 Cal File: 025f2501.d
Als bottle: 27 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-899.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weigth of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.809	2.810	-0.001	391903588	164.685	27.4	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
6.506	6.515	-0.009	285350676	205.784	34.3	80.00- 120.00	100.00
5 alpha-BHC					CAS #: 319-84-6		
3.316	3.318	-0.002	234894340	76.9650	12.8	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.575	3.576	-0.001	229862617	88.1321	14.7	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
12 beta-BHC					CAS #: 319-85-7		
3.644	3.645	-0.001	97079526	84.0430	14.0	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
3.779	3.780	-0.001	232053480	85.8476	14.3	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
3.930	3.930	0.000	189927582	93.0059	15.5	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.142	4.143	-0.001	208133415	78.4395	13.1	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.551	4.551	0.000	194276028	83.4865	13.9	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
4.630	4.631	-0.001	193245854	85.3219	14.2	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
4.715	4.716	-0.001	192457224	86.1081	14.4	80.00- 120.00	100.00
16 Endosulfan I					CAS #: 959-98-8		
4.804	4.805	-0.001	181151386	87.1648	14.5	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
4.759	4.760	-0.001	478098693	206.984	34.5	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
4.954	4.955	-0.001	467846564	209.268	34.9	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.099	5.100	-0.001	413188741	223.644	37.3	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.128	5.129	-0.001	398855005	220.185	36.7	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
5.236	5.238	-0.002	398515442	223.881	37.3	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
5.489	5.491	-0.002	260508837	178.869	29.8	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
5.296	5.298	-0.002	312559720	252.870	42.1	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
5.750	5.754	-0.004	349813615	227.966	38.0	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
28 Methoxychlor					CAS #: 72-43-5		
5.578	5.581	-0.003	537970457	1220.83	203	80.00- 120.00	100.00(M)
31 Endrin ketone					CAS #: 53494-70-5		
5.923	5.928	-0.005	362993620	269.308	44.9	80.00- 120.00	100.00

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd7a.i/121609.b/027f2701A.d
Date : 16-DEC-2009 20:51
Client ID: PBLK01LCS
Sample Info: |120199597811|
Volume Injected (uL): 1.0
Column phase: CLP-1

Instrument: ecd7a.i

Operator: JXH
Column diameter: 0.25

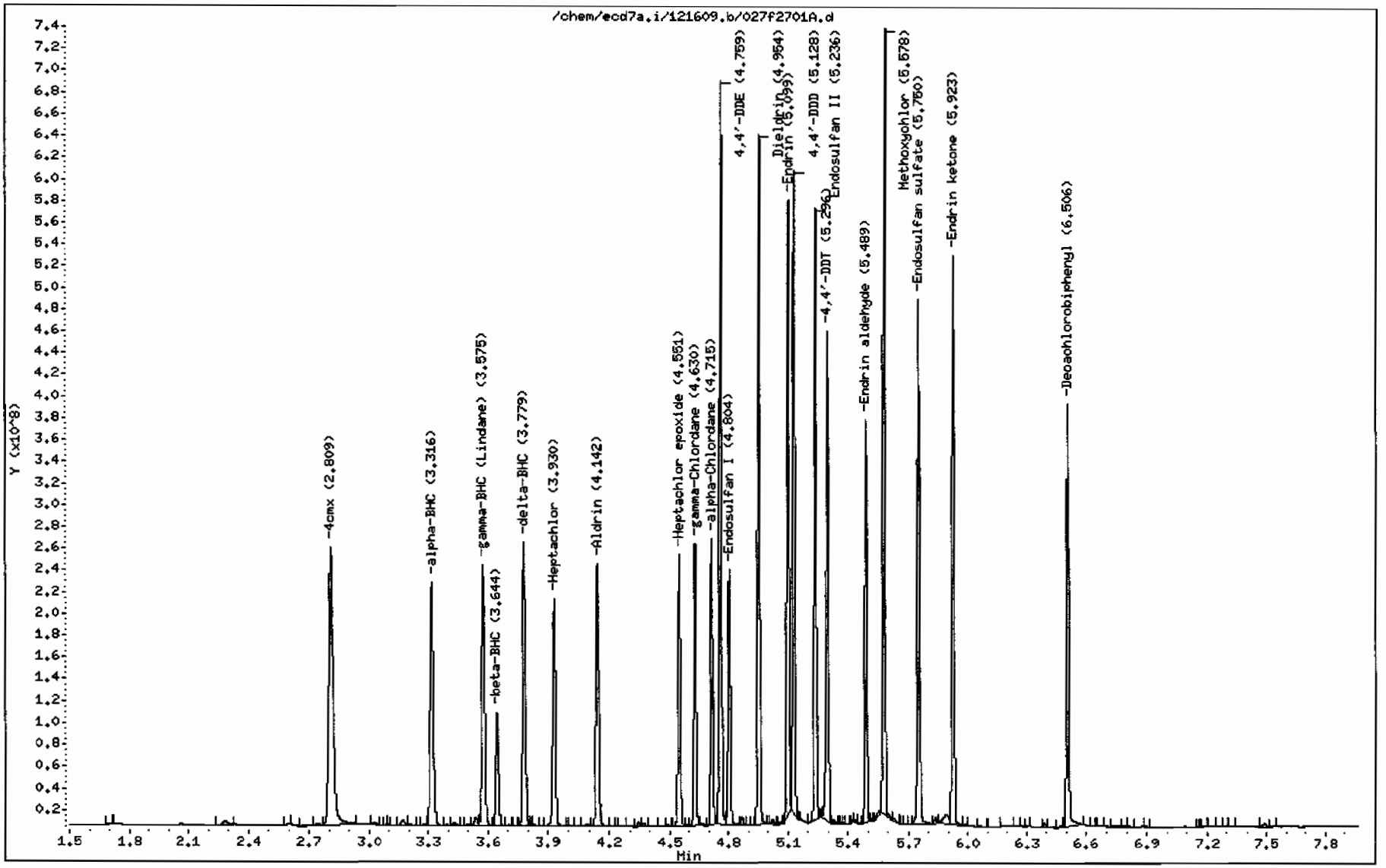

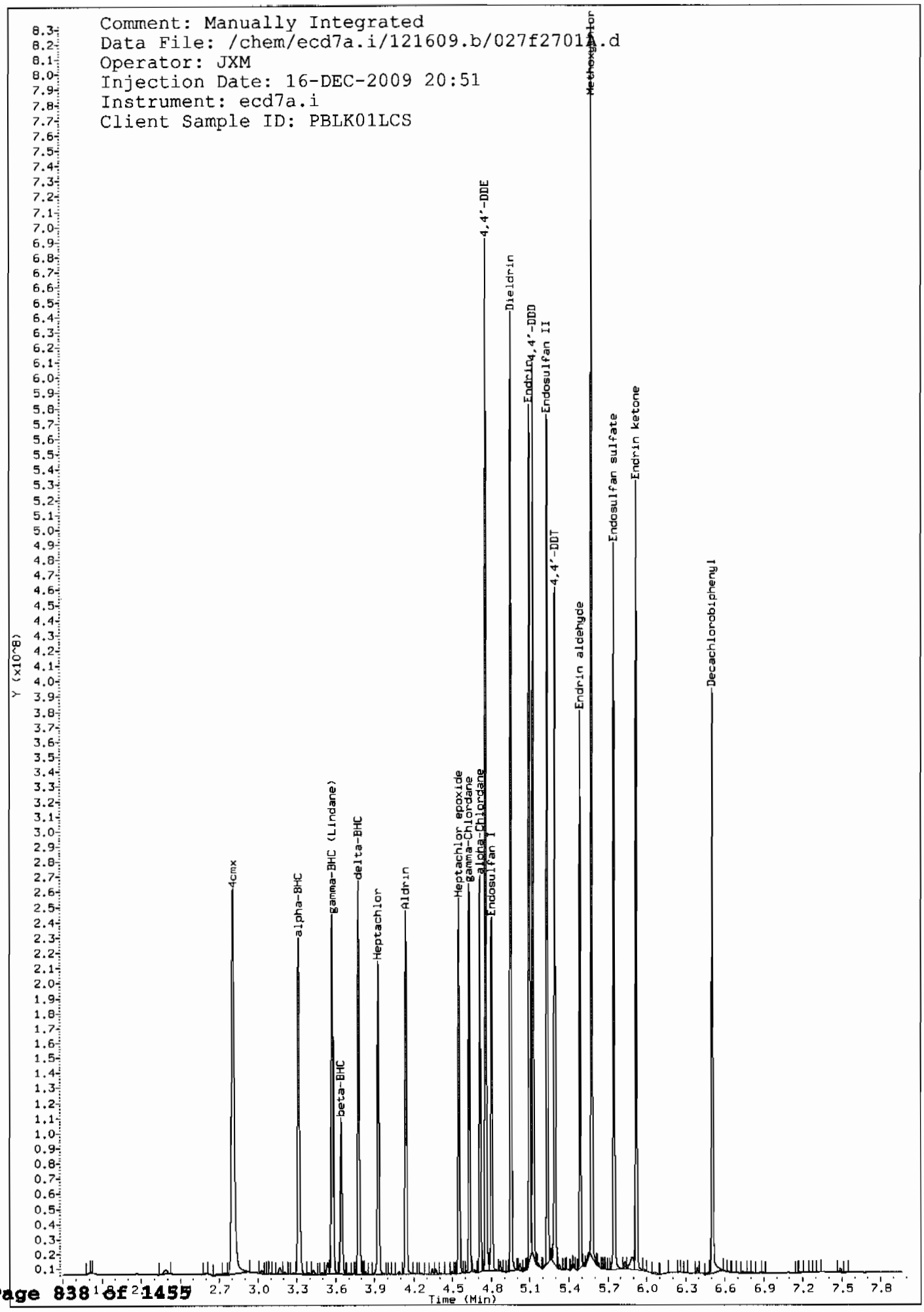
Comment: Manually Integrated
Data File: /chem/ecd7a.i/121609.b/027f2701A.d
Operator: JXM
Injection Date: 16-DEC-2009 20:51
Instrument: ecd7a.i
Client Sample ID: PBLK01LCS
Y (x10^8)
Time (Min)
4cmx
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide
gamma-Chlordane
alpha-Chlordane
Endosulfan I
4,4'-DDE
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Methoxychlor
Endosulfan sulfate
Endrin ketone
Decachlorobiphenyl

Comment: Before manual integration
Data File: /chem/ecd7a.i/121609.b/orig-02712701A.d
Operator: JXM
Injection Date: 16-DEC-2009 20:51
Instrument: ecd7a.i
Client Sample ID: PBLK01LCS

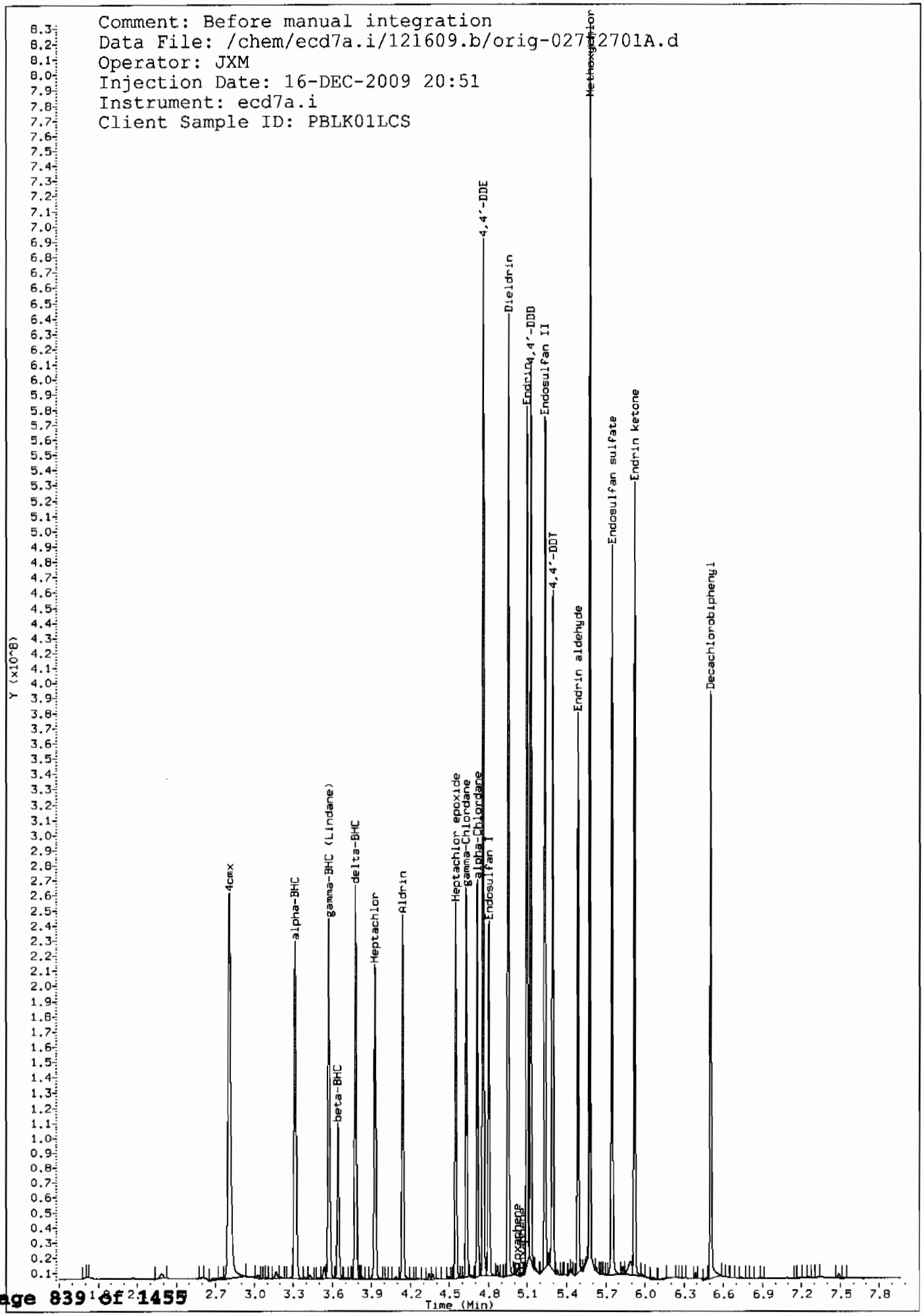

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd7a.i/121609.b/027b2701A.d
Lab Smp Id: 1201995978 Client Smp ID: PBLK01LCS
Inj Date : 16-DEC-2009 20:51
Operator : JXM Inst ID: ecd7a.i
Smp Info : |1201995978|1|
Misc Info : |ECD81A_1S|932994|SVPF|LCS|
Comment :
Method : /chem/ecd7a.i/121609.b/ECD7-B-8081-121609.m
Meth Date : 17-Dec-2009 09:53 jam00798 Quant Type: ESTD
Cal Date : 09-DEC-2009 14:57 Cal File: 025b2501.d
Als bottle: 27 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-899.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weigth of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
3.063	3.063	0.000	472460523	167.033	27.8	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.017	7.025	-0.008	323311884	211.818	35.3	80.00- 120.00	100.00
5 alpha-BHC					CAS #: 319-84-6		
3.600	3.601	-0.001	325656481	85.1938	14.2	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.880	3.880	0.000	279145246	86.4668	14.4	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
12 beta-BHC					CAS #: 319-85-7		
3.938	3.939	-0.001	112436570	81.6454	13.6	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
4.154	4.155	-0.001	285164691	86.4967	14.4	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
4.207	4.207	0.000	220592940	95.5962	15.9	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.435	4.436	-0.001	282772511	83.8440	14.0	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.810	4.811	-0.001	243608604	85.2263	14.2	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
4.931	4.931	0.000	248791656	87.6544	14.6	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
5.023	5.023	0.000	243798895	88.5471	14.8	80.00- 120.00	100.00
16 Endosulfan I					CAS #: 959-98-8		
5.064	5.065	-0.001	219141215	88.6275	14.8	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.111	5.111	0.000	587792097	218.275	36.4	80.00- 120.00	100.00(M)
20 Dieldrin					CAS #: 60-57-1		
5.234	5.235	-0.001	590801186	214.902	35.8	80.00- 120.00	100.00(M)
22 Endrin					CAS #: 72-20-8		
5.425	5.425	0.000	507591249	232.135	38.7	80.00- 120.00	100.00(M)
25 4,4'-DDD					CAS #: 72-54-8		
5.464	5.464	0.000	490384200	242.569	40.4	80.00- 120.00	100.00(M)
24 Endosulfan II					CAS #: 33213-65-9		
5.550	5.551	-0.001	511172843	244.905	40.8	80.00- 120.00	100.00(M)
27 Endrin aldehyde					CAS #: 7421-93-4		
5.749	5.753	-0.004	318957615	186.843	31.1	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
5.656	5.657	-0.001	302472882	278.968	46.5	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
5.916	5.922	-0.006	443238484	254.696	42.4	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
28 Methoxychlor					CAS #: 72-43-5		
6.052	6.059	-0.007	526385140	1376.46	229	80.00- 120.00	100.00(M)
31 Endrin ketone					CAS #: 53494-70-5		
6.251	6.260	-0.009	428317930	279.668	46.6	80.00- 120.00	100.00

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd7a.i/121609.b/027b2701A.d
Date : 16-DEC-2009 20:51
Client ID: PBLK01LCS
Sample Info: 1120199597811
Volume Injected (uL): 1.0
Column phase: CLP-2

Instrument: ecd7a.i
Operator: JXM
Column diameter: 0.25

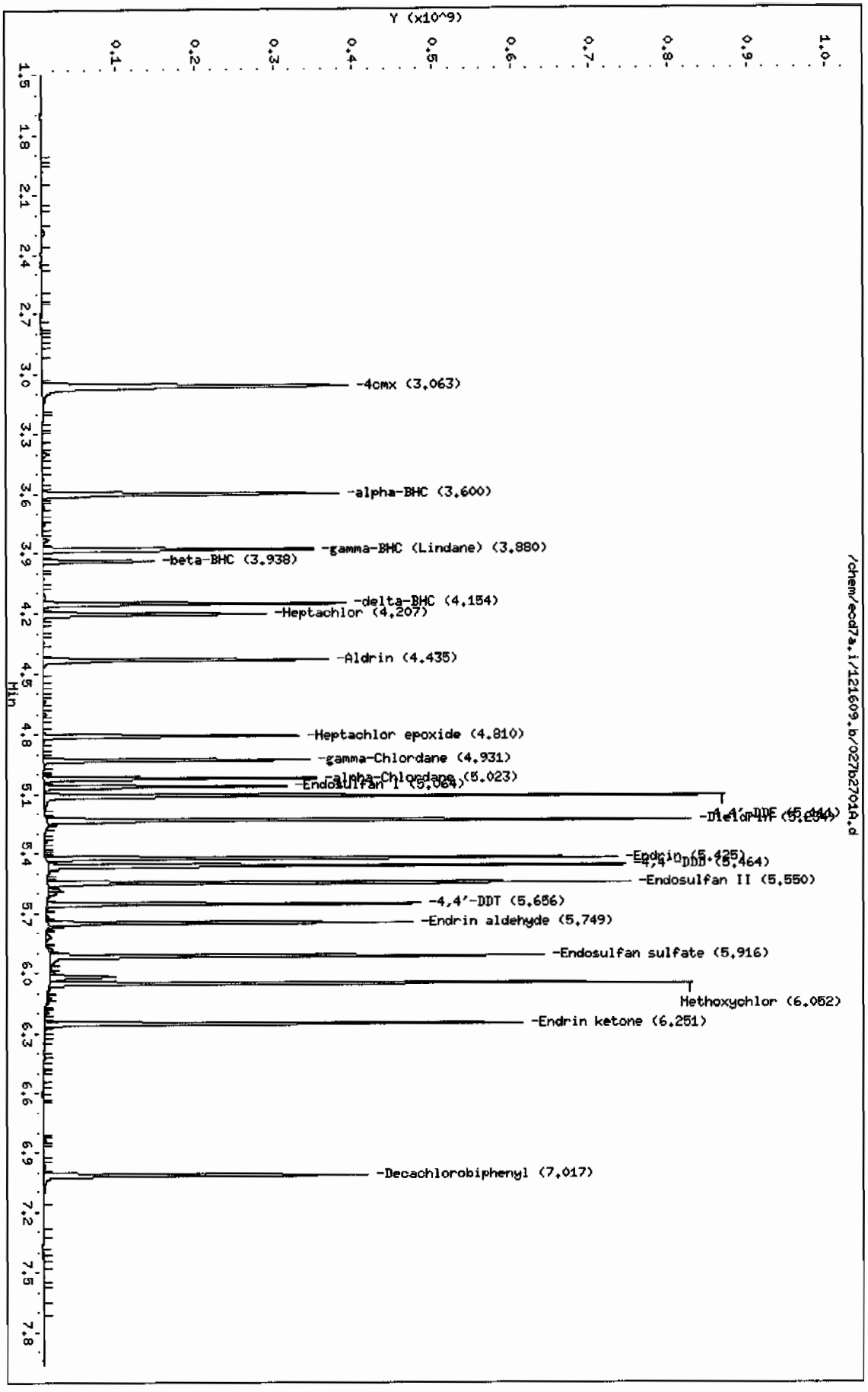

Page 1

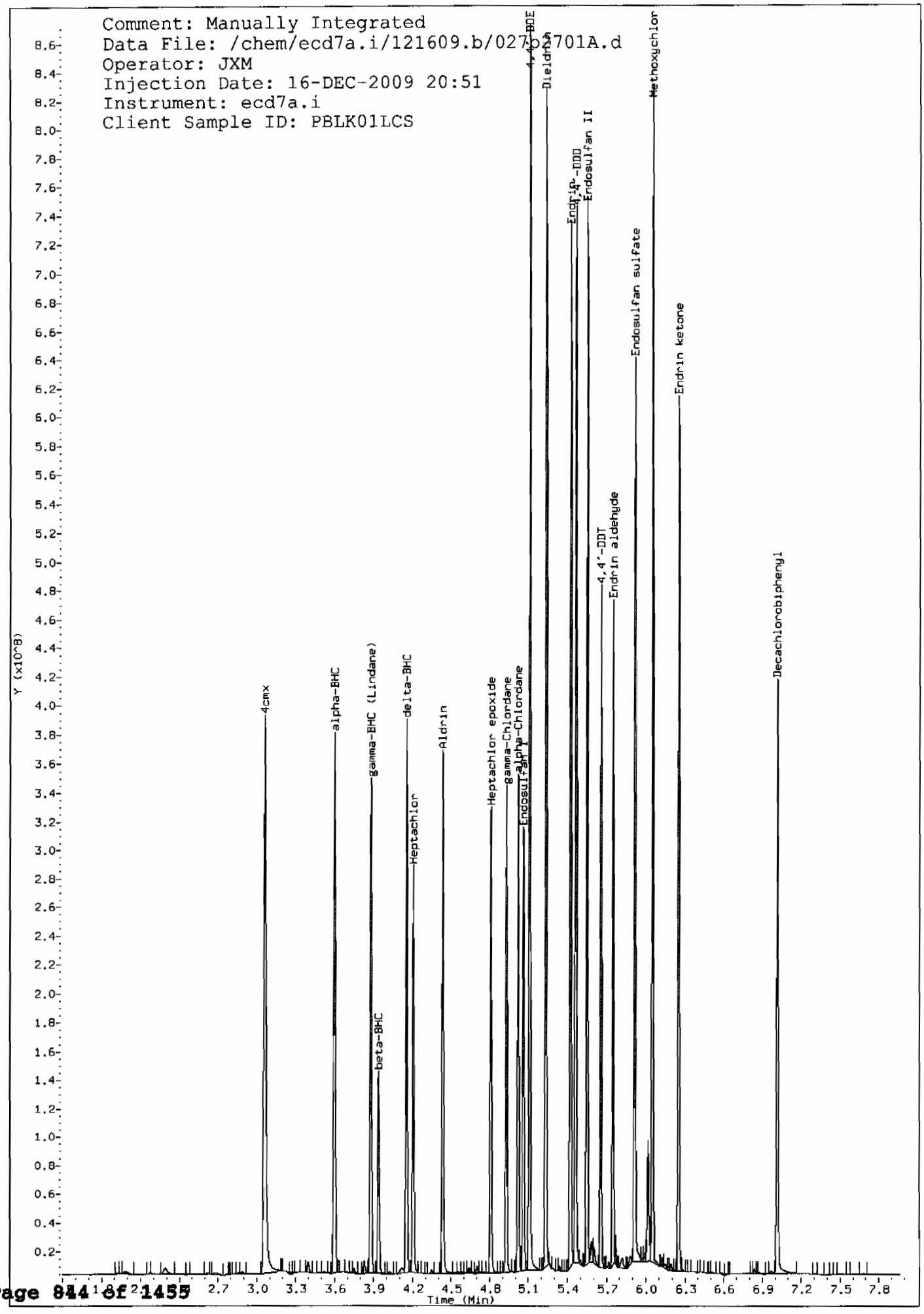
Comment: Manually Integrated
Data File: /chem/ecd7a.i/121609.b/027b2701A.d
Operator: JXM
Injection Date: 16-DEC-2009 20:51
Instrument: ecd7a.i
Client Sample ID: PBLK01LCS
Y (x10^8)
Time (Min)
4cmx
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide
gamma-Chlordane
alpha-Chlordane
Endosulfan I
4,4'-DDE
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Endosulfan sulfate
Methoxychlor
Endrin ketone
Decachlorobiphenyl

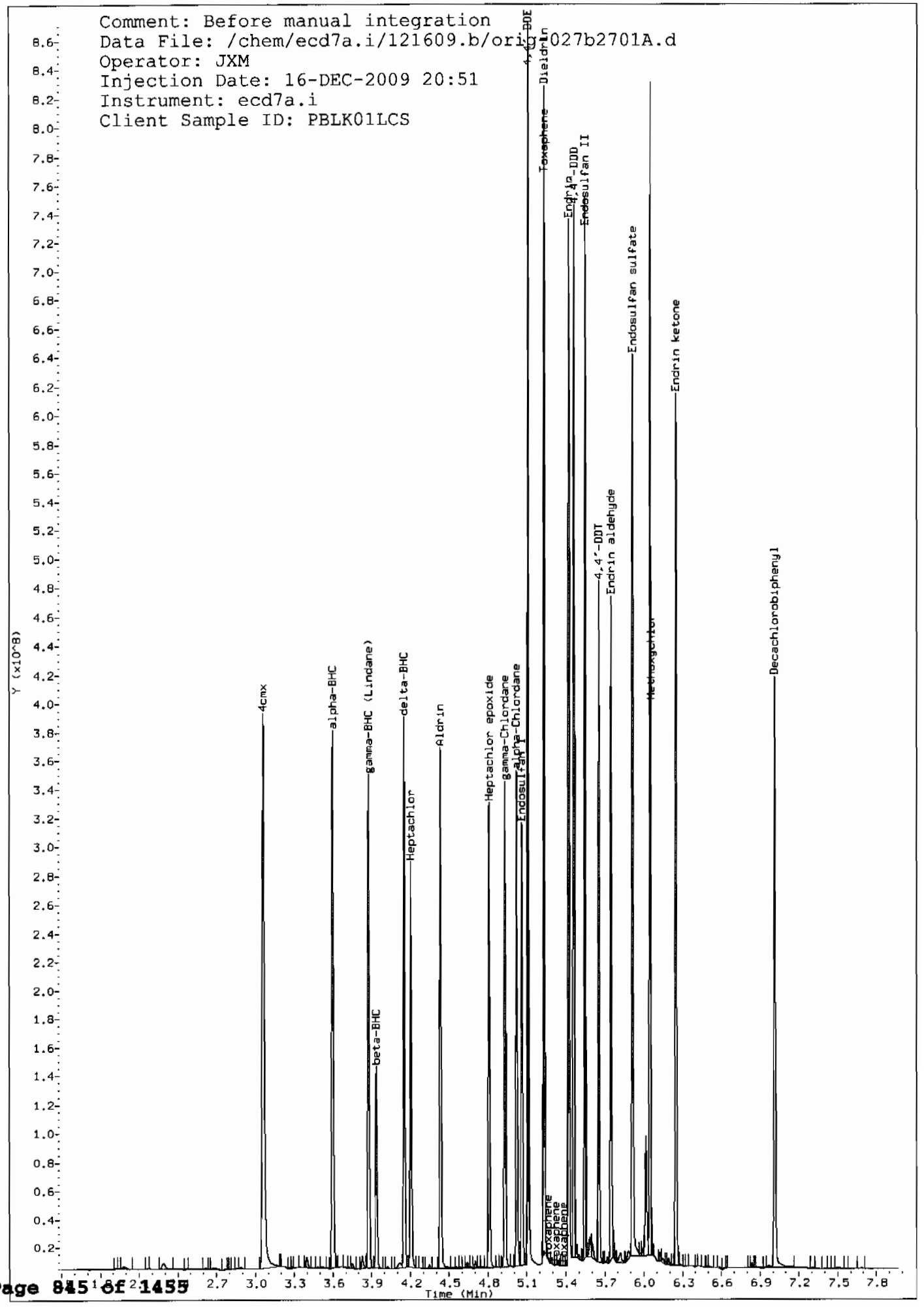
Comment: Before manual integration
Data File: /chem/ecd7a.i/121609.b/orig027b2701A.d
Operator: JXM
Injection Date: 16-DEC-2009 20:51
Instrument: ecd7a.i
Client Sample ID: PBLK01LCS
Y (x10^8)
Time (Min)
4cmx
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide
gamma-Chlordane
alpha-Chlordane
Endosulfan I
4,4'-DDE
Dieldrin
Toxaphene
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Endosulfan sulfate
Methoxychlor
Endrin ketone
Decachlorobiphenyl

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	10–899			**Matrix:**	SOIL
Lab Sample ID:	1201995981				
Client Sample:	QC for batch 932993	**Client:**	LANL010	**Project:**	QC
Client ID:	LCS for batch 932993	**Method:**	SW846 8081A	**SOP Ref:**	GL–OA–E–041
Batch ID:	932994	**Inst:**	ECD7A.I	**Dilution:**	1
Run Date:	12/16/2009 21:06	**Analyst:**	JXM	**Inj. Vol:**	1 uL
Prep Date:	12/15/2009 10:35	**Aliquot:**	30 g	**Final Volume:**	5 mL
Data File:	028f2801.d	**Column:**	1 CLP–1	**Level:**	LOW
	028b2801.d		2 CLP–2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
319–84–6	alpha–BHC	U	0.667	ug/kg	0.167	0.667	1
58–89–9	gamma–BHC (Lindane)	U	0.667	ug/kg	0.167	0.667	1
319–85–7	beta–BHC	U	0.667	ug/kg	0.167	0.667	1
319–86–8	delta–BHC	U	0.667	ug/kg	0.167	0.667	1
76–44–8	Heptachlor	U	0.667	ug/kg	0.167	0.667	1
309–00–2	Aldrin	U	0.667	ug/kg	0.167	0.667	1
1024–57–3	Heptachlor epoxide	U	0.667	ug/kg	0.208	0.667	1
5103–74–2	gamma–Chlordane	U	0.667	ug/kg	0.167	0.667	1
5103–71–9	alpha–Chlordane	U	0.667	ug/kg	0.167	0.667	1
959–98–8	Endosulfan I	U	0.667	ug/kg	0.167	0.667	1
72–55–9	4,4'–DDE	U	1.33	ug/kg	0.333	1.33	1
60–57–1	Dieldrin	U	1.33	ug/kg	0.333	1.33	1
72–20–8	Endrin	U	1.33	ug/kg	0.333	1.33	1
72–54–8	4,4'–DDD	U	1.33	ug/kg	0.333	1.33	1
33213–65–9	Endosulfan II	U	1.33	ug/kg	0.333	1.33	1
7421–93–4	Endrin aldehyde	U	1.33	ug/kg	0.333	1.33	1
50–29–3	4,4'–DDT	U	1.33	ug/kg	0.333	1.33	1
1031–07–8	Endosulfan sulfate	U	1.33	ug/kg	0.333	1.33	1
72–43–5	Methoxychlor	U	6.67	ug/kg	1.67	6.67	1
53494–70–5	Endrin ketone	U	1.33	ug/kg	0.333	1.33	1
8001–35–2	Toxaphene		134	ug/kg	5.55	16.7	1

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CLP-1

Data file : /chem/ecd7a.i/121609.b/028f2801A.d
Lab Smp Id: 1201995981 Client Smp ID: PBLK01TLCS
Inj Date : 16-DEC-2009 21:06
Operator : JXM Inst ID: ecd7a.i
Smp Info : |1201995981|1|
Misc Info : |ECD81A_1S|932994|SVPF|TLCS|
Comment :
Method : /chem/ecd7a.i/121609.b/ECD7-F-8081-121609.m
Meth Date : 17-Dec-2009 09:53 jam00798 Quant Type: ESTD
Cal Date : 09-DEC-2009 14:57 Cal File: 025f2501.d
Als bottle: 28 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-899.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weigth of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.811	2.810	0.001	374897126	157.539	26.2	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
6.509	6.515	-0.006	292896448	211.225	35.2	80.00- 120.00	100.00
23 Toxaphene					CAS #: 8001-35-2		
4.955	4.956	-0.001	20566510	818.691	136	80.00- 120.00	100.00(M)
5.011	5.011	0.000	26822640	817.989	136	115.94- 155.94	130.42
5.051	5.049	0.002	33106775	783.346	130	134.45- 174.45	160.97
5.111	5.113	-0.002	32857556	809.114	135	138.55- 178.55	159.76

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
23 Toxaphene (continued)							
5.230	5.232	-0.002	59443782	812.697	135	229.50- 269.50	289.03
		Average of Peak Concentrations =			134		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd7a.i/121609.b/028f2801A.d

Date : 16-DEC-2009 21:06

Client ID: PBLK01TLCS

Sample Info: |120199598111|

Volume Injected (uL): 1.0

Column phase: CLP-1

Instrument: ecd7a.i

Operator: JXM

Column diameter: 0.25

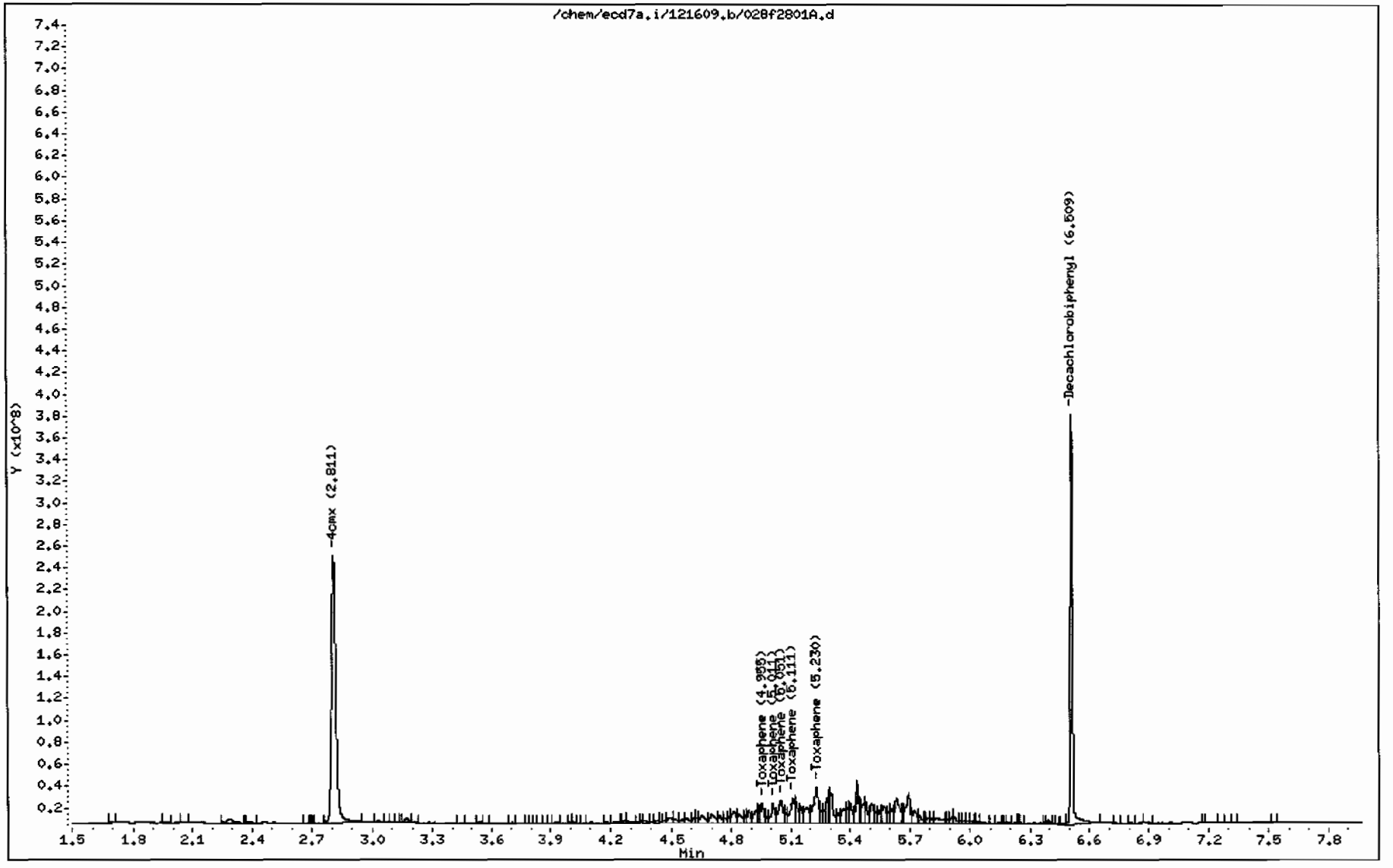

Comment: Manually Integrated
Data File: /chem/ecd7a.i/121609.b/028f2801A.d
Operator: JXM
Injection Date: 16-DEC-2009 21:06
Instrument: ecd7a.i
Client Sample ID: PBLK01TLCS

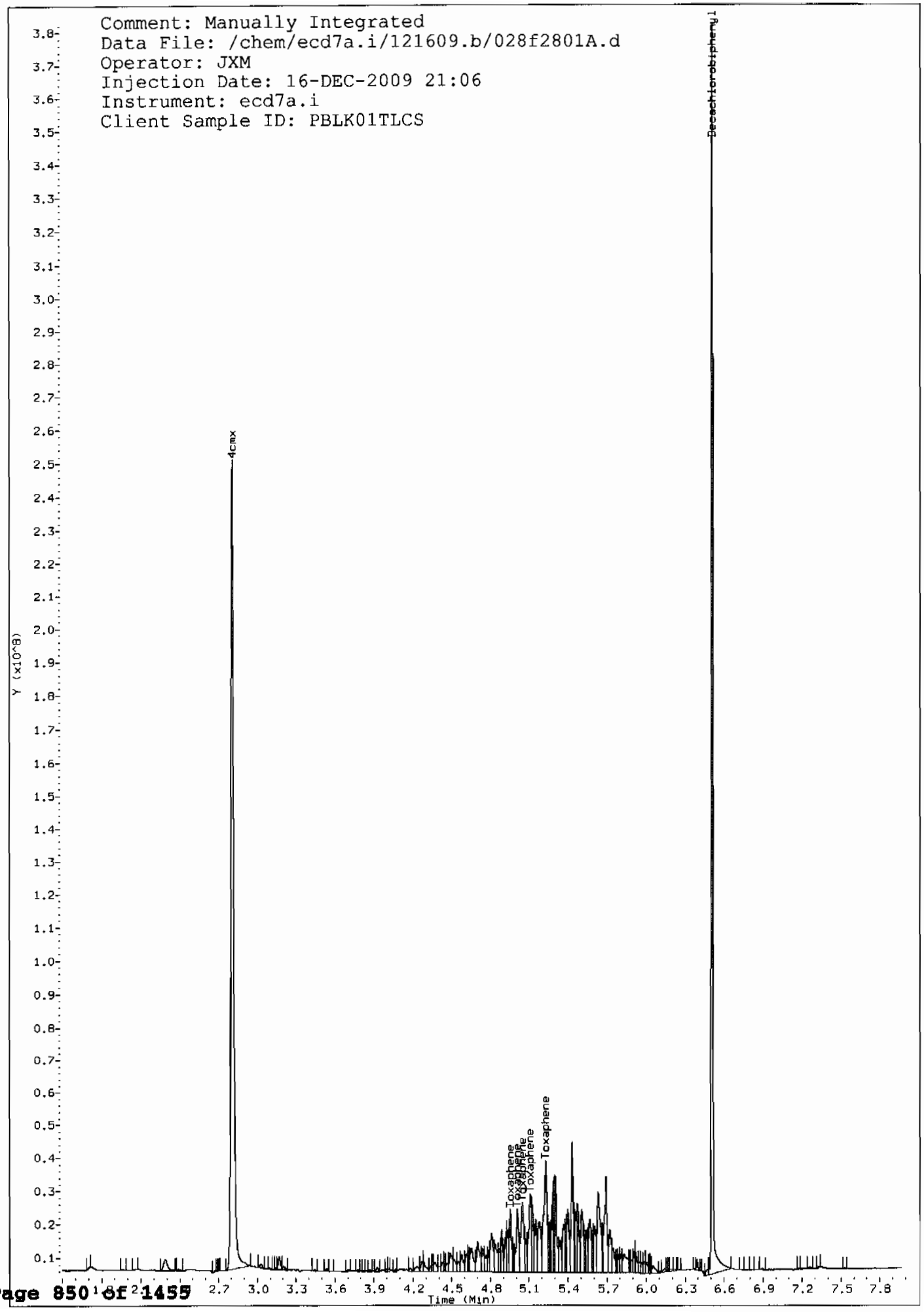

Comment: Before manual integration
Data File: /chem/ecd7a.i/121609.b/orig-028f2801A.d
Operator: JXM
Injection Date: 16-DEC-2009 21:06
Instrument: ecd7a.i
Client Sample ID: PBLK01TLCS

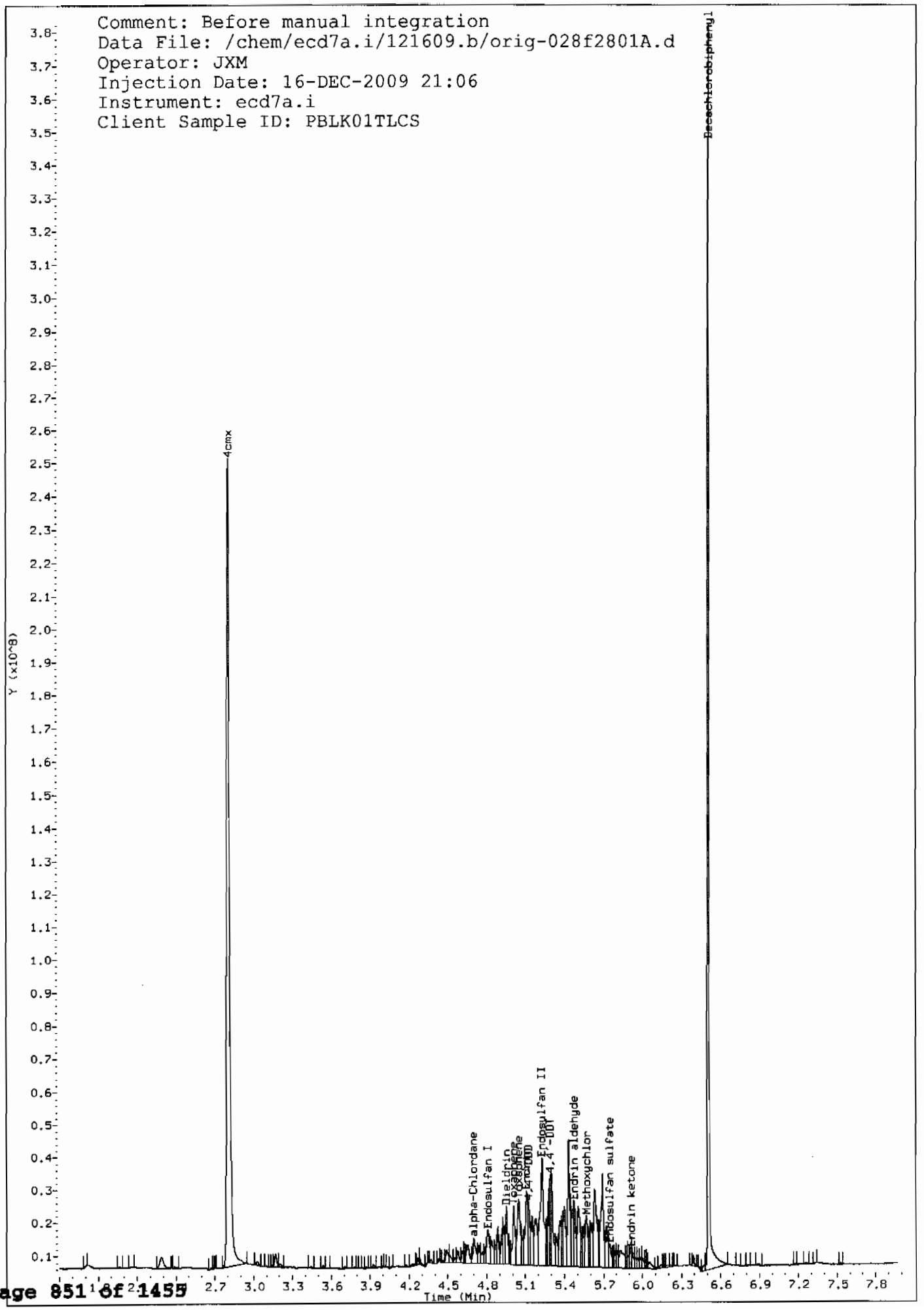

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CLP-2

Data file : /chem/ecd7a.i/121609.b/028b2801A.d
Lab Smp Id: 1201995981 Client Smp ID: PBLK01TLCS
Inj Date : 16-DEC-2009 21:06
Operator : JXM Inst ID: ecd7a.i
Smp Info : |1201995981|1|
Misc Info : |ECD81A_1S|932994|SVPF|TLCS|
Comment :
Method : /chem/ecd7a.i/121609.b/ECD7-B-8081-121609.m
Meth Date : 17-Dec-2009 09:53 jam00798 Quant Type: ESTD
Cal Date : 09-DEC-2009 14:57 Cal File: 025b2501.d
Als bottle: 28 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-899.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclpl

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weigth of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
3.064	3.063	0.001	444433750	157.125	26.2	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.020	7.025	-0.005	318715802	208.806	34.8	80.00- 120.00	100.00
23 Toxaphene					CAS #: 8001-35-2		
5.216	5.212	0.004	39955251	871.211	145	80.00- 120.00	100.00(M)
5.288	5.289	-0.001	19570880	732.180	122	38.31- 78.31	48.98
5.326	5.326	0.000	29867013	658.510	110	80.39- 120.39	74.75
5.399	5.400	-0.001	35970303	910.233	152	69.83- 109.83	90.03

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
23 Toxaphene (continued)							
5.543	5.543	0.000	51707137	911.758	152	111.80- 151.80	129.41
Average of Peak Concentrations =					136		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd7a.i/121609.b/028b2801A.d
Date : 16-DEC-2009 21:06
Client ID: PBLK01TLCS
Sample Info: |120199598|1|
Volume Injected (uL): 1.0
Column phase: CLP-2

Instrument: ecd7a.i
Operator: JXM
Column diameter: 0.25

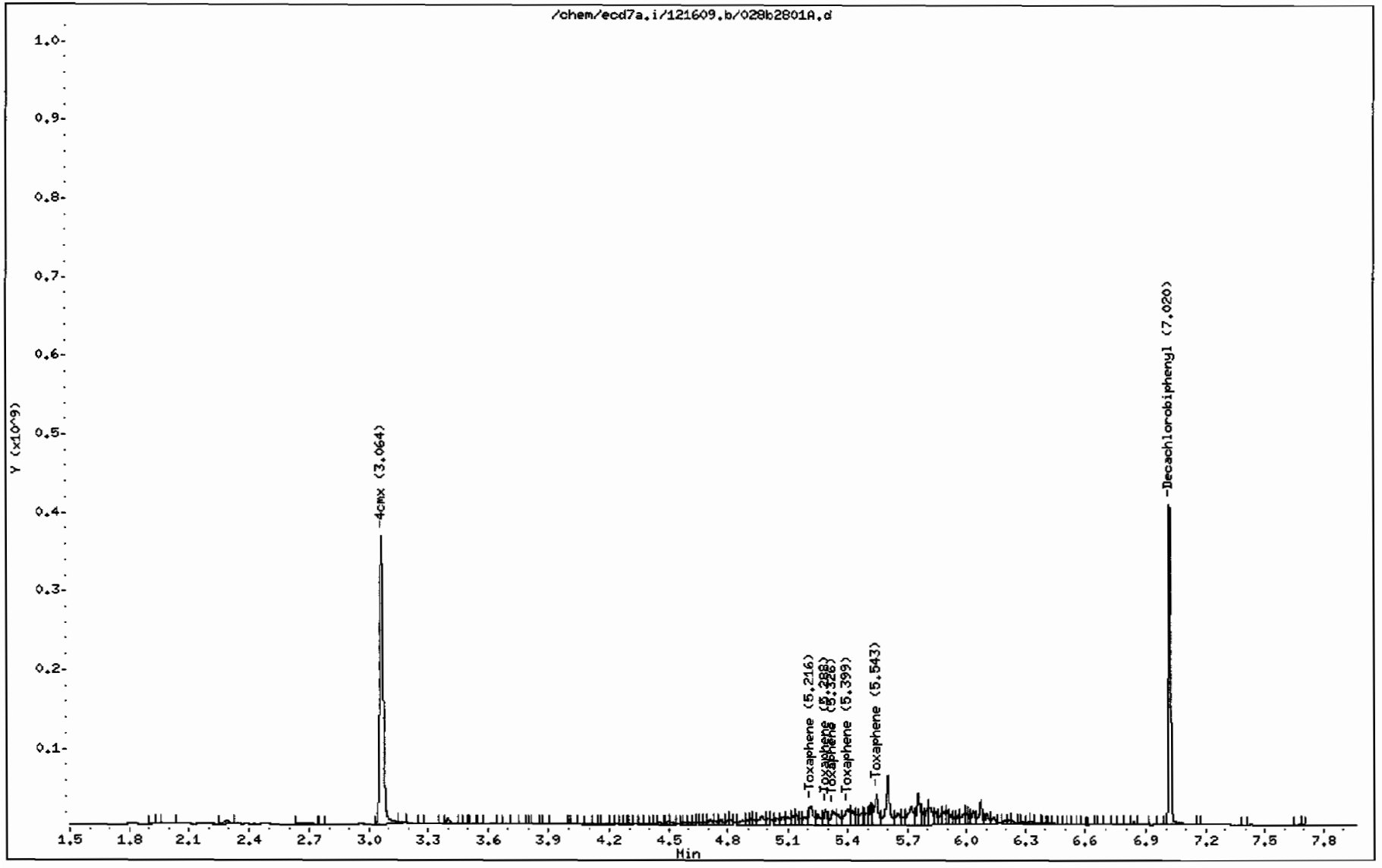

Comment: Manually Integrated
Data File: /chem/ecd7a.i/121609.b/028b2801A.d
Operator: JXM
Injection Date: 16-DEC-2009 21:06
Instrument: ecd7a.i
Client Sample ID: PBLK01TLCS

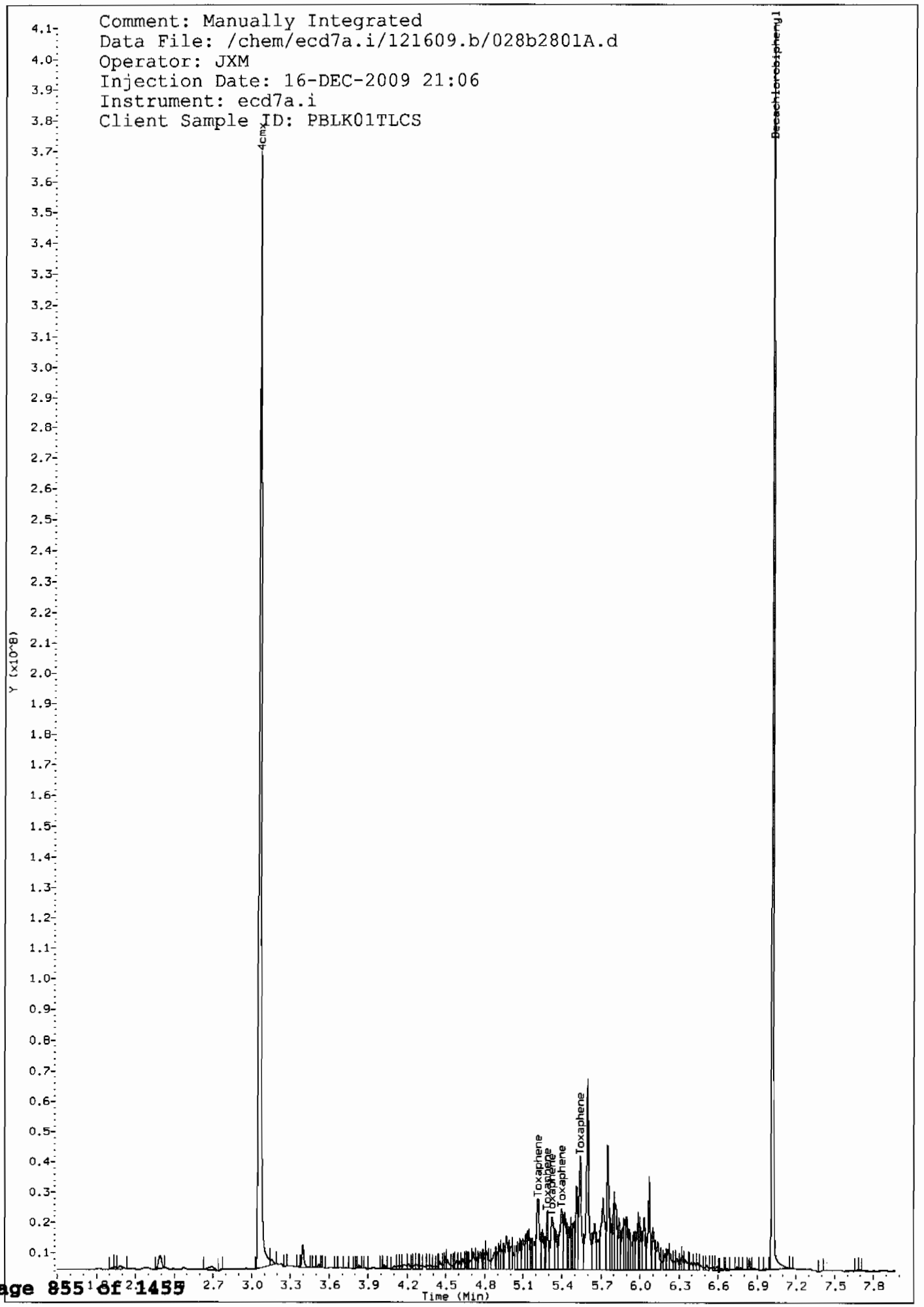

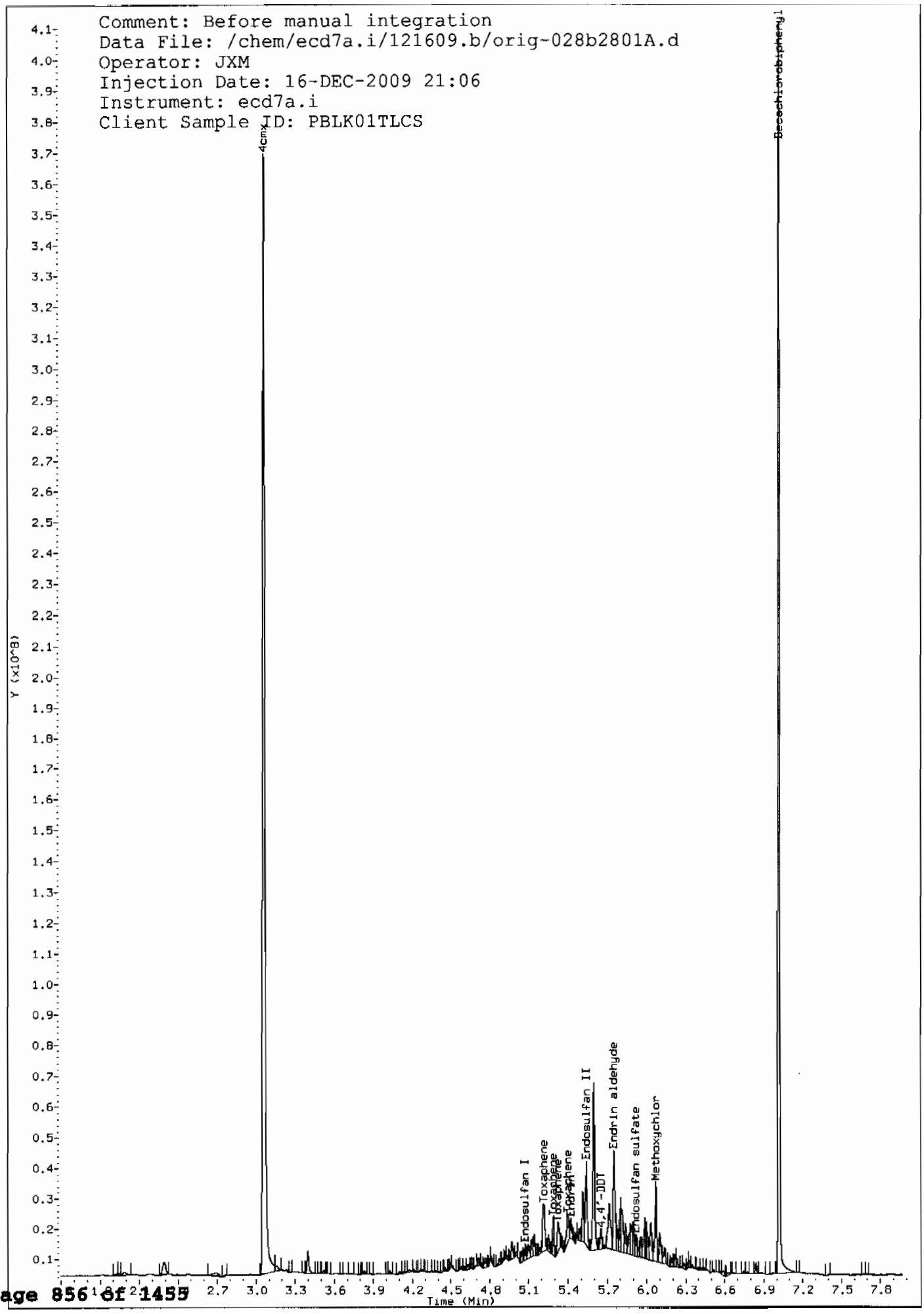
Comment: Before manual integration
Data File: /chem/ecd7a.i/121609.b/orig-028b2801A.d
Operator: JXM
Injection Date: 16-DEC-2009 21:06
Instrument: ecd7a.i
Client Sample ID: PBLK01TLCS
4cm
Decachlorobiphenyl
Endosulfan I
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Endosulfan II
4,4'-DDT
Endrin aldehyde
Endosulfan sulfate
Methoxychlor
Y (x10^8)
Time (Min)

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	10–899	**Date Collected:**	12/10/2009 12:00	**Matrix:**	R
Lab Sample ID:	1201995979	**Date Received:**	12/12/2009 09:35	**%Moisture:**	6.7
Client Sample:	QC for batch 932993	**Client:**	LANL010	**Project:**	QC
Client ID:	WST03–10–2145MS	**Method:**	SW846 8081A	**SOP Ref:**	GL–OA–E–041
Batch ID:	932994	**Inst:**	ECD7A.I	**Dilution:**	5
Run Date:	12/16/2009 21:51	**Analyst:**	JXM	**Inj. Vol:**	1 uL
Prep Date:	12/15/2009 10:35	**Aliquot:**	30.02 g	**Final Volume:**	5 mL
Data File:	031f3101.d	**Column:**	1 CLP–1	**Level:**	LOW
	031b3101.d		2 CLP–2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
319–84–6	alpha–BHC		12.5	ug/kg	0.893	3.57	1
58–89–9	gamma–BHC (Lindane)		14.1	ug/kg	0.893	3.57	1
319–85–7	beta–BHC		15.6	ug/kg	0.893	3.57	1
319–86–8	delta–BHC		15.0	ug/kg	0.893	3.57	1
76–44–8	Heptachlor		15.5	ug/kg	0.893	3.57	1
309–00–2	Aldrin		13.7	ug/kg	0.893	3.57	1
1024–57–3	Heptachlor epoxide		14.7	ug/kg	1.12	3.57	1
5103–74–2	gamma–Chlordane		15.2	ug/kg	0.893	3.57	1
5103–71–9	alpha–Chlordane		15.3	ug/kg	0.893	3.57	1
959–98–8	Endosulfan I		15.4	ug/kg	0.893	3.57	1
72–55–9	4,4'–DDE		38.2	ug/kg	1.79	7.14	1
60–57–1	Dieldrin		37.3	ug/kg	1.79	7.14	1
72–20–8	Endrin		42.5	ug/kg	1.79	7.14	1
72–54–8	4,4'–DDD		41.2	ug/kg	1.79	7.14	1
33213–65–9	Endosulfan II		41.2	ug/kg	1.79	7.14	1
7421–93–4	Endrin aldehyde		29.6	ug/kg	1.79	7.14	1
50–29–3	4,4'–DDT		47.0	ug/kg	1.79	7.14	1
1031–07–8	Endosulfan sulfate		37.8	ug/kg	1.79	7.14	1
72–43–5	Methoxychlor		189	ug/kg	8.93	35.7	1
53494–70–5	Endrin ketone		44.1	ug/kg	1.79	7.14	1
8001–35–2	Toxaphene	U	89.3	ug/kg	29.7	89.3	1

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CLP-1

Data file : /chem/ecd7a.i/121609.b/031f3101.d
Lab Smp Id: 1201995979 Client Smp ID: WST03-10-2145MS
Inj Date : 16-DEC-2009 21:51
Operator : JXM Inst ID: ecd7a.i
Smp Info : |1201995979|5|
Misc Info : |ECD81A_1S|932994|SVPF|MS|
Comment :
Method : /chem/ecd7a.i/121609.b/ECD7-F-8081-121609.m
Meth Date : 17-Dec-2009 09:53 jam00798 Quant Type: ESTD
Cal Date : 09-DEC-2009 14:57 Cal File: 025f2501.d
Als bottle: 31 QC Sample: MS
Dil Factor: 5.00000
Integrator: Falcon Compound Sublist: 10-899.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	5.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.02000	Weigth of sample extracted (g)
M	6.70440	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.810	2.810	0.000	67280762	28.2727	25.2	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
6.509	6.515	-0.006	51549407	37.1754	33.2	80.00- 120.00	100.00
5 alpha-BHC					CAS #: 319-84-6		
3.317	3.318	-0.001	42589937	13.9549	12.4	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.576	3.576	0.000	41258877	15.8191	14.1	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
12 beta-BHC					CAS #: 319-85-7		
3.646	3.645	0.001	20125644	17.4230	15.6	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
3.779	3.780	-0.001	45544416	16.8490	15.0	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
3.930	3.930	0.000	35464692	17.3667	15.5	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.142	4.143	-0.001	40686919	15.3337	13.7	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.550	4.551	-0.001	38287330	16.4533	14.7	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
4.631	4.631	0.000	38568850	17.0289	15.2	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
4.715	4.716	-0.001	38199814	17.0911	15.2	80.00- 120.00	100.00
16 Endosulfan I					CAS #: 959-98-8		
4.804	4.805	-0.001	35871619	17.2604	15.4	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
4.759	4.760	-0.001	98927701	42.8288	38.2	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
4.953	4.955	-0.002	93398532	41.7773	37.3	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.099	5.100	-0.001	87892050	47.5728	42.5	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.129	5.129	0.000	83530978	46.1127	41.2	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
5.237	5.238	-0.001	82237209	46.1999	41.2	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
5.490	5.491	-0.001	48355799	33.2018	29.6	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
5.297	5.298	-0.001	54010747	52.6566	47.0	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
5.751	5.754	-0.003	64988973	42.3519	37.8	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
28 Methoxychlor					CAS #: 72-43-5		
5.579	5.581	-0.002	93146730	211.380	189	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
5.925	5.928	-0.003	66572466	49.3906	44.1	80.00- 120.00	100.00

Data File: /chem/ecd7a.i/121609.b/031f3101.d

Date : 16-DEC-2009 21:51

Client ID: WST03-10-2145MS

Sample Info: |120199597915|

Volume Injected (uL): 1.0

Column phase: CLP-1

Instrument: ecd7a.i

Operator: JXM

Column diameter: 0.25

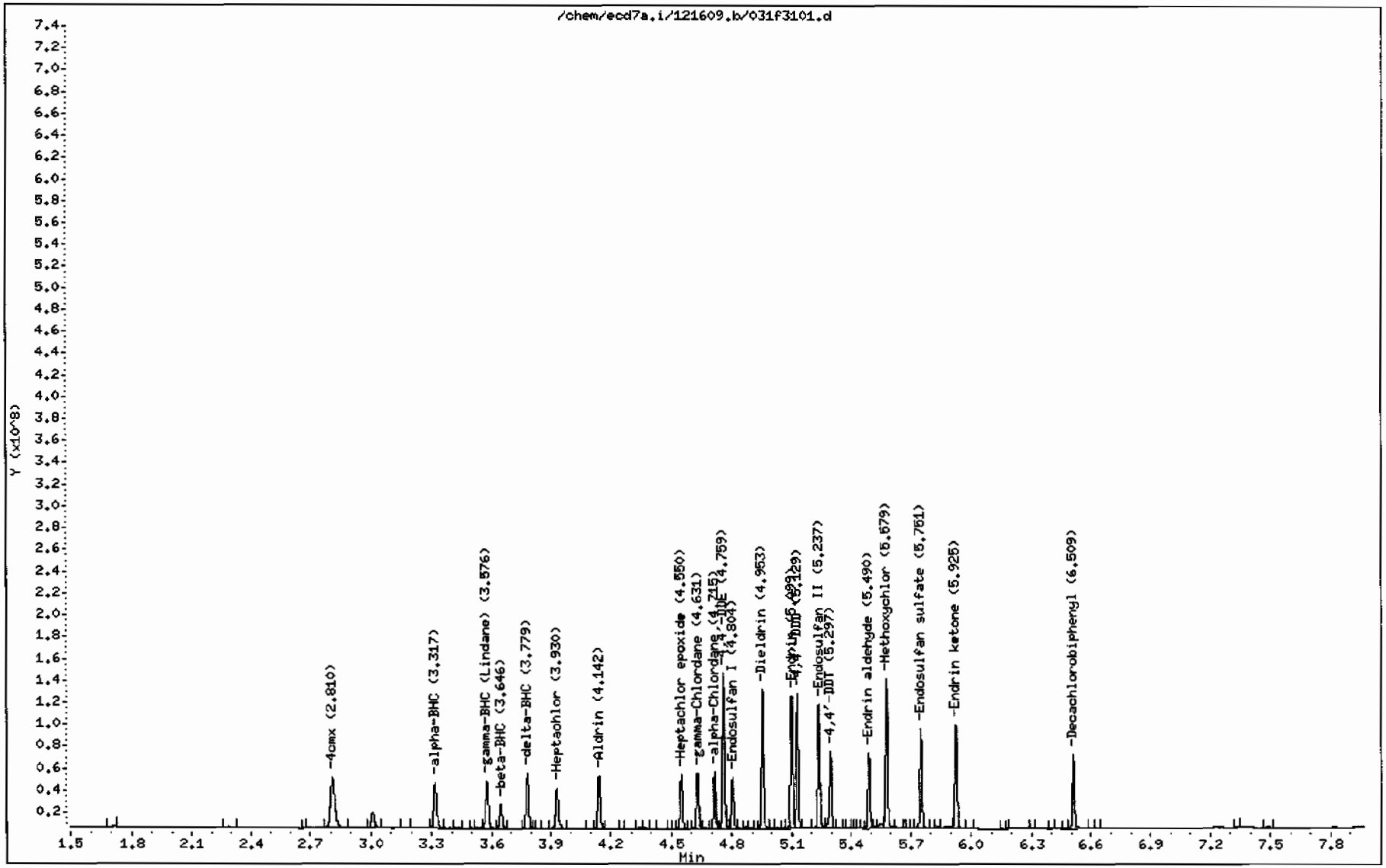

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd7a.i/121609.b/031b3101.d
Lab Smp Id: 1201995979 Client Smp ID: WST03-10-2145MS
Inj Date : 16-DEC-2009 21:51
Operator : JXM Inst ID: ecd7a.i
Smp Info : |1201995979|5|
Misc Info : |ECD81A_1S|932994|SVPF|MS|
Comment :
Method : /chem/ecd7a.i/121609.b/ECD7-B-8081-121609.m
Meth Date : 17-Dec-2009 09:53 jam00798 Quant Type: ESTD
Cal Date : 09-DEC-2009 14:57 Cal File: 025b2501.d
Als bottle: 31 QC Sample: MS
Dil Factor: 5.00000
Integrator: Falcon Compound Sublist: 10-899.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	5.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.02000	Weigth of sample extracted (g)
M	6.70440	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
3.063	3.063	0.000	79865568	28.2356	25.2	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.019	7.025	-0.006	54482314	35.6940	31.9	80.00- 120.00	100.00
5 alpha-BHC					CAS #: 319-84-6		
3.600	3.601	-0.001	56953983	14.8995	13.3	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.880	3.880	0.000	49629040	15.3729	13.7	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	CONCENTRATIONS FINAL (ug/Kg)	TARGET RANGE	RATIO
12 beta-BHC					CAS #: 319-85-7		
3.938	3.939	-0.001	23156498	16.8150	15.0	80.00- 120.00	100.00(M)
13 delta-BHC					CAS #: 319-86-8		
4.154	4.155	-0.001	53640636	16.2704	14.5	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
4.207	4.207	0.000	37071538	16.0653	14.3	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.435	4.436	-0.001	51212590	15.1849	13.6	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.810	4.811	-0.001	46002839	16.0941	14.4	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
4.931	4.931	0.000	47388967	16.6961	14.9	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
5.022	5.023	-0.001	46258862	16.8011	15.0	80.00- 120.00	100.00
16 Endosulfan I					CAS #: 959-98-8		
5.063	5.065	-0.002	42760304	17.2936	15.4	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.110	5.111	-0.001	116412385	43.2294	38.6	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
5.234	5.235	-0.001	114416545	41.6186	37.1	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.424	5.425	-0.001	103529505	47.3468	42.3	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.463	5.464	-0.001	92240514	45.6269	40.7	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
5.549	5.551	-0.002	97902672	46.9055	41.9	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
5.750	5.753	-0.003	55922229	32.7589	29.2	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
5.655	5.657	-0.002	47408243	56.8956	50.8	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
5.916	5.922	-0.006	80781114	46.4189	41.4	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
28 Methoxychlor					CAS #: 72-43-5		
6.053	6.059	-0.006	88159512	230.530	206	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
6.253	6.260	-0.007	76740789	50.1075	44.7	80.00- 120.00	100.00

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd7a.i/121609.b/031b3101.d
Date : 16-DEC-2009 21:51
Client ID: WST03-10-2145MS
Sample Info: 1120199597151
Volume Injected (uL): 1.0
Column phase: CLP-2

Instrument: ecd7a.i
Operator: JXH
Column diameter: 0.25

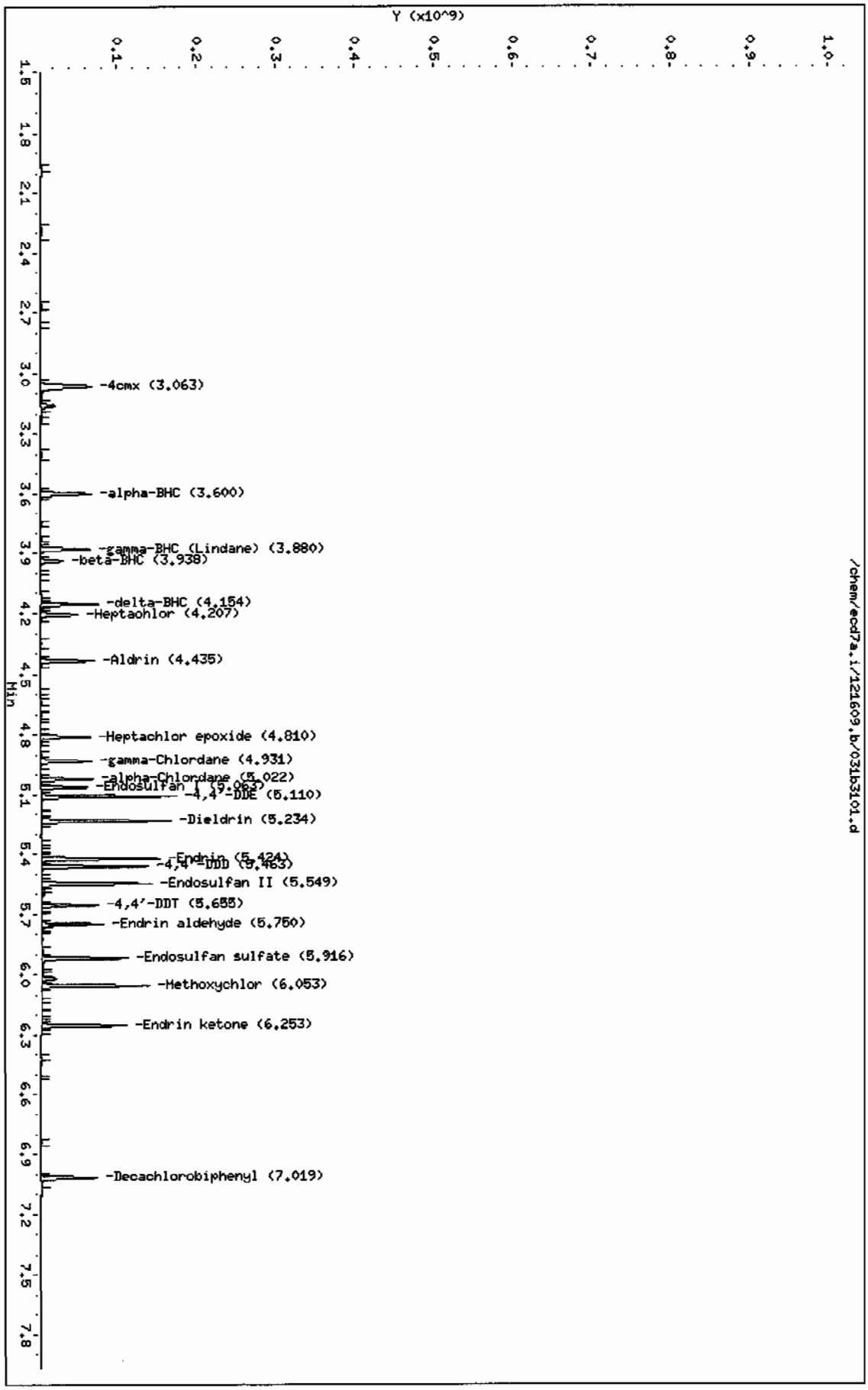

Page 1

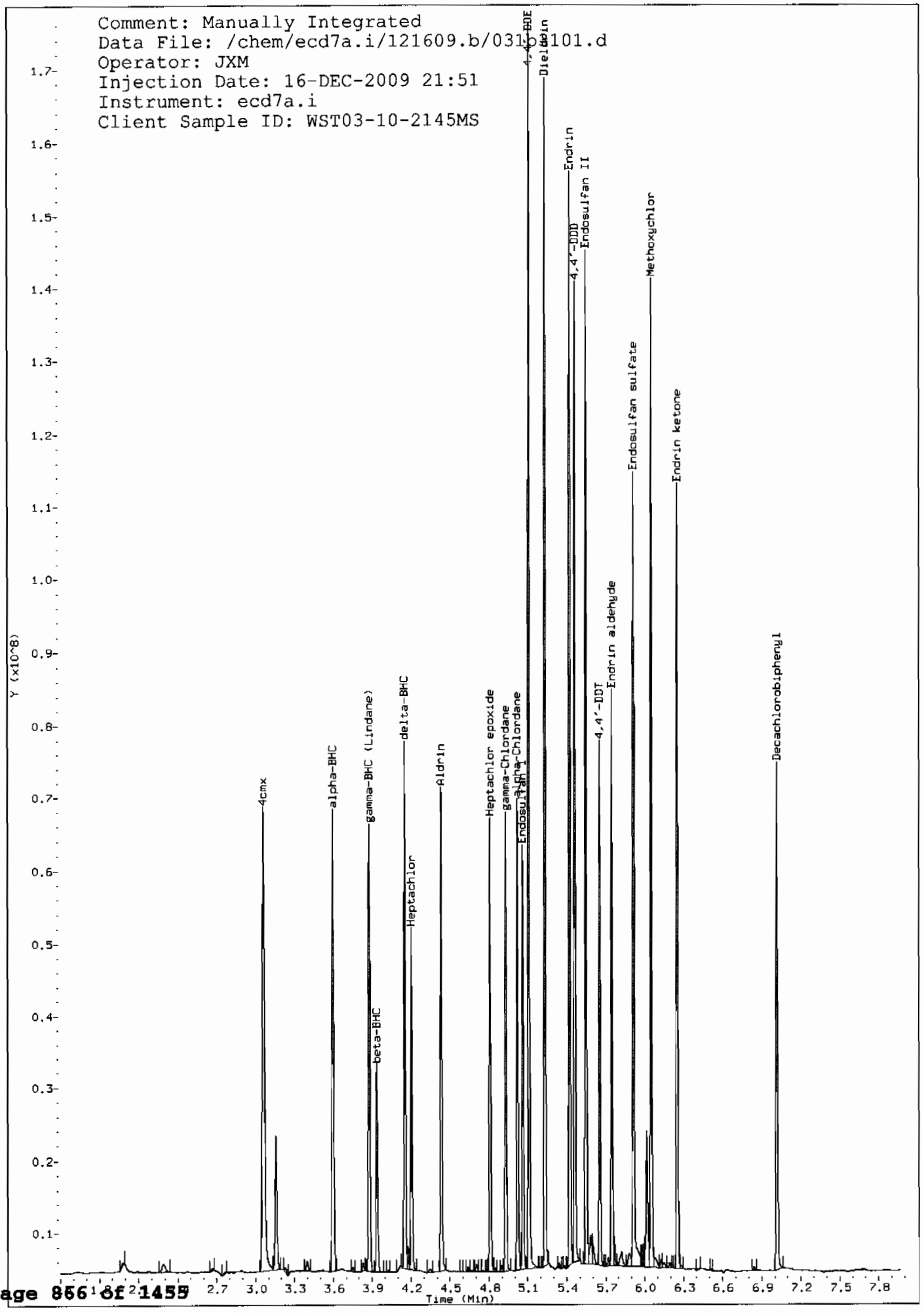
Comment: Manually Integrated
Data File: /chem/ecd7a.i/121609.b/031-b101.d
Operator: JXM
Injection Date: 16-DEC-2009 21:51
Instrument: ecd7a.i
Client Sample ID: WST03-10-2145MS
Y (x10^8)
Time (Min)
4cmx
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide
gamma-Chlordane
alpha-Chlordane
Endosulfan I
4,4'-DDE
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Endosulfan sulfate
Methoxychlor
Endrin ketone
Decachlorobiphenyl

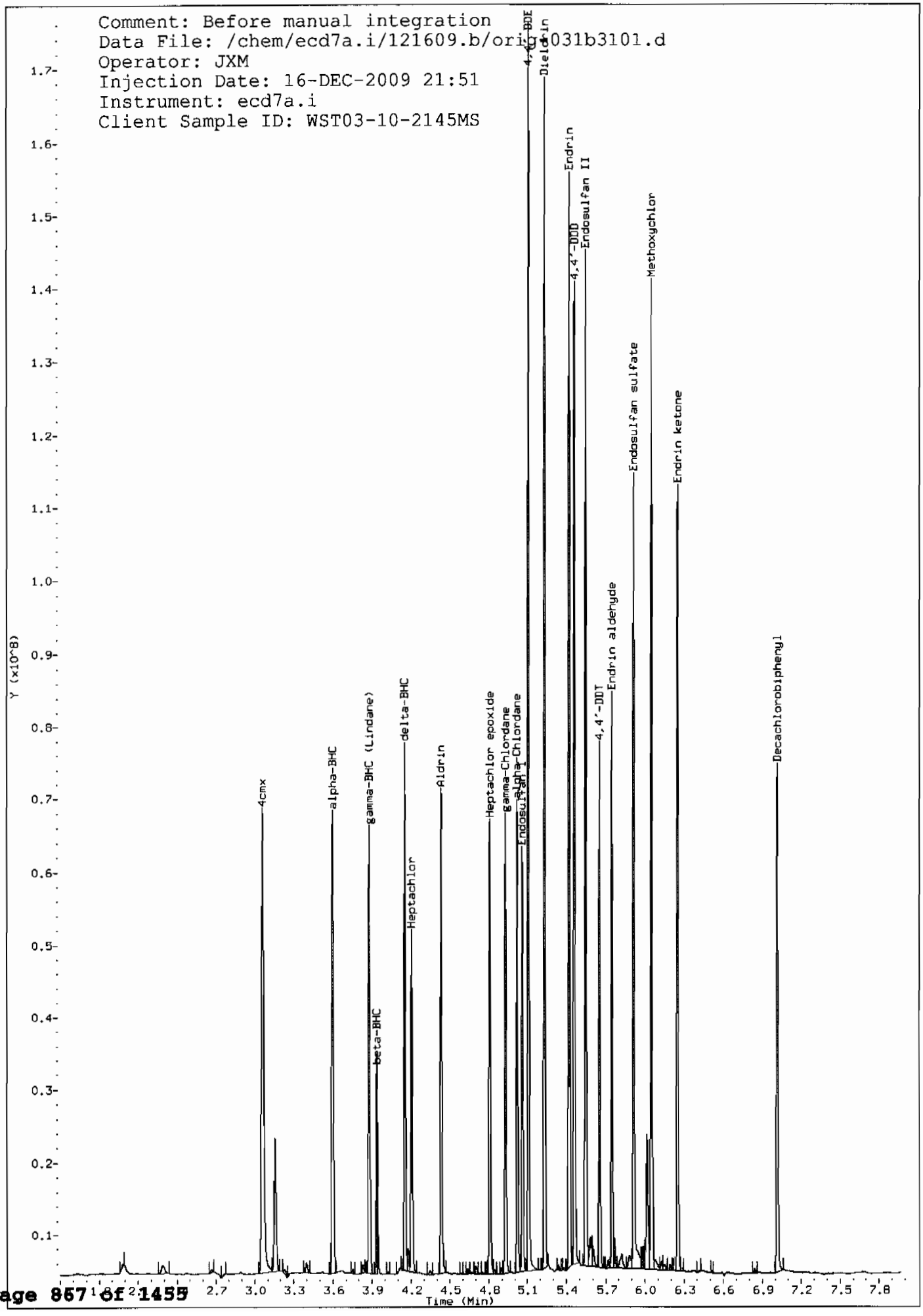
Comment: Before manual integration
Data File: /chem/ecd7a.i/121609.b/orig031b3101.d
Operator: JXM
Injection Date: 16-DEC-2009 21:51
Instrument: ecd7a.i
Client Sample ID: WST03-10-2145MS
Y (x10^8)
Time (Min)
4cmx
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide
gamma-Chlordane
alpha-Chlordane
Endosulfan I
4,4'-DDE
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Endosulfan sulfate
Methoxychlor
Endrin ketone
Decachlorobiphenyl

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	10-899	**Date Collected:**	12/10/2009 12:00	**Matrix:**	R
Lab Sample ID:	1201995980	**Date Received:**	12/12/2009 09:35	**%Moisture:**	6.7
Client Sample:	QC for batch 932993	**Client:**	LANL010	**Project:**	QC
Client ID:	WST03-10-2145MSD	**Method:**	SW846 8081A	**SOP Ref:**	GL-OA-E-041
Batch ID:	932994	**Inst:**	ECD7A.I	**Dilution:**	5
Run Date:	12/16/2009 22:06	**Analyst:**	JXM	**Inj. Vol:**	1 uL
Prep Date:	12/15/2009 10:35	**Aliquot:**	30.01 g	**Final Volume:**	5 mL
Data File:	032f3201.d	**Column:**	1 CLP-1	**Level:**	LOW
	032b3201.d		2 CLP-2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
319-84-6	alpha-BHC		12.4	ug/kg	0.893	3.57	1
58-89-9	gamma-BHC (Lindane)		14.8	ug/kg	0.893	3.57	1
319-85-7	beta-BHC		16.3	ug/kg	0.893	3.57	1
319-86-8	delta-BHC		15.7	ug/kg	0.893	3.57	1
76-44-8	Heptachlor		15.8	ug/kg	0.893	3.57	1
309-00-2	Aldrin		14.4	ug/kg	0.893	3.57	1
1024-57-3	Heptachlor epoxide		15.3	ug/kg	1.12	3.57	1
5103-74-2	gamma-Chlordane		15.7	ug/kg	0.893	3.57	1
5103-71-9	alpha-Chlordane		15.9	ug/kg	0.893	3.57	1
959-98-8	Endosulfan I		16.1	ug/kg	0.893	3.57	1
72-55-9	4,4'-DDE		39.3	ug/kg	1.79	7.14	1
60-57-1	Dieldrin		38.4	ug/kg	1.79	7.14	1
72-20-8	Endrin		43.8	ug/kg	1.79	7.14	1
72-54-8	4,4'-DDD		41.5	ug/kg	1.79	7.14	1
33213-65-9	Endosulfan II		41.7	ug/kg	1.79	7.14	1
7421-93-4	Endrin aldehyde		29.4	ug/kg	1.79	7.14	1
50-29-3	4,4'-DDT		47.2	ug/kg	1.79	7.14	1
1031-07-8	Endosulfan sulfate		38.5	ug/kg	1.79	7.14	1
72-43-5	Methoxychlor		191	ug/kg	8.93	35.7	1
53494-70-5	Endrin ketone		45.0	ug/kg	1.79	7.14	1
8001-35-2	Toxaphene	U	89.3	ug/kg	29.7	89.3	1

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd7a.i/121609.b/032f3201.d
Lab Smp Id: 1201995980 Client Smp ID: WST03-10-2145MSD
Inj Date : 16-DEC-2009 22:06
Operator : JXM Inst ID: ecd7a.i
Smp Info : |1201995980|5|
Misc Info : |ECD81A_1S|932994|SVPF|MSD|
Comment :
Method : /chem/ecd7a.i/121609.b/ECD7-F-8081-121609.m
Meth Date : 17-Dec-2009 09:53 jam00798 Quant Type: ESTD
Cal Date : 09-DEC-2009 14:57 Cal File: 025f2501.d
Als bottle: 32 QC Sample: MSD
Dil Factor: 5.00000
Integrator: Falcon Compound Sublist: 10-899.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	5.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.01000	Weigth of sample extracted (g)
M	6.70440	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.811	2.810	0.001	69352500	29.1432	26.0	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
6.508	6.515	-0.007	50549605	36.4544	32.6	80.00- 120.00	100.00
5 alpha-BHC					CAS #: 319-84-6		
3.316	3.318	-0.002	42503869	13.9267	12.4	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.576	3.576	0.000	43251370	16.5831	14.8	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
12 beta-BHC					CAS #: 319-85-7		
3.645	3.645	0.000	21089362	18.2573	16.3	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
3.779	3.780	-0.001	47485199	17.5670	15.7	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
3.929	3.930	-0.001	36141379	17.6981	15.8	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.142	4.143	-0.001	42647062	16.0724	14.4	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.550	4.551	-0.001	39801479	17.1039	15.3	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
4.630	4.631	-0.001	39944295	17.6362	15.7	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
4.715	4.716	-0.001	39864937	17.8361	15.9	80.00- 120.00	100.00
16 Endosulfan I					CAS #: 959-98-8		
4.803	4.805	-0.002	37537181	18.0618	16.1	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
4.759	4.760	-0.001	101709637	44.0332	39.3	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
4.953	4.955	-0.002	96236319	43.0466	38.4	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.098	5.100	-0.002	90637118	49.0586	43.8	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.128	5.129	-0.001	84122104	46.4391	41.5	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
5.236	5.238	-0.002	83192721	46.7367	41.7	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
5.489	5.491	-0.002	47944717	32.9195	29.4	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
5.297	5.298	-0.001	54273002	52.8597	47.2	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
5.751	5.754	-0.003	66232413	43.1622	38.5	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
28 Methoxychlor					CAS #: 72-43-5		
5.579	5.581	-0.002	94304641	214.008	191	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
5.924	5.928	-0.004	67905275	50.3794	45.0	80.00- 120.00	100.00

Data File: /chem/ecd7a.i/121609.b/032f3201.d
Date : 16-DEC-2009 22:06
Client ID: WST03-10-2146MSD
Sample Info: 1120199598015
Volume Injected (uL): 1.0
Column phase: CLP-1

Instrument: ecd7a.i
Operator: JKM
Column diameter: 0.25

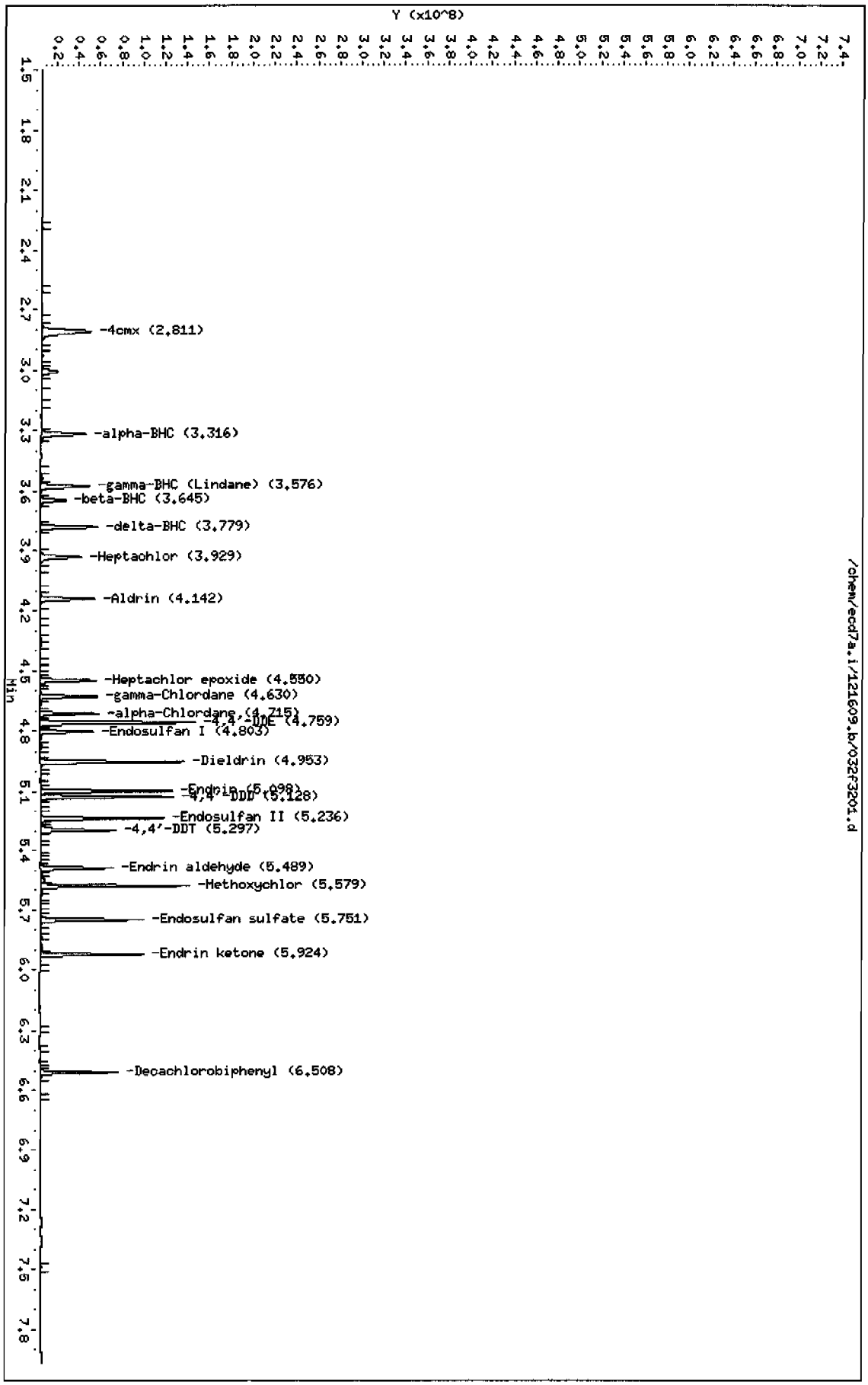

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GEL Laboratories LLC

CLP-2

Data file : /chem/ecd7a.i/121609.b/032b3201.d
Lab Smp Id: 1201995980 Client Smp ID: WST03-10-2145MSD
Inj Date : 16-DEC-2009 22:06
Operator : JXM Inst ID: ecd7a.i
Smp Info : |1201995980|5|
Misc Info : |ECD81A_1S|932994|SVPF|MSD|
Comment :
Method : /chem/ecd7a.i/121609.b/ECD7-B-8081-121609.m
Meth Date : 17-Dec-2009 09:53 jam00798 Quant Type: ESTD
Cal Date : 09-DEC-2009 14:57 Cal File: 025b2501.d
Als bottle: 32 QC Sample: MSD
Dil Factor: 5.00000
Integrator: Falcon Compound Sublist: 10-899.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	5.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.01000	Weigth of sample extracted (g)
M	6.70440	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
3.063	3.063	0.000	82332640	29.1078	26.0	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.019	7.025	-0.006	56738239	37.1720	33.2	80.00- 120.00	100.00
5 alpha-BHC					CAS #: 319-84-6		
3.600	3.601	-0.001	59284096	15.5091	13.8	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.880	3.880	0.000	52216255	16.1743	14.4	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
12 beta-BHC					CAS #: 319-85-7		
3.938	3.939	-0.001	24506548	17.7953	15.9	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
4.154	4.155	-0.001	57150483	17.3350	15.5	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
4.206	4.207	-0.001	38844930	16.8339	15.0	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.434	4.436	-0.002	53755219	15.9388	14.2	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.809	4.811	-0.002	48534774	16.9799	15.2	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
4.930	4.931	-0.001	49735666	17.5229	15.6	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
5.022	5.023	-0.001	48574873	17.6423	15.8	80.00- 120.00	100.00
16 Endosulfan I					CAS #: 959-98-8		
5.063	5.065	-0.002	44827942	18.1298	16.2	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.110	5.111	-0.001	120561036	44.7700	40.0	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
5.233	5.235	-0.002	118571440	43.1300	38.5	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.424	5.425	-0.001	107021804	48.9440	43.7	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.463	5.464	-0.001	93621857	46.3102	41.4	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
5.549	5.551	-0.002	100136743	47.9758	42.8	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
5.749	5.753	-0.004	55233709	32.3555	28.9	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
5.655	5.657	-0.002	48102246	57.4998	51.3	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
5.916	5.922	-0.006	80157012	46.0603	41.1	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
28 Methoxychlor					CAS #: 72-43-5		
6.053	6.059	-0.006	88567876	231.598	207	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
6.252	6.260	-0.008	78104432	50.9979	45.5	80.00- 120.00	100.00

Data File: /chem/ecd7a.i/121609.b/032b3201.d
Date : 16-DEC-2009 22:06
Client ID: WST03-10-2145MSD
Sample Info: |1201995980|5|
Volume Injected (uL): 1.0
Column phase: CLP-2

Instrument: ecd7a.i

Operator: JXM
Column diameter: 0.25

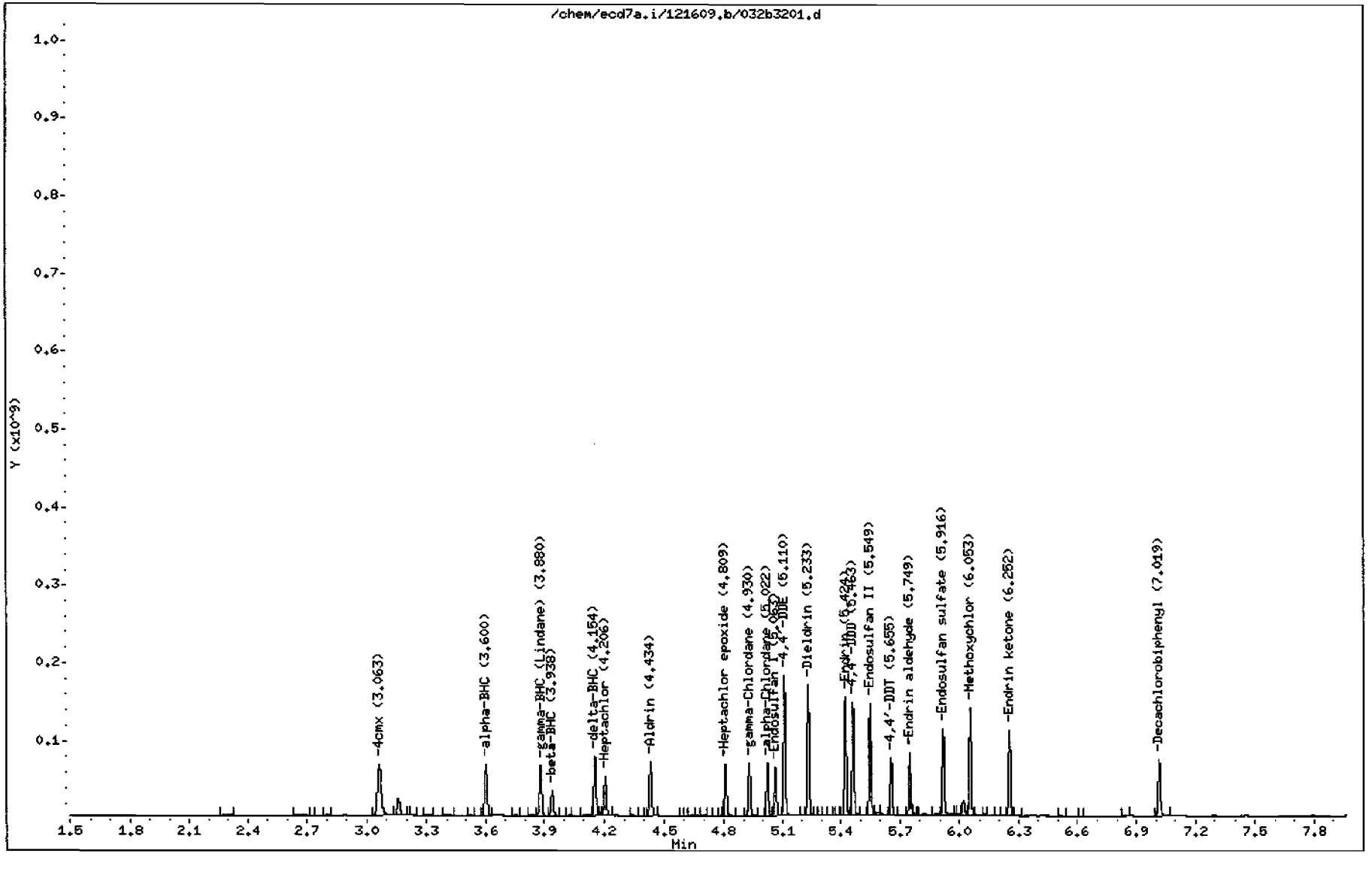

MISCELLANEOUS DATA

GEL ORGANIC RUN LOG INSTRUMENT ID: ECD7

DATE: 12/16/2009 METHOD: ECD7-B-8081-121609.m OPERATOR:JXM REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT
MERCURY LOT

Calibration & QC Information
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.
GEL SOP GL-OA-E-041 Organochlorine Pesticides and Chlorinated Hydrocarbons: EPA 8081
8121
Chromatogram Abbreviation Legend: AB-Assign Baseline, AP-Assign Peak, BD-Percent Endrin and 4,4'-DDT Breakdown, DNC-Do Not Call, DMP-Doesn't Match Pattern, NC-Not Confirmed, RT-Retention Time, BF-Before, AF-After.

Sequence Number: /chem/ecd7a.i/121609.b Injection Volume: 1.0 uL

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001b0101.d	WAR091130-99IB	JXM	16-DEC-2009 14:16		121609	1.0		CLEAN
002b0201.d	WPE091109-99DG	JXM	16-DEC-2009 14:31		121609	1.0		(B)DDT 5.4, ENDRIN 1.8 (F)DDT 4.4, ENDRIN 1.7
003b0301.d	WPE091216-01AB	JXM	16-DEC-2009 14:46		121609	1.0		INDAB LEVEL 1
004b0401.d	WPE091216-02AB	JXM	16-DEC-2009 15:00		121609	1.0		INDAB LEVEL 2
005b0501.d	WPE091216-03AB	JXM	16-DEC-2009 15:15		121609	1.0		INDAB LEVEL 3
006b0601.d	WPE091216-04AB	JXM	16-DEC-2009 15:30		121609	1.0		INDAB LEVEL 4
007b0701.d	IPE091128-02AB	JXM	16-DEC-2009 15:45		121609	1.0		INDAB LEVEL 5
008b0801.d	WPE091207-10AB	JXM	16-DEC-2009 16:00		121609	1.0		PASSES BOTH COLUMNS
009b0901.d	WPE091216-11TX	JXM	16-DEC-2009 16:15		121609	1.0		TOXAPH LEVEL 1
010b1001.d	WPE091216-12TX	JXM	16-DEC-2009 16:30		121609	1.0		TOXAPH LEVEL 2
011b1101.d	WPE091216-13TX	JXM	16-DEC-2009 16:44		121609	1.0		TOXAPH LEVEL 3
012b1201.d	WPE091216-14TX	JXM	16-DEC-2009 16:59		121609	1.0		TOXAPH LEVEL 4
013b1301.d	IPE091121-40TX	JXM	16-DEC-2009 17:14		121609	1.0		TOXAPH LEVEL 5
014b1401.d	WPE091104-52TX	JXM	16-DEC-2009 17:29		121609	1.0		PASSES BOTH COLUMNS
015b1501.d	WPE091216-21CL	JXM	16-DEC-2009 17:44		121609	1.0		CHLOR LEVEL 1

Instrument Batch: /chem/ecd7a.i/121609.b Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments

016b1601.d	WPE091216-22CL	JXM	16-DEC-2009 17:59		121609	1.0		CHLOR LEVEL 2
017b1701.d	WPE091216-23CL	JXM	16-DEC-2009 18:14		121609	1.0		CHLOR LEVEL 3
018b1801.d	WPE091216-24CL	JXM	16-DEC-2009 18:29		121609	1.0		CHLOR LEVEL 4
019b1901.d	IPE091029-06CL	JXM	16-DEC-2009 18:43		121609	1.0		CHLOR LEVEL 5
020b2001.d	WPE090916-00CL	JXM	16-DEC-2009 18:58		121609	1.0		PASSES BOTH COLUMNS
021b2101.d	WAR091130-99IB	JXM	16-DEC-2009 19:13		121609	1.0		CLEAN
022b2201.d	1201987886	JXM	16-DEC-2009 19:28	929523	10-753	1.0	LCS	USE: LOWER
023b2301.d	WPE091207-10AB	JXM	16-DEC-2009 19:52		121609	1.0		METHOXYCHLOR HIGH ON BACK
024b2401.d	WAR091130-99IB	JXM	16-DEC-2009 20:07		121609	1.0		CLEAN
025b2501.d	WPE091109-99DG	JXM	16-DEC-2009 20:22		121609	1.0		(B)DDT 7.2, ENDRIN 3.3 (F)DDT 3.9, ENDRIN 2.9
026b2601.d	1201995977	JXM	16-DEC-2009 20:37	932994	10-832	1.0	MB	USE: LOWER
027b2701.d	1201995978	JXM	16-DEC-2009 20:51	932994	10-832	1.0	LCS	USE: LOWER
028b2801.d	1201995981	JXM	16-DEC-2009 21:06	932994	10-832	1.0	TLCS	USE: LOWER
029b2901.d	242445002	JXM	16-DEC-2009 21:21	932994	10-832	5.0	LANL	USE: LOWER
030b3001.d	242784003	JXM	16-DEC-2009 21:36	932994	10-899	5.0	LANL	USE: LOWER
031b3101.d	1201995979	JXM	16-DEC-2009 21:51	932994	10-899	5.0	MS	USE: LOWER
032b3201.d	1201995980	JXM	16-DEC-2009 22:06	932994	10-899	5.0	MSD	USE: LOWER
033b3301.d	242784004	JXM	16-DEC-2009 22:20	932994	10-899	5.0	LANL	USE: LOWER
034b3401.d	WAR091130-99IB	JXM	16-DEC-2009 22:35		121609	1.0		CLEAN
035b3501.d	WPE091207-10AB	JXM	16-DEC-2009 22:50		121609	1.0		(B)DDT, METH. AND KETONE HIGH (F)METH. HIGH

Instrument Batch: /chem/ecd7a.i/121609.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
036b3601.d	WAR091130-99IB	JXM	16-DEC-2009 23:05		121609	1.0		CLEAN
037b3701.d	241839001	JXM	16-DEC-2009 23:20	933214	10-670-1	1.0	LANL	USE: LOWER
038b3801.d	1201996511	JXM	16-DEC-2009 23:35	933214	10-670-1	1.0	MS	USE: LOWER
039b3901.d	1201996514	JXM	16-DEC-2009 23:49	933214	10-670-1	1.0	MSD	USE: LOWER
040b4001.d	1201996512	JXM	17-DEC-2009 00:04	933214	10-670-1	1.0	TMS	USE: LOWER

041b4101.d	1201996515	JXM	17-DEC-2009 00:19	933214	10-670-1		1.0	TMSD	USE: LOWER
042b4201.d	1201996513	JXM	17-DEC-2009 00:34	933214	10-670-1		1.0	CMS	USE: LOWER
043b4301.d	1201996516	JXM	17-DEC-2009 00:49	933214	10-670-1		1.0	CMSD	USE: LOWER
044b4401.d	242326001	JXM	17-DEC-2009 01:04	933214	10-813-1		1.0	LANL	USE: LOWER
045b4501.d	WPE091207-10AB	JXM	17-DEC-2009 01:18		121609		1.0		HEPTACHLOR AND DDT LOW ON BOTH COLUMNS
046b4601.d	WAR091130-99IB	JXM	17-DEC-2009 01:33		121609		1.0		CLEAN
047b4701.d	1201988990	JXM	17-DEC-2009 01:48	933214	10-670-1		1.0	TB	USE: LOWER
048b4801.d	1201991315	JXM	17-DEC-2009 02:03	933214	10-813-1		1.0	TB	USE: LOWER
049b4901.d	1201996510	JXM	17-DEC-2009 02:18	933214	10-670-1		1.0	MB	USE: LOWER
050b5001.d	1201996517	JXM	17-DEC-2009 02:33	933214	10-670-1		1.0	LCS	USE: LOWER
051b5101.d	1201996518	JXM	17-DEC-2009 02:47	933214	10-670-1		1.0	TLCS	USE: LOWER
052b5201.d	1201996519	JXM	17-DEC-2009 03:02	933214	10-670-1		1.0	CLCS	USE: LOWER
053b5301.d	WAR091130-99IB	JXM	17-DEC-2009 03:17		121609		1.0		CLEAN
054b5401.d	WPE091207-10AB	JXM	17-DEC-2009 03:32		121609		1.0		(B)DDT LOW (F)HEPTACHLOR AND DDT LOW
055b5501.d	WAR091130-99IB	JXM	17-DEC-2009 03:47		121609		1.0		CLEAN

Instrument Batch: /chem/ecd7a.i/121609.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
056b5601.d	1201995982	JXM	17-DEC-2009 04:01	932997	242801	1.0	MB	DUSE: BRACKETING CHECK FAILS
057b5701.d	1201995983	JXM	17-DEC-2009 04:16	932997	242801	1.0	LCS	DUSE: BRACKETING CHECK FAILS
058b5801.d	242801001	JXM	17-DEC-2009 04:31	932997	242801	1.0	BRKL	DUSE: BRACKETING CHECK FAILS
059b5901.d	1201995984	JXM	17-DEC-2009 04:46	932997	242801	1.0	MS	DUSE: BRACKETING CHECK FAILS
060b6001.d	1201995985	JXM	17-DEC-2009 05:01	932997	242801	1.0	MSD	DUSE: BRACKETING CHECK FAILS
061b6101.d	WAR091130-99IB	JXM	17-DEC-2009 05:15		121609	1.0		CLEAN
062b6201.d	WPE091207-10AB	JXM	17-DEC-2009 05:30		121609	1.0		METHOXYCHLOR AND ENDRIN KETONE HIGH ON BACK
063b6301.d	WAR091130-99IB	JXM	17-DEC-2009 05:45		121609	1.0		CLEAN
064b6401.d	1201994026	JXM	17-DEC-2009 06:00	932188	242528	1.0	MB	USE: HIGHER, CONTAMINATED WITH AB

065b6501.d	1201994027	JXM	17-DEC-2009 06:14	932188	242528		1.0	LCS	USE: HIGHER
066b6601.d	242528002	JXM	17-DEC-2009 06:29	932188	242528		1.0	DVBA	USE: HIGHER
067b6701.d	1201994028	JXM	17-DEC-2009 06:44	932188	242528		1.0	MS	USE: HIGHER
068b6801.d	1201994029	JXM	17-DEC-2009 06:59	932188	242528		1.0	MSD	USE: HIGHER
069b6901.d	242528003	JXM	17-DEC-2009 07:14	932188	242528		1.0	DVBA	USE: HIGHER, REEXTRACT DUE TO CONTAMINATION
070b7001.d	242705001	JXM	17-DEC-2009 07:28	932188	242705		1.0	DVBA	USE: HIGHER
071b7101.d	WAR091130-99IB	JXM	17-DEC-2009 07:43		121609		1.0		CLEAN
072b7201.d	WPE091207-10AB	JXM	17-DEC-2009 07:58		121609		1.0		DDT LOW ON FRONT
073b7301.d	WAR091130-99IB	JXM	17-DEC-2009 08:13		121609		1.0		CLEAN

Prep Logbook

Extraction of Semivolatile and Nonvolatile Organic Compounds from Soil, Sludge, and Other Miscellaneous Solid Samples

Batch ID: 932993 **Verified by:** _____

Analyst: Joshua McCartney

Method: SW846 3550B

Lab SOP: GL-OA-E-010 REV# 18

Instrument: Semi-Volatiles Manual

Sample ID	Run Date	Aliquot (g)	Clean Up	Prior to Clean up (mL)	Amount Cleaned (mL)	After Clean up (mL)	Prepped Aliquot (mL)	Prepped Factor (mL/g)
1201995977 MB	15-DEC-2009 10:35:33	30	Florisil	5	1	10	5	0.16667
1201995978 LCS	15-DEC-2009 10:35:33	30	Florisil	5	1	10	5	0.16667
1201995981 LCS	15-DEC-2009 10:35:33	30	Florisil	5	1	10	5	0.16667
242445002	15-DEC-2009 10:35:33	30	Florisil	5	1	10	5	0.16667
242784003	15-DEC-2009 10:35:33	30	Florisil	5	1	10	5	0.16667
1201995979 MS (242784003)	15-DEC-2009 10:35:33	30.02	Florisil	5	1	10	5	0.16656
1201995980 MSD (242784003)	15-DEC-2009 10:35:33	30.01	Florisil	5	1	10	5	0.16661
242784004	15-DEC-2009 10:35:33	30.01	Florisil	5	1	10	5	0.16661

Type	Sample Id	Description	Serial Number	Spike Amt	Units
LCS	1201995978	PESTSPIKE	UE091204-04	1	mL
LCS	1201995981	Toxaphene TCLP LCS	WE091204-11	2	mL
MS	1201995979	PESTSPIKE	UE091204-04	1	mL
MSD	1201995980	PESTSPIKE	UE091204-04	1	mL
SURR	All	PEST SURROGATE 1000 UG/L	UE091114-07	1	mL
REGNT	All	Florisil cartridge 1000mg per cartridge	1103846-28	1	g
REGNT	All	Acetone	1233927	150	mL
REGNT	All	Hexane	1241300-B2	150	mL
SOURC	All	SODIUM SULFATE	1242582	30	g

Comments:

Clean up Date: 12/15/2009

Clean up Initials: JAM

Verified By: RWH

Final Solvent: Hexane

Clean Up SOP: GL-OA-E-036

GC SEMIVOLATILE PESTICIDE ANALYSIS

Pesticide Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-899-1

Method/Analysis Information

Procedure:	**Analysis of Organochlorine Pesticides and Chlorinated Hydrocarbons by ECD**
Analytical Method:	SW846 8081A
Prep Method:	SW846 3510C
TCLP Prep Method :	SW846 1311
Analytical Batch Number:	934315
Prep Batch Number:	934314
TCLP Prep Batch Number:	933331

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 8081A:

Sample ID	**Client ID**
242785001	WST03-10-2145
242785002	WST03-10-2146
1201996842	TCLP Blank (TB)
1201998973	Method Blank (MB)
1201998980	Laboratory Control Sample (LCS)
1201998981	Laboratory Control Sample (LCS)-Toxaphene LCS Only
1201998982	Laboratory Control Sample (LCS)-Chlordane (tech.) LCS Only
1201998974	242168001(WST03-10-2137) Matrix Spike (MS)
1201998975	242168001(WST03-10-2137) Matrix Spike (MS)-Toxaphene MS Only
1201998976	242168001(WST03-10-2137) Matrix Spike (MS)-Chlordane (tech.) MS only
1201998977	242168001(WST03-10-2137) Matrix Spike Duplicate (MSD)
1201998978	242168001(WST03-10-2137) Matrix Spike Duplicate (MSD)-Toxaphene MSD Only
1201998979	242168001(WST03-10-2137) Matrix Spike Duplicate (MSD)-Chlordane (tech.) MSD Only

The samples in this SDG were analyzed on an "as received" basis.

Preparation/Analytical Method Verification

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as

Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-041 REV# 10.

Raw data reports are processed and reviewed by the analyst using the Target software package. False positives have been removed from the Target quantitation reports per standard operating procedures (SOP) section 23.0.

Calibration Information

Please note that the 'Cal Date' indicated on each quantitation report reflects the date and time of the most recent calibrated analyte(s) in the Target processing method. Since the laboratory may calibrate with multiple solutions on different days using the same processing method, the Target software will update the 'Cal Date' to the last calibration file, date and time. The correct dates and times for all calibration files are located on the Calibration History report in the Standard Data section in the data package.

Due to software limitations, the Calibration Summary Form 6 may not indicate all the calibration files comprising the initial calibration. A complete list of the initial calibration data files are shown in the Calibration History report located in the Standard Data section of the data package.

Initial Calibration
All initial calibration requirements have been met for this sample delivery group (SDG).

The linear equation used in Target and indicated on the initial calibration summary form is not a conventional linear equation (slope intercept formula) and does not match the equation found in SW-846 method 8000B. The x and y axes are inversed in Target, so that the instrument response is treated as the independent variable (x) and the concentration ratio is treated as the dependent variable (y). The equation used in Target to calculate sample results is adjusted to account for the linear equation inversion and reciprocal slope. The adjusted calculation has been independently verified to produce valid results.

Continuing Calibration Verification (CCV) Requirements
The calibration verification standards (CVS, ICV, or CCV) requirements have not been met for this SDG.

One of five peaks recovered outside of the acceptance criteria in the Toxaphene and Chlordane (tech.) standards bracketing the samples in this SDG; however, the average amount of the five peaks met the acceptance criteria.

Some target analytes recovered outside of the acceptance criteria with a positive or negative bias in the standards bracketing the samples in this SDG. The bias for the analytical data is a result of instrument response increasing/decreasing after the initial calibration. The instrument response never decreased to a point where the target analytes would not be detected. These target analytes were not detected above the PQL in the samples; therefore, the non-compliance has no adverse effects on the data.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Surrogate Recoveries
All surrogate recoveries were within the established acceptance criteria for this SDG.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

QC Sample Designation
A LANL sample of similar matrix associated with another SDG (#10-753-1) was selected for the matrix spike and matrix spike duplicate analysis. A Form III and QC raw data are included in the package summarizing the results.

Matrix Spike (MS) Recovery Statement
The MS recoveries for this SDG were within the established acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recoveries for this SDG were within the established acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD between the MS and MSD did not meet the acceptance limits for Heptachlor and Methoxychlor due to dilution and low spike recovery in the MS.

Technical Information:

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

Sample Dilutions
Samples 242785001 (WST03-10-2145) and 242785002 (WST03-10-2146) were diluted at 1:5 due to a sharp acidic odor, and relatively low pH (between 4 and 5).

Sample Re-extraction/Re-analysis
Re-extractions or re-analyses were not required in this SDG.

Miscellaneous Information:

Electronic Package Comment

This package was generated using an electronic data processing program referred to as "virtual packaging". In an effort to increase quality and efficiency, the laboratory is developing systems to eventually generate all data packages electronically. The following change from "traditional" packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative.

Nonconformance (NCR) Documentation
Nonconformance report (NCR) is for documentation of any procedural anomalies that may deviate from referenced SOP or contractual document. A NCR was not required for this SDG.

Manual Integrations
Certain standards and samples may have required manual integration to correctly position the baseline as set in the calibration standard injections. If manual integration was performed, copies of all manual integration peak profiles are included in the raw data section of this pesticide fraction.

Additional Comments
The additional comments field is used to address special issues associated with each analysis, clarify method/contractual issues pertaining to the analysis, and to list any report documents generated as a result of sample analysis or review. The following additional comments were required:

The lower results from either column have been chosen and reported in the data package for the client samples, MB and LCS.

The data reported on the form I and III may differ slightly from the data reported on the form X. This is due to software limitations in rounding differences between the forms.

Due to software limitation, the Form VIIs will display the results either in the % difference or % drift depending on the type of the calibration curve. If the curve of all analytes is generated using an average response factor (RF), the Form VII will display results using the difference calculation (RF). If the curve of one or more analytes is generated using a linear curve, the Form VII will display results using the % drift calculation (by concentration) for all analytes.

System Configuration

The Semi-Volatiles-Pesticide analysis was performed on the following instrument configuration:

Instrument ID	Instrument	System Configuration	Column ID	Column Description
ECD5A.I_1	HP Gas Chromatograph	HP6890 Series ECD	Rtx-CLP I	30m x 0.25mm, 0.25um (Rtx-CLPesticide)
ECD5A.I_2	HP Gas Chromatograph	HP6890 Series ECD	Rtx-CLP II	30m x 0.25mm, 0.20um (Rtx-CLPesticide II)

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Heather-Ann Jgr Date: 12/23/09

Roadmap for LANL 10-899-1 PEST

This roadmap was analyzed by cla01575 on 12-23-2009, 12:58.
This roadmap was reviewed by rob01090 on 12-23-2009, 13:44.
This roadmap was validated by yml on 12-23-2009, 16:13.
This roadmap was packaged by yml on 12-23-2009, 16:50.
This roadmap was validated by hea01125 on 12-23-2009, 16:51.

Front Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd5a.i/122209.b/027f2701.d	242785001	sample	22-DEC-2009	19:29	10-899-1.sub	WST03-10-2145	5.00000	934315	USE, uploaded both columns, reporting lower result
☐	N	/chem/ecd5a.i/122209.b/028f2801.d	242785002	sample	22-DEC-2009	19:41	10-899-1.sub	WST03-10-2146	5.00000	934315	USE, uploaded both columns, reporting lower result

Back Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd5a.i/122209.b/027b2701.d	242785001	sample	22-DEC-2009	19:29	10-899-1.sub	WST03-10-2145	5.00000	934315	USE, uploaded both columns, reporting lower result
☐	N	/chem/ecd5a.i/122209.b/028b2801.d	242785002	sample	22-DEC-2009	19:41	10-899-1.sub	WST03-10-2146	5.00000	934315	USE, uploaded both columns, reporting lower result

Front QC Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd5a.i/122209.b/054f5401.d	1201996842	tb	23-DEC-2009	00:52	10-899-1.sub	TBLK01	1.00000	934315	USE, uploaded both columns, reporting lower result
☐	N	/chem/ecd5a.i/122209.b/047f4701-899.d	1201998973	mb	22-DEC-2009	23:28	10-899-1.sub	PBLK01	1.00000	934315	
☐	N	/chem/ecd5a.i/122209.b/048f4801-899.d	1201998980	lcs	22-DEC-2009	23:40	10-899-1.sub	PBLK01LCS	1.00000	934315	
☐	N	/chem/ecd5a.i/122209.b/049f4901-899.d	1201998981	lcs	22-DEC-2009	23:52	10-899-1.sub	PBLK01TLCS	1.00000	934315	
☐	N	/chem/ecd5a.i/122209.b/050f5001-899.d	1201998982	lcs	23-DEC-2009	00:04	10-899-1.sub	PBLK01CLCS	1.00000	934315	

Back QC Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd5a.i/122209.b/054b5401-899.d	1201996842	tb	23-DEC-2009	00:52	10-899-1.sub	TBLK01	1.00000	934315	
☐	N	/chem/ecd5a.i/122209.b/047b4701-899.d	1201998973	mb	22-DEC-2009	23:28	10-899-1.sub	PBLK01	1.00000	934315	
☐	N	/chem/ecd5a.i/122209.b/048b4801-899.d	1201998980	lcs	22-DEC-2009	23:40	10-899-1.sub	PBLK01LCS	1.00000	934315	
☐	N	/chem/ecd5a.i/122209.b/049b4901-899.d	1201998981	lcs	22-DEC-2009	23:52	10-899-1.sub	PBLK01TLCS	1.00000	934315	
☐	N	/chem/ecd5a.i/122209.b/050b5001-899.d	1201998982	lcs	23-DEC-2009	00:04	10-899-1.sub	PBLK01CLCS	1.00000	934315	

SAMPLE DATA SUMMARY

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	10-899-1	**Date Collected:**	12/10/2009 12:00	**Matrix:**	TCLP R
Lab Sample ID:	242785001	**Date Received:**	12/12/2009 09:35		
		Client:	LANL010	**Project:**	LANL01004
Client ID:	WST03-10-2145	**Method:**	SW846 8081A	**SOP Ref:**	GL-OA-E-041
Batch ID:	934315	**Inst:**	ECD5A.I	**Dilution:**	5
Run Date:	12/22/2009 19:29	**Analyst:**	CXC2	**Inj. Vol:**	1 uL
Prep Date:	12/22/2009 17:25	**Aliquot:**	20 mL	**Final Volume:**	1 mL
Data File:	027f2701.d	**Column:**	1 CLP-1	**Level:**	LOW
	027b2701.d		2 CLP-2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
58-89-9	gamma-BHC (Lindane)	U	0.001	mg/L	0.00025	0.001	1
76-44-8	Heptachlor	U	0.001	mg/L	0.00025	0.001	1
1024-57-3	Heptachlor epoxide	U	0.001	mg/L	0.00025	0.001	1
72-20-8	Endrin	U	0.002	mg/L	0.0005	0.002	1
72-43-5	Methoxychlor	U	0.010	mg/L	0.0025	0.010	1
57-74-9	Chlordane (tech.)	U	0.0125	mg/L	0.00383	0.0125	1
8001-35-2	Toxaphene	U	0.025	mg/L	0.0075	0.025	1

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	10-899-1	**Date Collected:**	12/10/2009 12:00	**Matrix:**	TCLP R
Lab Sample ID:	242785002	**Date Received:**	12/12/2009 09:35		
		Client:	LANL010	**Project:**	LANL01004
Client ID:	WST03-10-2146	**Method:**	SW846 8081A	**SOP Ref:**	GL-OA-E-041
Batch ID:	934315	**Inst:**	ECD5A.I	**Dilution:**	5
Run Date:	12/22/2009 19:41	**Analyst:**	CXC2	**Inj. Vol:**	1 uL
Prep Date:	12/22/2009 17:25	**Aliquot:**	20 mL	**Final Volume:**	1 mL
Data File:	028f2801.d	**Column:**	1 CLP-1	**Level:**	LOW
	028b2801.d		2 CLP-2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
58-89-9	gamma-BHC (Lindane)	U	0.001	mg/L	0.00025	0.001	1
76-44-8	Heptachlor	U	0.001	mg/L	0.00025	0.001	1
1024-57-3	Heptachlor epoxide	U	0.001	mg/L	0.00025	0.001	1
72-20-8	Endrin	U	0.002	mg/L	0.0005	0.002	1
72-43-5	Methoxychlor	U	0.010	mg/L	0.0025	0.010	1
57-74-9	Chlordane (tech.)	U	0.0125	mg/L	0.00383	0.0125	1
8001-35-2	Toxaphene	U	0.025	mg/L	0.0075	0.025	1

QUALITY CONTROL SUMMARY

Pesticide

Surrogate Recovery Report

SDG Number: 10-899-1

Matrix Type: TCLP SOLID

CAP Column (1) : CLP-1 **CAP Column (2) : CLP-2**

Sample ID	Client ID	4CMX 1 %REC	#	4CMX 2 %REC	#	DCB 1 %REC	#	DCB 2 %REC	#
242785001	WST03-10-2145	63	D	60	D	74	D	65	D
242785002	WST03-10-2146	62	D	59	D	70	D	66	D
1201998973	MB for batch 934314	38		32		87		79	
1201998980	LCS for batch 934314	39		33		84		78	
1201998981	LCS for batch 934314	36		29		81		68	
1201998982	LCS for batch 934314	38		32		83		73	
1201996842	TB for batch 933331	44		36		82		74	

Surrogate	Acceptance Limits
4CMX = 4cmx	(29%-103%)
DCB = Decachlorobiphenyl	(34%-118%)

* Recovery outside Acceptance Limits
# Column to be used to flag recovery values
D Sample Diluted

Pesticide

Quality Control Summary
Spike Recovery Report

SDG Number: 10-899-1
Client ID: LCS for batch 934314
Lab Sample ID: 1201998982
Instrument: ECD5A.I
Analyst: CXC2
Inj. Vol: 1 uL

Sample Type: Laboratory Control Sample
Matrix: TCLP SOIL
Analysis Date: 12/23/2009 00:04
Dilution: 1
Prep Batch ID: 934314
Batch ID: 934315

CAS No	Parmname	Amount Added mg/L	Sample Conc. mg/L	Spike Conc. mg/L	Recovery %	Acceptance Limits
57-74-9	LCS Chlordane (tech.)	0.100	0.0	0.0742	74	38-131

Pesticide

Quality Control Summary
Spike Recovery Report

SDG Number: 10-899-1
Client ID: LCS for batch 934314
Lab Sample ID: 1201998980
Instrument: ECD5A.I
Analyst: CXC2
Inj. Vol: 1 uL

Sample Type: Laboratory Control Sample
Matrix: TCLP SOIL
Analysis Date: 12/22/2009 23:40
Dilution: 1
Prep Batch ID: 934314
Batch ID: 934315

CAS No		Parmname	Amount Added mg/L	Sample Conc. mg/L	Spike Conc. mg/L	Recovery %	Acceptance Limits
58-89-9	LCS	gamma-BHC (Lindane)	0.005	0.0	0.00349	70	49-138
76-44-8	LCS	Heptachlor	0.005	0.0	0.00306	61	38-132
1024-57-3	LCS	Heptachlor epoxide	0.005	0.0	0.00353	71	49-134
72-20-8	LCS	Endrin	0.005	0.0	0.00469	94	56-145
72-43-5	LCS	Methoxychlor	0.050	0.0	0.0569	114	53-151

Pesticide

Quality Control Summary
Spike Recovery Report

SDG Number: 10-899-1
Client ID: LCS for batch 934314
Lab Sample ID: 1201998981
Instrument: ECD5A.I
Analyst: CXC2
Inj. Vol: 1 uL

Sample Type: Laboratory Control Sample
Matrix: TCLP SOIL
Analysis Date: 12/22/2009 23:52
Prep Batch ID: 934314
Batch ID: 934315
Dilution: 1

CAS No	Parmname	Amount Added mg/L	Sample Conc. mg/L	Spike Conc. mg/L	Recovery %	Acceptance Limits
8001-35-2	LCS Toxaphene	0.100	0.0	0.0567	57	41-143

Pesticide

Quality Control Summary
Spike Recovery Report

SDG Number: 10-753-1
Client ID: WST03-10-2137MS
Lab Sample ID: 1201998976
Instrument: ECD5A.I
Analyst: CXC2
Inj. Vol: 1 uL

Sample Type: Matrix Spike
Matrix: TCLP R
Analysis Date: 12/22/2009 20:41
Prep Batch ID: 934314
Batch ID: 934315
Dilution: 5

CAS No		Parmname	Amount Added mg/L	Sample Conc. mg/L		Spike Conc. mg/L	Recovery %	Acceptance Limits
57-74-9	MS	Chlordane (tech.)	0.100	0.00	U	0.0694	69	38-134

Pesticide

Quality Control Summary
Spike Recovery Report

SDG Number: 10-753-1
Client ID: WST03-10-2137MSD
Lab Sample ID: 1201998979
Instrument: ECD5A.I
Analyst: CXC2
Inj. Vol: 1 uL

Sample Type: Matrix Spike Duplicate
Matrix: TCLP R
Analysis Date: 12/22/2009 21:29
Dilution: 5
Prep Batch ID: 934314
Batch ID: 934315

CAS No	Parmname	Amount Added mg/L	Sample Conc. mg/L		Spike Conc. mg/L	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
57-74-9	MSD Chlordane (tech.)	0.100	0.00	U	0.0757	76	38-134	9	0-30

Pesticide

Quality Control Summary
Spike Recovery Report

SDG Number: 10-753-1
Client ID: WST03-10-2137MS
Lab Sample ID: 1201998974
Instrument: ECD5A.I
Analyst: CXC2
Inj. Vol: 1 uL

Sample Type: Matrix Spike
Matrix: TCLP R
Analysis Date: 12/22/2009 19:53
Prep Batch ID: 934314
Batch ID: 934315
Dilution: 5

CAS No		Parmname	Amount Added mg/L	Sample Conc. mg/L		Spike Conc. mg/L	Recovery %	Acceptance Limits
58-89-9	MS	gamma-BHC (Lindane)	0.005	0.00	U	0.00343	69	46-132
76-44-8	MS	Heptachlor	0.005	0.00	U	0.0023	46	37-127
1024-57-3	MS	Heptachlor epoxide	0.005	0.00	U	0.00357	71	44-129
72-20-8	MS	Endrin	0.005	0.00	U	0.00426	85	48-145
72-43-5	MS	Methoxychlor	0.050	0.00	U	0.0263	53	47-156

Pesticide

Quality Control Summary
Spike Recovery Report

SDG Number: 10-753-1
Client ID: WST03-10-2137MSD
Lab Sample ID: 1201998977
Instrument: ECD5A.I
Analyst: CXC2
Inj. Vol: 1 uL

Sample Type: Matrix Spike Duplicate
Matrix: TCLP R
Analysis Date: 12/22/2009 20:05
Dilution: 5
Prep Batch ID: 934314
Batch ID: 934315

CAS No	Parmname	Amount Added mg/L	Sample Conc. mg/L		Spike Conc. mg/L	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
58-89-9	MSD gamma-BHC (Lindane)	0.005	0.00	U	0.00396	79	46-132	14	0-30
76-44-8	MSD Heptachlor	0.005	0.00	U	0.00326	65	37-127	34 *	0-30
1024-57-3	MSD Heptachlor epoxide	0.005	0.00	U	0.00405	81	44-129	13	0-30
72-20-8	MSD Endrin	0.005	0.00	U	0.00477	95	48-145	11	0-30
72-43-5	MSD Methoxychlor	0.050	0.00	U	0.0447	89	47-156	52 *	0-30

Pesticide

Quality Control Summary
Spike Recovery Report

SDG Number: 10-753-1
Client ID: WST03-10-2137MS
Lab Sample ID: 1201998975
Instrument: ECD5A.I
Analyst: CXC2
Inj. Vol: 1 uL

Sample Type: Matrix Spike
Matrix: TCLP R
Analysis Date: 12/22/2009 20:17
Prep Batch ID: 934314
Batch ID: 934315
Dilution: 5

CAS No		Parmname	Amount Added mg/L	Sample Conc. mg/L		Spike Conc. mg/L	Recovery %	Acceptance Limits
8001-35-2	MS	Toxaphene	0.100	0.00	U	0.0899	90	38-138

Pesticide

Quality Control Summary
Spike Recovery Report

SDG Number: 10-753-1
Client ID: WST03-10-2137MSD
Lab Sample ID: 1201998978
Instrument: ECD5A.I
Analyst: CXC2
Inj. Vol: 1 uL

Sample Type: Matrix Spike Duplicate
Matrix: TCLP R
Analysis Date: 12/22/2009 20:29
Prep Batch ID: 934314
Batch ID: 934315
Dilution: 5

CAS No	Parmname	Amount Added mg/L	Sample Conc. mg/L		Spike Conc. mg/L	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
8001-35-2	MSD Toxaphene	0.100	0.00	U	0.106	106	38-138	16	0-30

Method Blank Summary

SDG Number:	10-899-1	Client:	LANL010	Matrix:	TCLP SOIL
Client ID:	MB for batch 934314	Instrument ID:	ECD5A.I_2 ECD5A.I_1	Data File:	047b4701-786.d 047f4701-786.d
Lab Sample ID:	1201998973				
Column:	CLP-2 CLP-1	Prep Date:	12/22/2009 17:25	Analyzed:	12/22/09 23:28
		Level:	LOW		

This method blank applies to the following samples and quality control samples:

Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01 WST03-10-2145	242785001	027f2701.d 027b2701.d	12/22/09	1929
02 WST03-10-2146	242785002	028f2801.d 028b2801.d	12/22/09	1941
09 LCS for batch 934314	1201998980	048f4801-786.d 048b4801-786.d	12/22/09	2340
10 LCS for batch 934314	1201998981	049f4901-786.d 049b4901-786.d	12/22/09	2352
11 LCS for batch 934314	1201998982	050f5001-786.d 050b5001-786.d	12/23/09	0004
12 TB for batch 933331	1201996842	054f5401-899.d 054b5401-899.d	12/23/09	0052

SAMPLE
DATA

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	10–899–1	**Date Collected:**	12/10/2009 12:00	**Matrix:**	TCLP R
Lab Sample ID:	242785001	**Date Received:**	12/12/2009 09:35		
		Client:	LANL010	**Project:**	LANL01004
Client ID:	WST03–10–2145	**Method:**	SW846 8081A	**SOP Ref:**	GL–OA–E–041
Batch ID:	934315	**Inst:**	ECD5A.I	**Dilution:**	5
Run Date:	12/22/2009 19:29	**Analyst:**	CXC2	**Inj. Vol:**	1 uL
Prep Date:	12/22/2009 17:25	**Aliquot:**	20 mL	**Final Volume:**	1 mL
Data File:	027f2701.d	**Column:**	1 CLP–1	**Level:**	LOW
	027b2701.d		2 CLP–2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
58–89–9	gamma–BHC (Lindane)	U	0.001	mg/L	0.00025	0.001	1
76–44–8	Heptachlor	U	0.001	mg/L	0.00025	0.001	1
1024–57–3	Heptachlor epoxide	U	0.001	mg/L	0.00025	0.001	1
72–20–8	Endrin	U	0.002	mg/L	0.0005	0.002	1
72–43–5	Methoxychlor	U	0.010	mg/L	0.0025	0.010	1
57–74–9	Chlordane (tech.)	U	0.0125	mg/L	0.00383	0.0125	1
8001–35–2	Toxaphene	U	0.025	mg/L	0.0075	0.025	1

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CLP-1

Data file : /chem/ecd5a.i/122209.b/027f2701.d
Lab Smp Id: 242785001 Client Smp ID: WST03-10-2145
Inj Date : 22-DEC-2009 19:29
Operator : CXC2 Inst ID: ecd5a.i
Smp Info : |242785001|5|
Misc Info : |ECDPTL_1L|934315|SVP|LANL|SOIL|WST03-10-2145|||
Comment :
Method : /chem/ecd5a.i/122209.b/ECD5-F-8081-121809.m
Meth Date : 23-Dec-2009 08:48 cla01575 Quant Type: ESTD
Cal Date : 05-DEC-2009 03:28 Cal File: 025f2501.d
Als bottle: 27
Dil Factor: 5.00000
Integrator: Falcon Compound Sublist: 10-899-1.sub
Target Version: 3.50 Sample Matrix: Water
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	5.00000	Dilution Factor
Uf	0.00100	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	20.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (mg/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.793	2.790	0.003	11595372	25.0246	0.00626	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
6.486	6.482	0.004	8048647	29.4568	0.00736	80.00- 120.00	100.00

Data File: /chem/ecd5a.i/122209.b/027f2701.d

Date : 22-DEC-2009 19:29

Client ID: WST03-10-2145

Sample Info: |242785001|5|

Volume Injected (uL): 1.0

Column phase: CLP-1

Instrument: ecd5a.i

Operator: CXC2

Column diameter: 0.25

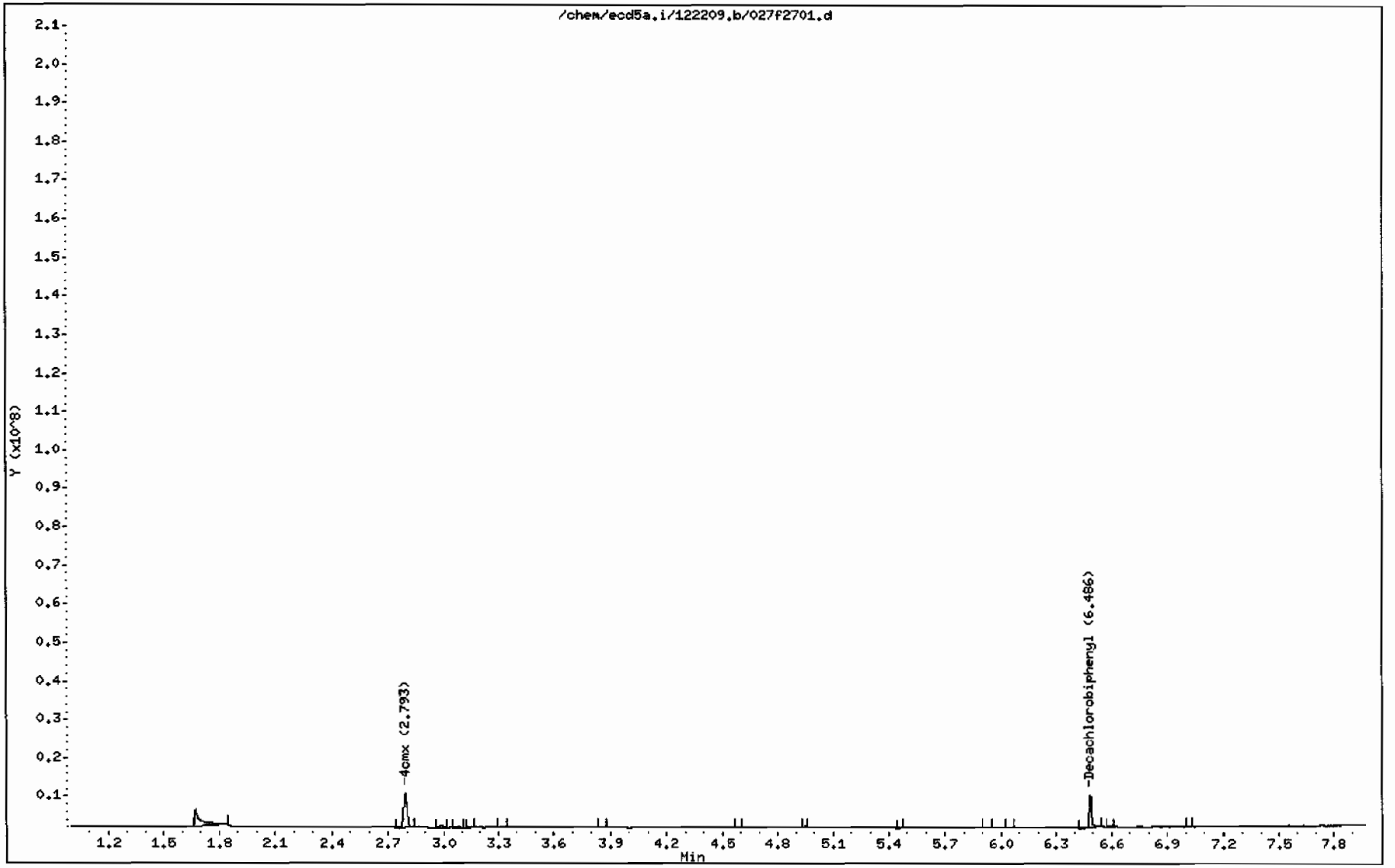

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CLP-2

Data file : /chem/ecd5a.i/122209.b/027b2701.d
Lab Smp Id: 242785001 Client Smp ID: WST03-10-2145
Inj Date : 22-DEC-2009 19:29
Operator : CXC2 Inst ID: ecd5a.i
Smp Info : |242785001|5|
Misc Info : |ECDPTL_1L|934315|SVP|LANL|SOIL|WST03-10-2145|||
Comment :
Method : /chem/ecd5a.i/122209.b/ECD5-B-8081-121809.m
Meth Date : 23-Dec-2009 08:46 cla01575 Quant Type: ESTD
Cal Date : 05-DEC-2009 03:28 Cal File: 025b2501.d
Als bottle: 27
Dil Factor: 5.00000
Integrator: Falcon Compound Sublist: 10-899-1.sub
Target Version: 3.50 Sample Matrix: Water
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	5.00000	Dilution Factor
Uf	0.00100	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	20.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (mg/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
3.197	3.198	-0.001	77618014	23.9968	0.00600	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.154	7.153	0.001	36440483	25.8552	0.00646	80.00- 120.00	100.00

Data File: /chem/ecd5a.i/122209.b/027b2701.d

Page 1

Date : 22-DEC-2009 19:29

Client ID: WST03-10-2145

Instrument: ecd5a.i

Sample Info: |242785001|5|

Volume Injected (uL): 1.0

Operator: CXC2

Column phase: CLP-2

Column diameter: 0.25

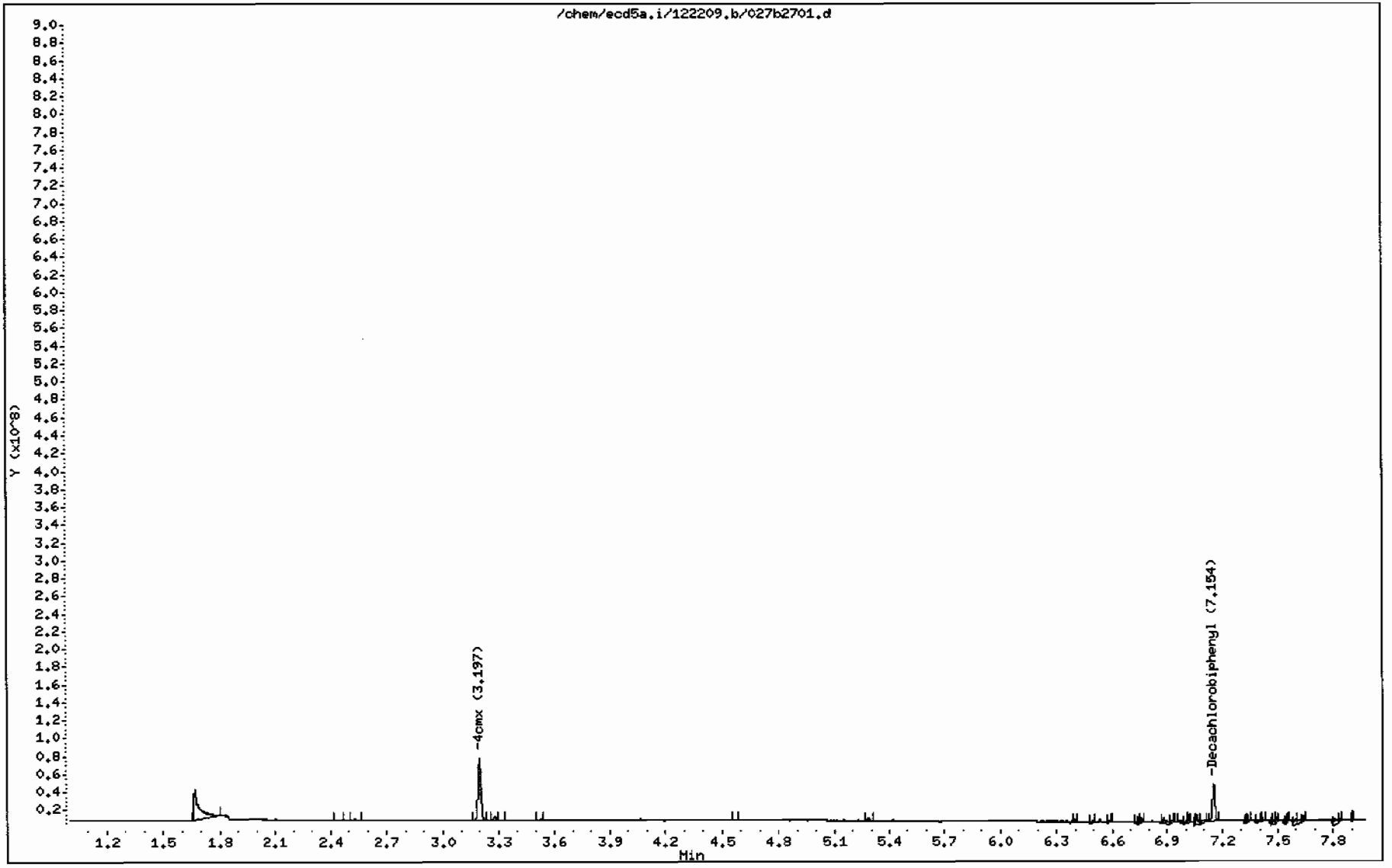

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	10–899–1	**Date Collected:**	12/10/2009 12:00	**Matrix:**	TCLP R
Lab Sample ID:	242785002	**Date Received:**	12/12/2009 09:35		
		Client:	LANL010	**Project:**	LANL01004
Client ID:	WST03–10–2146	**Method:**	SW846 8081A	**SOP Ref:**	GL–OA–E–041
Batch ID:	934315	**Inst:**	ECD5A.I	**Dilution:**	5
Run Date:	12/22/2009 19:41	**Analyst:**	CXC2	**Inj. Vol:**	1 uL
Prep Date:	12/22/2009 17:25	**Aliquot:**	20 mL	**Final Volume:**	1 mL
Data File:	028f2801.d	**Column:**	1 CLP–1	**Level:**	LOW
	028b2801.d		2 CLP–2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
58–89–9	gamma–BHC (Lindane)	U	0.001	mg/L	0.00025	0.001	1
76–44–8	Heptachlor	U	0.001	mg/L	0.00025	0.001	1
1024–57–3	Heptachlor epoxide	U	0.001	mg/L	0.00025	0.001	1
72–20–8	Endrin	U	0.002	mg/L	0.0005	0.002	1
72–43–5	Methoxychlor	U	0.010	mg/L	0.0025	0.010	1
57–74–9	Chlordane (tech.)	U	0.0125	mg/L	0.00383	0.0125	1
8001–35–2	Toxaphene	U	0.025	mg/L	0.0075	0.025	1

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CLP-1

Data file : /chem/ecd5a.i/122209.b/028f2801.d
Lab Smp Id: 242785002 Client Smp ID: WST03-10-2146
Inj Date : 22-DEC-2009 19:41
Operator : CXC2 Inst ID: ecd5a.i
Smp Info : |242785002|5|
Misc Info : |ECDPTL_1L|934315|SVP|LANL|SOIL|WST03-10-2146|||
Comment :
Method : /chem/ecd5a.i/122209.b/ECD5-F-8081-121809.m
Meth Date : 23-Dec-2009 08:48 cla01575 Quant Type: ESTD
Cal Date : 05-DEC-2009 03:28 Cal File: 025f2501.d
Als bottle: 28
Dil Factor: 5.00000
Integrator: Falcon Compound Sublist: 10-899-1.sub
Target Version: 3.50 Sample Matrix: Water
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	5.00000	Dilution Factor
Uf	0.00100	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	20.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (mg/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.789	2.790	-0.001	11423891	24.6545	0.00616	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
6.481	6.482	-0.001	7627140	27.9142	0.00698	80.00- 120.00	100.00

Data File: /chem/ecd5a.i/122209.b/028f2801.d

Date : 22-DEC-2009 19:41

Client ID: WST03-10-2146

Sample Info: |2427850021|5|

Volume Injected (uL): 1.0

Column phase: CLP-1

Instrument: ecd5a.i

Operator: CXC2

Column diameter: 0.25

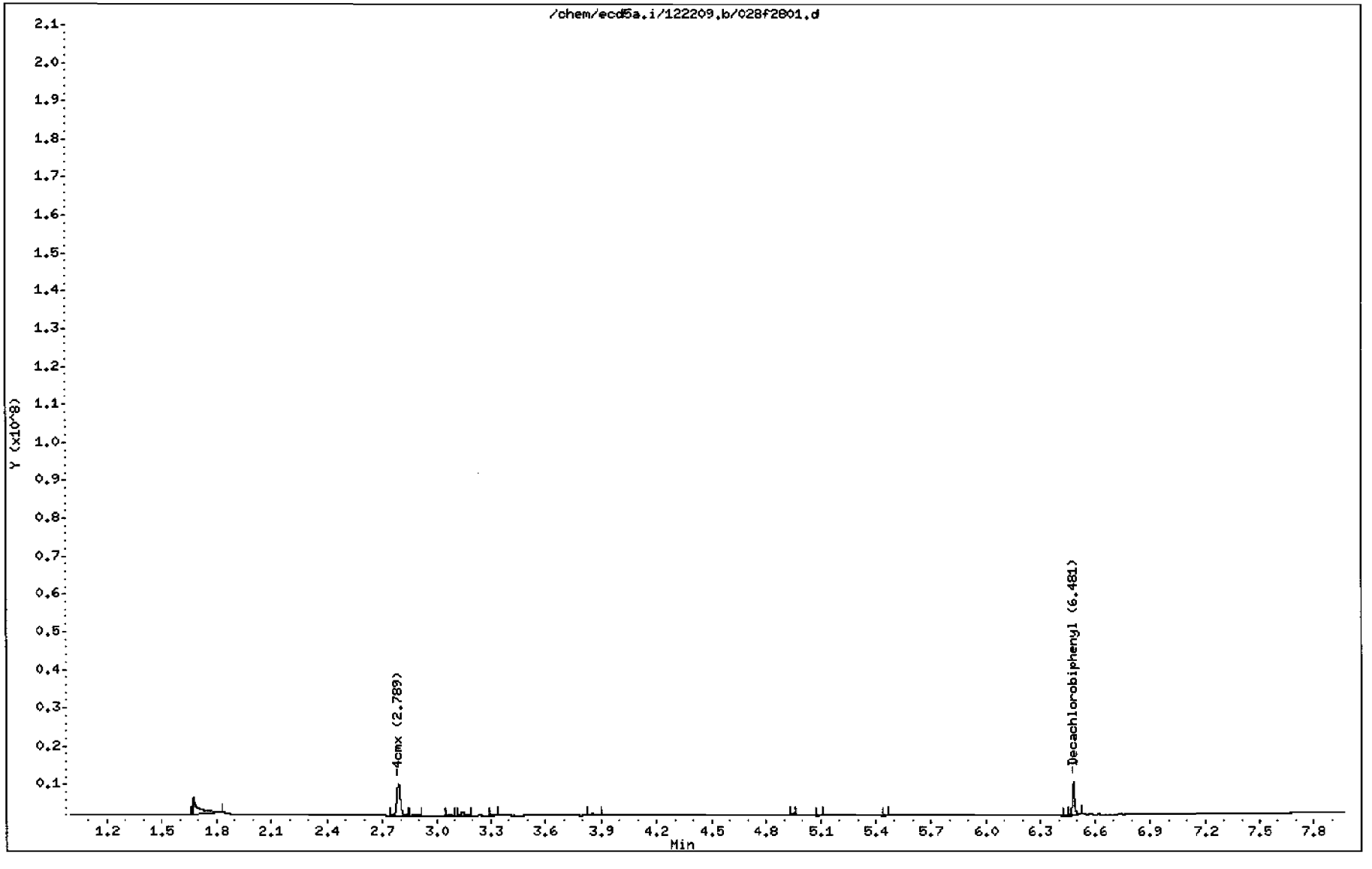

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd5a.i/122209.b/028b2801.d
Lab Smp Id: 242785002 Client Smp ID: WST03-10-2146
Inj Date : 22-DEC-2009 19:41
Operator : CXC2 Inst ID: ecd5a.i
Smp Info : |242785002|5|
Misc Info : |ECDPTL_1L|934315|SVP|LANL|SOIL|WST03-10-2146|||
Comment :
Method : /chem/ecd5a.i/122209.b/ECD5-B-8081-121809.m
Meth Date : 23-Dec-2009 08:46 cla01575 Quant Type: ESTD
Cal Date : 05-DEC-2009 03:28 Cal File: 025b2501.d
Als bottle: 28
Dil Factor: 5.00000
Integrator: Falcon Compound Sublist: 10-899-1.sub
Target Version: 3.50 Sample Matrix: Water
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	5.00000	Dilution Factor
Uf	0.00100	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	20.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (mg/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
3.195	3.198	-0.003	76947689	23.7895	0.00595	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.151	7.153	-0.002	37407152	26.5410	0.00664	80.00- 120.00	100.00

Data File: /chem/ecd5a.i/122209.b/028b2801.d

Page 1

Date : 22-DEC-2009 19:41

Client ID: WST03-10-2146

Instrument: ecd5a.i

Sample Info: |2427850021|

Volume Injected (uL): 1.0

Operator: CXC2

Column phase: CLP-2

Column diameter: 0.25

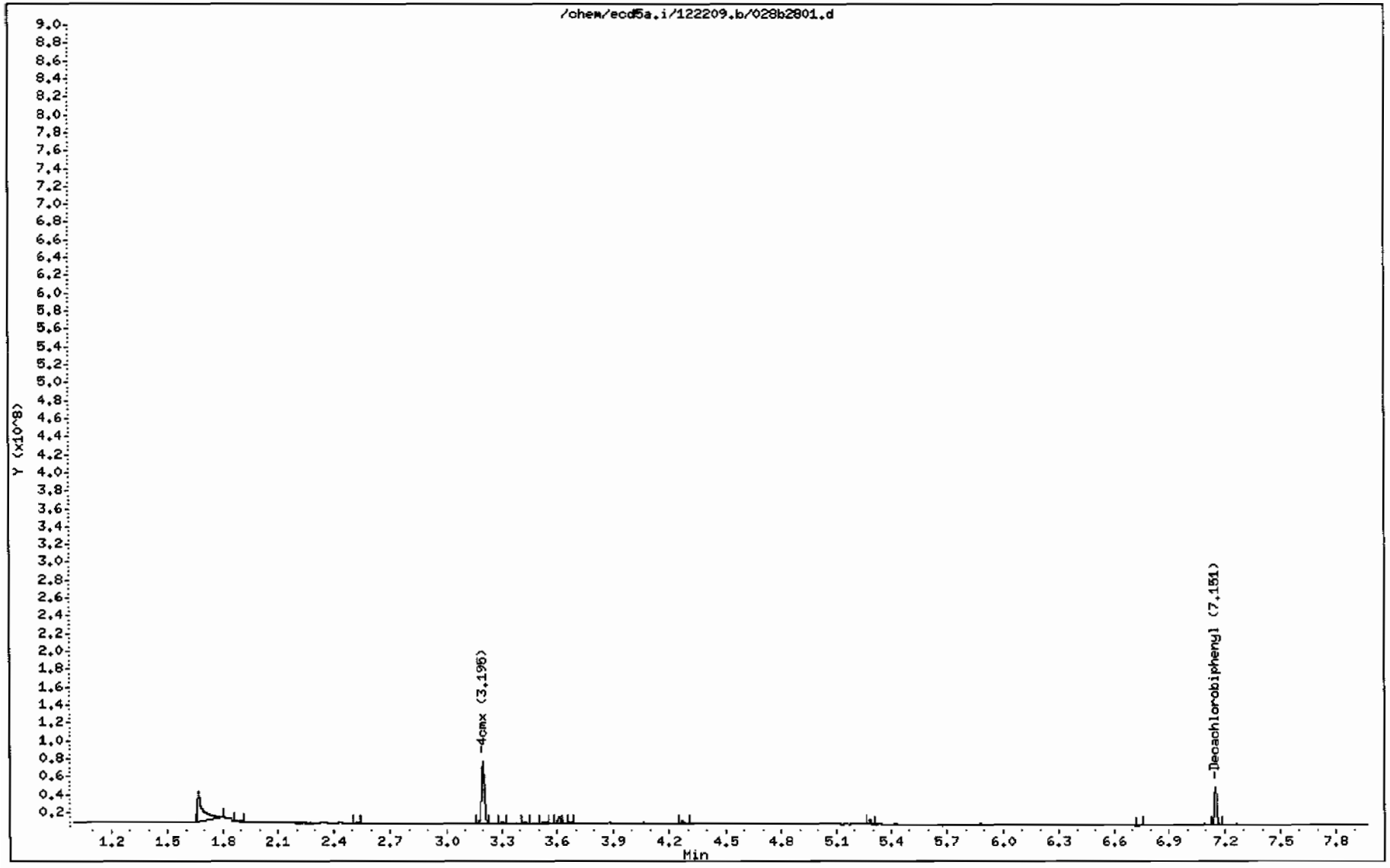

STANDARDS DATA

Report Date: 22-Dec-2009 17:28

Calibration History

Method : /chem/ecd5a.i/122209.b/ECD5-F-8081-121809.m
Start Cal Date: 16-SEP-2009 20:07
End Cal Date : 22-DEC-2009 15:52

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 2.00000		
05-DEC-2009 02:40	gapa	/chem/ecd5a.i/120409b.b/021f2101.d
03-NOV-2009 15:03	ar1660	/chem/ecd5a.i/110309.b/006f0601.d
18-DEC-2009 21:15	chlor	/chem/ecd5a.i/121809.b/016f1601.d
18-DEC-2009 19:51	tox	/chem/ecd5a.i/121809.b/009f0901.d
22-DEC-2009 15:04	indab	/chem/ecd5a.i/122209.b/007f0701.d
Cal Level: 2 , Cal Amount: 10.00000		
05-DEC-2009 02:52	gapa	/chem/ecd5a.i/120409b.b/022f2201.d
03-NOV-2009 15:15	ar1660	/chem/ecd5a.i/110309.b/007f0701.d
18-DEC-2009 21:27	chlor	/chem/ecd5a.i/121809.b/017f1701.d
18-DEC-2009 20:03	tox	/chem/ecd5a.i/121809.b/010f1001.d
22-DEC-2009 15:16	indab	/chem/ecd5a.i/122209.b/008f0801.d
Cal Level: 3 , Cal Amount: 50.00000		
05-DEC-2009 03:04	gapa	/chem/ecd5a.i/120409b.b/023f2301.d
03-NOV-2009 15:26	ar1660	/chem/ecd5a.i/110309.b/008f0801.d
18-DEC-2009 21:39	chlor	/chem/ecd5a.i/121809.b/018f1801.d
18-DEC-2009 20:15	tox	/chem/ecd5a.i/121809.b/011f1101.d
22-DEC-2009 15:28	indab	/chem/ecd5a.i/122209.b/009f0901.d
Cal Level: 4 , Cal Amount: 100.00000		
05-DEC-2009 03:16	gapa	/chem/ecd5a.i/120409b.b/024f2401.d
03-NOV-2009 18:34	ar1254	/chem/ecd5a.i/110309.b/024f2401.d
03-NOV-2009 18:22	ar1248	/chem/ecd5a.i/110309.b/023f2301.d
03-NOV-2009 18:10	ar1242	/chem/ecd5a.i/110309.b/022f2201.d
03-NOV-2009 16:48	ar1232	/chem/ecd5a.i/110309.b/015f1501.d
03-NOV-2009 16:25	ar1221	/chem/ecd5a.i/110309.b/013f1301.d
03-NOV-2009 15:38	ar1660	/chem/ecd5a.i/110309.b/009f0901.d
18-DEC-2009 21:51	chlor	/chem/ecd5a.i/121809.b/019f1901.d
18-DEC-2009 20:27	tox	/chem/ecd5a.i/121809.b/012f1201.d
22-DEC-2009 15:40	indab	/chem/ecd5a.i/122209.b/010f1001.d
Cal Level: 5 , Cal Amount: 200.00000		
05-DEC-2009 03:28	gapa	/chem/ecd5a.i/120409b.b/025f2501.d
03-NOV-2009 15:50	ar1660	/chem/ecd5a.i/110309.b/010f1001.d
18-DEC-2009 22:02	chlor	/chem/ecd5a.i/121809.b/020f2001.d
18-DEC-2009 20:39	tox	/chem/ecd5a.i/121809.b/013f1301.d
22-DEC-2009 15:52	indab	/chem/ecd5a.i/122209.b/011f1101.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 100		
22-DEC-2009 16:04	indab	/chem/ecd5a.i/122209.b/012f1201.d
Ccal Level: 4 , Ccal Amount: 100		
22-DEC-2009 15:40	indab	/chem/ecd5a.i/122209.b/010f1001.d
Ccal Level: 4 , Ccal Amount: 100		
22-DEC-2009 14:05	chlor	/chem/ecd5a.i/122209.b/005f0501.d
Ccal Level: 4 , Ccal Amount: 100		
22-DEC-2009 13:53	tox	/chem/ecd5a.i/122209.b/004f0401.d
Ccal Level: 4 , Ccal Amount: 100		
22-DEC-2009 14:47	indab	/chem/ecd5a.i/122209.b/006f0601.d
Ccal Level: 4 , Ccal Amount: 100		
22-DEC-2009 13:41	indab	/chem/ecd5a.i/122209.b/003f0301.d

Report Date: 22-Dec-2009 17:28

Calibration History

Method : /chem/ecd5a.i/122209.b/ECD5-B-8081-121809.m
Start Cal Date: 16-SEP-2009 20:07
End Cal Date : 22-DEC-2009 15:52

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 2.00000		
05-DEC-2009 02:40	gapa	/chem/ecd5a.i/120409b.b/021b2101.d
03-NOV-2009 15:03	ar1660	/chem/ecd5a.i/110309.b/006b0601.d
18-DEC-2009 21:15	chlor	/chem/ecd5a.i/121809.b/016b1601.d
18-DEC-2009 19:51	tox	/chem/ecd5a.i/121809.b/009b0901.d
22-DEC-2009 15:04	indab	/chem/ecd5a.i/122209.b/007b0701.d
Cal Level: 2 , Cal Amount: 10.00000		
05-DEC-2009 02:52	gapa	/chem/ecd5a.i/120409b.b/022b2201.d
03-NOV-2009 15:15	ar1660	/chem/ecd5a.i/110309.b/007b0701.d
18-DEC-2009 21:27	chlor	/chem/ecd5a.i/121809.b/017b1701.d
18-DEC-2009 20:03	tox	/chem/ecd5a.i/121809.b/010b1001.d
22-DEC-2009 15:16	indab	/chem/ecd5a.i/122209.b/008b0801.d
Cal Level: 3 , Cal Amount: 50.00000		
05-DEC-2009 03:04	gapa	/chem/ecd5a.i/120409b.b/023b2301.d
03-NOV-2009 15:26	ar1660	/chem/ecd5a.i/110309.b/008b0801.d
18-DEC-2009 21:39	chlor	/chem/ecd5a.i/121809.b/018b1801.d
18-DEC-2009 20:15	tox	/chem/ecd5a.i/121809.b/011b1101.d
22-DEC-2009 15:28	indab	/chem/ecd5a.i/122209.b/009b0901.d
Cal Level: 4 , Cal Amount: 100.00000		
05-DEC-2009 03:16	gapa	/chem/ecd5a.i/120409b.b/024b2401.d
03-NOV-2009 18:34	ar1254	/chem/ecd5a.i/110309.b/024b2401.d
03-NOV-2009 18:22	ar1248	/chem/ecd5a.i/110309.b/023b2301.d
03-NOV-2009 18:10	ar1242	/chem/ecd5a.i/110309.b/022b2201.d
03-NOV-2009 16:48	ar1232	/chem/ecd5a.i/110309.b/015b1501.d
03-NOV-2009 16:25	ar1221	/chem/ecd5a.i/110309.b/013b1301.d
03-NOV-2009 15:38	ar1660	/chem/ecd5a.i/110309.b/009b0901.d
18-DEC-2009 21:51	chlor	/chem/ecd5a.i/121809.b/019b1901.d
18-DEC-2009 20:27	tox	/chem/ecd5a.i/121809.b/012b1201.d
22-DEC-2009 15:40	indab	/chem/ecd5a.i/122209.b/010b1001.d
Cal Level: 5 , Cal Amount: 200.00000		
05-DEC-2009 03:28	gapa	/chem/ecd5a.i/120409b.b/025b2501.d
03-NOV-2009 15:50	ar1660	/chem/ecd5a.i/110309.b/010b1001.d
18-DEC-2009 22:02	chlor	/chem/ecd5a.i/121809.b/020b2001.d
18-DEC-2009 20:39	tox	/chem/ecd5a.i/121809.b/013b1301.d
22-DEC-2009 15:52	indab	/chem/ecd5a.i/122209.b/011b1101.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 100		
22-DEC-2009 16:04	indab	/chem/ecd5a.i/122209.b/012b1201.d
Ccal Level: 4 , Ccal Amount: 100		
22-DEC-2009 15:40	indab	/chem/ecd5a.i/122209.b/010b1001.d
Ccal Level: 4 , Ccal Amount: 100		
22-DEC-2009 13:53	tox	/chem/ecd5a.i/122209.b/004b0401.d
Ccal Level: 4 , Ccal Amount: 100		
22-DEC-2009 14:47	indab	/chem/ecd5a.i/122209.b/006b0601.d
Ccal Level: 4 , Ccal Amount: 100		
22-DEC-2009 14:05	chlor	/chem/ecd5a.i/122209.b/005b0501.d
Ccal Level: 4 , Ccal Amount: 100		
22-DEC-2009 13:41	indab	/chem/ecd5a.i/122209.b/003b0301.d

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd5a.i/122209.b/ECD5-F-8081-121809.m
Quant Method : ESTD Target Version : 3.50
Last Update : 22-Dec-2009 17:21 Number of Cpnds : 44
Data Type : GC MULTI COMP

Global Integrator : Falcon

Chromat Events	Values
Initial:Start Threshold	10005.000000
Initial:End Threshold	5002.500000
Initial:Area Threshold	100050.000000
Initial:P-P Resolution	1.000000
Initial:Bunch Factor	3.000000
Initial:Negative Peaks	OFF
Initial:Tension	0.000000

Compound	RT	RT Window	RF
$ 1 4cmx	2.790	2.760-2.820	4.634e+05
63 2,4,5-Trichlorophenol	1.476	1.376-1.576	
59 Hexachlorobenzene	3.159	3.059-3.259	3.882e+05
2 Aroclor-1221	2.631	2.601-2.661	5.910e+03
	2.767	2.736-2.796	3.363e+03
	2.802	2.772-2.832	1.422e+04
3 Aroclor-1016	3.102	3.072-3.132	1.760e+04
	3.460	3.430-3.490	2.200e+04
	3.686	3.656-3.716	8.402e+03
	3.702	3.672-3.732	8.144e+03
	3.839	3.809-3.869	1.168e+04
4 Aroclor-1232	3.104	3.074-3.134	7.998e+03
	3.248	3.218-3.278	2.167e+03
	3.459	3.430-3.490	1.042e+04
	3.555	3.525-3.585	6.943e+03
	4.119	4.089-4.149	4.959e+03
5 alpha-BHC	3.292	3.262-3.322	6.234e+05
6 Aroclor-1242	3.124	3.024-3.224	1.426e+04
	3.486	3.386-3.586	1.830e+04
	3.570	3.470-3.670	7.474e+03
	4.082	3.982-4.182	9.828e+03
	4.170	4.070-4.270	9.417e+03
7 gamma-BHC (Lindane)	3.549	3.519-3.579	5.584e+05

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd5a.i/122209.b/ECD5-F-8081-121809.m

Compound	RT	RT Window	RF
8 Chlordane (tech.)	3.843	3.743-3.943	1.741e+04
	3.900	3.800-4.000	2.262e+04
	4.209	4.109-4.309	1.723e+04
	4.602	4.502-4.702	5.443e+04
	5.168	5.068-5.268	1.347e+04
9 Aroclor-1248	3.686	3.586-3.786	1.281e+04
	3.839	3.739-3.939	1.679e+04
	3.897	3.797-3.997	1.095e+04
	4.119	4.019-4.219	2.029e+04
	4.509	4.409-4.609	9.814e+03
10 Heptachlor	3.900	3.870-3.930	5.063e+05
11 Aldrin	4.113	4.083-4.143	5.135e+05
12 beta-BHC	3.618	3.588-3.648	2.408e+05
13 delta-BHC	3.751	3.721-3.781	5.512e+05
14 Heptachlor epoxide	4.521	4.491-4.551	4.569e+05
15 Aroclor-1254	4.090	4.060-4.120	1.481e+04
	4.257	4.227-4.287	2.571e+04
	4.509	4.479-4.539	2.679e+04
	4.679	4.649-4.709	2.010e+04
	4.960	4.930-4.990	2.920e+04
16 Endosulfan I	4.775	4.745-4.805	4.158e+05
17 gamma-Chlordane	4.602	4.572-4.632	4.479e+05
18 alpha-Chlordane	4.686	4.656-4.716	4.494e+05
19 4,4'-DDE	4.731	4.701-4.761	4.305e+05
20 Dieldrin	4.924	4.894-4.954	4.470e+05
21 Aroclor-1260	4.608	4.508-4.708	2.245e+04
	4.796	4.696-4.896	3.535e+04
	4.881	4.781-4.981	1.482e+04
	4.941	4.841-5.041	3.945e+04
	5.332	5.232-5.432	4.235e+04
22 Endrin	5.070	5.040-5.100	3.408e+05
23 Toxaphene	4.713	4.683-4.743	2.803e+03
	4.927	4.897-4.957	5.283e+03
	4.982	4.952-5.012	6.997e+03
	5.020	4.990-5.050	8.919e+03
	5.082	5.052-5.112	8.608e+03
24 Endosulfan II	5.209	5.179-5.239	3.723e+05
25 4,4'-DDD	5.100	5.070-5.130	3.608e+05
26 4,4'-DDT	5.269	5.239-5.299	3.254e+05
27 Endrin aldehyde	5.462	5.432-5.492	3.106e+05

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd5a.i/122209.b/ECD5-F-8081-121809.m

	Compound	RT	RT Window	RF
	28 Methoxychlor	5.554	5.524-5.584	1.190e+05
	29 Endosulfan sulfate	5.724	5.694-5.754	3.196e+05
	30 Aroclor-1268	5.050	4.950-5.150	
		5.067	4.967-5.167	
		5.185	5.085-5.285	
		5.378	5.278-5.478	
		5.531	5.431-5.631	
	61 Aroclor-1262	4.121	4.021-4.221	
		4.289	4.189-4.389	
		4.525	4.425-4.625	
		4.671	4.571-4.771	
		4.854	4.754-4.954	
	31 Endrin ketone	5.898	5.868-5.928	3.738e+05
	51 Mirex	5.805	5.775-5.835	2.290e+05
	52 C-Nonachlor	5.228	5.198-5.258	3.943e+05
	53 O-Chlordane	4.586	4.556-4.616	3.128e+05
	54 T-Nonachlor	4.811	4.781-4.841	3.369e+05
	55 1,2-Dichlorobenzene	6.525	6.495-6.555	
	56 2,4-DDE	4.647	4.617-4.677	2.204e+05
	58 2,4-DDD	4.979	4.949-5.008	1.978e+05
	57 2,4-DDT	5.136	5.106-5.166	1.547e+05
$	32 Decachlorobiphenyl	6.482	6.452-6.512	2.732e+05
M	62 TTO Sum Pesticides	1.000	0.980-1.020	

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd5a.i/122209.b/ECD5-B-8081-121809.m
Quant Method : ESTD Target Version : 3.50
Last Update : 22-Dec-2009 17:20 Number of Cpnds : 43
Data Type : GC MULTI COMP

Global Integrator : Falcon

Chromat Events	Values
Initial:Start Threshold	92700.000000
Initial:End Threshold	46350.000000
Initial:Area Threshold	927000.000000
Initial:P-P Resolution	1.000000
Initial:Bunch Factor	3.000000
Initial:Negative Peaks	OFF
Initial:Tension	0.000000

Compound	RT	RT Window	RF
$ 1 4cmx	3.198	3.168-3.228	3.235e+06
61 2,4,5-Trichlorophenol	1.631	1.531-1.731	
59 Hexachlorobenzene	2.657	2.627-2.687	4.557e+06
2 Aroclor-1221	3.136	3.107-3.167	3.819e+04
	3.255	3.225-3.285	2.282e+04
	3.304	3.274-3.334	7.878e+04
3 Aroclor-1016	3.947	3.917-3.977	1.293e+05
	4.040	4.010-4.070	8.559e+04
	4.110	4.080-4.140	5.407e+04
	4.171	4.141-4.201	5.109e+04
	4.351	4.321-4.381	6.850e+04
4 Aroclor-1232	3.304	3.275-3.334	5.230e+04
	3.949	3.919-3.979	5.701e+04
	4.040	4.010-4.070	3.929e+04
	4.350	4.320-4.380	3.045e+04
	4.622	4.592-4.652	3.317e+04
5 alpha-BHC	3.724	3.694-3.754	4.440e+06
6 Aroclor-1242	3.618	3.588-3.648	8.644e+04
	4.040	4.010-4.070	6.791e+04
	4.109	4.079-4.139	4.340e+04
	4.350	4.320-4.380	5.437e+04
	4.430	4.400-4.460	5.974e+04
7 gamma-BHC (Lindane)	4.000	3.970-4.030	3.817e+06

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd5a.i/122209.b/ECD5-B-8081-121809.m

Compound	RT	RT Window	RF
8 Chlordane (tech.)	4.223	4.193-4.253	9.389e+04
	4.648	4.618-4.678	7.620e+04
	4.903	4.873-4.933	5.344e+04
	5.050	5.020-5.080	2.514e+05
	5.142	5.112-5.172	2.034e+05
9 Aroclor-1248	4.172	4.142-4.202	7.431e+04
	4.351	4.321-4.381	9.433e+04
	4.431	4.401-4.461	1.002e+05
	4.592	4.562-4.622	1.083e+05
	4.768	4.738-4.798	1.138e+05
10 Heptachlor	4.327	4.297-4.357	3.191e+06
11 Aldrin	4.555	4.525-4.585	3.292e+06
12 beta-BHC	4.056	4.026-4.086	1.693e+06
13 delta-BHC	4.272	4.242-4.302	3.725e+06
14 Heptachlor epoxide	4.927	4.897-4.957	2.944e+06
15 Aroclor-1254	4.619	4.589-4.649	9.484e+04
	4.734	4.704-4.764	1.078e+05
	5.023	4.993-5.053	1.477e+05
	5.158	5.128-5.188	1.045e+05
	5.481	5.451-5.511	1.267e+05
16 Endosulfan I	5.182	5.152-5.212	2.447e+06
17 gamma-Chlordane	5.048	5.018-5.078	2.810e+06
18 alpha-Chlordane	5.139	5.109-5.169	2.700e+06
19 4,4'-DDE	5.224	5.194-5.254	2.550e+06
20 Dieldrin	5.352	5.322-5.382	2.613e+06
21 Aroclor-1260	5.043	5.013-5.073	6.157e+04
	5.140	5.110-5.170	1.370e+05
	5.261	5.231-5.291	1.523e+05
	5.481	5.451-5.511	1.467e+05
	6.079	6.049-6.109	1.563e+05
22 Endrin	5.543	5.513-5.573	2.005e+06
23 Toxaphene	5.406	5.376-5.436	2.203e+04
	5.541	5.511-5.571	3.434e+04
	5.632	5.602-5.662	3.377e+04
	5.661	5.631-5.691	5.641e+04
	5.719	5.689-5.749	8.647e+04
24 Endosulfan II	5.668	5.638-5.698	2.135e+06
25 4,4'-DDD	5.576	5.546-5.606	2.146e+06
26 4,4'-DDT	5.769	5.739-5.799	1.374e+06
27 Endrin aldehyde	5.867	5.837-5.897	1.741e+06

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd5a.i/122209.b/ECD5-B-8081-121809.m

Compound	RT	RT Window	RF
28 Methoxychlor	6.166	6.136-6.196	5.445e+05
29 Endosulfan sulfate	6.035	6.005-6.065	1.724e+06
30 Aroclor-1268	5.217	5.187-5.247	
	5.596	5.566-5.626	
	5.628	5.598-5.658	
	5.769	5.739-5.799	
	6.149	6.119-6.179	
60 Aroclor-1262	4.689	4.589-4.789	
	4.779	4.679-4.879	
	5.074	4.974-5.174	
	5.224	5.124-5.324	
	5.396	5.296-5.496	
31 Endrin ketone	6.378	6.348-6.408	1.743e+06
51 Mirex	5.518	5.488-5.548	2.494e+06
52 C-Nonachlor	4.782	4.752-4.812	4.546e+06
53 O-Chlordane	4.058	4.028-4.088	3.680e+06
54 T-Nonachlor	4.303	4.274-4.333	3.953e+06
55 1,2-Dichlorobenzene	6.619	6.589-6.649	
56 2,4-DDE	4.251	4.221-4.281	2.053e+06
58 2,4-DDD	4.572	4.542-4.602	2.283e+06
57 2,4-DDT	4.757	4.727-4.787	2.076e+06
$ 32 Decachlorobiphenyl	7.153	7.123-7.183	1.409e+06

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 16-SEP-2009 20:07
End Cal Date : 22-DEC-2009 15:52
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd5a.i/122209.b/ECD5-F-8081-121809.m
Cal Date : 22-Dec-2009 17:21 cla01575
Curve Type : Average

Calibration File Names:
Level 1: /chem/ecd5a.i/120409b.b/021f2101.d
Level 2: /chem/ecd5a.i/120409b.b/022f2201.d
Level 3: /chem/ecd5a.i/120409b.b/023f2301.d
Level 4: /chem/ecd5a.i/120409b.b/024f2401.d
Level 5: /chem/ecd5a.i/120409b.b/025f2501.d

Compound	2.000 Level 1	10.000 Level 2	50.000 Level 3	100.000 Level 4	200.000 Level 5	RRF	% RSD
63 2,4,5-Trichlorophenol	+++++	+++++	+++++	+++++	+++++	+++++	+++++
59 Hexachlorobenzene	451162	387986	367027	366085	368958	388243	9.351
2 Aroclor-1221(1)	+++++	+++++	+++++	5910	+++++	5910	0.000
(2)	+++++	+++++	+++++	3363	+++++	3363	0.000
(3)	+++++	+++++	+++++	14218	+++++	14218	0.000
3 Aroclor-1016(1)	18316	18455	17930	17404	15906	17602	5.863
(2)	21725	22828	22310	22663	20456	21996	4.360
(3)	8841	8543	8438	8235	7951	8402	3.973
(4)	8274	8363	8182	8166	7736	8144	2.968
(5)	11759	11851	11816	11833	11120	11676	2.678
4 Aroclor-1232(1)	+++++	+++++	+++++	7998	+++++	7998	0.000
(2)	+++++	+++++	+++++	2167	+++++	2167	0.000
(3)	+++++	+++++	+++++	10425	+++++	10425	0.000
(4)	+++++	+++++	+++++	6943	+++++	6943	0.000
(5)	+++++	+++++	+++++	4959	+++++	4959	0.000
5 alpha-BHC	581307	609862	640785	648290	636834	623416	4.435
6 Aroclor-1242(1)	+++++	+++++	+++++	14263	+++++	14263	0.000
(2)	+++++	+++++	+++++	18303	+++++	18303	0.000
(3)	+++++	+++++	+++++	7474	+++++	7474	0.000
(4)	+++++	+++++	+++++	9828	+++++	9828	0.000
(5)	+++++	+++++	+++++	9417	+++++	9417	0.000
7 gamma-BHC (Lindane)	521603	542782	568976	572631	585952	558389	4.628
8 Chlordane (tech.)(1)	18749	17452	16350	17491	17027	17414	5.033
(2)	23650	22500	21524	23266	22182	22624	3.754
(3)	18619	17029	16558	17475	16469	17230	5.075
(4)	53988	51028	54034	58136	54970	54431	4.679
(5)	13759	12431	12502	14412	14253	13471	7.042

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 16-SEP-2009 20:07
End Cal Date : 22-DEC-2009 15:52
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd5a.i/122209.b/ECD5-F-8081-121809.m
Cal Date : 22-Dec-2009 17:21 cla01575
Curve Type : Average

Compound	2.000 Level 1	10.000 Level 2	50.000 Level 3	100.000 Level 4	200.000 Level 5	RRF	% RSD
9 Aroclor-1248(1)	+++++	+++++	+++++	12812	+++++	12812	0.000
(2)	+++++	+++++	+++++	16794	+++++	16794	0.000
(3)	+++++	+++++	+++++	10955	+++++	10955	0.000
(4)	+++++	+++++	+++++	20294	+++++	20294	0.000
(5)	+++++	+++++	+++++	9814	+++++	9814	0.000
10 Heptachlor	489170	500242	514665	510927	516743	506349	2.275
11 Aldrin	482323	507671	527558	526801	523140	513498	3.738
12 beta-BHC	235619	244427	238276	237560	248290	240834	2.207
13 delta-BHC	504417	525334	563987	571979	590436	551231	6.409
14 Heptachlor epoxide	443606	459702	472743	457179	451383	456922	2.363
15 Aroclor-1254(1)	+++++	+++++	+++++	14812	+++++	14812	0.000
(2)	+++++	+++++	+++++	25713	+++++	25713	0.000
(3)	+++++	+++++	+++++	26786	+++++	26786	0.000
(4)	+++++	+++++	+++++	20102	+++++	20102	0.000
(5)	+++++	+++++	+++++	29201	+++++	29201	0.000
16 Endosulfan I	387101	418896	430076	419801	422940	415763	3.996
17 gamma-Chlordane	415420	435160	467899	458290	462507	447855	4.916
18 alpha-Chlordane	446934	451652	450400	444428	453352	449353	0.806
19 4,4'-DDE	412482	436795	446736	432028	424667	430542	2.993
20 Dieldrin	430589	456661	463166	450260	434352	447006	3.153
21 Aroclor-1260(1)	22983	23321	22940	22516	20469	22446	5.085
(2)	35726	36888	36310	35624	32213	35352	5.167
(3)	14778	14965	14903	14964	14487	14820	1.354
(4)	39548	40617	40289	39914	36902	39454	3.756
(5)	42946	43953	43513	42694	38645	42350	5.027
22 Endrin	321236	346554	350192	343340	342648	340794	3.326
23 Toxaphene(1)	2932	3058	2747	2589	2692	2803	6.739
(2)	5712	5430	5070	5067	5137	5283	5.345
(3)	6963	7140	6980	6839	7062	6997	1.617
(4)	9148	8941	8783	8760	8961	8919	1.760
(5)	8683	8527	8637	8621	8569	8608	0.702
24 Endosulfan II	371060	381417	379899	368615	360659	372330	2.293
25 4,4'-DDD	334898	358669	372569	371166	366750	360810	4.286

GEL Laboratories LLC

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Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd5a.i/122209.b/ECD5-F-8081-121809.m
Cal Date : 22-Dec-2009 17:21 cla01575
Curve Type : Average

	Compound	2.000 Level 1	10.000 Level 2	50.000 Level 3	100.000 Level 4	200.000 Level 5	RRF	% RSD
	26 4,4'-DDT	289222	302415	341481	335532	358111	325352	8.786
	27 Endrin aldehyde	291581	314310	321656	316220	309047	310563	3.712
	28 Methoxychlor	107536	114794	122936	120909	128951	119025	6.868
	29 Endosulfan sulfate	287797	303285	325884	332510	348676	319631	7.550
	30 Aroclor-1268 (1)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	(2)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	(3)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	(4)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	(5)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	61 Aroclor-1262 (1)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	(2)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	(3)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	(4)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	(5)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	31 Endrin ketone	351599	352637	378276	383303	403265	373816	5.860
	51 Mirex	259962	231947	216366	218180	218649	229021	8.025
	52 C-Nonachlor	409160	392847	392123	390875	386731	394347	2.184
	53 O-Chlordane	343864	315598	305572	301977	297134	312829	5.954
	54 T-Nonachlor	358283	334318	332927	330171	328873	336914	3.603
	55 1,2-Dichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	56 2,4-DDE	240672	221856	219006	214175	206476	220437	5.772
	58 2,4-DDD	206130	201318	196461	194071	191092	197814	3.017
	57 2,4-DDT	143151	148792	152919	162534	166019	154683	6.141
M	62 TTO Sum Pesticides	+++++	+++++	+++++	+++++	+++++	+++++	+++++
$	1 4cmx	465572	470927	463478	459924	456895	463359	1.161
$	32 Decachlorobiphenyl	266102	273135	270144	278597	278198	273235	1.952

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 16-SEP-2009 20:07
End Cal Date : 22-DEC-2009 15:52
Quant Method : ESTD
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd5a.i/122209.b/ECD5-B-8081-121809.m
Cal Date : 22-Dec-2009 17:20 cla01575

Calibration File Names:
Level 1: /chem/ecd5a.i/120409b.b/021b2101.d
Level 2: /chem/ecd5a.i/120409b.b/022b2201.d
Level 3: /chem/ecd5a.i/120409b.b/023b2301.d
Level 4: /chem/ecd5a.i/120409b.b/024b2401.d
Level 5: /chem/ecd5a.i/120409b.b/025b2501.d

Compound	2 Level 1	10 Level 2	50 Level 3	100 Level 4	200 Level 5	Curve	Coefficients b	m1	m2	%RSD or R^2
61 2,4,5-Trichlorophenol	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
59 Hexachlorobenzene	5845652	4719180	4103250	4027456	4087067	AVRG		4556521		16.97872
2 Aroclor-1221 (1)	+++++	+++++	+++++	38194	+++++	AVRG		38194		0.000e+00
(2)	+++++	+++++	+++++	22822	+++++	AVRG		22822		0.000e+00
(3)	+++++	+++++	+++++	78778	+++++	AVRG		78778		0.000e+00
3 Aroclor-1016 (1)	135228	136032	131291	128421	115286	AVRG		129252		6.49152
(2)	94115	91053	86081	82205	74492	AVRG		85590		9.00075
(3)	59100	56752	54061	51882	48540	AVRG		54067		7.61842
(4)	56717	54302	51105	48729	44616	AVRG		51094		9.25654
(5)	75245	71571	68782	66056	60864	AVRG		68504		7.97140
4 Aroclor-1232 (1)	+++++	+++++	+++++	52302	+++++	AVRG		52302		0.000e+00
(2)	+++++	+++++	+++++	57011	+++++	AVRG		57011		0.000e+00
(3)	+++++	+++++	+++++	39294	+++++	AVRG		39294		0.000e+00
(4)	+++++	+++++	+++++	30449	+++++	AVRG		30449		0.000e+00
(5)	+++++	+++++	+++++	33167	+++++	AVRG		33167		0.000e+00
5 alpha-BHC	4863066	4596051	4207679	4192127	4340678	AVRG		4439920		6.45563
6 Aroclor-1242 (1)	+++++	+++++	+++++	86436	+++++	AVRG		86436		0.000e+00
(2)	+++++	+++++	+++++	67908	+++++	AVRG		67908		0.000e+00
(3)	+++++	+++++	+++++	43403	+++++	AVRG		43403		0.000e+00
(4)	+++++	+++++	+++++	54366	+++++	AVRG		54366		0.000e+00
(5)	+++++	+++++	+++++	59740	+++++	AVRG		59740		0.000e+00

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 16-SEP-2009 20:07
End Cal Date : 22-DEC-2009 15:52
Quant Method : ESTD
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd5a.i/122209.b/ECD5-B-8081-121809.m
Cal Date : 22-Dec-2009 17:20 cla01575

Compound	2 Level 1	10 Level 2	50 Level 3	100 Level 4	200 Level 5	Curve	Coefficients b	m1	m2	%RSD or R^2
7 gamma-BHC (Lindane)	4213963	4000744	3602480	3581477	3685107	AVRG		3816754		7.29651
8 Chlordane (tech.) (1)	7243646	12999176	52766759	102990106	284949098	LINR	-51.92081	93887		0.99946
(2)	6465169	11825679	44884577	86035689	232282240	LINR	-71.28224	76201		0.99903
(3)	4481798	7851139	29973244	63460324	161982469	LINR	-72.08439	53438		0.99710
(4)	16802571	30350054	128286776	266875379	757762764	LINR	-24.88331	251356		0.99970
(5)	13908645	24735230	104046468	215560048	613359327	LINR	-25.56136	203359		0.99974
9 Aroclor-1248 (1)	+++++	+++++	+++++	74311	+++++	AVRG		74311		0.000e+00
(2)	+++++	+++++	+++++	94327	+++++	AVRG		94327		0.000e+00
(3)	+++++	+++++	+++++	100218	+++++	AVRG		100218		0.000e+00
(4)	+++++	+++++	+++++	108276	+++++	AVRG		108276		0.000e+00
(5)	+++++	+++++	+++++	113831	+++++	AVRG		113831		0.000e+00
10 Heptachlor	3604454	3434966	3030868	2943176	2939717	AVRG		3190636		9.66862
11 Aldrin	3714827	3541333	3129087	3053283	3022040	AVRG		3292114		9.57380
12 beta-BHC	2073258	1881198	1544613	1482400	1483430	AVRG		1692980		15.91277
13 delta-BHC	4102024	3882425	3537213	3511052	3589959	AVRG		3724535		6.92634
14 Heptachlor epoxide	3389542	3167098	2774469	2697474	2692306	AVRG		2944178		10.75617
15 Aroclor-1254 (1)	+++++	+++++	+++++	94842	+++++	AVRG		94842		0.000e+00
(2)	+++++	+++++	+++++	107760	+++++	AVRG		107760		0.000e+00
(3)	+++++	+++++	+++++	147710	+++++	AVRG		147710		0.000e+00
(4)	+++++	+++++	+++++	104486	+++++	AVRG		104486		0.000e+00
(5)	+++++	+++++	+++++	126738	+++++	AVRG		126738		0.000e+00
16 Endosulfan I	2844528	2657817	2304115	2226137	2204341	AVRG		2447388		11.74592
17 gamma-Chlordane	3167314	2983844	2646972	2604550	2646544	AVRG		2809845		8.95760
18 alpha-Chlordane	3112916	2885082	2528297	2477344	2496159	AVRG		2699959		10.56324

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 16-SEP-2009 20:07
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Quant Method : ESTD
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd5a.i/122209.b/ECD5-B-8081-121809.m
Cal Date : 22-Dec-2009 17:20 cla01575

Compound	2 Level 1	10 Level 2	50 Level 3	100 Level 4	200 Level 5	Curve	Coefficients b	m1	m2	%RSD or R^2
19 4,4'-DDE	2831332	2685440	2464727	2398361	2372185	AVRG		2550409		7.82655
20 Dieldrin	2912489	2733828	2507440	2459696	2449656	AVRG		2612622		7.78840
21 Aroclor-1260(1)	67909	63594	61133	58501	56721	AVRG		61572		7.14408
(2)	154760	142644	136554	130696	120581	AVRG		137047		9.34993
(3)	163780	157424	151415	148508	140329	AVRG		152291		5.84087
(4)	154736	148501	147397	143879	139185	AVRG		146740		3.92572
(5)	161375	159022	154521	152918	153834	AVRG		156334		2.34679
22 Endrin	2184472	2097534	1932016	1894394	1917148	AVRG		2005113		6.40871
23 Toxaphene(1)	20731	25271	23974	20636	19537	AVRG		22030		11.14970
(2)	34946	36877	35465	31260	33151	AVRG		34340		6.34112
(3)	36503	35627	34333	30811	31601	AVRG		33775		7.35630
(4)	61858	61988	54856	51276	52078	AVRG		56411		9.22517
(5)	99002	88263	82712	81353	81002	AVRG		86466		8.77850
24 Endosulfan II	2346306	2241064	2037284	2020186	2029291	AVRG		2134826		7.01871
25 4,4'-DDD	2285840	2172401	2111510	2059874	2101203	AVRG		2146166		4.09305
26 4,4'-DDT	1189078	1301792	1334773	1391288	1651355	AVRG		1373658		12.51269
27 Endrin aldehyde	1969664	1806630	1668232	1633255	1629155	AVRG		1741387		8.42059
28 Methoxychlor	492663	509683	537536	545652	636941	AVRG		544495		10.26444
29 Endosulfan sulfate	1802222	1705107	1644912	1689959	1777816	AVRG		1724003		3.75751
30 Aroclor-1268(1)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(2)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(3)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(4)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(5)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 16-SEP-2009 20:07
End Cal Date : 22-DEC-2009 15:52
Quant Method : ESTD
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd5a.i/122209.b/ECD5-B-8081-121809.m
Cal Date : 22-Dec-2009 17:20 cla01575

Compound	2 Level 1	10 Level 2	50 Level 3	100 Level 4	200 Level 5	Curve	Coefficients b	m1	m2	%RSD or R^2
60 Aroclor-1262(1)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(2)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(3)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(4)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(5)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
31 Endrin ketone	1880828	1820218	1690228	1642514	1681550	AVRG		1743068		5.85187
51 Mirex	3034376	2586762	2271014	2269682	2306378	AVRG		2493642		13.23750
52 C-Nonachlor	5434147	4569347	4237619	4239635	4247988	AVRG		4545747		11.36243
53 O-Chlordane	4621772	3807865	3391569	3315709	3261404	AVRG		3679664		15.45956
54 T-Nonachlor	4810064	4005490	3650418	3617452	3681149	AVRG		3952915		12.74570
55 1,2-Dichlorobenzene	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
56 2,4-DDE	13446243	55335831	233676302	440290648	828617791	LINR	-8.28053	2052994		0.99881
58 2,4-DDD	2867792	2442281	2094342	2052175	1958044	AVRG		2282927		16.41635
57 2,4-DDT	2385124	2200116	1922405	1948754	1925922	AVRG		2076464		10.02315
$ 1 4cmx	3766589	3478535	3036591	2952990	2937888	AVRG		3234519		11.45441
$ 32 Decachlorobiphenyl	1625734	1475539	1305277	1311484	1329008	AVRG		1409408		9.91211

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 16-SEP-2009 20:07
End Cal Date : 22-DEC-2009 15:52
Quant Method : ESTD
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd5a.i/122209.b/ECD5-B-8081-121809.m
Cal Date : 22-Dec-2009 17:20 cla01575

Curve	Formula	Units
Averaged	Amt = Rsp/ml	Response
Linear	Amt = b + Rsp/ml	Response

7D

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-899-1

GC Column: CLP-1 ID: 0.25 (mm) Init. Calib. Date(s): 12/18/09 12/22/09

EPA Sample No.(PIBLK): _____ Date Analyzed :_____

Lab Sample ID (PIBLK): _____ Time Analyzed :_____

EPA Sample No.(PEM): PEM01 Date Analyzed :12/22/09

Lab Sample ID (PEM): WPE091109-99 Time Analyzed :1329

PEM COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aldrin	4.11	4.08	4.14	124	100	24.0
4,4'-DDE						
Endrin	5.07	5.04	5.10	116	100	16.0
4,4'-DDD						
4,4'-DDT	5.27	5.24	5.30	106	100	6.0
Endrin ketone						
Endrin aldehyde						

4,4'-DDT % breakdown (1): 2.20 Endrin % breakdown (1): 4.30

Combined % breakdown (1): 6.50

FORM VII PEST-1 OLM03.0

7D

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-899-1

GC Column: CLP-2 ID: 0.25 (mm) Init. Calib. Date(s): 12/18/09 12/22/09

EPA Sample No.(PIBLK): _____ Date Analyzed :_____

Lab Sample ID (PIBLK): _____ Time Analyzed :_____

EPA Sample No.(PEM): PEM01 Date Analyzed :12/22/09

Lab Sample ID (PEM): WPE091109-99 Time Analyzed :1329

PEM COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aldrin	4.55	4.53	4.59	112	100	12.0
4,4'-DDE						
Endrin	5.54	5.51	5.57	111	100	11.0
4,4'-DDD						
4,4'-DDT	5.77	5.74	5.80	78.6	100	-21.4
Endrin ketone						
Endrin aldehyde						

4,4'-DDT % breakdown (1): 4.80 Endrin % breakdown (1): 1.70

Combined % breakdown (1): 6.50

FORM VII PEST-1 OLM03.0

7D

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-899-1

GC Column: CLP-1 ID: 0.25 (mm) Init. Calib. Date(s): 12/18/09 12/22/09

EPA Sample No.(PIBLK): _____ Date Analyzed :_____

Lab Sample ID (PIBLK): _____ Time Analyzed :_____

EPA Sample No.(PEM): PEM02 Date Analyzed :12/22/09

Lab Sample ID (PEM): WPE091109-99 Time Analyzed :1616

PEM COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aldrin	4.11	4.08	4.14	126	100	26.0
4,4'-DDE						
Endrin	5.07	5.04	5.10	120	100	20.0
4,4'-DDD						
4,4'-DDT	5.27	5.24	5.30	118	100	18.0
Endrin ketone						
Endrin aldehyde						

4,4'-DDT % breakdown (1): 2.90 Endrin % breakdown (1): 6.50

Combined % breakdown (1): 9.40

FORM VII PEST-1 OLM03.0

7D

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-899-1

GC Column: CLP-2 ID: 0.25 (mm) Init. Calib. Date(s): 12/18/09 12/22/09

EPA Sample No.(PIBLK): _____ Date Analyzed :_____

Lab Sample ID (PIBLK): _____ Time Analyzed :_____

EPA Sample No.(PEM): PEM02 Date Analyzed :12/22/09

Lab Sample ID (PEM): WPE091109-99 Time Analyzed :1616

PEM COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aldrin	4.56	4.53	4.59	118	100	18.0
4,4'-DDE						
Endrin	5.54	5.51	5.57	118	100	18.0
4,4'-DDD						
4,4'-DDT	5.77	5.74	5.80	146	100	46.0
Endrin ketone						
Endrin aldehyde						

4,4'-DDT % breakdown (1): 3.50 Endrin % breakdown (1): 7.00

Combined % breakdown (1): 10.50

FORM VII PEST-1 OLM03.0

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: Case No.: N/A SAS No.: N/A SDG No.: 10-899-1

Instrument ID: ECD5A Calibration Date: 12/22/09 Time: 1353

Lab File ID: 004F0401 Init. Calib. Date(s): 12/18/09 12/18/09

Heated Purge: (Y/N) N Init. Calib. Times: 1951 2039

GC Column: CLP-1 ID: 0.25 (mm)

COMPOUND	RRF	RRF100	MIN RRF	%D	MAX %D	
Toxaphene	2803.338	3350.142	0.01	19.5	15.0	<-
(2)	5283.454	5972.864	0.01	13.0	15.0	
(3)	6996.763	7970.576	0.01	13.9	15.0	
(4)	8918.509	9409.893	0.01	5.5	15.0	
(5)	8607.510	9698.705	0.01	12.7	15.0	
4cmx	463359.36	501519.63	0.01	8.2	15.0	
Decachlorobiphenyl	273235.35	284032.97	0.01	4.0	15.0	

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: Case No.: N/A SAS No.: N/A SDG No.: 10-899-1

Instrument ID: ECD5A Calibration Date: 12/22/09 Time: 1353

Lab File ID: 004B0401 Init. Calib. Date(s): 12/18/09 12/18/09

Heated Purge: (Y/N) N Init. Calib. Times: 1951 2039

GC Column: CLP-2 ID: 0.25 (mm)

COMPOUND	RRF	RRF100	MIN RRF	%D	MAX %D	
Toxaphene	22029.837	25771.285	0.01	17.0	15.0	<-
(2)	34339.894	31929.830	0.01	-7.0	15.0	
(3)	33774.954	30999.685	0.01	-8.2	15.0	
(4)	56411.045	51863.078	0.01	-8.1	15.0	
(5)	86466.387	79324.718	0.01	-8.2	15.0	
4cmx	3234518.7	3157238.2	0.01	-2.4	15.0	
Decachlorobiphenyl	1409408.5	1339607.9	0.01	-5.0	15.0	

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: Case No.: N/A SAS No.: N/A SDG No.: 10-899-1

Instrument ID: ECD5A Calibration Date: 12/22/09 Time: 1405

Lab File ID: 005F0501 Init. Calib. Date(s): 12/18/09 12/18/09

Heated Purge: (Y/N) N Init. Calib. Times: 2115 2202

GC Column: CLP-1 ID: 0.25 (mm)

COMPOUND	RRF	RRF100	MIN RRF	%D	MAX %D	
Chlordane (tech.)	17413.775	15994.702	0.01	-8.1	15.0	
(2)	22624.241	27538.741	0.01	21.7	15.0	<-
(3)	17230.030	18798.805	0.01	9.1	15.0	
(4)	54431.359	53701.528	0.01	-1.3	15.0	
(5)	13471.278	15025.047	0.01	11.5	15.0	
4cmx	463359.36	472775.49	0.01	2.0	15.0	
Decachlorobiphenyl	273235.35	270918.80	0.01	-0.8	15.0	

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: Case No.: N/A SAS No.: N/A SDG No.: 10-899-1

Instrument ID: ECD5A Calibration Date: 12/22/09 Time: 1405

Lab File ID: 005B0501 Init. Calib. Date(s): 12/18/09 12/18/09

Heated Purge: (Y/N) N Init. Calib. Times: 2115 2202

GC Column: CLP-2 ID: 0.25 (mm)

COMPOUND	SAMPLE AMOUNT	CAL100 AMOUNT	CURVE	%D	MAX %d	
Chlordane (tech.)	970	1000	LINR	-3.0	15.0	
(2)	1180	1000	LINR	18.0	15.0	<-
(3)	1020	1000	LINR	2.0	15.0	
(4)	977	1000	LINR	-2.3	15.0	
(5)	989	1000	LINR	-1.1	15.0	
4cmx	184	200	AVRG	-8.0	15.0	
Decachlorobiphenyl	186	200	AVRG	-7.0	15.0	

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: Case No.: N/A SAS No.: N/A SDG No.: 10-899-1

Instrument ID: ECD5A Calibration Date: 12/22/09 Time: 1604

Lab File ID: 012F1201 Init. Calib. Date(s): 12/22/09 12/22/09

Heated Purge: (Y/N) N Init. Calib. Times: 1504 1552

GC Column: CLP-1 ID: 0.25 (mm)

COMPOUND	RRF	RRF100	MIN RRF	%D	MAX %D
gamma-BHC (Lindane)	558388.88	597234.77	0.01	7.0	15.0
Heptachlor	506349.29	496287.82	0.01	-2.0	15.0
Heptachlor epoxide	456922.39	464281.51	0.01	1.6	15.0
Endrin	340793.97	361258.22	0.01	6.0	15.0
Methoxychlor	119025.13	125481.16	0.01	5.4	15.0
4cmx	463359.36	470687.56	0.01	1.6	15.0
Decachlorobiphenyl	273235.35	276707.13	0.01	1.3	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: Case No.: N/A SAS No.: N/A SDG No.: 10-899-1

Instrument ID: ECD5A Calibration Date: 12/22/09 Time: 1604

Lab File ID: 012B1201 Init. Calib. Date(s): 12/22/09 12/22/09

Heated Purge: (Y/N) N Init. Calib. Times: 1504 1552

GC Column: CLP-2 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF100	MIN RRF	%D	MAX %D
gamma-BHC (Lindane)	3816754.3	3742960.2	0.01	-1.9	15.0
Heptachlor	3190636.3	2843337.8	0.01	-10.9	15.0
Heptachlor epoxide	2944177.7	2745093.5	0.01	-6.8	15.0
Endrin	2005112.7	2040518.2	0.01	1.8	15.0
Methoxychlor	544495.29	577951.29	0.01	6.1	15.0
4cmx	3234518.7	3021878.4	0.01	-6.6	15.0
Decachlorobiphenyl	1409408.5	1322914.9	0.01	-6.1	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: Case No.: N/A SAS No.: N/A SDG No.: 10-899-1

Instrument ID: ECD5A Calibration Date: 12/22/09 Time: 1835

Lab File ID: 023F2301 Init. Calib. Date(s): 12/22/09 12/22/09

Heated Purge: (Y/N) N Init. Calib. Times: 1504 1552

GC Column: CLP-1 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF100	MIN RRF	%D	MAX %D
gamma-BHC (Lindane)	558388.88	605823.87	0.01	8.5	15.0
Heptachlor	506349.29	475713.33	0.01	-6.0	15.0
Heptachlor epoxide	456922.39	489175.31	0.01	7.0	15.0
Endrin	340793.97	365545.10	0.01	7.3	15.0
Methoxychlor	119025.13	113322.10	0.01	-4.8	15.0
4cmx	463359.36	480480.94	0.01	3.7	15.0
Decachlorobiphenyl	273235.35	291501.84	0.01	6.7	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: Case No.: N/A SAS No.: N/A SDG No.: 10-899-1

Instrument ID: ECD5A Calibration Date: 12/22/09 Time: 1835

Lab File ID: 023B2301 Init. Calib. Date(s): 12/22/09 12/22/09

Heated Purge: (Y/N) N Init. Calib. Times: 1504 1552

GC Column: CLP-2 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF100	MIN RRF	%D	MAX %D	
gamma-BHC (Lindane)	3816754.3	3797986.0	0.01	-0.5	15.0	
Heptachlor	3190636.3	2825253.1	0.01	-11.4	15.0	
Heptachlor epoxide	2944177.7	2938449.9	0.01	-0.2	15.0	
Endrin	2005112.7	2025453.5	0.01	1.0	15.0	
Methoxychlor	544495.29	424289.58	0.01	-22.1	15.0	<-
4cmx	3234518.7	3060574.6	0.01	-5.4	15.0	
Decachlorobiphenyl	1409408.5	1389102.2	0.01	-1.4	15.0	

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: Case No.: N/A SAS No.: N/A SDG No.: 10-899-1

Instrument ID: ECD5A Calibration Date: 12/22/09 Time: 2105

Lab File ID: 035F3501 Init. Calib. Date(s): 12/22/09 12/22/09

Heated Purge: (Y/N) N Init. Calib. Times: 1504 1552

GC Column: CLP-1 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF100	MIN RRF	%D	MAX %D
gamma-BHC (Lindane)	558388.88	619662.25	0.01	11.0	15.0
Heptachlor	506349.29	484640.58	0.01	-4.3	15.0
Heptachlor epoxide	456922.39	482930.59	0.01	5.7	15.0
Endrin	340793.97	379999.70	0.01	11.5	15.0
Methoxychlor	119025.13	113618.13	0.01	-4.5	15.0
4cmx	463359.36	484422.34	0.01	4.5	15.0
Decachlorobiphenyl	273235.35	286721.20	0.01	4.9	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: Case No.: N/A SAS No.: N/A SDG No.: 10-899-1

Instrument ID: ECD5A Calibration Date: 12/22/09 Time: 2105

Lab File ID: 035B3501 Init. Calib. Date(s): 12/22/09 12/22/09

Heated Purge: (Y/N) N Init. Calib. Times: 1504 1552

GC Column: CLP-2 ID: 0.25 (mm)

COMPOUND	RRF	RRF100	MIN RRF	%D	MAX %D	
gamma-BHC (Lindane)	3816754.3	3808357.8	0.01	-0.2	15.0	
Heptachlor	3190636.3	2735116.5	0.01	-14.3	15.0	
Heptachlor epoxide	2944177.7	2769672.2	0.01	-5.9	15.0	
Endrin	2005112.7	2012799.5	0.01	0.4	15.0	
Methoxychlor	544495.29	336799.11	0.01	-38.1	15.0	<-
4cmx	3234518.7	3074866.1	0.01	-4.9	15.0	
Decachlorobiphenyl	1409408.5	1342047.3	0.01	-4.8	15.0	

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: Case No.: N/A SAS No.: N/A SDG No.: 10-899-1

Instrument ID: ECD5A Calibration Date: 12/22/09 Time: 2304

Lab File ID: 045F4501 Init. Calib. Date(s): 12/22/09 12/22/09

Heated Purge: (Y/N) N Init. Calib. Times: 1504 1552

GC Column: CLP-1 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF100	MIN RRF	%D	MAX %D
gamma-BHC (Lindane)	558388.88	634502.73	0.01	13.6	15.0
Heptachlor	506349.29	485442.66	0.01	-4.1	15.0
Heptachlor epoxide	456922.39	500726.82	0.01	9.6	15.0
Endrin	340793.97	387509.20	0.01	13.7	15.0
Methoxychlor	119025.13	113547.89	0.01	-4.6	15.0
4cmx	463359.36	497481.78	0.01	7.4	15.0
Decachlorobiphenyl	273235.35	300408.71	0.01	9.9	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: Case No.: N/A SAS No.: N/A SDG No.: 10-899-1

Instrument ID: ECD5A Calibration Date: 12/22/09 Time: 2304

Lab File ID: 045B4501 Init. Calib. Date(s): 12/22/09 12/22/09

Heated Purge: (Y/N) N Init. Calib. Times: 1504 1552

GC Column: CLP-2 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF100	MIN RRF	%D	MAX %D	
gamma-BHC (Lindane)	3816754.3	3941485.5	0.01	3.3	15.0	
Heptachlor	3190636.3	2818065.0	0.01	-11.7	15.0	
Heptachlor epoxide	2944177.7	2894643.6	0.01	-1.7	15.0	
Endrin	2005112.7	2055709.0	0.01	2.5	15.0	
Methoxychlor	544495.29	326487.35	0.01	-40.0	15.0	<-
4cmx	3234518.7	3168591.2	0.01	-2.0	15.0	
Decachlorobiphenyl	1409408.5	1437133.3	0.01	2.0	15.0	

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: Case No.: N/A SAS No.: N/A SDG No.: 10-899-1

Instrument ID: ECD5A Calibration Date: 12/23/09 Time: 0016

Lab File ID: 051F5101 Init. Calib. Date(s): 12/22/09 12/22/09

Heated Purge: (Y/N) N Init. Calib. Times: 1504 1552

GC Column: CLP-1 ID: 0.25 (mm)

COMPOUND	RRF	RRF100	MIN RRF	%D	MAX %D	
gamma-BHC (Lindane)	558388.88	631077.21	0.01	13.0	15.0	
Heptachlor	506349.29	444724.27	0.01	-12.2	15.0	
Heptachlor epoxide	456922.39	495672.95	0.01	8.5	15.0	
Endrin	340793.97	398621.46	0.01	17.0	15.0	<-
Methoxychlor	119025.13	108774.52	0.01	-8.6	15.0	
4cmx	463359.36	501901.25	0.01	8.3	15.0	
Decachlorobiphenyl	273235.35	294928.09	0.01	7.9	15.0	

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: Case No.: N/A SAS No.: N/A SDG No.: 10-899-1

Instrument ID: ECD5A Calibration Date: 12/23/09 Time: 0016

Lab File ID: 051B5101 Init. Calib. Date(s): 12/22/09 12/22/09

Heated Purge: (Y/N) N Init. Calib. Times: 1504 1552

GC Column: CLP-2 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF100	MIN RRF	%D	MAX %D	
gamma-BHC (Lindane)	3816754.3	3885535.2	0.01	1.8	15.0	
Heptachlor	3190636.3	2378360.7	0.01	-25.4	15.0	<-
Heptachlor epoxide	2944177.7	2791280.6	0.01	-5.2	15.0	
Endrin	2005112.7	1991312.2	0.01	-0.7	15.0	
Methoxychlor	544495.29	141139.41	0.01	-74.1	15.0	<-
4cmx	3234518.7	3142085.7	0.01	-2.8	15.0	
Decachlorobiphenyl	1409408.5	1383668.8	0.01	-1.8	15.0	

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: Case No.: N/A SAS No.: N/A SDG No.: 10-899-1

Instrument ID: ECD5A Calibration Date: 12/23/09 Time: 0116

Lab File ID: 056F5601 Init. Calib. Date(s): 12/22/09 12/22/09

Heated Purge: (Y/N) N Init. Calib. Times: 1504 1552

GC Column: CLP-1 ID: 0.25 (mm)

COMPOUND	RRF	RRF100	MIN RRF	%D	MAX %D	
gamma-BHC (Lindane)	558388.88	638353.17	0.01	14.3	15.0	
Heptachlor	506349.29	490267.92	0.01	-3.2	15.0	
Heptachlor epoxide	456922.39	495368.03	0.01	8.4	15.0	
Endrin	340793.97	408213.16	0.01	19.8	15.0	<-
Methoxychlor	119025.13	115403.64	0.01	-3.0	15.0	
4cmx	463359.36	504153.01	0.01	8.8	15.0	
Decachlorobiphenyl	273235.35	298469.47	0.01	9.2	15.0	

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: Case No.: N/A SAS No.: N/A SDG No.: 10-899-1

Instrument ID: ECD5A Calibration Date: 12/23/09 Time: 0116

Lab File ID: 056B5601 Init. Calib. Date(s): 12/22/09 12/22/09

Heated Purge: (Y/N) N Init. Calib. Times: 1504 1552

GC Column: CLP-2 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF100	MIN RRF	%D	MAX %D	
gamma-BHC (Lindane)	3816754.3	3858860.3	0.01	1.1	15.0	
Heptachlor	3190636.3	2547321.8	0.01	-20.2	15.0	<-
Heptachlor epoxide	2944177.7	2806163.7	0.01	-4.7	15.0	
Endrin	2005112.7	2090115.6	0.01	4.2	15.0	
Methoxychlor	544495.29	254794.61	0.01	-53.2	15.0	<-
4cmx	3234518.7	3152337.7	0.01	-2.5	15.0	
Decachlorobiphenyl	1409408.5	1384416.9	0.01	-1.8	15.0	

FORM VII PEST

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd5a.i/122209.b/002f0201.d
Lab Smp Id: WPE091109-99DG Client Smp ID: PEM01
Inj Date : 22-DEC-2009 13:29
Operator : CXC2 Inst ID: ecd5a.i
Smp Info : |WPE091109-99DG
Misc Info :
Comment :
Method : /chem/ecd5a.i/122209.b/ECD5-F-8081-121809.m
Meth Date : 22-Dec-2009 17:21 cla01575 Quant Type: ESTD
Cal Date : 05-DEC-2009 03:28 Cal File: 025f2501.d
Als bottle: 2 QC Sample: PEM
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: pem.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
11 Aldrin					CAS #: 309-00-2		
4.112	4.113	-0.001	64020443	124.579	124	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
4.732	4.731	0.001	192379	0.44714	0.447	80.00- 120.00	100.00(M)
22 Endrin					CAS #: 72-20-8		
5.071	5.070	0.001	41028652	116.192	116	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.101	5.100	0.001	590128	1.62312	1.62	80.00- 120.00	100.00(M)
27 Endrin aldehyde					CAS #: 7421-93-4		
5.466	5.462	0.004	675284	2.17974	2.18	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
5.270	5.269	0.001	34717687	106.542	106	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
5.902	5.898	0.004	1187749	3.22887	3.23	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
2.787	2.790	-0.003	100186244	215.508	216	80.00- 120.00	100.00(R)
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
6.482	6.482	0.000	56634971	204.312	204	80.00- 120.00	100.00(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Data File: /chem/ecd5a.i/122209.b/002f0201.d
Date : 22-DEC-2009 13:29
Client ID: PEM01
Sample Info: IWPE091109-99DG

Column phase: CLP-1

Instrument: ecd5a.i

Operator: CXC2
Column diameter: 0.25

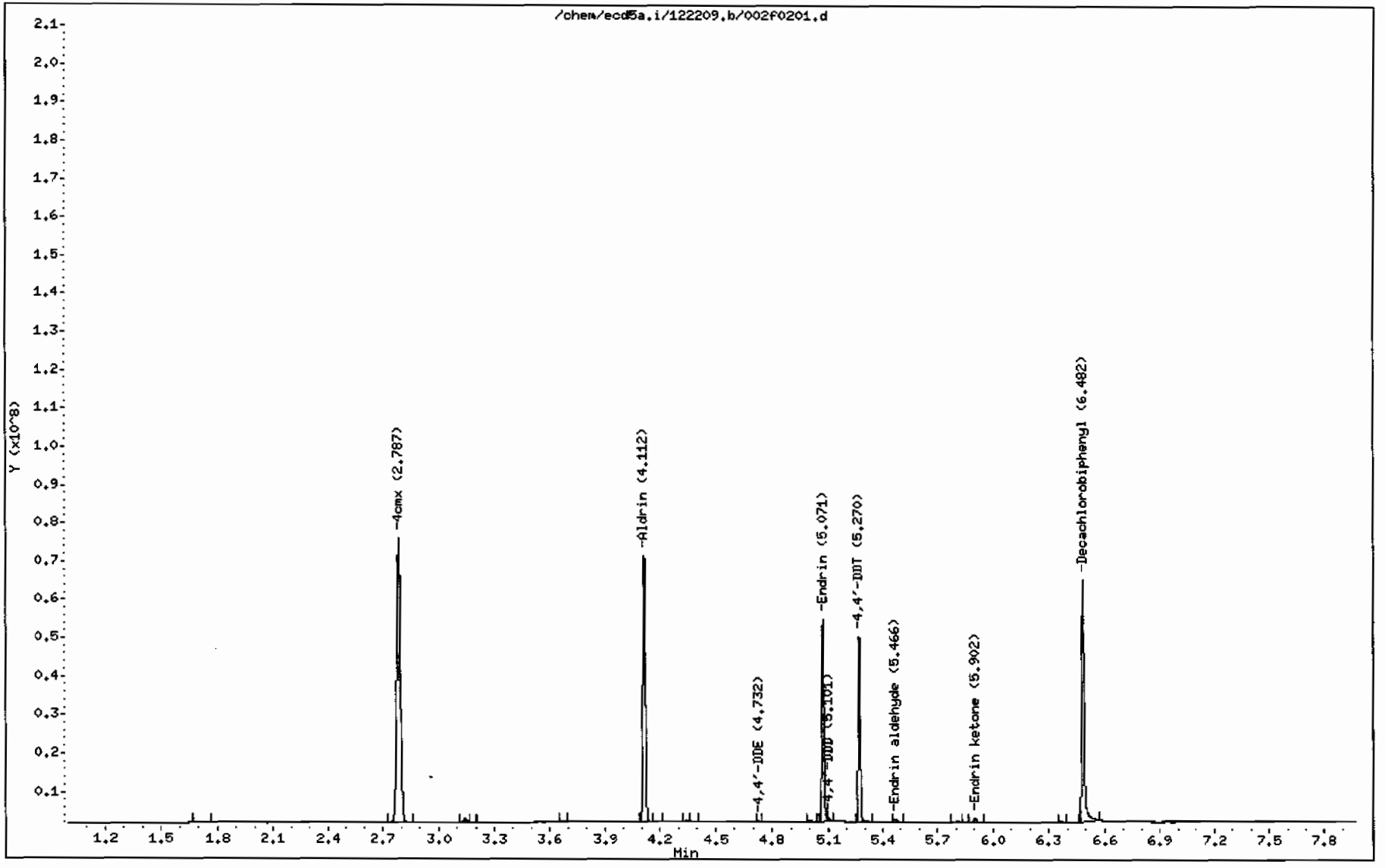

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd5a.i/122209.b/002b0201.d
Lab Smp Id: WPE091109-99DG Client Smp ID: PEM01
Inj Date : 22-DEC-2009 13:29
Operator : CXC2 Inst ID: ecd5a.i
Smp Info : |WPE091109-99DG
Misc Info :
Comment :
Method : /chem/ecd5a.i/122209.b/ECD5-B-8081-121809.m
Meth Date : 22-Dec-2009 17:20 c1a01575 Quant Type: ESTD
Cal Date : 05-DEC-2009 03:28 Cal File: 025b2501.d
Als bottle: 2 QC Sample: PEM
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: pem.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
11 Aldrin					CAS #: 309-00-2		
4.555	4.555	0.000	370921097	111.843	112	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.224	5.224	0.000	1978163	0.77036	0.770	80.00- 120.00	100.00(M)
22 Endrin					CAS #: 72-20-8		
5.544	5.543	0.001	230183659	110.653	111	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.576	5.576	0.000	4780676	2.23088	2.23	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
5.870	5.867	0.003	4609963	2.64091	2.64	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
5.769	5.769	0.000	133876729	78.5560	78.6	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
6.380	6.378	0.002	6735877	3.55865	3.56	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
3.196	3.198	-0.002	623268196	189.454	189	80.00- 120.00	100.00(R)
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.154	7.153	0.001	280041014	198.450	198	80.00- 120.00	100.00(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Data File: /chem/ecd5a.i/122209.b/002b0201.d
Date : 22-DEC-2009 13:29
Client ID: PEM01
Sample Info: IWPE091109-99DG

Instrument: ecd5a.i

Operator: CXC2
Column diameter: 0.25

Column Phase: CLP-2

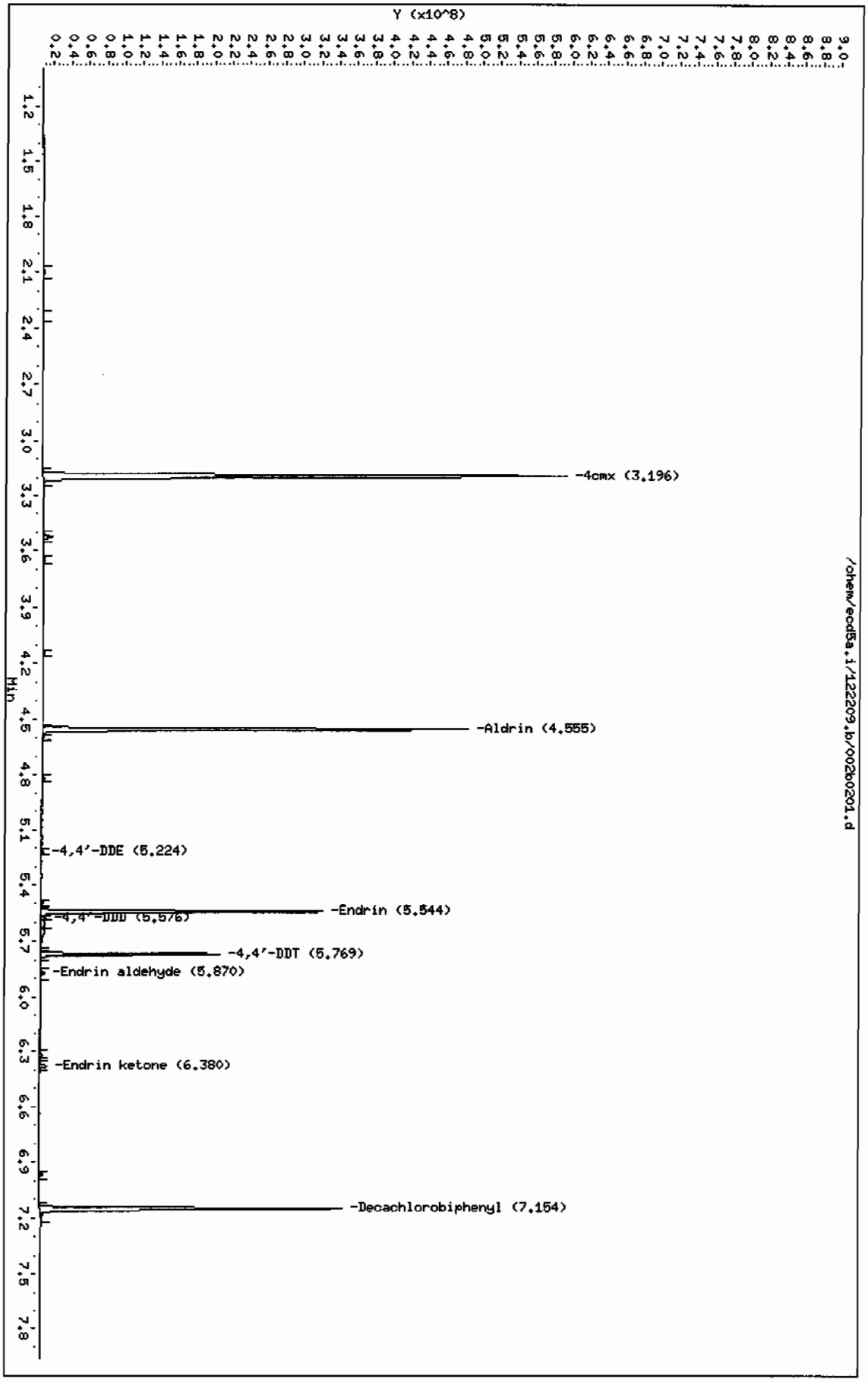

Page 1

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd5a.i/122209.b/013f1301.d
Lab Smp Id: WPE091109-99DG Client Smp ID: PEM02
Inj Date : 22-DEC-2009 16:16
Operator : CXC2 Inst ID: ecd5a.i
Smp Info : |WPE091109-99DG
Misc Info :
Comment :
Method : /chem/ecd5a.i/122209.b/ECD5-F-8081-121809.m
Meth Date : 22-Dec-2009 17:21 cla01575 Quant Type: ESTD
Cal Date : 05-DEC-2009 03:28 Cal File: 025f2501.d
Als bottle: 13 QC Sample: PEM
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: pem.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
11 Aldrin					CAS #: 309-00-2		
4.113	4.113	0.000	64789879	126.173	126	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
4.732	4.731	0.001	195737	0.45463	0.455	80.00- 120.00	100.00(M)
22 Endrin					CAS #: 72-20-8		
5.071	5.070	0.001	41004074	120.319	120	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.100	5.100	0.000	714529	1.98035	1.98	80.00- 120.00	100.00(M)
27 Endrin aldehyde					CAS #: 7421-93-4		
5.466	5.462	0.004	962389	3.09885	3.10	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
5.270	5.269	0.001	38380022	117.965	118	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
5.901	5.898	0.003	1877808	5.02335	5.02	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
2.789	2.790	-0.001	100738199	217.408	217	80.00- 120.00	100.00(R)
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
6.481	6.482	-0.001	60036676	219.725	220	80.00- 120.00	100.00(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Data File: /chem/ecd5a.i/122209.b/013f1301.d

Date : 22-DEC-2009 16:16

Client ID: PEM02

Sample Info: IWPE091109-99DG

Column phase: CLP-1

Instrument: ecd5a.i

Operator: CXC2

Column diameter: 0.25

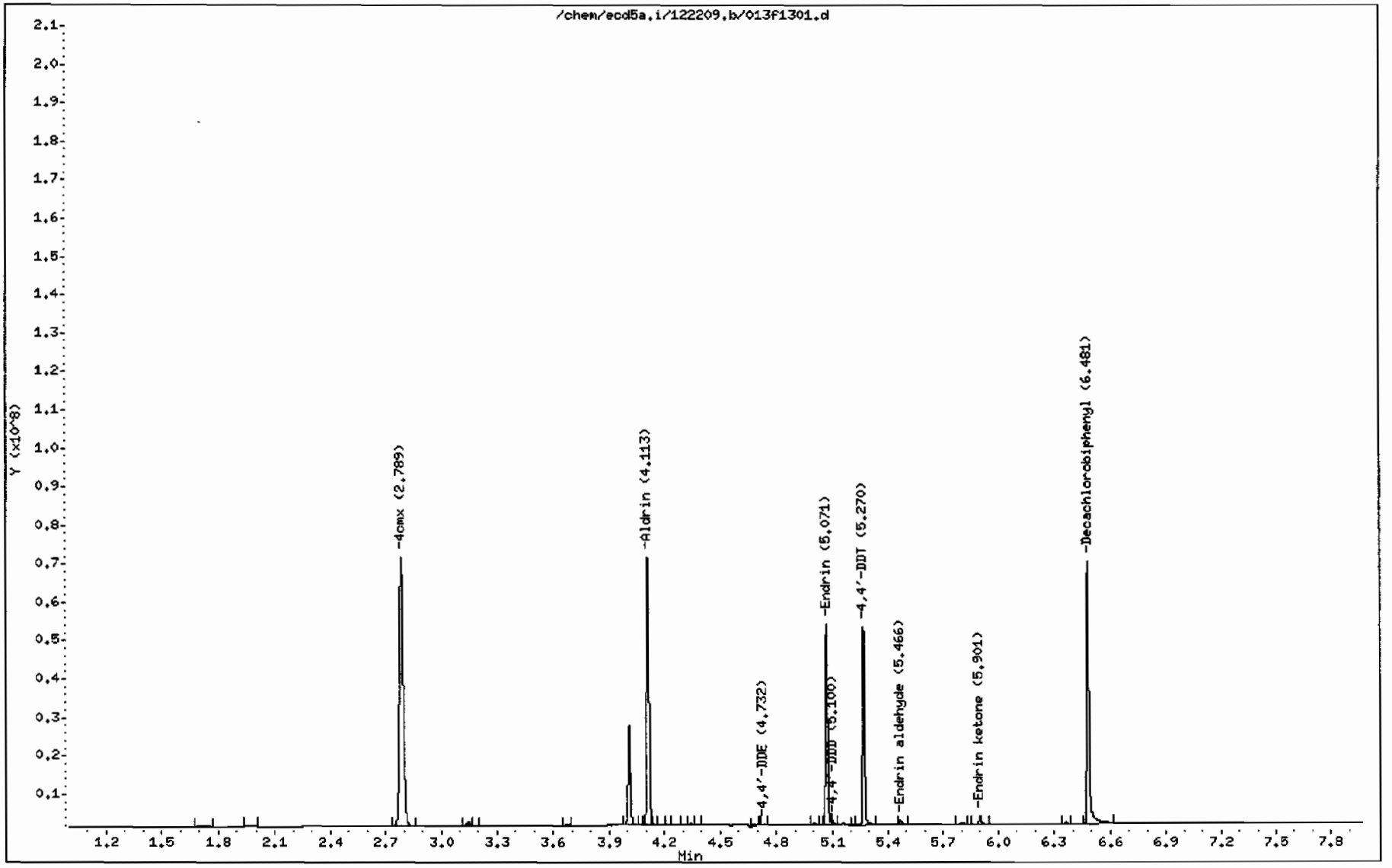

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd5a.i/122209.b/013b1301.d
Lab Smp Id: WPE091109-99DG Client Smp ID: PEM02
Inj Date : 22-DEC-2009 16:16
Operator : CXC2 Inst ID: ecd5a.i
Smp Info : |WPE091109-99DG
Misc Info :
Comment :
Method : /chem/ecd5a.i/122209.b/ECD5-B-8081-121809.m
Meth Date : 22-Dec-2009 17:20 cla01575 Quant Type: ESTD
Cal Date : 05-DEC-2009 03:28 Cal File: 025b2501.d
Als bottle: 13 QC Sample: PEM
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: pem.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
11 Aldrin					CAS #: 309-00-2		
4.555	4.555	0.000	388865121	118.120	118	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.223	5.224	-0.001	2199485	0.86241	0.862	80.00- 120.00	100.00(M)
22 Endrin					CAS #: 72-20-8		
5.543	5.543	0.000	237578693	118.486	118	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.575	5.576	-0.001	5149244	2.39928	2.40	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
5.868	5.867	0.001	6575273	3.77588	3.78	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
5.769	5.769	0.000	201032641	146.348	146	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
6.378	6.378	0.000	11514956	6.60614	6.61	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
3.197	3.198	-0.001	647670505	200.237	200	80.00- 120.00	100.00(R)
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.153	7.153	0.000	302388814	214.550	214	80.00- 120.00	100.00(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Data File: /chem/ecd5a.i/122209.b/013b1301.d
Date : 22-DEC-2009 16:16
Client ID: PEM02
Sample Info: IWPE091109-99DG

Column phase: CLP-2

Instrument: ecd5a.i

Operator: CXC2
Column diameter: 0.25

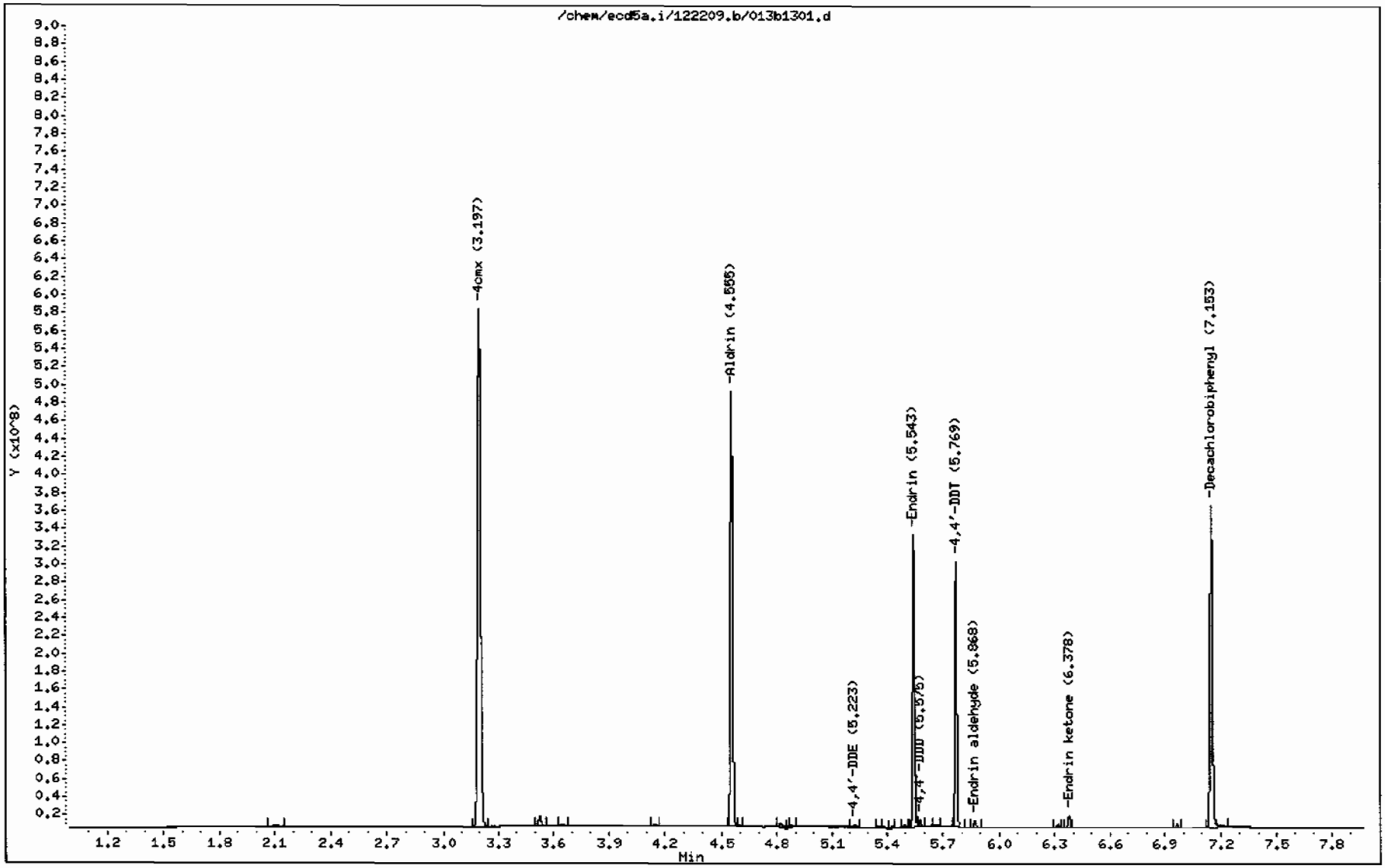

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CLP-1

Data file : /chem/ecd5a.i/122209.b/004f0401.d
Lab Smp Id: WPE091104-52TX Client Smp ID: TOXAPH01
Inj Date : 22-DEC-2009 13:53
Operator : CXC2 Inst ID: ecd5a.i
Smp Info : |WPE091104-52TX
Misc Info :
Comment :
Method : /chem/ecd5a.i/122209.b/ECD5-F-8081-121809.m
Meth Date : 22-Dec-2009 17:21 cla01575 Quant Type: ESTD
Cal Date : 05-DEC-2009 03:28 Cal File: 025f2501.d
Als bottle: 4 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: tox.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
23 Toxaphene					CAS #: 8001-35-2		
4.713	4.713	0.000	6700285	2000.00	2390	80.00- 120.00	100.00(M)
4.927	4.927	0.000	11945728	2000.00	2260	158.29- 198.29	178.29
4.982	4.982	0.000	15941151	2000.00	2280	217.92- 257.92	237.92
5.020	5.020	0.000	18819786	2000.00	2110	260.88- 300.88	280.88
5.082	5.082	0.000	19397410	2000.00	2250	269.50- 309.50	289.50
Average of Peak Amounts =					2.26e+03		
$ 1 4cmx					CAS #: 877-09-8		
2.788	2.790	-0.002	100303926	200.000	216	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
6.481	6.482	-0.001	56806595	200.000	205	80.00- 120.00	100.00

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd5a.i/122209.b/004f0401.d
Date : 22-DEC-2009 13:53
Client ID: TOXAPH01
Sample Info: IWPE091104-52TX

Column phase: CLP-1

Instrument: ecd5a.i

Operator: CXC2
Column diameter: 0.25

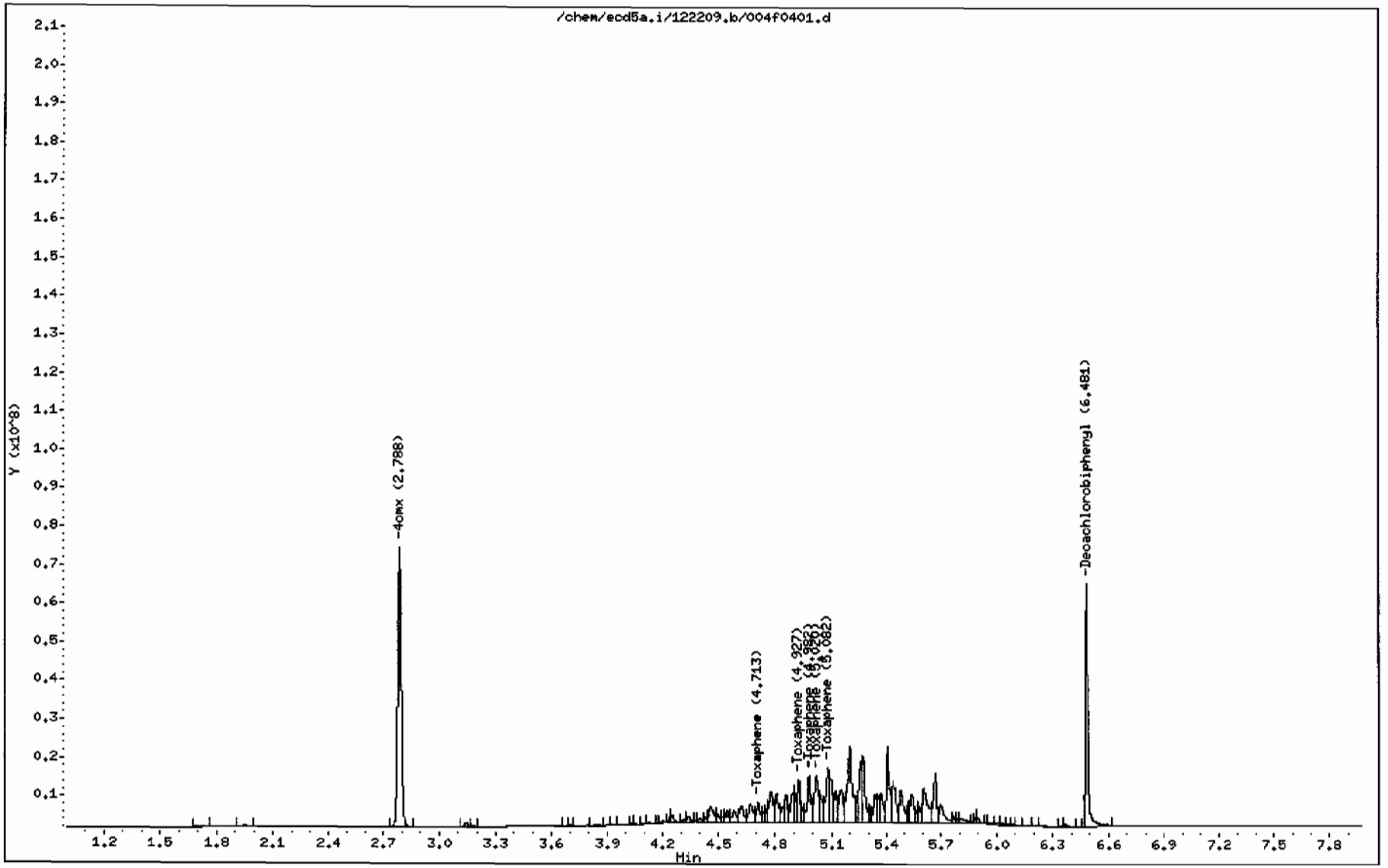

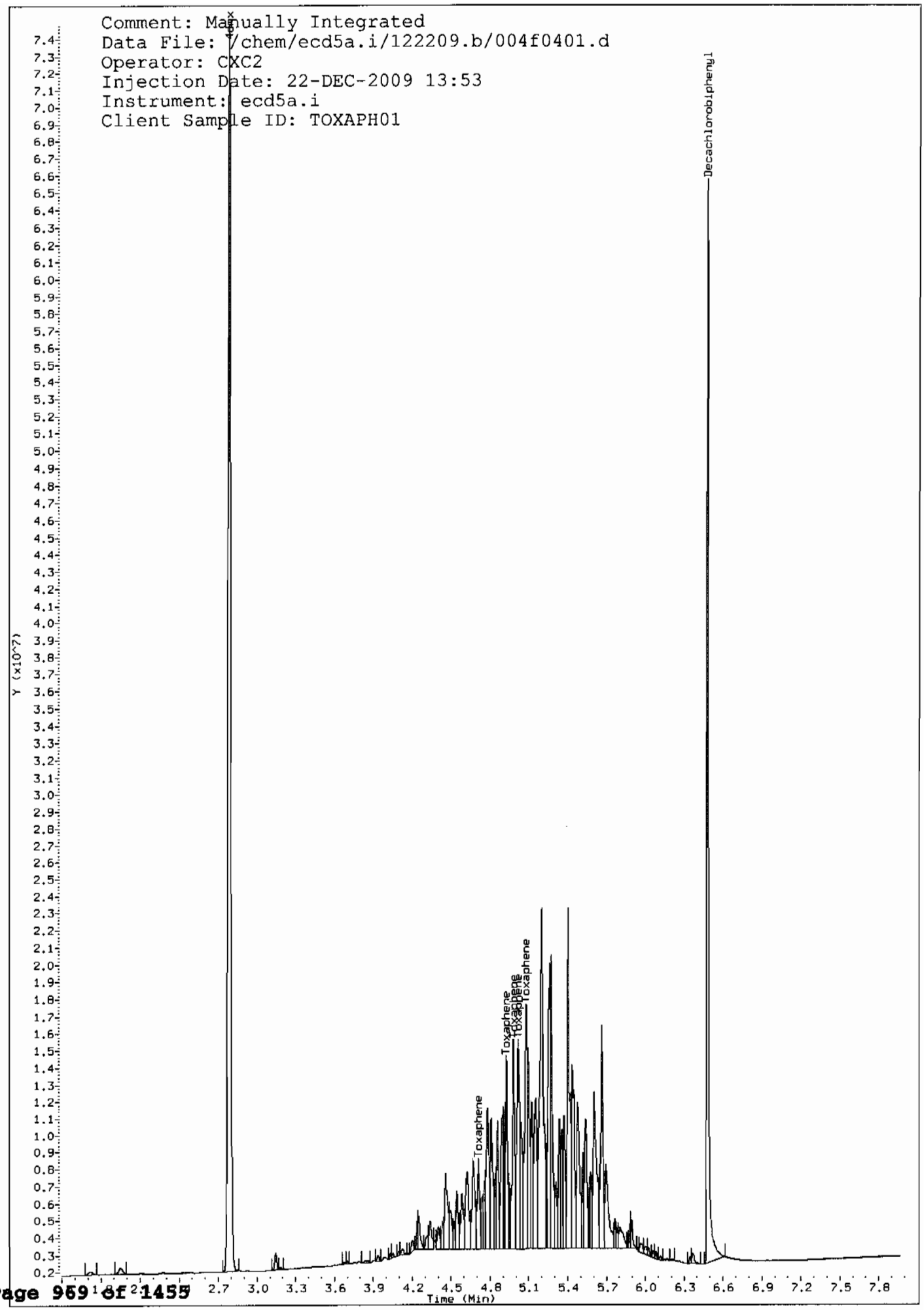
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Data File: /chem/ecd5a.i/122209.b/004f0401.d
Operator: CXC2
Injection Date: 22-DEC-2009 13:53
Instrument: ecd5a.i
Client Sample ID: TOXAPH01
Decachlorobiphenyl
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Y (x10^7)
Time (Min)

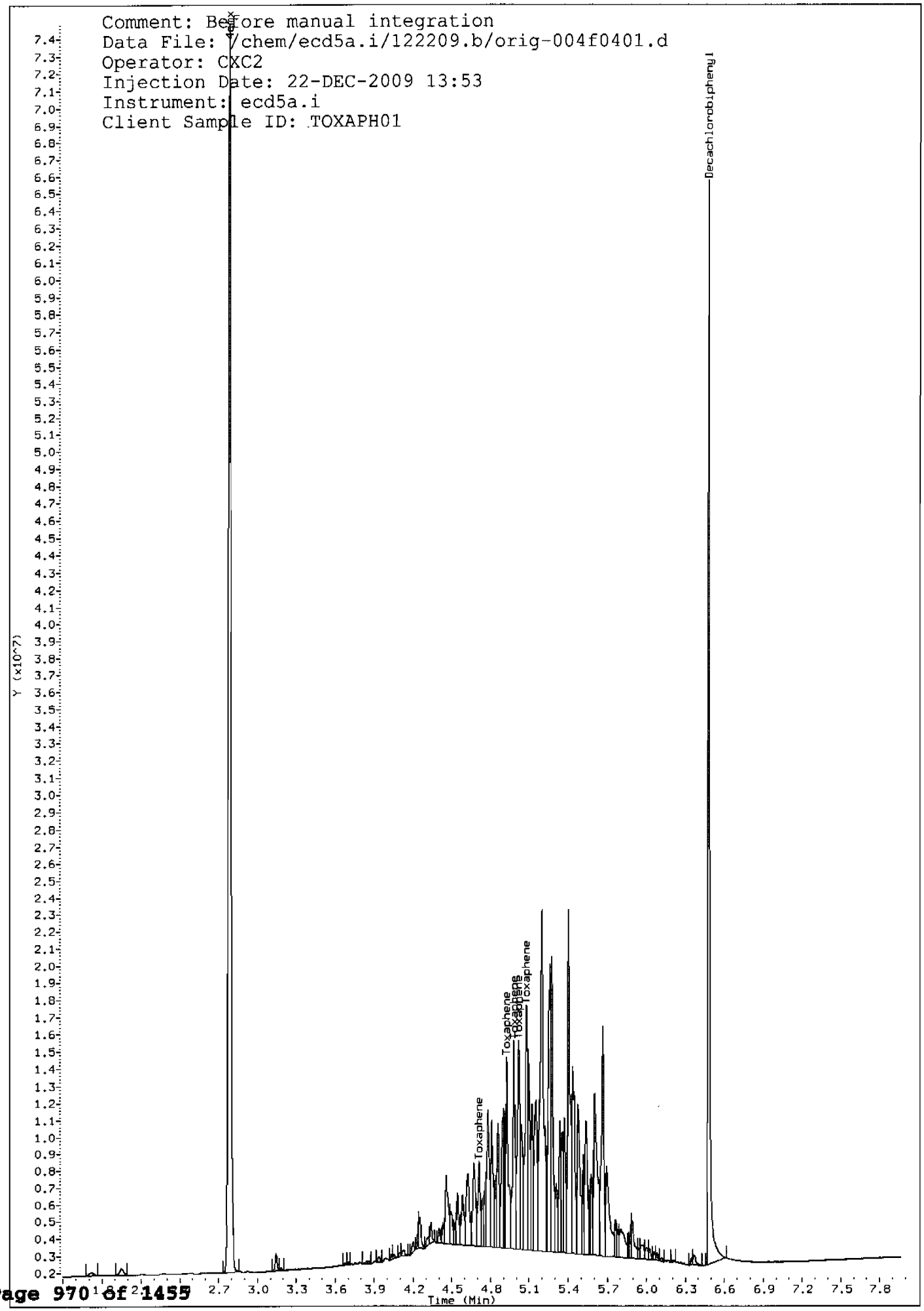
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Operator: CXC2
Injection Date: 22-DEC-2009 13:53
Instrument: ecd5a.i
Client Sample ID: TOXAPH01
Decachlorobiphenyl
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Y (x10^7)
Time (Min)

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd5a.i/122209.b/004b0401.d
Lab Smp Id: WPE091104-52TX Client Smp ID: TOXAPH01
Inj Date : 22-DEC-2009 13:53
Operator : CXC2 Inst ID: ecd5a.i
Smp Info : |WPE091104-52TX
Misc Info :
Comment :
Method : /chem/ecd5a.i/122209.b/ECD5-B-8081-121809.m
Meth Date : 22-Dec-2009 17:20 cla01575 Quant Type: ESTD
Cal Date : 05-DEC-2009 03:28 Cal File: 025b2501.d
Als bottle: 4 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: tox.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
23 Toxaphene					CAS #: 8001-35-2		
5.406	5.406	0.000	51542570	2000.00	2340	80.00- 120.00	100.00(M)
5.541	5.541	0.000	63859661	2000.00	1860	103.90- 143.90	123.90
5.632	5.632	0.000	61999370	2000.00	1840	100.29- 140.29	120.29
5.661	5.661	0.000	103726156	2000.00	1840	181.24- 221.24	201.24
5.719	5.719	0.000	158649437	2000.00	1830	287.80- 327.80	307.80
Average of Peak Amounts =					1.94e+03		
$ 1 4cmx					CAS #: 877-09-8		
3.196	3.198	-0.002	631447635	200.000	192	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.153	7.153	0.000	267921573	200.000	190	80.00- 120.00	100.00

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd5a.i/122209.b/004b0401.d
Date : 22-DEC-2009 13:53
Client ID: TOXAPH01
Sample Info: IWPE091104-52TX

Column phase: CLP-2

Instrument: ecd5a.i

Operator: CXC2
Column diameter: 0.25

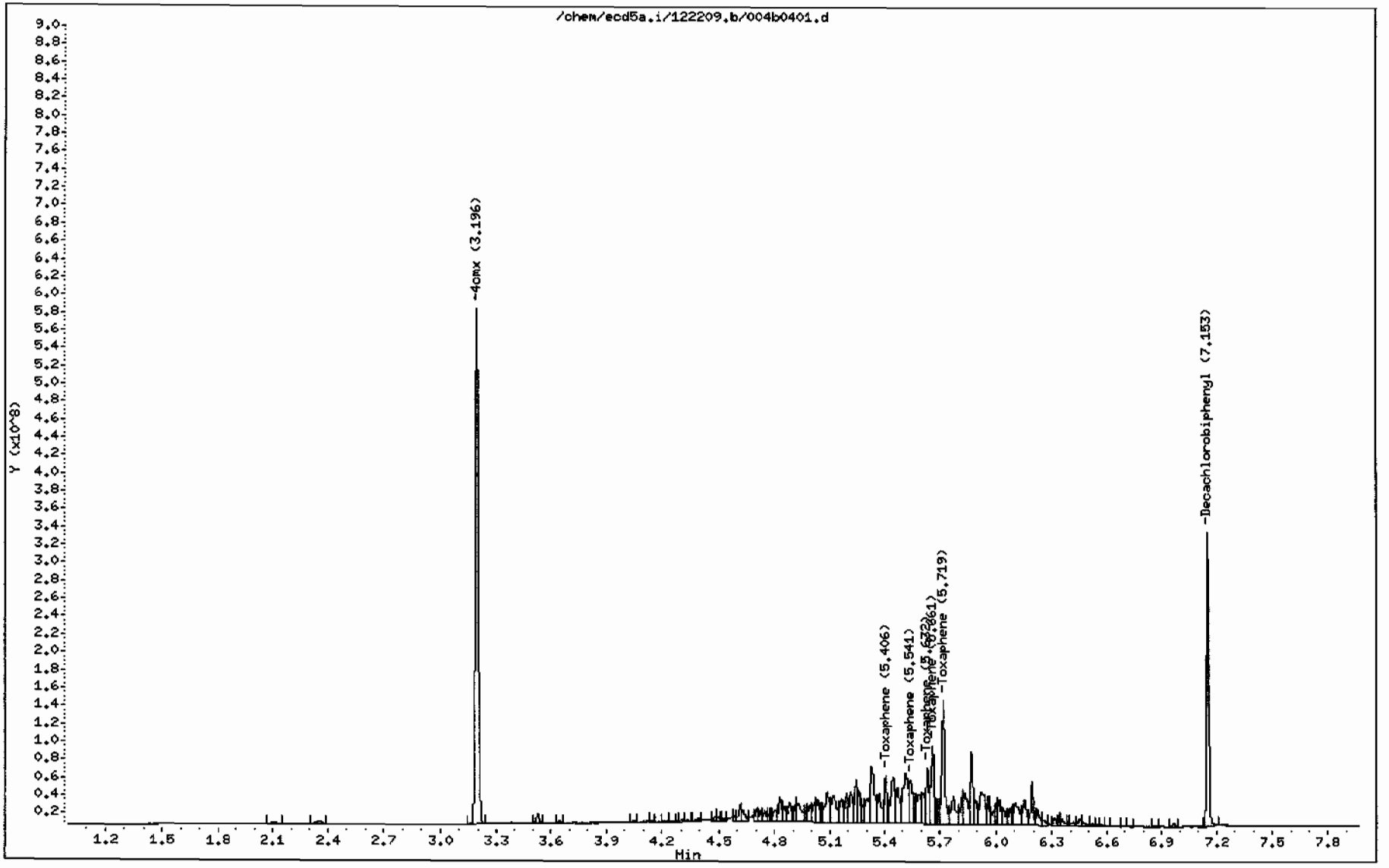

Comment: Manually Integrated
Data File: /chem/ecd5a.i/122209.b/004b0401.d
Operator: CXC2
Injection Date: 22-DEC-2009 13:53
Instrument: ecd5a.i
Client Sample ID: TOXAPH01

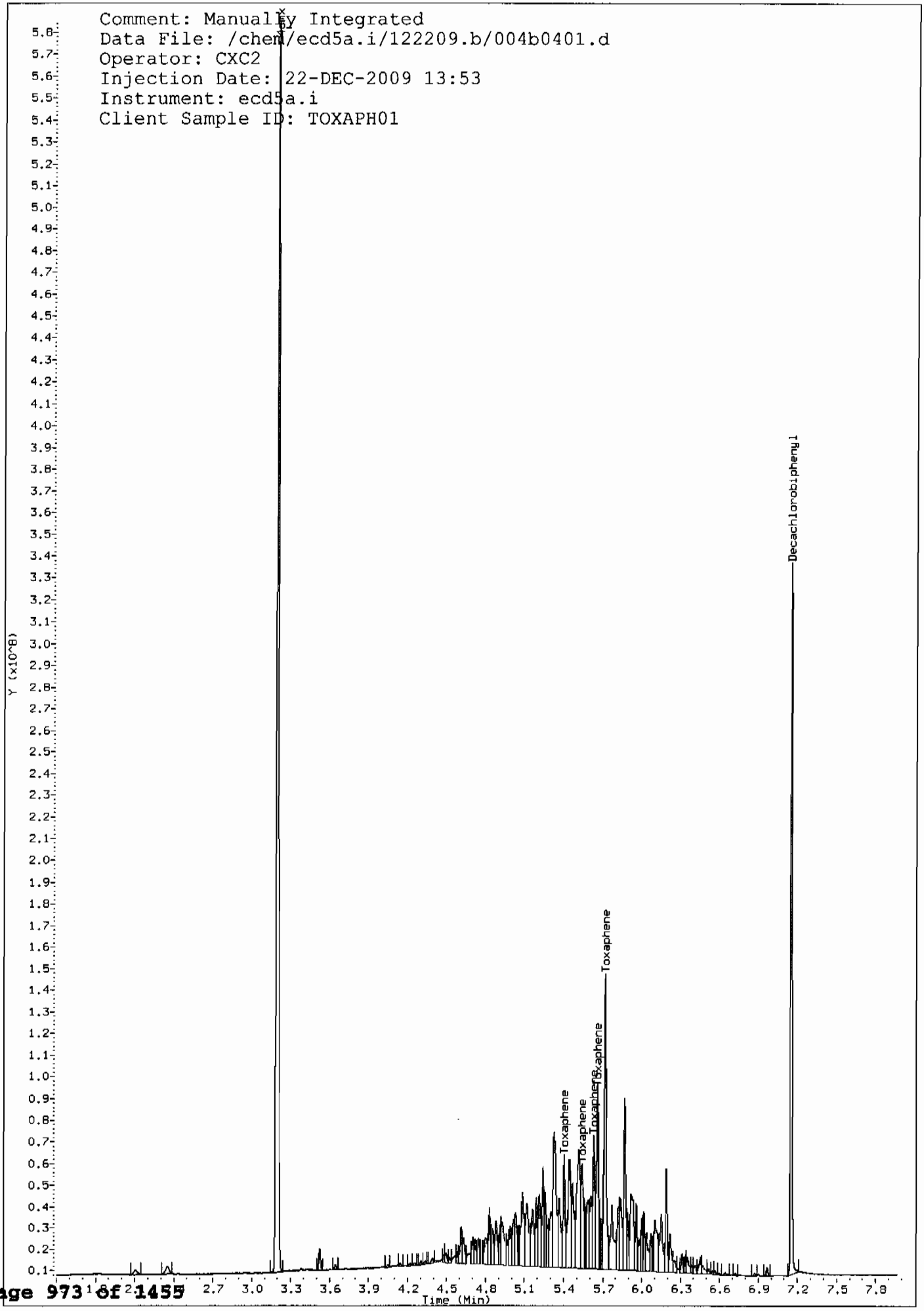

Comment: Before manual integration
Data File: /chem/ecd5a.i/122209.b/orig-004b0401.d
Operator: CXC2
Injection Date: 22-DEC-2009 13:53
Instrument: ecd5a.i
Client Sample ID: TOXAPH01

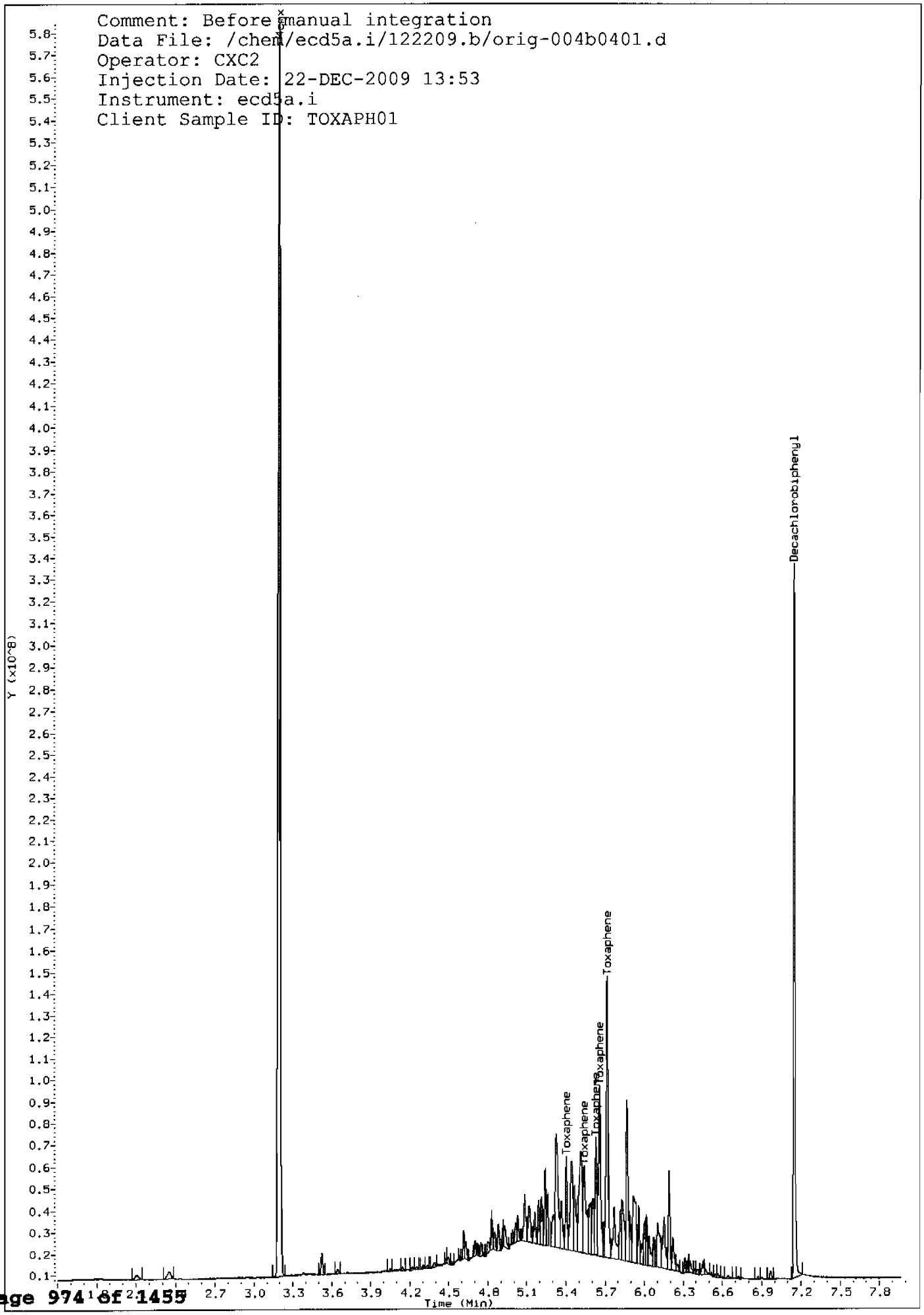

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CLP-1

Data file : /chem/ecd5a.i/122209.b/005f0501.d
Lab Smp Id: WPE091021-00CL Client Smp ID: CHLOR01
Inj Date : 22-DEC-2009 14:05
Operator : CXC2 Inst ID: ecd5a.i
Smp Info : |WPE091021-00CL
Misc Info :
Comment :
Method : /chem/ecd5a.i/122209.b/ECD5-F-8081-121809.m
Meth Date : 22-Dec-2009 17:21 cla01575 Quant Type: ESTD
Cal Date : 05-DEC-2009 03:28 Cal File: 025f2501.d
Als bottle: 5 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: chlor.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
8 Chlordane (tech.)					CAS #: 12789-03-6		
3.843	3.843	0.000	15994702	1000.00	918	80.00- 120.00	100.00(M)
3.900	3.900	0.000	27538741	1000.00	1220	152.17- 192.17	172.17
4.209	4.209	0.000	18798805	1000.00	1090	97.53- 137.53	117.53
4.602	4.602	0.000	53701528	1000.00	986	315.75- 355.75	335.75
5.168	5.168	0.000	15025047	1000.00	1120	73.94- 113.94	93.94
Average of Peak Amounts =					1.07e+03		
$ 1 4cmx					CAS #: 877-09-8		
2.789	2.790	-0.001	94555098	200.000	203	80.00- 120.00	100.00
$ 32 Decachlorobipheny1					CAS #: 2051-24-3		
6.483	6.482	0.001	54183761	200.000	195	80.00- 120.00	100.00

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd5a.i/122209.b/005f0501.d
Date : 22-DEC-2009 14:05
Client ID: CHLOR01
Sample Info: IWPE091021-00CL

Column phase: CLP-1

Instrument: ecd5a.i

Operator: CXC2
Column diameter: 0.25

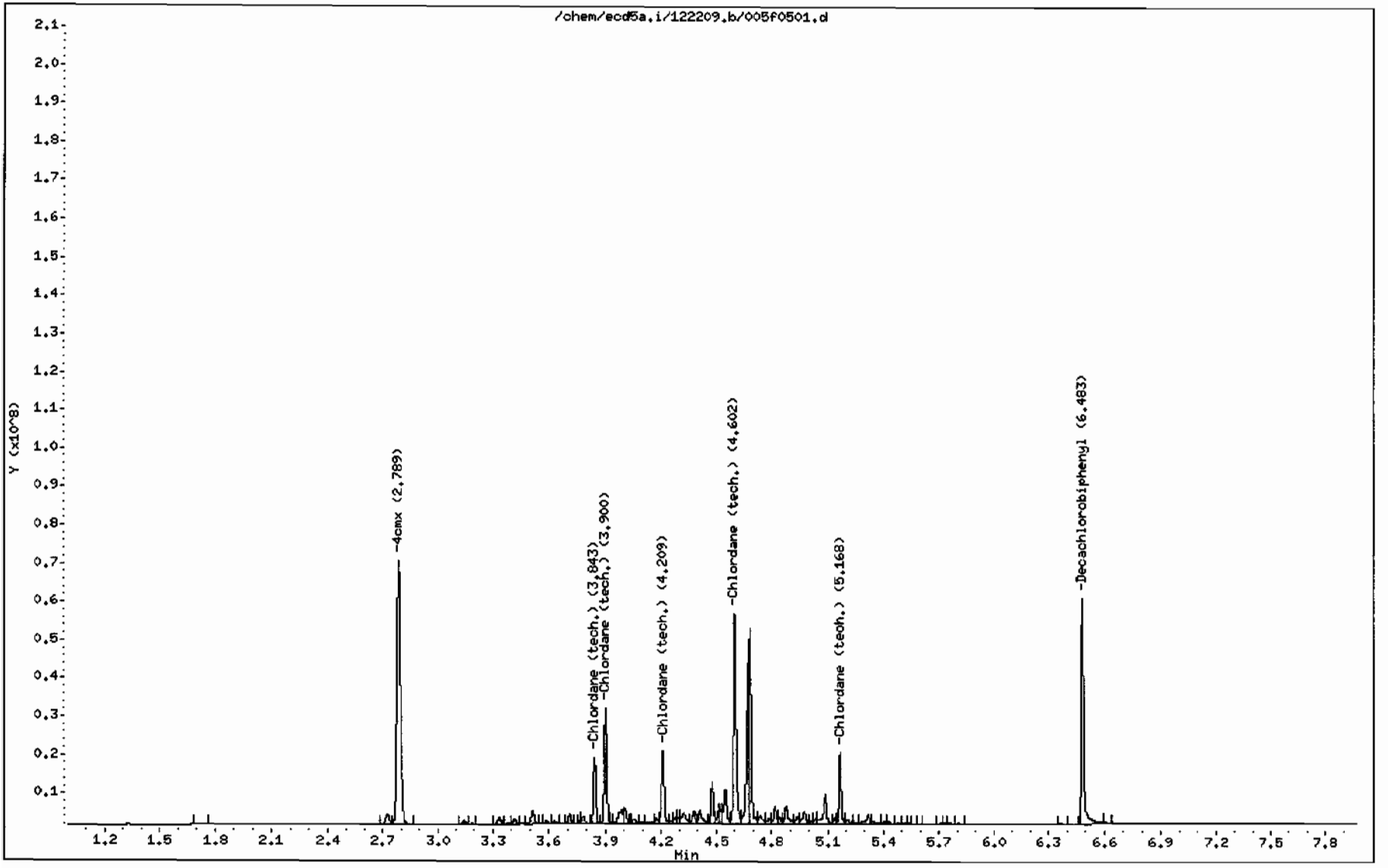

Comment: Manually Integrated
Data File: /chem/ecd5a.i/122209.b/005f0501.d
Operator: CXC2
Injection Date: 22-DEC-2009 14:05
Instrument: ecd5a.i
Client Sample ID: CHLOR01

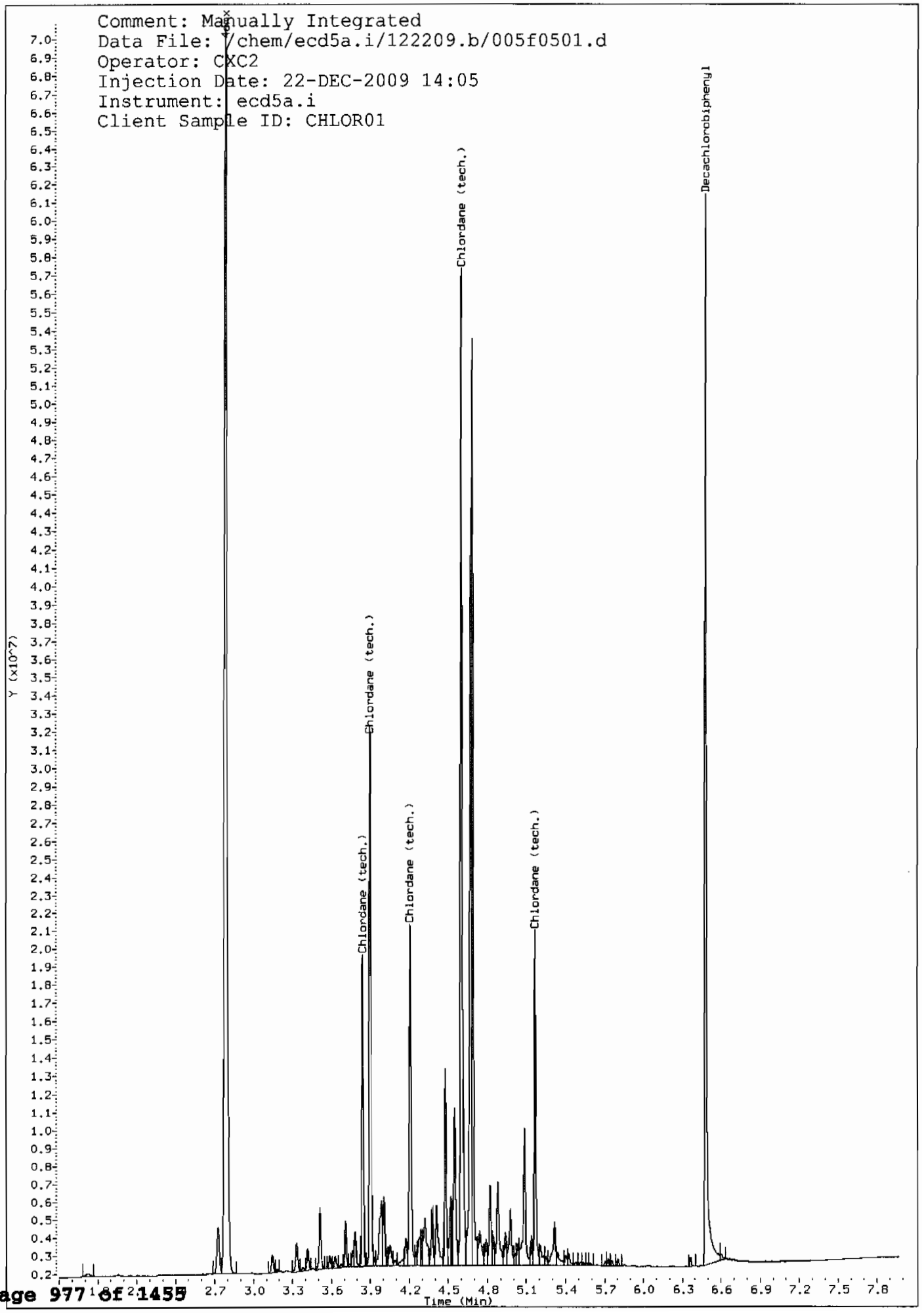

Comment: Before manual integration
Data File: /chem/ecd5a.i/122209.b/orig-005f0501.d
Operator: CXC2
Injection Date: 22-DEC-2009 14:05
Instrument: ecd5a.i
Client Sample ID: CHLOR01

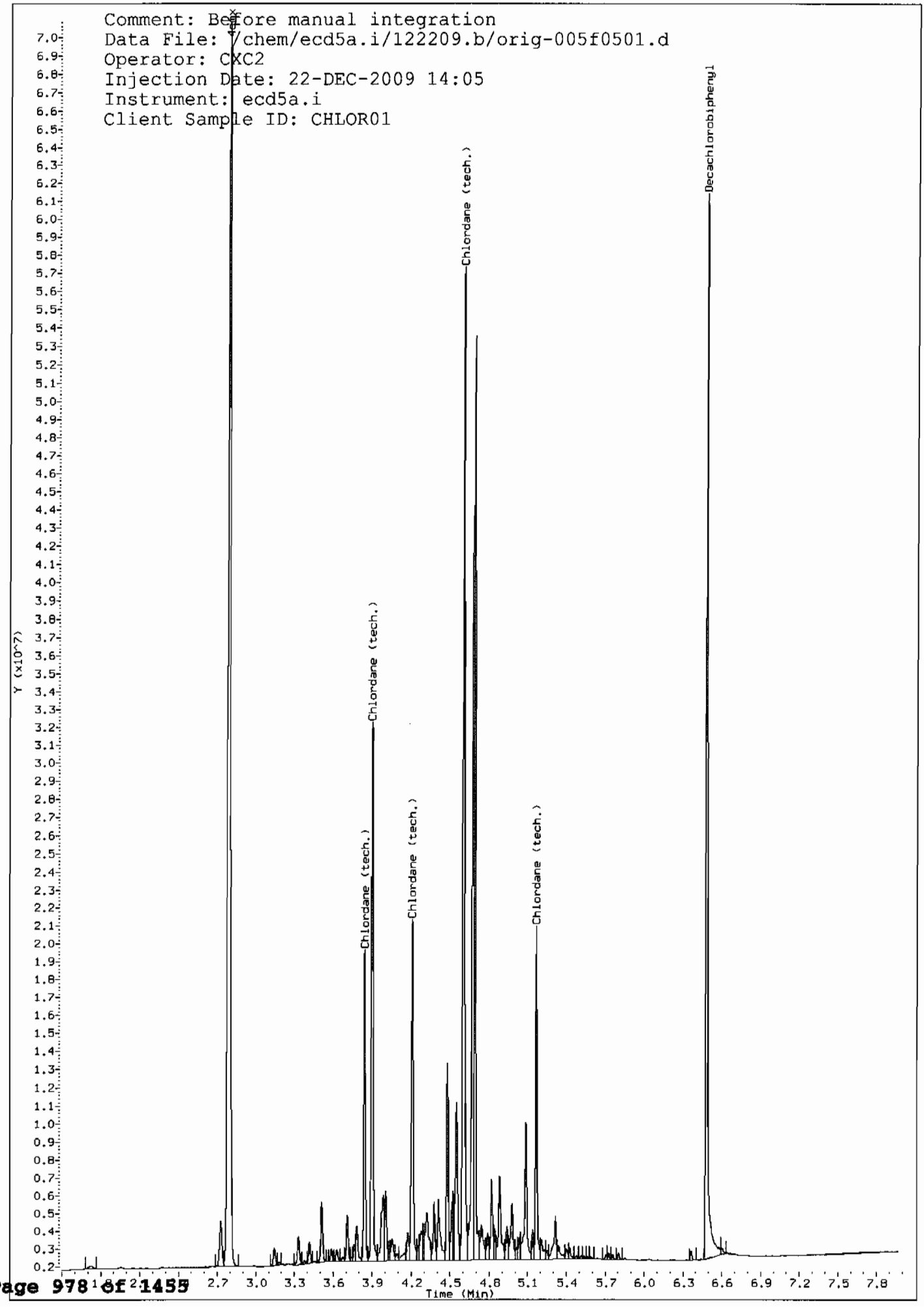

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd5a.i/122209.b/005b0501.d
Lab Smp Id: WPE091021-00CL Client Smp ID: CHLOR01
Inj Date : 22-DEC-2009 14:05
Operator : CXC2 Inst ID: ecd5a.i
Smp Info : |WPE091021-00CL
Misc Info :
Comment :
Method : /chem/ecd5a.i/122209.b/ECD5-B-8081-121809.m
Meth Date : 22-Dec-2009 17:48 cla01575 Quant Type: ESTD
Cal Date : 05-DEC-2009 03:28 Cal File: 025b2501.d
Als bottle: 5 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: chlor.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: kilroy

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
8 Chlordane (tech.)					CAS #: 12789-03-6		
4.222	4.222	0.000	95999442	1000.00	970	80.00- 120.00	100.00
4.647	4.647	0.000	95753881	1000.00	1180	79.74- 119.74	99.74
4.901	4.901	0.000	58280580	1000.00	1020	40.71- 80.71	60.71
5.048	5.048	0.000	251799553	1000.00	977	242.29- 282.29	262.29
5.140	5.140	0.000	206364755	1000.00	989	194.96- 234.96	214.96
Average of Peak Amounts =					1.03e+03		
$ 1 4cmx					CAS #: 877-09-8		
3.198	3.198	0.000	596001447	200.000	184	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.153	7.153	0.000	262231154	200.000	186	80.00- 120.00	100.00

Data File: /chem/ecd5a.i/122209.b/005b0501.d

Date : 22-DEC-2009 14:05

Client ID: CHLOR01

Sample Info: IWPE091021-00CL

Column phase: CLP-2

Instrument: ecd5a.i

Operator: CXC2

Column diameter: 0.25

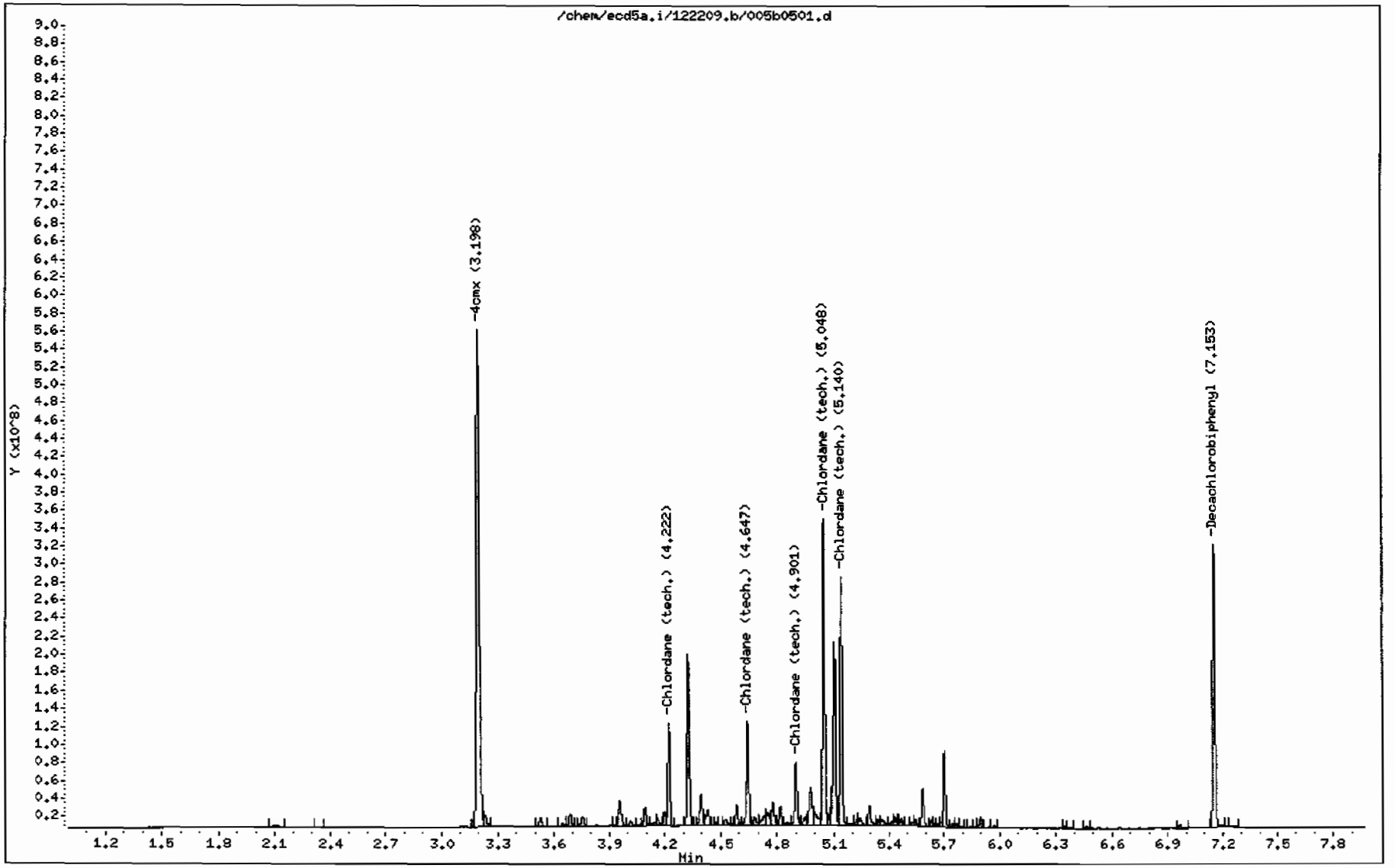

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd5a.i/122209.b/012f1201.d
Lab Smp Id: WPE091207-10AB Client Smp ID: INDAB01
Inj Date : 22-DEC-2009 16:04
Operator : CXC2 Inst ID: ecd5a.i
Smp Info : |WPE091207-10AB
Misc Info :
Comment :
Method : /chem/ecd5a.i/122209.b/ECD5-F-8081-121809.m
Meth Date : 22-Dec-2009 17:21 cla01575 Quant Type: ESTD
Cal Date : 05-DEC-2009 03:28 Cal File: 025f2501.d
Als bottle: 12 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
3.292	3.292	0.000	64948499	100.000	104	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.549	3.549	0.000	59723477	100.000	107	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
3.618	3.618	0.000	24258289	100.000	101	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
3.900	3.900	0.000	49628782	100.000	98.0	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
3.751	3.751	0.000	57325318	100.000	104	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.113	4.113	0.000	50947634	100.000	99.2	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.521	4.521	0.000	46428151	100.000	102	80.00- 120.00	100.00(M)
17 gamma-Chlordane					CAS #: 5103-74-2		
4.602	4.602	0.000	48880399	100.000	109	80.00- 120.00	100.00(M)
18 alpha-Chlordane					CAS #: 5103-71-9		
4.686	4.686	0.000	42569956	100.000	94.7	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
16 Endosulfan I					CAS #: 959-98-8		
4.775	4.775	0.000	45175611	100.000	109	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
4.731	4.731	0.000	88506481	200.000	206	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
4.924	4.924	0.000	89295633	200.000	200	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.070	5.070	0.000	72251644	200.000	212	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.100	5.100	0.000	73887978	200.000	205	80.00- 120.00	100.00(M)
24 Endosulfan II					CAS #: 33213-65-9		
5.209	5.209	0.000	74099122	200.000	199	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
5.462	5.462	0.000	61536970	200.000	198	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
5.269	5.269	0.000	72738457	200.000	224	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
5.724	5.724	0.000	66191661	200.000	207	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
5.554	5.554	0.000	125481156	1000.00	1050	80.00- 120.00	100.00(M)
31 Endrin ketone					CAS #: 53494-70-5		
5.898	5.898	0.000	72964326	200.000	195	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
2.790	2.790	0.000	94137512	200.000	203	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
6.482	6.482	0.000	55341426	200.000	202	80.00- 120.00	100.00

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd5a.i/122209.b/012f1201.d
Date : 22-DEC-2009 16:04
Client ID: INDAB01
Sample Info: IWPE091207-10AB

Column phase: CLP-1

Instrument: ecd5a.i

Operator: CXC2
Column diameter: 0.25

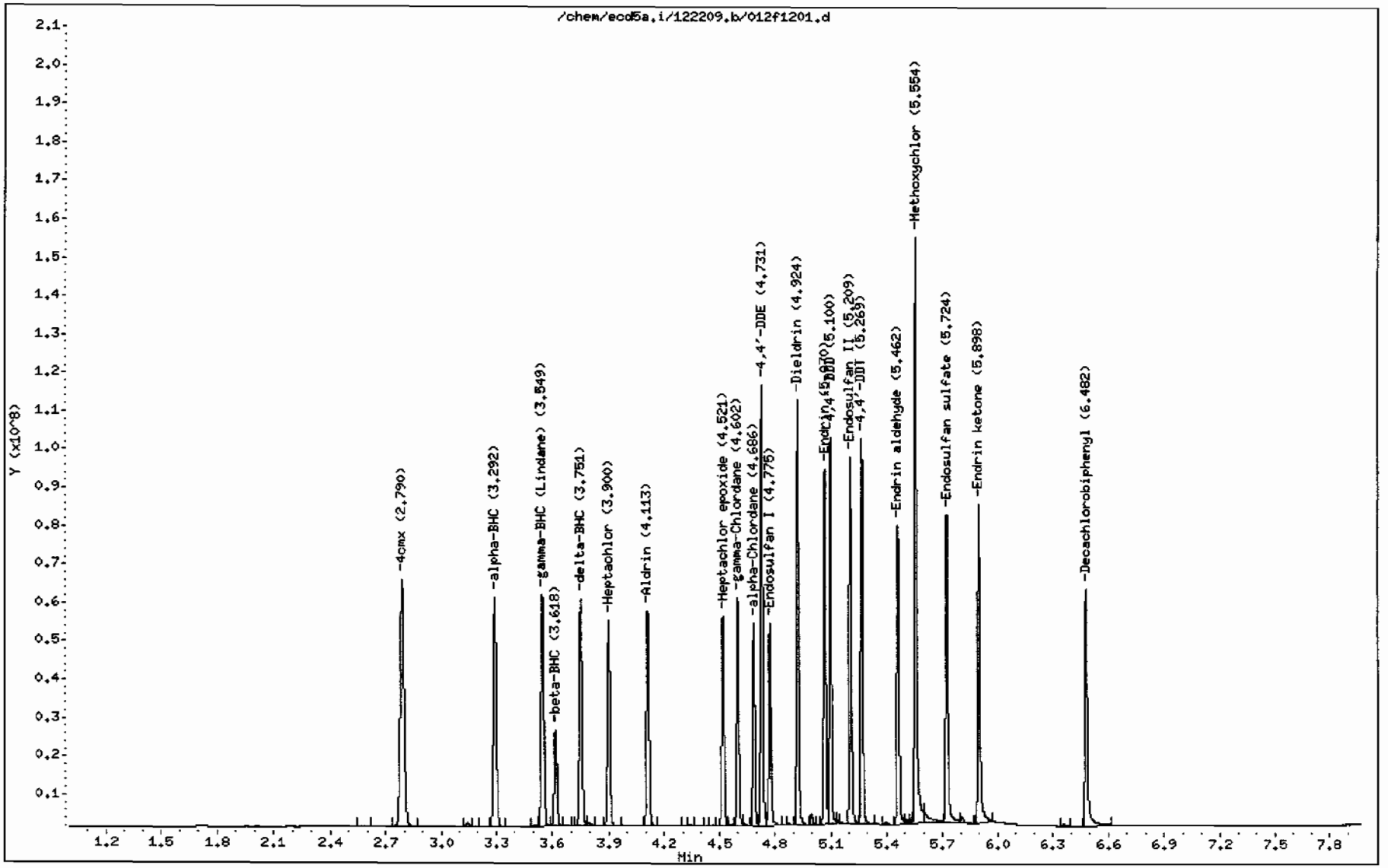

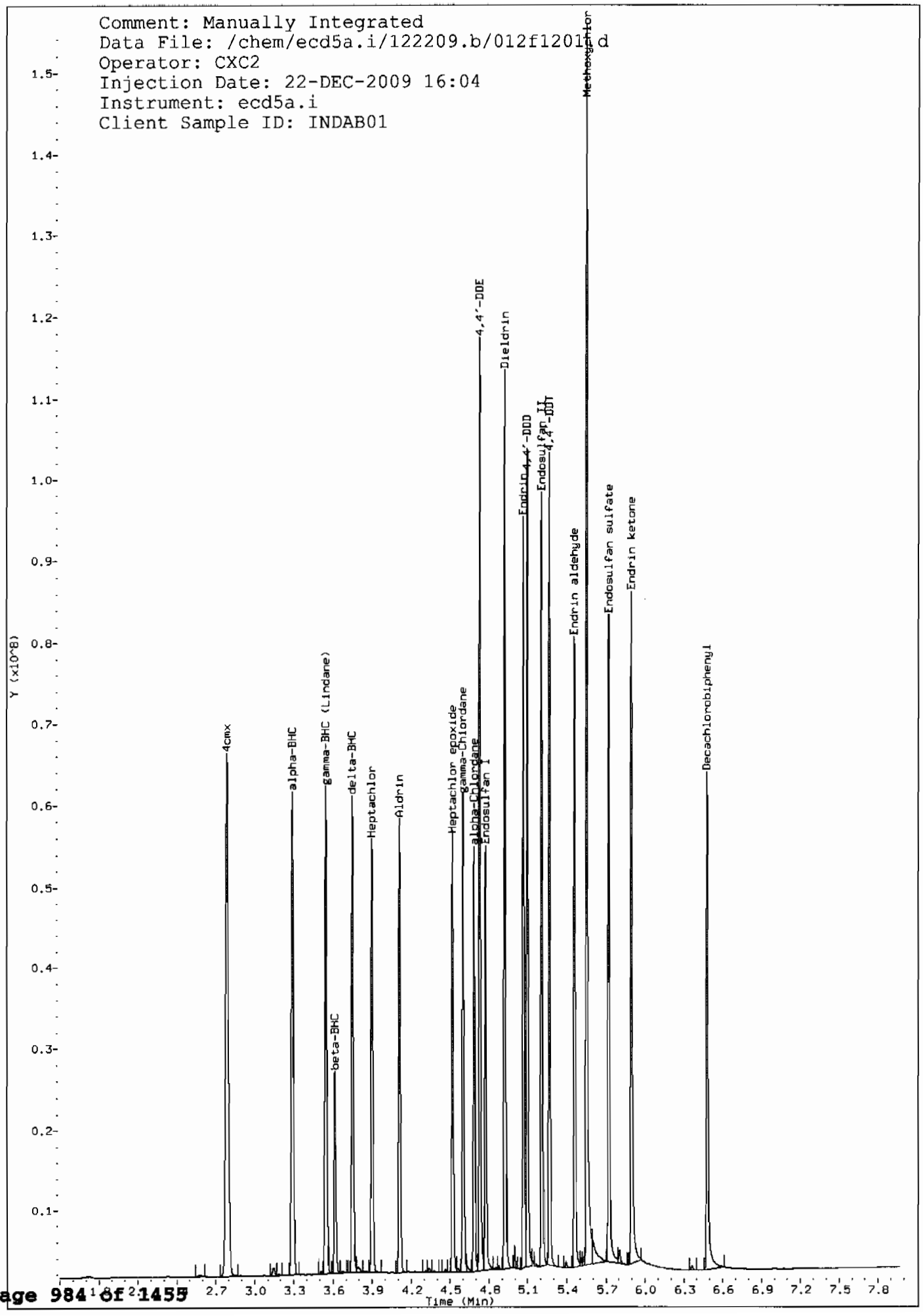
Comment: Manually Integrated
Data File: /chem/ecd5a.i/122209.b/012f1201.d
Operator: CXC2
Injection Date: 22-DEC-2009 16:04
Instrument: ecd5a.i
Client Sample ID: INDAB01
Y (x10^8)
Time (Min)
4cmx
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide
gamma-Chlordane
alpha-Chlordane
Endosulfan I
4,4'-DDE
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Methoxychlor
Endosulfan sulfate
Endrin ketone
Decachlorobiphenyl

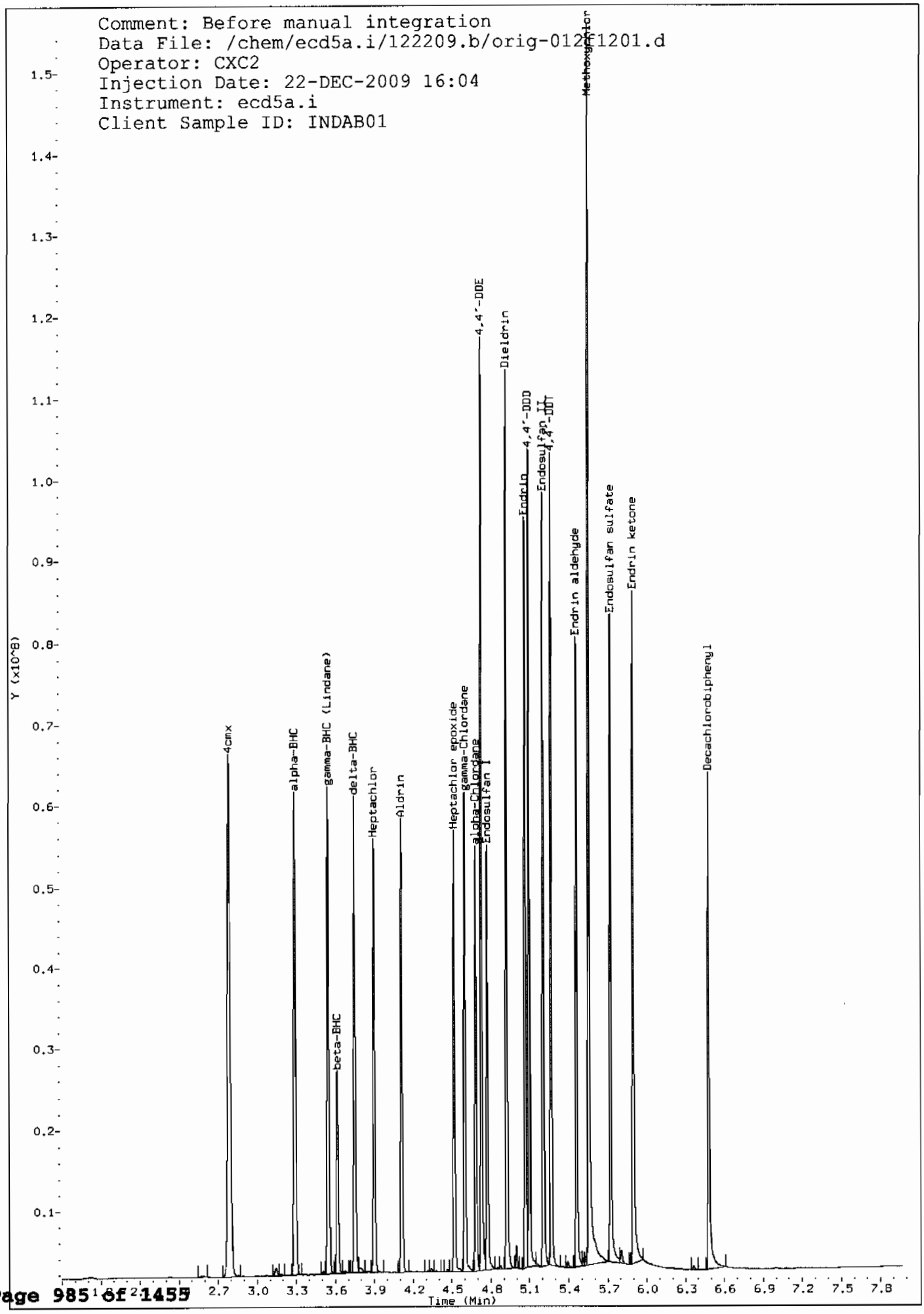
Comment: Before manual integration
Data File: /chem/ecd5a.i/122209.b/orig-012f1201.d
Operator: CXC2
Injection Date: 22-DEC-2009 16:04
Instrument: ecd5a.i
Client Sample ID: INDAB01
Y (x10^8)
Time (Min)
4cmx
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide
gamma-Chlordane
alpha-Chlordane
Endosulfan I
4,4'-DDE
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Methoxychlor
Endosulfan sulfate
Endrin ketone
Decachlorobiphenyl

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CLP-2

Data file : /chem/ecd5a.i/122209.b/012b1201.d
Lab Smp Id: WPE091207-10AB Client Smp ID: INDAB01
Inj Date : 22-DEC-2009 16:04
Operator : CXC2 Inst ID: ecd5a.i
Smp Info : |WPE091207-10AB
Misc Info :
Comment :
Method : /chem/ecd5a.i/122209.b/ECD5-B-8081-121809.m
Meth Date : 22-Dec-2009 17:20 cla01575 Quant Type: ESTD
Cal Date : 05-DEC-2009 03:28 Cal File: 025b2501.d
Als bottle: 12 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
3.724	3.724	0.000	425861788	100.000	95.9	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
4.000	4.000	0.000	374296019	100.000	98.1	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
4.056	4.056	0.000	150288737	100.000	88.8	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
4.327	4.327	0.000	284333784	100.000	89.1	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
4.272	4.272	0.000	351244172	100.000	94.3	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.555	4.555	0.000	295487830	100.000	89.8	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.927	4.927	0.000	274509355	100.000	93.2	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
5.048	5.048	0.000	275894812	100.000	98.2	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
5.139	5.139	0.000	233404267	100.000	86.4	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
16 Endosulfan I					CAS #: 959-98-8		
5.182	5.182	0.000	232149247	100.000	94.8	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.224	5.224	0.000	487414168	200.000	191	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
5.352	5.352	0.000	497262295	200.000	190	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.543	5.543	0.000	408103634	200.000	204	80.00- 120.00	100.00(M)
25 4,4'-DDD					CAS #: 72-54-8		
5.576	5.576	0.000	414931558	200.000	193	80.00- 120.00	100.00(M)
24 Endosulfan II					CAS #: 33213-65-9		
5.668	5.668	0.000	408535432	200.000	191	80.00- 120.00	100.00(M)
27 Endrin aldehyde					CAS #: 7421-93-4		
5.867	5.867	0.000	319198815	200.000	183	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
5.769	5.769	0.000	315377975	200.000	230	80.00- 120.00	100.00(M)
29 Endosulfan sulfate					CAS #: 1031-07-8		
6.035	6.035	0.000	335297703	200.000	194	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
6.166	6.166	0.000	577951286	1000.00	1060	80.00- 120.00	100.00(M)
31 Endrin ketone					CAS #: 53494-70-5		
6.378	6.378	0.000	332542798	200.000	191	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
3.198	3.198	0.000	604375674	200.000	187	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.153	7.153	0.000	264582983	200.000	188	80.00- 120.00	100.00

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd5a.i/122209.b/012b1201.d

Date : 22-DEC-2009 16:04

Client ID: INDAB01

Sample Info: IWPE091207-10AB

Column phase: CLP-2

Instrument: ecd5a.i

Operator: CXC2

Column diameter: 0.25

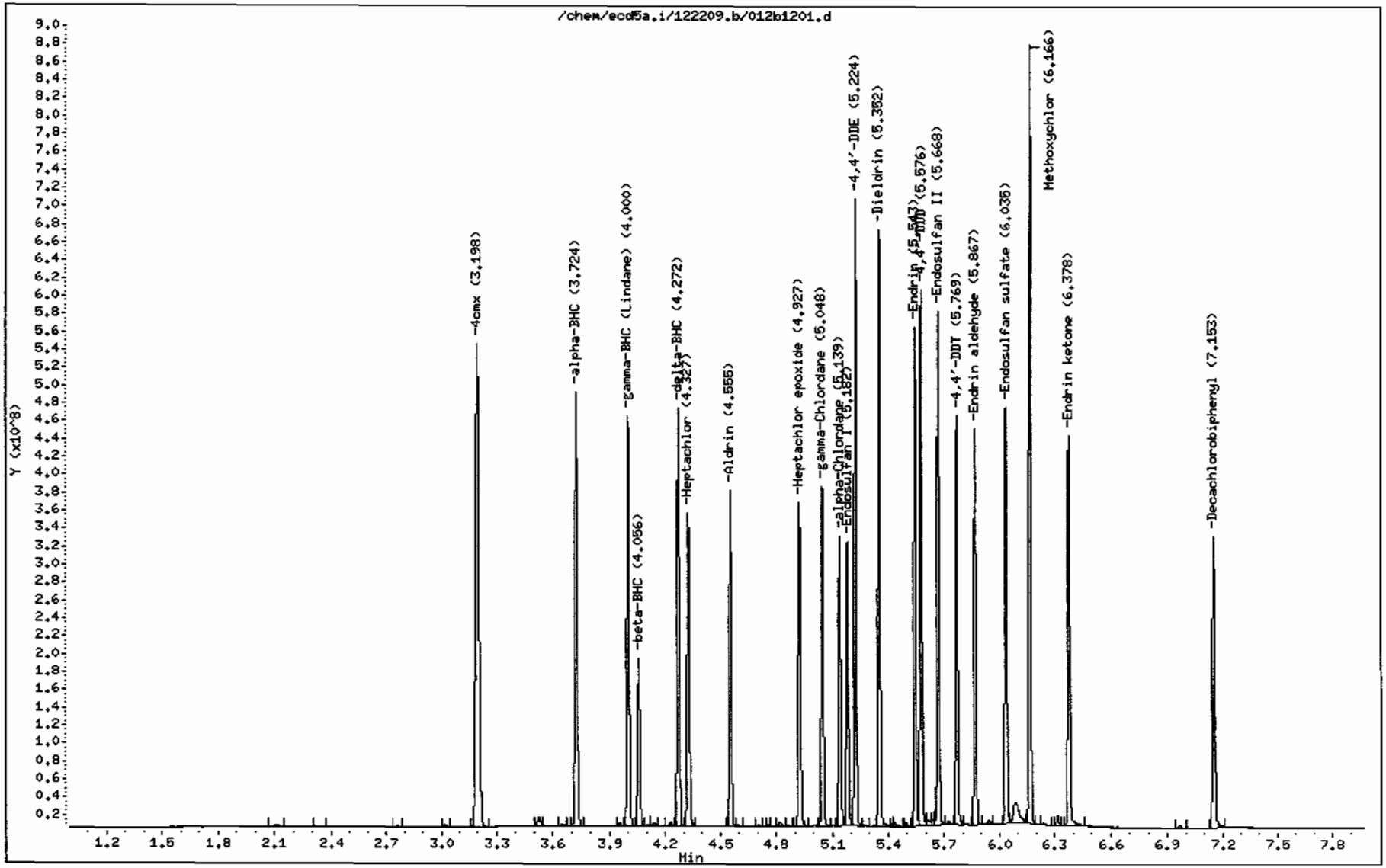

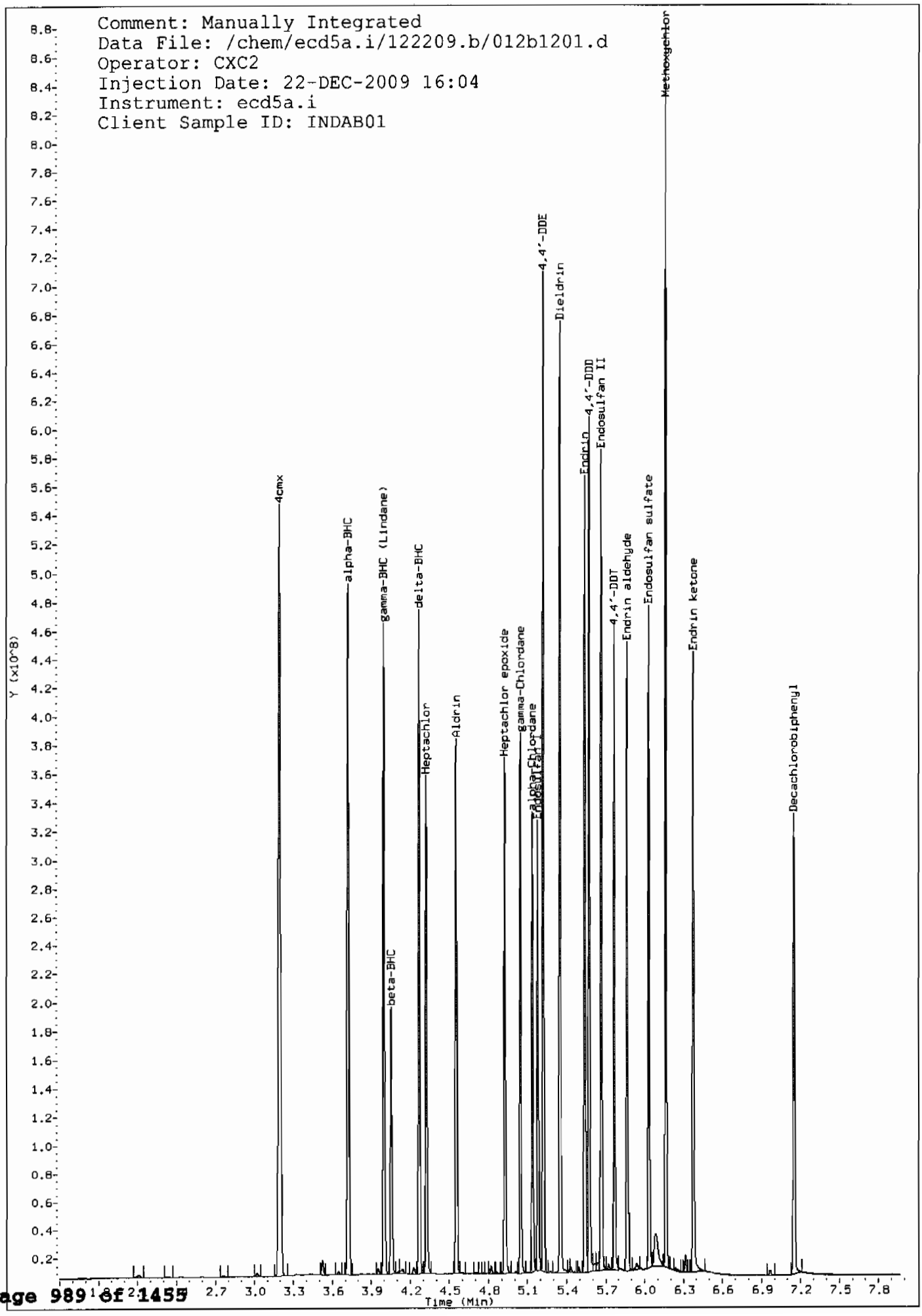
Comment: Manually Integrated
Data File: /chem/ecd5a.i/122209.b/012b1201.d
Operator: CXC2
Injection Date: 22-DEC-2009 16:04
Instrument: ecd5a.i
Client Sample ID: INDAB01
Y (x10^8)
Time (Min)
4cmx
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide
gamma-Chlordane
alpha-Chlordane
4,4'-DDE
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Endosulfan sulfate
Methoxychlor
Endrin ketone
Decachlorobiphenyl

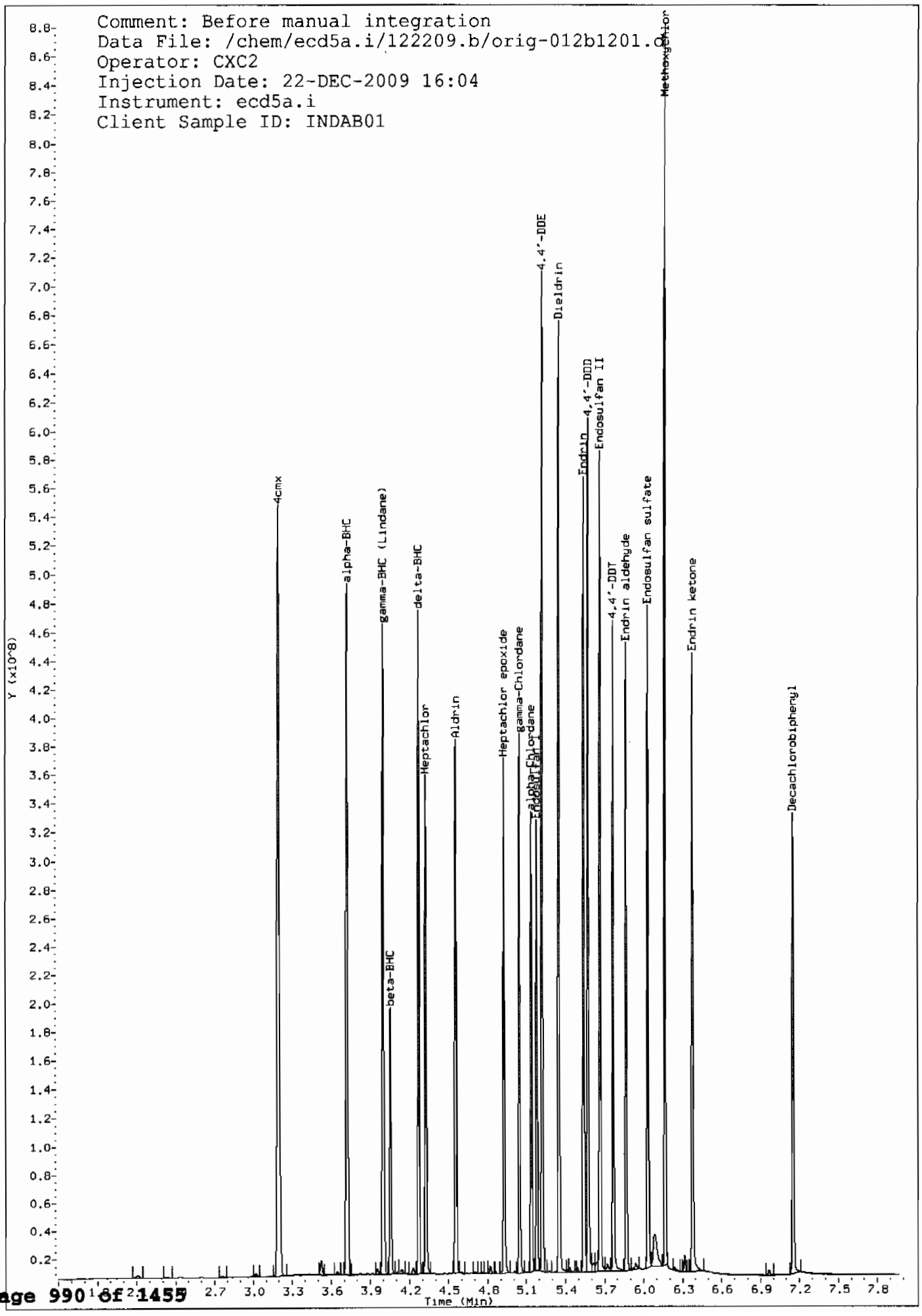
Comment: Before manual integration
Data File: /chem/ecd5a.i/122209.b/orig-012b1201.d
Operator: CXC2
Injection Date: 22-DEC-2009 16:04
Instrument: ecd5a.i
Client Sample ID: INDAB01
Y (x10^8)
Time (Min)
4cmx
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide
gamma-Chlordane
alpha-Chlordane
4,4'-DDE
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Endosulfan sulfate
Methoxychlor
Endrin ketone
Decachlorobiphenyl

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CLP-1

Data file : /chem/ecd5a.i/122209.b/023f2301.d
Lab Smp Id: WPE091207-10AB Client Smp ID: INDAB03
Inj Date : 22-DEC-2009 18:35
Operator : CXC2 Inst ID: ecd5a.i
Smp Info : |WPE091207-10AB
Misc Info :
Comment :
Method : /chem/ecd5a.i/122209.b/ECD5-F-8081-121809.m
Meth Date : 22-Dec-2009 21:22 hea01125 Quant Type: ESTD
Cal Date : 05-DEC-2009 03:28 Cal File: 025f2501.d
Als bottle: 23 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
3.292	3.292	0.000	66377592	100.000	106	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.548	3.549	-0.001	60582386	100.000	108	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
3.618	3.618	0.000	24694204	100.000	102	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
3.900	3.900	0.000	47571332	100.000	93.9	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
3.751	3.751	0.000	57800419	100.000	105	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.113	4.113	0.000	52322260	100.000	102	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.520	4.521	-0.001	48917531	100.000	107	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
4.601	4.602	-0.001	51577645	100.000	115	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
4.686	4.686	0.000	44015463	100.000	98.0	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
16 Endosulfan I					CAS #: 959-98-8		
4.774	4.775	-0.001	47611021	100.000	114	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
4.730	4.731	-0.001	91851453	200.000	213	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
4.923	4.924	-0.001	93051868	200.000	208	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.070	5.070	0.000	73109019	200.000	214	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.100	5.100	0.000	76142062	200.000	211	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
5.208	5.209	-0.001	75896899	200.000	204	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
5.461	5.462	-0.001	63079944	200.000	203	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
5.268	5.269	-0.001	63459864	200.000	195	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
5.722	5.724	-0.002	67722027	200.000	212	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
5.553	5.554	-0.001	113322095	1000.00	952	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
5.897	5.898	-0.001	69931718	200.000	187	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
2.790	2.790	0.000	96096188	200.000	207	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
6.480	6.482	-0.002	58300368	200.000	213	80.00- 120.00	100.00

Data File: /chem/ecd5a.i/122209.b/023f2301.d
Date : 22-DEC-2009 18:35
Client ID: INDAB03
Sample Info: IWFE091207-10AB

Column phase: CLP-1

Instrument: ecd5a.i
Operator: CXD2
Column diameter: 0.25

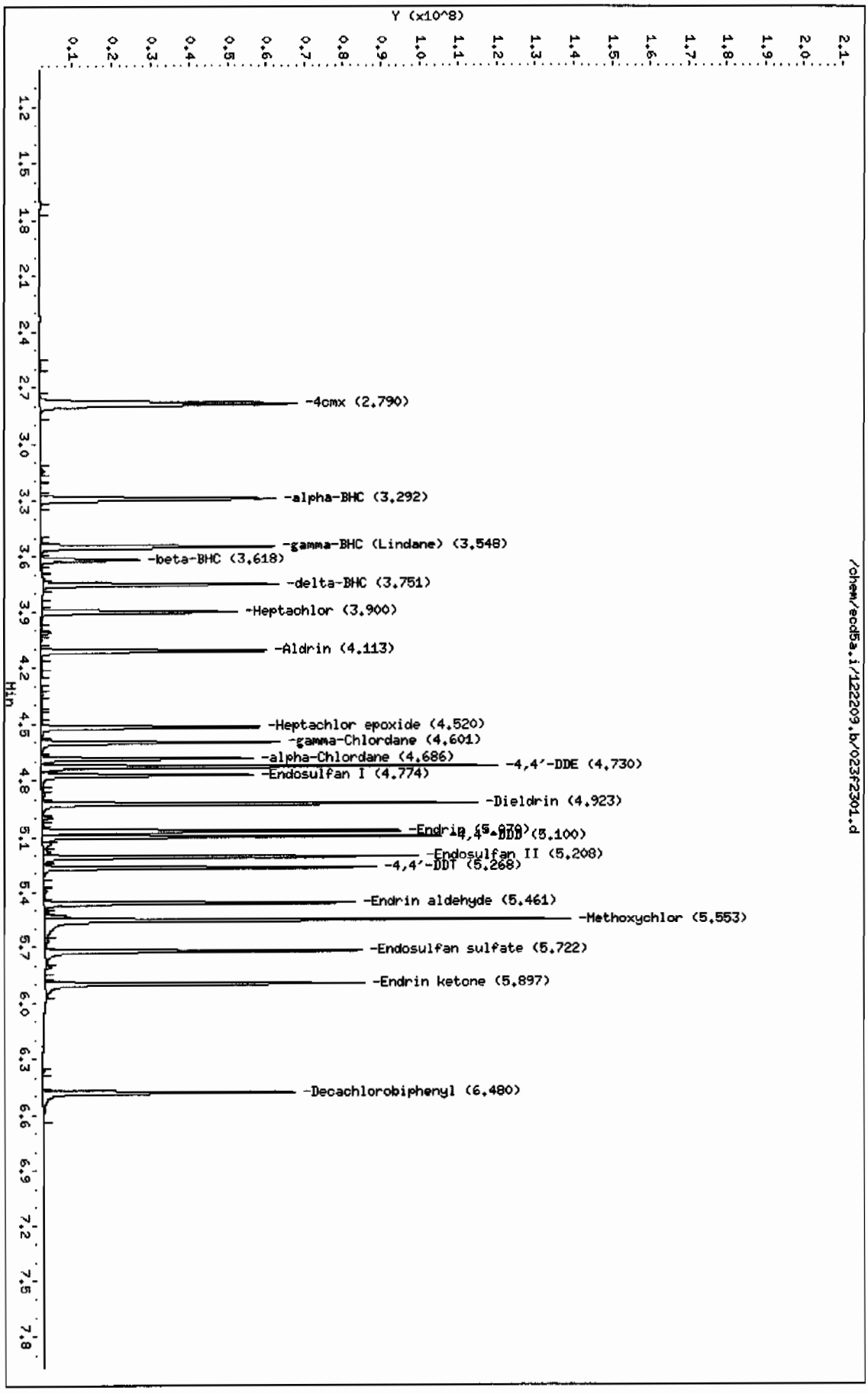

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd5a.i/122209.b/023b2301.d
Lab Smp Id: WPE091207-10AB Client Smp ID: INDAB03
Inj Date : 22-DEC-2009 18:35
Operator : CXC2 Inst ID: ecd5a.i
Smp Info : |WPE091207-10AB
Misc Info :
Comment :
Method : /chem/ecd5a.i/122209.b/ECD5-B-8081-121809.m
Meth Date : 22-Dec-2009 21:22 hea01125 Quant Type: ESTD
Cal Date : 05-DEC-2009 03:28 Cal File: 025b2501.d
Als bottle: 23 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None

AMOUNTS

RT	EXP RT	DLT RT	RESPONSE	CAL-AMT (ug/L)	ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
3.723	3.724	-0.001	431959076	100.000	97.3	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
4.000	4.000	0.000	379798597	100.000	99.5	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
4.056	4.056	0.000	153433705	100.000	90.6	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
4.326	4.327	-0.001	282525305	100.000	88.5	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
4.272	4.272	0.000	357686053	100.000	96.0	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.555	4.555	0.000	300800819	100.000	91.4	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.927	4.927	0.000	293844986	100.000	99.8	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
5.048	5.048	0.000	287482491	100.000	102	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
5.139	5.139	0.000	243687427	100.000	90.2	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
16 Endosulfan I					CAS #: 959-98-8		
5.182	5.182	0.000	244103729	100.000	99.7	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.223	5.224	-0.001	503132726	200.000	197	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
5.352	5.352	0.000	513489735	200.000	196	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.543	5.543	0.000	405090693	200.000	202	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.576	5.576	0.000	443749500	200.000	207	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
5.667	5.668	-0.001	419137967	200.000	196	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
5.868	5.867	0.001	331183174	200.000	190	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
5.768	5.769	-0.001	264640852	200.000	193	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
6.034	6.035	-0.001	344337334	200.000	200	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
6.164	6.166	-0.002	424289584	1000.00	779	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
6.377	6.378	-0.001	295695563	200.000	170	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
3.197	3.198	-0.001	612114914	200.000	189	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.151	7.153	-0.002	277820448	200.000	197	80.00- 120.00	100.00

Data File: /chem/ecd5a.i/122209.b/023b2301.d
Date : 22-DEC-2009 18:35
Client ID: INDAB03
Sample Info: IWPE091207-10AB

Column phase: CLP-2

Instrument: ecd5a.i
Operator: CXC2
Column diameter: 0.25

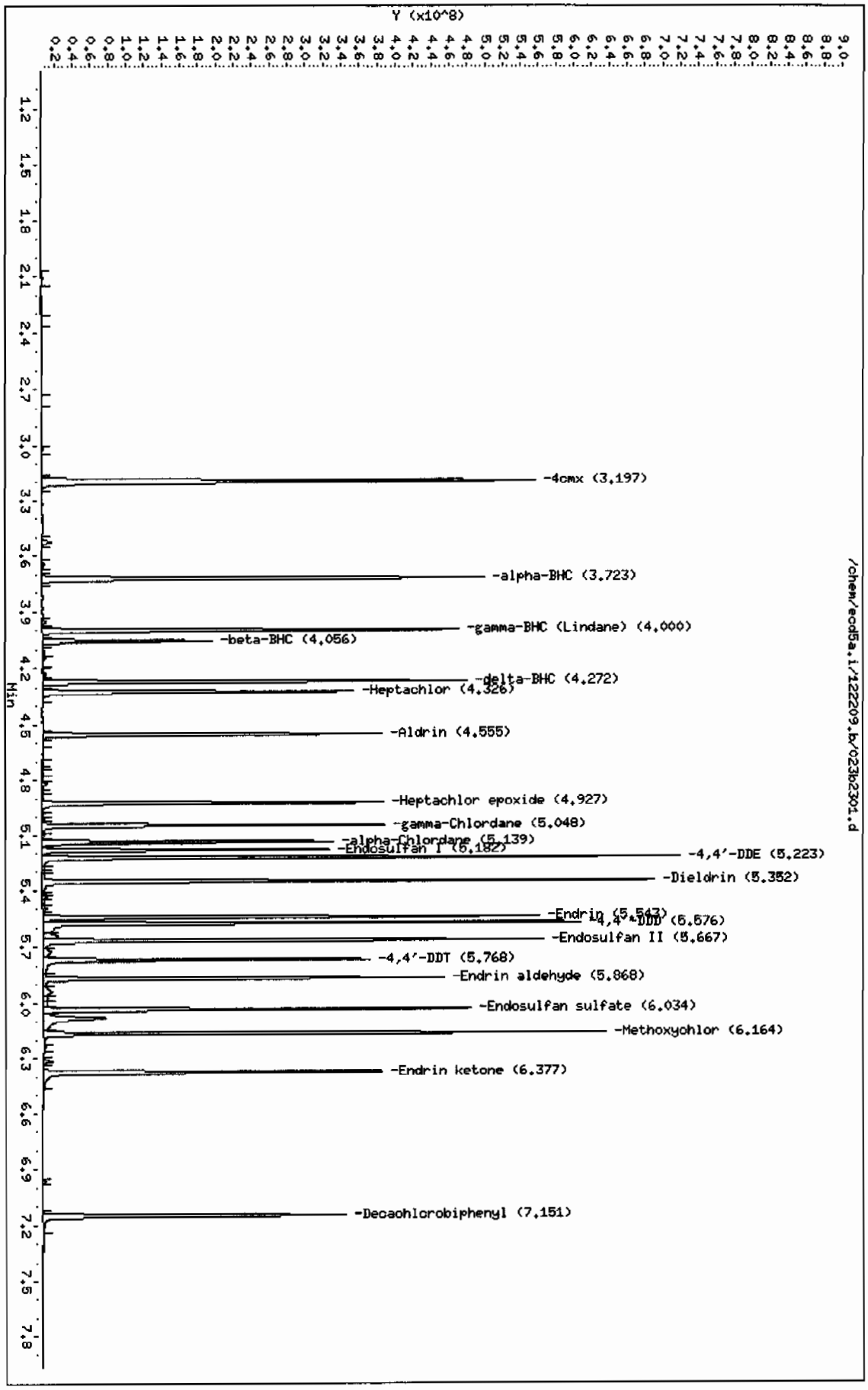

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GEL Laboratories LLC

CLP-1

Data file : /chem/ecd5a.i/122209.b/035f3501.d
Lab Smp Id: WPE091207-10AB Client Smp ID: INDAB04
Inj Date : 22-DEC-2009 21:05
Operator : CXC2 Inst ID: ecd5a.i
Smp Info : |WPE091207-10AB
Misc Info :
Comment :
Method : /chem/ecd5a.i/122209.b/ECD5-F-8081-121809.m
Meth Date : 22-Dec-2009 21:22 hea01125 Quant Type: ESTD
Cal Date : 05-DEC-2009 03:28 Cal File: 025f2501.d
Als bottle: 35 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
3.290	3.292	-0.002	66953081	100.000	107	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.546	3.549	-0.003	61966224	100.000	111	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
3.616	3.618	-0.002	25562709	100.000	106	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
3.899	3.900	-0.001	48464058	100.000	95.7	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
3.749	3.751	-0.002	60662471	100.000	110	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.111	4.113	-0.002	52226950	100.000	102	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.519	4.521	-0.002	48293059	100.000	106	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
4.600	4.602	-0.002	50887986	100.000	114	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
4.684	4.686	-0.002	43587244	100.000	97.0	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
16 Endosulfan I					CAS #: 959-98-8		
4.774	4.775	-0.001	46636969	100.000	112	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
4.729	4.731	-0.002	90722508	200.000	211	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
4.923	4.924	-0.001	91840555	200.000	205	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.069	5.070	-0.001	75999940	200.000	223	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.099	5.100	-0.001	77786884	200.000	216	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
5.208	5.209	-0.001	77046098	200.000	207	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
5.460	5.462	-0.002	62522429	200.000	201	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
5.268	5.269	-0.001	60174196	200.000	185	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
5.721	5.724	-0.003	69189945	200.000	216	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
5.553	5.554	-0.001	113618133	1000.00	954	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
5.896	5.898	-0.002	69976905	200.000	187	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
2.787	2.790	-0.003	96884469	200.000	209	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
6.479	6.482	-0.003	57344239	200.000	210	80.00- 120.00	100.00

Data File: /chem/ecd5a.i/122209.b/035f3501.d
Date : 22-DEC-2009 21:05
Client ID: INDAB04
Sample Info: IWPE091207-10AB

Column phase: CLP-1

Instrument: ecd5a.i

Operator: CXC2
Column diameter: 0.25

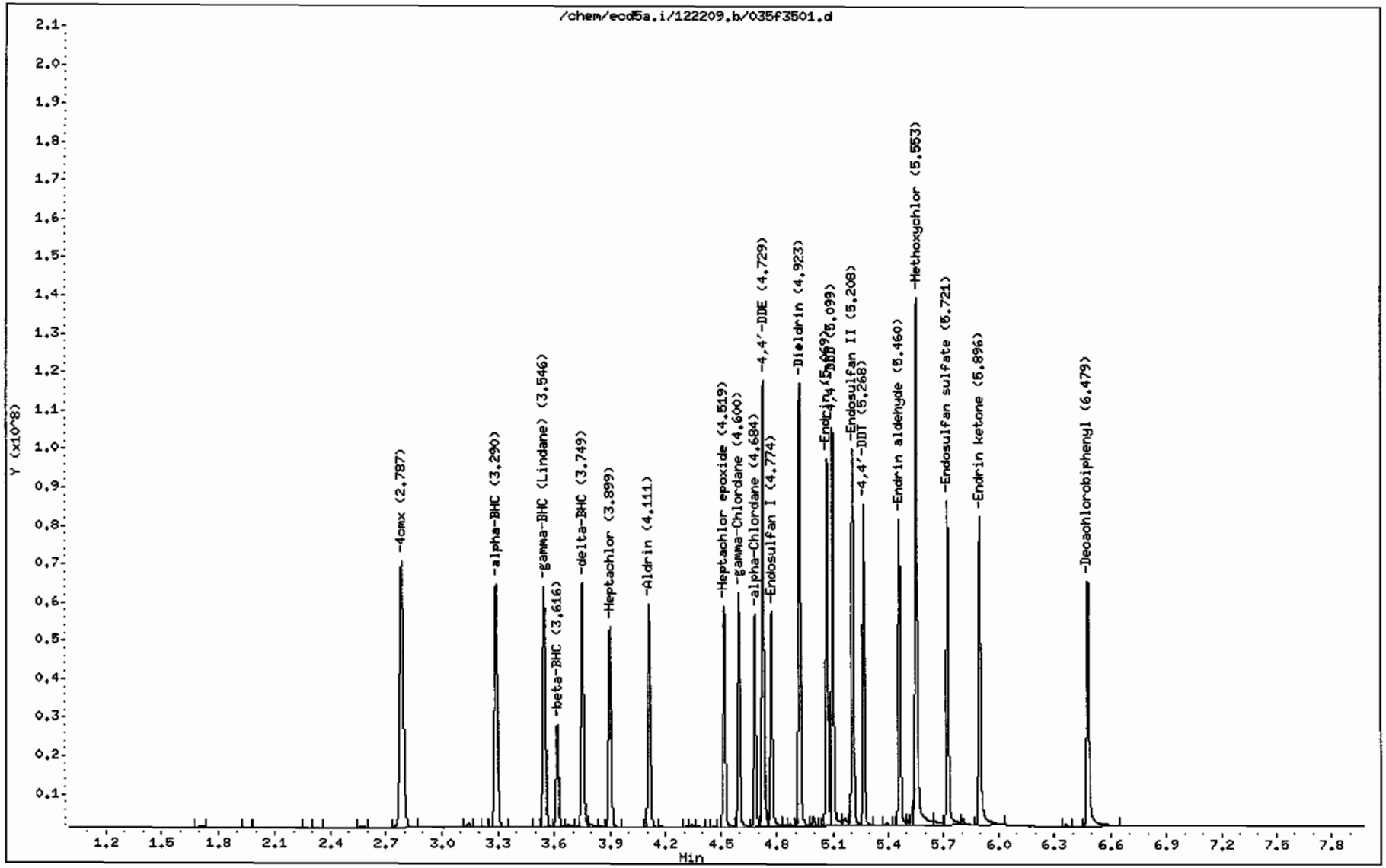

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CLP-2

Data file : /chem/ecd5a.i/122209.b/035b3501.d
Lab Smp Id: WPE091207-10AB Client Smp ID: INDAB04
Inj Date : 22-DEC-2009 21:05
Operator : CXC2 Inst ID: ecd5a.i
Smp Info : |WPE091207-10AB
Misc Info :
Comment :
Method : /chem/ecd5a.i/122209.b/ECD5-B-8081-121809.m
Meth Date : 22-Dec-2009 21:22 hea01125 Quant Type: ESTD
Cal Date : 05-DEC-2009 03:28 Cal File: 025b2501.d
Als bottle: 35 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
3.722	3.724	-0.002	433132616	100.000	97.6	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.999	4.000	-0.001	380835778	100.000	99.8	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
4.054	4.056	-0.002	153647020	100.000	90.8	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
4.325	4.327	-0.002	273511646	100.000	85.7	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
4.270	4.272	-0.002	358788863	100.000	96.3	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.554	4.555	-0.001	298139198	100.000	90.6	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.926	4.927	-0.001	276967217	100.000	94.1	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
5.047	5.048	-0.001	276071593	100.000	98.2	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
5.138	5.139	-0.001	232098731	100.000	86.0	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
16 Endosulfan I					CAS #: 959-98-8		
5.180	5.182	-0.002	232501846	100.000	95.0	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.222	5.224	-0.002	483853260	200.000	190	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
5.350	5.352	-0.002	497621001	200.000	190	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.541	5.543	-0.002	402559897	200.000	201	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.574	5.576	-0.002	406009841	200.000	189	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
5.666	5.668	-0.002	407013318	200.000	191	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
5.866	5.867	-0.001	305271896	200.000	175	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
5.767	5.769	-0.002	174193596	200.000	127	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
6.033	6.035	-0.002	326171768	200.000	189	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
6.164	6.166	-0.002	336799111	1000.00	618	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
6.375	6.378	-0.003	254896427	200.000	146	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
3.195	3.198	-0.003	614973224	200.000	190	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.150	7.153	-0.003	268409468	200.000	190	80.00- 120.00	100.00

Data File: /chem/ecd5a.i/122209.b/035b3501.d

Date : 22-DEC-2009 21:05

Client ID: INDAB04

Sample Info: IWPE091207-10AB

Column phase: CLP-2

Instrument: ecd5a.i

Operator: CXC2

Column diameter: 0.25

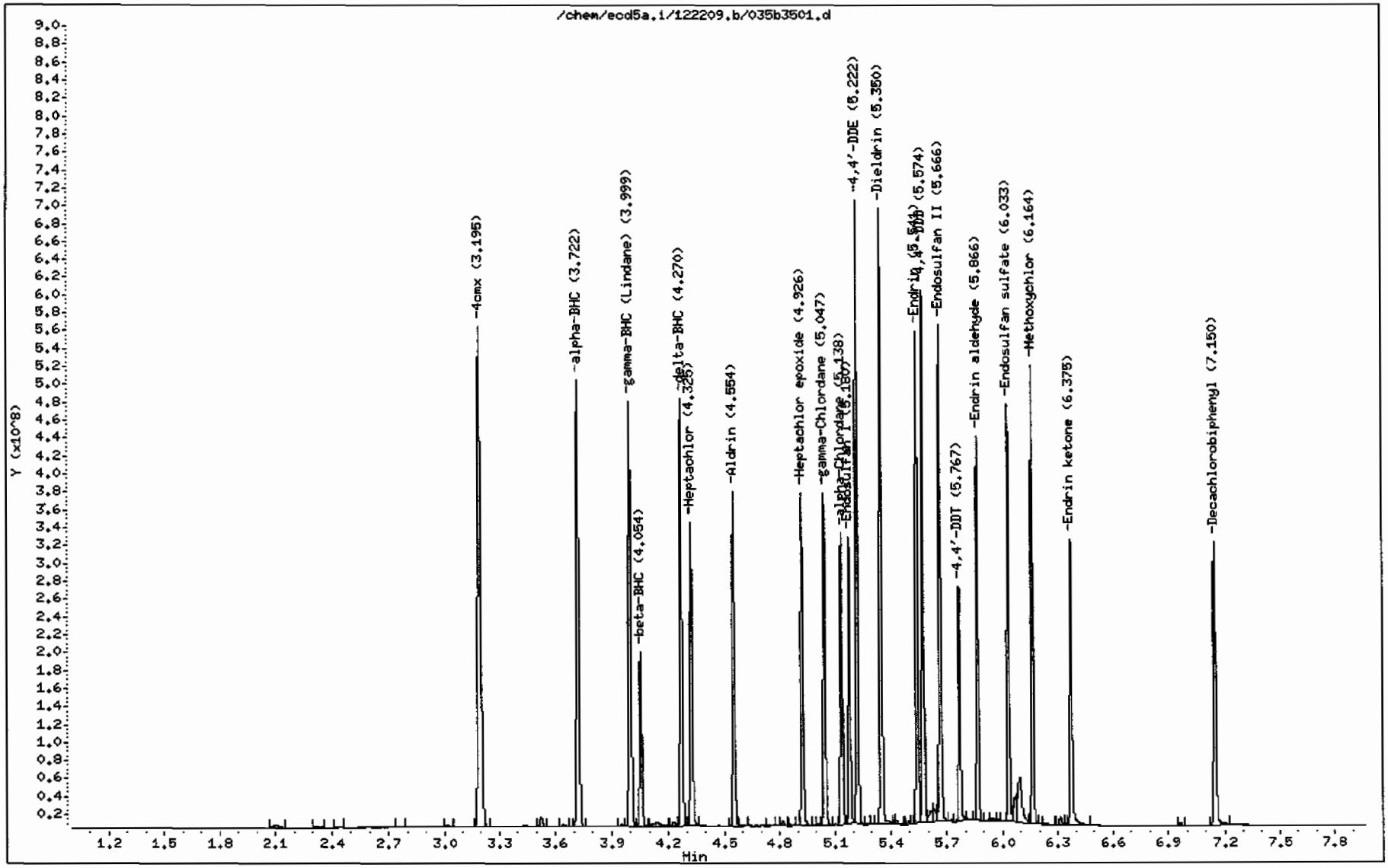

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd5a.i/122209.b/045f4501.d
Lab Smp Id: WPE091207-10AB Client Smp ID: INDAB05
Inj Date : 22-DEC-2009 23:04
Operator : CXC2 Inst ID: ecd5a.i
Smp Info : |WPE091207-10AB
Misc Info :
Comment :
Method : /chem/ecd5a.i/122209.b/ECD5-F-8081-121809.m
Meth Date : 22-Dec-2009 23:26 hea01125 Quant Type: ESTD
Cal Date : 05-DEC-2009 03:28 Cal File: 025f2501.d
Als bottle: 45 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
3.290	3.292	-0.002	69717512	100.000	112	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.547	3.549	-0.002	63450272	100.000	114	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
3.616	3.618	-0.002	25771618	100.000	107	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
3.898	3.900	-0.002	48544266	100.000	95.9	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
3.750	3.751	-0.001	62120102	100.000	113	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.111	4.113	-0.002	54574277	100.000	106	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.519	4.521	-0.002	50072681	100.000	110	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
4.600	4.602	-0.002	52885366	100.000	118	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
4.684	4.686	-0.002	45645171	100.000	102	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
16 Endosulfan I					CAS #: 959-98-8		
4.774	4.775	-0.001	48629702	100.000	117	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
4.729	4.731	-0.002	95002565	200.000	221	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
4.923	4.924	-0.001	96755001	200.000	216	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.069	5.070	-0.001	77501840	200.000	227	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.099	5.100	-0.001	83357173	200.000	231	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
5.207	5.209	-0.002	82266073	200.000	221	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
5.460	5.462	-0.002	67115903	200.000	216	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
5.268	5.269	-0.001	60215017	200.000	185	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
5.720	5.724	-0.004	73433523	200.000	230	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
5.553	5.554	-0.001	113547889	1000.00	954	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
5.895	5.898	-0.003	70175324	200.000	188	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
2.788	2.790	-0.002	99496356	200.000	215	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
6.478	6.482	-0.004	60081742	200.000	220	80.00- 120.00	100.00

Data File: /chem/ecd5a.i/122209.b/045f4501.d
Date : 22-DEC-2009 23:04
Client ID: INDAB05
Sample Info: IWPE091207-10AB
Column phase: CLP-1

Instrument: ecd5a.i
Operator: CXC2
Column diameter: 0.25

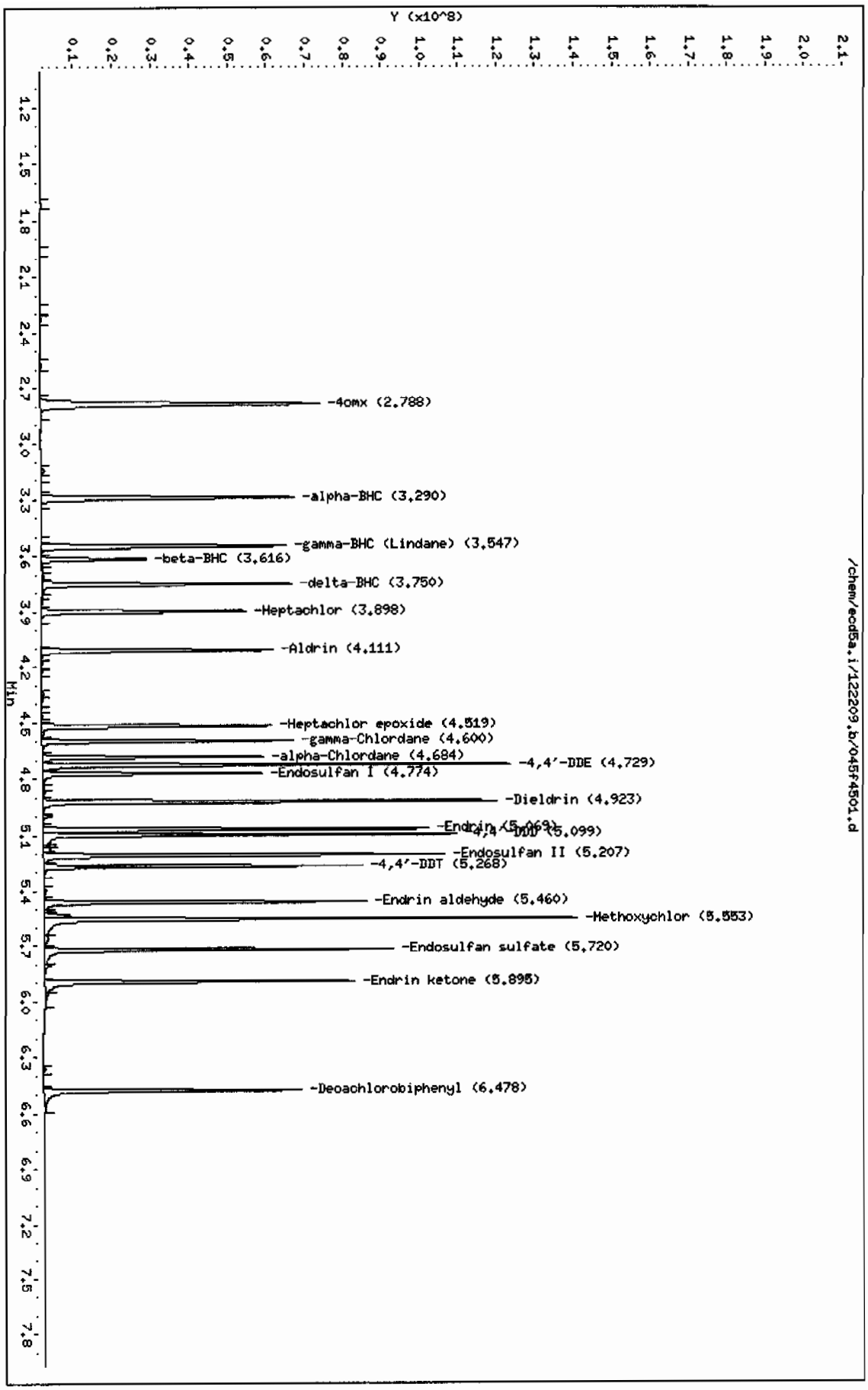

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CLP-2

Data file : /chem/ecd5a.i/122209.b/045b4501.d
Lab Smp Id: WPE091207-10AB Client Smp ID: INDAB05
Inj Date : 22-DEC-2009 23:04
Operator : CXC2 Inst ID: ecd5a.i
Smp Info : |WPE091207-10AB
Misc Info :
Comment :
Method : /chem/ecd5a.i/122209.b/ECD5-B-8081-121809.m
Meth Date : 22-Dec-2009 23:27 hea01125 Quant Type: ESTD
Cal Date : 05-DEC-2009 03:28 Cal File: 025b2501.d
Als bottle: 45 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
3.722	3.724	-0.002	451584594	100.000	102	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.998	4.000	-0.002	394148547	100.000	103	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
4.054	4.056	-0.002	161010899	100.000	95.1	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
4.324	4.327	-0.003	281806505	100.000	88.3	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
4.270	4.272	-0.002	374009707	100.000	100	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.553	4.555	-0.002	312703171	100.000	95.0	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.925	4.927	-0.002	289464356	100.000	98.3	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
5.046	5.048	-0.002	291953596	100.000	104	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
5.138	5.139	-0.001	244879727	100.000	90.7	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
16 Endosulfan I					CAS #: 959-98-8		
5.180	5.182	-0.002	244291505	100.000	99.8	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.221	5.224	-0.003	512280826	200.000	201	80.00- 120.00	100.00(M)
20 Dieldrin					CAS #: 60-57-1		
5.349	5.352	-0.003	527677388	200.000	202	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.540	5.543	-0.003	411141795	200.000	205	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.574	5.576	-0.002	448276621	200.000	209	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
5.665	5.668	-0.003	422690847	200.000	198	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
5.864	5.867	-0.003	325346993	200.000	187	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
5.766	5.769	-0.003	166482791	200.000	121	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
6.031	6.035	-0.004	350837646	200.000	204	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
6.161	6.166	-0.005	326487352	1000.00	600	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
6.373	6.378	-0.005	258810656	200.000	148	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
3.195	3.198	-0.003	633718241	200.000	196	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.149	7.153	-0.004	287426651	200.000	204	80.00- 120.00	100.00

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd5a.i/122209.b/045b4501.d
Date : 22-DEC-2009 23:04
Client ID: INDAB05
Sample Info: IWPE091207-10AB

Column phase: CLP-2

Instrument: ecd5a.i

Operator: CXC2
Column diameter: 0.25

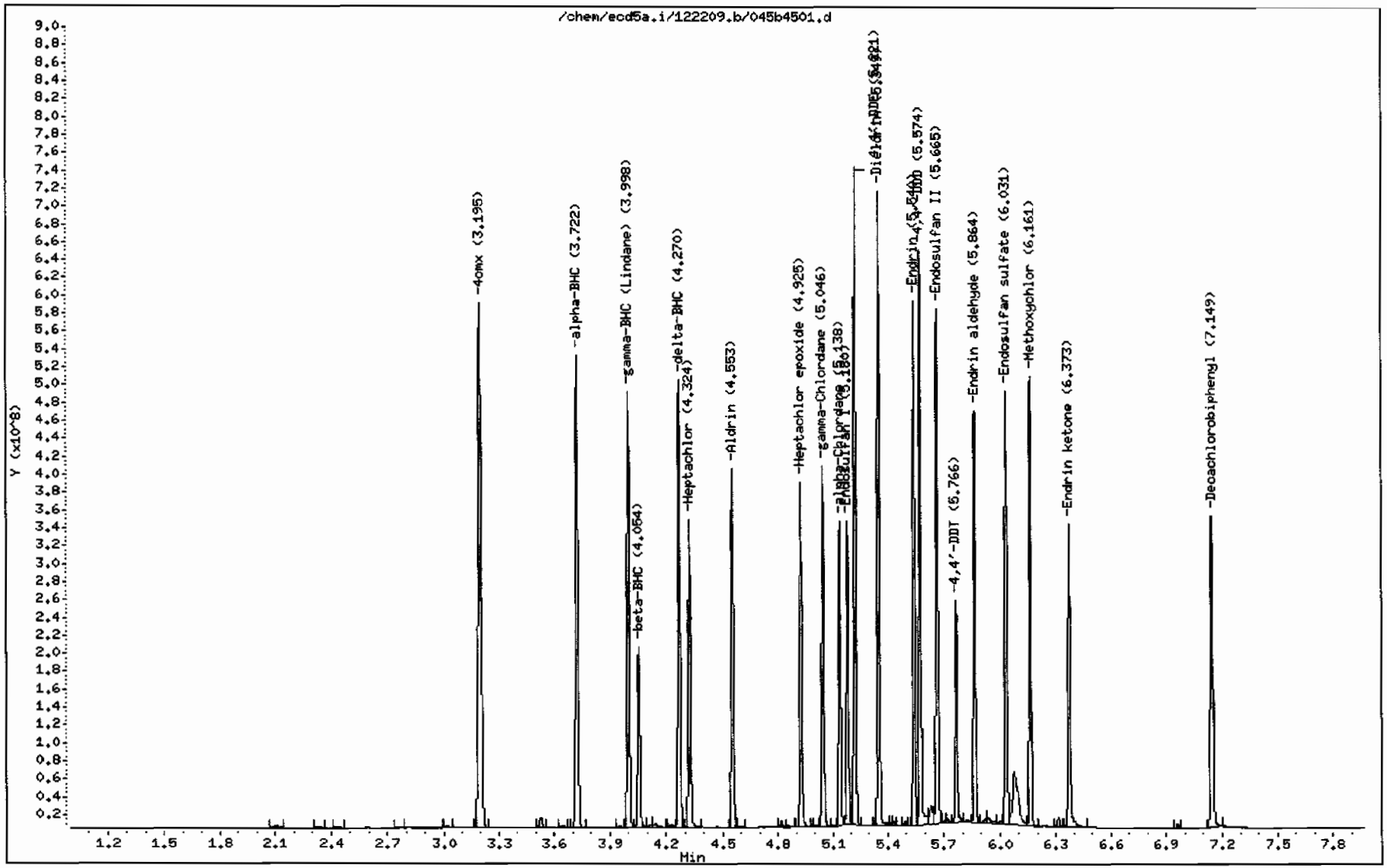

Comment: Manually Integrated
Data File: /chem/ecd5a.i/122209.b/045b5501.d
Operator: CXC2
Injection Date: 22-DEC-2009 23:04
Instrument: ecd5a.i
Client Sample ID: INDAB05

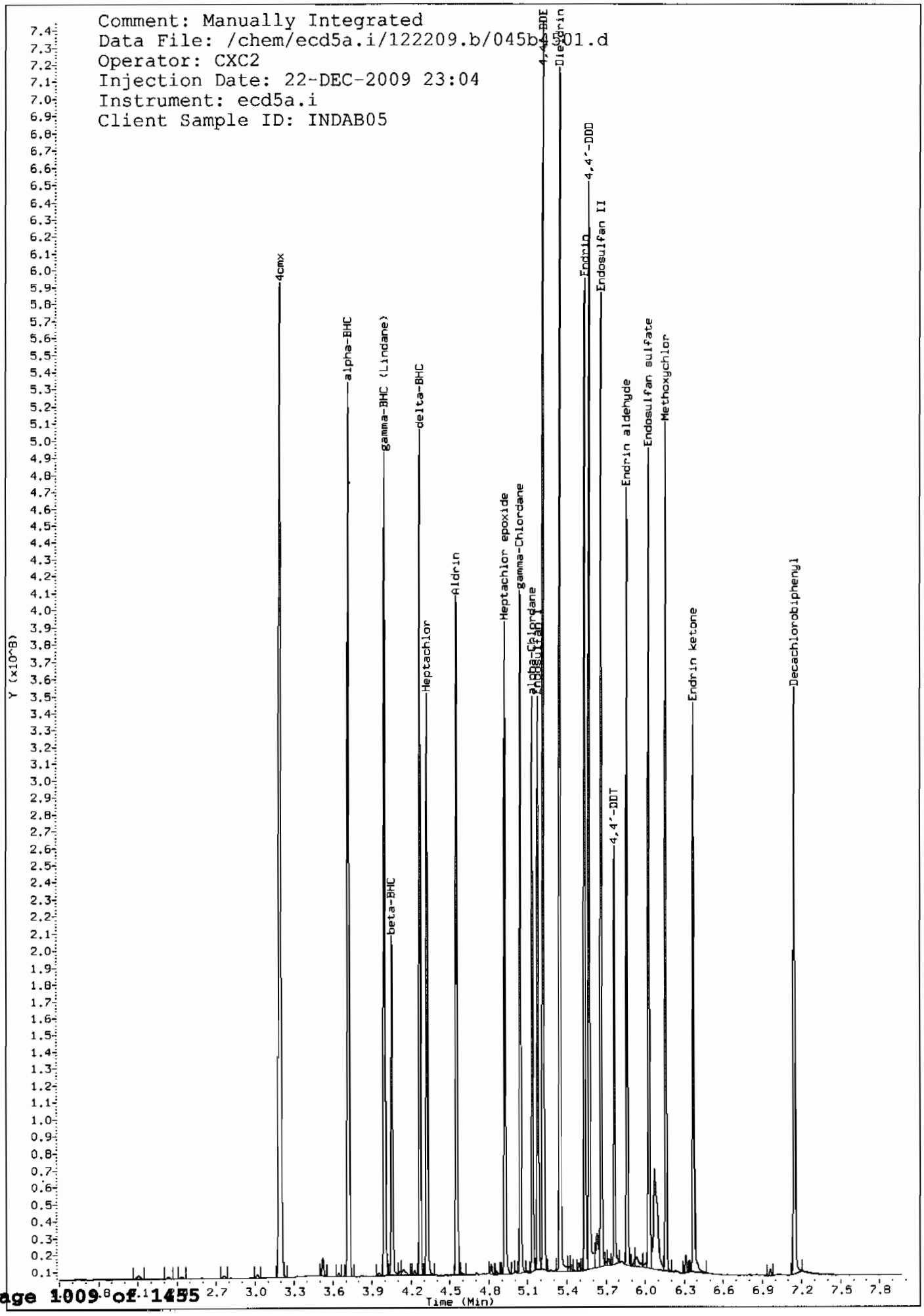

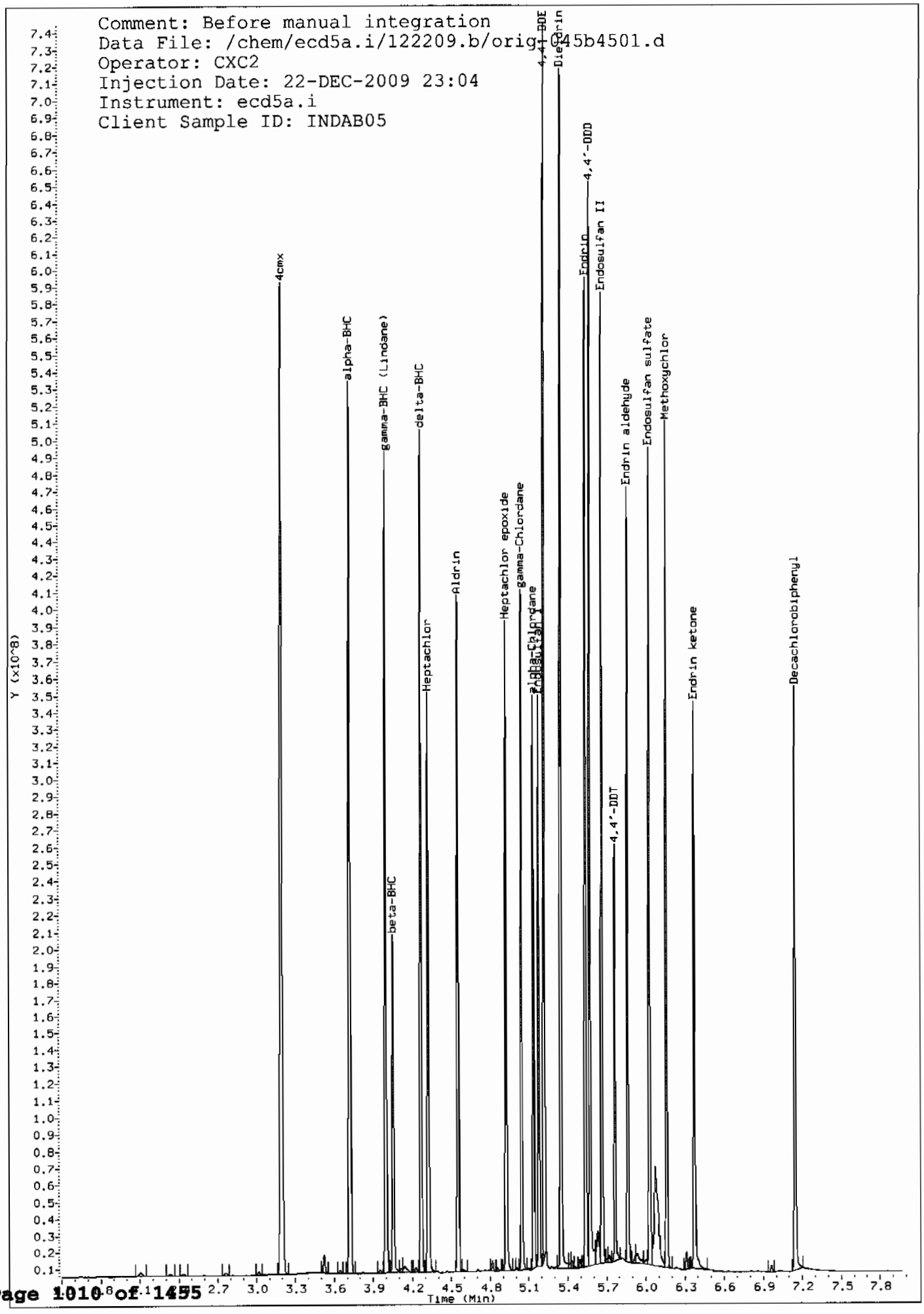
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Operator: CXC2
Injection Date: 22-DEC-2009 23:04
Instrument: ecd5a.i
Client Sample ID: INDAB05
4cmx
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide
gamma-Chlordane
alpha-Chlordane
Endosulfan I
4,4'-DDE
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Endosulfan sulfate
Methoxychlor
Endrin ketone
Decachlorobiphenyl
Y (x10^8)
Time (Min)

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd5a.i/122209.b/051f5101.d
Lab Smp Id: WPE091207-10AB Client Smp ID: INDAB06
Inj Date : 23-DEC-2009 00:16
Operator : CXC2 Inst ID: ecd5a.i
Smp Info : |WPE091207-10AB
Misc Info :
Comment :
Method : /chem/ecd5a.i/122209.b/ECD5-F-8081-121809.m
Meth Date : 23-Dec-2009 08:48 cla01575 Quant Type: ESTD
Cal Date : 05-DEC-2009 03:28 Cal File: 025f2501.d
Als bottle: 51 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
3.290	3.292	-0.002	69086271	100.000	111	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.546	3.549	-0.003	63107721	100.000	113	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
3.616	3.618	-0.002	25935438	100.000	108	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
3.899	3.900	-0.001	44472427	100.000	87.8	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
3.750	3.751	-0.001	62215757	100.000	113	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.111	4.113	-0.002	54709705	100.000	106	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.520	4.521	-0.001	49567295	100.000	108	80.00- 120.00	100.00(M)
17 gamma-Chlordane					CAS #: 5103-74-2		
4.600	4.602	-0.002	51979164	100.000	116	80.00- 120.00	100.00(M)
18 alpha-Chlordane					CAS #: 5103-71-9		
4.685	4.686	-0.001	44801568	100.000	99.7	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
16 Endosulfan I					CAS #: 959-98-8		
4.774	4.775	-0.001	46897247	100.000	113	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
4.730	4.731	-0.001	93567236	200.000	217	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
4.923	4.924	-0.001	96148264	200.000	215	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.068	5.070	-0.002	79724291	200.000	234	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.099	5.100	-0.001	83013153	200.000	230	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
5.207	5.209	-0.002	81769108	200.000	220	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
5.461	5.462	-0.001	64861024	200.000	209	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
5.268	5.269	-0.001	57601619	200.000	177	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
5.721	5.724	-0.003	71603874	200.000	224	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
5.552	5.554	-0.002	108774518	1000.00	914	80.00- 120.00	100.00(M)
31 Endrin ketone					CAS #: 53494-70-5		
5.896	5.898	-0.002	65663517	200.000	176	80.00- 120.00	100.00(M)
$ 1 4cmx					CAS #: 877-09-8		
2.788	2.790	-0.002	100380250	200.000	217	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
6.480	6.482	-0.002	58985617	200.000	216	80.00- 120.00	100.00

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd5a.i/122209.b/051f5101.d
Date : 23-DEC-2009 00:16
Client ID: INDAB06
Sample Info: IWPE091207-10AB

Column phase: CLP-1

Instrument: ecd5a.i

Operator: CXC2
Column diameter: 0.25

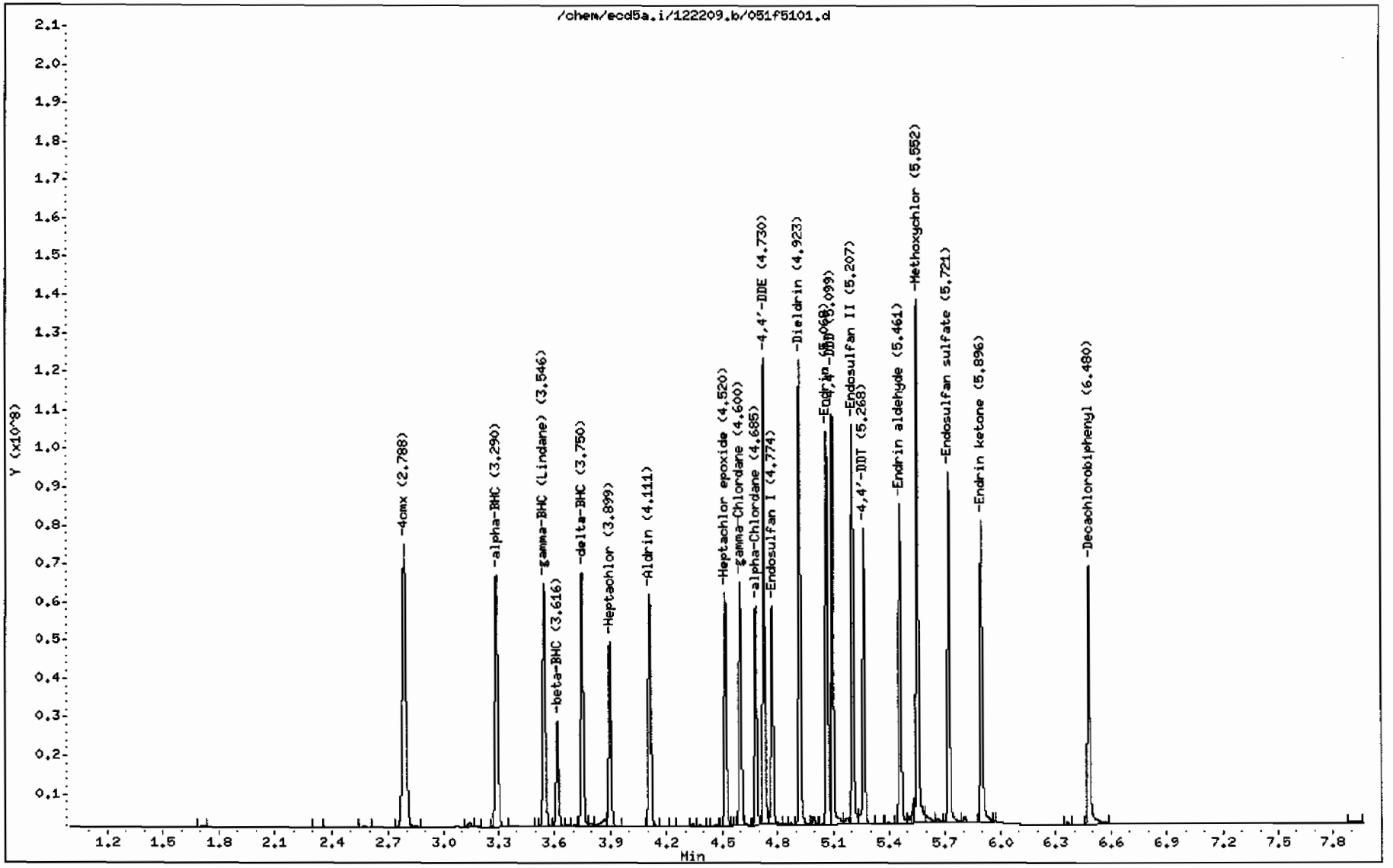

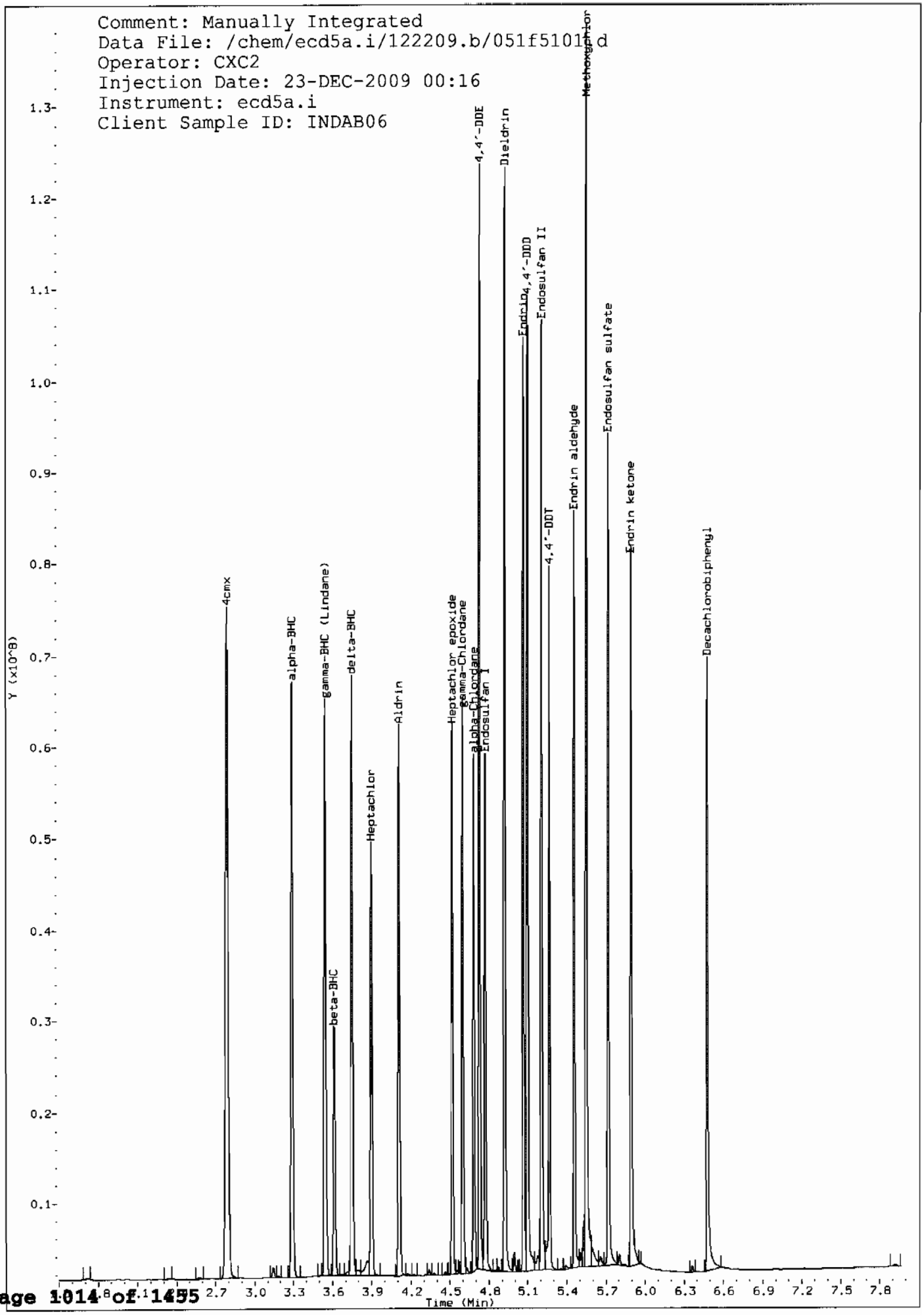
Comment: Manually Integrated
Data File: /chem/ecd5a.i/122209.b/051f5101.d
Operator: CXC2
Injection Date: 23-DEC-2009 00:16
Instrument: ecd5a.i
Client Sample ID: INDAB06
Y (x10^8)
Time (Min)
4cmx
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide
gamma-Chlordane
alpha-Chlordane
Endosulfan I
4,4'-DDE
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Methoxychlor
Endosulfan sulfate
Endrin ketone
Decachlorobiphenyl

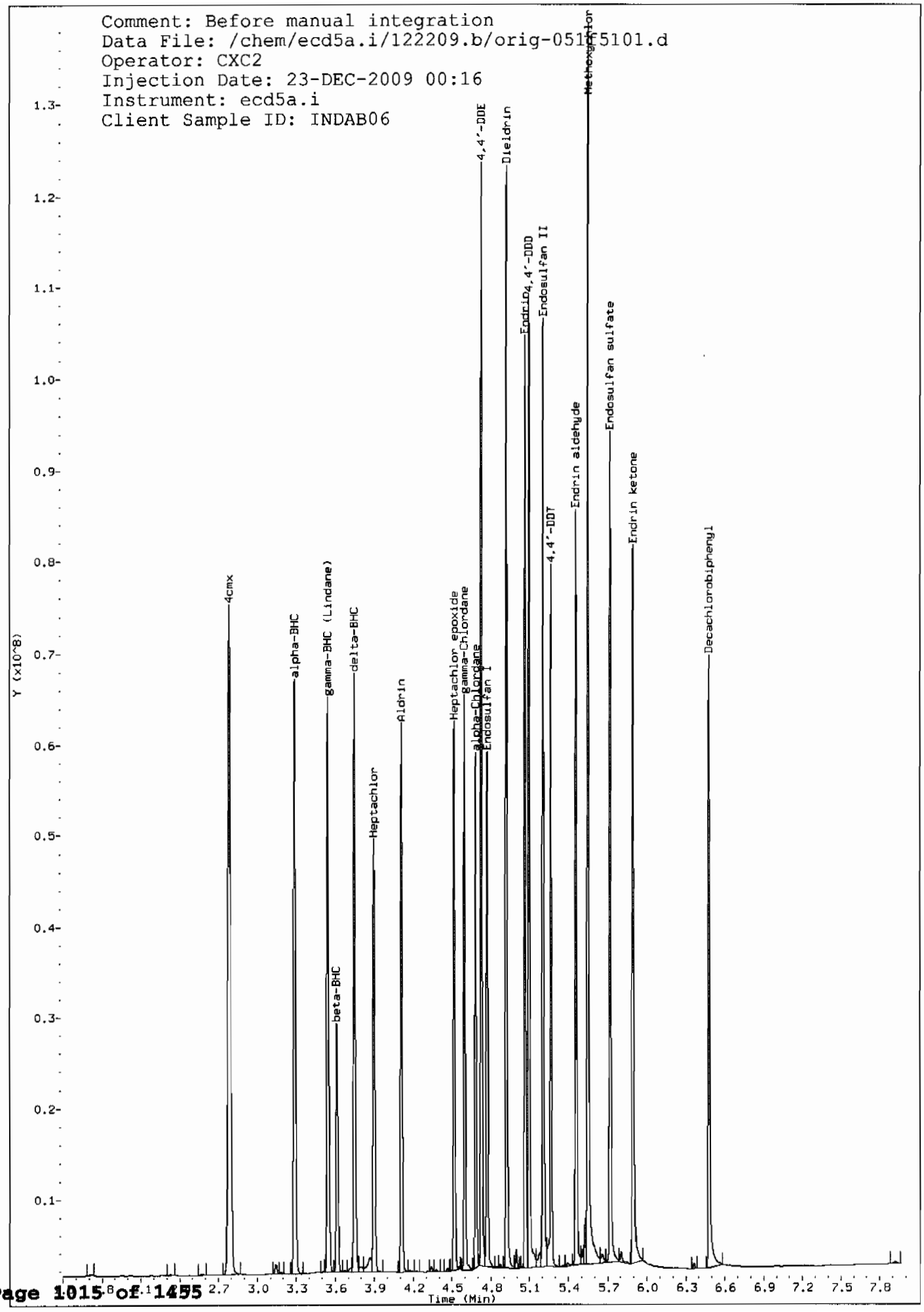
Comment: Before manual integration
Data File: /chem/ecd5a.i/122209.b/orig-05115101.d
Operator: CXC2
Injection Date: 23-DEC-2009 00:16
Instrument: ecd5a.i
Client Sample ID: INDAB06
Y (x10^8)
Time (Min)
4cmx
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide
gamma-Chlordane
alpha-Chlordane
Endosulfan I
4,4'-DDE
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Methoxychlor
Endosulfan sulfate
Endrin ketone
Decachlorobiphenyl

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CLP-2

Data file : /chem/ecd5a.i/122209.b/051b5101.d
Lab Smp Id: WPE091207-10AB Client Smp ID: INDAB05
Inj Date : 23-DEC-2009 00:16
Operator : CXC2 Inst ID: ecd5a.i
Smp Info : |WPE091207-10AB
Misc Info :
Comment :
Method : /chem/ecd5a.i/122209.b/ECD5-B-8081-121809.m
Meth Date : 23-Dec-2009 08:46 cla01575 Quant Type: ESTD
Cal Date : 05-DEC-2009 03:28 Cal File: 025b2501.d
Als bottle: 51 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
3.722	3.724	-0.002	443701800	100.000	99.9	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.998	4.000	-0.002	388553521	100.000	102	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
4.054	4.056	-0.002	158171909	100.000	93.4	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
4.325	4.327	-0.002	237836070	100.000	74.5	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
4.270	4.272	-0.002	364784391	100.000	97.9	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.553	4.555	-0.002	304513826	100.000	92.5	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.926	4.927	-0.001	279128061	100.000	94.8	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
5.046	5.048	-0.002	279431226	100.000	99.4	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
5.137	5.139	-0.002	234210294	100.000	86.7	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
16 Endosulfan I					CAS #: 959-98-8		
5.180	5.182	-0.002	235047888	100.000	96.0	80.00- 120.00	100.00(M)
19 4,4'-DDE					CAS #: 72-55-9		
5.221	5.224	-0.003	499761629	200.000	196	80.00- 120.00	100.00(M)
20 Dieldrin					CAS #: 60-57-1		
5.350	5.352	-0.002	502075773	200.000	192	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.541	5.543	-0.002	398262449	200.000	199	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.574	5.576	-0.002	409482389	200.000	191	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
5.666	5.668	-0.002	458501794	200.000	215	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
5.866	5.867	-0.001	314898767	200.000	181	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
5.766	5.769	-0.003	51682561	200.000	37.6	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
6.033	6.035	-0.002	329363835	200.000	191	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
6.164	6.166	-0.002	141139411	1000.00	259	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
6.375	6.378	-0.003	183877599	200.000	105	80.00- 120.00	100.00(M)
$ 1 4cmx					CAS #: 877-09-8		
3.195	3.198	-0.003	628417144	200.000	194	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.150	7.153	-0.003	276733755	200.000	196	80.00- 120.00	100.00

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd5a.i/122209.b/051b5101.d
Date : 23-DEC-2009 00:16
Client ID: INDAB05
Sample Info: IWPE091207-10AB
Column phase: CLP-2

Instrument: ecd5a.i
Operator: CXD2
Column diameter: 0.25

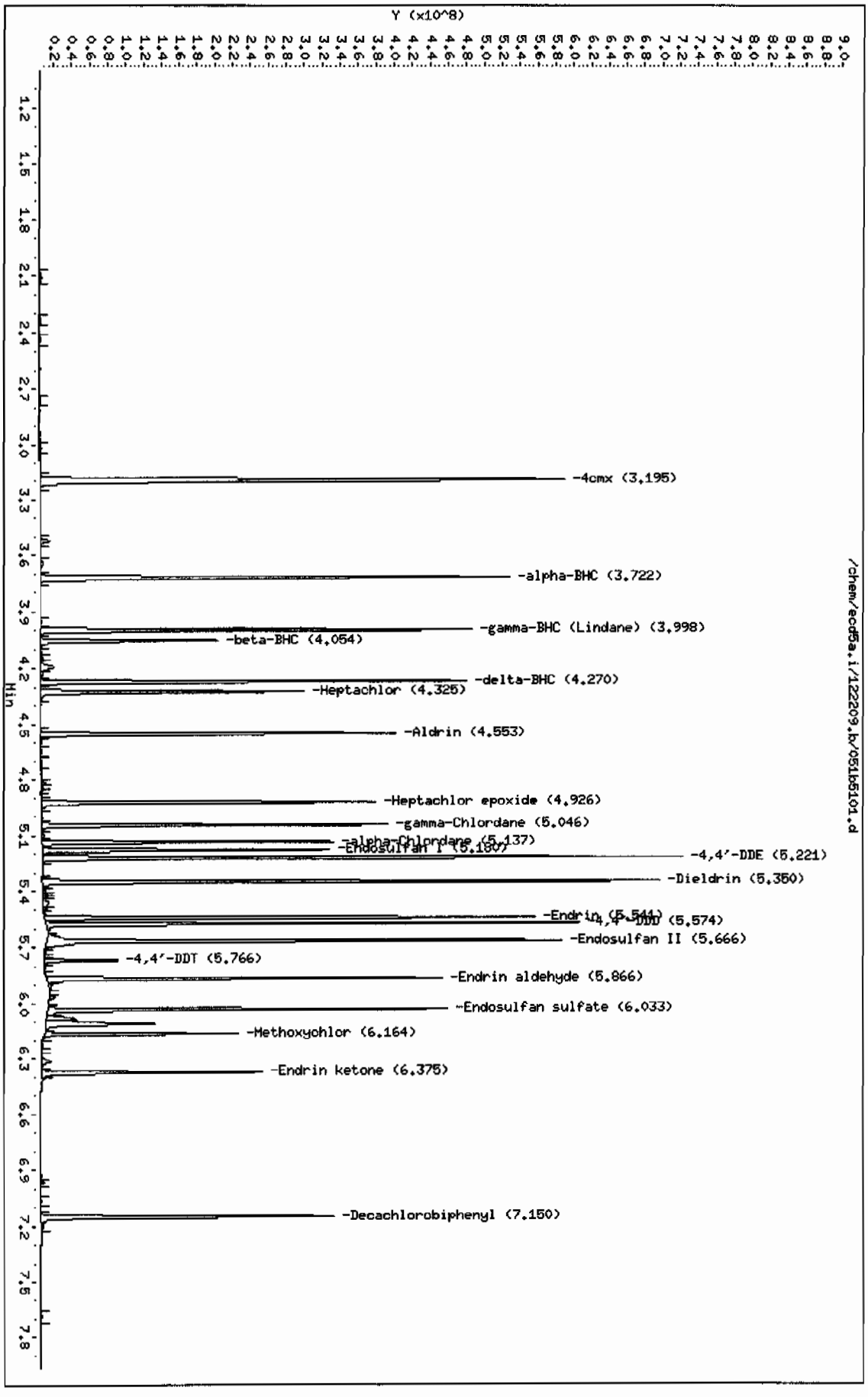

Page 1

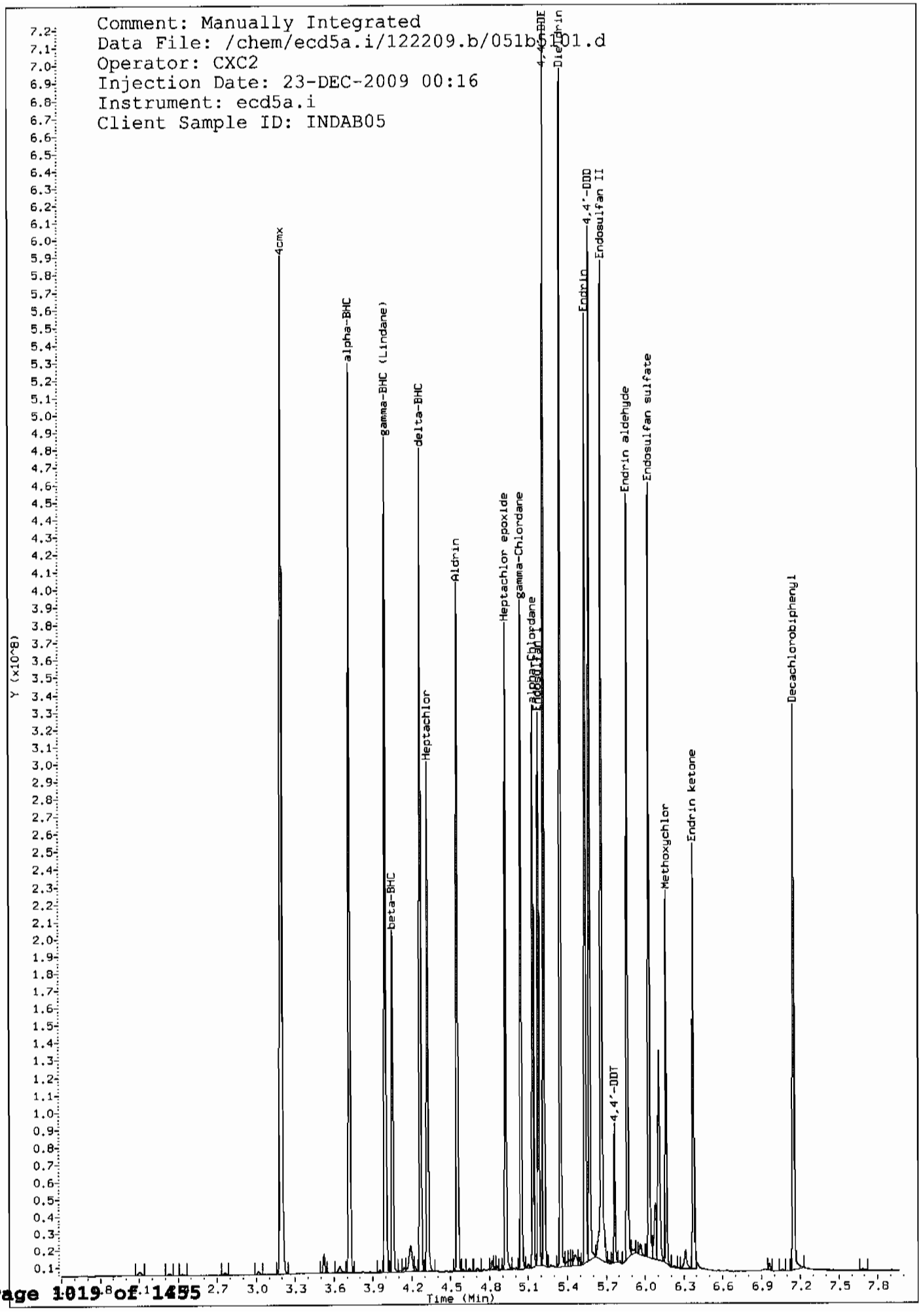
Comment: Manually Integrated
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Operator: CXC2
Injection Date: 23-DEC-2009 00:16
Instrument: ecd5a.i
Client Sample ID: INDAB05
4cmx
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide
gamma-Chlordane
alpha-Chlordane
Endosulfan I
4,4'-DDE
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Endosulfan sulfate
Methoxychlor
Endrin ketone
Decachlorobiphenyl
Y (x10^8)
Time (Min)

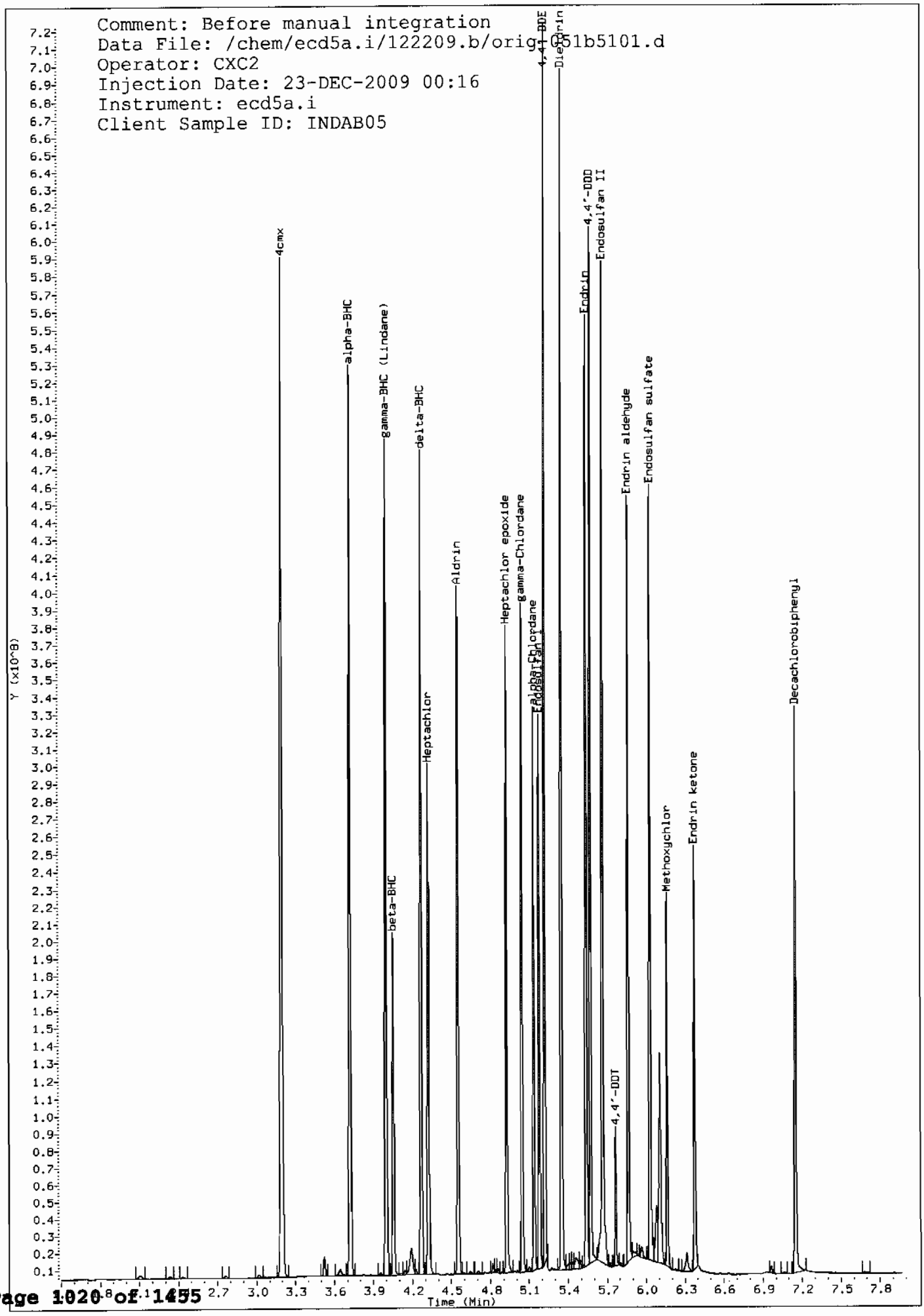
Comment: Before manual integration
Data File: /chem/ecd5a.i/122209.b/orig051b5101.d
Operator: CXC2
Injection Date: 23-DEC-2009 00:16
Instrument: ecd5a.i
Client Sample ID: INDAB05
4cmx
alpha-BHC
gamma-BHC (Lindane)
delta-BHC
beta-BHC
Heptachlor
Aldrin
Heptachlor epoxide
gamma-Chlordane
alpha-Chlordane
4,4'-DDE
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Endosulfan sulfate
Methoxychlor
Endrin ketone
Decachlorobiphenyl
Y (x10^8)
Time (Min)

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CLP-1

Data file : /chem/ecd5a.i/122209.b/056f5601.d
Lab Smp Id: WPE091207-10AB Client Smp ID: INDAB07
Inj Date : 23-DEC-2009 01:16
Operator : CXC2 Inst ID: ecd5a.i
Smp Info : |WPE091207-10AB
Misc Info :
Comment :
Method : /chem/ecd5a.i/122209.b/ECD5-F-8081-121809.m
Meth Date : 23-Dec-2009 08:48 cla01575 Quant Type: ESTD
Cal Date : 05-DEC-2009 03:28 Cal File: 025f2501.d
Als bottle: 56 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
3.290	3.292	-0.002	70404067	100.000	113	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.546	3.549	-0.003	63835317	100.000	114	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
3.616	3.618	-0.002	26117490	100.000	108	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
3.899	3.900	-0.001	49026792	100.000	96.8	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
3.750	3.751	-0.001	62449598	100.000	113	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.111	4.113	-0.002	54786906	100.000	107	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.519	4.521	-0.002	49536803	100.000	108	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
4.600	4.602	-0.002	51662805	100.000	115	80.00- 120.00	100.00(M)
18 alpha-Chlordane					CAS #: 5103-71-9		
4.684	4.686	-0.002	45448923	100.000	101	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
16 Endosulfan I					CAS #: 959-98-8		
4.773	4.775	-0.002	47580412	100.000	114	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
4.729	4.731	-0.002	95023931	200.000	221	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
4.922	4.924	-0.002	95730387	200.000	214	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.068	5.070	-0.002	81642632	200.000	240	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.098	5.100	-0.002	82687249	200.000	229	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
5.207	5.209	-0.002	80576386	200.000	216	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
5.459	5.462	-0.003	64221274	200.000	207	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
5.267	5.269	-0.002	58933998	200.000	181	80.00- 120.00	100.00(M)
29 Endosulfan sulfate					CAS #: 1031-07-8		
5.721	5.724	-0.003	72440037	200.000	227	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
5.552	5.554	-0.002	115403643	1000.00	970	80.00- 120.00	100.00(M)
31 Endrin ketone					CAS #: 53494-70-5		
5.896	5.898	-0.002	67581433	200.000	181	80.00- 120.00	100.00(M)
$ 1 4cmx					CAS #: 877-09-8		
2.788	2.790	-0.002	100830601	200.000	218	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
6.479	6.482	-0.003	59693894	200.000	218	80.00- 120.00	100.00

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd5a.i/122209.b/056f5601.d
Date : 23-DEC-2009 01:16
Client ID: INDAB07
Sample Info: IWPE091207-10AB

Column phase: CLP-1

Instrument: ecd5a.i
Operator: CXC2
Column diameter: 0.25

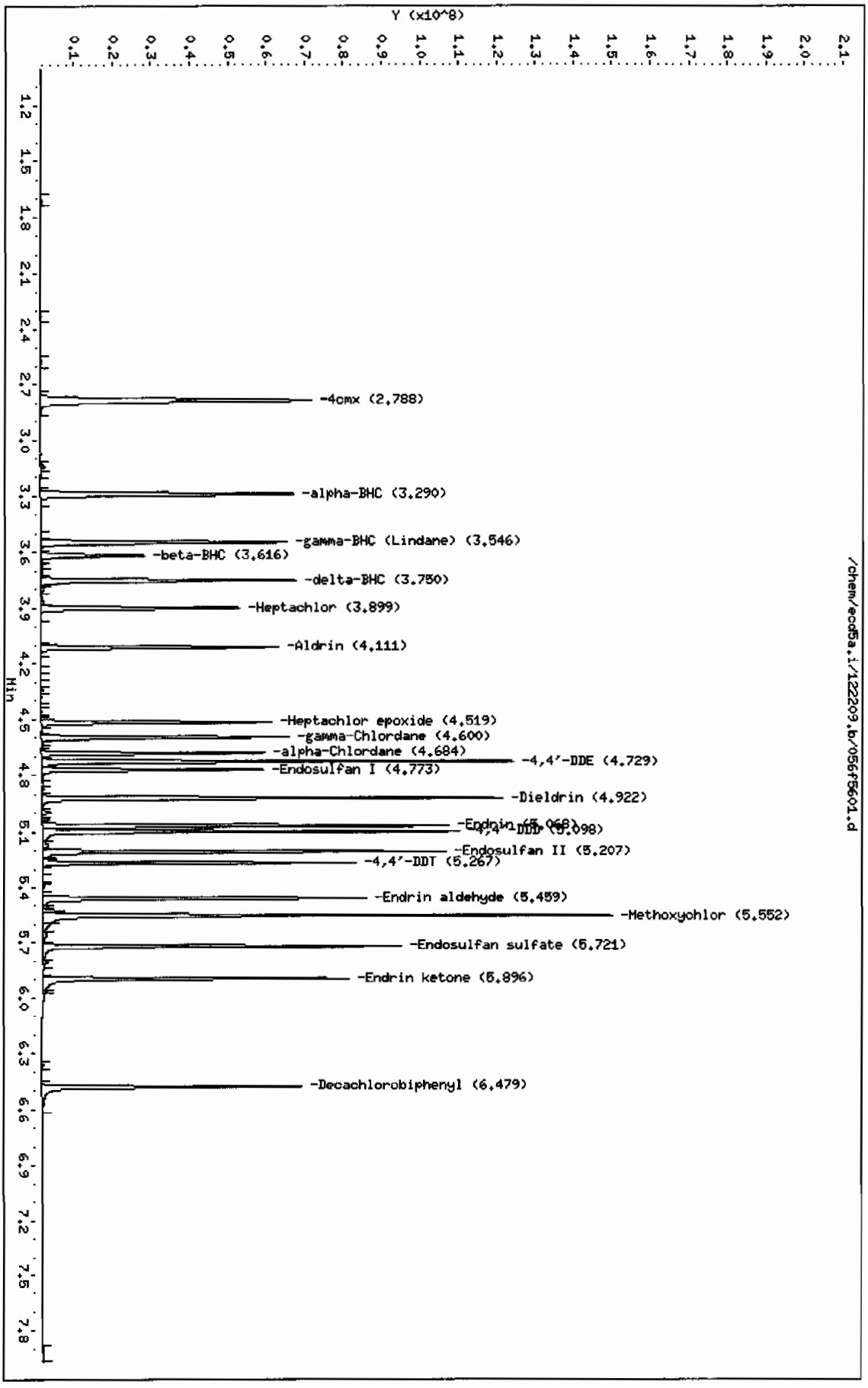

Page 1

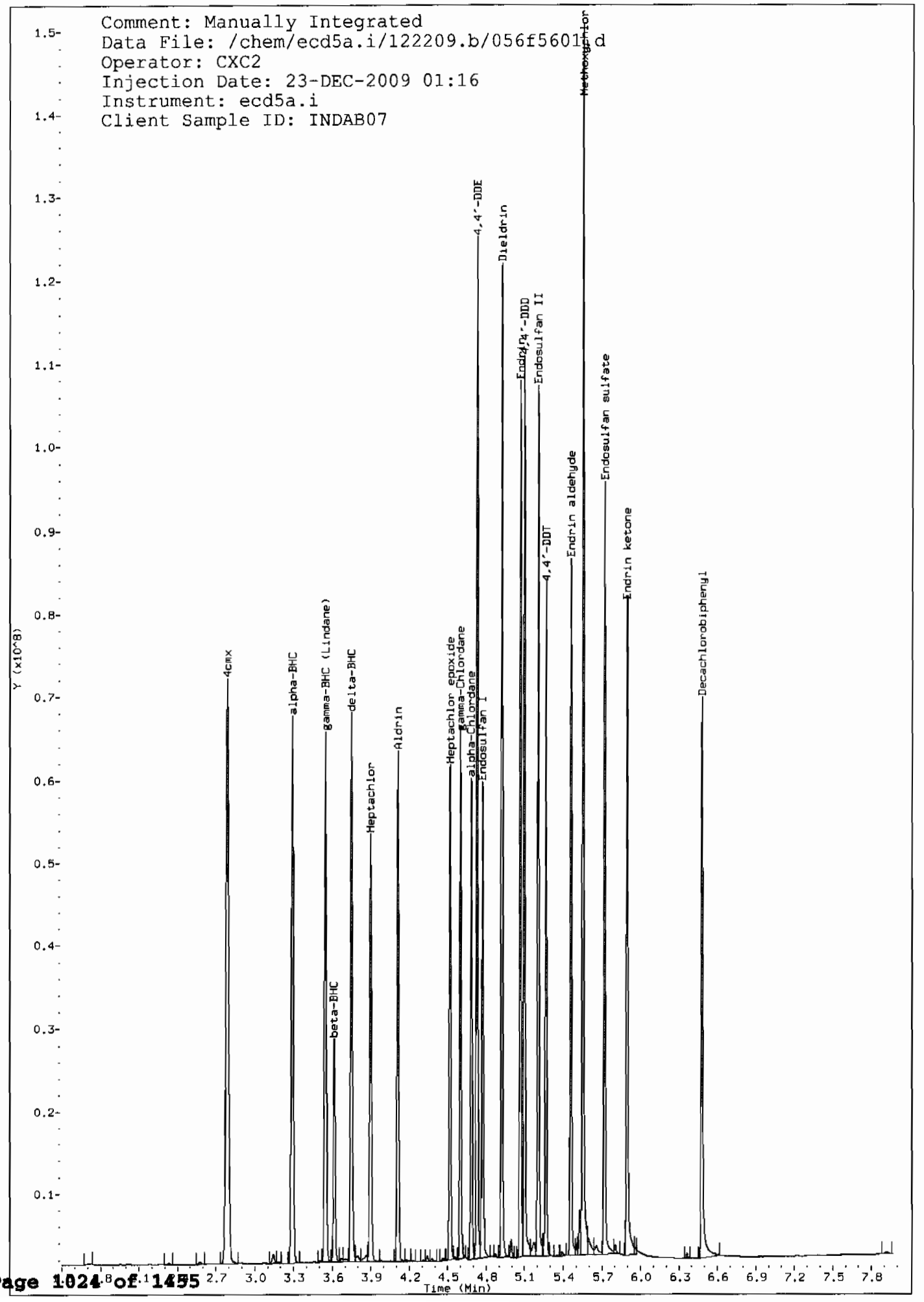
Comment: Manually Integrated
Data File: /chem/ecd5a.i/122209.b/056f5601.d
Operator: CXC2
Injection Date: 23-DEC-2009 01:16
Instrument: ecd5a.i
Client Sample ID: INDAB07
Y (x10^8)
Time (Min)
4cmx
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide
gamma-Chlordane
alpha-Chlordane
Endosulfan I
4,4'-DDE
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Methoxychlor
Endosulfan sulfate
Endrin ketone
Decachlorobiphenyl

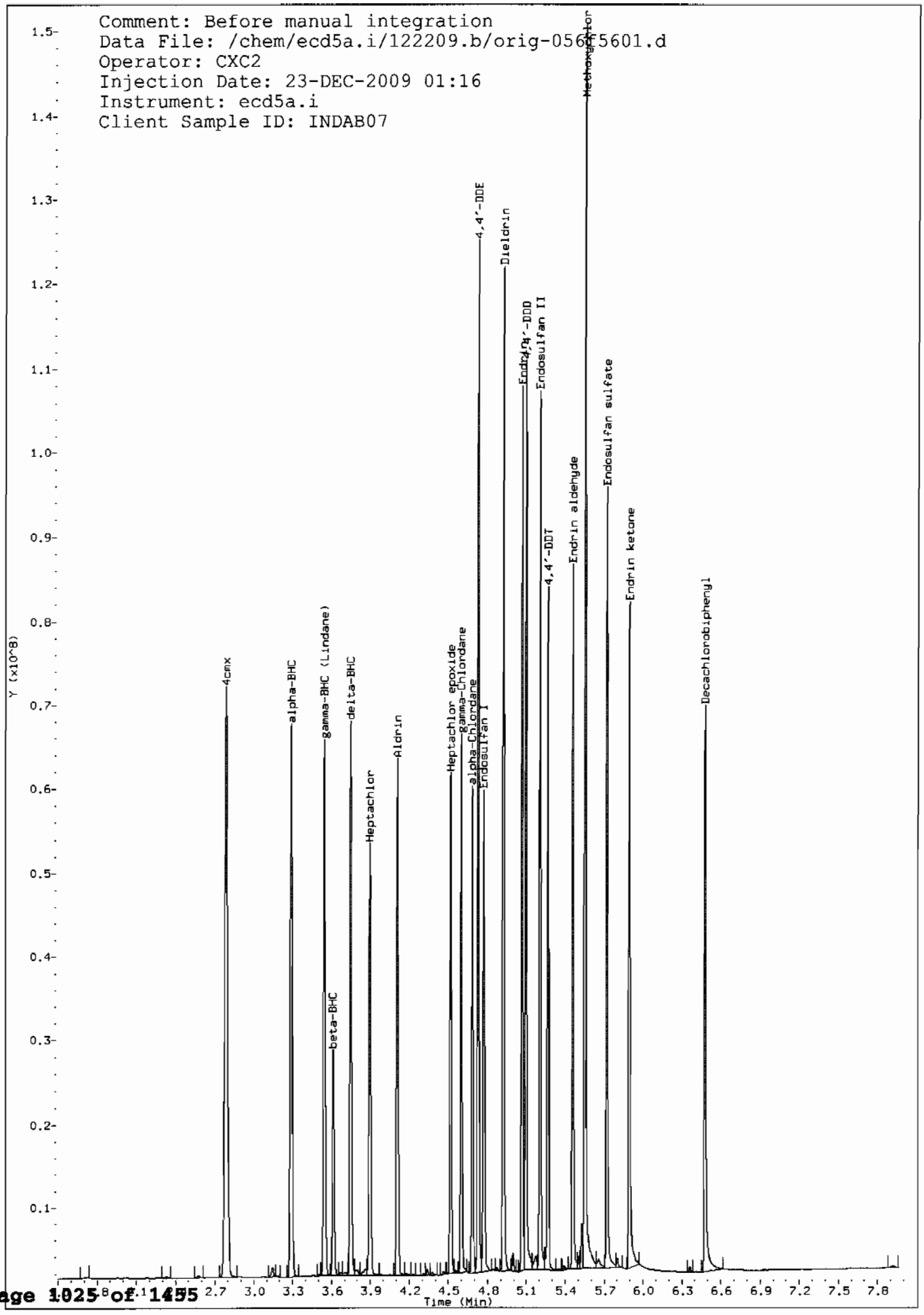
Comment: Before manual integration
Data File: /chem/ecd5a.i/122209.b/orig-05675601.d
Operator: CXC2
Injection Date: 23-DEC-2009 01:16
Instrument: ecd5a.i
Client Sample ID: INDAB07
Y (x10^8)
Time (Min)
4cmx
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide
gamma-Chlordane
alpha-Chlordane
Endosulfan I
4,4'-DDE
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Methoxychlor
Endosulfan sulfate
Endrin ketone
Decachlorobiphenyl

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd5a.i/122209.b/056b5601.d
Lab Smp Id: WPE091207-10AB Client Smp ID: INDAB07
Inj Date : 23-DEC-2009 01:16
Operator : CXC2 Inst ID: ecd5a.i
Smp Info : |WPE091207-10AB
Misc Info :
Comment :
Method : /chem/ecd5a.i/122209.b/ECD5-B-8081-121809.m
Meth Date : 23-Dec-2009 08:46 cla01575 Quant Type: ESTD
Cal Date : 05-DEC-2009 03:28 Cal File: 025b2501.d
Als bottle: 56 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
3.721	3.724	-0.003	443867643	100.000	100	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.998	4.000	-0.002	385886027	100.000	101	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
4.054	4.056	-0.002	157223478	100.000	92.9	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
4.324	4.327	-0.003	254732182	100.000	79.8	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
4.270	4.272	-0.002	364531280	100.000	97.9	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.552	4.555	-0.003	306593347	100.000	93.1	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.925	4.927	-0.002	280616368	100.000	95.3	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
5.046	5.048	-0.002	283033606	100.000	101	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
5.137	5.139	-0.002	238049036	100.000	88.2	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
16 Endosulfan I					CAS #: 959-98-8		
5.180	5.182	-0.002	239156931	100.000	97.7	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.221	5.224	-0.003	500716248	200.000	196	80.00- 120.00	100.00(M)
20 Dieldrin					CAS #: 60-57-1		
5.349	5.352	-0.003	507881995	200.000	194	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.540	5.543	-0.003	418023111	200.000	208	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.574	5.576	-0.002	426824222	200.000	199	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
5.665	5.668	-0.003	441754966	200.000	207	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
5.865	5.867	-0.002	315133750	200.000	181	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
5.766	5.769	-0.003	107949715	200.000	78.6	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
6.032	6.035	-0.003	346618090	200.000	201	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
6.163	6.166	-0.003	254794610	1000.00	468	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
6.374	6.378	-0.004	229481982	200.000	132	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
3.195	3.198	-0.003	630467547	200.000	195	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.150	7.153	-0.003	276883374	200.000	196	80.00- 120.00	100.00

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd5a.i/122209.b/0560560l.d
Date : 23-DEC-2009 01:16
Client ID: INDABO7
Sample Info: IWPE091207-10AB

Column phase: CLP-2

Instrument: ecd5a.i
Operator: CXC2
Column diameter: 0.25

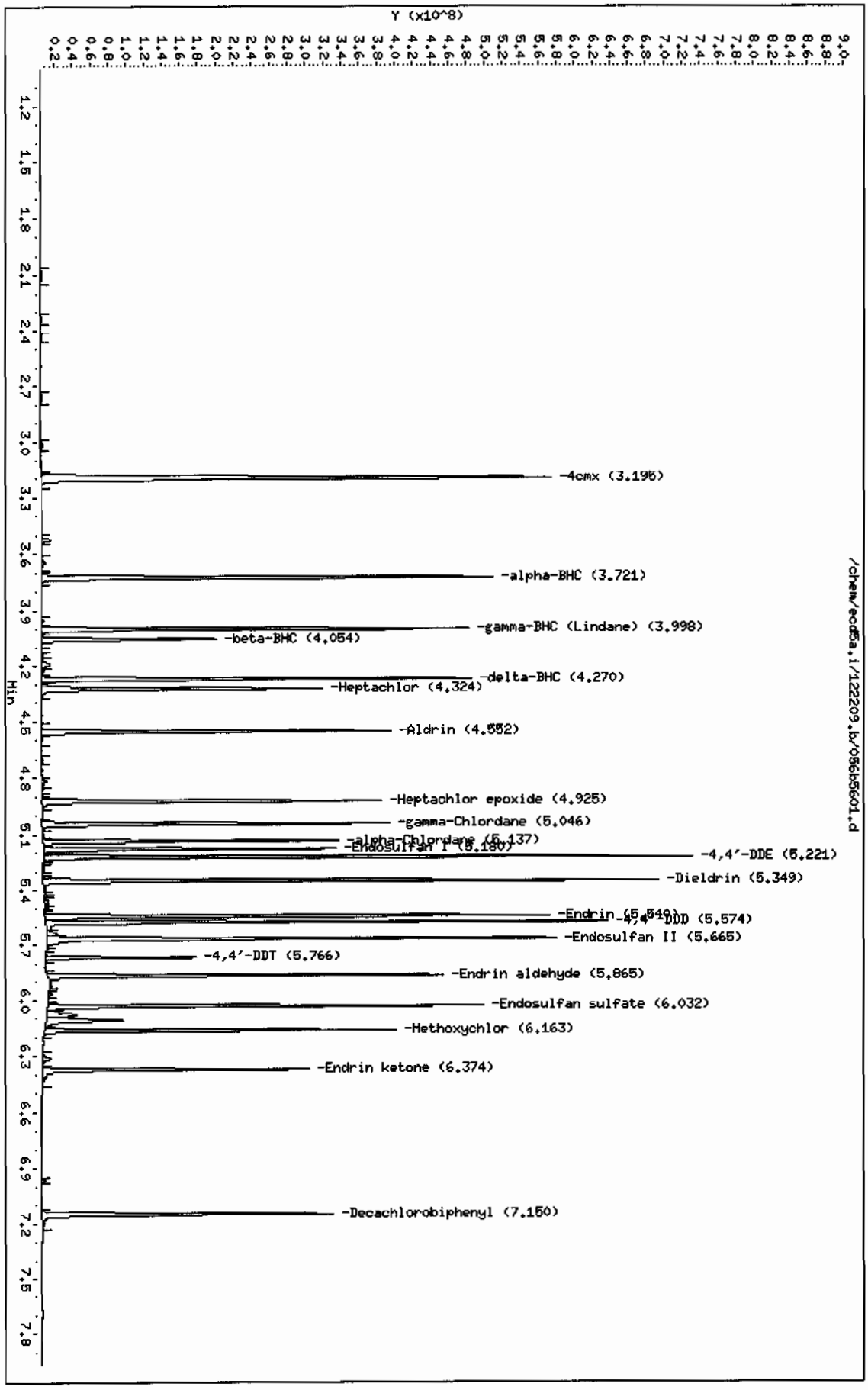

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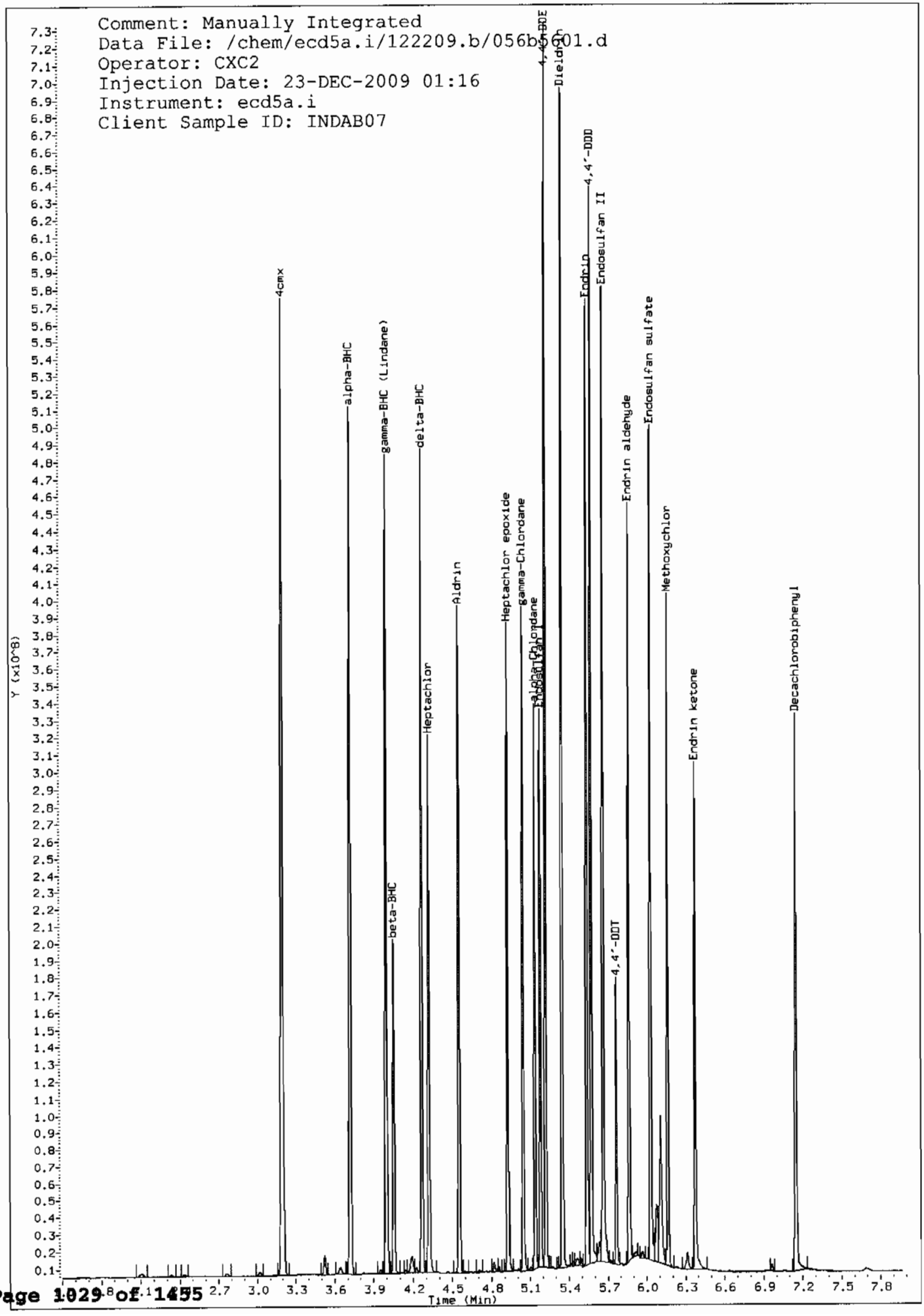
Comment: Manually Integrated
Data File: /chem/ecd5a.i/122209.b/056b5601.d
Operator: CXC2
Injection Date: 23-DEC-2009 01:16
Instrument: ecd5a.i
Client Sample ID: INDAB07
4cmx
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide
gamma-Chlordane
alpha-Chlordane
Endosulfan I
4,4'-DDE
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Endosulfan sulfate
Methoxychlor
Endrin ketone
Decachlorobiphenyl
Y (x10^8)
Time (Min)

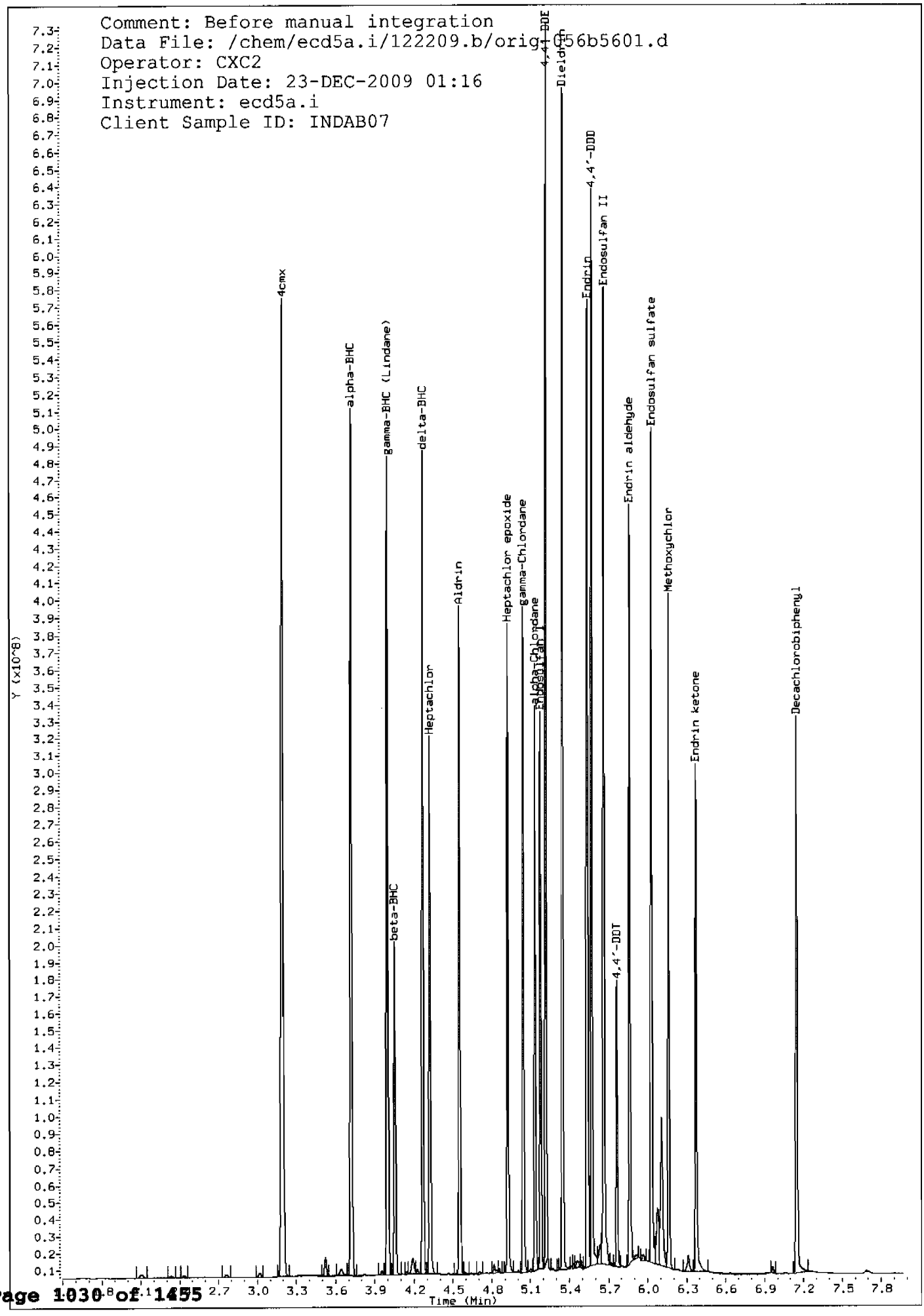
Comment: Before manual integration
Data File: /chem/ecd5a.i/122209.b/orig-056b5601.d
Operator: CXC2
Injection Date: 23-DEC-2009 01:16
Instrument: ecd5a.i
Client Sample ID: INDAB07
4cmx
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide
gamma-Chlordane
alpha-Chlordane
Endosulfan I
4,4'-DDE
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Endosulfan sulfate
Methoxychlor
Endrin ketone
Decachlorobiphenyl
Y (x10^8)
Time (Min)

8D
PESTICIDE ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-899-1

GC Column: CLP-1 ID: 0.25 (mm) Init. Calib. Date(s): 12/18/09 12/18/09

Instrument ID: ECD5A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.79 DCB: 6.49

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR091109-99	12/18/09	1816	2.79	6.49
02	PEM01	WPE091109-99	12/18/09	1828	2.79	6.49
03	INDAB01	WPE091218-01	12/18/09	1840	2.79	6.49
04	INDAB02	WPE091218-02	12/18/09	1852	2.79	6.49
05	INDAB03	WPE091218-03	12/18/09	1903	2.79	6.49
06	INDAB04	WPE091218-04	12/18/09	1915	2.79	6.49
07	INDAB05	IPE091128-02	12/18/09	1927	2.79	6.49
08	ZZZZZ	ZZZZZ	12/18/09	1939	2.79	6.49
09	TOXAPH01	WPE091216-11	12/18/09	1951	2.79	6.49
10	TOXAPH02	WPE091216-12	12/18/09	2003	2.79	6.49
11	TOXAPH03	WPE091216-13	12/18/09	2015	2.79	6.49
12	TOXAPH04	WPE091216-14	12/18/09	2027	2.79	6.49
13	TOXAPH05	IPE091121-40	12/18/09	2039	2.79	6.49
14	TOXAPH01	WPE091104-52	12/18/09	2051	2.79	6.49
15	INDAB01	WPE091207-10	12/18/09	2103	2.79	6.49
16	CHLOR01	WPE091216-21	12/18/09	2115	2.79	6.49
17	CHLOR02	WPE091216-22	12/18/09	2127	2.79	6.49
18	CHLOR03	WPE091216-23	12/18/09	2139	2.79	6.49
19	CHLOR04	WPE091216-24	12/18/09	2151	2.79	6.49
20	CHLOR05	IPE091029-05	12/18/09	2202	2.79	6.49
21	CHLOR01	WPE091021-00	12/18/09	2214	2.79	6.49
22	PIBLK02	WAR091109-99	12/18/09	2226	2.79	6.49
23	ZZZZZ	ZZZZZ	12/18/09	2238	2.79	6.49
24	ZZZZZ	ZZZZZ	12/18/09	2250	2.79	6.49
25	ZZZZZ	ZZZZZ	12/18/09	2302	2.79	6.48
26	ZZZZZ	ZZZZZ	12/18/09	2314	2.79	6.49
27	ZZZZZ	ZZZZZ	12/18/09	2326	2.79	6.49
28	ZZZZZ	ZZZZZ	12/18/09	2338	2.79	6.49
29	ZZZZZ	ZZZZZ	12/18/09	2350	2.79	6.49
30	ZZZZZ	ZZZZZ	12/19/09	0002	2.79	6.49
31	ZZZZZ	ZZZZZ	12/19/09	0014	2.79	6.48
32	ZZZZZ	ZZZZZ	12/19/09	0025	2.79	6.49

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII SV OLM03.0

8D
PESTICIDE ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-899-1

GC Column: CLP-2 ID: 0.25 (mm) Init. Calib. Date(s): 12/18/09 12/18/09

Instrument ID: ECD5A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 3.20 DCB: 7.16

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR091109-99	12/18/09	1816	3.20	7.16
02	PEM01	WPE091109-99	12/18/09	1828	3.20	7.16
03	INDAB01	WPE091218-01	12/18/09	1840	3.20	7.16
04	INDAB02	WPE091218-02	12/18/09	1852	3.20	7.16
05	INDAB03	WPE091218-03	12/18/09	1903	3.20	7.16
06	INDAB04	WPE091218-04	12/18/09	1915	3.20	7.16
07	INDAB05	IPE091128-02	12/18/09	1927	3.20	7.16
08	ZZZZZ	ZZZZZ	12/18/09	1939	3.20	7.16
09	TOXAPH01	WPE091216-11	12/18/09	1951	3.20	7.16
10	TOXAPH02	WPE091216-12	12/18/09	2003	3.20	7.16
11	TOXAPH03	WPE091216-13	12/18/09	2015	3.20	7.16
12	TOXAPH04	WPE091216-14	12/18/09	2027	3.20	7.16
13	TOXAPH05	IPE091121-40	12/18/09	2039	3.20	7.16
14	TOXAPH01	WPE091104-52	12/18/09	2051	3.20	7.16
15	INDAB01	WPE091207-10	12/18/09	2103	3.20	7.16
16	CHLOR01	WPE091216-21	12/18/09	2115	3.20	7.16
17	CHLOR02	WPE091216-22	12/18/09	2127	3.20	7.16
18	CHLOR03	WPE091216-23	12/18/09	2139	3.20	7.16
19	CHLOR04	WPE091216-24	12/18/09	2151	3.20	7.16
20	CHLOR05	IPE091029-05	12/18/09	2202	3.20	7.16
21	CHLOR01	WPE091021-00	12/18/09	2214	3.20	7.16
22	PIBLK02	WAR091109-99	12/18/09	2226	3.20	7.16
23	ZZZZZ	ZZZZZ	12/18/09	2238	3.20	7.16
24	ZZZZZ	ZZZZZ	12/18/09	2250	3.20	7.16
25	ZZZZZ	ZZZZZ	12/18/09	2302	3.20	7.16
26	ZZZZZ	ZZZZZ	12/18/09	2314	3.20	7.16
27	ZZZZZ	ZZZZZ	12/18/09	2326	3.20	7.16
28	ZZZZZ	ZZZZZ	12/18/09	2338	3.20	7.16
29	ZZZZZ	ZZZZZ	12/18/09	2350	3.20	7.16
30	ZZZZZ	ZZZZZ	12/19/09	0002	3.20	7.16
31	ZZZZZ	ZZZZZ	12/19/09	0014	3.20	7.16
32	ZZZZZ	ZZZZZ	12/19/09	0025	3.20	7.16

QC LIMITS
S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII SV OLM03.0

8D
PESTICIDE ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-899-1

GC Column: CLP-1 ID: 0.25 (mm) Init. Calib. Date(s): 12/18/09 12/22/09

Instrument ID: ECD5A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.79 DCB: 6.48

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR091109-99	12/22/09	1317	2.79	6.49
02	PEM01	WPE091109-99	12/22/09	1329	2.79	6.48
03	ZZZZZ	ZZZZZ	12/22/09	1341	2.79	6.48
04	TOXAPH01	WPE091104-52	12/22/09	1353	2.79	6.48
05	CHLOR01	WPE091021-00	12/22/09	1405	2.79	6.48
06	ZZZZZ	ZZZZZ	12/22/09	1447	2.79	6.51
07	INDAB01	WPE091222-02	12/22/09	1504	2.79	6.50
08	INDAB02	WPE091222-02	12/22/09	1516	2.79	6.48
09	INDAB03	WPE091222-03	12/22/09	1528	2.79	6.48
10	INDAB04	WPE091222-04	12/22/09	1540	2.79	6.48
11	INDAB05	IPE091128-02	12/22/09	1552	2.79	6.48
12	INDAB01	WPE091207-10	12/22/09	1604	2.79	6.48
13	PEM02	WPE091109-99	12/22/09	1616	2.79	6.48
14	PIBLK02	WAR091109-99	12/22/09	1638	2.79	6.50
15	ZZZZZ	ZZZZZ	12/22/09	1659	2.79	6.49
16	ZZZZZ	ZZZZZ	12/22/09	1711	2.79	6.48
17	ZZZZZ	ZZZZZ	12/22/09	1723	2.79	6.48
18	ZZZZZ	ZZZZZ	12/22/09	1735	2.79	6.48
19	ZZZZZ	ZZZZZ	12/22/09	1747	2.79	6.48
20	INDAB02	WPE091207-10	12/22/09	1759	2.79	6.48
21	PIBLK03	WAR091109-99	12/22/09	1811	2.79	6.48
22	ZZZZZ	ZZZZZ	12/22/09	1823	2.79	6.48
23	INDAB03	WPE091207-10	12/22/09	1835	2.79	6.48
24	ZZZZZ	ZZZZZ	12/22/09	1847	2.79	6.48
25	ZZZZZ	ZZZZZ	12/22/09	1859	2.79	6.48
26	ZZZZZ	ZZZZZ	12/22/09	1913	2.79	6.48
27	WST03-10-2145	242785001	12/22/09	1929	2.79	6.49
28	WST03-10-2146	242785002	12/22/09	1941	2.79	6.48
29	ZZZZZ	ZZZZZ	12/22/09	1953	2.79	6.48
30	ZZZZZ	ZZZZZ	12/22/09	2005	2.79	6.48
31	ZZZZZ	ZZZZZ	12/22/09	2017	2.79	6.48
32	ZZZZZ	ZZZZZ	12/22/09	2029	2.79	6.48

QC LIMITS
S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII SV OLM03.0

8D
PESTICIDE ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-899-1

GC Column: CLP-1 ID: 0.25 (mm) Init. Calib. Date(s): 12/18/09 12/22/09

Instrument ID: ECD5A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.79 DCB: 6.48

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	ZZZZZ	ZZZZZ	12/22/09	2041	2.79	6.48
02	PIBLK05	WAR091109-99	12/22/09	2053	2.79	6.48
03	INDAB04	WPE091207-10	12/22/09	2105	2.79	6.48
04	PIBLK06	WAR091109-99	12/22/09	2117	2.79	6.48
05	ZZZZZ	ZZZZZ	12/22/09	2129	2.79	6.48
06	ZZZZZ	ZZZZZ	12/22/09	2141	2.79	6.48
07	ZZZZZ	ZZZZZ	12/22/09	2153	2.79	6.48
08	ZZZZZ	ZZZZZ	12/22/09	2205	2.79	6.48
09	ZZZZZ	ZZZZZ	12/22/09	2217	2.79	6.48
10	ZZZZZ	ZZZZZ	12/22/09	2228	2.79	6.48
11	ZZZZZ	ZZZZZ	12/22/09	2240	2.79	6.48
12	PIBLK07	WAR091109-99	12/22/09	2252	2.79	6.48
13	INDAB05	WPE091207-10	12/22/09	2304	2.79	6.48
14	PIBLK08	WAR091109-99	12/22/09	2316	2.79	6.48
15	PBLK01	1201998973	12/22/09	2328	2.79	6.48
16	PBLK01LCS	1201998980	12/22/09	2340	2.79	6.48
17	PBLK01TLCS	1201998981	12/22/09	2352	2.79	6.48
18	PBLK01CLCS	1201998982	12/23/09	0004	2.79	6.48
19	INDAB06	WPE091207-10	12/23/09	0016	2.79	6.48
20	PIBLK09	WAR091109-99	12/23/09	0028	2.79	6.48
21	ZZZZZ	ZZZZZ	12/23/09	0040	2.79	6.48
22	TBLK01	1201996842	12/23/09	0052	2.79	6.48
23	ZZZZZ	ZZZZZ	12/23/09	0104	2.79	6.48
24	INDAB07	WPE091207-10	12/23/09	0116	2.79	6.48
25	PIBLK10	WAR091109-99	12/23/09	0128	2.79	6.48
26	ZZZZZ	ZZZZZ	12/23/09	0140	2.79	6.48
27	ZZZZZ	ZZZZZ	12/23/09	0152	2.79	6.48
28	ZZZZZ	ZZZZZ	12/23/09	0204	2.79	6.48
29	ZZZZZ	ZZZZZ	12/23/09	0216	2.79	6.48
30	ZZZZZ	ZZZZZ	12/23/09	0228	2.79	6.48
31	INDAB08	WPE091207-10	12/23/09	0240	2.79	6.48
32	PIBLK11	WAR091109-99	12/23/09	0252	2.79	6.48

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII SV OLM03.0

8D
PESTICIDE ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-899-1

GC Column: CLP-2 ID: 0.25 (mm) Init. Calib. Date(s): 12/18/09 12/22/09

Instrument ID: ECD5A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 3.20 DCB: 7.15

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR091109-99	12/22/09	1317	3.19	7.16
02	PEM01	WPE091109-99	12/22/09	1329	3.20	7.15
03	ZZZZZ	ZZZZZ	12/22/09	1341	3.20	7.15
04	TOXAPH01	WPE091104-52	12/22/09	1353	3.20	7.15
05	CHLOR01	WPE091021-00	12/22/09	1405	3.20	7.15
06	ZZZZZ	ZZZZZ	12/22/09	1447	3.19	7.18
07	INDAB01	WPE091222-01	12/22/09	1504	3.19	7.16
08	INDAB02	WPE091222-02	12/22/09	1516	3.19	7.15
09	INDAB03	WPE091222-03	12/22/09	1528	3.19	7.15
10	INDAB04	WPE091222-04	12/22/09	1540	3.19	7.15
11	INDAB05	IPE091128-02	12/22/09	1552	3.20	7.15
12	INDAB01	WPE091207-10	12/22/09	1604	3.20	7.15
13	PEM02	WPE091109-99	12/22/09	1616	3.20	7.15
14	PIBLK02	WAR091109-99	12/22/09	1638	3.20	7.17
15	ZZZZZ	ZZZZZ	12/22/09	1659	3.19	7.16
16	ZZZZZ	ZZZZZ	12/22/09	1711	3.19	7.15
17	ZZZZZ	ZZZZZ	12/22/09	1723	3.20	7.15
18	ZZZZZ	ZZZZZ	12/22/09	1735	3.20	7.15
19	ZZZZZ	ZZZZZ	12/22/09	1747	3.20	7.15
20	INDAB02	WPE091207-10	12/22/09	1759	3.19	7.15
21	PIBLK03	WAR091109-99	12/22/09	1811	3.20	7.15
22	ZZZZZ	ZZZZZ	12/22/09	1823	3.20	7.15
23	INDAB03	WPE091207-10	12/22/09	1835	3.20	7.15
24	ZZZZZ	ZZZZZ	12/22/09	1847	3.20	7.15
25	ZZZZZ	ZZZZZ	12/22/09	1859	3.20	7.15
26	ZZZZZ	ZZZZZ	12/22/09	1913	3.20	7.15
27	WST03-10-2145	242785001	12/22/09	1929	3.20	7.15
28	WST03-10-2146	242785002	12/22/09	1941	3.19	7.15
29	ZZZZZ	ZZZZZ	12/22/09	1953	3.20	7.15
30	ZZZZZ	ZZZZZ	12/22/09	2005	3.20	7.15
31	ZZZZZ	ZZZZZ	12/22/09	2017	3.20	7.15
32	ZZZZZ	ZZZZZ	12/22/09	2029	3.20	7.15

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII SV OLM03.0

8D
PESTICIDE ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-899-1

GC Column: CLP-2 ID: 0.25 (mm) Init. Calib. Date(s): 12/18/09 12/22/09

Instrument ID: ECD5A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 3.20 DCB: 7.15

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	ZZZZZ	ZZZZZ	12/22/09	2041	3.20	7.15
02	PIBLK05	WAR091109-99	12/22/09	2053	3.20	7.15
03	INDAB04	WPE091207-10	12/22/09	2105	3.20	7.15
04	PIBLK06	WAR091109-99	12/22/09	2117	3.19	7.15
05	ZZZZZ	ZZZZZ	12/22/09	2129	3.20	7.15
06	ZZZZZ	ZZZZZ	12/22/09	2141	3.20	7.15
07	ZZZZZ	ZZZZZ	12/22/09	2153	3.20	7.15
08	ZZZZZ	ZZZZZ	12/22/09	2205	3.20	7.15
09	ZZZZZ	ZZZZZ	12/22/09	2217	3.20	7.15
10	ZZZZZ	ZZZZZ	12/22/09	2228	3.20	7.15
11	ZZZZZ	ZZZZZ	12/22/09	2240	3.20	7.15
12	PIBLK07	WAR091109-99	12/22/09	2252	3.20	7.15
13	INDAB05	WPE091207-10	12/22/09	2304	3.20	7.15
14	PIBLK08	WAR091109-99	12/22/09	2316	3.20	7.15
15	PBLK01	1201998973	12/22/09	2328	3.20	7.15
16	PBLK01LCS	1201998980	12/22/09	2340	3.20	7.15
17	PBLK01TLCS	1201998981	12/22/09	2352	3.20	7.15
18	PBLK01CLCS	1201998982	12/23/09	0004	3.20	7.15
19	INDAB05	WPE091207-10	12/23/09	0016	3.19	7.15
20	PIBLK09	WAR091109-99	12/23/09	0028	3.20	7.15
21	ZZZZZ	ZZZZZ	12/23/09	0040	3.20	7.15
22	TBLK01	1201996842	12/23/09	0052	3.20	7.15
23	ZZZZZ	ZZZZZ	12/23/09	0104	3.20	7.15
24	INDAB07	WPE091207-10	12/23/09	0116	3.19	7.15
25	PIBLK10	WAR091109-99	12/23/09	0128	3.20	7.15
26	ZZZZZ	ZZZZZ	12/23/09	0140	3.20	7.15
27	ZZZZZ	ZZZZZ	12/23/09	0152	3.20	7.15
28	ZZZZZ	ZZZZZ	12/23/09	0204	3.20	7.15
29	ZZZZZ	ZZZZZ	12/23/09	0216	3.20	7.15
30	ZZZZZ	ZZZZZ	12/23/09	0228	3.20	7.15
31	INDAB08	WPE091207-10	12/23/09	0240	3.19	7.15
32	PIBLK11	WAR091109-99	12/23/09	0252	3.19	7.15

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII SV OLM03.0

Identification Summary

SDG Number: 10–899–1 **Client ID:** LCS for batch 934314

Lab Sample ID: 1201998980

Data File: 048f4801.d **Data File:** 048b4801.d

Inst: ECD5A.I_1 **Inst:** ECD5A.I_2

Column: CLP–1 **Column:** CLP–2

Analyzed: 22–DEC–09 23:40 **Analyzed:** 22–DEC–09 23:40

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
gamma–BHC (Lindane)							21.5
Column 1	1	3.55	3.52 – 3.58	.00434		mg/L	
Column 2	1	4	3.97 – 4.03	.00349		mg/L	
Heptachlor							17.6
Column 1	1	3.9	3.87 – 3.93	.00366		mg/L	
Column 2	1	4.33	4.3 – 4.36	.00306		mg/L	
Heptachlor epoxide							15.5
Column 1	1	4.52	4.49 – 4.55	.00413		mg/L	
Column 2	1	4.93	4.9 – 4.96	.00353		mg/L	
Endrin							10.7
Column 1	1	5.07	5.04 – 5.1	.00523		mg/L	
Column 2	1	5.54	5.51 – 5.57	.00469		mg/L	
Methoxychlor							4.32
Column 1	1	5.55	5.52 – 5.58	.0569		mg/L	
Column 2	1	6.16	6.14 – 6.2	.0594		mg/L	

Identification Summary

SDG Number: 10–899–1 **Client ID:** LCS for batch 934314

Lab Sample ID: 1201998982

Data File:	050f5001.d	**Data File:**	050b5001.d
Inst:	ECD5A.I_1	**Inst:**	ECD5A.I_2
Column:	CLP–1	**Column:**	CLP–2
Analyzed:	23–DEC–09 00:04	**Analyzed:**	23–DEC–09 00:04

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Chlordane (tech.)							4.67
Column 1	1	3.84	3.74 – 3.94	.0681		mg/L	
	2	3.9	3.8 – 4	.0808		mg/L	
	3	4.21	4.11 – 4.31	.0849		mg/L	
	4	4.6	4.5 – 4.7	.077		mg/L	
	5	5.16	5.07 – 5.27	.0778		mg/L	
					.0777		
Column 2	1	4.22	4.19 – 4.25	.0627		mg/L	
	2	4.64	4.62 – 4.68	.0885		mg/L	
	3	4.9	4.87 – 4.93	.0805		mg/L	
	4	5.05	5.02 – 5.08	.0719		mg/L	
	5	5.14	5.11 – 5.17	.0673		mg/L	
					.0742		

Identification Summary

SDG Number: 10–899–1 **Client ID:** LCS for batch 934314

Lab Sample ID: 1201998981

Data File:	049f4901.d	**Data File:**	049b4901.d
Inst:	ECD5A.I_1	**Inst:**	ECD5A.I_2
Column:	CLP–1	**Column:**	CLP–2
Analyzed:	22–DEC–09 23:52	**Analyzed:**	22–DEC–09 23:52

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Toxaphene							38.2
Column 1	1	4.71	4.68 – 4.74	.0716		mg/L	
	2	4.93	4.9 – 4.96	.0887		mg/L	
	3	4.98	4.95 – 5.01	.0863		mg/L	
	4	5.02	4.99 – 5.05	.0841		mg/L	
	5	5.08	5.05 – 5.11	.0866		mg/L	
					.0835		
Column 2	1	5.4	5.38 – 5.44	.0788		mg/L	
	2	5.55	5.51 – 5.57	.0762		mg/L	
	3	5.63	5.6 – 5.66	.0511		mg/L	
	4	5.66	5.63 – 5.69	.0354		mg/L	
	5	5.72	5.69 – 5.75	.042		mg/L	
					.0567		

QUALITY CONTROL DATA

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	10–899–1			**Matrix:**	TCLP SOIL
Lab Sample ID:	1201996842				
Client Sample:	QC for batch 933331	**Client:**	LANL010	**Project:**	QC
Client ID:	TB for batch 933331	**Method:**	SW846 8081A	**SOP Ref:**	GL–OA–E–041
Batch ID:	934315	**Inst:**	ECD5A.I	**Dilution:**	1
Run Date:	12/23/2009 00:52	**Analyst:**	CXC2	**Inj. Vol:**	1 uL
Prep Date:	12/22/2009 17:25	**Aliquot:**	20 mL	**Final Volume:**	1 mL
Data File:	054f5401–899.d	**Column:**	1 CLP–1	**Level:**	LOW
	054b5401–899.d		2 CLP–2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
58–89–9	gamma–BHC (Lindane)	U	0.0002	mg/L	0.00005	0.0002	1
76–44–8	Heptachlor	U	0.0002	mg/L	0.00005	0.0002	1
1024–57–3	Heptachlor epoxide	U	0.0002	mg/L	0.00005	0.0002	1
72–20–8	Endrin	U	0.0004	mg/L	0.0001	0.0004	1
72–43–5	Methoxychlor	U	0.002	mg/L	0.0005	0.002	1
57–74–9	Chlordane (tech.)	U	0.0025	mg/L	0.000765	0.0025	1
8001–35–2	Toxaphene	U	0.005	mg/L	0.0015	0.005	1

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd5a.i/122209.b/054f5401.d
Lab Smp Id: 1201996842 Client Smp ID: TBLK01
Inj Date : 23-DEC-2009 00:52
Operator : CXC2 Inst ID: ecd5a.i
Smp Info : |1201996842|1|
Misc Info : |ECDPTL_1L|934315|SVP|TB|SOIL|TB|||
Comment :
Method : /chem/ecd5a.i/122209.b/ECD5-F-8081-121809.m
Meth Date : 23-Dec-2009 08:48 cla01575 Quant Type: ESTD
Cal Date : 05-DEC-2009 03:28 Cal File: 025f2501.d
Als bottle: 54 QC Sample: TB
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-899-1.sub
Target Version: 3.50 Sample Matrix: Water
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	0.00100	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	20.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (mg/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.792	2.790	0.002	41101261	88.7028	0.00444	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
6.477	6.482	-0.005	45027741	164.795	0.00824	80.00- 120.00	100.00

Data File: /chem/ecd5a.i/122209.b/054f5401.d

Date : 23-DEC-2009 00:52

Client ID: TBLK01

Sample Info: |120199684211|

Volume Injected (uL): 1.0

Column phase: CLP-1

Instrument: ecd5a.i

Operator: CXC2

Column diameter: 0.25

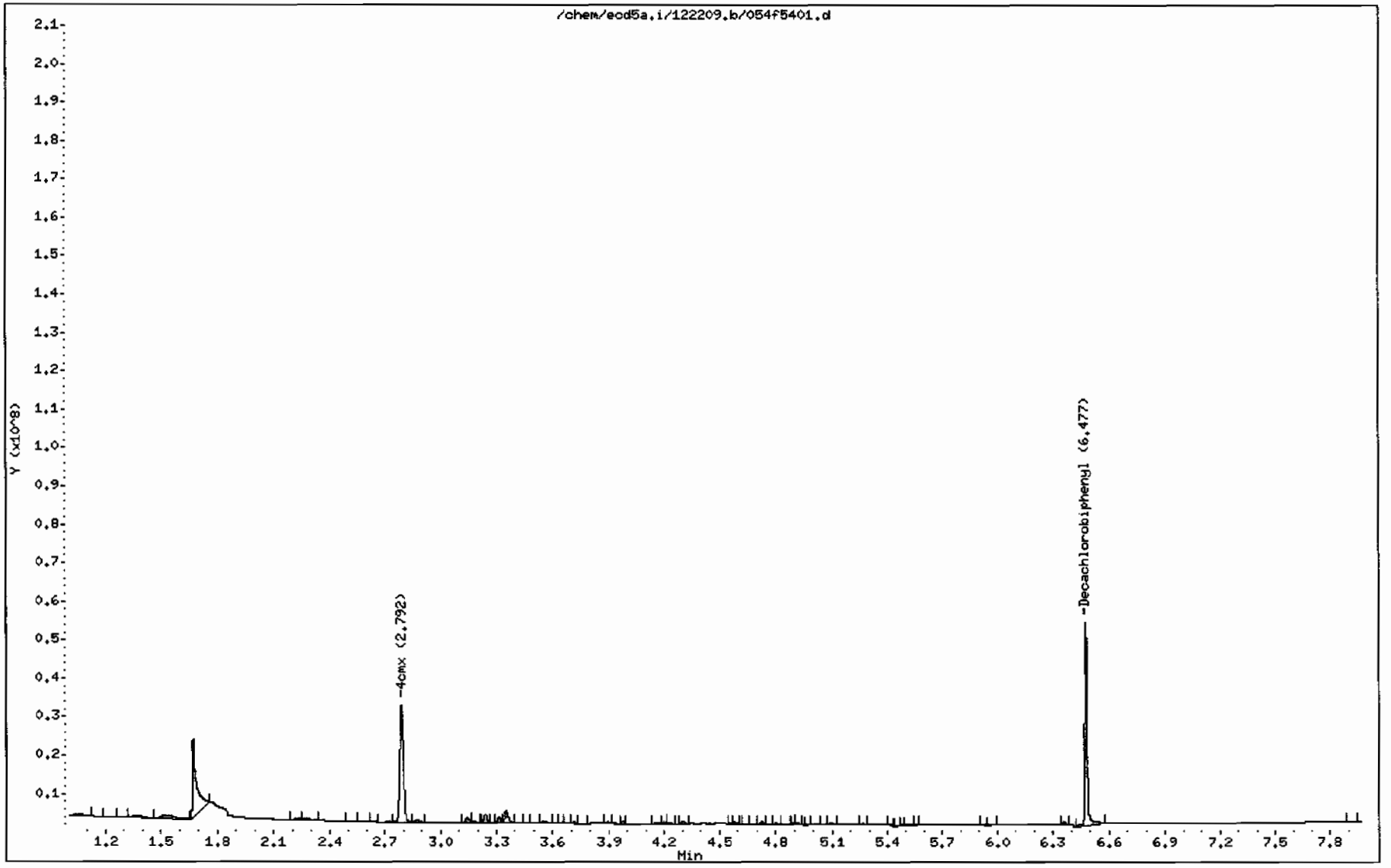

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd5a.i/122209.b/054b5401-899.d
Lab Smp Id: 1201996842 Client Smp ID: TBLK01
Inj Date : 23-DEC-2009 00:52
Operator : CXC2 Inst ID: ecd5a.i
Smp Info : |1201996842|1|
Misc Info : |ECDPTL_1L|934315|SVP|TB|SOIL|TB|||
Comment :
Method : /chem/ecd5a.i/122209.b/ECD5-B-8081-121809.m
Meth Date : 23-Dec-2009 08:46 cla01575 Quant Type: ESTD
Cal Date : 05-DEC-2009 03:28 Cal File: 025b2501.d
Als bottle: 54 QC Sample: TB
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-899-1.sub
Target Version: 3.50 Sample Matrix: Water
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	0.00100	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	20.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (mg/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
3.198	3.198	0.000	230893160	71.3841	0.00357	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.149	7.153	-0.004	207690791	147.360	0.00737	80.00- 120.00	100.00

Data File: /chem/ecd5a.i/122209.b/054b5401-899.d
Date : 23-DEC-2009 00:52
Client ID: TBLK01
Sample Info: |1201996842|1|
Volume Injected (uL): 1.0
Column phase: CLP-2

Instrument: ecd5a.i
Operator: CXC2
Column diameter: 0.25

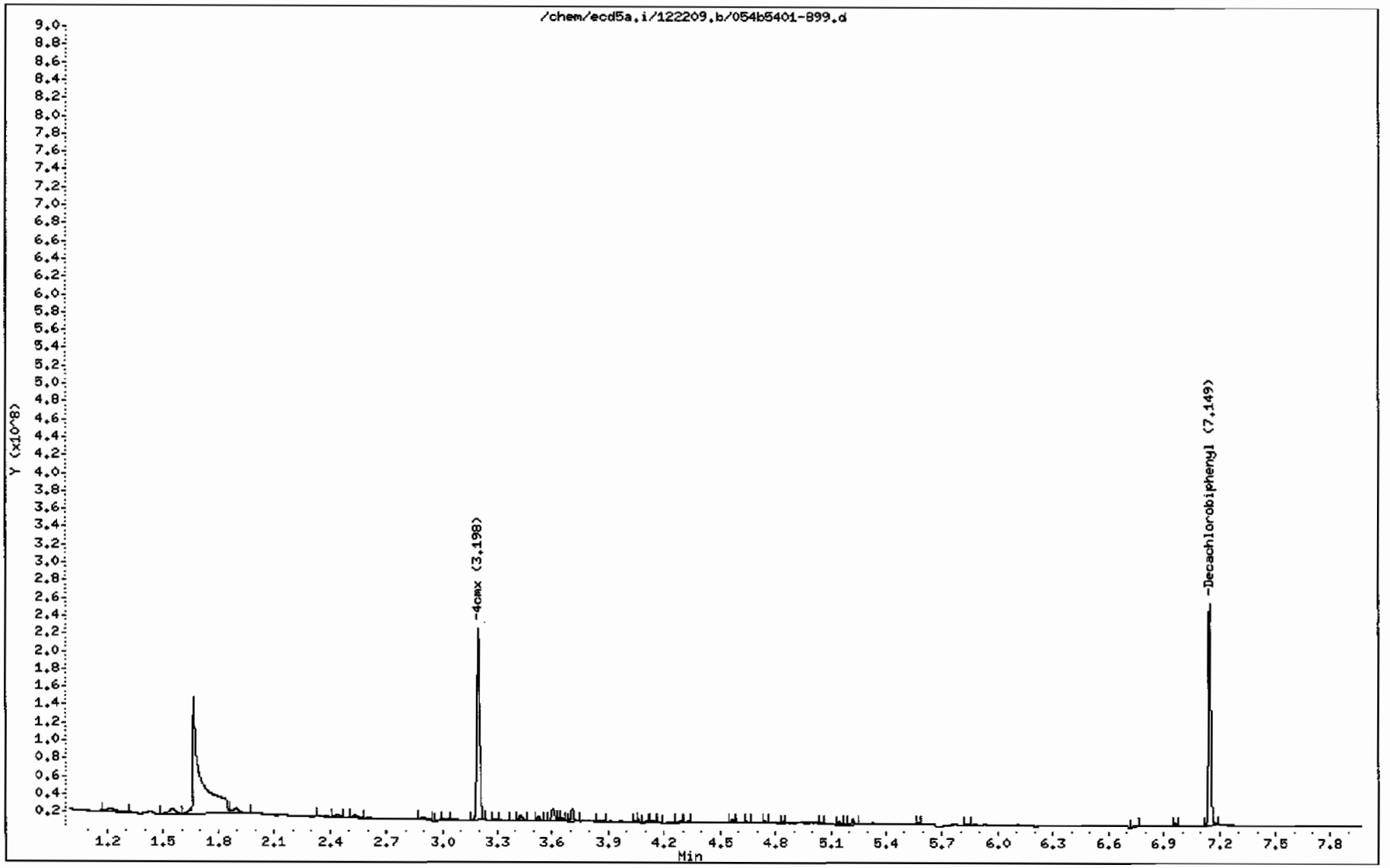

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	10-899-1			**Matrix:**	TCLP SOIL
Lab Sample ID:	1201998973				
Client Sample:	QC for batch 934314	**Client:**	LANL010	**Project:**	QC
Client ID:	MB for batch 934314	**Method:**	SW846 8081A	**SOP Ref:**	GL-OA-E-041
Batch ID:	934315	**Inst:**	ECD5A.I	**Dilution:**	1
Run Date:	12/22/2009 23:28	**Analyst:**	CXC2	**Inj. Vol:**	1 uL
Prep Date:	12/22/2009 17:25	**Aliquot:**	20 mL	**Final Volume:**	1 mL
Data File:	047f4701-786.d	**Column:**	1 CLP-1	**Level:**	LOW
	047b4701-786.d		2 CLP-2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
58-89-9	gamma-BHC (Lindane)	U	0.0002	mg/L	0.00005	0.0002	1
76-44-8	Heptachlor	U	0.0002	mg/L	0.00005	0.0002	1
1024-57-3	Heptachlor epoxide	U	0.0002	mg/L	0.00005	0.0002	1
72-20-8	Endrin	U	0.0004	mg/L	0.0001	0.0004	1
72-43-5	Methoxychlor	U	0.002	mg/L	0.0005	0.002	1
57-74-9	Chlordane (tech.)	U	0.0025	mg/L	0.000765	0.0025	1
8001-35-2	Toxaphene	U	0.005	mg/L	0.0015	0.005	1

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd5a.i/122209.b/047f4701-899.d
Lab Smp Id: 1201998973 Client Smp ID: PBLK01
Inj Date : 22-DEC-2009 23:28
Operator : CXC2 Inst ID: ecd5a.i
Smp Info : |1201998973|1|
Misc Info : |ECDPTL_1L|934315|SVP|MB|SOIL|MB|||
Comment :
Method : /chem/ecd5a.i/122209.b/ECD5-F-8081-121809.m
Meth Date : 23-Dec-2009 08:48 cla01575 Quant Type: ESTD
Cal Date : 05-DEC-2009 03:28 Cal File: 025f2501.d
Als bottle: 47 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-899-1.sub
Target Version: 3.50 Sample Matrix: Water
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	0.00100	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	20.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (mg/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.792	2.790	0.002	35537914	76.6962	0.00383	80.00- 120.00	100.00(M)
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
6.477	6.482	-0.005	47407836	173.506	0.00868	80.00- 120.00	100.00

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd5a.i/122209.b/047f4701-899.d
Date : 22-DEC-2009 23:28
Client ID: PBLK01
Sample Info: |1201998973|1|
Volume Injected (uL): 1.0
Column phase: CLP-1

Instrument: ecd5a.i

Operator: CXC2
Column diameter: 0.25

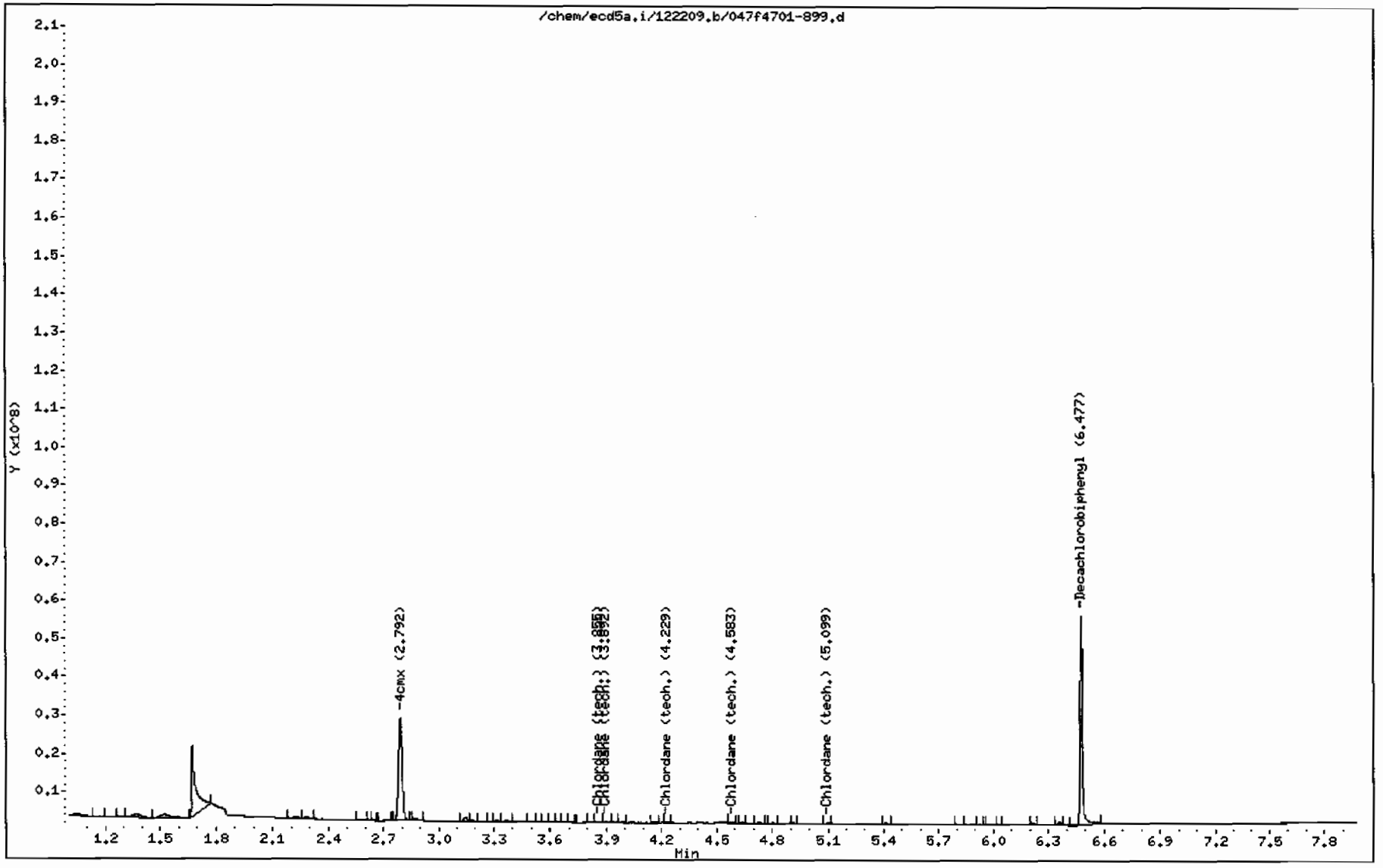

Comment: Manually Integrated
Data File: /chem/ecd5a.i/122209.b/047f4701-899.d
Operator: CXC2
Injection Date: 22-DEC-2009 23:28
Instrument: ecd5a.i
Client Sample ID: PBLK01

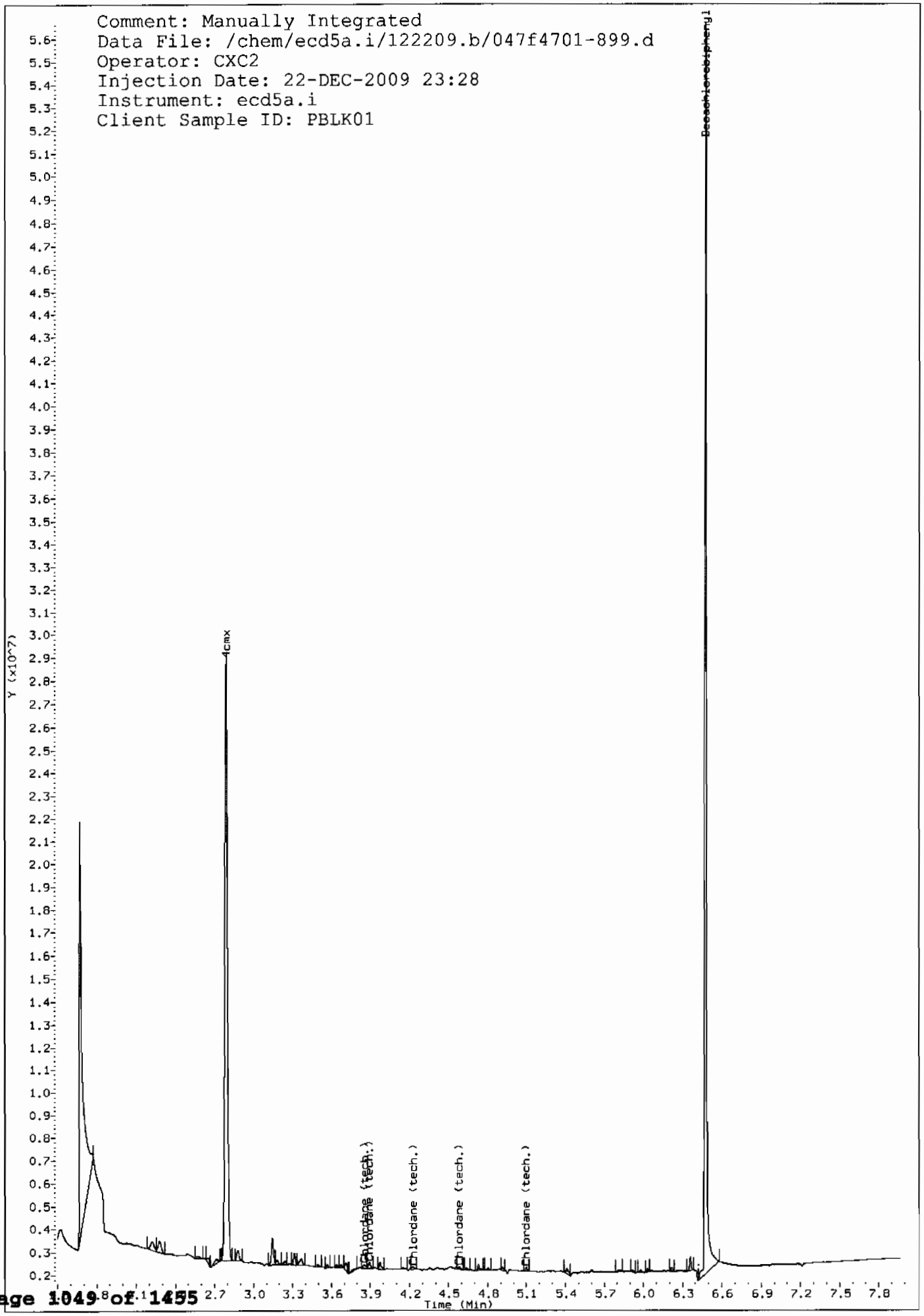

Comment: Before manual integration
Data File: /chem/ecd5a.i/122209.b/orig-047f4701-899.d
Operator: CXC2
Injection Date: 22-DEC-2009 23:28
Instrument: ecd5a.i
Client Sample ID: PBLK01

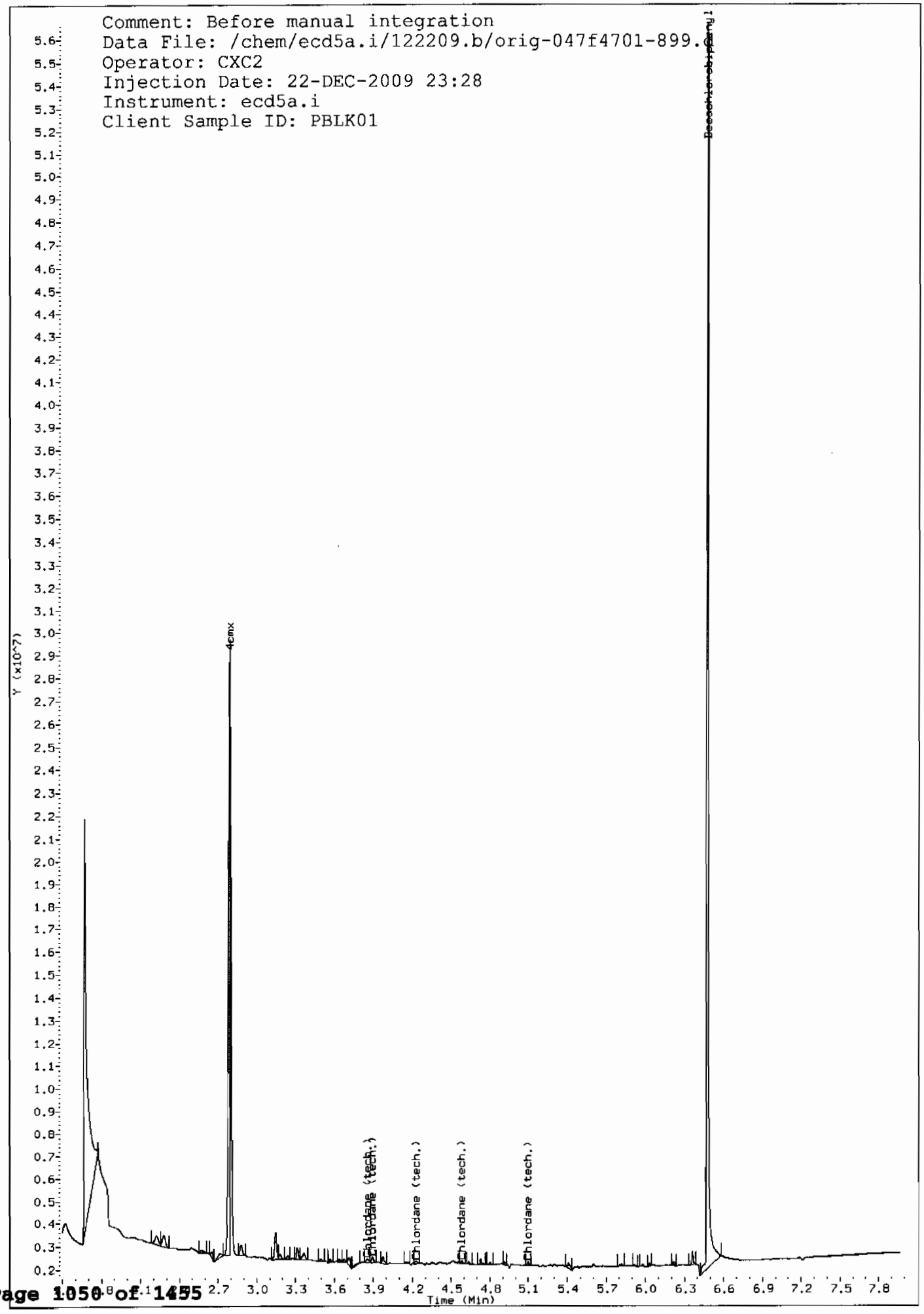

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd5a.i/122209.b/047b4701-899.d
Lab Smp Id: 1201998973 Client Smp ID: PBLK01
Inj Date : 22-DEC-2009 23:28
Operator : CXC2 Inst ID: ecd5a.i
Smp Info : |1201998973|1|
Misc Info : |ECDPTL_1L|934315|SVP|MB|SOIL|MB|||
Comment :
Method : /chem/ecd5a.i/122209.b/ECD5-B-8081-121809.m
Meth Date : 23-Dec-2009 08:46 cla01575 Quant Type: ESTD
Cal Date : 05-DEC-2009 03:28 Cal File: 025b2501.d
Als bottle: 47 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-899-1.sub
Target Version: 3.50 Sample Matrix: Water
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	0.00100	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	20.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (mg/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
3.198	3.198	0.000	207630197	64.1920	0.00321	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.147	7.153	-0.006	223394830	158.503	0.00792	80.00- 120.00	100.00

Data File: /chem/ecd5a.i/122209.b/047b4701-899.d
Date : 22-DEC-2009 23:28
Client ID: PBLK01
Sample Info: |1201998973|1|
Volume Injected (uL): 1.0
Column phase: CLP-2

Instrument: ecd5a.i
Operator: CXC2
Column diameter: 0.25

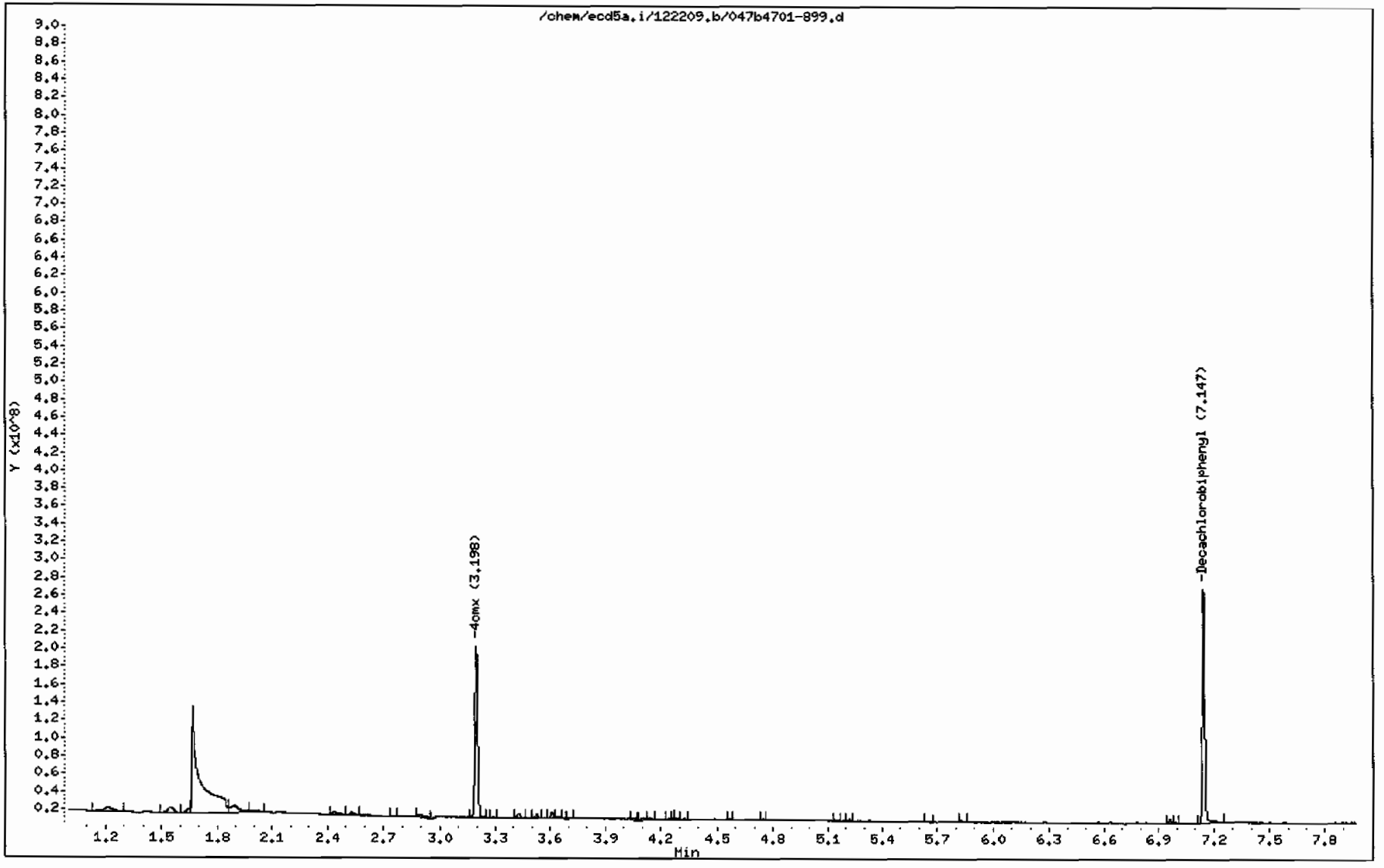

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	10–899–1			**Matrix:**	TCLP SOIL
Lab Sample ID:	1201998982				
Client Sample:	QC for batch 934314	**Client:**	LANL010	**Project:**	QC
Client ID:	LCS for batch 934314	**Method:**	SW846 8081A	**SOP Ref:**	GL–OA–E–041
Batch ID:	934315	**Inst:**	ECD5A.I	**Dilution:**	1
Run Date:	12/23/2009 00:04	**Analyst:**	CXC2	**Inj. Vol:**	1 uL
Prep Date:	12/22/2009 17:25	**Aliquot:**	20 mL	**Final Volume:**	1 mL
Data File:	050f5001–786.d	**Column:**	1 CLP–1	**Level:**	LOW
	050b5001–786.d		2 CLP–2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
58–89–9	gamma–BHC (Lindane)	U	0.0002	mg/L	0.00005	0.0002	1
76–44–8	Heptachlor	U	0.0002	mg/L	0.00005	0.0002	1
1024–57–3	Heptachlor epoxide	U	0.0002	mg/L	0.00005	0.0002	1
72–20–8	Endrin	U	0.0004	mg/L	0.0001	0.0004	1
72–43–5	Methoxychlor	U	0.002	mg/L	0.0005	0.002	1
57–74–9	Chlordane (tech.)		0.0742	mg/L	0.000765	0.0025	2
8001–35–2	Toxaphene	U	0.005	mg/L	0.0015	0.005	1

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CLP-1

Data file : /chem/ecd5a.i/122209.b/050f5001-899.d
Lab Smp Id: 1201998982 Client Smp ID: PBLK01CLCS
Inj Date : 23-DEC-2009 00:04
Operator : CXC2 Inst ID: ecd5a.i
Smp Info : |1201998982|1|
Misc Info : |ECDPTL_1L|934315|SVP|CLCS|SOIL|CLCS|||
Comment :
Method : /chem/ecd5a.i/122209.b/ECD5-F-8081-121809.m
Meth Date : 23-Dec-2009 08:48 cla01575 Quant Type: ESTD
Cal Date : 05-DEC-2009 03:28 Cal File: 025f2501.d
Als bottle: 50 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-899-1.sub
Target Version: 3.50 Sample Matrix: Water
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	0.00100	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	20.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (mg/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.793	2.790	0.003	35321283	76.2287	0.00381	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
6.476	6.482	-0.006	45316967	165.853	0.00829	80.00- 120.00	100.00
8 Chlordane (tech.)					CAS #: 12789-03-6		
3.842	3.843	-0.001	23708881	1361.50	0.0681	80.00- 120.00	100.00(M)
3.900	3.900	0.000	36562338	1616.07	0.0808	152.17- 192.17	154.21
4.208	4.209	-0.001	29267517	1698.63	0.0849	97.53- 137.53	123.45
4.601	4.602	-0.001	83864784	1540.74	0.0770	315.75- 355.75	353.73
5.164	5.168	-0.004	20959656	1555.88	0.0778	73.94- 113.94	88.40

Average of Peak Concentrations = 0.0777

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd5a.i/122209.b/050f5001-899.d
Date : 23-DEC-2009 00:04
Client ID: PBLK01CLCS
Sample Info: |120199898211|
Volume Injected (uL): 1.0
Column phase: CLP-1

Instrument: ecd5a.i
Operator: CXC2
Column diameter: 0.25

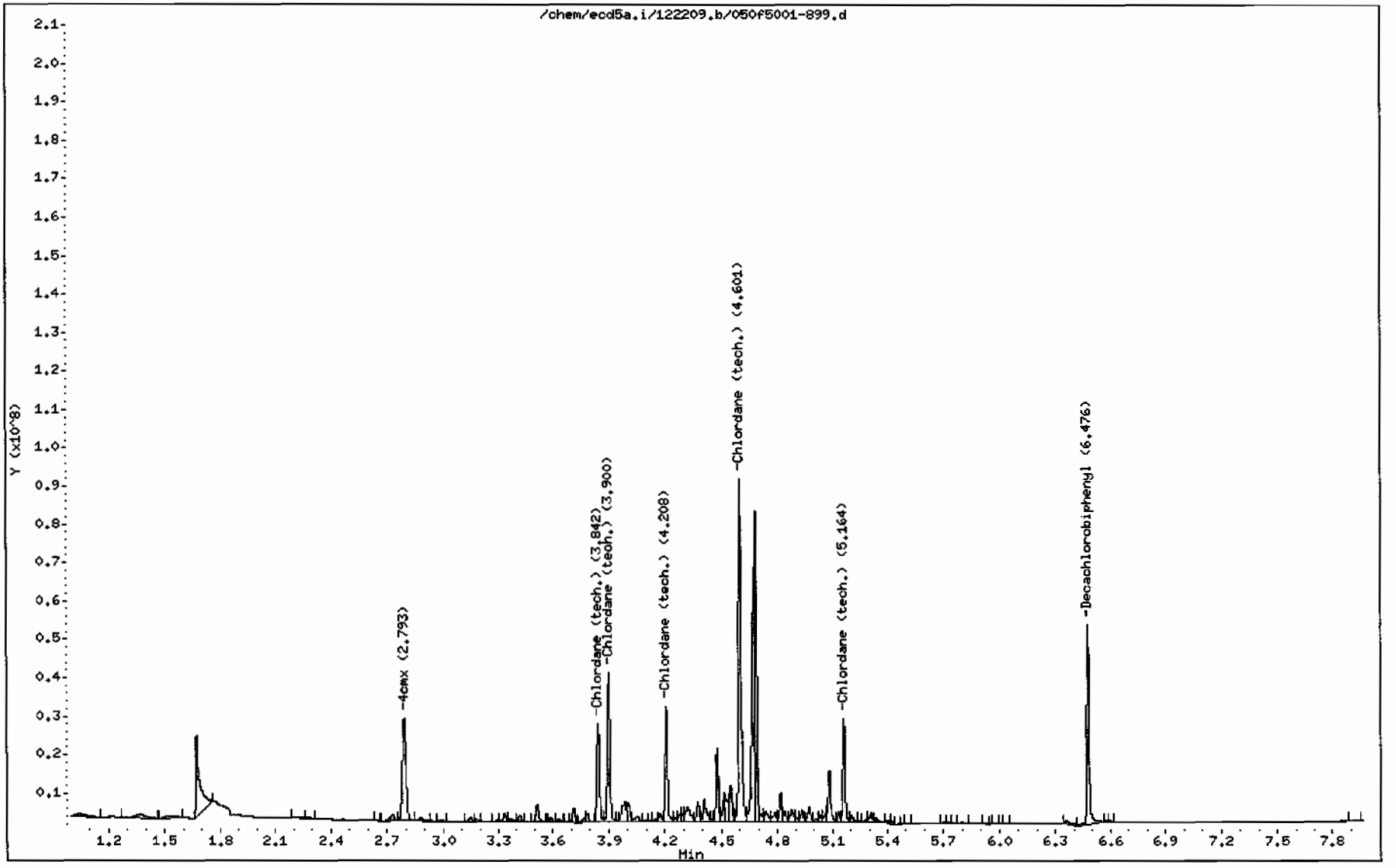

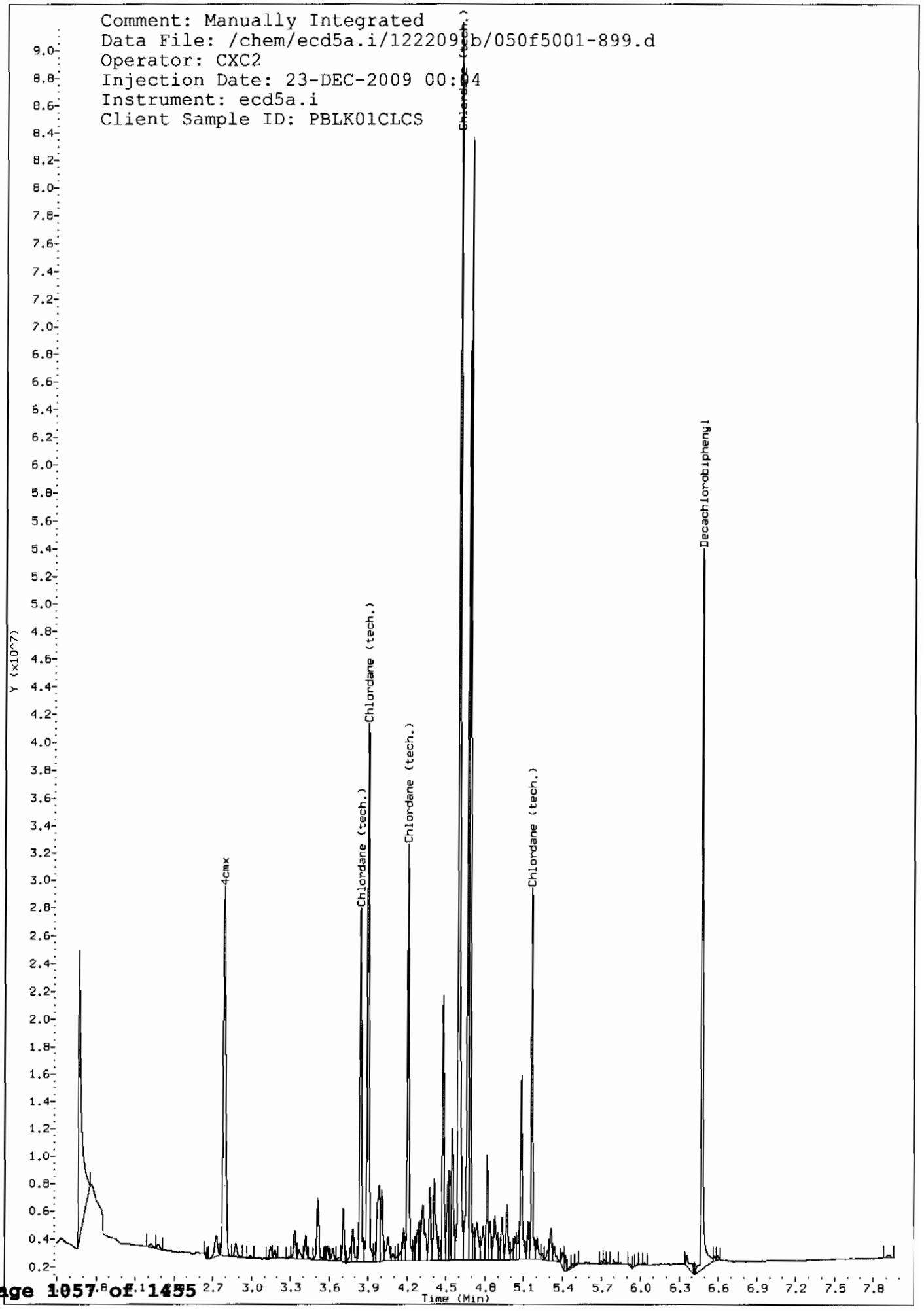
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Data File: /chem/ecd5a.i/122209b/050f5001-899.d
Operator: CXC2
Injection Date: 23-DEC-2009 00:04
Instrument: ecd5a.i
Client Sample ID: PBLK01CLCS
Chlordane (tech.)
4cmx
Chlordane (tech.)
Chlordane (tech.)
Chlordane (tech.)
Chlordane (tech.)
Decachlorobiphenyl
Y (x10^7)
Time (Min)

Comment: Before manual integration
Data File: /chem/ecd5a.i/122209b/orig-050f5001-899.d
Operator: CXC2
Injection Date: 23-DEC-2009 00:04
Instrument: ecd5a.i
Client Sample ID: PBLK01CLCS

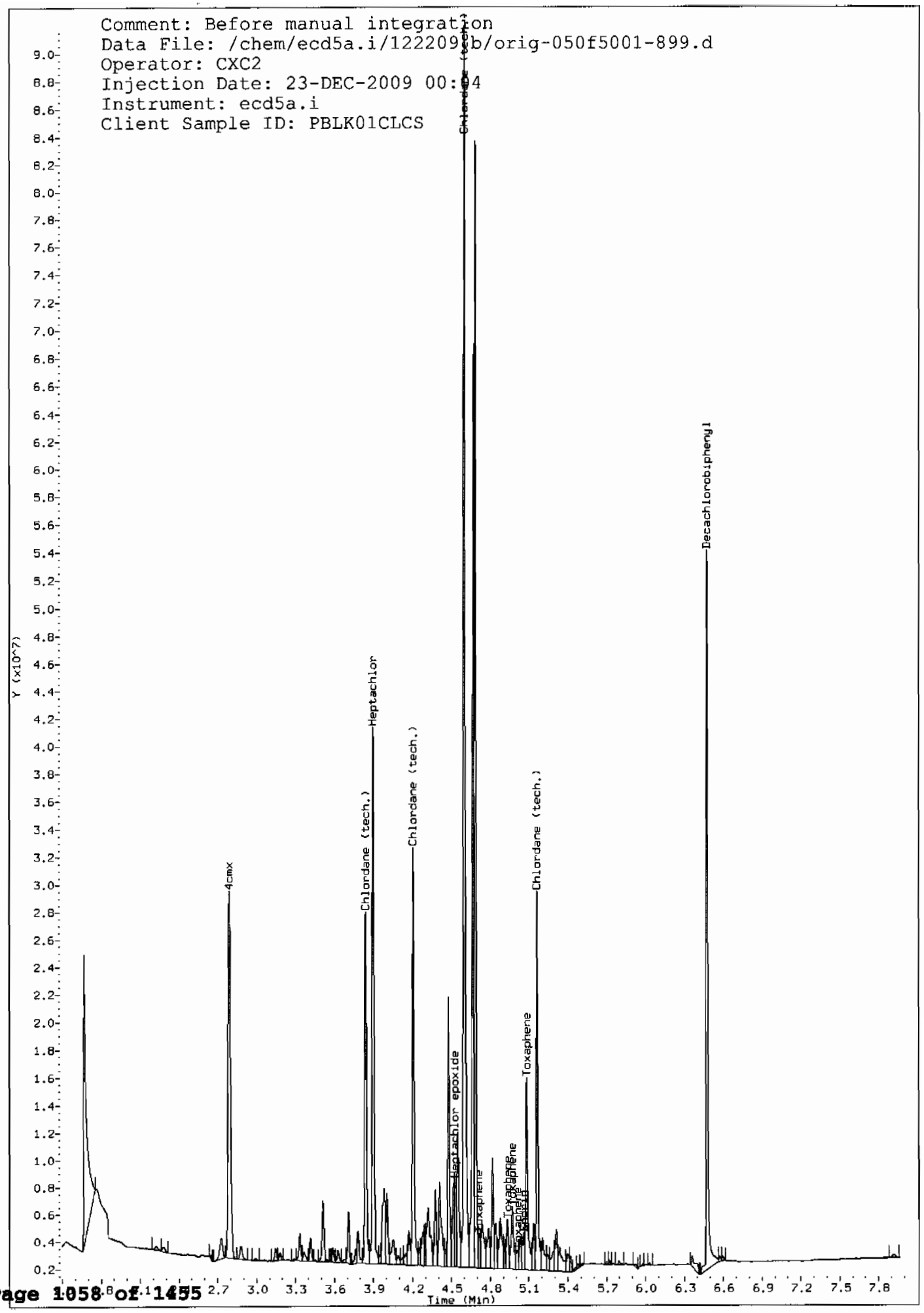

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CLP-2

Data file : /chem/ecd5a.i/122209.b/050b5001-899.d
Lab Smp Id: 1201998982 Client Smp ID: PBLK01CLCS
Inj Date : 23-DEC-2009 00:04
Operator : CXC2 Inst ID: ecd5a.i
Smp Info : |1201998982|1|
Misc Info : |ECDPTL_1L|934315|SVP|CLCS|SOIL|CLCS|||
Comment :
Method : /chem/ecd5a.i/122209.b/ECD5-B-8081-121809.m
Meth Date : 23-Dec-2009 08:46 cla01575 Quant Type: ESTD
Cal Date : 05-DEC-2009 03:28 Cal File: 025b2501.d
Als bottle: 50 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-899-1.sub
Target Version: 3.50 Sample Matrix: Water
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	0.00100	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	20.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (mg/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
3.199	3.198	0.001	205640881	63.5770	0.00318	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.147	7.153	-0.006	207049838	146.905	0.00734	80.00- 120.00	100.00
8 Chlordane (tech.)					CAS #: 12789-03-6		
4.221	4.222	-0.001	122577417	1253.66	0.0627	80.00- 120.00	100.00(M)
4.645	4.647	-0.002	140352308	1770.59	0.0885	79.74- 119.74	114.50
4.899	4.901	-0.002	89897321	1610.18	0.0805	40.71- 80.71	73.34
5.046	5.048	-0.002	367479193	1437.10	0.0718	242.29- 282.29	299.79
5.138	5.140	-0.002	278977427	1346.29	0.0673	194.96- 234.96	227.59

Average of Peak Concentrations = 0.0742

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd5a.i/122209.b/050b5001-899.d

Date : 23-DEC-2009 00:04

Client ID: PBLK01CLCS

Sample Info: |120199898211|

Volume Injected (uL): 1.0

Column phase: CLP-2

Instrument: ecd5a.i

Operator: CXC2

Column diameter: 0.25

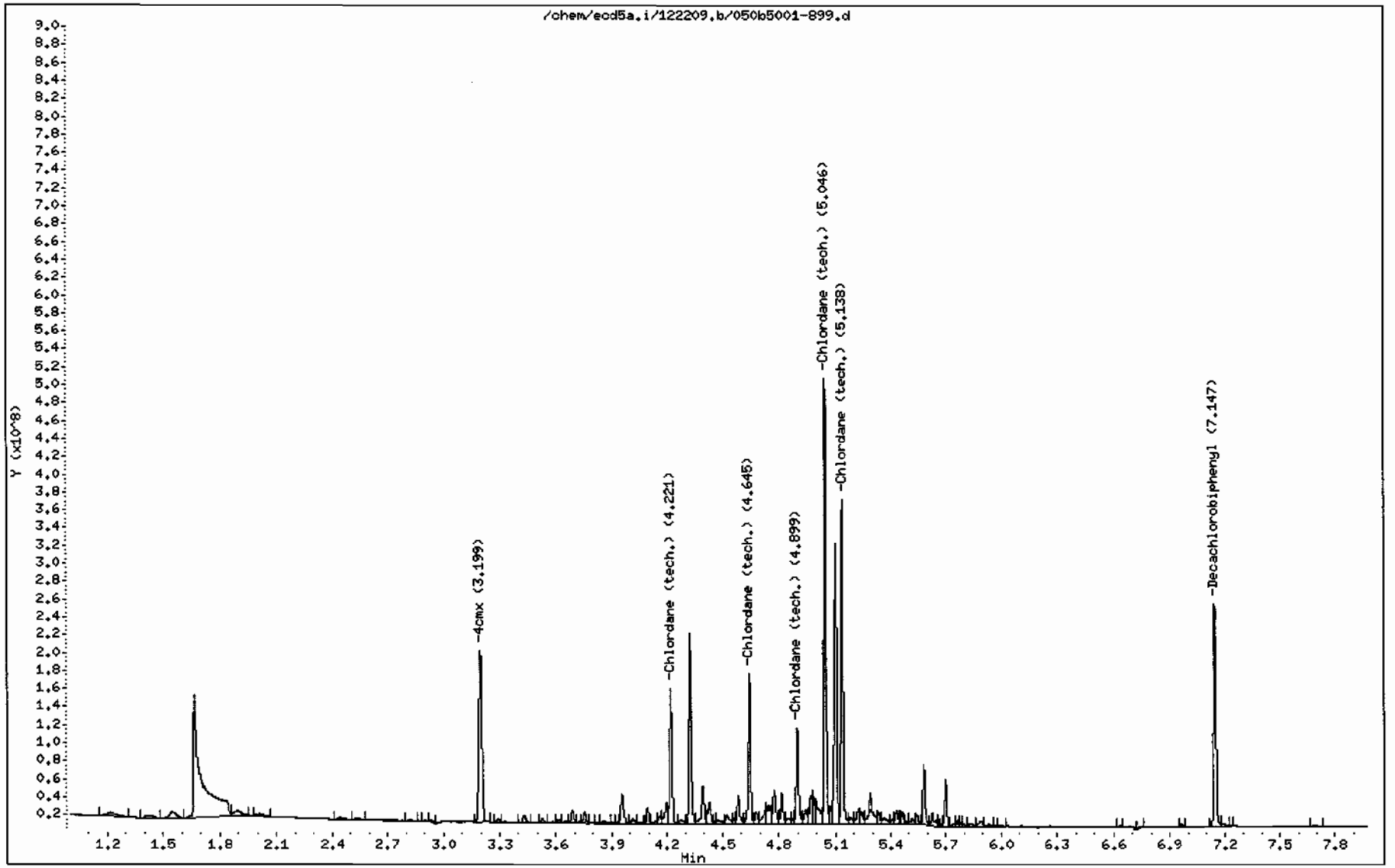

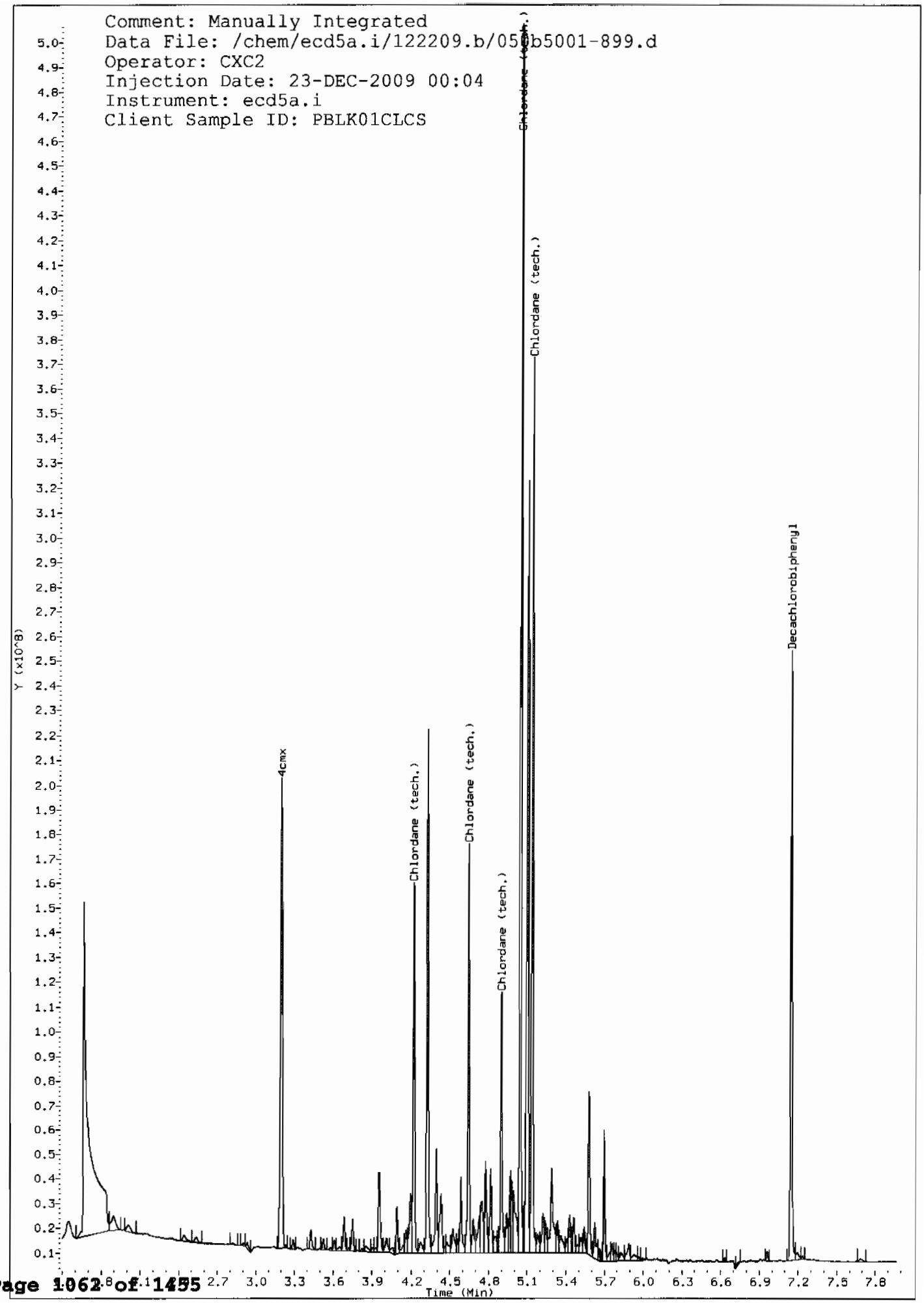
Comment: Manually Integrated
Data File: /chem/ecd5a.i/122209.b/05[illegible]b5001-899.d
Operator: CXC2
Injection Date: 23-DEC-2009 00:04
Instrument: ecd5a.i
Client Sample ID: PBLK01CLCS
Chlordane (tech.)
Chlordane (tech.)
4cmx
Chlordane (tech.)
Chlordane (tech.)
Chlordane (tech.)
Decachlorobiphenyl
Y (x10^8)
Time (Min)

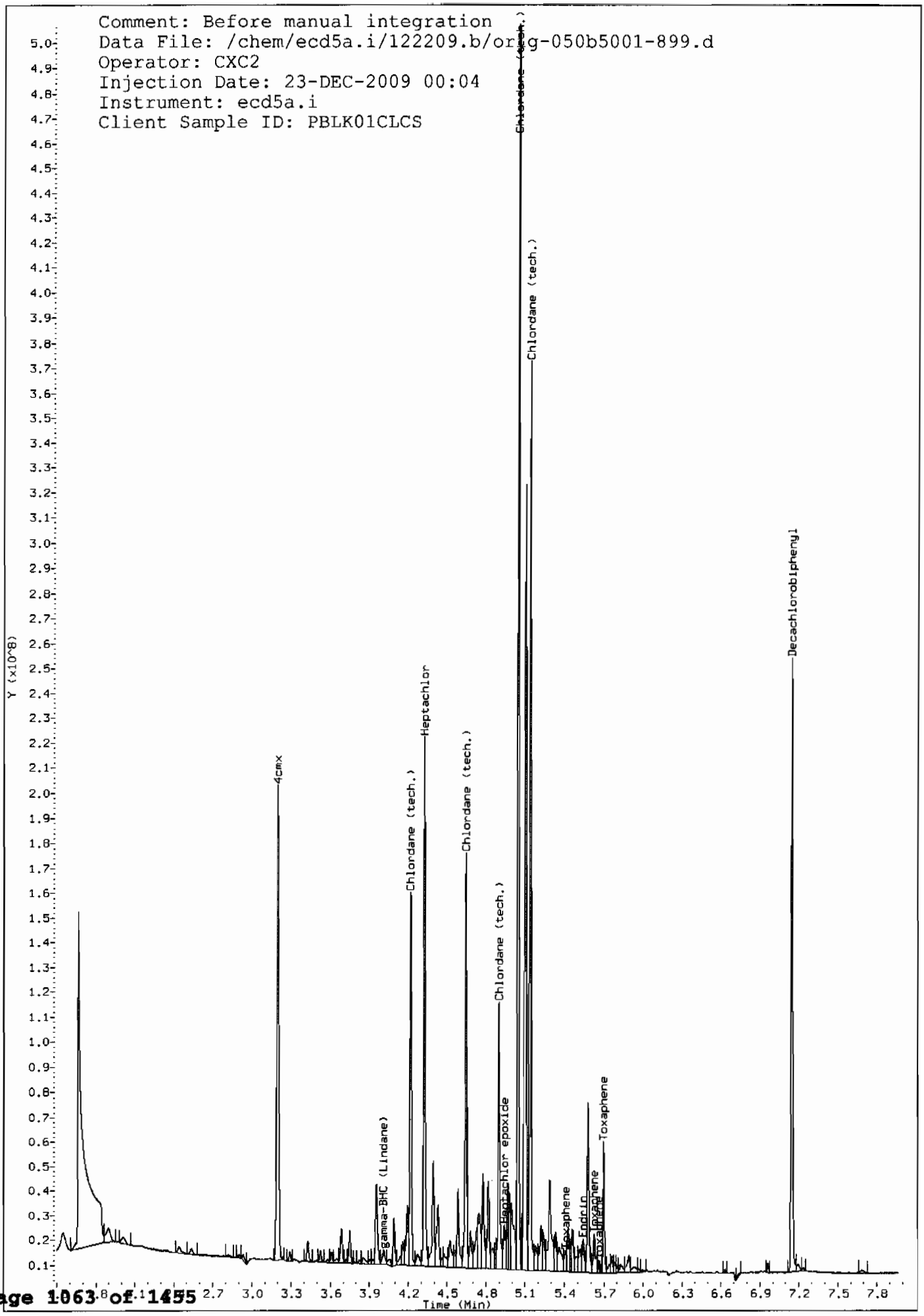
Comment: Before manual integration
Data File: /chem/ecd5a.i/122209.b/orig-050b5001-899.d
Operator: CXC2
Injection Date: 23-DEC-2009 00:04
Instrument: ecd5a.i
Client Sample ID: PBLK01CLCS
Chlordane (tech.)
Chlordane (tech.)
Decachlorobiphenyl
Heptachlor
Chlordane (tech.)
4cmx
Chlordane (tech.)
Chlordane (tech.)
Heptachlor epoxide
gamma-BHC (Lindane)
Toxaphene
Toxaphene
Endrin
Toxaphene
Toxaphene
Y (x10^8)
Time (Min)

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	**10–899–1**			**Matrix:**	**TCLP SOIL**
Lab Sample ID:	**1201998980**				
Client Sample:	**QC for batch 934314**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 934314**	**Method:**	**SW846 8081A**	**SOP Ref:**	**GL–OA–E–041**
Batch ID:	**934315**	**Inst:**	**ECD5A.I**	**Dilution:**	**1**
Run Date:	**12/22/2009 23:40**	**Analyst:**	**CXC2**	**Inj. Vol:**	**1 uL**
Prep Date:	**12/22/2009 17:25**	**Aliquot:**	**20 mL**	**Final Volume:**	**1 mL**
Data File:	**048f4801–786.d**	**Column:**	**1 CLP–1**	**Level:**	**LOW**
	048b4801–786.d		**2 CLP–2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
58–89–9	gamma–BHC (Lindane)		0.00349	mg/L	0.00005	0.0002	2
76–44–8	Heptachlor		0.00306	mg/L	0.00005	0.0002	2
1024–57–3	Heptachlor epoxide		0.00353	mg/L	0.00005	0.0002	2
72–20–8	Endrin		0.00469	mg/L	0.0001	0.0004	2
72–43–5	Methoxychlor		0.0569	mg/L	0.0005	0.002	1
57–74–9	Chlordane (tech.)	U	0.0025	mg/L	0.000765	0.0025	1
8001–35–2	Toxaphene	U	0.005	mg/L	0.0015	0.005	1

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CLP-1

Data file : /chem/ecd5a.i/122209.b/048f4801-899.d
Lab Smp Id: 1201998980 Client Smp ID: PBLK01LCS
Inj Date : 22-DEC-2009 23:40
Operator : CXC2 Inst ID: ecd5a.i
Smp Info : |1201998980|1|
Misc Info : |ECDPTL_1L|934315|SVP|LCS|SOIL|LCS|||
Comment :
Method : /chem/ecd5a.i/122209.b/ECD5-F-8081-121809.m
Meth Date : 23-Dec-2009 08:48 cla01575 Quant Type: ESTD
Cal Date : 05-DEC-2009 03:28 Cal File: 025f2501.d
Als bottle: 48 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-899-1.sub
Target Version: 3.50 Sample Matrix: Water
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	0.00100	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	20.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (mg/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.793	2.790	0.003	35977309	77.6445	0.00388	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
6.477	6.482	-0.005	45970746	168.246	0.00841	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.549	3.549	0.000	48416124	86.7068	0.00434	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
3.900	3.900	0.000	37016305	73.1043	0.00366	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	CONCENTRATIONS FINAL (mg/L)	TARGET RANGE	RATIO
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.520	4.521	-0.001	37710833	82.5323	0.00413	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.069	5.070	-0.001	35624754	104.535	0.00523	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
5.552	5.554	-0.002	135502270	1138.43	0.0569	80.00- 120.00	100.00

Data File: /chem/ecd5a.i/122209.b/048f4801-899.d
Date : 22-DEC-2009 23:40
Client ID: PBLK01LCS
Sample Info: 1120199898011
Volume Injected (uL): 1.0
Column phase: CLP-1

Instrument: ecd5a.i
Operator: CXC2
Column diameter: 0.25

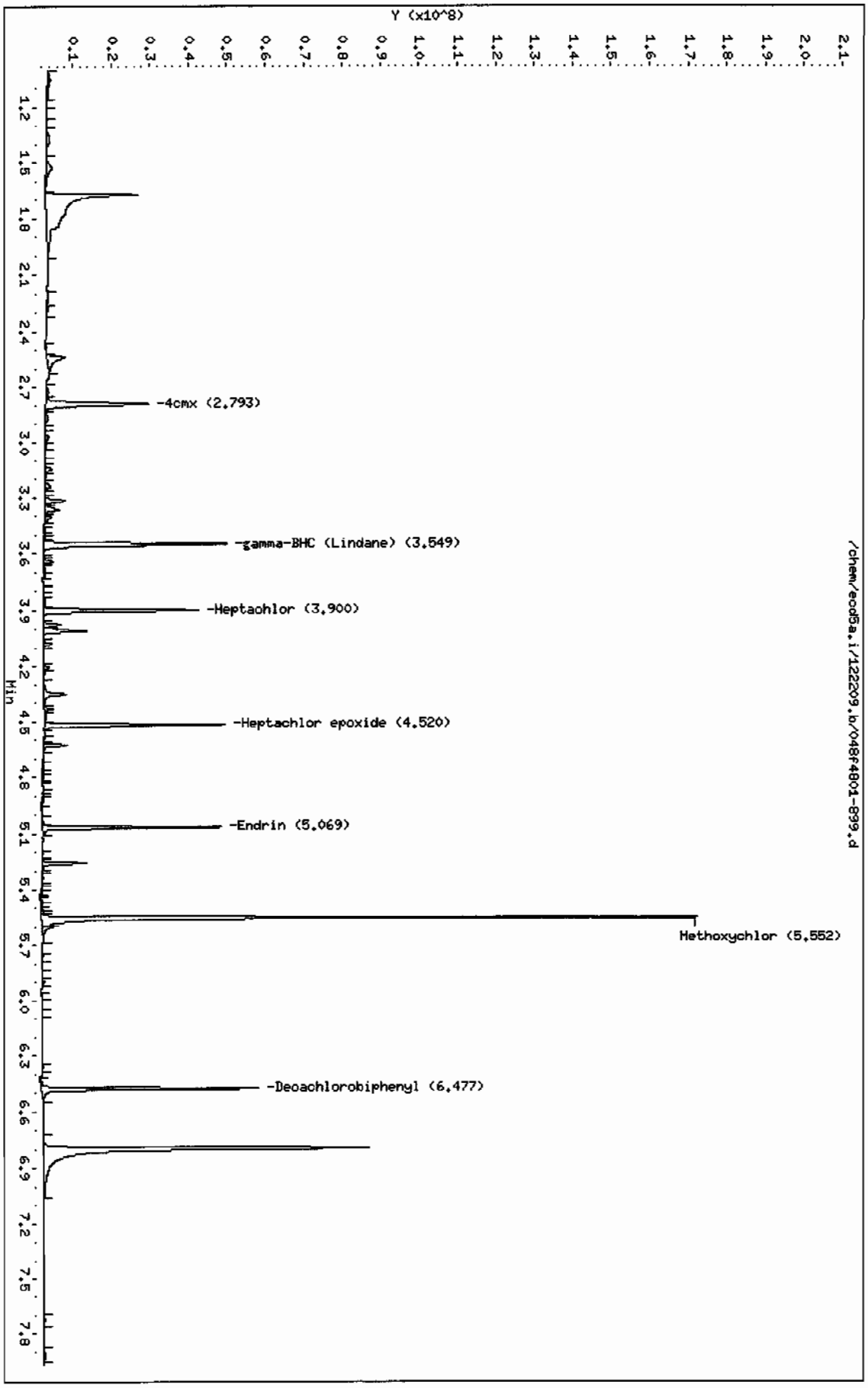

Page 1

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CLP-2

Data file : /chem/ecd5a.i/122209.b/048b4801-899.d
Lab Smp Id: 1201998980 Client Smp ID: PBLK01LCS
Inj Date : 22-DEC-2009 23:40
Operator : CXC2 Inst ID: ecd5a.i
Smp Info : |1201998980|1|
Misc Info : |ECDPTL_1L|934315|SVP|LCS|SOIL|LCS|||
Comment :
Method : /chem/ecd5a.i/122209.b/ECD5-B-8081-121809.m
Meth Date : 23-Dec-2009 08:46 cla01575 Quant Type: ESTD
Cal Date : 05-DEC-2009 03:28 Cal File: 025b2501.d
Als bottle: 48 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-899-1.sub
Target Version: 3.50 Sample Matrix: Water
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	0.00100	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	20.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (mg/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
3.198	3.198	0.000	214732562	66.3878	0.00332	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.148	7.153	-0.005	220296179	156.304	0.00782	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
4.000	4.000	0.000	266683813	69.8719	0.00349	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
4.326	4.327	-0.001	195487524	61.2691	0.00306	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	CONCENTRATIONS FINAL (mg/L)	TARGET RANGE	RATIO
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.927	4.927	0.000	207953425	70.6321	0.00353	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.541	5.543	-0.002	188255354	93.8877	0.00469	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
6.160	6.166	-0.006	647267792	1188.75	0.0594	80.00- 120.00	100.00

Data File: /chem/ecd5a.i/122209.b/048b4801-899.d

Date : 22-DEC-2009 23:40

Client ID: PBLK01LCS

Sample Info: |120199898011|

Volume Injected (uL): 1.0

Column phase: CLP-2

Instrument: ecd5a.i

Operator: CXC2

Column diameter: 0.25

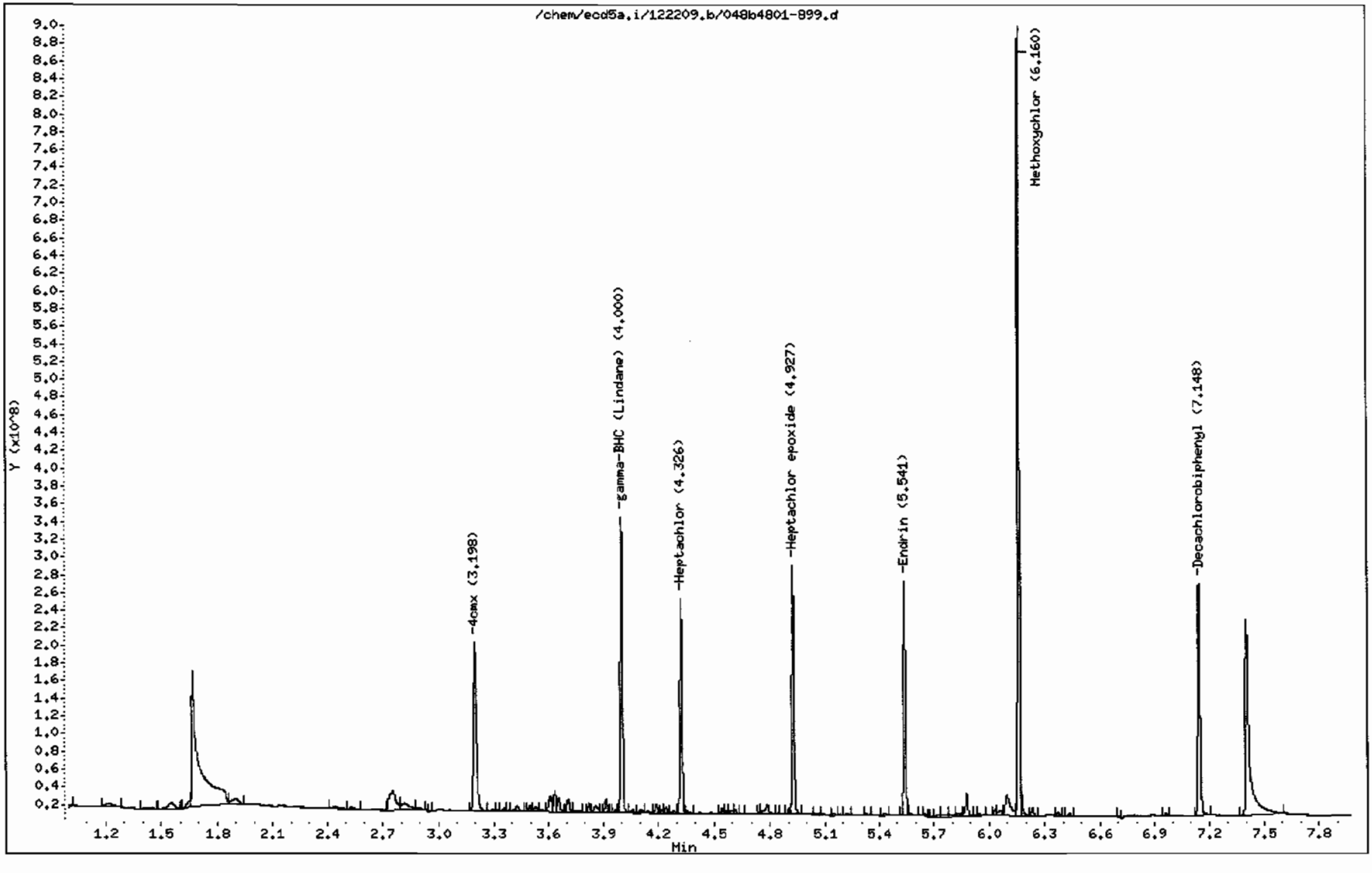

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	**10-899-1**			**Matrix:**	**TCLP SOIL**
Lab Sample ID:	**1201998981**				
Client Sample:	**QC for batch 934314**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 934314**	**Method:**	**SW846 8081A**	**SOP Ref:**	**GL-OA-E-041**
Batch ID:	**934315**	**Inst:**	**ECD5A.I**	**Dilution:**	**1**
Run Date:	**12/22/2009 23:52**	**Analyst:**	**CXC2**	**Inj. Vol:**	**1 uL**
Prep Date:	**12/22/2009 17:25**	**Aliquot:**	**20 mL**	**Final Volume:**	**1 mL**
Data File:	**049f4901-786.d**	**Column:**	**1 CLP-1**	**Level:**	**LOW**
	049b4901-786.d		**2 CLP-2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
58-89-9	gamma-BHC (Lindane)	U	0.0002	mg/L	0.00005	0.0002	1
76-44-8	Heptachlor	U	0.0002	mg/L	0.00005	0.0002	1
1024-57-3	Heptachlor epoxide	U	0.0002	mg/L	0.00005	0.0002	1
72-20-8	Endrin	U	0.0004	mg/L	0.0001	0.0004	1
72-43-5	Methoxychlor	U	0.002	mg/L	0.0005	0.002	1
57-74-9	Chlordane (tech.)	U	0.0025	mg/L	0.000765	0.0025	1
8001-35-2	Toxaphene		0.0567	mg/L	0.0015	0.005	2

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CLP-1

Data file : /chem/ecd5a.i/122209.b/049f4901-899.d
Lab Smp Id: 1201998981 Client Smp ID: PBLK01TLCS
Inj Date : 22-DEC-2009 23:52
Operator : CXC2 Inst ID: ecd5a.i
Smp Info : |1201998981|1|
Misc Info : |ECDPTL_1L|934315|SVP|TLCS|SOIL|TLCS|||
Comment :
Method : /chem/ecd5a.i/122209.b/ECD5-F-8081-121809.m
Meth Date : 23-Dec-2009 08:48 cla01575 Quant Type: ESTD
Cal Date : 05-DEC-2009 03:28 Cal File: 025f2501.d
Als bottle: 49 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-899-1.sub
Target Version: 3.50 Sample Matrix: Water
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	0.00100	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	20.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (mg/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.792	2.790	0.002	32989252	71.1958	0.00356	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
6.478	6.482	-0.004	44356860	162.339	0.00812	80.00- 120.00	100.00
23 Toxaphene					CAS #: 8001-35-2		
4.712	4.713	-0.001	4016507	1432.76	0.0716	80.00- 120.00	100.00(M)
4.926	4.927	-0.001	9375679	1774.54	0.0887	158.29- 198.29	233.43
4.980	4.982	-0.002	12077555	1726.16	0.0863	217.92- 257.92	300.70
5.020	5.020	0.000	15007589	1682.75	0.0841	260.88- 300.88	373.65
5.081	5.082	-0.001	14900489	1731.10	0.0866	269.50- 309.50	370.98

Average of Peak Concentrations = 0.0835

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd5a.i/122209.b/049f4901-899.d
Date : 22-DEC-2009 23:52
Client ID: PBLK01TLCS
Sample Info: |120199898|1|
Volume Injected (uL): 1.0
Column phase: CLP-1

Instrument: ecd5a.i
Operator: CXC2
Column diameter: 0.25

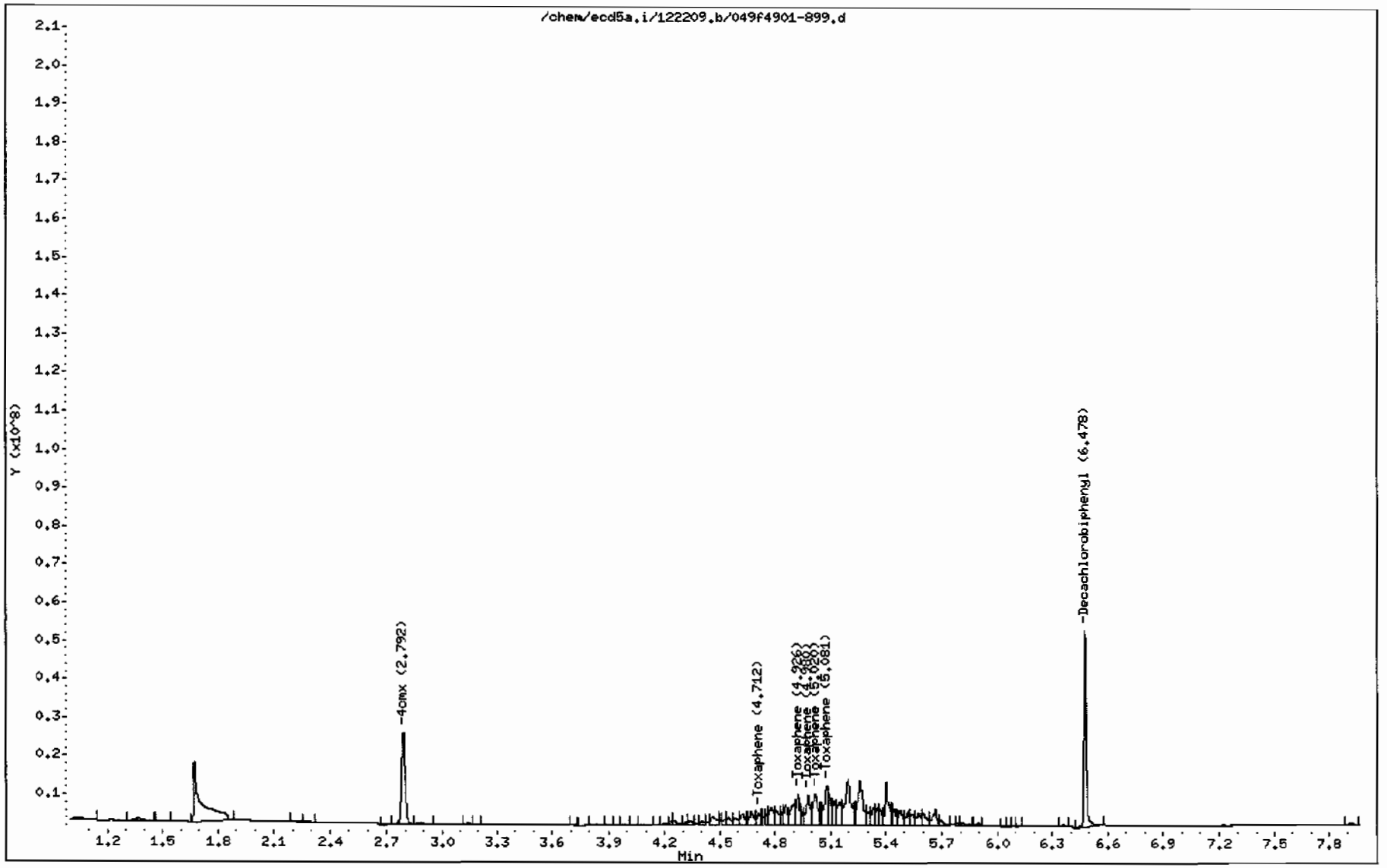

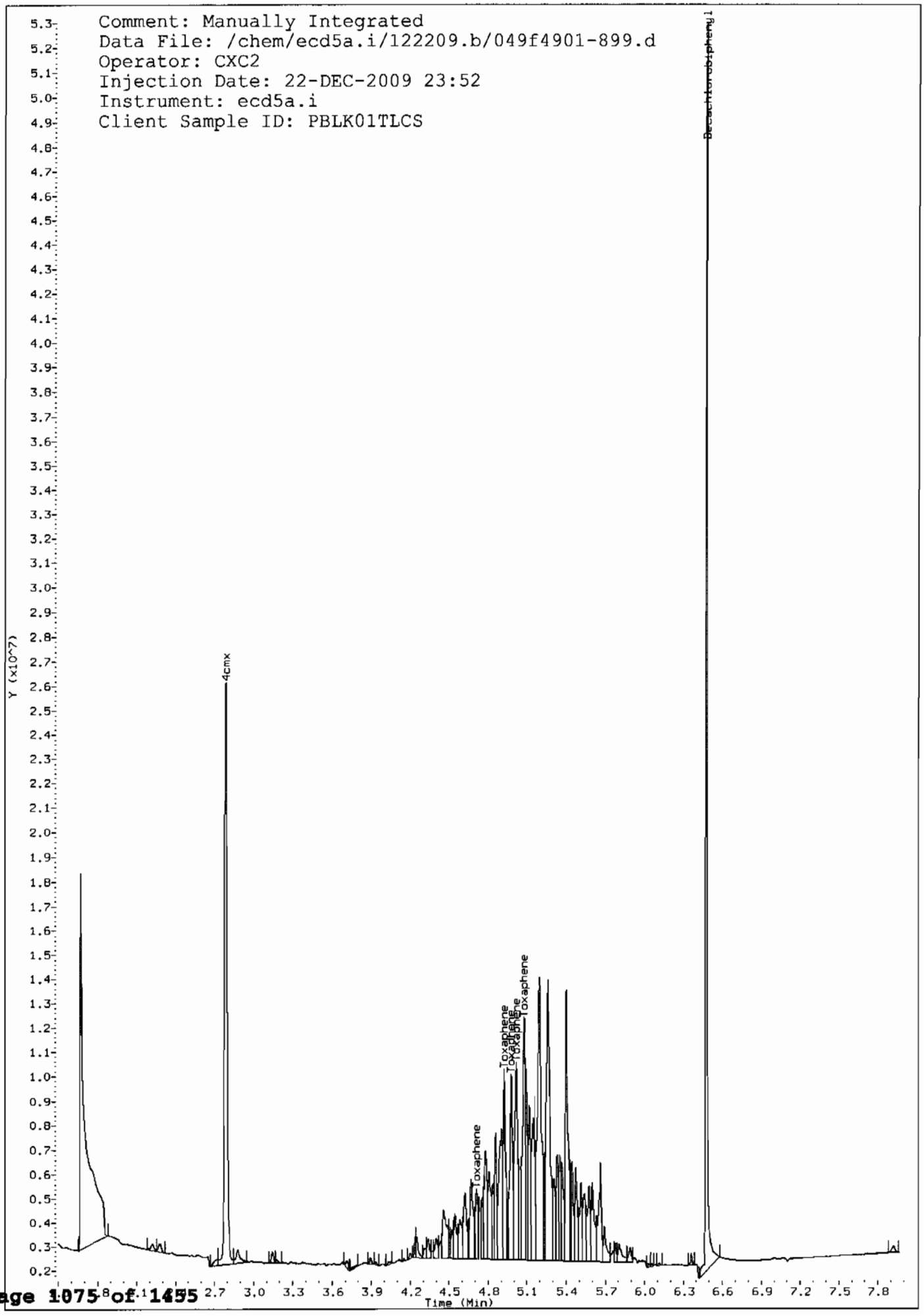
Comment: Manually Integrated
Data File: /chem/ecd5a.i/122209.b/049f4901-899.d
Operator: CXC2
Injection Date: 22-DEC-2009 23:52
Instrument: ecd5a.i
Client Sample ID: PBLK01TLCS
Decachlorobiphenyl
4cmx
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Y (x10^7)
Time (Min)

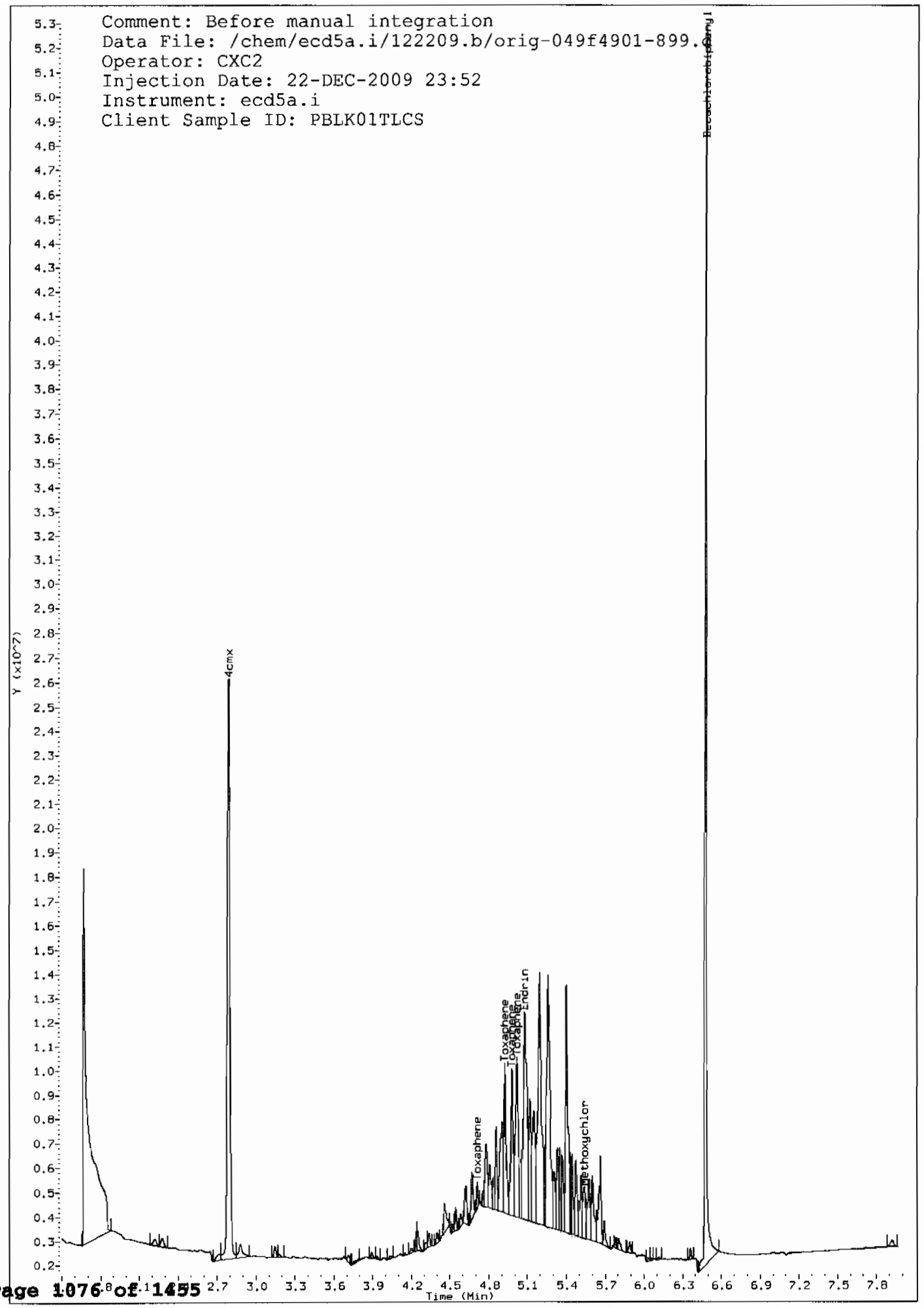
Comment: Before manual integration
Data File: /chem/ecd5a.i/122209.b/orig-049f4901-899.d
Operator: CXC2
Injection Date: 22-DEC-2009 23:52
Instrument: ecd5a.i
Client Sample ID: PBLK01TLCS
Y (x10^7)
Time (Min)
4cmx
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Endrin
Methoxychlor
Decachlorobiphenyl

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CLP-2

Data file : /chem/ecd5a.i/122209.b/049b4901-899.d
Lab Smp Id: 1201998981 Client Smp ID: PBLK01TLCS
Inj Date : 22-DEC-2009 23:52
Operator : CXC2 Inst ID: ecd5a.i
Smp Info : |1201998981|1|
Misc Info : |ECDPTL_1L|934315|SVP|TLCS|SOIL|TLCS|||
Comment :
Method : /chem/ecd5a.i/122209.b/ECD5-B-8081-121809.m
Meth Date : 23-Dec-2009 08:46 cla01575 Quant Type: ESTD
Cal Date : 05-DEC-2009 03:28 Cal File: 025b2501.d
Als bottle: 49 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-899-1.sub
Target Version: 3.50 Sample Matrix: Water
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	0.00100	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	20.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (mg/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
3.197	3.198	-0.001	188458083	58.2646	0.00291	80.00- 120.00	100.00(RM)
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.149	7.153	-0.004	191649077	135.978	0.00680	80.00- 120.00	100.00
23 Toxaphene					CAS #: 8001-35-2		
5.402	5.406	-0.004	34700595	1575.16	0.0788	80.00- 120.00	100.00(M)
5.547	5.541	0.006	52302210	1523.07	0.0762	103.90- 143.90	150.72
5.629	5.632	-0.003	34497365	1021.39	0.0511	100.29- 140.29	99.41
5.658	5.661	-0.003	39976574	708.666	0.0354	181.24- 221.24	115.20
5.716	5.719	-0.003	72606378	839.706	0.0420	287.80- 327.80	209.24

Average of Peak Concentrations = 0.0567

QC Flag Legend

R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Data File: /chem/ecd5a.i/122209.b/049b4901-899.d
Date : 22-DEC-2009 23:52
Client ID: PBLK01TLCS
Sample Info: |120199898|1|
Volume Injected (uL): 1.0
Column phase: CLP-2

Instrument: ecd5a.i

Operator: CXC2
Column diameter: 0.25

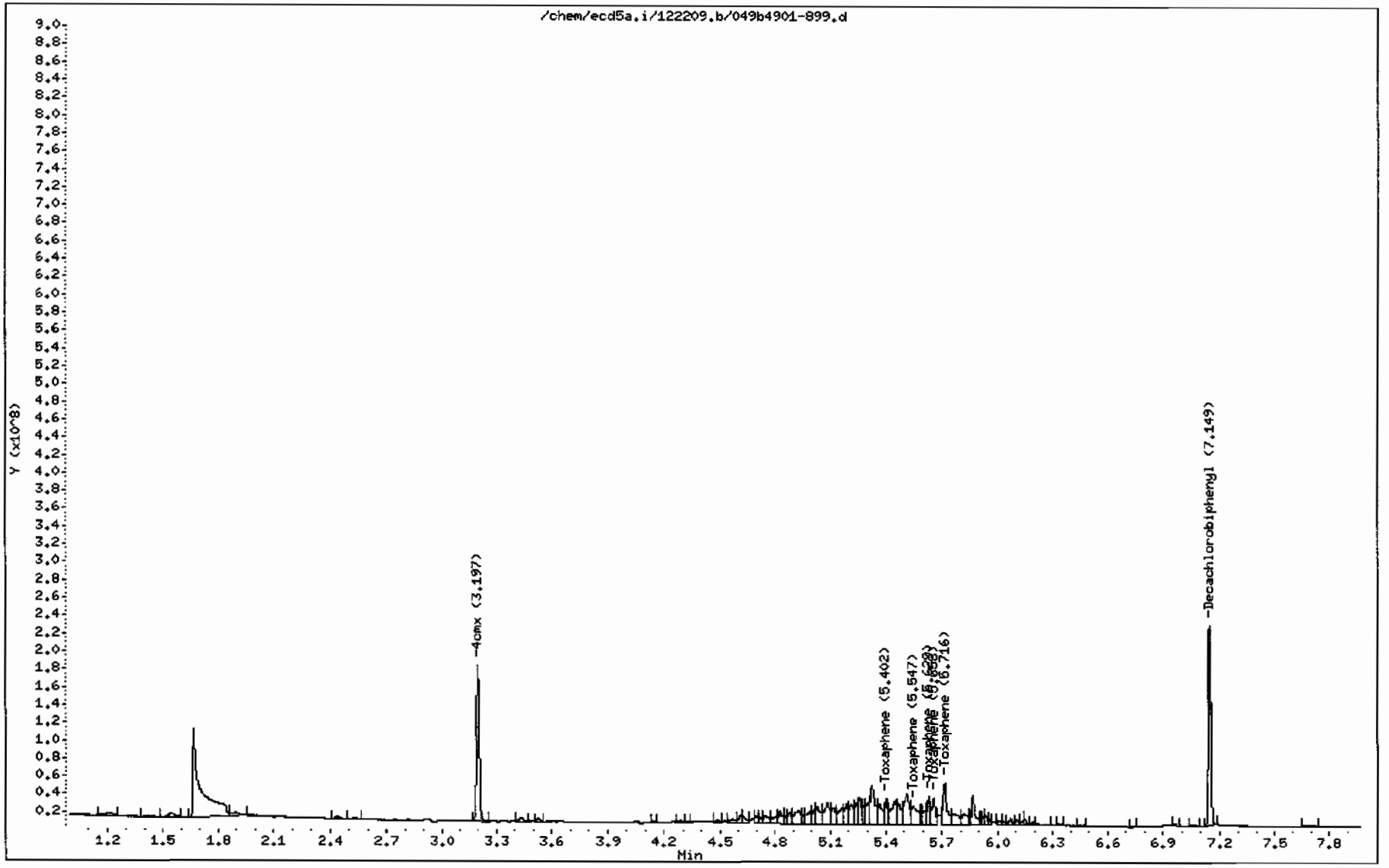

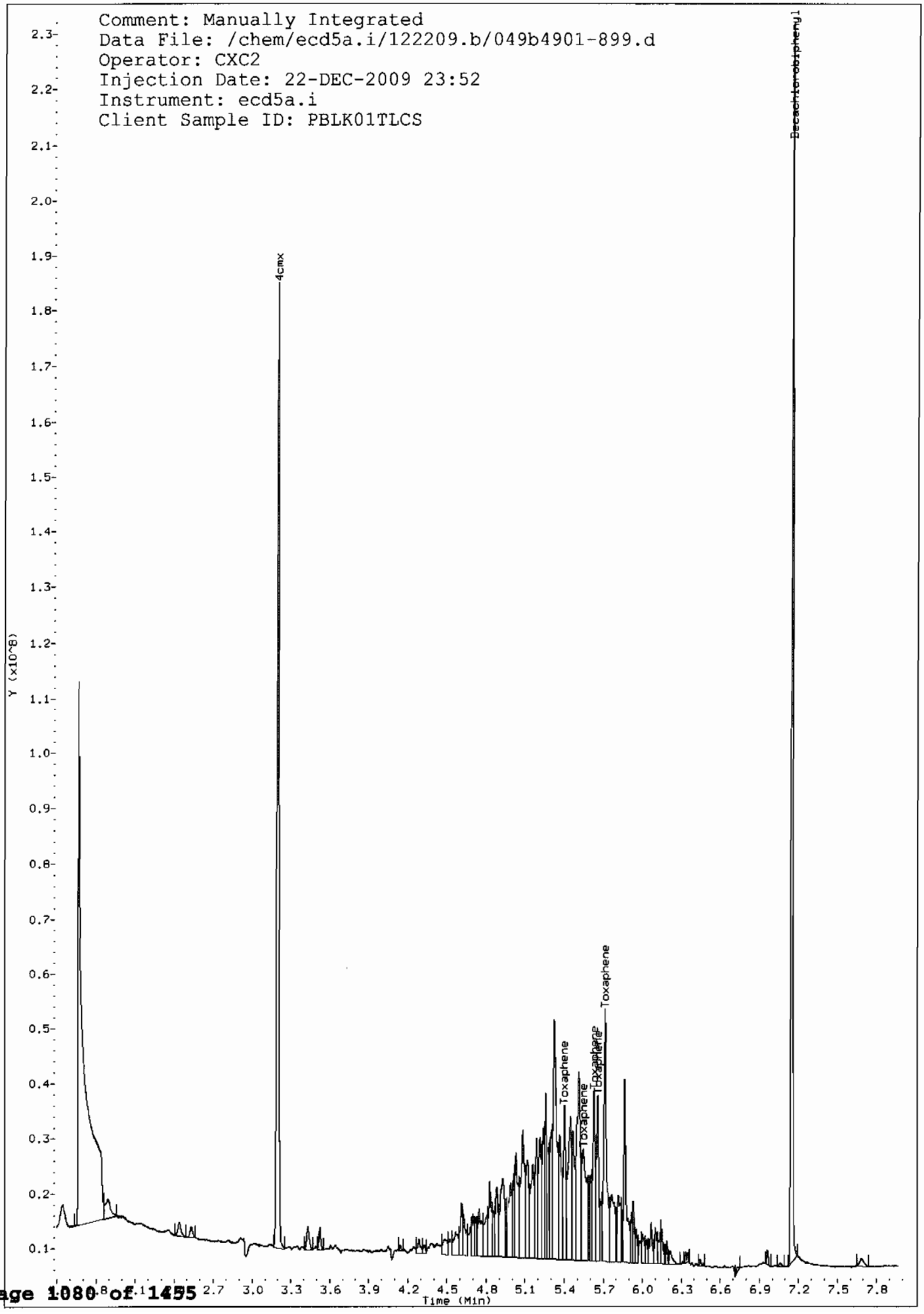
Comment: Manually Integrated
Data File: /chem/ecd5a.i/122209.b/049b4901-899.d
Operator: CXC2
Injection Date: 22-DEC-2009 23:52
Instrument: ecd5a.i
Client Sample ID: PBLK01TLCS
4cmx
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Decachlorobiphenyl
Y (x10^8)
Time (Min)

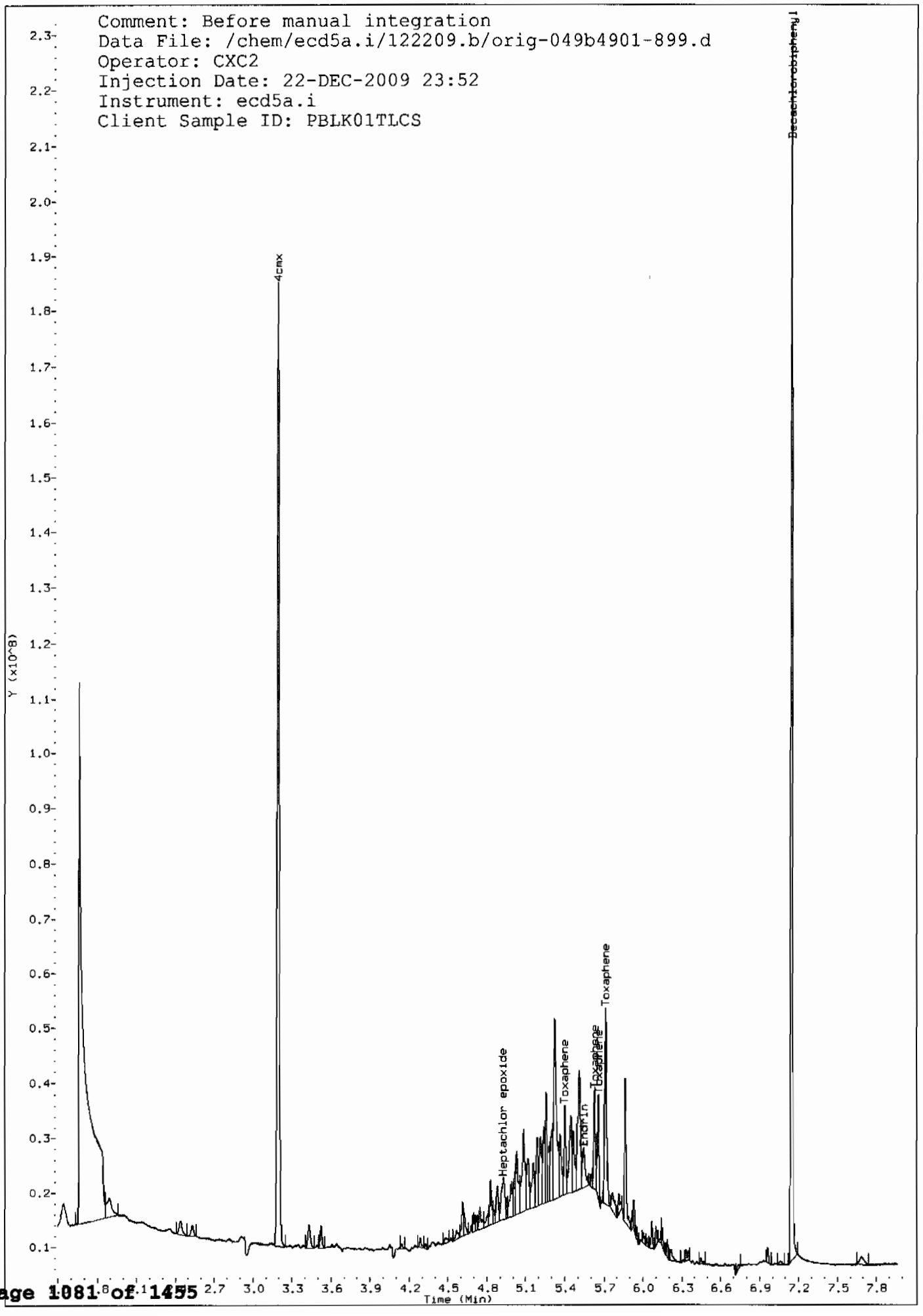
Comment: Before manual integration
Data File: /chem/ecd5a.i/122209.b/orig-049b4901-899.d
Operator: CXC2
Injection Date: 22-DEC-2009 23:52
Instrument: ecd5a.i
Client Sample ID: PBLK01TLCS
Y (x10^8)
Time (Min)
4cmx
Decachlorobiphenyl
Heptachlor epoxide
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Endrin

MISCELLANEOUS DATA

GEL ORGANIC RUN LOG INSTRUMENT ID: ECD5

DATE: 12/19/2009 METHOD: ECD5-B-8081-121809.m OPERATOR:HXJ1 REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT DA385
COPPER LOT 906110-AS

Calibration & QC Information
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.
GEL SOP GL-OA-E-011 Analysis of Chlorophenyoxy Acids by ECD : 8151A
Chromatogram Abbreviation Legend: AB-Assign Baseline, AP-Assign Peak, and
DNC-Do Not Call, NC-Not Confirmed, RT-Retention Time,
BF-Before, AF-After.

Sequence Number: /chem/ecd5a.i/121809.b Injection Volume: 1.0 uL

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001b0101.d	WAR091109-99IB	HXJ1	18-DEC-2009 18:16		121809	1.0		Clean
002b0201.d	WPE091109-99DG	HXJ1	18-DEC-2009 18:28		121809	1.0		(b) DDT 3.1%, Endrin 7.5%; (f) DDT 3.8%, Endrin 6.8%
003b0301.d	WPE091218-01AB	HXJ1	18-DEC-2009 18:40		121809	1.0		INDAB ICAL level 1
004b0401.d	WPE091218-02AB	HXJ1	18-DEC-2009 18:52		121809	1.0		INDAB ICAL level 2
005b0501.d	WPE091218-03AB	HXJ1	18-DEC-2009 19:03		121809	1.0		INDAB ICAL level 3
006b0601.d	WPE091218-04AB	HXJ1	18-DEC-2009 19:15		121809	1.0		INDAB ICAL level 4
007b0701.d	IPE091128-02AB	HXJ1	18-DEC-2009 19:27		121809	1.0		INDAB ICAL level 5
008b0801.d	WPE091207-10AB	HXJ1	18-DEC-2009 19:39		121809	1.0		DUSE - alpha-CHL low on back - see vial 15 for ICV
009b0901.d	WPE091216-11TX	HXJ1	18-DEC-2009 19:51		121809	1.0		TOXAPH ICAL level 1
010b1001.d	WPE091216-12TX	HXJ1	18-DEC-2009 20:03		121809	1.0		TOXAPH ICAL level 2
011b1101.d	WPE091216-13TX	HXJ1	18-DEC-2009 20:15		121809	1.0		TOXAPH ICAL level 3
012b1201.d	WPE091216-14TX	HXJ1	18-DEC-2009 20:27		121809	1.0		TOXAPH ICAL level 4
013b1301.d	IPE091121-40TX	HXJ1	18-DEC-2009 20:39		121809	1.0		TOXAPH ICAL level 5
014b1401.d	WPE091104-52TX	HXJ1	18-DEC-2009 20:51		121809	1.0		All okay
015b1501.d	WPE091207-10AB	HXJ1	18-DEC-2009 21:03		121809	1.0		All okay

Instrument Batch: /chem/ecd5a.i/121809.b Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
016b1601.d	WPE091216-21CL	HXJ1	18-DEC-2009 21:15		121809	1.0		CHLOR ICAL level 1

017b1701.d	WPE091216-22CL	HXJ1	18-DEC-2009 21:27		121809		1.0		CHLOR ICAL level 2
018b1801.d	WPE091216-23CL	HXJ1	18-DEC-2009 21:39		121809		1.0		CHLOR ICAL level 3
019b1901.d	WPE091216-24CL	HXJ1	18-DEC-2009 21:51		121809		1.0		CHLOR ICAL level 4
020b2001.d	IPE091029-05CL	HXJ1	18-DEC-2009 22:02		121809		1.0		CHLOR ICAL level 5
021b2101.d	WPE091021-00CL	HXJ1	18-DEC-2009 22:14		121809		1.0		All okay
022b2201.d	WAR091109-99IB	HXJ1	18-DEC-2009 22:26		121809		1.0		Clean
023b2301.d	1201996981	HXJ1	18-DEC-2009 22:38	933390	10-880		1.0	MB	USE, uploaded both columns, reporting lower result
024b2401.d	1201996982	HXJ1	18-DEC-2009 22:50	933390	10-880		1.0	LCS	USE, uploaded both columns, reporting lower result
025b2501.d	1201996985	HXJ1	18-DEC-2009 23:02	933390	10-880		1.0	TLCS	USE, uploaded both columns, reporting lower result
026b2601.d	242752006	HXJ1	18-DEC-2009 23:14	933390	10-880		1.0	LANL	USE, uploaded both columns, reporting lower result
027b2701.d	242752010	HXJ1	18-DEC-2009 23:26	933390	10-880		1.0	LANL	USE, uploaded both columns, reporting lower result
028b2801.d	242752013	HXJ1	18-DEC-2009 23:38	933390	10-880		1.0	LANL	USE, uploaded both columns, reporting lower result
029b2901.d	242752017	HXJ1	18-DEC-2009 23:50	933390	10-880		1.0	LANL	USE, uploaded both columns, reporting lower result
030b3001.d	242788003	HXJ1	19-DEC-2009 00:02	933390	10-894		1.0	LANL	USE, uploaded both columns, reporting lower result
031b3101.d	1201996983	HXJ1	19-DEC-2009 00:14	933390	10-894		1.0	MS	USE, uploaded both columns, reporting lower result
032b3201.d	1201996984	HXJ1	19-DEC-2009 00:25	933390	10-894		1.0	MSD	USE, uploaded both columns, reporting lower result NCR - (b) Methoxychlor low - matrix? RPD fails?
033b3301.d	WPE091207-10AB	HXJ1	19-DEC-2009 00:37		121809		1.0		(b) DDT, Methoxychlor, Endrin ketone low; (f) DDT, Methoxychlor low - CCV failure confirmed in 122909.b
034b3401.d	WAR091109-99IB	HXJ1	19-DEC-2009 00:49		121809		1.0		Clean
035b3501.d	1201997957	HXJ1	19-DEC-2009 01:01	933823	10-910		1.0	MB	DUSE - beginning CCV low - see re-analysis seq. 121909.b

Instrument Batch: /chem/ecd5a.i/121809.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
036b3601.d	1201997958	HXJ1	19-DEC-2009 01:13	933823	10-910	1.0	LCS	DUSE - beginning CCV low - see re-analysis seq. 121909.b
037b3701.d	1201997961	HXJ1	19-DEC-2009 01:25	933823	10-910	1.0	TLCS	DUSE - beginning CCV low - see re-analysis seq. 121909.b
038b3801.d	242932002	HXJ1	19-DEC-2009 01:37	933823	10-910	1.0	LANL	DUSE - beginning CCV low - see re-analysis seq. 121909.b **Surrogate recoveries elevated**
039b3901.d	242932006	HXJ1	19-DEC-2009 01:49	933823	10-910	1.0	LANL	DUSE - beginning CCV low - see re-analysis seq. 121909.b

040b4001.d	242935001	HXJ1	19-DEC-2009 02:01	933823	10-915		1.0	LANL	DUSE - beginning CCV low - see re-analysis seq. 121909.b
041b4101.d	1201997959	HXJ1	19-DEC-2009 02:13	933823	10-915		1.0	MS	DUSE - beginning CCV low - see re-analysis seq. 121909.b
042b4201.d	1201997960	HXJ1	19-DEC-2009 02:24	933823	10-915		1.0	MSD	DUSE - beginning CCV low - see re-analysis seq. 121909.b
043b4301.d	242935009	HXJ1	19-DEC-2009 02:36	933823	10-915		1.0	LANL	DUSE - beginning CCV low - see re-analysis seq. 121909.b
044b4401.d	WAR091109-99IB	HXJ1	19-DEC-2009 02:48		121809		1.0		Clean
045b4501.d	WPE091207-10AB	HXJ1	19-DEC-2009 03:00		121809		1.0		(b) Endrin elevated, Methoxychlor low; (f) All okay
046b4601.d	WAR091109-99IB	HXJ1	19-DEC-2009 03:12		121809		1.0		Clean
047b4701.d	1201998999	HXJ1	19-DEC-2009 03:24	934325	10-939		1.0	MB	USE, uploaded both columns, reporting lower result
048b4801.d	1201999000	HXJ1	19-DEC-2009 03:36	934325	10-939		1.0	LCS	USE, uploaded both columns, reporting lower result NCR - DCB elevated - sample passes surrogtes - no hits
049b4901.d	1201999003	HXJ1	19-DEC-2009 03:48	934325	10-939		1.0	TLCS	USE, uploaded both columns, reporting lower result NCR - DCB elevated - sample passes surrogtes - no hits
050b5001.d	243007002	HXJ1	19-DEC-2009 04:00	934325	10-939		5.0	LANL	USE, uploaded both columns, reporting lower result
051b5101.d	1201999001	HXJ1	19-DEC-2009 04:12	934325	10-939		5.0	MS	USE, uploaded both columns, reporting lower result
052b5201.d	1201999002	HXJ1	19-DEC-2009 04:24	934325	10-939		5.0	MSD	USE, uploaded both columns, reporting lower result
053b5301.d	WAR091109-99IB	HXJ1	19-DEC-2009 04:36		121809		1.0		Clean
054b5401.d	WPE091207-10AB	HXJ1	19-DEC-2009 04:48		121809		1.0		(b) Methoxychlor low; (f) Endosulfan sulfate elevated
055b5501.d	WAR091109-99IB	HXJ1	19-DEC-2009 05:00		121809		1.0		Clean

GEL ORGANIC RUN LOG INSTRUMENT ID: ECD5

DATE: 12/23/2009 METHOD: ECD5-B-8081-121809.m OPERATOR:CXC2 REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT DA385

Calibration & QC Information
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.
GEL SOP GL-OA-E-041 Organochlorine Pesticides and Chlorinated Hydrocarbons : 8081A/B
Chromatogram Abbreviation Legend: AB-Assign Baseline, AP-Assign Peak, and
SP-Split Peak, DNC-Do Not Call, NC-Not Confirmed, RT-Retention Time,
BF-Before, AF-After.

Sequence Number: /chem/ecd5a.i/122209.b Injection Volume: 1.0 uL

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001b0101.d	WAR091109-99IB	CXC2	22-DEC-2009 13:17		122209	1.0		Clean
002b0201.d	WPE091109-99DG	CXC2	22-DEC-2009 13:29		122209	1.0		(b) DDT 4.8%, Endrin 1.7%; (f) DDT 2.2%, Endrin 4.3%
003b0301.d	WPE091218-10AB	CXC2	22-DEC-2009 13:41		122209	1.0		DUSE
004b0401.d	WPE091104-52TX	CXC2	22-DEC-2009 13:53		122209	1.0		Passes on average for 8081A/ All okay 8081B
005b0501.d	WPE091021-00CL	CXC2	22-DEC-2009 14:05		122209	1.0		(b) Passes on average for 8081A/ All okay 8081B; (f) Passes on average (one peak elevated for 8081B)
006b0601.d	WAR091109-99IB	CXC2	22-DEC-2009 14:47		122209	1.0		DUSE
007b0701.d	WPE091222-01AB	CXC2	22-DEC-2009 15:04		122209	1.0		INDAB ICAL level 1
008b0801.d	WPE091222-02AB	CXC2	22-DEC-2009 15:16		122209	1.0		INDAB ICAL level 2
009b0901.d	WPE091222-03AB	CXC2	22-DEC-2009 15:28		122209	1.0		INDAB ICAL level 3
010b1001.d	WPE091222-04AB	CXC2	22-DEC-2009 15:40		122209	1.0		INDAB ICAL level 4
011b1101.d	IPE091128-02AB	CXC2	22-DEC-2009 15:52		122209	1.0		INDAB ICAL level 5
012b1201.d	WPE091207-10AB	CXC2	22-DEC-2009 16:04		122209	1.0		All okay
013b1301.d	WPE091109-99DG	CXC2	22-DEC-2009 16:16		122209	1.0		(b) DDT 3.5%, Endrin 7.0%; (f) DDT 2.5%, Endrin 6.5%
014b1401.d	WAR091109-99IB	CXC2	22-DEC-2009 16:38		122209	1.0		Clean
015b1501.d	1202001567	CXC2	22-DEC-2009 16:59	935414	10-937	1.0	MB	DUSE

10H
Instrument Batch: /chem/ecd5a.i/122209.b Page: 1
10H16.6H

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments

016b1601.d	1202001568	CXC2	22-DEC-2009 17:11	935414	10-937		1.0	LCS	DUSE
017b1701.d	1202001571	CXC2	22-DEC-2009 17:23	935414	10-937		1.0	TLCS	DUSE
018b1801.d	1202000315	CXC2	22-DEC-2009 17:35	934940	243063		1.0	LCS	DUSE
019b1901.d	1202000316	CXC2	22-DEC-2009 17:47	934940	243063		1.0	LCSD	DUSE
020b2001.d	WPE091207-10AB	CXC2	22-DEC-2009 17:59		122209		1.0		DUSE
021b2101.d	WAR091109-99IB	CXC2	22-DEC-2009 18:11		122209		1.0		Clean
022b2201.d	WPE091109-99AB	CXC2	22-DEC-2009 18:23		122209		1.0		Clean
023b2301.d	WPE091207-10AB	CXC2	22-DEC-2009 18:35		122209		1.0		(b)Methoxychlor, E. ketone low; (f)alpha-CHL elevated (passes 81B)
024b2401.d	1202000315	CXC2	22-DEC-2009 18:47	934940	243063		1.0	LCS	USE, uploaded both columns, reporting higher result PRE-FLORISIL...NCR: Endosulfan I low, Methoxychlor, DDT elevated on back (all pass on front)- no hits of these analytes in samples
025b2501.d	1202000316	CXC2	22-DEC-2009 18:59	934940	243063		1.0	LCSD	USE, uploaded both columns, reporting higher result PRE-FLORISIL...NCR: Aldrin low on back (all pass on front) no hits of Aldrin in samples
026b2601.d	242168001	CXC2	22-DEC-2009 19:13	934315	10-753-1		5.0	LANL	USE, uploaded both columns, reporting lower result
027b2701.d	242785001	CXC2	22-DEC-2009 19:29	934315	10-899-1		5.0	LANL	USE, uploaded both columns, reporting lower result
028b2801.d	242785002	CXC2	22-DEC-2009 19:41	934315	10-899-1		5.0	LANL	USE, uploaded both columns, reporting lower result
029b2901.d	1201998974	CXC2	22-DEC-2009 19:53	934315	10-753-1		5.0	MS	USE, uploaded both columns, reporting lower result NCR- (b)Methoxychlor low- RPD will fail- reporting front/default b/c no hits called in samples
030b3001.d	1201998977	CXC2	22-DEC-2009 20:05	934315	10-753-1		5.0	MSD	USE, uploaded both columns, reporting lower result
031b3101.d	1201998975	CXC2	22-DEC-2009 20:17	934315	10-753-1		5.0	TMS	USE, uploaded both columns, reporting lower result
032b3201.d	1201998978	CXC2	22-DEC-2009 20:29	934315	10-753-1		5.0	TMSD	USE, uploaded both columns, reporting lower result
033b3301.d	1201998976	CXC2	22-DEC-2009 20:41	934315	10-753-1		5.0	CMS	USE, uploaded both columns, reporting lower result
034b3401.d	WAR091109-99IB	CXC2	22-DEC-2009 20:53		122209		1.0		Clean
035b3501.d	WPE091207-10AB	CXC2	22-DEC-2009 21:05		122209		1.0		(b) DDT, Methoxychlor, Endrin ketone low; (f) All okay

Instrument Batch: /chem/ecd5a.i/122209.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
036b3601.d	WAR091109-99IB	CXC2	22-DEC-2009 21:17		122209		1.0	Clean
037b3701.d	1201998979	CXC2	22-DEC-2009 21:29	934315	10-753-1		5.0	CMSD	USE, uploaded both columns, reporting lower result

038b3801.d	242168002	CXC2	22-DEC-2009 21:41	934315	10-753-1	5.0	LANL	USE, uploaded both columns, reporting lower result
039b3901.d	242306001	CXC2	22-DEC-2009 21:53	934315	10-786-1	5.0	LANL	USE, uploaded both columns, reporting lower result
040b4001.d	242306002	CXC2	22-DEC-2009 22:05	934315	10-786-1	5.0	LANL	USE, uploaded both columns, reporting lower result
041b4101.d	242306003	CXC2	22-DEC-2009 22:17	934315	10-786-1	5.0	LANL	USE, uploaded both columns, reporting lower result
042b4201.d	242446001	CXC2	22-DEC-2009 22:28	934315	10-832-1	5.0	LANL	USE, uploaded both columns, reporting lower result
043b4301.d	243010001	CXC2	22-DEC-2009 22:40	934315	10-939-1	5.0	LANL	USE, uploaded both columns, reporting lower result
044b4401.d	WAR091109-99IB	CXC2	22-DEC-2009 22:52		122209	1.0		Clean
045b4501.d	WPE091207-10AB	CXC2	22-DEC-2009 23:04		122209	1.0		(B) DDT Methoxychlor,E.ketone low (F) gamma-CHL,Endo I,DDD high
046b4601.d	WAR091109-99IB	CXC2	22-DEC-2009 23:16		122209	1.0		Clean
047b4701.d	1201998973	CXC2	22-DEC-2009 23:28	934315	10-753-1	1.0	MB	USE, uploaded both columns, reporting lower result
048b4801.d	1201998980	CXC2	22-DEC-2009 23:40	934315	10-753-1	1.0	LCS	USE, uploaded both columns, reporting lower result
049b4901.d	1201998981	CXC2	22-DEC-2009 23:52	934315	10-753-1	1.0	TLCS	USE, uploaded both columns, reporting lower result
050b5001.d	1201998982	CXC2	23-DEC-2009 00:04	934315	10-753-1	1.0	CLCS	USE, uploaded both columns, reporting lower result
051b5101.d	WPE091207-10AB	CXC2	23-DEC-2009 00:16		122209	1.0		(B) Heptachlor, DDT, Methoxychlor, E.ketone low (F) gamma-CHL,Endo I,DDD elevated
052b5201.d	WAR091109-99IB	CXC2	23-DEC-2009 00:28		122209	1.0		Clean
053b5301.d	1201995775	CXC2	23-DEC-2009 00:40	934315	10-753-1	1.0	TB	USE, uploaded both columns, reporting lower result
054b5401.d	1201996842	CXC2	23-DEC-2009 00:52	934315	10-832-1	1.0	TB	USE, uploaded both columns, reporting lower result
055b5501.d	1201999915	CXC2	23-DEC-2009 01:04	934315	10-939-1	1.0	TB	USE, uploaded both columns, reporting lower result

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
056b5601.d	WPE091207-10AB	CXC2	23-DEC-2009 01:16		122209	1.0		(B) Heptachlor, DDT, Methoxychlor, E.ketone low, even for DODQSM (F) gamma-CHL & Endrin elevated - All OK DODQSM
057b5701.d	WAR091109-99IB	CXC2	23-DEC-2009 01:28		122209	1.0		Clean
058b5801.d	1202001572	CXC2	23-DEC-2009 01:40	935418	243044	1.0	MB	USE, uploaded both columns, reporting higher result
059b5901.d	1202001573	CXC2	23-DEC-2009 01:52	935418	243044	1.0	LCS	USE, uploaded both columns, reporting higher result
060b6001.d	243044001	CXC2	23-DEC-2009 02:04	935418	243044	1.0	SAIC	USE, uploaded both columns, reporting higher result

061b6101.d	1202001574	CXC2	23-DEC-2009 02:16	935418	243044		1.0	MS	USE, uploaded both columns, reporting higher result
062b6201.d	1202001575	CXC2	23-DEC-2009 02:28	935418	243044		1.0	MSD	USE, uploaded both columns, reporting higher result
063b6301.d	WPE091207-10AB	CXC2	23-DEC-2009 02:40		122209		1.0		(B) DDT & Methoxychlor low for DODQSM; E.ketone low 8081A (F) gamma-CHL,EndoI,Endrin,EndoSO4 elevated DODQSM, several hi 81A
064b6401.d	WAR091109-99IB	CXC2	23-DEC-2009 02:52		122209		1.0		Clean

Instrument Batch: /chem/ecd5a.i/122209.b Page: 4

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd5a.i/122209.b/029b2901.d
Lab Smp Id: 1201998974 Client Smp ID: WST03-10-2137MS
Inj Date : 22-DEC-2009 19:53
Operator : CXC2 Inst ID: ecd5a.i
Smp Info : |1201998974|5|
Misc Info : |ECDPTL_1L|934315|SVP|MS|SOIL|MS|||
Comment :
Method : /chem/ecd5a.i/122209.b/ECD5-B-8081-121809.m
Meth Date : 23-Dec-2009 08:46 cla01575 Quant Type: ESTD
Cal Date : 05-DEC-2009 03:28 Cal File: 025b2501.d
Als bottle: 29 QC Sample: MS
Dil Factor: 5.00000
Integrator: Falcon Compound Sublist: 10-753-1.sub
Target Version: 3.50 Sample Matrix: Water
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	5.00000	Dilution Factor
Uf	0.00100	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	20.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (mg/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
3.196	3.198	-0.002	47321476	14.6301	0.00366	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.149	7.153	-0.004	38224219	27.1208	0.00678	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.998	4.000	-0.002	50988460	13.3591	0.00334	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
4.326	4.327	-0.001	33900857	10.6251	0.00266	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (mg/L)	TARGET RANGE	RATIO
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.927	4.927	0.000	40678605	13.8166	0.00345	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.542	5.543	-0.001	33777131	16.8455	0.00421	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
6.162	6.166	-0.004	29966258	55.0349	0.0138	80.00- 120.00	100.00(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: /chem/ecd5a.i/122209.b/029b2901.d

Date : 22-DEC-2009 19:53

Client ID: WST03-10-2137MS

Sample Info: |120199897415|

Volume Injected (uL): 1.0

Column phase: CLP-2

Instrument: ecd5a.i

Operator: CXC2

Column diameter: 0.25

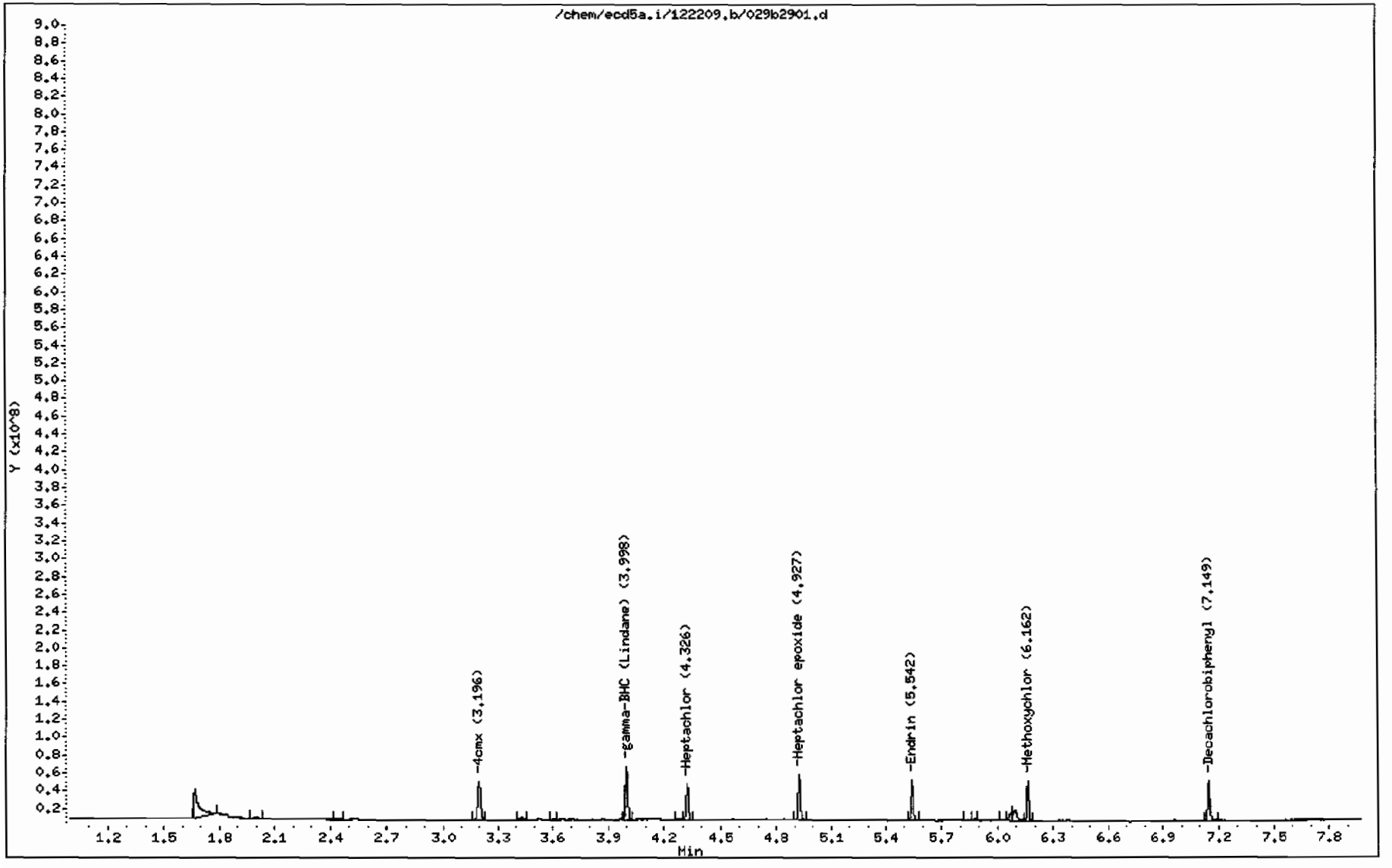

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd5a.i/122209.b/029f2901.d
Lab Smp Id: 1201998974 Client Smp ID: WST03-10-2137MS
Inj Date : 22-DEC-2009 19:53
Operator : CXC2 Inst ID: ecd5a.i
Smp Info : |1201998974|5|
Misc Info : |ECDPTL_1L|934315|SVP|MS|SOIL|MS|||
Comment :
Method : /chem/ecd5a.i/122209.b/ECD5-F-8081-121809.m
Meth Date : 23-Dec-2009 08:48 cla01575 Quant Type: ESTD
Cal Date : 05-DEC-2009 03:28 Cal File: 025f2501.d
Als bottle: 29 QC Sample: MS
Dil Factor: 5.00000
Integrator: Falcon Compound Sublist: 10-753-1.sub
Target Version: 3.50 Sample Matrix: Water
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	5.00000	Dilution Factor
Uf	0.00100	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	20.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (mg/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.790	2.790	0.000	6713934	14.4897	0.00362	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
6.479	6.482	-0.003	8592271	31.4464	0.00786	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.547	3.549	-0.002	7665713	13.7283	0.00343	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
3.900	3.900	0.000	4667110	9.21717	0.00230	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	CONCENTRATIONS FINAL (mg/L)	TARGET RANGE	RATIO
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.521	4.521	0.000	6531485	14.2945	0.00357	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.071	5.070	0.001	5805019	17.0338	0.00426	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
5.554	5.554	0.000	12503904	105.053	0.0263	80.00- 120.00	100.00

Data File: /chem/ecd5a.i/122209.b/029f2901.d
Date : 22-DEC-2009 19:53
Client ID: WST03-10-2137MS
Sample Info: |1201998974151
Volume Injected (uL): 1.0
Column phase: CLP-1

Instrument: ecd5a.i

Operator: CXC2
Column diameter: 0.25

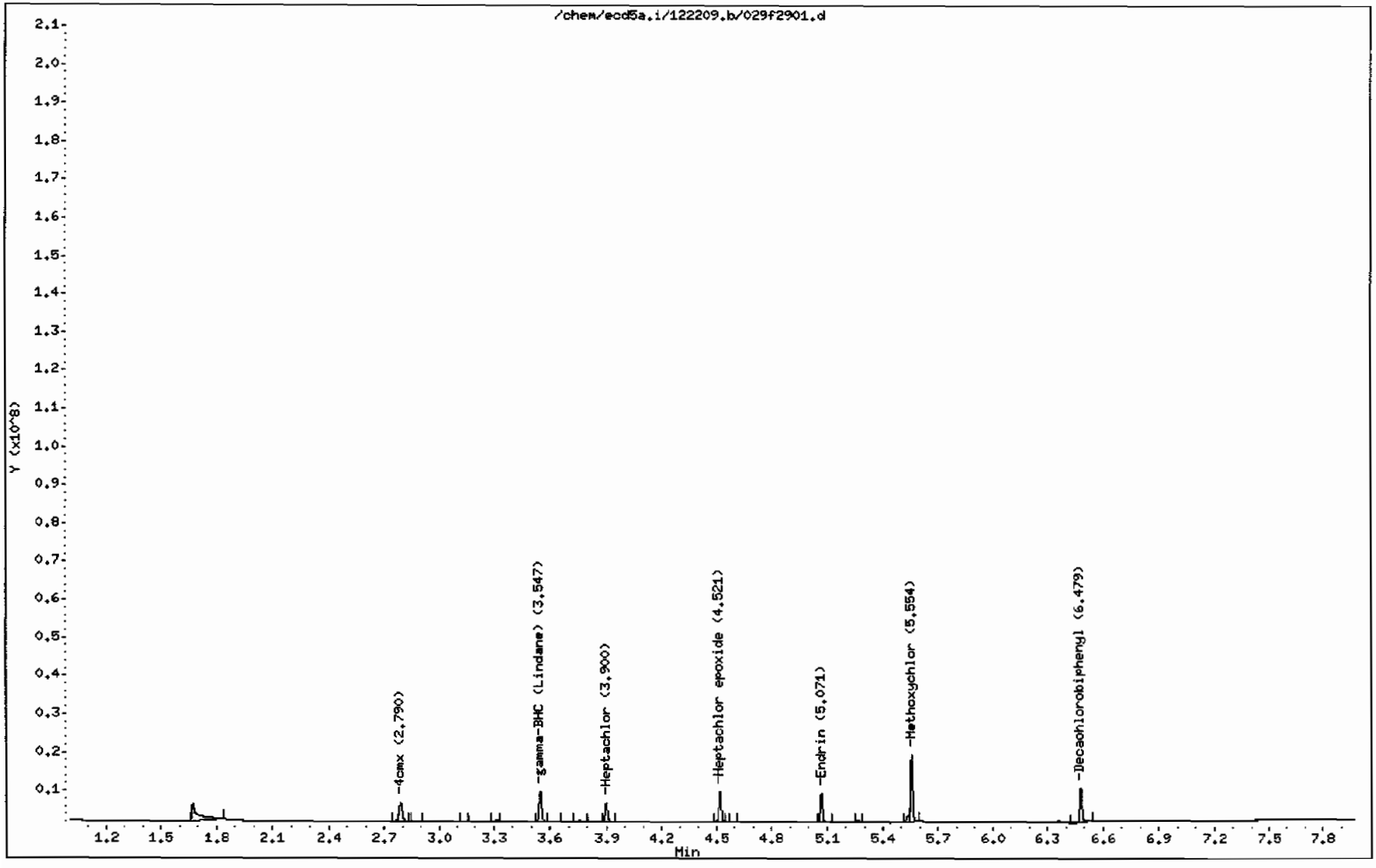

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CLP-2

Data file : /chem/ecd5a.i/122209.b/030b3001.d
Lab Smp Id: 1201998977 Client Smp ID: WST03-10-2137MSD
Inj Date : 22-DEC-2009 20:05
Operator : CXC2 Inst ID: ecd5a.i
Smp Info : |1201998977|5|
Misc Info : |ECDPTL_1L|934315|SVP|MSD|SOIL|MSD|||
Comment :
Method : /chem/ecd5a.i/122209.b/ECD5-B-8081-121809.m
Meth Date : 23-Dec-2009 08:46 cla01575 Quant Type: ESTD
Cal Date : 05-DEC-2009 03:28 Cal File: 025b2501.d
Als bottle: 30 QC Sample: MSD
Dil Factor: 5.00000
Integrator: Falcon Compound Sublist: 10-753-1.sub
Target Version: 3.50 Sample Matrix: Water
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	5.00000	Dilution Factor
Uf	0.00100	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	20.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (mg/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
3.196	3.198	-0.002	59324870	18.3412	0.00458	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.150	7.153	-0.003	41760480	29.6298	0.00741	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.999	4.000	-0.001	58021063	15.2017	0.00380	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
4.325	4.327	-0.002	42560322	13.3391	0.00333	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (mg/L)	TARGET RANGE	RATIO
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.926	4.927	-0.001	45714923	15.5272	0.00388	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.541	5.543	-0.002	38920602	19.4107	0.00485	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
6.163	6.166	-0.003	74104582	136.098	0.0340	80.00- 120.00	100.00

Data File: /chem/ecd5a.i/122209.b/030b3001.d

Page 1

Date : 22-DEC-2009 20:05

Client ID: WST03-10-2137MSD

Instrument: ecd5a.i

Sample Info: |120199897|5|

Volume Injected (uL): 1.0

Operator: CXC2

Column phase: CLP-2

Column diameter: 0.25

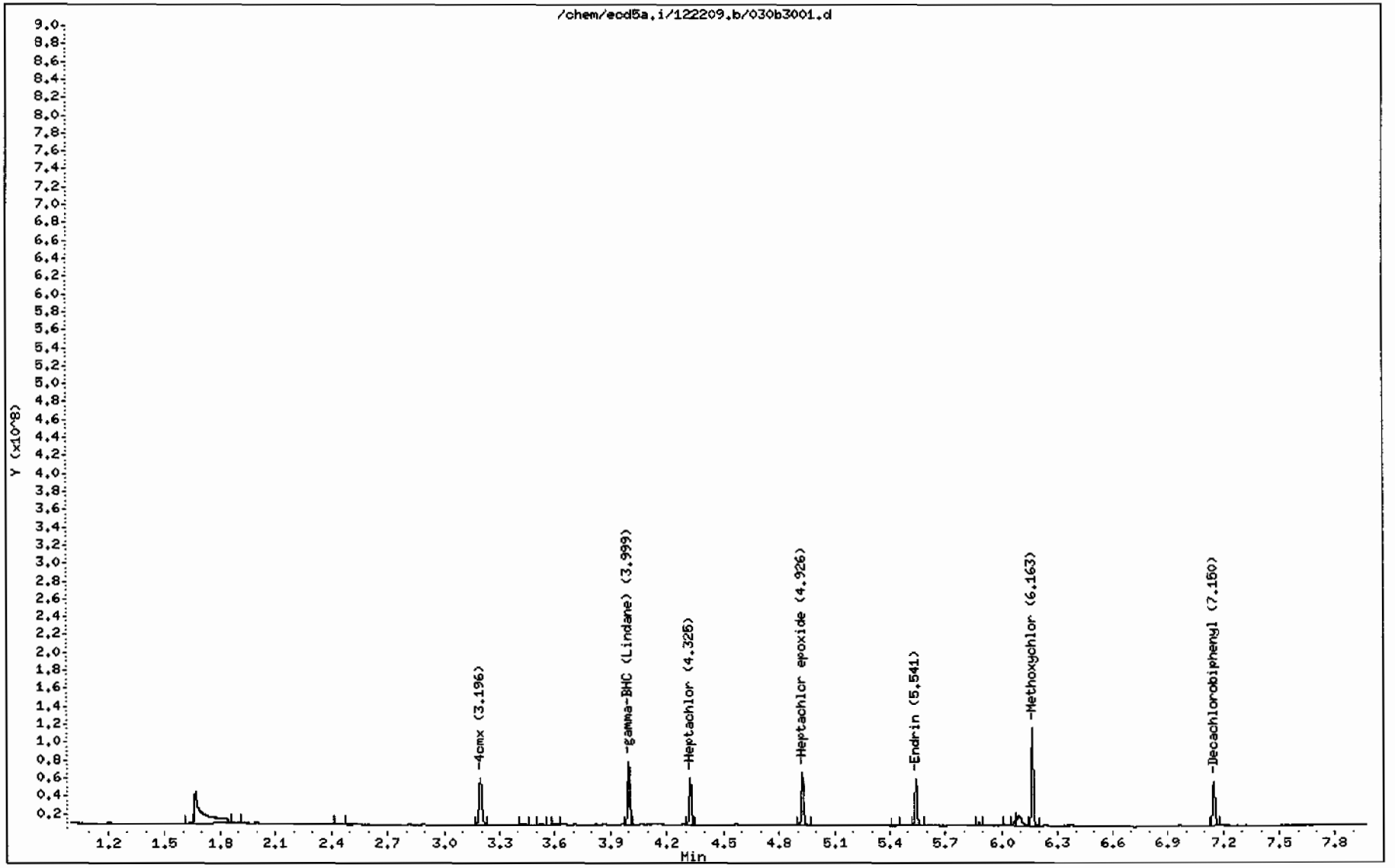

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CLP-1

Data file : /chem/ecd5a.i/122209.b/030f3001.d
Lab Smp Id: 1201998977 Client Smp ID: WST03-10-2137MSD
Inj Date : 22-DEC-2009 20:05
Operator : CXC2 Inst ID: ecd5a.i
Smp Info : |1201998977|5|
Misc Info : |ECDPTL_1L|934315|SVP|MSD|SOIL|MSD|||
Comment :
Method : /chem/ecd5a.i/122209.b/ECD5-F-8081-121809.m
Meth Date : 23-Dec-2009 08:48 cla01575 Quant Type: ESTD
Cal Date : 05-DEC-2009 03:28 Cal File: 025f2501.d
Als bottle: 30 QC Sample: MSD
Dil Factor: 5.00000
Integrator: Falcon Compound Sublist: 10-753-1.sub
Target Version: 3.50 Sample Matrix: Water
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	5.00000	Dilution Factor
Uf	0.00100	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	20.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (mg/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.790	2.790	0.000	8668900	18.7088	0.00468	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
6.480	6.482	-0.002	9343162	34.1946	0.00855	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.548	3.549	-0.001	8844628	15.8395	0.00396	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
3.900	3.900	0.000	6605620	13.0456	0.00326	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (mg/L)	TARGET RANGE	RATIO
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.521	4.521	0.000	7403492	16.2030	0.00405	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.070	5.070	0.000	6501657	19.0780	0.00477	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
5.554	5.554	0.000	21298292	178.939	0.0447	80.00- 120.00	100.00

Data File: /chem/ecd5a.i/122209.b/030f3001.d

Date : 22-DEC-2009 20:05

Client ID: WST03-10-2137MSD

Sample Info: |120199897715|

Volume Injected (uL): 1.0

Column phase: CLP-1

Instrument: ecd5a.i

Operator: CXC2

Column diameter: 0.25

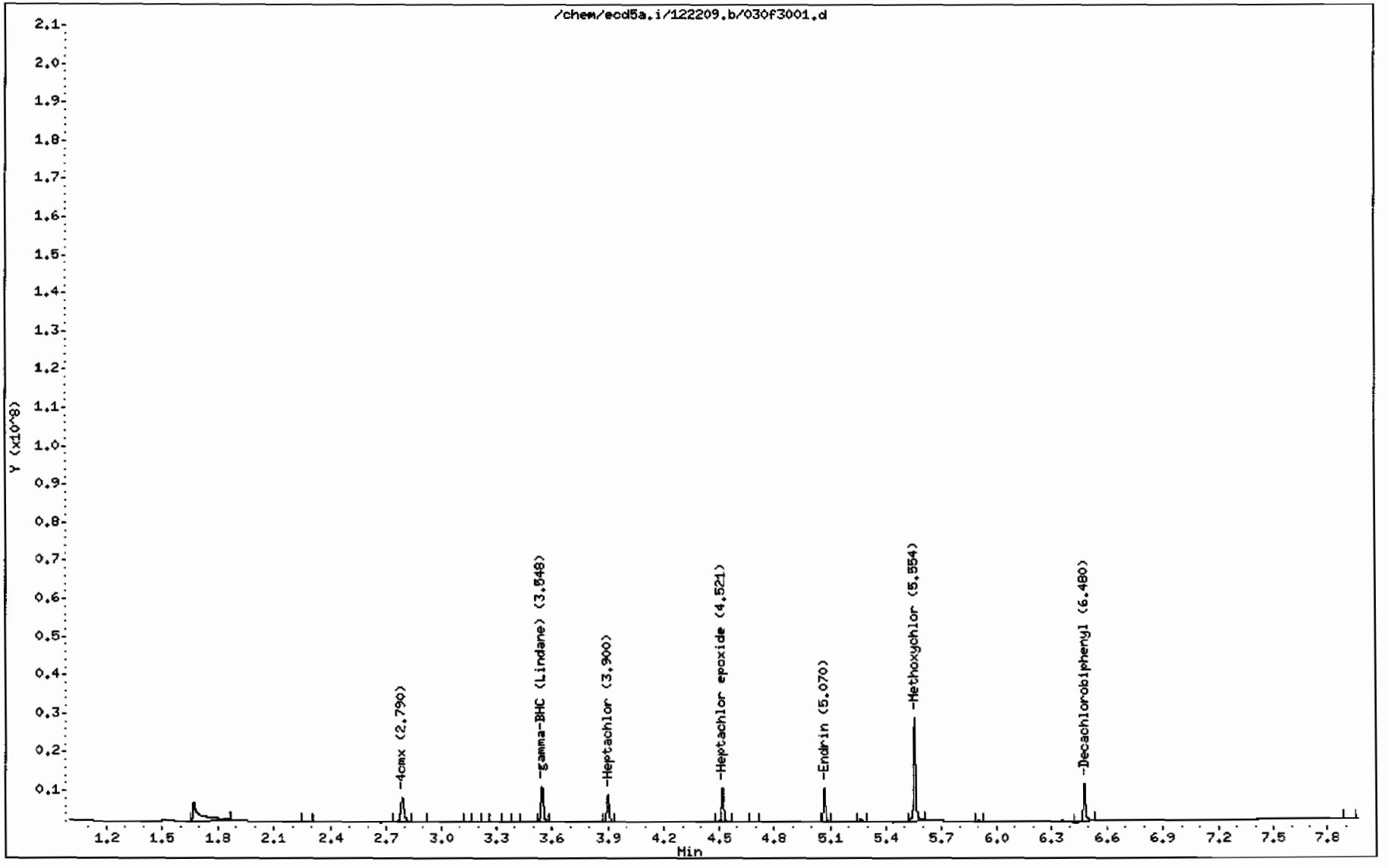

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CLP-2

Data file : /chem/ecd5a.i/122209.b/031b3101.d
Lab Smp Id: 1201998975 Client Smp ID: WST03-10-2137TMS
Inj Date : 22-DEC-2009 20:17
Operator : CXC2 Inst ID: ecd5a.i
Smp Info : |1201998975|5|
Misc Info : |ECDPTL_1L|934315|SVP|TMS|SOIL|TMS|||
Comment :
Method : /chem/ecd5a.i/122209.b/ECD5-B-8081-121809.m
Meth Date : 23-Dec-2009 08:46 cla01575 Quant Type: ESTD
Cal Date : 05-DEC-2009 03:28 Cal File: 025b2501.d
Als bottle: 31 QC Sample: MS
Dil Factor: 5.00000
Integrator: Falcon Compound Sublist: 10-753-1.sub
Target Version: 3.50 Sample Matrix: Water
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	5.00000	Dilution Factor
Uf	0.00100	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	20.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	CONCENTRATIONS FINAL (mg/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
3.197	3.198	-0.001	69136365	21.3745	0.00534	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.148	7.153	-0.005	42863664	30.4125	0.00760	80.00- 120.00	100.00
23 Toxaphene					CAS #: 8001-35-2		
5.404	5.406	-0.002	10340591	469.390	0.117	80.00- 120.00	100.00(M)
5.538	5.541	-0.003	18481943	538.206	0.134	103.90- 143.90	178.73
5.631	5.632	-0.001	12309626	364.460	0.0911	100.29- 140.29	119.04
5.659	5.661	-0.002	21456216	380.355	0.0951	181.24- 221.24	207.50
5.717	5.719	-0.002	32172083	372.076	0.0930	287.80- 327.80	311.12

Average of Peak Concentrations = 0.106

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd5a.i/122209.b/031b3101.d

Date : 22-DEC-2009 20:17

Client ID: WST03-10-2137TMS

Sample Info: |12019989751|

Volume Injected (uL): 1.0

Column phase: CLP-2

Instrument: ecd5a.i

Operator: CXC2

Column diameter: 0.25

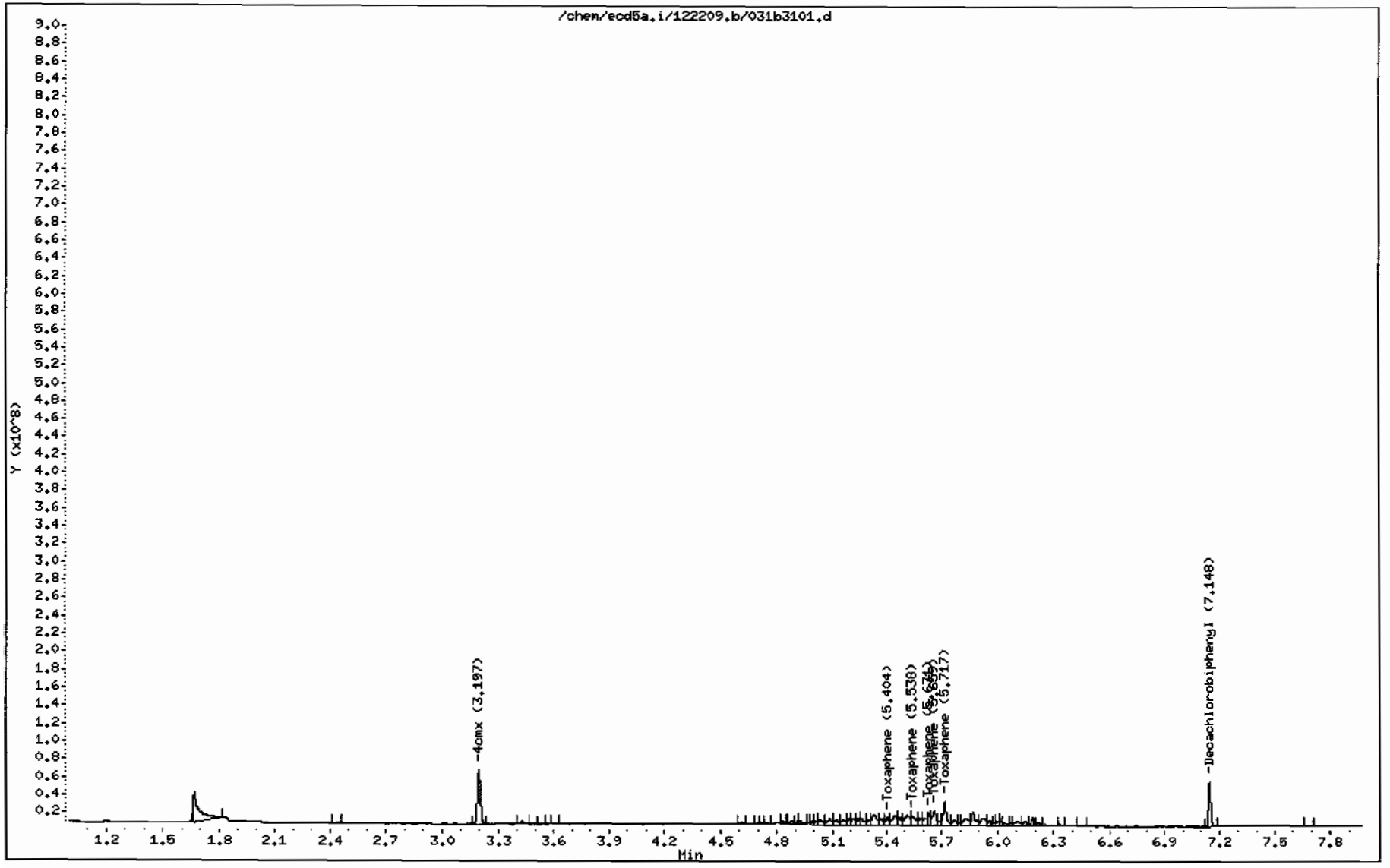

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd5a.i/122209.b/031f3101.d
Lab Smp Id: 1201998975 Client Smp ID: WST03-10-2137TMS
Inj Date : 22-DEC-2009 20:17
Operator : CXC2 Inst ID: ecd5a.i
Smp Info : |1201998975|5|
Misc Info : |ECDPTL_1L|934315|SVP|TMS|SOIL|TMS|||
Comment :
Method : /chem/ecd5a.i/122209.b/ECD5-F-8081-121809.m
Meth Date : 23-Dec-2009 08:48 cla01575 Quant Type: ESTD
Cal Date : 05-DEC-2009 03:28 Cal File: 025f2501.d
Als bottle: 31 QC Sample: MS
Dil Factor: 5.00000
Integrator: Falcon Compound Sublist: 10-753-1.sub
Target Version: 3.50 Sample Matrix: Water
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	5.00000	Dilution Factor
Uf	0.00100	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	20.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (mg/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.788	2.790	-0.002	10176083	21.9615	0.00549	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
6.478	6.482	-0.004	8830473	32.3182	0.00808	80.00- 120.00	100.00
23 Toxaphene					CAS #: 8001-35-2		
4.713	4.713	0.000	738492	263.433	0.0658	80.00- 120.00	100.00(M)
4.927	4.927	0.000	2500713	473.310	0.118	158.29- 198.29	338.62
4.982	4.982	0.000	2500249	357.344	0.0893	217.92- 257.92	338.56
5.023	5.020	0.003	3108061	348.496	0.0871	260.88- 300.88	420.87
5.083	5.082	0.001	3071232	356.808	0.0892	269.50- 309.50	415.88

Average of Peak Concentrations = 0.0899

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd5a.i/122209.b/031f3101.d
Date : 22-DEC-2009 20:17
Client ID: WST03-10-2137TMS
Sample Info: |120199897515|
Volume Injected (uL): 1.0
Column phase: CLP-1

Instrument: ecd5a.i

Operator: CXC2
Column diameter: 0.25

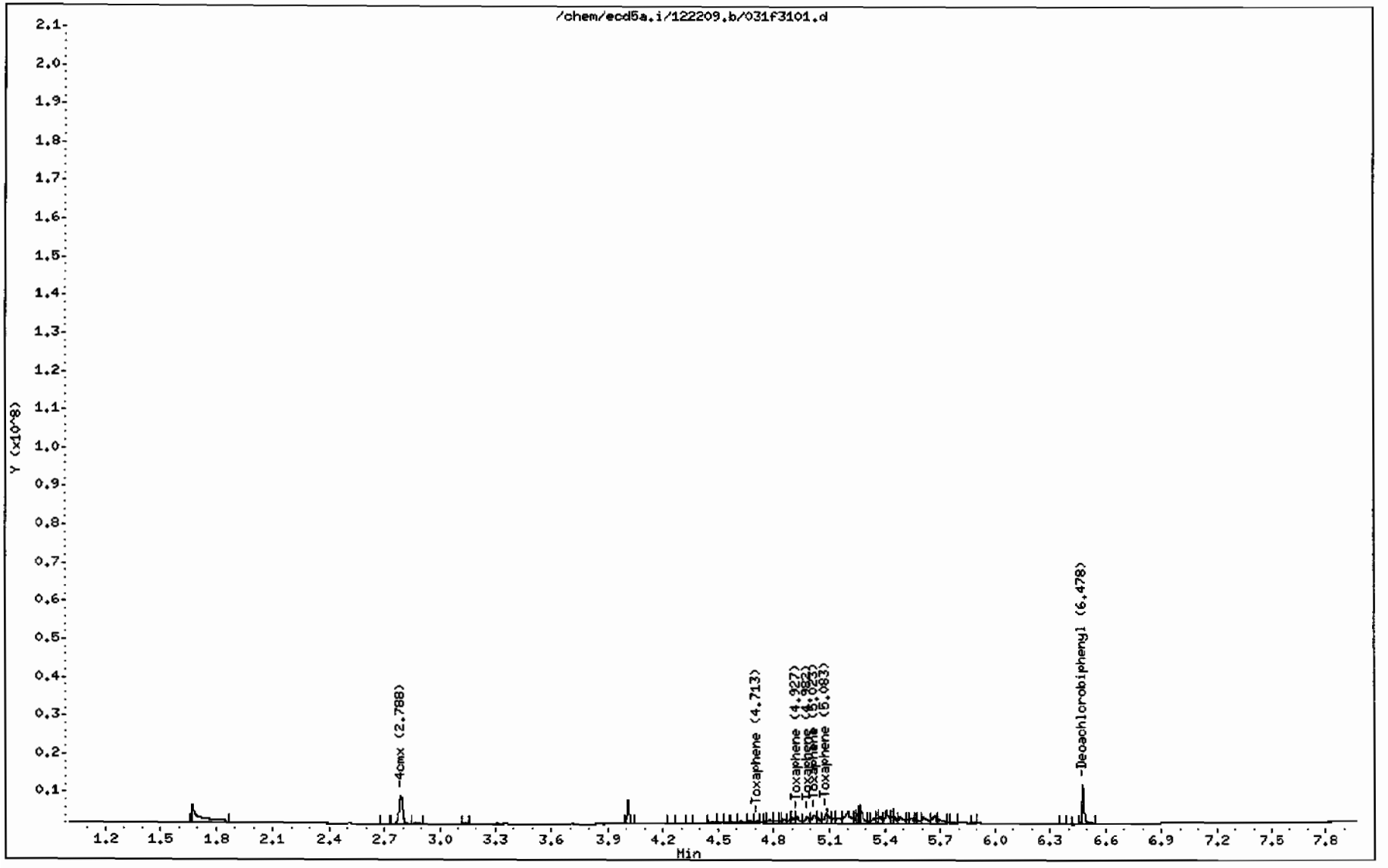

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd5a.i/122209.b/032b3201.d
Lab Smp Id: 1201998978 Client Smp ID: WST03-10-2137TMSD
Inj Date : 22-DEC-2009 20:29
Operator : CXC2 Inst ID: ecd5a.i
Smp Info : |1201998978|5|
Misc Info : |ECDPTL_1L|934315|SVP|TMSD|SOIL|TMSD|||
Comment :
Method : /chem/ecd5a.i/122209.b/ECD5-B-8081-121809.m
Meth Date : 23-Dec-2009 08:46 cla01575 Quant Type: ESTD
Cal Date : 05-DEC-2009 03:28 Cal File: 025b2501.d
Als bottle: 32 QC Sample: MSD
Dil Factor: 5.00000
Integrator: Falcon Compound Sublist: 10-753-1.sub
Target Version: 3.50 Sample Matrix: Water
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	5.00000	Dilution Factor
Uf	0.00100	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	20.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (mg/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
3.196	3.198	-0.002	60841786	18.8102	0.00470	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.149	7.153	-0.004	39321650	27.8994	0.00697	80.00- 120.00	100.00
23 Toxaphene					CAS #: 8001-35-2		
5.404	5.406	-0.002	9900134	449.397	0.112	80.00- 120.00	100.00(M)
5.540	5.541	-0.001	15460592	450.222	0.112	103.90- 143.90	156.17
5.630	5.632	-0.002	10115281	299.491	0.0749	100.29- 140.29	102.17
5.660	5.661	-0.001	15338005	271.897	0.0680	181.24- 221.24	154.93
5.717	5.719	-0.002	24108822	278.823	0.0697	287.80- 327.80	243.52

Average of Peak Concentrations = 0.0873

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd5a.i/122209.b/032b3201.d

Date : 22-DEC-2009 20:29

Client ID: WST03-10-2137THSD

Sample Info: |1201998978|5|

Volume Injected (uL): 1.0

Column phase: CLP-2

Instrument: ecd5a.i

Operator: CXC2

Column diameter: 0.25

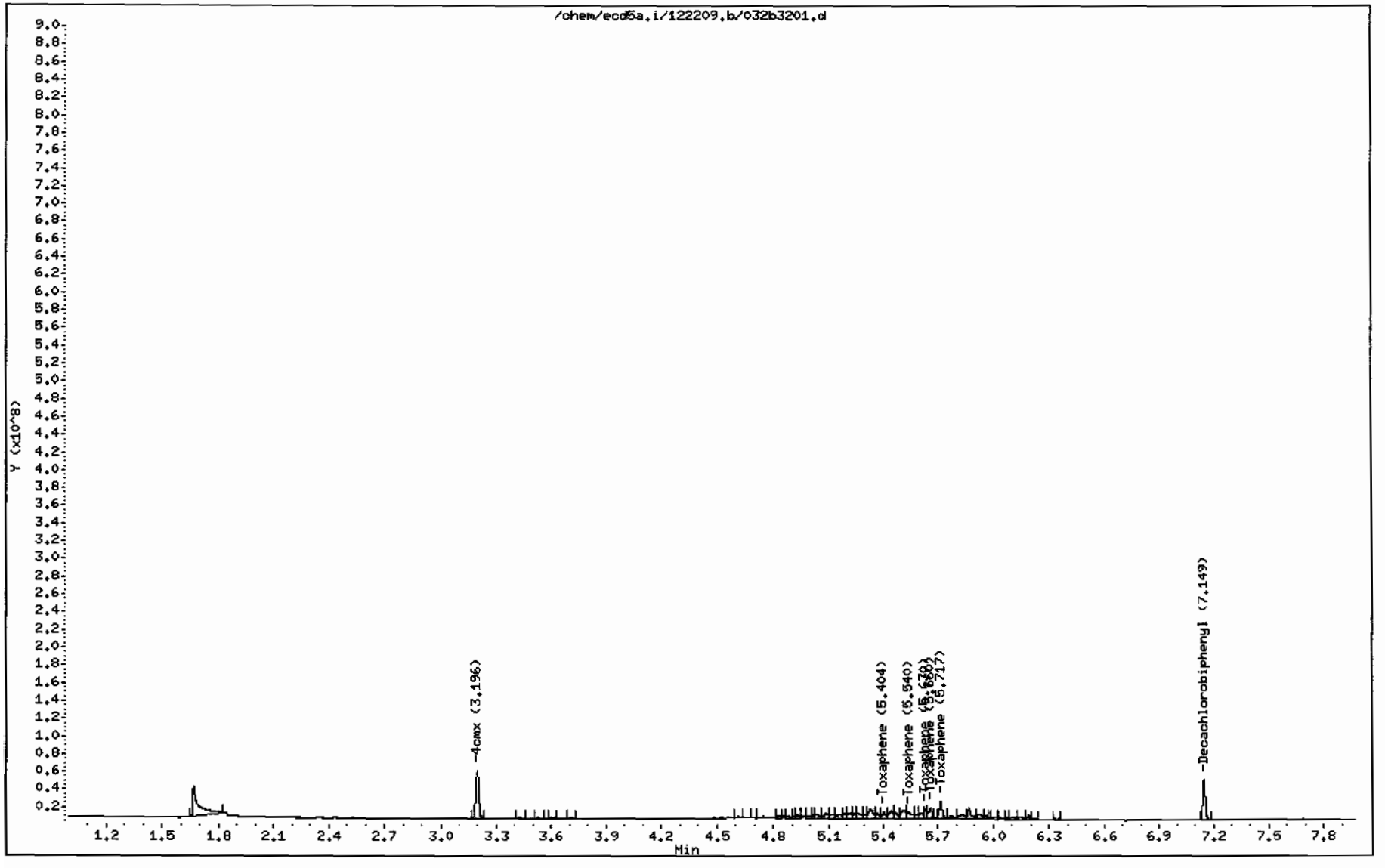

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd5a.i/122209.b/032f3201.d
Lab Smp Id: 1201998978 Client Smp ID: WST03-10-2137TMSD
Inj Date : 22-DEC-2009 20:29
Operator : CXC2 Inst ID: ecd5a.i
Smp Info : |1201998978|5|
Misc Info : |ECDPTL_1L|934315|SVP|TMSD|SOIL|TMSD|||
Comment :
Method : /chem/ecd5a.i/122209.b/ECD5-F-8081-121809.m
Meth Date : 23-Dec-2009 08:48 cla01575 Quant Type: ESTD
Cal Date : 05-DEC-2009 03:28 Cal File: 025f2501.d
Als bottle: 32 QC Sample: MSD
Dil Factor: 5.00000
Integrator: Falcon Compound Sublist: 10-753-1.sub
Target Version: 3.50 Sample Matrix: Water
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	5.00000	Dilution Factor
Uf	0.00100	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	20.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (mg/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.789	2.790	-0.001	8888277	19.1823	0.00480	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
6.479	6.482	-0.003	8554622	31.3086	0.00783	80.00- 120.00	100.00
23 Toxaphene					CAS #: 8001-35-2		
4.712	4.713	-0.001	874501	311.950	0.0780	80.00- 120.00	100.00(M)
4.927	4.927	0.000	2461264	465.844	0.116	158.29- 198.29	281.45
4.982	4.982	0.000	2446834	349.709	0.0874	217.92- 257.92	279.80
5.021	5.020	0.001	4123231	462.323	0.116	260.88- 300.88	471.50
5.082	5.082	0.000	4661029	541.507	0.135	269.50- 309.50	532.99

Average of Peak Concentrations = 0.106

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd5a.i/122209.b/032f3201.d

Page 1

Date : 22-DEC-2009 20:29

Client ID: WST03-10-2137TMSD

Instrument: ecd5a.i

Sample Info: |120199897815|

Volume Injected (uL): 1.0

Operator: CXC2

Column phase: CLP-1

Column diameter: 0.25

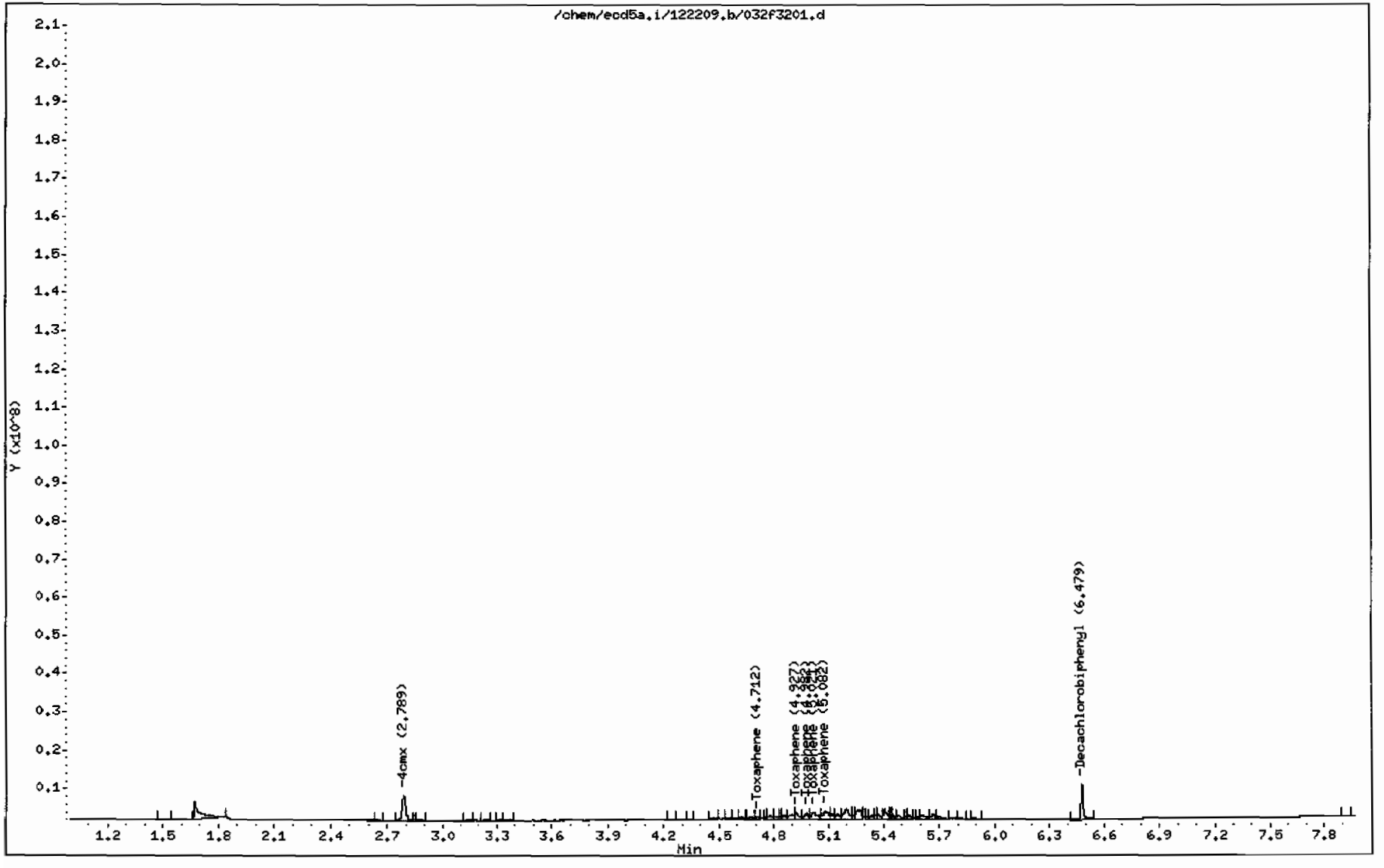

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd5a.i/122209.b/033b3301.d
Lab Smp Id: 1201998976 Client Smp ID: WST03-10-2137CMS
Inj Date : 22-DEC-2009 20:41
Operator : CXC2 Inst ID: ecd5a.i
Smp Info : |1201998976|5|
Misc Info : |ECDPTL_1L|934315|SVP|CMS|SOIL|CMS|||
Comment :
Method : /chem/ecd5a.i/122209.b/ECD5-B-8081-121809.m
Meth Date : 23-Dec-2009 08:46 cla01575 Quant Type: ESTD
Cal Date : 05-DEC-2009 03:28 Cal File: 025b2501.d
Als bottle: 33 QC Sample: MS
Dil Factor: 5.00000
Integrator: Falcon Compound Sublist: 10-753-1.sub
Target Version: 3.50 Sample Matrix: Water
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	5.00000	Dilution Factor
Uf	0.00100	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	20.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (mg/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
3.197	3.198	-0.001	58867496	18.1998	0.00455	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.149	7.153	-0.004	41584909	29.5052	0.00738	80.00- 120.00	100.00
8 Chlordane (tech.)					CAS #: 12789-03-6		
4.220	4.222	-0.002	26587136	231.261	0.0578	80.00- 120.00	100.00(M)
4.644	4.647	-0.003	31195230	338.099	0.0845	79.74- 119.74	117.33
4.899	4.901	-0.002	20483406	311.224	0.0778	40.71- 80.71	77.04
5.047	5.048	-0.001	76716369	280.327	0.0701	242.29- 282.29	288.55
5.138	5.140	-0.002	63648777	287.426	0.0718	194.96- 234.96	239.40

Average of Peak Concentrations = 0.0724

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd5a.i/122209.b/033b3301.d
Date : 22-DEC-2009 20:41
Client ID: WST03-10-2137CMS
Sample Info: |120199897615|
Volume Injected (uL): 1.0
Column phase: CLP-2

Instrument: ecd5a.i
Operator: CXC2
Column diameter: 0.25

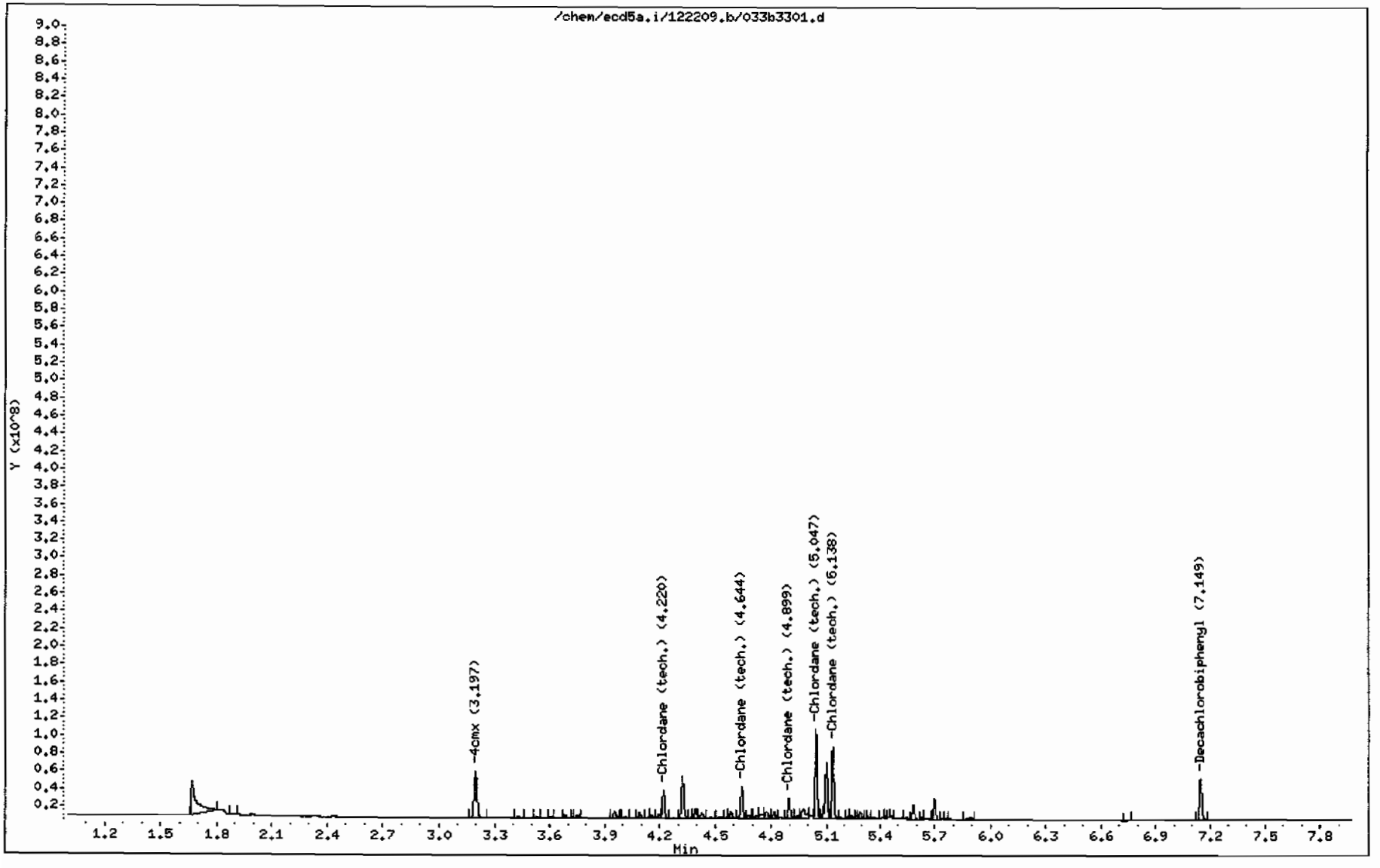

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd5a.i/122209.b/033f3301.d
Lab Smp Id: 1201998976 Client Smp ID: WST03-10-2137CMS
Inj Date : 22-DEC-2009 20:41
Operator : CXC2 Inst ID: ecd5a.i
Smp Info : |1201998976|5|
Misc Info : |ECDPTL_1L|934315|SVP|CMS|SOIL|CMS|||
Comment :
Method : /chem/ecd5a.i/122209.b/ECD5-F-8081-121809.m
Meth Date : 23-Dec-2009 08:48 cla01575 Quant Type: ESTD
Cal Date : 05-DEC-2009 03:28 Cal File: 025f2501.d
Als bottle: 33 QC Sample: MS
Dil Factor: 5.00000
Integrator: Falcon Compound Sublist: 10-753-1.sub
Target Version: 3.50 Sample Matrix: Water
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	5.00000	Dilution Factor
Uf	0.00100	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	20.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (mg/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.789	2.790	-0.001	8641149	18.6489	0.00466	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
6.479	6.482	-0.003	8936749	32.7071	0.00818	80.00- 120.00	100.00
8 Chlordane (tech.)					CAS #: 12789-03-6		
3.842	3.843	-0.001	3932991	225.855	0.0565	80.00- 120.00	100.00
3.899	3.900	-0.001	6408341	283.251	0.0708	152.17- 192.17	162.94
4.209	4.209	0.000	5040466	292.540	0.0731	97.53- 137.53	128.16
4.601	4.602	-0.001	14383304	264.247	0.0661	315.75- 355.75	365.71
5.167	5.168	-0.001	4335519	321.834	0.0804	73.94- 113.94	110.23

Average of Peak Concentrations = 0.0694

Data File: /chem/ecd5a.i/122209.b/033f3301.d
Date : 22-DEC-2009 20:41
Client ID: WST03-10-2137CMS
Sample Info: |1201998976151
Volume Injected (uL): 1.0
Column phase: CLP-1

Instrument: ecd5a.i

Operator: CXC2
Column diameter: 0.25

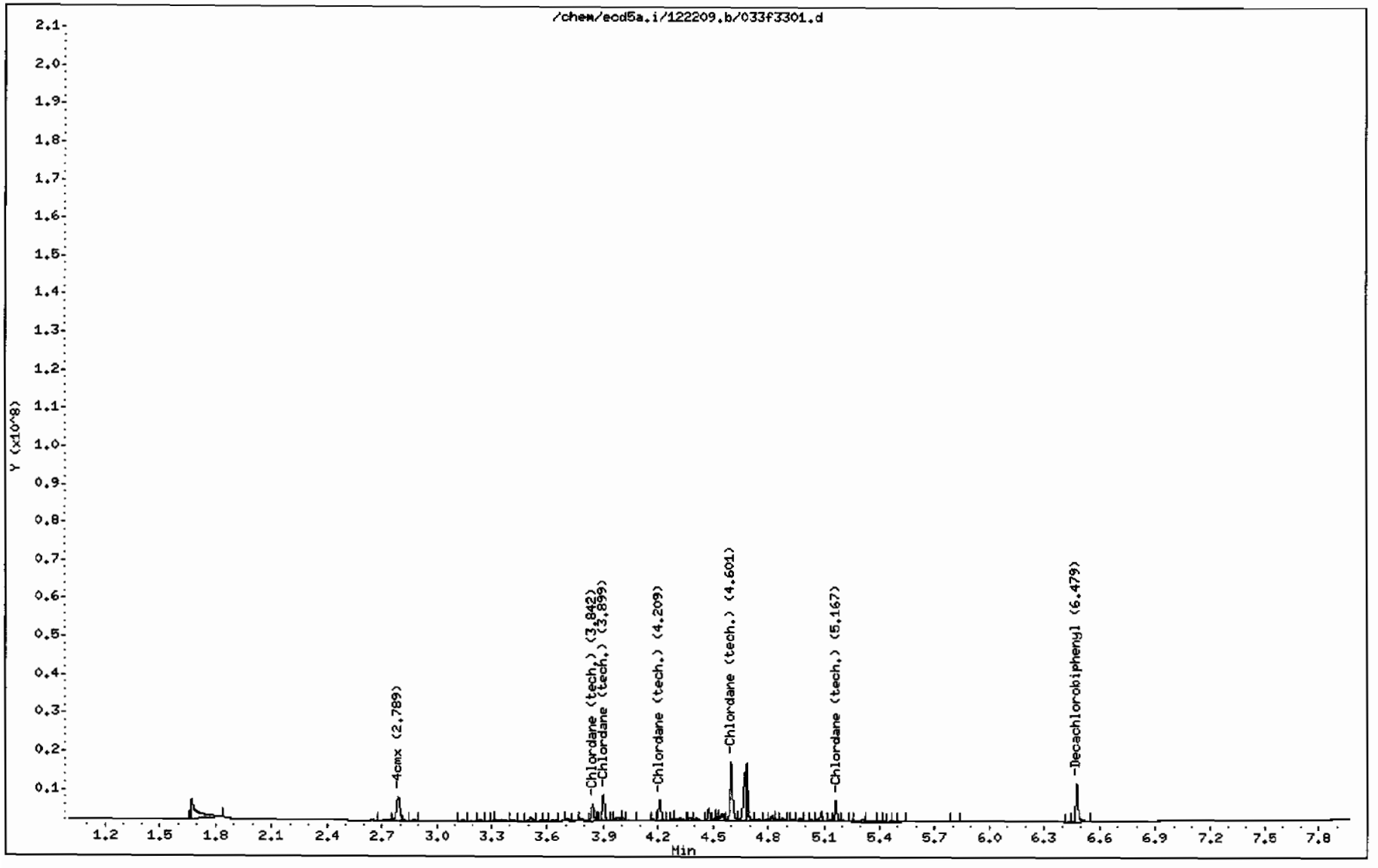

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd5a.i/122209.b/037b3701.d
Lab Smp Id: 1201998979 Client Smp ID: WST03-10-2137CMSD
Inj Date : 22-DEC-2009 21:29
Operator : CXC2 Inst ID: ecd5a.i
Smp Info : |1201998979|5|
Misc Info : |ECDPTL_1L|934315|SVP|CMSD|SOIL|CMSD|||
Comment :
Method : /chem/ecd5a.i/122209.b/ECD5-B-8081-121809.m
Meth Date : 23-Dec-2009 08:46 cla01575 Quant Type: ESTD
Cal Date : 05-DEC-2009 03:28 Cal File: 025b2501.d
Als bottle: 37 QC Sample: MSD
Dil Factor: 5.00000
Integrator: Falcon Compound Sublist: 10-753-1.sub
Target Version: 3.50 Sample Matrix: Water
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	5.00000	Dilution Factor
Uf	0.00100	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	20.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (mg/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
3.196	3.198	-0.002	62031743	19.1780	0.00479	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.150	7.153	-0.003	42324729	30.0301	0.00751	80.00- 120.00	100.00
8 Chlordane (tech.)					CAS #: 12789-03-6		
4.221	4.222	-0.001	27390004	239.812	0.0600	80.00- 120.00	100.00
4.645	4.647	-0.002	31573213	343.059	0.0858	79.74- 119.74	115.27
4.899	4.901	-0.002	18934127	282.232	0.0706	40.71- 80.71	69.13
5.047	5.048	-0.001	77142104	282.021	0.0705	242.29- 282.29	281.64
5.138	5.140	-0.002	61726046	277.971	0.0695	194.96- 234.96	225.36

Average of Peak Concentrations = 0.0713

Data File: /chem/ecd5a.i/122209.b/037b3701.d
Date : 22-DEC-2009 21:29
Client ID: WST03-10-2137CMSD
Sample Info: |120199897915|
Volume Injected (uL): 1.0
Column phase: CLP-2

Instrument: ecd5a.i
Operator: CXC2
Column diameter: 0.25

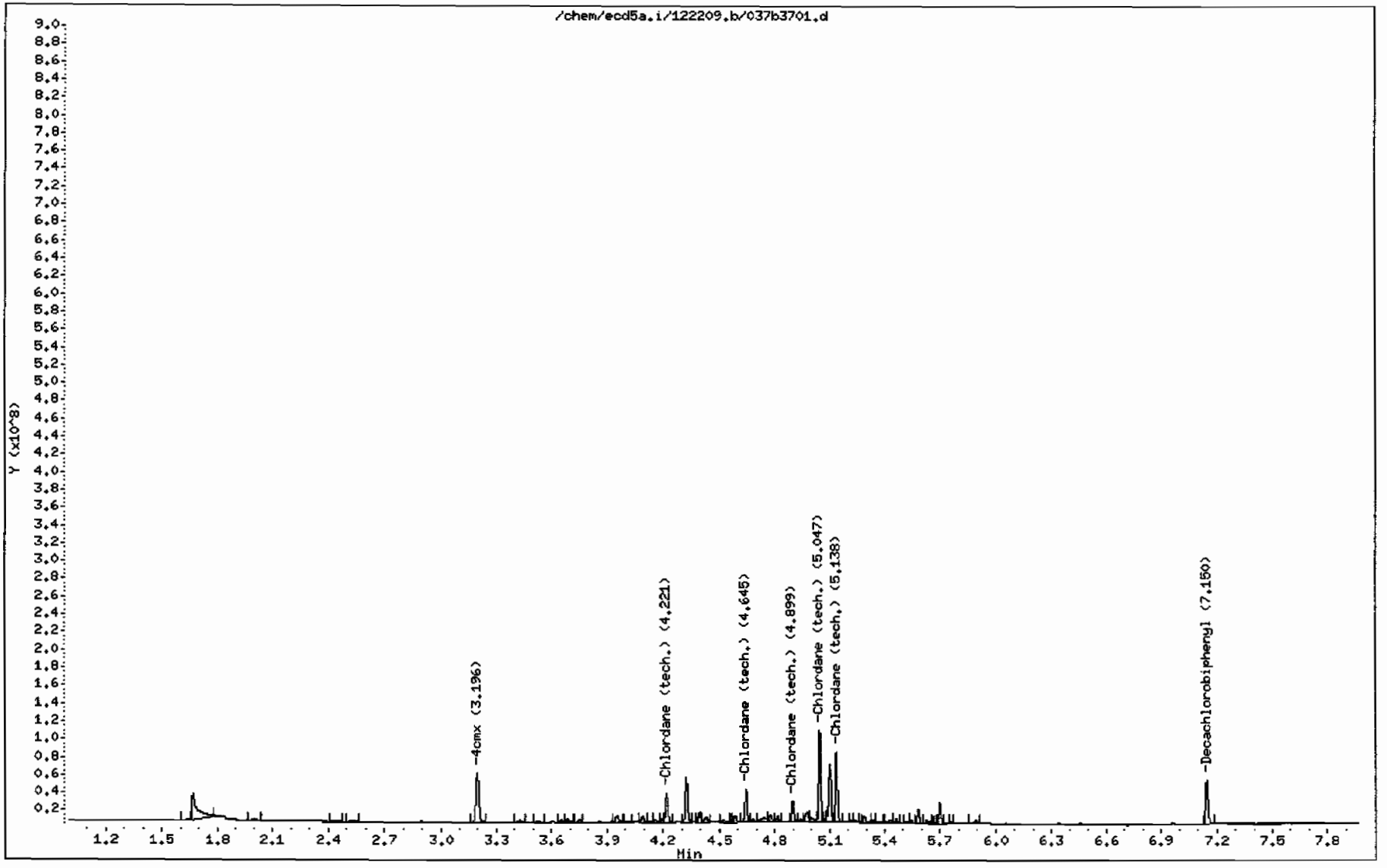

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd5a.i/122209.b/037f3701.d
Lab Smp Id: 1201998979 Client Smp ID: WST03-10-2137CMSD
Inj Date : 22-DEC-2009 21:29
Operator : CXC2 Inst ID: ecd5a.i
Smp Info : |1201998979|5|
Misc Info : |ECDPTL_1L|934315|SVP|CMSD|SOIL|CMSD|||
Comment :
Method : /chem/ecd5a.i/122209.b/ECD5-F-8081-121809.m
Meth Date : 23-Dec-2009 08:48 cla01575 Quant Type: ESTD
Cal Date : 05-DEC-2009 03:28 Cal File: 025f2501.d
Als bottle: 37 QC Sample: MSD
Dil Factor: 5.00000
Integrator: Falcon Compound Sublist: 10-753-1.sub
Target Version: 3.50 Sample Matrix: Water
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	5.00000	Dilution Factor
Uf	0.00100	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	20.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (mg/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.790	2.790	0.000	9073694	19.5824	0.00490	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
6.478	6.482	-0.004	9191337	33.6389	0.00841	80.00- 120.00	100.00
8 Chlordane (tech.)					CAS #: 12789-03-6		
3.842	3.843	-0.001	4049753	232.560	0.0581	80.00- 120.00	100.00
3.899	3.900	-0.001	6770665	299.266	0.0748	152.17- 192.17	167.19
4.207	4.209	-0.002	5701682	330.915	0.0827	97.53- 137.53	140.79
4.601	4.602	-0.001	15218159	279.584	0.0699	315.75- 355.75	375.78
5.167	5.168	-0.001	5013401	372.155	0.0930	73.94- 113.94	123.80

Average of Peak Concentrations = 0.0757

Data File: /chem/ecd5a.i/122209.b/037f3701.d
Date : 22-DEC-2009 21:29
Client ID: WST03-10-2137CMSD
Sample Info: |120199897915|
Volume Injected (uL): 1.0
Column phase: CLP-1

Instrument: ecd5a.i
Operator: CXC2
Column diameter: 0.25

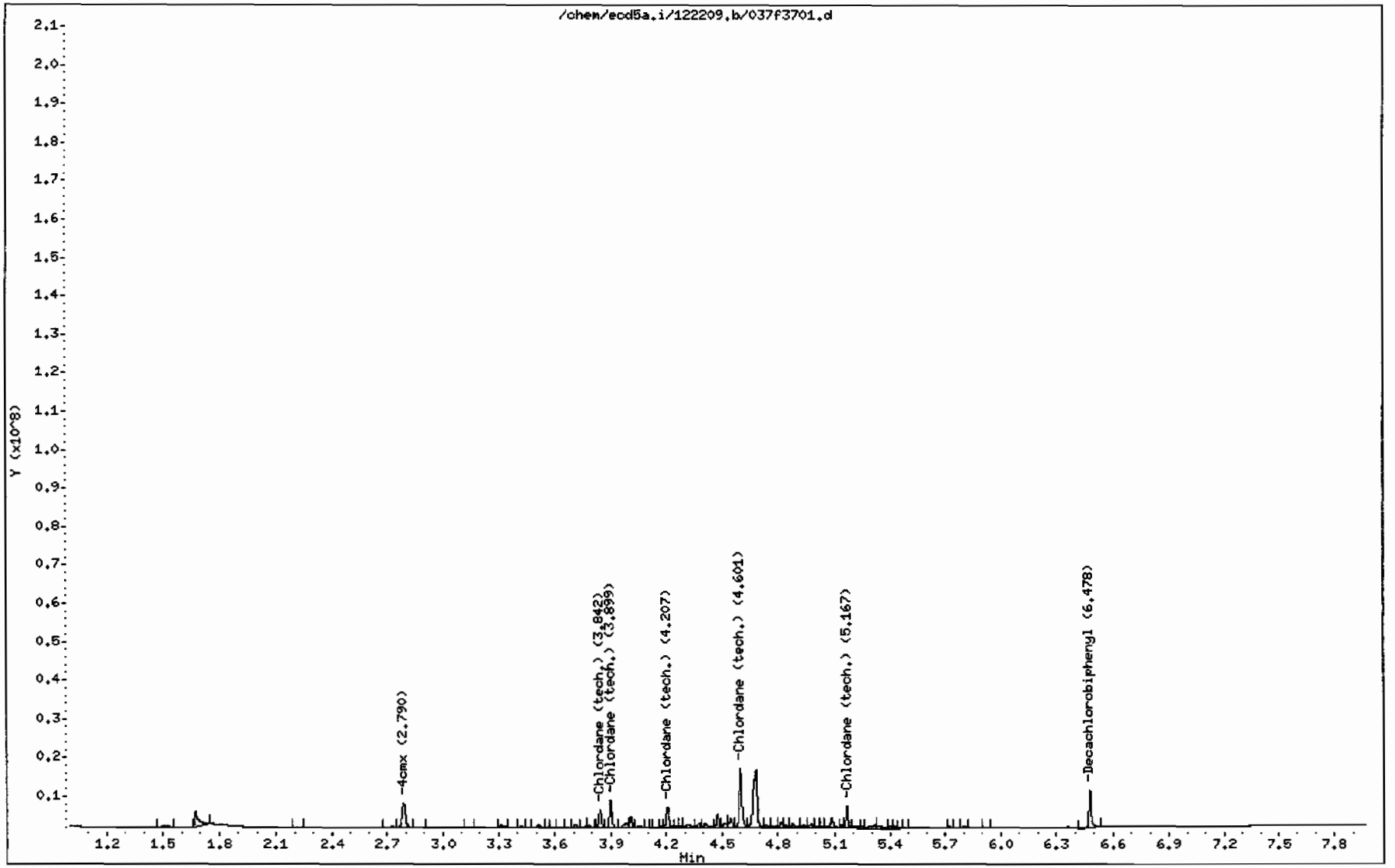

Prep Logbook

Extraction of Semivolatile and Nonvolatile Organic Compounds from Groundwater, Wastewater, and Other Aqueous Samples

Batch ID: 934314 **Verified by:** _____

Analyst: Rodricous Corbett

Method: SW846 3510C

Lab SOP: GL-OA-E-013 REV# 21

Instrument: Semi-Volatiles Manual

Sample ID	Run Date	Initial Volume (mL)	Initial pH	Int Ext pH	Final Volume (mL)	Prepped Factor (mL/mL)
1201995775 TB	22-DEC-2009 17:25:59	20	5	5	1	0.05
1201996842 TB	22-DEC-2009 17:25:59	20	5	5	1	0.05
1201998973 MB	22-DEC-2009 17:25:59	20	5	7	1	0.05
1201999915 TB	22-DEC-2009 17:25:59	20	5	5	1	0.05
1201998980 LCS	22-DEC-2009 17:25:59	20	5	7	1	0.05
1201998981 LCS	22-DEC-2009 17:25:59	20	5	7	1	0.05
1201998982 LCS	22-DEC-2009 17:25:59	20	5	7	1	0.05
242168001	22-DEC-2009 17:25:59	20	5	5	1	0.05
1201998974 MS (242168001)	22-DEC-2009 17:25:59	20	5	5	1	0.05
1201998977 MSD (242168001)	22-DEC-2009 17:25:59	20	5	5	1	0.05
1201998975 MS (242168001)	22-DEC-2009 17:25:59	20	5	5	1	0.05
1201998978 MSD (242168001)	22-DEC-2009 17:25:59	20	5	5	1	0.05
1201998976 MS (242168001)	22-DEC-2009 17:25:59	20	5	5	1	0.05
1201998979 MSD (242168001)	22-DEC-2009 17:25:59	20	5	5	1	0.05
242168002	22-DEC-2009 17:25:59	20	6	6	1	0.05
242306001	22-DEC-2009 17:25:59	20	6	6	1	0.05
242306002	22-DEC-2009 17:25:59	20	6	6	1	0.05
242306003	22-DEC-2009 17:25:59	20	6	6	1	0.05
242446001	22-DEC-2009 17:25:59	20	6	6	1	0.05
242785001	22-DEC-2009 17:25:59	20	6	6	1	0.05
242785002	22-DEC-2009 17:25:59	20	6	6	1	0.05
243010001	22-DEC-2009 17:25:59	20	6	6	1	0.05

Type	Sample Id	Description	Serial Number	Spike Amt	Units
LCS	1201998980	PESTICIDE TCLP LCS	UE091207-06A	1	mL
LCS	1201998981	Toxaphene TCLP LCS	WE091204-11	1	mL
LCS	1201998982	Chlordane TCLP LCS	WE091111-04	1	mL
MS	1201998974	PESTICIDE TCLP LCS	UE091207-06A	1	mL
MS	1201998975	Toxaphene TCLP LCS	WE091204-11	1	mL
MS	1201998976	Chlordane TCLP LCS	WE091111-04	1	mL
MSD	1201998977	PESTICIDE TCLP LCS	UE091207-06A	1	mL
MSD	1201998978	Toxaphene TCLP LCS	WE091204-11	1	mL
MSD	1201998979	Chlordane TCLP LCS	WE091111-04	1	mL
SURR	All	PEST LOW LEVEL SURROGATE 200 UG/L	UE091103-15	1	mL
REGNT	All	Hexane	1241300-B2	5	mL
REGNT	All	Methylene Chloride	1245410-D	180	mL
SOURC	All	SODIUM SULFATE	1242582	30	g

Comments:

Verified By: TA

Final Solvent: Hexane

Prep Logbook

Toxicity Characteristic Leaching Procedure Preparation

Batch ID: 933331 **Verified by:** _____

Analyst: Richard Dollinger

Method: SW846 1311

Lab SOP: GL-LB-E-006 REV# 13

Instrument: TCLP Tumbler #105

Sample ID Analysis Start Date	1201996842 TB 15-DEC-2009 09:00:59	242446001 15-DEC-2009 09:00:59	242785001 15-DEC-2009 09:00:59	242785002 15-DEC-2009 09:00:59
100% Solid Y/N		y	y	y
(I) Sub Sample Aliquot I=G-H (g)	0	100	100	100
Initial pH (su)	4.92	8.63	8.37	7.26
pH Temperature (celsius)		50	50	50
Filtrate pH (su)	4.92	5	5	5
Final pH (su)	4.92	1.8	1.72	1.73
Tumbler Speed	28	28	28	28
Sample Properties <>/= Water	tclp#1	Solid	Solid	Solid
(J) 20X Wet Solid Weight 20XC (g)	2000	2000	2000	2000
Filtrate Volume (mL)	1000	1000	1000	1000

Type	Sample Id	Description	Serial Number	Spike Amt	Units
RGNT	All	TCLP EXTRACTION FLUID 1	1018204	2000	mL
RGNT	All	1N HCl for pH testing	1202901	3.5	mL

Comments:

Extration End Date: 16-DEC-09 9:00:45
Filtration End Date: 16-DEC-09 15:00:45
Bottle Lot Number: h929301db
Filter Lot Number: 9125016
Extration Start Temperature: 23 C
Extration End Temperature: 23 C
Filtration End Temperature: 23 C

COMPANY - WIDE NONCONFORMANCE REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
23-DEC-09	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
GC/ECD	SW846 8081A	Solid	LANL
Batch ID:	**Sample Numbers:**		
934315	See Below		

Potentially affected work order(s)(SDG):242168(10-753-1),242306(10-786-1),242446(10-832-1),242785(10-899-1),243010(10-939-1)

Application Issues:

Failed Recovery for MS/PS

Failed RPD for MS/MSD, or PS/PSD

Specification and Requirements Nonconformance Description:	NRG Disposition:
1. QC sample 1201998974(MS) recovered below the acceptance range for Methoxychlor on one analytical column. 2. QC samples 1201998974(MS) and 1201998977 (MSD) had an RPD of greater than 30% for Heptachlor and Methoxychlor.	1. The MS did not meet acceptance criteria for Methoxychlor on one analytical column (back), but met acceptance criteria for all target analytes on the other analytical column (front). No peaks were detected in the retention time window for Methoxychlor on the front analytical column for any of the environmental samples associated with this batch; therefore, this non-conformance has no adverse effects on the data. 2. The RPD values were not all within the acceptance limits. However, the MS/MSD pair passed recoveries for all analytes with the exception of Methoxychlor (see 1.). No target analytes were detected in the associated environmental samples. The results are reported.

Originator's Name:

Clairette Campbell 23-DEC-09

Data Validator/Group Leader:

Robert Whitlock 23-DEC-09

GC SEMIVOLATILE PCB ANALYSIS

PCB Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-899

Method/Analysis Information

Procedure:	**Analysis of Polychlorinated Biphenyls by ECD**
Analytical Method:	SW846 8082
Prep Method:	SW846 3550B
Analytical Batch Number:	933402
Prep Batch Number:	933401

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 8082:

Sample ID	Client ID
242784003	WST03-10-2145
242784004	WST03-10-2146
1201997004	Method Blank (MB)
1201997005	Laboratory Control Sample (LCS)
1201997006	242794001(RE03-09-13470) Matrix Spike (MS)
1201997007	242794001(RE03-09-13470) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on a "dry weight" basis.

Preparation/Analytical Method Verification

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-040 REV# 14.

Raw data reports are processed and reviewed by the analyst using the Target software package. False positives have been removed from the Target quantitation reports per standard operating procedures (SOP) section 23.0.

Calibration Information

Please note that the 'Cal Date' indicated on each quantitation report reflects the date and time of the most recent calibrated analyte(s) in the Target processing method. Since the laboratory may calibrate with multiple solutions on different days using the same processing method, the Target software will update the 'Cal Date' to the last calibration file, date and time. The correct dates and times for all calibration files are located on the Calibration History report in the Standard Data section in the data package.

Due to software limitations, the Calibration Summary Form 6 may not indicate all the calibration files comprising the initial calibration. A complete list of the initial calibration data files are shown in the Calibration History report located in the Standard Data section of the data package.

Initial Calibration
All initial calibration requirements have been met for this sample delivery group (SDG).

The linear equation used in Target and indicated on the initial calibration summary form is not a conventional linear equation (slope intercept formula) and does not match the equation found in SW-846 method 8000B. The x and y axes are inversed in Target, so that the instrument response is treated as the independent variable (x) and the concentration ratio is treated as the dependent variable (y). The equation used in Target to calculate sample results is adjusted to account for the linear equation inversion and reciprocal slope. The adjusted calculation has been independently verified to produce valid results.

Continuing Calibration Verification (CCV) Requirements
All associated calibration verification standard(s) (ICV or CCV) met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB(s) analyzed with this SDG met the acceptance criteria.

Surrogate Recoveries
All surrogate recoveries were within the established acceptance criteria for this SDG.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

QC Sample Designation
A LANL sample of similar matrix associated with another SDG (#10-901) was selected for the matrix spike and matrix spike duplicate analysis. A Form III and QC raw data are included in the package summarizing the results.

Matrix Spike (MS) Recovery Statement
The MS recoveries for this SDG were within the established acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recoveries for this SDG were within the established acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD(s) between the MS and MSD met the acceptance limits.

Technical Information

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

Sample Dilutions
Samples 242784003 (WST03-10-2145) and 242784004 (WST03-10-2146) were diluted at 1:5 due to the oily matrix of the extracts.

Sample Re-extraction/Re-analysis
Re-extractions or re-analyses were not required in this SDG.

Miscellaneous Information

Electronic Package Comment

The following package was generated using an electronic data processing program referred to as "virtual packaging". In an effort to increase quality and efficiency, the laboratory is developing systems to eventually

generate all data packages electronically. The following change from "traditional" packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. An electronic signature page inserted after the case narrative of each electronic package will indicate the analyst, reviewer, and report specialist names associated with the generation of the data and package. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Nonconformance (NCR) Documentation
Nonconformance reports (NCRs) are for documentation of any procedural anomalies that may deviate from referenced SOP or contractual document. A NCR was not required for this SDG.

Manual Integrations
Certain standards and samples may have required manual integration to correctly position the baseline as set in the calibration standard injections. If manual integration was performed, copies of all manual integration peak profiles are included in the raw data section of this PCB fraction.

Additional Comments
The additional comments field is used to address special issues associated with each analysis, clarify method/contractual issues pertaining to the analysis, and to list any report documents generated as a result of sample analysis or review. The following additional comments were required:

The higher results from either column have been chosen and reported in the data package for the client samples, MB and LCS.

The data reported on the form I and III may differ slightly from the data reported on the form X. This is due to software limitations in rounding differences between the forms.

Aroclors quantitated on the raw data report by the Target data system do not necessarily represent positive Aroclor identification. In order for positive identification to be made, the Aroclor must match in pattern and retention time; as well as quantitate relatively close between the primary and confirmation columns, as specified in SW846 method 8000. When these conditions are not met, the Aroclor is reported as a non-detect on the data report. These situations will be noted on the raw data as DMP, representing does not match pattern, or DNC does not confirm.

Due to software limitation, the Form VIIs will display the results either in the % difference or % drift depending on the type of the calibration curve. If the curve of all analytes is generated using an average response factor (RF), the Form VII will display results using the %difference calculation (RF). If the curve of one or more analytes is generated using a linear curve, the Form VII will display results using the % drift calculation (by concentration) for all analytes.

System Configuration

The Semi-Volatiles-PCB analysis was performed on the following instrument configuration:

Instrument ID	Instrument	System Configuration	Column ID	Column Description
ECD2A.I_1	HP Gas Chromatograph	HP6890 Series ECD	Rtx-CLP I	30m x 0.25mm, 0.25um (Rtx-CLPesticide)
ECD2A.I_2	HP Gas Chromatograph	HP6890 Series ECD	Rtx-CLP II	30m x 0.25mm, 0.20um (Rtx-CLPesticide II)

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Andy Whitlock Date: 12-22-2009

Roadmap for LANL 10-899 PCB

This roadmap was analyzed by jcn01212 on 12-17-2009, 10:00.
This roadmap was reviewed by rob01090 on 12-21-2009, 14:39.
This roadmap was packaged by yml on 12-21-2009, 17:20.
This roadmap was validated by yml on 12-22-2009, 07:41.

Front Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd2a.i/121609.b/057f5701.d	242784003	sample	16-DEC-2009	18:07	10-899.sub	WST03-10-2145	5.00000	933402	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd2a.i/121609.b/058f5801.d	242784004	sample	16-DEC-2009	18:18	10-899.sub	WST03-10-2146	5.00000	933402	UPLOAD BOTH, USE HIGHER

Back Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd2a.i/121609.b/057b5701.d	242784003	sample	16-DEC-2009	18:07	10-899.sub	WST03-10-2145	5.00000	933402	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd2a.i/121609.b/058b5801.d	242784004	sample	16-DEC-2009	18:18	10-899.sub	WST03-10-2146	5.00000	933402	UPLOAD BOTH, USE HIGHER

Front QC Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd2a.i/121609.b/055f5501.d	1201997004	mb	16-DEC-2009	17:45	10-899.sub	PBLK01	1.00000	933402	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd2a.i/121609.b/056f5601.d	1201997005	lcs	16-DEC-2009	17:56	10-899.sub	PBLK01LCS	1.00000	933402	UPLOAD BOTH, USE HIGHER

Back QC Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd2a.i/121609.b/055b5501.d	1201997004	mb	16-DEC-2009	17:45	10-899.sub	PBLK01	1.00000	933402	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd2a.i/121609.b/056b5601.d	1201997005	lcs	16-DEC-2009	17:56	10-899.sub	PBLK01LCS	1.00000	933402	UPLOAD BOTH, USE HIGHER

SAMPLE DATA SUMMARY

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–899**	**Date Collected:**	**12/10/2009 12:00**	**Matrix:**	**R**
Lab Sample ID:	**242784003**	**Date Received:**	**12/12/2009 09:35**	**%Moisture:**	**6.7**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**WST03–10–2145**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**933402**	**Inst:**	**ECD2A.I**	**Dilution:**	**5**
Run Date:	**12/16/2009 18:07**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**12/16/2009 09:01**	**Aliquot:**	**30.01 g**	**Final Volume:**	**1 mL**
Data File:	**057f5701.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	057b5701.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	17.9	ug/kg	5.95	17.9	1
11104–28–2	Aroclor–1221	U	17.9	ug/kg	5.95	17.9	1
11141–16–5	Aroclor–1232	U	17.9	ug/kg	5.95	17.9	1
53469–21–9	Aroclor–1242	U	17.9	ug/kg	5.95	17.9	1
12672–29–6	Aroclor–1248	U	17.9	ug/kg	5.95	17.9	1
11097–69–1	Aroclor–1254	U	17.9	ug/kg	5.95	17.9	1
11096–82–5	Aroclor–1260	U	17.9	ug/kg	5.95	17.9	1

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10–899	**Date Collected:**	12/10/2009 12:00	**Matrix:**	R
Lab Sample ID:	242784004	**Date Received:**	12/12/2009 09:35	**%Moisture:**	9.8
		Client:	LANL010	**Project:**	LANL01004
Client ID:	WST03–10–2146	**Method:**	SW846 8082	**SOP Ref:**	GL–OA–E–040
Batch ID:	933402	**Inst:**	ECD2A.I	**Dilution:**	5
Run Date:	12/16/2009 18:18	**Analyst:**	JAOC	**Inj. Vol:**	1 uL
Prep Date:	12/16/2009 09:01	**Aliquot:**	30 g	**Final Volume:**	1 mL
Data File:	058f5801.d	**Column:**	1 CLP1	**Level:**	LOW
	058b5801.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	18.5	ug/kg	6.15	18.5	1
11104–28–2	Aroclor–1221	U	18.5	ug/kg	6.15	18.5	1
11141–16–5	Aroclor–1232	U	18.5	ug/kg	6.15	18.5	1
53469–21–9	Aroclor–1242	U	18.5	ug/kg	6.15	18.5	1
12672–29–6	Aroclor–1248	U	18.5	ug/kg	6.15	18.5	1
11097–69–1	Aroclor–1254	U	18.5	ug/kg	6.15	18.5	1
11096–82–5	Aroclor–1260	U	18.5	ug/kg	6.15	18.5	1

QUALITY CONTROL SUMMARY

PCB

Surrogate Recovery Report

SDG Number: 10–899

Matrix Type: SOLID

CAP Column (1) : CLP1 **CAP Column (2) : CLP2**

Sample ID	Client ID	4CMX 1 %REC #		4CMX 2 %REC #		DCB 1 %REC #		DCB 2 %REC #	
1201997004	MB for batch 933401	63		66		79		81	
1201997005	LCS for batch 933401	63		65		77		79	
242784003	WST03–10–2145	56	D	57	D	69	D	67	D
242784004	WST03–10–2146	55	D	56	D	61	D	60	D

Surrogate	Acceptance Limits
4CMX = 4cmx	(34%–105%)
DCB = Decachlorobiphenyl	(33%–115%)

* Recovery outside Acceptance Limits

\# Column to be used to flag recovery values

D Sample Diluted

PCB

Quality Control Summary
Spike Recovery Report

SDG Number: 10-899
Client ID: LCS for batch 933401
Lab Sample ID: 1201997005
Instrument: ECD2A.I
Analyst: JAOC
Inj. Vol: 1 uL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 12/16/2009 17:56
Dilution: 1
Prep Batch ID: 933401
Batch ID: 933402

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
12674-11-2	LCS	Aroclor-1016	33.3	0.0	19.6	59	41-110
11096-82-5	LCS	Aroclor-1260	33.3	0.0	26.0	78	48-110

PCB

Quality Control Summary
Spike Recovery Report

SDG Number: 10-901
Client ID: RE03-09-13470MS
Lab Sample ID: 1201997006
Instrument: ECD2A.I
Analyst: JAOC
Inj. Vol: 1 uL

Sample Type: Matrix Spike
Matrix: S
%Moisture: 4.4
Analysis Date: 12/16/2009 18:40
Prep Batch ID: 933401
Batch ID: 933402
Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
12674-11-2	MS	Aroclor-1016	34.8	0.00	U	19.3	55	23-117
11096-82-5	MS	Aroclor-1260	34.8	0.00	U	25.9	74	27-116

Quality Control Summary
Spike Recovery Report

SDG Number: 10-901
Client ID: RE03-09-13470MSD
Lab Sample ID: 1201997007
Instrument: ECD2A.I
Analyst: JAOC
Inj. Vol: 1 uL

Sample Type: Matrix Spike Duplicate
Matrix: S
%Moisture: 4.4
Analysis Date: 12/16/2009 18:51
Dilution: 1
Prep Batch ID: 933401
Batch ID: 933402

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
12674-11-2	MSD Aroclor-1016	34.9	0.00	U	19.4	56	23-117	1	0-30
11096-82-5	MSD Aroclor-1260	34.9	0.00	U	26.3	75	27-116	2	0-30

Method Blank Summary

SDG Number:	10–899	Client:	LANL010	Matrix:	SOIL
Client ID:	MB for batch 933401	Instrument ID:	ECD2A.I_2 ECD2A.I_1	Data File:	055b5501–1.d 055f5501–1.d
Lab Sample ID:	1201997004				
Column:	CLP2 CLP1	Prep Date:	12/16/2009 09:01	Analyzed:	12/16/09 17:45
		Level:	LOW		

This method blank applies to the following samples and quality control samples:

	Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01	LCS for batch 933401	1201997005	056f5601–1.d 056b5601–1.d	12/16/09	1756
02	WST03–10–2145	242784003	057f5701.d 057b5701.d	12/16/09	1807
03	WST03–10–2146	242784004	058f5801.d 058b5801.d	12/16/09	1818

SAMPLE
DATA

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–899**	**Date Collected:**	**12/10/2009 12:00**	**Matrix:**	**R**
Lab Sample ID:	**242784003**	**Date Received:**	**12/12/2009 09:35**	**%Moisture:**	**6.7**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**WST03–10–2145**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**933402**	**Inst:**	**ECD2A.I**	**Dilution:**	**5**
Run Date:	**12/16/2009 18:07**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**12/16/2009 09:01**	**Aliquot:**	**30.01 g**	**Final Volume:**	**1 mL**
Data File:	**057f5701.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	057b5701.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	17.9	ug/kg	5.95	17.9	1
11104–28–2	Aroclor–1221	U	17.9	ug/kg	5.95	17.9	1
11141–16–5	Aroclor–1232	U	17.9	ug/kg	5.95	17.9	1
53469–21–9	Aroclor–1242	U	17.9	ug/kg	5.95	17.9	1
12672–29–6	Aroclor–1248	U	17.9	ug/kg	5.95	17.9	1
11097–69–1	Aroclor–1254	U	17.9	ug/kg	5.95	17.9	1
11096–82–5	Aroclor–1260	U	17.9	ug/kg	5.95	17.9	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/121609.b/057f5701.d
Lab Smp Id: 242784003 Client Smp ID: WST03-10-2145
Inj Date : 16-DEC-2009 18:07
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |242784003|5|
Misc Info : |ECD82P_1S|933402|SVAF|LANL|SOIL|WST03-10-2145|||
Comment :
Method : /chem/ecd2a.i/121609.b/ECD2-F-8082-111209A.m
Meth Date : 17-Dec-2009 05:44 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012f1201.d
Als bottle: 57
Dil Factor: 5.00000
Integrator: Falcon Compound Sublist: 10-899.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	5.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.01000	Weight of sample extracted (g)
M	6.70440	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.773	1.775	-0.002	1406287	22.5758	4.0	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.612	5.613	-0.001	1504027	27.7949	5.0	80.00- 120.00	100.00

Data File: /chem/ecd2a.i/121609.b/057f5701.d

Date : 16-DEC-2009 18:07

Client ID: WST03-10-2145

Sample Info: 1242784003151

Volume Injected (uL): 1.0

Column phase: CLP1

Instrument: ecd2a.i

Operator: JAOC

Column diameter: 0.25

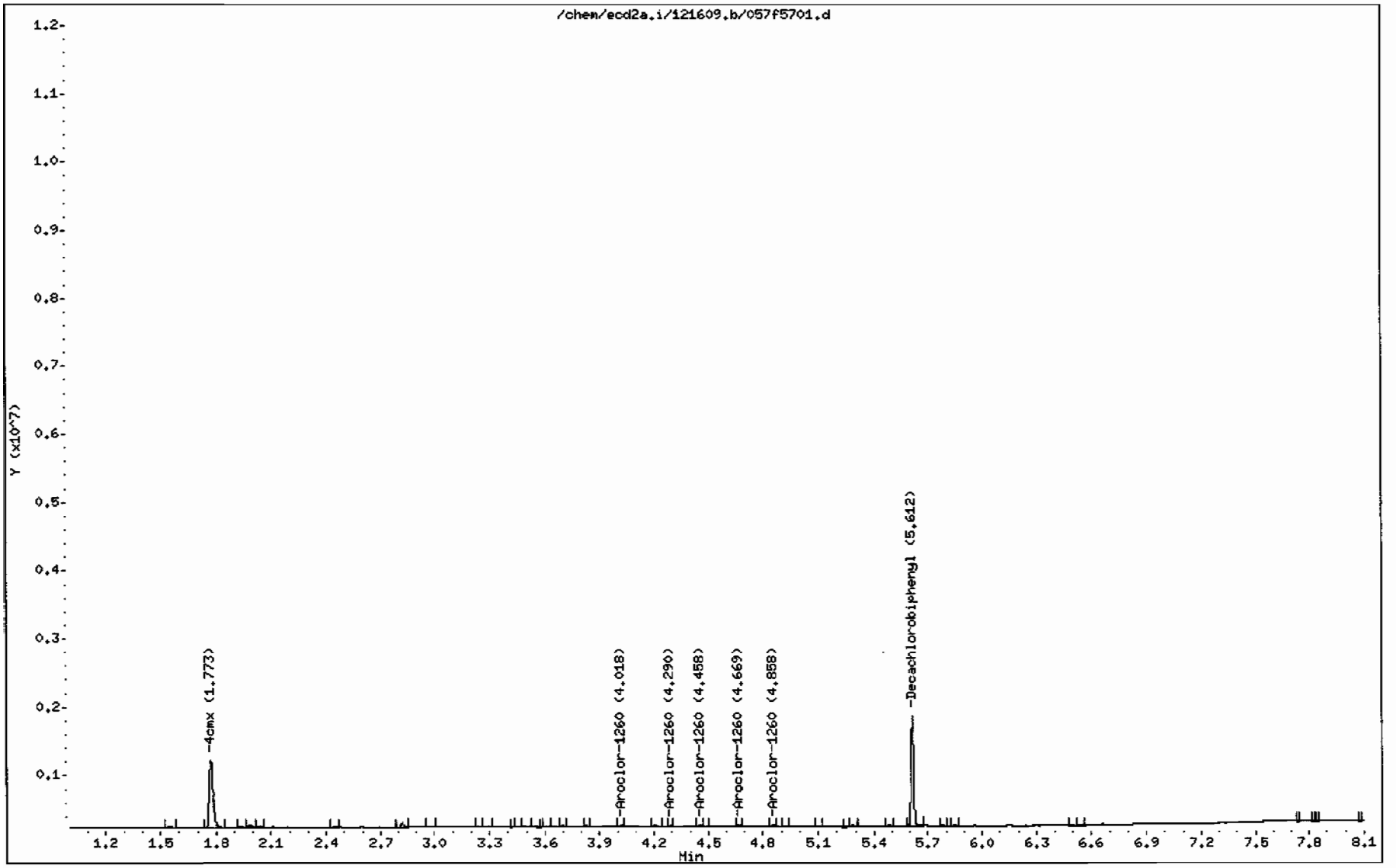

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/121609.b/057b5701.d
Lab Smp Id: 242784003 Client Smp ID: WST03-10-2145
Inj Date : 16-DEC-2009 18:07
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |242784003|5|
Misc Info : |ECD82P_1S|933402|SVAF|LANL|SOIL|WST03-10-2145|||
Comment :
Method : /chem/ecd2a.i/121609.b/ECD2-B-8082-111209A.m
Meth Date : 17-Dec-2009 05:26 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012b1201.d
Als bottle: 57
Dil Factor: 5.00000
Integrator: Falcon Compound Sublist: 10-899.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	5.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.01000	Weight of sample extracted (g)
M	6.70440	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.072	2.072	0.000	2960036	22.8896	4.1	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.305	6.305	0.000	3007946	26.6702	4.8	80.00- 120.00	100.00

Data File: /chem/ecd2a.i/121609.b/057b5701.d

Date : 16-DEC-2009 18:07

Client ID: WST03-10-2145

Sample Info: !242784003151

Volume Injected (uL): 1.0

Column phase: CLP2

Instrument: ecd2a.i

Operator: JAOC

Column diameter: 0.25

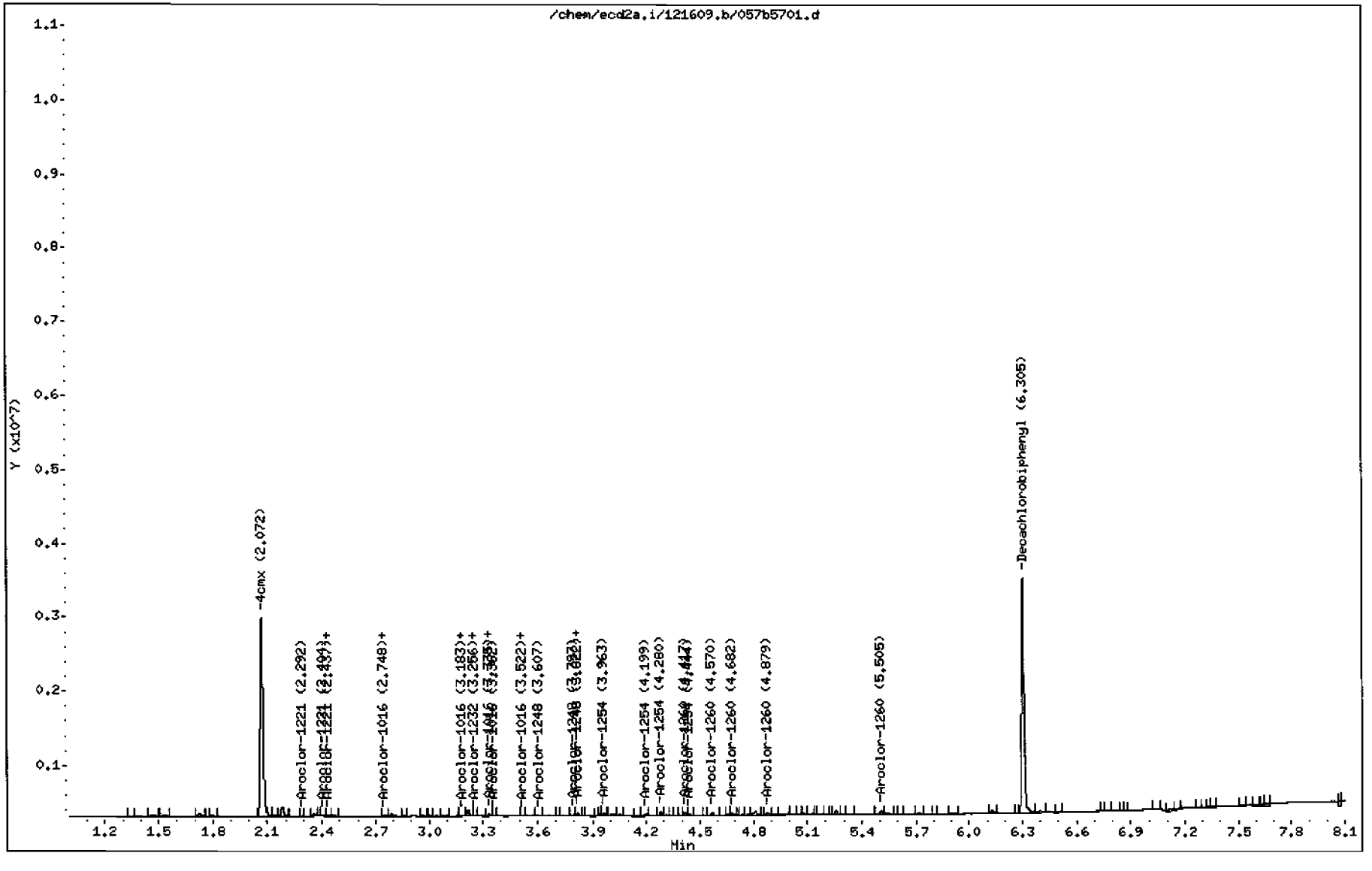

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10–899	**Date Collected:**	12/10/2009 12:00	**Matrix:**	R
Lab Sample ID:	242784004	**Date Received:**	12/12/2009 09:35	**%Moisture:**	9.8
		Client:	LANL010	**Project:**	LANL01004
Client ID:	WST03–10–2146	**Method:**	SW846 8082	**SOP Ref:**	GL–OA–E–040
Batch ID:	933402	**Inst:**	ECD2A.I	**Dilution:**	5
Run Date:	12/16/2009 18:18	**Analyst:**	JAOC	**Inj. Vol:**	1 uL
Prep Date:	12/16/2009 09:01	**Aliquot:**	30 g	**Final Volume:**	1 mL
Data File:	058f5801.d	**Column:**	1 CLP1	**Level:**	LOW
	058b5801.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	18.5	ug/kg	6.15	18.5	1
11104–28–2	Aroclor–1221	U	18.5	ug/kg	6.15	18.5	1
11141–16–5	Aroclor–1232	U	18.5	ug/kg	6.15	18.5	1
53469–21–9	Aroclor–1242	U	18.5	ug/kg	6.15	18.5	1
12672–29–6	Aroclor–1248	U	18.5	ug/kg	6.15	18.5	1
11097–69–1	Aroclor–1254	U	18.5	ug/kg	6.15	18.5	1
11096–82–5	Aroclor–1260	U	18.5	ug/kg	6.15	18.5	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/121609.b/058f5801.d
Lab Smp Id: 242784004 Client Smp ID: WST03-10-2146
Inj Date : 16-DEC-2009 18:18
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |242784004|5|
Misc Info : |ECD82P_1S|933402|SVAF|LANL|SOIL|WST03-10-2146|||
Comment :
Method : /chem/ecd2a.i/121609.b/ECD2-F-8082-111209A.m
Meth Date : 17-Dec-2009 05:44 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012f1201.d
Als bottle: 58
Dil Factor: 5.00000
Integrator: Falcon Compound Sublist: 10-899.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	5.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	9.79830	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.775	1.775	0.000	1374680	22.0684	4.1	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.611	5.613	-0.002	1315016	24.3019	4.5	80.00- 120.00	100.00

Data File: /chem/ecd2a.i/121609.b/058f5801.d
Date : 16-DEC-2009 18:18
Client ID: WST03-10-2146
Sample Info: |242784004151
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecd2a.i
Operator: JAOC
Column diameter: 0.25

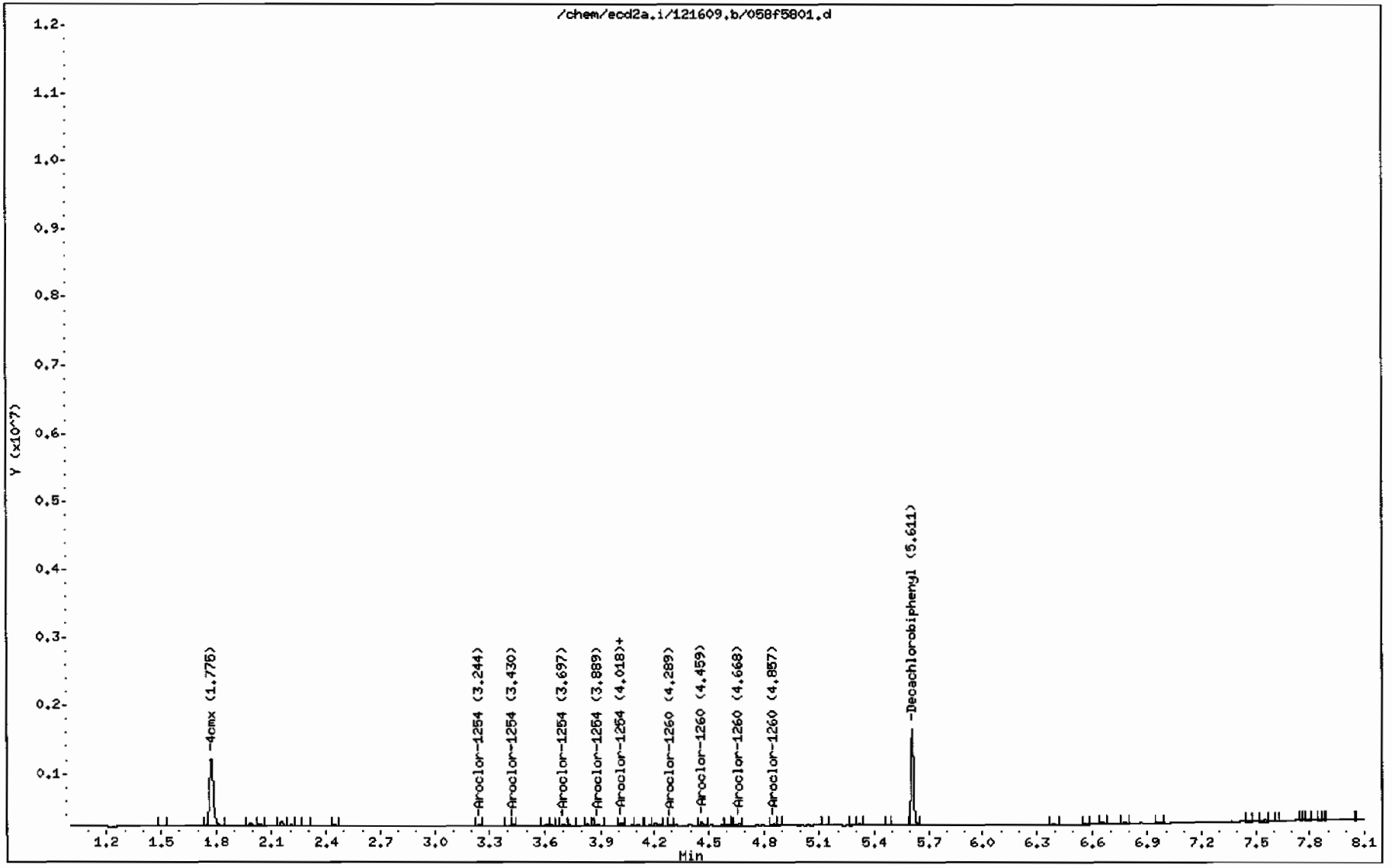

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/121609.b/058b5801.d
Lab Smp Id: 242784004 Client Smp ID: WST03-10-2146
Inj Date : 16-DEC-2009 18:18
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |242784004|5|
Misc Info : |ECD82P_1S|933402|SVAF|LANL|SOIL|WST03-10-2146|||
Comment :
Method : /chem/ecd2a.i/121609.b/ECD2-B-8082-111209A.m
Meth Date : 17-Dec-2009 05:26 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012b1201.d
Als bottle: 58
Dil Factor: 5.00000
Integrator: Falcon Compound Sublist: 10-899.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	5.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	9.79830	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.072	2.072	0.000	2882613	22.2909	4.1	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.304	6.305	-0.001	2694270	23.8890	4.4	80.00- 120.00	100.00

Data File: /chem/ecd2a.i/121609.b/058b5801.d

Date : 16-DEC-2009 18:18

Client ID: WST03-10-2146

Sample Info: 1242784004151

Volume Injected (uL): 1.0

Column phase: CLP2

Instrument: ecd2a.i

Operator: JAOC

Column diameter: 0.25

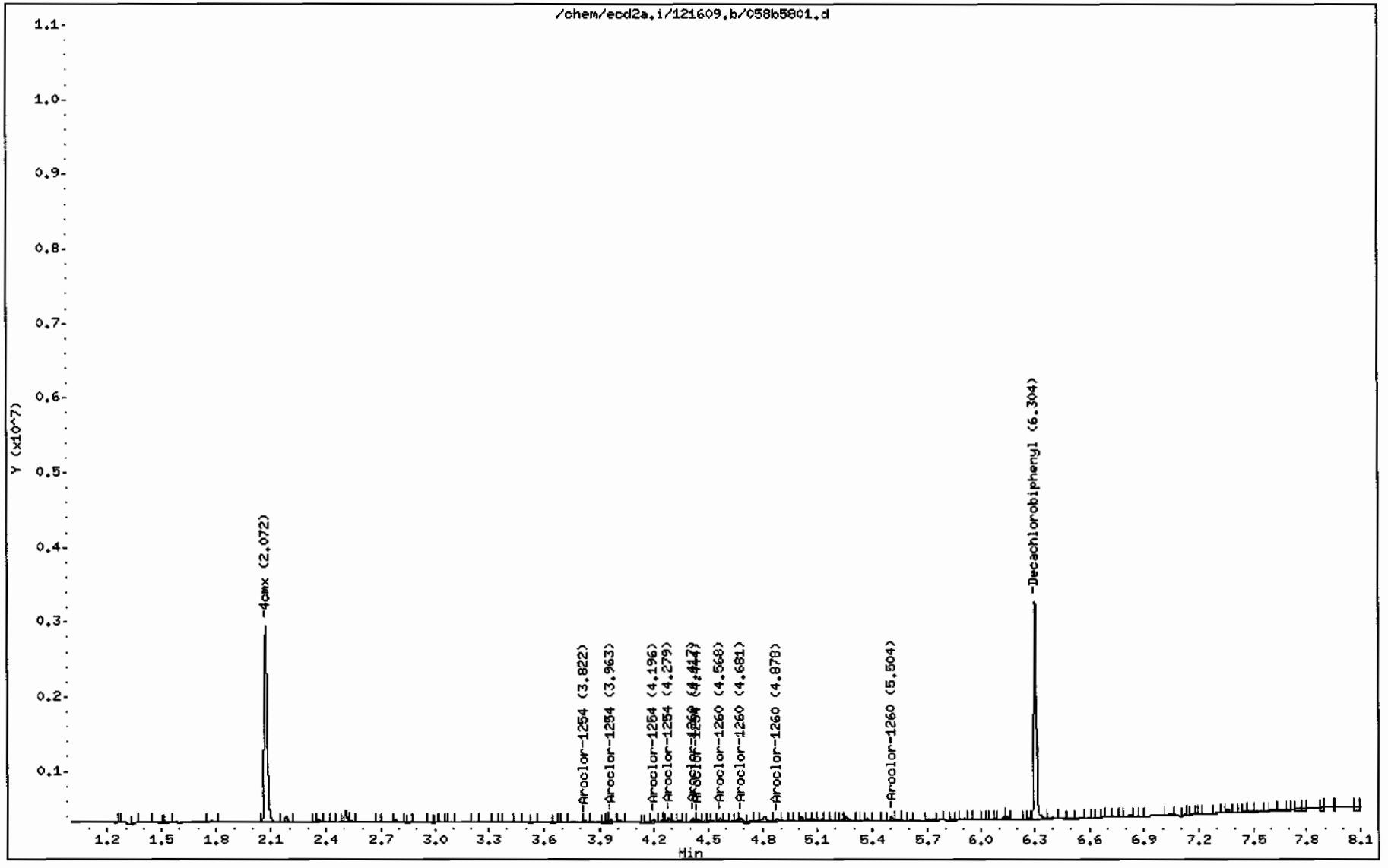

STANDARDS DATA

Report Date: 16-Dec-2009 11:45

Calibration History

Method : /chem/ecd2a.i/121609.b/ECD2-F-8082-111209A.m
Start Cal Date: 12-NOV-2009 11:00
End Cal Date : 14-DEC-2009 09:35

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 100.00000		
02-DEC-2009 07:05	AR1262	/chem/ecd2a.i/120209.b/008f0801.d
12-NOV-2009 16:22	AR1268	/chem/ecd2a.i/111209a.b/035f3501.d
30-NOV-2009 10:12	AR1248	/chem/ecd2a.i/113009a.b/011f1101.d
12-NOV-2009 14:09	AR1242	/chem/ecd2a.i/111209a.b/023f2301.d
30-NOV-2009 08:43	AR1254	/chem/ecd2a.i/113009a.b/003f0301.d
14-DEC-2009 08:51	AR1660	/chem/ecd2a.i/121409.b/011f1101.d
Cal Level: 2 , Cal Amount: 250.00000		
02-DEC-2009 07:16	AR1262	/chem/ecd2a.i/120209.b/009f0901.d
12-NOV-2009 16:33	AR1268	/chem/ecd2a.i/111209a.b/036f3601.d
30-NOV-2009 10:23	AR1248	/chem/ecd2a.i/113009a.b/012f1201.d
12-NOV-2009 14:20	AR1242	/chem/ecd2a.i/111209a.b/024f2401.d
30-NOV-2009 08:54	AR1254	/chem/ecd2a.i/113009a.b/004f0401.d
14-DEC-2009 09:02	AR1660	/chem/ecd2a.i/121409.b/012f1201.d
Cal Level: 3 , Cal Amount: 500.00000		
02-DEC-2009 07:27	AR1262	/chem/ecd2a.i/120209.b/010f1001.d
12-NOV-2009 16:44	AR1268	/chem/ecd2a.i/111209a.b/037f3701.d
30-NOV-2009 10:34	AR1248	/chem/ecd2a.i/113009a.b/013f1301.d
12-NOV-2009 14:31	AR1242	/chem/ecd2a.i/111209a.b/025f2501.d
30-NOV-2009 09:05	AR1254	/chem/ecd2a.i/113009a.b/005f0501.d
14-DEC-2009 09:13	AR1660	/chem/ecd2a.i/121409.b/013f1301.d
Cal Level: 4 , Cal Amount: 1000.00000		
30-NOV-2009 10:45	AR1248	/chem/ecd2a.i/113009a.b/014f1401.d
12-NOV-2009 14:42	AR1242	/chem/ecd2a.i/111209a.b/026f2601.d
30-NOV-2009 09:16	AR1254	/chem/ecd2a.i/113009a.b/006f0601.d
14-DEC-2009 09:24	AR1660	/chem/ecd2a.i/121409.b/014f1401.d
12-NOV-2009 11:45	DDTANALOGSTD	/chem/ecd2a.i/111209a.b/010f1001.d
12-NOV-2009 16:55	AR1268	/chem/ecd2a.i/111209a.b/038f3801.d
02-DEC-2009 07:38	AR1262	/chem/ecd2a.i/120209.b/011f1101.d
12-NOV-2009 11:11	AR1221	/chem/ecd2a.i/111209a.b/007f0701.d
12-NOV-2009 11:00	AR1232	/chem/ecd2a.i/111209a.b/006f0601.d
Cal Level: 5 , Cal Amount: 4000.00000		
02-DEC-2009 07:50	AR1262	/chem/ecd2a.i/120209.b/012f1201.d
12-NOV-2009 17:07	AR1268	/chem/ecd2a.i/111209a.b/039f3901.d
30-NOV-2009 10:56	AR1248	/chem/ecd2a.i/113009a.b/015f1501.d

12-NOV-2009 14:53	AR1242	/chem/ecd2a.i/111209a.b/027f2701.d
30-NOV-2009 09:27	AR1254	/chem/ecd2a.i/113009a.b/007f0701.d
14-DEC-2009 09:35	AR1660	/chem/ecd2a.i/121409.b/015f1501.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 1000		
16-DEC-2009 10:21	AR1660	/chem/ecd2a.i/121609.b/018f1801.d
Ccal Level: 4 , Ccal Amount: 1000		
16-DEC-2009 08:37	AR1268	/chem/ecd2a.i/121609.b/009f0901.d
Ccal Level: 4 , Ccal Amount: 1000		
16-DEC-2009 08:26	AR1262	/chem/ecd2a.i/121609.b/008f0801.d
Ccal Level: 4 , Ccal Amount: 1000		
16-DEC-2009 08:14	AR1221	/chem/ecd2a.i/121609.b/007f0701.d
Ccal Level: 4 , Ccal Amount: 1000		
16-DEC-2009 08:03	AR1232	/chem/ecd2a.i/121609.b/006f0601.d
Ccal Level: 4 , Ccal Amount: 1000		
16-DEC-2009 07:52	AR1248	/chem/ecd2a.i/121609.b/005f0501.d
Ccal Level: 4 , Ccal Amount: 1000		
16-DEC-2009 07:41	AR1242	/chem/ecd2a.i/121609.b/004f0401.d
Ccal Level: 4 , Ccal Amount: 1000		
16-DEC-2009 07:30	AR1254	/chem/ecd2a.i/121609.b/003f0301.d
Ccal Level: 4 , Ccal Amount: 1000		
16-DEC-2009 07:19	AR1660	/chem/ecd2a.i/121609.b/002f0201.d

Report Date: 16-Dec-2009 11:45

Calibration History

Method : /chem/ecd2a.i/121609.b/ECD2-B-8082-111209A.m
Start Cal Date: 12-NOV-2009 11:00
End Cal Date : 14-DEC-2009 09:35

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 100.00000		
02-DEC-2009 07:05	AR1262	/chem/ecd2a.i/120209.b/008b0801.d
12-NOV-2009 16:22	AR1268	/chem/ecd2a.i/111209a.b/035b3501.d
30-NOV-2009 10:12	AR1248	/chem/ecd2a.i/113009a.b/011b1101.d
12-NOV-2009 14:09	AR1242	/chem/ecd2a.i/111209a.b/023b2301.d
30-NOV-2009 08:43	AR1254	/chem/ecd2a.i/113009a.b/003b0301.d
14-DEC-2009 08:51	AR1660	/chem/ecd2a.i/121409.b/011b1101.d
Cal Level: 2 , Cal Amount: 250.00000		
02-DEC-2009 07:16	AR1262	/chem/ecd2a.i/120209.b/009b0901.d
12-NOV-2009 16:33	AR1268	/chem/ecd2a.i/111209a.b/036b3601.d
30-NOV-2009 10:23	AR1248	/chem/ecd2a.i/113009a.b/012b1201.d
12-NOV-2009 14:20	AR1242	/chem/ecd2a.i/111209a.b/024b2401.d
30-NOV-2009 08:54	AR1254	/chem/ecd2a.i/113009a.b/004b0401.d
14-DEC-2009 09:02	AR1660	/chem/ecd2a.i/121409.b/012b1201.d
Cal Level: 3 , Cal Amount: 500.00000		
02-DEC-2009 07:27	AR1262	/chem/ecd2a.i/120209.b/010b1001.d
12-NOV-2009 16:44	AR1268	/chem/ecd2a.i/111209a.b/037b3701.d
30-NOV-2009 10:34	AR1248	/chem/ecd2a.i/113009a.b/013b1301.d
12-NOV-2009 14:31	AR1242	/chem/ecd2a.i/111209a.b/025b2501.d
30-NOV-2009 09:05	AR1254	/chem/ecd2a.i/113009a.b/005b0501.d
14-DEC-2009 09:13	AR1660	/chem/ecd2a.i/121409.b/013b1301.d
Cal Level: 4 , Cal Amount: 1000.00000		
30-NOV-2009 10:45	AR1248	/chem/ecd2a.i/113009a.b/014b1401.d
12-NOV-2009 14:42	AR1242	/chem/ecd2a.i/111209a.b/026b2601.d
30-NOV-2009 09:16	AR1254	/chem/ecd2a.i/113009a.b/006b0601.d
14-DEC-2009 09:24	AR1660	/chem/ecd2a.i/121409.b/014b1401.d
12-NOV-2009 11:45	DDTANALOGSTD	/chem/ecd2a.i/111209a.b/010b1001.d
12-NOV-2009 16:55	AR1268	/chem/ecd2a.i/111209a.b/038b3801.d
02-DEC-2009 07:38	AR1262	/chem/ecd2a.i/120209.b/011b1101.d
12-NOV-2009 11:11	AR1221	/chem/ecd2a.i/111209a.b/007b0701.d
12-NOV-2009 11:00	AR1232	/chem/ecd2a.i/111209a.b/006b0601.d
Cal Level: 5 , Cal Amount: 4000.00000		
02-DEC-2009 07:50	AR1262	/chem/ecd2a.i/120209.b/012b1201.d
12-NOV-2009 17:07	AR1268	/chem/ecd2a.i/111209a.b/039b3901.d
30-NOV-2009 10:56	AR1248	/chem/ecd2a.i/113009a.b/015b1501.d
12-NOV-2009 14:53	AR1242	/chem/ecd2a.i/111209a.b/027b2701.d
30-NOV-2009 09:27	AR1254	/chem/ecd2a.i/113009a.b/007b0701.d
14-DEC-2009 09:35	AR1660	/chem/ecd2a.i/121409.b/015b1501.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 1000		
16-DEC-2009 10:21	AR1660	/chem/ecd2a.i/121609.b/018b1801.d
Ccal Level: 4 , Ccal Amount: 1000		
16-DEC-2009 08:37	AR1268	/chem/ecd2a.i/121609.b/009b0901.d
Ccal Level: 4 , Ccal Amount: 1000		
16-DEC-2009 08:26	AR1262	/chem/ecd2a.i/121609.b/008b0801.d
Ccal Level: 4 , Ccal Amount: 1000		
16-DEC-2009 08:14	AR1221	/chem/ecd2a.i/121609.b/007b0701.d
Ccal Level: 4 , Ccal Amount: 1000		
16-DEC-2009 08:03	AR1232	/chem/ecd2a.i/121609.b/006b0601.d
Ccal Level: 4 , Ccal Amount: 1000		
16-DEC-2009 07:52	AR1248	/chem/ecd2a.i/121609.b/005b0501.d
Ccal Level: 4 , Ccal Amount: 1000		
16-DEC-2009 07:41	AR1242	/chem/ecd2a.i/121609.b/004b0401.d
Ccal Level: 4 , Ccal Amount: 1000		
16-DEC-2009 07:30	AR1254	/chem/ecd2a.i/121609.b/003b0301.d
Ccal Level: 4 , Ccal Amount: 1000		
16-DEC-2009 07:19	AR1660	/chem/ecd2a.i/121609.b/002b0201.d

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd2a.i/121609.b/ECD2-F-8082-111209A.m
Quant Method : ESTD Target Version : 3.50
Last Update : 16-Dec-2009 10:43 Number of Cpnds : 15
Data Type : GC MULTI COMP

Global Integrator : Falcon

Chromat Events	Values
Initial:Start Threshold	500.000000
Initial:End Threshold	250.000000
Initial:Area Threshold	10000.000000
Initial:P-P Resolution	1.000000
Initial:Bunch Factor	2.000000
Initial:Negative Peaks	OFF
Initial:Tension	1.100000
8.500:Bunch Factor	2.000000

Compound	RT	RT Window	RF
1 Aroclor-1016	2.278	2.248-2.308	2.238e+03
	2.601	2.571-2.631	4.685e+03
	2.692	2.662-2.722	1.901e+03
	2.827	2.797-2.857	9.760e+02
	2.979	2.949-3.009	1.458e+03
2 Aroclor-1221	1.441	1.411-1.471	4.641e+02
	1.902	1.872-1.932	6.570e+02
	2.002	1.972-2.032	3.467e+02
3 Aroclor-1232	2.030	2.000-2.060	1.165e+03
	2.277	2.247-2.307	9.314e+02
	2.692	2.662-2.722	8.004e+02
	2.735	2.705-2.765	5.102e+02
	2.979	2.949-3.009	5.840e+02
4 Aroclor-1242	2.277	2.247-2.307	1.733e+03
	2.692	2.662-2.722	1.484e+03
	2.734	2.704-2.764	9.058e+02
	2.827	2.797-2.857	7.269e+02
	2.978	2.948-3.008	1.120e+03
5 Aroclor-1248	2.828	2.798-2.858	1.527e+03
	2.978	2.948-3.008	2.027e+03
	3.038	3.008-3.068	1.571e+03
	3.273	3.243-3.303	2.218e+03
	3.426	3.396-3.456	1.913e+03

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd2a.i/121609.b/ECD2-F-8082-111209A.m

	Compound	RT	RT Window	RF
	6 Aroclor-1254	3.245	3.215-3.275	2.080e+03
		3.427	3.397-3.457	2.772e+03
		3.697	3.667-3.727	3.742e+03
		3.889	3.859-3.919	2.783e+03
		4.018	3.988-4.048	2.760e+03
	7 Aroclor-1260	4.019	3.990-4.050	4.165e+03
		4.290	4.260-4.320	2.591e+03
		4.456	4.426-4.486	2.631e+03
		4.669	4.639-4.699	6.088e+03
		4.859	4.829-4.889	2.942e+03
	8 Aroclor-1262	3.826	3.796-3.856	2.273e+03
		4.018	3.988-4.048	3.072e+03
		4.289	4.259-4.319	4.004e+03
		4.455	4.425-4.485	3.573e+03
		4.857	4.827-4.887	2.501e+03
	9 Aroclor-1268	4.887	4.857-4.917	9.392e+03
		4.914	4.884-4.944	9.361e+03
		5.046	5.016-5.076	7.073e+03
		5.285	5.255-5.315	3.056e+03
		5.482	5.452-5.512	2.201e+04
M	10 Aroclor-Total	1.000	0.980-1.020	
$	11 4cmx	1.775	1.745-1.805	6.229e+04
$	12 Decachlorobiphenyl	5.613	5.583-5.643	5.411e+04
	13 4,4'-DDT	4.238	4.218-4.258	5.006e+04
	14 4,4'-DDD	4.044	4.024-4.064	7.298e+04
	15 4,4'-DDE	3.639	3.619-3.659	7.426e+04

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd2a.i/121609.b/ECD2-B-8082-111209A.m
Quant Method : ESTD Target Version : 3.50
Last Update : 16-Dec-2009 10:42 Number of Cpnds : 15
Data Type : GC MULTI COMP

Global Integrator : Falcon

Chromat Events	Values
Initial:Start Threshold	1000.000000
Initial:End Threshold	500.000000
Initial:Area Threshold	500.000000
Initial:P-P Resolution	0.000000
Initial:Bunch Factor	3.000000
Initial:Negative Peaks	OFF
Initial:Tension	4.000000
4.200:Tension	1.000000

Compound	RT	RT Window	RF
1 Aroclor-1016	2.749	2.719-2.779	4.538e+03
	3.183	3.153-3.213	3.602e+03
	3.335	3.305-3.365	2.053e+03
	3.363	3.333-3.393	2.137e+03
	3.522	3.492-3.552	2.871e+03
2 Aroclor-1221	2.296	2.265-2.325	1.263e+03
	2.401	2.370-2.430	7.739e+02
	2.446	2.416-2.475	3.051e+03
3 Aroclor-1232	2.446	2.416-2.476	2.061e+03
	2.749	2.719-2.779	1.960e+03
	3.184	3.154-3.214	1.498e+03
	3.256	3.226-3.286	9.309e+02
	3.522	3.492-3.552	1.107e+03
4 Aroclor-1242	2.749	2.719-2.779	3.445e+03
	3.184	3.154-3.214	2.681e+03
	3.255	3.225-3.285	1.637e+03
	3.334	3.304-3.364	1.508e+03
	3.522	3.492-3.552	2.145e+03
5 Aroclor-1248	3.335	3.305-3.365	3.282e+03
	3.521	3.491-3.551	4.187e+03
	3.608	3.578-3.638	4.451e+03
	3.797	3.767-3.827	4.697e+03
	3.827	3.797-3.857	5.389e+03

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd2a.i/121609.b/ECD2-B-8082-111209A.m

	Compound	RT	RT Window	RF
	6 Aroclor-1254	3.822	3.792-3.852	4.985e+03
		3.964	3.934-3.994	5.799e+03
		4.200	4.170-4.230	4.023e+03
		4.281	4.251-4.311	7.731e+03
		4.444	4.414-4.474	5.608e+03
	7 Aroclor-1260	4.418	4.388-4.448	5.767e+03
		4.570	4.540-4.600	7.124e+03
		4.681	4.652-4.712	4.819e+03
		4.879	4.849-4.909	5.632e+03
		5.505	5.475-5.535	9.038e+03
	8 Aroclor-1262	4.418	4.388-4.448	4.703e+03
		4.570	4.540-4.600	5.853e+03
		4.878	4.848-4.908	8.946e+03
		5.079	5.049-5.109	7.772e+03
		5.257	5.227-5.287	1.672e+04
	9 Aroclor-1268	5.503	5.473-5.533	2.032e+04
		5.535	5.505-5.565	2.018e+04
		5.706	5.676-5.736	1.496e+04
		5.907	5.877-5.937	6.438e+03
		6.131	6.101-6.161	4.409e+04
M	10 Aroclor-Total	1.000	0.980-1.020	
$	11 4cmx	2.072	2.042-2.102	1.293e+05
$	12 Decachlorobiphenyl	6.305	6.275-6.335	1.128e+05
	13 4,4'-DDT	4.814	4.794-4.834	8.705e+04
	14 4,4'-DDD	4.600	4.580-4.620	1.499e+05
	15 4,4'-DDE	4.195	4.175-4.215	1.504e+05

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 12-NOV-2009 11:00
End Cal Date : 14-DEC-2009 09:35
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd2a.i/121609.b/ECD2-F-8082-111209A.m
Cal Date : 16-Dec-2009 16:43 yip00818
Curve Type : Average

Calibration File Names:
Level 1: /chem/ecd2a.i/120209.b/008f0801.d
Level 2: /chem/ecd2a.i/120209.b/009f0901.d
Level 3: /chem/ecd2a.i/120209.b/010f1001.d
Level 4: /chem/ecd2a.i/113009a.b/014f1401.d
Level 5: /chem/ecd2a.i/120209.b/012f1201.d

Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
1 Aroclor-1016(1)	2466	2335	2250	2152	1986	2238	8.133
(2)	4869	4683	4664	4616	4594	4685	2.323
(3)	2072	1962	1892	1818	1764	1901	6.365
(4)	1061	990	984	930	915	976	5.885
(5)	1595	1490	1441	1389	1375	1458	6.121
2 Aroclor-1221(1)	+++++	+++++	+++++	464	+++++	464	0.000
(2)	+++++	+++++	+++++	657	+++++	657	0.000
(3)	+++++	+++++	+++++	347	+++++	347	0.000
3 Aroclor-1232(1)	+++++	+++++	+++++	1165	+++++	1165	0.000
(2)	+++++	+++++	+++++	931	+++++	931	0.000
(3)	+++++	+++++	+++++	800	+++++	800	0.000
(4)	+++++	+++++	+++++	510	+++++	510	0.000
(5)	+++++	+++++	+++++	584	+++++	584	0.000
4 Aroclor-1242(1)	1990	1799	1692	1619	1566	1733	9.686
(2)	1678	1536	1439	1387	1381	1484	8.410
(3)	1015	931	874	843	866	906	7.639
(4)	817	761	714	669	673	727	8.615
(5)	1272	1143	1059	1036	1087	1120	8.434
5 Aroclor-1248(1)	1738	1529	1527	1515	1325	1527	9.560
(2)	2238	2070	1990	2006	1832	2027	7.247
(3)	1706	1611	1571	1551	1415	1571	6.718
(4)	2322	2198	2161	2230	2178	2218	2.874
(5)	2083	1922	1902	1885	1770	1913	5.861
6 Aroclor-1254(1)	2304	2118	2048	2007	1924	2080	6.888
(2)	2981	2797	2739	2702	2642	2772	4.677
(3)	3870	3712	3711	3744	3675	3742	2.011
(4)	2886	2776	2725	2760	2767	2783	2.186
(5)	2994	2820	2741	2711	2533	2760	6.080

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 12-NOV-2009 11:00
End Cal Date : 14-DEC-2009 09:35
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd2a.i/121609.b/ECD2-F-8082-111209A.m
Cal Date : 16-Dec-2009 16:43 yip00818
Curve Type : Average

	Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
	7 Aroclor-1260(1)	4187	4145	4185	4134	4175	4165	0.584
	(2)	2696	2603	2589	2529	2536	2591	2.593
	(3)	2699	2626	2625	2591	2614	2631	1.539
	(4)	5867	6003	6142	6129	6296	6088	2.650
	(5)	2925	2904	2929	2920	3034	2942	1.769
	8 Aroclor-1262(1)	2530	2266	2239	2239	2092	2273	6.993
	(2)	3295	3066	3031	3051	2917	3072	4.482
	(3)	4237	3997	3977	3997	3815	4004	3.763
	(4)	3754	3532	3556	3594	3430	3573	3.295
	(5)	2578	2453	2481	2538	2454	2501	2.217
	9 Aroclor-1268(1)	9077	9136	9272	9373	10103	9392	4.409
	(2)	9332	9272	9238	9197	9765	9361	2.470
	(3)	6985	6923	6953	6984	7523	7073	3.568
	(4)	3112	3015	2984	2964	3207	3056	3.331
	(5)	21397	21592	21760	21851	23464	22013	3.767
M	10 Aroclor-Total	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	13 4,4'-DDT	+++++	+++++	+++++	50063	+++++	50063	0.000
	14 4,4'-DDD	+++++	+++++	+++++	72978	+++++	72978	0.000
	15 4,4'-DDE	+++++	+++++	+++++	74262	+++++	74262	0.000
$	11 4cmx	61300	61246	62868	63075	62969	62292	1.498
$	12 Decachlorobiphenyl	55102	53352	54400	53360	54345	54112	1.389

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 12-NOV-2009 11:00
End Cal Date : 14-DEC-2009 09:35
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd2a.i/121609.b/ECD2-B-8082-111209A.m
Cal Date : 16-Dec-2009 16:43 yip00818
Curve Type : Average

Calibration File Names:
Level 1: /chem/ecd2a.i/120209.b/008b0801.d
Level 2: /chem/ecd2a.i/120209.b/009b0901.d
Level 3: /chem/ecd2a.i/120209.b/010b1001.d
Level 4: /chem/ecd2a.i/113009a.b/014b1401.d
Level 5: /chem/ecd2a.i/120209.b/012b1201.d

Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
1 Aroclor-1016(1)	4662	4582	4609	4551	4285	4538	3.244
(2)	3647	3696	3564	3575	3528	3602	1.886
(3)	2078	2044	2044	2059	2041	2053	0.760
(4)	2149	2125	2133	2140	2138	2137	0.428
(5)	2852	2832	2882	2908	2879	2871	1.025
2 Aroclor-1221(1)	+++++	+++++	+++++	1263	+++++	1263	0.000
(2)	+++++	+++++	+++++	774	+++++	774	0.000
(3)	+++++	+++++	+++++	3051	+++++	3051	0.000
3 Aroclor-1232(1)	+++++	+++++	+++++	2061	+++++	2061	0.000
(2)	+++++	+++++	+++++	1960	+++++	1960	0.000
(3)	+++++	+++++	+++++	1498	+++++	1498	0.000
(4)	+++++	+++++	+++++	931	+++++	931	0.000
(5)	+++++	+++++	+++++	1107	+++++	1107	0.000
4 Aroclor-1242(1)	3674	3489	3409	3384	3271	3445	4.346
(2)	2815	2677	2634	2637	2644	2681	2.863
(3)	1696	1624	1594	1606	1663	1637	2.599
(4)	1601	1513	1471	1467	1487	1508	3.655
(5)	2235	2100	2068	2141	2180	2145	3.068
5 Aroclor-1248(1)	3439	3315	3263	3296	3099	3282	3.723
(2)	4291	4205	4192	4250	3996	4187	2.717
(3)	4601	4495	4377	4484	4299	4451	2.609
(4)	4665	4612	4696	4831	4682	4697	1.733
(5)	5471	5399	5390	5477	5208	5389	2.022
6 Aroclor-1254(1)	5121	4955	4998	5025	4828	4985	2.145
(2)	5885	5693	5812	5852	5753	5799	1.330
(3)	4010	3906	3992	4126	4082	4023	2.109
(4)	7559	7611	7766	7925	7797	7731	1.909
(5)	5659	5569	5439	5821	5553	5608	2.538

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 12-NOV-2009 11:00
End Cal Date : 14-DEC-2009 09:35
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd2a.i/121609.b/ECD2-B-8082-111209A.m
Cal Date : 16-Dec-2009 16:43 yip00818
Curve Type : Average

	Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
	7 Aroclor-1260(1)	5735	5627	5779	5816	5877	5767	1.626
	(2)	6687	7031	7243	7286	7372	7124	3.855
	(3)	4572	4701	4890	4942	4988	4819	3.647
	(4)	5377	5518	5714	5746	5803	5632	3.163
	(5)	8369	8607	9231	9252	9728	9038	6.039
	8 Aroclor-1262(1)	4855	4536	4634	4812	4677	4703	2.776
	(2)	5760	5648	5834	6083	5942	5853	2.859
	(3)	8687	8674	9001	9349	9021	8946	3.121
	(4)	7559	7507	7790	8124	7880	7772	3.221
	(5)	15890	16154	16824	17584	17141	16719	4.167
	9 Aroclor-1268(1)	18829	19584	20101	20533	22559	20321	6.904
	(2)	18822	19343	20333	20389	22025	20182	6.077
	(3)	13874	14365	14864	15141	16565	14962	6.808
	(4)	5734	6115	6404	6840	7097	6438	8.497
	(5)	40707	42777	43856	44408	48724	44094	6.689
M	10 Aroclor-Total	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	13 4,4'-DDT	+++++	+++++	+++++	87046	+++++	87046	0.000
	14 4,4'-DDD	+++++	+++++	+++++	149858	+++++	149858	0.000
	15 4,4'-DDE	+++++	+++++	+++++	150414	+++++	150414	0.000
$	11 4cmx	118604	126358	131414	133891	136323	129318	5.440
$	12 Decachlorobiphenyl	109662	108705	113295	113170	119083	112783	3.614

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-899

Instrument ID: ECD2A Calibration Date: 12/16/09 Time: 0719

Lab File ID: 002F0201 Init. Calib. Date(s): 12/14/09 12/14/09

Heated Purge: (Y/N) N Init. Calib. Times: 0851 0935

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	2237.690	2005.393	0.01	-10.4	15.0
(2)	4685.268	4346.121	0.01	-7.2	15.0
(3)	1901.482	1726.292	0.01	-9.2	15.0
(4)	975.978	892.582	0.01	-8.5	15.0
(5)	1457.866	1331.971	0.01	-8.6	15.0
Aroclor-1260	4165.097	4222.797	0.01	1.4	15.0
(2)	2590.571	2597.107	0.01	0.2	15.0
(3)	2631.205	2679.634	0.01	1.8	15.0
(4)	6087.596	6454.106	0.01	6.0	15.0
(5)	2942.150	3115.470	0.01	5.9	15.0
4cmx	62291.660	64097.680	0.01	2.9	15.0
Decachlorobiphenyl	54111.563	59946.260	0.01	10.8	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-899

Instrument ID: ECD2A Calibration Date: 12/16/09 Time: 0719

Lab File ID: 002B0201 Init. Calib. Date(s): 12/14/09 12/14/09

Heated Purge: (Y/N) N Init. Calib. Times: 0851 0935

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	4537.819	4199.281	0.01	-7.5	15.0
(2)	3602.166	3336.705	0.01	-7.4	15.0
(3)	2053.230	1923.864	0.01	-6.3	15.0
(4)	2137.091	1995.726	0.01	-6.6	15.0
(5)	2870.516	2746.890	0.01	-4.3	15.0
Aroclor-1260	5766.921	5824.681	0.01	1.0	15.0
(2)	7123.891	7410.550	0.01	4.0	15.0
(3)	4818.707	4989.621	0.01	3.5	15.0
(4)	5631.757	5833.903	0.01	3.6	15.0
(5)	9037.511	9636.078	0.01	6.6	15.0
4cmx	129318.03	136013.54	0.01	5.2	15.0
Decachlorobiphenyl	112782.99	114056.78	0.01	1.1	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-899

Instrument ID: ECD2A Calibration Date: 12/16/09 Time: 1723

Lab File ID: 053F5301 Init. Calib. Date(s): 12/14/09 12/14/09

Heated Purge: (Y/N) N Init. Calib. Times: 0851 0935

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	2237.690	1989.180	0.01	-11.1	15.0
(2)	4685.268	4331.749	0.01	-7.5	15.0
(3)	1901.482	1705.773	0.01	-10.3	15.0
(4)	975.978	883.371	0.01	-9.5	15.0
(5)	1457.866	1313.592	0.01	-9.9	15.0
Aroclor-1260	4165.097	4137.574	0.01	-0.7	15.0
(2)	2590.571	2565.887	0.01	-1.0	15.0
(3)	2631.205	2633.826	0.01	0.1	15.0
(4)	6087.596	6345.858	0.01	4.2	15.0
(5)	2942.150	3051.155	0.01	3.7	15.0
4cmx	62291.660	61891.490	0.01	-0.6	15.0
Decachlorobiphenyl	54111.563	58192.510	0.01	7.5	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-899

Instrument ID: ECD2A Calibration Date: 12/16/09 Time: 1723

Lab File ID: 053B5301 Init. Calib. Date(s): 12/14/09 12/14/09

Heated Purge: (Y/N) N Init. Calib. Times: 0851 0935

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	4537.819	4258.873	0.01	-6.1	15.0
(2)	3602.166	3377.763	0.01	-6.2	15.0
(3)	2053.230	1947.976	0.01	-5.1	15.0
(4)	2137.091	2019.139	0.01	-5.5	15.0
(5)	2870.516	2760.112	0.01	-3.8	15.0
Aroclor-1260	5766.921	5764.634	0.01	-0.0	15.0
(2)	7123.891	7347.627	0.01	3.1	15.0
(3)	4818.707	4971.693	0.01	3.2	15.0
(4)	5631.757	5769.902	0.01	2.4	15.0
(5)	9037.511	9614.149	0.01	6.4	15.0
4cmx	129318.03	133172.90	0.01	3.0	15.0
Decachlorobiphenyl	112782.99	119709.22	0.01	6.1	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-899

Instrument ID: ECD2A Calibration Date: 12/16/09 Time: 1936

Lab File ID: 065F6501 Init. Calib. Date(s): 12/14/09 12/14/09

Heated Purge: (Y/N) N Init. Calib. Times: 0851 0935

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	2237.690	1964.819	0.01	-12.2	15.0
(2)	4685.268	4244.114	0.01	-9.4	15.0
(3)	1901.482	1676.697	0.01	-11.8	15.0
(4)	975.978	859.662	0.01	-11.9	15.0
(5)	1457.866	1278.112	0.01	-12.3	15.0
Aroclor-1260	4165.097	4071.086	0.01	-2.2	15.0
(2)	2590.571	2510.176	0.01	-3.1	15.0
(3)	2631.205	2577.913	0.01	-2.0	15.0
(4)	6087.596	6212.004	0.01	2.0	15.0
(5)	2942.150	3000.039	0.01	2.0	15.0
4cmx	62291.660	60724.200	0.01	-2.5	15.0
Decachlorobiphenyl	54111.563	57003.630	0.01	5.3	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-899

Instrument ID: ECD2A Calibration Date: 12/16/09 Time: 1936

Lab File ID: 065B6501 Init. Calib. Date(s): 12/14/09 12/14/09

Heated Purge: (Y/N) N Init. Calib. Times: 0851 0935

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	4537.819	4175.179	0.01	-8.0	15.0
(2)	3602.166	3292.051	0.01	-8.6	15.0
(3)	2053.230	1906.929	0.01	-7.1	15.0
(4)	2137.091	1981.819	0.01	-7.3	15.0
(5)	2870.516	2687.599	0.01	-6.4	15.0
Aroclor-1260	5766.921	5592.581	0.01	-3.0	15.0
(2)	7123.891	7116.038	0.01	-0.1	15.0
(3)	4818.707	4826.251	0.01	0.2	15.0
(4)	5631.757	5648.611	0.01	0.3	15.0
(5)	9037.511	9420.424	0.01	4.2	15.0
4cmx	129318.03	130456.43	0.01	0.9	15.0
Decachlorobiphenyl	112782.99	117084.57	0.01	3.8	15.0

FORM VII PEST

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/121609.b/002f0201.d
Lab Smp Id: WAR091211-60 01 Client Smp ID: AR166001
Inj Date : 16-DEC-2009 07:19
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |WAR091211-60 01
Misc Info : |PCB_CVS|1660||CVS|
Comment :
Method : /chem/ecd2a.i/121609.b/ECD2-F-8082-111209A.m
Meth Date : 16-Dec-2009 10:43 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012f1201.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.775	1.775	0.000	6409768	100.000	103	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.613	5.613	0.000	5994626	100.000	111	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.278	2.278	0.000	2005392	1000.00	896	80.00- 120.00	100.00
2.601	2.601	0.000	4346121	1000.00	928	195.47- 235.47	216.72
2.692	2.692	0.000	1726292	1000.00	908	65.45- 105.45	86.08
2.827	2.827	0.000	892581	1000.00	914	23.36- 63.36	44.51
2.979	2.979	0.000	1331970	1000.00	914	46.81- 86.81	66.42
Average of Peak Amounts =					912		
7 Aroclor-1260					CAS #: 11096-82-5		
4.019	4.019	0.000	4222796	1000.00	1010	80.00- 120.00	100.00
4.290	4.290	0.000	2597106	1000.00	1000	42.57- 82.57	61.50
4.456	4.456	0.000	2679633	1000.00	1020	44.37- 84.37	63.46
4.669	4.669	0.000	6454106	1000.00	1060	133.32- 173.32	152.84
4.859	4.859	0.000	3115470	1000.00	1060	54.28- 94.28	73.78
Average of Peak Amounts =					1.03e+03		

Data File: /chem/ecd2a.i/121609.b/002f0201.d

Date : 16-DEC-2009 07:19

Client ID: AR166001

Sample Info: IWAR091211-60 01

Column phase: CLP1

Instrument: ecd2a.i

Operator: JAOC

Column diameter: 0.25

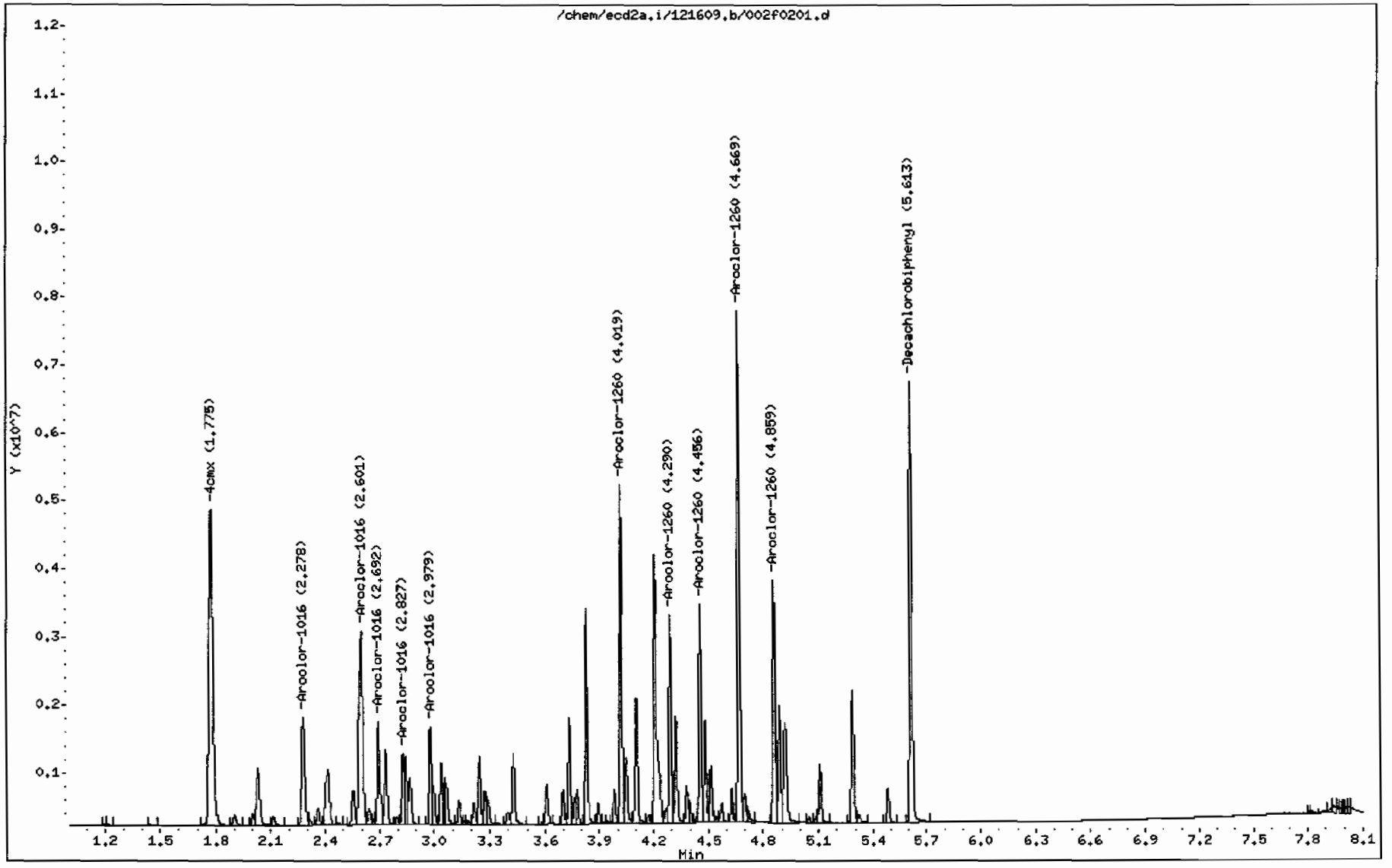

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/121609.b/002b0201.d
Lab Smp Id: WAR091211-60 01 Client Smp ID: AR166001
Inj Date : 16-DEC-2009 07:19
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |WAR091211-60 01
Misc Info : |PCB_CVS|1660||CVS|
Comment :
Method : /chem/ecd2a.i/121609.b/ECD2-B-8082-111209A.m
Meth Date : 16-Dec-2009 10:42 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012b1201.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.072	2.072	0.000	13601354	100.000	105	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.305	6.305	0.000	11405678	100.000	101	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.749	2.749	0.000	4199281	1000.00	925	80.00- 120.00	100.00
3.183	3.183	0.000	3336704	1000.00	926	59.67- 99.67	79.46
3.335	3.335	0.000	1923864	1000.00	937	26.04- 66.04	45.81
3.363	3.363	0.000	1995725	1000.00	934	27.67- 67.67	47.53
3.522	3.522	0.000	2746889	1000.00	957	45.18- 85.18	65.41
Average of Peak Amounts =					936		
7 Aroclor-1260					CAS #: 11096-82-5		
4.418	4.418	0.000	5824680	1000.00	1010	80.00- 120.00	100.00
4.570	4.570	0.000	7410549	1000.00	1040	107.19- 147.19	127.23
4.681	4.681	0.000	4989620	1000.00	1040	65.73- 105.73	85.66
4.879	4.879	0.000	5833903	1000.00	1040	80.84- 120.84	100.16
5.505	5.505	0.000	9636077	1000.00	1070	148.40- 188.40	165.44
Average of Peak Amounts =					1.04e+03		

Data File: /chem/ecd2a.i/121609.b/002b0201.d
Date : 16-DEC-2009 07:19
Client ID: AR166001
Sample Info: IWAR091211-60 01

Column phase: CLP2

Instrument: ecd2a.i

Operator: JAOC
Column diameter: 0.25

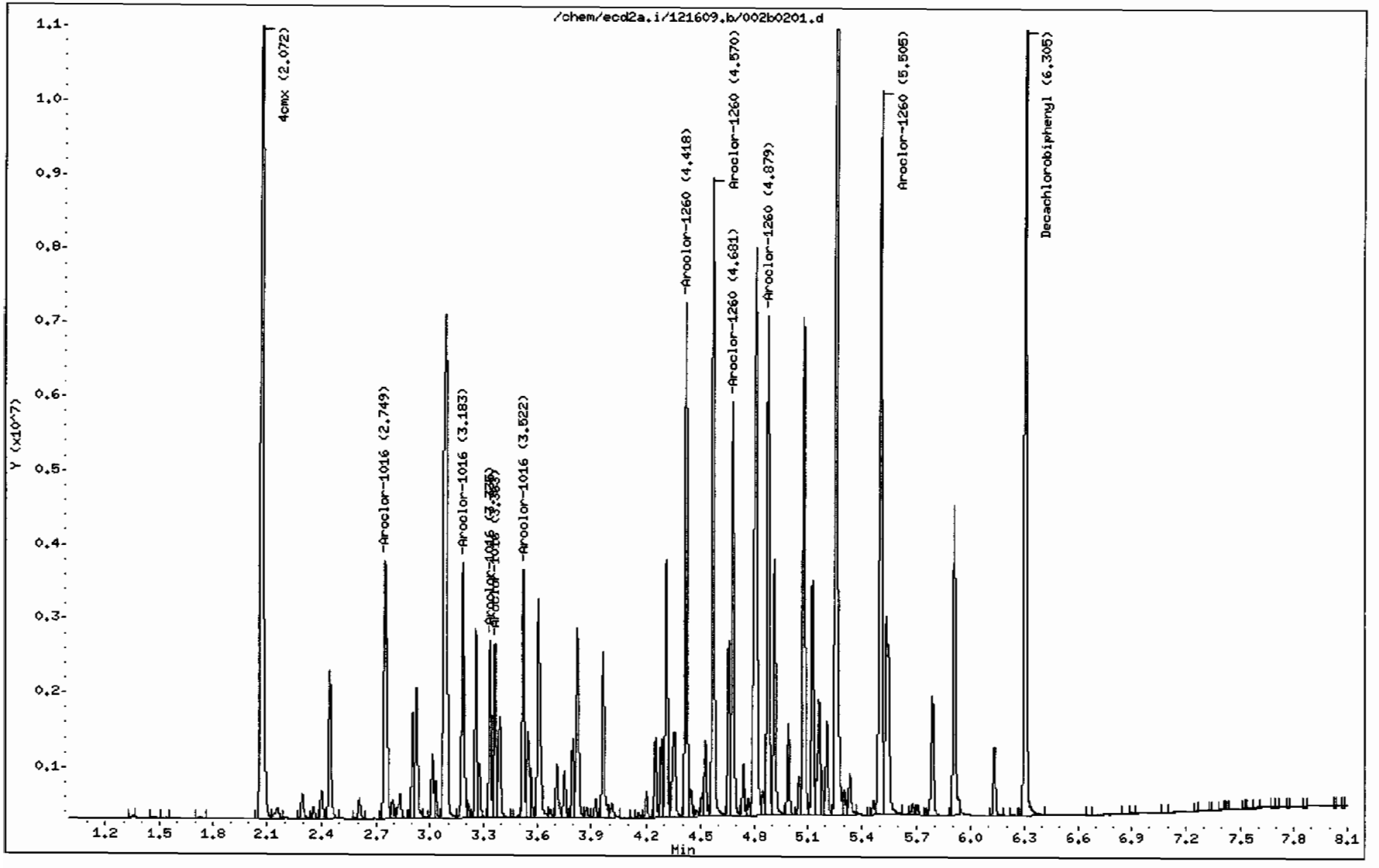

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/121609.b/003f0301.d
Lab Smp Id: WAR091102-54 Client Smp ID: AR125401
Inj Date : 16-DEC-2009 07:30
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |WAR091102-54
Misc Info : |PCB_CVS|1254||CVS|
Comment :
Method : /chem/ecd2a.i/121609.b/ECD2-F-8082-111209A.m
Meth Date : 16-Dec-2009 10:43 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012f1201.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1254.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.776	1.775	0.001	7148039	100.000	115	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.612	5.613	-0.001	6813720	100.000	126	80.00- 120.00	100.00
6 Aroclor-1254					CAS #: 11097-69-1		
3.245	3.245	0.000	2118549	1000.00	1020	80.00- 120.00	100.00
3.427	3.427	0.000	2871041	1000.00	1040	115.52- 155.52	135.52
3.697	3.697	0.000	3962898	1000.00	1060	167.06- 207.06	187.06
3.889	3.889	0.000	2983577	1000.00	1070	120.83- 160.83	140.83
4.018	4.018	0.000	2789022	1000.00	1010	111.65- 151.65	131.65

Average of Peak Amounts = 1.04e+03

Data File: /chem/ecd2a.i/121609.b/003f0301.d
Date : 16-DEC-2009 07:30
Client ID: AR125401
Sample Info: IWAR091102-54

Column phase: CLP1

Instrument: ecd2a.i

Operator: JAOC
Column diameter: 0.25

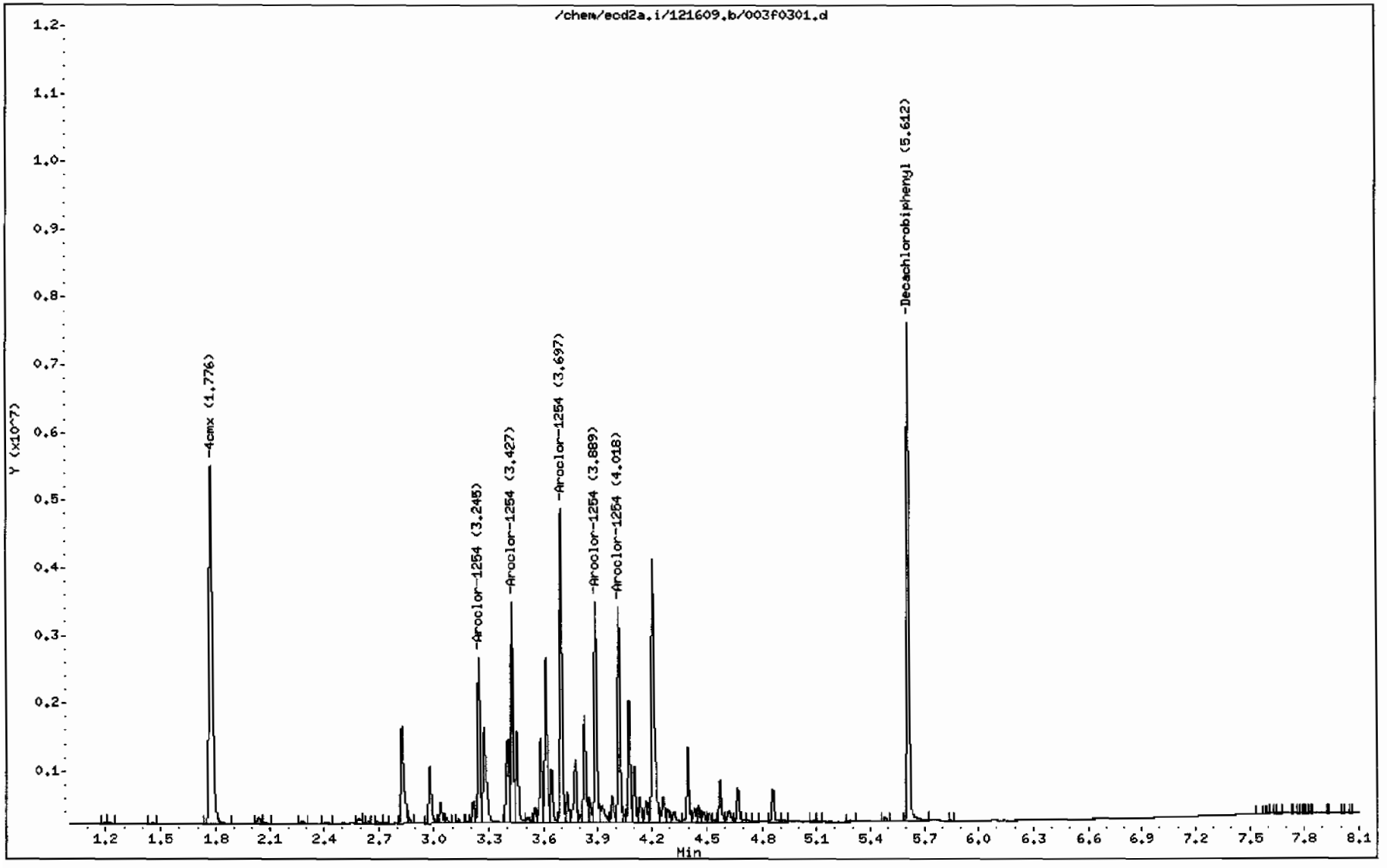

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RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/121609.b/003b0301.d
Lab Smp Id: WAR091102-54 Client Smp ID: AR125401
Inj Date : 16-DEC-2009 07:30
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |WAR091102-54
Misc Info : |PCB_CVS|1254||CVS|
Comment :
Method : /chem/ecd2a.i/121609.b/ECD2-B-8082-111209A.m
Meth Date : 16-Dec-2009 10:42 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012b1201.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1254.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.073	2.072	0.001	15316137	100.000	118	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.305	6.305	0.000	12846625	100.000	114	80.00- 120.00	100.00
6 Aroclor-1254					CAS #: 11097-69-1		
3.822	3.822	0.000	5258340	1000.00	1050	80.00- 120.00	100.00
3.964	3.964	0.000	6159328	1000.00	1060	97.13- 137.13	117.13
4.200	4.200	0.000	4365476	1000.00	1080	63.02- 103.02	83.02
4.281	4.281	0.000	8439255	1000.00	1090	140.49- 180.49	160.49
4.444	4.444	0.000	5931756	1000.00	1060	92.81- 132.81	112.81

Average of Peak Amounts = 1.07e+03

Data File: /chem/ecd2a.i/121609.b/003b0301.d
Date : 16-DEC-2009 07:30
Client ID: AR125401
Sample Info: IWAR091102-54

Column phase: CLP2

Instrument: ecd2a.i

Operator: JAOC
Column diameter: 0.25

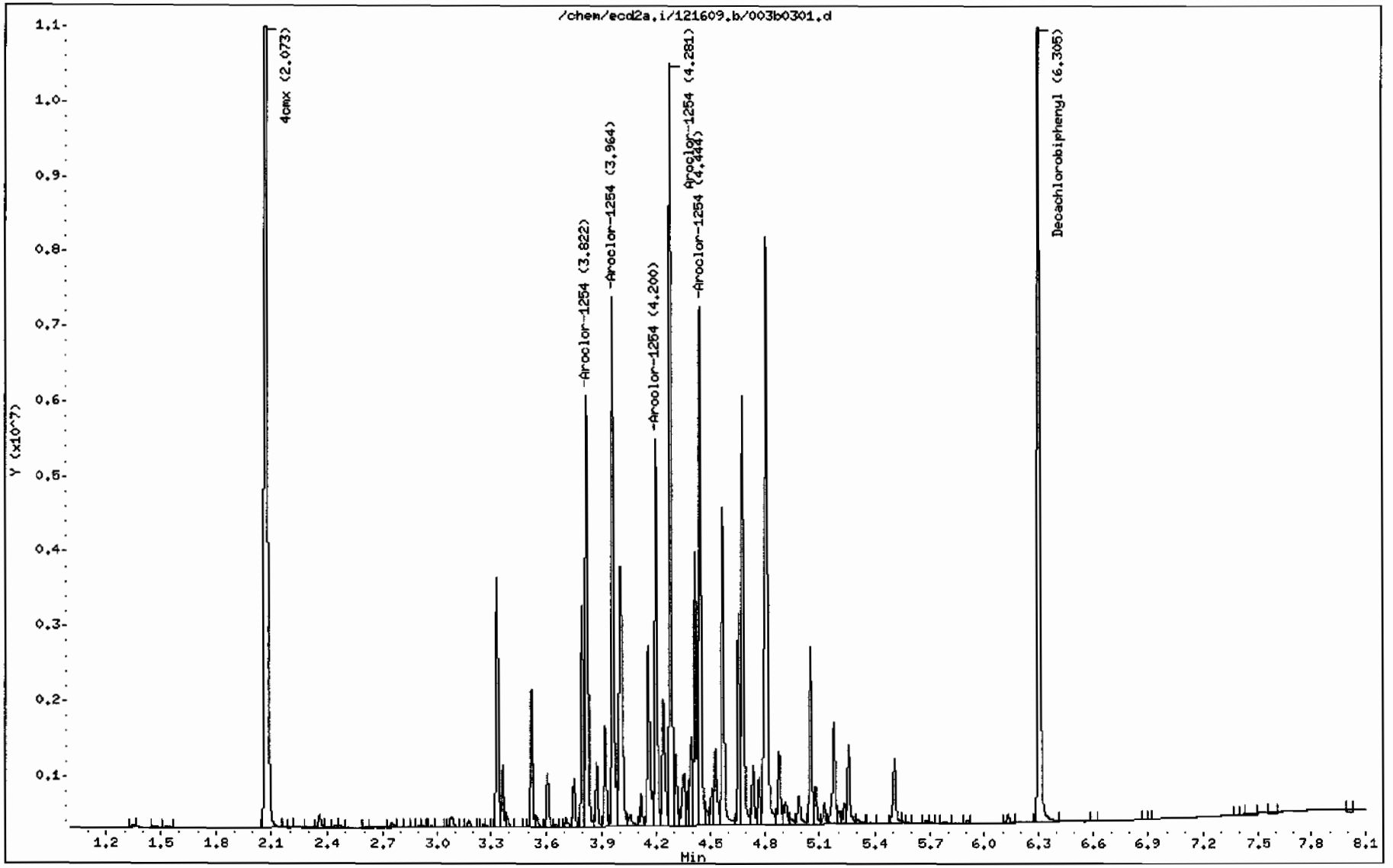

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/121609.b/004f0401.d
Lab Smp Id: WAR091102-42 Client Smp ID: AR124201
Inj Date : 16-DEC-2009 07:41
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |WAR091102-42
Misc Info : |PCB_CVS|1242||CVS|
Comment :
Method : /chem/ecd2a.i/121609.b/ECD2-F-8082-111209A.m
Meth Date : 16-Dec-2009 10:43 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012f1201.d
Als bottle: 4 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1242.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.775	1.775	0.000	6573922	100.000	106	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.612	5.613	-0.001	6165528	100.000	114	80.00- 120.00	100.00
4 Aroclor-1242					CAS #: 53469-21-9		
2.277	2.277	0.000	1728954	1000.00	997	80.00- 120.00	100.00
2.692	2.692	0.000	1459093	1000.00	983	64.39- 104.39	84.39
2.734	2.734	0.000	889003	1000.00	981	31.42- 71.42	51.42
2.827	2.827	0.000	710212	1000.00	977	21.08- 61.08	41.08
2.978	2.978	0.000	1124596	1000.00	1000	45.04- 85.04	65.04
			Average of Peak Amounts =		989		

Data File: /chem/ecd2a.i/121609.b/004f0401.d
Date : 16-DEC-2009 07:41
Client ID: AR124201
Sample Info: IWAR091102-42
Column phase: CLP1

Instrument: ecd2a.i
Operator: JAOC
Column diameter: 0.25

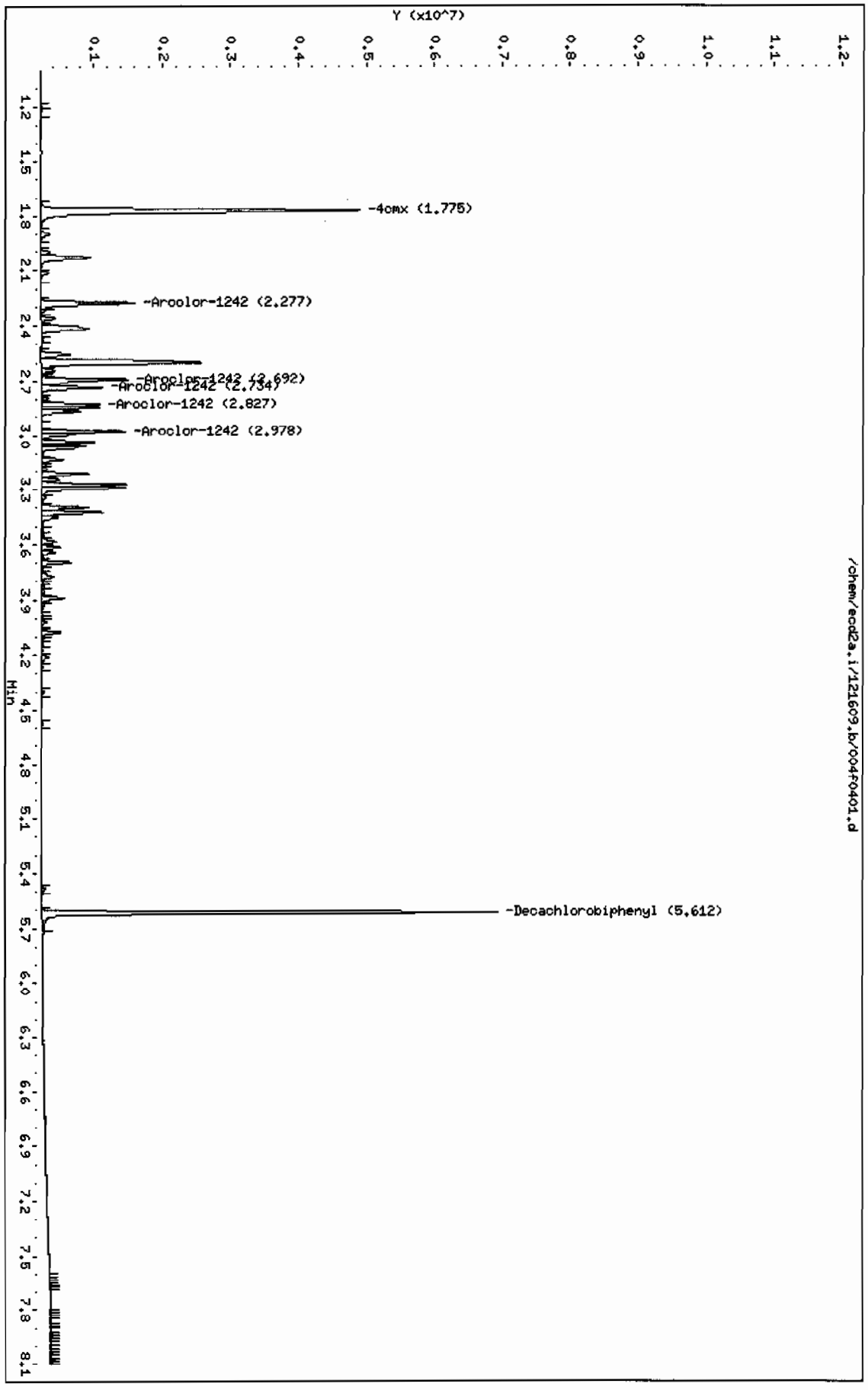

Page 1

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RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/121609.b/004b0401.d
Lab Smp Id: WAR091102-42 Client Smp ID: AR124201
Inj Date : 16-DEC-2009 07:41
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |WAR091102-42
Misc Info : |PCB_CVS|1242||CVS|
Comment :
Method : /chem/ecd2a.i/121609.b/ECD2-B-8082-111209A.m
Meth Date : 16-Dec-2009 10:42 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012b1201.d
Als bottle: 4 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1242.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.072	2.072	0.000	13950766	100.000	108	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.306	6.305	0.001	11860385	100.000	105	80.00- 120.00	100.00
4 Aroclor-1242					CAS #: 53469-21-9		
2.749	2.749	0.000	3614832	1000.00	1050	80.00- 120.00	100.00
3.184	3.184	0.000	2825482	1000.00	1050	58.16- 98.16	78.16
3.255	3.255	0.000	1706566	1000.00	1040	27.21- 67.21	47.21
3.334	3.334	0.000	1591693	1000.00	1060	24.03- 64.03	44.03
3.522	3.522	0.000	2343536	1000.00	1090	44.83- 84.83	64.83

Average of Peak Amounts = 1.06e+03

Data File: /chem/ecd2a.i/121609.b/004b0401.d

Date : 16-DEC-2009 07:41

Client ID: AR124201

Sample Info: IWAR091102-42

Column phase: CLP2

Instrument: ecd2a.i

Operator: JAOC

Column diameter: 0.25

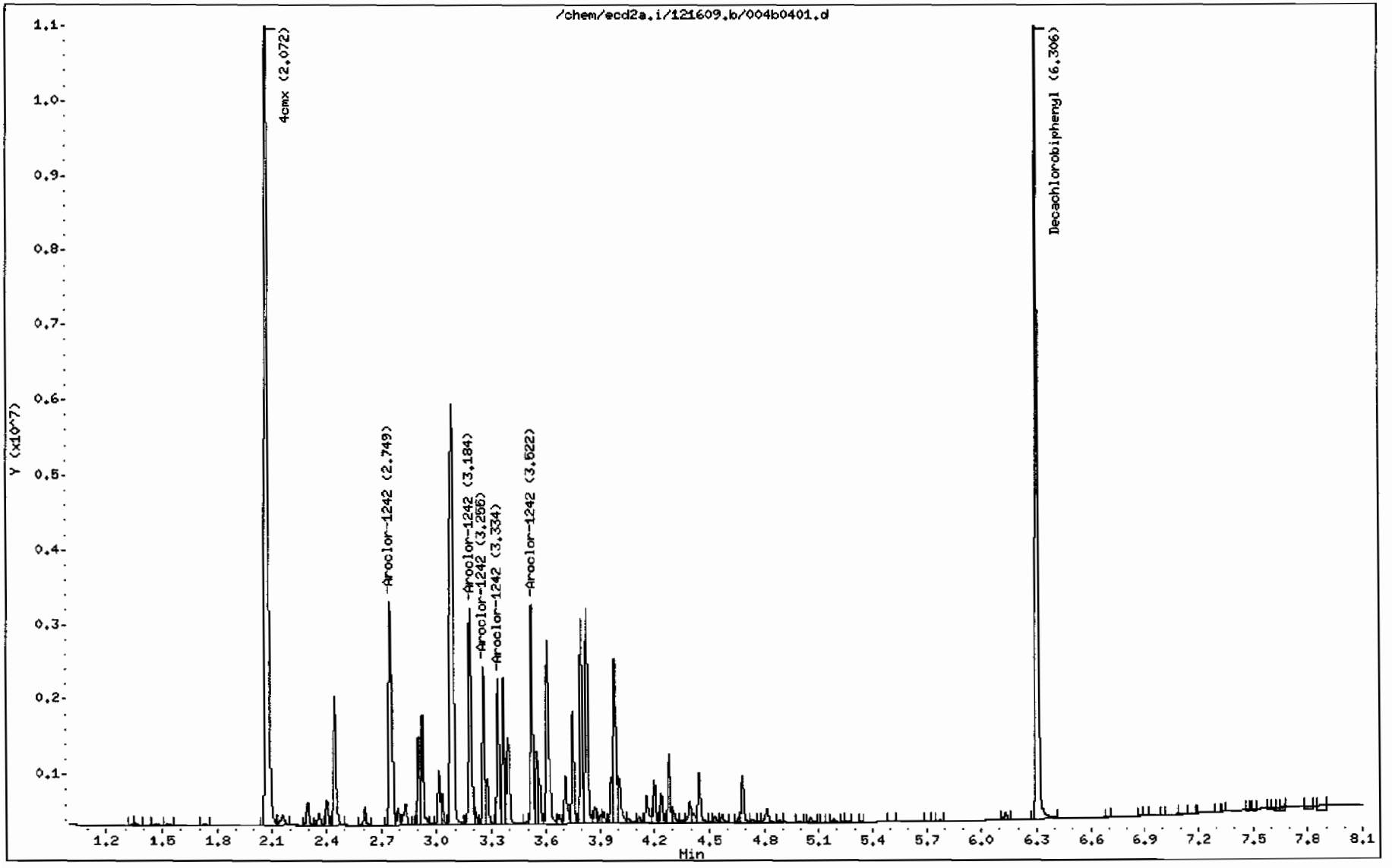

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/121609.b/005f0501.d
Lab Smp Id: WAR091027-48 Client Smp ID: AR124801
Inj Date : 16-DEC-2009 07:52
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |WAR091027-48
Misc Info : |PCB_CVS|1248||CVS|
Comment :
Method : /chem/ecd2a.i/121609.b/ECD2-F-8082-111209A.m
Meth Date : 16-Dec-2009 10:43 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012f1201.d
Als bottle: 5 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1248.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.774	1.775	-0.001	7220389	100.000	116	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.612	5.613	-0.001	6879298	100.000	127	80.00- 120.00	100.00
5 Aroclor-1248					CAS #: 12672-29-6		
2.828	2.828	0.000	1524430	1000.00	998	80.00- 120.00	100.00
2.978	2.978	0.000	2011190	1000.00	992	111.93- 151.93	131.93
3.038	3.038	0.000	1538949	1000.00	980	80.95- 120.95	100.95
3.273	3.273	0.000	2202352	1000.00	993	124.47- 164.47	144.47
3.426	3.426	0.000	1846631	1000.00	965	101.14- 141.14	121.14
Average of Peak Amounts =					986		

Data File: /chem/ecd2a.i/121609.b/005f0501.d
Date : 16-DEC-2009 07:52
Client ID: AR124801
Sample Info: IWAR091027-48

Column phase: CLP1

Instrument: ecd2a.i

Operator: JADC
Column diameter: 0.25

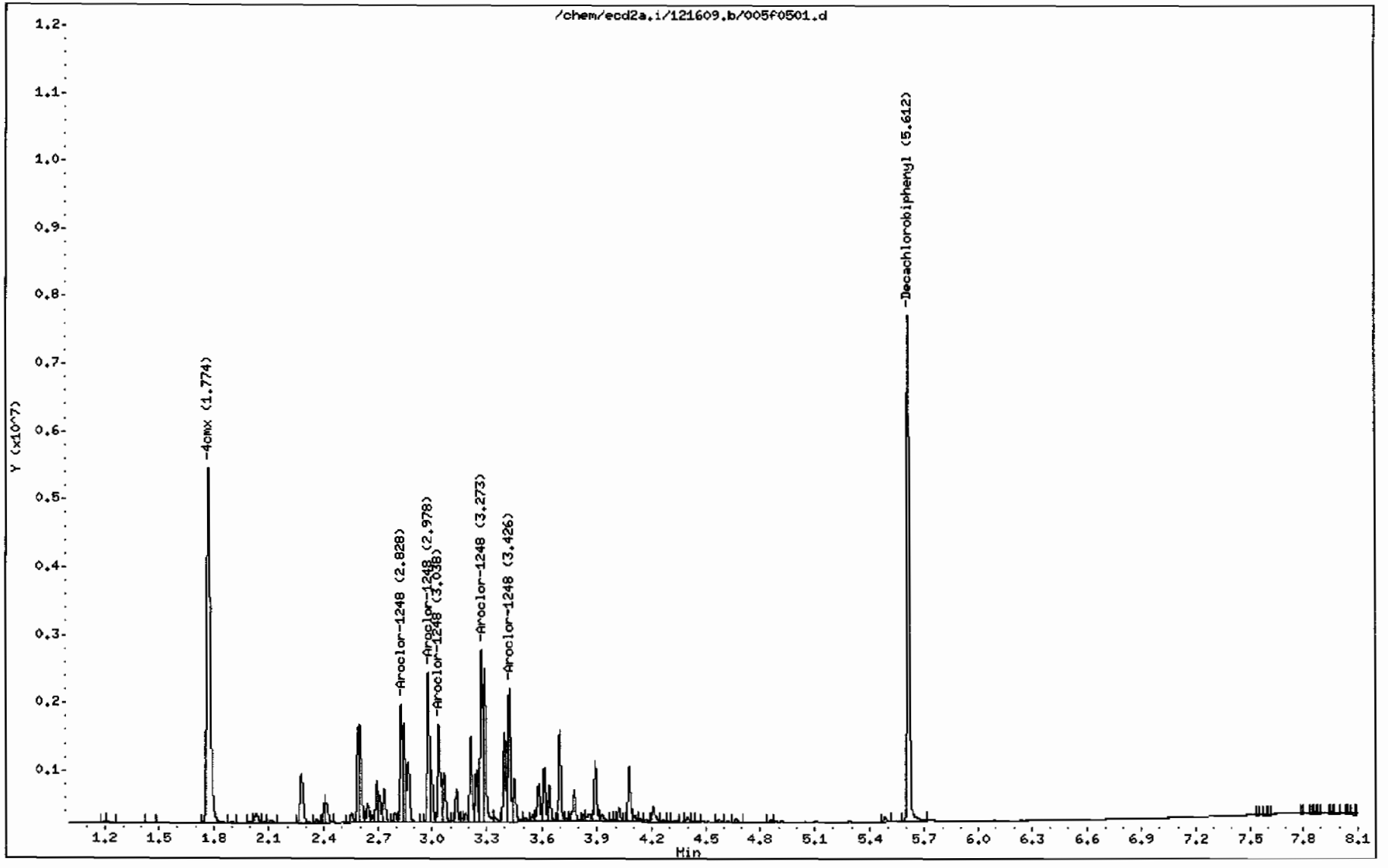

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/121609.b/005b0501.d
Lab Smp Id: WAR091027-48 Client Smp ID: AR124801
Inj Date : 16-DEC-2009 07:52
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |WAR091027-48
Misc Info : |PCB_CVS|1248||CVS|
Comment :
Method : /chem/ecd2a.i/121609.b/ECD2-B-8082-111209A.m
Meth Date : 16-Dec-2009 10:42 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012b1201.d
Als bottle: 5 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1248.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.072	2.072	0.000	15574793	100.000	120	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.305	6.305	0.000	13436161	100.000	119	80.00- 120.00	100.00
5 Aroclor-1248					CAS #: 12672-29-6		
3.335	3.335	0.000	3288158	1000.00	1000	80.00- 120.00	100.00
3.521	3.521	0.000	4214992	1000.00	1010	108.19- 148.19	128.19
3.608	3.608	0.000	4459767	1000.00	1000	115.63- 155.63	135.63
3.797	3.797	0.000	4722058	1000.00	1000	123.61- 163.61	143.61
3.827	3.827	0.000	5384992	1000.00	999	143.77- 183.77	163.77
Average of Peak Amounts =					1e+03		

Data File: /chem/ecd2a.i/121609.b/005b0501.d
Date : 16-DEC-2009 07:52
Client ID: AR124801
Sample Info: !WAR091027-48

Column phase: CLP2

Instrument: ecd2a.i

Operator: JADC
Column diameter: 0.25

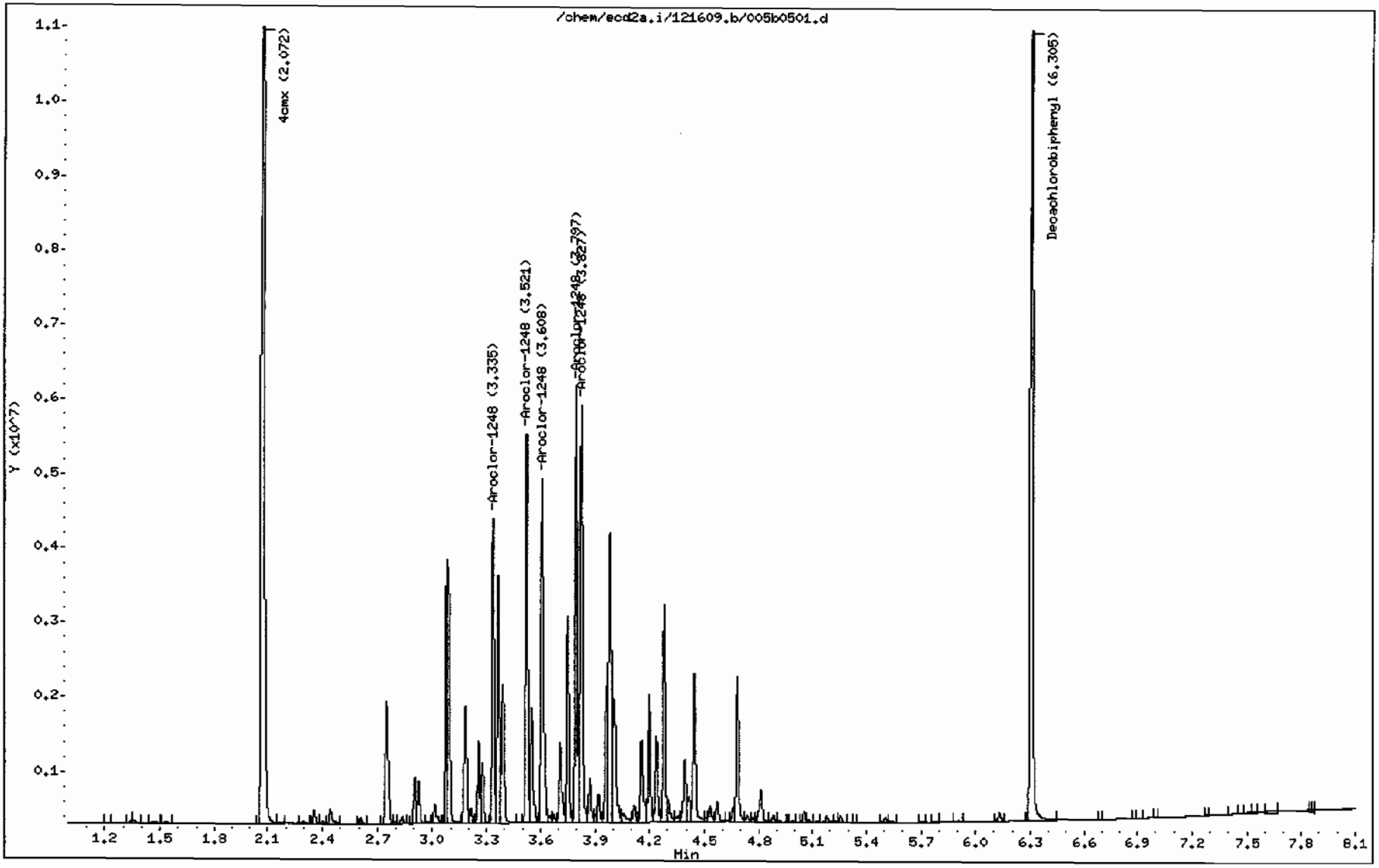

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/121609.b/006f0601.d
Lab Smp Id: WAR090930-32 Client Smp ID: AR123201
Inj Date : 16-DEC-2009 08:03
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |WAR090930-32
Misc Info : |PCB_CVS|1232||CVS|
Comment :
Method : /chem/ecd2a.i/121609.b/ECD2-F-8082-111209A.m
Meth Date : 16-Dec-2009 10:43 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012f1201.d
Als bottle: 6 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1232.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.775	1.775	0.000	9484182	100.000	152	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.612	5.613	-0.001	9267680	100.000	171	80.00- 120.00	100.00
3 Aroclor-1232					CAS #: 11141-16-5		
2.030	2.030	0.000	1453361	1000.00	1250	80.00- 120.00	100.00
2.277	2.277	0.000	1182597	1000.00	1270	61.37- 101.37	81.37
2.692	2.692	0.000	1018257	1000.00	1270	50.06- 90.06	70.06
2.735	2.735	0.000	639651	1000.00	1250	24.01- 64.01	44.01
2.979	2.979	0.000	734963	1000.00	1260	30.57- 70.57	50.57

Average of Peak Amounts = 1.26e+03

Data File: /chem/ecd2a.i/121609.b/006f0601.d
Date : 16-DEC-2009 08:03
Client ID: AR123201
Sample Info: IWAR090930-32

Column phase: CLP1

Instrument: ecd2a.i

Operator: JADC
Column diameter: 0.25

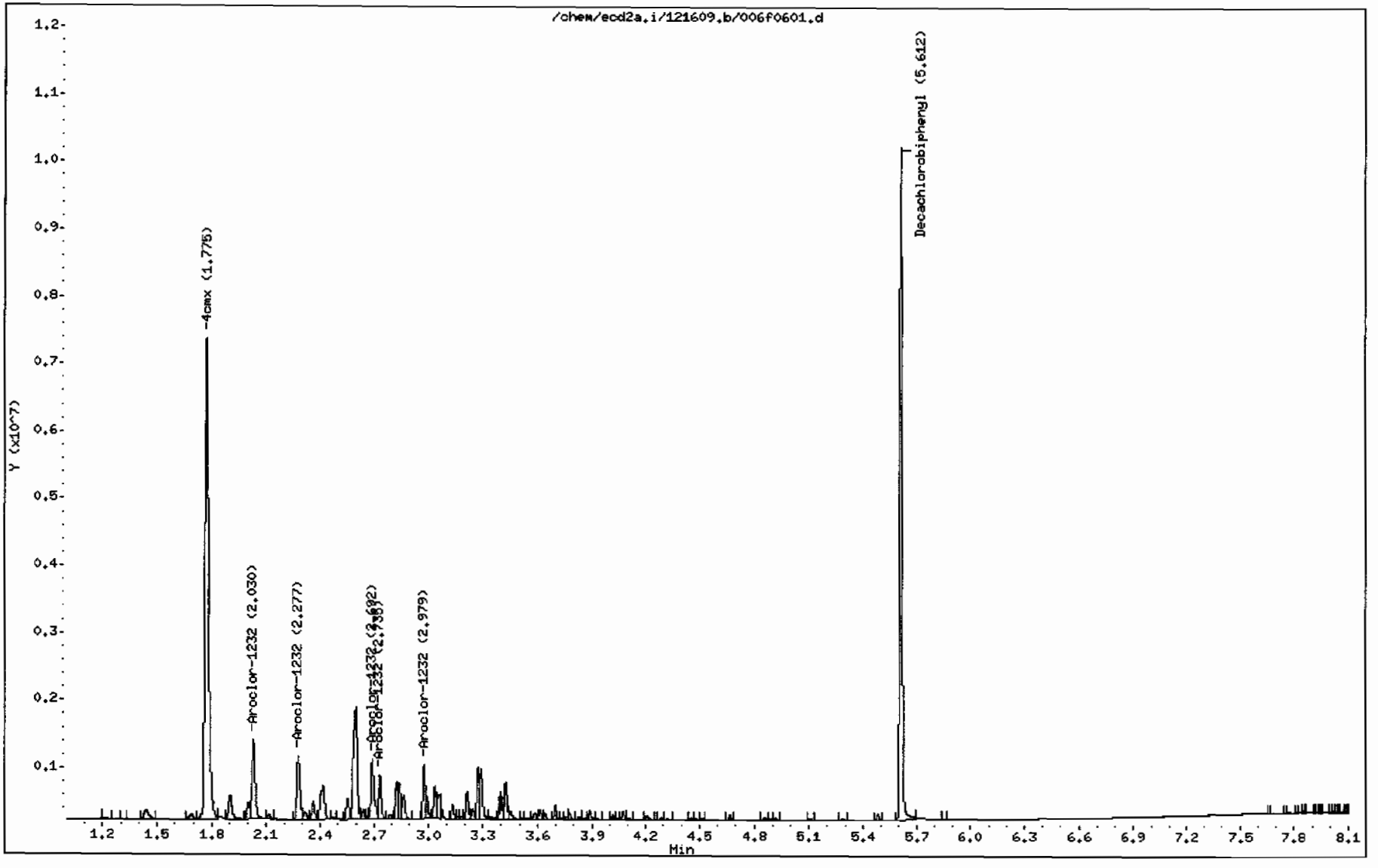

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/121609.b/006b0601.d
Lab Smp Id: WAR090930-32 Client Smp ID: AR123201
Inj Date : 16-DEC-2009 08:03
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |WAR090930-32
Misc Info : |PCB_CVS|1232||CVS|
Comment :
Method : /chem/ecd2a.i/121609.b/ECD2-B-8082-111209A.m
Meth Date : 16-Dec-2009 10:42 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012b1201.d
Als bottle: 6 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1232.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.073	2.072	0.001	20447538	100.000	158	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.305	6.305	0.000	18357437	100.000	163	80.00- 120.00	100.00
3 Aroclor-1232					CAS #: 11141-16-5		
2.446	2.446	0.000	2668787	1000.00	1300	80.00- 120.00	100.00
2.749	2.749	0.000	2549346	1000.00	1300	75.52- 115.52	95.52
3.184	3.184	0.000	2035464	1000.00	1360	56.27- 96.27	76.27
3.256	3.256	0.000	1202277	1000.00	1290	25.05- 65.05	45.05
3.522	3.522	0.000	1483487	1000.00	1340	35.59- 75.59	55.59

Average of Peak Amounts = 1.32e+03

Data File: /chem/ecd2a.i/121609.b/006b0601.d
Date : 16-DEC-2009 08:03
Client ID: AR123201
Sample Info: IWAR090930-32

Column phase: CLP2

Instrument: ecd2a.i

Operator: JADC
Column diameter: 0.25

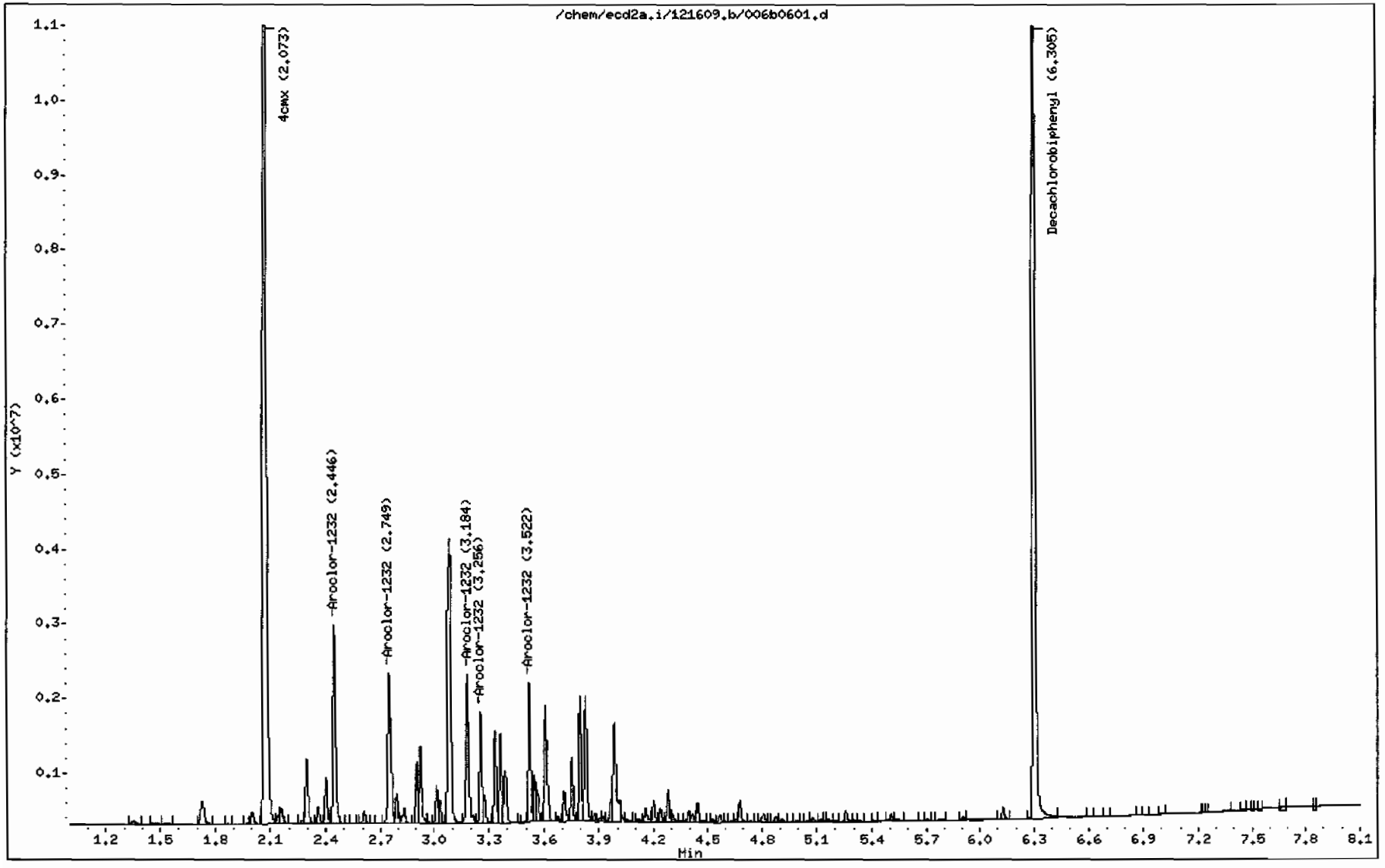

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/121609.b/007f0701.d
Lab Smp Id: WAR091111-21 Client Smp ID: AR122101
Inj Date : 16-DEC-2009 08:14
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |WAR091111-21
Misc Info : |PCB_CVS|1262||CVS|
Comment :
Method : /chem/ecd2a.i/121609.b/ECD2-F-8082-111209A.m
Meth Date : 16-Dec-2009 10:43 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012f1201.d
Als bottle: 7 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1221.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.775	1.775	0.000	6921098	100.000	111	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.612	5.613	-0.001	6582745	100.000	122	80.00- 120.00	100.00
2 Aroclor-1221					CAS #: 11104-28-2		
1.441	1.441	0.000	545743	1000.00	1180	80.00- 120.00	100.00
1.902	1.902	0.000	749079	1000.00	1140	117.26- 157.26	137.26
2.002	2.002	0.000	409980	1000.00	1180	55.12- 95.12	75.12

Average of Peak Amounts = 1.17e+03

Data File: /chem/ecd2a.i/121609.b/007f0701.d

Date : 16-DEC-2009 08:14

Client ID: AR122101

Sample Info: IWAR091111-21

Column phase: CLP1

Instrument: ecd2a.i

Operator: JAOC

Column diameter: 0.25

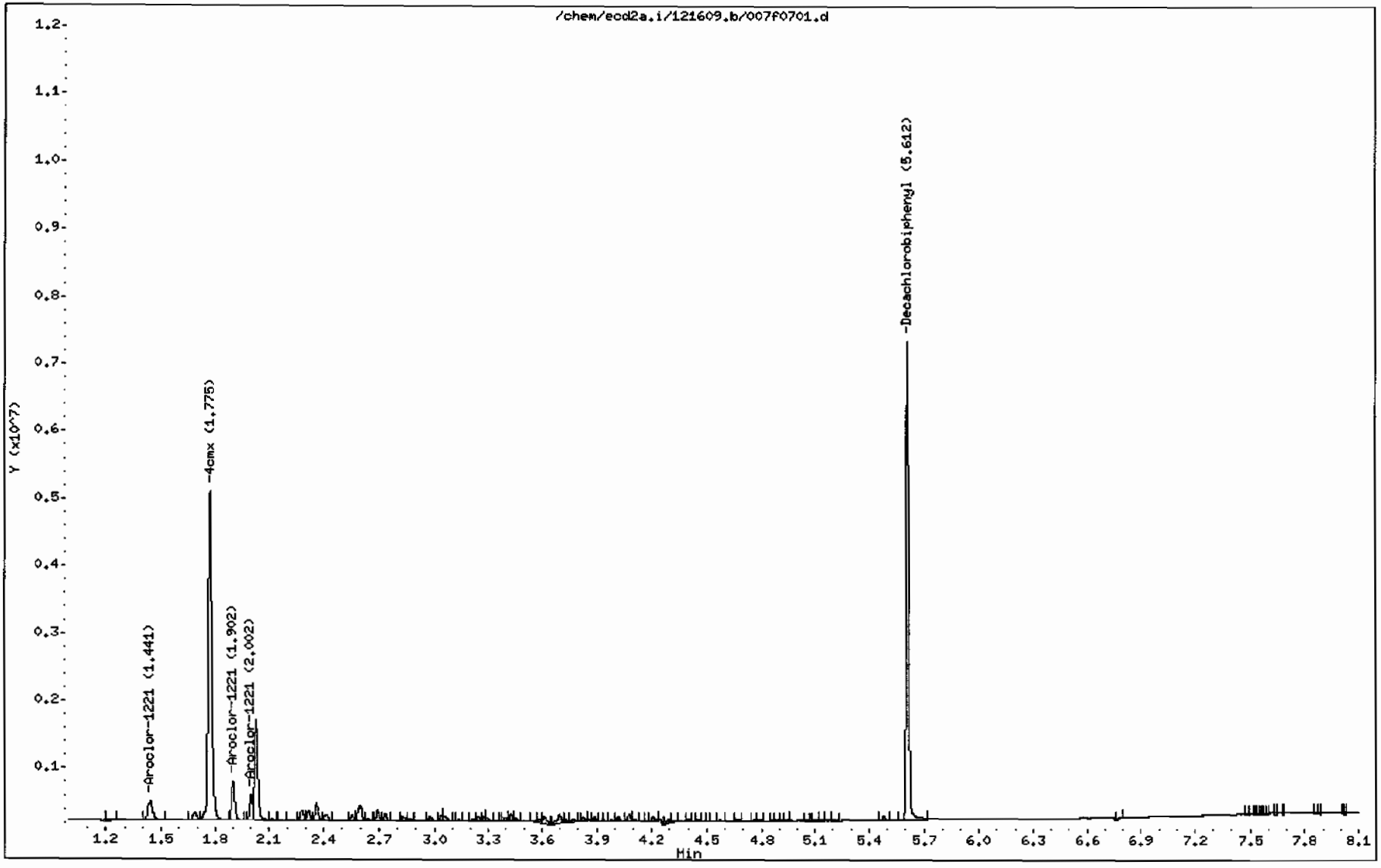

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/121609.b/007b0701.d
Lab Smp Id: WAR091111-21 Client Smp ID: AR122101
Inj Date : 16-DEC-2009 08:14
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |WAR091111-21
Misc Info : |PCB_CVS|1262||CVS|
Comment :
Method : /chem/ecd2a.i/121609.b/ECD2-B-8082-111209A.m
Meth Date : 16-Dec-2009 10:42 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012b1201.d
Als bottle: 7 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1221.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.072	2.072	0.000	14491254	100.000	112	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.306	6.305	0.001	12753338	100.000	113	80.00- 120.00	100.00
2 Aroclor-1221					CAS #: 11104-28-2		
2.296	2.296	0.000	1450221	1000.00	1150	80.00- 120.00	100.00
2.401	2.401	0.000	890492	1000.00	1150	41.40- 81.40	61.40
2.446	2.446	0.000	3519724	1000.00	1150	222.70- 262.70	242.70

Average of Peak Amounts = 1.15e+03

Data File: /chem/ecd2a.i/121609.b/007b0701.d
Date : 16-DEC-2009 09:14
Client ID: AR122101
Sample Info: IWAR091111-21

Column phase: CLP2

Instrument: ecd2a.i

Operator: JAOC
Column diameter: 0.25

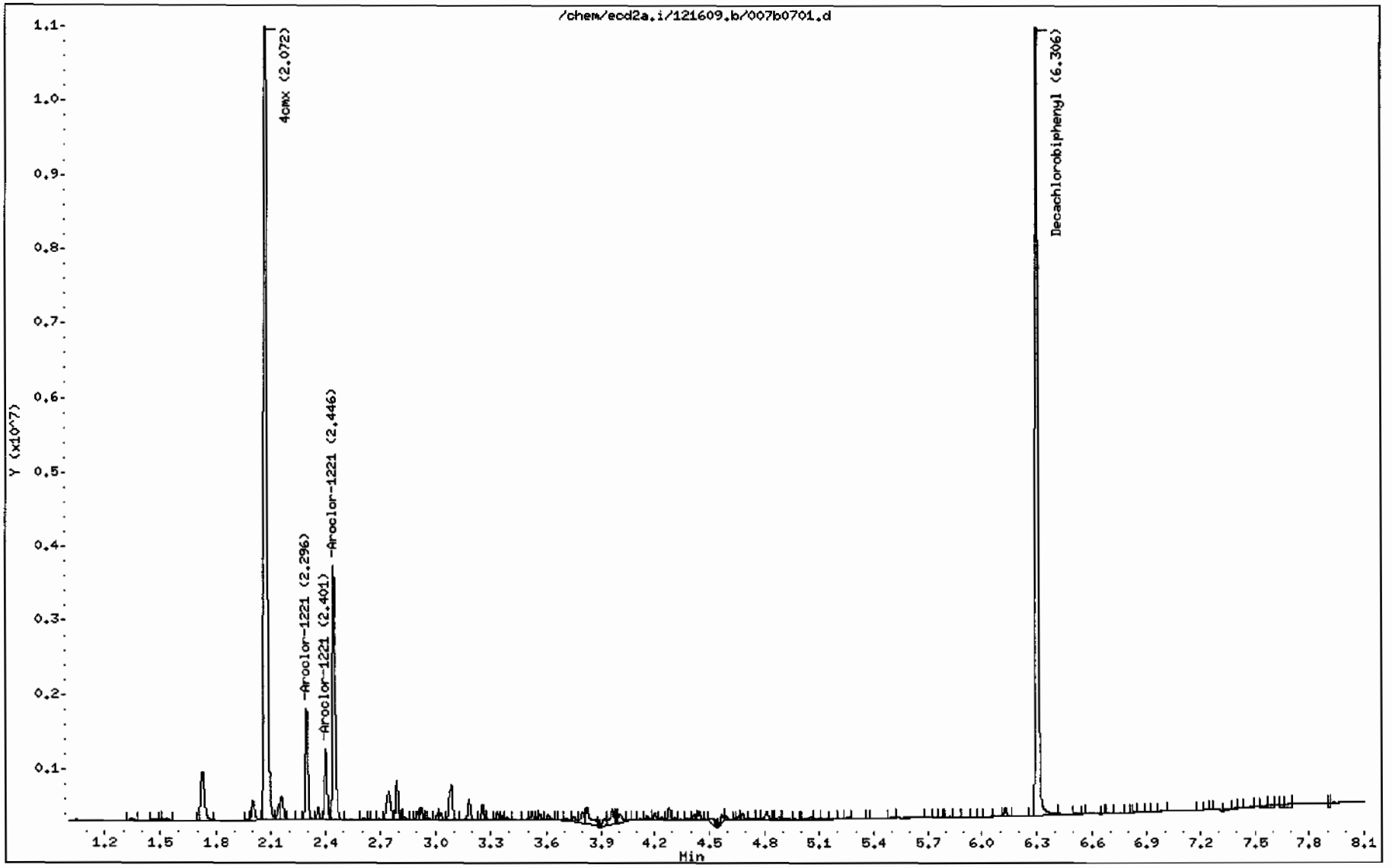

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RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/121609.b/053f5301.d
Lab Smp Id: WAR091211-60 06 Client Smp ID: AR166006
Inj Date : 16-DEC-2009 17:23
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |WAR091211-60 06
Misc Info : |PCB_CVS|1660||CVS|
Comment :
Method : /chem/ecd2a.i/121609.b/ECD2-F-8082-111209A.m
Meth Date : 17-Dec-2009 05:44 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012f1201.d
Als bottle: 53 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

AMOUNTS

RT	EXP RT	DLT RT	RESPONSE	CAL-AMT (ug/L)	ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.775	1.775	0.000	6189149	100.000	99.4	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.611	5.613	-0.002	5819251	100.000	108	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.276	2.278	-0.002	1989179	1000.00	889	80.00- 120.00	100.00
2.601	2.601	0.000	4331749	1000.00	924	196.58- 236.58	217.77
2.691	2.692	-0.001	1705773	1000.00	897	65.90- 105.90	85.75
2.826	2.827	-0.001	883370	1000.00	905	23.48- 63.48	44.41
2.978	2.979	-0.001	1313592	1000.00	901	45.53- 85.53	66.04
Average of Peak Amounts =					903		
7 Aroclor-1260					CAS #: 11096-82-5		
4.018	4.019	-0.001	4137573	1000.00	993	80.00- 120.00	100.00
4.290	4.290	0.000	2565887	1000.00	990	42.27- 82.27	62.01
4.456	4.456	0.000	2633826	1000.00	1000	44.05- 84.05	63.66
4.668	4.669	-0.001	6345858	1000.00	1040	133.72- 173.72	153.37
4.857	4.859	-0.002	3051155	1000.00	1040	54.07- 94.07	73.74
Average of Peak Amounts =					1.01e+03		

Data File: /chem/ecd2a.i/121609.b/053f5301.d

Date : 16-DEC-2009 17:23

Client ID: AR166006

Sample Info: IWAR091211-60 06

Column phase: CLP1

Instrument: ecd2a.i

Operator: JAOC

Column diameter: 0.25

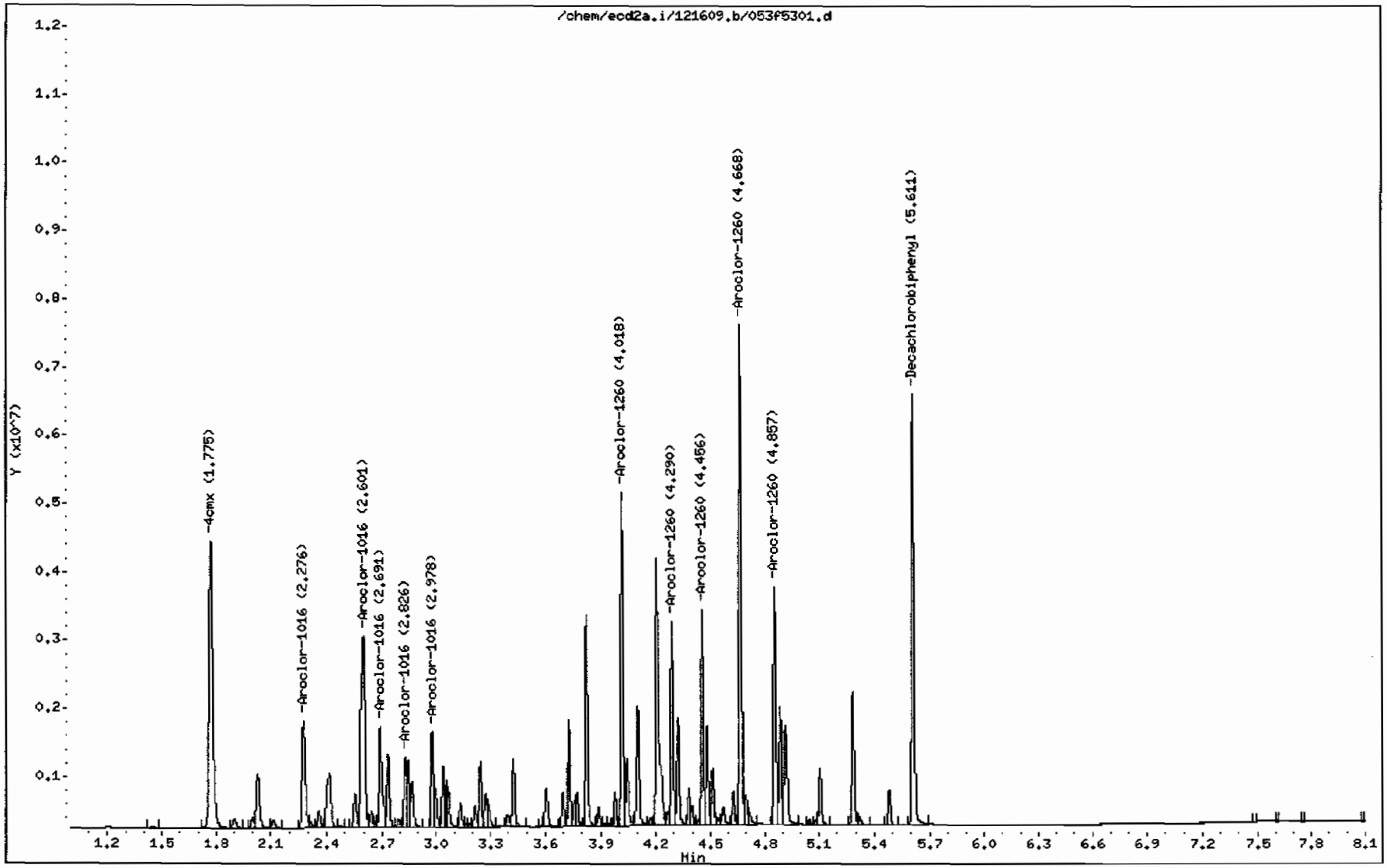

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/121609.b/053b5301.d
Lab Smp Id: WAR091211-60 06 Client Smp ID: AR166006
Inj Date : 16-DEC-2009 17:23
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |WAR091211-60 06
Misc Info : |PCB_CVS|1660||CVS|
Comment :
Method : /chem/ecd2a.i/121609.b/ECD2-B-8082-111209A.m
Meth Date : 17-Dec-2009 05:26 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012b1201.d
Als bottle: 53 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.072	2.072	0.000	13317290	100.000	103	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.304	6.305	-0.001	11970922	100.000	106	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.749	2.749	0.000	4258873	1000.00	938	80.00- 120.00	100.00
3.183	3.183	0.000	3377763	1000.00	938	58.95- 98.95	79.31
3.334	3.335	-0.001	1947975	1000.00	949	25.56- 65.56	45.74
3.363	3.363	0.000	2019138	1000.00	945	27.40- 67.40	47.41
3.521	3.522	-0.001	2760112	1000.00	962	44.70- 84.70	64.81
Average of Peak Amounts =					946		
7 Aroclor-1260					CAS #: 11096-82-5		
4.418	4.418	0.000	5764633	1000.00	1000	80.00- 120.00	100.00
4.569	4.570	-0.001	7347627	1000.00	1030	107.91- 147.91	127.46
4.681	4.681	0.000	4971693	1000.00	1030	66.01- 106.01	86.24
4.878	4.879	-0.001	5769902	1000.00	1020	80.89- 120.89	100.09
5.504	5.505	-0.001	9614148	1000.00	1060	148.43- 188.43	166.78
Average of Peak Amounts =					1.03e+03		

Data File: /chem/ecd2a.i/121609.b/053b5301.d

Date : 16-DEC-2009 17:23

Client ID: AR166006

Sample Info: IWAR091211-60 06

Column phase: CLP2

Instrument: ecd2a.i

Operator: JAOC

Column diameter: 0.25

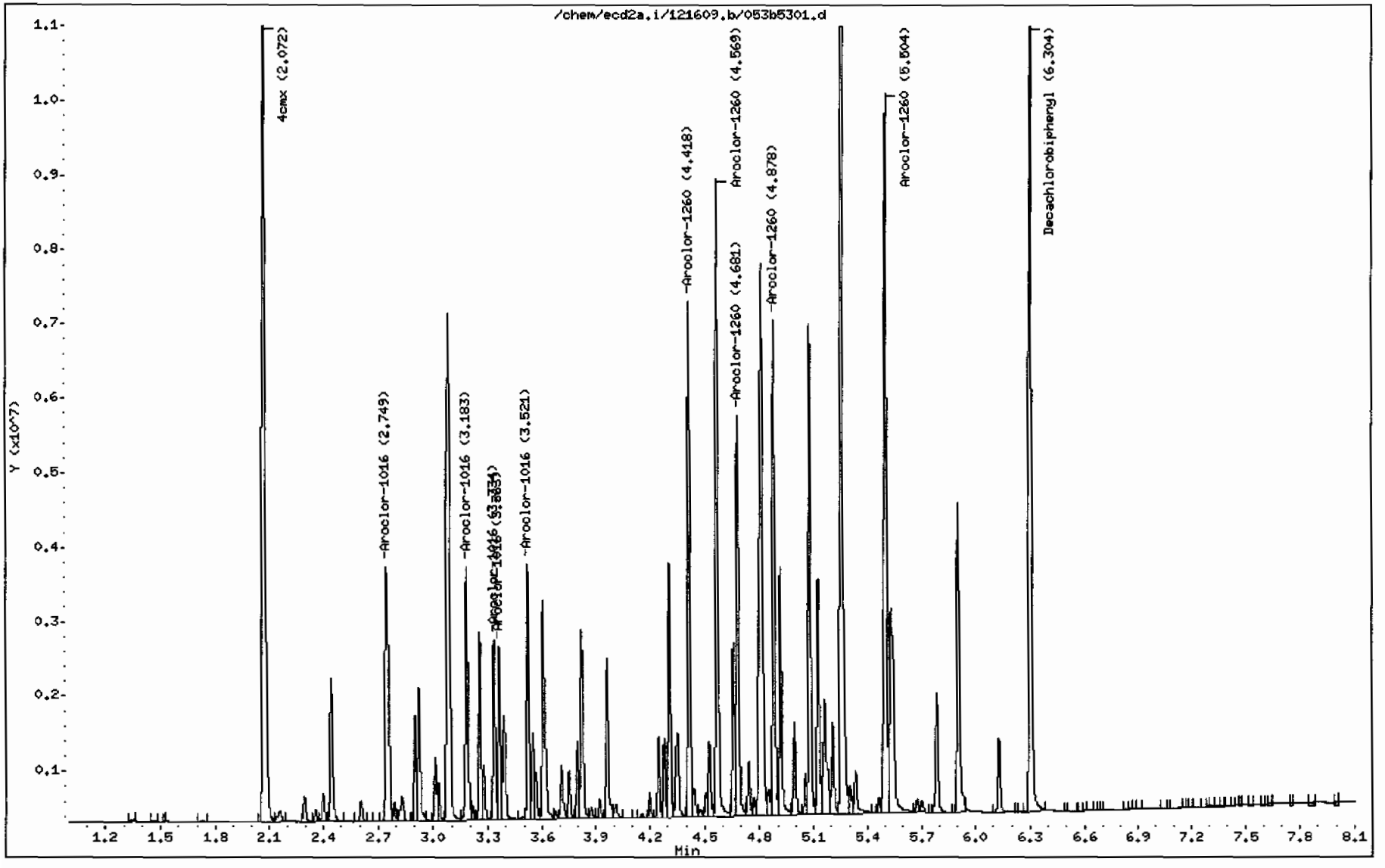

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/121609.b/065f6501.d
Lab Smp Id: WAR091211-60 07 Client Smp ID: AR166007
Inj Date : 16-DEC-2009 19:36
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |WAR091211-60 07
Misc Info : |PCB_CVS|1660||CVS|
Comment :
Method : /chem/ecd2a.i/121609.b/ECD2-F-8082-111209A.m
Meth Date : 17-Dec-2009 05:44 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012f1201.d
Als bottle: 65 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.774	1.775	-0.001	6072420	100.000	97.5	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.612	5.613	-0.001	5700363	100.000	105	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.277	2.278	-0.001	1964818	1000.00	878	80.00- 120.00	100.00
2.600	2.601	-0.001	4244113	1000.00	906	196.58- 236.58	216.01
2.691	2.692	-0.001	1676697	1000.00	882	65.90- 105.90	85.34
2.826	2.827	-0.001	859661	1000.00	881	23.48- 63.48	43.75
2.978	2.979	-0.001	1278111	1000.00	877	45.53- 85.53	65.05
Average of Peak Amounts =					885		
7 Aroclor-1260					CAS #: 11096-82-5		
4.019	4.019	0.000	4071085	1000.00	977	80.00- 120.00	100.00
4.289	4.290	-0.001	2510175	1000.00	969	42.27- 82.27	61.66
4.455	4.456	-0.001	2577913	1000.00	980	44.05- 84.05	63.32
4.669	4.669	0.000	6212004	1000.00	1020	133.72- 173.72	152.59
4.858	4.859	-0.001	3000039	1000.00	1020	54.07- 94.07	73.69
Average of Peak Amounts =					993		

Data File: /chem/ecd2a.i/121609.b/065f6501.d

Date : 16-DEC-2009 19:36

Client ID: AR166007

Sample Info: IWAR091211-60 07

Column phase: CLP1

Instrument: ecd2a.i

Operator: JADC

Column diameter: 0.25

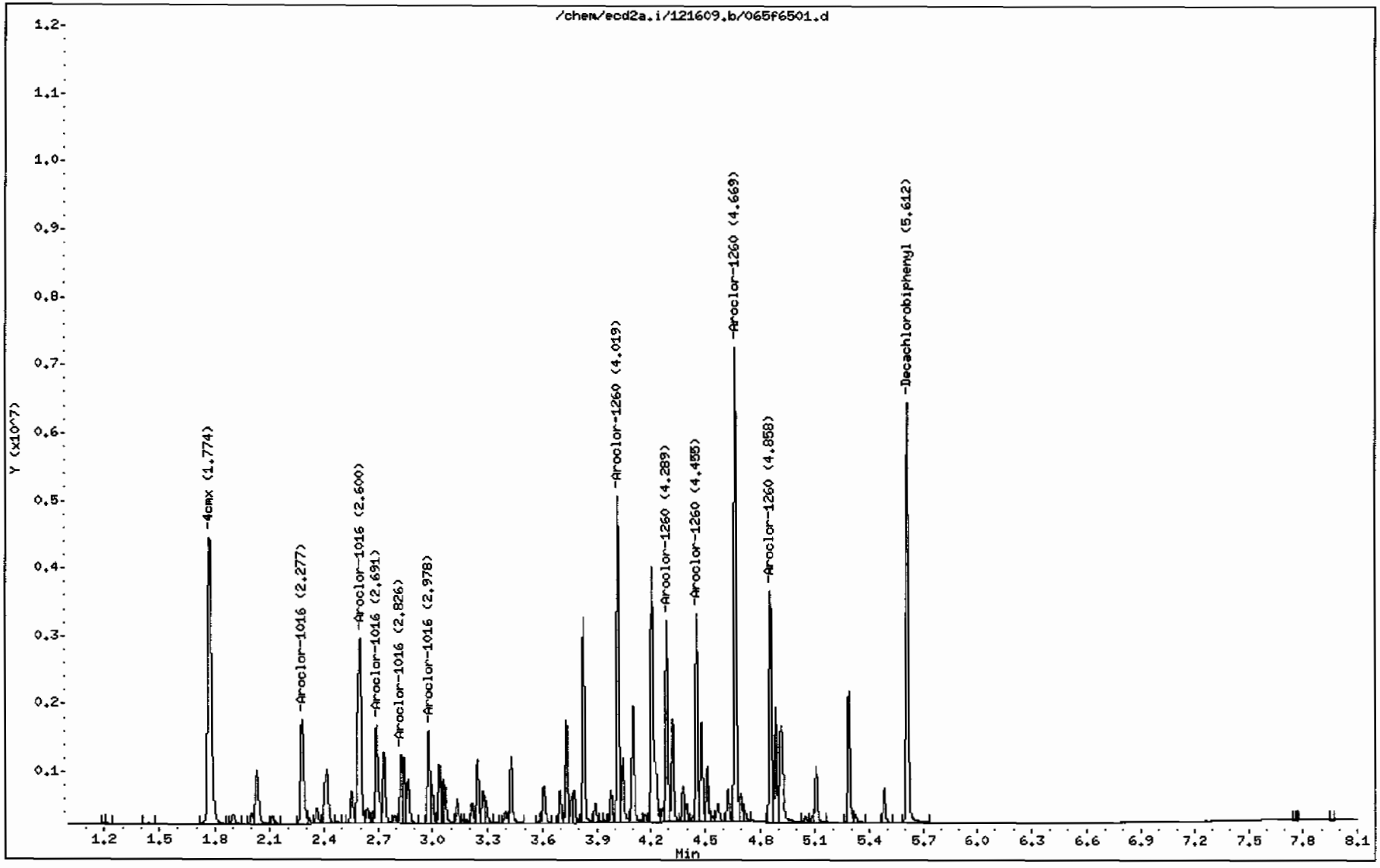

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/121609.b/065b6501.d
Lab Smp Id: WAR091211-60 07 Client Smp ID: AR166007
Inj Date : 16-DEC-2009 19:36
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |WAR091211-60 07
Misc Info : |PCB_CVS|1660||CVS|
Comment :
Method : /chem/ecd2a.i/121609.b/ECD2-B-8082-111209A.m
Meth Date : 17-Dec-2009 05:26 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012b1201.d
Als bottle: 65 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.071	2.072	-0.001	13045643	100.000	101	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.305	6.305	0.000	11708457	100.000	104	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.749	2.749	0.000	4175179	1000.00	920	80.00- 120.00	100.00
3.183	3.183	0.000	3292051	1000.00	914	58.95- 98.95	78.85
3.335	3.335	0.000	1906929	1000.00	929	25.56- 65.56	45.67
3.363	3.363	0.000	1981819	1000.00	927	27.40- 67.40	47.47
3.521	3.522	-0.001	2687598	1000.00	936	44.70- 84.70	64.37
Average of Peak Amounts =					925		
7 Aroclor-1260					CAS #: 11096-82-5		
4.418	4.418	0.000	5592581	1000.00	970	80.00- 120.00	100.00
4.570	4.570	0.000	7116038	1000.00	999	107.91- 147.91	127.24
4.681	4.681	0.000	4826250	1000.00	1000	66.01- 106.01	86.30
4.879	4.879	0.000	5648610	1000.00	1000	80.89- 120.89	101.00
5.504	5.505	-0.001	9420424	1000.00	1040	148.43- 188.43	168.45
Average of Peak Amounts =					1e+03		

Data File: /chem/ecd2a.i/121609.b/065b6501.d

Date : 16-DEC-2009 19:36

Client ID: AR166007

Sample Info: IWAR091211-60 07

Column phase: CLP2

Instrument: ecd2a.i

Operator: JAOC

Column diameter: 0.25

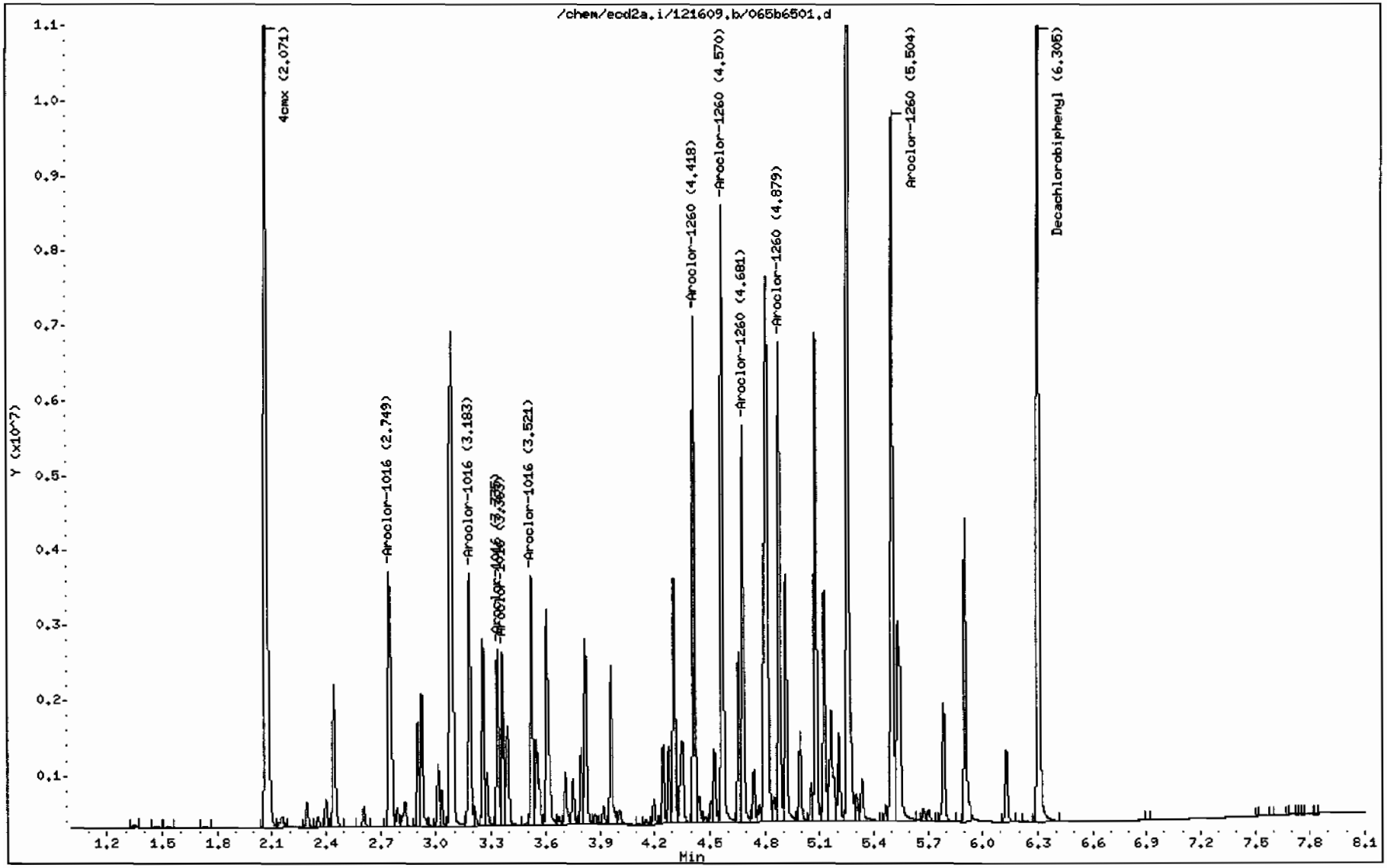

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-899

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 12/14/09 12/14/09

Instrument ID: ECD2A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 1.77 DCB: 5.61

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR091130-99	12/14/09	0700	1.77	5.61
02	ZZZZZ	ZZZZZ	12/14/09	0711	1.77	5.61
03	AR125401	WAR091102-54	12/14/09	0722	1.77	5.61
04	AR124201	WAR091102-42	12/14/09	0733	1.77	5.61
05	AR124801	WAR091027-48	12/14/09	0744	1.77	5.61
06	AR123201	WAR090930-32	12/14/09	0755	1.77	5.61
07	AR122101	WAR091111-21	12/14/09	0807	1.77	5.61
08	ZZZZZ	ZZZZZ	12/14/09	0818	1.77	5.61
09	AR126201	WAR091111-62	12/14/09	0829	1.77	5.61
10	AR126801	WAR091106-68	12/14/09	0840	1.77	5.61
11	AR166001	WAR091214-01	12/14/09	0851	1.77	5.61
12	AR166002	WAR091214-02	12/14/09	0902	1.77	5.61
13	AR166003	WAR091214-03	12/14/09	0913	1.77	5.61
14	AR166004	WAR091214-04	12/14/09	0924	1.77	5.61
15	AR166005	IAR091102-01	12/14/09	0935	1.77	5.61
16	AR166001	WAR091211-60	12/14/09	0946	1.77	5.61
17	DDTANALOGSTD	WAR091020-DD	12/14/09	0958		
18	PIBLK02	WAR091130-99	12/14/09	1009	1.77	5.61
19	ZZZZZ	ZZZZZ	12/14/09	1020	1.77	5.61
20	ZZZZZ	ZZZZZ	12/14/09	1031	1.77	5.61
21	ZZZZZ	ZZZZZ	12/14/09	1042	1.77	
22	ZZZZZ	ZZZZZ	12/14/09	1053	1.76	
23	ZZZZZ	ZZZZZ	12/14/09	1104	1.76	
24	ZZZZZ	ZZZZZ	12/14/09	1115	1.77	5.61
25	ZZZZZ	ZZZZZ	12/14/09	1126	1.77	5.61
26	ZZZZZ	ZZZZZ	12/14/09	1137	1.76	
27	ZZZZZ	ZZZZZ	12/14/09	1148	1.77	5.61
28	ZZZZZ	ZZZZZ	12/14/09	1159	1.76	5.62
29	AR166002	WAR091211-60	12/14/09	1211	1.77	5.61
30	PIBLK03	WAR091130-99	12/14/09	1222	1.77	5.61
31	ZZZZZ	ZZZZZ	12/14/09	1233	1.77	5.61
32	ZZZZZ	ZZZZZ	12/14/09	1244	1.76	

QC LIMITS
S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-899

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 12/14/09 12/14/09

Instrument ID: ECD2A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.07 DCB: 6.30

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR091130-99	12/14/09	0700	2.07	6.31
02	ZZZZZ	ZZZZZ	12/14/09	0711	2.07	6.30
03	AR125401	WAR091102-54	12/14/09	0722	2.07	6.30
04	AR124201	WAR091102-42	12/14/09	0733	2.07	6.30
05	AR124801	WAR091027-48	12/14/09	0744	2.07	6.30
06	AR123201	WAR090930-32	12/14/09	0755	2.07	6.30
07	AR122101	WAR091111-21	12/14/09	0807	2.07	6.30
08	ZZZZZ	ZZZZZ	12/14/09	0818	2.07	6.30
09	AR166201	WAR091111-62	12/14/09	0829	2.07	6.30
10	AR126801	WAR091106-68	12/14/09	0840	2.07	6.30
11	AR166001	WAR091214-01	12/14/09	0851	2.07	6.30
12	AR166002	WAR091214-02	12/14/09	0902	2.07	6.30
13	AR166003	WAR091214-03	12/14/09	0913	2.07	6.30
14	AR166004	WAR091214-04	12/14/09	0924	2.07	6.30
15	AR166005	IAR091102-01	12/14/09	0935	2.07	6.30
16	AR166001	WAR091211-60	12/14/09	0946	2.07	6.30
17	DDTANALOGSTD	WAR091020-DD	12/14/09	0958		
18	PIBLK02	WAR091130-99	12/14/09	1009	2.07	6.30
19	ZZZZZ	ZZZZZ	12/14/09	1020	2.07	6.30
20	ZZZZZ	ZZZZZ	12/14/09	1031	2.07	6.30
21	ZZZZZ	ZZZZZ	12/14/09	1042	2.07	
22	ZZZZZ	ZZZZZ	12/14/09	1053	2.07	
23	ZZZZZ	ZZZZZ	12/14/09	1104	2.06	
24	ZZZZZ	ZZZZZ	12/14/09	1115	2.07	6.30
25	ZZZZZ	ZZZZZ	12/14/09	1126	2.07	6.31
26	ZZZZZ	ZZZZZ	12/14/09	1137	2.07	
27	ZZZZZ	ZZZZZ	12/14/09	1148	2.07	6.30
28	ZZZZZ	ZZZZZ	12/14/09	1159	2.06	6.30
29	AR166002	WAR091211-60	12/14/09	1211	2.07	6.30
30	PIBLK03	WAR091130-99	12/14/09	1222	2.07	6.30
31	ZZZZZ	ZZZZZ	12/14/09	1233	2.07	6.31
32	ZZZZZ	ZZZZZ	12/14/09	1244	2.07	

QC LIMITS
S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-899

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 12/14/09 12/14/09

Instrument ID: ECD2A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 1.77 DCB: 5.61

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR091130-99	12/16/09	0708	1.77	5.61
02	AR166001	WAR091211-60	12/16/09	0719	1.78	5.61
03	AR125401	WAR091102-54	12/16/09	0730	1.78	5.61
04	AR124201	WAR091102-42	12/16/09	0741	1.77	5.61
05	AR124801	WAR091027-48	12/16/09	0752	1.77	5.61
06	AR123201	WAR090930-32	12/16/09	0803	1.78	5.61
07	AR122101	WAR091111-21	12/16/09	0814	1.78	5.61
08	AR126201	WAR091111-62	12/16/09	0826	1.77	5.61
09	AR126801	WAR091106-68	12/16/09	0837	1.78	5.61
10	DDTANALOGSTD	WAR091020-DD	12/16/09	0848		
11	PIBLK02	WAR091130-99	12/16/09	0859	1.78	5.61
12	ZZZZZ	ZZZZZ	12/16/09	0910	1.77	5.61
13	ZZZZZ	ZZZZZ	12/16/09	0921	1.77	5.61
14	ZZZZZ	ZZZZZ	12/16/09	0932	1.77	5.61
15	ZZZZZ	ZZZZZ	12/16/09	0943	1.77	5.61
16	ZZZZZ	ZZZZZ	12/16/09	0954	1.78	5.61
17	ZZZZZ	ZZZZZ	12/16/09	1005	1.77	5.61
18	AR166002	WAR091211-60	12/16/09	1021	1.77	5.61
19	PIBLK03	WAR091130-99	12/16/09	1032	1.78	5.61
20	ZZZZZ	ZZZZZ	12/16/09	1043	1.77	5.61
21	ZZZZZ	ZZZZZ	12/16/09	1054	1.77	5.61
22	ZZZZZ	ZZZZZ	12/16/09	1105	1.78	5.61
23	ZZZZZ	ZZZZZ	12/16/09	1116	1.78	5.61
24	ZZZZZ	ZZZZZ	12/16/09	1128	1.77	5.62
25	ZZZZZ	ZZZZZ	12/16/09	1139	1.78	5.61
26	ZZZZZ	ZZZZZ	12/16/09	1150	1.77	5.61
27	ZZZZZ	ZZZZZ	12/16/09	1201	1.77	5.61
28	ZZZZZ	ZZZZZ	12/16/09	1212	1.78	5.61
29	ZZZZZ	ZZZZZ	12/16/09	1223	1.78	5.61
30	AR166003	WAR091211-60	12/16/09	1239	1.77	5.61
31	PIBLK04	WAR091130-99	12/16/09	1250	1.77	5.61
32	ZZZZZ	ZZZZZ	12/16/09	1301	1.77	5.61

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-899

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 12/14/09 12/14/09

Instrument ID: ECD2A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 1.77 DCB: 5.61

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	ZZZZZ	ZZZZZ	12/16/09	1312	1.77	5.61
02	ZZZZZ	ZZZZZ	12/16/09	1323	1.78	5.61
03	ZZZZZ	ZZZZZ	12/16/09	1334	1.78	5.61
04	ZZZZZ	ZZZZZ	12/16/09	1345	1.78	5.62
05	ZZZZZ	ZZZZZ	12/16/09	1356	1.78	5.61
06	AR166004	WAR091211-60	12/16/09	1412	1.77	5.61
07	PIBLK05	WAR091130-99	12/16/09	1438	1.77	5.62
08	ZZZZZ	ZZZZZ	12/16/09	1449	1.77	5.61
09	ZZZZZ	ZZZZZ	12/16/09	1505	1.78	5.61
10	ZZZZZ	ZZZZZ	12/16/09	1516	1.78	5.61
11	ZZZZZ	ZZZZZ	12/16/09	1527	1.78	5.61
12	ZZZZZ	ZZZZZ	12/16/09	1538	1.78	5.61
13	ZZZZZ	ZZZZZ	12/16/09	1549	1.78	5.61
14	ZZZZZ	ZZZZZ	12/16/09	1600	1.77	5.61
15	ZZZZZ	ZZZZZ	12/16/09	1611	1.77	5.61
16	AR166005	WAR091211-60	12/16/09	1627	1.77	5.61
17	PIBLK06	WAR091130-99	12/16/09	1638	1.77	5.61
18	ZZZZZ	ZZZZZ	12/16/09	1649	1.78	5.61
19	ZZZZZ	ZZZZZ	12/16/09	1700	1.78	5.61
20	ZZZZZ	ZZZZZ	12/16/09	1711	1.77	5.61
21	AR166006	WAR091211-60	12/16/09	1723	1.77	5.61
22	PIBLK07	WAR091130-99	12/16/09	1734	1.78	5.61
23	PBLK01	1201997004	12/16/09	1745	1.78	5.61
24	PBLK01LCS	1201997005	12/16/09	1756	1.77	5.61
25	WST03-10-2145	242784003	12/16/09	1807	1.77	5.61
26	WST03-10-2146	242784004	12/16/09	1818	1.78	5.61
27	ZZZZZ	ZZZZZ	12/16/09	1829	1.77	5.61
28	ZZZZZ	ZZZZZ	12/16/09	1840	1.77	5.61
29	ZZZZZ	ZZZZZ	12/16/09	1851	1.77	5.61
30	ZZZZZ	ZZZZZ	12/16/09	1902	1.77	5.61
31	ZZZZZ	ZZZZZ	12/16/09	1914	1.77	5.61
32	ZZZZZ	ZZZZZ	12/16/09	1925	1.78	5.61

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-899

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 112/14/09 12/14/09

Instrument ID: ECD2A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 1.77 DCB: 5.61

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	AR166007	WAR091211-60	12/16/09	1936	1.77	5.61
02	PIBLK08	WAR091130-99	12/16/09	1947	1.77	5.61
03	ZZZZZ	ZZZZZ	12/16/09	1958	1.77	5.61
04	ZZZZZ	ZZZZZ	12/16/09	2009	1.77	5.61
05	ZZZZZ	ZZZZZ	12/16/09	2020	1.77	5.61
06	ZZZZZ	ZZZZZ	12/16/09	2031	1.77	5.61
07	ZZZZZ	ZZZZZ	12/16/09	2042	1.77	5.61
08	ZZZZZ	ZZZZZ	12/16/09	2053	1.77	5.61
09	AR166008	WAR091211-60	12/16/09	2104	1.78	5.61
10	PIBLK09	WAR091130-99	12/16/09	2116	1.77	5.61
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	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-899

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 12/14/09 12/14/09

Instrument ID: ECD2A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.07 DCB: 6.30

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR091130-99	12/16/09	0708	2.07	6.30
02	AR166001	WAR091211-60	12/16/09	0719	2.07	6.30
03	AR125401	WAR091102-54	12/16/09	0730	2.07	6.31
04	AR124201	WAR091102-42	12/16/09	0741	2.07	6.31
05	AR124801	WAR091027-48	12/16/09	0752	2.07	6.30
06	AR123201	WAR090930-32	12/16/09	0803	2.07	6.30
07	AR122101	WAR091111-21	12/16/09	0814	2.07	6.31
08	AR126201	WAR091111-62	12/16/09	0826	2.07	6.30
09	AR126801	WAR091106-68	12/16/09	0837	2.07	6.30
10	DDTANALOGSTD	WAR091020-DD	12/16/09	0848		
11	PIBLK02	WAR091130-99	12/16/09	0859	2.07	6.30
12	ZZZZZ	ZZZZZ	12/16/09	0910	2.07	6.30
13	ZZZZZ	ZZZZZ	12/16/09	0921	2.07	6.30
14	ZZZZZ	ZZZZZ	12/16/09	0932	2.07	6.30
15	ZZZZZ	ZZZZZ	12/16/09	0943	2.07	6.30
16	ZZZZZ	ZZZZZ	12/16/09	0954	2.07	6.30
17	ZZZZZ	ZZZZZ	12/16/09	1005	2.07	6.31
18	AR166002	WAR091211-60	12/16/09	1021	2.07	6.30
19	PIBLK03	WAR091130-99	12/16/09	1032	2.07	6.30
20	ZZZZZ	ZZZZZ	12/16/09	1043	2.07	6.30
21	ZZZZZ	ZZZZZ	12/16/09	1054	2.07	6.30
22	ZZZZZ	ZZZZZ	12/16/09	1105	2.07	6.31
23	ZZZZZ	ZZZZZ	12/16/09	1116	2.07	6.31
24	ZZZZZ	ZZZZZ	12/16/09	1128	2.07	6.31
25	ZZZZZ	ZZZZZ	12/16/09	1139	2.07	6.30
26	ZZZZZ	ZZZZZ	12/16/09	1150	2.07	6.30
27	ZZZZZ	ZZZZZ	12/16/09	1201	2.07	6.30
28	ZZZZZ	ZZZZZ	12/16/09	1212	2.07	6.30
29	ZZZZZ	ZZZZZ	12/16/09	1223	2.07	6.30
30	AR166003	WAR091211-60	12/16/09	1239	2.07	6.30
31	PIBLK04	WAR091130-99	12/16/09	1250	2.07	6.30
32	ZZZZZ	ZZZZZ	12/16/09	1301	2.07	6.30

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-899

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 12/14/09 12/14/09

Instrument ID: ECD2A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.07 DCB: 6.30

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	ZZZZZ	ZZZZZ	12/16/09	1312	2.07	6.30
02	ZZZZZ	ZZZZZ	12/16/09	1323	2.07	6.30
03	ZZZZZ	ZZZZZ	12/16/09	1334	2.07	6.30
04	ZZZZZ	ZZZZZ	12/16/09	1345	2.07	6.31
05	ZZZZZ	ZZZZZ	12/16/09	1356	2.07	6.31
06	AR166004	WAR091211-60	12/16/09	1412	2.07	6.30
07	PIBLK05	WAR091130-99	12/16/09	1438	2.07	6.31
08	ZZZZZ	ZZZZZ	12/16/09	1449	2.07	6.31
09	ZZZZZ	ZZZZZ	12/16/09	1505	2.07	6.30
10	ZZZZZ	ZZZZZ	12/16/09	1516	2.07	6.30
11	ZZZZZ	ZZZZZ	12/16/09	1527	2.07	6.31
12	ZZZZZ	ZZZZZ	12/16/09	1538	2.07	6.30
13	ZZZZZ	ZZZZZ	12/16/09	1549	2.07	6.31
14	ZZZZZ	ZZZZZ	12/16/09	1600	2.07	6.30
15	ZZZZZ	ZZZZZ	12/16/09	1611	2.07	6.31
16	AR166005	WAR091211-60	12/16/09	1627	2.07	6.30
17	PIBLK06	WAR091130-99	12/16/09	1638	2.07	6.30
18	ZZZZZ	ZZZZZ	12/16/09	1649	2.07	6.30
19	ZZZZZ	ZZZZZ	12/16/09	1700	2.07	6.30
20	ZZZZZ	ZZZZZ	12/16/09	1711	2.07	6.30
21	AR166006	WAR091211-60	12/16/09	1723	2.07	6.30
22	PIBLK07	WAR091130-99	12/16/09	1734	2.07	6.30
23	PBLK01	1201997004	12/16/09	1745	2.07	6.30
24	PBLK01LCS	1201997005	12/16/09	1756	2.07	6.30
25	WST03-10-2145	242784003	12/16/09	1807	2.07	6.30
26	WST03-10-2146	242784004	12/16/09	1818	2.07	6.30
27	ZZZZZ	ZZZZZ	12/16/09	1829	2.07	6.30
28	ZZZZZ	ZZZZZ	12/16/09	1840	2.07	6.30
29	ZZZZZ	ZZZZZ	12/16/09	1851	2.07	6.30
30	ZZZZZ	ZZZZZ	12/16/09	1902	2.07	6.30
31	ZZZZZ	ZZZZZ	12/16/09	1914	2.07	6.30
32	ZZZZZ	ZZZZZ	12/16/09	1925	2.07	6.30

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-899

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 12/14/09 12/14/09

Instrument ID: ECD2A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.07 DCB: 6.30

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	AR166007	WAR091211-60	12/16/09	1936	2.07	6.30
02	PIBLK08	WAR091130-99	12/16/09	1947	2.07	6.31
03	ZZZZZ	ZZZZZ	12/16/09	1958	2.07	6.30
04	ZZZZZ	ZZZZZ	12/16/09	2009	2.07	6.30
05	ZZZZZ	ZZZZZ	12/16/09	2020	2.07	6.30
06	ZZZZZ	ZZZZZ	12/16/09	2031	2.07	6.30
07	ZZZZZ	ZZZZZ	12/16/09	2042	2.07	6.30
08	ZZZZZ	ZZZZZ	12/16/09	2053	2.07	6.30
09	AR166008	WAR091211-60	12/16/09	2104	2.07	6.30
10	PIBLK09	WAR091130-99	12/16/09	2116	2.07	6.30
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						
31						
32						

QC LIMITS
S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

Identification Summary

SDG Number: 10-899 **Client ID:** LCS for batch 933401

Lab Sample ID: 1201997005

Data File:	056f5601.d	**Data File:**	056b5601.d
Inst:	ECD2A.I_1	**Inst:**	ECD2A.I_2
Column:	CLP1	**Column:**	CLP2
Analyzed:	16-DEC-09 17:56	**Analyzed:**	16-DEC-09 17:56

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor-1016							2.81
Column 1	1	2.28	2.25 – 2.31	18.7		ug/kg	
	2	2.6	2.57 – 2.63	19.5		ug/kg	
	3	2.69	2.66 – 2.72	18.7		ug/kg	
	4	2.83	2.8 – 2.86	19.2		ug/kg	
	5	2.98	2.95 – 3.01	19.3		ug/kg	
					19.1		
Column 2	1	2.75	2.72 – 2.78	19.3		ug/kg	
	2	3.18	3.15 – 3.21	19.2		ug/kg	
	3	3.33	3.3 – 3.36	20		ug/kg	
	4	3.36	3.33 – 3.39	19.8		ug/kg	
	5	3.52	3.49 – 3.55	19.7		ug/kg	
					19.6		
Aroclor-1260							1.23
Column 1	1	4.02	3.99 – 4.05	24.7		ug/kg	
	2	4.29	4.26 – 4.32	25.1		ug/kg	
	3	4.46	4.43 – 4.49	25.4		ug/kg	
	4	4.67	4.64 – 4.7	27.5		ug/kg	
	5	4.86	4.83 – 4.89	27.3		ug/kg	
					26		
Column 2	1	4.42	4.39 – 4.45	23.9		ug/kg	
	2	4.57	4.54 – 4.6	25.7		ug/kg	
	3	4.68	4.65 – 4.71	25.1		ug/kg	
	4	4.88	4.85 – 4.91	26.1		ug/kg	
	5	5.5	5.47 – 5.53	27.6		ug/kg	
					25.7		

QUALITY CONTROL DATA

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–899**			**Matrix:**	**SOIL**
Lab Sample ID:	**1201997004**				
Client Sample:	**QC for batch 933401**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 933401**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**933402**	**Inst:**	**ECD2A.I**	**Dilution:**	**1**
Run Date:	**12/16/2009 17:45**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**12/16/2009 09:01**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**055f5501–1.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	055b5501–1.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	3.33	ug/kg	1.11	3.33	1
11104–28–2	Aroclor–1221	U	3.33	ug/kg	1.11	3.33	1
11141–16–5	Aroclor–1232	U	3.33	ug/kg	1.11	3.33	1
53469–21–9	Aroclor–1242	U	3.33	ug/kg	1.11	3.33	1
12672–29–6	Aroclor–1248	U	3.33	ug/kg	1.11	3.33	1
11097–69–1	Aroclor–1254	U	3.33	ug/kg	1.11	3.33	1
11096–82–5	Aroclor–1260	U	3.33	ug/kg	1.11	3.33	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/121609.b/055f5501.d
Lab Smp Id: 1201997004 Client Smp ID: PBLK01
Inj Date : 16-DEC-2009 17:45
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |1201997004|1|
Misc Info : |ECD82P_1S|933402|SVAF|QC A|SOIL|MB|||
Comment :
Method : /chem/ecd2a.i/121609.b/ECD2-F-8082-111209A.m
Meth Date : 17-Dec-2009 05:44 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012f1201.d
Als bottle: 55 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-899.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.775	1.775	0.000	7852779	126.065	4.2	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.610	5.613	-0.003	8517018	157.397	5.2	80.00- 120.00	100.00

Data File: /chem/ecd2a.i/121609.b/055f5501.d
Date : 16-DEC-2009 17:45
Client ID: PBLK01
Sample Info: |1201997004|1|
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecd2a.i

Operator: JAOC
Column diameter: 0.25

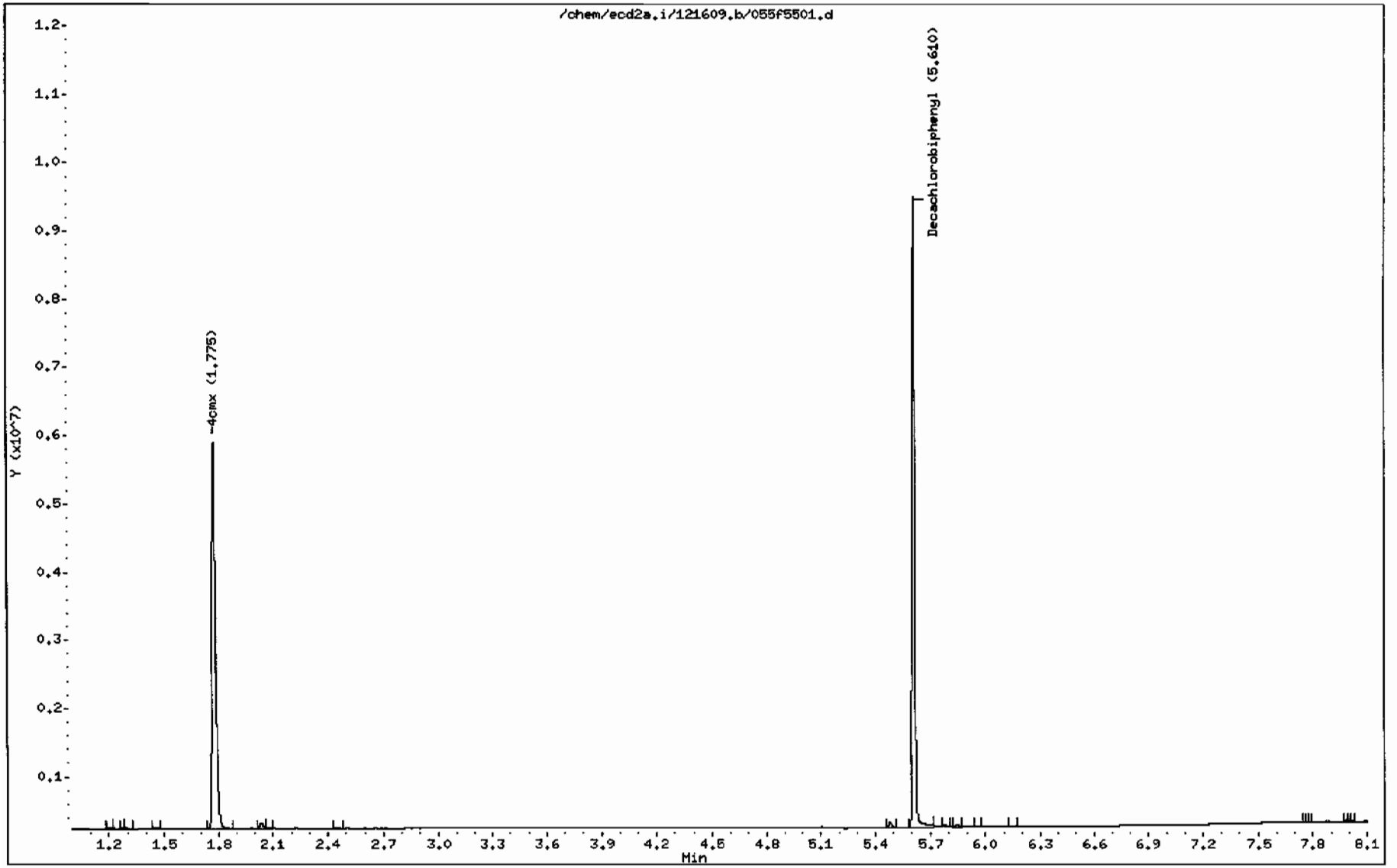

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/121609.b/055b5501.d
Lab Smp Id: 1201997004 Client Smp ID: PBLK01
Inj Date : 16-DEC-2009 17:45
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |1201997004|1|
Misc Info : |ECD82P_1S|933402|SVAF|QC A|SOIL|MB|||
Comment :
Method : /chem/ecd2a.i/121609.b/ECD2-B-8082-111209A.m
Meth Date : 17-Dec-2009 05:26 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012b1201.d
Als bottle: 55 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-899.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.072	2.072	0.000	16960777	131.156	4.4	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.305	6.305	0.000	18188430	161.269	5.4	80.00- 120.00	100.00

Data File: /chem/ecd2a.i/121609.b/055b5501.d

Date : 16-DEC-2009 17:45

Client ID: PBLK01

Sample Info: |1201997004|1|

Volume Injected (uL): 1.0

Column phase: CLP2

Instrument: ecd2a.i

Operator: JAOC

Column diameter: 0.25

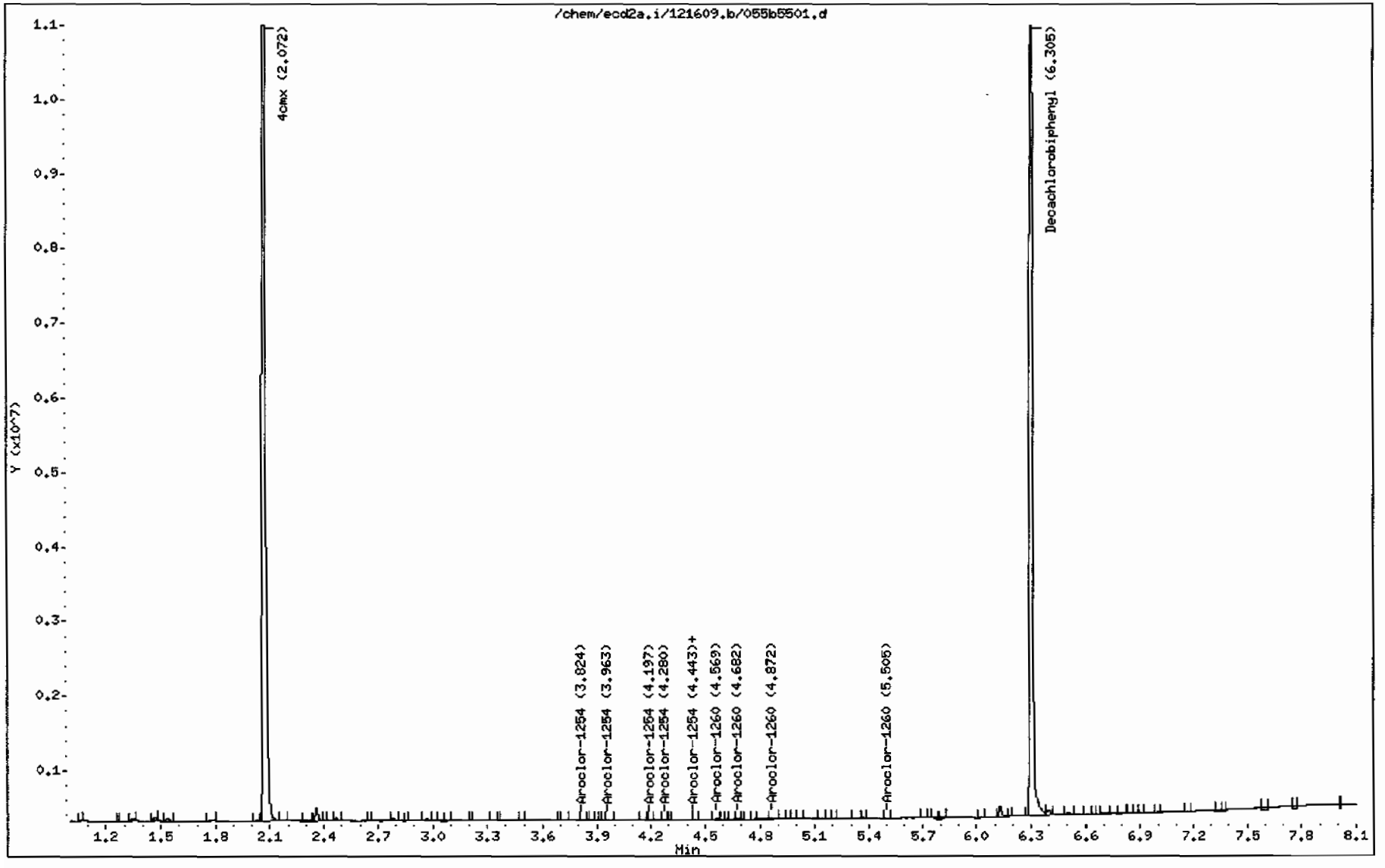

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10–899			**Matrix:**	SOIL
Lab Sample ID:	1201997005				
Client Sample:	QC for batch 933401	**Client:**	LANL010	**Project:**	QC
Client ID:	LCS for batch 933401	**Method:**	SW846 8082	**SOP Ref:**	GL–OA–E–040
Batch ID:	933402	**Inst:**	ECD2A.I	**Dilution:**	1
Run Date:	12/16/2009 17:56	**Analyst:**	JAOC	**Inj. Vol:**	1 uL
Prep Date:	12/16/2009 09:01	**Aliquot:**	30 g	**Final Volume:**	1 mL
Data File:	056f5601–1.d	**Column:**	1 CLP1	**Level:**	LOW
	056b5601–1.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016		19.6	ug/kg	1.11	3.33	2
11104–28–2	Aroclor–1221	U	3.33	ug/kg	1.11	3.33	1
11141–16–5	Aroclor–1232	U	3.33	ug/kg	1.11	3.33	1
53469–21–9	Aroclor–1242	U	3.33	ug/kg	1.11	3.33	1
12672–29–6	Aroclor–1248	U	3.33	ug/kg	1.11	3.33	1
11097–69–1	Aroclor–1254	U	3.33	ug/kg	1.11	3.33	1
11096–82–5	Aroclor–1260		26.0	ug/kg	1.11	3.33	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/121609.b/056f5601.d
Lab Smp Id: 1201997005 Client Smp ID: PBLK01LCS
Inj Date : 16-DEC-2009 17:56
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |1201997005|1|
Misc Info : |ECD82P_1S|933402|SVAF|QC A|SOIL|LCS|||
Comment :
Method : /chem/ecd2a.i/121609.b/ECD2-F-8082-111209A.m
Meth Date : 17-Dec-2009 05:44 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012f1201.d
Als bottle: 56 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-899.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.773	1.775	-0.002	7813906	125.441	4.2	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.612	5.613	-0.001	8326526	153.877	5.1	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.275	2.278	-0.003	1256725	561.617	18.7	80.00- 120.00	100.00
2.600	2.601	-0.001	2738496	584.491	19.5	196.58- 236.58	217.91
2.690	2.692	-0.002	1066678	560.972	18.7	65.90- 105.90	84.88
2.826	2.827	-0.001	560865	574.670	19.2	23.48- 63.48	44.63
2.977	2.979	-0.002	845067	579.660	19.3	45.53- 85.53	67.24

Average of Peak Concentrations = 19.1

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
7 Aroclor-1260					CAS #: 11096-82-5		
4.019	4.019	0.000	3081922	739.940	24.7	80.00- 120.00	100.00
4.290	4.290	0.000	1954780	754.575	25.2	42.27- 82.27	63.43
4.455	4.456	-0.001	2007646	763.014	25.4	44.05- 84.05	65.14
4.668	4.669	-0.001	5020681	824.739	27.5	133.72- 173.72	162.91
4.858	4.859	-0.001	2407026	818.118	27.3	54.07- 94.07	78.10
			Average of Peak Concentrations =		26.0		

Data File: /chem/ecd2a.i/121609.b/056f5601.d
Date : 16-DEC-2009 17:56
Client ID: PBLK01LCS
Sample Info: |1201997005|1|
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecd2a.i

Operator: JAOC
Column diameter: 0.25

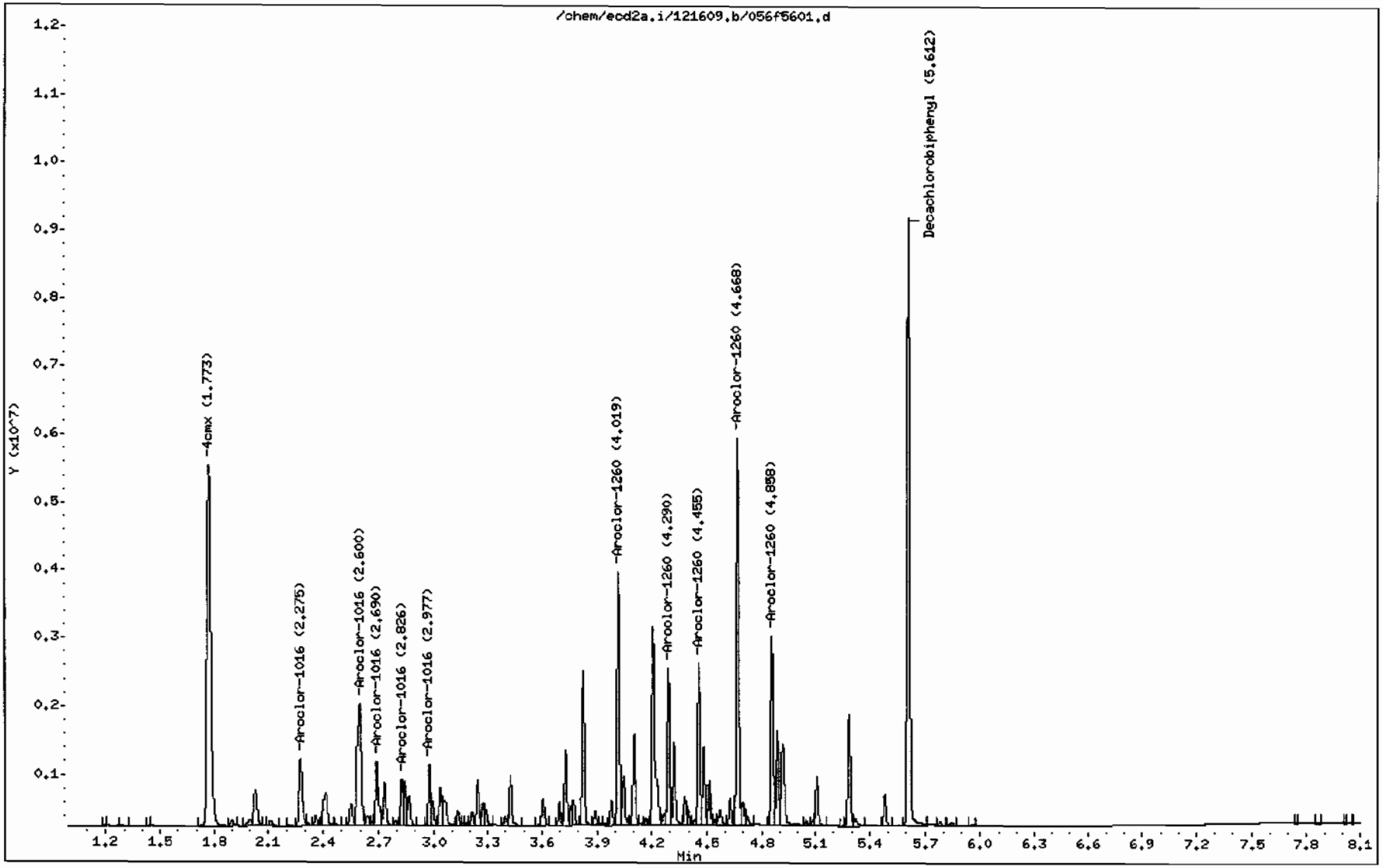

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/121609.b/056b5601.d
Lab Smp Id: 1201997005 Client Smp ID: PBLK01LCS
Inj Date : 16-DEC-2009 17:56
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |1201997005|1|
Misc Info : |ECD82P_1S|933402|SVAF|QC A|SOIL|LCS|||
Comment :
Method : /chem/ecd2a.i/121609.b/ECD2-B-8082-111209A.m
Meth Date : 17-Dec-2009 05:26 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012b1201.d
Als bottle: 56 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-899.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.070	2.072	-0.002	16785115	129.797	4.3	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.304	6.305	-0.001	17715544	157.076	5.2	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.748	2.749	-0.001	2633761	580.402	19.3	80.00- 120.00	100.00
3.183	3.183	0.000	2077467	576.727	19.2	58.95- 98.95	78.88
3.334	3.335	-0.001	1233381	600.703	20.0	25.56- 65.56	46.83
3.363	3.363	0.000	1270395	594.451	19.8	27.40- 67.40	48.24
3.522	3.522	0.000	1695638	590.708	19.7	44.70- 84.70	64.38

Average of Peak Concentrations = 19.6

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
7 Aroclor-1260					CAS #: 11096-82-5		
4.418	4.418	0.000	4141245	718.103	23.9	80.00- 120.00	100.00
4.570	4.570	0.000	5489413	770.564	25.7	107.91- 147.91	132.55
4.681	4.681	0.000	3628649	753.034	25.1	66.01- 106.01	87.62
4.878	4.879	-0.001	4402328	781.697	26.0	80.89- 120.89	106.30
5.505	5.505	0.000	7494042	829.215	27.6	148.43- 188.43	180.96
Average of Peak Concentrations =					25.7		

Data File: /chem/ecd2a.i/121609.b/056b5601.d
Date : 16-DEC-2009 17:56
Client ID: PBLK01LCS
Sample Info: |120199700511|
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd2a.i

Operator: JAOC
Column diameter: 0.25

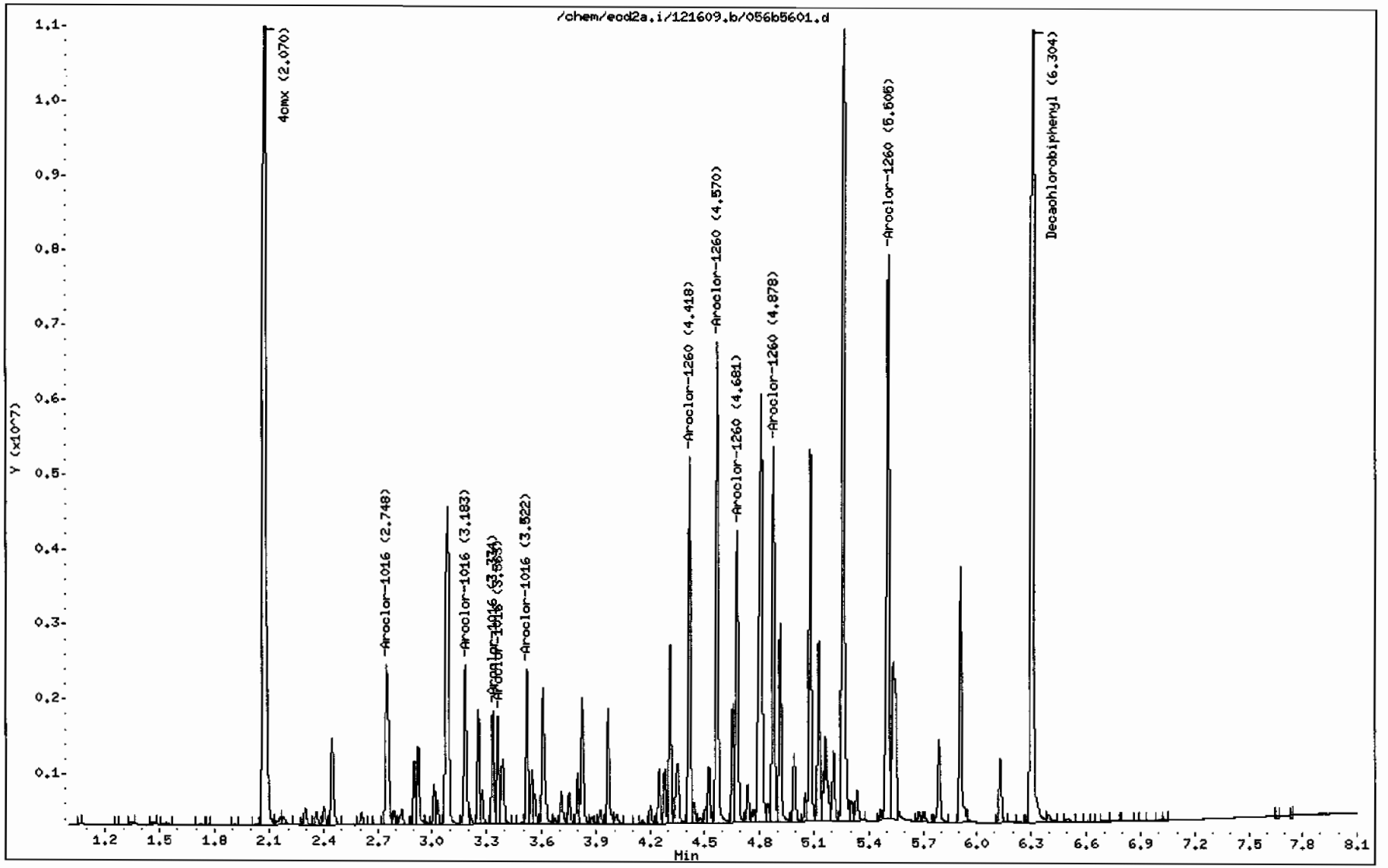

MISCELLANEOUS DATA

GEL ORGANIC RUN LOG INSTRUMENT ID: ECD2

DATE: 12/14/2009 METHOD: ECD2-F-8082-111209A.m OPERATOR:YS1 REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT:DA385
ALUMINA LOT:1230997-A
COPPER LOT:236547-A

Calibration & QC Information
Initial Calibration Dates: See Calibration History and Standards Log
Initial Calibration Std ID's: See Calibration History and Standards Log
GEL SOP GL-OA-E-040
EPA Method: 8082 Polychlorinated Biphenyls PCBs by Gas Chromatography
Sequence Number: Injection Volume: 1.0 uL

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001f0101.d	WAR091130-99 IB	YS1	14-DEC-2009 07:00		121409	1.0		CLEAN
002f0201.d	WAR091211-60 01	YS1	14-DEC-2009 07:11		121409	1.0		DUSE RE-I-CAL
003f0301.d	WAR091102-54	YS1	14-DEC-2009 07:22		121409	1.0		PASSED ON BOTH COLUMNS
004f0401.d	WAR091102-42	YS1	14-DEC-2009 07:33		121409	1.0		PASSED ON BOTH COLUMNS
005f0501.d	WAR091027-48	YS1	14-DEC-2009 07:44		121409	1.0		PASSED ON BOTH COLUMNS
006f0601.d	WAR090930-32	YS1	14-DEC-2009 07:55		121409	1.0		PATTERN ONLY
007f0701.d	WAR091111-21	YS1	14-DEC-2009 08:07		121409	1.0		PATTERN ONLY
008f0801.d	AR1660-4	YS1	14-DEC-2009 08:18		121409	1.0		DUSE SCREEN
009f0901.d	WAR091111-62	YS1	14-DEC-2009 08:29		121409	1.0		PATTERN ONLY
010f1001.d	WAR091106-68	YS1	14-DEC-2009 08:40		121409	1.0		PATTERN ONLY
011f1101.d	WAR091214-01 60	YS1	14-DEC-2009 08:51		121409	1.0		AR1660 I-CAL LEVEL 1
012f1201.d	WAR091214-02 60	YS1	14-DEC-2009 09:02		121409	1.0		AR1660 I-CAL LEVEL 2
013f1301.d	WAR091214-03 60	YS1	14-DEC-2009 09:13		121409	1.0		AR1660 I-CAL LEVEL 3
014f1401.d	WAR091214-04 60	YS1	14-DEC-2009 09:24		121409	1.0		AR1660 I-CAL LEVEL 4
015f1501.d	IAR091102-01	YS1	14-DEC-2009 09:35		121409	1.0		AR1660 I-CAL LEVEL 5

Instrument Batch: /chem/ecd2a.i/121409.b Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
016f1601.d	WAR091211-60 01	YS1	14-DEC-2009 09:46		121409	1.0		PASSED ON BOTH COLUMNS

017f1701.d	WAR091020-DDT	YS1	14-DEC-2009 09:58			121409	1.0		DDT ANALOG STANDARD
018f1801.d	WAR091130-99 02	YS1	14-DEC-2009 10:09	SOLV		121409	1.0	IB	CLEAN
019f1901.d	1201992205	YS1	14-DEC-2009 10:20	931371	241934		1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
020f2001.d	1201992206	YS1	14-DEC-2009 10:31	931371	241934		1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
021f2101.d	241934001	YS1	14-DEC-2009 10:42	931371	241934		10.0	NREA	UPLOAD BOTH COLUMNS, USE HIGHER
022f2201.d	1201992207	YS1	14-DEC-2009 10:53	931371	241934		10.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
023f2301.d	1201992208	YS1	14-DEC-2009 11:04	931371	241934		10.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
024f2401.d	241934002	YS1	14-DEC-2009 11:15	931371	241934		1.0	NREA	UPLOAD BOTH COLUMNS, USE HIGHER
025f2501.d	241934003	YS1	14-DEC-2009 11:26	931371	241934		1.0	NREA	UPLOAD BOTH COLUMNS, USE HIGHER
026f2601.d	241934004	YS1	14-DEC-2009 11:37	931371	241934		10.0	NREA	UPLOAD BOTH COLUMNS, USE HIGHER
027f2701.d	241934005	YS1	14-DEC-2009 11:48	931371	241934		1.0	NREA	UPLOAD BOTH COLUMNS, USE HIGHER
028f2801.d	241934006	YS1	14-DEC-2009 11:59	931371	241934		20.0	NREA	UPLOAD BOTH COLUMNS, USE HIGHER
029f2901.d	WAR091211-60 02	YS1	14-DEC-2009 12:11	1660		121409	1.0	CVS	PASSED ON BOTH COLUMNS
030f3001.d	WAR091130-99 03	YS1	14-DEC-2009 12:22	SOLV		121409	1.0	IB	CLEAN
031f3101.d	241934007	YS1	14-DEC-2009 12:33	931371	241934		1.0	NREA	UPLOAD BOTH COLUMNS, USE HIGHER
032f3201.d	241934008	YS1	14-DEC-2009 12:44	931371	241934		10.0	NREA	UPLOAD BOTH COLUMNS, USE HIGHER
033f3301.d	241934009	YS1	14-DEC-2009 13:00	931371	241934		1.0	NREA	DUSE RR5X AFTER MORE SULFUR CLEANED
034f3401.d	241934010	YS1	14-DEC-2009 13:11	931371	241934		10.0	NREA	UPLOAD BOTH COLUMNS, USE HIGHER
035f3501.d	241934011	YS1	14-DEC-2009 13:27	931371	241934		5.0	NREA	UPLOAD BOTH COLUMNS, USE HIGHER

Instrument Batch: /chem/ecd2a.i/121409.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
036f3601.d	241935001	YS1	14-DEC-2009 13:43	931371	241935	1.0	NREA	UPLOAD BOTH COLUMNS, USE HIGHER
037f3701.d	241935004	YS1	14-DEC-2009 13:54	931371	241935	5.0	NREA	UPLOAD BOTH COLUMNS, USE HIGHER
038f3801.d	241935005	YS1	14-DEC-2009 14:05	931371	241935	5.0	NREA	UPLOAD BOTH COLUMNS, USE HIGHER
039f3901.d	241935006	YS1	14-DEC-2009 14:21	931371	241935	50.0	NREA	UPLOAD BOTH COLUMNS, USE HIGHER
040f4001.d	241935007	YS1	14-DEC-2009 14:36	931371	241935	5.0	NREA	UPLOAD BOTH COLUMNS, USE HIGHER
041f4101.d	WAR091211-60 03	YS1	14-DEC-2009 14:52		121409	1.0		PASSED ON BOTH COLUMNS

042f4201.d	WAR091130-99 04	YS1	14-DEC-2009 15:03	SOLV	121409		1.0	IB	CLEAN
043f4301.d	241934009	YS1	14-DEC-2009 15:14	931371	241934		5.0	NREA	UPLOAD BOTH COLUMNS, USE HIGHER
044f4401.d	241935008	YS1	14-DEC-2009 15:30	931371	241935		20000.0	NREA	UPLOAD BOTH COLUMNS, USE HIGHER
045f4501.d	WAR091211-60 04	YS1	14-DEC-2009 15:45		121409		1.0		PASSED ON BOTH COLUMNS

GEL ORGANIC RUN LOG INSTRUMENT ID: ECD2

DATE: 12/17/2009 METHOD: ECD2-F-8082-111209A.m OPERATOR:JAOC REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT:DA385
ALUMINA LOT:1230997-A
COPPER LOT:236547-A

Calibration & QC Information
Initial Calibration Dates: See Calibration History and Standards Log
Initial Calibration Std ID's: See Calibration History and Standards Log
GEL SOP GL-OA-E-040
EPA Method: 8082 Polychlorinated Biphenyls PCBs by Gas Chromatography
Sequence Number:121609 Injection Volume: 1.0 uL

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001f0101.d	WAR091130-99 IB	JAOC	16-DEC-2009 07:08		121609	1.0		CLEAN
002f0201.d	WAR091211-60 01	JAOC	16-DEC-2009 07:19		121609	1.0		PASSES BOTH COLUMNS
003f0301.d	WAR091102-54	JAOC	16-DEC-2009 07:30		121609	1.0		PASSES BOTH COLUMNS
004f0401.d	WAR091102-42	JAOC	16-DEC-2009 07:41		121609	1.0		PASSES BOTH COLUMNS
005f0501.d	WAR091027-48	JAOC	16-DEC-2009 07:52		121609	1.0		PASSES BOTH COLUMNS
006f0601.d	WAR090930-32	JAOC	16-DEC-2009 08:03		121609	1.0		PATTERN ONLY
007f0701.d	WAR091111-21	JAOC	16-DEC-2009 08:14		121609	1.0		PATTERN ONLY
008f0801.d	WAR091111-62	JAOC	16-DEC-2009 08:26		121609	1.0		PATTERN ONLY
009f0901.d	WAR091106-68	JAOC	16-DEC-2009 08:37		121609	1.0		PATTERN ONLY
010f1001.d	WAR091020-DDT	JAOC	16-DEC-2009 08:48		121609	1.0		DDT
011f1101.d	WAR091130-99 02	JAOC	16-DEC-2009 08:59		121609	1.0		CLEAN
012f1201.d	1201996921	JAOC	16-DEC-2009 09:10	933371	242062	1.0	QC A	UPLOAD BOTH, USE HIGHER (has 42, 54, abd 60 hits)
013f1301.d	1201996922	JAOC	16-DEC-2009 09:21	933371	242062	1.0	QC A	UPLOAD BOTH, USE HIGHER
014f1401.d	242062012	JAOC	16-DEC-2009 09:32	933371	242062	1.0	NREA	UPLOAD BOTH, USE HIGHER
015f1501.d	242557019	JAOC	16-DEC-2009 09:43	933371	242557	5.0	NREA	DUSE, CONFIRMS

Instrument Batch: /chem/ecd2a.i/121609.b Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
016f1601.d	1201996923	JAOC	16-DEC-2009 09:54	933371	242557	5.0	QC A	DUSE, WRONG PARENT ASSOCIATION RUN NEAT

017f1701.d	1201996924	JAOC	16-DEC-2009 10:05	933371	242557	5.0	QC A	DUSE, WRONG PARENT ASSOCIATION RUN NEAT
018f1801.d	WAR091211-60 02	JAOC	16-DEC-2009 10:21		121609	1.0		PASSES BOTH COLUMNS
019f1901.d	WAR091130-99 03	JAOC	16-DEC-2009 10:32		121609	1.0		CLEAN
020f2001.d	1201995950	JAOC	16-DEC-2009 10:43	932982	242368	1.0	QC A	UPLOAD BOTH, USE HIGHER
021f2101.d	1201995951	JAOC	16-DEC-2009 10:54	932982	242368	1.0	QC A	UPLOAD BOTH, USE HIGHER
022f2201.d	242368001	JAOC	16-DEC-2009 11:05	932982	242368	1.0	GEEL	UPLOAD BOTH, USE HIGHER
023f2301.d	1201995952	JAOC	16-DEC-2009 11:16	932982	242368	1.0	QC A	UPLOAD BOTH, USE HIGHER
024f2401.d	1201995953	JAOC	16-DEC-2009 11:28	932982	242368	1.0	QC A	UPLOAD BOTH, USE HIGHER
025f2501.d	242368002	JAOC	16-DEC-2009 11:39	932982	242368	1.0	GEEL	DUSE, OVERRANGE RE-RUN AT 5X
026f2601.d	242368003	JAOC	16-DEC-2009 11:50	932982	242368	1.0	GEEL	UPLOAD BOTH, USE HIGHER
027f2701.d	242368004	JAOC	16-DEC-2009 12:01	932982	242368	1.0	GEEL	UPLOAD BOTH, USE HIGHER
028f2801.d	242368005	JAOC	16-DEC-2009 12:12	932982	242368	1.0	GEEL	UPLOAD BOTH, USE HIGHER
029f2901.d	242368006	JAOC	16-DEC-2009 12:23	932982	242368	1.0	GEEL	UPLOAD BOTH, USE HIGHER
030f3001.d	WAR091211-60 03	JAOC	16-DEC-2009 12:39		121609	1.0		PASSES BOTH COLUMNS
031f3101.d	WAR091130-99 04	JAOC	16-DEC-2009 12:50		121609	1.0		CLEAN
032f3201.d	242368002	JAOC	16-DEC-2009 13:01	932982	242368	5.0	GEEL	UPLOAD BOTH, USE HIGHER
033f3301.d	242368007	JAOC	16-DEC-2009 13:12	932982	242368	1.0	GEEL	DUSE DOESN'T CONFIRM:SENT FOR RE, UPLOADED BOTH
034f3401.d	242368008	JAOC	16-DEC-2009 13:23	932982	242368	1.0	GEEL	DUSE DOESN'T CONFIRM:SENT FOR RE, UPLOADED BOTH
035f3501.d	242368009	JAOC	16-DEC-2009 13:34	932982	242368	1.0	GEEL	DUSE DOESN'T CONFIRM:SENT FOR RE, UPLOADED BOTH

Instrument Batch: /chem/ecd2a.i/121609.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
036f3601.d	242368010	JAOC	16-DEC-2009 13:45	932982	242368	1.0	GEEL	UPLOAD BOTH, USE HIGHER
037f3701.d	242368011	JAOC	16-DEC-2009 13:56	932982	242368	1.0	GEEL	UPLOAD BOTH, USE HIGHER
038f3801.d	WAR091211-60 04	JAOC	16-DEC-2009 14:12		121609	1.0		PASSES BOTH COLUMNS
039f3901.d	WAR091130-99 05	JAOC	16-DEC-2009 14:38		121609	1.0		CLEAN
040f4001.d	1201995636	JAOC	16-DEC-2009 14:49	932863	242475	1.0	QC A	UPLOAD BOTH, USE HIGHER
041f4101.d	1201995637	JAOC	16-DEC-2009 15:05	932863	242475	1.0	QC A	UPLOAD BOTH, USE HIGHER

042f4201.d	242368013	JAOC	16-DEC-2009 15:16	932863	242368		1.0	GEEL	DUSE DOESN'T CONFIRM:SENT FOR RE, UPLOADED BOTH
043f4301.d	242475001	JAOC	16-DEC-2009 15:27	932863	242475		1.0	WSRB	UPLOAD BOTH, USE HIGHER
044f4401.d	1201995640	JAOC	16-DEC-2009 15:38	932863	242475		1.0	QC A	UPLOAD BOTH, USE HIGHER
045f4501.d	1201995641	JAOC	16-DEC-2009 15:49	932863	242475		1.0	QC A	UPLOAD BOTH, USE HIGHER
046f4601.d	1201996923	JAOC	16-DEC-2009 16:00	933371	242062		1.0	QC A	UPLOAD BOTH, USE HIGHER
047f4701.d	1201996924	JAOC	16-DEC-2009 16:11	933371	242062		1.0	QC A	UPLOAD BOTH, USE HIGHER
048f4801.d	WAR091211-60 05	JAOC	16-DEC-2009 16:27		121609		1.0		PASSES BOTH COLUMNS
049f4901.d	WAR091130-99 06	JAOC	16-DEC-2009 16:38		121609		1.0		CLEAN
050f5001.d	242632001	JAOC	16-DEC-2009 16:49	932863	09399B		5.0	WSRS	UPLOAD BOTH, USE HIGHER
051f5101.d	1201995638	JAOC	16-DEC-2009 17:00	932863	09399B		5.0	QC A	UPLOAD BOTH, USE HIGHER
052f5201.d	1201995639	JAOC	16-DEC-2009 17:11	932863	09399B		5.0	QC A	UPLOAD BOTH, USE HIGHER
053f5301.d	WAR091211-60 06	JAOC	16-DEC-2009 17:23		121609		1.0		PASSES BOTH COLUMNS
054f5401.d	WAR091130-99 07	JAOC	16-DEC-2009 17:34		121609		1.0		CLEAN
055f5501.d	1201997004	JAOC	16-DEC-2009 17:45	933402	10-899		1.0	QC A	UPLOAD BOTH, USE HIGHER

Instrument Batch: /chem/ecd2a.i/121609.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
056f5601.d	1201997005	JAOC	16-DEC-2009 17:56	933402	10-899	1.0	QC A	UPLOAD BOTH, USE HIGHER
057f5701.d	242784003	JAOC	16-DEC-2009 18:07	933402	10-899	5.0	LANL	UPLOAD BOTH, USE HIGHER
058f5801.d	242784004	JAOC	16-DEC-2009 18:18	933402	10-899	5.0	LANL	UPLOAD BOTH, USE HIGHER
059f5901.d	242794001	JAOC	16-DEC-2009 18:29	933402	10-901	1.0	LANL	UPLOAD BOTH, USE HIGHER
060f6001.d	1201997006	JAOC	16-DEC-2009 18:40	933402	10-901	1.0	QC A	UPLOAD BOTH, USE HIGHER
061f6101.d	1201997007	JAOC	16-DEC-2009 18:51	933402	10-901	1.0	QC A	UPLOAD BOTH, USE HIGHER
062f6201.d	242794002	JAOC	16-DEC-2009 19:02	933402	10-901	1.0	LANL	UPLOAD BOTH, USE HIGHER
063f6301.d	242794003	JAOC	16-DEC-2009 19:14	933402	10-901	1.0	LANL	UPLOAD BOTH, USE HIGHER
064f6401.d	242794004	JAOC	16-DEC-2009 19:25	933402	10-901	5.0	LANL	UPLOAD BOTH, USE HIGHER
065f6501.d	WAR091211-60 07	JAOC	16-DEC-2009 19:36		121609	1.0		PASSES BOTH COLUMNS

066f6601.d	WAR091130-99 08	JAOC	16-DEC-2009 19:47		121609	1.0		CLEAN
067f6701.d	1201997008	JAOC	16-DEC-2009 19:58	933405	242921	1.0	QC A	UPLOAD BOTH, USE FRONT
068f6801.d	1201997011	JAOC	16-DEC-2009 20:09	933405	242921	1.0	QC A	UPLOAD BOTH, USE FRONT
069f6901.d	1201997012	JAOC	16-DEC-2009 20:20	933405	242921	1.0	QC A	UPLOAD BOTH, USE FRONT
070f7001.d	242921001	JAOC	16-DEC-2009 20:31	933405	242921	50.0	MECP	UPLOAD BOTH, USE FRONT
071f7101.d	1201997009	JAOC	16-DEC-2009 20:42	933405	242921	50.0	QC A	UPLOAD BOTH, USE FRONT
072f7201.d	1201997010	JAOC	16-DEC-2009 20:53	933405	242921	50.0	QC A	UPLOAD BOTH, USE FRONT
073f7301.d	WAR091211-60 08	JAOC	16-DEC-2009 21:04		121609	1.0		PASSES BOTH COLUMNS
074f7401.d	WAR091130-99 09	JAOC	16-DEC-2009 21:16		121609	1.0		CLEAN

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/121609.b/060b6001.d
Lab Smp Id: 1201997006 Client Smp ID: RE03-09-13470MS
Inj Date : 16-DEC-2009 18:40
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |1201997006|1|
Misc Info : |ECD82P_1S|933402|SVAF|QC A|SOIL|MS|||
Comment :
Method : /chem/ecd2a.i/121609.b/ECD2-B-8082-111209A.m
Meth Date : 17-Dec-2009 05:26 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012b1201.d
Als bottle: 60 QC Sample: MS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-901.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.04000	Weight of sample extracted (g)
M	4.36000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.072	2.072	0.000	16089926	124.421	4.3	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.304	6.305	-0.001	16727198	148.313	5.2	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.749	2.749	0.000	2502058	551.379	19.2	80.00- 120.00	100.00
3.183	3.183	0.000	1998806	554.890	19.3	58.95- 98.95	79.89
3.335	3.335	0.000	1190365	579.752	20.2	25.56- 65.56	47.58
3.363	3.363	0.000	1213252	567.712	19.8	27.40- 67.40	48.49
3.522	3.522	0.000	1648339	574.231	20.0	44.70- 84.70	65.88
Average of Peak Concentrations =					19.7		

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
7 Aroclor-1260					CAS #: 11096-82-5		
4.417	4.418	-0.001	3993502	692.484	24.1	80.00- 120.00	100.00
4.569	4.570	-0.001	5204908	730.627	25.4	107.91- 147.91	130.33
4.681	4.681	0.000	3484175	723.052	25.2	66.01- 106.01	87.25
4.878	4.879	-0.001	4197782	745.377	25.9	80.89- 120.89	105.12
5.504	5.505	-0.001	7123397	788.203	27.4	148.43- 188.43	178.37
Average of Peak Concentrations =					25.6		

Data File: /chem/ecd2a.i/121609.b/060b6001.d
Date : 16-DEC-2009 18:40
Client ID: RE03-09-13470MS
Sample Info: |1201997006|1|
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd2a.i

Operator: JAOC
Column diameter: 0.25

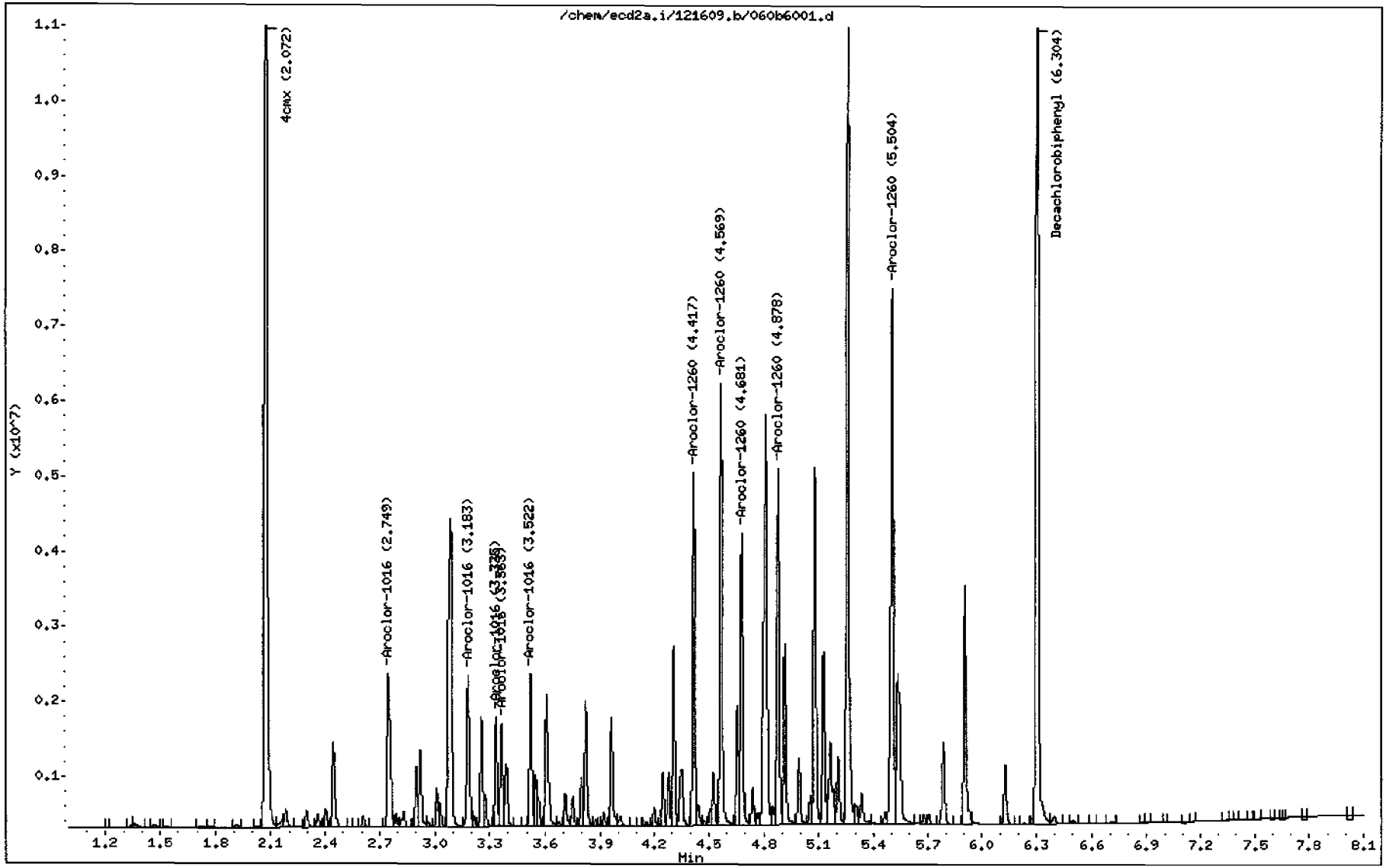

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/121609.b/060f6001.d
Lab Smp Id: 1201997006 Client Smp ID: RE03-09-13470MS
Inj Date : 16-DEC-2009 18:40
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |1201997006|1|
Misc Info : |ECD82P_1S|933402|SVAF|QC A|SOIL|MS|||
Comment :
Method : /chem/ecd2a.i/121609.b/ECD2-F-8082-111209A.m
Meth Date : 17-Dec-2009 05:44 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012f1201.d
Als bottle: 60 QC Sample: MS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-901.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.04000	Weight of sample extracted (g)
M	4.36000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.774	1.775	-0.001	7454108	119.665	4.2	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.611	5.613	-0.002	7935893	146.658	5.1	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.277	2.278	-0.001	1192416	532.878	18.5	80.00- 120.00	100.00
2.601	2.601	0.000	2601554	555.263	19.3	196.58- 236.58	218.18
2.691	2.692	-0.001	1028416	540.850	18.8	65.90- 105.90	86.25
2.827	2.827	0.000	554888	568.546	19.8	23.48- 63.48	46.53
2.978	2.979	-0.001	838680	575.279	20.0	45.53- 85.53	70.33

Average of Peak Concentrations = 19.3

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
7 Aroclor-1260					CAS #: 11096-82-5		
4.018	4.019	-0.001	2977635	714.902	24.9	80.00- 120.00	100.00
4.290	4.290	0.000	1869700	721.733	25.1	42.27- 82.27	62.79
4.455	4.456	-0.001	1929130	733.174	25.5	44.05- 84.05	64.79
4.668	4.669	-0.001	4717871	774.997	27.0	133.72- 173.72	158.44
4.857	4.859	-0.002	2283190	776.028	27.0	54.07- 94.07	76.68
			Average of Peak Concentrations =		25.9		

Data File: /chem/ecd2a.i/121609.b/060f6001.d

Date : 16-DEC-2009 18:40

Client ID: RE03-09-13470MS

Sample Info: |120199700611|

Volume Injected (uL): 1.0

Column phase: CLP1

Instrument: ecd2a.i

Operator: JAOC

Column diameter: 0.25

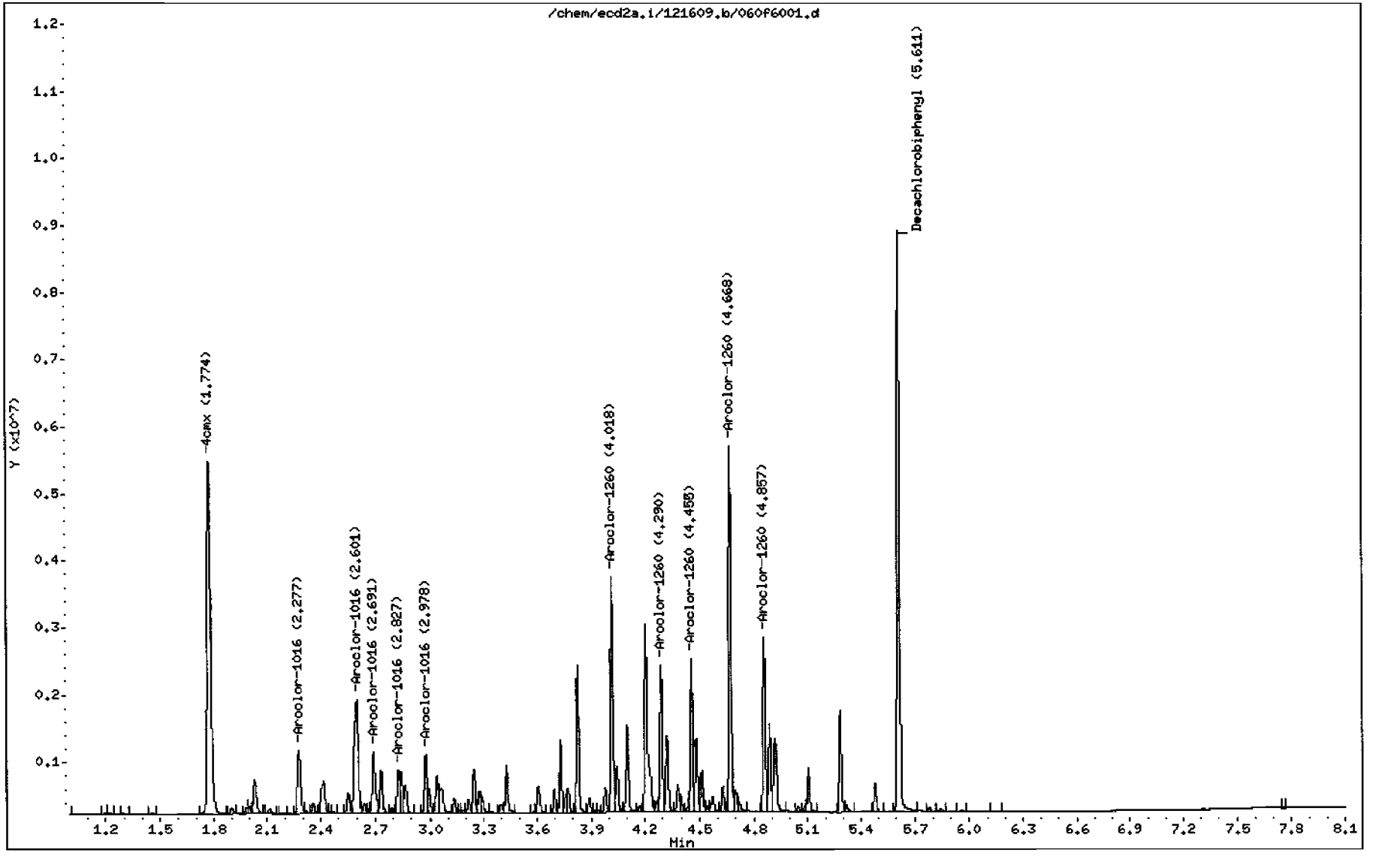

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/121609.b/061b6101.d
Lab Smp Id: 1201997007 Client Smp ID: RE03-09-13470MSD
Inj Date : 16-DEC-2009 18:51
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |1201997007|1|
Misc Info : |ECD82P_1S|933402|SVAF|QC A|SOIL|MSD|||
Comment :
Method : /chem/ecd2a.i/121609.b/ECD2-B-8082-111209A.m
Meth Date : 17-Dec-2009 05:26 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012b1201.d
Als bottle: 61 QC Sample: MSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-901.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	4.36000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.071	2.072	-0.001	17140108	132.542	4.6	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.304	6.305	-0.001	17497432	155.142	5.4	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.749	2.749	0.000	2521838	555.738	19.4	80.00- 120.00	100.00
3.183	3.183	0.000	2011331	558.367	19.5	58.95- 98.95	79.76
3.334	3.335	-0.001	1197346	583.152	20.3	25.56- 65.56	47.48
3.363	3.363	0.000	1226275	573.806	20.0	27.40- 67.40	48.63
3.522	3.522	0.000	1656461	577.060	20.1	44.70- 84.70	65.68

Average of Peak Concentrations = 19.8

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
7 Aroclor-1260					CAS #: 11096-82-5		
4.418	4.418	0.000	4071674	706.039	24.6	80.00- 120.00	100.00
4.570	4.570	0.000	5328988	748.045	26.1	107.91- 147.91	130.88
4.681	4.681	0.000	3544265	735.522	25.6	66.01- 106.01	87.05
4.878	4.879	-0.001	4278236	759.663	26.5	80.89- 120.89	105.07
5.504	5.505	-0.001	7194099	796.027	27.7	148.43- 188.43	176.69
Average of Peak Concentrations =					26.1		

Data File: /chem/ecd2a.i/121609.b/061b6101.d
Date : 16-DEC-2009 18:51
Client ID: RE03-09-13470HSD
Sample Info: |1201997007|1|
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd2a.i
Operator: JAOC
Column diameter: 0.25

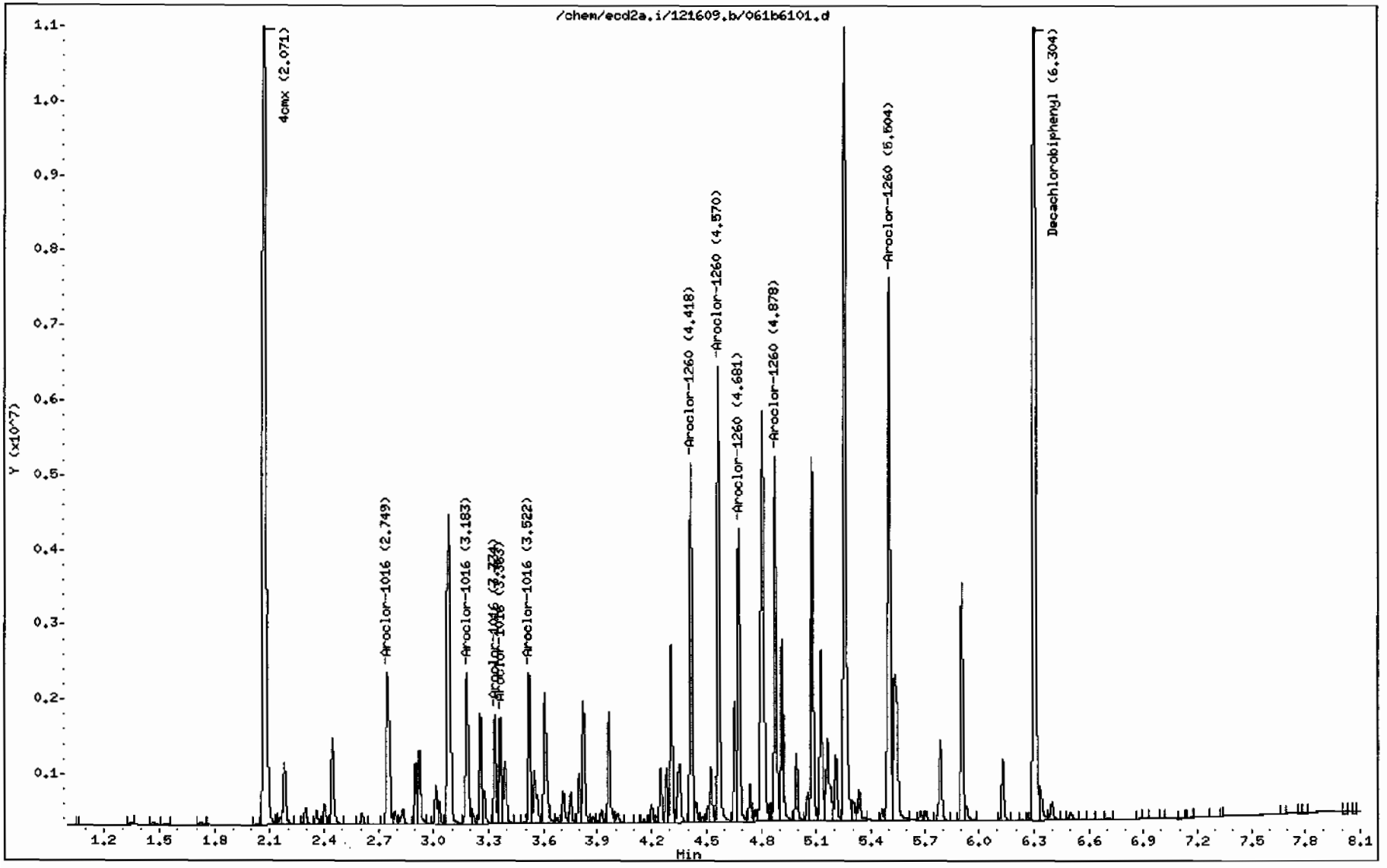

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/121609.b/061f6101.d
Lab Smp Id: 1201997007 Client Smp ID: RE03-09-13470MSD
Inj Date : 16-DEC-2009 18:51
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |1201997007|1|
Misc Info : |ECD82P_1S|933402|SVAF|QC A|SOIL|MSD|||
Comment :
Method : /chem/ecd2a.i/121609.b/ECD2-F-8082-111209A.m
Meth Date : 17-Dec-2009 05:44 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012f1201.d
Als bottle: 61 QC Sample: MSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-901.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	4.36000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.774	1.775	-0.001	7852095	126.054	4.4	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.611	5.613	-0.002	8442646	156.023	5.4	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.277	2.278	-0.001	1201626	536.994	18.7	80.00- 120.00	100.00
2.600	2.601	-0.001	2611082	557.296	19.4	196.58- 236.58	217.30
2.691	2.692	-0.001	1035643	544.651	19.0	65.90- 105.90	86.19
2.827	2.827	0.000	569905	583.932	20.4	23.48- 63.48	47.43
2.978	2.979	-0.001	824354	565.453	19.7	45.53- 85.53	68.60
Average of Peak Concentrations =					19.4		

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
7 Aroclor-1260					CAS #: 11096-82-5		
4.018	4.019	-0.001	3004778	721.419	25.1	80.00- 120.00	100.00
4.290	4.290	0.000	1894448	731.286	25.5	42.27- 82.27	63.05
4.455	4.456	-0.001	2012910	765.014	26.7	44.05- 84.05	66.99
4.668	4.669	-0.001	4746956	779.775	27.2	133.72- 173.72	157.98
4.856	4.859	-0.003	2290462	778.499	27.1	54.07- 94.07	76.23
Average of Peak Concentrations =					26.3		

Data File: /chem/ecd2a.i/121609.b/061f6101.d
Date : 16-DEC-2009 18:51
Client ID: RE03-09-13470MSD
Sample Info: 1120199700711
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecd2a.i
Operator: JADC
Column diameter: 0.25

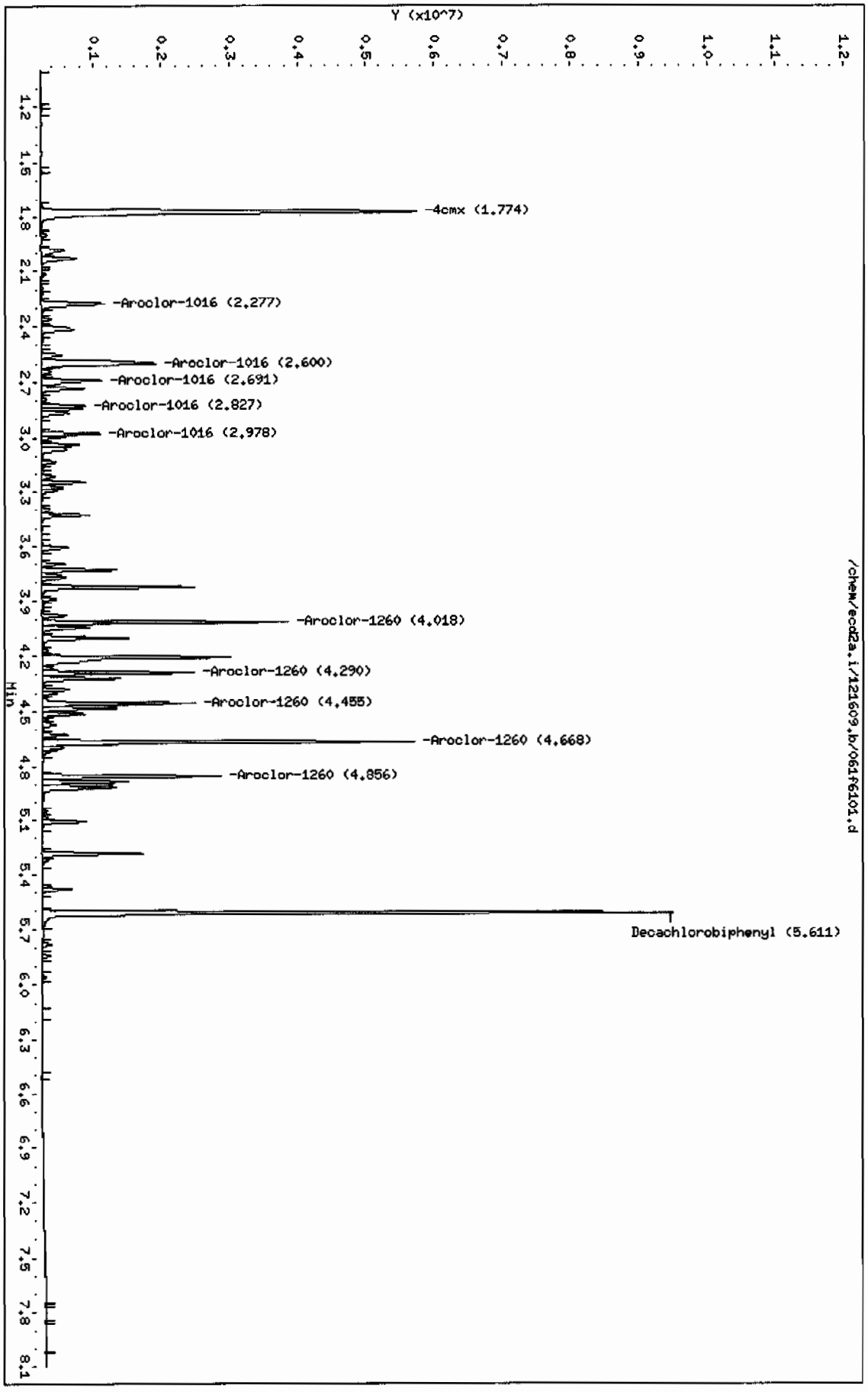

Page 1

Prep Logbook

Extraction of Semivolatile and Nonvolatile Organic Compounds from Soil, Sludge, and Other Miscellaneous Solid Samples

Batch ID: 933401 **Verified by:** _____

Analyst: Robin Hunt

Method: SW846 3550B

Lab SOP: GL-OA-E-010 REV# 18

Instrument: Semi-Volatiles Manual

Sample ID	Run Date	Aliquot (g)	Clean Up	Prior to Clean up (mL)	Amount Cleaned (mL)	After Clean up (mL)	Prepped Aliquot (mL)	Prepped Factor (mL/g)
1201997004 MB	16-DEC-2009 09:01:00	30	H2SO4/KMnl		1	8	1	0.03333
1201997005 LCS	16-DEC-2009 09:01:00	30	H2SO4/KMnl		1	8	1	0.03333
242784003	16-DEC-2009 09:01:00	30.01	H2SO4/KMnl		1	8	1	0.03332
242784004	16-DEC-2009 09:01:00	30	H2SO4/KMnl		1	8	1	0.03333
242794001	16-DEC-2009 09:01:00	30	H2SO4/KMnl		1	8	1	0.03333
1201997006 MS (242794001)	16-DEC-2009 09:01:00	30.04	H2SO4/KMnl		1	8	1	0.03329
1201997007 MSD (242794001)	16-DEC-2009 09:01:00	30	H2SO4/KMnl		1	8	1	0.03333
242794002	16-DEC-2009 09:01:00	30.01	H2SO4/KMnl		1	8	1	0.03332
242794003	16-DEC-2009 09:01:00	30.07	H2SO4/KMnl		1	8	1	0.03326
242794004	16-DEC-2009 09:01:00	30.05	H2SO4/KMnl		1	8	1	0.03328

Type	Sample Id	Description	Serial Number	Spike Amt	Units
LCS	1201997005	PCB Laboratory Control	WE091210-07	1	mL
MS	1201997006	PCB Laboratory Control	WE091210-07	1	mL
MSD	1201997007	PCB Laboratory Control	WE091210-07	1	mL
SURR	All	PEST LOW LEVEL SURROGATE 200 UG/L	UE091130-15	1	mL
REGNT	All	1:1 sulfuric acid	1133264a	5	mL
REGNT	All	Acetone	1233927	150	mL
REGNT	All	Hexane	1241300-B2	150	mL
REGNT	All	5% Potassium Permanganate	B1202457-F	5	mL
SOURC	All	SODIUM SULFATE	1242582	30	g

Comments:

Clean up Date: 12/16/2009

Clean up Initials: RWH

Verified By: JAM

Final Solvent: Hexane

Clean Up SOP: GL-OA-E-037

HERBICIDE ANALYSIS

Herbicide Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-899

Method/Analysis Information

Procedure:	**Analysis of Chlorophenoxy Acid Herbicides by ECD**
Analytical Method:	SW846 8151A
Prep Method:	SW846 8151A
Analytical Batch Number:	932999
Prep Batch Number:	932998

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 8151A:

Sample ID	Client ID
242784003	WST03-10-2145
242784004	WST03-10-2146
1201995986	Method Blank (MB)
1201995987	Laboratory Control Sample (LCS)
1201995988	242784004(WST03-10-2146) Matrix Spike (MS)
1201995989	242784004(WST03-10-2146) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on a "dry weight" basis.

Preparation/Analytical Method Verification

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-011 REV# 18.

Raw data reports are processed and reviewed by the analyst using the Target software package. False positives have been removed from the Target quantitation reports per standard operating procedures (SOP) section 21.7.

Calibration Information

Initial Calibration
All initial calibration requirements have been met for this sample delivery group (SDG).

The linear equation used in Target and indicated on the initial calibration summary form is not a conventional linear equation (slope intercept formula) and does not match the equation found in SW-846 method 8000B. The x and y axes are inversed in Target, so that the instrument response is treated as the independent variable (x) and the concentration ratio is treated as the dependent variable (y). The equation used in Target to calculate sample results is adjusted to account for the linear equation inversion and reciprocal slope. The adjusted calculation has been independently verified to produce valid results.

Continuing Calibration Verification (CCV) Requirements
All calibration verification standards (CVS, ICV, or CCV) requirements have not been met for this SDG.

Dinoseb recovered outside of the acceptance criteria with a positive bias on one analytical column in the standards bracketing the samples in this SDG. The positive bias for the analytical data is a result of instrument response increasing after the initial calibration. Dinoseb was not detected in the samples; therefore, the non-compliance has no adverse effects on the data.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Surrogate Recoveries
All surrogate recoveries were within the established acceptance criteria for this SDG.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

QC Sample Designation
Sample 242784004 (WST03-10-2146) was selected for the matrix spike and matrix spike duplicate analysis.

Matrix Spike (MS) Recovery Statement
The MS recoveries for this SDG were not within the acceptance limits for MCPP due to dilution and matrix interference. See NCR #773799 located in the Miscellaneous Data section.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recoveries for this SDG were not within the acceptance limits for MCPP due to dilution and matrix interference. See NCR #773799 located in the Miscellaneous Data section.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD(s) between the MS and MSD met the acceptance limits.

Technical Information

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

Sample Dilutions
Samples 1201995988 (WST03-10-2146MS), 1201995989 (WST03-10-2146MSD) and 242784004 (WST03-10-2146) were diluted at 1:10 due to the viscous nature of the matrix.

Sample Re-extraction/Re-analysis
The entire batch was re-analyzed due to non-compliant Continuing Calibration Verification (CCV) standards in the initial analysis. The re-analyzed samples were bracketed with acceptable CCVs; the re-analysis data were reported.

Miscellaneous Information

Electronic Package Comment

This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. An electronic signature page inserted after the case narrative of each electronic package will indicate the analyst, reviewer, and

report specialist names associated with the generation of the data and package. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Nonconformance Report (NCR) Documentation
Nonconformance Report (NCR) is for documentation of any procedural anomalies that may deviate from referenced SOP or contractual document. NCR # 773799 was generated for this SDG. A copy is included in the Miscellaneous Data section of this package.

Manual Integrations
Certain standards and QC samples may have required manual integration to correctly position the baseline as set in the calibration standard injections. If manual integration was performed, copies of all manual integration peak profiles are included in the raw data section of this Herbicide fraction.

Additional Comments
The additional comments field is used to address special issues associated with each analysis, clarify method/contractual issues pertaining to the analysis, and to list any report documents generated as a result of sample analysis or review. The following additional comments were required:

The higher results from either column have been chosen and reported in the data package for the client samples, MB and LCS. The data reported for the MS and MSD are from the same analytical column as the parent sample.

The data reported on the form I and III may differ slightly from the data reported on the form X. This is due to software limitations in rounding differences between the forms.

Due to software limitation, the Form VIIs will display the results either in the % difference or % drift depending on the type of the calibration curve. If the curve of all analytes is generated using an average response factor (RF), the Form VII will display results using the %difference calculation (RF). If the curve of one or more analytes is generated using a linear curve, the Form VII will display results using the % drift calculation (by concentration) for all analytes.

System Configuration

The Semi-Volatiles-HERB analysis was performed on the following instrument configuration:

Instrument ID	Instrument	System Configuration	Column ID	Column Description
ECD6A.I_1	HP Gas Chromatograph	HP6890 Series GC/ECD	Rtx-CLP I	30m x 0.25mm, 0.25um (Rtx-CLPesticide)
ECD6A.I_2	HP Gas Chromatograph	HP6890 Series GC/ECD	Rtx-CLP II	30m x 0.25mm, 0.20um (Rtx-CLPesticide II)

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Heather-Ann Jgr Date: 12/23/09

Roadmap for LANL 10-899 HERB

This roadmap was analyzed by reb01393 on 12-23-2009, 12:10.
This roadmap was reviewed by hea01125 on 12-23-2009, 14:01.
This roadmap was packaged by yml on 12-23-2009, 15:47.

Front Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
■	N	/chem/ecd6a.i/121809a.b/051f5101.d	242784003	sample	19-DEC-2009	16:45	all.sub	1.00000	121809a		DUSE
□	N	/chem/ecd6a.i/122209a.b/019f1901.d	242784003	sample	23-DEC-2009	04:52	10-899.sub	WST03-10-2145	1.00000	932999	USE. PASSING BOTH COLUMNS, UPLOAD HIGHER RESULT.
■	N	/chem/ecd6a.i/122109a.b/020f2001.d	242784003	sample	21-DEC-2009	23:59	all.sub	1.00000	122109a		
■	N	/chem/ecd6a.i/121809a.b/052f5201.d	242784004	sample	19-DEC-2009	17:14	all.sub	10.00000	121809a		DUSE
□	N	/chem/ecd6a.i/122209a.b/020f2001.d	242784004	sample	23-DEC-2009	05:20	10-899.sub	WST03-10-2146	10.00000	932999	USE. PASSING BOTH COLUMNS, UPLOAD HIGHER RESULT.
■	N	/chem/ecd6a.i/122109a.b/021f2101.d	242784004	sample	22-DEC-2009	00:27	all.sub	10.00000	122109a		

Back Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
■	N	/chem/ecd6a.i/121809a.b/051b5101.d	242784003	sample	19-DEC-2009	16:45	all.sub	1.00000	121809a	RtxCLPII	DUSE
■	N	/chem/ecd6a.i/122109a.b/020b2001.d	242784003	sample	21-DEC-2009	23:59	all.sub	1.00000	122109a	RtxCLPII	
□	N	/chem/ecd6a.i/122209a.b/019b1901.d	242784003	sample	23-DEC-2009	04:52	10-899.sub	WST03-10-2145	1.00000	932999	USE. PASSING BOTH COLUMNS, UPLOAD HIGHER RESULT.
■	N	/chem/ecd6a.i/121809a.b/052b5201.d	242784004	sample	19-DEC-2009	17:14	all.sub	10.00000	121809a	RtxCLPII	DUSE
■	N	/chem/ecd6a.i/122109a.b/021b2101.d	242784004	sample	22-DEC-2009	00:27	all.sub	10.00000	122109a	RtxCLPII	
□	N	/chem/ecd6a.i/122209a.b/020b2001.d	242784004	sample	23-DEC-2009	05:20	10-899.sub	WST03-10-2146	10.00000	932999	USE. PASSING BOTH COLUMNS, UPLOAD HIGHER RESULT.

Front QC Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
□	N	/chem/ecd6a.i/122209a.b/017f1701.d	1201995986	mb	23-DEC-2009	03:57	10-899.sub	HBLK01	1.00000	932999	USE. PASSING BOTH COLUMNS, UPLOAD HIGHER RESULT.
□	N	/chem/ecd6a.i/122209a.b/018f1801.d	1201995987	lcs	23-DEC-2009	04:25	10-899.sub	HBLK01LCS	1.00000	932999	USE. PASSING BOTH COLUMNS, UPLOAD HIGHER RESULT.
□	N	/chem/ecd6a.i/122209a.b/021f2101.d	1201995988	ms	23-DEC-2009	05:47	10-899.sub	WST03-10-2146MS	10.00000	932999	USE. MCPP LOW (F), PASSING (B).
□	N	/chem/ecd6a.i/122209a.b/022f2201.d	1201995989	msd	23-DEC-2009	06:15	10-899.sub	WST03-10-2146MSD	10.00000	932999	USE. MCPP LOW (F), PASSING (B).

Back QC Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
□	N	/chem/ecd6a.i/122209a.b/017b1701.d	1201995986	mb	23-DEC-2009	03:57	10-899.sub	HBLK01	1.00000	932999	USE. PASSING BOTH COLUMNS, UPLOAD HIGHER RESULT.
□	N	/chem/ecd6a.i/122209a.b/018b1801.d	1201995987	lcs	23-DEC-2009	04:25	10-899.sub	HBLK01LCS	1.00000	932999	USE. PASSING BOTH COLUMNS, UPLOAD HIGHER RESULT.
□	N	/chem/ecd6a.i/122209a.b/021b2101.d	1201995988	ms	23-DEC-2009	05:47	10-899.sub	WST03-10-2146MS	10.00000	932999	USE. MCPP LOW (F), PASSING (B).
□	N	/chem/ecd6a.i/122209a.b/022b2201.d	1201995989	msd	23-DEC-2009	06:15	10-899.sub	WST03-10-2146MSD	10.00000	932999	USE. MCPP LOW (F), PASSING (B).

SAMPLE DATA SUMMARY

Herbicide
Certificate of Analysis
Sample Summary

SDG Number:	10-899	**Date Collected:**	12/10/2009 12:00	**Matrix:**	R
Lab Sample ID:	242784003	**Date Received:**	12/12/2009 09:35	**%Moisture:**	6.7
		Client:	LANL010	**Project:**	LANL01004
Client ID:	WST03-10-2145	**Method:**	SW846 8151A	**SOP Ref:**	GL-OA-E-011
Batch ID:	932999	**Inst:**	ECD6A.I	**Dilution:**	1
Run Date:	12/23/2009 04:52	**Analyst:**	HXJ1	**Inj. Vol:**	1 uL
Prep Date:	12/15/2009 16:48	**Aliquot:**	50.01 g	**Final Volume:**	10 mL
Data File:	019f1901.d	**Column:**	1 Rtx-CLP	**Level:**	LOW
	019b1901.d		2 Rtx-CLPII		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
75-99-0	Dalapon	U	107	ug/kg	21.4	107	1
1918-00-9	Dicamba	U	5.36	ug/kg	1.78	5.36	1
93-65-2	MCPP	U	1070	ug/kg	214	1070	1
94-74-6	MCPA	U	1070	ug/kg	246	1070	1
120-36-5	Dichlorprop	U	5.36	ug/kg	1.78	5.36	1
94-75-7	2,4-D	U	5.36	ug/kg	1.78	5.36	1
93-72-1	2,4,5-TP	U	5.36	ug/kg	1.78	5.36	1
93-76-5	2,4,5-T	U	5.36	ug/kg	1.78	5.36	1
94-82-6	2,4-DB	U	5.36	ug/kg	1.78	5.36	1
88-85-7	Dinoseb	U	5.36	ug/kg	1.78	5.36	1

Herbicide
Certificate of Analysis
Sample Summary

SDG Number:	10–899	**Date Collected:**	12/10/2009 12:00	**Matrix:**	R
Lab Sample ID:	242784004	**Date Received:**	12/12/2009 09:35	**%Moisture:**	9.8
		Client:	LANL010	**Project:**	LANL01004
Client ID:	WST03–10–2146	**Method:**	SW846 8151A	**SOP Ref:**	GL–OA–E–011
Batch ID:	932999	**Inst:**	ECD6A.I	**Dilution:**	10
Run Date:	12/23/2009 05:20	**Analyst:**	HXJ1	**Inj. Vol:**	1 uL
Prep Date:	12/15/2009 16:48	**Aliquot:**	50 g	**Final Volume:**	10 mL
Data File:	020f2001.d	**Column:**	1 Rtx–CLP	**Level:**	LOW
	020b2001.d		2 Rtx–CLPII		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
75–99–0	Dalapon	U	1110	ug/kg	222	1110	1
1918–00–9	Dicamba	U	55.4	ug/kg	18.4	55.4	1
93–65–2	MCPP	U	11100	ug/kg	2220	11100	1
94–74–6	MCPA	U	11100	ug/kg	2550	11100	1
120–36–5	Dichlorprop	U	55.4	ug/kg	18.4	55.4	1
94–75–7	2,4–D	U	55.4	ug/kg	18.4	55.4	1
93–72–1	2,4,5–TP	U	55.4	ug/kg	18.4	55.4	1
93–76–5	2,4,5–T	U	55.4	ug/kg	18.4	55.4	1
94–82–6	2,4–DB	U	55.4	ug/kg	18.4	55.4	1
88–85–7	Dinoseb	U	55.4	ug/kg	18.4	55.4	1

QUALITY CONTROL SUMMARY

Herbicide

Surrogate Recovery Report

SDG Number: 10-899

Matrix Type: SOLID

CAP Column (1) : Rtx-CLP **CAP Column (2) : Rtx-CLPII**

Sample ID	Client ID	DCAA 1 %REC #		DCAA 2 %REC #	
1201995986	MB for batch 932998	55		57	
1201995987	LCS for batch 932998	84		89	
242784003	WST03-10-2145	65		66	
242784004	WST03-10-2146	70	D	70	D
1201995988	WST03-10-2146MS	86	D	85	D
1201995989	WST03-10-2146MSD	87	D	87	D

Surrogate	Acceptance Limits
DCAA = 2,4-Dichlorophenylacetic acid	(30%-126%)

* Recovery outside Acceptance Limits

\# Column to be used to flag recovery values

D Sample Diluted

Herbicide

Quality Control Summary
Spike Recovery Report

SDG Number: 10-899
Client ID: LCS for batch 932998
Lab Sample ID: 1201995987
Instrument: ECD6A.I
Analyst: HXJ1
Inj. Vol: 1 uL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 12/23/2009 04:25
Dilution: 1
Prep Batch ID: 932998
Batch ID: 932999

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
75-99-0	LCS	Dalapon	400	0.0	189	47	30-96
1918-00-9	LCS	Dicamba	40.0	0.0	30.8	77	51-105
93-65-2	LCS	MCPP	4000	0.0	3390	85	49-127
94-74-6	LCS	MCPA	4000	0.0	3220	81	47-125
120-36-5	LCS	Dichlorprop	40.0	0.0	34.9	87	56-109
94-75-7	LCS	2,4-D	40.0	0.0	33.4	84	39-125
93-72-1	LCS	2,4,5-TP	40.0	0.0	35.7	89	48-120
93-76-5	LCS	2,4,5-T	40.0	0.0	33.6	84	42-127
94-82-6	LCS	2,4-DB	40.0	0.0	35.1	88	56-128
88-85-7	LCS	Dinoseb	40.0	0.0	36.7	92	30-121

Herbicide

Quality Control Summary
Spike Recovery Report

SDG Number: 10–899
Client ID: WST03–10–2146MS
Lab Sample ID: 1201995988
Instrument: ECD6A.I
Analyst: HXJ1
Inj. Vol: 1 uL

Sample Type: Matrix Spike
Matrix: R
%Moisture: 9.8
Analysis Date: 12/23/2009 05:47
Prep Batch ID: 932998
Batch ID: 932999

Dilution: 10

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
75–99–0	MS	Dalapon	443	0.00	U	333	75	30–94
1918–00–9	MS	Dicamba	44.3	0.00	U	35.3	80	30–100
93–65–2	MS	MCPP	4430	0.00	U	0.00	0 *	30–111
94–74–6	MS	MCPA	4430	0.00	U	2870	65	30–109
120–36–5	MS	Dichlorprop	44.3	0.00	U	29.4	66	30–111
94–75–7	MS	2,4–D	44.3	0.00	U	29.0	65	30–148
93–72–1	MS	2,4,5–TP	44.3	0.00	U	28.7	65	30–118
93–76–5	MS	2,4,5–T	44.3	0.00	U	25.8	58	30–123
94–82–6	MS	2,4–DB	44.3	0.00	U	29.7	67	30–119
88–85–7	MS	Dinoseb	44.3	0.00	U	32.8	74	30–140

Herbicide

Quality Control Summary
Spike Recovery Report

SDG Number: 10-899
Client ID: WST03-10-2146MSD
Lab Sample ID: 1201995989
Instrument: ECD6A.I
Analyst: HXJ1
Inj. Vol: 1 uL

Sample Type: Matrix Spike Duplicate
Matrix: R
%Moisture: 9.8
Analysis Date: 12/23/2009 06:15
Prep Batch ID: 932998
Batch ID: 932999
Dilution: 10

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
75-99-0	MSD Dalapon	443	0.00	U	339	76	30-94	2	0-25
1918-00-9	MSD Dicamba	44.3	0.00	U	35.5	80	30-100	1	0-25
93-65-2	MSD MCPP	4430	0.00	U	0.00	0 *	30-111	0	0-25
94-74-6	MSD MCPA	4430	0.00	U	3050	69	30-109	6	0-25
120-36-5	MSD Dichlorprop	44.3	0.00	U	28.5	64	30-111	3	0-25
94-75-7	MSD 2,4-D	44.3	0.00	U	29.1	66	30-148	1	0-25
93-72-1	MSD 2,4,5-TP	44.3	0.00	U	26.7	60	30-118	7	0-25
93-76-5	MSD 2,4,5-T	44.3	0.00	U	24.6	55	30-123	5	0-25
94-82-6	MSD 2,4-DB	44.3	0.00	U	27.7	62	30-119	7	0-25
88-85-7	MSD Dinoseb	44.3	0.00	U	40.5	91	30-140	21	0-25

Method Blank Summary

SDG Number:	10-899	Client:	LANL010	Matrix:	SOIL
Client ID:	MB for batch 932998	Instrument ID:	ECD6A.I_2 ECD6A.I_1	Data File:	017b1701.d 017f1701.d
Lab Sample ID:	1201995986				
Column:	Rtx-CLPII Rtx-CLP	Prep Date:	12/15/2009 16:48	Analyzed:	12/23/09 03:57
		Level:	LOW		

This method blank applies to the following samples and quality control samples:

Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01 LCS for batch 932998	1201995987	018f1801.d 018b1801.d	12/23/09	0425
02 WST03-10-2145	242784003	019f1901.d 019b1901.d	12/23/09	0452
03 WST03-10-2146	242784004	020f2001.d 020b2001.d	12/23/09	0520
04 WST03-10-2146MS	1201995988	021f2101.d 021b2101.d	12/23/09	0547
05 WST03-10-2146MSD	1201995989	022f2201.d 022b2201.d	12/23/09	0615

SAMPLE
DATA

Herbicide
Certificate of Analysis
Sample Summary

SDG Number:	10–899	**Date Collected:**	12/10/2009 12:00	**Matrix:**	R
Lab Sample ID:	242784003	**Date Received:**	12/12/2009 09:35	**%Moisture:**	6.7
		Client:	LANL010	**Project:**	LANL01004
Client ID:	WST03–10–2145	**Method:**	SW846 8151A	**SOP Ref:**	GL–OA–E–011
Batch ID:	932999	**Inst:**	ECD6A.I	**Dilution:**	1
Run Date:	12/23/2009 04:52	**Analyst:**	HXJ1	**Inj. Vol:**	1 uL
Prep Date:	12/15/2009 16:48	**Aliquot:**	50.01 g	**Final Volume:**	10 mL
Data File:	019f1901.d	**Column:**	1 Rtx–CLP	**Level:**	LOW
	019b1901.d		2 Rtx–CLPII		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
75–99–0	Dalapon	U	107	ug/kg	21.4	107	1
1918–00–9	Dicamba	U	5.36	ug/kg	1.78	5.36	1
93–65–2	MCPP	U	1070	ug/kg	214	1070	1
94–74–6	MCPA	U	1070	ug/kg	246	1070	1
120–36–5	Dichlorprop	U	5.36	ug/kg	1.78	5.36	1
94–75–7	2,4–D	U	5.36	ug/kg	1.78	5.36	1
93–72–1	2,4,5–TP	U	5.36	ug/kg	1.78	5.36	1
93–76–5	2,4,5–T	U	5.36	ug/kg	1.78	5.36	1
94–82–6	2,4–DB	U	5.36	ug/kg	1.78	5.36	1
88–85–7	Dinoseb	U	5.36	ug/kg	1.78	5.36	1

GEL Laboratories LLC

Column: RtxCLP 0.25mm x 30 m Inj Vol: 2 ul

Data file : /chem/ecd6a.i/122209a.b/019f1901.d
Lab Smp Id: 242784003 Client Smp ID: WST03-10-2145
Inj Date : 23-DEC-2009 04:52
Operator : HXJ1 Inst ID: ecd6a.i
Smp Info : |242784003|1|
Misc Info : |ECD51H_1S|932999|SVHF|LANL|SOIL|WST03-10-2145|||
Comment :
Method : /chem/ecd6a.i/122209a.b/ECD6-F-8151A-122209.m
Meth Date : 23-Dec-2009 10:14 reb01393 Quant Type: ESTD
Cal Date : 22-DEC-2009 21:04 Cal File: 002f0201.d
Als bottle: 19
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-899.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	10.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	50.01000	Weight of sample extracted (g)
M	6.70440	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)
$ 2 2,4-Dichlorophenylacetic acid					CAS #: 19719-28-9
9.758	9.752	0.006	54165569	326.807	70.0

Data File: /chem/ecd6a.i/122209a.b/019f1901.d

Date : 23-DEC-2009 04:52

Client ID: WST03-10-2145

Sample Info: |242784003|1|

Volume Injected (uL): 1.0

Column phase: Rtx-CLP

Instrument: ecd6a.i

Operator: HXJ1

Column diameter: 0.25

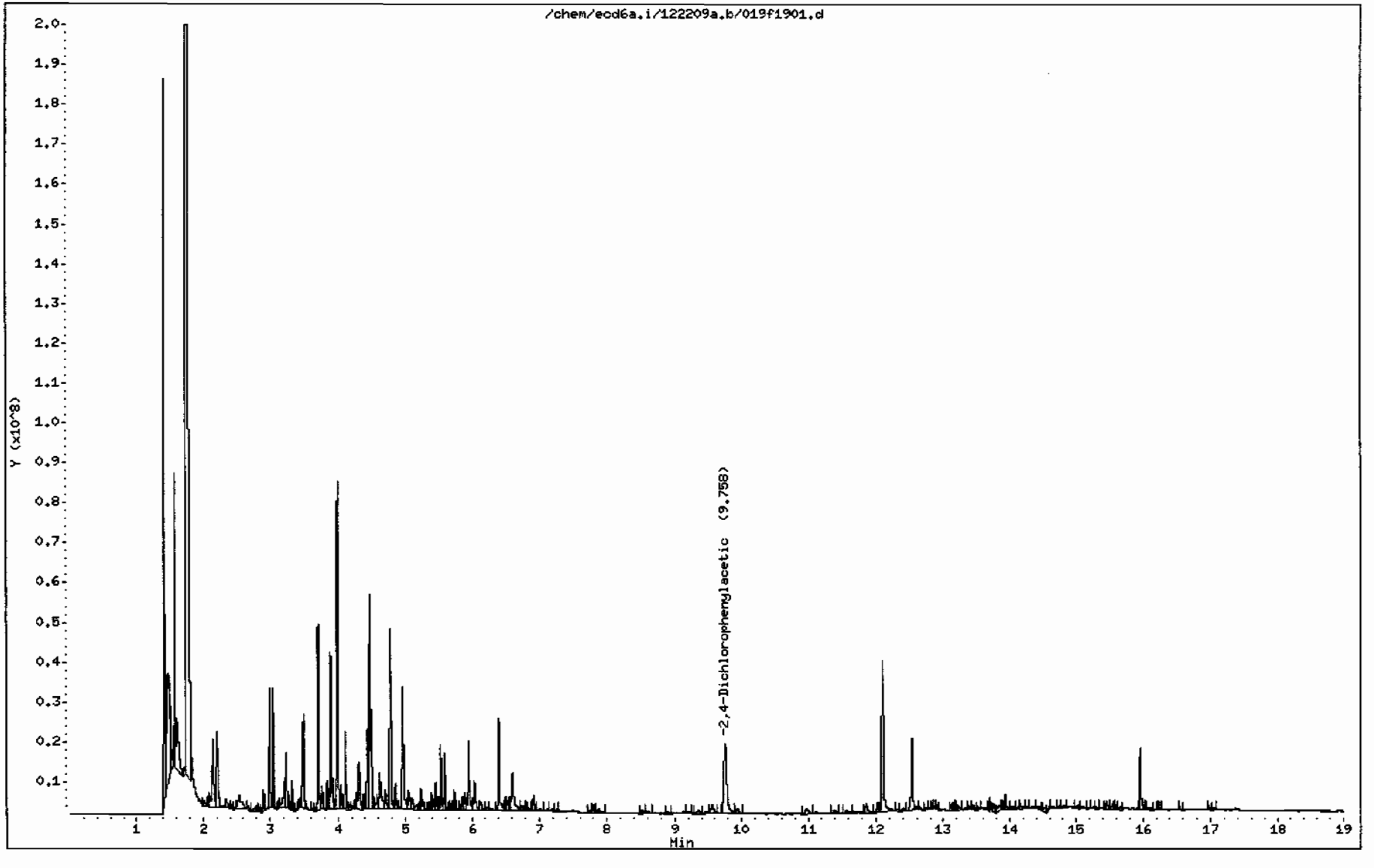

GEL Laboratories LLC

Column: RtxCLPII 0.25mm x 30 m Inj Vol: 2ul

Data file : /chem/ecd6a.i/122209a.b/019b1901.d
Lab Smp Id: 242784003 Client Smp ID: WST03-10-2145
Inj Date : 23-DEC-2009 04:52
Operator : HXJ1 Inst ID: ecd6a.i
Smp Info : |242784003|1|
Misc Info : |ECD51H_1S|932999|SVHF|LANL|SOIL|WST03-10-2145|||
Comment : RtxCLPII
Method : /chem/ecd6a.i/122209a.b/ECD6-B-8151A-122209.m
Meth Date : 23-Dec-2009 10:06 reb01393 Quant Type: ESTD
Cal Date : 22-DEC-2009 21:32 Cal File: 003b0301.d
Als bottle: 19
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-899.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	10.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	50.01000	Weight of sample extracted (g)
M	6.70440	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)
$ 2 2,4-Dichlorophenylacetic acid					CAS #: 19719-28-9
10.854	10.850	0.004	70529530	331.370	71.0

Data File: /chem/ecd6a.i/122209a.b/019b1901.d

Date : 23-DEC-2009 04:52

Client ID: WST03-10-2145

Sample Info: |2427840031|1|

Volume Injected (uL): 1.0

Column phase: Rtx-CLPII

Instrument: ecd6a.i

Operator: HXJ1

Column diameter: 0.25

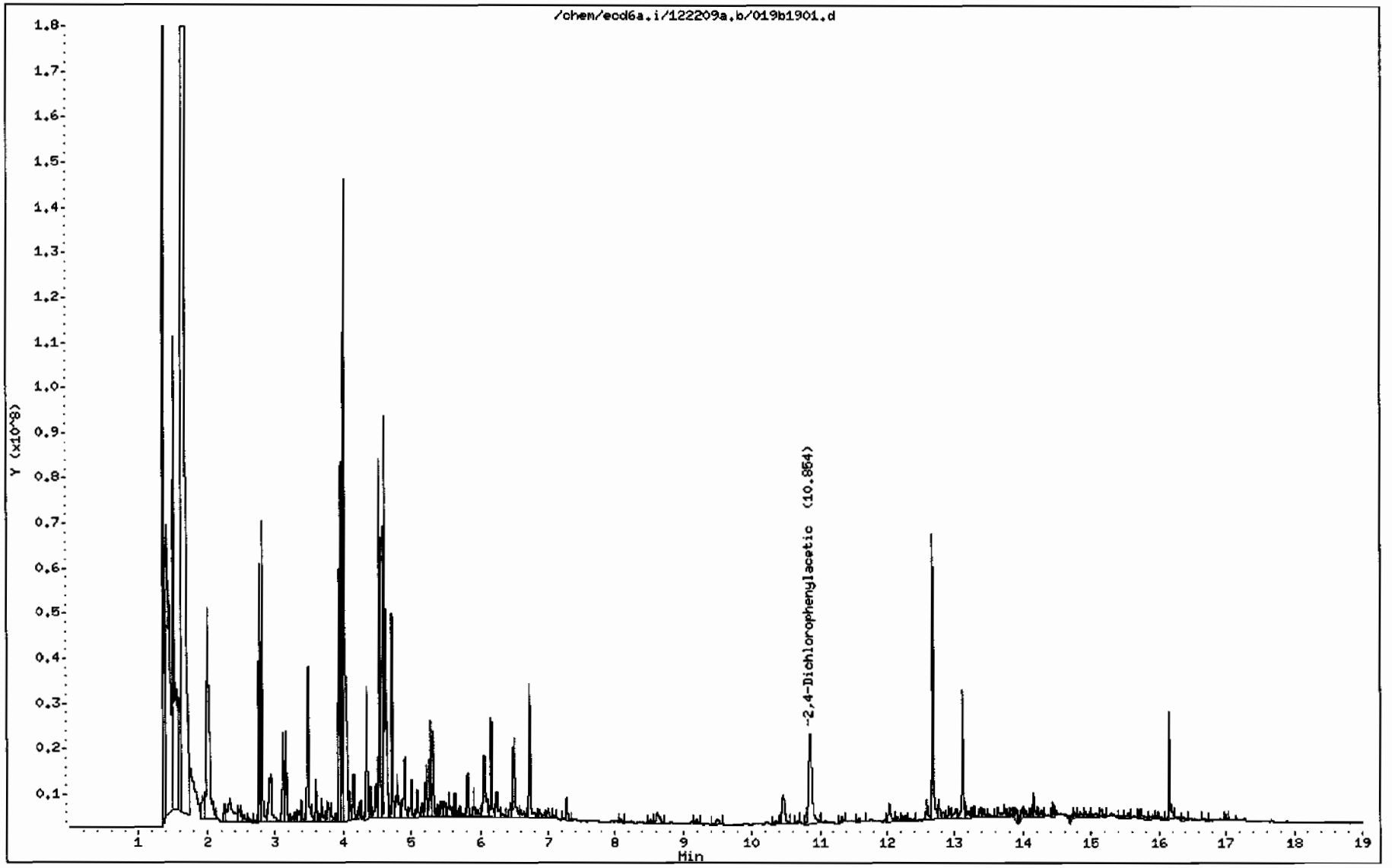

Herbicide
Certificate of Analysis
Sample Summary

SDG Number:	10–899	**Date Collected:**	12/10/2009 12:00	**Matrix:**	R
Lab Sample ID:	242784004	**Date Received:**	12/12/2009 09:35	**%Moisture:**	9.8
		Client:	LANL010	**Project:**	LANL01004
Client ID:	WST03–10–2146	**Method:**	SW846 8151A	**SOP Ref:**	GL–OA–E–011
Batch ID:	932999	**Inst:**	ECD6A.I	**Dilution:**	10
Run Date:	12/23/2009 05:20	**Analyst:**	HXJ1	**Inj. Vol:**	1 uL
Prep Date:	12/15/2009 16:48	**Aliquot:**	50 g	**Final Volume:**	10 mL
Data File:	020f2001.d	**Column:**	1 Rtx–CLP	**Level:**	LOW
	020b2001.d		2 Rtx–CLPII		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
75–99–0	Dalapon	U	1110	ug/kg	222	1110	1
1918–00–9	Dicamba	U	55.4	ug/kg	18.4	55.4	1
93–65–2	MCPP	U	11100	ug/kg	2220	11100	1
94–74–6	MCPA	U	11100	ug/kg	2550	11100	1
120–36–5	Dichlorprop	U	55.4	ug/kg	18.4	55.4	1
94–75–7	2,4–D	U	55.4	ug/kg	18.4	55.4	1
93–72–1	2,4,5–TP	U	55.4	ug/kg	18.4	55.4	1
93–76–5	2,4,5–T	U	55.4	ug/kg	18.4	55.4	1
94–82–6	2,4–DB	U	55.4	ug/kg	18.4	55.4	1
88–85–7	Dinoseb	U	55.4	ug/kg	18.4	55.4	1

GEL Laboratories LLC

Column: RtxCLP 0.25mm x 30 m Inj Vol: 2 ul

Data file : /chem/ecd6a.i/122209a.b/020f2001.d
Lab Smp Id: 242784004 Client Smp ID: WST03-10-2146
Inj Date : 23-DEC-2009 05:20
Operator : HXJ1 Inst ID: ecd6a.i
Smp Info : |242784004|10|
Misc Info : |ECD51H_1S|932999|SVHF|LANL|SOIL|WST03-10-2146|||
Comment :
Method : /chem/ecd6a.i/122209a.b/ECD6-F-8151A-122209.m
Meth Date : 23-Dec-2009 10:14 reb01393 Quant Type: ESTD
Cal Date : 22-DEC-2009 21:04 Cal File: 002f0201.d
Als bottle: 20
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: 10-899.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	10.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	10.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	50.00000	Weight of sample extracted (g)
M	9.79830	% Moisture

Cpnd Variable Local Compound Variable

	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)
$ 2 2,4-Dichlorophenylacetic acid CAS #: 19719-28-9						
	9.766	9.752	0.014	5764033	34.7772	77.1

Data File: /chem/ecd6a.i/122209a.b/020f2001.d

Date : 23-DEC-2009 05:20

Client ID: WST03-10-2146

Sample Info: |2427840041101

Volume Injected (uL): 1.0

Column phase: Rtx-CLP

Instrument: ecd6a.i

Operator: HXJ1

Column diameter: 0.25

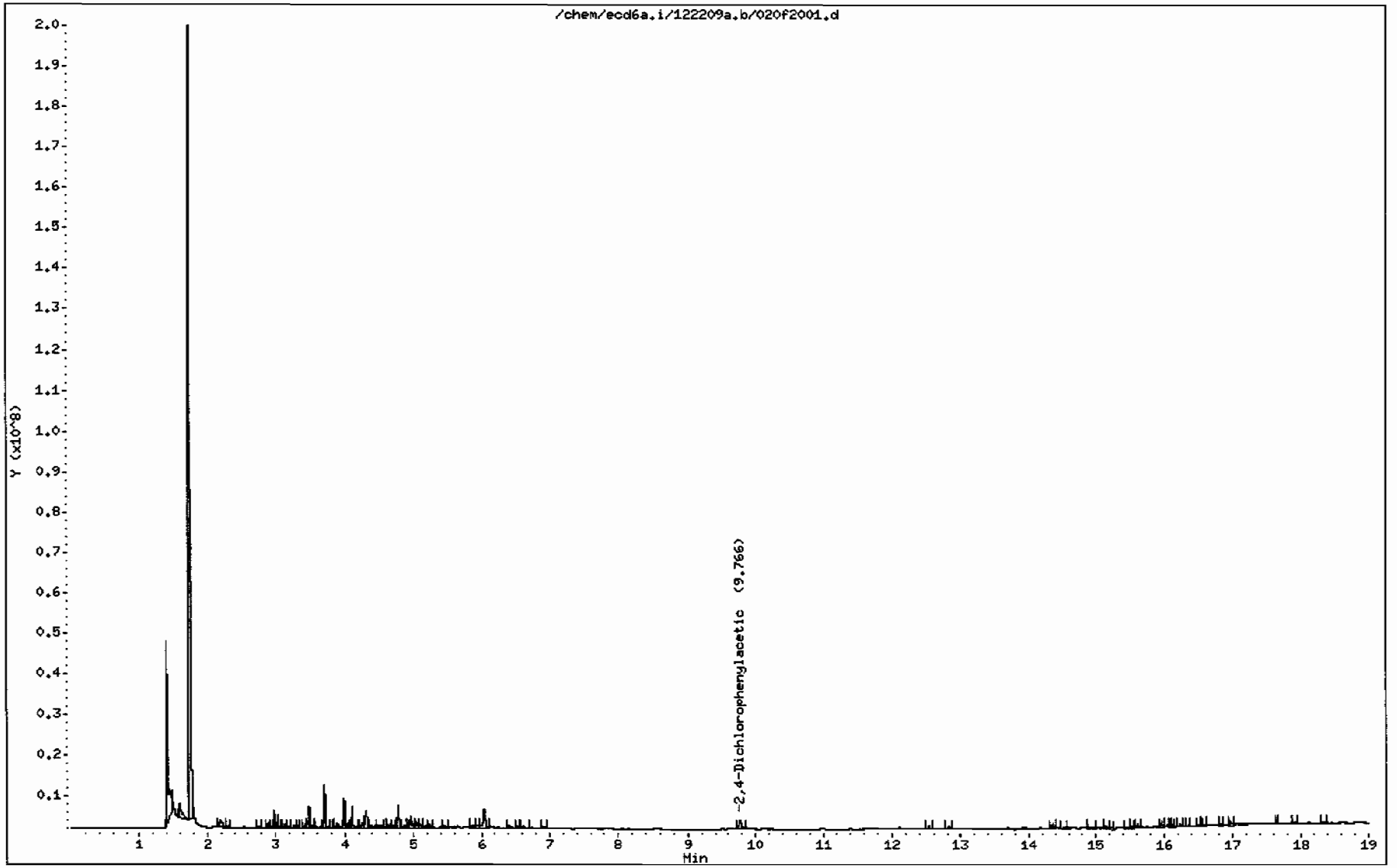

GEL Laboratories LLC

Column: RtxCLPII 0.25mm x 30 m Inj Vol: 2ul

Data file : /chem/ecd6a.i/122209a.b/020b2001.d
Lab Smp Id: 242784004 Client Smp ID: WST03-10-2146
Inj Date : 23-DEC-2009 05:20
Operator : HXJ1 Inst ID: ecd6a.i
Smp Info : |242784004|10|
Misc Info : |ECD51H_1S|932999|SVHF|LANL|SOIL|WST03-10-2146|||
Comment : RtxCLPII
Method : /chem/ecd6a.i/122209a.b/ECD6-B-8151A-122209.m
Meth Date : 23-Dec-2009 10:06 reb01393 Quant Type: ESTD
Cal Date : 22-DEC-2009 21:32 Cal File: 003b0301.d
Als bottle: 20
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: 10-899.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	10.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	10.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	50.00000	Weight of sample extracted (g)
M	9.79830	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)
$ 2 2,4-Dichlorophenylacetic acid					CAS #: 19719-28-9
10.863	10.850	0.013	7499240	35.2338	78.1

Data File: /chem/ecd6a.i/122209a.b/020b2001.d
Date : 23-DEC-2009 05:20
Client ID: WST03-10-2146
Sample Info: |242784004|10|
Volume Injected (uL): 1.0
Column phase: Rtx-CLPII

Instrument: ecd6a.i

Operator: HXJ1
Column diameter: 0.25

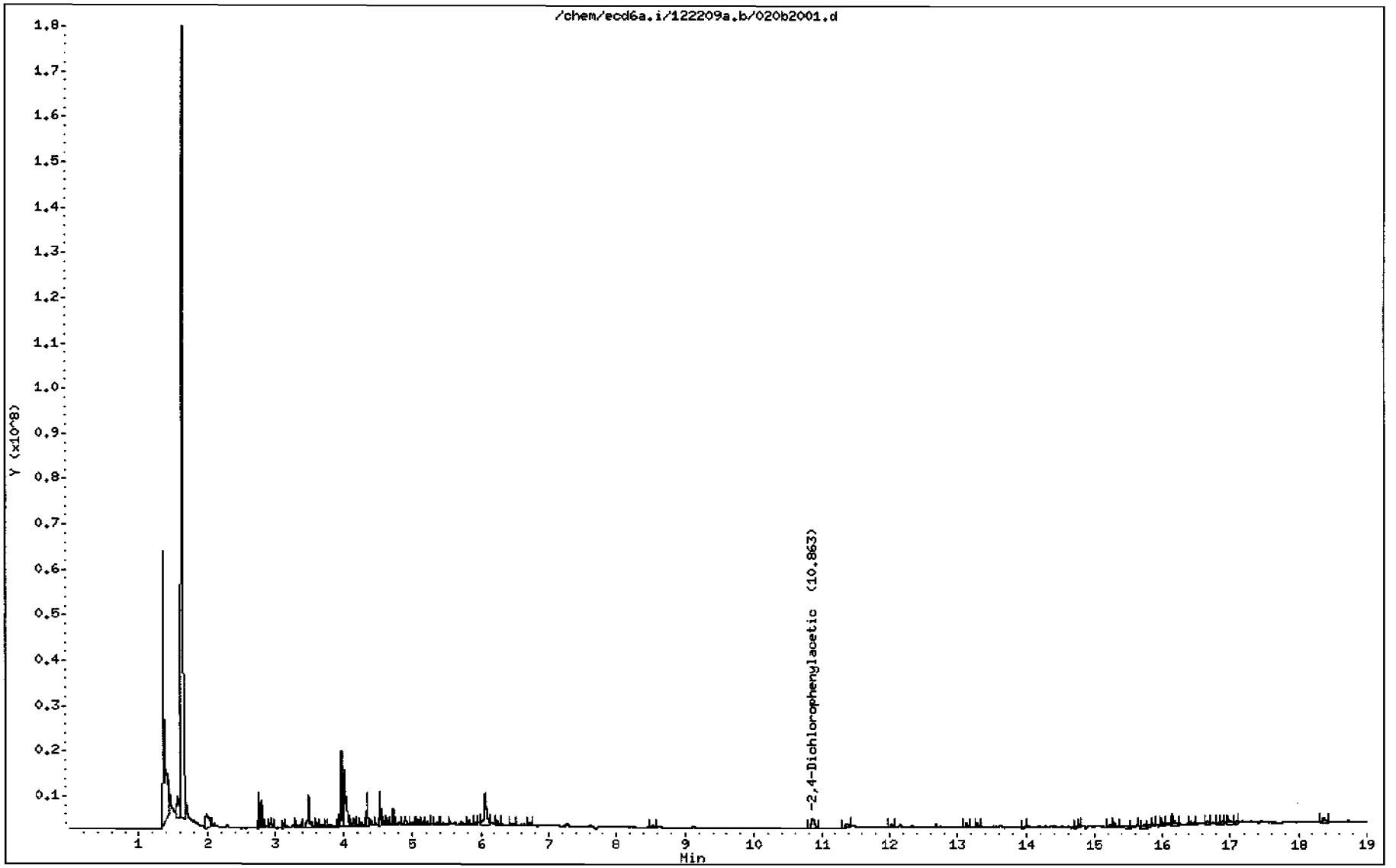

STANDARDS DATA

Report Date: 23-Dec-2009 10:11

Calibration History

Method : /chem/ecd6a.i/122209a.b/ECD6-F-8151A-122209.m
Start Cal Date: 11-NOV-2009 16:39
End Cal Date : 22-DEC-2009 23:50

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 25.00000		
22-DEC-2009 21:04	all	/chem/ecd6a.i/122209a.b/002f0201.d
Cal Level: 2 , Cal Amount: 50.00000		
22-DEC-2009 21:32	all	/chem/ecd6a.i/122209a.b/003f0301.d
Cal Level: 3 , Cal Amount: 100.00000		
22-DEC-2009 22:00	all	/chem/ecd6a.i/122209a.b/004f0401.d
Cal Level: 4 , Cal Amount: 150.00000		
22-DEC-2009 22:28	all	/chem/ecd6a.i/122209a.b/005f0501.d
Cal Level: 5 , Cal Amount: 200.00000		
22-DEC-2009 22:55	all	/chem/ecd6a.i/122209a.b/006f0601.d
Cal Level: 6 , Cal Amount: 300.00000		
22-DEC-2009 23:23	all	/chem/ecd6a.i/122209a.b/007f0701.d
Cal Level: 7 , Cal Amount: 400.00000		
22-DEC-2009 23:50	all	/chem/ecd6a.i/122209a.b/008f0801.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 5

Ccal Level: 5 , Ccal Amount: 200		
23-DEC-2009 03:03	all	/chem/ecd6a.i/122209a.b/015f1501.d
Ccal Level: 5 , Ccal Amount: 200		
23-DEC-2009 00:18	all	/chem/ecd6a.i/122209a.b/009f0901.d

Ccal Level: 5 , Ccal Amount: 200		
22-DEC-2009 22:55	all	/chem/ecd6a.i/122209a.b/006f0601.d

Report Date: 23-Dec-2009 10:06

Calibration History

Method : /chem/ecd6a.i/122209a.b/ECD6-B-8151A-122209.m
Start Cal Date: 11-NOV-2009 16:39
End Cal Date : 22-DEC-2009 23:50

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 25.00000		
22-DEC-2009 21:04	all	/chem/ecd6a.i/122209a.b/002b0201.d
Cal Level: 2 , Cal Amount: 50.00000		
22-DEC-2009 21:32	all	/chem/ecd6a.i/122209a.b/003b0301.d
Cal Level: 3 , Cal Amount: 100.00000		
22-DEC-2009 22:00	all	/chem/ecd6a.i/122209a.b/004b0401.d
Cal Level: 4 , Cal Amount: 150.00000		
22-DEC-2009 22:28	all	/chem/ecd6a.i/122209a.b/005b0501.d
Cal Level: 5 , Cal Amount: 200.00000		
22-DEC-2009 22:55	all	/chem/ecd6a.i/122209a.b/006b0601.d
Cal Level: 6 , Cal Amount: 300.00000		
22-DEC-2009 23:23	all	/chem/ecd6a.i/122209a.b/007b0701.d
Cal Level: 7 , Cal Amount: 400.00000		
22-DEC-2009 23:50	all	/chem/ecd6a.i/122209a.b/008b0801.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 5

Ccal Level: 5 , Ccal Amount: 200		
23-DEC-2009 03:03	all	/chem/ecd6a.i/122209a.b/015b1501.d
Ccal Level: 5 , Ccal Amount: 200		
23-DEC-2009 00:18	all	/chem/ecd6a.i/122209a.b/009b0901.d
Ccal Level: 5 , Ccal Amount: 200		
22-DEC-2009 22:55	all	/chem/ecd6a.i/122209a.b/006b0601.d

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd6a.i/122209a.b/ECD6-F-8151A-122209.m
Quant Method : ESTD Target Version : 3.50
Last Update : 23-Dec-2009 09:36 Number of Cpnds : 12
Data Type : GC DATA

Global Integrator : Falcon

Chromat Events	Values
Initial:Start Threshold	72858.000000
Initial:End Threshold	36429.000000
Initial:Area Threshold	728580.000000
Initial:P-P Resolution	1.000000
Initial:Bunch Factor	20.000000
Initial:Negative Peaks	OFF
Initial:Tension	1.000000

	Compound	RT	RT Window	RF
	1 Dalapon	3.657	3.627-3.687	1.306e+05
$	2 2,4-Dichlorophenylacetic a	9.752	9.692-9.812	1.657e+05
	3 Dicamba	10.214	10.154-10.274	5.603e+05
	4 MCPP	10.966	10.906-11.026	5.661e+02
	5 MCPA	11.400	11.340-11.460	9.940e+02
	6 Dichlorprop	12.054	11.994-12.114	1.434e+05
	7 2,4-D	12.368	12.308-12.428	1.610e+05
	43 Pentachlorophenol	12.521	12.501-12.541	1.642e+06
	8 2,4,5-TP	13.184	13.154-13.214	6.279e+05
	9 2,4,5-T	13.400	13.360-13.440	5.607e+05
	10 2,4-DB	13.767	13.727-13.807	8.642e+04
	11 Dinoseb	14.357	14.327-14.387	2.838e+05

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd6a.i/122209a.b/ECD6-B-8151A-122209.m
Quant Method : ESTD Target Version : 3.50
Last Update : 23-Dec-2009 09:35 Number of Cpnds : 12
Data Type : GC DATA

Global Integrator : Falcon

Chromat Events	Values
Initial:Start Threshold	105244.000000
Initial:End Threshold	52622.000000
Initial:Area Threshold	1052440.000000
Initial:P-P Resolution	1.000000
Initial:Bunch Factor	25.000000
Initial:Negative Peaks	OFF
Initial:Tension	2.000000

	Compound	RT	RT Window	RF
	1 Dalapon	3.610	3.580-3.640	2.103e+05
$	2 2,4-Dichlorophenylacetic a	10.850	10.790-10.910	2.128e+05
	3 MCPP	11.702	11.642-11.762	1.452e+03
	4 Dicamba	11.332	11.272-11.392	9.210e+05
	5 MCPA	12.091	12.031-12.151	1.880e+03
	6 Dichlorprop	12.525	12.465-12.585	2.000e+05
	7 2,4-D	12.850	12.790-12.910	2.370e+05
	43 Pentachlorophenol	13.129	13.109-13.149	2.460e+06
	8 2,4,5-TP	13.511	13.481-13.541	9.106e+05
	9 2,4,5-T	13.764	13.734-13.794	8.061e+05
	10 Dinoseb	14.235	14.205-14.265	4.336e+05
	11 2,4-DB	14.066	14.026-14.106	1.132e+05

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 11-NOV-2009 16:39
End Cal Date : 22-DEC-2009 23:50
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd6a.i/122209a.b/ECD6-F-8151A-122209.m
Cal Date : 23-Dec-2009 09:36 reb01393
Curve Type : Average

Calibration File Names:
Level 1: /chem/ecd6a.i/122209a.b/002f0201.d
Level 2: /chem/ecd6a.i/122209a.b/003f0301.d
Level 3: /chem/ecd6a.i/122209a.b/004f0401.d
Level 4: /chem/ecd6a.i/122209a.b/005f0501.d
Level 5: /chem/ecd6a.i/122209a.b/006f0601.d
Level 6: /chem/ecd6a.i/122209a.b/007f0701.d
Level 7: /chem/ecd6a.i/122209a.b/008f0801.d

Compound	25.000 Level 1 400.000 Level 7	50.000 Level 2	100.000 Level 3	150.000 Level 4	200.000 Level 5	300.000 Level 6	___ RRF	% RSD
1 Dalapon	+++++ 140017	121317	116481	144291	125721	135556	130564	8.460
3 Dicamba	570050 528292	589449	561875	570422	559218	542814	560303	3.555
4 MCPP	+++++ 593	487	547	583	592	594	566	7.535
5 MCPA	+++++ 951	1048	1006	1018	991	949	994	3.912
6 Dichlorprop	155167 130787	155607	143915	143871	140595	133897	143406	6.647
7 2,4-D	162866 156150	165932	156564	168576	159529	157109	160961	3.061
43 Pentachlorophenol	1756956 1525818	1763062	1646843	1644378	1610876	1544126	1641723	5.668

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 11-NOV-2009 16:39
End Cal Date : 22-DEC-2009 23:50
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd6a.i/122209a.b/ECD6-F-8151A-122209.m
Cal Date : 23-Dec-2009 09:36 reb01393
Curve Type : Average

Compound	25.000 Level 1	50.000 Level 2	100.000 Level 3	150.000 Level 4	200.000 Level 5	300.000 Level 6	400.000 Level 7	RRF	% RSD
8 2,4,5-TP	655613	668640	632818	634176	622427	595854	585479	627858	4.755
9 2,4,5-T	531523	559879	540391	594765	575299	562799	559943	560657	3.743
10 2,4-DB	86844	86574	83993	86129	89335	86631	85447	86422	1.870
11 Dinoseb	268978	288202	285508	281610	291587	285947	284620	283779	2.544
$ 2 2,4-Dichlorophenylacetic acid	206280	185392	165071	160895	154719	145960	141872	165742	13.794

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 11-NOV-2009 16:39
End Cal Date : 22-DEC-2009 23:50
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd6a.i/122209a.b/ECD6-B-8151A-122209.m
Cal Date : 23-Dec-2009 09:35 reb01393
Curve Type : Average

Calibration File Names:
Level 1: /chem/ecd6a.i/122209a.b/002b0201.d
Level 2: /chem/ecd6a.i/122209a.b/003b0301.d
Level 3: /chem/ecd6a.i/122209a.b/004b0401.d
Level 4: /chem/ecd6a.i/122209a.b/005b0501.d
Level 5: /chem/ecd6a.i/122209a.b/006b0601.d
Level 6: /chem/ecd6a.i/122209a.b/007b0701.d
Level 7: /chem/ecd6a.i/122209a.b/008b0801.d

Compound	25.000 Level 1 / 400.000 Level 7	50.000 Level 2	100.000 Level 3	150.000 Level 4	200.000 Level 5	300.000 Level 6	RRF	% RSD
1 Dalapon	+++++ / 237511	181439	178047	235464	204847	224561	210312	12.544
3 MCPP	+++++ / 1249	1637	1522	1532	1434	1334	1452	9.786
4 Dicamba	1292828 / 786640	1017320	879390	842860	827888	800356	921040	19.656
5 MCPA	+++++ / 1596	2262	2004	1915	1812	1688	1880	12.699
6 Dichlorprop	208882 / 191771	208465	201263	199416	197273	193107	200025	3.386
7 2,4-D	224921 / 240088	237399	227335	247705	239117	242169	236962	3.423
43 Pentachlorophenol	2383681 / 2509790	2465611	2420076	2455190	2500556	2486818	2460246	1.842

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 11-NOV-2009 16:39
End Cal Date : 22-DEC-2009 23:50
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd6a.i/122209a.b/ECD6-B-8151A-122209.m
Cal Date : 23-Dec-2009 09:35 reb01393
Curve Type : Average

Compound	25.000 Level 1	50.000 Level 2	100.000 Level 3	150.000 Level 4	200.000 Level 5	300.000 Level 6	RRF	% RSD
	400.000 Level 7							
8 2,4,5-TP	889385	912824	895952	933340	920741	911995		
	910024						910609	1.611
9 2,4,5-T	753819	797873	764748	852669	816038	827158		
	830647						806136	4.480
10 Dinoseb	377896	421208	420711	437505	456903	461778		
	458987						433570	6.932
11 2,4-DB	114174	111584	109979	114374	114870	114125		
	113070						113168	1.571
$ 2 2,4-Dichlorophenylacetic acid	213927	217697	209584	215535	213388	211083		
	208680						212842	1.526

FORM 7
HERBICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-899

Instrument ID: ECD6A Calibration Date: 12/23/09 Time: 0018

Lab File ID: 009F0901 Init. Calib. Date(s): 12/22/09 12/22/09

Heated Purge: (Y/N) N Init. Calib. Times: 2104 2350

GC Column: RTX-CLP ID: 0.25 (mm)

COMPOUND	RRF	RRF200	MIN RRF	%D	MAX %D
Dalapon	130564.01	134283.72	0.005	2.8	15.0
MCPA	993.989	982.510	0.005	-1.2	15.0
2,4-D	160960.83	159218.19	0.005	-1.1	15.0
2,4,5-T	560657.03	554033.60	0.005	-1.2	15.0
Dinoseb	283778.75	251415.62	0.005	-11.4	15.0
MCPP	566.122	573.333	0.01	1.3	15.0
Dichlorprop	143405.58	134941.85	0.01	-5.9	15.0
2,4,5-TP	627858.11	598490.01	0.01	-4.7	15.0
Dicamba	560302.93	535385.01	0.01	-4.4	15.0
2,4-DB	86421.931	80370.797	0.01	-7.0	15.0
Pentachlorophenol	1641722.9	1547056.5	0.01	-5.8	15.0
2,4-Dichlorophenylacetic aci	165741.52	156477.80	0.01	-5.6	15.0

FORM VII HERBICIDE

FORM 7
HERBICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-899

Instrument ID: ECD6A Calibration Date: 12/23/09 Time: 0018

Lab File ID: 009B0901 Init. Calib. Date(s): 12/22/09 12/22/09

Heated Purge: (Y/N) N Init. Calib. Times: 2104 2350

GC Column: RTX-CLPII ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF200	MIN RRF	%D	MAX %D
Dalapon	210311.69	218623.59	0.005	4.0	15.0
MCPA	1879.521	1787.540	0.005	-4.9	15.0
2,4-D	236962.17	237439.87	0.005	0.2	15.0
2,4,5-T	806136.02	804902.94	0.005	-0.2	15.0
Dinoseb	433569.71	384591.40	0.005	-11.3	15.0
MCPP	1451.538	1414.797	0.01	-2.5	15.0
Dichlorprop	200025.07	187393.39	0.01	-6.3	15.0
2,4,5-TP	910608.61	882762.37	0.01	-3.0	15.0
Dicamba	921040.14	790570.94	0.01	-14.2	15.0
2,4-DB	113167.93	109173.87	0.01	-3.5	15.0
Pentachlorophenol	2460246.1	2363321.5	0.01	-3.9	15.0
2,4-Dichlorophenylacetic aci	212842.06	221395.81	0.01	4.0	15.0

FORM VII HERBICIDE

FORM 7
HERBICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-899

Instrument ID: ECD6A Calibration Date: 12/23/09 Time: 0303

Lab File ID: 015F1501 Init. Calib. Date(s): 12/22/09 12/22/09

Heated Purge: (Y/N) N Init. Calib. Times: 2104 2350

GC Column: RTX-CLP ID: 0.25 (mm)

COMPOUND	RRF	RRF200	MIN RRF	%D	MAX %D
Dalapon	130564.01	129189.47	0.005	-1.0	15.0
MCPA	993.989	980.081	0.005	-1.4	15.0
2,4-D	160960.83	165977.89	0.005	3.1	15.0
2,4,5-T	560657.03	589286.69	0.005	5.1	15.0
Dinoseb	283778.75	324505.38	0.005	14.4	15.0
MCPP	566.122	596.375	0.01	5.3	15.0
Dichlorprop	143405.58	144222.92	0.01	0.6	15.0
2,4,5-TP	627858.11	651065.23	0.01	3.7	15.0
Dicamba	560302.93	582242.20	0.01	3.9	15.0
2,4-DB	86421.931	92381.305	0.01	6.9	15.0
Pentachlorophenol	1641722.9	1583553.7	0.01	-3.5	15.0
2,4-Dichlorophenylacetic aci	165741.52	154741.77	0.01	-6.6	15.0

FORM VII HERBICIDE

FORM 7
HERBICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-899

Instrument ID: ECD6A Calibration Date: 12/23/09 Time: 0303

Lab File ID: 015B1501 Init. Calib. Date(s): 12/22/09 12/22/09

Heated Purge: (Y/N) N Init. Calib. Times: 2104 2350

GC Column: RTX-CLPII ID: 0.25 (mm)

COMPOUND	RRF	RRF200	MIN RRF	%D	MAX %D
Dalapon	210311.69	207987.68	0.005	-1.1	15.0
MCPA	1879.521	1723.570	0.005	-8.3	15.0
2,4-D	236962.17	246446.30	0.005	4.0	15.0
2,4,5-T	806136.02	788280.11	0.005	-2.2	15.0
Dinoseb	433569.71	481450.22	0.005	11.0	15.0
MCPP	1451.538	1408.528	0.01	-3.0	15.0
Dichlorprop	200025.07	193901.00	0.01	-3.1	15.0
2,4,5-TP	910608.61	937855.24	0.01	3.0	15.0
Dicamba	921040.14	812538.77	0.01	-11.8	15.0
2,4-DB	113167.93	120985.67	0.01	6.9	15.0
Pentachlorophenol	2460246.1	2467891.0	0.01	0.3	15.0
2,4-Dichlorophenylacetic aci	212842.06	213983.31	0.01	0.5	15.0

FORM VII HERBICIDE

FORM 7
HERBICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-899

Instrument ID: ECD6A Calibration Date: 12/23/09 Time: 0642

Lab File ID: 023F2301 Init. Calib. Date(s): 12/22/09 12/22/09

Heated Purge: (Y/N) N Init. Calib. Times: 2104 2350

GC Column: RTX-CLP ID: 0.25 (mm)

COMPOUND	RRF	RRF200	MIN RRF	%D	MAX %D	
Dalapon	130564.01	135417.62	0.005	3.7	15.0	
MCPA	993.989	1036.310	0.005	4.2	15.0	
2,4-D	160960.83	178565.18	0.005	10.9	15.0	
2,4,5-T	560657.03	598133.78	0.005	6.7	15.0	
Dinoseb	283778.75	334079.10	0.005	17.7	15.0	<-
MCPP	566.122	642.838	0.01	13.6	15.0	
Dichlorprop	143405.58	151659.33	0.01	5.8	15.0	
2,4,5-TP	627858.11	655154.19	0.01	4.3	15.0	
Dicamba	560302.93	600618.63	0.01	7.2	15.0	
2,4-DB	86421.931	93951.905	0.01	8.7	15.0	
Pentachlorophenol	1641722.9	1618593.1	0.01	-1.4	15.0	
2,4-Dichlorophenylacetic aci	165741.52	160443.76	0.01	-3.2	15.0	

FORM VII HERBICIDE

FORM 7
HERBICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-899

Instrument ID: ECD6A Calibration Date: 12/23/09 Time: 0642

Lab File ID: 023B2301 Init. Calib. Date(s): 12/22/09 12/22/09

Heated Purge: (Y/N) N Init. Calib. Times: 2104 2350

GC Column: RTX-CLPII ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF200	MIN RRF	%D	MAX %D
Dalapon	210311.69	219557.16	0.005	4.4	15.0
MCPA	1879.521	1851.480	0.005	-1.5	15.0
2,4-D	236962.17	251658.56	0.005	6.2	15.0
2,4,5-T	806136.02	835720.51	0.005	3.7	15.0
Dinoseb	433569.71	494001.76	0.005	13.9	15.0
MCPP	1451.538	1531.614	0.01	5.5	15.0
Dichlorprop	200025.07	207799.84	0.01	3.9	15.0
2,4,5-TP	910608.61	978925.11	0.01	7.5	15.0
Dicamba	921040.14	847196.06	0.01	-8.0	15.0
2,4-DB	113167.93	125743.50	0.01	11.1	15.0
Pentachlorophenol	2460246.1	2536255.6	0.01	3.1	15.0
2,4-Dichlorophenylacetic aci	212842.06	224799.26	0.01	5.6	15.0

FORM VII HERBICIDE

GEL Laboratories LLC

Column: RtxCLP 0.25mm x 30 m Inj Vol: 2 ul

Data file : /chem/ecd6a.i/122209a.b/009f0901.d
Lab Smp Id: WHB091222-08 Client Smp ID: HSTD01
Inj Date : 23-DEC-2009 00:18
Operator : HXJ1 Inst ID: ecd6a.i
Smp Info : |WHB091222-08
Misc Info : CHECK
Comment :
Method : /chem/ecd6a.i/122209a.b/ECD6-F-8151A-122209.m
Meth Date : 23-Dec-2009 09:28 reb01393 Quant Type: ESTD
Cal Date : 22-DEC-2009 21:04 Cal File: 002f0201.d
Als bottle: 9 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50 Sample Matrix: None

	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)		
	1 Dalapon					CAS #: 75-99-0		
	3.657	3.657	0.000	268567447	2000.00	2060		
$	2 2,4-Dichlorophenylacetic acid					CAS #: 19719-28-9		
	9.752	9.752	0.000	78238901	500.000	472		(M)
	3 Dicamba					CAS #: 6597-78-0		
	10.214	10.214	0.000	107077002	200.000	191		(M)
	4 MCPP					CAS #: 7085-19-0		
	10.966	10.966	0.000	11466665	20000.0	20200		(M)
	5 MCPA					CAS #: 94-74-6		
	11.400	11.400	0.000	19650202	20000.0	19800		(M)
	6 Dichlorprop					CAS #: 120-36-5		
	12.054	12.054	0.000	26988370	200.000	188		(M)
	7 2,4-D					CAS #: 94-75-7		
	12.368	12.368	0.000	31843638	200.000	198		(M)
	43 Pentachlorophenol					CAS #: 87-86-5		
	12.521	12.521	0.000	309411301	200.000	188		(M)
	8 2,4,5-TP					CAS #: 93-72-1		
	13.184	13.184	0.000	119698002	200.000	191		(M)

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)		
9 2,4,5-T					CAS #: 93-76-5		
13.400	13.400	0.000	110806720	200.000	198		(M)
10 2,4-DB					CAS #: 94-82-6		
13.767	13.767	0.000	16074159	200.000	186		(M)
11 Dinoseb					CAS #: 88-85-7		
14.357	14.357	0.000	50283123	200.000	177		(M)

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd6a.i/122209a.b/009f0901.d
Date : 23-DEC-2009 00:18
Client ID: HSTD01
Sample Info: IWHB091222-08

Column phase: Rtx-CLP

Instrument: ecd6a.i
Operator: HXJ1
Column diameter: 0.25

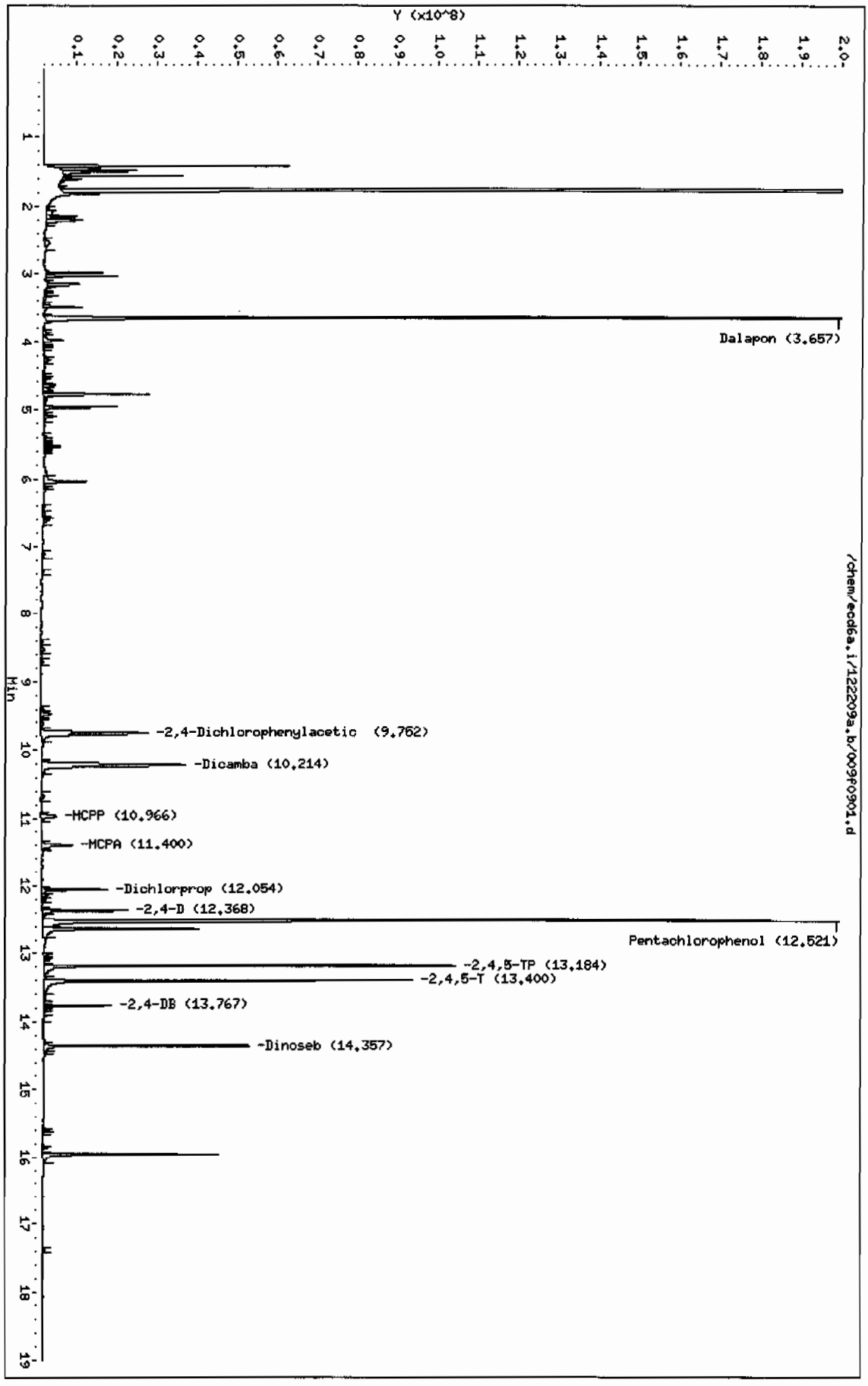

Page 1

Comment: Manually Integrated
Data File: /chem/ecd6a.i/122209a.b/009f0901.d
Operator: HXJ1
Injection Date: 23-DEC-2009 00:18
Instrument: ecd6a.i
Client Sample ID: HSTD01

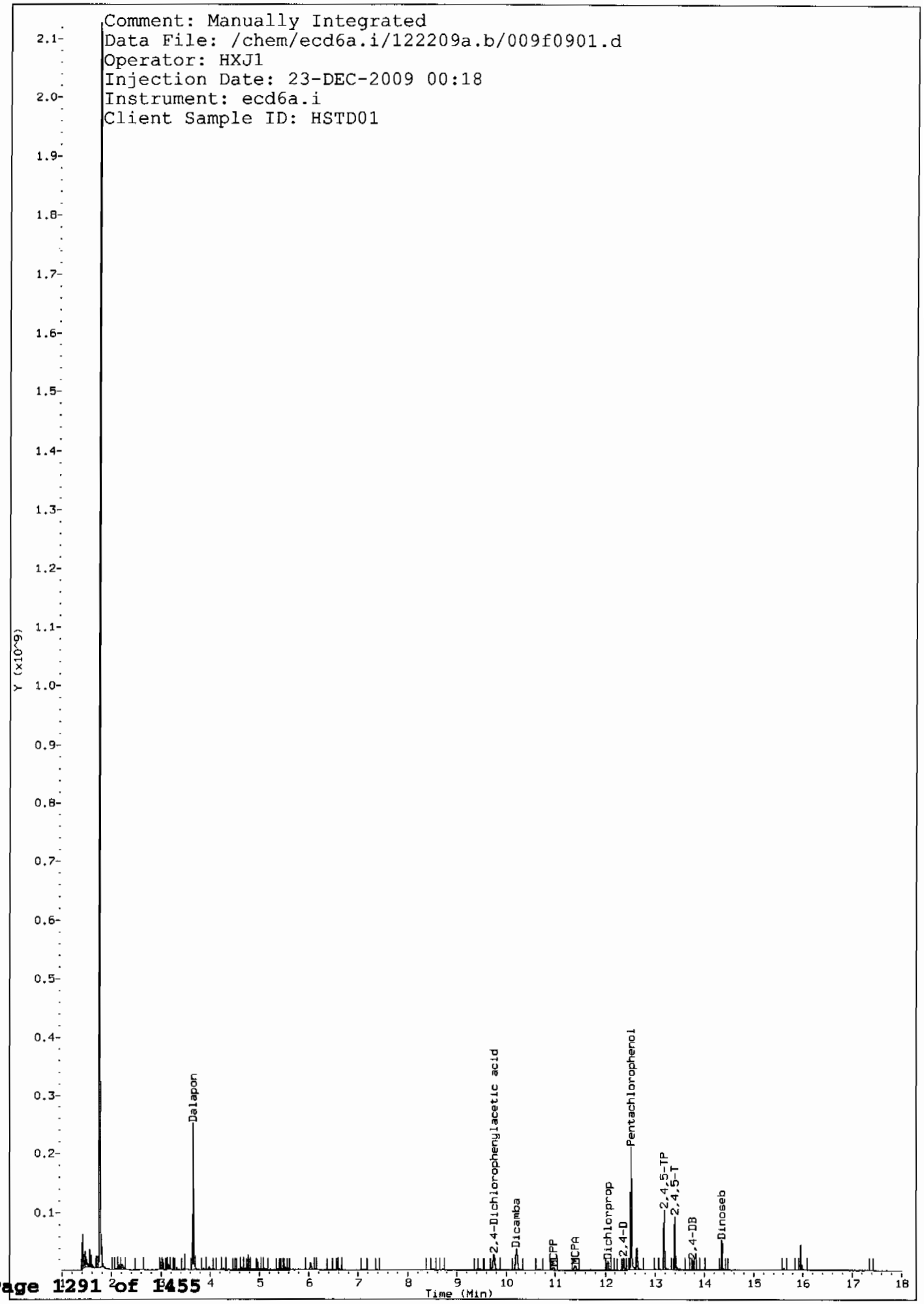

Comment: Before manual integration
Data File: /chem/ecd6a.i/122209a.b/orig-009f0901.d
Operator: HXJ1
Injection Date: 23-DEC-2009 00:18
Instrument: ecd6a.i
Client Sample ID: HSTD01

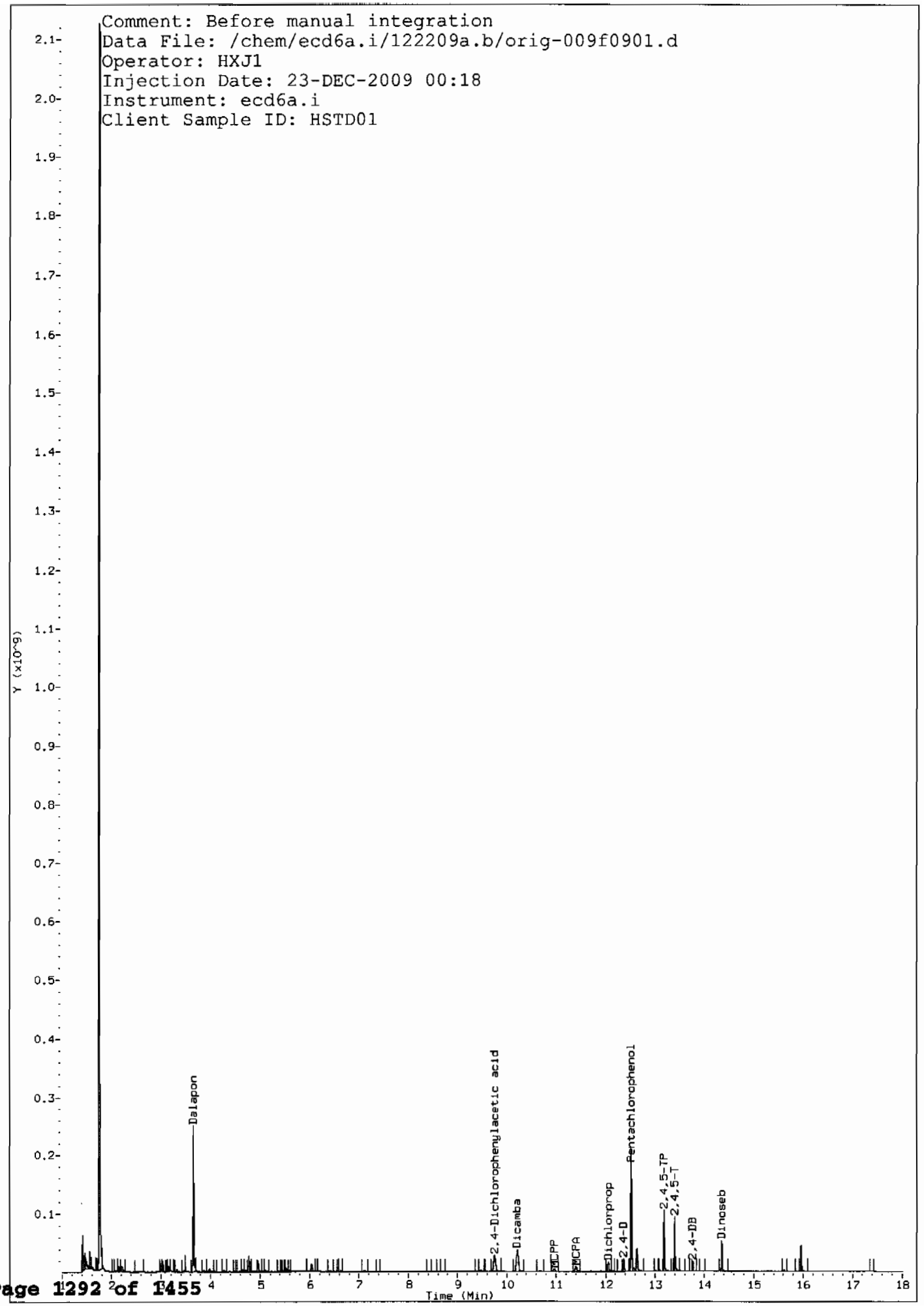

GEL Laboratories LLC

Column: RtxCLPII 0.25mm x 30 m Inj Vol: 2ul

Data file : /chem/ecd6a.i/122209a.b/009b0901.d
Lab Smp Id: WHB091222-08 Client Smp ID: HSTD01
Inj Date : 23-DEC-2009 00:18
Operator : HXJ1 Inst ID: ecd6a.i
Smp Info : |WHB091222-08
Misc Info : CHECK
Comment : RtxCLPII
Method : /chem/ecd6a.i/122209a.b/ECD6-B-8151A-122209.m
Meth Date : 23-Dec-2009 09:28 reb01393 Quant Type: ESTD
Cal Date : 22-DEC-2009 21:32 Cal File: 003b0301.d
Als bottle: 9 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50 Sample Matrix: None

	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	
	1 Dalapon					CAS #: 88-85-7	
	3.610	3.610	0.000	437247176	2000.00	2080	
$	2 2,4-Dichlorophenylacetic acid					CAS #: 19719-28-9	
	10.850	10.850	0.000	110697906	500.000	520	(M)
	3 MCPP					CAS #: 7085-19-0	
	11.702	11.702	0.000	28295947	20000.0	19500	(M)
	4 Dicamba					CAS #: 6597-78-0	
	11.332	11.332	0.000	158114188	200.000	172	(M)
	5 MCPA					CAS #: 94-74-6	
	12.091	12.091	0.000	35750806	20000.0	19000	(M)
	6 Dichlorprop					CAS #: 120-36-5	
	12.525	12.525	0.000	37478677	200.000	187	(M)
	7 2,4-D					CAS #: 94-75-7	
	12.850	12.850	0.000	47487973	200.000	200	(M)
	43 Pentachlorophenol					CAS #: 87-86-5	
	13.129	13.129	0.000	472664295	200.000	192	(M)
	8 2,4,5-TP					CAS #: 93-72-1	
	13.511	13.511	0.000	176552474	200.000	194	(M)

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)		
9 2,4,5-T					CAS #: 93-76-5		
13.764	13.764	0.000	160980589	200.000	200		(M)
10 Dinoseb					CAS #: 88-85-7		
14.235	14.235	0.000	76918280	200.000	177		(M)
11 2,4-DB					CAS #: 94-82-6		
14.066	14.066	0.000	21834773	200.000	193		(M)

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd6a.i/122209a.b/009b0901.d
Date : 23-DEC-2009 00:18
Client ID: HSTD01
Sample Info: IWHB091222-08

Column phase: Rtx-CLPII

Instrument: ecd6a.i

Operator: HXJ1
Column diameter: 0.25

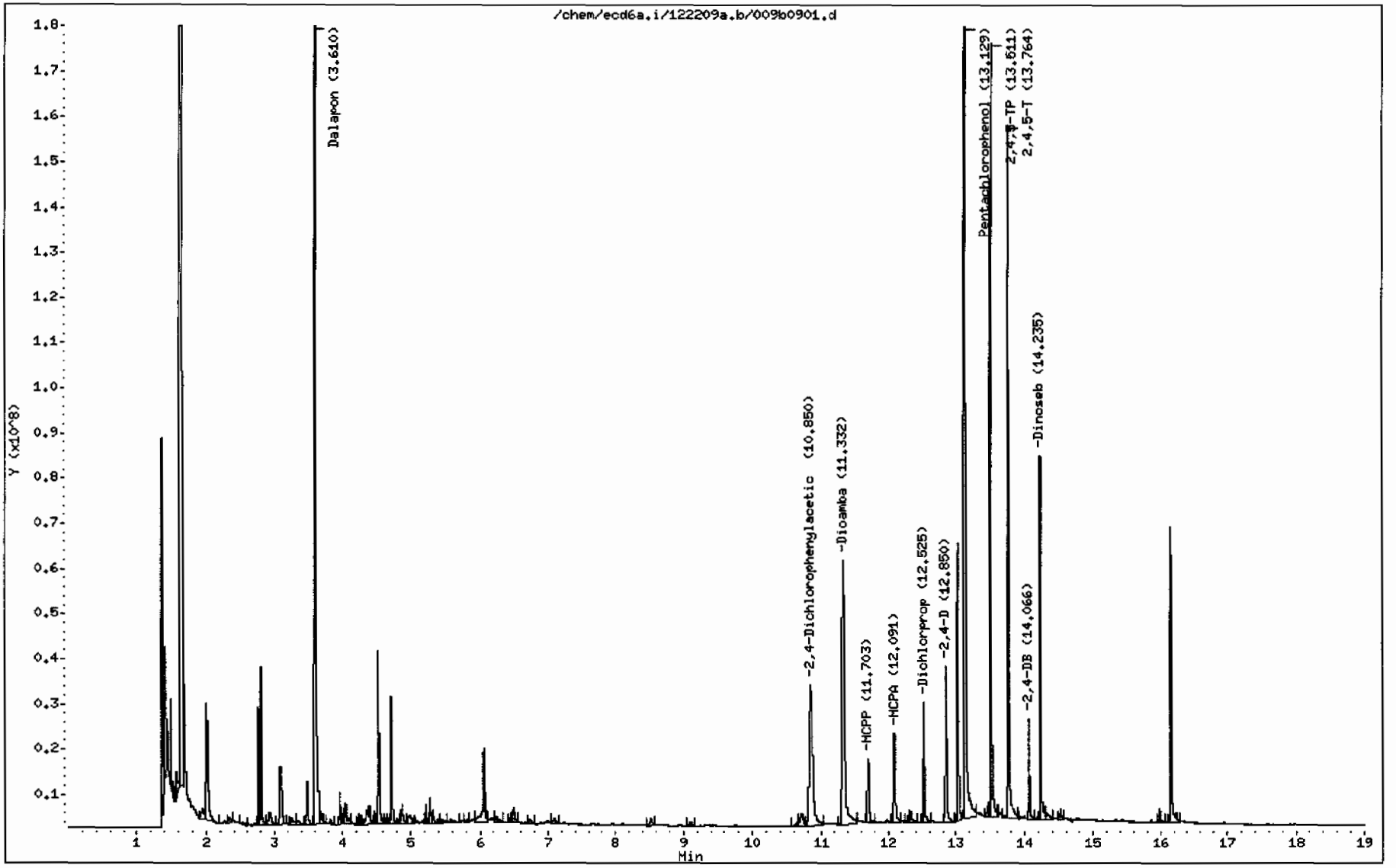

Comment: Manually Integrated
Data File: /chem/ecd6a.i/122209a.b/009b0901.d
Operator: HXJ1
Injection Date: 23-DEC-2009 00:18
Instrument: ecd6a.i
Client Sample ID: HSTD01

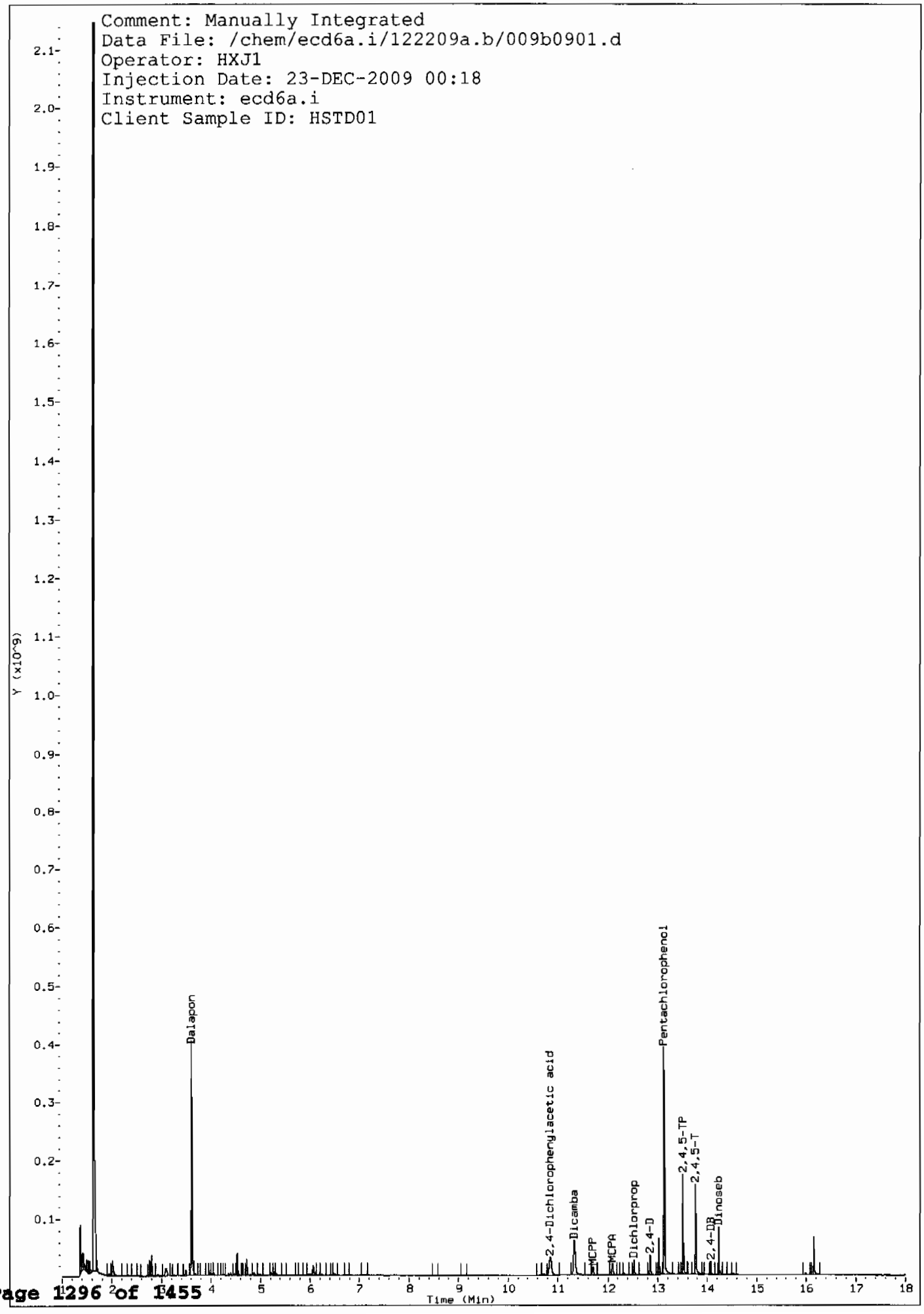

Comment: Before manual integration
Data File: /chem/ecd6a.i/122209a.b/orig-009b0901.d
Operator: HXJ1
Injection Date: 23-DEC-2009 00:18
Instrument: ecd6a.i
Client Sample ID: HSTD01

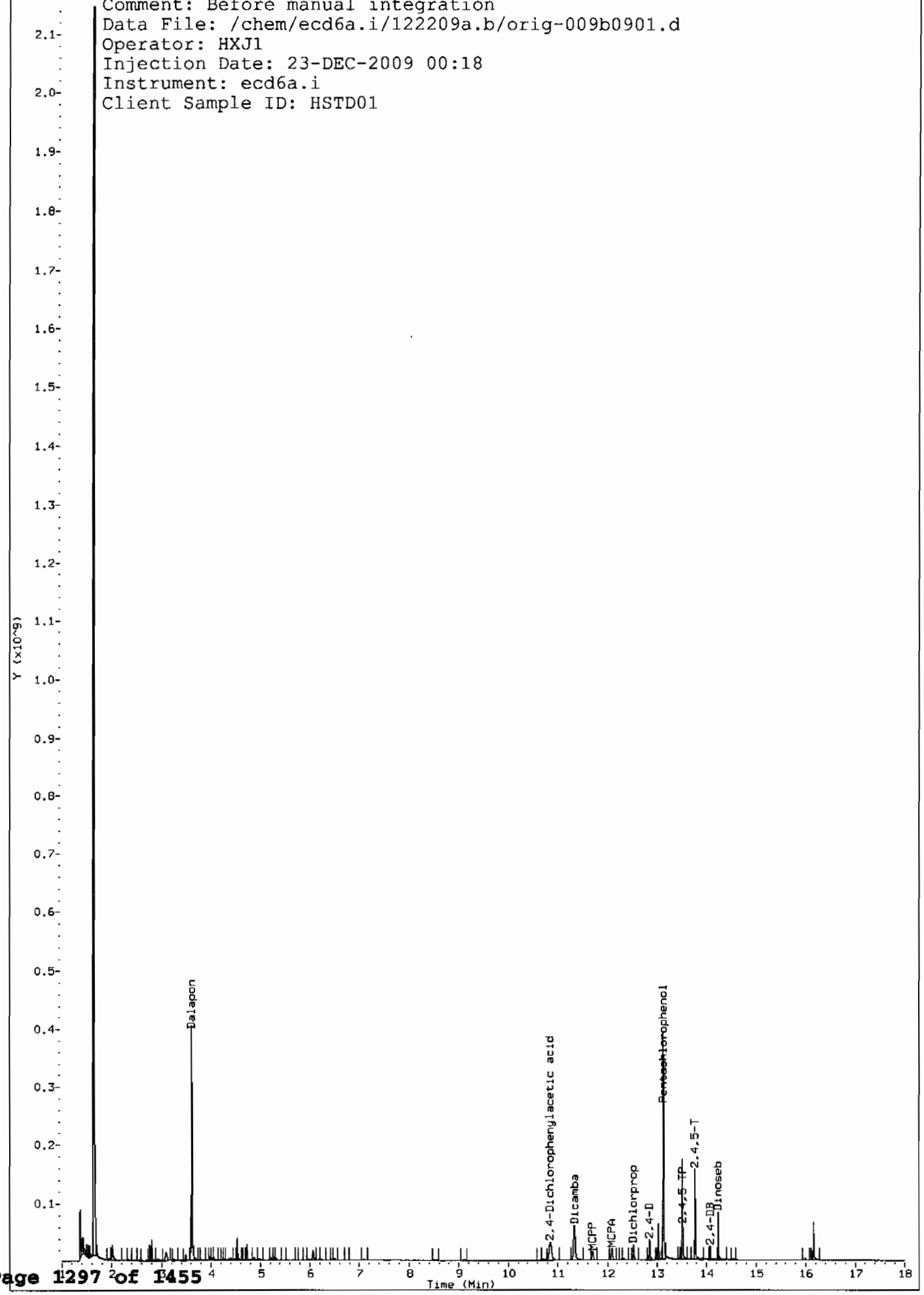

GEL Laboratories LLC

Column: RtxCLP 0.25mm x 30 m Inj Vol: 2 ul

Data file : /chem/ecd6a.i/122209a.b/015f1501.d
Lab Smp Id: WHB091030-05 Client Smp ID: HSTD02
Inj Date : 23-DEC-2009 03:03
Operator : HXJ1 Inst ID: ecd6a.i
Smp Info : |WHB091030-05
Misc Info : CHECK
Comment :
Method : /chem/ecd6a.i/122209a.b/ECD6-F-8151A-122209.m
Meth Date : 23-Dec-2009 09:36 reb01393 Quant Type: ESTD
Cal Date : 22-DEC-2009 21:04 Cal File: 002f0201.d
Als bottle: 15 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50 Sample Matrix: None

	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	
	1 Dalapon						CAS #: 75-99-0
	3.653	3.657	-0.004	258378936	2000.00	1980	
$	2 2,4-Dichlorophenylacetic acid						CAS #: 19719-28-9
	9.748	9.752	-0.004	77370886	500.000	467	
	3 Dicamba						CAS #: 6597-78-0
	10.211	10.214	-0.003	116448440	200.000	208	
	4 MCPP						CAS #: 7085-19-0
	10.966	10.966	0.000	11927493	20000.0	21100	
	5 MCPA						CAS #: 94-74-6
	11.399	11.400	-0.001	19601623	20000.0	19700	
	6 Dichlorprop						CAS #: 120-36-5
	12.055	12.054	0.001	28844585	200.000	201	
	7 2,4-D						CAS #: 94-75-7
	12.368	12.368	0.000	33195578	200.000	206	
	43 Pentachlorophenol						CAS #: 87-86-5
	12.513	12.521	-0.008	316710736	200.000	193	
	8 2,4,5-TP						CAS #: 93-72-1
	13.185	13.184	0.001	130213047	200.000	207	

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	
9 2,4,5-T					CAS #: 93-76-5	
13.401	13.400	0.001	117857338	200.000	210	
10 2,4-DB					CAS #: 94-82-6	
13.768	13.767	0.001	18476261	200.000	214	
11 Dinoseb					CAS #: 88-85-7	
14.358	14.357	0.001	64901075	200.000	229	(M)

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd6a.i/122209a.b/015f1501.d
Date : 23-DEC-2009 03:03
Client ID: HSTD02
Sample Info: IWHB091030-05

Column phase: Rtx-CLP

Instrument: ecd6a.i
Operator: HXJ1
Column diameter: 0.25

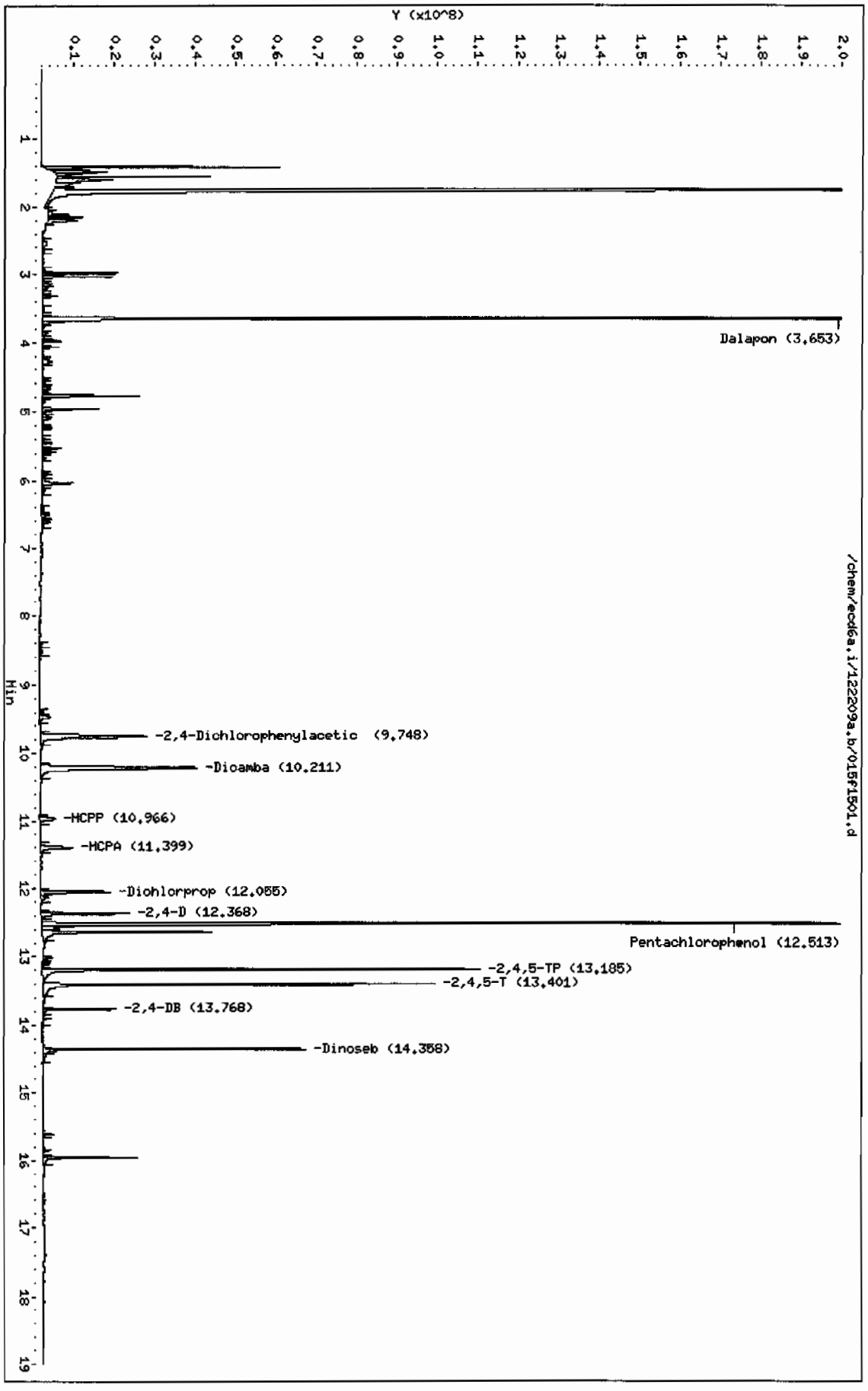

Page 1

Comment: Manually Integrated
Data File: /chem/ecd6a.i/122209a.b/015f1501.d
Operator: HXJ1
Injection Date: 23-DEC-2009 03:03
Instrument: ecd6a.i
Client Sample ID: HSTD02

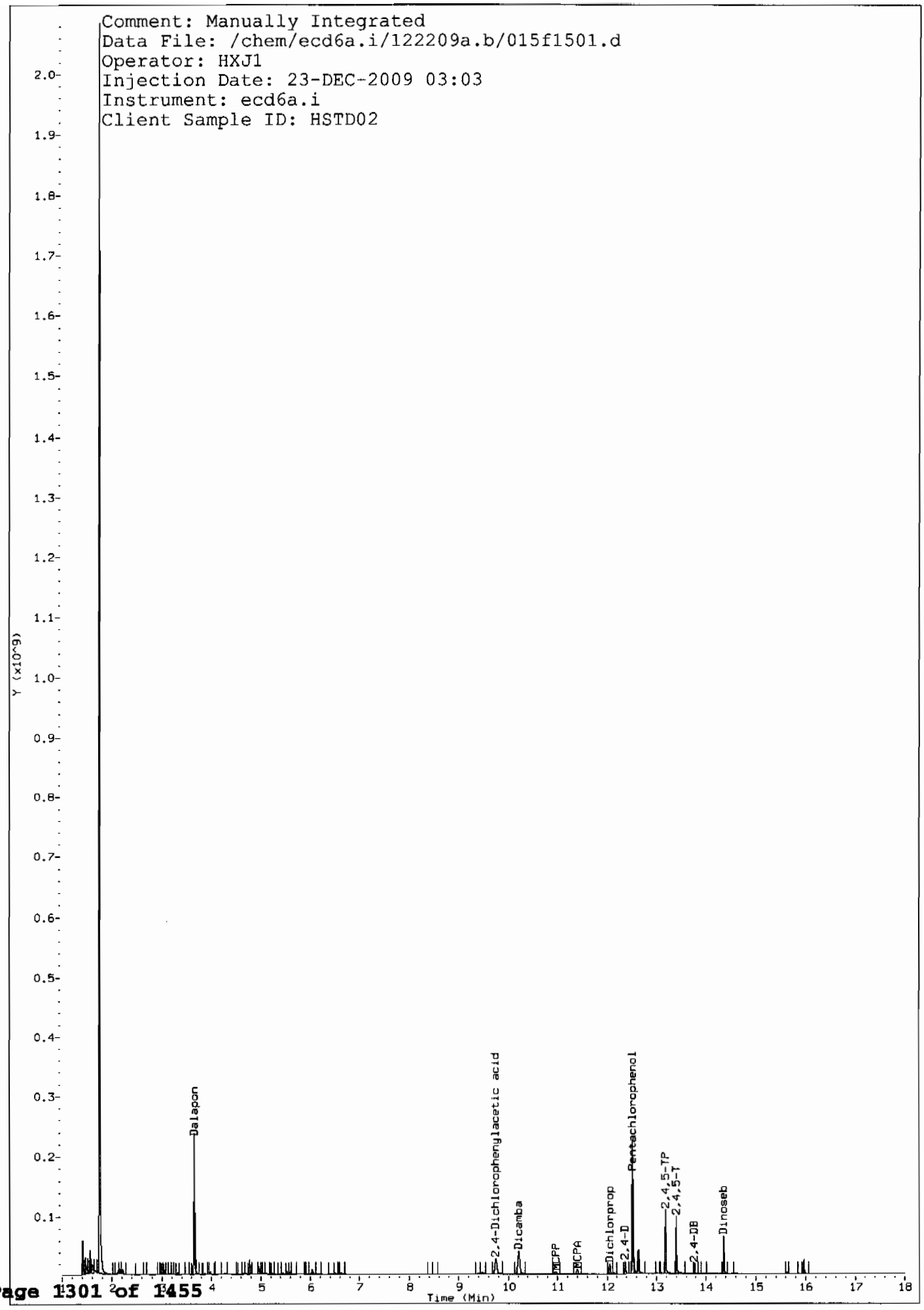

Comment: Before manual integration
Data File: /chem/ecd6a.i/122209a.b/orig-015f1501.d
Operator: HXJ1
Injection Date: 23-DEC-2009 03:03
Instrument: ecd6a.i
Client Sample ID: HSTD02

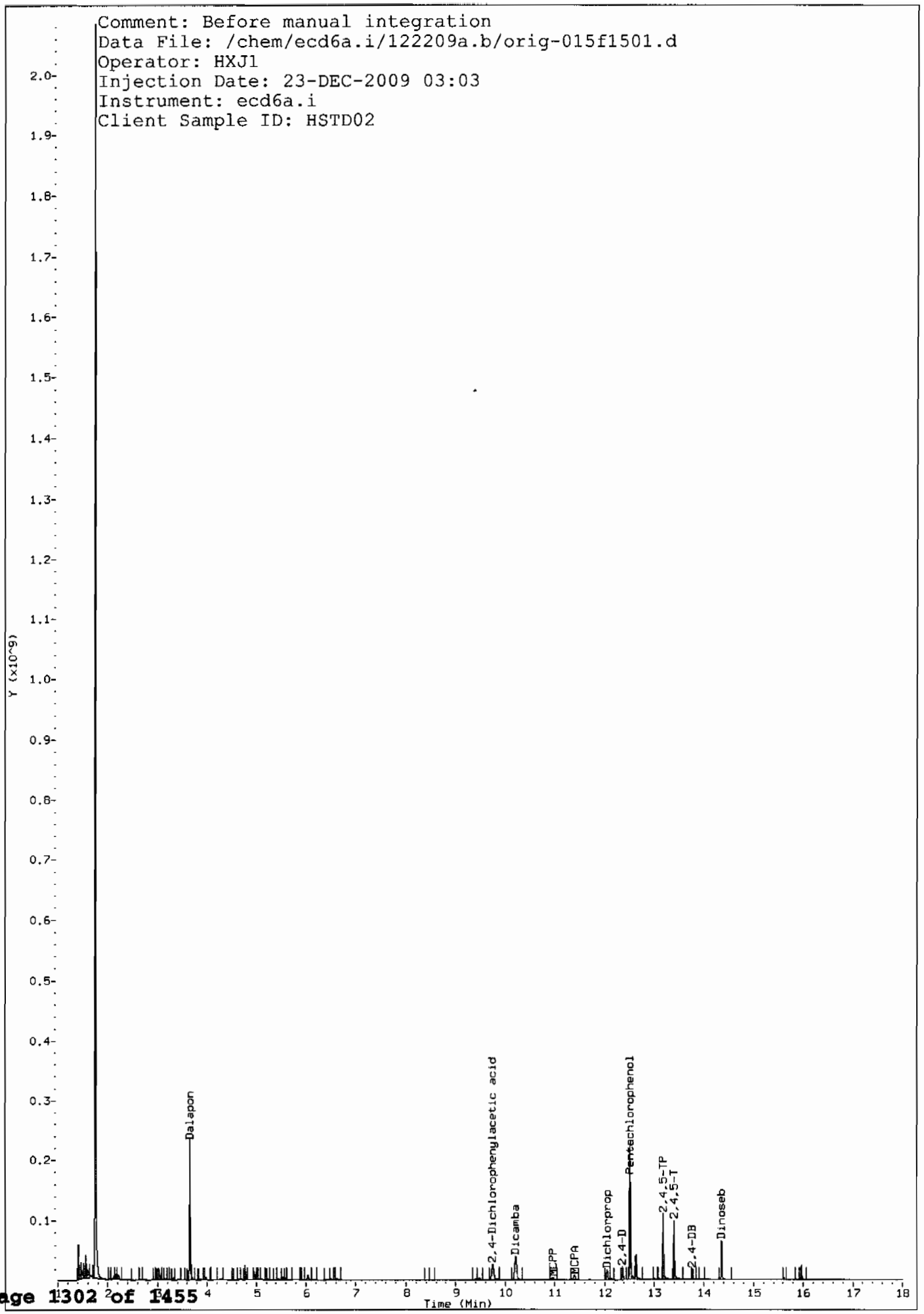

GEL Laboratories LLC

Column: RtxCLPII 0.25mm x 30 m Inj Vol: 2ul

Data file : /chem/ecd6a.i/122209a.b/015b1501.d
Lab Smp Id: WHB091030-05 Client Smp ID: HSTD02
Inj Date : 23-DEC-2009 03:03
Operator : HXJ1 Inst ID: ecd6a.i
Smp Info : |WHB091030-05
Misc Info : CHECK
Comment : RtxCLPII
Method : /chem/ecd6a.i/122209a.b/ECD6-B-8151A-122209.m
Meth Date : 23-Dec-2009 09:35 reb01393 Quant Type: ESTD
Cal Date : 22-DEC-2009 21:32 Cal File: 003b0301.d
Als bottle: 15 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50 Sample Matrix: None

	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	
	1 Dalapon						CAS #: 88-85-7
	3.606	3.610	-0.004	415975364	2000.00	1980	
$	2 2,4-Dichlorophenylacetic acid						CAS #: 19719-28-9
	10.846	10.850	-0.004	106991656	500.000	503	
	3 MCPP						CAS #: 7085-19-0
	11.701	11.702	-0.001	28170571	20000.0	19400	
	4 Dicamba						CAS #: 6597-78-0
	11.331	11.332	-0.001	162507754	200.000	176	
	5 MCPA						CAS #: 94-74-6
	12.090	12.091	-0.001	34471400	20000.0	18300	
	6 Dichlorprop						CAS #: 120-36-5
	12.524	12.525	-0.001	38780199	200.000	194	
	7 2,4-D						CAS #: 94-75-7
	12.851	12.850	0.001	49289260	200.000	208	
	43 Pentachlorophenol						CAS #: 87-86-5
	13.129	13.129	0.000	493578192	200.000	201	
	8 2,4,5-TP						CAS #: 93-72-1
	13.511	13.511	0.000	187571047	200.000	206	

				AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	
RT	EXP RT	DLT RT	RESPONSE			
9 2,4,5-T						CAS #: 93-76-5
13.763	13.764	-0.001	157656022	200.000	196	
10 Dinoseb						CAS #: 88-85-7
14.236	14.235	0.001	96290043	200.000	222	
11 2,4-DB						CAS #: 94-82-6
14.066	14.066	0.000	24197133	200.000	214	

Data File: /chem/ecd6a.i/122209a.b/015b1501.d
Date : 23-DEC-2009 03:03
Client ID: HSTD02
Sample Info: IWHB091030-05

Column phase: Rtx-CLPII

Instrument: ecd6a.i

Operator: HXJ1
Column diameter: 0.25

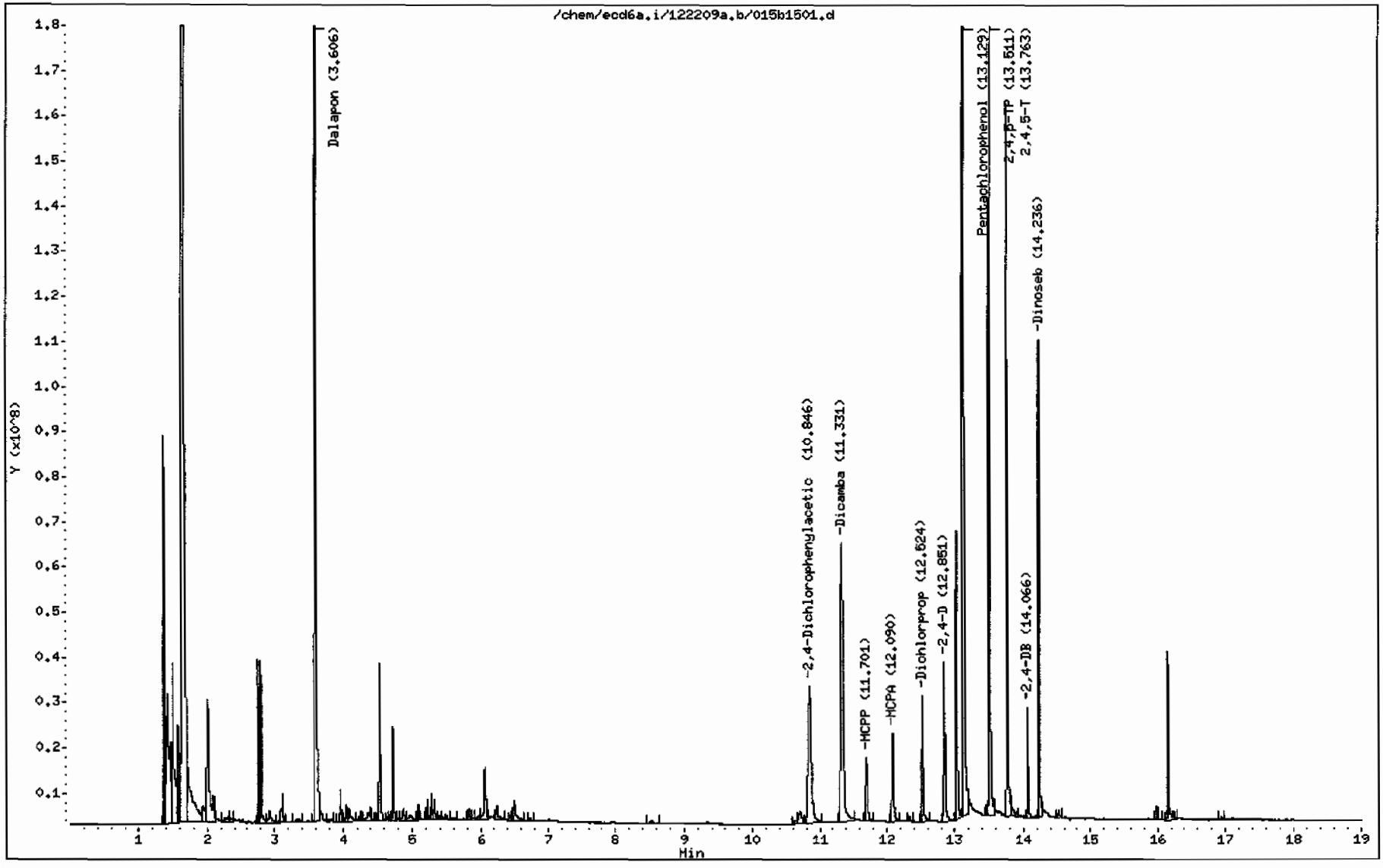

GEL Laboratories LLC

Column: RtxCLP 0.25mm x 30 m Inj Vol: 2 ul

Data file : /chem/ecd6a.i/122209a.b/023f2301.d
Lab Smp Id: WHB091030-05 Client Smp ID: HSTD03
Inj Date : 23-DEC-2009 06:42
Operator : HXJ1 Inst ID: ecd6a.i
Smp Info : |WHB091030-05
Misc Info : CHECK
Comment :
Method : /chem/ecd6a.i/122209a.b/ECD6-F-8151A-122209.m
Meth Date : 23-Dec-2009 10:14 reb01393 Quant Type: ESTD
Cal Date : 22-DEC-2009 21:04 Cal File: 002f0201.d
Als bottle: 23 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50 Sample Matrix: None

	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
	1 Dalapon					CAS #: 75-99-0
	3.654	3.657	-0.003	270835231	2000.00	2070
$	2 2,4-Dichlorophenylacetic acid					CAS #: 19719-28-9
	9.747	9.752	-0.005	80221881	500.000	484
	3 Dicamba					CAS #: 6597-78-0
	10.211	10.214	-0.003	120123726	200.000	214
	4 MCPP					CAS #: 7085-19-0
	10.963	10.966	-0.003	12856753	20000.0	22700
	5 MCPA					CAS #: 94-74-6
	11.396	11.400	-0.004	20726204	20000.0	20800
	6 Dichlorprop					CAS #: 120-36-5
	12.053	12.054	-0.001	30331865	200.000	212
	7 2,4-D					CAS #: 94-75-7
	12.368	12.368	0.000	35713037	200.000	222
	43 Pentachlorophenol					CAS #: 87-86-5
	12.515	12.521	-0.006	323718619	200.000	197
	8 2,4,5-TP					CAS #: 93-72-1
	13.185	13.184	0.001	131030838	200.000	209

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)		
9 2,4,5-T					CAS #: 93-76-5		
13.401	13.400	0.001	119626756	200.000	213		
10 2,4-DB					CAS #: 94-82-6		
13.768	13.767	0.001	18790381	200.000	217		
11 Dinoseb					CAS #: 88-85-7		
14.358	14.357	0.001	66815821	200.000	235		(M)

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd6a.i/122209a.b/023f2301.d
Date : 23-DEC-2009 06:42
Client ID: HSTD03
Sample Info: IWHB091030-05
Column phase: Rtx-CLP

Instrument: ecd6a.i
Operator: HXJ1
Column diameter: 0.25

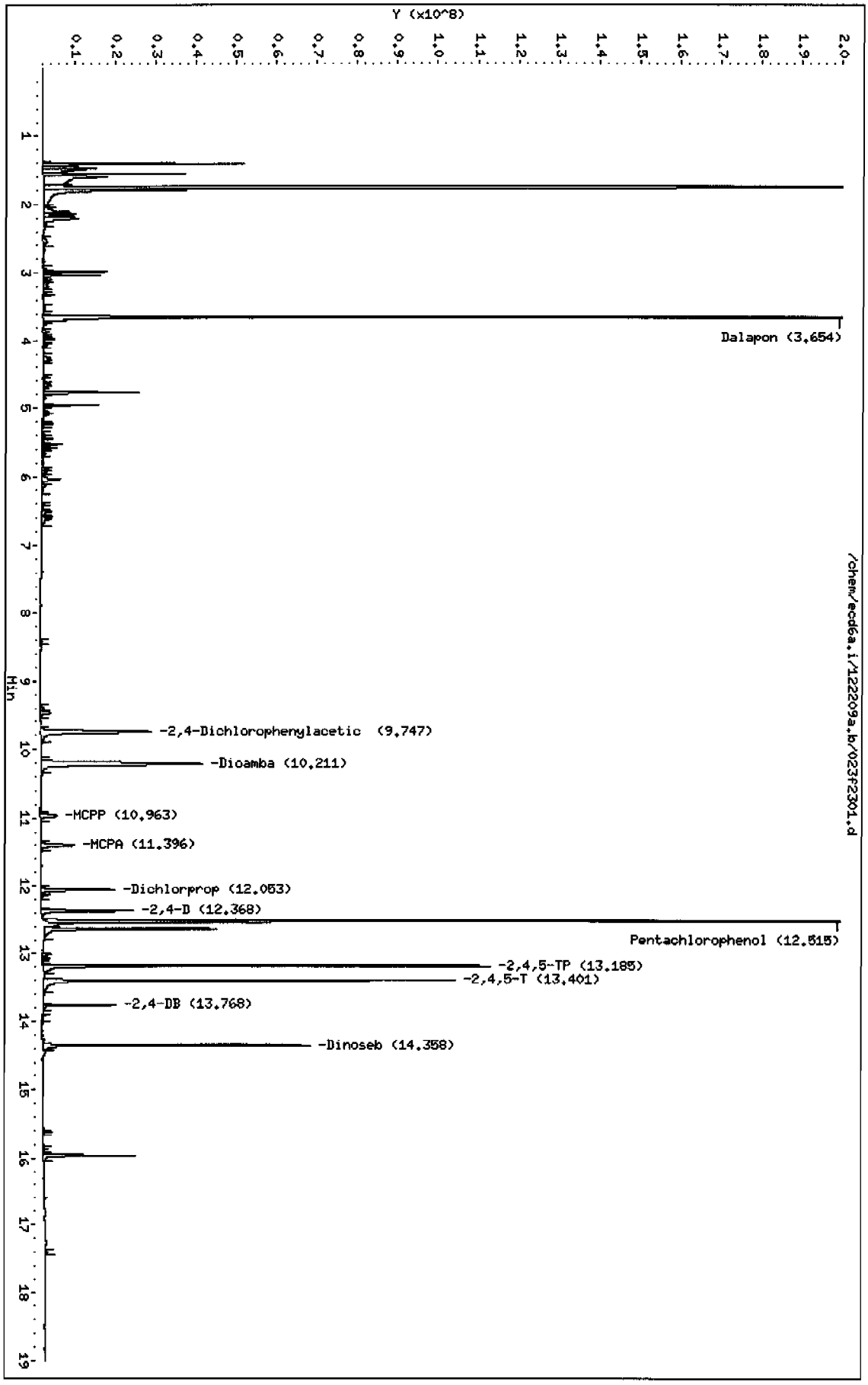

Page 1

Comment: Manually Integrated
Data File: /chem/ecd6a.i/122209a.b/023f2301.d
Operator: HXJ1
Injection Date: 23-DEC-2009 06:42
Instrument: ecd6a.i
Client Sample ID: HSTD03

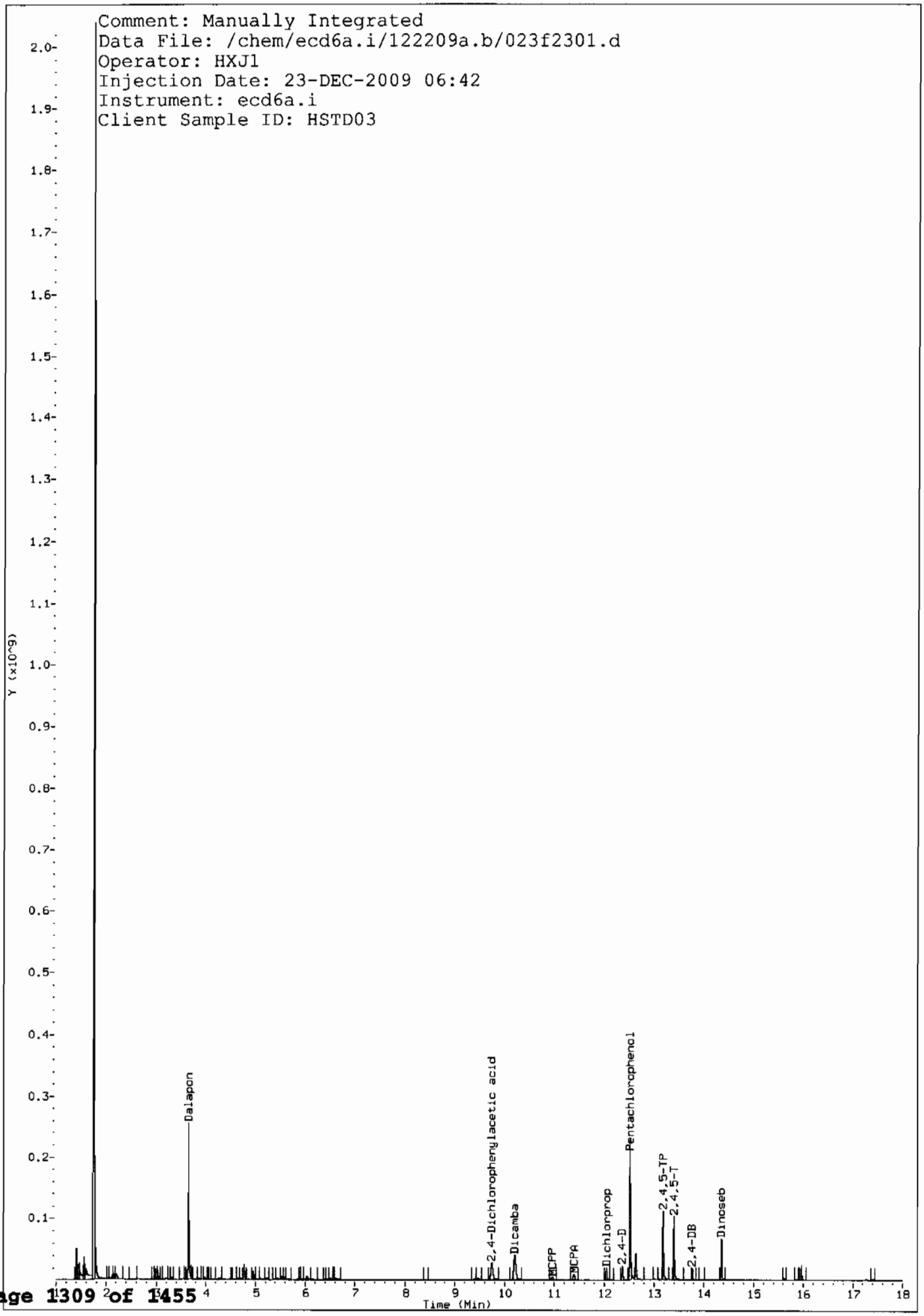

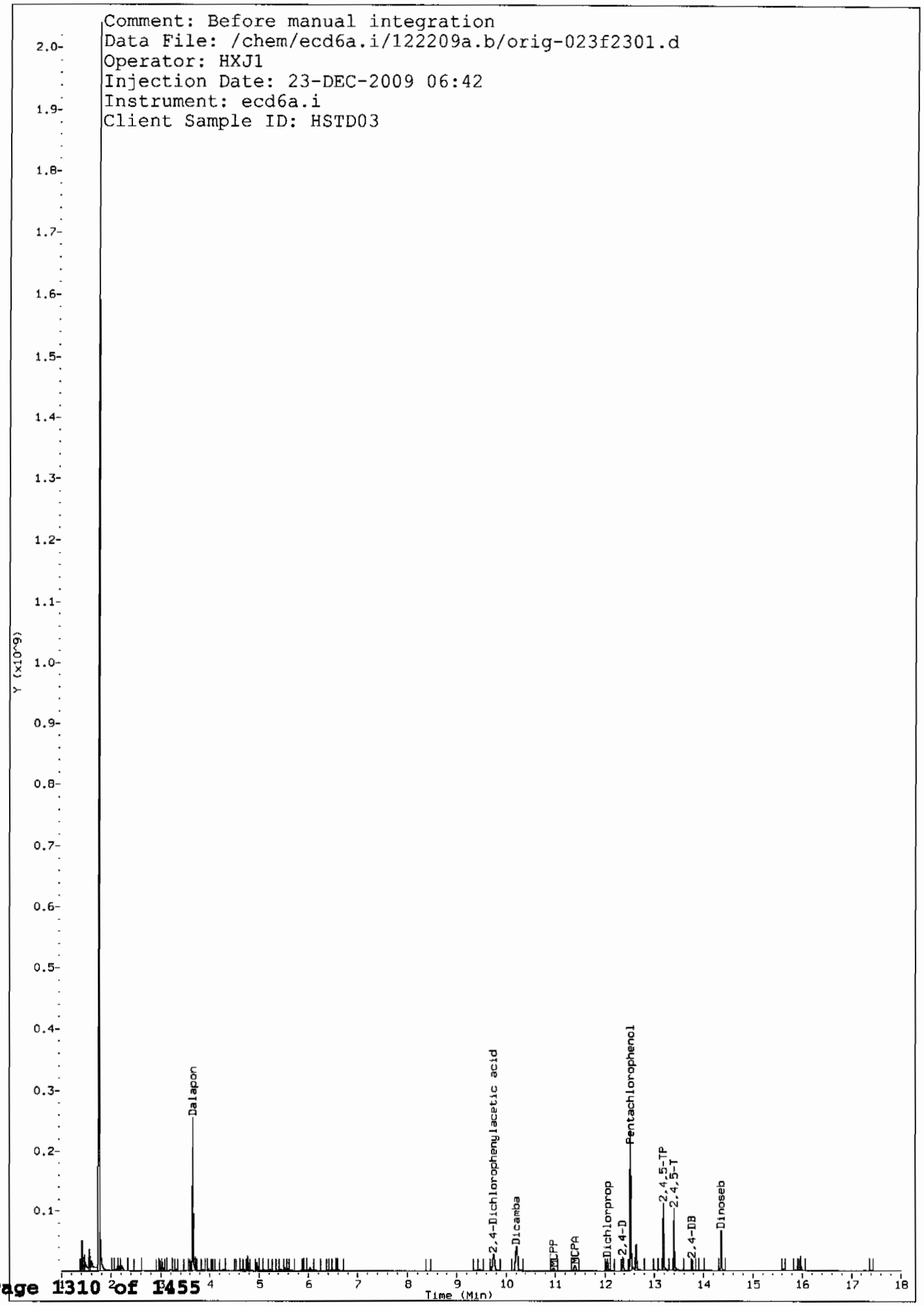
Comment: Before manual integration
Data File: /chem/ecd6a.i/122209a.b/orig-023f2301.d
Operator: HXJ1
Injection Date: 23-DEC-2009 06:42
Instrument: ecd6a.i
Client Sample ID: HSTD03
Y (x10^9)
Time (Min)
Dalapon
2,4-Dichlorophenylacetic acid
Dicamba
MCPP
MCPA
Dichlorprop
2,4-D
Pentachlorophenol
2,4,5-TP
2,4,5-T
2,4-DB
Dinoseb

GEL Laboratories LLC

Column: RtxCLPII 0.25mm x 30 m Inj Vol: 2ul

Data file : /chem/ecd6a.i/122209a.b/023b2301.d
Lab Smp Id: WHB091030-05 Client Smp ID: HSTD03
Inj Date : 23-DEC-2009 06:42
Operator : HXJ1 Inst ID: ecd6a.i
Smp Info : |WHB091030-05
Misc Info : CHECK
Comment : RtxCLPII
Method : /chem/ecd6a.i/122209a.b/ECD6-B-8151A-122209.m
Meth Date : 23-Dec-2009 10:06 reb01393 Quant Type: ESTD
Cal Date : 22-DEC-2009 21:32 Cal File: 003b0301.d
Als bottle: 23 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
1 Dalapon					CAS #: 88-85-7
3.606	3.610	-0.004	439114317	2000.00	2090
$ 2 2,4-Dichlorophenylacetic acid					CAS #: 19719-28-9
10.847	10.850	-0.003	112399630	500.000	528
3 MCPP					CAS #: 7085-19-0
11.702	11.702	0.000	30632283	20000.0	21100
4 Dicamba					CAS #: 6597-78-0
11.331	11.332	-0.001	169439212	200.000	184
5 MCPA					CAS #: 94-74-6
12.090	12.091	-0.001	37029598	20000.0	19700
6 Dichlorprop					CAS #: 120-36-5
12.524	12.525	-0.001	41559967	200.000	208
7 2,4-D					CAS #: 94-75-7
12.851	12.850	0.001	50331712	200.000	212
43 Pentachlorophenol					CAS #: 87-86-5
13.127	13.129	-0.002	507251110	200.000	206
8 2,4,5-TP					CAS #: 93-72-1
13.510	13.511	-0.001	195785021	200.000	215

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	
9 2,4,5-T						CAS #: 93-76-5
13.765	13.764	0.001	167144102	200.000	207	
10 Dinoseb						CAS #: 88-85-7
14.236	14.235	0.001	98800351	200.000	228	
11 2,4-DB						CAS #: 94-82-6
14.066	14.066	0.000	25148699	200.000	222	

Data File: /chem/ecd6a.i/122209a.b/023b2301.d
Date : 23-DEC-2009 06:42
Client ID: HSTD03
Sample Info: IWHB091030-05

Column phase: Rtx-CLPII

Instrument: ecd6a.i

Operator: HXJ1
Column diameter: 0.25

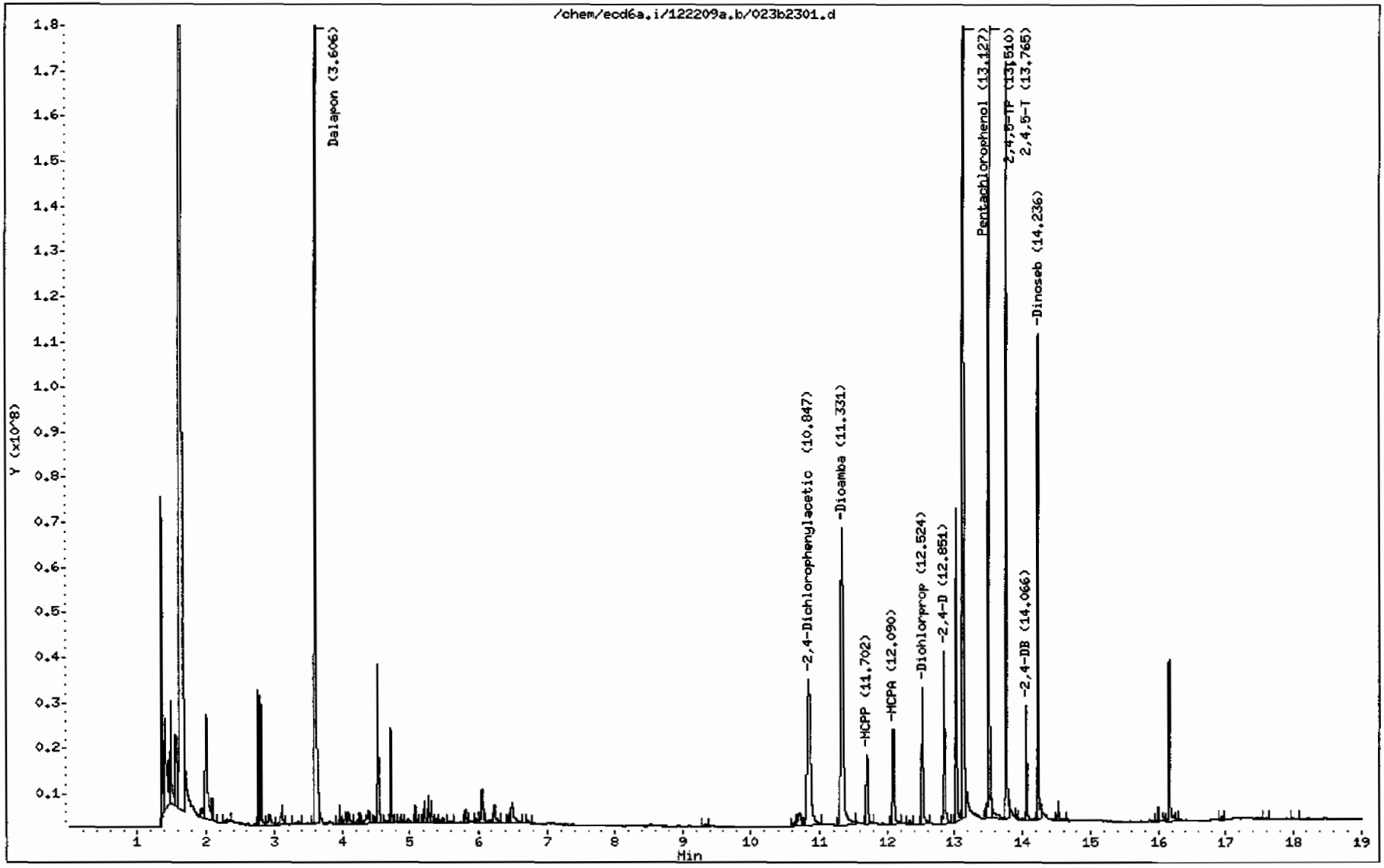

FORM 8
HERBICIDE ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-899

GC Column: RTX-CLP ID: 0.25 (mm) Init. Calib. Date(s): 12/22/09 12/22/09

Instrument ID: ECD6A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 9.75

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	RT #
01	HIBLK01	WHB091117-02	12/22/09	2036	9.76	
02	HSTD01	WHB091030-01	12/22/09	2104	9.76	
03	HSTD02	WHB091030-02	12/22/09	2132	9.76	
04	HSTD03	WHB091030-03	12/22/09	2200	9.75	
05	HSTD04	WHB091030-04	12/22/09	2228	9.75	
06	HSTD05	WHB091030-05	12/22/09	2255	9.75	
07	HSTD06	WHB091030-06	12/22/09	2323	9.75	
08	HSTD07	WHB091030-07	12/22/09	2350	9.75	
09	HSTD01	WHB091222-08	12/23/09	0018	9.75	
10	HIBLK02	WHB091117-02	12/23/09	0046	9.76	
11	ZZZZZ	ZZZZZ	12/23/09	0113	9.76	
12	ZZZZZ	ZZZZZ	12/23/09	0140	9.76	
13	ZZZZZ	ZZZZZ	12/23/09	0208	9.75	
14	ZZZZZ	ZZZZZ	12/23/09	0235	9.75	
15	HSTD02	WHB091030-05	12/23/09	0303	9.75	
16	HIBLK03	WHB091117-02	12/23/09	0330	9.76	
17	HBLK01	1201995986	12/23/09	0357	9.76	
18	HBLK01LCS	1201995987	12/23/09	0425	9.75	
19	WST03-10-2145	242784003	12/23/09	0452	9.76	
20	WST03-10-2146	242784004	12/23/09	0520	9.77	
21	WST03-10-2146MS	1201995988	12/23/09	0547	9.76	
22	WST03-10-2146MSD	1201995989	12/23/09	0615	9.76	
23	HSTD03	WHB091030-05	12/23/09	0642	9.75	
24	HIBLK04	WHB091117-02	12/23/09	0710	9.76	
25	ZZZZZ	ZZZZZ	12/23/09	0738	9.76	
26	ZZZZZ	ZZZZZ	12/23/09	0805	9.75	
27	ZZZZZ	ZZZZZ	12/23/09	0833		
28	ZZZZZ	ZZZZZ	12/23/09	0901		
29	ZZZZZ	ZZZZZ	12/23/09	0928	9.76	
30	ZZZZZ	ZZZZZ	12/23/09	0957		
31	HSTD04	WHB091030-05	12/23/09	1025	9.75	
32	HIBLK05	WHB091117-02	12/23/09	1054	9.76	

QC LIMITS
S1 = 2,4-Dichlorophenylacet (+/- 0.06 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII HERBICIDE

FORM 8
HERBICIDE ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-899

GC Column: RTX-CLPII ID: 0.25 (mm) Init. Calib. Date(s): 12/22/09 12/22/09

Instrument ID: ECD6A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 10.85

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	RT #
01	HIBLK01	WHB091117-02	12/22/09	2036	10.86	
02	HSTD01	WHB091030-01	12/22/09	2104	10.86	
03	HSTD02	WHB091030-02	12/22/09	2132	10.85	
04	HSTD03	WHB091030-03	12/22/09	2200	10.85	
05	HSTD04	WHB091030-04	12/22/09	2228	10.84	
06	HSTD05	WHB091030-05	12/22/09	2255	10.85	
07	HSTD06	WHB091030-06	12/22/09	2323	10.85	
08	HSTD07	WHB091030-07	12/22/09	2350	10.85	
09	HSTD01	WHB091222-08	12/23/09	0018	10.85	
10	HIBLK02	WHB091117-02	12/23/09	0046	10.86	
11	ZZZZZ	ZZZZZ	12/23/09	0113	10.86	
12	ZZZZZ	ZZZZZ	12/23/09	0140	10.85	
13	ZZZZZ	ZZZZZ	12/23/09	0208	10.85	
14	ZZZZZ	ZZZZZ	12/23/09	0235	10.85	
15	HSTD02	WHB091030-05	12/23/09	0303	10.85	
16	HIBLK03	WHB091117-02	12/23/09	0330	10.86	
17	HBLK01	1201995986	12/23/09	0357	10.85	
18	HBLK01LCS	1201995987	12/23/09	0425	10.85	
19	WST03-10-2145	242784003	12/23/09	0452	10.85	
20	WST03-10-2146	242784004	12/23/09	0520	10.86	
21	WST03-10-2146MS	1201995988	12/23/09	0547	10.86	
22	WST03-10-2146MSD	1201995989	12/23/09	0615	10.86	
23	HSTD03	WHB091030-05	12/23/09	0642	10.85	
24	HIBLK04	WHB091117-02	12/23/09	0710	10.86	
25	ZZZZZ	ZZZZZ	12/23/09	0738	10.86	
26	ZZZZZ	ZZZZZ	12/23/09	0805	10.85	
27	ZZZZZ	ZZZZZ	12/23/09	0833		
28	ZZZZZ	ZZZZZ	12/23/09	0901		
29	ZZZZZ	ZZZZZ	12/23/09	0928	10.86	
30	ZZZZZ	ZZZZZ	12/23/09	0957		
31	HSTD04	WHB091030-05	12/23/09	1025	10.85	
32	HIBLK05	WHB091117-02	12/23/09	1054	10.86	

QC LIMITS
S1 = 2,4-Dichlorophenylacet (+/- 0.06 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

page 1 of 1

FORM VIII HERBICIDE

Identification Summary

SDG Number: 10–899 **Client ID:** LCS for batch 932998

Lab Sample ID: 1201995987

Data File:	018f1801.d	**Data File:**	018b1801.d
Inst:	ECD6A.I_1	**Inst:**	ECD6A.I_2
Column:	Rtx–CLP	**Column:**	Rtx–CLPII
Analyzed:	23–DEC–09 04:25	**Analyzed:**	23–DEC–09 04:25

Analyte		Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Dalapon								16.5
	Column 1	1	3.66	3.63 – 3.69	160		ug/kg	
	Column 2	1	3.61	3.58 – 3.64	189		ug/kg	
Dicamba								19.6
	Column 1	1	10.21	10.15 – 10.27	30.8		ug/kg	
	Column 2	1	11.33	11.27 – 11.39	25.3		ug/kg	
MCPP								4.93
	Column 1	1	10.96	10.91 – 11.03	3390		ug/kg	
	Column 2	1	11.7	11.64 – 11.76	3220		ug/kg	
MCPA								5.1
	Column 1	1	11.39	11.34 – 11.46	3220		ug/kg	
	Column 2	1	12.09	12.03 – 12.15	3060		ug/kg	
Dichlorprop								7.74
	Column 1	1	12.05	11.99 – 12.11	34.9		ug/kg	
	Column 2	1	12.52	12.46 – 12.58	32.3		ug/kg	

Identification Summary

SDG Number: 10–899 **Client ID:** LCS for batch 932998

Lab Sample ID: 1201995987

Data File:	018f1801.d	**Data File:**	018b1801.d
Inst:	ECD6A.I_1	**Inst:**	ECD6A.I_2
Column:	Rtx–CLP	**Column:**	Rtx–CLPII
Analyzed:	23–DEC–09 04:25	**Analyzed:**	23–DEC–09 04:25

Analyte		Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
2,4–D								3.06
	Column 1	1	12.37	12.31 – 12.43	33.4		ug/kg	
	Column 2	1	12.85	12.79 – 12.91	32.4		ug/kg	
2,4,5–TP								2.17
	Column 1	1	13.18	13.15 – 13.21	34.9		ug/kg	
	Column 2	1	13.51	13.48 – 13.54	35.7		ug/kg	
2,4,5–T								.399
	Column 1	1	13.4	13.36 – 13.44	33.5		ug/kg	
	Column 2	1	13.76	13.73 – 13.79	33.6		ug/kg	
2,4–DB								3.21
	Column 1	1	13.77	13.73 – 13.81	34		ug/kg	
	Column 2	1	14.07	14.03 – 14.11	35.1		ug/kg	
Dinoseb								.00971
	Column 1	1	14.36	14.33 – 14.39	36.7		ug/kg	
	Column 2	1	14.24	14.2 – 14.26	36.7		ug/kg	

Identification Summary

SDG Number: 10–899 **Client ID:** WST03–10–2146MS

Lab Sample ID: 1201995988

Data File:	021f2101.d	**Data File:**	021b2101.d
Inst:	ECD6A.I_1	**Inst:**	ECD6A.I_2
Column:	Rtx–CLP	**Column:**	Rtx–CLPII
Analyzed:	23–DEC–09 05:47	**Analyzed:**	23–DEC–09 05:47

Analyte		Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Dalapon								1.09
	Column 1	1	3.65	3.63 – 3.69	333		ug/kg	
	Column 2	1	3.61	3.58 – 3.64	330		ug/kg	
Dicamba								1.03
	Column 1	1	10.22	10.15 – 10.27	35.3		ug/kg	
	Column 2	1	11.34	11.27 – 11.39	34.9		ug/kg	
MCPA								12.8
	Column 1	1	11.4	11.34 – 11.46	2870		ug/kg	
	Column 2	1	12.09	12.03 – 12.15	3260		ug/kg	
Dichlorprop								3.25
	Column 1	1	12.05	11.99 – 12.11	29.4		ug/kg	
	Column 2	1	12.52	12.46 – 12.58	28.5		ug/kg	
2,4–D								1.54
	Column 1	1	12.37	12.31 – 12.43	29		ug/kg	
	Column 2	1	12.85	12.79 – 12.91	29.4		ug/kg	

Identification Summary

SDG Number: 10–899 **Client ID:** WST03–10–2146MS

Lab Sample ID: 1201995988

Data File:	021f2101.d	**Data File:**	021b2101.d
Inst:	ECD6A.I_1	**Inst:**	ECD6A.I_2
Column:	Rtx–CLP	**Column:**	Rtx–CLPII
Analyzed:	23–DEC–09 05:47	**Analyzed:**	23–DEC–09 05:47

Analyte		Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
2,4,5–TP								7.03
	Column 1	1	13.18	13.15 – 13.21	28.7		ug/kg	
	Column 2	1	13.51	13.48 – 13.54	26.7		ug/kg	
2,4,5–T								13.4
	Column 1	1	13.4	13.36 – 13.44	25.8		ug/kg	
	Column 2	1	13.77	13.73 – 13.79	22.6		ug/kg	
2,4–DB								25.3
	Column 1	1	13.77	13.73 – 13.81	29.7		ug/kg	
	Column 2	1	14.07	14.03 – 14.11	23		ug/kg	
Dinoseb								33.4
	Column 1	1	14.36	14.33 – 14.39	32.8		ug/kg	
	Column 2	1	14.24	14.2 – 14.26	23.4		ug/kg	

Identification Summary

SDG Number: 10–899 **Client ID:** WST03–10–2146MSD

Lab Sample ID: 1201995989

Data File:	022f2201.d	**Data File:**	022b2201.d
Inst:	ECD6A.I_1	**Inst:**	ECD6A.I_2
Column:	Rtx–CLP	**Column:**	Rtx–CLPII
Analyzed:	23–DEC–09 06:15	**Analyzed:**	23–DEC–09 06:15

Analyte		Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Dalapon								.439
	Column 1	1	3.65	3.63 – 3.69	339		ug/kg	
	Column 2	1	3.61	3.58 – 3.64	338		ug/kg	
Dicamba								2.96
	Column 1	1	10.22	10.15 – 10.27	35.5		ug/kg	
	Column 2	1	11.34	11.27 – 11.39	34.5		ug/kg	
MCPA								3.19
	Column 1	1	11.4	11.34 – 11.46	3050		ug/kg	
	Column 2	1	12.09	12.03 – 12.15	3150		ug/kg	
Dichlorprop								.591
	Column 1	1	12.06	11.99 – 12.11	28.5		ug/kg	
	Column 2	1	12.52	12.46 – 12.58	28.3		ug/kg	
2,4–D								5.27
	Column 1	1	12.37	12.31 – 12.43	29.1		ug/kg	
	Column 2	1	12.85	12.79 – 12.91	30.7		ug/kg	

Identification Summary

SDG Number: 10–899 **Client ID:** WST03–10–2146MSD

Lab Sample ID: 1201995989

Data File:	022f2201.d	**Data File:**	022b2201.d
Inst:	ECD6A.I_1	**Inst:**	ECD6A.I_2
Column:	Rtx–CLP	**Column:**	Rtx–CLPII
Analyzed:	23–DEC–09 06:15	**Analyzed:**	23–DEC–09 06:15

Analyte		Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
2,4,5–TP								2
	Column 1	1	13.19	13.15 – 13.21	26.7		ug/kg	
	Column 2	1	13.51	13.48 – 13.54	26.2		ug/kg	
2,4,5–T								12.7
	Column 1	1	13.4	13.36 – 13.44	24.6		ug/kg	
	Column 2	1	13.77	13.73 – 13.79	21.6		ug/kg	
2,4–DB								23.8
	Column 1	1	13.77	13.73 – 13.81	27.7		ug/kg	
	Column 2	1	14.07	14.03 – 14.11	21.8		ug/kg	
Dinoseb								60.6
	Column 1	1	14.36	14.33 – 14.39	40.5		ug/kg	
	Column 2	1	14.24	14.2 – 14.26	21.6		ug/kg	

QUALITY CONTROL DATA

Herbicide
Certificate of Analysis
Sample Summary

SDG Number:	**10–899**			**Matrix:**	**SOIL**
Lab Sample ID:	**1201995986**				
Client Sample:	**QC for batch 932998**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 932998**	**Method:**	**SW846 8151A**	**SOP Ref:**	**GL–OA–E–011**
Batch ID:	**932999**	**Inst:**	**ECD6A.I**	**Dilution:**	**1**
Run Date:	**12/23/2009 03:57**	**Analyst:**	**HXJ1**	**Inj. Vol:**	**1 uL**
Prep Date:	**12/15/2009 16:48**	**Aliquot:**	**50 g**	**Final Volume:**	**10 mL**
Data File:	**017f1701.d**	**Column:**	**1 Rtx–CLP**	**Level:**	**LOW**
	017b1701.d		**2 Rtx–CLPII**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
75–99–0	Dalapon	U	100	ug/kg	20.0	100	1
1918–00–9	Dicamba	U	5.00	ug/kg	1.66	5.00	1
93–65–2	MCPP	U	1000	ug/kg	200	1000	1
94–74–6	MCPA	U	1000	ug/kg	230	1000	1
120–36–5	Dichlorprop	U	5.00	ug/kg	1.66	5.00	1
94–75–7	2,4–D	U	5.00	ug/kg	1.66	5.00	1
93–72–1	2,4,5–TP	U	5.00	ug/kg	1.66	5.00	1
93–76–5	2,4,5–T	U	5.00	ug/kg	1.66	5.00	1
94–82–6	2,4–DB	U	5.00	ug/kg	1.66	5.00	1
88–85–7	Dinoseb	U	5.00	ug/kg	1.66	5.00	1

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Column: RtxCLP 0.25mm x 30 m Inj Vol: 2 ul

Data file : /chem/ecd6a.i/122209a.b/017f1701.d
Lab Smp Id: 1201995986 Client Smp ID: HBLK01
Inj Date : 23-DEC-2009 03:57
Operator : HXJ1 Inst ID: ecd6a.i
Smp Info : |1201995986|1|
Misc Info : |ECD51H_1S|932999|SVHF|MB|SOIL|MB|||
Comment :
Method : /chem/ecd6a.i/122209a.b/ECD6-F-8151A-122209.m
Meth Date : 23-Dec-2009 10:14 reb01393 Quant Type: ESTD
Cal Date : 22-DEC-2009 21:04 Cal File: 002f0201.d
Als bottle: 17 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-899.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	10.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	50.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)
$ 2 2,4-Dichlorophenylacetic acid CAS #: 19719-28-9						
	9.758	9.752	0.006	45965304	277.331	55.5

Data File: /chem/ecd6a.i/122209a.b/017f1701.d
Date : 23-DEC-2009 03:57
Client ID: HBLK01
Sample Info: |1201995986|1|
Volume Injected (uL): 1.0
Column phase: Rtx-CLP

Instrument: ecd6a.i

Operator: HXJ1
Column diameter: 0.25

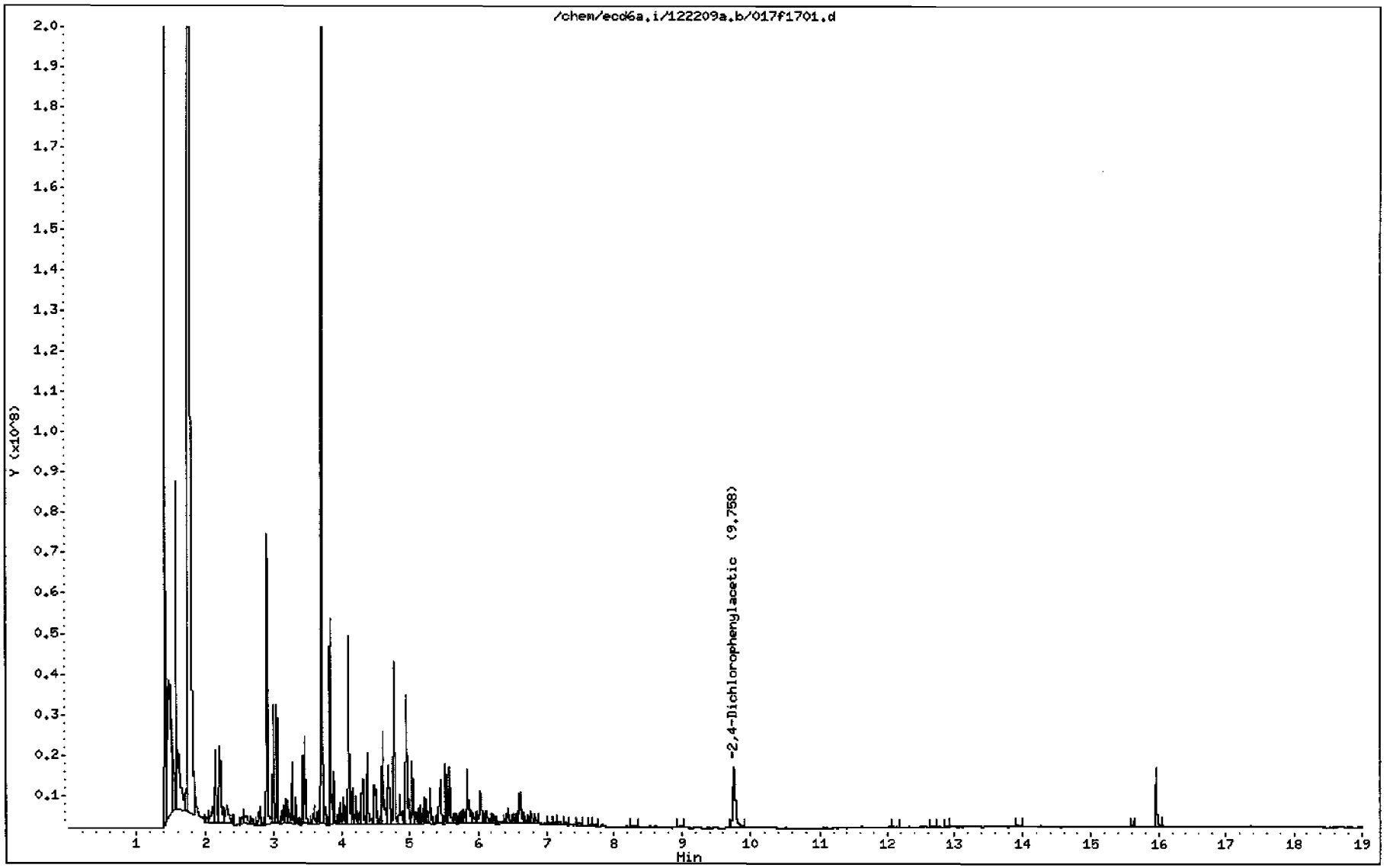

GEL Laboratories LLC

Column: RtxCLPII 0.25mm x 30 m Inj Vol: 2ul

Data file : /chem/ecd6a.i/122209a.b/017b1701.d
Lab Smp Id: 1201995986 Client Smp ID: HBLK01
Inj Date : 23-DEC-2009 03:57
Operator : HXJ1 Inst ID: ecd6a.i
Smp Info : |1201995986|1|
Misc Info : |ECD51H_1S|932999|SVHF|MB|SOIL|MB|||
Comment : RtxCLPII
Method : /chem/ecd6a.i/122209a.b/ECD6-B-8151A-122209.m
Meth Date : 23-Dec-2009 10:06 reb01393 Quant Type: ESTD
Cal Date : 22-DEC-2009 21:32 Cal File: 003b0301.d
Als bottle: 17 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-899.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	10.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	50.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)
$ 2 2,4-Dichlorophenylacetic acid					CAS #: 19719-28-9
10.853	10.850	0.003	60136333	282.540	56.5

Data File: /chem/ecd6a.i/122209a.b/017b1701.d
Date : 23-DEC-2009 03:57
Client ID: HBLK01
Sample Info: |1201995986|1|
Volume Injected (uL): 1.0
Column phase: Rtx-CLPII

Instrument: ecd6a.i
Operator: HXJ1
Column diameter: 0.25

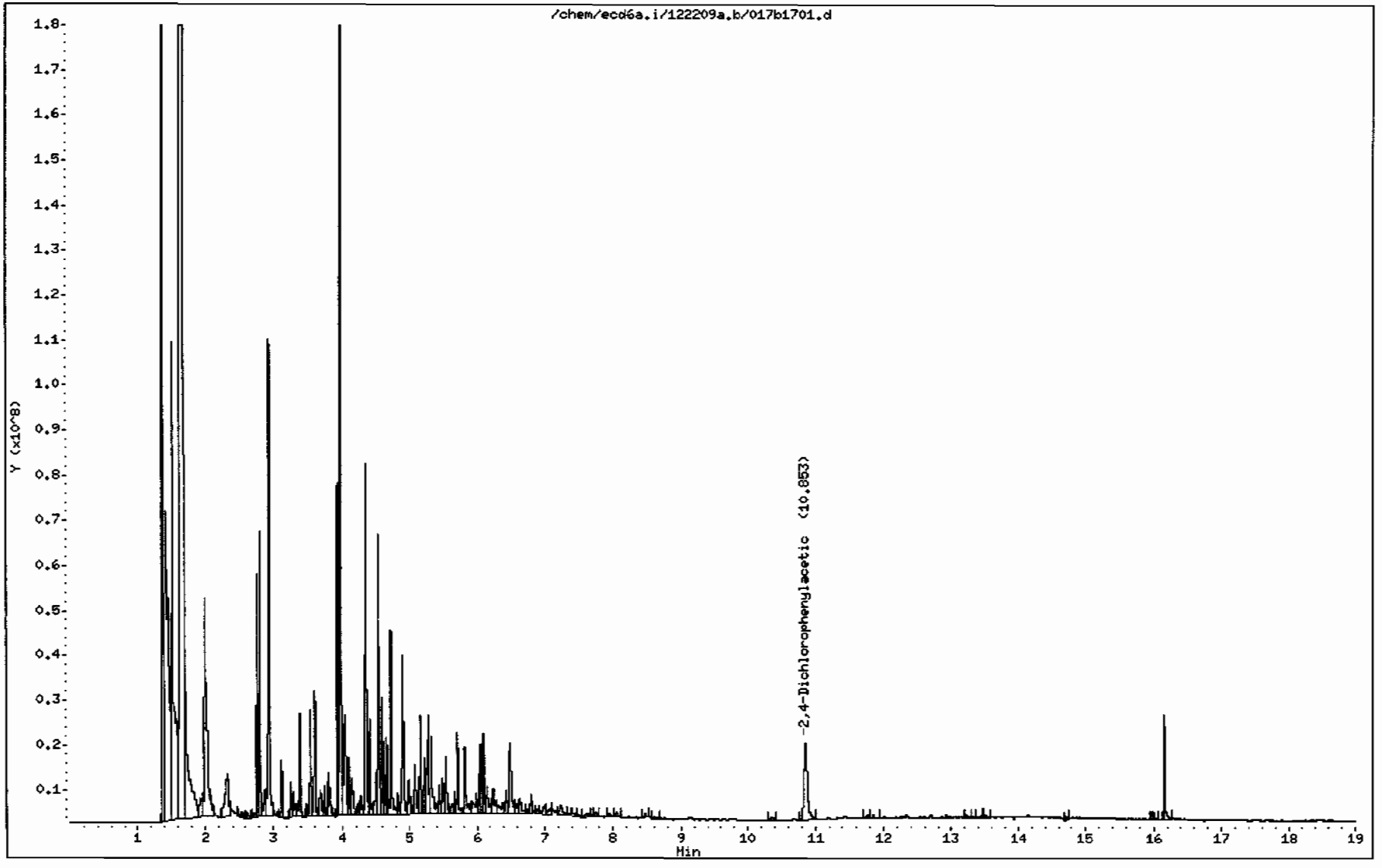

Herbicide
Certificate of Analysis
Sample Summary

SDG Number:	10–899			**Matrix:**	SOIL
Lab Sample ID:	1201995987				
Client Sample:	QC for batch 932998	**Client:**	LANL010	**Project:**	QC
Client ID:	LCS for batch 932998	**Method:**	SW846 8151A	**SOP Ref:**	GL–OA–E–011
Batch ID:	932999	**Inst:**	ECD6A.I	**Dilution:**	1
Run Date:	12/23/2009 04:25	**Analyst:**	HXJ1	**Inj. Vol:**	1 uL
Prep Date:	12/15/2009 16:48	**Aliquot:**	50 g	**Final Volume:**	10 mL
Data File:	018f1801.d	**Column:**	1 Rtx–CLP	**Level:**	LOW
	018b1801.d		2 Rtx–CLPII		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
75–99–0	Dalapon		189	ug/kg	20.0	100	2
1918–00–9	Dicamba		30.8	ug/kg	1.66	5.00	1
93–65–2	MCPP		3390	ug/kg	200	1000	1
94–74–6	MCPA		3220	ug/kg	230	1000	1
120–36–5	Dichlorprop		34.9	ug/kg	1.66	5.00	1
94–75–7	2,4–D		33.4	ug/kg	1.66	5.00	1
93–72–1	2,4,5–TP		35.7	ug/kg	1.66	5.00	2
93–76–5	2,4,5–T		33.6	ug/kg	1.66	5.00	2
94–82–6	2,4–DB		35.1	ug/kg	1.66	5.00	2
88–85–7	Dinoseb		36.7	ug/kg	1.66	5.00	1

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Column: RtxCLP 0.25mm x 30 m Inj Vol: 2 ul

Data file : /chem/ecd6a.i/122209a.b/018f1801.d
Lab Smp Id: 1201995987 Client Smp ID: HBLK01LCS
Inj Date : 23-DEC-2009 04:25
Operator : HXJ1 Inst ID: ecd6a.i
Smp Info : |1201995987|1|
Misc Info : |ECD51H_1S|932999|SVHF|LCS|SOIL|LCS|||
Comment :
Method : /chem/ecd6a.i/122209a.b/ECD6-F-8151A-122209.m
Meth Date : 23-Dec-2009 10:14 reb01393 Quant Type: ESTD
Cal Date : 22-DEC-2009 21:04 Cal File: 002f0201.d
Als bottle: 18 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-899.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	10.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	50.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)
$ 2 2,4-Dichlorophenylacetic acid					CAS #: 19719-28-9
9.748	9.752	-0.004	69774275	420.982	84.2
1 Dalapon					CAS #: 75-99-0
3.659	3.657	0.002	104596988	801.117	160
3 Dicamba					CAS #: 6597-78-0
10.210	10.214	-0.004	86160973	153.776	30.8
4 MCPP					CAS #: 7085-19-0
10.961	10.966	-0.005	9584294	16929.7	3380

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)
5 MCPA					CAS #: 94-74-6
11.394	11.400	-0.006	16019686	16116.6	3220
6 Dichlorprop					CAS #: 120-36-5
12.055	12.054	0.001	24992512	174.279	34.8
7 2,4-D					CAS #: 94-75-7
12.368	12.368	0.000	26906588	167.162	33.4
8 2,4,5-TP					CAS #: 93-72-1
13.184	13.184	0.000	109687842	174.702	34.9
9 2,4,5-T					CAS #: 93-76-5
13.402	13.400	0.002	93854574	167.401	33.5
10 2,4-DB					CAS #: 94-82-6
13.768	13.767	0.001	14692881	170.013	34.0
11 Dinoseb					CAS #: 88-85-7
14.357	14.357	0.000	52100055	183.594	36.7

Data File: /chem/ecd6a.i/122209a.b/018f1801.d
Date : 23-DEC-2009 04:25
Client ID: HBLK01LCS
Sample Info: |12019958871|
Volume Injected (uL): 1.0
Column phase: Rtx-CLP

Instrument: ecd6a.i

Operator: HXJ1
Column diameter: 0.25

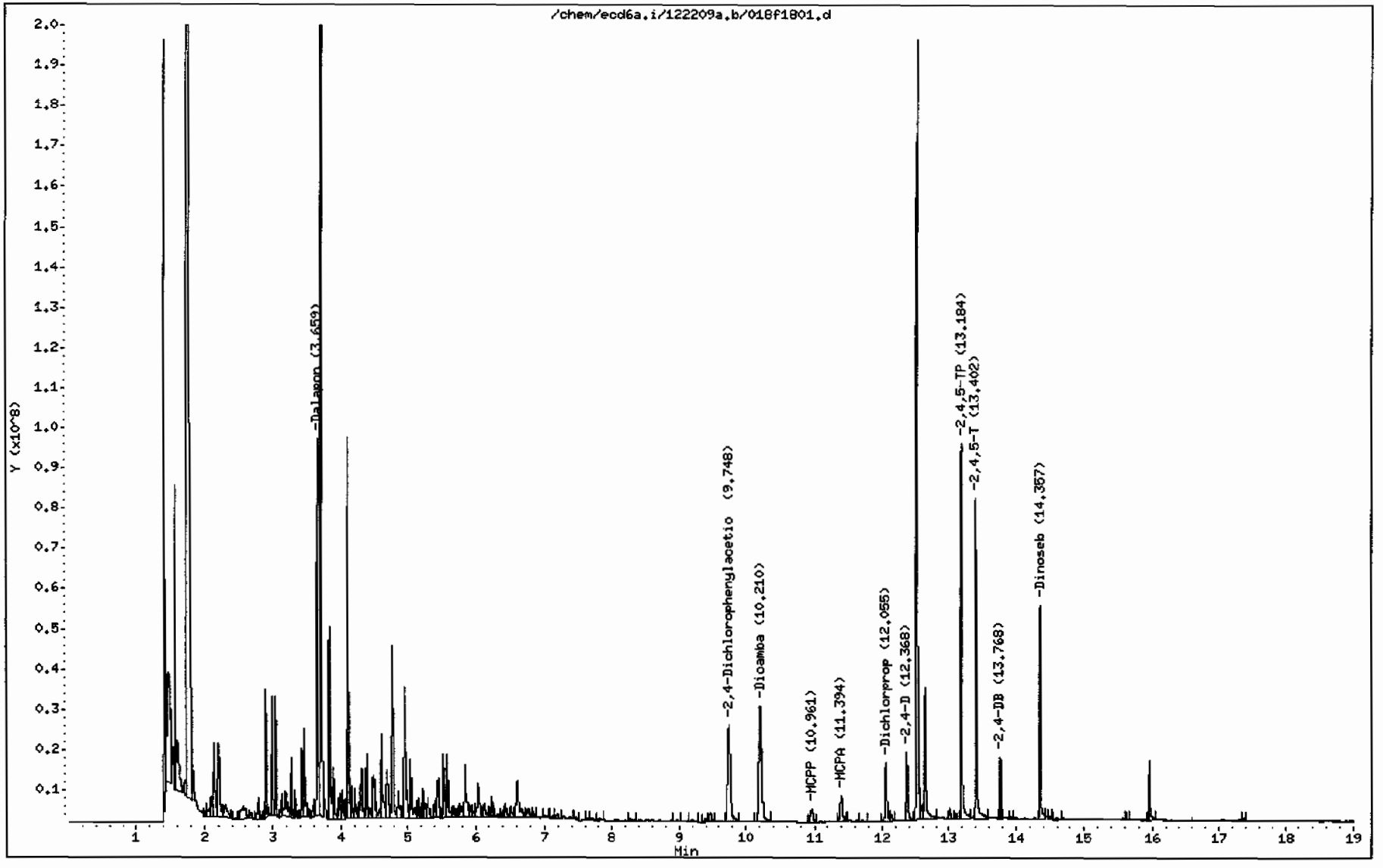

GEL Laboratories LLC

Column: RtxCLPII 0.25mm x 30 m Inj Vol: 2ul

Data file : /chem/ecd6a.i/122209a.b/018b1801.d
Lab Smp Id: 1201995987 Client Smp ID: HBLK01LCS
Inj Date : 23-DEC-2009 04:25
Operator : HXJ1 Inst ID: ecd6a.i
Smp Info : |1201995987|1|
Misc Info : |ECD51H_1S|932999|SVHF|LCS|SOIL|LCS|||
Comment : RtxCLPII
Method : /chem/ecd6a.i/122209a.b/ECD6-B-8151A-122209.m
Meth Date : 23-Dec-2009 10:06 reb01393 Quant Type: ESTD
Cal Date : 22-DEC-2009 21:32 Cal File: 003b0301.d
Als bottle: 18 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-899.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	10.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	50.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	
$ 2 2,4-Dichlorophenylacetic acid					CAS #: 19719-28-9	
10.845	10.850	-0.005	94641606	444.657	88.9	
1 Dalapon					CAS #: 88-85-7	
3.613	3.610	0.003	198758815	945.068	189	
4 Dicamba					CAS #: 6597-78-0	
11.330	11.332	-0.002	116381948	126.359	25.3	
3 MCPP					CAS #: 7085-19-0	
11.700	11.702	-0.002	23390908	16114.6	3220	(M)

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	CONCENTRATIONS FINAL (ug/Kg)	
5 MCPA					CAS #: 94-74-6	
12.089	12.091	-0.002	28784604	15314.9	3060	
6 Dichlorprop					CAS #: 120-36-5	
12.524	12.525	-0.001	32262368	161.292	32.2	(M)
7 2,4-D					CAS #: 94-75-7	
12.851	12.850	0.001	38415752	162.118	32.4	(M)
8 2,4,5-TP					CAS #: 93-72-1	
13.511	13.511	0.000	162582458	178.543	35.7	(M)
9 2,4,5-T					CAS #: 93-76-5	
13.765	13.764	0.001	135487277	168.070	33.6	(M)
11 2,4-DB					CAS #: 94-82-6	
14.066	14.066	0.000	19867185	175.555	35.1	(M)
10 Dinoseb					CAS #: 88-85-7	
14.235	14.235	0.000	79593035	183.576	36.7	(M)

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd6a.i/122209a.b/018b1801.d
Date : 23-DEC-2009 04:25
Client ID: HBLK01LCS
Sample Info: |1201995987|1|
Volume Injected (uL): 1.0
Column phase: Rtx-CLPII

Instrument: ecd6a.i

Operator: HXJ1
Column diameter: 0.25

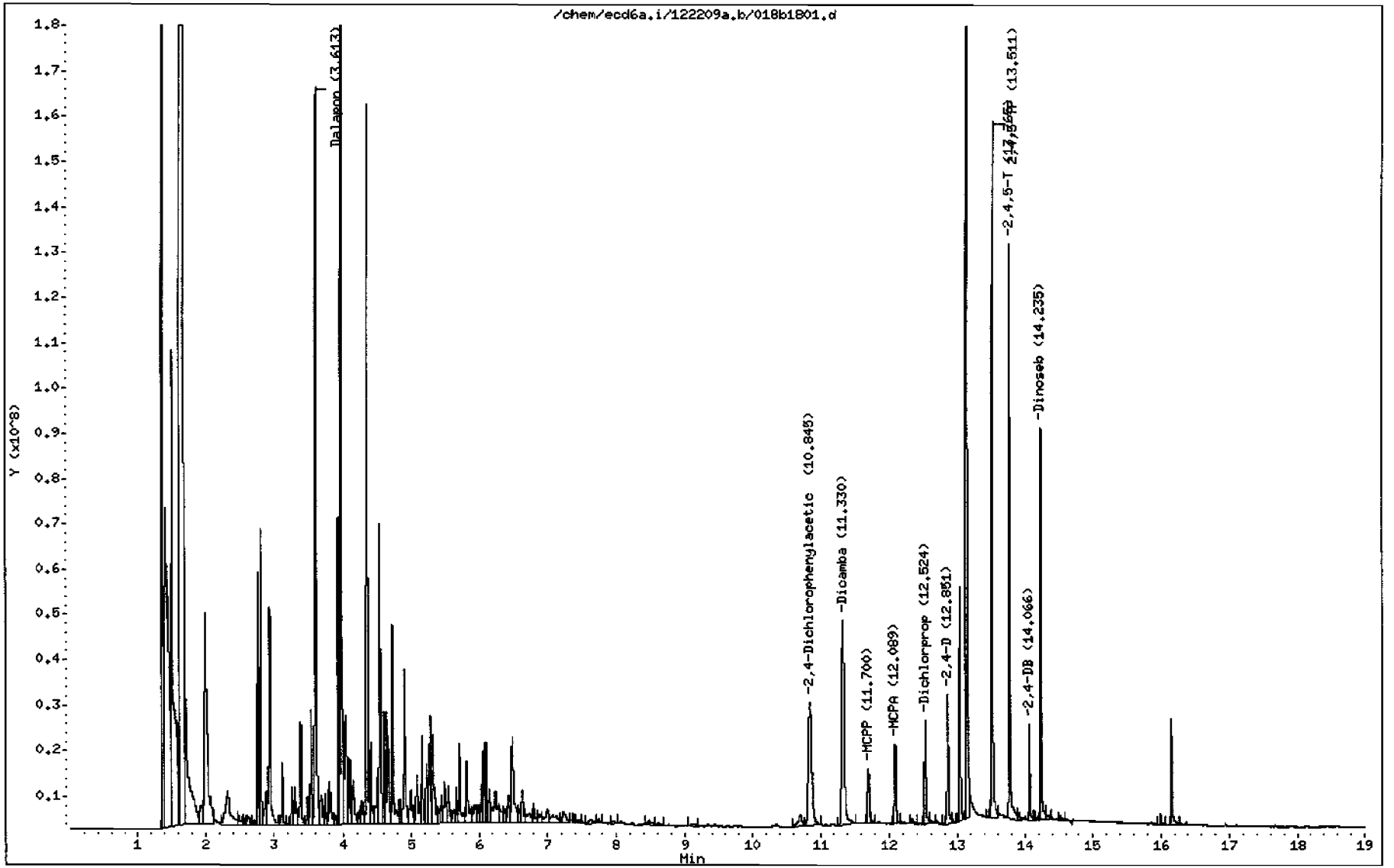

Comment: Manually Integrated
Data File: /chem/ecd6a.i/122209a.b/018b1801.d
Operator: HXJ1
Injection Date: 23-DEC-2009 04:25
Instrument: ecd6a.i
Client Sample ID: HBLK01LCS

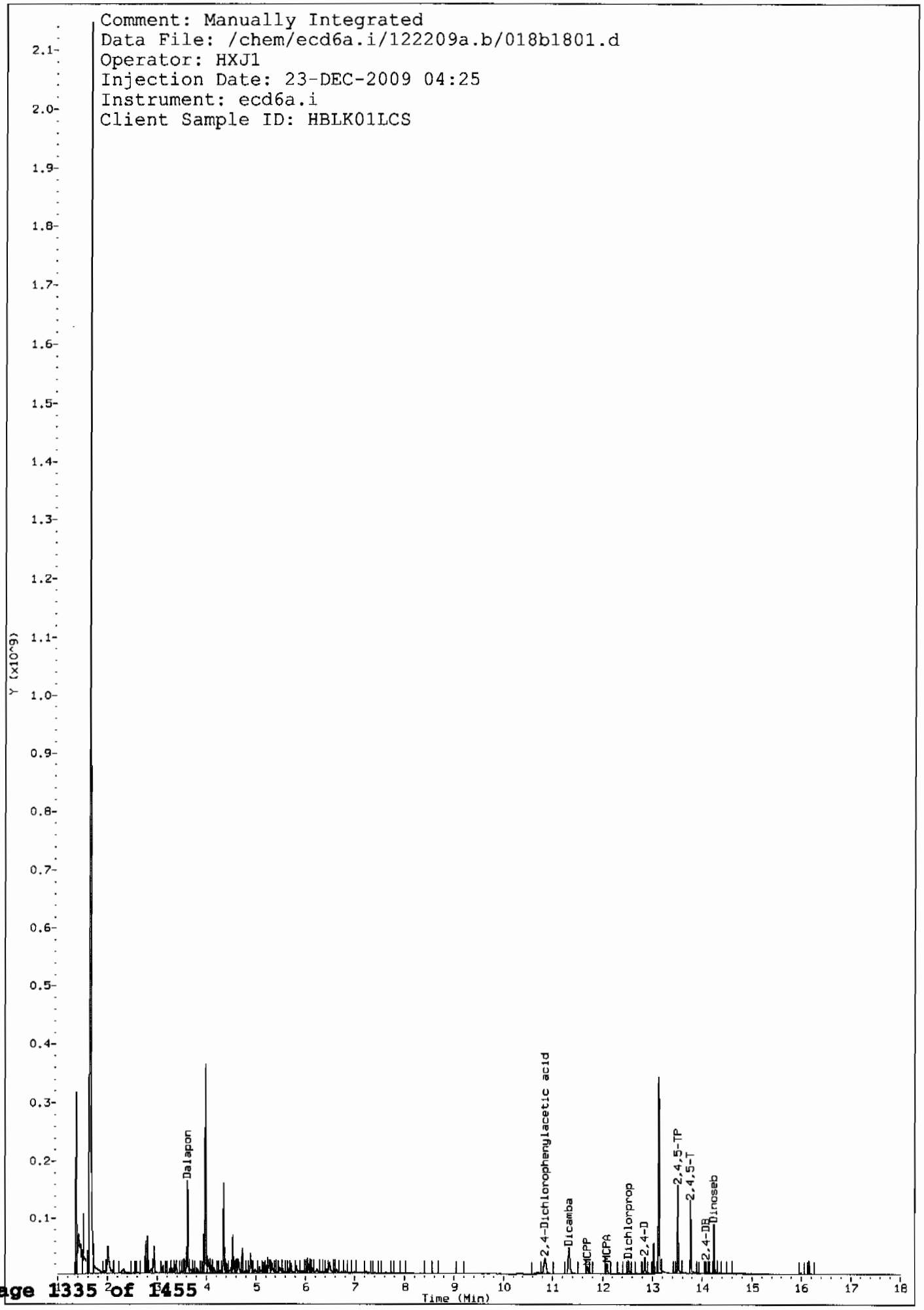

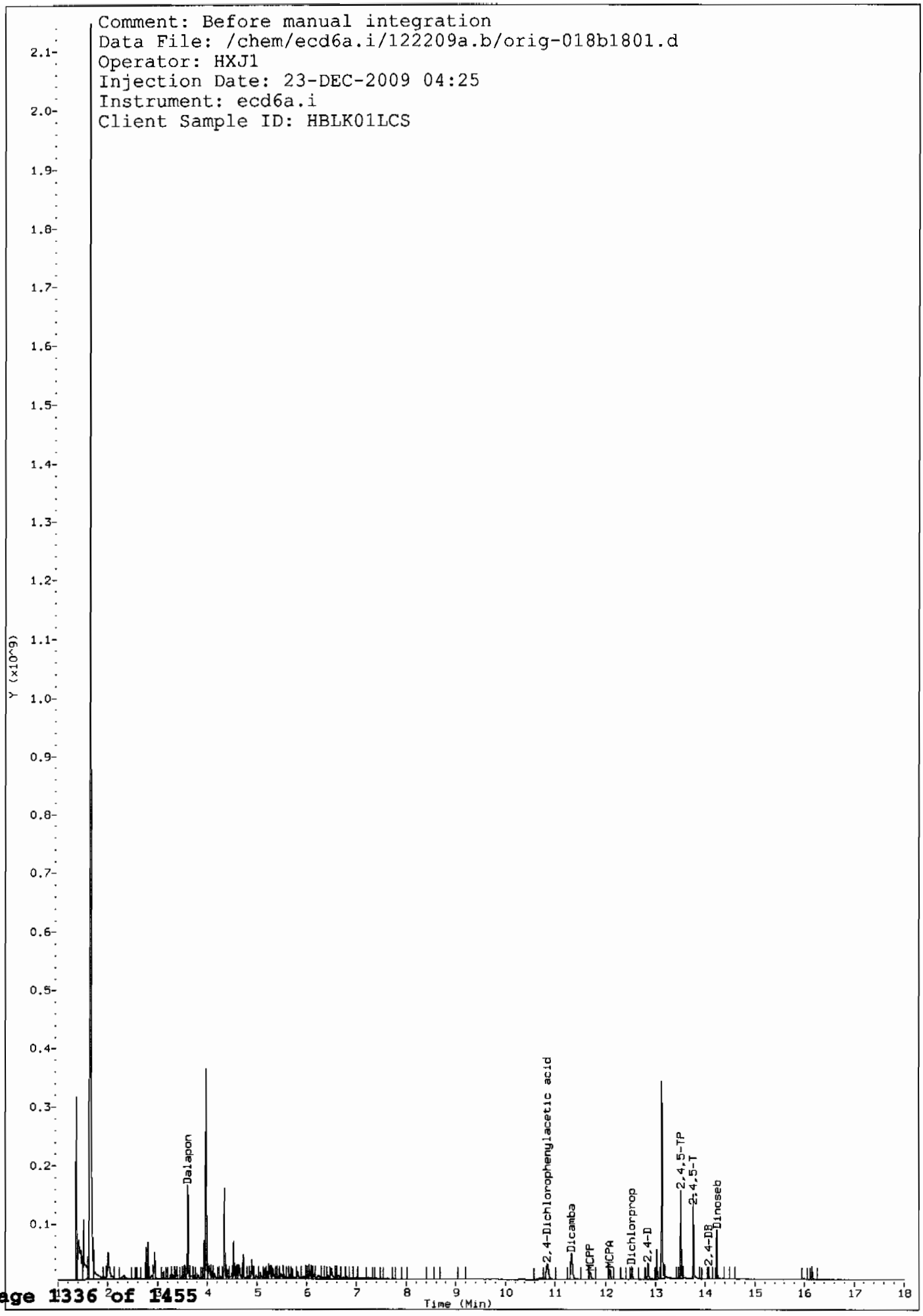
Comment: Before manual integration
Data File: /chem/ecd6a.i/122209a.b/orig-018b1801.d
Operator: HXJ1
Injection Date: 23-DEC-2009 04:25
Instrument: ecd6a.i
Client Sample ID: HBLK01LCS
Y (x10^9)
Time (Min)
Dalapon
2,4-Dichlorophenylacetic acid
Dicamba
MCPP
MCPA
Dichlorprop
2,4-D
2,4,5-TP
2,4,5-T
2,4-DB
Dinoseb

Herbicide
Certificate of Analysis
Sample Summary

SDG Number:	10–899	**Date Collected:**	12/10/2009 12:00	**Matrix:**	R
Lab Sample ID:	1201995988	**Date Received:**	12/12/2009 09:35	**%Moisture:**	9.8
Client Sample:	QC for batch 932998	**Client:**	LANL010	**Project:**	QC
Client ID:	WST03–10–2146MS	**Method:**	SW846 8151A	**SOP Ref:**	GL–OA–E–011
Batch ID:	932999	**Inst:**	ECD6A.I	**Dilution:**	10
Run Date:	12/23/2009 05:47	**Analyst:**	HXJ1	**Inj. Vol:**	1 uL
Prep Date:	12/15/2009 16:48	**Aliquot:**	50.02 g	**Final Volume:**	10 mL
Data File:	021f2101.d	**Column:**	1 Rtx–CLP	**Level:**	LOW
	021b2101.d		2 Rtx–CLPII		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
75–99–0	Dalapon	J	333	ug/kg	222	1110	1
1918–00–9	Dicamba	J	35.3	ug/kg	18.4	55.4	1
93–65–2	MCPP	U	11100	ug/kg	2220	11100	1
94–74–6	MCPA	J	2870	ug/kg	2550	11100	1
120–36–5	Dichlorprop	J	29.4	ug/kg	18.4	55.4	1
94–75–7	2,4–D	J	29.0	ug/kg	18.4	55.4	1
93–72–1	2,4,5–TP	J	28.7	ug/kg	18.4	55.4	1
93–76–5	2,4,5–T	J	25.8	ug/kg	18.4	55.4	1
94–82–6	2,4–DB	J	29.7	ug/kg	18.4	55.4	1
88–85–7	Dinoseb	J	32.8	ug/kg	18.4	55.4	1

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Column: RtxCLP 0.25mm x 30 m Inj Vol: 2 ul

Data file : /chem/ecd6a.i/122209a.b/021f2101.d
Lab Smp Id: 1201995988 Client Smp ID: WST03-10-2146MS
Inj Date : 23-DEC-2009 05:47
Operator : HXJ1 Inst ID: ecd6a.i
Smp Info : |1201995988|10|
Misc Info : |ECD51H_1S|932999|SVHF|MS|SOIL|MS|||
Comment :
Method : /chem/ecd6a.i/122209a.b/ECD6-F-8151A-122209.m
Meth Date : 23-Dec-2009 10:14 reb01393 Quant Type: ESTD
Cal Date : 22-DEC-2009 21:04 Cal File: 002f0201.d
Als bottle: 21 QC Sample: MS
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: 10-899.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	10.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	10.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	50.02000	Weight of sample extracted (g)
M	9.79830	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	
$ 2 2,4-Dichlorophenylacetic acid					CAS #: 19719-28-9	
9.761	9.752	0.009	7164779	43.2286	95.8	
1 Dalapon					CAS #: 75-99-0	
3.653	3.657	-0.004	19640650	150.429	333	(a)
3 Dicamba					CAS #: 6597-78-0	
10.220	10.214	0.006	8918188	15.9167	35.3	(a)
5 MCPA					CAS #: 94-74-6	
11.397	11.400	-0.003	1286926	1294.71	2870	(a)

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	
6 Dichlorprop					CAS #: 120-36-5	
12.054	12.054	0.000	1902946	13.2697	29.4	(a)
7 2,4-D					CAS #: 94-75-7	
12.370	12.368	0.002	2104325	13.0735	29.0	(a)
8 2,4,5-TP					CAS #: 93-72-1	
13.185	13.184	0.001	8121444	12.9352	28.7	(a)
9 2,4,5-T					CAS #: 93-76-5	
13.403	13.400	0.003	6524380	11.6370	25.8	(a)
10 2,4-DB					CAS #: 94-82-6	
13.770	13.767	0.003	1156518	13.3822	29.6	(a)
11 Dinoseb					CAS #: 88-85-7	
14.357	14.357	0.000	4197476	14.7914	32.8	(a)

QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).

Data File: /chem/ecd6a.i/122209a.b/021f2101.d

Date : 23-DEC-2009 05:47

Client ID: WST03-10-2146MS

Sample Info: |12019959881101

Volume Injected (uL): 1.0

Column phase: Rtx-CLP

Instrument: ecd6a.i

Operator: HXJ1

Column diameter: 0.25

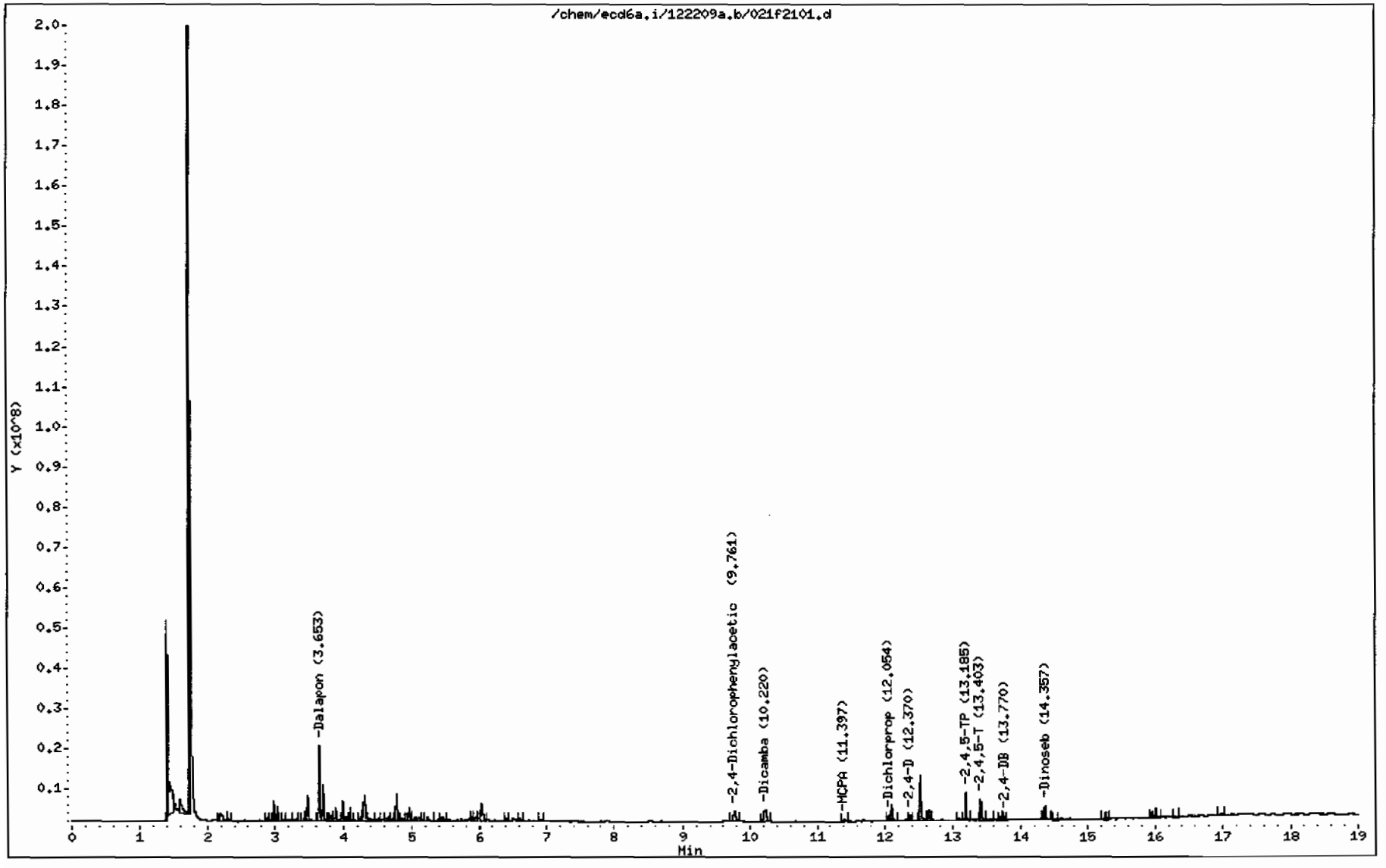

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Column: RtxCLPII 0.25mm x 30 m Inj Vol: 2ul

Data file : /chem/ecd6a.i/122209a.b/021b2101.d
Lab Smp Id: 1201995988 Client Smp ID: WST03-10-2146MS
Inj Date : 23-DEC-2009 05:47
Operator : HXJ1 Inst ID: ecd6a.i
Smp Info : |1201995988|10|
Misc Info : |ECD51H_1S|932999|SVHF|MS|SOIL|MS|||
Comment : RtxCLPII
Method : /chem/ecd6a.i/122209a.b/ECD6-B-8151A-122209.m
Meth Date : 23-Dec-2009 11:23 reb01393 Quant Type: ESTD
Cal Date : 22-DEC-2009 21:32 Cal File: 003b0301.d
Als bottle: 21 QC Sample: MS
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: 10-899.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	10.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	10.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	50.02000	Weight of sample extracted (g)
M	9.79830	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	
$ 2 2,4-Dichlorophenylacetic acid					CAS #: 19719-28-9	
10.860	10.850	0.010	9020377	42.3806	93.9	
1 Dalapon					CAS #: 88-85-7	
3.609	3.610	-0.001	31294109	148.799	330	(a)
4 Dicamba					CAS #: 6597-78-0	
11.339	11.332	0.007	14509480	15.7534	34.9	(a)
5 MCPA					CAS #: 94-74-6	
12.090	12.091	-0.001	2765371	1471.32	3260	(a)

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	
6 Dichlorprop					CAS #: 120-36-5	
12.525	12.525	0.000	2569307	12.8449	28.5	(a)
7 2,4-D					CAS #: 94-75-7	
12.853	12.850	0.003	3146083	13.2767	29.4	(a)
8 2,4,5-TP					CAS #: 93-72-1	
13.511	13.511	0.000	10979196	12.0570	26.7	(a)
9 2,4,5-T					CAS #: 93-76-5	
13.765	13.764	0.001	8205452	10.1787	22.6	(aM)
11 2,4-DB					CAS #: 94-82-6	
14.067	14.066	0.001	1174347	10.3770	23.0	(aM)
10 Dinoseb					CAS #: 88-85-7	
14.236	14.235	0.001	4578819	10.5607	23.4	(aM)

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

Data File: /chem/ecd6a.i/122209a.b/021b2101.d

Date : 23-DEC-2009 05:47

Client ID: WST03-10-2146MS

Sample Info: |1201995988|10|

Volume Injected (uL): 1.0

Column phase: Rtx-CLPII

Instrument: ecd6a.i

Operator: HXJ1

Column diameter: 0.25

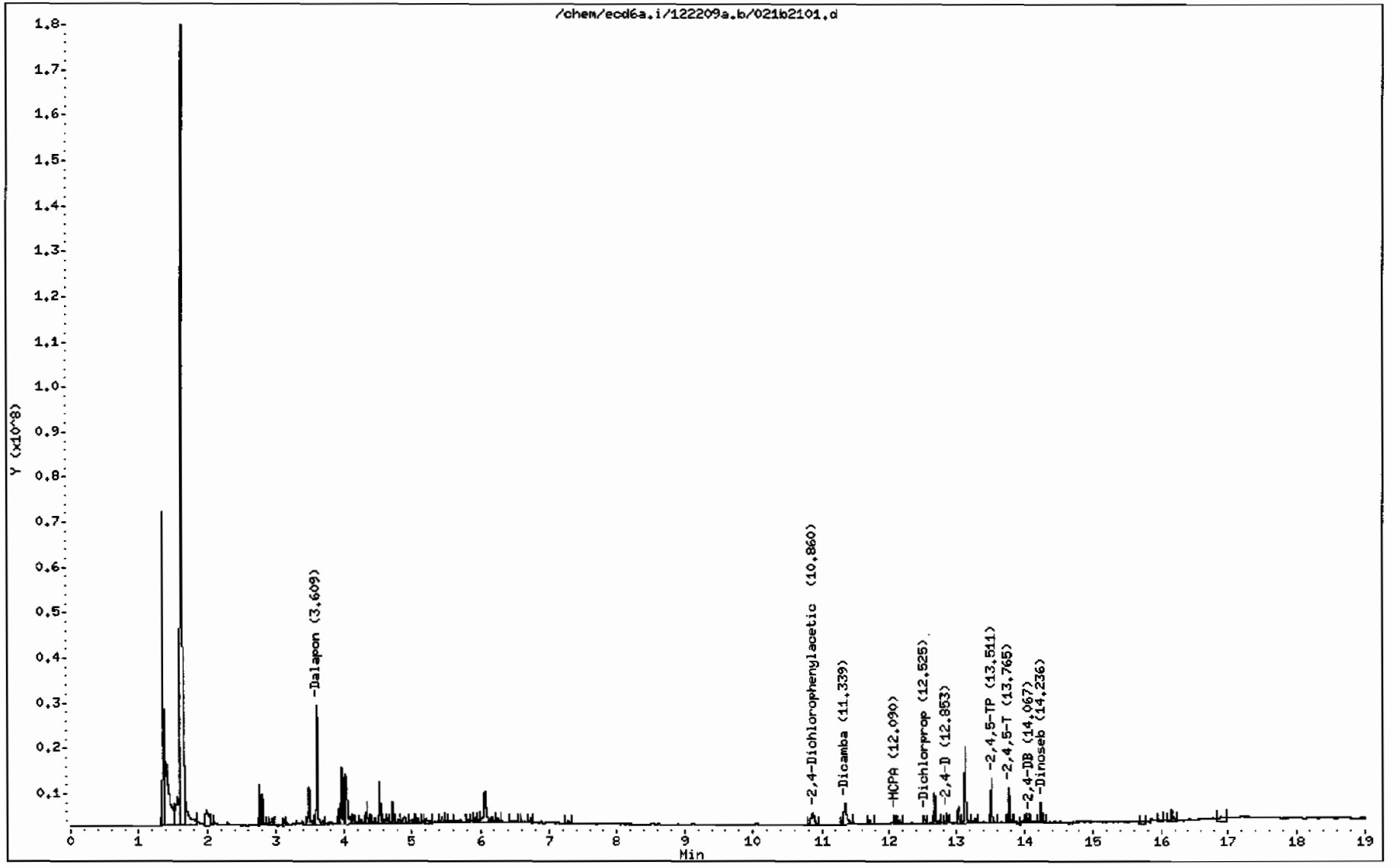

Comment: Manually Integrated
Data File: /chem/ecd6a.i/122209a.b/021b2101.d
Operator: HXJ1
Injection Date: 23-DEC-2009 05:47
Instrument: ecd6a.i
Client Sample ID: WST03-10-2146MS

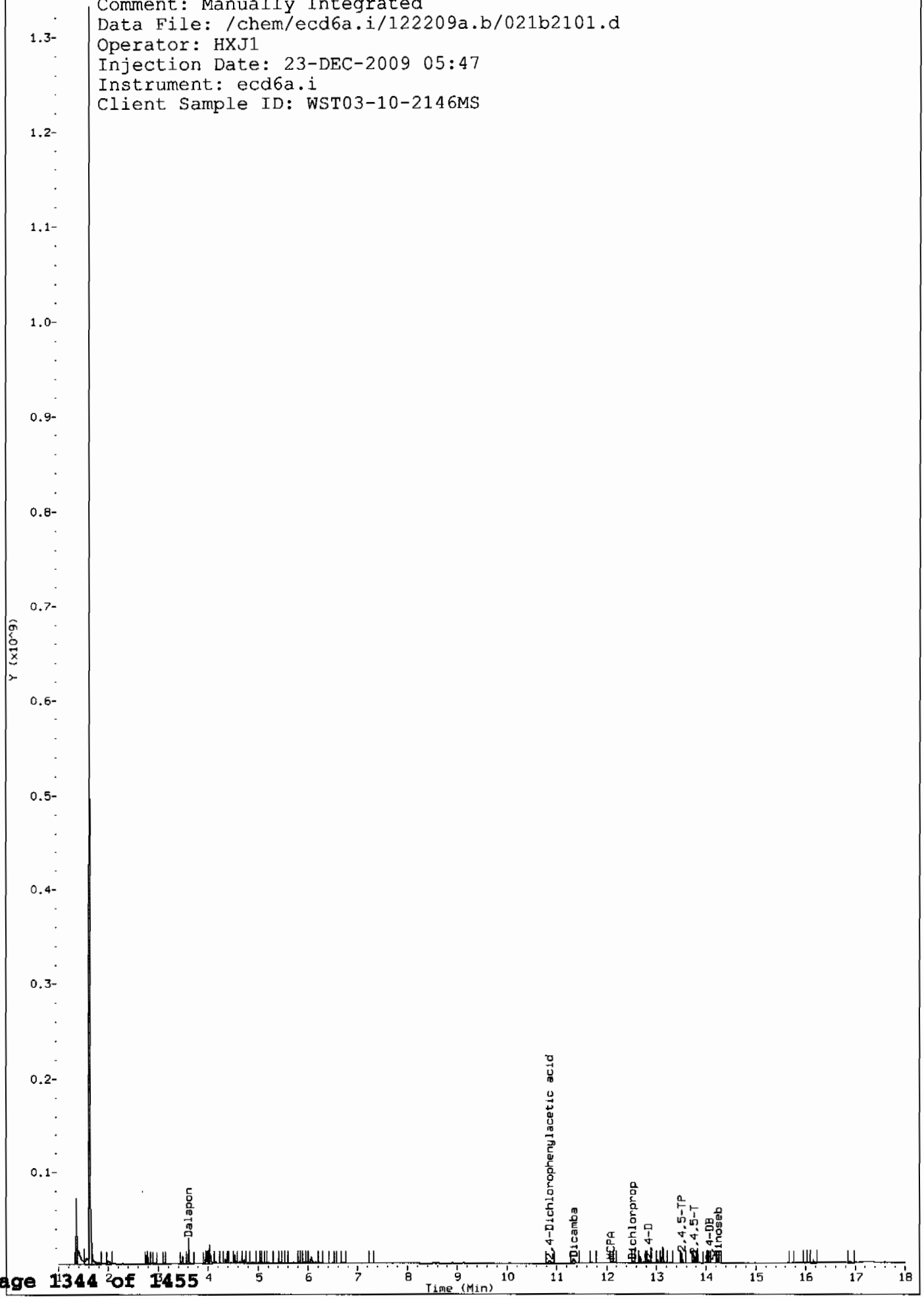

Comment: Before manual integration
Data File: /chem/ecd6a.i/122209a.b/orig-021b2101.d
Operator: HXJ1
Injection Date: 23-DEC-2009 05:47
Instrument: ecd6a.i
Client Sample ID: WST03-10-2146MS

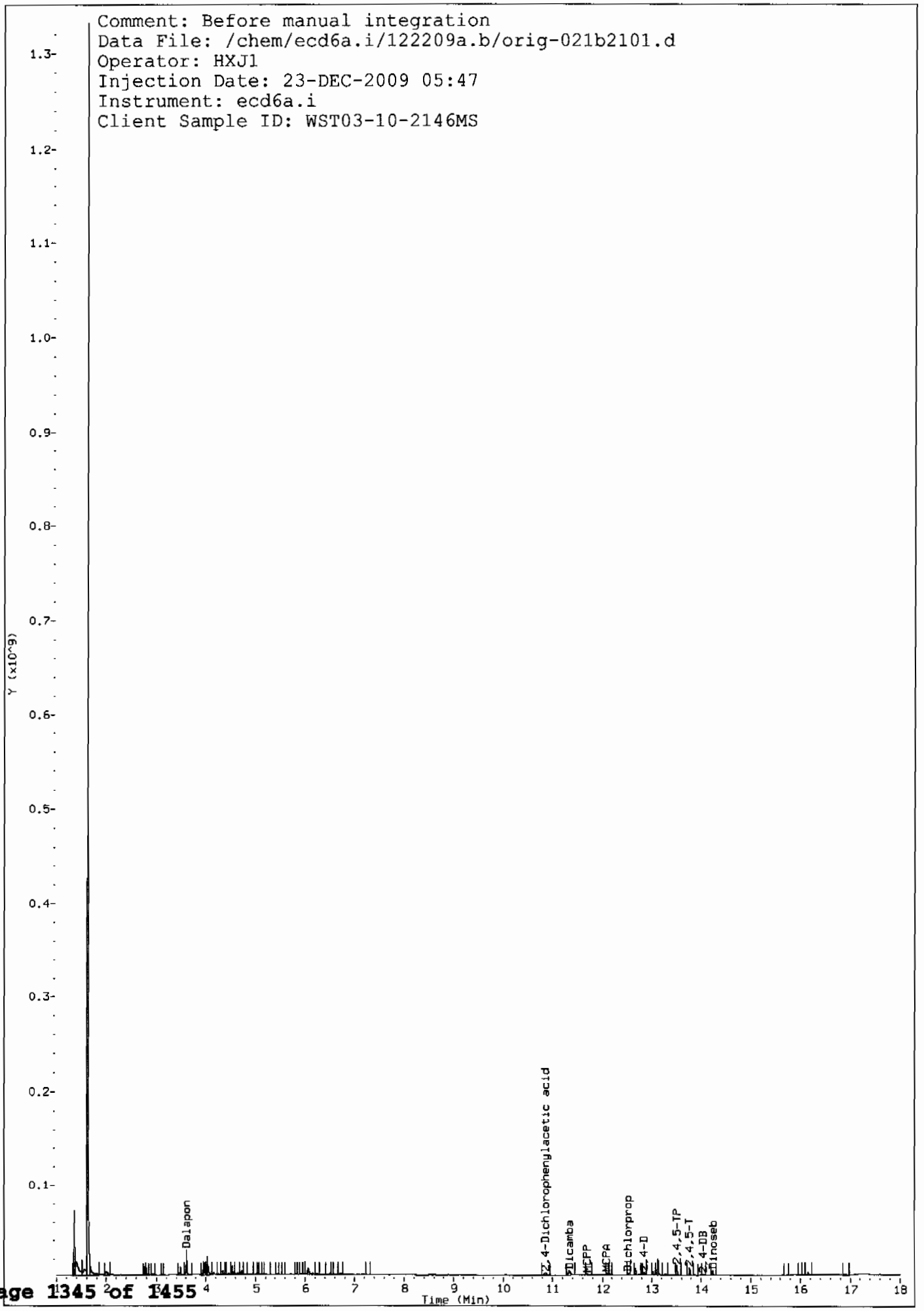

Herbicide
Certificate of Analysis
Sample Summary

SDG Number:	10-899	**Date Collected:**	12/10/2009 12:00	**Matrix:**	R
Lab Sample ID:	1201995989	**Date Received:**	12/12/2009 09:35	**%Moisture:**	9.8
Client Sample:	QC for batch 932998	**Client:**	LANL010	**Project:**	QC
Client ID:	WST03-10-2146MSD	**Method:**	SW846 8151A	**SOP Ref:**	GL-OA-E-011
Batch ID:	932999	**Inst:**	ECD6A.I	**Dilution:**	10
Run Date:	12/23/2009 06:15	**Analyst:**	HXJ1	**Inj. Vol:**	1 uL
Prep Date:	12/15/2009 16:48	**Aliquot:**	50.01 g	**Final Volume:**	10 mL
Data File:	022f2201.d	**Column:**	1 Rtx-CLP	**Level:**	LOW
	022b2201.d		2 Rtx-CLPII		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
75-99-0	Dalapon	J	339	ug/kg	222	1110	1
1918-00-9	Dicamba	J	35.5	ug/kg	18.4	55.4	1
93-65-2	MCPP	U	11100	ug/kg	2220	11100	1
94-74-6	MCPA	J	3050	ug/kg	2550	11100	1
120-36-5	Dichlorprop	J	28.5	ug/kg	18.4	55.4	1
94-75-7	2,4-D	J	29.1	ug/kg	18.4	55.4	1
93-72-1	2,4,5-TP	J	26.7	ug/kg	18.4	55.4	1
93-76-5	2,4,5-T	J	24.6	ug/kg	18.4	55.4	1
94-82-6	2,4-DB	J	27.7	ug/kg	18.4	55.4	1
88-85-7	Dinoseb	J	40.5	ug/kg	18.4	55.4	1

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Column: RtxCLP 0.25mm x 30 m Inj Vol: 2 ul

Data file : /chem/ecd6a.i/122209a.b/022f2201.d
Lab Smp Id: 1201995989 Client Smp ID: WST03-10-2146MSD
Inj Date : 23-DEC-2009 06:15
Operator : HXJ1 Inst ID: ecd6a.i
Smp Info : |1201995989|10|
Misc Info : |ECD51H_1S|932999|SVHF|MSD|SOIL|MSD|||
Comment :
Method : /chem/ecd6a.i/122209a.b/ECD6-F-8151A-122209.m
Meth Date : 23-Dec-2009 10:14 reb01393 Quant Type: ESTD
Cal Date : 22-DEC-2009 21:04 Cal File: 002f0201.d
Als bottle: 22 QC Sample: MSD
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: 10-899.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	10.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	10.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	50.01000	Weight of sample extracted (g)
M	9.79830	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	
$ 2 2,4-Dichlorophenylacetic acid					CAS #: 19719-28-9	
9.761	9.752	0.009	7222367	43.5761	96.6	
1 Dalapon					CAS #: 75-99-0	
3.653	3.657	-0.004	19975418	152.993	339	(a)
3 Dicamba					CAS #: 6597-78-0	
10.221	10.214	0.007	8981168	16.0291	35.5	(a)
5 MCPA					CAS #: 94-74-6	
11.401	11.400	0.001	1366990	1375.26	3050	(a)

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	
6 Dichlorprop					CAS #: 120-36-5	
12.056	12.054	0.002	1844375	12.8613	28.5	(a)
7 2,4-D					CAS #: 94-75-7	
12.371	12.368	0.003	2116496	13.1491	29.1	(a)
8 2,4,5-TP					CAS #: 93-72-1	
13.185	13.184	0.001	7573942	12.0631	26.7	(a)
9 2,4,5-T					CAS #: 93-76-5	
13.402	13.400	0.002	6215865	11.0868	24.6	(a)
10 2,4-DB					CAS #: 94-82-6	
13.770	13.767	0.003	1079128	12.4867	27.7	(a)
11 Dinoseb					CAS #: 88-85-7	
14.358	14.357	0.001	5180228	18.2545	40.5	(a)

QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).

Data File: /chem/ecd6a.i/122209a.b/022f2201.d

Date : 23-DEC-2009 06:15

Client ID: WST03-10-2146MSD

Sample Info: |12019959891101

Volume Injected (uL): 1.0

Column phase: Rtx-CLP

Instrument: ecd6a.i

Operator: HXJ1

Column diameter: 0.25

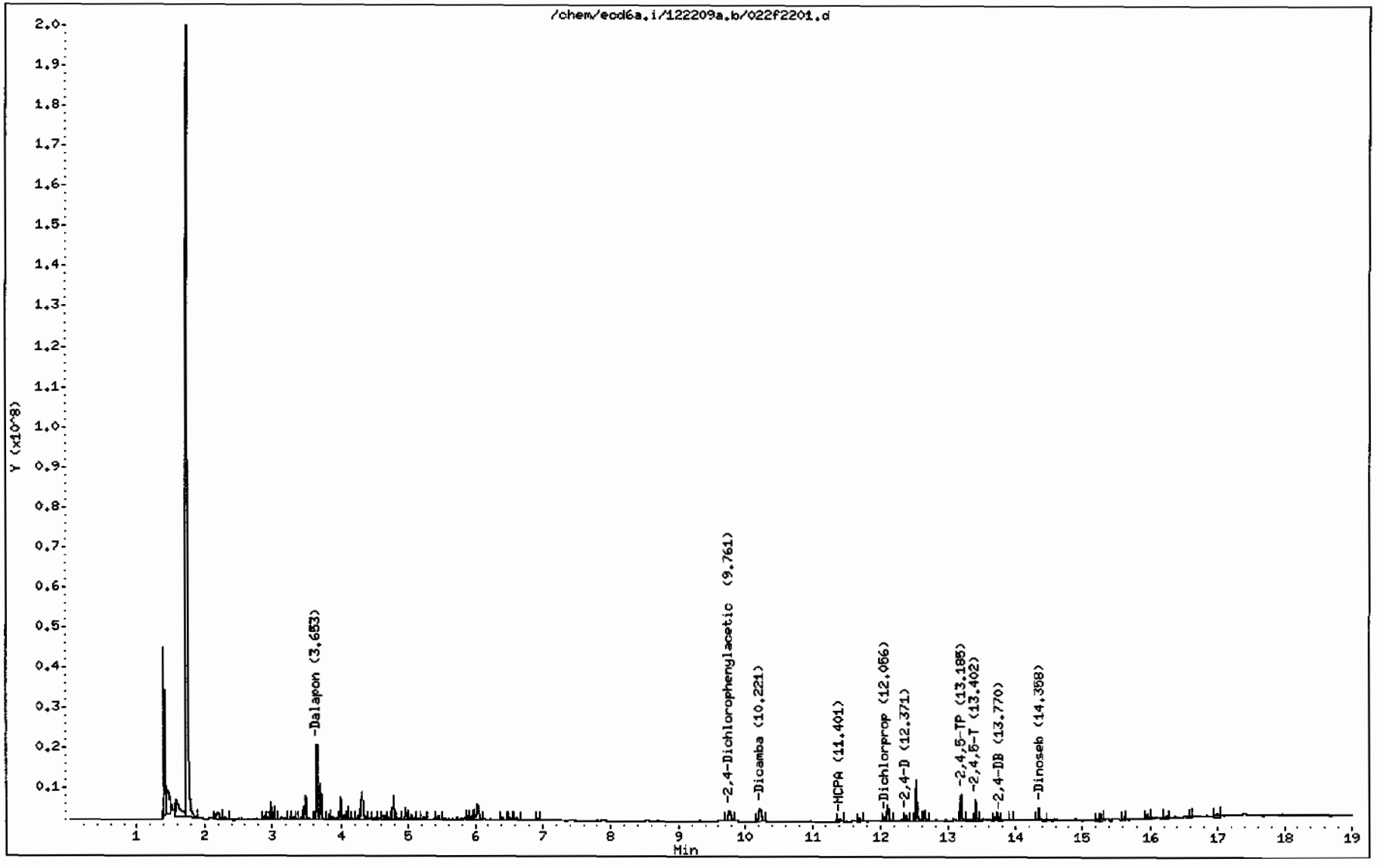

GEL Laboratories LLC

Column: RtxCLPII 0.25mm x 30 m Inj Vol: 2ul

Data file : /chem/ecd6a.i/122209a.b/022b2201.d
Lab Smp Id: 1201995989 Client Smp ID: WST03-10-2146MSD
Inj Date : 23-DEC-2009 06:15
Operator : HXJ1 Inst ID: ecd6a.i
Smp Info : |1201995989|10|
Misc Info : |ECD51H_1S|932999|SVHF|MSD|SOIL|MSD|||
Comment : RtxCLPII
Method : /chem/ecd6a.i/122209a.b/ECD6-B-8151A-122209.m
Meth Date : 23-Dec-2009 11:23 reb01393 Quant Type: ESTD
Cal Date : 22-DEC-2009 21:32 Cal File: 003b0301.d
Als bottle: 22 QC Sample: MSD
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: 10-899.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	10.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	10.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	50.01000	Weight of sample extracted (g)
M	9.79830	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	
$ 2 2,4-Dichlorophenylacetic acid					CAS #: 19719-28-9	
10.860	10.850	0.010	9267075	43.5397	96.5	
1 Dalapon					CAS #: 88-85-7	
3.609	3.610	-0.001	32035296	152.323	338	(a)
4 Dicamba					CAS #: 6597-78-0	
11.339	11.332	0.007	14332856	15.5616	34.5	(a)
5 MCPA					CAS #: 94-74-6	
12.091	12.091	0.000	2668734	1419.90	3150	(a)

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	CONCENTRATIONS FINAL (ug/Kg)	
6 Dichlorprop					CAS #: 120-36-5	
12.525	12.525	0.000	2557401	12.7854	28.3	(a)
7 2,4-D					CAS #: 94-75-7	
12.853	12.850	0.003	3284417	13.8605	30.7	(a)
8 2,4,5-TP					CAS #: 93-72-1	
13.512	13.511	0.001	10767537	11.8245	26.2	(a)
9 2,4,5-T					CAS #: 93-76-5	
13.766	13.764	0.002	7869362	9.76183	21.6	(aM)
11 2,4-DB					CAS #: 94-82-6	
14.067	14.066	0.001	1112659	9.83193	21.8	(aM)
10 Dinoseb					CAS #: 88-85-7	
14.236	14.235	0.001	4233537	9.76438	21.6	(aM)

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

Data File: /chem/ecd6a.i/122209a.b/022b2201.d
Date : 23-DEC-2009 06:15
Client ID: WST03-10-2146MSD
Sample Info: |12019959891 10|
Volume Injected (uL): 1.0
Column phase: Rtx-CLPII

Instrument: ecd6a.i
Operator: HXJ1
Column diameter: 0.25

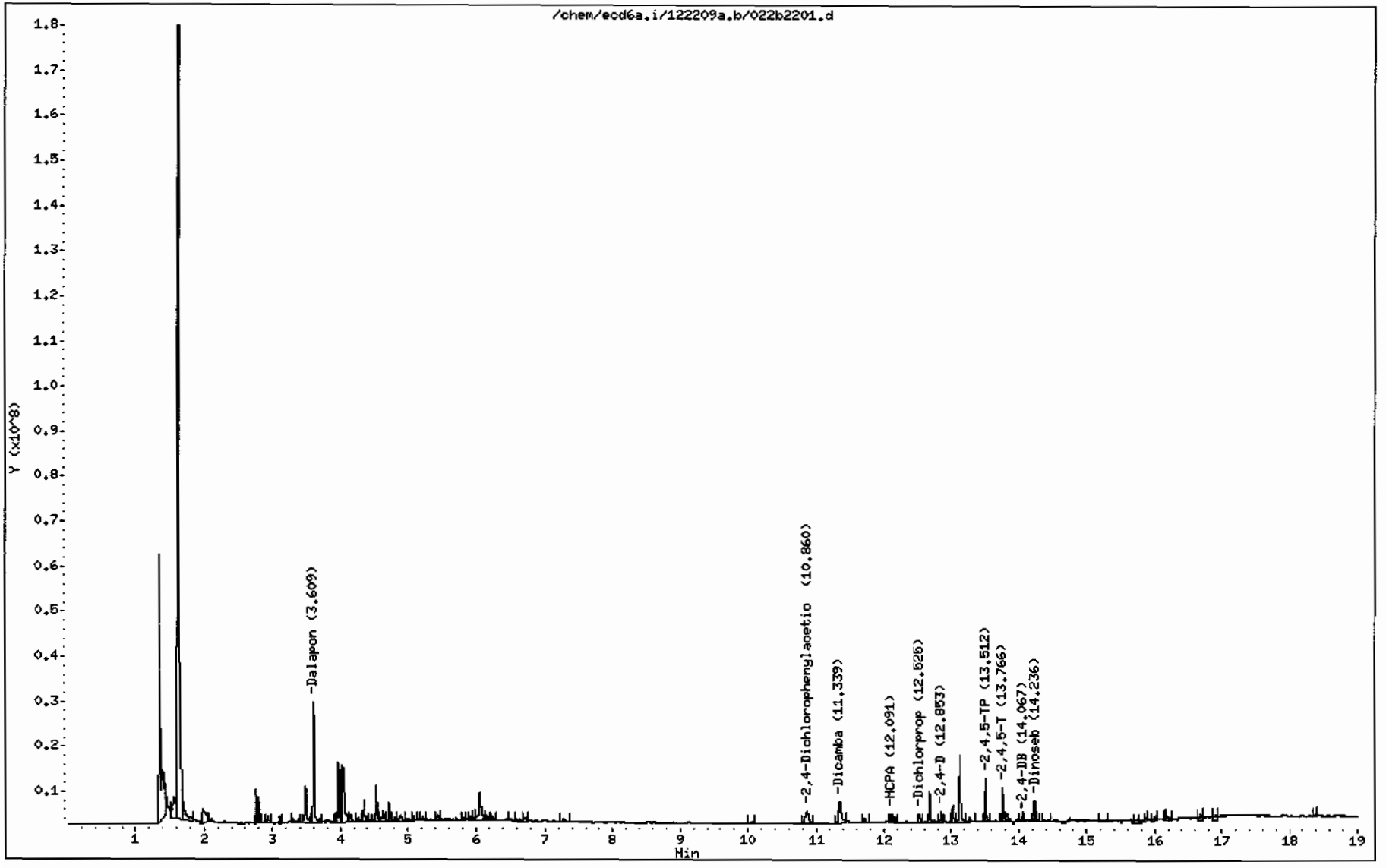

Comment: Manually Integrated
Data File: /chem/ecd6a.i/122209a.b/022b2201.d
Operator: HXJ1
Injection Date: 23-DEC-2009 06:15
Instrument: ecd6a.i
Client Sample ID: WST03-10-2146MSD

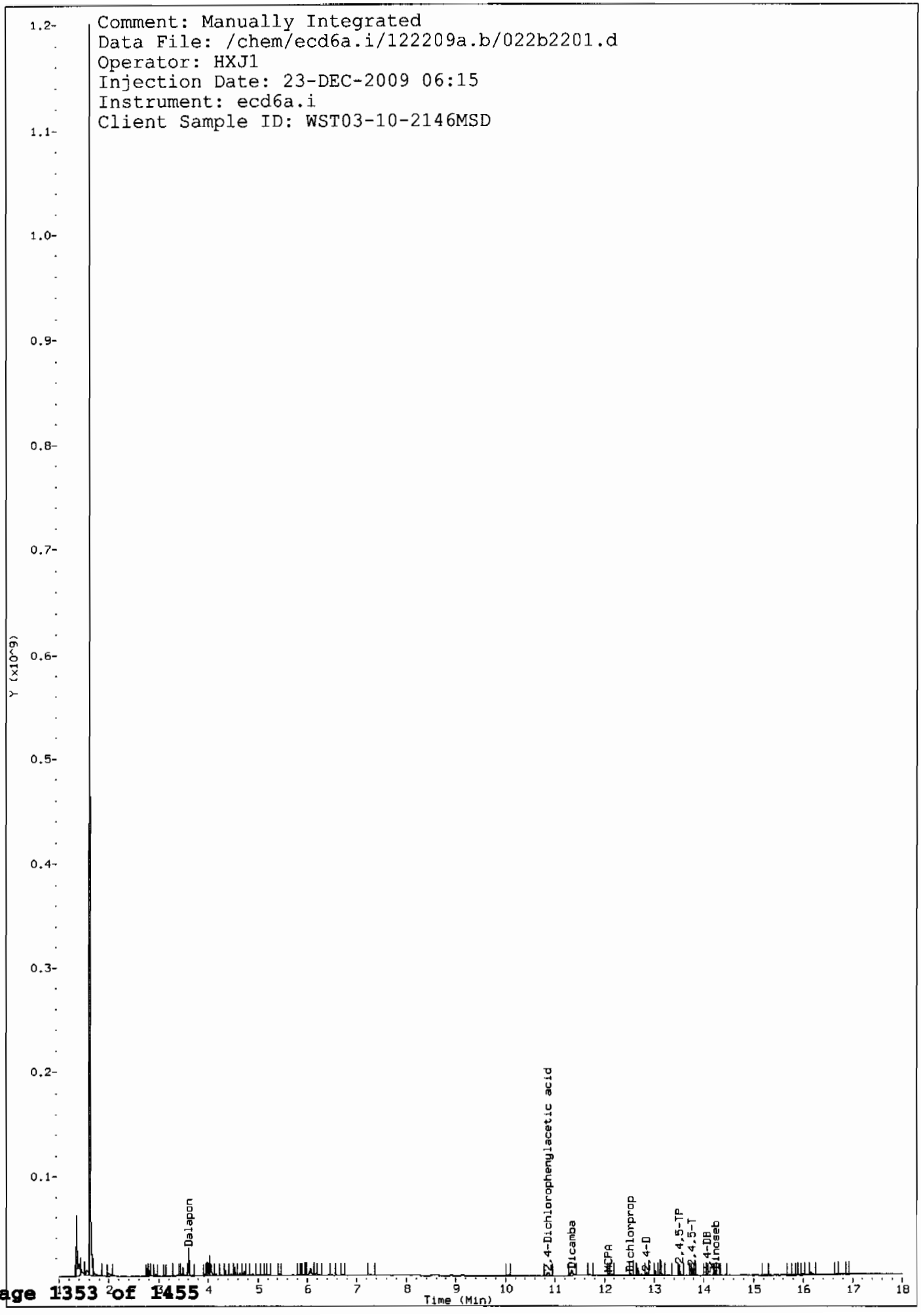

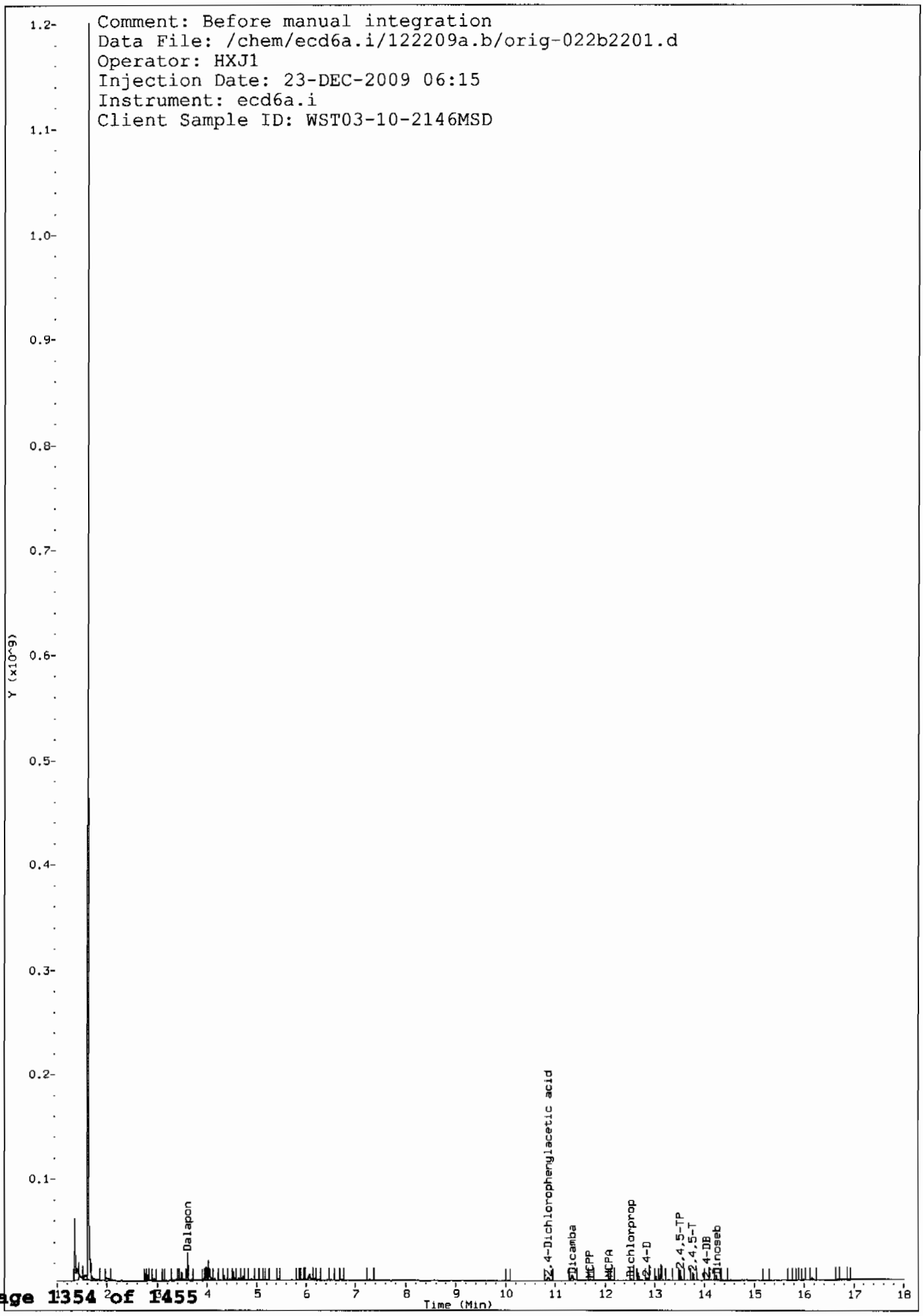
Comment: Before manual integration
Data File: /chem/ecd6a.i/122209a.b/orig-022b2201.d
Operator: HXJ1
Injection Date: 23-DEC-2009 06:15
Instrument: ecd6a.i
Client Sample ID: WST03-10-2146MSD
Y (x10^9)
Time (Min)
Dalapon
2,4-Dichlorophenylacetic acid
Dicamba
MCPP
MCPA
Dichlorprop
2,4-D
2,4,5-TP
2,4,5-T
2,4-DB
Dinoseb

MISCELLANEOUS DATA

GEL ORGANIC RUN LOG INSTRUMENT ID: ECD6

DATE: 12/23/2009 METHOD: ECD6-F-8151A-122209.m OPERATOR:HXJ1 REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT CZ454

Calibration & QC Information
Initial Calibration Dates: See Calibration History and Standards Log
Initial Calibration Std ID's: See Calibration History and Standards Log
GEL SOP GL-OA-E-011 Analysis of Chlorophenoxy Herbicides by ECD
EPA Method: 8151A Chlorinated Herbicides by GC Using Derivation
Sequence Number:122209A Injection Volume: 1.0 uL

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001f0101.d	WHB091117-02	HXJ1	22-DEC-2009 20:36		122209a	1.0	INSTBLK	CLEAN
002f0201.d	WHB091030-01	HXJ1	22-DEC-2009 21:04		122209a	1.0	HSTD01	ICAL LVL 1
003f0301.d	WHB091030-02	HXJ1	22-DEC-2009 21:32		122209a	1.0	HSTD02	ICAL LVL 2
004f0401.d	WHB091030-03	HXJ1	22-DEC-2009 22:00		122209a	1.0	HSTD03	ICAL LVL 3
005f0501.d	WHB091030-04	HXJ1	22-DEC-2009 22:28		122209a	1.0	HSTD04	ICAL LVL 4
006f0601.d	WHB091030-05	HXJ1	22-DEC-2009 22:55		122209a	1.0	HSTD05	ICAL LVL 5
007f0701.d	WHB091030-06	HXJ1	22-DEC-2009 23:23		122209a	1.0	HSTD06	ICAL LVL 6
008f0801.d	WHB091030-07	HXJ1	22-DEC-2009 23:50		122209a	1.0	HSTD07	ICAL LVL 7
009f0901.d	WHB091222-08	HXJ1	23-DEC-2009 00:18		122209a	1.0	HSTD01	USE. ICV. ALL ANALYTES PASSING BOTH COLUMNS.
010f1001.d	WHB091117-02	HXJ1	23-DEC-2009 00:46		122209a	1.0	INSTBLK	CLEAN
011f1101.d	242167003	HXJ1	23-DEC-2009 01:13	930907	10-753	1.0	LANL	USE. PASSING BOTH COLUMNS, UPLOAD HIGHER RESULT.
012f1201.d	242935005	HXJ1	23-DEC-2009 01:40	934150	10-915	1.0	LANL	USE. PASSING BOTH COLUMNS, UPLOAD HIGHER RESULT.
013f1301.d	1201998648	HXJ1	23-DEC-2009 02:08	934150	10-915	1.0	MS	USE. PASSING BOTH COLUMNS, UPLOAD HIGHER RESULT.
014f1401.d	1201998649	HXJ1	23-DEC-2009 02:35	934150	10-915	1.0	MSD	USE. PASSING BOTH COLUMNS, UPLOAD HIGHER RESULT.
015f1501.d	WHB091030-05	HXJ1	23-DEC-2009 03:03		122209a	1.0	HSTD02	USE. CCV. ALL ANALYTES PASSING BOTH COLUMNS.

Instrument Batch: /chem/ecd6a.i/122209a.b Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
016f1601.d	WHB091117-02	HXJ1	23-DEC-2009 03:30		122209a	1.0	INSTBLK	CLEAN
017f1701.d	1201995986	HXJ1	23-DEC-2009 03:57	932999	10-899	1.0	MB	USE. PASSING BOTH COLUMNS, UPLOAD HIGHER RESULT.

018f1801.d	1201995987	HXJ1	23-DEC-2009 04:25	932999	10-899	1.0	LCS	USE. PASSING BOTH COLUMNS, UPLOAD HIGHER RESULT.
019f1901.d	242784003	HXJ1	23-DEC-2009 04:52	932999	10-899	1.0	LANL	USE. PASSING BOTH COLUMNS, UPLOAD HIGHER RESULT.
020f2001.d	242784004	HXJ1	23-DEC-2009 05:20	932999	10-899	10.0	LANL	USE. PASSING BOTH COLUMNS, UPLOAD HIGHER RESULT.
021f2101.d	1201995988	HXJ1	23-DEC-2009 05:47	932999	10-899	10.0	MS	USE. MCPP LOW (F), PASSING (B).
022f2201.d	1201995989	HXJ1	23-DEC-2009 06:15	932999	10-899	10.0	MSD	USE. MCPP LOW (F), PASSING (B).
023f2301.d	WHB091030-05	HXJ1	23-DEC-2009 06:42		122209a	1.0	HSTD03	USE. CCV. DINO HI (B).
024f2401.d	WHB091117-02	HXJ1	23-DEC-2009 07:10		122209a	1.0	INSTBLK	CLEAN
025f2501.d	1202000373	HXJ1	23-DEC-2009 07:38	934961	10-958	1.0	MB	USE. PASSING BOTH COLUMNS, UPLOAD HIGHER RESULT.
026f2601.d	1202000374	HXJ1	23-DEC-2009 08:05	934961	10-958	1.0	LCS	USE. PASSING BOTH COLUMNS, UPLOAD HIGHER RESULT.
027f2701.d	243153001	HXJ1	23-DEC-2009 08:33	934961	10-958	1.0	LANL	DUSE. RE-EXTRACT TO CONFIRM $ FAILURE.
028f2801.d	243153002	HXJ1	23-DEC-2009 09:01	934961	10-958	1.0	LANL	USE. $ LOW BOTH, CONFIRMED BY MS/MSD.
029f2901.d	1202000375	HXJ1	23-DEC-2009 09:28	934961	10-958	1.0	MS	USE. $/SPIKES LOW BOTH, CONFIRMED BY MSD.
030f3001.d	1202000376	HXJ1	23-DEC-2009 09:57	934961	10-958	1.0	MSD	USE. $/SPIKES LOW BOTH, CONFIRMED BY MS.
031f3101.d	WHB091030-05	HXJ1	23-DEC-2009 10:25		122209a	1.0	HSTD04	USE. CCV. DINO HI (B).
032f3201.d	WHB091117-02	HXJ1	23-DEC-2009 10:54		122209a	1.0	INSTBLK	CLEAN

Prep Logbook

The Extraction of Herbicides from Soil and Sludge Samples

Batch ID: 932998 **Verified by:** _____

Analyst: Joshua McCartney

Method: SW846 8151A

Lab SOP: GL-OA-E-027 REV# 8

Instrument: Semi-Volatiles Manual

Sample ID	Run Date	Aliquot (g)	Prepped Aliquot (mL)	Prepped Factor (mL/g)
1201995986 MB	15-DEC-2009 16:48:54	50	10	0.2
1201995987 LCS	15-DEC-2009 16:48:54	50	10	0.2
242784003	15-DEC-2009 16:48:54	50.01	10	0.19996
242784004	15-DEC-2009 16:48:54	50	10	0.2
1201995988 MS (242784004)	15-DEC-2009 16:48:54	50.02	10	0.19992
1201995989 MSD (242784004)	15-DEC-2009 16:48:54	50.01	10	0.19996

Type	Sample Id	Description	Serial Number	Spike Amt	Units
LCS	1201995987	HERBICIDE LCS	WE091201-02	1	mL
MS	1201995988	HERBICIDE LCS	WE091201-02	1	mL
MSD	1201995989	HERBICIDE LCS	WE091201-02	1	mL
SURR	All	HERBICIDE SURROGATE	WE091208-03	.05	mL
REGNT	All	Iso-octane	1106542-A	1	mL
REGNT	All	Acetone	1233927	150	mL
REGNT	All	Methanol	1239758-C	.5	mL
REGNT	All	Hexane	1241300-B2	50	mL
REGNT	All	Methylene Chloride	1242565-D	150	mL
REGNT	All	N-METHYL-N-NITROSO-P-TOLUENESULFON-AMIDE	1242633A	2	mL
SOURC	All	SODIUM SULFATE	1242582	50	g

Comments:

Verified By: RWH

Final Solvent: Hexane

NCR Report No.: 773799
Revision No.: 1

COMPANY - WIDE NONCONFORMANCE REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
23-DEC-09	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
GC/ECD	SW846 8151A	Solid	LANL
Batch ID:	**Sample Numbers:**		
932999	See Below		

Potentially affected work order(s)(SDG): 242784(10-899)

Application Issues:

Failed Recovery for MSD/PSD

Failed Recovery for MS/PS

Specification and Requirements Nonconformance Description:	NRG Disposition:
1. QC sample 1201995988(MS) recovered below the acceptance criteria for spiking analyte MCPP. 2. QC sample 1201995989(MSD) recovered below the acceptance criteria for spiking analyte MCPP.	1. and 2. As the MS and MSD displayed similar recoveries, the failures were attributed to sample matrix interference and the resulting 1:10 dilution at which the parent sample and matrix QC were analyzed. The data have been reported.

Originator's Name:

Rebecca Enzor 23-DEC-09

Data Validator/Group Leader:

Heather Joy 23-DEC-09

HERBICIDE ANALYSIS

Herbicide Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-899-1

Method/Analysis Information

Procedure:	**Analysis of Chlorophenoxy Acid Herbicides by ECD**
Analytical Method:	SW846 8151A
Prep Method:	SW846 8151A Prep
TCLP Prep Method :	SW846 1311
Analytical Batch Number:	934950
Prep Batch Number:	934948
TCLP Prep Batch Number:	933331

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 8151A:

Sample ID	Client ID
242785001	WST03-10-2145
242785002	WST03-10-2146
1201996842	TCLP Blank (TB)
1202000329	Method Blank (MB)
1202000330	Laboratory Control Sample (LCS)
1202000331	242168002(WST03-10-2138) Matrix Spike (MS)
1202000332	242168002(WST03-10-2138) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on an "as received" basis.

Preparation/Analytical Method Verification

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-011 REV# 18.

Raw data reports are processed and reviewed by the analyst using the Target software package. False positives have been removed from the Target quantitation reports per standard operating procedures (SOP) section 21.7.

Calibration Information

Initial Calibration
All initial calibration requirements have been met for this sample delivery group (SDG).

The linear equation used in Target and indicated on the initial calibration summary form is not a conventional linear equation (slope intercept formula) and does not match the equation found in SW-846 method 8000B. The x and y axes are inversed in Target, so that the instrument response is treated as the independent variable (x) and the

concentration ratio is treated as the dependent variable (y). The equation used in Target to calculate sample results is adjusted to account for the linear equation inversion and reciprocal slope. The adjusted calculation has been independently verified to produce valid results.

Continuing Calibration Verification (CCV) Requirements
The calibration verification standards (CVS, ICV, or CCV) requirements have not been met for this SDG.

2,4,5-TP was outside of the acceptance criteria with a negative bias on one analytical column in the standards bracketing the sample in this SDG. However, the other column met the acceptance criteria for this analyte. The negative bias for the analytical data is a result of instrument response decreasing after the initial calibration. The instrument response never decreased to a point where this analyte would not be detected in the samples. In addition, 2,4,5-TP was not detected in the associated samples on either analytical column; therefore, the non-compliance has no adverse effects on the data.

Surrogate recovery did not meet the acceptance criteria in the standards bracketing the samples in this SDG; however, this non-compliance has no adverse effects on the data as the surrogate recovery was well within the acceptance range in the samples in this SDG.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Surrogate Recoveries
All surrogate recoveries were within the established acceptance criteria for this SDG.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

QC Sample Designation
A LANL sample of similar matrix associated with another SDG (#10-753-1) was selected for the matrix spike and matrix spike duplicate analysis. A Form III and QC raw data are included in the package summarizing the results.

Matrix Spike (MS) Recovery Statement
The MS recoveries for this SDG were within the established acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recoveries for this SDG were within the established acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD(s) between the MS and MSD met the acceptance limits.

Technical Information

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-extraction/Re-analysis
Re-extractions or re-analyses were not required in this SDG.

Miscellaneous Information

Electronic Package Comment

This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. An electronic signature page inserted after the case narrative of each electronic package will indicate the analyst, reviewer, and report specialist names associated with the generation of the data and package. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Nonconformance Report (NCR) Documentation

Nonconformance report (NCR) is for documentation of any procedural anomalies that may deviate from referenced SOP or contractual document. A NCR was not required for this SDG.

Manual Integration

Certain standards and QC samples may have required manual integration to correctly position the baseline as set in the calibration standard injections. If manual integration was performed, copies of all manual integration peak profiles are included in the raw data section of this Herbicide fraction.

Additional Comments

The additional comments field is used to address special issues associated with each analysis, clarify method/contractual issues pertaining to the analysis, and to list any report documents generated as a result of sample analysis or review. The following additional comments were required:

The higher results from either column have been chosen and reported in the data package for the client samples, MB and LCS.

The data reported on the form I and III may differ slightly from the data reported on the form X. This is due to software limitations in rounding differences between the forms.

Due to software limitation, the Form VIIs will display the results either in the % difference or % drift depending on the type of the calibration curve. If the curve of all analytes is generated using an average response factor (RF), the Form VII will display results using the %difference calculation (RF). If the curve of one or more analytes is generated using a linear curve, the Form VII will display results using the % drift calculation (by concentration) for all analytes.

System Configuration

The Semi-Volatiles-HERB analysis was performed on the following instrument configuration:

Instrument ID	Instrument	System Configuration	Column ID	Column Description
ECD3A.I_1	HP Gas Chromatograph	HP6890 Series ECD	Rtx-CLP I	30m x 0.25mm, 0.25um (Rtx-CLPesticide)
ECD3A.I_2	HP Gas Chromatograph	HP6890 Series ECD	Rtx-CLP II	30m x 0.25mm, 0.20um (Rtx-CLPesticide II)

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Heather-Ann Jgr Date: 12/23/09

Roadmap for LANL 10-899-1 HERB

This roadmap was analyzed by tif01533 on 12-23-2009, 15:11.
This roadmap was reviewed by hea01125 on 12-23-2009, 16:02.
This roadmap was validated by yml on 12-23-2009, 16:44.
This roadmap was validated by hea01125 on 12-23-2009, 17:37.

Front Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd3a.i/122209b.b/027f2701.d	2427850 01	sample	23-DEC-2009	04:55	10-899-1.sub	WST03-10-2145	1.00000	934950	USE. PASSES BOTH COLUMNS, UPLOAD HIGHER RESULTS.
☐	N	/chem/ecd3a.i/122209b.b/028f2801.d	2427850 02	sample	23-DEC-2009	05:20	10-899-1.sub	WST03-10-2146	1.00000	934950	USE. PASSES BOTH COLUMNS, UPLOAD HIGHER RESULTS.

Back Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd3a.i/122209b.b/027b2701.d	2427850 01	sample	23-DEC-2009	04:55	10-899-1.sub	WST03-10-2145	1.00000	934950	USE. PASSES BOTH COLUMNS, UPLOAD HIGHER RESULTS.
☐	N	/chem/ecd3a.i/122209b.b/028b2801.d	2427850 02	sample	23-DEC-2009	05:20	10-899-1.sub	WST03-10-2146	1.00000	934950	USE. PASSES BOTH COLUMNS, UPLOAD HIGHER RESULTS.

Front QC Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd3a.i/122209b.b/013f1301.d	1201996842	tb	22-DEC-2009	23:11	10-899-1.sub	TBLK01	1.00000	934950	USE. PASSES BOTH COLUMNS, UPLOAD HIGHER RESULTS.
☐	N	/chem/ecd3a.i/122209b.b/015f1501.d	1202000329	mb	23-DEC-2009	00:01	10-899-1.sub	HBLK01	1.00000	934950	USE. PASSES BOTH COLUMNS, UPLOAD HIGHER RESULTS.
☐	N	/chem/ecd3a.i/122209b.b/016f1601.d	1202000330	lcs	23-DEC-2009	00:25	10-899-1.sub	HBLK01LCS	1.00000	934950	USE. PASSES BOTH COLUMNS, UPLOAD HIGHER RESULTS.

Back QC Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd3a.i/122209b.b/013b1301.d	1201996842	tb	22-DEC-2009	23:11	10-899-1.sub	TBLK01	1.00000	934950	USE. PASSES BOTH COLUMNS, UPLOAD HIGHER RESULTS.
☐	N	/chem/ecd3a.i/122209b.b/015b1501.d	1202000329	mb	23-DEC-2009	00:01	10-899-1.sub	HBLK01	1.00000	934950	USE. PASSES BOTH COLUMNS, UPLOAD HIGHER RESULTS.
☐	N	/chem/ecd3a.i/122209b.b/016b1601.d	1202000330	lcs	23-DEC-2009	00:25	10-899-1.sub	HBLK01LCS	1.00000	934950	USE. PASSES BOTH COLUMNS, UPLOAD HIGHER RESULTS.

SAMPLE DATA SUMMARY

Herbicide
Certificate of Analysis
Sample Summary

SDG Number:	10-899-1	**Date Collected:**	12/10/2009 12:00	**Matrix:**	TCLP R
Lab Sample ID:	242785001	**Date Received:**	12/12/2009 09:35		
		Client:	LANL010	**Project:**	LANL01004
Client ID:	WST03-10-2145	**Method:**	SW846 8151A	**SOP Ref:**	GL-OA-E-011
Batch ID:	934950	**Inst:**	ECD3A.I	**Dilution:**	1
Run Date:	12/23/2009 04:55	**Analyst:**	HXJ1	**Inj. Vol:**	1 uL
Prep Date:	12/21/2009 18:40	**Aliquot:**	5 mL	**Final Volume:**	10 mL
Data File:	027f2701.d	**Column:**	1 Rtx-CLPI	**Level:**	LOW
	027b2701.d		2 Rtx-CLPII		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
94-75-7	2,4-D	U	0.050	mg/L	0.0166	0.050	1
93-72-1	2,4,5-TP	U	0.050	mg/L	0.0166	0.050	1

Herbicide
Certificate of Analysis
Sample Summary

SDG Number:	10-899-1	**Date Collected:**	12/10/2009 12:00	**Matrix:**	TCLP R
Lab Sample ID:	242785002	**Date Received:**	12/12/2009 09:35		
		Client:	LANL010	**Project:**	LANL01004
Client ID:	WST03-10-2146	**Method:**	SW846 8151A	**SOP Ref:**	GL-OA-E-011
Batch ID:	934950	**Inst:**	ECD3A.I	**Dilution:**	1
Run Date:	12/23/2009 05:20	**Analyst:**	HXJ1	**Inj. Vol:**	1 uL
Prep Date:	12/21/2009 18:40	**Aliquot:**	5 mL	**Final Volume:**	10 mL
Data File:	028f2801.d	**Column:**	1 Rtx-CLPI	**Level:**	LOW
	028b2801.d		2 Rtx-CLPII		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
94-75-7	2,4-D	U	0.050	mg/L	0.0166	0.050	1
93-72-1	2,4,5-TP	U	0.050	mg/L	0.0166	0.050	1

QUALITY CONTROL SUMMARY

Herbicide

Surrogate Recovery Report

SDG Number: 10–899–1

Matrix Type: TCLP SOLID

CAP Column (1) : Rtx–CLPI **CAP Column (2) : Rtx–CLPII**

Sample ID	Client ID	DCAA 1 %REC #	DCAA 2 %REC #
1201996842	TB for batch 933331	94	86
1202000329	MB for batch 934948	97	90
1202000330	LCS for batch 934948	103	99
242785001	WST03–10–2145	93	75
242785002	WST03–10–2146	95	80

Surrogate	Acceptance Limits
DCAA = 2,4–Dichlorophenylacetic acid	(47%–122%)

* Recovery outside Acceptance Limits

\# Column to be used to flag recovery values

D Sample Diluted

Herbicide

Quality Control Summary
Spike Recovery Report

SDG Number: 10-899-1
Client ID: LCS for batch 934948
Lab Sample ID: 1202000330
Instrument: ECD3A.I
Analyst: HXJ1
Inj. Vol: 1 uL

Sample Type: Laboratory Control Sample
Matrix: TCLP SOIL
Analysis Date: 12/23/2009 00:25
Dilution: 1
Prep Batch ID: 934948
Batch ID: 934950

CAS No	Parmname	Amount Added mg/L	Sample Conc. mg/L	Spike Conc. mg/L	Recovery %	Acceptance Limits
94-75-7	LCS 2,4-D	0.002	0.0	0.00182	91	43-131
93-72-1	LCS 2,4,5-TP	0.002	0.0	0.00175	88	41-122

Herbicide

Quality Control Summary
Spike Recovery Report

SDG Number: 10-753-1
Client ID: WST03-10-2138MS
Lab Sample ID: 1202000331
Instrument: ECD3A.I
Analyst: HXJ1
Inj. Vol: 1 uL

Sample Type: Matrix Spike
Matrix: TCLP R
Analysis Date: 12/23/2009 02:28
Prep Batch ID: 934948
Batch ID: 934950
Dilution: 1

CAS No		Parmname	Amount Added mg/L	Sample Conc. mg/L		Spike Conc. mg/L	Recovery %	Acceptance Limits
94-75-7	MS	2,4-D	0.400	0.00	U	0.363	91	48-125
93-72-1	MS	2,4,5-TP	0.400	0.00	U	0.342	85	24-131

Herbicide

Quality Control Summary
Spike Recovery Report

SDG Number: 10-753-1
Client ID: WST03-10-2138MSD
Lab Sample ID: 1202000332
Instrument: ECD3A.I
Analyst: HXJ1
Inj. Vol: 1 uL

Sample Type: Matrix Spike Duplicate
Matrix: TCLP R
Analysis Date: 12/23/2009 02:53
Dilution: 1
Prep Batch ID: 934948
Batch ID: 934950

CAS No	Parmname	Amount Added mg/L	Sample Conc. mg/L		Spike Conc. mg/L	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
94-75-7	MSD 2,4-D	0.400	0.00	U	0.378	95	48-125	4	0-20
93-72-1	MSD 2,4,5-TP	0.400	0.00	U	0.354	88	24-131	4	0-20

Method Blank Summary

SDG Number:	10-899-1	Client:	LANL010	Matrix:	TCLP SOIL
Client ID:	MB for batch 934948	Instrument ID:	ECD3A.I_2 ECD3A.I_1	Data File:	015b1501.d 015f1501.d
Lab Sample ID:	1202000329				
Column:	Rtx-CLPII Rtx-CLPI	Prep Date:	12/21/2009 18:40	Analyzed:	12/23/09 00:01
		Level:	LOW		

This method blank applies to the following samples and quality control samples:

Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01 TB for batch 933331	1201996842	013f1301.d 013b1301.d	12/22/09	2311
02 LCS for batch 934948	1202000330	016f1601.d 016b1601.d	12/23/09	0025
05 WST03-10-2145	242785001	027f2701.d 027b2701.d	12/23/09	0455
06 WST03-10-2146	242785002	028f2801.d 028b2801.d	12/23/09	0520

SAMPLE
DATA

Herbicide
Certificate of Analysis
Sample Summary

SDG Number:	10–899–1	**Date Collected:**	12/10/2009 12:00	**Matrix:**	TCLP R
Lab Sample ID:	242785001	**Date Received:**	12/12/2009 09:35		
		Client:	LANL010	**Project:**	LANL01004
Client ID:	WST03–10–2145	**Method:**	SW846 8151A	**SOP Ref:**	GL–OA–E–011
Batch ID:	934950	**Inst:**	ECD3A.I	**Dilution:**	1
Run Date:	12/23/2009 04:55	**Analyst:**	HXJ1	**Inj. Vol:**	1 uL
Prep Date:	12/21/2009 18:40	**Aliquot:**	5 mL	**Final Volume:**	10 mL
Data File:	027f2701.d	**Column:**	1 Rtx–CLPI	**Level:**	LOW
	027b2701.d		2 Rtx–CLPII		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
94–75–7	2,4–D	U	0.050	mg/L	0.0166	0.050	1
93–72–1	2,4,5–TP	U	0.050	mg/L	0.0166	0.050	1

GEL Laboratories LLC

Rtx-CLPI

Data file : /chem/ecd3a.i/122209h.b/027f2701.d
Lab Smp Id: 242785001 Client Smp ID: WST03-10-2145
Inj Date : 23-DEC-2009 04:55
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |242785001|1|
Misc Info : |ECDTPH_1L|934950|SVH|LANL|SOIL|WST03-10-2145|||
Comment :
Method : /chem/ecd3a.i/122209h.b/ECD3-F-HERB-122209h.m
Meth Date : 23-Dec-2009 14:34 tif01533 Quant Type: ESTD
Cal Date : 22-DEC-2009 21:08 Cal File: 008f0801.d
Als bottle: 27
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-899-1.sub
Target Version: 3.50 Sample Matrix: Water
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	0.00100	Correction factor
Vt	10.00000	Volume of final extract (mL)
Vo	5.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (mg/L)
$ 2 2,4-Dichlorophenylacetic acid					CAS #: 19719-28-9
7.714	7.707	0.007	4115534	467.355	0.93

Data File: /chem/ecd3a.i/122209h.b/027f2701.d

Page 1

Date : 23-DEC-2009 04:55

Client ID: WST03-10-2145

Instrument: ecd3a.i

Sample Info: |242785001|1|

Volume Injected (uL): 1.0

Operator: HXJ1

Column phase: Rtx-CLPI

Column diameter: 0.25

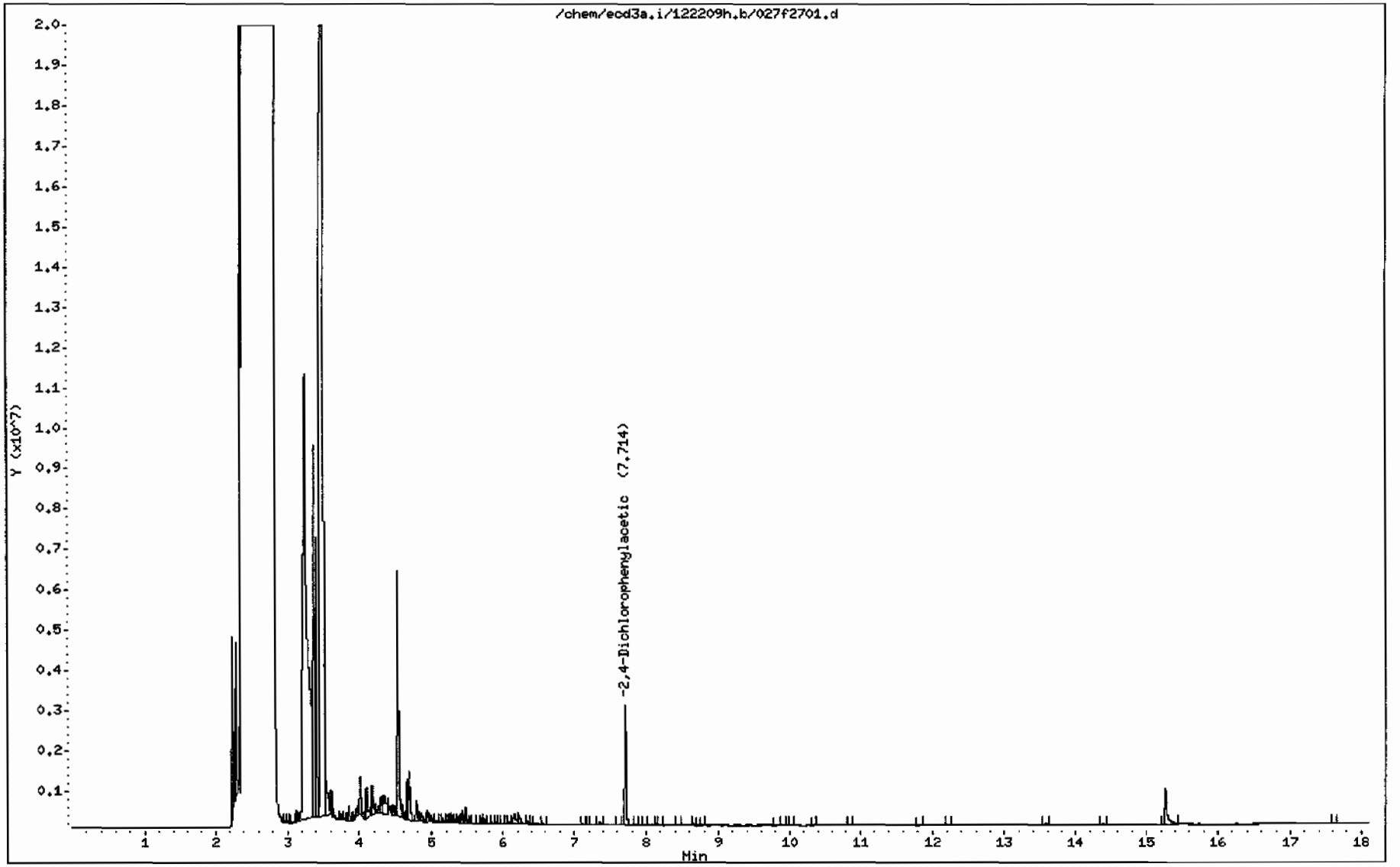

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Rtx-CLPII

Data file : /chem/ecd3a.i/122209h.b/027b2701.d
Lab Smp Id: 242785001 Client Smp ID: WST03-10-2145
Inj Date : 23-DEC-2009 04:55
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |242785001|1|
Misc Info : |ECDTPH_1L|934950|SVH|LANL|SOIL|WST03-10-2145|||
Comment :
Method : /chem/ecd3a.i/122209h.b/ECD3-B-HERB-122209h.m
Meth Date : 23-Dec-2009 14:33 tif01533 Quant Type: ESTD
Cal Date : 22-DEC-2009 21:08 Cal File: 008b0801.d
Als bottle: 27
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-899-1.sub
Target Version: 3.50 Sample Matrix: Water
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	0.00100	Correction factor
Vt	10.00000	Volume of final extract (mL)
Vo	5.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (mg/L)
$ 2 2,4-Dichlorophenylacetic acid					CAS #: 19719-28-9
7.987	7.982	0.005	17943306	374.978	0.75

Data File: /chem/ecd3a.i/122209h.b/027b2701.d
Date : 23-DEC-2009 04:55
Client ID: WST03-10-2145
Sample Info: |242785001|1|
Volume Injected (uL): 1.0
Column phase: Rtx-CLPII

Instrument: ecd3a.i

Operator: HXJ1
Column diameter: 0.25

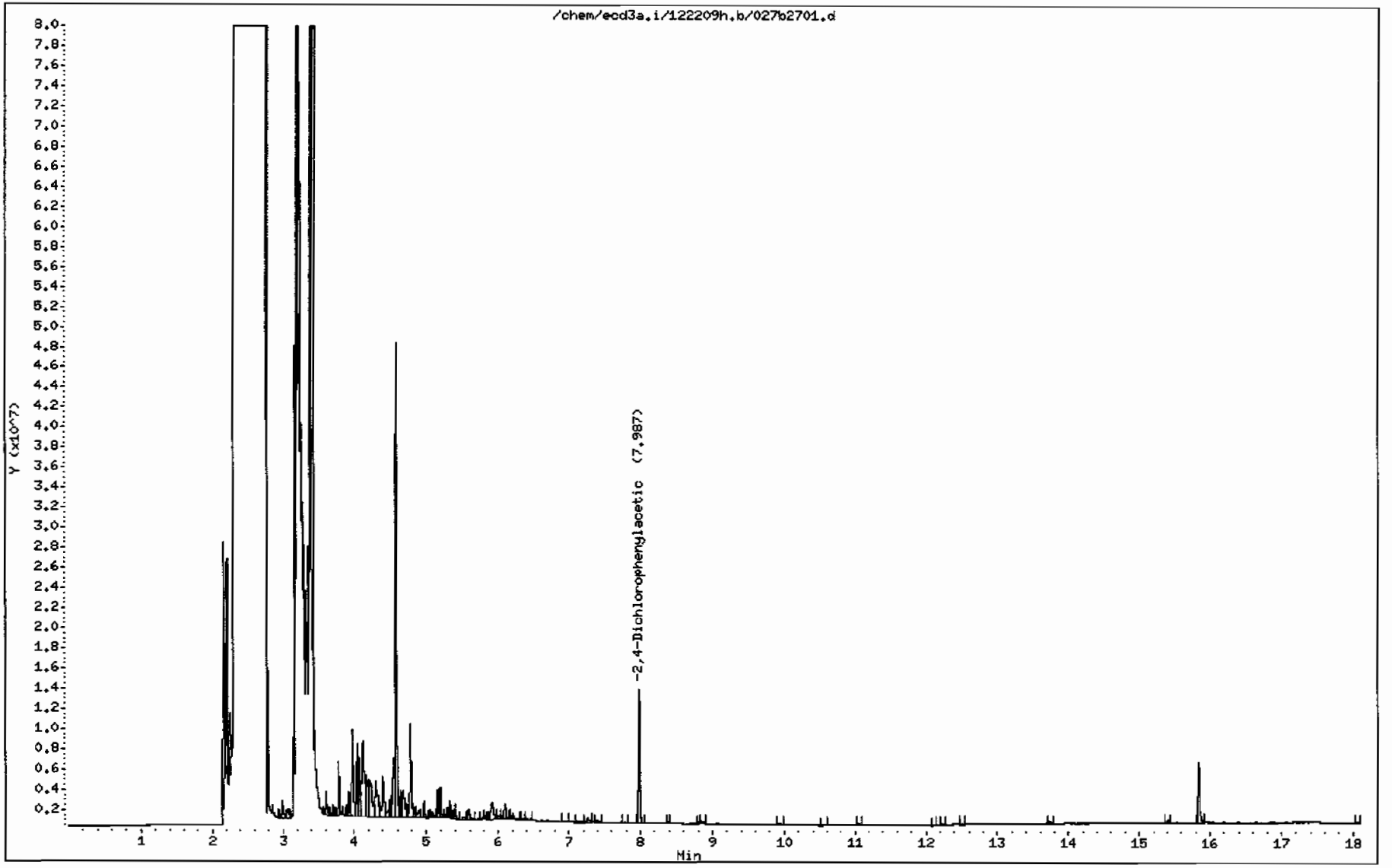

Herbicide
Certificate of Analysis
Sample Summary

SDG Number:	10-899-1	**Date Collected:**	12/10/2009 12:00	**Matrix:**	TCLP R
Lab Sample ID:	242785002	**Date Received:**	12/12/2009 09:35		
		Client:	LANL010	**Project:**	LANL01004
Client ID:	WST03-10-2146	**Method:**	SW846 8151A	**SOP Ref:**	GL-OA-E-011
Batch ID:	934950	**Inst:**	ECD3A.I	**Dilution:**	1
Run Date:	12/23/2009 05:20	**Analyst:**	HXJ1	**Inj. Vol:**	1 uL
Prep Date:	12/21/2009 18:40	**Aliquot:**	5 mL	**Final Volume:**	10 mL
Data File:	028f2801.d	**Column:**	1 Rtx-CLPI	**Level:**	LOW
	028b2801.d		2 Rtx-CLPII		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
94-75-7	2,4-D	U	0.050	mg/L	0.0166	0.050	1
93-72-1	2,4,5-TP	U	0.050	mg/L	0.0166	0.050	1

GEL Laboratories LLC

Rtx-CLPI

Data file : /chem/ecd3a.i/122209h.b/028f2801.d
Lab Smp Id: 242785002 Client Smp ID: WST03-10-2146
Inj Date : 23-DEC-2009 05:20
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |242785002|1|
Misc Info : |ECDTPH_1L|934950|SVH|LANL|SOIL|WST03-10-2146|||
Comment :
Method : /chem/ecd3a.i/122209h.b/ECD3-F-HERB-122209h.m
Meth Date : 23-Dec-2009 14:34 tif01533 Quant Type: ESTD
Cal Date : 22-DEC-2009 21:08 Cal File: 008f0801.d
Als bottle: 28
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-899-1.sub
Target Version: 3.50 Sample Matrix: Water
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	0.00100	Correction factor
Vt	10.00000	Volume of final extract (mL)
Vo	5.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (mg/L)
$ 2 2,4-Dichlorophenylacetic acid					CAS #: 19719-28-9
7.715	7.707	0.008	4179043	474.567	0.95

Data File: /chem/ecd3a.i/122209h.b/028f2801.d
Date : 23-DEC-2009 05:20
Client ID: WST03-10-2146
Sample Info: |2427850021|1|
Volume Injected (uL): 1.0
Column phase: Rtx-CLPI

Instrument: ecd3a.i
Operator: HXJ1
Column diameter: 0.25

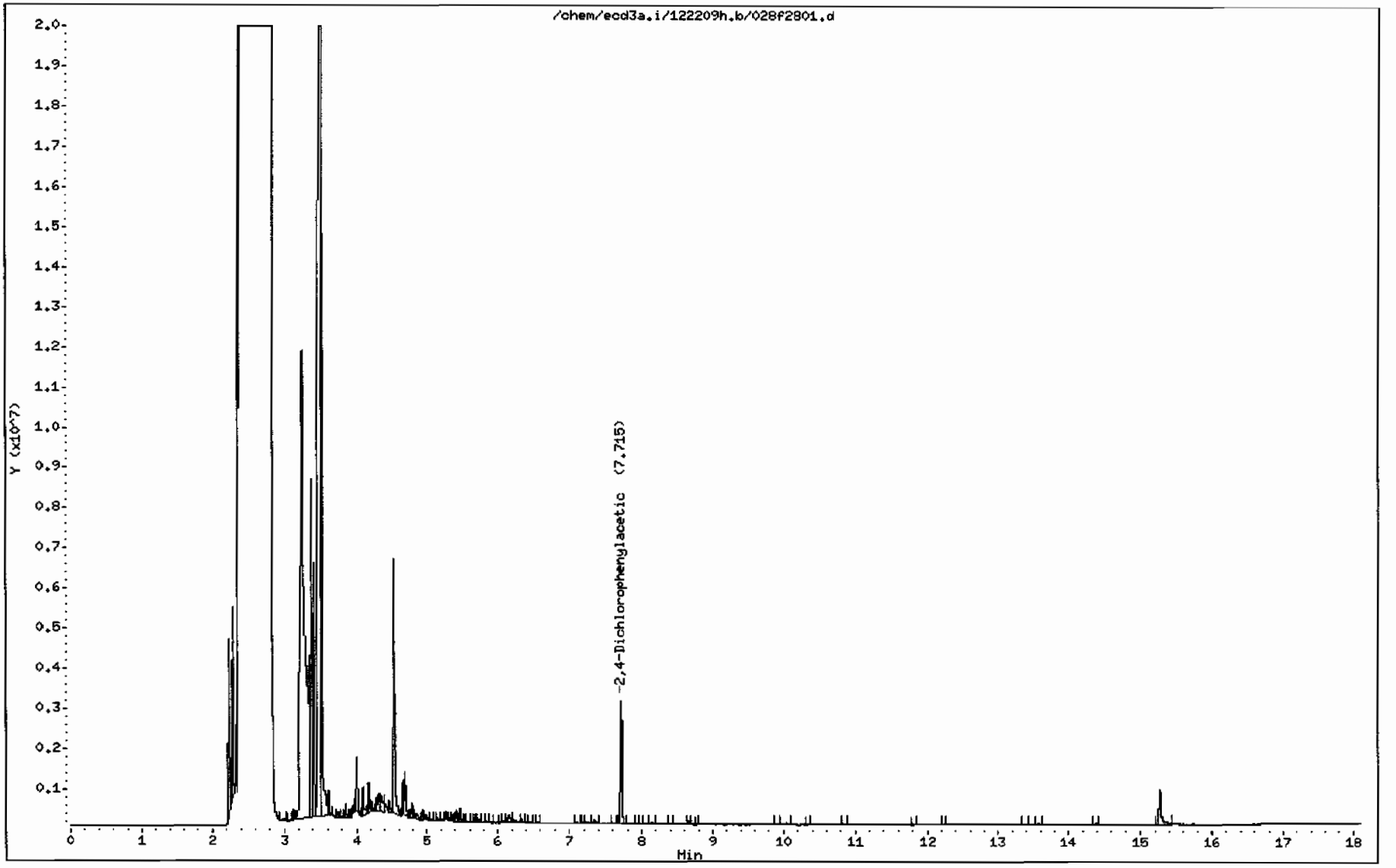

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Rtx-CLPII

Data file : /chem/ecd3a.i/122209h.b/028b2801.d
Lab Smp Id: 242785002 Client Smp ID: WST03-10-2146
Inj Date : 23-DEC-2009 05:20
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |242785002|1|
Misc Info : |ECDTPH_1L|934950|SVH|LANL|SOIL|WST03-10-2146|||
Comment :
Method : /chem/ecd3a.i/122209h.b/ECD3-B-HERB-122209h.m
Meth Date : 23-Dec-2009 14:33 tif01533 Quant Type: ESTD
Cal Date : 22-DEC-2009 21:08 Cal File: 008b0801.d
Als bottle: 28
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-899-1.sub
Target Version: 3.50 Sample Matrix: Water
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	0.00100	Correction factor
Vt	10.00000	Volume of final extract (mL)
Vo	5.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (mg/L)
$ 2 2,4-Dichlorophenylacetic acid					CAS #: 19719-28-9
7.988	7.982	0.006	19037419	397.843	0.80

Data File: /chem/ecd3a.i/122209h.b/028b2801.d

Page 1

Date : 23-DEC-2009 05:20

Client ID: WST03-10-2146

Instrument: ecd3a.i

Sample Info: 1242785002111

Volume Injected (uL): 1.0

Operator: HXJ1

Column phase: Rtx-CLPII

Column diameter: 0.25

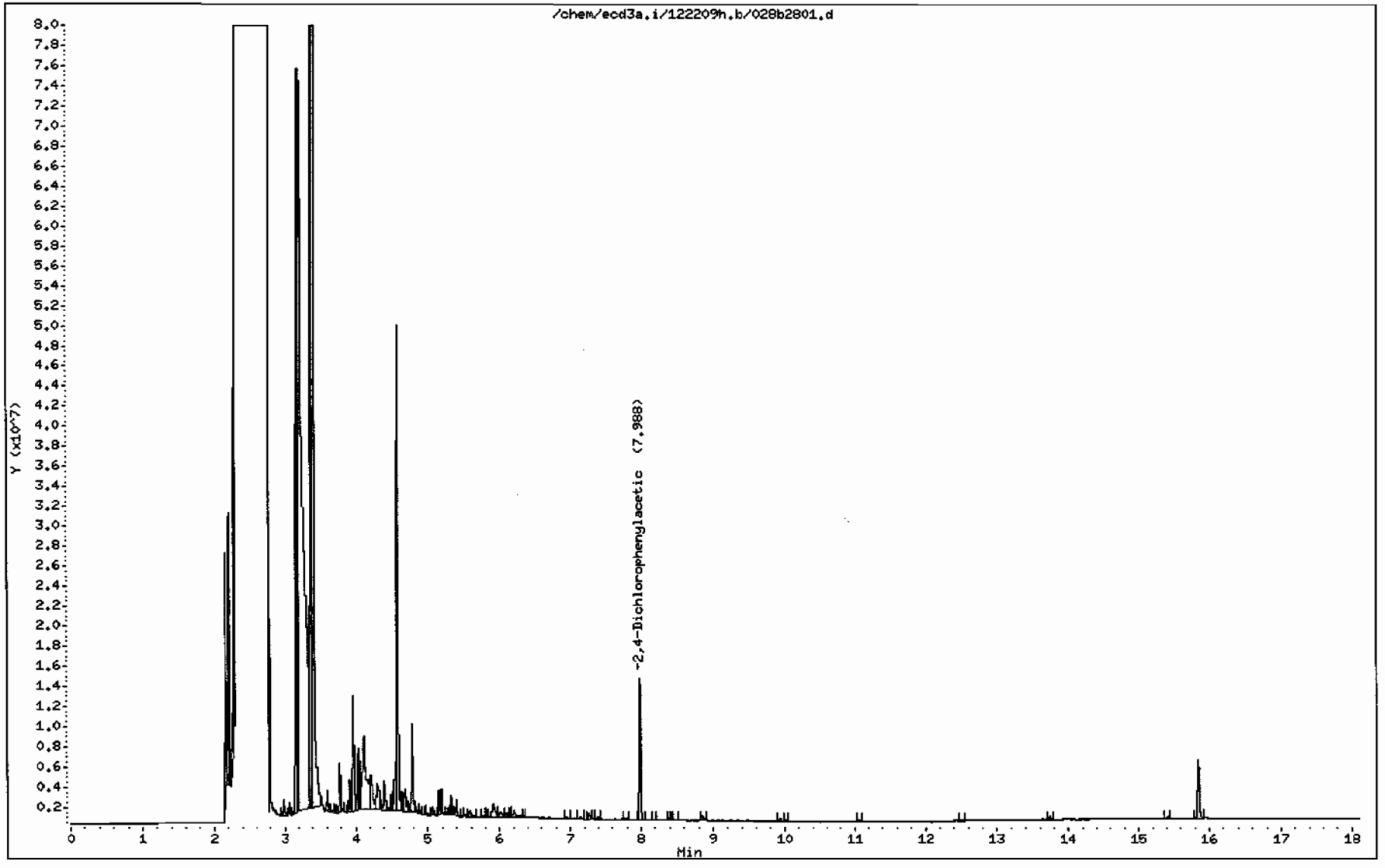

STANDARDS DATA

Report Date: 22-Dec-2009 23:51

Calibration History

Method : /chem/ecd3a.i/122209h.b/ECD3-F-HERB-122209h.m
Start Cal Date: 27-OCT-2009 16:04
End Cal Date : 22-DEC-2009 21:08

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 25.00000		
22-DEC-2009 18:39	all	/chem/ecd3a.i/122209h.b/002f0201.d
Cal Level: 2 , Cal Amount: 50.00000		
22-DEC-2009 19:04	all	/chem/ecd3a.i/122209h.b/003f0301.d
Cal Level: 3 , Cal Amount: 100.00000		
22-DEC-2009 19:29	all	/chem/ecd3a.i/122209h.b/004f0401.d
Cal Level: 4 , Cal Amount: 150.00000		
22-DEC-2009 19:54	all	/chem/ecd3a.i/122209h.b/005f0501.d
Cal Level: 5 , Cal Amount: 200.00000		
22-DEC-2009 20:18	all	/chem/ecd3a.i/122209h.b/006f0601.d
Cal Level: 6 , Cal Amount: 300.00000		
22-DEC-2009 20:43	all	/chem/ecd3a.i/122209h.b/007f0701.d
Cal Level: 7 , Cal Amount: 400.00000		
22-DEC-2009 21:08	all	/chem/ecd3a.i/122209h.b/008f0801.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 5

Ccal Level: 5 , Ccal Amount: 200		
22-DEC-2009 21:33	all	/chem/ecd3a.i/122209h.b/009f0901.d
Ccal Level: 5 , Ccal Amount: 200		
22-DEC-2009 20:18	all	/chem/ecd3a.i/122209h.b/006f0601.d

Report Date: 22-Dec-2009 23:51

Calibration History

Method : /chem/ecd3a.i/122209h.b/ECD3-B-HERB-122209h.m
Start Cal Date: 27-OCT-2009 16:04
End Cal Date : 22-DEC-2009 21:08

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 25.00000		
22-DEC-2009 18:39	all	/chem/ecd3a.i/122209h.b/002b0201.d
Cal Level: 2 , Cal Amount: 50.00000		
22-DEC-2009 19:04	all	/chem/ecd3a.i/122209h.b/003b0301.d
Cal Level: 3 , Cal Amount: 100.00000		
22-DEC-2009 19:29	all	/chem/ecd3a.i/122209h.b/004b0401.d
Cal Level: 4 , Cal Amount: 150.00000		
22-DEC-2009 19:54	all	/chem/ecd3a.i/122209h.b/005b0501.d
Cal Level: 5 , Cal Amount: 200.00000		
22-DEC-2009 20:18	all	/chem/ecd3a.i/122209h.b/006b0601.d
Cal Level: 6 , Cal Amount: 300.00000		
22-DEC-2009 20:43	all	/chem/ecd3a.i/122209h.b/007b0701.d
Cal Level: 7 , Cal Amount: 400.00000		
22-DEC-2009 21:08	all	/chem/ecd3a.i/122209h.b/008b0801.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 5

Ccal Level: 5 , Ccal Amount: 200		
22-DEC-2009 21:33	all	/chem/ecd3a.i/122209h.b/009b0901.d
Ccal Level: 5 , Ccal Amount: 200		
22-DEC-2009 20:18	all	/chem/ecd3a.i/122209h.b/006b0601.d

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COMPOUND LISTING

Method file : /chem/ecd3a.i/122209h.b/ECD3-F-HERB-122209h.m
Quant Method : ESTD Target Version : 3.50
Last Update : 22-Dec-2009 23:50 Number of Cpnds : 12
Data Type : GC DATA

Global Integrator : Falcon

Chromat Events	Values
Initial:Start Threshold	1957.000000
Initial:End Threshold	978.500000
Initial:Area Threshold	19570.000000
Initial:P-P Resolution	1.000000
Initial:Bunch Factor	15.000000
Initial:Negative Peaks	OFF
Initial:Tension	1.000000

	Compound	RT	RT Window	RF
	1 Dalapon	3.888	3.857-3.918	8.564e+03
$	2 2,4-Dichlorophenylacetic a	7.707	7.647-7.767	8.806e+03
	3 Dicamba	7.886	7.827-7.947	3.386e+04
	4 MCPP	8.045	7.985-8.105	3.470e+01
	5 MCPA	8.188	8.127-8.248	6.629e+01
	6 Dichlorprop	8.550	8.491-8.610	9.097e+03
	7 2,4-D	8.771	8.710-8.831	1.059e+04
	8 Pentachlorophenol	9.061	9.031-9.091	1.299e+05
	9 2,4,5-TP	9.592	9.562-9.623	4.520e+04
	10 2,4,5-T	9.865	9.825-9.905	3.778e+04
	11 2,4-DB	10.399	10.359-10.439	6.158e+03
	12 Dinoseb	11.509	11.479-11.539	2.639e+04

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd3a.i/122209h.b/ECD3-B-HERB-122209h.m
Quant Method : ESTD Target Version : 3.50
Last Update : 22-Dec-2009 23:50 Number of Cpnds : 12
Data Type : GC DATA

Global Integrator : Falcon

Chromat Events	Values
Initial:Start Threshold	15039.000000
Initial:End Threshold	7519.500000
Initial:Area Threshold	150390.000000
Initial:P-P Resolution	1.000000
Initial:Bunch Factor	15.000000
Initial:Negative Peaks	OFF
Initial:Tension	1.000000

	Compound	RT	RT Window	RF
	1 Dalapon	3.811	3.780-3.840	6.950e+04
$	2 2,4-Dichlorophenylacetic a	7.982	7.923-8.043	4.785e+04
	3 Dicamba	8.166	8.106-8.226	1.999e+05
	4 MCPP	8.255	8.194-8.315	1.350e+02
	5 MCPA	8.479	8.419-8.539	2.094e+02
	6 Dichlorprop	8.828	8.768-8.887	4.954e+04
	7 2,4-D	9.133	9.073-9.194	5.678e+04
	8 Pentachlorophenol	9.624	9.594-9.655	5.819e+05
	9 2,4,5-TP	9.967	9.937-9.997	2.084e+05
	10 2,4,5-T	10.352	10.322-10.382	1.819e+05
	11 2,4-DB	10.871	10.832-10.912	2.778e+04
	12 Dinoseb	11.218	11.188-11.248	1.244e+05

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 27-OCT-2009 16:04
End Cal Date : 22-DEC-2009 21:08
Quant Method : ESTD
Origin : None
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd3a.i/122209h.b/ECD3-F-HERB-122209h.m
Cal Date : 22-Dec-2009 23:50 hea01125
Curve Type : Average

Calibration File Names:
Level 1: /chem/ecd3a.i/122209h.b/002f0201.d
Level 2: /chem/ecd3a.i/122209h.b/003f0301.d
Level 3: /chem/ecd3a.i/122209h.b/004f0401.d
Level 4: /chem/ecd3a.i/122209h.b/005f0501.d
Level 5: /chem/ecd3a.i/122209h.b/006f0601.d
Level 6: /chem/ecd3a.i/122209h.b/007f0701.d
Level 7: /chem/ecd3a.i/122209h.b/008f0801.d

Compound	25.000 Level 1	50.000 Level 2	100.000 Level 3	150.000 Level 4	200.000 Level 5	300.000 Level 6	RRF	% RSD
	400.000 Level 7							
1 Dalapon	+++++	7117	7055	9569	8518	9300		
	9826						8564	14.317
3 Dicamba	33742	34112	33256	34190	34420	33329		
	33958						33858	1.297
4 MCPP	+++++	44.11340	36.70990	34.20547	32.95000	30.30097		
	29.89832						34.69634	15.162
5 MCPA	+++++	83.17960	69.46260	65.24147	61.71710	59.41517		
	58.71323						66.28819	13.859
6 Dichlorprop	9874	9713	9008	9003	8910	8551		
	8619						9097	5.609
7 2,4-D	10708	10687	10183	11054	10652	10317		
	10507						10587	2.698
8 Pentachlorophenol	125675	129919	130036	133576	133344	127108		
	129780						129919	2.245

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 27-OCT-2009 16:04
End Cal Date : 22-DEC-2009 21:08
Quant Method : ESTD
Origin : None
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd3a.i/122209h.b/ECD3-F-HERB-122209h.m
Cal Date : 22-Dec-2009 23:50 hea01125
Curve Type : Average

Compound	25.000 Level 1	50.000 Level 2	100.000 Level 3	150.000 Level 4	200.000 Level 5	300.000 Level 6	400.000 Level 7	RRF	% RSD
9 2,4,5-TP	42475	44595	44410	46275	46616	45479	46574	45203	3.323
10 2,4,5-T	33222	35535	36109	40165	39502	39337	40576	37778	7.448
11 2,4-DB	6549	6591	6165	6104	6045	5737	5915	6158	5.103
12 Dinoseb	25132	25912	25946	25883	27335	26820	27698	26390	3.478
$ 2 2,4-Dichlorophenylacetic acid	9480	9131	8532	8718	8742	8423	8617	8806	4.222

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 27-OCT-2009 16:04
End Cal Date : 22-DEC-2009 21:08
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd3a.i/122209h.b/ECD3-B-HERB-122209h.m
Cal Date : 22-Dec-2009 23:50 hea01125
Curve Type : Average

Calibration File Names:
Level 1: /chem/ecd3a.i/122209h.b/002b0201.d
Level 2: /chem/ecd3a.i/122209h.b/003b0301.d
Level 3: /chem/ecd3a.i/122209h.b/004b0401.d
Level 4: /chem/ecd3a.i/122209h.b/005b0501.d
Level 5: /chem/ecd3a.i/122209h.b/006b0601.d
Level 6: /chem/ecd3a.i/122209h.b/007b0701.d
Level 7: /chem/ecd3a.i/122209h.b/008b0801.d

Compound	25.000 Level 1	50.000 Level 2	100.000 Level 3	150.000 Level 4	200.000 Level 5	300.000 Level 6	RRF	% RSD
	400.000 Level 7							
1 Dalapon	+++++	60901	58899	79978	67637	71899		
	77706						69503	12.421
3 Dicamba	232827	220706	201660	195319	192728	177735		
	178225						199886	10.321
4 MCPP	+++++	138	138	136	137	130		
	132						135	2.388
5 MCPA	+++++	229	212	210	208	197		
	200						209	5.305
6 Dichlorprop	60680	56363	50276	48638	46995	42153		
	41686						49541	14.147
7 2,4-D	65842	62801	56794	56885	54680	50401		
	50027						56776	10.398
8 Pentachlorophenol	646031	631265	588947	575602	569586	528884		
	532746						581866	7.691

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 27-OCT-2009 16:04
End Cal Date : 22-DEC-2009 21:08
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd3a.i/122209h.b/ECD3-B-HERB-122209h.m
Cal Date : 22-Dec-2009 23:50 hea01125
Curve Type : Average

Compound	25.000 Level 1	50.000 Level 2	100.000 Level 3	150.000 Level 4	200.000 Level 5	300.000 Level 6	400.000 Level 7	RRF	% RSD
9 2,4,5-TP	237761	227896	210411	205027	203188	187328	187237	208407	9.139
10 2,4,5-T	196200	190391	179172	186309	179396	170534	171571	181939	5.241
11 2,4-DB	33430	30353	28810	26183	26358	24773	24572	27783	11.710
12 Dinoseb	145153	134886	124905	118212	120179	113299	114504	124448	9.383
$ 2 2,4-Dichlorophenylacetic acid	60839	54402	47618	45452	44514	40877	41259	47852	15.277

FORM 7
HERBICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-899-1

Instrument ID: ECD3A Calibration Date: 12/22/09 Time: 2133

Lab File ID: 009F0901 Init. Calib. Date(s): 12/22/09 12/22/09

Heated Purge: (Y/N) N Init. Calib. Times: 1839 2108

GC Column: RTX-CLPI ID: 0.25 (mm)

COMPOUND	RRF	RRF200	MIN RRF	%D	MAX %D
2,4-D	10586.854	10892.320	0.005	2.9	15.0
2,4,5-TP	45203.462	45767.775	0.01	1.2	15.0
2,4-Dichlorophenylacetic aci	8806.006	8872.924	0.01	0.8	15.0

FORM VII HERBICIDE

FORM 7
HERBICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-899-1

Instrument ID: ECD3A Calibration Date: 12/22/09 Time: 2133

Lab File ID: 009B0901 Init. Calib. Date(s): 12/22/09 12/22/09

Heated Purge: (Y/N) N Init. Calib. Times: 1839 2108

GC Column: RTX-CLPII ID: 0.25 (mm)

COMPOUND	RRF	RRF200	MIN RRF	%D	MAX %D
2,4-D	56775.752	53139.345	0.005	-6.4	15.0
2,4,5-TP	208406.83	193650.14	0.01	-7.1	15.0
2,4-Dichlorophenylacetic aci	47851.597	45102.726	0.01	-5.7	15.0

FORM VII HERBICIDE

FORM 7
HERBICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-899-1

Instrument ID: ECD3A Calibration Date: 12/23/09 Time: 0114

Lab File ID: 018F1801 Init. Calib. Date(s): 12/22/09 12/22/09

Heated Purge: (Y/N) N Init. Calib. Times: 1839 2108

GC Column: RTX-CLPI ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF200	MIN RRF	%D	MAX %D
2,4-D	10586.854	10911.825	0.005	3.1	15.0
2,4,5-TP	45203.462	45416.965	0.01	0.5	15.0
2,4-Dichlorophenylacetic aci	8806.006	8858.414	0.01	0.6	15.0

FORM VII HERBICIDE

FORM 7
HERBICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-899-1

Instrument ID: ECD3A Calibration Date: 12/23/09 Time: 0114

Lab File ID: 018B1801 Init. Calib. Date(s): 12/22/09 12/22/09

Heated Purge: (Y/N) N Init. Calib. Times: 1839 2108

GC Column: RTX-CLPII ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF200	MIN RRF	%D	MAX %D
2,4-D	56775.752	49522.590	0.005	-12.8	15.0
2,4,5-TP	208406.83	183130.54	0.01	-12.1	15.0
2,4-Dichlorophenylacetic aci	47851.597	41050.397	0.01	-14.2	15.0

FORM VII HERBICIDE

FORM 7
HERBICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-899-1

Instrument ID: ECD3A Calibration Date: 12/23/09 Time: 0609

Lab File ID: 030F3001 Init. Calib. Date(s): 12/22/09 12/22/09

Heated Purge: (Y/N) N Init. Calib. Times: 1839 2108

GC Column: RTX-CLPI ID: 0.25 (mm)

COMPOUND	RRF	RRF200	MIN RRF	%D	MAX %D
2,4-D	10586.854	11061.746	0.005	4.5	15.0
2,4,5-TP	45203.462	45761.349	0.01	1.2	15.0
2,4-Dichlorophenylacetic aci	8806.006	8992.055	0.01	2.1	15.0

FORM VII HERBICIDE

FORM 7
HERBICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-899-1

Instrument ID: ECD3A Calibration Date: 12/23/09 Time: 0609

Lab File ID: 030B3001 Init. Calib. Date(s): 12/22/09 12/22/09

Heated Purge: (Y/N) N Init. Calib. Times: 1839 2108

GC Column: RTX-CLPII ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF200	MIN RRF	%D	MAX %D	
2,4-D	56775.752	48979.415	0.005	-13.7	15.0	
2,4,5-TP	208406.83	175962.09	0.01	-15.6	15.0	<-
2,4-Dichlorophenylacetic aci	47851.597	38642.826	0.01	-19.2	15.0	<-

FORM VII HERBICIDE

GEL Laboratories LLC

Rtx-CLPI

Data file : /chem/ecd3a.i/122209h.b/009f0901.d
Lab Smp Id: WHB091222-08 Client Smp ID: HSTD01
Inj Date : 22-DEC-2009 21:33
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |WHB091222-08|
Misc Info :
Comment :
Method : /chem/ecd3a.i/122209h.b/ECD3-F-HERB-122209h.m
Meth Date : 22-Dec-2009 23:51 hea01125 Quant Type: ESTD
Cal Date : 22-DEC-2009 21:08 Cal File: 008f0801.d
Als bottle: 9 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
1 Dalapon					CAS #: 75-99-0
3.888	3.888	0.000	19059142	2000.00	2220
$ 2 2,4-Dichlorophenylacetic acid					CAS #: 19719-28-9
7.707	7.707	0.000	4436462	500.000	504
3 Dicamba					CAS #: 6597-78-0
7.886	7.886	0.000	6613394	200.000	195
4 MCPP					CAS #: 7085-19-0
8.045	8.045	0.000	637512	20000.0	18400
5 MCPA					CAS #: 94-74-6
8.188	8.188	0.000	1187509	20000.0	17900
6 Dichlorprop					CAS #: 120-36-5
8.550	8.550	0.000	1741798	200.000	191
7 2,4-D					CAS #: 94-75-7
8.771	8.771	0.000	2178464	200.000	206
8 Pentachlorophenol					CAS #: 87-86-5
9.061	9.061	0.000	25757560	200.000	198
9 2,4,5-TP					CAS #: 93-72-1
9.592	9.592	0.000	9153555	200.000	202

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
10 2,4,5-T					CAS #: 93-76-5
9.865	9.865	0.000	8149539	200.000	216
11 2,4-DB					CAS #: 94-82-6
10.399	10.399	0.000	1218009	200.000	198
12 Dinoseb					CAS #: 88-85-7
11.509	11.509	0.000	5229320	200.000	198

Data File: /chem/ecd3a.i/122209h.b/009f0901.d

Date : 22-DEC-2009 21:33

Client ID: HSTD01

Sample Info: IWHB091222-08I

Column phase: Rtx-CLPI

Instrument: ecd3a.i

Operator: HXJ1

Column diameter: 0.25

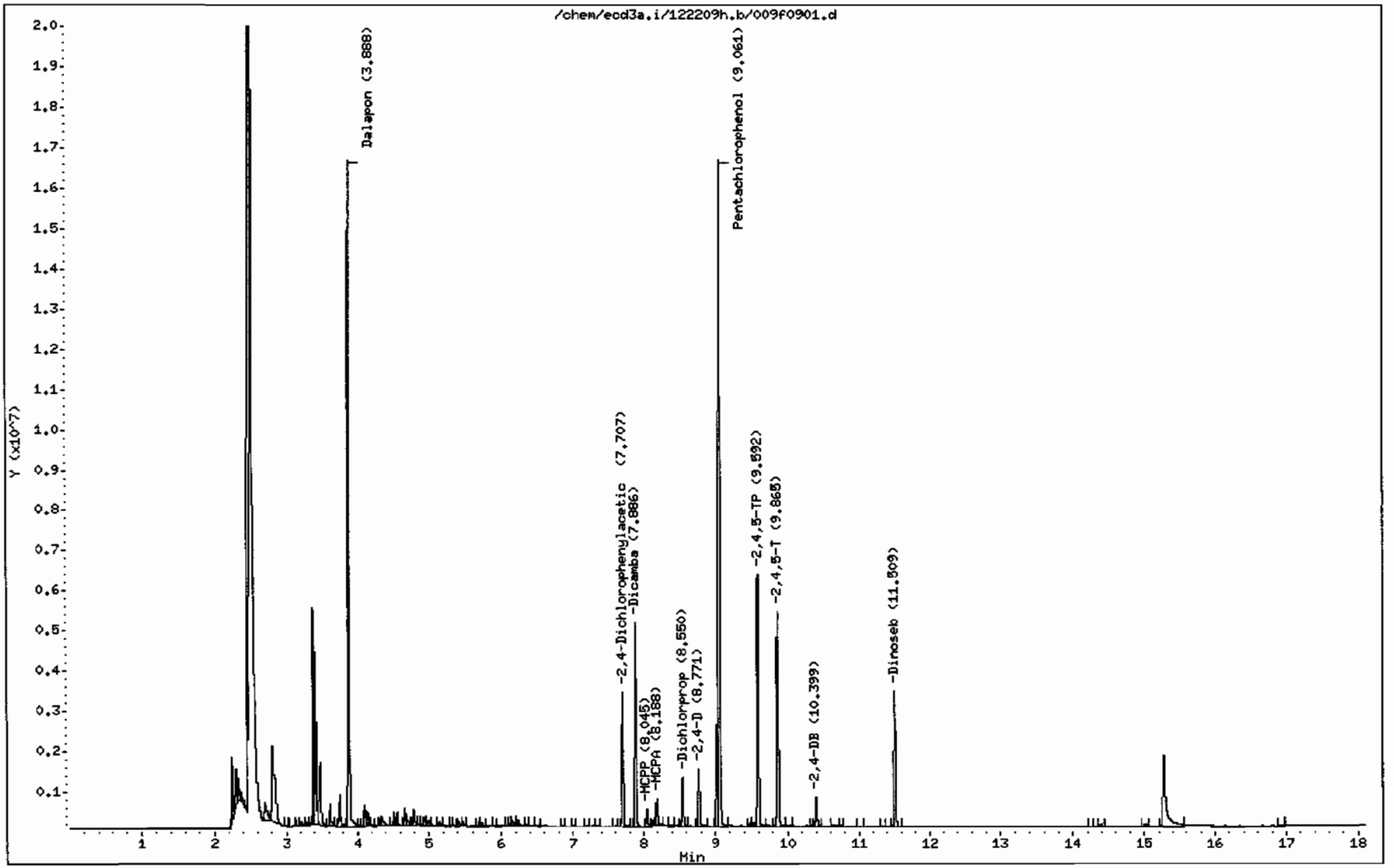

GEL Laboratories LLC

Rtx-CLPII

Data file : /chem/ecd3a.i/122209h.b/009b0901.d
Lab Smp Id: WHB091222-08 Client Smp ID: HSTD01
Inj Date : 22-DEC-2009 21:33
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |WHB091222-08|
Misc Info :
Comment :
Method : /chem/ecd3a.i/122209h.b/ECD3-B-HERB-122209h.m
Meth Date : 22-Dec-2009 23:51 hea01125 Quant Type: ESTD
Cal Date : 22-DEC-2009 21:08 Cal File: 008b0801.d
Als bottle: 9 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50 Sample Matrix: None

	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	
	1 Dalapon						CAS #: 88-85-7
	3.811	3.811	0.000	151289107	2000.00	2180	
$	2 2,4-Dichlorophenylacetic acid						CAS #: 19719-28-9
	7.982	7.982	0.000	22551363	500.000	471	
	3 Dicamba						CAS #: 6597-78-0
	8.166	8.166	0.000	36648706	200.000	183	
	4 MCPP						CAS #: 7085-19-0
	8.255	8.255	0.000	2609434	20000.0	19300	
	5 MCPA						CAS #: 94-74-6
	8.479	8.479	0.000	4166447	20000.0	19900	
	6 Dichlorprop						CAS #: 120-36-5
	8.828	8.828	0.000	8847216	200.000	178	
	7 2,4-D						CAS #: 94-75-7
	9.133	9.133	0.000	10627869	200.000	187	
	8 Pentachlorophenol						CAS #: 87-86-5
	9.624	9.624	0.000	106915466	200.000	184	
	9 2,4,5-TP						CAS #: 93-72-1
	9.967	9.967	0.000	38730028	200.000	186	

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
10 2,4,5-T					CAS #: 93-76-5
10.352	10.352	0.000	36135983	200.000	199
11 2,4-DB					CAS #: 94-82-6
10.871	10.871	0.000	5130347	200.000	185
12 Dinoseb					CAS #: 88-85-7
11.218	11.218	0.000	22759262	200.000	183

Data File: /chem/ecd3a.i/122209h.b/009b0901.d
Date : 22-DEC-2009 21:33
Client ID: HSTD01
Sample Info: |WHB091222-08|

Column phase: Rtx-CLPII

Instrument: ecd3a.i

Operator: HXJ1
Column diameter: 0.25

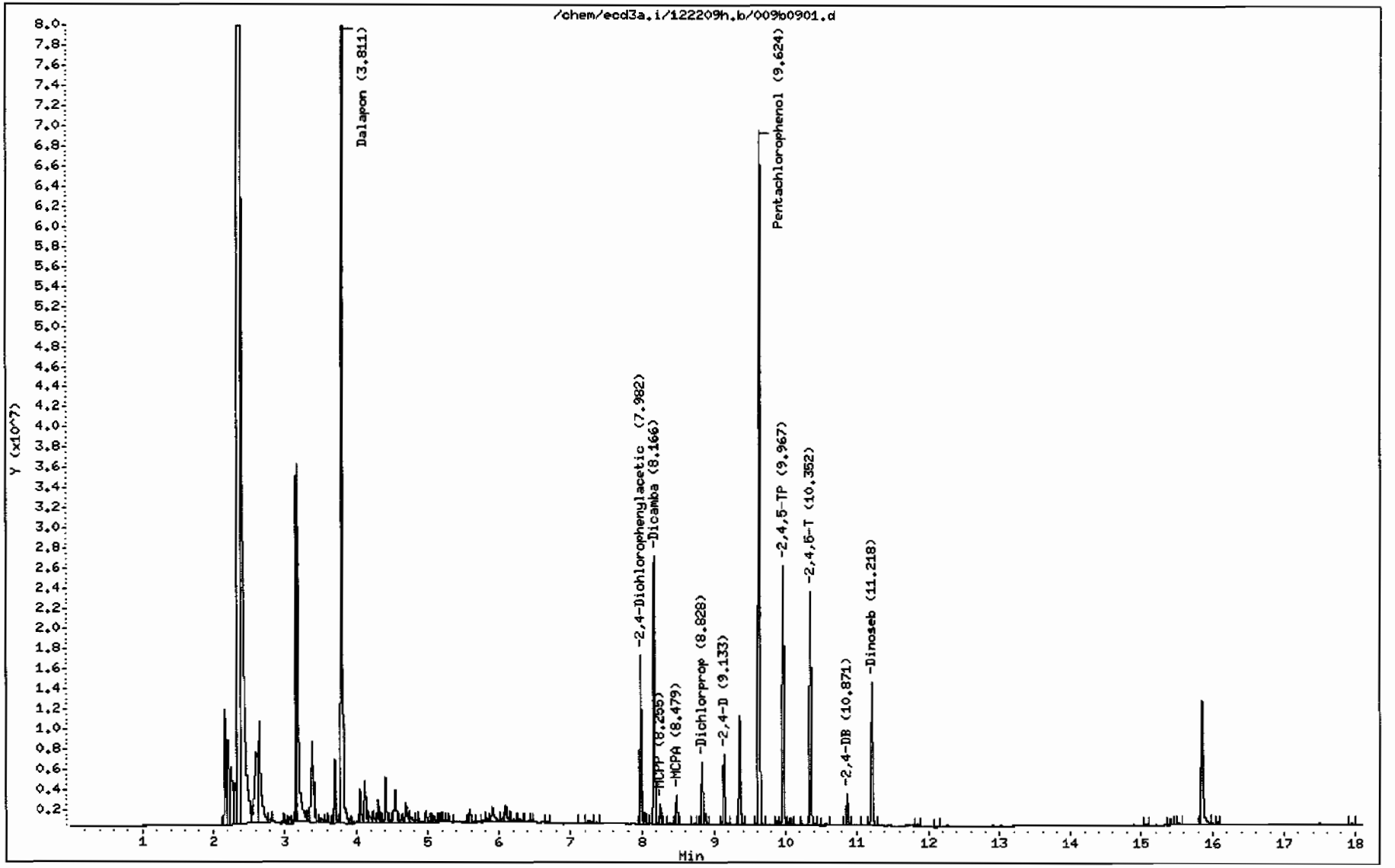

GEL Laboratories LLC

Rtx-CLPI

Data file : /chem/ecd3a.i/122209h.b/018f1801.d
Lab Smp Id: WHB091222-08 Client Smp ID: HSTD02
Inj Date : 23-DEC-2009 01:14
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |WHB091222-08
Misc Info : CHECK
Comment :
Method : /chem/ecd3a.i/122209h.b/ECD3-F-HERB-122209h.m
Meth Date : 23-Dec-2009 14:34 tif01533 Quant Type: ESTD
Cal Date : 22-DEC-2009 21:08 Cal File: 008f0801.d
Als bottle: 18 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: kilroy

	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
	1 Dalapon					CAS #: 75-99-0
	3.887	3.888	-0.001	19174417	2000.00	2240
$	2 2,4-Dichlorophenylacetic acid					CAS #: 19719-28-9
	7.707	7.707	0.000	4429207	500.000	503
	3 Dicamba					CAS #: 6597-78-0
	7.887	7.886	0.001	6520815	200.000	192
	4 MCPP					CAS #: 7085-19-0
	8.045	8.045	0.000	636885	20000.0	18400
	5 MCPA					CAS #: 94-74-6
	8.187	8.188	-0.001	1200957	20000.0	18100
	6 Dichlorprop					CAS #: 120-36-5
	8.551	8.550	0.001	1739686	200.000	191
	7 2,4-D					CAS #: 94-75-7
	8.771	8.771	0.000	2182365	200.000	206
	8 Pentachlorophenol					CAS #: 87-86-5
	9.060	9.061	-0.001	25235305	200.000	194
	9 2,4,5-TP					CAS #: 93-72-1
	9.592	9.592	0.000	9083393	200.000	201

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	
10 2,4,5-T						CAS #: 93-76-5
9.865	9.865	0.000	8144372	200.000	216	
11 2,4-DB						CAS #: 94-82-6
10.400	10.399	0.001	1188378	200.000	193	
12 Dinoseb						CAS #: 88-85-7
11.510	11.509	0.001	5278518	200.000	200	

Data File: /chem/ecd3a.i/122209h.b/018f1801.d
Date : 23-DEC-2009 01:14
Client ID: HSTD02
Sample Info: IWHB091222-08

Column phase: Rtx-CLPI

Instrument: ecd3a.i

Operator: HXJ1
Column diameter: 0.25

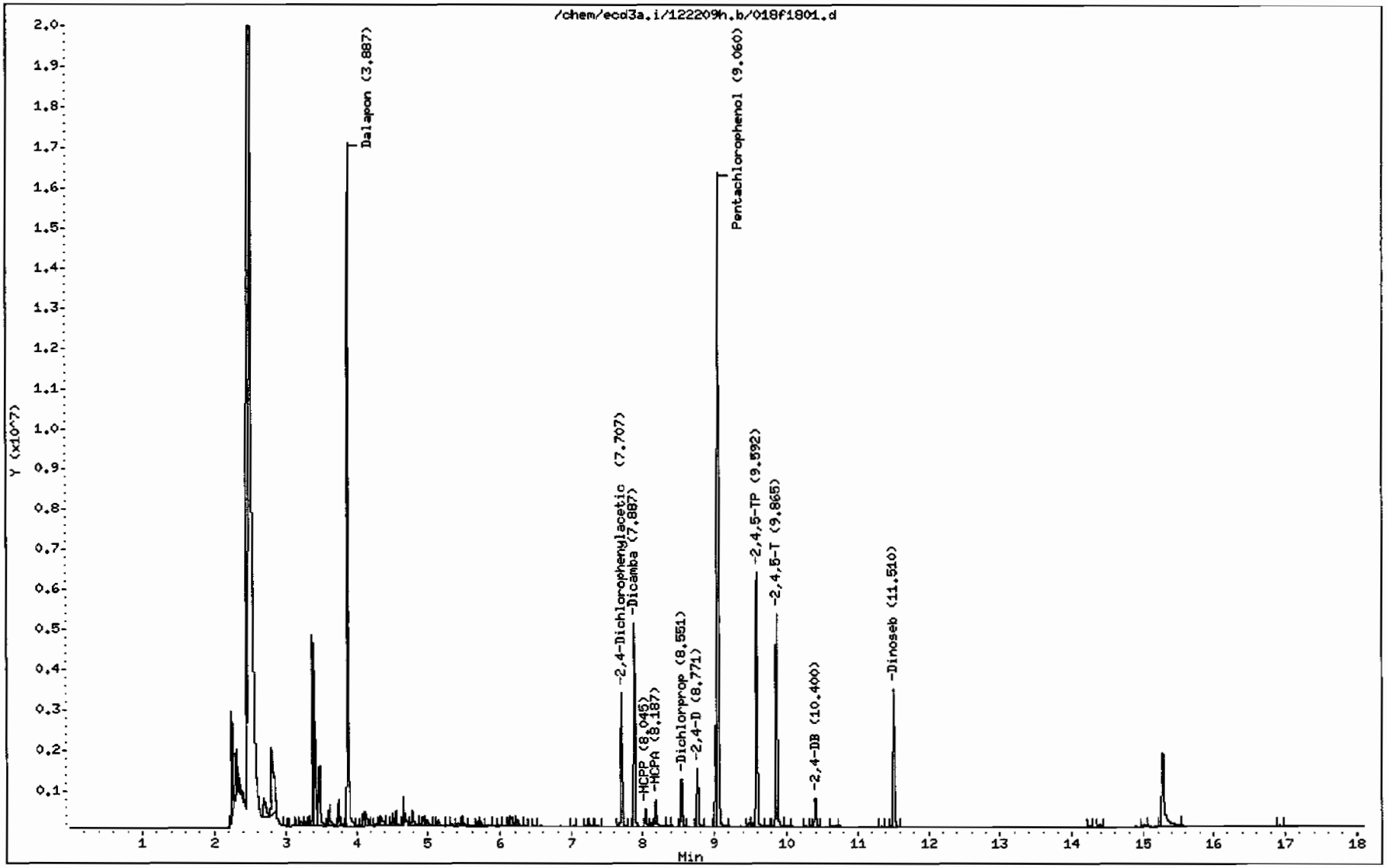

GEL Laboratories LLC

Rtx-CLPII

Data file : /chem/ecd3a.i/122209h.b/018b1801.d
Lab Smp Id: WHB091222-08 Client Smp ID: HSTD02
Inj Date : 23-DEC-2009 01:14
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |WHB091222-08
Misc Info : CHECK
Comment :
Method : /chem/ecd3a.i/122209h.b/ECD3-B-HERB-122209h.m
Meth Date : 23-Dec-2009 14:33 tif01533 Quant Type: ESTD
Cal Date : 22-DEC-2009 21:08 Cal File: 008b0801.d
Als bottle: 18 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50 Sample Matrix: None

	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)		
	1 Dalapon					CAS #: 88-85-7		
	3.810	3.811	-0.001	148324541	2000.00	2130		
$	2 2,4-Dichlorophenylacetic acid					CAS #: 19719-28-9		
	7.982	7.982	0.000	20525198	500.000	429		(M)
	3 Dicamba					CAS #: 6597-78-0		
	8.166	8.166	0.000	32883619	200.000	164		(M)
	4 MCPP					CAS #: 7085-19-0		
	8.254	8.255	-0.001	2412940	20000.0	17900		(M)
	5 MCPA					CAS #: 94-74-6		
	8.479	8.479	0.000	3841801	20000.0	18300		
	6 Dichlorprop					CAS #: 120-36-5		
	8.828	8.828	0.000	8027087	200.000	162		
	7 2,4-D					CAS #: 94-75-7		
	9.133	9.133	0.000	9904518	200.000	174		
	8 Pentachlorophenol					CAS #: 87-86-5		
	9.625	9.624	0.001	101321408	200.000	174		
	9 2,4,5-TP					CAS #: 93-72-1		
	9.968	9.967	0.001	36626107	200.000	176		

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
10 2,4,5-T					CAS #: 93-76-5
10.353	10.352	0.001	34079866	200.000	187
11 2,4-DB					CAS #: 94-82-6
10.873	10.871	0.002	4859475	200.000	175
12 Dinoseb					CAS #: 88-85-7
11.219	11.218	0.001	23158953	200.000	186

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd3a.i/122209h.b/018b1801.d
Date : 23-DEC-2009 01:14
Client ID: HSTD02
Sample Info: IWHB091222-08

Column phase: Rtx-CLPII

Instrument: ecd3a.i
Operator: HXJ1
Column diameter: 0.25

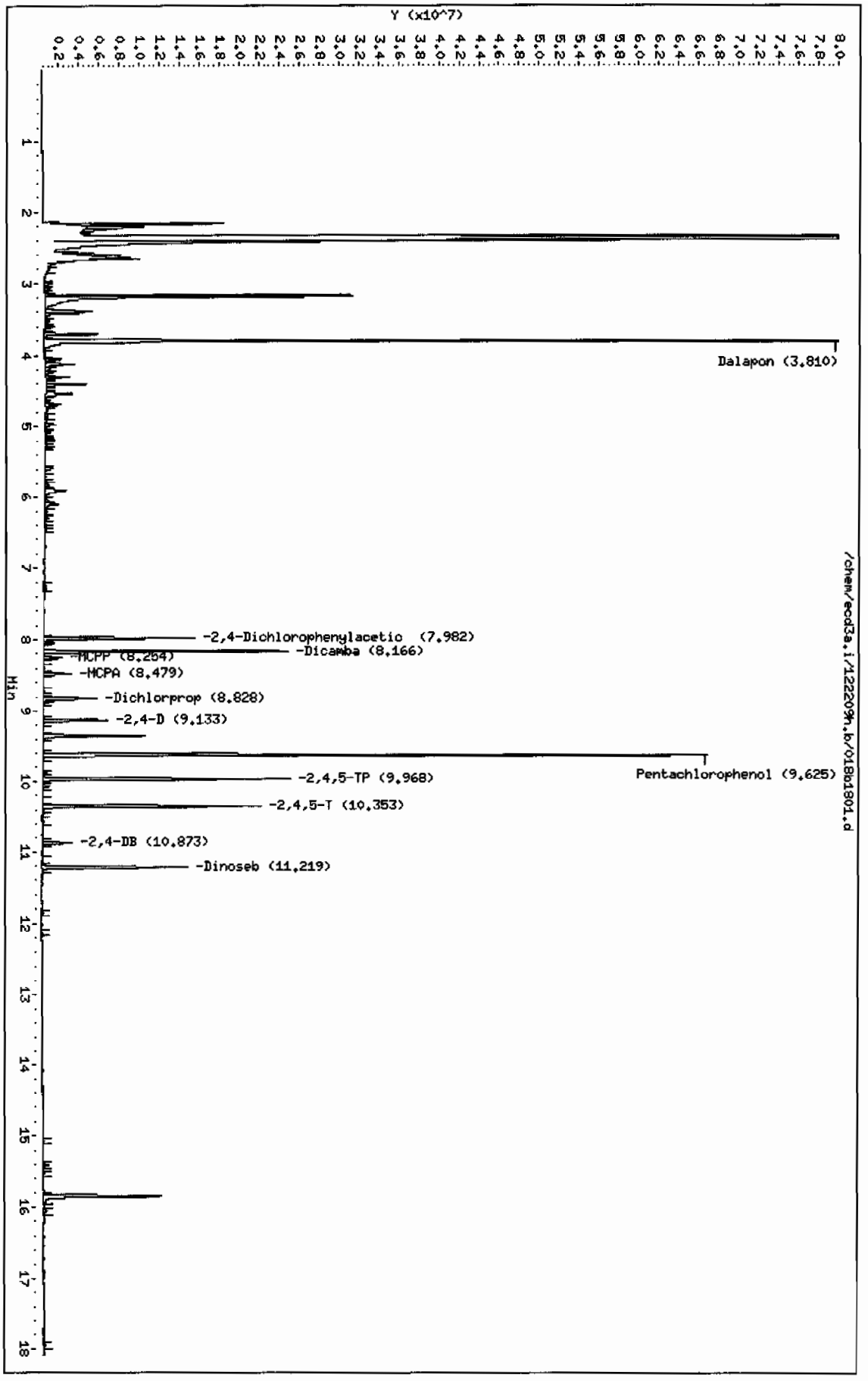

Page 1

Comment: Manually Integrated
Data File: /chem/ecd3a.i/122209h.b/018b1801.d
Operator: HXJ1
Injection Date: 23-DEC-2009 01:14
Instrument: ecd3a.i
Client Sample ID: HSTD02

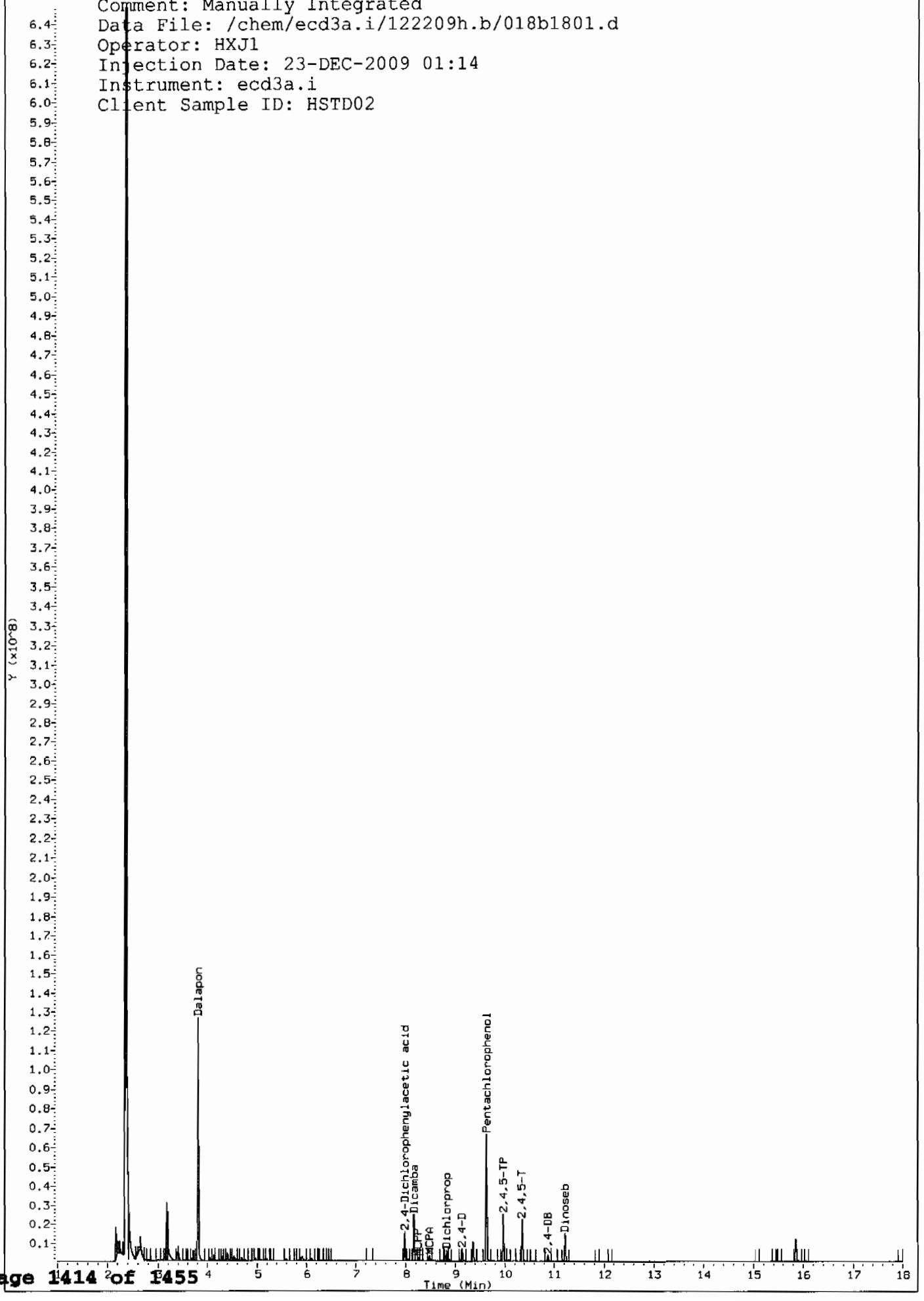

Comment: Before manual integration
Data File: /chem/ecd3a.i/122209h.b/orig-018b1801.d
Operator: HXJ1
Injection Date: 23-DEC-2009 01:14
Instrument: ecd3a.i
Client Sample ID: HSTD02

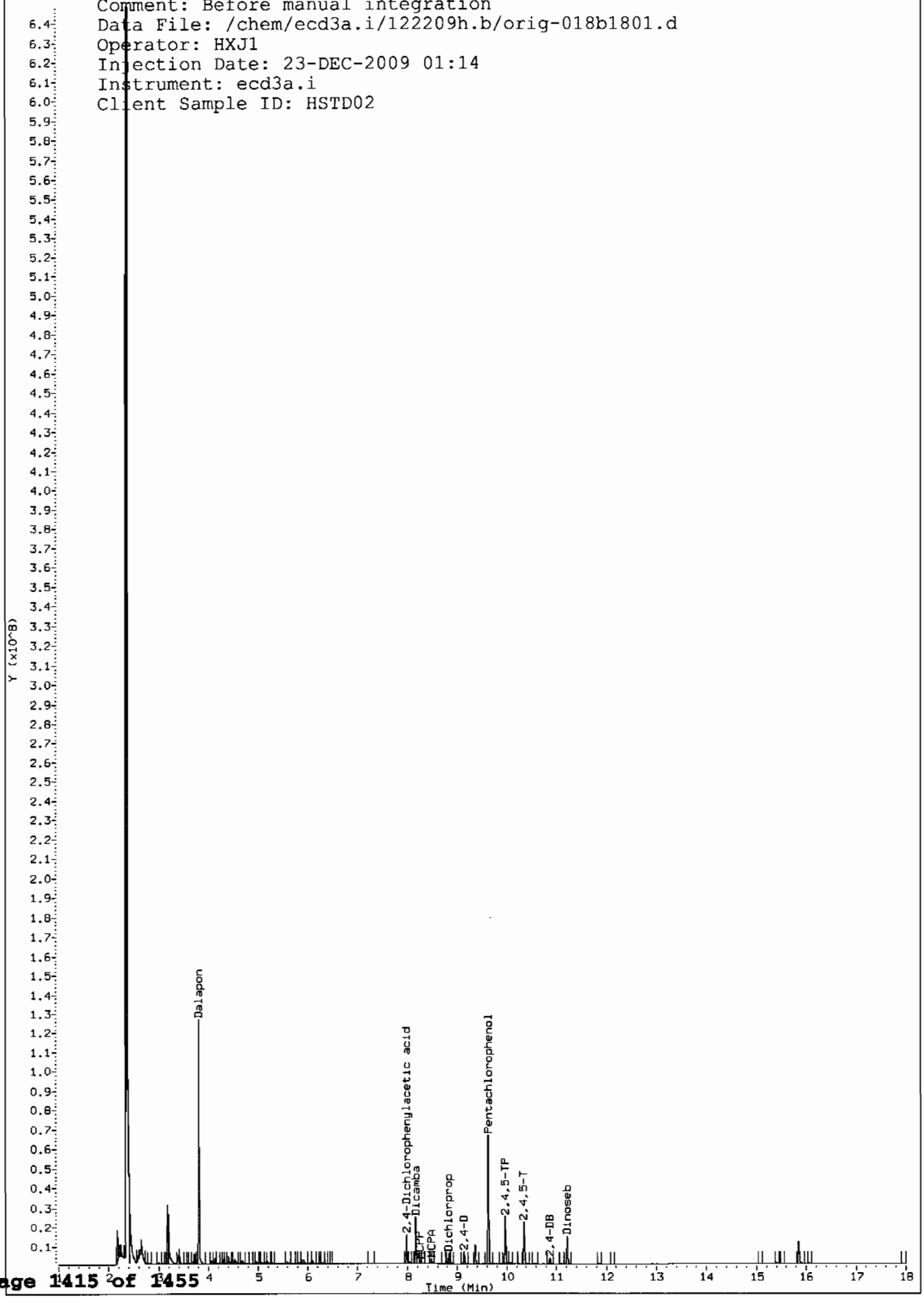

GEL Laboratories LLC

Rtx-CLPI

Data file : /chem/ecd3a.i/122209h.b/030f3001.d
Lab Smp Id: WHB091222-08 Client Smp ID: HSTD03
Inj Date : 23-DEC-2009 06:09
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |WHB091222-08|
Misc Info : IB
Comment :
Method : /chem/ecd3a.i/122209h.b/ECD3-F-HERB-122209h.m
Meth Date : 23-Dec-2009 14:34 tif01533 Quant Type: ESTD
Cal Date : 22-DEC-2009 21:08 Cal File: 008f0801.d
Als bottle: 30 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: kilroy

	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	
	1 Dalapon						CAS #: 75-99-0
	3.886	3.888	-0.002	19775663	2000.00	2310	
$	2 2,4-Dichlorophenylacetic acid						CAS #: 19719-28-9
	7.706	7.707	-0.001	4496027	500.000	510	
	3 Dicamba						CAS #: 6597-78-0
	7.886	7.886	0.000	6611985	200.000	195	
	4 MCPP						CAS #: 7085-19-0
	8.044	8.045	-0.001	649907	20000.0	18700	
	5 MCPA						CAS #: 94-74-6
	8.187	8.188	-0.001	1181288	20000.0	17800	
	6 Dichlorprop						CAS #: 120-36-5
	8.549	8.550	-0.001	1764427	200.000	194	
	7 2,4-D						CAS #: 94-75-7
	8.771	8.771	0.000	2212349	200.000	209	
	8 Pentachlorophenol						CAS #: 87-86-5
	9.060	9.061	-0.001	25117437	200.000	193	
	9 2,4,5-TP						CAS #: 93-72-1
	9.592	9.592	0.000	9152269	200.000	202	

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
10 2,4,5-T					CAS #: 93-76-5
9.865	9.865	0.000	8211113	200.000	217
11 2,4-DB					CAS #: 94-82-6
10.400	10.399	0.001	1189041	200.000	193
12 Dinoseb					CAS #: 88-85-7
11.508	11.509	-0.001	5425520	200.000	206

Data File: /chem/ecd3a.i/122209h.b/030f3001.d
Date : 23-DEC-2009 06:09
Client ID: HSTD03
Sample Info: |WHB091222-08|

Column phase: Rtx-CLPI

Instrument: ecd3a.i

Operator: HXJ1
Column diameter: 0.25

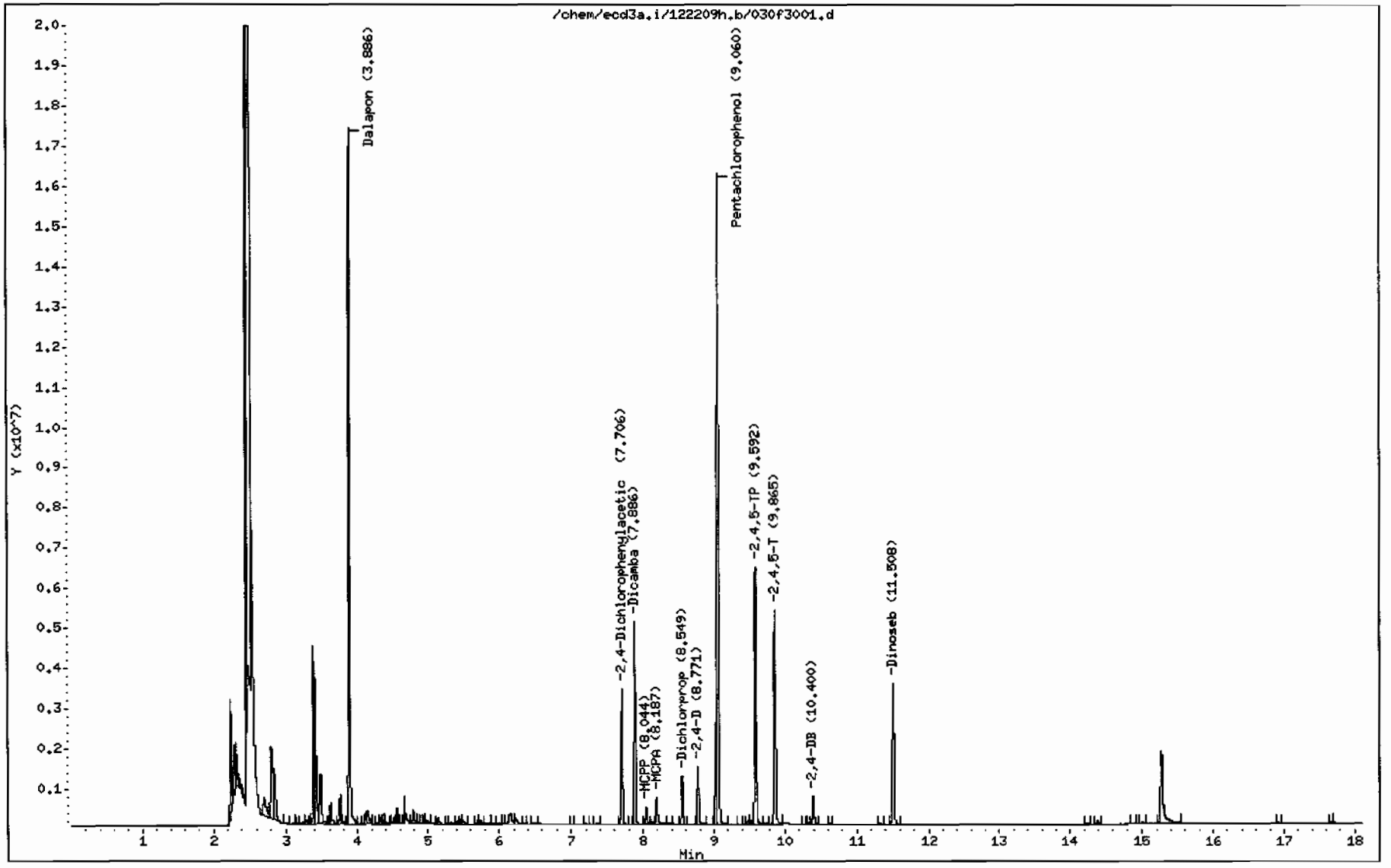

GEL Laboratories LLC

Rtx-CLPII

Data file : /chem/ecd3a.i/122209h.b/030b3001.d
Lab Smp Id: WHB091222-08 Client Smp ID: HSTD03
Inj Date : 23-DEC-2009 06:09
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |WHB091222-08|
Misc Info : IB
Comment :
Method : /chem/ecd3a.i/122209h.b/ECD3-B-HERB-122209h.m
Meth Date : 23-Dec-2009 14:33 tif01533 Quant Type: ESTD
Cal Date : 22-DEC-2009 21:08 Cal File: 008b0801.d
Als bottle: 30 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50 Sample Matrix: None

	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	
	1 Dalapon					CAS #: 88-85-7	
	3.809	3.811	-0.002	151741409	2000.00	2180	
$	2 2,4-Dichlorophenylacetic acid					CAS #: 19719-28-9	
	7.980	7.982	-0.002	19321413	500.000	404	(M)
	3 Dicamba					CAS #: 6597-78-0	
	8.165	8.166	-0.001	30972189	200.000	155	(M)
	4 MCPP					CAS #: 7085-19-0	
	8.253	8.255	-0.002	2329468	20000.0	17200	(M)
	5 MCPA					CAS #: 94-74-6	
	8.478	8.479	-0.001	3777397	20000.0	18000	(M)
	6 Dichlorprop					CAS #: 120-36-5	
	8.826	8.828	-0.002	7689452	200.000	155	(M)
	7 2,4-D					CAS #: 94-75-7	
	9.132	9.133	-0.001	9795883	200.000	172	(M)
	8 Pentachlorophenol					CAS #: 87-86-5	
	9.624	9.624	0.000	97697533	200.000	168	(M)
	9 2,4,5-TP					CAS #: 93-72-1	
	9.966	9.967	-0.001	35192418	200.000	169	(M)

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)		
10 2,4,5-T					CAS #: 93-76-5		
10.352	10.352	0.000	33995688	200.000	187		(M)
11 2,4-DB					CAS #: 94-82-6		
10.873	10.871	0.002	5119339	200.000	184		
12 Dinoseb					CAS #: 88-85-7		
11.217	11.218	-0.001	27886932	200.000	224		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd3a.i/122209h.b/030b3001.d
Date : 23-DEC-2009 06:09
Client ID: HSTD03
Sample Info: IWHB091222-08I

Column phase: Rtx-CLPII

Instrument: ecd3a.i

Operator: HXJ1
Column diameter: 0.25

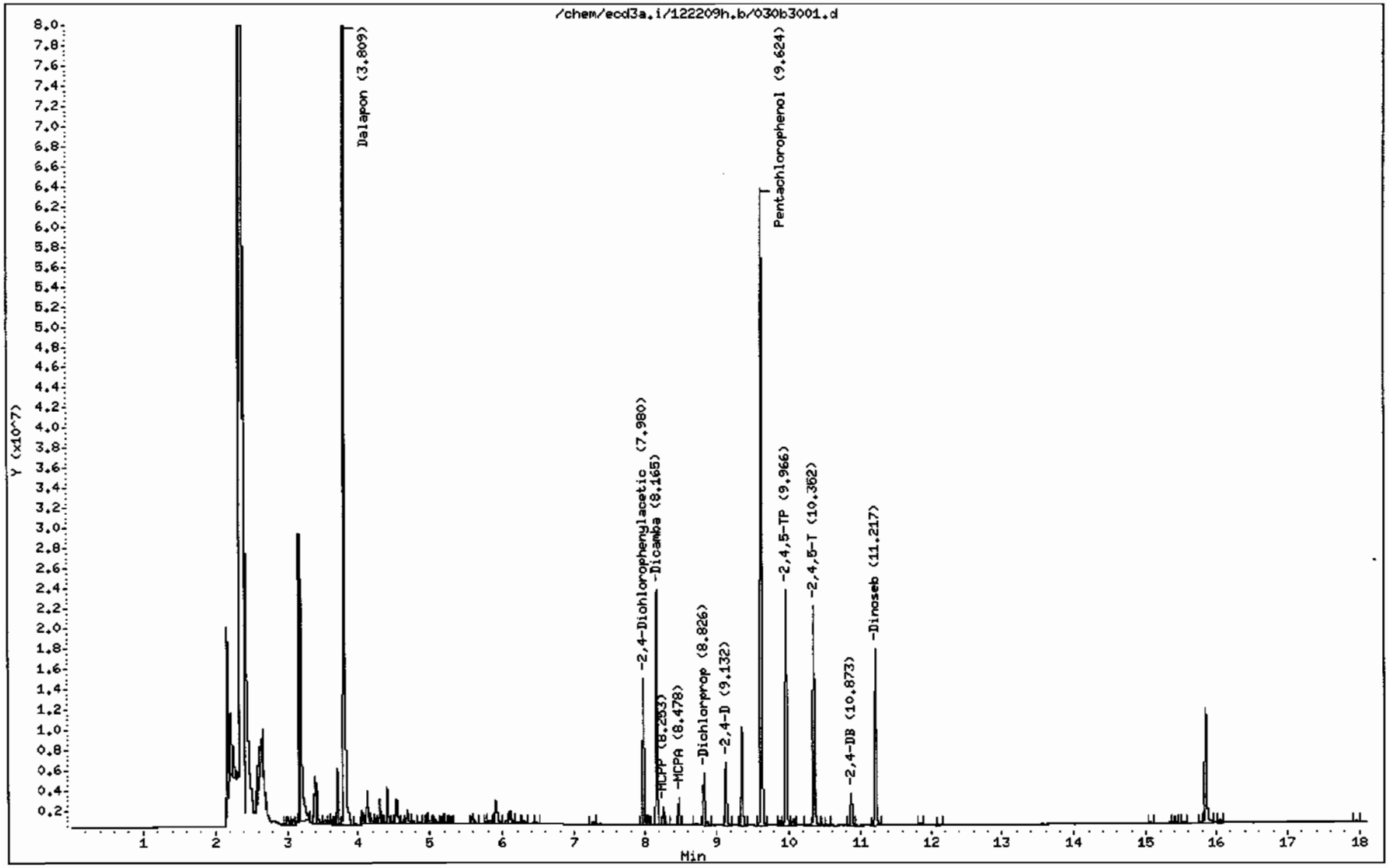

Comment: Manually Integrated
Data File: /chem/ecd3a.i/122209h.b/030b3001.d
Operator: HXJ1
Injection Date: 23-DEC-2009 06:09
Instrument: ecd3a.i
Client Sample ID: HSTD03

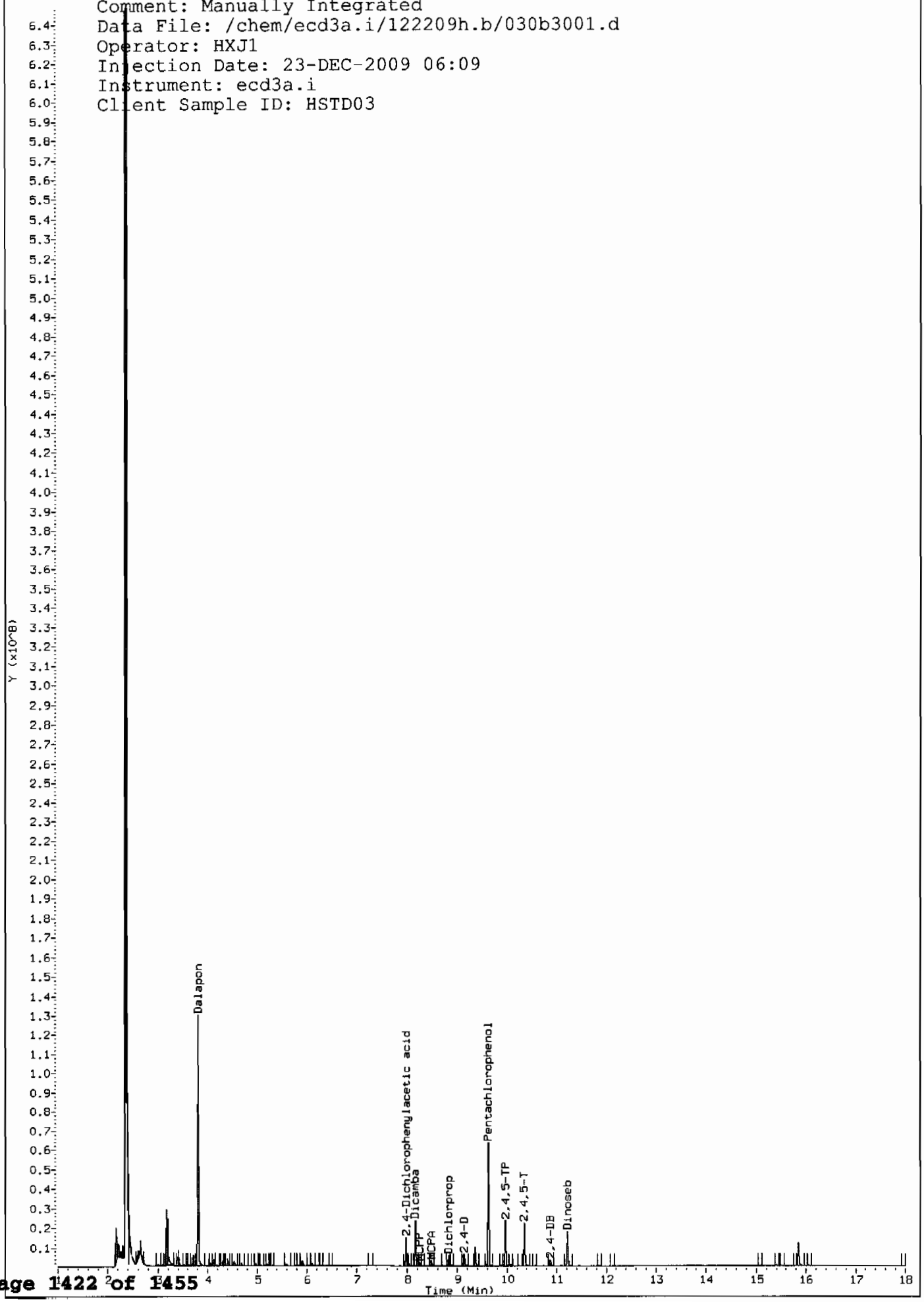

Comment: Before manual integration
Data File: /chem/ecd3a.i/122209h.b/orig-030b3001.d
Operator: HXJ1
Injection Date: 23-DEC-2009 06:09
Instrument: ecd3a.i
Client Sample ID: HSTD03

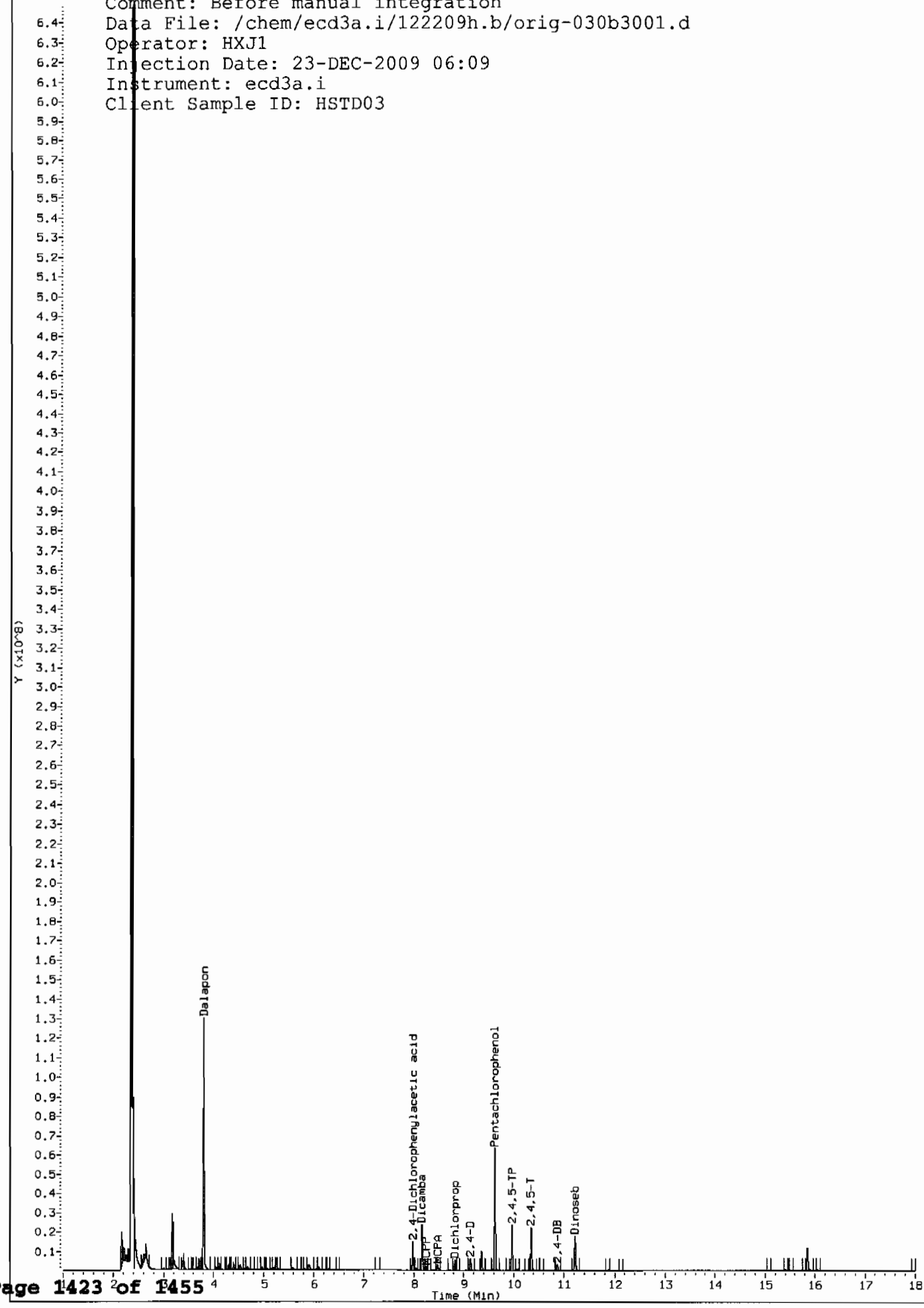

FORM 8
HERBICIDE ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-899-1

GC Column: RTX-CLPI ID: 0.25 (mm) Init. Calib. Date(s): 12/22/09 12/22/09

Instrument ID: ECD3A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 7.71

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	RT #
01	HIBLK01	WHB091117-02	12/22/09	1815	7.73	
02	HSTD01	WHB091030-01	12/22/09	1839	7.72	
03	HSTD02	WHB091030-02	12/22/09	1904	7.71	
04	HSTD03	WHB091030-03	12/22/09	1929	7.71	
05	HSTD04	WHB091030-04	12/22/09	1954	7.71	
06	HSTD05	WHB091030-05	12/22/09	2018	7.71	
07	HSTD06	WHB091030-06	12/22/09	2043	7.71	
08	HSTD07	WHB091030-07	12/22/09	2108	7.71	
09	HSTD01	WHB091222-08	12/22/09	2133	7.71	
10	ZZZZZ	ZZZZZ	12/22/09	2157	7.71	
11	HIBLK02	WHB091117-02	12/22/09	2222	7.72	
12	ZZZZZ	ZZZZZ	12/22/09	2247	7.72	
13	TBLK01	1201996842	12/22/09	2311	7.71	
14	ZZZZZ	ZZZZZ	12/22/09	2336	7.71	
15	HBLK01	1202000329	12/23/09	0001	7.72	
16	HBLK01LCS	1202000330	12/23/09	0025	7.71	
17	ZZZZZ	ZZZZZ	12/23/09	0050	7.71	
18	HSTD02	WHB091222-08	12/23/09	0114	7.71	
19	HIBLK03	WHB091117-02	12/23/09	0139	7.72	
20	ZZZZZ	ZZZZZ	12/23/09	0204	7.72	
21	ZZZZZ	ZZZZZ	12/23/09	0228	7.71	
22	ZZZZZ	ZZZZZ	12/23/09	0253	7.71	
23	ZZZZZ	ZZZZZ	12/23/09	0317	7.72	
24	ZZZZZ	ZZZZZ	12/23/09	0342	7.72	
25	ZZZZZ	ZZZZZ	12/23/09	0406	7.71	
26	ZZZZZ	ZZZZZ	12/23/09	0431	7.71	
27	WST03-10-2145	242785001	12/23/09	0455	7.71	
28	WST03-10-2146	242785002	12/23/09	0520	7.72	
29	ZZZZZ	ZZZZZ	12/23/09	0545	7.71	
30	HSTD03	WHB091222-08	12/23/09	0609	7.71	
31	HIBLK04	WHB091117-02	12/23/09	0634	7.72	
32	ZZZZZ	ZZZZZ	12/23/09	0658	7.71	

QC LIMITS
S1 = 2,4-Dichlorophenylacet (+/- 0.06 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII HERBICIDE

FORM 8
HERBICIDE ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-899-1

GC Column: RTX-CLPII ID: 0.25 (mm) Init. Calib. Date(s): 12/22/09 12/22/09

Instrument ID: ECD3A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 7.98

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	RT #
01	HIBLK01	WHB091117-02	12/22/09	1815	8.00	
02	HSTD01	WHB091030-01	12/22/09	1839	7.99	
03	HSTD02	WHB091030-02	12/22/09	1904	7.99	
04	HSTD03	WHB091030-03	12/22/09	1929	7.98	
05	HSTD04	WHB091030-04	12/22/09	1954	7.98	
06	HSTD05	WHB091030-05	12/22/09	2018	7.98	
07	HSTD06	WHB091030-06	12/22/09	2043	7.98	
08	HSTD07	WHB091030-07	12/22/09	2108	7.98	
09	HSTD01	WHB091222-08	12/22/09	2133	7.98	
10	ZZZZZ	ZZZZZ	12/22/09	2157	7.98	
11	HIBLK02	WHB091117-02	12/22/09	2222	7.99	
12	ZZZZZ	ZZZZZ	12/22/09	2247	7.99	
13	TBLK01	1201996842	12/22/09	2311	7.99	
14	ZZZZZ	ZZZZZ	12/22/09	2336	7.99	
15	HBLK01	1202000329	12/23/09	0001	7.99	
16	HBLK01LCS	1202000330	12/23/09	0025	7.98	
17	ZZZZZ	ZZZZZ	12/23/09	0050	7.99	
18	HSTD02	WHB091222-08	12/23/09	0114	7.98	
19	HIBLK03	WHB091117-02	12/23/09	0139	7.99	
20	ZZZZZ	ZZZZZ	12/23/09	0204	7.99	
21	ZZZZZ	ZZZZZ	12/23/09	0228	7.98	
22	ZZZZZ	ZZZZZ	12/23/09	0253	7.98	
23	ZZZZZ	ZZZZZ	12/23/09	0317	7.99	
24	ZZZZZ	ZZZZZ	12/23/09	0342	7.99	
25	ZZZZZ	ZZZZZ	12/23/09	0406	7.99	
26	ZZZZZ	ZZZZZ	12/23/09	0431	7.99	
27	WST03-10-2156	242785001	12/23/09	0455	7.99	
28	WST03-10-2146	242785002	12/23/09	0520	7.99	
29	ZZZZZ	ZZZZZ	12/23/09	0545	7.99	
30	HSTD03	WHB091222-08	12/23/09	0609	7.98	
31	HIBLK04	WHB091117-02	12/23/09	0634	7.99	
32	ZZZZZ	ZZZZZ	12/23/09	0658	7.99	

QC LIMITS
S1 = 2,4-Dichlorophenylacet (+/- 0.06 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

page 1 of 1

FORM VIII HERBICIDE

Identification Summary

SDG Number: 10–899–1 **Client ID:** LCS for batch 934948

Lab Sample ID: 1202000330

Data File:	016f1601.d	**Data File:**	016b1601.d
Inst:	ECD3A.I_1	**Inst:**	ECD3A.I_2
Column:	Rtx–CLPI	**Column:**	Rtx–CLPII
Analyzed:	23–DEC–09 00:25	**Analyzed:**	23–DEC–09 00:25

Analyte		Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
2,4–D								17
	Column 1	1	8.77	8.71 – 8.83	.00182		mg/L	
	Column 2	1	9.13	9.07 – 9.19	.00153		mg/L	
2,4,5–TP								10.8
	Column 1	1	9.59	9.56 – 9.62	.00175		mg/L	
	Column 2	1	9.97	9.94 – 10	.00157		mg/L	

QUALITY CONTROL DATA

Herbicide
Certificate of Analysis
Sample Summary

SDG Number:	10–899–1			**Matrix:**	TCLP SOIL
Lab Sample ID:	1201996842				
Client Sample:	QC for batch 933331	**Client:**	LANL010	**Project:**	QC
Client ID:	TB for batch 933331	**Method:**	SW846 8151A	**SOP Ref:**	GL–OA–E–011
Batch ID:	934950	**Inst:**	ECD3A.I	**Dilution:**	1
Run Date:	12/22/2009 23:11	**Analyst:**	HXJ1	**Inj. Vol:**	1 uL
Prep Date:	12/21/2009 18:40	**Aliquot:**	5 mL	**Final Volume:**	10 mL
Data File:	013f1301.d	**Column:**	1 Rtx–CLPI	**Level:**	LOW
	013b1301.d		2 Rtx–CLPII		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
94–75–7	2,4–D	U	0.050	mg/L	0.0166	0.050	1
93–72–1	2,4,5–TP	U	0.050	mg/L	0.0166	0.050	1

GEL Laboratories LLC

Rtx-CLPI

Data file : /chem/ecd3a.i/122209h.b/013f1301.d
Lab Smp Id: 1201996842 Client Smp ID: TBLK01
Inj Date : 22-DEC-2009 23:11
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |1201996842|1|
Misc Info : |ECDTPH_1L|934950|SVH|TB|SLUDGE|TB|||
Comment :
Method : /chem/ecd3a.i/122209h.b/ECD3-F-HERB-122209h.m
Meth Date : 23-Dec-2009 14:34 tif01533 Quant Type: ESTD
Cal Date : 22-DEC-2009 21:08 Cal File: 008f0801.d
Als bottle: 13 QC Sample: TB
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-899-1.sub
Target Version: 3.50 Sample Matrix: Water
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	0.00100	Correction factor
Vt	10.00000	Volume of final extract (mL)
Vo	5.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (mg/L)
$ 2 2,4-Dichlorophenylacetic acid CAS #: 19719-28-9						
	7.715	7.707	0.008	4123952	468.311	0.94

Data File: /chem/ecd3a.i/122209h.b/013f1301.d

Date : 22-DEC-2009 23:11

Client ID: TBLK01

Sample Info: |1201996842|1|

Volume Injected (uL): 1.0

Column phase: Rtx-CLPI

Instrument: ecd3a.i

Operator: HXJ1

Column diameter: 0.25

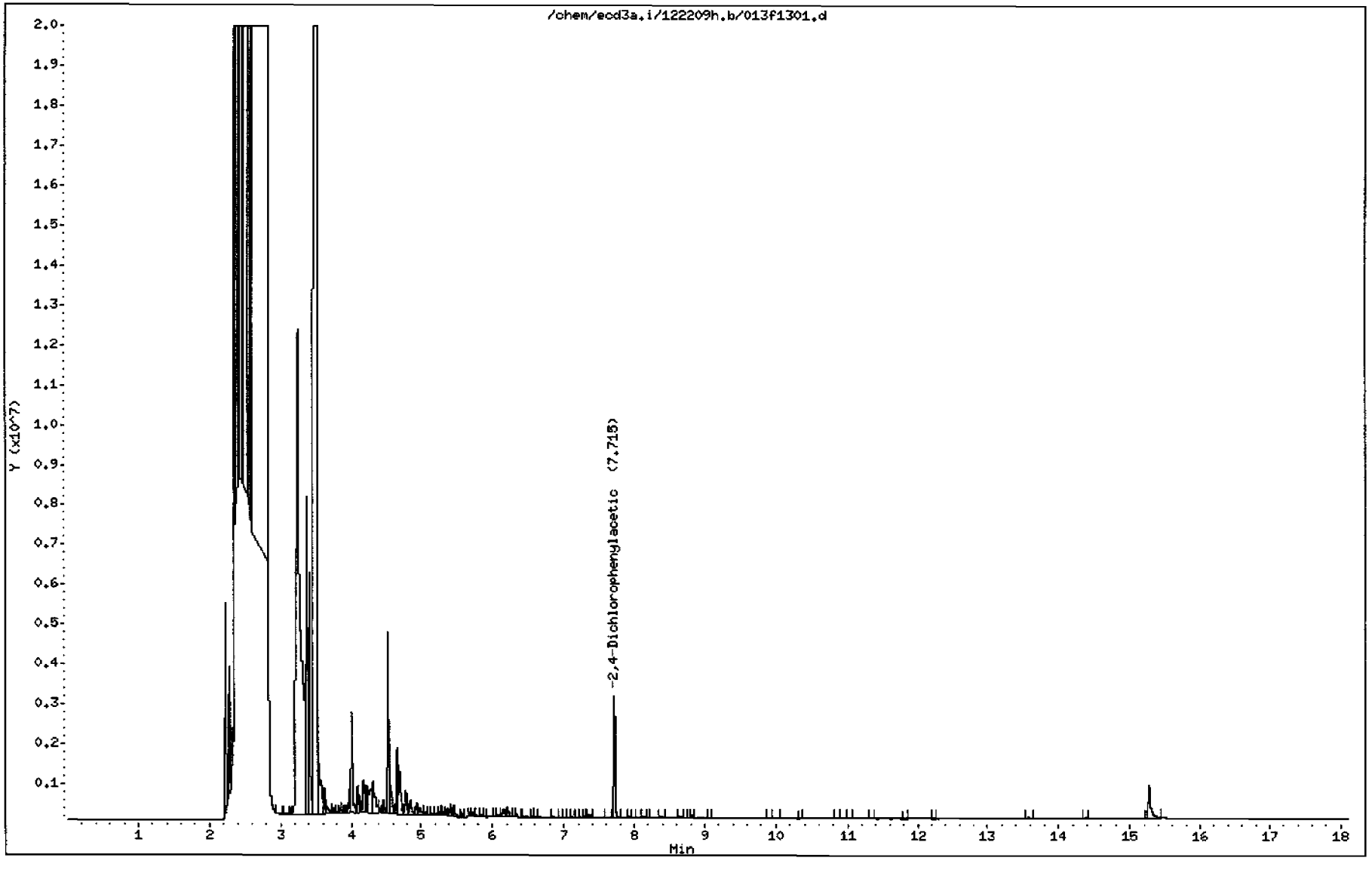

GEL Laboratories LLC

Rtx-CLPII

Data file : /chem/ecd3a.i/122209h.b/013b1301.d
Lab Smp Id: 1201996842 Client Smp ID: TBLK01
Inj Date : 22-DEC-2009 23:11
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |1201996842|1|
Misc Info : |ECDTPH_1L|934950|SVH|TB|SLUDGE|TB|||
Comment :
Method : /chem/ecd3a.i/122209h.b/ECD3-B-HERB-122209h.m
Meth Date : 23-Dec-2009 14:33 tif01533 Quant Type: ESTD
Cal Date : 22-DEC-2009 21:08 Cal File: 008b0801.d
Als bottle: 13 QC Sample: TB
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-899-1.sub
Target Version: 3.50 Sample Matrix: Water
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	0.00100	Correction factor
Vt	10.00000	Volume of final extract (mL)
Vo	5.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (mg/L)
$ 2 2,4-Dichlorophenylacetic acid					CAS #: 19719-28-9
7.987	7.982	0.005	20643887	431.415	0.86

Data File: /chem/ecd3a.i/122209h.b/013b1301.d

Date : 22-DEC-2009 23:11

Client ID: TBLK01

Sample Info: |120199684211|

Volume Injected (uL): 1.0

Column phase: Rtx-CLPII

Instrument: ecd3a.i

Operator: HXJ1

Column diameter: 0.25

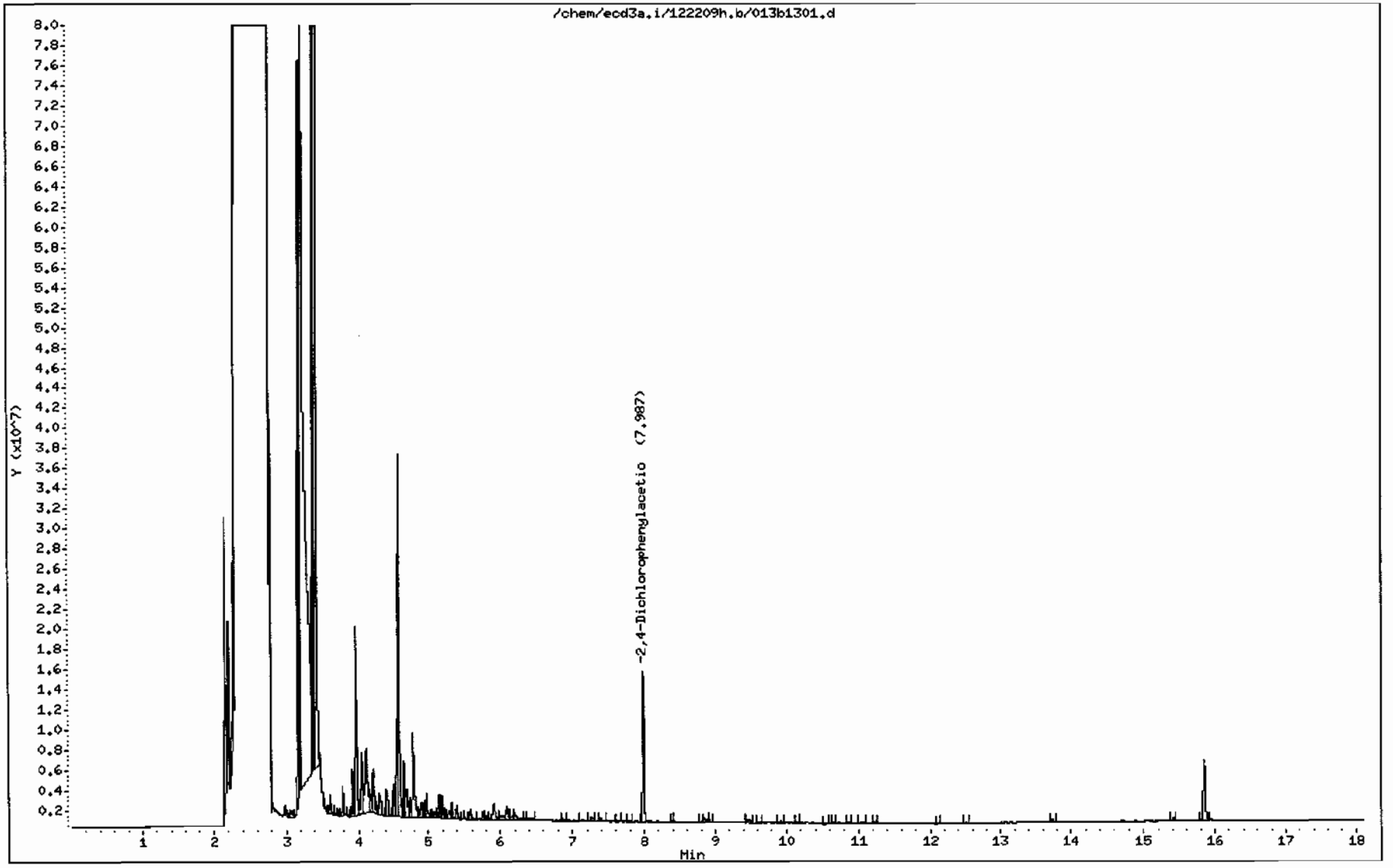

Herbicide
Certificate of Analysis
Sample Summary

SDG Number:	**10–899–1**			**Matrix:**	**TCLP SOIL**
Lab Sample ID:	**1202000329**				
Client Sample:	**QC for batch 934948**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 934948**	**Method:**	**SW846 8151A**	**SOP Ref:**	**GL–OA–E–011**
Batch ID:	**934950**	**Inst:**	**ECD3A.I**	**Dilution:**	**1**
Run Date:	**12/23/2009 00:01**	**Analyst:**	**HXJ1**	**Inj. Vol:**	**1 uL**
Prep Date:	**12/21/2009 18:40**	**Aliquot:**	**1000 mL**	**Final Volume:**	**10 mL**
Data File:	**015f1501.d**	**Column:**	**1 Rtx–CLPI**	**Level:**	**LOW**
	015b1501.d		**2 Rtx–CLPII**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
94–75–7	2,4–D	U	0.00025	mg/L	0.000083	0.00025	1
93–72–1	2,4,5–TP	U	0.00025	mg/L	0.000083	0.00025	1

GEL Laboratories LLC

Rtx-CLPI

Data file : /chem/ecd3a.i/122209h.b/015f1501.d
Lab Smp Id: 1202000329 Client Smp ID: HBLK01
Inj Date : 23-DEC-2009 00:01
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |1202000329|1|
Misc Info : |ECDTPH_1L|934950|SVH|MB|SOIL|MB|||
Comment :
Method : /chem/ecd3a.i/122209h.b/ECD3-F-HERB-122209h.m
Meth Date : 23-Dec-2009 14:34 tif01533 Quant Type: ESTD
Cal Date : 22-DEC-2009 21:08 Cal File: 008f0801.d
Als bottle: 15 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-899-1.sub
Target Version: 3.50 Sample Matrix: Water
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	0.00100	Correction factor
Vt	10.00000	Volume of final extract (mL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (mg/L)
$ 2 2,4-Dichlorophenylacetic acid					CAS #: 19719-28-9
7.716	7.707	0.009	4269304	484.817	0.0048

Data File: /chem/ecd3a.i/122209h.b/015f1501.d

Date : 23-DEC-2009 00:01

Client ID: HBLK01

Sample Info: |120200032911|

Volume Injected (uL): 1.0

Column phase: Rtx-CLPI

Instrument: ecd3a.i

Operator: HXJ1

Column diameter: 0.25

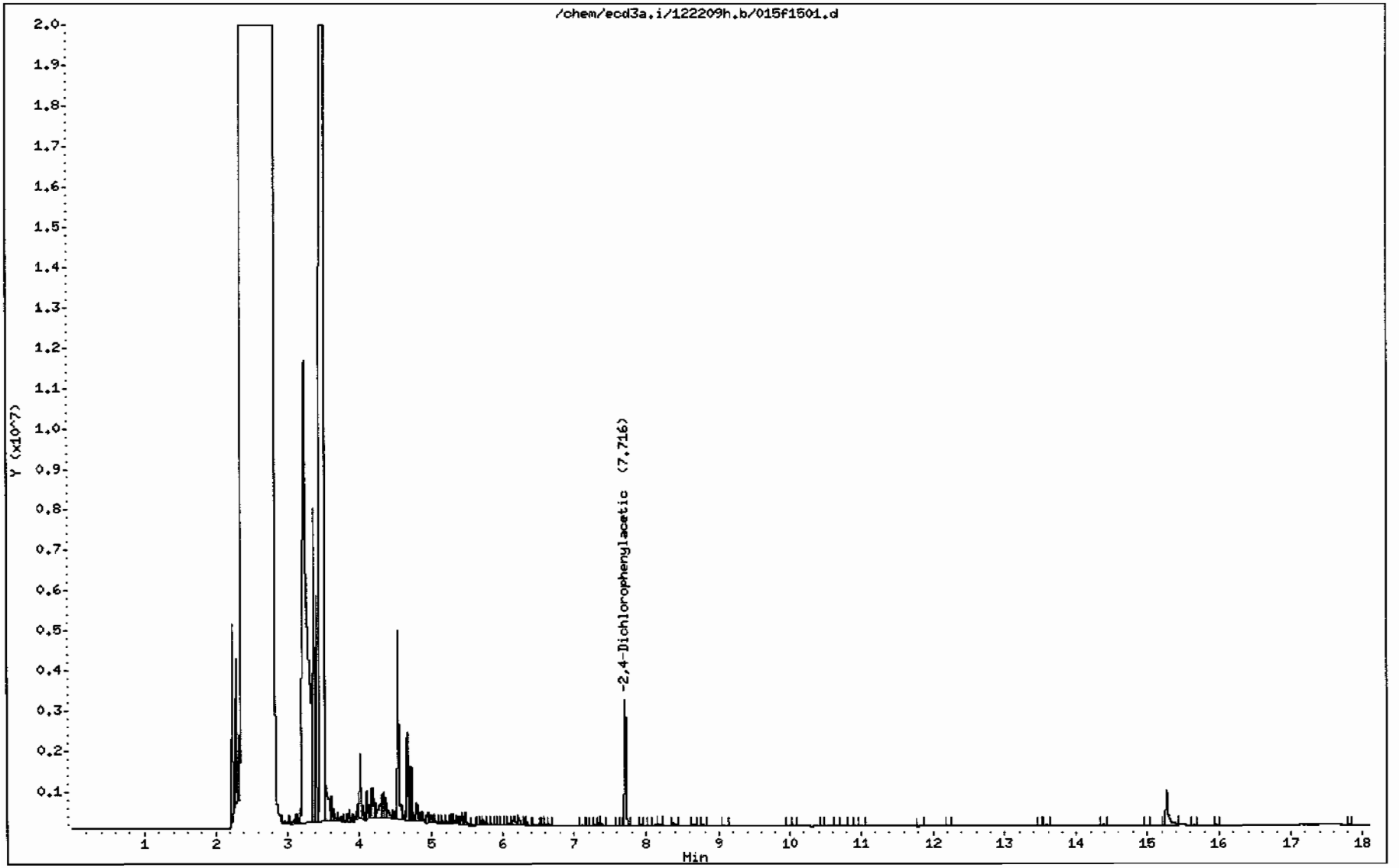

GEL Laboratories LLC

Rtx-CLPII

Data file : /chem/ecd3a.i/122209h.b/015b1501.d
Lab Smp Id: 1202000329 Client Smp ID: HBLK01
Inj Date : 23-DEC-2009 00:01
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |1202000329|1|
Misc Info : |ECDTPH_1L|934950|SVH|MB|SOIL|MB|||
Comment :
Method : /chem/ecd3a.i/122209h.b/ECD3-B-HERB-122209h.m
Meth Date : 23-Dec-2009 14:33 tif01533 Quant Type: ESTD
Cal Date : 22-DEC-2009 21:08 Cal File: 008b0801.d
Als bottle: 15 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-899-1.sub
Target Version: 3.50 Sample Matrix: Water
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	0.00100	Correction factor
Vt	10.00000	Volume of final extract (mL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (mg/L)
$ 2 2,4-Dichlorophenylacetic acid					CAS #: 19719-28-9
7.987	7.982	0.005	21599969	451.395	0.0045

Data File: /chem/ecd3a.i/122209h.b/015b1501.d
Date : 23-DEC-2009 00:01
Client ID: HBLK01
Sample Info: |1202000329|1|
Volume Injected (uL): 1.0
Column phase: Rtx-CLPII

Instrument: ecd3a.i

Operator: HXJ1
Column diameter: 0.25

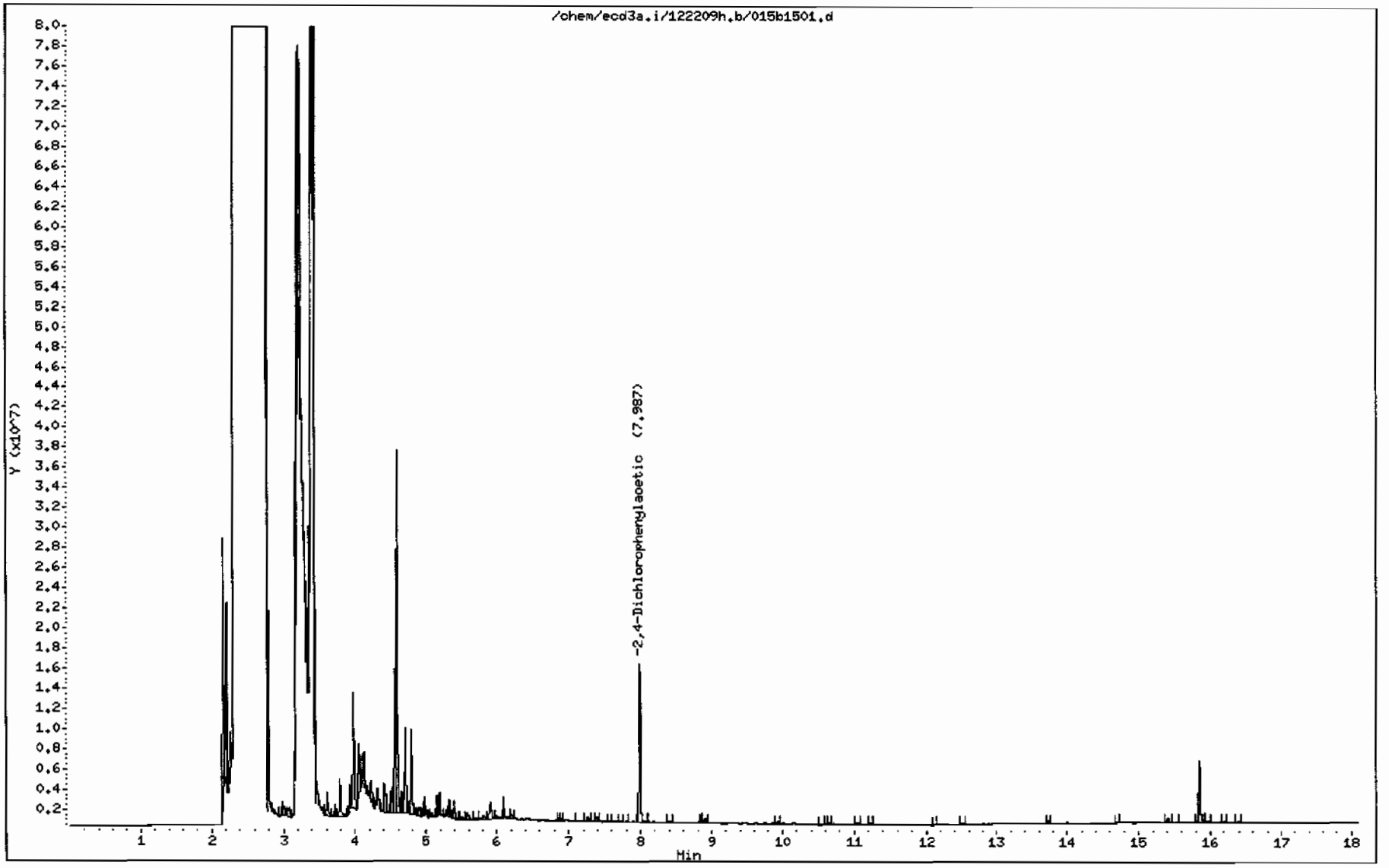

Herbicide
Certificate of Analysis
Sample Summary

SDG Number:	10–899–1			**Matrix:**	TCLP SOIL
Lab Sample ID:	1202000330				
Client Sample:	QC for batch 934948	**Client:**	LANL010	**Project:**	QC
Client ID:	LCS for batch 934948	**Method:**	SW846 8151A	**SOP Ref:**	GL–OA–E–011
Batch ID:	934950	**Inst:**	ECD3A.I	**Dilution:**	1
Run Date:	12/23/2009 00:25	**Analyst:**	HXJ1	**Inj. Vol:**	1 uL
Prep Date:	12/21/2009 18:40	**Aliquot:**	1000 mL	**Final Volume:**	10 mL
Data File:	016f1601.d	**Column:**	1 Rtx–CLPI	**Level:**	LOW
	016b1601.d		2 Rtx–CLPII		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
94–75–7	2,4–D		0.00182	mg/L	0.000083	0.00025	1
93–72–1	2,4,5–TP		0.00175	mg/L	0.000083	0.00025	1

GEL Laboratories LLC

Rtx-CLPI

Data file : /chem/ecd3a.i/122209h.b/016f1601.d
Lab Smp Id: 1202000330 Client Smp ID: HBLK01LCS
Inj Date : 23-DEC-2009 00:25
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |1202000330|1|
Misc Info : |ECDTPH_1L|934950|SVH|LCS|SOIL|LCS|||
Comment :
Method : /chem/ecd3a.i/122209h.b/ECD3-F-HERB-122209h.m
Meth Date : 23-Dec-2009 14:34 tif01533 Quant Type: ESTD
Cal Date : 22-DEC-2009 21:08 Cal File: 008f0801.d
Als bottle: 16 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-899-1.sub
Target Version: 3.50 Sample Matrix: Water
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	0.00100	Correction factor
Vt	10.00000	Volume of final extract (mL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (mg/L)
$ 2 2,4-Dichlorophenylacetic acid					CAS #: 19719-28-9
7.708	7.707	0.001	4513693	512.570	0.0051
7 2,4-D					CAS #: 94-75-7
8.771	8.771	0.000	1926644	181.985	0.0018
9 2,4,5-TP					CAS #: 93-72-1
9.592	9.592	0.000	7919184	175.190	0.0018

Data File: /chem/ecd3a.i/122209h.b/016f1601.d
Date : 23-DEC-2009 00:25
Client ID: HBLK01LCS
Sample Info: |120200033011|
Volume Injected (uL): 1.0
Column phase: Rtx-CLPI

Instrument: ecd3a.i

Operator: HXJ1
Column diameter: 0.25

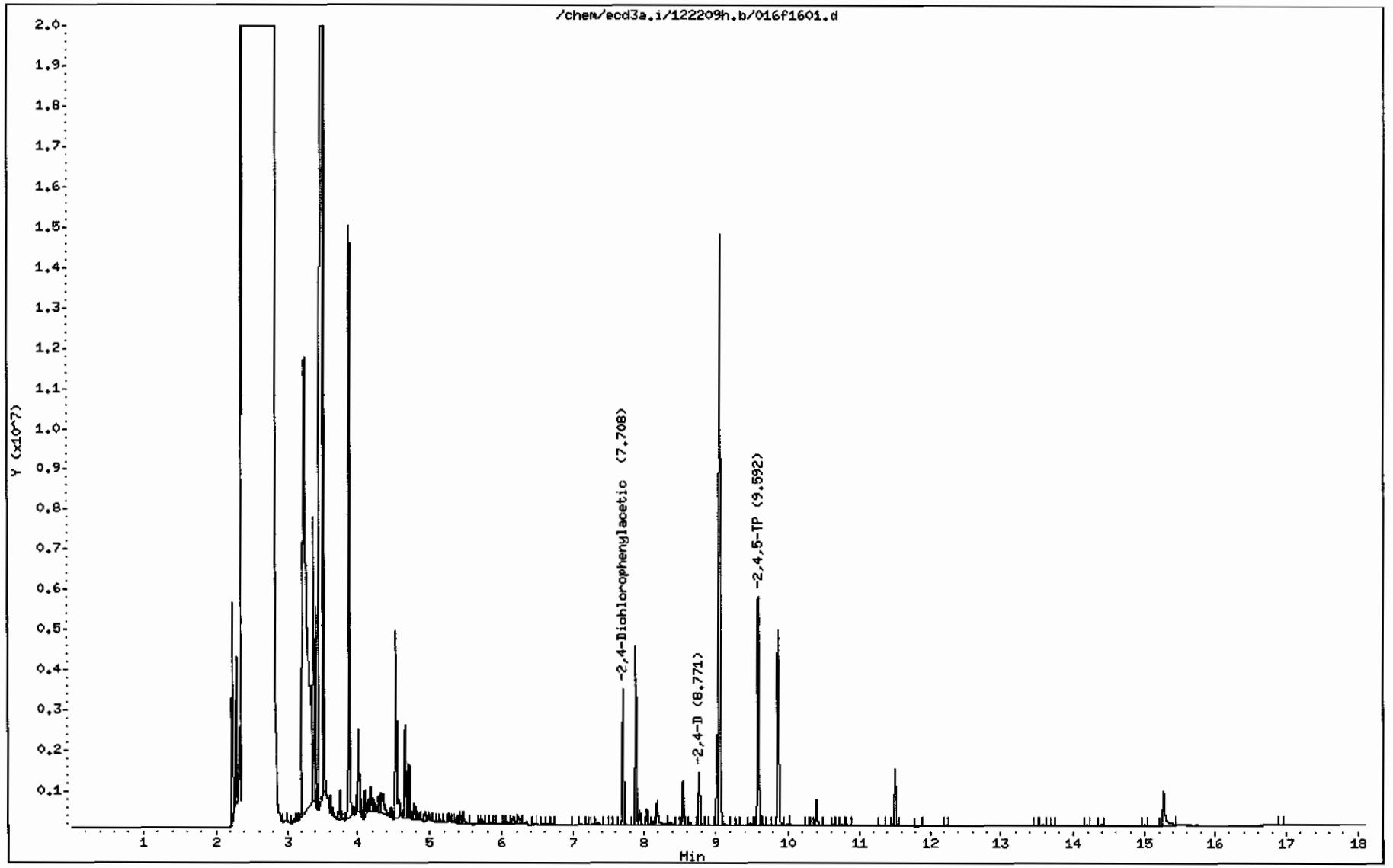

GEL Laboratories LLC

Rtx-CLPII

Data file : /chem/ecd3a.i/122209h.b/016b1601.d
Lab Smp Id: 1202000330 Client Smp ID: HBLK01LCS
Inj Date : 23-DEC-2009 00:25
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |1202000330|1|
Misc Info : |ECDTPH_1L|934950|SVH|LCS|SOIL|LCS|||
Comment :
Method : /chem/ecd3a.i/122209h.b/ECD3-B-HERB-122209h.m
Meth Date : 23-Dec-2009 14:33 tif01533 Quant Type: ESTD
Cal Date : 22-DEC-2009 21:08 Cal File: 008b0801.d
Als bottle: 16 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-899-1.sub
Target Version: 3.50 Sample Matrix: Water
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	0.00100	Correction factor
Vt	10.00000	Volume of final extract (mL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

				CONCENTRATIONS ON-COL (ug/L)	FINAL (mg/L)
RT	EXP RT	DLT RT	RESPONSE		
$ 2 2,4-Dichlorophenylacetic acid					CAS #: 19719-28-9
7.982	7.982	0.000	23767692	496.696	0.0050
7 2,4-D					CAS #: 94-75-7
9.132	9.133	-0.001	8711961	153.445	0.0015
9 2,4,5-TP					CAS #: 93-72-1
9.967	9.967	0.000	32780990	157.293	0.0016

Data File: /chem/ecd3a.i/122209h.b/016b1601.d

Date : 23-DEC-2009 00:25

Client ID: HBLK01LCS

Sample Info: |1202000330|1|

Volume Injected (uL): 1.0

Column phase: Rtx-CLPII

Instrument: ecd3a.i

Operator: HXJ1

Column diameter: 0.25

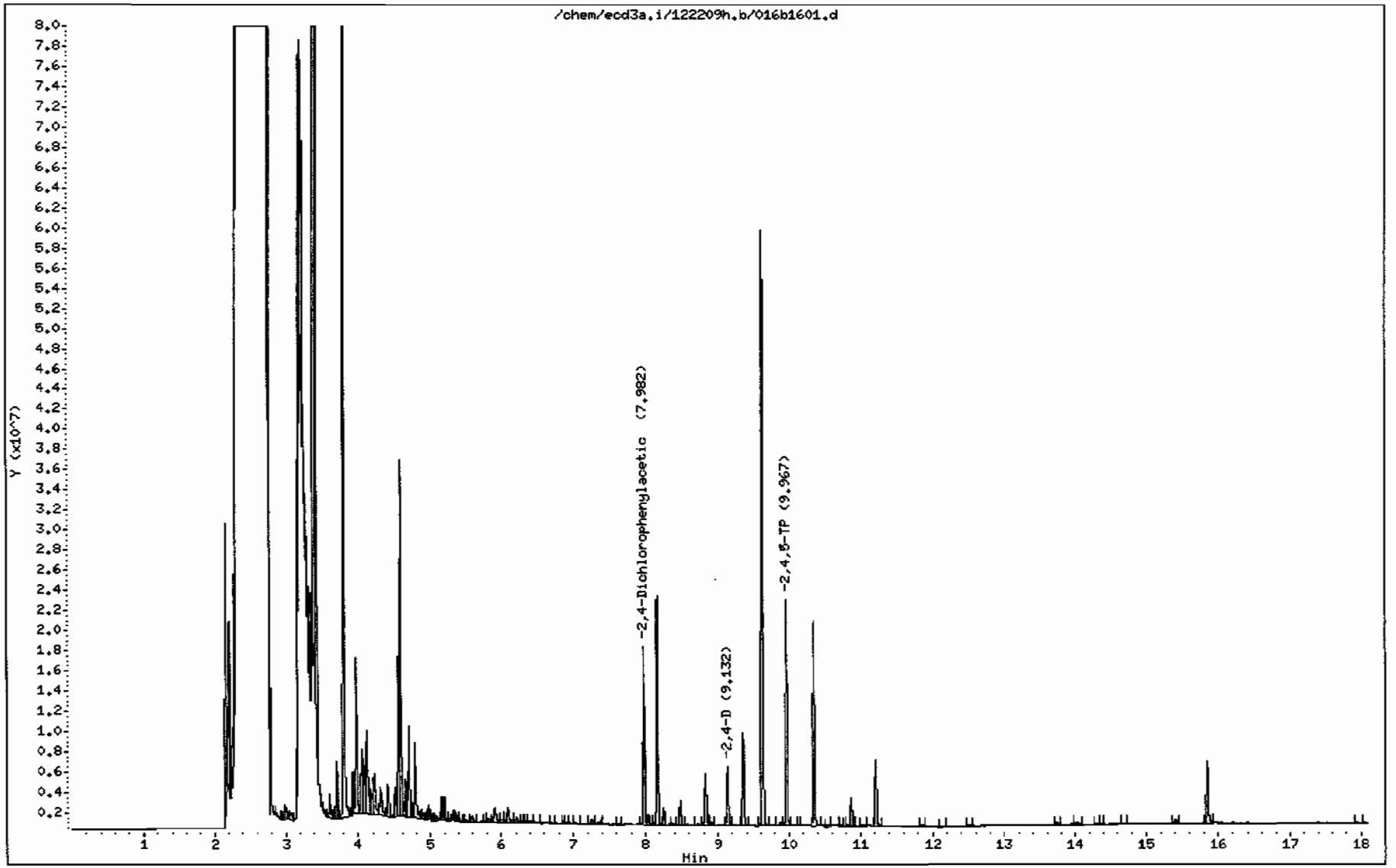

MISCELLANEOUS DATA

GEL ORGANIC RUN LOG INSTRUMENT ID: ECD3

DATE: 12/23/2009 METHOD: ECD3-F-HERB-122209h.m OPERATOR:HXJ1 REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT DA385

Calibration & QC Information
Initial Calibration Dates: See Calibration History and Standards Log
Initial Calibration Std ID's: See Calibration History and Standards Log
GEL SOP GL-OA-E-041
EPA Method: 8081
8081A
Sequence Number:122209h Injection Volume: 1.0 uL

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001f0101.d	WHB091117-02	HXJ1	22-DEC-2009 18:15		122209h	1.0		CLEAN
002f0201.d	WHB091030-01	HXJ1	22-DEC-2009 18:39		122209h	1.0		LEVEL1
003f0301.d	WHB091030-02	HXJ1	22-DEC-2009 19:04		122209h	1.0		LEVEL2
004f0401.d	WHB091030-03	HXJ1	22-DEC-2009 19:29		122209h	1.0		LEVEL3
005f0501.d	WHB091030-04	HXJ1	22-DEC-2009 19:54		122209h	1.0		LEVEL4
006f0601.d	WHB091030-05	HXJ1	22-DEC-2009 20:18		122209h	1.0		LEVEL5
007f0701.d	WHB091030-06	HXJ1	22-DEC-2009 20:43		122209h	1.0		LEVEL6
008f0801.d	WHB091030-07	HXJ1	22-DEC-2009 21:08		122209h	1.0		LEVEL7
009f0901.d	WHB091222-08	HXJ1	22-DEC-2009 21:33		122209h	1.0		ICV. USE. PASSES BOTH COLUMNS
010f1001.d	WHB091222-08	HXJ1	22-DEC-2009 21:57		122209h	1.0		DUSE. ACCIDENTALY ADDED EXTRA CHECK
011f1101.d	WHB091117-02	HXJ1	22-DEC-2009 22:22	934950	122209h	1.0		CLEAN
012f1201.d	1201995775	HXJ1	22-DEC-2009 22:47	934950	10-753-1	1.0	TB	USE. PASSES BOTH COLUMNS, UPLOAD HIGHER RESULTS.
013f1301.d	1201996842	HXJ1	22-DEC-2009 23:11	934950	10-899-1	1.0	TB	USE. PASSES BOTH COLUMNS, UPLOAD HIGHER RESULTS.
014f1401.d	1201998947	HXJ1	22-DEC-2009 23:36	934950	243004	1.0	TB	USE. PASSES BOTH COLUMNS, UPLOAD HIGHER RESULTS.
015f1501.d	1202000329	HXJ1	23-DEC-2009 00:01	934950	10-899-1	1.0	MB	USE. PASSES BOTH COLUMNS, UPLOAD HIGHER RESULTS.

Instrument Batch: /chem/ecd3a.i/122209h.b Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
016f1601.d	1202000330	HXJ1	23-DEC-2009 00:25	934950	10-899-1	1.0	LCS	USE. PASSES BOTH COLUMNS, UPLOAD HIGHER RESULTS.

017f1701.d	242168001	HXJ1	23-DEC-2009 00:50	934950	10-753-1		1.0	LANL	USE. PASSES BOTH COLUMNS, UPLOAD HIGHER RESULTS.
018f1801.d	WHB091222-08	HXJ1	23-DEC-2009 01:14		122209h		1.0		USE. DICHLOR, DICAMBA LO (B) ALL PASSING (F)
019f1901.d	WHB091117-02	HXJ1	23-DEC-2009 01:39		122209h		1.0		CLEAN
020f2001.d	242168002	HXJ1	23-DEC-2009 02:04	934950	10-753-1		1.0	LANL	USE. PASSES BOTH COLUMNS, UPLOAD HIGHER RESULTS.
021f2101.d	1202000331	HXJ1	23-DEC-2009 02:28	934950	10-753-1		1.0	MS	USE. PASSES BOTH COLUMNS, UPLOAD HIGHER RESULTS.
022f2201.d	1202000332	HXJ1	23-DEC-2009 02:53	934950	10-753-1		1.0	MSD	USE. PASSES BOTH COLUMNS, UPLOAD HIGHER RESULTS.
023f2301.d	242306001	HXJ1	23-DEC-2009 03:17	934950	10-786-1		1.0	LANL	USE. PASSES BOTH COLUMNS, UPLOAD HIGHER RESULTS.
024f2401.d	242603002	HXJ1	23-DEC-2009 03:42	934950	10-753-1		1.0	LANL	USE. PASSES BOTH COLUMNS, UPLOAD HIGHER RESULTS.
025f2501.d	242306003	HXJ1	23-DEC-2009 04:06	934950	10-786-1		1.0	LANL	USE. PASSES BOTH COLUMNS, UPLOAD HIGHER RESULTS.
026f2601.d	242446001	HXJ1	23-DEC-2009 04:31	934950	10-832-1		1.0	LANL	USE. PASSES BOTH COLUMNS, UPLOAD HIGHER RESULTS.
027f2701.d	242785001	HXJ1	23-DEC-2009 04:55	934950	10-899-1		1.0	LANL	USE. PASSES BOTH COLUMNS, UPLOAD HIGHER RESULTS.
028f2801.d	242785002	HXJ1	23-DEC-2009 05:20	934950	10-899-1		1.0	LANL	USE. PASSES BOTH COLUMNS, UPLOAD HIGHER RESULTS.
029f2901.d	243004001	HXJ1	23-DEC-2009 05:45	934950	243004		1.0	ENRG	USE. PASSES BOTH COLUMNS, UPLOAD HIGHER RESULTS.
030f3001.d	WHB091222-08	HXJ1	23-DEC-2009 06:09		122209h		1.0		USE. MULTIPLE ANALYTES FAILING (B) DALAPON HI (F)
031f3101.d	WHB091117-02	HXJ1	23-DEC-2009 06:34	935579	122209h		1.0		CLEAN
032f3201.d	1201999915	HXJ1	23-DEC-2009 06:58	935579	10-939-1		1.0	TB	USE. PASSES BOTH COLUMNS, UPLOAD HIGHER RESULTS.
033f3301.d	1202001895	HXJ1	23-DEC-2009 07:23	935579	10-939-1		1.0	MB	USE. PASSES BOTH COLUMNS, UPLOAD HIGHER RESULTS.
034f3401.d	1202001896	HXJ1	23-DEC-2009 07:48	935579	10-939-1		1.0	LCS	USE. PASSES BOTH COLUMNS, UPLOAD HIGHER RESULTS.
035f3501.d	243010001	HXJ1	23-DEC-2009 08:12	935579	10-939-1		1.0	LANL	USE. PASSES BOTH COLUMNS, UPLOAD HIGHER RESULTS.

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
036f3601.d	1202001897	HXJ1	23-DEC-2009 08:37	935579	10-939-1		1.0	MS	USE. PASSES BOTH COLUMNS, UPLOAD HIGHER RESULTS.
037f3701.d	1202001898	HXJ1	23-DEC-2009 09:01	935579	10-939-1		1.0	MSD	USE. PASSES BOTH COLUMNS, UPLOAD HIGHER RESULTS.
038f3801.d	WHB091222-08	HXJ1	23-DEC-2009 09:26		122209h		1.0		USE. MULTIPLE ANALYTES FAILING (B) MCPA LOW (F)
039f3901.d	WHB091117-02	HXJ1	23-DEC-2009 09:51		122209h		1.0		CLEAN

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Rtx-CLPII

Data file : /chem/ecd3a.i/122209h.b/021b2101.d
Lab Smp Id: 1202000331 Client Smp ID: WST03-10-2138MS
Inj Date : 23-DEC-2009 02:28
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |1202000331|1|
Misc Info : |ECDTPH_1L|934950|SVH|MS|SOIL|MS|||
Comment :
Method : /chem/ecd3a.i/122209h.b/ECD3-B-HERB-122209h.m
Meth Date : 23-Dec-2009 14:33 tif01533 Quant Type: ESTD
Cal Date : 22-DEC-2009 21:08 Cal File: 008b0801.d
Als bottle: 21 QC Sample: MS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-753-1.sub
Target Version: 3.50 Sample Matrix: Water
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	0.00100	Correction factor
Vt	10.00000	Volume of final extract (mL)
Vo	5.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (mg/L)
$ 2 2,4-Dichlorophenylacetic acid					CAS #: 19719-28-9
7.983	7.982	0.001	27927445	583.626	1.2
7 2,4-D					CAS #: 94-75-7
9.132	9.133	-0.001	8246965	145.255	0.29
9 2,4,5-TP					CAS #: 93-72-1
9.967	9.967	0.000	31542588	151.351	0.30

Data File: /chem/ecd3a.i/122209h.b/021b2101.d
Date : 23-DEC-2009 02:28
Client ID: WST03-10-2138HS
Sample Info: |1202000331|1|
Volume Injected (uL): 1.0
Column phase: Rtx-CLPII

Instrument: ecd3a.i

Operator: HXJ1
Column diameter: 0.25

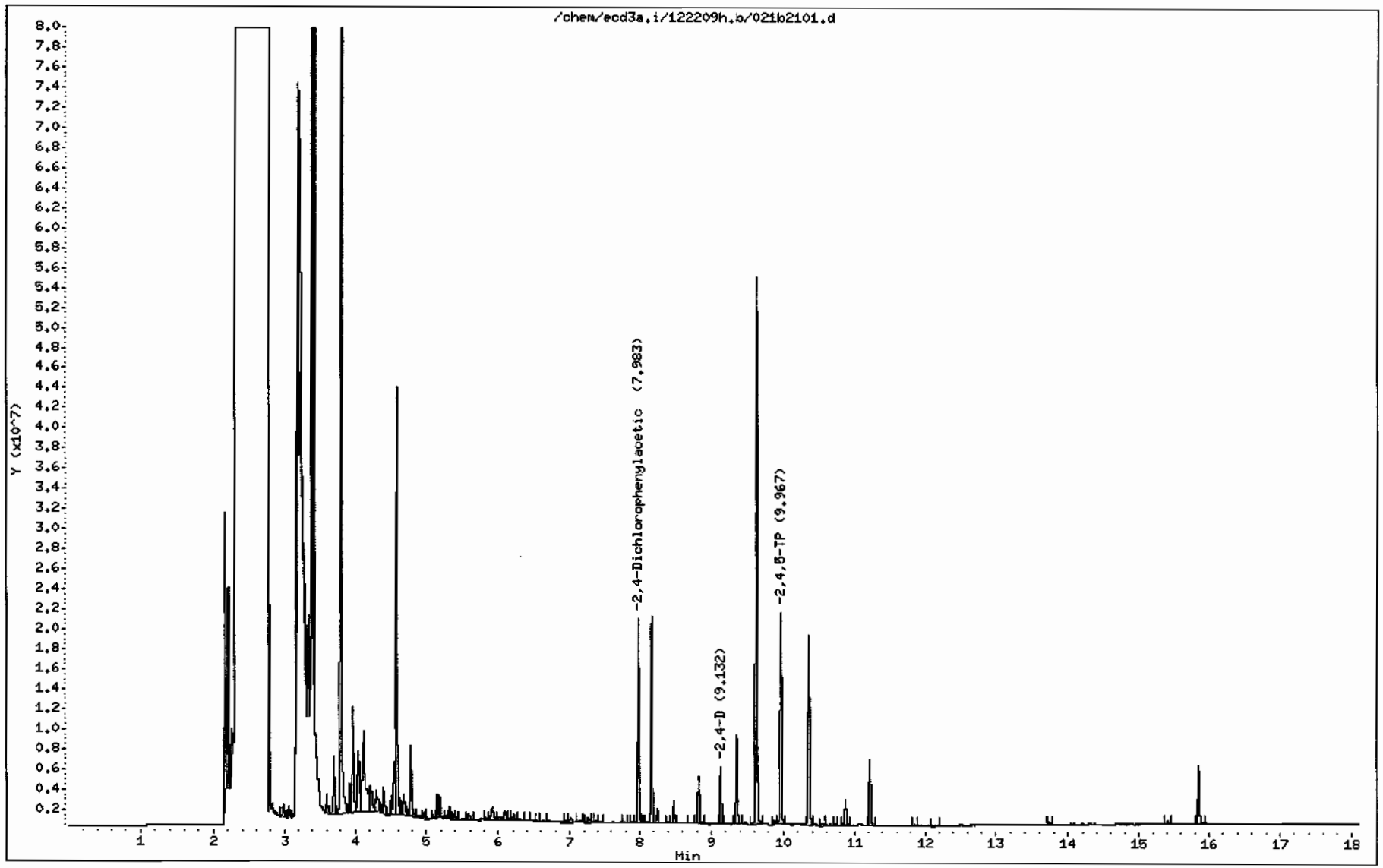

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Rtx-CLPI

Data file : /chem/ecd3a.i/122209h.b/021f2101.d
Lab Smp Id: 1202000331 Client Smp ID: WST03-10-2138MS
Inj Date : 23-DEC-2009 02:28
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |1202000331|1|
Misc Info : |ECDTPH_1L|934950|SVH|MS|SOIL|MS|||
Comment :
Method : /chem/ecd3a.i/122209h.b/ECD3-F-HERB-122209h.m
Meth Date : 23-Dec-2009 14:34 tif01533 Quant Type: ESTD
Cal Date : 22-DEC-2009 21:08 Cal File: 008f0801.d
Als bottle: 21 QC Sample: MS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-753-1.sub
Target Version: 3.50 Sample Matrix: Water
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	0.00100	Correction factor
Vt	10.00000	Volume of final extract (mL)
Vo	5.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (mg/L)
$ 2 2,4-Dichlorophenylacetic acid						CAS #: 19719-28-9
	7.708	7.707	0.001	4367447	495.962	0.99
7 2,4-D						CAS #: 94-75-7
	8.771	8.771	0.000	1921132	181.464	0.36
9 2,4,5-TP						CAS #: 93-72-1
	9.592	9.592	0.000	7719103	170.764	0.34

Data File: /chem/eod3a.i/122209h.b/021f2101.d
Date : 23-DEC-2009 02:28
Client ID: WST03-10-2138MS
Sample Info: |1202000331|1|
Volume Injected (uL): 1.0
Column phase: Rtx-CLPI

Instrument: eod3a.i

Operator: HXJ1
Column diameter: 0.25

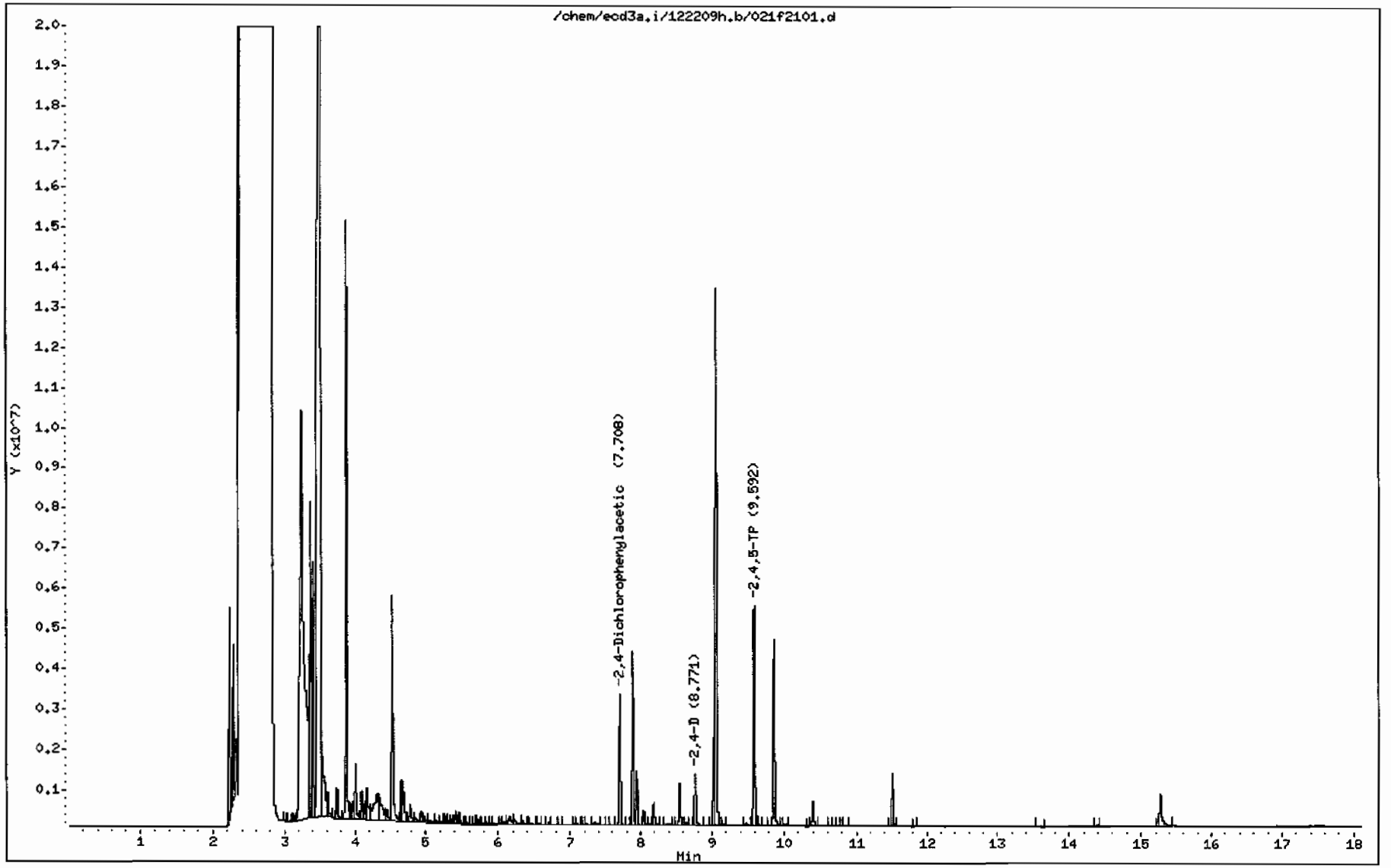

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Rtx-CLPII

Data file : /chem/ecd3a.i/122209h.b/022b2201.d
Lab Smp Id: 1202000332 Client Smp ID: WST03-10-2138MSD
Inj Date : 23-DEC-2009 02:53
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |1202000332|1|
Misc Info : |ECDTPH_1L|934950|SVH|MSD|SOIL|MSD|||
Comment :
Method : /chem/ecd3a.i/122209h.b/ECD3-B-HERB-122209h.m
Meth Date : 23-Dec-2009 14:33 tif01533 Quant Type: ESTD
Cal Date : 22-DEC-2009 21:08 Cal File: 008b0801.d
Als bottle: 22 QC Sample: MSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-753-1.sub
Target Version: 3.50 Sample Matrix: Water
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	0.00100	Correction factor
Vt	10.00000	Volume of final extract (mL)
Vo	5.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (mg/L)
$ 2 2,4-Dichlorophenylacetic acid						CAS #: 19719-28-9
	7.982	7.982	0.000	23127878	483.325	0.97
7 2,4-D						CAS #: 94-75-7
	9.132	9.133	-0.001	8600844	151.488	0.30
9 2,4,5-TP						CAS #: 93-72-1
	9.967	9.967	0.000	32459735	155.752	0.31

Data File: /chem/ecd3a.i/122209h.b/022b2201.d
Date : 23-DEC-2009 02:53
Client ID: WST03-10-2138MSD
Sample Info: |1202000332|1|
Volume Injected (uL): 1.0
Column phase: Rtx-CLPII

Instrument: ecd3a.i

Operator: HXJ1
Column diameter: 0.25

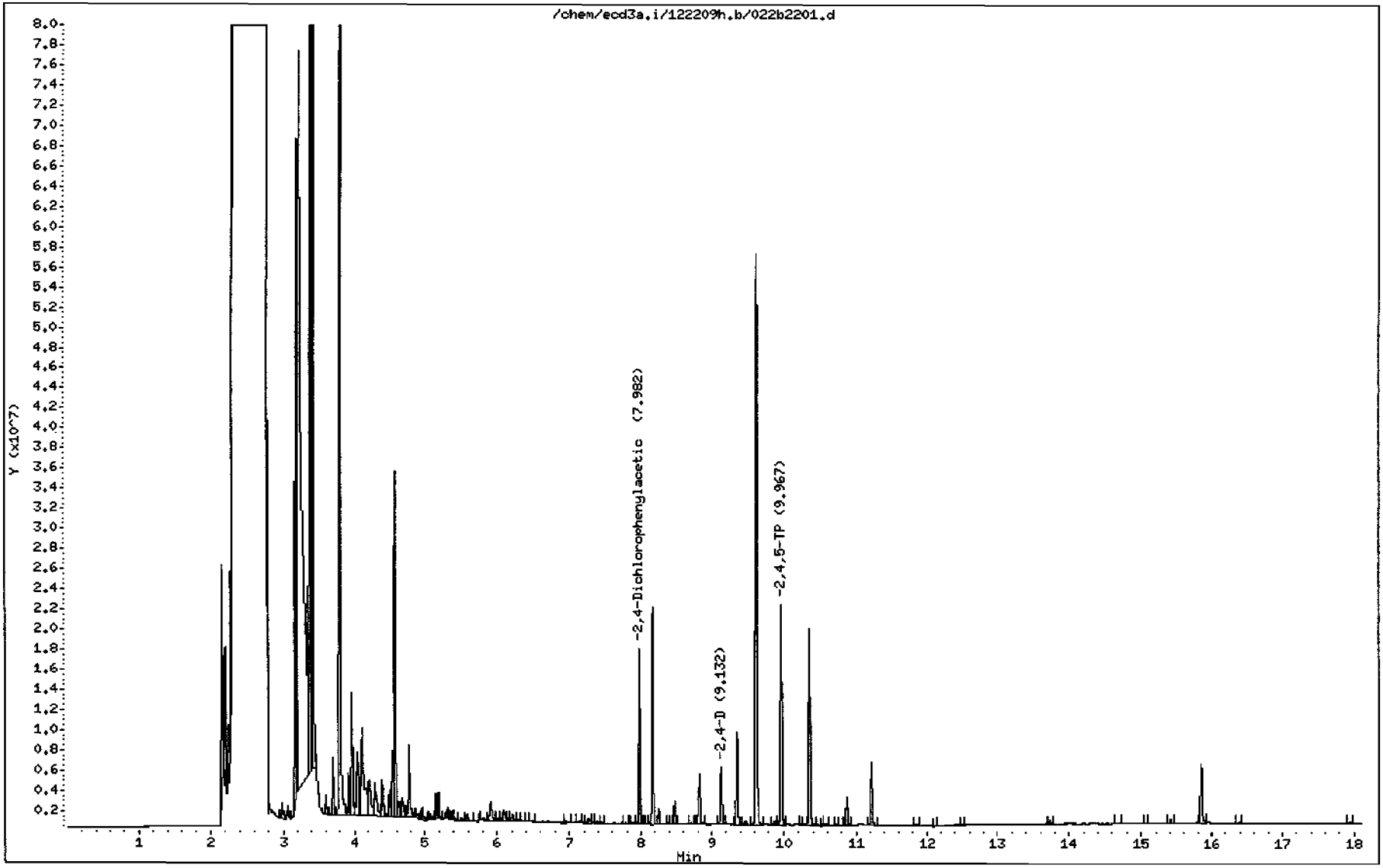

GEL Laboratories LLC

Rtx-CLPI

Data file : /chem/ecd3a.i/122209h.b/022f2201.d
Lab Smp Id: 1202000332 Client Smp ID: WST03-10-2138MSD
Inj Date : 23-DEC-2009 02:53
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |1202000332|1|
Misc Info : |ECDTPH_1L|934950|SVH|MSD|SOIL|MSD|||
Comment :
Method : /chem/ecd3a.i/122209h.b/ECD3-F-HERB-122209h.m
Meth Date : 23-Dec-2009 14:34 tif01533 Quant Type: ESTD
Cal Date : 22-DEC-2009 21:08 Cal File: 008f0801.d
Als bottle: 22 QC Sample: MSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-753-1.sub
Target Version: 3.50 Sample Matrix: Water
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	0.00100	Correction factor
Vt	10.00000	Volume of final extract (mL)
Vo	5.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (mg/L)
$ 2 2,4-Dichlorophenylacetic acid					CAS #: 19719-28-9
7.707	7.707	0.000	4500927	511.120	1.0
7 2,4-D					CAS #: 94-75-7
8.770	8.771	-0.001	2002825	189.180	0.38
9 2,4,5-TP					CAS #: 93-72-1
9.591	9.592	-0.001	7997954	176.932	0.35

Data File: /chem/ecd3a.i/122209h.b/022f2201.d

Date : 23-DEC-2009 02:53

Client ID: WST03-10-2138MSD

Sample Info: !1202000332!1!

Volume Injected (uL): 1.0

Column phase: Rtx-CLPI

Instrument: ecd3a.i

Operator: HXJ1

Column diameter: 0.25

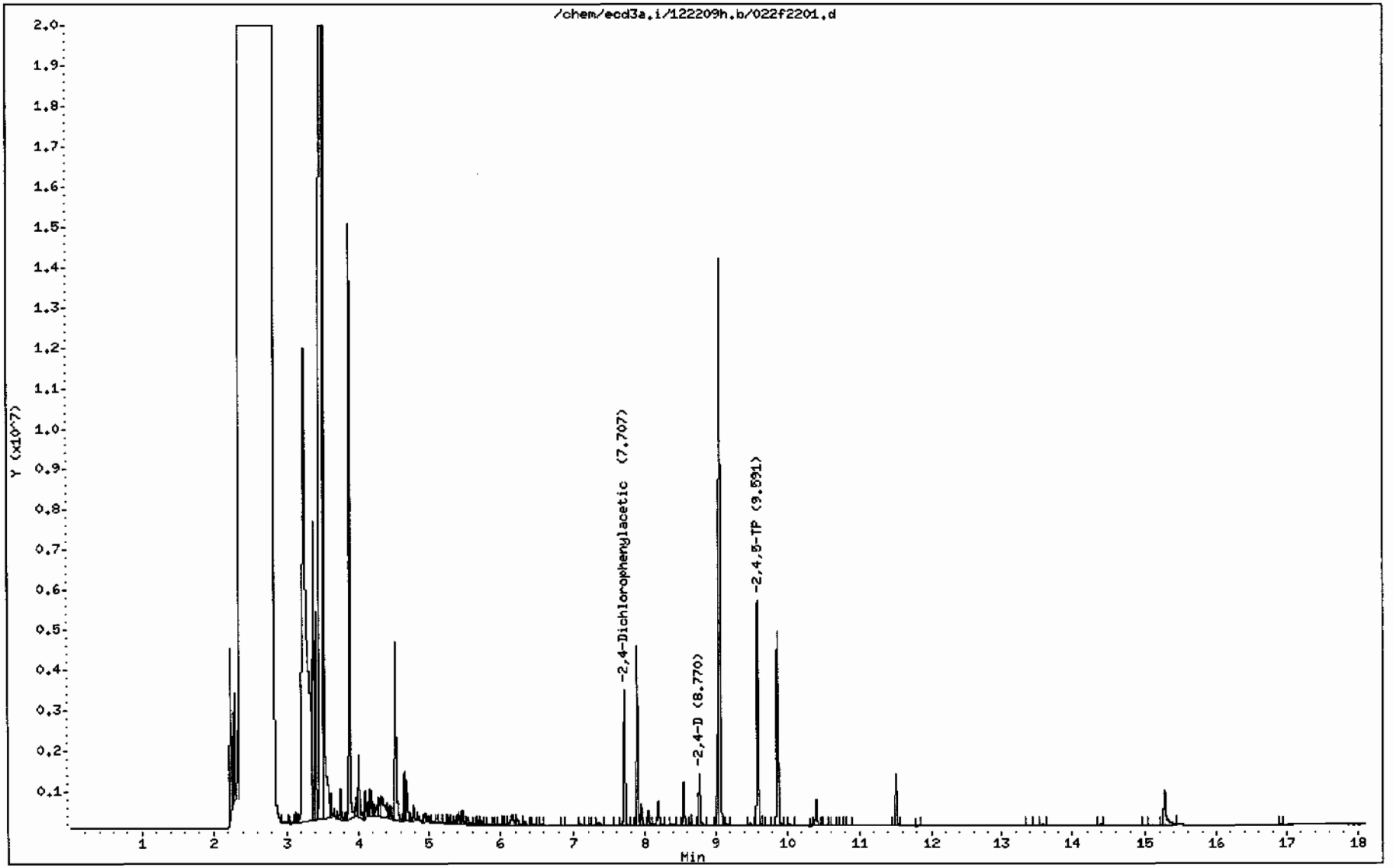

Prep Logbook

The Extraction of Herbicides from Groundwater, Wastewater and Other Aqueous Samples

Batch ID: 934948 **Verified by:** _____

Analyst: Rodricous Corbett

Method: SW846 8151A Prep

Lab SOP: GL-OA-E-015 REV# 12

Instrument: Semi-Volatiles Manual

Sample ID	Run Date	Initial Volume (mL)	Initial pH	Int Ext pH	Sec Ext pH	Final Volume (mL)	Prepped Factor (mL/mL)
1201995775 TB	21-DEC-2009 18:40:32	5	5	13	1	10	2
1201996842 TB	21-DEC-2009 18:40:32	5	5	13	1	10	2
1201998947 TB	21-DEC-2009 18:40:32	5	3	13	1	10	2
1202000329 MB	21-DEC-2009 18:40:32	1000	5	13	1	10	0.01
1202000330 LCS	21-DEC-2009 18:40:32	1000	5	13	1	10	0.01
242168001	21-DEC-2009 18:40:32	5	5	13	1	10	2
242168002	21-DEC-2009 18:40:32	5	5	13	1	10	2
1202000331 MS (242168002)	21-DEC-2009 18:40:32	5	5	13	1	10	2
1202000332 MSD (242168002)	21-DEC-2009 18:40:32	5	5	13	1	10	2
242306001	21-DEC-2009 18:40:32	5	5	13	1	10	2
242306002	21-DEC-2009 18:40:32	5	5	13	1	10	2
242306003	21-DEC-2009 18:40:32	5	5	13	1	10	2
242446001	21-DEC-2009 18:40:32	5	5	13	1	10	2
242785001	21-DEC-2009 18:40:32	5	5	13	1	10	2
242785002	21-DEC-2009 18:40:32	5	5	13	1	10	2
243004001	21-DEC-2009 18:40:32	5	9	13	1	10	2

Type	Sample Id	Description	Serial Number	Spike Amt	Units
LCS	1202000330	HERBICIDE LCS	WE091208-02	1	mL
MS	1202000331	HERBICIDE LCS	WE091208-02	1	mL
MSD	1202000332	HERBICIDE LCS	WE091208-02	1	mL
SURR	All	HERBICIDE SURROGATE	WE091208-03	.05	mL
REGNT	All	Iso-octane	1106542-A	1	mL
REGNT	All	Methanol	1239758-C	.5	mL
REGNT	All	Hexane	1241300-B2	4	mL
REGNT	All	Methylene Chloride	1242565-D	180	mL
REGNT	All	Sodium hydroxide sol., 6N	1245412	17	mL
REGNT	All	Sulfuric Acid Sol., 12N For Herbicides	1245414	17	mL
REGNT	All	N-METHYL-N-NITROSO-P-TOLUENESULFON-AMIDE	1245439A	2	mL
REGNT	All	Ethyl ether	UN1237020a	240	mL

Comments:

243004001 was slightly emulsive during the CH2Cl2 phase of the extraction. No additional CH2Cl2 was needed to break the emulsion.

Verified By: SCC

Final Solvent: Hexane

Prep Logbook

Toxicity Characteristic Leaching Procedure Preparation

Batch ID: 933331 **Verified by:** _____

Analyst: Richard Dollinger

Method: SW846 1311

Lab SOP: GL-LB-E-006 REV# 13

Instrument: TCLP Tumbler #105

Sample ID Analysis Start Date	1201996842 TB 15-DEC-2009 09:00:59	242446001 15-DEC-2009 09:00:59	242785001 15-DEC-2009 09:00:59	242785002 15-DEC-2009 09:00:59
100% Solid Y/N		y	y	y
(I) Sub Sample Aliquot I=G-H (g)	0	100	100	100
Initial pH (su)	4.92	8.63	8.37	7.26
pH Temperature (celsius)		50	50	50
Filtrate pH (su)	4.92	5	5	5
Final pH (su)	4.92	1.8	1.72	1.73
Tumbler Speed	28	28	28	28
Sample Properties <>/= Water	tclp#1	Solid	Solid	Solid
(J) 20X Wet Solid Weight 20XC (g)	2000	2000	2000	2000
Filtrate Volume (mL)	1000	1000	1000	1000

Type	Sample Id	Description	Serial Number	Spike Amt	Units
RGNT	All	TCLP EXTRACTION FLUID 1	1018204	2000	mL
RGNT	All	1N HCl for pH testing	1202901	3.5	mL

Comments:

Extration End Date: 16-DEC-09 9:00:45
Filtration End Date: 16-DEC-09 15:00:45
Bottle Lot Number: h929301db
Filter Lot Number: 9125016
Extration Start Temperature: 23 C
Extration End Temperature: 23 C
Filtration End Temperature: 23 C

Thursday, December 10, 2009

REQUEST NUMBER: 10-887

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

These Samples are on:

LANL Request Number:10-887

Per Agreement Number:126310011

Project Cost Code: MR2A054196D0

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 12/10/2009

TURNAROUND/REPORT DUE: 1/9/2010

TURNAROUND REQ'D: 30 Days

RAD SCREENING: Not Required

LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:

Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:6010B	1	RE03-09-13752	S	12/9/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-13753	S	12/9/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-13754	S	12/9/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-13755	S	12/9/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-13756	S	12/9/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-13757	S	12/9/2009	Plus, B, Li, Si, Ti, U
		1	RE03-10-5525	S	12/9/2009	
		1	RE03-10-5529	W	12/9/2009	Plus, B, Li, Si, Ti, U
		1	RE03-10-5531	W	12/9/2009	Plus, B, Li, Si, Ti, U

Thursday, December 10, 2009

REQUEST NUMBER: 10-887

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:6020	1	RE03-10-5529	W	12/9/2009	Plus, B, Li, Si, Ti, U
		1	RE03-10-5531	W	12/9/2009	Plus, B, Li, Si, Ti, U
	SW-846:8082	1	RE03-09-13752	S	12/9/2009	
		1	RE03-09-13753	S	12/9/2009	
		1	RE03-09-13754	S	12/9/2009	
		1	RE03-09-13755	S	12/9/2009	
		1	RE03-09-13756	S	12/9/2009	
		1	RE03-09-13757	S	12/9/2009	
		1	RE03-10-5525	S	12/9/2009	
	SW-846:8260B	1	RE03-10-8746	S	12/9/2009	
	SW-846:9012A	1	RE03-09-13752	S	12/9/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-13753	S	12/9/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-13754	S	12/9/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-13755	S	12/9/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-13756	S	12/9/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-13757	S	12/9/2009	Plus, B, Li, Si, Ti, U
		1	RE03-10-5525	S	12/9/2009	
		1	RE03-10-5529	W	12/9/2009	
		1	RE03-10-5531	W	12/9/2009	

Final Page of REQUEST NUMBER 10-887

Thursday, December 10, 2009

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-887

REQUEST NUMBER: 10-887

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 1/9/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS:

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE03-09-13757	1	GLASS	8082	Ice	S
RE03-09-13752	1	GLASS	8082	Ice	S
RE03-09-13753	1	GLASS	8082	Ice	S
RE03-09-13754	1	GLASS	8082	Ice	S
RE03-09-13755	1	GLASS	8082	Ice	S
RE03-09-13756	1	GLASS	8082	Ice	S
RE03-09-13757	1	POLY	Metals+CN - GEL	Ice	S
RE03-09-13752	1	POLY	Metals+CN - GEL	Ice	S
RE03-09-13753	1	POLY	Metals+CN - GEL	Ice	S
RE03-09-13754	1	POLY	Metals+CN - GEL	Ice	S
RE03-09-13755	1	POLY	Metals+CN - GEL	Ice	S
RE03-09-13756	1	POLY	Metals+CN - GEL	Ice	S
RE03-10-5529	1	POLY	METALS-GEL	Nitric Acid	W
RE03-10-5529	1	POLY	TCN	Sodium Hydroxide	W
RE03-10-5525	1	GLASS	8082	Ice	S
RE03-10-5525	1	POLY	Metals+CN - GEL	Ice	S
RE03-10-5531	1	POLY	METALS-GEL	Nitric Acid	W
RE03-10-5531	1	POLY	TCN	Sodium Hydroxide	W
RE03-10-8746	1	SEPTUM AMBER GLASS	8260B Trip Blank	Ice	S

Relinquished By:		Date	Time	Received By:		Date	Time
Printed Name	Signature	12-10-09	1700	Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

Received for DISPOSAL By:		Date	Time	Remarks:
Printed Name	Signature			

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2272 **EVENT NAME:** Soil Sampling at CU 03-014(a)-99, Part 2

SAMPLE ID: RE03-09-13752 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12-9-09	MEDIA:	NA	QTB3
TIME COLLECTED (HH:MM)		1030	SUB-MEDIA:	OTHER	NA
PRS ID:	03-014(o)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	03-03204	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC		FIELD PREP:	NA	
TOP DEPTH:	0	MR 12/9/09 4' 3'	SAMPLE USAGE:	INV	
BOTTOM DEPTH:	0	5' 4'	SCREEN/PORT DESC:		
FIELD MATRIX:	MR 12/9/09 ~~S~~R		EXCAVATED: YES / NO / NA	NA	

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8082	250 ML GLASS	Ice	Y	
1		Metals+CN - GEL	125 ML POLY	Ice	Y	Plus, B, Li, Si, Ti, U

SAMPLE DESC: Reddish brown tuff. (2.5 YR 5/3)

SAMPLE COMMENTS: Historic sampling location. Backhoe used to attain samples Tuff @ 4.5'. Soil collected below pit liner.

LOCATION DESC: ~~14(o)~~ 3

FIELD SCREENING/MEASUREMENT RESULTS: 0.3 ppm, ND, 67 dpm, 1447 dpm samples: < MDA

COLLECTED BY (PRINT) L. Horne **REVIEWED BY (PRINT)** M. Ward

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) M. Ward	12-9-09	(Printed Name) Sherri Sherwood	12-9-09
(Signature)	1600	(Signature) Sherri Sherwood	1600
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2272 **EVENT NAME:** Soil Sampling at CU 03-014(a)-99, Part 2

SAMPLE ID: RE03-09-13753 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12-9-09	MEDIA:	NA	QTB3
TIME COLLECTED (HH:MM)		1045	SUB-MEDIA:	OTHER	NA
PRS ID:	03-014(o)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	03-03204	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC		FIELD PREP:	NA	
TOP DEPTH:	0	~~6'~~ 5'	SAMPLE USAGE:	INV	
BOTTOM DEPTH:	0	~~7'~~ 6'	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8082	250 ML GLASS	Ice	Y	
1		Metals+CN - GEL	125 ML POLY	Ice	Y	Plus, B, Li, Si, Ti, U

SAMPLE DESC: Reddish brown tuff. (2.5 YR 4/3)

SAMPLE COMMENTS: Historic sampling location. Backhoe used to collect samples. Collected 2' below first sample

LOCATION DESC: 14(o)-3

FIELD SCREENING/MEASUREMENT RESULTS: PID= 0.0 ppm
BACKGROUND
α: 67 dpm
β: 1447
samples: < MDA

COLLECTED BY (PRINT) O. Thomas **REVIEWED BY (PRINT)** M. Nauck

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) M. Nauck	12-9-09	(Printed Name) Sherrie Sherwood	12-9-09
(Signature)	1600	(Signature) Sherrie Sherwood	1600
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2272 **EVENT NAME:** Soil Sampling at CU 03-014(a)-99, Part 2

SAMPLE ID: RE03-09-13754 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12-9-09	MEDIA:	NA	QTB3
TIME COLLECTED (HH:MM)		1111	SUB-MEDIA:	OTHER	NA
PRS ID:	03-014(o)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	03-608275	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	3'	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	4'	SCREEN/PORT DESC:		
FIELD MATRIX:	~~S~~ R mc 12/9/09		EXCAVATED: YES / NO / NA	NA	

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8082	250 ML GLASS	Ice	Y	
1		Metals+CN - GEL	125 ML POLY	Ice	Y	Plus, B, Li, Si, Ti, U

SAMPLE DESC: Reddish brown tuff (2.5 YR 4/3)

SAMPLE COMMENTS: Backhoe used to collect sample

LOCATION DESC: 14(o) - 1

FIELD SCREENING/MEASUREMENT RESULTS: PID = 0.5 ppm Samples: <MDA
BACKGROUND
α: 67 dpm
β: 1447

COLLECTED BY (PRINT) M. Shendo **REVIEWED BY (PRINT)** M. Nauck

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) M. Nauck (Signature)	12-9-09 1600	(Printed Name) Sherri Sherwood (Signature) Sherri Sherwood	12-9-09 1600
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name) (Signature)		(Printed Name) (Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2272 **EVENT NAME:** Soil Sampling at CU 03-014(a)-99, Part 2

SAMPLE ID: RE03-09-13755 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12-9-09	MEDIA:	NA	QTB3
TIME COLLECTED (HH:MM)		1120	SUB-MEDIA:	OTHER	NA
PRS ID:	03-014(o)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	03-608275	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC		FIELD PREP:	NA	
TOP DEPTH:	0	5'	SAMPLE USAGE:	INV	
BOTTOM DEPTH:	0	6'	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	~~S~~ R mr 12/9/09		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8082	250 ML GLASS	Ice	Y	
1		Metals+CN - GEL	125 ML POLY	Ice	Y	Plus, B, Li, Si, Ti, U

SAMPLE DESC: weak red tuff (2.5 YR 4/2)

SAMPLE COMMENTS: Backhoe used to collect sample.

LOCATION DESC: ~~Backhoe used to collect~~ mr 12/9/09 03-014(o)-1

FIELD SCREENING/MEASUREMENT RESULTS: PID = 1.3 ppm samples: <MDA
BACKGROUND
α: 67 dpm
β: 1447

COLLECTED BY (PRINT) P. Thomas **REVIEWED BY (PRINT)** M. Nauck

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) M. Nauck (Signature)	12-9-09 1600	(Printed Name) Sherri Sherwood (Signature) Sherri Sherwood	12-9-09 1600
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name) (Signature)		(Printed Name) (Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2272 **EVENT NAME:** Soil Sampling at CU 03-014(a)-99, Part 2

SAMPLE ID: RE03-09-13756 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12-9-09	MEDIA:	NA	QTB3
TIME COLLECTED (HH:MM)		1150	SUB-MEDIA:	OTHER	NA
PRS ID:	03-014(o)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	03-608276	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	3'	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	4'	SCREEN/PORT DESC:		
FIELD MATRIX:	~~S~~ R mr 12/9/09		EXCAVATED: YES / NO (NA)		NA

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / (NA)

BOREHOLE: YES / NO (NA) BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8082	250 ML GLASS	Ice	Y	
1		Metals+CN - GEL	125 ML POLY	Ice	Y	Plus, B, Li, Si, Ti, U

SAMPLE DESC: reddish brown tuff (2.5 YR 5/3)

SAMPLE COMMENTS: Backhoe used to collect sample.

LOCATION DESC: 14(o)-2

FIELD SCREENING/MEASUREMENT RESULTS: PID = 0.8 ppm
BACKGROUND
α: 67
β: 1447 dpm

Samples: <MDA

COLLECTED BY (PRINT) M. Shonde **REVIEWED BY (PRINT)** M. Mack

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) M Mack	12-9-09	(Printed Name) Sherri Sherwood	12-9-09
(Signature)	1600	(Signature) Sherri Sherwood	1600
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2272 **EVENT NAME:** Soil Sampling at CU 03-014(a)-99, Part 2

SAMPLE ID: RE03-09-13757 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12-9-09	MEDIA:	NA	QTB3
TIME COLLECTED (HH:MM)		1157	SUB-MEDIA:	OTHER	NA
PRS ID:	03-014(o)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	03-608276	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	5'	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	6'	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	MR 12/9/09 SR		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8082	250 ML GLASS	Ice	Y	
1		Metals+CN - GEL	125 ML POLY	Ice	Y	Plus, B, Li, Si, Ti, U

SAMPLE DESC: reddish brown tuff (2.5 YR 4/3)

SAMPLE COMMENTS: Backhoe used to collect sample

LOCATION DESC: 14(o)-2

FIELD SCREENING/MEASUREMENT RESULTS: PID = ~~0.8ppm~~ MR 12/9/09 0.6 ppm Samples: < MDA
BACKGROUND
α: 67 dpm
β: 1447

COLLECTED BY (PRINT) D. Thomas **REVIEWED BY (PRINT)** M. Lauck

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) M. Lauck	12-9-09	(Printed Name) Sherri Sherwood	12/9/09
(Signature)	1600	(Signature) Sherri Sherwood	1600
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2272 **EVENT NAME:** Soil Sampling at CU 03-014(a)-99, Part 2

SAMPLE ID: RE03-10-5525 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12-9-09	MEDIA:	ALLH	ok
TIME COLLECTED (HH:MM)		1030	SUB-MEDIA:	SOIL	
PRS ID:	03-014(o)	ok	SAMPLE TECH CODE:	HA	
LOCATION ID:	UNK	03-03204 ~~608~~	FIELD QC TYPE:	FD	
LOCATION TYPE:	GENERIC	ok mr 12/9/09	FIELD PREP:	NA	
TOP DEPTH:	0	4'	SAMPLE USAGE:	QC	
BOTTOM DEPTH:	0	5'	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	S		EXCAVATED: YES / NO (NA)		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO (NA)

BOREHOLE: YES / NO (NA) BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8082	250 ML GLASS	Ice	Y	
1		Metals+CN - GEL	125 ML POLY	Ice	Y	

SAMPLE DESC: QC Sample of RE03-09-13752

SAMPLE COMMENTS: NA

LOCATION DESC: NA

FIELD SCREENING/MEASUREMENT RESULTS: PID = 0.3 ppm
α:
β:

COLLECTED BY (PRINT) M. Skenda **REVIEWED BY (PRINT)** M. Rains

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) M. Rains (Signature) [signature]	12-9-09 1600	(Printed Name) Sherri Sherwood (Signature) Sherri Sherwood	12-9-09 1600
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name) (Signature)		(Printed Name) (Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2272 **EVENT NAME:** Soil Sampling at CU 03-014(a)-99, Part 2

SAMPLE ID: RE03-10-5529 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12-9-09	MEDIA:	NA	ok
TIME COLLECTED (HH:MM)		1030	SUB-MEDIA:	OTHER	
PRS ID:	03-014(o)	ok	SAMPLE TECH CODE:	DC	
LOCATION ID:	UNK	03-03204	FIELD QC TYPE:	FB	
LOCATION TYPE:	GENERIC	ok	FIELD PREP:	UF	
TOP DEPTH:	0		SAMPLE USAGE:	QC	
BOTTOM DEPTH:	0		SCREEN/PORT DESC:	NA	
FIELD MATRIX:	W		EXCAVATED: YES / NO (NA)		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / (NA)

BOREHOLE: YES / NO / (NA) BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		METALS-GEL	1 LITER POLY	Nitric Acid	Y	Plus, B, Li, Si, Ti, U
1		TCN	500 ML POLY	Sodium Hydroxide	Y	

SAMPLE DESC: QC Sample of RE03-09-13752

SAMPLE COMMENTS: NA

LOCATION DESC: NA

FIELD SCREENING/MEASUREMENT RESULTS: NA

COLLECTED BY (PRINT) M. Nauck **REVIEWED BY (PRINT)** M. Rains

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) M. Rains	12-9-09	(Printed Name) Sherri Sherwood	12-9-09
(Signature) [signature]	1600	(Signature) Sherri Sherwood	1600
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2272 **EVENT NAME:** Soil Sampling at CU 03-014(a)-99, Part 2

SAMPLE ID: RE03-10-5531 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12-9-09	MEDIA:	NA	OK
TIME COLLECTED (HH:MM)		1056	SUB-MEDIA:	OTHER	
PRS ID:	03-014(o)	OK	SAMPLE TECH CODE:	DC	
LOCATION ID:	UNK	03-03204	FIELD QC TYPE:	FR	
LOCATION TYPE:	GENERIC	OK	FIELD PREP:	UF	
TOP DEPTH:	0		SAMPLE USAGE:	QC	
BOTTOM DEPTH:	0		SCREEN/PORT DESC:	NA	
FIELD MATRIX:	W		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		METALS-GEL	1 LITER POLY	Nitric Acid	Y	Plus, B, Li, Si, Ti, U
1		TCN	500 ML POLY	Sodium Hydroxide	Y	

SAMPLE DESC: QC Sample of RE03-09-13753

SAMPLE COMMENTS: NA

LOCATION DESC: NA

FIELD SCREENING/MEASUREMENT RESULTS: NA

COLLECTED BY (PRINT) M. Nauck **REVIEWED BY (PRINT)** M. Rains

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) M. Rains (Signature) [signature]	12-9-09 1600	(Printed Name) Sherri Sherwood (Signature) Sherri Sherwood	12-9-09 1600
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name) (Signature)		(Printed Name) (Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2272 **EVENT NAME:** Soil Sampling at CU 03-014(a)-99, Part 2

SAMPLE ID: RE03-10-8746 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12-9-09	MEDIA:	NA	ok
TIME COLLECTED (HH:MM)		1030	SUB-MEDIA:	OTHER	NA
PRS ID:	03-014(o)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	03-608277		FIELD QC TYPE:	FTB	
LOCATION TYPE:	GENERIC		FIELD PREP:	NA	
TOP DEPTH:	0		SAMPLE USAGE:	QC	
BOTTOM DEPTH:	0		SCREEN/PORT DESC:	NA	
FIELD MATRIX:	S		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B Trip Blank	40 ML SEPTUM AMBER GLASS	Ice	Y	

SAMPLE DESC: QC Sample of RE03-09-13752

SAMPLE COMMENTS: NA

LOCATION DESC: NA

FIELD SCREENING/MEASUREMENT RESULTS: NA

COLLECTED BY (PRINT) M. Rains **REVIEWED BY (PRINT)** J. Jost

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) James Jost	12-9-09	(Printed Name) Sherri Sherwood	12-9-09
(Signature)	1600	(Signature) Sherri Sherwood	1600
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

DATA VALIDATION COVER SHEET

5114-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-887 VALIDATION DATE: 02/03/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Ellen McEntee ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☒ OTHER (DESCRIBE): VOCs

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☒	☐	☐	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. The CCV %D was >20% for trichlorotrifluoroethane. The associated result was ND and, thus, was qualified UJ,V7c.
2. It should be noted that the MS/MSD was performed on a LANL sample from another RN. No sample data was qualified as a result.

Reviewed by: Monica Dymerski **Level I** **Date:** 02/03/10

VALIDATOR'S SIGNATURE: [illegible] DATE: 02/03/10

Form 5114-1, Revision 0.0	LOS ALAMOS Environmental Restoration Project

VOLATILE ORGANIC COMPOUND (VOC) ANALYTICAL DATA VALIDATION CHECKLIST

5114-2

Volatile Organic Compound (VOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, V9	J-, V9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, V9a	J-, V9a
☐	☐	☒	3. The instrument performance sample did not pass method acceptance criteria.	R, V16	R, V16
☐	☐	☒	4. Samples were analyzed outside specific method tune time criteria.	N/A	J, V16b
☐	☐	☒	5. The required instrument performance sample information is missing. Contact the SMO or external laboratory for information.	R, V16c	R, V16c
☐	☒	☐	6. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ or R, V7	J, V7
☐	☒	☐	7. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, V7a	J, V7a
☐	☒	☐	8. The affected analytes were analyzed with an RRF of <0.05 in the initial calibration and/or CCV.	R, V7b	J, V7b
☒	☐	☐	9. The Initial Calibration Verification (ICV) and/or Continuing Calibration Verification (CCV) were recovered outside the method-specific limits.	UJ, V7c	J, V7c
☐	☒	☐	10. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, V7d	J, V7d
☐	☒	☐	11. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, V7f	R, V7f

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Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	12. The sample result is ≤5X (10X for common organic laboratory contaminants) the concentration of the related analyte in the method blank.	U, V4	N/A
☐	☒	☐	13. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X (10X for common laboratory contaminants).	N/A	J, V4a
☐	☐	☒	14. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, and/or equipment blank.	U, V4d	N/A
☐	☒	☐	15. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V4e	R, V4e
☐	☒	☐	16. The IS retention time has shifted by more than 30 seconds.	UJ, V0	J, V0
☐	☐	☒	17. Analyte is positively confirmed but outside the IS retention time window; however, spectral matches must be provided.	N/A	J, V0a
☐	☒	☐	18. Required IS retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V0b	R, V0b
☐	☐	☒	19. The quantitating IS are count is <10% of the expected value, which indicates increased potential for false negative results and other possible problems with sample quantitation. Follow method-specific windows.	R, V1a	J, V1a
☐	☐	☒	20. The IS area count for the quantitating IS is <50% but >10% for organics window relation to the previous continuing calibration. Follow the method-specific windows.	UJ, V1b	J, V1b

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Volatile Organic Compound (VOC) Analytical Data Validation Checklist

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Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	21. The IS area count for the quantitating IS is >200% of the area count for the previous organic continuing calibration. Follow the method-specific windows.	UJ, V1c	J, V1c
☐	☐	☒	22. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V1d	R, V1d
☐	☒	☐	23. The surrogate is <10%R. Follow the external laboratory limits located within the associated data package.	R, V3	J-, V3
☐	☒	☐	24. The surrogate is < the Lower Acceptance Limit (LAL) but ≥10%R. Follow the external laboratory limits located within the associated data package.	UJ, V3a	J-, V3a
☐	☒	☐	25. The surrogate %R is > the Upper Acceptance Limit (UAL) Follow the external laboratory limits located within the associated data package.	N/A	J+, V3b
☐	☒	☐	26. At least one surrogate is > the UAL and one surrogate is < the LAL. Follow the external laboratory limits located within the associated data package.	UJ, V3c	J, V3c
☐	☒	☐	27. Required surrogate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V3d	R, V3d
☐	☒	☐	28. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, V12	J-, V12
☐	☒	☐	29. The LCS percent recovery was < the LAL but > 10%. Follow the external laboratory limits located within the associated data package.	UV, V12a	J-, V12a
☐	☒	☐	30. The LCS percent recover was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, V12b

VOLATILE ORGANIC COMPOUND (VOC) ANALYTICAL DATA VALIDATION CHECKLIST

5114-2

Volatile Organic Compound (VOC) Analytical Data Validation Checklist

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Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	31. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V12c	R, V12c
☐	☒	☐	32. The affected analyte is considered not detected because mass spectrum did not meet specifications.	N/A	U, V8
☐	☒	☐	33. The mass spectrum column documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V8a	R, V8a
☐	☒	☐	34. Duplicate, dilution, or reanalysis.	UJ, V88	J, V88
☐	☐	☒	35. The affected analytes have elevated detection limits and may not meet project DQOs because the sample was diluted without any target analytees identified due to matrix interference. Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.	UJ, R, V15	R, V15
☒	☐	☐	36. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB, NQ, NQ
☐	☒	☐	37. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.	UJ, R, V19	J, R, V19

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-887	Date Collected:	12/09/2009 12:00	Matrix:	S
Lab Sample ID:	242781008	Date Received:	12/11/2009 08:50		
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-10-8746	Method:	SW846 8260B	SOP Ref:	GL-OA-E-038
Batch ID:	934726	Inst:	VOA1.I	Dilution:	1
Run Date:	12/18/2009 17:44	Analyst:	RXM4	Purge Vol:	5 mL
Prep Date:	12/18/2009 12:23	Aliquot:	5 g	Final Volume:	5 mL
Data File:	1r515.d	Column:	RTX-Volatiles	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/kg	0.340	1.00
74-87-3	Chloromethane	U	1.00	ug/kg	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/kg	0.300	1.00
74-83-9	Bromomethane	U	1.00	ug/kg	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/kg	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/kg	0.300	1.00
67-64-1	Acetone	J	2.07	ug/kg	1.66	5.00
75-35-4	1,1-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/kg	1.60	5.00
75-09-2	Methylene chloride	U	5.00	ug/kg	2.00	5.00
75-15-0	Carbon disulfide	U	5.00	ug/kg	1.25	5.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/kg	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/kg	1.50	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/kg	0.300	1.00
74-97-5	Bromochloromethane	U	1.00	ug/kg	0.330	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/kg	0.300	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/kg	0.300	1.00
56-23-5	Carbon tetrachloride	U	1.00	ug/kg	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/kg	0.300	1.00
71-43-2	Benzene	U	1.00	ug/kg	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/kg	0.330	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/kg	0.300	1.00
74-95-3	Dibromomethane	U	1.00	ug/kg	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/kg	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
108-88-3	Toluene	U	1.00	ug/kg	0.300	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/kg	0.300	1.00
591-78-6	2-Hexanone	U	5.00	ug/kg	1.50	5.00
142-28-9	1,3-Dichloropropane	U	1.00	ug/kg	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/kg	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/kg	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/kg	0.300	1.00
108-90-7	Chlorobenzene	U	1.00	ug/kg	0.300	1.00

EJM
02/03/10

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-887	Date Collected:	12/09/2009 12:00	Matrix:	S
Lab Sample ID:	242781008	Date Received:	12/11/2009 08:50		
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-10-8746	Method:	SW846 8260B	SOP Ref:	GL-OA-E-038
Batch ID:	934726	Inst:	VOA1.I	Dilution:	1
Run Date:	12/18/2009 17:44	Analyst:	RXM4	Purge Vol:	5 mL
Prep Date:	12/18/2009 12:23	Aliquot:	5 g	Final Volume:	5 mL
Data File:	1r515.d	Column:	RTX-Volatiles	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
100-41-4	Ethylbenzene	U	1.00	ug/kg	0.300	1.00	
179601-23-1	m,p-Xylenes	U	2.00	ug/kg	0.300	2.00	
95-47-6	o-Xylene	U	1.00	ug/kg	0.300	1.00	
100-42-5	Styrene	U	1.00	ug/kg	0.300	1.00	
75-25-2	Bromoform	U	1.00	ug/kg	0.300	1.00	
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00	
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/kg	0.300	1.00	
108-86-1	Bromobenzene	U	1.00	ug/kg	0.300	1.00	
103-65-1	n-Propylbenzene	U	1.00	ug/kg	0.300	1.00	
95-49-8	2-Chlorotoluene	U	1.00	ug/kg	0.300	1.00	
98-82-8	Isopropylbenzene	U	1.00	ug/kg	0.300	1.00	
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00	
106-43-4	4-Chlorotoluene	U	1.00	ug/kg	0.300	1.00	
98-06-6	tert-Butylbenzene	U	1.00	ug/kg	0.300	1.00	
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00	
135-98-8	sec-Butylbenzene	U	1.00	ug/kg	0.300	1.00	
99-87-6	4-Isopropyltoluene	U	1.00	ug/kg	0.300	1.00	
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00	
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00	
104-51-8	n-Butylbenzene	U	1.00	ug/kg	0.300	1.00	
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/kg	0.300	1.00	
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.00	ug/kg	1.60	5.00	UJ,V7c
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00	
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	No Tentatively Identified Compounds Found			ug/kg		

EJM
02/03/10

DATA VALIDATION COVER SHEET

5116-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY

Section I.

REQUEST NUMBER: 10-887 VALIDATION DATE: 02/03/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Ellen McEntee ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☒ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE): PCBs

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. It should be noted that the confirmation RPD for Aroclor 1254 in sample RE03-09-13752 was >40% but ≤75%. Confirmation RPDs are not assessed for validation, thus, data was not qualified.

Reviewed by: Monica Dymerski **Level I** **Date:** 02/03/10

VALIDATOR'S SIGNATURE: Ellen McEntee DATE: 02/03/10

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2

Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, P9	J-, P9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, P9	J-, P9a
☐	☒	☐	3. The affected analytes are regarded as rejected because the analytical holding time was exceeded.	R, P9b	R, P9b
☐	☒	☐	4. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, P7	J, P7
☐	☒	☐	5. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, P7a	J, P7a
☐	☒	☐	6. The Initial Calibration Verification (ICV) and/or Continuing Calibration Verification (CCV) were recovered outside the method-specific limits.	UJ, P7c	J, P7c
☐	☒	☐	7. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, P7d	J, P7d
☐	☒	☐	8. The multicomponent standard was not analyzed within 72 hours of the initial analysis.	R, P7e	J, P7e
☐	☒	☐	9. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, P7f	R, P7f
☐	☐	☒	10. The breakdown criteria have been exceeded. This can cause low bias in reported results. If compound is detected, qualify J-. If compound is not present, but breakdown products are present, qualify R. If no compounds or breakdown products are present, qualify UJ (4,4' DDT and Endrin).	UJ, R, P13	J-, P13

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2

Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	11. The breakdown criteria have been exceeded. This can cause high bias in the reported results and potential false positive results for the breakdown products Endrin ketone, Endrin aldehyde, DDD, and DDE.	UJ, P13a	J+, P13a
☐	☐	☒	12. The breakdown documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P13b	R, P13b
☐	☒	☐	13. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, P4	N/A
☐	☒	☐	14. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was greater than 5X.	N/A	J, P4a
☐	☐	☒	15. The sample result is ≤5X the concentration of the related analyte in the instrument blank and continuing calibration blank.	UJ, P4b	N/A
☐	☐	☒	16. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	UJ, P4d	N/A
☐	☒	☐	17. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P4e	R, P4e
☐	☒	☐	18. The analyte RT shifted by more than 0.05 minutes from the mid-level standard of the initial calibration.	R, P0	J, P0
☐	☒	☐	19. Required retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P0b	R, P0b
☐	☒	☐	20. The surrogate is <10%R. Follow the external laboratory limits located within the associated data package.	R, P3	J-, P3

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2

Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	21. The surrogate is < the Lower Acceptance Level (LAL) but ≥10%R. Follow the external laboratory limits located within the associated data package.	UJ, P3a	J-, P3a
☐	☒	☐	22. The surrogate %R value is > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, P3b
☐	☒	☐	23. At least one surrogate is > the Upper Acceptance Limit (UAL) and one surrogate is < the LAL. Follow the external laboratory limits located within the associated data package.	UJ, P3c	J, P3c
☐	☒	☐	24. Required surrogate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P3d	R, P3d
☐	☒	☐	25. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, P12	J-, P12
☐	☒	☐	26. The LCS percent recovery was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, P12a	J-, P12a
☐	☒	☐	27. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, P12b
☐	☒	☐	28. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P12c	R, P12c
☐	☒	☐	29. The analyte was not confirmed on a second dissimilar column.	N/A	R, P8
☐	☒	☐	30. The second dissimilar column documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P8a	R, P8a
☐	☒	☐	31. Duplicate, Dilution, or reanalysis.	UJ, P88	J, P88

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2

Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below if Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	32. The affected analytes have elevated detection limits and may not meet project DQOs because the sample was diluted without any target analytees identified due to matrix interference. Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.	UJ, R, P15	R, P15
☒	☐	☐	33. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB, NQ, NQ
☐	☒	☐	34. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.	UJ, R, P19	J, R, P19

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10-887	**Date Collected:**	12/09/2009 12:00	**Matrix:**	S
Lab Sample ID:	242781002	**Date Received:**	12/11/2009 08:50	**%Moisture:**	8.4
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-13752	**Method:**	SW846 8082	**SOP Ref:**	GL-OA-E-040
Batch ID:	933342	**Inst:**	ECD1A.I	**Dilution:**	1
Run Date:	12/16/2009 20:19	**Analyst:**	YS1	**Inj. Vol:**	1 uL
Prep Date:	12/15/2009 20:23	**Aliquot:**	30.14 g	**Final Volume:**	1 mL
Data File:	072f7201.d	**Column:**	1 CLP1	**Level:**	LOW
	072b7201.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.62	ug/kg	1.21	3.62	1
11104-28-2	Aroclor-1221	U	3.62	ug/kg	1.21	3.62	1
11141-16-5	Aroclor-1232	U	3.62	ug/kg	1.21	3.62	1
53469-21-9	Aroclor-1242	U	3.62	ug/kg	1.21	3.62	1
12672-29-6	Aroclor-1248	U	3.62	ug/kg	1.21	3.62	1
11097-69-1	Aroclor-1254	P	33.3	ug/kg	1.21	3.62	1
11096-82-5	Aroclor-1260		39.5	ug/kg	1.21	3.62	1

EJM
02/03/10

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10-887	**Date Collected:**	12/09/2009 12:00	**Matrix:**	S
Lab Sample ID:	242781003	**Date Received:**	12/11/2009 08:50	**%Moisture:**	8.5
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-13753	**Method:**	SW846 8082	**SOP Ref:**	GL-OA-E-040
Batch ID:	933342	**Inst:**	ECD1A,I	**Dilution:**	1
Run Date:	12/16/2009 20:30	**Analyst:**	YS1	**Inj. Vol:**	1 uL
Prep Date:	12/15/2009 20:23	**Aliquot:**	30.07 g	**Final Volume:**	1 mL
Data File:	073f7301.d	**Column:**	1 CLP1	**Level:**	LOW
	073b7301.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.63	ug/kg	1.21	3.63	1
11104-28-2	Aroclor-1221	U	3.63	ug/kg	1.21	3.63	1
11141-16-5	Aroclor-1232	U	3.63	ug/kg	1.21	3.63	1
53469-21-9	Aroclor-1242	U	3.63	ug/kg	1.21	3.63	1
12672-29-6	Aroclor-1248	U	3.63	ug/kg	1.21	3.63	1
11097-69-1	Aroclor-1254	U	3.63	ug/kg	1.21	3.63	1
11096-82-5	Aroclor-1260	U	3.63	ug/kg	1.21	3.63	1

EJM
02/03/10

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10–887	**Date Collected:**	12/09/2009 12:00	**Matrix:**	S
Lab Sample ID:	242781004	**Date Received:**	12/11/2009 08:50	**%Moisture:**	11.3
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03–09–13754	**Method:**	SW846 8082	**SOP Ref:**	GL–OA–E–040
Batch ID:	933342	**Inst:**	ECD1A.I	**Dilution:**	1
Run Date:	12/16/2009 21:01	**Analyst:**	YS1	**Inj. Vol:**	1 uL
Prep Date:	12/15/2009 20:23	**Aliquot:**	30.03 g	**Final Volume:**	1 mL
Data File:	076f7601.d	**Column:**	1 CLP1	**Level:**	LOW
	076b7601.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	3.76	ug/kg	1.25	3.76	1
11104–28–2	Aroclor–1221	U	3.76	ug/kg	1.25	3.76	1
11141–16–5	Aroclor–1232	U	3.76	ug/kg	1.25	3.76	1
53469–21–9	Aroclor–1242	U	3.76	ug/kg	1.25	3.76	1
12672–29–6	Aroclor–1248	U	3.76	ug/kg	1.25	3.76	1
11097–69–1	Aroclor–1254	U	3.76	ug/kg	1.25	3.76	1
11096–82–5	Aroclor–1260	U	3.76	ug/kg	1.25	3.76	1

EJM
02/03/10

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10-887	**Date Collected:**	12/09/2009 12:00	**Matrix:**	S
Lab Sample ID:	242781005	**Date Received:**	12/11/2009 08:50	**%Moisture:**	10.5
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-13755	**Method:**	SW846 8082	**SOP Ref:**	GL-OA-E-040
Batch ID:	933342	**Inst:**	ECD1A.I	**Dilution:**	1
Run Date:	12/16/2009 21:12	**Analyst:**	YS1	**Inj. Vol:**	1 uL
Prep Date:	12/15/2009 20:23	**Aliquot:**	30.04 g	**Final Volume:**	1 mL
Data File:	077f7701.d	**Column:**	1 CLP1	**Level:**	LOW
	077b7701.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.72	ug/kg	1.24	3.72	1
11104-28-2	Aroclor-1221	U	3.72	ug/kg	1.24	3.72	1
11141-16-5	Aroclor-1232	U	3.72	ug/kg	1.24	3.72	1
53469-21-9	Aroclor-1242	U	3.72	ug/kg	1.24	3.72	1
12672-29-6	Aroclor-1248	U	3.72	ug/kg	1.24	3.72	1
11097-69-1	Aroclor-1254	U	3.72	ug/kg	1.24	3.72	1
11096-82-5	Aroclor-1260	U	3.72	ug/kg	1.24	3.72	1

EJM
02/03/10

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10-887	**Date Collected:**	12/09/2009 12:00	**Matrix:**	S
Lab Sample ID:	242781006	**Date Received:**	12/11/2009 08:50	**%Moisture:**	10.5
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-13756	**Method:**	SW846 8082	**SOP Ref:**	GL-OA-E-040
Batch ID:	933342	**Inst:**	ECD1A.I	**Dilution:**	1
Run Date:	12/16/2009 21:22	**Analyst:**	YS1	**Inj. Vol:**	1 uL
Prep Date:	12/15/2009 20:23	**Aliquot:**	30.04 g	**Final Volume:**	1 mL
Data File:	078f7801.d	**Column:**	1 CLP1	**Level:**	LOW
	078b7801.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.72	ug/kg	1.24	3.72	1
11104-28-2	Aroclor-1221	U	3.72	ug/kg	1.24	3.72	1
11141-16-5	Aroclor-1232	U	3.72	ug/kg	1.24	3.72	1
53469-21-9	Aroclor-1242		18.8	ug/kg	1.24	3.72	1
12672-29-6	Aroclor-1248	U	3.72	ug/kg	1.24	3.72	1
11097-69-1	Aroclor-1254		16.2	ug/kg	1.24	3.72	2
11096-82-5	Aroclor-1260		4.40	ug/kg	1.24	3.72	2

EJM
02/03/10

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10–887	**Date Collected:**	12/09/2009 12:00	**Matrix:**	S
Lab Sample ID:	242781001	**Date Received:**	12/11/2009 08:50	**%Moisture:**	9.9
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03–09–13757	**Method:**	SW846 8082	**SOP Ref:**	GL–OA–E–040
Batch ID:	933342	**Inst:**	ECD1A.I	**Dilution:**	1
Run Date:	12/16/2009 19:47	**Analyst:**	YS1	**Inj. Vol:**	1 uL
Prep Date:	12/15/2009 20:23	**Aliquot:**	30.02 g	**Final Volume:**	1 mL
Data File:	069f6901.d	**Column:**	1 CLP1	**Level:**	LOW
	069b6901.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	3.70	ug/kg	1.23	3.70	1
11104–28–2	Aroclor–1221	U	3.70	ug/kg	1.23	3.70	1
11141–16–5	Aroclor–1232	U	3.70	ug/kg	1.23	3.70	1
53469–21–9	Aroclor–1242	U	3.70	ug/kg	1.23	3.70	1
12672–29–6	Aroclor–1248	U	3.70	ug/kg	1.23	3.70	1
11097–69–1	Aroclor–1254	J	2.40	ug/kg	1.23	3.70	1
11096–82–5	Aroclor–1260	J	2.50	ug/kg	1.23	3.70	2

EJM
02/03/10

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10-887	**Date Collected:**	12/09/2009 12:00	**Matrix:**	S
Lab Sample ID:	242781007	**Date Received:**	12/11/2009 08:50	**%Moisture:**	8.1
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-10-5525	**Method:**	SW846 8082	**SOP Ref:**	GL-OA-E-040
Batch ID:	933342	**Inst:**	ECD1A.I	**Dilution:**	1
Run Date:	12/16/2009 21:33	**Analyst:**	YS1	**Inj. Vol:**	1 uL
Prep Date:	12/15/2009 20:23	**Aliquot:**	30.02 g	**Final Volume:**	1 mL
Data File:	079f7901.d	**Column:**	1 CLP1	**Level:**	LOW
	079b7901.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.63	ug/kg	1.21	3.63	1
11104-28-2	Aroclor-1221	U	3.63	ug/kg	1.21	3.63	1
11141-16-5	Aroclor-1232	U	3.63	ug/kg	1.21	3.63	1
53469-21-9	Aroclor-1242	U	3.63	ug/kg	1.21	3.63	1
12672-29-6	Aroclor-1248	U	3.63	ug/kg	1.21	3.63	1
11097-69-1	Aroclor-1254	U	3.63	ug/kg	1.21	3.63	1
11096-82-5	Aroclor-1260	U	3.63	ug/kg	1.21	3.63	1

EJM
02/03/10

DATA VALIDATION COVER SHEET

5118-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-887 VALIDATION DATE: 02/03/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Ellen McEntee ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☒ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE):

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☐	☐	☒	8. QUANTITATION REPORTS
☐	☐	☒	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. In the MB associated with the soil samples, U was detected. The associated results were >5X but ≤50X the MB concentration and, thus, were qualified J,I4a. The MB associated with the water samples, Ba was detected. The associated result for sample RE03-10-5531 was ≤5X the MB concentration and, thus, was qualified U,I4. The associated Ba result for sample -10 -5529 was an ND and, thus, was not qualified.
2. In the CCB associated with the soil samples, U was detected. The associated sample results were >5X the CCB concentration and, thus, were not qualified.
3. In FR blank sample -10-5531, which was associated with all soil samples in this RN, Al, Cr, Fe, Mn, K, Si, Na, Ti, and Zn were detected. Na and Si in all associated samples, and Cr in samples -09-13752 – -09-13757 were ≤5X the FR blank concentration and, thus, were qualified U,I4d. All other associated results were >5X the FR concentration and, thus, were not qualified.
4. In FB sample -10-5529, which was associated with samples -09-13752, -09-13753, and -13755, Si was detected. The associated results for Si were ≤5X the FB concentration and, thus, were qualified U,I4d.
5. The soil MS %R for Al was > the laboratory UAL. The associated sample results were detects and, thus, were qualified J+,I6b. The soil MS %Rs were also > the laboratory UAL for Fe, Mn, and Ti, however, the sample concentrations were > 4X the spike concentrations. Data was not qualified based on professional judgment. It should be noted that the soil and water MSs were performed on LANL samples from other SDGs. No sample data was qualified as a result.

Reviewed by: Monica Dymerski **Level I** **Date:** 02/03/10

VALIDATOR'S SIGNATURE: [signature] DATE: 02/03/10

Form 5118-1, Revision 0.0	LOS ALAMOS Environmental Restoration Project

METALS ANALYTICAL DATA VALIDATION CHECKLIST

5118-2

Metals Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, I9	J-, I9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, I9a	J-, I9a
☐	☐	☒	3. The instrument performance sample did not pass method acceptance criteria.	R, I16	R, I16
☐	☐	☒	4. The mass calibration is not within 0.1 amu or %RSD is >5% for any isotope (Be, Mg, Co, In, Pb).	UJ, I16a	J, I16a
☐	☐	☒	5. Samples were analyzed outside specific method tune time criteria.	N/A	J, I16b
☐	☐	☒	6. The required instrument performance sample information is missing. Contact the SMO or external laboratory for information.	R, I16c	R, I16c
☐	☒	☐	7. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, I7	J, I7
☐	☒	☐	8. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, I7a	J, I7a
☐	☒	☐	9. The initial Calibration Verification (ICV) and/or Continuing Calibration Verification (CCV) were recovered outside the method-specific limits.	UJ, I7c	J, I7c
☐	☒	☐	10. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, I7d	J, I7d
☐	☒	☐	11. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, I7f	R, I7f
☐	☒	☐	12. Metals interference check sample percent recover value is <50%.	R, I2	J-, I2

METALS ANALYTICAL DATA VALIDATION CHECKLIST

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Metals Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	13. Metals interference check sample percent recovery value is ≥50% and <80%	UJ, I2a	J-, I2a
☐	☒	☐	14. Metals interference check sample percent recovery value is >120%.	N/A	J+, I2b
☐	☒	☐	15. Metals interference check sample was not analyzed with the samples.	R, I2c	R, I2c
☒	☐	☐	16. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, I4	N/A
☒	☐	☐	17. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X.	N/A	J, I4a
☐	☒	☐	18. The sample result is ≤5X the concentration of the related analyte in the instrument blank and continuing calibration blank.	U, I4b	N/A
☐	☒	☐	19. Continuing calibration blanks were not analyzed at the appropriate method frequency.	UJ, I4c	J, I4c
☒	☐	☐	20. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	U, I4d	N/A
☐	☒	☐	21. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, I4e	R, I4e
☐	☒	☐	22. The associated matrix spike recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I6	R, I6
☐	☒	☐	23. The associated matrix spike recovery was <the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I6a	J+, I6a
☒	☐	☐	24. The associated matrix spike recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	UJ, I6b	J+, I6b

METALS ANALYTICAL DATA VALIDATION CHECKLIST

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Metals Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	25. Required matrix spike information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. If the LCS information is present, do not Reject. Qualify data based on the LCS information.	R, I6c	R, I6c
☐	☒	☐	26. The sample and the duplicate sample results were ≥5X the RL and the duplicate RPD was >20% for water samples and >35% for soil samples.	UJ, I10a	J, I10a
☐	☒	☐	27. The duplicate sample was not prepared and/or analyzed with the samples for unspecified reasons. The duplicate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	UJ, I10d	J, I10d
☐	☒	☐	28. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I12	R, I12
☐	☒	☐	29. The LCS percent recover was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I12a	J-, I12a
☐	☒	☐	30. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, I12b
☐	☒	☐	31. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. Do not Reject if MS/MSD information is present. Qualify according to MS/MSD criteria.	R, I12c	R, I12c
☐	☐	☒	32. The quantitating IS area count is <10% for metals window in relation to the initial calibration blank. Follow the method-specific windows.	R, I1a	J, I1a

METALS ANALYTICAL DATA VALIDATION CHECKLIST

5118-2

Metals Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	33. The IS area count for the quantitating IS is <60% but >10% for metals window in relation to the initial calibration blank. Follow the method-specific windows.	UJ, I1b	J, I1b
☐	☐	☒	34. The IS area count for the quantitating IS is >125% in relation to the metals initial calibration blank. Follow method-specific windows.	UJ, I1c	J, I1c
☐	☐	☒	35. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, I1d	R, I1d
☐	☐	☒	36. Serial dilution sample RPD was >10% and the sample result was >50X the MDL (>100X the MDL for ICPMS). Qualify ONLY the sample used for the serial dilution.	UJ, I18	J, I18
☐	☐	☒	37. Serial dilution sample was not analyzed with the samples.	UJ, I18a	J, I18
☐	☐	☒	38. The sample result was reported as detected between the IDL and the EDL.	N/A	J, I1
☐	☒	☐	39. Duplicate, dilution, or reanalysis.	UJ, I88	J, I88
☒	☐	☐	40. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB, NQ, NQ
☐	☒	☐	41. The LANL project chemist identified quality deficiencies in the reported data that require further qualification. This code can ONLY be used and/or under advisement by the LANL project chemist.	UJ, R, I19	J, R, I19

METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-887 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 242781001 **BASIS:** Dry Weight **DATE COLLECTED** 09-DEC-09

CLIENT ID: RE03-09-13757 **LEVEL:** Low **DATE RECEIVED** 11-DEC-09

MATRIX: SOIL **%SOLIDS:** 90.1

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum J+,I6b	1730000	ug/Kg	N	7350	21600	21600	1	P	HSC	12/19/09 22:58	121909-1	932284
7440-36-0	Antimony	1080	ug/Kg	U	357	1080	1080	1	P	HSC	12/19/09 22:58	121909-1	932284
7440-38-2	Arsenic	1.17	mg/kg		0.215	1.08	1.08	2	MS	SKJ	01/01/10 02:46	091231-2	932323
7440-39-3	Barium	42300	ug/Kg		108	541	541	1	P	HSC	12/19/09 22:58	121909-1	932284
7440-41-7	Beryllium	0.590	mg/kg		0.0215	0.108	0.108	2	MS	SKJ	01/01/10 02:46	091231-2	932323
7440-42-8	Boron	5410	ug/Kg	U	1080	5410	5410	1	P	HSC	12/19/09 22:58	121909-1	932284
7440-43-9	Cadmium	541	ug/Kg	U	108	541	541	1	P	HSC	12/19/09 22:58	121909-1	932284
7440-70-2	Calcium	474000	ug/Kg	*	8650	27000	27000	1	P	HSC	12/19/09 22:58	121909-1	932284
7440-47-3	Chromium U,I4d	1330	ug/Kg		162	541	541	1	P	HSC	12/19/09 22:58	121909-1	932284
7440-48-4	Cobalt	1040	ug/Kg		162	541	541	1	P	HSC	12/19/09 22:58	121909-1	932284
7440-50-8	Copper	4610	ug/Kg		324	1080	1080	1	P	HSC	12/19/09 22:58	121909-1	932284
7439-89-6	Iron	7520000	ug/Kg		8650	27000	27000	1	P	HSC	12/19/09 22:58	121909-1	932284
7439-92-1	Lead	4280	ug/Kg		270	1080	1080	1	P	HSC	12/19/09 22:58	121909-1	932284
7439-93-2	Lithium	3.13	mg/kg	*N	0.43	2.15	2.15	2	MS	SKJ	01/04/10 13:04	100104-3	932323
7439-95-4	Magnesium	240000	ug/Kg	*	9190	32400	32400	1	P	HSC	12/19/09 22:58	121909-1	932284
7439-96-5	Manganese	362000	ug/Kg	*	216	1080	1080	1	P	HSC	12/19/09 22:58	121909-1	932284
7439-97-6	Mercury	11.8	ug/kg	J	4.06	12	12	1	AV	ETL	12/23/09 12:05	122309S1-4	934871
7440-02-0	Nickel	3.74	mg/kg		0.108	0.43	0.43	2	MS	SKJ	01/01/10 02:46	091231-2	932323
7440-09-7	Potassium	200000	ug/Kg		6920	27000	27000	1	P	HSC	12/19/09 22:58	121909-1	932284
7782-49-2	Selenium	1.08	mg/kg	U	0.538	1.08	1.08	2	MS	SKJ	01/01/10 02:46	091231-2	932323
7440-21-3	Silicon U,I4d	872000	ug/Kg		1620	10800	10800	1	P	HSC	12/19/09 22:58	121909-1	932284
7440-22-4	Silver	563	ug/Kg		108	541	541	1	P	HSC	12/19/09 22:58	121909-1	932284
7440-23-5	Sodium U,I4d	46900	ug/Kg		7570	27000	27000	1	P	HSC	12/19/09 22:58	121909-1	932284
7440-28-0	Thallium	0.147	mg/kg	J	0.0645	0.215	0.215	2	MS	SKJ	01/01/10 02:46	091231-2	932323
7440-32-6	Titanium	309000	ug/Kg		108	541	541	1	P	HSC	12/19/09 22:58	121909-1	932284
7440-61-1	Uranium J,I4a	0.515	mg/kg		0.0142	0.043	0.043	2	MS	SKJ	01/01/10 02:46	091231-2	932323
7440-62-2	Vanadium	3750	ug/Kg		108	541	541	1	P	HSC	12/19/09 22:58	121909-1	932284
7440-66-6	Zinc	48300	ug/Kg		357	1080	1080	1	P	HSC	12/19/09 22:58	121909-1	932284

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
932284	932283	SW846 3050B	0.513	g	50	mL	12/17/09	BCD1
932323	932322	SW846 3050B	0.516	g	50	mL	12/17/09	BCD1
934871	934870	SW846 7471A Prep	0.557	g	30	mL	12/22/09	TXB3

EJM
02/03/10

METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-887 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 242781002 **BASIS:** Dry Weight **DATE COLLECTED** 09-DEC-09

CLIENT ID: RE03-09-13752 **LEVEL:** Low **DATE RECEIVED** 11-DEC-09

MATRIX: SOIL **%SOLIDS:** 91.6

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum J+,I6b	1550000	ug/Kg	N	7210	21200	21200	1	P	HSC	12/19/09 23:47	121909-1	932284
7440-36-0	Antimony	1060	ug/Kg	U	350	1060	1060	1	P	HSC	12/19/09 23:47	121909-1	932284
7440-38-2	Arsenic	0.971	mg/kg	J	0.214	1.07	1.07	2	MS	SKJ	01/01/10 03:30	091231-2	932323
7440-39-3	Barium	15900	ug/Kg		106	530	530	1	P	HSC	12/19/09 23:47	121909-1	932284
7440-41-7	Beryllium	0.465	mg/kg		0.0214	0.107	0.107	2	MS	SKJ	01/01/10 03:30	091231-2	932323
7440-42-8	Boron	5300	ug/Kg	U	1060	5300	5300	1	P	HSC	12/19/09 23:47	121909-1	932284
7440-43-9	Cadmium	530	ug/Kg	U	106	530	530	1	P	HSC	12/19/09 23:47	121909-1	932284
7440-70-2	Calcium	426000	ug/Kg	*	8480	26500	26500	1	P	HSC	12/19/09 23:47	121909-1	932284
7440-47-3	Chromium U,I4d	1010	ug/Kg		159	530	530	1	P	HSC	12/19/09 23:47	121909-1	932284
7440-48-4	Cobalt	425	ug/Kg	J	159	530	530	1	P	HSC	12/19/09 23:47	121909-1	932284
7440-50-8	Copper	2460	ug/Kg		318	1060	1060	1	P	HSC	12/19/09 23:47	121909-1	932284
7439-89-6	Iron	7930000	ug/Kg		8480	26500	26500	1	P	HSC	12/19/09 23:47	121909-1	932284
7439-92-1	Lead	2800	ug/Kg		265	1060	1060	1	P	HSC	12/19/09 23:47	121909-1	932284
7439-93-2	Lithium	3.19	mg/kg	*N	0.427	2.14	2.14	2	MS	SKJ	01/04/10 13:20	100104-3	932323
7439-95-4	Magnesium	190000	ug/Kg	*	9010	31800	31800	1	P	HSC	12/19/09 23:47	121909-1	932284
7439-96-5	Manganese	433000	ug/Kg	*	212	1060	1060	1	P	HSC	12/19/09 23:47	121909-1	932284
7439-97-6	Mercury	34.8	ug/kg		4.44	13.1	13.1	1	AV	ETL	12/23/09 12:07	122309S1-4	934871
7440-02-0	Nickel	4.71	mg/kg		0.107	0.427	0.427	2	MS	SKJ	01/01/10 03:30	091231-2	932323
7440-09-7	Potassium	131000	ug/Kg		6780	26500	26500	1	P	HSC	12/19/09 23:47	121909-1	932284
7782-49-2	Selenium	1.07	mg/kg	U	0.534	1.07	1.07	2	MS	SKJ	01/01/10 03:30	091231-2	932323
7440-21-3	Silicon U,I4d	710000	ug/Kg		1590	10600	10600	1	P	HSC	12/19/09 23:47	121909-1	932284
7440-22-4	Silver	492	ug/Kg	J	106	530	530	1	P	HSC	12/19/09 23:47	121909-1	932284
7440-23-5	Sodium U,I4d	36300	ug/Kg		7420	26500	26500	1	P	HSC	12/19/09 23:47	121909-1	932284
7440-28-0	Thallium	0.214	mg/kg	U	0.0641	0.214	0.214	2	MS	SKJ	01/01/10 03:30	091231-2	932323
7440-32-6	Titanium	363000	ug/Kg		106	530	530	1	P	HSC	12/19/09 23:47	121909-1	932284
7440-61-1	Uranium J,I4a	0.529	mg/kg		0.0141	0.0427	0.0427	2	MS	SKJ	01/01/10 03:30	091231-2	932323
7440-62-2	Vanadium	3190	ug/Kg		106	530	530	1	P	HSC	12/19/09 23:47	121909-1	932284
7440-66-6	Zinc	40600	ug/Kg		350	1060	1060	1	P	HSC	12/19/09 23:47	121909-1	932284

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
932284	932283	SW846 3050B	0.515	g	50	mL	12/17/09	BCD1
932323	932322	SW846 3050B	0.511	g	50	mL	12/17/09	BCD1
934871	934870	SW846 7471A Prep	0.501	g	30	mL	12/22/09	TXB3

EJM
02/03/10

METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-887 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 242781003 **BASIS:** Dry Weight **DATE COLLECTED** 09-DEC-09

CLIENT ID: RE03-09-13753 **LEVEL:** Low **DATE RECEIVED** 11-DEC-09

MATRIX: SOIL **%SOLIDS:** 91.5

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum J+,I6b	1790000	ug/Kg	N	7280	21400	21400	1	P	HSC	12/19/09 23:55	121909-1	932284
7440-36-0	Antimony	1070	ug/Kg	U	354	1070	1070	1	P	HSC	12/19/09 23:55	121909-1	932284
7440-38-2	Arsenic	0.783	mg/kg	J	0.218	1.09	1.09	2	MS	SKJ	01/01/10 03:36	091231-2	932323
7440-39-3	Barium	12200	ug/Kg		107	536	536	1	P	HSC	12/19/09 23:55	121909-1	932284
7440-41-7	Beryllium	0.456	mg/kg		0.0218	0.109	0.109	2	MS	SKJ	01/01/10 03:36	091231-2	932323
7440-42-8	Boron	5360	ug/Kg	U	1070	5360	5360	1	P	HSC	12/19/09 23:55	121909-1	932284
7440-43-9	Cadmium	536	ug/Kg	U	107	536	536	1	P	HSC	12/19/09 23:55	121909-1	932284
7440-70-2	Calcium	397000	ug/Kg	*	8570	26800	26800	1	P	HSC	12/19/09 23:55	121909-1	932284
7440-47-3	Chromium U,I4d	1040	ug/Kg		161	536	536	1	P	HSC	12/19/09 23:55	121909-1	932284
7440-48-4	Cobalt	405	ug/Kg	J	161	536	536	1	P	HSC	12/19/09 23:55	121909-1	932284
7440-50-8	Copper	1720	ug/Kg		321	1070	1070	1	P	HSC	12/19/09 23:55	121909-1	932284
7439-89-6	Iron	8240000	ug/Kg		8570	26800	26800	1	P	HSC	12/19/09 23:55	121909-1	932284
7439-92-1	Lead	3340	ug/Kg		268	1070	1070	1	P	HSC	12/19/09 23:55	121909-1	932284
7439-93-2	Lithium	3.01	mg/kg	*N	0.436	2.18	2.18	2	MS	SKJ	01/04/10 13:22	100104-3	932323
7439-95-4	Magnesium	203000	ug/Kg	*	9110	32100	32100	1	P	HSC	12/19/09 23:55	121909-1	932284
7439-96-5	Manganese	228000	ug/Kg	*	214	1070	1070	1	P	HSC	12/19/09 23:55	121909-1	932284
7439-97-6	Mercury	5.81	ug/kg	J	3.99	11.7	11.7	1	AV	ETL	12/23/09 12:09	122309S1-4	934871
7440-02-0	Nickel	1.48	mg/kg		0.109	0.436	0.436	2	MS	SKJ	01/01/10 03:36	091231-2	932323
7440-09-7	Potassium	170000	ug/Kg		6860	26800	26800	1	P	HSC	12/19/09 23:55	121909-1	932284
7782-49-2	Selenium	1.09	mg/kg	U	0.545	1.09	1.09	2	MS	SKJ	01/01/10 03:36	091231-2	932323
7440-21-3	Silicon U,I4d	829000	ug/Kg		1610	10700	10700	1	P	HSC	12/19/09 23:55	121909-1	932284
7440-22-4	Silver	450	ug/Kg	J	107	536	536	1	P	HSC	12/19/09 23:55	121909-1	932284
7440-23-5	Sodium U,I4d	37000	ug/Kg		7500	26800	26800	1	P	HSC	12/19/09 23:55	121909-1	932284
7440-28-0	Thallium	0.218	mg/kg	U	0.0654	0.218	0.218	2	MS	SKJ	01/01/10 03:36	091231-2	932323
7440-32-6	Titanium	399000	ug/Kg		107	536	536	1	P	HSC	12/19/09 23:55	121909-1	932284
7440-61-1	Uranium J,I4a	0.598	mg/kg		0.0144	0.0436	0.0436	2	MS	SKJ	01/01/10 03:36	091231-2	932323
7440-62-2	Vanadium	3210	ug/Kg		107	536	536	1	P	HSC	12/19/09 23:55	121909-1	932284
7440-66-6	Zinc	40200	ug/Kg		354	1070	1070	1	P	HSC	12/19/09 23:55	121909-1	932284

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
932284	932283	SW846 3050B	0.51	g	50	mL	12/17/09	BCD1
932323	932322	SW846 3050B	0.501	g	50	mL	12/17/09	BCD1
934871	934870	SW846 7471A Prep	0.559	g	30	mL	12/22/09	TXB3

EJM
02/03/10

METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-887 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 242781004 **BASIS:** Dry Weight **DATE COLLECTED** 09-DEC-09

CLIENT ID: RE03-09-13754 **LEVEL:** Low **DATE RECEIVED** 11-DEC-09

MATRIX: SOIL **%SOLIDS:** 89

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum J+,I6b	1620000	ug/Kg	N	7480	22000	22000	1	P	HSC	12/20/09 00:02	121909-1	932284
7440-36-0	Antimony	1100	ug/Kg	U	363	1100	1100	1	P	HSC	12/20/09 00:02	121909-1	932284
7440-38-2	Arsenic	1.04	mg/kg	J	0.216	1.08	1.08	2	MS	SKJ	01/01/10 03:42	091231-2	932323
7440-39-3	Barium	12700	ug/Kg		110	550	550	1	P	HSC	12/20/09 00:02	121909-1	932284
7440-41-7	Beryllium	0.439	mg/kg		0.0216	0.108	0.108	2	MS	SKJ	01/01/10 03:42	091231-2	932323
7440-42-8	Boron	5500	ug/Kg	U	1100	5500	5500	1	P	HSC	12/20/09 00:02	121909-1	932284
7440-43-9	Cadmium	550	ug/Kg	U	110	550	550	1	P	HSC	12/20/09 00:02	121909-1	932284
7440-70-2	Calcium	475000	ug/Kg	*	8790	27500	27500	1	P	HSC	12/20/09 00:02	121909-1	932284
7440-47-3	Chromium U,I4d	970	ug/Kg		165	550	550	1	P	HSC	12/20/09 00:02	121909-1	932284
7440-48-4	Cobalt	344	ug/Kg	J	165	550	550	1	P	HSC	12/20/09 00:02	121909-1	932284
7440-50-8	Copper	1680	ug/Kg		330	1100	1100	1	P	HSC	12/20/09 00:02	121909-1	932284
7439-89-6	Iron	7230000	ug/Kg		8790	27500	27500	1	P	HSC	12/20/09 00:02	121909-1	932284
7439-92-1	Lead	2840	ug/Kg		275	1100	1100	1	P	HSC	12/20/09 00:02	121909-1	932284
7439-93-2	Lithium	3.35	mg/kg	*N	0.433	2.16	2.16	2	MS	SKJ	01/04/10 13:24	100104-3	932323
7439-95-4	Magnesium	249000	ug/Kg	*	9340	33000	33000	1	P	HSC	12/20/09 00:02	121909-1	932284
7439-96-5	Manganese	209000	ug/Kg	*	220	1100	1100	1	P	HSC	12/20/09 00:02	121909-1	932284
7439-97-6	Mercury	13.3	ug/kg	U	4.51	13.3	13.3	1	AV	ETL	12/23/09 12:14	122309S1-4	934871
7440-02-0	Nickel	1.25	mg/kg		0.108	0.433	0.433	2	MS	SKJ	01/01/10 03:42	091231-2	932323
7440-09-7	Potassium	186000	ug/Kg		7040	27500	27500	1	P	HSC	12/20/09 00:02	121909-1	932284
7782-49-2	Selenium	1.08	mg/kg	U	0.541	1.08	1.08	2	MS	SKJ	01/01/10 03:42	091231-2	932323
7440-21-3	Silicon U,I4d	862000	ug/Kg		1650	11000	11000	1	P	HSC	12/20/09 00:02	121909-1	932284
7440-22-4	Silver	457	ug/Kg	J	110	550	550	1	P	HSC	12/20/09 00:02	121909-1	932284
7440-23-5	Sodium U,I4d	33000	ug/Kg		7700	27500	27500	1	P	HSC	12/20/09 00:02	121909-1	932284
7440-28-0	Thallium	0.216	mg/kg	U	0.0649	0.216	0.216	2	MS	SKJ	01/01/10 03:42	091231-2	932323
7440-32-6	Titanium	309000	ug/Kg		110	550	550	1	P	HSC	12/20/09 00:02	121909-1	932284
7440-61-1	Uranium J,I4a	0.494	mg/kg		0.0143	0.0433	0.0433	2	MS	SKJ	01/01/10 03:42	091231-2	932323
7440-62-2	Vanadium	3210	ug/Kg		110	550	550	1	P	HSC	12/20/09 00:02	121909-1	932284
7440-66-6	Zinc	36700	ug/Kg		363	1100	1100	1	P	HSC	12/20/09 00:02	121909-1	932284

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
932284	932283	SW846 3050B	0.513	g	50	mL	12/17/09	BCD1
932323	932322	SW846 3050B	0.521	g	50	mL	12/17/09	BCD1
934871	934870	SW846 7471A Prep	0.51	g	30	mL	12/22/09	TXB3

EJM
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METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-887 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 242781005 **BASIS:** Dry Weight **DATE COLLECTED** 09-DEC-09

CLIENT ID: RE03-09-13755 **LEVEL:** Low **DATE RECEIVED** 11-DEC-09

MATRIX: SOIL **%SOLIDS:** 89

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum J+,I6b	1760000	ug/Kg	N	7500	22000	22000	1	P	HSC	12/20/09 00:09	121909-1	932284
7440-36-0	Antimony	1100	ug/Kg	U	364	1100	1100	1	P	HSC	12/20/09 00:09	121909-1	932284
7440-38-2	Arsenic	0.869	mg/kg	J	0.216	1.08	1.08	2	MS	SKJ	01/01/10 03:48	091231-2	932323
7440-39-3	Barium	20400	ug/Kg		110	551	551	1	P	HSC	12/20/09 00:09	121909-1	932284
7440-41-7	Beryllium	0.424	mg/kg		0.0216	0.108	0.108	2	MS	SKJ	01/01/10 03:48	091231-2	932323
7440-42-8	Boron	5510	ug/Kg	U	1100	5510	5510	1	P	HSC	12/20/09 00:09	121909-1	932284
7440-43-9	Cadmium	551	ug/Kg	U	110	551	551	1	P	HSC	12/20/09 00:09	121909-1	932284
7440-70-2	Calcium	502000	ug/Kg	*	8820	27600	27600	1	P	HSC	12/20/09 00:09	121909-1	932284
7440-47-3	Chromium U,I4d	1210	ug/Kg		165	551	551	1	P	HSC	12/20/09 00:09	121909-1	932284
7440-48-4	Cobalt	432	ug/Kg	J	165	551	551	1	P	HSC	12/20/09 00:09	121909-1	932284
7440-50-8	Copper	1980	ug/Kg		331	1100	1100	1	P	HSC	12/20/09 00:09	121909-1	932284
7439-89-6	Iron	8610000	ug/Kg		8820	27600	27600	1	P	HSC	12/20/09 00:09	121909-1	932284
7439-92-1	Lead	3490	ug/Kg		276	1100	1100	1	P	HSC	12/20/09 00:09	121909-1	932284
7439-93-2	Lithium	3.84	mg/kg	*N	0.432	2.16	2.16	2	MS	SKJ	01/04/10 13:27	100104-3	932323
7439-95-4	Magnesium	287000	ug/Kg	*	9370	33100	33100	1	P	HSC	12/20/09 00:09	121909-1	932284
7439-96-5	Manganese	355000	ug/Kg	*	220	1100	1100	1	P	HSC	12/20/09 00:09	121909-1	932284
7439-97-6	Mercury	13	ug/kg	U	4.42	13	13	1	AV	ETL	12/23/09 12:15	122309S1-4	934871
7440-02-0	Nickel	1.49	mg/kg		0.108	0.432	0.432	2	MS	SKJ	01/01/10 03:48	091231-2	932323
7440-09-7	Potassium	230000	ug/Kg		7060	27600	27600	1	P	HSC	12/20/09 00:09	121909-1	932284
7782-49-2	Selenium	1.08	mg/kg	U	0.541	1.08	1.08	2	MS	SKJ	01/01/10 03:48	091231-2	932323
7440-21-3	Silicon U,I4d	921000	ug/Kg		1650	11000	11000	1	P	HSC	12/20/09 00:09	121909-1	932284
7440-22-4	Silver	457	ug/Kg	J	110	551	551	1	P	HSC	12/20/09 00:09	121909-1	932284
7440-23-5	Sodium U,I4d	36600	ug/Kg		7720	27600	27600	1	P	HSC	12/20/09 00:09	121909-1	932284
7440-28-0	Thallium	0.216	mg/kg	U	0.0649	0.216	0.216	2	MS	SKJ	01/01/10 03:48	091231-2	932323
7440-32-6	Titanium	399000	ug/Kg		110	551	551	1	P	HSC	12/20/09 00:09	121909-1	932284
7440-61-1	Uranium J,I4a	0.548	mg/kg		0.0143	0.0432	0.0432	2	MS	SKJ	01/01/10 03:48	091231-2	932323
7440-62-2	Vanadium	4470	ug/Kg		110	551	551	1	P	HSC	12/20/09 00:09	121909-1	932284
7440-66-6	Zinc	47600	ug/Kg		364	1100	1100	1	P	HSC	12/20/09 00:09	121909-1	932284

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
932284	932283	SW846 3050B	0.507	g	50	mL	12/17/09	BCD1
932323	932322	SW846 3050B	0.517	g	50	mL	12/17/09	BCD1
934871	934870	SW846 7471A Prep	0.516	g	30	mL	12/22/09	TXB3

EJM
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METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-887 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 242781006 **BASIS:** Dry Weight **DATE COLLECTED** 09-DEC-09

CLIENT ID: RE03-09-13756 **LEVEL:** Low **DATE RECEIVED** 11-DEC-09

MATRIX: SOIL **%SOLIDS:** 90

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum J+,I6b	1840000	ug/Kg	N	7230	21300	21300	1	P	HSC	12/20/09 00:16	121909-1	932284
7440-36-0	Antimony	1060	ug/Kg	U	351	1060	1060	1	P	HSC	12/20/09 00:16	121909-1	932284
7440-38-2	Arsenic	1.15	mg/kg		0.213	1.06	1.06	2	MS	SKJ	01/01/10 03:55	091231-2	932323
7440-39-3	Barium	14000	ug/Kg		106	532	532	1	P	HSC	12/20/09 00:16	121909-1	932284
7440-41-7	Beryllium	0.557	mg/kg		0.0213	0.106	0.106	2	MS	SKJ	01/01/10 03:55	091231-2	932323
7440-42-8	Boron	5320	ug/Kg	U	1060	5320	5320	1	P	HSC	12/20/09 00:16	121909-1	932284
7440-43-9	Cadmium	532	ug/Kg	U	106	532	532	1	P	HSC	12/20/09 00:16	121909-1	932284
7440-70-2	Calcium	491000	ug/Kg	*	8510	26600	26600	1	P	HSC	12/20/09 00:16	121909-1	932284
7440-47-3	Chromium U,I4d	1380	ug/Kg		160	532	532	1	P	HSC	12/20/09 00:16	121909-1	932284
7440-48-4	Cobalt	473	ug/Kg	J	160	532	532	1	P	HSC	12/20/09 00:16	121909-1	932284
7440-50-8	Copper	6470	ug/Kg		319	1060	1060	1	P	HSC	12/20/09 00:16	121909-1	932284
7439-89-6	Iron	7730000	ug/Kg		8510	26600	26600	1	P	HSC	12/20/09 00:16	121909-1	932284
7439-92-1	Lead	3640	ug/Kg		266	1060	1060	1	P	HSC	12/20/09 00:16	121909-1	932284
7439-93-2	Lithium	3.11	mg/kg	*N	0.426	2.13	2.13	2	MS	SKJ	01/04/10 13:29	100104-3	932323
7439-95-4	Magnesium	247000	ug/Kg	*	9040	31900	31900	1	P	HSC	12/20/09 00:16	121909-1	932284
7439-96-5	Manganese	119000	ug/Kg	*	213	1060	1060	1	P	HSC	12/20/09 00:16	121909-1	932284
7439-97-6	Mercury	10.9	ug/kg	J	4.45	13.1	13.1	1	AV	ETL	12/23/09 12:17	122309S1-4	934871
7440-02-0	Nickel	2.11	mg/kg		0.106	0.426	0.426	2	MS	SKJ	01/01/10 03:55	091231-2	932323
7440-09-7	Potassium	191000	ug/Kg		6810	26600	26600	1	P	HSC	12/20/09 00:16	121909-1	932284
7782-49-2	Selenium	1.06	mg/kg	U	0.532	1.06	1.06	2	MS	SKJ	01/01/10 03:55	091231-2	932323
7440-21-3	Silicon U,I4d	845000	ug/Kg		1600	10600	10600	1	P	HSC	12/20/09 00:16	121909-1	932284
7440-22-4	Silver	635	ug/Kg		106	532	532	1	P	HSC	12/20/09 00:16	121909-1	932284
7440-23-5	Sodium U,I4d	33900	ug/Kg		7450	26600	26600	1	P	HSC	12/20/09 00:16	121909-1	932284
7440-28-0	Thallium	0.213	mg/kg	U	0.0638	0.213	0.213	2	MS	SKJ	01/01/10 03:55	091231-2	932323
7440-32-6	Titanium	304000	ug/Kg		106	532	532	1	P	HSC	12/20/09 00:16	121909-1	932284
7440-61-1	Uranium J,I4a	0.512	mg/kg		0.014	0.0426	0.0426	2	MS	SKJ	01/01/10 03:55	091231-2	932323
7440-62-2	Vanadium	4990	ug/Kg		106	532	532	1	P	HSC	12/20/09 00:16	121909-1	932284
7440-66-6	Zinc	49400	ug/Kg		351	1060	1060	1	P	HSC	12/20/09 00:16	121909-1	932284

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
932284	932283	SW846 3050B	0.525	g	50	mL	12/17/09	BCD1
932323	932322	SW846 3050B	0.525	g	50	mL	12/17/09	BCD1
934871	934870	SW846 7471A Prep	0.512	g	30	mL	12/22/09	TXB3

EJM
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METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-887 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 242781007 **BASIS:** Dry Weight **DATE COLLECTED** 09-DEC-09

CLIENT ID: RE03-10-5525 **LEVEL:** Low **DATE RECEIVED** 11-DEC-09

MATRIX: SOIL **%SOLIDS:** 91.9

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum J+,I6b	1800000	ug/Kg	N	7340	21600	21600	1	P	HSC	12/20/09 00:23	121909-1	932284
7440-36-0	Antimony	1080	ug/Kg	U	356	1080	1080	1	P	HSC	12/20/09 00:23	121909-1	932284
7440-38-2	Arsenic	1.03	mg/kg	J	0.217	1.08	1.08	2	MS	SKJ	01/01/10 04:13	091231-2	932323
7440-39-3	Barium	14300	ug/Kg		108	540	540	1	P	HSC	12/20/09 00:23	121909-1	932284
7440-41-7	Beryllium	0.560	mg/kg		0.0217	0.108	0.108	2	MS	SKJ	01/01/10 04:13	091231-2	932323
7440-42-8	Boron	5400	ug/Kg	U	1080	5400	5400	1	P	HSC	12/20/09 00:23	121909-1	932284
7440-43-9	Cadmium	540	ug/Kg	U	108	540	540	1	P	HSC	12/20/09 00:23	121909-1	932284
7440-70-2	Calcium	472000	ug/Kg	*	8640	27000	27000	1	P	HSC	12/20/09 00:23	121909-1	932284
7440-47-3	Chromium	2560	ug/Kg		162	540	540	1	P	HSC	12/20/09 00:23	121909-1	932284
7440-48-4	Cobalt	431	ug/Kg	J	162	540	540	1	P	HSC	12/20/09 00:23	121909-1	932284
7440-50-8	Copper	4090	ug/Kg		324	1080	1080	1	P	HSC	12/20/09 00:23	121909-1	932284
7439-89-6	Iron	7380000	ug/Kg		8640	27000	27000	1	P	HSC	12/20/09 00:23	121909-1	932284
7439-92-1	Lead	3100	ug/Kg		270	1080	1080	1	P	HSC	12/20/09 00:23	121909-1	932284
7439-93-2	Lithium	3.28	mg/kg	*N	0.434	2.17	2.17	2	MS	SKJ	01/04/10 13:31	100104-3	932323
7439-95-4	Magnesium	239000	ug/Kg	*	9180	32400	32400	1	P	HSC	12/20/09 00:23	121909-1	932284
7439-96-5	Manganese	302000	ug/Kg	*	216	1080	1080	1	P	HSC	12/20/09 00:23	121909-1	932284
7439-97-6	Mercury	29.5	ug/kg		4.35	12.8	12.8	1	AV	ETL	12/23/09 12:19	122309S1-4	934871
7440-02-0	Nickel	1.99	mg/kg		0.108	0.434	0.434	2	MS	SKJ	01/01/10 04:13	091231-2	932323
7440-09-7	Potassium	171000	ug/Kg		6910	27000	27000	1	P	HSC	12/20/09 00:23	121909-1	932284
7782-49-2	Selenium	1.08	mg/kg	U	0.542	1.08	1.08	2	MS	SKJ	01/01/10 04:13	091231-2	932323
7440-21-3	Silicon U,I4d	829000	ug/Kg		1620	10800	10800	1	P	HSC	12/20/09 00:23	121909-1	932284
7440-22-4	Silver	1160	ug/Kg		108	540	540	1	P	HSC	12/20/09 00:23	121909-1	932284
7440-23-5	Sodium U,I4d	38300	ug/Kg		7560	27000	27000	1	P	HSC	12/20/09 00:23	121909-1	932284
7440-28-0	Thallium	0.217	mg/kg	U	0.0651	0.217	0.217	2	MS	SKJ	01/01/10 04:13	091231-2	932323
7440-32-6	Titanium	343000	ug/Kg		108	540	540	1	P	HSC	12/20/09 00:23	121909-1	932284
7440-61-1	Uranium J,I4a	0.526	mg/kg		0.0143	0.0434	0.0434	2	MS	SKJ	01/01/10 04:13	091231-2	932323
7440-62-2	Vanadium	3280	ug/Kg		108	540	540	1	P	HSC	12/20/09 00:23	121909-1	932284
7440-66-6	Zinc	39300	ug/Kg		356	1080	1080	1	P	HSC	12/20/09 00:23	121909-1	932284

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
932284	932283	SW846 3050B	0.504	g	50	mL	12/17/09	BCD1
932323	932322	SW846 3050B	0.502	g	50	mL	12/17/09	BCD1
934871	934870	SW846 7471A Prep	0.511	g	30	mL	12/22/09	TXB3

EJM
02/03/10

METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-887-1 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 242782001 **BASIS:** As Received **DATE COLLECTED** 09-DEC-09

CLIENT ID: RE03-10-5529 **LEVEL:** Low **DATE RECEIVED** 11-DEC-09

MATRIX: WATER **%SOLIDS:** 0

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	200	ug/L	U	68	200	200	1	P	HSC	12/19/09 12:32	121909-1	932270
7440-36-0	Antimony	3	ug/L	U	1	3	3	1	MS	BAJ	12/22/09 21:57	091222-2	932312
7440-38-2	Arsenic	30	ug/L	U	5	30	30	1	P	HSC	12/19/09 12:32	121909-1	932270
7440-39-3	Barium	5	ug/L	U	1	5	5	1	P	HSC	12/19/09 12:32	121909-1	932270
7440-41-7	Beryllium	0.50	ug/L	U	0.1	0.5	0.5	1	MS	BAJ	12/23/09 18:52	091223-3	932312
7440-42-8	Boron	50	ug/L	U	15	50	50	1	P	HSC	12/19/09 12:32	121909-1	932270
7440-43-9	Cadmium	1	ug/L	U	0.11	1	1	1	MS	BAJ	12/22/09 21:57	091222-2	932312
7440-70-2	Calcium	200	ug/L	U	50	200	200	1	P	HSC	12/19/09 12:32	121909-1	932270
7440-47-3	Chromium	5	ug/L	U	1	5	5	1	P	HSC	12/19/09 12:32	121909-1	932270
7440-48-4	Cobalt	5	ug/L	U	1	5	5	1	P	HSC	12/19/09 12:32	121909-1	932270
7440-50-8	Copper	10	ug/L	U	3	10	10	1	P	HSC	12/19/09 12:32	121909-1	932270
7439-89-6	Iron	100	ug/L	U*	30	100	100	1	P	HSC	12/19/09 12:32	121909-1	932270
7439-92-1	Lead	2	ug/L	U	0.5	2	2	1	MS	BAJ	12/22/09 21:57	091222-2	932312
7439-93-2	Lithium	10	ug/L	U	2	10	10	1	MS	BAJ	12/23/09 18:52	091223-3	932312
7439-95-4	Magnesium	300	ug/L	U	85	300	300	1	P	HSC	12/19/09 12:32	121909-1	932270
7439-96-5	Manganese	5	ug/L	U	1	5	5	1	MS	BAJ	12/23/09 18:52	091223-3	932312
7439-97-6	Mercury	0.20	ug/L	U	0.066	0.2	0.2	1	AV	ETL	12/23/09 08:47	122309W1-4	934864
7440-02-0	Nickel	5	ug/L	U	1.5	5	5	1	P	HSC	12/19/09 12:32	121909-1	932270
7440-09-7	Potassium	150	ug/L	U	50	150	150	1	P	HSC	12/19/09 12:32	121909-1	932270
7782-49-2	Selenium	30	ug/L	U	5	30	30	1	P	HSC	12/19/09 12:32	121909-1	932270
7440-21-3	Silicon	2240	ug/L		25	100	100	1	P	HSC	12/19/09 12:32	121909-1	932270
7440-22-4	Silver	5	ug/L	U	1	5	5	1	P	HSC	12/19/09 12:32	121909-1	932270
7440-23-5	Sodium	300	ug/L	U	100	300	300	1	P	HSC	12/19/09 12:32	121909-1	932270
7440-28-0	Thallium	1	ug/L	U	0.3	1	1	1	MS	BAJ	12/22/09 21:57	091222-2	932312
7440-32-6	Titanium	5	ug/L	U	1	5	5	1	P	HSC	12/19/09 12:32	121909-1	932270
7440-61-1	Uranium	0.20	ug/L	U	0.05	0.2	0.2	1	MS	BAJ	12/22/09 21:57	091222-2	932312
7440-62-2	Vanadium	5	ug/L	U	1	5	5	1	P	HSC	12/19/09 12:32	121909-1	932270
7440-66-6	Zinc	10	ug/L	U	3.3	10	10	1	P	HSC	12/19/09 12:32	121909-1	932270

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
932270	932269	SW846 3005A	50	mL	50	mL	12/16/09	FGA
932312	932311	SW846 3005A	50	mL	50	mL	12/16/09	FGA
934864	934863	SW846 7470A Prep	20	mL	20	mL	12/22/09	TXB3

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02/03/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-887-1 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 242782002 **BASIS:** As Received **DATE COLLECTED** 09-DEC-09

CLIENT ID: RE03-10-5531 **LEVEL:** Low **DATE RECEIVED** 11-DEC-09

MATRIX: WATER **%SOLIDS:** 0

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	75.7	ug/L	J	68	200	200	1	P	HSC	12/19/09 13:00	121909-1	932270
7440-36-0	Antimony	3	ug/L	U	1	3	3	1	MS	BAJ	12/22/09 22:03	091222-2	932312
7440-38-2	Arsenic	30	ug/L	U	5	30	30	1	P	HSC	12/19/09 13:00	121909-1	932270
7440-39-3	Barium U,I4	1.33	ug/L	J	1	5	5	1	P	HSC	12/19/09 13:00	121909-1	932270
7440-41-7	Beryllium	0.50	ug/L	U	0.1	0.5	0.5	1	MS	BAJ	12/23/09 18:55	091223-3	932312
7440-42-8	Boron	50	ug/L	U	15	50	50	1	P	HSC	12/19/09 13:00	121909-1	932270
7440-43-9	Cadmium	1	ug/L	U	0.11	1	1	1	MS	BAJ	12/22/09 22:03	091222-2	932312
7440-70-2	Calcium	200	ug/L	U	50	200	200	1	P	HSC	12/19/09 13:00	121909-1	932270
7440-47-3	Chromium	2.64	ug/L	J	1	5	5	1	P	HSC	12/19/09 13:00	121909-1	932270
7440-48-4	Cobalt	5	ug/L	U	1	5	5	1	P	HSC	12/19/09 13:00	121909-1	932270
7440-50-8	Copper	10	ug/L	U	3	10	10	1	P	HSC	12/19/09 13:00	121909-1	932270
7439-89-6	Iron	120	ug/L	*	30	100	100	1	P	HSC	12/19/09 13:00	121909-1	932270
7439-92-1	Lead	2	ug/L	U	0.5	2	2	1	MS	BAJ	12/22/09 22:03	091222-2	932312
7439-93-2	Lithium	10	ug/L	U	2	10	10	1	MS	BAJ	12/23/09 18:55	091223-3	932312
7439-95-4	Magnesium	300	ug/L	U	85	300	300	1	P	HSC	12/19/09 13:00	121909-1	932270
7439-96-5	Manganese	6.17	ug/L		1	5	5	1	MS	BAJ	12/23/09 18:55	091223-3	932312
7439-97-6	Mercury	0.20	ug/L	U	0.066	0.2	0.2	1	AV	ETL	12/23/09 08:49	122309W1-4	934864
7440-02-0	Nickel	5	ug/L	U	1.5	5	5	1	P	HSC	12/19/09 13:00	121909-1	932270
7440-09-7	Potassium	65.6	ug/L	J	50	150	150	1	P	HSC	12/19/09 13:00	121909-1	932270
7782-49-2	Selenium	30	ug/L	U	5	30	30	1	P	HSC	12/19/09 13:00	121909-1	932270
7440-21-3	Silicon	2190	ug/L		25	100	100	1	P	HSC	12/19/09 13:00	121909-1	932270
7440-22-4	Silver	5	ug/L	U	1	5	5	1	P	HSC	12/19/09 13:00	121909-1	932270
7440-23-5	Sodium	110	ug/L	J	100	300	300	1	P	HSC	12/19/09 13:00	121909-1	932270
7440-28-0	Thallium	1	ug/L	U	0.3	1	1	1	MS	BAJ	12/22/09 22:03	091222-2	932312
7440-32-6	Titanium	2.51	ug/L	J	1	5	5	1	P	HSC	12/19/09 13:00	121909-1	932270
7440-61-1	Uranium	0.20	ug/L	U	0.05	0.2	0.2	1	MS	BAJ	12/22/09 22:03	091222-2	932312
7440-62-2	Vanadium	5	ug/L	U	1	5	5	1	P	HSC	12/19/09 13:00	121909-1	932270
7440-66-6	Zinc	3.75	ug/L	J	3.3	10	10	1	P	HSC	12/19/09 13:00	121909-1	932270

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
932270	932269	SW846 3005A	50	mL	50	mL	12/16/09	FGA
932312	932311	SW846 3005A	50	mL	50	mL	12/16/09	FGA
934864	934863	SW846 7470A Prep	20	mL	20	mL	12/22/09	TXB3

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02/03/10

DATA VALIDATION COVER SHEET

5120-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-887 VALIDATION DATE: 02/03/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Ellen McEntee ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☒ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE): total cyanide only

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☐	☐	☒	8. QUANTITATION REPORTS
☐	☐	☒	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. In the ICB associated with the water samples, total cyanide was detected. The associated results were ND and, thus, were not qualified.
2. It should be noted that the soil and water MSs were performed on LANL samples from other SDGs. No sample data was qualified as a result.

Reviewed by: Monica Dymerski **Level I** **Date:** 02/03/10

VALIDATOR'S SIGNATURE: Ellen McEntee DATE: 02/03/10

GENERAL CHEMISTRY ANALYTICAL DATA VALIDATION CHECKLIST

5120-2

General Chemistry Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, I9	J-, I9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, I9a	J-, I9a
☐	☐	☒	3. The affected analytes are regarded as rejected because the analytical holding time was exceeded.	R, I9b	R, I9b
☐	☒	☐	4. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, I7	J, I7
☐	☒	☐	5. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, I7a	J, I7a
☐	☒	☐	6. The ICV and/or CCV were recovered outside the method specific limits.	UJ, I7c	J, I7c
☐	☒	☐	7. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, I7d	J, I7d
☐	☒	☐	8. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, I7f	R, I7f
☐	☐	☒	9. The interference check sample percent recovery value is <50%.	R, I2	J-, I2
☐	☐	☒	10. The interference check sample percent recovery value is ≥50% and <80%.	UJ, I2a	J-, I2a
☐	☐	☒	11. The interference check sample percent recovery value is >120%.	N/A	J+, I2b
☐	☐	☒	12. The interference check sample was not analyzed with the samples.	R, I2c	R, I2c
☐	☒	☐	13. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, I4	N/A

GENERAL CHEMISTRY ANALYTICAL DATA VALIDATION CHECKLIST

5120-2

General Chemistry Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	14. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X.	N/A	J, I4a
☒	☐	☐	15. The sample result is ≤5X the concentration of the related analyte in the instrument blank and continuing calibration blank.	U, I4b	N/A
☐	☒	☐	16. Continuing calibration blanks were not analyzed at the appropriate method frequency.	UJ, I4c	J, I4c
☐	☒	☐	17. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	U, I4d	N/A
☐	☒	☐	18. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, I4e	R, I4e
☐	☒	☐	19. The associate matrix spike recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I6	R, I6
☐	☒	☐	20. The associated matrix spike recovery was below the Lower Acceptance Limit (LAL) but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I6a	J-, I6a
☐	☒	☐	21. The associated matrix spike recovery was above the Upper Acceptance Limit (UAL). Follow the external laboratory limits located within the associated data package.	UJ, I6b	J+, I6b
☐	☒	☐	22. Required matrix spike information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. If LCS information is present, do not reject. Qualify data based on LCS information.	R, I6c	R, I6c
☐	☒	☐	23. The sample and/or the duplicate sample results RPD is not within the acceptance limits. Follow the external laboratory limits located within the associated data package.	UJ, I10b	J, I10b

GENERAL CHEMISTRY ANALYTICAL DATA VALIDATION CHECKLIST

5120-2

General Chemistry Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	24. The duplicate sample was not prepared and/or analyzed with the samples for unspecified reasons. The duplicate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	UJ, I10d	J, I10d
☐	☒	☐	25. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I12	R, I12
☐	☒	☐	26. The LCS percent recover was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I12a	J-, I12a
☐	☒	☐	27. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, I12b
☐	☒	☐	28. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. Do not Reject if MS/MSD information is present. Qualify according to MS/MSD criteria.	R, I12c	R, I12c
☐	☒	☐	29. Duplicate, dilution, or reanalysis	UJ, I88	J, I88
☐	☒	☐	30. The LANL project chemist identified quality deficiencies in the reported data that require further qualification. This code can ONLY be used and/or under advisement by the LANL project chemist.	UJ, R, I19	J, R, I19
☒	☐	☐	31. Qualification of data via data validation does not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB NQ, NQ (no qualification)

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: January 2, 2010

Client SDG: 10-887

Client Sample ID:	RE03-09-13752	Project:	LANL01004
Sample ID:	242781002	Client ID:	LANL010
Matrix:	S		
Collect Date:	09-DEC-09 12:00		
Receive Date:	11-DEC-09		
Collector:	Client		
Moisture:	8.37%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total Federal "Dry Weight Corrected"										
Cyanide, Total	J	151	74.2	273	ug/kg	1	AXC2 12/17/09	0955	932527	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	SXJ1	12/16/09	1230	932526

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Company : Los Alamos National Laboratory
Address : PO Box 1663
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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: January 2, 2010

Client SDG: 10-887

Client Sample ID:	RE03-09-13753	Project:	LANL01004
Sample ID:	242781003	Client ID:	LANL010
Matrix:	S		
Collect Date:	09-DEC-09 12:00		
Receive Date:	11-DEC-09		
Collector:	Client		
Moisture:	8.48%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total Federal "Dry Weight Corrected"										
Cyanide, Total	U	ND	66.3	244	ug/kg	1	AXC2 12/17/09	0956	932527	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	SXJ1	12/16/09	1230	932526

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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02/03/10

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: January 2, 2010

Client SDG: 10-887

Client Sample ID:	RE03-09-13757	Project:	LANL01004
Sample ID:	242781001	Client ID:	LANL010
Matrix:	S		
Collect Date:	09-DEC-09 12:00		
Receive Date:	11-DEC-09		
Collector:	Client		
Moisture:	9.87%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total Federal "Dry Weight Corrected"										
Cyanide, Total	J	273	75.4	277	ug/kg	1	AXC2 12/17/09	0951	932527	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	SXJ1	12/16/09	1230	932526

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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02/03/10

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: January 2, 2010

Client SDG: 10-887

Client Sample ID:	RE03-09-13754	Project:	LANL01004
Sample ID:	242781004	Client ID:	LANL010
Matrix:	S		
Collect Date:	09-DEC-09 12:00		
Receive Date:	11-DEC-09		
Collector:	Client		
Moisture:	11.3%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total Federal "Dry Weight Corrected"										
Cyanide, Total	U	ND	72.4	266	ug/kg	1	AXC2 12/17/09	0957	932527	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	SXJ1	12/16/09	1230	932526

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: January 2, 2010

Client SDG: 10-887

Client Sample ID:	RE03-09-13755	Project:	LANL01004
Sample ID:	242781005	Client ID:	LANL010
Matrix:	S		
Collect Date:	09-DEC-09 12:00		
Receive Date:	11-DEC-09		
Collector:	Client		
Moisture:	10.5%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total Federal "Dry Weight Corrected"										
Cyanide, Total	U	ND	76.0	279	ug/kg	1	AXC2 12/17/09	0958	932527	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	SXJ1	12/16/09	1230	932526

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: January 2, 2010

Client SDG: 10-887

Client Sample ID:	RE03-09-13756	Project:	LANL01004
Sample ID:	242781006	Client ID:	LANL010
Matrix:	S		
Collect Date:	09-DEC-09 12:00		
Receive Date:	11-DEC-09		
Collector:	Client		
Moisture:	10.5%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total Federal "Dry Weight Corrected"										
Cyanide, Total	J	215	74.5	274	ug/kg	1	AXC2 12/17/09	0959	932527	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	SXJ1	12/16/09	1230	932526

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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02/03/10

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Company : Los Alamos National Laboratory
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TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: January 2, 2010

Client SDG: 10-887

Client Sample ID:	RE03-10-5525	Project:	LANL01004
Sample ID:	242781007	Client ID:	LANL010
Matrix:	S		
Collect Date:	09-DEC-09 12:00		
Receive Date:	11-DEC-09		
Collector:	Client		
Moisture:	8.14%		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Flow Injection Analysis											
SW9012A Cyanide, Total Federal "Dry Weight Corrected"											
Cyanide, Total		1100	71.2	262	ug/kg	1	AXC2	12/17/09	1000	932527	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	SXJ1	12/16/09	1230	932526

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

EJM
02/03/10

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: December 17, 2009

Client SDG: 10-887-1

Client Sample ID:	RE03-10-5529	Project:	LANL01004
Sample ID:	242782001	Client ID:	LANL010
Matrix:	W		
Collect Date:	09-DEC-09 12:00		
Receive Date:	11-DEC-09		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis Federal										
SW9012A Cyanide, Total "As Received"										
Cyanide, Total	U	ND	1.66	5.00	ug/L	1	AXC2 12/15/09	0946	931341	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	SXJ1	12/14/09	1400	931339

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

EJM
02/03/10

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: December 17, 2009

Client SDG: 10-887-1

Client Sample ID:	RE03-10-5531	Project:	LANL01004
Sample ID:	242782002	Client ID:	LANL010
Matrix:	W		
Collect Date:	09-DEC-09 12:00		
Receive Date:	11-DEC-09		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis Federal										
SW9012A Cyanide, Total "As Received"										
Cyanide, Total	U	ND	1.66	5.00	ug/L	1	AXC2 12/15/09	0947	931341	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	SXJ1	12/14/09	1400	931339

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

EJM
02/03/10

Thursday, December 10, 2009

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-887

REQUEST NUMBER: 10-887

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 1/9/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS: 242781, 242782

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE03-09-13757	1	GLASS	8082	Ice	S
RE03-09-13752	1	GLASS	8082	Ice	S
RE03-09-13753	1	GLASS	8082	Ice	S
RE03-09-13754	1	GLASS	8082	Ice	S
RE03-09-13755	1	GLASS	8082	Ice	S
RE03-09-13756	1	GLASS	8082	Ice	S
RE03-09-13757	1	POLY	Metals+CN - GEL	Ice	S
RE03-09-13752	1	POLY	Metals+CN - GEL	Ice	S
RE03-09-13753	1	POLY	Metals+CN - GEL	Ice	S
RE03-09-13754	1	POLY	Metals+CN - GEL	Ice	S
RE03-09-13755	1	POLY	Metals+CN - GEL	Ice	S
RE03-09-13756	1	POLY	Metals+CN - GEL	Ice	S
RE03-10-5529	1	POLY	METALS-GEL	Nitric Acid	W
RE03-10-5529	1	POLY	TCN	Sodium Hydroxide	W
RE03-10-5525	1	GLASS	8082	Ice	S
RE03-10-5525	1	POLY	Metals+CN - GEL	Ice	S
RE03-10-5531	1	POLY	METALS-GEL	Nitric Acid	W
RE03-10-5531	1	POLY	TCN	Sodium Hydroxide	W
RE03-10-8746	1	SEPTUM AMBER GLASS	8260B Trip Blank	Ice	S

Relinquished By:	Date	Time	Received By:	Date	Time
Printed Name / Signature	12-10-09	1700	Greg Tyler / Signature	12-11-09	0850
Printed Name / Signature			Printed Name / Signature		
Printed Name / Signature			Printed Name / Signature		

Received for DISPOSAL By: Date Time

Printed Name Signature

Remarks:

Thursday, December 10, 2009

REQUEST NUMBER: 10-887

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.
2040 Savage Rd
Charleston, SC 29407

These Samples are on:
LANL Request Number:10-887
Per Agreement Number:126310011
Project Cost Code: MR2A054196D0

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 12/10/2009
TURNAROUND/REPORT DUE: 1/9/2010
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Not Required
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8010B	1	RE03-09-13752	S	12/9/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-13753	S	12/9/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-13754	S	12/9/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-13755	S	12/9/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-13756	S	12/9/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-13757	S	12/9/2009	Plus, B, Li, Si, Ti, U
		1	RE03-10-5525	S	12/9/2009	
		1	RE03-10-5529	W	12/9/2009	Plus, B, Li, Si, Ti, U
		1	RE03-10-5531	W	12/9/2009	Plus, B, Li, Si, Ti, U

Thursday, December 10, 2009

REQUEST NUMBER: 10-887

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:6020	1	RE03-10-5529	W	12/9/2009	Plus, B, Li, Si, Ti, U
		1	RE03-10-5531	W	12/9/2009	Plus, B, Li, Si, Ti, U
	SW-846:8082	1	RE03-09-13752	S	12/9/2009	
		1	RE03-09-13753	S	12/9/2009	
		1	RE03-09-13754	S	12/9/2009	
		1	RE03-09-13755	S	12/9/2009	
		1	RE03-09-13756	S	12/9/2009	
		1	RE03-09-13757	S	12/9/2009	
		1	RE03-10-5525	S	12/9/2009	
	SW-846:8260B	1	RE03-10-8746	S	12/9/2009	
	SW-846:9012A	1	RE03-09-13752	S	12/9/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-13753	S	12/9/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-13754	S	12/9/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-13755	S	12/9/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-13756	S	12/9/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-13757	S	12/9/2009	Plus, B, Li, Si, Ti, U
		1	RE03-10-5525	S	12/9/2009	
		1	RE03-10-5529	W	12/9/2009	
		1	RE03-10-5531	W	12/9/2009	

Final Page of REQUEST NUMBER 10-887

GEL Laboratories LLC

a member of The GEL Group INC

PO Box 30712 Charleston, SC 29417
2040 Savage Road Charleston, SC 29407

P 843.556.8171 F 843.766.1178

www.gel.com

December 18, 2009

Ms. Joylene Valdez
Los Alamos National Laboratory
PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545

Re: LANL ER Project
Work Orders: 242781 242782
SDG: 10-887

Dear Ms. Valdez:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the following analytical results for the sample(s) we received on December 11, 2009, and analyzed for GC Semivolatile PCB, GC/MS Volatile, General Chemistry and Metals. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 4485.

Sincerely,

for

Valerie Davis
Project Manager

Purchase Order: 72733-001-09
Chain of Custody: 10-887
Enclosures

Los Alamos National Laboratory (72733-001-09)
LANL ER Project
Work Order #: 242781 and 242782
SDG: 10-887

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- Quality Control Summary 355
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- Raw Data 435
- Miscellaneous 773

Metals Analysis **814**
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- Quality Control Summary 824
- Standards 864
- Raw Data 876
- Miscellaneous 1137

General Chemistry Analysis **1177**
- Case Narrative 1178
- Sample Data Summary 1183

Quality Control Summary 1192
Instrument QC Data Summary 1195
Cyanide, Total 1197

General Chemistry Analysis 1207
Case Narrative 1208
Sample Data Summary 1213
Quality Control Summary 1217
Instrument QC Data Summary 1220
Cyanide, Total 1222

Case Narrative

Case Narrative for
Los Alamos National Laboratory (72733-001-09)
LANL ER Project
Workorder #: 242781 and 242782
SDG # : 10-887

December 18, 2009

Laboratory Identification:

GEL Laboratories LLC
2040 Savage Road
Charleston, South Carolina 29407
(843) 556-8171

Summary

Sample receipt The samples arrived at GEL Laboratories LLC, Charleston, South Carolina on December 11, 2009 for analysis. The samples were prepared/analyzed within the required holding time. Shipping container temperatures were checked, documented, and within specifications. The samples were screened according to GEL Standard Operating Procedure. The samples were delivered with proper chain of custody documentation and signatures. All sample containers arrived without any visible signs of tampering or breakage. Containers were checked for pH, where appropriate, and matched the preservative as documented on the accompanying chain of custody. Shipping container temperature was within specification (0 - 6C).

Sample Identification The laboratory received the following samples:

Laboratory ID	Client ID
242781001	RE03-09-13757
242781002	RE03-09-13752
242781003	RE03-09-13753
242781004	RE03-09-13754
242781005	RE03-09-13755
242781006	RE03-09-13756
242781007	RE03-10-5525
242781008	RE03-10-8746
242782001	RE03-10-5529
242782002	RE03-10-5531

Case Narrative

Sample analyses were conducted using methodology as outlined in GEL Laboratories, LLC (GEL) Standard Operating Procedures. Any technical or administrative problems during analysis, data review, and reduction are contained in the analytical case narratives in the enclosed data package.

Data Package The enclosed data package contains the following sections: Case Narrative, Chain of Custody, Cooler Receipt Checklist, Data Package Qualifier Definitions and data from the following fractions: GC Semivolatile PCB, GC/MS Volatile, General Chemistry and Metals.

I certify that this data report is in compliance with the terms and conditions of the subcontract and task order, both technically and for completeness, for other than the conditions detailed in the attached case narrative.

for

Valerie Davis
Project Manager

List of current GEL Certifications as of 18 December 2009

State	Certification
Arizona	AZ0668
Arkansas	88-0651
CLIA	42D0904046
California – NELAP	01151CA
Colorado	GEL
Connecticut	PH-0169
Dept. of Navy	NFESC 413
EPA Region 5	WG-15J
Florida – NELAP	E87156
Georgia	E87156 (FL/NELAP)
Georgia DW	967
Hawaii	N/A
ISO 17025	2567.01
Idaho	SC00012
Illinois – NELAP	200029
Indiana	C-SC-01
Kansas – NELAP	E-10332
Kentucky	90129
Louisiana – NELAP	03046
Maryland	270
Massachusetts	M-SC012
Nevada	SC00012
New Jersey – NELAP	SC002
New Mexico	FL NELAP E87156
New York – NELAP	11501
North Carolina	233
North Carolina DW	45709
Oklahoma	9904
Pennsylvania – NELAP	68-00485
South Carolina	10120001/10120002
Tennessee	TN 02934
Texas – NELAP	T104704235-07B-TX
U.S. Dept. of Agriculture	S-52597
Utah – NELAP	GEL
Vermont	VT87156
Virginia	00151
Washington	C1641

Chain of Custody and Supporting Documentation

Thursday, December 10, 2009

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-887

REQUEST NUMBER: 10-887

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 1/9/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS: 242781 242782 Y.

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE03-09-13757	1	GLASS	8082	Ice	S
RE03-09-13752	1	GLASS	8082	Ice	S
RE03-09-13753	1	GLASS	8082	Ice	S
RE03-09-13754	1	GLASS	8082	Ice	S
RE03-09-13755	1	GLASS	8082	Ice	S
RE03-09-13756	1	GLASS	8082	Ice	S
RE03-09-13757	1	POLY	Metals+CN - GEL	Ice	S
RE03-09-13752	1	POLY	Metals+CN - GEL	Ice	S
RE03-09-13753	1	POLY	Metals+CN - GEL	Ice	S
RE03-09-13754	1	POLY	Metals+CN - GEL	Ice	S
RE03-09-13755	1	POLY	Metals+CN - GEL	Ice	S
RE03-09-13756	1	POLY	Metals+CN - GEL	Ice	S
RE03-10-5529	1	POLY	METALS-GEL	Nitric Acid	W
RE03-10-5529	1	POLY	TCN	Sodium Hydroxide	W
RE03-10-5525	1	GLASS	8082	Ice	S
RE03-10-5525	1	POLY	Metals+CN - GEL	Ice	S
RE03-10-5531	1	POLY	METALS-GEL	Nitric Acid	W
RE03-10-5531	1	POLY	TCN	Sodium Hydroxide	W
RE03-10-8746	1	SEPTUM AMBER GLASS	8260B Trip Blank	Ice	S

Relinquished By:		Date	Time	Received By:		Date	Time
Printed Name	Signature	12-10-09	1700	Greg Tyler	Signature	12-11-09	0850
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

Received for DISPOSAL By:		Date	Time	Remarks:
Printed Name	Signature			

Thursday, December 10, 2009

REQUEST NUMBER: 10-887

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

These Samples are on:

LANL Request Number:10-887

Per Agreement Number:126310011

Project Cost Code: MR2A054196D0

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 12/10/2009

TURNAROUND/REPORT DUE: 1/9/2010

TURNAROUND REQ'D: 30 Days

RAD SCREENING: Not Required

LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:

Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:6010B	1	RE03-09-13752	S	12/9/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-13753	S	12/9/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-13754	S	12/9/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-13755	S	12/9/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-13756	S	12/9/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-13757	S	12/9/2009	Plus, B, Li, Si, Ti, U
		1	RE03-10-5525	S	12/9/2009	
		1	RE03-10-5529	W	12/9/2009	Plus, B, Li, Si, Ti, U
		1	RE03-10-5531	W	12/9/2009	Plus, B, Li, Si, Ti, U

Thursday, December 10, 2009

REQUEST NUMBER: 10-887

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:6020	1	RE03-10-5529	W	12/9/2009	Plus, B, Li, Si, Ti, U
		1	RE03-10-5531	W	12/9/2009	Plus, B, Li, Si, Ti, U
	SW-846:8082	1	RE03-09-13752	S	12/9/2009	
		1	RE03-09-13753	S	12/9/2009	
		1	RE03-09-13754	S	12/9/2009	
		1	RE03-09-13755	S	12/9/2009	
		1	RE03-09-13756	S	12/9/2009	
		1	RE03-09-13757	S	12/9/2009	
		1	RE03-10-5525	S	12/9/2009	
	SW-846:8260B	1	RE03-10-8746	S	12/9/2009	
	SW-846:9012A	1	RE03-09-13752	S	12/9/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-13753	S	12/9/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-13754	S	12/9/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-13755	S	12/9/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-13756	S	12/9/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-13757	S	12/9/2009	Plus, B, Li, Si, Ti, U
		1	RE03-10-5525	S	12/9/2009	
		1	RE03-10-5529	W	12/9/2009	
		1	RE03-10-5531	W	12/9/2009	

Final Page of REQUEST NUMBER 10-887

GEL Laboratories LLC

SAMPLE RECEIPT & REVIEW FORM

Client: LANL	**SDG/ARCOC/Work Order: 10-887**
Received By: Greg Tyler	**Date Received: 12/11/09**

Suspected Hazard Information	**Yes**	**No**	*If Counts > x2 area background on samples not marked "radioactive", contact the Radiation Safety Group of further investigation.
COC/Samples marked as radioactive?		X	Maximum Counts Observed*: **40cpm**
Classified Radioactive II by RSO?		X	
COC/Samples marked containing PCBs?		X	
Shipped as a DOT Hazardous?		X	Hazard Class Shipped: UN#:
Samples identified as Foreign Soil?		X	

	Sample Receipt Criteria	**Yes**	**NA**	**No**	**Comments/Qualifiers (Required for Non-Conforming Items)**
1	Shipping containers received intact and sealed?	X			Circle Applicable: seals broken damaged container leaking container other (describe)
2	Samples requiring cold preservation within 0 ≤ 6 deg. C?	X			Preservation Method: ice bags **blue ice** dry ice **none** other **1-3** **12C**
3	Chain of custody documents included with shipment?	X			
4	Sample containers intact and sealed?	X			Circle Applicable: seals broken damaged container leaking container other (describe)
5	Samples requiring chemical preservation at proper pH?	X			Sample ID's, containers affected and observed pH: If Preservation added, Lot#:
6	VOA vials free of headspace (defined as < 6mm bubble)?		X		Sample ID's and containers affected:
7	Are Encore containers present?			X	(If yes, immediately deliver to Volatiles laboratory)
8	Samples received within holding time?	X			Id's and tests affected:
9	Sample ID's on COC match ID's on bottles?	X			Sample ID's and containers affected:
10	Date & time on COC match date & time on bottles?		X		Sample ID's affected: **No time on Chain of Custody.**
11	Number of containers received match number indicated on COC?	X			Sample ID's affected:
12	COC form is properly signed in relinquished/received sections?	X			

Comments:

Fed Ex Tracking Numbers

7209 7849 1970 1C **7209 7849 1969 12C**
7209 7849 2027 1C
7209 7849 1991 1C
7209 7849 2038 1C
7209 7849 2049 1C
7209 7849 2050 2C
7209 7849 2060 2C
7209 7849 1980 3C

PM (or PMA) review: Initials P. [illegible] Date 12-15-09

ORIGIN ID: SAFA (505)665-9960
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: [illegible]
ACTWGT: 50.0 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843)556-8171
REF: 6B010AMR1A015AGWM0

1c

FedEx Express

1 of 2
TRK# 0201 7209 7849 1970
MASTER

FRI - 11DEC A1
PRIORITY OVERNIGHT

29407
SC-US
CHS

XX CHSA

Part # 156148-434 NRIT V3 09-09

ORIGIN ID: SAFA (505)665-9960
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 10DEC09
ACTWGT: 51.0 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843)556-8171
REF: 6B010AMR2A054196D0

1c

FedEx Express

1 of 2
TRK# 0201 7209 7849 2027
MASTER

FRI - 11DEC A1
PRIORITY OVERNIGHT

29407
SC-US
CHS

XX CHSA

Part # 156148-434 NRIT V3 09-09

ORIGIN ID: SAFA (505)665-9960
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 10DEC09
ACTWGT: 51.0 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843)556-8171
REF: 6B010AMR1A015AGWM0

1c

FedEx Express

TRK# 0201 7209 7849 1991

FRI - 11DEC A1
PRIORITY OVERNIGHT

29407
SC-US
CHS

XX CHSA

ORIGIN ID: SAFA (505)665-9960
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 10DEC09
ACTWGT: 55.0 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843)556-8171
REF: 6B010AMR2A054196D0

1c

FedEx Express

2 of 2
MPS# 0263 7209 7849 2038
Mstr# 7209 7849 2027 0201

FRI - 11DEC A1
PRIORITY OVERNIGHT

29407
SC-US

XX CHSA

JOYLENE VALDEZ (505)665-9968
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 10DEC09
ACTWGT: 59.0 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843)556-8171
REF: 6B010AAREW01105800

1c

FedEx Express

FRI - 11DEC A1
PRIORITY OVERNIGHT

TRK# 0201 7209 7849 2049

XX CHSA

29407
SC-US
CHS

ORIGIN ID: SAFA (505)665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 10DEC09
ACTWGT: 34.0 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843)556-8171
REF: 6B010AWE6L11550000

2c

FedEx Express

FRI - 11DEC A1
PRIORITY OVERNIGHT

TRK# 0201 7209 7849 2050

XX CHSA

29407
SC-US
CHS

ORIGIN ID: SAFA (505)665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 10DEC09
ACTWGT: 35.0 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843)556-8171
REF: 6B010AMR8R0325BF00

2c

FedEx Express

FRI - 11DEC A1
PRIORITY OVERNIGHT

TRK# 0201 7209 7849 2060

XX CHSA

29407
SC-US
CHS

ORIGIN ID: SAFA (505)665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 10DEC09
ACTWGT: 50.0 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843)556-8171
REF: 6B010AMR1A015AGWM0

3c

FedEx Express

2 of 2

FRI - 11DEC A1
PRIORITY OVERNIGHT

MPS# 0263 7209 7849 1980
Mstr# 7209 7849 1970 0201

XX CHSA

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SC-US
CHS

ORIGIN ID: SAFA (505)665-9969
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 10DEC09
ACTWGT: 41.0 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843)556-8171
REF: 6B010AMR3A0352VA00

12c

FedEx Express

2 of 2

MPS# 0263 7209 7849 1969

Matr# 7209 7849 1958 0201

FRI - 11DEC A1
PRIORITY OVERNIGHT

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SC-US
CHS

XX CHSA

Data Review Qualifier Flag Definition Sheet

Data Review Qualifier Definitions

Qualifier	Explanation
*	A quality control analyte recovery is outside of specified acceptance criteria
**	Analyte is a surrogate compound
<	Result is less than value reported
>	Result is greater than value reported
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL
A	The TIC is a suspected aldol-condensation product
B	Target analyte was detected in the associated blank
B	Metals-Either presence of analyte detected in the associated blank, or MDL/IDL < sample value < PQL
BD	Results are either below the MDC or tracer recovery is low
C	Analyte has been confirmed by GC/MS analysis
D	Results are reported from a diluted aliquot of the sample
d	5-day BOD-The 2:1 depletion requirement was not met for this sample
E	Organics-Concentration of the target analyte exceeds the instrument calibration range
E	Metals-%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
H	Analytical holding time was exceeded
h	Preparation or preservation holding time was exceeded
J	Value is estimated
N	Metals-The Matrix spike sample recovery is not within specified control limits
N	Organics-Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A	Spike recovery limits do not apply. Sample concentration exceeds spike concentration by 4X or more
ND	Analyte concentration is not detected above the reporting limit
UI	Gamma Spectroscopy-Uncertain identification
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
Z	Paint Filter Test-Particulates passed through the filter, however no free liquids were observed.

GC/MS Volatile Analysis

GC/MS Volatile Organics
Los Alamos National Laboratory (LANL)
SDG 10-887

Method/Analysis Information

Procedure:	Volatile Organic Compounds (VOC) by Gas Chromatograph/Mass Spectrometer
Analytical Method:	SW846 8260B
Prep Method:	SW846 5030
Analytical Batch Number:	934726
Prep Batch Number:	934721

Sample Analysis

The following client and quality control samples were analyzed to complete this SDG using the methods referenced in the Analysis Information section:

Sample ID	Client ID
242781008	RE03-10-8746
1201999839	Method Blank (MB)
1201999842	Laboratory Control Sample (LCS)
1201999843	Laboratory Control Sample (LCS)
1201999840	242750001(RE03-09-13467) Post Spike (PS)
1201999841	242750001(RE03-09-13467) Post Spike Duplicate (PSD)

NOTE: For volatile organic analyses the matrix spike designations may be indicated as "PS" or "PSD". The "PS" designation (post spike) indicates that the matrix was fortified prior to analysis but after applying any prep factors, such as a dilution. The laboratory considers the MS/MSD and PS/PSD designations interchangeable.
The samples in this SDG were analyzed on an "as received" basis.

Preparation/Analytical Method Verification

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-038 REV# 13.

Raw data reports are processed and reviewed by the analyst using the Target software package. False positives have been removed from the Target quantitation reports per standard operating procedures (SOP) section 19.1.2.

Calibration Information

Please note that the 'Cal Date' indicated on each quantitation report reflects the date and time of the most recent calibrated analyte(s) in the Target processing method. Since the laboratory may calibrate with multiple solutions on different days using the same processing method, the Target software will update the 'Cal Date' to the last calibration file, date and time. The correct dates and times for all calibration files are located on the Calibration History report in the Standard Data section in the data package.

The surrogate compounds were calibrated using a minimum five-point calibration curve. The surrogates were added by the auto sampler at a concentration of 50 ug/L. GEL Laboratories LLC will not have surrogate recoveries reported for Dibromofluoromethane. This is due to increased regulations for this analyte and an industry shortage.

Due to software limitations, the Calibration Summary Form 6 may not indicate all the calibration files comprising the initial calibration. A complete list of the initial calibration data files are shown in the Calibration History report located in the Standard Data section of the data package.

The linear equation used in Target and indicated on the initial calibration summary form is not a conventional linear equation (slope intercept formula) and does not match the equation found in SW-846 method 8000B. The x and y axes are inversed in Target, so that the instrument response is treated as the independent variable (x) and the concentration ratio is treated as the dependent variable (y). The equation used in Target to calculate sample results is adjusted to account for the linear equation inversion and reciprocal slope. The adjusted calculation has been independently verified to produce valid results.

Initial Calibration
All initial calibration requirements have been met for this sample delivery groups (SDG). A second source initial calibration verification (ICV) was included in the standard section directly behind the initial calibration.

Continuing Calibration Verification Requirements
All associated calibration verification standard(s) (ICV or CCV) met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Surrogate Recoveries
Surrogate recoveries in all client and quality control samples were within the acceptance limits.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

QC Sample Designation
Sample 242750001 (RE03-09-13467) was designated for spike analysis in this SDG.

Matrix Spike (PS) Recovery Statement
The spike recoveries for this SDG were within the required acceptance limits.

Matrix Spike Duplicate (PSD) Recovery Statement
The spike duplicate recoveries for this SDG were within the required acceptance limits.

Relative Percent Difference (RPD) Statement
The RPD(s) between the matrix spike pair met the acceptance limits.

Internal Standard (ISTD) Acceptance
The internal standard responses in all client and quality control samples met the required acceptance criteria.

Technical Information

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from

sample collection or sample receipt. Those holding times expressed in hours are calculated in the ALPHALIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Sample Preservation and Integrity
All samples met the sample preservation and integrity requirements.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-extraction/Re-analysis
Re-analyses were not required for samples in this SDG.

Miscellaneous Information

Electronic Package Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. An electronic signature page inserted after the case narrative of each electronic package will indicate the analyst, reviewer, and report specialist names associated with the generation of the data and package. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Nonconformance (NCR) Documentation
A nonconformance report was not required for this SDG.

Manual Integrations
Data files associated with the initial calibration, continuing calibration check, and samples did not require manual integrations.

TIC Comment
Tentatively identified compounds (TIC) were required for this SDG.

Additional Comments
Additional comments were not required for this SDG.

Residual Chlorine
Residual Chlorine was not detected in any of the samples in this SDG.

System Configuration
The Volatile-GC/MS analysis was performed on the following instrument configuration:

Instrument ID	Instrument	System Configuration	Column ID	Column Description	P & T Trap
VOA1.I	Gas Chromatograph/Mass Spectrometer	HP6890/HP5973	RTX-624	Restek, 60m x 0.25mm x 1.4um	Trap 10

Certification Statement
Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis Report
for

LANL010 Los Alamos National Laboratory (72733-001-09)

Client SDG: 10-887 GEL Work Order: 242781

The Qualifiers in this report are defined as follows:

* A quality control analyte recovery is outside of specified acceptance criteria

** Analyte is a surrogate compound

J Value is estimated

U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

Review/Validation

GEL requires all analytical data to be verified by a qualified data reviewer. In addition, all CLP-like deliverables receive a third level review of the fractional data package.

The following data validator verified the information presented in this case narrative:

Signature: Stacy Calloway **Name: Stacy Calloway**

Date: 06 JAN 2010 **Title: Data Validator**

Roadmap for LANL 10-887 VOA

This roadmap was analyzed by ron01469 on 12-23-2009, 12:42.
This roadmap was reviewed by sar00518 on 12-24-2009, 10:00.

Sample

exclude	manual	datafile	smpid	clientid	injdate	injtime	sublist	dilution	batchid	comment
☐	N	/chem/VOA1.i/121809v1/1r515.d	242781008	RE03-10-8746	18-DEC-2009	17:44	10-887.sub	1	934726	

QC Sample

exclude	manual	datafile	smpid	clientid	sampletype	injdate	injtime	sublist	dilution	batchid	comment
☐	N	/chem/VOA1.i/121809v1/1r503LA.d	1201999842	LCS	lcs	18-DEC-2009	10:23	all.sub	1	934726	
☐	N	/chem/VOA1.i/121809v1/1r505sLA.d	1201999843	LCS	lcs	18-DEC-2009	11:28	all.sub	1	934726	
☐	N	/chem/VOA1.i/121809v1/1r508BA.d	1201999839	BLANK	mb	18-DEC-2009	14:12	all.sub	1	934726	
■	N	/chem/VOA1.i/121809v1/1r520.d	1201999840	RE03-09-13467MS	ms	18-DEC-2009	20:18	10-886.sub	1	934726	
■	N	/chem/VOA1.i/121809v1/1r521.d	1201999841	RE03-09-13467MSD	msd	18-DEC-2009	20:48	10-886.sub	1	934726	

Sample Data Summary

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-887	**Date Collected:**	12/09/2009 12:00	**Matrix:**	S
Lab Sample ID:	242781008	**Date Received:**	12/11/2009 08:50		
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-10-8746	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	934726	**Inst:**	VOA1.I	**Dilution:**	1
Run Date:	12/18/2009 17:44	**Analyst:**	RXM4	**Purge Vol:**	5 mL
Prep Date:	12/18/2009 12:23	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	1r515.d	**Column:**	RTX-Volatiles	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/kg	0.340	1.00
74-87-3	Chloromethane	U	1.00	ug/kg	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/kg	0.300	1.00
74-83-9	Bromomethane	U	1.00	ug/kg	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/kg	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/kg	0.300	1.00
67-64-1	Acetone	J	2.07	ug/kg	1.66	5.00
75-35-4	1,1-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/kg	1.60	5.00
75-09-2	Methylene chloride	U	5.00	ug/kg	2.00	5.00
75-15-0	Carbon disulfide	U	5.00	ug/kg	1.25	5.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/kg	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/kg	1.50	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/kg	0.300	1.00
74-97-5	Bromochloromethane	U	1.00	ug/kg	0.330	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/kg	0.300	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/kg	0.300	1.00
56-23-5	Carbon tetrachloride	U	1.00	ug/kg	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/kg	0.300	1.00
71-43-2	Benzene	U	1.00	ug/kg	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/kg	0.330	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/kg	0.300	1.00
74-95-3	Dibromomethane	U	1.00	ug/kg	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/kg	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
108-88-3	Toluene	U	1.00	ug/kg	0.300	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/kg	0.300	1.00
591-78-6	2-Hexanone	U	5.00	ug/kg	1.50	5.00
142-28-9	1,3-Dichloropropane	U	1.00	ug/kg	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/kg	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/kg	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/kg	0.300	1.00
108-90-7	Chlorobenzene	U	1.00	ug/kg	0.300	1.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-887**	**Date Collected:**	**12/09/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242781008**	**Date Received:**	**12/11/2009 08:50**		
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-10-8746**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**934726**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**12/18/2009 17:44**	**Analyst:**	**RXM4**	**Purge Vol:**	**5 mL**
Prep Date:	**12/18/2009 12:23**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1r515.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.00	ug/kg	0.300	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/kg	0.300	2.00
95-47-6	o-Xylene	U	1.00	ug/kg	0.300	1.00
100-42-5	Styrene	U	1.00	ug/kg	0.300	1.00
75-25-2	Bromoform	U	1.00	ug/kg	0.300	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/kg	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/kg	0.300	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/kg	0.300	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/kg	0.300	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/kg	0.300	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/kg	0.300	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/kg	0.300	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/kg	0.300	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/kg	0.300	1.00
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.00	ug/kg	1.60	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	No Tentatively Identified Compounds Found			ug/kg		

QC Summary

Volatile

Surrogate Recovery Report

SDG Number: 10-887

Matrix Type: SOLID

CAP Column (1) : RTX-Volatiles

Sample ID	Client ID	DCED4 %REC	TOL %REC	BFB %REC
1201999842	LCS for batch 934721	100	92	95
1201999843	LCS for batch 934721	105	104	106
1201999839	MB for batch 934721	105	104	102
242781008	RE03-10-8746	120	105	109

Surrogate		Acceptance Limits
DCED4	= 1,2-Dichloroethane-d4	(68%-131%)
TOL	= Toluene-d8	(75%-129%)
BFB	= Bromofluorobenzene	(68%-133%)

* Recovery outside Acceptance Limits

\# Column to be used to flag recovery values

D Sample Diluted

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-887
Client ID: RE03-09-13467PS
Lab Sample ID: 1201999840
Instrument: VOA1.I
Analyst: RXM4
Purge Vol: 5 mL

Sample Type: Post Spike
Matrix: S
%Moisture: 3.9
Analysis Date: 12/18/2009 20:18
Prep Batch ID: 934721
Batch ID: 934726

Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
75-71-8	PS	Dichlorodifluoromethane	50.0	0.00	U	37.6	75	25-149
74-87-3	PS	Chloromethane	50.0	0.00	U	39.5	79	39-140
75-01-4	PS	Vinyl chloride	50.0	0.00	U	39.3	79	47-129
74-83-9	PS	Bromomethane	50.0	0.00	U	40.6	81	31-135
75-00-3	PS	Chloroethane	50.0	0.00	U	42.5	85	53-128
75-69-4	PS	Trichlorofluoromethane	50.0	0.00	U	48.1	96	51-151
67-64-1	PS	Acetone	250	0.00	U	195	78	21-153
75-35-4	PS	1,1-Dichloroethylene	50.0	0.00	U	42.6	85	61-125
74-88-4	PS	Iodomethane	250	0.00	U	193	77	53-142
75-09-2	PS	Methylene chloride	50.0	0.00	U	38.5	77	59-136
75-15-0	PS	Carbon disulfide	250	0.00	U	207	83	46-129
156-60-5	PS	trans-1,2-Dichloroethylene	50.0	0.00	U	40.5	81	56-126
75-34-3	PS	1,1-Dichloroethane	50.0	0.00	U	43.1	86	62-125
78-93-3	PS	2-Butanone	250	0.00	U	192	77	26-152
156-59-2	PS	cis-1,2-Dichloroethylene	50.0	0.00	U	40.6	81	60-130
594-20-7	PS	2,2-Dichloropropane	50.0	0.00	U	46.9	94	55-135
67-66-3	PS	Chloroform	50.0	0.00	U	43.5	87	60-127
74-97-5	PS	Bromochloromethane	50.0	0.00	U	40.3	81	61-131
71-55-6	PS	1,1,1-Trichloroethane	50.0	0.00	U	47.8	96	59-131
563-58-6	PS	1,1-Dichloropropene	50.0	0.00	U	45.1	90	57-128
56-23-5	PS	Carbon tetrachloride	50.0	0.00	U	48.7	97	58-136
107-06-2	PS	1,2-Dichloroethane	50.0	0.00	U	45.8	92	58-126

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-887
Client ID: RE03-09-13467PS
Lab Sample ID: 1201999840
Instrument: VOA1.I
Analyst: RXM4
Purge Vol: 5 mL

Sample Type: Post Spike
Matrix: S
%Moisture: 3.9
Analysis Date: 12/18/2009 20:18
Prep Batch ID: 934721
Batch ID: 934726

Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
71-43-2	PS	Benzene	50.0	0.00	U	41.7	83	56-123
79-01-6	PS	Trichloroethylene	50.0	0.00	U	42.0	84	51-137
78-87-5	PS	1,2-Dichloropropane	50.0	0.00	U	42.2	84	60-126
75-27-4	PS	Bromodichloromethane	50.0	0.00	U	46.2	92	55-138
74-95-3	PS	Dibromomethane	50.0	0.00	U	42.1	84	60-132
108-10-1	PS	4-Methyl-2-pentanone	250	0.00	U	213	85	58-136
10061-01-5	PS	cis-1,3-Dichloropropylene	50.0	0.00	U	44.7	89	54-133
108-88-3	PS	Toluene	50.0	0.00	U	40.6	81	52-128
10061-02-6	PS	trans-1,3-Dichloropropylene	50.0	0.00	U	47.2	94	53-137
79-00-5	PS	1,1,2-Trichloroethane	50.0	0.00	U	42.2	84	59-130
591-78-6	PS	2-Hexanone	250	0.00	U	195	78	31-148
142-28-9	PS	1,3-Dichloropropane	50.0	0.00	U	41.9	84	57-127
127-18-4	PS	Tetrachloroethylene	50.0	0.00	U	40.2	80	51-128
124-48-1	PS	Dibromochloromethane	50.0	0.00	U	45.0	90	59-139
106-93-4	PS	1,2-Dibromoethane	50.0	0.00	U	42.9	86	57-133
108-90-7	PS	Chlorobenzene	50.0	0.00	U	41.0	82	53-122
100-41-4	PS	Ethylbenzene	50.0	0.00	U	42.6	85	51-125
179601-23-1	PS	m,p-Xylenes	100	0.00	U	82.8	83	50-126
95-47-6	PS	o-Xylene	50.0	0.00	U	42.1	84	52-127
100-42-5	PS	Styrene	50.0	0.00	U	43.4	87	49-135
75-25-2	PS	Bromoform	50.0	0.00	U	37.9	76	57-149
79-34-5	PS	1,1,2,2-Tetrachloroethane	50.0	0.00	U	41.1	82	63-127

Volatile

Quality Control Summary

Spike Recovery Report

SDG Number: 10-887

Client ID: RE03-09-13467PS

Lab Sample ID: 1201999840

Instrument: VOA1.I

Analyst: RXM4

Purge Vol: 5 mL

Sample Type: Post Spike

Matrix: S

%Moisture: 3.9

Analysis Date: 12/18/2009 20:18

Dilution: 1

Prep Batch ID: 934721

Batch ID: 934726

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
96-18-4	PS	1,2,3-Trichloropropane	50.0	0.00	U	42.4	85	57-149
108-86-1	PS	Bromobenzene	50.0	0.00	U	38.7	77	49-131
103-65-1	PS	n-Propylbenzene	50.0	0.00	U	40.5	81	40-136
95-49-8	PS	2-Chlorotoluene	50.0	0.00	U	40.8	82	44-135
98-82-8	PS	Isopropylbenzene	50.0	0.00	U	41.4	83	44-140
108-67-8	PS	1,3,5-Trimethylbenzene	50.0	0.00	U	41.4	83	42-140
106-43-4	PS	4-Chlorotoluene	50.0	0.00	U	40.6	81	44-132
98-06-6	PS	tert-Butylbenzene	50.0	0.00	U	39.6	79	42-142
95-63-6	PS	1,2,4-Trimethylbenzene	50.0	0.00	U	40.3	81	43-137
135-98-8	PS	sec-Butylbenzene	50.0	0.00	U	40.4	81	39-139
99-87-6	PS	4-Isopropyltoluene	50.0	0.00	U	40.2	80	38-145
541-73-1	PS	1,3-Dichlorobenzene	50.0	0.00	U	37.9	76	43-129
106-46-7	PS	1,4-Dichlorobenzene	50.0	0.00	U	37.7	75	44-125
104-51-8	PS	n-Butylbenzene	50.0	0.00	U	41.0	82	36-141
96-12-8	PS	1,2-Dibromo-3-chloropropane	50.0	0.00	U	37.0	74	47-151
630-20-6	PS	1,1,1,2-Tetrachloroethane	50.0	0.00	U	43.9	88	59-131
95-50-1	PS	1,2-Dichlorobenzene	50.0	0.00	U	38.7	77	43-129

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-887
Client ID: RE03-09-13467PSD
Lab Sample ID: 1201999841
Instrument: VOA1.I
Analyst: RXM4
Purge Vol: 5 mL

Sample Type: Post Spike Duplicate
Matrix: S
%Moisture: 3.9
Analysis Date: 12/18/2009 20:48
Dilution: 1
Prep Batch ID: 934721
Batch ID: 934726

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
75-71-8	PSD	Dichlorodifluoromethane	50.0	0.00	U	42.3	85	25-149	12	0-25
74-87-3	PSD	Chloromethane	50.0	0.00	U	46.1	92	39-140	15	0-25
75-01-4	PSD	Vinyl chloride	50.0	0.00	U	46.2	92	47-129	16	0-25
74-83-9	PSD	Bromomethane	50.0	0.00	U	47.2	94	31-135	15	0-25
75-00-3	PSD	Chloroethane	50.0	0.00	U	49.4	99	53-128	15	0-25
75-69-4	PSD	Trichlorofluoromethane	50.0	0.00	U	53.9	108	51-151	12	0-25
67-64-1	PSD	Acetone	250	0.00	U	221	88	21-153	13	0-25
75-35-4	PSD	1,1-Dichloroethylene	50.0	0.00	U	49.1	98	61-125	14	0-25
74-88-4	PSD	Iodomethane	250	0.00	U	230	92	53-142	17	0-25
75-09-2	PSD	Methylene chloride	50.0	0.00	U	45.9	92	59-136	18	0-25
75-15-0	PSD	Carbon disulfide	250	0.00	U	243	97	46-129	16	0-25
156-60-5	PSD	trans-1,2-Dichloroethylene	50.0	0.00	U	48.0	96	56-126	17	0-25
75-34-3	PSD	1,1-Dichloroethane	50.0	0.00	U	50.6	101	62-125	16	0-25
78-93-3	PSD	2-Butanone	250	0.00	U	220	88	26-152	14	0-25
156-59-2	PSD	cis-1,2-Dichloroethylene	50.0	0.00	U	48.5	97	60-130	18	0-25
594-20-7	PSD	2,2-Dichloropropane	50.0	0.00	U	54.2	108	55-135	14	0-25
67-66-3	PSD	Chloroform	50.0	0.00	U	50.1	100	60-127	14	0-25
74-97-5	PSD	Bromochloromethane	50.0	0.00	U	47.5	95	61-131	16	0-25
71-55-6	PSD	1,1,1-Trichloroethane	50.0	0.00	U	54.2	108	59-131	13	0-25
563-58-6	PSD	1,1-Dichloropropene	50.0	0.00	U	52.8	106	57-128	16	0-25
56-23-5	PSD	Carbon tetrachloride	50.0	0.00	U	55.6	111	58-136	13	0-25
107-06-2	PSD	1,2-Dichloroethane	50.0	0.00	U	51.8	104	58-126	12	0-25

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-887
Client ID: RE03-09-13467PSD
Lab Sample ID: 1201999841
Instrument: VOA1.I
Analyst: RXM4
Purge Vol: 5 mL

Sample Type: Post Spike Duplicate
Matrix: S
%Moisture: 3.9
Analysis Date: 12/18/2009 20:48
Prep Batch ID: 934721
Batch ID: 934726
Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
71-43-2	PSD	Benzene	50.0	0.00	U	49.2	98	56-123	16	0-25
79-01-6	PSD	Trichloroethylene	50.0	0.00	U	49.4	99	51-137	16	0-25
78-87-5	PSD	1,2-Dichloropropane	50.0	0.00	U	49.5	99	60-126	16	0-25
75-27-4	PSD	Bromodichloromethane	50.0	0.00	U	53.5	107	55-138	15	0-25
74-95-3	PSD	Dibromomethane	50.0	0.00	U	48.8	98	60-132	15	0-25
108-10-1	PSD	4-Methyl-2-pentanone	250	0.00	U	244	98	58-136	14	0-25
10061-01-5	PSD	cis-1,3-Dichloropropylene	50.0	0.00	U	53.0	106	54-133	17	0-25
108-88-3	PSD	Toluene	50.0	0.00	U	47.8	96	52-128	16	0-25
10061-02-6	PSD	trans-1,3-Dichloropropylene	50.0	0.00	U	54.7	109	53-137	15	0-25
79-00-5	PSD	1,1,2-Trichloroethane	50.0	0.00	U	49.1	98	59-130	15	0-25
591-78-6	PSD	2-Hexanone	250	0.00	U	227	91	31-148	16	0-25
142-28-9	PSD	1,3-Dichloropropane	50.0	0.00	U	49.6	99	57-127	17	0-25
127-18-4	PSD	Tetrachloroethylene	50.0	0.00	U	47.3	95	51-128	16	0-25
124-48-1	PSD	Dibromochloromethane	50.0	0.00	U	52.1	104	59-139	15	0-25
106-93-4	PSD	1,2-Dibromoethane	50.0	0.00	U	50.6	101	57-133	16	0-25
108-90-7	PSD	Chlorobenzene	50.0	0.00	U	48.9	98	53-122	18	0-25
100-41-4	PSD	Ethylbenzene	50.0	0.00	U	49.8	100	51-125	16	0-25
179601-23-1	PSD	m,p-Xylenes	100	0.00	U	97.6	98	50-126	16	0-25
95-47-6	PSD	o-Xylene	50.0	0.00	U	49.6	99	52-127	16	0-25
100-42-5	PSD	Styrene	50.0	0.00	U	51.3	103	49-135	17	0-25
75-25-2	PSD	Bromoform	50.0	0.00	U	44.8	90	57-149	17	0-25
79-34-5	PSD	1,1,2,2-Tetrachloroethane	50.0	0.00	U	48.7	97	63-127	17	0-25

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-887
Client ID: RE03-09-13467PSD
Lab Sample ID: 1201999841
Instrument: VOA1.I
Analyst: RXM4
Purge Vol: 5 mL

Sample Type: Post Spike Duplicate
Matrix: S
%Moisture: 3.9
Analysis Date: 12/18/2009 20:48
Dilution: 1
Prep Batch ID: 934721
Batch ID: 934726

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
96-18-4	PSD	1,2,3-Trichloropropane	50.0	0.00	U	49.7	99	57-149	16	0-25
108-86-1	PSD	Bromobenzene	50.0	0.00	U	47.8	96	49-131	21	0-25
103-65-1	PSD	n-Propylbenzene	50.0	0.00	U	49.4	99	40-136	20	0-25
95-49-8	PSD	2-Chlorotoluene	50.0	0.00	U	49.0	98	44-135	18	0-25
98-82-8	PSD	Isopropylbenzene	50.0	0.00	U	50.1	100	44-140	19	0-25
108-67-8	PSD	1,3,5-Trimethylbenzene	50.0	0.00	U	49.2	98	42-140	17	0-25
106-43-4	PSD	4-Chlorotoluene	50.0	0.00	U	49.5	99	44-132	20	0-25
98-06-6	PSD	tert-Butylbenzene	50.0	0.00	U	48.0	96	42-142	19	0-25
95-63-6	PSD	1,2,4-Trimethylbenzene	50.0	0.00	U	48.8	98	43-137	19	0-25
135-98-8	PSD	sec-Butylbenzene	50.0	0.00	U	48.8	98	39-139	19	0-25
99-87-6	PSD	4-Isopropyltoluene	50.0	0.00	U	48.5	97	38-145	19	0-25
541-73-1	PSD	1,3-Dichlorobenzene	50.0	0.00	U	46.6	93	43-129	21	0-25
106-46-7	PSD	1,4-Dichlorobenzene	50.0	0.00	U	46.3	93	44-125	21	0-25
104-51-8	PSD	n-Butylbenzene	50.0	0.00	U	50.0	100	36-141	20	0-25
96-12-8	PSD	1,2-Dibromo-3-chloropropane	50.0	0.00	U	44.6	89	47-151	19	0-25
630-20-6	PSD	1,1,1,2-Tetrachloroethane	50.0	0.00	U	50.9	102	59-131	15	0-25
95-50-1	PSD	1,2-Dichlorobenzene	50.0	0.00	U	47.5	95	43-129	21	0-25

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-887
Client ID: LCS for batch 934721
Lab Sample ID: 1201999842
Instrument: VOA1.I
Analyst: RXM4
Purge Vol: 5 mL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 12/18/2009 10:23
Dilution: 1
Prep Batch ID: 934721
Batch ID: 934726

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
75-71-8	LCS	Dichlorodifluoromethane	50.0	0.0	41.2	82	33-155
74-87-3	LCS	Chloromethane	50.0	0.0	41.1	82	53-132
75-01-4	LCS	Vinyl chloride	50.0	0.0	43.4	87	61-128
74-83-9	LCS	Bromomethane	50.0	0.0	42.1	84	63-126
75-00-3	LCS	Chloroethane	50.0	0.0	45.5	91	67-124
75-69-4	LCS	Trichlorofluoromethane	50.0	0.0	51.3	103	67-151
67-64-1	LCS	Acetone	250	0.0	218	87	29-160
75-35-4	LCS	1,1-Dichloroethylene	50.0	0.0	45.4	91	70-125
74-88-4	LCS	Iodomethane	250	0.0	211	84	74-131
75-09-2	LCS	Methylene chloride	50.0	0.0	41.1	82	72-127
75-15-0	LCS	Carbon disulfide	250	0.0	240	96	64-127
156-60-5	LCS	trans-1,2-Dichloroethylene	50.0	0.0	45.5	91	71-122
75-34-3	LCS	1,1-Dichloroethane	50.0	0.0	44.8	90	75-120
78-93-3	LCS	2-Butanone	250	0.0	218	87	35-162
156-59-2	LCS	cis-1,2-Dichloroethylene	50.0	0.0	45.2	90	76-122
594-20-7	LCS	2,2-Dichloropropane	50.0	0.0	53.5	107	74-135
67-66-3	LCS	Chloroform	50.0	0.0	45.9	92	77-120
74-97-5	LCS	Bromochloromethane	50.0	0.0	44.0	88	76-122
71-55-6	LCS	1,1,1-Trichloroethane	50.0	0.0	50.0	100	75-128
563-58-6	LCS	1,1-Dichloropropene	50.0	0.0	51.0	102	77-125
56-23-5	LCS	Carbon tetrachloride	50.0	0.0	51.0	102	77-134
107-06-2	LCS	1,2-Dichloroethane	50.0	0.0	44.1	88	72-120

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-887
Client ID: LCS for batch 934721
Lab Sample ID: 1201999842
Instrument: VOA1.I
Analyst: RXM4
Purge Vol: 5 mL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 12/18/2009 10:23
Dilution: 1
Prep Batch ID: 934721
Batch ID: 934726

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
71-43-2	LCS	Benzene	50.0	0.0	47.2	94	72-120
79-01-6	LCS	Trichloroethylene	50.0	0.0	46.7	93	78-121
78-87-5	LCS	1,2-Dichloropropane	50.0	0.0	46.3	93	74-120
75-27-4	LCS	Bromodichloromethane	50.0	0.0	47.1	94	79-125
74-95-3	LCS	Dibromomethane	50.0	0.0	43.9	88	78-122
108-10-1	LCS	4-Methyl-2-pentanone	250	0.0	237	95	71-134
10061-01-5	LCS	cis-1,3-Dichloropropylene	50.0	0.0	49.4	99	80-125
108-88-3	LCS	Toluene	50.0	0.0	45.9	92	65-124
10061-02-6	LCS	trans-1,3-Dichloropropylene	50.0	0.0	50.2	100	71-134
79-00-5	LCS	1,1,2-Trichloroethane	50.0	0.0	45.5	91	76-120
591-78-6	LCS	2-Hexanone	250	0.0	219	88	42-159
142-28-9	LCS	1,3-Dichloropropane	50.0	0.0	44.5	89	72-120
127-18-4	LCS	Tetrachloroethylene	50.0	0.0	45.8	92	74-123
124-48-1	LCS	Dibromochloromethane	50.0	0.0	46.2	92	83-128
106-93-4	LCS	1,2-Dibromoethane	50.0	0.0	46.2	92	79-121
108-90-7	LCS	Chlorobenzene	50.0	0.0	45.6	91	75-120
100-41-4	LCS	Ethylbenzene	50.0	0.0	47.3	95	74-120
179601-23-1	LCS	m,p-Xylenes	100	0.0	93.2	93	74-120
95-47-6	LCS	o-Xylene	50.0	0.0	46.7	93	74-120
100-42-5	LCS	Styrene	50.0	0.0	47.6	95	76-125
75-25-2	LCS	Bromoform	50.0	0.0	42.8	86	77-138
79-34-5	LCS	1,1,2,2-Tetrachloroethane	50.0	0.0	48.6	97	72-122

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-887
Client ID: LCS for batch 934721
Lab Sample ID: 1201999842
Instrument: VOA1.I
Analyst: RXM4
Purge Vol: 5 mL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 12/18/2009 10:23
Dilution: 1
Prep Batch ID: 934721
Batch ID: 934726

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
96-18-4	LCS	1,2,3-Trichloropropane	50.0	0.0	46.7	93	75-135
108-86-1	LCS	Bromobenzene	50.0	0.0	46.1	92	73-120
103-65-1	LCS	n-Propylbenzene	50.0	0.0	48.5	97	68-121
95-49-8	LCS	2-Chlorotoluene	50.0	0.0	47.5	95	69-120
98-82-8	LCS	Isopropylbenzene	50.0	0.0	48.7	97	66-127
108-67-8	LCS	1,3,5-Trimethylbenzene	50.0	0.0	47.8	96	67-126
106-43-4	LCS	4-Chlorotoluene	50.0	0.0	47.5	95	72-120
98-06-6	LCS	tert-Butylbenzene	50.0	0.0	45.3	91	72-124
95-63-6	LCS	1,2,4-Trimethylbenzene	50.0	0.0	45.7	91	72-122
135-98-8	LCS	sec-Butylbenzene	50.0	0.0	45.1	90	71-124
99-87-6	LCS	4-Isopropyltoluene	50.0	0.0	45.1	90	72-130
541-73-1	LCS	1,3-Dichlorobenzene	50.0	0.0	44.4	89	73-120
106-46-7	LCS	1,4-Dichlorobenzene	50.0	0.0	44.9	90	73-120
104-51-8	LCS	n-Butylbenzene	50.0	0.0	46.0	92	72-128
96-12-8	LCS	1,2-Dibromo-3-chloropropane	50.0	0.0	42.6	85	68-145
630-20-6	LCS	1,1,1,2-Tetrachloroethane	50.0	0.0	46.5	93	78-121
95-50-1	LCS	1,2-Dichlorobenzene	50.0	0.0	44.5	89	74-120

Volatile

Quality Control Summary

Spike Recovery Report

SDG Number: 10-887

Client ID: LCS for batch 934721

Lab Sample ID: 1201999843

Instrument: VOA1.I

Analyst: RXM4

Purge Vol: 5 mL

Sample Type: Laboratory Control Sample

Matrix: SOIL

Analysis Date: 12/18/2009 11:28

Dilution: 1

Prep Batch ID: 934721

Batch ID: 934726

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
76-13-1	LCS	1,1,2-Trichloro-1,2,2-Trifluor *Trichlorotrifluoroethane*	250	0.0	326	130	52-139

Method Blank Summary

SDG Number:	10-887	Client:	LANL010	Matrix:	SOIL
Client ID:	MB for batch 934721	Instrument ID:	VOA1.I	Data File:	1r508BA.d
Lab Sample ID:	1201999839	Prep Date:	12/18/2009 08:00	Analyzed:	12/18/09 14:12
Column:	RTX-Volatiles	Heated Purge:	Yes		

This method blank applies to the following samples and quality control samples:

Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01 LCS for batch 934721	1201999842	1r503LA.d	12/18/09	1023
02 LCS for batch 934721	1201999843	1r505sLA.d	12/18/09	1128
03 RE03-10-8746	242781008	1r515.d	12/18/09	1744

Instrument Performance Check

BFB

Lab Name GEL Laboratories LLC **Client SDG:** 10-887

Instrument ID: VOA1.I **Injection Date/Time:** 17-DEC-09 12:56

Column Description: RTX-Volatiles **Lab File ID** /121709v1/1r408.d

m/e	Ion Abundance Criteria	% Relative Abundance
95	Base Peak, 100% Relative Abundance	100
50	15.0 - 40.0% of mass 95	19.2
75	30.0 - 60.0% of mass 95	51.4
96	5.0 - 9.0% of mass 95	6.9
173	Less than 2.0% of mass 174	0.8
174	50.0 - 100.0% of mass 95	74.1
175	5.0 -9.0% of mass 174	7.6
176	95.0 - 101.0% of mass 174	95.5
177	5.0 - 9.0% of mass 176	6.5

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
VSTD0005	W1VM091217-04	/121709v1/1r409.d	17-DEC-09 13:26
VSTD001	W1VM091217-06	/121709v1/1r411.d	17-DEC-09 14:26
VSTD002	W1VM091217-08	/121709v1/1r413.d	17-DEC-09 15:27
VSTD005	W1VM091217-09	/121709v1/1r414.d	17-DEC-09 15:57
VSTD010	W1VM091217-10	/121709v1/1r415.d	17-DEC-09 16:26
VSTD020	W1VM091217-11	/121709v1/1r416.d	17-DEC-09 16:56
VSTD050	W1VM091217-12	/121709v1/1r417.d	17-DEC-09 17:26
VSTD100	W1VM091217-13	/121709v1/1r418.d	17-DEC-09 17:56
VSTD005S	W1VM091217-14	/121709v1/1r420.d	17-DEC-09 18:56
VSTD010S	W1VM091217-15	/121709v1/1r421.d	17-DEC-09 19:26
VSTD025S	W1VM091217-16	/121709v1/1r422.d	17-DEC-09 19:56
VSTD050S	W1VM091217-17	/121709v1/1r423.d	17-DEC-09 20:27
VSTD100S	W1VM091217-18	/121709v1/1r424.d	17-DEC-09 20:57
VSTD250S	W1VM091217-19	/121709v1/1r425.d	17-DEC-09 21:27
VSTD500S	W1VM091217-20	/121709v1/1r426.d	17-DEC-09 21:57
ICV	W1VM091217-18	/121709v1/1r428.d	17-DEC-09 22:57
SHORT ICV	W1VM091217-20	/121709v1/1r430.d	17-DEC-09 23:58

Instrument Performance Check

BFB

Lab Name GEL Laboratories LLC **Client SDG:** 10-887

Instrument ID: VOA1.I **Injection Date/Time:** 18-DEC-09 09:19

Column Description: RTX-Volatiles **Lab File ID** /121809v1/1r501.d

m/e	Ion Abundance Criteria	% Relative Abundance
95	Base Peak, 100% Relative Abundance	100
50	15.0 - 40.0% of mass 95	19.1
75	30.0 - 60.0% of mass 95	51.2
96	5.0 - 9.0% of mass 95	6.7
173	Less than 2.0% of mass 174	0.9
174	50.0 - 100.0% of mass 95	74.1
175	5.0 -9.0% of mass 174	7.3
176	95.0 - 101.0% of mass 174	97.5
177	5.0 - 9.0% of mass 176	6.4

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
VSTD050	W1VM091218-02	/121809v1/1r503.d	18-DEC-09 10:23
LCS	1201999842	/121809v1/1r503LA.d	18-DEC-09 10:23
VSTD250S	W1VM091218-04	/121809v1/1r505.d	18-DEC-09 11:28
LCS	1201999843	/121809v1/1r505sLA.d	18-DEC-09 11:28
BLANK	1201999839	/121809v1/1r508BA.d	18-DEC-09 14:12
RE03-10-8746	242781008	/121809v1/1r515.d	18-DEC-09 17:44

Internal Standard
Area and RT Summary

Lab Name : GEL Laboratories LLC

Instrument: VOA1.l

GC Column: RTX-Volatiles

Client SDG: 10-887

STD Analysis Time: 18-DEC-09 10:23

Data File: 1r503.d

	Fluorobenzene			Chlorobenzene-d5			1,4-Dichlorobenzene-d4		
	Area	#	RT #	Area	#	RT #	Area	#	RT #
12 Hour STD	1008338		13.7	722547		17.2	377666		19.6
Upper Limit	2016676		14.2	1445094		17.7	755332		20.1
Lower Limit	504169		13.2	361274		16.7	188833		19.1
Sample ID									
BLK01LCS	1008338		13.7	722547		17.2	377666		19.6
BLK01SLCS	909934		13.7	633426		17.2	332065		19.6
BLK01	891540		13.7	618261		17.2	327113		19.6
RE03-10-8746	716131		13.7	505586		17.2	264508		19.6

Area Upper Limit = +100% of internal standard area
Area Lower Limit = - 50% of internal standard area

RT Upper Limit = + 0.50 minutes of internal standard RT
RT Lower Limit = - 0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Value outside of QC Limits

Sample Data

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-887	**Date Collected:**	12/09/2009 12:00	**Matrix:**	S
Lab Sample ID:	242781008	**Date Received:**	12/11/2009 08:50		
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-10-8746	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	934726	**Inst:**	VOA1.I	**Dilution:**	1
Run Date:	12/18/2009 17:44	**Analyst:**	RXM4	**Purge Vol:**	5 mL
Prep Date:	12/18/2009 12:23	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	1r515.d	**Column:**	RTX-Volatiles	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/kg	0.340	1.00
74-87-3	Chloromethane	U	1.00	ug/kg	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/kg	0.300	1.00
74-83-9	Bromomethane	U	1.00	ug/kg	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/kg	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/kg	0.300	1.00
67-64-1	Acetone	J	2.07	ug/kg	1.66	5.00
75-35-4	1,1-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/kg	1.60	5.00
75-09-2	Methylene chloride	U	5.00	ug/kg	2.00	5.00
75-15-0	Carbon disulfide	U	5.00	ug/kg	1.25	5.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/kg	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/kg	1.50	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/kg	0.300	1.00
74-97-5	Bromochloromethane	U	1.00	ug/kg	0.330	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/kg	0.300	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/kg	0.300	1.00
56-23-5	Carbon tetrachloride	U	1.00	ug/kg	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/kg	0.300	1.00
71-43-2	Benzene	U	1.00	ug/kg	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/kg	0.330	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/kg	0.300	1.00
74-95-3	Dibromomethane	U	1.00	ug/kg	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/kg	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
108-88-3	Toluene	U	1.00	ug/kg	0.300	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/kg	0.300	1.00
591-78-6	2-Hexanone	U	5.00	ug/kg	1.50	5.00
142-28-9	1,3-Dichloropropane	U	1.00	ug/kg	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/kg	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/kg	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/kg	0.300	1.00
108-90-7	Chlorobenzene	U	1.00	ug/kg	0.300	1.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-887**	**Date Collected:**	**12/09/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242781008**	**Date Received:**	**12/11/2009 08:50**		
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-10-8746**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**934726**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**12/18/2009 17:44**	**Analyst:**	**RXM4**	**Purge Vol:**	**5 mL**
Prep Date:	**12/18/2009 12:23**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1r515.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.00	ug/kg	0.300	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/kg	0.300	2.00
95-47-6	o-Xylene	U	1.00	ug/kg	0.300	1.00
100-42-5	Styrene	U	1.00	ug/kg	0.300	1.00
75-25-2	Bromoform	U	1.00	ug/kg	0.300	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/kg	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/kg	0.300	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/kg	0.300	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/kg	0.300	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/kg	0.300	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/kg	0.300	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/kg	0.300	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/kg	0.300	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/kg	0.300	1.00
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.00	ug/kg	1.60	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	No Tentatively Identified Compounds Found			ug/kg		

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/121809v1/1r515.d
Lab Smp Id: 242781008 Client Smp ID: RE03-10-8746
Inj Date : 18-DEC-2009 17:44
Operator : RXM4 Inst ID: VOA1.i
Smp Info : |242781008|934726|1|VOAF|1|
Misc Info : LANL 5G N/A TB
Comment :
Method : /chem/VOA1.i/121809v1/VOA1-8260ox-121709.m
Meth Date : 19-Dec-2009 14:24 ron01469 Quant Type: ISTD
Cal Date : 17-DEC-2009 21:57 Cal File: 1r426.d
Als bottle: 15
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-887.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	0.00000	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
* 52 Fluorobenzene	96	13.686	13.682	(1.000)	716131	50.0000	
* 76 Chlorobenzene-d5	117	17.162	17.162	(1.000)	505586	50.0000	
* 102 1,4-Dichlorobenzene-d4	152	19.610	19.610	(1.000)	264508	50.0000	
$ 48 1,2-Dichloroethane-d4	65	13.341	13.341	(0.975)	518634	59.7697	59.8
$ 65 Toluene-d8	98	15.518	15.518	(0.904)	1518536	52.5930	52.6
$ 87 Bromofluorobenzene	95	18.386	18.386	(0.938)	591450	54.4016	54.4
16 Acetone	43	9.267	9.258	(0.677)	8982	2.07326	2.1(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

ION RATIO REPORT

VOA REPORT

Data file: 1r515.d
Report Date: 12/19/2009 14:25
Lab. ID: 242781008 SampleType: SAMPLE
Injection Date: 18-DEC-2009 17:44
Operator: RXM4 Instrument: VOA1.i
Sample Info: |242781008|934726|1|VOAF|1|
Miscellaneous Info: LANL 5G N/A TB
Comment:
Method used: /chem/VOA1.i/121809v1/VOA1-8260ox-121709.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-887
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
16 Acetone			CAS#: 67-64-1			
43	8982	9.27	9.26	80-120	100	( )
58	3013	9.26	9.26	5- 65	34	( )
51 1,2-Dichloroethane			CAS#: 107-06-2			
62	11851	13.69	13.44	80-120	100	(T)
64	2046	13.69	13.44	2- 62	17	(T)
64 4-Methyl-2-pentanone			CAS#: 108-10-1			
58	14698	15.51	15.36	80-120	100	(T)
43	7069	15.52	15.36	198-258	48	(QT)
100	967998	15.52	15.36	0- 60	6586	(QT)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/121809v1/1r515.d
Lab Smp Id: 242781008 Client Smp ID: RE03-10-8746
Inj Date : 18-DEC-2009 17:44
Operator : RXM4 Inst ID: VOA1.i
Smp Info : |242781008|934726|1|VOAF|1|
Misc Info : LANL 5G N/A TB
Comment :
Method : /chem/VOA1.i/121809v1/VOA1-8260ox-121709.m
Meth Date : 19-Dec-2009 14:24 ron01469 Quant Type: ISTD
Cal Date : 17-DEC-2009 21:57 Cal File: 1r426.d
Als bottle: 15
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-887.sub
Target Version: 3.50
Processing Host: prdsvr07

- NO TENTATIVELY IDENTIFIED COMPOUNDS -

Data File: /chem/VOA1.i/121809v1/1r515.d
Date : 18-DEC-2009 17:44
Client ID: RE03-10-8746
Sample Info: |2427810081934726|1|VOAF|1|

Column phase: RTX-Volatiles

Instrument: VOA1.i

Operator: RXM4
Column diameter: 0.25

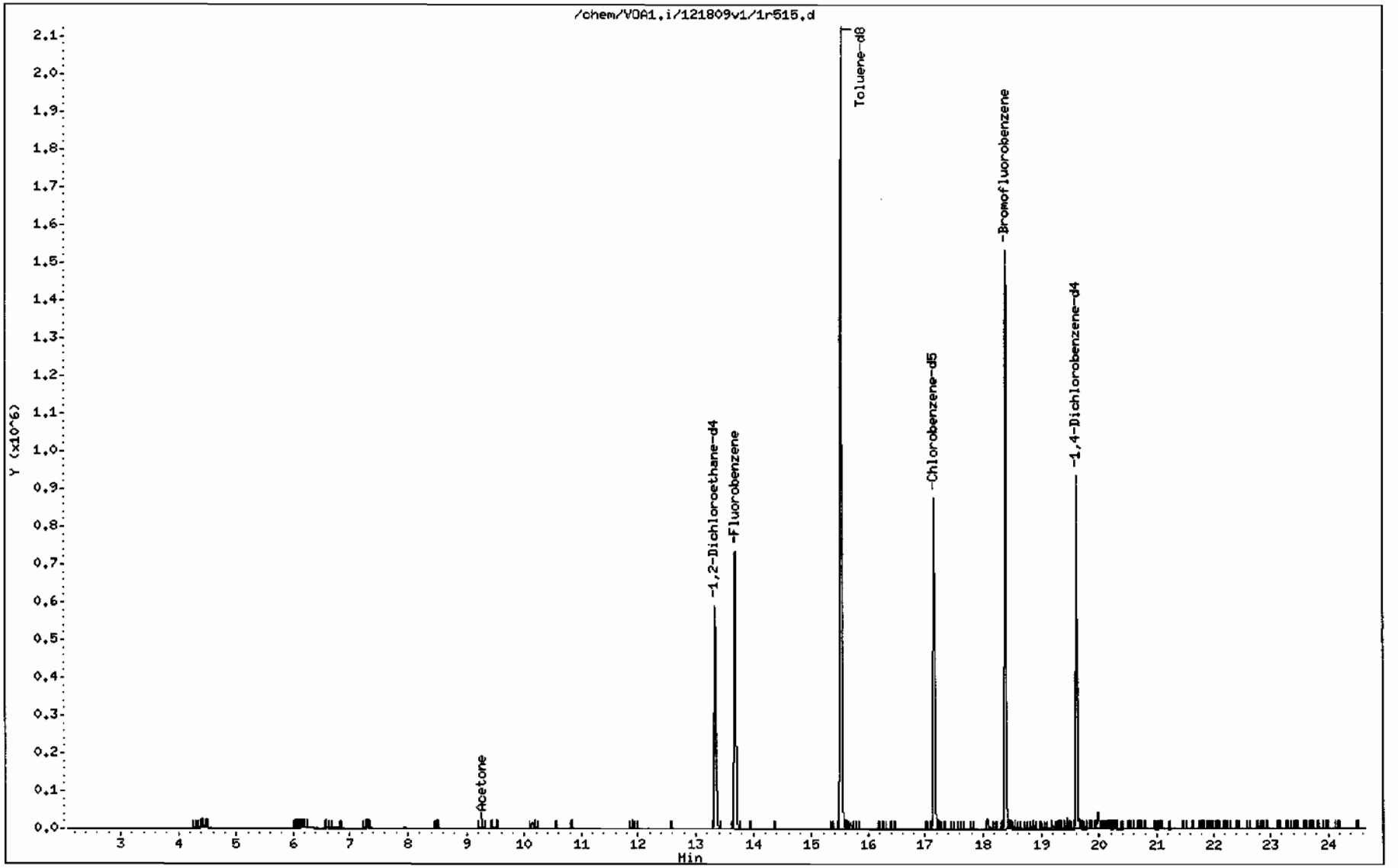

Data File: /chem/VOA1.i/121809v1/1r515.d

Date : 18-DEC-2009 17:44

Client ID: RE03-10-8746

Instrument: VOA1.i

Sample Info: |2427810081934726|1|VOAF|1|

Operator: RXM4

Column phase: RTX-Volatiles

Column diameter: 0.25

16 Acetone

Concentration: 2.1 ug/Kg

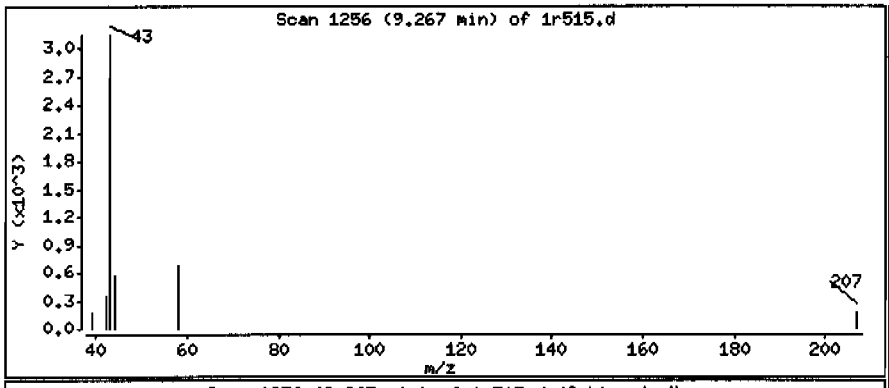

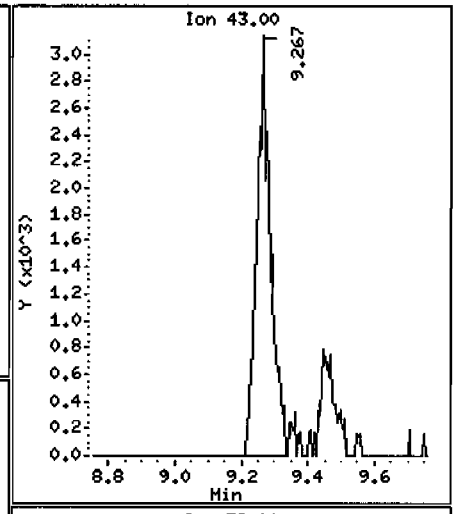

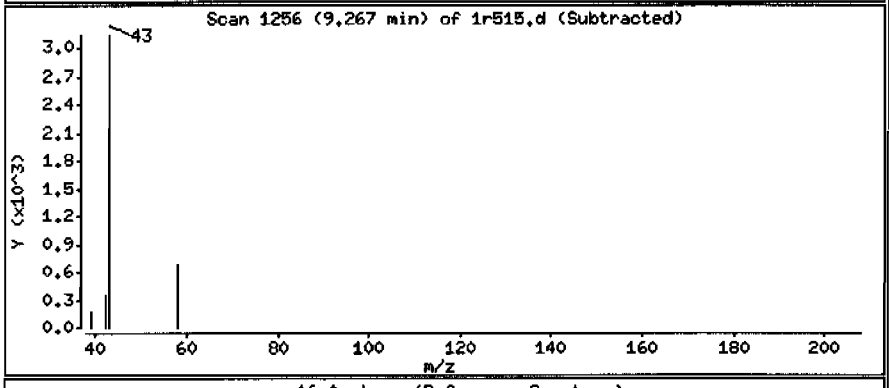

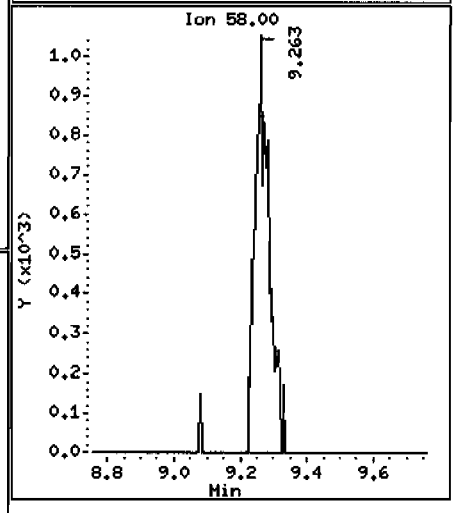

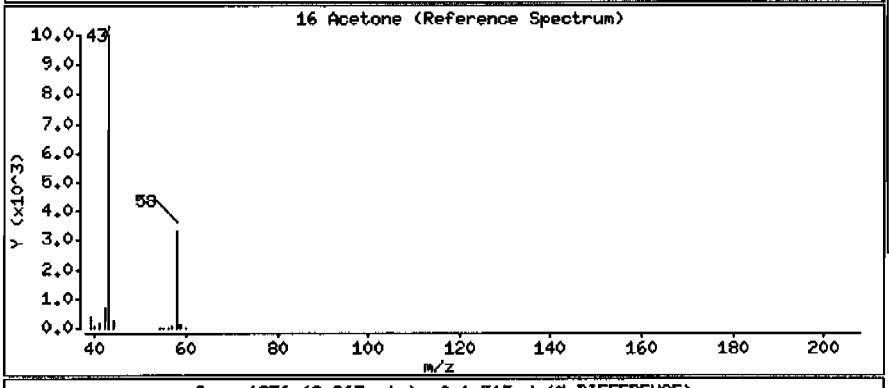

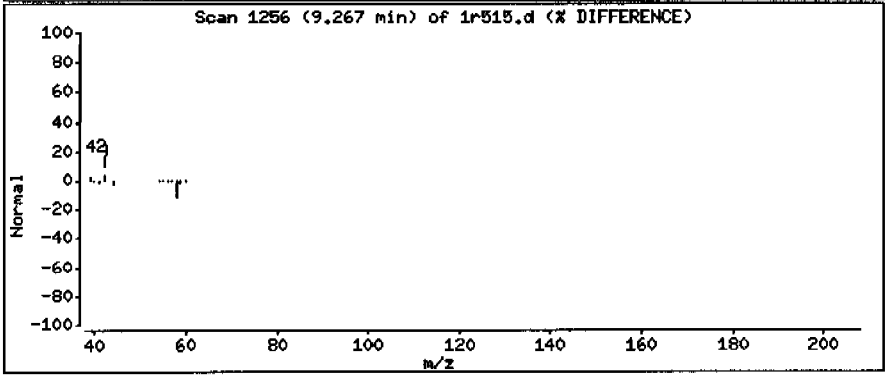

Standard Data

EPA 524.2/Low level SW846 8260B and Regular level 8260B and EPA 624
Calibration Standard Concentration Levels

	Level 1	Level 1a	Level 2	Level 3	Level 4 #	Level 5	Level 6	Level 7 !	Level 7a
Fluorobenzene (IS)									
1,2-Dichloroethane-d4(surr)		0.5	1	2	5	10	20	50	100
Dichlorodifluoromethane		0.5	1	2	5	10	20	50	100
Chloromethane		0.5	1	2	5	10	20	50	100
Vinyl chloride		0.5	1	2	5	10	20	50	100
Bromomethane		0.5	1	2	5	10	20	50	100
Chloroethane		0.5	1	2	5	10	20	50	100
Trichlorofluoromethane		0.5	1	2	5	10	20	50	100
1,1-Dichloroethene		0.5	1	2	5	10	20	50	100
Acetone	1	2.5	5	10	25	50	100	250	500
Iodomethane	1	2.5	5	10	25	50	100	250	500
Carbon disulfide	1	2.5	5	10	25	50	100	250	500
Methylene chloride		0.5	1	2	5	10	20	50	100
trans-1,2-Dichloroethene		0.5	1	2	5	10	20	50	100
1,1-Dichloroethane		0.5	1	2	5	10	20	50	100
Ethyl ether		0.5	1	2	5	10	20	50	100
Vinyl acetate	1	2.5	5	10	25	50	100	250	500
cis-1,2-Dichloroethene		0.5	1	2	5	10	20	50	100
1,2-Dichloroethene (total)		1	2	4	10	20	40	100	200
Cyclohexene		0.5	1	2	5	10	20	50	100
2-Chloroethylvinyl ether			5	10	25	50	100	250	500
2,2-Dichloropropane		0.5	1	2	5	10	20	50	100
2-Butanone	1	2.5	5	10	25	50	100	250	500
Bromochloromethane		0.5	1	2	5	10	20	50	100
Chloroform		0.5	1	2	5	10	20	50	100
1,1,1-Trichloroethane		0.5	1	2	5	10	20	50	100
1,1-Dichloropropene		0.5	1	2	5	10	20	50	100
Carbon tetrachloride		0.5	1	2	5	10	20	50	100
Benzene		0.5	1	2	5	10	20	50	100
1,2-Dichloroethane		0.5	1	2	5	10	20	50	100
Trichloroethene		0.5	1	2	5	10	20	50	100
1,2-Dichloropropane		0.5	1	2	5	10	20	50	100
Dibromomethane		0.5	1	2	5	10	20	50	100
Bromodichloromethane		0.5	1	2	5	10	20	50	100
cis-1,3-Dichloropropene		0.5	1	2	5	10	20	50	100
tert-Butylmethylether		0.5	1	2	5	10	20	50	100
Ethyl Ether			1	2	5	10	20	50	100
Acetonitrile			25	50	125	250	500	1250	2500
Methyl acetate			5	10	25	50	100	250	500
Cyclohexane			1	2	5	10	20	50	100
Methylcyclohexane			1	2	5	10	20	50	100
n-Butyl alcohol			50	100	250	500	1000	2500	5000
2-Nitropropane			5	10	25	50	100	250	500
Ethyl acetate			5	10	25	50	100	250	500
Acrolein			5	10	25	50	100	250	500
Trichlorotrifluoroethane			5	10	25	50	100	250	500
Allyl chloride			5	10	25	50	100	250	500
Acrylonitrile			5	10	25	50	100	250	500
1,4-Dioxane			50	100	250	500	1000	2500	5000
Isobutyl alcohol			50	100	250	500	1000	2500	5000
Methacrylonitrile			5	10	25	50	100	250	500
Propionitrile			5	10	25	50	100	250	500
Methyl methacrylate			5	10	25	50	100	250	500
Chlorotrifluoroethylene			5	10	25	50	100	250	500
2-Chloro-1,1,1-trifluoroethane			5	10	25	50	100	250	500

tert-Butyl alcohol			50	100	250	500	1000	2500	5000
Isopropyl ether			1	2	5	10	20	50	100
Ethyl tert-butyl ether			1	2	5	10	20	50	100
Isopropyl alcohol			50	100	250	500	1000	2500	5000
Methyl tert-amyl ether			1	2	5	10	20	50	100
1-Chlorohexane			1	2	5	10	20	50	100
2-Chloro-1,3-butadiene(chloroprene)			1	2	5	10	20	50	100
Chlorobenzene-d5 (IS)									
Toluene-d8 (surr)		0.5	1	2	5	10	20	50	100
4-Methyl-2-pentanone	1	2.5	5	10	25	50	100	250	500
Toluene		0.5	1	2	5	10	20	50	100
trans-1,3-Dichloropropene		0.5	1	2	5	10	20	50	100
1,1,2-Trichloroethane		0.5	1	2	5	10	20	50	100
Tetrachloroethene		0.5	1	2	5	10	20	50	100
1,3-Dichloropropane		0.5	1	2	5	10	20	50	100
2-Hexanone	1	2.5	5	10	25	50	20	250	500
Dibromochloromethane		0.5	1	2	5	10	20	50	100
1,2-Dibromoethane		0.5	1	2	5	10	20	50	100
Chlorobenzene		0.5	1	2	5	10	20	50	100
1,1,1,2-Tetrachloroethane		0.5	1	2	5	10	20	50	100
Ethylbenzene		0.5	1	2	5	10	20	50	100
m,p-Xylene		1	2	4	10	20	20	100	200
o-Xylene		0.5	1	2	5	10	20	50	100
Xylenes (total)		1.5	3	6	15	30	60	150	300
Stryene		0.5	1	2	5	10	20	50	100
Cyclohexanone			50	100	250	500	1000	2500	5000
Ethyl methacrylate			5	10	25	50	100	250	500
1,4-Dichlorobenzene-d4 (IS)									
Bromofluorobenzene (surr)		0.5	1	2	5	10	20	50	100
Bromoform		0.5	1	2	5	10	20	50	100
Isopropylbenzene		0.5	1	2	5	10	20	50	100
1,1,2,2-Tetrachloroethane		0.5	1	2	5	10	20	50	100
Bromobenzene		0.5	1	2	5	10	20	50	100
1,2,3-Trichloropropane		0.5	1	2	5	10	20	50	100
n-Propylbenzene		0.5	1	2	5	10	20	50	100
2-Chlorotoluene		0.5	1	2	5	10	20	50	100
1,3,5-Trimethylbenzene		0.5	1	2	5	10	20	50	100
4-Chlorotoluene		0.5	1	2	5	10	20	50	100
1,2,4-Trimethylbenzene		0.5	1	2	5	10	20	50	100
sec-Butylbenzene		0.5	1	2	5	10	20	50	100
1,3-Dichlorobenzene		0.5	1	2	5	10	20	50	100
tert-Butylbenzene		0.5	1	2	5	10	20	50	100
Isopropyltoluene		0.5	1	2	5	10	20	50	100
1,4-Dichlorobenzene		0.5	1	2	5	10	20	50	100
n-Butylbenzene		0.5	1	2	5	10	20	50	100
1,2-Dichlorobenzene		0.5	1	2	5	10	20	50	100
1,2-Dibromo-3-chloropropa		0.5	1	2	5	10	20	50	100
1,2,4-Trichlorobenzene		0.5	1	2	5	10	20	50	100
Hexachlorobutadiene		0.5	1	2	5	10	20	50	100
Naphthalene		0.5	1	2	5	10	20	50	100
1,2,3-Trichlorobenzene		0.5	1	2	5	10	20	50	100
cis-1,4-Dichloro-2-butene			5	10	25	50	100	250	500
trans-1,4-Dichloro-2-butene			5	10	25	50	100	250	500
Tetrahydrofuran			5	10	25	50	100	250	500
Pentachloroethane			5	10	25	50	100	250	500
Benzyl chloride			5	10	25	50	100	250	500
bis(2-Chloro-isopropyl)ether			5	10	25	50	100	250	500

Report Date: 21-Dec-2009 12:39

Calibration History

Method : /chem/VOA1.i/121809v1/VOA1-8260ox-121709.m
Start Cal Date: 17-DEC-2009 13:26
End Cal Date : 17-DEC-2009 21:57

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 1.00000		
17-DEC-2009 18:56	CALsubS+SS	/chem/VOA1.i/121709v1/1r420.d
17-DEC-2009 14:26	CALsubL+	/chem/VOA1.i/121709v1/1r411.d
Cal Level: 2 , Cal Amount: 2.00000		
17-DEC-2009 19:26	CALsubS+SS	/chem/VOA1.i/121709v1/1r421.d
17-DEC-2009 15:27	CALsubL+	/chem/VOA1.i/121709v1/1r413.d
Cal Level: 3 , Cal Amount: 5.00000		
17-DEC-2009 19:56	CALsubS+SS	/chem/VOA1.i/121709v1/1r422.d
17-DEC-2009 15:57	CALsubL+	/chem/VOA1.i/121709v1/1r414.d
Cal Level: 4 , Cal Amount: 10.00000		
17-DEC-2009 20:27	CALsubS+SS	/chem/VOA1.i/121709v1/1r423.d
17-DEC-2009 16:26	CALsubL+	/chem/VOA1.i/121709v1/1r415.d
Cal Level: 5 , Cal Amount: 20.00000		
17-DEC-2009 20:57	CALsubS+SS	/chem/VOA1.i/121709v1/1r424.d
17-DEC-2009 16:56	CALsubL+	/chem/VOA1.i/121709v1/1r416.d
Cal Level: 6 , Cal Amount: 50.00000		
17-DEC-2009 21:27	CALsubS+SS	/chem/VOA1.i/121709v1/1r425.d
17-DEC-2009 17:26	CALsubL+	/chem/VOA1.i/121709v1/1r417.d
Cal Level: 7 , Cal Amount: 100.00000		
17-DEC-2009 21:57	CALsubS+SS	/chem/VOA1.i/121709v1/1r426.d
17-DEC-2009 17:56	CALsubL+	/chem/VOA1.i/121709v1/1r418.d
Cal Level: 8 , Cal Amount: 200.00000		
17-DEC-2009 13:26	BENZENE+	/chem/VOA1.i/121709v1/1r409.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 6

| Ccal Level: 6 , Ccal Amount: 50.0 |

18-DEC-2009 10:23	CALsubL+	/chem/VOA1.i/121809v1/1r503.d

| Ccal Level: 6 , Ccal Amount: 50.0 |

18-DEC-2009 11:28	CALsubS+SS	/chem/VOA1.i/121809v1/1r505.d

| Ccal Level: 6 , Ccal Amount: 50.0 |

18-DEC-2009 09:53	CALsubL+	/chem/VOA1.i/121809v1/1r502.d

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 17-DEC-2009 13:26
End Cal Date : 17-DEC-2009 21:57
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/VOA1.i/121809v1/VOA1-8260ox-121709.m
Cal Date : 19-Dec-2009 14:24 ron01469

Calibration File Names:
Level 1: /chem/VOA1.i/121709v1/1r420.d
Level 2: /chem/VOA1.i/121709v1/1r421.d
Level 3: /chem/VOA1.i/121709v1/1r422.d
Level 4: /chem/VOA1.i/121709v1/1r423.d
Level 5: /chem/VOA1.i/121709v1/1r424.d
Level 6: /chem/VOA1.i/121709v1/1r425.d
Level 7: /chem/VOA1.i/121709v1/1r426.d
Level 8: /chem/VOA1.i/121709v1/1r409.d

Compound	1 Level 1	2 Level 2	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	200 Level 8									
M 1 Xylenes (total)	0.94993	0.96986	1.04684	0.90933	1.06190	1.03526					
	1.06685	+++++					AVRG		1.00571		6.17558
M 2 1,2-Dichloroethylene (total)	0.39459	0.39809	0.41845	0.36222	0.42047	0.42125					
	0.43750	+++++					AVRG		0.40751		6.07931
M 3 1,3-Dichloropropylene	0.79149	0.76022	0.87890	0.81655	0.94687	0.96481					
	1.03716	+++++					AVRG		0.88514		11.52028
4 Chlorotrifluoroethylene	17314	61906	95503	209513	408505	655803					
	880678	+++++					LINR	0.03423	0.22684		0.99712
5 Dichlorodifluoromethane	4634	11507	35600	44395	86248	277079					
	567930	+++++					LINR	0.00522	0.28418		0.99905

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 17-DEC-2009 13:26
End Cal Date : 17-DEC-2009 21:57
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/VOA1.i/121809v1/VOA1-8260ox-121709.m
Cal Date : 19-Dec-2009 14:24 ron01469

Compound	1 Level 1 100 Level 7	2 Level 2 200 Level 8	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
6 Chloromethane	0.48851	0.54050	0.55024	0.44982	0.52271	0.54415					
	0.54196	+++++					AVRG		0.51970		7.16679
7 Vinyl chloride	0.47524	0.47673	0.45732	0.35896	0.42278	0.41726					
	0.41654	+++++					AVRG		0.43212		9.62913
8 2-Chloro-1,1,1-trifluoroethan	+++++	127797	215500	434110	811927	1347525					
	1771053	+++++					LINR	0.01494	0.45635		0.99554
9 Bromomethane	0.28178	0.29746	0.29450	0.24489	0.29091	0.28413					
	0.27975	+++++					AVRG		0.28192		6.24822
10 Chloroethane	0.29181	0.30650	0.30544	0.26230	0.31984	0.31793					
	0.30933	+++++					AVRG		0.30188		6.53884
11 Trichlorofluoromethane	0.41202	0.43953	0.45287	0.39013	0.45602	0.49371					
	0.48982	+++++					AVRG		0.44773		8.47603
12 Ethyl Ether	0.38139	0.40440	0.35425	0.33145	0.38356	0.37554					
	0.38665	+++++					AVRG		0.37389		6.39758
13 Acrolein	0.06484	0.07110	0.06960	0.07066	0.06970	0.07601					
	0.07601	+++++					AVRG		0.07113		5.49913
14 Trichlorotrifluoroethane	0.31728	0.28283	0.30430	0.31273	0.26693	0.29034					
	0.30209	+++++					AVRG		0.29664		5.97728

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 17-DEC-2009 13:26
End Cal Date : 17-DEC-2009 21:57
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/VOA1.i/121809v1/VOA1-8260ox-121709.m
Cal Date : 19-Dec-2009 14:24 ron01469

Compound	1 Level 1 100 Level 7	2 Level 2 200 Level 8	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
15 1,1-Dichloroethylene	0.65853	0.69826	0.73125	0.60544	0.70006	0.73825					
	0.76533	+++++					AVRG		0.69959		7.69119
16 Acetone	0.33125	0.28405	0.28838	0.28737	0.31028	0.30716					
	0.30886	+++++					AVRG		0.30248		5.59393
17 Isopropyl Alcohol	+++++	64668	116421	230606	462328	1308642					
	2563752	+++++					LINR	1.83876	0.02704		0.99372
18 Iodomethane	0.54837	0.54749	0.58063	0.50333	0.57106	0.56342					
	0.56625	+++++					AVRG		0.55436		4.58679
19 Carbon disulfide	1.04837	1.13754	1.19034	1.00430	1.16007	1.18939					
	1.23769	+++++					AVRG		1.13824		7.32545
20 Allyl chloride	7872	16357	54830	122945	239242	782349					
	1746543	+++++					LINR	0.29193	0.18284		0.99540
21 Methyl acetate	0.30480	0.26240	0.29161	0.27818	0.30010	0.29235					
	0.29241	+++++					AVRG		0.28883		4.95133
22 Acetonitrile	0.05118	0.04733	0.04993	0.04960	0.05166	0.04925					
	0.04992	+++++					AVRG		0.04984		2.81886
23 Methylene chloride	+++++	26319	53903	88749	140147	424848					
	921999	+++++					LINR	-0.00189	0.45451		0.99942

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 17-DEC-2009 13:26
End Cal Date : 17-DEC-2009 21:57
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/VOA1.i/121809v1/VOA1-8260ox-121709.m
Cal Date : 19-Dec-2009 14:24 ron01469

Compound	1 Level 1 100 Level 7	2 Level 2 200 Level 8	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
24 tert-Butyl Alcohol	36962	107148	188587	384290	775596	2176446					
	4204060	++++++					LINR	1.31682	0.04416		0.99435
25 tert-Butyl methyl ether	1.06428	1.09533	1.10199	1.08828	1.14951	1.13923					
	1.21507	++++++					AVRG		1.12196		4.50006
26 trans-1,2-Dichloroethylene	0.37150	0.37356	0.40077	0.34641	0.39809	0.40670					
	0.41945	++++++					AVRG		0.38807		6.49661
27 Acrylonitrile	0.13879	0.14421	0.14079	0.14300	0.13986	0.14918					
	0.14607	++++++					AVRG		0.14313		2.57275
28 Isopropyl ether	++++++	86054	143189	299636	589102	1525953					
	3114768	++++++					LINR	0.00936	1.61143		0.99953
29 Vinyl acetate	0.65280	0.62757	0.65723	0.69621	0.76396	0.72816					
	0.70592	++++++					AVRG		0.69026		6.89010
30 1,1-Dichloroethane	0.77767	0.75144	0.79985	0.69776	0.80088	0.80133					
	0.82728	++++++					AVRG		0.77946		5.51872
31 2-Chloro-1,3-butadiene	0.53856	0.49255	0.57665	0.63047	0.56687	0.66611					
	0.71558	++++++					AVRG		0.59811		12.87774
32 Ethyl tert-butyl ether	++++++	75681	125441	264555	516269	1389733					
	2866711	++++++					LINR	0.01815	1.48731		0.99916

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 17-DEC-2009 13:26
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Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/VOA1.i/121809v1/VOA1-8260ox-121709.m
Cal Date : 19-Dec-2009 14:24 ron01469

Compound	1 Level 1	2 Level 2	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	200 Level 8									
33 2,2-Dichloropropane	0.44641	0.43999	0.44785	0.39838	0.48384	0.48070					
	0.48654	+++++					AVRG		0.45482		6.97777
34 Ethyl acetate	0.39622	0.37301	0.34819	0.35996	0.34694	0.36845					
	0.35650	+++++					AVRG		0.36418		4.69288
35 2-Butanone	0.32498	0.29983	0.31772	0.32315	0.35854	0.37774					
	0.36734	+++++					AVRG		0.33847		8.62892
36 cis-1,2-Dichloroethylene	0.41768	0.42262	0.43613	0.37802	0.44285	0.43580					
	0.45555	+++++					AVRG		0.42695		5.84108
37 Propionitrile	0.05471	0.05478	0.05443	0.05651	0.05444	0.05843					
	0.05690	+++++					AVRG		0.05574		2.79347
38 Tetrahydrofuran	0.33776	0.31409	0.31712	0.32320	0.30804	0.32423					
	0.30668	+++++					AVRG		0.31873		3.37891
39 Bromochloromethane	0.16937	0.18243	0.18561	0.17346	0.18913	0.18835					
	0.19783	+++++					AVRG		0.18374		5.28735
40 Methacrylonitrile	0.28749	0.28017	0.27957	0.29144	0.27868	0.29282					
	0.28296	+++++					AVRG		0.28473		2.05414
41 Chloroform	0.73934	0.75629	0.78313	0.67523	0.77565	0.78273					
	0.80194	+++++					AVRG		0.75919		5.55678

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 17-DEC-2009 13:26
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Integrator : HP RTE
Method file : /chem/VOA1.i/121809v1/VOA1-8260ox-121709.m
Cal Date : 19-Dec-2009 14:24 ron01469

Compound	1 Level 1 100 Level 7	2 Level 2 200 Level 8	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
42 Cyclohexane	0.71265	0.69334	0.75433	0.63572	0.76413	0.79603					
	0.79977	+++++					AVRG		0.73657		8.07339
43 1,1,1-Trichloroethane	0.48350	0.49398	0.51618	0.44034	0.54030	0.53477					
	0.53794	+++++					AVRG		0.50671		7.24508
44 Carbon tetrachloride	0.46456	0.47955	0.50223	0.44108	0.53314	0.54219					
	0.54465	+++++					AVRG		0.50106		8.15357
45 1,1-Dichloropropene	0.52226	0.53493	0.57439	0.47763	0.58059	0.59363					
	0.60749	+++++					AVRG		0.55584		8.28840
46 Isobutyl alcohol	0.01217	0.01218	0.01260	0.01292	0.01020	0.01420					
	0.01342	+++++					AVRG		0.01253		10.00060
47 Benzene	1.63393	1.59398	1.70750	1.44978	1.70316	1.69875					
	1.73137	1.46121					AVRG		1.62246		6.91796
49 Methyl tert-amyl ether	+++++	62439	104740	221271	432966	1170797					
	2409070	+++++					LINR	0.01872	1.25082		0.99919
50 Cyclohexene	0.54435	0.53848	0.59015	0.49810	0.59826	0.60785					
	0.61552	+++++					AVRG		0.57039		7.68512
51 1,2-Dichloroethane	0.60710	0.60440	0.60894	0.55428	0.61814	0.59887					
	0.61173	+++++					AVRG		0.60049		3.53686

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 17-DEC-2009 13:26
End Cal Date : 17-DEC-2009 21:57
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/VOA1.i/121809v1/VOA1-8260ox-121709.m
Cal Date : 19-Dec-2009 14:24 ron01469

Compound	1 Level 1 100 Level 7	2 Level 2 200 Level 8	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
53 n-Butyl alcohol	17909	31598	93677	213836	355810	1166468					
	2504807	+++++					LINR	4.05022	0.01261		0.99621
54 Trichloroethylene	0.40162	0.40745	0.43496	0.36932	0.42004	0.43163					
	0.44230	+++++					AVRG		0.41533		6.03315
55 Methylcyclohexane	0.62627	0.65054	0.68846	0.59693	0.71382	0.73247					
	0.74367	+++++					AVRG		0.67888		8.21647
56 Methyl methacrylate	0.22886	0.23546	0.23690	0.25298	0.24564	0.26211					
	0.25565	+++++					AVRG		0.24537		4.95406
57 1,2-Dichloropropane	0.42618	0.42979	0.45262	0.40054	0.46037	0.46437					
	0.48246	+++++					AVRG		0.44519		6.24291
58 1,4-Dioxane	0.00358	0.00330	0.00348	0.00358	0.00336	0.00371					
	0.00357	+++++					AVRG		0.00351		4.06886
59 Dibromomethane	0.26029	0.24224	0.24588	0.23433	0.25880	0.25261					
	0.26232	+++++					AVRG		0.25092		4.17552
60 Bromodichloromethane	0.50926	0.51863	0.55953	0.51519	0.58920	0.60255					
	0.62066	+++++					AVRG		0.55929		8.20445
61 2-Chloroethylvinyl ether	3320	6654	16837	44891	72737	+++++					
	+++++	+++++					LINR	0.08117	0.04822		0.99689

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 17-DEC-2009 13:26
End Cal Date : 17-DEC-2009 21:57
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/VOA1.i/121809v1/VOA1-8260ox-121709.m
Cal Date : 19-Dec-2009 14:24 ron01469

Compound	1 Level 1	2 Level 2	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	200 Level 8									
62 2-Nitropropane	7070	14240	41325	90077	194039	547484					
	1089774	+++++					LINR	0.12959	0.11432		0.99946
63 cis-1,3-Dichloropropylene	0.58612	0.56484	0.64871	0.59482	0.69712	0.72465					
	0.75586	+++++					AVRG		0.65316		11.40729
64 4-Methyl-2-pentanone	0.21479	0.20124	0.23607	0.23812	0.26615	0.28741					
	0.26603	+++++					AVRG		0.24426		12.55053
66 Toluene	1.46521	1.42863	1.49665	1.27740	1.49413	1.48160					
	1.53694	+++++					AVRG		1.45437		5.82261
67 Ethyl methacrylate	0.62982	0.65076	0.67701	0.72386	0.70269	0.72791					
	0.69966	+++++					AVRG		0.68739		5.35198
68 trans-1,3-Dichloropropylene	0.76770	0.71716	0.82801	0.78620	0.90451	0.92116					
	0.99882	+++++					AVRG		0.84622		11.72422
69 1,1,2-Trichloroethane	0.38168	0.40632	0.41313	0.40400	0.43605	0.42541					
	0.44735	+++++					AVRG		0.41628		5.27763
70 Tetrachloroethylene	0.47569	0.43289	0.45867	0.37578	0.45285	0.44838					
	0.45872	+++++					AVRG		0.44328		7.31412
71 2-Hexanone	0.56340	0.54183	0.59354	0.60315	0.68692	0.72227					
	0.65208	+++++					AVRG		0.62331		10.59945

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 17-DEC-2009 13:26
End Cal Date : 17-DEC-2009 21:57
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/VOA1.i/121809v1/VOA1-8260ox-121709.m
Cal Date : 19-Dec-2009 14:24 ron01469

Compound	1 Level 1	2 Level 2	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	200 Level 8									
72 1,3-Dichloropropane	0.88365	0.83969	0.89719	0.82861	0.92961	0.88191					
	0.92565	+++++					AVRG		0.88376		4.38843
73 Dibromochloromethane	0.45877	0.47737	0.51711	0.48955	0.55570	0.55863					
	0.60098	+++++					AVRG		0.52259		9.81323
74 1,2-Dibromoethane	0.45115	0.44054	0.45840	0.43614	0.49979	0.48669					
	0.51336	+++++					AVRG		0.46944		6.47778
75 1-Chlorohexane	+++++	0.63060	0.44690	0.47806	0.44136	0.48274					
	0.48848	+++++					AVRG		0.49469		14.02193
77 Chlorobenzene	1.47658	1.48489	1.58303	1.39069	1.59300	1.52504					
	1.58393	+++++					AVRG		1.51959		4.89896
78 Ethylbenzene	2.73939	2.65894	2.87432	2.49270	2.95069	2.86045					
	2.93464	+++++					AVRG		2.78730		5.98349
79 1,1,1,2-Tetrachloroethane	0.46710	0.47705	0.50032	0.46956	0.54220	0.53154					
	0.56441	+++++					AVRG		0.50746		7.66207
80 m,p-Xylenes	0.96338	0.99443	1.06188	0.91699	1.06459	1.03480					
	1.06400	+++++					AVRG		1.01429		5.71200
81 o-Xylene	0.92296	0.92068	1.01675	0.89402	1.05652	1.03617					
	1.07254	+++++					AVRG		0.98852		7.45464

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 17-DEC-2009 13:26
End Cal Date : 17-DEC-2009 21:57
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/VOA1.i/121809v1/VOA1-8260ox-121709.m
Cal Date : 19-Dec-2009 14:24 ron01469

Compound	1 Level 1 100 Level 7	2 Level 2 200 Level 8	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
82 Styrene	1.46715	1.50616	1.68975	1.53152	1.79110	1.79165					
	1.86481	+++++					AVRG		1.66316		9.65288
83 Bromoform	4145	7916	21098	44307	78595	249234					
	535740	+++++					LINR	0.02681	0.72529		0.99945
84 Isopropylbenzene	4.68173	4.56078	4.98694	4.23435	5.31092	5.26026					
	5.48304	+++++					AVRG		4.93115		9.23815
85 cis-1,4-Dichloro-2-butene	0.34725	0.34844	0.37013	0.38870	0.38152	0.41058					
	0.40570	+++++					AVRG		0.37890		6.66885
86 Cyclohexanone	0.06763	0.06943	0.06963	0.07265	0.07578	0.08184					
	+++++	+++++					AVRG		0.07283		7.23346
88 1,1,2,2-Tetrachloroethane	1.22461	1.05159	1.10817	1.13584	1.24257	1.24947					
	1.30412	+++++					AVRG		1.18805		7.62825
89 n-Propylbenzene	5.91393	5.84477	6.21942	5.20861	6.52547	6.56652					
	6.67002	+++++					AVRG		6.13553		8.47766
90 trans-1,4-Dichloro-2-butene	0.31943	0.33408	0.34483	0.36424	0.35879	0.38701					
	0.38138	+++++					AVRG		0.35568		6.90918
91 Bromobenzene	1.21267	1.14263	1.17695	1.03606	1.22066	1.19524					
	1.25396	+++++					AVRG		1.17688		6.05619

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 17-DEC-2009 13:26
End Cal Date : 17-DEC-2009 21:57
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/VOA1.i/121809v1/VOA1-8260ox-121709.m
Cal Date : 19-Dec-2009 14:24 ron01469

Compound	1 Level 1 100 Level 7	2 Level 2 200 Level 8	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
92 1,2,3-Trichloropropane	0.29455	0.30883	0.31100	0.28319	0.31857	0.31270					
	0.32356	+++++					AVRG		0.30749		4.56165
93 1,3,5-Trimethylbenzene	3.92739	4.01597	4.40384	3.75330	4.56192	4.61175					
	4.71321	+++++					AVRG		4.28391		8.85752
94 2-Chlorotoluene	4.18989	4.13985	4.38991	3.70327	4.45640	4.42540					
	4.59915	+++++					AVRG		4.27198		6.93165
95 4-Chlorotoluene	3.74203	3.75004	3.94133	3.30902	4.02416	4.08453					
	4.23945	+++++					AVRG		3.87008		7.87163
96 tert-Butylbenzene	3.19861	3.62558	3.54064	3.03120	3.64733	3.76217					
	3.79753	+++++					AVRG		3.51472		8.25815
97 1,2,4-Trimethylbenzene	4.14843	4.08556	4.56169	3.88972	4.69789	4.73207					
	4.85492	+++++					AVRG		4.42433		8.50974
98 Pentachloroethane	0.37983	0.43833	0.41420	0.49680	0.33943	0.45190					
	0.42032	+++++					AVRG		0.42012		12.05499
99 sec-Butylbenzene	5.25649	5.29490	5.79412	4.90035	5.96681	6.06611					
	6.14338	+++++					AVRG		5.63173		8.51043
100 4-Isopropyltoluene	3.88557	3.91207	4.39734	3.76386	4.59180	4.64160					
	4.70377	+++++					AVRG		4.27086		9.45356

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 17-DEC-2009 13:26
End Cal Date : 17-DEC-2009 21:57
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/VOA1.i/121809v1/VOA1-8260ox-121709.m
Cal Date : 19-Dec-2009 14:24 ron01469

Compound	1 Level 1 100 Level 7	2 Level 2 200 Level 8	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
101 1,3-Dichlorobenzene	2.26506	2.22860	2.34003	2.03460	2.38750	2.32771					
	2.42644	+++++					AVRG		2.28713		5.68981
103 1,4-Dichlorobenzene	2.37087	2.32322	2.31533	2.06880	2.41564	2.35216					
	2.47272	+++++					AVRG		2.33125		5.49155
104 Benzyl chloride	1.65395	1.74973	1.88958	2.06407	2.04500	2.19972					
	2.09266	+++++					AVRG		1.95639		10.13450
105 n-Butylbenzene	4.15554	4.15464	4.58993	3.92961	4.86897	4.90702					
	5.03734	+++++					AVRG		4.52044		9.72252
106 1,2-Dichlorobenzene	2.14225	2.09966	2.15610	1.96170	2.27666	2.24067					
	2.33585	+++++					AVRG		2.17327		5.73170
107 bis(2-Chloroisopropyl)ether	0.35444	0.44472	0.43116	0.46324	0.47339	0.53988					
	0.49699	+++++					AVRG		0.45769		12.64882
108 1,2-Dibromo-3-chloropropane	1016	1990	5799	13390	22261	73669					
	168000	+++++					LINR	0.04224	0.22710		0.99776
109 1,2,4-Trichlorobenzene	1.26932	1.11504	1.11692	1.07128	1.28838	1.22946					
	1.47355	+++++					AVRG		1.22342		11.32429
110 Hexachlorobutadiene	0.77567	0.75620	0.80958	0.72497	0.86849	0.86453					
	0.92769	+++++					AVRG		0.81816		8.79704

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 17-DEC-2009 13:26
End Cal Date : 17-DEC-2009 21:57
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/VOA1.i/121809v1/VOA1-8260ox-121709.m
Cal Date : 19-Dec-2009 14:24 ron01469

Compound	1 Level 1	2 Level 2	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	200 Level 8									
111 Naphthalene	18385	27302	69676	156979	280194	848437					
	2078041	+++++					LINR	0.04766	2.79235		0.99432
112 1,2,3-Trichlorobenzene	1.03792	0.79225	0.80520	0.83009	1.04491	0.85728					
	1.03151	+++++					AVRG		0.91417		12.88300
$ 48 1,2-Dichloroethane-d4	0.61083	0.60209	0.58068	0.60294	0.59083	0.66971					
	0.58381	+++++					AVRG		0.60584		4.98389
$ 65 Toluene-d8	2.94102	2.87365	2.77552	2.90697	2.85289	2.80136					
	2.83664	+++++					AVRG		2.85543		2.02109
$ 87 Bromofluorobenzene	2.14130	2.01859	2.01923	2.10724	1.99625	2.04053					
	2.06272	+++++					AVRG		2.05512		2.55181

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 17-DEC-2009 13:26
End Cal Date : 17-DEC-2009 21:57
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/VOA1.i/121809v1/VOA1-8260ox-121709.m
Cal Date : 19-Dec-2009 14:24 ron01469

Curve	Formula	Units
Averaged	Amt = Rsp/ml	Response
Linear	Amt = b + Rsp/ml	Response

Data File: /chem/VOA1.i/121709v1/1r428.d
Report Date: 21-Dec-2009 09:53

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA1.i
Lab File ID: 1r428.d
Analysis Type: WATER
Lab Sample ID: W1VM091217-18
Method: /chem/VOA1.i/121709v1/VOA1-8260ox-121709.m

Injection Date: 17-DEC-2009 22:57
Init. Cal. Date(s): 17-DEC-2009 17-DEC-2009
Init. Cal. Times: 13:26 21:57
Quant Type: ISTD

	COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
M	1 Xylenes (total)	1.00571	1.08274	1.08274	0.050	7.65971	30.00000	Averaged	
M	2 1,2-Dichloroethylene (total	0.40751	0.42827	0.42827	0.050	5.09444	30.00000	Averaged	
M	3 1,3-Dichloropropylene	0.88514	1.01603	1.01603	0.050	14.78691	30.00000	Averaged	
	5 Dichlorodifluoromethane	44.17390	50.00000	0.24958	0.050	-11.65221	30.00000	Linear	
	6 Chloromethane	0.51970	0.48595	0.48595	0.100	-6.49415	30.00000	Averaged	spcc
	7 Vinyl chloride	0.43212	0.40394	0.40394	0.050	-6.51979	20.00000	Averaged	ccc
	9 Bromomethane	0.28210	0.28119	0.28119	0.050	-0.32083	30.00000	Averaged	
	10 Chloroethane	0.30188	0.30482	0.30482	0.050	0.97392	30.00000	Averaged	
	11 Trichlorofluoromethane	0.44773	0.47946	0.47946	0.050	7.08587	30.00000	Averaged	
	12 Ethyl Ether	0.37389	0.38351	0.38351	0.010	2.57247	30.00000	Averaged	
	16 Acetone	0.30248	0.28929	0.28929	0.000	-4.36166	40.00000	Averaged	
	22 Acetonitrile	0.04984	0.05445	0.05445	0.010	9.26527	30.00000	Averaged	
	15 1,1-Dichloroethylene	0.69959	0.69867	0.69867	0.050	-0.13124	20.00000	Averaged	ccc
	21 Methyl acetate	0.28883	0.31596	0.31596	0.010	9.39216	40.00000	Averaged	
	18 Iodomethane	0.55436	0.55775	0.55775	0.050	0.61108	30.00000	Averaged	
	23 Methylene chloride	49.74003	50.00000	0.45301	0.000	-0.51994	30.00000	Linear	
	19 Carbon disulfide	1.13824	1.18438	1.18438	0.050	4.05313	30.00000	Averaged	
	25 tert-Butyl methyl ether	1.12196	1.20960	1.20960	0.050	7.81191	30.00000	Averaged	
	26 trans-1,2-Dichloroethylene	0.38807	0.40463	0.40463	0.050	4.26889	30.00000	Averaged	
	29 Vinyl acetate	0.69026	0.78885	0.78885	0.010	14.28310	40.00000	Averaged	
	30 1,1-Dichloroethane	0.77946	0.80732	0.80732	0.100	3.57386	30.00000	Averaged	spcc
	35 2-Butanone	0.33847	0.33028	0.33028	0.030	-2.41926	40.00000	Averaged	
	36 cis-1,2-Dichloroethylene	0.42695	0.45191	0.45191	0.050	5.84534	30.00000	Averaged	
	33 2,2-Dichloropropane	0.45439	0.47156	0.47156	0.050	3.78034	30.00000	Averaged	
	41 Chloroform	0.75919	0.80022	0.80022	0.010	5.40526	20.00000	Averaged	ccc
	39 Bromochloromethane	0.18374	0.20003	0.20003	0.010	8.86726	30.00000	Averaged	
	43 1,1,1-Trichloroethane	0.50671	0.53061	0.53061	0.010	4.71555	30.00000	Averaged	
	42 Cyclohexane	0.73657	0.77955	0.77955	0.010	5.83609	30.00000	Averaged	
	45 1,1-Dichloropropene	0.55584	0.60113	0.60113	0.010	8.14672	30.00000	Averaged	
	53 n-Butyl alcohol	5603	5000	0.01362	0.001	12.05240	40.00000	Linear	
	44 Carbon tetrachloride	0.50106	0.53826	0.53826	0.010	7.42421	30.00000	Averaged	
$	48 1,2-Dichloroethane-d4	0.59741	0.65263	0.65263	0.010	9.24242	30.00000	Averaged	
	51 1,2-Dichloroethane	0.60049	0.62546	0.62546	0.010	4.15714	30.00000	Averaged	
	47 Benzene	1.62246	1.71937	1.71937	0.010	5.97318	30.00000	Averaged	
	50 Cyclohexene	0.57039	0.58842	0.58842	0.010	3.16148	30.00000	Averaged	

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA1.i Injection Date: 17-DEC-2009 22:57
Lab File ID: 1r428.d Init. Cal. Date(s): 17-DEC-2009 17-DEC-2009
Analysis Type: WATER Init. Cal. Times: 13:26 21:57
Lab Sample ID: W1VM091217-18 Quant Type: ISTD
Method: /chem/VOA1.i/121709v1/VOA1-8260ox-121709.m

COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
54 Trichloroethylene	0.41533	0.44171	0.44171	0.010	6.35017	30.00000	Averaged	
57 1,2-Dichloropropane	0.44519	0.48303	0.48303	0.010	8.49895	20.00000	Averaged	ccc
55 Methylcyclohexane	0.67888	0.73751	0.73751	0.010	8.63596	30.00000	Averaged	
60 Bromodichloromethane	0.55929	0.62904	0.62904	0.010	12.47140	30.00000	Averaged	
59 Dibromomethane	0.25092	0.26506	0.26506	0.010	5.63271	30.00000	Averaged	
61 2-Chloroethylvinyl ether	455	250	0.08699	0.000	82.02379	30.00000	Linear	<-
64 4-Methyl-2-pentanone	0.24426	0.26174	0.26174	0.010	7.15811	40.00000	Averaged	
63 cis-1,3-Dichloropropylene	0.65316	0.74796	0.74796	0.010	14.51395	30.00000	Averaged	
$ 65 Toluene-d8	2.78542	3.07353	3.07353	0.010	10.34355	30.00000	Averaged	
66 Toluene	1.45437	1.53247	1.53247	0.010	5.37034	20.00000	Averaged	ccc
68 trans-1,3-Dichloropropylene	0.84622	0.98007	0.98007	0.010	15.81730	30.00000	Averaged	
69 1,1,2-Trichloroethane	0.41628	0.45507	0.45507	0.010	9.31814	30.00000	Averaged	
71 2-Hexanone	0.62331	0.60444	0.60444	0.010	-3.02719	40.00000	Averaged	
72 1,3-Dichloropropane	0.88376	0.94928	0.94928	0.010	7.41405	30.00000	Averaged	
70 Tetrachloroethylene	0.44328	0.46018	0.46018	0.010	3.81270	30.00000	Averaged	
73 Dibromochloromethane	0.52259	0.59588	0.59588	0.010	14.02580	30.00000	Averaged	
74 1,2-Dibromoethane	0.46944	0.52465	0.52465	0.010	11.76021	30.00000	Averaged	
77 Chlorobenzene	1.51959	1.61504	1.61504	0.300	6.28123	30.00000	Averaged	spcc
79 1,1,1,2-Tetrachloroethane	0.50746	0.56614	0.56614	0.010	11.56535	30.00000	Averaged	
78 Ethylbenzene	2.78730	2.96337	2.96337	0.010	6.31659	20.00000	Averaged	ccc
80 m,p-Xylenes	1.01429	1.07930	1.07930	0.010	6.40871	30.00000	Averaged	
81 o-Xylene	0.98852	1.08964	1.08964	0.010	10.22890	30.00000	Averaged	
82 Styrene	1.66316	1.86998	1.86998	0.010	12.43542	30.00000	Averaged	
83 Bromoform	50.23179	50.00000	0.70922	0.100	0.46358	30.00000	Linear	spcc
84 Isopropylbenzene	4.93115	5.28643	5.28643	0.010	7.20479	30.00000	Averaged	
88 1,1,2,2-Tetrachloroethane	1.18805	1.29626	1.29626	0.300	9.10775	30.00000	Averaged	spcc
$ 87 Bromofluorobenzene	2.00113	2.08223	2.08223	0.010	4.05263	30.00000	Averaged	
92 1,2,3-Trichloropropane	0.30749	0.32497	0.32497	0.010	5.68755	30.00000	Averaged	
91 Bromobenzene	1.17688	1.24576	1.24576	0.010	5.85268	30.00000	Averaged	
89 n-Propylbenzene	6.13553	6.49581	6.49581	0.010	5.87193	30.00000	Averaged	
94 2-Chlorotoluene	4.27198	4.49512	4.49512	0.010	5.22330	30.00000	Averaged	
93 1,3,5-Trimethylbenzene	4.28391	4.58482	4.58482	0.010	7.02413	30.00000	Averaged	
95 4-Chlorotoluene	3.87008	4.15567	4.15567	0.010	7.37932	30.00000	Averaged	
96 tert-Butylbenzene	3.51472	3.65977	3.65977	0.010	4.12685	30.00000	Averaged	
97 1,2,4-Trimethylbenzene	4.42433	4.67781	4.67781	0.010	5.72929	30.00000	Averaged	
99 sec-Butylbenzene	5.63174	5.96950	5.96950	0.010	5.99744	30.00000	Averaged	

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA1.i
Lab File ID: 1r428.d
Analysis Type: WATER
Lab Sample ID: W1VM091217-18
Method: /chem/VOA1.i/121709v1/VOA1-8260ox-121709.m

Injection Date: 17-DEC-2009 22:57
Init. Cal. Date(s): 17-DEC-2009 17-DEC-2009
Init. Cal. Times: 13:26 21:57
Quant Type: ISTD

COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
100 4-Isopropyltoluene	4.27086	4.57059	4.57059	0.010	7.01819	30.00000	Averaged
101 1,3-Dichlorobenzene	2.28713	2.37127	2.37127	0.010	3.67889	30.00000	Averaged
103 1,4-Dichlorobenzene	2.33125	2.42033	2.42033	0.010	3.82106	30.00000	Averaged
105 n-Butylbenzene	4.52044	4.87577	4.87577	0.010	7.86066	30.00000	Averaged
106 1,2-Dichlorobenzene	2.17327	2.25477	2.25477	0.010	3.74986	30.00000	Averaged
108 1,2-Dibromo-3-chloropropane	47.43781	50.00000	0.20587	0.010	-5.12437	30.00000	Linear
109 1,2,4-Trichlorobenzene	1.22342	1.19337	1.19337	0.010	-2.45661	30.00000	Averaged
110 Hexachlorobutadiene	0.81816	0.83470	0.83470	0.010	2.02097	30.00000	Averaged
111 Naphthalene	38.09339	50.00000	1.99432	0.010	-23.81322	30.00000	Linear
112 1,2,3-Trichlorobenzene	0.91417	0.74663	0.74663	0.010	-18.32692	30.00000	Averaged

Average %D / Drift Results.

Calculated Average %D/Drift = 7.89459
Maximun Average %D/Drift = 20.00000
* Passed Average %D/Drift Test.

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/121709v1/1r428.d
Lab Smp Id: W1VM091217-18 Client Smp ID: ICV
Inj Date : 17-DEC-2009 22:57
Operator : RXM4 Inst ID: VOA1.i
Smp Info : |W1VM091217-18|ICV|1|VOAF|1|
Misc Info : GEL 5ML N/A UVM091129-01D/IVM091214-01
Comment :
Method : /chem/VOA1.i/121709v1/VOA1-8260ox-121709.m
Meth Date : 21-Dec-2009 09:53 ehl Quant Type: ISTD
Cal Date : 17-DEC-2009 21:27 Cal File: 1r425.d
Als bottle: 22 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: CALsubL+.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (Uf/Vo) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	sample purged

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
M 1 Xylenes (total)	106				2057420	150.000	162
M 2 1,2-Dichloroethylene (total)	96				763050	100.000	105
M 3 1,3-Dichloropropylene	75				1287095	100.000	115
5 Dichlorodifluoromethane	85	5.012	5.012	(0.366)	222340	50.0000	44.2
6 Chloromethane	50	5.557	5.557	(0.406)	432908	50.0000	46.8
7 Vinyl chloride	62	5.937	5.937	(0.434)	359853	50.0000	46.7
9 Bromomethane	96	6.952	6.952	(0.508)	250500	50.0000	49.8
10 Chloroethane	64	7.219	7.219	(0.528)	271547	50.0000	50.5
11 Trichlorofluoromethane	101	7.845	7.845	(0.573)	427124	50.0000	53.5
12 Ethyl Ether	59	8.480	8.480	(0.620)	341650	50.0000	51.3
16 Acetone	43	9.253	9.253	(0.676)	1288556	250.000	239
22 Acetonitrile	41	9.976	9.976	(0.729)	1212770	1250.00	1360
15 1,1-Dichloroethylene	61	9.097	9.097	(0.665)	622411	50.0000	49.9
21 Methyl acetate	43	9.838	9.838	(0.719)	1407371	250.000	273
18 Iodomethane	142	9.474	9.474	(0.692)	2484361	250.000	252

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
	23 Methylene chloride	84	10.137	10.137	(0.741)	403566	50.0000	49.7
	19 Carbon disulfide	76	9.580	9.580	(0.700)	5275512	250.000	260
	25 tert-Butyl methyl ether	73	10.441	10.441	(0.763)	1077575	50.0000	53.9
	26 trans-1,2-Dichloroethylene	96	10.552	10.552	(0.771)	360469	50.0000	52.1
	29 Vinyl acetate	43	11.297	11.297	(0.826)	3513753	250.000	286
	30 1,1-Dichloroethane	63	11.325	11.325	(0.828)	719197	50.0000	51.8
	35 2-Butanone	43	12.186	12.186	(0.891)	1471158	250.000	244
	36 cis-1,2-Dichloroethylene	96	12.204	12.204	(0.892)	402581	50.0000	52.9
	33 2,2-Dichloropropane	77	12.163	12.163	(0.889)	420092	50.0000	51.9
	41 Chloroform	83	12.614	12.614	(0.922)	712878	50.0000	52.7
	39 Bromochloromethane	128	12.558	12.558	(0.918)	178199	50.0000	54.4
	43 1,1,1-Trichloroethane	97	12.844	12.844	(0.939)	472693	50.0000	52.4
	42 Cyclohexane	56	12.839	12.839	(0.938)	694465	50.0000	52.9
	45 1,1-Dichloropropene	75	13.051	13.051	(0.954)	535515	50.0000	54.1
	53 n-Butyl alcohol	56	13.930	13.930	(1.018)	1213639	5000.00	5600
	44 Carbon tetrachloride	117	13.023	13.023	(0.952)	479509	50.0000	53.7
$	48 1,2-Dichloroethane-d4	65	13.341	13.341	(0.975)	581394	50.0000	54.6
	51 1,2-Dichloroethane	62	13.438	13.438	(0.982)	557188	50.0000	52.1
	47 Benzene	78	13.332	13.332	(0.974)	1531701	50.0000	53.0
	50 Cyclohexene	54	13.396	13.396	(0.979)	524195	50.0000	51.6
*	52 Fluorobenzene	96	13.682	13.682	(1.000)	890850	50.0000	
	54 Trichloroethylene	95	14.114	14.114	(1.032)	393495	50.0000	53.2
	57 1,2-Dichloropropane	63	14.460	14.460	(1.057)	430304	50.0000	54.2
	55 Methylcyclohexane	83	14.280	14.280	(1.044)	657008	50.0000	54.3
	60 Bromodichloromethane	83	14.750	14.750	(1.078)	560380	50.0000	56.2
	59 Dibromomethane	93	14.621	14.621	(1.069)	236126	50.0000	52.8
	61 2-Chloroethylvinyl ether	63	15.030	15.030	(1.099)	387483	250.000	455
	64 4-Methyl-2-pentanone	58	15.357	15.357	(0.895)	828937	250.000	268
	63 cis-1,3-Dichloropropylene	75	15.256	15.256	(1.115)	666320	50.0000	57.2
$	65 Toluene-d8	98	15.518	15.518	(0.904)	1946766	50.0000	55.2
	66 Toluene	92	15.596	15.596	(0.909)	970662	50.0000	52.7
	68 trans-1,3-Dichloropropylene	75	15.877	15.877	(0.925)	620775	50.0000	57.9
	69 1,1,2-Trichloroethane	83	16.103	16.103	(0.939)	288237	50.0000	54.6
	71 2-Hexanone	43	16.264	16.264	(0.948)	1914262	250.000	242
	72 1,3-Dichloropropane	76	16.305	16.305	(0.950)	601272	50.0000	53.7
	70 Tetrachloroethylene	164	16.190	16.190	(0.944)	291478	50.0000	51.9
	73 Dibromochloromethane	129	16.545	16.545	(0.964)	377431	50.0000	57.0
	74 1,2-Dibromoethane	107	16.724	16.724	(0.975)	332309	50.0000	55.9
*	76 Chlorobenzene-d5	117	17.157	17.157	(1.000)	633397	50.0000	
	77 Chlorobenzene	112	17.189	17.189	(1.002)	1022964	50.0000	53.1
	79 1,1,1,2-Tetrachloroethane	131	17.258	17.258	(1.006)	358594	50.0000	55.8
	78 Ethylbenzene	91	17.217	17.217	(1.003)	1876987	50.0000	53.2
	80 m,p-Xylenes	106	17.336	17.336	(1.010)	1367248	100.000	106
	81 o-Xylene	106	17.783	17.783	(1.036)	690172	50.0000	55.1
	82 Styrene	104	17.801	17.801	(1.038)	1184442	50.0000	56.2
	83 Bromoform	173	18.105	18.105	(0.923)	245870	50.0000	50.2
	84 Isopropylbenzene	105	18.128	18.128	(0.924)	1832693	50.0000	53.6

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
88 1,1,2,2-Tetrachloroethane	83	18.506	18.506	(0.944)	449385	50.0000	54.6
$ 87 Bromofluorobenzene	95	18.386	18.386	(0.938)	721865	50.0000	52.0
92 1,2,3-Trichloropropane	110	18.607	18.607	(0.949)	112662	50.0000	52.8
91 Bromobenzene	156	18.588	18.588	(0.948)	431879	50.0000	52.9
89 n-Propylbenzene	91	18.556	18.556	(0.946)	2251960	50.0000	52.9
94 2-Chlorotoluene	91	18.740	18.740	(0.956)	1558364	50.0000	52.6
93 1,3,5-Trimethylbenzene	105	18.717	18.717	(0.954)	1589461	50.0000	53.5
95 4-Chlorotoluene	91	18.851	18.851	(0.961)	1440682	50.0000	53.7
96 tert-Butylbenzene	119	19.076	19.076	(0.973)	1268765	50.0000	52.1
97 1,2,4-Trimethylbenzene	105	19.132	19.132	(0.976)	1621698	50.0000	52.9
99 sec-Butylbenzene	105	19.302	19.302	(0.984)	2069499	50.0000	53.0
100 4-Isopropyltoluene	119	19.422	19.422	(0.990)	1584529	50.0000	53.5
101 1,3-Dichlorobenzene	146	19.541	19.541	(0.996)	822071	50.0000	51.8
* 102 1,4-Dichlorobenzene-d4	152	19.610	19.610	(1.000)	346679	50.0000	
103 1,4-Dichlorobenzene	146	19.638	19.638	(1.001)	839077	50.0000	51.9
105 n-Butylbenzene	91	19.868	19.868	(1.013)	1690328	50.0000	53.9
106 1,2-Dichlorobenzene	146	20.080	20.080	(1.024)	781680	50.0000	51.9
108 1,2-Dibromo-3-chloropropane	157	21.000	21.000	(1.071)	71370	50.0000	47.4
109 1,2,4-Trichlorobenzene	180	22.022	22.022	(1.123)	413715	50.0000	48.8
110 Hexachlorobutadiene	225	22.105	22.105	(1.127)	289372	50.0000	51.0
111 Naphthalene	128	22.437	22.437	(1.144)	691390	50.0000	38.1
112 1,2,3-Trichlorobenzene	180	22.791	22.791	(1.162)	258840	50.0000	40.8

Data File: /chem/VOA1.i/121709v1/1r428.d
Date : 17-DEC-2009 22:57
Client ID: ICV
Sample Info: IW1VH091217-18|ICV1I|VOAF1I|
Purge Volume: 5.0
Column phase: RTX-Volatiles

Instrument: VOA1.i
Operator: RXM4
Column diameter: 0.25

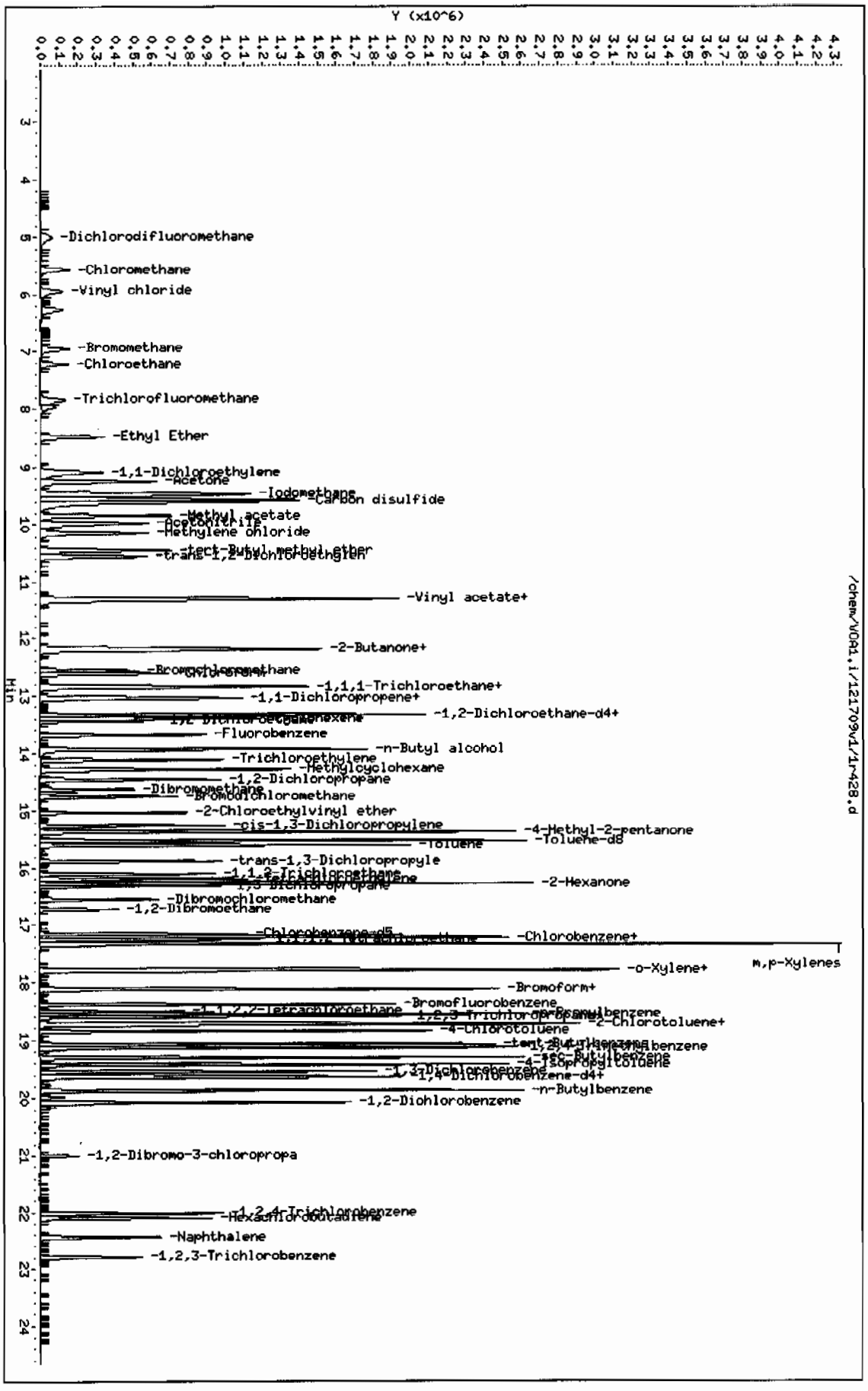

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA1.i Injection Date: 17-DEC-2009 23:58
Lab File ID: 1r430.d Init. Cal. Date(s): 17-DEC-2009 17-DEC-2009
Analysis Type: WATER Init. Cal. Times: 13:26 21:57
Lab Sample ID: W1VM091217-20 Quant Type: ISTD
Method: /chem/VOA1.i/121709v1/VOA1-8260ox-121709.m

COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
4 Chlorotrifluoroethylene	137	150	0.20454	0.010	-8.69028	30.00000	Linear
8 2-Chloro-1,1,1-trifluoroeth	156	150	0.47282	0.010	4.10632	30.00000	Linear
13 Acrolein	0.07113	0.08417	0.08417	0.001	18.33635	30.00000	Averaged
14 Trichlorotrifluoroethane	0.29664	0.35238	0.35238	0.030	18.78925	30.00000	Averaged
17 Isopropyl Alcohol	2723	2500	0.02846	0.000	8.93625	40.00000	Linear
20 Allyl chloride	266	250	0.18352	0.010	6.20960	30.00000	Linear
24 tert-Butyl Alcohol	2701	2500	0.04655	0.010	8.04183	40.00000	Linear
27 Acrylonitrile	0.14313	0.16467	0.16467	0.010	15.04894	30.00000	Averaged
28 Isopropyl ether	51.22072	50.00000	1.63570	0.010	2.44144	30.00000	Linear
31 2-Chloro-1,3-butadiene	0.59811	0.73987	0.73987	0.010	23.70038	30.00000	Averaged
32 Ethyl tert-butyl ether	50.60234	50.00000	1.47823	0.010	1.20467	30.00000	Linear
37 Propionitrile	0.05574	0.06140	0.06140	0.010	10.14507	30.00000	Averaged
34 Ethyl acetate	0.36418	0.38260	0.38260	0.010	5.05761	40.00000	Averaged
40 Methacrylonitrile	0.28473	0.31562	0.31562	0.010	10.84664	30.00000	Averaged
38 Tetrahydrofuran	0.31873	0.37618	0.37618	0.010	18.02448	30.00000	Averaged
46 Isobutyl alcohol	0.01253	0.01403	0.01403	0.001	12.00188	40.00000	Averaged
49 Methyl tert-amyl ether	50.82410	50.00000	1.24801	0.010	1.64821	30.00000	Linear
56 Methyl methacrylate	0.24537	0.28333	0.28333	0.010	15.47002	30.00000	Averaged
67 Ethyl methacrylate	0.68739	0.79692	0.79692	0.010	15.93469	30.00000	Averaged
75 1-Chlorohexane	0.49469	0.48337	0.48337	0.000	-2.28757	30.00000	Averaged
58 1,4-Dioxane	0.00351	0.00409	0.00409	0.001	16.51266	40.00000	Averaged
62 2-Nitropropane	268	250	0.11981	0.000	7.39385	30.00000	Linear
85 cis-1,4-Dichloro-2-butene	0.37890	0.46792	0.46792	0.010	23.49365	30.00000	Averaged
86 Cyclohexanone	0.07283	0.04492	0.04492	0.010	-38.32462	40.00000	Averaged
90 trans-1,4-Dichloro-2-butene	0.35568	0.44422	0.44422	0.010	24.89510	30.00000	Averaged
98 Pentachloroethane	0.42012	0.51504	0.51504	0.010	22.59531	30.00000	Averaged
104 Benzyl chloride	1.95639	2.22255	2.22255	0.010	13.60510	30.00000	Averaged
107 bis(2-Chloroisopropyl)ether	0.45769	0.57767	0.57767	0.010	26.21523	30.00000	Averaged
$ 48 1,2-Dichloroethane-d4	0.60584	0.61775	0.61775	0.010	1.96606	30.00000	Averaged
$ 65 Toluene-d8	2.85543	3.05423	3.05423	0.010	6.96200	30.00000	Averaged
$ 87 Bromofluorobenzene	2.05512	2.23181	2.23181	0.010	8.59736	30.00000	Averaged

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA1.i
Lab File ID: 1r430.d
Analysis Type: WATER
Lab Sample ID: W1VM091217-20
Method: /chem/VOA1.i/121709v1/VOA1-8260ox-121709.m

Injection Date: 17-DEC-2009 23:58
Init. Cal. Date(s): 17-DEC-2009 17-DEC-2009
Init. Cal. Times: 13:26 21:57
Quant Type: ISTD

Average %D / Drift Results.	
Calculated Average %D/Drift =	12.82201
Maximun Average %D/Drift =	20.00000
* Passed Average %D/Drift Test.	

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/121709v1/1r430.d
Lab Smp Id: W1VM091217-20 Client Smp ID: SHORT ICV
Inj Date : 17-DEC-2009 23:58
Operator : RXM4 Inst ID: VOA1.i
Smp Info : |W1VM091217-20|SHORT ICV|1|VOAF|1|
Misc Info : GEL 5ML N/A UVM091118-08C/UVM091105-02E
Comment :
Method : /chem/VOA1.i/121709v1/VOA1-8260ox-121709.m
Meth Date : 18-Dec-2009 09:22 ron01469 Quant Type: ISTD
Cal Date : 17-DEC-2009 21:57 Cal File: 1r426.d
Als bottle: 24 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: CALsubS+SS.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (Uf/Vo) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	sample purged

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
4 Chlorotrifluoroethylene	116	4.897	4.897	(0.358)	583804	150.000	137
8 2-Chloro-1,1,1-trifluoroethane	118	6.312	6.312	(0.461)	1349548	150.000	156
13 Acrolein	56	8.954	8.954	(0.654)	400431	250.000	296
14 Trichlorotrifluoroethane	101	8.996	8.996	(0.658)	1676309	250.000	297
17 Isopropyl Alcohol	45	9.447	9.447	(0.690)	1353921	2500.00	2720
20 Allyl chloride	76	9.852	9.852	(0.720)	873041	250.000	266
24 tert-Butyl Alcohol	59	10.197	10.197	(0.745)	2214363	2500.00	2700
27 Acrylonitrile	53	10.671	10.671	(0.780)	783344	250.000	288
28 Isopropyl ether	45	11.196	11.196	(0.818)	1556246	50.0000	51.2
31 2-Chloro-1,3-butadiene	53	11.394	11.394	(0.833)	703930	50.0000	61.8
32 Ethyl tert-butyl ether	59	11.758	11.758	(0.859)	1406424	50.0000	50.6
37 Propionitrile	54	12.402	12.402	(0.906)	292076	250.000	275
34 Ethyl acetate	43	12.163	12.163	(0.889)	1820085	250.000	263
40 Methacrylonitrile	41	12.563	12.563	(0.918)	1501432	250.000	277
38 Tetrahydrofuran	42	12.540	12.540	(0.639)	640867	250.000	295

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
46 Isobutyl alcohol	41	13.111	13.111	(0.958)	667397	2500.00	2800
49 Methyl tert-amyl ether	73	13.346	13.346	(0.975)	1187396	50.0000	50.8
56 Methyl methacrylate	69	14.437	14.437	(1.055)	1347834	250.000	289
67 Ethyl methacrylate	69	15.808	15.808	(0.921)	2614016	250.000	290
75 1-Chlorohexane	55	17.028	17.028	(1.245)	459894	50.0000	48.8
58 1,4-Dioxane	88	14.543	14.543	(1.063)	194645	2500.00	2910
62 2-Nitropropane	43	15.077	15.077	(1.102)	569946	250.000	268
85 cis-1,4-Dichloro-2-butene	53	18.276	18.276	(0.932)	797153	250.000	309
86 Cyclohexanone	55	18.386	18.386	(1.072)	736654	1250.00	771
90 trans-1,4-Dichloro-2-butene	53	18.566	18.566	(0.947)	756783	250.000	312
98 Pentachloroethane	167	19.196	19.196	(0.979)	877430	250.000	306(A)
104 Benzyl chloride	91	19.772	19.772	(1.008)	3786361	250.000	284
107 bis(2-Chloroisopropyl)ether	45	20.163	20.163	(1.028)	984129	250.000	316
* 52 Fluorobenzene	96	13.682	13.682	(1.000)	951428	50.0000	
* 76 Chlorobenzene-d5	117	17.157	17.157	(1.000)	656029	50.0000	
* 102 1,4-Dichlorobenzene-d4	152	19.611	19.611	(1.000)	340721	50.0000	
$ 48 1,2-Dichloroethane-d4	65	13.341	13.341	(0.975)	587745	50.0000	51.0
$ 65 Toluene-d8	98	15.518	15.518	(0.904)	2003665	50.0000	53.5
$ 87 Bromofluorobenzene	95	18.386	18.386	(0.938)	760425	50.0000	54.3

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.

Data File: /chem/VOA1.i/121709v1/1r430.d
Date : 17-DEC-2009 23:58
Client ID: SHORT ICV
Sample Info: IW1VM091217-20|SHORT ICV|1|VOAF1|1
Purge Volume: 5.0
Column phase: RTX-Volatiles

Instrument: VOA1.i
Operator: RXH4
Column diameter: 0.25

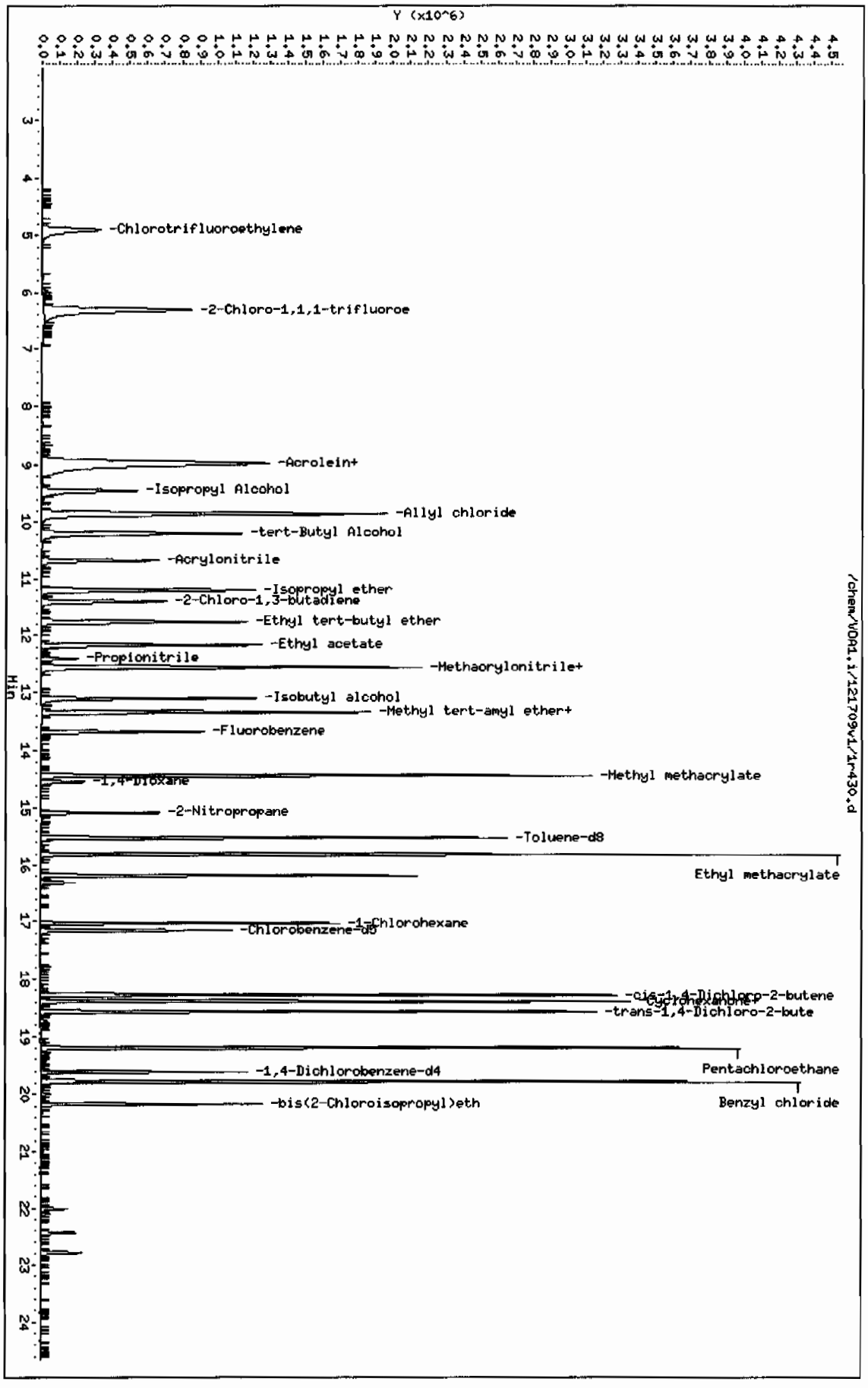

Page 1

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA1.i Injection Date: 18-DEC-2009 10:23
Lab File ID: 1r503.d Init. Cal. Date(s): 17-DEC-2009 17-DEC-2009
Analysis Type: SOIL Init. Cal. Times: 13:26 21:57
Lab Sample ID: W1VM091218-02 Quant Type: ISTD
Method: /chem/VOA1.i/121809v1/VOA1-8260ox-121709.m

	COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
M	1 Xylenes (total)	1.00571	0.93834	0.93834	0.050	-6.69836	30.00000	Averaged	
M	2 1,2-Dichloroethylene (total	0.40751	0.36976	0.36976	0.050	-9.26483	30.00000	Averaged	
M	3 1,3-Dichloropropylene	0.88514	0.87542	0.87542	0.050	-1.09767	30.00000	Averaged	
	5 Dichlorodifluoromethane	41.24481	50.00000	0.23293	0.050	-17.51038	30.00000	Linear	
	6 Chloromethane	0.51970	0.42702	0.42702	0.100	-17.83232	30.00000	Averaged	spcc
	7 Vinyl chloride	0.43212	0.37493	0.37493	0.050	-13.23437	20.00000	Averaged	ccc
	9 Bromomethane	0.28192	0.23726	0.23726	0.050	-15.84118	30.00000	Averaged	
	10 Chloroethane	0.30188	0.27493	0.27493	0.050	-8.92647	30.00000	Averaged	
	11 Trichlorofluoromethane	0.44773	0.45957	0.45957	0.050	2.64503	30.00000	Averaged	
	12 Ethyl Ether	0.37389	0.32605	0.32605	0.010	-12.79488	30.00000	Averaged	
	16 Acetone	0.30248	0.26357	0.26357	0.000	-12.86288	40.00000	Averaged	
	22 Acetonitrile	0.04984	0.04203	0.04203	0.010	-15.66054	30.00000	Averaged	
	15 1,1-Dichloroethylene	0.69959	0.63453	0.63453	0.050	-9.29995	20.00000	Averaged	ccc
	21 Methyl acetate	0.28883	0.25609	0.25609	0.010	-11.33553	40.00000	Averaged	
	18 Iodomethane	0.55436	0.46713	0.46713	0.050	-15.73597	30.00000	Averaged	
	23 Methylene chloride	41.10179	50.00000	0.37449	0.000	-17.79642	30.00000	Linear	
	19 Carbon disulfide	1.13824	1.09361	1.09361	0.050	-3.92084	30.00000	Averaged	
	25 tert-Butyl methyl ether	1.12196	1.02204	1.02204	0.050	-8.90587	30.00000	Averaged	
	26 trans-1,2-Dichloroethylene	0.38807	0.35353	0.35353	0.050	-8.90131	30.00000	Averaged	
	29 Vinyl acetate	0.69026	0.71466	0.71466	0.010	3.53399	40.00000	Averaged	
	30 1,1-Dichloroethane	0.77946	0.69915	0.69915	0.100	-10.30320	30.00000	Averaged	spcc
	35 2-Butanone	0.33847	0.29513	0.29513	0.030	-12.80590	40.00000	Averaged	
	36 cis-1,2-Dichloroethylene	0.42695	0.38599	0.38599	0.050	-9.59477	30.00000	Averaged	
	33 2,2-Dichloropropane	0.45482	0.48652	0.48652	0.050	6.97035	30.00000	Averaged	
	41 Chloroform	0.75919	0.69631	0.69631	0.010	-8.28225	20.00000	Averaged	ccc
	39 Bromochloromethane	0.18374	0.16161	0.16161	0.010	-12.04652	30.00000	Averaged	
	43 1,1,1-Trichloroethane	0.50671	0.50621	0.50621	0.010	-0.09918	30.00000	Averaged	
	42 Cyclohexane	0.73657	0.73599	0.73599	0.010	-0.07869	30.00000	Averaged	
	45 1,1-Dichloropropene	0.55584	0.56688	0.56688	0.010	1.98451	30.00000	Averaged	
	53 n-Butyl alcohol	4678	5000	0.01129	0.001	-6.44178	40.00000	Linear	
	44 Carbon tetrachloride	0.50106	0.51113	0.51113	0.010	2.01044	30.00000	Averaged	
$	48 1,2-Dichloroethane-d4	0.60584	0.60476	0.60476	0.010	-0.17842	30.00000	Averaged	
	51 1,2-Dichloroethane	0.60049	0.52969	0.52969	0.010	-11.79009	30.00000	Averaged	
	47 Benzene	1.62246	1.53034	1.53034	0.010	-5.67741	30.00000	Averaged	
	50 Cyclohexene	0.57039	0.55360	0.55360	0.010	-2.94312	30.00000	Averaged	

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA1.i Injection Date: 18-DEC-2009 10:23
Lab File ID: 1r503.d Init. Cal. Date(s): 17-DEC-2009 17-DEC-2009
Analysis Type: SOIL Init. Cal. Times: 13:26 21:57
Lab Sample ID: W1VM091218-02 Quant Type: ISTD
Method: /chem/VOA1.i/121809v1/VOA1-8260ox-121709.m

	COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
	54 Trichloroethylene	0.41533	0.38803	0.38803	0.010	-6.57475	30.00000	Averaged	
	57 1,2-Dichloropropane	0.44519	0.41194	0.41194	0.010	-7.46955	20.00000	Averaged	ccc
	55 Methylcyclohexane	0.67888	0.64165	0.64165	0.010	-5.48441	30.00000	Averaged	
	60 Bromodichloromethane	0.55929	0.52692	0.52692	0.010	-5.78735	30.00000	Averaged	
	59 Dibromomethane	0.25092	0.22050	0.22050	0.010	-12.12321	30.00000	Averaged	
	61 2-Chloroethylvinyl ether	498	250	0.09518	0.000	99	30.00000	Linear	<-
	64 4-Methyl-2-pentanone	0.24426	0.23124	0.23124	0.010	-5.33159	40.00000	Averaged	
	63 cis-1,3-Dichloropropylene	0.65316	0.64535	0.64535	0.010	-1.19594	30.00000	Averaged	
$	65 Toluene-d8	2.85543	2.63675	2.63675	0.010	-7.65837	30.00000	Averaged	
	66 Toluene	1.45437	1.33551	1.33551	0.010	-8.17199	20.00000	Averaged	ccc
	68 trans-1,3-Dichloropropylene	0.84622	0.85024	0.85024	0.010	0.47508	30.00000	Averaged	
	69 1,1,2-Trichloroethane	0.41628	0.37854	0.37854	0.010	-9.06563	30.00000	Averaged	
	71 2-Hexanone	0.62331	0.54567	0.54567	0.010	-12.45687	40.00000	Averaged	
	72 1,3-Dichloropropane	0.88376	0.78569	0.78569	0.010	-11.09685	30.00000	Averaged	
	70 Tetrachloroethylene	0.44328	0.40612	0.40612	0.010	-8.38347	30.00000	Averaged	
	73 Dibromochloromethane	0.52259	0.48251	0.48251	0.010	-7.66937	30.00000	Averaged	
	74 1,2-Dibromoethane	0.46944	0.43396	0.43396	0.010	-7.55857	30.00000	Averaged	
	77 Chlorobenzene	1.51959	1.38682	1.38682	0.300	-8.73734	30.00000	Averaged	spcc
	79 1,1,1,2-Tetrachloroethane	0.50746	0.47157	0.47157	0.010	-7.07137	30.00000	Averaged	
	78 Ethylbenzene	2.78730	2.63923	2.63923	0.010	-5.31239	20.00000	Averaged	ccc
	80 m,p-Xylenes	1.01429	0.94560	0.94560	0.010	-6.77241	30.00000	Averaged	
	81 o-Xylene	0.98852	0.92382	0.92382	0.010	-6.54471	30.00000	Averaged	
	82 Styrene	1.66316	1.58412	1.58412	0.010	-4.75239	30.00000	Averaged	
	83 Bromoform	42.82263	50.00000	0.60174	0.100	-14.35474	30.00000	Linear	spcc
	84 Isopropylbenzene	4.93115	4.80548	4.80548	0.010	-2.54838	30.00000	Averaged	
	88 1,1,2,2-Tetrachloroethane	1.18805	1.15468	1.15468	0.300	-2.80921	30.00000	Averaged	spcc
$	87 Bromofluorobenzene	2.05512	1.94749	1.94749	0.010	-5.23724	30.00000	Averaged	
	92 1,2,3-Trichloropropane	0.30749	0.28693	0.28693	0.010	-6.68632	30.00000	Averaged	
	91 Bromobenzene	1.17688	1.08618	1.08618	0.010	-7.70653	30.00000	Averaged	
	89 n-Propylbenzene	6.13553	5.95136	5.95136	0.010	-3.00167	30.00000	Averaged	
	94 2-Chlorotoluene	4.27198	4.06216	4.06216	0.010	-4.91157	30.00000	Averaged	
	93 1,3,5-Trimethylbenzene	4.28391	4.09265	4.09265	0.010	-4.46467	30.00000	Averaged	
	95 4-Chlorotoluene	3.87008	3.67684	3.67684	0.010	-4.99312	30.00000	Averaged	
	96 tert-Butylbenzene	3.51472	3.18484	3.18484	0.010	-9.38564	30.00000	Averaged	
	97 1,2,4-Trimethylbenzene	4.42433	4.04799	4.04799	0.010	-8.50605	30.00000	Averaged	
	99 sec-Butylbenzene	5.63173	5.08225	5.08225	0.010	-9.75695	30.00000	Averaged	

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA1.i
Lab File ID: 1r503.d
Analysis Type: SOIL
Lab Sample ID: W1VM091218-02
Method: /chem/VOA1.i/121809v1/VOA1-8260ox-121709.m

Injection Date: 18-DEC-2009 10:23
Init. Cal. Date(s): 17-DEC-2009 17-DEC-2009
Init. Cal. Times: 13:26 21:57
Quant Type: ISTD

COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
100 4-Isopropyltoluene	4.27086	3.84955	3.84955	0.010	-9.86461	30.00000	Averaged
101 1,3-Dichlorobenzene	2.28713	2.03201	2.03201	0.010	-11.15492	30.00000	Averaged
103 1,4-Dichlorobenzene	2.33125	2.09246	2.09246	0.010	-10.24290	30.00000	Averaged
105 n-Butylbenzene	4.52044	4.15861	4.15861	0.010	-8.00432	30.00000	Averaged
106 1,2-Dichlorobenzene	2.17327	1.93369	1.93369	0.010	-11.02388	30.00000	Averaged
108 1,2-Dibromo-3-chloropropane	42.63717	50.00000	0.18406	0.010	-14.72565	30.00000	Linear
109 1,2,4-Trichlorobenzene	1.22342	1.00084	1.00084	0.010	-18.19297	30.00000	Averaged
110 Hexachlorobutadiene	0.81816	0.58181	0.58181	0.010	-28.88799	30.00000	Averaged
111 Naphthalene	39.73049	50.00000	2.08600	0.010	-20.53902	30.00000	Linear
112 1,2,3-Trichlorobenzene	0.91417	0.81828	0.81828	0.010	-10.48843	30.00000	Averaged

Average %D / Drift Results.

Calculated Average %D/Drift = 9.71840
Maximun Average %D/Drift = 20.00000
* Passed Average %D/Drift Test.

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VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/121809v1/1r503.d
Lab Smp Id: W1VM091218-02 Client Smp ID: VSTD050
Inj Date : 18-DEC-2009 10:23
Operator : RXM4 Inst ID: VOA1.i
Smp Info : |W1VM091218-02|LCSD|1|VOAF|1|
Misc Info : GEL 5G N/A UVM091129-01D/IVM091214-01
Comment :
Method : /chem/VOA1.i/121809v1/VOA1-8260ox-121709.m
Meth Date : 19-Dec-2009 14:24 ron01469 Quant Type: ISTD
Cal Date : 17-DEC-2009 21:57 Cal File: 1r426.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: CALsubL+.sub
Target Version: 3.50

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	0.00000	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
M 1 Xylenes (total)	106				2033991	150.000	140
M 2 1,2-Dichloroethylene (total)	96				745676	100.000	90.8
M 3 1,3-Dichloropropylene	75				1265071	100.000	99.6
5 Dichlorodifluoromethane	85	5.005	5.005	(0.366)	234876	50.0000	41.2
6 Chloromethane	50	5.564	5.564	(0.407)	430585	50.0000	41.1
7 Vinyl chloride	62	5.937	5.937	(0.434)	378054	50.0000	43.4
9 Bromomethane	96	6.961	6.961	(0.509)	239237	50.0000	42.1
10 Chloroethane	64	7.219	7.219	(0.528)	277223	50.0000	45.5
11 Trichlorofluoromethane	101	7.850	7.850	(0.574)	463405	50.0000	51.3
12 Ethyl Ether	59	8.480	8.480	(0.620)	328771	50.0000	43.6
16 Acetone	43	9.258	9.258	(0.677)	1328850	250.000	218
22 Acetonitrile	41	9.976	9.976	(0.729)	1059568	1250.00	1050
15 1,1-Dichloroethylene	61	9.097	9.097	(0.665)	639818	50.0000	45.4

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
21 Methyl acetate	43	9.838	9.838	(0.719)	1291141	250.000	222
18 Iodomethane	142	9.474	9.474	(0.692)	2355119	250.000	211
23 Methylene chloride	84	10.142	10.142	(0.741)	377610	50.0000	41.1
19 Carbon disulfide	76	9.580	9.580	(0.700)	5513665	250.000	240
25 tert-Butyl methyl ether	73	10.446	10.446	(0.763)	1030559	50.0000	45.5
26 trans-1,2-Dichloroethylene	96	10.547	10.547	(0.771)	356473	50.0000	45.5
29 Vinyl acetate	43	11.297	11.297	(0.826)	3603080	250.000	259
30 1,1-Dichloroethane	63	11.329	11.329	(0.828)	704979	50.0000	44.8
35 2-Butanone	43	12.186	12.186	(0.891)	1487935	250.000	218
36 cis-1,2-Dichloroethylene	96	12.204	12.204	(0.892)	389203	50.0000	45.2
33 2,2-Dichloropropane	77	12.163	12.163	(0.889)	490575	50.0000	53.5
41 Chloroform	83	12.614	12.614	(0.922)	702114	50.0000	45.8
39 Bromochloromethane	128	12.559	12.559	(0.918)	162953	50.0000	44.0
43 1,1,1-Trichloroethane	97	12.844	12.844	(0.939)	510433	50.0000	50.0
42 Cyclohexane	56	12.839	12.839	(0.938)	742123	50.0000	50.0
45 1,1-Dichloropropene	75	13.051	13.051	(0.954)	571602	50.0000	51.0
53 n-Butyl alcohol	56	13.930	13.930	(1.018)	1138467	5000.00	4680
44 Carbon tetrachloride	117	13.023	13.023	(0.952)	515395	50.0000	51.0
$ 48 1,2-Dichloroethane-d4	65	13.341	13.341	(0.975)	609801	50.0000	49.9
51 1,2-Dichloroethane	62	13.442	13.442	(0.982)	534111	50.0000	44.1
47 Benzene	78	13.332	13.332	(0.974)	1543105	50.0000	47.2
50 Cyclohexene	54	13.396	13.396	(0.979)	558217	50.0000	48.5
* 52 Fluorobenzene	96	13.682	13.682	(1.000)	1008338	50.0000	
54 Trichloroethylene	95	14.114	14.114	(1.032)	391261	50.0000	46.7
57 1,2-Dichloropropane	63	14.455	14.455	(1.057)	415371	50.0000	46.3
55 Methylcyclohexane	83	14.285	14.285	(1.044)	646997	50.0000	47.2
60 Bromodichloromethane	83	14.750	14.750	(1.078)	531314	50.0000	47.1
59 Dibromomethane	93	14.621	14.621	(1.069)	222341	50.0000	43.9
61 2-Chloroethylvinyl ether	63	15.030	15.030	(1.099)	479869	250.000	498
64 4-Methyl-2-pentanone	58	15.357	15.357	(0.895)	835394	250.000	237
63 cis-1,3-Dichloropropylene	75	15.256	15.256	(1.115)	650730	50.0000	49.4
$ 65 Toluene-d8	98	15.518	15.518	(0.904)	1905179	50.0000	46.2
66 Toluene	92	15.597	15.597	(0.909)	964972	50.0000	45.9
68 trans-1,3-Dichloropropylene	75	15.877	15.877	(0.925)	614340	50.0000	50.2
69 1,1,2-Trichloroethane	83	16.103	16.103	(0.938)	273511	50.0000	45.5
71 2-Hexanone	43	16.269	16.269	(0.948)	1971349	250.000	219
72 1,3-Dichloropropane	76	16.305	16.305	(0.950)	567697	50.0000	44.4
70 Tetrachloroethylene	164	16.190	16.190	(0.943)	293439	50.0000	45.8
73 Dibromochloromethane	129	16.549	16.549	(0.964)	348634	50.0000	46.2
74 1,2-Dibromoethane	107	16.729	16.729	(0.975)	313553	50.0000	46.2
* 76 Chlorobenzene-d5	117	17.162	17.162	(1.000)	722547	50.0000	
77 Chlorobenzene	112	17.194	17.194	(1.002)	1002044	50.0000	45.6
79 1,1,1,2-Tetrachloroethane	131	17.258	17.258	(1.006)	340732	50.0000	46.5
78 Ethylbenzene	91	17.217	17.217	(1.003)	1906968	50.0000	47.3
80 m,p-Xylenes	106	17.336	17.336	(1.010)	1366484	100.000	93.2
81 o-Xylene	106	17.783	17.783	(1.036)	667507	50.0000	46.7
82 Styrene	104	17.801	17.801	(1.037)	1144602	50.0000	47.6

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
83 Bromoform	173	18.105	18.105	(0.923)	227256	50.0000	42.8
84 Isopropylbenzene	105	18.128	18.128	(0.924)	1814869	50.0000	48.7
88 1,1,2,2-Tetrachloroethane	83	18.506	18.506	(0.944)	436082	50.0000	48.6
$ 87 Bromofluorobenzene	95	18.386	18.386	(0.938)	735502	50.0000	47.4
92 1,2,3-Trichloropropane	110	18.602	18.602	(0.949)	108362	50.0000	46.6
91 Bromobenzene	156	18.593	18.593	(0.948)	410215	50.0000	46.1
89 n-Propylbenzene	91	18.556	18.556	(0.946)	2247630	50.0000	48.5
94 2-Chlorotoluene	91	18.740	18.740	(0.956)	1534141	50.0000	47.5
93 1,3,5-Trimethylbenzene	105	18.717	18.717	(0.954)	1545656	50.0000	47.8
95 4-Chlorotoluene	91	18.855	18.855	(0.962)	1388619	50.0000	47.5
96 tert-Butylbenzene	119	19.076	19.076	(0.973)	1202807	50.0000	45.3
97 1,2,4-Trimethylbenzene	105	19.136	19.136	(0.976)	1528790	50.0000	45.7
99 sec-Butylbenzene	105	19.302	19.302	(0.984)	1919395	50.0000	45.1
100 4-Isopropyltoluene	119	19.422	19.422	(0.990)	1453847	50.0000	45.1
101 1,3-Dichlorobenzene	146	19.541	19.541	(0.996)	767420	50.0000	44.4
* 102 1,4-Dichlorobenzene-d4	152	19.610	19.610	(1.000)	377666	50.0000	
103 1,4-Dichlorobenzene	146	19.638	19.638	(1.001)	790252	50.0000	44.9
105 n-Butylbenzene	91	19.868	19.868	(1.013)	1570565	50.0000	46.0
106 1,2-Dichlorobenzene	146	20.075	20.075	(1.024)	730290	50.0000	44.5
108 1,2-Dibromo-3-chloropropane	157	21.000	21.000	(1.071)	69514	50.0000	42.6
109 1,2,4-Trichlorobenzene	180	22.022	22.022	(1.123)	377985	50.0000	40.9
110 Hexachlorobutadiene	225	22.105	22.105	(1.127)	219730	50.0000	35.6
111 Naphthalene	128	22.437	22.437	(1.144)	787718	50.0000	39.7
112 1,2,3-Trichlorobenzene	180	22.786	22.786	(1.162)	309038	50.0000	44.8

Data File: /chem/VOA1.i/121809v1/1r503.d
Date : 18-DEC-2009 10:23
Client ID: VSTD050
Sample Info: IW1VH091218-02ILCSD1I1VOAFI1I
Column phase: RTX-Volatiles

Instrument: VOA1.i
Operator: RXM4
Column diameter: 0.25

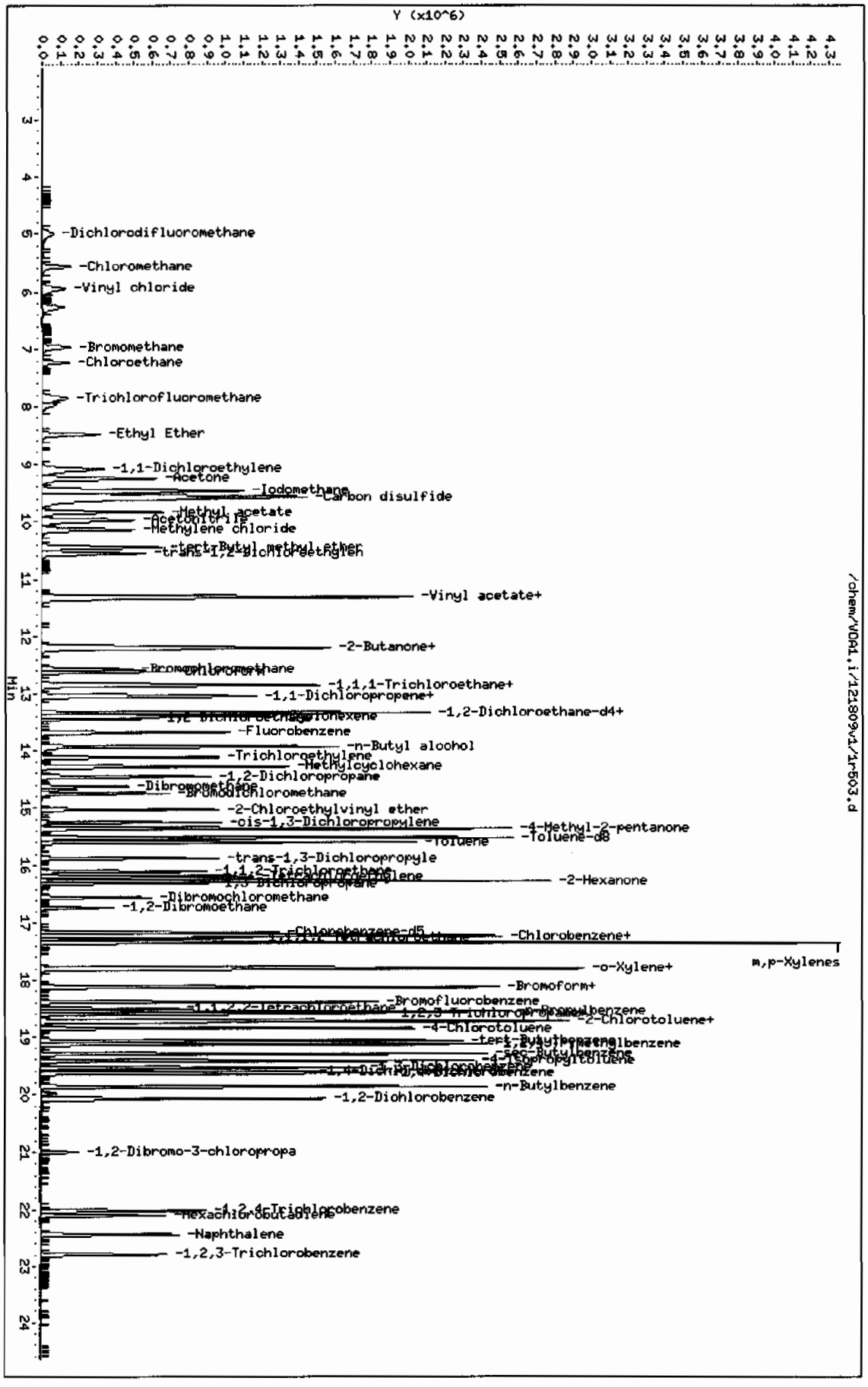

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA1.i Injection Date: 18-DEC-2009 11:28
Lab File ID: 1r505.d Init. Cal. Date(s): 17-DEC-2009 17-DEC-2009
Analysis Type: SOIL Init. Cal. Times: 13:26 21:57
Lab Sample ID: W1VM091218-04 Quant Type: ISTD
Method: /chem/VOA1.i/121809v1/VOA1-8260ox-121709.m

COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
4 Chlorotrifluoroethylene	144	150	0.21493	0.010	-4.10918	30.00000	Linear
8 2-Chloro-1,1,1-trifluoroeth	160	150	0.48460	0.010	6.68810	30.00000	Linear
13 Acrolein	0.07113	0.09158	0.09158	0.001	28.75205	30.00000	Averaged
14 Trichlorotrifluoroethane	0.29664	0.38681	0.38681	0.030	30.39725	30.00000	Averaged <-
17 Isopropyl Alcohol	2819	2500	0.02949	0.000	12.74998	40.00000	Linear
20 Allyl chloride	275	250	0.19066	0.010	10.11498	30.00000	Linear
24 tert-Butyl Alcohol	2911	2500	0.05026	0.010	16.44849	40.00000	Linear
27 Acrylonitrile	0.14313	0.16582	0.16582	0.010	15.85097	30.00000	Averaged
28 Isopropyl ether	48.74094	50.00000	1.55578	0.010	-2.51812	30.00000	Linear
31 2-Chloro-1,3-butadiene	0.59811	0.78820	0.78820	0.010	31.78106	30.00000	Averaged <-
32 Ethyl tert-butyl ether	50.00521	50.00000	1.46046	0.010	0.01042	30.00000	Linear
37 Propionitrile	0.05574	0.06355	0.06355	0.010	14.01528	30.00000	Averaged
34 Ethyl acetate	0.36418	0.38226	0.38226	0.010	4.96333	40.00000	Averaged
40 Methacrylonitrile	0.28473	0.30948	0.30948	0.010	8.69057	30.00000	Averaged
38 Tetrahydrofuran	0.31873	0.36754	0.36754	0.010	15.31430	30.00000	Averaged
46 Isobutyl alcohol	0.01253	0.01411	0.01411	0.001	12.63397	40.00000	Averaged
49 Methyl tert-amyl ether	51.15137	50.00000	1.25620	0.010	2.30275	30.00000	Linear
56 Methyl methacrylate	0.24537	0.29063	0.29063	0.010	18.44547	30.00000	Averaged
67 Ethyl methacrylate	0.68739	0.80215	0.80215	0.010	16.69534	30.00000	Averaged
75 1-Chlorohexane	0.49469	0.49534	0.49534	0.000	0.13191	30.00000	Averaged
58 1,4-Dioxane	0.00351	0.00406	0.00406	0.001	15.65449	40.00000	Averaged
62 2-Nitropropane	272	250	0.12146	0.000	8.83880	30.00000	Linear
85 cis-1,4-Dichloro-2-butene	0.37890	0.49585	0.49585	0.010	30.86485	30.00000	Averaged <-
86 Cyclohexanone	0.07283	0.04707	0.04707	0.010	-35.36111	40.00000	Averaged
90 trans-1,4-Dichloro-2-butene	0.35568	0.45902	0.45902	0.010	29.05501	30.00000	Averaged
98 Pentachloroethane	0.42012	0.64189	0.64189	0.010	52.78791	30.00000	Averaged <-
104 Benzyl chloride	1.95639	2.73149	2.73149	0.010	39.61917	30.00000	Averaged <-
107 bis(2-Chloroisopropyl)ether	0.45769	0.57478	0.57478	0.010	25.58382	30.00000	Averaged
$ 48 1,2-Dichloroethane-d4	0.60584	0.63352	0.63352	0.010	4.56869	30.00000	Averaged
$ 65 Toluene-d8	2.85543	2.98312	2.98312	0.010	4.47157	30.00000	Averaged
$ 87 Bromofluorobenzene	2.05512	2.17585	2.17585	0.010	5.87465	30.00000	Averaged

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA1.i Injection Date: 18-DEC-2009 11:28
Lab File ID: 1r505.d Init. Cal. Date(s): 17-DEC-2009 17-DEC-2009
Analysis Type: SOIL Init. Cal. Times: 13:26 21:57
Lab Sample ID: W1VM091218-04 Quant Type: ISTD
Method: /chem/VOA1.i/121809v1/VOA1-8260ox-121709.m

Average %D / Drift Results.	
Calculated Average %D/Drift =	9.71840
Maximun Average %D/Drift =	20.00000
* Passed Average %D/Drift Test.	

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/121809v1/1r505.d
Lab Smp Id: W1VM091218-04 Client Smp ID: VSTD250S
Inj Date : 18-DEC-2009 11:28
Operator : RXM4 Inst ID: VOA1.i
Smp Info : |W1VM091218-04|SHORT|1|VOAF|1|
Misc Info : GEL 5G N/A UVM091118-08C/UVM091105-02E
Comment :
Method : /chem/VOA1.i/121809v1/VOA1-8260ox-121709.m
Meth Date : 19-Dec-2009 14:24 ron01469 Quant Type: ISTD
Cal Date : 17-DEC-2009 21:57 Cal File: 1r426.d
Als bottle: 5 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: CALsubS+SS.sub
Target Version: 3.50

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	0.00000	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
4 Chlorotrifluoroethylene	116	4.897	4.897	(0.358)	586711	150.000	144
8 2-Chloro-1,1,1-trifluoroethane	118	6.308	6.308	(0.461)	1322854	150.000	160
13 Acrolein	56	8.959	8.959	(0.655)	416676	250.000	322
14 Trichlorotrifluoroethane	101	8.991	8.991	(0.657)	1759865	250.000	326
17 Isopropyl Alcohol	45	9.452	9.452	(0.691)	1341790	2500.00	2820
20 Allyl chloride	76	9.857	9.857	(0.720)	867454	250.000	275
24 tert-Butyl Alcohol	59	10.202	10.202	(0.745)	2286691	2500.00	2910
27 Acrylonitrile	53	10.676	10.676	(0.780)	754404	250.000	290
28 Isopropyl ether	45	11.201	11.201	(0.818)	1415653	50.0000	48.7
31 2-Chloro-1,3-butadiene	53	11.399	11.399	(0.833)	717209	50.0000	65.9
32 Ethyl tert-butyl ether	59	11.758	11.758	(0.859)	1328925	50.0000	50.0
37 Propionitrile	54	12.407	12.407	(0.906)	289154	250.000	285
34 Ethyl acetate	43	12.167	12.167	(0.889)	1739145	250.000	262

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
40 Methacrylonitrile	41	12.563	12.563	(0.918)	1408021	250.000	272
38 Tetrahydrofuran	42	12.540	12.540	(0.639)	610243	250.000	288
46 Isobutyl alcohol	41	13.111	13.111	(0.958)	641893	2500.00	2820
49 Methyl tert-amyl ether	73	13.350	13.350	(0.975)	1143061	50.0000	51.2
56 Methyl methacrylate	69	14.441	14.441	(1.055)	1322269	250.000	296
67 Ethyl methacrylate	69	15.813	15.813	(0.921)	2540509	250.000	292
75 1-Chlorohexane	55	17.028	17.028	(1.244)	450728	50.0000	50.1
58 1,4-Dioxane	88	14.547	14.547	(1.063)	184785	2500.00	2890
62 2-Nitropropane	43	15.081	15.081	(1.102)	552605	250.000	272
85 cis-1,4-Dichloro-2-butene	53	18.276	18.276	(0.932)	823273	250.000	327
86 Cyclohexanone	55	18.386	18.386	(1.071)	745450	1250.00	808
90 trans-1,4-Dichloro-2-butene	53	18.566	18.566	(0.947)	762122	250.000	323
98 Pentachloroethane	167	19.196	19.196	(0.979)	1065740	250.000	382(A)
104 Benzyl chloride	91	19.772	19.772	(1.008)	4535162	250.000	349
107 bis(2-Chloroisopropyl)ether	45	20.163	20.163	(1.028)	954328	250.000	314
* 52 Fluorobenzene	96	13.686	13.682	(1.000)	909934	50.0000	
* 76 Chlorobenzene-d5	117	17.162	17.162	(1.000)	633426	50.0000	
* 102 1,4-Dichlorobenzene-d4	152	19.611	19.610	(1.000)	332065	50.0000	
$ 48 1,2-Dichloroethane-d4	65	13.341	13.341	(0.975)	576460	50.0000	52.3
$ 65 Toluene-d8	98	15.518	15.518	(0.904)	1889584	50.0000	52.2
$ 87 Bromofluorobenzene	95	18.386	18.386	(0.938)	722525	50.0000	52.9

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.

Data File: /chem/VOA1.i/121809v1/1r505.d

Date : 18-DEC-2009 11:28

Client ID: VSTD250S

Sample Info: |W1VH091218-04|SHORT|1|VOAF|1|

Column phase: RTX-Volatiles

Instrument: VOA1.i

Operator: RXM4

Column diameter: 0.25

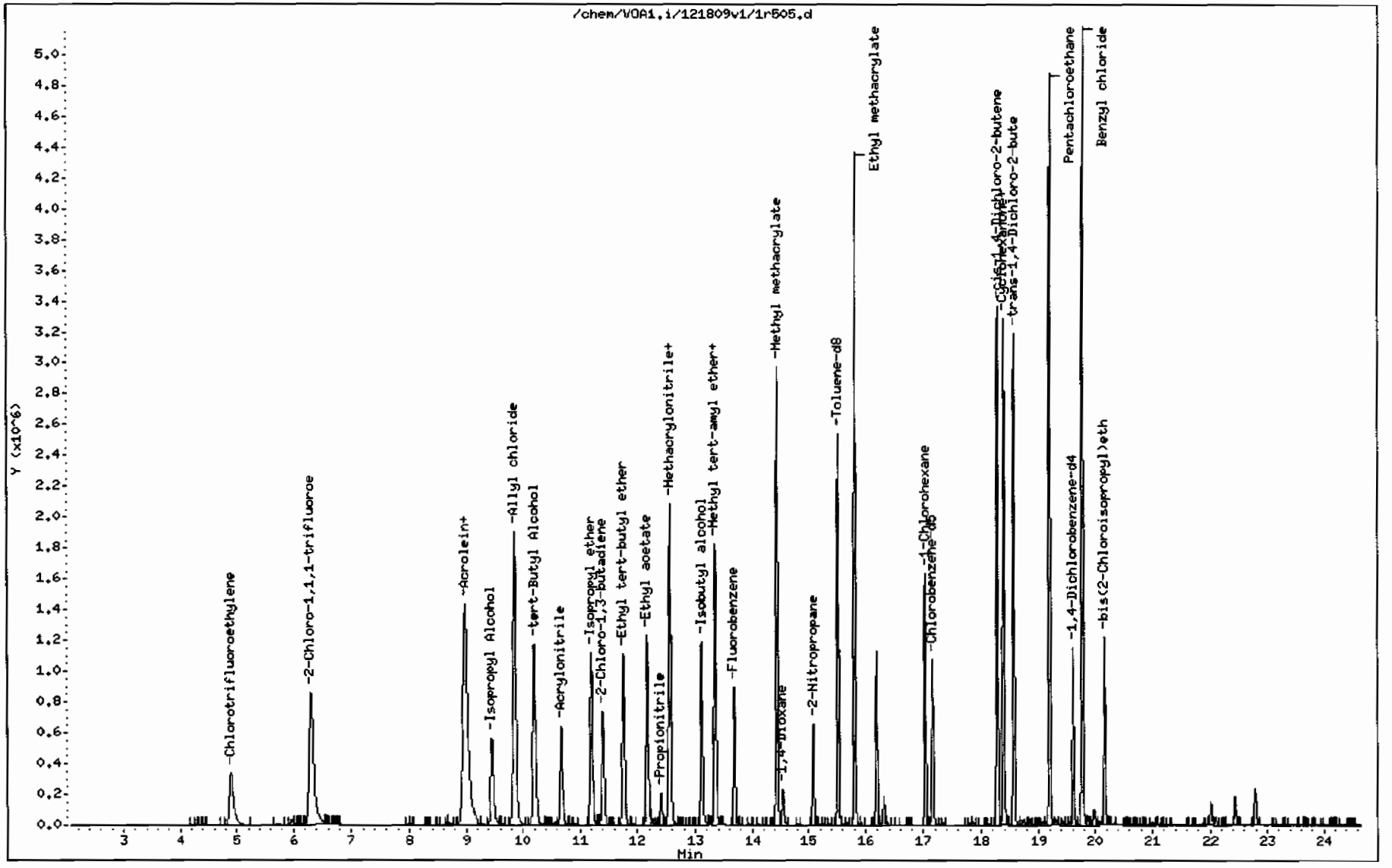

QC Data

Data File: /chem/VOA1.i/121709v1/1r408.d

Page 1

Date : 17-DEC-2009 12:56

Client ID: BFB01

Instrument: VOA1.i

Sample Info: |UVH091117-02|BFB|1|VOAF|1|

Operator: RXM4

Column phase: RTX-Volatiles

Column diameter: 0.25

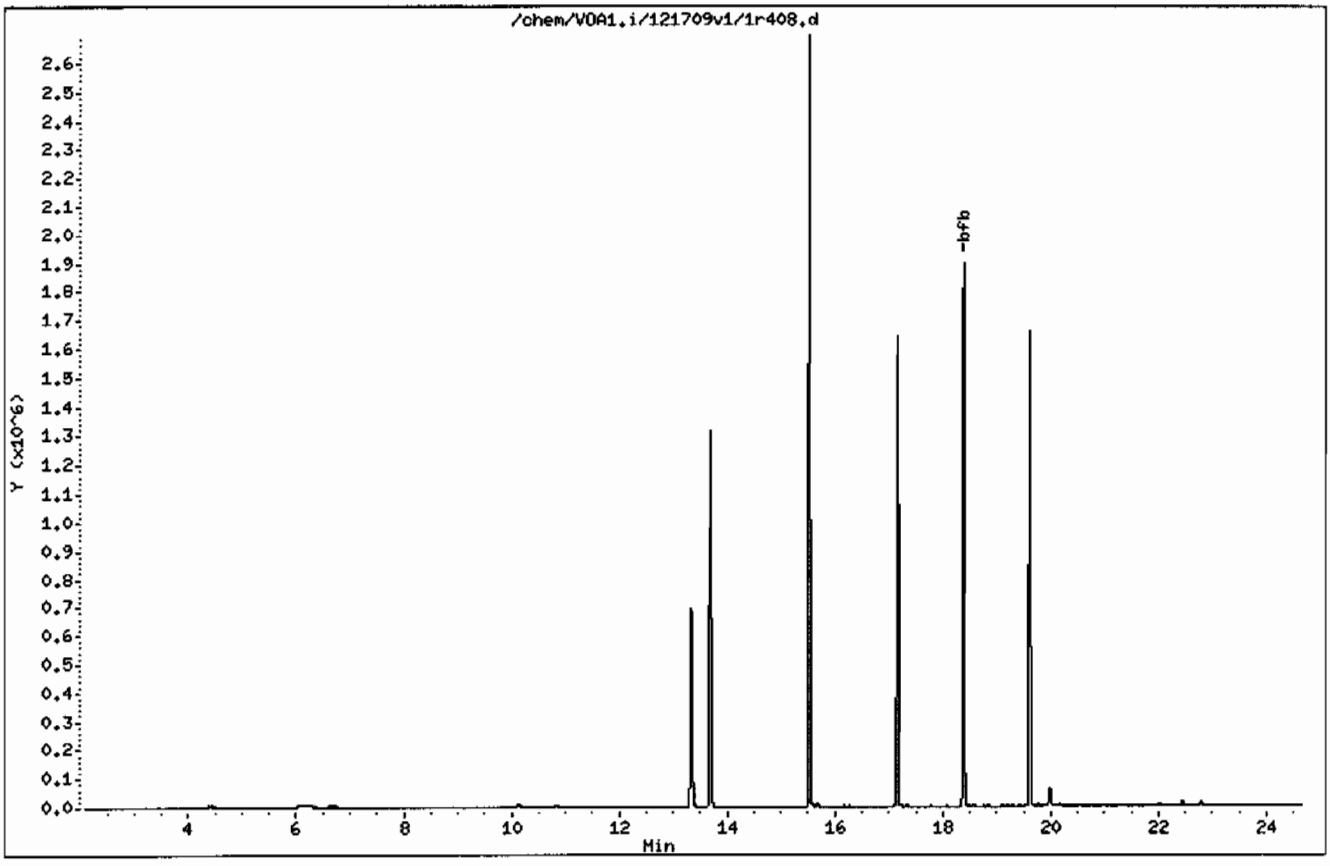

Data File: /chem/VOA1.i/121709v1/1r408.d

Date : 17-DEC-2009 12:56

Client ID: BFB01

Instrument: VOA1.i

Sample Info: |UVM091117-02|BFB|1|VOAF|1|

Operator: RXM4

Column phase: RTX-Volatiles

Column diameter: 0.25

1 bfb

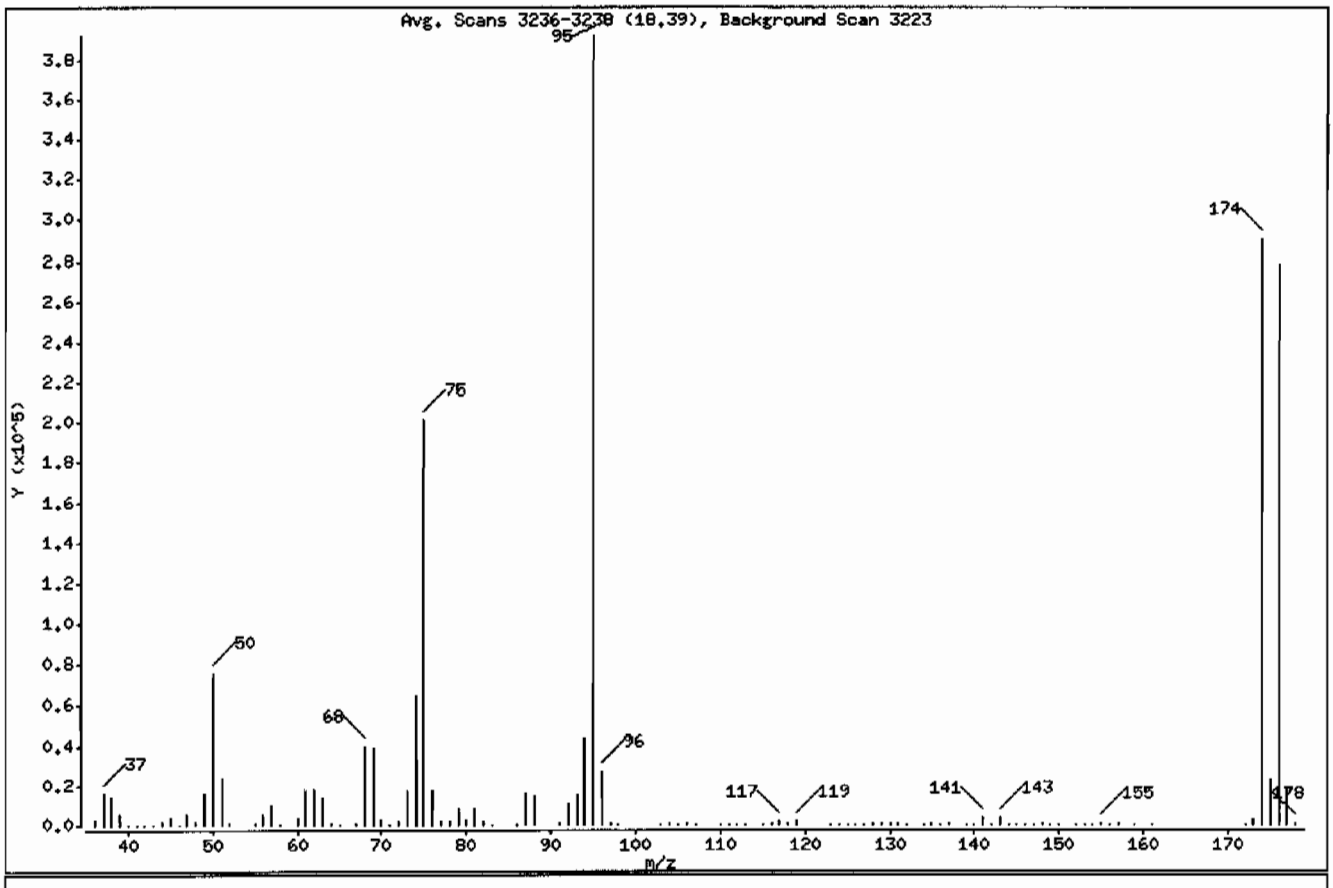

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	19.22
75	30.00 - 60.00% of mass 95	51.37
96	5.00 - 9.00% of mass 95	6.90
173	Less than 2.00% of mass 174	0.61 (0.83)
174	50.00 - 100.00% of mass 95	74.08
175	5.00 - 9.00% of mass 174	5.65 (7.63)
176	95.00 - 101.00% of mass 174	70.75 (95.51)
177	5.00 - 9.00% of mass 176	4.62 (6.54)

Data File: /chem/VOA1.i/121709v1/1r408.d

Date : 17-DEC-2009 12:56

Client ID: BFB01 Instrument: VOA1.i

Sample Info: |UVH091117-02|BFB|1|VOAF|1|

Operator: RXH4

Column phase: RTX-Volatiles Column diameter: 0.25

Data File: 1r408.d
Spectrum: Avg. Scans 3236-3238 (18.39), Background Scan 3223
Location of Maximum: 95.00
Number of points: 110

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	2874	68.00	39568	104.00	1329	140.00	263
37.00	16337	69.00	39040	105.00	411	141.00	3454
38.00	14622	70.00	2858	106.00	1316	142.00	441
39.00	5793	71.00	56	107.00	383	143.00	3213
40.00	268	72.00	2112	110.00	180	144.00	185
41.00	187	73.00	16760	111.00	260	145.00	364
42.00	431	74.00	65024	112.00	137	146.00	417
43.00	265	75.00	201536	113.00	208	147.00	241
44.00	1554	76.00	16848	115.00	318	148.00	868
45.00	3164	77.00	2254	116.00	1330	149.00	204
46.00	99	78.00	1672	117.00	2101	150.00	433
47.00	5349	79.00	8263	118.00	1270	152.00	111
48.00	1967	80.00	2473	119.00	1528	153.00	239
49.00	15962	81.00	8380	123.00	56	154.00	145
50.00	75392	82.00	1795	124.00	230	155.00	932
51.00	23576	83.00	239	125.00	72	156.00	174
52.00	1041	86.00	388	126.00	88	157.00	675
55.00	1234	87.00	16023	127.00	82	159.00	408
56.00	5159	88.00	14205	128.00	1243	161.00	448
57.00	9746	91.00	1126	129.00	651	172.00	388
58.00	352	92.00	10615	130.00	1286	173.00	2409
60.00	3488	93.00	15217	131.00	506	174.00	290624
61.00	17304	94.00	43696	132.00	52	175.00	22168
62.00	17712	95.00	392320	134.00	67	176.00	277568
63.00	13232	96.00	27088	135.00	559	177.00	18144
64.00	1214	97.00	893	136.00	123	178.00	473
65.00	111	98.00	234	137.00	596		
67.00	839	103.00	180	139.00	117		

Data File: /chem/VOA1.i/121809v1/1r501.d

Page 1

Date : 18-DEC-2009 09:19

Client ID: BFB01

Instrument: VOA1.i

Sample Info: |UVM091117-02|BFB|1|VOAF|1|

Operator: RXM4

Column phase: RTX-Volatiles

Column diameter: 0.25

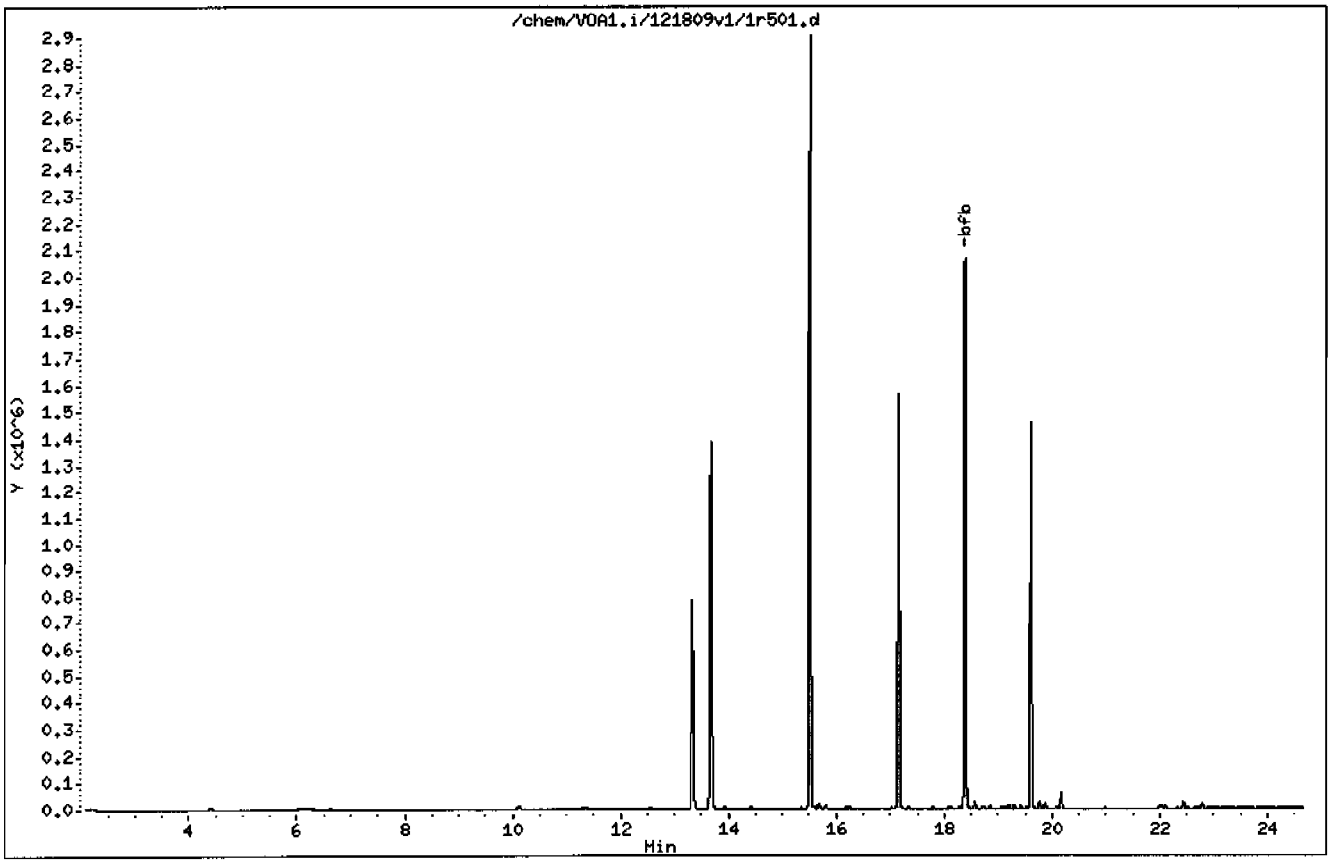

Data File: /chem/VOA1.i/121809v1/1r501.d

Date : 18-DEC-2009 09:19

Client ID: BFB01

Instrument: VOA1.i

Sample Info: |UVH091117-02|BFB|1|VOAF|1|

Operator: RXH4

Column phase: RTX-Volatiles

Column diameter: 0.25

1 bfb

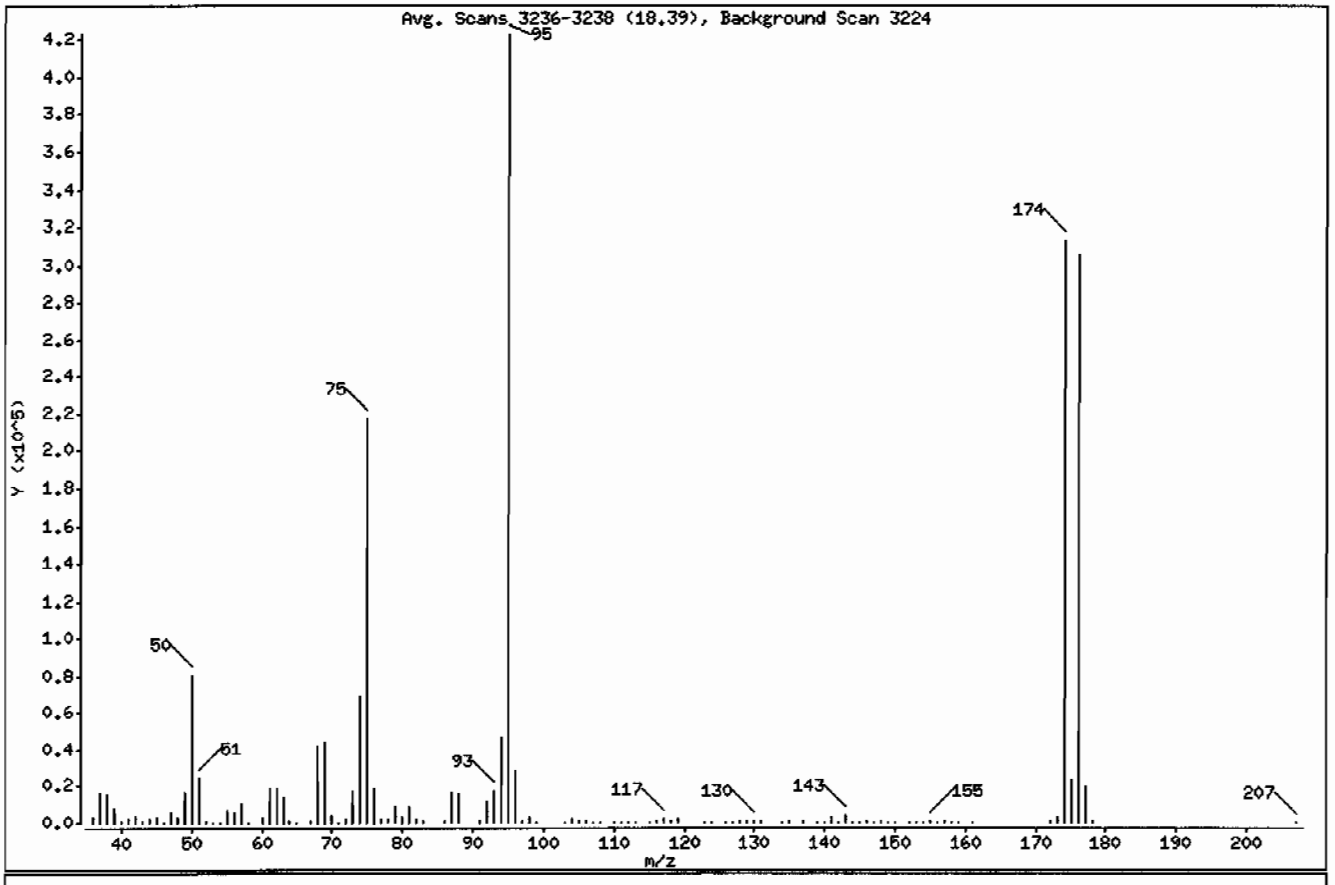

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	19.14
75	30.00 - 60.00% of mass 95	51.21
96	5.00 - 9.00% of mass 95	6.74
173	Less than 2.00% of mass 174	0.66 (0.89)
174	50.00 - 100.00% of mass 95	74.12
175	5.00 - 9.00% of mass 174	5.41 (7.30)
176	95.00 - 101.00% of mass 174	72.24 (97.47)
177	5.00 - 9.00% of mass 176	4.60 (6.36)

Data File: /chem/VOA1.i/121809v1/1r501.d

Date : 18-DEC-2009 09:19

Client ID: BFB01 Instrument: VOA1.i

Sample Info: |UVM091117-02|BFB|1|VOAF|1|

Operator: RXM4

Column phase: RTX-Volatiles Column diameter: 0.25

Data File: 1r501.d

Spectrum: Avg. Scans 3236-3238 (18.39), Background Scan 3224

Location of Maximum: 95.00

Number of points: 113

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	2910	67.00	1150	103.00	141	142.00	430
37.00	16688	68.00	41888	104.00	1593	143.00	3685
38.00	15558	69.00	43960	105.00	689	144.00	173
39.00	7420	70.00	4036	106.00	1413	145.00	361
40.00	656	71.00	141	107.00	416	146.00	488
41.00	1707	72.00	1872	108.00	58	147.00	281
42.00	3433	73.00	17272	110.00	51	148.00	922
43.00	786	74.00	69272	111.00	213	149.00	289
44.00	1573	75.00	216768	112.00	140	150.00	360
45.00	3026	76.00	18176	113.00	303	152.00	55
46.00	191	77.00	2206	115.00	411	153.00	313
47.00	5692	78.00	1555	116.00	1236	154.00	123
48.00	2556	79.00	8878	117.00	2380	155.00	910
49.00	16195	80.00	2781	118.00	1243	156.00	141
50.00	81024	81.00	8780	119.00	1738	157.00	645
51.00	24136	82.00	1879	123.00	50	158.00	50
52.00	1056	83.00	747	124.00	248	159.00	413
53.00	304	86.00	499	126.00	120	161.00	464
54.00	461	87.00	16600	127.00	55	172.00	524
55.00	6732	88.00	15109	128.00	1133	173.00	2807
56.00	6165	91.00	1224	129.00	623	174.00	313728
57.00	10497	92.00	12086	130.00	1356	175.00	22888
58.00	430	93.00	17696	131.00	548	176.00	305792
60.00	3319	94.00	46744	134.00	53	177.00	19456
61.00	18712	95.00	423296	135.00	639	178.00	600
62.00	18472	96.00	28528	137.00	609	207.00	17
63.00	13547	97.00	1024	139.00	149		
64.00	1377	98.00	2595	140.00	163		
65.00	241	99.00	179	141.00	3385		

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-887**			**Matrix:**	**SOIL**
Lab Sample ID:	**1201999839**				
Client Sample:	**QC for batch 934721**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 934721**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**934726**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**12/18/2009 14:12**	**Analyst:**	**RXM4**	**Purge Vol:**	**5 mL**
Prep Date:	**12/18/2009 08:00**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1r508BA.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/kg	0.340	1.00
74-87-3	Chloromethane	U	1.00	ug/kg	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/kg	0.300	1.00
74-83-9	Bromomethane	U	1.00	ug/kg	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/kg	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/kg	0.300	1.00
67-64-1	Acetone	U	5.00	ug/kg	1.66	5.00
75-35-4	1,1-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/kg	1.60	5.00
75-09-2	Methylene chloride	U	5.00	ug/kg	2.00	5.00
75-15-0	Carbon disulfide	U	5.00	ug/kg	1.25	5.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/kg	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/kg	1.50	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/kg	0.300	1.00
74-97-5	Bromochloromethane	U	1.00	ug/kg	0.330	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/kg	0.300	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/kg	0.300	1.00
56-23-5	Carbon tetrachloride	U	1.00	ug/kg	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/kg	0.300	1.00
71-43-2	Benzene	U	1.00	ug/kg	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/kg	0.330	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/kg	0.300	1.00
74-95-3	Dibromomethane	U	1.00	ug/kg	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/kg	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
108-88-3	Toluene	U	1.00	ug/kg	0.300	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/kg	0.300	1.00
591-78-6	2-Hexanone	U	5.00	ug/kg	1.50	5.00
142-28-9	1,3-Dichloropropane	U	1.00	ug/kg	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/kg	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/kg	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/kg	0.300	1.00
108-90-7	Chlorobenzene	U	1.00	ug/kg	0.300	1.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-887			**Matrix:**	SOIL
Lab Sample ID:	1201999839				
Client Sample:	QC for batch 934721	**Client:**	LANL010	**Project:**	QC
Client ID:	MB for batch 934721	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	934726	**Inst:**	VOA1.I	**Dilution:**	1
Run Date:	12/18/2009 14:12	**Analyst:**	RXM4	**Purge Vol:**	5 mL
Prep Date:	12/18/2009 08:00	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	1r508BA.d	**Column:**	RTX-Volatiles	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.00	ug/kg	0.300	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/kg	0.300	2.00
95-47-6	o-Xylene	U	1.00	ug/kg	0.300	1.00
100-42-5	Styrene	U	1.00	ug/kg	0.300	1.00
75-25-2	Bromoform	U	1.00	ug/kg	0.300	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/kg	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/kg	0.300	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/kg	0.300	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/kg	0.300	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/kg	0.300	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/kg	0.300	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/kg	0.300	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/kg	0.300	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/kg	0.300	1.00
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.00	ug/kg	1.60	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated Units	Fit	Qual
	No Tentatively Identified Compounds Found		ug/kg		

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/121809v1/1r508BA.d
Lab Smp Id: 1201999839 Client Smp ID: BLANK
Inj Date : 18-DEC-2009 14:12
Operator : RXM4 Inst ID: VOA1.i
Smp Info : |1201999839|934726|1|VOAF|1|
Misc Info : GEL 5G N/A
Comment :
Method : /chem/VOA1.i/121809v1/VOA1-8260ox-121709.m
Meth Date : 19-Dec-2009 14:24 ron01469 Quant Type: ISTD
Cal Date : 17-DEC-2009 21:57 Cal File: 1r426.d
Als bottle: 8 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	0.00000	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
$ 48 1,2-Dichloroethane-d4	65	13.332	13.341	(0.975)	568457	52.6222	52.6
* 52 Fluorobenzene	96	13.677	13.682	(1.000)	891540	50.0000	
$ 65 Toluene-d8	98	15.514	15.518	(0.904)	1832273	51.8939	51.9
* 76 Chlorobenzene-d5	117	17.157	17.162	(1.000)	618261	50.0000	
$ 87 Bromofluorobenzene	95	18.386	18.386	(0.938)	687744	51.1518	51.2
* 102 1,4-Dichlorobenzene-d4	152	19.611	19.610	(1.000)	327113	50.0000	
109 1,2,4-Trichlorobenzene	180	22.018	22.022	(1.123)	5723	0.71502	0.72(a)
111 Naphthalene	128	22.437	22.437	(1.144)	15726	3.24378	3.2
112 1,2,3-Trichlorobenzene	180	22.787	22.786	(1.162)	8619	1.44113	1.4

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/121809v1/1r508BA.d
Lab Smp Id: 1201999839 Client Smp ID: BLANK
Inj Date : 18-DEC-2009 14:12
Operator : RXM4 Inst ID: VOA1.i
Smp Info : |1201999839|934726|1|VOAF|1|
Misc Info : GEL 5G N/A
Comment :
Method : /chem/VOA1.i/121809v1/VOA1-8260ox-121709.m
Meth Date : 19-Dec-2009 14:24 ron01469 Quant Type: ISTD
Cal Date : 17-DEC-2009 21:57 Cal File: 1r426.d
Als bottle: 8 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50
Processing Host: prdsvr07

- NO TENTATIVELY IDENTIFIED COMPOUNDS -

Data File: /chem/VOA1.i/121809v1/1r508BA.d

Date : 18-DEC-2009 14:12

Client ID: BLANK

Sample Info: |1201999839|934726|1|VOAF|1|

Column phase: RTX-Volatiles

Instrument: VOA1.i

Operator: RXM4

Column diameter: 0.25

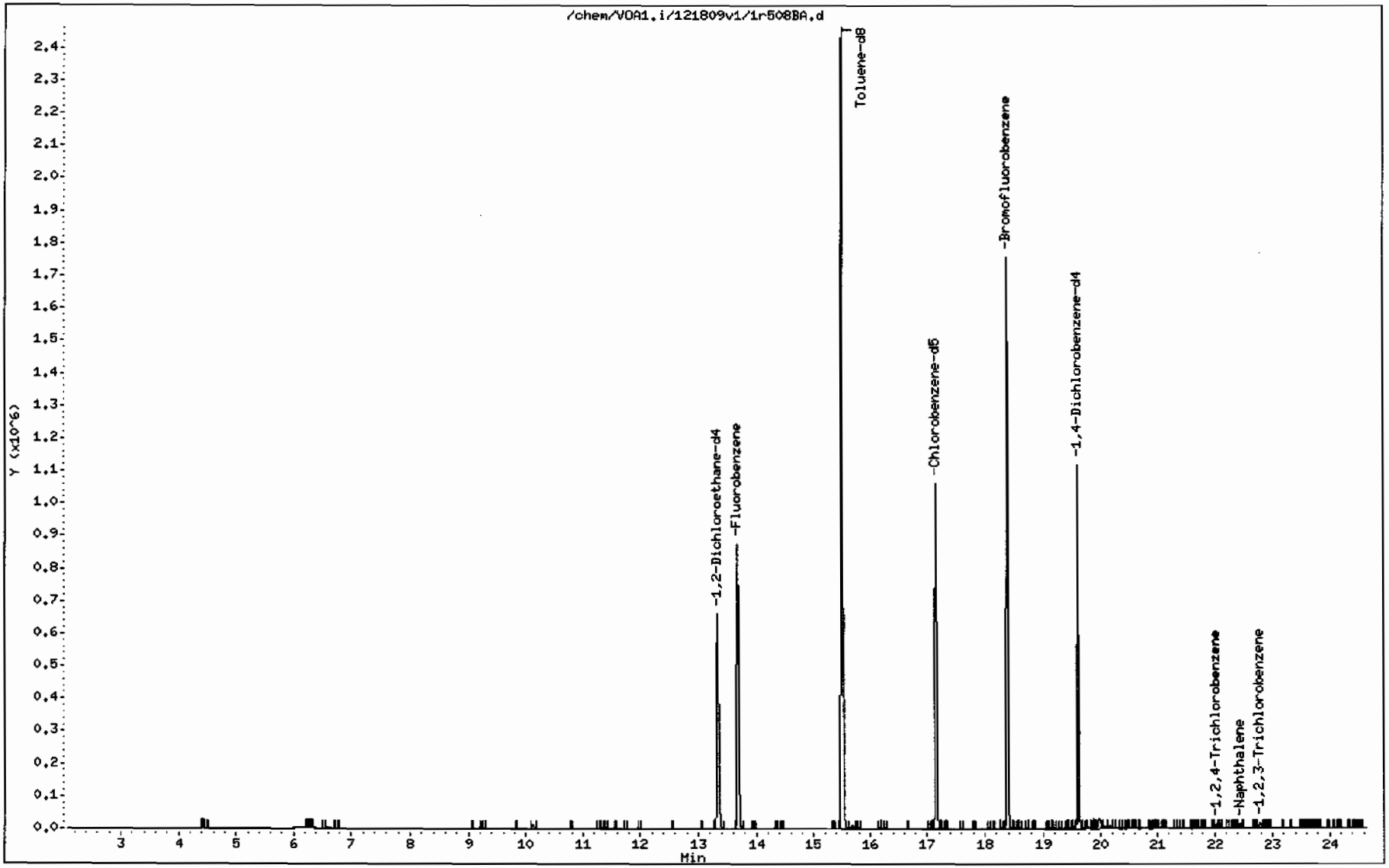

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Date : 18-DEC-2009 14:12

Client ID: BLANK

Instrument: VOA1.i

Sample Info: |120199983919347261|VOAF|1|

Operator: RXM4

Column phase: RTX-Volatiles

Column diameter: 0.25

109 1,2,4-Trichlorobenzene

Concentration: 0.72 ug/Kg

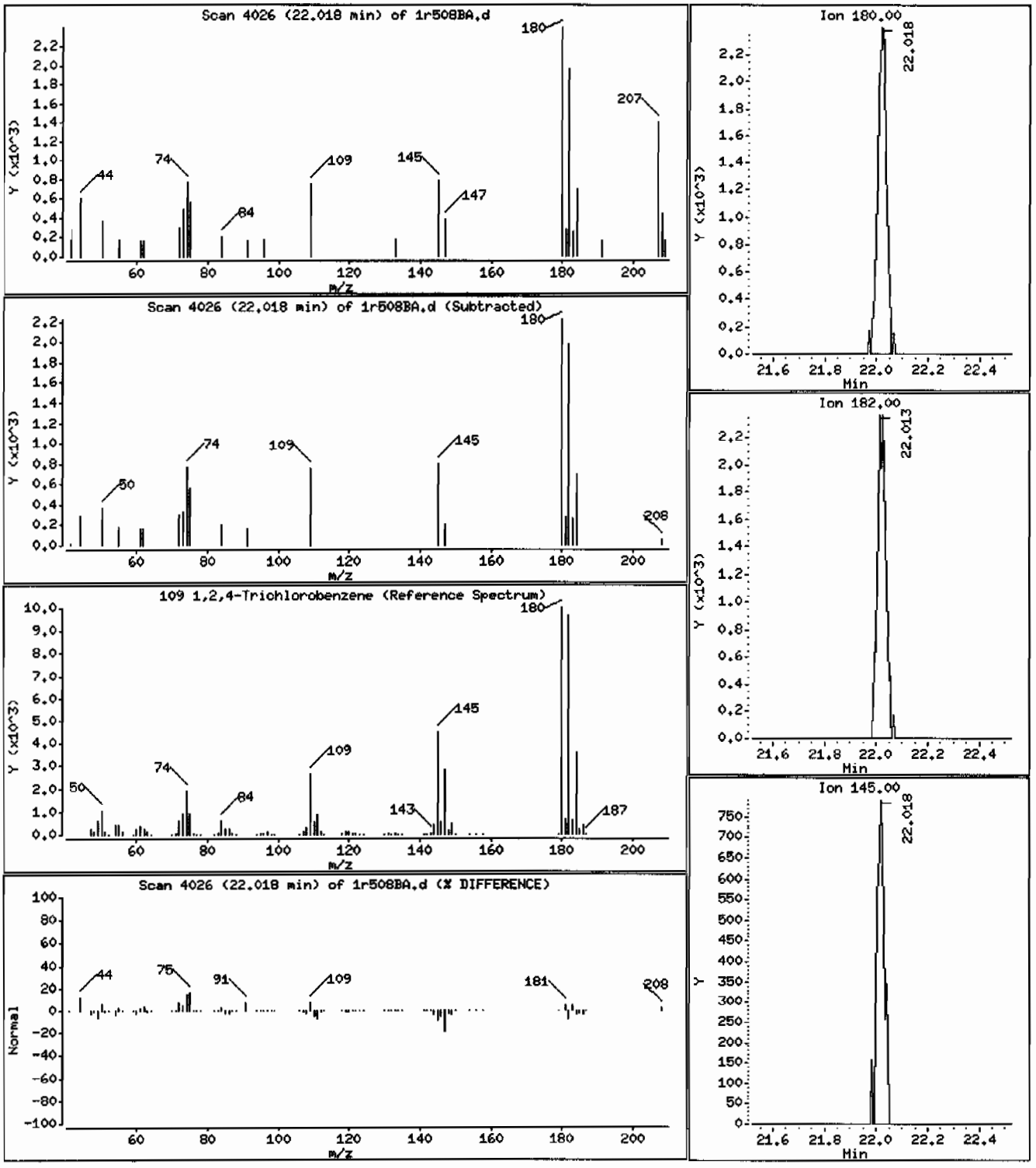

Data File: /chem/VOA1.i/121809v1/1r508BA.d

Date : 18-DEC-2009 14:12

Client ID: BLANK

Instrument: VOA1.i

Sample Info: |1201999839|934726|1|VOAF|1|

Operator: RXM4

Column phase: RTX-Volatiles

Column diameter: 0.25

111 Naphthalene

Concentration: 3.2 ug/Kg

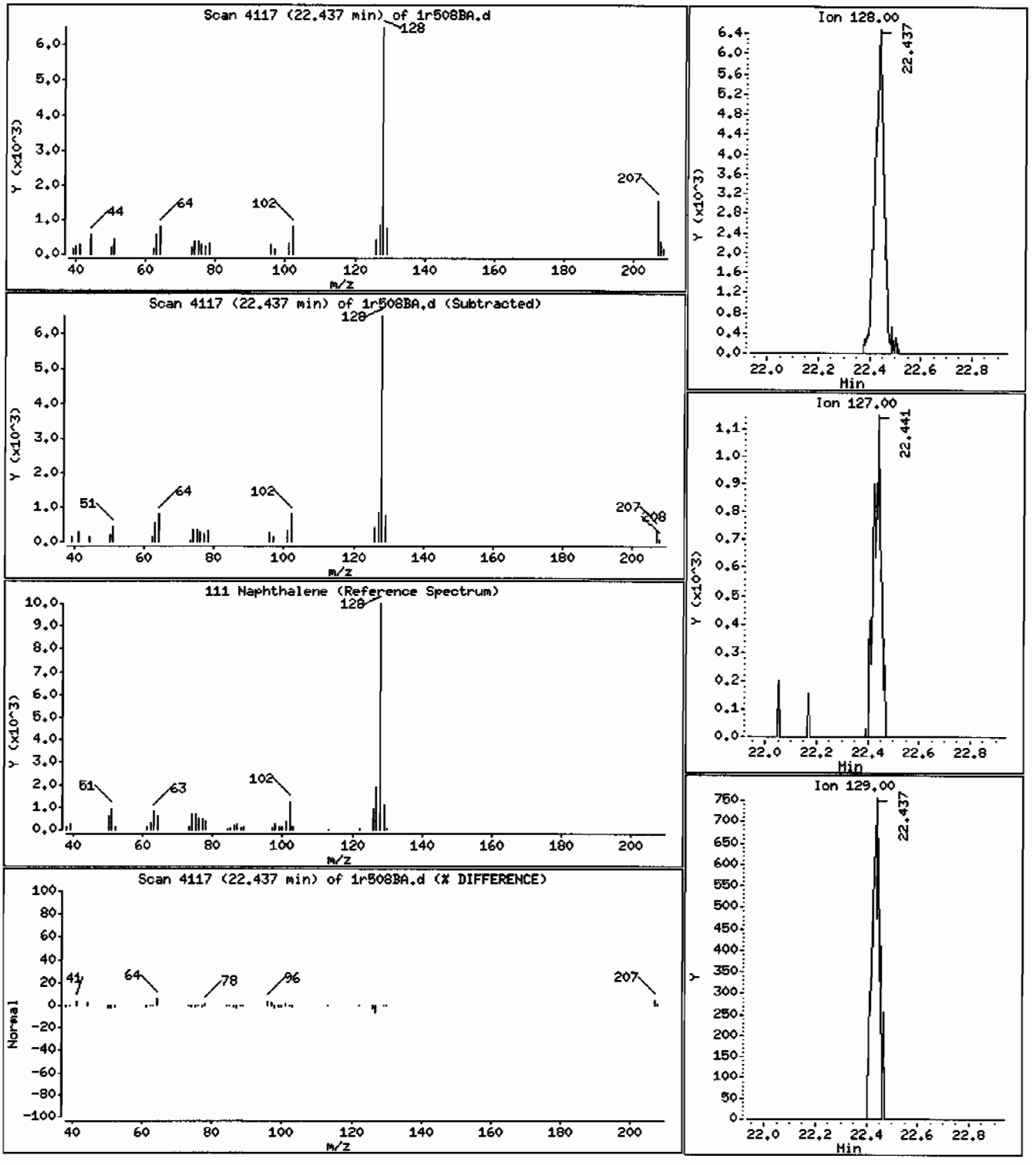

Data File: /chem/VOA1.i/121809v1/1r508BA.d

Date : 18-DEC-2009 14:12

Client ID: BLANK

Instrument: VOA1.i

Sample Info: |1201999839|934726|1|VOAF|1|

Operator: RXH4

Column phase: RTX-Volatiles

Column diameter: 0.25

112 1,2,3-Trichlorobenzene

Concentration: 1.4 ug/Kg

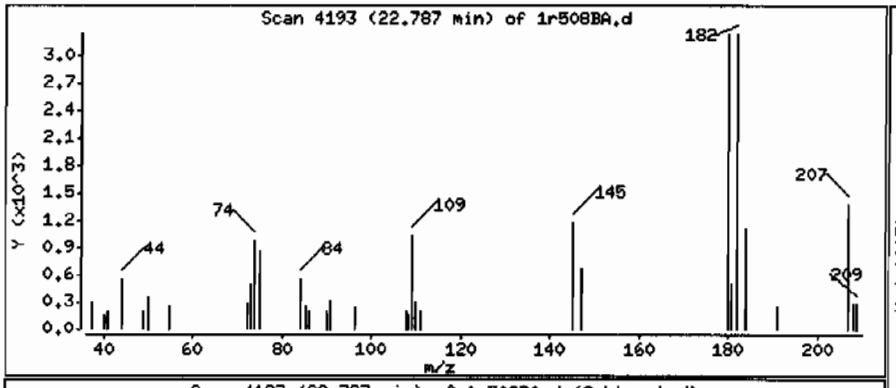

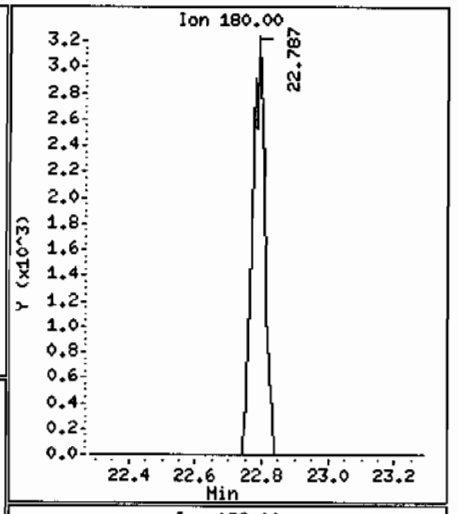

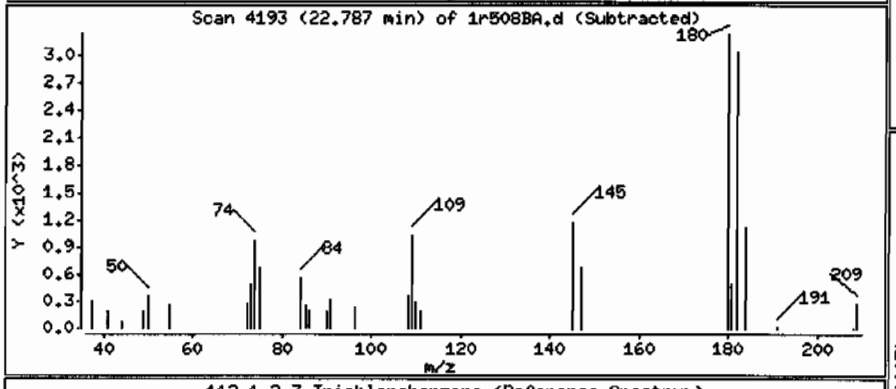

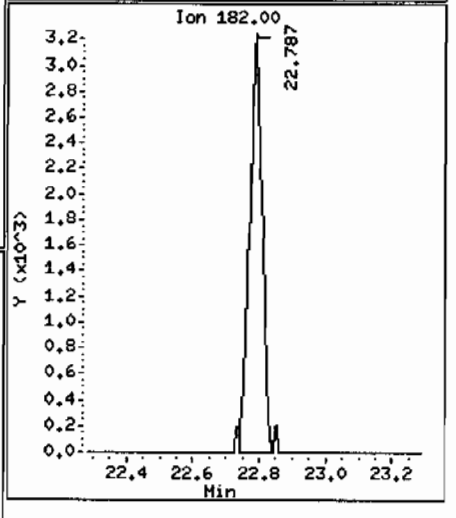

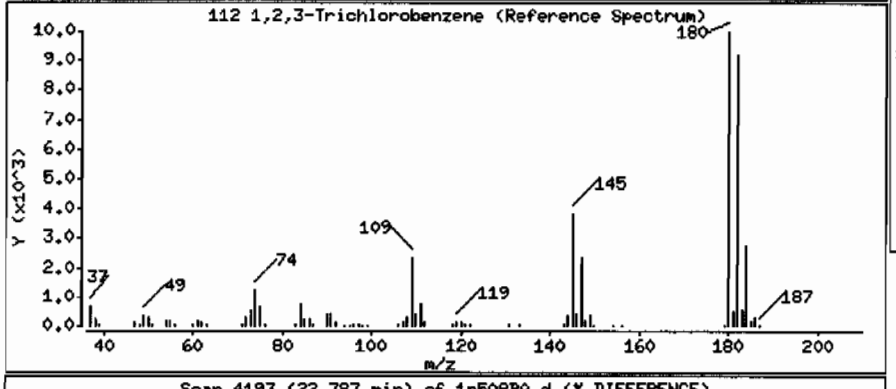

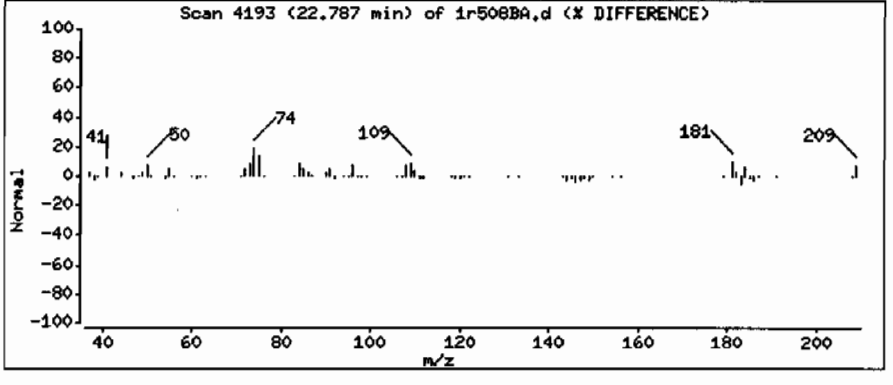

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-887**			**Matrix:**	**SOIL**
Lab Sample ID:	**1201999842**				
Client Sample:	**QC for batch 934721**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 934721**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**934726**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**12/18/2009 10:23**	**Analyst:**	**RXM4**	**Purge Vol:**	**5 mL**
Prep Date:	**12/18/2009 08:01**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1r503LA.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane		41.2	ug/kg	0.340	1.00
74-87-3	Chloromethane		41.1	ug/kg	0.300	1.00
75-01-4	Vinyl chloride		43.4	ug/kg	0.300	1.00
74-83-9	Bromomethane		42.1	ug/kg	0.300	1.00
75-00-3	Chloroethane		45.5	ug/kg	0.300	1.00
75-69-4	Trichlorofluoromethane		51.3	ug/kg	0.300	1.00
67-64-1	Acetone		218	ug/kg	1.66	5.00
75-35-4	1,1-Dichloroethylene		45.4	ug/kg	0.300	1.00
74-88-4	Iodomethane		211	ug/kg	1.60	5.00
75-09-2	Methylene chloride		41.1	ug/kg	2.00	5.00
75-15-0	Carbon disulfide		240	ug/kg	1.25	5.00
156-60-5	trans-1,2-Dichloroethylene		45.5	ug/kg	0.300	1.00
75-34-3	1,1-Dichloroethane		44.8	ug/kg	0.300	1.00
78-93-3	2-Butanone		218	ug/kg	1.50	5.00
156-59-2	cis-1,2-Dichloroethylene		45.2	ug/kg	0.300	1.00
594-20-7	2,2-Dichloropropane		53.5	ug/kg	0.300	1.00
67-66-3	Chloroform		45.9	ug/kg	0.300	1.00
74-97-5	Bromochloromethane		44.0	ug/kg	0.330	1.00
71-55-6	1,1,1-Trichloroethane		50.0	ug/kg	0.300	1.00
563-58-6	1,1-Dichloropropene		51.0	ug/kg	0.300	1.00
56-23-5	Carbon tetrachloride		51.0	ug/kg	0.300	1.00
107-06-2	1,2-Dichloroethane		44.1	ug/kg	0.300	1.00
71-43-2	Benzene		47.2	ug/kg	0.300	1.00
79-01-6	Trichloroethylene		46.7	ug/kg	0.330	1.00
78-87-5	1,2-Dichloropropane		46.3	ug/kg	0.300	1.00
75-27-4	Bromodichloromethane		47.1	ug/kg	0.300	1.00
74-95-3	Dibromomethane		43.9	ug/kg	0.300	1.00
108-10-1	4-Methyl-2-pentanone		237	ug/kg	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene		49.4	ug/kg	0.300	1.00
108-88-3	Toluene		45.9	ug/kg	0.300	1.00
10061-02-6	trans-1,3-Dichloropropylene		50.2	ug/kg	0.300	1.00
79-00-5	1,1,2-Trichloroethane		45.5	ug/kg	0.300	1.00
591-78-6	2-Hexanone		219	ug/kg	1.50	5.00
142-28-9	1,3-Dichloropropane		44.5	ug/kg	0.300	1.00
127-18-4	Tetrachloroethylene		45.8	ug/kg	0.300	1.00
124-48-1	Dibromochloromethane		46.2	ug/kg	0.300	1.00
106-93-4	1,2-Dibromoethane		46.2	ug/kg	0.300	1.00
108-90-7	Chlorobenzene		45.6	ug/kg	0.300	1.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-887**			**Matrix:**	**SOIL**
Lab Sample ID:	**1201999842**				
Client Sample:	**QC for batch 934721**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 934721**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**934726**	**Inst:**	**VOA1.l**	**Dilution:**	**1**
Run Date:	**12/18/2009 10:23**	**Analyst:**	**RXM4**	**Purge Vol:**	**5 mL**
Prep Date:	**12/18/2009 08:01**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1r503LA.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene		47.3	ug/kg	0.300	1.00
179601-23-1	m,p-Xylenes		93.2	ug/kg	0.300	2.00
95-47-6	o-Xylene		46.7	ug/kg	0.300	1.00
100-42-5	Styrene		47.6	ug/kg	0.300	1.00
75-25-2	Bromoform		42.8	ug/kg	0.300	1.00
79-34-5	1,1,2,2-Tetrachloroethane		48.6	ug/kg	0.300	1.00
96-18-4	1,2,3-Trichloropropane		46.7	ug/kg	0.300	1.00
108-86-1	Bromobenzene		46.1	ug/kg	0.300	1.00
103-65-1	n-Propylbenzene		48.5	ug/kg	0.300	1.00
95-49-8	2-Chlorotoluene		47.5	ug/kg	0.300	1.00
98-82-8	Isopropylbenzene		48.7	ug/kg	0.300	1.00
108-67-8	1,3,5-Trimethylbenzene		47.8	ug/kg	0.300	1.00
106-43-4	4-Chlorotoluene		47.5	ug/kg	0.300	1.00
98-06-6	tert-Butylbenzene		45.3	ug/kg	0.300	1.00
95-63-6	1,2,4-Trimethylbenzene		45.7	ug/kg	0.300	1.00
135-98-8	sec-Butylbenzene		45.1	ug/kg	0.300	1.00
99-87-6	4-Isopropyltoluene		45.1	ug/kg	0.300	1.00
541-73-1	1,3-Dichlorobenzene		44.4	ug/kg	0.300	1.00
106-46-7	1,4-Dichlorobenzene		44.9	ug/kg	0.300	1.00
104-51-8	n-Butylbenzene		46.0	ug/kg	0.300	1.00
96-12-8	1,2-Dibromo-3-chloropropane		42.6	ug/kg	0.300	1.00
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.00	ug/kg	1.60	5.00
630-20-6	1,1,1,2-Tetrachloroethane		46.5	ug/kg	0.300	1.00
95-50-1	1,2-Dichlorobenzene		44.5	ug/kg	0.300	1.00

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/121809v1/1r503LA.d
Lab Smp Id: 1201999842 Client Smp ID: LCS
Inj Date : 18-DEC-2009 10:23
Operator : RXM4 Inst ID: VOA1.i
Smp Info : |1201999842|934726|1|VOAF|1|
Misc Info : GEL 5G N/A UVM091214-01A/IVM091217-01
Comment :
Method : /chem/VOA1.i/121809v1/VOA1-8260ox-121709.m
Meth Date : 19-Dec-2009 14:24 ron01469 Quant Type: ISTD
Cal Date : 17-DEC-2009 21:57 Cal File: 1r426.d
Als bottle: 3 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	0.00000	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
M 1 Xylenes (total)	106				2033991	139.955	140
M 2 1,2-Dichloroethylene (total)	96				745676	90.7519	90.8
M 3 1,3-Dichloropropylene	75				1265070	99.6395	99.6
5 Dichlorodifluoromethane	85	5.005	5.005	(0.366)	234876	41.2447	41.2
6 Chloromethane	50	5.564	5.564	(0.407)	430585	41.0838	41.1
7 Vinyl chloride	62	5.937	5.937	(0.434)	378054	43.3827	43.4
9 Bromomethane	96	6.961	6.961	(0.509)	239237	42.0794	42.1
10 Chloroethane	64	7.219	7.219	(0.528)	277223	45.5367	45.5
11 Trichlorofluoromethane	101	7.850	7.850	(0.574)	463405	51.3224	51.3
12 Ethyl Ether	59	8.480	8.480	(0.620)	328771	43.6025	43.6
15 1,1-Dichloroethylene	61	9.097	9.097	(0.665)	639818	45.3500	45.4
16 Acetone	43	9.258	9.258	(0.677)	1328850	217.843	218

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
	18 Iodomethane	142	9.474	9.474	(0.692)	2355119	210.660	211
	19 Carbon disulfide	76	9.580	9.580	(0.700)	5513665	240.198	240
	21 Methyl acetate	43	9.838	9.838	(0.719)	1291141	221.661	222
	22 Acetonitrile	41	9.976	9.976	(0.729)	1059568	1054.24	1050
	23 Methylene chloride	84	10.142	10.142	(0.741)	377610	41.1017	41.1
	25 tert-Butyl methyl ether	73	10.446	10.446	(0.763)	1030559	45.5471	45.5
	26 trans-1,2-Dichloroethylene	96	10.547	10.547	(0.771)	356473	45.5493	45.5
	29 Vinyl acetate	43	11.297	11.297	(0.826)	3603080	258.835	259
	30 1,1-Dichloroethane	63	11.329	11.329	(0.828)	704979	44.8484	44.8
	33 2,2-Dichloropropane	77	12.163	12.163	(0.889)	490575	53.4851	53.5
	35 2-Butanone	43	12.186	12.186	(0.891)	1487935	217.985	218
	36 cis-1,2-Dichloroethylene	96	12.204	12.204	(0.892)	389203	45.2026	45.2
	39 Bromochloromethane	128	12.559	12.559	(0.918)	162953	43.9767	44.0
	41 Chloroform	83	12.614	12.614	(0.922)	702114	45.8589	45.8
	42 Cyclohexane	56	12.839	12.839	(0.938)	742123	49.9606	50.0
	43 1,1,1-Trichloroethane	97	12.844	12.844	(0.939)	510433	49.9504	50.0
	44 Carbon tetrachloride	117	13.023	13.023	(0.952)	515395	51.0052	51.0
	45 1,1-Dichloropropene	75	13.051	13.051	(0.954)	571602	50.9922	51.0
	47 Benzene	78	13.332	13.332	(0.974)	1543105	47.1613	47.2
$	48 1,2-Dichloroethane-d4	65	13.341	13.341	(0.975)	609801	49.9108	49.9
	50 Cyclohexene	54	13.396	13.396	(0.979)	558217	48.5284	48.5
	51 1,2-Dichloroethane	62	13.442	13.442	(0.982)	534111	44.1049	44.1
*	52 Fluorobenzene	96	13.682	13.682	(1.000)	1008338	50.0000	
	53 n-Butyl alcohol	56	13.930	13.930	(1.018)	1138467	4677.91	4680
	54 Trichloroethylene	95	14.114	14.114	(1.032)	391261	46.7126	46.7
	55 Methylcyclohexane	83	14.285	14.285	(1.044)	646997	47.2578	47.2
	57 1,2-Dichloropropane	63	14.455	14.455	(1.057)	415371	46.2652	46.3
	59 Dibromomethane	93	14.621	14.621	(1.069)	222341	43.9382	43.9
	60 Bromodichloromethane	83	14.750	14.750	(1.078)	531314	47.1063	47.1
	61 2-Chloroethylvinyl ether	63	15.030	15.030	(1.099)	479869	497.512	498(AR)
	63 cis-1,3-Dichloropropylene	75	15.256	15.256	(1.115)	650730	49.4020	49.4
	64 4-Methyl-2-pentanone	58	15.357	15.357	(0.895)	835394	236.671	237
$	65 Toluene-d8	98	15.518	15.518	(0.904)	1905179	46.1708	46.2
	66 Toluene	92	15.597	15.597	(0.909)	964972	45.9140	45.9
	68 trans-1,3-Dichloropropylene	75	15.877	15.877	(0.925)	614340	50.2375	50.2
	69 1,1,2-Trichloroethane	83	16.103	16.103	(0.938)	273511	45.4671	45.5
	70 Tetrachloroethylene	164	16.190	16.190	(0.943)	293439	45.8081	45.8
	71 2-Hexanone	43	16.269	16.269	(0.948)	1971349	218.858	219
	72 1,3-Dichloropropane	76	16.305	16.305	(0.950)	567697	44.4515	44.4
	73 Dibromochloromethane	129	16.549	16.549	(0.964)	348634	46.1653	46.2
	74 1,2-Dibromoethane	107	16.729	16.729	(0.975)	313553	46.2207	46.2
*	76 Chlorobenzene-d5	117	17.162	17.162	(1.000)	722547	50.0000	
	77 Chlorobenzene	112	17.194	17.194	(1.002)	1002044	45.6313	45.6
	78 Ethylbenzene	91	17.217	17.217	(1.003)	1906968	47.3438	47.3
	79 1,1,1,2-Tetrachloroethane	131	17.258	17.258	(1.006)	340732	46.4643	46.5
	80 m,p-Xylenes	106	17.336	17.336	(1.010)	1366484	93.2276	93.2
	81 o-Xylene	106	17.783	17.783	(1.036)	667507	46.7277	46.7

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
82 Styrene	104	17.801	17.801	(1.037)	1144602	47.6238	47.6
83 Bromoform	173	18.105	18.105	(0.923)	227256	42.8226	42.8
84 Isopropylbenzene	105	18.128	18.128	(0.924)	1814869	48.7259	48.7
$ 87 Bromofluorobenzene	95	18.386	18.386	(0.938)	735502	47.3814	47.4
88 1,1,2,2-Tetrachloroethane	83	18.506	18.506	(0.944)	436082	48.5954	48.6
89 n-Propylbenzene	91	18.556	18.556	(0.946)	2247630	48.4992	48.5
91 Bromobenzene	156	18.593	18.593	(0.948)	410215	46.1467	46.1
92 1,2,3-Trichloropropane	110	18.602	18.602	(0.949)	108362	46.6566	46.6
93 1,3,5-Trimethylbenzene	105	18.717	18.717	(0.954)	1545656	47.7677	47.8
94 2-Chlorotoluene	91	18.740	18.740	(0.956)	1534141	47.5443	47.5
95 4-Chlorotoluene	91	18.855	18.855	(0.962)	1388619	47.5035	47.5
96 tert-Butylbenzene	119	19.076	19.076	(0.973)	1202807	45.3072	45.3
97 1,2,4-Trimethylbenzene	105	19.136	19.136	(0.976)	1528790	45.7470	45.7
99 sec-Butylbenzene	105	19.302	19.302	(0.984)	1919395	45.1216	45.1
100 4-Isopropyltoluene	119	19.422	19.422	(0.990)	1453847	45.0677	45.1
101 1,3-Dichlorobenzene	146	19.541	19.541	(0.996)	767420	44.4226	44.4
* 102 1,4-Dichlorobenzene-d4	152	19.610	19.610	(1.000)	377666	50.0000	
103 1,4-Dichlorobenzene	146	19.638	19.638	(1.001)	790252	44.8786	44.9
105 n-Butylbenzene	91	19.868	19.868	(1.013)	1570565	45.9979	46.0
106 1,2-Dichlorobenzene	146	20.075	20.075	(1.024)	730290	44.4881	44.5
108 1,2-Dibromo-3-chloropropane	157	21.000	21.000	(1.071)	69514	42.6368	42.6
109 1,2,4-Trichlorobenzene	180	22.022	22.022	(1.123)	377985	40.9035	40.9
110 Hexachlorobutadiene	225	22.105	22.105	(1.127)	219730	35.5559	35.6
111 Naphthalene	128	22.437	22.437	(1.144)	787718	39.7305	39.7
112 1,2,3-Trichlorobenzene	180	22.786	22.786	(1.162)	309038	44.7558	44.8

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
R - Spike/Surrogate failed recovery limits.

Data File: /chem/VOA1.i/121809v1/1r503LA.d
Date : 18-DEC-2009 10:23
Client ID: LCS
Sample Info: 1120199984219347261|1|VOAF1|1
Column phase: RTX-Volatiles

Instrument: VOA1.i
Operator: RXM4
Column diameter: 0.25

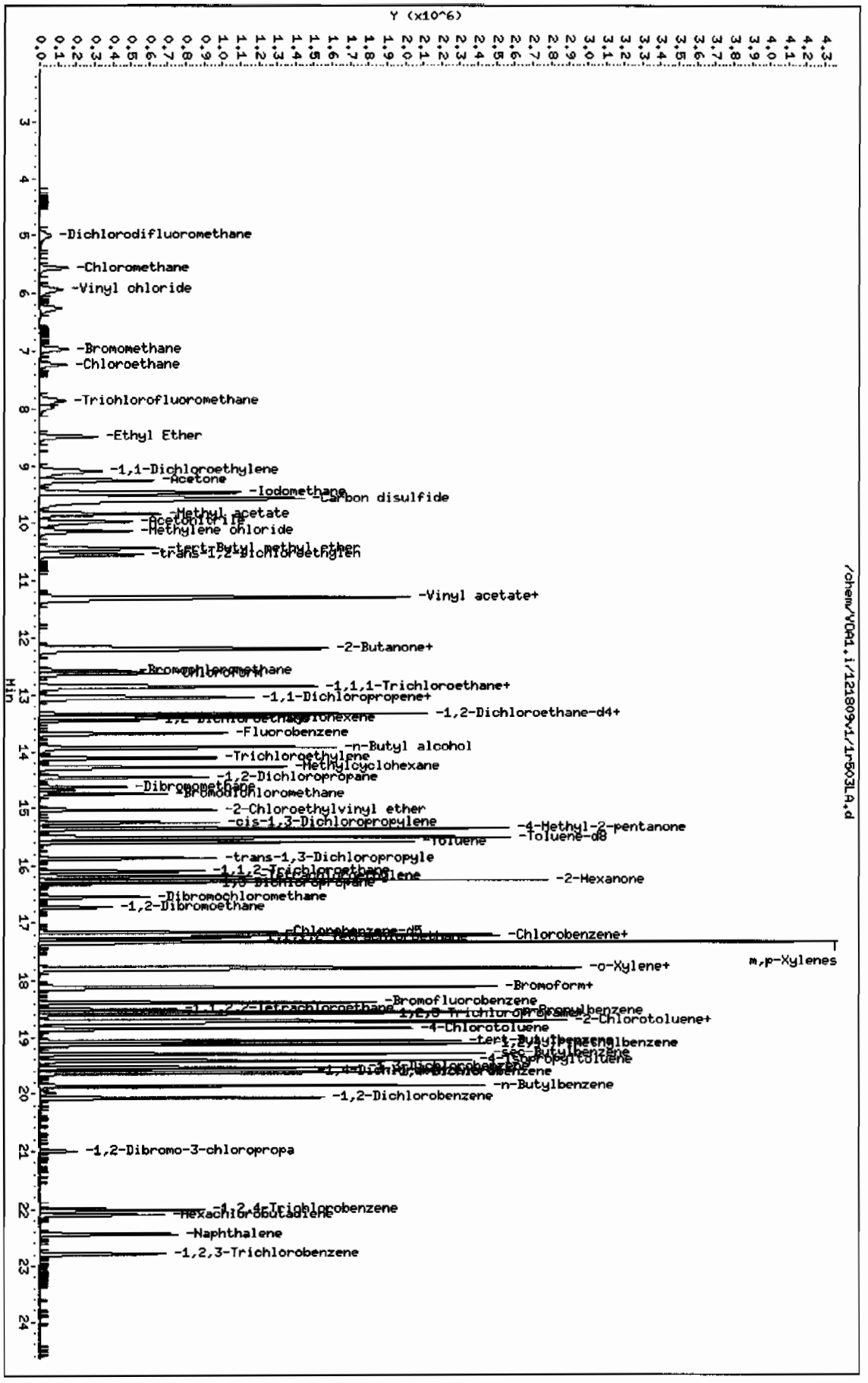

Page 1

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-887			**Matrix:**	SOIL
Lab Sample ID:	1201999843				
Client Sample:	QC for batch 934721	**Client:**	LANL010	**Project:**	QC
Client ID:	LCS for batch 934721	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	934726	**Inst:**	VOA1.I	**Dilution:**	1
Run Date:	12/18/2009 11:28	**Analyst:**	RXM4	**Purge Vol:**	5 mL
Prep Date:	12/18/2009 08:02	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	1r505sLA.d	**Column:**	RTX-Volatiles	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/kg	0.340	1.00
74-87-3	Chloromethane	U	1.00	ug/kg	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/kg	0.300	1.00
74-83-9	Bromomethane	U	1.00	ug/kg	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/kg	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/kg	0.300	1.00
67-64-1	Acetone	U	5.00	ug/kg	1.66	5.00
75-35-4	1,1-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/kg	1.60	5.00
75-09-2	Methylene chloride	U	5.00	ug/kg	2.00	5.00
75-15-0	Carbon disulfide	U	5.00	ug/kg	1.25	5.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/kg	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/kg	1.50	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/kg	0.300	1.00
74-97-5	Bromochloromethane	U	1.00	ug/kg	0.330	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/kg	0.300	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/kg	0.300	1.00
56-23-5	Carbon tetrachloride	U	1.00	ug/kg	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/kg	0.300	1.00
71-43-2	Benzene	U	1.00	ug/kg	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/kg	0.330	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/kg	0.300	1.00
74-95-3	Dibromomethane	U	1.00	ug/kg	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/kg	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
108-88-3	Toluene	U	1.00	ug/kg	0.300	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/kg	0.300	1.00
591-78-6	2-Hexanone	U	5.00	ug/kg	1.50	5.00
142-28-9	1,3-Dichloropropane	U	1.00	ug/kg	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/kg	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/kg	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/kg	0.300	1.00
108-90-7	Chlorobenzene	U	1.00	ug/kg	0.300	1.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-887**			**Matrix:**	**SOIL**
Lab Sample ID:	**1201999843**				
Client Sample:	**QC for batch 934721**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 934721**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**934726**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**12/18/2009 11:28**	**Analyst:**	**RXM4**	**Purge Vol:**	**5 mL**
Prep Date:	**12/18/2009 08:02**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1r505sLA.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.00	ug/kg	0.300	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/kg	0.300	2.00
95-47-6	o-Xylene	U	1.00	ug/kg	0.300	1.00
100-42-5	Styrene	U	1.00	ug/kg	0.300	1.00
75-25-2	Bromoform	U	1.00	ug/kg	0.300	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/kg	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/kg	0.300	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/kg	0.300	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/kg	0.300	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/kg	0.300	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/kg	0.300	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/kg	0.300	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/kg	0.300	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/kg	0.300	1.00
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*		326	ug/kg	1.60	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/121809v1/1r505sLA.d
Lab Smp Id: 1201999843 Client Smp ID: LCS
Inj Date : 18-DEC-2009 11:28
Operator : RXM4 Inst ID: VOA1.i
Smp Info : |1201999843|934726|1|VOAF|1|
Misc Info : GEL 5G N/A UVM091118-08C/UVM091105-02E
Comment :
Method : /chem/VOA1.i/121809v1/VOA1-8260ox-121709.m
Meth Date : 19-Dec-2009 14:24 ron01469 Quant Type: ISTD
Cal Date : 17-DEC-2009 21:57 Cal File: 1r426.d
Als bottle: 5 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	0.00000	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
4 Chlorotrifluoroethylene	116	4.897	4.897	(0.358)	586711	143.836	144
8 2-Chloro-1,1,1-trifluoroethane	118	6.308	6.308	(0.461)	1322854	160.032	160
13 Acrolein	56	8.959	8.959	(0.655)	416676	321.880	322
14 Trichlorotrifluoroethane	101	8.991	8.991	(0.657)	1759865	325.993	326
17 Isopropyl Alcohol	45	9.452	9.452	(0.691)	1341790	2818.75	2820
20 Allyl chloride	76	9.857	9.857	(0.720)	867454	275.287	275
24 tert-Butyl Alcohol	59	10.202	10.202	(0.745)	2286691	2911.21	2910
27 Acrylonitrile	53	10.676	10.676	(0.780)	754404	289.627	290
28 Isopropyl ether	45	11.201	11.201	(0.818)	1415653	48.7409	48.7
31 2-Chloro-1,3-butadiene	53	11.399	11.399	(0.833)	717209	65.8905	65.9
32 Ethyl tert-butyl ether	59	11.758	11.758	(0.859)	1328925	50.0052	50.0
34 Ethyl acetate	43	12.167	12.167	(0.889)	1739145	262.408	262

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
37 Propionitrile	54	12.407	12.407	(0.906)	289154	285.038	285
38 Tetrahydrofuran	42	12.540	12.540	(0.639)	610243	288.286	288
40 Methacrylonitrile	41	12.563	12.563	(0.918)	1408021	271.726	272
46 Isobutyl alcohol	41	13.111	13.111	(0.958)	641893	2815.85	2820
$ 48 1,2-Dichloroethane-d4	65	13.341	13.341	(0.975)	576460	52.2843	52.3
49 Methyl tert-amyl ether	73	13.350	13.350	(0.975)	1143061	51.1514	51.2
* 52 Fluorobenzene	96	13.686	13.682	(1.000)	909934	50.0000	
56 Methyl methacrylate	69	14.441	14.441	(1.055)	1322269	296.114	296
58 1,4-Dioxane	88	14.547	14.547	(1.063)	184785	2891.36	2890
62 2-Nitropropane	43	15.081	15.081	(1.102)	552605	272.097	272
$ 65 Toluene-d8	98	15.518	15.518	(0.904)	1889584	52.2358	52.2
67 Ethyl methacrylate	69	15.813	15.813	(0.921)	2540509	291.738	292
75 1-Chlorohexane	55	17.028	17.028	(1.244)	450728	50.0660	50.1
* 76 Chlorobenzene-d5	117	17.162	17.162	(1.000)	633426	50.0000	
85 cis-1,4-Dichloro-2-butene	53	18.276	18.276	(0.932)	823273	327.162	327
86 Cyclohexanone	55	18.386	18.386	(1.071)	745450	807.986	808
$ 87 Bromofluorobenzene	95	18.386	18.386	(0.938)	722525	52.9373	52.9
90 trans-1,4-Dichloro-2-butene	53	18.566	18.566	(0.947)	762122	322.638	323
98 Pentachloroethane	167	19.196	19.196	(0.979)	1065740	381.970	382(AR)
* 102 1,4-Dichlorobenzene-d4	152	19.611	19.610	(1.000)	332065	50.0000	
104 Benzyl chloride	91	19.772	19.772	(1.008)	4535162	349.048	349
107 bis(2-Chloroisopropyl)ether	45	20.163	20.163	(1.028)	954328	313.960	314

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
R - Spike/Surrogate failed recovery limits.

Data File: /chem/VOA1.i/121809v1/1r505sLA.d
Date : 18-DEC-2009 11:28
Client ID: LCS
Sample Info: 1120199984319347261 1\VOAF1\1

Column phase: RTX-Volatiles

Instrument: VOA1.i
Operator: RXH4
Column diameter: 0.25

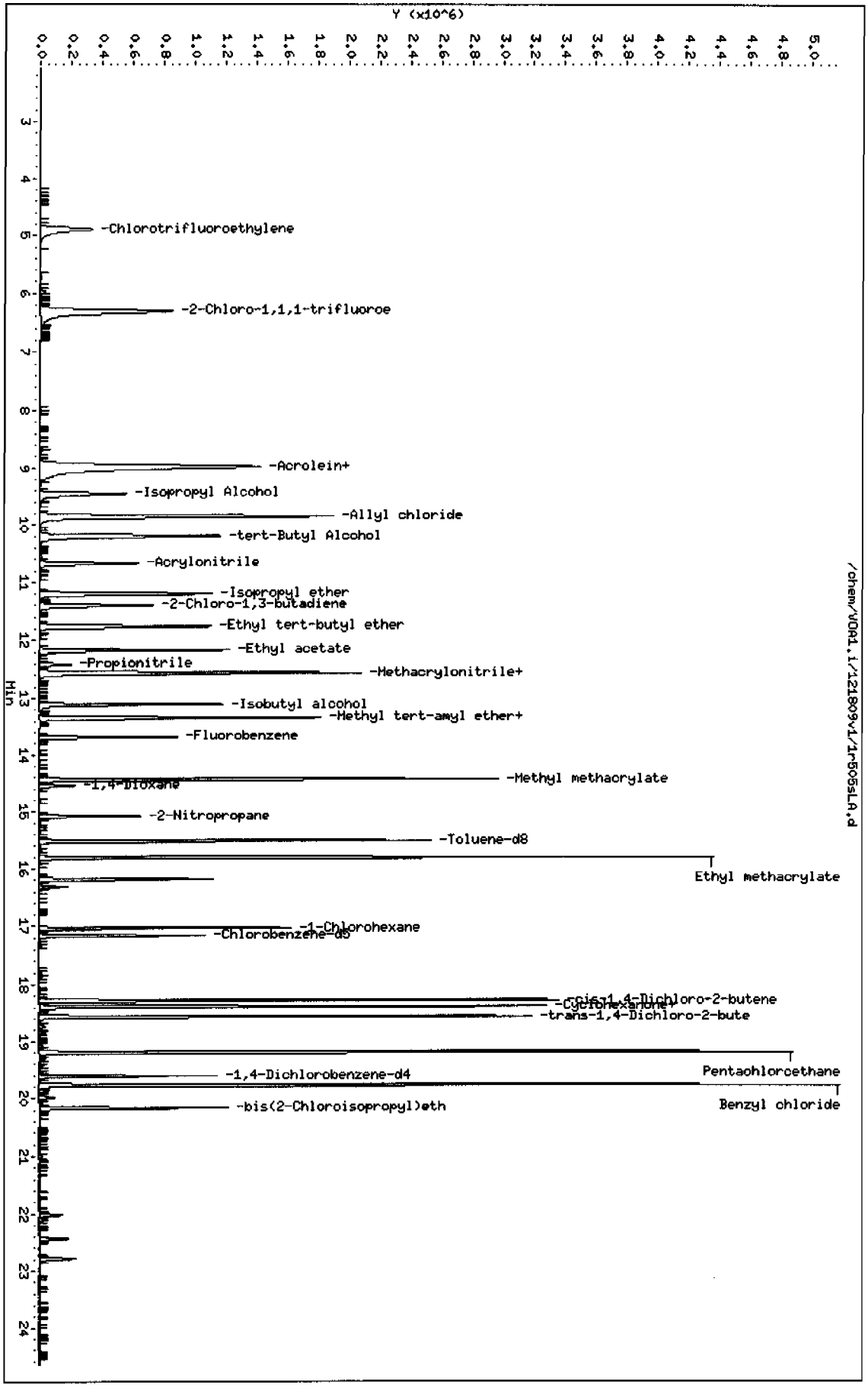

Page 1

Miscellaneous Data

Prep Logbook

Volatile Organic Compounds (VOC) by Gas Chromatograph/Mass Spectrometer

Batch ID: **934721** Verified by: _____

Analyst: Ronda Eagle
Method: SW846 5030
Lab SOP: GL-OA-E-038 REV# 13
Instrument: Sartorius Balance B-001

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units

Sample ID	Run Date	Matrix	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check 1
1201999839 MB	18-DEC-2009 08:00:00	Soil	5	5	1	
1201999842 LCS	18-DEC-2009 08:01:00	Soil	5	5	1	
1201999843 LCS	18-DEC-2009 08:02:00	Soil	5	5	1	
1201999840 PS (242750001)	18-DEC-2009 12:16:00	Soil	5	5	1	
1201999841 PSD (242750001)	18-DEC-2009 12:17:00	Soil	5	5	1	
242750002	18-DEC-2009 12:18:00	Soil	5	5	1	
242750003	18-DEC-2009 12:19:00	Soil	5	5	1	
242750004	18-DEC-2009 12:20:00	Soil	5	5	1	
242750005	18-DEC-2009 12:21:00	Soil	5	5	1	
242750006	18-DEC-2009 12:22:00	Soil	5	5	1	
242781008	18-DEC-2009 12:23:00	Soil	5	5	1	
242792001	18-DEC-2009 12:24:00	Soil	5	5	1	
242792002	18-DEC-2009 12:25:00	Soil	5	5	1	
242793001	18-DEC-2009 12:26:00	Soil	5	5	1	
242793002	18-DEC-2009 12:27:00	Soil	5	5	1	
242750001	18-DEC-2009 13:45:00	Soil	5	5	1	

Reagent/Solvent Lot ID	Description	Amount

Comments:

GEL Laboratories, LLC
Revision:11/22/04

ORGANIC RUN LOG - INSTRUMENT ID#VOA1

Date: 12/17/2009 Method 8260B/624 Operator: RJE

REVIEWED BY: _____
DATE: _____

HARDWARE CONFIGURATION & METHOD CONDITIONS SUMMARY No# 2

Daily Instrument Readings:
Multiplier Voltage: 1306

CALIBRATION & CC INFORMATION:

Initial Calibration Date: 12/17/2009

(See pg. 293 for ICAL Std. Sci. Ids)

NaHSO4 lot # N/A

Cl test lot # 84515

Sequence Number: 121709v1

Daily Standard Solution ID#		Volume Added for Purge (ul) Smpl	CCV	LCS	BFB
ICV	W1VM091217-18		5+5		
IS	UVM091203-01	1	1	1	
SS	UVM091117-02	1	1	1	
	N/A			5+5	
BFB	UVM091117-02				1
SHORT	W1VM091217-20		5+5	5+5	

Purge Amount	
5	Water Purge Vol:ML
5	Soil Purge Wt.:G
	Mid level ext. MeOH Vol:
N/A	ul
N/A	Methanol Lot #
X	Heated Purge

Analysis Date Time	Data File	Lab Sample ID	Client	Batch #	Wt.(g) or Vol(ml/ul)	Dil. Factor	pH	AS Slot #	Matrix w or s	Analyst	Cl test (Y/N)	Acceptable O/X	Comments
12/17/2009 7:38	1R401.D	UVM090821-02	GEL	BFB	5ML	1	N/A	1	W	RXM4	N/A	X	See 1R408
12/17/2009 8:08	1R402.D	W1VM091217-01	GEL	CCV/LCS	5G	1	N/A	2	S	RXM4	N/A	X	UVM091129-01D/IVM091214-01
12/17/2009 9:24	1R403.D	W1VM091217-02	GEL	CCV/LCS	5G	1	N/A	3	S	RXM4	N/A	X	UVM091129-01E/IVM091214-01
12/17/2009 9:54	1R404.D	W1VM091217-03	GEL	LCS	5G	1	N/A	4	S	RXM4	N/A	X	UVM091129-01E/IVM091214-01
12/17/2009 10:24	1R405.D	W1VM091217-04	GEL	SHORT	5G	1	N/A	5	S	RXM4	N/A	X	UVM091118-01C/UVM091105-02E
12/17/2009 10:54	1R406.D	12019---	GEL	BLANK	5G	1	N/A	6	S	RXM4	N/A	X	
12/17/2009 12:25	1R407.D	12019---	GEL	BLANK	5ML	1	N/A	1	W	RXM4	N/A	X	
12/17/2009 12:56	1R408.D	UVM091117-02	GEL	BFB	5ML	1	N/A	2	W	RXM4	N/A	O	
12/17/2009 13:26	1R409.D	W1VM091217-04	GEL	VSTD0005	5ML	1	N/A	3	W	RXM4	N/A	O	UVM090911-01D/UVM091130-01B
12/17/2009 13:56	1R410.D	W1VM091217-05	GEL	VSTD0005	5ML	1	N/A	4	W	RXM4	N/A	X	UVM090911-01D/UVM091130-01B: not needed
12/17/2009 14:26	1R411.D	W1VM091217-06	GEL	VSTD001	5ML	1	N/A	5	W	RXM4	N/A	O	UVM090911-02D/UVM091130-02B
12/17/2009 14:57	1R412.D	W1VM091217-07	GEL	VSTD001	5ML	1	N/A	6	W	RXM4	N/A	X	UVM090911-02D/UVM091130-02B: not needed
12/17/2009 15:27	1R413.D	W1VM091217-08	GEL	VSTD002	5ML	1	N/A	7	W	RXM4	N/A	O	UVM090911-03D/UVM091130-03B
12/17/2009 15:57	1R414.D	W1VM091217-09	GEL	VSTD005	5ML	1	N/A	8	W	RXM4	N/A	O	UVM090911-04D/UVM091130-04B
12/17/2009 16:26	1R415.D	W1VM091217-10	GEL	VSTD010	5ML	1	N/A	9	W	RXM4	N/A	O	UVM090911-05D/UVM091130-05B
12/17/2009 16:56	1R416.D	W1VM091217-11	GEL	VSTD020	5ML	1	N/A	10	W	RXM4	N/A	O	UVM090911-06D/UVM091130-06B
12/17/2009 17:26	1R417.D	W1VM091217-12	GEL	VSTD050	5ML	1	N/A	11	W	RXM4	N/A	O	UVM090911-07D/UVM091130-07B
12/17/2009 17:56	1R418.D	W1VM091217-13	GEL	VSTD100	5ML	1	N/A	12	W	RXM4	N/A	O	UVM090911-08D/UVM091130-08B
12/17/2009 18:26	1R419.D	12019---	GEL	BLANK	5ML	1	N/A	13	W	RXM4	N/A	X	instrument rinse
12/17/2009 18:56	1R420.D	W1VM091217-14	GEL	VSTD005S	5ML	1	N/A	14	W	RXM4	N/A	O	UVM091118-01/UVM091110-01D
12/17/2009 19:26	1R421.D	W1VM091217-15	GEL	VSTD010S	5ML	1	N/A	15	W	RXM4	N/A	O	UVM091118-02/UVM091110-02D
12/17/2009 19:56	1R422.D	W1VM091217-16	GEL	VSTD025S	5ML	1	N/A	16	W	RXM4	N/A	O	UVM091118-03/UVM091110-03D
12/17/2009 20:27	1R423.D	W1VM091217-17	GEL	VSTD050S	5ML	1	N/A	17	W	RXM4	N/A	O	UVM091118-04/UVM091110-04D
12/17/2009 20:57	1R424.D	W1VM091217-18	GEL	VSTD100S	5ML	1	N/A	18	W	RXM4	N/A	O	UVM091118-05/UVM091110-05D
12/17/2009 21:27	1R425.D	W1VM091217-19	GEL	VSTD250S	5ML	1	N/A	19	W	RXM4	N/A	O	UVM091118-06/UVM091110-06D
12/17/2009 21:57	1R426.D	W1VM091217-20	GEL	VSTD500S	5ML	1	N/A	20	W	RXM4	N/A	O	UVM091118-07/UVM091110-07D
12/17/2009 22:27	1R427.D	12019---	GEL	BLANK	5ML	1	N/A	21	W	RXM4	N/A	X	instrument rinse
12/17/2009 22:57	1R428.D	W1VM091217-18	GEL	ICV	5ML	1	N/A	22	W	RXM4	N/A	O	UVM091129-01D/IVM091214-01
12/17/2009 23:27	1R429.D	W1VM091217-19	GEL	ICV	5ML	1	N/A	23	W	RXM4	N/A	X	UVM091129-01E/IVM091214-01
12/17/2009 23:58	1R430.D	W1VM091217-20	GEL	SHORT ICV	5ML	1		24	W	RXM4	N/A	O	UVM091118-01C/UVM091105-02E

GEL Laboratories, LLC
Revision:11/22/04

ORGANIC RUN LOG - INSTRUMENT ID#VOA1

Date: 12/18/2009 Method 8260B/624 Operator: RJE

REVIEWED BY: _____
DATE: _____

HARDWARE CONFIGURATION & METHOD CONDITIONS SUMMARY No# 2

Daily Instrument Readings:
Multiplier Voltage: 1306

CALIBRATION & CC INFORMATION:

Initial Calibration Date: 12/17/2009

(See pg. 283 for ICAL Std. Sci. Ids)

NaHSO4 lot # N/A

Cl test lot # N/A

Sequence Number: 121809v1 AM

Daily Standard

	Solution ID#	Volume Added for Purge (ul) Blk/ Smpl	CCV	MS/ LCS	BFB
CCV	W1VM091218-02		5+5		
IS	UVM091203-01	1	1	1	
SS	UVM091117-02	1	1	1	
LCS/MS	W1VM091218-02			5+5	
BFB	UVM091117-02				1
SHORT	W1VM091218-04		5+5	5+5	

Purge Amount

5	Water Purge Vol:ML
5	Soil Purge Wt.:G
	Mid level ext. MeOH Vol:
N/A	ul
N/A	Methanol Lot #
X	Heated Purge

Analysis Date Time	Data File	Lab Sample ID	Client	Batch #	Wt.(g) or Vol(ml/ul)	Dil. Factor	pH	AS Slot #	Matrix w or s	Analyst	Cl test (Y/N)	Acceptable O/X	Comments
12/18/2009 9:19	1R501.D	UVM091117-02	GEL	BFB	5ML	1	N/A	1	W	RXM4	N/A	O	
12/18/2009 9:53	1R502.D	W1VM091218-01	GEL	CCV/LCS	5G	1	N/A	2	S	RXM4	N/A	X	See 1R503
12/18/2009 10:23	1R503.D	W1VM091218-02	GEL	CCV/LCS	5G	1	N/A	3	S	RXM4	N/A	O	UVM091214-01A/IVM091217-01
12/18/2009 10:57	1R504.D	W1VM091218-03	GEL	LCSD	5G	1	N/A	4	S	RXM4	N/A	X	not needed.
12/18/2009 11:28	1R505.D	W1VM091218-04	GEL	SHORT	5G	1	N/A	5	S	RXM4	N/A	O	UVM091118-08C/UVM091105-02E
12/18/2009 11:58	1R506.D	12019--	GEL	BLANK	5G	1	N/A	6	S	RXM4	N/A	X	
12/18/2009 13:31	1R507.D	242750001	LANL	934726	5G	1	N/A	7	S	RXM4	N/A	X	
12/18/2009 14:12	1R508.D	12019--	GEL	BLANK	5G	1	N/A	8	S	RXM4	N/A	O	
12/18/2009 14:42	1R509.D	242750001	LANL	934726	5G	1	N/A	9	S	RXM4	N/A	O	
12/18/2009 15:12	1R510.D	242750002	LANL	934726	5G	1	N/A	10	S	RXM4	N/A	O	
12/18/2009 15:42	1R511.D	242750003	LANL	934726	5G	1	N/A	11	S	RXM4	N/A	O	
12/18/2009 16:13	1R512.D	242750004	LANL	934726	5G	1	N/A	12	S	RXM4	N/A	O	
12/18/2009 16:43	1R513.D	242750005	LANL	934726	5G	1	N/A	13	S	RXM4	N/A	O	
12/18/2009 17:13	1R514.D	242750006	LANL	934726	5G	1	N/A	14	S	RXM4	N/A	O	TB
12/18/2009 17:44	1R515.D	242781008	LANL	934726	5G	1	N/A	15	S	RXM4	N/A	O	TB
12/18/2009 18:15	1R516.D	242792001	LANL	934726	5G	1	N/A	16	S	RXM4	N/A	O	
12/18/2009 18:46	1R517.D	242792002	LANL	934726	5G	1	N/A	17	S	RXM4	N/A	O	
12/18/2009 19:16	1R518.D	242793001	LANL	934726	5G	1	N/A	18	S	RXM4	N/A	O	TB
12/18/2009 19:47	1R519.D	242793002	LANL	934726	5G	1	N/A	19	S	RXM4	N/A	O	TB
12/18/2009 20:18	1R520.D	1201999840	LANL	934726	5G	1	N/A	20	S	RXM4	N/A	O	MS 242750001
12/18/2009 20:48	1R521.D	1201999841	LANL	934726	5G	1	N/A	21	S	RXM4	N/A	O	MSD 242750001

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/121809v1/1r509.d
Lab Smp Id: 242750001 Client Smp ID: RE03-09-13467
Inj Date : 18-DEC-2009 14:42
Operator : RXM4 Inst ID: VOA1.i
Smp Info : |242750001|934726|1|VOAF|1|
Misc Info : LANL 5G N/A
Comment :
Method : /chem/VOA1.i/121809v1/VOA1-8260ox-121709.m
Meth Date : 19-Dec-2009 14:24 ron01469 Quant Type: ISTD
Cal Date : 17-DEC-2009 21:57 Cal File: 1r426.d
Als bottle: 9
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-886.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	3.92340	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
* 52 Fluorobenzene	96	13.686	13.682	(1.000)	797261	50.0000	
* 76 Chlorobenzene-d5	117	17.162	17.162	(1.000)	562716	50.0000	
* 102 1,4-Dichlorobenzene-d4	152	19.610	19.610	(1.000)	287537	50.0000	
$ 48 1,2-Dichloroethane-d4	65	13.341	13.341	(0.975)	532820	55.1560	57.4
$ 65 Toluene-d8	98	15.518	15.518	(0.904)	1600632	49.8081	51.8
$ 87 Bromofluorobenzene	95	18.391	18.386	(0.938)	609653	51.5847	53.7

ION RATIO REPORT

VOA REPORT

Data file: 1r509.d
Report Date: 12/19/2009 14:24
Lab. ID: 242750001 SampleType: SAMPLE
Injection Date: 18-DEC-2009 14:42
Operator: RXM4 Instrument: VOA1.i
Sample Info: |242750001|934726|1|VOAF|1|
Miscellaneous Info: LANL 5G N/A
Comment:
Method used: /chem/VOA1.i/121809v1/VOA1-8260ox-121709.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-886
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
51 1,2-Dichloroethane				CAS#: 107-06-2		
62	12567	13.68	13.44	80-120	100	(T)
64	2225	13.69	13.44	2- 62	18	(T)
64 4-Methyl-2-pentanone				CAS#: 108-10-1		
58	15385	15.52	15.36	80-120	100	(T)
43	7030	15.52	15.36	198-258	46	(QT)
100	1005383	15.52	15.36	0- 60	6535	(QT)

Q qualifier indicates ion failed ratio requirement
T qualifier indicates RT outside 0.06 minute window of expected RT

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/121809v1/1r509.d
Lab Smp Id: 242750001 Client Smp ID: RE03-09-13467
Inj Date : 18-DEC-2009 14:42
Operator : RXM4 Inst ID: VOA1.i
Smp Info : |242750001|934726|1|VOAF|1|
Misc Info : LANL 5G N/A
Comment :
Method : /chem/VOA1.i/121809v1/VOA1-8260ox-121709.m
Meth Date : 19-Dec-2009 14:24 ron01469 Quant Type: ISTD
Cal Date : 17-DEC-2009 21:57 Cal File: 1r426.d
Als bottle: 9
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-886.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	3.92340	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 76 Chlorobenzene-d5	17.162	1838421	50.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ug/l)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown Siloxane					CAS #:		
18.068	845974	23.0081582	23.9	0		0	76

Data File: /chem/VOA1.i/121809v1/1r509.d
Date : 18-DEC-2009 14:42
Client ID: RE03-09-13467
Sample Info: !2427500011934726!1!VOAF!1!

Column phase: RTX-Volatiles

Instrument: VOA1.i

Operator: RXM4
Column diameter: 0.25

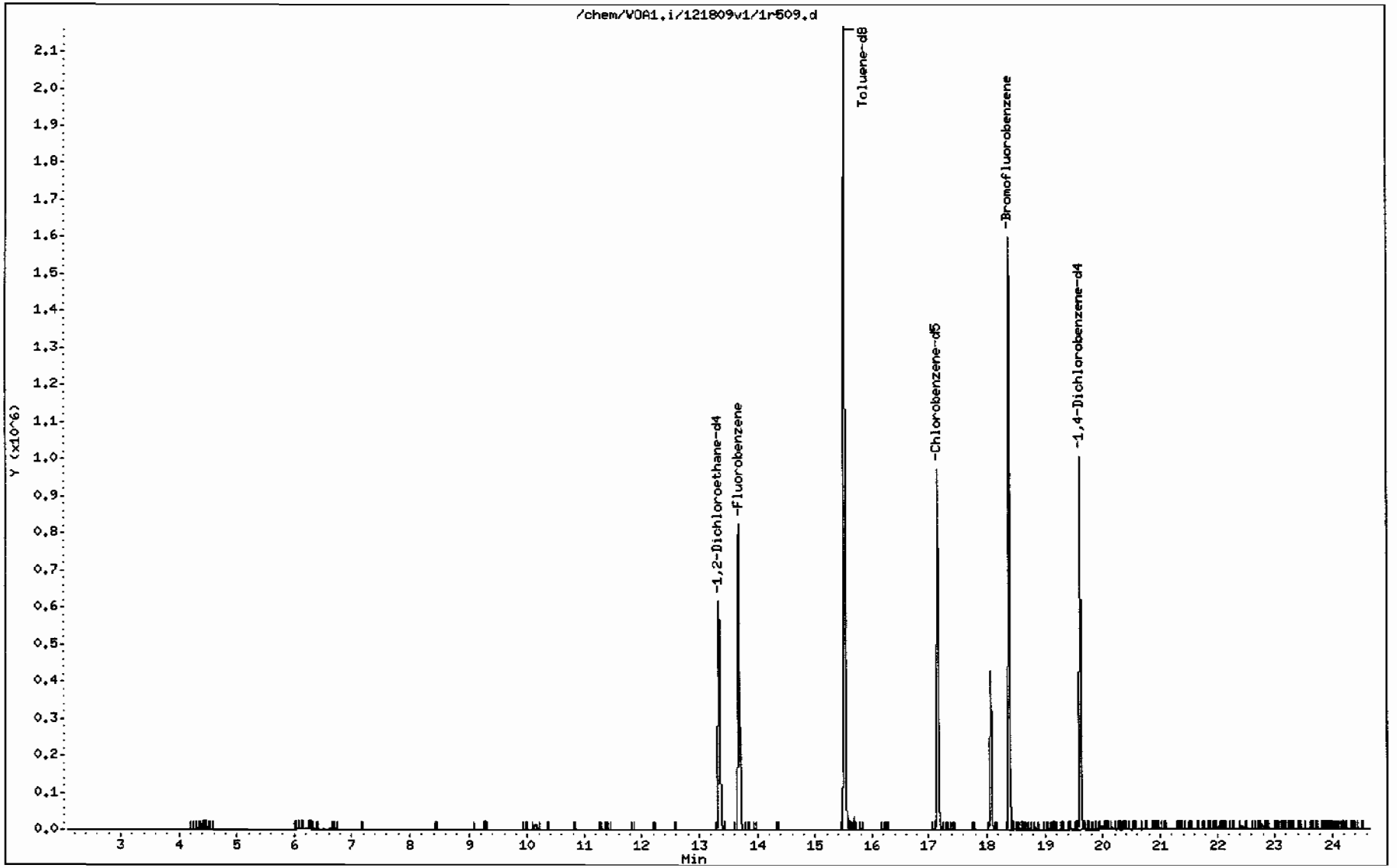

Data File: /chem/VOA1.i/121809v1/1r509.d

Date : 18-DEC-2009 14:42

Client ID: RE03-09-13467

Instrument: VOA1.i

Sample Info: |2427500001|934726|1|VOAF|1|

Operator: RXM4

Column phase: RTX-Volatiles

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Siloxane						
Cyclotrisiloxane, hexamethyl-	541-05-9	NIST05.L	73123	35	C6H18O3Si3	222
Clopidol	2971-90-6	NIST05.L	50706	25	C7H7Cl2NO	191
1-(3-Nitro-phenyl)-pyrrolidine	1000300-34-7	NIST05.L	50801	25	C10H12N2O2	192

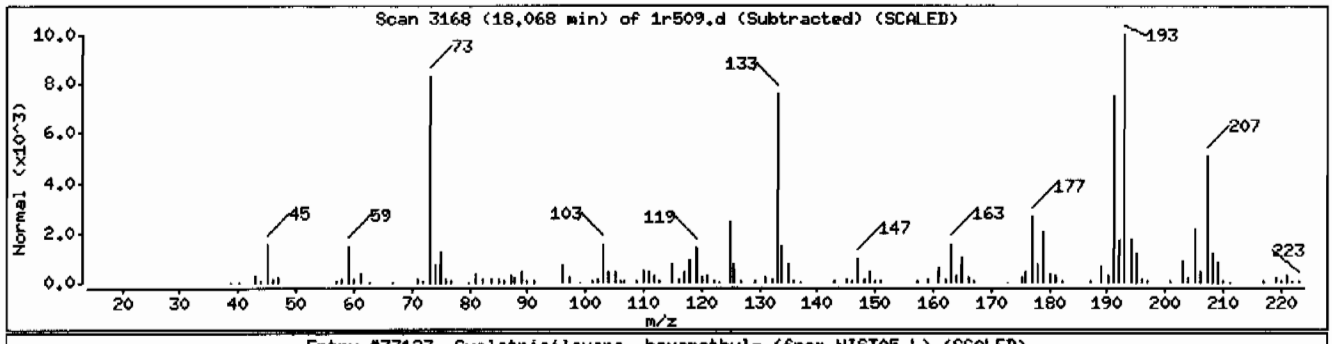

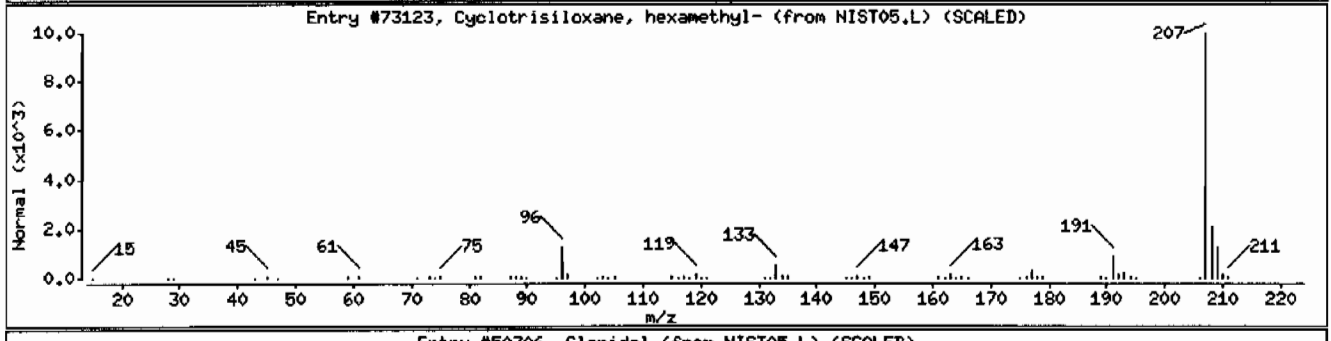

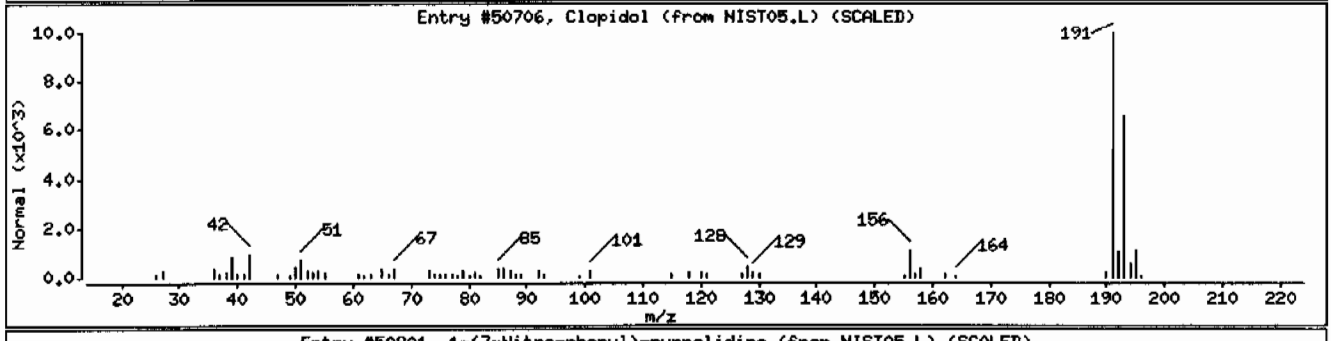

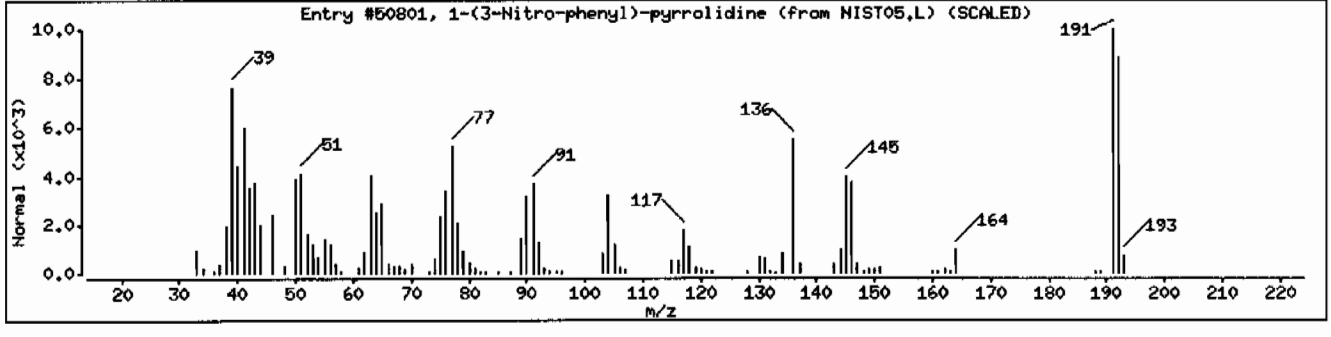

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/121809v1/1r520.d
Lab Smp Id: 1201999840 Client Smp ID: RE03-09-13467MS
Inj Date : 18-DEC-2009 20:18
Operator : RXM4 Inst ID: VOA1.i
Smp Info : |1201999840|934726|1|VOAF|1|
Misc Info : LANL 5G N/A MS 242750001
Comment :
Method : /chem/VOA1.i/121809v1/VOA1-8260ox-121709.m
Meth Date : 19-Dec-2009 14:24 ron01469 Quant Type: ISTD
Cal Date : 17-DEC-2009 21:57 Cal File: 1r426.d
Als bottle: 20 QC Sample: MS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-886.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	3.92340	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
* 52 Fluorobenzene	96	13.686	13.682	(1.000)	768389	50.0000	
* 76 Chlorobenzene-d5	117	17.162	17.162	(1.000)	546621	50.0000	
* 102 1,4-Dichlorobenzene-d4	152	19.610	19.610	(1.000)	314163	50.0000	
$ 48 1,2-Dichloroethane-d4	65	13.341	13.341	(0.975)	535829	57.5516	59.9
$ 65 Toluene-d8	98	15.518	15.518	(0.904)	1499857	48.0465	50.0
$ 87 Bromofluorobenzene	95	18.386	18.386	(0.938)	610662	47.2910	49.2
5 Dichlorodifluoromethane	85	5.012	5.005	(0.366)	162993	37.5832	39.1
6 Chloromethane	50	5.557	5.564	(0.406)	315787	39.5395	41.2
7 Vinyl chloride	62	5.937	5.937	(0.434)	261170	39.3289	40.9
9 Bromomethane	96	6.957	6.961	(0.508)	175779	40.5726	42.2
10 Chloroethane	64	7.219	7.219	(0.527)	196991	42.4624	44.2
11 Trichlorofluoromethane	101	7.854	7.850	(0.574)	330880	48.0886	50.0

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
16 Acetone	43	9.258	9.258	(0.676)	904597	194.602	202
15 1,1-Dichloroethylene	61	9.092	9.097	(0.664)	458028	42.6028	44.3
103 1,4-Dichlorobenzene	146	19.638	19.638	(1.001)	552397	37.7118	39.2
18 Iodomethane	142	9.475	9.474	(0.692)	1646612	193.280	201
23 Methylene chloride	84	10.147	10.142	(0.741)	269662	38.5118	40.1
19 Carbon disulfide	76	9.590	9.580	(0.701)	3615140	206.671	215
26 trans-1,2-Dichloroethylene	96	10.552	10.547	(0.771)	241626	40.5158	42.2
30 1,1-Dichloroethane	63	11.325	11.329	(0.827)	516137	43.0884	44.8
35 2-Butanone	43	12.190	12.186	(0.891)	1000076	192.265	200
36 cis-1,2-Dichloroethylene	96	12.204	12.204	(0.892)	266637	40.6380	42.3
101 1,3-Dichlorobenzene	146	19.541	19.541	(0.996)	545014	37.9255	39.5
33 2,2-Dichloropropane	77	12.167	12.163	(0.889)	327964	46.9222	48.8
41 Chloroform	83	12.618	12.614	(0.922)	507869	43.5304	45.3
106 1,2-Dichlorobenzene	146	20.075	20.075	(1.024)	527819	38.6533	40.2
39 Bromochloromethane	128	12.563	12.559	(0.918)	113865	40.3251	42.0
43 1,1,1-Trichloroethane	97	12.849	12.844	(0.939)	372001	47.7716	49.7
45 1,1-Dichloropropene	75	13.051	13.051	(0.954)	384873	45.0560	46.9
44 Carbon tetrachloride	117	13.028	13.023	(0.952)	374933	48.6914	50.7
51 1,2-Dichloroethane	62	13.442	13.442	(0.982)	423112	45.8497	47.7
47 Benzene	78	13.336	13.332	(0.974)	1040592	41.7346	43.4
54 Trichloroethylene	95	14.119	14.114	(1.032)	267902	41.9728	43.7
57 1,2-Dichloropropane	63	14.460	14.455	(1.056)	288450	42.1613	43.9
60 Bromodichloromethane	83	14.754	14.750	(1.078)	397326	46.2275	48.1
59 Dibromomethane	93	14.625	14.621	(1.069)	162295	42.0875	43.8
64 4-Methyl-2-pentanone	58	15.357	15.357	(0.895)	568718	212.976	222
63 cis-1,3-Dichloropropylene	75	15.256	15.256	(1.115)	448489	44.6808	46.5
66 Toluene	92	15.597	15.597	(0.909)	646186	40.6413	42.3
68 trans-1,3-Dichloropropylene	75	15.877	15.877	(0.925)	436408	47.1728	49.1
69 1,1,2-Trichloroethane	83	16.103	16.103	(0.938)	192142	42.2206	43.9
71 2-Hexanone	43	16.269	16.269	(0.948)	1326301	194.635	202
72 1,3-Dichloropropane	76	16.305	16.305	(0.950)	404707	41.8881	43.6
70 Tetrachloroethylene	164	16.190	16.190	(0.943)	195000	40.2383	41.9
73 Dibromochloromethane	129	16.549	16.549	(0.964)	257044	44.9917	46.8
74 1,2-Dibromoethane	107	16.729	16.729	(0.975)	220254	42.9169	44.7
77 Chlorobenzene	112	17.194	17.194	(1.002)	680619	40.9694	42.6
79 1,1,1,2-Tetrachloroethane	131	17.258	17.258	(1.006)	243559	43.9026	45.7
78 Ethylbenzene	91	17.217	17.217	(1.003)	1299599	42.6490	44.4
80 m,p-Xylenes	106	17.337	17.336	(1.010)	918051	82.7916	86.2
81 o-Xylene	106	17.783	17.783	(1.036)	455259	42.1266	43.8
82 Styrene	104	17.806	17.801	(1.038)	788601	43.3717	45.1
83 Bromoform	173	18.105	18.105	(0.923)	166664	37.9117	39.4
88 1,1,2,2-Tetrachloroethane	83	18.506	18.506	(0.944)	306919	41.1153	42.8
92 1,2,3-Trichloropropane	110	18.607	18.602	(0.949)	81893	42.3873	44.1(Q)
91 Bromobenzene	156	18.593	18.593	(0.948)	286365	38.7260	40.3
89 n-Propylbenzene	91	18.556	18.556	(0.946)	1563078	40.5456	42.2
94 2-Chlorotoluene	91	18.740	18.740	(0.956)	1095366	40.8080	42.5
84 Isopropylbenzene	105	18.128	18.128	(0.924)	1283697	41.4314	43.1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
93 1,3,5-Trimethylbenzene	105	18.717	18.717	(0.954)	1115291	41.4346	43.1
95 4-Chlorotoluene	91	18.855	18.855	(0.962)	986901	40.5853	42.2
96 tert-Butylbenzene	119	19.076	19.076	(0.973)	873745	39.5648	41.2
97 1,2,4-Trimethylbenzene	105	19.132	19.136	(0.976)	1119679	40.2774	41.9
99 sec-Butylbenzene	105	19.302	19.302	(0.984)	1430103	40.4148	42.1
100 4-Isopropyltoluene	119	19.422	19.422	(0.990)	1079035	40.2101	41.8
105 n-Butylbenzene	91	19.868	19.868	(1.013)	1163659	40.9695	42.6
108 1,2-Dibromo-3-chloropropane	157	21.001	21.000	(1.071)	49782	36.9999	38.5

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: /chem/VOA1.i/121809v1/1r520.d
Date : 18-DEC-2009 20:18
Client ID: RE03-09-13467MS
Sample Info: 1120199984019347261|1|VOAF|1|

Column phase: RTX-Volatiles

Instrument: VOA1.i
Operator: RXM4
Column diameter: 0.25

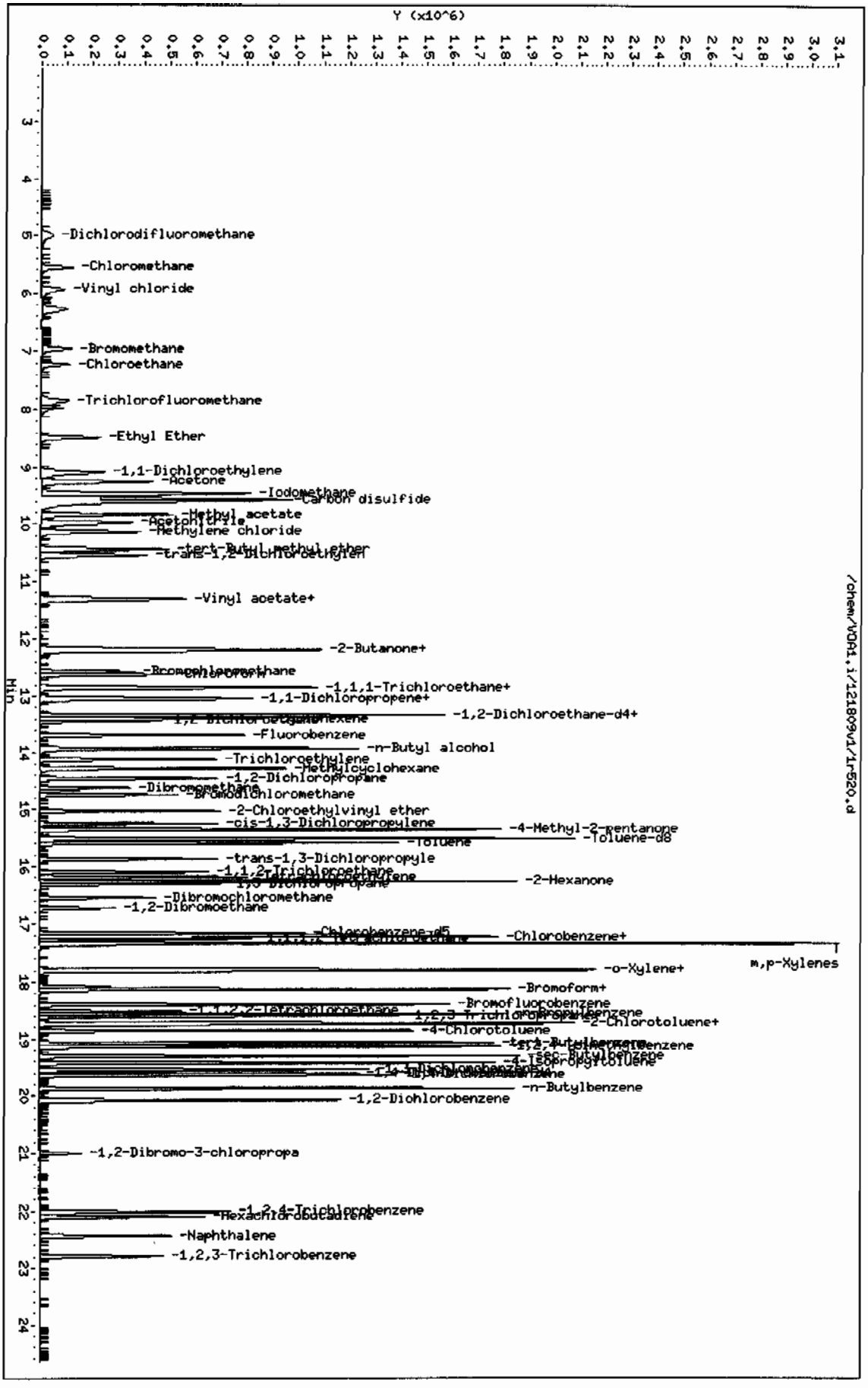

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GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/121809v1/1r521.d
Lab Smp Id: 1201999841 Client Smp ID: RE03-09-13467MSD
Inj Date : 18-DEC-2009 20:48
Operator : RXM4 Inst ID: VOA1.i
Smp Info : |1201999841|934726|1|VOAF|1|
Misc Info : LANL 5G N/A MSD 242750001
Comment :
Method : /chem/VOA1.i/121809v1/VOA1-8260ox-121709.m
Meth Date : 19-Dec-2009 14:24 ron01469 Quant Type: ISTD
Cal Date : 17-DEC-2009 21:57 Cal File: 1r426.d
Als bottle: 21 QC Sample: MSD
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-886.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	3.92340	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
* 52 Fluorobenzene	96	13.686	13.682	(1.000)	732168	50.0000	
* 76 Chlorobenzene-d5	117	17.157	17.162	(1.000)	520556	50.0000	
* 102 1,4-Dichlorobenzene-d4	152	19.610	19.610	(1.000)	287580	50.0000	
$ 48 1,2-Dichloroethane-d4	65	13.341	13.341	(0.975)	544764	61.4059	63.9
$ 65 Toluene-d8	98	15.518	15.518	(0.904)	1571697	52.8688	55.0
$ 87 Bromofluorobenzene	95	18.386	18.386	(0.938)	624033	52.7936	54.9
5 Dichlorodifluoromethane	85	5.005	5.005	(0.366)	175128	42.3457	44.1
6 Chloromethane	50	5.564	5.564	(0.407)	350776	46.0932	48.0
7 Vinyl chloride	62	5.937	5.937	(0.434)	292273	46.1899	48.1
9 Bromomethane	96	6.957	6.961	(0.508)	194895	47.2103	49.1
10 Chloroethane	64	7.219	7.219	(0.527)	218170	49.3541	51.4
11 Trichlorofluoromethane	101	7.859	7.850	(0.574)	353670	53.9436	56.1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
16 Acetone	43	9.258	9.258	(0.676)	979930	221.237	230
15 1,1-Dichloroethylene	61	9.097	9.097	(0.665)	502564	49.0578	51.1
103 1,4-Dichlorobenzene	146	19.638	19.638	(1.001)	621135	46.3243	48.2
18 Iodomethane	142	9.475	9.474	(0.692)	1863894	229.608	239
23 Methylene chloride	84	10.147	10.142	(0.741)	306412	45.9434	47.8
19 Carbon disulfide	76	9.580	9.580	(0.700)	4045033	242.687	252
26 trans-1,2-Dichloroethylene	96	10.552	10.547	(0.771)	272484	47.9503	49.9
30 1,1-Dichloroethane	63	11.325	11.329	(0.827)	577291	50.5779	52.6
35 2-Butanone	43	12.190	12.186	(0.891)	1090599	220.041	229
36 cis-1,2-Dichloroethylene	96	12.209	12.204	(0.892)	303489	48.5429	50.5
101 1,3-Dichlorobenzene	146	19.541	19.541	(0.996)	613258	46.6190	48.5
33 2,2-Dichloropropane	77	12.163	12.163	(0.889)	360882	54.1861	56.4
41 Chloroform	83	12.614	12.614	(0.922)	556549	50.0627	52.1
106 1,2-Dichlorobenzene	146	20.075	20.075	(1.024)	593782	47.5034	49.4
39 Bromochloromethane	128	12.563	12.559	(0.918)	127682	47.4554	49.4
43 1,1,1-Trichloroethane	97	12.844	12.844	(0.938)	401964	54.1730	56.4
45 1,1-Dichloropropene	75	13.051	13.051	(0.954)	429913	52.8185	55.0
44 Carbon tetrachloride	117	13.028	13.023	(0.952)	407658	55.5604	57.8
51 1,2-Dichloroethane	62	13.442	13.442	(0.982)	455609	51.8136	53.9
47 Benzene	78	13.337	13.332	(0.974)	1168352	49.1767	51.2
54 Trichloroethylene	95	14.119	14.114	(1.032)	300317	49.3791	51.4
57 1,2-Dichloropropane	63	14.460	14.455	(1.056)	322722	49.5043	51.5
60 Bromodichloromethane	83	14.754	14.750	(1.078)	438336	53.5218	55.7
59 Dibromomethane	93	14.625	14.621	(1.069)	179170	48.7623	50.8
64 4-Methyl-2-pentanone	58	15.362	15.357	(0.895)	621493	244.393	254
63 cis-1,3-Dichloropropylene	75	15.256	15.256	(1.115)	506985	53.0072	55.2
66 Toluene	92	15.597	15.597	(0.909)	723118	47.7571	49.7
68 trans-1,3-Dichloropropylene	75	15.877	15.877	(0.925)	481966	54.7059	56.9
69 1,1,2-Trichloroethane	83	16.103	16.103	(0.939)	212800	49.1013	51.1
71 2-Hexanone	43	16.269	16.269	(0.948)	1474805	227.265	236
72 1,3-Dichloropropane	76	16.310	16.305	(0.951)	456542	49.6192	51.6
70 Tetrachloroethylene	164	16.190	16.190	(0.944)	218072	47.2523	49.2
73 Dibromochloromethane	129	16.549	16.549	(0.965)	283647	52.1342	54.3
74 1,2-Dibromoethane	107	16.724	16.729	(0.975)	247093	50.5573	52.6
77 Chlorobenzene	112	17.194	17.194	(1.002)	773200	48.8727	50.9
79 1,1,1,2-Tetrachloroethane	131	17.258	17.258	(1.006)	268711	50.8616	52.9
78 Ethylbenzene	91	17.222	17.217	(1.004)	1445339	49.8067	51.8
80 m,p-Xylenes	106	17.337	17.336	(1.010)	1030840	97.6180	102
81 o-Xylene	106	17.783	17.783	(1.036)	510786	49.6313	51.6
82 Styrene	104	17.802	17.801	(1.038)	887720	51.2677	53.4
83 Bromoform	173	18.105	18.105	(0.923)	181436	44.8334	46.7
88 1,1,2,2-Tetrachloroethane	83	18.506	18.506	(0.944)	333012	48.7344	50.7
92 1,2,3-Trichloropropane	110	18.607	18.602	(0.949)	87844	49.6704	51.7
91 Bromobenzene	156	18.589	18.593	(0.948)	323653	47.8144	49.8
89 n-Propylbenzene	91	18.556	18.556	(0.946)	1744318	49.4293	51.4
94 2-Chlorotoluene	91	18.741	18.740	(0.956)	1204818	49.0347	51.0
84 Isopropylbenzene	105	18.128	18.128	(0.924)	1421059	50.1044	52.2

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
93 1,3,5-Trimethylbenzene	105	18.718	18.717	(0.954)	1211245	49.1590	51.2
95 4-Chlorotoluene	91	18.851	18.855	(0.961)	1102579	49.5338	51.6
96 tert-Butylbenzene	119	19.077	19.076	(0.973)	971111	48.0385	50.0
97 1,2,4-Trimethylbenzene	105	19.136	19.136	(0.976)	1241214	48.7765	50.8
99 sec-Butylbenzene	105	19.302	19.302	(0.984)	1581151	48.8138	50.8
100 4-Isopropyltoluene	119	19.422	19.422	(0.990)	1192372	48.5409	50.5
105 n-Butylbenzene	91	19.868	19.868	(1.013)	1301185	50.0461	52.1
108 1,2-Dibromo-3-chloropropane	157	21.001	21.000	(1.071)	55488	44.5932	46.4

Data File: /chem/VOA1.i/121809v1/1r521.d
Date : 18-DEC-2009 20:48
Client ID: RE03-09-13467MSD
Sample Info: t120199841193472611|VOAF11|
Column phase: RTX-Volatiles

Instrument: VOA1.i
Operator: RXM4
Column diameter: 0.25

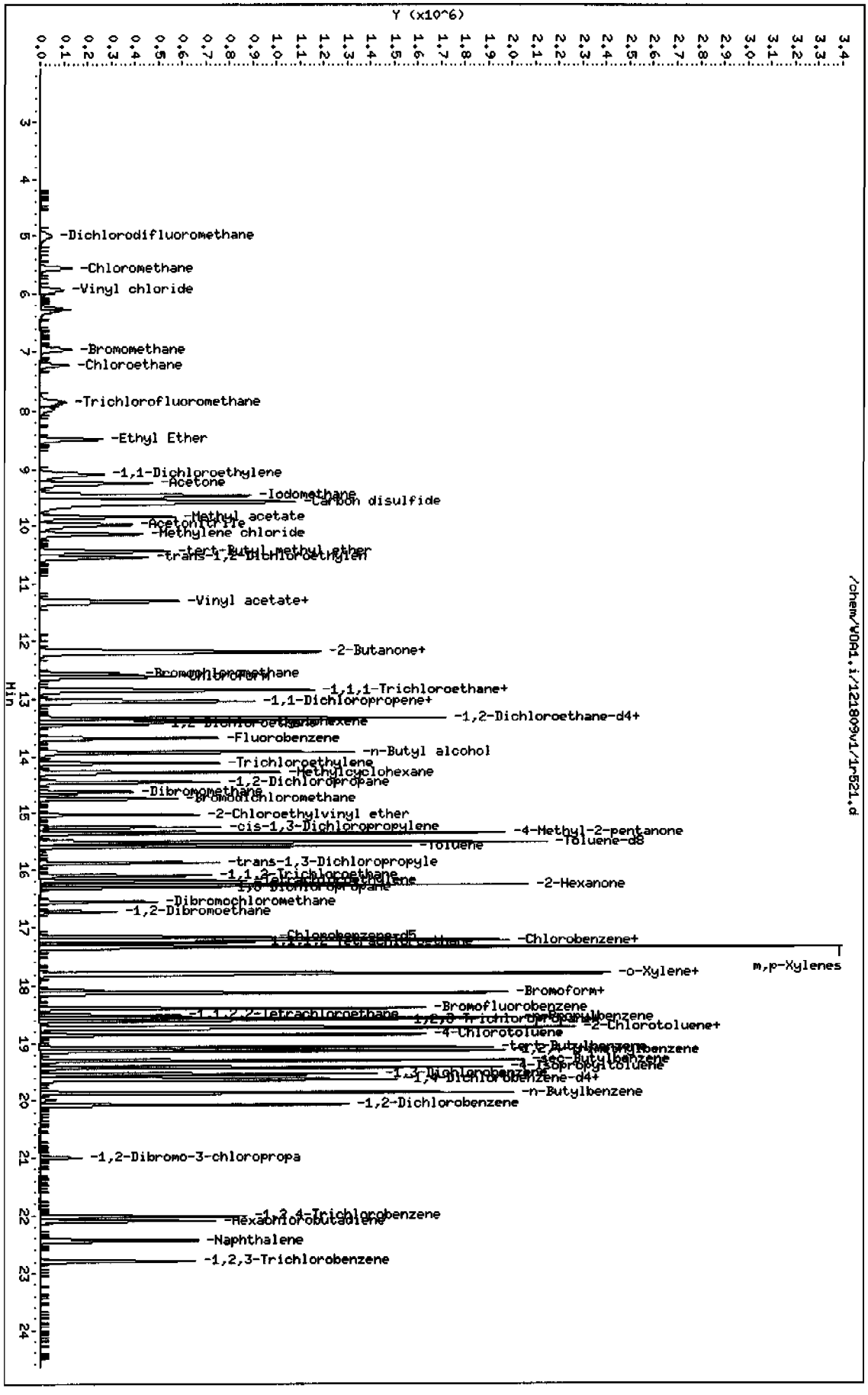

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GC SEMIVOLATILE PCB ANALYSIS

PCB Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-887

Method/Analysis Information

Procedure:	**Analysis of Polychlorinated Biphenyls by ECD**
Analytical Method:	SW846 8082
Prep Method:	SW846 3550B
Analytical Batch Number:	933342
Prep Batch Number:	933337

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 8082:

Sample ID	Client ID
242781001	RE03-09-13757
242781002	RE03-09-13752
242781003	RE03-09-13753
242781004	RE03-09-13754
242781005	RE03-09-13755
242781006	RE03-09-13756
242781007	RE03-10-5525
1201996856	Method Blank (MB)
1201996857	Laboratory Control Sample (LCS)
1201996858	242781001(RE03-09-13757) Matrix Spike (MS)
1201996859	242781001(RE03-09-13757) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on a "dry weight" basis.

Preparation/Analytical Method Verification

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-040 REV# 14.

Raw data reports are processed and reviewed by the analyst using the Target software package. False positives have been removed from the Target quantitation reports per standard operating procedures (SOP) section 23.0.

Calibration Information

Please note that the 'Cal Date' indicated on each quantitation report reflects the date and time of the most recent calibrated analyte(s) in the Target processing method. Since the laboratory may calibrate with multiple solutions on different days using the same processing method, the Target software will update the 'Cal Date' to the last calibration file, date and time. The correct dates and times for all calibration files are located on the Calibration History report in the Standard Data section in the data package.

Due to software limitations, the Calibration Summary Form 6 may not indicate all the calibration files comprising the initial calibration. A complete list of the initial calibration data files are shown in the Calibration History report located in the Standard Data section of the data package.

Initial Calibration
All initial calibration requirements have been met for this sample delivery group (SDG).

The linear equation used in Target and indicated on the initial calibration summary form is not a conventional linear equation (slope intercept formula) and does not match the equation found in SW-846 method 8000B. The x and y axes are inversed in Target, so that the instrument response is treated as the independent variable (x) and the concentration ratio is treated as the dependent variable (y). The equation used in Target to calculate sample results is adjusted to account for the linear equation inversion and reciprocal slope. The adjusted calculation has been independently verified to produce valid results.

Continuing Calibration Verification (CCV) Requirements
All associated calibration verification standard(s) (ICV or CCV) met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Surrogate Recoveries
All surrogate recoveries were within the established acceptance criteria for this SDG.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

QC Sample Designation
Sample 242781001 (RE03-09-13757) was selected for the matrix spike and matrix spike duplicate analysis.

Matrix Spike (MS) Recovery Statement
The MS recoveries for this SDG were within the established acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recoveries for this SDG were within the established acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD between the MS and MSD met the acceptance limits.

Technical Information

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP. All sample extracts were cleaned using alumina. Additionally, copper was added to all sample extracts to remove sulfur.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-extraction/Re-analysis
Re-extractions or re-analyses were not required in this SDG.

Miscellaneous Information

Electronic Package Comment

The following package was generated using an electronic data processing program referred to as "virtual packaging". In an effort to increase quality and efficiency, the laboratory is developing systems to eventually generate all data packages electronically. The following change from "traditional" packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. An electronic signature page inserted after the case narrative of each electronic package will indicate the analyst, reviewer, and report specialist names associated with the generation of the data and package. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Nonconformance (NCR) Documentation
Nonconformance report (NCR) is for documentation of any procedural anomalies that may deviate from referenced SOP or contractual document. A NCR was not required for this SDG.

Manual Integration
Certain standards and samples may have required manual integration to correctly position the baseline as set in the calibration standard injections. If manual integration was performed, copies of all manual integration peak profiles are included in the raw data section of this PCB fraction.

Additional Comments
The additional comments field is used to address special issues associated with each analysis, clarify method/contractual issues pertaining to the analysis, and to list any report documents generated as a result of sample analysis or review. The following additional comments were required:

The higher results from either column have been chosen and reported in the data package for the client samples, MB and LCS. The data reported for the MS and MSD are from the same analytical column as the parent sample.

The data reported on the form I and III may differ slightly from the data reported on the form X. This is due to software limitations in rounding differences between the forms.

Aroclors quantitated on the raw data report by the Target data system do not necessarily represent positive Aroclor identification. In order for positive identification to be made, the Aroclor must match in pattern and retention time; as well as quantitate relatively close between the primary and confirmation columns, as specified in SW846 method 8000. When these conditions are not met, the Aroclor is reported as a non-detect on the data report. These situations will be noted on the raw data as DMP, representing does not match pattern, or DNC does not confirm.

Due to software limitation, the Form VIIs will display the results either in the % difference or % drift depending on the type of the calibration curve. If the curve of all analytes is generated using an average response factor (RF), the Form VII will display results using the %difference calculation (RF). If the curve of one or more analytes is generated using a linear curve, the Form VII will display results using the % drift calculation (by concentration) for all analytes.

System Configuration

The Semi-Volatiles-PCB analysis was performed on the following instrument configuration:

Instrument ID	Instrument	System Configuration	Column ID	Column Description
ECD1A.I_1	HP Gas Chromatograph	HP6890 Series ECD	Rtx-CLP I	30m x 0.25mm, 0.25um (Rtx-CLPesticide)
ECD1A.I_2	HP Gas Chromatograph	HP6890 Series ECD	Rtx-CLP II	30m x 0.25mm, 0.20um (Rtx-CLPesticideII)

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Jimmi Cao Date: 1/7/10

Roadmap for LANL 10-887 PCB

This roadmap was analyzed by yip00818 on 12-17-2009, 11:21.
This roadmap was reviewed by jim01140 on 12-18-2009, 09:49.
This roadmap was packaged by yml on 01-06-2010, 11:26.
This roadmap was validated by jim01140 on 01-07-2010, 09:19.

Front Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd1a.i/121609.b/069f6901.d	242781001	sample	16-DEC-2009	19:47	10-887.sub	RE03-09-13757	1.00000	933342	UPLOAD BOTH COLUMNS, USE HIGHER
☐	N	/chem/ecd1a.i/121609.b/072f7201.d	242781002	sample	16-DEC-2009	20:19	10-887.sub	RE03-09-13752	1.00000	933342	UPLOAD BOTH COLUMNS, USE HIGHER
☐	N	/chem/ecd1a.i/121609.b/073f7301.d	242781003	sample	16-DEC-2009	20:30	10-887.sub	RE03-09-13753	1.00000	933342	UPLOAD BOTH COLUMNS, USE HIGHER
☐	N	/chem/ecd1a.i/121609.b/076f7601.d	242781004	sample	16-DEC-2009	21:01	10-887.sub	RE03-09-13754	1.00000	933342	UPLOAD BOTH COLUMNS, USE HIGHER
☐	N	/chem/ecd1a.i/121609.b/077f7701.d	242781005	sample	16-DEC-2009	21:12	10-887.sub	RE03-09-13755	1.00000	933342	UPLOAD BOTH COLUMNS, USE HIGHER
☐	N	/chem/ecd1a.i/121609.b/078f7801.d	242781006	sample	16-DEC-2009	21:22	10-887.sub	RE03-09-13756	1.00000	933342	UPLOAD BOTH COLUMNS, USE HIGHER
☐	N	/chem/ecd1a.i/121609.b/079f7901.d	242781007	sample	16-DEC-2009	21:33	10-887.sub	RE03-10-5525	1.00000	933342	UPLOAD BOTH COLUMNS, USE HIGHER

Back Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd1a.i/121609.b/069b6901.d	242781001	sample	16-DEC-2009	19:47	10-887.sub	RE03-09-13757	1.00000	933342	UPLOAD BOTH COLUMNS, USE HIGHER
☐	N	/chem/ecd1a.i/121609.b/072b7201.d	242781002	sample	16-DEC-2009	20:19	10-887.sub	RE03-09-13752	1.00000	933342	UPLOAD BOTH COLUMNS, USE HIGHER
☐	N	/chem/ecd1a.i/121609.b/073b7301.d	242781003	sample	16-DEC-2009	20:30	10-887.sub	RE03-09-13753	1.00000	933342	UPLOAD BOTH COLUMNS, USE HIGHER
☐	N	/chem/ecd1a.i/121609.b/076b7601.d	242781004	sample	16-DEC-2009	21:01	10-887.sub	RE03-09-13754	1.00000	933342	UPLOAD BOTH COLUMNS, USE HIGHER
☐	N	/chem/ecd1a.i/121609.b/077b7701.d	242781005	sample	16-DEC-2009	21:12	10-887.sub	RE03-09-13755	1.00000	933342	UPLOAD BOTH COLUMNS, USE HIGHER
☐	N	/chem/ecd1a.i/121609.b/078b7801.d	242781006	sample	16-DEC-2009	21:22	10-887.sub	RE03-09-13756	1.00000	933342	UPLOAD BOTH COLUMNS, USE HIGHER
☐	N	/chem/ecd1a.i/121609.b/079b7901.d	242781007	sample	16-DEC-2009	21:33	10-887.sub	RE03-10-5525	1.00000	933342	UPLOAD BOTH COLUMNS, USE HIGHER

Front QC Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd1a.i/121609.b/052f5201-6.d	1201996856	mb	16-DEC-2009	16:21	10-887.sub	PBLK01	1.00000	933342	
☐	N	/chem/ecd1a.i/121609.b/053f5301-6.d	1201996857	lcs	16-DEC-2009	16:32	10-887.sub	PBLK01LCS	1.00000	933342	
☐	N	/chem/ecd1a.i/121609.b/070f7001.d	1201996858	ms	16-DEC-2009	19:58	10-887.sub	RE03-09-13757MS	1.00000	933342	UPLOAD BOTH COLUMNS, USE HIGHER
☐	N	/chem/ecd1a.i/121609.b/071f7101.d	1201996859	msd	16-DEC-2009	20:08	10-887.sub	RE03-09-13757MSD	1.00000	933342	UPLOAD BOTH COLUMNS, USE HIGHER

Back QC Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd1a.i/121609.b/052b5201-6.d	1201996856	mb	16-DEC-2009	16:21	10-887.sub	PBLK01	1.00000	933342	

☐	N	/chem/ecd1a.i/121609.b/053b5301-6.d	1201996857	lcs	16-DEC-2009	16:32	10-887.sub	PBLK01LCS	1.00000	933342	
☐	N	/chem/ecd1a.i/121609.b/070b7001.d	1201996858	ms	16-DEC-2009	19:58	10-887.sub	RE03-09-13757MS	1.00000	933342	UPLOAD BOTH COLUMNS, USE HIGHER
☐	N	/chem/ecd1a.i/121609.b/071b7101.d	1201996859	msd	16-DEC-2009	20:08	10-887.sub	RE03-09-13757MSD	1.00000	933342	UPLOAD BOTH COLUMNS, USE HIGHER

SAMPLE DATA SUMMARY

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10-887	Date Collected:	12/09/2009 12:00	Matrix:	S
Lab Sample ID:	242781002	Date Received:	12/11/2009 08:50	%Moisture:	8.4
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-13752	Method:	SW846 8082	SOP Ref:	GL-OA-E-040
Batch ID:	933342	Inst:	ECD1A.I	Dilution:	1
Run Date:	12/16/2009 20:19	Analyst:	YS1	Inj. Vol:	1 uL
Prep Date:	12/15/2009 20:23	Aliquot:	30.14 g	Final Volume:	1 mL
Data File:	072f7201.d	Column:	1 CLP1	Level:	LOW
	072b7201.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.62	ug/kg	1.21	3.62	1
11104-28-2	Aroclor-1221	U	3.62	ug/kg	1.21	3.62	1
11141-16-5	Aroclor-1232	U	3.62	ug/kg	1.21	3.62	1
53469-21-9	Aroclor-1242	U	3.62	ug/kg	1.21	3.62	1
12672-29-6	Aroclor-1248	U	3.62	ug/kg	1.21	3.62	1
11097-69-1	Aroclor-1254	P	33.3	ug/kg	1.21	3.62	1
11096-82-5	Aroclor-1260		39.5	ug/kg	1.21	3.62	1

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10-887	**Date Collected:**	12/09/2009 12:00	**Matrix:**	S
Lab Sample ID:	242781003	**Date Received:**	12/11/2009 08:50	**%Moisture:**	8.5
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-13753	**Method:**	SW846 8082	**SOP Ref:**	GL-OA-E-040
Batch ID:	933342	**Inst:**	ECD1A.I	**Dilution:**	1
Run Date:	12/16/2009 20:30	**Analyst:**	YS1	**Inj. Vol:**	1 uL
Prep Date:	12/15/2009 20:23	**Aliquot:**	30.07 g	**Final Volume:**	1 mL
Data File:	073f7301.d	**Column:**	1 CLP1	**Level:**	LOW
	073b7301.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.63	ug/kg	1.21	3.63	1
11104-28-2	Aroclor-1221	U	3.63	ug/kg	1.21	3.63	1
11141-16-5	Aroclor-1232	U	3.63	ug/kg	1.21	3.63	1
53469-21-9	Aroclor-1242	U	3.63	ug/kg	1.21	3.63	1
12672-29-6	Aroclor-1248	U	3.63	ug/kg	1.21	3.63	1
11097-69-1	Aroclor-1254	U	3.63	ug/kg	1.21	3.63	1
11096-82-5	Aroclor-1260	U	3.63	ug/kg	1.21	3.63	1

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10-887	**Date Collected:**	12/09/2009 12:00	**Matrix:**	S
Lab Sample ID:	242781004	**Date Received:**	12/11/2009 08:50	**%Moisture:**	11.3
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-13754	**Method:**	SW846 8082	**SOP Ref:**	GL-OA-E-040
Batch ID:	933342	**Inst:**	ECD1A.I	**Dilution:**	1
Run Date:	12/16/2009 21:01	**Analyst:**	YS1	**Inj. Vol:**	1 uL
Prep Date:	12/15/2009 20:23	**Aliquot:**	30.03 g	**Final Volume:**	1 mL
Data File:	076f7601.d	**Column:**	1 CLP1	**Level:**	LOW
	076b7601.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.76	ug/kg	1.25	3.76	1
11104-28-2	Aroclor-1221	U	3.76	ug/kg	1.25	3.76	1
11141-16-5	Aroclor-1232	U	3.76	ug/kg	1.25	3.76	1
53469-21-9	Aroclor-1242	U	3.76	ug/kg	1.25	3.76	1
12672-29-6	Aroclor-1248	U	3.76	ug/kg	1.25	3.76	1
11097-69-1	Aroclor-1254	U	3.76	ug/kg	1.25	3.76	1
11096-82-5	Aroclor-1260	U	3.76	ug/kg	1.25	3.76	1

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10-887	**Date Collected:**	12/09/2009 12:00	**Matrix:**	S
Lab Sample ID:	242781005	**Date Received:**	12/11/2009 08:50	**%Moisture:**	10.5
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-13755	**Method:**	SW846 8082	**SOP Ref:**	GL-OA-E-040
Batch ID:	933342	**Inst:**	ECD1A.I	**Dilution:**	1
Run Date:	12/16/2009 21:12	**Analyst:**	YS1	**Inj. Vol:**	1 uL
Prep Date:	12/15/2009 20:23	**Aliquot:**	30.04 g	**Final Volume:**	1 mL
Data File:	077f7701.d	**Column:**	1 CLP1	**Level:**	LOW
	077b7701.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.72	ug/kg	1.24	3.72	1
11104-28-2	Aroclor-1221	U	3.72	ug/kg	1.24	3.72	1
11141-16-5	Aroclor-1232	U	3.72	ug/kg	1.24	3.72	1
53469-21-9	Aroclor-1242	U	3.72	ug/kg	1.24	3.72	1
12672-29-6	Aroclor-1248	U	3.72	ug/kg	1.24	3.72	1
11097-69-1	Aroclor-1254	U	3.72	ug/kg	1.24	3.72	1
11096-82-5	Aroclor-1260	U	3.72	ug/kg	1.24	3.72	1

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10-887**	**Date Collected:**	**12/09/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242781006**	**Date Received:**	**12/11/2009 08:50**	**%Moisture:**	**10.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-13756**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**933342**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**12/16/2009 21:22**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**12/15/2009 20:23**	**Aliquot:**	**30.04 g**	**Final Volume:**	**1 mL**
Data File:	**078f7801.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	078b7801.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.72	ug/kg	1.24	3.72	1
11104-28-2	Aroclor-1221	U	3.72	ug/kg	1.24	3.72	1
11141-16-5	Aroclor-1232	U	3.72	ug/kg	1.24	3.72	1
53469-21-9	Aroclor-1242		18.8	ug/kg	1.24	3.72	1
12672-29-6	Aroclor-1248	U	3.72	ug/kg	1.24	3.72	1
11097-69-1	Aroclor-1254		16.2	ug/kg	1.24	3.72	2
11096-82-5	Aroclor-1260		4.40	ug/kg	1.24	3.72	2

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10–887	**Date Collected:**	12/09/2009 12:00	**Matrix:**	S
Lab Sample ID:	242781001	**Date Received:**	12/11/2009 08:50	**%Moisture:**	9.9
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03–09–13757	**Method:**	SW846 8082	**SOP Ref:**	GL–OA–E–040
Batch ID:	933342	**Inst:**	ECD1A.I	**Dilution:**	1
Run Date:	12/16/2009 19:47	**Analyst:**	YS1	**Inj. Vol:**	1 uL
Prep Date:	12/15/2009 20:23	**Aliquot:**	30.02 g	**Final Volume:**	1 mL
Data File:	069f6901.d	**Column:**	1 CLP1	**Level:**	LOW
	069b6901.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	3.70	ug/kg	1.23	3.70	1
11104–28–2	Aroclor–1221	U	3.70	ug/kg	1.23	3.70	1
11141–16–5	Aroclor–1232	U	3.70	ug/kg	1.23	3.70	1
53469–21–9	Aroclor–1242	U	3.70	ug/kg	1.23	3.70	1
12672–29–6	Aroclor–1248	U	3.70	ug/kg	1.23	3.70	1
11097–69–1	Aroclor–1254	J	2.40	ug/kg	1.23	3.70	1
11096–82–5	Aroclor–1260	J	2.50	ug/kg	1.23	3.70	2

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10-887	**Date Collected:**	12/09/2009 12:00	**Matrix:**	S
Lab Sample ID:	242781007	**Date Received:**	12/11/2009 08:50	**%Moisture:**	8.1
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-10-5525	**Method:**	SW846 8082	**SOP Ref:**	GL-OA-E-040
Batch ID:	933342	**Inst:**	ECD1A.I	**Dilution:**	1
Run Date:	12/16/2009 21:33	**Analyst:**	YS1	**Inj. Vol:**	1 uL
Prep Date:	12/15/2009 20:23	**Aliquot:**	30.02 g	**Final Volume:**	1 mL
Data File:	079f7901.d	**Column:**	1 CLP1	**Level:**	LOW
	079b7901.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.63	ug/kg	1.21	3.63	1
11104-28-2	Aroclor-1221	U	3.63	ug/kg	1.21	3.63	1
11141-16-5	Aroclor-1232	U	3.63	ug/kg	1.21	3.63	1
53469-21-9	Aroclor-1242	U	3.63	ug/kg	1.21	3.63	1
12672-29-6	Aroclor-1248	U	3.63	ug/kg	1.21	3.63	1
11097-69-1	Aroclor-1254	U	3.63	ug/kg	1.21	3.63	1
11096-82-5	Aroclor-1260	U	3.63	ug/kg	1.21	3.63	1

QUALITY CONTROL SUMMARY

PCB

Surrogate Recovery Report

SDG Number: 10–887

Matrix Type: SOLID

CAP Column (1) : CLP1 **CAP Column (2) : CLP2**

Sample ID	Client ID	4CMX 1 %REC #	4CMX 2 %REC #	DCB 1 %REC #	DCB 2 %REC #
1201996856	MB for batch 933337	82	79	87	83
1201996857	LCS for batch 933337	84	80	90	84
242781001	RE03–09–13757	64	62	74	72
1201996858	RE03–09–13757MS	64	62	70	68
1201996859	RE03–09–13757MSD	65	63	73	70
242781002	RE03–09–13752	60	58	65	63
242781003	RE03–09–13753	68	65	73	70
242781004	RE03–09–13754	41	40	46	46
242781005	RE03–09–13755	63	61	65	63
242781006	RE03–09–13756	69	66	70	67
242781007	RE03–10–5525	68	66	72	69

Surrogate	Acceptance Limits
4CMX = 4cmx	(34%–105%)
DCB = Decachlorobiphenyl	(33%–115%)

* Recovery outside Acceptance Limits

\# Column to be used to flag recovery values

D Sample Diluted

PCB

Quality Control Summary
Spike Recovery Report

SDG Number: 10-887
Client ID: LCS for batch 933337
Lab Sample ID: 1201996857
Instrument: ECD1A.I
Analyst: YS1
Inj. Vol: 1 uL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 12/16/2009 16:32
Dilution: 1
Prep Batch ID: 933337
Batch ID: 933342

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
12674-11-2	LCS	Aroclor-1016	33.3	0.0	29.7	89	41-110
11096-82-5	LCS	Aroclor-1260	33.3	0.0	36.0	108	48-110

PCB

Quality Control Summary

Spike Recovery Report

SDG Number: 10-887
Client ID: RE03-09-13757MS
Lab Sample ID: 1201996858
Instrument: ECD1A.I
Analyst: YS1
Inj. Vol: 1 uL

Sample Type: Matrix Spike
Matrix: S
%Moisture: 9.9
Analysis Date: 12/16/2009 19:58
Prep Batch ID 933337
Batch ID: 933342

Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
12674-11-2	MS	Aroclor-1016	37.0	0.00	U	25.6	69	23-117
11096-82-5	MS	Aroclor-1260	37.0	2.50	J	32.5	81	27-116

PCB

Quality Control Summary
Spike Recovery Report

SDG Number:	**10-887**	**Sample Type:**	**Matrix Spike Duplicate**
Client ID:	**RE03-09-13757MSD**	**Matrix:**	**S**
Lab Sample ID:	**1201996859**	**%Moisture:**	**9.9**
Instrument:	**ECD1A.I**	**Analysis Date:**	**12/16/2009 20:08**
Analyst:	**YS1**	**Prep Batch ID:**	**933337**
Inj. Vol:	**1 uL**	**Batch ID:**	**933342**

Dilution: 1

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
12674-11-2	MSD Aroclor-1016	36.9	0.00	U	26.6	72	23-117	4	0-30
11096-82-5	MSD Aroclor-1260	36.9	2.50	J	33.2	83	27-116	2	0-30

Method Blank Summary

SDG Number:	10-887	Client:	LANL010	Matrix:	SOIL
Client ID:	MB for batch 933337	Instrument ID:	ECD1A.I_2 ECD1A.I_1	Data File:	052b5201-1.d 052f5201-1.d
Lab Sample ID:	1201996856				
Column:	CLP2 CLP1	Prep Date:	12/15/2009 20:23	Analyzed:	12/16/09 16:21
		Level:	LOW		

This method blank applies to the following samples and quality control samples:

	Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01	LCS for batch 933337	1201996857	053f5301-1.d 053b5301-1.d	12/16/09	1632
02	RE03-09-13757	242781001	069f6901.d 069b6901.d	12/16/09	1947
03	RE03-09-13757MS	1201996858	070f7001.d 070b7001.d	12/16/09	1958
04	RE03-09-13757MSD	1201996859	071f7101.d 071b7101.d	12/16/09	2008
05	RE03-09-13752	242781002	072f7201.d 072b7201.d	12/16/09	2019
06	RE03-09-13753	242781003	073f7301.d 073b7301.d	12/16/09	2030
07	RE03-09-13754	242781004	076f7601.d 076b7601.d	12/16/09	2101
08	RE03-09-13755	242781005	077f7701.d 077b7701.d	12/16/09	2112
09	RE03-09-13756	242781006	078f7801.d 078b7801.d	12/16/09	2122
10	RE03-10-5525	242781007	079f7901.d 079b7901.d	12/16/09	2133

SAMPLE
DATA

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10-887	**Date Collected:**	12/09/2009 12:00	**Matrix:**	S
Lab Sample ID:	242781002	**Date Received:**	12/11/2009 08:50	**%Moisture:**	8.4
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-13752	**Method:**	SW846 8082	**SOP Ref:**	GL-OA-E-040
Batch ID:	933342	**Inst:**	ECD1A.I	**Dilution:**	1
Run Date:	12/16/2009 20:19	**Analyst:**	YS1	**Inj. Vol:**	1 uL
Prep Date:	12/15/2009 20:23	**Aliquot:**	30.14 g	**Final Volume:**	1 mL
Data File:	072f7201.d	**Column:**	1 CLP1	**Level:**	LOW
	072b7201.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.62	ug/kg	1.21	3.62	1
11104-28-2	Aroclor-1221	U	3.62	ug/kg	1.21	3.62	1
11141-16-5	Aroclor-1232	U	3.62	ug/kg	1.21	3.62	1
53469-21-9	Aroclor-1242	U	3.62	ug/kg	1.21	3.62	1
12672-29-6	Aroclor-1248	U	3.62	ug/kg	1.21	3.62	1
11097-69-1	Aroclor-1254	P	33.3	ug/kg	1.21	3.62	1
11096-82-5	Aroclor-1260		39.5	ug/kg	1.21	3.62	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/121609.b/072f7201.d
Lab Smp Id: 242781002 Client Smp ID: RE03-09-13752
Inj Date : 16-DEC-2009 20:19
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |242781002|1|
Misc Info : |ECD82P_1S|933342|SVAF|LANL|SOIL|RE03-09-13752|||
Comment :
Method : /chem/ecd1a.i/121609.b/ECD1-F-8082-121409.m
Meth Date : 17-Dec-2009 07:29 yip00818 Quant Type: ESTD
Cal Date : 14-DEC-2009 11:34 Cal File: 040f4001.d
Als bottle: 72
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-887.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.14000	Weight of sample extracted (g)
M	8.37460	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.973	1.972	0.001	44753744	119.131	4.3	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.288	5.290	-0.002	41534346	130.800	4.7	80.00- 120.00	100.00
6 Aroclor-1254					CAS #: 11097-69-1		
3.278	3.277	0.001	6871173	550.333	19.9	80.00- 120.00	100.00
3.433	3.433	0.000	10742002	642.390	23.3	117.82- 157.82	156.33
3.667	3.667	0.000	13828175	667.579	24.2	162.83- 202.83	201.25
3.830	3.830	0.000	9865225	628.590	22.8	121.29- 161.29	143.57

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
6 Aroclor-1254 (continued)							
3.938	3.939	-0.001	32039212	2111.66	76.5	112.52- 152.52	466.28
Average of Peak Concentrations =					33.3		
7 Aroclor-1260					CAS #: 11096-82-5		
3.775	3.775	0.000	18800287	1122.26	40.6	80.00- 120.00	100.00
3.938	3.938	0.000	32039212	1294.90	46.9	134.58- 174.58	170.42
4.168	4.168	0.000	15544783	1058.38	38.3	72.46- 112.46	82.68
4.311	4.312	-0.001	14578071	960.061	34.8	76.67- 116.67	77.54
4.490	4.491	-0.001	34978411	1018.28	36.9	204.79- 244.79	186.05
Average of Peak Concentrations =					39.5		

Data File: /chem/ecd1a.i/121609.b/072f7201.d
Date : 16-DEC-2009 20:19
Client ID: RE03-09-13752
Sample Info: |242781002|1|
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecd1a.i
Operator: YS1
Column diameter: 0.25

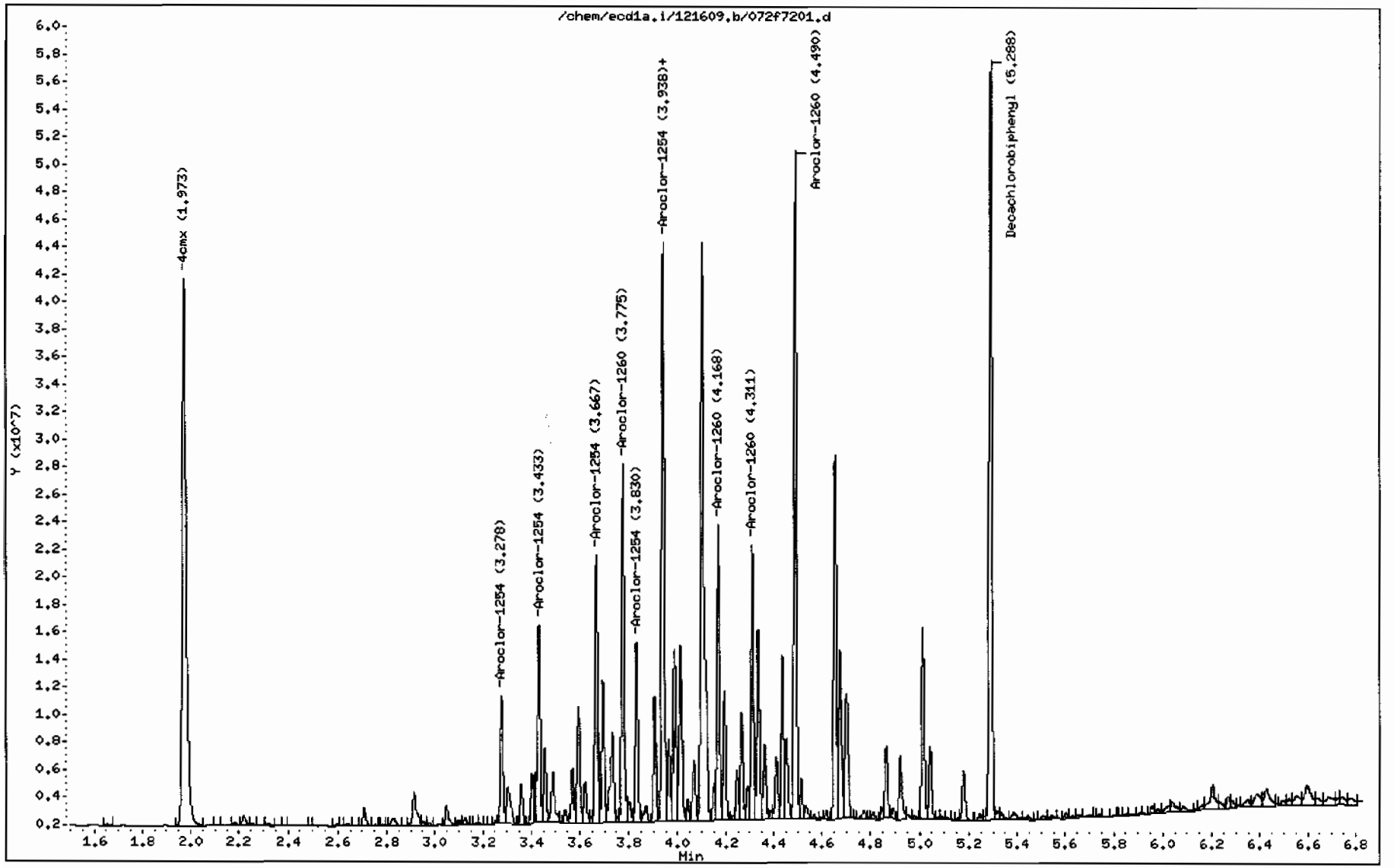

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/121609.b/072b7201.d
Lab Smp Id: 242781002 Client Smp ID: RE03-09-13752
Inj Date : 16-DEC-2009 20:19
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |242781002|1|
Misc Info : |ECD82P_1S|933342|SVAF|LANL|SOIL|RE03-09-13752|||
Comment :
Method : /chem/ecd1a.i/121609.b/ECD1-B-8082-121409.m
Meth Date : 17-Dec-2009 07:29 yip00818 Quant Type: ESTD
Cal Date : 14-DEC-2009 12:16 Cal File: 044b4401.d
Als bottle: 72
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-887.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.14000	Weight of sample extracted (g)
M	8.37460	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.303	2.303	0.000	34663523	115.535	4.2	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.950	5.950	0.000	29171435	125.077	4.5	80.00- 120.00	100.00
6 Aroclor-1254					CAS #: 11097-69-1		
3.409	3.409	0.000	1505412	233.932	8.5	80.00- 120.00	100.00(M)
3.832	3.832	0.000	5925473	512.614	18.6	160.27- 200.27	393.61
3.948	3.947	0.001	8373071	673.548	24.4	181.92- 221.92	556.20
4.224	4.224	0.000	10916362	646.702	23.4	264.49- 304.49	725.14

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
6 Aroclor-1254 (continued)							
4.361	4.360	0.001	6985834	561.767	20.3	192.39- 232.39	464.05
Average of Peak Concentrations =					19.0		
7 Aroclor-1260					CAS #: 11096-82-5		
4.341	4.341	0.000	16117597	1178.18	42.7	80.00- 120.00	100.00(M)
4.465	4.465	0.000	18515497	1155.12	41.8	104.06- 144.06	114.88
4.731	4.731	0.000	13551939	1078.64	39.0	75.41- 115.41	84.08
4.905	4.905	0.000	12296473	959.906	34.8	77.99- 117.99	76.29
5.052	5.052	0.000	28220737	1011.58	36.6	204.52- 244.52	175.09
Average of Peak Concentrations =					39.0		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd1a.i/121609.b/072b7201.d

Date : 16-DEC-2009 20:19

Client ID: RE03-09-13752

Sample Info: |242781002|1|

Volume Injected (uL): 1.0

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

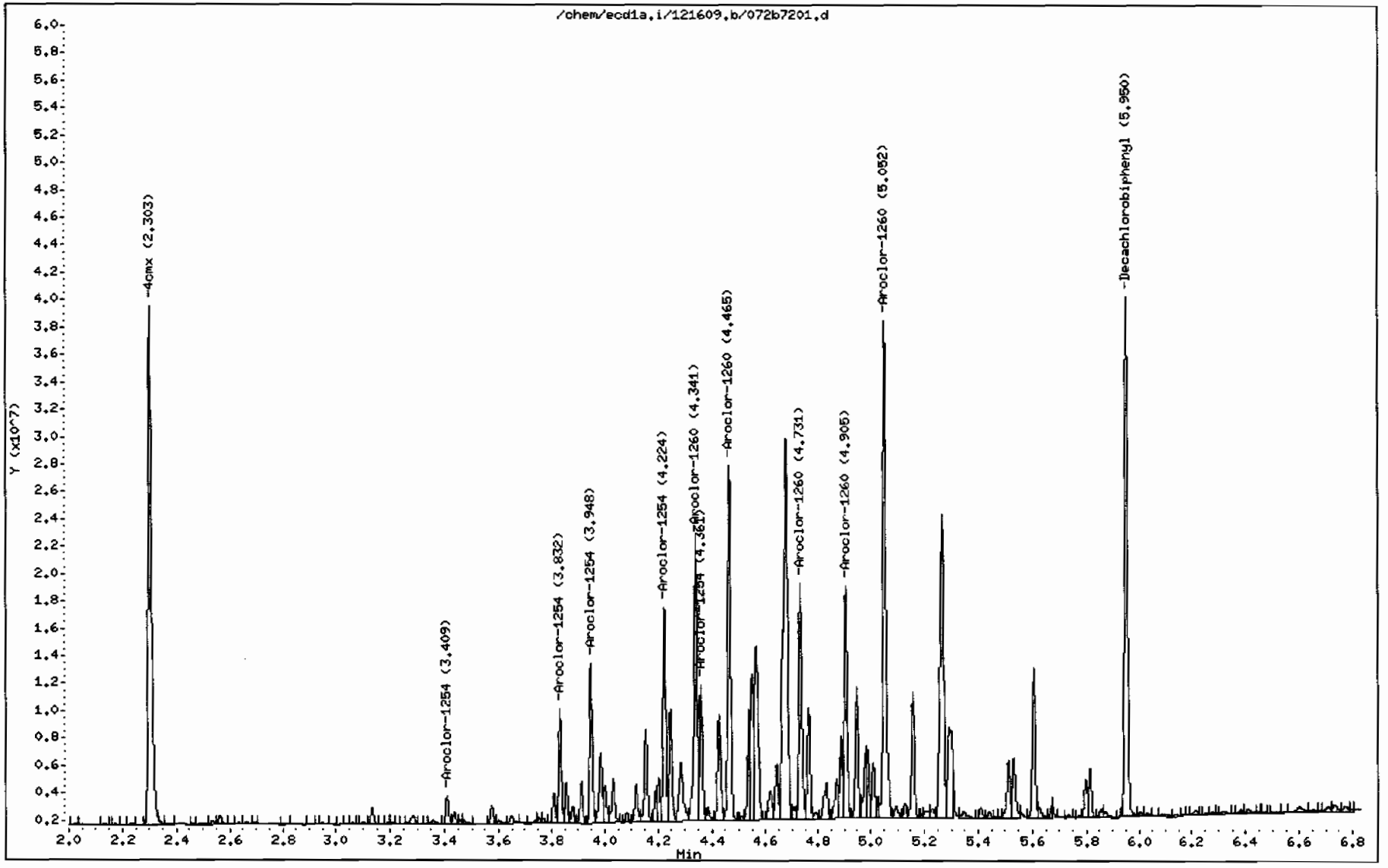

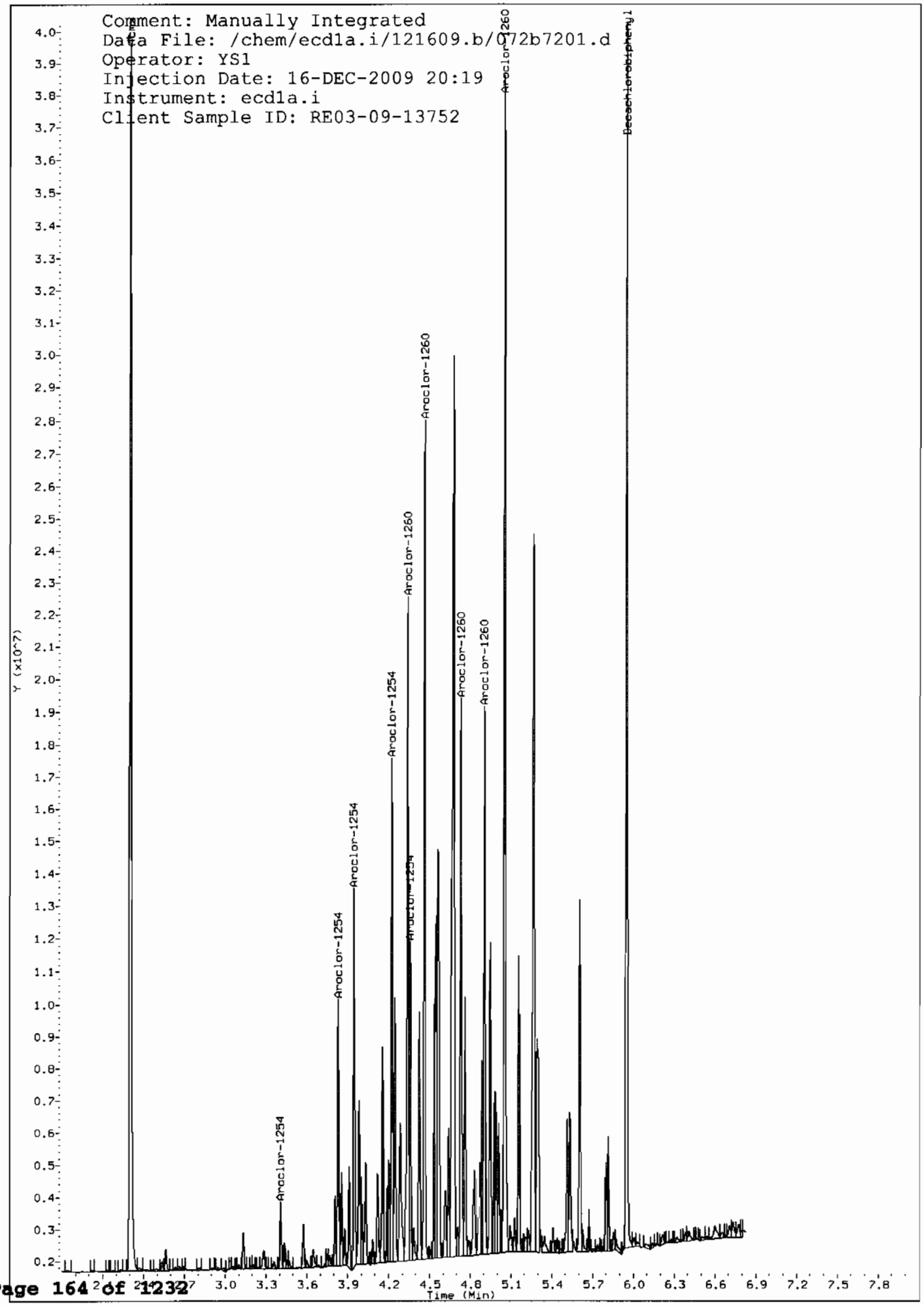
Comment: Manually Integrated
Data File: /chem/ecd1a.i/121609.b/072b7201.d
Operator: YS1
Injection Date: 16-DEC-2009 20:19
Instrument: ecd1a.i
Client Sample ID: RE03-09-13752
Aroclor-1254
Aroclor-1254
Aroclor-1254
Aroclor-1254
Aroclor-1254
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

Comment: Before manual integration
Data File: /chem/ecd1a.i/121609.b/orig-072b7281.d
Operator: YS1
Injection Date: 16-DEC-2009 20:19
Instrument: ecd1a.i
Client Sample ID: RE03-09-13752

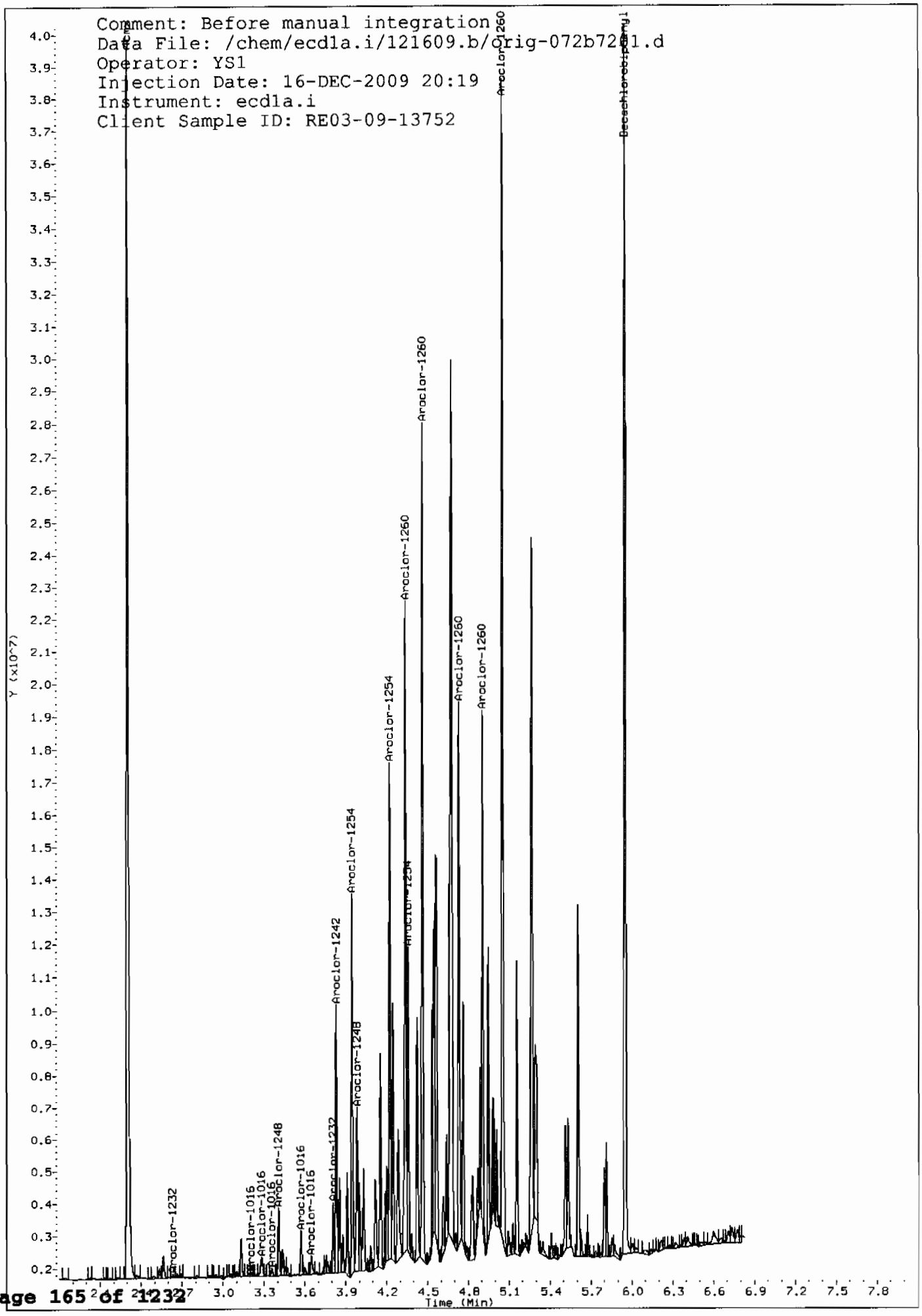

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10–887	**Date Collected:**	12/09/2009 12:00	**Matrix:**	S
Lab Sample ID:	242781003	**Date Received:**	12/11/2009 08:50	**%Moisture:**	8.5
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03–09–13753	**Method:**	SW846 8082	**SOP Ref:**	GL–OA–E–040
Batch ID:	933342	**Inst:**	ECD1A.I	**Dilution:**	1
Run Date:	12/16/2009 20:30	**Analyst:**	YS1	**Inj. Vol:**	1 uL
Prep Date:	12/15/2009 20:23	**Aliquot:**	30.07 g	**Final Volume:**	1 mL
Data File:	073f7301.d	**Column:**	1 CLP1	**Level:**	LOW
	073b7301.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	3.63	ug/kg	1.21	3.63	1
11104–28–2	Aroclor–1221	U	3.63	ug/kg	1.21	3.63	1
11141–16–5	Aroclor–1232	U	3.63	ug/kg	1.21	3.63	1
53469–21–9	Aroclor–1242	U	3.63	ug/kg	1.21	3.63	1
12672–29–6	Aroclor–1248	U	3.63	ug/kg	1.21	3.63	1
11097–69–1	Aroclor–1254	U	3.63	ug/kg	1.21	3.63	1
11096–82–5	Aroclor–1260	U	3.63	ug/kg	1.21	3.63	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/121609.b/073f7301.d
Lab Smp Id: 242781003 Client Smp ID: RE03-09-13753
Inj Date : 16-DEC-2009 20:30
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |242781003|1|
Misc Info : |ECD82P_1S|933342|SVAF|LANL|SOIL|RE03-09-13753|||
Comment :
Method : /chem/ecd1a.i/121609.b/ECD1-F-8082-121409.m
Meth Date : 17-Dec-2009 07:24 yip00818 Quant Type: ESTD
Cal Date : 14-DEC-2009 11:34 Cal File: 040f4001.d
Als bottle: 73
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-887.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.07000	Weight of sample extracted (g)
M	8.47940	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.973	1.972	0.001	50749325	135.090	4.9	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.288	5.290	-0.002	46358395	145.992	5.3	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/121609.b/073f7301.d

Date : 16-DEC-2009 20:30

Client ID: RE03-09-13753

Sample Info: |2427810031|1|

Volume Injected (uL): 1.0

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

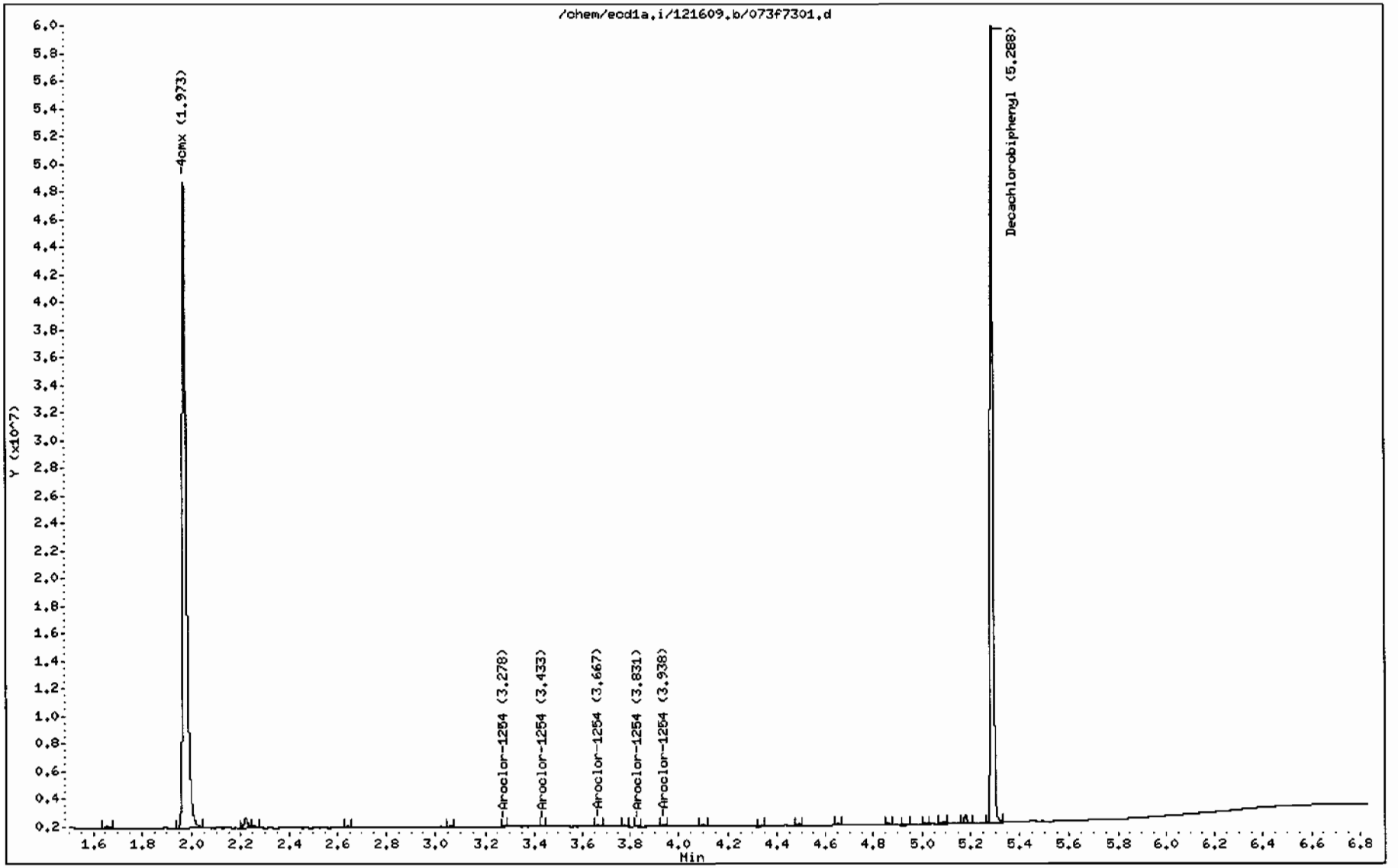

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/121609.b/073b7301.d
Lab Smp Id: 242781003 Client Smp ID: RE03-09-13753
Inj Date : 16-DEC-2009 20:30
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |242781003|1|
Misc Info : |ECD82P_1S|933342|SVAF|LANL|SOIL|RE03-09-13753|||
Comment :
Method : /chem/ecd1a.i/121609.b/ECD1-B-8082-121409.m
Meth Date : 17-Dec-2009 07:24 yip00818 Quant Type: ESTD
Cal Date : 14-DEC-2009 12:16 Cal File: 044b4401.d
Als bottle: 73
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-887.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.07000	Weight of sample extracted (g)
M	8.47940	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.303	2.303	0.000	39229428	130.754	4.8	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.949	5.950	-0.001	32537982	139.512	5.1	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/121609.b/073b7301.d

Date : 16-DEC-2009 20:30

Client ID: RE03-09-13753

Sample Info: |242781003|1|

Volume Injected (uL): 1.0

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

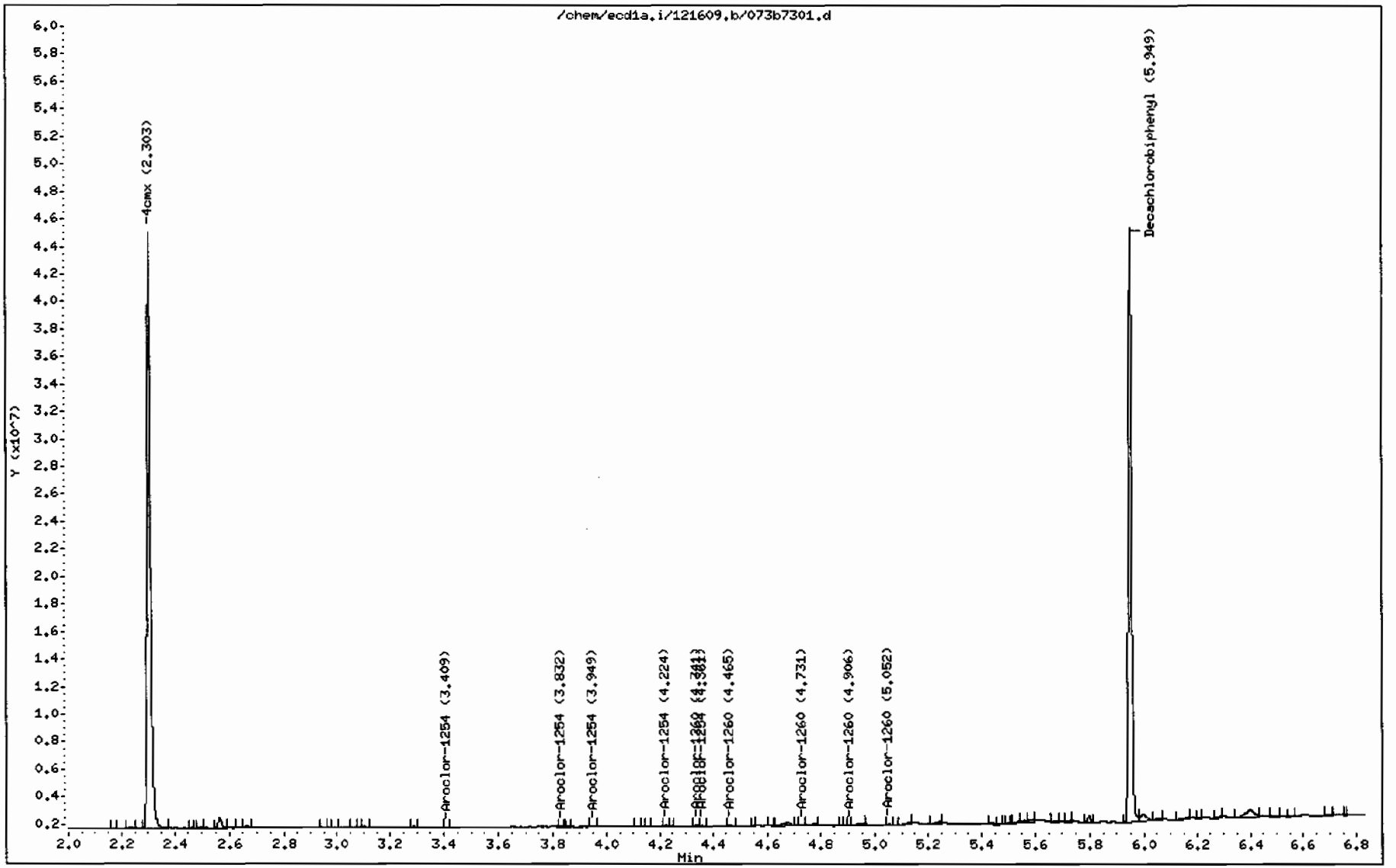

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10–887	**Date Collected:**	12/09/2009 12:00	**Matrix:**	S
Lab Sample ID:	242781004	**Date Received:**	12/11/2009 08:50	**%Moisture:**	11.3
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03–09–13754	**Method:**	SW846 8082	**SOP Ref:**	GL–OA–E–040
Batch ID:	933342	**Inst:**	ECD1A.I	**Dilution:**	1
Run Date:	12/16/2009 21:01	**Analyst:**	YS1	**Inj. Vol:**	1 uL
Prep Date:	12/15/2009 20:23	**Aliquot:**	30.03 g	**Final Volume:**	1 mL
Data File:	076f7601.d	**Column:**	1 CLP1	**Level:**	LOW
	076b7601.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	3.76	ug/kg	1.25	3.76	1
11104–28–2	Aroclor–1221	U	3.76	ug/kg	1.25	3.76	1
11141–16–5	Aroclor–1232	U	3.76	ug/kg	1.25	3.76	1
53469–21–9	Aroclor–1242	U	3.76	ug/kg	1.25	3.76	1
12672–29–6	Aroclor–1248	U	3.76	ug/kg	1.25	3.76	1
11097–69–1	Aroclor–1254	U	3.76	ug/kg	1.25	3.76	1
11096–82–5	Aroclor–1260	U	3.76	ug/kg	1.25	3.76	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/121609.b/076f7601.d
Lab Smp Id: 242781004 Client Smp ID: RE03-09-13754
Inj Date : 16-DEC-2009 21:01
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |242781004|1|
Misc Info : |ECD82P_1S|933342|SVAF|LANL|SOIL|RE03-09-13754|||
Comment :
Method : /chem/ecd1a.i/121609.b/ECD1-F-8082-121409.m
Meth Date : 17-Dec-2009 07:27 yip00818 Quant Type: ESTD
Cal Date : 14-DEC-2009 11:34 Cal File: 040f4001.d
Als bottle: 76
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-887.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.03000	Weight of sample extracted (g)
M	11.34380	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.973	1.972	0.001	30907187	82.2723	3.1	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.289	5.290	-0.001	29281352	92.2130	3.5	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/121609.b/076f7601.d

Date : 16-DEC-2009 21:01

Client ID: RE03-09-13754

Sample Info: |242781004|1|

Volume Injected (uL): 1.0

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

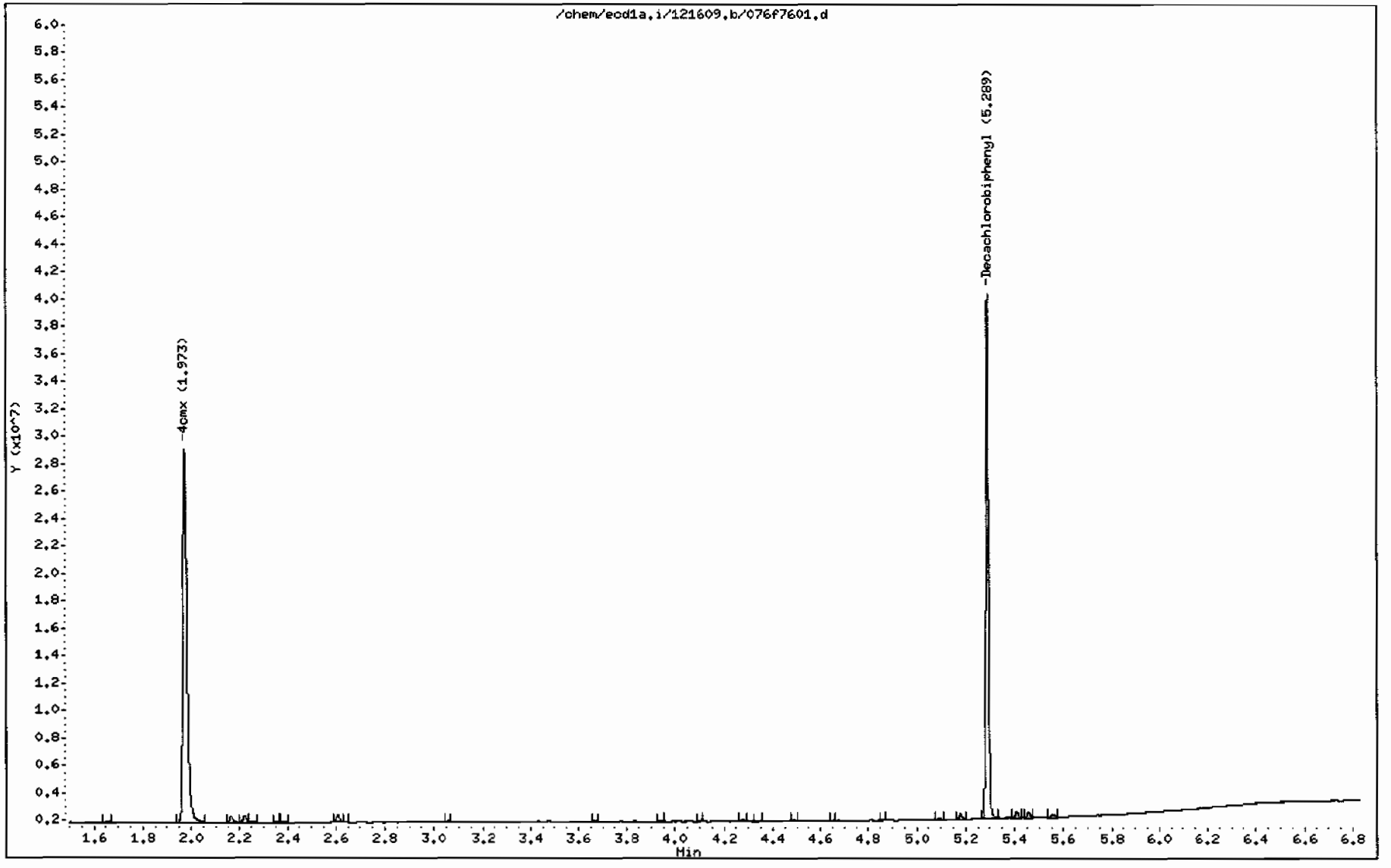

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/121609.b/076b7601.d
Lab Smp Id: 242781004 Client Smp ID: RE03-09-13754
Inj Date : 16-DEC-2009 21:01
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |242781004|1|
Misc Info : |ECD82P_1S|933342|SVAF|LANL|SOIL|RE03-09-13754|||
Comment :
Method : /chem/ecd1a.i/121609.b/ECD1-B-8082-121409.m
Meth Date : 17-Dec-2009 07:27 yip00818 Quant Type: ESTD
Cal Date : 14-DEC-2009 12:16 Cal File: 044b4401.d
Als bottle: 76
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-887.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.03000	Weight of sample extracted (g)
M	11.34380	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.303	2.303	0.000	24147749	80.4856	3.0	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.951	5.950	0.001	21237100	91.0576	3.4	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/121609.b/076b7601.d
Date : 16-DEC-2009 21:01
Client ID: RE03-09-13754
Sample Info: 1242781004:1i
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd1a.i
Operator: YS1
Column diameter: 0.25

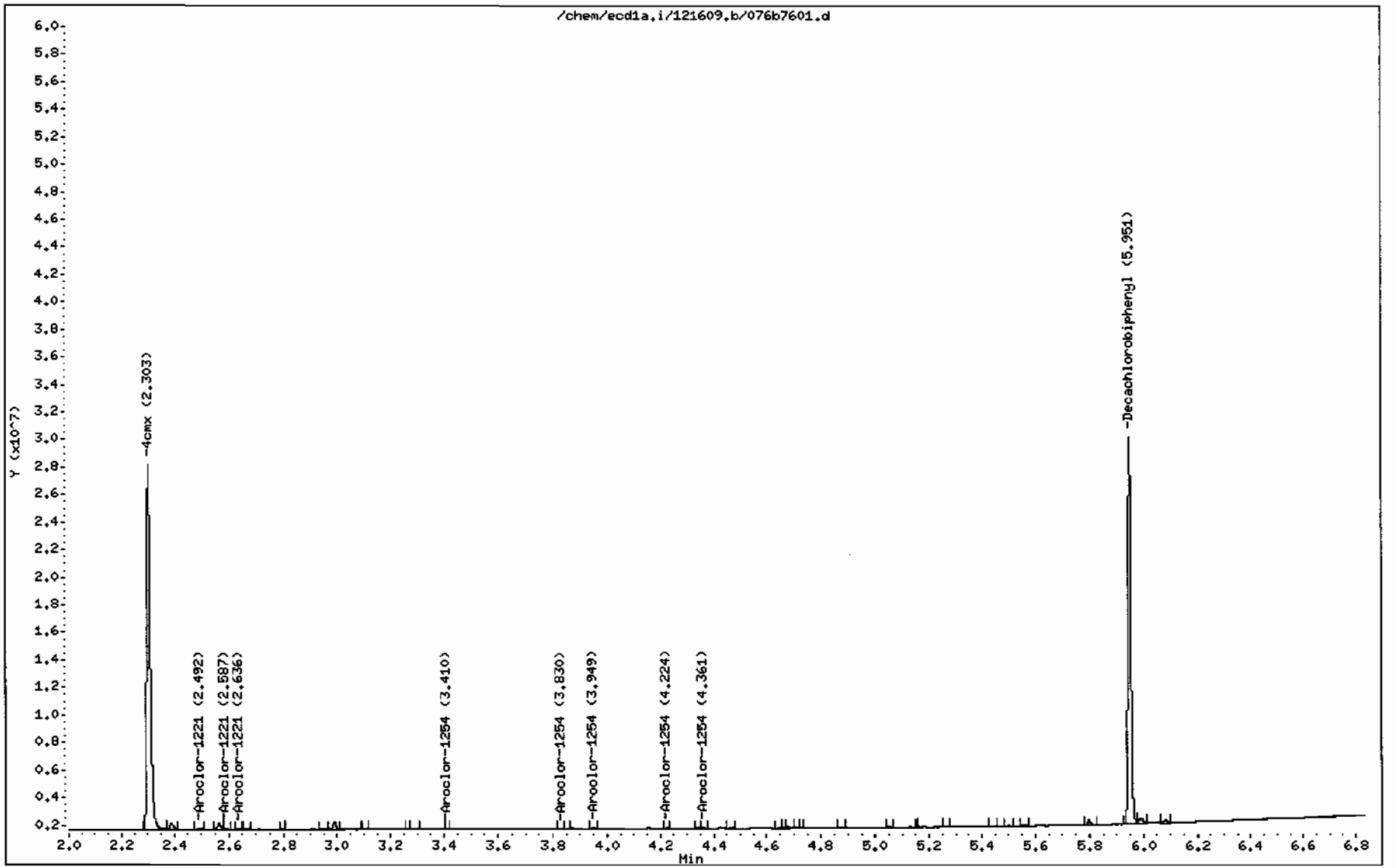

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10-887**	**Date Collected:**	**12/09/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242781005**	**Date Received:**	**12/11/2009 08:50**	**%Moisture:**	**10.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-13755**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**933342**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**12/16/2009 21:12**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**12/15/2009 20:23**	**Aliquot:**	**30.04 g**	**Final Volume:**	**1 mL**
Data File:	**077f7701.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	077b7701.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.72	ug/kg	1.24	3.72	1
11104-28-2	Aroclor-1221	U	3.72	ug/kg	1.24	3.72	1
11141-16-5	Aroclor-1232	U	3.72	ug/kg	1.24	3.72	1
53469-21-9	Aroclor-1242	U	3.72	ug/kg	1.24	3.72	1
12672-29-6	Aroclor-1248	U	3.72	ug/kg	1.24	3.72	1
11097-69-1	Aroclor-1254	U	3.72	ug/kg	1.24	3.72	1
11096-82-5	Aroclor-1260	U	3.72	ug/kg	1.24	3.72	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/121609.b/077f7701.d
Lab Smp Id: 242781005 Client Smp ID: RE03-09-13755
Inj Date : 16-DEC-2009 21:12
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |242781005|1|
Misc Info : |ECD82P_1S|933342|SVAF|LANL|SOIL|RE03-09-13755|||
Comment :
Method : /chem/ecd1a.i/121609.b/ECD1-F-8082-121409.m
Meth Date : 17-Dec-2009 07:27 yip00818 Quant Type: ESTD
Cal Date : 14-DEC-2009 11:34 Cal File: 040f4001.d
Als bottle: 77
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-887.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.04000	Weight of sample extracted (g)
M	10.54730	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.973	1.972	0.001	47267651	125.822	4.7	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.289	5.290	-0.001	41461096	130.569	4.8	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/121609.b/077f7701.d

Date : 16-DEC-2009 21:12

Client ID: RE03-09-13755

Sample Info: |242781005|1|

Volume Injected (uL): 1.0

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

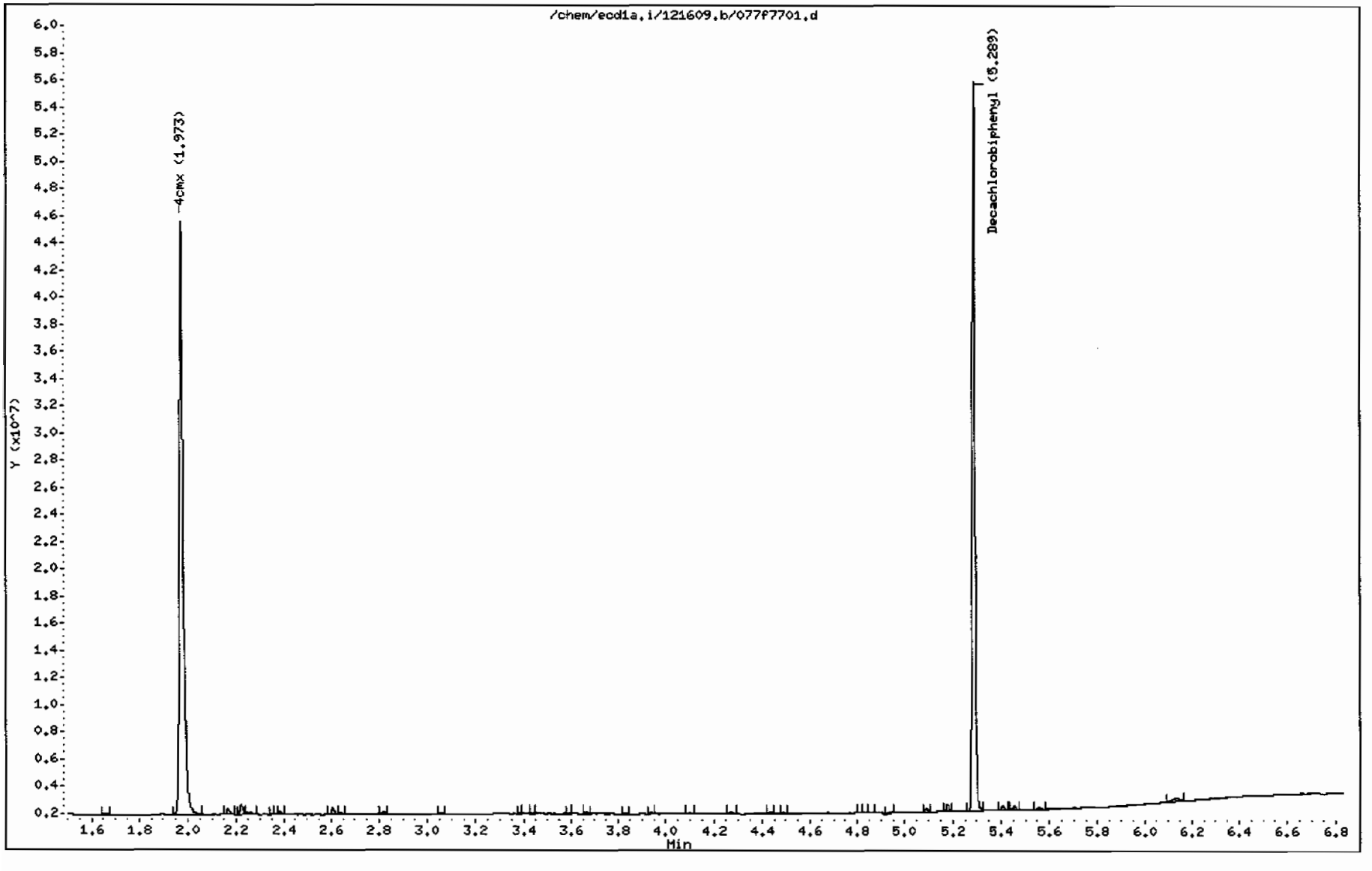

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/121609.b/077b7701.d
Lab Smp Id: 242781005 Client Smp ID: RE03-09-13755
Inj Date : 16-DEC-2009 21:12
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |242781005|1|
Misc Info : |ECD82P_1S|933342|SVAF|LANL|SOIL|RE03-09-13755|||
Comment :
Method : /chem/ecd1a.i/121609.b/ECD1-B-8082-121409.m
Meth Date : 17-Dec-2009 07:29 yip00818 Quant Type: ESTD
Cal Date : 14-DEC-2009 12:16 Cal File: 044b4401.d
Als bottle: 77
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-887.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.04000	Weight of sample extracted (g)
M	10.54730	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.303	2.303	0.000	36584949	121.939	4.5	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.949	5.950	-0.001	29365570	125.910	4.7	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/121609.b/077b7701.d

Date : 16-DEC-2009 21:12

Client ID: RE03-09-13755

Sample Info: |242781005|1|

Volume Injected (uL): 1.0

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

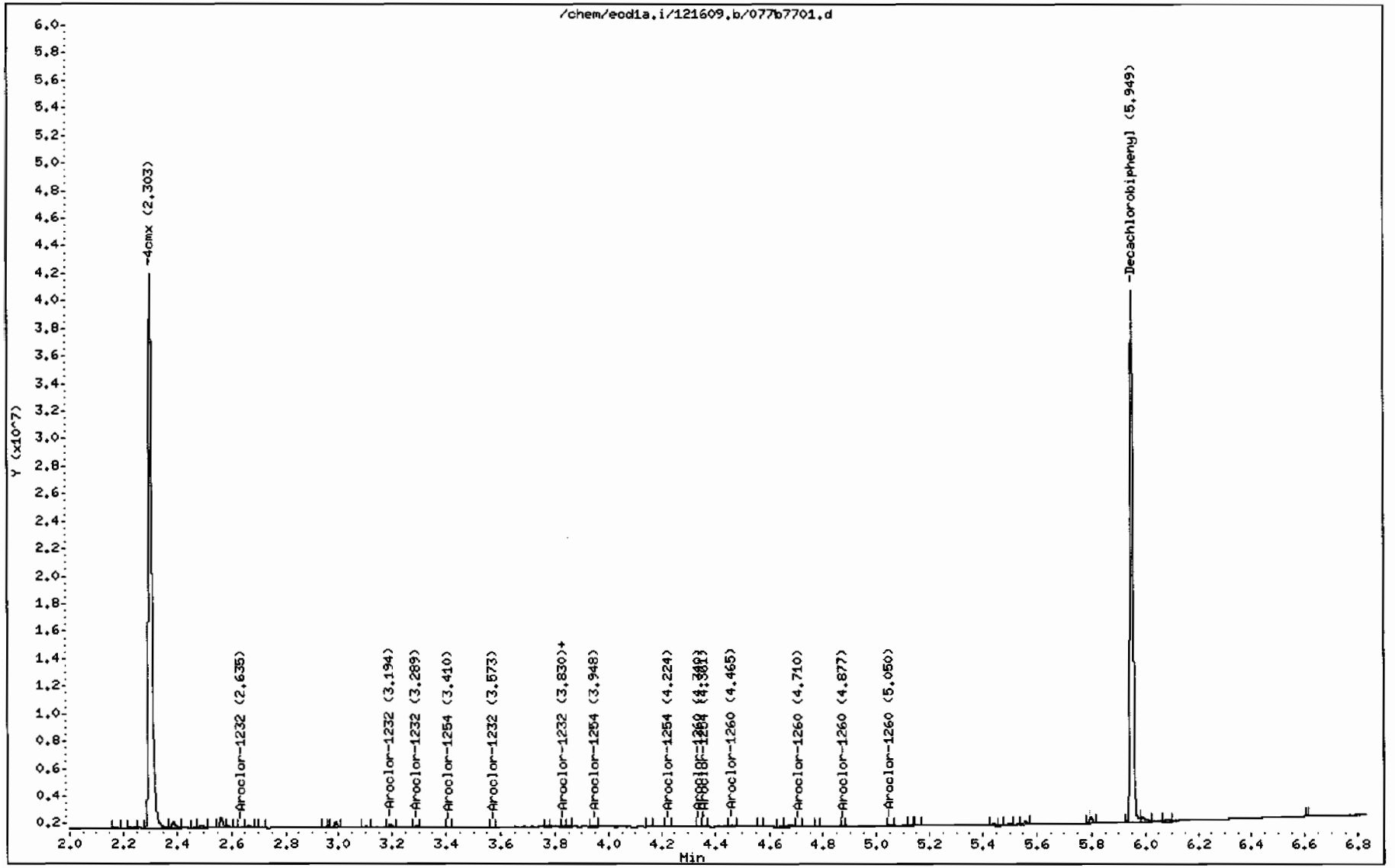

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10-887	**Date Collected:**	12/09/2009 12:00	**Matrix:**	S
Lab Sample ID:	242781006	**Date Received:**	12/11/2009 08:50	**%Moisture:**	10.5
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-13756	**Method:**	SW846 8082	**SOP Ref:**	GL-OA-E-040
Batch ID:	933342	**Inst:**	ECD1A.I	**Dilution:**	1
Run Date:	12/16/2009 21:22	**Analyst:**	YS1	**Inj. Vol:**	1 uL
Prep Date:	12/15/2009 20:23	**Aliquot:**	30.04 g	**Final Volume:**	1 mL
Data File:	078f7801.d	**Column:**	1 CLP1	**Level:**	LOW
	078b7801.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.72	ug/kg	1.24	3.72	1
11104-28-2	Aroclor-1221	U	3.72	ug/kg	1.24	3.72	1
11141-16-5	Aroclor-1232	U	3.72	ug/kg	1.24	3.72	1
53469-21-9	Aroclor-1242		18.8	ug/kg	1.24	3.72	1
12672-29-6	Aroclor-1248	U	3.72	ug/kg	1.24	3.72	1
11097-69-1	Aroclor-1254		16.2	ug/kg	1.24	3.72	2
11096-82-5	Aroclor-1260		4.40	ug/kg	1.24	3.72	2

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/121609.b/078f7801.d
Lab Smp Id: 242781006 Client Smp ID: RE03-09-13756
Inj Date : 16-DEC-2009 21:22
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |242781006|1|
Misc Info : |ECD82P_1S|933342|SVAF|LANL|SOIL|RE03-09-13756|||
Comment :
Method : /chem/ecd1a.i/121609.b/ECD1-F-8082-121409.m
Meth Date : 17-Dec-2009 07:29 yip00818 Quant Type: ESTD
Cal Date : 14-DEC-2009 11:34 Cal File: 040f4001.d
Als bottle: 78
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-887.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.04000	Weight of sample extracted (g)
M	10.48120	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.973	1.972	0.001	51641974	137.467	5.1	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.290	5.290	0.000	44705606	140.787	5.2	80.00- 120.00	100.00
4 Aroclor-1242					CAS #: 53469-21-9		
2.432	2.430	0.002	5267585	451.772	16.8	80.00- 120.00	100.00
2.720	2.720	0.000	6704495	498.364	18.5	107.85- 147.85	127.28
2.838	2.839	-0.001	2662115	483.500	18.0	30.65- 70.65	50.54
3.049	3.049	0.000	4147092	572.419	21.3	46.05- 86.05	78.73

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
4 Aroclor-1242 (continued)							
3.303	3.303	0.000	3559677	522.655	19.4	47.51- 87.51	67.58
Average of Peak Concentrations =					18.8		
6 Aroclor-1254					CAS #: 11097-69-1		
3.278	3.277	0.001	3739384	299.499	11.1	80.00- 120.00	100.00
3.433	3.433	0.000	5490760	328.357	12.2	117.82- 157.82	146.84
3.667	3.667	0.000	6548379	316.134	11.8	162.83- 202.83	175.12
3.831	3.830	0.001	5632277	358.876	13.3	121.29- 161.29	150.62
3.940	3.939	0.001	5425264	357.572	13.3	112.52- 152.52	145.08
Average of Peak Concentrations =					12.3		
7 Aroclor-1260					CAS #: 11096-82-5		
3.776	3.775	0.001	2862199	170.856	6.4	80.00- 120.00	100.00
3.940	3.938	0.002	5425264	219.268	8.2	134.58- 174.58	189.55
4.169	4.168	0.001	1147934	78.1580	2.9	72.46- 112.46	40.11
4.312	4.312	0.000	609222	40.1212	1.5	76.67- 116.67	21.29
4.491	4.491	0.000	1843993	53.6818	2.0	204.79- 244.79	64.43
Average of Peak Concentrations =					4.2		

Data File: /chem/ecd1a.i/121609.b/078f7801.d
Date : 16-DEC-2009 21:22
Client ID: RE03-09-13756
Sample Info: |242781006|1|
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecd1a.i
Operator: YS1
Column diameter: 0.25

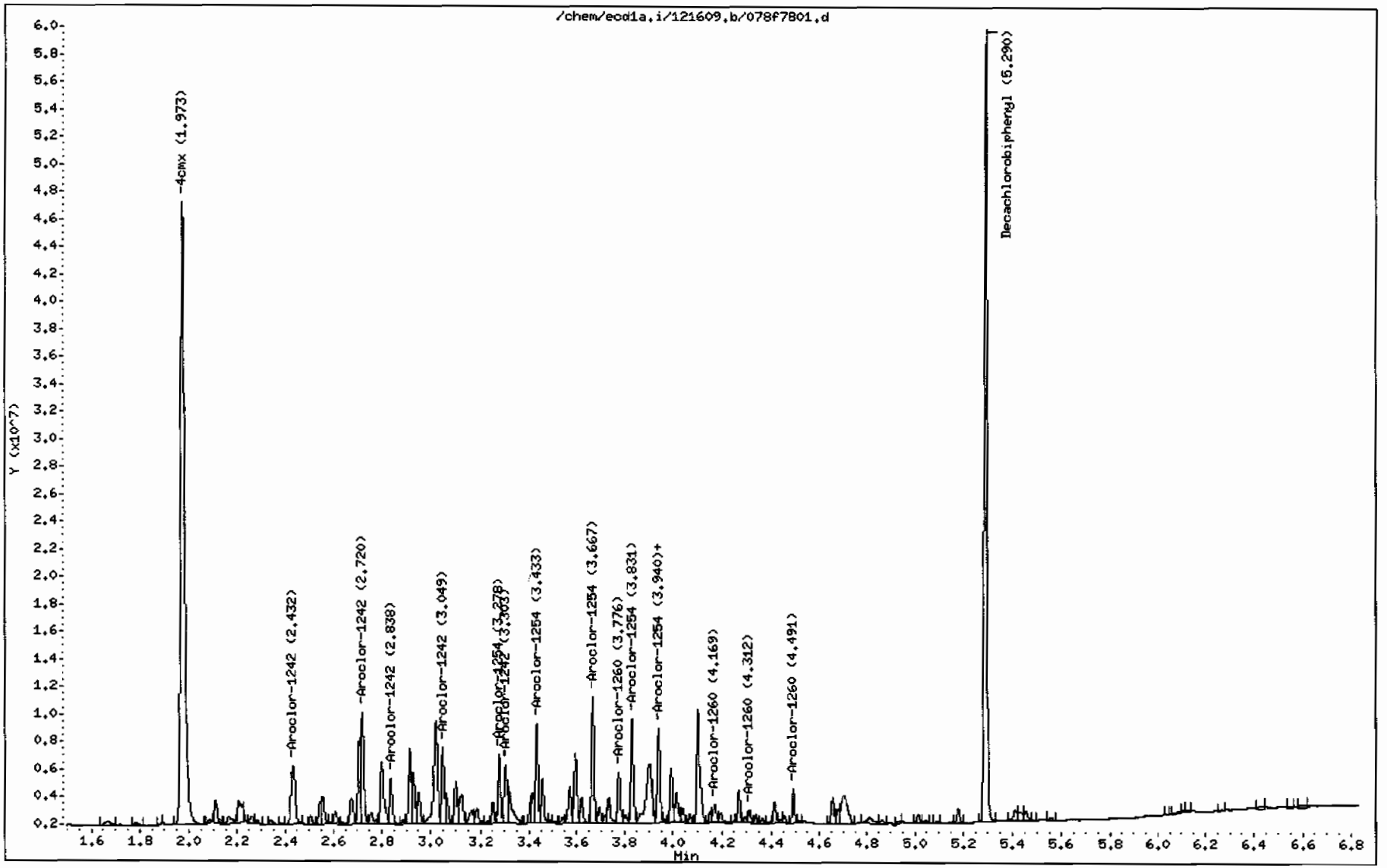

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/121609.b/078b7801.d
Lab Smp Id: 242781006 Client Smp ID: RE03-09-13756
Inj Date : 16-DEC-2009 21:22
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |242781006|1|
Misc Info : |ECD82P_1S|933342|SVAF|LANL|SOIL|RE03-09-13756|||
Comment :
Method : /chem/ecd1a.i/121609.b/ECD1-B-8082-121409.m
Meth Date : 17-Dec-2009 07:29 yip00818 Quant Type: ESTD
Cal Date : 14-DEC-2009 12:16 Cal File: 044b4401.d
Als bottle: 78
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-887.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.04000	Weight of sample extracted (g)
M	10.48120	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.303	2.303	0.000	39898475	132.983	4.9	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.951	5.950	0.001	31462481	134.901	5.0	80.00- 120.00	100.00
4 Aroclor-1242					CAS #: 53469-21-9		
3.201	3.201	0.000	5005922	472.767	17.6	80.00- 120.00	100.00
3.284	3.284	0.000	4072630	505.690	18.8	46.23- 86.23	81.36
3.575	3.574	0.001	3266871	547.931	20.4	32.96- 72.96	65.26
3.809	3.808	0.001	2500735	412.881	15.4	36.09- 76.09	49.96

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
4 Aroclor-1242 (continued)							
3.833	3.836	-0.003	3944592	588.625	21.9	42.07- 82.07	78.80
Average of Peak Concentrations =					18.8		
6 Aroclor-1254					CAS #: 11097-69-1		
3.410	3.409	0.001	3238084	503.179	18.7	80.00- 120.00	100.00
3.833	3.832	0.001	3944592	341.248	12.7	160.27- 200.27	121.82
3.949	3.947	0.002	8441295	679.036	25.2	181.92- 221.92	260.69
4.226	4.224	0.002	5239832	310.415	11.5	264.49- 304.49	161.82
4.361	4.360	0.001	4377362	352.006	13.1	192.39- 232.39	135.18
Average of Peak Concentrations =					16.2		
7 Aroclor-1260					CAS #: 11096-82-5		
4.341	4.341	0.000	2481881	181.424	6.7	80.00- 120.00	100.00
4.466	4.465	0.001	3187190	198.839	7.4	103.29- 143.29	128.42
4.734	4.731	0.003	1153253	91.7908	3.4	74.88- 114.88	46.47
4.906	4.905	0.001	780194	60.9047	2.3	77.49- 117.49	31.44
5.052	5.052	0.000	1645626	58.9879	2.2	203.67- 243.67	66.31
Average of Peak Concentrations =					4.4		

Data File: /chem/ecd1a.i/121609.b/078b7801.d
Date : 16-DEC-2009 21:22
Client ID: RE03-09-13756
Sample Info: 1242781006111
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd1a.i
Operator: YS1
Column diameter: 0.25

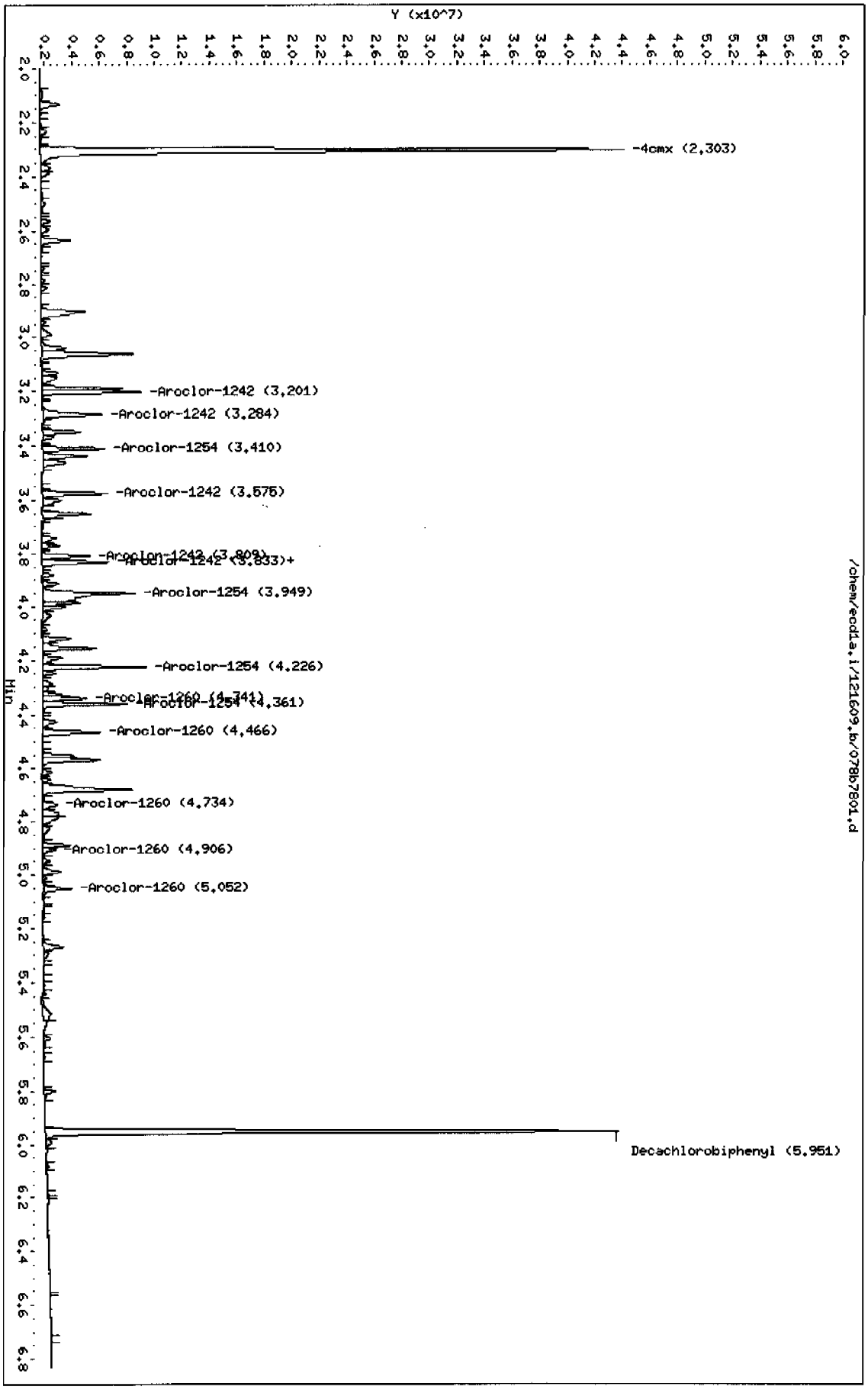

Page 1

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10–887	**Date Collected:**	12/09/2009 12:00	**Matrix:**	S
Lab Sample ID:	242781001	**Date Received:**	12/11/2009 08:50	**%Moisture:**	9.9
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03–09–13757	**Method:**	SW846 8082	**SOP Ref:**	GL–OA–E–040
Batch ID:	933342	**Inst:**	ECD1A.I	**Dilution:**	1
Run Date:	12/16/2009 19:47	**Analyst:**	YS1	**Inj. Vol:**	1 uL
Prep Date:	12/15/2009 20:23	**Aliquot:**	30.02 g	**Final Volume:**	1 mL
Data File:	069f6901.d	**Column:**	1 CLP1	**Level:**	LOW
	069b6901.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	3.70	ug/kg	1.23	3.70	1
11104–28–2	Aroclor–1221	U	3.70	ug/kg	1.23	3.70	1
11141–16–5	Aroclor–1232	U	3.70	ug/kg	1.23	3.70	1
53469–21–9	Aroclor–1242	U	3.70	ug/kg	1.23	3.70	1
12672–29–6	Aroclor–1248	U	3.70	ug/kg	1.23	3.70	1
11097–69–1	Aroclor–1254	J	2.40	ug/kg	1.23	3.70	1
11096–82–5	Aroclor–1260	J	2.50	ug/kg	1.23	3.70	2

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/121609.b/069f6901.d
Lab Smp Id: 242781001 Client Smp ID: RE03-09-13757
Inj Date : 16-DEC-2009 19:47
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |242781001|1|
Misc Info : |ECD82P_1S|933342|SVAF|LANL|SOIL|RE03-09-13757|||
Comment :
Method : /chem/ecd1a.i/121609.b/ECD1-F-8082-121409.m
Meth Date : 17-Dec-2009 07:29 yip00818 Quant Type: ESTD
Cal Date : 14-DEC-2009 11:34 Cal File: 040f4001.d
Als bottle: 69
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-887.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.02000	Weight of sample extracted (g)
M	9.86880	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.973	1.972	0.001	48239240	128.409	4.7	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.287	5.290	-0.003	47112240	148.366	5.5	80.00- 120.00	100.00
6 Aroclor-1254					CAS #: 11097-69-1		
3.276	3.277	-0.001	538513	43.1312	1.6	80.00- 120.00	100.00(a)
3.431	3.433	-0.002	821240	49.1115	1.8	117.82- 157.82	152.50
3.665	3.667	-0.002	995019	48.0362	1.8	162.83- 202.83	184.77
3.829	3.830	-0.001	701957	44.7271	1.6	121.29- 161.29	130.35

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
6 Aroclor-1254 (continued)							
3.936	3.939	-0.003	2109462	139.032	5.1	112.52- 152.52	391.72
Average of Peak Concentrations =					2.4		
7 Aroclor-1260					CAS #: 11096-82-5		
3.774	3.775	-0.001	1203966	71.8693	2.6	80.00- 120.00	100.00(a)
3.936	3.938	-0.002	2109462	85.2563	3.2	134.58- 174.58	175.21
4.166	4.168	-0.002	929225	63.2670	2.3	72.46- 112.46	77.18
4.309	4.312	-0.003	819187	53.9488	2.0	76.67- 116.67	68.04
4.489	4.491	-0.002	1843076	53.6551	2.0	204.79- 244.79	153.08
Average of Peak Concentrations =					2.4		

QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).

Data File: /chem/ecd1a.i/121609.b/069f6901.d

Date : 16-DEC-2009 19:47

Client ID: RE03-09-13757

Sample Info: |242781001|1|

Volume Injected (uL): 1.0

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

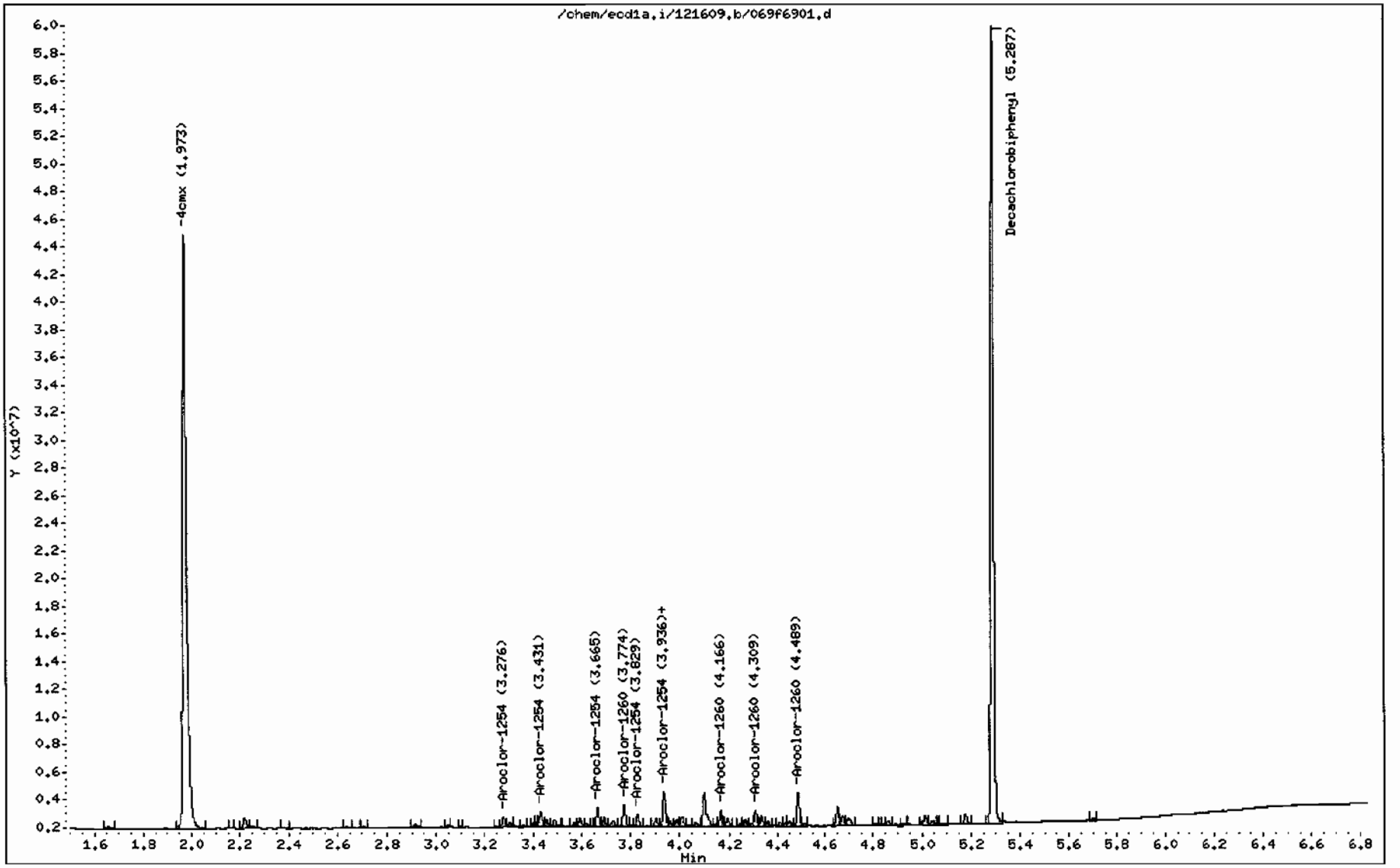

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/121609.b/069b6901.d
Lab Smp Id: 242781001 Client Smp ID: RE03-09-13757
Inj Date : 16-DEC-2009 19:47
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |242781001|1|
Misc Info : |ECD82P_1S|933342|SVAF|LANL|SOIL|RE03-09-13757|||
Comment :
Method : /chem/ecd1a.i/121609.b/ECD1-B-8082-121409.m
Meth Date : 17-Dec-2009 07:24 yip00818 Quant Type: ESTD
Cal Date : 14-DEC-2009 12:16 Cal File: 044b4401.d
Als bottle: 69
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-887.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.02000	Weight of sample extracted (g)
M	9.86880	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.303	2.303	0.000	37322713	124.398	4.6	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.949	5.950	-0.001	33642088	144.246	5.3	80.00- 120.00	100.00
6 Aroclor-1254					CAS #: 11097-69-1		
3.409	3.409	0.000	168444	26.1752	0.97	80.00- 120.00	100.00(a)
3.831	3.832	-0.001	523197	45.2620	1.7	160.27- 200.27	310.61
3.947	3.947	0.000	732072	58.8896	2.2	181.92- 221.92	434.61
4.224	4.224	0.000	833378	49.3706	1.8	264.49- 304.49	494.75

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
6 Aroclor-1254 (continued)							
4.359	4.360	-0.001	577550	46.4438	1.7	192.39- 232.39	342.87
Average of Peak Concentrations =					1.7		
7 Aroclor-1260					CAS #: 11096-82-5		
4.340	4.341	-0.001	1121088	81.9507	3.0	80.00- 120.00	100.00(a)
4.464	4.465	-0.001	1351120	84.2922	3.1	103.92- 143.92	120.52
4.730	4.731	-0.001	865088	68.8549	2.5	74.45- 114.45	77.17
4.904	4.905	-0.001	705811	55.0982	2.0	76.60- 116.60	62.96
5.050	5.052	-0.002	1595295	57.1838	2.1	201.28- 241.28	142.30
Average of Peak Concentrations =					2.5		

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

Data File: /chem/ecd1a.i/121609.b/069b6901.d

Date : 16-DEC-2009 19:47

Client ID: RE03-09-13757

Sample Info: !242781001!1!

Volume Injected (uL): 1.0

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

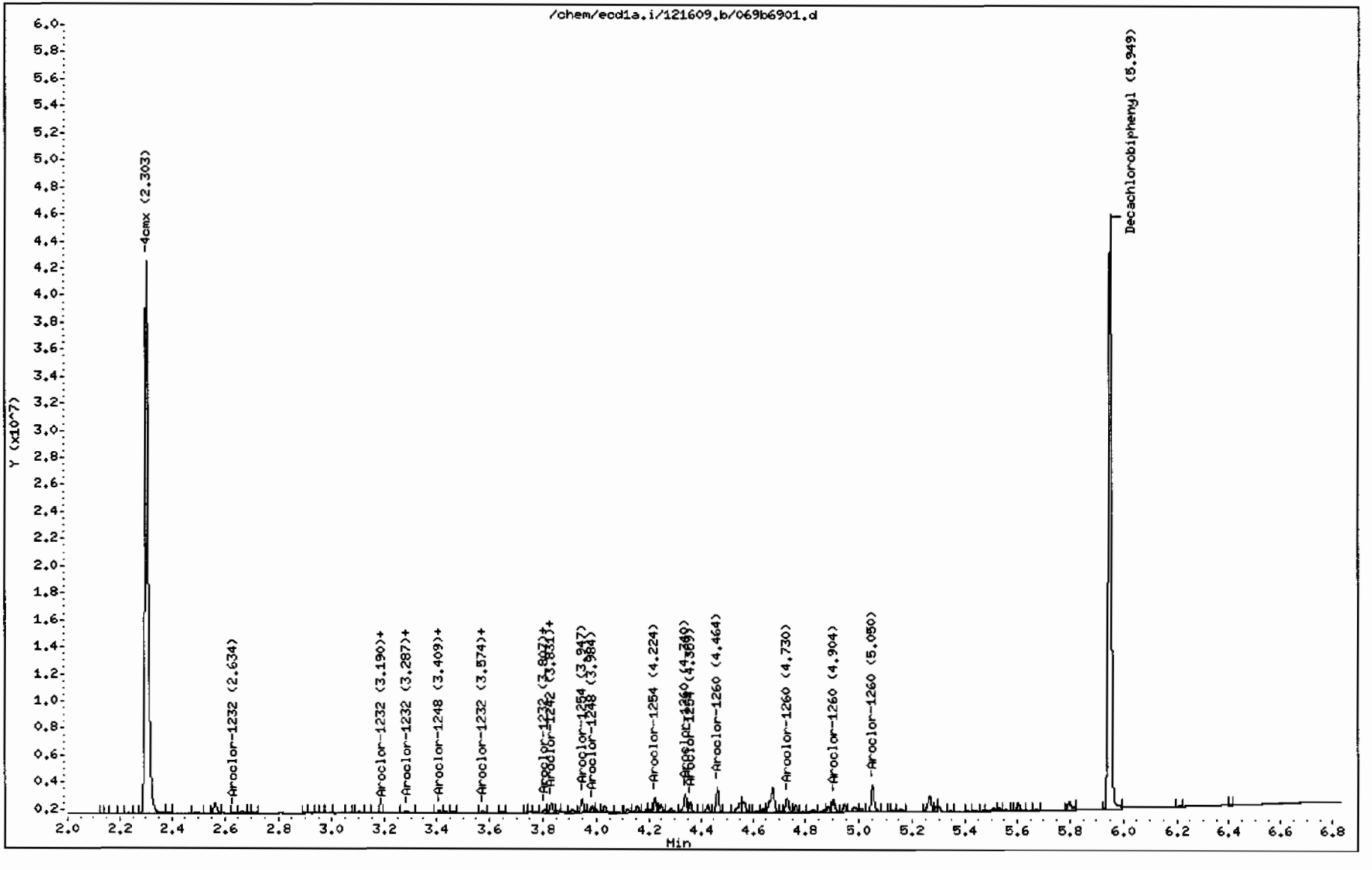

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10-887	**Date Collected:**	12/09/2009 12:00	**Matrix:**	S
Lab Sample ID:	242781007	**Date Received:**	12/11/2009 08:50	**%Moisture:**	8.1
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-10-5525	**Method:**	SW846 8082	**SOP Ref:**	GL-OA-E-040
Batch ID:	933342	**Inst:**	ECD1A.I	**Dilution:**	1
Run Date:	12/16/2009 21:33	**Analyst:**	YS1	**Inj. Vol:**	1 uL
Prep Date:	12/15/2009 20:23	**Aliquot:**	30.02 g	**Final Volume:**	1 mL
Data File:	079f7901.d	**Column:**	1 CLP1	**Level:**	LOW
	079b7901.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.63	ug/kg	1.21	3.63	1
11104-28-2	Aroclor-1221	U	3.63	ug/kg	1.21	3.63	1
11141-16-5	Aroclor-1232	U	3.63	ug/kg	1.21	3.63	1
53469-21-9	Aroclor-1242	U	3.63	ug/kg	1.21	3.63	1
12672-29-6	Aroclor-1248	U	3.63	ug/kg	1.21	3.63	1
11097-69-1	Aroclor-1254	U	3.63	ug/kg	1.21	3.63	1
11096-82-5	Aroclor-1260	U	3.63	ug/kg	1.21	3.63	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/121609.b/079f7901.d
Lab Smp Id: 242781007 Client Smp ID: RE03-10-5525
Inj Date : 16-DEC-2009 21:33
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |242781007|1|
Misc Info : |ECD82P_1S|933342|SVAF|LANL|SOIL|RE03-10-5525|||
Comment :
Method : /chem/ecd1a.i/121609.b/ECD1-F-8082-121409.m
Meth Date : 17-Dec-2009 07:29 yip00818 Quant Type: ESTD
Cal Date : 14-DEC-2009 11:34 Cal File: 040f4001.d
Als bottle: 79
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-887.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.02000	Weight of sample extracted (g)
M	8.14230	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.974	1.972	0.002	51160463	136.185	4.9	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.289	5.290	-0.001	45647845	143.754	5.2	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/121609.b/079f7901.d
Date : 16-DEC-2009 21:33
Client ID: RE03-10-5525
Sample Info: 1242781007111
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecd1a.i
Operator: YS1
Column diameter: 0.25

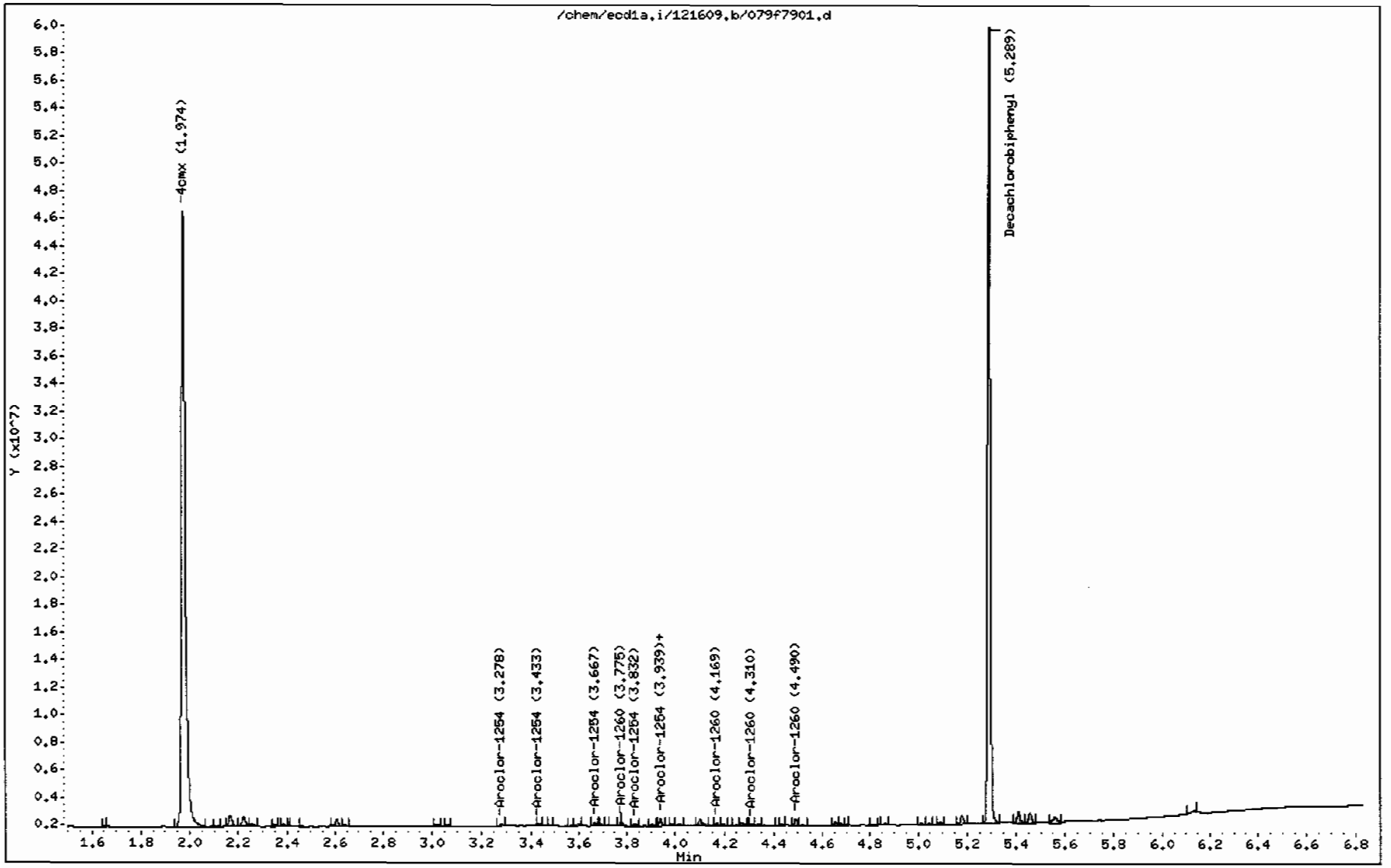

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/121609.b/079b7901.d
Lab Smp Id: 242781007 Client Smp ID: RE03-10-5525
Inj Date : 16-DEC-2009 21:33
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |242781007|1|
Misc Info : |ECD82P_1S|933342|SVAF|LANL|SOIL|RE03-10-5525|||
Comment :
Method : /chem/ecd1a.i/121609.b/ECD1-B-8082-121409.m
Meth Date : 17-Dec-2009 07:29 yip00818 Quant Type: ESTD
Cal Date : 14-DEC-2009 12:16 Cal File: 044b4401.d
Als bottle: 79
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-887.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.02000	Weight of sample extracted (g)
M	8.14230	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.303	2.303	0.000	39447364	131.480	4.8	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.950	5.950	0.000	32011124	137.253	5.0	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/121609.b/079b7901.d

Date : 16-DEC-2009 21:33

Client ID: RE03-10-5525

Sample Info: |242781007|1|

Volume Injected (uL): 1.0

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

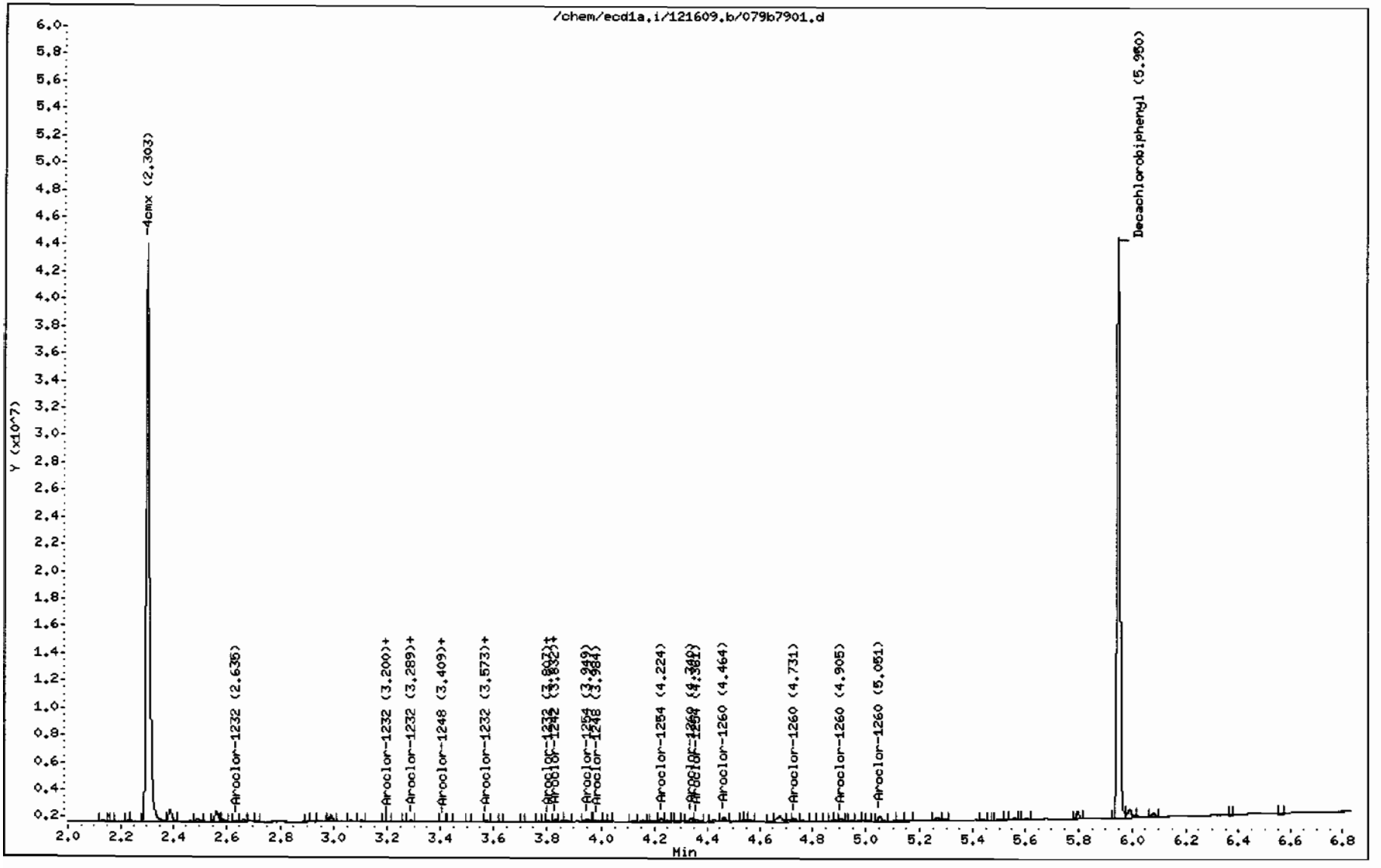

STANDARDS DATA

Report Date: 17-Dec-2009 11:42

Calibration History

Method : /chem/ecd1a.i/121609.b/ECD1-F-8082-121409.m
Start Cal Date: 14-DEC-2009 05:36
End Cal Date : 14-DEC-2009 12:37

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 100.00000		
14-DEC-2009 11:34	AR1268	/chem/ecd1a.i/121409.b/040f4001.d
14-DEC-2009 09:28	AR1248	/chem/ecd1a.i/121409.b/028f2801.d
14-DEC-2009 08:25	AR1242	/chem/ecd1a.i/121409.b/022f2201.d
14-DEC-2009 07:22	AR1254	/chem/ecd1a.i/121409.b/016f1601.d
14-DEC-2009 10:31	AR1660	/chem/ecd1a.i/121409.b/034f3401.d
Cal Level: 2 , Cal Amount: 200.00000		
14-DEC-2009 11:44	AR1268	/chem/ecd1a.i/121409.b/041f4101.d
14-DEC-2009 09:38	AR1248	/chem/ecd1a.i/121409.b/029f2901.d
14-DEC-2009 08:35	AR1242	/chem/ecd1a.i/121409.b/023f2301.d
14-DEC-2009 07:32	AR1254	/chem/ecd1a.i/121409.b/017f1701.d
14-DEC-2009 10:41	AR1660	/chem/ecd1a.i/121409.b/035f3501.d
Cal Level: 3 , Cal Amount: 500.00000		
14-DEC-2009 11:55	AR1268	/chem/ecd1a.i/121409.b/042f4201.d
14-DEC-2009 09:49	AR1248	/chem/ecd1a.i/121409.b/030f3001.d
14-DEC-2009 08:46	AR1242	/chem/ecd1a.i/121409.b/024f2401.d
14-DEC-2009 07:43	AR1254	/chem/ecd1a.i/121409.b/018f1801.d
14-DEC-2009 10:52	AR1660	/chem/ecd1a.i/121409.b/036f3601.d
Cal Level: 4 , Cal Amount: 1000.00000		
14-DEC-2009 12:37	DDTANALOGSTD	/chem/ecd1a.i/121409.b/046f4601.d
14-DEC-2009 09:59	AR1248	/chem/ecd1a.i/121409.b/031f3101.d
14-DEC-2009 08:56	AR1242	/chem/ecd1a.i/121409.b/025f2501.d
14-DEC-2009 07:53	AR1254	/chem/ecd1a.i/121409.b/019f1901.d
14-DEC-2009 11:02	AR1660	/chem/ecd1a.i/121409.b/037f3701.d
14-DEC-2009 12:06	AR1268	/chem/ecd1a.i/121409.b/043f4301.d
14-DEC-2009 05:58	AR1262	/chem/ecd1a.i/121409.b/008f0801.d
14-DEC-2009 05:47	AR1221	/chem/ecd1a.i/121409.b/007f0701.d
14-DEC-2009 05:36	AR1232	/chem/ecd1a.i/121409.b/006f0601.d
Cal Level: 5 , Cal Amount: 4000.00000		
14-DEC-2009 12:16	AR1268	/chem/ecd1a.i/121409.b/044f4401.d
14-DEC-2009 10:10	AR1248	/chem/ecd1a.i/121409.b/032f3201.d
14-DEC-2009 09:07	AR1242	/chem/ecd1a.i/121409.b/026f2601.d
14-DEC-2009 08:04	AR1254	/chem/ecd1a.i/121409.b/020f2001.d
14-DEC-2009 11:13	AR1660	/chem/ecd1a.i/121409.b/038f3801.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 1000		
16-DEC-2009 21:43	AR1660	/chem/ecd1a.i/121609.b/080f8001.d
Ccal Level: 4 , Ccal Amount: 1000		
16-DEC-2009 20:40	AR1660	/chem/ecd1a.i/121609.b/074f7401.d
Ccal Level: 4 , Ccal Amount: 1000		
16-DEC-2009 18:23	AR1660	/chem/ecd1a.i/121609.b/062f6201.d
Ccal Level: 4 , Ccal Amount: 1000		
16-DEC-2009 16:00	AR1660	/chem/ecd1a.i/121609.b/050f5001.d
Ccal Level: 4 , Ccal Amount: 1000		
16-DEC-2009 10:46	AR1660	/chem/ecd1a.i/121609.b/024f2401.d
Ccal Level: 4 , Ccal Amount: 1000		
16-DEC-2009 13:58	AR1660	/chem/ecd1a.i/121609.b/040f4001.d
Ccal Level: 4 , Ccal Amount: 1000		
16-DEC-2009 13:12	AR1660	/chem/ecd1a.i/121609.b/036f3601.d
Ccal Level: 4 , Ccal Amount: 1000		
16-DEC-2009 08:13	AR1254	/chem/ecd1a.i/121609.b/011f1101.d
Ccal Level: 4 , Ccal Amount: 1000		
16-DEC-2009 08:03	AR1268	/chem/ecd1a.i/121609.b/010f1001.d
Ccal Level: 4 , Ccal Amount: 1000		
16-DEC-2009 07:52	AR1262	/chem/ecd1a.i/121609.b/009f0901.d
Ccal Level: 4 , Ccal Amount: 1000		
16-DEC-2009 07:42	AR1221	/chem/ecd1a.i/121609.b/008f0801.d
Ccal Level: 4 , Ccal Amount: 1000		
16-DEC-2009 07:21	AR1232	/chem/ecd1a.i/121609.b/006f0601.d
Ccal Level: 4 , Ccal Amount: 1000		
16-DEC-2009 07:10	AR1248	/chem/ecd1a.i/121609.b/005f0501.d
Ccal Level: 4 , Ccal Amount: 1000		
16-DEC-2009 07:00	AR1242	/chem/ecd1a.i/121609.b/004f0401.d
Ccal Level: 4 , Ccal Amount: 1000		
16-DEC-2009 06:39	AR1660	/chem/ecd1a.i/121609.b/002f0201.d

Report Date: 17-Dec-2009 11:41

Calibration History

Method : /chem/ecd1a.i/121609.b/ECD1-B-8082-121409.m
Start Cal Date: 11-DEC-2009 10:17
End Cal Date : 14-DEC-2009 12:37

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 100.00000		
14-DEC-2009 11:34	AR1268	/chem/ecd1a.i/121409.b/040b4001.d
14-DEC-2009 09:28	AR1248	/chem/ecd1a.i/121409.b/028b2801.d
14-DEC-2009 08:25	AR1242	/chem/ecd1a.i/121409.b/022b2201.d
14-DEC-2009 07:22	AR1254	/chem/ecd1a.i/121409.b/016b1601.d
14-DEC-2009 10:31	AR1660	/chem/ecd1a.i/121409.b/034b3401.d
Cal Level: 2 , Cal Amount: 200.00000		
14-DEC-2009 11:44	AR1268	/chem/ecd1a.i/121409.b/041b4101.d
14-DEC-2009 09:38	AR1248	/chem/ecd1a.i/121409.b/029b2901.d
14-DEC-2009 08:35	AR1242	/chem/ecd1a.i/121409.b/023b2301.d
14-DEC-2009 07:32	AR1254	/chem/ecd1a.i/121409.b/017b1701.d
14-DEC-2009 10:41	AR1660	/chem/ecd1a.i/121409.b/035b3501.d
Cal Level: 3 , Cal Amount: 500.00000		
14-DEC-2009 11:55	AR1268	/chem/ecd1a.i/121409.b/042b4201.d
14-DEC-2009 09:49	AR1248	/chem/ecd1a.i/121409.b/030b3001.d
14-DEC-2009 08:46	AR1242	/chem/ecd1a.i/121409.b/024b2401.d
14-DEC-2009 07:43	AR1254	/chem/ecd1a.i/121409.b/018b1801.d
14-DEC-2009 10:52	AR1660	/chem/ecd1a.i/121409.b/036b3601.d
Cal Level: 4 , Cal Amount: 1000.00000		
14-DEC-2009 12:37	DDTANALOGSTD	/chem/ecd1a.i/121409.b/046b4601.d
14-DEC-2009 12:06	AR1268	/chem/ecd1a.i/121409.b/043b4301.d
14-DEC-2009 05:58	AR1262	/chem/ecd1a.i/121409.b/008b0801.d
14-DEC-2009 05:47	AR1221	/chem/ecd1a.i/121409.b/007b0701.d
14-DEC-2009 05:36	AR1232	/chem/ecd1a.i/121409.b/006b0601.d
14-DEC-2009 09:59	AR1248	/chem/ecd1a.i/121409.b/031b3101.d
14-DEC-2009 08:56	AR1242	/chem/ecd1a.i/121409.b/025b2501.d
14-DEC-2009 07:53	AR1254	/chem/ecd1a.i/121409.b/019b1901.d
14-DEC-2009 11:02	AR1660	/chem/ecd1a.i/121409.b/037b3701.d
Cal Level: 5 , Cal Amount: 4000.00000		
14-DEC-2009 12:16	AR1268	/chem/ecd1a.i/121409.b/044b4401.d
14-DEC-2009 10:10	AR1248	/chem/ecd1a.i/121409.b/032b3201.d
14-DEC-2009 09:07	AR1242	/chem/ecd1a.i/121409.b/026b2601.d
14-DEC-2009 08:04	AR1254	/chem/ecd1a.i/121409.b/020b2001.d
14-DEC-2009 11:13	AR1660	/chem/ecd1a.i/121409.b/038b3801.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

| Ccal Level: 4 , Ccal Amount: 1000 |

16-DEC-2009 20:40	AR1660	/chem/ecd1a.i/121609.b/074b7401.d
Ccal Level: 4 , Ccal Amount: 1000		
16-DEC-2009 21:43	AR1660	/chem/ecd1a.i/121609.b/080b8001.d
Ccal Level: 4 , Ccal Amount: 1000		
16-DEC-2009 18:23	AR1660	/chem/ecd1a.i/121609.b/062b6201.d
Ccal Level: 4 , Ccal Amount: 1000		
16-DEC-2009 16:00	AR1660	/chem/ecd1a.i/121609.b/050b5001.d
Ccal Level: 4 , Ccal Amount: 1000		
16-DEC-2009 10:46	AR1660	/chem/ecd1a.i/121609.b/024b2401.d
Ccal Level: 4 , Ccal Amount: 1000		
16-DEC-2009 13:58	AR1660	/chem/ecd1a.i/121609.b/040b4001.d
Ccal Level: 4 , Ccal Amount: 1000		
16-DEC-2009 06:39	AR1660	/chem/ecd1a.i/121609.b/002b0201.d
Ccal Level: 4 , Ccal Amount: 1000		
16-DEC-2009 13:12	AR1660	/chem/ecd1a.i/121609.b/036b3601.d
Ccal Level: 4 , Ccal Amount: 1000		
16-DEC-2009 08:13	AR1254	/chem/ecd1a.i/121609.b/011b1101.d
Ccal Level: 4 , Ccal Amount: 1000		
16-DEC-2009 08:03	AR1268	/chem/ecd1a.i/121609.b/010b1001.d
Ccal Level: 4 , Ccal Amount: 1000		
16-DEC-2009 07:52	AR1262	/chem/ecd1a.i/121609.b/009b0901.d
Ccal Level: 4 , Ccal Amount: 1000		
16-DEC-2009 07:42	AR1221	/chem/ecd1a.i/121609.b/008b0801.d
Ccal Level: 4 , Ccal Amount: 1000		
16-DEC-2009 07:21	AR1232	/chem/ecd1a.i/121609.b/006b0601.d
Ccal Level: 4 , Ccal Amount: 1000		
16-DEC-2009 07:10	AR1248	/chem/ecd1a.i/121609.b/005b0501.d
Ccal Level: 4 , Ccal Amount: 1000		
16-DEC-2009 07:00	AR1242	/chem/ecd1a.i/121609.b/004b0401.d

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd1a.i/121609.b/ECD1-F-8082-121409.m
Quant Method : ESTD Target Version : 3.50
Last Update : 17-Dec-2009 07:29 Number of Cpnds : 15
Data Type : GC MULTI COMP

Global Integrator : Falcon

Chromat Events	Values
Initial:Start Threshold	12031.000000
Initial:End Threshold	6015.500000
Initial:Area Threshold	15489.000000
Initial:P-P Resolution	1.000000
Initial:Bunch Factor	2.000000
Initial:Negative Peaks	OFF
Initial:Tension	0.500000

Compound	RT	RT Window	RF
1 Aroclor-1016	2.430	2.400-2.460	1.387e+04
	2.707	2.677-2.737	1.010e+04
	2.800	2.770-2.830	1.176e+04
	2.837	2.807-2.867	6.599e+03
	3.048	3.018-3.078	8.673e+03
63 4,4-DDD	3.953	3.933-3.973	3.938e+05
64 4,4-DDE	3.603	3.583-3.623	4.795e+05
62 4,4-DDT	4.118	4.098-4.138	3.238e+05
2 Aroclor-1221	2.086	2.056-2.116	4.301e+03
	2.180	2.151-2.211	2.440e+03
	2.205	2.176-2.236	1.027e+04
3 Aroclor-1232	2.430	2.400-2.460	6.717e+03
	2.719	2.689-2.749	8.157e+03
	2.800	2.770-2.830	5.751e+03
	3.049	3.019-3.079	3.954e+03
	3.303	3.273-3.333	3.533e+03
4 Aroclor-1242	2.430	2.400-2.460	1.166e+04
	2.720	2.690-2.750	1.345e+04
	2.839	2.809-2.869	5.506e+03
	3.049	3.019-3.079	7.245e+03
	3.303	3.273-3.333	6.811e+03

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd1a.i/121609.b/ECD1-F-8082-121409.m

	Compound	RT	RT Window	RF
	5 Aroclor-1248	3.101	3.071-3.131	7.848e+03
		3.252	3.222-3.282	6.870e+03
		3.303	3.273-3.333	1.331e+04
		3.435	3.405-3.465	1.101e+04
		3.668	3.638-3.698	7.455e+03
	6 Aroclor-1254	3.277	3.247-3.307	1.249e+04
		3.433	3.403-3.463	1.672e+04
		3.667	3.637-3.697	2.071e+04
		3.830	3.800-3.860	1.569e+04
		3.939	3.909-3.969	1.517e+04
	7 Aroclor-1260	3.775	3.745-3.805	1.675e+04
		3.938	3.908-3.968	2.474e+04
		4.168	4.138-4.198	1.469e+04
		4.312	4.282-4.342	1.518e+04
		4.491	4.461-4.521	3.435e+04
	8 Aroclor-1262	3.776	3.746-3.806	1.402e+04
		3.938	3.908-3.968	1.841e+04
		4.169	4.139-4.199	2.251e+04
		4.312	4.282-4.342	2.033e+04
		4.491	4.461-4.521	4.317e+04
	9 Aroclor-1268	4.676	4.646-4.706	5.438e+04
		4.698	4.668-4.728	5.419e+04
		4.811	4.781-4.841	4.052e+04
		5.014	4.984-5.044	1.833e+04
		5.180	5.150-5.210	1.233e+05
M	10 Aroclor-Total	1.000	0.980-1.020	
$	11 4cmx	1.972	1.942-2.002	3.757e+05
$	12 Decachlorobiphenyl	5.290	5.260-5.320	3.175e+05

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd1a.i/121609.b/ECD1-B-8082-121409.m
Quant Method : ESTD Target Version : 3.50
Last Update : 17-Dec-2009 07:29 Number of Cpnds : 15
Data Type : GC MULTI COMP

Global Integrator : Falcon

Chromat Events	Values
Initial:Start Threshold	7222.000000
Initial:End Threshold	3611.000000
Initial:Area Threshold	6833.000000
Initial:P-P Resolution	0.000000
Initial:Bunch Factor	2.000000
Initial:Negative Peaks	OFF
Initial:Tension	0.500000

Compound	RT	RT Window	RF
1 Aroclor-1016	3.201	3.171-3.231	1.261e+04
	3.283	3.253-3.313	9.328e+03
	3.347	3.317-3.377	5.411e+03
	3.574	3.544-3.604	7.052e+03
	3.650	3.620-3.680	6.551e+03
62 4,4-DDT	4.670	4.650-4.690	2.436e+05
63 4,4-DDE	4.139	4.119-4.159	3.580e+05
64 4,4-DDD	4.483	4.463-4.503	2.893e+05
2 Aroclor-1221	2.501	2.470-2.530	3.640e+03
	2.595	2.566-2.626	2.329e+03
	2.636	2.606-2.666	8.119e+03
3 Aroclor-1232	2.636	2.606-2.666	6.156e+03
	3.201	3.171-3.231	6.302e+03
	3.284	3.254-3.314	4.701e+03
	3.575	3.545-3.605	3.243e+03
	3.808	3.778-3.838	3.151e+03
4 Aroclor-1242	3.201	3.171-3.231	1.059e+04
	3.284	3.254-3.314	8.054e+03
	3.574	3.544-3.604	5.962e+03
	3.808	3.778-3.838	6.057e+03
	3.836	3.806-3.866	6.701e+03

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd1a.i/121609.b/ECD1-B-8082-121409.m

Compound	RT	RT Window	RF
5 Aroclor-1248	3.410	3.380-3.440	8.054e+03
	3.575	3.545-3.605	9.874e+03
	3.809	3.779-3.839	1.122e+04
	3.837	3.807-3.867	1.248e+04
	3.973	3.943-4.003	1.210e+04
6 Aroclor-1254	3.409	3.379-3.439	6.435e+03
	3.832	3.802-3.862	1.156e+04
	3.947	3.917-3.977	1.243e+04
	4.224	4.194-4.254	1.688e+04
	4.360	4.330-4.390	1.244e+04
7 Aroclor-1260	4.341	4.311-4.371	1.368e+04
	4.465	4.435-4.495	1.603e+04
	4.731	4.701-4.761	1.256e+04
	4.905	4.875-4.935	1.281e+04
	5.052	5.022-5.082	2.790e+04
8 Aroclor-1262	4.465	4.435-4.495	1.292e+04
	4.732	4.702-4.762	1.831e+04
	4.905	4.875-4.935	1.658e+04
	5.052	5.022-5.082	3.329e+04
	5.265	5.235-5.295	2.297e+04
9 Aroclor-1268	5.263	5.233-5.293	4.358e+04
	5.291	5.261-5.321	4.039e+04
	5.441	5.411-5.471	3.144e+04
	5.605	5.575-5.635	1.427e+04
	5.798	5.768-5.828	8.886e+04
M 10 Aroclor-Total	1.000	0.980-1.020	
$ 11 4cmx	2.303	2.273-2.333	3.000e+05
$ 12 Decachlorobiphenyl	5.950	5.920-5.980	2.332e+05

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 14-DEC-2009 05:36
End Cal Date : 14-DEC-2009 12:37
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd1a.i/121609.b/ECD1-F-8082-121409.m
Cal Date : 17-Dec-2009 07:29 yip00818
Curve Type : Average

Calibration File Names:
Level 1: /chem/ecd1a.i/121409.b/040f4001.d
Level 2: /chem/ecd1a.i/121409.b/041f4101.d
Level 3: /chem/ecd1a.i/121409.b/042f4201.d
Level 4: /chem/ecd1a.i/121409.b/046f4601.d
Level 5: /chem/ecd1a.i/121409.b/044f4401.d

Compound	100.000 Level 1	200.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
1 Aroclor-1016(1)	15975	14641	13829	13236	11653	13867	11.596
(2)	10801	10349	9832	9922	9584	10098	4.757
(3)	13242	12280	11732	11291	10240	11757	9.507
(4)	7178	6867	6609	6421	5920	6599	7.183
(5)	9710	9021	8649	8224	7763	8673	8.604
63 4,4-DDD	+++++	+++++	+++++	393799	+++++	393799	0.000
64 4,4-DDE	+++++	+++++	+++++	479509	+++++	479509	0.000
62 4,4-DDT	+++++	+++++	+++++	323817	+++++	323817	0.000
2 Aroclor-1221(1)	+++++	+++++	+++++	4301	+++++	4301	0.000
(2)	+++++	+++++	+++++	2440	+++++	2440	0.000
(3)	+++++	+++++	+++++	10272	+++++	10272	0.000
3 Aroclor-1232(1)	+++++	+++++	+++++	6717	+++++	6717	0.000
(2)	+++++	+++++	+++++	8157	+++++	8157	0.000
(3)	+++++	+++++	+++++	5751	+++++	5751	0.000
(4)	+++++	+++++	+++++	3954	+++++	3954	0.000
(5)	+++++	+++++	+++++	3533	+++++	3533	0.000
4 Aroclor-1242(1)	13692	12467	11522	10819	9798	11660	12.846
(2)	14782	14429	13236	12555	12263	13453	8.301
(3)	6076	5890	5423	5191	4949	5506	8.563
(4)	8395	7578	7079	6747	6426	7245	10.645
(5)	7587	7189	6604	6378	6296	6811	8.178
5 Aroclor-1248(1)	9070	8103	7743	7247	7078	7848	10.119
(2)	7785	7181	6827	6444	6114	6870	9.456
(3)	15108	13267	13037	12915	12225	13310	8.094
(4)	12682	11331	10815	10392	9852	11015	9.799
(5)	8605	7806	7405	7124	6336	7455	11.244

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 14-DEC-2009 05:36
End Cal Date : 14-DEC-2009 12:37
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd1a.i/121609.b/ECD1-F-8082-121409.m
Cal Date : 17-Dec-2009 07:29 yip00818
Curve Type : Average

Compound	100.000 Level 1	200.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
6 Aroclor-1254(1)	14281	12975	12313	11911	10947	12485	9.963
(2)	18803	17181	16666	15949	15010	16722	8.494
(3)	22492	20906	20786	20326	19059	20714	5.957
(4)	16753	15627	15809	15513	14770	15694	4.535
(5)	16595	15169	15433	15075	13591	15172	7.071
7 Aroclor-1260(1)	18145	17177	16842	16407	15189	16752	6.464
(2)	26410	24871	24973	24571	22887	24743	5.081
(3)	16099	14386	14855	14472	13625	14687	6.171
(4)	16517	14719	15311	15032	14343	15185	5.451
(5)	35425	33953	34899	34487	32987	34350	2.719
8 Aroclor-1262(1)	+++++	+++++	+++++	14019	+++++	14019	0.000
(2)	+++++	+++++	+++++	18406	+++++	18406	0.000
(3)	+++++	+++++	+++++	22511	+++++	22511	0.000
(4)	+++++	+++++	+++++	20327	+++++	20327	0.000
(5)	+++++	+++++	+++++	43170	+++++	43170	0.000
9 Aroclor-1268(1)	56914	55996	53872	52565	52528	54375	3.680
(2)	57500	55307	54092	52376	51697	54194	4.300
(3)	43006	41368	40020	38976	39247	40524	4.120
(4)	19620	18932	18085	17425	17569	18326	5.094
(5)	128350	126812	122798	118830	119599	123278	3.436
M 10 Aroclor-Total	+++++	+++++	+++++	+++++	+++++	+++++	+++++
$ 11 4cmx	367897	454677	359986	359846	335942	375669	12.182
$ 12 Decachlorobiphenyl	316645	388263	307193	296602	278999	317541	13.206

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 11-DEC-2009 10:17
End Cal Date : 14-DEC-2009 12:37
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd1a.i/121609.b/ECD1-B-8082-121409.m
Cal Date : 17-Dec-2009 07:29 yip00818
Curve Type : Average

Calibration File Names:
Level 1: /chem/ecd1a.i/121409.b/040b4001.d
Level 2: /chem/ecd1a.i/121409.b/041b4101.d
Level 3: /chem/ecd1a.i/121409.b/042b4201.d
Level 4: /chem/ecd1a.i/121409.b/046b4601.d
Level 5: /chem/ecd1a.i/121409.b/044b4401.d

Compound	100.000 Level 1	200.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
1 Aroclor-1016(1)	14281	12734	12848	12156	11039	12612	9.333
(2)	10954	9913	9256	8806	7710	9328	13.003
(3)	6310	5679	5380	5089	4598	5411	11.852
(4)	8214	7430	6981	6696	5938	7052	12.003
(5)	7754	6843	6481	6115	5561	6551	12.561
62 4,4-DDT	+++++	+++++	+++++	243613	+++++	243613	0.000
63 4,4-DDE	+++++	+++++	+++++	357996	+++++	357996	0.000
64 4,4-DDD	+++++	+++++	+++++	289343	+++++	289343	0.000
2 Aroclor-1221(1)	+++++	+++++	+++++	3640	+++++	3640	0.000
(2)	+++++	+++++	+++++	2329	+++++	2329	0.000
(3)	+++++	+++++	+++++	8119	+++++	8119	0.000
3 Aroclor-1232(1)	+++++	+++++	+++++	6156	+++++	6156	0.000
(2)	+++++	+++++	+++++	6302	+++++	6302	0.000
(3)	+++++	+++++	+++++	4701	+++++	4701	0.000
(4)	+++++	+++++	+++++	3243	+++++	3243	0.000
(5)	+++++	+++++	+++++	3151	+++++	3151	0.000
4 Aroclor-1242(1)	12348	11309	9989	9755	9542	10589	11.338
(2)	9730	8628	7875	7358	6677	8054	14.627
(3)	7163	6326	5763	5452	5107	5962	13.534
(4)	7183	6468	5900	5548	5185	6057	12.997
(5)	7820	7123	6589	6229	5746	6701	11.977
5 Aroclor-1248(1)	9914	8542	7972	7289	6553	8054	15.880
(2)	11996	10356	9798	9046	8173	9874	14.605
(3)	13306	11756	11119	10365	9555	11220	12.723
(4)	14720	13121	12480	11577	10516	12483	12.732
(5)	14361	12633	11977	11210	10342	12104	12.596

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 11-DEC-2009 10:17
End Cal Date : 14-DEC-2009 12:37
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd1a.i/121609.b/ECD1-B-8082-121409.m
Cal Date : 17-Dec-2009 07:29 yip00818
Curve Type : Average

Compound	100.000 Level 1	200.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
6 Aroclor-1254(1)	7857	6938	6317	5878	5185	6435	15.850
(2)	13759	12316	11389	10708	9625	11559	13.615
(3)	14674	13172	12243	11576	10492	12431	12.786
(4)	19102	17554	16808	16165	14771	16880	9.533
(5)	14276	12708	12612	11843	10739	12435	10.425
7 Aroclor-1260(1)	15678	14232	13583	13177	11731	13680	10.567
(2)	18142	16574	16035	15527	13867	16029	9.709
(3)	14298	13064	12524	12030	10903	12564	9.989
(4)	14593	13310	12766	12230	11150	12810	9.970
(5)	30553	28626	28257	27276	24777	27898	7.569
8 Aroclor-1262(1)	+++++	+++++	+++++	12922	+++++	12922	0.000
(2)	+++++	+++++	+++++	18311	+++++	18311	0.000
(3)	+++++	+++++	+++++	16579	+++++	16579	0.000
(4)	+++++	+++++	+++++	33287	+++++	33287	0.000
(5)	+++++	+++++	+++++	22972	+++++	22972	0.000
9 Aroclor-1268(1)	48327	45655	43354	41349	39206	43578	8.193
(2)	44968	41865	39872	38249	36983	40388	7.790
(3)	35350	32573	30975	29630	28674	31440	8.372
(4)	16410	14977	13894	13214	12876	14274	10.077
(5)	96769	92419	87897	84047	83161	88859	6.460
M 10 Aroclor-Total	+++++	+++++	+++++	+++++	+++++	+++++	+++++
$ 11 4cmx	307069	367145	286931	282899	256086	300026	13.893
$ 12 Decachlorobiphenyl	248884	286011	224119	212175	194946	233227	15.194

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-887

Instrument ID: ECD1A Calibration Date: 12/16/09 Time: 0639

Lab File ID: 002F0201 Init. Calib. Date(s): 12/14/09 12/14/09

Heated Purge: (Y/N) N Init. Calib. Times: 1031 1113

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	13866.870	12066.339	0.01	-13.0	15.0
(2)	10097.726	10100.208	0.01	0.0	15.0
(3)	11757.020	10438.521	0.01	-11.2	15.0
(4)	6599.010	6287.978	0.01	-4.7	15.0
(5)	8673.402	8115.136	0.01	-6.4	15.0
Aroclor-1260	16752.150	16400.977	0.01	-2.1	15.0
(2)	24742.603	25366.903	0.01	2.5	15.0
(3)	14687.346	15079.874	0.01	2.7	15.0
(4)	15184.529	15601.813	0.01	2.7	15.0
(5)	34350.443	35835.023	0.01	4.3	15.0
4cmx	375669.41	361320.59	0.01	-3.8	15.0
Decachlorobiphenyl	317540.53	295500.06	0.01	-6.9	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-887

Instrument ID: ECD1A Calibration Date: 12/16/09 Time: 0639

Lab File ID: 002B0201 Init. Calib. Date(s): 12/14/09 12/14/09

Heated Purge: (Y/N) N Init. Calib. Times: 1031 1113

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	12611.539	11845.265	0.01	-6.1	15.0
(2)	9327.875	8019.212	0.01	-14.0	15.0
(3)	5411.316	5005.109	0.01	-7.5	15.0
(4)	7051.879	6330.838	0.01	-10.2	15.0
(5)	6550.733	5990.341	0.01	-8.6	15.0
Aroclor-1260	13680.027	12633.049	0.01	-7.6	15.0
(2)	16029.019	15575.001	0.01	-2.8	15.0
(3)	12563.933	11771.250	0.01	-6.3	15.0
(4)	12810.076	11994.226	0.01	-6.4	15.0
(5)	27897.674	27263.087	0.01	-2.3	15.0
4cmx	300025.77	281215.27	0.01	-6.3	15.0
Decachlorobiphenyl	233227.08	214673.03	0.01	-8.0	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-887

Instrument ID: ECD1A Calibration Date: 12/16/09 Time: 0700

Lab File ID: 004F0401 Init. Calib. Date(s): 12/14/09 12/14/09

Heated Purge: (Y/N) N Init. Calib. Times: 0825 0907

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1242	11659.831	10697.173	0.01	-8.2	15.0
(2)	13453.003	13676.665	0.01	1.7	15.0
(3)	5505.921	5417.859	0.01	-1.6	15.0
(4)	7244.860	7065.274	0.01	-2.5	15.0
(5)	6810.757	7222.050	0.01	6.0	15.0
4cmx	375669.41	378409.85	0.01	0.7	15.0
Decachlorobiphenyl	317540.53	310809.94	0.01	-2.1	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-887

Instrument ID: ECD1A Calibration Date: 12/16/09 Time: 0700

Lab File ID: 004B0401 Init. Calib. Date(s): 12/14/09 12/14/09

Heated Purge: (Y/N) N Init. Calib. Times: 0825 0907

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1242	10588.563	10432.384	0.01	-1.5	15.0
(2)	8053.609	6908.864	0.01	-14.2	15.0
(3)	5962.199	5524.895	0.01	-7.3	15.0
(4)	6056.800	5851.271	0.01	-3.4	15.0
(5)	6701.366	6475.163	0.01	-3.4	15.0
4cmx	300025.77	291924.18	0.01	-2.7	15.0
Decachlorobiphenyl	233227.08	221831.20	0.01	-4.9	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-887

Instrument ID: ECD1A Calibration Date: 12/16/09 Time: 0813

Lab File ID: 011F1101 Init. Calib. Date(s): 12/14/09 12/14/09

Heated Purge: (Y/N) N Init. Calib. Times: 0722 0804

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1254	12485.476	11740.440	0.01	-6.0	15.0
(2)	16721.938	16181.026	0.01	-3.2	15.0
(3)	20713.923	21464.495	0.01	3.6	15.0
(4)	15694.205	16587.894	0.01	5.7	15.0
(5)	15172.491	15558.660	0.01	2.5	15.0
4cmx	375669.41	374629.29	0.01	-0.3	15.0
Decachlorobiphenyl	317540.53	320623.09	0.01	1.0	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-887

Instrument ID: ECD1A Calibration Date: 12/16/09 Time: 0813

Lab File ID: 011B1101 Init. Calib. Date(s): 12/14/09 12/14/09

Heated Purge: (Y/N) N Init. Calib. Times: 0722 0804

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1254	6435.255	5764.247	0.01	-10.4	15.0
(2)	11559.316	10391.118	0.01	-10.1	15.0
(3)	12431.285	11639.161	0.01	-6.4	15.0
(4)	16880.060	16398.545	0.01	-2.8	15.0
(5)	12435.475	12242.600	0.01	-1.6	15.0
4cmx	300025.77	291400.43	0.01	-2.9	15.0
Decachlorobiphenyl	233227.08	225811.59	0.01	-3.2	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-887

Instrument ID: ECD1A Calibration Date: 12/16/09 Time: 1600

Lab File ID: 050F5001 Init. Calib. Date(s): 12/14/09 12/14/09

Heated Purge: (Y/N) N Init. Calib. Times: 1031 1113

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	13866.870	12501.405	0.01	-9.8	15.0
(2)	10097.726	10743.225	0.01	6.4	15.0
(3)	11757.020	10715.850	0.01	-8.8	15.0
(4)	6599.010	6502.213	0.01	-1.5	15.0
(5)	8673.402	8295.816	0.01	-4.4	15.0
Aroclor-1260	16752.150	16419.827	0.01	-2.0	15.0
(2)	24742.603	25459.040	0.01	2.9	15.0
(3)	14687.346	15089.459	0.01	2.7	15.0
(4)	15184.529	15503.850	0.01	2.1	15.0
(5)	34350.443	36107.879	0.01	5.1	15.0
4cmx	375669.41	378150.04	0.01	0.7	15.0
Decachlorobiphenyl	317540.53	307246.06	0.01	-3.2	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-887

Instrument ID: ECD1A Calibration Date: 12/16/09 Time: 1600

Lab File ID: 050B5001 Init. Calib. Date(s): 12/14/09 12/14/09

Heated Purge: (Y/N) N Init. Calib. Times: 1031 1113

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	12611.539	12399.906	0.01	-1.7	15.0
(2)	9327.875	8081.502	0.01	-13.4	15.0
(3)	5411.316	5006.397	0.01	-7.5	15.0
(4)	7051.879	6299.966	0.01	-10.7	15.0
(5)	6550.733	6004.756	0.01	-8.3	15.0
Aroclor-1260	13680.027	12350.992	0.01	-9.7	15.0
(2)	16029.019	15214.728	0.01	-5.1	15.0
(3)	12563.933	11569.713	0.01	-7.9	15.0
(4)	12810.076	11722.896	0.01	-8.5	15.0
(5)	27897.674	26851.487	0.01	-3.8	15.0
4cmx	300025.77	291174.26	0.01	-3.0	15.0
Decachlorobiphenyl	233227.08	215138.44	0.01	-7.8	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-887

Instrument ID: ECD1A Calibration Date: 12/16/09 Time: 1823

Lab File ID: 062F6201 Init. Calib. Date(s): 12/14/09 12/14/09

Heated Purge: (Y/N) N Init. Calib. Times: 1031 1113

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	13866.870	12394.036	0.01	-10.6	15.0
(2)	10097.726	10254.172	0.01	1.5	15.0
(3)	11757.020	10707.282	0.01	-8.9	15.0
(4)	6599.010	6451.325	0.01	-2.2	15.0
(5)	8673.402	8202.522	0.01	-5.4	15.0
Aroclor-1260	16752.150	16703.466	0.01	-0.3	15.0
(2)	24742.603	25828.004	0.01	4.4	15.0
(3)	14687.346	15347.449	0.01	4.5	15.0
(4)	15184.529	15947.036	0.01	5.0	15.0
(5)	34350.443	37170.253	0.01	8.2	15.0
4cmx	375669.41	373931.77	0.01	-0.5	15.0
Decachlorobiphenyl	317540.53	320009.62	0.01	0.8	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-887

Instrument ID: ECD1A Calibration Date: 12/16/09 Time: 1823

Lab File ID: 062B6201 Init. Calib. Date(s): 12/14/09 12/14/09

Heated Purge: (Y/N) N Init. Calib. Times: 1031 1113

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	12611.539	12305.260	0.01	-2.4	15.0
(2)	9327.875	8093.067	0.01	-13.2	15.0
(3)	5411.316	5040.306	0.01	-6.8	15.0
(4)	7051.879	6572.321	0.01	-6.8	15.0
(5)	6550.733	6083.776	0.01	-7.1	15.0
Aroclor-1260	13680.027	12697.285	0.01	-7.2	15.0
(2)	16029.019	15734.960	0.01	-1.8	15.0
(3)	12563.933	11992.577	0.01	-4.5	15.0
(4)	12810.076	12265.433	0.01	-4.2	15.0
(5)	27897.674	28097.085	0.01	0.7	15.0
4cmx	300025.77	286789.32	0.01	-4.4	15.0
Decachlorobiphenyl	233227.08	229781.04	0.01	-1.5	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-887

Instrument ID: ECD1A Calibration Date: 12/16/09 Time: 2040

Lab File ID: 074F7401 Init. Calib. Date(s): 12/14/09 12/14/09

Heated Purge: (Y/N) N Init. Calib. Times: 1031 1113

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	13866.870	12623.170	0.01	-9.0	15.0
(2)	10097.726	10375.463	0.01	2.8	15.0
(3)	11757.020	10910.428	0.01	-7.2	15.0
(4)	6599.010	6595.514	0.01	-0.0	15.0
(5)	8673.402	8456.799	0.01	-2.5	15.0
Aroclor-1260	16752.150	17089.467	0.01	2.0	15.0
(2)	24742.603	26332.086	0.01	6.4	15.0
(3)	14687.346	15762.712	0.01	7.3	15.0
(4)	15184.529	16442.081	0.01	8.3	15.0
(5)	34350.443	38210.492	0.01	11.2	15.0
4cmx	375669.41	378914.25	0.01	0.9	15.0
Decachlorobiphenyl	317540.53	338200.53	0.01	6.5	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-887

Instrument ID: ECD1A Calibration Date: 12/16/09 Time: 2040

Lab File ID: 074B7401 Init. Calib. Date(s): 12/14/09 12/14/09

Heated Purge: (Y/N) N Init. Calib. Times: 1031 1113

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	12611.539	12209.331	0.01	-3.2	15.0
(2)	9327.875	8213.389	0.01	-11.9	15.0
(3)	5411.316	5122.341	0.01	-5.3	15.0
(4)	7051.879	6728.406	0.01	-4.6	15.0
(5)	6550.733	6261.393	0.01	-4.4	15.0
Aroclor-1260	13680.027	12999.600	0.01	-5.0	15.0
(2)	16029.019	16027.792	0.01	-0.0	15.0
(3)	12563.933	12333.615	0.01	-1.8	15.0
(4)	12810.076	12672.775	0.01	-1.1	15.0
(5)	27897.674	29076.757	0.01	4.2	15.0
4cmx	300025.77	291380.03	0.01	-2.9	15.0
Decachlorobiphenyl	233227.08	240040.54	0.01	2.9	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-887

Instrument ID: ECD1A Calibration Date: 12/16/09 Time: 2143

Lab File ID: 080F8001 Init. Calib. Date(s): 12/14/09 12/14/09

Heated Purge: (Y/N) N Init. Calib. Times: 1031 1113

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	13866.870	12636.122	0.01	-8.9	15.0
(2)	10097.726	10607.957	0.01	5.0	15.0
(3)	11757.020	10900.001	0.01	-7.3	15.0
(4)	6599.010	6578.475	0.01	-0.3	15.0
(5)	8673.402	8528.489	0.01	-1.7	15.0
Aroclor-1260	16752.150	17027.586	0.01	1.6	15.0
(2)	24742.603	26320.942	0.01	6.4	15.0
(3)	14687.346	15743.705	0.01	7.2	15.0
(4)	15184.529	16459.867	0.01	8.4	15.0
(5)	34350.443	38275.469	0.01	11.4	15.0
4cmx	375669.41	378648.95	0.01	0.8	15.0
Decachlorobiphenyl	317540.53	339800.90	0.01	7.0	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-887

Instrument ID: ECD1A Calibration Date: 12/16/09 Time: 2143

Lab File ID: 080B8001 Init. Calib. Date(s): 12/14/09 12/14/09

Heated Purge: (Y/N) N Init. Calib. Times: 1031 1113

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	12611.539	12651.276	0.01	0.3	15.0
(2)	9327.875	8207.925	0.01	-12.0	15.0
(3)	5411.316	5144.108	0.01	-4.9	15.0
(4)	7051.879	6704.531	0.01	-4.9	15.0
(5)	6550.733	6197.917	0.01	-5.4	15.0
Aroclor-1260	13680.027	12988.153	0.01	-5.0	15.0
(2)	16029.019	16112.987	0.01	0.5	15.0
(3)	12563.933	12392.138	0.01	-1.4	15.0
(4)	12810.076	12726.689	0.01	-0.6	15.0
(5)	27897.674	29160.873	0.01	4.5	15.0
4cmx	300025.77	290723.34	0.01	-3.1	15.0
Decachlorobiphenyl	233227.08	236310.02	0.01	1.3	15.0

FORM VII PEST

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/121609.b/002f0201.d
Lab Smp Id: WAR091211-60 01 Client Smp ID: AR166001
Inj Date : 16-DEC-2009 06:39
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR091211-60 01
Misc Info :
Comment :
Method : /chem/ecd1a.i/121609.b/ECD1-F-8082-121409.m
Meth Date : 17-Dec-2009 07:29 yip00818 Quant Type: ESTD
Cal Date : 14-DEC-2009 11:34 Cal File: 040f4001.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.972	1.972	0.000	36132059	100.000	96.2	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.290	5.290	0.000	29550006	100.000	93.0	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.430	2.430	0.000	12066339	1000.00	870	80.00- 120.00	100.00
2.707	2.707	0.000	10100208	1000.00	1000	63.95- 103.95	83.71
2.800	2.800	0.000	10438521	1000.00	888	66.26- 106.26	86.51
2.837	2.837	0.000	6287978	1000.00	953	32.06- 72.06	52.11
3.048	3.048	0.000	8115136	1000.00	936	47.49- 87.49	67.25
Average of Peak Amounts =					929		
7 Aroclor-1260					CAS #: 11096-82-5		
3.775	3.775	0.000	16400977	1000.00	979	80.00- 120.00	100.00
3.938	3.938	0.000	25366903	1000.00	1020	134.58- 174.58	154.67
4.168	4.168	0.000	15079874	1000.00	1030	72.46- 112.46	91.94
4.312	4.312	0.000	15601813	1000.00	1030	76.67- 116.67	95.13
4.491	4.491	0.000	35835023	1000.00	1040	204.79- 244.79	218.49
Average of Peak Amounts =					1.02e+03		

Data File: /chem/ecd1a.i/121609.b/002f0201.d

Date : 16-DEC-2009 06:39

Client ID: AR166001

Sample Info: IWAR091211-60 01

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

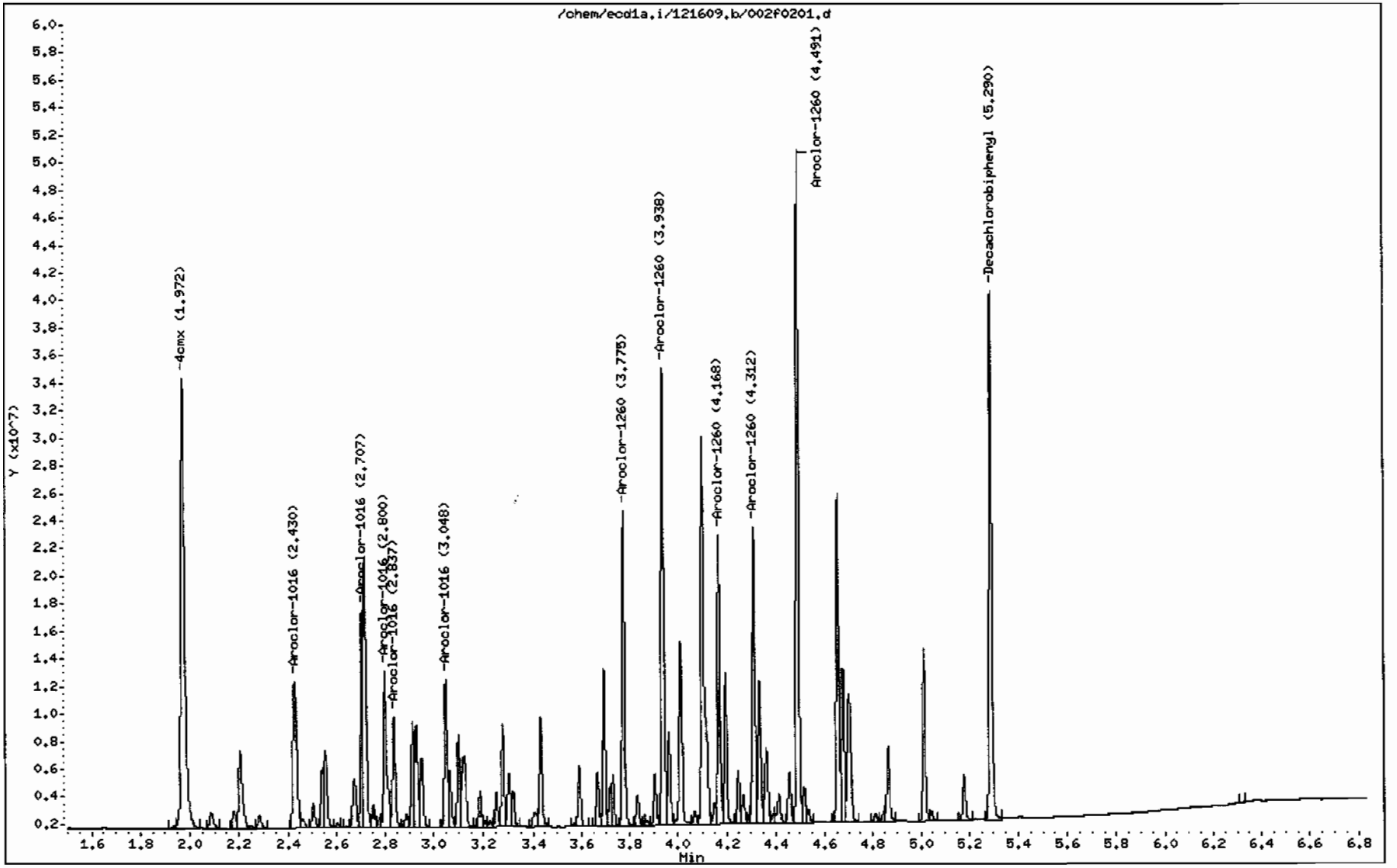

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/121609.b/002b0201.d
Lab Smp Id: WAR091211-60 01 Client Smp ID: AR166001
Inj Date : 16-DEC-2009 06:39
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR091211-60 01
Misc Info :
Comment :
Method : /chem/ecd1a.i/121609.b/ECD1-B-8082-121409.m
Meth Date : 17-Dec-2009 07:29 yip00818 Quant Type: ESTD
Cal Date : 14-DEC-2009 12:16 Cal File: 044b4401.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.303	2.303	0.000	28121527	100.000	93.7	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.950	5.950	0.000	21467303	100.000	92.0	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.201	3.201	0.000	11845265	1000.00	939	80.00- 120.00	100.00(M)
3.283	3.283	0.000	8019212	1000.00	860	47.27- 87.27	67.70
3.347	3.347	0.000	5005109	1000.00	925	21.95- 61.95	42.25
3.574	3.574	0.000	6330838	1000.00	898	35.11- 75.11	53.45
3.650	3.650	0.000	5990340	1000.00	914	31.28- 71.28	60.26
Average of Peak Amounts =					907		
7 Aroclor-1260					CAS #: 11096-82-5		
4.341	4.341	0.000	12633049	1000.00	923	80.00- 120.00	100.00
4.465	4.465	0.000	15575001	1000.00	972	103.29- 143.29	123.29
4.731	4.731	0.000	11771250	1000.00	937	74.88- 114.88	93.18
4.905	4.905	0.000	11994226	1000.00	936	77.49- 117.49	94.94
5.052	5.052	0.000	27263087	1000.00	977	203.67- 243.67	215.81
Average of Peak Amounts =					949		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd1a.i/121609.b/002b0201.d

Date : 16-DEC-2009 06:39

Client ID: AR166001

Sample Info: IWAR091211-60 01

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

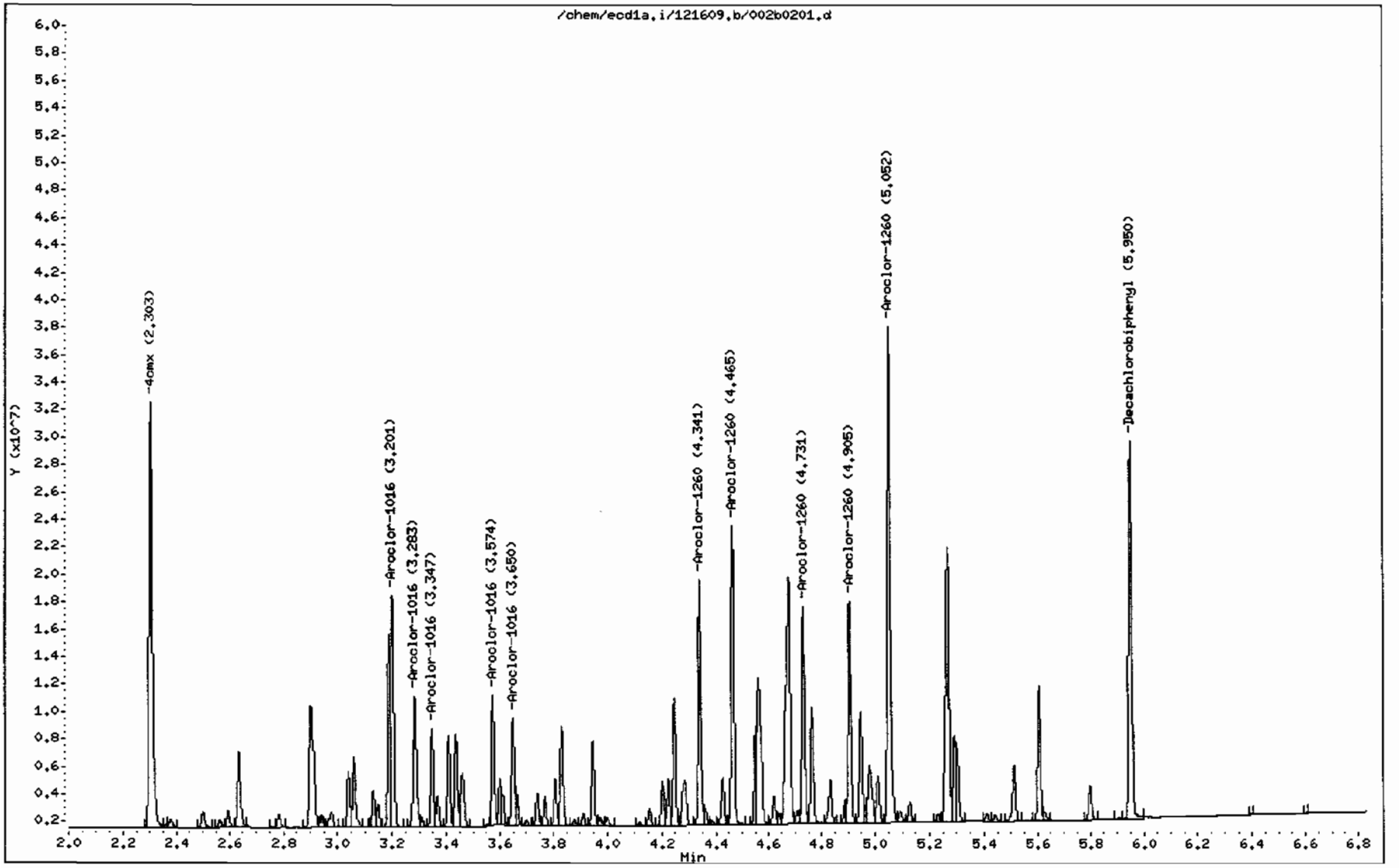

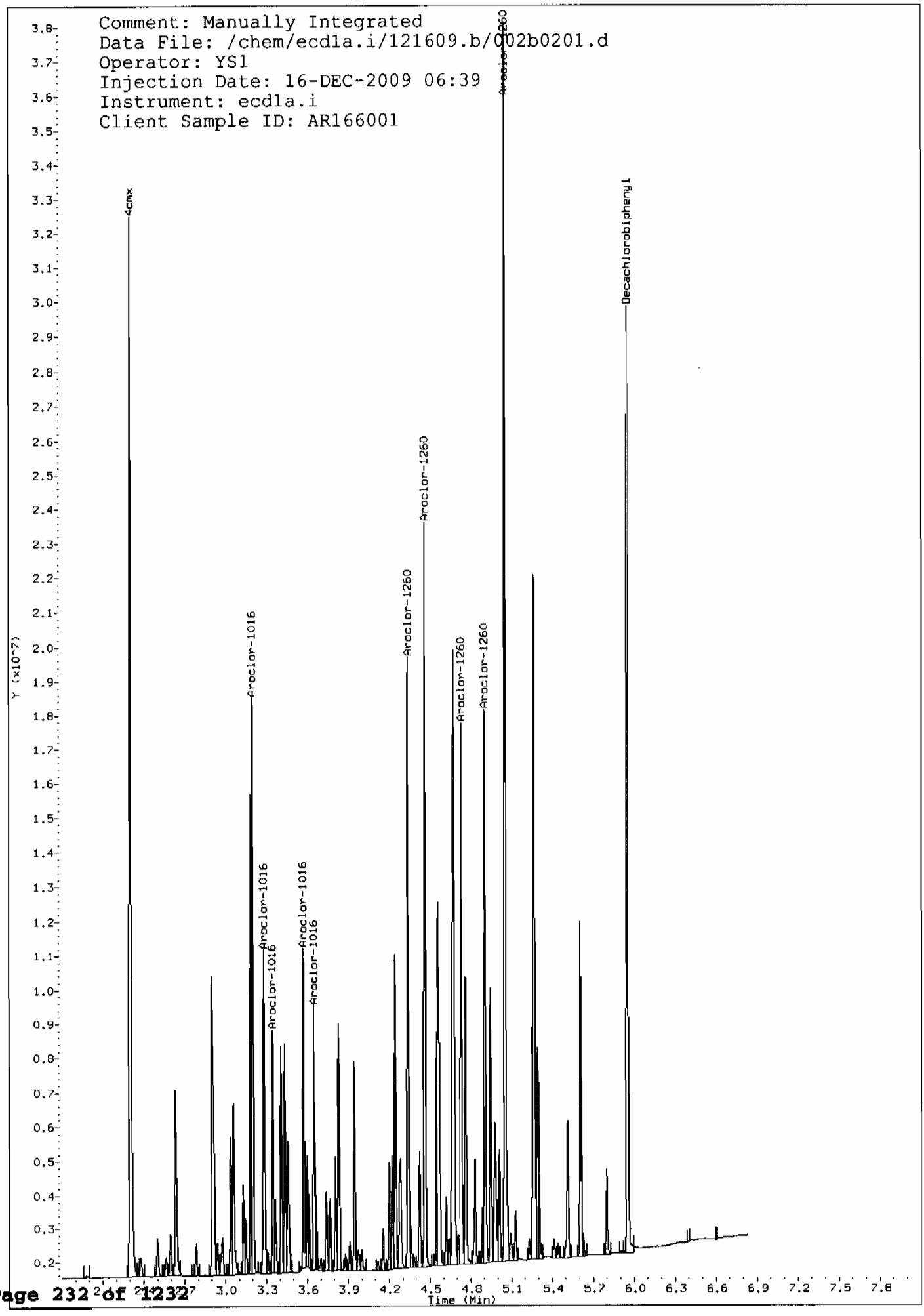
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Operator: YS1
Injection Date: 16-DEC-2009 06:39
Instrument: ecd1a.i
Client Sample ID: AR166001
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
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Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

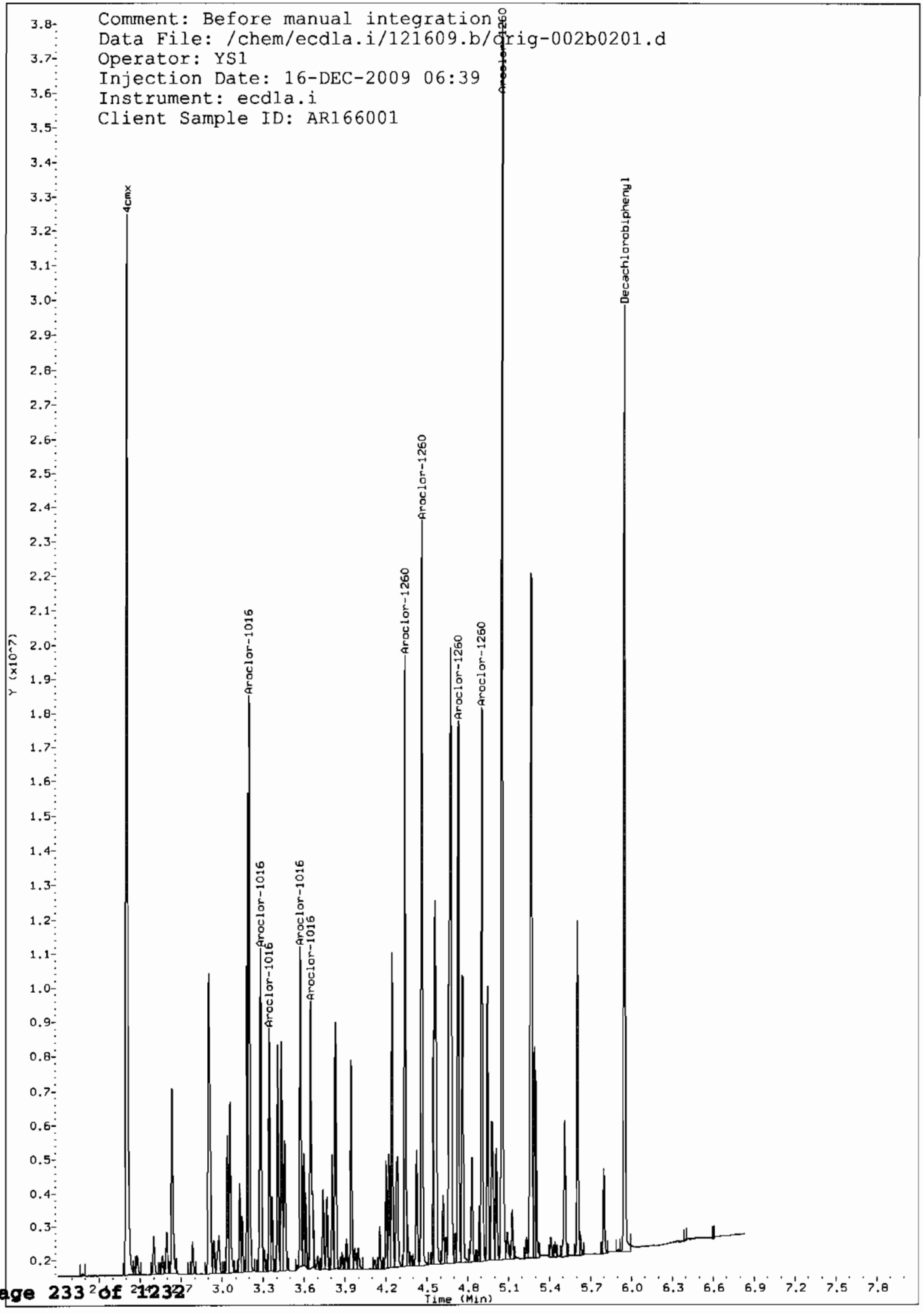
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Operator: YS1
Injection Date: 16-DEC-2009 06:39
Instrument: ecdla.i
Client Sample ID: AR166001
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/121609.b/004f0401.d
Lab Smp Id: WAR091102-42 Client Smp ID: AR124201
Inj Date : 16-DEC-2009 07:00
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR091102-42
Misc Info :
Comment :
Method : /chem/ecd1a.i/121609.b/ECD1-F-8082-121409.m
Meth Date : 17-Dec-2009 07:29 yip00818 Quant Type: ESTD
Cal Date : 14-DEC-2009 11:34 Cal File: 040f4001.d
Als bottle: 4 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1242.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.974	1.972	0.002	37840985	100.000	101	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.290	5.290	0.000	31080994	100.000	97.9	80.00- 120.00	100.00
4 Aroclor-1242					CAS #: 53469-21-9		
2.430	2.430	0.000	10697173	1000.00	917	80.00- 120.00	100.00
2.720	2.720	0.000	13676665	1000.00	1020	107.85- 147.85	127.85
2.839	2.839	0.000	5417859	1000.00	984	30.65- 70.65	50.65
3.049	3.049	0.000	7065274	1000.00	975	46.05- 86.05	66.05
3.303	3.303	0.000	7222050	1000.00	1060	47.51- 87.51	67.51
Average of Peak Amounts =					991		

Data File: /chem/ecd1a.i/121609.b/004f0401.d

Date : 16-DEC-2009 07:00

Client ID: AR124201

Sample Info: IWAR091102-42

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

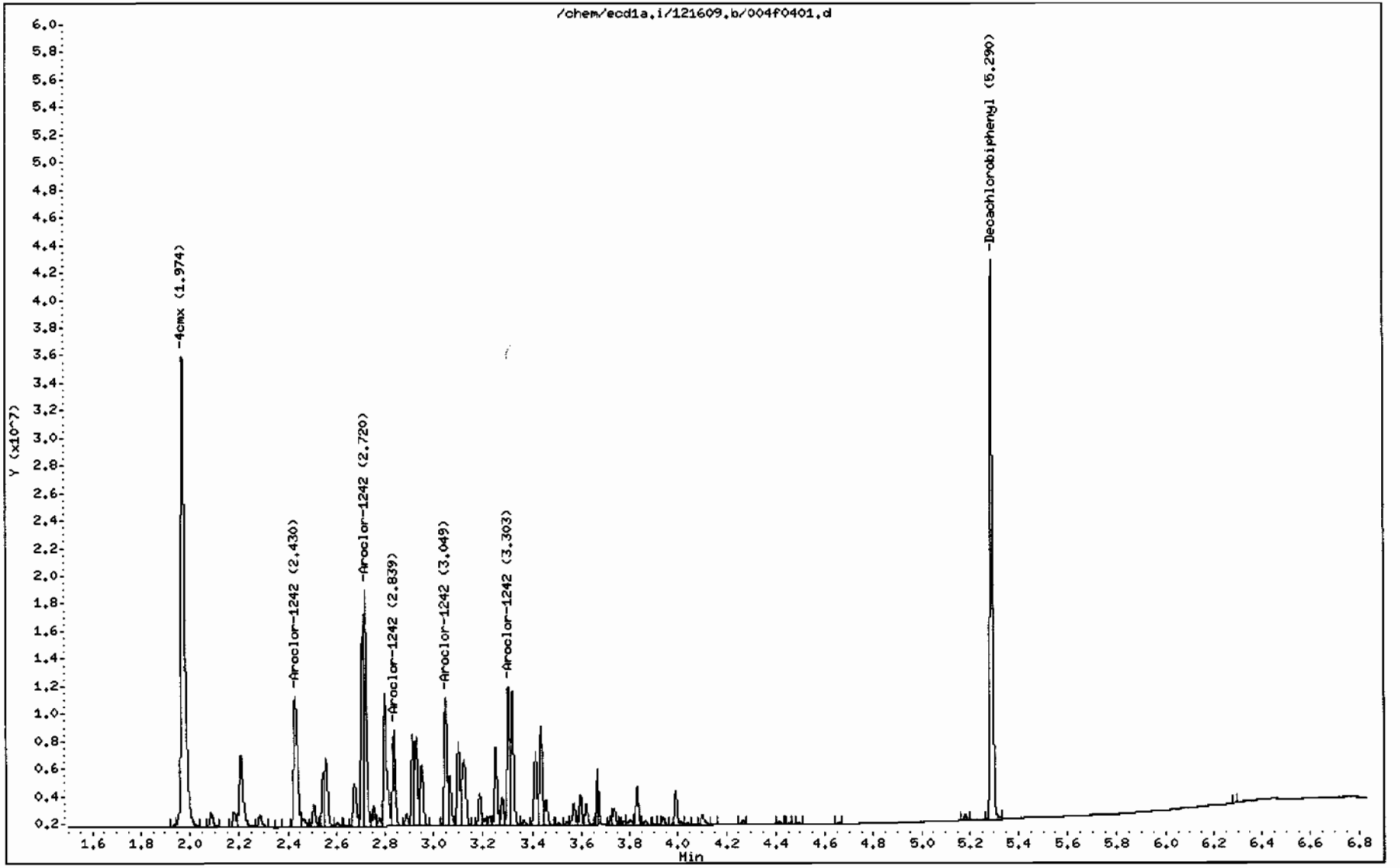

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/121609.b/004b0401.d
Lab Smp Id: WAR091102-42 Client Smp ID: AR124201
Inj Date : 16-DEC-2009 07:00
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR091102-42
Misc Info :
Comment :
Method : /chem/ecd1a.i/121609.b/ECD1-B-8082-121409.m
Meth Date : 17-Dec-2009 07:29 yip00818 Quant Type: ESTD
Cal Date : 14-DEC-2009 12:16 Cal File: 044b4401.d
Als bottle: 4 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1242.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.304	2.303	0.001	29192418	100.000	97.3	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.951	5.950	0.001	22183120	100.000	95.1	80.00- 120.00	100.00
4 Aroclor-1242					CAS #: 53469-21-9		
3.201	3.201	0.000	10432384	1000.00	985	80.00- 120.00	100.00
3.284	3.284	0.000	6908864	1000.00	858	46.23- 86.23	66.23
3.574	3.574	0.000	5524895	1000.00	927	32.96- 72.96	52.96
3.808	3.808	0.000	5851271	1000.00	966	36.09- 76.09	56.09
3.836	3.836	0.000	6475163	1000.00	966	42.07- 82.07	62.07
Average of Peak Amounts =					940		

Data File: /chem/ecd1a.i/121609.b/004b0401.d

Date : 16-DEC-2009 07:00

Client ID: AR124201

Sample Info: IWAR091102-42

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

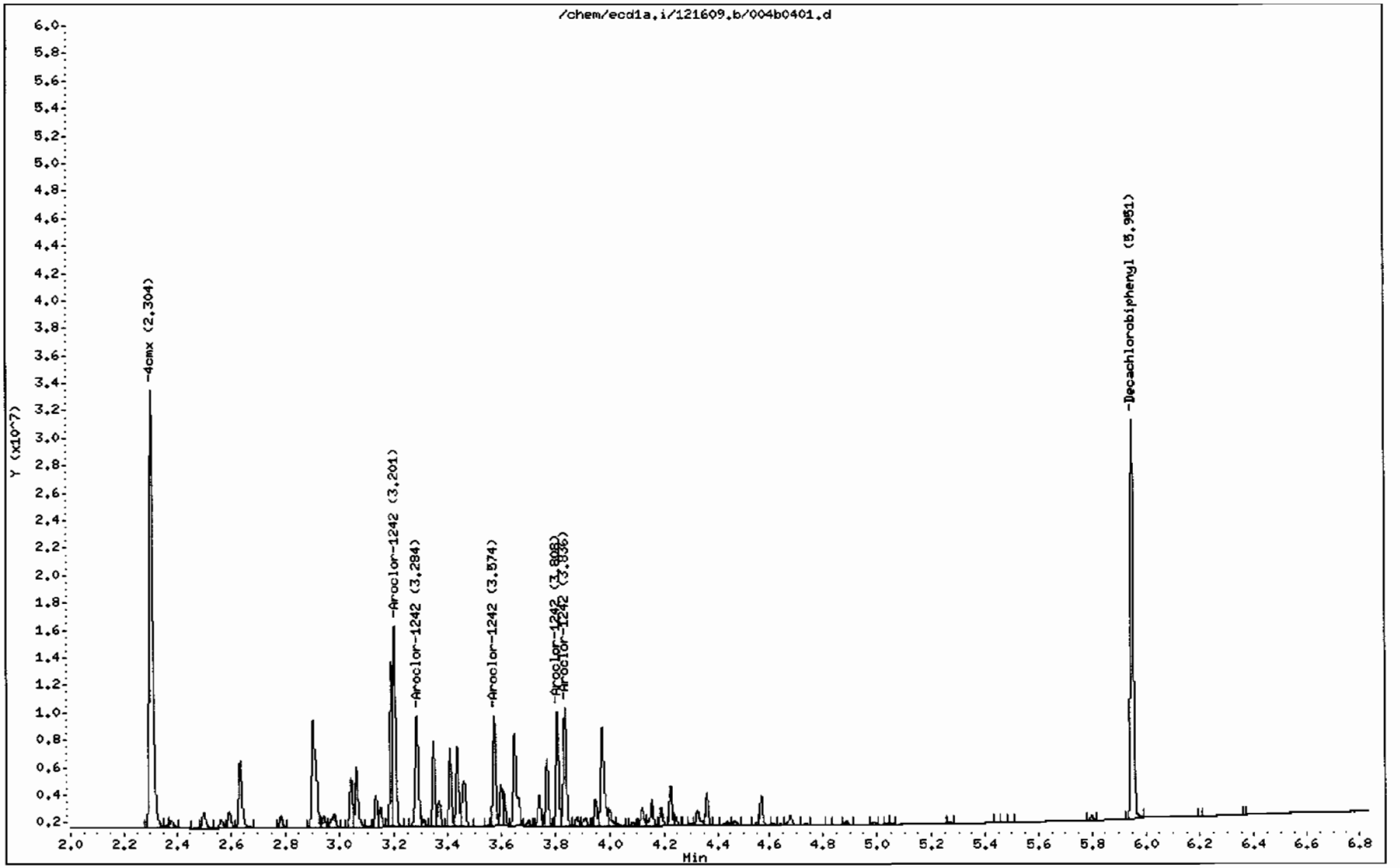

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdla.i/121609.b/005f0501.d
Lab Smp Id: WAR091027-48 Client Smp ID: AR124801
Inj Date : 16-DEC-2009 07:10
Operator : YS1 Inst ID: ecdla.i
Smp Info : |WAR091027-48
Misc Info :
Comment :
Method : /chem/ecdla.i/121609.b/ECD1-F-8082-121409.m
Meth Date : 17-Dec-2009 07:29 yip00818 Quant Type: ESTD
Cal Date : 14-DEC-2009 11:34 Cal File: 040f4001.d
Als bottle: 5 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1248.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.973	1.972	0.001	41664673	100.000	111	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.291	5.290	0.001	35464201	100.000	112	80.00- 120.00	100.00
5 Aroclor-1248					CAS #: 12672-29-6		
3.101	3.101	0.000	8278860	1000.00	1050	80.00- 120.00	100.00
3.252	3.252	0.000	7528449	1000.00	1100	70.94- 110.94	90.94
3.303	3.303	0.000	14754396	1000.00	1110	158.22- 198.22	178.22
3.435	3.435	0.000	11852525	1000.00	1080	123.17- 163.17	143.17
3.668	3.668	0.000	7661140	1000.00	1030	72.54- 112.54	92.54

Average of Peak Amounts = 1.07e+03

Data File: /chem/ecd1a.i/121609.b/005f0501.d
Date : 16-DEC-2009 07:10
Client ID: AR124801
Sample Info: IWAR091027-48

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1
Column diameter: 0.25

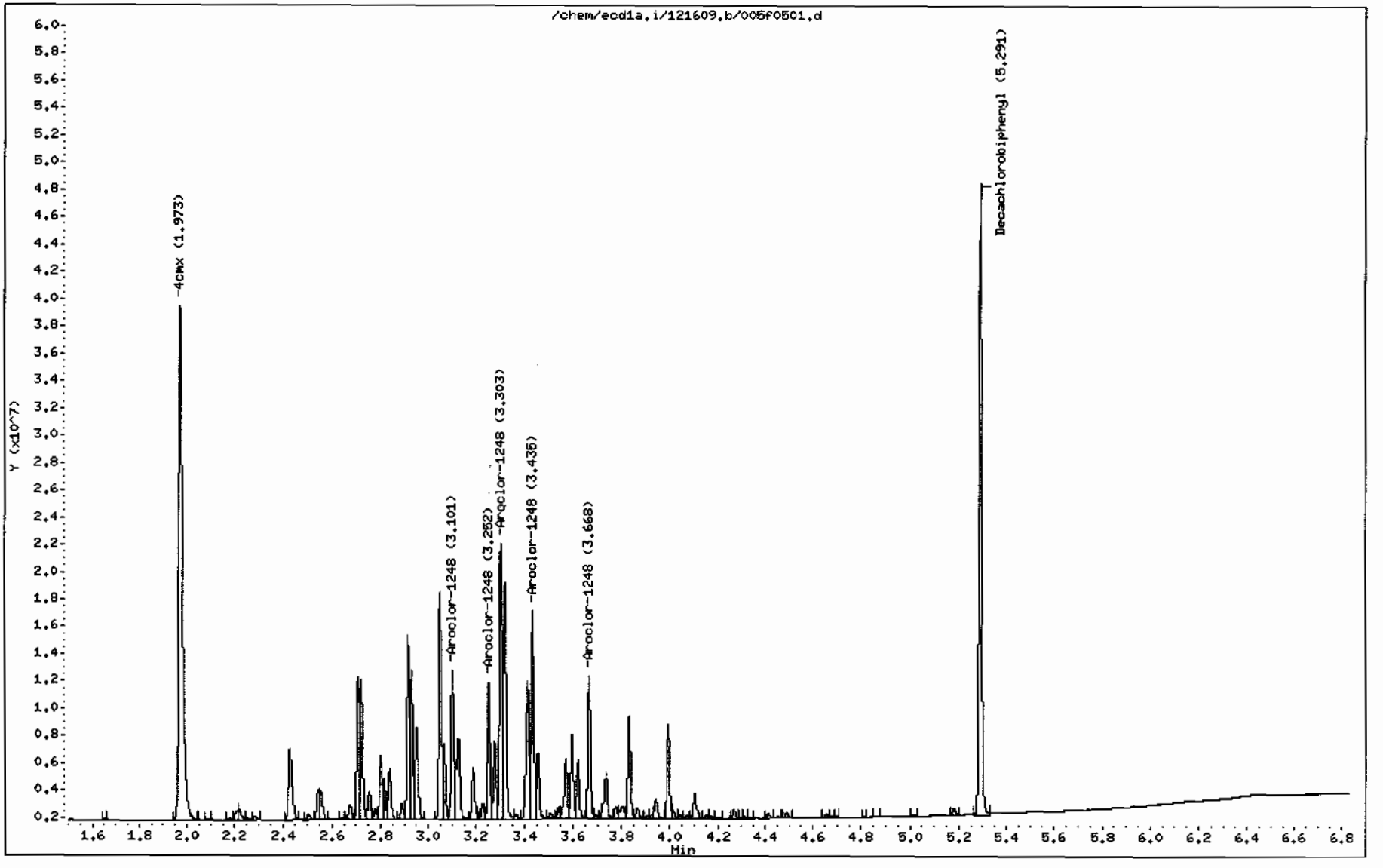

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/121609.b/005b0501.d
Lab Smp Id: WAR091027-48 Client Smp ID: AR124801
Inj Date : 16-DEC-2009 07:10
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR091027-48
Misc Info :
Comment :
Method : /chem/ecd1a.i/121609.b/ECD1-B-8082-121409.m
Meth Date : 17-Dec-2009 07:29 yip00818 Quant Type: ESTD
Cal Date : 14-DEC-2009 12:16 Cal File: 044b4401.d
Als bottle: 5 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1248.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.303	2.303	0.000	32365715	100.000	108	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.951	5.950	0.001	25096669	100.000	108	80.00- 120.00	100.00
5 Aroclor-1248					CAS #: 12672-29-6		
3.410	3.410	0.000	7874757	1000.00	978	80.00- 120.00	100.00
3.575	3.575	0.000	9899671	1000.00	1000	105.71- 145.71	125.71
3.809	3.809	0.000	11498194	1000.00	1020	126.01- 166.01	146.01
3.837	3.837	0.000	12728780	1000.00	1020	141.64- 181.64	161.64
3.973	3.973	0.000	12310878	1000.00	1020	136.33- 176.33	156.33

Average of Peak Amounts = 1.01e+03

Data File: /chem/ecd1a.i/121609.b/005b0501.d

Date : 16-DEC-2009 07:10

Client ID: AR124801

Sample Info: IWAR091027-48

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

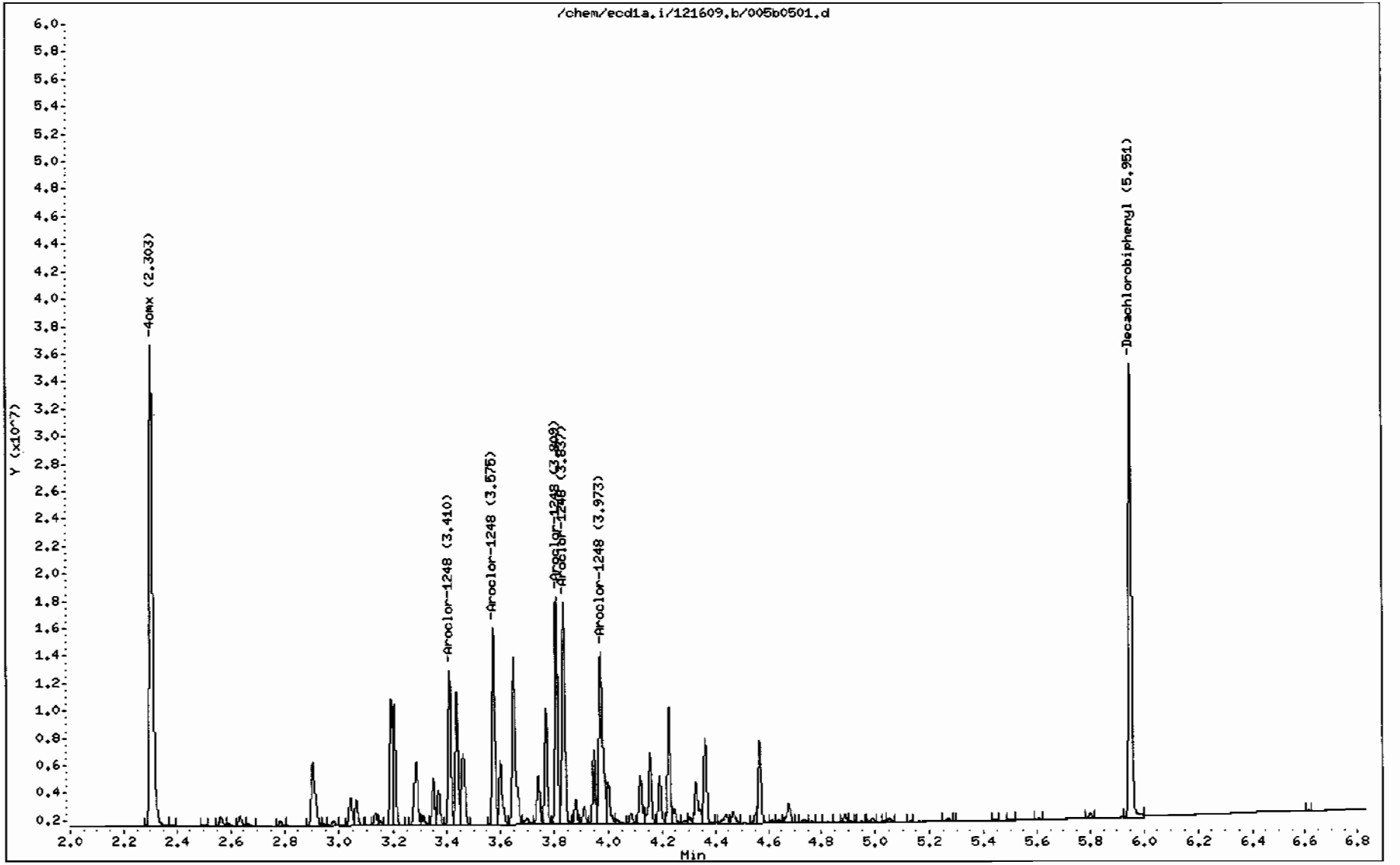

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/121609.b/006f0601.d
Lab Smp Id: WAR090930-32 Client Smp ID: AR123201
Inj Date : 16-DEC-2009 07:21
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR090930-32
Misc Info :
Comment :
Method : /chem/ecd1a.i/121609.b/ECD1-F-8082-121409.m
Meth Date : 17-Dec-2009 07:29 yip00818 Quant Type: ESTD
Cal Date : 14-DEC-2009 11:34 Cal File: 040f4001.d
Als bottle: 6 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1232.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.973	1.972	0.001	51235543	100.000	136	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.290	5.290	0.000	42714674	100.000	134	80.00- 120.00	100.00
3 Aroclor-1232					CAS #: 11141-16-5		
2.430	2.430	0.000	6974323	1000.00	1040	80.00- 120.00	100.00
2.719	2.719	0.000	8900204	1000.00	1090	107.61- 147.61	127.61
2.800	2.800	0.000	5974406	1000.00	1040	65.66- 105.66	85.66
3.049	3.049	0.000	4410116	1000.00	1120	43.23- 83.23	63.23
3.303	3.303	0.000	4252706	1000.00	1200	40.98- 80.98	60.98

Average of Peak Amounts = 1.1e+03

Data File: /chem/ecd1a.i/121609.b/006f0601.d

Date : 16-DEC-2009 07:21

Client ID: AR123201

Sample Info: IWAR090930-32

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

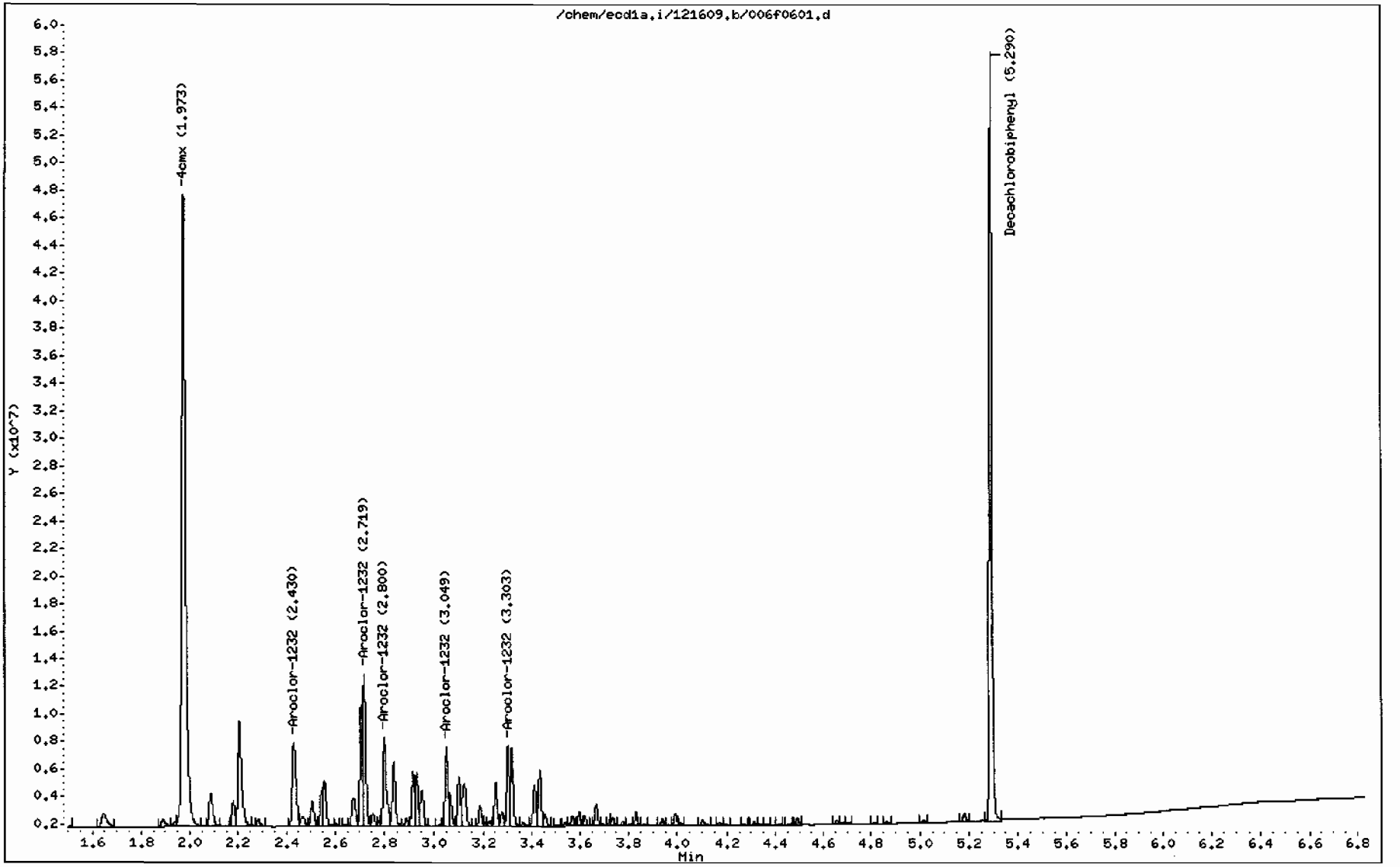

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/121609.b/006b0601.d
Lab Smp Id: WAR090930-32 Client Smp ID: AR123201
Inj Date : 16-DEC-2009 07:21
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR090930-32
Misc Info :
Comment :
Method : /chem/ecd1a.i/121609.b/ECD1-B-8082-121409.m
Meth Date : 17-Dec-2009 07:29 yip00818 Quant Type: ESTD
Cal Date : 14-DEC-2009 12:16 Cal File: 044b4401.d
Als bottle: 6 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1232.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.303	2.303	0.000	39106080	100.000	130	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.951	5.950	0.001	30315268	100.000	130	80.00- 120.00	100.00
3 Aroclor-1232					CAS #: 11141-16-5		
2.636	2.636	0.000	6130202	1000.00	996	80.00- 120.00	100.00
3.201	3.201	0.000	6920831	1000.00	1100	92.90- 132.90	112.90
3.284	3.284	0.000	4627388	1000.00	984	55.49- 95.49	75.49
3.575	3.575	0.000	3485394	1000.00	1070	36.86- 76.86	56.86
3.808	3.808	0.000	3484902	1000.00	1100	36.85- 76.85	56.85

Average of Peak Amounts = 1.05e+03

Data File: /chem/ecd1a.i/121609.b/006b0601.d

Date : 16-DEC-2009 07:21

Client ID: AR123201

Sample Info: IWAR090930-32

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

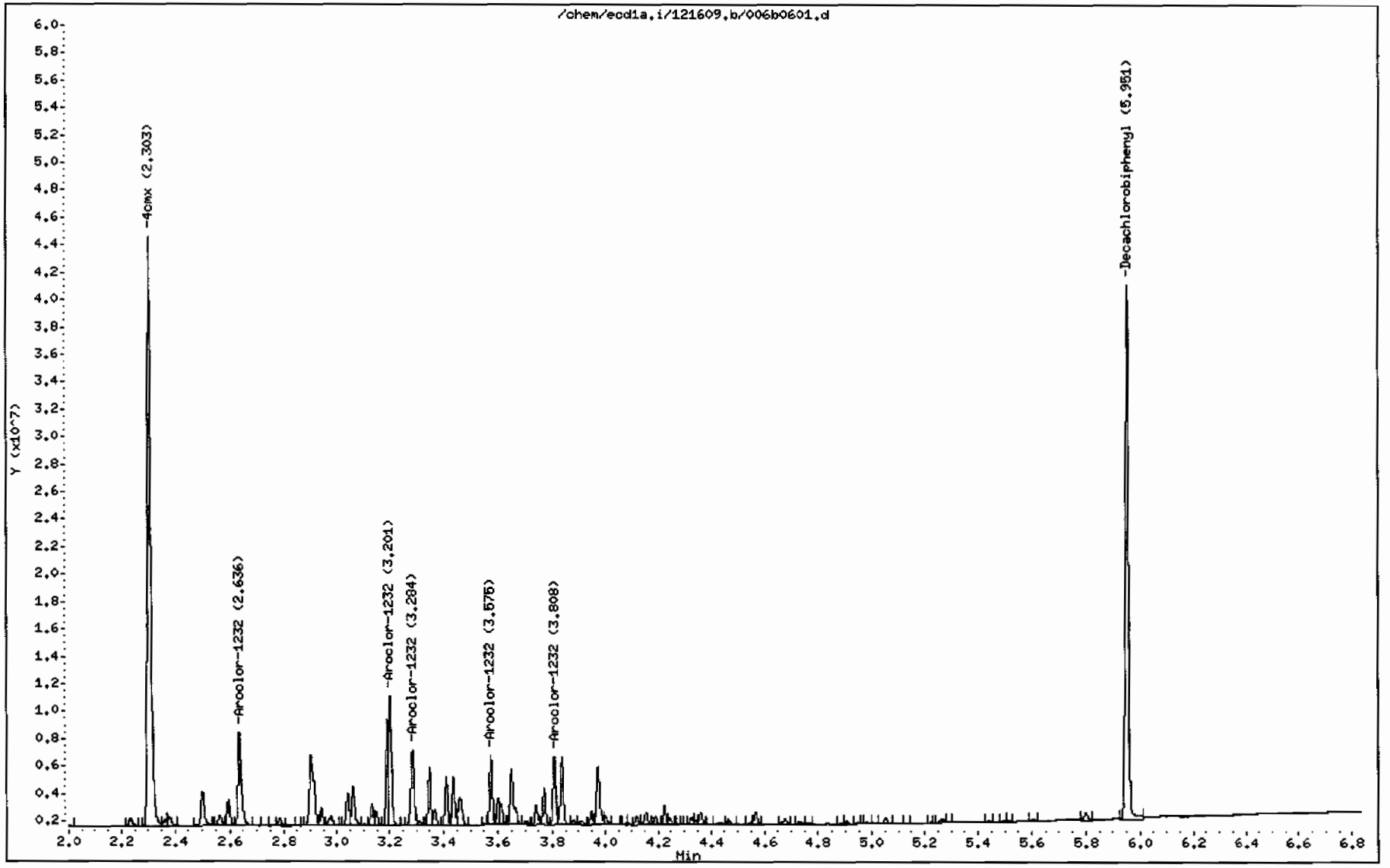

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/121609.b/008f0801.d
Lab Smp Id: WAR090803-21 Client Smp ID: AR122101
Inj Date : 16-DEC-2009 07:42
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR090803-21
Misc Info :
Comment :
Method : /chem/ecd1a.i/121609.b/ECD1-F-8082-121409.m
Meth Date : 17-Dec-2009 07:29 yip00818 Quant Type: ESTD
Cal Date : 14-DEC-2009 11:34 Cal File: 040f4001.d
Als bottle: 8 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1221.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.973	1.972	0.001	38649286	100.000	103	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.290	5.290	0.000	32840010	100.000	103	80.00- 120.00	100.00
2 Aroclor-1221					CAS #: 11104-28-2		
2.086	2.086	0.000	4438417	1000.00	1030	80.00- 120.00	100.00
2.180	2.180	0.000	2551623	1000.00	1040	37.49- 77.49	57.49
2.205	2.205	0.000	10731329	1000.00	1040	221.78- 261.78	241.78

Average of Peak Amounts = 1.04e+03

Data File: /chem/ecd1a.i/121609.b/008f0801.d

Page 1

Date : 16-DEC-2009 07:42

Client ID: AR122101

Instrument: ecd1a.i

Sample Info: IWAR090803-21

Operator: YS1

Column phase: CLP1

Column diameter: 0.25

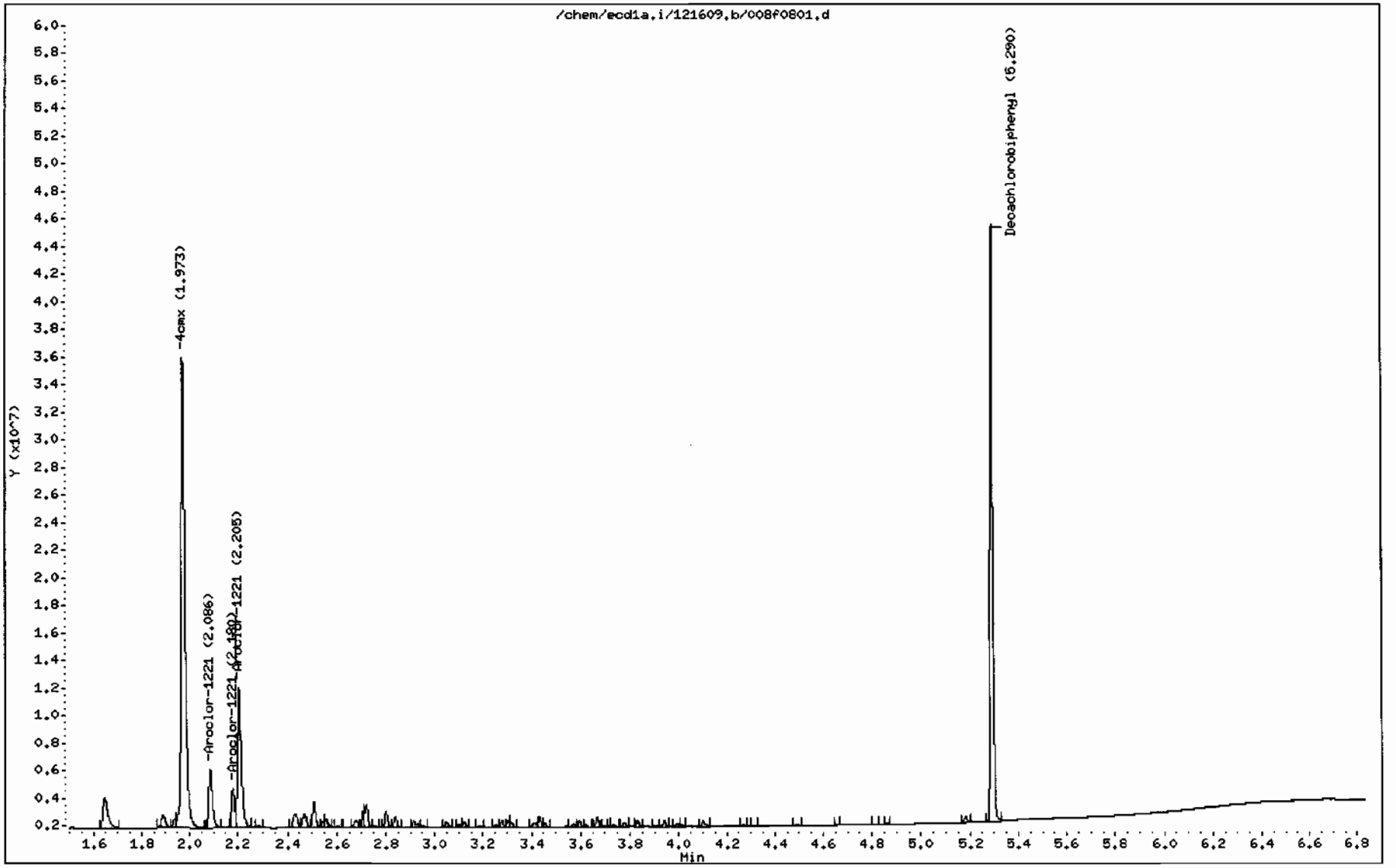

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/121609.b/008b0801.d
Lab Smp Id: WAR090803-21 Client Smp ID: AR122101
Inj Date : 16-DEC-2009 07:42
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR090803-21
Misc Info :
Comment :
Method : /chem/ecd1a.i/121609.b/ECD1-B-8082-121409.m
Meth Date : 17-Dec-2009 07:29 yip00818 Quant Type: ESTD
Cal Date : 14-DEC-2009 12:16 Cal File: 044b4401.d
Als bottle: 8 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1221.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.304	2.303	0.001	29456505	100.000	98.2	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.950	5.950	0.000	22953168	100.000	98.4	80.00- 120.00	100.00
2 Aroclor-1221					CAS #: 11104-28-2		
2.501	2.501	0.000	3643456	1000.00	1000	80.00- 120.00	100.00
2.595	2.595	0.000	2343599	1000.00	1010	44.32- 84.32	64.32
2.636	2.636	0.000	8187844	1000.00	1010	204.73- 244.73	224.73

Average of Peak Amounts = 1.01e+03

Data File: /chem/ecd1a.i/121609.b/008b0801.d

Date : 16-DEC-2009 07:42

Client ID: AR122101

Sample Info: IWAR090803-21

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

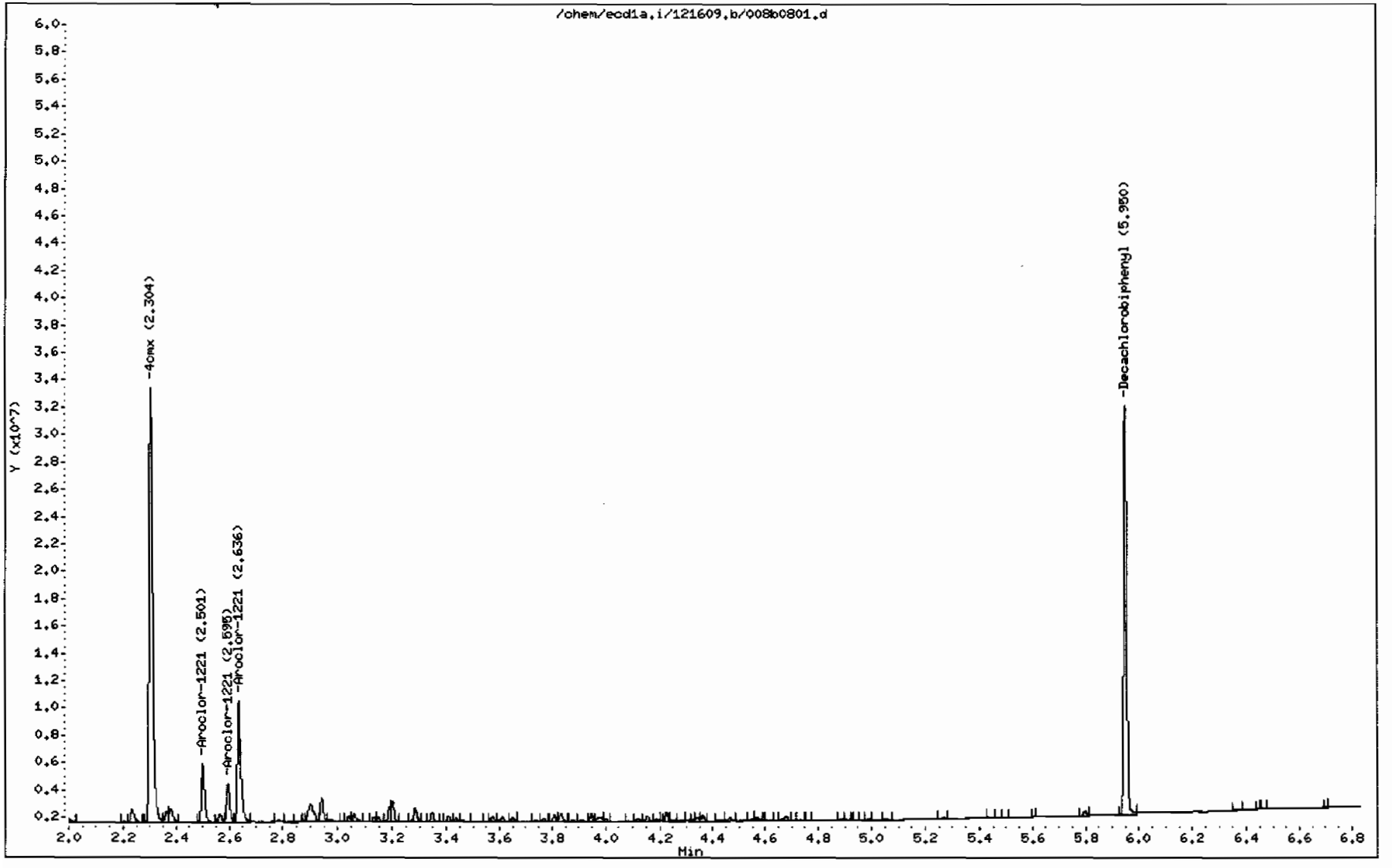

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/121609.b/011f1101.d
Lab Smp Id: WAR091216-54 Client Smp ID: AR125401
Inj Date : 16-DEC-2009 08:13
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR091216-54
Misc Info :
Comment :
Method : /chem/ecd1a.i/121609.b/ECD1-F-8082-121409.m
Meth Date : 17-Dec-2009 07:29 yip00818 Quant Type: ESTD
Cal Date : 14-DEC-2009 11:34 Cal File: 040f4001.d
Als bottle: 11 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1254.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.973	1.972	0.001	37462929	100.000	99.7	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.289	5.290	-0.001	32062309	100.000	101	80.00- 120.00	100.00
6 Aroclor-1254					CAS #: 11097-69-1		
3.277	3.277	0.000	11740439	1000.00	940	80.00- 120.00	100.00
3.433	3.433	0.000	16181025	1000.00	968	117.82- 157.82	137.82
3.667	3.667	0.000	21464495	1000.00	1040	162.83- 202.83	182.83
3.830	3.830	0.000	16587894	1000.00	1060	121.29- 161.29	141.29
3.939	3.939	0.000	15558659	1000.00	1020	112.52- 152.52	132.52

Average of Peak Amounts = 1.01e+03

Data File: /chem/ecd1a.i/121609.b/011f1101.d

Date : 16-DEC-2009 08:13

Client ID: AR125401

Sample Info: IWAR091216-54

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

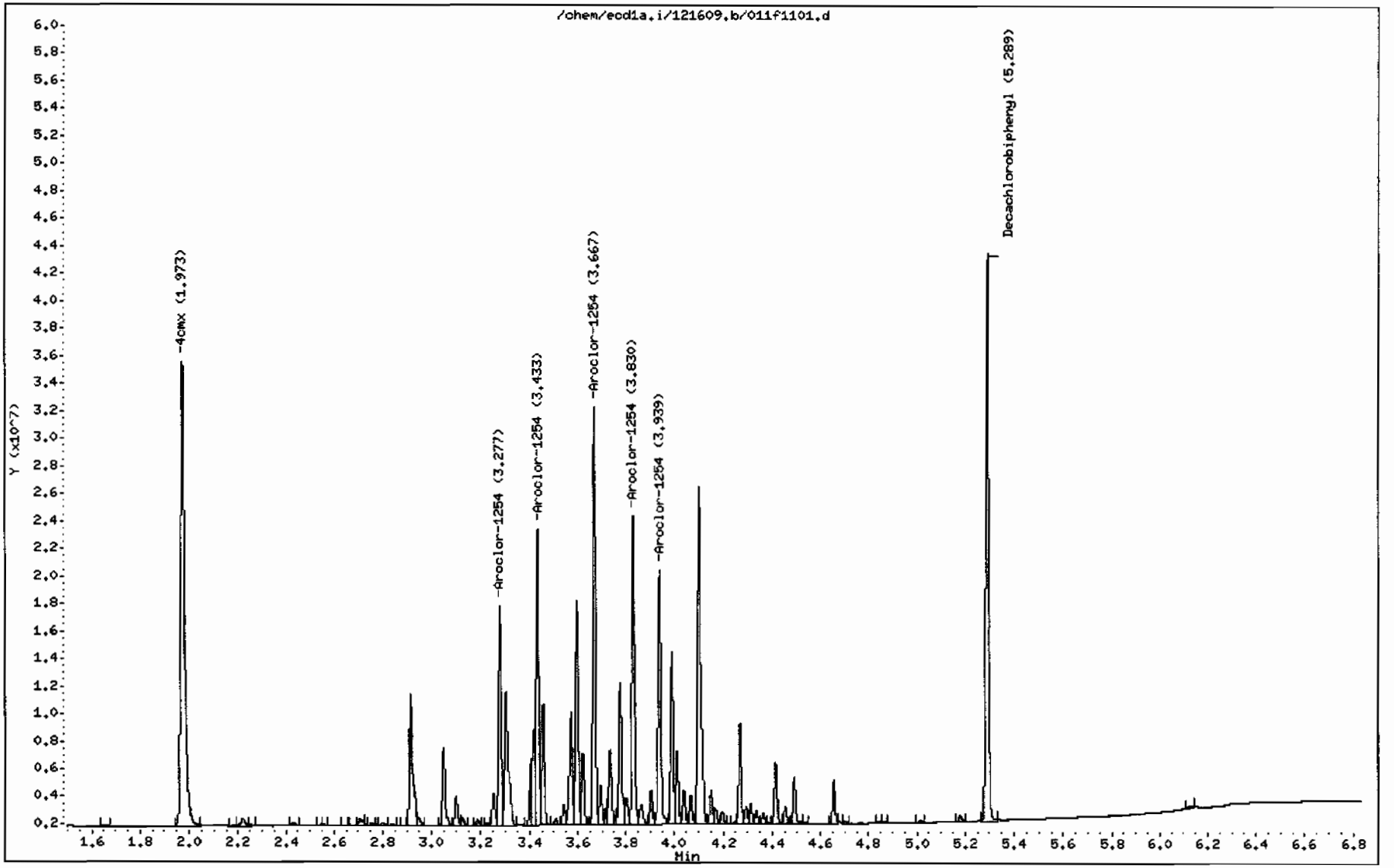

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/121609.b/011b1101.d
Lab Smp Id: WAR091216-54 Client Smp ID: AR125401
Inj Date : 16-DEC-2009 08:13
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR091216-54
Misc Info :
Comment :
Method : /chem/ecd1a.i/121609.b/ECD1-B-8082-121409.m
Meth Date : 17-Dec-2009 07:29 yip00818 Quant Type: ESTD
Cal Date : 14-DEC-2009 12:16 Cal File: 044b4401.d
Als bottle: 11 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1254.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.303	2.303	0.000	29140043	100.000	97.1	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.950	5.950	0.000	22581159	100.000	96.8	80.00- 120.00	100.00
6 Aroclor-1254					CAS #: 11097-69-1		
3.409	3.409	0.000	5764247	1000.00	896	80.00- 120.00	100.00
3.832	3.832	0.000	10391118	1000.00	899	160.27- 200.27	180.27
3.947	3.947	0.000	11639160	1000.00	936	181.92- 221.92	201.92
4.224	4.224	0.000	16398545	1000.00	971	264.49- 304.49	284.49
4.360	4.360	0.000	12242599	1000.00	984	192.39- 232.39	212.39
		Average of Peak Amounts =			937		

Data File: /chem/ecd1a.i/121609.b/011b1101.d

Date : 16-DEC-2009 08:13

Client ID: AR125401

Sample Info: IWAR091216-54

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

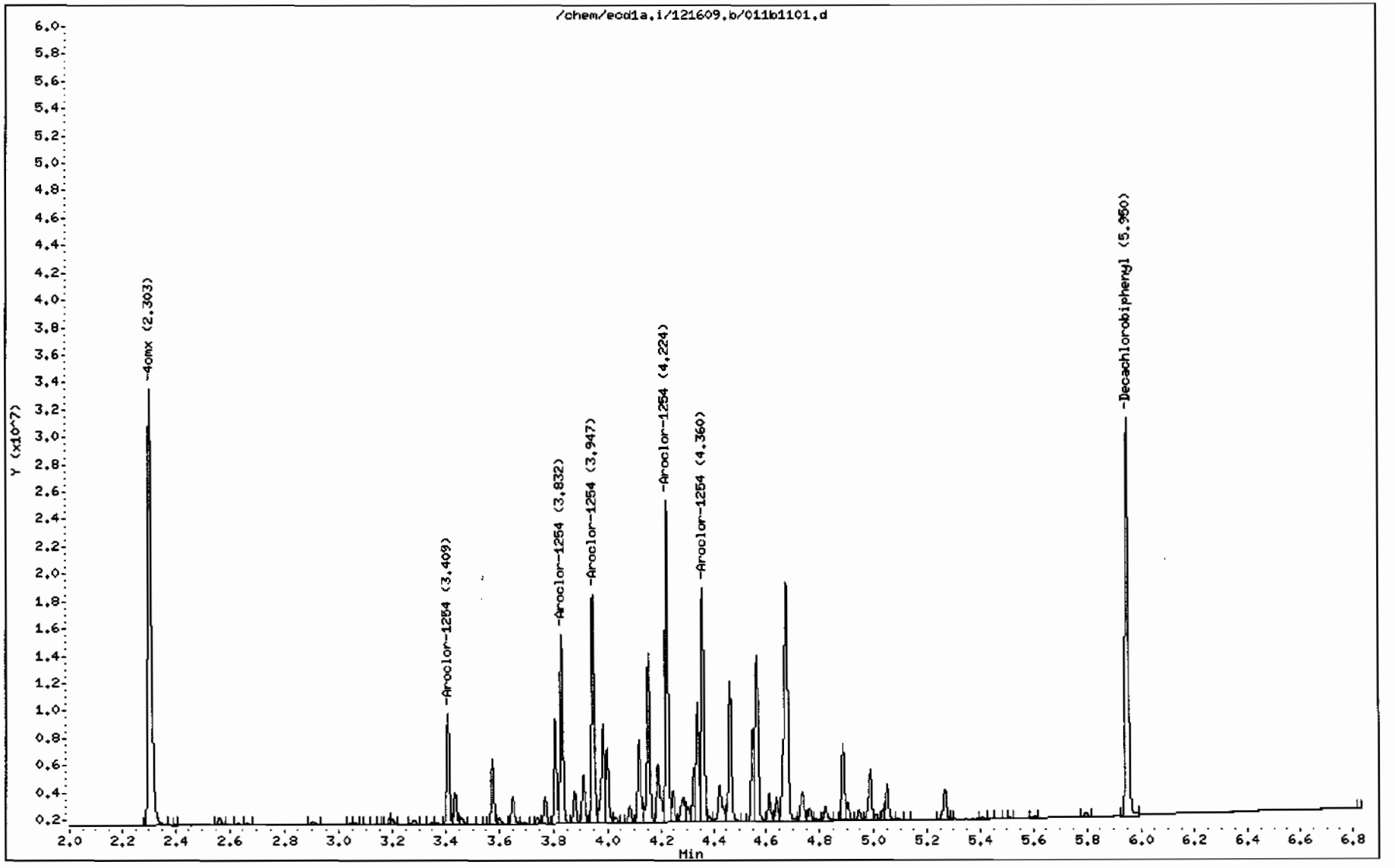

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/121609.b/050f5001.d
Lab Smp Id: WAR091211-60 05 Client Smp ID: AR166005
Inj Date : 16-DEC-2009 16:00
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR091211-60 05
Misc Info :
Comment :
Method : /chem/ecd1a.i/121609.b/ECD1-F-8082-121409.m
Meth Date : 16-Dec-2009 16:54 yip00818 Quant Type: ESTD
Cal Date : 14-DEC-2009 11:34 Cal File: 040f4001.d
Als bottle: 50 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.973	1.972	0.001	37815004	100.000	101	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.287	5.290	-0.003	30724606	100.000	96.8	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.428	2.430	-0.002	12501405	1000.00	902	80.00- 120.00	100.00
2.706	2.707	-0.001	10743225	1000.00	1060	65.94- 105.94	85.94
2.798	2.800	-0.002	10715850	1000.00	911	65.72- 105.72	85.72
2.836	2.837	-0.001	6502213	1000.00	985	32.01- 72.01	52.01
3.047	3.048	-0.001	8295816	1000.00	956	46.36- 86.36	66.36
Average of Peak Amounts =					964		
7 Aroclor-1260					CAS #: 11096-82-5		
3.773	3.775	-0.002	16419827	1000.00	980	80.00- 120.00	100.00
3.936	3.938	-0.002	25459040	1000.00	1030	135.05- 175.05	155.05
4.166	4.168	-0.002	15089459	1000.00	1030	71.90- 111.90	91.90
4.309	4.312	-0.003	15503850	1000.00	1020	74.42- 114.42	94.42
4.488	4.491	-0.003	36107879	1000.00	1050	199.90- 239.90	219.90
Average of Peak Amounts =					1.02e+03		

Data File: /chem/ecd1a.i/121609.b/050f5001.d

Date : 16-DEC-2009 16:00

Client ID: AR166005

Sample Info: IWAR091211-60 05

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

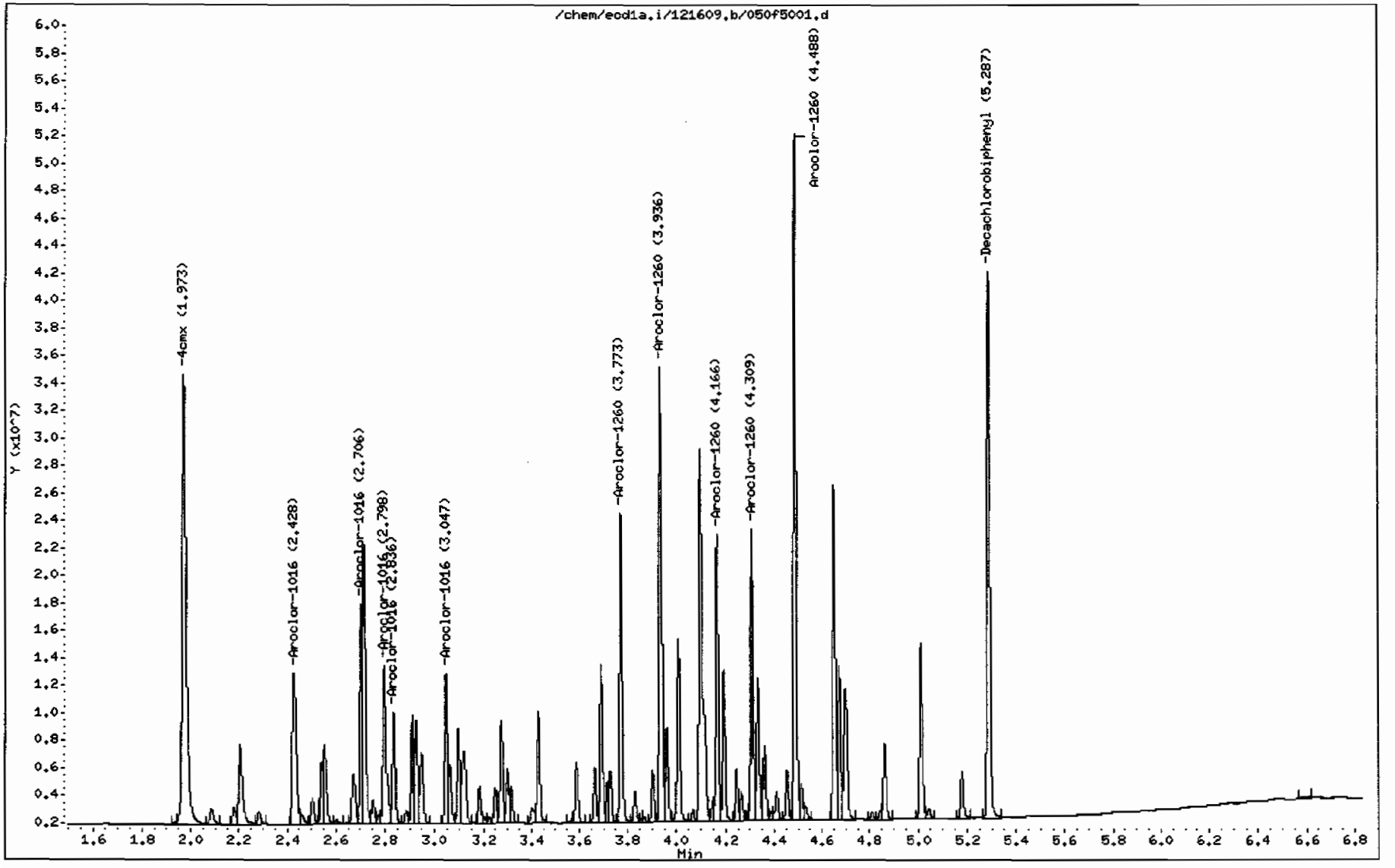

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/121609.b/050b5001.d
Lab Smp Id: WAR091211-60 05 Client Smp ID: AR166005
Inj Date : 16-DEC-2009 16:00
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR091211-60 05
Misc Info :
Comment :
Method : /chem/ecd1a.i/121609.b/ECD1-B-8082-121409.m
Meth Date : 16-Dec-2009 16:55 yip00818 Quant Type: ESTD
Cal Date : 14-DEC-2009 12:16 Cal File: 044b4401.d
Als bottle: 50 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.303	2.303	0.000	29117426	100.000	97.0	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.949	5.950	-0.001	21513844	100.000	92.2	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.199	3.201	-0.002	12399906	1000.00	983	80.00- 120.00	100.00(M)
3.283	3.283	0.000	8081502	1000.00	866	45.17- 85.17	65.17
3.346	3.347	-0.001	5006397	1000.00	925	20.37- 60.37	40.37
3.573	3.574	-0.001	6299966	1000.00	893	30.81- 70.81	50.81
3.648	3.650	-0.002	6004756	1000.00	917	28.43- 68.43	48.43
Average of Peak Amounts =					917		
7 Aroclor-1260					CAS #: 11096-82-5		
4.339	4.341	-0.002	12350992	1000.00	903	80.00- 120.00	100.00
4.463	4.465	-0.002	15214728	1000.00	949	103.19- 143.19	123.19
4.730	4.731	-0.001	11569713	1000.00	921	73.67- 113.67	93.67
4.903	4.905	-0.002	11722896	1000.00	915	74.91- 114.91	94.91
5.050	5.052	-0.002	26851487	1000.00	962	197.40- 237.40	217.40
Average of Peak Amounts =					930		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd1a.i/121609.b/050b5001.d

Date : 16-DEC-2009 16:00

Client ID: AR166005

Sample Info: IWAR091211-60 05

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

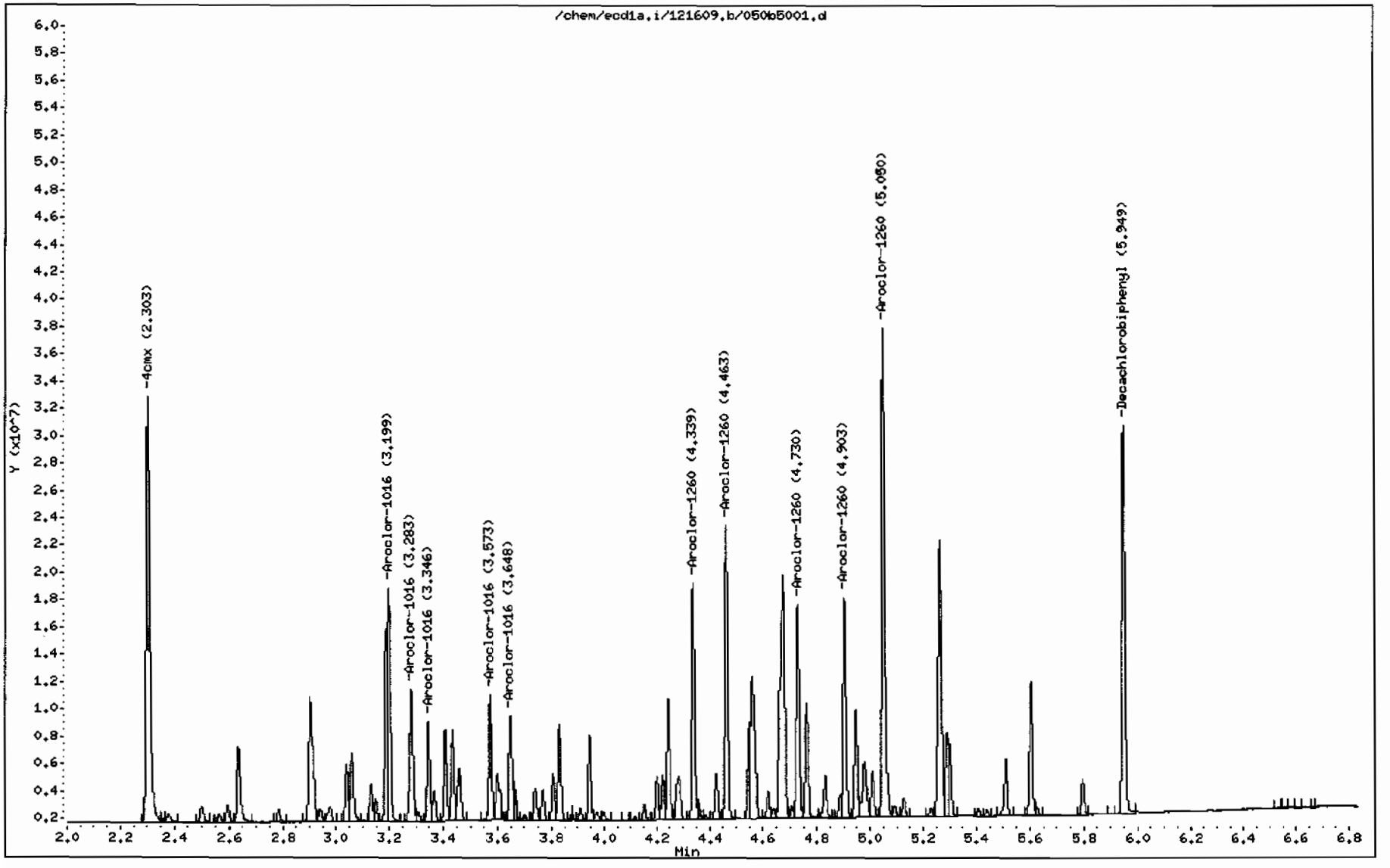

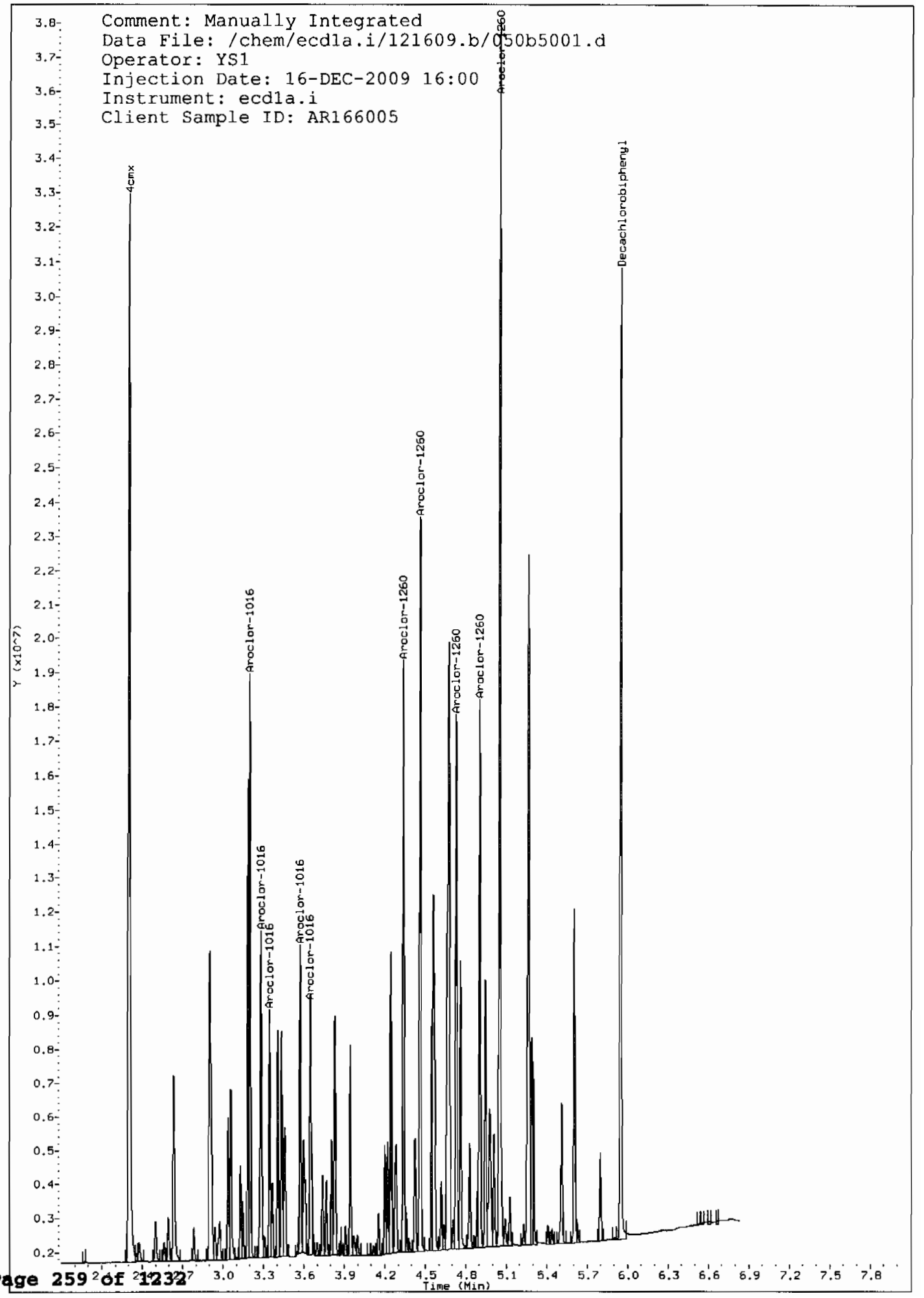
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Operator: YS1
Injection Date: 16-DEC-2009 16:00
Instrument: ecd1a.i
Client Sample ID: AR166005
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

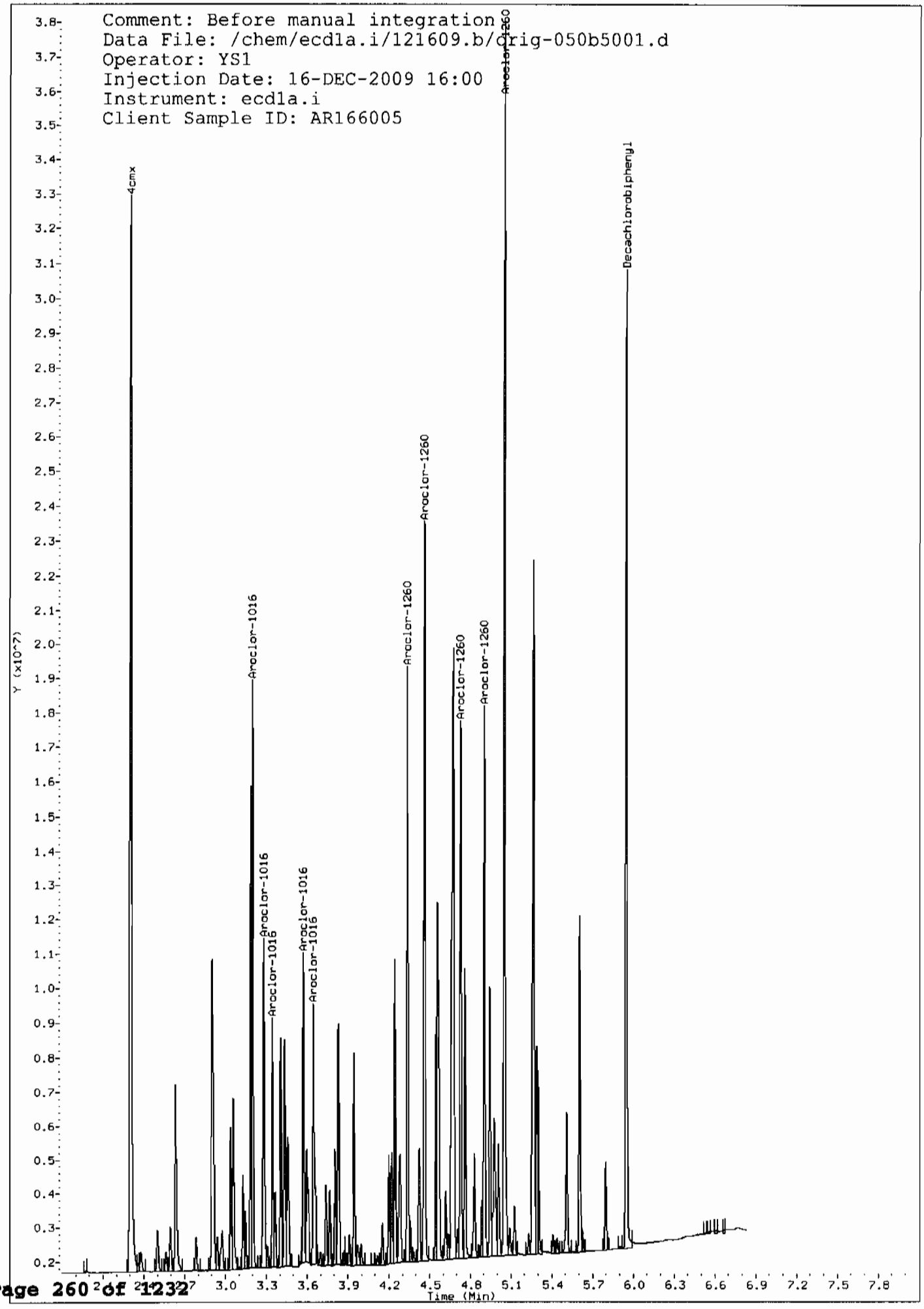
Comment: Before manual integration
Data File: /chem/ecd1a.i/121609.b/orig-050b5001.d
Operator: YS1
Injection Date: 16-DEC-2009 16:00
Instrument: ecd1a.i
Client Sample ID: AR166005
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/121609.b/062f6201.d
Lab Smp Id: WAR091211-60 06 Client Smp ID: AR166006
Inj Date : 16-DEC-2009 18:23
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR091211-60 06
Misc Info :
Comment :
Method : /chem/ecd1a.i/121609.b/ECD1-F-8082-121409.m
Meth Date : 17-Dec-2009 07:24 yip00818 Quant Type: ESTD
Cal Date : 14-DEC-2009 11:34 Cal File: 040f4001.d
Als bottle: 62 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.973	1.972	0.001	37393177	100.000	99.5	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.287	5.290	-0.003	32000962	100.000	101	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.429	2.430	-0.001	12394036	1000.00	894	80.00- 120.00	100.00
2.706	2.707	-0.001	10254172	1000.00	1020	62.73- 102.73	82.73
2.798	2.800	-0.002	10707281	1000.00	911	66.39- 106.39	86.39
2.837	2.837	0.000	6451324	1000.00	978	32.05- 72.05	52.05
3.047	3.048	-0.001	8202521	1000.00	946	46.18- 86.18	66.18
Average of Peak Amounts =					949		
7 Aroclor-1260					CAS #: 11096-82-5		
3.773	3.775	-0.002	16703466	1000.00	997	80.00- 120.00	100.00
3.937	3.938	-0.001	25828003	1000.00	1040	134.63- 174.63	154.63
4.167	4.168	-0.001	15347448	1000.00	1040	71.88- 111.88	91.88
4.310	4.312	-0.002	15947036	1000.00	1050	75.47- 115.47	95.47
4.489	4.491	-0.002	37170253	1000.00	1080	202.53- 242.53	222.53
Average of Peak Amounts =					1.04e+03		

Data File: /chem/ecd1a.i/121609.b/062f6201.d

Date : 16-DEC-2009 18:23

Client ID: AR166006

Sample Info: !WAR091211-60 06

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

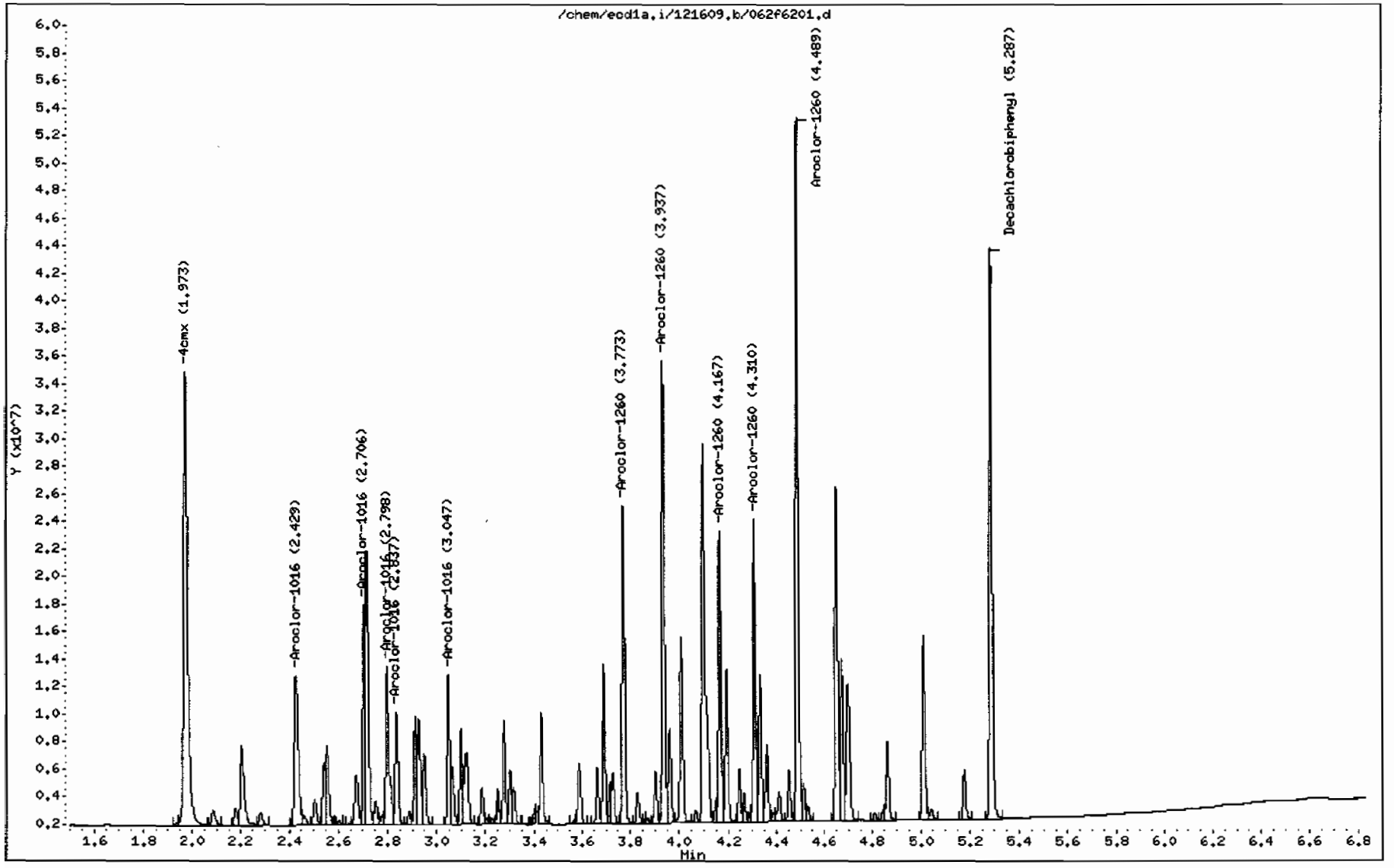

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/121609.b/062b6201.d
Lab Smp Id: WAR091211-60 06 Client Smp ID: AR166006
Inj Date : 16-DEC-2009 18:23
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR091211-60 06
Misc Info :
Comment :
Method : /chem/ecd1a.i/121609.b/ECD1-B-8082-121409.m
Meth Date : 17-Dec-2009 07:24 yip00818 Quant Type: ESTD
Cal Date : 14-DEC-2009 12:16 Cal File: 044b4401.d
Als bottle: 62 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.302	2.303	-0.001	28678932	100.000	95.6	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.949	5.950	-0.001	22978104	100.000	98.5	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.200	3.201	-0.001	12305259	1000.00	976	80.00- 120.00	100.00
3.282	3.283	-0.001	8093066	1000.00	868	45.77- 85.77	65.77
3.347	3.347	0.000	5040305	1000.00	931	20.96- 60.96	40.96
3.573	3.574	-0.001	6572321	1000.00	932	33.41- 73.41	53.41
3.649	3.650	-0.001	6083776	1000.00	929	29.44- 69.44	49.44
Average of Peak Amounts =					927		
7 Aroclor-1260					CAS #: 11096-82-5		
4.339	4.341	-0.002	12697285	1000.00	928	80.00- 120.00	100.00
4.464	4.465	-0.001	15734960	1000.00	982	103.92- 143.92	123.92
4.730	4.731	-0.001	11992577	1000.00	954	74.45- 114.45	94.45
4.904	4.905	-0.001	12265433	1000.00	957	76.60- 116.60	96.60
5.051	5.052	-0.001	28097085	1000.00	1010	201.28- 241.28	221.28
Average of Peak Amounts =					966		

Data File: /chem/ecd1a.i/121609.b/062b6201.d

Date : 16-DEC-2009 18:23

Client ID: AR166006

Sample Info: IWAR091211-60 06

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

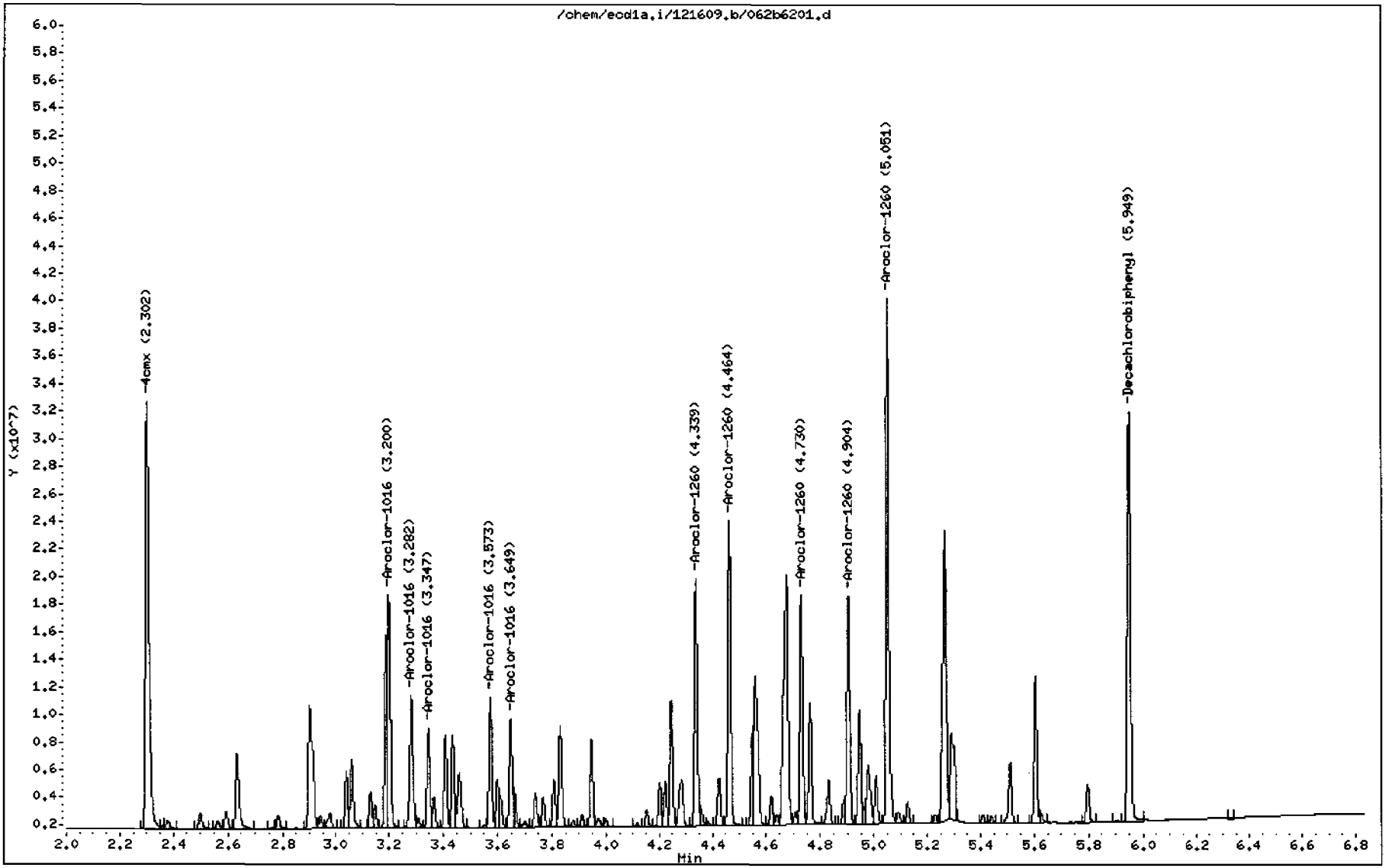

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/121609.b/074f7401.d
Lab Smp Id: WAR091211-60 07 Client Smp ID: AR166007
Inj Date : 16-DEC-2009 20:40
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR091211-60 07
Misc Info :
Comment :
Method : /chem/ecd1a.i/121609.b/ECD1-F-8082-121409.m
Meth Date : 17-Dec-2009 07:27 yip00818 Quant Type: ESTD
Cal Date : 14-DEC-2009 11:34 Cal File: 040f4001.d
Als bottle: 74 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.973	1.972	0.001	37891425	100.000	101	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.289	5.290	-0.001	33820053	100.000	106	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.430	2.430	0.000	12623170	1000.00	910	80.00- 120.00	100.00
2.707	2.707	0.000	10375463	1000.00	1030	62.19- 102.19	82.19
2.800	2.800	0.000	10910427	1000.00	928	66.43- 106.43	86.43
2.837	2.837	0.000	6595514	1000.00	999	32.25- 72.25	52.25
3.048	3.048	0.000	8456798	1000.00	975	46.99- 86.99	66.99
Average of Peak Amounts =					968		
7 Aroclor-1260					CAS #: 11096-82-5		
3.775	3.775	0.000	17089467	1000.00	1020	80.00- 120.00	100.00
3.937	3.938	-0.001	26332086	1000.00	1060	134.08- 174.08	154.08
4.168	4.168	0.000	15762712	1000.00	1070	72.24- 112.24	92.24
4.312	4.312	0.000	16442080	1000.00	1080	76.21- 116.21	96.21
4.490	4.491	-0.001	38210492	1000.00	1110	203.59- 243.59	223.59
Average of Peak Amounts =					1.07e+03		

Data File: /chem/ecd1a.i/121609.b/074f7401.d
Date : 16-DEC-2009 20:40
Client ID: AR166007
Sample Info: IWAR091211-60 07

Column phase: CLP1

Instrument: ecd1a.i
Operator: YS1
Column diameter: 0.25

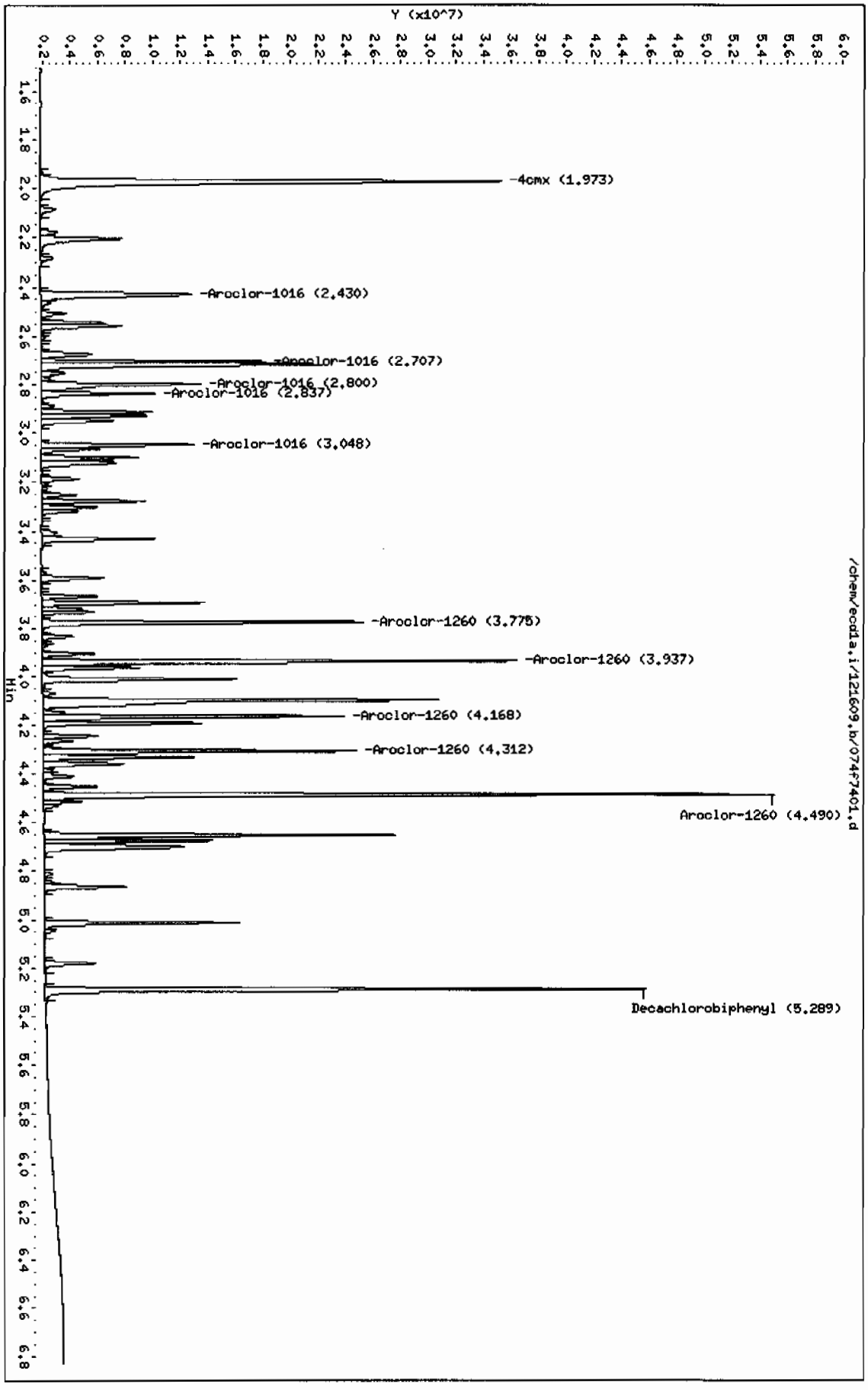

Page 1

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RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/121609.b/074b7401.d
Lab Smp Id: WAR091211-60 07 Client Smp ID: AR166007
Inj Date : 16-DEC-2009 20:40
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR091211-60 07
Misc Info :
Comment :
Method : /chem/ecd1a.i/121609.b/ECD1-B-8082-121409.m
Meth Date : 17-Dec-2009 07:29 yip00818 Quant Type: ESTD
Cal Date : 14-DEC-2009 12:16 Cal File: 044b4401.d
Als bottle: 74 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.303	2.303	0.000	29138003	100.000	97.1	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.950	5.950	0.000	24004054	100.000	103	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.201	3.201	0.000	12209331	1000.00	968	80.00- 120.00	100.00(M)
3.283	3.283	0.000	8213389	1000.00	880	44.88- 84.88	67.27
3.347	3.347	0.000	5122341	1000.00	946	20.66- 60.66	41.95
3.574	3.574	0.000	6728405	1000.00	954	32.99- 72.99	55.11
3.650	3.650	0.000	6261393	1000.00	956	28.99- 68.99	51.28
Average of Peak Amounts =					941		
7 Aroclor-1260					CAS #: 11096-82-5		
4.340	4.341	-0.001	12999600	1000.00	950	80.00- 120.00	100.00
4.464	4.465	-0.001	16027792	1000.00	1000	104.06- 144.06	123.29
4.731	4.731	0.000	12333615	1000.00	982	75.41- 115.41	94.88
4.904	4.905	-0.001	12672775	1000.00	989	77.99- 117.99	97.49
5.051	5.052	-0.001	29076757	1000.00	1040	204.52- 244.52	223.67
Average of Peak Amounts =					993		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd1a.i/121609.b/074b7401.d

Date : 16-DEC-2009 20:40

Client ID: AR166007

Sample Info: IWAR091211-60 07

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

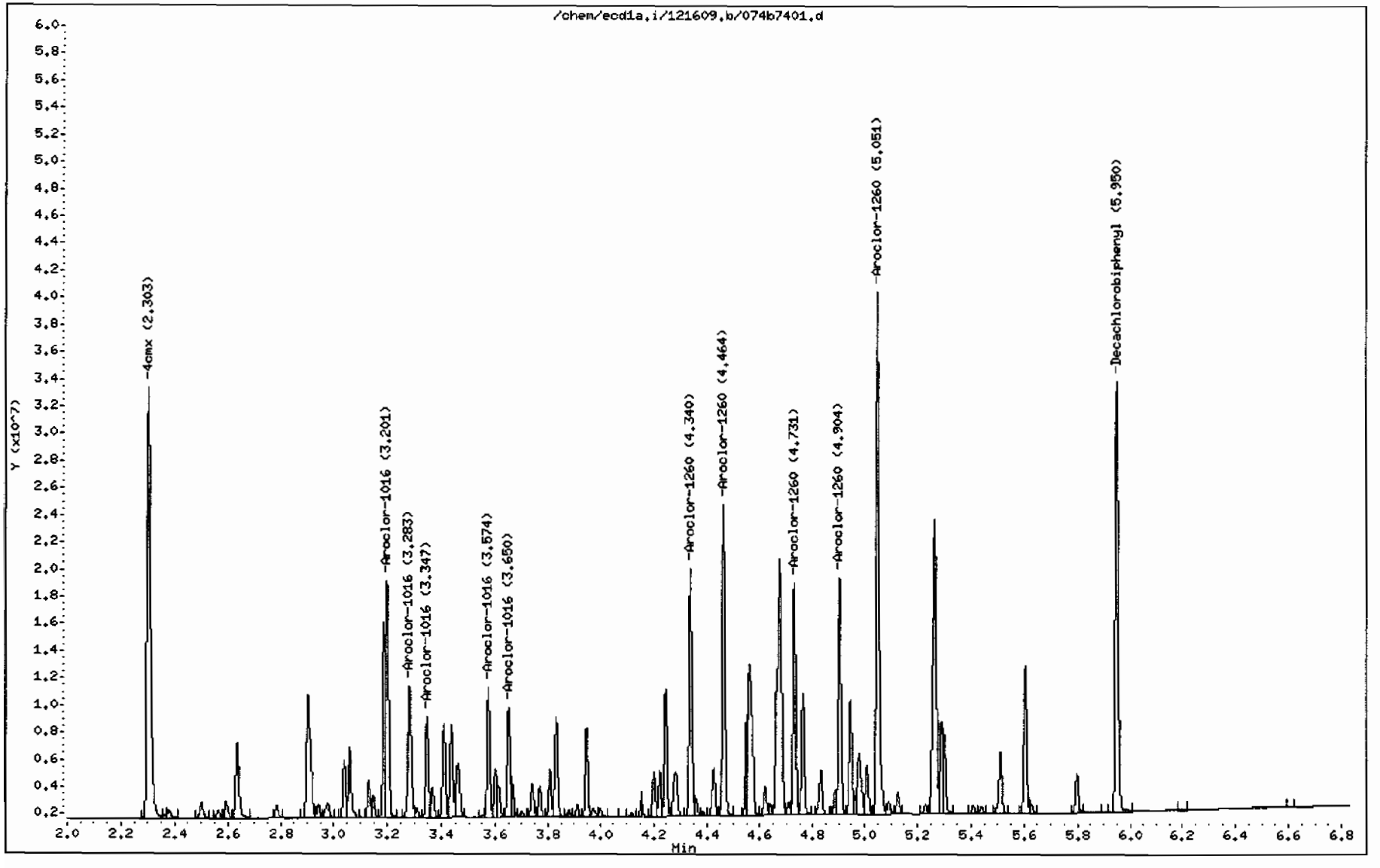

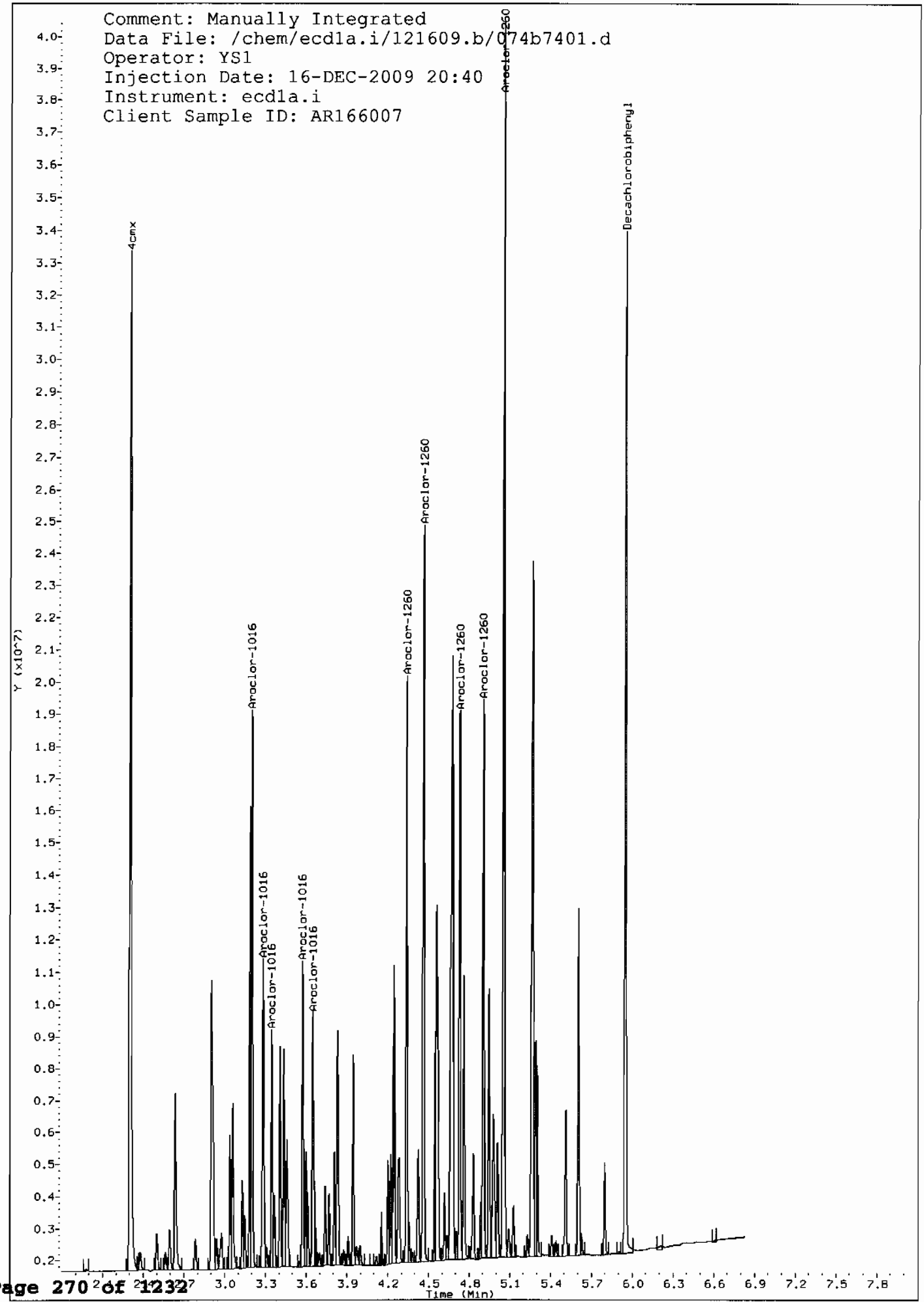
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Operator: YS1
Injection Date: 16-DEC-2009 20:40
Instrument: ecd1a.i
Client Sample ID: AR166007
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

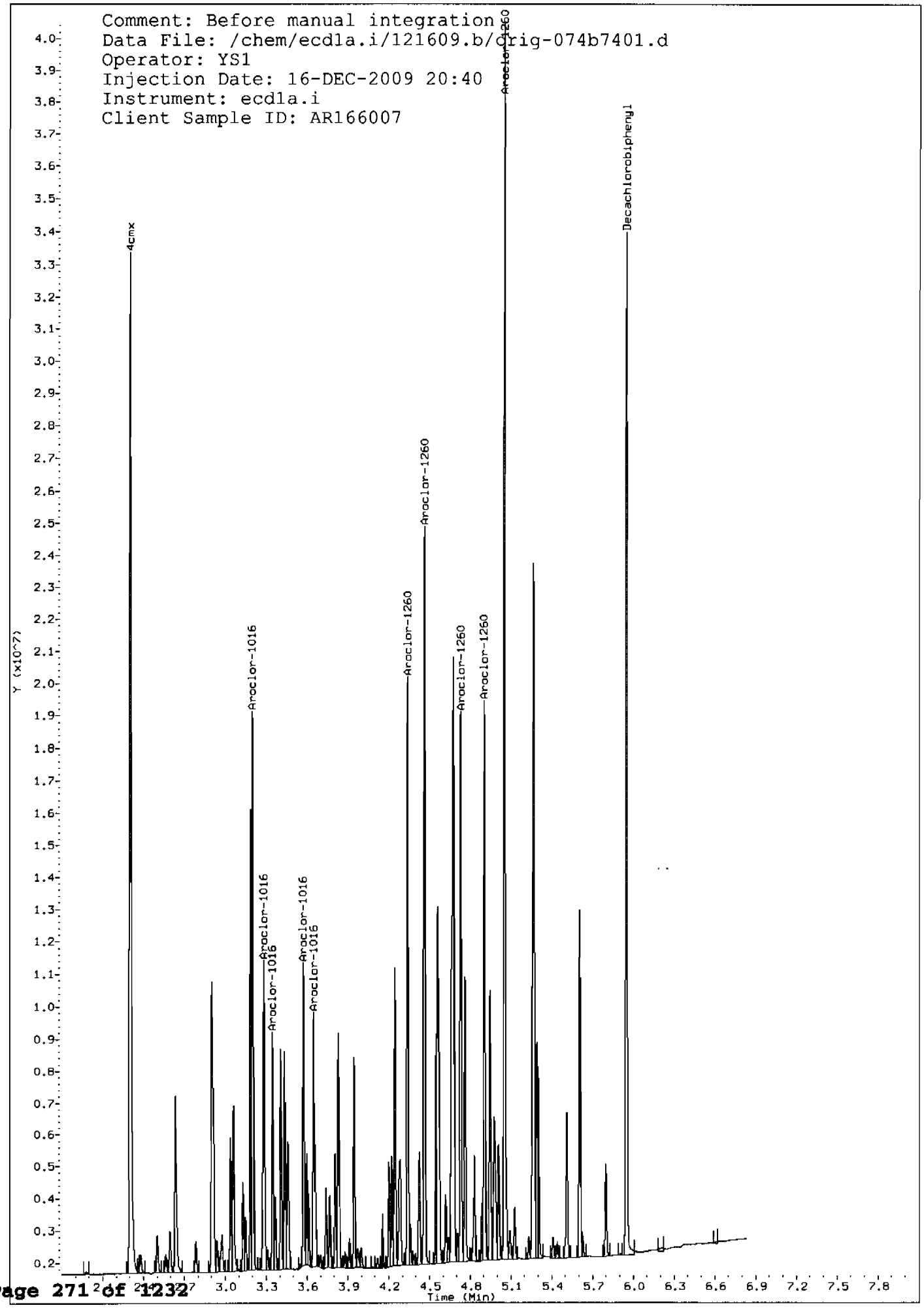
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Data File: /chem/ecd1a.i/121609.b/orig-074b7401.d
Operator: YS1
Injection Date: 16-DEC-2009 20:40
Instrument: ecd1a.i
Client Sample ID: AR166007
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/121609.b/080f8001.d
Lab Smp Id: WAR091211-60 08 Client Smp ID: AR166008
Inj Date : 16-DEC-2009 21:43
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR091211-60 08
Misc Info :
Comment :
Method : /chem/ecd1a.i/121609.b/ECD1-F-8082-121409.m
Meth Date : 17-Dec-2009 07:29 yip00818 Quant Type: ESTD
Cal Date : 14-DEC-2009 11:34 Cal File: 040f4001.d
Als bottle: 80 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.974	1.972	0.002	37864895	100.000	101	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.288	5.290	-0.002	33980090	100.000	107	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.430	2.430	0.000	12636121	1000.00	911	80.00- 120.00	100.00
2.707	2.707	0.000	10607957	1000.00	1050	63.95- 103.95	83.95
2.799	2.800	-0.001	10900001	1000.00	927	66.26- 106.26	86.26
2.838	2.837	0.001	6578475	1000.00	997	32.06- 72.06	52.06
3.049	3.048	0.001	8528488	1000.00	983	47.49- 87.49	67.49
Average of Peak Amounts =					974		
7 Aroclor-1260					CAS #: 11096-82-5		
3.774	3.775	-0.001	17027585	1000.00	1020	80.00- 120.00	100.00
3.938	3.938	0.000	26320941	1000.00	1060	134.58- 174.58	154.58
4.168	4.168	0.000	15743704	1000.00	1070	72.46- 112.46	92.46
4.311	4.312	-0.001	16459866	1000.00	1080	76.67- 116.67	96.67
4.490	4.491	-0.001	38275468	1000.00	1110	204.79- 244.79	224.79
Average of Peak Amounts =					1.07e+03		

Data File: /chem/ecd1a.i/121609.b/080f8001.d
Date : 16-DEC-2009 21:43
Client ID: ARI66008
Sample Info: IWAR091211-60 08
Column phase: CLP1

Instrument: ecd1a.i
Operator: YSI
Column diameter: 0.25

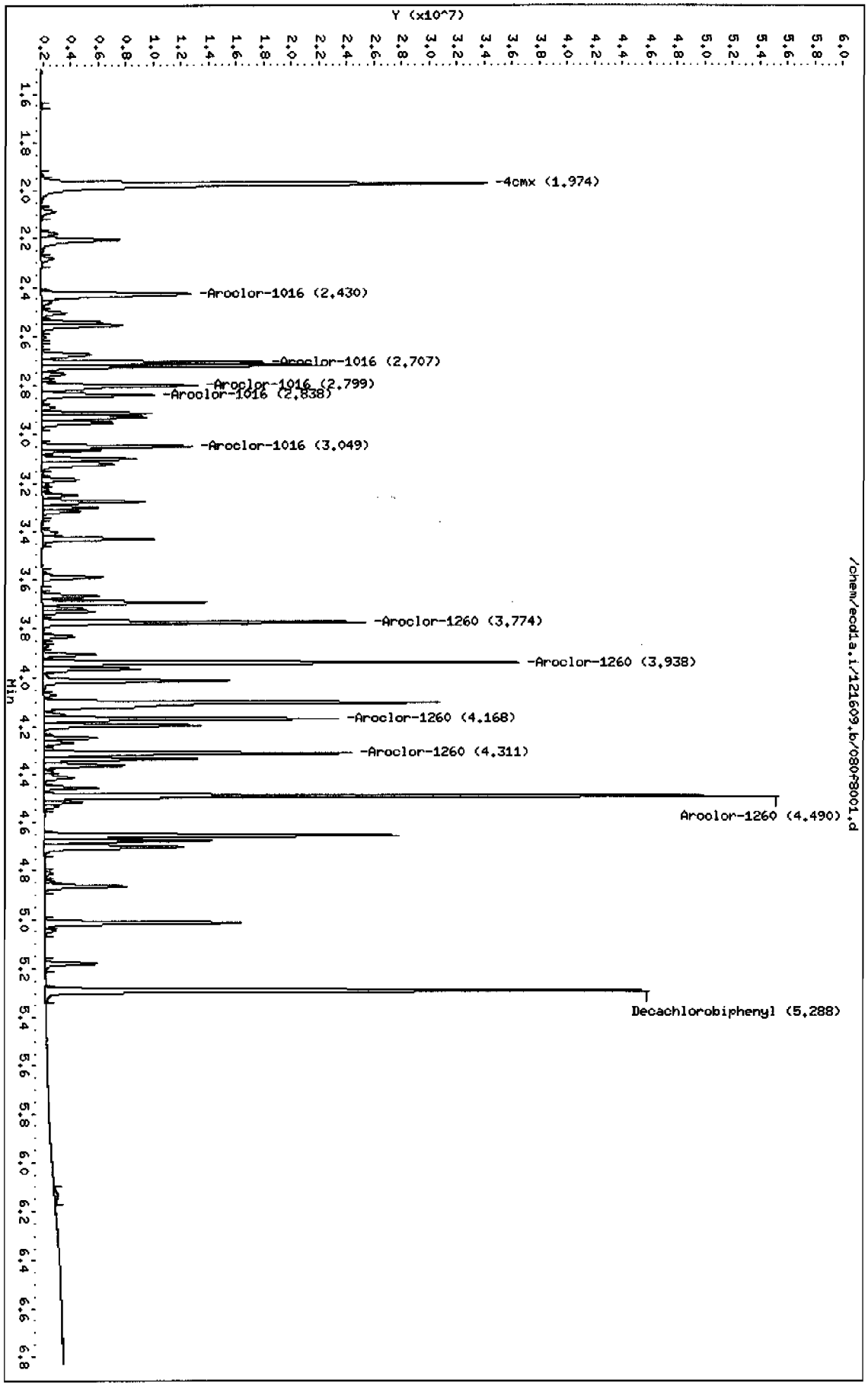

Page 1

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/121609.b/080b8001.d
Lab Smp Id: WAR091211-60 08 Client Smp ID: AR166008
Inj Date : 16-DEC-2009 21:43
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR091211-60 08
Misc Info :
Comment :
Method : /chem/ecd1a.i/121609.b/ECD1-B-8082-121409.m
Meth Date : 17-Dec-2009 07:29 yip00818 Quant Type: ESTD
Cal Date : 14-DEC-2009 12:16 Cal File: 044b4401.d
Als bottle: 80 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.303	2.303	0.000	29072334	100.000	96.9	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.950	5.950	0.000	23631002	100.000	101	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.200	3.201	-0.001	12651276	1000.00	1000	80.00- 120.00	100.00
3.284	3.283	0.001	8207925	1000.00	880	44.88- 84.88	64.88
3.348	3.347	0.001	5144107	1000.00	951	20.66- 60.66	40.66
3.574	3.574	0.000	6704530	1000.00	951	32.99- 72.99	52.99
3.650	3.650	0.000	6197917	1000.00	946	28.99- 68.99	48.99
Average of Peak Amounts =					946		
7 Aroclor-1260					CAS #: 11096-82-5		
4.340	4.341	-0.001	12988152	1000.00	949	80.00- 120.00	100.00
4.464	4.465	-0.001	16112987	1000.00	1000	104.06- 144.06	124.06
4.731	4.731	0.000	12392137	1000.00	986	75.41- 115.41	95.41
4.904	4.905	-0.001	12726689	1000.00	993	77.99- 117.99	97.99
5.051	5.052	-0.001	29160872	1000.00	1040	204.52- 244.52	224.52
Average of Peak Amounts =					996		

Data File: /chem/ecd1a.i/121609.b/080b8001.d

Date : 16-DEC-2009 21:43

Client ID: AR166008

Sample Info: IWAR091211-60 08

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

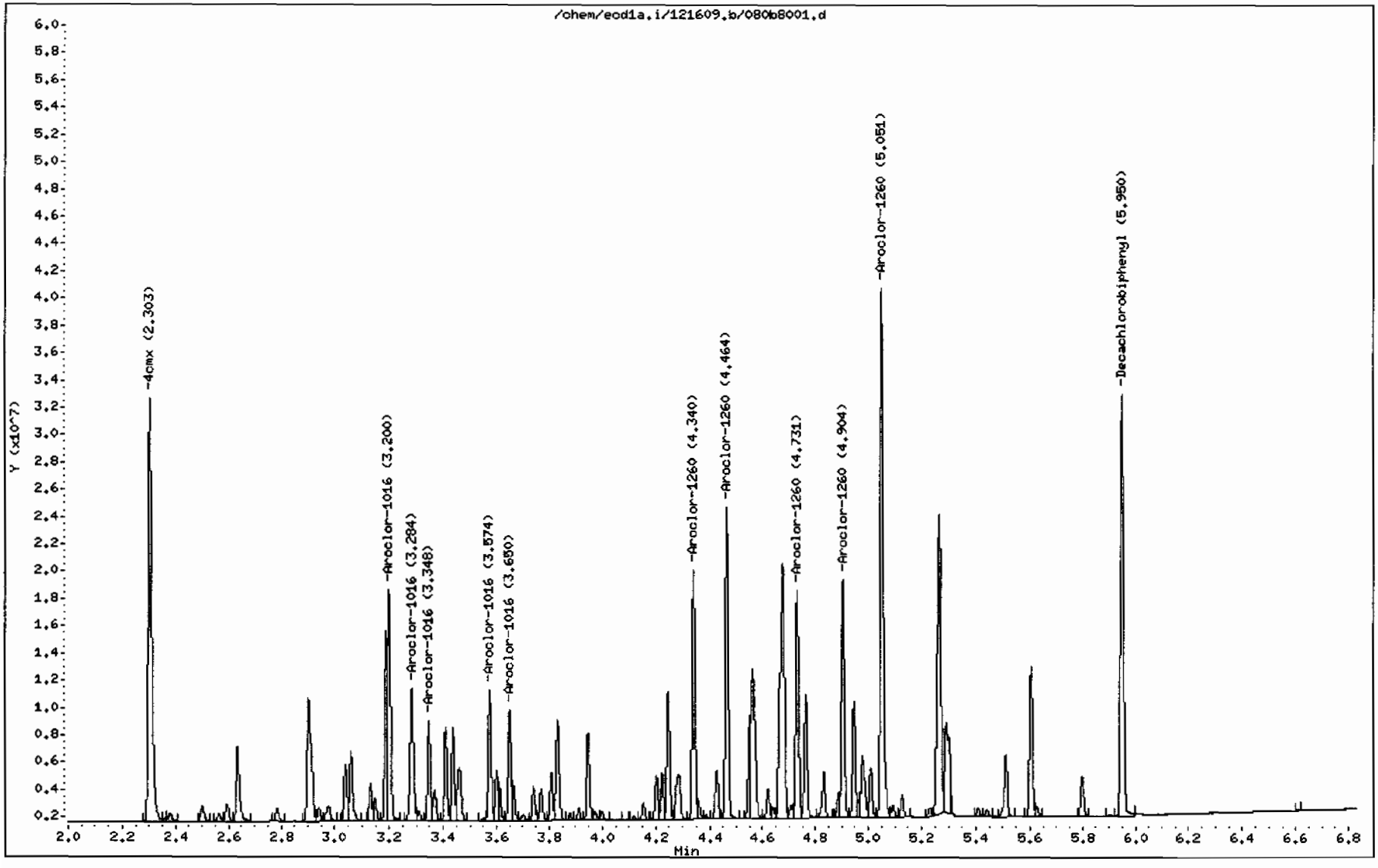

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-887

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 12/14/09 12/14/09

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 1.97 DCB: 5.29

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR091130-99	12/14/09	0444	1.97	5.29
02	ZZZZZ	ZZZZZ	12/14/09	0454	1.97	5.29
03	ZZZZZ	ZZZZZ	12/14/09	0505	1.97	5.29
04	ZZZZZ	ZZZZZ	12/14/09	0515	1.97	5.29
05	ZZZZZ	ZZZZZ	12/14/09	0526	1.97	5.29
06	AR123201	WAR090930-32	12/14/09	0536	1.97	5.29
07	AR122101	WAR090803-21	12/14/09	0547	1.97	5.29
08	AR126201	WAR090803-62	12/14/09	0558	1.97	5.29
09	ZZZZZ	ZZZZZ	12/14/09	0608	1.97	5.29
10	ZZZZZ	ZZZZZ	12/14/09	0619	1.97	5.29
11	ZZZZZ	ZZZZZ	12/14/09	0629	1.97	5.29
12	ZZZZZ	ZZZZZ	12/14/09	0640	1.97	5.29
13	ZZZZZ	ZZZZZ	12/14/09	0650	1.97	5.29
14	ZZZZZ	ZZZZZ	12/14/09	0701	1.97	5.29
15	ZZZZZ	ZZZZZ	12/14/09	0711	1.97	5.29
16	AR125401	WAR091214-05	12/14/09	0722	1.97	5.29
17	AR125402	WAR091214-06	12/14/09	0732	1.97	5.29
18	AR125403	WAR091214-07	12/14/09	0743	1.97	5.29
19	AR125404	WAR091214-08	12/14/09	0753	1.97	5.29
20	AR125405	IAR091027-01	12/14/09	0804	1.97	5.29
21	AR125401	WAR091102-54	12/14/09	0814	1.97	5.29
22	AR124201	WAR091214-09	12/14/09	0825	1.97	5.29
23	AR124202	WAR091214-10	12/14/09	0835	1.97	5.29
24	AR124203	WAR091214-11	12/14/09	0846	1.97	5.29
25	AR124204	WAR091214-12	12/14/09	0856	1.97	5.29
26	AR124205	IAR0911111-0	12/14/09	0907	1.97	5.29
27	AR124201	WAR091102-42	12/14/09	0917	1.97	5.29
28	AR124801	WAR091214-13	12/14/09	0928	1.97	5.29
29	AR124802	WAR091214-14	12/14/09	0938	1.97	5.29
30	AR124803	WAR091214-15	12/14/09	0949	1.97	5.29
31	AR124804	WAR091214-16	12/14/09	0959	1.97	5.29
32	AR124805	IAR091027-02	12/14/09	1010	1.97	5.29

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-887

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 12/14/09 12/14/09

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 1.97 DCB: 5.29

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	AR124801	WAR091027-48	12/14/09	1020	1.97	5.29
02	AR166001	WAR091214-01	12/14/09	1031	1.97	5.29
03	AR166002	WAR091214-02	12/14/09	1041	1.97	5.29
04	AR166003	WAR091214-03	12/14/09	1052	1.97	5.29
05	AR166004	WAR091214-04	12/14/09	1102	1.97	5.29
06	AR166005	IAR091102-01	12/14/09	1113	1.97	5.29
07	AR166001	WAR091211-60	12/14/09	1123	1.97	5.29
08	AR126801	WAR091214-17	12/14/09	1134	1.97	5.29
09	AR126802	WAR091214-18	12/14/09	1144	1.97	5.29
10	AR126803	WAR091214-19	12/14/09	1155	1.97	5.29
11	AR126804	WAR091214-20	12/14/09	1206	1.97	5.29
12	AR126805	IAR090817-02	12/14/09	1216	1.97	5.29
13	AR126801	WAR091106-68	12/14/09	1227	1.97	5.29
14	DDTANALOGSTD	WAR091020-DD	12/14/09	1237		
15	PIBLK02	WAR091130-99	12/14/09	1248	1.97	5.29
16	ZZZZZ	ZZZZZ	12/14/09	1258	1.97	5.29
17	ZZZZZ	ZZZZZ	12/14/09	1309	1.97	5.29
18	ZZZZZ	ZZZZZ	12/14/09	1319	1.97	5.29
19	ZZZZZ	ZZZZZ	12/14/09	1330	1.97	5.29
20	ZZZZZ	ZZZZZ	12/14/09	1340	1.97	5.29
21	ZZZZZ	ZZZZZ	12/14/09	1351	1.97	5.29
22	ZZZZZ	ZZZZZ	12/14/09	1403	1.97	5.29
23	ZZZZZ	ZZZZZ	12/14/09	1416	1.97	5.29
24	ZZZZZ	ZZZZZ	12/14/09	1429	1.97	5.29
25	ZZZZZ	ZZZZZ	12/14/09	1441	1.97	5.29
26	AR166002	WAR091211-60	12/14/09	1452	1.97	5.29
27	PIBLK03	WAR091130-99	12/14/09	1502	1.97	5.29
28	ZZZZZ	ZZZZZ	12/14/09	1513	1.97	5.29
29	ZZZZZ	ZZZZZ	12/14/09	1525	1.97	5.29
30	ZZZZZ	ZZZZZ	12/14/09	1538	1.97	5.29
31	ZZZZZ	ZZZZZ	12/14/09	1551	1.97	5.29
32	ZZZZZ	ZZZZZ	12/14/09	1603	1.97	5.27

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-887

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 12/14/09 12/14/09

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.30 DCB: 5.94

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR091130-99	12/14/09	0444	2.30	5.95
02	ZZZZZ	ZZZZZ	12/14/09	0454	2.30	5.94
03	ZZZZZ	ZZZZZ	12/14/09	0505	2.30	5.95
04	ZZZZZ	ZZZZZ	12/14/09	0515	2.30	5.95
05	ZZZZZ	ZZZZZ	12/14/09	0526	2.30	5.95
06	AR123201	WAR090930-32	12/14/09	0536	2.30	5.95
07	AR122101	WAR090803-21	12/14/09	0547	2.30	5.95
08	AR126201	WAR090803-62	12/14/09	0558	2.30	5.94
09	ZZZZZ	ZZZZZ	12/14/09	0608	2.30	5.94
10	ZZZZZ	ZZZZZ	12/14/09	0619	2.30	5.95
11	ZZZZZ	ZZZZZ	12/14/09	0629	2.30	5.94
12	ZZZZZ	ZZZZZ	12/14/09	0640	2.30	5.94
13	ZZZZZ	ZZZZZ	12/14/09	0650	2.30	5.95
14	ZZZZZ	ZZZZZ	12/14/09	0701	2.30	5.94
15	ZZZZZ	ZZZZZ	12/14/09	0711	2.30	5.95
16	AR125401	WAR091214-05	12/14/09	0722	2.30	5.94
17	AR125402	WAR091214-06	12/14/09	0732	2.30	5.94
18	AR125403	WAR091214-07	12/14/09	0743	2.30	5.94
19	AR125404	WAR091214-08	12/14/09	0753	2.30	5.94
20	AR125405	IAR091027-01	12/14/09	0804	2.30	5.95
21	AR125401	WAR091102-54	12/14/09	0814	2.30	5.94
22	AR124201	WAR091214-09	12/14/09	0825	2.30	5.94
23	AR124202	WAR091214-10	12/14/09	0835	2.30	5.94
24	AR124203	WAR091214-11	12/14/09	0846	2.30	5.94
25	AR124204	WAR091214-12	12/14/09	0856	2.30	5.94
26	AR124205	IAR0911111-0	12/14/09	0907	2.30	5.94
27	AR124201	WAR091102-42	12/14/09	0917	2.30	5.94
28	AR124801	WAR091214-13	12/14/09	0928	2.30	5.94
29	AR124802	WAR091214-14	12/14/09	0938	2.30	5.94
30	AR124803	WAR091214-15	12/14/09	0949	2.30	5.94
31	AR124804	WAR091214-16	12/14/09	0959	2.30	5.94
32	AR124805	IAR091027-02	12/14/09	1010	2.30	5.94

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-887

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 12/14/09 12/14/09

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.30 DCB: 5.94

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	AR124801	WAR091027-48	12/14/09	1020	2.30	5.95
02	AR166001	WAR091214-01	12/14/09	1031	2.30	5.94
03	AR166002	WAR091214-02	12/14/09	1041	2.30	5.94
04	AR166003	WAR091214-03	12/14/09	1052	2.30	5.94
05	AR166004	WAR091214-04	12/14/09	1102	2.30	5.94
06	AR166005	IAR091102-01	12/14/09	1113	2.30	5.94
07	AR166001	WAR091211-60	12/14/09	1123	2.30	5.94
08	AR126801	WAR091214-17	12/14/09	1134	2.30	5.95
09	AR126802	WAR091214-18	12/14/09	1144	2.30	5.94
10	AR126803	WAR091214-19	12/14/09	1155	2.30	5.94
11	AR126804	WAR091214-20	12/14/09	1206	2.30	5.94
12	AR126805	IAR090817-02	12/14/09	1216	2.30	5.94
13	AR126801	WAR091106-68	12/14/09	1227	2.30	5.94
14	DDTANALOGSTD	WAR091020-DD	12/14/09	1237		
15	PIBLK02	WAR091130-99	12/14/09	1248	2.30	5.94
16	ZZZZZ	ZZZZZ	12/14/09	1258	2.30	5.94
17	ZZZZZ	ZZZZZ	12/14/09	1309	2.30	5.94
18	ZZZZZ	ZZZZZ	12/14/09	1319	2.30	5.94
19	ZZZZZ	ZZZZZ	12/14/09	1330	2.30	5.94
20	ZZZZZ	ZZZZZ	12/14/09	1340	2.30	5.94
21	ZZZZZ	ZZZZZ	12/14/09	1351	2.30	5.94
22	ZZZZZ	ZZZZZ	12/14/09	1403	2.30	5.94
23	ZZZZZ	ZZZZZ	12/14/09	1416	2.30	5.94
24	ZZZZZ	ZZZZZ	12/14/09	1429	2.30	5.94
25	ZZZZZ	ZZZZZ	12/14/09	1441	2.30	5.94
26	AR166002	WAR091211-60	12/14/09	1452	2.30	5.94
27	PIBLK03	WAR091130-99	12/14/09	1502	2.30	5.94
28	ZZZZZ	ZZZZZ	12/14/09	1513	2.30	5.94
29	ZZZZZ	ZZZZZ	12/14/09	1525	2.30	5.94
30	ZZZZZ	ZZZZZ	12/14/09	1538	2.30	5.94
31	ZZZZZ	ZZZZZ	12/14/09	1551	2.30	5.94
32	ZZZZZ	ZZZZZ	12/14/09	1603	2.30	5.94

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-887

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 12/14/09 12/14/09

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 1.97 DCB: 5.29

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR091130-99	12/16/09	0628	1.97	5.29
02	AR166001	WAR091211-60	12/16/09	0639	1.97	5.29
03	ZZZZZ	ZZZZZ	12/16/09	0649	1.97	5.29
04	AR124201	WAR091102-42	12/16/09	0700	1.97	5.29
05	AR124801	WAR091027-48	12/16/09	0710	1.97	5.29
06	AR123201	WAR090930-32	12/16/09	0721	1.97	5.29
07	ZZZZZ	ZZZZZ	12/16/09	0731	1.97	5.29
08	AR122101	WAR090803-21	12/16/09	0742	1.97	5.29
09	AR126201	WAR090803-62	12/16/09	0752	1.97	5.29
10	AR126801	WAR091106-68	12/16/09	0803	1.97	5.29
11	AR125401	WAR091216-54	12/16/09	0813	1.97	5.29
12	DDTANALOGSTD	WAR091020-DD	12/16/09	0824		
13	PIBLK02	WAR091130-99	12/16/09	0834	1.97	5.29
14	ZZZZZ	ZZZZZ	12/16/09	0846	1.97	5.29
15	ZZZZZ	ZZZZZ	12/16/09	0857	1.97	5.29
16	ZZZZZ	ZZZZZ	12/16/09	0909	1.97	5.29
17	ZZZZZ	ZZZZZ	12/16/09	0920	1.97	5.29
18	ZZZZZ	ZZZZZ	12/16/09	0930	1.97	5.29
19	ZZZZZ	ZZZZZ	12/16/09	0943	1.97	5.29
20	ZZZZZ	ZZZZZ	12/16/09	0955	1.97	5.29
21	ZZZZZ	ZZZZZ	12/16/09	1008	1.97	5.29
22	ZZZZZ	ZZZZZ	12/16/09	1021	1.97	5.29
23	ZZZZZ	ZZZZZ	12/16/09	1033	1.97	5.29
24	AR166002	WAR091211-60	12/16/09	1046	1.97	5.29
25	PIBLK03	WAR091130-99	12/16/09	1056	1.97	5.29
26	ZZZZZ	ZZZZZ	12/16/09	1107	1.97	5.29
27	ZZZZZ	ZZZZZ	12/16/09	1119	1.97	5.29
28	ZZZZZ	ZZZZZ	12/16/09	1132	1.97	5.29
29	ZZZZZ	ZZZZZ	12/16/09	1144	1.97	5.29
30	ZZZZZ	ZZZZZ	12/16/09	1157		
31	ZZZZZ	ZZZZZ	12/16/09	1209	1.97	5.29
32	ZZZZZ	ZZZZZ	12/16/09	1222	1.97	5.29

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-887

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 12/14/09 12/14/09

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 1.97 DCB: 5.29

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	ZZZZZ	ZZZZZ	12/16/09	1235	1.97	5.29
02	ZZZZZ	ZZZZZ	12/16/09	1247	1.97	5.29
03	ZZZZZ	ZZZZZ	12/16/09	1300	1.97	5.29
04	AR166003	WAR091211-60	12/16/09	1312	1.97	5.29
05	PIBLK04	WAR091130-99	12/16/09	1323	1.97	5.29
06	ZZZZZ	ZZZZZ	12/16/09	1333	1.97	5.29
07	ZZZZZ	ZZZZZ	12/16/09	1346	1.97	5.29
08	AR166004	WAR091211-60	12/16/09	1358	1.97	5.29
09	PIBLK05	WAR091130-99	12/16/09	1409	1.97	5.29
10	ZZZZZ	ZZZZZ	12/16/09	1419	1.97	5.29
11	ZZZZZ	ZZZZZ	12/16/09	1432	1.97	5.29
12	ZZZZZ	ZZZZZ	12/16/09	1444	1.97	5.29
13	ZZZZZ	ZZZZZ	12/16/09	1457	1.97	5.29
14	ZZZZZ	ZZZZZ	12/16/09	1510	1.97	5.29
15	ZZZZZ	ZZZZZ	12/16/09	1522	1.97	5.29
16	ZZZZZ	ZZZZZ	12/16/09	1535	1.97	5.29
17	ZZZZZ	ZZZZZ	12/16/09	1548	1.97	5.29
18	AR166005	WAR091211-60	12/16/09	1600	1.97	5.29
19	PIBLK06	WAR091130-99	12/16/09	1611	1.97	5.29
20	PBLK01	1201996856	12/16/09	1621	1.97	5.29
21	PBLK01LCS	1201996857	12/16/09	1632	1.97	5.29
22	ZZZZZ	ZZZZZ	12/16/09	1642	1.97	5.29
23	ZZZZZ	ZZZZZ	12/16/09	1655	1.97	5.29
24	ZZZZZ	ZZZZZ	12/16/09	1708	1.97	5.29
25	ZZZZZ	ZZZZZ	12/16/09	1720	1.97	5.29
26	ZZZZZ	ZZZZZ	12/16/09	1733	1.97	5.29
27	ZZZZZ	ZZZZZ	12/16/09	1745	1.97	5.29
28	ZZZZZ	ZZZZZ	12/16/09	1758	1.97	5.29
29	ZZZZZ	ZZZZZ	12/16/09	1811	1.97	5.29
30	AR166006	WAR091211-60	12/16/09	1823	1.97	5.29
31	PIBLK07	WAR091130-99	12/16/09	1834	1.97	5.29
32	ZZZZZ	ZZZZZ	12/16/09	1844	1.97	5.29

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-887

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 12/14/09 12/14/09

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 1.97 DCB: 5.29

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	ZZZZZ	ZZZZZ	12/16/09	1857	1.97	5.29
02	ZZZZZ	ZZZZZ	12/16/09	1910	1.97	5.29
03	ZZZZZ	ZZZZZ	12/16/09	1922	1.97	5.29
04	ZZZZZ	ZZZZZ	12/16/09	1935	1.97	5.29
05	RE03-09-13757	242781001	12/16/09	1947	1.97	5.29
06	RE03-09-13757MS	1201996858	12/16/09	1958	1.97	5.29
07	RE03-09-13757MSD	1201996859	12/16/09	2008	1.97	5.29
08	RE03-09-13752	242781002	12/16/09	2019	1.97	5.29
09	RE03-09-13753	242781003	12/16/09	2030	1.97	5.29
10	AR166007	WAR091211-60	12/16/09	2040	1.97	5.29
11	PIBLK08	WAR091130-99	12/16/09	2051	1.97	5.29
12	RE03-09-13754	242781004	12/16/09	2101	1.97	5.29
13	RE03-09-13755	242781005	12/16/09	2112	1.97	5.29
14	RE03-09-13756	242781006	12/16/09	2122	1.97	5.29
15	RE03-10-5525	242781007	12/16/09	2133	1.97	5.29
16	AR166008	WAR091211-60	12/16/09	2143	1.97	5.29
17	ZZZZZ	ZZZZZ	12/16/09	2154	1.97	5.29
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						
31						
32						

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-887

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 12/14/09 12/14/09

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.30 DCB: 5.95

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR091130-99	12/16/09	0628	2.30	5.95
02	AR166001	WAR091211-60	12/16/09	0639	2.30	5.95
03	ZZZZZ	ZZZZZ	12/16/09	0649	2.30	5.95
04	AR124201	WAR091102-42	12/16/09	0700	2.30	5.95
05	AR124801	WAR091027-48	12/16/09	0710	2.30	5.95
06	AR123201	WAR090930-32	12/16/09	0721	2.30	5.95
07	ZZZZZ	ZZZZZ	12/16/09	0731	2.30	5.95
08	AR122101	WAR090803-21	12/16/09	0742	2.30	5.95
09	AR126201	WAR090803-62	12/16/09	0752	2.30	5.95
10	AR126801	WAR091106-68	12/16/09	0803	2.30	5.95
11	AR125401	WAR091216-54	12/16/09	0813	2.30	5.95
12	DDTANALOGSTD	WAR091020-DD	12/16/09	0824		
13	PIBLK02	WAR091130-99	12/16/09	0834	2.30	5.95
14	ZZZZZ	ZZZZZ	12/16/09	0846	2.30	5.95
15	ZZZZZ	ZZZZZ	12/16/09	0857	2.30	5.95
16	ZZZZZ	ZZZZZ	12/16/09	0909	2.30	5.95
17	ZZZZZ	ZZZZZ	12/16/09	0920	2.30	5.95
18	ZZZZZ	ZZZZZ	12/16/09	0930	2.30	5.95
19	ZZZZZ	ZZZZZ	12/16/09	0943	2.30	5.95
20	ZZZZZ	ZZZZZ	12/16/09	0955	2.30	5.95
21	ZZZZZ	ZZZZZ	12/16/09	1008	2.30	5.95
22	ZZZZZ	ZZZZZ	12/16/09	1021	2.30	5.95
23	ZZZZZ	ZZZZZ	12/16/09	1033	2.30	5.95
24	AR166002	WAR091211-60	12/16/09	1046	2.30	5.95
25	PIBLK03	WAR091130-99	12/16/09	1056	2.30	5.95
26	ZZZZZ	ZZZZZ	12/16/09	1107	2.30	5.95
27	ZZZZZ	ZZZZZ	12/16/09	1119	2.30	5.95
28	ZZZZZ	ZZZZZ	12/16/09	1132	2.30	5.95
29	ZZZZZ	ZZZZZ	12/16/09	1144	2.30	5.95
30	ZZZZZ	ZZZZZ	12/16/09	1157		
31	ZZZZZ	ZZZZZ	12/16/09	1209	2.30	5.95
32	ZZZZZ	ZZZZZ	12/16/09	1222	2.30	5.95

QC LIMITS
S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-887

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 12/14/09 12/14/09

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.30 DCB: 5.95

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	ZZZZZ	ZZZZZ	12/16/09	1235	2.30	5.95
02	ZZZZZ	ZZZZZ	12/16/09	1247	2.30	5.95
03	ZZZZZ	ZZZZZ	12/16/09	1300	2.30	5.95
04	AR16003	WAR091211-60	12/16/09	1312	2.30	5.95
05	PIBLK04	WAR091130-99	12/16/09	1323	2.30	5.95
06	ZZZZZ	ZZZZZ	12/16/09	1333	2.30	5.95
07	ZZZZZ	ZZZZZ	12/16/09	1346	2.30	5.95
08	AR166004	WAR091211-60	12/16/09	1358	2.30	5.95
09	PIBLK05	WAR091130-99	12/16/09	1409	2.30	5.95
10	ZZZZZ	ZZZZZ	12/16/09	1419	2.30	5.95
11	ZZZZZ	ZZZZZ	12/16/09	1432	2.30	5.95
12	ZZZZZ	ZZZZZ	12/16/09	1444	2.30	5.95
13	ZZZZZ	ZZZZZ	12/16/09	1457	2.30	5.95
14	ZZZZZ	ZZZZZ	12/16/09	1510	2.30	5.95
15	ZZZZZ	ZZZZZ	12/16/09	1522	2.30	5.95
16	ZZZZZ	ZZZZZ	12/16/09	1535	2.30	5.95
17	ZZZZZ	ZZZZZ	12/16/09	1548	2.30	5.95
18	AR166005	WAR091211-60	12/16/09	1600	2.30	5.95
19	PIBLK06	WAR091130-99	12/16/09	1611	2.30	5.95
20	PIBLK01	1201996856	12/16/09	1621	2.30	5.95
21	PBLK01LCS	1201996857	12/16/09	1632	2.30	5.95
22	ZZZZZ	ZZZZZ	12/16/09	1642	2.30	5.95
23	ZZZZZ	ZZZZZ	12/16/09	1655	2.30	5.95
24	ZZZZZ	ZZZZZ	12/16/09	1708	2.30	5.95
25	ZZZZZ	ZZZZZ	12/16/09	1720	2.30	5.95
26	ZZZZZ	ZZZZZ	12/16/09	1733	2.30	5.95
27	ZZZZZ	ZZZZZ	12/16/09	1745	2.30	5.95
28	ZZZZZ	ZZZZZ	12/16/09	1758	2.30	5.95
29	ZZZZZ	ZZZZZ	12/16/09	1811	2.30	5.95
30	AR166006	WAR091211-60	12/16/09	1823	2.30	5.95
31	PIBLK07	WAR091130-99	12/16/09	1834	2.30	5.95
32	ZZZZZ	ZZZZZ	12/16/09	1844	2.30	5.95

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-887

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 12/14/09 12/14/09

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.30 DCB: 5.95

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	ZZZZZ	ZZZZZ	12/16/09	1857	2.30	5.95
02	ZZZZZ	ZZZZZ	12/16/09	1910	2.30	5.95
03	ZZZZZ	ZZZZZ	12/16/09	1922	2.30	5.95
04	ZZZZZ	ZZZZZ	12/16/09	1935	2.30	5.95
05	RE03-09-13757	242781001	12/16/09	1947	2.30	5.95
06	RE03-09-13757MS	1201996858	12/16/09	1958	2.30	5.95
07	RE03-09-13757MSD	1201996859	12/16/09	2008	2.30	5.95
08	RE03-09-13752	242781002	12/16/09	2019	2.30	5.95
09	RE03-09-13753	242781003	12/16/09	2030	2.30	5.95
10	AR166007	WAR091211-60	12/16/09	2040	2.30	5.95
11	PIBLK08	WAR091130-99	12/16/09	2051	2.30	5.95
12	RE03-09-13754	242781004	12/16/09	2101	2.30	5.95
13	RE03-09-13755	242781005	12/16/09	2112	2.30	5.95
14	RE03-09-13756	242781006	12/16/09	2122	2.30	5.95
15	RE03-10-5525	242781007	12/16/09	2133	2.30	5.95
16	AR166008	WAR091211-60	12/16/09	2143	2.30	5.95
17	PIBLK09	WAR091130-99	12/16/09	2154	2.30	5.95
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						
31						
32						

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

Identification Summary

SDG Number: 10–887 **Client ID:** LCS for batch 933337

Lab Sample ID: 1201996857

Data File: 053f5301.d **Data File:** 053b5301.d

Inst: ECD1A.I_1 **Inst:** ECD1A.I_2

Column: CLP1 **Column:** CLP2

Analyzed: 16–DEC–09 16:32 **Analyzed:** 16–DEC–09 16:32

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor–1016							2.63
Column 1	1	2.43	2.4 – 2.46	28.2		ug/kg	
	2	2.71	2.68 – 2.74	31.3		ug/kg	
	3	2.8	2.77 – 2.83	28.2		ug/kg	
	4	2.84	2.81 – 2.87	30.6		ug/kg	
	5	3.05	3.02 – 3.08	30.1		ug/kg	
					29.7		
Column 2	1	3.2	3.17 – 3.23	30.7		ug/kg	
	2	3.28	3.25 – 3.31	27.4		ug/kg	
	3	3.35	3.32 – 3.38	28.7		ug/kg	
	4	3.57	3.54 – 3.6	28.6		ug/kg	
	5	3.65	3.62 – 3.68	29.2		ug/kg	
					28.9		
Aroclor–1260							7.2
Column 1	1	3.78	3.74 – 3.8	34.1		ug/kg	
	2	3.94	3.91 – 3.97	36		ug/kg	
	3	4.17	4.14 – 4.2	36.4		ug/kg	
	4	4.31	4.28 – 4.34	36.1		ug/kg	
	5	4.49	4.46 – 4.52	37.5		ug/kg	
					36		
Column 2	1	4.34	4.31 – 4.37	31.6		ug/kg	
	2	4.46	4.43 – 4.49	33.8		ug/kg	
	3	4.73	4.7 – 4.76	33.1		ug/kg	
	4	4.9	4.87 – 4.93	33.6		ug/kg	
	5	5.05	5.02 – 5.08	35.5		ug/kg	
					33.5		

Identification Summary

SDG Number: 10–887 **Client ID:** RE03–09–13752

Lab Sample ID: 242781002

Data File:	072f7201.d	**Data File:**	072b7201.d
Inst:	ECD1A.I_1	**Inst:**	ECD1A.I_2
Column:	CLP1	**Column:**	CLP2
Analyzed:	16–DEC–09 20:19	**Analyzed:**	16–DEC–09 20:19

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor–1254							54.6
Column 1	1	3.28	3.25 – 3.31	19.9		ug/kg	
	2	3.43	3.4 – 3.46	23.3		ug/kg	
	3	3.67	3.64 – 3.7	24.2		ug/kg	
	4	3.83	3.8 – 3.86	22.8		ug/kg	
	5	3.94	3.91 – 3.97	76.5		ug/kg	
					33.3		
Column 2	1	3.41	3.38 – 3.44	8.47		ug/kg	
	2	3.83	3.8 – 3.86	18.6		ug/kg	
	3	3.95	3.92 – 3.98	24.4		ug/kg	
	4	4.22	4.19 – 4.25	23.4		ug/kg	
	5	4.36	4.33 – 4.39	20.3		ug/kg	
					19		
Aroclor–1260							1.3
Column 1	1	3.78	3.74 – 3.8	40.6		ug/kg	
	2	3.94	3.91 – 3.97	46.9		ug/kg	
	3	4.17	4.14 – 4.2	38.3		ug/kg	
	4	4.31	4.28 – 4.34	34.8		ug/kg	
	5	4.49	4.46 – 4.52	36.9		ug/kg	
					39.5		
Column 2	1	4.34	4.31 – 4.37	42.7		ug/kg	
	2	4.47	4.43 – 4.49	41.8		ug/kg	
	3	4.73	4.7 – 4.76	39.1		ug/kg	
	4	4.91	4.87 – 4.93	34.8		ug/kg	
	5	5.05	5.02 – 5.08	36.6		ug/kg	
					39		

Identification Summary

SDG Number: 10–887 **Client ID:** RE03–09–13756

Lab Sample ID: 242781006

Data File:	078f7801.d	**Data File:**	078b7801.d
Inst:	ECD1A.I_1	**Inst:**	ECD1A.I_2
Column:	CLP1	**Column:**	CLP2
Analyzed:	16–DEC–09 21:22	**Analyzed:**	16–DEC–09 21:22

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor–1242							.0323
Column 1	1	2.43	2.4 – 2.46	16.8		ug/kg	
	2	2.72	2.69 – 2.75	18.5		ug/kg	
	3	2.84	2.81 – 2.87	18		ug/kg	
	4	3.05	3.02 – 3.08	21.3		ug/kg	
	5	3.3	3.27 – 3.33	19.4		ug/kg	
					18.8		
Column 2	1	3.2	3.17 – 3.23	17.6		ug/kg	
	2	3.28	3.25 – 3.31	18.8		ug/kg	
	3	3.57	3.54 – 3.6	20.4		ug/kg	
	4	3.81	3.78 – 3.84	15.4		ug/kg	
	5	3.83	3.81 – 3.87	21.9		ug/kg	
					18.8		
Aroclor–1254							27.3
Column 1	1	3.28	3.25 – 3.31	11.1		ug/kg	
	2	3.43	3.4 – 3.46	12.2		ug/kg	
	3	3.67	3.64 – 3.7	11.8		ug/kg	
	4	3.83	3.8 – 3.86	13.3		ug/kg	
	5	3.94	3.91 – 3.97	13.3		ug/kg	
					12.3		
Column 2	1	3.41	3.38 – 3.44	18.7		ug/kg	
	2	3.83	3.8 – 3.86	12.7		ug/kg	
	3	3.95	3.92 – 3.98	25.3		ug/kg	
	4	4.23	4.19 – 4.25	11.5		ug/kg	
	5	4.36	4.33 – 4.39	13.1		ug/kg	
					16.3		

Identification Summary

SDG Number: 10–887 **Client ID:** RE03–09–13756

Lab Sample ID: 242781006

Data File:	078f7801.d	**Data File:**	078b7801.d
Inst:	ECD1A.I_1	**Inst:**	ECD1A.I_2
Column:	CLP1	**Column:**	CLP2
Analyzed:	16–DEC–09 21:22	**Analyzed:**	16–DEC–09 21:22

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor–1260							5.18
Column 1	1	3.78	3.74 – 3.8	6.35		ug/kg	
	2	3.94	3.91 – 3.97	8.15		ug/kg	
	3	4.17	4.14 – 4.2	2.91		ug/kg	
	4	4.31	4.28 – 4.34	1.49		ug/kg	
	5	4.49	4.46 – 4.52	2		ug/kg	
					4.18		
Column 2	1	4.34	4.31 – 4.37	6.75		ug/kg	
	2	4.47	4.43 – 4.49	7.39		ug/kg	
	3	4.73	4.7 – 4.76	3.41		ug/kg	
	4	4.91	4.87 – 4.93	2.26		ug/kg	
	5	5.05	5.02 – 5.08	2.19		ug/kg	
					4.4		

Identification Summary

SDG Number: 10–887 **Client ID:** RE03–09–13757

Lab Sample ID: 242781001

Data File: 069f6901.d **Data File:** 069b6901.d

Inst: ECD1A.I_1 **Inst:** ECD1A.I_2

Column: CLP1 **Column:** CLP2

Analyzed: 16–DEC–09 19:47 **Analyzed:** 16–DEC–09 19:47

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor–1254							35.6
Column 1	1	3.28	3.25 – 3.31	1.59		ug/kg	
	2	3.43	3.4 – 3.46	1.82		ug/kg	
	3	3.67	3.64 – 3.7	1.78		ug/kg	
	4	3.83	3.8 – 3.86	1.65		ug/kg	
	5	3.94	3.91 – 3.97	5.14		ug/kg	
					2.4		
Column 2	1	3.41	3.38 – 3.44	.967		ug/kg	
	2	3.83	3.8 – 3.86	1.67		ug/kg	
	3	3.95	3.92 – 3.98	2.18		ug/kg	
	4	4.22	4.19 – 4.25	1.82		ug/kg	
	5	4.36	4.33 – 4.39	1.72		ug/kg	
					1.67		
Aroclor–1260							5.74
Column 1	1	3.77	3.74 – 3.8	2.66		ug/kg	
	2	3.94	3.91 – 3.97	3.15		ug/kg	
	3	4.17	4.14 – 4.2	2.34		ug/kg	
	4	4.31	4.28 – 4.34	1.99		ug/kg	
	5	4.49	4.46 – 4.52	1.98		ug/kg	
					2.42		
Column 2	1	4.34	4.31 – 4.37	3.03		ug/kg	
	2	4.46	4.43 – 4.49	3.12		ug/kg	
	3	4.73	4.7 – 4.76	2.54		ug/kg	
	4	4.9	4.87 – 4.93	2.04		ug/kg	
	5	5.05	5.02 – 5.08	2.11		ug/kg	
					2.57		

Identification Summary

SDG Number: 10–887 **Client ID:** RE03–09–13757MS

Lab Sample ID: 1201996858

Data File:	070f7001.d	**Data File:**	070b7001.d
Inst:	ECD1A.I_1	**Inst:**	ECD1A.I_2
Column:	CLP1	**Column:**	CLP2
Analyzed:	16–DEC–09 19:58	**Analyzed:**	16–DEC–09 19:58

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor–1016							2.11
Column 1	1	2.43	2.4 – 2.46	24.1		ug/kg	
	2	2.71	2.68 – 2.74	28		ug/kg	
	3	2.8	2.77 – 2.83	24.2		ug/kg	
	4	2.84	2.81 – 2.87	25.8		ug/kg	
	5	3.05	3.02 – 3.08	25.7		ug/kg	
					25.6		
Column 2	1	3.2	3.17 – 3.23	26.5		ug/kg	
	2	3.28	3.25 – 3.31	23.8		ug/kg	
	3	3.35	3.32 – 3.38	24.9		ug/kg	
	4	3.57	3.54 – 3.6	24.8		ug/kg	
	5	3.65	3.62 – 3.68	25.1		ug/kg	
					25		
Aroclor–1254							46.1
Column 1	1	3.28	3.25 – 3.31	14.4		ug/kg	
	2	3.43	3.4 – 3.46	12.3		ug/kg	
	3	3.67	3.64 – 3.7	5.86		ug/kg	
	4	3.83	3.8 – 3.86	5.09		ug/kg	
	5	3.94	3.91 – 3.97	56.4		ug/kg	
					18.8		
Column 2	1	3.41	3.38 – 3.44	21		ug/kg	
	2	3.83	3.8 – 3.86	15.6		ug/kg	
	3	3.95	3.92 – 3.98	12.6		ug/kg	
	4	4.22	4.19 – 4.25	5.93		ug/kg	
	5	4.36	4.33 – 4.39	3.79		ug/kg	
					11.8		

Identification Summary

SDG Number: 10–887 **Client ID:** RE03–09–13757MS

Lab Sample ID: 1201996858

Data File:	070f7001.d	**Data File:**	070b7001.d
Inst:	ECD1A.I_1	**Inst:**	ECD1A.I_2
Column:	CLP1	**Column:**	CLP2
Analyzed:	16–DEC–09 19:58	**Analyzed:**	16–DEC–09 19:58

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor–1260							4.12
Column 1	1	3.77	3.74 – 3.8	32.2		ug/kg	
	2	3.94	3.91 – 3.97	34.6		ug/kg	
	3	4.17	4.14 – 4.2	34.5		ug/kg	
	4	4.31	4.28 – 4.34	32.3		ug/kg	
	5	4.49	4.46 – 4.52	36		ug/kg	
					33.9		
Column 2	1	4.34	4.31 – 4.37	30.8		ug/kg	
	2	4.46	4.43 – 4.49	33.3		ug/kg	
	3	4.73	4.7 – 4.76	32.4		ug/kg	
	4	4.9	4.87 – 4.93	32		ug/kg	
	5	5.05	5.02 – 5.08	34.2		ug/kg	
					32.5		

Identification Summary

SDG Number: 10–887 **Client ID:** RE03–09–13757MSD

Lab Sample ID: 1201996859

Data File:	071f7101.d	**Data File:**	071b7101.d
Inst:	ECD1A.I_1	**Inst:**	ECD1A.I_2
Column:	CLP1	**Column:**	CLP2
Analyzed:	16–DEC–09 20:08	**Analyzed:**	16–DEC–09 20:08

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor–1016							2.8
Column 1	1	2.43	2.4 – 2.46	25		ug/kg	
	2	2.71	2.68 – 2.74	28.7		ug/kg	
	3	2.8	2.77 – 2.83	25.3		ug/kg	
	4	2.84	2.81 – 2.87	27.2		ug/kg	
	5	3.05	3.02 – 3.08	27		ug/kg	
					26.6		
Column 2	1	3.2	3.17 – 3.23	27.1		ug/kg	
	2	3.28	3.25 – 3.31	24.7		ug/kg	
	3	3.35	3.32 – 3.38	25.7		ug/kg	
	4	3.57	3.54 – 3.6	25.9		ug/kg	
	5	3.65	3.62 – 3.68	26.2		ug/kg	
					25.9		
Aroclor–1254							46.1
Column 1	1	3.28	3.25 – 3.31	14.8		ug/kg	
	2	3.43	3.4 – 3.46	12.5		ug/kg	
	3	3.67	3.64 – 3.7	5.67		ug/kg	
	4	3.83	3.8 – 3.86	4.87		ug/kg	
	5	3.94	3.91 – 3.97	57.7		ug/kg	
					19.1		
Column 2	1	3.41	3.38 – 3.44	21.7		ug/kg	
	2	3.83	3.8 – 3.86	16.2		ug/kg	
	3	3.95	3.92 – 3.98	12.6		ug/kg	
	4	4.22	4.19 – 4.25	5.72		ug/kg	
	5	4.36	4.33 – 4.39	3.45		ug/kg	
					11.9		

Identification Summary

SDG Number: 10–887 **Client ID:** RE03–09–13757MSD

Lab Sample ID: 1201996859

Data File:	071f7101.d	**Data File:**	071b7101.d
Inst:	ECD1A.I_1	**Inst:**	ECD1A.I_2
Column:	CLP1	**Column:**	CLP2
Analyzed:	16–DEC–09 20:08	**Analyzed:**	16–DEC–09 20:08

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor–1260							5.2
Column 1	1	3.78	3.74 – 3.8	33.1		ug/kg	
	2	3.94	3.91 – 3.97	35.4		ug/kg	
	3	4.17	4.14 – 4.2	35.4		ug/kg	
	4	4.31	4.28 – 4.34	34		ug/kg	
	5	4.49	4.46 – 4.52	37.1		ug/kg	
					35		
Column 2	1	4.34	4.31 – 4.37	31.4		ug/kg	
	2	4.47	4.43 – 4.49	33.8		ug/kg	
	3	4.73	4.7 – 4.76	33		ug/kg	
	4	4.91	4.87 – 4.93	32.8		ug/kg	
	5	5.05	5.02 – 5.08	35.1		ug/kg	
					33.2		

QUALITY CONTROL DATA

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10-887**			**Matrix:**	**SOIL**
Lab Sample ID:	**1201996856**				
Client Sample:	**QC for batch 933337**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 933337**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**933342**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**12/16/2009 16:21**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**12/15/2009 20:23**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**052f5201-1.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	052b5201-1.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.33	ug/kg	1.11	3.33	1
11104-28-2	Aroclor-1221	U	3.33	ug/kg	1.11	3.33	1
11141-16-5	Aroclor-1232	U	3.33	ug/kg	1.11	3.33	1
53469-21-9	Aroclor-1242	U	3.33	ug/kg	1.11	3.33	1
12672-29-6	Aroclor-1248	U	3.33	ug/kg	1.11	3.33	1
11097-69-1	Aroclor-1254	U	3.33	ug/kg	1.11	3.33	1
11096-82-5	Aroclor-1260	U	3.33	ug/kg	1.11	3.33	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/121609.b/052f5201-6.d
Lab Smp Id: 1201996856 Client Smp ID: PBLK01
Inj Date : 16-DEC-2009 16:21
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1201996856|1|
Misc Info : |ECD82P_1S|933342|SVAF|QC A|SOIL|MB|||
Comment :
Method : /chem/ecd1a.i/121609.b/ECD1-F-8082-121409.m
Meth Date : 17-Dec-2009 07:29 yip00818 Quant Type: ESTD
Cal Date : 14-DEC-2009 11:34 Cal File: 040f4001.d
Als bottle: 52 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-887.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.974	1.972	0.002	61953843	164.916	5.5	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.289	5.290	-0.001	55317071	174.205	5.8	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/121609.b/052f5201-6.d

Date : 16-DEC-2009 16:21

Client ID: PBLK01

Sample Info: |1201996856|1|

Volume Injected (uL): 1.0

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

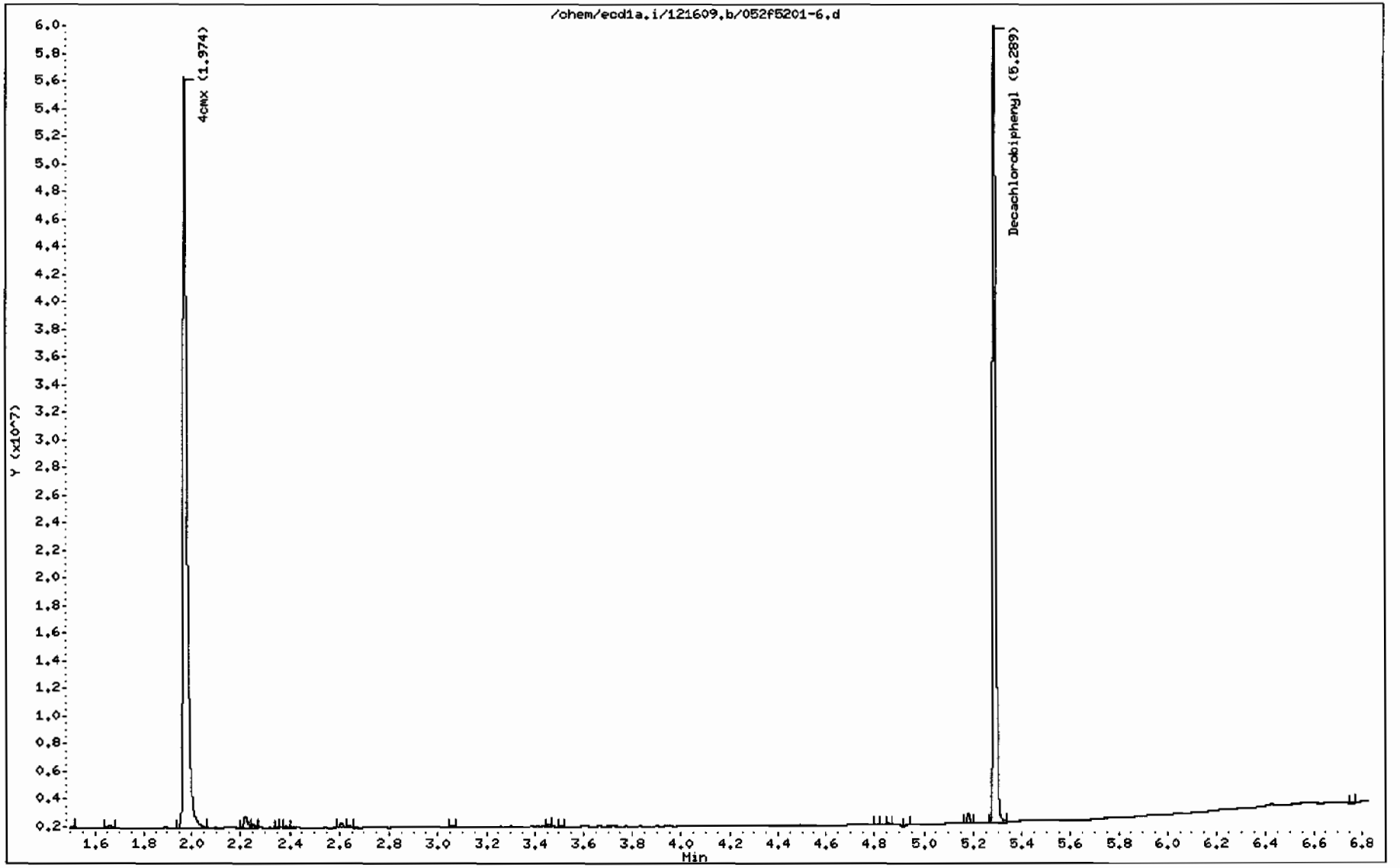

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/121609.b/052b5201-6.d
Lab Smp Id: 1201996856 Client Smp ID: PBLK01
Inj Date : 16-DEC-2009 16:21
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1201996856|1|
Misc Info : |ECD82P_1S|933342|SVAF|QC A|SOIL|MB|||
Comment :
Method : /chem/ecd1a.i/121609.b/ECD1-B-8082-121409.m
Meth Date : 17-Dec-2009 07:29 yip00818 Quant Type: ESTD
Cal Date : 14-DEC-2009 12:16 Cal File: 044b4401.d
Als bottle: 52 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-887.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.304	2.303	0.001	47696650	158.975	5.3	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.950	5.950	0.000	38829921	166.490	5.5	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/121609.b/052b5201-6.d
Date : 16-DEC-2009 16:21
Client ID: PBLK01
Sample Info: |1201996856|1|
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1
Column diameter: 0.25

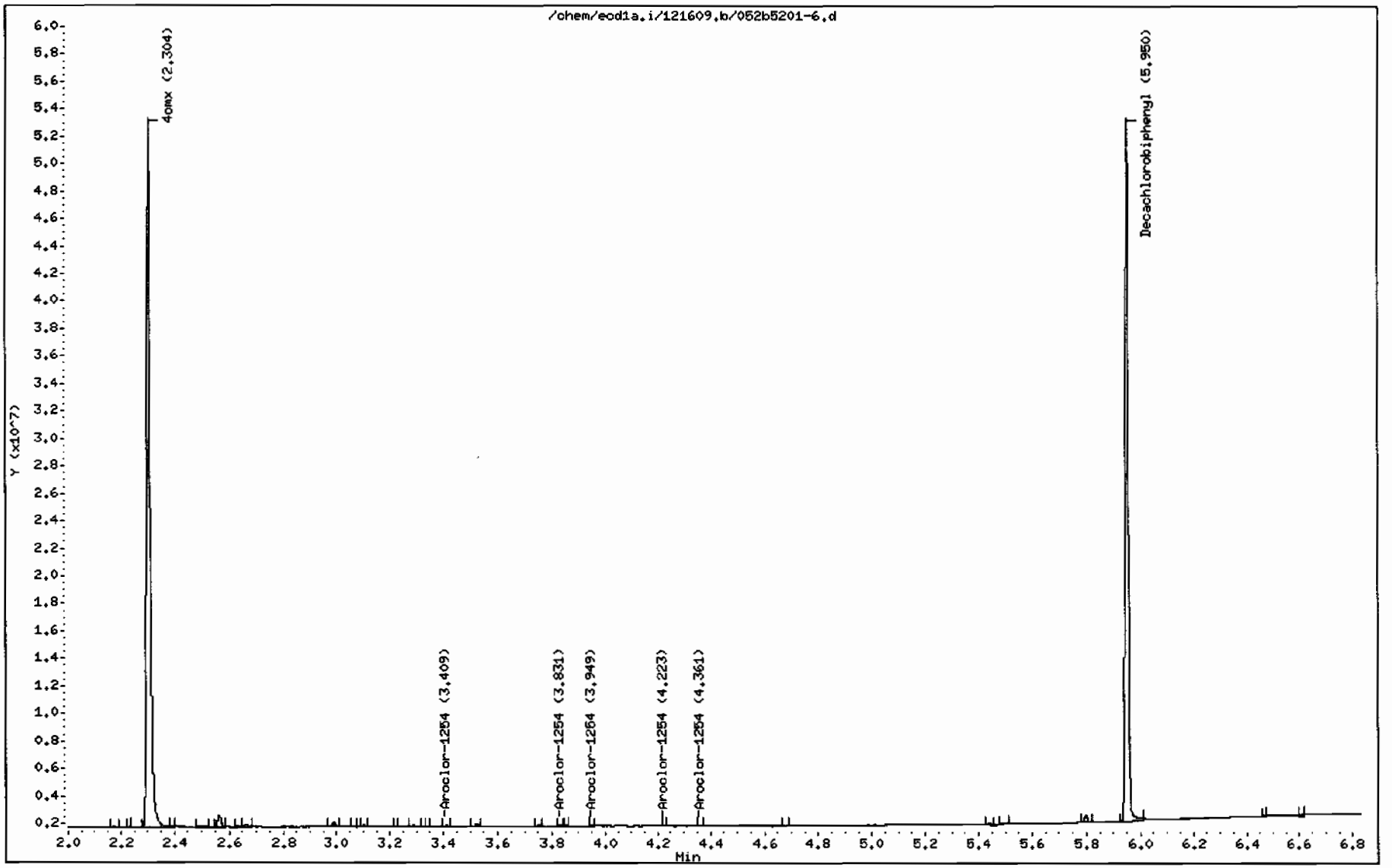

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10-887**			**Matrix:**	**SOIL**
Lab Sample ID:	**1201996857**				
Client Sample:	**QC for batch 933337**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 933337**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**933342**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**12/16/2009 16:32**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**12/15/2009 20:23**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**053f5301-1.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	053b5301-1.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016		29.7	ug/kg	1.11	3.33	1
11104-28-2	Aroclor-1221	U	3.33	ug/kg	1.11	3.33	1
11141-16-5	Aroclor-1232	U	3.33	ug/kg	1.11	3.33	1
53469-21-9	Aroclor-1242	U	3.33	ug/kg	1.11	3.33	1
12672-29-6	Aroclor-1248	U	3.33	ug/kg	1.11	3.33	1
11097-69-1	Aroclor-1254	U	3.33	ug/kg	1.11	3.33	1
11096-82-5	Aroclor-1260		36.0	ug/kg	1.11	3.33	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/121609.b/053f5301-6.d
Lab Smp Id: 1201996857 Client Smp ID: PBLK01LCS
Inj Date : 16-DEC-2009 16:32
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1201996857|1|
Misc Info : |ECD82P_1S|933342|SVAF|QC A|SOIL|LCS|||
Comment :
Method : /chem/ecd1a.i/121609.b/ECD1-F-8082-121409.m
Meth Date : 17-Dec-2009 07:29 yip00818 Quant Type: ESTD
Cal Date : 14-DEC-2009 11:34 Cal File: 040f4001.d
Als bottle: 53 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-887.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.973	1.972	0.001	63302343	168.505	5.6	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.289	5.290	-0.001	57219860	180.197	6.0	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.429	2.430	-0.001	11732294	846.067	28.2	80.00- 120.00	100.00
2.708	2.707	0.001	9479712	938.797	31.3	63.95- 103.95	80.80
2.800	2.800	0.000	9943463	845.747	28.2	66.26- 106.26	84.75
2.838	2.837	0.001	6055256	917.601	30.6	32.06- 72.06	51.61

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
1 Aroclor-1016 (continued)							
3.048	3.048	0.000	7827734	902.499	30.1	47.49- 87.49	66.72
Average of Peak Concentrations =					29.7		
7 Aroclor-1260					CAS #: 11096-82-5		
3.775	3.775	0.000	17144477	1023.42	34.1	80.00- 120.00	100.00
3.938	3.938	0.000	26700172	1079.12	36.0	134.58- 174.58	155.74
4.168	4.168	0.000	16049372	1092.73	36.4	72.46- 112.46	93.61
4.311	4.312	-0.001	16457392	1083.83	36.1	76.67- 116.67	95.99
4.489	4.491	-0.002	38652968	1125.25	37.5	204.79- 244.79	225.45
Average of Peak Concentrations =					36.0		

Data File: /chem/ecd1a.i/121609.b/053f5301-6.d
Date : 16-DEC-2009 16:32
Client ID: PBLK01LCS
Sample Info: |120199685711|
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1
Column diameter: 0.25

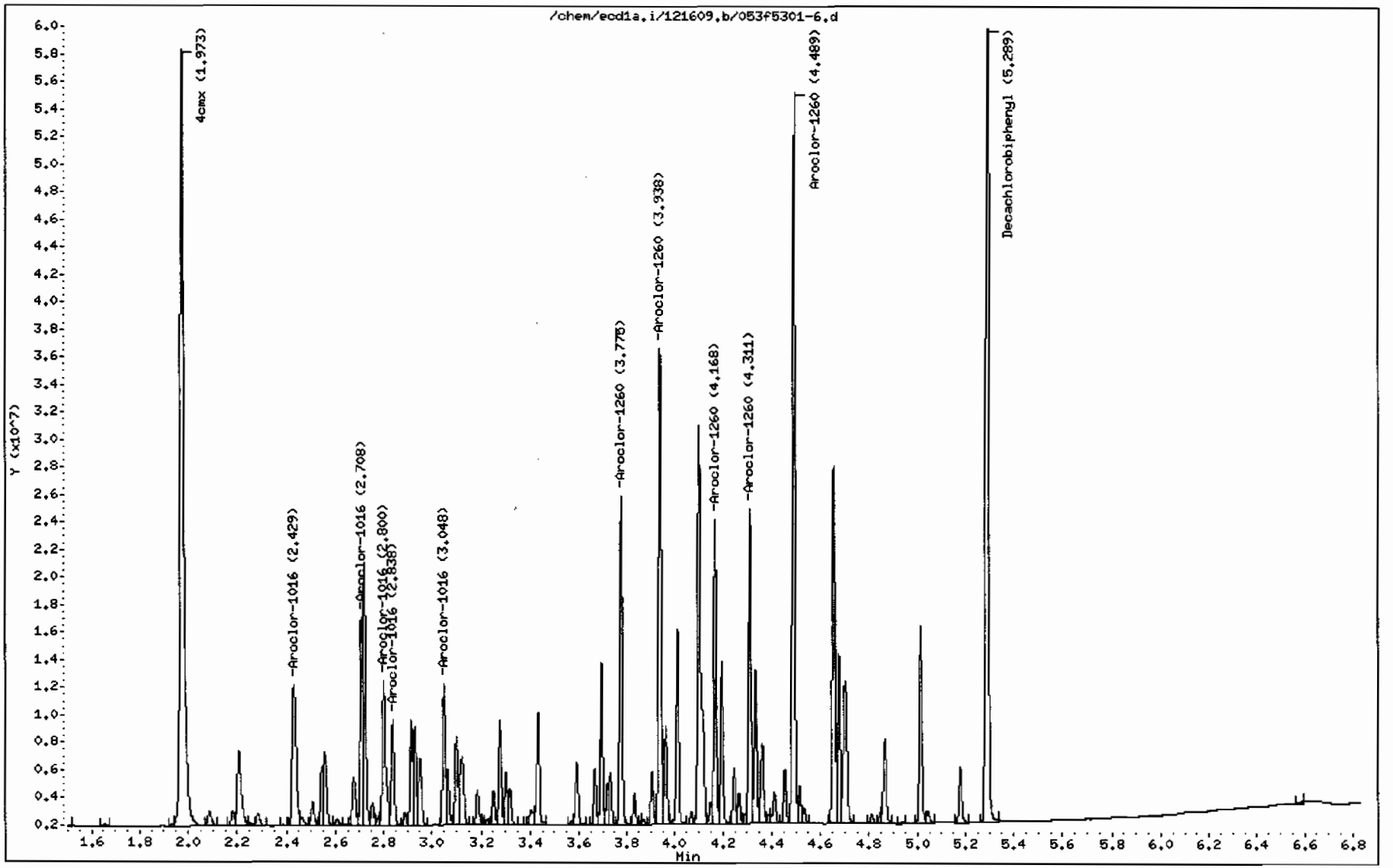

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/121609.b/053b5301-6.d
Lab Smp Id: 1201996857 Client Smp ID: PBLK01LCS
Inj Date : 16-DEC-2009 16:32
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1201996857|1|
Misc Info : |ECD82P_1S|933342|SVAF|QC A|SOIL|LCS|||
Comment :
Method : /chem/ecd1a.i/121609.b/ECD1-B-8082-121409.m
Meth Date : 17-Dec-2009 07:29 yip00818 Quant Type: ESTD
Cal Date : 14-DEC-2009 12:16 Cal File: 044b4401.d
Als bottle: 53 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-887.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.303	2.303	0.000	48118607	160.382	5.3	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.950	5.950	0.000	39380522	168.851	5.6	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.201	3.201	0.000	11605040	920.192	30.7	80.00- 120.00	100.00(M)
3.284	3.283	0.001	7657464	820.923	27.4	47.27- 87.27	65.98
3.348	3.347	0.001	4661726	861.477	28.7	21.95- 61.95	40.17
3.574	3.574	0.000	6046017	857.363	28.6	35.11- 75.11	52.10

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
1 Aroclor-1016 (continued)							
3.650	3.650	0.000	5731967	875.012	29.2	31.28- 71.28	49.39
Average of Peak Concentrations =					28.9		
7 Aroclor-1260					CAS #: 11096-82-5		
4.340	4.341	-0.001	12967113	947.886	31.6	80.00- 120.00	100.00
4.464	4.465	-0.001	16271686	1015.14	33.8	103.29- 143.29	125.48
4.731	4.731	0.000	12459999	991.728	33.0	74.88- 114.88	96.09
4.904	4.905	-0.001	12930533	1009.40	33.6	77.49- 117.49	99.72
5.052	5.052	0.000	29704799	1064.78	35.5	203.67- 243.67	229.08
Average of Peak Concentrations =					33.5		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd1a.i/121609.b/053b5301-6.d

Date : 16-DEC-2009 16:32

Client ID: PBLK01LCS

Sample Info: |120199685711|

Volume Injected (uL): 1.0

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

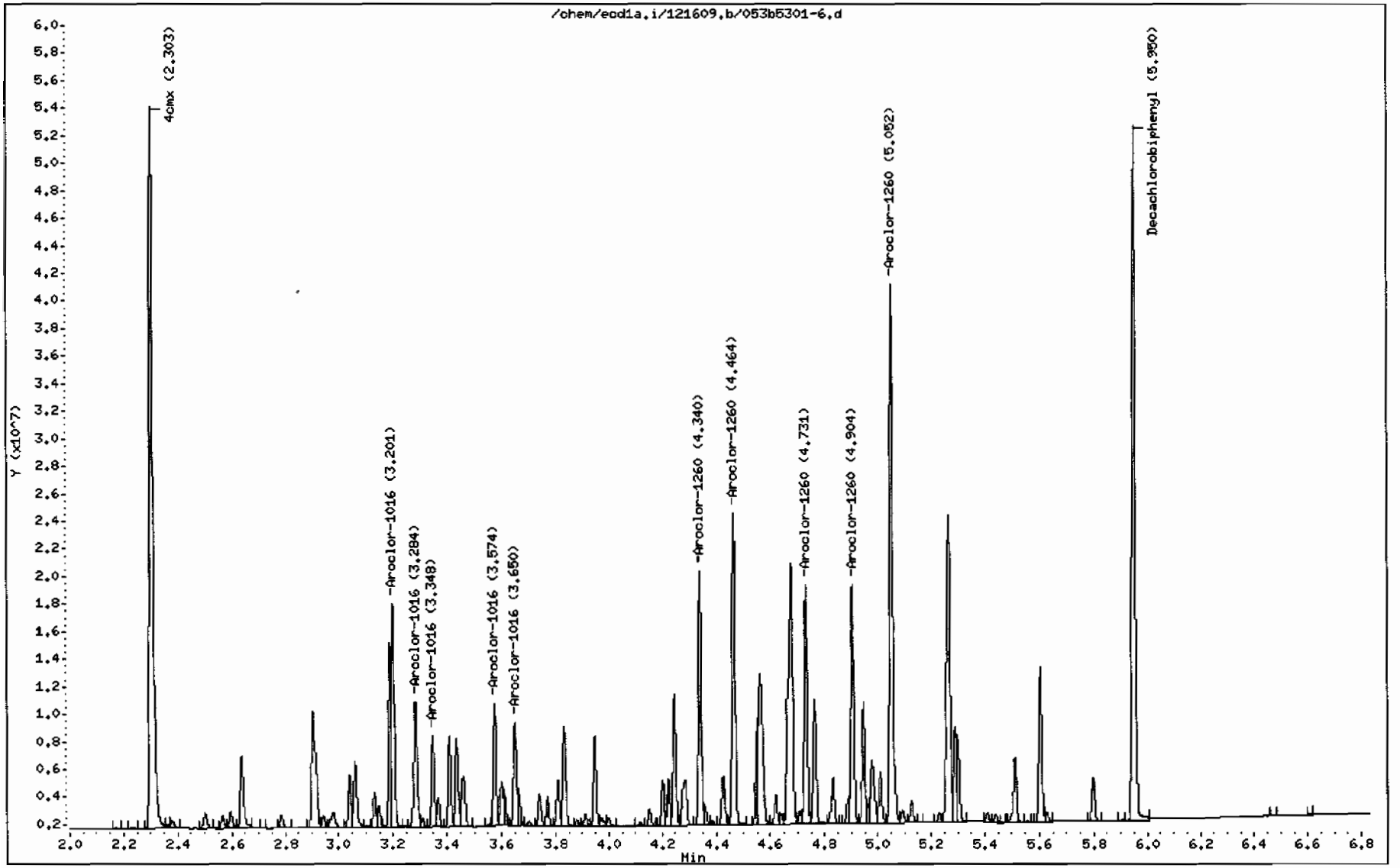

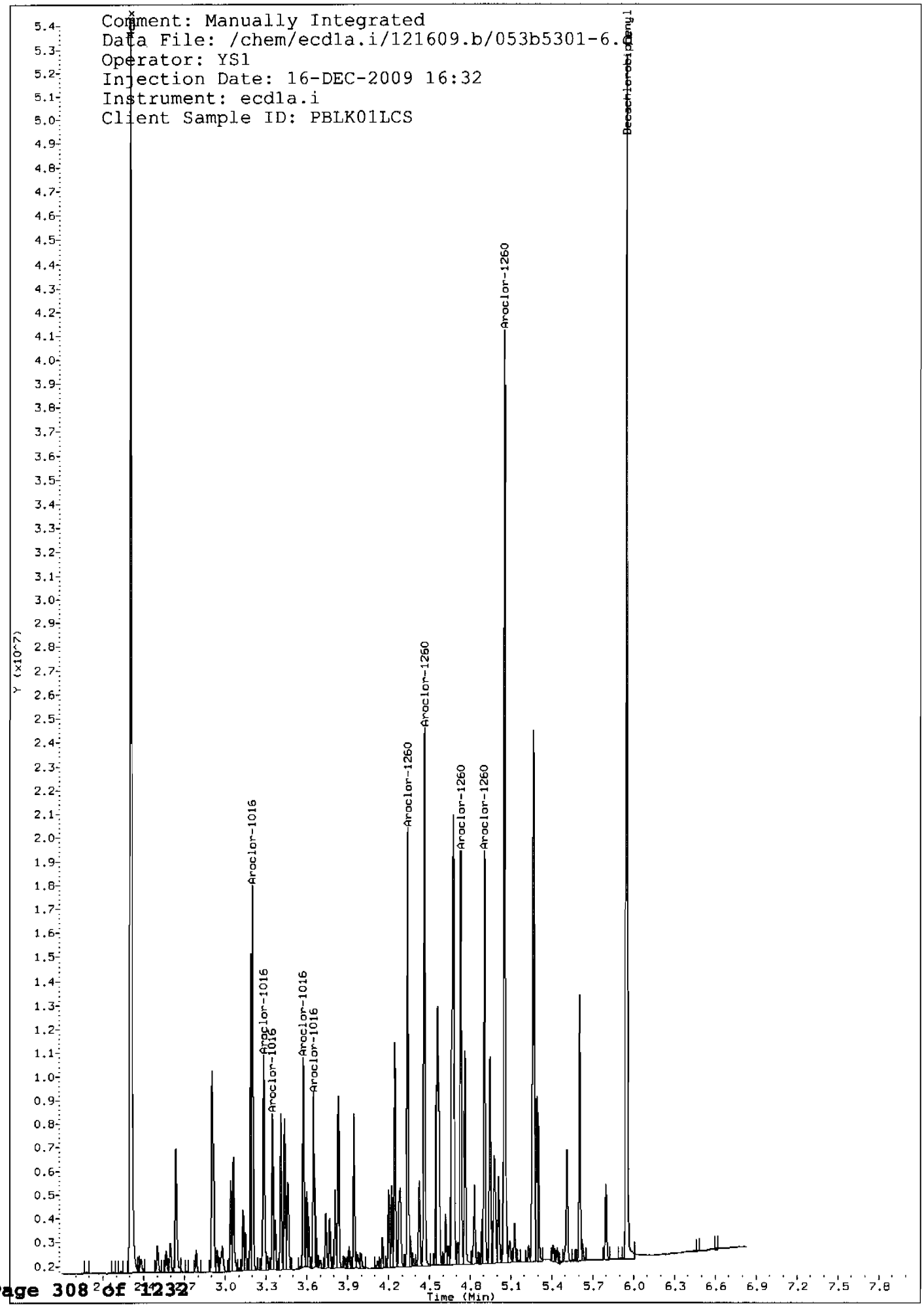
Comment: Manually Integrated
Data File: /chem/ecd1a.i/121609.b/053b5301-6.
Operator: YS1
Injection Date: 16-DEC-2009 16:32
Instrument: ecd1a.i
Client Sample ID: PBLK01LCS
Decachlorobiphenyl
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1016
Aroclor-1016
Aroclor-1016
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Y (x10^7)
Time (Min)

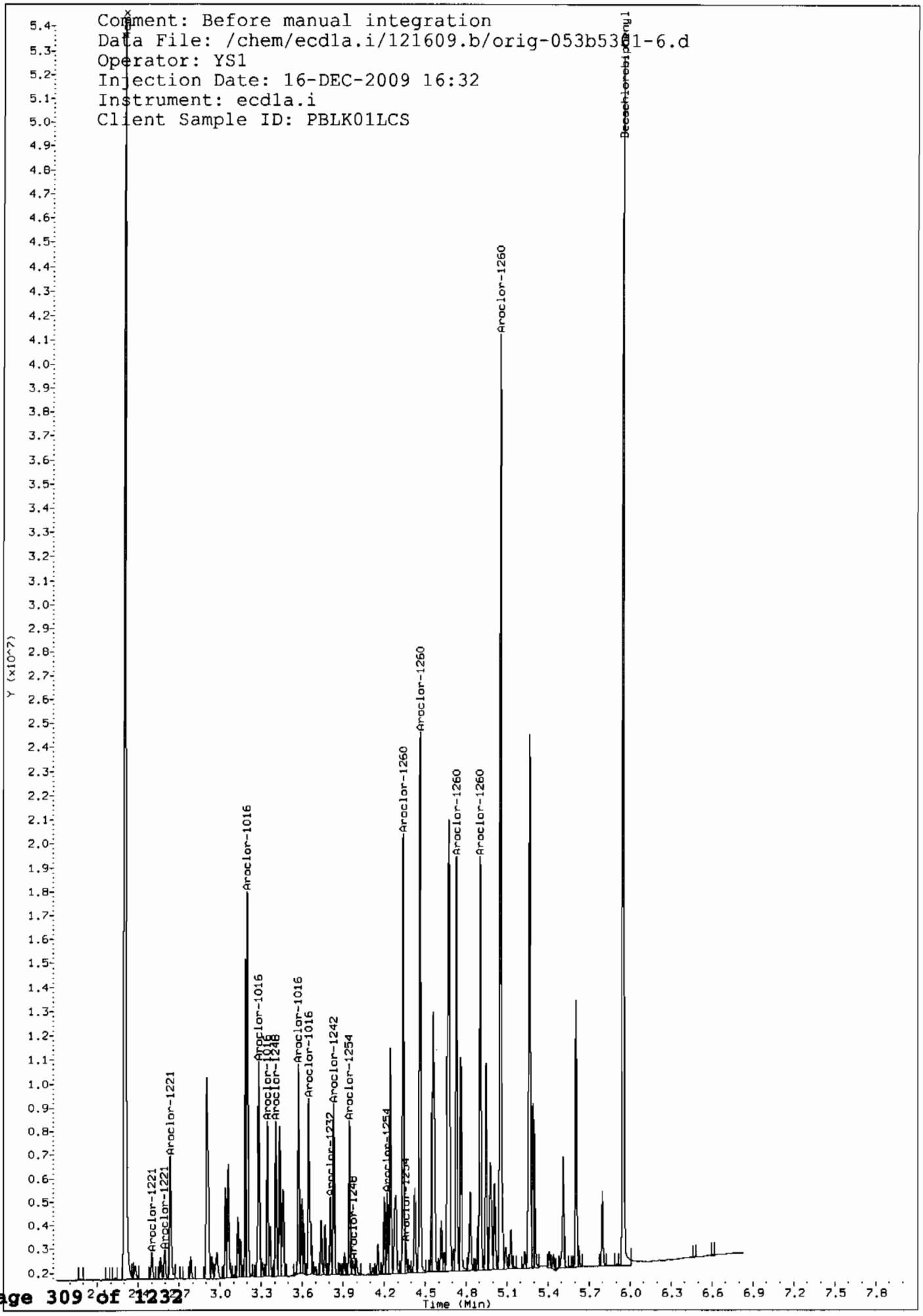
Comment: Before manual integration
Data File: /chem/ecd1a.i/121609.b/orig-053b5381-6.d
Operator: YS1
Injection Date: 16-DEC-2009 16:32
Instrument: ecd1a.i
Client Sample ID: PBLK01LCS
Decachlorobiphenyl
Aroclor-1260
Aroclor-1016
Aroclor-1221
Aroclor-1242
Aroclor-1254
Aroclor-1248
Y (x10^7)
Time (Min)

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–887**	**Date Collected:**	**12/09/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**1201996858**	**Date Received:**	**12/11/2009 08:50**	**%Moisture:**	**9.9**
Client Sample:	**QC for batch 933337**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**RE03–09–13757MS**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**933342**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**12/16/2009 19:58**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**12/15/2009 20:23**	**Aliquot:**	**30.01 g**	**Final Volume:**	**1 mL**
Data File:	**070f7001.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	070b7001.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016		25.6	ug/kg	1.23	3.70	1
11104–28–2	Aroclor–1221	U	3.70	ug/kg	1.23	3.70	1
11141–16–5	Aroclor–1232	U	3.70	ug/kg	1.23	3.70	1
53469–21–9	Aroclor–1242	U	3.70	ug/kg	1.23	3.70	1
12672–29–6	Aroclor–1248	U	3.70	ug/kg	1.23	3.70	1
11097–69–1	Aroclor–1254	P	18.8	ug/kg	1.23	3.70	1
11096–82–5	Aroclor–1260		32.5	ug/kg	1.23	3.70	2

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RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/121609.b/070f7001.d
Lab Smp Id: 1201996858 Client Smp ID: RE03-09-13757MS
Inj Date : 16-DEC-2009 19:58
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1201996858|1|
Misc Info : |ECD82P_1S|933342|SVAF|QC A|SOIL|MS|||
Comment :
Method : /chem/ecd1a.i/121609.b/ECD1-F-8082-121409.m
Meth Date : 17-Dec-2009 07:29 yip00818 Quant Type: ESTD
Cal Date : 14-DEC-2009 11:34 Cal File: 040f4001.d
Als bottle: 70 QC Sample: MS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-887.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.01000	Weight of sample extracted (g)
M	9.86880	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.973	1.972	0.001	48111635	128.069	4.7	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.288	5.290	-0.002	44565620	140.346	5.2	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.430	2.430	0.000	9050960	652.704	24.1	80.00- 120.00	100.00
2.707	2.707	0.000	7651064	757.702	28.0	63.95- 103.95	84.53
2.800	2.800	0.000	7684669	653.624	24.2	66.26- 106.26	84.90
2.837	2.837	0.000	4613972	699.192	25.8	32.06- 72.06	50.98

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
1 Aroclor-1016 (continued)							
3.048	3.048	0.000	6021291	694.225	25.7	47.49- 87.49	66.53
Average of Peak Concentrations =					25.6		
6 Aroclor-1254					CAS #: 11097-69-1		
3.278	3.277	0.001	4850927	388.526	14.4	80.00- 120.00	100.00
3.432	3.433	-0.001	5576518	333.485	12.3	117.82- 157.82	114.96
3.666	3.667	-0.001	3283435	158.513	5.9	162.83- 202.83	67.69
3.830	3.830	0.000	2161452	137.723	5.1	121.29- 161.29	44.56
3.937	3.939	-0.002	23145900	1525.52	56.4	112.52- 152.52	477.14
Average of Peak Concentrations =					18.8		
7 Aroclor-1260					CAS #: 11096-82-5		
3.775	3.775	0.000	14598423	871.436	32.2	80.00- 120.00	100.00
3.937	3.938	-0.001	23145900	935.467	34.6	134.58- 174.58	158.55
4.167	4.168	-0.001	13713745	933.712	34.5	72.46- 112.46	93.94
4.310	4.312	-0.002	13261085	873.329	32.3	76.67- 116.67	90.84
4.490	4.491	-0.001	33407900	972.561	36.0	204.79- 244.79	228.85
Average of Peak Concentrations =					33.9		

Data File: /chem/ecd1a.i/121609.b/070f7001.d

Date : 16-DEC-2009 19:58

Client ID: RE03-09-13757MS

Sample Info: |1201996858|1|

Volume Injected (uL): 1.0

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

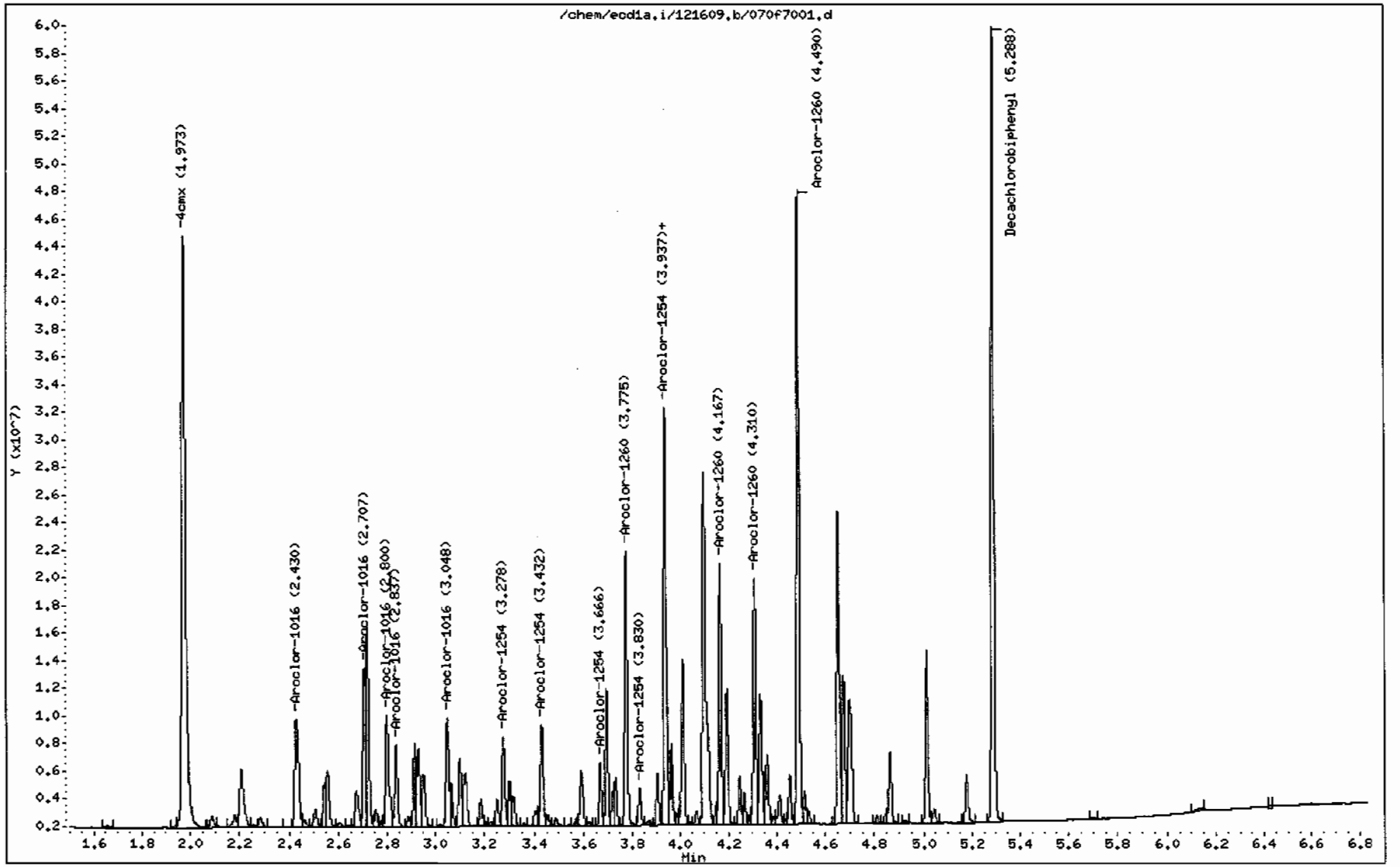

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RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/121609.b/070b7001.d
Lab Smp Id: 1201996858 Client Smp ID: RE03-09-13757MS
Inj Date : 16-DEC-2009 19:58
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1201996858|1|
Misc Info : |ECD82P_1S|933342|SVAF|QC A|SOIL|MS|||
Comment :
Method : /chem/ecd1a.i/121609.b/ECD1-B-8082-121409.m
Meth Date : 17-Dec-2009 07:29 yip00818 Quant Type: ESTD
Cal Date : 14-DEC-2009 12:16 Cal File: 044b4401.d
Als bottle: 70 QC Sample: MS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-887.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.01000	Weight of sample extracted (g)
M	9.86880	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.303	2.303	0.000	36931623	123.095	4.6	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.950	5.950	0.000	31890808	136.737	5.0	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.200	3.201	-0.001	9036963	716.563	26.5	80.00- 120.00	100.00(M)
3.284	3.283	0.001	6003161	643.572	23.8	44.88- 84.88	66.43
3.347	3.347	0.000	3648098	674.161	24.9	20.66- 60.66	40.37
3.575	3.574	0.001	4736513	671.667	24.8	32.99- 72.99	52.41

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
1 Aroclor-1016 (continued)							
3.650	3.650	0.000	4449840	679.289	25.1	28.99- 68.99	58.85
Average of Peak Concentrations =					25.0		
6 Aroclor-1254					CAS #: 11097-69-1		
3.409	3.409	0.000	3646896	566.706	21.0	80.00- 120.00	100.00
3.832	3.832	0.000	4868088	421.140	15.6	160.27- 200.27	133.49
3.948	3.947	0.001	4224728	339.846	12.6	181.92- 221.92	115.84
4.224	4.224	0.000	2709256	160.500	5.9	264.49- 304.49	74.29
4.360	4.360	0.000	1275374	102.559	3.8	192.39- 232.39	34.97
Average of Peak Concentrations =					11.8		
7 Aroclor-1260					CAS #: 11096-82-5		
4.340	4.341	-0.001	11397011	833.113	30.8	80.00- 120.00	100.00
4.465	4.465	0.000	14447761	901.350	33.3	104.06- 144.06	126.77
4.730	4.731	-0.001	10998968	875.440	32.4	75.41- 115.41	96.51
4.905	4.905	0.000	11096034	866.196	32.0	77.99- 117.99	97.36
5.051	5.052	-0.001	25809164	925.137	34.2	204.52- 244.52	226.46
Average of Peak Concentrations =					32.5		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd1a.i/121609.b/070b7001.d
Date : 16-DEC-2009 19:58
Client ID: RE03-09-13757MS
Sample Info: |120199685811|
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd1a.i
Operator: YS1
Column diameter: 0.25

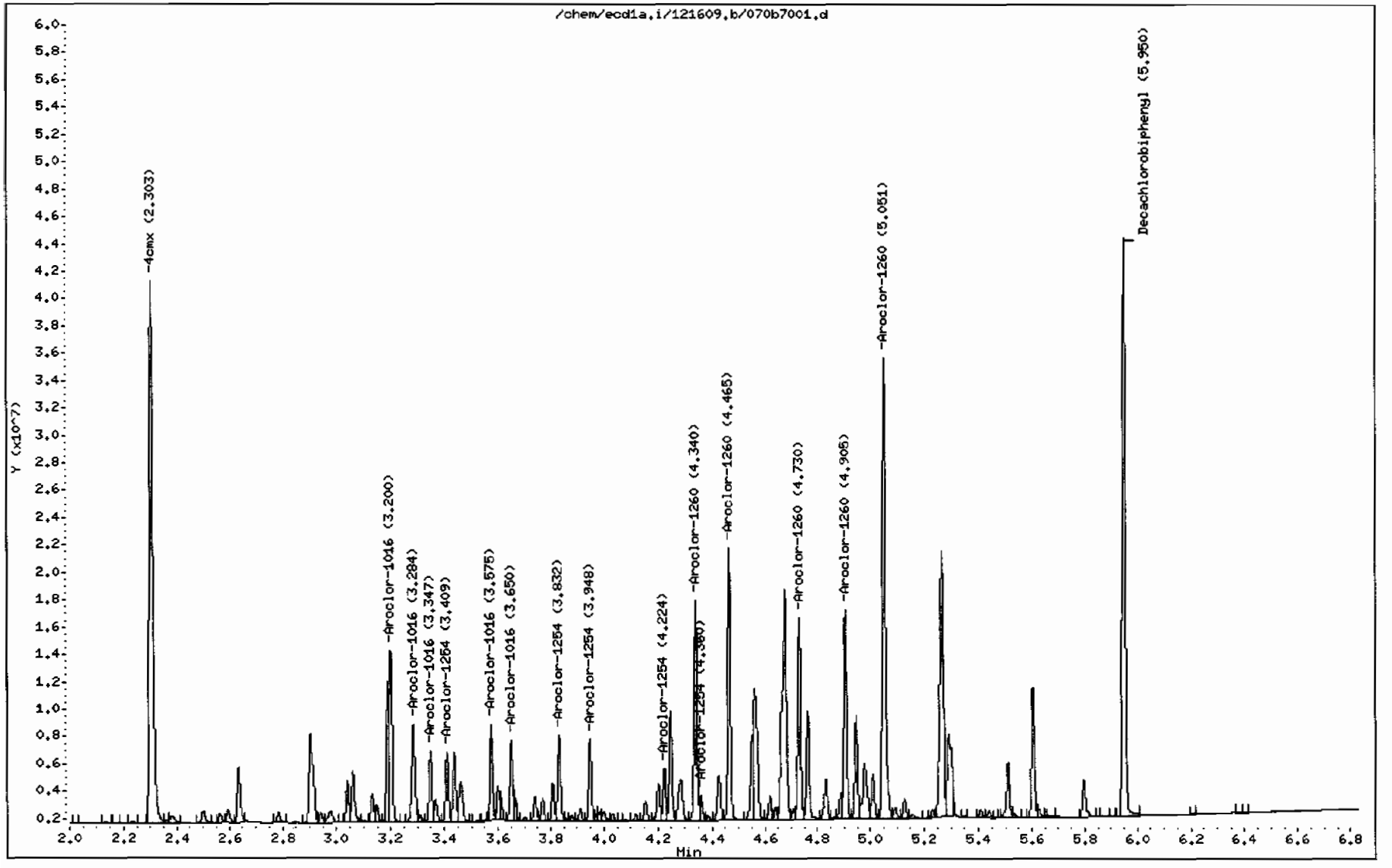

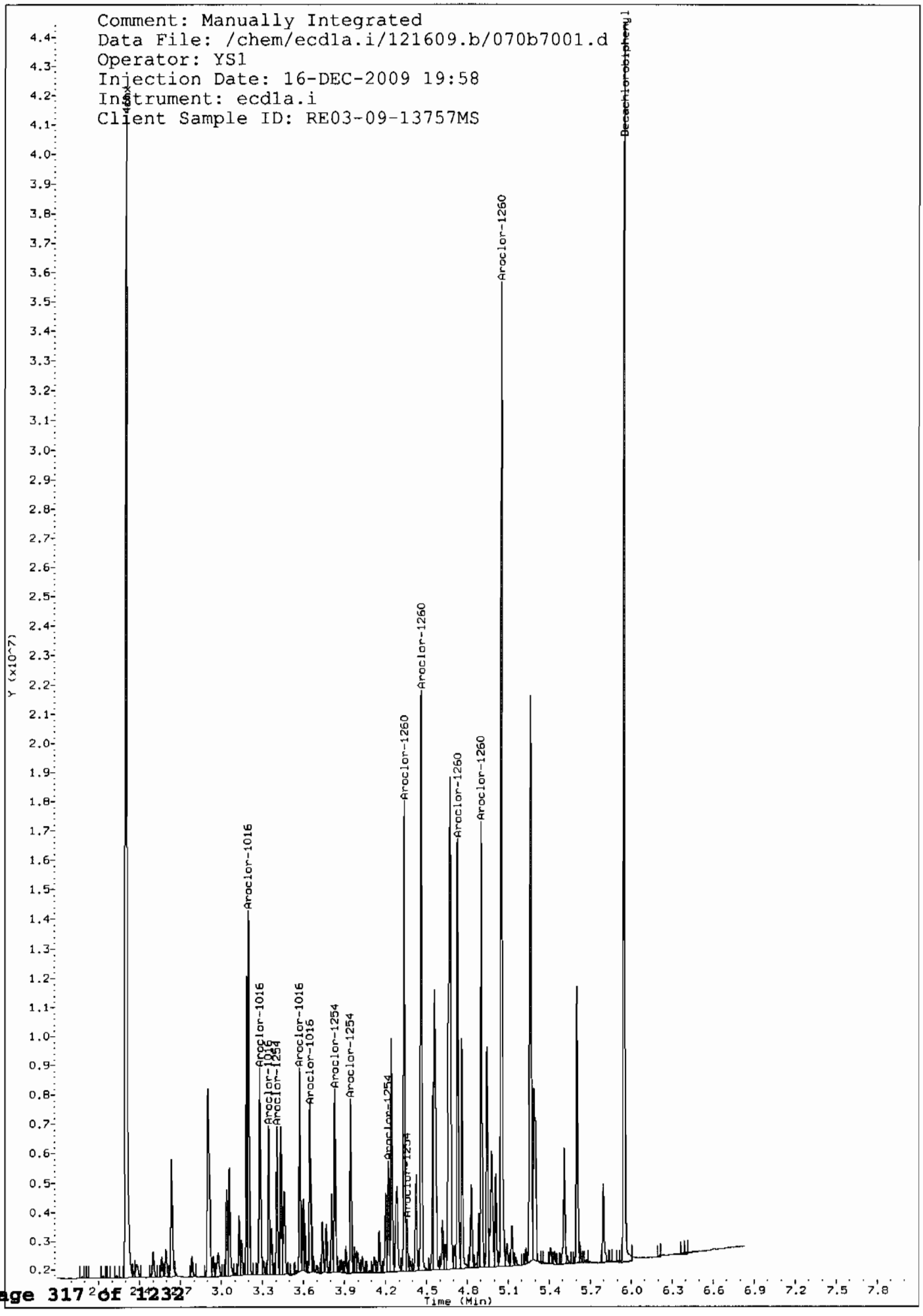
Comment: Manually Integrated
Data File: /chem/ecd1a.i/121609.b/070b7001.d
Operator: YS1
Injection Date: 16-DEC-2009 19:58
Instrument: ecd1a.i
Client Sample ID: RE03-09-13757MS
Decachlorobiphenyl
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1254
Aroclor-1254
Aroclor-1254
Y (x10^7)
Time (Min)

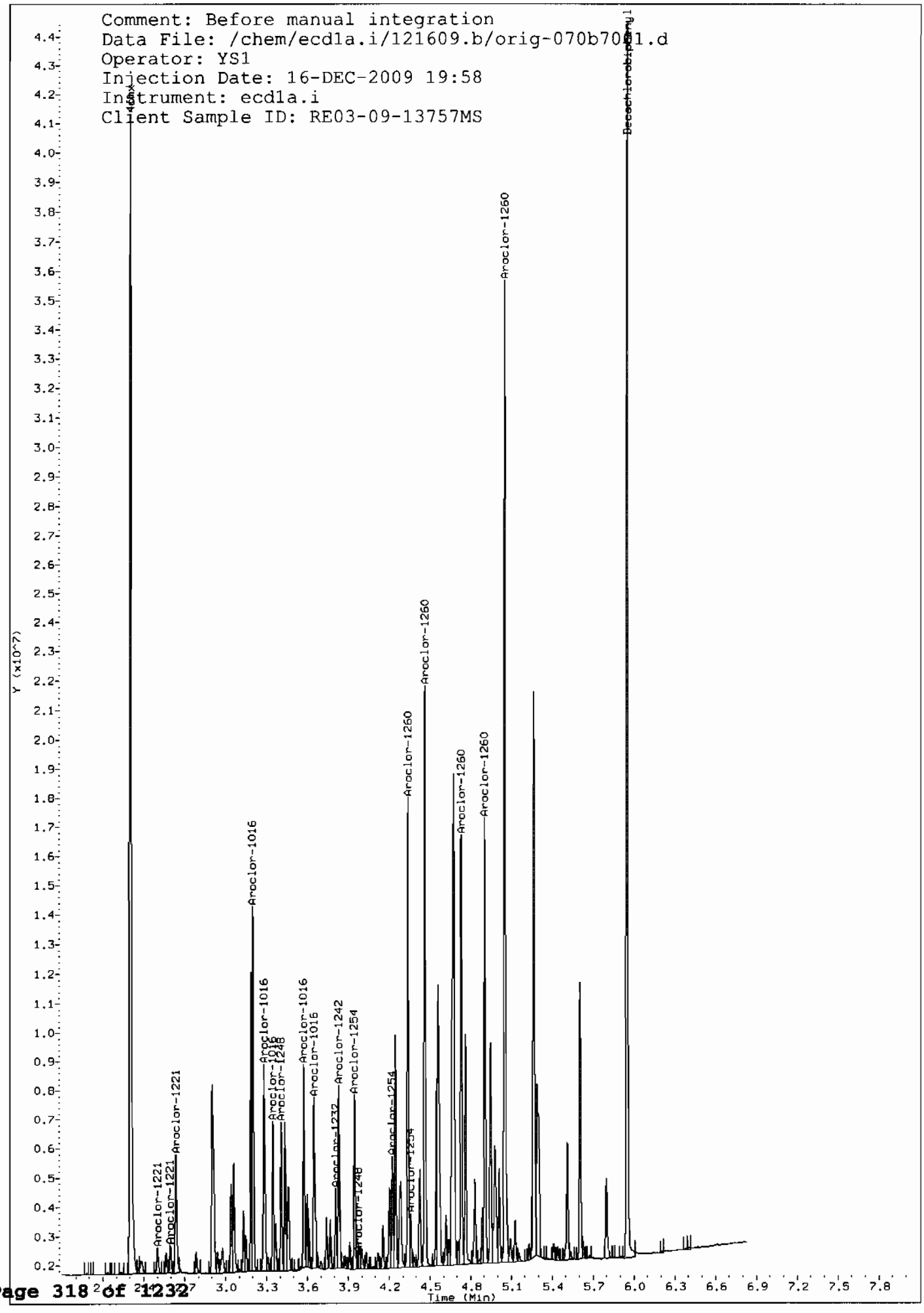
Comment: Before manual integration
Data File: /chem/ecd1a.i/121609.b/orig-070b70[illegible]1.d
Operator: YS1
Injection Date: 16-DEC-2009 19:58
Instrument: ecd1a.i
Client Sample ID: RE03-09-13757MS
Decachlorobiphenyl
Aroclor-1260
Aroclor-1016
Aroclor-1221
Aroclor-1242
Aroclor-1254
Aroclor-1248
Y (x10^7)
Time (Min)

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10–887	**Date Collected:**	12/09/2009 12:00	**Matrix:**	S
Lab Sample ID:	1201996859	**Date Received:**	12/11/2009 08:50	**%Moisture:**	9.9
Client Sample:	QC for batch 933337	**Client:**	LANL010	**Project:**	QC
Client ID:	RE03–09–13757MSD	**Method:**	SW846 8082	**SOP Ref:**	GL–OA–E–040
Batch ID:	933342	**Inst:**	ECD1A.I	**Dilution:**	1
Run Date:	12/16/2009 20:08	**Analyst:**	YS1	**Inj. Vol:**	1 uL
Prep Date:	12/15/2009 20:23	**Aliquot:**	30.04 g	**Final Volume:**	1 mL
Data File:	071f7101.d	**Column:**	1 CLP1	**Level:**	LOW
	071b7101.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016		26.6	ug/kg	1.23	3.69	1
11104–28–2	Aroclor–1221	U	3.69	ug/kg	1.23	3.69	1
11141–16–5	Aroclor–1232	U	3.69	ug/kg	1.23	3.69	1
53469–21–9	Aroclor–1242	U	3.69	ug/kg	1.23	3.69	1
12672–29–6	Aroclor–1248	U	3.69	ug/kg	1.23	3.69	1
11097–69–1	Aroclor–1254	P	19.1	ug/kg	1.23	3.69	1
11096–82–5	Aroclor–1260		33.2	ug/kg	1.23	3.69	2

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RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/121609.b/071f7101.d
Lab Smp Id: 1201996859 Client Smp ID: RE03-09-13757MSD
Inj Date : 16-DEC-2009 20:08
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1201996859|1|
Misc Info : |ECD82P_1S|933342|SVAF|QC A|SOIL|MSD|||
Comment :
Method : /chem/ecd1a.i/121609.b/ECD1-F-8082-121409.m
Meth Date : 17-Dec-2009 07:29 yip00818 Quant Type: ESTD
Cal Date : 14-DEC-2009 11:34 Cal File: 040f4001.d
Als bottle: 71 QC Sample: MSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-887.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.04000	Weight of sample extracted (g)
M	9.86880	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.973	1.972	0.001	48948487	130.297	4.8	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.289	5.290	-0.001	46432928	146.227	5.4	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.429	2.430	-0.001	9402676	678.068	25.0	80.00- 120.00	100.00
2.707	2.707	0.000	7853185	777.718	28.7	63.95- 103.95	83.52
2.800	2.800	0.000	8043502	684.145	25.3	66.26- 106.26	85.54
2.838	2.837	0.001	4862526	736.857	27.2	32.06- 72.06	51.71

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
1 Aroclor-1016 (continued)							
3.048	3.048	0.000	6336986	730.623	27.0	47.49- 87.49	67.40
Average of Peak Concentrations =					26.6		
6 Aroclor-1254					CAS #: 11097-69-1		
3.278	3.277	0.001	4999563	400.430	14.8	80.00- 120.00	100.00
3.433	3.433	0.000	5662787	338.644	12.5	117.82- 157.82	113.27
3.667	3.667	0.000	3177762	153.412	5.7	162.83- 202.83	63.56
3.831	3.830	0.001	2067647	131.746	4.9	121.29- 161.29	41.36
3.938	3.939	-0.001	23700994	1562.10	57.7	112.52- 152.52	474.06
Average of Peak Concentrations =					19.1		
7 Aroclor-1260					CAS #: 11096-82-5		
3.775	3.775	0.000	15024828	896.890	33.1	80.00- 120.00	100.00
3.938	3.938	0.000	23700994	957.902	35.4	134.58- 174.58	157.75
4.168	4.168	0.000	14062127	957.431	35.4	72.46- 112.46	93.59
4.311	4.312	-0.001	13991463	921.429	34.0	76.67- 116.67	93.12
4.491	4.491	0.000	34502837	1004.44	37.1	204.79- 244.79	229.64
Average of Peak Concentrations =					35.0		

Data File: /chem/ecd1a.i/121609.b/071f7101.d

Date : 16-DEC-2009 20:08

Client ID: RE03-09-13757MSD

Sample Info: |12019968591|1|

Volume Injected (uL): 1.0

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

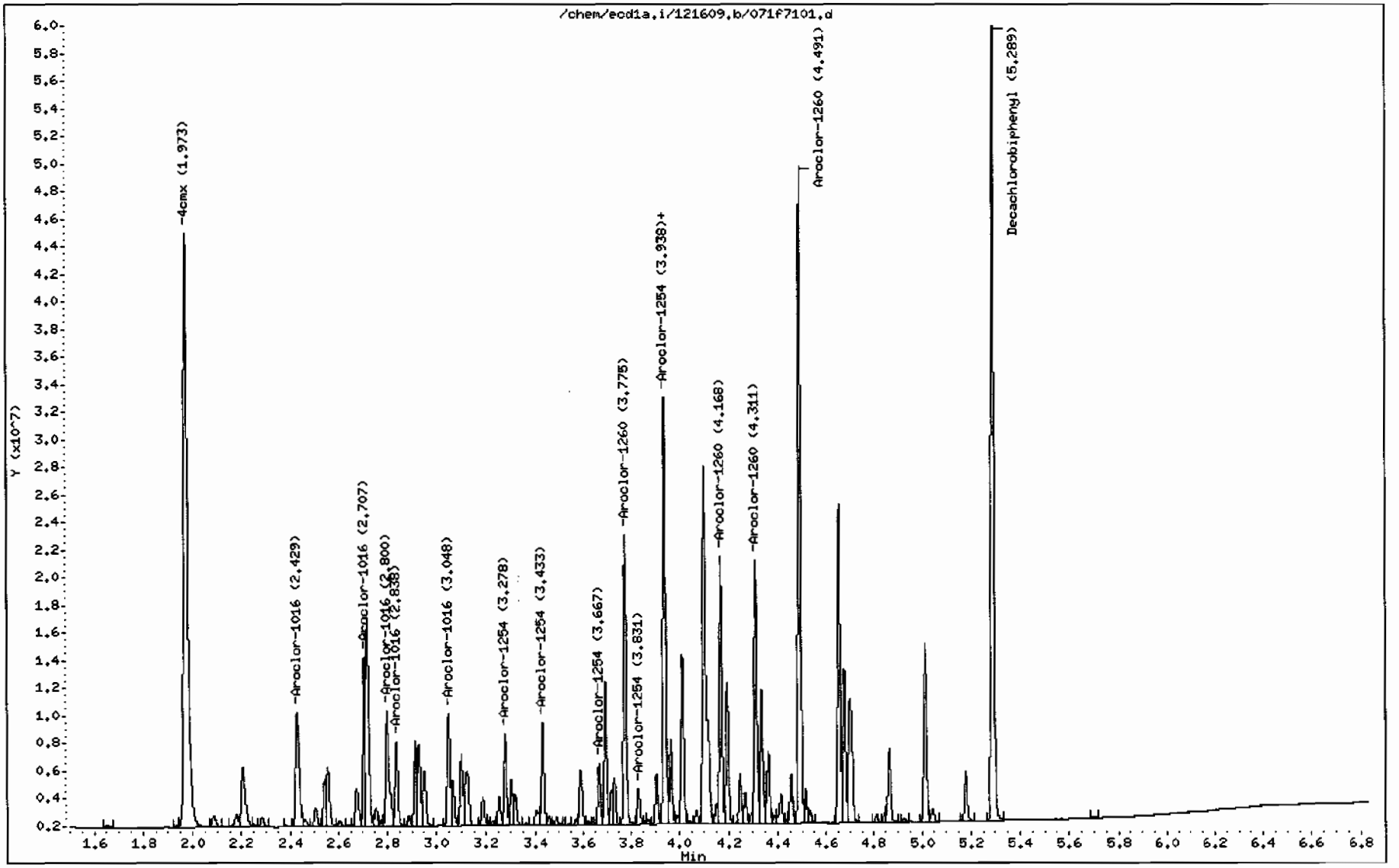

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/121609.b/071b7101.d
Lab Smp Id: 1201996859 Client Smp ID: RE03-09-13757MSD
Inj Date : 16-DEC-2009 20:08
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1201996859|1|
Misc Info : |ECD82P_1S|933342|SVAF|QC A|SOIL|MSD|||
Comment :
Method : /chem/ecd1a.i/121609.b/ECD1-B-8082-121409.m
Meth Date : 17-Dec-2009 07:29 yip00818 Quant Type: ESTD
Cal Date : 14-DEC-2009 12:16 Cal File: 044b4401.d
Als bottle: 71 QC Sample: MSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-887.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.04000	Weight of sample extracted (g)
M	9.86880	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.303	2.303	0.000	37551728	125.162	4.6	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.950	5.950	0.000	32753256	140.435	5.2	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.201	3.201	0.000	9256445	733.966	27.1	80.00- 120.00	100.00(M)
3.284	3.283	0.001	6245508	669.553	24.7	44.88- 84.88	67.47
3.348	3.347	0.001	3758497	694.562	25.6	20.66- 60.66	40.60
3.574	3.574	0.000	4941988	700.804	25.9	32.99- 72.99	53.39

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
1 Aroclor-1016 (continued)							
3.650	3.650	0.000	4643203	708.807	26.2	28.99- 68.99	60.02
Average of Peak Concentrations =					25.9		
6 Aroclor-1254					CAS #: 11097-69-1		
3.409	3.409	0.000	3787599	588.570	21.7	80.00- 120.00	100.00
3.832	3.832	0.000	5055066	437.315	16.2	160.27- 200.27	133.46
3.948	3.947	0.001	4255920	342.356	12.6	181.92- 221.92	112.36
4.224	4.224	0.000	2614738	154.901	5.7	264.49- 304.49	69.03
4.361	4.360	0.001	1162034	93.4451	3.4	192.39- 232.39	30.68
Average of Peak Concentrations =					11.9		
7 Aroclor-1260					CAS #: 11096-82-5		
4.341	4.341	0.000	11632595	850.334	31.4	80.00- 120.00	100.00
4.465	4.465	0.000	14648358	913.865	33.8	104.06- 144.06	125.93
4.731	4.731	0.000	11229037	893.752	33.0	75.41- 115.41	96.53
4.905	4.905	0.000	11381455	888.477	32.8	77.99- 117.99	97.84
5.052	5.052	0.000	26546748	951.576	35.1	204.52- 244.52	228.21
Average of Peak Concentrations =					33.2		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecdia.i/121609.b/071b7101.d
Date : 16-DEC-2009 20:08
Client ID: RE03-09-13757MSD
Sample Info: 1120199685911
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecdia.i
Operator: YS1
Column diameter: 0.25

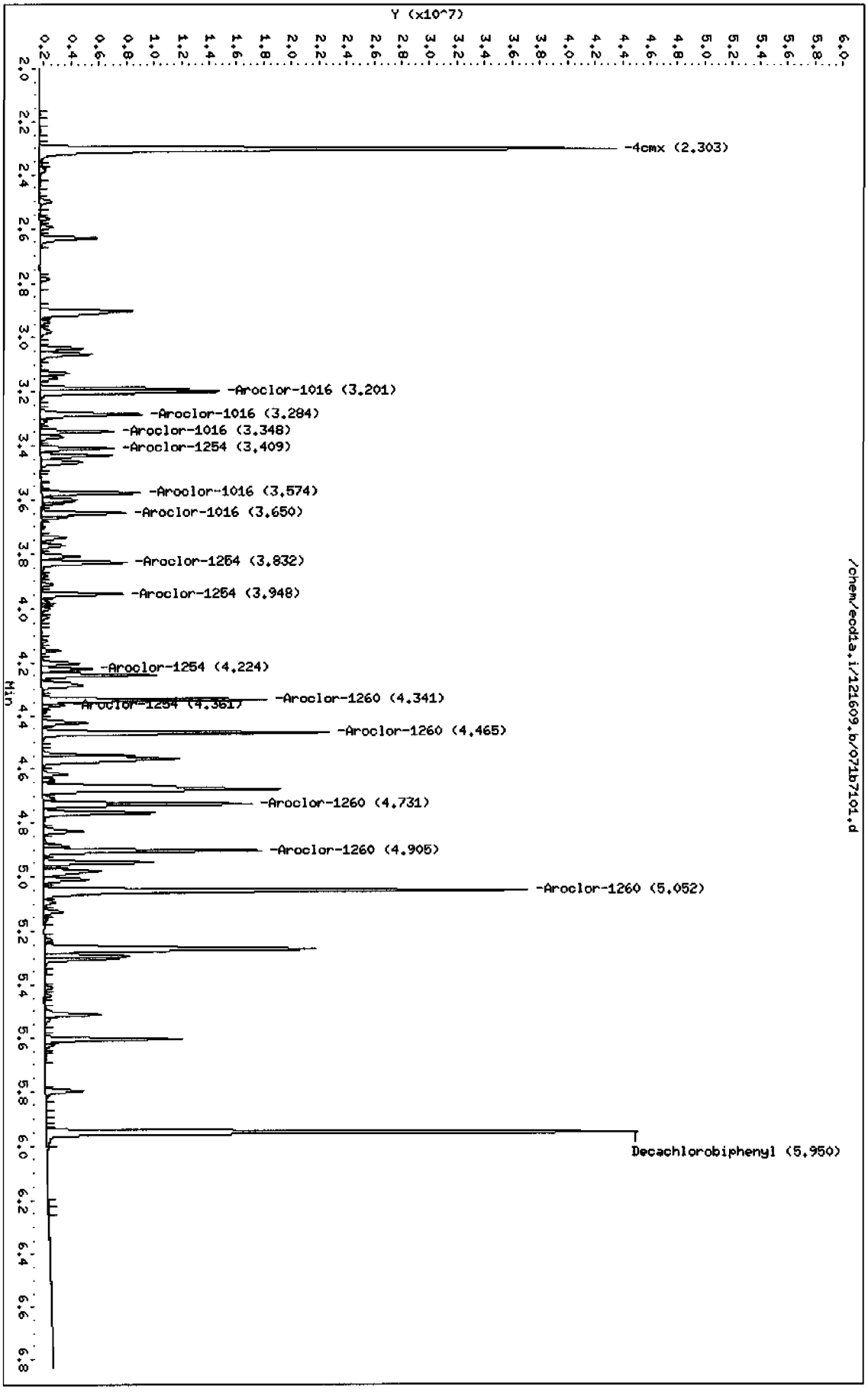

Page 1

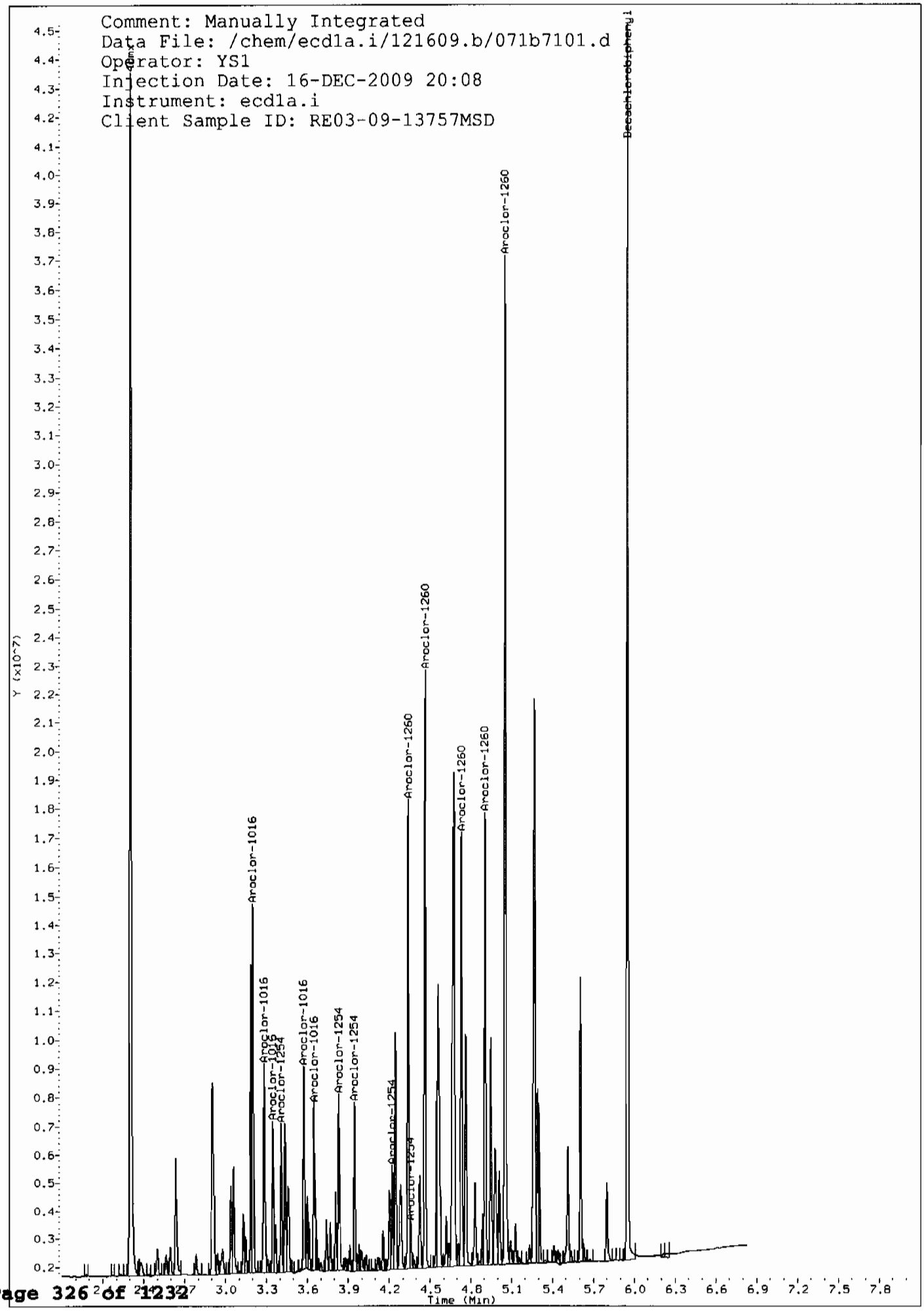
Comment: Manually Integrated
Data File: /chem/ecd1a.i/121609.b/071b7101.d
Operator: YS1
Injection Date: 16-DEC-2009 20:08
Instrument: ecd1a.i
Client Sample ID: RE03-09-13757MSD
Decachlorobiphenyl
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
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Y (x10^7)
Time (Min)

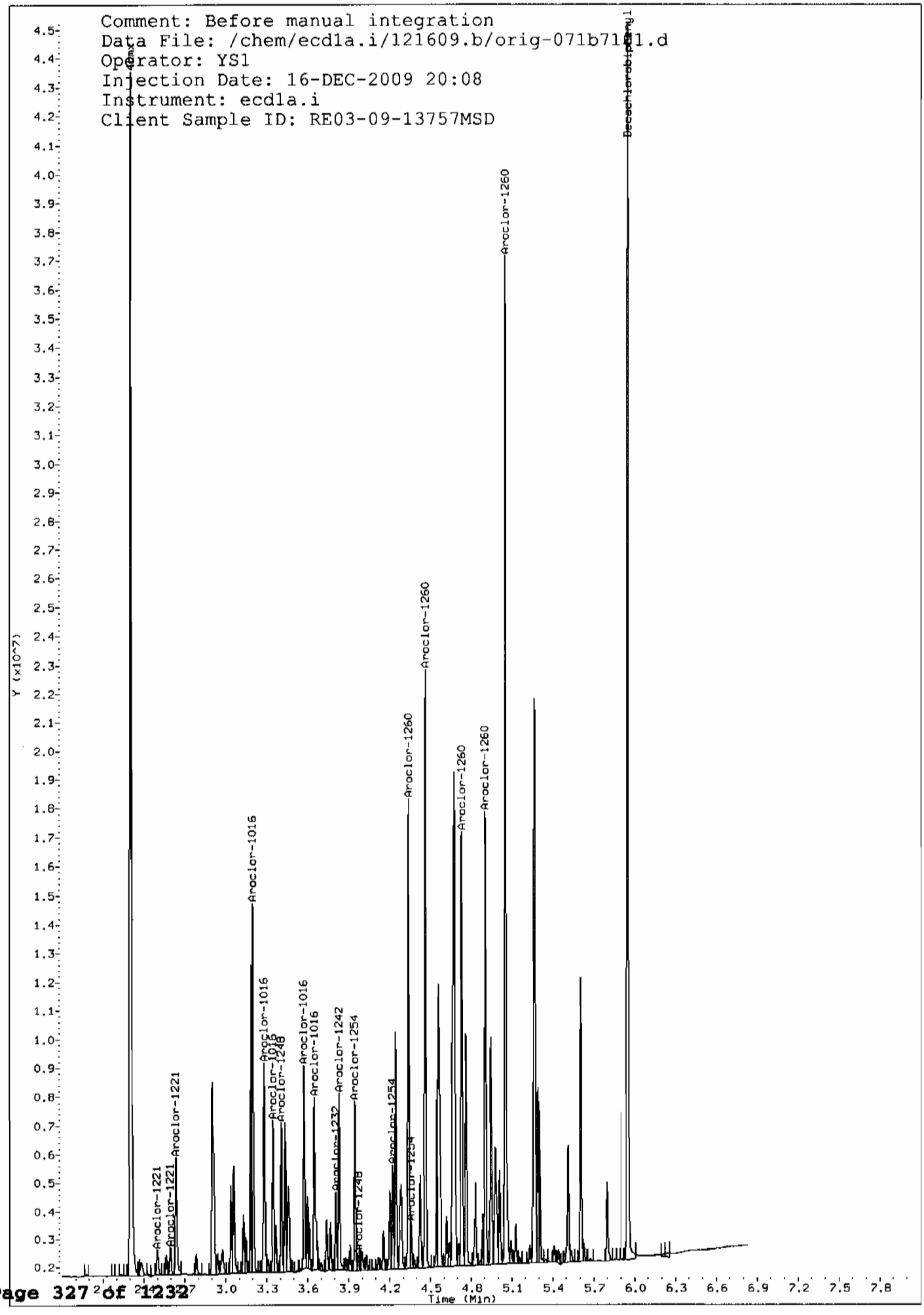
Comment: Before manual integration
Data File: /chem/ecd1a.i/121609.b/orig-071b71
Operator: YS1
Injection Date: 16-DEC-2009 20:08
Instrument: ecd1a.i
Client Sample ID: RE03-09-13757MSD
Decachlorobiphenyl
Aroclor-1260
Aroclor-1016
Aroclor-1221
Aroclor-1248
Aroclor-1242
Aroclor-1254
Y (x10^7)
Time (Min)

MISCELLANEOUS DATA

GEL ORGANIC RUN LOG INSTRUMENT ID: ECD1

DATE: 12/15/2009 METHOD: ECD1-F-8082-121409.m OPERATOR:YS1 REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT DA385
ALUMINA LOT 1230997-A
COPPER LOT 236547-A

Calibration & QC Information
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.
GEL SOP GL-OA-E-040 Polychlorinated Biphenyl: EPA 8082
Chromatogram Abbreviation Legend: AB-Assign Baseline, AP-Assign Peak,
DNC-Do Not Call, DMP-Doesn't Match Pattern, NC-Not Confirmed, RT-Retention Time,
BF-Before, AF-After.

Sequence Number: /chem/ecd1a.i/121409.b Injection Volume: 0.5 ul

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001f0101.d	WAR091130-99 01	YS1	14-DEC-2009 04:44		121409	1.0	CLEAN	
002f0201.d	WAR091211-60 01	YS1	14-DEC-2009 04:54		121409	1.0	DUSE RE-ICAL	
003f0301.d	WAR091102-54	YS1	14-DEC-2009 05:05		121409	1.0	DUSE RE-ICAL	
004f0401.d	WAR091102-42	YS1	14-DEC-2009 05:15		121409	1.0	DUSE RE-ICAL	
005f0501.d	WAR091027-48	YS1	14-DEC-2009 05:26		121409	1.0	DUSE RE-ICAL	
006f0601.d	WAR090930-32	YS1	14-DEC-2009 05:36		121409	1.0	PATTERN ONLY	
007f0701.d	WAR090803-21	YS1	14-DEC-2009 05:47		121409	1.0	PATTERN ONLY	
008f0801.d	WAR090803-62	YS1	14-DEC-2009 05:58		121409	1.0	PATTERN ONLY	
009f0901.d	WAR091106-68	YS1	14-DEC-2009 06:08		121409	1.0	DUSE RE-ICAL	
010f1001.d	1660-1	YS1	14-DEC-2009 06:19		121409	1.0	DUSE	
011f1101.d	1660-2	YS1	14-DEC-2009 06:29		121409	1.0	DUSE	
012f1201.d	1660-3	YS1	14-DEC-2009 06:40		121409	1.0	DUSE	
013f1301.d	1660-4	YS1	14-DEC-2009 06:50		121409	1.0	DUSE	
014f1401.d	IAR091102-01	YS1	14-DEC-2009 07:01		121409	1.0	DUSE	
015f1501.d	WAR091211-60 01	YS1	14-DEC-2009 07:11		121409	1.0	DUSE	

Instrument Batch: /chem/ecd1a.i/121409.b Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments

016f1601.d	WAR091214-05 54	YS1	14-DEC-2009 07:22		121409	1.0	AR1254 I-CAL LEVEL 1
017f1701.d	WAR091214-06 54	YS1	14-DEC-2009 07:32		121409	1.0	AR1254 I-CAL LEVEL 2
018f1801.d	WAR091214-07 54	YS1	14-DEC-2009 07:43		121409	1.0	AR1254 I-CAL LEVEL 3
019f1901.d	WAR091214-08 54	YS1	14-DEC-2009 07:53		121409	1.0	AR1254 I-CAL LEVEL 4
020f2001.d	IAR091027-01	YS1	14-DEC-2009 08:04		121409	1.0	AR1254 I-CAL LEVEL 5
021f2101.d	WAR091102-54	YS1	14-DEC-2009 08:14		121409	1.0	PASSED ON BOTH COLUMNS
022f2201.d	WAR091214-09 42	YS1	14-DEC-2009 08:25		121409	1.0	AR1242 I-CAL LEVEL 1
023f2301.d	WAR091214-10 42	YS1	14-DEC-2009 08:35		121409	1.0	AR1242 I-CAL LEVEL 2
024f2401.d	WAR091214-11 42	YS1	14-DEC-2009 08:46		121409	1.0	AR1242 I-CAL LEVEL 3
025f2501.d	WAR091214-12 42	YS1	14-DEC-2009 08:56		121409	1.0	AR1242 I-CAL LEVEL 4
026f2601.d	IAR0911111-01	YS1	14-DEC-2009 09:07		121409	1.0	AR1242 I-CAL LEVEL 5
027f2701.d	WAR091102-42	YS1	14-DEC-2009 09:17		121409	1.0	PASSED ON BOTH COLUMNS
028f2801.d	WAR091214-13 48	YS1	14-DEC-2009 09:28		121409	1.0	AR1248 I-CAL LEVEL 1
029f2901.d	WAR091214-14 48	YS1	14-DEC-2009 09:38		121409	1.0	AR1248 I-CAL LEVEL 2
030f3001.d	WAR091214-15 48	YS1	14-DEC-2009 09:49		121409	1.0	AR1248 I-CAL LEVEL 3
031f3101.d	WAR091214-16 48	YS1	14-DEC-2009 09:59		121409	1.0	AR1248 I-CAL LEVEL 4
032f3201.d	IAR091027-02	YS1	14-DEC-2009 10:10		121409	1.0	AR1248 I-CAL LEVEL 5
033f3301.d	WAR091027-48	YS1	14-DEC-2009 10:20		121409	1.0	PASSED ON BOTH COLUMNS
034f3401.d	WAR091214-01 60	YS1	14-DEC-2009 10:31		121409	1.0	AR1660 I-CAL LEVEL 1
035f3501.d	WAR091214-02 60	YS1	14-DEC-2009 10:41		121409	1.0	AR1660 I-CAL LEVEL 2

Instrument Batch: /chem/ecd1a.i/121409.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
036f3601.d	WAR091214-03 60	YS1	14-DEC-2009 10:52		121409	1.0		AR1660 I-CAL LEVEL 3
037f3701.d	WAR091214-04 60	YS1	14-DEC-2009 11:02		121409	1.0		AR1660 I-CAL LEVEL 4
038f3801.d	IAR091102-01	YS1	14-DEC-2009 11:13		121409	1.0		AR1660 I-CAL LEVEL 5
039f3901.d	WAR091211-60 01	YS1	14-DEC-2009 11:23		121409	1.0		PASSED ON BOTH COLUMNS
040f4001.d	WAR091214-17 68	YS1	14-DEC-2009 11:34		121409	1.0		AR1268 I-CAL LEVEL 1

041f4101.d	WAR091214-18 68	YS1	14-DEC-2009 11:44		121409		1.0		AR1268 I-CAL LEVEL 2
042f4201.d	WAR091214-19 68	YS1	14-DEC-2009 11:55		121409		1.0		AR1268 I-CAL LEVEL 3
043f4301.d	WAR091214-20 68	YS1	14-DEC-2009 12:06		121409		1.0		AR1268 I-CAL LEVEL 4
044f4401.d	IAR090817-02	YS1	14-DEC-2009 12:16		121409		1.0		AR1268 I-CAL LEVEL 5
045f4501.d	WAR091106-68	YS1	14-DEC-2009 12:27		121409		1.0		PASSED ON BOTH COLUMNS
046f4601.d	WAR091020-DDT	YS1	14-DEC-2009 12:37		121409		1.0		DDT ANALOG STANDARD
047f4701.d	WAR091130-99 02	YS1	14-DEC-2009 12:48		121409		1.0		CLEAN
048f4801.d	1201991693	YS1	14-DEC-2009 12:58	931140	10-782		1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
049f4901.d	1201991694	YS1	14-DEC-2009 13:09	931140	10-782		1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
050f5001.d	242297001	YS1	14-DEC-2009 13:19	931140	10-782		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
051f5101.d	242297002	YS1	14-DEC-2009 13:30	931140	10-782		10.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
052f5201.d	242297003	YS1	14-DEC-2009 13:40	931140	10-782		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
053f5301.d	242297004	YS1	14-DEC-2009 13:51	931140	10-782		5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
054f5401.d	242297005	YS1	14-DEC-2009 14:03	931140	10-782		5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
055f5501.d	242297006	YS1	14-DEC-2009 14:16	931140	10-782		10.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER

Instrument Batch: /chem/ecd1a.i/121409.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
056f5601.d	242297007	YS1	14-DEC-2009 14:29	931140	10-782	5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
057f5701.d	242297008	YS1	14-DEC-2009 14:41	931140	10-782	25.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
058f5801.d	WAR091211-60 02	YS1	14-DEC-2009 14:52		121409	1.0		PASSED ON BOTH COLUMNS
059f5901.d	WAR091130-99 03	YS1	14-DEC-2009 15:02		121409	1.0		CLEAN
060f6001.d	242297009	YS1	14-DEC-2009 15:13	931140	10-782	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
061f6101.d	242297010	YS1	14-DEC-2009 15:25	931140	10-782	1.0	LANL	DCB LOW RE
062f6201.d	242297011	YS1	14-DEC-2009 15:38	931140	10-782	5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
063f6301.d	242297012	YS1	14-DEC-2009 15:51	931140	10-782	5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
064f6401.d	242297013	YS1	14-DEC-2009 16:03	931140	10-782	10.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER

065f6501.d	242305004	YS1	14-DEC-2009 16:16	931140	10-786	5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
066f6601.d	1201991695	YS1	14-DEC-2009 16:28	931140	10-786	5.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
067f6701.d	1201991696	YS1	14-DEC-2009 16:41	931140	10-786	5.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
068f6801.d	242305005	YS1	14-DEC-2009 16:53	931140	10-786	5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
069f6901.d	242305006	YS1	14-DEC-2009 17:06	931140	10-786	5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
070f7001.d	WAR091211-60 03	YS1	14-DEC-2009 17:19		121409	1.0		PASSED ON BOTH COLUMNS
071f7101.d	WAR091130-99 04	YS1	14-DEC-2009 17:31		121409	1.0		CLEAN
072f7201.d	1201992645	YS1	14-DEC-2009 17:44	931553	242521	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
073f7301.d	1201992646	YS1	14-DEC-2009 17:57	931553	242521	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
074f7401.d	242264001	YS1	14-DEC-2009 18:09	931553	242264	5.0	ENRG	UPLOAD BOTH COLUMNS, USE HIGHER
075f7501.d	242521001	YS1	14-DEC-2009 18:22	931553	242521	5.0	EMSC	UPLOAD BOTH COLUMNS, USE HIGHER

Instrument Batch: /chem/ecd1a.i/121409.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
076f7601.d	1201992647	YS1	14-DEC-2009 18:35	931553	242521	5.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
077f7701.d	1201992648	YS1	14-DEC-2009 18:47	931553	242521	5.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
078f7801.d	242521002	YS1	14-DEC-2009 19:00	931553	242521	5.0	EMSC	UPLOAD BOTH COLUMNS, USE HIGHER
079f7901.d	242521003	YS1	14-DEC-2009 19:12	931553	242521	5.0	EMSC	UPLOAD BOTH COLUMNS, USE HIGHER
080f8001.d	242521004	YS1	14-DEC-2009 19:25	931553	242521	5.0	EMSC	UPLOAD BOTH COLUMNS, USE HIGHER
081f8101.d	242521005	YS1	14-DEC-2009 19:38	931553	242521	5.0	EMSC	UPLOAD BOTH COLUMNS, USE HIGHER
082f8201.d	WAR091211-60 04	YS1	14-DEC-2009 19:50		121409	1.0		PASSED ON BOTH COLUMNS
083f8301.d	WAR091130-99 05	YS1	14-DEC-2009 20:03		121409	1.0		CLEAN
084f8401.d	242521006	YS1	14-DEC-2009 20:15	931553	242521	5.0	EMSC	UPLOAD BOTH COLUMNS, USE HIGHER
085f8501.d	242521007	YS1	14-DEC-2009 20:28	931553	242521	5.0	EMSC	UPLOAD BOTH COLUMNS, USE HIGHER
086f8601.d	242521008	YS1	14-DEC-2009 20:41	931553	242521	5.0	EMSC	UPLOAD BOTH COLUMNS, USE HIGHER
087f8701.d	WAR091211-60 05	YS1	14-DEC-2009 20:53		121409	1.0		PASSED ON BOTH COLUMNS
088f8801.d	WAR091130-99 06	YS1	14-DEC-2009 21:06		121409	1.0		CLEAN
089f8901.d	242297010	YS1	14-DEC-2009 21:19	931140	10-782	1.0	LANL	

090f9001.d	WAR091211-60 06	YS1	14-DEC-2009 21:31		121409	1.0	PASSED ON BOTH COLUMNS
091f9101.d	WAR091130-99 07	YS1	14-DEC-2009 21:44		121409	1.0	CLEAN
092f9201.d	1660	YS1	14-DEC-2009 21:56		121409	1.0	screen
093f9301.d	1660	YS1	14-DEC-2009 22:09		121409	1.0	screen
094f9401.d	1660	YS1	14-DEC-2009 22:22		121409	1.0	screen

GEL ORGANIC RUN LOG INSTRUMENT ID: ECD1

DATE: 12/17/2009 METHOD: ECD1-F-8082-121409.m OPERATOR:YS1 REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1

SOLVENT LOT DA385
ALUMINA LOT 1230997-A
COPPER LOT 236547-A

Calibration & QC Information
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.
GEL SOP GL-OA-E-040 Polychlorinated Biphenyl: EPA 8082
Chromatogram Abbreviation Legend: AB-Assign Baseline, AP-Assign Peak,
DNC-Do Not Call, DMP-Doesn't Match Pattern, NC-Not Confirmed, RT-Retention Time,
BF-Before, AF-After.

Sequence Number: /chem/ecd1a.i/121609.b Injection Volume: 0.5 ul

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001f0101.d	WAR091130-99 01	YS1	16-DEC-2009 06:28		121609	1.0		CLEAN
002f0201.d	WAR091211-60 01	YS1	16-DEC-2009 06:39		121609	1.0		PASSED ON BOTH COLUMNS
003f0301.d	WAR091102-54	YS1	16-DEC-2009 06:49		121609	1.0		DUSE
004f0401.d	WAR091102-42	YS1	16-DEC-2009 07:00		121609	1.0		PASSED ON BOTH COLUMNS
005f0501.d	WAR091027-48	YS1	16-DEC-2009 07:10		121609	1.0		PASSED ON BOTH COLUMNS
006f0601.d	WAR090930-32	YS1	16-DEC-2009 07:21		121609	1.0		PATTERN ONLY
007f0701.d	54SCREEN	YS1	16-DEC-2009 07:31		121609	1.0		SCREEN DUSE
008f0801.d	WAR090803-21	YS1	16-DEC-2009 07:42		121609	1.0		PATTERN ONLY
009f0901.d	WAR090803-62	YS1	16-DEC-2009 07:52		121609	1.0		PATTERN ONLY
010f1001.d	WAR091106-68	YS1	16-DEC-2009 08:03		121609	1.0		PASSED ON BOTH COLUMNS
011f1101.d	WAR091216-54	YS1	16-DEC-2009 08:13		121609	1.0		PASSED ON BOTH COLUMNS
012f1201.d	WAR091020-DDT	YS1	16-DEC-2009 08:24		121609	1.0		DDT ANALOG STANDARD
013f1301.d	WAR091130-99 02	YS1	16-DEC-2009 08:34		121609	1.0		CLEAN
014f1401.d	WE091215-16	YS1	16-DEC-2009 08:46		121609	1.0		SCRAAE FOR PREP
015f1501.d	1201996864	YS1	16-DEC-2009 08:57	933347	EUI-7412	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER

Instrument Batch: /chem/ecd1a.i/121609.b Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments

016f1601.d	1201996865	YS1	16-DEC-2009 09:09	933347	EUI-7412	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
017f1701.d	1201996871	YS1	16-DEC-2009 09:20	933347	EUI-7412	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
018f1801.d	242214001	YS1	16-DEC-2009 09:30	933347	EUI-7412	5.0	CARE	UPLOAD BOTH COLUMNS, USE HIGHER
019f1901.d	242214002	YS1	16-DEC-2009 09:43	933347	EUI-7412	5.0	CARE	UPLOAD BOTH COLUMNS, USE HIGHER
020f2001.d	1201996866	YS1	16-DEC-2009 09:55	933347	EUI-7412	5.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
021f2101.d	1201996867	YS1	16-DEC-2009 10:08	933347	EUI-7412	5.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
022f2201.d	242214003	YS1	16-DEC-2009 10:21	933347	EUI-7412	5.0	CARE	UPLOAD BOTH COLUMNS, USE HIGHER
023f2301.d	242214004	YS1	16-DEC-2009 10:33	933347	EUI-7412	200.0	CARE	DUSE RR 40X
024f2401.d	WAR091211-60 02	YS1	16-DEC-2009 10:46		121609	1.0		PASSED ON BOTH COLUMNS
025f2501.d	WAR091130-99 03	YS1	16-DEC-2009 10:56		121609	1.0		CLEAN
026f2601.d	242218001	YS1	16-DEC-2009 11:07	933347	EUI-7416	200.0	CARE	UPLOAD BOTH COLUMNS, USE HIGHER
027f2701.d	242722001	YS1	16-DEC-2009 11:19	933347	EUI-7427	10.0	CARE	UPLOAD BOTH COLUMNS, USE HIGHER
028f2801.d	242567001	YS1	16-DEC-2009 11:32	933347	EUI-7422	25.0	CARE	UPLOAD BOTH COLUMNS, USE HIGHER
029f2901.d	242565001	YS1	16-DEC-2009 11:44	933347	EUI-7420	20.0	CARE	UPLOAD BOTH COLUMNS, USE HIGHER
030f3001.d	242566001	YS1	16-DEC-2009 11:57		EUI-7421	5.0		DUS RE-DILUT RE-RUN
031f3101.d	242917001	YS1	16-DEC-2009 12:09	933347	EUI-7430	20.0	CARE	UPLOAD BOTH COLUMNS, USE HIGHER
032f3201.d	242917002	YS1	16-DEC-2009 12:22	933347	EUI-7430	100.0	CARE	UPLOAD BOTH COLUMNS, USE HIGHER
033f3301.d	242917003	YS1	16-DEC-2009 12:35	933347	EUI-7430	100.0	CARE	UPLOAD BOTH COLUMNS, USE HIGHER
034f3401.d	242917004	YS1	16-DEC-2009 12:47	933347	EUI-7430	100.0	CARE	UPLOAD BOTH COLUMNS, USE HIGHER
035f3501.d	242917005	YS1	16-DEC-2009 13:00	933347	EUI-7430	100.0	CARE	UPLOAD BOTH COLUMNS, USE HIGHER

Instrument Batch: /chem/ecd1a.i/121609.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
036f3601.d	WAR091211-60 03	YS1	16-DEC-2009 13:12		121609	1.0		PASSED ON BOTH COLUMNS
037f3701.d	WAR091130-99 04	YS1	16-DEC-2009 13:23		121609	1.0		CLEAN
038f3801.d	242214004	YS1	16-DEC-2009 13:33	933347	EUI-7412	40.0	CARE	UPLOAD BOTH COLUMNS, USE HIGHER
039f3901.d	242566001	YS1	16-DEC-2009 13:46	933347	EUI-7421	5.0	CARE	UPLOAD BOTH COLUMNS, USE HIGHER
040f4001.d	WAR091211-60 04	YS1	16-DEC-2009 13:58		121609	1.0		PASSED ON BOTH COLUMNS

041f4101.d	WAR091130-99 05	YS1	16-DEC-2009 14:09		121609		1.0		CLEAN
042f4201.d	1201995802	YS1	16-DEC-2009 14:19	932922	121609		1.0	QC A	DUSE 4CMX LOW RE THE BATCH
043f4301.d	1201995803	YS1	16-DEC-2009 14:32	932922			1.0	QC A	DUSE
044f4401.d	242701001	YS1	16-DEC-2009 14:44	932922	242701		5.0	EMSC	DUSE
045f4501.d	1201995804	YS1	16-DEC-2009 14:57	932922	51-T8)	(242701001MS)	5.0	QC A	DUSE
046f4601.d	1201995805	YS1	16-DEC-2009 15:10	932922	51-T8)	(242701001MSD	5.0	QC A	DUSE
047f4701.d	242701002	YS1	16-DEC-2009 15:22	932922	242701		5.0	EMSC	DUSE
048f4801.d	242701003	YS1	16-DEC-2009 15:35	932922	242701		5.0	EMSC	DUSE
049f4901.d	242701004	YS1	16-DEC-2009 15:48	932922	242701		5.0	EMSC	DUSE
050f5001.d	WAR091211-60 05	YS1	16-DEC-2009 16:00		121609		1.0		PASSED ON BOTH COLUMNS
051f5101.d	WAR091130-99 06	YS1	16-DEC-2009 16:11		121609		1.0		CLEAN
052f5201.d	1201996856	YS1	16-DEC-2009 16:21	933342	10-782		1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
053f5301.d	1201996857	YS1	16-DEC-2009 16:32	933342	10-782		1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
054f5401.d	242297010	YS1	16-DEC-2009 16:42	933342	10-782		5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
055f5501.d	242439005	YS1	16-DEC-2009 16:55	933342	10-830		5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER

Instrument Batch: /chem/ecd1a.i/121609.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
056f5601.d	242445002	YS1	16-DEC-2009 17:08	933342	10-832	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
057f5701.d	242447001	YS1	16-DEC-2009 17:20	933342	10-833	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
058f5801.d	242447002	YS1	16-DEC-2009 17:33	933342	10-833	5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
059f5901.d	242447003	YS1	16-DEC-2009 17:45	933342	10-833	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
060f6001.d	242668001	YS1	16-DEC-2009 17:58	933342	10-854	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
061f6101.d	242668002	YS1	16-DEC-2009 18:11	933342	10-854	5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
062f6201.d	WAR091211-60 06	YS1	16-DEC-2009 18:23		121609	1.0		PASSED ON BOTH COLUMNS
063f6301.d	WAR091130-99 07	YS1	16-DEC-2009 18:34		121609	1.0		CLEAN
064f6401.d	242750001	YS1	16-DEC-2009 18:44	933342	10-886	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER

065f6501.d	242750002	YS1	16-DEC-2009 18:57	933342	10-886	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
066f6601.d	242750003	YS1	16-DEC-2009 19:10	933342	10-886	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
067f6701.d	242750004	YS1	16-DEC-2009 19:22	933342	10-886	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
068f6801.d	242750005	YS1	16-DEC-2009 19:35	933342	10-886	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
069f6901.d	242781001	YS1	16-DEC-2009 19:47	933342	10-887	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
070f7001.d	1201996858	YS1	16-DEC-2009 19:58	933342	10-887	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
071f7101.d	1201996859	YS1	16-DEC-2009 20:08	933342	10-887	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
072f7201.d	242781002	YS1	16-DEC-2009 20:19	933342	10-887	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
073f7301.d	242781003	YS1	16-DEC-2009 20:30	933342	10-887	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
074f7401.d	WAR091211-60 07	YS1	16-DEC-2009 20:40		121609	1.0		PASSED ON BOTH COLUMNS
075f7501.d	WAR091130-99 08	YS1	16-DEC-2009 20:51		121609	1.0		CLEAN

Instrument Batch: /chem/ecd1a.i/121609.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
076f7601.d	242781004	YS1	16-DEC-2009 21:01	933342	10-887	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
077f7701.d	242781005	YS1	16-DEC-2009 21:12	933342	10-887	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
078f7801.d	242781006	YS1	16-DEC-2009 21:22	933342	10-887	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
079f7901.d	242781007	YS1	16-DEC-2009 21:33	933342	10-887	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
080f8001.d	WAR091211-60 08	YS1	16-DEC-2009 21:43		121609	1.0		PASSED ON BOTH COLUMNS
081f8101.d	WAR091130-99 09	YS1	16-DEC-2009 21:54		121609	1.0		CLEAN

Prep Logbook

Extraction of Semivolatile and Nonvolatile Organic Compounds from Soil, Sludge, and Other Miscellaneous Solid Samples

Batch ID: 933337 **Verified by:** _____

Analyst: Andrew Schwemin

Method: SW846 3550B

Lab SOP: GL-OA-E-010 REV# 18

Instrument: Semi-Volatiles Manual

Sample ID	Run Date	Aliquot (g)	Clean Up	Prior to Clean up (mL)	Amount Cleaned (mL)	After Clean up (mL)	Prepped Aliquot (mL)	Prepped Factor (mL/g)
1201996856 MB	15-DEC-2009 20:23:57	30	H2SO4/KMn2		2	9	1	0.03333
1201996857 LCS	15-DEC-2009 20:23:57	30	H2SO4/KMn2		2	9	1	0.03333
242297010 - 2	15-DEC-2009 20:23:57	30.06	H2SO4/KMn2		2	9	1	0.03327
242439005 - 2	15-DEC-2009 20:23:57	30.15	H2SO4/KMn2		2	9	1	0.03317
242445002	15-DEC-2009 20:23:57	30.11	H2SO4/KMn2		2	9	1	0.03321
242447001	15-DEC-2009 20:23:57	30.17	H2SO4/KMn2		2	9	1	0.03315
242447002	15-DEC-2009 20:23:57	30.05	H2SO4/KMn2		2	9	1	0.03328
242447003	15-DEC-2009 20:23:57	30.01	H2SO4/KMn2		2	9	1	0.03332
242668001	15-DEC-2009 20:23:57	30.03	H2SO4/KMn2		2	9	1	0.0333
242668002	15-DEC-2009 20:23:57	30.02	H2SO4/KMn2		2	9	1	0.03331
242750001	15-DEC-2009 20:23:57	30.01	H2SO4/KMn2		2	9	1	0.03332
242750002	15-DEC-2009 20:23:57	30.05	H2SO4/KMn2		2	9	1	0.03328
242750003	15-DEC-2009 20:23:57	30.04	H2SO4/KMn2		2	9	1	0.03329
242750004	15-DEC-2009 20:23:57	30.01	H2SO4/KMn2		2	9	1	0.03332
242750005	15-DEC-2009 20:23:57	30.07	H2SO4/KMn2		2	9	1	0.03326
242781001	15-DEC-2009 20:23:57	30.02	H2SO4/KMn2		2	9	1	0.03331
1201996858 MS (242781001)	15-DEC-2009 20:23:57	30.01	H2SO4/KMn2		2	9	1	0.03332
1201996859 MSD (242781001)	15-DEC-2009 20:23:57	30.04	H2SO4/KMn2		2	9	1	0.03329
242781002	15-DEC-2009 20:23:57	30.14	H2SO4/KMn2		2	9	1	0.03318
242781003	15-DEC-2009 20:23:57	30.07	H2SO4/KMn2		2	9	1	0.03326
242781004	15-DEC-2009 20:23:57	30.03	H2SO4/KMn2		2	9	1	0.0333
242781005	15-DEC-2009 20:23:57	30.04	H2SO4/KMn2		2	9	1	0.03329
242781006	15-DEC-2009 20:23:57	30.04	H2SO4/KMn2		2	9	1	0.03329
242781007	15-DEC-2009 20:23:57	30.02	H2SO4/KMn2		2	9	1	0.03331

Type	Sample Id	Description	Serial Number	Spike Amt	Units
LCS	1201996857	PCB Laboratory Control	WE091210-07	1	mL
MS	1201996858	PCB Laboratory Control	WE091210-07	1	mL
MSD	1201996859	PCB Laboratory Control	WE091210-07	1	mL
SURR	All	PEST LOW LEVEL SURROGATE 200 UG/L	UE091130-15	1	mL
REGNT	All	1:1 sulfuric acid	1133264a	5	mL
REGNT	All	Acetone	1233927	150	mL
REGNT	All	Hexane	1241300-B2	150	mL
REGNT	All	5% Potassium Permanganate	B1202457-F	5	mL
SOURC	All	SODIUM SULFATE	1242582	30	g

Comments:

Clean up Date: 12/15/09

Clean up Initials: AJS

Verified By: AV

Final Solvent: Hexane

Clean Up SOP: GL-OA-E-037

Metals Analysis

Case Narrative

Metals Fractional Narrative
Los Alamos National Laboratory (LANL)
SDG 10-887

Sample Analysis

Sample ID	**Client ID**
242781001	RE03-09-13757
242781002	RE03-09-13752
242781003	RE03-09-13753
242781004	RE03-09-13754
242781005	RE03-09-13755
242781006	RE03-09-13756
242781007	RE03-10-5525
1201994236	Method Blank (MB) **ICP**
1201994237	Laboratory Control Sample (LCS)
1201994240	242781001(RE03-09-13757L) Serial Dilution (SD)
1201994238	242781001(RE03-09-13757D) Sample Duplicate (DUP)
1201994239	242781001(RE03-09-13757S) Matrix Spike (MS)
1201994241	242781001(RE03-09-13757SD) Matrix Spike Duplicate (MSD)
1201994315	Method Blank (MB) **ICP-MS**
1201994316	Laboratory Control Sample (LCS)
1201994319	242781001(RE03-09-13757L) Serial Dilution (SD)
1201994317	242781001(RE03-09-13757D) Sample Duplicate (DUP)
1201994318	242781001(RE03-09-13757S) Matrix Spike (MS)
1201994320	242781001(RE03-09-13757SD) Matrix Spike Duplicate (MSD)

1202000180	Method Blank (MB) **CVAA**
1202000181	Laboratory Control Sample (LCS)
1202000184	242794001(RE03-09-13470L) Serial Dilution (SD)
1202000182	242794001(RE03-09-13470D) Sample Duplicate (DUP)
1202000183	242794001(RE03-09-13470S) Matrix Spike (MS)
1202000185	242794001(RE03-09-13470SD) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on a "dry weight" basis.

Method/Analysis Information

Analytical Batch:	932284, 932323 and 934871
Prep Batch :	932283, 932322 and 934870
Standard Operating Procedures:	GL-MA-E-013 REV# 20, GL-MA-E-009 REV# 19, GL-MA-E-014 REV# 20 and GL-MA-E-010 REV# 23
Analytical Method:	SW846 3050B/6010B, SW846 3050B/6020 and SW846 7471A
Prep Method :	SW846 3050B and SW846 7471A Prep

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

System Configuration

The Metals analysis-ICP was performed on a P E 5300 Optima radial/axial-viewing inductively coupled plasma atomic emission spectrometer. The instrument is equipped with a Burgener nebulizer, cyclonic spray chamber, and yttrium or scandium internal standard. Operating conditions for the ICP are set at a power level of 1500 watts. The instrument has a peristaltic pump flow rate of 1.4L/min, argon gas flows of 15 L/min and 0.2 L/min for the torch and auxiliary gases, and a flow setting of 0.65L/min for the nebulizer.

The Metals analysis - ICPMS was performed on a Perkin Elmer ELAN 6100E inductively coupled plasma mass spectrometer (ICP-MS). The instrument is equipped with a cross-flow nebulizer, quadrupole mass spectrometer, and dual mode electron multiplier detector. Internal standards of scandium, germanium, indium, tantalum, and/or lutetium were utilized to cover the mass spectrum. Operating conditions are set at 1400W power and combined argon pressures of 360+/-7 kPa for the plasma and auxiliary gases, and 0.85 L/min carrier gas flow, and an initial

lens voltage of 5.2.

The Metals analysis-Mercury was performed on a Perkin-Elmer Flow Injection Mercury System (FIMS-100) automated mercury analyzer. The instrument consists of a cold vapor atomic absorption spectrometer set to detect mercury at a wavelength of 253.7 nm. Sample introduction through the flow injection system is performed via a peristaltic pump at 9 mL/min and nitrogen carrier gas rate of 80 mL/min.

Calibration Information

Instrument Calibration
All initial calibration requirements have been met for this sample delivery group (SDG).

CRDL Requirements
All CRDL standard(s) met the referenced advisory control limits.

ICSA/ICSAB Statement
All interference check samples (ICSA and ICSAB) associated with this SDG met the established acceptance criteria.

Continuing Calibration Blank (CCB) Requirements
All continuing calibration blanks (CCB) bracketing this batch met the established acceptance criteria.

Continuing Calibration Verification (CCV) Requirements
All continuing calibration verifications (CCV) bracketing this SDG met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MBs analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

Quality Control (QC) Sample Statement
The following samples were selected as the quality control (QC) samples for this SDG: 242781001 and 242794001.

Matrix Spike (MS) Recovery Statement
The percent recoveries (%R) obtained from the MS analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. The MS met the recommended quality control acceptance criteria for percent recoveries for all applicable analytes with the exception of aluminum, as indicated by the "N" qualifiers.

Matrix Spike Duplicate (MSD) Recovery Statement
The percent recovery (%R) obtained from the MSD analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. The MSD met the recommended quality control acceptance criteria for percent recoveries for all applicable analytes with the exception of aluminum and lithium, as indicated by the "N" qualifiers.

MS/MSD Relative Percent Difference (RPD) Statement
The relative percent difference (RPD) obtained from the designated matrix spike duplicate (MSD) is evaluated based on acceptance criteria of 20%. The RPD between qualifying elements results in the MS and MSD were within the acceptance limits of 20% with the exception of manganese and lithium, as indicated by the "*" qualifiers.

Duplicate Relative Percent Difference (RPD) Statement
The relative percent difference (RPD) obtained from the designated sample duplicate (DUP) is evaluated based on acceptance criteria of 20% when the sample is 5X the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the contract required detection limit (RL), a control of +/-RL is used to evaluate the DUP results. All applicable analytes met these requirements with the exception of calcium and magnesium, as indicated by the "*" qualifiers.

Serial Dilution % Difference Statement
The serial dilution is used to assess matrix suppression or enhancement. Raw element concentrations that are 25X the IDL/MDL for CVAA, 50X the IDL/MDL for ICP, and 100X the IDL/MDL for ICP-MS analyses are applicable for serial dilution assessment. All applicable analytes met the acceptance criteria of less than 10% difference (%D).

Technical Information

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Sample Dilutions
Dilutions are performed to minimize matrix interferences resulting from elevated mineral element concentrations present in solid samples and/or to bring over range target analyte concentrations into the linear calibration range of the instrument. The samples in this SDG were diluted the standard 2x for solids on the ICPMS.

Preparation Information
The samples in this SDG were prepared exactly according to the cited SOP.

Miscellaneous Information

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Nonconformance Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. The following NCRs were generated for this SDG: 776632 and 777404. A copy of each NCR is included in the Miscellaneous Data section of this package.

Additional Comments
Additional comments were not required for this SDG.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Kristen Parson **Date:** 1/8/10

Sample Data Summary

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-887 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 242781001 **BASIS:** Dry Weight **DATE COLLECTED** 09-DEC-09

CLIENT ID: RE03-09-13757 **LEVEL:** Low **DATE RECEIVED** 11-DEC-09

MATRIX: SOIL **%SOLIDS:** 90.1

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	1730000	ug/Kg	N	7350	21600	21600	1	P	HSC	12/19/09 22:58	121909-1	932284
7440-36-0	Antimony	1080	ug/Kg	U	357	1080	1080	1	P	HSC	12/19/09 22:58	121909-1	932284
7440-38-2	Arsenic	1.17	mg/kg		0.215	1.08	1.08	2	MS	SKJ	01/01/10 02:46	091231-2	932323
7440-39-3	Barium	42300	ug/Kg		108	541	541	1	P	HSC	12/19/09 22:58	121909-1	932284
7440-41-7	Beryllium	0.590	mg/kg		0.0215	0.108	0.108	2	MS	SKJ	01/01/10 02:46	091231-2	932323
7440-42-8	Boron	5410	ug/Kg	U	1080	5410	5410	1	P	HSC	12/19/09 22:58	121909-1	932284
7440-43-9	Cadmium	541	ug/Kg	U	108	541	541	1	P	HSC	12/19/09 22:58	121909-1	932284
7440-70-2	Calcium	474000	ug/Kg	*	8650	27000	27000	1	P	HSC	12/19/09 22:58	121909-1	932284
7440-47-3	Chromium	1330	ug/Kg		162	541	541	1	P	HSC	12/19/09 22:58	121909-1	932284
7440-48-4	Cobalt	1040	ug/Kg		162	541	541	1	P	HSC	12/19/09 22:58	121909-1	932284
7440-50-8	Copper	4610	ug/Kg		324	1080	1080	1	P	HSC	12/19/09 22:58	121909-1	932284
7439-89-6	Iron	7520000	ug/Kg		8650	27000	27000	1	P	HSC	12/19/09 22:58	121909-1	932284
7439-92-1	Lead	4280	ug/Kg		270	1080	1080	1	P	HSC	12/19/09 22:58	121909-1	932284
7439-93-2	Lithium	3.13	mg/kg	*N	0.43	2.15	2.15	2	MS	SKJ	01/04/10 13:04	100104-3	932323
7439-95-4	Magnesium	240000	ug/Kg	*	9190	32400	32400	1	P	HSC	12/19/09 22:58	121909-1	932284
7439-96-5	Manganese	362000	ug/Kg	*	216	1080	1080	1	P	HSC	12/19/09 22:58	121909-1	932284
7439-97-6	Mercury	11.8	ug/kg	J	4.06	12	12	1	AV	ETL	12/23/09 12:05	122309S1-4	934871
7440-02-0	Nickel	3.74	mg/kg		0.108	0.43	0.43	2	MS	SKJ	01/01/10 02:46	091231-2	932323
7440-09-7	Potassium	200000	ug/Kg		6920	27000	27000	1	P	HSC	12/19/09 22:58	121909-1	932284
7782-49-2	Selenium	1.08	mg/kg	U	0.538	1.08	1.08	2	MS	SKJ	01/01/10 02:46	091231-2	932323
7440-21-3	Silicon	872000	ug/Kg		1620	10800	10800	1	P	HSC	12/19/09 22:58	121909-1	932284
7440-22-4	Silver	563	ug/Kg		108	541	541	1	P	HSC	12/19/09 22:58	121909-1	932284
7440-23-5	Sodium	46900	ug/Kg		7570	27000	27000	1	P	HSC	12/19/09 22:58	121909-1	932284
7440-28-0	Thallium	0.147	mg/kg	J	0.0645	0.215	0.215	2	MS	SKJ	01/01/10 02:46	091231-2	932323
7440-32-6	Titanium	309000	ug/Kg		108	541	541	1	P	HSC	12/19/09 22:58	121909-1	932284
7440-61-1	Uranium	0.515	mg/kg		0.0142	0.043	0.043	2	MS	SKJ	01/01/10 02:46	091231-2	932323
7440-62-2	Vanadium	3750	ug/Kg		108	541	541	1	P	HSC	12/19/09 22:58	121909-1	932284
7440-66-6	Zinc	48300	ug/Kg		357	1080	1080	1	P	HSC	12/19/09 22:58	121909-1	932284

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
932284	932283	SW846 3050B	0.513	g	50	mL	12/17/09	BCD1
932323	932322	SW846 3050B	0.516	g	50	mL	12/17/09	BCD1
934871	934870	SW846 7471A Prep	0.557	g	30	mL	12/22/09	TXB3

METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-887 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 242781002 **BASIS:** Dry Weight **DATE COLLECTED** 09-DEC-09

CLIENT ID: RE03-09-13752 **LEVEL:** Low **DATE RECEIVED** 11-DEC-09

MATRIX: SOIL **%SOLIDS:** 91.6

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	1550000	ug/Kg	N	7210	21200	21200	1	P	HSC	12/19/09 23:47	121909-1	932284
7440-36-0	Antimony	1060	ug/Kg	U	350	1060	1060	1	P	HSC	12/19/09 23:47	121909-1	932284
7440-38-2	Arsenic	0.971	mg/kg	J	0.214	1.07	1.07	2	MS	SKJ	01/01/10 03:30	091231-2	932323
7440-39-3	Barium	15900	ug/Kg		106	530	530	1	P	HSC	12/19/09 23:47	121909-1	932284
7440-41-7	Beryllium	0.465	mg/kg		0.0214	0.107	0.107	2	MS	SKJ	01/01/10 03:30	091231-2	932323
7440-42-8	Boron	5300	ug/Kg	U	1060	5300	5300	1	P	HSC	12/19/09 23:47	121909-1	932284
7440-43-9	Cadmium	530	ug/Kg	U	106	530	530	1	P	HSC	12/19/09 23:47	121909-1	932284
7440-70-2	Calcium	426000	ug/Kg	*	8480	26500	26500	1	P	HSC	12/19/09 23:47	121909-1	932284
7440-47-3	Chromium	1010	ug/Kg		159	530	530	1	P	HSC	12/19/09 23:47	121909-1	932284
7440-48-4	Cobalt	425	ug/Kg	J	159	530	530	1	P	HSC	12/19/09 23:47	121909-1	932284
7440-50-8	Copper	2460	ug/Kg		318	1060	1060	1	P	HSC	12/19/09 23:47	121909-1	932284
7439-89-6	Iron	7930000	ug/Kg		8480	26500	26500	1	P	HSC	12/19/09 23:47	121909-1	932284
7439-92-1	Lead	2800	ug/Kg		265	1060	1060	1	P	HSC	12/19/09 23:47	121909-1	932284
7439-93-2	Lithium	3.19	mg/kg	*N	0.427	2.14	2.14	2	MS	SKJ	01/04/10 13:20	100104-3	932323
7439-95-4	Magnesium	190000	ug/Kg	*	9010	31800	31800	1	P	HSC	12/19/09 23:47	121909-1	932284
7439-96-5	Manganese	433000	ug/Kg	*	212	1060	1060	1	P	HSC	12/19/09 23:47	121909-1	932284
7439-97-6	Mercury	34.8	ug/kg		4.44	13.1	13.1	1	AV	ETL	12/23/09 12:07	122309S1-4	934871
7440-02-0	Nickel	4.71	mg/kg		0.107	0.427	0.427	2	MS	SKJ	01/01/10 03:30	091231-2	932323
7440-09-7	Potassium	131000	ug/Kg		6780	26500	26500	1	P	HSC	12/19/09 23:47	121909-1	932284
7782-49-2	Selenium	1.07	mg/kg	U	0.534	1.07	1.07	2	MS	SKJ	01/01/10 03:30	091231-2	932323
7440-21-3	Silicon	710000	ug/Kg		1590	10600	10600	1	P	HSC	12/19/09 23:47	121909-1	932284
7440-22-4	Silver	492	ug/Kg	J	106	530	530	1	P	HSC	12/19/09 23:47	121909-1	932284
7440-23-5	Sodium	36300	ug/Kg		7420	26500	26500	1	P	HSC	12/19/09 23:47	121909-1	932284
7440-28-0	Thallium	0.214	mg/kg	U	0.0641	0.214	0.214	2	MS	SKJ	01/01/10 03:30	091231-2	932323
7440-32-6	Titanium	363000	ug/Kg		106	530	530	1	P	HSC	12/19/09 23:47	121909-1	932284
7440-61-1	Uranium	0.529	mg/kg		0.0141	0.0427	0.0427	2	MS	SKJ	01/01/10 03:30	091231-2	932323
7440-62-2	Vanadium	3190	ug/Kg		106	530	530	1	P	HSC	12/19/09 23:47	121909-1	932284
7440-66-6	Zinc	40600	ug/Kg		350	1060	1060	1	P	HSC	12/19/09 23:47	121909-1	932284

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
932284	932283	SW846 3050B	0.515	g	50	mL	12/17/09	BCD1
932323	932322	SW846 3050B	0.511	g	50	mL	12/17/09	BCD1
934871	934870	SW846 7471A Prep	0.501	g	30	mL	12/22/09	TXB3

METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-887 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 242781003 **BASIS:** Dry Weight **DATE COLLECTED** 09-DEC-09

CLIENT ID: RE03-09-13753 **LEVEL:** Low **DATE RECEIVED** 11-DEC-09

MATRIX: SOIL **%SOLIDS:** 91.5

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	1790000	ug/Kg	N	7280	21400	21400	1	P	HSC	12/19/09 23:55	121909-1	932284
7440-36-0	Antimony	1070	ug/Kg	U	354	1070	1070	1	P	HSC	12/19/09 23:55	121909-1	932284
7440-38-2	Arsenic	0.783	mg/kg	J	0.218	1.09	1.09	2	MS	SKJ	01/01/10 03:36	091231-2	932323
7440-39-3	Barium	12200	ug/Kg		107	536	536	1	P	HSC	12/19/09 23:55	121909-1	932284
7440-41-7	Beryllium	0.456	mg/kg		0.0218	0.109	0.109	2	MS	SKJ	01/01/10 03:36	091231-2	932323
7440-42-8	Boron	5360	ug/Kg	U	1070	5360	5360	1	P	HSC	12/19/09 23:55	121909-1	932284
7440-43-9	Cadmium	536	ug/Kg	U	107	536	536	1	P	HSC	12/19/09 23:55	121909-1	932284
7440-70-2	Calcium	397000	ug/Kg	*	8570	26800	26800	1	P	HSC	12/19/09 23:55	121909-1	932284
7440-47-3	Chromium	1040	ug/Kg		161	536	536	1	P	HSC	12/19/09 23:55	121909-1	932284
7440-48-4	Cobalt	405	ug/Kg	J	161	536	536	1	P	HSC	12/19/09 23:55	121909-1	932284
7440-50-8	Copper	1720	ug/Kg		321	1070	1070	1	P	HSC	12/19/09 23:55	121909-1	932284
7439-89-6	Iron	8240000	ug/Kg		8570	26800	26800	1	P	HSC	12/19/09 23:55	121909-1	932284
7439-92-1	Lead	3340	ug/Kg		268	1070	1070	1	P	HSC	12/19/09 23:55	121909-1	932284
7439-93-2	Lithium	3.01	mg/kg	*N	0.436	2.18	2.18	2	MS	SKJ	01/04/10 13:22	100104-3	932323
7439-95-4	Magnesium	203000	ug/Kg	*	9110	32100	32100	1	P	HSC	12/19/09 23:55	121909-1	932284
7439-96-5	Manganese	228000	ug/Kg	*	214	1070	1070	1	P	HSC	12/19/09 23:55	121909-1	932284
7439-97-6	Mercury	5.81	ug/kg	J	3.99	11.7	11.7	1	AV	ETL	12/23/09 12:09	122309S1-4	934871
7440-02-0	Nickel	1.48	mg/kg		0.109	0.436	0.436	2	MS	SKJ	01/01/10 03:36	091231-2	932323
7440-09-7	Potassium	170000	ug/Kg		6860	26800	26800	1	P	HSC	12/19/09 23:55	121909-1	932284
7782-49-2	Selenium	1.09	mg/kg	U	0.545	1.09	1.09	2	MS	SKJ	01/01/10 03:36	091231-2	932323
7440-21-3	Silicon	829000	ug/Kg		1610	10700	10700	1	P	HSC	12/19/09 23:55	121909-1	932284
7440-22-4	Silver	450	ug/Kg	J	107	536	536	1	P	HSC	12/19/09 23:55	121909-1	932284
7440-23-5	Sodium	37000	ug/Kg		7500	26800	26800	1	P	HSC	12/19/09 23:55	121909-1	932284
7440-28-0	Thallium	0.218	mg/kg	U	0.0654	0.218	0.218	2	MS	SKJ	01/01/10 03:36	091231-2	932323
7440-32-6	Titanium	399000	ug/Kg		107	536	536	1	P	HSC	12/19/09 23:55	121909-1	932284
7440-61-1	Uranium	0.598	mg/kg		0.0144	0.0436	0.0436	2	MS	SKJ	01/01/10 03:36	091231-2	932323
7440-62-2	Vanadium	3210	ug/Kg		107	536	536	1	P	HSC	12/19/09 23:55	121909-1	932284
7440-66-6	Zinc	40200	ug/Kg		354	1070	1070	1	P	HSC	12/19/09 23:55	121909-1	932284

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
932284	932283	SW846 3050B	0.51	g	50	mL	12/17/09	BCD1
932323	932322	SW846 3050B	0.501	g	50	mL	12/17/09	BCD1
934871	934870	SW846 7471A Prep	0.559	g	30	mL	12/22/09	TXB3

METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-887 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 242781004 **BASIS:** Dry Weight **DATE COLLECTED** 09-DEC-09

CLIENT ID: RE03-09-13754 **LEVEL:** Low **DATE RECEIVED** 11-DEC-09

MATRIX: SOIL **%SOLIDS:** 89

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	1620000	ug/Kg	N	7480	22000	22000	1	P	HSC	12/20/09 00:02	121909-1	932284
7440-36-0	Antimony	1100	ug/Kg	U	363	1100	1100	1	P	HSC	12/20/09 00:02	121909-1	932284
7440-38-2	Arsenic	1.04	mg/kg	J	0.216	1.08	1.08	2	MS	SKJ	01/01/10 03:42	091231-2	932323
7440-39-3	Barium	12700	ug/Kg		110	550	550	1	P	HSC	12/20/09 00:02	121909-1	932284
7440-41-7	Beryllium	0.439	mg/kg		0.0216	0.108	0.108	2	MS	SKJ	01/01/10 03:42	091231-2	932323
7440-42-8	Boron	5500	ug/Kg	U	1100	5500	5500	1	P	HSC	12/20/09 00:02	121909-1	932284
7440-43-9	Cadmium	550	ug/Kg	U	110	550	550	1	P	HSC	12/20/09 00:02	121909-1	932284
7440-70-2	Calcium	475000	ug/Kg	*	8790	27500	27500	1	P	HSC	12/20/09 00:02	121909-1	932284
7440-47-3	Chromium	970	ug/Kg		165	550	550	1	P	HSC	12/20/09 00:02	121909-1	932284
7440-48-4	Cobalt	344	ug/Kg	J	165	550	550	1	P	HSC	12/20/09 00:02	121909-1	932284
7440-50-8	Copper	1680	ug/Kg		330	1100	1100	1	P	HSC	12/20/09 00:02	121909-1	932284
7439-89-6	Iron	7230000	ug/Kg		8790	27500	27500	1	P	HSC	12/20/09 00:02	121909-1	932284
7439-92-1	Lead	2840	ug/Kg		275	1100	1100	1	P	HSC	12/20/09 00:02	121909-1	932284
7439-93-2	Lithium	3.35	mg/kg	*N	0.433	2.16	2.16	2	MS	SKJ	01/04/10 13:24	100104-3	932323
7439-95-4	Magnesium	249000	ug/Kg	*	9340	33000	33000	1	P	HSC	12/20/09 00:02	121909-1	932284
7439-96-5	Manganese	209000	ug/Kg	*	220	1100	1100	1	P	HSC	12/20/09 00:02	121909-1	932284
7439-97-6	Mercury	13.3	ug/kg	U	4.51	13.3	13.3	1	AV	ETL	12/23/09 12:14	122309S1-4	934871
7440-02-0	Nickel	1.25	mg/kg		0.108	0.433	0.433	2	MS	SKJ	01/01/10 03:42	091231-2	932323
7440-09-7	Potassium	186000	ug/Kg		7040	27500	27500	1	P	HSC	12/20/09 00:02	121909-1	932284
7782-49-2	Selenium	1.08	mg/kg	U	0.541	1.08	1.08	2	MS	SKJ	01/01/10 03:42	091231-2	932323
7440-21-3	Silicon	862000	ug/Kg		1650	11000	11000	1	P	HSC	12/20/09 00:02	121909-1	932284
7440-22-4	Silver	457	ug/Kg	J	110	550	550	1	P	HSC	12/20/09 00:02	121909-1	932284
7440-23-5	Sodium	33000	ug/Kg		7700	27500	27500	1	P	HSC	12/20/09 00:02	121909-1	932284
7440-28-0	Thallium	0.216	mg/kg	U	0.0649	0.216	0.216	2	MS	SKJ	01/01/10 03:42	091231-2	932323
7440-32-6	Titanium	309000	ug/Kg		110	550	550	1	P	HSC	12/20/09 00:02	121909-1	932284
7440-61-1	Uranium	0.494	mg/kg		0.0143	0.0433	0.0433	2	MS	SKJ	01/01/10 03:42	091231-2	932323
7440-62-2	Vanadium	3210	ug/Kg		110	550	550	1	P	HSC	12/20/09 00:02	121909-1	932284
7440-66-6	Zinc	36700	ug/Kg		363	1100	1100	1	P	HSC	12/20/09 00:02	121909-1	932284

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
932284	932283	SW846 3050B	0.513	g	50	mL	12/17/09	BCD1
932323	932322	SW846 3050B	0.521	g	50	mL	12/17/09	BCD1
934871	934870	SW846 7471A Prep	0.51	g	30	mL	12/22/09	TXB3

METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-887 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 242781005 **BASIS:** Dry Weight **DATE COLLECTED** 09-DEC-09

CLIENT ID: RE03-09-13755 **LEVEL:** Low **DATE RECEIVED** 11-DEC-09

MATRIX: SOIL **%SOLIDS:** 89

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	1760000	ug/Kg	N	7500	22000	22000	1	P	HSC	12/20/09 00:09	121909-1	932284
7440-36-0	Antimony	1100	ug/Kg	U	364	1100	1100	1	P	HSC	12/20/09 00:09	121909-1	932284
7440-38-2	Arsenic	0.869	mg/kg	J	0.216	1.08	1.08	2	MS	SKJ	01/01/10 03:48	091231-2	932323
7440-39-3	Barium	20400	ug/Kg		110	551	551	1	P	HSC	12/20/09 00:09	121909-1	932284
7440-41-7	Beryllium	0.424	mg/kg		0.0216	0.108	0.108	2	MS	SKJ	01/01/10 03:48	091231-2	932323
7440-42-8	Boron	5510	ug/Kg	U	1100	5510	5510	1	P	HSC	12/20/09 00:09	121909-1	932284
7440-43-9	Cadmium	551	ug/Kg	U	110	551	551	1	P	HSC	12/20/09 00:09	121909-1	932284
7440-70-2	Calcium	502000	ug/Kg	*	8820	27600	27600	1	P	HSC	12/20/09 00:09	121909-1	932284
7440-47-3	Chromium	1210	ug/Kg		165	551	551	1	P	HSC	12/20/09 00:09	121909-1	932284
7440-48-4	Cobalt	432	ug/Kg	J	165	551	551	1	P	HSC	12/20/09 00:09	121909-1	932284
7440-50-8	Copper	1980	ug/Kg		331	1100	1100	1	P	HSC	12/20/09 00:09	121909-1	932284
7439-89-6	Iron	8610000	ug/Kg		8820	27600	27600	1	P	HSC	12/20/09 00:09	121909-1	932284
7439-92-1	Lead	3490	ug/Kg		276	1100	1100	1	P	HSC	12/20/09 00:09	121909-1	932284
7439-93-2	Lithium	3.84	mg/kg	*N	0.432	2.16	2.16	2	MS	SKJ	01/04/10 13:27	100104-3	932323
7439-95-4	Magnesium	287000	ug/Kg	*	9370	33100	33100	1	P	HSC	12/20/09 00:09	121909-1	932284
7439-96-5	Manganese	355000	ug/Kg	*	220	1100	1100	1	P	HSC	12/20/09 00:09	121909-1	932284
7439-97-6	Mercury	13	ug/kg	U	4.42	13	13	1	AV	ETL	12/23/09 12:15	122309S1-4	934871
7440-02-0	Nickel	1.49	mg/kg		0.108	0.432	0.432	2	MS	SKJ	01/01/10 03:48	091231-2	932323
7440-09-7	Potassium	230000	ug/Kg		7060	27600	27600	1	P	HSC	12/20/09 00:09	121909-1	932284
7782-49-2	Selenium	1.08	mg/kg	U	0.541	1.08	1.08	2	MS	SKJ	01/01/10 03:48	091231-2	932323
7440-21-3	Silicon	921000	ug/Kg		1650	11000	11000	1	P	HSC	12/20/09 00:09	121909-1	932284
7440-22-4	Silver	457	ug/Kg	J	110	551	551	1	P	HSC	12/20/09 00:09	121909-1	932284
7440-23-5	Sodium	36600	ug/Kg		7720	27600	27600	1	P	HSC	12/20/09 00:09	121909-1	932284
7440-28-0	Thallium	0.216	mg/kg	U	0.0649	0.216	0.216	2	MS	SKJ	01/01/10 03:48	091231-2	932323
7440-32-6	Titanium	399000	ug/Kg		110	551	551	1	P	HSC	12/20/09 00:09	121909-1	932284
7440-61-1	Uranium	0.548	mg/kg		0.0143	0.0432	0.0432	2	MS	SKJ	01/01/10 03:48	091231-2	932323
7440-62-2	Vanadium	4470	ug/Kg		110	551	551	1	P	HSC	12/20/09 00:09	121909-1	932284
7440-66-6	Zinc	47600	ug/Kg		364	1100	1100	1	P	HSC	12/20/09 00:09	121909-1	932284

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
932284	932283	SW846 3050B	0.507	g	50	mL	12/17/09	BCD1
932323	932322	SW846 3050B	0.517	g	50	mL	12/17/09	BCD1
934871	934870	SW846 7471A Prep	0.516	g	30	mL	12/22/09	TXB3

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-887 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 242781006 **BASIS:** Dry Weight **DATE COLLECTED** 09-DEC-09

CLIENT ID: RE03-09-13756 **LEVEL:** Low **DATE RECEIVED** 11-DEC-09

MATRIX: SOIL **%SOLIDS:** 90

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	1840000	ug/Kg	N	7230	21300	21300	1	P	HSC	12/20/09 00:16	121909-1	932284
7440-36-0	Antimony	1060	ug/Kg	U	351	1060	1060	1	P	HSC	12/20/09 00:16	121909-1	932284
7440-38-2	Arsenic	1.15	mg/kg		0.213	1.06	1.06	2	MS	SKJ	01/01/10 03:55	091231-2	932323
7440-39-3	Barium	14000	ug/Kg		106	532	532	1	P	HSC	12/20/09 00:16	121909-1	932284
7440-41-7	Beryllium	0.557	mg/kg		0.0213	0.106	0.106	2	MS	SKJ	01/01/10 03:55	091231-2	932323
7440-42-8	Boron	5320	ug/Kg	U	1060	5320	5320	1	P	HSC	12/20/09 00:16	121909-1	932284
7440-43-9	Cadmium	532	ug/Kg	U	106	532	532	1	P	HSC	12/20/09 00:16	121909-1	932284
7440-70-2	Calcium	491000	ug/Kg	*	8510	26600	26600	1	P	HSC	12/20/09 00:16	121909-1	932284
7440-47-3	Chromium	1380	ug/Kg		160	532	532	1	P	HSC	12/20/09 00:16	121909-1	932284
7440-48-4	Cobalt	473	ug/Kg	J	160	532	532	1	P	HSC	12/20/09 00:16	121909-1	932284
7440-50-8	Copper	6470	ug/Kg		319	1060	1060	1	P	HSC	12/20/09 00:16	121909-1	932284
7439-89-6	Iron	7730000	ug/Kg		8510	26600	26600	1	P	HSC	12/20/09 00:16	121909-1	932284
7439-92-1	Lead	3640	ug/Kg		266	1060	1060	1	P	HSC	12/20/09 00:16	121909-1	932284
7439-93-2	Lithium	3.11	mg/kg	*N	0.426	2.13	2.13	2	MS	SKJ	01/04/10 13:29	100104-3	932323
7439-95-4	Magnesium	247000	ug/Kg	*	9040	31900	31900	1	P	HSC	12/20/09 00:16	121909-1	932284
7439-96-5	Manganese	119000	ug/Kg	*	213	1060	1060	1	P	HSC	12/20/09 00:16	121909-1	932284
7439-97-6	Mercury	10.9	ug/kg	J	4.45	13.1	13.1	1	AV	ETL	12/23/09 12:17	122309S1-4	934871
7440-02-0	Nickel	2.11	mg/kg		0.106	0.426	0.426	2	MS	SKJ	01/01/10 03:55	091231-2	932323
7440-09-7	Potassium	191000	ug/Kg		6810	26600	26600	1	P	HSC	12/20/09 00:16	121909-1	932284
7782-49-2	Selenium	1.06	mg/kg	U	0.532	1.06	1.06	2	MS	SKJ	01/01/10 03:55	091231-2	932323
7440-21-3	Silicon	845000	ug/Kg		1600	10600	10600	1	P	HSC	12/20/09 00:16	121909-1	932284
7440-22-4	Silver	635	ug/Kg		106	532	532	1	P	HSC	12/20/09 00:16	121909-1	932284
7440-23-5	Sodium	33900	ug/Kg		7450	26600	26600	1	P	HSC	12/20/09 00:16	121909-1	932284
7440-28-0	Thallium	0.213	mg/kg	U	0.0638	0.213	0.213	2	MS	SKJ	01/01/10 03:55	091231-2	932323
7440-32-6	Titanium	304000	ug/Kg		106	532	532	1	P	HSC	12/20/09 00:16	121909-1	932284
7440-61-1	Uranium	0.512	mg/kg		0.014	0.0426	0.0426	2	MS	SKJ	01/01/10 03:55	091231-2	932323
7440-62-2	Vanadium	4990	ug/Kg		106	532	532	1	P	HSC	12/20/09 00:16	121909-1	932284
7440-66-6	Zinc	49400	ug/Kg		351	1060	1060	1	P	HSC	12/20/09 00:16	121909-1	932284

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
932284	932283	SW846 3050B	0.525	g	50	mL	12/17/09	BCD1
932323	932322	SW846 3050B	0.525	g	50	mL	12/17/09	BCD1
934871	934870	SW846 7471A Prep	0.512	g	30	mL	12/22/09	TXB3

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-887 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 242781007 **BASIS:** Dry Weight **DATE COLLECTED** 09-DEC-09

CLIENT ID: RE03-10-5525 **LEVEL:** Low **DATE RECEIVED** 11-DEC-09

MATRIX: SOIL **%SOLIDS:** 91.9

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	1800000	ug/Kg	N	7340	21600	21600	1	P	HSC	12/20/09 00:23	121909-1	932284
7440-36-0	Antimony	1080	ug/Kg	U	356	1080	1080	1	P	HSC	12/20/09 00:23	121909-1	932284
7440-38-2	Arsenic	1.03	mg/kg	J	0.217	1.08	1.08	2	MS	SKJ	01/01/10 04:13	091231-2	932323
7440-39-3	Barium	14300	ug/Kg		108	540	540	1	P	HSC	12/20/09 00:23	121909-1	932284
7440-41-7	Beryllium	0.560	mg/kg		0.0217	0.108	0.108	2	MS	SKJ	01/01/10 04:13	091231-2	932323
7440-42-8	Boron	5400	ug/Kg	U	1080	5400	5400	1	P	HSC	12/20/09 00:23	121909-1	932284
7440-43-9	Cadmium	540	ug/Kg	U	108	540	540	1	P	HSC	12/20/09 00:23	121909-1	932284
7440-70-2	Calcium	472000	ug/Kg	*	8640	27000	27000	1	P	HSC	12/20/09 00:23	121909-1	932284
7440-47-3	Chromium	2560	ug/Kg		162	540	540	1	P	HSC	12/20/09 00:23	121909-1	932284
7440-48-4	Cobalt	431	ug/Kg	J	162	540	540	1	P	HSC	12/20/09 00:23	121909-1	932284
7440-50-8	Copper	4090	ug/Kg		324	1080	1080	1	P	HSC	12/20/09 00:23	121909-1	932284
7439-89-6	Iron	7380000	ug/Kg		8640	27000	27000	1	P	HSC	12/20/09 00:23	121909-1	932284
7439-92-1	Lead	3100	ug/Kg		270	1080	1080	1	P	HSC	12/20/09 00:23	121909-1	932284
7439-93-2	Lithium	3.28	mg/kg	*N	0.434	2.17	2.17	2	MS	SKJ	01/04/10 13:31	100104-3	932323
7439-95-4	Magnesium	239000	ug/Kg	*	9180	32400	32400	1	P	HSC	12/20/09 00:23	121909-1	932284
7439-96-5	Manganese	302000	ug/Kg	*	216	1080	1080	1	P	HSC	12/20/09 00:23	121909-1	932284
7439-97-6	Mercury	29.5	ug/kg		4.35	12.8	12.8	1	AV	ETL	12/23/09 12:19	122309S1-4	934871
7440-02-0	Nickel	1.99	mg/kg		0.108	0.434	0.434	2	MS	SKJ	01/01/10 04:13	091231-2	932323
7440-09-7	Potassium	171000	ug/Kg		6910	27000	27000	1	P	HSC	12/20/09 00:23	121909-1	932284
7782-49-2	Selenium	1.08	mg/kg	U	0.542	1.08	1.08	2	MS	SKJ	01/01/10 04:13	091231-2	932323
7440-21-3	Silicon	829000	ug/Kg		1620	10800	10800	1	P	HSC	12/20/09 00:23	121909-1	932284
7440-22-4	Silver	1160	ug/Kg		108	540	540	1	P	HSC	12/20/09 00:23	121909-1	932284
7440-23-5	Sodium	38300	ug/Kg		7560	27000	27000	1	P	HSC	12/20/09 00:23	121909-1	932284
7440-28-0	Thallium	0.217	mg/kg	U	0.0651	0.217	0.217	2	MS	SKJ	01/01/10 04:13	091231-2	932323
7440-32-6	Titanium	343000	ug/Kg		108	540	540	1	P	HSC	12/20/09 00:23	121909-1	932284
7440-61-1	Uranium	0.526	mg/kg		0.0143	0.0434	0.0434	2	MS	SKJ	01/01/10 04:13	091231-2	932323
7440-62-2	Vanadium	3280	ug/Kg		108	540	540	1	P	HSC	12/20/09 00:23	121909-1	932284
7440-66-6	Zinc	39300	ug/Kg		356	1080	1080	1	P	HSC	12/20/09 00:23	121909-1	932284

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
932284	932283	SW846 3050B	0.504	g	50	mL	12/17/09	BCD1
932323	932322	SW846 3050B	0.502	g	50	mL	12/17/09	BCD1
934871	934870	SW846 7471A Prep	0.511	g	30	mL	12/22/09	TXB3

Quality Control Summary

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–887

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
ICV01										
	Aluminum	5050	ug/L	5000	ug/L	100.9	90.0 – 110.0	P	19–DEC–09 07:51	121909–1
	Antimony	504	ug/L	500	ug/L	100.7	90.0 – 110.0	P	19–DEC–09 07:51	121909–1
	Barium	515	ug/L	500	ug/L	103.1	90.0 – 110.0	P	19–DEC–09 07:51	121909–1
	Boron	516	ug/L	500	ug/L	103.1	90.0 – 110.0	P	19–DEC–09 07:51	121909–1
	Cadmium	503	ug/L	500	ug/L	100.6	90.0 – 110.0	P	19–DEC–09 07:51	121909–1
	Calcium	5020	ug/L	5000	ug/L	100.4	90.0 – 110.0	P	19–DEC–09 07:51	121909–1
	Chromium	492	ug/L	500	ug/L	98.4	90.0 – 110.0	P	19–DEC–09 07:51	121909–1
	Cobalt	502	ug/L	500	ug/L	100.3	90.0 – 110.0	P	19–DEC–09 07:51	121909–1
	Copper	511	ug/L	500	ug/L	102.3	90.0 – 110.0	P	19–DEC–09 07:51	121909–1
	Iron	5180	ug/L	5000	ug/L	103.6	90.0 – 110.0	P	19–DEC–09 07:51	121909–1
	Lead	504	ug/L	500	ug/L	100.8	90.0 – 110.0	P	19–DEC–09 07:51	121909–1
	Magnesium	5490	ug/L	5000	ug/L	109.8	90.0 – 110.0	P	19–DEC–09 07:51	121909–1
	Manganese	517	ug/L	500	ug/L	103.4	90.0 – 110.0	P	19–DEC–09 07:51	121909–1
	Potassium	2550	ug/L	2500	ug/L	102	90.0 – 110.0	P	19–DEC–09 07:51	121909–1
	Silicon	4830	ug/L	5000	ug/L	96.7	90.0 – 110.0	P	19–DEC–09 07:51	121909–1
	Silver	262	ug/L	250	ug/L	104.7	90.0 – 110.0	P	19–DEC–09 07:51	121909–1
	Sodium	2510	ug/L	2500	ug/L	100.5	90.0 – 110.0	P	19–DEC–09 07:51	121909–1
	Titanium	498	ug/L	500	ug/L	99.7	90.0 – 110.0	P	19–DEC–09 07:51	121909–1
	Vanadium	517	ug/L	500	ug/L	103.5	90.0 – 110.0	P	19–DEC–09 07:51	121909–1
	Zinc	511	ug/L	500	ug/L	102.2	90.0 – 110.0	P	19–DEC–09 07:51	121909–1
	Mercury	5.21	ug/L	5	ug/L	104.3	90.0 – 110.0	AV	23–DEC–09 08:50	122309S1–4
	Arsenic	48.4	ug/L	50	ug/L	96.8	90.0 – 110.0	MS	01–JAN–10 01:25	091231–2
	Beryllium	50	ug/L	50	ug/L	100	90.0 – 110.0	MS	01–JAN–10 01:25	091231–2
	Nickel	52	ug/L	50	ug/L	103.9	90.0 – 110.0	MS	01–JAN–10 01:25	091231–2
	Selenium	49.3	ug/L	50	ug/L	98.5	90.0 – 110.0	MS	01–JAN–10 01:25	091231–2
	Thallium	48.6	ug/L	50	ug/L	97.2	90.0 – 110.0	MS	01–JAN–10 01:25	091231–2
	Uranium	52.7	ug/L	50	ug/L	105.4	90.0 – 110.0	MS	01–JAN–10 01:25	091231–2
	Lithium	50.3	ug/L	50	ug/L	100.6	90.0 – 110.0	MS	04–JAN–10 12:44	100104–3
CCV01										
	Aluminum	4920	ug/L	5000	ug/L	98.4	90.0 – 110.0	P	19–DEC–09 08:36	121909–1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-887

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Antimony	508	ug/L	500	ug/L	101.6	90.0 – 110.0	P	19-DEC-09 08:36	121909-1
	Barium	499	ug/L	500	ug/L	99.9	90.0 – 110.0	P	19-DEC-09 08:36	121909-1
	Boron	516	ug/L	500	ug/L	103.2	90.0 – 110.0	P	19-DEC-09 08:36	121909-1
	Cadmium	499	ug/L	500	ug/L	99.7	90.0 – 110.0	P	19-DEC-09 08:36	121909-1
	Calcium	4990	ug/L	5000	ug/L	99.8	90.0 – 110.0	P	19-DEC-09 08:36	121909-1
	Chromium	499	ug/L	500	ug/L	99.7	90.0 – 110.0	P	19-DEC-09 08:36	121909-1
	Cobalt	499	ug/L	500	ug/L	99.8	90.0 – 110.0	P	19-DEC-09 08:36	121909-1
	Copper	493	ug/L	500	ug/L	98.7	90.0 – 110.0	P	19-DEC-09 08:36	121909-1
	Iron	5120	ug/L	5000	ug/L	102.4	90.0 – 110.0	P	19-DEC-09 08:36	121909-1
	Lead	498	ug/L	500	ug/L	99.7	90.0 – 110.0	P	19-DEC-09 08:36	121909-1
	Magnesium	5200	ug/L	5000	ug/L	104.1	90.0 – 110.0	P	19-DEC-09 08:36	121909-1
	Manganese	495	ug/L	500	ug/L	99	90.0 – 110.0	P	19-DEC-09 08:36	121909-1
	Potassium	5130	ug/L	5000	ug/L	102.5	90.0 – 110.0	P	19-DEC-09 08:36	121909-1
	Silicon	2450	ug/L	2500	ug/L	98	90.0 – 110.0	P	19-DEC-09 08:36	121909-1
	Silver	495	ug/L	500	ug/L	99.1	90.0 – 110.0	P	19-DEC-09 08:36	121909-1
	Sodium	10100	ug/L	10000	ug/L	100.8	90.0 – 110.0	P	19-DEC-09 08:36	121909-1
	Titanium	489	ug/L	500	ug/L	97.8	90.0 – 110.0	P	19-DEC-09 08:36	121909-1
	Vanadium	502	ug/L	500	ug/L	100.4	90.0 – 110.0	P	19-DEC-09 08:36	121909-1
	Zinc	494	ug/L	500	ug/L	98.8	90.0 – 110.0	P	19-DEC-09 08:36	121909-1
	Mercury	5.06	ug/L	5	ug/L	101.2	80.0 – 120.0	AV	23-DEC-09 08:55	122309S1-4
	Arsenic	49.2	ug/L	50	ug/L	98.5	90.0 – 110.0	MS	01-JAN-10 01:56	091231-2
	Beryllium	46.5	ug/L	50	ug/L	93	90.0 – 110.0	MS	01-JAN-10 01:56	091231-2
	Nickel	51.7	ug/L	50	ug/L	103.5	90.0 – 110.0	MS	01-JAN-10 01:56	091231-2
	Selenium	48.7	ug/L	50	ug/L	97.4	90.0 – 110.0	MS	01-JAN-10 01:56	091231-2
	Thallium	49	ug/L	50	ug/L	98	90.0 – 110.0	MS	01-JAN-10 01:56	091231-2
	Uranium	52.2	ug/L	50	ug/L	104.5	90.0 – 110.0	MS	01-JAN-10 01:56	091231-2
	Lithium	49.9	ug/L	50	ug/L	99.9	90.0 – 110.0	MS	04-JAN-10 12:55	100104-3
CCV02										
	Aluminum	4930	ug/L	5000	ug/L	98.7	90.0 – 110.0	P	19-DEC-09 09:05	121909-1
	Antimony	490	ug/L	500	ug/L	98.1	90.0 – 110.0	P	19-DEC-09 09:05	121909-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-887

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Barium	494	ug/L	500	ug/L	98.7	90.0 – 110.0	P	19-DEC-09 09:05	121909-1
	Boron	490	ug/L	500	ug/L	98	90.0 – 110.0	P	19-DEC-09 09:05	121909-1
	Cadmium	494	ug/L	500	ug/L	98.8	90.0 – 110.0	P	19-DEC-09 09:05	121909-1
	Calcium	5030	ug/L	5000	ug/L	100.6	90.0 – 110.0	P	19-DEC-09 09:05	121909-1
	Chromium	492	ug/L	500	ug/L	98.3	90.0 – 110.0	P	19-DEC-09 09:05	121909-1
	Cobalt	485	ug/L	500	ug/L	97	90.0 – 110.0	P	19-DEC-09 09:05	121909-1
	Copper	491	ug/L	500	ug/L	98.2	90.0 – 110.0	P	19-DEC-09 09:05	121909-1
	Iron	5170	ug/L	5000	ug/L	103.4	90.0 – 110.0	P	19-DEC-09 09:05	121909-1
	Lead	495	ug/L	500	ug/L	99.1	90.0 – 110.0	P	19-DEC-09 09:05	121909-1
	Magnesium	5260	ug/L	5000	ug/L	105.2	90.0 – 110.0	P	19-DEC-09 09:05	121909-1
	Manganese	492	ug/L	500	ug/L	98.4	90.0 – 110.0	P	19-DEC-09 09:05	121909-1
	Potassium	5040	ug/L	5000	ug/L	100.9	90.0 – 110.0	P	19-DEC-09 09:05	121909-1
	Silicon	2420	ug/L	2500	ug/L	96.6	90.0 – 110.0	P	19-DEC-09 09:05	121909-1
	Silver	488	ug/L	500	ug/L	97.6	90.0 – 110.0	P	19-DEC-09 09:05	121909-1
	Sodium	9990	ug/L	10000	ug/L	99.9	90.0 – 110.0	P	19-DEC-09 09:05	121909-1
	Titanium	486	ug/L	500	ug/L	97.3	90.0 – 110.0	P	19-DEC-09 09:05	121909-1
	Vanadium	494	ug/L	500	ug/L	98.9	90.0 – 110.0	P	19-DEC-09 09:05	121909-1
	Zinc	487	ug/L	500	ug/L	97.5	90.0 – 110.0	P	19-DEC-09 09:05	121909-1
	Mercury	5.03	ug/L	5	ug/L	100.6	80.0 – 120.0	AV	23-DEC-09 09:15	122309S1-4
	Arsenic	49	ug/L	50	ug/L	98.1	90.0 – 110.0	MS	01-JAN-10 02:15	091231-2
	Beryllium	48	ug/L	50	ug/L	95.9	90.0 – 110.0	MS	01-JAN-10 02:15	091231-2
	Nickel	52.1	ug/L	50	ug/L	104.3	90.0 – 110.0	MS	01-JAN-10 02:15	091231-2
	Selenium	50.4	ug/L	50	ug/L	100.7	90.0 – 110.0	MS	01-JAN-10 02:15	091231-2
	Thallium	49.7	ug/L	50	ug/L	99.3	90.0 – 110.0	MS	01-JAN-10 02:15	091231-2
	Uranium	53.8	ug/L	50	ug/L	107.7	90.0 – 110.0	MS	01-JAN-10 02:15	091231-2
	Lithium	50.6	ug/L	50	ug/L	101.2	90.0 – 110.0	MS	04-JAN-10 13:15	100104-3
CCV03										
	Aluminum	4910	ug/L	5000	ug/L	98.2	90.0 – 110.0	P	19-DEC-09 10:14	121909-1
	Antimony	486	ug/L	500	ug/L	97.3	90.0 – 110.0	P	19-DEC-09 10:14	121909-1
	Barium	484	ug/L	500	ug/L	96.8	90.0 – 110.0	P	19-DEC-09 10:14	121909-1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–887

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Boron	478	ug/L	500	ug/L	95.7	90.0 – 110.0	P	19–DEC–09 10:14	121909–1
	Cadmium	485	ug/L	500	ug/L	97.1	90.0 – 110.0	P	19–DEC–09 10:14	121909–1
	Calcium	4950	ug/L	5000	ug/L	99	90.0 – 110.0	P	19–DEC–09 10:14	121909–1
	Chromium	483	ug/L	500	ug/L	96.6	90.0 – 110.0	P	19–DEC–09 10:14	121909–1
	Cobalt	485	ug/L	500	ug/L	96.9	90.0 – 110.0	P	19–DEC–09 10:14	121909–1
	Copper	478	ug/L	500	ug/L	95.7	90.0 – 110.0	P	19–DEC–09 10:14	121909–1
	Iron	5000	ug/L	5000	ug/L	100	90.0 – 110.0	P	19–DEC–09 10:14	121909–1
	Lead	482	ug/L	500	ug/L	96.5	90.0 – 110.0	P	19–DEC–09 10:14	121909–1
	Magnesium	5160	ug/L	5000	ug/L	103.2	90.0 – 110.0	P	19–DEC–09 10:14	121909–1
	Manganese	478	ug/L	500	ug/L	95.7	90.0 – 110.0	P	19–DEC–09 10:14	121909–1
	Potassium	4990	ug/L	5000	ug/L	99.8	90.0 – 110.0	P	19–DEC–09 10:14	121909–1
	Silicon	2380	ug/L	2500	ug/L	95.2	90.0 – 110.0	P	19–DEC–09 10:14	121909–1
	Silver	481	ug/L	500	ug/L	96.2	90.0 – 110.0	P	19–DEC–09 10:14	121909–1
	Sodium	9570	ug/L	10000	ug/L	95.7	90.0 – 110.0	P	19–DEC–09 10:14	121909–1
	Titanium	473	ug/L	500	ug/L	94.5	90.0 – 110.0	P	19–DEC–09 10:14	121909–1
	Vanadium	487	ug/L	500	ug/L	97.4	90.0 – 110.0	P	19–DEC–09 10:14	121909–1
	Zinc	480	ug/L	500	ug/L	96	90.0 – 110.0	P	19–DEC–09 10:14	121909–1
	Mercury	5	ug/L	5	ug/L	99.9	80.0 – 120.0	AV	23–DEC–09 09:35	122309S1–4
	Arsenic	48.7	ug/L	50	ug/L	97.5	90.0 – 110.0	MS	01–JAN–10 02:52	091231–2
	Beryllium	47.3	ug/L	50	ug/L	94.5	90.0 – 110.0	MS	01–JAN–10 02:52	091231–2
	Nickel	51.8	ug/L	50	ug/L	103.5	90.0 – 110.0	MS	01–JAN–10 02:52	091231–2
	Selenium	49.2	ug/L	50	ug/L	98.5	90.0 – 110.0	MS	01–JAN–10 02:52	091231–2
	Thallium	48.1	ug/L	50	ug/L	96.3	90.0 – 110.0	MS	01–JAN–10 02:52	091231–2
	Uranium	52.8	ug/L	50	ug/L	105.7	90.0 – 110.0	MS	01–JAN–10 02:52	091231–2
	Lithium	52	ug/L	50	ug/L	104	90.0 – 110.0	MS	04–JAN–10 13:33	100104–3
CCV04										
	Aluminum	4920	ug/L	5000	ug/L	98.3	90.0 – 110.0	P	19–DEC–09 11:18	121909–1
	Antimony	495	ug/L	500	ug/L	99.1	90.0 – 110.0	P	19–DEC–09 11:18	121909–1
	Barium	491	ug/L	500	ug/L	98.3	90.0 – 110.0	P	19–DEC–09 11:18	121909–1
	Boron	479	ug/L	500	ug/L	95.8	90.0 – 110.0	P	19–DEC–09 11:18	121909–1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–887

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Cadmium	491	ug/L	500	ug/L	98.2	90.0 – 110.0	P	19–DEC–09 11:18	121909–1
	Calcium	4960	ug/L	5000	ug/L	99.3	90.0 – 110.0	P	19–DEC–09 11:18	121909–1
	Chromium	490	ug/L	500	ug/L	98.1	90.0 – 110.0	P	19–DEC–09 11:18	121909–1
	Cobalt	492	ug/L	500	ug/L	98.4	90.0 – 110.0	P	19–DEC–09 11:18	121909–1
	Copper	487	ug/L	500	ug/L	97.5	90.0 – 110.0	P	19–DEC–09 11:18	121909–1
	Iron	5050	ug/L	5000	ug/L	101	90.0 – 110.0	P	19–DEC–09 11:18	121909–1
	Lead	489	ug/L	500	ug/L	97.8	90.0 – 110.0	P	19–DEC–09 11:18	121909–1
	Magnesium	5170	ug/L	5000	ug/L	103.4	90.0 – 110.0	P	19–DEC–09 11:18	121909–1
	Manganese	489	ug/L	500	ug/L	97.8	90.0 – 110.0	P	19–DEC–09 11:18	121909–1
	Potassium	4970	ug/L	5000	ug/L	99.5	90.0 – 110.0	P	19–DEC–09 11:18	121909–1
	Silicon	2420	ug/L	2500	ug/L	96.8	90.0 – 110.0	P	19–DEC–09 11:18	121909–1
	Silver	489	ug/L	500	ug/L	97.8	90.0 – 110.0	P	19–DEC–09 11:18	121909–1
	Sodium	9910	ug/L	10000	ug/L	99.1	90.0 – 110.0	P	19–DEC–09 11:18	121909–1
	Titanium	484	ug/L	500	ug/L	96.7	90.0 – 110.0	P	19–DEC–09 11:18	121909–1
	Vanadium	495	ug/L	500	ug/L	99	90.0 – 110.0	P	19–DEC–09 11:18	121909–1
	Zinc	487	ug/L	500	ug/L	97.4	90.0 – 110.0	P	19–DEC–09 11:18	121909–1
	Mercury	5.03	ug/L	5	ug/L	100.7	80.0 – 120.0	AV	23–DEC–09 09:55	122309S1–4
	Arsenic	48.9	ug/L	50	ug/L	97.8	90.0 – 110.0	MS	01–JAN–10 04:01	091231–2
	Beryllium	50.2	ug/L	50	ug/L	100.3	90.0 – 110.0	MS	01–JAN–10 04:01	091231–2
	Nickel	51.4	ug/L	50	ug/L	102.8	90.0 – 110.0	MS	01–JAN–10 04:01	091231–2
	Selenium	49.9	ug/L	50	ug/L	99.8	90.0 – 110.0	MS	01–JAN–10 04:01	091231–2
	Thallium	48.6	ug/L	50	ug/L	97.2	90.0 – 110.0	MS	01–JAN–10 04:01	091231–2
	Uranium	52.5	ug/L	50	ug/L	105	90.0 – 110.0	MS	01–JAN–10 04:01	091231–2
CCV05										
	Aluminum	5120	ug/L	5000	ug/L	102.5	90.0 – 110.0	P	19–DEC–09 12:04	121909–1
	Antimony	499	ug/L	500	ug/L	99.8	90.0 – 110.0	P	19–DEC–09 12:04	121909–1
	Barium	495	ug/L	500	ug/L	98.9	90.0 – 110.0	P	19–DEC–09 12:04	121909–1
	Boron	477	ug/L	500	ug/L	95.5	90.0 – 110.0	P	19–DEC–09 12:04	121909–1
	Cadmium	494	ug/L	500	ug/L	98.8	90.0 – 110.0	P	19–DEC–09 12:04	121909–1
	Calcium	5130	ug/L	5000	ug/L	102.7	90.0 – 110.0	P	19–DEC–09 12:04	121909–1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-887

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Chromium	493	ug/L	500	ug/L	98.5	90.0 – 110.0	P	19-DEC-09 12:04	121909-1
	Cobalt	486	ug/L	500	ug/L	97.3	90.0 – 110.0	P	19-DEC-09 12:04	121909-1
	Copper	491	ug/L	500	ug/L	98.2	90.0 – 110.0	P	19-DEC-09 12:04	121909-1
	Iron	5180	ug/L	5000	ug/L	103.6	90.0 – 110.0	P	19-DEC-09 12:04	121909-1
	Lead	497	ug/L	500	ug/L	99.5	90.0 – 110.0	P	19-DEC-09 12:04	121909-1
	Magnesium	5320	ug/L	5000	ug/L	106.3	90.0 – 110.0	P	19-DEC-09 12:04	121909-1
	Manganese	493	ug/L	500	ug/L	98.6	90.0 – 110.0	P	19-DEC-09 12:04	121909-1
	Potassium	5200	ug/L	5000	ug/L	104	90.0 – 110.0	P	19-DEC-09 12:04	121909-1
	Silicon	2430	ug/L	2500	ug/L	97.1	90.0 – 110.0	P	19-DEC-09 12:04	121909-1
	Silver	489	ug/L	500	ug/L	97.9	90.0 – 110.0	P	19-DEC-09 12:04	121909-1
	Sodium	9870	ug/L	10000	ug/L	98.7	90.0 – 110.0	P	19-DEC-09 12:04	121909-1
	Titanium	488	ug/L	500	ug/L	97.5	90.0 – 110.0	P	19-DEC-09 12:04	121909-1
	Vanadium	496	ug/L	500	ug/L	99.2	90.0 – 110.0	P	19-DEC-09 12:04	121909-1
	Zinc	490	ug/L	500	ug/L	97.9	90.0 – 110.0	P	19-DEC-09 12:04	121909-1
	Mercury	5.03	ug/L	5	ug/L	100.5	80.0 – 120.0	AV	23-DEC-09 10:08	122309S1-4
	Arsenic	47.7	ug/L	50	ug/L	95.4	90.0 – 110.0	MS	01-JAN-10 04:57	091231-2
	Beryllium	50.3	ug/L	50	ug/L	100.6	90.0 – 110.0	MS	01-JAN-10 04:57	091231-2
	Nickel	51.6	ug/L	50	ug/L	103.2	90.0 – 110.0	MS	01-JAN-10 04:57	091231-2
	Selenium	51	ug/L	50	ug/L	102	90.0 – 110.0	MS	01-JAN-10 04:57	091231-2
	Thallium	47.5	ug/L	50	ug/L	94.9	90.0 – 110.0	MS	01-JAN-10 04:57	091231-2
	Uranium	53.2	ug/L	50	ug/L	106.4	90.0 – 110.0	MS	01-JAN-10 04:57	091231-2
CCV06										
	Aluminum	4960	ug/L	5000	ug/L	99.3	90.0 – 110.0	P	19-DEC-09 13:07	121909-1
	Antimony	495	ug/L	500	ug/L	99	90.0 – 110.0	P	19-DEC-09 13:07	121909-1
	Barium	492	ug/L	500	ug/L	98.5	90.0 – 110.0	P	19-DEC-09 13:07	121909-1
	Boron	477	ug/L	500	ug/L	95.4	90.0 – 110.0	P	19-DEC-09 13:07	121909-1
	Cadmium	492	ug/L	500	ug/L	98.3	90.0 – 110.0	P	19-DEC-09 13:07	121909-1
	Calcium	4990	ug/L	5000	ug/L	99.9	90.0 – 110.0	P	19-DEC-09 13:07	121909-1
	Chromium	491	ug/L	500	ug/L	98.3	90.0 – 110.0	P	19-DEC-09 13:07	121909-1
	Cobalt	492	ug/L	500	ug/L	98.4	90.0 – 110.0	P	19-DEC-09 13:07	121909-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-887

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Copper	488	ug/L	500	ug/L	97.5	90.0 – 110.0	P	19-DEC-09 13:07	121909-1
	Iron	4970	ug/L	5000	ug/L	99.4	90.0 – 110.0	P	19-DEC-09 13:07	121909-1
	Lead	488	ug/L	500	ug/L	97.6	90.0 – 110.0	P	19-DEC-09 13:07	121909-1
	Magnesium	5180	ug/L	5000	ug/L	103.6	90.0 – 110.0	P	19-DEC-09 13:07	121909-1
	Manganese	491	ug/L	500	ug/L	98.2	90.0 – 110.0	P	19-DEC-09 13:07	121909-1
	Potassium	5010	ug/L	5000	ug/L	100.2	90.0 – 110.0	P	19-DEC-09 13:07	121909-1
	Silicon	2420	ug/L	2500	ug/L	96.7	90.0 – 110.0	P	19-DEC-09 13:07	121909-1
	Silver	490	ug/L	500	ug/L	98	90.0 – 110.0	P	19-DEC-09 13:07	121909-1
	Sodium	9370	ug/L	10000	ug/L	93.7	90.0 – 110.0	P	19-DEC-09 13:07	121909-1
	Titanium	486	ug/L	500	ug/L	97.3	90.0 – 110.0	P	19-DEC-09 13:07	121909-1
	Vanadium	496	ug/L	500	ug/L	99.2	90.0 – 110.0	P	19-DEC-09 13:07	121909-1
	Zinc	487	ug/L	500	ug/L	97.4	90.0 – 110.0	P	19-DEC-09 13:07	121909-1
	Mercury	4.99	ug/L	5	ug/L	99.8	80.0 – 120.0	AV	23-DEC-09 10:28	122309S1-4
CCV07										
	Aluminum	4840	ug/L	5000	ug/L	96.7	90.0 – 110.0	P	19-DEC-09 13:29	121909-1
	Antimony	503	ug/L	500	ug/L	100.5	90.0 – 110.0	P	19-DEC-09 13:29	121909-1
	Barium	500	ug/L	500	ug/L	100.1	90.0 – 110.0	P	19-DEC-09 13:29	121909-1
	Boron	484	ug/L	500	ug/L	96.7	90.0 – 110.0	P	19-DEC-09 13:29	121909-1
	Cadmium	500	ug/L	500	ug/L	100	90.0 – 110.0	P	19-DEC-09 13:29	121909-1
	Calcium	4830	ug/L	5000	ug/L	96.6	90.0 – 110.0	P	19-DEC-09 13:29	121909-1
	Chromium	500	ug/L	500	ug/L	99.9	90.0 – 110.0	P	19-DEC-09 13:29	121909-1
	Cobalt	500	ug/L	500	ug/L	100.1	90.0 – 110.0	P	19-DEC-09 13:29	121909-1
	Copper	495	ug/L	500	ug/L	99.1	90.0 – 110.0	P	19-DEC-09 13:29	121909-1
	Iron	4910	ug/L	5000	ug/L	98.2	90.0 – 110.0	P	19-DEC-09 13:29	121909-1
	Lead	498	ug/L	500	ug/L	99.5	90.0 – 110.0	P	19-DEC-09 13:29	121909-1
	Magnesium	5070	ug/L	5000	ug/L	101.4	90.0 – 110.0	P	19-DEC-09 13:29	121909-1
	Manganese	495	ug/L	500	ug/L	99.1	90.0 – 110.0	P	19-DEC-09 13:29	121909-1
	Potassium	4900	ug/L	5000	ug/L	98	90.0 – 110.0	P	19-DEC-09 13:29	121909-1
	Silicon	2450	ug/L	2500	ug/L	98.2	90.0 – 110.0	P	19-DEC-09 13:29	121909-1
	Silver	498	ug/L	500	ug/L	99.5	90.0 – 110.0	P	19-DEC-09 13:29	121909-1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–887

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Sodium	9620	ug/L	10000	ug/L	96.2	90.0 – 110.0	P	19–DEC–09 13:29	121909–1
	Titanium	490	ug/L	500	ug/L	98.1	90.0 – 110.0	P	19–DEC–09 13:29	121909–1
	Vanadium	503	ug/L	500	ug/L	100.7	90.0 – 110.0	P	19–DEC–09 13:29	121909–1
	Zinc	494	ug/L	500	ug/L	98.9	90.0 – 110.0	P	19–DEC–09 13:29	121909–1
	Mercury	3.05	ug/L	5	ug/L	61.1	80.0 – 120.0	AV	23–DEC–09 10:48	122309S1–4
CCV08										
	Aluminum	4890	ug/L	5000	ug/L	97.8	90.0 – 110.0	P	19–DEC–09 14:38	121909–1
	Antimony	507	ug/L	500	ug/L	101.3	90.0 – 110.0	P	19–DEC–09 14:38	121909–1
	Barium	506	ug/L	500	ug/L	101.3	90.0 – 110.0	P	19–DEC–09 14:38	121909–1
	Boron	491	ug/L	500	ug/L	98.2	90.0 – 110.0	P	19–DEC–09 14:38	121909–1
	Cadmium	505	ug/L	500	ug/L	100.9	90.0 – 110.0	P	19–DEC–09 14:38	121909–1
	Calcium	4970	ug/L	5000	ug/L	99.3	90.0 – 110.0	P	19–DEC–09 14:38	121909–1
	Chromium	504	ug/L	500	ug/L	100.9	90.0 – 110.0	P	19–DEC–09 14:38	121909–1
	Cobalt	506	ug/L	500	ug/L	101.2	90.0 – 110.0	P	19–DEC–09 14:38	121909–1
	Copper	504	ug/L	500	ug/L	100.8	90.0 – 110.0	P	19–DEC–09 14:38	121909–1
	Iron	5050	ug/L	5000	ug/L	101	90.0 – 110.0	P	19–DEC–09 14:38	121909–1
	Lead	502	ug/L	500	ug/L	100.5	90.0 – 110.0	P	19–DEC–09 14:38	121909–1
	Magnesium	5180	ug/L	5000	ug/L	103.5	90.0 – 110.0	P	19–DEC–09 14:38	121909–1
	Manganese	503	ug/L	500	ug/L	100.7	90.0 – 110.0	P	19–DEC–09 14:38	121909–1
	Potassium	4950	ug/L	5000	ug/L	99.1	90.0 – 110.0	P	19–DEC–09 14:38	121909–1
	Silicon	2500	ug/L	2500	ug/L	99.8	90.0 – 110.0	P	19–DEC–09 14:38	121909–1
	Silver	505	ug/L	500	ug/L	100.9	90.0 – 110.0	P	19–DEC–09 14:38	121909–1
	Sodium	9680	ug/L	10000	ug/L	96.8	90.0 – 110.0	P	19–DEC–09 14:38	121909–1
	Titanium	499	ug/L	500	ug/L	99.8	90.0 – 110.0	P	19–DEC–09 14:38	121909–1
	Vanadium	510	ug/L	500	ug/L	101.9	90.0 – 110.0	P	19–DEC–09 14:38	121909–1
	Zinc	501	ug/L	500	ug/L	100.3	90.0 – 110.0	P	19–DEC–09 14:38	121909–1
	Mercury	3	ug/L	5	ug/L	60.1	80.0 – 120.0	AV	23–DEC–09 10:59	122309S1–4
CCV09										
	Aluminum	4940	ug/L	5000	ug/L	98.9	90.0 – 110.0	P	19–DEC–09 15:48	121909–1
	Antimony	498	ug/L	500	ug/L	99.6	90.0 – 110.0	P	19–DEC–09 15:48	121909–1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–887

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Barium	497	ug/L	500	ug/L	99.5	90.0 – 110.0	P	19–DEC–09 15:48	121909–1
	Boron	479	ug/L	500	ug/L	95.7	90.0 – 110.0	P	19–DEC–09 15:48	121909–1
	Cadmium	496	ug/L	500	ug/L	99.2	90.0 – 110.0	P	19–DEC–09 15:48	121909–1
	Calcium	4950	ug/L	5000	ug/L	99	90.0 – 110.0	P	19–DEC–09 15:48	121909–1
	Chromium	495	ug/L	500	ug/L	99	90.0 – 110.0	P	19–DEC–09 15:48	121909–1
	Cobalt	491	ug/L	500	ug/L	98.1	90.0 – 110.0	P	19–DEC–09 15:48	121909–1
	Copper	497	ug/L	500	ug/L	99.3	90.0 – 110.0	P	19–DEC–09 15:48	121909–1
	Iron	5080	ug/L	5000	ug/L	101.7	90.0 – 110.0	P	19–DEC–09 15:48	121909–1
	Lead	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	19–DEC–09 15:48	121909–1
	Magnesium	5180	ug/L	5000	ug/L	103.7	90.0 – 110.0	P	19–DEC–09 15:48	121909–1
	Manganese	497	ug/L	500	ug/L	99.4	90.0 – 110.0	P	19–DEC–09 15:48	121909–1
	Potassium	4960	ug/L	5000	ug/L	99.2	90.0 – 110.0	P	19–DEC–09 15:48	121909–1
	Silicon	2450	ug/L	2500	ug/L	98	90.0 – 110.0	P	19–DEC–09 15:48	121909–1
	Silver	493	ug/L	500	ug/L	98.7	90.0 – 110.0	P	19–DEC–09 15:48	121909–1
	Sodium	9810	ug/L	10000	ug/L	98.1	90.0 – 110.0	P	19–DEC–09 15:48	121909–1
	Titanium	492	ug/L	500	ug/L	98.5	90.0 – 110.0	P	19–DEC–09 15:48	121909–1
	Vanadium	498	ug/L	500	ug/L	99.7	90.0 – 110.0	P	19–DEC–09 15:48	121909–1
	Zinc	492	ug/L	500	ug/L	98.5	90.0 – 110.0	P	19–DEC–09 15:48	121909–1
	Mercury	4.8	ug/L	5	ug/L	96.1	80.0 – 120.0	AV	23–DEC–09 11:17	122309S1–4
CCV10										
	Aluminum	4880	ug/L	5000	ug/L	97.7	90.0 – 110.0	P	19–DEC–09 16:42	121909–1
	Antimony	506	ug/L	500	ug/L	101.3	90.0 – 110.0	P	19–DEC–09 16:42	121909–1
	Barium	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	19–DEC–09 16:42	121909–1
	Boron	482	ug/L	500	ug/L	96.4	90.0 – 110.0	P	19–DEC–09 16:42	121909–1
	Cadmium	500	ug/L	500	ug/L	100.1	90.0 – 110.0	P	19–DEC–09 16:42	121909–1
	Calcium	4810	ug/L	5000	ug/L	96.3	90.0 – 110.0	P	19–DEC–09 16:42	121909–1
	Chromium	499	ug/L	500	ug/L	99.9	90.0 – 110.0	P	19–DEC–09 16:42	121909–1
	Cobalt	496	ug/L	500	ug/L	99.1	90.0 – 110.0	P	19–DEC–09 16:42	121909–1
	Copper	501	ug/L	500	ug/L	100.1	90.0 – 110.0	P	19–DEC–09 16:42	121909–1
	Iron	4840	ug/L	5000	ug/L	96.8	90.0 – 110.0	P	19–DEC–09 16:42	121909–1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–887

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Lead	505	ug/L	500	ug/L	101	90.0 – 110.0	P	19–DEC–09 16:42	121909–1
	Magnesium	4990	ug/L	5000	ug/L	99.9	90.0 – 110.0	P	19–DEC–09 16:42	121909–1
	Manganese	500	ug/L	500	ug/L	100.1	90.0 – 110.0	P	19–DEC–09 16:42	121909–1
	Potassium	4860	ug/L	5000	ug/L	97.3	90.0 – 110.0	P	19–DEC–09 16:42	121909–1
	Silicon	2470	ug/L	2500	ug/L	98.7	90.0 – 110.0	P	19–DEC–09 16:42	121909–1
	Silver	497	ug/L	500	ug/L	99.4	90.0 – 110.0	P	19–DEC–09 16:42	121909–1
	Sodium	9330	ug/L	10000	ug/L	93.3	90.0 – 110.0	P	19–DEC–09 16:42	121909–1
	Titanium	496	ug/L	500	ug/L	99.1	90.0 – 110.0	P	19–DEC–09 16:42	121909–1
	Vanadium	502	ug/L	500	ug/L	100.5	90.0 – 110.0	P	19–DEC–09 16:42	121909–1
	Zinc	497	ug/L	500	ug/L	99.4	90.0 – 110.0	P	19–DEC–09 16:42	121909–1
	Mercury	4.67	ug/L	5	ug/L	93.3	80.0 – 120.0	AV	23–DEC–09 11:30	122309S1–4
CCV11										
	Aluminum	4850	ug/L	5000	ug/L	97	90.0 – 110.0	P	19–DEC–09 17:30	121909–1
	Antimony	513	ug/L	500	ug/L	102.6	90.0 – 110.0	P	19–DEC–09 17:30	121909–1
	Barium	509	ug/L	500	ug/L	101.8	90.0 – 110.0	P	19–DEC–09 17:30	121909–1
	Boron	492	ug/L	500	ug/L	98.4	90.0 – 110.0	P	19–DEC–09 17:30	121909–1
	Cadmium	509	ug/L	500	ug/L	101.8	90.0 – 110.0	P	19–DEC–09 17:30	121909–1
	Calcium	4870	ug/L	5000	ug/L	97.3	90.0 – 110.0	P	19–DEC–09 17:30	121909–1
	Chromium	509	ug/L	500	ug/L	101.8	90.0 – 110.0	P	19–DEC–09 17:30	121909–1
	Cobalt	510	ug/L	500	ug/L	102	90.0 – 110.0	P	19–DEC–09 17:30	121909–1
	Copper	506	ug/L	500	ug/L	101.2	90.0 – 110.0	P	19–DEC–09 17:30	121909–1
	Iron	4940	ug/L	5000	ug/L	98.7	90.0 – 110.0	P	19–DEC–09 17:30	121909–1
	Lead	504	ug/L	500	ug/L	100.9	90.0 – 110.0	P	19–DEC–09 17:30	121909–1
	Magnesium	5010	ug/L	5000	ug/L	100.3	90.0 – 110.0	P	19–DEC–09 17:30	121909–1
	Manganese	508	ug/L	500	ug/L	101.6	90.0 – 110.0	P	19–DEC–09 17:30	121909–1
	Potassium	4820	ug/L	5000	ug/L	96.4	90.0 – 110.0	P	19–DEC–09 17:30	121909–1
	Silicon	2510	ug/L	2500	ug/L	100.5	90.0 – 110.0	P	19–DEC–09 17:30	121909–1
	Silver	508	ug/L	500	ug/L	101.5	90.0 – 110.0	P	19–DEC–09 17:30	121909–1
	Sodium	9420	ug/L	10000	ug/L	94.2	90.0 – 110.0	P	19–DEC–09 17:30	121909–1
	Titanium	503	ug/L	500	ug/L	100.6	90.0 – 110.0	P	19–DEC–09 17:30	121909–1

METALS
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Initial and Continuing Calibration Verification

SDG No: 10–887

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Vanadium	513	ug/L	500	ug/L	102.6	90.0 – 110.0	P	19–DEC–09 17:30	121909–1
	Zinc	506	ug/L	500	ug/L	101.2	90.0 – 110.0	P	19–DEC–09 17:30	121909–1
	Mercury	4.68	ug/L	5	ug/L	93.6	80.0 – 120.0	AV	23–DEC–09 11:50	122309S1–4
CCV12										
	Aluminum	4970	ug/L	5000	ug/L	99.4	90.0 – 110.0	P	19–DEC–09 18:46	121909–1
	Antimony	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	19–DEC–09 18:46	121909–1
	Barium	498	ug/L	500	ug/L	99.6	90.0 – 110.0	P	19–DEC–09 18:46	121909–1
	Boron	477	ug/L	500	ug/L	95.5	90.0 – 110.0	P	19–DEC–09 18:46	121909–1
	Cadmium	496	ug/L	500	ug/L	99.2	90.0 – 110.0	P	19–DEC–09 18:46	121909–1
	Calcium	4960	ug/L	5000	ug/L	99.2	90.0 – 110.0	P	19–DEC–09 18:46	121909–1
	Chromium	497	ug/L	500	ug/L	99.4	90.0 – 110.0	P	19–DEC–09 18:46	121909–1
	Cobalt	490	ug/L	500	ug/L	98	90.0 – 110.0	P	19–DEC–09 18:46	121909–1
	Copper	497	ug/L	500	ug/L	99.4	90.0 – 110.0	P	19–DEC–09 18:46	121909–1
	Iron	5030	ug/L	5000	ug/L	100.6	90.0 – 110.0	P	19–DEC–09 18:46	121909–1
	Lead	502	ug/L	500	ug/L	100.3	90.0 – 110.0	P	19–DEC–09 18:46	121909–1
	Magnesium	5110	ug/L	5000	ug/L	102.1	90.0 – 110.0	P	19–DEC–09 18:46	121909–1
	Manganese	497	ug/L	500	ug/L	99.4	90.0 – 110.0	P	19–DEC–09 18:46	121909–1
	Potassium	4910	ug/L	5000	ug/L	98.2	90.0 – 110.0	P	19–DEC–09 18:46	121909–1
	Silicon	2450	ug/L	2500	ug/L	97.8	90.0 – 110.0	P	19–DEC–09 18:46	121909–1
	Silver	494	ug/L	500	ug/L	98.8	90.0 – 110.0	P	19–DEC–09 18:46	121909–1
	Sodium	9500	ug/L	10000	ug/L	95	90.0 – 110.0	P	19–DEC–09 18:46	121909–1
	Titanium	491	ug/L	500	ug/L	98.3	90.0 – 110.0	P	19–DEC–09 18:46	121909–1
	Vanadium	500	ug/L	500	ug/L	100.1	90.0 – 110.0	P	19–DEC–09 18:46	121909–1
	Zinc	493	ug/L	500	ug/L	98.6	90.0 – 110.0	P	19–DEC–09 18:46	121909–1
	Mercury	4.72	ug/L	5	ug/L	94.5	80.0 – 120.0	AV	23–DEC–09 12:10	122309S1–4
CCV13										
	Aluminum	5020	ug/L	5000	ug/L	100.4	90.0 – 110.0	P	19–DEC–09 20:03	121909–1
	Antimony	498	ug/L	500	ug/L	99.6	90.0 – 110.0	P	19–DEC–09 20:03	121909–1
	Barium	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	19–DEC–09 20:03	121909–1
	Boron	486	ug/L	500	ug/L	97.1	90.0 – 110.0	P	19–DEC–09 20:03	121909–1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–887

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Cadmium	500	ug/L	500	ug/L	100.1	90.0 – 110.0	P	19–DEC–09 20:03	121909–1
	Calcium	5030	ug/L	5000	ug/L	100.7	90.0 – 110.0	P	19–DEC–09 20:03	121909–1
	Chromium	503	ug/L	500	ug/L	100.6	90.0 – 110.0	P	19–DEC–09 20:03	121909–1
	Cobalt	499	ug/L	500	ug/L	99.7	90.0 – 110.0	P	19–DEC–09 20:03	121909–1
	Copper	498	ug/L	500	ug/L	99.6	90.0 – 110.0	P	19–DEC–09 20:03	121909–1
	Iron	5130	ug/L	5000	ug/L	102.6	90.0 – 110.0	P	19–DEC–09 20:03	121909–1
	Lead	496	ug/L	500	ug/L	99.3	90.0 – 110.0	P	19–DEC–09 20:03	121909–1
	Magnesium	5260	ug/L	5000	ug/L	105.2	90.0 – 110.0	P	19–DEC–09 20:03	121909–1
	Manganese	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	19–DEC–09 20:03	121909–1
	Potassium	4970	ug/L	5000	ug/L	99.5	90.0 – 110.0	P	19–DEC–09 20:03	121909–1
	Silicon	2470	ug/L	2500	ug/L	98.7	90.0 – 110.0	P	19–DEC–09 20:03	121909–1
	Silver	500	ug/L	500	ug/L	100	90.0 – 110.0	P	19–DEC–09 20:03	121909–1
	Sodium	9780	ug/L	10000	ug/L	97.8	90.0 – 110.0	P	19–DEC–09 20:03	121909–1
	Titanium	496	ug/L	500	ug/L	99.2	90.0 – 110.0	P	19–DEC–09 20:03	121909–1
	Vanadium	507	ug/L	500	ug/L	101.3	90.0 – 110.0	P	19–DEC–09 20:03	121909–1
	Zinc	497	ug/L	500	ug/L	99.5	90.0 – 110.0	P	19–DEC–09 20:03	121909–1
	Mercury	4.69	ug/L	5	ug/L	93.8	80.0 – 120.0	AV	23–DEC–09 12:30	122309S1–4
CCV14										
	Aluminum	5060	ug/L	5000	ug/L	101.3	90.0 – 110.0	P	19–DEC–09 21:20	121909–1
	Antimony	502	ug/L	500	ug/L	100.4	90.0 – 110.0	P	19–DEC–09 21:20	121909–1
	Barium	510	ug/L	500	ug/L	102.1	90.0 – 110.0	P	19–DEC–09 21:20	121909–1
	Boron	493	ug/L	500	ug/L	98.7	90.0 – 110.0	P	19–DEC–09 21:20	121909–1
	Cadmium	510	ug/L	500	ug/L	102	90.0 – 110.0	P	19–DEC–09 21:20	121909–1
	Calcium	5090	ug/L	5000	ug/L	101.7	90.0 – 110.0	P	19–DEC–09 21:20	121909–1
	Chromium	513	ug/L	500	ug/L	102.5	90.0 – 110.0	P	19–DEC–09 21:20	121909–1
	Cobalt	509	ug/L	500	ug/L	101.8	90.0 – 110.0	P	19–DEC–09 21:20	121909–1
	Copper	508	ug/L	500	ug/L	101.6	90.0 – 110.0	P	19–DEC–09 21:20	121909–1
	Iron	5240	ug/L	5000	ug/L	104.9	90.0 – 110.0	P	19–DEC–09 21:20	121909–1
	Lead	503	ug/L	500	ug/L	100.5	90.0 – 110.0	P	19–DEC–09 21:20	121909–1
	Magnesium	5350	ug/L	5000	ug/L	107	90.0 – 110.0	P	19–DEC–09 21:20	121909–1

METALS
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Initial and Continuing Calibration Verification

SDG No: 10–887

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Manganese	505	ug/L	500	ug/L	101.1	90.0 – 110.0	P	19–DEC–09 21:20	121909–1
	Potassium	5000	ug/L	5000	ug/L	100	90.0 – 110.0	P	19–DEC–09 21:20	121909–1
	Silicon	2520	ug/L	2500	ug/L	100.6	90.0 – 110.0	P	19–DEC–09 21:20	121909–1
	Silver	510	ug/L	500	ug/L	101.9	90.0 – 110.0	P	19–DEC–09 21:20	121909–1
	Sodium	10100	ug/L	10000	ug/L	101.3	90.0 – 110.0	P	19–DEC–09 21:20	121909–1
	Titanium	500	ug/L	500	ug/L	100	90.0 – 110.0	P	19–DEC–09 21:20	121909–1
	Vanadium	517	ug/L	500	ug/L	103.3	90.0 – 110.0	P	19–DEC–09 21:20	121909–1
	Zinc	507	ug/L	500	ug/L	101.5	90.0 – 110.0	P	19–DEC–09 21:20	121909–1
CCV15										
	Aluminum	5050	ug/L	5000	ug/L	100.9	90.0 – 110.0	P	19–DEC–09 22:31	121909–1
	Antimony	503	ug/L	500	ug/L	100.6	90.0 – 110.0	P	19–DEC–09 22:31	121909–1
	Barium	509	ug/L	500	ug/L	101.9	90.0 – 110.0	P	19–DEC–09 22:31	121909–1
	Boron	491	ug/L	500	ug/L	98.2	90.0 – 110.0	P	19–DEC–09 22:31	121909–1
	Cadmium	510	ug/L	500	ug/L	102	90.0 – 110.0	P	19–DEC–09 22:31	121909–1
	Calcium	5070	ug/L	5000	ug/L	101.4	90.0 – 110.0	P	19–DEC–09 22:31	121909–1
	Chromium	512	ug/L	500	ug/L	102.4	90.0 – 110.0	P	19–DEC–09 22:31	121909–1
	Cobalt	507	ug/L	500	ug/L	101.5	90.0 – 110.0	P	19–DEC–09 22:31	121909–1
	Copper	506	ug/L	500	ug/L	101.2	90.0 – 110.0	P	19–DEC–09 22:31	121909–1
	Iron	5240	ug/L	5000	ug/L	104.9	90.0 – 110.0	P	19–DEC–09 22:31	121909–1
	Lead	506	ug/L	500	ug/L	101.1	90.0 – 110.0	P	19–DEC–09 22:31	121909–1
	Magnesium	5210	ug/L	5000	ug/L	104.2	90.0 – 110.0	P	19–DEC–09 22:31	121909–1
	Manganese	509	ug/L	500	ug/L	101.8	90.0 – 110.0	P	19–DEC–09 22:31	121909–1
	Potassium	4970	ug/L	5000	ug/L	99.4	90.0 – 110.0	P	19–DEC–09 22:31	121909–1
	Silicon	2510	ug/L	2500	ug/L	100.3	90.0 – 110.0	P	19–DEC–09 22:31	121909–1
	Silver	508	ug/L	500	ug/L	101.6	90.0 – 110.0	P	19–DEC–09 22:31	121909–1
	Sodium	10300	ug/L	10000	ug/L	102.8	90.0 – 110.0	P	19–DEC–09 22:31	121909–1
	Titanium	504	ug/L	500	ug/L	100.7	90.0 – 110.0	P	19–DEC–09 22:31	121909–1
	Vanadium	516	ug/L	500	ug/L	103.2	90.0 – 110.0	P	19–DEC–09 22:31	121909–1
	Zinc	506	ug/L	500	ug/L	101.3	90.0 – 110.0	P	19–DEC–09 22:31	121909–1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-887

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
CCV16										
	Aluminum	5040	ug/L	5000	ug/L	100.7	90.0 – 110.0	P	19-DEC-09 23:33	121909-1
	Antimony	503	ug/L	500	ug/L	100.7	90.0 – 110.0	P	19-DEC-09 23:33	121909-1
	Barium	503	ug/L	500	ug/L	100.7	90.0 – 110.0	P	19-DEC-09 23:33	121909-1
	Boron	488	ug/L	500	ug/L	97.6	90.0 – 110.0	P	19-DEC-09 23:33	121909-1
	Cadmium	505	ug/L	500	ug/L	101.1	90.0 – 110.0	P	19-DEC-09 23:33	121909-1
	Calcium	5070	ug/L	5000	ug/L	101.5	90.0 – 110.0	P	19-DEC-09 23:33	121909-1
	Chromium	507	ug/L	500	ug/L	101.3	90.0 – 110.0	P	19-DEC-09 23:33	121909-1
	Cobalt	502	ug/L	500	ug/L	100.3	90.0 – 110.0	P	19-DEC-09 23:33	121909-1
	Copper	497	ug/L	500	ug/L	99.4	90.0 – 110.0	P	19-DEC-09 23:33	121909-1
	Iron	5290	ug/L	5000	ug/L	105.8	90.0 – 110.0	P	19-DEC-09 23:33	121909-1
	Lead	503	ug/L	500	ug/L	100.6	90.0 – 110.0	P	19-DEC-09 23:33	121909-1
	Magnesium	5300	ug/L	5000	ug/L	106	90.0 – 110.0	P	19-DEC-09 23:33	121909-1
	Manganese	503	ug/L	500	ug/L	100.6	90.0 – 110.0	P	19-DEC-09 23:33	121909-1
	Potassium	4960	ug/L	5000	ug/L	99.2	90.0 – 110.0	P	19-DEC-09 23:33	121909-1
	Silicon	2480	ug/L	2500	ug/L	99.1	90.0 – 110.0	P	19-DEC-09 23:33	121909-1
	Silver	501	ug/L	500	ug/L	100.3	90.0 – 110.0	P	19-DEC-09 23:33	121909-1
	Sodium	10300	ug/L	10000	ug/L	103.2	90.0 – 110.0	P	19-DEC-09 23:33	121909-1
	Titanium	497	ug/L	500	ug/L	99.4	90.0 – 110.0	P	19-DEC-09 23:33	121909-1
	Vanadium	510	ug/L	500	ug/L	102	90.0 – 110.0	P	19-DEC-09 23:33	121909-1
	Zinc	500	ug/L	500	ug/L	100	90.0 – 110.0	P	19-DEC-09 23:33	121909-1
CCV17										
	Aluminum	5110	ug/L	5000	ug/L	102.2	90.0 – 110.0	P	20-DEC-09 00:30	121909-1
	Antimony	504	ug/L	500	ug/L	100.8	90.0 – 110.0	P	20-DEC-09 00:30	121909-1
	Barium	508	ug/L	500	ug/L	101.7	90.0 – 110.0	P	20-DEC-09 00:30	121909-1
	Boron	490	ug/L	500	ug/L	97.9	90.0 – 110.0	P	20-DEC-09 00:30	121909-1
	Cadmium	511	ug/L	500	ug/L	102.2	90.0 – 110.0	P	20-DEC-09 00:30	121909-1
	Calcium	5120	ug/L	5000	ug/L	102.4	90.0 – 110.0	P	20-DEC-09 00:30	121909-1
	Chromium	512	ug/L	500	ug/L	102.3	90.0 – 110.0	P	20-DEC-09 00:30	121909-1
	Cobalt	505	ug/L	500	ug/L	101.1	90.0 – 110.0	P	20-DEC-09 00:30	121909-1
	Copper	502	ug/L	500	ug/L	100.5	90.0 – 110.0	P	20-DEC-09 00:30	121909-1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–887

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Iron	5290	ug/L	5000	ug/L	105.8	90.0 – 110.0	P	20–DEC–09 00:30	121909–1
	Lead	511	ug/L	500	ug/L	102.2	90.0 – 110.0	P	20–DEC–09 00:30	121909–1
	Magnesium	5310	ug/L	5000	ug/L	106.1	90.0 – 110.0	P	20–DEC–09 00:30	121909–1
	Manganese	505	ug/L	500	ug/L	101	90.0 – 110.0	P	20–DEC–09 00:30	121909–1
	Potassium	5010	ug/L	5000	ug/L	100.3	90.0 – 110.0	P	20–DEC–09 00:30	121909–1
	Silicon	2500	ug/L	2500	ug/L	99.9	90.0 – 110.0	P	20–DEC–09 00:30	121909–1
	Silver	506	ug/L	500	ug/L	101.1	90.0 – 110.0	P	20–DEC–09 00:30	121909–1
	Sodium	10300	ug/L	10000	ug/L	103.3	90.0 – 110.0	P	20–DEC–09 00:30	121909–1
	Titanium	498	ug/L	500	ug/L	99.7	90.0 – 110.0	P	20–DEC–09 00:30	121909–1
	Vanadium	514	ug/L	500	ug/L	102.9	90.0 – 110.0	P	20–DEC–09 00:30	121909–1
	Zinc	505	ug/L	500	ug/L	101	90.0 – 110.0	P	20–DEC–09 00:30	121909–1

METALS
–2b–
CRDL Standard for AA & ICP

SDG No: 10–887

Contract: LANL01004 **Lab Code:** GEL

AA CRDL Standard Source: SPEX

ICP CRDL Standard Source Solutions Plus

Instrument ID: HG3,ICPMS4,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Advisory Limits (%R)	M	Analysis Date/Time	Run Number
CRDL01										
	Mercury	.184	ug/L	.2	ug/L	92	70.0 – 130.0	AV	23–DEC–09 08:53	122309S1–4
	Nickel	2.2	ug/L	2	ug/L	109.8	70.0 – 130.0	MS	01–JAN–10 01:37	091231–2
	Thallium	1.05	ug/L	1	ug/L	105.1	70.0 – 130.0	MS	01–JAN–10 01:37	091231–2
	Arsenic	5.15	ug/L	5	ug/L	103	70.0 – 130.0	MS	01–JAN–10 01:37	091231–2
	Uranium	.21	ug/L	.2	ug/L	105	70.0 – 130.0	MS	01–JAN–10 01:37	091231–2
	Selenium	5.33	ug/L	5	ug/L	106.5	70.0 – 130.0	MS	01–JAN–10 01:37	091231–2
	Beryllium	.49	ug/L	.5	ug/L	98	70.0 – 130.0	MS	01–JAN–10 01:37	091231–2
	Lithium	11.2	ug/L	10	ug/L	111.5	70.0 – 130.0	MS	04–JAN–10 12:48	100104–3
PQL01										
	Aluminum	202	ug/L	200	ug/L	100.9	70.0 – 130.0	P	19–DEC–09 08:04	121909–1
	Iron	98.2	ug/L	100	ug/L	98.2	70.0 – 130.0	P	19–DEC–09 08:04	121909–1
	Lead	9.29	ug/L	10	ug/L	92.9	70.0 – 130.0	P	19–DEC–09 08:04	121909–1
	Magnesium	313	ug/L	300	ug/L	104.3	70.0 – 130.0	P	19–DEC–09 08:04	121909–1
	Manganese	10.5	ug/L	10	ug/L	104.9	70.0 – 130.0	P	19–DEC–09 08:04	121909–1
	Potassium	165	ug/L	150	ug/L	109.8	70.0 – 130.0	P	19–DEC–09 08:04	121909–1
	Silver	5.1	ug/L	5	ug/L	101.9	70.0 – 130.0	P	19–DEC–09 08:04	121909–1
	Sodium	305	ug/L	300	ug/L	101.6	70.0 – 130.0	P	19–DEC–09 08:04	121909–1
	Antimony	10.3	ug/L	10	ug/L	102.6	70.0 – 130.0	P	19–DEC–09 08:04	121909–1
	Barium	5.05	ug/L	5	ug/L	101	70.0 – 130.0	P	19–DEC–09 08:04	121909–1
	Cadmium	5.08	ug/L	5	ug/L	101.6	70.0 – 130.0	P	19–DEC–09 08:04	121909–1
	Chromium	5.05	ug/L	5	ug/L	101.1	70.0 – 130.0	P	19–DEC–09 08:04	121909–1
	Cobalt	4.93	ug/L	5	ug/L	98.5	70.0 – 130.0	P	19–DEC–09 08:04	121909–1
	Copper	10.3	ug/L	10	ug/L	102.5	70.0 – 130.0	P	19–DEC–09 08:04	121909–1
	Vanadium	4.7	ug/L	5	ug/L	94.1	70.0 – 130.0	P	19–DEC–09 08:04	121909–1
	Zinc	9.89	ug/L	10	ug/L	98.9	70.0 – 130.0	P	19–DEC–09 08:04	121909–1
	Calcium	210	ug/L	200	ug/L	104.8	70.0 – 130.0	P	19–DEC–09 08:04	121909–1
	Boron	49.5	ug/L	50	ug/L	99.1	70.0 – 130.0	P	19–DEC–09 08:04	121909–1
	Silicon	102	ug/L	100	ug/L	102.4	70.0 – 130.0	P	19–DEC–09 08:04	121909–1
	Titanium	5	ug/L	5	ug/L	99.9	70.0 – 130.0	P	19–DEC–09 08:04	121909–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–887

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
ICB01										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	19–DEC–09 07:58	121909–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	19–DEC–09 07:58	121909–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	19–DEC–09 07:58	121909–1
	Boron	10.0	+/–50	U	10.0	50.0	SOL	P	19–DEC–09 07:58	121909–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	19–DEC–09 07:58	121909–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	19–DEC–09 07:58	121909–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	19–DEC–09 07:58	121909–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	19–DEC–09 07:58	121909–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	19–DEC–09 07:58	121909–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	19–DEC–09 07:58	121909–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	19–DEC–09 07:58	121909–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	19–DEC–09 07:58	121909–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	19–DEC–09 07:58	121909–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	19–DEC–09 07:58	121909–1
	Silicon	15.0	+/–100	U	15.0	100	SOL	P	19–DEC–09 07:58	121909–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	19–DEC–09 07:58	121909–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	19–DEC–09 07:58	121909–1
	Titanium	1.0	+/–5	U	1.0	5.0	SOL	P	19–DEC–09 07:58	121909–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	19–DEC–09 07:58	121909–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	19–DEC–09 07:58	121909–1
	Mercury	0.068	+/–.2	U	0.068	0.2	SOL	AV	23–DEC–09 08:52	122309S1–4
	Arsenic	1.0	+/–5	U	1.0	5.0	SOL	MS	01–JAN–10 01:31	091231–2
	Beryllium	0.1	+/–.5	U	0.1	0.5	SOL	MS	01–JAN–10 01:31	091231–2
	Lithium	2.0	+/–10	U	2.0	10.0	SOL	MS	01–JAN–10 01:31	091231–2
	Nickel	0.5	+/–2	U	0.5	2.0	SOL	MS	01–JAN–10 01:31	091231–2
	Selenium	2.5	+/–5	U	2.5	5.0	SOL	MS	01–JAN–10 01:31	091231–2
	Thallium	0.3	+/–1	U	0.3	1.0	SOL	MS	01–JAN–10 01:31	091231–2
	Uranium	0.066	+/–.2	U	0.066	0.2	SOL	MS	01–JAN–10 01:31	091231–2
	Lithium	2.0	+/–10	U	2.0	10.0	SOL	MS	04–JAN–10 12:46	100104–3
CCB01										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	19–DEC–09 08:43	121909–1

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-887

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Antimony	4.79	+/-10	J	3.3	10.0	SOL	P	19-DEC-09 08:43	121909-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	19-DEC-09 08:43	121909-1
	Boron	14.3	+/-50	J	10.0	50.0	SOL	P	19-DEC-09 08:43	121909-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	19-DEC-09 08:43	121909-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	19-DEC-09 08:43	121909-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	19-DEC-09 08:43	121909-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	19-DEC-09 08:43	121909-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	19-DEC-09 08:43	121909-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	19-DEC-09 08:43	121909-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	19-DEC-09 08:43	121909-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	19-DEC-09 08:43	121909-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	19-DEC-09 08:43	121909-1
	Potassium	99.96	+/-250	J	64.0	250	SOL	P	19-DEC-09 08:43	121909-1
	Silicon	15.0	+/-100	U	15.0	100	SOL	P	19-DEC-09 08:43	121909-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	19-DEC-09 08:43	121909-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	19-DEC-09 08:43	121909-1
	Titanium	1.0	+/-5	U	1.0	5.0	SOL	P	19-DEC-09 08:43	121909-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	19-DEC-09 08:43	121909-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	19-DEC-09 08:43	121909-1
	Mercury	0.068	+/-.2	U	0.068	0.2	SOL	AV	23-DEC-09 08:57	122309S1-4
	Arsenic	1.0	+/-5	U	1.0	5.0	SOL	MS	01-JAN-10 02:02	091231-2
	Beryllium	0.1	+/-.5	U	0.1	0.5	SOL	MS	01-JAN-10 02:02	091231-2
	Lithium	2.0	+/-10	U	2.0	10.0	SOL	MS	01-JAN-10 02:02	091231-2
	Nickel	0.5	+/-2	U	0.5	2.0	SOL	MS	01-JAN-10 02:02	091231-2
	Selenium	2.5	+/-5	U	2.5	5.0	SOL	MS	01-JAN-10 02:02	091231-2
	Thallium	0.3	+/-1	U	0.3	1.0	SOL	MS	01-JAN-10 02:02	091231-2
	Uranium	0.066	+/-.2	U	0.066	0.2	SOL	MS	01-JAN-10 02:02	091231-2
	Lithium	2.0	+/-10	U	2.0	10.0	SOL	MS	04-JAN-10 12:57	100104-3
CCB02										
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	19-DEC-09 09:12	121909-1
	Antimony	4.36	+/-10	J	3.3	10.0	SOL	P	19-DEC-09 09:12	121909-1

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-887

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	19-DEC-09 09:12	121909-1
	Boron	10.0	+/-50	U	10.0	50.0	SOL	P	19-DEC-09 09:12	121909-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	19-DEC-09 09:12	121909-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	19-DEC-09 09:12	121909-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	19-DEC-09 09:12	121909-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	19-DEC-09 09:12	121909-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	19-DEC-09 09:12	121909-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	19-DEC-09 09:12	121909-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	19-DEC-09 09:12	121909-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	19-DEC-09 09:12	121909-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	19-DEC-09 09:12	121909-1
	Potassium	69.21	+/-250	J	64.0	250	SOL	P	19-DEC-09 09:12	121909-1
	Silicon	15.0	+/-100	U	15.0	100	SOL	P	19-DEC-09 09:12	121909-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	19-DEC-09 09:12	121909-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	19-DEC-09 09:12	121909-1
	Titanium	1.0	+/-5	U	1.0	5.0	SOL	P	19-DEC-09 09:12	121909-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	19-DEC-09 09:12	121909-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	19-DEC-09 09:12	121909-1
	Mercury	0.068	+/-.2	U	0.068	0.2	SOL	AV	23-DEC-09 09:17	122309S1-4
	Arsenic	1.0	+/-5	U	1.0	5.0	SOL	MS	01-JAN-10 02:21	091231-2
	Beryllium	0.1	+/-.5	U	0.1	0.5	SOL	MS	01-JAN-10 02:21	091231-2
	Lithium	2.0	+/-10	U	2.0	10.0	SOL	MS	01-JAN-10 02:21	091231-2
	Nickel	0.5	+/-2	U	0.5	2.0	SOL	MS	01-JAN-10 02:21	091231-2
	Selenium	2.5	+/-5	U	2.5	5.0	SOL	MS	01-JAN-10 02:21	091231-2
	Thallium	0.3	+/-1	U	0.3	1.0	SOL	MS	01-JAN-10 02:21	091231-2
	Uranium	0.17	+/-.2	J	0.066	0.2	SOL	MS	01-JAN-10 02:21	091231-2
	Lithium	2.0	+/-10	U	2.0	10.0	SOL	MS	04-JAN-10 13:18	100104-3
CCB03										
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	19-DEC-09 10:21	121909-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	19-DEC-09 10:21	121909-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	19-DEC-09 10:21	121909-1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–887

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Boron	10.0	+/–50	U	10.0	50.0	SOL	P	19–DEC–09 10:21	121909–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	19–DEC–09 10:21	121909–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	19–DEC–09 10:21	121909–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	19–DEC–09 10:21	121909–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	19–DEC–09 10:21	121909–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	19–DEC–09 10:21	121909–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	19–DEC–09 10:21	121909–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	19–DEC–09 10:21	121909–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	19–DEC–09 10:21	121909–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	19–DEC–09 10:21	121909–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	19–DEC–09 10:21	121909–1
	Silicon	15.0	+/–100	U	15.0	100	SOL	P	19–DEC–09 10:21	121909–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	19–DEC–09 10:21	121909–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	19–DEC–09 10:21	121909–1
	Titanium	1.0	+/–5	U	1.0	5.0	SOL	P	19–DEC–09 10:21	121909–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	19–DEC–09 10:21	121909–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	19–DEC–09 10:21	121909–1
	Mercury	0.068	+/–.2	U	0.068	0.2	SOL	AV	23–DEC–09 09:37	122309S1–4
	Arsenic	1.0	+/–5	U	1.0	5.0	SOL	MS	01–JAN–10 02:58	091231–2
	Beryllium	0.1	+/–.5	U	0.1	0.5	SOL	MS	01–JAN–10 02:58	091231–2
	Lithium	2.0	+/–10	U	2.0	10.0	SOL	MS	01–JAN–10 02:58	091231–2
	Nickel	0.5	+/–2	U	0.5	2.0	SOL	MS	01–JAN–10 02:58	091231–2
	Selenium	2.5	+/–5	U	2.5	5.0	SOL	MS	01–JAN–10 02:58	091231–2
	Thallium	0.3	+/–1	U	0.3	1.0	SOL	MS	01–JAN–10 02:58	091231–2
	Uranium	0.066	+/–.2	U	0.066	0.2	SOL	MS	01–JAN–10 02:58	091231–2
	Lithium	2.0	+/–10	U	2.0	10.0	SOL	MS	04–JAN–10 13:36	100104–3
CCB04										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	19–DEC–09 11:25	121909–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	19–DEC–09 11:25	121909–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	19–DEC–09 11:25	121909–1
	Boron	10.0	+/–50	U	10.0	50.0	SOL	P	19–DEC–09 11:25	121909–1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10–887

Contract: LANL01004 **Lab Code: GEL**

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	19–DEC–09 11:25	121909–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	19–DEC–09 11:25	121909–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	19–DEC–09 11:25	121909–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	19–DEC–09 11:25	121909–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	19–DEC–09 11:25	121909–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	19–DEC–09 11:25	121909–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	19–DEC–09 11:25	121909–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	19–DEC–09 11:25	121909–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	19–DEC–09 11:25	121909–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	19–DEC–09 11:25	121909–1
	Silicon	15.0	+/–100	U	15.0	100	SOL	P	19–DEC–09 11:25	121909–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	19–DEC–09 11:25	121909–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	19–DEC–09 11:25	121909–1
	Titanium	1.0	+/–5	U	1.0	5.0	SOL	P	19–DEC–09 11:25	121909–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	19–DEC–09 11:25	121909–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	19–DEC–09 11:25	121909–1
	Mercury	0.068	+/–.2	U	0.068	0.2	SOL	AV	23–DEC–09 09:57	122309S1–4
	Arsenic	1.0	+/–5	U	1.0	5.0	SOL	MS	01–JAN–10 04:07	091231–2
	Beryllium	0.1	+/–.5	U	0.1	0.5	SOL	MS	01–JAN–10 04:07	091231–2
	Lithium	2.0	+/–10	U	2.0	10.0	SOL	MS	01–JAN–10 04:07	091231–2
	Nickel	0.5	+/–2	U	0.5	2.0	SOL	MS	01–JAN–10 04:07	091231–2
	Selenium	2.5	+/–5	U	2.5	5.0	SOL	MS	01–JAN–10 04:07	091231–2
	Thallium	0.3	+/–1	U	0.3	1.0	SOL	MS	01–JAN–10 04:07	091231–2
	Uranium	0.066	+/–.2	U	0.066	0.2	SOL	MS	01–JAN–10 04:07	091231–2
CCB05										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	19–DEC–09 12:11	121909–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	19–DEC–09 12:11	121909–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	19–DEC–09 12:11	121909–1
	Boron	10.0	+/–50	U	10.0	50.0	SOL	P	19–DEC–09 12:11	121909–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	19–DEC–09 12:11	121909–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	19–DEC–09 12:11	121909–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–887

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	19–DEC–09 12:11	121909–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	19–DEC–09 12:11	121909–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	19–DEC–09 12:11	121909–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	19–DEC–09 12:11	121909–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	19–DEC–09 12:11	121909–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	19–DEC–09 12:11	121909–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	19–DEC–09 12:11	121909–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	19–DEC–09 12:11	121909–1
	Silicon	15.0	+/–100	U	15.0	100	SOL	P	19–DEC–09 12:11	121909–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	19–DEC–09 12:11	121909–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	19–DEC–09 12:11	121909–1
	Titanium	1.0	+/–5	U	1.0	5.0	SOL	P	19–DEC–09 12:11	121909–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	19–DEC–09 12:11	121909–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	19–DEC–09 12:11	121909–1
	Mercury	0.068	+/–.2	U	0.068	0.2	SOL	AV	23–DEC–09 10:10	122309S1–4
	Arsenic	1.0	+/–5	U	1.0	5.0	SOL	MS	01–JAN–10 05:04	091231–2
	Beryllium	0.1	+/–.5	U	0.1	0.5	SOL	MS	01–JAN–10 05:04	091231–2
	Lithium	2.0	+/–10	U	2.0	10.0	SOL	MS	01–JAN–10 05:04	091231–2
	Nickel	0.5	+/–2	U	0.5	2.0	SOL	MS	01–JAN–10 05:04	091231–2
	Selenium	2.5	+/–5	U	2.5	5.0	SOL	MS	01–JAN–10 05:04	091231–2
	Thallium	0.3	+/–1	U	0.3	1.0	SOL	MS	01–JAN–10 05:04	091231–2
	Uranium	0.066	+/–.2	U	0.066	0.2	SOL	MS	01–JAN–10 05:04	091231–2
CCB06										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	19–DEC–09 13:14	121909–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	19–DEC–09 13:14	121909–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	19–DEC–09 13:14	121909–1
	Boron	10.0	+/–50	U	10.0	50.0	SOL	P	19–DEC–09 13:14	121909–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	19–DEC–09 13:14	121909–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	19–DEC–09 13:14	121909–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	19–DEC–09 13:14	121909–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	19–DEC–09 13:14	121909–1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10-887

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	19-DEC-09 13:14	121909-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	19-DEC-09 13:14	121909-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	19-DEC-09 13:14	121909-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	19-DEC-09 13:14	121909-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	19-DEC-09 13:14	121909-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	19-DEC-09 13:14	121909-1
	Silicon	15.0	+/-100	U	15.0	100	SOL	P	19-DEC-09 13:14	121909-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	19-DEC-09 13:14	121909-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	19-DEC-09 13:14	121909-1
	Titanium	1.0	+/-5	U	1.0	5.0	SOL	P	19-DEC-09 13:14	121909-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	19-DEC-09 13:14	121909-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	19-DEC-09 13:14	121909-1
	Mercury	0.068	+/-.2	U	0.068	0.2	SOL	AV	23-DEC-09 10:30	122309S1-4
CCB07										
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	19-DEC-09 13:36	121909-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	19-DEC-09 13:36	121909-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	19-DEC-09 13:36	121909-1
	Boron	10.0	+/-50	U	10.0	50.0	SOL	P	19-DEC-09 13:36	121909-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	19-DEC-09 13:36	121909-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	19-DEC-09 13:36	121909-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	19-DEC-09 13:36	121909-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	19-DEC-09 13:36	121909-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	19-DEC-09 13:36	121909-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	19-DEC-09 13:36	121909-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	19-DEC-09 13:36	121909-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	19-DEC-09 13:36	121909-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	19-DEC-09 13:36	121909-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	19-DEC-09 13:36	121909-1
	Silicon	15.0	+/-100	U	15.0	100	SOL	P	19-DEC-09 13:36	121909-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	19-DEC-09 13:36	121909-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	19-DEC-09 13:36	121909-1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10-887

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Titanium	1.0	+/-5	U	1.0	5.0	SOL	P	19-DEC-09 13:36	121909-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	19-DEC-09 13:36	121909-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	19-DEC-09 13:36	121909-1
	Mercury	0.068	+/-.2	U	0.068	0.2	SOL	AV	23-DEC-09 10:50	122309S1-4
CCB08										
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	19-DEC-09 14:45	121909-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	19-DEC-09 14:45	121909-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	19-DEC-09 14:45	121909-1
	Boron	10.0	+/-50	U	10.0	50.0	SOL	P	19-DEC-09 14:45	121909-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	19-DEC-09 14:45	121909-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	19-DEC-09 14:45	121909-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	19-DEC-09 14:45	121909-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	19-DEC-09 14:45	121909-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	19-DEC-09 14:45	121909-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	19-DEC-09 14:45	121909-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	19-DEC-09 14:45	121909-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	19-DEC-09 14:45	121909-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	19-DEC-09 14:45	121909-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	19-DEC-09 14:45	121909-1
	Silicon	15.0	+/-100	U	15.0	100	SOL	P	19-DEC-09 14:45	121909-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	19-DEC-09 14:45	121909-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	19-DEC-09 14:45	121909-1
	Titanium	1.0	+/-5	U	1.0	5.0	SOL	P	19-DEC-09 14:45	121909-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	19-DEC-09 14:45	121909-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	19-DEC-09 14:45	121909-1
	Mercury	0.068	+/-.2	U	0.068	0.2	SOL	AV	23-DEC-09 11:01	122309S1-4
CCB09										
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	19-DEC-09 15:54	121909-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	19-DEC-09 15:54	121909-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	19-DEC-09 15:54	121909-1
	Boron	10.0	+/-50	U	10.0	50.0	SOL	P	19-DEC-09 15:54	121909-1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10–887

Contract: LANL01004 **Lab Code: GEL**

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	19–DEC–09 15:54	121909–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	19–DEC–09 15:54	121909–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	19–DEC–09 15:54	121909–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	19–DEC–09 15:54	121909–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	19–DEC–09 15:54	121909–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	19–DEC–09 15:54	121909–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	19–DEC–09 15:54	121909–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	19–DEC–09 15:54	121909–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	19–DEC–09 15:54	121909–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	19–DEC–09 15:54	121909–1
	Silicon	15.0	+/–100	U	15.0	100	SOL	P	19–DEC–09 15:54	121909–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	19–DEC–09 15:54	121909–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	19–DEC–09 15:54	121909–1
	Titanium	1.0	+/–5	U	1.0	5.0	SOL	P	19–DEC–09 15:54	121909–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	19–DEC–09 15:54	121909–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	19–DEC–09 15:54	121909–1
	Mercury	0.068	+/–.2	U	0.068	0.2	SOL	AV	23–DEC–09 11:19	122309S1–4
CCB10										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	19–DEC–09 16:49	121909–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	19–DEC–09 16:49	121909–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	19–DEC–09 16:49	121909–1
	Boron	10.0	+/–50	U	10.0	50.0	SOL	P	19–DEC–09 16:49	121909–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	19–DEC–09 16:49	121909–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	19–DEC–09 16:49	121909–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	19–DEC–09 16:49	121909–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	19–DEC–09 16:49	121909–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	19–DEC–09 16:49	121909–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	19–DEC–09 16:49	121909–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	19–DEC–09 16:49	121909–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	19–DEC–09 16:49	121909–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	19–DEC–09 16:49	121909–1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10-887

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	19-DEC-09 16:49	121909-1
	Silicon	15.0	+/-100	U	15.0	100	SOL	P	19-DEC-09 16:49	121909-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	19-DEC-09 16:49	121909-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	19-DEC-09 16:49	121909-1
	Titanium	1.0	+/-5	U	1.0	5.0	SOL	P	19-DEC-09 16:49	121909-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	19-DEC-09 16:49	121909-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	19-DEC-09 16:49	121909-1
	Mercury	0.068	+/-.2	U	0.068	0.2	SOL	AV	23-DEC-09 11:32	122309S1-4
CCB11										
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	19-DEC-09 17:37	121909-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	19-DEC-09 17:37	121909-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	19-DEC-09 17:37	121909-1
	Boron	10.0	+/-50	U	10.0	50.0	SOL	P	19-DEC-09 17:37	121909-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	19-DEC-09 17:37	121909-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	19-DEC-09 17:37	121909-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	19-DEC-09 17:37	121909-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	19-DEC-09 17:37	121909-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	19-DEC-09 17:37	121909-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	19-DEC-09 17:37	121909-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	19-DEC-09 17:37	121909-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	19-DEC-09 17:37	121909-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	19-DEC-09 17:37	121909-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	19-DEC-09 17:37	121909-1
	Silicon	15.0	+/-100	U	15.0	100	SOL	P	19-DEC-09 17:37	121909-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	19-DEC-09 17:37	121909-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	19-DEC-09 17:37	121909-1
	Titanium	1.0	+/-5	U	1.0	5.0	SOL	P	19-DEC-09 17:37	121909-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	19-DEC-09 17:37	121909-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	19-DEC-09 17:37	121909-1
	Mercury	0.068	+/-.2	U	0.068	0.2	SOL	AV	23-DEC-09 11:52	122309S1-4

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–887

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
CCB12										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	19–DEC–09 18:53	121909–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	19–DEC–09 18:53	121909–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	19–DEC–09 18:53	121909–1
	Boron	10.0	+/–50	U	10.0	50.0	SOL	P	19–DEC–09 18:53	121909–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	19–DEC–09 18:53	121909–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	19–DEC–09 18:53	121909–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	19–DEC–09 18:53	121909–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	19–DEC–09 18:53	121909–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	19–DEC–09 18:53	121909–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	19–DEC–09 18:53	121909–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	19–DEC–09 18:53	121909–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	19–DEC–09 18:53	121909–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	19–DEC–09 18:53	121909–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	19–DEC–09 18:53	121909–1
	Silicon	15.0	+/–100	U	15.0	100	SOL	P	19–DEC–09 18:53	121909–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	19–DEC–09 18:53	121909–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	19–DEC–09 18:53	121909–1
	Titanium	1.0	+/–5	U	1.0	5.0	SOL	P	19–DEC–09 18:53	121909–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	19–DEC–09 18:53	121909–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	19–DEC–09 18:53	121909–1
	Mercury	0.068	+/–.2	U	0.068	0.2	SOL	AV	23–DEC–09 12:12	122309S1–4
CCB13										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	19–DEC–09 20:10	121909–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	19–DEC–09 20:10	121909–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	19–DEC–09 20:10	121909–1
	Boron	10.0	+/–50	U	10.0	50.0	SOL	P	19–DEC–09 20:10	121909–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	19–DEC–09 20:10	121909–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	19–DEC–09 20:10	121909–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	19–DEC–09 20:10	121909–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	19–DEC–09 20:10	121909–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	19–DEC–09 20:10	121909–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–887

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Iron	80.0	+/–250	U	80.0	250	SOL	P	19–DEC–09 20:10	121909–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	19–DEC–09 20:10	121909–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	19–DEC–09 20:10	121909–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	19–DEC–09 20:10	121909–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	19–DEC–09 20:10	121909–1
	Silicon	15.0	+/–100	U	15.0	100	SOL	P	19–DEC–09 20:10	121909–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	19–DEC–09 20:10	121909–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	19–DEC–09 20:10	121909–1
	Titanium	1.0	+/–5	U	1.0	5.0	SOL	P	19–DEC–09 20:10	121909–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	19–DEC–09 20:10	121909–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	19–DEC–09 20:10	121909–1
	Mercury	0.068	+/–.2	U	0.068	0.2	SOL	AV	23–DEC–09 12:32	122309S1–4
CCB14										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	19–DEC–09 21:27	121909–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	19–DEC–09 21:27	121909–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	19–DEC–09 21:27	121909–1
	Boron	10.0	+/–50	U	10.0	50.0	SOL	P	19–DEC–09 21:27	121909–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	19–DEC–09 21:27	121909–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	19–DEC–09 21:27	121909–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	19–DEC–09 21:27	121909–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	19–DEC–09 21:27	121909–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	19–DEC–09 21:27	121909–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	19–DEC–09 21:27	121909–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	19–DEC–09 21:27	121909–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	19–DEC–09 21:27	121909–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	19–DEC–09 21:27	121909–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	19–DEC–09 21:27	121909–1
	Silicon	15.0	+/–100	U	15.0	100	SOL	P	19–DEC–09 21:27	121909–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	19–DEC–09 21:27	121909–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	19–DEC–09 21:27	121909–1
	Titanium	1.0	+/–5	U	1.0	5.0	SOL	P	19–DEC–09 21:27	121909–1

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-887

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	19-DEC-09 21:27	121909-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	19-DEC-09 21:27	121909-1
CCB15										
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	19-DEC-09 22:38	121909-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	19-DEC-09 22:38	121909-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	19-DEC-09 22:38	121909-1
	Boron	10.0	+/-50	U	10.0	50.0	SOL	P	19-DEC-09 22:38	121909-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	19-DEC-09 22:38	121909-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	19-DEC-09 22:38	121909-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	19-DEC-09 22:38	121909-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	19-DEC-09 22:38	121909-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	19-DEC-09 22:38	121909-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	19-DEC-09 22:38	121909-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	19-DEC-09 22:38	121909-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	19-DEC-09 22:38	121909-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	19-DEC-09 22:38	121909-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	19-DEC-09 22:38	121909-1
	Silicon	15.0	+/-100	U	15.0	100	SOL	P	19-DEC-09 22:38	121909-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	19-DEC-09 22:38	121909-1
	Sodium	-77.01	+/-250	J	70.0	250	SOL	P	19-DEC-09 22:38	121909-1
	Titanium	1.0	+/-5	U	1.0	5.0	SOL	P	19-DEC-09 22:38	121909-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	19-DEC-09 22:38	121909-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	19-DEC-09 22:38	121909-1
CCB16										
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	19-DEC-09 23:40	121909-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	19-DEC-09 23:40	121909-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	19-DEC-09 23:40	121909-1
	Boron	10.0	+/-50	U	10.0	50.0	SOL	P	19-DEC-09 23:40	121909-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	19-DEC-09 23:40	121909-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	19-DEC-09 23:40	121909-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	19-DEC-09 23:40	121909-1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–887

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	19–DEC–09 23:40	121909–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	19–DEC–09 23:40	121909–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	19–DEC–09 23:40	121909–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	19–DEC–09 23:40	121909–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	19–DEC–09 23:40	121909–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	19–DEC–09 23:40	121909–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	19–DEC–09 23:40	121909–1
	Silicon	15.0	+/–100	U	15.0	100	SOL	P	19–DEC–09 23:40	121909–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	19–DEC–09 23:40	121909–1
	Sodium	–74.96	+/–250	J	70.0	250	SOL	P	19–DEC–09 23:40	121909–1
	Titanium	1.0	+/–5	U	1.0	5.0	SOL	P	19–DEC–09 23:40	121909–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	19–DEC–09 23:40	121909–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	19–DEC–09 23:40	121909–1
CCB17										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	20–DEC–09 00:37	121909–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	20–DEC–09 00:37	121909–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	20–DEC–09 00:37	121909–1
	Boron	10.0	+/–50	U	10.0	50.0	SOL	P	20–DEC–09 00:37	121909–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	20–DEC–09 00:37	121909–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	20–DEC–09 00:37	121909–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	20–DEC–09 00:37	121909–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	20–DEC–09 00:37	121909–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	20–DEC–09 00:37	121909–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	20–DEC–09 00:37	121909–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	20–DEC–09 00:37	121909–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	20–DEC–09 00:37	121909–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	20–DEC–09 00:37	121909–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	20–DEC–09 00:37	121909–1
	Silicon	15.0	+/–100	U	15.0	100	SOL	P	20–DEC–09 00:37	121909–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	20–DEC–09 00:37	121909–1
	Sodium	–71.39	+/–250	J	70.0	250	SOL	P	20–DEC–09 00:37	121909–1

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-887

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Titanium	1.0	+/-5	U	1.0	5.0	SOL	P	20-DEC-09 00:37	121909-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	20-DEC-09 00:37	121909-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	20-DEC-09 00:37	121909-1

METALS
-3b-
PREPARATION BLANK SUMMARY

SDG NO. 10-887
Contract: LANL01004
Matrix: SOIL

Sample ID	Analyte	Result	Units	Acceptance Window	Conc Qual	M	MDL	RDL
1201994236								
	Aluminum	6770	ug/Kg	+/-19900	U	P	6770	19900
	Antimony	-350	ug/Kg	+/-996	J	P	329	996
	Boron	996	ug/Kg	+/-4980	U	P	996	4980
	Barium	99.6	ug/Kg	+/-498	U	P	99.6	498
	Cadmium	99.6	ug/Kg	+/-498	U	P	99.6	498
	Chromium	149	ug/Kg	+/-498	U	P	149	498
	Copper	299	ug/Kg	+/-996	U	P	299	996
	Lead	249	ug/Kg	+/-996	U	P	249	996
	Manganese	199	ug/Kg	+/-996	U	P	199	996
	Zinc	329	ug/Kg	+/-996	U	P	329	996
	Vanadium	99.6	ug/Kg	+/-498	U	P	99.6	498
	Titanium	99.6	ug/Kg	+/-498	U	P	99.6	498
	Sodium	6970	ug/Kg	+/-24900	U	P	6970	24900
	Silver	99.6	ug/Kg	+/-498	U	P	99.6	498
	Silicon	1490	ug/Kg	+/-9960	U	P	1490	9960
	Potassium	6370	ug/Kg	+/-24900	U	P	6370	24900
	Magnesium	8470	ug/Kg	+/-29900	U	P	8470	29900
	Iron	7970	ug/Kg	+/-24900	U	P	7970	24900
	Cobalt	149	ug/Kg	+/-498	U	P	149	498
	Calcium	7970	ug/Kg	+/-24900	U	P	7970	24900
1201994315								
	Thallium	0.0583	mg/kg	+/-0.194	U	MS	0.0583	0.194
	Lithium	0.388	mg/kg	+/-1.94	U	MS	0.388	1.94
	Selenium	0.485	mg/kg	+/-0.971	U	MS	0.485	0.971
	Nickel	0.0971	mg/kg	+/-0.388	U	MS	0.0971	0.388
	Beryllium	0.0194	mg/kg	+/-0.0971	U	MS	0.0194	0.0971
	Uranium	0.0136	mg/kg	+/-0.0388	J	MS	0.0128	0.0388
	Arsenic	0.194	mg/kg	+/-0.971	U	MS	0.194	0.971
1202000180								
	Mercury	3.98	ug/kg	+/-11.7	U	AV	3.98	11.7

METALS
–4–
Interference Check Sample

SDG No: 10–887

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Aluminum	522000	ug/L	500000	ug/L	104	80.0 – 120.0	19–DEC–09 08:11	121909–1
	Antimony	5.41	ug/L					19–DEC–09 08:11	121909–1
	Barium	2.26	ug/L					19–DEC–09 08:11	121909–1
	Boron	–5.38	ug/L					19–DEC–09 08:11	121909–1
	Cadmium	–0.766	ug/L					19–DEC–09 08:11	121909–1
	Calcium	485000	ug/L	500000	ug/L	97	80.0 – 120.0	19–DEC–09 08:11	121909–1
	Chromium	1.8	ug/L					19–DEC–09 08:11	121909–1
	Cobalt	–1.27	ug/L					19–DEC–09 08:11	121909–1
	Copper	2.3	ug/L					19–DEC–09 08:11	121909–1
	Iron	190000	ug/L	200000	ug/L	95.1	80.0 – 120.0	19–DEC–09 08:11	121909–1
	Lead	–4.14	ug/L					19–DEC–09 08:11	121909–1
	Magnesium	496000	ug/L	500000	ug/L	99.1	80.0 – 120.0	19–DEC–09 08:11	121909–1
	Manganese	10.5	ug/L					19–DEC–09 08:11	121909–1
	Potassium	7.68	ug/L					19–DEC–09 08:11	121909–1
	Silicon	–0.353	ug/L					19–DEC–09 08:11	121909–1
	Silver	0.47	ug/L					19–DEC–09 08:11	121909–1
	Sodium	20.1	ug/L					19–DEC–09 08:11	121909–1
	Titanium	0.368	ug/L					19–DEC–09 08:11	121909–1
	Vanadium	–0.645	ug/L					19–DEC–09 08:11	121909–1
	Zinc	–8.3	ug/L					19–DEC–09 08:11	121909–1
ICSAB01									
	Aluminum	522000	ug/L	500000	ug/L	104	80.0 – 120.0	19–DEC–09 08:17	121909–1
	Antimony	507	ug/L	500	ug/L	101	80.0 – 120.0	19–DEC–09 08:17	121909–1
	Barium	476	ug/L	500	ug/L	95.2	80.0 – 120.0	19–DEC–09 08:17	121909–1
	Boron	496	ug/L	500	ug/L	99.2	80.0 – 120.0	19–DEC–09 08:17	121909–1
	Cadmium	453	ug/L	500	ug/L	90.5	80.0 – 120.0	19–DEC–09 08:17	121909–1
	Calcium	483000	ug/L	500000	ug/L	96.6	80.0 – 120.0	19–DEC–09 08:17	121909–1
	Chromium	466	ug/L	500	ug/L	93.3	80.0 – 120.0	19–DEC–09 08:17	121909–1
	Cobalt	425	ug/L	500	ug/L	84.9	80.0 – 120.0	19–DEC–09 08:17	121909–1

METALS
–4–
Interference Check Sample

SDG No: 10–887

Contract: LANL01004 **Lab Code:** GEL

ICS:

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
	Copper	531	ug/L	500	ug/L	106	80.0 – 120.0	19–DEC–09 08:17	121909–1
	Iron	189000	ug/L	200000	ug/L	94.4	80.0 – 120.0	19–DEC–09 08:17	121909–1
	Lead	446	ug/L	500	ug/L	89.1	80.0 – 120.0	19–DEC–09 08:17	121909–1
	Magnesium	492000	ug/L	500000	ug/L	98.4	80.0 – 120.0	19–DEC–09 08:17	121909–1
	Manganese	471	ug/L	500	ug/L	94.2	80.0 – 120.0	19–DEC–09 08:17	121909–1
	Potassium	5600	ug/L	5000	ug/L	112	80.0 – 120.0	19–DEC–09 08:17	121909–1
	Silicon	5000	ug/L	5000	ug/L	100	80.0 – 120.0	19–DEC–09 08:17	121909–1
	Silver	266	ug/L	250	ug/L	107	80.0 – 120.0	19–DEC–09 08:17	121909–1
	Sodium	5500	ug/L	5000	ug/L	110	80.0 – 120.0	19–DEC–09 08:17	121909–1
	Titanium	487	ug/L	500	ug/L	97.4	80.0 – 120.0	19–DEC–09 08:17	121909–1
	Vanadium	489	ug/L	500	ug/L	97.8	80.0 – 120.0	19–DEC–09 08:17	121909–1
	Zinc	464	ug/L	500	ug/L	92.7	80.0 – 120.0	19–DEC–09 08:17	121909–1

METALS
–4–
Interference Check Sample

SDG No: 10–887

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: ICPMS4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Arsenic	0.282	ug/L					01–JAN–10 01:44	091231–2
	Beryllium	0.063	ug/L					01–JAN–10 01:44	091231–2
	Nickel	3.54	ug/L					01–JAN–10 01:44	091231–2
	Selenium	–0.122	ug/L					01–JAN–10 01:44	091231–2
	Thallium	0.002	ug/L					01–JAN–10 01:44	091231–2
	Uranium	–0.031	ug/L					01–JAN–10 01:44	091231–2
ICSAB01									
	Arsenic	21.5	ug/L	20	ug/L	107	80.0 – 120.0	01–JAN–10 01:50	091231–2
	Beryllium	18.2	ug/L	20	ug/L	90.9	80.0 – 120.0	01–JAN–10 01:50	091231–2
	Nickel	22.4	ug/L	22.7	ug/L	98.8	80.0 – 120.0	01–JAN–10 01:50	091231–2
	Selenium	21.7	ug/L	20	ug/L	108	80.0 – 120.0	01–JAN–10 01:50	091231–2
	Thallium	18.1	ug/L	20	ug/L	90.6	80.0 – 120.0	01–JAN–10 01:50	091231–2
	Uranium	20.8	ug/L	20	ug/L	104	80.0 – 120.0	01–JAN–10 01:50	091231–2

METALS
–4–
Interference Check Sample

SDG No: 10–887

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: ICPMS4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Lithium	0.062	ug/L					04–JAN–10 12:51	100104–3
ICSAB01									
	Lithium	18.6	ug/L	20	ug/L	92.9	80.0 – 120.0	04–JAN–10 12:53	100104–3

METALS
-5a-

Matrix Spike Summary

SDG NO. 10-887 **Client ID** RE03-09-13757S

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 90.1

Sample ID: 242781001 **Spike ID:** 1201994239

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Aluminum	ug/Kg	75-125	3580000		1730000		547000	338	N	P
Antimony	ug/Kg	75-125	52000		357	U	54700	95		P
Barium	ug/Kg	75-125	111000		42300		54700	125		P
Boron	ug/Kg	75-125	52800		1080	U	54700	96.5		P
Cadmium	ug/Kg	75-125	53500		108	U	54700	97.7		P
Calcium	ug/Kg	75-125	980000		474000		547000	92.3		P
Chromium	ug/Kg	75-125	55700		1330		54700	99.4		P
Cobalt	ug/Kg	75-125	52100		1040		54700	93.4		P
Copper	ug/Kg	75-125	62000		4610		54700	105		P
Iron	ug/Kg		8340000		7520000		547000	151	N/A	P
Lead	ug/Kg	75-125	59300		4280		54700	101		P
Magnesium	ug/Kg	75-125	881000		240000		547000	117		P
Manganese	ug/Kg		541000		362000		54700	327	N/A	P
Potassium	ug/Kg	75-125	794000		200000		547000	109		P
Silicon	ug/Kg	75-125	1300000		872000		547000	78.4		P
Silver	ug/Kg	75-125	55000		563		54700	99.5		P
Sodium	ug/Kg	75-125	562000		46900		547000	94.1		P
Titanium	ug/Kg		396000		309000		54700	160	N/A	P
Vanadium	ug/Kg	75-125	58700		3750		54700	100		P
Zinc	ug/Kg	75-125	105000		48300		54700	104		P

METALS
–5a–

Matrix Spike Duplicate Summary

SDG NO. 10–887 **Client ID** RE03–09–13757SD

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 90.1

Sample ID: 242781001 **Spike ID:** 1201994241

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Aluminum	ug/Kg	75–125	3470000		1730000		532000	328	N	P
Antimony	ug/Kg	75–125	51000		357	U	53200	95.8		P
Barium	ug/Kg	75–125	91600		42300		53200	92.6		P
Boron	ug/Kg	75–125	51800		1080	U	53200	97.2		P
Cadmium	ug/Kg	75–125	52200		108	U	53200	97.9		P
Calcium	ug/Kg	75–125	950000		474000		532000	89.4		P
Chromium	ug/Kg	75–125	54200		1330		53200	99.3		P
Cobalt	ug/Kg	75–125	51100		1040		53200	93.9		P
Copper	ug/Kg	75–125	60100		4610		53200	104		P
Iron	ug/Kg		8190000		7520000		532000	127	N/A	P
Lead	ug/Kg	75–125	57900		4280		53200	101		P
Magnesium	ug/Kg	75–125	863000		240000		532000	117		P
Manganese	ug/Kg		389000		362000		53200	50.3	N/A	P
Potassium	ug/Kg	75–125	778000		200000		532000	109		P
Silicon	ug/Kg	75–125	1300000		872000		532000	80.1		P
Silver	ug/Kg	75–125	53700		563		53200	99.8		P
Sodium	ug/Kg	75–125	582000		46900		532000	101		P
Titanium	ug/Kg		382000		309000		53200	137	N/A	P
Vanadium	ug/Kg	75–125	56800		3750		53200	99.6		P
Zinc	ug/Kg	75–125	102000		48300		53200	100		P

METALS
–5a–

Matrix Spike Summary

SDG NO. 10–887 **Client ID** RE03–09–13757S

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 90.1

Sample ID: 242781001 **Spike ID:** 1201994318

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Arsenic	mg/kg	75–125	9.3		1.17		8.68	93.5		MS
Beryllium	mg/kg	75–125	5.92		0.59		5.43	98.1		MS
Lithium	mg/kg	75–125	9.3		3.13		5.43	114		MS
Nickel	mg/kg	75–125	8.38		3.74		5.43	85.5		MS
Selenium	mg/kg	75–125	2.39		0.538	U	2.17	90.6		MS
Thallium	mg/kg	75–125	9.88		0.147	J	10.9	89.7		MS
Uranium	mg/kg	75–125	6.02		0.515		5.43	102		MS

METALS
–5a–

Matrix Spike Duplicate Summary

SDG NO. 10–887 **Client ID** RE03–09–13757SD

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 90.1

Sample ID: 242781001 **Spike ID:** 1201994320

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Arsenic	mg/kg	75–125	9.57		1.17		8.5	98.8		MS
Beryllium	mg/kg	75–125	6.15		0.59		5.31	105		MS
Lithium	mg/kg	75–125	24.3		3.13		5.31	399	N	MS
Nickel	mg/kg	75–125	9.14		3.74		5.31	102		MS
Selenium	mg/kg	75–125	2.43		0.538	U	2.13	94.2		MS
Thallium	mg/kg	75–125	9.71		0.147	J	10.6	90		MS
Uranium	mg/kg	75–125	6.03		0.515		5.31	104		MS

METALS
-5a-

Matrix Spike Summary

SDG NO. 10-887 **Client ID** RE03-09-13470S

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 95.6

Sample ID: 242794001 **Spike ID:** 1202000183

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Mercury	ug/kg	75-125	121		4.14	U	122	96.2		AV

METALS
-5a-

Matrix Spike Duplicate Summary

SDG NO.	10-887	**Client ID**	RE03-09-13470SD
Contract:	LANL01004	**Level:**	Low
Matrix:	SOIL	**% Solids:**	95.6
Sample ID:	242794001	**Spike ID:**	1202000185

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Mercury	ug/kg	75-125	118		4.14	U	116	98.9		AV

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–887

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE03–09–13757D

Sample ID: 242781001 **Duplicate ID:** 1201994238 **Percent Solids for Dup:** 90.1

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	ug/Kg	+/–20%	1730000		1440000		18.4		P
Antimony	ug/Kg		357	U	351	U			P
Barium	ug/Kg	+/–20%	42300		48000		12.6		P
Boron	ug/Kg		1080	U	1060	U			P
Cadmium	ug/Kg		108	U	106	U			P
Calcium	ug/Kg	+/–20%	474000		380000		22.1	*	P
Chromium	ug/Kg	+/–531	1330		1130		16.5		P
Cobalt	ug/Kg	+/–531	1040		806		25.1		P
Copper	ug/Kg	+/–1060	4610		3970		15		P
Iron	ug/Kg	+/–20%	7520000		6760000		10.6		P
Lead	ug/Kg	+/–1060	4280		4000		6.71		P
Magnesium	ug/Kg	+/–20%	240000		194000		21.4	*	P
Manganese	ug/Kg	+/–20%	362000		428000		16.6		P
Potassium	ug/Kg	+/–20%	200000		169000		16.5		P
Silicon	ug/Kg	+/–20%	872000		788000		10.1		P
Silver	ug/Kg	+/–531	563		454	J	21.5		P
Sodium	ug/Kg	+/–26600	46900		40700		14.2		P
Titanium	ug/Kg	+/–20%	309000		298000		3.41		P
Vanadium	ug/Kg	+/–20%	3750		3480		7.35		P
Zinc	ug/Kg	+/–20%	48300		44800		7.61		P

Metals
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Duplicate Sample Summary

SDG No.: 10–887

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE03–09–13757SD

Sample ID: 1201994239 **Duplicate ID:** 1201994241 **Percent Solids for Dup:** 90.1

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	ug/Kg	+/–20	3580000		3470000		2.99		P
Antimony	ug/Kg	+/–20	52000		51000		1.83		P
Barium	ug/Kg	+/–20	111000		91600		18.9		P
Boron	ug/Kg	+/–20	52800		51800		2.01		P
Cadmium	ug/Kg	+/–20	53500		52200		2.5		P
Calcium	ug/Kg	+/–20	980000		950000		3.04		P
Chromium	ug/Kg	+/–20	55700		54200		2.78		P
Cobalt	ug/Kg	+/–20	52100		51100		2.09		P
Copper	ug/Kg	+/–20	62000		60100		3.14		P
Iron	ug/Kg	+/–20	8340000		8190000		1.83		P
Lead	ug/Kg	+/–20	59300		57900		2.42		P
Magnesium	ug/Kg	+/–20	881000		863000		2.01		P
Manganese	ug/Kg	+/–20	541000		389000		32.7	*	P
Potassium	ug/Kg	+/–20	794000		778000		2.03		P
Silicon	ug/Kg	+/–20	1300000		1300000		.19		P
Silver	ug/Kg	+/–20	55000		53700		2.42		P
Sodium	ug/Kg	+/–20	562000		582000		3.65		P
Titanium	ug/Kg	+/–20	396000		382000		3.81		P
Vanadium	ug/Kg	+/–20	58700		56800		3.24		P
Zinc	ug/Kg	+/–20	105000		102000		3.35		P

Metals
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Duplicate Sample Summary

SDG No.: 10–887

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE03–09–13757D

Sample ID: 242781001 **Duplicate ID:** 1201994317 **Percent Solids for Dup:** 90.1

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Arsenic	mg/kg	+/–1.07	1.17		0.96	J	20		MS
Beryllium	mg/kg	+/–20%	0.59		0.577		2.29		MS
Lithium	mg/kg	+/–2.15	3.13		3.25		3.86		MS
Nickel	mg/kg	+/–20%	3.74		3.43		8.65		MS
Selenium	mg/kg		0.538	U	0.537	U			MS
Thallium	mg/kg	+/–.215	0.147	J	0.0953	J	42.9		MS
Uranium	mg/kg	+/–20%	0.515		0.506		1.67		MS

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–887

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE03–09–13757SD

Sample ID: 1201994318 **Duplicate ID:** 1201994320 **Percent Solids for Dup:** 90.1

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Arsenic	mg/kg	+/–20	9.3		9.57		2.92		MS
Beryllium	mg/kg	+/–20	5.92		6.15		3.93		MS
Lithium	mg/kg	+/–20	9.3		24.3		89.4	*	MS
Nickel	mg/kg	+/–20	8.38		9.14		8.59		MS
Selenium	mg/kg	+/–20	2.39		2.43		1.44		MS
Thallium	mg/kg	+/–20	9.88		9.71		1.75		MS
Uranium	mg/kg	+/–20	6.02		6.03		.0624		MS

Metals
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Duplicate Sample Summary

SDG No.: 10–887

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE03–09–13470D

Sample ID: 242794001 **Duplicate ID:** 1202000182 **Percent Solids for Dup:** 95.6

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Mercury	ug/kg		4.14	U	6.46	J	200		AV

Metals
-6-
Duplicate Sample Summary

SDG No.: 10-887

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE03-09-13470SD

Sample ID: 1202000183 **Duplicate ID:** 1202000185 **Percent Solids for Dup:** 95.6

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Mercury	ug/kg	+/-20	121		118		2.56		AV

METALS
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Laboratory Control Sample Summary

SDG NO. 10-887

Contract: LANL01004

Aqueous LCS Source: **Solid LCS Source:** ERA

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1201994237								
	Aluminum	ug/Kg	10500000	8310000		79.2	56-144	P
	Antimony	ug/Kg	173000	151000		87.2	71-130	P
	Barium	ug/Kg	198000	188000		94.8	80-120	P
	Boron	ug/Kg	141000	141000		99.9	75-125	P
	Cadmium	ug/Kg	60700	56900		93.8	81-120	P
	Calcium	ug/Kg	9870000	9700000		98.3	83-117	P
	Chromium	ug/Kg	236000	227000		96.1	80-120	P
	Cobalt	ug/Kg	91200	86000		94.3	81-120	P
	Copper	ug/Kg	174000	181000		104	81-118	P
	Iron	ug/Kg	18000000	18600000		103	51-149	P
	Lead	ug/Kg	86000	88900		103	79-121	P
	Magnesium	ug/Kg	4000000	3600000		90.1	79-122	P
	Manganese	ug/Kg	558000	513000		91.9	81-119	P
	Potassium	ug/Kg	4300000	3870000		90.1	74-127	P
	Silicon	ug/Kg	1210000	1450000		120	10-190	P
	Silver	ug/Kg	30100	31300		104	66-134	P
	Sodium	ug/Kg	1020000	1010000		99.1	74-127	P
	Titanium	ug/Kg	462000	560000		121	39-161	P
	Vanadium	ug/Kg	115000	119000		104	79-121	P
	Zinc	ug/Kg	594000	568000		95.7	80-121	P

METALS
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Laboratory Control Sample Summary

SDG NO. 10-887

Contract: LANL01004

Aqueous LCS Source: **Solid LCS Source:** ERA

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1201994316								
	Beryllium	mg/kg	77.6	78.7		101	81.2-126.8	MS
	Lithium	mg/kg	10.6	12.6	J	119	66.7-133.7	MS
	Nickel	mg/kg	134	148		110	83.3-121.4	MS
	Selenium	mg/kg	286	301		105	80.2-125.9	MS
	Thallium	mg/kg	121	131		108	78-123.2	MS
	Uranium	mg/kg	2.13	2.06		96.7	61.9-130.7	MS
	Arsenic	mg/kg	104	115		110	83-120	MS

METALS
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Laboratory Control Sample Summary

SDG NO. 10-887

Contract: LANL01004

Aqueous LCS Source: **Solid LCS Source:** ERA

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202000181								
	Mercury	ug/kg	5150	6530		127	71.6-128.3	AV

METALS
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Serial Dilution Sample Summary

SDG NO. 10-887 **Client ID** RE03-09-13757L

Contract: LANL01004

Matrix: SOLID **Level:** Low

Sample ID: 242781001 **Serial Dilution ID:** 1201994240

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Aluminum	16000		16000		.313		10	P
Antimony	3.3	U	16.5	U				P
Barium	391		397		1.53		10	P
Boron	10	U	50	U				P
Cadmium	1	U	5	U				P
Calcium	4390		4560		3.87		10	P
Chromium	12.3		14.4	J	16.7			P
Cobalt	9.6		9.8	J	2.08			P
Copper	42.6		39.4	J	7.51			P
Iron	69500		70000		.719		10	P
Lead	39.6		37.4	J	5.56			P
Magnesium	2220		2380		6.98			P
Manganese	3350		3490		4.03		10	P
Potassium	1850		1890		1.89			P
Silicon	8060		8200		1.74		10	P
Silver	5.21		5	U	100			P
Sodium	434		350	U	100			P
Titanium	2850		2890		1.23		10	P
Vanadium	34.7		34.7		.144			P
Zinc	447		451		.783		10	P

METALS
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Serial Dilution Sample Summary

SDG NO. 10-887 **Client ID** RE03-09-13757L

Contract: LANL01004

Matrix: SOLID **Level:** Low

Sample ID: 242781001 **Serial Dilution ID:** 1201994319

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Arsenic	5.46		5	U	100			MS
Beryllium	2.74		3.14		14.4			MS
Lithium	14.5		16.6	J	14.5			MS
Nickel	17.4		17.4		0			MS
Selenium	2.5	U	12.5	U				MS
Thallium	.685	J	1.5	U	100			MS
Uranium	2.39		2.49		4.18			MS

METALS
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Serial Dilution Sample Summary

SDG NO. 10–887 **Client ID** RE03–09–13470L

Contract: LANL01004

Matrix: SOLID **Level:** Low

Sample ID: 242794001 **Serial Dilution ID:** 1202000184

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Mercury	.068	U	.525	J				AV

METALS
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SAMPLE PREPARATION SUMMARY

SDG No: 10–887 **Method Type:** P

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number	932283						
1201994236	MB for batch 932283	MB	S	17–DEC–09	.502g	50mL	
1201994237	LCS for batch 932283	LCS	S	17–DEC–09	.504g	50mL	
1201994239	RE03–09–13757S	MS	S	17–DEC–09	.507g	50mL	
1201994241	RE03–09–13757SD	MSD	S	17–DEC–09	.521g	50mL	
1201994238	RE03–09–13757D	DUP	S	17–DEC–09	.522g	50mL	
242781001	RE03–09–13757	SAMPLE	S	17–DEC–09	.513g	50mL	
242781002	RE03–09–13752	SAMPLE	S	17–DEC–09	.515g	50mL	
242781003	RE03–09–13753	SAMPLE	S	17–DEC–09	.51g	50mL	
242781004	RE03–09–13754	SAMPLE	S	17–DEC–09	.513g	50mL	
242781005	RE03–09–13755	SAMPLE	S	17–DEC–09	.507g	50mL	
242781006	RE03–09–13756	SAMPLE	S	17–DEC–09	.525g	50mL	
242781007	RE03–10–5525	SAMPLE	S	17–DEC–09	.504g	50mL	

METALS
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SAMPLE PREPARATION SUMMARY

SDG No: 10–887 **Method Type:** MS

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number	932322						
1201994315	MB for batch 932322	MB	S	17–DEC–09	.515g	50mL	
1201994316	LCS for batch 932322	LCS	S	17–DEC–09	.504g	50mL	
1201994318	RE03–09–13757S	MS	S	17–DEC–09	.511g	50mL	
1201994320	RE03–09–13757SD	MSD	S	17–DEC–09	.522g	50mL	
1201994317	RE03–09–13757D	DUP	S	17–DEC–09	.517g	50mL	
242781001	RE03–09–13757	SAMPLE	S	17–DEC–09	.516g	50mL	
242781002	RE03–09–13752	SAMPLE	S	17–DEC–09	.511g	50mL	
242781003	RE03–09–13753	SAMPLE	S	17–DEC–09	.501g	50mL	
242781004	RE03–09–13754	SAMPLE	S	17–DEC–09	.521g	50mL	
242781005	RE03–09–13755	SAMPLE	S	17–DEC–09	.517g	50mL	
242781006	RE03–09–13756	SAMPLE	S	17–DEC–09	.525g	50mL	
242781007	RE03–10–5525	SAMPLE	S	17–DEC–09	.502g	50mL	

METALS
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SAMPLE PREPARATION SUMMARY

SDG No: 10-887 **Method Type:** AV

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number 934870							
1202000180	MB for batch 934870	MB	S	22-DEC-09	.513g	30mL	
1202000181	LCS for batch 934870	LCS	S	22-DEC-09	.201g	30mL	
1202000183	RE03-09-13470S	MS	S	22-DEC-09	.514g	30mL	
1202000185	RE03-09-13470SD	MSD	S	22-DEC-09	.543g	30mL	
1202000182	RE03-09-13470D	DUP	S	22-DEC-09	.515g	30mL	
242781001	RE03-09-13757	SAMPLE	S	22-DEC-09	.557g	30mL	
242781002	RE03-09-13752	SAMPLE	S	22-DEC-09	.501g	30mL	
242781003	RE03-09-13753	SAMPLE	S	22-DEC-09	.559g	30mL	
242781004	RE03-09-13754	SAMPLE	S	22-DEC-09	.51g	30mL	
242781005	RE03-09-13755	SAMPLE	S	22-DEC-09	.516g	30mL	
242781006	RE03-09-13756	SAMPLE	S	22-DEC-09	.512g	30mL	
242781007	RE03-10-5525	SAMPLE	S	22-DEC-09	.511g	30mL	

Metals
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Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: OPTIMA3
Start Date: 19–DEC–09 **End Date:** 20–DEC–09

Client Sdg: 10–887
Method P
Data File: 121909–1

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Li	Mg	Mn	Hg	Ni	K	Se	Si	Ag	Na	Tl	Ti	U	V	Zn
S0.0	1	07:18	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
S0.1	1	07:25		X		X		X	X		X	X	X		X			X			X		X	X			X		X	X
S0.5	1	07:31	X	X		X		X	X	X	X	X	X		X		X	X			X		X	X			X		X	X
SCAL	1	07:38	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
S10	1	07:45	X							X				X			X								X					
ICV01	1	07:51	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
ICB01	1	07:58	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
PQL01	1	08:04	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
ICSA01	1	08:11	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
ICSAB01	1	08:17	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
LR01	1	08:23	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
LR02	1	08:29	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
CCV01	1	08:36	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
CCB01	1	08:43	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
LR03	1	08:54	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
CCV02	1	09:05	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
CCB02	1	09:12	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
ZZZZZZ	1	09:19																												
ZZZZZZ	1	09:26																												
ZZZZZZ	1	09:33																												
ZZZZZZ	1	09:40																												
ZZZZZZ	1	09:46																												
ZZZZZZ	1	09:53																												
ZZZZZZ	1	10:00																												
ZZZZZZ	1	10:07																												
CCV03	1	10:14	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
CCB03	1	10:21	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
ZZZZZZ	1	10:30																												
ZZZZZZ	1	10:37																												
ZZZZZZ	1	10:44																												
ZZZZZZ	1	10:50																												
ZZZZZZ	1	10:57																												
ZZZZZZ	5	11:04																												
ZZZZZZ	1	11:11																												
CCV04	1	11:18	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
CCB04	1	11:25	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
ZZZZZZ	5	11:30																												
ZZZZZZ	5	11:37																												
ZZZZZZ	5	11:43																												
ZZZZZZ	25	11:50																												

Metals
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Analysis Run Log

Samp No.	D/F	Run Time																											
ZZZZZZ	5	11:57																											
CCV05	1	12:04	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
CCB05	1	12:11	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
ZZZZZZ	1	12:19																											
ZZZZZZ	1	12:26																											
ZZZZZZ	1	12:32																											
ZZZZZZ	1	12:39																											
ZZZZZZ	1	12:46																											
ZZZZZZ	5	12:53																											
ZZZZZZ	1	13:00																											
CCV06	1	13:07	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
CCB06	1	13:14	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
CCV07	1	13:29	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
CCB07	1	13:36	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
ZZZZZZ	1	13:43																											
ZZZZZZ	1	13:50																											
ZZZZZZ	1	13:56																											
ZZZZZZ	1	14:03																											
ZZZZZZ	1	14:10																											
ZZZZZZ	1	14:17																											
ZZZZZZ	5	14:24																											
ZZZZZZ	1	14:31																											
CCV08	1	14:38	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
CCB08	1	14:45	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
ZZZZZZ	1	14:52																											
ZZZZZZ	1	14:59																											
ZZZZZZ	1	15:06																											
ZZZZZZ	1	15:13																											
ZZZZZZ	1	15:20																											
ZZZZZZ	5	15:27																											
ZZZZZZ	1	15:34																											
ZZZZZZ	1	15:41																											
CCV09	1	15:48	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
CCB09	1	15:54	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
ZZZZZZ	1	16:01																											
ZZZZZZ	1	16:08																											
ZZZZZZ	1	16:15																											
ZZZZZZ	1	16:22																											
ZZZZZZ	1	16:29																											
ZZZZZZ	1	16:35																											

Metals
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Analysis Run Log

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Li	Mg	Mn	Hg	Ni	K	Se	Si	Ag	Na	Tl	Ti	U	V	Zn
CCV10	1	16:42	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
CCB10	1	16:49	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
ZZZZZZ	1	16:56																												
ZZZZZZ	1	17:03																												
ZZZZZZ	1	17:10																												
ZZZZZZ	5	17:17																												
ZZZZZZ	1	17:23																												
CCV11	1	17:30	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
CCB11	1	17:37	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
ZZZZZZ	1	17:44																												
ZZZZZZ	1	17:51																												
ZZZZZZ	1	17:58																												
ZZZZZZ	1	18:05																												
ZZZZZZ	1	18:12																												
ZZZZZZ	5	18:19																												
ZZZZZZ	1	18:26																												
ZZZZZZ	1	18:33																												
ZZZZZZ	1	18:39																												
CCV12	1	18:46	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
CCB12	1	18:53	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
ZZZZZZ	1	19:00																												
ZZZZZZ	1	19:07																												
ZZZZZZ	1	19:13																												
ZZZZZZ	1	19:20																												
ZZZZZZ	1	19:28																												
ZZZZZZ	1	19:35																												
ZZZZZZ	5	19:42																												
ZZZZZZ	1	19:49																												
ZZZZZZ	1	19:56																												
CCV13	1	20:03	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
CCB13	1	20:10	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
ZZZZZZ	1	20:17																												
ZZZZZZ	1	20:24																												
ZZZZZZ	1	20:31																												
ZZZZZZ	1	20:38																												
ZZZZZZ	1	20:45																												
ZZZZZZ	1	20:52																												
ZZZZZZ	1	20:59																												
ZZZZZZ	1	21:06																												
ZZZZZZ	1	21:13																												

Metals
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Analysis Run Log

Samp No.	D/F	Run Time																												
CCV14	1	21:20	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
CCB14	1	21:27	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
ZZZZZZ	1	21:34																												
ZZZZZZ	1	21:41																												
ZZZZZZ	1	21:48																												
ZZZZZZ	1	21:55																												
ZZZZZZ	1	22:02																												
ZZZZZZ	1	22:09																												
ZZZZZZ	1	22:17																												
ZZZZZZ	1	22:24																												
CCV15	1	22:31	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
CCB15	1	22:38	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
1201994236	1	22:45	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
1201994237	1	22:52	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
242781001	1	22:58	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
1201994238	1	23:05	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
1201994239	1	23:12	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
1201994241	1	23:19	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
1201994240	5	23:26	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
CCV16	1	23:33	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
CCB16	1	23:40	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
242781002	1	23:47	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
242781003	1	23:55	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
242781004	1	00:02	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
242781005	1	00:09	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
242781006	1	00:16	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
242781007	1	00:23	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
CCV17	1	00:30	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
CCB17	1	00:37	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X

Metals
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Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: HG3
Start Date: 23–DEC–09 **End Date:** 23–DEC–09

Client Sdg: 10–887
Method AV
Data File: 122309S1–4

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Li	Mg	Mn	Hg	Ni	K	Se	Si	Ag	Na	Tl	Ti	U	V	Zn
S0.0	1	08:40																	X											
S0.2	1	08:42																	X											
S0.5	1	08:43																	X											
S2.0	1	08:45																	X											
S5.0	1	08:47																	X											
S10.0	1	08:48																	X											
ICV01	1	08:50																	X											
ICB01	1	08:52																	X											
CRDL01	1	08:53																	X											
CCV01	1	08:55																	X											
CCB01	1	08:57																	X											
ZZZZZZ	1	08:58																												
ZZZZZZ	10	09:00																												
ZZZZZZ	1	09:02																												
ZZZZZZ	1	09:03																												
ZZZZZZ	1	09:05																												
ZZZZZZ	1	09:07																												
ZZZZZZ	5	09:08																												
ZZZZZZ	1	09:10																												
ZZZZZZ	1	09:12																												
ZZZZZZ	1	09:13																												
CCV02	1	09:15																	X											
CCB02	1	09:17																	X											
ZZZZZZ	1	09:18																												
ZZZZZZ	1	09:20																												
ZZZZZZ	1	09:22																												
ZZZZZZ	1	09:23																												
ZZZZZZ	1	09:25																												
ZZZZZZ	1	09:27																												
ZZZZZZ	1	09:28																												
ZZZZZZ	1	09:30																												
ZZZZZZ	1	09:32																												
ZZZZZZ	1	09:33																												
CCV03	1	09:35																	X											
CCB03	1	09:37																	X											
ZZZZZZ	1	09:38																												
ZZZZZZ	1	09:40																												
ZZZZZZ	1	09:42																												
ZZZZZZ	1	09:43																												
ZZZZZZ	1	09:45																												

Metals
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Analysis Run Log

Samp No.	D/F	Run Time																											
ZZZZZZ	1	09:47																											
ZZZZZZ	1	09:49																											
ZZZZZZ	1	09:50																											
ZZZZZZ	1	09:52																											
ZZZZZZ	1	09:54																											
CCV04	1	09:55															X												
CCB04	1	09:57															X												
ZZZZZZ	1	09:59																											
ZZZZZZ	1	10:00																											
ZZZZZZ	1	10:02																											
ZZZZZZ	1	10:04																											
CCV05	1	10:08															X												
CCB05	1	10:10															X												
ZZZZZZ	1	10:11																											
ZZZZZZ	10	10:13																											
ZZZZZZ	1	10:15																											
ZZZZZZ	1	10:16																											
ZZZZZZ	1	10:18																											
ZZZZZZ	1	10:20																											
ZZZZZZ	1	10:21																											
ZZZZZZ	1	10:23																											
ZZZZZZ	1	10:25																											
ZZZZZZ	1	10:26																											
CCV06	1	10:28															X												
CCB06	1	10:30															X												
ZZZZZZ	1	10:31																											
ZZZZZZ	5	10:33																											
ZZZZZZ	1	10:35																											
ZZZZZZ	1	10:36																											
ZZZZZZ	1	10:38																											
ZZZZZZ	1	10:40																											
ZZZZZZ	1	10:41																											
ZZZZZZ	1	10:43																											
ZZZZZZ	1	10:45																											
ZZZZZZ	1	10:46																											
CCV07	1	10:48															X												
CCB07	1	10:50															X												
ZZZZZZ	1	10:51																											
CCV08	1	10:59															X												
CCB08	1	11:01															X												

Metals
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Analysis Run Log

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Li	Mg	Mn	Hg	Ni	K	Se	Si	Ag	Na	Tl	Ti	U	V	Zn
ZZZZZZ	1	11:02																												
ZZZZZZ	5	11:04																												
ZZZZZZ	10	11:06																												
ZZZZZZ	1	11:07																												
ZZZZZZ	1	11:09																												
ZZZZZZ	1	11:11																												
ZZZZZZ	1	11:12																												
ZZZZZZ	1	11:14																												
ZZZZZZ	1	11:15																												
CCV09	1	11:17																	X											
CCB09	1	11:19																	X											
ZZZZZZ	1	11:21																												
ZZZZZZ	5	11:22																												
ZZZZZZ	10	11:24																												
CCV10	1	11:30																	X											
CCB10	1	11:32																	X											
ZZZZZZ	1	11:33																												
ZZZZZZ	5	11:35																												
ZZZZZZ	10	11:37																												
ZZZZZZ	1	11:38																												
ZZZZZZ	1	11:40																												
ZZZZZZ	1	11:42																												
ZZZZZZ	1	11:43																												
ZZZZZZ	1	11:45																												
ZZZZZZ	1	11:47																												
ZZZZZZ	1	11:48																												
CCV11	1	11:50																	X											
CCB11	1	11:52																	X											
ZZZZZZ	1	11:53																												
ZZZZZZ	1	11:55																												
ZZZZZZ	1	11:57																												
ZZZZZZ	1	11:58																												
ZZZZZZ	1	12:00																												
1202000180	1	12:02																	X											
1202000181	10	12:04																	X											
242781001	1	12:05																	X											
242781002	1	12:07																	X											
242781003	1	12:09																	X											
CCV12	1	12:10																	X											
CCB12	1	12:12																	X											

Metals
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Analysis Run Log

Samp No.	D/F	Run Time																										
242781004	1	12:14																X										
242781005	1	12:15																X										
242781006	1	12:17																X										
242781007	1	12:19																X										
ZZZZZZ	1	12:20																										
1202000182	1	12:22																X										
1202000183	1	12:24																X										
1202000185	1	12:25																X										
1202000184	5	12:27																X										
ZZZZZZ	1	12:29																										
CCV13	1	12:30																X										
CCB13	1	12:32																X										

Metals
–14–
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: ICPMS4
Start Date: 01–JAN–10 **End Date:** 01–JAN–10

Client Sdg: 10–887
Method MS
Data File: 091231–2

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Li	Mg	Mn	Hg	Ni	K	Se	Si	Ag	Na	Tl	Ti	U	V	Zn
S0.0	1	01:07			X		X													X		X				X		X		
S10	1	01:13			X		X													X		X				X		X		
S100	1	01:19			X		X													X		X				X		X		
ICV01	1	01:25			X		X													X		X				X		X		
ICB01	1	01:31			X		X													X		X				X		X		
CRDL01	1	01:37			X		X													X		X				X		X		
ICSA01	1	01:44			X		X													X		X				X		X		
ICSAB01	1	01:50			X		X													X		X				X		X		
CCV01	1	01:56			X		X													X		X				X		X		
CCB01	1	02:02			X		X													X		X				X		X		
LR01	1	02:08			X		X													X		X				X		X		
CCV02	1	02:15			X		X													X		X				X		X		
CCB02	1	02:21			X		X													X		X				X		X		
1201994315	2	02:27			X		X													X		X				X		X		
1201994316	40	02:33			X		X													X		X				X		X		
ZZZZZZ	20	02:40																												
242781001	2	02:46			X		X													X		X				X		X		
CCV03	1	02:52			X		X													X		X				X		X		
CCB03	1	02:58			X		X													X		X				X		X		
1201994317	2	03:05			X		X													X		X				X		X		
1201994318	2	03:11			X		X													X		X				X		X		
1201994320	2	03:17			X		X													X		X				X		X		
1201994319	10	03:23			X		X													X		X				X		X		
242781002	2	03:30			X		X													X		X				X		X		
242781003	2	03:36			X		X													X		X				X		X		
242781004	2	03:42			X		X													X		X				X		X		
242781005	2	03:48			X		X													X		X				X		X		
242781006	2	03:55			X		X													X		X				X		X		
CCV04	1	04:01			X		X													X		X				X		X		
CCB04	1	04:07			X		X													X		X				X		X		
242781007	2	04:13			X		X													X		X				X		X		
ZZZZZZ	1	04:20																												
ZZZZZZ	1	04:26																												
ZZZZZZ	1	04:32																												
ZZZZZZ	1	04:39																												
ZZZZZZ	1	04:45																												
ZZZZZZ	5	04:51																												
CCV05	1	04:57			X		X													X		X				X		X		
CCB05	1	05:04			X		X													X		X				X		X		

Metals
–14–
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: ICPMS4
Start Date: 04–JAN–10 **End Date:** 04–JAN–10

Client Sdg: 10–887
Method MS
Data File: 100104–3

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Li	Mg	Mn	Hg	Ni	K	Se	Si	Ag	Na	Tl	Ti	U	V	Zn
S0.0	1	12:38														X														
S10	1	12:40														X														
S100	1	12:42														X														
ICV01	1	12:44														X														
ICB01	1	12:46														X														
CRDL01	1	12:48														X														
ICSA01	1	12:51														X														
ICSAB01	1	12:53														X														
CCV01	1	12:55														X														
CCB01	1	12:57														X														
1201994315	2	12:59														X														
1201994316	20	13:02														X														
242781001	2	13:04														X														
1201994317	2	13:06														X														
1201994318	2	13:09														X														
1201994320	2	13:11														X														
1201994319	10	13:13														X														
CCV02	1	13:15														X														
CCB02	1	13:18														X														
242781002	2	13:20														X														
242781003	2	13:22														X														
242781004	2	13:24														X														
242781005	2	13:27														X														
242781006	2	13:29														X														
242781007	2	13:31														X														
CCV03	1	13:33														X														
CCB03	1	13:36														X														

Standards

METALS
–10–
Instrument Detection Limits

SDG NO. 10–887

Contract: LANL01004 **Lab Code: GEL** **MDL Effective Date:** 01–JUL–09

ICP/MS	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
SOLID	Aluminum		15.0	50
	Antimony		0.5	3
	Arsenic		1.0	5
	Barium		0.5	2
	Beryllium		0.1	.5
	Boron		4.0	15
	Cadmium		0.1	1
	Calcium		33.0	100
	Chromium		1.0	3
	Cobalt		0.3	1
	Copper		0.33	1
	Iron		25.0	100
	Lead		0.5	2
	Lithium		2.0	10
	Magnesium		7.5	25
	Manganese		1.0	5
	Nickel		0.5	2
	Potassium		80.0	300
	Selenium		2.5	5
	Silver		0.2	1
	Sodium		80.0	250
	Thallium		0.3	1
	Titanium		2.0	10
	Uranium		0.066	.2
	Vanadium		2.0	10
	Zinc		2.0	10

METALS
-10-
Instrument Detection Limits

SDG NO. 10-887

Contract: LANL01004 **Lab Code: GEL** **MDL Effective Date:** 15-JUN-09

MERCURY	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
SOLID	Mercury		0.068	.2

METALS
–10–
Instrument Detection Limits

SDG NO. 10–887

Contract: LANL01004 **Lab Code: GEL** **MDL Effective Date:** 01–JUL–09

ICP	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
SOLID	Aluminum	396.153	68.0	200
	Antimony	206.836	3.3	10
	Arsenic	188.979	5.0	30
	Barium	233.527	1.0	5
	Beryllium	313.107	1.0	5
	Boron	249.677	10.0	50
	Cadmium	226.502	1.0	5
	Calcium	317.933	80.0	250
	Chromium	267.716	1.5	5
	Cobalt	228.616	1.5	5
	Copper	324.752	3.0	10
	Iron	238.204	80.0	250
	Lead	220.353	2.5	10
	Magnesium	279.077	85.0	300
	Manganese	257.61	2.0	10
	Nickel	231.604	1.5	5
	Potassium	766.49	64.0	250
	Selenium	196.026	5.0	30
	Silicon	251.611	15.0	100
	Silver	328.068	1.0	5
	Sodium	589.592	70.0	250
	Thallium	190.801	5.0	20
	Titanium	334.94	1.0	5
	Uranium	409.014	10.0	50
	Vanadium	292.402	1.0	5
	Zinc	213.857	3.3	10

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA3
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-887
Effective Dates: 01-NOV-09

Parmname	Wavelength	Aluminum	Antimony	Arsenic	Barium	Beryllium
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.02738	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	-0.44940	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	-0.22121	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	-0.33886	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	-0.13648	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	-0.05571	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.19671	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	-0.02739	0.00000	0.00000	0.00000	0.00000
Tin	189.927	-0.00058	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA3
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-887
Effective Dates: 01-NOV-09

Parmname	Wavelength	Boron	Cadmium	Chromium	Cobalt	Copper
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	24.5549	0.00000	0.00000
Arsenic	188.979	0.52529	0.00000	-0.67113	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	2.54031	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.38952	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	-31.5465	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	0.78023
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.63859	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	160.41
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	5.22870	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.35099	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	1.93161	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.39273	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	1.19810

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA3
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-887
Effective Dates: 01-NOV-09

Parmname	Wavelength	Iron	Lead	Magnesium	Manganese	Molybdenum
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	42.8126
Antimony	206.836	-0.01635	0.00000	0.00000	0.00000	-22.2146
Arsenic	188.979	-0.21271	0.00000	0.00000	0.00000	1.34645
Barium	233.527	-0.03709	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.13266	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.09998	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	-0.01788	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.01425	0.00000	0.00000	0.00000	-2.64232
Copper	324.752	-0.05101	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.09069	0.00000	0.00000	0.00000	-2.44485
Magnesium	279.077	0.85543	0.00000	0.00000	0.00000	-20.2401
Manganese	257.61	-0.09972	0.00000	0.01862	0.00000	0.00000
Molybdenum	202.031	-0.07094	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.80633	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	-0.03176	0.00000	0.01823	12.4291	-3.60863
Selenium	196.026	-3.00009	0.00000	0.00000	0.00000	-3.17982
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	17.4444
Silver	328.068	-0.31825	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	-5.85948	0.00000
Tin	189.927	-0.01337	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.12581	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.15211	0.00000	-0.02256	0.00000	-14.2921
Zinc	213.857	0.09548	0.00000	0.03423	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA3
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-887
Effective Dates: 01-NOV-09

Parmname	Wavelength	Nickel	Phosphorous	Potassium	Selenium	Silicon
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	-0.64279	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	0.44040	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.33191	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	6.38465	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA3
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-887
Effective Dates: 01-NOV-09

Parmname	Wavelength	Silver	Strontium	Sulfur	Thallium	Tin
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	0.00000	-17.4077
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	-13.8713
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	3.10491
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA3
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-887
Effective Dates: 01-NOV-09

Parmname	Wavelength	Titanium	Uranium	Vanadium	Zinc
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	2.73145	0.00000	-2.31857	0.00000
Arsenic	188.979	-8.38419	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	-2.24883	0.00000
Beryllium	313.107	-1.96555	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.32181	-1.76281	0.00000
Cobalt	228.616	2.12623	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.85359	-3.92851	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	-7.67419	0.00000	2.18873	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.44145	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	1.10141	-1.94183	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000

METALS
–12–
Linear Ranges

SDG NO. 10–887

Contract: LANL01004 **Lab Code: GEL**

Instrument ID OPTIMA3

Analyte	Integration Time (sec)	LDR	Units	Effective Date
Aluminum	20	500000	ug/L	01–NOV–09
Antimony	20	10000	ug/L	01–NOV–09
Arsenic	20	10000	ug/L	01–NOV–09
Barium	20	15000	ug/L	01–NOV–09
Beryllium	20	3000	ug/L	01–NOV–09
Boron	20	5000	ug/L	01–NOV–09
Cadmium	20	10000	ug/L	01–NOV–09
Calcium	20	500000	ug/L	01–NOV–09
Chromium	20	25000	ug/L	01–NOV–09
Cobalt	20	10000	ug/L	01–NOV–09
Copper	20	20000	ug/L	01–NOV–09
Iron	20	500000	ug/L	01–NOV–09
Lead	20	25000	ug/L	01–NOV–09
Magnesium	20	500000	ug/L	01–NOV–09
Manganese	20	10000	ug/L	01–NOV–09
Nickel	20	10000	ug/L	01–NOV–09
Potassium	20	300000	ug/L	01–NOV–09
Selenium	20	10000	ug/L	01–NOV–09
Silicon	20	50000	ug/L	01–NOV–09
Silver	20	1000	ug/L	01–NOV–09
Sodium	20	500000	ug/L	01–NOV–09
Thallium	20	10000	ug/L	01–NOV–09
Uranium	20	15000	ug/L	01–NOV–09
Vanadium	20	10000	ug/L	01–NOV–09
Zinc	20	15000	ug/L	01–NOV–09
Titanium	20	10000	ug/L	01–NOV–09

METALS
-12-
Linear Ranges

SDG NO. 10-887

Contract: LANL01004 **Lab Code: GEL**

Instrument ID ICPMS4

Analyte	Integration Time (msec)	LDR	Units	Effective Date
Aluminum	1	50000	ug/L	01-NOV-09
Antimony	1000	250	ug/L	01-NOV-09
Arsenic	1000	1000	ug/L	01-NOV-09
Barium	1000	1000	ug/L	01-NOV-09
Beryllium	1000	1000	ug/L	01-NOV-09
Boron	1000	200	ug/L	01-NOV-09
Cadmium	1000	1000	ug/L	01-NOV-09
Calcium	500	50000	ug/L	01-NOV-09
Chromium	1000	1000	ug/L	01-NOV-09
Cobalt	1000	1000	ug/L	01-NOV-09
Copper	1000	1000	ug/L	01-NOV-09
Iron	500	50000	ug/L	01-NOV-09
Lead	1000	5000	ug/L	01-NOV-09
Lithium	1000	1000	ug/L	01-NOV-09
Magnesium	1	50000	ug/L	01-NOV-09
Manganese	1000	1000	ug/L	01-NOV-09
Nickel	1000	1000	ug/L	01-NOV-09
Potassium	1	50000	ug/L	01-NOV-09
Selenium	1000	500	ug/L	01-NOV-09
Silver	1000	250	ug/L	01-NOV-09
Sodium	1	50000	ug/L	01-NOV-09
Thallium	1000	500	ug/L	01-NOV-09
Titanium	1000	100	ug/L	01-NOV-09
Uranium	1000	5000	ug/L	01-NOV-09
Vanadium	1000	100	ug/L	01-NOV-09
Zinc	1000	2500	ug/L	01-NOV-09

Raw Data

Method: Hg_ReAlign
Result: 010710

Sample ID: Hg_ReAlign

Hg 253.652

Rep: 1

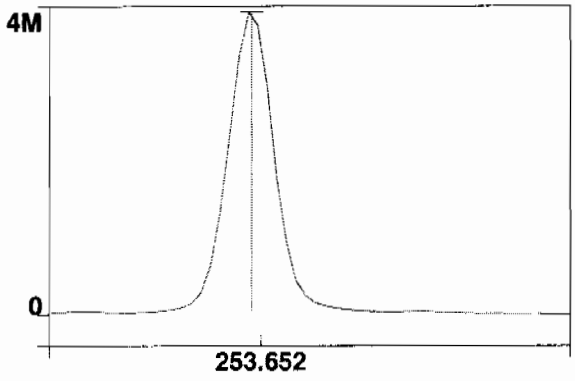

Intensity: 3436213.0 cps
Conc:

1

==========
12/19/2009 07:08:27 Hg ReAlign... Actual peak offset (nm): -0.008
Drift (nm): -0.001 Slit adjustment: -5
==========

==========
Analysis Begun

Start Time: 12/19/2009 07:18:32 **Plasma On Time: 12/14/2009 06:02:42**
Logged In Analyst: Optima3 **Technique: ICP Continuous**
Spectrometer Model: Optima 5300 DV, S/N 077C7090601Autosampler Model: S10

Sample Information File: C:\pe\Optima3\Sample Information\121909.sif
Batch ID:
Results Data Set: 121909
Results Library: C:\pe\Optima3\Results\Results.mdb

==========
Method Loaded
Method Name: General Eng.2AX **Method Last Saved: 12/18/2009 08:35:25**
IEC File: 101209.iec **MSF File:**
Method Description:

Analyte	Calibration Equation	Processing	View	Internal Standard	IEC
Ag 328.068	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Al 396.153Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
As 188.979	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
B 249.677	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ba 233.527	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Be 313.107	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ca 317.933Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	No
Cd 226.502	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Co 228.616	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cr 267.716	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cu 324.752	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Fe 238.204 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
K 766.490 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Mg 279.077 IEC	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Mn 257.610	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Mo 202.031	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Na 589.592 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	No
Ni 231.604	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
P 214.914	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Pb 220.353	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
S 181.975 Axial	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sb 206.836	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sc 361.383	Lin Thru 0	Peak Area	Axial	n/a	n/a
Sc Radial	Lin, Calc Int	Peak Area	Radial	n/a	n/a
Se 196.026	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Si 251.611	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sn 189.927	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sr 421.552	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Ti 334.940	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Tl 190.801	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
U 409.014	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
V 292.402	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y 371.029	Lin, Calc Int	Peak Area	Axial	n/a	n/a
Zn 213.857	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y RADIAL	Lin, Calc Int	Peak Area	Radial	n/a	n/a
SiO2	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes

==========
Sequence No.: 1 **Autosampler Location: 8**
Sample ID: S0 **Date Collected: 12/19/2009 07:18:33**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: S0

	Net	Corrected	Calib.	Analysis

Repl#	Analyte	Intensity	Intensity	Conc.	Units	Time
1	Sc Radial	5478.8	5478.8	98.4	%	07:20:26
1	Y RADIAL	5815.0	5815.0	98.37	%	07:20:26
1	Al 396.153Radial†	-24.1	-24.4	[0.00]	ug/L	07:20:26
1	Ca 317.933Radial†	16.7	16.9	[0.00]	ug/L	07:20:46
1	Fe 238.204 Radial†	10.3	10.5	[0.00]	ug/L	07:20:46
1	K 766.490 Radial†	2671.9	2715.1	[0.00]	ug/L	07:20:26
1	Mg 279.077 IEC†	1.3	1.3	[0.00]	ug/L	07:20:46
1	Na 589.592 Radial†	-738.0	-749.9	[0.00]	ug/L	07:20:26
1	Sr 421.552†	-45.6	-46.3	[0.00]	ug/L	07:20:26
1	Sc 361.383	898614.7	898614.7	99.967	%	07:21:43
1	Y 371.029	744516.0	744516.0	100.01	%	07:21:43
1	Ag 328.068†	322.6	322.7	[0.00]	ug/L	07:21:43
1	As 188.979†	-23.0	-23.0	[0.00]	ug/L	07:22:03
1	B 249.677†	-19.3	-19.3	[0.00]	ug/L	07:21:43
1	Ba 233.527†	0.5	0.5	[0.00]	ug/L	07:22:03
1	Be 313.107†	-4762.2	-4763.7	[0.00]	ug/L	07:21:43
1	Cd 226.502†	-226.8	-226.9	[0.00]	ug/L	07:22:03
1	Co 228.616†	-93.2	-93.3	[0.00]	ug/L	07:22:03
1	Cr 267.716†	64.4	64.4	[0.00]	ug/L	07:22:03
1	Cu 324.752†	6010.5	6012.5	[0.00]	ug/L	07:21:43
1	Mn 257.610†	495.5	495.7	[0.00]	ug/L	07:22:03
1	Mo 202.031†	22.9	22.9	[0.00]	ug/L	07:22:03
1	Ni 231.604†	81.1	81.1	[0.00]	ug/L	07:22:03
1	P 214.914†	252.5	252.6	[0.00]	ug/L	07:22:03
1	Pb 220.353†	-69.6	-69.6	[0.00]	ug/L	07:22:03
1	S 181.975 Axial†	49.0	49.0	[0.00]	ug/L	07:22:03
1	Sb 206.836†	41.9	41.9	[0.00]	ug/L	07:22:03
1	Se 196.026†	-26.4	-26.4	[0.00]	ug/L	07:22:03
1	Si 251.611†	572.2	572.4	[0.00]	ug/L	07:22:03
1	Sn 189.927†	-0.0	-0.0	[0.00]	ug/L	07:22:03
1	Ti 334.940†	-1412.7	-1413.1	[0.00]	ug/L	07:21:43
1	Tl 190.801†	-41.3	-41.3	[0.00]	ug/L	07:22:03
1	U 409.014†	-2387.3	-2388.1	[0.00]	ug/L	07:21:43
1	V 292.402†	-1470.6	-1471.1	[0.00]	ug/L	07:21:43
1	Zn 213.857†	805.5	805.7	[0.00]	ug/L	07:22:03
1	SiO2†	625.7	625.9	[0.00]	ug/L	07:22:59
2	Sc Radial	5605.4	5605.4	101	%	07:20:51
2	Y RADIAL	5959.0	5959.0	100.8	%	07:20:51
2	Al 396.153Radial†	-10.2	-10.1	[0.00]	ug/L	07:20:51
2	Ca 317.933Radial†	24.3	24.1	[0.00]	ug/L	07:21:11
2	Fe 238.204 Radial†	10.3	10.3	[0.00]	ug/L	07:21:11
2	K 766.490 Radial†	2688.1	2669.9	[0.00]	ug/L	07:20:51
2	Mg 279.077 IEC†	2.1	2.1	[0.00]	ug/L	07:21:11
2	Na 589.592 Radial†	-787.1	-781.7	[0.00]	ug/L	07:20:51
2	Sr 421.552†	11.8	11.7	[0.00]	ug/L	07:20:51
2	Sc 361.383	902152.2	902152.2	100.36	%	07:22:08
2	Y 371.029	745973.5	745973.5	100.20	%	07:22:08
2	Ag 328.068†	349.4	348.1	[0.00]	ug/L	07:22:08
2	As 188.979†	-34.6	-34.5	[0.00]	ug/L	07:22:28
2	B 249.677†	-53.5	-53.3	[0.00]	ug/L	07:22:08
2	Ba 233.527†	-5.5	-5.5	[0.00]	ug/L	07:22:28
2	Be 313.107†	-4719.3	-4702.4	[0.00]	ug/L	07:22:08
2	Cd 226.502†	-235.3	-234.5	[0.00]	ug/L	07:22:28
2	Co 228.616†	-75.1	-74.9	[0.00]	ug/L	07:22:28
2	Cr 267.716†	79.9	79.6	[0.00]	ug/L	07:22:28
2	Cu 324.752†	6108.5	6086.5	[0.00]	ug/L	07:22:08
2	Mn 257.610†	473.2	471.5	[0.00]	ug/L	07:22:28
2	Mo 202.031†	16.0	15.9	[0.00]	ug/L	07:22:28
2	Ni 231.604†	93.1	92.7	[0.00]	ug/L	07:22:28
2	P 214.914†	263.9	262.9	[0.00]	ug/L	07:22:28
2	Pb 220.353†	-67.5	-67.3	[0.00]	ug/L	07:22:28
2	S 181.975 Axial†	47.0	46.8	[0.00]	ug/L	07:22:28
2	Sb 206.836†	40.8	40.7	[0.00]	ug/L	07:22:28
2	Se 196.026†	-31.1	-31.0	[0.00]	ug/L	07:22:28
2	Si 251.611†	582.7	580.6	[0.00]	ug/L	07:22:28
2	Sn 189.927†	9.6	9.6	[0.00]	ug/L	07:22:28
2	Ti 334.940†	-1325.3	-1320.6	[0.00]	ug/L	07:22:08
2	Tl 190.801†	-47.5	-47.3	[0.00]	ug/L	07:22:28
2	U 409.014†	-2384.5	-2375.9	[0.00]	ug/L	07:22:08
2	V 292.402†	-1446.9	-1441.7	[0.00]	ug/L	07:22:08

2	Zn 213.857†	789.3	786.4	[0.00]	ug/L	07:22:28
2	SiO2†	594.9	592.8	[0.00]	ug/L	07:23:04
3	Sc Radial	5617.7	5617.7	101	%	07:21:16
3	Y RADIAL	5960.2	5960.2	100.8	%	07:21:16
3	Al 396.153Radial†	-14.7	-14.5	[0.00]	ug/L	07:21:16
3	Ca 317.933Radial†	17.9	17.7	[0.00]	ug/L	07:21:36
3	Fe 238.204 Radial†	12.0	11.9	[0.00]	ug/L	07:21:36
3	K 766.490 Radial†	2777.3	2752.4	[0.00]	ug/L	07:21:16
3	Mg 279.077 IEC†	0.8	0.8	[0.00]	ug/L	07:21:36
3	Na 589.592 Radial†	-760.1	-753.3	[0.00]	ug/L	07:21:16
3	Sr 421.552†	-0.8	-0.8	[0.00]	ug/L	07:21:16
3	Sc 361.383	895959.8	895959.8	99.672	%	07:22:33
3	Y 371.029	742903.0	742903.0	99.790	%	07:22:33
3	Ag 328.068†	437.5	439.0	[0.00]	ug/L	07:22:33
3	As 188.979†	-46.8	-47.0	[0.00]	ug/L	07:22:53
3	B 249.677†	-5.1	-5.1	[0.00]	ug/L	07:22:33
3	Ba 233.527†	-2.8	-2.8	[0.00]	ug/L	07:22:53
3	Be 313.107†	-4711.7	-4727.2	[0.00]	ug/L	07:22:33
3	Cd 226.502†	-225.4	-226.2	[0.00]	ug/L	07:22:53
3	Co 228.616†	-92.9	-93.2	[0.00]	ug/L	07:22:53
3	Cr 267.716†	96.1	96.4	[0.00]	ug/L	07:22:53
3	Cu 324.752†	6047.8	6067.7	[0.00]	ug/L	07:22:33
3	Mn 257.610†	505.6	507.2	[0.00]	ug/L	07:22:53
3	Mo 202.031†	20.7	20.8	[0.00]	ug/L	07:22:53
3	Ni 231.604†	106.5	106.9	[0.00]	ug/L	07:22:53
3	P 214.914†	257.9	258.7	[0.00]	ug/L	07:22:53
3	Pb 220.353†	-55.1	-55.3	[0.00]	ug/L	07:22:53
3	S 181.975 Axial†	51.0	51.2	[0.00]	ug/L	07:22:53
3	Sb 206.836†	40.9	41.0	[0.00]	ug/L	07:22:53
3	Se 196.026†	-28.1	-28.2	[0.00]	ug/L	07:22:53
3	Si 251.611†	577.5	579.4	[0.00]	ug/L	07:22:53
3	Sn 189.927†	0.9	0.9	[0.00]	ug/L	07:22:53
3	Ti 334.940†	-1424.4	-1429.1	[0.00]	ug/L	07:22:33
3	Tl 190.801†	-55.4	-55.6	[0.00]	ug/L	07:22:53
3	U 409.014†	-2345.0	-2352.7	[0.00]	ug/L	07:22:33
3	V 292.402†	-1490.6	-1495.5	[0.00]	ug/L	07:22:33
3	Zn 213.857†	785.9	788.5	[0.00]	ug/L	07:22:53
3	SiO2†	599.4	601.4	[0.00]	ug/L	07:23:09

Mean Data: S0

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	898908.9	3106.67	0.35%	100.00	%
Sc Radial	5567.3	76.90	1.38%	100	%
Y 371.029	744464.2	1535.89	0.21%	100.00	%
Y RADIAL	5911.4	83.50	1.41%	100.0	%
Ag 328.068†	369.9	61.12	16.52%	[0.00]	ug/L
Al 396.153Radial†	-16.4	7.33	44.73%	[0.00]	ug/L
As 188.979†	-34.8	12.01	34.47%	[0.00]	ug/L
B 249.677†	-25.9	24.77	95.49%	[0.00]	ug/L
Ba 233.527†	-2.6	3.03	116.57%	[0.00]	ug/L
Be 313.107†	-4731.1	30.86	0.65%	[0.00]	ug/L
Ca 317.933Radial†	19.6	3.95	20.19%	[0.00]	ug/L
Cd 226.502†	-229.2	4.60	2.01%	[0.00]	ug/L
Co 228.616†	-87.1	10.59	12.16%	[0.00]	ug/L
Cr 267.716†	80.2	16.00	19.96%	[0.00]	ug/L
Cu 324.752†	6055.6	38.46	0.64%	[0.00]	ug/L
Fe 238.204 Radial†	10.9	0.90	8.24%	[0.00]	ug/L
K 766.490 Radial†	2712.4	41.33	1.52%	[0.00]	ug/L
Mg 279.077 IEC†	1.4	0.62	44.68%	[0.00]	ug/L
Mn 257.610†	491.5	18.26	3.72%	[0.00]	ug/L
Mo 202.031†	19.9	3.60	18.10%	[0.00]	ug/L
Na 589.592 Radial†	-761.7	17.47	2.29%	[0.00]	ug/L
Ni 231.604†	93.6	12.92	13.80%	[0.00]	ug/L
P 214.914†	258.1	5.20	2.02%	[0.00]	ug/L
Pb 220.353†	-64.1	7.69	12.00%	[0.00]	ug/L
S 181.975 Axial†	49.0	2.20	4.48%	[0.00]	ug/L
Sb 206.836†	41.2	0.62	1.51%	[0.00]	ug/L
Se 196.026†	-28.5	2.32	8.14%	[0.00]	ug/L
Si 251.611†	577.5	4.43	0.77%	[0.00]	ug/L

Sn 189.927†	3.5	5.29	151.73%	[0.00]	ug/L
Sr 421.552†	-11.8	30.54	258.65%	[0.00]	ug/L
Ti 334.940†	-1387.6	58.58	4.22%	[0.00]	ug/L
Tl 190.801†	-48.1	7.20	14.99%	[0.00]	ug/L
U 409.014†	-2372.2	17.99	0.76%	[0.00]	ug/L
V 292.402†	-1469.4	26.93	1.83%	[0.00]	ug/L
Zn 213.857†	793.5	10.61	1.34%	[0.00]	ug/L
SiO2†	606.7	17.18	2.83%	[0.00]	ug/L

Sequence No.: 2
Sample ID: S0.1
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 2
Date Collected: 12/19/2009 07:25:19
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc Radial	5487.3	5487.3	98.6	%	07:27:16
1	Y RADIAL	5798.7	5798.7	98.09	%	07:27:16
1	K 766.490 Radial†	8549.2	5961.4	[1000]	ug/L	07:27:11
1	Sr 421.552†	17310.3	17574.4	[100]	ug/L	07:27:16
1	Sc 361.383	912189.9	912189.9	101.48	%	07:27:43
1	Y 371.029	750828.6	750828.6	100.85	%	07:27:43
1	Ag 328.068†	23552.4	22839.6	[100]	ug/L	07:27:48
1	As 188.979†	246.5	277.7	[100]	ug/L	07:28:08
1	B 249.677†	4718.4	4675.6	[100]	ug/L	07:27:48
1	Ba 233.527†	14914.6	14700.1	[100]	ug/L	07:27:48
1	Be 313.107†	292153.2	292630.7	[100]	ug/L	07:27:43
1	Cd 226.502†	10025.8	10109.1	[100]	ug/L	07:27:48
1	Co 228.616†	5539.2	5545.7	[100]	ug/L	07:28:08
1	Cr 267.716†	10041.0	9814.7	[100]	ug/L	07:27:48
1	Cu 324.752†	41032.1	34379.1	[100]	ug/L	07:27:48
1	Mn 257.610†	102308.9	100327.8	[100]	ug/L	07:27:48
1	Mo 202.031†	1670.1	1625.9	[100]	ug/L	07:28:08
1	Ni 231.604†	4765.5	4602.6	[100]	ug/L	07:27:48
1	P 214.914†	1178.9	903.6	[500]	ug/L	07:28:08
1	Pb 220.353†	888.6	939.8	[100]	ug/L	07:28:08
1	S 181.975 Axial†	203.7	151.7	[200]	ug/L	07:28:08
1	Sb 206.836†	368.9	322.4	[100]	ug/L	07:28:08
1	Se 196.026†	149.4	175.7	[100]	ug/L	07:28:08
1	Si 251.611†	18108.2	17267.1	[500]	ug/L	07:27:48
1	Sn 189.927†	664.5	651.3	[100]	ug/L	07:28:08
1	Ti 334.940†	66419.0	66839.5	[100]	ug/L	07:27:48
1	Tl 190.801†	342.9	385.9	[100]	ug/L	07:28:08
1	U 409.014†	1313.4	3666.5	[100]	ug/L	07:27:43
1	V 292.402†	14183.7	15446.6	[100]	ug/L	07:27:48
1	Zn 213.857†	12980.8	11998.3	[100]	ug/L	07:27:48
1	SiO2†	18208.6	17336.8	[1069.5]	ug/L	07:29:14
2	Sc Radial	5476.4	5476.4	98.4	%	07:27:26
2	Y RADIAL	5792.1	5792.1	97.98	%	07:27:26
2	K 766.490 Radial†	8519.1	5948.1	[1000]	ug/L	07:27:21
2	Sr 421.552†	17168.0	17464.8	[100]	ug/L	07:27:26
2	Sc 361.383	905291.1	905291.1	100.71	%	07:28:13
2	Y 371.029	745901.0	745901.0	100.19	%	07:28:13
2	Ag 328.068†	23672.6	23135.8	[100]	ug/L	07:28:18
2	As 188.979†	249.3	282.4	[100]	ug/L	07:28:38
2	B 249.677†	4606.6	4600.1	[100]	ug/L	07:28:18
2	Ba 233.527†	14882.8	14780.5	[100]	ug/L	07:28:18
2	Be 313.107†	290759.3	293440.5	[100]	ug/L	07:28:13
2	Cd 226.502†	10066.1	10224.3	[100]	ug/L	07:28:18
2	Co 228.616†	5553.2	5601.2	[100]	ug/L	07:28:38
2	Cr 267.716†	10006.3	9855.6	[100]	ug/L	07:28:18
2	Cu 324.752†	41287.6	34940.9	[100]	ug/L	07:28:18
2	Mn 257.610†	102396.0	101182.6	[100]	ug/L	07:28:18
2	Mo 202.031†	1662.6	1631.0	[100]	ug/L	07:28:38
2	Ni 231.604†	4773.8	4646.6	[100]	ug/L	07:28:18
2	P 214.914†	1198.1	931.6	[500]	ug/L	07:28:38
2	Pb 220.353†	883.0	940.8	[100]	ug/L	07:28:38
2	S 181.975 Axial†	209.0	158.5	[200]	ug/L	07:28:38
2	Sb 206.836†	371.5	327.6	[100]	ug/L	07:28:38
2	Se 196.026†	142.2	169.7	[100]	ug/L	07:28:38
2	Si 251.611†	18120.6	17415.4	[500]	ug/L	07:28:18
2	Sn 189.927†	664.9	656.7	[100]	ug/L	07:28:38
2	Ti 334.940†	66659.4	67577.1	[100]	ug/L	07:28:18
2	Tl 190.801†	347.9	393.6	[100]	ug/L	07:28:38
2	U 409.014†	1421.3	3783.5	[100]	ug/L	07:28:13

2	V 292.402†	14119.4	15489.3	[100]	ug/L	07:28:18
2	Zn 213.857†	13044.4	12158.8	[100]	ug/L	07:28:18
2	SiO2†	18265.7	17530.3	[1069.5]	ug/L	07:29:19
3	Sc Radial	5563.0	5563.0	99.9	%	07:27:36
3	Y RADIAL	5921.7	5921.7	100.2	%	07:27:36
3	K 766.490 Radial†	8355.7	5649.7	[1000]	ug/L	07:27:31
3	Sr 421.552†	17531.8	17557.2	[100]	ug/L	07:27:36
3	Sc 361.383	900253.6	900253.6	100.15	%	07:28:44
3	Y 371.029	741176.9	741176.9	99.558	%	07:28:44
3	Ag 328.068†	23727.7	23322.3	[100]	ug/L	07:28:49
3	As 188.979†	243.9	278.4	[100]	ug/L	07:29:09
3	B 249.677†	4711.2	4730.1	[100]	ug/L	07:28:49
3	Ba 233.527†	15022.9	15003.1	[100]	ug/L	07:28:49
3	Be 313.107†	288700.8	293000.7	[100]	ug/L	07:28:44
3	Cd 226.502†	10225.1	10439.0	[100]	ug/L	07:28:49
3	Co 228.616†	5580.3	5659.1	[100]	ug/L	07:29:09
3	Cr 267.716†	10071.5	9976.3	[100]	ug/L	07:28:49
3	Cu 324.752†	41363.7	35246.4	[100]	ug/L	07:28:49
3	Mn 257.610†	103350.9	102705.1	[100]	ug/L	07:28:49
3	Mo 202.031†	1694.4	1672.0	[100]	ug/L	07:29:09
3	Ni 231.604†	4799.4	4698.6	[100]	ug/L	07:28:49
3	P 214.914†	1204.5	944.6	[500]	ug/L	07:29:09
3	Pb 220.353†	886.9	949.6	[100]	ug/L	07:29:09
3	S 181.975 Axial†	203.8	154.5	[200]	ug/L	07:29:09
3	Sb 206.836†	379.2	337.5	[100]	ug/L	07:29:09
3	Se 196.026†	150.9	179.2	[100]	ug/L	07:29:09
3	Si 251.611†	18313.4	17708.6	[500]	ug/L	07:28:49
3	Sn 189.927†	673.8	669.3	[100]	ug/L	07:29:09
3	Ti 334.940†	67148.8	68436.1	[100]	ug/L	07:28:49
3	Tl 190.801†	334.2	381.8	[100]	ug/L	07:29:09
3	U 409.014†	1275.4	3645.7	[100]	ug/L	07:28:44
3	V 292.402†	14218.0	15666.2	[100]	ug/L	07:28:49
3	Zn 213.857†	13125.4	12312.2	[100]	ug/L	07:28:49
3	SiO2†	18184.1	17550.3	[1069.5]	ug/L	07:29:24

Mean Data: S0.1

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	905911.6	5992.28	0.66%	100.78	%
Sc Radial	5508.9	47.15	0.86%	99.0	%
Y 371.029	745968.8	4826.23	0.65%	100.20	%
Y RADIAL	5837.5	73.00	1.25%	98.75	%
Ag 328.068†	23099.2	243.44	1.05%	[100]	ug/L
As 188.979†	279.5	2.55	0.91%	[100]	ug/L
B 249.677†	4668.6	65.27	1.40%	[100]	ug/L
Ba 233.527†	14827.9	156.96	1.06%	[100]	ug/L
Be 313.107†	293024.0	405.43	0.14%	[100]	ug/L
Cd 226.502†	10257.5	167.47	1.63%	[100]	ug/L
Co 228.616†	5602.0	56.71	1.01%	[100]	ug/L
Cr 267.716†	9882.2	84.02	0.85%	[100]	ug/L
Cu 324.752†	34855.5	439.91	1.26%	[100]	ug/L
K 766.490 Radial†	5853.1	176.23	3.01%	[1000]	ug/L
Mn 257.610†	101405.2	1204.15	1.19%	[100]	ug/L
Mo 202.031†	1643.0	25.23	1.54%	[100]	ug/L
Ni 231.604†	4649.2	48.08	1.03%	[100]	ug/L
P 214.914†	926.6	20.94	2.26%	[500]	ug/L
Pb 220.353†	943.4	5.41	0.57%	[100]	ug/L
S 181.975 Axial†	154.9	3.43	2.22%	[200]	ug/L
Sb 206.836†	329.1	7.67	2.33%	[100]	ug/L
Se 196.026†	174.9	4.78	2.73%	[100]	ug/L
Si 251.611†	17463.7	224.68	1.29%	[500]	ug/L
Sn 189.927†	659.1	9.26	1.40%	[100]	ug/L
Sr 421.552†	17532.2	58.93	0.34%	[100]	ug/L
Ti 334.940†	67617.6	799.06	1.18%	[100]	ug/L
Tl 190.801†	387.1	5.99	1.55%	[100]	ug/L
U 409.014†	3698.6	74.30	2.01%	[100]	ug/L
V 292.402†	15534.0	116.43	0.75%	[100]	ug/L
Zn 213.857†	12156.5	157.00	1.29%	[100]	ug/L
SiO2†	17472.5	117.91	0.67%	[1069.5]	ug/L

Sequence No.: 3
Sample ID: S0.5
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 3
Date Collected: 12/19/2009 07:31:35
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc Radial	5698.6	5698.6	102	%	07:33:27
1	Y RADIAL	5996.3	5996.3	101.4	%	07:33:27
1	Al 396.153Radial†	6661.4	6524.4	[5000]	ug/L	07:33:27
1	Ca 317.933Radial†	3487.8	3387.9	[5000]	ug/L	07:33:47
1	K 766.490 Radial†	31038.0	27610.5	[5000]	ug/L	07:33:27
1	Mg 279.077 IEC†	168.2	163.0	[5000]	ug/L	07:33:47
1	Sr 421.552†	85392.6	83437.2	[500]	ug/L	07:33:27
1	Sc 361.383	911583.3	911583.3	101.41	%	07:34:45
1	Y 371.029	742613.9	742613.9	99.751	%	07:34:45
1	Ag 328.068†	115620.3	113642.9	[500]	ug/L	07:34:50
1	As 188.979†	1338.4	1354.6	[500]	ug/L	07:35:10
1	B 249.677†	23962.3	23655.1	[500]	ug/L	07:34:50
1	Ba 233.527†	73782.2	72758.9	[500]	ug/L	07:34:50
1	Be 313.107†	1493604.4	1477568.7	[500]	ug/L	07:34:45
1	Cd 226.502†	51230.7	50747.6	[500]	ug/L	07:34:50
1	Co 228.616†	28624.9	28314.0	[500]	ug/L	07:34:50
1	Cr 267.716†	49613.8	48843.9	[500]	ug/L	07:34:50
1	Cu 324.752†	181967.9	173382.3	[500]	ug/L	07:34:50
1	Mn 257.610†	510769.1	503176.0	[500]	ug/L	07:34:45
1	Mo 202.031†	8205.8	8071.8	[500]	ug/L	07:35:10
1	Ni 231.604†	23096.0	22681.3	[500]	ug/L	07:34:50
1	P 214.914†	5002.6	4674.9	[2500]	ug/L	07:35:10
1	Pb 220.353†	4633.9	4633.5	[500]	ug/L	07:35:10
1	S 181.975 Axial†	856.2	795.3	[1000]	ug/L	07:35:10
1	Sb 206.836†	1688.5	1623.8	[500]	ug/L	07:35:10
1	Se 196.026†	880.9	897.1	[500]	ug/L	07:35:10
1	Si 251.611†	88216.3	86412.3	[2500]	ug/L	07:34:50
1	Sn 189.927†	3297.6	3248.2	[500]	ug/L	07:35:10
1	Ti 334.940†	343434.3	340046.8	[500]	ug/L	07:34:45
1	Tl 190.801†	1867.7	1889.8	[500]	ug/L	07:35:10
1	U 409.014†	15743.9	17897.2	[500]	ug/L	07:34:50
1	V 292.402†	77149.3	77546.1	[500]	ug/L	07:34:50
1	Zn 213.857†	61946.9	60292.0	[500]	ug/L	07:34:50
1	SiO2†	87667.2	85841.6	[5347.5]	ug/L	07:36:18
2	Sc Radial	5544.1	5544.1	99.6	%	07:33:52
2	Y RADIAL	5872.3	5872.3	99.34	%	07:33:52
2	Al 396.153Radial†	6702.3	6746.7	[5000]	ug/L	07:33:52
2	Ca 317.933Radial†	3502.6	3497.7	[5000]	ug/L	07:34:12
2	K 766.490 Radial†	31160.7	28578.6	[5000]	ug/L	07:33:52
2	Mg 279.077 IEC†	167.3	166.6	[5000]	ug/L	07:34:12
2	Sr 421.552†	86131.2	86503.3	[500]	ug/L	07:33:52
2	Sc 361.383	910470.8	910470.8	101.29	%	07:35:16
2	Y 371.029	742224.9	742224.9	99.699	%	07:35:16
2	Ag 328.068†	116498.7	114649.4	[500]	ug/L	07:35:21
2	As 188.979†	1351.2	1368.8	[500]	ug/L	07:35:41
2	B 249.677†	24291.1	24008.5	[500]	ug/L	07:35:21
2	Ba 233.527†	74164.9	73225.7	[500]	ug/L	07:35:21
2	Be 313.107†	1488084.5	1473918.6	[500]	ug/L	07:35:16
2	Cd 226.502†	51465.4	51041.1	[500]	ug/L	07:35:21
2	Co 228.616†	28756.1	28478.0	[500]	ug/L	07:35:21
2	Cr 267.716†	49856.9	49143.7	[500]	ug/L	07:35:21
2	Cu 324.752†	183493.8	175108.1	[500]	ug/L	07:35:21
2	Mn 257.610†	509468.2	502507.1	[500]	ug/L	07:35:16
2	Mo 202.031†	8230.1	8105.7	[500]	ug/L	07:35:41
2	Ni 231.604†	23282.9	22893.7	[500]	ug/L	07:35:21
2	P 214.914†	5048.0	4725.9	[2500]	ug/L	07:35:41
2	Pb 220.353†	4679.5	4684.1	[500]	ug/L	07:35:41
2	S 181.975 Axial†	854.5	794.6	[1000]	ug/L	07:35:41
2	Sb 206.836†	1691.8	1629.1	[500]	ug/L	07:35:41

2	Se 196.026†	899.7	916.8	[500]	ug/L	07:35:41
2	Si 251.611†	89036.4	87328.2	[2500]	ug/L	07:35:21
2	Sn 189.927†	3300.4	3255.0	[500]	ug/L	07:35:41
2	Ti 334.940†	342481.4	339519.8	[500]	ug/L	07:35:16
2	Tl 190.801†	1889.7	1913.8	[500]	ug/L	07:35:41
2	U 409.014†	15663.2	17836.5	[500]	ug/L	07:35:21
2	V 292.402†	77677.0	78160.0	[500]	ug/L	07:35:21
2	Zn 213.857†	62437.5	60851.0	[500]	ug/L	07:35:21
2	SiO2†	87988.4	86264.4	[5347.5]	ug/L	07:36:23
3	Sc Radial	5544.8	5544.8	99.6	%	07:34:17
3	Y RADIAL	5884.0	5884.0	99.54	%	07:34:17
3	Al 396.153Radial†	6724.5	6768.1	[5000]	ug/L	07:34:17
3	Ca 317.933Radial†	3514.9	3509.6	[5000]	ug/L	07:34:37
3	K 766.490 Radial†	31310.5	28724.8	[5000]	ug/L	07:34:17
3	Mg 279.077 IEC†	164.6	163.8	[5000]	ug/L	07:34:37
3	Sr 421.552†	86504.2	86866.2	[500]	ug/L	07:34:17
3	Sc 361.383	916258.2	916258.2	101.93	%	07:35:47
3	Y 371.029	744779.1	744779.1	100.04	%	07:35:47
3	Ag 328.068†	114994.9	112447.6	[500]	ug/L	07:35:52
3	As 188.979†	1341.9	1351.3	[500]	ug/L	07:36:12
3	B 249.677†	23873.3	23447.2	[500]	ug/L	07:35:52
3	Ba 233.527†	73326.7	71940.9	[500]	ug/L	07:35:52
3	Be 313.107†	1496868.1	1473256.1	[500]	ug/L	07:35:47
3	Cd 226.502†	50806.8	50073.9	[500]	ug/L	07:35:52
3	Co 228.616†	28469.0	28017.1	[500]	ug/L	07:35:52
3	Cr 267.716†	49159.5	48148.5	[500]	ug/L	07:35:52
3	Cu 324.752†	180929.5	171448.0	[500]	ug/L	07:35:52
3	Mn 257.610†	513596.8	503380.4	[500]	ug/L	07:35:47
3	Mo 202.031†	8179.4	8004.6	[500]	ug/L	07:36:12
3	Ni 231.604†	22942.9	22414.9	[500]	ug/L	07:35:52
3	P 214.914†	4998.7	4646.0	[2500]	ug/L	07:36:12
3	Pb 220.353†	4660.7	4636.5	[500]	ug/L	07:36:12
3	S 181.975 Axial†	854.8	789.6	[1000]	ug/L	07:36:12
3	Sb 206.836†	1673.4	1600.5	[500]	ug/L	07:36:12
3	Se 196.026†	875.7	887.7	[500]	ug/L	07:36:12
3	Si 251.611†	87985.4	85741.9	[2500]	ug/L	07:35:52
3	Sn 189.927†	3294.7	3228.8	[500]	ug/L	07:36:12
3	Ti 334.940†	345096.9	339950.1	[500]	ug/L	07:35:47
3	Tl 190.801†	1880.0	1892.5	[500]	ug/L	07:36:12
3	U 409.014†	15626.7	17703.1	[500]	ug/L	07:35:52
3	V 292.402†	76454.9	76476.7	[500]	ug/L	07:35:52
3	Zn 213.857†	61666.8	59705.6	[500]	ug/L	07:35:52
3	SiO2†	88510.5	86227.9	[5347.5]	ug/L	07:36:28

Mean Data: S0.5

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	912770.8	3070.96	0.34%	101.54	%
Sc Radial	5595.8	88.97	1.59%	101	%
Y 371.029	743206.0	1376.22	0.19%	99.831	%
Y RADIAL	5917.5	68.45	1.16%	100.1	%
Ag 328.068†	113579.9	1102.25	0.97%	[500]	ug/L
Al 396.153Radial†	6679.7	134.98	2.02%	[5000]	ug/L
As 188.979†	1358.2	9.33	0.69%	[500]	ug/L
B 249.677†	23703.6	283.81	1.20%	[500]	ug/L
Ba 233.527†	72641.8	650.34	0.90%	[500]	ug/L
Be 313.107†	1474914.5	2322.40	0.16%	[500]	ug/L
Ca 317.933Radial†	3465.0	67.07	1.94%	[5000]	ug/L
Cd 226.502†	50620.9	495.86	0.98%	[500]	ug/L
Co 228.616†	28269.7	233.63	0.83%	[500]	ug/L
Cr 267.716†	48712.0	510.51	1.05%	[500]	ug/L
Cu 324.752†	173312.8	1831.02	1.06%	[500]	ug/L
K 766.490 Radial†	28304.6	605.52	2.14%	[5000]	ug/L
Mg 279.077 IEC†	164.5	1.90	1.16%	[5000]	ug/L
Mn 257.610†	503021.2	456.81	0.09%	[500]	ug/L
Mo 202.031†	8060.7	51.43	0.64%	[500]	ug/L
Ni 231.604†	22663.3	239.92	1.06%	[500]	ug/L
P 214.914†	4682.3	40.43	0.86%	[2500]	ug/L
Pb 220.353†	4651.4	28.36	0.61%	[500]	ug/L
S 181.975 Axial†	793.2	3.11	0.39%	[1000]	ug/L

Sb 206.836†	1617.8	15.24	0.94%	[500]	ug/L
Se 196.026†	900.6	14.86	1.65%	[500]	ug/L
Si 251.611†	86494.1	796.32	0.92%	[2500]	ug/L
Sn 189.927†	3244.0	13.61	0.42%	[500]	ug/L
Sr 421.552†	85602.2	1883.74	2.20%	[500]	ug/L
Ti 334.940†	339838.9	280.53	0.08%	[500]	ug/L
Tl 190.801†	1898.7	13.14	0.69%	[500]	ug/L
U 409.014†	17812.3	99.34	0.56%	[500]	ug/L
V 292.402†	77394.2	851.88	1.10%	[500]	ug/L
Zn 213.857†	60282.9	572.79	0.95%	[500]	ug/L
SiO2†	86111.3	234.29	0.27%	[5347.5]	ug/L

Sequence No.: 4
Sample ID: SCAL
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 4
Date Collected: 12/19/2009 07:38:39
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: SCAL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc Radial	5458.4	5458.4	98.0	%	07:40:52
1	Y RADIAL	5752.0	5752.0	97.30	%	07:40:52
1	Al 396.153Radial†	13231.1	13511.3	[10000]	ug/L	07:40:32
1	Ca 317.933Radial†	6909.0	7027.2	[10000]	ug/L	07:40:52
1	Fe 238.204 Radial†	1208.9	1222.1	[10000]	ug/L	07:40:52
1	K 766.490 Radial†	58416.7	56869.0	[10000]	ug/L	07:40:32
1	Mg 279.077 IEC†	328.1	333.2	[10000]	ug/L	07:40:52
1	Na 589.592 Radial†	31728.7	33123.0	[10000]	ug/L	07:40:32
1	Sr 421.552†	167103.4	170447.0	[1000]	ug/L	07:40:32
1	Sc 361.383	883286.8	883286.8	98.262	%	07:41:56
1	Y 371.029	722299.4	722299.4	97.023	%	07:41:56
1	Ag 328.068†	229508.6	233197.9	[1000]	ug/L	07:41:56
1	As 188.979†	2687.9	2770.2	[1000]	ug/L	07:42:16
1	B 249.677†	48055.0	48930.9	[1000]	ug/L	07:41:56
1	Ba 233.527†	144993.0	147560.0	[1000]	ug/L	07:41:56
1	Be 313.107†	2940610.9	2997350.5	[1000]	ug/L	07:41:50
1	Cd 226.502†	100505.1	102511.8	[1000]	ug/L	07:41:56
1	Co 228.616†	56144.1	57224.2	[1000]	ug/L	07:41:56
1	Cr 267.716†	97363.7	99005.6	[1000]	ug/L	07:41:56
1	Cu 324.752†	355274.2	355502.2	[1000]	ug/L	07:41:56
1	Mn 257.610†	999949.7	1017143.7	[1000]	ug/L	07:41:50
1	Mo 202.031†	16404.5	16674.8	[1000]	ug/L	07:42:16
1	Ni 231.604†	45154.9	45859.9	[1000]	ug/L	07:41:56
1	P 214.914†	9756.0	9670.5	[5000]	ug/L	07:42:16
1	Pb 220.353†	9330.3	9559.4	[1000]	ug/L	07:42:16
1	S 181.975 Axial†	1660.2	1640.5	[2000]	ug/L	07:42:16
1	Sb 206.836†	3356.4	3374.5	[1000]	ug/L	07:42:16
1	Se 196.026†	1787.8	1847.9	[1000]	ug/L	07:42:16
1	Si 251.611†	175705.1	178235.2	[5000]	ug/L	07:41:56
1	Sn 189.927†	6616.7	6730.2	[1000]	ug/L	07:42:16
1	Ti 334.940†	682059.7	695510.4	[1000]	ug/L	07:41:50
1	Tl 190.801†	3759.8	3874.4	[1000]	ug/L	07:42:16
1	U 409.014†	33472.3	36436.5	[1000]	ug/L	07:41:56
1	V 292.402†	153695.1	157882.8	[1000]	ug/L	07:41:56
1	Zn 213.857†	120840.9	122184.6	[1000]	ug/L	07:41:56
1	SiO2†	176496.9	179011.8	[10695]	ug/L	07:43:25
2	Sc Radial	5481.8	5481.8	98.5	%	07:41:17
2	Y RADIAL	5756.9	5756.9	97.39	%	07:41:17
2	Al 396.153Radial†	13086.7	13307.2	[10000]	ug/L	07:40:57
2	Ca 317.933Radial†	6935.3	7023.9	[10000]	ug/L	07:41:17
2	Fe 238.204 Radial†	1218.3	1226.4	[10000]	ug/L	07:41:17
2	K 766.490 Radial†	58033.5	56226.2	[10000]	ug/L	07:40:57
2	Mg 279.077 IEC†	329.5	333.2	[10000]	ug/L	07:41:17
2	Na 589.592 Radial†	31540.3	32793.8	[10000]	ug/L	07:40:57
2	Sr 421.552†	166280.3	168885.5	[1000]	ug/L	07:40:57
2	Sc 361.383	889720.3	889720.3	98.978	%	07:42:27
2	Y 371.029	726788.9	726788.9	97.626	%	07:42:27
2	Ag 328.068†	231283.9	233302.6	[1000]	ug/L	07:42:27
2	As 188.979†	2694.6	2757.3	[1000]	ug/L	07:42:48
2	B 249.677†	48707.7	49236.7	[1000]	ug/L	07:42:27
2	Ba 233.527†	146245.8	147758.7	[1000]	ug/L	07:42:27
2	Be 313.107†	2946784.0	2981948.1	[1000]	ug/L	07:42:22
2	Cd 226.502†	101381.2	102657.4	[1000]	ug/L	07:42:27
2	Co 228.616†	56748.5	57421.7	[1000]	ug/L	07:42:27
2	Cr 267.716†	98089.1	99021.9	[1000]	ug/L	07:42:27
2	Cu 324.752†	358645.1	356293.5	[1000]	ug/L	07:42:27
2	Mn 257.610†	1003368.4	1013239.3	[1000]	ug/L	07:42:22
2	Mo 202.031†	16394.9	16544.3	[1000]	ug/L	07:42:48
2	Ni 231.604†	45567.5	45944.5	[1000]	ug/L	07:42:27

2	P 214.914†	9781.5	9624.4	[5000]	ug/L	07:42:48
2	Pb 220.353†	9327.8	9488.2	[1000]	ug/L	07:42:48
2	S 181.975 Axial†	1667.8	1636.1	[2000]	ug/L	07:42:48
2	Sb 206.836†	3359.7	3353.1	[1000]	ug/L	07:42:48
2	Se 196.026†	1796.9	1843.9	[1000]	ug/L	07:42:48
2	Si 251.611†	177399.5	178654.1	[5000]	ug/L	07:42:27
2	Sn 189.927†	6623.3	6688.2	[1000]	ug/L	07:42:48
2	Ti 334.940†	684913.7	693374.7	[1000]	ug/L	07:42:22
2	Tl 190.801†	3769.1	3856.1	[1000]	ug/L	07:42:48
2	U 409.014†	33664.1	36384.0	[1000]	ug/L	07:42:27
2	V 292.402†	154988.7	158058.7	[1000]	ug/L	07:42:27
2	Zn 213.857†	122079.3	122546.6	[1000]	ug/L	07:42:27
2	SiO2†	173385.7	174569.7	[10695]	ug/L	07:43:30
3	Sc Radial	5420.9	5420.9	97.4	%	07:41:42
3	Y RADIAL	5726.3	5726.3	96.87	%	07:41:42
3	Al 396.153Radial†	13241.2	13615.2	[10000]	ug/L	07:41:22
3	Ca 317.933Radial†	6857.1	7022.7	[10000]	ug/L	07:41:42
3	Fe 238.204 Radial†	1201.5	1223.0	[10000]	ug/L	07:41:42
3	K 766.490 Radial†	58301.6	57164.1	[10000]	ug/L	07:41:22
3	Mg 279.077 IEC†	322.7	330.1	[10000]	ug/L	07:41:42
3	Na 589.592 Radial†	31620.0	33235.8	[10000]	ug/L	07:41:22
3	Sr 421.552†	167104.9	171630.6	[1000]	ug/L	07:41:22
3	Sc 361.383	881299.8	881299.8	98.041	%	07:42:59
3	Y 371.029	720248.3	720248.3	96.747	%	07:42:59
3	Ag 328.068†	229110.1	233318.0	[1000]	ug/L	07:42:59
3	As 188.979†	2675.8	2764.1	[1000]	ug/L	07:43:19
3	B 249.677†	48076.0	49062.6	[1000]	ug/L	07:42:59
3	Ba 233.527†	144549.3	147440.1	[1000]	ug/L	07:42:59
3	Be 313.107†	2928638.8	2991886.7	[1000]	ug/L	07:42:54
3	Cd 226.502†	100101.7	102331.0	[1000]	ug/L	07:42:59
3	Co 228.616†	56030.6	57237.3	[1000]	ug/L	07:42:59
3	Cr 267.716†	96920.1	98776.5	[1000]	ug/L	07:42:59
3	Cu 324.752†	354627.6	355657.8	[1000]	ug/L	07:42:59
3	Mn 257.610†	997443.7	1016882.0	[1000]	ug/L	07:42:54
3	Mo 202.031†	16337.4	16644.0	[1000]	ug/L	07:43:19
3	Ni 231.604†	45005.2	45810.8	[1000]	ug/L	07:42:59
3	P 214.914†	9701.9	9637.7	[5000]	ug/L	07:43:19
3	Pb 220.353†	9312.6	9562.7	[1000]	ug/L	07:43:19
3	S 181.975 Axial†	1665.3	1649.6	[2000]	ug/L	07:43:19
3	Sb 206.836†	3339.7	3365.2	[1000]	ug/L	07:43:19
3	Se 196.026†	1778.6	1842.6	[1000]	ug/L	07:43:19
3	Si 251.611†	175462.8	178391.2	[5000]	ug/L	07:42:59
3	Sn 189.927†	6593.5	6721.7	[1000]	ug/L	07:43:19
3	Ti 334.940†	680484.2	695468.5	[1000]	ug/L	07:42:54
3	Tl 190.801†	3751.4	3874.4	[1000]	ug/L	07:43:19
3	U 409.014†	33504.8	36546.4	[1000]	ug/L	07:42:59
3	V 292.402†	153091.7	157620.0	[1000]	ug/L	07:42:59
3	Zn 213.857†	120479.7	122093.4	[1000]	ug/L	07:42:59
3	SiO2†	176761.6	179686.8	[10695]	ug/L	07:43:35

Mean Data: SCAL

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	884768.9	4401.57	0.50%	98.427	%
Sc Radial	5453.7	30.74	0.56%	98.0	%
Y 371.029	723112.2	3345.20	0.46%	97.132	%
Y RADIAL	5745.1	16.46	0.29%	97.19	%
Ag 328.068†	233272.8	65.36	0.03%	[1000]	ug/L
Al 396.153Radial†	13477.9	156.70	1.16%	[10000]	ug/L
As 188.979†	2763.9	6.49	0.23%	[1000]	ug/L
B 249.677†	49076.7	153.41	0.31%	[1000]	ug/L
Ba 233.527†	147586.3	160.90	0.11%	[1000]	ug/L
Be 313.107†	2990395.1	7808.79	0.26%	[1000]	ug/L
Ca 317.933Radial†	7024.6	2.35	0.03%	[10000]	ug/L
Cd 226.502†	102500.1	163.51	0.16%	[1000]	ug/L
Co 228.616†	57294.4	110.43	0.19%	[1000]	ug/L
Cr 267.716†	98934.7	137.20	0.14%	[1000]	ug/L
Cu 324.752†	355817.8	419.23	0.12%	[1000]	ug/L
Fe 238.204 Radial†	1223.8	2.26	0.18%	[10000]	ug/L
K 766.490 Radial†	56753.1	479.54	0.84%	[10000]	ug/L

Mg 279.077 IEC†	332.2	1.81	0.55%	[10000]	ug/L
Mn 257.610†	1015755.0	2182.60	0.21%	[1000]	ug/L
Mo 202.031†	16621.0	68.19	0.41%	[1000]	ug/L
Na 589.592 Radial†	33050.9	229.64	0.69%	[10000]	ug/L
Ni 231.604†	45871.7	67.60	0.15%	[1000]	ug/L
P 214.914†	9644.2	23.71	0.25%	[5000]	ug/L
Pb 220.353†	9536.8	42.08	0.44%	[1000]	ug/L
S 181.975 Axial†	1642.1	6.88	0.42%	[2000]	ug/L
Sb 206.836†	3364.3	10.72	0.32%	[1000]	ug/L
Se 196.026†	1844.8	2.75	0.15%	[1000]	ug/L
Si 251.611†	178426.8	211.73	0.12%	[5000]	ug/L
Sn 189.927†	6713.4	22.19	0.33%	[1000]	ug/L
Sr 421.552†	170321.0	1376.88	0.81%	[1000]	ug/L
Ti 334.940†	694784.6	1221.12	0.18%	[1000]	ug/L
Tl 190.801†	3868.3	10.55	0.27%	[1000]	ug/L
U 409.014†	36455.7	82.89	0.23%	[1000]	ug/L
V 292.402†	157853.8	220.80	0.14%	[1000]	ug/L
Zn 213.857†	122274.9	239.67	0.20%	[1000]	ug/L
SiO2†	177756.1	2780.09	1.56%	[10695]	ug/L

Sequence No.: 5
Sample ID: S10
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 5
Date Collected: 12/19/2009 07:45:47
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S10

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc Radial	5443.9	5443.9	97.8	%	07:48:00
1	Y RADIAL	5719.5	5719.5	96.75	%	07:48:00
1	Al 396.153Radial†	66553.4	68078.1	[50000]	ug/L	07:47:40
1	Ca 317.933Radial†	34047.9	34799.9	[50000]	ug/L	07:47:40
1	Fe 238.204 Radial†	2348.4	2390.8	[20000]	ug/L	07:48:00
1	Mg 279.077 IEC†	1563.4	1597.4	[50000]	ug/L	07:48:00
1	Na 589.592 Radial†	64624.0	66850.2	[20000]	ug/L	07:47:40
1	Sc 361.383	885309.8	885309.8	98.487	%	07:48:57
1	Y 371.029	716976.9	716976.9	96.308	%	07:48:57
2	Sc Radial	5354.0	5354.0	96.2	%	07:48:25
2	Y RADIAL	5644.3	5644.3	95.48	%	07:48:25
2	Al 396.153Radial†	66773.6	69450.0	[50000]	ug/L	07:48:05
2	Ca 317.933Radial†	34121.7	35461.4	[50000]	ug/L	07:48:05
2	Fe 238.204 Radial†	2313.7	2395.0	[20000]	ug/L	07:48:25
2	Mg 279.077 IEC†	1545.8	1606.0	[50000]	ug/L	07:48:25
2	Na 589.592 Radial†	64658.1	67995.5	[20000]	ug/L	07:48:05
2	Sc 361.383	885315.1	885315.1	98.488	%	07:49:03
2	Y 371.029	716928.7	716928.7	96.301	%	07:49:03
3	Sc Radial	5394.3	5394.3	96.9	%	07:48:50
3	Y RADIAL	5697.1	5697.1	96.38	%	07:48:50
3	Al 396.153Radial†	66387.5	68533.3	[50000]	ug/L	07:48:30
3	Ca 317.933Radial†	33886.8	34954.2	[50000]	ug/L	07:48:30
3	Fe 238.204 Radial†	2336.3	2400.4	[20000]	ug/L	07:48:50
3	Mg 279.077 IEC†	1571.3	1620.3	[50000]	ug/L	07:48:50
3	Na 589.592 Radial†	64043.1	66859.0	[20000]	ug/L	07:48:30
3	Sc 361.383	884318.5	884318.5	98.377	%	07:49:08
3	Y 371.029	714960.3	714960.3	96.037	%	07:49:08

Mean Data: S10

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	884981.1	573.86	0.06%	98.451	%
Sc Radial	5397.4	45.03	0.83%	96.9	%
Y 371.029	716288.6	1150.60	0.16%	96.215	%
Y RADIAL	5687.0	38.61	0.68%	96.20	%
Al 396.153Radial†	68687.1	698.77	1.02%	[50000]	ug/L
Ca 317.933Radial†	35071.8	346.05	0.99%	[50000]	ug/L
Fe 238.204 Radial†	2395.4	4.80	0.20%	[20000]	ug/L
Mg 279.077 IEC†	1607.9	11.55	0.72%	[50000]	ug/L
Na 589.592 Radial†	67234.9	658.71	0.98%	[20000]	ug/L

Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 328.068	3	Lin Thru 0	0.0	232.0	0.00000	0.999945	
Al 396.153Radial	3	Lin Thru 0	0.0	1.372	0.00000	0.999990	
As 188.979	3	Lin Thru 0	0.0	2.755	0.00000	0.999976	
B 249.677	3	Lin Thru 0	0.0	48.73	0.00000	0.999900	
Ba 233.527	3	Lin Thru 0	0.0	147.1	0.00000	0.999980	
Be 313.107	3	Lin Thru 0	0.0	2982	0.00000	0.999984	
Ca 317.933Radial	3	Lin Thru 0	0.0	0.7014	0.00000	0.999999	
Cd 226.502	3	Lin Thru 0	0.0	102.3	0.00000	0.999988	
Co 228.616	3	Lin Thru 0	0.0	57.13	0.00000	0.999985	
Cr 267.716	3	Lin Thru 0	0.0	98.63	0.00000	0.999981	
Cu 324.752	3	Lin Thru 0	0.0	353.9	0.00000	0.999946	
Fe 238.204 Radia	2	Lin Thru 0	0.0	0.1203	0.00000	0.999962	
K 766.490 Radial	3	Lin Thru 0	0.0	5.674	0.00000	0.999995	

Mg 279.077 IEC	3	Lin Thru 0	0.0	0.0322	0.00000	0.999978
Mn 257.610	3	Lin Thru 0	0.0	1014	0.00000	0.999993
Mo 202.031	3	Lin Thru 0	0.0	16.52	0.00000	0.999927
Na 589.592 Radia	2	Lin Thru 0	0.0	3.350	0.00000	0.999977
Ni 231.604	3	Lin Thru 0	0.0	45.77	0.00000	0.999988
P 214.914	3	Lin Thru 0	0.0	1.917	0.00000	0.999928
Pb 220.353	3	Lin Thru 0	0.0	9.490	0.00000	0.999952
S 181.975 Axial	3	Lin Thru 0	0.0	0.8151	0.00000	0.999897
Sb 206.836	3	Lin Thru 0	0.0	3.338	0.00000	0.999881
Se 196.026	3	Lin Thru 0	0.0	1.835	0.00000	0.999946
Si 251.611	3	Lin Thru 0	0.0	35.46	0.00000	0.999924
Sn 189.927	3	Lin Thru 0	0.0	6.668	0.00000	0.999909
Sr 421.552	3	Lin Thru 0	0.0	170.5	0.00000	0.999995
Ti 334.940	3	Lin Thru 0	0.0	691.6	0.00000	0.999960
Tl 190.801	3	Lin Thru 0	0.0	3.854	0.00000	0.999973
U 409.014	3	Lin Thru 0	0.0	36.29	0.00000	0.999957
V 292.402	3	Lin Thru 0	0.0	157.2	0.00000	0.999969
Zn 213.857	3	Lin Thru 0	0.0	121.9	0.00000	0.999984
SiO2	3	Lin Thru 0	0.0	16.52	0.00000	0.999922

Sequence No.: 6
Sample ID: ICV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 9
Date Collected: 12/19/2009 07:51:20
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5444.4	5444.4	97.8	%			07:53:13
1	Y RADIAL	5780.0	5780.0	97.78	%			07:53:13
1	Al 396.153Radial†	6892.9	7064.9	5125.0	ug/L	5125.0	ppb	07:53:13
1	Ca 317.933Radial†	3491.7	3551.0	5062.7	ug/L	5062.7	ppb	07:53:33
1	Fe 238.204 Radial†	623.4	626.6	5224.6	ug/L	5224.6	ppb	07:53:33
1	K 766.490 Radial†	17054.5	14727.1	2590.2	ug/L	2590.2	ppb	07:53:13
1	Mg 279.077 IEC†	179.6	182.2	5664.2	ug/L	5664.2	ppb	07:53:33
1	Na 589.592 Radial†	7634.6	8568.6	2557.5	ug/L	2557.5	ppb	07:53:13
1	Sr 421.552†	91042.1	93109.2	545.93	ug/L	545.93	ppb	07:53:13
1	Sc 361.383	921038.2	921038.2	102.46	%			07:54:30
1	Y 371.029	751036.4	751036.4	100.88	%			07:54:30
1	Ag 328.068†	61913.3	60055.9	262.06	ug/L	262.06	ppb	07:54:30
1	As 188.979†	1299.5	1303.1	477.36	ug/L	477.36	ppb	07:54:50
1	B 249.677†	25924.6	25327.6	517.83	ug/L	517.83	ppb	07:54:30
1	Ba 233.527†	77370.0	75513.6	514.57	ug/L	514.57	ppb	07:54:30
1	Be 313.107†	792101.8	777801.5	261.82	ug/L	261.82	ppb	07:54:30
1	Cd 226.502†	52492.9	51460.8	503.08	ug/L	503.08	ppb	07:54:30
1	Co 228.616†	29141.1	28528.1	499.63	ug/L	499.63	ppb	07:54:50
1	Cr 267.716†	49609.9	48337.8	490.90	ug/L	490.90	ppb	07:54:30
1	Cu 324.752†	192334.8	181658.1	513.52	ug/L	513.52	ppb	07:54:30
1	Mn 257.610†	537446.4	524042.0	517.32	ug/L	517.32	ppb	07:54:30
1	Mo 202.031†	9083.7	8845.6	535.80	ug/L	535.80	ppb	07:54:50
1	Ni 231.604†	23391.3	22735.7	496.44	ug/L	496.44	ppb	07:54:50
1	P 214.914†	5165.2	4783.0	2417.5	ug/L	2417.5	ppb	07:54:50
1	Pb 220.353†	4811.1	4759.5	503.19	ug/L	503.19	ppb	07:54:50
1	S 181.975 Axial†	2127.2	2027.1	2485.8	ug/L	2485.8	ppb	07:54:50
1	Sb 206.836†	1721.3	1638.8	499.83	ug/L	499.83	ppb	07:54:50
1	Se 196.026†	4795.0	4708.3	2583.5	ug/L	2583.5	ppb	07:54:50
1	Si 251.611†	177060.6	172229.0	4844.6	ug/L	4844.6	ppb	07:54:30
1	Sn 189.927†	3651.7	3560.4	534.58	ug/L	534.58	ppb	07:54:50
1	Ti 334.940†	352297.4	345220.5	499.01	ug/L	499.01	ppb	07:54:30
1	Tl 190.801†	2053.7	2052.4	535.78	ug/L	535.78	ppb	07:54:50
1	U 409.014†	15881.3	17872.0	490.81	ug/L	490.81	ppb	07:54:30
1	V 292.402†	80574.1	80107.6	516.71	ug/L	516.71	ppb	07:54:30
1	Zn 213.857†	65324.0	62961.0	511.89	ug/L	511.89	ppb	07:54:30
1	SiO2†	175583.6	170758.3	10313	ug/L	10313	ppb	07:55:48
2	Sc Radial	5630.4	5630.4	101	%			07:53:38
2	Y RADIAL	5980.9	5980.9	101.2	%			07:53:38
2	Al 396.153Radial†	6940.6	6879.1	4989.5	ug/L	4989.5	ppb	07:53:38
2	Ca 317.933Radial†	3554.1	3494.7	4982.5	ug/L	4982.5	ppb	07:53:58
2	Fe 238.204 Radial†	635.9	617.9	5152.2	ug/L	5152.2	ppb	07:53:58
2	K 766.490 Radial†	17212.3	14306.8	2516.2	ug/L	2516.2	ppb	07:53:38
2	Mg 279.077 IEC†	175.9	172.5	5363.7	ug/L	5363.7	ppb	07:53:58
2	Na 589.592 Radial†	7648.7	8324.6	2484.7	ug/L	2484.7	ppb	07:53:38
2	Sr 421.552†	91649.9	90634.1	531.42	ug/L	531.42	ppb	07:53:38
2	Sc 361.383	912402.0	912402.0	101.50	%			07:54:56
2	Y 371.029	745300.6	745300.6	100.11	%			07:54:56
2	Ag 328.068†	61182.6	59907.8	261.40	ug/L	261.40	ppb	07:54:56
2	As 188.979†	1284.0	1299.8	476.15	ug/L	476.15	ppb	07:55:17
2	B 249.677†	25547.6	25195.7	515.13	ug/L	515.13	ppb	07:54:56
2	Ba 233.527†	76885.1	75750.7	516.17	ug/L	516.17	ppb	07:54:56
2	Be 313.107†	784684.8	777811.5	261.83	ug/L	261.83	ppb	07:54:56
2	Cd 226.502†	52050.7	51510.1	503.57	ug/L	503.57	ppb	07:54:56
2	Co 228.616†	28980.3	28638.8	501.58	ug/L	501.58	ppb	07:55:17
2	Cr 267.716†	49329.9	48520.2	492.75	ug/L	492.75	ppb	07:54:56
2	Cu 324.752†	189448.0	180590.8	510.50	ug/L	510.50	ppb	07:54:56
2	Mn 257.610†	532430.5	524065.1	517.34	ug/L	517.34	ppb	07:54:56
2	Mo 202.031†	9043.5	8889.8	538.48	ug/L	538.48	ppb	07:55:17
2	Ni 231.604†	23282.0	22844.1	498.80	ug/L	498.80	ppb	07:55:17

2	P 214.914†	5126.0	4792.1	2422.8	ug/L	2422.8 ppb	07:55:17
2	Pb 220.353†	4770.6	4764.1	503.66	ug/L	503.66 ppb	07:55:17
2	S 181.975 Axial†	2107.0	2026.8	2485.5	ug/L	2485.5 ppb	07:55:17
2	Sb 206.836†	1722.3	1655.6	504.91	ug/L	504.91 ppb	07:55:17
2	Se 196.026†	4761.3	4719.4	2589.3	ug/L	2589.3 ppb	07:55:17
2	Si 251.611†	174947.2	171782.5	4832.0	ug/L	4832.0 ppb	07:54:56
2	Sn 189.927†	3624.1	3567.0	535.55	ug/L	535.55 ppb	07:55:17
2	Ti 334.940†	348230.1	344467.9	497.92	ug/L	497.92 ppb	07:54:56
2	Tl 190.801†	2015.0	2033.3	530.79	ug/L	530.79 ppb	07:55:17
2	U 409.014†	15752.9	17892.2	491.37	ug/L	491.37 ppb	07:54:56
2	V 292.402†	79807.6	80096.8	516.68	ug/L	516.68 ppb	07:54:56
2	Zn 213.857†	64572.3	62823.9	510.77	ug/L	510.77 ppb	07:54:56
2	SiO2†	173765.9	170589.5	10303	ug/L	10303 ppb	07:55:53
3	Sc Radial	5610.4	5610.4	101	%		07:54:03
3	Y RADIAL	5950.9	5950.9	100.7	%		07:54:03
3	Al 396.153Radial†	6959.4	6922.3	5020.8	ug/L	5020.8 ppb	07:54:03
3	Ca 317.933Radial†	3558.7	3511.8	5006.8	ug/L	5006.8 ppb	07:54:23
3	Fe 238.204 Radial†	634.6	618.9	5160.6	ug/L	5160.6 ppb	07:54:23
3	K 766.490 Radial†	17312.4	14466.9	2544.4	ug/L	2544.4 ppb	07:54:03
3	Mg 279.077 IEC†	177.6	174.8	5435.5	ug/L	5435.5 ppb	07:54:23
3	Na 589.592 Radial†	7656.2	8359.1	2494.9	ug/L	2494.9 ppb	07:54:03
3	Sr 421.552†	91549.5	90857.7	532.73	ug/L	532.73 ppb	07:54:03
3	Sc 361.383	914520.1	914520.1	101.74	%		07:55:22
3	Y 371.029	748122.2	748122.2	100.49	%		07:55:22
3	Ag 328.068†	61352.7	59935.5	261.53	ug/L	261.53 ppb	07:55:22
3	As 188.979†	1301.5	1314.1	481.34	ug/L	481.34 ppb	07:55:43
3	B 249.677†	25536.8	25126.8	513.71	ug/L	513.71 ppb	07:55:22
3	Ba 233.527†	76908.9	75598.7	515.15	ug/L	515.15 ppb	07:55:22
3	Be 313.107†	787955.5	779235.9	262.30	ug/L	262.30 ppb	07:55:22
3	Cd 226.502†	51998.8	51340.4	501.91	ug/L	501.91 ppb	07:55:22
3	Co 228.616†	29162.0	28751.3	503.56	ug/L	503.56 ppb	07:55:43
3	Cr 267.716†	49364.3	48441.5	491.96	ug/L	491.96 ppb	07:55:22
3	Cu 324.752†	189845.4	180549.1	510.38	ug/L	510.38 ppb	07:55:22
3	Mn 257.610†	532871.1	523283.3	516.56	ug/L	516.56 ppb	07:55:22
3	Mo 202.031†	9106.6	8931.3	540.99	ug/L	540.99 ppb	07:55:43
3	Ni 231.604†	23413.4	22920.2	500.46	ug/L	500.46 ppb	07:55:43
3	P 214.914†	5156.1	4810.0	2432.1	ug/L	2432.1 ppb	07:55:43
3	Pb 220.353†	4797.5	4779.7	505.31	ug/L	505.31 ppb	07:55:43
3	S 181.975 Axial†	2135.9	2050.4	2514.5	ug/L	2514.5 ppb	07:55:43
3	Sb 206.836†	1729.7	1659.0	506.03	ug/L	506.03 ppb	07:55:43
3	Se 196.026†	4771.4	4718.5	2588.8	ug/L	2588.8 ppb	07:55:43
3	Si 251.611†	175040.1	171474.6	4823.3	ug/L	4823.3 ppb	07:55:22
3	Sn 189.927†	3644.0	3578.3	537.25	ug/L	537.25 ppb	07:55:43
3	Ti 334.940†	349022.1	344451.8	497.89	ug/L	497.89 ppb	07:55:22
3	Tl 190.801†	2027.2	2040.6	532.68	ug/L	532.68 ppb	07:55:43
3	U 409.014†	15749.2	17852.5	490.28	ug/L	490.28 ppb	07:55:22
3	V 292.402†	80316.8	80415.2	518.74	ug/L	518.74 ppb	07:55:22
3	Zn 213.857†	64628.8	62732.0	510.01	ug/L	510.01 ppb	07:55:22
3	SiO2†	176402.7	172784.8	10436	ug/L	10436 ppb	07:55:59

Mean Data: ICV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	915986.8	101.90	%	0.501				0.49%
Sc Radial	5561.7	99.9	%	1.83				1.84%
Y 371.029	748153.1	100.50	%	0.385				0.38%
Y RADIAL	5903.9	99.87	%	1.834				1.84%
Ag 328.068†	59966.4	261.67	ug/L	0.350	261.67	ppb	0.350	0.13%
QC value within limits for Ag 328.068 Recovery = 104.67%								
Al 396.153Radial†	6955.4	5045.1	ug/L	70.93	5045.1	ppb	70.93	1.41%
QC value within limits for Al 396.153Radial Recovery = 100.90%								
As 188.979†	1305.7	478.28	ug/L	2.714	478.28	ppb	2.714	0.57%
QC value within limits for As 188.979 Recovery = 95.66%								
B 249.677†	25216.7	515.56	ug/L	2.094	515.56	ppb	2.094	0.41%
QC value within limits for B 249.677 Recovery = 103.11%								
Ba 233.527†	75621.0	515.30	ug/L	0.815	515.30	ppb	0.815	0.16%
QC value within limits for Ba 233.527 Recovery = 103.06%								
Be 313.107†	778283.0	261.98	ug/L	0.276	261.98	ppb	0.276	0.11%
QC value within limits for Be 313.107 Recovery = 104.79%								
Ca 317.933Radial†	3519.1	5017.3	ug/L	41.14	5017.3	ppb	41.14	0.82%

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   QC value within limits for Ca 317.933Radial  Recovery = 100.35%
Cd 226.502†          51437.1      502.85 ug/L        0.853      502.85 ppb        0.853   0.17%
   QC value within limits for Cd 226.502  Recovery = 100.57%
Co 228.616†          28639.4      501.59 ug/L        1.962      501.59 ppb        1.962   0.39%
   QC value within limits for Co 228.616  Recovery = 100.32%
Cr 267.716†          48433.2      491.87 ug/L        0.927      491.87 ppb        0.927   0.19%
   QC value within limits for Cr 267.716  Recovery = 98.37%
Cu 324.752†         180932.7      511.46 ug/L        1.778      511.46 ppb        1.778   0.35%
   QC value within limits for Cu 324.752  Recovery = 102.29%
Fe 238.204 Radial†     621.1      5179.1 ug/L       39.57      5179.1 ppb       39.57   0.76%
   QC value within limits for Fe 238.204 Radial  Recovery = 103.58%
K 766.490 Radial†    14500.3      2550.3 ug/L       37.36      2550.3 ppb       37.36   1.47%
   QC value within limits for K 766.490 Radial  Recovery = 102.01%
Mg 279.077 IEC†        176.5      5487.8 ug/L      156.96      5487.8 ppb      156.96   2.86%
   QC value within limits for Mg 279.077 IEC  Recovery = 109.76%
Mn 257.610†         523796.8      517.07 ug/L        0.440      517.07 ppb        0.440   0.09%
   QC value within limits for Mn 257.610  Recovery = 103.41%
Mo 202.031†          8888.9      538.42 ug/L        2.593      538.42 ppb        2.593   0.48%
   QC value within limits for Mo 202.031  Recovery = 107.68%
Na 589.592 Radial†   8417.4      2512.4 ug/L       39.42      2512.4 ppb       39.42   1.57%
   QC value within limits for Na 589.592 Radial  Recovery = 100.49%
Ni 231.604†          22833.3      498.57 ug/L        2.025      498.57 ppb        2.025   0.41%
   QC value within limits for Ni 231.604  Recovery = 99.71%
P 214.914†           4795.0      2424.1 ug/L        7.41      2424.1 ppb        7.41   0.31%
   QC value within limits for P 214.914  Recovery = 96.96%
Pb 220.353†          4767.8      504.05 ug/L        1.114      504.05 ppb        1.114   0.22%
   QC value within limits for Pb 220.353  Recovery = 100.81%
S 181.975 Axial†     2034.8      2495.3 ug/L       16.65      2495.3 ppb       16.65   0.67%
   QC value within limits for S 181.975 Axial  Recovery = 99.81%
Sb 206.836†          1651.1      503.59 ug/L        3.303      503.59 ppb        3.303   0.66%
   QC value within limits for Sb 206.836  Recovery = 100.72%
Se 196.026†          4715.4      2587.2 ug/L        3.24      2587.2 ppb        3.24   0.13%
   QC value within limits for Se 196.026  Recovery = 103.49%
Si 251.611†         171828.7      4833.3 ug/L       10.74      4833.3 ppb       10.74   0.22%
   QC value within limits for Si 251.611  Recovery = 96.67%
Sn 189.927†          3568.6      535.79 ug/L        1.350      535.79 ppb        1.350   0.25%
   QC value within limits for Sn 189.927  Recovery = 107.16%
Sr 421.552†         91533.7      536.69 ug/L        8.027      536.69 ppb        8.027   1.50%
   QC value within limits for Sr 421.552  Recovery = 107.34%
Ti 334.940†         344713.4      498.27 ug/L        0.637      498.27 ppb        0.637   0.13%
   QC value within limits for Ti 334.940  Recovery = 99.65%
Tl 190.801†          2042.1      533.08 ug/L        2.515      533.08 ppb        2.515   0.47%
   QC value within limits for Tl 190.801  Recovery = 106.62%
U 409.014†          17872.2      490.82 ug/L        0.546      490.82 ppb        0.546   0.11%
   QC value within limits for U 409.014  Recovery = 98.16%
V 292.402†          80206.5      517.38 ug/L        1.182      517.38 ppb        1.182   0.23%
   QC value within limits for V 292.402  Recovery = 103.48%
Zn 213.857†         62838.9      510.89 ug/L        0.949      510.89 ppb        0.949   0.19%
   QC value within limits for Zn 213.857  Recovery = 102.18%
SiO2†              171377.5       10351 ug/L         73.9       10351 ppb         73.9   0.71%
   QC value within limits for SiO2  Recovery = 96.78%
All analyte(s) passed QC.
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Sequence No.: 7
Sample ID: ICB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 10
Date Collected: 12/19/2009 07:58:10
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5633.0	5633.0	101	%			08:00:02
1	Y RADIAL	5992.9	5992.9	101.4	%			08:00:02
1	Al 396.153Radial†	-23.8	-7.1	-5.2088	ug/L	-5.2088	ppb	08:00:02
1	Ca 317.933Radial†	11.5	-8.2	-11.756	ug/L	-11.756	ppb	08:00:22
1	Fe 238.204 Radial†	9.0	-2.0	-16.794	ug/L	-16.794	ppb	08:00:22
1	K 766.490 Radial†	2846.2	100.6	17.727	ug/L	17.727	ppb	08:00:02
1	Mg 279.077 IEC†	-0.2	-1.6	-49.006	ug/L	-49.006	ppb	08:00:22
1	Na 589.592 Radial†	-746.7	23.7	7.0683	ug/L	7.0683	ppb	08:00:02
1	Sr 421.552†	14.5	26.1	0.1533	ug/L	0.1533	ppb	08:00:02
1	Sc 361.383	908352.1	908352.1	101.05	%			08:01:19
1	Y 371.029	753325.8	753325.8	101.19	%			08:01:19
1	Ag 328.068†	383.8	9.9	0.0412	ug/L	0.0412	ppb	08:01:19
1	As 188.979†	-35.3	-0.1	-0.0516	ug/L	-0.0516	ppb	08:01:39
1	B 249.677†	34.1	59.7	1.2279	ug/L	1.2279	ppb	08:01:19
1	Ba 233.527†	-2.6	0.0	-0.0011	ug/L	-0.0011	ppb	08:01:39
1	Be 313.107†	-4773.8	6.9	0.0026	ug/L	0.0026	ppb	08:01:19
1	Cd 226.502†	-211.2	20.1	0.1987	ug/L	0.1987	ppb	08:01:39
1	Co 228.616†	-85.3	2.7	0.0493	ug/L	0.0493	ppb	08:01:39
1	Cr 267.716†	100.9	19.7	0.2010	ug/L	0.2010	ppb	08:01:39
1	Cu 324.752†	6054.8	-63.8	-0.1810	ug/L	-0.1810	ppb	08:01:19
1	Mn 257.610†	529.0	32.0	0.0308	ug/L	0.0308	ppb	08:01:39
1	Mo 202.031†	31.0	10.8	0.6520	ug/L	0.6520	ppb	08:01:39
1	Ni 231.604†	105.2	10.5	0.2291	ug/L	0.2291	ppb	08:01:39
1	P 214.914†	265.3	4.5	2.4195	ug/L	2.4195	ppb	08:01:39
1	Pb 220.353†	-57.8	6.9	0.7269	ug/L	0.7269	ppb	08:01:39
1	S 181.975 Axial†	47.4	-2.1	-2.6173	ug/L	-2.6173	ppb	08:01:39
1	Sb 206.836†	45.9	4.2	1.2983	ug/L	1.2983	ppb	08:01:39
1	Se 196.026†	-30.7	-1.9	-1.0898	ug/L	-1.0898	ppb	08:01:39
1	Si 251.611†	614.6	30.7	0.8426	ug/L	0.8426	ppb	08:01:39
1	Sn 189.927†	18.1	14.4	2.1560	ug/L	2.1560	ppb	08:01:39
1	Ti 334.940†	-1316.1	85.1	0.1251	ug/L	0.1251	ppb	08:01:19
1	Tl 190.801†	-43.5	5.0	1.2953	ug/L	1.2953	ppb	08:01:39
1	U 409.014†	-2622.0	-222.6	-6.1300	ug/L	-6.1300	ppb	08:01:19
1	V 292.402†	-1532.7	-47.3	-0.3022	ug/L	-0.3022	ppb	08:01:19
1	Zn 213.857†	813.8	11.8	0.0988	ug/L	0.0988	ppb	08:01:39
1	SiO2†	610.2	-2.8	-0.2235	ug/L	-0.2235	ppb	08:02:35
2	Sc Radial	5554.2	5554.2	99.8	%			08:00:28
2	Y RADIAL	5938.0	5938.0	100.4	%			08:00:28
2	Al 396.153Radial†	-36.9	-20.6	-14.990	ug/L	-14.990	ppb	08:00:28
2	Ca 317.933Radial†	14.6	-5.0	-7.0814	ug/L	-7.0814	ppb	08:00:48
2	Fe 238.204 Radial†	11.3	0.4	3.5031	ug/L	3.5031	ppb	08:00:48
2	K 766.490 Radial†	2706.0	-0.1	-0.0125	ug/L	-0.0125	ppb	08:00:28
2	Mg 279.077 IEC†	3.1	1.7	53.599	ug/L	53.599	ppb	08:00:48
2	Na 589.592 Radial†	-821.2	-61.5	-18.352	ug/L	-18.352	ppb	08:00:28
2	Sr 421.552†	13.0	24.8	0.1455	ug/L	0.1455	ppb	08:00:28
2	Sc 361.383	901427.5	901427.5	100.28	%			08:01:45
2	Y 371.029	746836.3	746836.3	100.32	%			08:01:45
2	Ag 328.068†	267.2	-103.5	-0.4421	ug/L	-0.4421	ppb	08:01:45
2	As 188.979†	-31.4	3.5	1.2583	ug/L	1.2583	ppb	08:02:05
2	B 249.677†	105.3	131.0	2.6871	ug/L	2.6871	ppb	08:01:45
2	Ba 233.527†	-4.1	-1.5	-0.0106	ug/L	-0.0106	ppb	08:02:05
2	Be 313.107†	-4736.5	7.9	0.0027	ug/L	0.0027	ppb	08:01:45
2	Cd 226.502†	-207.9	21.8	0.2129	ug/L	0.2129	ppb	08:02:05
2	Co 228.616†	-72.8	14.5	0.2547	ug/L	0.2547	ppb	08:02:05
2	Cr 267.716†	70.8	-9.6	-0.0960	ug/L	-0.0960	ppb	08:02:05
2	Cu 324.752†	6081.3	8.7	0.0247	ug/L	0.0247	ppb	08:01:45
2	Mn 257.610†	543.0	50.1	0.0487	ug/L	0.0487	ppb	08:02:05
2	Mo 202.031†	23.1	3.2	0.1926	ug/L	0.1926	ppb	08:02:05
2	Ni 231.604†	84.9	-8.9	-0.1951	ug/L	-0.1951	ppb	08:02:05

2	P 214.914†	243.2	-15.5	-8.0992	ug/L	-8.0992	ppb	08:02:05
2	Pb 220.353†	-66.0	-1.7	-0.1865	ug/L	-0.1865	ppb	08:02:05
2	S 181.975 Axial†	45.6	-3.5	-4.3044	ug/L	-4.3044	ppb	08:02:05
2	Sb 206.836†	46.3	4.9	1.5034	ug/L	1.5034	ppb	08:02:05
2	Se 196.026†	-26.0	2.6	1.4315	ug/L	1.4315	ppb	08:02:05
2	Si 251.611†	612.6	33.4	0.9355	ug/L	0.9355	ppb	08:02:05
2	Sn 189.927†	9.9	6.4	0.9588	ug/L	0.9588	ppb	08:02:05
2	Ti 334.940†	-1379.1	12.4	0.0194	ug/L	0.0194	ppb	08:01:45
2	Tl 190.801†	-44.4	3.8	0.9919	ug/L	0.9919	ppb	08:02:05
2	U 409.014†	-2530.9	-151.6	-4.1776	ug/L	-4.1776	ppb	08:01:45
2	V 292.402†	-1515.8	-42.1	-0.2725	ug/L	-0.2725	ppb	08:01:45
2	Zn 213.857†	798.7	2.9	0.0227	ug/L	0.0227	ppb	08:02:05
2	SiO2†	618.6	10.2	0.6041	ug/L	0.6041	ppb	08:02:40
3	Sc Radial	5718.2	5718.2	103	%			08:00:53
3	Y RADIAL	6101.0	6101.0	103.2	%			08:00:53
3	Al 396.153Radial†	-20.7	-3.8	-2.7370	ug/L	-2.7370	ppb	08:00:53
3	Ca 317.933Radial†	25.2	5.0	7.1167	ug/L	7.1167	ppb	08:01:13
3	Fe 238.204 Radial†	7.2	-3.9	-32.269	ug/L	-32.269	ppb	08:01:13
3	K 766.490 Radial†	2845.8	58.3	10.269	ug/L	10.269	ppb	08:00:53
3	Mg 279.077 IEC†	2.7	1.2	37.406	ug/L	37.406	ppb	08:01:13
3	Na 589.592 Radial†	-815.4	-32.2	-9.6081	ug/L	-9.6081	ppb	08:00:53
3	Sr 421.552†	67.8	77.8	0.4562	ug/L	0.4562	ppb	08:00:53
3	Sc 361.383	903054.1	903054.1	100.46	%			08:02:10
3	Y 371.029	749009.9	749009.9	100.61	%			08:02:10
3	Ag 328.068†	350.2	-21.3	-0.1000	ug/L	-0.1000	ppb	08:02:10
3	As 188.979†	-29.2	5.7	2.0722	ug/L	2.0722	ppb	08:02:30
3	B 249.677†	24.1	49.9	1.0284	ug/L	1.0284	ppb	08:02:10
3	Ba 233.527†	-1.9	0.7	0.0032	ug/L	0.0032	ppb	08:02:30
3	Be 313.107†	-4675.3	77.2	0.0259	ug/L	0.0259	ppb	08:02:10
3	Cd 226.502†	-222.9	7.3	0.0746	ug/L	0.0746	ppb	08:02:30
3	Co 228.616†	-86.7	0.8	0.0136	ug/L	0.0136	ppb	08:02:30
3	Cr 267.716†	86.4	5.8	0.0595	ug/L	0.0595	ppb	08:02:30
3	Cu 324.752†	5898.6	-184.0	-0.5215	ug/L	-0.5215	ppb	08:02:10
3	Mn 257.610†	557.4	63.4	0.0586	ug/L	0.0586	ppb	08:02:30
3	Mo 202.031†	20.2	0.3	0.0140	ug/L	0.0140	ppb	08:02:30
3	Ni 231.604†	112.8	18.7	0.4084	ug/L	0.4084	ppb	08:02:30
3	P 214.914†	244.1	-15.1	-7.7377	ug/L	-7.7377	ppb	08:02:30
3	Pb 220.353†	-58.9	5.4	0.5758	ug/L	0.5758	ppb	08:02:30
3	S 181.975 Axial†	50.3	1.1	1.3122	ug/L	1.3122	ppb	08:02:30
3	Sb 206.836†	42.9	1.5	0.4590	ug/L	0.4590	ppb	08:02:30
3	Se 196.026†	-19.1	9.5	5.0569	ug/L	5.0569	ppb	08:02:30
3	Si 251.611†	601.0	20.7	0.5766	ug/L	0.5766	ppb	08:02:30
3	Sn 189.927†	13.4	9.8	1.4742	ug/L	1.4742	ppb	08:02:30
3	Ti 334.940†	-1382.0	11.9	0.0196	ug/L	0.0196	ppb	08:02:10
3	Tl 190.801†	-40.1	8.1	2.1112	ug/L	2.1112	ppb	08:02:30
3	U 409.014†	-2549.8	-165.8	-4.5651	ug/L	-4.5651	ppb	08:02:10
3	V 292.402†	-1524.1	-47.7	-0.3062	ug/L	-0.3062	ppb	08:02:10
3	Zn 213.857†	798.1	0.9	0.0074	ug/L	0.0074	ppb	08:02:30
3	SiO2†	631.0	21.4	1.2795	ug/L	1.2795	ppb	08:02:45

Mean Data: ICB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	904277.9	100.60	%	0.403				0.40%
Sc Radial	5635.2	101	%	1.5				1.46%
Y 371.029	749724.0	100.71	%	0.444				0.44%
Y RADIAL	6010.6	101.7	%	1.40				1.38%
Ag 328.068†	-38.3	-0.1669	ug/L	0.24852	-0.1669	ppb	0.24852	148.86%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-10.5	-7.6454	ug/L	6.47987	-7.6454	ppb	6.47987	84.76%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	3.0	1.0930	ug/L	1.07147	1.0930	ppb	1.07147	98.03%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	80.2	1.6478	ug/L	0.90558	1.6478	ppb	0.90558	54.96%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-0.2	-0.0029	ug/L	0.00706	-0.0029	ppb	0.00706	246.00%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	30.7	0.0104	ug/L	0.01346	0.0104	ppb	0.01346	129.54%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-2.7	-3.9068	ug/L	9.82850	-3.9068	ppb	9.82850	251.57%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                16.4      0.1621 ug/L       0.07613      0.1621 ppb        0.07613  46.97%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                 6.0      0.1059 ug/L       0.13012      0.1059 ppb        0.13012 122.90%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                 5.3      0.0548 ug/L       0.14854      0.0548 ppb        0.14854 270.93%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               -79.7     -0.2259 ug/L       0.27588     -0.2259 ppb        0.27588 122.12%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -1.8     -15.187 ug/L       17.9402     -15.187 ppb        17.9402 118.13%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          52.9      9.3280 ug/L       8.90725      9.3280 ppb        8.90725  95.49%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             0.5      14.000 ug/L       55.1622      14.000 ppb        55.1622 394.03%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                48.5      0.0461 ug/L       0.01409      0.0461 ppb        0.01409  30.57%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 4.7      0.2862 ug/L       0.32916      0.2862 ppb        0.32916 115.00%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        -23.3     -6.9639 ug/L      12.91480     -6.9639 ppb       12.91480 185.45%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                 6.8      0.1475 ug/L       0.30989      0.1475 ppb        0.30989 210.16%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -8.7     -4.4724 ug/L       5.97135     -4.4724 ppb        5.97135 133.51%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                 3.5      0.3721 ug/L       0.48959      0.3721 ppb        0.48959 131.59%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -1.5     -1.8698 ug/L       2.88195     -1.8698 ppb        2.88195 154.13%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 3.5      1.0869 ug/L       0.55336      1.0869 ppb        0.55336  50.91%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 3.4      1.7995 ug/L       3.08980      1.7995 ppb        3.08980 171.70%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                28.3      0.7849 ug/L       0.18630      0.7849 ppb        0.18630  23.73%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                10.2      1.5297 ug/L       0.60050      1.5297 ppb        0.60050  39.26%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                42.9      0.2517 ug/L       0.17719      0.2517 ppb        0.17719  70.40%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                36.5      0.0547 ug/L       0.06098      0.0547 ppb        0.06098 111.50%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 5.6      1.4662 ug/L       0.57885      1.4662 ppb        0.57885  39.48%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -180.0     -4.9576 ug/L       1.03368     -4.9576 ppb        1.03368  20.85%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                -45.7     -0.2937 ug/L       0.01842     -0.2937 ppb        0.01842   6.27%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                 5.2      0.0430 ug/L       0.04892      0.0430 ppb        0.04892 113.85%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                       9.6      0.5534 ug/L       0.75275      0.5534 ppb        0.75275 136.03%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 8
Sample ID: PQL
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 11
Date Collected: 12/19/2009 08:04:56
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: PQL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5582.1	5582.1	100	%			08:06:49
1	Y RADIAL	5945.3	5945.3	100.6	%			08:06:49
1	Al 396.153Radial†	275.3	290.9	211.55	ug/L	211.55	ppb	08:06:49
1	Ca 317.933Radial†	170.8	150.8	215.00	ug/L	215.00	ppb	08:07:09
1	Fe 238.204 Radial†	21.7	10.7	89.465	ug/L	89.465	ppb	08:07:09
1	K 766.490 Radial†	3673.8	951.7	167.50	ug/L	167.50	ppb	08:06:49
1	Mg 279.077 IEC†	12.9	11.5	356.66	ug/L	356.66	ppb	08:07:09
1	Na 589.592 Radial†	247.8	1008.8	301.10	ug/L	301.10	ppb	08:06:49
1	Sr 421.552†	895.5	904.9	5.3043	ug/L	5.3043	ppb	08:06:49
1	Sc 361.383	903406.6	903406.6	100.50	%			08:08:06
1	Y 371.029	747574.7	747574.7	100.42	%			08:08:06
1	Ag 328.068†	1528.9	1151.4	4.9655	ug/L	4.9655	ppb	08:08:06
1	As 188.979†	44.5	79.1	28.742	ug/L	28.742	ppb	08:08:26
1	B 249.677†	2440.1	2453.9	50.336	ug/L	50.336	ppb	08:08:06
1	Ba 233.527†	751.9	750.7	5.1167	ug/L	5.1167	ppb	08:08:26
1	Be 313.107†	10154.0	14834.6	4.9847	ug/L	4.9847	ppb	08:08:06
1	Cd 226.502†	297.2	524.9	5.1277	ug/L	5.1277	ppb	08:08:26
1	Co 228.616†	187.0	273.1	4.7958	ug/L	4.7958	ppb	08:08:26
1	Cr 267.716†	563.8	480.8	4.8687	ug/L	4.8687	ppb	08:08:26
1	Cu 324.752†	9745.0	3641.0	10.292	ug/L	10.292	ppb	08:08:06
1	Mn 257.610†	11261.3	10713.8	10.570	ug/L	10.570	ppb	08:08:06
1	Mo 202.031†	188.9	168.0	10.178	ug/L	10.178	ppb	08:08:26
1	Ni 231.604†	326.9	231.7	5.0600	ug/L	5.0600	ppb	08:08:26
1	P 214.914†	538.1	277.3	143.13	ug/L	143.13	ppb	08:08:26
1	Pb 220.353†	30.3	94.2	9.9843	ug/L	9.9843	ppb	08:08:26
1	S 181.975 Axial†	133.0	83.3	102.19	ug/L	102.19	ppb	08:08:26
1	Sb 206.836†	75.7	34.1	10.471	ug/L	10.471	ppb	08:08:26
1	Se 196.026†	28.6	57.0	31.392	ug/L	31.392	ppb	08:08:26
1	Si 251.611†	4214.8	3616.3	101.71	ug/L	101.71	ppb	08:08:06
1	Sn 189.927†	66.5	62.7	9.4233	ug/L	9.4233	ppb	08:08:26
1	Ti 334.940†	2053.2	3430.6	4.9477	ug/L	4.9477	ppb	08:08:06
1	Tl 190.801†	27.7	75.6	19.681	ug/L	19.681	ppb	08:08:26
1	U 409.014†	-576.2	1798.9	49.542	ug/L	49.542	ppb	08:08:06
1	V 292.402†	-704.2	768.7	5.1180	ug/L	5.1180	ppb	08:08:06
1	Zn 213.857†	2005.3	1201.7	9.7905	ug/L	9.7905	ppb	08:08:26
1	SiO2†	4172.2	3544.7	214.06	ug/L	214.06	ppb	08:09:22
2	Sc Radial	5594.2	5594.2	100	%			08:07:14
2	Y RADIAL	5983.8	5983.8	101.2	%			08:07:14
2	Al 396.153Radial†	243.1	258.3	187.77	ug/L	187.77	ppb	08:07:14
2	Ca 317.933Radial†	169.7	149.3	212.87	ug/L	212.87	ppb	08:07:34
2	Fe 238.204 Radial†	22.8	11.8	98.101	ug/L	98.101	ppb	08:07:34
2	K 766.490 Radial†	3672.4	942.3	165.84	ug/L	165.84	ppb	08:07:14
2	Mg 279.077 IEC†	10.5	9.1	281.54	ug/L	281.54	ppb	08:07:34
2	Na 589.592 Radial†	270.9	1031.2	307.79	ug/L	307.79	ppb	08:07:14
2	Sr 421.552†	876.1	883.7	5.1798	ug/L	5.1798	ppb	08:07:14
2	Sc 361.383	903805.3	903805.3	100.54	%			08:08:32
2	Y 371.029	749465.8	749465.8	100.67	%			08:08:32
2	Ag 328.068†	1542.8	1164.5	5.0200	ug/L	5.0200	ppb	08:08:32
2	As 188.979†	51.8	86.3	31.360	ug/L	31.360	ppb	08:08:52
2	B 249.677†	2378.3	2391.3	49.051	ug/L	49.051	ppb	08:08:32
2	Ba 233.527†	747.5	746.0	5.0837	ug/L	5.0837	ppb	08:08:52
2	Be 313.107†	10083.9	14760.4	4.9601	ug/L	4.9601	ppb	08:08:32
2	Cd 226.502†	286.9	514.5	5.0255	ug/L	5.0255	ppb	08:08:52
2	Co 228.616†	196.7	282.8	4.9628	ug/L	4.9628	ppb	08:08:52
2	Cr 267.716†	589.4	506.1	5.1230	ug/L	5.1230	ppb	08:08:52
2	Cu 324.752†	9700.9	3592.7	10.156	ug/L	10.156	ppb	08:08:32
2	Mn 257.610†	11119.5	10567.8	10.428	ug/L	10.428	ppb	08:08:32
2	Mo 202.031†	179.5	158.7	9.6114	ug/L	9.6114	ppb	08:08:52
2	Ni 231.604†	340.6	245.2	5.3538	ug/L	5.3538	ppb	08:08:52

2	P 214.914†	538.3	277.3	143.14 ug/L	143.14 ppb	08:08:52
2	Pb 220.353†	18.7	82.7	8.7637 ug/L	8.7637 ppb	08:08:52
2	S 181.975 Axial†	129.9	80.2	98.385 ug/L	98.385 ppb	08:08:52
2	Sb 206.836†	76.4	34.7	10.668 ug/L	10.668 ppb	08:08:52
2	Se 196.026†	35.1	63.5	34.937 ug/L	34.937 ppb	08:08:52
2	Si 251.611†	4220.2	3619.9	101.82 ug/L	101.82 ppb	08:08:32
2	Sn 189.927†	74.9	71.0	10.671 ug/L	10.671 ppb	08:08:52
2	Ti 334.940†	2148.1	3524.1	5.0812 ug/L	5.0812 ppb	08:08:32
2	Tl 190.801†	36.9	84.8	22.059 ug/L	22.059 ppb	08:08:52
2	U 409.014†	-451.7	1922.9	52.958 ug/L	52.958 ppb	08:08:32
2	V 292.402†	-790.0	683.7	4.5727 ug/L	4.5727 ppb	08:08:32
2	Zn 213.857†	2012.0	1207.6	9.8383 ug/L	9.8383 ppb	08:08:52
2	SiO2†	4225.9	3596.4	217.20 ug/L	217.20 ppb	08:09:27
3	Sc Radial	5694.2	5694.2	102 %		08:07:39
3	Y RADIAL	6097.6	6097.6	103.2 %		08:07:39
3	Al 396.153Radial†	273.2	283.5	206.12 ug/L	206.12 ppb	08:07:39
3	Ca 317.933Radial†	164.1	140.9	200.83 ug/L	200.83 ppb	08:07:59
3	Fe 238.204 Radial†	24.3	12.8	106.90 ug/L	106.90 ppb	08:07:59
3	K 766.490 Radial†	3707.6	912.5	160.61 ug/L	160.61 ppb	08:07:39
3	Mg 279.077 IEC†	11.3	9.7	300.85 ug/L	300.85 ppb	08:07:59
3	Na 589.592 Radial†	268.1	1023.7	305.56 ug/L	305.56 ppb	08:07:39
3	Sr 421.552†	906.5	898.1	5.2643 ug/L	5.2643 ppb	08:07:39
3	Sc 361.383	895634.3	895634.3	99.636 %		08:08:57
3	Y 371.029	742826.7	742826.7	99.780 %		08:08:57
3	Ag 328.068†	1594.7	1230.6	5.3053 ug/L	5.3053 ppb	08:08:57
3	As 188.979†	51.5	86.5	31.414 ug/L	31.414 ppb	08:09:17
3	B 249.677†	2363.8	2398.4	49.195 ug/L	49.195 ppb	08:08:57
3	Ba 233.527†	721.7	727.0	4.9541 ug/L	4.9541 ppb	08:09:17
3	Be 313.107†	9896.0	14663.3	4.9272 ug/L	4.9272 ppb	08:08:57
3	Cd 226.502†	290.5	520.7	5.0853 ug/L	5.0853 ppb	08:09:17
3	Co 228.616†	198.0	285.8	5.0168 ug/L	5.0168 ppb	08:09:17
3	Cr 267.716†	588.8	510.8	5.1707 ug/L	5.1707 ppb	08:09:17
3	Cu 324.752†	9662.9	3642.6	10.297 ug/L	10.297 ppb	08:08:57
3	Mn 257.610†	11054.0	10603.0	10.464 ug/L	10.464 ppb	08:08:57
3	Mo 202.031†	185.2	166.0	10.054 ug/L	10.054 ppb	08:09:17
3	Ni 231.604†	340.1	247.8	5.4108 ug/L	5.4108 ppb	08:09:17
3	P 214.914†	552.1	296.0	152.88 ug/L	152.88 ppb	08:09:17
3	Pb 220.353†	21.8	85.9	9.1090 ug/L	9.1090 ppb	08:09:17
3	S 181.975 Axial†	128.9	80.4	98.568 ug/L	98.568 ppb	08:09:17
3	Sb 206.836†	72.2	31.3	9.6438 ug/L	9.6438 ppb	08:09:17
3	Se 196.026†	20.2	48.8	26.964 ug/L	26.964 ppb	08:09:17
3	Si 251.611†	4247.1	3685.1	103.65 ug/L	103.65 ppb	08:08:57
3	Sn 189.927†	76.4	73.2	10.996 ug/L	10.996 ppb	08:09:17
3	Ti 334.940†	2043.7	3438.8	4.9561 ug/L	4.9561 ppb	08:08:57
3	Tl 190.801†	35.4	83.6	21.759 ug/L	21.759 ppb	08:09:17
3	U 409.014†	-361.1	2009.8	55.350 ug/L	55.350 ppb	08:08:57
3	V 292.402†	-808.3	658.2	4.4202 ug/L	4.4202 ppb	08:08:57
3	Zn 213.857†	2020.3	1234.1	10.054 ug/L	10.054 ppb	08:09:17
3	SiO2†	4132.7	3541.2	213.84 ug/L	213.84 ppb	08:09:32

Mean Data: PQL

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	900948.7	100.23	%	0.512				0.51%
Sc Radial	5623.5	101	%	1.1				1.09%
Y 371.029	746622.4	100.29	%	0.459				0.46%
Y RADIAL	6008.9	101.6	%	1.34				1.32%
Ag 328.068†	1182.2	5.0969	ug/L	0.18247	5.0969	ppb	0.18247	3.58%
QC value within limits for Ag 328.068 Recovery = 101.94%								
Al 396.153Radial†	277.6	201.81	ug/L	12.461	201.81	ppb	12.461	6.17%
QC value within limits for Al 396.153Radial Recovery = 100.91%								
As 188.979†	84.0	30.505	ug/L	1.5273	30.505	ppb	1.5273	5.01%
QC value within limits for As 188.979 Recovery = 101.68%								
B 249.677†	2414.5	49.527	ug/L	0.7040	49.527	ppb	0.7040	1.42%
QC value within limits for B 249.677 Recovery = 99.05%								
Ba 233.527†	741.2	5.0515	ug/L	0.08594	5.0515	ppb	0.08594	1.70%
QC value within limits for Ba 233.527 Recovery = 101.03%								
Be 313.107†	14752.8	4.9573	ug/L	0.02882	4.9573	ppb	0.02882	0.58%
QC value within limits for Be 313.107 Recovery = 99.15%								
Ca 317.933Radial†	147.0	209.57	ug/L	7.646	209.57	ppb	7.646	3.65%

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   QC value within limits for Ca 317.933Radial  Recovery = 104.78%
Cd 226.502†              520.0      5.0795 ug/L       0.05136      5.0795 ppb        0.05136   1.01%
   QC value within limits for Cd 226.502  Recovery = 101.59%
Co 228.616†              280.6      4.9251 ug/L       0.11520      4.9251 ppb        0.11520   2.34%
   QC value within limits for Co 228.616  Recovery = 98.50%
Cr 267.716†              499.2      5.0541 ug/L       0.16234      5.0541 ppb        0.16234   3.21%
   QC value within limits for Cr 267.716  Recovery = 101.08%
Cu 324.752†             3625.4      10.248 ug/L        0.0801      10.248 ppb         0.0801   0.78%
   QC value within limits for Cu 324.752  Recovery = 102.48%
Fe 238.204 Radial†        11.8      98.155 ug/L        8.7175      98.155 ppb         8.7175   8.88%
   QC value within limits for Fe 238.204 Radial  Recovery = 98.16%
K 766.490 Radial†        935.5      164.65 ug/L         3.598      164.65 ppb          3.598   2.19%
   QC value within limits for K 766.490 Radial  Recovery = 109.77%
Mg 279.077 IEC†           10.1      313.02 ug/L        39.010      313.02 ppb         39.010  12.46%
   QC value within limits for Mg 279.077 IEC  Recovery = 104.34%
Mn 257.610†            10628.2      10.487 ug/L        0.0738      10.487 ppb         0.0738   0.70%
   QC value within limits for Mn 257.610  Recovery = 104.87%
Mo 202.031†              164.2      9.9476 ug/L       0.29768      9.9476 ppb        0.29768   2.99%
   QC value within limits for Mo 202.031  Recovery = 99.48%
Na 589.592 Radial†      1021.3      304.81 ug/L         3.405      304.81 ppb          3.405   1.12%
   QC value within limits for Na 589.592 Radial  Recovery = 101.60%
Ni 231.604†              241.6      5.2749 ug/L       0.18821      5.2749 ppb        0.18821   3.57%
   QC value within limits for Ni 231.604  Recovery = 105.50%
P 214.914†               283.5      146.38 ug/L         5.626      146.38 ppb          5.626   3.84%
   QC value within limits for P 214.914  Recovery = 97.59%
Pb 220.353†               87.6      9.2857 ug/L       0.62922      9.2857 ppb        0.62922   6.78%
   QC value within limits for Pb 220.353  Recovery = 92.86%
S 181.975 Axial†          81.3      99.715 ug/L        2.1474      99.715 ppb         2.1474   2.15%
   QC value within limits for S 181.975 Axial  Recovery = 99.71%
Sb 206.836†               33.4      10.261 ug/L        0.5434      10.261 ppb         0.5434   5.30%
   QC value within limits for Sb 206.836  Recovery = 102.61%
Se 196.026†               56.4      31.098 ug/L        3.9950      31.098 ppb         3.9950  12.85%
   QC value within limits for Se 196.026  Recovery = 103.66%
Si 251.611†             3640.4      102.39 ug/L         1.091      102.39 ppb          1.091   1.07%
   QC value within limits for Si 251.611  Recovery = 102.39%
Sn 189.927†               68.9      10.363 ug/L        0.8302      10.363 ppb         0.8302   8.01%
   QC value within limits for Sn 189.927  Recovery = 103.63%
Sr 421.552†              895.6      5.2495 ug/L       0.06354      5.2495 ppb        0.06354   1.21%
   QC value within limits for Sr 421.552  Recovery = 104.99%
Ti 334.940†             3464.5      4.9950 ug/L       0.07476      4.9950 ppb        0.07476   1.50%
   QC value within limits for Ti 334.940  Recovery = 99.90%
Tl 190.801†               81.3      21.166 ug/L        1.2953      21.166 ppb         1.2953   6.12%
   QC value within limits for Tl 190.801  Recovery = 105.83%
U 409.014†              1910.5      52.617 ug/L        2.9189      52.617 ppb         2.9189   5.55%
   QC value within limits for U 409.014  Recovery = 105.23%
V 292.402†               703.5      4.7037 ug/L       0.36683      4.7037 ppb        0.36683   7.80%
   QC value within limits for V 292.402  Recovery = 94.07%
Zn 213.857†             1214.5      9.8944 ug/L       0.14055      9.8944 ppb        0.14055   1.42%
   QC value within limits for Zn 213.857  Recovery = 98.94%
SiO2†                   3560.8      215.03 ug/L         1.879      215.03 ppb          1.879   0.87%
   QC value within limits for SiO2  Recovery = 100.95%
All analyte(s) passed QC.
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Sequence No.: 9
Sample ID: ICSA
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 13
Date Collected: 12/19/2009 08:11:43
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSA

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4965.4	4965.4	89.2	%			08:13:42
1	Y RADIAL	5306.3	5306.3	89.76	%			08:13:42
1	Al 396.153Radial†	638506.0	715917.4	521660	ug/L	521660	ppb	08:13:37
1	Ca 317.933Radial†	304213.5	341068.5	486270	ug/L	486270	ppb	08:13:37
1	Fe 238.204 Radial†	20544.1	23023.4	191390	ug/L	191390	ppb	08:13:42
1	K 766.490 Radial†	2335.1	-94.2	-0.8072	ug/L	-0.8072	ppb	08:13:37
1	Mg 279.077 IEC†	14271.5	16000.0	496650	ug/L	496650	ppb	08:13:42
1	Na 589.592 Radial†	-608.5	79.4	23.702	ug/L	23.702	ppb	08:13:42
1	Sr 421.552†	563.3	643.4	-0.7347	ug/L	-0.7347	ppb	08:13:42
1	Sc 361.383	778772.9	778772.9	86.635	%			08:14:09
1	Y 371.029	629428.6	629428.6	84.548	%			08:14:09
1	Ag 328.068†	-10493.1	-12481.7	3.0959	ug/L	3.0959	ppb	08:14:09
1	As 188.979†	-98.2	-78.5	0.8647	ug/L	0.8647	ppb	08:14:29
1	B 249.677†	880.6	1042.4	-4.0016	ug/L	-4.0016	ppb	08:14:09
1	Ba 233.527†	-608.4	-699.6	2.3815	ug/L	2.3815	ppb	08:14:29
1	Be 313.107†	-5164.9	-1230.5	-0.4597	ug/L	-0.4597	ppb	08:14:09
1	Cd 226.502†	1378.8	1820.7	-1.3254	ug/L	-1.3254	ppb	08:14:29
1	Co 228.616†	2.4	89.9	-1.1513	ug/L	-1.1513	ppb	08:14:29
1	Cr 267.716†	-40.4	-126.8	2.1581	ug/L	2.1581	ppb	08:14:29
1	Cu 324.752†	2906.4	-2700.9	2.1325	ug/L	2.1325	ppb	08:14:09
1	Mn 257.610†	997.1	659.4	10.487	ug/L	10.487	ppb	08:14:09
1	Mo 202.031†	-233.2	-289.1	-3.9219	ug/L	-3.9219	ppb	08:14:29
1	Ni 231.604†	276.7	225.8	4.9336	ug/L	4.9336	ppb	08:14:29
1	P 214.914†	180.9	-49.3	-2.9362	ug/L	-2.9362	ppb	08:14:29
1	Pb 220.353†	-892.7	-966.4	-0.5179	ug/L	-0.5179	ppb	08:14:29
1	S 181.975 Axial†	71.0	32.9	-62.209	ug/L	-62.209	ppb	08:14:29
1	Sb 206.836†	80.1	51.3	2.8317	ug/L	2.8317	ppb	08:14:29
1	Se 196.026†	-1063.3	-1198.8	0.9330	ug/L	0.9330	ppb	08:14:29
1	Si 251.611†	445.1	-63.7	-1.2862	ug/L	-1.2862	ppb	08:14:29
1	Sn 189.927†	-368.7	-429.0	-11.014	ug/L	-11.014	ppb	08:14:29
1	Ti 334.940†	-15524.5	-16531.7	1.4504	ug/L	1.4504	ppb	08:14:09
1	Tl 190.801†	-97.8	-64.8	-2.7545	ug/L	-2.7545	ppb	08:14:29
1	U 409.014†	-1149.3	1045.6	4.7308	ug/L	4.7308	ppb	08:14:09
1	V 292.402†	1033.1	2661.9	-1.1448	ug/L	-1.1448	ppb	08:14:29
1	Zn 213.857†	3396.8	3127.3	-9.6552	ug/L	-9.6552	ppb	08:14:29
1	SiO2†	469.8	-64.3	-2.7856	ug/L	-2.7856	ppb	08:15:26
2	Sc Radial	4901.3	4901.3	88.0	%			08:13:52
2	Y RADIAL	5232.3	5232.3	88.51	%			08:13:52
2	Al 396.153Radial†	635689.0	722076.0	526140	ug/L	526140	ppb	08:13:47
2	Ca 317.933Radial†	302103.7	343130.7	489210	ug/L	489210	ppb	08:13:47
2	Fe 238.204 Radial†	20179.1	22909.9	190450	ug/L	190450	ppb	08:13:52
2	K 766.490 Radial†	2362.7	-28.7	11.005	ug/L	11.005	ppb	08:13:47
2	Mg 279.077 IEC†	14102.8	16017.5	497190	ug/L	497190	ppb	08:13:52
2	Na 589.592 Radial†	-625.8	50.8	15.164	ug/L	15.164	ppb	08:13:52
2	Sr 421.552†	583.9	675.0	-0.5762	ug/L	-0.5762	ppb	08:13:52
2	Sc 361.383	795745.3	795745.3	88.523	%			08:14:35
2	Y 371.029	643936.1	643936.1	86.497	%			08:14:35
2	Ag 328.068†	-10312.9	-12019.8	4.7311	ug/L	4.7311	ppb	08:14:35
2	As 188.979†	-83.9	-60.0	7.4646	ug/L	7.4646	ppb	08:14:55
2	B 249.677†	671.9	785.0	-9.1583	ug/L	-9.1583	ppb	08:14:35
2	Ba 233.527†	-608.0	-684.3	2.4509	ug/L	2.4509	ppb	08:14:55
2	Be 313.107†	-5144.3	-1080.1	-0.4080	ug/L	-0.4080	ppb	08:14:35
2	Cd 226.502†	1361.4	1767.1	-1.7562	ug/L	-1.7562	ppb	08:14:55
2	Co 228.616†	-14.8	70.4	-1.4804	ug/L	-1.4804	ppb	08:14:55
2	Cr 267.716†	-95.4	-187.9	1.5222	ug/L	1.5222	ppb	08:14:55
2	Cu 324.752†	3030.9	-2631.7	2.2797	ug/L	2.2797	ppb	08:14:35
2	Mn 257.610†	1048.8	693.3	10.417	ug/L	10.417	ppb	08:14:35
2	Mo 202.031†	-240.4	-291.5	-4.1337	ug/L	-4.1337	ppb	08:14:55
2	Ni 231.604†	217.9	152.6	3.3328	ug/L	3.3328	ppb	08:14:55

2	P 214.914†	205.7	-25.7	11.586 ug/L	11.586 ppb		08:14:55
2	Pb 220.353†	-895.2	-947.2	2.5837 ug/L	2.5837 ppb		08:14:55
2	S 181.975 Axial†	85.9	48.0	-44.606 ug/L	-44.606 ppb		08:14:55
2	Sb 206.836†	88.7	59.0	5.0050 ug/L	5.0050 ppb		08:14:55
2	Se 196.026†	-1055.7	-1164.1	17.648 ug/L	17.648 ppb		08:14:55
2	Si 251.611†	453.9	-64.7	-1.3115 ug/L	-1.3115 ppb		08:14:55
2	Sn 189.927†	-384.2	-437.5	-11.990 ug/L	-11.990 ppb		08:14:55
2	Ti 334.940†	-15481.1	-16100.5	2.2289 ug/L	2.2289 ppb		08:14:35
2	Tl 190.801†	-106.0	-71.7	-4.4083 ug/L	-4.4083 ppb		08:14:55
2	U 409.014†	-1282.8	923.1	1.4750 ug/L	1.4750 ppb		08:14:35
2	V 292.402†	1054.5	2660.6	-1.0061 ug/L	-1.0061 ppb		08:14:55
2	Zn 213.857†	3381.4	3026.3	-10.402 ug/L	-10.402 ppb		08:14:55
2	SiO2†	479.1	-65.4	-2.8444 ug/L	-2.8444 ppb		08:15:31
3	Sc Radial	4971.1	4971.1	89.3 %			08:14:03
3	Y RADIAL	5311.8	5311.8	89.86 %			08:14:03
3	Al 396.153Radial†	633647.8	709660.3	517100 ug/L	517100 ppb		08:13:58
3	Ca 317.933Radial†	300431.0	336443.5	479680 ug/L	479680 ppb		08:13:58
3	Fe 238.204 Radial†	20276.7	22697.7	188690 ug/L	188690 ppb		08:14:03
3	K 766.490 Radial†	2406.6	-17.2	12.829 ug/L	12.829 ppb		08:13:58
3	Mg 279.077 IEC†	14177.2	15876.2	492800 ug/L	492800 ppb		08:14:03
3	Na 589.592 Radial†	-616.3	71.4	21.317 ug/L	21.317 ppb		08:14:03
3	Sr 421.552†	592.0	674.8	-0.4894 ug/L	-0.4894 ppb		08:14:03
3	Sc 361.383	688555.3	688555.3	76.599 %			08:15:00
3	Y 371.029	557089.3	557089.3	74.831 %			08:15:00
3	Ag 328.068†	-10825.8	-14503.0	-6.4178 ug/L	-6.4178 ppb		08:15:00
3	As 188.979†	-106.0	-103.5	-8.6520 ug/L	-8.6520 ppb		08:15:20
3	B 249.677†	803.0	1074.3	-2.9874 ug/L	-2.9874 ppb		08:15:00
3	Ba 233.527†	-575.9	-749.2	1.9467 ug/L	1.9467 ppb		08:15:20
3	Be 313.107†	-5212.8	-2074.2	-0.7498 ug/L	-0.7498 ppb		08:15:00
3	Cd 226.502†	1363.2	2008.8	0.7842 ug/L	0.7842 ppb		08:15:20
3	Co 228.616†	-1.3	85.5	-1.1883 ug/L	-1.1883 ppb		08:15:20
3	Cr 267.716†	-65.4	-165.6	1.7183 ug/L	1.7183 ppb		08:15:20
3	Cu 324.752†	2702.2	-2527.8	2.4833 ug/L	2.4833 ppb		08:15:00
3	Mn 257.610†	1011.8	829.4	10.457 ug/L	10.457 ppb		08:15:00
3	Mo 202.031†	-232.1	-322.9	-6.1608 ug/L	-6.1608 ppb		08:15:20
3	Ni 231.604†	224.5	199.6	4.3593 ug/L	4.3593 ppb		08:15:20
3	P 214.914†	183.2	-18.9	13.324 ug/L	13.324 ppb		08:15:20
3	Pb 220.353†	-884.9	-1091.2	-14.475 ug/L	-14.475 ppb		08:15:20
3	S 181.975 Axial†	84.5	61.3	-26.486 ug/L	-26.486 ppb		08:15:20
3	Sb 206.836†	85.4	70.2	8.4040 ug/L	8.4040 ppb		08:15:20
3	Se 196.026†	-1049.6	-1341.7	-85.771 ug/L	-85.771 ppb		08:15:20
3	Si 251.611†	468.7	34.4	1.5400 ug/L	1.5400 ppb		08:15:20
3	Sn 189.927†	-373.7	-491.4	-21.083 ug/L	-21.083 ppb		08:15:20
3	Ti 334.940†	-15677.1	-19078.9	-2.5757 ug/L	-2.5757 ppb		08:15:00
3	Tl 190.801†	-99.2	-81.4	-7.2071 ug/L	-7.2071 ppb		08:15:20
3	U 409.014†	-1051.8	999.1	3.7920 ug/L	3.7920 ppb		08:15:00
3	V 292.402†	1041.5	2829.1	0.2161 ug/L	0.2161 ppb		08:15:20
3	Zn 213.857†	3415.0	3664.7	-4.8544 ug/L	-4.8544 ppb		08:15:20
3	SiO2†	413.2	-67.3	-2.8308 ug/L	-2.8308 ppb		08:15:36

Mean Data: ICSA

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	754357.8	83.919	%	6.4094				7.64%
Sc Radial	4945.9	88.8	%	0.70				0.78%
Y 371.029	610151.3	81.958	%	6.2491				7.62%
Y RADIAL	5283.5	89.38	%	0.751				0.84%
Ag 328.068†	-13001.5	0.4697	ug/L	6.02056	0.4697	ppb	6.02056	>999.9%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	715884.6	521630	ug/L	4523.4	521630	ppb	4523.4	0.87%
QC value within limits for Al 396.153Radial Recovery = 104.33%								
As 188.979†	-80.7	-0.1076	ug/L	8.10215	-0.1076	ppb	8.10215	>999.9%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	967.2	-5.3824	ug/L	3.30909	-5.3824	ppb	3.30909	61.48%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-711.0	2.2597	ug/L	0.27329	2.2597	ppb	0.27329	12.09%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-1461.6	-0.5392	ug/L	0.18426	-0.5392	ppb	0.18426	34.18%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	340214.2	485050	ug/L	4882.4	485050	ppb	4882.4	1.01%

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   QC value within limits for Ca 317.933Radial  Recovery = 97.01%
Cd 226.502†            1865.5     -0.7658 ug/L       1.35952     -0.7658 ppb        1.35952 177.52%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†              81.9     -1.2734 ug/L       0.18027     -1.2734 ppb        0.18027  14.16%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†            -160.1      1.7995 ug/L       0.32565      1.7995 ppb        0.32565  18.10%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†           -2620.1      2.2985 ug/L       0.17615      2.2985 ppb        0.17615   7.66%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†    22877.0      190180 ug/L        1374.2      190180 ppb         1374.2   0.72%
   QC value within limits for Fe 238.204 Radial  Recovery = 95.09%
K 766.490 Radial†        -46.7      7.6756 ug/L       7.40261      7.6756 ppb        7.40261  96.44%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†       15964.6      495550 ug/L        2391.4      495550 ppb         2391.4   0.48%
   QC value within limits for Mg 279.077 IEC  Recovery = 99.11%
Mn 257.610†              727.4      10.454 ug/L        0.0355      10.454 ppb         0.0355   0.34%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†            -301.2     -4.7388 ug/L       1.23603     -4.7388 ppb        1.23603  26.08%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       67.2      20.061 ug/L        4.4057      20.061 ppb         4.4057  21.96%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              192.7      4.2085 ug/L       0.81095      4.2085 ppb        0.81095  19.27%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -31.3      7.3245 ug/L       8.92847      7.3245 ppb        8.92847 121.90%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†           -1001.6     -4.1363 ug/L       9.08662     -4.1363 ppb        9.08662 219.68%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         47.4     -44.434 ug/L       17.8622     -44.434 ppb        17.8622  40.20%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              60.2      5.4136 ug/L       2.80850      5.4136 ppb        2.80850  51.88%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†           -1234.9     -22.397 ug/L       55.5164     -22.397 ppb        55.5164 247.88%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†              -31.4     -0.3526 ug/L       1.63904     -0.3526 ppb        1.63904 464.89%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†            -452.6     -14.696 ug/L        5.5534     -14.696 ppb         5.5534  37.79%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              664.4     -0.6001 ug/L       0.12435     -0.6001 ppb        0.12435  20.72%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†          -17237.0      0.3679 ug/L       2.57876      0.3679 ppb        2.57876 700.99%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -72.6     -4.7900 ug/L       2.25068     -4.7900 ppb        2.25068  46.99%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               989.3      3.3326 ug/L       1.67580      3.3326 ppb        1.67580  50.28%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              2717.2     -0.6449 ug/L       0.74892     -0.6449 ppb        0.74892 116.12%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†             3272.7     -8.3039 ug/L       3.01059     -8.3039 ppb        3.01059  36.26%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                    -65.7     -2.8203 ug/L       0.03079     -2.8203 ppb        0.03079   1.09%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 10
Sample ID: ICSAB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 14
Date Collected: 12/19/2009 08:17:47
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSAB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4945.8	4945.8	88.8	%			08:19:45
1	Y RADIAL	5290.0	5290.0	89.49	%			08:19:45
1	Al 396.153Radial†	649158.0	730747.4	532440	ug/L	532440	ppb	08:19:40
1	Ca 317.933Radial†	306372.6	344851.8	491670	ug/L	491670	ppb	08:19:40
1	Fe 238.204 Radial†	20544.0	23114.7	192170	ug/L	192170	ppb	08:19:45
1	K 766.490 Radial†	31006.4	32190.2	5683.8	ug/L	5683.8	ppb	08:19:40
1	Mg 279.077 IEC†	14326.2	16125.0	500540	ug/L	500540	ppb	08:19:45
1	Na 589.592 Radial†	15924.6	18687.3	5577.6	ug/L	5577.6	ppb	08:19:45
1	Sr 421.552†	80481.3	90606.3	526.75	ug/L	526.75	ppb	08:19:40
1	Sc 361.383	846053.0	846053.0	94.120	%			08:20:13
1	Y 371.029	681027.6	681027.6	91.479	%			08:20:13
1	Ag 328.068†	43870.3	46241.1	257.76	ug/L	257.76	ppb	08:20:13
1	As 188.979†	1126.7	1232.0	480.02	ug/L	480.02	ppb	08:20:33
1	B 249.677†	22781.5	24230.6	470.74	ug/L	470.74	ppb	08:20:13
1	Ba 233.527†	61601.7	65452.8	453.04	ug/L	453.04	ppb	08:20:13
1	Be 313.107†	618819.6	662210.5	222.94	ug/L	222.94	ppb	08:20:13
1	Cd 226.502†	42944.6	45856.7	429.53	ug/L	429.53	ppb	08:20:13
1	Co 228.616†	22094.1	23561.5	409.91	ug/L	409.91	ppb	08:20:33
1	Cr 267.716†	40874.9	43348.3	443.61	ug/L	443.61	ppb	08:20:13
1	Cu 324.752†	170907.8	175529.5	505.74	ug/L	505.74	ppb	08:20:13
1	Mn 257.610†	419056.0	444744.4	448.52	ug/L	448.52	ppb	08:20:13
1	Mo 202.031†	6864.1	7273.0	453.88	ug/L	453.88	ppb	08:20:33
1	Ni 231.604†	18085.3	19121.5	417.52	ug/L	417.52	ppb	08:20:33
1	P 214.914†	4401.8	4418.7	2256.3	ug/L	2256.3	ppb	08:20:33
1	Pb 220.353†	2905.8	3151.4	436.49	ug/L	436.49	ppb	08:20:33
1	S 181.975 Axial†	1970.0	2044.0	2402.9	ug/L	2402.9	ppb	08:20:33
1	Sb 206.836†	1588.2	1646.2	487.46	ug/L	487.46	ppb	08:20:33
1	Se 196.026†	2958.8	3172.1	2387.7	ug/L	2387.7	ppb	08:20:33
1	Si 251.611†	159892.3	169303.9	4763.2	ug/L	4763.2	ppb	08:20:13
1	Sn 189.927†	2475.2	2626.4	447.80	ug/L	447.80	ppb	08:20:33
1	Ti 334.940†	284350.0	303501.9	464.10	ug/L	464.10	ppb	08:20:13
1	Tl 190.801†	1438.7	1576.7	426.40	ug/L	426.40	ppb	08:20:33
1	U 409.014†	14007.9	17255.2	450.39	ug/L	450.39	ppb	08:20:13
1	V 292.402†	68909.8	74684.2	463.64	ug/L	463.64	ppb	08:20:13
1	Zn 213.857†	55486.5	58159.4	438.24	ug/L	438.24	ppb	08:20:13
1	SiO2†	162686.8	172243.8	10406	ug/L	10406	ppb	08:21:30
2	Sc Radial	5012.9	5012.9	90.0	%			08:19:55
2	Y RADIAL	5292.6	5292.6	89.53	%			08:19:55
2	Al 396.153Radial†	634040.9	704178.7	513080	ug/L	513080	ppb	08:19:50
2	Ca 317.933Radial†	299837.9	332978.7	474740	ug/L	474740	ppb	08:19:50
2	Fe 238.204 Radial†	20307.6	22542.7	187410	ug/L	187410	ppb	08:19:55
2	K 766.490 Radial†	30485.8	31144.9	5498.6	ug/L	5498.6	ppb	08:19:50
2	Mg 279.077 IEC†	14177.9	15744.5	488730	ug/L	488730	ppb	08:19:55
2	Na 589.592 Radial†	15816.9	18327.8	5470.3	ug/L	5470.3	ppb	08:19:55
2	Sr 421.552†	78493.1	87185.8	506.85	ug/L	506.85	ppb	08:19:50
2	Sc 361.383	794837.6	794837.6	88.422	%			08:20:39
2	Y 371.029	640297.9	640297.9	86.008	%			08:20:39
2	Ag 328.068†	44144.7	49554.8	270.82	ug/L	270.82	ppb	08:20:39
2	As 188.979†	1096.9	1275.3	495.29	ug/L	495.29	ppb	08:20:59
2	B 249.677†	23009.8	26048.5	508.62	ug/L	508.62	ppb	08:20:39
2	Ba 233.527†	62311.0	70472.2	487.07	ug/L	487.07	ppb	08:20:39
2	Be 313.107†	625476.7	712104.0	239.74	ug/L	239.74	ppb	08:20:39
2	Cd 226.502†	43451.7	49370.2	464.38	ug/L	464.38	ppb	08:20:39
2	Co 228.616†	21876.1	24827.5	432.12	ug/L	432.12	ppb	08:20:59
2	Cr 267.716†	41398.8	46739.2	477.96	ug/L	477.96	ppb	08:20:39
2	Cu 324.752†	172883.1	189463.8	544.86	ug/L	544.86	ppb	08:20:39
2	Mn 257.610†	424144.0	479187.4	482.24	ug/L	482.24	ppb	08:20:39
2	Mo 202.031†	6792.1	7661.5	477.05	ug/L	477.05	ppb	08:20:59
2	Ni 231.604†	17873.4	20120.0	439.33	ug/L	439.33	ppb	08:20:59

2	P 214.914†	4374.0	4688.6	2388.3	ug/L	2388.3	ppb	08:20:59
2	Pb 220.353†	2873.4	3313.7	449.68	ug/L	449.68	ppb	08:20:59
2	S 181.975 Axial†	1954.0	2160.8	2550.0	ug/L	2550.0	ppb	08:20:59
2	Sb 206.836†	1583.3	1749.3	518.94	ug/L	518.94	ppb	08:20:59
2	Se 196.026†	2957.7	3373.4	2480.3	ug/L	2480.3	ppb	08:20:59
2	Si 251.611†	161618.2	182202.1	5126.5	ug/L	5126.5	ppb	08:20:39
2	Sn 189.927†	2485.1	2807.0	473.06	ug/L	473.06	ppb	08:20:59
2	Ti 334.940†	288683.6	327869.7	498.42	ug/L	498.42	ppb	08:20:39
2	Tl 190.801†	1439.3	1675.8	451.85	ug/L	451.85	ppb	08:20:59
2	U 409.014†	14050.3	18262.2	478.67	ug/L	478.67	ppb	08:20:39
2	V 292.402†	70005.4	80640.9	502.32	ug/L	502.32	ppb	08:20:39
2	Zn 213.857†	56214.9	62781.8	476.82	ug/L	476.82	ppb	08:20:39
2	SiO2†	160671.6	181102.4	10941	ug/L	10941	ppb	08:21:36
3	Sc Radial	5091.8	5091.8	91.5	%			08:20:05
3	Y RADIAL	5391.7	5391.7	91.21	%			08:20:05
3	Al 396.153Radial†	654310.0	715428.8	521280	ug/L	521280	ppb	08:20:00
3	Ca 317.933Radial†	309162.3	338013.7	481920	ug/L	481920	ppb	08:20:00
3	Fe 238.204 Radial†	20589.4	22501.3	187070	ug/L	187070	ppb	08:20:05
3	K 766.490 Radial†	31512.7	31743.1	5604.4	ug/L	5604.4	ppb	08:20:00
3	Mg 279.077 IEC†	14360.6	15700.3	487350	ug/L	487350	ppb	08:20:05
3	Na 589.592 Radial†	16040.8	18300.4	5462.1	ug/L	5462.1	ppb	08:20:05
3	Sr 421.552†	81447.7	89065.5	517.80	ug/L	517.80	ppb	08:20:00
3	Sc 361.383	796544.8	796544.8	88.612	%			08:21:05
3	Y 371.029	642022.6	642022.6	86.240	%			08:21:05
3	Ag 328.068†	44226.6	49540.3	270.53	ug/L	270.53	ppb	08:21:05
3	As 188.979†	1109.1	1286.4	499.27	ug/L	499.27	ppb	08:21:25
3	B 249.677†	23022.9	26007.5	507.83	ug/L	507.83	ppb	08:21:05
3	Ba 233.527†	62498.9	70533.2	487.47	ug/L	487.47	ppb	08:21:05
3	Be 313.107†	626717.7	711988.3	239.70	ug/L	239.70	ppb	08:21:05
3	Cd 226.502†	43501.3	49320.9	463.93	ug/L	463.93	ppb	08:21:05
3	Co 228.616†	21909.9	24812.6	431.87	ug/L	431.87	ppb	08:21:25
3	Cr 267.716†	41480.6	46731.2	477.87	ug/L	477.87	ppb	08:21:05
3	Cu 324.752†	172868.1	189027.8	543.61	ug/L	543.61	ppb	08:21:05
3	Mn 257.610†	424544.9	478611.7	481.67	ug/L	481.67	ppb	08:21:05
3	Mo 202.031†	6820.1	7676.7	477.95	ug/L	477.95	ppb	08:21:25
3	Ni 231.604†	17905.2	20112.6	439.16	ug/L	439.16	ppb	08:21:25
3	P 214.914†	4419.0	4728.8	2412.5	ug/L	2412.5	ppb	08:21:25
3	Pb 220.353†	2872.8	3306.1	450.74	ug/L	450.74	ppb	08:21:25
3	S 181.975 Axial†	1967.0	2170.8	2560.6	ug/L	2560.6	ppb	08:21:25
3	Sb 206.836†	1577.2	1738.7	515.45	ug/L	515.45	ppb	08:21:25
3	Se 196.026†	2951.7	3359.5	2472.8	ug/L	2472.8	ppb	08:21:25
3	Si 251.611†	161769.8	181981.4	5120.3	ug/L	5120.3	ppb	08:21:05
3	Sn 189.927†	2461.1	2773.9	468.84	ug/L	468.84	ppb	08:21:25
3	Ti 334.940†	288848.1	327355.6	498.05	ug/L	498.05	ppb	08:21:05
3	Tl 190.801†	1440.7	1673.9	451.59	ug/L	451.59	ppb	08:21:25
3	U 409.014†	14160.4	18352.4	481.20	ug/L	481.20	ppb	08:21:05
3	V 292.402†	70009.9	80476.3	501.31	ug/L	501.31	ppb	08:21:05
3	Zn 213.857†	56232.2	62665.1	475.95	ug/L	475.95	ppb	08:21:05
3	SiO2†	160728.6	180777.2	10921	ug/L	10921	ppb	08:21:41

Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	812478.5	90.385	%	3.2360				3.58%
Sc Radial	5016.8	90.1	%	1.31				1.46%
Y 371.029	654449.4	87.909	%	3.0940				3.52%
Y RADIAL	5324.8	90.08	%	0.981				1.09%
Ag 328.068†	48445.4	266.37	ug/L	7.461	266.37	ppb	7.461	2.80%
QC value within limits for Ag 328.068 Recovery = 106.55%								
Al 396.153Radial†	716785.0	522270	ug/L	9718.0	522270	ppb	9718.0	1.86%
QC value within limits for Al 396.153Radial Recovery = 104.45%								
As 188.979†	1264.6	491.53	ug/L	10.162	491.53	ppb	10.162	2.07%
QC value within limits for As 188.979 Recovery = 98.31%								
B 249.677†	25428.9	495.73	ug/L	21.645	495.73	ppb	21.645	4.37%
QC value within limits for B 249.677 Recovery = 99.15%								
Ba 233.527†	68819.4	475.86	ug/L	19.760	475.86	ppb	19.760	4.15%
QC value within limits for Ba 233.527 Recovery = 95.17%								
Be 313.107†	695434.3	234.13	ug/L	9.689	234.13	ppb	9.689	4.14%
QC value within limits for Be 313.107 Recovery = 93.65%								
Ca 317.933Radial†	338614.7	482770	ug/L	8496.4	482770	ppb	8496.4	1.76%

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   QC value within limits for Ca 317.933Radial  Recovery = 96.55%
Cd 226.502†            48182.6      452.61 ug/L        19.993      452.61 ppb        19.993   4.42%
   QC value within limits for Cd 226.502  Recovery = 90.52%
Co 228.616†            24400.5      424.63 ug/L        12.754      424.63 ppb        12.754   3.00%
   QC value within limits for Co 228.616  Recovery = 84.93%
Cr 267.716†            45606.2      466.48 ug/L        19.807      466.48 ppb        19.807   4.25%
   QC value within limits for Cr 267.716  Recovery = 93.30%
Cu 324.752†           184673.7      531.41 ug/L        22.238      531.41 ppb        22.238   4.18%
   QC value within limits for Cu 324.752  Recovery = 106.28%
Fe 238.204 Radial†     22719.6      188880 ug/L        2849.5      188880 ppb        2849.5   1.51%
   QC value within limits for Fe 238.204 Radial  Recovery = 94.44%
K 766.490 Radial†      31692.7      5595.6 ug/L         92.94      5595.6 ppb         92.94   1.66%
   QC value within limits for K 766.490 Radial  Recovery = 111.91%
Mg 279.077 IEC†        15856.6      492210 ug/L        7247.9      492210 ppb        7247.9   1.47%
   QC value within limits for Mg 279.077 IEC  Recovery = 98.44%
Mn 257.610†           467514.5      470.81 ug/L        19.304      470.81 ppb        19.304   4.10%
   QC value within limits for Mn 257.610  Recovery = 94.16%
Mo 202.031†             7537.1      469.63 ug/L        13.647      469.63 ppb        13.647   2.91%
   QC value within limits for Mo 202.031  Recovery = 93.93%
Na 589.592 Radial†     18438.5      5503.4 ug/L         64.45      5503.4 ppb         64.45   1.17%
   QC value within limits for Na 589.592 Radial  Recovery = 110.07%
Ni 231.604†            19784.7      432.01 ug/L        12.541      432.01 ppb        12.541   2.90%
   QC value within limits for Ni 231.604  Recovery = 86.40%
P 214.914†              4612.0      2352.4 ug/L         84.11      2352.4 ppb         84.11   3.58%
   QC value within limits for P 214.914  Recovery = 94.10%
Pb 220.353†             3257.1      445.64 ug/L         7.937      445.64 ppb         7.937   1.78%
   QC value within limits for Pb 220.353  Recovery = 89.13%
S 181.975 Axial†        2125.2      2504.5 ug/L         88.15      2504.5 ppb         88.15   3.52%
   QC value within limits for S 181.975 Axial  Recovery = 100.18%
Sb 206.836†             1711.4      507.28 ug/L        17.259      507.28 ppb        17.259   3.40%
   QC value within limits for Sb 206.836  Recovery = 101.46%
Se 196.026†             3301.7      2446.9 ug/L         51.44      2446.9 ppb         51.44   2.10%
   QC value within limits for Se 196.026  Recovery = 97.88%
Si 251.611†           177829.1      5003.3 ug/L        207.95      5003.3 ppb        207.95   4.16%
   QC value within limits for Si 251.611  Recovery = 100.07%
Sn 189.927†             2735.8      463.23 ug/L        13.532      463.23 ppb        13.532   2.92%
   QC value within limits for Sn 189.927  Recovery = 92.65%
Sr 421.552†            88952.5      517.13 ug/L         9.967      517.13 ppb         9.967   1.93%
   QC value within limits for Sr 421.552  Recovery = 103.43%
Ti 334.940†           319575.7      486.86 ug/L        19.711      486.86 ppb        19.711   4.05%
   QC value within limits for Ti 334.940  Recovery = 97.37%
Tl 190.801†             1642.1      443.28 ug/L        14.620      443.28 ppb        14.620   3.30%
   QC value within limits for Tl 190.801  Recovery = 88.66%
U 409.014†             17956.6      470.08 ug/L        17.102      470.08 ppb        17.102   3.64%
   QC value within limits for U 409.014  Recovery = 94.02%
V 292.402†             78600.5      489.09 ug/L        22.047      489.09 ppb        22.047   4.51%
   QC value within limits for V 292.402  Recovery = 97.82%
Zn 213.857†            61202.1      463.67 ug/L        22.027      463.67 ppb        22.027   4.75%
   QC value within limits for Zn 213.857  Recovery = 92.73%
SiO2†                 178041.1       10756 ug/L         303.6       10756 ppb         303.6   2.82%
   QC value within limits for SiO2  Recovery = 100.57%
All analyte(s) passed QC.
```

Sequence No.: 11
Sample ID: LR1
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 15
Date Collected: 12/19/2009 08:23:51
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR1

Rep1#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4692.3	4692.3	84.3	%			08:25:48
1	Y RADIAL	5012.9	5012.9	84.80	%			08:25:48
1	Al 396.153Radial†	614656.2	729282.0	531400	ug/L	531400	ppb	08:25:43
1	Ca 317.933Radial†	293765.5	348521.8	496900	ug/L	496900	ppb	08:25:43
1	Fe 238.204 Radial†	48062.2	57013.0	473950	ug/L	473950	ppb	08:25:48
1	K 766.490 Radial†	2819.2	632.5	-117.10	ug/L	-117.10	ppb	08:25:43
1	Mg 279.077 IEC†	13987.6	16594.3	514860	ug/L	514860	ppb	08:25:48
1	Na 589.592 Radial†	1624875.8	1928613.4	575630	ug/L	575630	ppb	08:25:43
1	Sr 421.552†	882.2	1058.5	1.6014	ug/L	1.6014	ppb	08:25:48
1	Sc 361.383	769480.6	769480.6	85.602	%			08:26:17
1	Y 371.029	622972.7	622972.7	83.681	%			08:26:17
1	Ag 328.068†	-24603.7	-29112.1	13.395	ug/L	13.395	ppb	08:26:17
1	As 188.979†	-214.3	-215.5	-5.0853	ug/L	-5.0853	ppb	08:26:37
1	B 249.677†	1848.7	2185.6	-18.034	ug/L	-18.034	ppb	08:26:17
1	Ba 233.527†	-1673.2	-1952.1	4.3798	ug/L	4.3798	ppb	08:26:37
1	Be 313.107†	-11864.9	-9129.5	-3.0844	ug/L	-3.0844	ppb	08:26:17
1	Cd 226.502†	3618.4	4456.2	-3.7990	ug/L	-3.7990	ppb	08:26:37
1	Co 228.616†	237.2	364.2	-0.4639	ug/L	-0.4639	ppb	08:26:37
1	Cr 267.716†	46.1	-26.3	3.5909	ug/L	3.5909	ppb	08:26:37
1	Cu 324.752†	-122.5	-6198.7	6.6635	ug/L	6.6635	ppb	08:26:17
1	Mn 257.610†	-25217.2	-29950.3	8.1288	ug/L	8.1288	ppb	08:26:17
1	Mo 202.031†	-528.1	-636.8	-4.9235	ug/L	-4.9235	ppb	08:26:17
1	Ni 231.604†	271.7	223.8	4.8852	ug/L	4.8852	ppb	08:26:37
1	P 214.914†	607.7	451.8	35.364	ug/L	35.364	ppb	08:26:37
1	Pb 220.353†	-643.5	-687.6	7.8042	ug/L	7.8042	ppb	08:26:37
1	S 181.975 Axial†	120.2	91.4	7.5621	ug/L	7.5621	ppb	08:26:37
1	Sb 206.836†	58.5	27.1	-0.7172	ug/L	-0.7172	ppb	08:26:37
1	Se 196.026†	-2491.1	-2881.5	-56.706	ug/L	-56.706	ppb	08:26:37
1	Si 251.611†	-565.0	-1237.5	-34.030	ug/L	-34.030	ppb	08:26:37
1	Sn 189.927†	-420.1	-494.3	-15.912	ug/L	-15.912	ppb	08:26:37
1	Ti 334.940†	-8021.9	-7983.6	7.9674	ug/L	7.9674	ppb	08:26:17
1	Tl 190.801†	-135.5	-110.3	-14.412	ug/L	-14.412	ppb	08:26:37
1	U 409.014†	449025.2	526924.4	14458	ug/L	14458	ppb	08:26:17
1	V 292.402†	2871.1	4823.4	-2.1401	ug/L	-2.1401	ppb	08:26:17
1	Zn 213.857†	6450.9	6742.4	-7.6041	ug/L	-7.6041	ppb	08:26:37
1	SiO2†	-680.3	-1401.4	-82.979	ug/L	-82.979	ppb	08:27:34
2	Sc Radial	4757.0	4757.0	85.4	%			08:25:59
2	Y RADIAL	5107.7	5107.7	86.40	%			08:25:59
2	Al 396.153Radial†	632178.8	739878.4	539120	ug/L	539120	ppb	08:25:54
2	Ca 317.933Radial†	300099.2	351197.5	500710	ug/L	500710	ppb	08:25:54
2	Fe 238.204 Radial†	47847.0	55986.2	465420	ug/L	465420	ppb	08:25:59
2	K 766.490 Radial†	2689.4	435.1	-151.46	ug/L	-151.46	ppb	08:25:54
2	Mg 279.077 IEC†	13913.0	16281.5	505150	ug/L	505150	ppb	08:25:59
2	Na 589.592 Radial†	1647947.9	1929415.4	575870	ug/L	575870	ppb	08:25:54
2	Sr 421.552†	822.6	974.6	1.0736	ug/L	1.0736	ppb	08:25:59
2	Sc 361.383	829578.9	829578.9	92.287	%			08:26:43
2	Y 371.029	670999.6	670999.6	90.132	%			08:26:43
2	Ag 328.068†	-24230.2	-26625.1	22.193	ug/L	22.193	ppb	08:26:43
2	As 188.979†	-212.6	-195.6	0.8307	ug/L	0.8307	ppb	08:27:03
2	B 249.677†	1914.5	2100.4	-18.649	ug/L	-18.649	ppb	08:26:43
2	Ba 233.527†	-1708.3	-1848.4	4.7599	ug/L	4.7599	ppb	08:27:03
2	Be 313.107†	-11729.1	-7978.2	-2.6975	ug/L	-2.6975	ppb	08:26:43
2	Cd 226.502†	3617.7	4149.2	-5.9484	ug/L	-5.9484	ppb	08:27:03
2	Co 228.616†	228.3	334.4	-0.8544	ug/L	-0.8544	ppb	08:27:03
2	Cr 267.716†	-3.7	-84.2	3.2232	ug/L	3.2232	ppb	08:27:03
2	Cu 324.752†	-70.9	-6132.4	6.4154	ug/L	6.4154	ppb	08:26:43
2	Mn 257.610†	-25124.3	-27715.5	9.6628	ug/L	9.6628	ppb	08:26:43
2	Mo 202.031†	-514.6	-577.5	-1.9424	ug/L	-1.9424	ppb	08:26:43
2	Ni 231.604†	300.2	231.7	5.0587	ug/L	5.0587	ppb	08:27:03

2	P 214.914†	636.5	431.6	34.371	ug/L	34.371 ppb	08:27:03
2	Pb 220.353†	-640.8	-630.3	16.292	ug/L	16.292 ppb	08:27:03
2	S 181.975 Axial†	140.3	103.0	20.303	ug/L	20.303 ppb	08:27:03
2	Sb 206.836†	63.8	27.9	-0.6703	ug/L	-0.6703 ppb	08:27:03
2	Se 196.026†	-2501.1	-2681.6	27.385	ug/L	27.385 ppb	08:27:03
2	Si 251.611†	-576.5	-1202.1	-33.099	ug/L	-33.099 ppb	08:27:03
2	Sn 189.927†	-423.3	-462.2	-10.812	ug/L	-10.812 ppb	08:27:03
2	Ti 334.940†	-8412.1	-7727.5	9.0551	ug/L	9.0551 ppb	08:26:43
2	Tl 190.801†	-122.0	-84.2	-7.4033	ug/L	-7.4033 ppb	08:27:03
2	U 409.014†	444768.1	484310.7	13285	ug/L	13285 ppb	08:26:43
2	V 292.402†	2601.5	4288.3	-6.6933	ug/L	-6.6933 ppb	08:26:43
2	Zn 213.857†	6480.7	6228.8	-10.670	ug/L	-10.670 ppb	08:27:03
2	SiO2†	-535.4	-1186.8	-70.127	ug/L	-70.127 ppb	08:27:39
3	Sc Radial	4910.4	4910.4	88.2	%		08:26:10
3	Y RADIAL	5233.2	5233.2	88.53	%		08:26:10
3	Al 396.153Radial†	628142.7	712191.4	518940	ug/L	518940 ppb	08:26:05
3	Ca 317.933Radial†	298967.6	338943.6	483240	ug/L	483240 ppb	08:26:05
3	Fe 238.204 Radial†	47717.5	54090.2	449660	ug/L	449660 ppb	08:26:10
3	K 766.490 Radial†	2761.1	418.0	-147.53	ug/L	-147.53 ppb	08:26:05
3	Mg 279.077 IEC†	13878.2	15733.4	488150	ug/L	488150 ppb	08:26:10
3	Na 589.592 Radial†	1647451.6	1868607.7	557720	ug/L	557720 ppb	08:26:05
3	Sr 421.552†	859.2	986.0	1.3026	ug/L	1.3026 ppb	08:26:10
3	Sc 361.383	776834.8	776834.8	86.420	%		08:27:08
3	Y 371.029	628719.7	628719.7	84.453	%		08:27:08
3	Ag 328.068†	-24650.2	-28893.7	6.4605	ug/L	6.4605 ppb	08:27:08
3	As 188.979†	-221.8	-221.9	-11.149	ug/L	-11.149 ppb	08:27:28
3	B 249.677†	1839.3	2154.2	-15.456	ug/L	-15.456 ppb	08:27:08
3	Ba 233.527†	-1717.7	-1985.0	3.2537	ug/L	3.2537 ppb	08:27:28
3	Be 313.107†	-11829.8	-8957.7	-3.0274	ug/L	-3.0274 ppb	08:27:08
3	Cd 226.502†	3550.7	4337.9	-2.5268	ug/L	-2.5268 ppb	08:27:28
3	Co 228.616†	241.7	366.8	-0.0775	ug/L	-0.0775 ppb	08:27:28
3	Cr 267.716†	10.6	-67.9	2.7514	ug/L	2.7514 ppb	08:27:28
3	Cu 324.752†	-204.6	-6292.3	5.1597	ug/L	5.1597 ppb	08:27:08
3	Mn 257.610†	-25758.5	-30297.8	5.8607	ug/L	5.8607 ppb	08:27:08
3	Mo 202.031†	-568.2	-677.4	-9.1084	ug/L	-9.1084 ppb	08:27:08
3	Ni 231.604†	306.0	260.5	5.6873	ug/L	5.6873 ppb	08:27:28
3	P 214.914†	617.6	456.6	53.301	ug/L	53.301 ppb	08:27:28
3	Pb 220.353†	-644.2	-681.4	7.6517	ug/L	7.6517 ppb	08:27:28
3	S 181.975 Axial†	132.5	104.3	25.899	ug/L	25.899 ppb	08:27:28
3	Sb 206.836†	62.4	31.0	0.4261	ug/L	0.4261 ppb	08:27:28
3	Se 196.026†	-2448.9	-2805.2	-90.632	ug/L	-90.632 ppb	08:27:28
3	Si 251.611†	-543.6	-1206.5	-33.113	ug/L	-33.113 ppb	08:27:28
3	Sn 189.927†	-399.4	-465.7	-13.371	ug/L	-13.371 ppb	08:27:28
3	Ti 334.940†	-8307.2	-8225.0	6.9306	ug/L	6.9306 ppb	08:27:08
3	Tl 190.801†	-102.1	-70.1	-4.3326	ug/L	-4.3326 ppb	08:27:28
3	U 409.014†	451578.8	524913.5	14406	ug/L	14406 ppb	08:27:08
3	V 292.402†	2840.2	4756.0	0.3816	ug/L	0.3816 ppb	08:27:08
3	Zn 213.857†	6358.9	6564.6	-5.8321	ug/L	-5.8321 ppb	08:27:28
3	SiO2†	-523.4	-1212.3	-71.434	ug/L	-71.434 ppb	08:27:44

Mean Data: LR1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	791964.8	88.103	%	3.6468				4.14%
Sc Radial	4786.6	86.0	%	2.01				2.34%
Y 371.029	640897.3	86.088	%	3.5230				4.09%
Y RADIAL	5117.9	86.58	%	1.869				2.16%
Ag 328.068†	-28210.3	14.016	ug/L	7.8845	14.016	ppb	7.8845	56.25%
Al 396.153Radial†	727117.3	529820	ug/L	10179.1	529820	ppb	10179.1	1.92%
QC value within limits for Al 396.153Radial Recovery = 105.96%								
As 188.979†	-211.0	-5.1347	ug/L	5.99020	-5.1347	ppb	5.99020	116.66%
B 249.677†	2146.8	-17.380	ug/L	1.6944	-17.380	ppb	1.6944	9.75%
Ba 233.527†	-1928.5	4.1311	ug/L	0.78333	4.1311	ppb	0.78333	18.96%
Be 313.107†	-8688.5	-2.9364	ug/L	0.20885	-2.9364	ppb	0.20885	7.11%
Ca 317.933Radial†	346220.9	493620	ug/L	9185.6	493620	ppb	9185.6	1.86%
QC value within limits for Ca 317.933Radial Recovery = 98.72%								
Cd 226.502†	4314.5	-4.0914	ug/L	1.72944	-4.0914	ppb	1.72944	42.27%
Co 228.616†	355.2	-0.4653	ug/L	0.38848	-0.4653	ppb	0.38848	83.49%
Cr 267.716†	-59.5	3.1885	ug/L	0.42084	3.1885	ppb	0.42084	13.20%
Cu 324.752†	-6207.8	6.0795	ug/L	0.80620	6.0795	ppb	0.80620	13.26%

Fe 238.204 Radial†	55696.5	463010	ug/L	12326.4	463010	ppb	12326.4	2.66%
QC value within limits for Fe 238.204 Radial Recovery = 92.60%								
K 766.490 Radial†	495.2	-138.70	ug/L	18.804	-138.70	ppb	18.804	13.56%
Mg 279.077 IEC†	16203.1	502720	ug/L	13520.9	502720	ppb	13520.9	2.69%
QC value within limits for Mg 279.077 IEC Recovery = 100.54%								
Mn 257.610†	-29321.2	7.8841	ug/L	1.91283	7.8841	ppb	1.91283	24.26%
Mo 202.031†	-630.6	-5.3248	ug/L	3.59978	-5.3248	ppb	3.59978	67.60%
Na 589.592 Radial†	1908878.8	569740	ug/L	10410.1	569740	ppb	10410.1	1.83%
QC value greater than the upper limit for Na 589.592 Radial Recovery = 113.95%								
Ni 231.604†	238.7	5.2104	ug/L	0.42201	5.2104	ppb	0.42201	8.10%
P 214.914†	446.7	41.012	ug/L	10.6542	41.012	ppb	10.6542	25.98%
Pb 220.353†	-666.4	10.582	ug/L	4.9448	10.582	ppb	4.9448	46.73%
S 181.975 Axial†	99.6	17.922	ug/L	9.3978	17.922	ppb	9.3978	52.44%
Sb 206.836†	28.7	-0.3205	ug/L	0.64693	-0.3205	ppb	0.64693	201.87%
Se 196.026†	-2789.5	-39.984	ug/L	60.7594	-39.984	ppb	60.7594	151.96%
Si 251.611†	-1215.4	-33.414	ug/L	0.5335	-33.414	ppb	0.5335	1.60%
Sn 189.927†	-474.0	-13.365	ug/L	2.5500	-13.365	ppb	2.5500	19.08%
Sr 421.552†	1006.4	1.3259	ug/L	0.26466	1.3259	ppb	0.26466	19.96%
Ti 334.940†	-7978.7	7.9844	ug/L	1.06234	7.9844	ppb	1.06234	13.31%
Tl 190.801†	-88.2	-8.7161	ug/L	5.16646	-8.7161	ppb	5.16646	59.28%
U 409.014†	512049.5	14050	ug/L	662.6	14050	ppb	662.6	4.72%
QC value within limits for U 409.014 Recovery = 93.67%								
V 292.402†	4622.6	-2.8173	ug/L	3.58574	-2.8173	ppb	3.58574	127.28%
Zn 213.857†	6511.9	-8.0354	ug/L	2.44758	-8.0354	ppb	2.44758	30.46%
SiO2†	-1266.8	-74.847	ug/L	7.0731	-74.847	ppb	7.0731	9.45%

QC Failed. Continue with analysis.

Sequence No.: 12
Sample ID: LR2
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 16
Date Collected: 12/19/2009 08:29:53
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR2

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5447.1	5447.1	97.8	%			08:31:51
1	Y RADIAL	5800.8	5800.8	98.13	%			08:31:51
1	Al 396.153Radial†	614.4	644.3	51.060	ug/L	51.060	ppb	08:31:51
1	Ca 317.933Radial†	41.7	23.1	32.879	ug/L	32.879	ppb	08:32:11
1	Fe 238.204 Radial†	-25.4	-36.9	-13.698	ug/L	-13.698	ppb	08:32:11
1	K 766.490 Radial†	1623659.6	1656783.1	291920	ug/L	291920	ppb	08:31:46
1	Mg 279.077 IEC†	-7.8	-9.4	-93.210	ug/L	-93.210	ppb	08:32:11
1	Na 589.592 Radial†	-294.4	460.8	137.53	ug/L	137.53	ppb	08:31:51
1	Sr 421.552†	1563831.3	1598358.5	9372.6	ug/L	9372.6	ppb	08:31:46
1	Sc 361.383	863865.1	863865.1	96.102	%			08:33:28
1	Y 371.029	697025.7	697025.7	93.628	%			08:33:28
1	Ag 328.068†	-8155.2	-8855.9	1.0213	ug/L	1.0213	ppb	08:33:33
1	As 188.979†	26297.6	27399.2	10029	ug/L	10029	ppb	08:33:33
1	B 249.677†	233893.2	243407.3	4971.8	ug/L	4971.8	ppb	08:33:28
1	Ba 233.527†	2028481.0	2110771.6	14368	ug/L	14368	ppb	08:33:28
1	Be 313.107†	8211275.7	8549107.9	2886.3	ug/L	2886.3	ppb	08:33:22
1	Cd 226.502†	952935.8	991822.1	9706.2	ug/L	9706.2	ppb	08:33:28
1	Co 228.616†	509788.5	530555.8	9288.1	ug/L	9288.1	ppb	08:33:33
1	Cr 267.716†	2270999.3	2363045.2	23975	ug/L	23975	ppb	08:33:28
1	Cu 324.752†	6917777.4	7192350.6	20321	ug/L	20321	ppb	08:33:22
1	Mn 257.610†	9150004.2	9520694.7	9390.9	ug/L	9390.9	ppb	08:33:22
1	Mo 202.031†	155188.8	161464.3	9773.6	ug/L	9773.6	ppb	08:33:33
1	Ni 231.604†	430929.1	448316.7	9789.4	ug/L	9789.4	ppb	08:33:28
1	P 214.914†	34551.5	35695.1	15505	ug/L	15505	ppb	08:33:33
1	Pb 220.353†	224071.9	233225.8	24585	ug/L	24585	ppb	08:33:33
1	S 181.975 Axial†	41020.8	42635.9	52306	ug/L	52306	ppb	08:33:33
1	Sb 206.836†	33975.2	35312.3	10385	ug/L	10385	ppb	08:33:33
1	Se 196.026†	17780.4	18530.2	10126	ug/L	10126	ppb	08:33:33
1	Si 251.611†	1622065.9	1687289.6	47278	ug/L	47278	ppb	08:33:28
1	Sn 189.927†	66912.6	69623.5	10442	ug/L	10442	ppb	08:33:33
1	Ti 334.940†	6528399.3	6794620.0	9815.5	ug/L	9815.5	ppb	08:33:22
1	Tl 190.801†	35746.3	37244.5	9723.1	ug/L	9723.1	ppb	08:33:33
1	U 409.014†	-1063.6	1265.5	-11.372	ug/L	-11.372	ppb	08:33:33
1	V 292.402†	1510866.6	1573626.3	10128	ug/L	10128	ppb	08:33:28
1	Zn 213.857†	1655286.5	1721641.8	14033	ug/L	14033	ppb	08:33:28
1	SiO2†	1621563.5	1686737.7	101470	ug/L	101470	ppb	08:34:21
2	Sc Radial	5508.3	5508.3	98.9	%			08:32:21
2	Y RADIAL	5846.5	5846.5	98.90	%			08:32:21
2	Al 396.153Radial†	656.0	679.4	93.074	ug/L	93.074	ppb	08:32:21
2	Ca 317.933Radial†	40.7	21.5	30.691	ug/L	30.691	ppb	08:32:41
2	Fe 238.204 Radial†	-24.5	-35.7	-13.399	ug/L	-13.399	ppb	08:32:41
2	K 766.490 Radial†	1592082.3	1606413.9	283050	ug/L	283050	ppb	08:32:16
2	Mg 279.077 IEC†	-5.6	-7.0	-28.305	ug/L	-28.305	ppb	08:32:41
2	Na 589.592 Radial†	-359.7	398.1	118.82	ug/L	118.82	ppb	08:32:21
2	Sr 421.552†	1529669.9	1546057.6	9065.9	ug/L	9065.9	ppb	08:32:16
2	Sc 361.383	885471.4	885471.4	98.505	%			08:33:48
2	Y 371.029	716006.2	716006.2	96.177	%			08:33:48
2	Ag 328.068†	-8015.3	-8506.8	1.3835	ug/L	1.3835	ppb	08:33:53
2	As 188.979†	25907.3	26335.3	9640.3	ug/L	9640.3	ppb	08:33:53
2	B 249.677†	233463.7	237032.6	4841.8	ug/L	4841.8	ppb	08:33:48
2	Ba 233.527†	2013175.5	2043729.0	13912	ug/L	13912	ppb	08:33:48
2	Be 313.107†	8172181.3	8300929.0	2802.5	ug/L	2802.5	ppb	08:33:42
2	Cd 226.502†	946780.5	961377.5	9408.3	ug/L	9408.3	ppb	08:33:48
2	Co 228.616†	505323.2	513078.8	8982.0	ug/L	8982.0	ppb	08:33:53
2	Cr 267.716†	2257842.3	2292026.0	23255	ug/L	23255	ppb	08:33:48
2	Cu 324.752†	6856868.5	6954869.1	19650	ug/L	19650	ppb	08:33:42
2	Mn 257.610†	9097309.1	9234873.5	9109.0	ug/L	9109.0	ppb	08:33:42
2	Mo 202.031†	152811.7	155110.8	9389.1	ug/L	9389.1	ppb	08:33:53
2	Ni 231.604†	428197.3	434601.8	9489.9	ug/L	9489.9	ppb	08:33:48

2	P 214.914†	33955.7	34212.9	14834	ug/L	14834 ppb	08:33:53
2	Pb 220.353†	220934.2	224351.0	23650	ug/L	23650 ppb	08:33:53
2	S 181.975 Axial†	40452.0	41016.9	50319	ug/L	50319 ppb	08:33:53
2	Sb 206.836†	33461.0	33927.5	9972.9	ug/L	9972.9 ppb	08:33:53
2	Se 196.026†	17510.9	17805.2	9730.0	ug/L	9730.0 ppb	08:33:53
2	Si 251.611†	1616483.2	1640436.6	45968	ug/L	45968 ppb	08:33:48
2	Sn 189.927†	66028.6	67027.2	10053	ug/L	10053 ppb	08:33:53
2	Ti 334.940†	6483993.3	6583778.4	9510.9	ug/L	9510.9 ppb	08:33:42
2	Tl 190.801†	35327.2	35911.4	9375.5	ug/L	9375.5 ppb	08:33:53
2	U 409.014†	-1318.4	1033.8	-16.365	ug/L	-16.365 ppb	08:33:53
2	V 292.402†	1503274.4	1527556.7	9830.4	ug/L	9830.4 ppb	08:33:48
2	Zn 213.857†	1646160.2	1670347.8	13615	ug/L	13615 ppb	08:33:48
2	SiO2†	1643194.6	1667524.2	100330	ug/L	100330 ppb	08:34:28
3	Sc Radial	5347.2	5347.2	96.0	%		08:32:52
3	Y RADIAL	5646.4	5646.4	95.52	%		08:32:52
3	Al 396.153Radial†	614.0	655.7	75.242	ug/L	75.242 ppb	08:32:52
3	Ca 317.933Radial†	35.2	17.0	24.301	ug/L	24.301 ppb	08:33:12
3	Fe 238.204 Radial†	-21.5	-33.3	6.6826	ug/L	6.6826 ppb	08:33:12
3	K 766.490 Radial†	1632133.2	1696581.5	298940	ug/L	298940 ppb	08:32:47
3	Mg 279.077 IEC†	-4.4	-6.0	4.6751	ug/L	4.6751 ppb	08:33:12
3	Na 589.592 Radial†	-368.2	378.3	112.91	ug/L	112.91 ppb	08:32:52
3	Sr 421.552†	1572114.2	1636817.0	9598.1	ug/L	9598.1 ppb	08:32:47
3	Sc 361.383	882318.6	882318.6	98.154	%		08:34:08
3	Y 371.029	712097.8	712097.8	95.652	%		08:34:08
3	Ag 328.068†	-8070.4	-8592.1	1.0600	ug/L	1.0600 ppb	08:34:13
3	As 188.979†	25636.3	26153.2	9574.1	ug/L	9574.1 ppb	08:34:13
3	B 249.677†	232894.6	237299.7	4847.2	ug/L	4847.2 ppb	08:34:08
3	Ba 233.527†	2015206.8	2053101.5	13976	ug/L	13976 ppb	08:34:08
3	Be 313.107†	8139672.2	8297454.3	2801.3	ug/L	2801.3 ppb	08:34:01
3	Cd 226.502†	947584.7	965631.4	9449.9	ug/L	9449.9 ppb	08:34:08
3	Co 228.616†	504163.3	513730.3	8993.4	ug/L	8993.4 ppb	08:34:13
3	Cr 267.716†	2255404.9	2297733.4	23313	ug/L	23313 ppb	08:34:08
3	Cu 324.752†	6828189.6	6950525.2	19638	ug/L	19638 ppb	08:34:01
3	Mn 257.610†	9053696.6	9223442.7	9097.7	ug/L	9097.7 ppb	08:34:01
3	Mo 202.031†	152470.5	155317.5	9401.6	ug/L	9401.6 ppb	08:34:13
3	Ni 231.604†	428074.6	436030.2	9521.1	ug/L	9521.1 ppb	08:34:08
3	P 214.914†	33915.4	34295.0	14879	ug/L	14879 ppb	08:34:13
3	Pb 220.353†	220344.7	224551.9	23671	ug/L	23671 ppb	08:34:13
3	S 181.975 Axial†	40057.8	40762.0	50007	ug/L	50007 ppb	08:34:13
3	Sb 206.836†	33322.6	33907.9	9966.2	ug/L	9966.2 ppb	08:34:13
3	Se 196.026†	17433.7	17790.0	9721.8	ug/L	9721.8 ppb	08:34:13
3	Si 251.611†	1615482.8	1645281.4	46099	ug/L	46099 ppb	08:34:08
3	Sn 189.927†	65867.2	67102.2	10064	ug/L	10064 ppb	08:34:13
3	Ti 334.940†	6452914.2	6575636.6	9499.1	ug/L	9499.1 ppb	08:34:01
3	Tl 190.801†	35128.8	35837.4	9356.1	ug/L	9356.1 ppb	08:34:13
3	U 409.014†	-1074.9	1277.1	-9.7754	ug/L	-9.7754 ppb	08:34:13
3	V 292.402†	1499608.5	1529275.3	9841.5	ug/L	9841.5 ppb	08:34:08
3	Zn 213.857†	1646870.4	1677043.1	13670	ug/L	13670 ppb	08:34:08
3	SiO2†	1621980.5	1651872.1	99374	ug/L	99374 ppb	08:34:35

Mean Data: LR2

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	877218.4	97.587	%	1.2984				1.33%
Sc Radial	5434.2	97.6	%	1.46				1.50%
Y 371.029	708376.6	95.153	%	1.3463				1.41%
Y RADIAL	5764.5	97.52	%	1.773				1.82%
Ag 328.068†	-8651.6	1.1549	ug/L	0.19889	1.1549	ppb	0.19889	17.22%
Al 396.153Radial†	659.8	73.125	ug/L	21.0872	73.125	ppb	21.0872	28.84%
As 188.979†	26629.2	9747.8	ug/L	245.73	9747.8	ppb	245.73	2.52%
QC value within limits for As 188.979 Recovery = 97.48%								
B 249.677†	239246.5	4886.9	ug/L	73.56	4886.9	ppb	73.56	1.51%
QC value within limits for B 249.677 Recovery = 97.74%								
Ba 233.527†	2069200.7	14085	ug/L	247.1	14085	ppb	247.1	1.75%
QC value within limits for Ba 233.527 Recovery = 93.90%								
Be 313.107†	8382497.1	2830.1	ug/L	48.75	2830.1	ppb	48.75	1.72%
QC value within limits for Be 313.107 Recovery = 94.34%								
Ca 317.933Radial†	20.5	29.290	ug/L	4.4572	29.290	ppb	4.4572	15.22%
Cd 226.502†	972943.7	9521.5	ug/L	161.35	9521.5	ppb	161.35	1.69%
QC value within limits for Cd 226.502 Recovery = 95.21%								

Co 228.616†	519121.6	9087.8 ug/L	173.56	9087.8 ppb	173.56	1.91%
QC value within limits for Co 228.616 Recovery = 90.88%						
Cr 267.716†	2317601.5	23514 ug/L	400.3	23514 ppb	400.3	1.70%
QC value within limits for Cr 267.716 Recovery = 94.06%						
Cu 324.752†	7032581.6	19870 ug/L	391.0	19870 ppb	391.0	1.97%
QC value within limits for Cu 324.752 Recovery = 99.35%						
Fe 238.204 Radial†	-35.3	-6.8049 ug/L	11.68145	-6.8049 ppb	11.68145	171.66%
K 766.490 Radial†	1653259.5	291300 ug/L	7964.1	291300 ppb	7964.1	2.73%
QC value within limits for K 766.490 Radial Recovery = 97.10%						
Mg 279.077 IEC†	-7.5	-38.946 ug/L	49.8026	-38.946 ppb	49.8026	127.87%
Mn 257.610†	9326337.0	9199.2 ug/L	166.12	9199.2 ppb	166.12	1.81%
QC value within limits for Mn 257.610 Recovery = 91.99%						
Mo 202.031†	157297.6	9521.4 ug/L	218.52	9521.4 ppb	218.52	2.30%
QC value within limits for Mo 202.031 Recovery = 95.21%						
Na 589.592 Radial†	412.4	123.09 ug/L	12.850	123.09 ppb	12.850	10.44%
Ni 231.604†	439649.6	9600.1 ug/L	164.63	9600.1 ppb	164.63	1.71%
QC value within limits for Ni 231.604 Recovery = 96.00%						
P 214.914†	34734.3	15072 ug/L	375.0	15072 ppb	375.0	2.49%
QC value within limits for P 214.914 Recovery = 100.48%						
Pb 220.353†	227376.2	23969 ug/L	534.2	23969 ppb	534.2	2.23%
QC value within limits for Pb 220.353 Recovery = 95.87%						
S 181.975 Axial†	41471.6	50877 ug/L	1246.8	50877 ppb	1246.8	2.45%
QC value within limits for S 181.975 Axial Recovery = 101.75%						
Sb 206.836†	34382.6	10108 ug/L	240.0	10108 ppb	240.0	2.37%
QC value within limits for Sb 206.836 Recovery = 101.08%						
Se 196.026†	18041.8	9859.3 ug/L	231.13	9859.3 ppb	231.13	2.34%
QC value within limits for Se 196.026 Recovery = 98.59%						
Si 251.611†	1657669.2	46448 ug/L	721.6	46448 ppb	721.6	1.55%
QC value within limits for Si 251.611 Recovery = 92.90%						
Sn 189.927†	67917.6	10186 ug/L	221.6	10186 ppb	221.6	2.18%
QC value within limits for Sn 189.927 Recovery = 101.86%						
Sr 421.552†	1593744.4	9345.5 ug/L	267.13	9345.5 ppb	267.13	2.86%
QC value within limits for Sr 421.552 Recovery = 93.46%						
Ti 334.940†	6651345.0	9608.5 ug/L	179.36	9608.5 ppb	179.36	1.87%
QC value within limits for Ti 334.940 Recovery = 96.09%						
Tl 190.801†	36331.1	9484.9 ug/L	206.54	9484.9 ppb	206.54	2.18%
QC value within limits for Tl 190.801 Recovery = 94.85%						
U 409.014†	1192.2	-12.504 ug/L	3.4375	-12.504 ppb	3.4375	27.49%
V 292.402†	1543486.1	9933.4 ug/L	168.88	9933.4 ppb	168.88	1.70%
QC value within limits for V 292.402 Recovery = 99.33%						
Zn 213.857†	1689677.6	13773 ug/L	227.2	13773 ppb	227.2	1.65%
QC value within limits for Zn 213.857 Recovery = 91.82%						
SiO2†	1668711.3	100390 ug/L	1051.1	100390 ppb	1051.1	1.05%
QC value within limits for SiO2 Recovery = 93.83%						

All analyte(s) passed QC.

Sequence No.: 13
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 12/19/2009 08:36:44
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	5478.0	5478.0	98.4	%			08:38:36
1	Y RADIAL	5868.1	5868.1	99.27	%			08:38:36
1	Al 396.153Radial†	6604.6	6728.5	4881.5	ug/L	4881.5	ppb	08:38:36
1	Ca 317.933Radial†	3486.7	3523.9	5024.2	ug/L	5024.2	ppb	08:38:56
1	Fe 238.204 Radial†	620.1	619.3	5164.3	ug/L	5164.3	ppb	08:38:56
1	K 766.490 Radial†	31159.4	28954.6	5094.6	ug/L	5094.6	ppb	08:38:36
1	Mg 279.077 IEC†	167.6	169.0	5252.3	ug/L	5252.3	ppb	08:38:56
1	Na 589.592 Radial†	32390.5	33679.8	10052	ug/L	10052	ppb	08:38:36
1	Sr 421.552†	84442.2	85829.5	503.25	ug/L	503.25	ppb	08:38:36
1	Sc 361.383	895534.1	895534.1	99.625	%			08:39:54
1	Y 371.029	729151.2	729151.2	97.943	%			08:39:54
1	Ag 328.068†	114332.8	114393.8	496.16	ug/L	496.16	ppb	08:39:59
1	As 188.979†	1390.2	1430.3	523.52	ug/L	523.52	ppb	08:40:19
1	B 249.677†	25190.7	25311.6	517.51	ug/L	517.51	ppb	08:39:59
1	Ba 233.527†	73117.2	73395.3	500.14	ug/L	500.14	ppb	08:39:59
1	Be 313.107†	1455940.8	1466158.6	492.65	ug/L	492.65	ppb	08:39:54
1	Cd 226.502†	50630.1	51050.1	499.07	ug/L	499.07	ppb	08:39:59
1	Co 228.616†	28353.7	28547.6	499.89	ug/L	499.89	ppb	08:39:59
1	Cr 267.716†	49064.5	49169.3	499.31	ug/L	499.31	ppb	08:39:59
1	Cu 324.752†	180343.2	174967.2	494.61	ug/L	494.61	ppb	08:39:59
1	Mn 257.610†	500444.2	501838.7	495.42	ug/L	495.42	ppb	08:39:54
1	Mo 202.031†	8197.4	8208.4	497.23	ug/L	497.23	ppb	08:40:19
1	Ni 231.604†	22947.2	22940.1	500.90	ug/L	500.90	ppb	08:39:59
1	P 214.914†	4963.5	4724.1	2389.3	ug/L	2389.3	ppb	08:40:19
1	Pb 220.353†	4647.1	4728.7	499.82	ug/L	499.82	ppb	08:40:19
1	S 181.975 Axial†	861.6	815.9	999.92	ug/L	999.92	ppb	08:40:19
1	Sb 206.836†	1714.0	1679.3	510.25	ug/L	510.25	ppb	08:40:19
1	Se 196.026†	881.3	913.1	515.40	ug/L	515.40	ppb	08:40:19
1	Si 251.611†	87737.7	87490.9	2455.2	ug/L	2455.2	ppb	08:39:59
1	Sn 189.927†	3302.0	3311.0	497.16	ug/L	497.16	ppb	08:40:19
1	Ti 334.940†	335831.9	338485.0	489.27	ug/L	489.27	ppb	08:39:54
1	Tl 190.801†	1909.7	1965.0	512.91	ug/L	512.91	ppb	08:40:19
1	U 409.014†	15318.7	17748.7	487.40	ug/L	487.40	ppb	08:39:59
1	V 292.402†	76180.0	77936.4	502.35	ug/L	502.35	ppb	08:39:59
1	Zn 213.857†	61498.7	60936.9	495.31	ug/L	495.31	ppb	08:39:59
1	SiO2†	87682.4	87406.1	5266.4	ug/L	5266.4	ppb	08:41:27
2	Sc Radial	5470.7	5470.7	98.3	%			08:39:02
2	Y RADIAL	5851.8	5851.8	98.99	%			08:39:02
2	Al 396.153Radial†	6688.6	6823.0	4950.3	ug/L	4950.3	ppb	08:39:02
2	Ca 317.933Radial†	3462.2	3503.7	4995.4	ug/L	4995.4	ppb	08:39:22
2	Fe 238.204 Radial†	613.1	613.0	5112.0	ug/L	5112.0	ppb	08:39:22
2	K 766.490 Radial†	31323.5	29164.0	5131.5	ug/L	5131.5	ppb	08:39:02
2	Mg 279.077 IEC†	165.2	166.7	5181.2	ug/L	5181.2	ppb	08:39:22
2	Na 589.592 Radial†	32449.9	33784.4	10084	ug/L	10084	ppb	08:39:02
2	Sr 421.552†	84752.6	86260.4	505.77	ug/L	505.77	ppb	08:39:02
2	Sc 361.383	898202.6	898202.6	99.921	%			08:40:25
2	Y 371.029	731599.8	731599.8	98.272	%			08:40:25
2	Ag 328.068†	114436.4	114156.4	495.13	ug/L	495.13	ppb	08:40:30
2	As 188.979†	1396.5	1432.5	524.29	ug/L	524.29	ppb	08:40:50
2	B 249.677†	25180.5	25226.3	515.77	ug/L	515.77	ppb	08:40:30
2	Ba 233.527†	73300.5	73360.7	499.90	ug/L	499.90	ppb	08:40:30
2	Be 313.107†	1463841.3	1469723.4	493.85	ug/L	493.85	ppb	08:40:25
2	Cd 226.502†	50754.9	51024.0	498.82	ug/L	498.82	ppb	08:40:30
2	Co 228.616†	28381.3	28490.8	498.90	ug/L	498.90	ppb	08:40:30
2	Cr 267.716†	49228.5	49187.1	499.49	ug/L	499.49	ppb	08:40:30
2	Cu 324.752†	180319.6	174405.8	493.02	ug/L	493.02	ppb	08:40:30
2	Mn 257.610†	501757.6	501660.6	495.24	ug/L	495.24	ppb	08:40:25
2	Mo 202.031†	8258.5	8245.1	499.45	ug/L	499.45	ppb	08:40:50
2	Ni 231.604†	22915.3	22839.7	498.71	ug/L	498.71	ppb	08:40:30

2	P 214.914†	5024.0	4769.9	2413.5 ug/L	2413.5 ppb	08:40:50
2	Pb 220.353†	4668.9	4736.6	500.68 ug/L	500.68 ppb	08:40:50
2	S 181.975 Axial†	876.0	827.7	1014.4 ug/L	1014.4 ppb	08:40:50
2	Sb 206.836†	1737.3	1697.4	515.75 ug/L	515.75 ppb	08:40:50
2	Se 196.026†	889.7	918.9	518.39 ug/L	518.39 ppb	08:40:50
2	Si 251.611†	87773.8	87265.3	2448.7 ug/L	2448.7 ppb	08:40:30
2	Sn 189.927†	3318.9	3318.0	498.22 ug/L	498.22 ppb	08:40:50
2	Ti 334.940†	337085.9	338738.5	489.63 ug/L	489.63 ppb	08:40:25
2	Tl 190.801†	1909.4	1959.0	511.36 ug/L	511.36 ppb	08:40:50
2	U 409.014†	15289.2	17673.5	485.34 ug/L	485.34 ppb	08:40:30
2	V 292.402†	76392.5	77922.0	502.29 ug/L	502.29 ppb	08:40:30
2	Zn 213.857†	61499.2	60754.0	493.83 ug/L	493.83 ppb	08:40:30
2	SiO2†	86796.8	86258.4	5196.8 ug/L	5196.8 ppb	08:41:32
3	Sc Radial	5527.0	5527.0	99.3 %		08:39:27
3	Y RADIAL	5885.1	5885.1	99.56 %		08:39:27
3	Al 396.153Radial†	6729.7	6795.1	4930.3 ug/L	4930.3 ppb	08:39:27
3	Ca 317.933Radial†	3462.1	3467.7	4944.1 ug/L	4944.1 ppb	08:39:47
3	Fe 238.204 Radial†	615.5	609.1	5078.8 ug/L	5078.8 ppb	08:39:47
3	K 766.490 Radial†	31748.3	29267.2	5149.6 ug/L	5149.6 ppb	08:39:27
3	Mg 279.077 IEC†	166.7	166.6	5177.1 ug/L	5177.1 ppb	08:39:47
3	Na 589.592 Radial†	32818.5	33819.3	10094 ug/L	10094 ppb	08:39:27
3	Sr 421.552†	85542.3	86177.5	505.29 ug/L	505.29 ppb	08:39:27
3	Sc 361.383	903528.7	903528.7	100.51 %		08:40:56
3	Y 371.029	736412.2	736412.2	98.918 %		08:40:56
3	Ag 328.068†	115070.6	114112.3	494.92 ug/L	494.92 ppb	08:41:02
3	As 188.979†	1365.6	1393.4	510.12 ug/L	510.12 ppb	08:41:22
3	B 249.677†	25303.2	25199.7	515.23 ug/L	515.23 ppb	08:41:02
3	Ba 233.527†	73502.5	73129.3	498.32 ug/L	498.32 ppb	08:41:02
3	Be 313.107†	1471318.1	1468526.2	493.45 ug/L	493.45 ppb	08:40:56
3	Cd 226.502†	50979.8	50948.3	498.08 ug/L	498.08 ppb	08:41:02
3	Co 228.616†	28513.2	28454.5	498.24 ug/L	498.24 ppb	08:41:02
3	Cr 267.716†	49272.1	48940.0	496.98 ug/L	496.98 ppb	08:41:02
3	Cu 324.752†	181324.8	174342.1	492.84 ug/L	492.84 ppb	08:41:02
3	Mn 257.610†	503616.2	500549.7	494.14 ug/L	494.14 ppb	08:40:56
3	Mo 202.031†	8154.3	8092.7	490.22 ug/L	490.22 ppb	08:41:22
3	Ni 231.604†	23027.9	22816.5	498.20 ug/L	498.20 ppb	08:41:02
3	P 214.914†	4962.9	4679.4	2366.2 ug/L	2366.2 ppb	08:41:22
3	Pb 220.353†	4639.8	4680.1	494.69 ug/L	494.69 ppb	08:41:22
3	S 181.975 Axial†	861.8	808.4	990.74 ug/L	990.74 ppb	08:41:22
3	Sb 206.836†	1687.6	1637.7	497.57 ug/L	497.57 ppb	08:41:22
3	Se 196.026†	881.0	905.0	510.69 ug/L	510.69 ppb	08:41:22
3	Si 251.611†	88176.0	87147.6	2445.6 ug/L	2445.6 ppb	08:41:02
3	Sn 189.927†	3280.6	3260.4	489.56 ug/L	489.56 ppb	08:41:22
3	Ti 334.940†	338176.1	337834.6	488.32 ug/L	488.32 ppb	08:40:56
3	Tl 190.801†	1881.8	1920.3	501.31 ug/L	501.31 ppb	08:41:22
3	U 409.014†	15529.1	17821.9	489.43 ug/L	489.43 ppb	08:41:02
3	V 292.402†	76616.9	77694.6	500.73 ug/L	500.73 ppb	08:41:02
3	Zn 213.857†	61788.1	60678.6	493.22 ug/L	493.22 ppb	08:41:02
3	SiO2†	86670.9	85621.1	5158.6 ug/L	5158.6 ppb	08:41:37

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	899088.5	100.02	%	0.453				0.45%
Sc Radial	5491.9	98.6	%	0.55				0.56%
Y 371.029	732387.7	98.378	%	0.4962				0.50%
Y RADIAL	5868.3	99.27	%	0.282				0.28%
Ag 328.068†	114220.8	495.40	ug/L	0.668	495.40	ppb	0.668	0.13%
QC value within limits for Ag 328.068 Recovery = 99.08%								
Al 396.153Radial†	6782.2	4920.7	ug/L	35.38	4920.7	ppb	35.38	0.72%
QC value within limits for Al 396.153Radial Recovery = 98.41%								
As 188.979†	1418.7	519.31	ug/L	7.969	519.31	ppb	7.969	1.53%
QC value within limits for As 188.979 Recovery = 103.86%								
B 249.677†	25245.8	516.17	ug/L	1.191	516.17	ppb	1.191	0.23%
QC value within limits for B 249.677 Recovery = 103.23%								
Ba 233.527†	73295.1	499.45	ug/L	0.987	499.45	ppb	0.987	0.20%
QC value within limits for Ba 233.527 Recovery = 99.89%								
Be 313.107†	1468136.1	493.32	ug/L	0.609	493.32	ppb	0.609	0.12%
QC value within limits for Be 313.107 Recovery = 98.66%								
Ca 317.933Radial†	3498.5	4987.9	ug/L	40.58	4987.9	ppb	40.58	0.81%

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   QC value within limits for Ca 317.933Radial  Recovery = 99.76%
Cd 226.502†            51007.5      498.66 ug/L         0.514      498.66 ppb          0.514   0.10%
   QC value within limits for Cd 226.502  Recovery = 99.73%
Co 228.616†            28497.6      499.01 ug/L         0.828      499.01 ppb          0.828   0.17%
   QC value within limits for Co 228.616  Recovery = 99.80%
Cr 267.716†            49098.8      498.59 ug/L         1.400      498.59 ppb          1.400   0.28%
   QC value within limits for Cr 267.716  Recovery = 99.72%
Cu 324.752†           174571.7      493.49 ug/L         0.974      493.49 ppb          0.974   0.20%
   QC value within limits for Cu 324.752  Recovery = 98.70%
Fe 238.204 Radial†       613.8      5118.4 ug/L         43.12      5118.4 ppb          43.12   0.84%
   QC value within limits for Fe 238.204 Radial  Recovery = 102.37%
K 766.490 Radial†      29128.6      5125.2 ug/L         28.07      5125.2 ppb          28.07   0.55%
   QC value within limits for K 766.490 Radial  Recovery = 102.50%
Mg 279.077 IEC†          167.4      5203.5 ug/L         42.27      5203.5 ppb          42.27   0.81%
   QC value within limits for Mg 279.077 IEC  Recovery = 104.07%
Mn 257.610†           501349.7      494.93 ug/L         0.692      494.93 ppb          0.692   0.14%
   QC value within limits for Mn 257.610  Recovery = 98.99%
Mo 202.031†             8182.1      495.63 ug/L         4.816      495.63 ppb          4.816   0.97%
   QC value within limits for Mo 202.031  Recovery = 99.13%
Na 589.592 Radial†     33761.2       10077 ug/L          21.7       10077 ppb           21.7   0.21%
   QC value within limits for Na 589.592 Radial  Recovery = 100.77%
Ni 231.604†            22865.5      499.27 ug/L         1.434      499.27 ppb          1.434   0.29%
   QC value within limits for Ni 231.604  Recovery = 99.85%
P 214.914†              4724.5      2389.6 ug/L         23.64      2389.6 ppb          23.64   0.99%
   QC value within limits for P 214.914  Recovery = 95.59%
Pb 220.353†             4715.2      498.40 ug/L         3.234      498.40 ppb          3.234   0.65%
   QC value within limits for Pb 220.353  Recovery = 99.68%
S 181.975 Axial†         817.3      1001.7 ug/L         11.93      1001.7 ppb          11.93   1.19%
   QC value within limits for S 181.975 Axial  Recovery = 100.17%
Sb 206.836†             1671.5      507.86 ug/L         9.325      507.86 ppb          9.325   1.84%
   QC value within limits for Sb 206.836  Recovery = 101.57%
Se 196.026†              912.3      514.83 ug/L         3.881      514.83 ppb          3.881   0.75%
   QC value within limits for Se 196.026  Recovery = 102.97%
Si 251.611†            87301.3      2449.8 ug/L          4.87      2449.8 ppb           4.87   0.20%
   QC value within limits for Si 251.611  Recovery = 97.99%
Sn 189.927†             3296.5      494.98 ug/L         4.722      494.98 ppb          4.722   0.95%
   QC value within limits for Sn 189.927  Recovery = 99.00%
Sr 421.552†            86089.1      504.77 ug/L         1.341      504.77 ppb          1.341   0.27%
   QC value within limits for Sr 421.552  Recovery = 100.95%
Ti 334.940†           338352.7      489.07 ug/L         0.676      489.07 ppb          0.676   0.14%
   QC value within limits for Ti 334.940  Recovery = 97.81%
Tl 190.801†             1948.1      508.53 ug/L         6.300      508.53 ppb          6.300   1.24%
   QC value within limits for Tl 190.801  Recovery = 101.71%
U 409.014†             17748.0      487.39 ug/L         2.049      487.39 ppb          2.049   0.42%
   QC value within limits for U 409.014  Recovery = 97.48%
V 292.402†             77851.0      501.79 ug/L         0.920      501.79 ppb          0.920   0.18%
   QC value within limits for V 292.402  Recovery = 100.36%
Zn 213.857†            60789.8      494.12 ug/L         1.073      494.12 ppb          1.073   0.22%
   QC value within limits for Zn 213.857  Recovery = 98.82%
SiO2†                  86428.5      5207.3 ug/L         54.66      5207.3 ppb          54.66   1.05%
   QC value within limits for SiO2  Recovery = 97.38%
All analyte(s) passed QC.
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Sequence No.: 14
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 12/19/2009 08:43:49
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5585.9	5585.9	100	%			08:45:41
1	Y RADIAL	5963.5	5963.5	100.9	%			08:45:41
1	Al 396.153Radial†	-19.9	-3.5	-2.6070	ug/L	-2.6070	ppb	08:45:41
1	Ca 317.933Radial†	26.0	6.4	9.0609	ug/L	9.0609	ppb	08:46:01
1	Fe 238.204 Radial†	10.9	0.0	0.1134	ug/L	0.1134	ppb	08:46:01
1	K 766.490 Radial†	3304.0	580.6	102.32	ug/L	102.32	ppb	08:45:41
1	Mg 279.077 IEC†	-0.5	-1.9	-59.420	ug/L	-59.420	ppb	08:46:01
1	Na 589.592 Radial†	-711.1	52.9	15.786	ug/L	15.786	ppb	08:45:41
1	Sr 421.552†	12.4	24.2	0.1416	ug/L	0.1416	ppb	08:45:41
1	Sc 361.383	882647.5	882647.5	98.191	%			08:46:58
1	Y 371.029	730820.2	730820.2	98.167	%			08:46:58
1	Ag 328.068†	368.9	5.8	0.0252	ug/L	0.0252	ppb	08:46:58
1	As 188.979†	6.8	41.7	15.135	ug/L	15.135	ppb	08:47:18
1	B 249.677†	764.9	805.0	16.520	ug/L	16.520	ppb	08:46:58
1	Ba 233.527†	1.7	4.4	0.0279	ug/L	0.0279	ppb	08:47:18
1	Be 313.107†	-4607.0	39.2	0.0133	ug/L	0.0133	ppb	08:46:58
1	Cd 226.502†	-179.1	46.7	0.4571	ug/L	0.4571	ppb	08:47:18
1	Co 228.616†	-92.7	-7.3	-0.1243	ug/L	-0.1243	ppb	08:47:18
1	Cr 267.716†	115.0	37.0	0.3749	ug/L	0.3749	ppb	08:47:18
1	Cu 324.752†	5983.3	38.0	0.1073	ug/L	0.1073	ppb	08:46:58
1	Mn 257.610†	524.0	42.1	0.0427	ug/L	0.0427	ppb	08:47:18
1	Mo 202.031†	41.8	22.7	1.3758	ug/L	1.3758	ppb	08:47:18
1	Ni 231.604†	95.9	4.1	0.0902	ug/L	0.0902	ppb	08:47:18
1	P 214.914†	249.6	-3.9	-2.0245	ug/L	-2.0245	ppb	08:47:18
1	Pb 220.353†	-69.9	-7.1	-0.7469	ug/L	-0.7469	ppb	08:47:18
1	S 181.975 Axial†	59.8	11.9	14.576	ug/L	14.576	ppb	08:47:18
1	Sb 206.836†	48.9	8.6	2.6407	ug/L	2.6407	ppb	08:47:18
1	Se 196.026†	-20.6	7.5	4.0908	ug/L	4.0908	ppb	08:47:18
1	Si 251.611†	705.9	141.5	3.9239	ug/L	3.9239	ppb	08:47:18
1	Sn 189.927†	18.2	15.0	2.2525	ug/L	2.2525	ppb	08:47:18
1	Ti 334.940†	-1321.0	42.2	0.0632	ug/L	0.0632	ppb	08:46:58
1	Tl 190.801†	-27.2	20.4	5.2955	ug/L	5.2955	ppb	08:47:18
1	U 409.014†	-2472.0	-145.3	-4.0038	ug/L	-4.0038	ppb	08:46:58
1	V 292.402†	-1563.0	-122.4	-0.7679	ug/L	-0.7679	ppb	08:46:58
1	Zn 213.857†	855.3	77.5	0.6371	ug/L	0.6371	ppb	08:47:18
1	SiO2†	696.7	102.9	6.0890	ug/L	6.0890	ppb	08:48:14
2	Sc Radial	5679.2	5679.2	102	%			08:46:06
2	Y RADIAL	6053.6	6053.6	102.4	%			08:46:06
2	Al 396.153Radial†	-29.6	-12.7	-9.2958	ug/L	-9.2958	ppb	08:46:06
2	Ca 317.933Radial†	23.6	3.6	5.0742	ug/L	5.0742	ppb	08:46:26
2	Fe 238.204 Radial†	13.0	1.8	15.290	ug/L	15.290	ppb	08:46:26
2	K 766.490 Radial†	3283.2	506.1	89.192	ug/L	89.192	ppb	08:46:06
2	Mg 279.077 IEC†	4.8	3.4	104.14	ug/L	104.14	ppb	08:46:26
2	Na 589.592 Radial†	-724.7	51.3	15.297	ug/L	15.297	ppb	08:46:06
2	Sr 421.552†	43.4	54.4	0.3187	ug/L	0.3187	ppb	08:46:06
2	Sc 361.383	894399.5	894399.5	99.498	%			08:47:23
2	Y 371.029	741616.7	741616.7	99.618	%			08:47:23
2	Ag 328.068†	406.8	38.9	0.1763	ug/L	0.1763	ppb	08:47:23
2	As 188.979†	-4.7	30.1	10.929	ug/L	10.929	ppb	08:47:43
2	B 249.677†	639.2	668.4	13.714	ug/L	13.714	ppb	08:47:23
2	Ba 233.527†	-9.2	-6.6	-0.0444	ug/L	-0.0444	ppb	08:47:43
2	Be 313.107†	-4636.4	71.3	0.0238	ug/L	0.0238	ppb	08:47:23
2	Cd 226.502†	-191.2	37.1	0.3612	ug/L	0.3612	ppb	08:47:43
2	Co 228.616†	-80.8	5.9	0.1069	ug/L	0.1069	ppb	08:47:43
2	Cr 267.716†	119.6	40.1	0.4079	ug/L	0.4079	ppb	08:47:43
2	Cu 324.752†	6095.9	71.1	0.2016	ug/L	0.2016	ppb	08:47:23
2	Mn 257.610†	541.0	52.3	0.0512	ug/L	0.0512	ppb	08:47:43
2	Mo 202.031†	42.7	23.1	1.3976	ug/L	1.3976	ppb	08:47:43
2	Ni 231.604†	115.3	22.3	0.4874	ug/L	0.4874	ppb	08:47:43

2	P 214.914†	251.0	-5.8	-3.0602 ug/L	-3.0602 ppb	08:47:43
2	Pb 220.353†	-84.6	-20.9	-2.2067 ug/L	-2.2067 ppb	08:47:43
2	S 181.975 Axial†	53.0	4.2	5.1837 ug/L	5.1837 ppb	08:47:43
2	Sb 206.836†	59.2	18.2	5.5244 ug/L	5.5244 ppb	08:47:43
2	Se 196.026†	-25.1	3.2	1.8153 ug/L	1.8153 ppb	08:47:43
2	Si 251.611†	690.6	116.6	3.2274 ug/L	3.2274 ppb	08:47:43
2	Sn 189.927†	18.3	14.9	2.2301 ug/L	2.2301 ppb	08:47:43
2	Ti 334.940†	-1403.2	-22.7	-0.0310 ug/L	-0.0310 ppb	08:47:23
2	Tl 190.801†	-31.6	16.3	4.2296 ug/L	4.2296 ppb	08:47:43
2	U 409.014†	-2495.3	-135.7	-3.7417 ug/L	-3.7417 ppb	08:47:23
2	V 292.402†	-1448.9	13.2	0.0967 ug/L	0.0967 ppb	08:47:23
2	Zn 213.857†	859.7	70.5	0.5696 ug/L	0.5696 ppb	08:47:43
2	SiO2†	722.0	118.9	7.0682 ug/L	7.0682 ppb	08:48:19
3	Sc Radial	5731.2	5731.2	103 %		08:46:31
3	Y RADIAL	6055.8	6055.8	102.4 %		08:46:31
3	Al 396.153Radial†	-8.8	7.8	5.6564 ug/L	5.6564 ppb	08:46:31
3	Ca 317.933Radial†	22.2	2.0	2.8825 ug/L	2.8825 ppb	08:46:51
3	Fe 238.204 Radial†	11.8	0.5	4.4524 ug/L	4.4524 ppb	08:46:51
3	K 766.490 Radial†	3425.4	615.0	108.37 ug/L	108.37 ppb	08:46:31
3	Mg 279.077 IEC†	5.5	3.9	122.32 ug/L	122.32 ppb	08:46:51
3	Na 589.592 Radial†	-631.0	148.7	44.394 ug/L	44.394 ppb	08:46:31
3	Sr 421.552†	-23.4	-11.0	-0.0643 ug/L	-0.0643 ppb	08:46:31
3	Sc 361.383	887478.8	887478.8	98.728 %		08:47:49
3	Y 371.029	736256.7	736256.7	98.898 %		08:47:49
3	Ag 328.068†	372.8	7.7	0.0347 ug/L	0.0347 ppb	08:47:49
3	As 188.979†	-3.1	31.7	11.503 ug/L	11.503 ppb	08:48:09
3	B 249.677†	583.3	616.8	12.658 ug/L	12.658 ppb	08:47:49
3	Ba 233.527†	-4.3	-1.8	-0.0131 ug/L	-0.0131 ppb	08:48:09
3	Be 313.107†	-4527.8	145.0	0.0488 ug/L	0.0488 ppb	08:47:49
3	Cd 226.502†	-183.8	43.1	0.4210 ug/L	0.4210 ppb	08:48:09
3	Co 228.616†	-89.2	-3.3	-0.0536 ug/L	-0.0536 ppb	08:48:09
3	Cr 267.716†	140.5	62.2	0.6302 ug/L	0.6302 ppb	08:48:09
3	Cu 324.752†	6093.3	116.2	0.3287 ug/L	0.3287 ppb	08:47:49
3	Mn 257.610†	541.4	56.9	0.0543 ug/L	0.0543 ppb	08:48:09
3	Mo 202.031†	43.4	24.0	1.4560 ug/L	1.4560 ppb	08:48:09
3	Ni 231.604†	119.4	27.4	0.5977 ug/L	0.5977 ppb	08:48:09
3	P 214.914†	259.2	4.4	2.2580 ug/L	2.2580 ppb	08:48:09
3	Pb 220.353†	-68.2	-5.0	-0.5269 ug/L	-0.5269 ppb	08:48:09
3	S 181.975 Axial†	54.0	5.7	7.0149 ug/L	7.0149 ppb	08:48:09
3	Sb 206.836†	61.1	20.6	6.2055 ug/L	6.2055 ppb	08:48:09
3	Se 196.026†	-22.1	6.1	3.3633 ug/L	3.3633 ppb	08:48:09
3	Si 251.611†	682.5	113.8	3.1462 ug/L	3.1462 ppb	08:48:09
3	Sn 189.927†	6.9	3.5	0.5269 ug/L	0.5269 ppb	08:48:09
3	Ti 334.940†	-1301.0	69.8	0.1020 ug/L	0.1020 ppb	08:47:49
3	Tl 190.801†	-25.5	22.3	5.7757 ug/L	5.7757 ppb	08:48:09
3	U 409.014†	-2436.5	-95.6	-2.6370 ug/L	-2.6370 ppb	08:47:49
3	V 292.402†	-1542.0	-92.5	-0.5707 ug/L	-0.5707 ppb	08:47:49
3	Zn 213.857†	869.7	87.4	0.7079 ug/L	0.7079 ppb	08:48:09
3	SiO2†	737.5	140.3	8.3564 ug/L	8.3564 ppb	08:48:24

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	888175.3	98.806	%	0.6571				0.67%
Sc Radial	5665.4	102	%	1.3				1.30%
Y 371.029	736231.2	98.894	%	0.7251				0.73%
Y RADIAL	6024.3	101.9	%	0.89				0.87%
Ag 328.068†	17.5	0.0787	ug/L	0.08467	0.0787	ppb	0.08467	107.55%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-2.8	-2.0821	ug/L	7.48988	-2.0821	ppb	7.48988	359.72%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	34.5	12.522	ug/L	2.2810	12.522	ppb	2.2810	18.22%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	696.7	14.298	ug/L	1.9963	14.298	ppb	1.9963	13.96%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-1.3	-0.0099	ug/L	0.03627	-0.0099	ppb	0.03627	368.04%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	85.2	0.0287	ug/L	0.01825	0.0287	ppb	0.01825	63.71%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	4.0	5.6726	ug/L	3.13237	5.6726	ppb	3.13237	55.22%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                42.3      0.4131 ug/L       0.04846      0.4131 ppb        0.04846  11.73%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                -1.5     -0.0237 ug/L       0.11846     -0.0237 ppb        0.11846 500.23%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                46.4      0.4710 ug/L       0.13884      0.4710 ppb        0.13884  29.48%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†                75.1      0.2125 ug/L       0.11109      0.2125 ppb        0.11109  52.27%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          0.8      6.6187 ug/L       7.81697      6.6187 ppb        7.81697 118.10%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         567.2     99.962 ug/L        9.8058     99.962 ppb         9.8058   9.81%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             1.8     55.681 ug/L      100.0932     55.681 ppb       100.0932 179.76%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                50.5      0.0494 ug/L       0.00603      0.0494 ppb        0.00603  12.20%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                23.3      1.4098 ug/L       0.04147      1.4098 ppb        0.04147   2.94%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†         84.3     25.159 ug/L       16.6597     25.159 ppb        16.6597  66.22%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                17.9      0.3918 ug/L       0.26697      0.3918 ppb        0.26697  68.14%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -1.8     -0.9422 ug/L       2.81945     -0.9422 ppb        2.81945 299.23%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               -11.0     -1.1602 ug/L       0.91297     -1.1602 ppb        0.91297  78.69%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            7.3      8.9248 ug/L       4.97886      8.9248 ppb        4.97886  55.79%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                15.8      4.7902 ug/L       1.89246      4.7902 ppb        1.89246  39.51%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 5.6      3.0898 ug/L       1.16213      3.0898 ppb        1.16213  37.61%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†               124.0      3.4325 ug/L       0.42751      3.4325 ppb        0.42751  12.45%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                11.1      1.6698 ug/L       0.98988      1.6698 ppb        0.98988  59.28%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                22.5      0.1320 ug/L       0.19170      0.1320 ppb        0.19170 145.24%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                29.8      0.0447 ug/L       0.06842      0.0447 ppb        0.06842 153.00%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                19.7      5.1003 ug/L       0.79132      5.1003 ppb        0.79132  15.52%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -125.5     -3.4608 ug/L       0.72537     -3.4608 ppb        0.72537  20.96%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                -67.2     -0.4140 ug/L       0.45308     -0.4140 ppb        0.45308 109.45%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                78.5      0.6382 ug/L       0.06919      0.6382 ppb        0.06919  10.84%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                     120.7      7.1712 ug/L       1.13717      7.1712 ppb        1.13717  15.86%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

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Analysis Begun

Start Time: 12/19/2009 08:54:07 **Plasma On Time: 12/14/2009 06:02:42**
Logged In Analyst: Optima3 **Technique: ICP Continuous**
Spectrometer Model: Optima 5300 DV, S/N 077C7090601Autosampler Model: S10

Sample Information File: C:\pe\Optima3\Sample Information\121909.sif
Batch ID:
Results Data Set: 121909
Results Library: C:\pe\Optima3\Results\Results.mdb

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Method Loaded
Method Name: General Eng.2AX **Method Last Saved: 12/19/2009 07:23:10**
IEC File: 101209.iec **MSF File:**
Method Description:

Analyte	Calibration Equation	Processing	View	Internal Standard	IEC
Ag 328.068	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Al 396.153Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
As 188.979	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
B 249.677	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ba 233.527	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Be 313.107	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ca 317.933Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	No
Cd 226.502	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Co 228.616	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cr 267.716	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cu 324.752	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Fe 238.204 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
K 766.490 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Mg 279.077 IEC	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Mn 257.610	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Mo 202.031	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Na 589.592 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	No
Ni 231.604	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
P 214.914	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Pb 220.353	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
S 181.975 Axial	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sb 206.836	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sc 361.383	Lin Thru 0	Peak Area	Axial	n/a	n/a
Sc Radial	Lin, Calc Int	Peak Area	Radial	n/a	n/a
Se 196.026	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Si 251.611	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sn 189.927	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sr 421.552	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Ti 334.940	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Tl 190.801	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
U 409.014	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
V 292.402	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y 371.029	Lin, Calc Int	Peak Area	Axial	n/a	n/a
Zn 213.857	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y RADIAL	Lin, Calc Int	Peak Area	Radial	n/a	n/a
SiO2	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes

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Sequence No.: 1 **Autosampler Location: 30**
Sample ID: LR1 **Date Collected: 12/19/2009 08:54:08**
Analyst: HSC **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: LR1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Sample Conc.	Units	Analysis Time
1	Sc Radial	5453.6	5453.6	98.0	%			08:56:06
1	Y RADIAL	5764.5	5764.5	97.52	%			08:56:06
1	Al 396.153Radial†	-42.8	-27.3	-19.920	ug/L	-19.920	ppb	08:56:06

1	Ca 317.933Radial†	24.5	5.4	7.7557 ug/L	7.7557 ppb	08:56:26
1	Fe 238.204 Radial†	7.2	-3.6	-29.566 ug/L	-29.566 ppb	08:56:26
1	K 766.490 Radial†	4057.7	1429.9	98.277 ug/L	98.277 ppb	08:56:06
1	Mg 279.077 IEC†	3.1	1.8	56.059 ug/L	56.059 ppb	08:56:26
1	Na 589.592 Radial†	1144887.8	1169525.2	349070 ug/L	349070 ppb	08:56:01
1	Sr 421.552†	-0.9	10.8	0.0635 ug/L	0.0635 ppb	08:56:06
1	Sc 361.383	854394.5	854394.5	95.048 %		08:57:34
1	Y 371.029	689985.0	689985.0	92.682 %		08:57:34
1	Ag 328.068†	308.9	-44.9	-0.2041 ug/L	-0.2041 ppb	08:57:34
1	As 188.979†	-10.8	23.4	8.4936 ug/L	8.4936 ppb	08:57:54
1	B 249.677†	263.4	303.1	6.2236 ug/L	6.2236 ppb	08:57:34
1	Ba 233.527†	16.1	19.5	0.1301 ug/L	0.1301 ppb	08:57:54
1	Be 313.107†	-4712.1	-226.5	-0.0770 ug/L	-0.0770 ppb	08:57:34
1	Cd 226.502†	-198.0	20.8	0.2067 ug/L	0.2067 ppb	08:57:54
1	Co 228.616†	-66.0	17.7	0.3113 ug/L	0.3113 ppb	08:57:54
1	Cr 267.716†	105.0	30.3	0.3061 ug/L	0.3061 ppb	08:57:54
1	Cu 324.752†	6127.1	390.8	1.1027 ug/L	1.1027 ppb	08:57:34
1	Mn 257.610†	513.5	48.7	0.0441 ug/L	0.0441 ppb	08:57:54
1	Mo 202.031†	21.7	2.9	0.1739 ug/L	0.1739 ppb	08:57:54
1	Ni 231.604†	95.6	7.0	0.1518 ug/L	0.1518 ppb	08:57:54
1	P 214.914†	254.3	9.5	4.8092 ug/L	4.8092 ppb	08:57:54
1	Pb 220.353†	-77.0	-16.9	-1.7836 ug/L	-1.7836 ppb	08:57:54
1	S 181.975 Axial†	45.0	-1.6	-1.9640 ug/L	-1.9640 ppb	08:57:54
1	Sb 206.836†	37.6	-1.7	-0.4816 ug/L	-0.4816 ppb	08:57:54
1	Se 196.026†	-24.9	2.3	1.1562 ug/L	1.1562 ppb	08:57:54
1	Si 251.611†	582.5	35.4	0.9071 ug/L	0.9071 ppb	08:57:54
1	Sn 189.927†	9.5	6.5	0.9771 ug/L	0.9771 ppb	08:57:54
1	Ti 334.940†	-1660.2	-359.1	-0.5180 ug/L	-0.5180 ppb	08:57:34
1	Tl 190.801†	-30.9	15.6	4.0441 ug/L	4.0441 ppb	08:57:54
1	U 409.014†	-2319.2	-67.8	-1.8646 ug/L	-1.8646 ppb	08:57:34
1	V 292.402†	-1481.7	-89.4	-0.5638 ug/L	-0.5638 ppb	08:57:34
1	Zn 213.857†	819.6	68.8	0.5625 ug/L	0.5625 ppb	08:57:54
1	SiO2†	652.8	80.1	4.6525 ug/L	4.6525 ppb	08:58:50
2	Sc Radial	5498.5	5498.5	98.8 %		08:56:37
2	Y RADIAL	5833.5	5833.5	98.68 %		08:56:37
2	Al 396.153Radial†	-13.3	2.9	2.0719 ug/L	2.0719 ppb	08:56:37
2	Ca 317.933Radial†	28.9	9.7	13.785 ug/L	13.785 ppb	08:56:57
2	Fe 238.204 Radial†	9.8	-1.0	-8.1758 ug/L	-8.1758 ppb	08:56:57
2	K 766.490 Radial†	3953.0	1290.0	72.436 ug/L	72.436 ppb	08:56:37
2	Mg 279.077 IEC†	2.6	1.3	39.578 ug/L	39.578 ppb	08:56:57
2	Na 589.592 Radial†	1163347.2	1178658.7	351800 ug/L	351800 ppb	08:56:32
2	Sr 421.552†	17.7	29.8	0.1744 ug/L	0.1744 ppb	08:56:37
2	Sc 361.383	856147.5	856147.5	95.243 %		08:57:59
2	Y 371.029	691778.8	691778.8	92.923 %		08:57:59
2	Ag 328.068†	371.4	20.0	0.0888 ug/L	0.0888 ppb	08:57:59
2	As 188.979†	-15.1	18.9	6.8618 ug/L	6.8618 ppb	08:58:19
2	B 249.677†	219.9	256.8	5.2702 ug/L	5.2702 ppb	08:57:59
2	Ba 233.527†	18.0	21.5	0.1448 ug/L	0.1448 ppb	08:58:19
2	Be 313.107†	-4678.9	-181.5	-0.0616 ug/L	-0.0616 ppb	08:57:59
2	Cd 226.502†	-206.5	12.3	0.1218 ug/L	0.1218 ppb	08:58:19
2	Co 228.616†	-62.7	21.3	0.3763 ug/L	0.3763 ppb	08:58:19
2	Cr 267.716†	101.2	26.1	0.2669 ug/L	0.2669 ppb	08:58:19
2	Cu 324.752†	6158.4	410.4	1.1592 ug/L	1.1592 ppb	08:57:59
2	Mn 257.610†	536.7	72.0	0.0695 ug/L	0.0695 ppb	08:58:19
2	Mo 202.031†	37.5	19.5	1.1778 ug/L	1.1778 ppb	08:58:19
2	Ni 231.604†	109.2	21.1	0.4606 ug/L	0.4606 ppb	08:58:19
2	P 214.914†	256.4	11.2	5.6694 ug/L	5.6694 ppb	08:58:19
2	Pb 220.353†	-73.6	-13.2	-1.3845 ug/L	-1.3845 ppb	08:58:19
2	S 181.975 Axial†	52.3	5.9	7.2078 ug/L	7.2078 ppb	08:58:19
2	Sb 206.836†	44.1	5.1	1.5796 ug/L	1.5796 ppb	08:58:19
2	Se 196.026†	-31.8	-4.9	-2.6664 ug/L	-2.6664 ppb	08:58:19
2	Si 251.611†	622.8	76.4	2.0510 ug/L	2.0510 ppb	08:58:19
2	Sn 189.927†	18.0	15.4	2.3087 ug/L	2.3087 ppb	08:58:19
2	Ti 334.940†	-1575.0	-266.1	-0.3803 ug/L	-0.3803 ppb	08:57:59
2	Tl 190.801†	-43.0	2.9	0.7449 ug/L	0.7449 ppb	08:58:19
2	U 409.014†	-2560.7	-316.4	-8.7173 ug/L	-8.7173 ppb	08:57:59
2	V 292.402†	-1471.3	-75.4	-0.4773 ug/L	-0.4773 ppb	08:57:59
2	Zn 213.857†	844.2	92.8	0.7563 ug/L	0.7563 ppb	08:58:19
2	SiO2†	625.0	49.6	2.7738 ug/L	2.7738 ppb	08:58:55
3	Sc Radial	5453.2	5453.2	98.0 %		08:57:07
3	Y RADIAL	5736.1	5736.1	97.03 %		08:57:07

3	Al 396.153Radial†	-19.3	-3.3	-2.4598	ug/L	-2.4598	ppb	08:57:07
3	Ca 317.933Radial†	30.3	11.4	16.232	ug/L	16.232	ppb	08:57:27
3	Fe 238.204 Radial†	12.2	1.5	12.781	ug/L	12.781	ppb	08:57:27
3	K 766.490 Radial†	4099.4	1472.8	103.07	ug/L	103.07	ppb	08:57:07
3	Mg 279.077 IEC†	3.2	1.9	58.114	ug/L	58.114	ppb	08:57:27
3	Na 589.592 Radial†	1165472.6	1190620.3	355370	ug/L	355370	ppb	08:57:02
3	Sr 421.552†	0.3	12.1	0.0709	ug/L	0.0709	ppb	08:57:07
3	Sc 361.383	857800.0	857800.0	95.427	%			08:58:24
3	Y 371.029	692234.0	692234.0	92.984	%			08:58:24
3	Ag 328.068†	412.6	62.4	0.2793	ug/L	0.2793	ppb	08:58:24
3	As 188.979†	-18.3	15.6	5.6712	ug/L	5.6712	ppb	08:58:45
3	B 249.677†	198.7	234.2	4.8027	ug/L	4.8027	ppb	08:58:24
3	Ba 233.527†	33.0	37.2	0.2525	ug/L	0.2525	ppb	08:58:45
3	Be 313.107†	-4853.4	-354.9	-0.1197	ug/L	-0.1197	ppb	08:58:24
3	Cd 226.502†	-193.5	26.4	0.2576	ug/L	0.2576	ppb	08:58:45
3	Co 228.616†	-58.3	26.0	0.4581	ug/L	0.4581	ppb	08:58:45
3	Cr 267.716†	124.1	49.9	0.5080	ug/L	0.5080	ppb	08:58:45
3	Cu 324.752†	6096.5	333.1	0.9418	ug/L	0.9418	ppb	08:58:24
3	Mn 257.610†	520.1	53.5	0.0530	ug/L	0.0530	ppb	08:58:45
3	Mo 202.031†	35.1	16.9	1.0226	ug/L	1.0226	ppb	08:58:45
3	Ni 231.604†	109.8	21.4	0.4682	ug/L	0.4682	ppb	08:58:45
3	P 214.914†	258.8	13.1	6.6958	ug/L	6.6958	ppb	08:58:45
3	Pb 220.353†	-99.9	-40.7	-4.2838	ug/L	-4.2838	ppb	08:58:45
3	S 181.975 Axial†	50.6	4.1	4.9969	ug/L	4.9969	ppb	08:58:45
3	Sb 206.836†	46.7	7.7	2.3539	ug/L	2.3539	ppb	08:58:45
3	Se 196.026†	-25.7	1.6	0.9017	ug/L	0.9017	ppb	08:58:45
3	Si 251.611†	609.1	60.8	1.6050	ug/L	1.6050	ppb	08:58:45
3	Sn 189.927†	15.0	12.2	1.8326	ug/L	1.8326	ppb	08:58:45
3	Ti 334.940†	-1565.6	-253.0	-0.3610	ug/L	-0.3610	ppb	08:58:24
3	Tl 190.801†	-46.0	-0.1	-0.0375	ug/L	-0.0375	ppb	08:58:45
3	U 409.014†	-2586.5	-338.3	-9.3227	ug/L	-9.3227	ppb	08:58:24
3	V 292.402†	-1465.2	-66.0	-0.4237	ug/L	-0.4237	ppb	08:58:24
3	Zn 213.857†	843.2	90.1	0.7314	ug/L	0.7314	ppb	08:58:45
3	SiO2†	601.9	24.0	1.2123	ug/L	1.2123	ppb	08:59:00

Mean Data: LR1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	856114.0	95.239	%	0.1895				0.20%
Sc Radial	5468.4	98.2	%	0.47				0.48%
Y 371.029	691332.6	92.863	%	0.1597				0.17%
Y RADIAL	5778.0	97.74	%	0.848				0.87%
Ag 328.068†	12.5	0.0547	ug/L	0.24352	0.0547	ppb	0.24352	445.52%
Al 396.153Radial†	-9.2	-6.7694	ug/L	11.61227	-6.7694	ppb	11.61227	171.54%
As 188.979†	19.3	7.0089	ug/L	1.41693	7.0089	ppb	1.41693	20.22%
B 249.677†	264.7	5.4321	ug/L	0.72414	5.4321	ppb	0.72414	13.33%
Ba 233.527†	26.1	0.1758	ug/L	0.06682	0.1758	ppb	0.06682	38.00%
Be 313.107†	-254.3	-0.0861	ug/L	0.03011	-0.0861	ppb	0.03011	34.97%
Ca 317.933Radial†	8.8	12.591	ug/L	4.3627	12.591	ppb	4.3627	34.65%
Cd 226.502†	19.9	0.1953	ug/L	0.06861	0.1953	ppb	0.06861	35.12%
Co 228.616†	21.6	0.3819	ug/L	0.07353	0.3819	ppb	0.07353	19.25%
Cr 267.716†	35.4	0.3603	ug/L	0.12939	0.3603	ppb	0.12939	35.91%
Cu 324.752†	378.1	1.0679	ug/L	0.11279	1.0679	ppb	0.11279	10.56%
Fe 238.204 Radial†	-1.0	-8.3201	ug/L	21.17379	-8.3201	ppb	21.17379	254.49%
K 766.490 Radial†	1397.6	91.262	ug/L	16.4784	91.262	ppb	16.4784	18.06%
Mg 279.077 IEC†	1.6	51.250	ug/L	10.1604	51.250	ppb	10.1604	19.82%
Mn 257.610†	58.1	0.0555	ug/L	0.01289	0.0555	ppb	0.01289	23.21%
Mo 202.031†	13.1	0.7914	ug/L	0.54039	0.7914	ppb	0.54039	68.28%
Na 589.592 Radial†	1179601.4	352080	ug/L	3157.5	352080	ppb	3157.5	0.90%
Ni 231.604†	16.5	0.3602	ug/L	0.18052	0.3602	ppb	0.18052	50.11%
P 214.914†	11.2	5.7248	ug/L	0.94451	5.7248	ppb	0.94451	16.50%
Pb 220.353†	-23.6	-2.4839	ug/L	1.57141	-2.4839	ppb	1.57141	63.26%
S 181.975 Axial†	2.8	3.4135	ug/L	4.78648	3.4135	ppb	4.78648	140.22%
Sb 206.836†	3.7	1.1506	ug/L	1.46556	1.1506	ppb	1.46556	127.37%
Se 196.026†	-0.3	-0.2028	ug/L	2.13729	-0.2028	ppb	2.13729	>999.9%
Si 251.611†	57.5	1.5210	ug/L	0.57658	1.5210	ppb	0.57658	37.91%
Sn 189.927†	11.4	1.7061	ug/L	0.67472	1.7061	ppb	0.67472	39.55%
Sr 421.552†	17.6	0.1029	ug/L	0.06198	0.1029	ppb	0.06198	60.21%
Ti 334.940†	-292.7	-0.4198	ug/L	0.08562	-0.4198	ppb	0.08562	20.40%
Tl 190.801†	6.1	1.5838	ug/L	2.16626	1.5838	ppb	2.16626	136.77%

U 409.014†	-240.8	-6.6348 ug/L	4.14225	-6.6348 ppb	4.14225	62.43%
V 292.402†	-77.0	-0.4883 ug/L	0.07067	-0.4883 ppb	0.07067	14.47%
Zn 213.857†	83.9	0.6834 ug/L	0.10543	0.6834 ppb	0.10543	15.43%
SiO2†	51.3	2.8795 ug/L	1.72254	2.8795 ppb	1.72254	59.82%

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Sequence No.: 2 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 12/19/2009 09:01:10**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**
User canceled analysis.

==========

Analysis Begun

Start Time: 12/19/2009 09:05:36 **Plasma On Time: 12/14/2009 06:02:42**
Logged In Analyst: Optima3 **Technique: ICP Continuous**
Spectrometer Model: Optima 5300 DV, S/N 077C7090601Autosampler Model: S10

Sample Information File: C:\pe\Optima3\Sample Information\121909.sif
Batch ID:
Results Data Set: 121909
Results Library: C:\pe\Optima3\Results\Results.mdb

==========

Sequence No.: 2 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 12/19/2009 09:05:37**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5369.0	5369.0	96.4	%			09:07:29
1	Y RADIAL	5694.7	5694.7	96.33	%			09:07:29
1	Al 396.153Radial†	6580.7	6840.1	4963.0	ug/L	4963.0	ppb	09:07:29
1	Ca 317.933Radial†	3510.2	3620.3	5161.6	ug/L	5161.6	ppb	09:07:49
1	Fe 238.204 Radial†	625.9	638.1	5320.0	ug/L	5320.0	ppb	09:07:49
1	K 766.490 Radial†	30593.9	29011.6	5104.6	ug/L	5104.6	ppb	09:07:29
1	Mg 279.077 IEC†	167.8	172.6	5363.3	ug/L	5363.3	ppb	09:07:49
1	Na 589.592 Radial†	31916.6	33857.2	10105	ug/L	10105	ppb	09:07:29
1	Sr 421.552†	83315.4	86404.8	506.62	ug/L	506.62	ppb	09:07:29
1	Sc 361.383	914636.7	914636.7	101.75	%			09:08:48
1	Y 371.029	744942.0	744942.0	100.06	%			09:08:48
1	Ag 328.068†	114886.4	112541.0	488.22	ug/L	488.22	ppb	09:08:48
1	As 188.979†	1351.8	1363.4	499.23	ug/L	499.23	ppb	09:09:08
1	B 249.677†	24376.5	23983.3	490.26	ug/L	490.26	ppb	09:08:48
1	Ba 233.527†	73633.9	72370.3	493.16	ug/L	493.16	ppb	09:08:48
1	Be 313.107†	1481352.4	1460610.7	490.79	ug/L	490.79	ppb	09:08:48
1	Cd 226.502†	51167.9	50517.2	493.84	ug/L	493.84	ppb	09:08:48
1	Co 228.616†	28217.1	27819.0	487.13	ug/L	487.13	ppb	09:09:08
1	Cr 267.716†	49303.7	48375.7	491.26	ug/L	491.26	ppb	09:08:48
1	Cu 324.752†	182806.2	173607.2	490.77	ug/L	490.77	ppb	09:08:48
1	Mn 257.610†	507226.8	498013.2	491.66	ug/L	491.66	ppb	09:08:48
1	Mo 202.031†	8300.1	8137.5	492.95	ug/L	492.95	ppb	09:09:08
1	Ni 231.604†	22900.3	22412.9	489.39	ug/L	489.39	ppb	09:09:08
1	P 214.914†	5061.9	4716.7	2385.8	ug/L	2385.8	ppb	09:09:08
1	Pb 220.353†	4720.4	4703.3	497.13	ug/L	497.13	ppb	09:09:08
1	S 181.975 Axial†	857.1	793.3	972.29	ug/L	972.29	ppb	09:09:08
1	Sb 206.836†	1703.0	1632.5	496.23	ug/L	496.23	ppb	09:09:08
1	Se 196.026†	898.1	911.2	514.84	ug/L	514.84	ppb	09:09:08
1	Si 251.611†	88010.5	85919.6	2410.9	ug/L	2410.9	ppb	09:08:48
1	Sn 189.927†	3332.3	3271.6	491.27	ug/L	491.27	ppb	09:09:08
1	Ti 334.940†	340573.8	336105.0	485.84	ug/L	485.84	ppb	09:08:48
1	Tl 190.801†	1888.2	1903.8	497.07	ug/L	497.07	ppb	09:09:08
1	U 409.014†	14905.8	17021.7	467.37	ug/L	467.37	ppb	09:08:48
1	V 292.402†	76580.5	76733.1	494.58	ug/L	494.58	ppb	09:08:48
1	Zn 213.857†	61823.8	59967.1	487.41	ug/L	487.41	ppb	09:08:48
1	SiO2†	88107.6	85985.9	5180.6	ug/L	5180.6	ppb	09:10:08
2	Sc Radial	5512.0	5512.0	99.0	%			09:07:54
2	Y RADIAL	5826.2	5826.2	98.56	%			09:07:54
2	Al 396.153Radial†	6731.0	6814.8	4944.8	ug/L	4944.8	ppb	09:07:54

2	Ca 317.933Radial†	3504.8	3520.4	5019.1 ug/L	5019.1 ppb	09:08:14
2	Fe 238.204 Radial†	620.7	616.1	5136.5 ug/L	5136.5 ppb	09:08:14
2	K 766.490 Radial†	31008.1	28606.5	5033.3 ug/L	5033.3 ppb	09:07:54
2	Mg 279.077 IEC†	166.4	166.7	5181.6 ug/L	5181.6 ppb	09:08:14
2	Na 589.592 Radial†	32296.5	33381.9	9963.5 ug/L	9963.5 ppb	09:07:54
2	Sr 421.552†	84568.2	85427.8	500.89 ug/L	500.89 ppb	09:07:54
2	Sc 361.383	924044.8	924044.8	102.80 %		09:09:15
2	Y 371.029	750584.6	750584.6	100.82 %		09:09:15
2	Ag 328.068†	115963.3	112439.0	487.71 ug/L	487.71 ppb	09:09:15
2	As 188.979†	1338.4	1336.8	489.58 ug/L	489.58 ppb	09:09:35
2	B 249.677†	24586.8	23944.0	489.49 ug/L	489.49 ppb	09:09:15
2	Ba 233.527†	74528.7	72503.9	494.06 ug/L	494.06 ppb	09:09:15
2	Be 313.107†	1495184.9	1459244.0	490.33 ug/L	490.33 ppb	09:09:15
2	Cd 226.502†	51691.9	50515.0	493.83 ug/L	493.83 ppb	09:09:15
2	Co 228.616†	28231.9	27551.0	482.42 ug/L	482.42 ppb	09:09:35
2	Cr 267.716†	49813.0	48377.8	491.28 ug/L	491.28 ppb	09:09:15
2	Cu 324.752†	184794.8	173712.5	491.06 ug/L	491.06 ppb	09:09:15
2	Mn 257.610†	513349.2	498893.6	492.51 ug/L	492.51 ppb	09:09:15
2	Mo 202.031†	8283.7	8038.5	486.94 ug/L	486.94 ppb	09:09:35
2	Ni 231.604†	22891.3	22175.0	484.20 ug/L	484.20 ppb	09:09:35
2	P 214.914†	5037.2	4642.1	2346.9 ug/L	2346.9 ppb	09:09:35
2	Pb 220.353†	4715.3	4651.1	491.63 ug/L	491.63 ppb	09:09:35
2	S 181.975 Axial†	862.1	789.6	967.74 ug/L	967.74 ppb	09:09:35
2	Sb 206.836†	1678.4	1591.5	483.70 ug/L	483.70 ppb	09:09:35
2	Se 196.026†	887.2	891.6	503.55 ug/L	503.55 ppb	09:09:35
2	Si 251.611†	89176.8	86173.5	2418.3 ug/L	2418.3 ppb	09:09:15
2	Sn 189.927†	3319.0	3225.2	484.30 ug/L	484.30 ppb	09:09:35
2	Ti 334.940†	344925.9	336930.8	487.03 ug/L	487.03 ppb	09:09:15
2	Tl 190.801†	1898.5	1894.9	494.82 ug/L	494.82 ppb	09:09:35
2	U 409.014†	15089.9	17051.7	468.22 ug/L	468.22 ppb	09:09:15
2	V 292.402†	77246.5	76614.6	493.77 ug/L	493.77 ppb	09:09:15
2	Zn 213.857†	62496.0	60002.5	487.76 ug/L	487.76 ppb	09:09:15
2	SiO2†	88167.7	85162.7	5131.1 ug/L	5131.1 ppb	09:10:13
3	Sc Radial	5599.4	5599.4	101 %		09:08:19
3	Y RADIAL	5967.2	5967.2	100.9 %		09:08:19
3	Al 396.153Radial†	6760.8	6738.4	4889.0 ug/L	4889.0 ppb	09:08:19
3	Ca 317.933Radial†	3487.3	3447.7	4915.5 ug/L	4915.5 ppb	09:08:39
3	Fe 238.204 Radial†	620.9	606.4	5056.7 ug/L	5056.7 ppb	09:08:39
3	K 766.490 Radial†	31251.0	28359.2	4989.7 ug/L	4989.7 ppb	09:08:19
3	Mg 279.077 IEC†	170.7	168.3	5231.9 ug/L	5231.9 ppb	09:08:39
3	Na 589.592 Radial†	32610.2	33184.7	9904.7 ug/L	9904.7 ppb	09:08:19
3	Sr 421.552†	85476.0	84997.4	498.37 ug/L	498.37 ppb	09:08:19
3	Sc 361.383	918700.5	918700.5	102.20 %		09:09:43
3	Y 371.029	748040.2	748040.2	100.48 %		09:09:43
3	Ag 328.068†	115324.5	112470.2	487.83 ug/L	487.83 ppb	09:09:43
3	As 188.979†	1344.1	1350.0	494.34 ug/L	494.34 ppb	09:10:03
3	B 249.677†	24449.1	23948.3	489.58 ug/L	489.58 ppb	09:09:43
3	Ba 233.527†	73997.1	72405.5	493.39 ug/L	493.39 ppb	09:09:43
3	Be 313.107†	1488761.9	1461420.5	491.06 ug/L	491.06 ppb	09:09:43
3	Cd 226.502†	51374.3	50496.7	493.66 ug/L	493.66 ppb	09:09:43
3	Co 228.616†	28250.2	27728.7	485.54 ug/L	485.54 ppb	09:10:03
3	Cr 267.716†	49599.9	48451.2	492.02 ug/L	492.02 ppb	09:09:43
3	Cu 324.752†	183769.4	173754.9	491.18 ug/L	491.18 ppb	09:09:43
3	Mn 257.610†	509669.2	498197.8	491.81 ug/L	491.81 ppb	09:09:43
3	Mo 202.031†	8281.3	8083.0	489.64 ug/L	489.64 ppb	09:10:03
3	Ni 231.604†	22910.2	22323.1	487.43 ug/L	487.43 ppb	09:10:03
3	P 214.914†	5070.0	4702.6	2378.6 ug/L	2378.6 ppb	09:10:03
3	Pb 220.353†	4743.1	4705.0	497.31 ug/L	497.31 ppb	09:10:03
3	S 181.975 Axial†	866.7	799.0	979.25 ug/L	979.25 ppb	09:10:03
3	Sb 206.836†	1694.6	1616.9	491.39 ug/L	491.39 ppb	09:10:03
3	Se 196.026†	892.7	902.0	509.00 ug/L	509.00 ppb	09:10:03
3	Si 251.611†	88656.1	86168.7	2418.1 ug/L	2418.1 ppb	09:09:43
3	Sn 189.927†	3320.7	3245.6	487.35 ug/L	487.35 ppb	09:10:03
3	Ti 334.940†	342358.9	336371.1	486.22 ug/L	486.22 ppb	09:09:43
3	Tl 190.801†	1881.3	1888.8	493.20 ug/L	493.20 ppb	09:10:03
3	U 409.014†	14957.1	17007.1	467.00 ug/L	467.00 ppb	09:09:43
3	V 292.402†	76966.2	76777.5	494.85 ug/L	494.85 ppb	09:09:43
3	Zn 213.857†	62078.6	59947.7	487.29 ug/L	487.29 ppb	09:09:43
3	SiO2†	88683.1	86165.9	5191.8 ug/L	5191.8 ppb	09:10:18

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	919127.3	102.25	%	0.525				0.51%
Sc Radial	5493.5	98.7	%	2.09				2.12%
Y 371.029	747855.6	100.46	%	0.380				0.38%
Y RADIAL	5829.4	98.61	%	2.305				2.34%
Ag 328.068†	112483.4	487.92	ug/L	0.263	487.92	ppb	0.263	0.05%
QC value within limits for Ag 328.068 Recovery = 97.58%								
Al 396.153Radial†	6797.8	4932.3	ug/L	38.56	4932.3	ppb	38.56	0.78%
QC value within limits for Al 396.153Radial Recovery = 98.65%								
As 188.979†	1350.1	494.38	ug/L	4.824	494.38	ppb	4.824	0.98%
QC value within limits for As 188.979 Recovery = 98.88%								
B 249.677†	23958.5	489.78	ug/L	0.421	489.78	ppb	0.421	0.09%
QC value within limits for B 249.677 Recovery = 97.96%								
Ba 233.527†	72426.6	493.53	ug/L	0.467	493.53	ppb	0.467	0.09%
QC value within limits for Ba 233.527 Recovery = 98.71%								
Be 313.107†	1460425.0	490.72	ug/L	0.368	490.72	ppb	0.368	0.07%
QC value within limits for Be 313.107 Recovery = 98.14%								
Ca 317.933Radial†	3529.5	5032.1	ug/L	123.55	5032.1	ppb	123.55	2.46%
QC value within limits for Ca 317.933Radial Recovery = 100.64%								
Cd 226.502†	50509.6	493.77	ug/L	0.099	493.77	ppb	0.099	0.02%
QC value within limits for Cd 226.502 Recovery = 98.75%								
Co 228.616†	27699.6	485.03	ug/L	2.394	485.03	ppb	2.394	0.49%
QC value within limits for Co 228.616 Recovery = 97.01%								
Cr 267.716†	48401.6	491.52	ug/L	0.435	491.52	ppb	0.435	0.09%
QC value within limits for Cr 267.716 Recovery = 98.30%								
Cu 324.752†	173691.5	491.01	ug/L	0.208	491.01	ppb	0.208	0.04%
QC value within limits for Cu 324.752 Recovery = 98.20%								
Fe 238.204 Radial†	620.2	5171.1	ug/L	134.97	5171.1	ppb	134.97	2.61%
QC value within limits for Fe 238.204 Radial Recovery = 103.42%								
K 766.490 Radial†	28659.1	5042.5	ug/L	58.00	5042.5	ppb	58.00	1.15%
QC value within limits for K 766.490 Radial Recovery = 100.85%								
Mg 279.077 IEC†	169.2	5258.9	ug/L	93.79	5258.9	ppb	93.79	1.78%
QC value within limits for Mg 279.077 IEC Recovery = 105.18%								
Mn 257.610†	498368.2	491.99	ug/L	0.454	491.99	ppb	0.454	0.09%
QC value within limits for Mn 257.610 Recovery = 98.40%								
Mo 202.031†	8086.3	489.84	ug/L	3.009	489.84	ppb	3.009	0.61%
QC value within limits for Mo 202.031 Recovery = 97.97%								
Na 589.592 Radial†	33474.6	9991.2	ug/L	103.18	9991.2	ppb	103.18	1.03%
QC value within limits for Na 589.592 Radial Recovery = 99.91%								
Ni 231.604†	22303.7	487.01	ug/L	2.623	487.01	ppb	2.623	0.54%
QC value within limits for Ni 231.604 Recovery = 97.40%								
P 214.914†	4687.2	2370.4	ug/L	20.69	2370.4	ppb	20.69	0.87%
QC value within limits for P 214.914 Recovery = 94.82%								
Pb 220.353†	4686.5	495.36	ug/L	3.226	495.36	ppb	3.226	0.65%
QC value within limits for Pb 220.353 Recovery = 99.07%								
S 181.975 Axial†	794.0	973.09	ug/L	5.802	973.09	ppb	5.802	0.60%
QC value within limits for S 181.975 Axial Recovery = 97.31%								
Sb 206.836†	1613.6	490.44	ug/L	6.317	490.44	ppb	6.317	1.29%
QC value within limits for Sb 206.836 Recovery = 98.09%								
Se 196.026†	901.6	509.13	ug/L	5.644	509.13	ppb	5.644	1.11%
QC value within limits for Se 196.026 Recovery = 101.83%								
Si 251.611†	86087.3	2415.8	ug/L	4.17	2415.8	ppb	4.17	0.17%
QC value within limits for Si 251.611 Recovery = 96.63%								
Sn 189.927†	3247.5	487.64	ug/L	3.494	487.64	ppb	3.494	0.72%
QC value within limits for Sn 189.927 Recovery = 97.53%								
Sr 421.552†	85610.0	501.96	ug/L	4.227	501.96	ppb	4.227	0.84%
QC value within limits for Sr 421.552 Recovery = 100.39%								
Ti 334.940†	336469.0	486.36	ug/L	0.607	486.36	ppb	0.607	0.12%
QC value within limits for Ti 334.940 Recovery = 97.27%								
Tl 190.801†	1895.8	495.03	ug/L	1.948	495.03	ppb	1.948	0.39%
QC value within limits for Tl 190.801 Recovery = 99.01%								
U 409.014†	17026.8	467.53	ug/L	0.625	467.53	ppb	0.625	0.13%
QC value within limits for U 409.014 Recovery = 93.51%								
V 292.402†	76708.4	494.40	ug/L	0.565	494.40	ppb	0.565	0.11%
QC value within limits for V 292.402 Recovery = 98.88%								
Zn 213.857†	59972.4	487.49	ug/L	0.241	487.49	ppb	0.241	0.05%
QC value within limits for Zn 213.857 Recovery = 97.50%								
SiO2†	85771.5	5167.8	ug/L	32.29	5167.8	ppb	32.29	0.62%
QC value within limits for SiO2 Recovery = 96.64%								

Sequence No.: 3
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 12/19/2009 09:12:28
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5761.3	5761.3	103	%			09:14:21
1	Y RADIAL	6142.1	6142.1	103.9	%			09:14:21
1	Al 396.153Radial†	-23.3	-6.1	-4.5054	ug/L	-4.5054	ppb	09:14:21
1	Ca 317.933Radial†	26.3	5.9	8.3647	ug/L	8.3647	ppb	09:14:41
1	Fe 238.204 Radial†	9.5	-1.7	-14.303	ug/L	-14.303	ppb	09:14:41
1	K 766.490 Radial†	3231.6	410.3	72.307	ug/L	72.307	ppb	09:14:21
1	Mg 279.077 IEC†	1.8	0.4	11.580	ug/L	11.580	ppb	09:14:41
1	Na 589.592 Radial†	-707.8	77.7	23.191	ug/L	23.191	ppb	09:14:21
1	Sr 421.552†	-11.0	1.1	0.0066	ug/L	0.0066	ppb	09:14:21
1	Sc 361.383	910094.4	910094.4	101.24	%			09:15:38
1	Y 371.029	756146.9	756146.9	101.57	%			09:15:38
1	Ag 328.068†	413.8	38.8	0.1604	ug/L	0.1604	ppb	09:15:38
1	As 188.979†	-25.2	9.9	3.6044	ug/L	3.6044	ppb	09:15:58
1	B 249.677†	241.1	264.1	5.4221	ug/L	5.4221	ppb	09:15:38
1	Ba 233.527†	6.1	8.6	0.0578	ug/L	0.0578	ppb	09:15:58
1	Be 313.107†	-4569.4	217.9	0.0731	ug/L	0.0731	ppb	09:15:38
1	Cd 226.502†	-204.0	27.7	0.2720	ug/L	0.2720	ppb	09:15:58
1	Co 228.616†	-81.8	6.3	0.1135	ug/L	0.1135	ppb	09:15:58
1	Cr 267.716†	101.9	20.5	0.2069	ug/L	0.2069	ppb	09:15:58
1	Cu 324.752†	6079.6	-50.7	-0.1440	ug/L	-0.1440	ppb	09:15:38
1	Mn 257.610†	524.8	26.9	0.0249	ug/L	0.0249	ppb	09:15:58
1	Mo 202.031†	34.8	14.5	0.8785	ug/L	0.8785	ppb	09:15:58
1	Ni 231.604†	95.9	1.1	0.0241	ug/L	0.0241	ppb	09:15:58
1	P 214.914†	255.2	-6.0	-3.0803	ug/L	-3.0803	ppb	09:15:58
1	Pb 220.353†	-70.4	-5.5	-0.5755	ug/L	-0.5755	ppb	09:15:58
1	S 181.975 Axial†	55.8	6.2	7.5575	ug/L	7.5575	ppb	09:15:58
1	Sb 206.836†	52.6	10.7	3.2541	ug/L	3.2541	ppb	09:15:58
1	Se 196.026†	-27.7	1.2	0.5957	ug/L	0.5957	ppb	09:15:58
1	Si 251.611†	649.9	64.4	1.7733	ug/L	1.7733	ppb	09:15:58
1	Sn 189.927†	12.0	8.4	1.2617	ug/L	1.2617	ppb	09:15:58
1	Ti 334.940†	-1404.4	0.5	0.0002	ug/L	0.0002	ppb	09:15:38
1	Tl 190.801†	-31.3	17.2	4.4587	ug/L	4.4587	ppb	09:15:58
1	U 409.014†	-2326.2	74.6	2.0561	ug/L	2.0561	ppb	09:15:38
1	V 292.402†	-1496.3	-8.5	-0.0351	ug/L	-0.0351	ppb	09:15:38
1	Zn 213.857†	842.5	38.6	0.3174	ug/L	0.3174	ppb	09:15:58
1	SiO2†	665.9	51.0	2.9953	ug/L	2.9953	ppb	09:16:54
2	Sc Radial	5678.0	5678.0	102	%			09:14:46
2	Y RADIAL	6057.0	6057.0	102.5	%			09:14:46
2	Al 396.153Radial†	-25.8	-8.9	-6.5567	ug/L	-6.5567	ppb	09:14:46
2	Ca 317.933Radial†	27.0	6.9	9.8800	ug/L	9.8800	ppb	09:15:06
2	Fe 238.204 Radial†	13.0	1.9	15.724	ug/L	15.724	ppb	09:15:06
2	K 766.490 Radial†	3208.7	433.6	76.423	ug/L	76.423	ppb	09:14:46
2	Mg 279.077 IEC†	4.0	2.5	78.599	ug/L	78.599	ppb	09:15:06
2	Na 589.592 Radial†	-745.4	30.8	9.2021	ug/L	9.2021	ppb	09:14:46
2	Sr 421.552†	7.5	19.2	0.1124	ug/L	0.1124	ppb	09:14:46
2	Sc 361.383	900498.5	900498.5	100.18	%			09:16:03
2	Y 371.029	746282.3	746282.3	100.24	%			09:16:03
2	Ag 328.068†	413.7	43.1	0.1920	ug/L	0.1920	ppb	09:16:03
2	As 188.979†	-35.1	-0.2	-0.0627	ug/L	-0.0627	ppb	09:16:23
2	B 249.677†	224.5	250.0	5.1285	ug/L	5.1285	ppb	09:16:03
2	Ba 233.527†	3.1	5.7	0.0390	ug/L	0.0390	ppb	09:16:23
2	Be 313.107†	-4643.3	96.0	0.0324	ug/L	0.0324	ppb	09:16:03
2	Cd 226.502†	-214.2	15.4	0.1491	ug/L	0.1491	ppb	09:16:23
2	Co 228.616†	-83.7	3.6	0.0647	ug/L	0.0647	ppb	09:16:23
2	Cr 267.716†	136.1	55.7	0.5657	ug/L	0.5657	ppb	09:16:23
2	Cu 324.752†	6016.2	-50.0	-0.1406	ug/L	-0.1406	ppb	09:16:03
2	Mn 257.610†	545.6	53.2	0.0526	ug/L	0.0526	ppb	09:16:23
2	Mo 202.031†	36.3	16.3	0.9901	ug/L	0.9901	ppb	09:16:23
2	Ni 231.604†	119.8	26.0	0.5678	ug/L	0.5678	ppb	09:16:23

2	P 214.914†	261.1	2.5	1.3372 ug/L	1.3372 ppb	09:16:23
2	Pb 220.353†	-60.3	3.8	0.4037 ug/L	0.4037 ppb	09:16:23
2	S 181.975 Axial†	52.9	3.8	4.6649 ug/L	4.6649 ppb	09:16:23
2	Sb 206.836†	61.8	20.5	6.1683 ug/L	6.1683 ppb	09:16:23
2	Se 196.026†	-29.2	-0.6	-0.2803 ug/L	-0.2803 ppb	09:16:23
2	Si 251.611†	663.7	85.1	2.3532 ug/L	2.3532 ppb	09:16:23
2	Sn 189.927†	9.6	6.1	0.9222 ug/L	0.9222 ppb	09:16:23
2	Ti 334.940†	-1305.7	84.2	0.1232 ug/L	0.1232 ppb	09:16:03
2	Tl 190.801†	-40.5	7.7	1.9919 ug/L	1.9919 ppb	09:16:23
2	U 409.014†	-2477.6	-101.0	-2.7858 ug/L	-2.7858 ppb	09:16:03
2	V 292.402†	-1515.4	-43.3	-0.2679 ug/L	-0.2679 ppb	09:16:03
2	Zn 213.857†	839.5	44.5	0.3570 ug/L	0.3570 ppb	09:16:23
2	SiO2†	657.6	49.7	2.9109 ug/L	2.9109 ppb	09:16:59
3	Sc Radial	5713.4	5713.4	103 %		09:15:11
3	Y RADIAL	6132.6	6132.6	103.7 %		09:15:11
3	Al 396.153Radial†	-11.3	5.4	3.8830 ug/L	3.8830 ppb	09:15:11
3	Ca 317.933Radial†	20.4	0.3	0.3784 ug/L	0.3784 ppb	09:15:31
3	Fe 238.204 Radial†	8.0	-3.1	-25.709 ug/L	-25.709 ppb	09:15:31
3	K 766.490 Radial†	3126.7	334.3	58.904 ug/L	58.904 ppb	09:15:11
3	Mg 279.077 IEC†	1.9	0.5	14.231 ug/L	14.231 ppb	09:15:31
3	Na 589.592 Radial†	-715.9	64.1	19.122 ug/L	19.122 ppb	09:15:11
3	Sr 421.552†	18.7	30.0	0.1761 ug/L	0.1761 ppb	09:15:11
3	Sc 361.383	909049.9	909049.9	101.13 %		09:16:29
3	Y 371.029	754134.2	754134.2	101.30 %		09:16:29
3	Ag 328.068†	321.8	-51.7	-0.2304 ug/L	-0.2304 ppb	09:16:29
3	As 188.979†	-26.3	8.8	3.1931 ug/L	3.1931 ppb	09:16:49
3	B 249.677†	254.5	277.6	5.7013 ug/L	5.7013 ppb	09:16:29
3	Ba 233.527†	14.6	17.0	0.1153 ug/L	0.1153 ppb	09:16:49
3	Be 313.107†	-4685.2	98.2	0.0328 ug/L	0.0328 ppb	09:16:29
3	Cd 226.502†	-204.8	26.6	0.2634 ug/L	0.2634 ppb	09:16:49
3	Co 228.616†	-87.8	0.3	0.0065 ug/L	0.0065 ppb	09:16:49
3	Cr 267.716†	129.3	47.7	0.4835 ug/L	0.4835 ppb	09:16:49
3	Cu 324.752†	6034.4	-88.5	-0.2513 ug/L	-0.2513 ppb	09:16:29
3	Mn 257.610†	524.7	27.4	0.0242 ug/L	0.0242 ppb	09:16:49
3	Mo 202.031†	29.5	9.3	0.5624 ug/L	0.5624 ppb	09:16:49
3	Ni 231.604†	124.2	29.2	0.6388 ug/L	0.6388 ppb	09:16:49
3	P 214.914†	241.4	-19.3	-10.008 ug/L	-10.008 ppb	09:16:49
3	Pb 220.353†	-60.5	4.3	0.4557 ug/L	0.4557 ppb	09:16:49
3	S 181.975 Axial†	44.9	-4.6	-5.5974 ug/L	-5.5974 ppb	09:16:49
3	Sb 206.836†	54.0	12.1	3.6622 ug/L	3.6622 ppb	09:16:49
3	Se 196.026†	-25.9	2.9	1.4922 ug/L	1.4922 ppb	09:16:49
3	Si 251.611†	652.4	67.7	1.8737 ug/L	1.8737 ppb	09:16:49
3	Sn 189.927†	13.7	10.1	1.5097 ug/L	1.5097 ppb	09:16:49
3	Ti 334.940†	-1452.6	-48.8	-0.0708 ug/L	-0.0708 ppb	09:16:29
3	Tl 190.801†	-33.7	14.7	3.8215 ug/L	3.8215 ppb	09:16:49
3	U 409.014†	-2398.8	0.2	0.0067 ug/L	0.0067 ppb	09:16:29
3	V 292.402†	-1438.3	47.2	0.3122 ug/L	0.3122 ppb	09:16:29
3	Zn 213.857†	828.3	25.5	0.2075 ug/L	0.2075 ppb	09:16:49
3	SiO2†	678.1	63.8	3.7903 ug/L	3.7903 ppb	09:17:04

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	906547.6	100.85	%	0.586				0.58%
Sc Radial	5717.6	103	%	0.8				0.73%
Y 371.029	752187.8	101.04	%	0.700				0.69%
Y RADIAL	6110.5	103.4	%	0.79				0.76%
Ag 328.068†	10.1	0.0407	ug/L	0.23532	0.0407	ppb	0.23532	578.43%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-3.2	-2.3930	ug/L	5.53111	-2.3930	ppb	5.53111	231.13%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	6.2	2.2449	ug/L	2.00899	2.2449	ppb	2.00899	89.49%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	263.9	5.4173	ug/L	0.28645	5.4173	ppb	0.28645	5.29%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	10.5	0.0707	ug/L	0.03977	0.0707	ppb	0.03977	56.25%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	137.4	0.0461	ug/L	0.02336	0.0461	ppb	0.02336	50.67%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	4.4	6.2077	ug/L	5.10486	6.2077	ppb	5.10486	82.23%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                23.2      0.2281 ug/L       0.06861      0.2281 ppb        0.06861  30.07%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                 3.4      0.0616 ug/L       0.05358      0.0616 ppb        0.05358  86.97%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                41.3      0.4187 ug/L       0.18795      0.4187 ppb        0.18795  44.89%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               -63.1     -0.1786 ug/L       0.06296     -0.1786 ppb        0.06296  35.25%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -1.0     -8.0959 ug/L      21.40274     -8.0959 ppb       21.40274 264.37%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         392.7      69.211 ug/L        9.1602      69.211 ppb         9.1602  13.24%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             1.1      34.803 ug/L       37.9512      34.803 ppb        37.9512 109.04%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                35.8      0.0339 ug/L       0.01617      0.0339 ppb        0.01617  47.72%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                13.4      0.8104 ug/L       0.22183      0.8104 ppb        0.22183  27.37%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†         57.5      17.172 ug/L        7.1957      17.172 ppb         7.1957  41.90%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                18.8      0.4102 ug/L       0.33629      0.4102 ppb        0.33629  81.98%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -7.6     -3.9170 ug/L       5.71870     -3.9170 ppb        5.71870 146.00%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                 0.9      0.0946 ug/L       0.58096      0.0946 ppb        0.58096 614.03%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            1.8      2.2083 ug/L       6.91295      2.2083 ppb        6.91295 313.04%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                14.5      4.3615 ug/L       1.57796      4.3615 ppb        1.57796  36.18%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 1.1      0.6025 ug/L       0.88627      0.6025 ppb        0.88627 147.10%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                72.4      2.0001 ug/L       0.30994      2.0001 ppb        0.30994  15.50%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 8.2      1.2312 ug/L       0.29497      1.2312 ppb        0.29497  23.96%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                16.8      0.0984 ug/L       0.08560      0.0984 ppb        0.08560  87.03%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                11.9      0.0175 ug/L       0.09815      0.0175 ppb        0.09815 559.38%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                13.2      3.4240 ug/L       1.28055      3.4240 ppb        1.28055  37.40%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 -8.8     -0.2410 ug/L       2.43041     -0.2410 ppb        2.43041 >999.9%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 -1.6      0.0031 ug/L       0.29189      0.0031 ppb        0.29189 >999.9%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                36.2      0.2940 ug/L       0.07745      0.2940 ppb        0.07745  26.35%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                      54.9      3.2322 ug/L       0.48516      3.2322 ppb        0.48516  15.01%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

User canceled analysis.

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Analysis Begun

Start Time: 12/19/2009 10:14:09 **Plasma On Time: 12/14/2009 06:02:42**
Logged In Analyst: Optima3 **Technique: ICP Continuous**
Spectrometer Model: Optima 5300 DV, S/N 077C7090601Autosampler Model: S10

Sample Information File: C:\pe\Optima3\Sample Information\121909.sif
Batch ID:
Results Data Set: 121909
Results Library: C:\pe\Optima3\Results\Results.mdb

==========

Sequence No.: 11 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 12/19/2009 10:14:10**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5553.5	5553.5	99.8	%			10:16:02
1	Y RADIAL	5849.0	5849.0	98.94	%			10:16:02
1	Al 396.153Radial†	6715.1	6748.2	4896.3	ug/L	4896.3	ppb	10:16:02
1	Ca 317.933Radial†	3514.9	3504.0	4995.8	ug/L	4995.8	ppb	10:16:22
1	Fe 238.204 Radial†	615.1	605.8	5051.3	ug/L	5051.3	ppb	10:16:22
1	K 766.490 Radial†	31181.6	28546.7	5022.9	ug/L	5022.9	ppb	10:16:02
1	Mg 279.077 IEC†	168.2	167.2	5196.7	ug/L	5196.7	ppb	10:16:22
1	Na 589.592 Radial†	31392.4	32232.1	9620.3	ug/L	9620.3	ppb	10:16:02
1	Sr 421.552†	84136.2	84357.1	494.61	ug/L	494.61	ppb	10:16:02
1	Sc 361.383	928285.0	928285.0	103.27	%			10:17:19
1	Y 371.029	755808.8	755808.8	101.52	%			10:17:19
1	Ag 328.068†	115537.1	111510.9	483.67	ug/L	483.67	ppb	10:17:25
1	As 188.979†	1372.6	1364.0	499.44	ug/L	499.44	ppb	10:17:45
1	B 249.677†	24261.4	23519.5	480.78	ug/L	480.78	ppb	10:17:25
1	Ba 233.527†	73799.7	71466.8	487.00	ug/L	487.00	ppb	10:17:25
1	Be 313.107†	1506253.3	1463318.2	491.70	ug/L	491.70	ppb	10:17:19
1	Cd 226.502†	51430.0	50031.7	489.11	ug/L	489.11	ppb	10:17:25
1	Co 228.616†	28664.8	27844.8	487.56	ug/L	487.56	ppb	10:17:25
1	Cr 267.716†	49603.2	47953.3	486.96	ug/L	486.96	ppb	10:17:25
1	Cu 324.752†	181881.2	170069.9	480.77	ug/L	480.77	ppb	10:17:25
1	Mn 257.610†	515022.7	498233.1	491.85	ug/L	491.85	ppb	10:17:19
1	Mo 202.031†	8300.7	8018.1	485.71	ug/L	485.71	ppb	10:17:45
1	Ni 231.604†	23182.5	22355.3	488.13	ug/L	488.13	ppb	10:17:25
1	P 214.914†	5080.5	4661.6	2358.9	ug/L	2358.9	ppb	10:17:45
1	Pb 220.353†	4726.8	4641.3	490.60	ug/L	490.60	ppb	10:17:45
1	S 181.975 Axial†	864.0	787.7	965.33	ug/L	965.33	ppb	10:17:45
1	Sb 206.836†	1718.0	1622.4	493.13	ug/L	493.13	ppb	10:17:45
1	Se 196.026†	897.0	897.1	506.31	ug/L	506.31	ppb	10:17:45
1	Si 251.611†	88612.6	85230.9	2391.7	ug/L	2391.7	ppb	10:17:25
1	Sn 189.927†	3382.1	3271.6	491.25	ug/L	491.25	ppb	10:17:45
1	Ti 334.940†	346373.1	336799.5	486.84	ug/L	486.84	ppb	10:17:19
1	Tl 190.801†	1904.1	1891.9	493.99	ug/L	493.99	ppb	10:17:45
1	U 409.014†	15318.0	17205.5	472.47	ug/L	472.47	ppb	10:17:25
1	V 292.402†	77029.9	76061.6	490.25	ug/L	490.25	ppb	10:17:25
1	Zn 213.857†	62259.7	59495.9	483.60	ug/L	483.60	ppb	10:17:25
1	SiO2†	89163.1	85734.8	5165.8	ug/L	5165.8	ppb	10:18:53
2	Sc Radial	5562.3	5562.3	99.9	%			10:16:27
2	Y RADIAL	5881.8	5881.8	99.50	%			10:16:27
2	Al 396.153Radial†	6767.1	6789.5	4927.6	ug/L	4927.6	ppb	10:16:27
2	Ca 317.933Radial†	3494.2	3477.8	4958.4	ug/L	4958.4	ppb	10:16:47
2	Fe 238.204 Radial†	611.6	601.3	5013.3	ug/L	5013.3	ppb	10:16:47
2	K 766.490 Radial†	30931.5	28246.8	4970.4	ug/L	4970.4	ppb	10:16:27
2	Mg 279.077 IEC†	167.7	166.4	5172.9	ug/L	5172.9	ppb	10:16:47
2	Na 589.592 Radial†	31287.8	32077.5	9574.2	ug/L	9574.2	ppb	10:16:27
2	Sr 421.552†	83971.0	84058.2	492.86	ug/L	492.86	ppb	10:16:27
2	Sc 361.383	971392.0	971392.0	108.06	%			10:17:51

2	Y 371.029	790540.5	790540.5	106.19 %			10:17:51
2	Ag 328.068†	116551.1	107484.4	466.24 ug/L	466.24 ppb		10:17:56
2	As 188.979†	1349.7	1283.8	470.03 ug/L	470.03 ppb		10:18:16
2	B 249.677†	24539.4	22734.3	464.71 ug/L	464.71 ppb		10:17:56
2	Ba 233.527†	74366.5	68820.0	468.97 ug/L	468.97 ppb		10:17:56
2	Be 313.107†	1447628.7	1344341.0	451.72 ug/L	451.72 ppb		10:17:51
2	Cd 226.502†	51680.1	48053.1	469.75 ug/L	469.75 ppb		10:17:56
2	Co 228.616†	28909.2	26839.1	469.97 ug/L	469.97 ppb		10:17:56
2	Cr 267.716†	49854.5	46054.4	467.68 ug/L	467.68 ppb		10:17:56
2	Cu 324.752†	183761.7	163994.2	463.60 ug/L	463.60 ppb		10:17:56
2	Mn 257.610†	498086.1	460428.6	454.56 ug/L	454.56 ppb		10:17:51
2	Mo 202.031†	8202.5	7570.5	458.61 ug/L	458.61 ppb		10:18:16
2	Ni 231.604†	23319.2	21485.6	469.14 ug/L	469.14 ppb		10:17:56
2	P 214.914†	4996.0	4365.2	2206.6 ug/L	2206.6 ppb		10:18:16
2	Pb 220.353†	4669.7	4385.3	463.58 ug/L	463.58 ppb		10:18:16
2	S 181.975 Axial†	857.5	744.5	912.43 ug/L	912.43 ppb		10:18:16
2	Sb 206.836†	1704.3	1535.9	466.67 ug/L	466.67 ppb		10:18:16
2	Se 196.026†	880.6	843.4	476.83 ug/L	476.83 ppb		10:18:16
2	Si 251.611†	89486.5	82231.7	2307.7 ug/L	2307.7 ppb		10:17:56
2	Sn 189.927†	3334.6	3082.3	462.85 ug/L	462.85 ppb		10:18:16
2	Ti 334.940†	333765.0	310247.8	448.46 ug/L	448.46 ppb		10:17:51
2	Tl 190.801†	1877.1	1785.1	465.92 ug/L	465.92 ppb		10:18:16
2	U 409.014†	15600.1	16808.3	461.57 ug/L	461.57 ppb		10:17:56
2	V 292.402†	77479.0	73167.1	471.49 ug/L	471.49 ppb		10:17:56
2	Zn 213.857†	62628.5	57161.7	464.60 ug/L	464.60 ppb		10:17:56
2	SiO2†	88791.1	81559.1	4914.2 ug/L	4914.2 ppb		10:18:58
3	Sc Radial	5621.6	5621.6	101 %			10:16:52
3	Y RADIAL	5952.0	5952.0	100.7 %			10:16:52
3	Al 396.153Radial†	6807.6	6758.2	4903.5 ug/L	4903.5 ppb		10:16:52
3	Ca 317.933Radial†	3483.6	3430.4	4890.8 ug/L	4890.8 ppb		10:17:12
3	Fe 238.204 Radial†	607.9	591.2	4930.1 ug/L	4930.1 ppb		10:17:12
3	K 766.490 Radial†	31287.2	28272.5	4974.6 ug/L	4974.6 ppb		10:16:52
3	Mg 279.077 IEC†	167.2	164.2	5103.2 ug/L	5103.2 ppb		10:17:12
3	Na 589.592 Radial†	31440.9	31898.8	9520.9 ug/L	9520.9 ppb		10:16:52
3	Sr 421.552†	84737.0	83930.2	492.11 ug/L	492.11 ppb		10:16:52
3	Sc 361.383	913742.9	913742.9	101.65 %			10:18:22
3	Y 371.029	742553.7	742553.7	99.743 %			10:18:22
3	Ag 328.068†	115791.4	113541.6	492.40 ug/L	492.40 ppb		10:18:27
3	As 188.979†	1346.3	1359.3	497.67 ug/L	497.67 ppb		10:18:47
3	B 249.677†	24317.2	23948.4	489.57 ug/L	489.57 ppb		10:18:27
3	Ba 233.527†	74026.4	72827.2	496.26 ug/L	496.26 ppb		10:18:27
3	Be 313.107†	1460514.8	1441535.4	484.38 ug/L	484.38 ppb		10:18:22
3	Cd 226.502†	51426.0	50820.4	496.84 ug/L	496.84 ppb		10:18:27
3	Co 228.616†	28727.0	28347.8	496.38 ug/L	496.38 ppb		10:18:27
3	Cr 267.716†	49621.1	48735.4	494.90 ug/L	494.90 ppb		10:18:27
3	Cu 324.752†	182730.2	173708.1	491.04 ug/L	491.04 ppb		10:18:27
3	Mn 257.610†	503302.9	494640.7	488.30 ug/L	488.30 ppb		10:18:22
3	Mo 202.031†	8224.5	8071.1	488.90 ug/L	488.90 ppb		10:18:47
3	Ni 231.604†	23184.4	22714.4	495.97 ug/L	495.97 ppb		10:18:27
3	P 214.914†	5034.2	4694.4	2374.4 ug/L	2374.4 ppb		10:18:47
3	Pb 220.353†	4672.5	4660.7	492.65 ug/L	492.65 ppb		10:18:47
3	S 181.975 Axial†	870.1	807.0	989.04 ug/L	989.04 ppb		10:18:47
3	Sb 206.836†	1712.3	1643.3	499.28 ug/L	499.28 ppb		10:18:47
3	Se 196.026†	896.4	910.4	513.17 ug/L	513.17 ppb		10:18:47
3	Si 251.611†	88927.9	86906.7	2438.9 ug/L	2438.9 ppb		10:18:27
3	Sn 189.927†	3324.6	3267.2	490.58 ug/L	490.58 ppb		10:18:47
3	Ti 334.940†	337899.2	333801.2	482.49 ug/L	482.49 ppb		10:18:22
3	Tl 190.801†	1889.6	1907.0	497.80 ug/L	497.80 ppb		10:18:47
3	U 409.014†	15562.2	17681.7	485.59 ug/L	485.59 ppb		10:18:27
3	V 292.402†	77205.7	77421.7	498.99 ug/L	498.99 ppb		10:18:27
3	Zn 213.857†	62221.4	60417.7	491.11 ug/L	491.11 ppb		10:18:27
3	SiO2†	88259.5	86220.0	5195.1 ug/L	5195.1 ppb		10:19:03

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	937806.7	104.33	%	3.335				3.20%
Sc Radial	5579.1	100	%	0.7				0.66%
Y 371.029	762967.7	102.49	%	3.329				3.25%
Y RADIAL	5894.2	99.71	%	0.890				0.89%

Ag 328.068†	110845.7	480.77 ug/L	13.320	480.77 ppb	13.320	2.77%
QC value within limits for Ag 328.068 Recovery = 96.15%						
Al 396.153Radial†	6765.3	4909.1 ug/L	16.38	4909.1 ppb	16.38	0.33%
QC value within limits for Al 396.153Radial Recovery = 98.18%						
As 188.979†	1335.7	489.05 ug/L	16.490	489.05 ppb	16.490	3.37%
QC value within limits for As 188.979 Recovery = 97.81%						
B 249.677†	23400.7	478.36 ug/L	12.606	478.36 ppb	12.606	2.64%
QC value within limits for B 249.677 Recovery = 95.67%						
Ba 233.527†	71038.0	484.07 ug/L	13.879	484.07 ppb	13.879	2.87%
QC value within limits for Ba 233.527 Recovery = 96.81%						
Be 313.107†	1416398.2	475.93 ug/L	21.285	475.93 ppb	21.285	4.47%
QC value within limits for Be 313.107 Recovery = 95.19%						
Ca 317.933Radial†	3470.7	4948.3 ug/L	53.19	4948.3 ppb	53.19	1.07%
QC value within limits for Ca 317.933Radial Recovery = 98.97%						
Cd 226.502†	49635.0	485.24 ug/L	13.954	485.24 ppb	13.954	2.88%
QC value within limits for Cd 226.502 Recovery = 97.05%						
Co 228.616†	27677.2	484.64 ug/L	13.448	484.64 ppb	13.448	2.77%
QC value within limits for Co 228.616 Recovery = 96.93%						
Cr 267.716†	47581.0	483.18 ug/L	13.999	483.18 ppb	13.999	2.90%
QC value within limits for Cr 267.716 Recovery = 96.64%						
Cu 324.752†	169257.4	478.47 ug/L	13.864	478.47 ppb	13.864	2.90%
QC value within limits for Cu 324.752 Recovery = 95.69%						
Fe 238.204 Radial†	599.4	4998.2 ug/L	61.99	4998.2 ppb	61.99	1.24%
QC value within limits for Fe 238.204 Radial Recovery = 99.96%						
K 766.490 Radial†	28355.3	4989.3 ug/L	29.14	4989.3 ppb	29.14	0.58%
QC value within limits for K 766.490 Radial Recovery = 99.79%						
Mg 279.077 IEC†	165.9	5157.6 ug/L	48.58	5157.6 ppb	48.58	0.94%
QC value within limits for Mg 279.077 IEC Recovery = 103.15%						
Mn 257.610†	484434.1	478.23 ug/L	20.582	478.23 ppb	20.582	4.30%
QC value within limits for Mn 257.610 Recovery = 95.65%						
Mo 202.031†	7886.6	477.74 ug/L	16.644	477.74 ppb	16.644	3.48%
QC value within limits for Mo 202.031 Recovery = 95.55%						
Na 589.592 Radial†	32069.5	9571.8 ug/L	49.78	9571.8 ppb	49.78	0.52%
QC value within limits for Na 589.592 Radial Recovery = 95.72%						
Ni 231.604†	22185.1	484.42 ug/L	13.797	484.42 ppb	13.797	2.85%
QC value within limits for Ni 231.604 Recovery = 96.88%						
P 214.914†	4573.7	2313.3 ug/L	92.71	2313.3 ppb	92.71	4.01%
QC value within limits for P 214.914 Recovery = 92.53%						
Pb 220.353†	4562.4	482.28 ug/L	16.225	482.28 ppb	16.225	3.36%
QC value within limits for Pb 220.353 Recovery = 96.46%						
S 181.975 Axial†	779.7	955.60 ug/L	39.216	955.60 ppb	39.216	4.10%
QC value within limits for S 181.975 Axial Recovery = 95.56%						
Sb 206.836†	1600.5	486.36 ug/L	17.325	486.36 ppb	17.325	3.56%
QC value within limits for Sb 206.836 Recovery = 97.27%						
Se 196.026†	883.6	498.77 ug/L	19.304	498.77 ppb	19.304	3.87%
QC value within limits for Se 196.026 Recovery = 99.75%						
Si 251.611†	84789.8	2379.4 ug/L	66.46	2379.4 ppb	66.46	2.79%
QC value within limits for Si 251.611 Recovery = 95.18%						
Sn 189.927†	3207.0	481.56 ug/L	16.205	481.56 ppb	16.205	3.37%
QC value within limits for Sn 189.927 Recovery = 96.31%						
Sr 421.552†	84115.2	493.19 ug/L	1.284	493.19 ppb	1.284	0.26%
QC value within limits for Sr 421.552 Recovery = 98.64%						
Ti 334.940†	326949.5	472.60 ug/L	21.016	472.60 ppb	21.016	4.45%
QC value within limits for Ti 334.940 Recovery = 94.52%						
Tl 190.801†	1861.3	485.91 ug/L	17.413	485.91 ppb	17.413	3.58%
QC value within limits for Tl 190.801 Recovery = 97.18%						
U 409.014†	17231.8	473.21 ug/L	12.029	473.21 ppb	12.029	2.54%
QC value within limits for U 409.014 Recovery = 94.64%						
V 292.402†	75550.2	486.91 ug/L	14.053	486.91 ppb	14.053	2.89%
QC value within limits for V 292.402 Recovery = 97.38%						
Zn 213.857†	59025.1	479.77 ug/L	13.663	479.77 ppb	13.663	2.85%
QC value within limits for Zn 213.857 Recovery = 95.95%						
SiO2†	84504.6	5091.7 ug/L	154.40	5091.7 ppb	154.40	3.03%
QC value within limits for SiO2 Recovery = 95.22%						

All analyte(s) passed QC.

Sequence No.: 12
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 12/19/2009 10:21:12
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5616.6	5616.6	101	%			10:23:05
1	Y RADIAL	5983.2	5983.2	101.2	%			10:23:05
1	Al 396.153Radial†	-31.6	-14.9	-10.891	ug/L	-10.891	ppb	10:23:05
1	Ca 317.933Radial†	18.6	-1.1	-1.5731	ug/L	-1.5731	ppb	10:23:25
1	Fe 238.204 Radial†	8.6	-2.3	-19.368	ug/L	-19.368	ppb	10:23:25
1	K 766.490 Radial†	2944.4	206.2	36.342	ug/L	36.342	ppb	10:23:05
1	Mg 279.077 IEC†	1.1	-0.4	-10.962	ug/L	-10.962	ppb	10:23:25
1	Na 589.592 Radial†	-793.5	-24.9	-7.4390	ug/L	-7.4390	ppb	10:23:05
1	Sr 421.552†	7.1	18.8	0.1105	ug/L	0.1105	ppb	10:23:05
1	Sc 361.383	905995.4	905995.4	100.79	%			10:24:22
1	Y 371.029	752925.4	752925.4	101.14	%			10:24:22
1	Ag 328.068†	395.5	22.5	0.0934	ug/L	0.0934	ppb	10:24:22
1	As 188.979†	-34.2	0.9	0.3236	ug/L	0.3236	ppb	10:24:42
1	B 249.677†	-14.0	12.0	0.2494	ug/L	0.2494	ppb	10:24:22
1	Ba 233.527†	-7.1	-4.5	-0.0321	ug/L	-0.0321	ppb	10:24:42
1	Be 313.107†	-4641.4	126.0	0.0422	ug/L	0.0422	ppb	10:24:22
1	Cd 226.502†	-229.2	1.7	0.0192	ug/L	0.0192	ppb	10:24:42
1	Co 228.616†	-91.8	-4.0	-0.0676	ug/L	-0.0676	ppb	10:24:42
1	Cr 267.716†	103.9	22.9	0.2328	ug/L	0.2328	ppb	10:24:42
1	Cu 324.752†	5985.0	-117.4	-0.3326	ug/L	-0.3326	ppb	10:24:22
1	Mn 257.610†	516.8	21.3	0.0193	ug/L	0.0193	ppb	10:24:42
1	Mo 202.031†	31.7	11.5	0.6977	ug/L	0.6977	ppb	10:24:42
1	Ni 231.604†	115.3	20.8	0.4545	ug/L	0.4545	ppb	10:24:42
1	P 214.914†	249.1	-10.9	-5.6026	ug/L	-5.6026	ppb	10:24:42
1	Pb 220.353†	-68.4	-3.9	-0.4052	ug/L	-0.4052	ppb	10:24:42
1	S 181.975 Axial†	52.9	3.4	4.2206	ug/L	4.2206	ppb	10:24:42
1	Sb 206.836†	48.5	6.9	2.0831	ug/L	2.0831	ppb	10:24:42
1	Se 196.026†	-38.8	-9.9	-5.4699	ug/L	-5.4699	ppb	10:24:42
1	Si 251.611†	604.5	22.3	0.6016	ug/L	0.6016	ppb	10:24:42
1	Sn 189.927†	11.6	8.1	1.2076	ug/L	1.2076	ppb	10:24:42
1	Ti 334.940†	-1406.7	-8.1	-0.0095	ug/L	-0.0095	ppb	10:24:22
1	Tl 190.801†	-39.0	9.4	2.4333	ug/L	2.4333	ppb	10:24:42
1	U 409.014†	-2585.5	-193.1	-5.3183	ug/L	-5.3183	ppb	10:24:22
1	V 292.402†	-1549.5	-67.9	-0.4298	ug/L	-0.4298	ppb	10:24:22
1	Zn 213.857†	840.2	40.0	0.3281	ug/L	0.3281	ppb	10:24:42
1	SiO2†	726.8	114.4	6.8658	ug/L	6.8658	ppb	10:25:38
2	Sc Radial	5663.0	5663.0	102	%			10:23:30
2	Y RADIAL	6054.5	6054.5	102.4	%			10:23:30
2	Al 396.153Radial†	-9.8	6.7	4.8721	ug/L	4.8721	ppb	10:23:30
2	Ca 317.933Radial†	21.1	1.2	1.6955	ug/L	1.6955	ppb	10:23:50
2	Fe 238.204 Radial†	9.2	-1.8	-15.273	ug/L	-15.273	ppb	10:23:50
2	K 766.490 Radial†	2927.1	165.2	29.125	ug/L	29.125	ppb	10:23:30
2	Mg 279.077 IEC†	1.7	0.2	7.0445	ug/L	7.0445	ppb	10:23:50
2	Na 589.592 Radial†	-797.6	-22.5	-6.7162	ug/L	-6.7162	ppb	10:23:30
2	Sr 421.552†	-8.7	3.2	0.0188	ug/L	0.0188	ppb	10:23:30
2	Sc 361.383	902480.6	902480.6	100.40	%			10:24:47
2	Y 371.029	748554.3	748554.3	100.55	%			10:24:47
2	Ag 328.068†	254.7	-116.2	-0.5047	ug/L	-0.5047	ppb	10:24:47
2	As 188.979†	-24.5	10.4	3.7686	ug/L	3.7686	ppb	10:25:07
2	B 249.677†	-20.1	5.9	0.1226	ug/L	0.1226	ppb	10:24:47
2	Ba 233.527†	-14.4	-11.7	-0.0811	ug/L	-0.0811	ppb	10:25:07
2	Be 313.107†	-4597.8	151.5	0.0509	ug/L	0.0509	ppb	10:24:47
2	Cd 226.502†	-212.0	18.0	0.1779	ug/L	0.1779	ppb	10:25:07
2	Co 228.616†	-82.5	4.9	0.0883	ug/L	0.0883	ppb	10:25:07
2	Cr 267.716†	121.3	40.7	0.4129	ug/L	0.4129	ppb	10:25:07
2	Cu 324.752†	5977.6	-101.6	-0.2879	ug/L	-0.2879	ppb	10:24:47
2	Mn 257.610†	534.6	41.0	0.0388	ug/L	0.0388	ppb	10:25:07
2	Mo 202.031†	34.9	14.9	0.9029	ug/L	0.9029	ppb	10:25:07
2	Ni 231.604†	118.0	24.0	0.5238	ug/L	0.5238	ppb	10:25:07

2	P 214.914†	254.4	-4.6	-2.3516	ug/L	-2.3516 ppb	10:25:07
2	Pb 220.353†	-71.0	-6.7	-0.6995	ug/L	-0.6995 ppb	10:25:07
2	S 181.975 Axial†	49.4	0.2	0.2426	ug/L	0.2426 ppb	10:25:07
2	Sb 206.836†	41.5	0.1	0.0609	ug/L	0.0609 ppb	10:25:07
2	Se 196.026†	-23.5	5.1	2.7465	ug/L	2.7465 ppb	10:25:07
2	Si 251.611†	605.5	25.7	0.6962	ug/L	0.6962 ppb	10:25:07
2	Sn 189.927†	7.2	3.7	0.5489	ug/L	0.5489 ppb	10:25:07
2	Ti 334.940†	-1358.1	34.9	0.0518	ug/L	0.0518 ppb	10:24:47
2	Tl 190.801†	-48.4	-0.1	-0.0293	ug/L	-0.0293 ppb	10:25:07
2	U 409.014†	-2503.2	-121.1	-3.3361	ug/L	-3.3361 ppb	10:24:47
2	V 292.402†	-1533.9	-58.4	-0.3629	ug/L	-0.3629 ppb	10:24:47
2	Zn 213.857†	833.2	36.4	0.2965	ug/L	0.2965 ppb	10:25:07
2	SiO2†	624.6	15.5	0.8798	ug/L	0.8798 ppb	10:25:43
3	Sc Radial	5677.5	5677.5	102	%		10:23:55
3	Y RADIAL	6030.0	6030.0	102.0	%		10:23:55
3	Al 396.153Radial†	-26.1	-9.2	-6.7339	ug/L	-6.7339 ppb	10:23:55
3	Ca 317.933Radial†	24.5	4.5	6.3638	ug/L	6.3638 ppb	10:24:15
3	Fe 238.204 Radial†	10.2	-0.9	-7.5989	ug/L	-7.5989 ppb	10:24:15
3	K 766.490 Radial†	2927.7	158.5	27.929	ug/L	27.929 ppb	10:23:55
3	Mg 279.077 IEC†	5.1	3.6	112.34	ug/L	112.34 ppb	10:24:15
3	Na 589.592 Radial†	-810.1	-32.7	-9.7554	ug/L	-9.7554 ppb	10:23:55
3	Sr 421.552†	29.8	41.0	0.2403	ug/L	0.2403 ppb	10:23:55
3	Sc 361.383	899794.8	899794.8	100.10	%		10:25:13
3	Y 371.029	747572.3	747572.3	100.42	%		10:25:13
3	Ag 328.068†	404.1	33.8	0.1452	ug/L	0.1452 ppb	10:25:13
3	As 188.979†	-22.4	12.4	4.5017	ug/L	4.5017 ppb	10:25:33
3	B 249.677†	29.0	54.9	1.1276	ug/L	1.1276 ppb	10:25:13
3	Ba 233.527†	0.2	2.8	0.0182	ug/L	0.0182 ppb	10:25:33
3	Be 313.107†	-4622.2	113.5	0.0382	ug/L	0.0382 ppb	10:25:13
3	Cd 226.502†	-230.4	-1.0	-0.0086	ug/L	-0.0086 ppb	10:25:33
3	Co 228.616†	-86.0	1.2	0.0203	ug/L	0.0203 ppb	10:25:33
3	Cr 267.716†	102.8	22.6	0.2292	ug/L	0.2292 ppb	10:25:33
3	Cu 324.752†	6083.4	21.8	0.0613	ug/L	0.0613 ppb	10:25:13
3	Mn 257.610†	510.0	18.1	0.0150	ug/L	0.0150 ppb	10:25:33
3	Mo 202.031†	21.0	1.1	0.0683	ug/L	0.0683 ppb	10:25:33
3	Ni 231.604†	124.9	31.2	0.6826	ug/L	0.6826 ppb	10:25:33
3	P 214.914†	246.5	-11.8	-6.1636	ug/L	-6.1636 ppb	10:25:33
3	Pb 220.353†	-69.4	-5.3	-0.5598	ug/L	-0.5598 ppb	10:25:33
3	S 181.975 Axial†	52.9	3.9	4.7370	ug/L	4.7370 ppb	10:25:33
3	Sb 206.836†	45.4	4.2	1.2541	ug/L	1.2541 ppb	10:25:33
3	Se 196.026†	-30.3	-1.8	-0.9937	ug/L	-0.9937 ppb	10:25:33
3	Si 251.611†	611.1	33.1	0.9199	ug/L	0.9199 ppb	10:25:33
3	Sn 189.927†	7.6	4.1	0.6221	ug/L	0.6221 ppb	10:25:33
3	Ti 334.940†	-1352.0	36.9	0.0555	ug/L	0.0555 ppb	10:25:13
3	Tl 190.801†	-38.5	9.6	2.4997	ug/L	2.4997 ppb	10:25:33
3	U 409.014†	-2522.3	-147.6	-4.0671	ug/L	-4.0671 ppb	10:25:13
3	V 292.402†	-1523.8	-52.9	-0.3400	ug/L	-0.3400 ppb	10:25:13
3	Zn 213.857†	835.8	41.4	0.3323	ug/L	0.3323 ppb	10:25:33
3	SiO2†	597.8	-9.4	-0.5979	ug/L	-0.5979 ppb	10:25:48

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	902756.9	100.43	%	0.346				0.34%
Sc Radial	5652.3	102	%	0.6				0.56%
Y 371.029	749684.0	100.70	%	0.383				0.38%
Y RADIAL	6022.6	101.9	%	0.61				0.60%
Ag 328.068†	-20.0	-0.0887	ug/L	0.36117	-0.0887	ppb	0.36117	407.26%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-5.8	-4.2509	ug/L	8.16959	-4.2509	ppb	8.16959	192.19%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	7.9	2.8646	ug/L	2.23093	2.8646	ppb	2.23093	77.88%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	24.3	0.4998	ug/L	0.54730	0.4998	ppb	0.54730	109.49%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-4.5	-0.0316	ug/L	0.04966	-0.0316	ppb	0.04966	156.96%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	130.3	0.0438	ug/L	0.00650	0.0438	ppb	0.00650	14.86%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	1.5	2.1620	ug/L	3.98896	2.1620	ppb	3.98896	184.50%

```
   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                 6.2      0.0628 ug/L       0.10058      0.0628 ppb        0.10058 160.07%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                 0.7      0.0136 ug/L       0.07818      0.0136 ppb        0.07818 572.90%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                28.7      0.2916 ug/L       0.10500      0.2916 ppb        0.10500  36.01%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               -65.7     -0.1864 ug/L       0.21567     -0.1864 ppb        0.21567 115.69%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -1.7     -14.080 ug/L        5.9746     -14.080 ppb         5.9746  42.43%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         176.6      31.132 ug/L        4.5515      31.132 ppb         4.5515  14.62%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             1.2      36.141 ug/L       66.6022      36.141 ppb        66.6022 184.28%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                26.8      0.0244 ug/L       0.01272      0.0244 ppb        0.01272  52.20%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 9.2      0.5563 ug/L       0.43487      0.5563 ppb        0.43487  78.18%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        -26.7     -7.9702 ug/L       1.58771     -7.9702 ppb        1.58771  19.92%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                25.3      0.5536 ug/L       0.11694      0.5536 ppb        0.11694  21.12%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -9.1     -4.7059 ug/L       2.05810     -4.7059 ppb        2.05810  43.73%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -5.3     -0.5548 ug/L       0.14721     -0.5548 ppb        0.14721  26.53%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            2.5      3.0667 ug/L       2.45938      3.0667 ppb        2.45938  80.20%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 3.7      1.1327 ug/L       1.01653      1.1327 ppb        1.01653  89.74%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -2.2     -1.2391 ug/L       4.11367     -1.2391 ppb        4.11367 332.00%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                27.0      0.7392 ug/L       0.16345      0.7392 ppb        0.16345  22.11%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 5.3      0.7929 ug/L       0.36102      0.7929 ppb        0.36102  45.53%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                21.0      0.1232 ug/L       0.11130      0.1232 ppb        0.11130  90.32%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                21.2      0.0326 ug/L       0.03652      0.0326 ppb        0.03652 112.09%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 6.3      1.6346 ug/L       1.44132      1.6346 ppb        1.44132  88.18%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -154.0     -4.2405 ug/L       1.00241     -4.2405 ppb        1.00241  23.64%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                -59.8     -0.3776 ug/L       0.04666     -0.3776 ppb        0.04666  12.36%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                39.3      0.3190 ug/L       0.01959      0.3190 ppb        0.01959   6.14%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                      40.2      2.3826 ug/L       3.95230      2.3826 ppb        3.95230 165.88%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 8
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 12/19/2009 11:18:11
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5421.2	5421.2	97.4	%			11:20:04
1	Y RADIAL	5768.9	5768.9	97.59	%			11:20:04
1	Al 396.153Radial†	6592.6	6786.7	4924.3	ug/L	4924.3	ppb	11:20:04
1	Ca 317.933Radial†	3518.3	3593.6	5123.5	ug/L	5123.5	ppb	11:20:24
1	Fe 238.204 Radial†	623.1	629.0	5244.8	ug/L	5244.8	ppb	11:20:24
1	K 766.490 Radial†	30360.9	28466.7	5008.6	ug/L	5008.6	ppb	11:20:04
1	Mg 279.077 IEC†	168.0	171.1	5318.7	ug/L	5318.7	ppb	11:20:24
1	Na 589.592 Radial†	31723.4	33340.0	9951.0	ug/L	9951.0	ppb	11:20:04
1	Sr 421.552†	83800.8	86071.0	504.66	ug/L	504.66	ppb	11:20:04
1	Sc 361.383	916565.1	916565.1	101.96	%			11:21:21
1	Y 371.029	745912.1	745912.1	100.19	%			11:21:21
1	Ag 328.068†	116199.1	113590.8	492.72	ug/L	492.72	ppb	11:21:27
1	As 188.979†	1356.6	1365.3	499.90	ug/L	499.90	ppb	11:21:47
1	B 249.677†	24066.3	23628.6	482.97	ug/L	482.97	ppb	11:21:27
1	Ba 233.527†	74033.3	72609.8	494.79	ug/L	494.79	ppb	11:21:27
1	Be 313.107†	1474137.1	1450471.3	487.38	ug/L	487.38	ppb	11:21:21
1	Cd 226.502†	51380.1	50619.5	494.85	ug/L	494.85	ppb	11:21:27
1	Co 228.616†	28786.6	28319.2	495.87	ug/L	495.87	ppb	11:21:27
1	Cr 267.716†	49665.9	48629.0	493.83	ug/L	493.83	ppb	11:21:27
1	Cu 324.752†	183621.8	174029.1	491.96	ug/L	491.96	ppb	11:21:27
1	Mn 257.610†	506237.3	495994.0	489.66	ug/L	489.66	ppb	11:21:21
1	Mo 202.031†	8229.5	8051.1	487.72	ug/L	487.72	ppb	11:21:47
1	Ni 231.604†	23227.5	22686.4	495.36	ug/L	495.36	ppb	11:21:27
1	P 214.914†	5038.6	4683.5	2368.3	ug/L	2368.3	ppb	11:21:47
1	Pb 220.353†	4663.1	4637.3	490.16	ug/L	490.16	ppb	11:21:47
1	S 181.975 Axial†	867.3	801.6	982.45	ug/L	982.45	ppb	11:21:47
1	Sb 206.836†	1713.6	1639.4	498.07	ug/L	498.07	ppb	11:21:47
1	Se 196.026†	884.4	895.9	506.25	ug/L	506.25	ppb	11:21:47
1	Si 251.611†	89190.3	86894.7	2438.6	ug/L	2438.6	ppb	11:21:27
1	Sn 189.927†	3317.6	3250.2	488.05	ug/L	488.05	ppb	11:21:47
1	Ti 334.940†	340271.1	335103.9	484.38	ug/L	484.38	ppb	11:21:21
1	Tl 190.801†	1867.5	1879.6	490.72	ug/L	490.72	ppb	11:21:47
1	U 409.014†	15812.6	17880.2	491.03	ug/L	491.03	ppb	11:21:27
1	V 292.402†	77518.7	77494.9	499.41	ug/L	499.41	ppb	11:21:27
1	Zn 213.857†	62354.6	60359.9	490.60	ug/L	490.60	ppb	11:21:27
1	SiO2†	89262.1	86936.0	5238.4	ug/L	5238.4	ppb	11:22:54
2	Sc Radial	5644.1	5644.1	101	%			11:20:29
2	Y RADIAL	5989.3	5989.3	101.3	%			11:20:29
2	Al 396.153Radial†	6837.1	6760.4	4905.2	ug/L	4905.2	ppb	11:20:29
2	Ca 317.933Radial†	3485.5	3418.5	4873.8	ug/L	4873.8	ppb	11:20:49
2	Fe 238.204 Radial†	615.6	596.4	4973.1	ug/L	4973.1	ppb	11:20:49
2	K 766.490 Radial†	31316.4	28177.5	4957.7	ug/L	4957.7	ppb	11:20:29
2	Mg 279.077 IEC†	167.3	163.7	5087.5	ug/L	5087.5	ppb	11:20:49
2	Na 589.592 Radial†	32916.4	33229.8	9918.1	ug/L	9918.1	ppb	11:20:29
2	Sr 421.552†	86839.7	85668.8	502.31	ug/L	502.31	ppb	11:20:29
2	Sc 361.383	916884.0	916884.0	102.00	%			11:21:53
2	Y 371.029	746582.4	746582.4	100.28	%			11:21:53
2	Ag 328.068†	115175.8	112547.9	488.12	ug/L	488.12	ppb	11:21:58
2	As 188.979†	1339.3	1347.9	493.53	ug/L	493.53	ppb	11:22:18
2	B 249.677†	23825.7	23384.5	478.01	ug/L	478.01	ppb	11:21:58
2	Ba 233.527†	73340.0	71904.8	489.98	ug/L	489.98	ppb	11:21:58
2	Be 313.107†	1468688.7	1444626.8	485.42	ug/L	485.42	ppb	11:21:53
2	Cd 226.502†	50884.5	50116.1	489.95	ug/L	489.95	ppb	11:21:58
2	Co 228.616†	28445.9	27975.3	489.85	ug/L	489.85	ppb	11:21:58
2	Cr 267.716†	49174.9	48130.7	488.76	ug/L	488.76	ppb	11:21:58
2	Cu 324.752†	181234.0	171625.4	485.16	ug/L	485.16	ppb	11:21:58
2	Mn 257.610†	504181.1	493805.3	487.48	ug/L	487.48	ppb	11:21:53
2	Mo 202.031†	8180.2	7999.9	484.60	ug/L	484.60	ppb	11:22:18
2	Ni 231.604†	23047.1	22501.7	491.33	ug/L	491.33	ppb	11:21:58

2	P 214.914†	5013.2	4656.8	2355.7 ug/L	2355.7 ppb	11:22:18
2	Pb 220.353†	4650.9	4623.8	488.75 ug/L	488.75 ppb	11:22:18
2	S 181.975 Axial†	857.0	791.2	969.64 ug/L	969.64 ppb	11:22:18
2	Sb 206.836†	1686.7	1612.5	490.02 ug/L	490.02 ppb	11:22:18
2	Se 196.026†	882.2	893.4	504.06 ug/L	504.06 ppb	11:22:18
2	Si 251.611†	88290.5	85982.1	2412.9 ug/L	2412.9 ppb	11:21:58
2	Sn 189.927†	3307.9	3239.6	486.43 ug/L	486.43 ppb	11:22:18
2	Ti 334.940†	338885.3	333629.2	482.24 ug/L	482.24 ppb	11:21:53
2	Tl 190.801†	1886.7	1897.8	495.44 ug/L	495.44 ppb	11:22:18
2	U 409.014†	15428.5	17498.2	480.54 ug/L	480.54 ppb	11:21:58
2	V 292.402†	76544.7	76513.5	493.14 ug/L	493.14 ppb	11:21:58
2	Zn 213.857†	61731.3	59727.5	485.48 ug/L	485.48 ppb	11:21:58
2	SiO2†	88342.5	86004.0	5182.2 ug/L	5182.2 ppb	11:23:00
3	Sc Radial	5645.6	5645.6	101 %		11:20:54
3	Y RADIAL	5995.8	5995.8	101.4 %		11:20:54
3	Al 396.153Radial†	6857.5	6778.8	4918.6 ug/L	4918.6 ppb	11:20:54
3	Ca 317.933Radial†	3499.3	3431.2	4892.0 ug/L	4892.0 ppb	11:21:14
3	Fe 238.204 Radial†	611.5	592.1	4937.6 ug/L	4937.6 ppb	11:21:14
3	K 766.490 Radial†	31288.9	28142.6	4951.6 ug/L	4951.6 ppb	11:20:54
3	Mg 279.077 IEC†	167.9	164.2	5103.4 ug/L	5103.4 ppb	11:21:14
3	Na 589.592 Radial†	32746.1	33053.7	9865.6 ug/L	9865.6 ppb	11:20:54
3	Sr 421.552†	86687.7	85497.4	501.30 ug/L	501.30 ppb	11:20:54
3	Sc 361.383	917696.3	917696.3	102.09 %		11:22:24
3	Y 371.029	747878.2	747878.2	100.46 %		11:22:24
3	Ag 328.068†	114777.1	112057.5	485.99 ug/L	485.99 ppb	11:22:29
3	As 188.979†	1342.0	1349.4	494.09 ug/L	494.09 ppb	11:22:49
3	B 249.677†	23771.8	23311.1	476.51 ug/L	476.51 ppb	11:22:29
3	Ba 233.527†	73281.2	71783.6	489.15 ug/L	489.15 ppb	11:22:29
3	Be 313.107†	1477837.5	1452313.8	488.00 ug/L	488.00 ppb	11:22:24
3	Cd 226.502†	50770.3	49960.0	488.42 ug/L	488.42 ppb	11:22:29
3	Co 228.616†	28512.8	28016.2	490.57 ug/L	490.57 ppb	11:22:29
3	Cr 267.716†	49183.8	48096.7	488.42 ug/L	488.42 ppb	11:22:29
3	Cu 324.752†	181303.5	171536.2	484.90 ug/L	484.90 ppb	11:22:29
3	Mn 257.610†	506303.5	495446.8	489.09 ug/L	489.09 ppb	11:22:24
3	Mo 202.031†	8219.2	8031.0	486.48 ug/L	486.48 ppb	11:22:49
3	Ni 231.604†	22983.7	22419.6	489.54 ug/L	489.54 ppb	11:22:29
3	P 214.914†	5017.3	4656.5	2355.6 ug/L	2355.6 ppb	11:22:49
3	Pb 220.353†	4650.6	4619.4	488.31 ug/L	488.31 ppb	11:22:49
3	S 181.975 Axial†	856.1	789.5	967.64 ug/L	967.64 ppb	11:22:49
3	Sb 206.836†	1715.8	1639.4	498.17 ug/L	498.17 ppb	11:22:49
3	Se 196.026†	901.9	912.0	514.06 ug/L	514.06 ppb	11:22:49
3	Si 251.611†	88130.9	85749.1	2406.3 ug/L	2406.3 ppb	11:22:29
3	Sn 189.927†	3323.7	3252.2	488.32 ug/L	488.32 ppb	11:22:49
3	Ti 334.940†	340568.9	334984.2	484.20 ug/L	484.20 ppb	11:22:24
3	Tl 190.801†	1892.8	1902.1	496.59 ug/L	496.59 ppb	11:22:49
3	U 409.014†	15463.1	17518.8	481.12 ug/L	481.12 ppb	11:22:29
3	V 292.402†	76385.7	76291.3	491.76 ug/L	491.76 ppb	11:22:29
3	Zn 213.857†	61617.6	59562.6	484.15 ug/L	484.15 ppb	11:22:29
3	SiO2†	88704.5	86281.8	5198.9 ug/L	5198.9 ppb	11:23:05

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	917048.5	102.02	%	0.065				0.06%
Sc Radial	5570.3	100	%	2.3				2.32%
Y 371.029	746790.9	100.31	%	0.134				0.13%
Y RADIAL	5918.0	100.1	%	2.19				2.18%
Ag 328.068†	112732.1	488.94	ug/L	3.439	488.94	ppb	3.439	0.70%
QC value within limits for Ag 328.068 Recovery = 97.79%								
Al 396.153Radial†	6775.3	4916.0	ug/L	9.77	4916.0	ppb	9.77	0.20%
QC value within limits for Al 396.153Radial Recovery = 98.32%								
As 188.979†	1354.2	495.84	ug/L	3.528	495.84	ppb	3.528	0.71%
QC value within limits for As 188.979 Recovery = 99.17%								
B 249.677†	23441.4	479.16	ug/L	3.382	479.16	ppb	3.382	0.71%
QC value within limits for B 249.677 Recovery = 95.83%								
Ba 233.527†	72099.4	491.31	ug/L	3.048	491.31	ppb	3.048	0.62%
QC value within limits for Ba 233.527 Recovery = 98.26%								
Be 313.107†	1449137.3	486.93	ug/L	1.348	486.93	ppb	1.348	0.28%
QC value within limits for Be 313.107 Recovery = 97.39%								
Ca 317.933Radial†	3481.1	4963.1	ug/L	139.17	4963.1	ppb	139.17	2.80%

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   QC value within limits for Ca 317.933Radial  Recovery = 99.26%
Cd 226.502†            50231.9      491.07 ug/L         3.356      491.07 ppb          3.356   0.68%
   QC value within limits for Cd 226.502  Recovery = 98.21%
Co 228.616†            28103.6      492.10 ug/L         3.288      492.10 ppb          3.288   0.67%
   QC value within limits for Co 228.616  Recovery = 98.42%
Cr 267.716†            48285.5      490.34 ug/L         3.029      490.34 ppb          3.029   0.62%
   QC value within limits for Cr 267.716  Recovery = 98.07%
Cu 324.752†           172396.9      487.34 ug/L         4.004      487.34 ppb          4.004   0.82%
   QC value within limits for Cu 324.752  Recovery = 97.47%
Fe 238.204 Radial†       605.8      5051.9 ug/L        168.05      5051.9 ppb         168.05   3.33%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.04%
K 766.490 Radial†      28262.2      4972.7 ug/L         31.32      4972.7 ppb          31.32   0.63%
   QC value within limits for K 766.490 Radial  Recovery = 99.45%
Mg 279.077 IEC†          166.3      5169.9 ug/L        129.15      5169.9 ppb         129.15   2.50%
   QC value within limits for Mg 279.077 IEC  Recovery = 103.40%
Mn 257.610†           495082.0      488.74 ug/L         1.132      488.74 ppb          1.132   0.23%
   QC value within limits for Mn 257.610  Recovery = 97.75%
Mo 202.031†             8027.4      486.26 ug/L         1.569      486.26 ppb          1.569   0.32%
   QC value within limits for Mo 202.031  Recovery = 97.25%
Na 589.592 Radial†     33207.8      9911.6 ug/L         43.10      9911.6 ppb          43.10   0.43%
   QC value within limits for Na 589.592 Radial  Recovery = 99.12%
Ni 231.604†            22535.9      492.07 ug/L         2.984      492.07 ppb          2.984   0.61%
   QC value within limits for Ni 231.604  Recovery = 98.41%
P 214.914†              4665.6      2359.9 ug/L          7.31      2359.9 ppb           7.31   0.31%
   QC value within limits for P 214.914  Recovery = 94.39%
Pb 220.353†             4626.8      489.07 ug/L         0.969      489.07 ppb          0.969   0.20%
   QC value within limits for Pb 220.353  Recovery = 97.81%
S 181.975 Axial†         794.1      973.24 ug/L         8.036      973.24 ppb          8.036   0.83%
   QC value within limits for S 181.975 Axial  Recovery = 97.32%
Sb 206.836†             1630.4      495.42 ug/L         4.675      495.42 ppb          4.675   0.94%
   QC value within limits for Sb 206.836  Recovery = 99.08%
Se 196.026†              900.4      508.12 ug/L         5.260      508.12 ppb          5.260   1.04%
   QC value within limits for Se 196.026  Recovery = 101.62%
Si 251.611†            86208.7      2419.3 ug/L         17.04      2419.3 ppb          17.04   0.70%
   QC value within limits for Si 251.611  Recovery = 96.77%
Sn 189.927†             3247.3      487.60 ug/L         1.022      487.60 ppb          1.022   0.21%
   QC value within limits for Sn 189.927  Recovery = 97.52%
Sr 421.552†            85745.8      502.76 ug/L         1.725      502.76 ppb          1.725   0.34%
   QC value within limits for Sr 421.552  Recovery = 100.55%
Ti 334.940†           334572.4      483.61 ug/L         1.187      483.61 ppb          1.187   0.25%
   QC value within limits for Ti 334.940  Recovery = 96.72%
Tl 190.801†             1893.2      494.25 ug/L         3.114      494.25 ppb          3.114   0.63%
   QC value within limits for Tl 190.801  Recovery = 98.85%
U 409.014†             17632.4      484.23 ug/L         5.893      484.23 ppb          5.893   1.22%
   QC value within limits for U 409.014  Recovery = 96.85%
V 292.402†             76766.6      494.77 ug/L         4.075      494.77 ppb          4.075   0.82%
   QC value within limits for V 292.402  Recovery = 98.95%
Zn 213.857†            59883.3      486.74 ug/L         3.408      486.74 ppb          3.408   0.70%
   QC value within limits for Zn 213.857  Recovery = 97.35%
SiO2†                  86407.3      5206.5 ug/L         28.89      5206.5 ppb          28.89   0.55%
   QC value within limits for SiO2  Recovery = 97.36%
All analyte(s) passed QC.
```

Sequence No.: 9
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 12/19/2009 11:25:14
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5786.9	5786.9	104	%			11:27:07
1	Y RADIAL	6211.1	6211.1	105.1	%			11:27:07
1	Al 396.153Radial†	-13.6	3.3	2.3976	ug/L	2.3976	ppb	11:27:07
1	Ca 317.933Radial†	20.0	-0.4	-0.5254	ug/L	-0.5254	ppb	11:27:27
1	Fe 238.204 Radial†	8.5	-2.7	-22.205	ug/L	-22.205	ppb	11:27:27
1	K 766.490 Radial†	2909.0	86.1	15.173	ug/L	15.173	ppb	11:27:07
1	Mg 279.077 IEC†	1.6	0.2	5.7970	ug/L	5.7970	ppb	11:27:27
1	Na 589.592 Radial†	-745.9	44.1	13.159	ug/L	13.159	ppb	11:27:07
1	Sr 421.552†	31.8	42.4	0.2485	ug/L	0.2485	ppb	11:27:07
1	Sc 361.383	920098.0	920098.0	102.36	%			11:28:24
1	Y 371.029	759500.4	759500.4	102.02	%			11:28:24
1	Ag 328.068†	450.4	70.1	0.2915	ug/L	0.2915	ppb	11:28:29
1	As 188.979†	-23.0	12.3	4.4752	ug/L	4.4752	ppb	11:28:49
1	B 249.677†	-165.7	-135.9	-2.7865	ug/L	-2.7865	ppb	11:28:29
1	Ba 233.527†	1.0	3.6	0.0232	ug/L	0.0232	ppb	11:28:49
1	Be 313.107†	-4674.8	164.0	0.0549	ug/L	0.0549	ppb	11:28:29
1	Cd 226.502†	-217.2	17.0	0.1688	ug/L	0.1688	ppb	11:28:49
1	Co 228.616†	-94.8	-5.5	-0.0947	ug/L	-0.0947	ppb	11:28:49
1	Cr 267.716†	99.9	17.4	0.1751	ug/L	0.1751	ppb	11:28:49
1	Cu 324.752†	6107.3	-88.9	-0.2522	ug/L	-0.2522	ppb	11:28:29
1	Mn 257.610†	509.9	6.7	0.0043	ug/L	0.0043	ppb	11:28:49
1	Mo 202.031†	24.3	3.8	0.2298	ug/L	0.2298	ppb	11:28:49
1	Ni 231.604†	110.4	14.3	0.3127	ug/L	0.3127	ppb	11:28:49
1	P 214.914†	246.3	-17.4	-9.0232	ug/L	-9.0232	ppb	11:28:49
1	Pb 220.353†	-65.7	-0.1	-0.0085	ug/L	-0.0085	ppb	11:28:49
1	S 181.975 Axial†	47.2	-2.9	-3.5365	ug/L	-3.5365	ppb	11:28:49
1	Sb 206.836†	46.1	3.8	1.1615	ug/L	1.1615	ppb	11:28:49
1	Se 196.026†	-16.5	12.4	6.7024	ug/L	6.7024	ppb	11:28:49
1	Si 251.611†	655.4	62.8	1.7600	ug/L	1.7600	ppb	11:28:49
1	Sn 189.927†	7.9	4.2	0.6307	ug/L	0.6307	ppb	11:28:49
1	Ti 334.940†	-1460.0	-38.8	-0.0577	ug/L	-0.0577	ppb	11:28:29
1	Tl 190.801†	-45.0	4.1	1.0652	ug/L	1.0652	ppb	11:28:49
1	U 409.014†	-2298.8	126.3	3.4832	ug/L	3.4832	ppb	11:28:24
1	V 292.402†	-1519.5	-15.1	-0.0825	ug/L	-0.0825	ppb	11:28:29
1	Zn 213.857†	830.6	17.9	0.1469	ug/L	0.1469	ppb	11:28:49
1	SiO2†	673.9	51.8	3.1098	ug/L	3.1098	ppb	11:29:55
2	Sc Radial	5493.8	5493.8	98.7	%			11:27:32
2	Y RADIAL	5877.2	5877.2	99.42	%			11:27:32
2	Al 396.153Radial†	-23.5	-7.5	-5.4602	ug/L	-5.4602	ppb	11:27:32
2	Ca 317.933Radial†	23.6	4.3	6.1521	ug/L	6.1521	ppb	11:27:52
2	Fe 238.204 Radial†	8.8	-2.0	-16.372	ug/L	-16.372	ppb	11:27:52
2	K 766.490 Radial†	2863.7	189.5	33.406	ug/L	33.406	ppb	11:27:32
2	Mg 279.077 IEC†	-0.1	-1.5	-46.795	ug/L	-46.795	ppb	11:27:52
2	Na 589.592 Radial†	-798.6	-47.6	-14.215	ug/L	-14.215	ppb	11:27:32
2	Sr 421.552†	-0.1	11.7	0.0687	ug/L	0.0687	ppb	11:27:32
2	Sc 361.383	932950.6	932950.6	103.79	%			11:28:54
2	Y 371.029	769916.6	769916.6	103.42	%			11:28:54
2	Ag 328.068†	331.1	-50.9	-0.2244	ug/L	-0.2244	ppb	11:28:59
2	As 188.979†	-28.2	7.7	2.7909	ug/L	2.7909	ppb	11:29:19
2	B 249.677†	-172.9	-140.6	-2.8839	ug/L	-2.8839	ppb	11:28:59
2	Ba 233.527†	14.4	16.5	0.1129	ug/L	0.1129	ppb	11:29:19
2	Be 313.107†	-4707.0	195.9	0.0662	ug/L	0.0662	ppb	11:28:59
2	Cd 226.502†	-228.8	8.8	0.0876	ug/L	0.0876	ppb	11:29:19
2	Co 228.616†	-80.1	9.9	0.1731	ug/L	0.1731	ppb	11:29:19
2	Cr 267.716†	97.1	13.4	0.1358	ug/L	0.1358	ppb	11:29:19
2	Cu 324.752†	6176.2	-104.7	-0.2966	ug/L	-0.2966	ppb	11:28:59
2	Mn 257.610†	514.9	4.7	0.0038	ug/L	0.0038	ppb	11:29:19
2	Mo 202.031†	23.7	2.9	0.1773	ug/L	0.1773	ppb	11:29:19
2	Ni 231.604†	116.5	18.6	0.4072	ug/L	0.4072	ppb	11:29:19

2	P 214.914†	255.3	-12.1	-6.2696	ug/L	-6.2696	ppb	11:29:19
2	Pb 220.353†	-85.1	-17.9	-1.8845	ug/L	-1.8845	ppb	11:29:19
2	S 181.975 Axial†	53.2	2.3	2.8069	ug/L	2.8069	ppb	11:29:19
2	Sb 206.836†	46.1	3.2	0.9731	ug/L	0.9731	ppb	11:29:19
2	Se 196.026†	-23.6	5.7	3.0783	ug/L	3.0783	ppb	11:29:19
2	Si 251.611†	674.1	72.0	2.0160	ug/L	2.0160	ppb	11:29:19
2	Sn 189.927†	3.4	-0.2	-0.0278	ug/L	-0.0278	ppb	11:29:19
2	Ti 334.940†	-1257.2	176.3	0.2541	ug/L	0.2541	ppb	11:28:59
2	Tl 190.801†	-29.7	19.5	5.0552	ug/L	5.0552	ppb	11:29:19
2	U 409.014†	-2378.3	80.7	2.2239	ug/L	2.2239	ppb	11:28:54
2	V 292.402†	-1432.4	89.3	0.5757	ug/L	0.5757	ppb	11:28:59
2	Zn 213.857†	835.7	11.7	0.0969	ug/L	0.0969	ppb	11:29:19
2	SiO2†	657.8	27.1	1.6110	ug/L	1.6110	ppb	11:30:00
3	Sc Radial	5582.7	5582.7	100	%			11:27:57
3	Y RADIAL	5973.3	5973.3	101.0	%			11:27:57
3	Al 396.153Radial†	-27.6	-11.1	-8.1077	ug/L	-8.1077	ppb	11:27:57
3	Ca 317.933Radial†	22.1	2.5	3.4951	ug/L	3.4951	ppb	11:28:17
3	Fe 238.204 Radial†	8.6	-2.3	-19.379	ug/L	-19.379	ppb	11:28:17
3	K 766.490 Radial†	2871.3	150.9	26.599	ug/L	26.599	ppb	11:27:57
3	Mg 279.077 IEC†	2.1	0.7	21.435	ug/L	21.435	ppb	11:28:17
3	Na 589.592 Radial†	-742.1	21.6	6.4454	ug/L	6.4454	ppb	11:27:57
3	Sr 421.552†	1.0	12.8	0.0751	ug/L	0.0751	ppb	11:27:57
3	Sc 361.383	924411.0	924411.0	102.84	%			11:29:24
3	Y 371.029	763846.5	763846.5	102.60	%			11:29:24
3	Ag 328.068†	443.5	61.3	0.2572	ug/L	0.2572	ppb	11:29:29
3	As 188.979†	-31.3	4.4	1.6015	ug/L	1.6015	ppb	11:29:50
3	B 249.677†	-203.8	-172.2	-3.5324	ug/L	-3.5324	ppb	11:29:29
3	Ba 233.527†	-0.3	2.3	0.0146	ug/L	0.0146	ppb	11:29:50
3	Be 313.107†	-4636.9	222.1	0.0745	ug/L	0.0745	ppb	11:29:29
3	Cd 226.502†	-209.1	25.8	0.2550	ug/L	0.2550	ppb	11:29:50
3	Co 228.616†	-79.8	9.5	0.1679	ug/L	0.1679	ppb	11:29:50
3	Cr 267.716†	91.5	8.8	0.0890	ug/L	0.0890	ppb	11:29:50
3	Cu 324.752†	6095.3	-128.4	-0.3638	ug/L	-0.3638	ppb	11:29:29
3	Mn 257.610†	496.6	-8.6	-0.0108	ug/L	-0.0108	ppb	11:29:50
3	Mo 202.031†	24.5	3.9	0.2363	ug/L	0.2363	ppb	11:29:50
3	Ni 231.604†	124.6	27.6	0.6032	ug/L	0.6032	ppb	11:29:50
3	P 214.914†	241.0	-23.7	-12.278	ug/L	-12.278	ppb	11:29:50
3	Pb 220.353†	-68.3	-2.3	-0.2446	ug/L	-0.2446	ppb	11:29:50
3	S 181.975 Axial†	49.4	-1.0	-1.1990	ug/L	-1.1990	ppb	11:29:50
3	Sb 206.836†	38.4	-3.9	-1.1428	ug/L	-1.1428	ppb	11:29:50
3	Se 196.026†	-32.8	-3.4	-1.8896	ug/L	-1.8896	ppb	11:29:50
3	Si 251.611†	645.4	50.2	1.3993	ug/L	1.3993	ppb	11:29:50
3	Sn 189.927†	8.8	5.1	0.7600	ug/L	0.7600	ppb	11:29:50
3	Ti 334.940†	-1413.8	12.8	0.0186	ug/L	0.0186	ppb	11:29:29
3	Tl 190.801†	-31.6	17.4	4.5038	ug/L	4.5038	ppb	11:29:50
3	U 409.014†	-2432.5	6.8	0.1896	ug/L	0.1896	ppb	11:29:24
3	V 292.402†	-1530.9	-19.2	-0.1153	ug/L	-0.1153	ppb	11:29:29
3	Zn 213.857†	829.7	13.3	0.1067	ug/L	0.1067	ppb	11:29:50
3	SiO2†	695.2	69.4	4.1659	ug/L	4.1659	ppb	11:30:05

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	925819.9	102.99	%	0.728				0.71%
Sc Radial	5621.1	101	%	2.7				2.67%
Y 371.029	764421.2	102.68	%	0.703				0.68%
Y RADIAL	6020.5	101.8	%	2.91				2.85%
Ag 328.068†	26.9	0.1081	ug/L	0.28846	0.1081	ppb	0.28846	266.89%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-5.1	-3.7234	ug/L	5.46373	-3.7234	ppb	5.46373	146.74%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	8.1	2.9558	ug/L	1.44394	2.9558	ppb	1.44394	48.85%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-149.6	-3.0676	ug/L	0.40543	-3.0676	ppb	0.40543	13.22%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	7.5	0.0502	ug/L	0.05441	0.0502	ppb	0.05441	108.31%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	194.0	0.0652	ug/L	0.00985	0.0652	ppb	0.00985	15.11%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	2.1	3.0406	ug/L	3.36188	3.0406	ppb	3.36188	110.57%

QC value within limits for Ca 317.933Radial Recovery = Not calculated

Cd 226.502†	17.2	0.1705 ug/L	0.08368	0.1705 ppb	0.08368	49.09%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	4.7	0.0821 ug/L	0.15314	0.0821 ppb	0.15314	186.58%
QC value within limits for Co 228.616 Recovery = Not calculated						
Cr 267.716†	13.2	0.1333 ug/L	0.04310	0.1333 ppb	0.04310	32.34%
QC value within limits for Cr 267.716 Recovery = Not calculated						
Cu 324.752†	-107.3	-0.3042 ug/L	0.05618	-0.3042 ppb	0.05618	18.47%
QC value within limits for Cu 324.752 Recovery = Not calculated						
Fe 238.204 Radial†	-2.3	-19.319 ug/L	2.9168	-19.319 ppb	2.9168	15.10%
QC value within limits for Fe 238.204 Radial Recovery = Not calculated						
K 766.490 Radial†	142.2	25.060 ug/L	9.2134	25.060 ppb	9.2134	36.77%
QC value within limits for K 766.490 Radial Recovery = Not calculated						
Mg 279.077 IEC†	-0.2	-6.5210 ug/L	35.74393	-6.5210 ppb	35.74393	548.14%
QC value within limits for Mg 279.077 IEC Recovery = Not calculated						
Mn 257.610†	0.9	-0.0009 ug/L	0.00858	-0.0009 ppb	0.00858	966.34%
QC value within limits for Mn 257.610 Recovery = Not calculated						
Mo 202.031†	3.6	0.2145 ug/L	0.03235	0.2145 ppb	0.03235	15.09%
QC value within limits for Mo 202.031 Recovery = Not calculated						
Na 589.592 Radial†	6.0	1.7964 ug/L	14.26729	1.7964 ppb	14.26729	794.21%
QC value within limits for Na 589.592 Radial Recovery = Not calculated						
Ni 231.604†	20.2	0.4410 ug/L	0.14815	0.4410 ppb	0.14815	33.59%
QC value within limits for Ni 231.604 Recovery = Not calculated						
P 214.914†	-17.8	-9.1903 ug/L	3.00774	-9.1903 ppb	3.00774	32.73%
QC value within limits for P 214.914 Recovery = Not calculated						
Pb 220.353†	-6.8	-0.7125 ug/L	1.02183	-0.7125 ppb	1.02183	143.41%
QC value within limits for Pb 220.353 Recovery = Not calculated						
S 181.975 Axial†	-0.5	-0.6429 ug/L	3.20807	-0.6429 ppb	3.20807	499.04%
QC value within limits for S 181.975 Axial Recovery = Not calculated						
Sb 206.836†	1.1	0.3306 ug/L	1.27945	0.3306 ppb	1.27945	387.00%
QC value within limits for Sb 206.836 Recovery = Not calculated						
Se 196.026†	4.9	2.6304 ug/L	4.31348	2.6304 ppb	4.31348	163.99%
QC value within limits for Se 196.026 Recovery = Not calculated						
Si 251.611†	61.7	1.7251 ug/L	0.30985	1.7251 ppb	0.30985	17.96%
QC value within limits for Si 251.611 Recovery = Not calculated						
Sn 189.927†	3.0	0.4543 ug/L	0.42248	0.4543 ppb	0.42248	93.00%
QC value within limits for Sn 189.927 Recovery = Not calculated						
Sr 421.552†	22.3	0.1307 ug/L	0.10201	0.1307 ppb	0.10201	78.02%
QC value within limits for Sr 421.552 Recovery = Not calculated						
Ti 334.940†	50.1	0.0717 ug/L	0.16255	0.0717 ppb	0.16255	226.72%
QC value within limits for Ti 334.940 Recovery = Not calculated						
Tl 190.801†	13.7	3.5414 ug/L	2.16211	3.5414 ppb	2.16211	61.05%
QC value within limits for Tl 190.801 Recovery = Not calculated						
U 409.014†	71.3	1.9656 ug/L	1.66196	1.9656 ppb	1.66196	84.55%
QC value within limits for U 409.014 Recovery = Not calculated						
V 292.402†	18.3	0.1260 ug/L	0.38983	0.1260 ppb	0.38983	309.44%
QC value within limits for V 292.402 Recovery = Not calculated						
Zn 213.857†	14.3	0.1168 ug/L	0.02648	0.1168 ppb	0.02648	22.67%
QC value within limits for Zn 213.857 Recovery = Not calculated						
SiO2†	49.4	2.9623 ug/L	1.28387	2.9623 ppb	1.28387	43.34%
QC value within limits for SiO2 Recovery = Not calculated						

All analyte(s) passed QC.

Sequence No.: 6
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 12/19/2009 12:04:19
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5215.8	5215.8	93.7	%			12:06:11
1	Y RADIAL	5527.1	5527.1	93.50	%			12:06:11
1	Al 396.153Radial†	6909.2	7391.2	5364.7	ug/L	5364.7	ppb	12:06:11
1	Ca 317.933Radial†	3510.2	3727.1	5313.9	ug/L	5313.9	ppb	12:06:31
1	Fe 238.204 Radial†	609.7	639.9	5335.1	ug/L	5335.1	ppb	12:06:31
1	K 766.490 Radial†	31496.3	30906.3	5438.5	ug/L	5438.5	ppb	12:06:11
1	Mg 279.077 IEC†	166.6	176.4	5483.7	ug/L	5483.7	ppb	12:06:31
1	Na 589.592 Radial†	31745.8	34646.7	10341	ug/L	10341	ppb	12:06:11
1	Sr 421.552†	85549.9	91326.6	535.48	ug/L	535.48	ppb	12:06:11
1	Sc 361.383	922665.3	922665.3	102.64	%			12:07:30
1	Y 371.029	750972.1	750972.1	100.87	%			12:07:30
1	Ag 328.068†	116484.3	113115.2	490.70	ug/L	490.70	ppb	12:07:30
1	As 188.979†	1340.6	1340.9	491.12	ug/L	491.12	ppb	12:07:51
1	B 249.677†	24009.9	23417.7	478.66	ug/L	478.66	ppb	12:07:30
1	Ba 233.527†	74481.1	72566.0	494.49	ug/L	494.49	ppb	12:07:30
1	Be 313.107†	1497392.4	1463569.3	491.78	ug/L	491.78	ppb	12:07:30
1	Cd 226.502†	51605.6	50506.0	493.72	ug/L	493.72	ppb	12:07:30
1	Co 228.616†	28258.7	27618.2	483.60	ug/L	483.60	ppb	12:07:51
1	Cr 267.716†	49853.3	48489.6	492.42	ug/L	492.42	ppb	12:07:30
1	Cu 324.752†	185199.2	174375.2	492.95	ug/L	492.95	ppb	12:07:30
1	Mn 257.610†	512893.1	499195.8	492.82	ug/L	492.82	ppb	12:07:30
1	Mo 202.031†	8311.0	8077.1	489.30	ug/L	489.30	ppb	12:07:51
1	Ni 231.604†	22987.9	22302.4	486.98	ug/L	486.98	ppb	12:07:51
1	P 214.914†	5057.4	4669.1	2360.7	ug/L	2360.7	ppb	12:07:51
1	Pb 220.353†	4753.4	4695.1	496.35	ug/L	496.35	ppb	12:07:51
1	S 181.975 Axial†	861.2	790.0	968.09	ug/L	968.09	ppb	12:07:51
1	Sb 206.836†	1713.8	1628.4	494.85	ug/L	494.85	ppb	12:07:51
1	Se 196.026†	892.2	897.7	507.56	ug/L	507.56	ppb	12:07:51
1	Si 251.611†	89480.6	86599.2	2430.1	ug/L	2430.1	ppb	12:07:30
1	Sn 189.927†	3346.8	3257.1	489.12	ug/L	489.12	ppb	12:07:51
1	Ti 334.940†	345381.4	337876.2	488.41	ug/L	488.41	ppb	12:07:30
1	Tl 190.801†	1895.8	1895.1	494.87	ug/L	494.87	ppb	12:07:51
1	U 409.014†	14940.5	16928.0	464.78	ug/L	464.78	ppb	12:07:30
1	V 292.402†	77525.9	76999.2	496.21	ug/L	496.21	ppb	12:07:30
1	Zn 213.857†	62585.1	60180.2	489.17	ug/L	489.17	ppb	12:07:30
1	SiO2†	88749.6	85857.8	5172.8	ug/L	5172.8	ppb	12:08:51
2	Sc Radial	5269.7	5269.7	94.7	%			12:06:37
2	Y RADIAL	5569.7	5569.7	94.22	%			12:06:37
2	Al 396.153Radial†	6560.4	6947.3	5041.1	ug/L	5041.1	ppb	12:06:37
2	Ca 317.933Radial†	3456.5	3632.1	5178.5	ug/L	5178.5	ppb	12:06:57
2	Fe 238.204 Radial†	606.9	630.3	5254.7	ug/L	5254.7	ppb	12:06:57
2	K 766.490 Radial†	30150.8	29141.2	5127.6	ug/L	5127.6	ppb	12:06:37
2	Mg 279.077 IEC†	164.0	171.8	5340.7	ug/L	5340.7	ppb	12:06:57
2	Na 589.592 Radial†	30075.4	32535.7	9711.0	ug/L	9711.0	ppb	12:06:37
2	Sr 421.552†	81101.4	85693.8	502.45	ug/L	502.45	ppb	12:06:37
2	Sc 361.383	921073.8	921073.8	102.47	%			12:07:58
2	Y 371.029	750272.1	750272.1	100.78	%			12:07:58
2	Ag 328.068†	115776.1	112620.1	488.54	ug/L	488.54	ppb	12:07:58
2	As 188.979†	1363.7	1365.7	500.08	ug/L	500.08	ppb	12:08:18
2	B 249.677†	23799.3	23252.5	475.27	ug/L	475.27	ppb	12:07:58
2	Ba 233.527†	74377.2	72590.0	494.65	ug/L	494.65	ppb	12:07:58
2	Be 313.107†	1495290.2	1464038.3	491.94	ug/L	491.94	ppb	12:07:58
2	Cd 226.502†	51508.3	50498.0	493.65	ug/L	493.65	ppb	12:07:58
2	Co 228.616†	28382.1	27786.2	486.55	ug/L	486.55	ppb	12:08:18
2	Cr 267.716†	49814.0	48535.1	492.88	ug/L	492.88	ppb	12:07:58
2	Cu 324.752†	183902.9	173421.8	490.25	ug/L	490.25	ppb	12:07:58
2	Mn 257.610†	511766.6	498959.8	492.58	ug/L	492.58	ppb	12:07:58
2	Mo 202.031†	8348.8	8128.0	492.37	ug/L	492.37	ppb	12:08:18
2	Ni 231.604†	23046.5	22398.3	489.07	ug/L	489.07	ppb	12:08:18

2	P 214.914†	5077.3	4697.0	2375.7 ug/L	2375.7 ppb	12:08:18
2	Pb 220.353†	4747.1	4697.0	496.49 ug/L	496.49 ppb	12:08:18
2	S 181.975 Axial†	861.5	791.7	970.31 ug/L	970.31 ppb	12:08:18
2	Sb 206.836†	1724.5	1641.8	498.91 ug/L	498.91 ppb	12:08:18
2	Se 196.026†	893.9	900.9	509.02 ug/L	509.02 ppb	12:08:18
2	Si 251.611†	89040.6	86320.5	2422.3 ug/L	2422.3 ppb	12:07:58
2	Sn 189.927†	3336.3	3252.6	488.42 ug/L	488.42 ppb	12:08:18
2	Ti 334.940†	343776.3	336891.2	486.98 ug/L	486.98 ppb	12:07:58
2	Tl 190.801†	1892.2	1894.7	494.74 ug/L	494.74 ppb	12:08:18
2	U 409.014†	15005.0	17016.1	467.22 ug/L	467.22 ppb	12:07:58
2	V 292.402†	77237.3	76848.1	495.31 ug/L	495.31 ppb	12:07:58
2	Zn 213.857†	62496.6	60199.1	489.32 ug/L	489.32 ppb	12:07:58
2	SiO2†	89491.5	86731.3	5225.8 ug/L	5225.8 ppb	12:08:56
3	Sc Radial	5538.8	5538.8	99.5 %		12:07:02
3	Y RADIAL	5842.5	5842.5	98.83 %		12:07:02
3	Al 396.153Radial†	6787.9	6839.2	4962.3 ug/L	4962.3 ppb	12:07:02
3	Ca 317.933Radial†	3443.5	3441.6	4906.8 ug/L	4906.8 ppb	12:07:22
3	Fe 238.204 Radial†	600.6	592.8	4943.6 ug/L	4943.6 ppb	12:07:22
3	K 766.490 Radial†	31132.6	28580.4	5028.9 ug/L	5028.9 ppb	12:07:02
3	Mg 279.077 IEC†	165.4	164.8	5124.3 ug/L	5124.3 ppb	12:07:22
3	Na 589.592 Radial†	31114.0	32035.9	9561.8 ug/L	9561.8 ppb	12:07:02
3	Sr 421.552†	84223.2	84668.6	496.44 ug/L	496.44 ppb	12:07:02
3	Sc 361.383	916829.3	916829.3	101.99 %		12:08:25
3	Y 371.029	745650.2	745650.2	100.16 %		12:08:25
3	Ag 328.068†	115388.8	112763.5	489.06 ug/L	489.06 ppb	12:08:25
3	As 188.979†	1356.3	1364.6	499.63 ug/L	499.63 ppb	12:08:46
3	B 249.677†	23822.2	23382.6	477.98 ug/L	477.98 ppb	12:08:25
3	Ba 233.527†	74079.4	72634.0	494.94 ug/L	494.94 ppb	12:08:25
3	Be 313.107†	1484645.3	1460357.4	490.70 ug/L	490.70 ppb	12:08:25
3	Cd 226.502†	51428.0	50652.0	495.19 ug/L	495.19 ppb	12:08:25
3	Co 228.616†	28390.9	27923.1	488.95 ug/L	488.95 ppb	12:08:46
3	Cr 267.716†	49534.4	48486.1	492.38 ug/L	492.38 ppb	12:08:25
3	Cu 324.752†	183066.0	173432.2	490.26 ug/L	490.26 ppb	12:08:25
3	Mn 257.610†	510397.0	499929.3	493.51 ug/L	493.51 ppb	12:08:25
3	Mo 202.031†	8336.9	8154.1	493.93 ug/L	493.93 ppb	12:08:46
3	Ni 231.604†	23037.5	22493.6	491.15 ug/L	491.15 ppb	12:08:46
3	P 214.914†	5077.5	4720.2	2388.0 ug/L	2388.0 ppb	12:08:46
3	Pb 220.353†	4752.7	4723.8	499.33 ug/L	499.33 ppb	12:08:46
3	S 181.975 Axial†	873.3	807.2	989.28 ug/L	989.28 ppb	12:08:46
3	Sb 206.836†	1729.6	1654.5	502.85 ug/L	502.85 ppb	12:08:46
3	Se 196.026†	904.0	914.9	515.70 ug/L	515.70 ppb	12:08:46
3	Si 251.611†	88849.4	86535.3	2428.3 ug/L	2428.3 ppb	12:08:25
3	Sn 189.927†	3349.7	3280.8	492.62 ug/L	492.62 ppb	12:08:46
3	Ti 334.940†	342691.2	337380.5	487.68 ug/L	487.68 ppb	12:08:25
3	Tl 190.801†	1901.9	1912.8	499.41 ug/L	499.41 ppb	12:08:46
3	U 409.014†	14842.2	16924.3	464.73 ug/L	464.73 ppb	12:08:25
3	V 292.402†	76938.6	76904.2	495.73 ug/L	495.73 ppb	12:08:25
3	Zn 213.857†	62308.9	60297.4	490.15 ug/L	490.15 ppb	12:08:25
3	SiO2†	87638.2	85318.6	5140.2 ug/L	5140.2 ppb	12:09:01

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	920189.5	102.37	%	0.336				0.33%
Sc Radial	5341.4	95.9	%	3.11				3.24%
Y 371.029	748964.8	100.60	%	0.388				0.39%
Y RADIAL	5646.4	95.52	%	2.895				3.03%
Ag 328.068†	112832.9	489.43	ug/L	1.130	489.43	ppb	1.130	0.23%
QC value within limits for Ag 328.068 Recovery = 97.89%								
Al 396.153Radial†	7059.2	5122.7	ug/L	213.25	5122.7	ppb	213.25	4.16%
QC value within limits for Al 396.153Radial Recovery = 102.45%								
As 188.979†	1357.1	496.94	ug/L	5.048	496.94	ppb	5.048	1.02%
QC value within limits for As 188.979 Recovery = 99.39%								
B 249.677†	23350.9	477.30	ug/L	1.791	477.30	ppb	1.791	0.38%
QC value within limits for B 249.677 Recovery = 95.46%								
Ba 233.527†	72596.7	494.69	ug/L	0.226	494.69	ppb	0.226	0.05%
QC value within limits for Ba 233.527 Recovery = 98.94%								
Be 313.107†	1462655.0	491.48	ug/L	0.672	491.48	ppb	0.672	0.14%
QC value within limits for Be 313.107 Recovery = 98.30%								
Ca 317.933Radial†	3600.3	5133.0	ug/L	207.31	5133.0	ppb	207.31	4.04%

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   QC value within limits for Ca 317.933Radial  Recovery = 102.66%
Cd 226.502†            50552.0      494.19 ug/L        0.869      494.19 ppb        0.869   0.18%
   QC value within limits for Cd 226.502  Recovery = 98.84%
Co 228.616†            27775.8      486.37 ug/L        2.682      486.37 ppb        2.682   0.55%
   QC value within limits for Co 228.616  Recovery = 97.27%
Cr 267.716†            48503.6      492.56 ug/L        0.278      492.56 ppb        0.278   0.06%
   QC value within limits for Cr 267.716  Recovery = 98.51%
Cu 324.752†           173743.1      491.15 ug/L        1.554      491.15 ppb        1.554   0.32%
   QC value within limits for Cu 324.752  Recovery = 98.23%
Fe 238.204 Radial†       621.0      5177.8 ug/L       206.78      5177.8 ppb       206.78   3.99%
   QC value within limits for Fe 238.204 Radial  Recovery = 103.56%
K 766.490 Radial†      29542.7      5198.3 ug/L       213.75      5198.3 ppb       213.75   4.11%
   QC value within limits for K 766.490 Radial  Recovery = 103.97%
Mg 279.077 IEC†          171.0      5316.2 ug/L       180.96      5316.2 ppb       180.96   3.40%
   QC value within limits for Mg 279.077 IEC  Recovery = 106.32%
Mn 257.610†           499361.7      492.97 ug/L        0.483      492.97 ppb        0.483   0.10%
   QC value within limits for Mn 257.610  Recovery = 98.59%
Mo 202.031†             8119.7      491.87 ug/L        2.357      491.87 ppb        2.357   0.48%
   QC value within limits for Mo 202.031  Recovery = 98.37%
Na 589.592 Radial†     33072.8      9871.3 ug/L       413.63      9871.3 ppb       413.63   4.19%
   QC value within limits for Na 589.592 Radial  Recovery = 98.71%
Ni 231.604†            22398.1      489.07 ug/L        2.087      489.07 ppb        2.087   0.43%
   QC value within limits for Ni 231.604  Recovery = 97.81%
P 214.914†              4695.4      2374.8 ug/L       13.67       2374.8 ppb       13.67   0.58%
   QC value within limits for P 214.914  Recovery = 94.99%
Pb 220.353†             4705.3      497.39 ug/L        1.684      497.39 ppb        1.684   0.34%
   QC value within limits for Pb 220.353  Recovery = 99.48%
S 181.975 Axial†         796.3      975.89 ug/L       11.649      975.89 ppb       11.649   1.19%
   QC value within limits for S 181.975 Axial  Recovery = 97.59%
Sb 206.836†             1641.6      498.87 ug/L        3.996      498.87 ppb        3.996   0.80%
   QC value within limits for Sb 206.836  Recovery = 99.77%
Se 196.026†              904.5      510.76 ug/L        4.338      510.76 ppb        4.338   0.85%
   QC value within limits for Se 196.026  Recovery = 102.15%
Si 251.611†            86485.0      2426.9 ug/L         4.10      2426.9 ppb         4.10   0.17%
   QC value within limits for Si 251.611  Recovery = 97.08%
Sn 189.927†             3263.5      490.05 ug/L        2.250      490.05 ppb        2.250   0.46%
   QC value within limits for Sn 189.927  Recovery = 98.01%
Sr 421.552†            87229.7      511.46 ug/L       21.020      511.46 ppb       21.020   4.11%
   QC value within limits for Sr 421.552  Recovery = 102.29%
Ti 334.940†           337382.7      487.69 ug/L        0.716      487.69 ppb        0.716   0.15%
   QC value within limits for Ti 334.940  Recovery = 97.54%
Tl 190.801†             1900.9      496.34 ug/L        2.661      496.34 ppb        2.661   0.54%
   QC value within limits for Tl 190.801  Recovery = 99.27%
U 409.014†             16956.2      465.58 ug/L        1.422      465.58 ppb        1.422   0.31%
   QC value within limits for U 409.014  Recovery = 93.12%
V 292.402†             76917.2      495.75 ug/L        0.452      495.75 ppb        0.452   0.09%
   QC value within limits for V 292.402  Recovery = 99.15%
Zn 213.857†            60225.6      489.55 ug/L        0.531      489.55 ppb        0.531   0.11%
   QC value within limits for Zn 213.857  Recovery = 97.91%
SiO2†                  85969.2      5179.6 ug/L       43.18       5179.6 ppb       43.18   0.83%
   QC value within limits for SiO2  Recovery = 96.86%
All analyte(s) passed QC.
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Sequence No.: 7
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 12/19/2009 12:11:12
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5707.4	5707.4	103	%			12:13:04
1	Y RADIAL	6104.4	6104.4	103.3	%			12:13:04
1	Al 396.153Radial†	-15.9	0.9	0.6021	ug/L	0.6021	ppb	12:13:04
1	Ca 317.933Radial†	23.9	3.8	5.3603	ug/L	5.3603	ppb	12:13:24
1	Fe 238.204 Radial†	9.6	-1.5	-12.798	ug/L	-12.798	ppb	12:13:24
1	K 766.490 Radial†	2816.2	34.7	6.1053	ug/L	6.1053	ppb	12:13:04
1	Mg 279.077 IEC†	0.2	-1.2	-37.921	ug/L	-37.921	ppb	12:13:24
1	Na 589.592 Radial†	-755.3	24.9	7.4376	ug/L	7.4376	ppb	12:13:04
1	Sr 421.552†	44.4	55.1	0.3229	ug/L	0.3229	ppb	12:13:04
1	Sc 361.383	923666.3	923666.3	102.75	%			12:14:21
1	Y 371.029	763001.3	763001.3	102.49	%			12:14:21
1	Ag 328.068†	383.6	3.4	0.0104	ug/L	0.0104	ppb	12:14:26
1	As 188.979†	-32.8	2.9	1.0526	ug/L	1.0526	ppb	12:14:46
1	B 249.677†	-280.0	-246.6	-5.0595	ug/L	-5.0595	ppb	12:14:46
1	Ba 233.527†	-11.2	-8.3	-0.0559	ug/L	-0.0559	ppb	12:14:46
1	Be 313.107†	-4565.7	287.8	0.0970	ug/L	0.0970	ppb	12:14:26
1	Cd 226.502†	-215.3	19.7	0.1938	ug/L	0.1938	ppb	12:14:46
1	Co 228.616†	-85.1	4.3	0.0756	ug/L	0.0756	ppb	12:14:46
1	Cr 267.716†	110.2	27.1	0.2750	ug/L	0.2750	ppb	12:14:46
1	Cu 324.752†	6002.7	-213.8	-0.6046	ug/L	-0.6046	ppb	12:14:26
1	Mn 257.610†	499.3	-5.6	-0.0061	ug/L	-0.0061	ppb	12:14:46
1	Mo 202.031†	27.5	6.9	0.4151	ug/L	0.4151	ppb	12:14:46
1	Ni 231.604†	111.9	15.3	0.3345	ug/L	0.3345	ppb	12:14:46
1	P 214.914†	246.0	-18.7	-9.6664	ug/L	-9.6664	ppb	12:14:46
1	Pb 220.353†	-71.1	-5.1	-0.5352	ug/L	-0.5352	ppb	12:14:46
1	S 181.975 Axial†	46.7	-3.5	-4.3068	ug/L	-4.3068	ppb	12:14:46
1	Sb 206.836†	36.0	-6.2	-1.8699	ug/L	-1.8699	ppb	12:14:46
1	Se 196.026†	-23.2	5.9	3.1725	ug/L	3.1725	ppb	12:14:46
1	Si 251.611†	639.4	44.8	1.2550	ug/L	1.2550	ppb	12:14:46
1	Sn 189.927†	-1.3	-4.8	-0.7190	ug/L	-0.7190	ppb	12:14:46
1	Ti 334.940†	-1257.8	163.5	0.2357	ug/L	0.2357	ppb	12:14:26
1	Tl 190.801†	-46.6	2.7	0.6997	ug/L	0.6997	ppb	12:14:46
1	U 409.014†	-2355.2	80.1	2.2087	ug/L	2.2087	ppb	12:14:21
1	V 292.402†	-1429.1	78.7	0.5112	ug/L	0.5112	ppb	12:14:26
1	Zn 213.857†	826.2	10.5	0.0874	ug/L	0.0874	ppb	12:14:46
1	SiO2†	640.8	17.0	1.0147	ug/L	1.0147	ppb	12:15:52
2	Sc Radial	5660.8	5660.8	102	%			12:13:29
2	Y RADIAL	6041.7	6041.7	102.2	%			12:13:29
2	Al 396.153Radial†	-18.9	-2.2	-1.5858	ug/L	-1.5858	ppb	12:13:29
2	Ca 317.933Radial†	23.3	3.4	4.8247	ug/L	4.8247	ppb	12:13:49
2	Fe 238.204 Radial†	10.6	-0.4	-3.4825	ug/L	-3.4825	ppb	12:13:49
2	K 766.490 Radial†	2916.4	155.8	27.467	ug/L	27.467	ppb	12:13:29
2	Mg 279.077 IEC†	3.3	1.9	57.791	ug/L	57.791	ppb	12:13:49
2	Na 589.592 Radial†	-805.1	-30.2	-9.0087	ug/L	-9.0087	ppb	12:13:29
2	Sr 421.552†	28.6	40.0	0.2344	ug/L	0.2344	ppb	12:13:29
2	Sc 361.383	916990.4	916990.4	102.01	%			12:14:51
2	Y 371.029	757415.2	757415.2	101.74	%			12:14:51
2	Ag 328.068†	386.8	9.3	0.0409	ug/L	0.0409	ppb	12:14:56
2	As 188.979†	-22.8	12.4	4.5224	ug/L	4.5224	ppb	12:15:16
2	B 249.677†	-254.8	-223.9	-4.5946	ug/L	-4.5946	ppb	12:15:16
2	Ba 233.527†	11.0	13.4	0.0914	ug/L	0.0914	ppb	12:15:16
2	Be 313.107†	-4671.3	152.0	0.0513	ug/L	0.0513	ppb	12:14:56
2	Cd 226.502†	-214.5	19.0	0.1858	ug/L	0.1858	ppb	12:15:16
2	Co 228.616†	-73.7	14.9	0.2606	ug/L	0.2606	ppb	12:15:16
2	Cr 267.716†	124.4	41.8	0.4246	ug/L	0.4246	ppb	12:15:16
2	Cu 324.752†	5983.0	-190.5	-0.5385	ug/L	-0.5385	ppb	12:14:56
2	Mn 257.610†	520.1	18.4	0.0167	ug/L	0.0167	ppb	12:15:16
2	Mo 202.031†	22.4	2.1	0.1268	ug/L	0.1268	ppb	12:15:16
2	Ni 231.604†	95.7	0.3	0.0054	ug/L	0.0054	ppb	12:15:16

2	P 214.914†	251.7	-11.3	-5.8317	ug/L	-5.8317 ppb	12:15:16
2	Pb 220.353†	-59.1	6.2	0.6490	ug/L	0.6490 ppb	12:15:16
2	S 181.975 Axial†	52.5	2.5	3.0218	ug/L	3.0218 ppb	12:15:16
2	Sb 206.836†	42.7	0.7	0.1874	ug/L	0.1874 ppb	12:15:16
2	Se 196.026†	-29.6	-0.5	-0.2974	ug/L	-0.2974 ppb	12:15:16
2	Si 251.611†	613.5	23.9	0.6644	ug/L	0.6644 ppb	12:15:16
2	Sn 189.927†	2.1	-1.5	-0.2206	ug/L	-0.2206 ppb	12:15:16
2	Ti 334.940†	-1300.8	112.4	0.1635	ug/L	0.1635 ppb	12:14:56
2	Tl 190.801†	-35.7	13.0	3.3841	ug/L	3.3841 ppb	12:15:16
2	U 409.014†	-2484.9	-63.7	-1.7545	ug/L	-1.7545 ppb	12:14:51
2	V 292.402†	-1475.3	23.2	0.1477	ug/L	0.1477 ppb	12:14:56
2	Zn 213.857†	812.1	2.6	0.0201	ug/L	0.0201 ppb	12:15:16
2	SiO2†	585.9	-32.4	-1.9828	ug/L	-1.9828 ppb	12:15:57
3	Sc Radial	5627.8	5627.8	101	%		12:13:54
3	Y RADIAL	6011.7	6011.7	101.7	%		12:13:54
3	Al 396.153Radial†	-18.9	-2.3	-1.6774	ug/L	-1.6774 ppb	12:13:54
3	Ca 317.933Radial†	17.7	-2.1	-3.0092	ug/L	-3.0092 ppb	12:14:14
3	Fe 238.204 Radial†	11.5	0.5	4.3539	ug/L	4.3539 ppb	12:14:14
3	K 766.490 Radial†	2879.6	136.2	24.009	ug/L	24.009 ppb	12:13:54
3	Mg 279.077 IEC†	1.6	0.2	5.1561	ug/L	5.1561 ppb	12:14:14
3	Na 589.592 Radial†	-784.5	-14.4	-4.3064	ug/L	-4.3064 ppb	12:13:54
3	Sr 421.552†	-24.3	-12.2	-0.0717	ug/L	-0.0717 ppb	12:13:54
3	Sc 361.383	912968.1	912968.1	101.56	%		12:15:22
3	Y 371.029	753654.3	753654.3	101.23	%		12:15:22
3	Ag 328.068†	368.9	-6.7	-0.0250	ug/L	-0.0250 ppb	12:15:27
3	As 188.979†	-32.7	2.7	0.9721	ug/L	0.9721 ppb	12:15:47
3	B 249.677†	-263.1	-233.1	-4.7856	ug/L	-4.7856 ppb	12:15:47
3	Ba 233.527†	1.4	4.0	0.0283	ug/L	0.0283 ppb	12:15:47
3	Be 313.107†	-4741.8	62.4	0.0209	ug/L	0.0209 ppb	12:15:27
3	Cd 226.502†	-223.1	9.5	0.0927	ug/L	0.0927 ppb	12:15:47
3	Co 228.616†	-79.0	9.3	0.1610	ug/L	0.1610 ppb	12:15:47
3	Cr 267.716†	111.0	29.2	0.2968	ug/L	0.2968 ppb	12:15:47
3	Cu 324.752†	5984.8	-162.9	-0.4602	ug/L	-0.4602 ppb	12:15:27
3	Mn 257.610†	511.9	12.5	0.0127	ug/L	0.0127 ppb	12:15:47
3	Mo 202.031†	12.6	-7.5	-0.4514	ug/L	-0.4514 ppb	12:15:47
3	Ni 231.604†	108.8	13.5	0.2950	ug/L	0.2950 ppb	12:15:47
3	P 214.914†	261.7	-0.4	-0.1510	ug/L	-0.1510 ppb	12:15:47
3	Pb 220.353†	-83.0	-17.7	-1.8661	ug/L	-1.8661 ppb	12:15:47
3	S 181.975 Axial†	49.8	0.1	0.0691	ug/L	0.0691 ppb	12:15:47
3	Sb 206.836†	48.8	6.8	2.0403	ug/L	2.0403 ppb	12:15:47
3	Se 196.026†	-32.3	-3.3	-1.7778	ug/L	-1.7778 ppb	12:15:47
3	Si 251.611†	603.8	17.1	0.4789	ug/L	0.4789 ppb	12:15:47
3	Sn 189.927†	8.0	4.4	0.6611	ug/L	0.6611 ppb	12:15:47
3	Ti 334.940†	-1422.6	-13.1	-0.0189	ug/L	-0.0189 ppb	12:15:27
3	Tl 190.801†	-29.8	18.8	4.8639	ug/L	4.8639 ppb	12:15:47
3	U 409.014†	-2437.8	-28.0	-0.7734	ug/L	-0.7734 ppb	12:15:22
3	V 292.402†	-1424.2	67.1	0.4184	ug/L	0.4184 ppb	12:15:27
3	Zn 213.857†	821.3	15.1	0.1218	ug/L	0.1218 ppb	12:15:47
3	SiO2†	641.1	24.5	1.4804	ug/L	1.4804 ppb	12:16:02

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	917875.0	102.11	%	0.601				0.59%
Sc Radial	5665.3	102	%	0.7				0.71%
Y 371.029	758023.6	101.82	%	0.632				0.62%
Y RADIAL	6052.6	102.4	%	0.80				0.78%
Ag 328.068†	2.0	0.0088	ug/L	0.03297	0.0088	ppb	0.03297	376.67%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-1.2	-0.8870	ug/L	1.29044	-0.8870	ppb	1.29044	145.48%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	6.0	2.1824	ug/L	2.02694	2.1824	ppb	2.02694	92.88%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-234.5	-4.8133	ug/L	0.23365	-4.8133	ppb	0.23365	4.85%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	3.0	0.0213	ug/L	0.07388	0.0213	ppb	0.07388	347.62%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	167.4	0.0564	ug/L	0.03831	0.0564	ppb	0.03831	67.94%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	1.7	2.3919	ug/L	4.68517	2.3919	ppb	4.68517	195.88%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                16.0      0.1574 ug/L       0.05616      0.1574 ppb        0.05616  35.67%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                 9.5      0.1658 ug/L       0.09261      0.1658 ppb        0.09261  55.87%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                32.7      0.3321 ug/L       0.08085      0.3321 ppb        0.08085  24.34%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -189.1     -0.5344 ug/L       0.07233     -0.5344 ppb        0.07233  13.53%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -0.5     -3.9756 ug/L       8.58659     -3.9756 ppb        8.58659 215.98%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         108.9      19.194 ug/L      11.4662      19.194 ppb        11.4662  59.74%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             0.3      8.3422 ug/L      47.93540      8.3422 ppb       47.93540 574.61%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                 8.4      0.0078 ug/L       0.01214      0.0078 ppb        0.01214 156.18%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 0.5      0.0302 ug/L       0.44121      0.0302 ppb        0.44121 >999.9%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†         -6.6     -1.9592 ug/L       8.47068     -1.9592 ppb        8.47068 432.36%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                 9.7      0.2116 ug/L       0.17970      0.2116 ppb        0.17970  84.91%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -10.2     -5.2164 ug/L       4.78744     -5.2164 ppb        4.78744  91.78%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -5.5     -0.5841 ug/L       1.25825     -0.5841 ppb        1.25825 215.42%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -0.3     -0.4053 ug/L       3.68726     -0.4053 ppb        3.68726 909.82%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 0.4      0.1192 ug/L       1.95598      0.1192 ppb        1.95598 >999.9%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 0.7      0.3657 ug/L       2.54094      0.3657 ppb        2.54094 694.74%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                28.6      0.7994 ug/L       0.40528      0.7994 ppb        0.40528  50.70%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                -0.6     -0.0928 ug/L       0.69888     -0.0928 ppb        0.69888 752.72%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                27.6      0.1619 ug/L       0.20707      0.1619 ppb        0.20707 127.91%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                87.6      0.1267 ug/L       0.13119      0.1267 ppb        0.13119 103.52%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                11.5      2.9826 ug/L       2.11091      2.9826 ppb        2.11091  70.77%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 -3.9     -0.1064 ug/L       2.06409     -0.1064 ppb        2.06409 >999.9%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 56.3      0.3591 ug/L       0.18887      0.3591 ppb        0.18887  52.60%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                 9.4      0.0764 ug/L       0.05170      0.0764 ppb        0.05170  67.63%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                       3.1      0.1707 ug/L       1.87951      0.1707 ppb        1.87951 >999.9%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 8
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 12/19/2009 13:07:25
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5405.0	5405.0	97.1	%			13:09:18
1	Y RADIAL	5751.1	5751.1	97.29	%			13:09:18
1	Al 396.153Radial†	6692.3	6909.7	5014.0	ug/L	5014.0	ppb	13:09:18
1	Ca 317.933Radial†	3461.8	3546.2	5056.0	ug/L	5056.0	ppb	13:09:38
1	Fe 238.204 Radial†	598.9	606.0	5053.6	ug/L	5053.6	ppb	13:09:38
1	K 766.490 Radial†	30587.8	28793.9	5066.5	ug/L	5066.5	ppb	13:09:18
1	Mg 279.077 IEC†	163.4	166.9	5188.0	ug/L	5188.0	ppb	13:09:38
1	Na 589.592 Radial†	30044.8	31708.6	9464.1	ug/L	9464.1	ppb	13:09:18
1	Sr 421.552†	82369.7	84854.9	497.53	ug/L	497.53	ppb	13:09:18
1	Sc 361.383	915252.1	915252.1	101.82	%			13:10:35
1	Y 371.029	744373.7	744373.7	99.988	%			13:10:35
1	Ag 328.068†	115927.9	113487.9	492.21	ug/L	492.21	ppb	13:10:41
1	As 188.979†	1339.8	1350.7	494.60	ug/L	494.60	ppb	13:11:01
1	B 249.677†	23779.7	23381.0	477.92	ug/L	477.92	ppb	13:10:41
1	Ba 233.527†	73912.1	72594.9	494.68	ug/L	494.68	ppb	13:10:41
1	Be 313.107†	1475043.1	1453435.1	488.38	ug/L	488.38	ppb	13:10:35
1	Cd 226.502†	51240.0	50554.3	494.23	ug/L	494.23	ppb	13:10:41
1	Co 228.616†	28624.9	28200.8	493.79	ug/L	493.79	ppb	13:10:41
1	Cr 267.716†	49513.0	48548.7	493.01	ug/L	493.01	ppb	13:10:41
1	Cu 324.752†	182768.9	173449.7	490.32	ug/L	490.32	ppb	13:10:41
1	Mn 257.610†	507618.2	498062.5	491.68	ug/L	491.68	ppb	13:10:35
1	Mo 202.031†	8182.0	8016.0	485.58	ug/L	485.58	ppb	13:11:01
1	Ni 231.604†	23108.0	22601.8	493.51	ug/L	493.51	ppb	13:10:41
1	P 214.914†	4999.9	4652.5	2352.6	ug/L	2352.6	ppb	13:11:01
1	Pb 220.353†	4644.6	4625.8	488.98	ug/L	488.98	ppb	13:11:01
1	S 181.975 Axial†	863.7	799.3	979.56	ug/L	979.56	ppb	13:11:01
1	Sb 206.836†	1696.2	1624.7	493.61	ug/L	493.61	ppb	13:11:01
1	Se 196.026†	882.9	895.7	505.55	ug/L	505.55	ppb	13:11:01
1	Si 251.611†	88813.7	86650.4	2431.7	ug/L	2431.7	ppb	13:10:41
1	Sn 189.927†	3304.7	3242.2	486.85	ug/L	486.85	ppb	13:11:01
1	Ti 334.940†	341436.0	336726.7	486.73	ug/L	486.73	ppb	13:10:35
1	Tl 190.801†	1880.0	1894.5	494.63	ug/L	494.63	ppb	13:11:01
1	U 409.014†	15682.8	17774.9	488.15	ug/L	488.15	ppb	13:10:41
1	V 292.402†	77184.9	77276.1	498.00	ug/L	498.00	ppb	13:10:41
1	Zn 213.857†	62127.1	60224.2	489.53	ug/L	489.53	ppb	13:10:41
1	SiO2†	88149.6	85968.9	5179.9	ug/L	5179.9	ppb	13:12:08
2	Sc Radial	5495.3	5495.3	98.7	%			13:09:43
2	Y RADIAL	5821.0	5821.0	98.47	%			13:09:43
2	Al 396.153Radial†	6714.1	6818.3	4947.5	ug/L	4947.5	ppb	13:09:43
2	Ca 317.933Radial†	3464.8	3490.5	4976.6	ug/L	4976.6	ppb	13:10:03
2	Fe 238.204 Radial†	595.9	592.8	4943.4	ug/L	4943.4	ppb	13:10:03
2	K 766.490 Radial†	30563.5	28251.1	4970.9	ug/L	4970.9	ppb	13:09:43
2	Mg 279.077 IEC†	168.3	169.1	5256.0	ug/L	5256.0	ppb	13:10:03
2	Na 589.592 Radial†	30065.0	31220.2	9318.3	ug/L	9318.3	ppb	13:09:43
2	Sr 421.552†	82399.8	83490.2	489.53	ug/L	489.53	ppb	13:09:43
2	Sc 361.383	918014.8	918014.8	102.13	%			13:11:07
2	Y 371.029	747425.3	747425.3	100.40	%			13:11:07
2	Ag 328.068†	115018.9	112255.2	486.84	ug/L	486.84	ppb	13:11:12
2	As 188.979†	1334.8	1341.8	491.38	ug/L	491.38	ppb	13:11:32
2	B 249.677†	23625.3	23159.6	473.40	ug/L	473.40	ppb	13:11:12
2	Ba 233.527†	73474.7	71948.1	490.27	ug/L	490.27	ppb	13:11:12
2	Be 313.107†	1478848.4	1452801.5	488.17	ug/L	488.17	ppb	13:11:07
2	Cd 226.502†	50882.3	50052.5	489.33	ug/L	489.33	ppb	13:11:12
2	Co 228.616†	28476.6	27971.1	489.77	ug/L	489.77	ppb	13:11:12
2	Cr 267.716†	49212.9	48108.5	488.54	ug/L	488.54	ppb	13:11:12
2	Cu 324.752†	181096.8	171272.2	484.16	ug/L	484.16	ppb	13:11:12
2	Mn 257.610†	508746.6	497667.0	491.28	ug/L	491.28	ppb	13:11:07
2	Mo 202.031†	8184.6	7994.4	484.26	ug/L	484.26	ppb	13:11:32
2	Ni 231.604†	22988.7	22416.7	489.47	ug/L	489.47	ppb	13:11:12

2	P 214.914†	4971.2	4609.6	2331.2 ug/L	2331.2 ppb	13:11:32
2	Pb 220.353†	4654.4	4621.6	488.54 ug/L	488.54 ppb	13:11:32
2	S 181.975 Axial†	848.0	781.4	957.62 ug/L	957.62 ppb	13:11:32
2	Sb 206.836†	1714.4	1637.5	497.46 ug/L	497.46 ppb	13:11:32
2	Se 196.026†	880.6	890.8	502.51 ug/L	502.51 ppb	13:11:32
2	Si 251.611†	88042.1	85632.3	2403.1 ug/L	2403.1 ppb	13:11:12
2	Sn 189.927†	3292.0	3220.0	483.50 ug/L	483.50 ppb	13:11:32
2	Ti 334.940†	342332.7	336595.6	486.54 ug/L	486.54 ppb	13:11:07
2	Tl 190.801†	1863.5	1872.8	489.02 ug/L	489.02 ppb	13:11:32
2	U 409.014†	15573.1	17621.2	483.94 ug/L	483.94 ppb	13:11:12
2	V 292.402†	76647.5	76521.7	493.20 ug/L	493.20 ppb	13:11:12
2	Zn 213.857†	61618.5	59542.5	483.98 ug/L	483.98 ppb	13:11:12
2	SiO2†	89228.3	86764.6	5228.3 ug/L	5228.3 ppb	13:12:14
3	Sc Radial	5482.9	5482.9	98.5 %		13:10:08
3	Y RADIAL	5806.0	5806.0	98.22 %		13:10:08
3	Al 396.153Radial†	6679.2	6798.3	4933.0 ug/L	4933.0 ppb	13:10:08
3	Ca 317.933Radial†	3438.9	3472.2	4950.4 ug/L	4950.4 ppb	13:10:28
3	Fe 238.204 Radial†	591.5	589.7	4917.7 ug/L	4917.7 ppb	13:10:28
3	K 766.490 Radial†	30602.7	28361.0	4990.3 ug/L	4990.3 ppb	13:10:08
3	Mg 279.077 IEC†	163.0	164.1	5101.9 ug/L	5101.9 ppb	13:10:28
3	Na 589.592 Radial†	30050.5	31274.5	9334.5 ug/L	9334.5 ppb	13:10:08
3	Sr 421.552†	82283.5	83561.2	489.95 ug/L	489.95 ppb	13:10:08
3	Sc 361.383	921164.5	921164.5	102.48 %		13:11:38
3	Y 371.029	751025.7	751025.7	100.88 %		13:11:38
3	Ag 328.068†	116394.1	113212.1	490.97 ug/L	490.97 ppb	13:11:43
3	As 188.979†	1338.3	1340.8	491.00 ug/L	491.00 ppb	13:12:03
3	B 249.677†	23991.1	23437.4	479.10 ug/L	479.10 ppb	13:11:43
3	Ba 233.527†	73986.3	72201.4	492.00 ug/L	492.00 ppb	13:11:43
3	Be 313.107†	1486996.7	1455801.5	489.17 ug/L	489.17 ppb	13:11:38
3	Cd 226.502†	51238.5	50229.8	491.07 ug/L	491.07 ppb	13:11:43
3	Co 228.616†	28717.2	28110.5	492.20 ug/L	492.20 ppb	13:11:43
3	Cr 267.716†	49762.3	48479.9	492.31 ug/L	492.31 ppb	13:11:43
3	Cu 324.752†	183347.5	172862.2	488.65 ug/L	488.65 ppb	13:11:43
3	Mn 257.610†	509396.6	496598.0	490.23 ug/L	490.23 ppb	13:11:38
3	Mo 202.031†	8166.4	7949.2	481.53 ug/L	481.53 ppb	13:12:03
3	Ni 231.604†	23124.8	22472.5	490.69 ug/L	490.69 ppb	13:11:43
3	P 214.914†	4984.7	4606.2	2328.8 ug/L	2328.8 ppb	13:12:03
3	Pb 220.353†	4646.5	4598.3	486.07 ug/L	486.07 ppb	13:12:03
3	S 181.975 Axial†	861.7	791.9	970.55 ug/L	970.55 ppb	13:12:03
3	Sb 206.836†	1706.0	1623.6	493.16 ug/L	493.16 ppb	13:12:03
3	Se 196.026†	875.0	882.3	497.84 ug/L	497.84 ppb	13:12:03
3	Si 251.611†	88998.9	86271.2	2421.1 ug/L	2421.1 ppb	13:11:43
3	Sn 189.927†	3311.5	3228.0	484.71 ug/L	484.71 ppb	13:12:03
3	Ti 334.940†	343273.8	336367.8	486.20 ug/L	486.20 ppb	13:11:38
3	Tl 190.801†	1863.4	1866.4	487.34 ug/L	487.34 ppb	13:12:03
3	U 409.014†	15740.8	17732.7	487.01 ug/L	487.01 ppb	13:11:43
3	V 292.402†	77474.2	77071.8	496.67 ug/L	496.67 ppb	13:11:43
3	Zn 213.857†	62245.7	59948.3	487.30 ug/L	487.30 ppb	13:11:43
3	SiO2†	88533.9	85788.2	5169.2 ug/L	5169.2 ppb	13:12:19

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	918143.8	102.14	%	0.329				0.32%
Sc Radial	5461.1	98.1	%	0.88				0.90%
Y 371.029	747608.2	100.42	%	0.447				0.45%
Y RADIAL	5792.7	97.99	%	0.622				0.63%
Ag 328.068†	112985.0	490.01	ug/L	2.808	490.01	ppb	2.808	0.57%
QC value within limits for Ag 328.068 Recovery = 98.00%								
Al 396.153Radial†	6842.1	4964.8	ug/L	43.18	4964.8	ppb	43.18	0.87%
QC value within limits for Al 396.153Radial Recovery = 99.30%								
As 188.979†	1344.4	492.33	ug/L	1.977	492.33	ppb	1.977	0.40%
QC value within limits for As 188.979 Recovery = 98.47%								
B 249.677†	23326.0	476.81	ug/L	3.008	476.81	ppb	3.008	0.63%
QC value within limits for B 249.677 Recovery = 95.36%								
Ba 233.527†	72248.1	492.32	ug/L	2.222	492.32	ppb	2.222	0.45%
QC value within limits for Ba 233.527 Recovery = 98.46%								
Be 313.107†	1454012.7	488.57	ug/L	0.530	488.57	ppb	0.530	0.11%
QC value within limits for Be 313.107 Recovery = 97.71%								
Ca 317.933Radial†	3503.0	4994.3	ug/L	54.95	4994.3	ppb	54.95	1.10%

QC value within limits for Ca 317.933Radial Recovery = 99.89%

Cd 226.502†	50278.9	491.54 ug/L	2.484	491.54 ppb	2.484	0.51%

QC value within limits for Cd 226.502 Recovery = 98.31%

Co 228.616†	28094.1	491.92 ug/L	2.026	491.92 ppb	2.026	0.41%

QC value within limits for Co 228.616 Recovery = 98.38%

Cr 267.716†	48379.0	491.28 ug/L	2.405	491.28 ppb	2.405	0.49%

QC value within limits for Cr 267.716 Recovery = 98.26%

Cu 324.752†	172528.1	487.71 ug/L	3.185	487.71 ppb	3.185	0.65%

QC value within limits for Cu 324.752 Recovery = 97.54%

Fe 238.204 Radial†	596.2	4971.6 ug/L	72.19	4971.6 ppb	72.19	1.45%

QC value within limits for Fe 238.204 Radial Recovery = 99.43%

K 766.490 Radial†	28468.7	5009.2 ug/L	50.54	5009.2 ppb	50.54	1.01%

QC value within limits for K 766.490 Radial Recovery = 100.18%

Mg 279.077 IEC†	166.7	5182.0 ug/L	77.23	5182.0 ppb	77.23	1.49%

QC value within limits for Mg 279.077 IEC Recovery = 103.64%

Mn 257.610†	497442.5	491.06 ug/L	0.752	491.06 ppb	0.752	0.15%

QC value within limits for Mn 257.610 Recovery = 98.21%

Mo 202.031†	7986.5	483.79 ug/L	2.067	483.79 ppb	2.067	0.43%

QC value within limits for Mo 202.031 Recovery = 96.76%

Na 589.592 Radial†	31401.1	9372.3 ug/L	79.90	9372.3 ppb	79.90	0.85%

QC value within limits for Na 589.592 Radial Recovery = 93.72%

Ni 231.604†	22497.0	491.22 ug/L	2.074	491.22 ppb	2.074	0.42%

QC value within limits for Ni 231.604 Recovery = 98.24%

P 214.914†	4622.8	2337.5 ug/L	13.10	2337.5 ppb	13.10	0.56%

QC value within limits for P 214.914 Recovery = 93.50%

Pb 220.353†	4615.2	487.86 ug/L	1.565	487.86 ppb	1.565	0.32%

QC value within limits for Pb 220.353 Recovery = 97.57%

S 181.975 Axial†	790.9	969.24 ug/L	11.030	969.24 ppb	11.030	1.14%

QC value within limits for S 181.975 Axial Recovery = 96.92%

Sb 206.836†	1628.6	494.74 ug/L	2.363	494.74 ppb	2.363	0.48%

QC value within limits for Sb 206.836 Recovery = 98.95%

Se 196.026†	889.6	501.97 ug/L	3.886	501.97 ppb	3.886	0.77%

QC value within limits for Se 196.026 Recovery = 100.39%

Si 251.611†	86184.6	2418.6 ug/L	14.48	2418.6 ppb	14.48	0.60%

QC value within limits for Si 251.611 Recovery = 96.75%

Sn 189.927†	3230.1	485.02 ug/L	1.697	485.02 ppb	1.697	0.35%

QC value within limits for Sn 189.927 Recovery = 97.00%

Sr 421.552†	83968.8	492.34 ug/L	4.504	492.34 ppb	4.504	0.91%

QC value within limits for Sr 421.552 Recovery = 98.47%

Ti 334.940†	336563.4	486.49 ug/L	0.265	486.49 ppb	0.265	0.05%

QC value within limits for Ti 334.940 Recovery = 97.30%

Tl 190.801†	1877.9	490.33 ug/L	3.815	490.33 ppb	3.815	0.78%

QC value within limits for Tl 190.801 Recovery = 98.07%

U 409.014†	17709.6	486.36 ug/L	2.179	486.36 ppb	2.179	0.45%

QC value within limits for U 409.014 Recovery = 97.27%

V 292.402†	76956.5	495.96 ug/L	2.480	495.96 ppb	2.480	0.50%

QC value within limits for V 292.402 Recovery = 99.19%

Zn 213.857†	59905.0	486.93 ug/L	2.792	486.93 ppb	2.792	0.57%

QC value within limits for Zn 213.857 Recovery = 97.39%

SiO2†	86173.9	5192.5 ug/L	31.45	5192.5 ppb	31.45	0.61%

QC value within limits for SiO2 Recovery = 97.10%

All analyte(s) passed QC.

Sequence No.: 9
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 12/19/2009 13:14:28
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5541.2	5541.2	99.5	%			13:16:21
1	Y RADIAL	5929.7	5929.7	100.3	%			13:16:21
1	Al 396.153Radial†	-24.1	-7.8	-5.7407	ug/L	-5.7407	ppb	13:16:21
1	Ca 317.933Radial†	21.0	1.6	2.2287	ug/L	2.2287	ppb	13:16:41
1	Fe 238.204 Radial†	8.5	-2.4	-19.757	ug/L	-19.757	ppb	13:16:41
1	K 766.490 Radial†	2892.7	193.9	34.179	ug/L	34.179	ppb	13:16:21
1	Mg 279.077 IEC†	3.6	2.2	68.116	ug/L	68.116	ppb	13:16:41
1	Na 589.592 Radial†	-785.1	-27.1	-8.0967	ug/L	-8.0967	ppb	13:16:21
1	Sr 421.552†	15.3	27.2	0.1592	ug/L	0.1592	ppb	13:16:21
1	Sc 361.383	910397.5	910397.5	101.28	%			13:17:38
1	Y 371.029	751088.9	751088.9	100.89	%			13:17:38
1	Ag 328.068†	409.6	34.5	0.1424	ug/L	0.1424	ppb	13:17:43
1	As 188.979†	-37.8	-2.5	-0.8934	ug/L	-0.8934	ppb	13:18:03
1	B 249.677†	-331.8	-301.7	-6.1898	ug/L	-6.1898	ppb	13:18:03
1	Ba 233.527†	3.7	6.3	0.0416	ug/L	0.0416	ppb	13:18:03
1	Be 313.107†	-4596.8	192.3	0.0646	ug/L	0.0646	ppb	13:17:43
1	Cd 226.502†	-227.7	4.3	0.0444	ug/L	0.0444	ppb	13:18:03
1	Co 228.616†	-67.0	20.9	0.3683	ug/L	0.3683	ppb	13:18:03
1	Cr 267.716†	124.4	42.7	0.4322	ug/L	0.4322	ppb	13:18:03
1	Cu 324.752†	6129.9	-3.0	-0.0096	ug/L	-0.0096	ppb	13:17:43
1	Mn 257.610†	527.7	29.6	0.0259	ug/L	0.0259	ppb	13:18:03
1	Mo 202.031†	35.3	15.0	0.9050	ug/L	0.9050	ppb	13:18:03
1	Ni 231.604†	98.2	3.4	0.0746	ug/L	0.0746	ppb	13:18:03
1	P 214.914†	238.9	-22.2	-11.525	ug/L	-11.525	ppb	13:18:03
1	Pb 220.353†	-67.5	-2.6	-0.2726	ug/L	-0.2726	ppb	13:18:03
1	S 181.975 Axial†	48.2	-1.4	-1.6763	ug/L	-1.6763	ppb	13:18:03
1	Sb 206.836†	46.3	4.5	1.3782	ug/L	1.3782	ppb	13:18:03
1	Se 196.026†	-33.7	-4.8	-2.6476	ug/L	-2.6476	ppb	13:18:03
1	Si 251.611†	605.6	20.5	0.5478	ug/L	0.5478	ppb	13:18:03
1	Sn 189.927†	10.0	6.4	0.9551	ug/L	0.9551	ppb	13:18:03
1	Ti 334.940†	-1352.1	52.5	0.0765	ug/L	0.0765	ppb	13:17:43
1	Tl 190.801†	-32.4	16.0	4.1604	ug/L	4.1604	ppb	13:18:03
1	U 409.014†	-2453.7	-50.5	-1.3897	ug/L	-1.3897	ppb	13:17:38
1	V 292.402†	-1518.9	-30.3	-0.1780	ug/L	-0.1780	ppb	13:17:43
1	Zn 213.857†	825.2	21.3	0.1735	ug/L	0.1735	ppb	13:18:03
1	SiO2†	657.0	42.1	2.4828	ug/L	2.4828	ppb	13:19:09
2	Sc Radial	5628.2	5628.2	101	%			13:16:46
2	Y RADIAL	6039.2	6039.2	102.2	%			13:16:46
2	Al 396.153Radial†	-11.4	5.1	3.6816	ug/L	3.6816	ppb	13:16:46
2	Ca 317.933Radial†	21.3	1.5	2.1543	ug/L	2.1543	ppb	13:17:06
2	Fe 238.204 Radial†	11.2	0.2	1.8896	ug/L	1.8896	ppb	13:17:06
2	K 766.490 Radial†	2896.8	152.9	26.961	ug/L	26.961	ppb	13:16:46
2	Mg 279.077 IEC†	1.5	0.1	4.1263	ug/L	4.1263	ppb	13:17:06
2	Na 589.592 Radial†	-798.0	-27.7	-8.2573	ug/L	-8.2573	ppb	13:16:46
2	Sr 421.552†	0.9	12.7	0.0742	ug/L	0.0742	ppb	13:16:46
2	Sc 361.383	917167.0	917167.0	102.03	%			13:18:08
2	Y 371.029	757595.2	757595.2	101.76	%			13:18:08
2	Ag 328.068†	385.8	8.2	0.0341	ug/L	0.0341	ppb	13:18:13
2	As 188.979†	-33.3	2.2	0.7923	ug/L	0.7923	ppb	13:18:33
2	B 249.677†	-313.9	-281.8	-5.7834	ug/L	-5.7834	ppb	13:18:33
2	Ba 233.527†	5.3	7.8	0.0530	ug/L	0.0530	ppb	13:18:33
2	Be 313.107†	-4475.6	344.7	0.1157	ug/L	0.1157	ppb	13:18:13
2	Cd 226.502†	-200.5	32.6	0.3195	ug/L	0.3195	ppb	13:18:33
2	Co 228.616†	-71.8	16.7	0.2938	ug/L	0.2938	ppb	13:18:33
2	Cr 267.716†	89.7	7.7	0.0777	ug/L	0.0777	ppb	13:18:33
2	Cu 324.752†	6102.8	-74.3	-0.2098	ug/L	-0.2098	ppb	13:18:13
2	Mn 257.610†	554.7	52.2	0.0516	ug/L	0.0516	ppb	13:18:33
2	Mo 202.031†	27.8	7.4	0.4462	ug/L	0.4462	ppb	13:18:33
2	Ni 231.604†	122.8	26.8	0.5858	ug/L	0.5858	ppb	13:18:33

2	P 214.914†	257.0	-6.2	-3.1711 ug/L	-3.1711 ppb	13:18:33
2	Pb 220.353†	-54.7	10.5	1.1044 ug/L	1.1044 ppb	13:18:33
2	S 181.975 Axial†	44.2	-5.7	-7.0232 ug/L	-7.0232 ppb	13:18:33
2	Sb 206.836†	45.1	2.9	0.9022 ug/L	0.9022 ppb	13:18:33
2	Se 196.026†	-30.0	-0.9	-0.4616 ug/L	-0.4616 ppb	13:18:33
2	Si 251.611†	606.9	17.3	0.4704 ug/L	0.4704 ppb	13:18:33
2	Sn 189.927†	7.9	4.3	0.6440 ug/L	0.6440 ppb	13:18:33
2	Ti 334.940†	-1366.6	48.2	0.0691 ug/L	0.0691 ppb	13:18:13
2	Tl 190.801†	-38.9	10.0	2.5909 ug/L	2.5909 ppb	13:18:33
2	U 409.014†	-2362.8	56.4	1.5538 ug/L	1.5538 ppb	13:18:08
2	V 292.402†	-1523.9	-24.1	-0.1445 ug/L	-0.1445 ppb	13:18:13
2	Zn 213.857†	826.1	16.1	0.1282 ug/L	0.1282 ppb	13:18:33
2	SiO2†	603.2	-15.4	-0.9757 ug/L	-0.9757 ppb	13:19:14
3	Sc Radial	5516.8	5516.8	99.1 %		13:17:11
3	Y RADIAL	5911.5	5911.5	100.0 %		13:17:11
3	Al 396.153Radial†	-42.3	-26.3	-19.187 ug/L	-19.187 ppb	13:17:11
3	Ca 317.933Radial†	22.9	3.5	4.9640 ug/L	4.9640 ppb	13:17:31
3	Fe 238.204 Radial†	10.6	-0.2	-1.2813 ug/L	-1.2813 ppb	13:17:31
3	K 766.490 Radial†	2849.4	163.1	28.739 ug/L	28.739 ppb	13:17:11
3	Mg 279.077 IEC†	3.4	2.0	63.360 ug/L	63.360 ppb	13:17:31
3	Na 589.592 Radial†	-775.4	-20.8	-6.2114 ug/L	-6.2114 ppb	13:17:11
3	Sr 421.552†	21.5	33.5	0.1962 ug/L	0.1962 ppb	13:17:11
3	Sc 361.383	908988.7	908988.7	101.12 %		13:18:38
3	Y 371.029	751889.6	751889.6	101.00 %		13:18:38
3	Ag 328.068†	366.0	-8.0	-0.0349 ug/L	-0.0349 ppb	13:18:43
3	As 188.979†	-28.0	7.1	2.5911 ug/L	2.5911 ppb	13:19:03
3	B 249.677†	-338.0	-308.3	-6.3284 ug/L	-6.3284 ppb	13:19:03
3	Ba 233.527†	-1.4	1.3	0.0091 ug/L	0.0091 ppb	13:19:03
3	Be 313.107†	-4550.6	231.0	0.0776 ug/L	0.0776 ppb	13:18:43
3	Cd 226.502†	-213.9	17.7	0.1732 ug/L	0.1732 ppb	13:19:03
3	Co 228.616†	-68.3	19.6	0.3438 ug/L	0.3438 ppb	13:19:03
3	Cr 267.716†	109.2	27.8	0.2820 ug/L	0.2820 ppb	13:19:03
3	Cu 324.752†	6067.8	-55.1	-0.1557 ug/L	-0.1557 ppb	13:18:43
3	Mn 257.610†	542.0	44.5	0.0426 ug/L	0.0426 ppb	13:19:03
3	Mo 202.031†	27.0	6.8	0.4125 ug/L	0.4125 ppb	13:19:03
3	Ni 231.604†	95.5	0.8	0.0183 ug/L	0.0183 ppb	13:19:03
3	P 214.914†	252.5	-8.4	-4.3580 ug/L	-4.3580 ppb	13:19:03
3	Pb 220.353†	-71.6	-6.7	-0.7099 ug/L	-0.7099 ppb	13:19:03
3	S 181.975 Axial†	50.7	1.1	1.3481 ug/L	1.3481 ppb	13:19:03
3	Sb 206.836†	40.2	-1.5	-0.4327 ug/L	-0.4327 ppb	13:19:03
3	Se 196.026†	-25.3	3.5	1.8909 ug/L	1.8909 ppb	13:19:03
3	Si 251.611†	627.1	42.6	1.1851 ug/L	1.1851 ppb	13:19:03
3	Sn 189.927†	4.6	1.1	0.1672 ug/L	0.1672 ppb	13:19:03
3	Ti 334.940†	-1351.7	50.9	0.0732 ug/L	0.0732 ppb	13:18:43
3	Tl 190.801†	-35.2	13.3	3.4402 ug/L	3.4402 ppb	13:19:03
3	U 409.014†	-2360.0	38.4	1.0579 ug/L	1.0579 ppb	13:18:38
3	V 292.402†	-1443.5	41.9	0.2757 ug/L	0.2757 ppb	13:18:43
3	Zn 213.857†	824.3	21.6	0.1751 ug/L	0.1751 ppb	13:19:03
3	SiO2†	647.3	33.5	1.9906 ug/L	1.9906 ppb	13:19:19

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	912184.4	101.48	%	0.486				0.48%
Sc Radial	5562.1	99.9	%	1.05				1.05%
Y 371.029	753524.6	101.22	%	0.477				0.47%
Y RADIAL	5960.1	100.8	%	1.17				1.16%
Ag 328.068†	11.6	0.0472	ug/L	0.08939	0.0472	ppb	0.08939	189.45%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-9.7	-7.0821	ug/L	11.49330	-7.0821	ppb	11.49330	162.29%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	2.3	0.8300	ug/L	1.74256	0.8300	ppb	1.74256	209.95%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-297.3	-6.1005	ug/L	0.28326	-6.1005	ppb	0.28326	4.64%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	5.1	0.0345	ug/L	0.02278	0.0345	ppb	0.02278	65.95%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	256.0	0.0860	ug/L	0.02655	0.0860	ppb	0.02655	30.88%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	2.2	3.1157	ug/L	1.60116	3.1157	ppb	1.60116	51.39%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              18.2      0.1790 ug/L       0.13766      0.1790 ppb        0.13766  76.90%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†              19.1      0.3353 ug/L       0.03798      0.3353 ppb        0.03798  11.33%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              26.1      0.2640 ug/L       0.17791      0.2640 ppb        0.17791  67.40%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -44.1     -0.1250 ug/L       0.10360     -0.1250 ppb        0.10360  82.86%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       -0.8     -6.3828 ug/L      11.69010     -6.3828 ppb       11.69010 183.15%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       170.0      29.960 ug/L        3.7604      29.960 ppb         3.7604  12.55%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           1.5      45.201 ug/L       35.6508      45.201 ppb        35.6508  78.87%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              42.1      0.0401 ug/L       0.01304      0.0401 ppb        0.01304  32.55%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               9.7      0.5879 ug/L       0.27513      0.5879 ppb        0.27513  46.80%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      -25.2     -7.5218 ug/L       1.13765     -7.5218 ppb        1.13765  15.12%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              10.4      0.2262 ug/L       0.31264      0.2262 ppb        0.31264 138.20%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†              -12.2     -6.3514 ug/L       4.51977     -6.3514 ppb        4.51977  71.16%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               0.4      0.0406 ug/L       0.94683      0.0406 ppb        0.94683 >999.9%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         -2.0     -2.4505 ug/L       4.23903     -2.4505 ppb        4.23903 172.99%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               2.0      0.6159 ug/L       0.93876      0.6159 ppb        0.93876 152.41%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              -0.7     -0.4061 ug/L       2.26976     -0.4061 ppb        2.26976 558.93%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†              26.8      0.7344 ug/L       0.39224      0.7344 ppb        0.39224  53.41%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               3.9      0.5888 ug/L       0.39683      0.5888 ppb        0.39683  67.40%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              24.4      0.1432 ug/L       0.06255      0.1432 ppb        0.06255  43.69%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              50.5      0.0729 ug/L       0.00372      0.0729 ppb        0.00372   5.09%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              13.1      3.3972 ug/L       0.78567      3.3972 ppb        0.78567  23.13%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               14.8      0.4073 ug/L       1.57594      0.4073 ppb        1.57594 386.89%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               -4.2     -0.0156 ug/L       0.25285     -0.0156 ppb        0.25285 >999.9%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              19.7      0.1589 ug/L       0.02659      0.1589 ppb        0.02659  16.73%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                    20.1      1.1659 ug/L       1.87092      1.1659 ppb        1.87092 160.47%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

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Analysis Begun

Start Time: 12/19/2009 13:29:48 **Plasma On Time: 12/14/2009 06:02:42**
Logged In Analyst: Optima3 **Technique: ICP Continuous**
Spectrometer Model: Optima 5300 DV, S/N 077C7090601Autosampler Model: S10

Sample Information File: C:\pe\Optima3\Sample Information\121909.sif
Batch ID:
Results Data Set: 121909
Results Library: C:\pe\Optima3\Results\Results.mdb

==========

Sequence No.: 1 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 12/19/2009 13:29:49**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5624.2	5624.2	101	%			13:31:41
1	Y RADIAL	5944.8	5944.8	100.6	%			13:31:41
1	Al 396.153Radial†	6695.8	6644.4	4820.3	ug/L	4820.3	ppb	13:31:41
1	Ca 317.933Radial†	3427.3	3373.0	4809.0	ug/L	4809.0	ppb	13:32:01
1	Fe 238.204 Radial†	602.8	585.8	4886.1	ug/L	4886.1	ppb	13:32:01
1	K 766.490 Radial†	30806.2	27781.7	4888.0	ug/L	4888.0	ppb	13:31:41
1	Mg 279.077 IEC†	165.7	162.7	5056.5	ug/L	5056.5	ppb	13:32:01
1	Na 589.592 Radial†	31754.2	32194.2	9609.0	ug/L	9609.0	ppb	13:31:41
1	Sr 421.552†	84217.2	83376.0	488.86	ug/L	488.86	ppb	13:31:41
1	Sc 361.383	897936.1	897936.1	99.892	%			13:32:59
1	Y 371.029	731386.3	731386.3	98.243	%			13:32:59
1	Ag 328.068†	115917.0	115672.6	501.60	ug/L	501.60	ppb	13:33:04
1	As 188.979†	1336.5	1372.8	502.62	ug/L	502.62	ppb	13:33:24
1	B 249.677†	23882.3	23934.1	489.26	ug/L	489.26	ppb	13:33:04
1	Ba 233.527†	74016.2	74099.0	504.92	ug/L	504.92	ppb	13:33:04
1	Be 313.107†	1456814.5	1463123.9	491.64	ug/L	491.64	ppb	13:32:59
1	Cd 226.502†	51254.5	51539.2	503.88	ug/L	503.88	ppb	13:33:04
1	Co 228.616†	28786.2	28904.5	506.13	ug/L	506.13	ppb	13:33:04
1	Cr 267.716†	49633.1	49606.7	503.75	ug/L	503.75	ppb	13:33:04
1	Cu 324.752†	182966.7	177109.4	500.65	ug/L	500.65	ppb	13:33:04
1	Mn 257.610†	501972.7	502025.0	495.58	ug/L	495.58	ppb	13:32:59
1	Mo 202.031†	8177.8	8166.8	494.69	ug/L	494.69	ppb	13:33:24
1	Ni 231.604†	23214.1	23145.7	505.39	ug/L	505.39	ppb	13:33:04
1	P 214.914†	4995.4	4742.8	2398.2	ug/L	2398.2	ppb	13:33:24
1	Pb 220.353†	4657.1	4726.2	499.55	ug/L	499.55	ppb	13:33:24
1	S 181.975 Axial†	866.7	818.6	1003.3	ug/L	1003.3	ppb	13:33:24
1	Sb 206.836†	1694.4	1655.0	502.82	ug/L	502.82	ppb	13:33:24
1	Se 196.026†	868.4	897.8	506.21	ug/L	506.21	ppb	13:33:24
1	Si 251.611†	88806.3	88325.1	2478.8	ug/L	2478.8	ppb	13:33:04
1	Sn 189.927†	3305.6	3305.7	496.35	ug/L	496.35	ppb	13:33:24
1	Ti 334.940†	337383.1	339136.1	490.19	ug/L	490.19	ppb	13:32:59
1	Tl 190.801†	1882.0	1932.1	504.34	ug/L	504.34	ppb	13:33:24
1	U 409.014†	15563.0	17952.0	493.03	ug/L	493.03	ppb	13:33:04
1	V 292.402†	77172.0	78725.0	507.37	ug/L	507.37	ppb	13:33:04
1	Zn 213.857†	62095.1	61368.9	498.85	ug/L	498.85	ppb	13:33:04
1	SiO2†	87953.7	87442.3	5268.9	ug/L	5268.9	ppb	13:34:32
2	Sc Radial	5631.9	5631.9	101	%			13:32:06
2	Y RADIAL	5937.7	5937.7	100.4	%			13:32:06
2	Al 396.153Radial†	6612.4	6552.9	4753.6	ug/L	4753.6	ppb	13:32:06
2	Ca 317.933Radial†	3398.1	3339.5	4761.2	ug/L	4761.2	ppb	13:32:26
2	Fe 238.204 Radial†	596.7	579.0	4828.6	ug/L	4828.6	ppb	13:32:26
2	K 766.490 Radial†	30442.7	27381.0	4817.5	ug/L	4817.5	ppb	13:32:06
2	Mg 279.077 IEC†	165.3	162.0	5037.6	ug/L	5037.6	ppb	13:32:26
2	Na 589.592 Radial†	31226.6	31630.0	9440.6	ug/L	9440.6	ppb	13:32:06
2	Sr 421.552†	83043.2	82102.2	481.39	ug/L	481.39	ppb	13:32:06
2	Sc 361.383	895420.5	895420.5	99.612	%			13:33:30
2	Y 371.029	730199.6	730199.6	98.084	%			13:33:30

2	Ag 328.068†	114302.1	114377.5	495.98 ug/L	495.98 ppb	13:33:35
2	As 188.979†	1322.0	1362.0	498.70 ug/L	498.70 ppb	13:33:55
2	B 249.677†	23397.1	23514.2	480.67 ug/L	480.67 ppb	13:33:35
2	Ba 233.527†	72884.7	73171.2	498.60 ug/L	498.60 ppb	13:33:35
2	Be 313.107†	1456175.4	1466579.4	492.80 ug/L	492.80 ppb	13:33:30
2	Cd 226.502†	50528.1	50954.1	498.16 ug/L	498.16 ppb	13:33:35
2	Co 228.616†	28214.7	28411.8	497.51 ug/L	497.51 ppb	13:33:35
2	Cr 267.716†	48957.8	49068.3	498.28 ug/L	498.28 ppb	13:33:35
2	Cu 324.752†	179804.2	174449.1	493.13 ug/L	493.13 ppb	13:33:35
2	Mn 257.610†	500240.5	501697.9	495.25 ug/L	495.25 ppb	13:33:30
2	Mo 202.031†	8178.6	8190.6	496.13 ug/L	496.13 ppb	13:33:55
2	Ni 231.604†	22808.4	22803.7	497.92 ug/L	497.92 ppb	13:33:35
2	P 214.914†	4991.3	4752.7	2404.7 ug/L	2404.7 ppb	13:33:55
2	Pb 220.353†	4654.0	4736.2	500.60 ug/L	500.60 ppb	13:33:55
2	S 181.975 Axial†	869.0	823.3	1009.1 ug/L	1009.1 ppb	13:33:55
2	Sb 206.836†	1692.2	1657.6	503.78 ug/L	503.78 ppb	13:33:55
2	Se 196.026†	880.3	912.2	513.87 ug/L	513.87 ppb	13:33:55
2	Si 251.611†	87326.6	87089.4	2443.9 ug/L	2443.9 ppb	13:33:35
2	Sn 189.927†	3315.6	3325.0	499.24 ug/L	499.24 ppb	13:33:55
2	Ti 334.940†	336500.3	339198.8	490.28 ug/L	490.28 ppb	13:33:30
2	Tl 190.801†	1887.3	1942.7	507.15 ug/L	507.15 ppb	13:33:55
2	U 409.014†	15345.1	17777.1	488.23 ug/L	488.23 ppb	13:33:35
2	V 292.402†	76056.4	77822.2	501.65 ug/L	501.65 ppb	13:33:35
2	Zn 213.857†	61072.1	60516.5	491.92 ug/L	491.92 ppb	13:33:35
2	SiO2†	88187.7	87924.6	5298.1 ug/L	5298.1 ppb	13:34:37
3	Sc Radial	5559.0	5559.0	99.9 %		13:32:31
3	Y RADIAL	5849.3	5849.3	98.95 %		13:32:31
3	Al 396.153Radial†	6774.9	6801.4	4934.9 ug/L	4934.9 ppb	13:32:31
3	Ca 317.933Radial†	3464.6	3450.2	4919.0 ug/L	4919.0 ppb	13:32:51
3	Fe 238.204 Radial†	611.7	601.7	5018.0 ug/L	5018.0 ppb	13:32:51
3	K 766.490 Radial†	31051.7	28385.5	4994.4 ug/L	4994.4 ppb	13:32:31
3	Mg 279.077 IEC†	165.8	164.6	5117.9 ug/L	5117.9 ppb	13:32:51
3	Na 589.592 Radial†	32090.4	32899.8	9819.6 ug/L	9819.6 ppb	13:32:31
3	Sr 421.552†	85144.8	85283.5	500.05 ug/L	500.05 ppb	13:32:31
3	Sc 361.383	905366.9	905366.9	100.72 %		13:34:01
3	Y 371.029	737781.8	737781.8	99.102 %		13:34:01
3	Ag 328.068†	115403.6	114210.5	495.32 ug/L	495.32 ppb	13:34:06
3	As 188.979†	1331.6	1356.9	496.88 ug/L	496.88 ppb	13:34:26
3	B 249.677†	23663.6	23520.8	480.78 ug/L	480.78 ppb	13:34:06
3	Ba 233.527†	73494.6	72972.9	497.26 ug/L	497.26 ppb	13:34:06
3	Be 313.107†	1472936.0	1467160.7	492.99 ug/L	492.99 ppb	13:34:01
3	Cd 226.502†	50992.4	50857.8	497.20 ug/L	497.20 ppb	13:34:06
3	Co 228.616†	28535.0	28418.6	497.61 ug/L	497.61 ppb	13:34:06
3	Cr 267.716†	49366.9	48934.6	496.93 ug/L	496.93 ppb	13:34:06
3	Cu 324.752†	181635.9	174284.7	492.67 ug/L	492.67 ppb	13:34:06
3	Mn 257.610†	505748.8	501649.8	495.22 ug/L	495.22 ppb	13:34:01
3	Mo 202.031†	8186.5	8108.2	491.16 ug/L	491.16 ppb	13:34:26
3	Ni 231.604†	23035.4	22777.6	497.35 ug/L	497.35 ppb	13:34:06
3	P 214.914†	4987.6	4693.9	2373.9 ug/L	2373.9 ppb	13:34:26
3	Pb 220.353†	4630.0	4661.0	492.69 ug/L	492.69 ppb	13:34:26
3	S 181.975 Axial†	852.1	797.0	976.77 ug/L	976.77 ppb	13:34:26
3	Sb 206.836†	1703.3	1649.9	501.27 ug/L	501.27 ppb	13:34:26
3	Se 196.026†	880.9	903.1	509.51 ug/L	509.51 ppb	13:34:26
3	Si 251.611†	88195.3	86988.8	2441.2 ug/L	2441.2 ppb	13:34:06
3	Sn 189.927†	3293.5	3266.5	490.48 ug/L	490.48 ppb	13:34:26
3	Ti 334.940†	340409.7	339369.1	490.54 ug/L	490.54 ppb	13:34:01
3	Tl 190.801†	1869.3	1904.1	497.14 ug/L	497.14 ppb	13:34:26
3	U 409.014†	15530.8	17792.2	488.62 ug/L	488.62 ppb	13:34:06
3	V 292.402†	76799.4	77721.0	500.91 ug/L	500.91 ppb	13:34:06
3	Zn 213.857†	61782.7	60548.5	492.16 ug/L	492.16 ppb	13:34:06
3	SiO2†	87051.0	85823.4	5170.9 ug/L	5170.9 ppb	13:34:42

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	899574.5	100.07	%	0.575				0.57%
Sc Radial	5605.0	101	%	0.7				0.71%
Y 371.029	733122.5	98.477	%	0.5478				0.56%
Y RADIAL	5910.6	99.99	%	0.900				0.90%
Ag 328.068†	114753.6	497.64	ug/L	3.451	497.64	ppb	3.451	0.69%

```
   QC value within limits for Ag 328.068  Recovery = 99.53%
Al 396.153Radial†       6666.2      4836.2 ug/L        91.70      4836.2 ppb        91.70   1.90%
   QC value within limits for Al 396.153Radial  Recovery = 96.72%
As 188.979†             1363.9      499.40 ug/L        2.934      499.40 ppb        2.934   0.59%
   QC value within limits for As 188.979  Recovery = 99.88%
B 249.677†             23656.3      483.57 ug/L        4.928      483.57 ppb        4.928   1.02%
   QC value within limits for B 249.677  Recovery = 96.71%
Ba 233.527†            73414.4      500.26 ug/L        4.092      500.26 ppb        4.092   0.82%
   QC value within limits for Ba 233.527  Recovery = 100.05%
Be 313.107†          1465621.4      492.48 ug/L        0.732      492.48 ppb        0.732   0.15%
   QC value within limits for Be 313.107  Recovery = 98.50%
Ca 317.933Radial†       3387.6      4829.7 ug/L        80.90      4829.7 ppb        80.90   1.68%
   QC value within limits for Ca 317.933Radial  Recovery = 96.59%
Cd 226.502†            51117.0      499.75 ug/L        3.613      499.75 ppb        3.613   0.72%
   QC value within limits for Cd 226.502  Recovery = 99.95%
Co 228.616†            28578.3      500.41 ug/L        4.948      500.41 ppb        4.948   0.99%
   QC value within limits for Co 228.616  Recovery = 100.08%
Cr 267.716†            49203.2      499.65 ug/L        3.612      499.65 ppb        3.612   0.72%
   QC value within limits for Cr 267.716  Recovery = 99.93%
Cu 324.752†           175281.1      495.48 ug/L        4.478      495.48 ppb        4.478   0.90%
   QC value within limits for Cu 324.752  Recovery = 99.10%
Fe 238.204 Radial†       588.8      4910.9 ug/L        97.14      4910.9 ppb        97.14   1.98%
   QC value within limits for Fe 238.204 Radial  Recovery = 98.22%
K 766.490 Radial†      27849.4      4900.0 ug/L        89.04      4900.0 ppb        89.04   1.82%
   QC value within limits for K 766.490 Radial  Recovery = 98.00%
Mg 279.077 IEC†          163.1      5070.7 ug/L        42.00      5070.7 ppb        42.00   0.83%
   QC value within limits for Mg 279.077 IEC  Recovery = 101.41%
Mn 257.610†           501790.9      495.35 ug/L        0.199      495.35 ppb        0.199   0.04%
   QC value within limits for Mn 257.610  Recovery = 99.07%
Mo 202.031†             8155.2      493.99 ug/L        2.560      493.99 ppb        2.560   0.52%
   QC value within limits for Mo 202.031  Recovery = 98.80%
Na 589.592 Radial†     32241.4      9623.1 ug/L       189.89      9623.1 ppb       189.89   1.97%
   QC value within limits for Na 589.592 Radial  Recovery = 96.23%
Ni 231.604†            22909.0      500.22 ug/L        4.485      500.22 ppb        4.485   0.90%
   QC value within limits for Ni 231.604  Recovery = 100.04%
P 214.914†              4729.8      2392.2 ug/L        16.24      2392.2 ppb        16.24   0.68%
   QC value within limits for P 214.914  Recovery = 95.69%
Pb 220.353†             4707.8      497.61 ug/L        4.296      497.61 ppb        4.296   0.86%
   QC value within limits for Pb 220.353  Recovery = 99.52%
S 181.975 Axial†         813.0      996.40 ug/L       17.251      996.40 ppb       17.251   1.73%
   QC value within limits for S 181.975 Axial  Recovery = 99.64%
Sb 206.836†             1654.2      502.62 ug/L        1.270      502.62 ppb        1.270   0.25%
   QC value within limits for Sb 206.836  Recovery = 100.52%
Se 196.026†              904.4      509.86 ug/L        3.844      509.86 ppb        3.844   0.75%
   QC value within limits for Se 196.026  Recovery = 101.97%
Si 251.611†            87467.7      2454.6 ug/L        20.97      2454.6 ppb        20.97   0.85%
   QC value within limits for Si 251.611  Recovery = 98.19%
Sn 189.927†             3299.1      495.36 ug/L        4.461      495.36 ppb        4.461   0.90%
   QC value within limits for Sn 189.927  Recovery = 99.07%
Sr 421.552†            83587.2      490.10 ug/L        9.388      490.10 ppb        9.388   1.92%
   QC value within limits for Sr 421.552  Recovery = 98.02%
Ti 334.940†           339234.7      490.34 ug/L        0.180      490.34 ppb        0.180   0.04%
   QC value within limits for Ti 334.940  Recovery = 98.07%
Tl 190.801†             1926.3      502.88 ug/L        5.166      502.88 ppb        5.166   1.03%
   QC value within limits for Tl 190.801  Recovery = 100.58%
U 409.014†             17840.4      489.96 ug/L        2.666      489.96 ppb        2.666   0.54%
   QC value within limits for U 409.014  Recovery = 97.99%
V 292.402†             78089.4      503.31 ug/L        3.536      503.31 ppb        3.536   0.70%
   QC value within limits for V 292.402  Recovery = 100.66%
Zn 213.857†            60811.3      494.31 ug/L        3.931      494.31 ppb        3.931   0.80%
   QC value within limits for Zn 213.857  Recovery = 98.86%
SiO2†                  87063.4      5246.0 ug/L        66.58      5246.0 ppb        66.58   1.27%
   QC value within limits for SiO2  Recovery = 98.10%
All analyte(s) passed QC.
```

Sequence No.: 2
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 12/19/2009 13:36:52
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5523.8	5523.8	99.2	%			13:38:44
1	Y RADIAL	5914.4	5914.4	100.1	%			13:38:44
1	Al 396.153Radial†	-32.8	-16.7	-12.211	ug/L	-12.211	ppb	13:38:44
1	Ca 317.933Radial†	26.1	6.7	9.6005	ug/L	9.6005	ppb	13:39:04
1	Fe 238.204 Radial†	9.6	-1.2	-9.7705	ug/L	-9.7705	ppb	13:39:04
1	K 766.490 Radial†	2883.8	194.0	34.206	ug/L	34.206	ppb	13:38:44
1	Mg 279.077 IEC†	2.1	0.7	21.523	ug/L	21.523	ppb	13:39:04
1	Na 589.592 Radial†	-877.3	-122.5	-36.565	ug/L	-36.565	ppb	13:38:44
1	Sr 421.552†	-17.2	-5.5	-0.0325	ug/L	-0.0325	ppb	13:38:44
1	Sc 361.383	897667.6	897667.6	99.862	%			13:40:01
1	Y 371.029	743887.0	743887.0	99.922	%			13:40:01
1	Ag 328.068†	406.1	36.7	0.1567	ug/L	0.1567	ppb	13:40:01
1	As 188.979†	-27.4	7.4	2.7011	ug/L	2.7011	ppb	13:40:21
1	B 249.677†	-259.7	-234.1	-4.8038	ug/L	-4.8038	ppb	13:40:21
1	Ba 233.527†	-0.2	2.4	0.0163	ug/L	0.0163	ppb	13:40:21
1	Be 313.107†	-4643.1	81.6	0.0275	ug/L	0.0275	ppb	13:40:01
1	Cd 226.502†	-215.9	12.9	0.1278	ug/L	0.1278	ppb	13:40:21
1	Co 228.616†	-81.5	5.5	0.0979	ug/L	0.0979	ppb	13:40:21
1	Cr 267.716†	105.2	25.2	0.2560	ug/L	0.2560	ppb	13:40:21
1	Cu 324.752†	5929.9	-117.5	-0.3325	ug/L	-0.3325	ppb	13:40:01
1	Mn 257.610†	520.8	30.1	0.0283	ug/L	0.0283	ppb	13:40:21
1	Mo 202.031†	29.9	10.1	0.6110	ug/L	0.6110	ppb	13:40:21
1	Ni 231.604†	114.1	20.7	0.4526	ug/L	0.4526	ppb	13:40:21
1	P 214.914†	247.9	-9.8	-5.0607	ug/L	-5.0607	ppb	13:40:21
1	Pb 220.353†	-74.7	-10.7	-1.1315	ug/L	-1.1315	ppb	13:40:21
1	S 181.975 Axial†	40.6	-8.3	-10.196	ug/L	-10.196	ppb	13:40:21
1	Sb 206.836†	53.6	12.5	3.7579	ug/L	3.7579	ppb	13:40:21
1	Se 196.026†	-28.9	-0.4	-0.2719	ug/L	-0.2719	ppb	13:40:21
1	Si 251.611†	635.2	58.6	1.6301	ug/L	1.6301	ppb	13:40:21
1	Sn 189.927†	6.5	3.1	0.4606	ug/L	0.4606	ppb	13:40:21
1	Ti 334.940†	-1325.0	60.7	0.0886	ug/L	0.0886	ppb	13:40:01
1	Tl 190.801†	-45.3	2.7	0.6906	ug/L	0.6906	ppb	13:40:21
1	U 409.014†	-2406.7	-37.8	-1.0419	ug/L	-1.0419	ppb	13:40:01
1	V 292.402†	-1429.4	38.0	0.2505	ug/L	0.2505	ppb	13:40:01
1	Zn 213.857†	814.4	22.0	0.1783	ug/L	0.1783	ppb	13:40:21
1	SiO2†	636.6	30.8	1.8127	ug/L	1.8127	ppb	13:41:17
2	Sc Radial	5521.3	5521.3	99.2	%			13:39:09
2	Y RADIAL	5902.3	5902.3	99.85	%			13:39:09
2	Al 396.153Radial†	-30.9	-14.8	-10.795	ug/L	-10.795	ppb	13:39:09
2	Ca 317.933Radial†	27.0	7.7	10.928	ug/L	10.928	ppb	13:39:29
2	Fe 238.204 Radial†	10.3	-0.5	-4.3803	ug/L	-4.3803	ppb	13:39:29
2	K 766.490 Radial†	2985.2	297.6	52.454	ug/L	52.454	ppb	13:39:09
2	Mg 279.077 IEC†	1.7	0.3	9.8938	ug/L	9.8938	ppb	13:39:29
2	Na 589.592 Radial†	-783.1	-28.0	-8.3562	ug/L	-8.3562	ppb	13:39:09
2	Sr 421.552†	62.5	74.8	0.4387	ug/L	0.4387	ppb	13:39:09
2	Sc 361.383	902635.4	902635.4	100.41	%			13:40:26
2	Y 371.029	749033.0	749033.0	100.61	%			13:40:26
2	Ag 328.068†	405.2	33.6	0.1456	ug/L	0.1456	ppb	13:40:26
2	As 188.979†	-24.5	10.4	3.7734	ug/L	3.7734	ppb	13:40:47
2	B 249.677†	-278.7	-251.6	-5.1640	ug/L	-5.1640	ppb	13:40:47
2	Ba 233.527†	2.4	5.0	0.0338	ug/L	0.0338	ppb	13:40:47
2	Be 313.107†	-4348.0	401.0	0.1345	ug/L	0.1345	ppb	13:40:26
2	Cd 226.502†	-221.9	8.2	0.0807	ug/L	0.0807	ppb	13:40:47
2	Co 228.616†	-69.6	17.8	0.3144	ug/L	0.3144	ppb	13:40:47
2	Cr 267.716†	88.5	8.0	0.0821	ug/L	0.0821	ppb	13:40:47
2	Cu 324.752†	6087.7	7.0	0.0195	ug/L	0.0195	ppb	13:40:26
2	Mn 257.610†	544.0	50.3	0.0490	ug/L	0.0490	ppb	13:40:47
2	Mo 202.031†	36.5	16.5	0.9974	ug/L	0.9974	ppb	13:40:47
2	Ni 231.604†	91.4	-2.6	-0.0571	ug/L	-0.0571	ppb	13:40:47

2	P 214.914†	256.2	-2.9	-1.5141 ug/L	-1.5141 ppb	13:40:47
2	Pb 220.353†	-56.6	7.7	0.8116 ug/L	0.8116 ppb	13:40:47
2	S 181.975 Axial†	53.1	3.9	4.7330 ug/L	4.7330 ppb	13:40:47
2	Sb 206.836†	47.1	5.7	1.7150 ug/L	1.7150 ppb	13:40:47
2	Se 196.026†	-31.1	-2.5	-1.3759 ug/L	-1.3759 ppb	13:40:47
2	Si 251.611†	597.0	17.1	0.4473 ug/L	0.4473 ppb	13:40:47
2	Sn 189.927†	2.2	-1.3	-0.1869 ug/L	-0.1869 ppb	13:40:47
2	Ti 334.940†	-1375.5	17.7	0.0275 ug/L	0.0275 ppb	13:40:26
2	Tl 190.801†	-39.2	9.0	2.3435 ug/L	2.3435 ppb	13:40:47
2	U 409.014†	-2490.8	-108.3	-2.9834 ug/L	-2.9834 ppb	13:40:26
2	V 292.402†	-1485.9	-10.4	-0.0566 ug/L	-0.0566 ppb	13:40:26
2	Zn 213.857†	811.8	14.9	0.1227 ug/L	0.1227 ppb	13:40:47
2	SiO2†	606.8	-2.4	-0.2193 ug/L	-0.2193 ppb	13:41:22
3	Sc Radial	5561.0	5561.0	99.9 %		13:39:35
3	Y RADIAL	5950.1	5950.1	100.7 %		13:39:35
3	Al 396.153Radial†	-16.8	-0.5	-0.3708 ug/L	-0.3708 ppb	13:39:35
3	Ca 317.933Radial†	18.7	-0.8	-1.1997 ug/L	-1.1997 ppb	13:39:55
3	Fe 238.204 Radial†	10.5	-0.3	-2.7052 ug/L	-2.7052 ppb	13:39:55
3	K 766.490 Radial†	2759.5	50.2	8.8367 ug/L	8.8367 ppb	13:39:35
3	Mg 279.077 IEC†	2.8	1.4	42.177 ug/L	42.177 ppb	13:39:55
3	Na 589.592 Radial†	-740.6	20.2	6.0201 ug/L	6.0201 ppb	13:39:35
3	Sr 421.552†	-24.2	-12.4	-0.0729 ug/L	-0.0729 ppb	13:39:35
3	Sc 361.383	902513.8	902513.8	100.40 %		13:40:52
3	Y 371.029	748743.6	748743.6	100.57 %		13:40:52
3	Ag 328.068†	331.8	-39.5	-0.1681 ug/L	-0.1681 ppb	13:40:52
3	As 188.979†	-33.1	1.9	0.6888 ug/L	0.6888 ppb	13:41:12
3	B 249.677†	-247.0	-220.1	-4.5177 ug/L	-4.5177 ppb	13:41:12
3	Ba 233.527†	12.2	14.7	0.0998 ug/L	0.0998 ppb	13:41:12
3	Be 313.107†	-4653.4	96.3	0.0325 ug/L	0.0325 ppb	13:40:52
3	Cd 226.502†	-214.1	16.0	0.1569 ug/L	0.1569 ppb	13:41:12
3	Co 228.616†	-67.6	19.7	0.3464 ug/L	0.3464 ppb	13:41:12
3	Cr 267.716†	102.1	21.5	0.2193 ug/L	0.2193 ppb	13:41:12
3	Cu 324.752†	5973.6	-105.9	-0.2992 ug/L	-0.2992 ppb	13:40:52
3	Mn 257.610†	516.8	23.3	0.0219 ug/L	0.0219 ppb	13:41:12
3	Mo 202.031†	26.9	6.9	0.4179 ug/L	0.4179 ppb	13:41:12
3	Ni 231.604†	119.3	25.2	0.5502 ug/L	0.5502 ppb	13:41:12
3	P 214.914†	259.1	-0.0	0.0312 ug/L	0.0312 ppb	13:41:12
3	Pb 220.353†	-57.2	7.1	0.7493 ug/L	0.7493 ppb	13:41:12
3	S 181.975 Axial†	47.1	-2.1	-2.5824 ug/L	-2.5824 ppb	13:41:12
3	Sb 206.836†	46.9	5.5	1.6684 ug/L	1.6684 ppb	13:41:12
3	Se 196.026†	-32.3	-3.7	-2.0223 ug/L	-2.0223 ppb	13:41:12
3	Si 251.611†	623.5	43.6	1.2172 ug/L	1.2172 ppb	13:41:12
3	Sn 189.927†	6.2	2.7	0.4094 ug/L	0.4094 ppb	13:41:12
3	Ti 334.940†	-1306.7	86.1	0.1261 ug/L	0.1261 ppb	13:40:52
3	Tl 190.801†	-35.6	12.6	3.2591 ug/L	3.2591 ppb	13:41:12
3	U 409.014†	-2527.6	-145.3	-4.0027 ug/L	-4.0027 ppb	13:40:52
3	V 292.402†	-1498.4	-23.0	-0.1471 ug/L	-0.1471 ppb	13:40:52
3	Zn 213.857†	813.4	16.6	0.1316 ug/L	0.1316 ppb	13:41:12
3	SiO2†	613.6	4.4	0.2439 ug/L	0.2439 ppb	13:41:27

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	900938.9	100.23	%	0.315				0.31%
Sc Radial	5535.4	99.4	%	0.40				0.40%
Y 371.029	747221.2	100.37	%	0.388				0.39%
Y RADIAL	5922.2	100.2	%	0.42				0.42%
Ag 328.068†	10.3	0.0447	ug/L	0.18438	0.0447	ppb	0.18438	412.25%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-10.7	-7.7922	ug/L	6.46613	-7.7922	ppb	6.46613	82.98%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	6.6	2.3878	ug/L	1.56598	2.3878	ppb	1.56598	65.58%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-235.3	-4.8285	ug/L	0.32389	-4.8285	ppb	0.32389	6.71%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	7.4	0.0500	ug/L	0.04401	0.0500	ppb	0.04401	88.08%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	193.0	0.0649	ug/L	0.06038	0.0649	ppb	0.06038	93.07%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	4.5	6.4428	ug/L	6.65179	6.4428	ppb	6.65179	103.24%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              12.4      0.1218 ug/L       0.03842      0.1218 ppb        0.03842  31.54%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†              14.4      0.2529 ug/L       0.13517      0.2529 ppb        0.13517  53.45%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              18.2      0.1858 ug/L       0.09167      0.1858 ppb        0.09167  49.34%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -72.1     -0.2041 ug/L       0.19433     -0.2041 ppb        0.19433  95.23%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       -0.7     -5.6186 ug/L       3.69185     -5.6186 ppb        3.69185  65.71%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       180.6      31.832 ug/L       21.9054      31.832 ppb        21.9054  68.81%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           0.8      24.531 ug/L       16.3504      24.531 ppb        16.3504  66.65%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              34.6      0.0331 ug/L       0.01414      0.0331 ppb        0.01414  42.76%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              11.2      0.6754 ug/L       0.29506      0.6754 ppb        0.29506  43.69%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      -43.4     -12.967 ug/L       21.6638     -12.967 ppb        21.6638 167.07%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              14.4      0.3153 ug/L       0.32612      0.3153 ppb        0.32612 103.44%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -4.3     -2.1812 ug/L       2.61067     -2.1812 ppb        2.61067 119.69%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               1.4      0.1431 ug/L       1.10431      0.1431 ppb        1.10431 771.59%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         -2.2     -2.6819 ug/L       7.46521     -2.6819 ppb        7.46521 278.35%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               7.9      2.3805 ug/L       1.19312      2.3805 ppb        1.19312  50.12%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              -2.2     -1.2234 ug/L       0.88514     -1.2234 ppb        0.88514  72.35%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†              39.8      1.0982 ug/L       0.60036      1.0982 ppb        0.60036  54.67%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               1.5      0.2277 ug/L       0.35999      0.2277 ppb        0.35999 158.10%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              19.0      0.1111 ug/L       0.28444      0.1111 ppb        0.28444 256.05%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              54.8      0.0807 ug/L       0.04977      0.0807 ppb        0.04977  61.63%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               8.1      2.0977 ug/L       1.30176      2.0977 ppb        1.30176  62.06%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              -97.1     -2.6760 ug/L       1.50414     -2.6760 ppb        1.50414  56.21%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                1.6      0.0156 ug/L       0.20838      0.0156 ppb        0.20838 >999.9%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              17.8      0.1442 ug/L       0.02983      0.1442 ppb        0.02983  20.69%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                    11.0      0.6124 ug/L       1.06492      0.6124 ppb        1.06492 173.88%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 11
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 12/19/2009 14:38:46
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5574.9	5574.9	100	%			14:40:38
1	Y RADIAL	5867.4	5867.4	99.26	%			14:40:38
1	Al 396.153Radial†	6763.5	6770.6	4911.6	ug/L	4911.6	ppb	14:40:38
1	Ca 317.933Radial†	3484.8	3460.5	4933.7	ug/L	4933.7	ppb	14:40:58
1	Fe 238.204 Radial†	610.1	598.3	4990.4	ug/L	4990.4	ppb	14:40:58
1	K 766.490 Radial†	30886.7	28132.0	4949.5	ug/L	4949.5	ppb	14:40:38
1	Mg 279.077 IEC†	169.1	167.5	5206.1	ug/L	5206.1	ppb	14:40:58
1	Na 589.592 Radial†	31913.2	32631.1	9739.4	ug/L	9739.4	ppb	14:40:38
1	Sr 421.552†	85031.4	84926.8	497.95	ug/L	497.95	ppb	14:40:38
1	Sc 361.383	884224.6	884224.6	98.366	%			14:41:56
1	Y 371.029	718549.9	718549.9	96.519	%			14:41:56
1	Ag 328.068†	117816.3	119402.9	517.75	ug/L	517.75	ppb	14:42:01
1	As 188.979†	1354.8	1412.1	517.09	ug/L	517.09	ppb	14:42:21
1	B 249.677†	24175.1	24602.6	502.93	ug/L	502.93	ppb	14:42:01
1	Ba 233.527†	74958.9	76206.4	519.28	ug/L	519.28	ppb	14:42:01
1	Be 313.107†	1497350.3	1526947.7	513.09	ug/L	513.09	ppb	14:41:56
1	Cd 226.502†	51932.1	53023.8	518.40	ug/L	518.40	ppb	14:42:01
1	Co 228.616†	29128.9	29699.8	520.04	ug/L	520.04	ppb	14:42:01
1	Cr 267.716†	50181.5	50934.7	517.23	ug/L	517.23	ppb	14:42:01
1	Cu 324.752†	186397.0	183436.9	518.53	ug/L	518.53	ppb	14:42:01
1	Mn 257.610†	516173.3	524253.9	517.51	ug/L	517.51	ppb	14:41:56
1	Mo 202.031†	8302.6	8420.6	510.06	ug/L	510.06	ppb	14:42:21
1	Ni 231.604†	23516.1	23813.0	519.96	ug/L	519.96	ppb	14:42:01
1	P 214.914†	5070.6	4896.7	2475.7	ug/L	2475.7	ppb	14:42:21
1	Pb 220.353†	4712.6	4854.9	513.15	ug/L	513.15	ppb	14:42:21
1	S 181.975 Axial†	861.8	827.1	1013.7	ug/L	1013.7	ppb	14:42:21
1	Sb 206.836†	1715.5	1702.7	517.29	ug/L	517.29	ppb	14:42:21
1	Se 196.026†	883.6	926.8	522.35	ug/L	522.35	ppb	14:42:21
1	Si 251.611†	90434.4	91358.8	2564.0	ug/L	2564.0	ppb	14:42:01
1	Sn 189.927†	3330.9	3382.8	507.92	ug/L	507.92	ppb	14:42:21
1	Ti 334.940†	347914.8	355080.2	513.24	ug/L	513.24	ppb	14:41:56
1	Tl 190.801†	1895.4	1974.9	515.66	ug/L	515.66	ppb	14:42:21
1	U 409.014†	16116.4	18756.2	515.15	ug/L	515.15	ppb	14:42:01
1	V 292.402†	78332.0	81102.3	522.71	ug/L	522.71	ppb	14:42:01
1	Zn 213.857†	63071.7	63325.5	514.76	ug/L	514.76	ppb	14:42:01
1	SiO2†	90362.1	91256.0	5499.1	ug/L	5499.1	ppb	14:43:29
2	Sc Radial	5511.2	5511.2	99.0	%			14:41:03
2	Y RADIAL	5851.4	5851.4	98.98	%			14:41:03
2	Al 396.153Radial†	6647.7	6731.8	4884.1	ug/L	4884.1	ppb	14:41:03
2	Ca 317.933Radial†	3493.1	3509.1	5003.0	ug/L	5003.0	ppb	14:41:23
2	Fe 238.204 Radial†	616.5	611.9	5102.4	ug/L	5102.4	ppb	14:41:23
2	K 766.490 Radial†	30416.4	28013.6	4928.9	ug/L	4928.9	ppb	14:41:03
2	Mg 279.077 IEC†	166.8	167.1	5194.1	ug/L	5194.1	ppb	14:41:23
2	Na 589.592 Radial†	31178.0	32257.0	9627.8	ug/L	9627.8	ppb	14:41:03
2	Sr 421.552†	83232.4	84091.4	493.05	ug/L	493.05	ppb	14:41:03
2	Sc 361.383	912615.4	912615.4	101.52	%			14:42:27
2	Y 371.029	743683.0	743683.0	99.895	%			14:42:27
2	Ag 328.068†	116581.6	114460.7	496.43	ug/L	496.43	ppb	14:42:32
2	As 188.979†	1343.6	1358.2	497.36	ug/L	497.36	ppb	14:42:52
2	B 249.677†	23934.7	23601.2	482.42	ug/L	482.42	ppb	14:42:32
2	Ba 233.527†	74317.1	73203.5	498.83	ug/L	498.83	ppb	14:42:32
2	Be 313.107†	1478724.2	1461246.5	491.01	ug/L	491.01	ppb	14:42:27
2	Cd 226.502†	51355.1	50813.0	496.76	ug/L	496.76	ppb	14:42:32
2	Co 228.616†	28801.3	28455.9	498.27	ug/L	498.27	ppb	14:42:32
2	Cr 267.716†	49719.9	48893.0	496.51	ug/L	496.51	ppb	14:42:32
2	Cu 324.752†	183821.0	175004.7	494.71	ug/L	494.71	ppb	14:42:32
2	Mn 257.610†	508020.7	499899.4	493.50	ug/L	493.50	ppb	14:42:27
2	Mo 202.031†	8255.4	8111.6	491.37	ug/L	491.37	ppb	14:42:52
2	Ni 231.604†	23204.9	22762.8	497.03	ug/L	497.03	ppb	14:42:32

2	P 214.914†	5033.8	4700.1	2376.6	ug/L	2376.6	ppb	14:42:52
2	Pb 220.353†	4693.9	4687.5	495.46	ug/L	495.46	ppb	14:42:52
2	S 181.975 Axial†	858.5	796.6	976.34	ug/L	976.34	ppb	14:42:52
2	Sb 206.836†	1710.0	1643.1	499.21	ug/L	499.21	ppb	14:42:52
2	Se 196.026†	893.2	908.3	512.58	ug/L	512.58	ppb	14:42:52
2	Si 251.611†	89397.5	87477.4	2455.0	ug/L	2455.0	ppb	14:42:32
2	Sn 189.927†	3307.7	3254.6	488.70	ug/L	488.70	ppb	14:42:52
2	Ti 334.940†	342155.4	338404.2	489.15	ug/L	489.15	ppb	14:42:27
2	Tl 190.801†	1875.2	1895.1	494.78	ug/L	494.78	ppb	14:42:52
2	U 409.014†	15715.8	17852.0	490.26	ug/L	490.26	ppb	14:42:32
2	V 292.402†	77485.0	77790.6	501.35	ug/L	501.35	ppb	14:42:32
2	Zn 213.857†	62328.7	60599.0	492.57	ug/L	492.57	ppb	14:42:32
2	SiO2†	89521.8	87570.6	5276.8	ug/L	5276.8	ppb	14:43:34
3	Sc Radial	5494.8	5494.8	98.7	%			14:41:28
3	Y RADIAL	5829.1	5829.1	98.61	%			14:41:28
3	Al 396.153Radial†	6608.6	6712.2	4869.7	ug/L	4869.7	ppb	14:41:28
3	Ca 317.933Radial†	3454.3	3480.3	4961.9	ug/L	4961.9	ppb	14:41:48
3	Fe 238.204 Radial†	609.2	606.4	5056.5	ug/L	5056.5	ppb	14:41:48
3	K 766.490 Radial†	30611.5	28303.1	4979.9	ug/L	4979.9	ppb	14:41:28
3	Mg 279.077 IEC†	164.2	165.0	5127.9	ug/L	5127.9	ppb	14:41:48
3	Na 589.592 Radial†	31240.1	32414.1	9674.7	ug/L	9674.7	ppb	14:41:28
3	Sr 421.552†	82965.1	84071.9	492.94	ug/L	492.94	ppb	14:41:28
3	Sc 361.383	908125.8	908125.8	101.03	%			14:42:58
3	Y 371.029	740200.1	740200.1	99.427	%			14:42:58
3	Ag 328.068†	116791.0	115235.7	499.76	ug/L	499.76	ppb	14:43:03
3	As 188.979†	1349.1	1370.2	501.75	ug/L	501.75	ppb	14:43:23
3	B 249.677†	24058.4	23840.2	487.33	ug/L	487.33	ppb	14:43:03
3	Ba 233.527†	74267.4	73516.2	500.96	ug/L	500.96	ppb	14:43:03
3	Be 313.107†	1489641.0	1479253.2	497.06	ug/L	497.06	ppb	14:42:58
3	Cd 226.502†	51301.0	51009.5	498.68	ug/L	498.68	ppb	14:43:03
3	Co 228.616†	28746.0	28541.3	499.76	ug/L	499.76	ppb	14:43:03
3	Cr 267.716†	49797.7	49212.2	499.75	ug/L	499.75	ppb	14:43:03
3	Cu 324.752†	184533.1	176604.7	499.23	ug/L	499.23	ppb	14:43:03
3	Mn 257.610†	511280.2	505599.5	499.12	ug/L	499.12	ppb	14:42:58
3	Mo 202.031†	8253.4	8149.7	493.67	ug/L	493.67	ppb	14:43:23
3	Ni 231.604†	23211.5	22882.4	499.64	ug/L	499.64	ppb	14:43:03
3	P 214.914†	5069.9	4760.4	2407.5	ug/L	2407.5	ppb	14:43:23
3	Pb 220.353†	4698.7	4715.1	498.37	ug/L	498.37	ppb	14:43:23
3	S 181.975 Axial†	862.0	804.3	985.72	ug/L	985.72	ppb	14:43:23
3	Sb 206.836†	1714.9	1656.3	503.24	ug/L	503.24	ppb	14:43:23
3	Se 196.026†	891.3	910.8	513.78	ug/L	513.78	ppb	14:43:23
3	Si 251.611†	89459.8	87974.3	2468.9	ug/L	2468.9	ppb	14:43:03
3	Sn 189.927†	3335.5	3298.2	495.24	ug/L	495.24	ppb	14:43:23
3	Ti 334.940†	344425.8	342317.7	494.80	ug/L	494.80	ppb	14:42:58
3	Tl 190.801†	1890.0	1918.9	501.01	ug/L	501.01	ppb	14:43:23
3	U 409.014†	15800.0	18011.8	494.66	ug/L	494.66	ppb	14:43:03
3	V 292.402†	77684.5	78365.5	505.05	ug/L	505.05	ppb	14:43:03
3	Zn 213.857†	62531.8	61103.6	496.69	ug/L	496.69	ppb	14:43:03
3	SiO2†	88372.4	86868.8	5234.1	ug/L	5234.1	ppb	14:43:39

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	901655.3	100.31	%	1.698				1.69%
Sc Radial	5527.0	99.3	%	0.76				0.77%
Y 371.029	734144.3	98.614	%	1.8291				1.85%
Y RADIAL	5849.3	98.95	%	0.326				0.33%
Ag 328.068†	116366.4	504.65	ug/L	11.470	504.65	ppb	11.470	2.27%
QC value within limits for Ag 328.068 Recovery = 100.93%								
Al 396.153Radial†	6738.2	4888.5	ug/L	21.27	4888.5	ppb	21.27	0.44%
QC value within limits for Al 396.153Radial Recovery = 97.77%								
As 188.979†	1380.2	505.40	ug/L	10.358	505.40	ppb	10.358	2.05%
QC value within limits for As 188.979 Recovery = 101.08%								
B 249.677†	24014.6	490.89	ug/L	10.710	490.89	ppb	10.710	2.18%
QC value within limits for B 249.677 Recovery = 98.18%								
Ba 233.527†	74308.7	506.36	ug/L	11.243	506.36	ppb	11.243	2.22%
QC value within limits for Ba 233.527 Recovery = 101.27%								
Be 313.107†	1489149.1	500.38	ug/L	11.410	500.38	ppb	11.410	2.28%
QC value within limits for Be 313.107 Recovery = 100.08%								
Ca 317.933Radial†	3483.3	4966.2	ug/L	34.82	4966.2	ppb	34.82	0.70%

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   QC value within limits for Ca 317.933Radial  Recovery = 99.32%
Cd 226.502†            51615.4      504.61 ug/L        11.980      504.61 ppb        11.980   2.37%
   QC value within limits for Cd 226.502  Recovery = 100.92%
Co 228.616†            28899.0      506.02 ug/L        12.163      506.02 ppb        12.163   2.40%
   QC value within limits for Co 228.616  Recovery = 101.20%
Cr 267.716†            49679.9      504.49 ug/L        11.150      504.49 ppb        11.150   2.21%
   QC value within limits for Cr 267.716  Recovery = 100.90%
Cu 324.752†           178348.8      504.16 ug/L        12.651      504.16 ppb        12.651   2.51%
   QC value within limits for Cu 324.752  Recovery = 100.83%
Fe 238.204 Radial†       605.5      5049.8 ug/L         56.34      5049.8 ppb         56.34   1.12%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.00%
K 766.490 Radial†      28149.6      4952.8 ug/L         25.63      4952.8 ppb         25.63   0.52%
   QC value within limits for K 766.490 Radial  Recovery = 99.06%
Mg 279.077 IEC†          166.5      5176.0 ug/L         42.13      5176.0 ppb         42.13   0.81%
   QC value within limits for Mg 279.077 IEC  Recovery = 103.52%
Mn 257.610†           509917.6      503.38 ug/L        12.559      503.38 ppb        12.559   2.49%
   QC value within limits for Mn 257.610  Recovery = 100.68%
Mo 202.031†             8227.3      498.37 ug/L        10.195      498.37 ppb        10.195   2.05%
   QC value within limits for Mo 202.031  Recovery = 99.67%
Na 589.592 Radial†     32434.1      9680.6 ug/L         56.08      9680.6 ppb         56.08   0.58%
   QC value within limits for Na 589.592 Radial  Recovery = 96.81%
Ni 231.604†            23152.7      505.54 ug/L        12.555      505.54 ppb        12.555   2.48%
   QC value within limits for Ni 231.604  Recovery = 101.11%
P 214.914†              4785.7      2420.0 ug/L         50.72      2420.0 ppb         50.72   2.10%
   QC value within limits for P 214.914  Recovery = 96.80%
Pb 220.353†             4752.5      502.33 ug/L         9.485      502.33 ppb         9.485   1.89%
   QC value within limits for Pb 220.353  Recovery = 100.47%
S 181.975 Axial†         809.3      991.94 ug/L        19.461      991.94 ppb        19.461   1.96%
   QC value within limits for S 181.975 Axial  Recovery = 99.19%
Sb 206.836†             1667.4      506.58 ug/L         9.492      506.58 ppb         9.492   1.87%
   QC value within limits for Sb 206.836  Recovery = 101.32%
Se 196.026†              915.3      516.24 ug/L         5.329      516.24 ppb         5.329   1.03%
   QC value within limits for Se 196.026  Recovery = 103.25%
Si 251.611†            88936.9      2496.0 ug/L         59.35      2496.0 ppb         59.35   2.38%
   QC value within limits for Si 251.611  Recovery = 99.84%
Sn 189.927†             3311.8      497.28 ug/L         9.772      497.28 ppb         9.772   1.97%
   QC value within limits for Sn 189.927  Recovery = 99.46%
Sr 421.552†            84363.4      494.65 ug/L         2.862      494.65 ppb         2.862   0.58%
   QC value within limits for Sr 421.552  Recovery = 98.93%
Ti 334.940†           345267.4      499.06 ug/L        12.597      499.06 ppb        12.597   2.52%
   QC value within limits for Ti 334.940  Recovery = 99.81%
Tl 190.801†             1929.6      503.82 ug/L        10.722      503.82 ppb        10.722   2.13%
   QC value within limits for Tl 190.801  Recovery = 100.76%
U 409.014†             18206.7      500.03 ug/L        13.281      500.03 ppb        13.281   2.66%
   QC value within limits for U 409.014  Recovery = 100.01%
V 292.402†             79086.1      509.71 ug/L        11.417      509.71 ppb        11.417   2.24%
   QC value within limits for V 292.402  Recovery = 101.94%
Zn 213.857†            61676.1      501.34 ug/L        11.806      501.34 ppb        11.806   2.35%
   QC value within limits for Zn 213.857  Recovery = 100.27%
SiO2†                  88565.2      5336.7 ug/L       142.27      5336.7 ppb       142.27   2.67%
   QC value within limits for SiO2  Recovery = 99.80%
All analyte(s) passed QC.
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Sequence No.: 12
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 12/19/2009 14:45:49
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	5595.1	5595.1	100	%			14:47:41
1	Y RADIAL	5917.3	5917.3	100.1	%			14:47:41
1	Al 396.153Radial†	-7.4	9.0	6.5606	ug/L	6.5606	ppb	14:47:41
1	Ca 317.933Radial†	26.3	6.6	9.4622	ug/L	9.4622	ppb	14:48:01
1	Fe 238.204 Radial†	8.8	-2.1	-17.526	ug/L	-17.526	ppb	14:48:01
1	K 766.490 Radial†	2813.7	87.3	15.384	ug/L	15.384	ppb	14:47:41
1	Mg 279.077 IEC†	2.6	1.1	35.724	ug/L	35.724	ppb	14:48:01
1	Na 589.592 Radial†	-751.6	13.8	4.1327	ug/L	4.1327	ppb	14:47:41
1	Sr 421.552†	-9.6	2.2	0.0130	ug/L	0.0130	ppb	14:47:41
1	Sc 361.383	886574.4	886574.4	98.628	%			14:48:58
1	Y 371.029	751714.0	751714.0	100.97	%			14:48:58
1	Ag 328.068†	362.7	-2.2	-0.0151	ug/L	-0.0151	ppb	14:48:58
1	As 188.979†	-26.2	8.2	2.9821	ug/L	2.9821	ppb	14:49:18
1	B 249.677†	-271.6	-249.4	-5.1168	ug/L	-5.1168	ppb	14:49:18
1	Ba 233.527†	9.6	12.3	0.0816	ug/L	0.0816	ppb	14:49:18
1	Be 313.107†	-4717.8	-52.3	-0.0174	ug/L	-0.0174	ppb	14:48:58
1	Cd 226.502†	-210.7	15.6	0.1541	ug/L	0.1541	ppb	14:49:18
1	Co 228.616†	-80.2	5.8	0.1016	ug/L	0.1016	ppb	14:49:18
1	Cr 267.716†	80.8	1.8	0.0180	ug/L	0.0180	ppb	14:49:18
1	Cu 324.752†	6110.7	140.1	0.3950	ug/L	0.3950	ppb	14:48:58
1	Mn 257.610†	534.2	50.2	0.0471	ug/L	0.0471	ppb	14:49:18
1	Mo 202.031†	24.6	5.1	0.3057	ug/L	0.3057	ppb	14:49:18
1	Ni 231.604†	88.7	-3.7	-0.0799	ug/L	-0.0799	ppb	14:49:18
1	P 214.914†	250.5	-4.1	-2.1563	ug/L	-2.1563	ppb	14:49:18
1	Pb 220.353†	-73.7	-10.6	-1.1162	ug/L	-1.1162	ppb	14:49:18
1	S 181.975 Axial†	49.7	1.4	1.6869	ug/L	1.6869	ppb	14:49:18
1	Sb 206.836†	47.5	6.9	2.0984	ug/L	2.0984	ppb	14:49:18
1	Se 196.026†	-11.3	17.1	9.2485	ug/L	9.2485	ppb	14:49:18
1	Si 251.611†	646.8	78.3	2.1933	ug/L	2.1933	ppb	14:49:18
1	Sn 189.927†	12.1	8.8	1.3154	ug/L	1.3154	ppb	14:49:18
1	Ti 334.940†	-1335.2	33.8	0.0507	ug/L	0.0507	ppb	14:48:58
1	Tl 190.801†	-43.1	4.4	1.1398	ug/L	1.1398	ppb	14:49:18
1	U 409.014†	-2445.5	-107.4	-2.9556	ug/L	-2.9556	ppb	14:48:58
1	V 292.402†	-1538.9	-90.9	-0.5759	ug/L	-0.5759	ppb	14:48:58
1	Zn 213.857†	842.9	61.0	0.5011	ug/L	0.5011	ppb	14:49:18
1	SiO2†	660.7	63.2	3.7971	ug/L	3.7971	ppb	14:50:14
2	Sc Radial	5731.1	5731.1	103	%			14:48:06
2	Y RADIAL	6107.4	6107.4	103.3	%			14:48:06
2	Al 396.153Radial†	-25.2	-8.1	-5.9045	ug/L	-5.9045	ppb	14:48:06
2	Ca 317.933Radial†	26.0	5.7	8.1533	ug/L	8.1533	ppb	14:48:26
2	Fe 238.204 Radial†	8.7	-2.5	-20.397	ug/L	-20.397	ppb	14:48:26
2	K 766.490 Radial†	2864.2	69.9	12.311	ug/L	12.311	ppb	14:48:06
2	Mg 279.077 IEC†	2.7	1.2	36.846	ug/L	36.846	ppb	14:48:26
2	Na 589.592 Radial†	-778.9	5.0	1.4887	ug/L	1.4887	ppb	14:48:06
2	Sr 421.552†	-2.0	9.9	0.0580	ug/L	0.0580	ppb	14:48:06
2	Sc 361.383	882937.6	882937.6	98.223	%			14:49:23
2	Y 371.029	748195.0	748195.0	100.50	%			14:49:23
2	Ag 328.068†	429.4	67.3	0.2867	ug/L	0.2867	ppb	14:49:23
2	As 188.979†	-29.4	4.9	1.7623	ug/L	1.7623	ppb	14:49:43
2	B 249.677†	-246.1	-224.7	-4.6085	ug/L	-4.6085	ppb	14:49:43
2	Ba 233.527†	3.3	5.9	0.0385	ug/L	0.0385	ppb	14:49:43
2	Be 313.107†	-4701.5	-55.4	-0.0186	ug/L	-0.0186	ppb	14:49:23
2	Cd 226.502†	-221.5	3.7	0.0384	ug/L	0.0384	ppb	14:49:43
2	Co 228.616†	-70.8	15.0	0.2623	ug/L	0.2623	ppb	14:49:43
2	Cr 267.716†	105.3	27.0	0.2747	ug/L	0.2747	ppb	14:49:43
2	Cu 324.752†	6018.1	71.4	0.2008	ug/L	0.2008	ppb	14:49:23
2	Mn 257.610†	563.0	81.7	0.0778	ug/L	0.0778	ppb	14:49:43
2	Mo 202.031†	18.3	-1.2	-0.0768	ug/L	-0.0768	ppb	14:49:43
2	Ni 231.604†	123.4	32.0	0.6996	ug/L	0.6996	ppb	14:49:43

2	P 214.914†	249.6	-4.0	-2.0687 ug/L	-2.0687 ppb	14:49:43
2	Pb 220.353†	-70.4	-7.7	-0.8076 ug/L	-0.8076 ppb	14:49:43
2	S 181.975 Axial†	46.5	-1.7	-2.0327 ug/L	-2.0327 ppb	14:49:43
2	Sb 206.836†	46.0	5.6	1.6770 ug/L	1.6770 ppb	14:49:43
2	Se 196.026†	-26.9	1.2	0.5728 ug/L	0.5728 ppb	14:49:43
2	Si 251.611†	633.1	67.1	1.8857 ug/L	1.8857 ppb	14:49:43
2	Sn 189.927†	8.8	5.4	0.8150 ug/L	0.8150 ppb	14:49:43
2	Ti 334.940†	-1355.2	7.8	0.0146 ug/L	0.0146 ppb	14:49:23
2	Tl 190.801†	-25.1	22.5	5.8467 ug/L	5.8467 ppb	14:49:43
2	U 409.014†	-2565.5	-239.7	-6.6024 ug/L	-6.6024 ppb	14:49:23
2	V 292.402†	-1515.0	-73.0	-0.4746 ug/L	-0.4746 ppb	14:49:23
2	Zn 213.857†	849.8	71.6	0.5834 ug/L	0.5834 ppb	14:49:43
2	SiO2†	681.5	87.2	5.2673 ug/L	5.2673 ppb	14:50:19
3	Sc Radial	5576.3	5576.3	100 %		14:48:31
3	Y RADIAL	5946.3	5946.3	100.6 %		14:48:31
3	Al 396.153Radial†	-14.7	1.7	1.2876 ug/L	1.2876 ppb	14:48:31
3	Ca 317.933Radial†	23.6	4.0	5.6632 ug/L	5.6632 ppb	14:48:51
3	Fe 238.204 Radial†	9.2	-1.7	-14.412 ug/L	-14.412 ppb	14:48:51
3	K 766.490 Radial†	2773.6	56.7	9.9821 ug/L	9.9821 ppb	14:48:31
3	Mg 279.077 IEC†	2.2	0.8	26.345 ug/L	26.345 ppb	14:48:51
3	Na 589.592 Radial†	-750.5	12.4	3.7003 ug/L	3.7003 ppb	14:48:31
3	Sr 421.552†	56.9	68.6	0.4024 ug/L	0.4024 ppb	14:48:31
3	Sc 361.383	886705.2	886705.2	98.642 %		14:49:49
3	Y 371.029	754502.0	754502.0	101.35 %		14:49:49
3	Ag 328.068†	408.3	44.0	0.1837 ug/L	0.1837 ppb	14:49:49
3	As 188.979†	-26.5	8.0	2.8879 ug/L	2.8879 ppb	14:50:09
3	B 249.677†	-283.6	-261.6	-5.3664 ug/L	-5.3664 ppb	14:50:09
3	Ba 233.527†	-0.4	2.2	0.0129 ug/L	0.0129 ppb	14:50:09
3	Be 313.107†	-4696.1	-29.6	-0.0100 ug/L	-0.0100 ppb	14:49:49
3	Cd 226.502†	-223.6	2.5	0.0266 ug/L	0.0266 ppb	14:50:09
3	Co 228.616†	-87.4	-1.5	-0.0282 ug/L	-0.0282 ppb	14:50:09
3	Cr 267.716†	92.5	13.6	0.1367 ug/L	0.1367 ppb	14:50:09
3	Cu 324.752†	6218.2	248.2	0.7005 ug/L	0.7005 ppb	14:49:49
3	Mn 257.610†	541.6	57.6	0.0549 ug/L	0.0549 ppb	14:50:09
3	Mo 202.031†	8.9	-10.9	-0.6607 ug/L	-0.6607 ppb	14:50:09
3	Ni 231.604†	112.5	20.5	0.4471 ug/L	0.4471 ppb	14:50:09
3	P 214.914†	274.2	19.9	10.299 ug/L	10.299 ppb	14:50:09
3	Pb 220.353†	-76.3	-13.3	-1.4056 ug/L	-1.4056 ppb	14:50:09
3	S 181.975 Axial†	46.8	-1.5	-1.8757 ug/L	-1.8757 ppb	14:50:09
3	Sb 206.836†	42.6	1.9	0.5707 ug/L	0.5707 ppb	14:50:09
3	Se 196.026†	-36.4	-8.4	-4.6096 ug/L	-4.6096 ppb	14:50:09
3	Si 251.611†	660.4	92.0	2.6006 ug/L	2.6006 ppb	14:50:09
3	Sn 189.927†	7.3	3.9	0.5824 ug/L	0.5824 ppb	14:50:09
3	Ti 334.940†	-1373.8	-5.1	-0.0067 ug/L	-0.0067 ppb	14:49:49
3	Tl 190.801†	-39.1	8.4	2.1936 ug/L	2.1936 ppb	14:50:09
3	U 409.014†	-2375.1	-35.6	-0.9786 ug/L	-0.9786 ppb	14:49:49
3	V 292.402†	-1529.8	-81.4	-0.5263 ug/L	-0.5263 ppb	14:49:49
3	Zn 213.857†	837.4	55.4	0.4510 ug/L	0.4510 ppb	14:50:09
3	SiO2†	654.4	56.7	3.4472 ug/L	3.4472 ppb	14:50:24

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	885405.8	98.498	%	0.2379				0.24%
Sc Radial	5634.2	101	%	1.5				1.50%
Y 371.029	751470.3	100.94	%	0.425				0.42%
Y RADIAL	5990.3	101.3	%	1.73				1.71%
Ag 328.068†	36.4	0.1518	ug/L	0.15341	0.1518	ppb	0.15341	101.08%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	0.9	0.6479	ug/L	6.25712	0.6479	ppb	6.25712	965.75%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	7.0	2.5441	ug/L	0.67868	2.5441	ppb	0.67868	26.68%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-245.2	-5.0305	ug/L	0.38624	-5.0305	ppb	0.38624	7.68%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	6.8	0.0443	ug/L	0.03471	0.0443	ppb	0.03471	78.28%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-45.8	-0.0153	ug/L	0.00468	-0.0153	ppb	0.00468	30.54%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	5.4	7.7596	ug/L	1.92987	7.7596	ppb	1.92987	24.87%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                 7.3      0.0730 ug/L       0.07047      0.0730 ppb        0.07047  96.50%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                 6.4      0.1119 ug/L       0.14552      0.1119 ppb        0.14552 130.00%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                14.1      0.1431 ug/L       0.12849      0.1431 ppb        0.12849  89.76%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               153.3      0.4321 ug/L       0.25191      0.4321 ppb        0.25191  58.30%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -2.1     -17.445 ug/L        2.9934     -17.445 ppb         2.9934  17.16%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          71.3      12.559 ug/L        2.7093      12.559 ppb         2.7093  21.57%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             1.1      32.972 ug/L        5.7661      32.972 ppb         5.7661  17.49%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                63.2      0.0600 ug/L       0.01598      0.0600 ppb        0.01598  26.65%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                -2.4     -0.1439 ug/L       0.48666     -0.1439 ppb        0.48666 338.12%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†         10.4      3.1072 ug/L       1.41829      3.1072 ppb        1.41829  45.64%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                16.3      0.3556 ug/L       0.39772      0.3556 ppb        0.39772 111.84%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                  4.0      2.0247 ug/L       7.16599      2.0247 ppb        7.16599 353.93%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               -10.5     -1.1098 ug/L       0.29904     -1.1098 ppb        0.29904  26.95%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -0.6     -0.7405 ug/L       2.10363     -0.7405 ppb        2.10363 284.08%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 4.8      1.4487 ug/L       0.78898      1.4487 ppb        0.78898  54.46%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 3.3      1.7372 ug/L       7.00209      1.7372 ppb        7.00209 403.06%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                79.1      2.2265 ug/L       0.35863      2.2265 ppb        0.35863  16.11%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 6.0      0.9043 ug/L       0.37460      0.9043 ppb        0.37460  41.43%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                26.9      0.1578 ug/L       0.21298      0.1578 ppb        0.21298 134.95%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                12.2      0.0195 ug/L       0.02900      0.0195 ppb        0.02900 148.50%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                11.8      3.0600 ug/L       2.47017      3.0600 ppb        2.47017  80.72%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -127.5     -3.5122 ug/L       2.85293     -3.5122 ppb        2.85293  81.23%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                -81.8     -0.5256 ug/L       0.05065     -0.5256 ppb        0.05065   9.64%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                62.7      0.5118 ug/L       0.06685      0.5118 ppb        0.06685  13.06%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                      69.0      4.1705 ug/L       0.96577      4.1705 ppb        0.96577  23.16%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 21
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 12/19/2009 15:48:06
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5456.8	5456.8	98.0	%			15:49:59
1	Y RADIAL	5770.8	5770.8	97.62	%			15:49:59
1	Al 396.153Radial†	6682.6	6834.2	4958.7	ug/L	4958.7	ppb	15:49:59
1	Ca 317.933Radial†	3452.2	3502.5	4993.7	ug/L	4993.7	ppb	15:50:19
1	Fe 238.204 Radial†	611.5	613.0	5111.0	ug/L	5111.0	ppb	15:50:19
1	K 766.490 Radial†	30340.9	28242.7	4969.2	ug/L	4969.2	ppb	15:49:59
1	Mg 279.077 IEC†	167.2	169.2	5260.4	ug/L	5260.4	ppb	15:50:19
1	Na 589.592 Radial†	31459.9	32858.4	9807.3	ug/L	9807.3	ppb	15:49:59
1	Sr 421.552†	83578.5	85282.4	500.04	ug/L	500.04	ppb	15:49:59
1	Sc 361.383	909946.0	909946.0	101.23	%			15:51:18
1	Y 371.029	739529.2	739529.2	99.337	%			15:51:18
1	Ag 328.068†	115534.4	113763.1	493.43	ug/L	493.43	ppb	15:51:18
1	As 188.979†	1340.4	1358.9	497.65	ug/L	497.65	ppb	15:51:38
1	B 249.677†	23685.7	23424.4	478.81	ug/L	478.81	ppb	15:51:18
1	Ba 233.527†	73889.3	72995.6	497.41	ug/L	497.41	ppb	15:51:18
1	Be 313.107†	1481540.0	1468300.8	493.38	ug/L	493.38	ppb	15:51:18
1	Cd 226.502†	51137.3	50746.2	496.10	ug/L	496.10	ppb	15:51:18
1	Co 228.616†	28257.5	28001.9	490.32	ug/L	490.32	ppb	15:51:38
1	Cr 267.716†	49448.5	48768.6	495.25	ug/L	495.25	ppb	15:51:18
1	Cu 324.752†	184050.8	175762.8	496.85	ug/L	496.85	ppb	15:51:18
1	Mn 257.610†	510299.5	503618.4	497.17	ug/L	497.17	ppb	15:51:18
1	Mo 202.031†	8261.0	8140.9	493.14	ug/L	493.14	ppb	15:51:38
1	Ni 231.604†	22854.8	22484.0	490.94	ug/L	490.94	ppb	15:51:38
1	P 214.914†	5049.2	4729.9	2391.9	ug/L	2391.9	ppb	15:51:38
1	Pb 220.353†	4745.3	4751.8	502.26	ug/L	502.26	ppb	15:51:38
1	S 181.975 Axial†	856.1	796.8	976.47	ug/L	976.47	ppb	15:51:38
1	Sb 206.836†	1701.6	1639.7	498.30	ug/L	498.30	ppb	15:51:38
1	Se 196.026†	886.1	903.9	510.22	ug/L	510.22	ppb	15:51:38
1	Si 251.611†	88925.3	87269.2	2449.0	ug/L	2449.0	ppb	15:51:18
1	Sn 189.927†	3318.8	3275.1	491.78	ug/L	491.78	ppb	15:51:38
1	Ti 334.940†	343331.6	340554.7	492.27	ug/L	492.27	ppb	15:51:18
1	Tl 190.801†	1872.3	1897.6	495.53	ug/L	495.53	ppb	15:51:38
1	U 409.014†	14926.8	17118.0	470.04	ug/L	470.04	ppb	15:51:18
1	V 292.402†	76784.4	77322.5	498.36	ug/L	498.36	ppb	15:51:18
1	Zn 213.857†	62117.3	60570.3	492.36	ug/L	492.36	ppb	15:51:18
1	SiO2†	89425.3	87733.9	5286.6	ug/L	5286.6	ppb	15:52:38
2	Sc Radial	5540.9	5540.9	99.5	%			15:50:24
2	Y RADIAL	5835.1	5835.1	98.71	%			15:50:24
2	Al 396.153Radial†	6720.4	6768.7	4910.9	ug/L	4910.9	ppb	15:50:24
2	Ca 317.933Radial†	3424.5	3421.2	4877.7	ug/L	4877.7	ppb	15:50:44
2	Fe 238.204 Radial†	609.3	601.4	5014.5	ug/L	5014.5	ppb	15:50:44
2	K 766.490 Radial†	30680.2	28113.7	4946.5	ug/L	4946.5	ppb	15:50:24
2	Mg 279.077 IEC†	161.4	160.8	4998.1	ug/L	4998.1	ppb	15:50:44
2	Na 589.592 Radial†	31835.2	32748.3	9774.4	ug/L	9774.4	ppb	15:50:24
2	Sr 421.552†	84410.3	84823.8	497.35	ug/L	497.35	ppb	15:50:24
2	Sc 361.383	908929.3	908929.3	101.11	%			15:51:45
2	Y 371.029	739147.4	739147.4	99.286	%			15:51:45
2	Ag 328.068†	115425.3	113782.8	493.48	ug/L	493.48	ppb	15:51:45
2	As 188.979†	1336.6	1356.7	496.80	ug/L	496.80	ppb	15:52:05
2	B 249.677†	23652.4	23417.6	478.68	ug/L	478.68	ppb	15:51:45
2	Ba 233.527†	73881.5	73069.6	497.91	ug/L	497.91	ppb	15:51:45
2	Be 313.107†	1478888.2	1467315.5	493.05	ug/L	493.05	ppb	15:51:45
2	Cd 226.502†	51255.1	50919.3	497.80	ug/L	497.80	ppb	15:51:45
2	Co 228.616†	28254.0	28029.6	490.81	ug/L	490.81	ppb	15:52:05
2	Cr 267.716†	49460.2	48834.8	495.92	ug/L	495.92	ppb	15:51:45
2	Cu 324.752†	183706.5	175625.7	496.46	ug/L	496.46	ppb	15:51:45
2	Mn 257.610†	509664.9	503554.7	497.10	ug/L	497.10	ppb	15:51:45
2	Mo 202.031†	8294.5	8183.2	495.69	ug/L	495.69	ppb	15:52:05
2	Ni 231.604†	22883.7	22537.8	492.12	ug/L	492.12	ppb	15:52:05

2	P 214.914†	5034.3	4720.7	2387.2 ug/L	2387.2 ppb	15:52:05
2	Pb 220.353†	4714.4	4726.5	499.59 ug/L	499.59 ppb	15:52:05
2	S 181.975 Axial†	859.7	801.2	981.92 ug/L	981.92 ppb	15:52:05
2	Sb 206.836†	1708.6	1648.6	500.97 ug/L	500.97 ppb	15:52:05
2	Se 196.026†	884.9	903.6	509.79 ug/L	509.79 ppb	15:52:05
2	Si 251.611†	88978.5	87420.1	2453.3 ug/L	2453.3 ppb	15:51:45
2	Sn 189.927†	3309.6	3269.6	490.94 ug/L	490.94 ppb	15:52:05
2	Ti 334.940†	343069.5	340674.9	492.43 ug/L	492.43 ppb	15:51:45
2	Tl 190.801†	1883.1	1910.4	498.84 ug/L	498.84 ppb	15:52:05
2	U 409.014†	14889.8	17097.8	469.49 ug/L	469.49 ppb	15:51:45
2	V 292.402†	76718.5	77342.2	498.53 ug/L	498.53 ppb	15:51:45
2	Zn 213.857†	62132.6	60654.1	493.06 ug/L	493.06 ppb	15:51:45
2	SiO2†	89471.9	87878.9	5295.3 ug/L	5295.3 ppb	15:52:43
3	Sc Radial	5492.0	5492.0	98.6 %		15:50:49
3	Y RADIAL	5812.6	5812.6	98.33 %		15:50:49
3	Al 396.153Radial†	6726.5	6835.1	4959.2 ug/L	4959.2 ppb	15:50:49
3	Ca 317.933Radial†	3460.2	3488.0	4973.0 ug/L	4973.0 ppb	15:51:09
3	Fe 238.204 Radial†	616.9	614.5	5123.7 ug/L	5123.7 ppb	15:51:09
3	K 766.490 Radial†	30491.2	28196.4	4961.0 ug/L	4961.0 ppb	15:50:49
3	Mg 279.077 IEC†	169.2	170.1	5288.9 ug/L	5288.9 ppb	15:51:09
3	Na 589.592 Radial†	31820.4	33018.0	9854.9 ug/L	9854.9 ppb	15:50:49
3	Sr 421.552†	83963.5	85125.5	499.12 ug/L	499.12 ppb	15:50:49
3	Sc 361.383	908514.2	908514.2	101.07 %		15:52:13
3	Y 371.029	739032.0	739032.0	99.270 %		15:52:13
3	Ag 328.068†	115201.9	113614.0	492.79 ug/L	492.79 ppb	15:52:13
3	As 188.979†	1349.4	1369.9	501.63 ug/L	501.63 ppb	15:52:33
3	B 249.677†	23619.6	23395.8	478.22 ug/L	478.22 ppb	15:52:13
3	Ba 233.527†	73721.6	72944.8	497.06 ug/L	497.06 ppb	15:52:13
3	Be 313.107†	1478550.0	1467649.0	493.16 ug/L	493.16 ppb	15:52:13
3	Cd 226.502†	50902.9	50593.9	494.61 ug/L	494.61 ppb	15:52:13
3	Co 228.616†	28241.1	28029.6	490.81 ug/L	490.81 ppb	15:52:33
3	Cr 267.716†	49251.1	48650.3	494.05 ug/L	494.05 ppb	15:52:13
3	Cu 324.752†	183628.7	175631.7	496.48 ug/L	496.48 ppb	15:52:13
3	Mn 257.610†	508331.7	502465.8	496.03 ug/L	496.03 ppb	15:52:13
3	Mo 202.031†	8292.8	8185.2	495.82 ug/L	495.82 ppb	15:52:33
3	Ni 231.604†	22869.5	22534.2	492.04 ug/L	492.04 ppb	15:52:33
3	P 214.914†	5032.3	4721.1	2387.3 ug/L	2387.3 ppb	15:52:33
3	Pb 220.353†	4730.1	4744.1	501.45 ug/L	501.45 ppb	15:52:33
3	S 181.975 Axial†	869.7	811.5	994.52 ug/L	994.52 ppb	15:52:33
3	Sb 206.836†	1686.1	1627.1	494.59 ug/L	494.59 ppb	15:52:33
3	Se 196.026†	894.6	913.7	515.60 ug/L	515.60 ppb	15:52:33
3	Si 251.611†	88853.2	87336.3	2450.9 ug/L	2450.9 ppb	15:52:13
3	Sn 189.927†	3305.5	3267.1	490.57 ug/L	490.57 ppb	15:52:33
3	Ti 334.940†	342619.9	340385.1	492.02 ug/L	492.02 ppb	15:52:13
3	Tl 190.801†	1886.8	1914.9	499.99 ug/L	499.99 ppb	15:52:33
3	U 409.014†	15025.1	17238.5	473.36 ug/L	473.36 ppb	15:52:13
3	V 292.402†	76678.1	77336.9	498.49 ug/L	498.49 ppb	15:52:13
3	Zn 213.857†	61944.7	60496.3	491.75 ug/L	491.75 ppb	15:52:13
3	SiO2†	89131.2	87582.2	5277.3 ug/L	5277.3 ppb	15:52:48

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	909129.8	101.14	%	0.082				0.08%
Sc Radial	5496.6	98.7	%	0.76				0.77%
Y 371.029	739236.2	99.298	%	0.0350				0.04%
Y RADIAL	5806.2	98.22	%	0.552				0.56%
Ag 328.068†	113720.0	493.23	ug/L	0.387	493.23	ppb	0.387	0.08%
QC value within limits for Ag 328.068 Recovery = 98.65%								
Al 396.153Radial†	6812.7	4942.9	ug/L	27.76	4942.9	ppb	27.76	0.56%
QC value within limits for Al 396.153Radial Recovery = 98.86%								
As 188.979†	1361.8	498.69	ug/L	2.580	498.69	ppb	2.580	0.52%
QC value within limits for As 188.979 Recovery = 99.74%								
B 249.677†	23412.6	478.57	ug/L	0.310	478.57	ppb	0.310	0.06%
QC value within limits for B 249.677 Recovery = 95.71%								
Ba 233.527†	73003.3	497.46	ug/L	0.425	497.46	ppb	0.425	0.09%
QC value within limits for Ba 233.527 Recovery = 99.49%								
Be 313.107†	1467755.1	493.19	ug/L	0.168	493.19	ppb	0.168	0.03%
QC value within limits for Be 313.107 Recovery = 98.64%								
Ca 317.933Radial†	3470.6	4948.1	ug/L	61.86	4948.1	ppb	61.86	1.25%

QC value within limits for Ca 317.933Radial Recovery = 98.96%

Cd 226.502†	50753.1	496.17 ug/L	1.598	496.17 ppb	1.598	0.32%
QC value within limits for Cd 226.502 Recovery = 99.23%						
Co 228.616†	28020.4	490.65 ug/L	0.285	490.65 ppb	0.285	0.06%
QC value within limits for Co 228.616 Recovery = 98.13%						
Cr 267.716†	48751.2	495.07 ug/L	0.948	495.07 ppb	0.948	0.19%
QC value within limits for Cr 267.716 Recovery = 99.01%						
Cu 324.752†	175673.4	496.60 ug/L	0.220	496.60 ppb	0.220	0.04%
QC value within limits for Cu 324.752 Recovery = 99.32%						
Fe 238.204 Radial†	609.6	5083.1 ug/L	59.68	5083.1 ppb	59.68	1.17%
QC value within limits for Fe 238.204 Radial Recovery = 101.66%						
K 766.490 Radial†	28184.3	4958.9 ug/L	11.50	4958.9 ppb	11.50	0.23%
QC value within limits for K 766.490 Radial Recovery = 99.18%						
Mg 279.077 IEC†	166.7	5182.5 ug/L	160.31	5182.5 ppb	160.31	3.09%
QC value within limits for Mg 279.077 IEC Recovery = 103.65%						
Mn 257.610†	503213.0	496.77 ug/L	0.637	496.77 ppb	0.637	0.13%
QC value within limits for Mn 257.610 Recovery = 99.35%						
Mo 202.031†	8169.8	494.89 ug/L	1.511	494.89 ppb	1.511	0.31%
QC value within limits for Mo 202.031 Recovery = 98.98%						
Na 589.592 Radial†	32874.9	9812.2 ug/L	40.47	9812.2 ppb	40.47	0.41%
QC value within limits for Na 589.592 Radial Recovery = 98.12%						
Ni 231.604†	22518.7	491.70 ug/L	0.657	491.70 ppb	0.657	0.13%
QC value within limits for Ni 231.604 Recovery = 98.34%						
P 214.914†	4723.9	2388.8 ug/L	2.66	2388.8 ppb	2.66	0.11%
QC value within limits for P 214.914 Recovery = 95.55%						
Pb 220.353†	4740.8	501.10 ug/L	1.369	501.10 ppb	1.369	0.27%
QC value within limits for Pb 220.353 Recovery = 100.22%						
S 181.975 Axial†	803.1	984.31 ug/L	9.256	984.31 ppb	9.256	0.94%
QC value within limits for S 181.975 Axial Recovery = 98.43%						
Sb 206.836†	1638.5	497.95 ug/L	3.206	497.95 ppb	3.206	0.64%
QC value within limits for Sb 206.836 Recovery = 99.59%						
Se 196.026†	907.1	511.87 ug/L	3.239	511.87 ppb	3.239	0.63%
QC value within limits for Se 196.026 Recovery = 102.37%						
Si 251.611†	87341.9	2451.1 ug/L	2.12	2451.1 ppb	2.12	0.09%
QC value within limits for Si 251.611 Recovery = 98.04%						
Sn 189.927†	3270.6	491.10 ug/L	0.616	491.10 ppb	0.616	0.13%
QC value within limits for Sn 189.927 Recovery = 98.22%						
Sr 421.552†	85077.2	498.84 ug/L	1.366	498.84 ppb	1.366	0.27%
QC value within limits for Sr 421.552 Recovery = 99.77%						
Ti 334.940†	340538.3	492.24 ug/L	0.209	492.24 ppb	0.209	0.04%
QC value within limits for Ti 334.940 Recovery = 98.45%						
Tl 190.801†	1907.6	498.12 ug/L	2.320	498.12 ppb	2.320	0.47%
QC value within limits for Tl 190.801 Recovery = 99.62%						
U 409.014†	17151.4	470.96 ug/L	2.092	470.96 ppb	2.092	0.44%
QC value within limits for U 409.014 Recovery = 94.19%						
V 292.402†	77333.8	498.46 ug/L	0.090	498.46 ppb	0.090	0.02%
QC value within limits for V 292.402 Recovery = 99.69%						
Zn 213.857†	60573.6	492.39 ug/L	0.658	492.39 ppb	0.658	0.13%
QC value within limits for Zn 213.857 Recovery = 98.48%						
SiO2†	87731.7	5286.4 ug/L	8.99	5286.4 ppb	8.99	0.17%
QC value within limits for SiO2 Recovery = 98.86%						

All analyte(s) passed QC.

Sequence No.: 22
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 12/19/2009 15:54:59
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5502.9	5502.9	98.8	%			15:56:52
1	Y RADIAL	5861.7	5861.7	99.16	%			15:56:52
1	Al 396.153Radial†	3.3	19.7	14.337	ug/L	14.337	ppb	15:56:52
1	Ca 317.933Radial†	26.9	7.6	10.907	ug/L	10.907	ppb	15:57:12
1	Fe 238.204 Radial†	11.8	1.0	8.6196	ug/L	8.6196	ppb	15:57:12
1	K 766.490 Radial†	2797.3	117.5	20.727	ug/L	20.727	ppb	15:56:52
1	Mg 279.077 IEC†	0.6	-0.8	-25.151	ug/L	-25.151	ppb	15:57:12
1	Na 589.592 Radial†	-794.2	-41.8	-12.481	ug/L	-12.481	ppb	15:56:52
1	Sr 421.552†	24.9	37.0	0.2166	ug/L	0.2166	ppb	15:56:52
1	Sc 361.383	891223.9	891223.9	99.145	%			15:58:09
1	Y 371.029	736664.6	736664.6	98.952	%			15:58:09
1	Ag 328.068†	337.4	-29.6	-0.1232	ug/L	-0.1232	ppb	15:58:09
1	As 188.979†	-29.7	4.8	1.7548	ug/L	1.7548	ppb	15:58:29
1	B 249.677†	-334.9	-311.9	-6.4025	ug/L	-6.4025	ppb	15:58:29
1	Ba 233.527†	-1.9	0.7	0.0046	ug/L	0.0046	ppb	15:58:29
1	Be 313.107†	-4683.3	7.4	0.0027	ug/L	0.0027	ppb	15:58:09
1	Cd 226.502†	-224.2	3.0	0.0291	ug/L	0.0291	ppb	15:58:29
1	Co 228.616†	-77.7	8.7	0.1551	ug/L	0.1551	ppb	15:58:29
1	Cr 267.716†	110.3	31.1	0.3162	ug/L	0.3162	ppb	15:58:29
1	Cu 324.752†	6186.2	184.0	0.5203	ug/L	0.5203	ppb	15:58:09
1	Mn 257.610†	528.0	41.1	0.0418	ug/L	0.0418	ppb	15:58:29
1	Mo 202.031†	38.6	19.0	1.1528	ug/L	1.1528	ppb	15:58:29
1	Ni 231.604†	111.5	18.9	0.4124	ug/L	0.4124	ppb	15:58:29
1	P 214.914†	254.3	-1.5	-0.8904	ug/L	-0.8904	ppb	15:58:29
1	Pb 220.353†	-63.6	-0.1	-0.0042	ug/L	-0.0042	ppb	15:58:29
1	S 181.975 Axial†	46.9	-1.7	-2.1329	ug/L	-2.1329	ppb	15:58:29
1	Sb 206.836†	43.4	2.5	0.7788	ug/L	0.7788	ppb	15:58:29
1	Se 196.026†	-28.0	0.3	0.1964	ug/L	0.1964	ppb	15:58:29
1	Si 251.611†	657.6	85.8	2.3930	ug/L	2.3930	ppb	15:58:29
1	Sn 189.927†	4.3	0.9	0.1302	ug/L	0.1302	ppb	15:58:29
1	Ti 334.940†	-1313.7	62.6	0.0920	ug/L	0.0920	ppb	15:58:09
1	Tl 190.801†	-32.0	15.8	4.1049	ug/L	4.1049	ppb	15:58:29
1	U 409.014†	-2442.5	-91.3	-2.5176	ug/L	-2.5176	ppb	15:58:09
1	V 292.402†	-1470.9	-14.2	-0.0809	ug/L	-0.0809	ppb	15:58:09
1	Zn 213.857†	858.6	72.4	0.5908	ug/L	0.5908	ppb	15:58:29
1	SiO2†	663.1	62.1	3.7017	ug/L	3.7017	ppb	15:59:25
2	Sc Radial	5519.0	5519.0	99.1	%			15:57:17
2	Y RADIAL	5880.0	5880.0	99.47	%			15:57:17
2	Al 396.153Radial†	-17.5	-1.3	-0.9514	ug/L	-0.9514	ppb	15:57:17
2	Ca 317.933Radial†	28.3	8.9	12.759	ug/L	12.759	ppb	15:57:37
2	Fe 238.204 Radial†	8.6	-2.2	-18.688	ug/L	-18.688	ppb	15:57:37
2	K 766.490 Radial†	2738.6	50.1	8.8311	ug/L	8.8311	ppb	15:57:17
2	Mg 279.077 IEC†	-1.1	-2.5	-77.144	ug/L	-77.144	ppb	15:57:37
2	Na 589.592 Radial†	-793.3	-38.6	-11.517	ug/L	-11.517	ppb	15:57:17
2	Sr 421.552†	40.3	52.4	0.3074	ug/L	0.3074	ppb	15:57:17
2	Sc 361.383	893385.5	893385.5	99.386	%			15:58:34
2	Y 371.029	738756.3	738756.3	99.233	%			15:58:34
2	Ag 328.068†	358.0	-9.7	-0.0472	ug/L	-0.0472	ppb	15:58:34
2	As 188.979†	-38.4	-3.8	-1.3948	ug/L	-1.3948	ppb	15:58:54
2	B 249.677†	-322.6	-298.7	-6.1278	ug/L	-6.1278	ppb	15:58:54
2	Ba 233.527†	-8.4	-5.8	-0.0408	ug/L	-0.0408	ppb	15:58:54
2	Be 313.107†	-4669.3	32.9	0.0113	ug/L	0.0113	ppb	15:58:34
2	Cd 226.502†	-219.5	8.4	0.0838	ug/L	0.0838	ppb	15:58:54
2	Co 228.616†	-86.9	-0.4	-0.0064	ug/L	-0.0064	ppb	15:58:54
2	Cr 267.716†	108.0	28.5	0.2893	ug/L	0.2893	ppb	15:58:54
2	Cu 324.752†	6061.4	43.3	0.1213	ug/L	0.1213	ppb	15:58:34
2	Mn 257.610†	505.9	17.6	0.0169	ug/L	0.0169	ppb	15:58:54
2	Mo 202.031†	22.1	2.3	0.1387	ug/L	0.1387	ppb	15:58:54
2	Ni 231.604†	108.5	15.6	0.3417	ug/L	0.3417	ppb	15:58:54

2	P 214.914†	248.7	-7.8	-4.0793	ug/L	-4.0793 ppb	15:58:54
2	Pb 220.353†	-71.9	-8.3	-0.8703	ug/L	-0.8703 ppb	15:58:54
2	S 181.975 Axial†	49.0	0.3	0.3243	ug/L	0.3243 ppb	15:58:54
2	Sb 206.836†	42.8	1.8	0.5302	ug/L	0.5302 ppb	15:58:54
2	Se 196.026†	-32.4	-4.1	-2.3053	ug/L	-2.3053 ppb	15:58:54
2	Si 251.611†	649.1	75.6	2.1274	ug/L	2.1274 ppb	15:58:54
2	Sn 189.927†	1.5	-2.0	-0.2966	ug/L	-0.2966 ppb	15:58:54
2	Ti 334.940†	-1302.2	77.4	0.1137	ug/L	0.1137 ppb	15:58:34
2	Tl 190.801†	-36.6	11.3	2.9261	ug/L	2.9261 ppb	15:58:54
2	U 409.014†	-2456.3	-99.2	-2.7320	ug/L	-2.7320 ppb	15:58:34
2	V 292.402†	-1508.4	-48.3	-0.3096	ug/L	-0.3096 ppb	15:58:34
2	Zn 213.857†	854.6	66.3	0.5458	ug/L	0.5458 ppb	15:58:54
2	SiO2†	647.6	44.9	2.7095	ug/L	2.7095 ppb	15:59:30
3	Sc Radial	5457.3	5457.3	98.0	%		15:57:42
3	Y RADIAL	5794.9	5794.9	98.03	%		15:57:42
3	Al 396.153Radial†	-12.2	4.0	2.8721	ug/L	2.8721 ppb	15:57:42
3	Ca 317.933Radial†	25.1	6.0	8.5300	ug/L	8.5300 ppb	15:58:02
3	Fe 238.204 Radial†	8.6	-2.1	-17.457	ug/L	-17.457 ppb	15:58:02
3	K 766.490 Radial†	2776.5	120.0	21.168	ug/L	21.168 ppb	15:57:42
3	Mg 279.077 IEC†	2.5	1.2	36.307	ug/L	36.307 ppb	15:58:02
3	Na 589.592 Radial†	-826.2	-81.2	-24.241	ug/L	-24.241 ppb	15:57:42
3	Sr 421.552†	-5.3	6.4	0.0373	ug/L	0.0373 ppb	15:57:42
3	Sc 361.383	900010.8	900010.8	100.12	%		15:58:59
3	Y 371.029	745393.2	745393.2	100.12	%		15:58:59
3	Ag 328.068†	374.3	3.9	0.0073	ug/L	0.0073 ppb	15:58:59
3	As 188.979†	-32.4	2.5	0.9044	ug/L	0.9044 ppb	15:59:19
3	B 249.677†	-342.6	-316.2	-6.4877	ug/L	-6.4877 ppb	15:59:19
3	Ba 233.527†	-6.5	-3.9	-0.0277	ug/L	-0.0277 ppb	15:59:19
3	Be 313.107†	-4708.9	27.9	0.0098	ug/L	0.0098 ppb	15:58:59
3	Cd 226.502†	-221.9	7.6	0.0760	ug/L	0.0760 ppb	15:59:19
3	Co 228.616†	-74.2	13.0	0.2280	ug/L	0.2280 ppb	15:59:19
3	Cr 267.716†	104.9	24.6	0.2480	ug/L	0.2480 ppb	15:59:19
3	Cu 324.752†	5991.5	-71.4	-0.2025	ug/L	-0.2025 ppb	15:58:59
3	Mn 257.610†	520.2	28.1	0.0253	ug/L	0.0253 ppb	15:59:19
3	Mo 202.031†	26.6	6.7	0.4014	ug/L	0.4014 ppb	15:59:19
3	Ni 231.604†	109.3	15.6	0.3412	ug/L	0.3412 ppb	15:59:19
3	P 214.914†	248.9	-9.5	-4.9007	ug/L	-4.9007 ppb	15:59:19
3	Pb 220.353†	-83.5	-19.4	-2.0364	ug/L	-2.0364 ppb	15:59:19
3	S 181.975 Axial†	49.0	-0.1	-0.0900	ug/L	-0.0900 ppb	15:59:19
3	Sb 206.836†	43.7	2.4	0.7242	ug/L	0.7242 ppb	15:59:19
3	Se 196.026†	-38.9	-10.3	-5.6725	ug/L	-5.6725 ppb	15:59:19
3	Si 251.611†	652.0	73.8	2.0645	ug/L	2.0645 ppb	15:59:19
3	Sn 189.927†	6.9	3.4	0.5116	ug/L	0.5116 ppb	15:59:19
3	Ti 334.940†	-1239.3	149.8	0.2155	ug/L	0.2155 ppb	15:58:59
3	Tl 190.801†	-25.5	22.6	5.8597	ug/L	5.8597 ppb	15:59:19
3	U 409.014†	-2253.1	121.9	3.3591	ug/L	3.3591 ppb	15:58:59
3	V 292.402†	-1499.1	-27.9	-0.1619	ug/L	-0.1619 ppb	15:58:59
3	Zn 213.857†	866.5	71.8	0.5877	ug/L	0.5877 ppb	15:59:19
3	SiO2†	625.5	18.1	1.0595	ug/L	1.0595 ppb	15:59:35

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	894873.4	99.551	%	0.5093				0.51%
Sc Radial	5493.1	98.7	%	0.57				0.58%
Y 371.029	740271.4	99.437	%	0.6122				0.62%
Y RADIAL	5845.5	98.89	%	0.758				0.77%
Ag 328.068†	-11.8	-0.0544	ug/L	0.06559	-0.0544	ppb	0.06559	120.61%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	7.5	5.4193	ug/L	7.95634	5.4193	ppb	7.95634	146.81%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	1.2	0.4215	ug/L	1.62939	0.4215	ppb	1.62939	386.57%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-308.9	-6.3393	ug/L	0.18808	-6.3393	ppb	0.18808	2.97%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-3.0	-0.0213	ug/L	0.02339	-0.0213	ppb	0.02339	109.83%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	22.8	0.0079	ug/L	0.00460	0.0079	ppb	0.00460	58.18%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	7.5	10.732	ug/L	2.1197	10.732	ppb	2.1197	19.75%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                 6.3      0.0630 ug/L       0.02956      0.0630 ppb        0.02956  46.94%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                 7.1      0.1256 ug/L       0.11999      0.1256 ppb        0.11999  95.56%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                28.1      0.2845 ug/L       0.03437      0.2845 ppb        0.03437  12.08%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†                52.0      0.1463 ug/L       0.36204      0.1463 ppb        0.36204 247.39%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -1.1     -9.1751 ug/L      15.42291     -9.1751 ppb       15.42291 168.10%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          95.9      16.909 ug/L        6.9991      16.909 ppb         6.9991  41.39%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -0.7     -21.996 ug/L       56.7914     -21.996 ppb       56.7914 258.19%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                28.9      0.0280 ug/L       0.01267      0.0280 ppb        0.01267  45.24%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 9.3      0.5643 ug/L       0.52630      0.5643 ppb        0.52630  93.27%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        -53.9     -16.080 ug/L        7.0842     -16.080 ppb         7.0842  44.06%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                16.7      0.3651 ug/L       0.04097      0.3651 ppb        0.04097  11.22%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -6.3     -3.2902 ug/L       2.11844     -3.2902 ppb        2.11844  64.39%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -9.2     -0.9703 ug/L       1.01980     -0.9703 ppb        1.01980 105.10%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -0.5     -0.6329 ug/L       1.31546     -0.6329 ppb        1.31546 207.86%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 2.2      0.6777 ug/L       0.13065      0.6777 ppb        0.13065  19.28%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -4.7     -2.5938 ug/L       2.94507     -2.5938 ppb        2.94507 113.54%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                78.4      2.1950 ug/L       0.17434      2.1950 ppb        0.17434   7.94%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 0.8      0.1151 ug/L       0.40430      0.1151 ppb        0.40430 351.28%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                31.9      0.1871 ug/L       0.13745      0.1871 ppb        0.13745  73.45%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                96.6      0.1404 ug/L       0.06592      0.1404 ppb        0.06592  46.95%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                16.6      4.2969 ug/L       1.47619      4.2969 ppb        1.47619  34.35%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                -22.9     -0.6302 ug/L       3.45647     -0.6302 ppb        3.45647 548.50%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                -30.1     -0.1841 ug/L       0.11592     -0.1841 ppb        0.11592  62.95%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                70.2      0.5748 ug/L       0.02512      0.5748 ppb        0.02512   4.37%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                      41.7      2.4902 ug/L       1.33465      2.4902 ppb        1.33465  53.60%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 29
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 12/19/2009 16:42:50
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5581.6	5581.6	100	%			16:44:42
1	Y RADIAL	5900.6	5900.6	99.82	%			16:44:42
1	Al 396.153Radial†	6852.1	6850.9	4970.5	ug/L	4970.5	ppb	16:44:42
1	Ca 317.933Radial†	3449.8	3421.4	4877.9	ug/L	4877.9	ppb	16:45:02
1	Fe 238.204 Radial†	602.2	589.7	4918.2	ug/L	4918.2	ppb	16:45:02
1	K 766.490 Radial†	31002.7	28210.7	4963.6	ug/L	4963.6	ppb	16:44:42
1	Mg 279.077 IEC†	166.6	164.7	5120.9	ug/L	5120.9	ppb	16:45:02
1	Na 589.592 Radial†	31298.6	31979.9	9545.1	ug/L	9545.1	ppb	16:44:42
1	Sr 421.552†	84337.7	84133.0	493.30	ug/L	493.30	ppb	16:44:42
1	Sc 361.383	902282.5	902282.5	100.38	%			16:46:01
1	Y 371.029	733344.9	733344.9	98.506	%			16:46:01
1	Ag 328.068†	115367.1	114565.9	496.84	ug/L	496.84	ppb	16:46:01
1	As 188.979†	1340.1	1369.9	501.62	ug/L	501.62	ppb	16:46:21
1	B 249.677†	23585.9	23523.7	480.86	ug/L	480.86	ppb	16:46:01
1	Ba 233.527†	73941.7	73667.8	501.98	ug/L	501.98	ppb	16:46:01
1	Be 313.107†	1482335.9	1481524.6	497.82	ug/L	497.82	ppb	16:46:01
1	Cd 226.502†	51321.4	51358.7	502.11	ug/L	502.11	ppb	16:46:01
1	Co 228.616†	28384.4	28365.4	496.70	ug/L	496.70	ppb	16:46:21
1	Cr 267.716†	49494.7	49229.5	499.92	ug/L	499.92	ppb	16:46:01
1	Cu 324.752†	183556.8	176814.9	499.82	ug/L	499.82	ppb	16:46:01
1	Mn 257.610†	509896.9	507498.9	500.98	ug/L	500.98	ppb	16:46:01
1	Mo 202.031†	8333.5	8282.5	501.70	ug/L	501.70	ppb	16:46:21
1	Ni 231.604†	22978.2	22798.7	497.81	ug/L	497.81	ppb	16:46:21
1	P 214.914†	5065.8	4788.8	2422.4	ug/L	2422.4	ppb	16:46:21
1	Pb 220.353†	4736.3	4782.7	505.55	ug/L	505.55	ppb	16:46:21
1	S 181.975 Axial†	850.6	798.4	978.48	ug/L	978.48	ppb	16:46:21
1	Sb 206.836†	1720.3	1672.6	508.34	ug/L	508.34	ppb	16:46:21
1	Se 196.026†	901.2	926.4	521.90	ug/L	521.90	ppb	16:46:21
1	Si 251.611†	89013.0	88102.7	2472.4	ug/L	2472.4	ppb	16:46:01
1	Sn 189.927†	3332.0	3316.1	497.91	ug/L	497.91	ppb	16:46:21
1	Ti 334.940†	342769.3	342875.3	495.61	ug/L	495.61	ppb	16:46:01
1	Tl 190.801†	1894.1	1935.1	505.25	ug/L	505.25	ppb	16:46:21
1	U 409.014†	14825.1	17141.9	470.71	ug/L	470.71	ppb	16:46:01
1	V 292.402†	76764.1	77946.5	502.47	ug/L	502.47	ppb	16:46:01
1	Zn 213.857†	62252.1	61225.8	497.72	ug/L	497.72	ppb	16:46:01
1	SiO2†	89124.2	88184.3	5313.5	ug/L	5313.5	ppb	16:47:22
2	Sc Radial	5701.2	5701.2	102	%			16:45:07
2	Y RADIAL	6016.2	6016.2	101.8	%			16:45:07
2	Al 396.153Radial†	6768.8	6626.1	4806.7	ug/L	4806.7	ppb	16:45:07
2	Ca 317.933Radial†	3404.9	3305.3	4712.4	ug/L	4712.4	ppb	16:45:27
2	Fe 238.204 Radial†	591.6	566.8	4727.4	ug/L	4727.4	ppb	16:45:27
2	K 766.490 Radial†	30510.3	27081.1	4764.7	ug/L	4764.7	ppb	16:45:07
2	Mg 279.077 IEC†	162.3	157.1	4885.1	ug/L	4885.1	ppb	16:45:27
2	Na 589.592 Radial†	30684.4	30725.1	9170.6	ug/L	9170.6	ppb	16:45:07
2	Sr 421.552†	83411.7	81463.9	477.65	ug/L	477.65	ppb	16:45:07
2	Sc 361.383	901296.6	901296.6	100.27	%			16:46:29
2	Y 371.029	732977.0	732977.0	98.457	%			16:46:29
2	Ag 328.068†	115282.6	114607.2	496.95	ug/L	496.95	ppb	16:46:29
2	As 188.979†	1354.0	1385.2	507.14	ug/L	507.14	ppb	16:46:49
2	B 249.677†	23604.3	23567.7	481.79	ug/L	481.79	ppb	16:46:29
2	Ba 233.527†	73706.5	73513.8	500.93	ug/L	500.93	ppb	16:46:29
2	Be 313.107†	1480885.1	1481693.2	497.88	ug/L	497.88	ppb	16:46:29
2	Cd 226.502†	51119.2	51213.0	500.70	ug/L	500.70	ppb	16:46:29
2	Co 228.616†	28373.4	28385.3	497.05	ug/L	497.05	ppb	16:46:49
2	Cr 267.716†	49433.9	49222.8	499.85	ug/L	499.85	ppb	16:46:29
2	Cu 324.752†	183873.1	177330.4	501.26	ug/L	501.26	ppb	16:46:29
2	Mn 257.610†	508843.8	507004.3	500.47	ug/L	500.47	ppb	16:46:29
2	Mo 202.031†	8321.3	8279.4	501.49	ug/L	501.49	ppb	16:46:49
2	Ni 231.604†	22965.2	22810.8	498.08	ug/L	498.08	ppb	16:46:49

2	P 214.914†	5064.2	4792.7	2424.4 ug/L	2424.4 ppb		16:46:49
2	Pb 220.353†	4742.9	4794.4	506.76 ug/L	506.76 ppb		16:46:49
2	S 181.975 Axial†	859.4	808.1	990.43 ug/L	990.43 ppb		16:46:49
2	Sb 206.836†	1711.8	1666.1	506.46 ug/L	506.46 ppb		16:46:49
2	Se 196.026†	887.2	913.4	514.21 ug/L	514.21 ppb		16:46:49
2	Si 251.611†	88668.9	87856.5	2465.5 ug/L	2465.5 ppb		16:46:29
2	Sn 189.927†	3363.9	3351.5	503.21 ug/L	503.21 ppb		16:46:49
2	Ti 334.940†	342638.2	343118.1	495.95 ug/L	495.95 ppb		16:46:29
2	Tl 190.801†	1891.4	1934.5	505.08 ug/L	505.08 ppb		16:46:49
2	U 409.014†	14971.2	17303.8	475.20 ug/L	475.20 ppb		16:46:29
2	V 292.402†	76688.9	77955.2	502.56 ug/L	502.56 ppb		16:46:29
2	Zn 213.857†	62114.2	61156.1	497.17 ug/L	497.17 ppb		16:46:29
2	SiO2†	88702.1	87860.4	5294.0 ug/L	5294.0 ppb		16:47:27
3	Sc Radial	5661.8	5661.8	102 %			16:45:33
3	Y RADIAL	5973.2	5973.2	101.0 %			16:45:33
3	Al 396.153Radial†	6819.7	6722.2	4876.9 ug/L	4876.9 ppb		16:45:33
3	Ca 317.933Radial†	3477.2	3399.6	4846.8 ug/L	4846.8 ppb		16:45:53
3	Fe 238.204 Radial†	605.1	584.1	4871.2 ug/L	4871.2 ppb		16:45:53
3	K 766.490 Radial†	30860.2	27632.5	4861.8 ug/L	4861.8 ppb		16:45:33
3	Mg 279.077 IEC†	164.2	160.0	4974.5 ug/L	4974.5 ppb		16:45:53
3	Na 589.592 Radial†	30863.5	31109.8	9285.4 ug/L	9285.4 ppb		16:45:33
3	Sr 421.552†	84014.4	82623.2	484.45 ug/L	484.45 ppb		16:45:33
3	Sc 361.383	903722.1	903722.1	100.54 %			16:46:56
3	Y 371.029	734881.8	734881.8	98.713 %			16:46:56
3	Ag 328.068†	115519.5	114534.4	496.69 ug/L	496.69 ppb		16:46:56
3	As 188.979†	1335.5	1363.2	499.19 ug/L	499.19 ppb		16:47:16
3	B 249.677†	23705.9	23605.6	482.55 ug/L	482.55 ppb		16:46:56
3	Ba 233.527†	73823.1	73432.5	500.38 ug/L	500.38 ppb		16:46:56
3	Be 313.107†	1481402.3	1478243.4	496.72 ug/L	496.72 ppb		16:46:56
3	Cd 226.502†	51023.0	50980.4	498.41 ug/L	498.41 ppb		16:46:56
3	Co 228.616†	28222.8	28159.6	493.09 ug/L	493.09 ppb		16:47:16
3	Cr 267.716†	49381.1	49038.0	497.98 ug/L	497.98 ppb		16:46:56
3	Cu 324.752†	184303.5	177266.4	501.09 ug/L	501.09 ppb		16:46:56
3	Mn 257.610†	509275.6	506071.7	499.57 ug/L	499.57 ppb		16:46:56
3	Mo 202.031†	8279.2	8215.3	497.63 ug/L	497.63 ppb		16:47:16
3	Ni 231.604†	22896.3	22680.7	495.24 ug/L	495.24 ppb		16:47:16
3	P 214.914†	5028.0	4743.2	2398.4 ug/L	2398.4 ppb		16:47:16
3	Pb 220.353†	4713.2	4752.2	502.30 ug/L	502.30 ppb		16:47:16
3	S 181.975 Axial†	851.5	798.0	977.99 ug/L	977.99 ppb		16:47:16
3	Sb 206.836†	1710.5	1660.2	504.56 ug/L	504.56 ppb		16:47:16
3	Se 196.026†	887.7	911.5	513.62 ug/L	513.62 ppb		16:47:16
3	Si 251.611†	88817.0	87766.5	2463.0 ug/L	2463.0 ppb		16:46:56
3	Sn 189.927†	3337.5	3316.3	497.94 ug/L	497.94 ppb		16:47:16
3	Ti 334.940†	343209.3	342769.0	495.46 ug/L	495.46 ppb		16:46:56
3	Tl 190.801†	1890.5	1928.5	503.56 ug/L	503.56 ppb		16:47:16
3	U 409.014†	14851.3	17144.4	470.79 ug/L	470.79 ppb		16:46:56
3	V 292.402†	76848.9	77909.0	502.18 ug/L	502.18 ppb		16:46:56
3	Zn 213.857†	62075.9	60951.8	495.49 ug/L	495.49 ppb		16:46:56
3	SiO2†	89335.9	88253.5	5317.9 ug/L	5317.9 ppb		16:47:32

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	902433.7	100.39	%	0.136				0.14%
Sc Radial	5648.2	101	%	1.1				1.08%
Y 371.029	733734.6	98.559	%	0.1357				0.14%
Y RADIAL	5963.3	100.9	%	0.99				0.98%
Ag 328.068†	114569.2	496.83	ug/L	0.133	496.83	ppb	0.133	0.03%
QC value within limits for Ag 328.068 Recovery = 99.37%								
Al 396.153Radial†	6733.1	4884.7	ug/L	82.17	4884.7	ppb	82.17	1.68%
QC value within limits for Al 396.153Radial Recovery = 97.69%								
As 188.979†	1372.8	502.65	ug/L	4.077	502.65	ppb	4.077	0.81%
QC value within limits for As 188.979 Recovery = 100.53%								
B 249.677†	23565.6	481.73	ug/L	0.849	481.73	ppb	0.849	0.18%
QC value within limits for B 249.677 Recovery = 96.35%								
Ba 233.527†	73538.1	501.09	ug/L	0.814	501.09	ppb	0.814	0.16%
QC value within limits for Ba 233.527 Recovery = 100.22%								
Be 313.107†	1480487.1	497.47	ug/L	0.653	497.47	ppb	0.653	0.13%
QC value within limits for Be 313.107 Recovery = 99.49%								
Ca 317.933Radial†	3375.4	4812.4	ug/L	87.96	4812.4	ppb	87.96	1.83%

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   QC value within limits for Ca 317.933Radial  Recovery = 96.25%
Cd 226.502†            51184.0      500.41 ug/L         1.866      500.41 ppb          1.866   0.37%
   QC value within limits for Cd 226.502  Recovery = 100.08%
Co 228.616†            28303.4      495.61 ug/L         2.193      495.61 ppb          2.193   0.44%
   QC value within limits for Co 228.616  Recovery = 99.12%
Cr 267.716†            49163.4      499.25 ug/L         1.101      499.25 ppb          1.101   0.22%
   QC value within limits for Cr 267.716  Recovery = 99.85%
Cu 324.752†           177137.2      500.72 ug/L         0.790      500.72 ppb          0.790   0.16%
   QC value within limits for Cu 324.752  Recovery = 100.14%
Fe 238.204 Radial†       580.2      4838.9 ug/L        99.38      4838.9 ppb         99.38   2.05%
   QC value within limits for Fe 238.204 Radial  Recovery = 96.78%
K 766.490 Radial†      27641.4      4863.4 ug/L        99.47      4863.4 ppb         99.47   2.05%
   QC value within limits for K 766.490 Radial  Recovery = 97.27%
Mg 279.077 IEC†          160.6      4993.5 ug/L       119.03      4993.5 ppb        119.03   2.38%
   QC value within limits for Mg 279.077 IEC  Recovery = 99.87%
Mn 257.610†           506858.3      500.34 ug/L         0.714      500.34 ppb          0.714   0.14%
   QC value within limits for Mn 257.610  Recovery = 100.07%
Mo 202.031†             8259.0      500.27 ug/L         2.295      500.27 ppb          2.295   0.46%
   QC value within limits for Mo 202.031  Recovery = 100.05%
Na 589.592 Radial†     31271.6      9333.7 ug/L       191.86      9333.7 ppb        191.86   2.06%
   QC value within limits for Na 589.592 Radial  Recovery = 93.34%
Ni 231.604†            22763.4      497.04 ug/L         1.568      497.04 ppb          1.568   0.32%
   QC value within limits for Ni 231.604  Recovery = 99.41%
P 214.914†              4774.9      2415.0 ug/L        14.46      2415.0 ppb         14.46   0.60%
   QC value within limits for P 214.914  Recovery = 96.60%
Pb 220.353†             4776.4      504.87 ug/L         2.303      504.87 ppb          2.303   0.46%
   QC value within limits for Pb 220.353  Recovery = 100.97%
S 181.975 Axial†         801.5      982.30 ug/L         7.047      982.30 ppb          7.047   0.72%
   QC value within limits for S 181.975 Axial  Recovery = 98.23%
Sb 206.836†             1666.3      506.45 ug/L         1.892      506.45 ppb          1.892   0.37%
   QC value within limits for Sb 206.836  Recovery = 101.29%
Se 196.026†              917.1      516.58 ug/L         4.624      516.58 ppb          4.624   0.90%
   QC value within limits for Se 196.026  Recovery = 103.32%
Si 251.611†            87908.6      2467.0 ug/L         4.86      2467.0 ppb           4.86   0.20%
   QC value within limits for Si 251.611  Recovery = 98.68%
Sn 189.927†             3328.0      499.69 ug/L         3.050      499.69 ppb          3.050   0.61%
   QC value within limits for Sn 189.927  Recovery = 99.94%
Sr 421.552†            82740.0      485.13 ug/L         7.847      485.13 ppb          7.847   1.62%
   QC value within limits for Sr 421.552  Recovery = 97.03%
Ti 334.940†           342920.8      495.68 ug/L         0.253      495.68 ppb          0.253   0.05%
   QC value within limits for Ti 334.940  Recovery = 99.14%
Tl 190.801†             1932.7      504.63 ug/L         0.932      504.63 ppb          0.932   0.18%
   QC value within limits for Tl 190.801  Recovery = 100.93%
U 409.014†             17196.7      472.23 ug/L         2.567      472.23 ppb          2.567   0.54%
   QC value within limits for U 409.014  Recovery = 94.45%
V 292.402†             77936.9      502.40 ug/L         0.197      502.40 ppb          0.197   0.04%
   QC value within limits for V 292.402  Recovery = 100.48%
Zn 213.857†            61111.2      496.79 ug/L         1.158      496.79 ppb          1.158   0.23%
   QC value within limits for Zn 213.857  Recovery = 99.36%
SiO2†                  88099.4      5308.4 ug/L        12.72      5308.4 ppb         12.72   0.24%
   QC value within limits for SiO2  Recovery = 99.27%
All analyte(s) passed QC.
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Sequence No.: 30
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 12/19/2009 16:49:41
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5356.2	5356.2	96.2	%			16:51:34
1	Y RADIAL	5696.5	5696.5	96.36	%			16:51:34
1	Al 396.153Radial†	-30.5	-15.3	-11.178	ug/L	-11.178	ppb	16:51:34
1	Ca 317.933Radial†	26.2	7.6	10.871	ug/L	10.871	ppb	16:51:54
1	Fe 238.204 Radial†	10.0	-0.5	-4.0367	ug/L	-4.0367	ppb	16:51:54
1	K 766.490 Radial†	2948.5	352.3	62.097	ug/L	62.097	ppb	16:51:34
1	Mg 279.077 IEC†	2.1	0.8	24.492	ug/L	24.492	ppb	16:51:54
1	Na 589.592 Radial†	-791.8	-61.3	-18.301	ug/L	-18.301	ppb	16:51:34
1	Sr 421.552†	21.1	33.8	0.1979	ug/L	0.1979	ppb	16:51:34
1	Sc 361.383	901341.2	901341.2	100.27	%			16:52:51
1	Y 371.029	747084.1	747084.1	100.35	%			16:52:51
1	Ag 328.068†	441.6	70.5	0.3030	ug/L	0.3030	ppb	16:52:51
1	As 188.979†	-30.5	4.4	1.5941	ug/L	1.5941	ppb	16:53:11
1	B 249.677†	-432.7	-405.6	-8.3225	ug/L	-8.3225	ppb	16:53:11
1	Ba 233.527†	-2.5	0.1	-0.0001	ug/L	-0.0001	ppb	16:53:11
1	Be 313.107†	-4667.7	76.1	0.0257	ug/L	0.0257	ppb	16:52:51
1	Cd 226.502†	-221.9	7.9	0.0774	ug/L	0.0774	ppb	16:53:11
1	Co 228.616†	-90.5	-3.1	-0.0544	ug/L	-0.0544	ppb	16:53:11
1	Cr 267.716†	81.7	1.3	0.0130	ug/L	0.0130	ppb	16:53:11
1	Cu 324.752†	6027.8	-44.1	-0.1247	ug/L	-0.1247	ppb	16:52:51
1	Mn 257.610†	523.8	30.9	0.0296	ug/L	0.0296	ppb	16:53:11
1	Mo 202.031†	25.2	5.2	0.3155	ug/L	0.3155	ppb	16:53:11
1	Ni 231.604†	105.8	11.9	0.2611	ug/L	0.2611	ppb	16:53:11
1	P 214.914†	257.3	-1.5	-0.7251	ug/L	-0.7251	ppb	16:53:11
1	Pb 220.353†	-66.0	-1.8	-0.1866	ug/L	-0.1866	ppb	16:53:11
1	S 181.975 Axial†	43.6	-5.5	-6.7828	ug/L	-6.7828	ppb	16:53:11
1	Sb 206.836†	25.8	-15.5	-4.5984	ug/L	-4.5984	ppb	16:53:11
1	Se 196.026†	-34.2	-5.6	-3.0630	ug/L	-3.0630	ppb	16:53:11
1	Si 251.611†	633.5	54.3	1.5008	ug/L	1.5008	ppb	16:53:11
1	Sn 189.927†	13.0	9.5	1.4191	ug/L	1.4191	ppb	16:53:11
1	Ti 334.940†	-1333.8	57.4	0.0846	ug/L	0.0846	ppb	16:52:51
1	Tl 190.801†	-32.5	15.7	4.0721	ug/L	4.0721	ppb	16:53:11
1	U 409.014†	-2461.3	-82.5	-2.2713	ug/L	-2.2713	ppb	16:52:51
1	V 292.402†	-1529.1	-55.5	-0.3520	ug/L	-0.3520	ppb	16:52:51
1	Zn 213.857†	846.2	50.4	0.4110	ug/L	0.4110	ppb	16:53:11
1	SiO2†	680.0	71.5	4.2611	ug/L	4.2611	ppb	16:54:07
2	Sc Radial	5592.1	5592.1	100	%			16:51:59
2	Y RADIAL	5949.9	5949.9	100.7	%			16:51:59
2	Al 396.153Radial†	-19.8	-3.3	-2.4472	ug/L	-2.4472	ppb	16:51:59
2	Ca 317.933Radial†	31.9	12.1	17.321	ug/L	17.321	ppb	16:52:19
2	Fe 238.204 Radial†	11.4	0.5	4.1575	ug/L	4.1575	ppb	16:52:19
2	K 766.490 Radial†	2781.3	56.6	9.9699	ug/L	9.9699	ppb	16:51:59
2	Mg 279.077 IEC†	4.1	2.7	82.457	ug/L	82.457	ppb	16:52:19
2	Na 589.592 Radial†	-766.5	-1.4	-0.4208	ug/L	-0.4208	ppb	16:51:59
2	Sr 421.552†	28.6	40.3	0.2359	ug/L	0.2359	ppb	16:51:59
2	Sc 361.383	904486.1	904486.1	100.62	%			16:53:16
2	Y 371.029	748570.8	748570.8	100.55	%			16:53:16
2	Ag 328.068†	408.0	35.6	0.1552	ug/L	0.1552	ppb	16:53:16
2	As 188.979†	-28.5	6.5	2.3731	ug/L	2.3731	ppb	16:53:36
2	B 249.677†	-355.2	-327.1	-6.7128	ug/L	-6.7128	ppb	16:53:36
2	Ba 233.527†	-4.2	-1.6	-0.0109	ug/L	-0.0109	ppb	16:53:36
2	Be 313.107†	-4690.6	69.5	0.0234	ug/L	0.0234	ppb	16:53:16
2	Cd 226.502†	-218.7	11.8	0.1150	ug/L	0.1150	ppb	16:53:36
2	Co 228.616†	-80.9	6.7	0.1178	ug/L	0.1178	ppb	16:53:36
2	Cr 267.716†	121.5	40.6	0.4120	ug/L	0.4120	ppb	16:53:36
2	Cu 324.752†	6129.6	36.3	0.1027	ug/L	0.1027	ppb	16:53:16
2	Mn 257.610†	517.2	22.5	0.0211	ug/L	0.0211	ppb	16:53:36
2	Mo 202.031†	29.1	9.0	0.5480	ug/L	0.5480	ppb	16:53:36
2	Ni 231.604†	104.1	9.9	0.2161	ug/L	0.2161	ppb	16:53:36

2	P 214.914†	240.5	-19.1	-9.9832 ug/L	-9.9832 ppb	16:53:36
2	Pb 220.353†	-83.2	-18.6	-1.9647 ug/L	-1.9647 ppb	16:53:36
2	S 181.975 Axial†	54.1	4.7	5.8192 ug/L	5.8192 ppb	16:53:36
2	Sb 206.836†	41.4	-0.0	-0.0181 ug/L	-0.0181 ppb	16:53:36
2	Se 196.026†	-22.2	6.4	3.5270 ug/L	3.5270 ppb	16:53:36
2	Si 251.611†	636.9	55.5	1.5531 ug/L	1.5531 ppb	16:53:36
2	Sn 189.927†	0.6	-2.9	-0.4300 ug/L	-0.4300 ppb	16:53:36
2	Ti 334.940†	-1367.0	29.0	0.0432 ug/L	0.0432 ppb	16:53:16
2	Tl 190.801†	-46.8	1.5	0.3983 ug/L	0.3983 ppb	16:53:36
2	U 409.014†	-2432.5	-45.3	-1.2501 ug/L	-1.2501 ppb	16:53:16
2	V 292.402†	-1489.0	-10.4	-0.0599 ug/L	-0.0599 ppb	16:53:16
2	Zn 213.857†	855.6	56.8	0.4613 ug/L	0.4613 ppb	16:53:36
2	SiO2†	665.1	54.4	3.2668 ug/L	3.2668 ppb	16:54:12
3	Sc Radial	5629.6	5629.6	101 %		16:52:24
3	Y RADIAL	6005.7	6005.7	101.6 %		16:52:24
3	Al 396.153Radial†	-7.1	9.4	6.8037 ug/L	6.8037 ppb	16:52:24
3	Ca 317.933Radial†	30.4	10.5	14.952 ug/L	14.952 ppb	16:52:44
3	Fe 238.204 Radial†	10.4	-0.6	-4.6195 ug/L	-4.6195 ppb	16:52:44
3	K 766.490 Radial†	2850.6	106.6	18.797 ug/L	18.797 ppb	16:52:24
3	Mg 279.077 IEC†	2.3	0.9	28.577 ug/L	28.577 ppb	16:52:44
3	Na 589.592 Radial†	-820.3	-49.5	-14.786 ug/L	-14.786 ppb	16:52:24
3	Sr 421.552†	23.9	35.4	0.2076 ug/L	0.2076 ppb	16:52:24
3	Sc 361.383	898232.8	898232.8	99.925 %		16:53:41
3	Y 371.029	744253.0	744253.0	99.972 %		16:53:41
3	Ag 328.068†	289.1	-80.6	-0.3460 ug/L	-0.3460 ppb	16:53:41
3	As 188.979†	-20.9	13.9	5.0532 ug/L	5.0532 ppb	16:54:01
3	B 249.677†	-391.6	-366.0	-7.5102 ug/L	-7.5102 ppb	16:54:01
3	Ba 233.527†	-3.5	-0.9	-0.0054 ug/L	-0.0054 ppb	16:54:01
3	Be 313.107†	-4718.3	9.2	0.0031 ug/L	0.0031 ppb	16:53:41
3	Cd 226.502†	-215.7	13.3	0.1312 ug/L	0.1312 ppb	16:54:01
3	Co 228.616†	-83.2	3.9	0.0702 ug/L	0.0702 ppb	16:54:01
3	Cr 267.716†	94.0	13.9	0.1422 ug/L	0.1422 ppb	16:54:01
3	Cu 324.752†	6171.6	120.6	0.3406 ug/L	0.3406 ppb	16:53:41
3	Mn 257.610†	535.5	44.4	0.0428 ug/L	0.0428 ppb	16:54:01
3	Mo 202.031†	35.5	15.7	0.9477 ug/L	0.9477 ppb	16:54:01
3	Ni 231.604†	118.5	25.0	0.5457 ug/L	0.5457 ppb	16:54:01
3	P 214.914†	255.8	-2.1	-1.1233 ug/L	-1.1233 ppb	16:54:01
3	Pb 220.353†	-79.6	-15.6	-1.6435 ug/L	-1.6435 ppb	16:54:01
3	S 181.975 Axial†	52.0	3.0	3.7069 ug/L	3.7069 ppb	16:54:01
3	Sb 206.836†	45.7	4.5	1.3815 ug/L	1.3815 ppb	16:54:01
3	Se 196.026†	-25.6	2.9	1.5906 ug/L	1.5906 ppb	16:54:01
3	Si 251.611†	634.5	57.5	1.5951 ug/L	1.5951 ppb	16:54:01
3	Sn 189.927†	11.0	7.5	1.1278 ug/L	1.1278 ppb	16:54:01
3	Ti 334.940†	-1383.7	2.8	0.0057 ug/L	0.0057 ppb	16:53:41
3	Tl 190.801†	-40.3	7.7	2.0025 ug/L	2.0025 ppb	16:54:01
3	U 409.014†	-2445.3	-74.9	-2.0639 ug/L	-2.0639 ppb	16:53:41
3	V 292.402†	-1423.1	45.2	0.2984 ug/L	0.2984 ppb	16:53:41
3	Zn 213.857†	852.2	59.3	0.4823 ug/L	0.4823 ppb	16:54:01
3	SiO2†	635.0	28.8	1.6888 ug/L	1.6888 ppb	16:54:17

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	901353.4	100.27	%	0.348				0.35%
Sc Radial	5526.0	99.3	%	2.66				2.68%
Y 371.029	746636.0	100.29	%	0.295				0.29%
Y RADIAL	5884.0	99.54	%	2.788				2.80%
Ag 328.068†	8.5	0.0374	ug/L	0.34017	0.0374	ppb	0.34017	909.61%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-3.1	-2.2739	ug/L	8.99212	-2.2739	ppb	8.99212	395.46%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	8.3	3.0068	ug/L	1.81450	3.0068	ppb	1.81450	60.35%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-366.2	-7.5152	ug/L	0.80485	-7.5152	ppb	0.80485	10.71%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-0.8	-0.0055	ug/L	0.00541	-0.0055	ppb	0.00541	98.56%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	51.6	0.0174	ug/L	0.01242	0.0174	ppb	0.01242	71.43%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	10.1	14.381	ug/L	3.2628	14.381	ppb	3.2628	22.69%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                11.0      0.1079 ug/L       0.02763      0.1079 ppb        0.02763  25.61%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                 2.5      0.0445 ug/L       0.08887      0.0445 ppb        0.08887 199.64%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                18.6      0.1890 ug/L       0.20357      0.1890 ppb        0.20357 107.69%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†                37.6      0.1062 ug/L       0.23269      0.1062 ppb        0.23269 219.13%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -0.2     -1.4996 ug/L       4.90783     -1.4996 ppb        4.90783 327.28%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         171.8      30.288 ug/L      27.8987      30.288 ppb        27.8987  92.11%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             1.5      45.175 ug/L      32.3515      45.175 ppb        32.3515  71.61%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                32.6      0.0312 ug/L       0.01093      0.0312 ppb        0.01093  35.04%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                10.0      0.6037 ug/L       0.31976      0.6037 ppb        0.31976  52.97%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        -37.4     -11.169 ug/L       9.4730     -11.169 ppb         9.4730  84.81%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                15.6      0.3410 ug/L       0.17875      0.3410 ppb        0.17875  52.42%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -7.5     -3.9439 ug/L       5.23400     -3.9439 ppb        5.23400 132.71%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               -12.0     -1.2649 ug/L       0.94759     -1.2649 ppb        0.94759  74.91%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            0.7      0.9144 ug/L       6.74914      0.9144 ppb        6.74914 738.06%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                -3.7     -1.0783 ug/L       3.12772     -1.0783 ppb        3.12772 290.05%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 1.3      0.6849 ug/L       3.38706      0.6849 ppb        3.38706 494.56%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                55.8      1.5497 ug/L       0.04723      1.5497 ppb        0.04723   3.05%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 4.7      0.7056 ug/L       0.99423      0.7056 ppb        0.99423 140.90%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                36.5      0.2138 ug/L       0.01977      0.2138 ppb        0.01977   9.25%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                29.7      0.0445 ug/L       0.03944      0.0445 ppb        0.03944  88.61%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 8.3      2.1577 ug/L       1.84182      2.1577 ppb        1.84182  85.36%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                -67.6     -1.8618 ug/L       0.53976     -1.8618 ppb        0.53976  28.99%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 -6.9     -0.0378 ug/L       0.32577     -0.0378 ppb        0.32577 860.84%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                55.5      0.4515 ug/L       0.03659      0.4515 ppb        0.03659   8.10%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                      51.6      3.0722 ug/L       1.29713      3.0722 ppb        1.29713  42.22%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 36
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 12/19/2009 17:30:40
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	6232.9	6232.9	112	%			17:32:32
1	Y RADIAL	6556.3	6556.3	110.9	%			17:32:32
1	Al 396.153Radial†	6769.6	6063.1	4396.7	ug/L	4396.7	ppb	17:32:32
1	Ca 317.933Radial†	3480.7	3089.4	4404.7	ug/L	4404.7	ppb	17:32:52
1	Fe 238.204 Radial†	608.0	532.2	4440.0	ug/L	4440.0	ppb	17:32:52
1	K 766.490 Radial†	30508.1	24537.8	4316.6	ug/L	4316.6	ppb	17:32:32
1	Mg 279.077 IEC†	167.8	148.5	4617.3	ug/L	4617.3	ppb	17:32:52
1	Na 589.592 Radial†	31462.1	28864.0	8615.1	ug/L	8615.1	ppb	17:32:32
1	Sr 421.552†	84122.0	75150.7	440.63	ug/L	440.63	ppb	17:32:32
1	Sc 361.383	909689.5	909689.5	101.20	%			17:33:50
1	Y 371.029	740657.6	740657.6	99.489	%			17:33:50
1	Ag 328.068†	118953.9	117174.3	507.94	ug/L	507.94	ppb	17:33:55
1	As 188.979†	1367.4	1386.0	507.44	ug/L	507.44	ppb	17:34:15
1	B 249.677†	24326.1	24063.7	491.97	ug/L	491.97	ppb	17:33:55
1	Ba 233.527†	75515.2	74622.9	508.47	ug/L	508.47	ppb	17:33:55
1	Be 313.107†	1515204.0	1501978.7	504.69	ug/L	504.69	ppb	17:33:50
1	Cd 226.502†	52397.2	52005.4	508.49	ug/L	508.49	ppb	17:33:55
1	Co 228.616†	29381.8	29120.7	509.90	ug/L	509.90	ppb	17:33:55
1	Cr 267.716†	50815.3	50133.0	509.08	ug/L	509.08	ppb	17:33:55
1	Cu 324.752†	187740.9	179460.4	507.27	ug/L	507.27	ppb	17:33:55
1	Mn 257.610†	518766.4	512127.1	505.50	ug/L	505.50	ppb	17:33:50
1	Mo 202.031†	8309.6	8191.3	496.14	ug/L	496.14	ppb	17:34:15
1	Ni 231.604†	23687.6	23313.3	509.05	ug/L	509.05	ppb	17:33:55
1	P 214.914†	5085.1	4766.8	2409.9	ug/L	2409.9	ppb	17:34:15
1	Pb 220.353†	4732.3	4740.2	500.97	ug/L	500.97	ppb	17:34:15
1	S 181.975 Axial†	862.4	803.1	984.42	ug/L	984.42	ppb	17:34:15
1	Sb 206.836†	1731.8	1670.1	507.20	ug/L	507.20	ppb	17:34:15
1	Se 196.026†	893.3	911.2	512.10	ug/L	512.10	ppb	17:34:15
1	Si 251.611†	91244.9	89586.1	2514.5	ug/L	2514.5	ppb	17:33:55
1	Sn 189.927†	3339.1	3296.1	494.86	ug/L	494.86	ppb	17:34:15
1	Ti 334.940†	349174.4	346423.9	500.70	ug/L	500.70	ppb	17:33:50
1	Tl 190.801†	1906.2	1931.7	504.34	ug/L	504.34	ppb	17:34:15
1	U 409.014†	16159.4	18340.1	503.77	ug/L	503.77	ppb	17:33:55
1	V 292.402†	78907.4	79441.7	512.02	ug/L	512.02	ppb	17:33:55
1	Zn 213.857†	63813.7	62263.9	506.21	ug/L	506.21	ppb	17:33:55
1	SiO2†	90418.4	88740.2	5347.8	ug/L	5347.8	ppb	17:35:23
2	Sc Radial	5407.4	5407.4	97.1	%			17:32:57
2	Y RADIAL	5741.6	5741.6	97.13	%			17:32:57
2	Al 396.153Radial†	6759.9	6976.1	5061.6	ug/L	5061.6	ppb	17:32:57
2	Ca 317.933Radial†	3501.1	3585.0	5111.3	ug/L	5111.3	ppb	17:33:17
2	Fe 238.204 Radial†	616.6	623.9	5202.7	ug/L	5202.7	ppb	17:33:17
2	K 766.490 Radial†	30641.6	28835.1	5073.5	ug/L	5073.5	ppb	17:32:57
2	Mg 279.077 IEC†	164.2	167.7	5211.6	ug/L	5211.6	ppb	17:33:17
2	Na 589.592 Radial†	31208.8	32893.2	9817.7	ug/L	9817.7	ppb	17:32:57
2	Sr 421.552†	83521.3	86002.6	504.26	ug/L	504.26	ppb	17:32:57
2	Sc 361.383	898709.0	898709.0	99.978	%			17:34:21
2	Y 371.029	730582.1	730582.1	98.135	%			17:34:21
2	Ag 328.068†	117566.8	117223.0	508.41	ug/L	508.41	ppb	17:34:26
2	As 188.979†	1359.3	1394.5	510.63	ug/L	510.63	ppb	17:34:46
2	B 249.677†	24106.9	24138.2	493.40	ug/L	493.40	ppb	17:34:26
2	Ba 233.527†	74940.4	74959.6	510.80	ug/L	510.80	ppb	17:34:26
2	Be 313.107†	1496213.8	1501277.6	504.45	ug/L	504.45	ppb	17:34:21
2	Cd 226.502†	52000.7	52241.4	510.72	ug/L	510.72	ppb	17:34:26
2	Co 228.616†	29075.7	29169.3	510.76	ug/L	510.76	ppb	17:34:26
2	Cr 267.716†	50251.2	50182.3	509.60	ug/L	509.60	ppb	17:34:26
2	Cu 324.752†	185305.1	179290.8	506.83	ug/L	506.83	ppb	17:34:26
2	Mn 257.610†	514173.2	513796.0	507.22	ug/L	507.22	ppb	17:34:21
2	Mo 202.031†	8347.2	8329.2	504.54	ug/L	504.54	ppb	17:34:46
2	Ni 231.604†	23521.0	23432.6	511.66	ug/L	511.66	ppb	17:34:26

2	P 214.914†	5083.2	4826.2	2440.7	ug/L	2440.7 ppb	17:34:46
2	Pb 220.353†	4749.3	4814.4	508.89	ug/L	508.89 ppb	17:34:46
2	S 181.975 Axial†	863.7	814.9	998.70	ug/L	998.70 ppb	17:34:46
2	Sb 206.836†	1746.4	1705.6	518.20	ug/L	518.20 ppb	17:34:46
2	Se 196.026†	901.3	930.0	524.78	ug/L	524.78 ppb	17:34:46
2	Si 251.611†	90267.8	89710.5	2517.6	ug/L	2517.6 ppb	17:34:26
2	Sn 189.927†	3379.8	3377.0	507.08	ug/L	507.08 ppb	17:34:46
2	Ti 334.940†	345573.9	347038.4	501.63	ug/L	501.63 ppb	17:34:21
2	Tl 190.801†	1904.8	1953.2	509.95	ug/L	509.95 ppb	17:34:46
2	U 409.014†	15728.3	18104.1	497.17	ug/L	497.17 ppb	17:34:26
2	V 292.402†	78371.1	79858.0	514.67	ug/L	514.67 ppb	17:34:26
2	Zn 213.857†	63191.7	62412.2	507.32	ug/L	507.32 ppb	17:34:26
2	SiO2†	90637.2	90050.7	5426.2	ug/L	5426.2 ppb	17:35:28
3	Sc Radial	5448.9	5448.9	97.9	%		17:33:22
3	Y RADIAL	5766.3	5766.3	97.55	%		17:33:22
3	Al 396.153Radial†	6845.2	7010.4	5086.7	ug/L	5086.7 ppb	17:33:22
3	Ca 317.933Radial†	3509.8	3566.5	5084.9	ug/L	5084.9 ppb	17:33:42
3	Fe 238.204 Radial†	617.1	619.6	5167.0	ug/L	5167.0 ppb	17:33:42
3	K 766.490 Radial†	30845.1	28803.0	5067.8	ug/L	5067.8 ppb	17:33:22
3	Mg 279.077 IEC†	165.5	167.7	5213.8	ug/L	5213.8 ppb	17:33:42
3	Na 589.592 Radial†	31499.2	32945.4	9833.2	ug/L	9833.2 ppb	17:33:22
3	Sr 421.552†	84708.7	86561.3	507.54	ug/L	507.54 ppb	17:33:22
3	Sc 361.383	900959.4	900959.4	100.23	%		17:34:52
3	Y 371.029	732906.0	732906.0	98.447	%		17:34:52
3	Ag 328.068†	117393.6	116756.5	506.37	ug/L	506.37 ppb	17:34:57
3	As 188.979†	1359.0	1390.7	509.30	ug/L	509.30 ppb	17:35:17
3	B 249.677†	24014.7	23986.0	490.28	ug/L	490.28 ppb	17:34:57
3	Ba 233.527†	74767.6	74600.0	508.35	ug/L	508.35 ppb	17:34:57
3	Be 313.107†	1516090.2	1517370.8	509.86	ug/L	509.86 ppb	17:34:52
3	Cd 226.502†	51797.3	51908.6	507.47	ug/L	507.47 ppb	17:34:57
3	Co 228.616†	29029.0	29050.0	508.65	ug/L	508.65 ppb	17:34:57
3	Cr 267.716†	50250.9	50056.4	508.32	ug/L	508.32 ppb	17:34:57
3	Cu 324.752†	184897.8	178421.4	504.37	ug/L	504.37 ppb	17:34:57
3	Mn 257.610†	520010.6	518335.6	511.69	ug/L	511.69 ppb	17:34:52
3	Mo 202.031†	8318.6	8279.7	501.55	ug/L	501.55 ppb	17:35:17
3	Ni 231.604†	23485.6	23338.5	509.60	ug/L	509.60 ppb	17:34:57
3	P 214.914†	5065.6	4796.0	2425.3	ug/L	2425.3 ppb	17:35:17
3	Pb 220.353†	4710.1	4763.4	503.52	ug/L	503.52 ppb	17:35:17
3	S 181.975 Axial†	862.0	811.0	993.95	ug/L	993.95 ppb	17:35:17
3	Sb 206.836†	1733.4	1688.2	512.87	ug/L	512.87 ppb	17:35:17
3	Se 196.026†	898.6	925.1	521.96	ug/L	521.96 ppb	17:35:17
3	Si 251.611†	90045.6	89263.2	2505.1	ug/L	2505.1 ppb	17:34:57
3	Sn 189.927†	3354.9	3343.8	502.09	ug/L	502.09 ppb	17:35:17
3	Ti 334.940†	350142.5	350733.2	506.97	ug/L	506.97 ppb	17:34:52
3	Tl 190.801†	1905.0	1948.8	508.88	ug/L	508.88 ppb	17:35:17
3	U 409.014†	16132.3	18467.8	507.20	ug/L	507.20 ppb	17:34:57
3	V 292.402†	78146.1	79437.6	511.97	ug/L	511.97 ppb	17:34:57
3	Zn 213.857†	63021.4	62084.4	504.65	ug/L	504.65 ppb	17:34:57
3	SiO2†	89945.1	89133.8	5370.9	ug/L	5370.9 ppb	17:35:33

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	903119.3	100.47	%	0.645				0.64%
Sc Radial	5696.4	102	%	8.4				8.16%
Y 371.029	734715.2	98.690	%	0.7087				0.72%
Y RADIAL	6021.4	101.9	%	7.84				7.70%
Ag 328.068†	117051.3	507.57	ug/L	1.069	507.57	ppb	1.069	0.21%
QC value within limits for Ag 328.068 Recovery = 101.51%								
Al 396.153Radial†	6683.2	4848.3	ug/L	391.33	4848.3	ppb	391.33	8.07%
QC value within limits for Al 396.153Radial Recovery = 96.97%								
As 188.979†	1390.4	509.12	ug/L	1.599	509.12	ppb	1.599	0.31%
QC value within limits for As 188.979 Recovery = 101.82%								
B 249.677†	24062.6	491.88	ug/L	1.558	491.88	ppb	1.558	0.32%
QC value within limits for B 249.677 Recovery = 98.38%								
Ba 233.527†	74727.5	509.20	ug/L	1.380	509.20	ppb	1.380	0.27%
QC value within limits for Ba 233.527 Recovery = 101.84%								
Be 313.107†	1506875.7	506.34	ug/L	3.057	506.34	ppb	3.057	0.60%
QC value within limits for Be 313.107 Recovery = 101.27%								
Ca 317.933Radial†	3413.7	4867.0	ug/L	400.56	4867.0	ppb	400.56	8.23%

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   QC value within limits for Ca 317.933Radial  Recovery = 97.34%
Cd 226.502†            52051.8      508.90 ug/L        1.664      508.90 ppb        1.664   0.33%
   QC value within limits for Cd 226.502  Recovery = 101.78%
Co 228.616†            29113.3      509.77 ug/L        1.060      509.77 ppb        1.060   0.21%
   QC value within limits for Co 228.616  Recovery = 101.95%
Cr 267.716†            50123.9      509.00 ug/L        0.646      509.00 ppb        0.646   0.13%
   QC value within limits for Cr 267.716  Recovery = 101.80%
Cu 324.752†           179057.6      506.15 ug/L        1.562      506.15 ppb        1.562   0.31%
   QC value within limits for Cu 324.752  Recovery = 101.23%
Fe 238.204 Radial†       591.9      4936.6 ug/L       430.43      4936.6 ppb       430.43   8.72%
   QC value within limits for Fe 238.204 Radial  Recovery = 98.73%
K 766.490 Radial†      27392.0      4819.3 ug/L       435.35      4819.3 ppb       435.35   9.03%
   QC value within limits for K 766.490 Radial  Recovery = 96.39%
Mg 279.077 IEC†          161.3      5014.2 ug/L       343.77      5014.2 ppb       343.77   6.86%
   QC value within limits for Mg 279.077 IEC  Recovery = 100.28%
Mn 257.610†           514752.9      508.14 ug/L        3.194      508.14 ppb        3.194   0.63%
   QC value within limits for Mn 257.610  Recovery = 101.63%
Mo 202.031†             8266.7      500.75 ug/L        4.259      500.75 ppb        4.259   0.85%
   QC value within limits for Mo 202.031  Recovery = 100.15%
Na 589.592 Radial†     31567.5      9422.0 ug/L       698.86      9422.0 ppb       698.86   7.42%
   QC value within limits for Na 589.592 Radial  Recovery = 94.22%
Ni 231.604†            23361.5      510.10 ug/L        1.374      510.10 ppb        1.374   0.27%
   QC value within limits for Ni 231.604  Recovery = 102.02%
P 214.914†              4796.3      2425.3 ug/L       15.43       2425.3 ppb       15.43   0.64%
   QC value within limits for P 214.914  Recovery = 97.01%
Pb 220.353†             4772.7      504.46 ug/L        4.046      504.46 ppb        4.046   0.80%
   QC value within limits for Pb 220.353  Recovery = 100.89%
S 181.975 Axial†         809.7      992.36 ug/L        7.276      992.36 ppb        7.276   0.73%
   QC value within limits for S 181.975 Axial  Recovery = 99.24%
Sb 206.836†             1688.0      512.76 ug/L        5.504      512.76 ppb        5.504   1.07%
   QC value within limits for Sb 206.836  Recovery = 102.55%
Se 196.026†              922.1      519.61 ug/L        6.655      519.61 ppb        6.655   1.28%
   QC value within limits for Se 196.026  Recovery = 103.92%
Si 251.611†            89519.9      2512.4 ug/L         6.54      2512.4 ppb         6.54   0.26%
   QC value within limits for Si 251.611  Recovery = 100.50%
Sn 189.927†             3339.0      501.34 ug/L        6.145      501.34 ppb        6.145   1.23%
   QC value within limits for Sn 189.927  Recovery = 100.27%
Sr 421.552†            82571.5      484.14 ug/L       37.717      484.14 ppb       37.717   7.79%
   QC value within limits for Sr 421.552  Recovery = 96.83%
Ti 334.940†           348065.2      503.10 ug/L        3.381      503.10 ppb        3.381   0.67%
   QC value within limits for Ti 334.940  Recovery = 100.62%
Tl 190.801†             1944.6      507.72 ug/L        2.980      507.72 ppb        2.980   0.59%
   QC value within limits for Tl 190.801  Recovery = 101.54%
U 409.014†             18304.0      502.71 ug/L        5.097      502.71 ppb        5.097   1.01%
   QC value within limits for U 409.014  Recovery = 100.54%
V 292.402†             79579.1      512.89 ug/L        1.544      512.89 ppb        1.544   0.30%
   QC value within limits for V 292.402  Recovery = 102.58%
Zn 213.857†            62253.5      506.06 ug/L        1.341      506.06 ppb        1.341   0.26%
   QC value within limits for Zn 213.857  Recovery = 101.21%
SiO2†                  89308.2      5381.6 ug/L       40.29      5381.6 ppb       40.29   0.75%
   QC value within limits for SiO2  Recovery = 100.64%
All analyte(s) passed QC.
```

Sequence No.: 37
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 12/19/2009 17:37:42
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5462.8	5462.8	98.1	%			17:39:34
1	Y RADIAL	5855.1	5855.1	99.05	%			17:39:34
1	Al 396.153Radial†	-10.2	5.9	4.3101	ug/L	4.3101	ppb	17:39:34
1	Ca 317.933Radial†	18.4	-0.8	-1.1435	ug/L	-1.1435	ppb	17:39:54
1	Fe 238.204 Radial†	9.4	-1.3	-10.696	ug/L	-10.696	ppb	17:39:54
1	K 766.490 Radial†	2738.6	78.5	13.850	ug/L	13.850	ppb	17:39:34
1	Mg 279.077 IEC†	3.2	1.9	58.280	ug/L	58.280	ppb	17:39:54
1	Na 589.592 Radial†	-806.8	-60.6	-18.084	ug/L	-18.084	ppb	17:39:34
1	Sr 421.552†	-14.0	-2.4	-0.0142	ug/L	-0.0142	ppb	17:39:34
1	Sc 361.383	909741.3	909741.3	101.21	%			17:40:51
1	Y 371.029	750297.3	750297.3	100.78	%			17:40:51
1	Ag 328.068†	394.8	20.2	0.0805	ug/L	0.0805	ppb	17:40:56
1	As 188.979†	-27.6	7.6	2.7452	ug/L	2.7452	ppb	17:41:16
1	B 249.677†	-380.1	-349.6	-7.1728	ug/L	-7.1728	ppb	17:41:16
1	Ba 233.527†	1.7	4.3	0.0280	ug/L	0.0280	ppb	17:41:16
1	Be 313.107†	-4620.4	165.7	0.0558	ug/L	0.0558	ppb	17:40:56
1	Cd 226.502†	-218.5	13.3	0.1312	ug/L	0.1312	ppb	17:41:16
1	Co 228.616†	-97.0	-8.8	-0.1526	ug/L	-0.1526	ppb	17:41:16
1	Cr 267.716†	105.0	23.6	0.2378	ug/L	0.2378	ppb	17:41:16
1	Cu 324.752†	6158.0	29.1	0.0817	ug/L	0.0817	ppb	17:40:56
1	Mn 257.610†	495.6	-1.7	-0.0039	ug/L	-0.0039	ppb	17:41:16
1	Mo 202.031†	26.8	6.6	0.4015	ug/L	0.4015	ppb	17:41:16
1	Ni 231.604†	117.0	22.0	0.4814	ug/L	0.4814	ppb	17:41:16
1	P 214.914†	248.6	-12.4	-6.4657	ug/L	-6.4657	ppb	17:41:16
1	Pb 220.353†	-103.0	-37.7	-3.9679	ug/L	-3.9679	ppb	17:41:16
1	S 181.975 Axial†	50.5	0.9	1.1319	ug/L	1.1319	ppb	17:41:16
1	Sb 206.836†	35.6	-6.0	-1.7983	ug/L	-1.7983	ppb	17:41:16
1	Se 196.026†	-26.8	2.0	1.0833	ug/L	1.0833	ppb	17:41:16
1	Si 251.611†	650.8	65.6	1.8367	ug/L	1.8367	ppb	17:41:16
1	Sn 189.927†	5.1	1.6	0.2399	ug/L	0.2399	ppb	17:41:16
1	Ti 334.940†	-1321.6	81.7	0.1169	ug/L	0.1169	ppb	17:40:56
1	Tl 190.801†	-36.3	12.2	3.1668	ug/L	3.1668	ppb	17:41:16
1	U 409.014†	-2310.7	89.1	2.4545	ug/L	2.4545	ppb	17:40:51
1	V 292.402†	-1524.9	-37.3	-0.2240	ug/L	-0.2240	ppb	17:40:56
1	Zn 213.857†	770.4	-32.3	-0.2694	ug/L	-0.2694	ppb	17:41:16
1	SiO2†	638.2	23.9	1.4218	ug/L	1.4218	ppb	17:42:22
2	Sc Radial	5492.6	5492.6	98.7	%			17:39:59
2	Y RADIAL	5822.2	5822.2	98.49	%			17:39:59
2	Al 396.153Radial†	-19.6	-3.5	-2.5917	ug/L	-2.5917	ppb	17:39:59
2	Ca 317.933Radial†	17.9	-1.4	-2.0141	ug/L	-2.0141	ppb	17:40:19
2	Fe 238.204 Radial†	8.8	-2.0	-16.365	ug/L	-16.365	ppb	17:40:19
2	K 766.490 Radial†	2870.9	197.5	34.813	ug/L	34.813	ppb	17:39:59
2	Mg 279.077 IEC†	-0.1	-1.5	-45.435	ug/L	-45.435	ppb	17:40:19
2	Na 589.592 Radial†	-818.3	-67.8	-20.227	ug/L	-20.227	ppb	17:39:59
2	Sr 421.552†	-24.9	-13.4	-0.0788	ug/L	-0.0788	ppb	17:39:59
2	Sc 361.383	909449.5	909449.5	101.17	%			17:41:21
2	Y 371.029	750555.7	750555.7	100.82	%			17:41:21
2	Ag 328.068†	372.4	-1.9	-0.0141	ug/L	-0.0141	ppb	17:41:26
2	As 188.979†	-20.3	14.8	5.3630	ug/L	5.3630	ppb	17:41:46
2	B 249.677†	-385.5	-355.1	-7.2848	ug/L	-7.2848	ppb	17:41:46
2	Ba 233.527†	-0.1	2.5	0.0163	ug/L	0.0163	ppb	17:41:46
2	Be 313.107†	-4731.5	54.4	0.0183	ug/L	0.0183	ppb	17:41:26
2	Cd 226.502†	-232.1	-0.3	-0.0007	ug/L	-0.0007	ppb	17:41:46
2	Co 228.616†	-98.2	-9.9	-0.1720	ug/L	-0.1720	ppb	17:41:46
2	Cr 267.716†	93.9	12.7	0.1280	ug/L	0.1280	ppb	17:41:46
2	Cu 324.752†	6198.4	71.0	0.1997	ug/L	0.1997	ppb	17:41:26
2	Mn 257.610†	478.5	-18.5	-0.0190	ug/L	-0.0190	ppb	17:41:46
2	Mo 202.031†	30.7	10.4	0.6313	ug/L	0.6313	ppb	17:41:46
2	Ni 231.604†	119.4	24.5	0.5349	ug/L	0.5349	ppb	17:41:46

2	P 214.914†	255.5	-5.6	-2.9450	ug/L	-2.9450 ppb	17:41:46
2	Pb 220.353†	-70.1	-5.2	-0.5492	ug/L	-0.5492 ppb	17:41:46
2	S 181.975 Axial†	47.6	-1.9	-2.3506	ug/L	-2.3506 ppb	17:41:46
2	Sb 206.836†	43.1	1.3	0.3957	ug/L	0.3957 ppb	17:41:46
2	Se 196.026†	-24.0	4.8	2.5515	ug/L	2.5515 ppb	17:41:46
2	Si 251.611†	661.7	76.5	2.1381	ug/L	2.1381 ppb	17:41:46
2	Sn 189.927†	-2.7	-6.1	-0.9194	ug/L	-0.9194 ppb	17:41:46
2	Ti 334.940†	-1405.6	-1.7	-0.0030	ug/L	-0.0030 ppb	17:41:26
2	Tl 190.801†	-36.5	12.0	3.1236	ug/L	3.1236 ppb	17:41:46
2	U 409.014†	-2367.2	32.4	0.8952	ug/L	0.8952 ppb	17:41:21
2	V 292.402†	-1480.5	6.1	0.0510	ug/L	0.0510 ppb	17:41:26
2	Zn 213.857†	786.1	-16.6	-0.1363	ug/L	-0.1363 ppb	17:41:46
2	SiO2†	668.6	54.2	3.2359	ug/L	3.2359 ppb	17:42:27
3	Sc Radial	5601.8	5601.8	101	%		17:40:24
3	Y RADIAL	5948.6	5948.6	100.6	%		17:40:24
3	Al 396.153Radial†	-18.0	-1.5	-1.1391	ug/L	-1.1391 ppb	17:40:24
3	Ca 317.933Radial†	23.4	3.6	5.1883	ug/L	5.1883 ppb	17:40:44
3	Fe 238.204 Radial†	8.2	-2.8	-22.947	ug/L	-22.947 ppb	17:40:44
3	K 766.490 Radial†	2823.2	93.4	16.474	ug/L	16.474 ppb	17:40:24
3	Mg 279.077 IEC†	1.3	-0.1	-3.3732	ug/L	-3.3732 ppb	17:40:44
3	Na 589.592 Radial†	-822.2	-55.4	-16.548	ug/L	-16.548 ppb	17:40:24
3	Sr 421.552†	-24.1	-12.2	-0.0713	ug/L	-0.0713 ppb	17:40:24
3	Sc 361.383	913029.2	913029.2	101.57	%		17:41:51
3	Y 371.029	752745.2	752745.2	101.11	%		17:41:51
3	Ag 328.068†	358.0	-17.4	-0.0825	ug/L	-0.0825 ppb	17:41:56
3	As 188.979†	-27.1	8.1	2.9498	ug/L	2.9498 ppb	17:42:16
3	B 249.677†	-360.5	-329.0	-6.7489	ug/L	-6.7489 ppb	17:42:16
3	Ba 233.527†	5.0	7.5	0.0510	ug/L	0.0510 ppb	17:42:16
3	Be 313.107†	-4611.1	191.3	0.0644	ug/L	0.0644 ppb	17:41:56
3	Cd 226.502†	-219.0	13.5	0.1351	ug/L	0.1351 ppb	17:42:16
3	Co 228.616†	-75.6	12.7	0.2249	ug/L	0.2249 ppb	17:42:16
3	Cr 267.716†	112.3	30.4	0.3080	ug/L	0.3080 ppb	17:42:16
3	Cu 324.752†	6117.4	-32.8	-0.0938	ug/L	-0.0938 ppb	17:41:56
3	Mn 257.610†	476.2	-22.6	-0.0246	ug/L	-0.0246 ppb	17:42:16
3	Mo 202.031†	40.7	20.2	1.2181	ug/L	1.2181 ppb	17:42:16
3	Ni 231.604†	126.9	31.3	0.6848	ug/L	0.6848 ppb	17:42:16
3	P 214.914†	249.6	-12.4	-6.4353	ug/L	-6.4353 ppb	17:42:16
3	Pb 220.353†	-89.4	-24.0	-2.5219	ug/L	-2.5219 ppb	17:42:16
3	S 181.975 Axial†	48.6	-1.1	-1.3735	ug/L	-1.3735 ppb	17:42:16
3	Sb 206.836†	45.3	3.4	1.0137	ug/L	1.0137 ppb	17:42:16
3	Se 196.026†	-29.0	-0.0	-0.0703	ug/L	-0.0703 ppb	17:42:16
3	Si 251.611†	647.4	59.9	1.6643	ug/L	1.6643 ppb	17:42:16
3	Sn 189.927†	-1.1	-4.6	-0.6891	ug/L	-0.6891 ppb	17:42:16
3	Ti 334.940†	-1339.1	69.2	0.0999	ug/L	0.0999 ppb	17:41:56
3	Tl 190.801†	-34.6	14.0	3.6308	ug/L	3.6308 ppb	17:42:16
3	U 409.014†	-2383.4	25.7	0.7108	ug/L	0.7108 ppb	17:41:51
3	V 292.402†	-1454.9	37.0	0.2573	ug/L	0.2573 ppb	17:41:56
3	Zn 213.857†	776.3	-29.3	-0.2422	ug/L	-0.2422 ppb	17:42:16
3	SiO2†	678.4	61.3	3.6573	ug/L	3.6573 ppb	17:42:32

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	910740.0	101.32	%	0.221				0.22%
Sc Radial	5519.0	99.1	%	1.31				1.33%
Y 371.029	751199.4	100.90	%	0.181				0.18%
Y RADIAL	5875.3	99.39	%	1.110				1.12%
Ag 328.068†	0.3	-0.0054	ug/L	0.08182	-0.0054	ppb	0.08182	>999.9%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	0.3	0.1931	ug/L	3.63865	0.1931	ppb	3.63865	>999.9%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	10.2	3.6860	ug/L	1.45591	3.6860	ppb	1.45591	39.50%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-344.6	-7.0688	ug/L	0.28269	-7.0688	ppb	0.28269	4.00%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	4.8	0.0318	ug/L	0.01764	0.0318	ppb	0.01764	55.52%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	137.1	0.0461	ug/L	0.02452	0.0461	ppb	0.02452	53.16%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	0.5	0.6769	ug/L	3.93116	0.6769	ppb	3.93116	580.73%

```
   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                 8.8      0.0885 ug/L       0.07729      0.0885 ppb        0.07729  87.33%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                -2.0     -0.0332 ug/L       0.22377     -0.0332 ppb        0.22377 673.34%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                22.2      0.2246 ug/L       0.09072      0.2246 ppb        0.09072  40.39%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†                22.4      0.0625 ug/L       0.14770      0.0625 ppb        0.14770 236.22%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -2.0     -16.669 ug/L        6.1315     -16.669 ppb         6.1315  36.78%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         123.1      21.712 ug/L       11.4209      21.712 ppb        11.4209  52.60%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             0.1      3.1570 ug/L      52.16506      3.1570 ppb       52.16506 >999.9%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               -14.3     -0.0158 ug/L       0.01071     -0.0158 ppb        0.01071  67.70%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                12.4      0.7503 ug/L       0.42111      0.7503 ppb        0.42111  56.12%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        -61.3     -18.286 ug/L        1.8481     -18.286 ppb         1.8481  10.11%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                26.0      0.5670 ug/L       0.10546      0.5670 ppb        0.10546  18.60%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -10.1     -5.2820 ug/L       2.02395     -5.2820 ppb        2.02395  38.32%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               -22.3     -2.3463 ug/L       1.71609     -2.3463 ppb        1.71609  73.14%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -0.7     -0.8641 ug/L       1.79630     -0.8641 ppb        1.79630 207.89%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                -0.4     -0.1296 ug/L       1.47774     -0.1296 ppb        1.47774 >999.9%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 2.3      1.1881 ug/L       1.31404      1.1881 ppb        1.31404 110.60%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                67.3      1.8797 ug/L       0.23982      1.8797 ppb        0.23982  12.76%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                -3.0     -0.4562 ug/L       0.61375     -0.4562 ppb        0.61375 134.54%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                -9.3     -0.0548 ug/L       0.03536     -0.0548 ppb        0.03536  64.55%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                49.7      0.0713 ug/L       0.06490      0.0713 ppb        0.06490  91.06%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                12.7      3.3071 ug/L       0.28115      3.3071 ppb        0.28115   8.50%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 49.1      1.3535 ug/L       0.95795      1.3535 ppb        0.95795  70.77%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                  1.9      0.0281 ug/L       0.24146      0.0281 ppb        0.24146 858.33%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               -26.1     -0.2160 ug/L       0.07029     -0.2160 ppb        0.07029  32.54%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                      46.5      2.7717 ug/L       1.18788      2.7717 ppb        1.18788  42.86%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 47
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 12/19/2009 18:46:58
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	5647.2	5647.2	101	%			18:48:50
1	Y RADIAL	5941.0	5941.0	100.5	%			18:48:50
1	Al 396.153Radial†	6908.7	6827.4	4954.1	ug/L	4954.1	ppb	18:48:50
1	Ca 317.933Radial†	3508.2	3439.0	4903.1	ug/L	4903.1	ppb	18:49:10
1	Fe 238.204 Radial†	616.9	597.3	4980.2	ug/L	4980.2	ppb	18:49:10
1	K 766.490 Radial†	30947.2	27796.9	4891.0	ug/L	4891.0	ppb	18:48:50
1	Mg 279.077 IEC†	164.3	160.6	4992.1	ug/L	4992.1	ppb	18:49:10
1	Na 589.592 Radial†	31381.8	31699.4	9461.3	ug/L	9461.3	ppb	18:48:50
1	Sr 421.552†	84592.2	83407.1	489.04	ug/L	489.04	ppb	18:48:50
1	Sc 361.383	951738.4	951738.4	105.88	%			18:50:09
1	Y 371.029	774917.7	774917.7	104.09	%			18:50:09
1	Ag 328.068†	116624.5	109781.0	476.18	ug/L	476.18	ppb	18:50:09
1	As 188.979†	1371.7	1330.4	487.12	ug/L	487.12	ppb	18:50:29
1	B 249.677†	23713.9	22423.5	458.32	ug/L	458.32	ppb	18:50:09
1	Ba 233.527†	74517.9	70384.1	479.62	ug/L	479.62	ppb	18:50:09
1	Be 313.107†	1500672.8	1422103.9	477.85	ug/L	477.85	ppb	18:50:09
1	Cd 226.502†	51538.3	48906.7	478.11	ug/L	478.11	ppb	18:50:09
1	Co 228.616†	28662.9	27159.0	475.58	ug/L	475.58	ppb	18:50:29
1	Cr 267.716†	49888.1	47038.7	477.68	ug/L	477.68	ppb	18:50:09
1	Cu 324.752†	184723.4	168414.1	476.09	ug/L	476.09	ppb	18:50:09
1	Mn 257.610†	513177.4	484200.3	478.00	ug/L	478.00	ppb	18:50:09
1	Mo 202.031†	8468.3	7978.3	483.29	ug/L	483.29	ppb	18:50:29
1	Ni 231.604†	23322.7	21934.5	478.95	ug/L	478.95	ppb	18:50:29
1	P 214.914†	5122.9	4580.4	2317.2	ug/L	2317.2	ppb	18:50:29
1	Pb 220.353†	4783.2	4581.8	484.34	ug/L	484.34	ppb	18:50:29
1	S 181.975 Axial†	871.5	774.1	948.73	ug/L	948.73	ppb	18:50:29
1	Sb 206.836†	1730.9	1593.6	484.51	ug/L	484.51	ppb	18:50:29
1	Se 196.026†	904.1	882.5	498.10	ug/L	498.10	ppb	18:50:29
1	Si 251.611†	89306.6	83771.9	2350.7	ug/L	2350.7	ppb	18:50:09
1	Sn 189.927†	3388.9	3197.3	480.10	ug/L	480.10	ppb	18:50:29
1	Ti 334.940†	344357.4	326630.2	472.14	ug/L	472.14	ppb	18:50:09
1	Tl 190.801†	1920.5	1861.9	486.12	ug/L	486.12	ppb	18:50:29
1	U 409.014†	14919.0	16463.1	452.05	ug/L	452.05	ppb	18:50:09
1	V 292.402†	77528.5	74694.4	481.51	ug/L	481.51	ppb	18:50:09
1	Zn 213.857†	62642.8	58372.0	474.46	ug/L	474.46	ppb	18:50:09
1	SiO2†	89303.6	83739.9	5045.2	ug/L	5045.2	ppb	18:51:30
2	Sc Radial	5596.4	5596.4	101	%			18:49:15
2	Y RADIAL	5882.4	5882.4	99.51	%			18:49:15
2	Al 396.153Radial†	6906.2	6886.6	4996.5	ug/L	4996.5	ppb	18:49:15
2	Ca 317.933Radial†	3536.2	3498.2	4987.5	ug/L	4987.5	ppb	18:49:35
2	Fe 238.204 Radial†	619.6	605.5	5049.0	ug/L	5049.0	ppb	18:49:35
2	K 766.490 Radial†	30892.5	28019.3	4929.9	ug/L	4929.9	ppb	18:49:15
2	Mg 279.077 IEC†	169.8	167.5	5206.6	ug/L	5206.6	ppb	18:49:35
2	Na 589.592 Radial†	31355.6	31954.1	9537.4	ug/L	9537.4	ppb	18:49:15
2	Sr 421.552†	84598.6	84170.1	493.52	ug/L	493.52	ppb	18:49:15
2	Sc 361.383	910287.3	910287.3	101.27	%			18:50:37
2	Y 371.029	741723.2	741723.2	99.632	%			18:50:37
2	Ag 328.068†	117517.1	115678.3	501.69	ug/L	501.69	ppb	18:50:37
2	As 188.979†	1367.1	1384.8	507.10	ug/L	507.10	ppb	18:50:57
2	B 249.677†	24036.4	23761.9	485.74	ug/L	485.74	ppb	18:50:37
2	Ba 233.527†	75196.4	74259.1	506.02	ug/L	506.02	ppb	18:50:37
2	Be 313.107†	1519227.0	1504968.1	505.69	ug/L	505.69	ppb	18:50:37
2	Cd 226.502†	52044.7	51623.3	504.69	ug/L	504.69	ppb	18:50:37
2	Co 228.616†	28509.2	28239.9	494.49	ug/L	494.49	ppb	18:50:57
2	Cr 267.716†	50507.5	49796.0	505.68	ug/L	505.68	ppb	18:50:37
2	Cu 324.752†	187466.0	179067.1	506.19	ug/L	506.19	ppb	18:50:37
2	Mn 257.610†	518748.4	511772.7	505.20	ug/L	505.20	ppb	18:50:37
2	Mo 202.031†	8399.0	8274.1	501.20	ug/L	501.20	ppb	18:50:57
2	Ni 231.604†	23168.3	22785.2	497.52	ug/L	497.52	ppb	18:50:57

2	P 214.914†	5102.9	4781.0	2417.3	ug/L	2417.3 ppb	18:50:57
2	Pb 220.353†	4797.5	4801.6	507.53	ug/L	507.53 ppb	18:50:57
2	S 181.975 Axial†	856.8	797.1	976.90	ug/L	976.90 ppb	18:50:57
2	Sb 206.836†	1727.3	1664.5	505.80	ug/L	505.80 ppb	18:50:57
2	Se 196.026†	894.0	911.3	514.09	ug/L	514.09 ppb	18:50:57
2	Si 251.611†	90353.7	88646.9	2487.7	ug/L	2487.7 ppb	18:50:37
2	Sn 189.927†	3379.8	3334.1	500.63	ug/L	500.63 ppb	18:50:57
2	Ti 334.940†	348977.3	346002.7	500.13	ug/L	500.13 ppb	18:50:37
2	Tl 190.801†	1909.5	1933.7	504.95	ug/L	504.95 ppb	18:50:57
2	U 409.014†	15399.5	17579.2	482.73	ug/L	482.73 ppb	18:50:37
2	V 292.402†	78497.7	78985.9	509.07	ug/L	509.07 ppb	18:50:37
2	Zn 213.857†	63218.4	61634.7	501.05	ug/L	501.05 ppb	18:50:37
2	SiO2†	91532.1	89781.3	5410.2	ug/L	5410.2 ppb	18:51:35
3	Sc Radial	5570.6	5570.6	100	%		18:49:40
3	Y RADIAL	5901.8	5901.8	99.84	%		18:49:40
3	Al 396.153Radial†	6818.4	6830.8	4955.5	ug/L	4955.5 ppb	18:49:40
3	Ca 317.933Radial†	3521.3	3499.6	4989.5	ug/L	4989.5 ppb	18:50:00
3	Fe 238.204 Radial†	618.8	607.5	5066.1	ug/L	5066.1 ppb	18:50:00
3	K 766.490 Radial†	30586.2	27855.6	4901.0	ug/L	4901.0 ppb	18:49:40
3	Mg 279.077 IEC†	166.2	164.7	5120.7	ug/L	5120.7 ppb	18:50:00
3	Na 589.592 Radial†	31041.3	31784.6	9486.8	ug/L	9486.8 ppb	18:49:40
3	Sr 421.552†	83768.3	83730.5	490.94	ug/L	490.94 ppb	18:49:40
3	Sc 361.383	906644.4	906644.4	100.86	%		18:51:04
3	Y 371.029	738867.5	738867.5	99.248	%		18:51:04
3	Ag 328.068†	117640.6	116267.0	504.25	ug/L	504.25 ppb	18:51:04
3	As 188.979†	1366.0	1389.2	508.70	ug/L	508.70 ppb	18:51:24
3	B 249.677†	24055.3	23876.0	488.06	ug/L	488.06 ppb	18:51:04
3	Ba 233.527†	75136.2	74497.7	507.64	ug/L	507.64 ppb	18:51:04
3	Be 313.107†	1519713.7	1511478.5	507.88	ug/L	507.88 ppb	18:51:04
3	Cd 226.502†	51935.0	51721.1	505.64	ug/L	505.64 ppb	18:51:04
3	Co 228.616†	28735.4	28577.4	500.41	ug/L	500.41 ppb	18:51:24
3	Cr 267.716†	50488.6	49977.7	507.52	ug/L	507.52 ppb	18:51:04
3	Cu 324.752†	187392.0	179737.6	508.08	ug/L	508.08 ppb	18:51:04
3	Mn 257.610†	518492.9	513577.6	506.99	ug/L	506.99 ppb	18:51:04
3	Mo 202.031†	8482.9	8390.7	508.26	ug/L	508.26 ppb	18:51:24
3	Ni 231.604†	23362.1	23069.2	503.72	ug/L	503.72 ppb	18:51:24
3	P 214.914†	5127.8	4826.0	2440.4	ug/L	2440.4 ppb	18:51:24
3	Pb 220.353†	4830.2	4853.1	512.96	ug/L	512.96 ppb	18:51:24
3	S 181.975 Axial†	876.2	819.7	1004.7	ug/L	1004.7 ppb	18:51:24
3	Sb 206.836†	1742.7	1686.6	512.60	ug/L	512.60 ppb	18:51:24
3	Se 196.026†	904.2	925.0	521.63	ug/L	521.63 ppb	18:51:24
3	Si 251.611†	90369.0	89020.5	2498.1	ug/L	2498.1 ppb	18:51:04
3	Sn 189.927†	3393.7	3361.3	504.70	ug/L	504.70 ppb	18:51:24
3	Ti 334.940†	348827.1	347238.5	501.92	ug/L	501.92 ppb	18:51:04
3	Tl 190.801†	1912.5	1944.2	507.68	ug/L	507.68 ppb	18:51:24
3	U 409.014†	15144.2	17387.2	477.44	ug/L	477.44 ppb	18:51:04
3	V 292.402†	78427.7	79228.0	510.70	ug/L	510.70 ppb	18:51:04
3	Zn 213.857†	63192.6	61859.9	502.85	ug/L	502.85 ppb	18:51:04
3	SiO2†	90026.0	88651.3	5341.5	ug/L	5341.5 ppb	18:51:40

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	922890.0	102.67	%	2.787				2.71%
Sc Radial	5604.7	101	%	0.7				0.70%
Y 371.029	751836.1	100.99	%	2.692				2.67%
Y RADIAL	5908.4	99.95	%	0.505				0.51%
Ag 328.068†	113908.7	494.04	ug/L	15.522	494.04	ppb	15.522	3.14%
QC value within limits for Ag 328.068 Recovery = 98.81%								
Al 396.153Radial†	6848.3	4968.7	ug/L	24.09	4968.7	ppb	24.09	0.48%
QC value within limits for Al 396.153Radial Recovery = 99.37%								
As 188.979†	1368.2	500.97	ug/L	12.023	500.97	ppb	12.023	2.40%
QC value within limits for As 188.979 Recovery = 100.19%								
B 249.677†	23353.8	477.37	ug/L	16.538	477.37	ppb	16.538	3.46%
QC value within limits for B 249.677 Recovery = 95.47%								
Ba 233.527†	73047.0	497.76	ug/L	15.732	497.76	ppb	15.732	3.16%
QC value within limits for Ba 233.527 Recovery = 99.55%								
Be 313.107†	1479516.8	497.14	ug/L	16.743	497.14	ppb	16.743	3.37%
QC value within limits for Be 313.107 Recovery = 99.43%								
Ca 317.933Radial†	3479.0	4960.1	ug/L	49.32	4960.1	ppb	49.32	0.99%

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   QC value within limits for Ca 317.933Radial  Recovery = 99.20%
Cd 226.502†            50750.4      496.15 ug/L        15.626      496.15 ppb        15.626   3.15%
   QC value within limits for Cd 226.502  Recovery = 99.23%
Co 228.616†            27992.1      490.16 ug/L        12.968      490.16 ppb        12.968   2.65%
   QC value within limits for Co 228.616  Recovery = 98.03%
Cr 267.716†            48937.5      496.96 ug/L        16.721      496.96 ppb        16.721   3.36%
   QC value within limits for Cr 267.716  Recovery = 99.39%
Cu 324.752†           175739.6      496.78 ug/L        17.952      496.78 ppb        17.952   3.61%
   QC value within limits for Cu 324.752  Recovery = 99.36%
Fe 238.204 Radial†       603.4      5031.8 ug/L         45.45      5031.8 ppb         45.45   0.90%
   QC value within limits for Fe 238.204 Radial  Recovery = 100.64%
K 766.490 Radial†      27890.6      4907.3 ug/L         20.18      4907.3 ppb         20.18   0.41%
   QC value within limits for K 766.490 Radial  Recovery = 98.15%
Mg 279.077 IEC†          164.3      5106.5 ug/L        107.99      5106.5 ppb        107.99   2.11%
   QC value within limits for Mg 279.077 IEC  Recovery = 102.13%
Mn 257.610†           503183.5      496.73 ug/L        16.243      496.73 ppb        16.243   3.27%
   QC value within limits for Mn 257.610  Recovery = 99.35%
Mo 202.031†             8214.4      497.58 ug/L        12.870      497.58 ppb        12.870   2.59%
   QC value within limits for Mo 202.031  Recovery = 99.52%
Na 589.592 Radial†     31812.7      9495.2 ug/L         38.69      9495.2 ppb         38.69   0.41%
   QC value within limits for Na 589.592 Radial  Recovery = 94.95%
Ni 231.604†            22596.3      493.40 ug/L        12.892      493.40 ppb        12.892   2.61%
   QC value within limits for Ni 231.604  Recovery = 98.68%
P 214.914†              4729.1      2391.6 ug/L         65.49      2391.6 ppb         65.49   2.74%
   QC value within limits for P 214.914  Recovery = 95.67%
Pb 220.353†             4745.5      501.61 ug/L        15.198      501.61 ppb        15.198   3.03%
   QC value within limits for Pb 220.353  Recovery = 100.32%
S 181.975 Axial†         797.0      976.76 ug/L        27.968      976.76 ppb        27.968   2.86%
   QC value within limits for S 181.975 Axial  Recovery = 97.68%
Sb 206.836†             1648.2      500.97 ug/L        14.655      500.97 ppb        14.655   2.93%
   QC value within limits for Sb 206.836  Recovery = 100.19%
Se 196.026†              906.3      511.27 ug/L        12.012      511.27 ppb        12.012   2.35%
   QC value within limits for Se 196.026  Recovery = 102.25%
Si 251.611†            87146.4      2445.5 ug/L         82.31      2445.5 ppb         82.31   3.37%
   QC value within limits for Si 251.611  Recovery = 97.82%
Sn 189.927†             3297.6      495.14 ug/L        13.183      495.14 ppb        13.183   2.66%
   QC value within limits for Sn 189.927  Recovery = 99.03%
Sr 421.552†            83769.2      491.17 ug/L         2.245      491.17 ppb         2.245   0.46%
   QC value within limits for Sr 421.552  Recovery = 98.23%
Ti 334.940†           339957.1      491.40 ug/L        16.701      491.40 ppb        16.701   3.40%
   QC value within limits for Ti 334.940  Recovery = 98.28%
Tl 190.801†             1913.3      499.58 ug/L        11.740      499.58 ppb        11.740   2.35%
   QC value within limits for Tl 190.801  Recovery = 99.92%
U 409.014†             17143.2      470.74 ug/L        16.405      470.74 ppb        16.405   3.48%
   QC value within limits for U 409.014  Recovery = 94.15%
V 292.402†             77636.1      500.43 ug/L        16.402      500.43 ppb        16.402   3.28%
   QC value within limits for V 292.402  Recovery = 100.09%
Zn 213.857†            60622.2      492.79 ug/L        15.899      492.79 ppb        15.899   3.23%
   QC value within limits for Zn 213.857  Recovery = 98.56%
SiO2†                  87390.8      5265.6 ug/L        193.94      5265.6 ppb        193.94   3.68%
   QC value within limits for SiO2  Recovery = 98.47%
All analyte(s) passed QC.
```

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Sequence No.: 48
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 12/19/2009 18:53:49
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5655.1	5655.1	102	%			18:55:41
1	Y RADIAL	6009.0	6009.0	101.7	%			18:55:41
1	Al 396.153Radial†	-30.4	-13.5	-9.8848	ug/L	-9.8848	ppb	18:55:41
1	Ca 317.933Radial†	25.8	5.9	8.3465	ug/L	8.3465	ppb	18:56:01
1	Fe 238.204 Radial†	9.0	-2.0	-16.975	ug/L	-16.975	ppb	18:56:01
1	K 766.490 Radial†	2841.5	85.0	14.990	ug/L	14.990	ppb	18:55:41
1	Mg 279.077 IEC†	1.7	0.3	9.4391	ug/L	9.4391	ppb	18:56:01
1	Na 589.592 Radial†	-878.4	-103.1	-30.779	ug/L	-30.779	ppb	18:55:41
1	Sr 421.552†	6.8	18.5	0.1084	ug/L	0.1084	ppb	18:55:41
1	Sc 361.383	897621.4	897621.4	99.857	%			18:56:58
1	Y 371.029	746989.3	746989.3	100.34	%			18:56:58
1	Ag 328.068†	393.1	23.8	0.0945	ug/L	0.0945	ppb	18:56:58
1	As 188.979†	-30.3	4.4	1.6166	ug/L	1.6166	ppb	18:57:18
1	B 249.677†	-414.0	-388.6	-7.9740	ug/L	-7.9740	ppb	18:57:18
1	Ba 233.527†	-7.4	-4.8	-0.0342	ug/L	-0.0342	ppb	18:57:18
1	Be 313.107†	-4615.1	109.3	0.0367	ug/L	0.0367	ppb	18:56:58
1	Cd 226.502†	-207.1	21.8	0.2154	ug/L	0.2154	ppb	18:57:18
1	Co 228.616†	-84.0	3.0	0.0539	ug/L	0.0539	ppb	18:57:18
1	Cr 267.716†	116.7	36.7	0.3710	ug/L	0.3710	ppb	18:57:18
1	Cu 324.752†	6175.3	128.6	0.3625	ug/L	0.3625	ppb	18:56:58
1	Mn 257.610†	475.6	-15.2	-0.0168	ug/L	-0.0168	ppb	18:57:18
1	Mo 202.031†	27.0	7.2	0.4348	ug/L	0.4348	ppb	18:57:18
1	Ni 231.604†	128.7	35.4	0.7724	ug/L	0.7724	ppb	18:57:18
1	P 214.914†	231.2	-26.6	-13.893	ug/L	-13.893	ppb	18:57:18
1	Pb 220.353†	-73.9	-10.0	-1.0532	ug/L	-1.0532	ppb	18:57:18
1	S 181.975 Axial†	53.0	4.1	5.0514	ug/L	5.0514	ppb	18:57:18
1	Sb 206.836†	50.5	9.3	2.8209	ug/L	2.8209	ppb	18:57:18
1	Se 196.026†	-27.1	1.4	0.7208	ug/L	0.7208	ppb	18:57:18
1	Si 251.611†	637.7	61.2	1.7080	ug/L	1.7080	ppb	18:57:18
1	Sn 189.927†	14.2	10.7	1.6075	ug/L	1.6075	ppb	18:57:18
1	Ti 334.940†	-1364.6	21.0	0.0302	ug/L	0.0302	ppb	18:56:58
1	Tl 190.801†	-49.7	-1.7	-0.4416	ug/L	-0.4416	ppb	18:57:18
1	U 409.014†	-2328.4	40.4	1.1153	ug/L	1.1153	ppb	18:56:58
1	V 292.402†	-1518.9	-51.6	-0.3173	ug/L	-0.3173	ppb	18:56:58
1	Zn 213.857†	777.5	-14.9	-0.1265	ug/L	-0.1265	ppb	18:57:18
1	SiO2†	645.1	39.4	2.3477	ug/L	2.3477	ppb	18:58:14
2	Sc Radial	5605.2	5605.2	101	%			18:56:06
2	Y RADIAL	5939.8	5939.8	100.5	%			18:56:06
2	Al 396.153Radial†	-30.8	-14.2	-10.397	ug/L	-10.397	ppb	18:56:06
2	Ca 317.933Radial†	17.5	-2.1	-3.0652	ug/L	-3.0652	ppb	18:56:26
2	Fe 238.204 Radial†	8.8	-2.1	-17.737	ug/L	-17.737	ppb	18:56:26
2	K 766.490 Radial†	2805.8	74.4	13.137	ug/L	13.137	ppb	18:56:06
2	Mg 279.077 IEC†	0.3	-1.1	-34.251	ug/L	-34.251	ppb	18:56:26
2	Na 589.592 Radial†	-938.2	-170.2	-50.800	ug/L	-50.800	ppb	18:56:06
2	Sr 421.552†	43.0	54.5	0.3199	ug/L	0.3199	ppb	18:56:06
2	Sc 361.383	899343.4	899343.4	100.05	%			18:57:23
2	Y 371.029	747666.3	747666.3	100.43	%			18:57:23
2	Ag 328.068†	338.9	-31.2	-0.1337	ug/L	-0.1337	ppb	18:57:23
2	As 188.979†	-31.5	3.3	1.1974	ug/L	1.1974	ppb	18:57:43
2	B 249.677†	-390.2	-364.0	-7.4695	ug/L	-7.4695	ppb	18:57:43
2	Ba 233.527†	-0.5	2.1	0.0126	ug/L	0.0126	ppb	18:57:43
2	Be 313.107†	-4587.9	145.4	0.0490	ug/L	0.0490	ppb	18:57:23
2	Cd 226.502†	-243.8	-14.5	-0.1400	ug/L	-0.1400	ppb	18:57:43
2	Co 228.616†	-72.7	14.4	0.2560	ug/L	0.2560	ppb	18:57:43
2	Cr 267.716†	89.0	8.8	0.0911	ug/L	0.0911	ppb	18:57:43
2	Cu 324.752†	6286.7	228.1	0.6437	ug/L	0.6437	ppb	18:57:23
2	Mn 257.610†	497.0	5.3	0.0041	ug/L	0.0041	ppb	18:57:43
2	Mo 202.031†	42.8	22.9	1.3841	ug/L	1.3841	ppb	18:57:43
2	Ni 231.604†	119.0	25.4	0.5546	ug/L	0.5546	ppb	18:57:43

2	P 214.914†	241.9	-16.3	-8.5704	ug/L	-8.5704 ppb	18:57:43
2	Pb 220.353†	-73.6	-9.5	-0.9979	ug/L	-0.9979 ppb	18:57:43
2	S 181.975 Axial†	39.6	-9.4	-11.533	ug/L	-11.533 ppb	18:57:43
2	Sb 206.836†	43.0	1.8	0.5786	ug/L	0.5786 ppb	18:57:43
2	Se 196.026†	-26.0	2.5	1.3011	ug/L	1.3011 ppb	18:57:43
2	Si 251.611†	637.3	59.5	1.6480	ug/L	1.6480 ppb	18:57:43
2	Sn 189.927†	7.4	4.0	0.5922	ug/L	0.5922 ppb	18:57:43
2	Ti 334.940†	-1308.2	80.0	0.1196	ug/L	0.1196 ppb	18:57:23
2	Tl 190.801†	-35.2	12.9	3.3460	ug/L	3.3460 ppb	18:57:43
2	U 409.014†	-2713.1	-339.6	-9.3543	ug/L	-9.3543 ppb	18:57:23
2	V 292.402†	-1533.0	-62.8	-0.3962	ug/L	-0.3962 ppb	18:57:23
2	Zn 213.857†	785.2	-8.7	-0.0727	ug/L	-0.0727 ppb	18:57:43
2	SiO2†	684.6	77.6	4.6355	ug/L	4.6355 ppb	18:58:19
3	Sc Radial	5485.4	5485.4	98.5	%		18:56:31
3	Y RADIAL	5816.0	5816.0	98.39	%		18:56:31
3	Al 396.153Radial†	-31.8	-15.9	-11.590	ug/L	-11.590 ppb	18:56:31
3	Ca 317.933Radial†	15.9	-3.5	-4.9561	ug/L	-4.9561 ppb	18:56:51
3	Fe 238.204 Radial†	8.2	-2.6	-21.559	ug/L	-21.559 ppb	18:56:51
3	K 766.490 Radial†	2943.2	274.7	48.434	ug/L	48.434 ppb	18:56:31
3	Mg 279.077 IEC†	2.1	0.7	22.369	ug/L	22.369 ppb	18:56:51
3	Na 589.592 Radial†	-920.7	-172.8	-51.580	ug/L	-51.580 ppb	18:56:31
3	Sr 421.552†	5.3	17.2	0.1007	ug/L	0.1007 ppb	18:56:31
3	Sc 361.383	894804.2	894804.2	99.543	%		18:57:48
3	Y 371.029	744731.3	744731.3	100.04	%		18:57:48
3	Ag 328.068†	387.3	19.2	0.0781	ug/L	0.0781 ppb	18:57:48
3	As 188.979†	-24.4	10.3	3.7444	ug/L	3.7444 ppb	18:58:09
3	B 249.677†	-404.5	-380.4	-7.8046	ug/L	-7.8046 ppb	18:58:09
3	Ba 233.527†	3.1	5.8	0.0384	ug/L	0.0384 ppb	18:58:09
3	Be 313.107†	-4586.9	123.2	0.0417	ug/L	0.0417 ppb	18:57:48
3	Cd 226.502†	-221.9	6.2	0.0637	ug/L	0.0637 ppb	18:58:09
3	Co 228.616†	-89.1	-2.4	-0.0416	ug/L	-0.0416 ppb	18:58:09
3	Cr 267.716†	78.9	-0.9	-0.0083	ug/L	-0.0083 ppb	18:58:09
3	Cu 324.752†	6156.9	129.6	0.3650	ug/L	0.3650 ppb	18:57:48
3	Mn 257.610†	488.6	-0.7	-0.0032	ug/L	-0.0032 ppb	18:58:09
3	Mo 202.031†	27.4	7.7	0.4641	ug/L	0.4641 ppb	18:58:09
3	Ni 231.604†	120.4	27.4	0.5989	ug/L	0.5989 ppb	18:58:09
3	P 214.914†	251.0	-5.9	-3.1236	ug/L	-3.1236 ppb	18:58:09
3	Pb 220.353†	-83.9	-20.2	-2.1300	ug/L	-2.1300 ppb	18:58:09
3	S 181.975 Axial†	52.3	3.6	4.4036	ug/L	4.4036 ppb	18:58:09
3	Sb 206.836†	43.0	2.0	0.6019	ug/L	0.6019 ppb	18:58:09
3	Se 196.026†	-38.8	-10.5	-5.7608	ug/L	-5.7608 ppb	18:58:09
3	Si 251.611†	643.7	69.2	1.9282	ug/L	1.9282 ppb	18:58:09
3	Sn 189.927†	1.5	-2.0	-0.2940	ug/L	-0.2940 ppb	18:58:09
3	Ti 334.940†	-1231.0	151.0	0.2193	ug/L	0.2193 ppb	18:57:48
3	Tl 190.801†	-44.7	3.2	0.8307	ug/L	0.8307 ppb	18:58:09
3	U 409.014†	-2462.3	-101.3	-2.7891	ug/L	-2.7891 ppb	18:57:48
3	V 292.402†	-1453.2	9.6	0.0658	ug/L	0.0658 ppb	18:57:48
3	Zn 213.857†	797.5	7.6	0.0597	ug/L	0.0597 ppb	18:58:09
3	SiO2†	680.8	77.3	4.6261	ug/L	4.6261 ppb	18:58:24

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	897256.3	99.816	%	0.2549				0.26%
Sc Radial	5581.9	100	%	1.6				1.56%
Y 371.029	746462.3	100.27	%	0.206				0.21%
Y RADIAL	5921.6	100.2	%	1.65				1.65%
Ag 328.068†	3.9	0.0129	ug/L	0.12730	0.0129	ppb	0.12730	983.56%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-14.5	-10.624	ug/L	0.8750	-10.624	ppb	0.8750	8.24%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	6.0	2.1861	ug/L	1.36569	2.1861	ppb	1.36569	62.47%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-377.7	-7.7494	ug/L	0.25675	-7.7494	ppb	0.25675	3.31%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	1.0	0.0056	ug/L	0.03684	0.0056	ppb	0.03684	657.92%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	126.0	0.0425	ug/L	0.00617	0.0425	ppb	0.00617	14.51%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	0.1	0.1084	ug/L	7.19676	0.1084	ppb	7.19676	>999.9%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                4.5      0.0463 ug/L       0.17830      0.0463 ppb        0.17830 384.68%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                5.0      0.0895 ug/L       0.15192      0.0895 ppb        0.15192 169.83%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†               14.9      0.1513 ug/L       0.19667      0.1513 ppb        0.19667 129.98%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              162.1      0.4570 ug/L       0.16164      0.4570 ppb        0.16164  35.37%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        -2.3     -18.757 ug/L        2.4562     -18.757 ppb         2.4562  13.09%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        144.7      25.520 ug/L       19.8654      25.520 ppb        19.8654  77.84%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           -0.0     -0.8144 ug/L      29.66973     -0.8144 ppb       29.66973 >999.9%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               -3.5     -0.0053 ug/L       0.01061     -0.0053 ppb        0.01061 199.05%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               12.6      0.7610 ug/L       0.53982      0.7610 ppb        0.53982  70.93%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      -148.7     -44.386 ug/L       11.7911     -44.386 ppb        11.7911  26.56%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               29.4      0.6420 ug/L       0.11509      0.6420 ppb        0.11509  17.93%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -16.2     -8.5291 ug/L       5.38489     -8.5291 ppb        5.38489  63.14%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -13.2     -1.3937 ug/L       0.63827     -1.3937 ppb        0.63827  45.80%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          -0.6     -0.6927 ug/L       9.39375     -0.6927 ppb        9.39375 >999.9%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                4.4      1.3338 ug/L       1.28791      1.3338 ppb        1.28791  96.56%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               -2.2     -1.2463 ug/L       3.92044     -1.2463 ppb        3.92044 314.56%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†               63.3      1.7614 ug/L       0.14752      1.7614 ppb        0.14752   8.38%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                4.2      0.6352 ug/L       0.95150      0.6352 ppb        0.95150 149.78%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               30.1      0.1763 ug/L       0.12439      0.1763 ppb        0.12439  70.56%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               84.0      0.1230 ug/L       0.09459      0.1230 ppb        0.09459  76.90%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                4.8      1.2451 ug/L       1.92751      1.2451 ppb        1.92751 154.81%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              -133.5     -3.6760 ug/L       5.29088     -3.6760 ppb        5.29088 143.93%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               -35.0     -0.2159 ug/L       0.24711     -0.2159 ppb        0.24711 114.45%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               -5.3     -0.0465 ug/L       0.09585     -0.0465 ppb        0.09585 206.17%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                     64.8      3.8698 ug/L       1.31813      3.8698 ppb        1.31813  34.06%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
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Sequence No.: 58
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 12/19/2009 20:03:38
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5536.9	5536.9	99.5	%			20:05:30
1	Y RADIAL	5848.8	5848.8	98.94	%			20:05:30
1	Al 396.153Radial†	6852.0	6905.9	5010.8	ug/L	5010.8	ppb	20:05:30
1	Ca 317.933Radial†	3505.4	3505.0	4997.2	ug/L	4997.2	ppb	20:05:50
1	Fe 238.204 Radial†	618.1	610.6	5091.9	ug/L	5091.9	ppb	20:05:50
1	K 766.490 Radial†	30841.1	28297.7	4978.8	ug/L	4978.8	ppb	20:05:30
1	Mg 279.077 IEC†	166.8	166.3	5170.6	ug/L	5170.6	ppb	20:05:50
1	Na 589.592 Radial†	31789.9	32725.8	9767.7	ug/L	9767.7	ppb	20:05:30
1	Sr 421.552†	84854.1	85331.0	500.32	ug/L	500.32	ppb	20:05:30
1	Sc 361.383	915318.4	915318.4	101.83	%			20:06:47
1	Y 371.029	746613.4	746613.4	100.29	%			20:06:47
1	Ag 328.068†	118679.3	116181.7	503.88	ug/L	503.88	ppb	20:06:53
1	As 188.979†	1376.1	1386.3	507.60	ug/L	507.60	ppb	20:07:13
1	B 249.677†	24324.1	23913.9	488.83	ug/L	488.83	ppb	20:06:53
1	Ba 233.527†	75389.4	74040.5	504.54	ug/L	504.54	ppb	20:06:53
1	Be 313.107†	1523064.4	1500490.5	504.18	ug/L	504.18	ppb	20:06:47
1	Cd 226.502†	52335.2	51626.1	504.71	ug/L	504.71	ppb	20:06:53
1	Co 228.616†	29086.5	28652.2	501.70	ug/L	501.70	ppb	20:06:53
1	Cr 267.716†	50880.4	49888.0	506.61	ug/L	506.61	ppb	20:06:53
1	Cu 324.752†	186877.0	177471.2	501.68	ug/L	501.68	ppb	20:06:53
1	Mn 257.610†	518433.7	508647.9	502.13	ug/L	502.13	ppb	20:06:47
1	Mo 202.031†	8357.9	8188.2	496.00	ug/L	496.00	ppb	20:07:13
1	Ni 231.604†	23681.1	23163.0	505.77	ug/L	505.77	ppb	20:06:53
1	P 214.914†	5076.3	4727.2	2389.8	ug/L	2389.8	ppb	20:07:13
1	Pb 220.353†	4738.8	4717.9	498.71	ug/L	498.71	ppb	20:07:13
1	S 181.975 Axial†	867.0	802.4	983.41	ug/L	983.41	ppb	20:07:13
1	Sb 206.836†	1720.2	1648.1	500.69	ug/L	500.69	ppb	20:07:13
1	Se 196.026†	901.1	913.5	515.41	ug/L	515.41	ppb	20:07:13
1	Si 251.611†	90700.5	88496.9	2483.6	ug/L	2483.6	ppb	20:06:53
1	Sn 189.927†	3368.2	3304.3	496.16	ug/L	496.16	ppb	20:07:13
1	Ti 334.940†	348485.6	343625.6	496.69	ug/L	496.69	ppb	20:06:47
1	Tl 190.801†	1910.7	1924.5	502.49	ug/L	502.49	ppb	20:07:13
1	U 409.014†	15775.2	17864.6	490.59	ug/L	490.59	ppb	20:06:53
1	V 292.402†	79161.0	79211.2	510.44	ug/L	510.44	ppb	20:06:53
1	Zn 213.857†	63669.6	61734.6	501.82	ug/L	501.82	ppb	20:06:53
1	SiO2†	89918.3	87699.6	5284.3	ug/L	5284.3	ppb	20:08:20
2	Sc Radial	5510.2	5510.2	99.0	%			20:05:55
2	Y RADIAL	5853.9	5853.9	99.03	%			20:05:55
2	Al 396.153Radial†	6844.9	6932.1	5030.1	ug/L	5030.1	ppb	20:05:55
2	Ca 317.933Radial†	3505.0	3521.7	5021.0	ug/L	5021.0	ppb	20:06:15
2	Fe 238.204 Radial†	619.4	614.9	5127.6	ug/L	5127.6	ppb	20:06:15
2	K 766.490 Radial†	30640.6	28245.5	4969.6	ug/L	4969.6	ppb	20:05:55
2	Mg 279.077 IEC†	170.2	170.6	5303.2	ug/L	5303.2	ppb	20:06:15
2	Na 589.592 Radial†	31698.4	32788.3	9786.3	ug/L	9786.3	ppb	20:05:55
2	Sr 421.552†	84659.9	85548.5	501.60	ug/L	501.60	ppb	20:05:55
2	Sc 361.383	923680.0	923680.0	102.76	%			20:07:18
2	Y 371.029	752756.5	752756.5	101.11	%			20:07:18
2	Ag 328.068†	117729.9	114202.7	495.33	ug/L	495.33	ppb	20:07:24
2	As 188.979†	1379.4	1377.3	504.33	ug/L	504.33	ppb	20:07:44
2	B 249.677†	24108.6	23488.0	480.10	ug/L	480.10	ppb	20:07:24
2	Ba 233.527†	74873.7	72868.4	496.55	ug/L	496.55	ppb	20:07:24
2	Be 313.107†	1532544.8	1496176.4	502.73	ug/L	502.73	ppb	20:07:18
2	Cd 226.502†	51911.1	50748.1	496.12	ug/L	496.12	ppb	20:07:24
2	Co 228.616†	28984.6	28294.4	495.42	ug/L	495.42	ppb	20:07:24
2	Cr 267.716†	50583.5	49146.8	499.08	ug/L	499.08	ppb	20:07:24
2	Cu 324.752†	185448.0	174419.1	493.06	ug/L	493.06	ppb	20:07:24
2	Mn 257.610†	521523.4	507045.8	500.55	ug/L	500.55	ppb	20:07:18
2	Mo 202.031†	8363.5	8119.3	491.84	ug/L	491.84	ppb	20:07:44
2	Ni 231.604†	23496.2	22772.5	497.24	ug/L	497.24	ppb	20:07:24

2	P 214.914†	5066.0	4672.0	2362.3	ug/L	2362.3 ppb	20:07:44
2	Pb 220.353†	4728.4	4665.7	493.20	ug/L	493.20 ppb	20:07:44
2	S 181.975 Axial†	867.7	795.5	974.89	ug/L	974.89 ppb	20:07:44
2	Sb 206.836†	1716.6	1629.3	495.06	ug/L	495.06 ppb	20:07:44
2	Se 196.026†	896.4	900.9	508.61	ug/L	508.61 ppb	20:07:44
2	Si 251.611†	90074.0	87081.0	2443.8	ug/L	2443.8 ppb	20:07:24
2	Sn 189.927†	3369.0	3275.2	491.79	ug/L	491.79 ppb	20:07:44
2	Ti 334.940†	350745.9	342727.2	495.40	ug/L	495.40 ppb	20:07:18
2	Tl 190.801†	1922.0	1918.5	500.97	ug/L	500.97 ppb	20:07:44
2	U 409.014†	15789.5	17738.3	487.12	ug/L	487.12 ppb	20:07:24
2	V 292.402†	78606.2	77967.5	502.47	ug/L	502.47 ppb	20:07:24
2	Zn 213.857†	63039.0	60554.9	492.20	ug/L	492.20 ppb	20:07:24
2	SiO2†	90354.4	87324.7	5261.8	ug/L	5261.8 ppb	20:08:25
3	Sc Radial	5518.9	5518.9	99.1	%		20:06:20
3	Y RADIAL	5863.5	5863.5	99.19	%		20:06:20
3	Al 396.153Radial†	6847.9	6924.3	5024.2	ug/L	5024.2 ppb	20:06:20
3	Ca 317.933Radial†	3551.5	3563.0	5079.9	ug/L	5079.9 ppb	20:06:40
3	Fe 238.204 Radial†	626.1	620.7	5175.9	ug/L	5175.9 ppb	20:06:40
3	K 766.490 Radial†	30690.4	28247.0	4969.9	ug/L	4969.9 ppb	20:06:20
3	Mg 279.077 IEC†	170.5	170.6	5303.0	ug/L	5303.0 ppb	20:06:40
3	Na 589.592 Radial†	31705.1	32744.6	9773.3	ug/L	9773.3 ppb	20:06:20
3	Sr 421.552†	84696.2	85450.3	501.02	ug/L	501.02 ppb	20:06:20
3	Sc 361.383	922236.0	922236.0	102.60	%		20:07:50
3	Y 371.029	752846.8	752846.8	101.13	%		20:07:50
3	Ag 328.068†	118823.1	115447.7	500.73	ug/L	500.73 ppb	20:07:55
3	As 188.979†	1372.9	1373.0	502.78	ug/L	502.78 ppb	20:08:15
3	B 249.677†	24444.6	23852.2	487.56	ug/L	487.56 ppb	20:07:55
3	Ba 233.527†	75457.5	73551.4	501.21	ug/L	501.21 ppb	20:07:55
3	Be 313.107†	1533770.8	1499706.6	503.92	ug/L	503.92 ppb	20:07:50
3	Cd 226.502†	52275.9	51182.8	500.37	ug/L	500.37 ppb	20:07:55
3	Co 228.616†	29111.4	28462.1	498.37	ug/L	498.37 ppb	20:07:55
3	Cr 267.716†	50893.0	49525.6	502.93	ug/L	502.93 ppb	20:07:55
3	Cu 324.752†	187313.0	176519.5	499.00	ug/L	499.00 ppb	20:07:55
3	Mn 257.610†	520880.1	507213.5	500.72	ug/L	500.72 ppb	20:07:50
3	Mo 202.031†	8405.7	8173.2	495.10	ug/L	495.10 ppb	20:08:15
3	Ni 231.604†	23698.9	23005.9	502.34	ug/L	502.34 ppb	20:07:55
3	P 214.914†	5097.0	4709.9	2381.2	ug/L	2381.2 ppb	20:08:15
3	Pb 220.353†	4760.5	4704.1	497.24	ug/L	497.24 ppb	20:08:15
3	S 181.975 Axial†	881.0	809.7	992.34	ug/L	992.34 ppb	20:08:15
3	Sb 206.836†	1726.6	1641.7	498.80	ug/L	498.80 ppb	20:08:15
3	Se 196.026†	904.9	910.5	514.03	ug/L	514.03 ppb	20:08:15
3	Si 251.611†	90946.6	88068.7	2471.5	ug/L	2471.5 ppb	20:07:55
3	Sn 189.927†	3385.2	3296.1	494.94	ug/L	494.94 ppb	20:08:15
3	Ti 334.940†	350435.9	342959.6	495.74	ug/L	495.74 ppb	20:07:50
3	Tl 190.801†	1938.3	1937.4	505.83	ug/L	505.83 ppb	20:08:15
3	U 409.014†	15847.6	17818.9	489.33	ug/L	489.33 ppb	20:07:55
3	V 292.402†	79183.0	78649.6	506.85	ug/L	506.85 ppb	20:07:55
3	Zn 213.857†	63639.2	61236.0	497.74	ug/L	497.74 ppb	20:07:55
3	SiO2†	89487.1	86616.9	5218.8	ug/L	5218.8 ppb	20:08:31

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	920411.5	102.39	%	0.497				0.49%
Sc Radial	5522.0	99.2	%	0.24				0.25%
Y 371.029	750738.9	100.84	%	0.480				0.48%
Y RADIAL	5855.4	99.05	%	0.126				0.13%
Ag 328.068†	115277.4	499.98	ug/L	4.321	499.98	ppb	4.321	0.86%
QC value within limits for Ag 328.068 Recovery = 100.00%								
Al 396.153Radial†	6920.8	5021.7	ug/L	9.89	5021.7	ppb	9.89	0.20%
QC value within limits for Al 396.153Radial Recovery = 100.43%								
As 188.979†	1378.8	504.91	ug/L	2.460	504.91	ppb	2.460	0.49%
QC value within limits for As 188.979 Recovery = 100.98%								
B 249.677†	23751.4	485.50	ug/L	4.717	485.50	ppb	4.717	0.97%
QC value within limits for B 249.677 Recovery = 97.10%								
Ba 233.527†	73486.8	500.77	ug/L	4.010	500.77	ppb	4.010	0.80%
QC value within limits for Ba 233.527 Recovery = 100.15%								
Be 313.107†	1498791.2	503.61	ug/L	0.772	503.61	ppb	0.772	0.15%
QC value within limits for Be 313.107 Recovery = 100.72%								
Ca 317.933Radial†	3529.9	5032.7	ug/L	42.57	5032.7	ppb	42.57	0.85%

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   QC value within limits for Ca 317.933Radial  Recovery = 100.65%
Cd 226.502†            51185.7      500.40 ug/L         4.298      500.40 ppb          4.298   0.86%
   QC value within limits for Cd 226.502  Recovery = 100.08%
Co 228.616†            28469.6      498.50 ug/L         3.138      498.50 ppb          3.138   0.63%
   QC value within limits for Co 228.616  Recovery = 99.70%
Cr 267.716†            49520.2      502.87 ug/L         3.764      502.87 ppb          3.764   0.75%
   QC value within limits for Cr 267.716  Recovery = 100.57%
Cu 324.752†           176136.6      497.91 ug/L         4.412      497.91 ppb          4.412   0.89%
   QC value within limits for Cu 324.752  Recovery = 99.58%
Fe 238.204 Radial†       615.4      5131.8 ug/L        42.17      5131.8 ppb         42.17   0.82%
   QC value within limits for Fe 238.204 Radial  Recovery = 102.64%
K 766.490 Radial†      28263.4      4972.8 ug/L         5.23      4972.8 ppb          5.23   0.11%
   QC value within limits for K 766.490 Radial  Recovery = 99.46%
Mg 279.077 IEC†          169.2      5258.9 ug/L        76.52      5258.9 ppb         76.52   1.46%
   QC value within limits for Mg 279.077 IEC  Recovery = 105.18%
Mn 257.610†           507635.7      501.13 ug/L         0.867      501.13 ppb          0.867   0.17%
   QC value within limits for Mn 257.610  Recovery = 100.23%
Mo 202.031†             8160.2      494.31 ug/L         2.192      494.31 ppb          2.192   0.44%
   QC value within limits for Mo 202.031  Recovery = 98.86%
Na 589.592 Radial†     32752.9      9775.8 ug/L         9.57      9775.8 ppb          9.57   0.10%
   QC value within limits for Na 589.592 Radial  Recovery = 97.76%
Ni 231.604†            22980.5      501.78 ug/L         4.290      501.78 ppb          4.290   0.86%
   QC value within limits for Ni 231.604  Recovery = 100.36%
P 214.914†              4703.0      2377.8 ug/L        14.05      2377.8 ppb         14.05   0.59%
   QC value within limits for P 214.914  Recovery = 95.11%
Pb 220.353†             4695.9      496.38 ug/L         2.853      496.38 ppb          2.853   0.57%
   QC value within limits for Pb 220.353  Recovery = 99.28%
S 181.975 Axial†         802.5      983.54 ug/L         8.725      983.54 ppb          8.725   0.89%
   QC value within limits for S 181.975 Axial  Recovery = 98.35%
Sb 206.836†             1639.7      498.19 ug/L         2.866      498.19 ppb          2.866   0.58%
   QC value within limits for Sb 206.836  Recovery = 99.64%
Se 196.026†              908.3      512.68 ug/L         3.592      512.68 ppb          3.592   0.70%
   QC value within limits for Se 196.026  Recovery = 102.54%
Si 251.611†            87882.2      2466.3 ug/L        20.43      2466.3 ppb         20.43   0.83%
   QC value within limits for Si 251.611  Recovery = 98.65%
Sn 189.927†             3291.9      494.30 ug/L         2.253      494.30 ppb          2.253   0.46%
   QC value within limits for Sn 189.927  Recovery = 98.86%
Sr 421.552†            85443.3      500.98 ug/L         0.639      500.98 ppb          0.639   0.13%
   QC value within limits for Sr 421.552  Recovery = 100.20%
Ti 334.940†           343104.1      495.94 ug/L         0.671      495.94 ppb          0.671   0.14%
   QC value within limits for Ti 334.940  Recovery = 99.19%
Tl 190.801†             1926.8      503.10 ug/L         2.490      503.10 ppb          2.490   0.49%
   QC value within limits for Tl 190.801  Recovery = 100.62%
U 409.014†             17807.3      489.01 ug/L         1.757      489.01 ppb          1.757   0.36%
   QC value within limits for U 409.014  Recovery = 97.80%
V 292.402†             78609.4      506.59 ug/L         3.994      506.59 ppb          3.994   0.79%
   QC value within limits for V 292.402  Recovery = 101.32%
Zn 213.857†            61175.1      497.25 ug/L         4.828      497.25 ppb          4.828   0.97%
   QC value within limits for Zn 213.857  Recovery = 99.45%
SiO2†                  87213.7      5255.0 ug/L        33.28      5255.0 ppb         33.28   0.63%
   QC value within limits for SiO2  Recovery = 98.27%
All analyte(s) passed QC.
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Sequence No.: 59
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 12/19/2009 20:10:40
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5507.6	5507.6	98.9	%			20:12:32
1	Y RADIAL	5859.4	5859.4	99.12	%			20:12:32
1	Al 396.153Radial†	-10.9	5.4	3.9041	ug/L	3.9041	ppb	20:12:32
1	Ca 317.933Radial†	19.1	-0.3	-0.4332	ug/L	-0.4332	ppb	20:12:52
1	Fe 238.204 Radial†	10.1	-0.7	-5.8129	ug/L	-5.8129	ppb	20:12:52
1	K 766.490 Radial†	2786.0	103.8	18.316	ug/L	18.316	ppb	20:12:32
1	Mg 279.077 IEC†	2.6	1.3	39.293	ug/L	39.293	ppb	20:12:52
1	Na 589.592 Radial†	-961.6	-210.4	-62.799	ug/L	-62.799	ppb	20:12:32
1	Sr 421.552†	-28.0	-16.5	-0.0968	ug/L	-0.0968	ppb	20:12:32
1	Sc 361.383	900238.6	900238.6	100.15	%			20:13:49
1	Y 371.029	751098.2	751098.2	100.89	%			20:13:49
1	Ag 328.068†	453.4	82.8	0.3602	ug/L	0.3602	ppb	20:13:49
1	As 188.979†	-27.2	7.7	2.8015	ug/L	2.8015	ppb	20:14:09
1	B 249.677†	-336.0	-309.5	-6.3520	ug/L	-6.3520	ppb	20:14:09
1	Ba 233.527†	11.3	13.8	0.0931	ug/L	0.0931	ppb	20:14:09
1	Be 313.107†	-4568.8	169.1	0.0567	ug/L	0.0567	ppb	20:13:49
1	Cd 226.502†	-225.9	3.6	0.0367	ug/L	0.0367	ppb	20:14:09
1	Co 228.616†	-86.8	0.4	0.0070	ug/L	0.0070	ppb	20:14:09
1	Cr 267.716†	125.5	45.1	0.4591	ug/L	0.4591	ppb	20:14:09
1	Cu 324.752†	6186.1	121.4	0.3426	ug/L	0.3426	ppb	20:13:49
1	Mn 257.610†	531.8	39.6	0.0377	ug/L	0.0377	ppb	20:14:09
1	Mo 202.031†	19.4	-0.5	-0.0281	ug/L	-0.0281	ppb	20:14:09
1	Ni 231.604†	126.1	32.4	0.7071	ug/L	0.7071	ppb	20:14:09
1	P 214.914†	232.0	-26.4	-13.822	ug/L	-13.822	ppb	20:14:09
1	Pb 220.353†	-74.7	-10.5	-1.1062	ug/L	-1.1062	ppb	20:14:09
1	S 181.975 Axial†	50.3	1.2	1.4558	ug/L	1.4558	ppb	20:14:09
1	Sb 206.836†	48.8	7.6	2.2577	ug/L	2.2577	ppb	20:14:09
1	Se 196.026†	-30.9	-2.3	-1.2770	ug/L	-1.2770	ppb	20:14:09
1	Si 251.611†	699.8	121.3	3.4137	ug/L	3.4137	ppb	20:14:09
1	Sn 189.927†	6.7	3.2	0.4871	ug/L	0.4871	ppb	20:14:09
1	Ti 334.940†	-1401.6	-12.0	-0.0139	ug/L	-0.0139	ppb	20:13:49
1	Tl 190.801†	-36.4	11.7	3.0314	ug/L	3.0314	ppb	20:14:09
1	U 409.014†	-2666.3	-290.1	-7.9932	ug/L	-7.9932	ppb	20:13:49
1	V 292.402†	-1529.1	-57.5	-0.3797	ug/L	-0.3797	ppb	20:13:49
1	Zn 213.857†	806.0	11.3	0.0867	ug/L	0.0867	ppb	20:14:09
1	SiO2†	715.2	107.5	6.4905	ug/L	6.4905	ppb	20:15:05
2	Sc Radial	5556.7	5556.7	99.8	%			20:12:57
2	Y RADIAL	5920.9	5920.9	100.2	%			20:12:57
2	Al 396.153Radial†	-0.6	15.7	11.432	ug/L	11.432	ppb	20:12:57
2	Ca 317.933Radial†	21.8	2.3	3.2977	ug/L	3.2977	ppb	20:13:17
2	Fe 238.204 Radial†	10.8	-0.1	-0.4775	ug/L	-0.4775	ppb	20:13:17
2	K 766.490 Radial†	2884.8	177.9	31.382	ug/L	31.382	ppb	20:12:57
2	Mg 279.077 IEC†	1.9	0.5	16.978	ug/L	16.978	ppb	20:13:17
2	Na 589.592 Radial†	-958.9	-199.0	-59.404	ug/L	-59.404	ppb	20:12:57
2	Sr 421.552†	-7.7	4.1	0.0241	ug/L	0.0241	ppb	20:12:57
2	Sc 361.383	895509.5	895509.5	99.622	%			20:14:14
2	Y 371.029	747443.1	747443.1	100.40	%			20:14:14
2	Ag 328.068†	442.4	74.2	0.3255	ug/L	0.3255	ppb	20:14:14
2	As 188.979†	-31.5	3.2	1.1605	ug/L	1.1605	ppb	20:14:34
2	B 249.677†	-326.7	-302.0	-6.1982	ug/L	-6.1982	ppb	20:14:34
2	Ba 233.527†	-4.9	-2.3	-0.0157	ug/L	-0.0157	ppb	20:14:34
2	Be 313.107†	-4587.7	126.0	0.0421	ug/L	0.0421	ppb	20:14:14
2	Cd 226.502†	-221.6	6.7	0.0665	ug/L	0.0665	ppb	20:14:34
2	Co 228.616†	-70.4	16.4	0.2901	ug/L	0.2901	ppb	20:14:34
2	Cr 267.716†	101.3	21.5	0.2202	ug/L	0.2202	ppb	20:14:34
2	Cu 324.752†	6136.5	104.2	0.2943	ug/L	0.2943	ppb	20:14:14
2	Mn 257.610†	550.4	61.0	0.0598	ug/L	0.0598	ppb	20:14:34
2	Mo 202.031†	34.0	14.3	0.8628	ug/L	0.8628	ppb	20:14:34
2	Ni 231.604†	126.3	33.2	0.7242	ug/L	0.7242	ppb	20:14:34

2	P 214.914†	237.7	-19.4	-10.183	ug/L	-10.183 ppb	20:14:34
2	Pb 220.353†	-78.9	-15.1	-1.5910	ug/L	-1.5910 ppb	20:14:34
2	S 181.975 Axial†	42.4	-6.5	-7.9405	ug/L	-7.9405 ppb	20:14:34
2	Sb 206.836†	50.0	9.0	2.6959	ug/L	2.6959 ppb	20:14:34
2	Se 196.026†	-22.4	6.0	3.2958	ug/L	3.2958 ppb	20:14:34
2	Si 251.611†	705.7	130.9	3.6669	ug/L	3.6669 ppb	20:14:34
2	Sn 189.927†	3.4	-0.1	-0.0124	ug/L	-0.0124 ppb	20:14:34
2	Ti 334.940†	-1431.8	-49.6	-0.0684	ug/L	-0.0684 ppb	20:14:14
2	Tl 190.801†	-24.5	23.5	6.0961	ug/L	6.0961 ppb	20:14:34
2	U 409.014†	-2625.6	-263.3	-7.2551	ug/L	-7.2551 ppb	20:14:14
2	V 292.402†	-1475.5	-11.7	-0.0756	ug/L	-0.0756 ppb	20:14:14
2	Zn 213.857†	801.6	11.1	0.0857	ug/L	0.0857 ppb	20:14:34
2	SiO2†	690.2	86.2	5.1607	ug/L	5.1607 ppb	20:15:10
3	Sc Radial	5561.7	5561.7	99.9	%		20:13:22
3	Y RADIAL	5942.4	5942.4	100.5	%		20:13:22
3	Al 396.153Radial†	0.9	17.2	12.557	ug/L	12.557 ppb	20:13:22
3	Ca 317.933Radial†	15.9	-3.6	-5.1683	ug/L	-5.1683 ppb	20:13:42
3	Fe 238.204 Radial†	13.3	2.4	20.182	ug/L	20.182 ppb	20:13:42
3	K 766.490 Radial†	2977.2	267.7	47.218	ug/L	47.218 ppb	20:13:22
3	Mg 279.077 IEC†	-1.3	-2.7	-82.654	ug/L	-82.654 ppb	20:13:42
3	Na 589.592 Radial†	-943.4	-182.7	-54.532	ug/L	-54.532 ppb	20:13:22
3	Sr 421.552†	15.4	27.3	0.1599	ug/L	0.1599 ppb	20:13:22
3	Sc 361.383	894539.4	894539.4	99.514	%		20:14:40
3	Y 371.029	746604.8	746604.8	100.29	%		20:14:40
3	Ag 328.068†	440.2	72.5	0.3204	ug/L	0.3204 ppb	20:14:40
3	As 188.979†	-32.5	2.2	0.7907	ug/L	0.7907 ppb	20:15:00
3	B 249.677†	-343.3	-319.1	-6.5508	ug/L	-6.5508 ppb	20:15:00
3	Ba 233.527†	-6.1	-3.5	-0.0241	ug/L	-0.0241 ppb	20:15:00
3	Be 313.107†	-4567.4	141.4	0.0476	ug/L	0.0476 ppb	20:14:40
3	Cd 226.502†	-220.1	8.0	0.0762	ug/L	0.0762 ppb	20:15:00
3	Co 228.616†	-92.7	-6.1	-0.1064	ug/L	-0.1064 ppb	20:15:00
3	Cr 267.716†	90.9	11.2	0.1138	ug/L	0.1138 ppb	20:15:00
3	Cu 324.752†	6275.8	250.8	0.7098	ug/L	0.7098 ppb	20:14:40
3	Mn 257.610†	547.0	58.2	0.0610	ug/L	0.0610 ppb	20:15:00
3	Mo 202.031†	22.3	2.5	0.1548	ug/L	0.1548 ppb	20:15:00
3	Ni 231.604†	117.9	24.9	0.5431	ug/L	0.5431 ppb	20:15:00
3	P 214.914†	224.0	-33.0	-17.334	ug/L	-17.334 ppb	20:15:00
3	Pb 220.353†	-68.7	-5.0	-0.5207	ug/L	-0.5207 ppb	20:15:00
3	S 181.975 Axial†	48.1	-0.7	-0.8522	ug/L	-0.8522 ppb	20:15:00
3	Sb 206.836†	45.9	5.0	1.4921	ug/L	1.4921 ppb	20:15:00
3	Se 196.026†	-25.9	2.5	1.4454	ug/L	1.4454 ppb	20:15:00
3	Si 251.611†	675.3	101.1	2.8314	ug/L	2.8314 ppb	20:15:00
3	Sn 189.927†	6.7	3.3	0.4929	ug/L	0.4929 ppb	20:15:00
3	Ti 334.940†	-1323.7	57.5	0.0841	ug/L	0.0841 ppb	20:14:40
3	Tl 190.801†	-38.2	9.7	2.5120	ug/L	2.5120 ppb	20:15:00
3	U 409.014†	-2472.0	-111.8	-3.0840	ug/L	-3.0840 ppb	20:14:40
3	V 292.402†	-1515.3	-53.3	-0.3480	ug/L	-0.3480 ppb	20:14:40
3	Zn 213.857†	792.3	2.6	0.0182	ug/L	0.0182 ppb	20:15:00
3	SiO2†	674.1	70.7	4.2379	ug/L	4.2379 ppb	20:15:15

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	896762.5	99.761	%	0.3392				0.34%
Sc Radial	5542.0	99.5	%	0.54				0.54%
Y 371.029	748382.0	100.53	%	0.321				0.32%
Y RADIAL	5907.6	99.94	%	0.729				0.73%
Ag 328.068†	76.5	0.3354	ug/L	0.02165	0.3354	ppb	0.02165	6.45%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	12.8	9.2979	ug/L	4.70489	9.2979	ppb	4.70489	50.60%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	4.4	1.5842	ug/L	1.07026	1.5842	ppb	1.07026	67.56%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-310.2	-6.3670	ug/L	0.17680	-6.3670	ppb	0.17680	2.78%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	2.7	0.0178	ug/L	0.06537	0.0178	ppb	0.06537	367.87%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	145.5	0.0488	ug/L	0.00735	0.0488	ppb	0.00735	15.06%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-0.5	-0.7679	ug/L	4.24291	-0.7679	ppb	4.24291	552.52%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                 6.1      0.0598 ug/L       0.02059      0.0598 ppb        0.02059  34.44%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                 3.6      0.0636 ug/L       0.20422      0.0636 ppb        0.20422 321.28%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                25.9      0.2644 ug/L       0.17686      0.2644 ppb        0.17686  66.90%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               158.8      0.4489 ug/L       0.22721      0.4489 ppb        0.22721  50.62%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          0.6      4.6305 ug/L      13.72962      4.6305 ppb       13.72962 296.50%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         183.1      32.305 ug/L       14.4729      32.305 ppb        14.4729  44.80%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -0.3     -8.7946 ug/L      64.93003     -8.7946 ppb       64.93003 738.29%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                52.9      0.0528 ug/L       0.01310      0.0528 ppb        0.01310  24.80%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 5.4      0.3298 ug/L       0.47054      0.3298 ppb        0.47054 142.66%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       -197.4     -58.912 ug/L        4.1555     -58.912 ppb         4.1555   7.05%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                30.1      0.6581 ug/L       0.09997      0.6581 ppb        0.09997  15.19%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -26.3     -13.779 ug/L        3.5755     -13.779 ppb         3.5755  25.95%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               -10.2     -1.0726 ug/L       0.53597     -1.0726 ppb        0.53597  49.97%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -2.0     -2.4456 ug/L       4.89661     -2.4456 ppb        4.89661 200.22%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 7.2      2.1486 ug/L       0.60930      2.1486 ppb        0.60930  28.36%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 2.1      1.1547 ug/L       2.30018      1.1547 ppb        2.30018 199.20%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†               117.8      3.3040 ug/L       0.42843      3.3040 ppb        0.42843  12.97%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 2.2      0.3225 ug/L       0.29009      0.3225 ppb        0.29009  89.94%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                 5.0      0.0291 ug/L       0.12839      0.0291 ppb        0.12839 441.34%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                -1.4      0.0006 ug/L       0.07731      0.0006 ppb        0.07731 >999.9%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                15.0      3.8798 ug/L       1.93680      3.8798 ppb        1.93680  49.92%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -221.8     -6.1108 ug/L       2.64714     -6.1108 ppb        2.64714  43.32%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                -40.8     -0.2678 ug/L       0.16720     -0.2678 ppb        0.16720  62.44%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                 8.3      0.0635 ug/L       0.03926      0.0635 ppb        0.03926  61.78%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                      88.1      5.2964 ug/L       1.13240      5.2964 ppb        1.13240  21.38%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 69
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 12/19/2009 21:20:30
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Rep1#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5542.3	5542.3	99.6	%			21:22:22
1	Y RADIAL	5883.9	5883.9	99.53	%			21:22:22
1	Al 396.153Radial†	6905.1	6952.5	5044.7	ug/L	5044.7	ppb	21:22:22
1	Ca 317.933Radial†	3588.2	3584.7	5110.8	ug/L	5110.8	ppb	21:22:42
1	Fe 238.204 Radial†	641.3	633.3	5280.6	ug/L	5280.6	ppb	21:22:42
1	K 766.490 Radial†	31007.4	28434.5	5002.8	ug/L	5002.8	ppb	21:22:22
1	Mg 279.077 IEC†	174.7	174.1	5411.2	ug/L	5411.2	ppb	21:22:42
1	Na 589.592 Radial†	32936.2	33846.0	10102	ug/L	10102	ppb	21:22:22
1	Sr 421.552†	86771.3	87173.6	511.13	ug/L	511.13	ppb	21:22:22
1	Sc 361.383	911251.2	911251.2	101.37	%			21:23:40
1	Y 371.029	744336.2	744336.2	99.983	%			21:23:40
1	Ag 328.068†	119317.2	117331.2	508.91	ug/L	508.91	ppb	21:23:45
1	As 188.979†	1361.0	1377.4	504.43	ug/L	504.43	ppb	21:24:05
1	B 249.677†	24335.3	24031.6	491.21	ug/L	491.21	ppb	21:23:45
1	Ba 233.527†	75679.9	74657.4	508.75	ug/L	508.75	ppb	21:23:45
1	Be 313.107†	1526234.7	1510293.9	507.47	ug/L	507.47	ppb	21:23:40
1	Cd 226.502†	52435.0	51954.0	507.90	ug/L	507.90	ppb	21:23:45
1	Co 228.616†	29240.9	28932.0	506.59	ug/L	506.59	ppb	21:23:45
1	Cr 267.716†	51161.7	50388.6	511.70	ug/L	511.70	ppb	21:23:45
1	Cu 324.752†	187842.9	179243.2	506.70	ug/L	506.70	ppb	21:23:45
1	Mn 257.610†	518653.7	511137.5	504.60	ug/L	504.60	ppb	21:23:40
1	Mo 202.031†	8337.1	8204.3	496.99	ug/L	496.99	ppb	21:24:05
1	Ni 231.604†	23767.6	23352.1	509.90	ug/L	509.90	ppb	21:23:45
1	P 214.914†	5058.1	4731.5	2391.1	ug/L	2391.1	ppb	21:24:05
1	Pb 220.353†	4749.4	4749.1	501.98	ug/L	501.98	ppb	21:24:05
1	S 181.975 Axial†	863.8	803.1	984.29	ug/L	984.29	ppb	21:24:05
1	Sb 206.836†	1702.7	1638.4	497.68	ug/L	497.68	ppb	21:24:05
1	Se 196.026†	897.3	913.6	516.05	ug/L	516.05	ppb	21:24:05
1	Si 251.611†	91159.6	89347.4	2507.6	ug/L	2507.6	ppb	21:23:45
1	Sn 189.927†	3354.9	3306.0	496.42	ug/L	496.42	ppb	21:24:05
1	Ti 334.940†	349003.3	345663.8	499.64	ug/L	499.64	ppb	21:23:40
1	Tl 190.801†	1913.5	1935.6	505.36	ug/L	505.36	ppb	21:24:05
1	U 409.014†	15911.0	18067.7	496.15	ug/L	496.15	ppb	21:23:45
1	V 292.402†	79700.5	80090.4	516.03	ug/L	516.03	ppb	21:23:45
1	Zn 213.857†	63899.6	62240.6	505.91	ug/L	505.91	ppb	21:23:45
1	SiO2†	90171.3	88343.4	5323.3	ug/L	5323.3	ppb	21:25:13
2	Sc Radial	5513.0	5513.0	99.0	%			21:22:47
2	Y RADIAL	5814.6	5814.6	98.36	%			21:22:47
2	Al 396.153Radial†	6927.3	7011.9	5087.9	ug/L	5087.9	ppb	21:22:47
2	Ca 317.933Radial†	3527.8	3542.9	5051.2	ug/L	5051.2	ppb	21:23:07
2	Fe 238.204 Radial†	627.7	622.9	5194.6	ug/L	5194.6	ppb	21:23:07
2	K 766.490 Radial†	30833.8	28424.8	5001.1	ug/L	5001.1	ppb	21:22:47
2	Mg 279.077 IEC†	167.6	167.9	5217.8	ug/L	5217.8	ppb	21:23:07
2	Na 589.592 Radial†	32872.1	33957.2	10135	ug/L	10135	ppb	21:22:47
2	Sr 421.552†	86385.4	87247.4	511.56	ug/L	511.56	ppb	21:22:47
2	Sc 361.383	912422.1	912422.1	101.50	%			21:24:11
2	Y 371.029	745461.2	745461.2	100.13	%			21:24:11
2	Ag 328.068†	119483.5	117344.0	508.94	ug/L	508.94	ppb	21:24:16
2	As 188.979†	1371.0	1385.5	507.38	ug/L	507.38	ppb	21:24:36
2	B 249.677†	24433.3	24097.4	492.57	ug/L	492.57	ppb	21:24:16
2	Ba 233.527†	75815.5	74695.2	509.00	ug/L	509.00	ppb	21:24:16
2	Be 313.107†	1532675.3	1514707.1	508.96	ug/L	508.96	ppb	21:24:11
2	Cd 226.502†	52591.3	52041.6	508.77	ug/L	508.77	ppb	21:24:16
2	Co 228.616†	29336.6	28989.2	507.60	ug/L	507.60	ppb	21:24:16
2	Cr 267.716†	51173.2	50335.2	511.15	ug/L	511.15	ppb	21:24:16
2	Cu 324.752†	188390.3	179544.6	507.54	ug/L	507.54	ppb	21:24:16
2	Mn 257.610†	520500.1	512299.9	505.74	ug/L	505.74	ppb	21:24:11
2	Mo 202.031†	8386.2	8242.1	499.27	ug/L	499.27	ppb	21:24:36
2	Ni 231.604†	23862.8	23415.8	511.29	ug/L	511.29	ppb	21:24:16

2	P 214.914†	5094.6	4761.1	2406.5 ug/L	2406.5 ppb	21:24:36
2	Pb 220.353†	4744.0	4737.8	500.81 ug/L	500.81 ppb	21:24:36
2	S 181.975 Axial†	861.4	799.6	979.97 ug/L	979.97 ppb	21:24:36
2	Sb 206.836†	1726.1	1659.3	504.02 ug/L	504.02 ppb	21:24:36
2	Se 196.026†	903.3	918.5	518.45 ug/L	518.45 ppb	21:24:36
2	Si 251.611†	91435.6	89504.0	2511.9 ug/L	2511.9 ppb	21:24:16
2	Sn 189.927†	3362.0	3308.7	496.83 ug/L	496.83 ppb	21:24:36
2	Ti 334.940†	349602.8	345812.7	499.86 ug/L	499.86 ppb	21:24:11
2	Tl 190.801†	1917.2	1936.9	505.70 ug/L	505.70 ppb	21:24:36
2	U 409.014†	15833.0	17970.7	493.49 ug/L	493.49 ppb	21:24:16
2	V 292.402†	79736.1	80024.6	515.65 ug/L	515.65 ppb	21:24:16
2	Zn 213.857†	64038.2	62296.2	506.37 ug/L	506.37 ppb	21:24:16
2	SiO2†	88245.4	86331.8	5201.4 ug/L	5201.4 ppb	21:25:18
3	Sc Radial	5510.4	5510.4	99.0 %		21:23:12
3	Y RADIAL	5837.1	5837.1	98.74 %		21:23:12
3	Al 396.153Radial†	6887.4	6974.9	5060.9 ug/L	5060.9 ppb	21:23:12
3	Ca 317.933Radial†	3559.1	3576.3	5098.8 ug/L	5098.8 ppb	21:23:32
3	Fe 238.204 Radial†	634.9	630.5	5257.8 ug/L	5257.8 ppb	21:23:32
3	K 766.490 Radial†	30791.9	28397.5	4996.2 ug/L	4996.2 ppb	21:23:12
3	Mg 279.077 IEC†	173.8	174.2	5415.3 ug/L	5415.3 ppb	21:23:32
3	Na 589.592 Radial†	32901.4	34002.9	10149 ug/L	10149 ppb	21:23:12
3	Sr 421.552†	86493.2	87398.3	512.44 ug/L	512.44 ppb	21:23:12
3	Sc 361.383	912721.5	912721.5	101.54 %		21:24:42
3	Y 371.029	745021.5	745021.5	100.07 %		21:24:42
3	Ag 328.068†	119993.9	117808.1	510.96 ug/L	510.96 ppb	21:24:47
3	As 188.979†	1396.0	1409.7	516.15 ug/L	516.15 ppb	21:25:07
3	B 249.677†	24628.9	24282.1	496.34 ug/L	496.34 ppb	21:24:47
3	Ba 233.527†	76472.7	75318.0	513.24 ug/L	513.24 ppb	21:24:47
3	Be 313.107†	1529042.8	1510634.2	507.59 ug/L	507.59 ppb	21:24:42
3	Cd 226.502†	53096.2	52521.8	513.46 ug/L	513.46 ppb	21:24:47
3	Co 228.616†	29624.1	29262.9	512.39 ug/L	512.39 ppb	21:24:47
3	Cr 267.716†	51591.7	50730.8	515.17 ug/L	515.17 ppb	21:24:47
3	Cu 324.752†	189050.3	180133.7	509.21 ug/L	509.21 ppb	21:24:47
3	Mn 257.610†	520866.1	512492.1	505.93 ug/L	505.93 ppb	21:24:42
3	Mo 202.031†	8418.6	8271.3	501.05 ug/L	501.05 ppb	21:25:07
3	Ni 231.604†	24037.5	23580.1	514.88 ug/L	514.88 ppb	21:24:47
3	P 214.914†	5097.5	4762.3	2406.8 ug/L	2406.8 ppb	21:25:07
3	Pb 220.353†	4783.8	4775.5	504.78 ug/L	504.78 ppb	21:25:07
3	S 181.975 Axial†	876.9	814.7	998.44 ug/L	998.44 ppb	21:25:07
3	Sb 206.836†	1725.0	1657.7	503.55 ug/L	503.55 ppb	21:25:07
3	Se 196.026†	901.7	916.6	517.63 ug/L	517.63 ppb	21:25:07
3	Si 251.611†	92026.7	90056.6	2527.5 ug/L	2527.5 ppb	21:24:47
3	Sn 189.927†	3387.2	3332.5	500.40 ug/L	500.40 ppb	21:25:07
3	Ti 334.940†	349780.1	345874.3	499.94 ug/L	499.94 ppb	21:24:42
3	Tl 190.801†	1922.5	1941.4	506.85 ug/L	506.85 ppb	21:25:07
3	U 409.014†	16168.6	18296.2	502.44 ug/L	502.44 ppb	21:24:47
3	V 292.402†	80191.4	80447.2	518.37 ug/L	518.37 ppb	21:24:47
3	Zn 213.857†	64463.8	62694.7	509.60 ug/L	509.60 ppb	21:24:47
3	SiO2†	91829.1	89832.8	5413.3 ug/L	5413.3 ppb	21:25:23

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	912131.6	101.47	%	0.086				0.09%
Sc Radial	5521.9	99.2	%	0.32				0.32%
Y 371.029	744939.6	100.06	%	0.076				0.08%
Y RADIAL	5845.2	98.88	%	0.597				0.60%
Ag 328.068†	117494.4	509.60	ug/L	1.176	509.60	ppb	1.176	0.23%
QC value within limits for Ag 328.068 Recovery = 101.92%								
Al 396.153Radial†	6979.8	5064.5	ug/L	21.80	5064.5	ppb	21.80	0.43%
QC value within limits for Al 396.153Radial Recovery = 101.29%								
As 188.979†	1390.9	509.32	ug/L	6.097	509.32	ppb	6.097	1.20%
QC value within limits for As 188.979 Recovery = 101.86%								
B 249.677†	24137.0	493.37	ug/L	2.657	493.37	ppb	2.657	0.54%
QC value within limits for B 249.677 Recovery = 98.67%								
Ba 233.527†	74890.2	510.33	ug/L	2.525	510.33	ppb	2.525	0.49%
QC value within limits for Ba 233.527 Recovery = 102.07%								
Be 313.107†	1511878.4	508.01	ug/L	0.824	508.01	ppb	0.824	0.16%
QC value within limits for Be 313.107 Recovery = 101.60%								
Ca 317.933Radial†	3568.0	5087.0	ug/L	31.52	5087.0	ppb	31.52	0.62%

```
   QC value within limits for Ca 317.933Radial  Recovery = 101.74%
Cd 226.502†            52172.5      510.05 ug/L         2.991      510.05 ppb          2.991   0.59%
   QC value within limits for Cd 226.502  Recovery = 102.01%
Co 228.616†            29061.4      508.86 ug/L         3.100      508.86 ppb          3.100   0.61%
   QC value within limits for Co 228.616  Recovery = 101.77%
Cr 267.716†            50484.9      512.67 ug/L         2.177      512.67 ppb          2.177   0.42%
   QC value within limits for Cr 267.716  Recovery = 102.53%
Cu 324.752†           179640.5      507.82 ug/L         1.280      507.82 ppb          1.280   0.25%
   QC value within limits for Cu 324.752  Recovery = 101.56%
Fe 238.204 Radial†       628.9      5244.4 ug/L        44.56      5244.4 ppb         44.56   0.85%
   QC value within limits for Fe 238.204 Radial  Recovery = 104.89%
K 766.490 Radial†      28418.9      5000.0 ug/L         3.39      5000.0 ppb          3.39   0.07%
   QC value within limits for K 766.490 Radial  Recovery = 100.00%
Mg 279.077 IEC†          172.1      5348.1 ug/L       112.86      5348.1 ppb        112.86   2.11%
   QC value within limits for Mg 279.077 IEC  Recovery = 106.96%
Mn 257.610†           511976.5      505.42 ug/L         0.721      505.42 ppb          0.721   0.14%
   QC value within limits for Mn 257.610  Recovery = 101.08%
Mo 202.031†             8239.2      499.10 ug/L         2.033      499.10 ppb          2.033   0.41%
   QC value within limits for Mo 202.031  Recovery = 99.82%
Na 589.592 Radial†     33935.4       10129 ug/L          24.1       10129 ppb           24.1   0.24%
   QC value within limits for Na 589.592 Radial  Recovery = 101.29%
Ni 231.604†            23449.4      512.02 ug/L         2.569      512.02 ppb          2.569   0.50%
   QC value within limits for Ni 231.604  Recovery = 102.40%
P 214.914†              4751.6      2401.5 ug/L         8.99      2401.5 ppb          8.99   0.37%
   QC value within limits for P 214.914  Recovery = 96.06%
Pb 220.353†             4754.1      502.52 ug/L         2.037      502.52 ppb          2.037   0.41%
   QC value within limits for Pb 220.353  Recovery = 100.50%
S 181.975 Axial†         805.8      987.57 ug/L         9.663      987.57 ppb          9.663   0.98%
   QC value within limits for S 181.975 Axial  Recovery = 98.76%
Sb 206.836†             1651.8      501.75 ug/L         3.532      501.75 ppb          3.532   0.70%
   QC value within limits for Sb 206.836  Recovery = 100.35%
Se 196.026†              916.2      517.37 ug/L         1.217      517.37 ppb          1.217   0.24%
   QC value within limits for Se 196.026  Recovery = 103.47%
Si 251.611†            89636.0      2515.6 ug/L        10.47      2515.6 ppb         10.47   0.42%
   QC value within limits for Si 251.611  Recovery = 100.63%
Sn 189.927†             3315.7      497.88 ug/L         2.187      497.88 ppb          2.187   0.44%
   QC value within limits for Sn 189.927  Recovery = 99.58%
Sr 421.552†            87273.1      511.71 ug/L         0.672      511.71 ppb          0.672   0.13%
   QC value within limits for Sr 421.552  Recovery = 102.34%
Ti 334.940†           345783.6      499.81 ug/L         0.154      499.81 ppb          0.154   0.03%
   QC value within limits for Ti 334.940  Recovery = 99.96%
Tl 190.801†             1938.0      505.97 ug/L         0.782      505.97 ppb          0.782   0.15%
   QC value within limits for Tl 190.801  Recovery = 101.19%
U 409.014†             18111.5      497.36 ug/L         4.597      497.36 ppb          4.597   0.92%
   QC value within limits for U 409.014  Recovery = 99.47%
V 292.402†             80187.4      516.69 ug/L         1.475      516.69 ppb          1.475   0.29%
   QC value within limits for V 292.402  Recovery = 103.34%
Zn 213.857†            62410.5      507.29 ug/L         2.012      507.29 ppb          2.012   0.40%
   QC value within limits for Zn 213.857  Recovery = 101.46%
SiO2†                  88169.3      5312.6 ug/L       106.34      5312.6 ppb        106.34   2.00%
   QC value within limits for SiO2  Recovery = 99.35%
All analyte(s) passed QC.
```

Sequence No.: 70
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 12/19/2009 21:27:32
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5542.7	5542.7	99.6	%			21:29:24
1	Y RADIAL	5933.7	5933.7	100.4	%			21:29:24
1	Al 396.153Radial†	6.8	23.3	16.927	ug/L	16.927	ppb	21:29:24
1	Ca 317.933Radial†	17.3	-2.2	-3.2042	ug/L	-3.2042	ppb	21:29:44
1	Fe 238.204 Radial†	7.8	-3.0	-25.335	ug/L	-25.335	ppb	21:29:44
1	K 766.490 Radial†	2799.9	99.8	17.623	ug/L	17.623	ppb	21:29:24
1	Mg 279.077 IEC†	4.8	3.4	105.48	ug/L	105.48	ppb	21:29:44
1	Na 589.592 Radial†	-983.7	-226.4	-67.580	ug/L	-67.580	ppb	21:29:24
1	Sr 421.552†	-10.9	0.8	0.0048	ug/L	0.0048	ppb	21:29:24
1	Sc 361.383	925819.9	925819.9	102.99	%			21:30:41
1	Y 371.029	766525.1	766525.1	102.96	%			21:30:41
1	Ag 328.068†	427.0	44.7	0.1838	ug/L	0.1838	ppb	21:30:46
1	As 188.979†	-29.1	6.5	2.3758	ug/L	2.3758	ppb	21:31:06
1	B 249.677†	-390.6	-353.3	-7.2479	ug/L	-7.2479	ppb	21:31:06
1	Ba 233.527†	0.5	3.0	0.0200	ug/L	0.0200	ppb	21:31:06
1	Be 313.107†	-4565.0	298.8	0.1006	ug/L	0.1006	ppb	21:30:46
1	Cd 226.502†	-232.6	3.3	0.0352	ug/L	0.0352	ppb	21:31:06
1	Co 228.616†	-82.1	7.4	0.1307	ug/L	0.1307	ppb	21:31:06
1	Cr 267.716†	85.3	2.7	0.0269	ug/L	0.0269	ppb	21:31:06
1	Cu 324.752†	6249.9	12.7	0.0346	ug/L	0.0346	ppb	21:30:46
1	Mn 257.610†	548.2	40.8	0.0358	ug/L	0.0358	ppb	21:31:06
1	Mo 202.031†	28.1	7.4	0.4438	ug/L	0.4438	ppb	21:31:06
1	Ni 231.604†	126.1	28.8	0.6300	ug/L	0.6300	ppb	21:31:06
1	P 214.914†	242.6	-22.5	-11.695	ug/L	-11.695	ppb	21:31:06
1	Pb 220.353†	-82.4	-16.0	-1.6754	ug/L	-1.6754	ppb	21:31:06
1	S 181.975 Axial†	42.9	-7.4	-9.0398	ug/L	-9.0398	ppb	21:31:06
1	Sb 206.836†	27.1	-14.9	-4.4291	ug/L	-4.4291	ppb	21:31:06
1	Se 196.026†	-26.2	3.1	1.6094	ug/L	1.6094	ppb	21:31:06
1	Si 251.611†	733.2	134.5	3.7742	ug/L	3.7742	ppb	21:31:06
1	Sn 189.927†	12.1	8.3	1.2443	ug/L	1.2443	ppb	21:31:06
1	Ti 334.940†	-1274.6	150.0	0.2164	ug/L	0.2164	ppb	21:30:46
1	Tl 190.801†	-28.4	20.5	5.3186	ug/L	5.3186	ppb	21:31:06
1	U 409.014†	-2414.4	28.0	0.7743	ug/L	0.7743	ppb	21:30:41
1	V 292.402†	-1496.3	16.6	0.1197	ug/L	0.1197	ppb	21:30:46
1	Zn 213.857†	790.9	-25.6	-0.2152	ug/L	-0.2152	ppb	21:31:06
1	SiO2†	711.4	84.1	5.0543	ug/L	5.0543	ppb	21:32:12
2	Sc Radial	5620.8	5620.8	101	%			21:29:49
2	Y RADIAL	5978.0	5978.0	101.1	%			21:29:49
2	Al 396.153Radial†	-5.0	11.5	8.3261	ug/L	8.3261	ppb	21:29:49
2	Ca 317.933Radial†	18.4	-1.3	-1.8814	ug/L	-1.8814	ppb	21:30:09
2	Fe 238.204 Radial†	11.6	0.6	5.1512	ug/L	5.1512	ppb	21:30:09
2	K 766.490 Radial†	2867.8	128.1	22.599	ug/L	22.599	ppb	21:29:49
2	Mg 279.077 IEC†	1.8	0.4	13.140	ug/L	13.140	ppb	21:30:09
2	Na 589.592 Radial†	-928.3	-157.8	-47.110	ug/L	-47.110	ppb	21:29:49
2	Sr 421.552†	-11.3	0.6	0.0035	ug/L	0.0035	ppb	21:29:49
2	Sc 361.383	913155.8	913155.8	101.58	%			21:31:11
2	Y 371.029	756784.6	756784.6	101.65	%			21:31:11
2	Ag 328.068†	437.0	60.3	0.2628	ug/L	0.2628	ppb	21:31:16
2	As 188.979†	-22.9	12.2	4.4491	ug/L	4.4491	ppb	21:31:36
2	B 249.677†	-394.9	-362.8	-7.4473	ug/L	-7.4473	ppb	21:31:36
2	Ba 233.527†	13.3	15.7	0.1076	ug/L	0.1076	ppb	21:31:36
2	Be 313.107†	-4569.5	232.9	0.0784	ug/L	0.0784	ppb	21:31:16
2	Cd 226.502†	-217.0	15.5	0.1517	ug/L	0.1517	ppb	21:31:36
2	Co 228.616†	-79.8	8.6	0.1519	ug/L	0.1519	ppb	21:31:36
2	Cr 267.716†	111.0	29.1	0.2957	ug/L	0.2957	ppb	21:31:36
2	Cu 324.752†	6179.5	27.5	0.0780	ug/L	0.0780	ppb	21:31:16
2	Mn 257.610†	524.4	24.7	0.0246	ug/L	0.0246	ppb	21:31:36
2	Mo 202.031†	33.3	12.9	0.7795	ug/L	0.7795	ppb	21:31:36
2	Ni 231.604†	126.3	30.7	0.6708	ug/L	0.6708	ppb	21:31:36

2	P 214.914†	244.7	-17.2	-8.9634	ug/L	-8.9634 ppb	21:31:36
2	Pb 220.353†	-77.0	-11.8	-1.2358	ug/L	-1.2358 ppb	21:31:36
2	S 181.975 Axial†	57.4	7.5	9.1942	ug/L	9.1942 ppb	21:31:36
2	Sb 206.836†	49.8	7.8	2.3611	ug/L	2.3611 ppb	21:31:36
2	Se 196.026†	-31.7	-2.7	-1.4352	ug/L	-1.4352 ppb	21:31:36
2	Si 251.611†	689.6	101.4	2.8341	ug/L	2.8341 ppb	21:31:36
2	Sn 189.927†	10.4	6.7	1.0096	ug/L	1.0096 ppb	21:31:36
2	Ti 334.940†	-1323.2	85.0	0.1225	ug/L	0.1225 ppb	21:31:16
2	Tl 190.801†	-38.3	10.4	2.6987	ug/L	2.6987 ppb	21:31:36
2	U 409.014†	-2393.0	16.6	0.4558	ug/L	0.4558 ppb	21:31:11
2	V 292.402†	-1426.6	65.1	0.4254	ug/L	0.4254 ppb	21:31:16
2	Zn 213.857†	790.4	-15.4	-0.1320	ug/L	-0.1320 ppb	21:31:36
2	SiO2†	717.1	99.3	5.9593	ug/L	5.9593 ppb	21:32:17
3	Sc Radial	5628.4	5628.4	101	%		21:30:14
3	Y RADIAL	6012.5	6012.5	101.7	%		21:30:14
3	Al 396.153Radial†	-30.1	-13.4	-9.8100	ug/L	-9.8100 ppb	21:30:14
3	Ca 317.933Radial†	18.3	-1.5	-2.0853	ug/L	-2.0853 ppb	21:30:34
3	Fe 238.204 Radial†	10.0	-1.0	-8.5186	ug/L	-8.5186 ppb	21:30:34
3	K 766.490 Radial†	2915.8	171.7	30.289	ug/L	30.289 ppb	21:30:14
3	Mg 279.077 IEC†	3.2	1.7	53.922	ug/L	53.922 ppb	21:30:34
3	Na 589.592 Radial†	-983.9	-211.6	-63.152	ug/L	-63.152 ppb	21:30:14
3	Sr 421.552†	-18.1	-6.1	-0.0355	ug/L	-0.0355 ppb	21:30:14
3	Sc 361.383	921008.9	921008.9	102.46	%		21:31:41
3	Y 371.029	762473.2	762473.2	102.42	%		21:31:41
3	Ag 328.068†	459.9	79.0	0.3382	ug/L	0.3382 ppb	21:31:46
3	As 188.979†	-33.7	1.9	0.6915	ug/L	0.6915 ppb	21:32:06
3	B 249.677†	-403.3	-367.6	-7.5440	ug/L	-7.5440 ppb	21:32:06
3	Ba 233.527†	5.1	7.6	0.0511	ug/L	0.0511 ppb	21:32:06
3	Be 313.107†	-4542.2	297.9	0.1001	ug/L	0.1001 ppb	21:31:46
3	Cd 226.502†	-218.5	15.9	0.1568	ug/L	0.1568 ppb	21:32:06
3	Co 228.616†	-86.4	2.7	0.0499	ug/L	0.0499 ppb	21:32:06
3	Cr 267.716†	90.4	8.1	0.0819	ug/L	0.0819 ppb	21:32:06
3	Cu 324.752†	6164.1	-39.4	-0.1117	ug/L	-0.1117 ppb	21:31:46
3	Mn 257.610†	546.1	41.6	0.0391	ug/L	0.0391 ppb	21:32:06
3	Mo 202.031†	33.1	12.4	0.7527	ug/L	0.7527 ppb	21:32:06
3	Ni 231.604†	122.3	25.8	0.5628	ug/L	0.5628 ppb	21:32:06
3	P 214.914†	242.8	-21.1	-10.982	ug/L	-10.982 ppb	21:32:06
3	Pb 220.353†	-58.9	6.6	0.6910	ug/L	0.6910 ppb	21:32:06
3	S 181.975 Axial†	54.2	3.9	4.7321	ug/L	4.7321 ppb	21:32:06
3	Sb 206.836†	28.5	-13.4	-3.9711	ug/L	-3.9711 ppb	21:32:06
3	Se 196.026†	-29.1	0.1	0.0171	ug/L	0.0171 ppb	21:32:06
3	Si 251.611†	694.8	100.6	2.8109	ug/L	2.8109 ppb	21:32:06
3	Sn 189.927†	10.8	7.1	1.0600	ug/L	1.0600 ppb	21:32:06
3	Ti 334.940†	-1360.6	59.7	0.0867	ug/L	0.0867 ppb	21:31:46
3	Tl 190.801†	-38.2	10.8	2.8060	ug/L	2.8060 ppb	21:32:06
3	U 409.014†	-2476.6	-45.0	-1.2383	ug/L	-1.2383 ppb	21:31:41
3	V 292.402†	-1523.4	-17.4	-0.1000	ug/L	-0.1000 ppb	21:31:46
3	Zn 213.857†	785.4	-27.0	-0.2262	ug/L	-0.2262 ppb	21:32:06
3	SiO2†	702.9	79.4	4.7493	ug/L	4.7493 ppb	21:32:22

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	919994.9	102.35	%	0.711				0.69%
Sc Radial	5597.3	101	%	0.9				0.85%
Y 371.029	761927.6	102.35	%	0.657				0.64%
Y RADIAL	5974.7	101.1	%	0.67				0.66%
Ag 328.068†	61.3	0.2616	ug/L	0.07721	0.2616	ppb	0.07721	29.51%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	7.1	5.1478	ug/L	13.64909	5.1478	ppb	13.64909	265.14%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	6.9	2.5055	ug/L	1.88218	2.5055	ppb	1.88218	75.12%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-361.3	-7.4130	ug/L	0.15101	-7.4130	ppb	0.15101	2.04%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	8.8	0.0596	ug/L	0.04442	0.0596	ppb	0.04442	74.56%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	276.5	0.0930	ug/L	0.01271	0.0930	ppb	0.01271	13.66%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-1.7	-2.3903	ug/L	0.71219	-2.3903	ppb	0.71219	29.79%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                11.6      0.1145 ug/L       0.06878      0.1145 ppb        0.06878  60.05%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                 6.2      0.1108 ug/L       0.05383      0.1108 ppb        0.05383  48.57%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                13.3      0.1348 ug/L       0.14202      0.1348 ppb        0.14202 105.32%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†                 0.3      0.0003 ug/L       0.09937      0.0003 ppb        0.09937 >999.9%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -1.2     -9.5674 ug/L      15.27007     -9.5674 ppb       15.27007 159.61%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         133.2      23.504 ug/L        6.3814      23.504 ppb         6.3814  27.15%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             1.9      57.513 ug/L       46.2723      57.513 ppb        46.2723  80.46%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                35.7      0.0332 ug/L       0.00759      0.0332 ppb        0.00759  22.87%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                10.9      0.6587 ug/L       0.18655      0.6587 ppb        0.18655  28.32%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      -198.6     -59.281 ug/L       10.7698     -59.281 ppb        10.7698  18.17%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                28.4      0.6212 ug/L       0.05454      0.6212 ppb        0.05454   8.78%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -20.3     -10.547 ug/L        1.4169     -10.547 ppb         1.4169  13.43%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -7.1     -0.7401 ug/L       1.25868     -0.7401 ppb        1.25868 170.08%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            1.3      1.6288 ug/L       9.50485      1.6288 ppb        9.50485 583.54%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                -6.8     -2.0130 ug/L       3.79501     -2.0130 ppb        3.79501 188.52%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 0.2      0.0638 ug/L       1.52281      0.0638 ppb        1.52281 >999.9%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†               112.2      3.1397 ug/L       0.54959      3.1397 ppb        0.54959  17.50%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 7.4      1.1046 ug/L       0.12353      1.1046 ppb        0.12353  11.18%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                -1.6     -0.0091 ug/L       0.02293     -0.0091 ppb        0.02293 252.71%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                98.2      0.1419 ug/L       0.06699      0.1419 ppb        0.06699  47.22%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                13.9      3.6078 ug/L       1.48258      3.6078 ppb        1.48258  41.09%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 -0.1     -0.0027 ug/L       1.08181     -0.0027 ppb        1.08181 >999.9%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 21.4      0.1483 ug/L       0.26385      0.1483 ppb        0.26385 177.86%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               -22.7     -0.1911 ug/L       0.05152     -0.1911 ppb        0.05152  26.96%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                      87.6      5.2543 ug/L       0.62928      5.2543 ppb        0.62928  11.98%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 79
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 12/19/2009 22:31:15
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5558.1	5558.1	99.8	%			22:33:07
1	Y RADIAL	5857.2	5857.2	99.08	%			22:33:07
1	Al 396.153Radial†	6877.6	6905.4	5010.3	ug/L	5010.3	ppb	22:33:07
1	Ca 317.933Radial†	3554.8	3541.1	5048.7	ug/L	5048.7	ppb	22:33:27
1	Fe 238.204 Radial†	630.4	620.5	5174.6	ug/L	5174.6	ppb	22:33:27
1	K 766.490 Radial†	30661.4	27999.9	4926.1	ug/L	4926.1	ppb	22:33:07
1	Mg 279.077 IEC†	168.5	167.4	5203.2	ug/L	5203.2	ppb	22:33:27
1	Na 589.592 Radial†	33266.0	34082.9	10173	ug/L	10173	ppb	22:33:07
1	Sr 421.552†	86595.2	86750.8	508.65	ug/L	508.65	ppb	22:33:07
1	Sc 361.383	910574.2	910574.2	101.30	%			22:34:25
1	Y 371.029	744846.1	744846.1	100.05	%			22:34:25
1	Ag 328.068†	119310.7	117412.3	509.22	ug/L	509.22	ppb	22:34:30
1	As 188.979†	1369.6	1386.9	507.88	ug/L	507.88	ppb	22:34:50
1	B 249.677†	24306.2	24020.8	491.00	ug/L	491.00	ppb	22:34:30
1	Ba 233.527†	75816.4	74847.7	510.04	ug/L	510.04	ppb	22:34:30
1	Be 313.107†	1536172.3	1521223.7	511.15	ug/L	511.15	ppb	22:34:25
1	Cd 226.502†	52664.5	52219.0	510.51	ug/L	510.51	ppb	22:34:30
1	Co 228.616†	29345.9	29057.0	508.78	ug/L	508.78	ppb	22:34:30
1	Cr 267.716†	51235.4	50498.9	512.81	ug/L	512.81	ppb	22:34:30
1	Cu 324.752†	187878.9	179416.4	507.18	ug/L	507.18	ppb	22:34:30
1	Mn 257.610†	521403.0	514231.8	507.64	ug/L	507.64	ppb	22:34:25
1	Mo 202.031†	8357.4	8230.5	498.57	ug/L	498.57	ppb	22:34:50
1	Ni 231.604†	23870.8	23471.4	512.50	ug/L	512.50	ppb	22:34:30
1	P 214.914†	5061.8	4738.9	2395.0	ug/L	2395.0	ppb	22:34:50
1	Pb 220.353†	4732.6	4736.0	500.61	ug/L	500.61	ppb	22:34:50
1	S 181.975 Axial†	862.4	802.3	983.32	ug/L	983.32	ppb	22:34:50
1	Sb 206.836†	1706.6	1643.5	499.23	ug/L	499.23	ppb	22:34:50
1	Se 196.026†	893.0	910.1	513.79	ug/L	513.79	ppb	22:34:50
1	Si 251.611†	91236.4	89490.1	2511.6	ug/L	2511.6	ppb	22:34:30
1	Sn 189.927†	3351.3	3304.9	496.25	ug/L	496.25	ppb	22:34:50
1	Ti 334.940†	350860.8	347753.5	502.66	ug/L	502.66	ppb	22:34:25
1	Tl 190.801†	1908.2	1931.8	504.41	ug/L	504.41	ppb	22:34:50
1	U 409.014†	16009.9	18177.0	499.18	ug/L	499.18	ppb	22:34:30
1	V 292.402†	79823.6	80270.4	517.21	ug/L	517.21	ppb	22:34:30
1	Zn 213.857†	64033.9	62420.0	507.38	ug/L	507.38	ppb	22:34:30
1	SiO2†	90311.1	88547.5	5335.6	ug/L	5335.6	ppb	22:35:58
2	Sc Radial	5515.3	5515.3	99.1	%			22:33:32
2	Y RADIAL	5842.7	5842.7	98.84	%			22:33:32
2	Al 396.153Radial†	6902.7	6984.1	5067.5	ug/L	5067.5	ppb	22:33:32
2	Ca 317.933Radial†	3567.5	3581.5	5106.3	ug/L	5106.3	ppb	22:33:52
2	Fe 238.204 Radial†	641.5	636.7	5308.8	ug/L	5308.8	ppb	22:33:52
2	K 766.490 Radial†	30801.5	28379.2	4992.9	ug/L	4992.9	ppb	22:33:32
2	Mg 279.077 IEC†	168.1	168.3	5230.8	ug/L	5230.8	ppb	22:33:52
2	Na 589.592 Radial†	33475.4	34552.4	10313	ug/L	10313	ppb	22:33:32
2	Sr 421.552†	86823.1	87652.7	513.94	ug/L	513.94	ppb	22:33:32
2	Sc 361.383	911232.9	911232.9	101.37	%			22:34:56
2	Y 371.029	745221.1	745221.1	100.10	%			22:34:56
2	Ag 328.068†	118404.0	116432.7	505.04	ug/L	505.04	ppb	22:35:01
2	As 188.979†	1370.8	1387.0	507.96	ug/L	507.96	ppb	22:35:21
2	B 249.677†	24181.7	23880.6	488.12	ug/L	488.12	ppb	22:35:01
2	Ba 233.527†	75264.6	74249.3	505.97	ug/L	505.97	ppb	22:35:01
2	Be 313.107†	1542713.1	1526579.6	512.94	ug/L	512.94	ppb	22:34:56
2	Cd 226.502†	52394.3	51914.9	507.52	ug/L	507.52	ppb	22:35:01
2	Co 228.616†	29032.6	28727.1	503.01	ug/L	503.01	ppb	22:35:01
2	Cr 267.716†	50876.1	50107.8	508.85	ug/L	508.85	ppb	22:35:01
2	Cu 324.752†	186389.4	177813.0	502.66	ug/L	502.66	ppb	22:35:01
2	Mn 257.610†	522647.3	515087.2	508.50	ug/L	508.50	ppb	22:34:56
2	Mo 202.031†	8424.6	8290.8	502.23	ug/L	502.23	ppb	22:35:21
2	Ni 231.604†	23660.8	23247.2	507.61	ug/L	507.61	ppb	22:35:01

2	P 214.914†	5106.8	4779.6	2416.9 ug/L	2416.9 ppb	22:35:21
2	Pb 220.353†	4778.7	4778.2	505.06 ug/L	505.06 ppb	22:35:21
2	S 181.975 Axial†	873.3	812.5	995.73 ug/L	995.73 ppb	22:35:21
2	Sb 206.836†	1723.5	1659.0	504.10 ug/L	504.10 ppb	22:35:21
2	Se 196.026†	901.0	917.4	518.20 ug/L	518.20 ppb	22:35:21
2	Si 251.611†	90540.4	88738.4	2490.3 ug/L	2490.3 ppb	22:35:01
2	Sn 189.927†	3385.8	3336.5	501.00 ug/L	501.00 ppb	22:35:21
2	Ti 334.940†	351606.4	348238.7	503.37 ug/L	503.37 ppb	22:34:56
2	Tl 190.801†	1921.3	1943.4	507.45 ug/L	507.45 ppb	22:35:21
2	U 409.014†	15792.0	17950.7	492.93 ug/L	492.93 ppb	22:35:01
2	V 292.402†	79278.7	79675.9	513.45 ug/L	513.45 ppb	22:35:01
2	Zn 213.857†	63515.3	61862.8	502.83 ug/L	502.83 ppb	22:35:01
2	SiO2†	91419.7	89576.6	5397.7 ug/L	5397.7 ppb	22:36:03
3	Sc Radial	5533.8	5533.8	99.4 %		22:33:58
3	Y RADIAL	5853.1	5853.1	99.01 %		22:33:58
3	Al 396.153Radial†	6913.3	6971.6	5058.3 ug/L	5058.3 ppb	22:33:58
3	Ca 317.933Radial†	3547.2	3549.1	5060.0 ug/L	5060.0 ppb	22:34:18
3	Fe 238.204 Radial†	636.3	629.3	5247.6 ug/L	5247.6 ppb	22:34:18
3	K 766.490 Radial†	30930.0	28405.0	4997.4 ug/L	4997.4 ppb	22:33:58
3	Mg 279.077 IEC†	167.7	167.3	5200.1 ug/L	5200.1 ppb	22:34:18
3	Na 589.592 Radial†	33761.7	34727.9	10365 ug/L	10365 ppb	22:33:58
3	Sr 421.552†	87399.7	87941.0	515.63 ug/L	515.63 ppb	22:33:58
3	Sc 361.383	905706.3	905706.3	100.76 %		22:35:27
3	Y 371.029	740059.4	740059.4	99.408 %		22:35:27
3	Ag 328.068†	118880.3	117618.2	510.13 ug/L	510.13 ppb	22:35:32
3	As 188.979†	1376.1	1400.6	512.90 ug/L	512.90 ppb	22:35:53
3	B 249.677†	24300.9	24144.4	493.52 ug/L	493.52 ppb	22:35:32
3	Ba 233.527†	75705.5	75139.9	512.03 ug/L	512.03 ppb	22:35:32
3	Be 313.107†	1536269.2	1529470.5	513.92 ug/L	513.92 ppb	22:35:27
3	Cd 226.502†	52600.5	52434.9	512.61 ug/L	512.61 ppb	22:35:32
3	Co 228.616†	29277.7	29145.0	510.33 ug/L	510.33 ppb	22:35:32
3	Cr 267.716†	51086.5	50622.9	514.07 ug/L	514.07 ppb	22:35:32
3	Cu 324.752†	187127.1	179667.1	507.89 ug/L	507.89 ppb	22:35:32
3	Mn 257.610†	521722.8	517315.8	510.69 ug/L	510.69 ppb	22:35:27
3	Mo 202.031†	8407.3	8324.3	504.25 ug/L	504.25 ppb	22:35:53
3	Ni 231.604†	23825.9	23553.5	514.30 ug/L	514.30 ppb	22:35:32
3	P 214.914†	5117.0	4820.6	2437.5 ug/L	2437.5 ppb	22:35:53
3	Pb 220.353†	4806.9	4834.9	511.04 ug/L	511.04 ppb	22:35:53
3	S 181.975 Axial†	879.2	823.6	1009.4 ug/L	1009.4 ppb	22:35:53
3	Sb 206.836†	1718.0	1663.9	505.49 ug/L	505.49 ppb	22:35:53
3	Se 196.026†	903.6	925.3	522.34 ug/L	522.34 ppb	22:35:53
3	Si 251.611†	91159.6	89898.0	2522.9 ug/L	2522.9 ppb	22:35:32
3	Sn 189.927†	3364.5	3335.8	500.89 ug/L	500.89 ppb	22:35:53
3	Ti 334.940†	350410.5	349168.2	504.70 ug/L	504.70 ppb	22:35:27
3	Tl 190.801†	1932.6	1966.1	513.33 ug/L	513.33 ppb	22:35:53
3	U 409.014†	16059.7	18311.4	502.87 ug/L	502.87 ppb	22:35:32
3	V 292.402†	79430.1	80303.4	517.50 ug/L	517.50 ppb	22:35:32
3	Zn 213.857†	63881.1	62608.1	508.90 ug/L	508.90 ppb	22:35:32
3	SiO2†	90624.8	89338.0	5383.2 ug/L	5383.2 ppb	22:36:08

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	909171.1	101.14	%	0.336				0.33%
Sc Radial	5535.7	99.4	%	0.38				0.39%
Y 371.029	743375.5	99.854	%	0.3866				0.39%
Y RADIAL	5851.0	98.98	%	0.127				0.13%
Ag 328.068†	117154.4	508.13	ug/L	2.718	508.13	ppb	2.718	0.53%
QC value within limits for Ag 328.068 Recovery = 101.63%								
Al 396.153Radial†	6953.7	5045.4	ug/L	30.70	5045.4	ppb	30.70	0.61%
QC value within limits for Al 396.153Radial Recovery = 100.91%								
As 188.979†	1391.5	509.58	ug/L	2.872	509.58	ppb	2.872	0.56%
QC value within limits for As 188.979 Recovery = 101.92%								
B 249.677†	24015.3	490.88	ug/L	2.704	490.88	ppb	2.704	0.55%
QC value within limits for B 249.677 Recovery = 98.18%								
Ba 233.527†	74745.6	509.35	ug/L	3.089	509.35	ppb	3.089	0.61%
QC value within limits for Ba 233.527 Recovery = 101.87%								
Be 313.107†	1525757.9	512.67	ug/L	1.405	512.67	ppb	1.405	0.27%
QC value within limits for Be 313.107 Recovery = 102.53%								
Ca 317.933Radial†	3557.2	5071.7	ug/L	30.52	5071.7	ppb	30.52	0.60%

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   QC value within limits for Ca 317.933Radial  Recovery = 101.43%
Cd 226.502†            52189.6      510.21 ug/L         2.561      510.21 ppb          2.561   0.50%
   QC value within limits for Cd 226.502  Recovery = 102.04%
Co 228.616†            28976.4      507.37 ug/L         3.857      507.37 ppb          3.857   0.76%
   QC value within limits for Co 228.616  Recovery = 101.47%
Cr 267.716†            50409.9      511.91 ug/L         2.727      511.91 ppb          2.727   0.53%
   QC value within limits for Cr 267.716  Recovery = 102.38%
Cu 324.752†           178965.5      505.91 ug/L         2.840      505.91 ppb          2.840   0.56%
   QC value within limits for Cu 324.752  Recovery = 101.18%
Fe 238.204 Radial†       628.8      5243.6 ug/L         67.19      5243.6 ppb          67.19   1.28%
   QC value within limits for Fe 238.204 Radial  Recovery = 104.87%
K 766.490 Radial†      28261.3      4972.1 ug/L         39.93      4972.1 ppb          39.93   0.80%
   QC value within limits for K 766.490 Radial  Recovery = 99.44%
Mg 279.077 IEC†          167.7      5211.4 ug/L         16.94      5211.4 ppb          16.94   0.33%
   QC value within limits for Mg 279.077 IEC  Recovery = 104.23%
Mn 257.610†           515544.9      508.94 ug/L         1.573      508.94 ppb          1.573   0.31%
   QC value within limits for Mn 257.610  Recovery = 101.79%
Mo 202.031†             8281.9      501.68 ug/L         2.881      501.68 ppb          2.881   0.57%
   QC value within limits for Mo 202.031  Recovery = 100.34%
Na 589.592 Radial†     34454.4       10284 ug/L          99.5       10284 ppb           99.5   0.97%
   QC value within limits for Na 589.592 Radial  Recovery = 102.84%
Ni 231.604†            23424.0      511.47 ug/L         3.461      511.47 ppb          3.461   0.68%
   QC value within limits for Ni 231.604  Recovery = 102.29%
P 214.914†              4779.7      2416.5 ug/L         21.25      2416.5 ppb          21.25   0.88%
   QC value within limits for P 214.914  Recovery = 96.66%
Pb 220.353†             4783.0      505.57 ug/L         5.237      505.57 ppb          5.237   1.04%
   QC value within limits for Pb 220.353  Recovery = 101.11%
S 181.975 Axial†         812.8      996.15 ug/L        13.040      996.15 ppb         13.040   1.31%
   QC value within limits for S 181.975 Axial  Recovery = 99.61%
Sb 206.836†             1655.5      502.94 ug/L         3.289      502.94 ppb          3.289   0.65%
   QC value within limits for Sb 206.836  Recovery = 100.59%
Se 196.026†              917.6      518.11 ug/L         4.275      518.11 ppb          4.275   0.83%
   QC value within limits for Se 196.026  Recovery = 103.62%
Si 251.611†            89375.5      2508.3 ug/L         16.58      2508.3 ppb          16.58   0.66%
   QC value within limits for Si 251.611  Recovery = 100.33%
Sn 189.927†             3325.7      499.38 ug/L         2.711      499.38 ppb          2.711   0.54%
   QC value within limits for Sn 189.927  Recovery = 99.88%
Sr 421.552†            87448.2      512.74 ug/L         3.641      512.74 ppb          3.641   0.71%
   QC value within limits for Sr 421.552  Recovery = 102.55%
Ti 334.940†           348386.8      503.58 ug/L         1.038      503.58 ppb          1.038   0.21%
   QC value within limits for Ti 334.940  Recovery = 100.72%
Tl 190.801†             1947.1      508.40 ug/L         4.538      508.40 ppb          4.538   0.89%
   QC value within limits for Tl 190.801  Recovery = 101.68%
U 409.014†             18146.4      498.32 ug/L         5.023      498.32 ppb          5.023   1.01%
   QC value within limits for U 409.014  Recovery = 99.66%
V 292.402†             80083.2      516.05 ug/L         2.257      516.05 ppb          2.257   0.44%
   QC value within limits for V 292.402  Recovery = 103.21%
Zn 213.857†            62297.0      506.37 ug/L         3.158      506.37 ppb          3.158   0.62%
   QC value within limits for Zn 213.857  Recovery = 101.27%
SiO2†                  89154.0      5372.2 ug/L         32.48      5372.2 ppb          32.48   0.60%
   QC value within limits for SiO2  Recovery = 100.46%
All analyte(s) passed QC.
```

Sequence No.: 80
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 12/19/2009 22:38:18
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5586.0	5586.0	100	%			22:40:10
1	Y RADIAL	5946.8	5946.8	100.6	%			22:40:10
1	Al 396.153Radial†	-37.4	-20.9	-15.259	ug/L	-15.259	ppb	22:40:10
1	Ca 317.933Radial†	15.5	-4.1	-5.8835	ug/L	-5.8835	ppb	22:40:30
1	Fe 238.204 Radial†	11.8	0.9	7.5314	ug/L	7.5314	ppb	22:40:30
1	K 766.490 Radial†	2847.9	126.0	22.236	ug/L	22.236	ppb	22:40:10
1	Mg 279.077 IEC†	1.1	-0.3	-7.8212	ug/L	-7.8212	ppb	22:40:30
1	Na 589.592 Radial†	-1014.7	-249.7	-74.517	ug/L	-74.517	ppb	22:40:10
1	Sr 421.552†	-4.7	7.2	0.0421	ug/L	0.0421	ppb	22:40:10
1	Sc 361.383	899058.9	899058.9	100.02	%			22:41:27
1	Y 371.029	753225.3	753225.3	101.18	%			22:41:27
1	Ag 328.068†	410.2	40.2	0.1807	ug/L	0.1807	ppb	22:41:27
1	As 188.979†	-28.7	6.1	2.2205	ug/L	2.2205	ppb	22:41:47
1	B 249.677†	-437.7	-411.7	-8.4504	ug/L	-8.4504	ppb	22:41:47
1	Ba 233.527†	18.5	21.1	0.1426	ug/L	0.1426	ppb	22:41:47
1	Be 313.107†	-4442.1	289.7	0.0970	ug/L	0.0970	ppb	22:41:27
1	Cd 226.502†	-220.7	8.5	0.0826	ug/L	0.0826	ppb	22:41:47
1	Co 228.616†	-61.9	25.2	0.4435	ug/L	0.4435	ppb	22:41:47
1	Cr 267.716†	100.2	20.1	0.2052	ug/L	0.2052	ppb	22:41:47
1	Cu 324.752†	6051.2	-5.3	-0.0147	ug/L	-0.0147	ppb	22:41:27
1	Mn 257.610†	528.7	37.1	0.0375	ug/L	0.0375	ppb	22:41:47
1	Mo 202.031†	29.6	9.7	0.5860	ug/L	0.5860	ppb	22:41:47
1	Ni 231.604†	105.7	12.1	0.2636	ug/L	0.2636	ppb	22:41:47
1	P 214.914†	239.8	-18.3	-9.5394	ug/L	-9.5394	ppb	22:41:47
1	Pb 220.353†	-89.4	-25.3	-2.6687	ug/L	-2.6687	ppb	22:41:47
1	S 181.975 Axial†	44.3	-4.7	-5.7563	ug/L	-5.7563	ppb	22:41:47
1	Sb 206.836†	43.5	2.3	0.7051	ug/L	0.7051	ppb	22:41:47
1	Se 196.026†	-26.1	2.4	1.3309	ug/L	1.3309	ppb	22:41:47
1	Si 251.611†	652.6	75.0	2.0967	ug/L	2.0967	ppb	22:41:47
1	Sn 189.927†	6.9	3.4	0.5136	ug/L	0.5136	ppb	22:41:47
1	Ti 334.940†	-1442.8	-54.9	-0.0761	ug/L	-0.0761	ppb	22:41:27
1	Tl 190.801†	-38.2	9.9	2.5692	ug/L	2.5692	ppb	22:41:47
1	U 409.014†	-2677.5	-304.8	-8.3997	ug/L	-8.3997	ppb	22:41:27
1	V 292.402†	-1557.1	-87.4	-0.5650	ug/L	-0.5650	ppb	22:41:27
1	Zn 213.857†	799.5	5.9	0.0459	ug/L	0.0459	ppb	22:41:47
1	SiO2†	688.8	82.0	4.9232	ug/L	4.9232	ppb	22:42:43
2	Sc Radial	5503.1	5503.1	98.8	%			22:40:35
2	Y RADIAL	5875.5	5875.5	99.39	%			22:40:35
2	Al 396.153Radial†	-22.3	-6.2	-4.5540	ug/L	-4.5540	ppb	22:40:35
2	Ca 317.933Radial†	15.9	-3.5	-5.0278	ug/L	-5.0278	ppb	22:40:55
2	Fe 238.204 Radial†	12.4	1.6	13.418	ug/L	13.418	ppb	22:40:55
2	K 766.490 Radial†	2901.0	222.4	39.238	ug/L	39.238	ppb	22:40:35
2	Mg 279.077 IEC†	1.3	-0.0	-1.3349	ug/L	-1.3349	ppb	22:40:55
2	Na 589.592 Radial†	-1052.6	-303.2	-90.486	ug/L	-90.486	ppb	22:40:35
2	Sr 421.552†	9.2	21.1	0.1238	ug/L	0.1238	ppb	22:40:35
2	Sc 361.383	897778.1	897778.1	99.874	%			22:41:52
2	Y 371.029	752422.0	752422.0	101.07	%			22:41:52
2	Ag 328.068†	441.9	72.5	0.3166	ug/L	0.3166	ppb	22:41:52
2	As 188.979†	-32.9	1.9	0.6983	ug/L	0.6983	ppb	22:42:12
2	B 249.677†	-460.9	-435.6	-8.9405	ug/L	-8.9405	ppb	22:42:12
2	Ba 233.527†	-8.1	-5.5	-0.0381	ug/L	-0.0381	ppb	22:42:12
2	Be 313.107†	-4470.2	255.3	0.0857	ug/L	0.0857	ppb	22:41:52
2	Cd 226.502†	-217.1	11.8	0.1143	ug/L	0.1143	ppb	22:42:12
2	Co 228.616†	-90.5	-3.5	-0.0599	ug/L	-0.0599	ppb	22:42:12
2	Cr 267.716†	107.6	27.6	0.2792	ug/L	0.2792	ppb	22:42:12
2	Cu 324.752†	6052.2	4.3	0.0127	ug/L	0.0127	ppb	22:41:52
2	Mn 257.610†	514.6	23.7	0.0248	ug/L	0.0248	ppb	22:42:12
2	Mo 202.031†	32.5	12.7	0.7695	ug/L	0.7695	ppb	22:42:12
2	Ni 231.604†	108.1	14.7	0.3209	ug/L	0.3209	ppb	22:42:12

2	P 214.914†	250.1	-7.6	-3.9972	ug/L	-3.9972	ppb	22:42:12
2	Pb 220.353†	-70.1	-6.1	-0.6430	ug/L	-0.6430	ppb	22:42:12
2	S 181.975 Axial†	45.8	-3.1	-3.8427	ug/L	-3.8427	ppb	22:42:12
2	Sb 206.836†	43.3	2.2	0.6514	ug/L	0.6514	ppb	22:42:12
2	Se 196.026†	-21.3	7.2	3.9693	ug/L	3.9693	ppb	22:42:12
2	Si 251.611†	673.9	97.3	2.7185	ug/L	2.7185	ppb	22:42:12
2	Sn 189.927†	0.9	-2.6	-0.3952	ug/L	-0.3952	ppb	22:42:12
2	Ti 334.940†	-1362.5	23.4	0.0340	ug/L	0.0340	ppb	22:41:52
2	Tl 190.801†	-29.4	18.7	4.8419	ug/L	4.8419	ppb	22:42:12
2	U 409.014†	-2415.5	-46.3	-1.2790	ug/L	-1.2790	ppb	22:41:52
2	V 292.402†	-1534.1	-66.7	-0.4177	ug/L	-0.4177	ppb	22:41:52
2	Zn 213.857†	790.5	-2.0	-0.0199	ug/L	-0.0199	ppb	22:42:12
2	SiO2†	701.6	95.8	5.7468	ug/L	5.7468	ppb	22:42:48
3	Sc Radial	5633.9	5633.9	101	%			22:41:00
3	Y RADIAL	5989.2	5989.2	101.3	%			22:41:00
3	Al 396.153Radial†	-0.5	15.9	11.562	ug/L	11.562	ppb	22:41:00
3	Ca 317.933Radial†	15.8	-4.0	-5.7039	ug/L	-5.7039	ppb	22:41:20
3	Fe 238.204 Radial†	9.1	-1.9	-16.002	ug/L	-16.002	ppb	22:41:20
3	K 766.490 Radial†	2961.1	213.7	37.696	ug/L	37.696	ppb	22:41:00
3	Mg 279.077 IEC†	4.9	3.4	105.84	ug/L	105.84	ppb	22:41:20
3	Na 589.592 Radial†	-994.6	-221.2	-66.020	ug/L	-66.020	ppb	22:41:00
3	Sr 421.552†	40.5	51.9	0.3041	ug/L	0.3041	ppb	22:41:00
3	Sc 361.383	896723.6	896723.6	99.757	%			22:42:17
3	Y 371.029	749182.2	749182.2	100.63	%			22:42:17
3	Ag 328.068†	451.5	82.7	0.3508	ug/L	0.3508	ppb	22:42:17
3	As 188.979†	-23.4	11.4	4.1268	ug/L	4.1268	ppb	22:42:37
3	B 249.677†	-449.9	-425.1	-8.7213	ug/L	-8.7213	ppb	22:42:37
3	Ba 233.527†	-4.5	-1.9	-0.0151	ug/L	-0.0151	ppb	22:42:37
3	Be 313.107†	-4456.2	264.0	0.0887	ug/L	0.0887	ppb	22:42:17
3	Cd 226.502†	-209.3	19.4	0.1917	ug/L	0.1917	ppb	22:42:37
3	Co 228.616†	-85.4	1.4	0.0269	ug/L	0.0269	ppb	22:42:37
3	Cr 267.716†	93.8	13.8	0.1395	ug/L	0.1395	ppb	22:42:37
3	Cu 324.752†	6179.7	139.2	0.3924	ug/L	0.3924	ppb	22:42:17
3	Mn 257.610†	526.5	36.3	0.0322	ug/L	0.0322	ppb	22:42:37
3	Mo 202.031†	28.9	9.1	0.5522	ug/L	0.5522	ppb	22:42:37
3	Ni 231.604†	129.8	36.5	0.7973	ug/L	0.7973	ppb	22:42:37
3	P 214.914†	246.1	-11.4	-5.9894	ug/L	-5.9894	ppb	22:42:37
3	Pb 220.353†	-73.4	-9.6	-1.0027	ug/L	-1.0027	ppb	22:42:37
3	S 181.975 Axial†	51.2	2.3	2.8119	ug/L	2.8119	ppb	22:42:37
3	Sb 206.836†	40.5	-0.6	-0.1779	ug/L	-0.1779	ppb	22:42:37
3	Se 196.026†	-27.5	0.9	0.4676	ug/L	0.4676	ppb	22:42:37
3	Si 251.611†	674.6	98.7	2.7602	ug/L	2.7602	ppb	22:42:37
3	Sn 189.927†	6.8	3.4	0.5054	ug/L	0.5054	ppb	22:42:37
3	Ti 334.940†	-1346.6	37.7	0.0554	ug/L	0.0554	ppb	22:42:17
3	Tl 190.801†	-40.7	7.3	1.8872	ug/L	1.8872	ppb	22:42:37
3	U 409.014†	-2463.3	-97.1	-2.6732	ug/L	-2.6732	ppb	22:42:17
3	V 292.402†	-1570.5	-104.9	-0.6597	ug/L	-0.6597	ppb	22:42:17
3	Zn 213.857†	792.8	1.2	0.0020	ug/L	0.0020	ppb	22:42:37
3	SiO2†	738.3	133.5	8.0294	ug/L	8.0294	ppb	22:42:53

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	897853.5	99.883	%	0.1301				0.13%
Sc Radial	5574.3	100	%	1.2				1.19%
Y 371.029	751609.8	100.96	%	0.288				0.28%
Y RADIAL	5937.2	100.4	%	0.97				0.97%
Ag 328.068†	65.1	0.2827	ug/L	0.08993	0.2827	ppb	0.08993	31.81%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-3.7	-2.7506	ug/L	13.50115	-2.7506	ppb	13.50115	490.85%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	6.5	2.3485	ug/L	1.71784	2.3485	ppb	1.71784	73.15%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-424.1	-8.7041	ug/L	0.24552	-8.7041	ppb	0.24552	2.82%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	4.6	0.0298	ug/L	0.09837	0.0298	ppb	0.09837	330.13%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	269.7	0.0904	ug/L	0.00588	0.0904	ppb	0.00588	6.50%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-3.9	-5.5384	ug/L	0.45122	-5.5384	ppb	0.45122	8.15%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                13.2      0.1296 ug/L       0.05612      0.1296 ppb        0.05612  43.31%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                 7.7      0.1368 ug/L       0.26913      0.1368 ppb        0.26913 196.68%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                20.5      0.2080 ug/L       0.06990      0.2080 ppb        0.06990  33.60%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†                46.0      0.1301 ug/L       0.22750      0.1301 ppb        0.22750 174.81%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          0.2      1.6490 ug/L      15.56712      1.6490 ppb       15.56712 944.05%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         187.4      33.056 ug/L        9.4028      33.056 ppb         9.4028  28.44%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             1.0      32.228 ug/L       63.8322      32.228 ppb        63.8322 198.07%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                32.4      0.0315 ug/L       0.00638      0.0315 ppb        0.00638  20.27%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                10.5      0.6359 ug/L       0.11693      0.6359 ppb        0.11693  18.39%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       -258.0     -77.007 ug/L       12.4218     -77.007 ppb        12.4218  16.13%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                21.1      0.4606 ug/L       0.29300      0.4606 ppb        0.29300  63.61%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -12.4     -6.5086 ug/L       2.80734     -6.5086 ppb        2.80734  43.13%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -13.7     -1.4381 ug/L       1.08077     -1.4381 ppb        1.08077  75.15%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          -1.8     -2.2623 ug/L       4.49742     -2.2623 ppb        4.49742 198.79%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 1.3      0.3928 ug/L       0.49503      0.3928 ppb        0.49503 126.01%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 3.5      1.9226 ug/L       1.82428      1.9226 ppb        1.82428  94.89%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                90.4      2.5251 ug/L       0.37158      2.5251 ppb        0.37158  14.72%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 1.4      0.2079 ug/L       0.52232      0.2079 ppb        0.52232 251.19%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                26.7      0.1567 ug/L       0.13409      0.1567 ppb        0.13409  85.59%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                 2.1      0.0044 ug/L       0.07058      0.0044 ppb        0.07058 >999.9%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                11.9      3.0995 ug/L       1.54707      3.0995 ppb        1.54707  49.91%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -149.4     -4.1173 ug/L       3.77359     -4.1173 ppb        3.77359  91.65%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               -86.3     -0.5475 ug/L       0.12194     -0.5475 ppb        0.12194  22.27%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                 1.7      0.0093 ug/L       0.03351      0.0093 ppb        0.03351 359.20%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                     103.8      6.2331 ug/L       1.60922      6.2331 ppb        1.60922  25.82%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 81
Sample ID: 1201994236|932284|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 91
Date Collected: 12/19/2009 22:45:02
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1201994236|932284|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5540.1	5540.1	99.5	%			22:46:55
1	Y RADIAL	5933.6	5933.6	100.4	%			22:46:55
1	Al 396.153Radial†	-16.9	-0.6	-0.4381	ug/L	-0.4381	ppb	22:46:55
1	Ca 317.933Radial†	29.5	10.1	14.377	ug/L	14.377	ppb	22:47:15
1	Fe 238.204 Radial†	19.7	8.9	74.167	ug/L	74.167	ppb	22:47:15
1	K 766.490 Radial†	2900.7	202.5	35.700	ug/L	35.700	ppb	22:46:55
1	Mg 279.077 IEC†	3.4	2.1	64.052	ug/L	64.052	ppb	22:47:15
1	Na 589.592 Radial†	-883.9	-126.6	-37.797	ug/L	-37.797	ppb	22:46:55
1	Sr 421.552†	-1.3	10.5	0.0616	ug/L	0.0616	ppb	22:46:55
1	Sc 361.383	926865.0	926865.0	103.11	%			22:48:12
1	Y 371.029	767299.1	767299.1	103.07	%			22:48:12
1	Ag 328.068†	441.4	58.2	0.2777	ug/L	0.2777	ppb	22:48:17
1	As 188.979†	-23.2	12.3	4.4984	ug/L	4.4984	ppb	22:48:37
1	B 249.677†	-480.1	-439.7	-9.0340	ug/L	-9.0340	ppb	22:48:37
1	Ba 233.527†	13.2	15.4	0.1083	ug/L	0.1083	ppb	22:48:37
1	Be 313.107†	-4593.5	276.1	0.0936	ug/L	0.0936	ppb	22:48:17
1	Cd 226.502†	-226.5	9.5	0.0860	ug/L	0.0860	ppb	22:48:37
1	Co 228.616†	-82.7	6.9	0.1198	ug/L	0.1198	ppb	22:48:37
1	Cr 267.716†	124.0	40.1	0.4091	ug/L	0.4091	ppb	22:48:37
1	Cu 324.752†	6141.9	-98.9	-0.2757	ug/L	-0.2757	ppb	22:48:17
1	Mn 257.610†	1136.9	611.1	0.6090	ug/L	0.6090	ppb	22:48:37
1	Mo 202.031†	27.4	6.7	0.4097	ug/L	0.4097	ppb	22:48:37
1	Ni 231.604†	127.0	29.6	0.6457	ug/L	0.6457	ppb	22:48:37
1	P 214.914†	238.7	-26.6	-13.895	ug/L	-13.895	ppb	22:48:37
1	Pb 220.353†	-89.1	-22.4	-2.3627	ug/L	-2.3627	ppb	22:48:37
1	S 181.975 Axial†	42.1	-8.1	-9.9741	ug/L	-9.9741	ppb	22:48:37
1	Sb 206.836†	24.7	-17.3	-5.1770	ug/L	-5.1770	ppb	22:48:37
1	Se 196.026†	-23.0	6.2	3.6150	ug/L	3.6150	ppb	22:48:37
1	Si 251.611†	982.9	375.8	10.576	ug/L	10.576	ppb	22:48:37
1	Sn 189.927†	7.0	3.3	0.5019	ug/L	0.5019	ppb	22:48:37
1	Ti 334.940†	-1064.7	355.0	0.5145	ug/L	0.5145	ppb	22:48:17
1	Tl 190.801†	-44.6	4.8	1.2597	ug/L	1.2597	ppb	22:48:37
1	U 409.014†	-2497.8	-50.2	-1.3938	ug/L	-1.3938	ppb	22:48:12
1	V 292.402†	-1468.5	45.2	0.2802	ug/L	0.2802	ppb	22:48:17
1	Zn 213.857†	946.8	124.7	1.0099	ug/L	1.0099	ppb	22:48:37
1	SiO2†	1033.3	395.5	23.902	ug/L	23.902	ppb	22:49:43
2	Sc Radial	5584.4	5584.4	100	%			22:47:20
2	Y RADIAL	5939.6	5939.6	100.5	%			22:47:20
2	Al 396.153Radial†	-8.8	7.6	5.5032	ug/L	5.5032	ppb	22:47:20
2	Ca 317.933Radial†	22.6	3.0	4.2275	ug/L	4.2275	ppb	22:47:40
2	Fe 238.204 Radial†	15.1	4.2	35.008	ug/L	35.008	ppb	22:47:40
2	K 766.490 Radial†	2868.1	146.9	25.907	ug/L	25.907	ppb	22:47:20
2	Mg 279.077 IEC†	2.9	1.5	47.111	ug/L	47.111	ppb	22:47:40
2	Na 589.592 Radial†	-963.5	-198.9	-59.370	ug/L	-59.370	ppb	22:47:20
2	Sr 421.552†	-3.5	8.3	0.0489	ug/L	0.0489	ppb	22:47:20
2	Sc 361.383	922010.0	922010.0	102.57	%			22:48:42
2	Y 371.029	766136.3	766136.3	102.91	%			22:48:42
2	Ag 328.068†	423.8	43.2	0.1996	ug/L	0.1996	ppb	22:48:47
2	As 188.979†	-26.7	8.8	3.2102	ug/L	3.2102	ppb	22:49:07
2	B 249.677†	-469.4	-431.7	-8.8648	ug/L	-8.8648	ppb	22:49:07
2	Ba 233.527†	9.1	11.5	0.0802	ug/L	0.0802	ppb	22:49:07
2	Be 313.107†	-4546.2	298.8	0.1010	ug/L	0.1010	ppb	22:48:47
2	Cd 226.502†	-232.8	2.2	0.0189	ug/L	0.0189	ppb	22:49:07
2	Co 228.616†	-77.2	11.9	0.2085	ug/L	0.2085	ppb	22:49:07
2	Cr 267.716†	126.1	42.8	0.4353	ug/L	0.4353	ppb	22:49:07
2	Cu 324.752†	6165.1	-44.9	-0.1251	ug/L	-0.1251	ppb	22:48:47
2	Mn 257.610†	1635.3	1102.8	1.0904	ug/L	1.0904	ppb	22:49:07
2	Mo 202.031†	35.5	14.7	0.8916	ug/L	0.8916	ppb	22:49:07
2	Ni 231.604†	125.1	28.4	0.6202	ug/L	0.6202	ppb	22:49:07

2	P 214.914†	230.1	-33.8	-17.627	ug/L	-17.627 ppb	22:49:07
2	Pb 220.353†	-75.4	-9.5	-0.9963	ug/L	-0.9963 ppb	22:49:07
2	S 181.975 Axial†	56.5	6.1	7.4624	ug/L	7.4624 ppb	22:49:07
2	Sb 206.836†	36.5	-5.7	-1.6856	ug/L	-1.6856 ppb	22:49:07
2	Se 196.026†	-31.1	-1.8	-0.8803	ug/L	-0.8803 ppb	22:49:07
2	Si 251.611†	990.1	387.9	10.913	ug/L	10.913 ppb	22:49:07
2	Sn 189.927†	3.1	-0.4	-0.0639	ug/L	-0.0639 ppb	22:49:07
2	Ti 334.940†	-1121.7	294.0	0.4251	ug/L	0.4251 ppb	22:48:47
2	Tl 190.801†	-49.0	0.3	0.0867	ug/L	0.0867 ppb	22:49:07
2	U 409.014†	-2435.1	-1.8	-0.0556	ug/L	-0.0556 ppb	22:48:42
2	V 292.402†	-1443.8	61.8	0.4010	ug/L	0.4010 ppb	22:48:47
2	Zn 213.857†	972.4	154.5	1.2584	ug/L	1.2584 ppb	22:49:07
2	SiO2†	995.9	364.3	22.005	ug/L	22.005 ppb	22:49:48
3	Sc Radial	5681.8	5681.8	102	%		22:47:45
3	Y RADIAL	6048.8	6048.8	102.3	%		22:47:45
3	Al 396.153Radial†	-14.5	2.2	1.5889	ug/L	1.5889 ppb	22:47:45
3	Ca 317.933Radial†	30.4	10.2	14.566	ug/L	14.566 ppb	22:48:05
3	Fe 238.204 Radial†	17.9	6.7	55.300	ug/L	55.300 ppb	22:48:05
3	K 766.490 Radial†	2868.3	98.0	17.281	ug/L	17.281 ppb	22:47:45
3	Mg 279.077 IEC†	1.9	0.5	14.698	ug/L	14.698 ppb	22:48:05
3	Na 589.592 Radial†	-882.6	-103.1	-30.786	ug/L	-30.786 ppb	22:47:45
3	Sr 421.552†	-52.4	-39.5	-0.2319	ug/L	-0.2319 ppb	22:47:45
3	Sc 361.383	942123.1	942123.1	104.81	%		22:49:13
3	Y 371.029	780618.3	780618.3	104.86	%		22:49:13
3	Ag 328.068†	509.8	116.5	0.5198	ug/L	0.5198 ppb	22:49:18
3	As 188.979†	-16.9	18.7	6.7981	ug/L	6.7981 ppb	22:49:38
3	B 249.677†	-473.1	-425.5	-8.7391	ug/L	-8.7391 ppb	22:49:38
3	Ba 233.527†	7.8	10.0	0.0705	ug/L	0.0705 ppb	22:49:38
3	Be 313.107†	-4493.8	443.5	0.1498	ug/L	0.1498 ppb	22:49:18
3	Cd 226.502†	-231.5	8.3	0.0760	ug/L	0.0760 ppb	22:49:38
3	Co 228.616†	-84.9	6.1	0.1040	ug/L	0.1040 ppb	22:49:38
3	Cr 267.716†	129.5	43.4	0.4407	ug/L	0.4407 ppb	22:49:38
3	Cu 324.752†	6024.7	-307.2	-0.8651	ug/L	-0.8651 ppb	22:49:18
3	Mn 257.610†	1088.0	546.6	0.5444	ug/L	0.5444 ppb	22:49:38
3	Mo 202.031†	19.6	-1.1	-0.0651	ug/L	-0.0651 ppb	22:49:38
3	Ni 231.604†	113.0	14.2	0.3105	ug/L	0.3105 ppb	22:49:38
3	P 214.914†	246.3	-23.1	-11.928	ug/L	-11.928 ppb	22:49:38
3	Pb 220.353†	-62.3	4.6	0.4853	ug/L	0.4853 ppb	22:49:38
3	S 181.975 Axial†	43.7	-7.3	-8.9708	ug/L	-8.9708 ppb	22:49:38
3	Sb 206.836†	30.3	-12.3	-3.6787	ug/L	-3.6787 ppb	22:49:38
3	Se 196.026†	-21.8	7.8	4.3923	ug/L	4.3923 ppb	22:49:38
3	Si 251.611†	985.2	362.6	10.215	ug/L	10.215 ppb	22:49:38
3	Sn 189.927†	14.2	10.0	1.5074	ug/L	1.5074 ppb	22:49:38
3	Ti 334.940†	-1073.7	363.1	0.5249	ug/L	0.5249 ppb	22:49:18
3	Tl 190.801†	-39.7	10.2	2.6575	ug/L	2.6575 ppb	22:49:38
3	U 409.014†	-2431.5	52.2	1.4309	ug/L	1.4309 ppb	22:49:13
3	V 292.402†	-1515.8	23.1	0.1399	ug/L	0.1399 ppb	22:49:18
3	Zn 213.857†	936.8	100.3	0.8159	ug/L	0.8159 ppb	22:49:38
3	SiO2†	1022.7	369.1	22.329	ug/L	22.329 ppb	22:49:53

Mean Data: 1201994236|932284|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	930332.7	103.50	%	1.168				1.13%
Sc Radial	5602.1	101	%	1.3				1.29%
Y 371.029	771351.2	103.61	%	1.081				1.04%
Y RADIAL	5974.0	101.1	%	1.10				1.09%
Ag 328.068†	72.7	0.3324	ug/L	0.16693	0.3324	ppb	0.16693	50.22%
Al 396.153Radial†	3.1	2.2180	ug/L	3.02019	2.2180	ppb	3.02019	136.17%
As 188.979†	13.3	4.8356	ug/L	1.81755	4.8356	ppb	1.81755	37.59%
B 249.677†	-432.3	-8.8793	ug/L	0.14799	-8.8793	ppb	0.14799	1.67%
Ba 233.527†	12.3	0.0863	ug/L	0.01964	0.0863	ppb	0.01964	22.76%
Be 313.107†	339.5	0.1148	ug/L	0.03050	0.1148	ppb	0.03050	26.56%
Ca 317.933Radial†	7.8	11.057	ug/L	5.9152	11.057	ppb	5.9152	53.50%
Cd 226.502†	6.7	0.0603	ug/L	0.03620	0.0603	ppb	0.03620	60.05%
Co 228.616†	8.3	0.1441	ug/L	0.05631	0.1441	ppb	0.05631	39.08%
Cr 267.716†	42.1	0.4284	ug/L	0.01688	0.4284	ppb	0.01688	3.94%
Cu 324.752†	-150.3	-0.4220	ug/L	0.39111	-0.4220	ppb	0.39111	92.68%
Fe 238.204 Radial†	6.6	54.825	ug/L	19.5840	54.825	ppb	19.5840	35.72%
K 766.490 Radial†	149.1	26.296	ug/L	9.2158	26.296	ppb	9.2158	35.05%

Mg 279.077 IEC†	1.4	41.954	ug/L	25.0780	41.954	ppb	25.0780 59.78%
Mn 257.610†	753.5	0.7479	ug/L	0.29835	0.7479	ppb	0.29835 39.89%
Mo 202.031†	6.7	0.4121	ug/L	0.47833	0.4121	ppb	0.47833 116.08%
Na 589.592 Radial†	-142.9	-42.651	ug/L	14.8970	-42.651	ppb	14.8970 34.93%
Ni 231.604†	24.1	0.5255	ug/L	0.18660	0.5255	ppb	0.18660 35.51%
P 214.914†	-27.8	-14.483	ug/L	2.8944	-14.483	ppb	2.8944 19.98%
Pb 220.353†	-9.1	-0.9579	ug/L	1.42436	-0.9579	ppb	1.42436 148.70%
S 181.975 Axial†	-3.1	-3.8275	ug/L	9.79022	-3.8275	ppb	9.79022 255.78%
Sb 206.836†	-11.8	-3.5138	ug/L	1.75153	-3.5138	ppb	1.75153 49.85%
Se 196.026†	4.1	2.3757	ug/L	2.84643	2.3757	ppb	2.84643 119.82%
Si 251.611†	375.4	10.568	ug/L	0.3491	10.568	ppb	0.3491 3.30%
Sn 189.927†	4.3	0.6485	ug/L	0.79584	0.6485	ppb	0.79584 122.72%
Sr 421.552†	-6.9	-0.0405	ug/L	0.16587	-0.0405	ppb	0.16587 409.97%
Ti 334.940†	337.4	0.4882	ug/L	0.05488	0.4882	ppb	0.05488 11.24%
Tl 190.801†	5.1	1.3347	ug/L	1.28702	1.3347	ppb	1.28702 96.43%
U 409.014†	0.1	-0.0061	ug/L	1.41304	-0.0061	ppb	1.41304 >999.9%
V 292.402†	43.4	0.2737	ug/L	0.13064	0.2737	ppb	0.13064 47.73%
Zn 213.857†	126.5	1.0281	ug/L	0.22182	1.0281	ppb	0.22182 21.58%
SiO2†	376.3	22.746	ug/L	1.0147	22.746	ppb	1.0147 4.46%

Sequence No.: 82
Sample ID: 1201994237|932284|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 92
Date Collected: 12/19/2009 22:52:05
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1201994237|932284|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5786.2	5786.2	104	%			22:54:18
1	Y RADIAL	6720.0	6720.0	113.7	%			22:54:18
1	Al 396.153Radial†	123293.7	118645.7	86431	ug/L	86431	ppb	22:53:58
1	Ca 317.933Radial†	73442.2	70644.2	100720	ug/L	100720	ppb	22:53:58
1	Fe 238.204 Radial†	24071.4	23149.8	192470	ug/L	192470	ppb	22:53:58
1	K 766.490 Radial†	239953.5	228163.3	40153	ug/L	40153	ppb	22:53:58
1	Mg 279.077 IEC†	1265.7	1216.4	37616	ug/L	37616	ppb	22:54:18
1	Na 589.592 Radial†	35474.3	34893.9	10415	ug/L	10415	ppb	22:53:58
1	Sr 421.552†	409096.6	393631.7	2307.3	ug/L	2307.3	ppb	22:53:58
1	Sc 361.383	929384.6	929384.6	103.39	%			22:55:19
1	Y 371.029	834175.8	834175.8	112.05	%			22:55:19
1	Ag 328.068†	60046.2	57707.3	316.51	ug/L	316.51	ppb	22:55:19
1	As 188.979†	2765.5	2709.6	1060.5	ug/L	1060.5	ppb	22:55:24
1	B 249.677†	72635.7	70279.8	1414.6	ug/L	1414.6	ppb	22:55:19
1	Ba 233.527†	285233.9	275883.3	1884.9	ug/L	1884.9	ppb	22:55:19
1	Be 313.107†	2367479.5	2294577.8	780.54	ug/L	780.54	ppb	22:55:19
1	Cd 226.502†	62608.8	60784.9	576.05	ug/L	576.05	ppb	22:55:24
1	Co 228.616†	52107.8	50486.2	870.22	ug/L	870.22	ppb	22:55:24
1	Cr 267.716†	231733.0	224054.0	2277.2	ug/L	2277.2	ppb	22:55:19
1	Cu 324.752†	667808.8	639854.9	1817.6	ug/L	1817.6	ppb	22:55:19
1	Mn 257.610†	5379782.9	5202881.2	5150.5	ug/L	5150.5	ppb	22:55:19
1	Mo 202.031†	8381.0	8086.3	503.13	ug/L	503.13	ppb	22:55:24
1	Ni 231.604†	60690.8	58607.1	1279.9	ug/L	1279.9	ppb	22:55:24
1	P 214.914†	16851.9	16041.3	7965.6	ug/L	7965.6	ppb	22:55:24
1	Pb 220.353†	8755.0	8531.9	902.48	ug/L	902.48	ppb	22:55:24
1	S 181.975 Axial†	3191.3	3037.7	3709.6	ug/L	3709.6	ppb	22:55:24
1	Sb 206.836†	5468.7	5248.2	1533.4	ug/L	1533.4	ppb	22:55:24
1	Se 196.026†	4299.0	4186.5	2878.9	ug/L	2878.9	ppb	22:55:24
1	Si 251.611†	535393.2	517259.4	14561	ug/L	14561	ppb	22:55:19
1	Sn 189.927†	7074.8	6839.4	1038.8	ug/L	1038.8	ppb	22:55:24
1	Ti 334.940†	4011047.4	3880907.5	5615.7	ug/L	5615.7	ppb	22:55:19
1	Tl 190.801†	4541.6	4440.8	1220.4	ug/L	1220.4	ppb	22:55:24
1	U 409.014†	-9241.7	-6566.4	-209.52	ug/L	-209.52	ppb	22:55:19
1	V 292.402†	197924.9	192904.1	1198.1	ug/L	1198.1	ppb	22:55:19
1	Zn 213.857†	724141.2	699602.1	5707.7	ug/L	5707.7	ppb	22:55:19
1	SiO2†	537401.0	519172.3	31380	ug/L	31380	ppb	22:55:59
2	Sc Radial	5948.6	5948.6	107	%			22:54:43
2	Y RADIAL	6861.8	6861.8	116.1	%			22:54:43
2	Al 396.153Radial†	121368.2	113604.8	82758	ug/L	82758	ppb	22:54:23
2	Ca 317.933Radial†	72443.4	67780.1	96636	ug/L	96636	ppb	22:54:23
2	Fe 238.204 Radial†	23762.4	22228.4	184810	ug/L	184810	ppb	22:54:23
2	K 766.490 Radial†	237976.5	220009.5	38715	ug/L	38715	ppb	22:54:23
2	Mg 279.077 IEC†	1240.6	1159.7	35860	ug/L	35860	ppb	22:54:43
2	Na 589.592 Radial†	35356.4	33851.7	10104	ug/L	10104	ppb	22:54:23
2	Sr 421.552†	404762.5	378828.7	2220.5	ug/L	2220.5	ppb	22:54:23
2	Sc 361.383	924817.5	924817.5	102.88	%			22:55:33
2	Y 371.029	831427.2	831427.2	111.68	%			22:55:33
2	Ag 328.068†	60069.1	58016.4	315.39	ug/L	315.39	ppb	22:55:33
2	As 188.979†	2776.8	2733.8	1068.6	ug/L	1068.6	ppb	22:55:39
2	B 249.677†	72688.1	70677.7	1423.8	ug/L	1423.8	ppb	22:55:33
2	Ba 233.527†	286372.4	278352.3	1901.5	ug/L	1901.5	ppb	22:55:33
2	Be 313.107†	2377893.6	2316008.4	787.82	ug/L	787.82	ppb	22:55:33
2	Cd 226.502†	61964.5	60457.8	573.61	ug/L	573.61	ppb	22:55:39
2	Co 228.616†	51632.8	50273.4	866.48	ug/L	866.48	ppb	22:55:39
2	Cr 267.716†	232769.7	226168.6	2298.6	ug/L	2298.6	ppb	22:55:33
2	Cu 324.752†	669047.2	644248.4	1829.7	ug/L	1829.7	ppb	22:55:33
2	Mn 257.610†	5398992.6	5247249.1	5193.5	ug/L	5193.5	ppb	22:55:33
2	Mo 202.031†	8256.8	8005.6	497.70	ug/L	497.70	ppb	22:55:39
2	Ni 231.604†	60047.1	58271.3	1272.6	ug/L	1272.6	ppb	22:55:39

2	P 214.914†	16665.6	15940.6	7916.1 ug/L	7916.1 ppb	22:55:39
2	Pb 220.353†	8634.9	8457.0	894.37 ug/L	894.37 ppb	22:55:39
2	S 181.975 Axial†	3157.1	3019.6	3688.2 ug/L	3688.2 ppb	22:55:39
2	Sb 206.836†	5399.0	5206.5	1520.2 ug/L	1520.2 ppb	22:55:39
2	Se 196.026†	4236.1	4145.9	2833.0 ug/L	2833.0 ppb	22:55:39
2	Si 251.611†	536457.6	520851.3	14662 ug/L	14662 ppb	22:55:33
2	Sn 189.927†	7065.3	6863.9	1042.0 ug/L	1042.0 ppb	22:55:39
2	Ti 334.940†	4026792.9	3915370.5	5665.3 ug/L	5665.3 ppb	22:55:33
2	Tl 190.801†	4499.6	4421.6	1215.9 ug/L	1215.9 ppb	22:55:39
2	U 409.014†	-9156.1	-6527.4	-207.52 ug/L	-207.52 ppb	22:55:33
2	V 292.402†	198684.8	194588.0	1209.8 ug/L	1209.8 ppb	22:55:33
2	Zn 213.857†	726170.0	705032.9	5753.1 ug/L	5753.1 ppb	22:55:33
2	SiO2†	543026.1	527206.6	31868 ug/L	31868 ppb	22:56:04
3	Sc Radial	6009.9	6009.9	108 %		22:55:08
3	Y RADIAL	6945.1	6945.1	117.5 %		22:55:08
3	Al 396.153Radial†	121761.3	112810.3	82179 ug/L	82179 ppb	22:54:48
3	Ca 317.933Radial†	72724.6	67349.1	96022 ug/L	96022 ppb	22:54:48
3	Fe 238.204 Radial†	23863.4	22095.0	183710 ug/L	183710 ppb	22:54:48
3	K 766.490 Radial†	237793.3	217568.0	38285 ug/L	38285 ppb	22:54:48
3	Mg 279.077 IEC†	1241.9	1149.0	35530 ug/L	35530 ppb	22:55:08
3	Na 589.592 Radial†	35471.4	33620.7	10035 ug/L	10035 ppb	22:54:48
3	Sr 421.552†	406326.2	376413.2	2206.3 ug/L	2206.3 ppb	22:54:48
3	Sc 361.383	933585.8	933585.8	103.86 %		22:55:48
3	Y 371.029	837866.7	837866.7	112.55 %		22:55:48
3	Ag 328.068†	60389.6	57776.6	313.97 ug/L	313.97 ppb	22:55:48
3	As 188.979†	2839.0	2768.4	1080.7 ug/L	1080.7 ppb	22:55:53
3	B 249.677†	73137.3	70446.7	1419.2 ug/L	1419.2 ppb	22:55:48
3	Ba 233.527†	287509.9	276833.3	1891.1 ug/L	1891.1 ppb	22:55:48
3	Be 313.107†	2388946.7	2304943.3	784.06 ug/L	784.06 ppb	22:55:48
3	Cd 226.502†	62383.1	60295.1	572.13 ug/L	572.13 ppb	22:55:53
3	Co 228.616†	52011.8	50167.0	864.69 ug/L	864.69 ppb	22:55:53
3	Cr 267.716†	233688.4	224928.2	2285.9 ug/L	2285.9 ppb	22:55:48
3	Cu 324.752†	673648.8	642571.4	1824.9 ug/L	1824.9 ppb	22:55:48
3	Mn 257.610†	5425086.9	5223087.1	5169.6 ug/L	5169.6 ppb	22:55:48
3	Mo 202.031†	8340.7	8011.0	497.94 ug/L	497.94 ppb	22:55:53
3	Ni 231.604†	60394.2	58057.4	1267.9 ug/L	1267.9 ppb	22:55:53
3	P 214.914†	16799.5	15917.4	7905.4 ug/L	7905.4 ppb	22:55:53
3	Pb 220.353†	8702.0	8442.9	892.84 ug/L	892.84 ppb	22:55:53
3	S 181.975 Axial†	3162.1	2995.7	3658.9 ug/L	3658.9 ppb	22:55:53
3	Sb 206.836†	5405.5	5163.5	1507.6 ug/L	1507.6 ppb	22:55:53
3	Se 196.026†	4273.4	4143.2	2828.1 ug/L	2828.1 ppb	22:55:53
3	Si 251.611†	539583.0	518963.4	14609 ug/L	14609 ppb	22:55:48
3	Sn 189.927†	7077.6	6811.3	1034.0 ug/L	1034.0 ppb	22:55:53
3	Ti 334.940†	4046899.4	3897969.8	5640.1 ug/L	5640.1 ppb	22:55:48
3	Tl 190.801†	4506.0	4386.7	1206.5 ug/L	1206.5 ppb	22:55:53
3	U 409.014†	-9107.5	-6397.0	-203.76 ug/L	-203.76 ppb	22:55:48
3	V 292.402†	199706.7	193758.3	1204.7 ug/L	1204.7 ppb	22:55:48
3	Zn 213.857†	730011.3	702102.3	5729.2 ug/L	5729.2 ppb	22:55:48
3	SiO2†	539862.6	519203.4	31383 ug/L	31383 ppb	22:56:09

Mean Data: 1201994237|932284|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	929262.7	103.38	%	0.488				0.47%
Sc Radial	5914.9	106	%	2.1				1.95%
Y 371.029	834489.9	112.09	%	0.434				0.39%
Y RADIAL	6842.3	115.7	%	1.93				1.66%
Ag 328.068†	57833.4	315.29	ug/L	1.276	315.29	ppb	1.276	0.40%
Al 396.153Radial†	115020.3	83789	ug/L	2305.9	83789	ppb	2305.9	2.75%
As 188.979†	2737.3	1069.9	ug/L	10.17	1069.9	ppb	10.17	0.95%
B 249.677†	70468.1	1419.2	ug/L	4.60	1419.2	ppb	4.60	0.32%
Ba 233.527†	277023.0	1892.5	ug/L	8.35	1892.5	ppb	8.35	0.44%
Be 313.107†	2305176.5	784.14	ug/L	3.643	784.14	ppb	3.643	0.46%
Ca 317.933Radial†	68591.1	97792	ug/L	2553.5	97792	ppb	2553.5	2.61%
Cd 226.502†	60512.6	573.93	ug/L	1.980	573.93	ppb	1.980	0.34%
Co 228.616†	50308.9	867.13	ug/L	2.820	867.13	ppb	2.820	0.33%
Cr 267.716†	225050.2	2287.2	ug/L	10.72	2287.2	ppb	10.72	0.47%
Cu 324.752†	642224.9	1824.1	ug/L	6.05	1824.1	ppb	6.05	0.33%
Fe 238.204 Radial†	22491.1	187000	ug/L	4774.9	187000	ppb	4774.9	2.55%
K 766.490 Radial†	221913.6	39051	ug/L	978.2	39051	ppb	978.2	2.50%

Mg 279.077 IEC†	1175.0	36336	ug/L	1121.1	36336	ppb	1121.1	3.09%
Mn 257.610†	5224405.8	5171.2	ug/L	21.56	5171.2	ppb	21.56	0.42%
Mo 202.031†	8034.3	499.59	ug/L	3.067	499.59	ppb	3.067	0.61%
Na 589.592 Radial†	34122.1	10184	ug/L	202.5	10184	ppb	202.5	1.99%
Ni 231.604†	58311.9	1273.5	ug/L	6.05	1273.5	ppb	6.05	0.48%
P 214.914†	15966.4	7929.0	ug/L	32.14	7929.0	ppb	32.14	0.41%
Pb 220.353†	8477.3	896.56	ug/L	5.180	896.56	ppb	5.180	0.58%
S 181.975 Axial†	3017.7	3685.6	ug/L	25.43	3685.6	ppb	25.43	0.69%
Sb 206.836†	5206.1	1520.4	ug/L	12.92	1520.4	ppb	12.92	0.85%
Se 196.026†	4158.5	2846.7	ug/L	28.04	2846.7	ppb	28.04	0.98%
Si 251.611†	519024.7	14611	ug/L	50.9	14611	ppb	50.9	0.35%
Sn 189.927†	6838.2	1038.3	ug/L	4.02	1038.3	ppb	4.02	0.39%
Sr 421.552†	382957.9	2244.7	ug/L	54.64	2244.7	ppb	54.64	2.43%
Ti 334.940†	3898082.6	5640.4	ug/L	24.80	5640.4	ppb	24.80	0.44%
Tl 190.801†	4416.3	1214.3	ug/L	7.06	1214.3	ppb	7.06	0.58%
U 409.014†	-6496.9	-206.93	ug/L	2.922	-206.93	ppb	2.922	1.41%
V 292.402†	193750.1	1204.2	ug/L	5.87	1204.2	ppb	5.87	0.49%
Zn 213.857†	702245.8	5730.0	ug/L	22.69	5730.0	ppb	22.69	0.40%
SiO2†	521860.8	31544	ug/L	280.6	31544	ppb	280.6	0.89%

Sequence No.: 83
Sample ID: 242781001|932284|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 93
Date Collected: 12/19/2009 22:58:21
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 242781001|932284|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5788.5	5788.5	104	%			23:00:14
1	Y RADIAL	8784.3	8784.3	148.6	%			23:00:14
1	Al 396.153Radial†	22861.5	22004.1	16031	ug/L	16031	ppb	23:00:14
1	Ca 317.933Radial†	3234.3	3091.1	4407.1	ug/L	4407.1	ppb	23:00:34
1	Fe 238.204 Radial†	8740.0	8395.0	69789	ug/L	69789	ppb	23:00:14
1	K 766.490 Radial†	13993.9	10746.6	1856.3	ug/L	1856.3	ppb	23:00:14
1	Mg 279.077 IEC†	77.4	73.0	2208.0	ug/L	2208.0	ppb	23:00:34
1	Na 589.592 Radial†	706.8	1441.4	430.23	ug/L	430.23	ppb	23:00:14
1	Sr 421.552†	3928.0	3789.7	22.181	ug/L	22.181	ppb	23:00:14
1	Sc 361.383	954045.8	954045.8	106.13	%			23:01:32
1	Y 371.029	1113068.2	1113068.2	149.51	%			23:01:32
1	Ag 328.068†	-4139.1	-4269.8	5.3652	ug/L	5.3652	ppb	23:01:37
1	As 188.979†	-41.6	-4.3	33.117	ug/L	33.117	ppb	23:01:57
1	B 249.677†	327.3	334.3	-2.4378	ug/L	-2.4378	ppb	23:01:37
1	Ba 233.527†	60218.1	56740.5	388.33	ug/L	388.33	ppb	23:01:37
1	Be 313.107†	-10945.0	-5581.4	3.7474	ug/L	3.7474	ppb	23:01:37
1	Cd 226.502†	580.4	776.1	0.6305	ug/L	0.6305	ppb	23:01:57
1	Co 228.616†	890.0	925.7	9.4257	ug/L	9.4257	ppb	23:01:57
1	Cr 267.716†	1236.6	1085.0	12.452	ug/L	12.452	ppb	23:01:57
1	Cu 324.752†	20959.3	13692.4	42.246	ug/L	42.246	ppb	23:01:37
1	Mn 257.610†	3604093.9	3395311.8	3356.0	ug/L	3356.0	ppb	23:01:32
1	Mo 202.031†	874.0	803.7	53.597	ug/L	53.597	ppb	23:01:57
1	Ni 231.604†	1445.2	1268.1	27.696	ug/L	27.696	ppb	23:01:57
1	P 214.914†	2444.9	2045.5	1009.9	ug/L	1009.9	ppb	23:01:57
1	Pb 220.353†	342.5	386.8	38.714	ug/L	38.714	ppb	23:01:57
1	S 181.975 Axial†	91.1	36.9	42.086	ug/L	42.086	ppb	23:01:57
1	Sb 206.836†	62.9	18.0	-0.7272	ug/L	-0.7272	ppb	23:01:57
1	Se 196.026†	-449.8	-395.2	-1.0642	ug/L	-1.0642	ppb	23:01:57
1	Si 251.611†	301529.8	283526.1	7993.4	ug/L	7993.4	ppb	23:01:37
1	Sn 189.927†	24.8	19.9	4.3799	ug/L	4.3799	ppb	23:01:57
1	Ti 334.940†	2097096.6	1977287.2	2859.2	ug/L	2859.2	ppb	23:01:32
1	Tl 190.801†	-236.1	-174.4	-3.4327	ug/L	-3.4327	ppb	23:01:57
1	U 409.014†	-16806.2	-13462.7	-379.73	ug/L	-379.73	ppb	23:01:32
1	V 292.402†	6474.2	7569.5	34.401	ug/L	34.401	ppb	23:01:37
1	Zn 213.857†	59075.7	54868.0	443.03	ug/L	443.03	ppb	23:01:37
1	SiO2†	301550.4	283516.3	17163	ug/L	17163	ppb	23:03:04
2	Sc Radial	5914.1	5914.1	106	%			23:00:39
2	Y RADIAL	8951.1	8951.1	151.4	%			23:00:39
2	Al 396.153Radial†	23199.9	21855.9	15923	ug/L	15923	ppb	23:00:39
2	Ca 317.933Radial†	3271.3	3059.9	4362.6	ug/L	4362.6	ppb	23:00:59
2	Fe 238.204 Radial†	8848.9	8319.2	69158	ug/L	69158	ppb	23:00:39
2	K 766.490 Radial†	14137.4	10596.0	1829.9	ug/L	1829.9	ppb	23:00:39
2	Mg 279.077 IEC†	80.1	74.0	2240.8	ug/L	2240.8	ppb	23:00:59
2	Na 589.592 Radial†	724.2	1443.4	430.80	ug/L	430.80	ppb	23:00:39
2	Sr 421.552†	4005.9	3782.8	22.141	ug/L	22.141	ppb	23:00:39
2	Sc 361.383	942362.9	942362.9	104.83	%			23:02:03
2	Y 371.029	1103513.7	1103513.7	148.23	%			23:02:03
2	Ag 328.068†	-4161.0	-4339.1	4.8626	ug/L	4.8626	ppb	23:02:08
2	As 188.979†	-30.1	6.1	36.727	ug/L	36.727	ppb	23:02:28
2	B 249.677†	276.7	289.9	-3.2669	ug/L	-3.2669	ppb	23:02:08
2	Ba 233.527†	60603.5	57811.6	395.59	ug/L	395.59	ppb	23:02:08
2	Be 313.107†	-11145.1	-5900.1	3.6226	ug/L	3.6226	ppb	23:02:08
2	Cd 226.502†	573.3	776.0	0.6934	ug/L	0.6934	ppb	23:02:28
2	Co 228.616†	907.8	953.0	9.9414	ug/L	9.9414	ppb	23:02:28
2	Cr 267.716†	1193.0	1057.9	12.169	ug/L	12.169	ppb	23:02:28
2	Cu 324.752†	21037.0	14011.4	43.115	ug/L	43.115	ppb	23:02:08
2	Mn 257.610†	3548409.2	3384294.5	3345.0	ug/L	3345.0	ppb	23:02:03
2	Mo 202.031†	899.5	838.2	55.641	ug/L	55.641	ppb	23:02:28
2	Ni 231.604†	1436.5	1276.6	27.883	ug/L	27.883	ppb	23:02:28

2	P 214.914†	2490.5	2117.6	1047.9	ug/L	1047.9 ppb	23:02:28
2	Pb 220.353†	350.6	398.5	39.980	ug/L	39.980 ppb	23:02:28
2	S 181.975 Axial†	95.4	42.0	48.336	ug/L	48.336 ppb	23:02:28
2	Sb 206.836†	54.6	10.9	-2.7682	ug/L	-2.7682 ppb	23:02:28
2	Se 196.026†	-453.8	-404.4	-7.9739	ug/L	-7.9739 ppb	23:02:28
2	Si 251.611†	303730.7	289147.7	8151.9	ug/L	8151.9 ppb	23:02:08
2	Sn 189.927†	38.1	32.8	6.3096	ug/L	6.3096 ppb	23:02:28
2	Ti 334.940†	2064813.0	1970988.5	2850.1	ug/L	2850.1 ppb	23:02:03
2	Tl 190.801†	-216.0	-158.0	0.6828	ug/L	0.6828 ppb	23:02:28
2	U 409.014†	-16713.2	-13570.3	-382.61	ug/L	-382.61 ppb	23:02:03
2	V 292.402†	6543.0	7710.7	35.431	ug/L	35.431 ppb	23:02:08
2	Zn 213.857†	59499.2	55962.0	452.06	ug/L	452.06 ppb	23:02:08
2	SiO2†	308961.0	294107.6	17805	ug/L	17805 ppb	23:03:09
3	Sc Radial	5783.7	5783.7	104	%		23:01:04
3	Y RADIAL	8759.1	8759.1	148.2	%		23:01:04
3	Al 396.153Radial†	22708.2	21874.8	15937	ug/L	15937 ppb	23:01:04
3	Ca 317.933Radial†	3220.6	3080.5	4391.9	ug/L	4391.9 ppb	23:01:24
3	Fe 238.204 Radial†	8705.4	8368.7	69570	ug/L	69570 ppb	23:01:04
3	K 766.490 Radial†	13959.1	10724.2	1852.5	ug/L	1852.5 ppb	23:01:04
3	Mg 279.077 IEC†	77.5	73.2	2215.5	ug/L	2215.5 ppb	23:01:24
3	Na 589.592 Radial†	741.3	1475.2	440.30	ug/L	440.30 ppb	23:01:04
3	Sr 421.552†	3905.5	3771.2	22.073	ug/L	22.073 ppb	23:01:04
3	Sc 361.383	957095.8	957095.8	106.47	%		23:02:34
3	Y 371.029	1119517.2	1119517.2	150.38	%		23:02:34
3	Ag 328.068†	-4126.9	-4245.9	5.3910	ug/L	5.3910 ppb	23:02:39
3	As 188.979†	-37.4	-0.3	34.464	ug/L	34.464 ppb	23:02:59
3	B 249.677†	313.2	320.1	-2.7002	ug/L	-2.7002 ppb	23:02:39
3	Ba 233.527†	60694.8	57007.4	390.14	ug/L	390.14 ppb	23:02:39
3	Be 313.107†	-11195.3	-5783.6	3.6628	ug/L	3.6628 ppb	23:02:39
3	Cd 226.502†	569.8	764.3	0.5374	ug/L	0.5374 ppb	23:02:59
3	Co 228.616†	892.1	925.0	9.4356	ug/L	9.4356 ppb	23:02:59
3	Cr 267.716†	1235.1	1079.8	12.394	ug/L	12.394 ppb	23:02:59
3	Cu 324.752†	21120.5	13780.9	42.485	ug/L	42.485 ppb	23:02:39
3	Mn 257.610†	3601638.3	3382184.0	3343.0	ug/L	3343.0 ppb	23:02:34
3	Mo 202.031†	874.1	801.1	53.428	ug/L	53.428 ppb	23:02:59
3	Ni 231.604†	1434.1	1253.3	27.373	ug/L	27.373 ppb	23:02:59
3	P 214.914†	2486.5	2077.2	1026.6	ug/L	1026.6 ppb	23:02:59
3	Pb 220.353†	357.2	399.5	40.053	ug/L	40.053 ppb	23:02:59
3	S 181.975 Axial†	96.7	41.8	48.120	ug/L	48.120 ppb	23:02:59
3	Sb 206.836†	62.4	17.4	-0.8816	ug/L	-0.8816 ppb	23:02:59
3	Se 196.026†	-457.8	-401.4	-5.1016	ug/L	-5.1016 ppb	23:02:59
3	Si 251.611†	304104.8	285039.2	8036.0	ug/L	8036.0 ppb	23:02:39
3	Sn 189.927†	31.6	26.2	5.3219	ug/L	5.3219 ppb	23:02:59
3	Ti 334.940†	2097498.3	1971367.8	2850.7	ug/L	2850.7 ppb	23:02:34
3	Tl 190.801†	-212.3	-151.3	2.4165	ug/L	2.4165 ppb	23:02:59
3	U 409.014†	-16727.5	-13338.3	-376.27	ug/L	-376.27 ppb	23:02:34
3	V 292.402†	6441.2	7519.0	34.128	ug/L	34.128 ppb	23:02:39
3	Zn 213.857†	59572.3	55157.0	445.42	ug/L	445.42 ppb	23:02:39
3	SiO2†	305536.9	286355.0	17335	ug/L	17335 ppb	23:03:15

Mean Data: 242781001|932284|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	951168.2	105.81	%	0.865				0.82%
Sc Radial	5828.8	105	%	1.3				1.27%
Y 371.029	1112033.0	149.37	%	1.082				0.72%
Y RADIAL	8831.5	149.4	%	1.77				1.18%
Ag 328.068†	-4284.9	5.2063	ug/L	0.29787	5.2063	ppb	0.29787	5.72%
Al 396.153Radial†	21911.6	15964	ug/L	58.8	15964	ppb	58.8	0.37%
As 188.979†	0.5	34.769	ug/L	1.8245	34.769	ppb	1.8245	5.25%
B 249.677†	314.8	-2.8016	ug/L	0.42379	-2.8016	ppb	0.42379	15.13%
Ba 233.527†	57186.5	391.35	ug/L	3.779	391.35	ppb	3.779	0.97%
Be 313.107†	-5755.0	3.6776	ug/L	0.06370	3.6776	ppb	0.06370	1.73%
Ca 317.933Radial†	3077.2	4387.2	ug/L	22.62	4387.2	ppb	22.62	0.52%
Cd 226.502†	772.1	0.6204	ug/L	0.07851	0.6204	ppb	0.07851	12.65%
Co 228.616†	934.5	9.6009	ug/L	0.29489	9.6009	ppb	0.29489	3.07%
Cr 267.716†	1074.2	12.338	ug/L	0.1498	12.338	ppb	0.1498	1.21%
Cu 324.752†	13828.3	42.615	ug/L	0.4490	42.615	ppb	0.4490	1.05%
Fe 238.204 Radial†	8361.0	69506	ug/L	320.2	69506	ppb	320.2	0.46%
K 766.490 Radial†	10688.9	1846.2	ug/L	14.29	1846.2	ppb	14.29	0.77%

Mg 279.077 IEC†	73.4	2221.4	ug/L	17.17	2221.4	ppb	17.17	0.77%
Mn 257.610†	3387263.5	3348.0	ug/L	6.97	3348.0	ppb	6.97	0.21%
Mo 202.031†	814.3	54.222	ug/L	1.2317	54.222	ppb	1.2317	2.27%
Na 589.592 Radial†	1453.3	433.78	ug/L	5.656	433.78	ppb	5.656	1.30%
Ni 231.604†	1266.0	27.651	ug/L	0.2580	27.651	ppb	0.2580	0.93%
P 214.914†	2080.1	1028.2	ug/L	19.03	1028.2	ppb	19.03	1.85%
Pb 220.353†	394.9	39.582	ug/L	0.7532	39.582	ppb	0.7532	1.90%
S 181.975 Axial†	40.2	46.181	ug/L	3.5476	46.181	ppb	3.5476	7.68%
Sb 206.836†	15.4	-1.4590	ug/L	1.13641	-1.4590	ppb	1.13641	77.89%
Se 196.026†	-400.4	-4.7132	ug/L	3.47115	-4.7132	ppb	3.47115	73.65%
Si 251.611†	285904.3	8060.4	ug/L	82.01	8060.4	ppb	82.01	1.02%
Sn 189.927†	26.3	5.3371	ug/L	0.96491	5.3371	ppb	0.96491	18.08%
Sr 421.552†	3781.2	22.132	ug/L	0.0548	22.132	ppb	0.0548	0.25%
Ti 334.940†	1973214.5	2853.3	ug/L	5.11	2853.3	ppb	5.11	0.18%
Tl 190.801†	-161.2	-0.1111	ug/L	3.00430	-0.1111	ppb	3.00430	>999.9%
U 409.014†	-13457.1	-379.54	ug/L	3.175	-379.54	ppb	3.175	0.84%
V 292.402†	7599.7	34.653	ug/L	0.6870	34.653	ppb	0.6870	1.98%
Zn 213.857†	55329.0	446.84	ug/L	4.678	446.84	ppb	4.678	1.05%
SiO2†	287993.0	17434	ug/L	331.9	17434	ppb	331.9	1.90%

Sequence No.: 84
Sample ID: 1201994238|932284|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 94
Date Collected: 12/19/2009 23:05:26
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1201994238|932284|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5849.9	5849.9	105	%			23:07:19
1	Y RADIAL	8784.0	8784.0	148.6	%			23:07:19
1	Al 396.153Radial†	19357.0	18438.2	13433	ug/L	13433	ppb	23:07:19
1	Ca 317.933Radial†	2611.9	2466.2	3516.1	ug/L	3516.1	ppb	23:07:39
1	Fe 238.204 Radial†	8004.0	7606.4	63233	ug/L	63233	ppb	23:07:19
1	K 766.490 Radial†	12414.5	9102.3	1557.7	ug/L	1557.7	ppb	23:07:19
1	Mg 279.077 IEC†	61.0	56.7	1707.5	ug/L	1707.5	ppb	23:07:39
1	Na 589.592 Radial†	544.3	1279.7	381.94	ug/L	381.94	ppb	23:07:19
1	Sr 421.552†	3427.4	3273.6	19.163	ug/L	19.163	ppb	23:07:19
1	Sc 361.383	955399.7	955399.7	106.28	%			23:08:37
1	Y 371.029	1108996.8	1108996.8	148.97	%			23:08:37
1	Ag 328.068†	-3949.3	-4085.7	4.0480	ug/L	4.0480	ppb	23:08:42
1	As 188.979†	-47.3	-9.7	29.716	ug/L	29.716	ppb	23:09:02
1	B 249.677†	119.0	137.9	-5.5948	ug/L	-5.5948	ppb	23:08:42
1	Ba 233.527†	70397.7	66237.8	452.63	ug/L	452.63	ppb	23:08:42
1	Be 313.107†	-13599.2	-8064.0	2.8087	ug/L	2.8087	ppb	23:08:42
1	Cd 226.502†	502.4	701.9	0.5596	ug/L	0.5596	ppb	23:09:02
1	Co 228.616†	761.5	803.6	7.5266	ug/L	7.5266	ppb	23:09:02
1	Cr 267.716†	1068.5	925.2	10.739	ug/L	10.739	ppb	23:09:02
1	Cu 324.752†	19370.2	12169.3	37.608	ug/L	37.608	ppb	23:08:42
1	Mn 257.610†	4330764.6	4074203.8	4025.0	ug/L	4025.0	ppb	23:08:37
1	Mo 202.031†	871.2	799.8	52.897	ug/L	52.897	ppb	23:09:02
1	Ni 231.604†	1400.6	1224.2	26.740	ug/L	26.740	ppb	23:09:02
1	P 214.914†	2105.2	1722.7	846.67	ug/L	846.67	ppb	23:09:02
1	Pb 220.353†	323.9	368.8	36.783	ug/L	36.783	ppb	23:09:02
1	S 181.975 Axial†	94.4	39.8	46.209	ug/L	46.209	ppb	23:09:02
1	Sb 206.836†	60.5	15.7	-1.2481	ug/L	-1.2481	ppb	23:09:02
1	Se 196.026†	-419.3	-365.9	-5.3669	ug/L	-5.3669	ppb	23:09:02
1	Si 251.611†	281042.8	263847.9	7438.6	ug/L	7438.6	ppb	23:08:42
1	Sn 189.927†	37.2	31.5	5.9456	ug/L	5.9456	ppb	23:09:02
1	Ti 334.940†	2060380.1	1939941.6	2805.2	ug/L	2805.2	ppb	23:08:37
1	Tl 190.801†	-257.1	-193.8	-5.0140	ug/L	-5.0140	ppb	23:09:02
1	U 409.014†	-20328.6	-16754.4	-469.59	ug/L	-469.59	ppb	23:08:37
1	V 292.402†	6050.3	7162.0	32.676	ug/L	32.676	ppb	23:08:42
1	Zn 213.857†	56357.8	52231.9	422.07	ug/L	422.07	ppb	23:08:42
1	SiO2†	283722.4	266339.8	16124	ug/L	16124	ppb	23:10:11
2	Sc Radial	5710.8	5710.8	103	%			23:07:44
2	Y RADIAL	8661.9	8661.9	146.5	%			23:07:44
2	Al 396.153Radial†	19103.1	18639.5	13580	ug/L	13580	ppb	23:07:44
2	Ca 317.933Radial†	2635.1	2549.3	3634.6	ug/L	3634.6	ppb	23:08:04
2	Fe 238.204 Radial†	7886.3	7677.3	63822	ug/L	63822	ppb	23:07:44
2	K 766.490 Radial†	12485.8	9459.7	1620.8	ug/L	1620.8	ppb	23:07:44
2	Mg 279.077 IEC†	63.9	60.9	1836.5	ug/L	1836.5	ppb	23:08:04
2	Na 589.592 Radial†	539.2	1287.3	384.23	ug/L	384.23	ppb	23:07:44
2	Sr 421.552†	3343.3	3271.1	19.148	ug/L	19.148	ppb	23:07:44
2	Sc 361.383	960687.8	960687.8	106.87	%			23:09:09
2	Y 371.029	1117471.0	1117471.0	150.10	%			23:09:09
2	Ag 328.068†	-3935.6	-4052.4	4.3878	ug/L	4.3878	ppb	23:09:14
2	As 188.979†	-32.8	4.2	34.839	ug/L	34.839	ppb	23:09:34
2	B 249.677†	70.0	91.4	-6.6253	ug/L	-6.6253	ppb	23:09:14
2	Ba 233.527†	70295.9	65778.0	449.53	ug/L	449.53	ppb	23:09:14
2	Be 313.107†	-13867.1	-8244.3	2.7505	ug/L	2.7505	ppb	23:09:14
2	Cd 226.502†	503.8	700.6	0.4880	ug/L	0.4880	ppb	23:09:34
2	Co 228.616†	760.4	798.6	7.4274	ug/L	7.4274	ppb	23:09:34
2	Cr 267.716†	1059.4	911.1	10.608	ug/L	10.608	ppb	23:09:34
2	Cu 324.752†	19244.0	11950.9	37.021	ug/L	37.021	ppb	23:09:14
2	Mn 257.610†	4350221.2	4069980.1	4020.9	ug/L	4020.9	ppb	23:09:09
2	Mo 202.031†	883.6	806.9	53.371	ug/L	53.371	ppb	23:09:34
2	Ni 231.604†	1401.9	1218.1	26.606	ug/L	26.606	ppb	23:09:34

2	P 214.914†	2135.0	1739.6	855.18	ug/L	855.18	ppb	23:09:34
2	Pb 220.353†	339.6	381.9	38.141	ug/L	38.141	ppb	23:09:34
2	S 181.975 Axial†	91.3	36.5	42.053	ug/L	42.053	ppb	23:09:34
2	Sb 206.836†	66.3	20.8	0.2781	ug/L	0.2781	ppb	23:09:34
2	Se 196.026†	-426.3	-370.4	-5.9700	ug/L	-5.9700	ppb	23:09:34
2	Si 251.611†	280270.7	261669.9	7377.1	ug/L	7377.1	ppb	23:09:14
2	Sn 189.927†	31.2	25.7	5.0905	ug/L	5.0905	ppb	23:09:34
2	Ti 334.940†	2072613.2	1940717.3	2806.4	ug/L	2806.4	ppb	23:09:09
2	Tl 190.801†	-233.7	-170.6	0.9959	ug/L	0.9959	ppb	23:09:34
2	U 409.014†	-20485.0	-16795.4	-470.80	ug/L	-470.80	ppb	23:09:09
2	V 292.402†	6106.5	7183.2	32.727	ug/L	32.727	ppb	23:09:14
2	Zn 213.857†	56255.0	51843.8	418.82	ug/L	418.82	ppb	23:09:14
2	SiO2†	283315.0	264489.2	16011	ug/L	16011	ppb	23:10:17
3	Sc Radial	5799.9	5799.9	104	%			23:08:09
3	Y RADIAL	8716.3	8716.3	147.4	%			23:08:09
3	Al 396.153Radial†	19308.1	18550.2	13515	ug/L	13515	ppb	23:08:09
3	Ca 317.933Radial†	2637.1	2511.7	3581.1	ug/L	3581.1	ppb	23:08:29
3	Fe 238.204 Radial†	7992.6	7661.2	63688	ug/L	63688	ppb	23:08:09
3	K 766.490 Radial†	12547.0	9331.4	1598.1	ug/L	1598.1	ppb	23:08:09
3	Mg 279.077 IEC†	67.9	63.8	1927.1	ug/L	1927.1	ppb	23:08:29
3	Na 589.592 Radial†	539.6	1279.6	381.94	ug/L	381.94	ppb	23:08:09
3	Sr 421.552†	3359.6	3236.7	18.946	ug/L	18.946	ppb	23:08:09
3	Sc 361.383	956159.3	956159.3	106.37	%			23:09:41
3	Y 371.029	1110339.9	1110339.9	149.15	%			23:09:41
3	Ag 328.068†	-3909.4	-4045.3	4.3765	ug/L	4.3765	ppb	23:09:46
3	As 188.979†	-42.3	-4.9	31.524	ug/L	31.524	ppb	23:10:06
3	B 249.677†	69.6	91.4	-6.6095	ug/L	-6.6095	ppb	23:09:46
3	Ba 233.527†	70487.3	66269.5	452.86	ug/L	452.86	ppb	23:09:46
3	Be 313.107†	-13639.0	-8091.3	2.8022	ug/L	2.8022	ppb	23:09:46
3	Cd 226.502†	489.0	688.9	0.3868	ug/L	0.3868	ppb	23:10:06
3	Co 228.616†	779.9	820.3	7.8114	ug/L	7.8114	ppb	23:10:06
3	Cr 267.716†	1049.9	906.9	10.564	ug/L	10.564	ppb	23:10:06
3	Cu 324.752†	19263.8	12054.8	37.308	ug/L	37.308	ppb	23:09:46
3	Mn 257.610†	4338625.4	4078357.0	4029.1	ug/L	4029.1	ppb	23:09:41
3	Mo 202.031†	884.0	811.2	53.620	ug/L	53.620	ppb	23:10:06
3	Ni 231.604†	1380.8	1204.5	26.309	ug/L	26.309	ppb	23:10:06
3	P 214.914†	2116.3	1731.5	851.00	ug/L	851.00	ppb	23:10:06
3	Pb 220.353†	337.3	381.2	38.066	ug/L	38.066	ppb	23:10:06
3	S 181.975 Axial†	101.6	46.5	54.357	ug/L	54.357	ppb	23:10:06
3	Sb 206.836†	47.3	3.2	-4.9786	ug/L	-4.9786	ppb	23:10:06
3	Se 196.026†	-418.1	-364.5	-3.1948	ug/L	-3.1948	ppb	23:10:06
3	Si 251.611†	280953.0	263553.4	7430.3	ug/L	7430.3	ppb	23:09:46
3	Sn 189.927†	35.3	29.7	5.6906	ug/L	5.6906	ppb	23:10:06
3	Ti 334.940†	2063011.6	1940875.5	2806.6	ug/L	2806.6	ppb	23:09:41
3	Tl 190.801†	-241.2	-178.7	-1.0598	ug/L	-1.0598	ppb	23:10:06
3	U 409.014†	-20446.9	-16850.4	-472.29	ug/L	-472.29	ppb	23:09:41
3	V 292.402†	6100.0	7204.2	32.883	ug/L	32.883	ppb	23:09:46
3	Zn 213.857†	56542.5	52363.5	423.10	ug/L	423.10	ppb	23:09:46
3	SiO2†	284074.1	266458.4	16131	ug/L	16131	ppb	23:10:22

Mean Data: 1201994238|932284|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	957415.6	106.51	%	0.318				0.30%
Sc Radial	5786.8	104	%	1.3				1.22%
Y 371.029	1112269.3	149.41	%	0.612				0.41%
Y RADIAL	8720.7	147.5	%	1.03				0.70%
Ag 328.068†	-4061.1	4.2708	ug/L	0.19304	4.2708	ppb	0.19304	4.52%
Al 396.153Radial†	18542.6	13509	ug/L	73.5	13509	ppb	73.5	0.54%
As 188.979†	-3.5	32.026	ug/L	2.5983	32.026	ppb	2.5983	8.11%
B 249.677†	106.9	-6.2765	ug/L	0.59043	-6.2765	ppb	0.59043	9.41%
Ba 233.527†	66095.1	451.67	ug/L	1.862	451.67	ppb	1.862	0.41%
Be 313.107†	-8133.2	2.7871	ug/L	0.03192	2.7871	ppb	0.03192	1.15%
Ca 317.933Radial†	2509.1	3577.3	ug/L	59.35	3577.3	ppb	59.35	1.66%
Cd 226.502†	697.1	0.4781	ug/L	0.08678	0.4781	ppb	0.08678	18.15%
Co 228.616†	807.5	7.5884	ug/L	0.19935	7.5884	ppb	0.19935	2.63%
Cr 267.716†	914.4	10.637	ug/L	0.0914	10.637	ppb	0.0914	0.86%
Cu 324.752†	12058.3	37.313	ug/L	0.2935	37.313	ppb	0.2935	0.79%
Fe 238.204 Radial†	7648.3	63581	ug/L	308.7	63581	ppb	308.7	0.49%
K 766.490 Radial†	9297.8	1592.2	ug/L	31.94	1592.2	ppb	31.94	2.01%

Mg 279.077 IEC†	60.5	1823.7	ug/L	110.40	1823.7	ppb	110.40	6.05%
Mn 257.610†	4074180.3	4025.0	ug/L	4.12	4025.0	ppb	4.12	0.10%
Mo 202.031†	806.0	53.296	ug/L	0.3672	53.296	ppb	0.3672	0.69%
Na 589.592 Radial†	1282.2	382.71	ug/L	1.324	382.71	ppb	1.324	0.35%
Ni 231.604†	1215.6	26.551	ug/L	0.2207	26.551	ppb	0.2207	0.83%
P 214.914†	1731.3	850.95	ug/L	4.251	850.95	ppb	4.251	0.50%
Pb 220.353†	377.3	37.663	ug/L	0.7635	37.663	ppb	0.7635	2.03%
S 181.975 Axial†	40.9	47.540	ug/L	6.2590	47.540	ppb	6.2590	13.17%
Sb 206.836†	13.3	-1.9829	ug/L	2.70430	-1.9829	ppb	2.70430	136.38%
Se 196.026†	-366.9	-4.8439	ug/L	1.45964	-4.8439	ppb	1.45964	30.13%
Si 251.611†	263023.7	7415.3	ug/L	33.33	7415.3	ppb	33.33	0.45%
Sn 189.927†	29.0	5.5756	ug/L	0.43900	5.5756	ppb	0.43900	7.87%
Sr 421.552†	3260.5	19.086	ug/L	0.1211	19.086	ppb	0.1211	0.63%
Ti 334.940†	1940511.5	2806.1	ug/L	0.73	2806.1	ppb	0.73	0.03%
Tl 190.801†	-181.0	-1.6926	ug/L	3.05448	-1.6926	ppb	3.05448	180.46%
U 409.014†	-16800.1	-470.89	ug/L	1.354	-470.89	ppb	1.354	0.29%
V 292.402†	7183.1	32.762	ug/L	0.1081	32.762	ppb	0.1081	0.33%
Zn 213.857†	52146.4	421.33	ug/L	2.230	421.33	ppb	2.230	0.53%
SiO2†	265762.5	16089	ug/L	66.9	16089	ppb	66.9	0.42%

Sequence No.: 85
Sample ID: 1201994239|932284|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 95
Date Collected: 12/19/2009 23:12:33
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1201994239|932284|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5742.9	5742.9	103	%			23:14:26
1	Y RADIAL	8966.2	8966.2	151.7	%			23:14:26
1	Al 396.153Radial†	46452.1	45047.7	32801	ug/L	32801	ppb	23:14:26
1	Ca 317.933Radial†	6494.2	6276.0	8947.8	ug/L	8947.8	ppb	23:14:26
1	Fe 238.204 Radial†	9484.6	9183.7	76360	ug/L	76360	ppb	23:14:26
1	K 766.490 Radial†	45519.1	41414.4	7243.4	ug/L	7243.4	ppb	23:14:26
1	Mg 279.077 IEC†	268.8	259.1	7992.2	ug/L	7992.2	ppb	23:14:46
1	Na 589.592 Radial†	16902.7	17147.4	5118.0	ug/L	5118.0	ppb	23:14:26
1	Sr 421.552†	90046.5	87304.2	511.86	ug/L	511.86	ppb	23:14:26
1	Sc 361.383	937840.1	937840.1	104.33	%			23:15:45
1	Y 371.029	1127871.8	1127871.8	151.50	%			23:15:45
1	Ag 328.068†	115576.4	110408.7	503.26	ug/L	503.26	ppb	23:15:50
1	As 188.979†	1349.6	1328.4	523.70	ug/L	523.70	ppb	23:16:10
1	B 249.677†	25067.7	24053.0	482.27	ug/L	482.27	ppb	23:15:50
1	Ba 233.527†	155007.5	148575.5	1013.8	ug/L	1013.8	ppb	23:15:50
1	Be 313.107†	1525464.6	1466871.3	499.04	ug/L	499.04	ppb	23:15:45
1	Cd 226.502†	52657.3	50700.6	488.55	ug/L	488.55	ppb	23:15:50
1	Co 228.616†	28877.9	27766.3	478.89	ug/L	478.89	ppb	23:16:10
1	Cr 267.716†	52335.9	50083.2	510.06	ug/L	510.06	ppb	23:15:50
1	Cu 324.752†	214605.8	199641.6	567.96	ug/L	567.96	ppb	23:15:50
1	Mn 257.610†	5217064.9	5000004.9	4939.3	ug/L	4939.3	ppb	23:15:45
1	Mo 202.031†	9369.3	8960.5	547.80	ug/L	547.80	ppb	23:16:10
1	Ni 231.604†	24963.9	23834.1	520.44	ug/L	520.44	ppb	23:16:10
1	P 214.914†	3496.8	3093.6	1479.7	ug/L	1479.7	ppb	23:16:10
1	Pb 220.353†	5292.1	5136.5	543.26	ug/L	543.26	ppb	23:16:10
1	S 181.975 Axial†	4308.1	4080.3	4999.2	ug/L	4999.2	ppb	23:16:10
1	Sb 206.836†	1691.9	1580.5	473.49	ug/L	473.49	ppb	23:16:10
1	Se 196.026†	470.8	479.7	499.49	ug/L	499.49	ppb	23:16:10
1	Si 251.611†	441498.0	422593.2	11903	ug/L	11903	ppb	23:15:50
1	Sn 189.927†	3495.8	3347.2	503.98	ug/L	503.98	ppb	23:16:10
1	Ti 334.940†	2609777.9	2502829.5	3618.9	ug/L	3618.9	ppb	23:15:45
1	Tl 190.801†	1724.8	1701.2	495.22	ug/L	495.22	ppb	23:16:10
1	U 409.014†	1201.4	3523.7	86.500	ug/L	86.500	ppb	23:15:45
1	V 292.402†	87883.3	85704.6	537.43	ug/L	537.43	ppb	23:15:50
1	Zn 213.857†	124851.5	118875.1	963.38	ug/L	963.38	ppb	23:15:50
1	SiO2†	441319.3	422392.8	25546	ug/L	25546	ppb	23:17:20
2	Sc Radial	5622.6	5622.6	101	%			23:14:51
2	Y RADIAL	8772.8	8772.8	148.4	%			23:14:51
2	Al 396.153Radial†	45309.1	44879.6	32679	ug/L	32679	ppb	23:14:51
2	Ca 317.933Radial†	6381.8	6299.4	8981.2	ug/L	8981.2	ppb	23:14:51
2	Fe 238.204 Radial†	9270.0	9167.9	76228	ug/L	76228	ppb	23:14:51
2	K 766.490 Radial†	44671.2	41519.2	7261.8	ug/L	7261.8	ppb	23:14:51
2	Mg 279.077 IEC†	267.9	263.9	8139.9	ug/L	8139.9	ppb	23:15:11
2	Na 589.592 Radial†	16600.3	17198.6	5133.3	ug/L	5133.3	ppb	23:14:51
2	Sr 421.552†	87723.0	86871.6	509.32	ug/L	509.32	ppb	23:14:51
2	Sc 361.383	943547.0	943547.0	104.97	%			23:16:17
2	Y 371.029	1135178.4	1135178.4	152.48	%			23:16:17
2	Ag 328.068†	115975.1	110118.5	501.95	ug/L	501.95	ppb	23:16:22
2	As 188.979†	1328.5	1300.4	513.56	ug/L	513.56	ppb	23:16:42
2	B 249.677†	25193.1	24027.2	481.77	ug/L	481.77	ppb	23:16:22
2	Ba 233.527†	155407.8	148058.2	1010.3	ug/L	1010.3	ppb	23:16:22
2	Be 313.107†	1535035.3	1467145.6	499.14	ug/L	499.14	ppb	23:16:17
2	Cd 226.502†	53025.9	50746.5	489.01	ug/L	489.01	ppb	23:16:22
2	Co 228.616†	28802.3	27526.8	474.68	ug/L	474.68	ppb	23:16:42
2	Cr 267.716†	52524.3	49959.3	508.80	ug/L	508.80	ppb	23:16:22
2	Cu 324.752†	215082.5	198851.6	565.72	ug/L	565.72	ppb	23:16:22
2	Mn 257.610†	5248313.2	4999530.0	4938.9	ug/L	4938.9	ppb	23:16:17
2	Mo 202.031†	9347.4	8885.3	543.24	ug/L	543.24	ppb	23:16:42
2	Ni 231.604†	24929.4	23656.5	516.56	ug/L	516.56	ppb	23:16:42

2	P 214.914†	3504.2	3080.3	1473.1	ug/L	1473.1 ppb	23:16:42
2	Pb 220.353†	5300.4	5113.7	540.84	ug/L	540.84 ppb	23:16:42
2	S 181.975 Axial†	4295.5	4043.3	4953.9	ug/L	4953.9 ppb	23:16:42
2	Sb 206.836†	1714.6	1592.3	476.82	ug/L	476.82 ppb	23:16:42
2	Se 196.026†	469.7	476.0	497.03	ug/L	497.03 ppb	23:16:42
2	Si 251.611†	442794.5	421268.9	11866	ug/L	11866 ppb	23:16:22
2	Sn 189.927†	3460.2	3293.1	495.85	ug/L	495.85 ppb	23:16:42
2	Ti 334.940†	2626482.8	2503614.4	3620.1	ug/L	3620.1 ppb	23:16:17
2	Tl 190.801†	1702.2	1669.7	487.07	ug/L	487.07 ppb	23:16:42
2	U 409.014†	1373.3	3680.6	90.840	ug/L	90.840 ppb	23:16:17
2	V 292.402†	88074.3	85377.0	535.31	ug/L	535.31 ppb	23:16:22
2	Zn 213.857†	125095.2	118383.5	959.38	ug/L	959.38 ppb	23:16:22
2	SiO2†	442456.3	420917.5	25457	ug/L	25457 ppb	23:17:26
3	Sc Radial	5688.4	5688.4	102	%		23:15:16
3	Y RADIAL	8830.0	8830.0	149.4	%		23:15:16
3	Al 396.153Radial†	45714.8	44758.2	32590	ug/L	32590 ppb	23:15:16
3	Ca 317.933Radial†	6419.1	6262.9	8929.2	ug/L	8929.2 ppb	23:15:16
3	Fe 238.204 Radial†	9367.5	9157.2	76140	ug/L	76140 ppb	23:15:16
3	K 766.490 Radial†	45252.4	41576.8	7271.7	ug/L	7271.7 ppb	23:15:16
3	Mg 279.077 IEC†	266.9	259.8	8012.0	ug/L	8012.0 ppb	23:15:36
3	Na 589.592 Radial†	16833.6	17236.9	5144.7	ug/L	5144.7 ppb	23:15:16
3	Sr 421.552†	88822.0	86943.3	509.74	ug/L	509.74 ppb	23:15:16
3	Sc 361.383	941431.2	941431.2	104.73	%		23:16:49
3	Y 371.029	1131195.4	1131195.4	151.95	%		23:16:49
3	Ag 328.068†	115880.4	110276.4	502.60	ug/L	502.60 ppb	23:16:54
3	As 188.979†	1343.8	1317.9	519.95	ug/L	519.95 ppb	23:17:15
3	B 249.677†	25257.6	24142.7	484.15	ug/L	484.15 ppb	23:16:54
3	Ba 233.527†	155458.2	148439.1	1012.9	ug/L	1012.9 ppb	23:16:54
3	Be 313.107†	1532485.0	1467997.2	499.44	ug/L	499.44 ppb	23:16:49
3	Cd 226.502†	53006.3	50841.3	489.94	ug/L	489.94 ppb	23:16:54
3	Co 228.616†	28801.6	27587.8	475.73	ug/L	475.73 ppb	23:17:15
3	Cr 267.716†	52469.0	50019.0	509.40	ug/L	509.40 ppb	23:16:54
3	Cu 324.752†	214851.2	199091.3	566.39	ug/L	566.39 ppb	23:16:54
3	Mn 257.610†	5254577.8	5016749.0	4955.8	ug/L	4955.8 ppb	23:16:49
3	Mo 202.031†	9310.3	8869.9	542.31	ug/L	542.31 ppb	23:17:15
3	Ni 231.604†	24898.9	23680.7	517.09	ug/L	517.09 ppb	23:17:15
3	P 214.914†	3498.1	3082.0	1473.9	ug/L	1473.9 ppb	23:17:15
3	Pb 220.353†	5296.5	5121.3	541.62	ug/L	541.62 ppb	23:17:15
3	S 181.975 Axial†	4297.8	4054.7	4967.9	ug/L	4967.9 ppb	23:17:15
3	Sb 206.836†	1701.1	1583.1	474.06	ug/L	474.06 ppb	23:17:15
3	Se 196.026†	464.3	471.9	494.48	ug/L	494.48 ppb	23:17:15
3	Si 251.611†	442776.6	422200.0	11892	ug/L	11892 ppb	23:16:54
3	Sn 189.927†	3473.9	3313.5	498.91	ug/L	498.91 ppb	23:17:15
3	Ti 334.940†	2626239.3	2509005.6	3627.9	ug/L	3627.9 ppb	23:16:49
3	Tl 190.801†	1697.6	1669.0	487.04	ug/L	487.04 ppb	23:17:15
3	U 409.014†	1334.8	3646.8	89.919	ug/L	89.919 ppb	23:16:49
3	V 292.402†	87929.2	85427.1	535.62	ug/L	535.62 ppb	23:16:54
3	Zn 213.857†	125044.1	118602.5	961.19	ug/L	961.19 ppb	23:16:54
3	SiO2†	441163.7	420630.7	25440	ug/L	25440 ppb	23:17:31

Mean Data: 1201994239|932284|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	940939.4	104.68	%	0.321				0.31%
Sc Radial	5684.6	102	%	1.1				1.06%
Y 371.029	1131415.2	151.98	%	0.491				0.32%
Internal Standard Check greater than the upper limit for Y 371.029. Recovery = 152.0%								
Y RADIAL	8856.3	149.8	%	1.68				1.12%
Ag 328.068†	110267.9	502.60	ug/L	0.653	502.60	ppb	0.653	0.13%
Al 396.153Radial†	44895.2	32690	ug/L	105.8	32690	ppb	105.8	0.32%
As 188.979†	1315.6	519.07	ug/L	5.127	519.07	ppb	5.127	0.99%
B 249.677†	24074.3	482.73	ug/L	1.254	482.73	ppb	1.254	0.26%
Ba 233.527†	148357.6	1012.4	ug/L	1.83	1012.4	ppb	1.83	0.18%
Be 313.107†	1467338.0	499.21	ug/L	0.206	499.21	ppb	0.206	0.04%
Ca 317.933Radial†	6279.4	8952.8	ug/L	26.35	8952.8	ppb	26.35	0.29%
Cd 226.502†	50762.8	489.17	ug/L	0.712	489.17	ppb	0.712	0.15%
Co 228.616†	27627.0	476.44	ug/L	2.188	476.44	ppb	2.188	0.46%
Cr 267.716†	50020.5	509.42	ug/L	0.632	509.42	ppb	0.632	0.12%
Cu 324.752†	199194.9	566.69	ug/L	1.149	566.69	ppb	1.149	0.20%
Fe 238.204 Radial†	9169.6	76243	ug/L	110.7	76243	ppb	110.7	0.15%

K 766.490 Radial†	41503.5	7258.9	ug/L	14.38	7258.9	ppb	14.38	0.20%
Mg 279.077 IEC†	260.9	8048.0	ug/L	80.17	8048.0	ppb	80.17	1.00%
Mn 257.610†	5005427.9	4944.7	ug/L	9.67	4944.7	ppb	9.67	0.20%
Mo 202.031†	8905.2	544.45	ug/L	2.941	544.45	ppb	2.941	0.54%
Na 589.592 Radial†	17194.3	5132.0	ug/L	13.41	5132.0	ppb	13.41	0.26%
Ni 231.604†	23723.7	518.03	ug/L	2.103	518.03	ppb	2.103	0.41%
P 214.914†	3085.3	1475.6	ug/L	3.59	1475.6	ppb	3.59	0.24%
Pb 220.353†	5123.8	541.91	ug/L	1.236	541.91	ppb	1.236	0.23%
S 181.975 Axial†	4059.4	4973.7	ug/L	23.22	4973.7	ppb	23.22	0.47%
Sb 206.836†	1585.3	474.79	ug/L	1.780	474.79	ppb	1.780	0.37%
Se 196.026†	475.9	497.00	ug/L	2.508	497.00	ppb	2.508	0.50%
Si 251.611†	422020.7	11887	ug/L	19.1	11887	ppb	19.1	0.16%
Sn 189.927†	3317.9	499.58	ug/L	4.103	499.58	ppb	4.103	0.82%
Sr 421.552†	87039.7	510.31	ug/L	1.360	510.31	ppb	1.360	0.27%
Ti 334.940†	2505149.8	3622.3	ug/L	4.86	3622.3	ppb	4.86	0.13%
Tl 190.801†	1680.0	489.78	ug/L	4.715	489.78	ppb	4.715	0.96%
U 409.014†	3617.0	89.086	ug/L	2.2868	89.086	ppb	2.2868	2.57%
V 292.402†	85502.9	536.12	ug/L	1.145	536.12	ppb	1.145	0.21%
Zn 213.857†	118620.4	961.32	ug/L	2.002	961.32	ppb	2.002	0.21%
SiO2†	421313.7	25481	ug/L	57.1	25481	ppb	57.1	0.22%

Internal Standard Check failed. Continue with analysis.

Sequence No.: 86
Sample ID: 1201994241|932284|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 96
Date Collected: 12/19/2009 23:19:43
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1201994241|932284|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5747.6	5747.6	103	%			23:21:36
1	Y RADIAL	9061.1	9061.1	153.3	%			23:21:36
1	Al 396.153Radial†	46186.8	44754.4	32588	ug/L	32588	ppb	23:21:36
1	Ca 317.933Radial†	6472.3	6249.7	8910.4	ug/L	8910.4	ppb	23:21:36
1	Fe 238.204 Radial†	9564.7	9253.8	76942	ug/L	76942	ppb	23:21:36
1	K 766.490 Radial†	45797.8	41648.8	7300.5	ug/L	7300.5	ppb	23:21:36
1	Mg 279.077 IEC†	274.3	264.3	8150.9	ug/L	8150.9	ppb	23:21:56
1	Na 589.592 Radial†	18091.1	18285.2	5457.6	ug/L	5457.6	ppb	23:21:36
1	Sr 421.552†	92361.1	89475.7	524.59	ug/L	524.59	ppb	23:21:36
1	Sc 361.383	941637.7	941637.7	104.75	%			23:22:54
1	Y 371.029	1146756.6	1146756.6	154.04	%			23:22:54
1	Ag 328.068†	115242.2	109642.9	500.06	ug/L	500.06	ppb	23:23:00
1	As 188.979†	1380.4	1352.5	532.26	ug/L	532.26	ppb	23:23:20
1	B 249.677†	25127.3	24013.1	481.37	ug/L	481.37	ppb	23:23:00
1	Ba 233.527†	130728.0	124798.6	852.25	ug/L	852.25	ppb	23:23:00
1	Be 313.107†	1542695.5	1477423.5	502.51	ug/L	502.51	ppb	23:22:54
1	Cd 226.502†	52569.0	50412.7	485.67	ug/L	485.67	ppb	23:23:00
1	Co 228.616†	29067.6	27835.7	480.07	ug/L	480.07	ppb	23:23:20
1	Cr 267.716†	52029.9	49588.7	505.02	ug/L	505.02	ppb	23:23:00
1	Cu 324.752†	211912.3	196240.8	558.38	ug/L	558.38	ppb	23:23:00
1	Mn 257.610†	3865901.0	3689986.2	3647.2	ug/L	3647.2	ppb	23:22:54
1	Mo 202.031†	9133.1	8698.8	532.01	ug/L	532.01	ppb	23:23:20
1	Ni 231.604†	24835.6	23615.0	515.66	ug/L	515.66	ppb	23:23:20
1	P 214.914†	3364.8	2954.0	1407.9	ug/L	1407.9	ppb	23:23:20
1	Pb 220.353†	5325.1	5147.5	544.30	ug/L	544.30	ppb	23:23:20
1	S 181.975 Axial†	4349.1	4102.7	5026.8	ug/L	5026.8	ppb	23:23:20
1	Sb 206.836†	1731.7	1611.9	482.85	ug/L	482.85	ppb	23:23:20
1	Se 196.026†	473.3	480.4	501.52	ug/L	501.52	ppb	23:23:20
1	Si 251.611†	449508.1	428533.3	12071	ug/L	12071	ppb	23:23:00
1	Sn 189.927†	3529.8	3366.1	506.81	ug/L	506.81	ppb	23:23:20
1	Ti 334.940†	2592228.9	2475988.6	3580.1	ug/L	3580.1	ppb	23:22:54
1	Tl 190.801†	1761.8	1730.0	494.81	ug/L	494.81	ppb	23:23:20
1	U 409.014†	3630.4	5837.8	150.20	ug/L	150.20	ppb	23:23:00
1	V 292.402†	86792.7	84323.7	528.50	ug/L	528.50	ppb	23:23:00
1	Zn 213.857†	123027.9	116651.7	945.13	ug/L	945.13	ppb	23:23:00
1	SiO2†	452436.8	431299.8	26086	ug/L	26086	ppb	23:24:30
2	Sc Radial	5776.7	5776.7	104	%			23:22:01
2	Y RADIAL	9067.4	9067.4	153.4	%			23:22:01
2	Al 396.153Radial†	46464.6	44796.8	32619	ug/L	32619	ppb	23:22:01
2	Ca 317.933Radial†	6542.4	6285.7	8961.7	ug/L	8961.7	ppb	23:22:01
2	Fe 238.204 Radial†	9615.1	9255.7	76959	ug/L	76959	ppb	23:22:01
2	K 766.490 Radial†	46178.0	41791.8	7325.6	ug/L	7325.6	ppb	23:22:01
2	Mg 279.077 IEC†	273.3	262.0	8079.6	ug/L	8079.6	ppb	23:22:21
2	Na 589.592 Radial†	18270.6	18370.0	5482.9	ug/L	5482.9	ppb	23:22:01
2	Sr 421.552†	93197.3	89831.0	526.67	ug/L	526.67	ppb	23:22:01
2	Sc 361.383	950659.0	950659.0	105.76	%			23:23:27
2	Y 371.029	1156618.9	1156618.9	155.36	%			23:23:27
2	Ag 328.068†	116679.3	109957.8	501.43	ug/L	501.43	ppb	23:23:32
2	As 188.979†	1360.1	1320.9	520.82	ug/L	520.82	ppb	23:23:52
2	B 249.677†	25437.7	24078.9	482.73	ug/L	482.73	ppb	23:23:32
2	Ba 233.527†	132462.7	125254.6	855.36	ug/L	855.36	ppb	23:23:32
2	Be 313.107†	1557613.6	1477554.4	502.56	ug/L	502.56	ppb	23:23:27
2	Cd 226.502†	53326.1	50652.4	488.01	ug/L	488.01	ppb	23:23:32
2	Co 228.616†	29015.1	27522.7	474.57	ug/L	474.57	ppb	23:23:52
2	Cr 267.716†	52724.1	49773.8	506.90	ug/L	506.90	ppb	23:23:32
2	Cu 324.752†	214989.0	197230.3	561.17	ug/L	561.17	ppb	23:23:32
2	Mn 257.610†	3905909.1	3692795.3	3650.0	ug/L	3650.0	ppb	23:23:27
2	Mo 202.031†	9130.1	8613.2	526.83	ug/L	526.83	ppb	23:23:52
2	Ni 231.604†	24785.4	23342.6	509.71	ug/L	509.71	ppb	23:23:52

2	P 214.914†	3378.7	2936.7	1398.3	ug/L	1398.3	ppb	23:23:52
2	Pb 220.353†	5322.4	5096.8	538.94	ug/L	538.94	ppb	23:23:52
2	S 181.975 Axial†	4341.0	4055.7	4969.1	ug/L	4969.1	ppb	23:23:52
2	Sb 206.836†	1708.8	1574.6	471.35	ug/L	471.35	ppb	23:23:52
2	Se 196.026†	471.7	474.6	498.41	ug/L	498.41	ppb	23:23:52
2	Si 251.611†	455751.6	430364.8	12122	ug/L	12122	ppb	23:23:32
2	Sn 189.927†	3507.8	3313.3	498.90	ug/L	498.90	ppb	23:23:52
2	Ti 334.940†	2619858.0	2478630.7	3583.9	ug/L	3583.9	ppb	23:23:27
2	Tl 190.801†	1765.4	1717.4	491.62	ug/L	491.62	ppb	23:23:52
2	U 409.014†	3885.8	6046.4	155.94	ug/L	155.94	ppb	23:23:32
2	V 292.402†	88014.6	84692.8	530.78	ug/L	530.78	ppb	23:23:32
2	Zn 213.857†	124853.5	117263.4	950.18	ug/L	950.18	ppb	23:23:32
2	SiO2†	452410.2	427176.1	25837	ug/L	25837	ppb	23:24:36
3	Sc Radial	5736.4	5736.4	103	%			23:22:26
3	Y RADIAL	9057.5	9057.5	153.2	%			23:22:26
3	Al 396.153Radial†	46113.5	44770.6	32600	ug/L	32600	ppb	23:22:26
3	Ca 317.933Radial†	6453.1	6243.3	8901.3	ug/L	8901.3	ppb	23:22:26
3	Fe 238.204 Radial†	9538.8	9246.7	76884	ug/L	76884	ppb	23:22:26
3	K 766.490 Radial†	45721.2	41661.1	7302.6	ug/L	7302.6	ppb	23:22:26
3	Mg 279.077 IEC†	271.6	262.2	8087.4	ug/L	8087.4	ppb	23:22:46
3	Na 589.592 Radial†	18094.9	18323.2	5468.9	ug/L	5468.9	ppb	23:22:26
3	Sr 421.552†	92486.4	89772.1	526.33	ug/L	526.33	ppb	23:22:26
3	Sc 361.383	933039.8	933039.8	103.80	%			23:23:59
3	Y 371.029	1133409.2	1133409.2	152.24	%			23:23:59
3	Ag 328.068†	116799.1	112156.6	510.93	ug/L	510.93	ppb	23:24:04
3	As 188.979†	1364.1	1349.0	531.02	ug/L	531.02	ppb	23:24:25
3	B 249.677†	25562.6	24653.5	494.51	ug/L	494.51	ppb	23:24:04
3	Ba 233.527†	132801.1	127945.8	873.67	ug/L	873.67	ppb	23:24:04
3	Be 313.107†	1525888.0	1474801.6	501.64	ug/L	501.64	ppb	23:23:59
3	Cd 226.502†	53297.2	51576.7	497.06	ug/L	497.06	ppb	23:24:04
3	Co 228.616†	29020.5	28046.0	483.75	ug/L	483.75	ppb	23:24:25
3	Cr 267.716†	52622.2	50617.1	515.47	ug/L	515.47	ppb	23:24:04
3	Cu 324.752†	215539.0	201598.9	573.51	ug/L	573.51	ppb	23:24:04
3	Mn 257.610†	3841160.9	3700158.4	3657.3	ug/L	3657.3	ppb	23:23:59
3	Mo 202.031†	9112.3	8759.1	535.65	ug/L	535.65	ppb	23:24:25
3	Ni 231.604†	24765.8	23766.3	518.96	ug/L	518.96	ppb	23:24:25
3	P 214.914†	3366.0	2984.8	1421.7	ug/L	1421.7	ppb	23:24:25
3	Pb 220.353†	5307.0	5177.0	547.41	ug/L	547.41	ppb	23:24:25
3	S 181.975 Axial†	4333.7	4126.2	5055.6	ug/L	5055.6	ppb	23:24:25
3	Sb 206.836†	1716.9	1612.9	482.99	ug/L	482.99	ppb	23:24:25
3	Se 196.026†	478.1	489.2	506.14	ug/L	506.14	ppb	23:24:25
3	Si 251.611†	456961.1	439667.8	12384	ug/L	12384	ppb	23:24:04
3	Sn 189.927†	3509.8	3378.0	508.59	ug/L	508.59	ppb	23:24:25
3	Ti 334.940†	2572810.1	2480083.4	3586.0	ug/L	3586.0	ppb	23:23:59
3	Tl 190.801†	1752.0	1736.0	496.44	ug/L	496.44	ppb	23:24:25
3	U 409.014†	3560.7	5802.7	149.21	ug/L	149.21	ppb	23:24:04
3	V 292.402†	87990.5	86241.2	540.75	ug/L	540.75	ppb	23:24:04
3	Zn 213.857†	125143.9	119772.6	970.69	ug/L	970.69	ppb	23:24:04
3	SiO2†	458058.5	440695.9	26655	ug/L	26655	ppb	23:24:41

Mean Data: 1201994241|932284|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	941778.9	104.77	%	0.980				0.94%
Sc Radial	5753.5	103	%	0.4				0.36%
Y 371.029	1145594.9	153.88	%	1.565				1.02%
Internal Standard Check greater than the upper limit for Y 371.029. Recovery = 153.9%								
Y RADIAL	9062.0	153.3	%	0.08				0.06%
Ag 328.068†	110585.8	504.14	ug/L	5.917	504.14	ppb	5.917	1.17%
Al 396.153Radial†	44773.9	32602	ug/L	15.7	32602	ppb	15.7	0.05%
As 188.979†	1340.8	528.03	ug/L	6.276	528.03	ppb	6.276	1.19%
B 249.677†	24248.5	486.21	ug/L	7.226	486.21	ppb	7.226	1.49%
Ba 233.527†	125999.7	860.42	ug/L	11.572	860.42	ppb	11.572	1.34%
Be 313.107†	1476593.1	502.23	ug/L	0.516	502.23	ppb	0.516	0.10%
Ca 317.933Radial†	6259.6	8924.5	ug/L	32.58	8924.5	ppb	32.58	0.37%
Cd 226.502†	50880.6	490.25	ug/L	6.017	490.25	ppb	6.017	1.23%
Co 228.616†	27801.5	479.46	ug/L	4.622	479.46	ppb	4.622	0.96%
Cr 267.716†	49993.2	509.13	ug/L	5.569	509.13	ppb	5.569	1.09%
Cu 324.752†	198356.7	564.35	ug/L	8.054	564.35	ppb	8.054	1.43%
Fe 238.204 Radial†	9252.1	76928	ug/L	39.2	76928	ppb	39.2	0.05%

K 766.490 Radial†	41700.6	7309.6	ug/L	13.96	7309.6	ppb	13.96	0.19%
Mg 279.077 IEC†	262.8	8106.0	ug/L	39.11	8106.0	ppb	39.11	0.48%
Mn 257.610†	3694313.3	3651.5	ug/L	5.18	3651.5	ppb	5.18	0.14%
Mo 202.031†	8690.4	531.50	ug/L	4.434	531.50	ppb	4.434	0.83%
Na 589.592 Radial†	18326.1	5469.8	ug/L	12.67	5469.8	ppb	12.67	0.23%
Ni 231.604†	23574.6	514.77	ug/L	4.688	514.77	ppb	4.688	0.91%
P 214.914†	2958.5	1409.3	ug/L	11.72	1409.3	ppb	11.72	0.83%
Pb 220.353†	5140.4	543.55	ug/L	4.282	543.55	ppb	4.282	0.79%
S 181.975 Axial†	4094.9	5017.2	ug/L	44.05	5017.2	ppb	44.05	0.88%
Sb 206.836†	1599.8	479.06	ug/L	6.680	479.06	ppb	6.680	1.39%
Se 196.026†	481.4	502.02	ug/L	3.892	502.02	ppb	3.892	0.78%
Si 251.611†	432855.3	12192	ug/L	168.3	12192	ppb	168.3	1.38%
Sn 189.927†	3352.5	504.77	ug/L	5.157	504.77	ppb	5.157	1.02%
Sr 421.552†	89692.9	525.86	ug/L	1.117	525.86	ppb	1.117	0.21%
Ti 334.940†	2478234.3	3583.3	ug/L	3.00	3583.3	ppb	3.00	0.08%
Tl 190.801†	1727.8	494.29	ug/L	2.455	494.29	ppb	2.455	0.50%
U 409.014†	5895.6	151.78	ug/L	3.632	151.78	ppb	3.632	2.39%
V 292.402†	85085.9	533.34	ug/L	6.512	533.34	ppb	6.512	1.22%
Zn 213.857†	117895.9	955.33	ug/L	13.539	955.33	ppb	13.539	1.42%
SiO2†	433057.3	26192	ug/L	419.4	26192	ppb	419.4	1.60%

Internal Standard Check failed. Continue with analysis.

Sequence No.: 87
Sample ID: 1201994240|932284|5
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 97
Date Collected: 12/19/2009 23:26:53
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1201994240|932284|5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5624.3	5624.3	101	%			23:28:46
1	Y RADIAL	6489.2	6489.2	109.8	%			23:28:46
1	Al 396.153Radial†	4429.5	4400.9	3206.3	ug/L	3206.3	ppb	23:28:46
1	Ca 317.933Radial†	671.6	645.2	919.88	ug/L	919.88	ppb	23:29:06
1	Fe 238.204 Radial†	1720.2	1691.9	14065	ug/L	14065	ppb	23:29:06
1	K 766.490 Radial†	4987.7	2224.6	384.27	ug/L	384.27	ppb	23:28:46
1	Mg 279.077 IEC†	17.4	15.8	479.02	ug/L	479.02	ppb	23:29:06
1	Na 589.592 Radial†	-747.3	21.9	6.5440	ug/L	6.5440	ppb	23:28:46
1	Sr 421.552†	750.6	754.8	4.4172	ug/L	4.4172	ppb	23:28:46
1	Sc 361.383	935516.3	935516.3	104.07	%			23:30:03
1	Y 371.029	837601.6	837601.6	112.51	%			23:30:03
1	Ag 328.068†	-540.9	-889.7	0.9505	ug/L	0.9505	ppb	23:30:08
1	As 188.979†	-24.9	10.9	10.933	ug/L	10.933	ppb	23:30:28
1	B 249.677†	-182.7	-149.6	-4.9451	ug/L	-4.9451	ppb	23:30:08
1	Ba 233.527†	12144.4	11671.8	79.870	ug/L	79.870	ppb	23:30:08
1	Be 313.107†	-5992.0	-1026.4	0.7875	ug/L	0.7875	ppb	23:30:08
1	Cd 226.502†	-72.2	159.9	0.1609	ug/L	0.1609	ppb	23:30:28
1	Co 228.616†	114.1	196.7	2.0795	ug/L	2.0795	ppb	23:30:28
1	Cr 267.716†	341.4	247.9	2.8045	ug/L	2.8045	ppb	23:30:08
1	Cu 324.752†	9024.6	2615.9	8.1085	ug/L	8.1085	ppb	23:30:08
1	Mn 257.610†	732236.8	703092.4	694.91	ug/L	694.91	ppb	23:30:03
1	Mo 202.031†	190.7	163.4	10.888	ug/L	10.888	ppb	23:30:28
1	Ni 231.604†	372.0	263.9	5.7636	ug/L	5.7636	ppb	23:30:28
1	P 214.914†	680.5	395.8	195.03	ug/L	195.03	ppb	23:30:28
1	Pb 220.353†	21.7	84.9	8.5286	ug/L	8.5286	ppb	23:30:28
1	S 181.975 Axial†	55.0	3.9	4.1308	ug/L	4.1308	ppb	23:30:28
1	Sb 206.836†	27.4	-14.9	-5.6950	ug/L	-5.6950	ppb	23:30:28
1	Se 196.026†	-107.2	-74.5	2.5737	ug/L	2.5737	ppb	23:30:28
1	Si 251.611†	61421.2	58440.2	1647.6	ug/L	1647.6	ppb	23:30:08
1	Sn 189.927†	10.5	6.6	1.2729	ug/L	1.2729	ppb	23:30:28
1	Ti 334.940†	412997.2	398223.9	575.85	ug/L	575.85	ppb	23:30:03
1	Tl 190.801†	-69.1	-18.3	3.7711	ug/L	3.7711	ppb	23:30:28
1	U 409.014†	-5128.4	-2555.5	-72.184	ug/L	-72.184	ppb	23:30:03
1	V 292.402†	25.2	1493.6	6.7408	ug/L	6.7408	ppb	23:30:08
1	Zn 213.857†	12509.9	11226.8	90.670	ug/L	90.670	ppb	23:30:08
1	SiO2†	60439.5	57467.8	3478.9	ug/L	3478.9	ppb	23:31:35
2	Sc Radial	5704.0	5704.0	102	%			23:29:11
2	Y RADIAL	6563.6	6563.6	111.0	%			23:29:11
2	Al 396.153Radial†	4448.1	4357.8	3174.9	ug/L	3174.9	ppb	23:29:11
2	Ca 317.933Radial†	658.4	623.0	888.30	ug/L	888.30	ppb	23:29:31
2	Fe 238.204 Radial†	1708.7	1656.8	13774	ug/L	13774	ppb	23:29:31
2	K 766.490 Radial†	5004.5	2172.1	374.96	ug/L	374.96	ppb	23:29:11
2	Mg 279.077 IEC†	17.8	16.0	484.41	ug/L	484.41	ppb	23:29:31
2	Na 589.592 Radial†	-705.4	73.2	21.837	ug/L	21.837	ppb	23:29:11
2	Sr 421.552†	733.7	727.9	4.2599	ug/L	4.2599	ppb	23:29:11
2	Sc 361.383	939162.8	939162.8	104.48	%			23:30:34
2	Y 371.029	840496.5	840496.5	112.90	%			23:30:34
2	Ag 328.068†	-544.4	-891.0	0.8536	ug/L	0.8536	ppb	23:30:39
2	As 188.979†	-33.0	3.3	8.1459	ug/L	8.1459	ppb	23:30:59
2	B 249.677†	-245.5	-209.1	-6.1263	ug/L	-6.1263	ppb	23:30:39
2	Ba 233.527†	12103.9	11587.7	79.288	ug/L	79.288	ppb	23:30:39
2	Be 313.107†	-5951.1	-965.0	0.8126	ug/L	0.8126	ppb	23:30:39
2	Cd 226.502†	-68.1	164.0	0.2306	ug/L	0.2306	ppb	23:30:59
2	Co 228.616†	102.8	185.5	1.8820	ug/L	1.8820	ppb	23:30:59
2	Cr 267.716†	367.2	271.3	3.0384	ug/L	3.0384	ppb	23:30:39
2	Cu 324.752†	8854.3	2419.2	7.5378	ug/L	7.5378	ppb	23:30:39
2	Mn 257.610†	738406.3	706265.7	698.01	ug/L	698.01	ppb	23:30:34
2	Mo 202.031†	197.1	168.7	11.190	ug/L	11.190	ppb	23:30:59
2	Ni 231.604†	390.7	280.4	6.1246	ug/L	6.1246	ppb	23:30:59

2	P 214.914†	679.8	392.6	193.68	ug/L	193.68	ppb	23:30:59
2	Pb 220.353†	3.8	67.7	6.7369	ug/L	6.7369	ppb	23:30:59
2	S 181.975 Axial†	64.0	12.2	14.361	ug/L	14.361	ppb	23:30:59
2	Sb 206.836†	44.9	1.7	-0.7109	ug/L	-0.7109	ppb	23:30:59
2	Se 196.026†	-103.8	-70.9	3.6867	ug/L	3.6867	ppb	23:30:59
2	Si 251.611†	61422.7	58212.5	1641.2	ug/L	1641.2	ppb	23:30:39
2	Sn 189.927†	16.3	12.1	2.0988	ug/L	2.0988	ppb	23:30:59
2	Ti 334.940†	416268.3	399814.0	578.15	ug/L	578.15	ppb	23:30:34
2	Tl 190.801†	-67.5	-16.6	4.2703	ug/L	4.2703	ppb	23:30:59
2	U 409.014†	-5371.8	-2769.3	-78.039	ug/L	-78.039	ppb	23:30:34
2	V 292.402†	50.6	1517.8	6.9300	ug/L	6.9300	ppb	23:30:39
2	Zn 213.857†	12463.1	11135.4	89.947	ug/L	89.947	ppb	23:30:39
2	SiO2†	61198.5	57968.8	3509.3	ug/L	3509.3	ppb	23:31:40
3	Sc Radial	5565.5	5565.5	100.0	%			23:29:36
3	Y RADIAL	6411.9	6411.9	108.5	%			23:29:36
3	Al 396.153Radial†	4371.2	4389.0	3197.7	ug/L	3197.7	ppb	23:29:36
3	Ca 317.933Radial†	669.9	650.5	927.48	ug/L	927.48	ppb	23:29:56
3	Fe 238.204 Radial†	1718.4	1708.0	14199	ug/L	14199	ppb	23:29:56
3	K 766.490 Radial†	4866.4	2155.6	372.06	ug/L	372.06	ppb	23:29:36
3	Mg 279.077 IEC†	16.7	15.3	462.18	ug/L	462.18	ppb	23:29:56
3	Na 589.592 Radial†	-719.4	42.0	12.548	ug/L	12.548	ppb	23:29:36
3	Sr 421.552†	737.8	749.9	4.3885	ug/L	4.3885	ppb	23:29:36
3	Sc 361.383	943936.0	943936.0	105.01	%			23:31:04
3	Y 371.029	843240.3	843240.3	113.27	%			23:31:04
3	Ag 328.068†	-550.8	-894.5	0.9741	ug/L	0.9741	ppb	23:31:09
3	As 188.979†	-32.9	3.5	8.2906	ug/L	8.2906	ppb	23:31:29
3	B 249.677†	-238.5	-201.2	-6.0208	ug/L	-6.0208	ppb	23:31:09
3	Ba 233.527†	12122.8	11547.1	79.028	ug/L	79.028	ppb	23:31:09
3	Be 313.107†	-5958.3	-943.0	0.8203	ug/L	0.8203	ppb	23:31:09
3	Cd 226.502†	-60.1	171.9	0.2653	ug/L	0.2653	ppb	23:31:29
3	Co 228.616†	106.7	188.7	1.9311	ug/L	1.9311	ppb	23:31:29
3	Cr 267.716†	341.8	245.3	2.7802	ug/L	2.7802	ppb	23:31:09
3	Cu 324.752†	9059.1	2571.4	7.9895	ug/L	7.9895	ppb	23:31:09
3	Mn 257.610†	742073.8	706184.4	697.97	ug/L	697.97	ppb	23:31:04
3	Mo 202.031†	190.1	161.1	10.761	ug/L	10.761	ppb	23:31:29
3	Ni 231.604†	374.4	263.0	5.7442	ug/L	5.7442	ppb	23:31:29
3	P 214.914†	685.1	394.4	194.19	ug/L	194.19	ppb	23:31:29
3	Pb 220.353†	8.5	72.1	7.1692	ug/L	7.1692	ppb	23:31:29
3	S 181.975 Axial†	61.1	9.2	10.656	ug/L	10.656	ppb	23:31:29
3	Sb 206.836†	40.1	-3.0	-2.1371	ug/L	-2.1371	ppb	23:31:29
3	Se 196.026†	-109.7	-76.0	2.2033	ug/L	2.2033	ppb	23:31:29
3	Si 251.611†	61598.9	58083.1	1637.5	ug/L	1637.5	ppb	23:31:09
3	Sn 189.927†	13.9	9.7	1.7496	ug/L	1.7496	ppb	23:31:29
3	Ti 334.940†	418488.6	399913.7	578.29	ug/L	578.29	ppb	23:31:04
3	Tl 190.801†	-66.5	-15.2	4.6138	ug/L	4.6138	ppb	23:31:29
3	U 409.014†	-5081.1	-2466.5	-69.750	ug/L	-69.750	ppb	23:31:04
3	V 292.402†	92.1	1557.1	7.1241	ug/L	7.1241	ppb	23:31:09
3	Zn 213.857†	12491.5	11102.0	89.635	ug/L	89.635	ppb	23:31:09
3	SiO2†	61791.6	58237.4	3525.5	ug/L	3525.5	ppb	23:31:45

Mean Data: 1201994240|932284|5

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	939538.4	104.52	%	0.470				0.45%
Sc Radial	5631.3	101	%	1.2				1.24%
Y 371.029	840446.2	112.89	%	0.379				0.34%
Y RADIAL	6488.2	109.8	%	1.28				1.17%
Ag 328.068†	-891.7	0.9261	ug/L	0.06386	0.9261	ppb	0.06386	6.90%
Al 396.153Radial†	4382.6	3193.0	ug/L	16.25	3193.0	ppb	16.25	0.51%
As 188.979†	5.9	9.1231	ug/L	1.56900	9.1231	ppb	1.56900	17.20%
B 249.677†	-186.6	-5.6974	ug/L	0.65365	-5.6974	ppb	0.65365	11.47%
Ba 233.527†	11602.2	79.396	ug/L	0.4309	79.396	ppb	0.4309	0.54%
Be 313.107†	-978.1	0.8068	ug/L	0.01714	0.8068	ppb	0.01714	2.13%
Ca 317.933Radial†	639.6	911.88	ug/L	20.777	911.88	ppb	20.777	2.28%
Cd 226.502†	165.2	0.2190	ug/L	0.05316	0.2190	ppb	0.05316	24.28%
Co 228.616†	190.3	1.9642	ug/L	0.10284	1.9642	ppb	0.10284	5.24%
Cr 267.716†	254.8	2.8744	ug/L	0.14257	2.8744	ppb	0.14257	4.96%
Cu 324.752†	2535.5	7.8786	ug/L	0.30104	7.8786	ppb	0.30104	3.82%
Fe 238.204 Radial†	1685.6	14012	ug/L	217.5	14012	ppb	217.5	1.55%
K 766.490 Radial†	2184.1	377.10	ug/L	6.379	377.10	ppb	6.379	1.69%

Mg 279.077 IEC†	15.7	475.20	ug/L	11.594	475.20	ppb	11.594	2.44%
Mn 257.610†	705180.8	696.96	ug/L	1.780	696.96	ppb	1.780	0.26%
Mo 202.031†	164.4	10.946	ug/L	0.2207	10.946	ppb	0.2207	2.02%
Na 589.592 Radial†	45.7	13.643	ug/L	7.7050	13.643	ppb	7.7050	56.48%
Ni 231.604†	269.1	5.8775	ug/L	0.21420	5.8775	ppb	0.21420	3.64%
P 214.914†	394.3	194.30	ug/L	0.681	194.30	ppb	0.681	0.35%
Pb 220.353†	74.9	7.4782	ug/L	0.93497	7.4782	ppb	0.93497	12.50%
S 181.975 Axial†	8.4	9.7158	ug/L	5.17939	9.7158	ppb	5.17939	53.31%
Sb 206.836†	-5.4	-2.8477	ug/L	2.56693	-2.8477	ppb	2.56693	90.14%
Se 196.026†	-73.8	2.8212	ug/L	0.77203	2.8212	ppb	0.77203	27.37%
Si 251.611†	58245.3	1642.1	ug/L	5.10	1642.1	ppb	5.10	0.31%
Sn 189.927†	9.5	1.7071	ug/L	0.41462	1.7071	ppb	0.41462	24.29%
Sr 421.552†	744.2	4.3552	ug/L	0.08378	4.3552	ppb	0.08378	1.92%
Ti 334.940†	399317.2	577.43	ug/L	1.371	577.43	ppb	1.371	0.24%
Tl 190.801†	-16.7	4.2184	ug/L	0.42372	4.2184	ppb	0.42372	10.04%
U 409.014†	-2597.1	-73.324	ug/L	4.2605	-73.324	ppb	4.2605	5.81%
V 292.402†	1522.8	6.9317	ug/L	0.19168	6.9317	ppb	0.19168	2.77%
Zn 213.857†	11154.7	90.084	ug/L	0.5310	90.084	ppb	0.5310	0.59%
SiO2†	57891.3	3504.6	ug/L	23.65	3504.6	ppb	23.65	0.67%

Sequence No.: 88
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 12/19/2009 23:33:56
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	5570.0	5570.0	100	%			23:35:48
1	Y RADIAL	5879.4	5879.4	99.46	%			23:35:48
1	Al 396.153Radial†	6931.5	6944.5	5038.9	ug/L	5038.9	ppb	23:35:48
1	Ca 317.933Radial†	3559.2	3537.9	5044.0	ug/L	5044.0	ppb	23:36:08
1	Fe 238.204 Radial†	645.8	634.6	5291.6	ug/L	5291.6	ppb	23:36:08
1	K 766.490 Radial†	30764.1	28036.7	4932.6	ug/L	4932.6	ppb	23:35:48
1	Mg 279.077 IEC†	170.0	168.6	5239.1	ug/L	5239.1	ppb	23:36:08
1	Na 589.592 Radial†	33826.5	34571.8	10319	ug/L	10319	ppb	23:35:48
1	Sr 421.552†	87299.9	87269.4	511.69	ug/L	511.69	ppb	23:35:48
1	Sc 361.383	922476.8	922476.8	102.62	%			23:37:06
1	Y 371.029	755427.7	755427.7	101.47	%			23:37:06
1	Ag 328.068†	118846.0	115439.7	500.74	ug/L	500.74	ppb	23:37:11
1	As 188.979†	1380.9	1380.5	505.51	ug/L	505.51	ppb	23:37:31
1	B 249.677†	24461.2	23862.2	487.75	ug/L	487.75	ppb	23:37:11
1	Ba 233.527†	75594.2	73665.4	501.99	ug/L	501.99	ppb	23:37:11
1	Be 313.107†	1543325.7	1508627.1	506.91	ug/L	506.91	ppb	23:37:06
1	Cd 226.502†	52629.2	51513.8	503.59	ug/L	503.59	ppb	23:37:11
1	Co 228.616†	29245.3	28585.2	500.53	ug/L	500.53	ppb	23:37:11
1	Cr 267.716†	51104.1	49718.3	504.89	ug/L	504.89	ppb	23:37:11
1	Cu 324.752†	186712.8	175887.0	497.21	ug/L	497.21	ppb	23:37:11
1	Mn 257.610†	522268.8	508434.1	501.93	ug/L	501.93	ppb	23:37:06
1	Mo 202.031†	8442.0	8206.4	497.12	ug/L	497.12	ppb	23:37:31
1	Ni 231.604†	23784.8	23083.6	504.04	ug/L	504.04	ppb	23:37:11
1	P 214.914†	5124.7	4735.7	2394.8	ug/L	2394.8	ppb	23:37:31
1	Pb 220.353†	4782.3	4724.1	499.35	ug/L	499.35	ppb	23:37:31
1	S 181.975 Axial†	887.9	816.2	1000.3	ug/L	1000.3	ppb	23:37:31
1	Sb 206.836†	1723.3	1638.0	497.74	ug/L	497.74	ppb	23:37:31
1	Se 196.026†	912.6	917.8	518.38	ug/L	518.38	ppb	23:37:31
1	Si 251.611†	90981.2	88079.3	2471.8	ug/L	2471.8	ppb	23:37:11
1	Sn 189.927†	3396.0	3305.7	496.38	ug/L	496.38	ppb	23:37:31
1	Ti 334.940†	350843.7	343267.7	496.18	ug/L	496.18	ppb	23:37:06
1	Tl 190.801†	1943.6	1942.0	507.03	ug/L	507.03	ppb	23:37:31
1	U 409.014†	15769.0	17738.3	487.09	ug/L	487.09	ppb	23:37:11
1	V 292.402†	79611.7	79047.1	509.38	ug/L	509.38	ppb	23:37:11
1	Zn 213.857†	63691.5	61270.7	498.01	ug/L	498.01	ppb	23:37:11
1	SiO2†	91346.2	88405.7	5327.1	ug/L	5327.1	ppb	23:38:39
2	Sc Radial	5551.0	5551.0	99.7	%			23:36:13
2	Y RADIAL	5878.2	5878.2	99.44	%			23:36:13
2	Al 396.153Radial†	6942.1	6978.9	5063.9	ug/L	5063.9	ppb	23:36:13
2	Ca 317.933Radial†	3567.4	3558.3	5073.2	ug/L	5073.2	ppb	23:36:33
2	Fe 238.204 Radial†	643.5	634.5	5290.4	ug/L	5290.4	ppb	23:36:33
2	K 766.490 Radial†	30953.4	28331.9	4984.6	ug/L	4984.6	ppb	23:36:13
2	Mg 279.077 IEC†	169.6	168.7	5244.2	ug/L	5244.2	ppb	23:36:33
2	Na 589.592 Radial†	33806.2	34667.1	10347	ug/L	10347	ppb	23:36:13
2	Sr 421.552†	87225.8	87493.9	513.01	ug/L	513.01	ppb	23:36:13
2	Sc 361.383	923542.0	923542.0	102.74	%			23:37:37
2	Y 371.029	755981.1	755981.1	101.55	%			23:37:37
2	Ag 328.068†	118819.6	115280.5	500.06	ug/L	500.06	ppb	23:37:42
2	As 188.979†	1387.9	1385.7	507.44	ug/L	507.44	ppb	23:38:02
2	B 249.677†	24474.0	23847.1	487.44	ug/L	487.44	ppb	23:37:42
2	Ba 233.527†	75864.6	73843.7	503.20	ug/L	503.20	ppb	23:37:42
2	Be 313.107†	1546083.7	1509577.0	507.23	ug/L	507.23	ppb	23:37:37
2	Cd 226.502†	52832.1	51652.1	504.95	ug/L	504.95	ppb	23:37:42
2	Co 228.616†	29292.6	28598.4	500.75	ug/L	500.75	ppb	23:37:42
2	Cr 267.716†	51338.8	49889.3	506.63	ug/L	506.63	ppb	23:37:42
2	Cu 324.752†	186476.4	175447.0	495.97	ug/L	495.97	ppb	23:37:42
2	Mn 257.610†	523818.1	509355.1	502.84	ug/L	502.84	ppb	23:37:37
2	Mo 202.031†	8455.7	8210.3	497.36	ug/L	497.36	ppb	23:38:02
2	Ni 231.604†	23844.6	23115.0	504.72	ug/L	504.72	ppb	23:37:42

2	P 214.914†	5154.6	4759.1	2407.2	ug/L	2407.2 ppb	23:38:02
2	Pb 220.353†	4799.7	4735.7	500.58	ug/L	500.58 ppb	23:38:02
2	S 181.975 Axial†	876.6	804.2	985.60	ug/L	985.60 ppb	23:38:02
2	Sb 206.836†	1737.2	1649.6	501.22	ug/L	501.22 ppb	23:38:02
2	Se 196.026†	913.2	917.4	518.12	ug/L	518.12 ppb	23:38:02
2	Si 251.611†	91322.3	88309.0	2478.3	ug/L	2478.3 ppb	23:37:42
2	Sn 189.927†	3417.4	3322.7	498.93	ug/L	498.93 ppb	23:38:02
2	Ti 334.940†	351912.8	343914.0	497.12	ug/L	497.12 ppb	23:37:37
2	Tl 190.801†	1934.4	1930.9	504.16	ug/L	504.16 ppb	23:38:02
2	U 409.014†	15757.8	17709.7	486.30	ug/L	486.30 ppb	23:37:42
2	V 292.402†	79751.0	79093.2	509.68	ug/L	509.68 ppb	23:37:42
2	Zn 213.857†	63961.8	61462.2	499.58	ug/L	499.58 ppb	23:37:42
2	SiO2†	90532.3	87510.9	5272.8	ug/L	5272.8 ppb	23:38:44
3	Sc Radial	5535.6	5535.6	99.4	%		23:36:38
3	Y RADIAL	5837.2	5837.2	98.74	%		23:36:38
3	Al 396.153Radial†	6844.7	6900.3	5006.3	ug/L	5006.3 ppb	23:36:38
3	Ca 317.933Radial†	3578.9	3579.8	5103.8	ug/L	5103.8 ppb	23:36:58
3	Fe 238.204 Radial†	641.8	634.6	5291.2	ug/L	5291.2 ppb	23:36:58
3	K 766.490 Radial†	30774.2	28237.8	4968.1	ug/L	4968.1 ppb	23:36:38
3	Mg 279.077 IEC†	174.5	174.1	5412.6	ug/L	5412.6 ppb	23:36:58
3	Na 589.592 Radial†	33493.5	34446.7	10281	ug/L	10281 ppb	23:36:38
3	Sr 421.552†	86410.7	86916.8	509.62	ug/L	509.62 ppb	23:36:38
3	Sc 361.383	911557.7	911557.7	101.41	%		23:38:08
3	Y 371.029	744823.1	744823.1	100.05	%		23:38:08
3	Ag 328.068†	118034.0	116026.3	503.28	ug/L	503.28 ppb	23:38:13
3	As 188.979†	1411.5	1426.8	522.33	ug/L	522.33 ppb	23:38:33
3	B 249.677†	24234.6	23924.3	489.01	ug/L	489.01 ppb	23:38:13
3	Ba 233.527†	75179.6	74139.0	505.21	ug/L	505.21 ppb	23:38:13
3	Be 313.107†	1524775.6	1508348.9	506.82	ug/L	506.82 ppb	23:38:08
3	Cd 226.502†	52440.8	51942.3	507.79	ug/L	507.79 ppb	23:38:13
3	Co 228.616†	29075.0	28758.6	503.58	ug/L	503.58 ppb	23:38:13
3	Cr 267.716†	50829.7	50044.2	508.20	ug/L	508.20 ppb	23:38:13
3	Cu 324.752†	184844.5	176224.0	498.17	ug/L	498.17 ppb	23:38:13
3	Mn 257.610†	518505.1	510818.8	504.28	ug/L	504.28 ppb	23:38:08
3	Mo 202.031†	8460.4	8323.1	504.18	ug/L	504.18 ppb	23:38:33
3	Ni 231.604†	23665.6	23243.6	507.53	ug/L	507.53 ppb	23:38:13
3	P 214.914†	5175.1	4845.2	2451.9	ug/L	2451.9 ppb	23:38:33
3	Pb 220.353†	4816.2	4813.5	508.78	ug/L	508.78 ppb	23:38:33
3	S 181.975 Axial†	876.0	814.8	998.61	ug/L	998.61 ppb	23:38:33
3	Sb 206.836†	1747.2	1681.7	511.06	ug/L	511.06 ppb	23:38:33
3	Se 196.026†	923.2	938.9	529.86	ug/L	529.86 ppb	23:38:33
3	Si 251.611†	90407.5	88575.5	2485.6	ug/L	2485.6 ppb	23:38:13
3	Sn 189.927†	3419.0	3368.1	505.74	ug/L	505.74 ppb	23:38:33
3	Ti 334.940†	347765.3	344327.3	497.71	ug/L	497.71 ppb	23:38:08
3	Tl 190.801†	1932.1	1953.4	509.99	ug/L	509.99 ppb	23:38:33
3	U 409.014†	15613.4	17769.0	487.93	ug/L	487.93 ppb	23:38:13
3	V 292.402†	78965.3	79339.0	511.34	ug/L	511.34 ppb	23:38:13
3	Zn 213.857†	63518.8	61843.9	502.68	ug/L	502.68 ppb	23:38:13
3	SiO2†	91554.6	89677.5	5403.7	ug/L	5403.7 ppb	23:38:49

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	919192.2	102.26	%	0.738				0.72%
Sc Radial	5552.2	99.7	%	0.31				0.31%
Y 371.029	752077.3	101.02	%	0.845				0.84%
Y RADIAL	5864.9	99.21	%	0.407				0.41%
Ag 328.068†	115582.2	501.36	ug/L	1.695	501.36	ppb	1.695	0.34%
QC value within limits for Ag 328.068 Recovery = 100.27%								
Al 396.153Radial†	6941.2	5036.4	ug/L	28.86	5036.4	ppb	28.86	0.57%
QC value within limits for Al 396.153Radial Recovery = 100.73%								
As 188.979†	1397.7	511.76	ug/L	9.202	511.76	ppb	9.202	1.80%
QC value within limits for As 188.979 Recovery = 102.35%								
B 249.677†	23877.9	488.07	ug/L	0.835	488.07	ppb	0.835	0.17%
QC value within limits for B 249.677 Recovery = 97.61%								
Ba 233.527†	73882.7	503.47	ug/L	1.628	503.47	ppb	1.628	0.32%
QC value within limits for Ba 233.527 Recovery = 100.69%								
Be 313.107†	1508851.0	506.99	ug/L	0.216	506.99	ppb	0.216	0.04%
QC value within limits for Be 313.107 Recovery = 101.40%								
Ca 317.933Radial†	3558.7	5073.7	ug/L	29.89	5073.7	ppb	29.89	0.59%

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   QC value within limits for Ca 317.933Radial  Recovery = 101.47%
Cd 226.502†            51702.8      505.44 ug/L         2.140      505.44 ppb          2.140   0.42%
   QC value within limits for Cd 226.502  Recovery = 101.09%
Co 228.616†            28647.4      501.62 ug/L         1.699      501.62 ppb          1.699   0.34%
   QC value within limits for Co 228.616  Recovery = 100.32%
Cr 267.716†            49883.9      506.57 ug/L         1.654      506.57 ppb          1.654   0.33%
   QC value within limits for Cr 267.716  Recovery = 101.31%
Cu 324.752†           175852.7      497.12 ug/L         1.101      497.12 ppb          1.101   0.22%
   QC value within limits for Cu 324.752  Recovery = 99.42%
Fe 238.204 Radial†       634.6      5291.0 ug/L          0.61      5291.0 ppb           0.61   0.01%
   QC value within limits for Fe 238.204 Radial  Recovery = 105.82%
K 766.490 Radial†      28202.1      4961.8 ug/L         26.56      4961.8 ppb          26.56   0.54%
   QC value within limits for K 766.490 Radial  Recovery = 99.24%
Mg 279.077 IEC†          170.5      5298.7 ug/L         98.73      5298.7 ppb          98.73   1.86%
   QC value within limits for Mg 279.077 IEC  Recovery = 105.97%
Mn 257.610†           509536.0      503.02 ug/L         1.184      503.02 ppb          1.184   0.24%
   QC value within limits for Mn 257.610  Recovery = 100.60%
Mo 202.031†             8246.6      499.55 ug/L         4.011      499.55 ppb          4.011   0.80%
   QC value within limits for Mo 202.031  Recovery = 99.91%
Na 589.592 Radial†     34561.9       10316 ug/L          33.0       10316 ppb           33.0   0.32%
   QC value within limits for Na 589.592 Radial  Recovery = 103.16%
Ni 231.604†            23147.4      505.43 ug/L         1.851      505.43 ppb          1.851   0.37%
   QC value within limits for Ni 231.604  Recovery = 101.09%
P 214.914†              4780.0      2418.0 ug/L         30.02      2418.0 ppb          30.02   1.24%
   QC value within limits for P 214.914  Recovery = 96.72%
Pb 220.353†             4757.8      502.91 ug/L         5.122      502.91 ppb          5.122   1.02%
   QC value within limits for Pb 220.353  Recovery = 100.58%
S 181.975 Axial†         811.7      994.85 ug/L         8.050      994.85 ppb          8.050   0.81%
   QC value within limits for S 181.975 Axial  Recovery = 99.48%
Sb 206.836†             1656.4      503.34 ug/L         6.909      503.34 ppb          6.909   1.37%
   QC value within limits for Sb 206.836  Recovery = 100.67%
Se 196.026†              924.7      522.12 ug/L         6.703      522.12 ppb          6.703   1.28%
   QC value within limits for Se 196.026  Recovery = 104.42%
Si 251.611†            88321.3      2478.6 ug/L          6.92      2478.6 ppb           6.92   0.28%
   QC value within limits for Si 251.611  Recovery = 99.14%
Sn 189.927†             3332.2      500.35 ug/L         4.841      500.35 ppb          4.841   0.97%
   QC value within limits for Sn 189.927  Recovery = 100.07%
Sr 421.552†            87226.7      511.44 ug/L         1.706      511.44 ppb          1.706   0.33%
   QC value within limits for Sr 421.552  Recovery = 102.29%
Ti 334.940†           343836.4      497.00 ug/L         0.773      497.00 ppb          0.773   0.16%
   QC value within limits for Ti 334.940  Recovery = 99.40%
Tl 190.801†             1942.1      507.06 ug/L         2.914      507.06 ppb          2.914   0.57%
   QC value within limits for Tl 190.801  Recovery = 101.41%
U 409.014†             17739.0      487.10 ug/L         0.816      487.10 ppb          0.816   0.17%
   QC value within limits for U 409.014  Recovery = 97.42%
V 292.402†             79159.8      510.13 ug/L         1.057      510.13 ppb          1.057   0.21%
   QC value within limits for V 292.402  Recovery = 102.03%
Zn 213.857†            61525.6      500.09 ug/L         2.378      500.09 ppb          2.378   0.48%
   QC value within limits for Zn 213.857  Recovery = 100.02%
SiO2†                  88531.4      5334.5 ug/L         65.76      5334.5 ppb          65.76   1.23%
   QC value within limits for SiO2  Recovery = 99.76%
All analyte(s) passed QC.
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Sequence No.: 89
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 12/19/2009 23:40:58
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5673.7	5673.7	102	%			23:42:50
1	Y RADIAL	6025.6	6025.6	101.9	%			23:42:50
1	Al 396.153Radial†	-23.5	-6.7	-4.8967	ug/L	-4.8967	ppb	23:42:50
1	Ca 317.933Radial†	19.5	-0.4	-0.6284	ug/L	-0.6284	ppb	23:43:10
1	Fe 238.204 Radial†	9.5	-1.5	-12.698	ug/L	-12.698	ppb	23:43:10
1	K 766.490 Radial†	2804.2	39.2	6.9309	ug/L	6.9309	ppb	23:42:50
1	Mg 279.077 IEC†	2.5	1.0	32.585	ug/L	32.585	ppb	23:43:10
1	Na 589.592 Radial†	-995.5	-215.2	-64.233	ug/L	-64.233	ppb	23:42:50
1	Sr 421.552†	-1.5	10.4	0.0607	ug/L	0.0607	ppb	23:42:50
1	Sc 361.383	936636.7	936636.7	104.20	%			23:44:07
1	Y 371.029	777644.6	777644.6	104.46	%			23:44:07
1	Ag 328.068†	403.9	17.7	0.0713	ug/L	0.0713	ppb	23:44:12
1	As 188.979†	-28.1	7.9	2.8668	ug/L	2.8668	ppb	23:44:32
1	B 249.677†	-269.7	-232.9	-4.7775	ug/L	-4.7775	ppb	23:44:32
1	Ba 233.527†	-2.2	0.5	0.0027	ug/L	0.0027	ppb	23:44:32
1	Be 313.107†	-4433.0	476.6	0.1599	ug/L	0.1599	ppb	23:44:12
1	Cd 226.502†	-235.1	3.5	0.0361	ug/L	0.0361	ppb	23:44:32
1	Co 228.616†	-83.9	6.5	0.1157	ug/L	0.1157	ppb	23:44:32
1	Cr 267.716†	72.8	-10.3	-0.1050	ug/L	-0.1050	ppb	23:44:32
1	Cu 324.752†	6161.4	-142.3	-0.4028	ug/L	-0.4028	ppb	23:44:12
1	Mn 257.610†	560.4	46.3	0.0438	ug/L	0.0438	ppb	23:44:32
1	Mo 202.031†	28.4	7.4	0.4484	ug/L	0.4484	ppb	23:44:32
1	Ni 231.604†	122.1	23.6	0.5152	ug/L	0.5152	ppb	23:44:32
1	P 214.914†	237.1	-30.6	-15.867	ug/L	-15.867	ppb	23:44:32
1	Pb 220.353†	-83.9	-16.4	-1.7284	ug/L	-1.7284	ppb	23:44:32
1	S 181.975 Axial†	43.8	-7.0	-8.5567	ug/L	-8.5567	ppb	23:44:32
1	Sb 206.836†	41.9	-1.0	-0.2916	ug/L	-0.2916	ppb	23:44:32
1	Se 196.026†	-28.3	1.4	0.7096	ug/L	0.7096	ppb	23:44:32
1	Si 251.611†	727.4	120.6	3.3900	ug/L	3.3900	ppb	23:44:32
1	Sn 189.927†	7.7	3.9	0.5833	ug/L	0.5833	ppb	23:44:32
1	Ti 334.940†	-1413.3	31.2	0.0447	ug/L	0.0447	ppb	23:44:12
1	Tl 190.801†	-44.4	5.5	1.4275	ug/L	1.4275	ppb	23:44:32
1	U 409.014†	-2434.7	35.6	0.9826	ug/L	0.9826	ppb	23:44:07
1	V 292.402†	-1531.7	-0.6	0.0074	ug/L	0.0074	ppb	23:44:12
1	Zn 213.857†	811.6	-14.6	-0.1228	ug/L	-0.1228	ppb	23:44:32
1	SiO2†	748.9	112.1	6.7598	ug/L	6.7598	ppb	23:45:38
2	Sc Radial	5556.0	5556.0	99.8	%			23:43:15
2	Y RADIAL	5887.8	5887.8	99.60	%			23:43:15
2	Al 396.153Radial†	-5.0	11.4	8.2674	ug/L	8.2674	ppb	23:43:15
2	Ca 317.933Radial†	17.0	-2.5	-3.5870	ug/L	-3.5870	ppb	23:43:35
2	Fe 238.204 Radial†	12.1	1.2	10.313	ug/L	10.313	ppb	23:43:35
2	K 766.490 Radial†	2901.1	194.6	34.338	ug/L	34.338	ppb	23:43:15
2	Mg 279.077 IEC†	2.7	1.3	39.493	ug/L	39.493	ppb	23:43:35
2	Na 589.592 Radial†	-1048.4	-288.8	-86.206	ug/L	-86.206	ppb	23:43:15
2	Sr 421.552†	1.5	13.3	0.0779	ug/L	0.0779	ppb	23:43:15
2	Sc 361.383	930014.5	930014.5	103.46	%			23:44:37
2	Y 371.029	770850.6	770850.6	103.54	%			23:44:37
2	Ag 328.068†	443.7	59.0	0.2591	ug/L	0.2591	ppb	23:44:42
2	As 188.979†	-34.6	1.4	0.5142	ug/L	0.5142	ppb	23:45:02
2	B 249.677†	-310.5	-274.2	-5.6295	ug/L	-5.6295	ppb	23:45:02
2	Ba 233.527†	2.8	5.3	0.0362	ug/L	0.0362	ppb	23:45:02
2	Be 313.107†	-4568.3	315.6	0.1059	ug/L	0.1059	ppb	23:44:42
2	Cd 226.502†	-229.1	7.7	0.0746	ug/L	0.0746	ppb	23:45:02
2	Co 228.616†	-69.5	19.9	0.3511	ug/L	0.3511	ppb	23:45:02
2	Cr 267.716†	108.7	24.9	0.2533	ug/L	0.2533	ppb	23:45:02
2	Cu 324.752†	6302.0	35.7	0.1013	ug/L	0.1013	ppb	23:44:42
2	Mn 257.610†	537.4	27.9	0.0279	ug/L	0.0279	ppb	23:45:02
2	Mo 202.031†	34.8	13.8	0.8352	ug/L	0.8352	ppb	23:45:02
2	Ni 231.604†	119.7	22.1	0.4829	ug/L	0.4829	ppb	23:45:02

2	P 214.914†	249.2	-17.2	-8.9758	ug/L	-8.9758 ppb	23:45:02
2	Pb 220.353†	-72.7	-6.2	-0.6554	ug/L	-0.6554 ppb	23:45:02
2	S 181.975 Axial†	52.9	2.1	2.5888	ug/L	2.5888 ppb	23:45:02
2	Sb 206.836†	37.8	-4.6	-1.3678	ug/L	-1.3678 ppb	23:45:02
2	Se 196.026†	-30.4	-0.9	-0.4535	ug/L	-0.4535 ppb	23:45:02
2	Si 251.611†	726.0	124.2	3.4749	ug/L	3.4749 ppb	23:45:02
2	Sn 189.927†	8.6	4.8	0.7246	ug/L	0.7246 ppb	23:45:02
2	Ti 334.940†	-1427.4	7.9	0.0118	ug/L	0.0118 ppb	23:44:42
2	Tl 190.801†	-31.0	18.1	4.6948	ug/L	4.6948 ppb	23:45:02
2	U 409.014†	-2514.1	-57.8	-1.5941	ug/L	-1.5941 ppb	23:44:37
2	V 292.402†	-1520.9	-0.6	0.0042	ug/L	0.0042 ppb	23:44:42
2	Zn 213.857†	798.7	-21.5	-0.1820	ug/L	-0.1820 ppb	23:45:02
2	SiO2†	751.2	119.5	7.1709	ug/L	7.1709 ppb	23:45:43
3	Sc Radial	5588.7	5588.7	100	%		23:43:40
3	Y RADIAL	5990.4	5990.4	101.3	%		23:43:40
3	Al 396.153Radial†	-10.1	6.3	4.5895	ug/L	4.5895 ppb	23:43:40
3	Ca 317.933Radial†	18.5	-1.2	-1.6719	ug/L	-1.6719 ppb	23:44:00
3	Fe 238.204 Radial†	11.3	0.4	3.1545	ug/L	3.1545 ppb	23:44:00
3	K 766.490 Radial†	3002.5	278.6	49.131	ug/L	49.131 ppb	23:43:40
3	Mg 279.077 IEC†	0.9	-0.5	-16.888	ug/L	-16.888 ppb	23:44:00
3	Na 589.592 Radial†	-1014.9	-249.4	-74.434	ug/L	-74.434 ppb	23:43:40
3	Sr 421.552†	17.0	28.8	0.1687	ug/L	0.1687 ppb	23:43:40
3	Sc 361.383	921090.3	921090.3	102.47	%		23:45:07
3	Y 371.029	763344.9	763344.9	102.54	%		23:45:07
3	Ag 328.068†	457.9	76.9	0.3353	ug/L	0.3353 ppb	23:45:12
3	As 188.979†	-36.4	-0.7	-0.2372	ug/L	-0.2372 ppb	23:45:33
3	B 249.677†	-313.4	-279.9	-5.7456	ug/L	-5.7456 ppb	23:45:33
3	Ba 233.527†	13.2	15.5	0.1061	ug/L	0.1061 ppb	23:45:33
3	Be 313.107†	-4513.9	325.9	0.1094	ug/L	0.1094 ppb	23:45:12
3	Cd 226.502†	-218.0	16.5	0.1609	ug/L	0.1609 ppb	23:45:33
3	Co 228.616†	-70.2	18.6	0.3273	ug/L	0.3273 ppb	23:45:33
3	Cr 267.716†	100.3	17.7	0.1807	ug/L	0.1807 ppb	23:45:33
3	Cu 324.752†	6204.4	-0.6	-0.0016	ug/L	-0.0016 ppb	23:45:12
3	Mn 257.610†	590.5	84.8	0.0843	ug/L	0.0843 ppb	23:45:33
3	Mo 202.031†	29.3	8.7	0.5288	ug/L	0.5288 ppb	23:45:33
3	Ni 231.604†	113.9	17.6	0.3835	ug/L	0.3835 ppb	23:45:33
3	P 214.914†	237.4	-26.4	-13.742	ug/L	-13.742 ppb	23:45:33
3	Pb 220.353†	-75.9	-10.0	-1.0568	ug/L	-1.0568 ppb	23:45:33
3	S 181.975 Axial†	56.9	6.5	8.0168	ug/L	8.0168 ppb	23:45:33
3	Sb 206.836†	36.3	-5.8	-1.6887	ug/L	-1.6887 ppb	23:45:33
3	Se 196.026†	-29.5	-0.3	-0.1389	ug/L	-0.1389 ppb	23:45:33
3	Si 251.611†	764.6	168.8	4.7276	ug/L	4.7276 ppb	23:45:33
3	Sn 189.927†	16.5	12.6	1.8858	ug/L	1.8858 ppb	23:45:33
3	Ti 334.940†	-1400.4	20.9	0.0311	ug/L	0.0311 ppb	23:45:12
3	Tl 190.801†	-29.5	19.3	5.0055	ug/L	5.0055 ppb	23:45:33
3	U 409.014†	-2517.2	-84.4	-2.3256	ug/L	-2.3256 ppb	23:45:07
3	V 292.402†	-1476.7	28.3	0.1819	ug/L	0.1819 ppb	23:45:12
3	Zn 213.857†	805.9	-7.1	-0.0602	ug/L	-0.0602 ppb	23:45:33
3	SiO2†	734.1	109.8	6.5765	ug/L	6.5765 ppb	23:45:48

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	929247.2	103.38	%	0.868				0.84%
Sc Radial	5606.1	101	%	1.1				1.08%
Y 371.029	770613.4	103.51	%	0.961				0.93%
Y RADIAL	5967.9	101.0	%	1.21				1.20%
Ag 328.068†	51.2	0.2219	ug/L	0.13588	0.2219	ppb	0.13588	61.24%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	3.7	2.6534	ug/L	6.79228	2.6534	ppb	6.79228	255.99%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	2.9	1.0479	ug/L	1.61939	1.0479	ppb	1.61939	154.53%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-262.3	-5.3842	ug/L	0.52859	-5.3842	ppb	0.52859	9.82%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	7.1	0.0483	ug/L	0.05273	0.0483	ppb	0.05273	109.11%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	372.7	0.1251	ug/L	0.03025	0.1251	ppb	0.03025	24.19%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-1.4	-1.9624	ug/L	1.50055	-1.9624	ppb	1.50055	76.46%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                 9.2      0.0905 ug/L       0.06391      0.0905 ppb        0.06391  70.60%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                15.0      0.2647 ug/L       0.12960      0.2647 ppb        0.12960  48.96%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                10.8      0.1097 ug/L       0.18942      0.1097 ppb        0.18942 172.71%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               -35.8     -0.1010 ug/L       0.26634     -0.1010 ppb        0.26634 263.64%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          0.0      0.2563 ug/L      11.77616      0.2563 ppb       11.77616 >999.9%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         170.8     30.133 ug/L       21.4118      30.133 ppb        21.4118  71.06%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             0.6     18.397 ug/L       30.7521      18.397 ppb        30.7521 167.16%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                53.0      0.0520 ug/L       0.02909      0.0520 ppb        0.02909  55.95%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                10.0      0.6041 ug/L       0.20410      0.6041 ppb        0.20410  33.78%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       -251.1     -74.957 ug/L       10.9961     -74.957 ppb        10.9961  14.67%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                21.1      0.4605 ug/L       0.06864      0.4605 ppb        0.06864  14.90%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -24.7     -12.862 ug/L        3.5290     -12.862 ppb         3.5290  27.44%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               -10.9      -1.1468 ug/L       0.54212      -1.1468 ppb        0.54212  47.27%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            0.6      0.6830 ug/L       8.44948      0.6830 ppb        8.44948 >999.9%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                -3.8      -1.1160 ug/L       0.73178      -1.1160 ppb        0.73178  65.57%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 0.1      0.0391 ug/L       0.60164      0.0391 ppb        0.60164 >999.9%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†               137.9      3.8642 ug/L       0.74892      3.8642 ppb        0.74892  19.38%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 7.1      1.0646 ug/L       0.71475      1.0646 ppb        0.71475  67.14%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                17.5      0.1024 ug/L       0.05804      0.1024 ppb        0.05804  56.65%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                20.0      0.0292 ug/L       0.01650      0.0292 ppb        0.01650  56.50%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                14.3      3.7093 ug/L       1.98218      3.7093 ppb        1.98218  53.44%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                -35.5     -0.9790 ug/L       1.73774     -0.9790 ppb        1.73774 177.49%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                  9.0      0.0645 ug/L       0.10168      0.0645 ppb        0.10168 157.69%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               -14.4     -0.1217 ug/L       0.06091     -0.1217 ppb        0.06091  50.06%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                     113.8      6.8358 ug/L       0.30439      6.8358 ppb        0.30439   4.45%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 90
Sample ID: 242781002|932284|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 98
Date Collected: 12/19/2009 23:47:57
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 242781002|932284|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5799.5	5799.5	104	%			23:49:51
1	Y RADIAL	8287.6	8287.6	140.2	%			23:49:51
1	Al 396.153Radial†	20959.2	20136.4	14671	ug/L	14671	ppb	23:49:51
1	Ca 317.933Radial†	2957.4	2819.5	4019.8	ug/L	4019.8	ppb	23:50:11
1	Fe 238.204 Radial†	9374.5	8988.3	74721	ug/L	74721	ppb	23:49:51
1	K 766.490 Radial†	10423.0	7293.3	1238.7	ug/L	1238.7	ppb	23:49:51
1	Mg 279.077 IEC†	62.2	58.3	1745.7	ug/L	1745.7	ppb	23:50:11
1	Na 589.592 Radial†	407.3	1152.7	344.03	ug/L	344.03	ppb	23:49:51
1	Sr 421.552†	3532.3	3402.7	19.916	ug/L	19.916	ppb	23:49:51
1	Sc 361.383	960136.2	960136.2	106.81	%			23:51:09
1	Y 371.029	1062869.8	1062869.8	142.77	%			23:51:09
1	Ag 328.068†	-4721.3	-4790.1	4.7107	ug/L	4.7107	ppb	23:51:14
1	As 188.979†	-36.0	1.2	40.679	ug/L	40.679	ppb	23:51:34
1	B 249.677†	242.6	253.1	-4.7487	ug/L	-4.7487	ppb	23:51:14
1	Ba 233.527†	23054.8	21587.2	149.59	ug/L	149.59	ppb	23:51:14
1	Be 313.107†	-17828.6	-11960.6	2.7283	ug/L	2.7283	ppb	23:51:14
1	Cd 226.502†	576.5	768.9	0.0594	ug/L	0.0594	ppb	23:51:34
1	Co 228.616†	647.1	692.9	3.8979	ug/L	3.8979	ppb	23:51:34
1	Cr 267.716†	930.1	790.6	9.5301	ug/L	9.5301	ppb	23:51:34
1	Cu 324.752†	13706.6	6777.0	22.959	ug/L	22.959	ppb	23:51:14
1	Mn 257.610†	4406993.0	4125470.1	4076.7	ug/L	4076.7	ppb	23:51:09
1	Mo 202.031†	442.3	394.2	29.163	ug/L	29.163	ppb	23:51:34
1	Ni 231.604†	856.8	708.6	15.474	ug/L	15.474	ppb	23:51:34
1	P 214.914†	1867.8	1490.6	719.25	ug/L	719.25	ppb	23:51:34
1	Pb 220.353†	232.4	281.6	26.881	ug/L	26.881	ppb	23:51:34
1	S 181.975 Axial†	83.4	29.1	32.771	ug/L	32.771	ppb	23:51:34
1	Sb 206.836†	57.1	12.3	-4.3292	ug/L	-4.3292	ppb	23:51:34
1	Se 196.026†	-489.3	-429.6	-5.0646	ug/L	-5.0646	ppb	23:51:34
1	Si 251.611†	253104.2	236386.4	6664.8	ug/L	6664.8	ppb	23:51:14
1	Sn 189.927†	46.5	40.0	7.4241	ug/L	7.4241	ppb	23:51:34
1	Ti 334.940†	2531504.4	2371459.4	3429.1	ug/L	3429.1	ppb	23:51:09
1	Tl 190.801†	-242.2	-178.7	4.0392	ug/L	4.0392	ppb	23:51:34
1	U 409.014†	-14436.1	-11143.3	-316.44	ug/L	-316.44	ppb	23:51:09
1	V 292.402†	6017.1	7102.8	29.816	ug/L	29.816	ppb	23:51:14
1	Zn 213.857†	51509.7	47431.4	381.69	ug/L	381.69	ppb	23:51:14
1	SiO2†	255756.0	238839.9	14460	ug/L	14460	ppb	23:52:43
2	Sc Radial	5794.3	5794.3	104	%			23:50:16
2	Y RADIAL	8260.6	8260.6	139.7	%			23:50:16
2	Al 396.153Radial†	20925.9	20122.5	14661	ug/L	14661	ppb	23:50:16
2	Ca 317.933Radial†	2956.8	2821.3	4022.5	ug/L	4022.5	ppb	23:50:36
2	Fe 238.204 Radial†	9413.9	9034.2	75102	ug/L	75102	ppb	23:50:16
2	K 766.490 Radial†	10381.1	7262.0	1233.1	ug/L	1233.1	ppb	23:50:16
2	Mg 279.077 IEC†	63.5	59.6	1787.5	ug/L	1787.5	ppb	23:50:36
2	Na 589.592 Radial†	380.3	1127.1	336.41	ug/L	336.41	ppb	23:50:16
2	Sr 421.552†	3556.4	3428.9	20.069	ug/L	20.069	ppb	23:50:16
2	Sc 361.383	955072.0	955072.0	106.25	%			23:51:40
2	Y 371.029	1056927.0	1056927.0	141.97	%			23:51:40
2	Ag 328.068†	-4679.3	-4774.1	4.9091	ug/L	4.9091	ppb	23:51:46
2	As 188.979†	-33.9	2.9	41.414	ug/L	41.414	ppb	23:52:06
2	B 249.677†	299.7	308.0	-3.6736	ug/L	-3.6736	ppb	23:51:46
2	Ba 233.527†	23135.0	21777.1	150.90	ug/L	150.90	ppb	23:51:46
2	Be 313.107†	-17730.0	-11956.3	2.7359	ug/L	2.7359	ppb	23:51:46
2	Cd 226.502†	566.4	762.3	-0.0428	ug/L	-0.0428	ppb	23:52:06
2	Co 228.616†	656.3	704.8	4.0929	ug/L	4.0929	ppb	23:52:06
2	Cr 267.716†	919.5	785.2	9.4835	ug/L	9.4835	ppb	23:52:06
2	Cu 324.752†	13804.4	6937.1	23.431	ug/L	23.431	ppb	23:51:46
2	Mn 257.610†	4392171.3	4133397.9	4084.5	ug/L	4084.5	ppb	23:51:40
2	Mo 202.031†	427.6	382.5	28.483	ug/L	28.483	ppb	23:52:06
2	Ni 231.604†	889.2	743.4	16.234	ug/L	16.234	ppb	23:52:06

2	P 214.914†	1880.3	1511.6	729.84	ug/L	729.84	ppb	23:52:06
2	Pb 220.353†	222.9	273.8	26.024	ug/L	26.024	ppb	23:52:06
2	S 181.975 Axial†	89.4	35.1	40.173	ug/L	40.173	ppb	23:52:06
2	Sb 206.836†	65.9	20.8	-1.7921	ug/L	-1.7921	ppb	23:52:06
2	Se 196.026†	-486.6	-429.5	-3.8447	ug/L	-3.8447	ppb	23:52:06
2	Si 251.611†	254313.0	238780.6	6732.3	ug/L	6732.3	ppb	23:51:46
2	Sn 189.927†	44.9	38.8	7.2482	ug/L	7.2482	ppb	23:52:06
2	Ti 334.940†	2520456.0	2373628.0	3432.2	ug/L	3432.2	ppb	23:51:40
2	Tl 190.801†	-252.9	-190.0	1.1722	ug/L	1.1722	ppb	23:52:06
2	U 409.014†	-14352.5	-11136.3	-316.29	ug/L	-316.29	ppb	23:51:40
2	V 292.402†	6068.8	7181.3	30.245	ug/L	30.245	ppb	23:51:46
2	Zn 213.857†	51731.1	47895.5	385.45	ug/L	385.45	ppb	23:51:46
2	SiO2†	253426.0	237916.6	14404	ug/L	14404	ppb	23:52:48
3	Sc Radial	5800.6	5800.6	104	%			23:50:41
3	Y RADIAL	8301.3	8301.3	140.4	%			23:50:41
3	Al 396.153Radial†	20910.6	20086.1	14635	ug/L	14635	ppb	23:50:41
3	Ca 317.933Radial†	2949.3	2811.1	4007.8	ug/L	4007.8	ppb	23:51:01
3	Fe 238.204 Radial†	9364.0	8976.5	74623	ug/L	74623	ppb	23:50:41
3	K 766.490 Radial†	10412.0	7280.8	1236.4	ug/L	1236.4	ppb	23:50:41
3	Mg 279.077 IEC†	65.9	61.8	1855.8	ug/L	1855.8	ppb	23:51:01
3	Na 589.592 Radial†	423.4	1168.1	348.63	ug/L	348.63	ppb	23:50:41
3	Sr 421.552†	3507.3	3378.0	19.771	ug/L	19.771	ppb	23:50:41
3	Sc 361.383	955393.3	955393.3	106.28	%			23:52:12
3	Y 371.029	1057478.2	1057478.2	142.05	%			23:52:12
3	Ag 328.068†	-4789.9	-4876.6	4.3136	ug/L	4.3136	ppb	23:52:17
3	As 188.979†	-42.0	-4.7	38.552	ug/L	38.552	ppb	23:52:37
3	B 249.677†	180.5	195.7	-5.9137	ug/L	-5.9137	ppb	23:52:17
3	Ba 233.527†	23010.4	21652.6	150.03	ug/L	150.03	ppb	23:52:17
3	Be 313.107†	-17918.1	-12127.6	2.6746	ug/L	2.6746	ppb	23:52:17
3	Cd 226.502†	586.2	780.8	0.1859	ug/L	0.1859	ppb	23:52:37
3	Co 228.616†	653.4	701.9	4.0540	ug/L	4.0540	ppb	23:52:37
3	Cr 267.716†	924.8	789.9	9.5250	ug/L	9.5250	ppb	23:52:37
3	Cu 324.752†	13787.9	6917.2	23.350	ug/L	23.350	ppb	23:52:17
3	Mn 257.610†	4393707.0	4133452.5	4084.5	ug/L	4084.5	ppb	23:52:12
3	Mo 202.031†	437.9	392.1	29.027	ug/L	29.027	ppb	23:52:37
3	Ni 231.604†	891.7	745.4	16.279	ug/L	16.279	ppb	23:52:37
3	P 214.914†	1901.0	1530.6	740.10	ug/L	740.10	ppb	23:52:37
3	Pb 220.353†	226.4	277.1	26.398	ug/L	26.398	ppb	23:52:37
3	S 181.975 Axial†	76.3	22.8	25.107	ug/L	25.107	ppb	23:52:37
3	Sb 206.836†	72.8	27.2	0.1454	ug/L	0.1454	ppb	23:52:37
3	Se 196.026†	-488.2	-430.8	-6.0185	ug/L	-6.0185	ppb	23:52:37
3	Si 251.611†	252857.8	237331.0	6691.4	ug/L	6691.4	ppb	23:52:17
3	Sn 189.927†	44.5	38.4	7.1802	ug/L	7.1802	ppb	23:52:37
3	Ti 334.940†	2519886.8	2372294.7	3430.3	ug/L	3430.3	ppb	23:52:12
3	Tl 190.801†	-250.9	-188.0	1.6749	ug/L	1.6749	ppb	23:52:37
3	U 409.014†	-14646.5	-11408.3	-323.73	ug/L	-323.73	ppb	23:52:12
3	V 292.402†	6069.6	7180.2	30.308	ug/L	30.308	ppb	23:52:17
3	Zn 213.857†	51424.7	47590.8	382.99	ug/L	382.99	ppb	23:52:17
3	SiO2†	256195.8	240442.4	14557	ug/L	14557	ppb	23:52:53

Mean Data: 242781002|932284|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	956867.2	106.45	%	0.315				0.30%
Sc Radial	5798.1	104	%	0.1				0.06%
Y 371.029	1059091.7	142.26	%	0.441				0.31%
Y RADIAL	8283.2	140.1	%	0.35				0.25%
Ag 328.068†	-4813.6	4.6445	ug/L	0.30321	4.6445	ppb	0.30321	6.53%
Al 396.153Radial†	20115.0	14656	ug/L	18.9	14656	ppb	18.9	0.13%
As 188.979†	-0.2	40.215	ug/L	1.4862	40.215	ppb	1.4862	3.70%
B 249.677†	252.3	-4.7786	ug/L	1.12038	-4.7786	ppb	1.12038	23.45%
Ba 233.527†	21672.3	150.17	ug/L	0.664	150.17	ppb	0.664	0.44%
Be 313.107†	-12014.8	2.7129	ug/L	0.03338	2.7129	ppb	0.03338	1.23%
Ca 317.933Radial†	2817.3	4016.7	ug/L	7.79	4016.7	ppb	7.79	0.19%
Cd 226.502†	770.6	0.0675	ug/L	0.11458	0.0675	ppb	0.11458	169.81%
Co 228.616†	699.9	4.0149	ug/L	0.10321	4.0149	ppb	0.10321	2.57%
Cr 267.716†	788.6	9.5129	ug/L	0.02555	9.5129	ppb	0.02555	0.27%
Cu 324.752†	6877.1	23.247	ug/L	0.2524	23.247	ppb	0.2524	1.09%
Fe 238.204 Radial†	8999.7	74815	ug/L	253.3	74815	ppb	253.3	0.34%
K 766.490 Radial†	7278.7	1236.0	ug/L	2.82	1236.0	ppb	2.82	0.23%

Mg 279.077 IEC†	59.9	1796.3	ug/L	55.57	1796.3	ppb	55.57	3.09%
Mn 257.610†	4130773.5	4081.9	ug/L	4.54	4081.9	ppb	4.54	0.11%
Mo 202.031†	389.6	28.891	ug/L	0.3598	28.891	ppb	0.3598	1.25%
Na 589.592 Radial†	1149.3	343.02	ug/L	6.176	343.02	ppb	6.176	1.80%
Ni 231.604†	732.5	15.996	ug/L	0.4523	15.996	ppb	0.4523	2.83%
P 214.914†	1510.9	729.73	ug/L	10.422	729.73	ppb	10.422	1.43%
Pb 220.353†	277.5	26.434	ug/L	0.4299	26.434	ppb	0.4299	1.63%
S 181.975 Axial†	29.0	32.683	ug/L	7.5334	32.683	ppb	7.5334	23.05%
Sb 206.836†	20.1	-1.9920	ug/L	2.24398	-1.9920	ppb	2.24398	112.65%
Se 196.026†	-429.9	-4.9759	ug/L	1.08961	-4.9759	ppb	1.08961	21.90%
Si 251.611†	237499.3	6696.1	ug/L	34.01	6696.1	ppb	34.01	0.51%
Sn 189.927†	39.1	7.2842	ug/L	0.12585	7.2842	ppb	0.12585	1.73%
Sr 421.552†	3403.2	19.919	ug/L	0.1491	19.919	ppb	0.1491	0.75%
Ti 334.940†	2372460.7	3430.5	ug/L	1.58	3430.5	ppb	1.58	0.05%
Tl 190.801†	-185.5	2.2954	ug/L	1.53091	2.2954	ppb	1.53091	66.69%
U 409.014†	-11229.3	-318.82	ug/L	4.252	-318.82	ppb	4.252	1.33%
V 292.402†	7154.8	30.123	ug/L	0.2679	30.123	ppb	0.2679	0.89%
Zn 213.857†	47639.2	383.38	ug/L	1.910	383.38	ppb	1.910	0.50%
SiO2†	239066.3	14473	ug/L	77.4	14473	ppb	77.4	0.53%

Sequence No.: 91
Sample ID: 242781003|932284|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 99
Date Collected: 12/19/2009 23:55:05
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 242781003|932284|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5145.5	5145.5	92.4	%			23:56:58
1	Y RADIAL	7723.1	7723.1	130.6	%			23:56:58
1	Al 396.153Radial†	23353.9	25284.7	18423	ug/L	18423	ppb	23:56:58
1	Ca 317.933Radial†	2595.0	2788.1	3975.1	ug/L	3975.1	ppb	23:57:18
1	Fe 238.204 Radial†	9442.1	10205.3	84837	ug/L	84837	ppb	23:56:58
1	K 766.490 Radial†	12016.1	10288.6	1791.6	ug/L	1791.6	ppb	23:56:58
1	Mg 279.077 IEC†	63.3	67.1	2012.6	ug/L	2012.6	ppb	23:57:18
1	Na 589.592 Radial†	424.2	1220.6	364.31	ug/L	364.31	ppb	23:56:58
1	Sr 421.552†	3223.2	3499.3	20.482	ug/L	20.482	ppb	23:56:58
1	Sc 361.383	951880.0	951880.0	105.89	%			23:58:16
1	Y 371.029	1071658.1	1071658.1	143.95	%			23:58:16
1	Ag 328.068†	-4972.3	-5065.5	6.9112	ug/L	6.9112	ppb	23:58:21
1	As 188.979†	-70.6	-31.8	32.825	ug/L	32.825	ppb	23:58:41
1	B 249.677†	271.0	281.8	-5.5023	ug/L	-5.5023	ppb	23:58:21
1	Ba 233.527†	17151.7	16199.8	113.35	ug/L	113.35	ppb	23:58:21
1	Be 313.107†	-24526.0	-18430.0	1.1566	ug/L	1.1566	ppb	23:58:21
1	Cd 226.502†	583.6	780.3	-0.8415	ug/L	-0.8415	ppb	23:58:41
1	Co 228.616†	673.4	723.0	3.6057	ug/L	3.6057	ppb	23:58:41
1	Cr 267.716†	941.1	808.5	9.8953	ug/L	9.8953	ppb	23:58:41
1	Cu 324.752†	10960.6	4295.1	16.463	ug/L	16.463	ppb	23:58:21
1	Mn 257.610†	2277305.2	2150084.1	2129.2	ug/L	2129.2	ppb	23:58:16
1	Mo 202.031†	361.1	321.1	25.456	ug/L	25.456	ppb	23:58:41
1	Ni 231.604†	753.5	618.0	13.495	ug/L	13.495	ppb	23:58:41
1	P 214.914†	1339.8	1007.2	461.33	ug/L	461.33	ppb	23:58:41
1	Pb 220.353†	265.5	314.8	30.382	ug/L	30.382	ppb	23:58:41
1	S 181.975 Axial†	81.8	28.2	30.992	ug/L	30.992	ppb	23:58:41
1	Sb 206.836†	61.9	17.3	-3.7097	ug/L	-3.7097	ppb	23:58:41
1	Se 196.026†	-497.9	-441.7	19.580	ug/L	19.580	ppb	23:58:41
1	Si 251.611†	290653.1	273901.1	7722.5	ug/L	7722.5	ppb	23:58:21
1	Sn 189.927†	40.2	34.5	6.7338	ug/L	6.7338	ppb	23:58:41
1	Ti 334.940†	2732549.4	2581873.6	3733.3	ug/L	3733.3	ppb	23:58:16
1	Tl 190.801†	-212.5	-152.6	1.8139	ug/L	1.8139	ppb	23:58:41
1	U 409.014†	-14426.8	-11251.8	-320.70	ug/L	-320.70	ppb	23:58:16
1	V 292.402†	6090.6	7221.1	28.632	ug/L	28.632	ppb	23:58:21
1	Zn 213.857†	50128.8	46545.7	373.47	ug/L	373.47	ppb	23:58:21
1	SiO2†	292400.0	275521.6	16680	ug/L	16680	ppb	23:59:49
2	Sc Radial	6222.5	6222.5	112	%			23:57:24
2	Y RADIAL	8784.5	8784.5	148.6	%			23:57:24
2	Al 396.153Radial†	22454.4	20106.4	14650	ug/L	14650	ppb	23:57:24
2	Ca 317.933Radial†	2678.2	2376.6	3388.4	ug/L	3388.4	ppb	23:57:44
2	Fe 238.204 Radial†	9090.9	8122.7	67525	ug/L	67525	ppb	23:57:24
2	K 766.490 Radial†	11789.2	7835.4	1358.3	ug/L	1358.3	ppb	23:57:24
2	Mg 279.077 IEC†	65.4	57.2	1717.3	ug/L	1717.3	ppb	23:57:44
2	Na 589.592 Radial†	363.3	1086.7	324.35	ug/L	324.35	ppb	23:57:24
2	Sr 421.552†	3056.9	2746.8	16.075	ug/L	16.075	ppb	23:57:24
2	Sc 361.383	942759.6	942759.6	104.88	%			23:58:47
2	Y 371.029	1061065.0	1061065.0	142.53	%			23:58:47
2	Ag 328.068†	-4982.3	-5120.5	0.9040	ug/L	0.9040	ppb	23:58:52
2	As 188.979†	-67.7	-29.7	30.859	ug/L	30.859	ppb	23:59:12
2	B 249.677†	241.8	256.5	-3.7256	ug/L	-3.7256	ppb	23:58:52
2	Ba 233.527†	17310.7	16508.1	114.81	ug/L	114.81	ppb	23:58:52
2	Be 313.107†	-24504.2	-18633.3	1.0719	ug/L	1.0719	ppb	23:58:52
2	Cd 226.502†	614.0	814.6	1.2250	ug/L	1.2250	ppb	23:59:12
2	Co 228.616†	673.2	729.0	3.9795	ug/L	3.9795	ppb	23:59:12
2	Cr 267.716†	918.6	795.7	9.4586	ug/L	9.4586	ppb	23:59:12
2	Cu 324.752†	10930.2	4366.2	15.781	ug/L	15.781	ppb	23:58:52
2	Mn 257.610†	2254833.2	2149462.4	2126.9	ug/L	2126.9	ppb	23:58:47
2	Mo 202.031†	381.6	343.9	25.608	ug/L	25.608	ppb	23:59:12
2	Ni 231.604†	787.0	656.8	14.342	ug/L	14.342	ppb	23:59:12

2	P 214.914†	1340.9	1020.5	480.89	ug/L	480.89	ppb	23:59:12
2	Pb 220.353†	276.6	327.8	32.330	ug/L	32.330	ppb	23:59:12
2	S 181.975 Axial†	84.8	31.8	36.166	ug/L	36.166	ppb	23:59:12
2	Sb 206.836†	74.9	30.2	0.0466	ug/L	0.0466	ppb	23:59:12
2	Se 196.026†	-493.7	-442.2	-33.824	ug/L	-33.824	ppb	23:59:12
2	Si 251.611†	291600.2	277459.5	7823.0	ug/L	7823.0	ppb	23:58:52
2	Sn 189.927†	38.8	33.5	6.2900	ug/L	6.2900	ppb	23:59:12
2	Ti 334.940†	2700265.0	2576054.8	3724.9	ug/L	3724.9	ppb	23:58:47
2	Tl 190.801†	-209.2	-151.4	1.9641	ug/L	1.9641	ppb	23:59:12
2	U 409.014†	-14513.2	-11465.9	-324.42	ug/L	-324.42	ppb	23:58:47
2	V 292.402†	6126.6	7311.0	31.848	ug/L	31.848	ppb	23:58:52
2	Zn 213.857†	50273.2	47141.3	380.01	ug/L	380.01	ppb	23:58:52
2	SiO2†	292339.0	278134.7	16839	ug/L	16839	ppb	23:59:54
3	Sc Radial	5590.4	5590.4	100	%			23:57:49
3	Y RADIAL	8268.4	8268.4	139.9	%			23:57:49
3	Al 396.153Radial†	23584.7	23503.4	17125	ug/L	17125	ppb	23:57:49
3	Ca 317.933Radial†	2671.7	2641.0	3765.4	ug/L	3765.4	ppb	23:58:09
3	Fe 238.204 Radial†	9485.1	9435.0	78434	ug/L	78434	ppb	23:57:49
3	K 766.490 Radial†	11991.5	9229.4	1604.7	ug/L	1604.7	ppb	23:57:49
3	Mg 279.077 IEC†	67.0	65.3	1961.5	ug/L	1961.5	ppb	23:58:09
3	Na 589.592 Radial†	408.0	1168.0	348.61	ug/L	348.61	ppb	23:57:49
3	Sr 421.552†	3217.1	3215.6	18.821	ug/L	18.821	ppb	23:57:49
3	Sc 361.383	956175.5	956175.5	106.37	%			23:59:18
3	Y 371.029	1075182.1	1075182.1	144.42	%			23:59:18
3	Ag 328.068†	-4995.6	-5066.3	4.7764	ug/L	4.7764	ppb	23:59:23
3	As 188.979†	-66.8	-28.0	33.174	ug/L	33.174	ppb	23:59:43
3	B 249.677†	130.4	148.5	-7.3895	ug/L	-7.3895	ppb	23:59:23
3	Ba 233.527†	17099.6	16078.0	112.29	ug/L	112.29	ppb	23:59:23
3	Be 313.107†	-24469.9	-18273.3	1.1954	ug/L	1.1954	ppb	23:59:23
3	Cd 226.502†	589.0	782.9	-0.1761	ug/L	-0.1761	ppb	23:59:43
3	Co 228.616†	679.7	726.1	3.7656	ug/L	3.7656	ppb	23:59:43
3	Cr 267.716†	942.0	805.4	9.7512	ug/L	9.7512	ppb	23:59:43
3	Cu 324.752†	10969.7	4257.1	16.029	ug/L	16.029	ppb	23:59:23
3	Mn 257.610†	2282065.4	2144898.0	2123.5	ug/L	2123.5	ppb	23:59:18
3	Mo 202.031†	359.8	318.4	24.835	ug/L	24.835	ppb	23:59:43
3	Ni 231.604†	780.1	639.8	13.971	ug/L	13.971	ppb	23:59:43
3	P 214.914†	1342.3	1003.8	464.32	ug/L	464.32	ppb	23:59:43
3	Pb 220.353†	268.8	316.8	30.823	ug/L	30.823	ppb	23:59:43
3	S 181.975 Axial†	80.8	26.9	29.655	ug/L	29.655	ppb	23:59:43
3	Sb 206.836†	68.0	22.7	-2.1308	ug/L	-2.1308	ppb	23:59:43
3	Se 196.026†	-510.5	-451.4	-5.3341	ug/L	-5.3341	ppb	23:59:43
3	Si 251.611†	290389.4	272420.1	7680.8	ug/L	7680.8	ppb	23:59:23
3	Sn 189.927†	42.9	36.9	6.9770	ug/L	6.9770	ppb	23:59:43
3	Ti 334.940†	2739720.9	2577022.9	3726.3	ug/L	3726.3	ppb	23:59:18
3	Tl 190.801†	-212.8	-152.0	1.8636	ug/L	1.8636	ppb	23:59:43
3	U 409.014†	-14782.3	-11524.8	-327.42	ug/L	-327.42	ppb	23:59:18
3	V 292.402†	6093.5	7198.0	29.448	ug/L	29.448	ppb	23:59:23
3	Zn 213.857†	50124.9	46329.3	372.30	ug/L	372.30	ppb	23:59:23
3	SiO2†	291472.0	273408.7	16553	ug/L	16553	ppb	23:59:59

Mean Data: 242781003|932284|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	950271.7	105.71	%	0.762				0.72%
Sc Radial	5652.8	102	%	9.7				9.57%
Y 371.029	1069301.7	143.63	%	0.987				0.69%
Y RADIAL	8258.7	139.7	%	8.98				6.43%
Ag 328.068†	-5084.1	4.1972	ug/L	3.04520	4.1972	ppb	3.04520	72.55%
Al 396.153Radial†	22964.8	16733	ug/L	1917.0	16733	ppb	1917.0	11.46%
As 188.979†	-29.8	32.286	ug/L	1.2477	32.286	ppb	1.2477	3.86%
B 249.677†	229.0	-5.5391	ug/L	1.83224	-5.5391	ppb	1.83224	33.08%
Ba 233.527†	16262.0	113.48	ug/L	1.265	113.48	ppb	1.265	1.11%
Be 313.107†	-18445.5	1.1413	ug/L	0.06315	1.1413	ppb	0.06315	5.53%
Ca 317.933Radial†	2601.9	3709.6	ug/L	297.28	3709.6	ppb	297.28	8.01%
Cd 226.502†	792.6	0.0691	ug/L	1.05486	0.0691	ppb	1.05486	>999.9%
Co 228.616†	726.0	3.7836	ug/L	0.18754	3.7836	ppb	0.18754	4.96%
Cr 267.716†	803.2	9.7017	ug/L	0.22248	9.7017	ppb	0.22248	2.29%
Cu 324.752†	4306.1	16.091	ug/L	0.3454	16.091	ppb	0.3454	2.15%
Fe 238.204 Radial†	9254.3	76932	ug/L	8753.3	76932	ppb	8753.3	11.38%
K 766.490 Radial†	9117.8	1584.9	ug/L	217.34	1584.9	ppb	217.34	13.71%

Mg 279.077 IEC†	63.2	1897.1	ug/L	157.84	1897.1	ppb	157.84	8.32%
Mn 257.610†	2148148.2	2126.5	ug/L	2.89	2126.5	ppb	2.89	0.14%
Mo 202.031†	327.8	25.299	ug/L	0.4098	25.299	ppb	0.4098	1.62%
Na 589.592 Radial†	1158.4	345.76	ug/L	20.131	345.76	ppb	20.131	5.82%
Ni 231.604†	638.2	13.936	ug/L	0.4249	13.936	ppb	0.4249	3.05%
P 214.914†	1010.5	468.85	ug/L	10.540	468.85	ppb	10.540	2.25%
Pb 220.353†	319.8	31.178	ug/L	1.0213	31.178	ppb	1.0213	3.28%
S 181.975 Axial†	29.0	32.271	ug/L	3.4388	32.271	ppb	3.4388	10.66%
Sb 206.836†	23.4	-1.9313	ug/L	1.88607	-1.9313	ppb	1.88607	97.66%
Se 196.026†	-445.1	-6.5260	ug/L	26.72198	-6.5260	ppb	26.72198	409.47%
Si 251.611†	274593.6	7742.1	ug/L	73.07	7742.1	ppb	73.07	0.94%
Sn 189.927†	35.0	6.6669	ug/L	0.34839	6.6669	ppb	0.34839	5.23%
Sr 421.552†	3153.9	18.460	ug/L	2.2256	18.460	ppb	2.2256	12.06%
Ti 334.940†	2578317.1	3728.2	ug/L	4.52	3728.2	ppb	4.52	0.12%
Tl 190.801†	-152.0	1.8805	ug/L	0.07652	1.8805	ppb	0.07652	4.07%
U 409.014†	-11414.2	-324.18	ug/L	3.365	-324.18	ppb	3.365	1.04%
V 292.402†	7243.4	29.976	ug/L	1.6717	29.976	ppb	1.6717	5.58%
Zn 213.857†	46672.1	375.26	ug/L	4.155	375.26	ppb	4.155	1.11%
SiO2†	275688.3	16691	ug/L	143.4	16691	ppb	143.4	0.86%

Sequence No.: 92
Sample ID: 242781004|932284|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 100
Date Collected: 12/20/2009 00:02:10
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 242781004|932284|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5795.7	5795.7	104	%			00:04:04
1	Y RADIAL	8075.9	8075.9	136.6	%			00:04:04
1	Al 396.153Radial†	20762.1	19960.3	14543	ug/L	14543	ppb	00:04:04
1	Ca 317.933Radial†	3217.6	3071.2	4378.7	ug/L	4378.7	ppb	00:04:24
1	Fe 238.204 Radial†	8183.4	7850.0	65258	ug/L	65258	ppb	00:04:04
1	K 766.490 Radial†	12896.5	9675.8	1686.0	ug/L	1686.0	ppb	00:04:04
1	Mg 279.077 IEC†	79.8	75.3	2282.1	ug/L	2282.1	ppb	00:04:24
1	Na 589.592 Radial†	273.5	1024.4	305.76	ug/L	305.76	ppb	00:04:04
1	Sr 421.552†	3486.3	3360.8	19.666	ug/L	19.666	ppb	00:04:04
1	Sc 361.383	1036714.8	1036714.8	115.33	%			00:05:21
1	Y 371.029	1098179.9	1098179.9	147.51	%			00:05:21
1	Ag 328.068†	-4261.7	-4065.1	4.5827	ug/L	4.5827	ppb	00:05:26
1	As 188.979†	-61.1	-18.1	26.289	ug/L	26.289	ppb	00:05:46
1	B 249.677†	33.6	55.1	-7.5513	ug/L	-7.5513	ppb	00:05:26
1	Ba 233.527†	18515.9	16057.3	111.65	ug/L	111.65	ppb	00:05:26
1	Be 313.107†	-19896.8	-12520.9	1.1487	ug/L	1.1487	ppb	00:05:26
1	Cd 226.502†	485.4	650.0	-0.1602	ug/L	-0.1602	ppb	00:05:46
1	Co 228.616†	541.6	556.7	3.1169	ug/L	3.1169	ppb	00:05:46
1	Cr 267.716†	958.5	750.9	8.9254	ug/L	8.9254	ppb	00:05:46
1	Cu 324.752†	11495.3	3911.7	14.381	ug/L	14.381	ppb	00:05:26
1	Mn 257.610†	2143291.3	1857901.5	1839.0	ug/L	1839.0	ppb	00:05:21
1	Mo 202.031†	324.5	261.5	20.457	ug/L	20.457	ppb	00:05:46
1	Ni 231.604†	648.6	468.8	10.237	ug/L	10.237	ppb	00:05:46
1	P 214.914†	1547.7	1083.9	515.96	ug/L	515.96	ppb	00:05:46
1	Pb 220.353†	238.7	271.0	26.498	ug/L	26.498	ppb	00:05:46
1	S 181.975 Axial†	78.5	19.0	20.502	ug/L	20.502	ppb	00:05:46
1	Sb 206.836†	64.2	14.4	-2.1385	ug/L	-2.1385	ppb	00:05:46
1	Se 196.026†	-436.3	-349.8	9.6445	ug/L	9.6445	ppb	00:05:46
1	Si 251.611†	309493.9	267776.7	7549.9	ug/L	7549.9	ppb	00:05:26
1	Sn 189.927†	23.7	17.1	3.8933	ug/L	3.8933	ppb	00:05:46
1	Ti 334.940†	2168644.7	1881763.9	2721.1	ug/L	2721.1	ppb	00:05:21
1	Tl 190.801†	-187.0	-114.0	2.2880	ug/L	2.2880	ppb	00:05:46
1	U 409.014†	-12286.5	-8281.1	-236.38	ug/L	-236.38	ppb	00:05:21
1	V 292.402†	5714.3	6424.1	27.769	ug/L	27.769	ppb	00:05:26
1	Zn 213.857†	46913.1	39883.6	320.71	ug/L	320.71	ppb	00:05:26
1	SiO2†	317333.3	274545.0	16622	ug/L	16622	ppb	00:06:54
2	Sc Radial	5797.4	5797.4	104	%			00:04:29
2	Y RADIAL	8131.3	8131.3	137.6	%			00:04:29
2	Al 396.153Radial†	21223.1	20397.0	14862	ug/L	14862	ppb	00:04:29
2	Ca 317.933Radial†	3171.1	3025.7	4313.8	ug/L	4313.8	ppb	00:04:49
2	Fe 238.204 Radial†	8332.5	7990.9	66429	ug/L	66429	ppb	00:04:29
2	K 766.490 Radial†	12948.1	9721.7	1694.7	ug/L	1694.7	ppb	00:04:29
2	Mg 279.077 IEC†	79.6	75.0	2272.5	ug/L	2272.5	ppb	00:04:49
2	Na 589.592 Radial†	279.3	1029.9	307.39	ug/L	307.39	ppb	00:04:29
2	Sr 421.552†	3541.1	3412.4	19.970	ug/L	19.970	ppb	00:04:29
2	Sc 361.383	1044293.8	1044293.8	116.17	%			00:05:52
2	Y 371.029	1099594.4	1099594.4	147.70	%			00:05:52
2	Ag 328.068†	-4444.8	-4195.9	4.4142	ug/L	4.4142	ppb	00:05:57
2	As 188.979†	-51.2	-9.3	29.193	ug/L	29.193	ppb	00:06:17
2	B 249.677†	15.6	39.4	-8.0285	ug/L	-8.0285	ppb	00:05:57
2	Ba 233.527†	19109.0	16451.3	114.37	ug/L	114.37	ppb	00:05:57
2	Be 313.107†	-20503.9	-12918.3	0.8983	ug/L	0.8983	ppb	00:05:57
2	Cd 226.502†	431.1	600.3	-0.7643	ug/L	-0.7643	ppb	00:06:17
2	Co 228.616†	528.1	541.7	2.9685	ug/L	2.9685	ppb	00:06:17
2	Cr 267.716†	920.6	712.3	8.5560	ug/L	8.5560	ppb	00:06:17
2	Cu 324.752†	11614.9	3942.3	14.527	ug/L	14.527	ppb	00:05:57
2	Mn 257.610†	2114671.9	1819779.2	1801.6	ug/L	1801.6	ppb	00:05:52
2	Mo 202.031†	353.2	284.1	21.910	ug/L	21.910	ppb	00:06:17
2	Ni 231.604†	642.0	459.1	10.024	ug/L	10.024	ppb	00:06:17

2	P 214.914†	1559.7	1084.5	515.44 ug/L	515.44 ppb	00:06:17
2	Pb 220.353†	213.8	248.1	24.057 ug/L	24.057 ppb	00:06:17
2	S 181.975 Axial†	75.8	16.3	17.045 ug/L	17.045 ppb	00:06:17
2	Sb 206.836†	69.0	18.2	-0.7481 ug/L	-0.7481 ppb	00:06:17
2	Se 196.026†	-427.8	-339.7	18.717 ug/L	18.717 ppb	00:06:17
2	Si 251.611†	319532.1	274469.9	7738.6 ug/L	7738.6 ppb	00:05:57
2	Sn 189.927†	40.6	31.5	6.0612 ug/L	6.0612 ppb	00:06:17
2	Ti 334.940†	2136622.9	1840553.3	2661.5 ug/L	2661.5 ppb	00:05:52
2	Tl 190.801†	-188.6	-114.3	1.5535 ug/L	1.5535 ppb	00:06:17
2	U 409.014†	-12206.0	-8134.4	-232.49 ug/L	-232.49 ppb	00:05:52
2	V 292.402†	6039.4	6668.0	29.235 ug/L	29.235 ppb	00:05:57
2	Zn 213.857†	48519.8	40971.4	329.52 ug/L	329.52 ppb	00:05:57
2	SiO2†	312988.1	268807.7	16274 ug/L	16274 ppb	00:06:59
3	Sc Radial	5816.7	5816.7	104 %		00:04:54
3	Y RADIAL	8168.1	8168.1	138.2 %		00:04:54
3	Al 396.153Radial†	21112.0	20223.1	14735 ug/L	14735 ppb	00:04:54
3	Ca 317.933Radial†	3154.8	2999.9	4277.1 ug/L	4277.1 ppb	00:05:14
3	Fe 238.204 Radial†	8267.4	7902.0	65690 ug/L	65690 ppb	00:04:54
3	K 766.490 Radial†	12933.9	9666.8	1681.8 ug/L	1681.8 ppb	00:04:54
3	Mg 279.077 IEC†	79.1	74.4	2253.0 ug/L	2253.0 ppb	00:05:14
3	Na 589.592 Radial†	210.1	962.7	287.35 ug/L	287.35 ppb	00:04:54
3	Sr 421.552†	3498.0	3359.9	19.662 ug/L	19.662 ppb	00:04:54
3	Sc 361.383	948847.8	948847.8	105.56 %		00:06:23
3	Y 371.029	1033079.4	1033079.4	138.77 %		00:06:23
3	Ag 328.068†	-4215.6	-4363.6	3.4863 ug/L	3.4863 ppb	00:06:28
3	As 188.979†	-52.1	-14.6	30.356 ug/L	30.356 ppb	00:06:48
3	B 249.677†	37.6	61.6	-7.4770 ug/L	-7.4770 ppb	00:06:28
3	Ba 233.527†	18458.0	17489.1	121.40 ug/L	121.40 ppb	00:06:28
3	Be 313.107†	-20238.4	-14442.1	1.1381 ug/L	1.1381 ppb	00:06:28
3	Cd 226.502†	473.0	677.3	0.0635 ug/L	0.0635 ppb	00:06:48
3	Co 228.616†	548.1	606.4	3.3058 ug/L	3.3058 ppb	00:06:48
3	Cr 267.716†	879.8	753.4	8.9755 ug/L	8.9755 ppb	00:06:48
3	Cu 324.752†	11436.4	4778.9	16.853 ug/L	16.853 ppb	00:06:28
3	Mn 257.610†	2191670.5	2075829.0	2054.1 ug/L	2054.1 ppb	00:06:23
3	Mo 202.031†	347.0	308.8	23.353 ug/L	23.353 ppb	00:06:48
3	Ni 231.604†	619.3	493.1	10.768 ug/L	10.768 ppb	00:06:48
3	P 214.914†	1551.2	1211.5	581.82 ug/L	581.82 ppb	00:06:48
3	Pb 220.353†	221.6	274.0	26.825 ug/L	26.825 ppb	00:06:48
3	S 181.975 Axial†	69.5	16.9	17.784 ug/L	17.784 ppb	00:06:48
3	Sb 206.836†	53.8	9.8	-4.3332 ug/L	-4.3332 ppb	00:06:48
3	Se 196.026†	-422.3	-371.6	-0.8933 ug/L	-0.8933 ppb	00:06:48
3	Si 251.611†	308576.6	291758.4	8226.1 ug/L	8226.1 ppb	00:06:28
3	Sn 189.927†	21.6	17.0	3.8799 ug/L	3.8799 ppb	00:06:48
3	Ti 334.940†	2220230.2	2104764.7	3043.5 ug/L	3043.5 ppb	00:06:23
3	Tl 190.801†	-185.3	-127.5	2.5247 ug/L	2.5247 ppb	00:06:48
3	U 409.014†	-12613.5	-9577.5	-272.16 ug/L	-272.16 ppb	00:06:23
3	V 292.402†	5795.1	6959.5	30.724 ug/L	30.724 ppb	00:06:28
3	Zn 213.857†	46789.5	43533.4	350.60 ug/L	350.60 ppb	00:06:28
3	SiO2†	313205.6	296114.6	17927 ug/L	17927 ppb	00:07:04

Mean Data: 242781004|932284|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1009952.1	112.35	%	5.902				5.25%
Sc Radial	5803.3	104	%	0.2				0.20%
Y 371.029	1076951.2	144.66	%	5.104				3.53%
Y RADIAL	8125.1	137.4	%	0.78				0.57%
Ag 328.068†	-4208.2	4.1611	ug/L	0.59042	4.1611	ppb	0.59042	14.19%
Al 396.153Radial†	20193.5	14713	ug/L	160.2	14713	ppb	160.2	1.09%
As 188.979†	-14.0	28.613	ug/L	2.0950	28.613	ppb	2.0950	7.32%
B 249.677†	52.0	-7.6856	ug/L	0.29930	-7.6856	ppb	0.29930	3.89%
Ba 233.527†	16665.9	115.81	ug/L	5.033	115.81	ppb	5.033	4.35%
Be 313.107†	-13293.8	1.0617	ug/L	0.14161	1.0617	ppb	0.14161	13.34%
Ca 317.933Radial†	3032.3	4323.2	ug/L	51.47	4323.2	ppb	51.47	1.19%
Cd 226.502†	642.5	-0.2870	ug/L	0.42823	-0.2870	ppb	0.42823	149.20%
Co 228.616†	568.3	3.1304	ug/L	0.16908	3.1304	ppb	0.16908	5.40%
Cr 267.716†	738.8	8.8189	ug/L	0.22911	8.8189	ppb	0.22911	2.60%
Cu 324.752†	4211.0	15.254	ug/L	1.3871	15.254	ppb	1.3871	9.09%
Fe 238.204 Radial†	7914.3	65792	ug/L	592.4	65792	ppb	592.4	0.90%
K 766.490 Radial†	9688.1	1687.5	ug/L	6.54	1687.5	ppb	6.54	0.39%

Mg 279.077 IEC†	74.9	2269.2	ug/L	14.81	2269.2	ppb	14.81	0.65%
Mn 257.610†	1917836.6	1898.2	ug/L	136.25	1898.2	ppb	136.25	7.18%
Mo 202.031†	284.8	21.907	ug/L	1.4476	21.907	ppb	1.4476	6.61%
Na 589.592 Radial†	1005.7	300.16	ug/L	11.128	300.16	ppb	11.128	3.71%
Ni 231.604†	473.7	10.343	ug/L	0.3830	10.343	ppb	0.3830	3.70%
P 214.914†	1126.6	537.74	ug/L	38.178	537.74	ppb	38.178	7.10%
Pb 220.353†	264.4	25.793	ug/L	1.5125	25.793	ppb	1.5125	5.86%
S 181.975 Axial†	17.4	18.444	ug/L	1.8205	18.444	ppb	1.8205	9.87%
Sb 206.836†	14.1	-2.4066	ug/L	1.80750	-2.4066	ppb	1.80750	75.11%
Se 196.026†	-353.7	9.1561	ug/L	9.81424	9.1561	ppb	9.81424	107.19%
Si 251.611†	278001.7	7838.2	ug/L	348.92	7838.2	ppb	348.92	4.45%
Sn 189.927†	21.8	4.6115	ug/L	1.25551	4.6115	ppb	1.25551	27.23%
Sr 421.552†	3377.7	19.766	ug/L	0.1764	19.766	ppb	0.1764	0.89%
Ti 334.940†	1942360.6	2808.7	ug/L	205.53	2808.7	ppb	205.53	7.32%
Tl 190.801†	-118.6	2.1220	ug/L	0.50641	2.1220	ppb	0.50641	23.86%
U 409.014†	-8664.3	-247.01	ug/L	21.864	-247.01	ppb	21.864	8.85%
V 292.402†	6683.9	29.243	ug/L	1.4776	29.243	ppb	1.4776	5.05%
Zn 213.857†	41462.8	333.61	ug/L	15.357	333.61	ppb	15.357	4.60%
SiO2†	279822.4	16941	ug/L	871.8	16941	ppb	871.8	5.15%

Sequence No.: 93
Sample ID: 242781005|932284|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 101
Date Collected: 12/20/2009 00:09:15
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 242781005|932284|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5692.3	5692.3	102	%			00:11:09
1	Y RADIAL	8146.5	8146.5	137.8	%			00:11:09
1	Al 396.153Radial†	22437.3	21960.9	16001	ug/L	16001	ppb	00:11:09
1	Ca 317.933Radial†	3297.0	3205.0	4569.5	ug/L	4569.5	ppb	00:11:29
1	Fe 238.204 Radial†	9664.1	9441.0	78484	ug/L	78484	ppb	00:11:09
1	K 766.490 Radial†	15104.2	12060.0	2089.7	ug/L	2089.7	ppb	00:11:09
1	Mg 279.077 IEC†	89.6	86.2	2611.0	ug/L	2611.0	ppb	00:11:29
1	Na 589.592 Radial†	381.5	1134.7	338.69	ug/L	338.69	ppb	00:11:09
1	Sr 421.552†	4131.2	4052.3	23.720	ug/L	23.720	ppb	00:11:09
1	Sc 361.383	947349.2	947349.2	105.39	%			00:12:27
1	Y 371.029	1046605.7	1046605.7	140.59	%			00:12:27
1	Ag 328.068†	-5136.8	-5244.0	4.1102	ug/L	4.1102	ppb	00:12:32
1	As 188.979†	-49.4	-12.0	38.079	ug/L	38.079	ppb	00:12:52
1	B 249.677†	42.7	66.4	-9.0793	ug/L	-9.0793	ppb	00:12:32
1	Ba 233.527†	28464.9	27012.0	186.63	ug/L	186.63	ppb	00:12:32
1	Be 313.107†	-22134.4	-16271.5	1.6574	ug/L	1.6574	ppb	00:12:32
1	Cd 226.502†	563.1	763.5	-0.3718	ug/L	-0.3718	ppb	00:12:52
1	Co 228.616†	654.4	708.0	3.7171	ug/L	3.7171	ppb	00:12:52
1	Cr 267.716†	1072.4	937.4	11.129	ug/L	11.129	ppb	00:12:52
1	Cu 324.752†	11583.7	4935.8	17.949	ug/L	17.949	ppb	00:12:32
1	Mn 257.610†	3435438.2	3259284.3	3222.6	ug/L	3222.6	ppb	00:12:27
1	Mo 202.031†	422.6	381.1	28.635	ug/L	28.635	ppb	00:12:52
1	Ni 231.604†	682.4	553.9	12.094	ug/L	12.094	ppb	00:12:52
1	P 214.914†	1868.2	1514.6	730.02	ug/L	730.02	ppb	00:12:52
1	Pb 220.353†	261.3	312.0	30.075	ug/L	30.075	ppb	00:12:52
1	S 181.975 Axial†	68.9	16.4	16.926	ug/L	16.926	ppb	00:12:52
1	Sb 206.836†	71.4	26.5	-0.5789	ug/L	-0.5789	ppb	00:12:52
1	Se 196.026†	-506.7	-452.2	-5.7993	ug/L	-5.7993	ppb	00:12:52
1	Si 251.611†	315196.3	298502.1	8416.0	ug/L	8416.0	ppb	00:12:32
1	Sn 189.927†	43.2	37.5	7.1591	ug/L	7.1591	ppb	00:12:52
1	Ti 334.940†	2636816.6	2503377.2	3619.9	ug/L	3619.9	ppb	00:12:27
1	Tl 190.801†	-232.8	-172.8	2.0294	ug/L	2.0294	ppb	00:12:52
1	U 409.014†	-16930.9	-13693.0	-387.16	ug/L	-387.16	ppb	00:12:27
1	V 292.402†	7879.1	8945.6	40.626	ug/L	40.626	ppb	00:12:32
1	Zn 213.857†	57650.9	53909.5	434.46	ug/L	434.46	ppb	00:12:32
1	SiO2†	317801.9	300945.3	18219	ug/L	18219	ppb	00:13:59
2	Sc Radial	5664.4	5664.4	102	%			00:11:34
2	Y RADIAL	8080.2	8080.2	136.7	%			00:11:34
2	Al 396.153Radial†	22325.3	21958.8	15999	ug/L	15999	ppb	00:11:34
2	Ca 317.933Radial†	3301.9	3225.7	4599.0	ug/L	4599.0	ppb	00:11:54
2	Fe 238.204 Radial†	9592.4	9417.0	78284	ug/L	78284	ppb	00:11:34
2	K 766.490 Radial†	15166.5	12194.0	2113.3	ug/L	2113.3	ppb	00:11:34
2	Mg 279.077 IEC†	88.4	85.5	2586.9	ug/L	2586.9	ppb	00:11:54
2	Na 589.592 Radial†	343.2	1099.0	328.00	ug/L	328.00	ppb	00:11:34
2	Sr 421.552†	4073.5	4015.4	23.503	ug/L	23.503	ppb	00:11:34
2	Sc 361.383	954676.9	954676.9	106.20	%			00:12:58
2	Y 371.029	1054764.1	1054764.1	141.68	%			00:12:58
2	Ag 328.068†	-5185.6	-5252.6	4.0063	ug/L	4.0063	ppb	00:13:03
2	As 188.979†	-55.5	-17.4	36.047	ug/L	36.047	ppb	00:13:23
2	B 249.677†	194.7	209.3	-6.1222	ug/L	-6.1222	ppb	00:13:03
2	Ba 233.527†	28555.3	26889.8	185.79	ug/L	185.79	ppb	00:13:03
2	Be 313.107†	-22330.5	-16294.9	1.6374	ug/L	1.6374	ppb	00:13:03
2	Cd 226.502†	558.7	755.3	-0.4322	ug/L	-0.4322	ppb	00:13:23
2	Co 228.616†	667.0	715.1	3.8555	ug/L	3.8555	ppb	00:13:23
2	Cr 267.716†	1067.5	924.9	10.999	ug/L	10.999	ppb	00:13:23
2	Cu 324.752†	11713.3	4973.5	18.045	ug/L	18.045	ppb	00:13:03
2	Mn 257.610†	3456120.1	3253737.3	3217.2	ug/L	3217.2	ppb	00:12:58
2	Mo 202.031†	414.3	370.2	27.962	ug/L	27.962	ppb	00:13:23
2	Ni 231.604†	696.5	562.3	12.277	ug/L	12.277	ppb	00:13:23

2	P 214.914†	1873.9	1506.3	725.82	ug/L	725.82 ppb	00:13:23
2	Pb 220.353†	263.8	312.5	30.139	ug/L	30.139 ppb	00:13:23
2	S 181.975 Axial†	70.9	17.8	18.688	ug/L	18.688 ppb	00:13:23
2	Sb 206.836†	70.9	25.5	-0.9012	ug/L	-0.9012 ppb	00:13:23
2	Se 196.026†	-520.8	-461.9	-11.659	ug/L	-11.659 ppb	00:13:23
2	Si 251.611†	316176.9	297129.8	8377.3	ug/L	8377.3 ppb	00:13:03
2	Sn 189.927†	36.5	30.9	6.1711	ug/L	6.1711 ppb	00:13:23
2	Ti 334.940†	2652654.2	2499085.4	3613.7	ug/L	3613.7 ppb	00:12:58
2	Tl 190.801†	-251.1	-188.3	-2.0775	ug/L	-2.0775 ppb	00:13:23
2	U 409.014†	-17045.7	-13677.8	-386.72	ug/L	-386.72 ppb	00:12:58
2	V 292.402†	7964.0	8968.2	40.797	ug/L	40.797 ppb	00:13:03
2	Zn 213.857†	58069.3	53883.6	434.26	ug/L	434.26 ppb	00:13:03
2	SiO2†	317282.2	298141.4	18050	ug/L	18050 ppb	00:14:05
3	Sc Radial	5825.2	5825.2	105	%		00:11:59
3	Y RADIAL	8343.8	8343.8	141.1	%		00:11:59
3	Al 396.153Radial†	22931.2	21932.3	15980	ug/L	15980 ppb	00:11:59
3	Ca 317.933Radial†	3325.2	3158.4	4503.0	ug/L	4503.0 ppb	00:12:19
3	Fe 238.204 Radial†	9783.1	9339.0	77636	ug/L	77636 ppb	00:11:59
3	K 766.490 Radial†	15326.8	11935.8	2067.9	ug/L	2067.9 ppb	00:11:59
3	Mg 279.077 IEC†	91.6	86.1	2607.7	ug/L	2607.7 ppb	00:12:19
3	Na 589.592 Radial†	361.8	1107.5	330.54	ug/L	330.54 ppb	00:11:59
3	Sr 421.552†	4220.8	4045.8	23.682	ug/L	23.682 ppb	00:11:59
3	Sc 361.383	939757.3	939757.3	104.54	%		00:13:29
3	Y 371.029	1041226.1	1041226.1	139.86	%		00:13:29
3	Ag 328.068†	-4972.7	-5126.5	4.3294	ug/L	4.3294 ppb	00:13:34
3	As 188.979†	-61.1	-23.6	33.661	ug/L	33.661 ppb	00:13:54
3	B 249.677†	34.0	58.5	-9.1315	ug/L	-9.1315 ppb	00:13:34
3	Ba 233.527†	27815.1	26608.7	183.85	ug/L	183.85 ppb	00:13:34
3	Be 313.107†	-21990.2	-16303.2	1.6291	ug/L	1.6291 ppb	00:13:34
3	Cd 226.502†	585.5	789.2	-0.0352	ug/L	-0.0352 ppb	00:13:54
3	Co 228.616†	675.6	733.4	4.1933	ug/L	4.1933 ppb	00:13:54
3	Cr 267.716†	1035.8	910.6	10.840	ug/L	10.840 ppb	00:13:54
3	Cu 324.752†	11449.3	4896.0	17.793	ug/L	17.793 ppb	00:13:34
3	Mn 257.610†	3392980.9	3245006.9	3208.5	ug/L	3208.5 ppb	00:13:29
3	Mo 202.031†	432.2	393.6	29.330	ug/L	29.330 ppb	00:13:54
3	Ni 231.604†	699.1	575.1	12.558	ug/L	12.558 ppb	00:13:54
3	P 214.914†	1879.2	1539.5	743.67	ug/L	743.67 ppb	00:13:54
3	Pb 220.353†	305.6	356.4	34.817	ug/L	34.817 ppb	00:13:54
3	S 181.975 Axial†	79.0	26.6	29.470	ug/L	29.470 ppb	00:13:54
3	Sb 206.836†	73.4	29.0	0.1948	ug/L	0.1948 ppb	00:13:54
3	Se 196.026†	-502.4	-452.1	-8.2739	ug/L	-8.2739 ppb	00:13:54
3	Si 251.611†	307077.1	293151.9	8265.2	ug/L	8265.2 ppb	00:13:34
3	Sn 189.927†	41.0	35.8	6.8772	ug/L	6.8772 ppb	00:13:54
3	Ti 334.940†	2609166.0	2497141.1	3610.9	ug/L	3610.9 ppb	00:13:29
3	Tl 190.801†	-243.8	-185.1	-1.3142	ug/L	-1.3142 ppb	00:13:54
3	U 409.014†	-16671.0	-13574.1	-383.78	ug/L	-383.78 ppb	00:13:29
3	V 292.402†	7718.1	8852.0	40.186	ug/L	40.186 ppb	00:13:34
3	Zn 213.857†	56301.1	53060.3	427.57	ug/L	427.57 ppb	00:13:34
3	SiO2†	317447.0	303041.9	18346	ug/L	18346 ppb	00:14:10

Mean Data: 242781005|932284|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	947261.1	105.38	%	0.830				0.79%
Sc Radial	5727.3	103	%	1.5				1.50%
Y 371.029	1047532.0	140.71	%	0.916				0.65%
Y RADIAL	8190.2	138.5	%	2.32				1.67%
Ag 328.068†	-5207.7	4.1486	ug/L	0.16494	4.1486	ppb	0.16494	3.98%
Al 396.153Radial†	21950.7	15993	ug/L	11.6	15993	ppb	11.6	0.07%
As 188.979†	-17.7	35.929	ug/L	2.2114	35.929	ppb	2.2114	6.15%
B 249.677†	111.4	-8.1110	ug/L	1.72256	-8.1110	ppb	1.72256	21.24%
Ba 233.527†	26836.8	185.42	ug/L	1.423	185.42	ppb	1.423	0.77%
Be 313.107†	-16289.9	1.6413	ug/L	0.01457	1.6413	ppb	0.01457	0.89%
Ca 317.933Radial†	3196.4	4557.2	ug/L	49.20	4557.2	ppb	49.20	1.08%
Cd 226.502†	769.3	-0.2797	ug/L	0.21389	-0.2797	ppb	0.21389	76.46%
Co 228.616†	718.8	3.9220	ug/L	0.24499	3.9220	ppb	0.24499	6.25%
Cr 267.716†	924.3	10.989	ug/L	0.1449	10.989	ppb	0.1449	1.32%
Cu 324.752†	4935.1	17.929	ug/L	0.1271	17.929	ppb	0.1271	0.71%
Fe 238.204 Radial†	9399.0	78135	ug/L	443.1	78135	ppb	443.1	0.57%
K 766.490 Radial†	12063.3	2090.3	ug/L	22.71	2090.3	ppb	22.71	1.09%

Mg 279.077 IEC†	85.9	2601.9	ug/L	13.09	2601.9	ppb	13.09	0.50%
Mn 257.610†	3252676.2	3216.1	ug/L	7.14	3216.1	ppb	7.14	0.22%
Mo 202.031†	381.6	28.642	ug/L	0.6837	28.642	ppb	0.6837	2.39%
Na 589.592 Radial†	1113.7	332.41	ug/L	5.580	332.41	ppb	5.580	1.68%
Ni 231.604†	563.8	12.310	ug/L	0.2333	12.310	ppb	0.2333	1.90%
P 214.914†	1520.1	733.17	ug/L	9.335	733.17	ppb	9.335	1.27%
Pb 220.353†	327.0	31.677	ug/L	2.7194	31.677	ppb	2.7194	8.58%
S 181.975 Axial†	20.2	21.695	ug/L	6.7914	21.695	ppb	6.7914	31.30%
Sb 206.836†	27.0	-0.4284	ug/L	0.56326	-0.4284	ppb	0.56326	131.48%
Se 196.026†	-455.4	-8.5775	ug/L	2.94172	-8.5775	ppb	2.94172	34.30%
Si 251.611†	296261.2	8352.8	ug/L	78.36	8352.8	ppb	78.36	0.94%
Sn 189.927†	34.7	6.7358	ug/L	0.50896	6.7358	ppb	0.50896	7.56%
Sr 421.552†	4037.8	23.635	ug/L	0.1157	23.635	ppb	0.1157	0.49%
Ti 334.940†	2499867.9	3614.8	ug/L	4.62	3614.8	ppb	4.62	0.13%
Tl 190.801†	-182.1	-0.4541	ug/L	2.18434	-0.4541	ppb	2.18434	481.02%
U 409.014†	-13648.3	-385.89	ug/L	1.838	-385.89	ppb	1.838	0.48%
V 292.402†	8921.9	40.536	ug/L	0.3150	40.536	ppb	0.3150	0.78%
Zn 213.857†	53617.8	432.10	ug/L	3.921	432.10	ppb	3.921	0.91%
SiO2†	300709.5	18205	ug/L	148.9	18205	ppb	148.9	0.82%

Sequence No.: 94
Sample ID: 242781006|932284|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 102
Date Collected: 12/20/2009 00:16:21
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 242781006|932284|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5696.9	5696.9	102	%			00:18:15
1	Y RADIAL	7954.6	7954.6	134.6	%			00:18:15
1	Al 396.153Radial†	24278.6	23742.6	17299	ug/L	17299	ppb	00:18:15
1	Ca 317.933Radial†	3370.5	3274.3	4668.2	ug/L	4668.2	ppb	00:18:35
1	Fe 238.204 Radial†	8996.5	8780.9	72996	ug/L	72996	ppb	00:18:15
1	K 766.490 Radial†	13126.3	10115.2	1773.0	ug/L	1773.0	ppb	00:18:15
1	Mg 279.077 IEC†	78.4	75.3	2275.1	ug/L	2275.1	ppb	00:18:35
1	Na 589.592 Radial†	280.1	1035.4	309.03	ug/L	309.03	ppb	00:18:15
1	Sr 421.552†	3577.7	3508.1	20.528	ug/L	20.528	ppb	00:18:15
1	Sc 361.383	959067.9	959067.9	106.69	%			00:19:32
1	Y 371.029	1036207.8	1036207.8	139.19	%			00:19:32
1	Ag 328.068†	-4249.6	-4353.0	6.0852	ug/L	6.0852	ppb	00:19:37
1	As 188.979†	-42.4	-4.9	33.451	ug/L	33.451	ppb	00:19:58
1	B 249.677†	-23.1	4.3	-9.6231	ug/L	-9.6231	ppb	00:19:37
1	Ba 233.527†	20212.3	18947.1	131.62	ug/L	131.62	ppb	00:19:37
1	Be 313.107†	-11412.9	-5965.9	3.6180	ug/L	3.6180	ppb	00:19:37
1	Cd 226.502†	581.2	773.9	0.2820	ug/L	0.2820	ppb	00:19:58
1	Co 228.616†	584.3	634.7	4.0955	ug/L	4.0955	ppb	00:19:58
1	Cr 267.716†	1257.4	1098.4	12.653	ug/L	12.653	ppb	00:19:58
1	Cu 324.752†	27976.8	20166.3	60.701	ug/L	60.701	ppb	00:19:37
1	Mn 257.610†	1202985.3	1127034.7	1118.9	ug/L	1118.9	ppb	00:19:32
1	Mo 202.031†	364.2	321.5	24.638	ug/L	24.638	ppb	00:19:58
1	Ni 231.604†	930.5	778.6	17.004	ug/L	17.004	ppb	00:19:58
1	P 214.914†	2818.3	2383.5	1181.2	ug/L	1181.2	ppb	00:19:58
1	Pb 220.353†	283.2	329.5	32.620	ug/L	32.620	ppb	00:19:58
1	S 181.975 Axial†	91.2	36.5	41.391	ug/L	41.391	ppb	00:19:58
1	Sb 206.836†	64.3	19.0	-1.0444	ug/L	-1.0444	ppb	00:19:58
1	Se 196.026†	-461.3	-403.9	4.0575	ug/L	4.0575	ppb	00:19:58
1	Si 251.611†	300735.8	281294.2	7931.0	ug/L	7931.0	ppb	00:19:37
1	Sn 189.927†	24.3	19.3	4.3626	ug/L	4.3626	ppb	00:19:58
1	Ti 334.940†	2107980.8	1977142.0	2859.0	ug/L	2859.0	ppb	00:19:32
1	Tl 190.801†	-173.5	-114.6	-0.9957	ug/L	-0.9957	ppb	00:19:58
1	U 409.014†	-14976.9	-11665.3	-330.61	ug/L	-330.61	ppb	00:19:32
1	V 292.402†	8749.0	9669.6	46.952	ug/L	46.952	ppb	00:19:37
1	Zn 213.857†	62099.2	57410.4	463.62	ug/L	463.62	ppb	00:19:37
1	SiO2†	304429.5	284727.0	17238	ug/L	17238	ppb	00:21:05
2	Sc Radial	5762.2	5762.2	104	%			00:18:40
2	Y RADIAL	8109.7	8109.7	137.2	%			00:18:40
2	Al 396.153Radial†	24521.0	23707.7	17274	ug/L	17274	ppb	00:18:40
2	Ca 317.933Radial†	3359.8	3226.6	4600.2	ug/L	4600.2	ppb	00:19:00
2	Fe 238.204 Radial†	9023.5	8707.3	72385	ug/L	72385	ppb	00:18:40
2	K 766.490 Radial†	13495.2	10326.1	1810.2	ug/L	1810.2	ppb	00:18:40
2	Mg 279.077 IEC†	82.6	78.4	2373.5	ug/L	2373.5	ppb	00:19:00
2	Na 589.592 Radial†	329.4	1079.9	322.32	ug/L	322.32	ppb	00:18:40
2	Sr 421.552†	3595.8	3485.9	20.398	ug/L	20.398	ppb	00:18:40
2	Sc 361.383	947163.3	947163.3	105.37	%			00:20:03
2	Y 371.029	1026232.8	1026232.8	137.85	%			00:20:03
2	Ag 328.068†	-4114.9	-4275.2	6.2160	ug/L	6.2160	ppb	00:20:08
2	As 188.979†	-30.9	5.5	37.033	ug/L	37.033	ppb	00:20:29
2	B 249.677†	5.3	30.9	-8.9973	ug/L	-8.9973	ppb	00:20:08
2	Ba 233.527†	19874.0	18864.1	131.03	ug/L	131.03	ppb	00:20:08
2	Be 313.107†	-11453.2	-6138.6	3.5417	ug/L	3.5417	ppb	00:20:08
2	Cd 226.502†	586.3	785.6	0.4580	ug/L	0.4580	ppb	00:20:29
2	Co 228.616†	619.5	675.1	4.8320	ug/L	4.8320	ppb	00:20:29
2	Cr 267.716†	1272.4	1127.4	12.936	ug/L	12.936	ppb	00:20:29
2	Cu 324.752†	27503.2	20046.5	60.331	ug/L	60.331	ppb	00:20:08
2	Mn 257.610†	1183230.5	1122457.8	1114.3	ug/L	1114.3	ppb	00:20:03
2	Mo 202.031†	374.0	335.1	25.419	ug/L	25.419	ppb	00:20:29
2	Ni 231.604†	936.9	795.6	17.376	ug/L	17.376	ppb	00:20:29

2	P 214.914†	2848.8	2445.6	1214.1 ug/L	1214.1 ppb	00:20:29
2	Pb 220.353†	309.4	357.7	35.632 ug/L	35.632 ppb	00:20:29
2	S 181.975 Axial†	95.6	41.7	47.750 ug/L	47.750 ppb	00:20:29
2	Sb 206.836†	55.5	11.5	-3.2704 ug/L	-3.2704 ppb	00:20:29
2	Se 196.026†	-475.5	-422.7	-8.0798 ug/L	-8.0798 ppb	00:20:29
2	Si 251.611†	295179.1	279563.4	7882.2 ug/L	7882.2 ppb	00:20:08
2	Sn 189.927†	22.5	17.9	4.1329 ug/L	4.1329 ppb	00:20:29
2	Ti 334.940†	2074983.1	1970658.0	2849.6 ug/L	2849.6 ppb	00:20:03
2	Tl 190.801†	-162.3	-106.0	1.1398 ug/L	1.1398 ppb	00:20:29
2	U 409.014†	-14854.9	-11725.9	-332.20 ug/L	-332.20 ppb	00:20:03
2	V 292.402†	8542.7	9576.9	46.476 ug/L	46.476 ppb	00:20:08
2	Zn 213.857†	60939.5	57041.3	460.65 ug/L	460.65 ppb	00:20:08
2	SiO2†	305045.6	288898.0	17490 ug/L	17490 ppb	00:21:10
3	Sc Radial	5790.4	5790.4	104 %		00:19:05
3	Y RADIAL	8118.1	8118.1	137.3 %		00:19:05
3	Al 396.153Radial†	24566.1	23636.0	17222 ug/L	17222 ppb	00:19:05
3	Ca 317.933Radial†	3355.9	3207.0	4572.4 ug/L	4572.4 ppb	00:19:25
3	Fe 238.204 Radial†	9095.2	8733.9	72606 ug/L	72606 ppb	00:19:05
3	K 766.490 Radial†	13549.3	10314.8	1808.2 ug/L	1808.2 ppb	00:19:05
3	Mg 279.077 IEC†	80.7	76.2	2305.0 ug/L	2305.0 ppb	00:19:25
3	Na 589.592 Radial†	342.1	1090.6	325.51 ug/L	325.51 ppb	00:19:05
3	Sr 421.552†	3629.6	3501.6	20.490 ug/L	20.490 ppb	00:19:05
3	Sc 361.383	942685.2	942685.2	104.87 %		00:20:34
3	Y 371.029	1022565.9	1022565.9	137.36 %		00:20:34
3	Ag 328.068†	-4263.7	-4435.7	5.6020 ug/L	5.6020 ppb	00:20:39
3	As 188.979†	-38.8	-2.1	34.345 ug/L	34.345 ppb	00:20:59
3	B 249.677†	27.5	52.2	-8.5899 ug/L	-8.5899 ppb	00:20:39
3	Ba 233.527†	20051.4	19122.8	132.80 ug/L	132.80 ppb	00:20:39
3	Be 313.107†	-11606.7	-6336.6	3.4841 ug/L	3.4841 ppb	00:20:39
3	Cd 226.502†	599.4	800.8	0.5834 ug/L	0.5834 ppb	00:20:59
3	Co 228.616†	592.5	652.1	4.4187 ug/L	4.4187 ppb	00:20:59
3	Cr 267.716†	1308.4	1167.4	13.347 ug/L	13.347 ppb	00:20:59
3	Cu 324.752†	27734.9	20391.4	61.317 ug/L	61.317 ppb	00:20:39
3	Mn 257.610†	1178233.6	1123027.5	1114.9 ug/L	1114.9 ppb	00:20:34
3	Mo 202.031†	372.2	335.1	25.432 ug/L	25.432 ppb	00:20:59
3	Ni 231.604†	913.3	777.3	16.976 ug/L	16.976 ppb	00:20:59
3	P 214.914†	2839.8	2449.8	1216.0 ug/L	1216.0 ppb	00:20:59
3	Pb 220.353†	295.1	345.4	34.312 ug/L	34.312 ppb	00:20:59
3	S 181.975 Axial†	89.2	36.0	40.828 ug/L	40.828 ppb	00:20:59
3	Sb 206.836†	63.5	19.3	-0.9174 ug/L	-0.9174 ppb	00:20:59
3	Se 196.026†	-485.5	-434.5	-13.795 ug/L	-13.795 ppb	00:20:59
3	Si 251.611†	298546.4	284105.0	8010.2 ug/L	8010.2 ppb	00:20:39
3	Sn 189.927†	33.9	28.8	5.7792 ug/L	5.7792 ppb	00:20:59
3	Ti 334.940†	2068417.3	1973752.0	2854.1 ug/L	2854.1 ppb	00:20:34
3	Tl 190.801†	-177.6	-121.3	-2.8109 ug/L	-2.8109 ppb	00:20:59
3	U 409.014†	-14768.7	-11710.7	-331.81 ug/L	-331.81 ppb	00:20:34
3	V 292.402†	8653.1	9720.6	47.351 ug/L	47.351 ppb	00:20:39
3	Zn 213.857†	61617.2	57962.3	468.18 ug/L	468.18 ppb	00:20:39
3	SiO2†	303947.5	289226.1	17510 ug/L	17510 ppb	00:21:15

Mean Data: 242781006|932284|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	949638.8	105.64	%	0.942				0.89%
Sc Radial	5749.8	103	%	0.9				0.83%
Y 371.029	1028335.5	138.13	%	0.948				0.69%
Y RADIAL	8060.8	136.4	%	1.56				1.14%
Ag 328.068†	-4354.6	5.9678	ug/L	0.32344	5.9678	ppb	0.32344	5.42%
Al 396.153Radial†	23695.4	17265	ug/L	39.6	17265	ppb	39.6	0.23%
As 188.979†	-0.5	34.943	ug/L	1.8640	34.943	ppb	1.8640	5.33%
B 249.677†	29.1	-9.0701	ug/L	0.52046	-9.0701	ppb	0.52046	5.74%
Ba 233.527†	18978.0	131.82	ug/L	0.901	131.82	ppb	0.901	0.68%
Be 313.107†	-6147.0	3.5480	ug/L	0.06719	3.5480	ppb	0.06719	1.89%
Ca 317.933Radial†	3236.0	4613.6	ug/L	49.30	4613.6	ppb	49.30	1.07%
Cd 226.502†	786.8	0.4411	ug/L	0.15140	0.4411	ppb	0.15140	34.32%
Co 228.616†	654.0	4.4488	ug/L	0.36918	4.4488	ppb	0.36918	8.30%
Cr 267.716†	1131.1	12.979	ug/L	0.3491	12.979	ppb	0.3491	2.69%
Cu 324.752†	20201.4	60.783	ug/L	0.4981	60.783	ppb	0.4981	0.82%
Fe 238.204 Radial†	8740.7	72662	ug/L	309.7	72662	ppb	309.7	0.43%
K 766.490 Radial†	10252.1	1797.2	ug/L	20.93	1797.2	ppb	20.93	1.16%

Mg 279.077 IEC†	76.6	2317.8	ug/L	50.44	2317.8	ppb	50.44	2.18%
Mn 257.610†	1124173.3	1116.1	ug/L	2.49	1116.1	ppb	2.49	0.22%
Mo 202.031†	330.5	25.163	ug/L	0.4549	25.163	ppb	0.4549	1.81%
Na 589.592 Radial†	1068.6	318.96	ug/L	8.740	318.96	ppb	8.740	2.74%
Ni 231.604†	783.8	17.119	ug/L	0.2234	17.119	ppb	0.2234	1.30%
P 214.914†	2426.3	1203.7	ug/L	19.58	1203.7	ppb	19.58	1.63%
Pb 220.353†	344.2	34.188	ug/L	1.5100	34.188	ppb	1.5100	4.42%
S 181.975 Axial†	38.1	43.323	ug/L	3.8443	43.323	ppb	3.8443	8.87%
Sb 206.836†	16.6	-1.7441	ug/L	1.32339	-1.7441	ppb	1.32339	75.88%
Se 196.026†	-420.4	-5.9390	ug/L	9.11656	-5.9390	ppb	9.11656	153.50%
Si 251.611†	281654.2	7941.1	ug/L	64.63	7941.1	ppb	64.63	0.81%
Sn 189.927†	22.0	4.7582	ug/L	0.89158	4.7582	ppb	0.89158	18.74%
Sr 421.552†	3498.5	20.472	ug/L	0.0666	20.472	ppb	0.0666	0.33%
Ti 334.940†	1973850.7	2854.3	ug/L	4.69	2854.3	ppb	4.69	0.16%
Tl 190.801†	-114.0	-0.8889	ug/L	1.97753	-0.8889	ppb	1.97753	222.46%
U 409.014†	-11700.6	-331.54	ug/L	0.831	-331.54	ppb	0.831	0.25%
V 292.402†	9655.7	46.926	ug/L	0.4379	46.926	ppb	0.4379	0.93%
Zn 213.857†	57471.3	464.15	ug/L	3.796	464.15	ppb	3.796	0.82%
SiO2†	287617.0	17413	ug/L	151.8	17413	ppb	151.8	0.87%

Sequence No.: 95
Sample ID: 242781007|932284|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 103
Date Collected: 12/20/2009 00:23:28
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 242781007|932284|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5707.1	5707.1	103	%			00:25:21
1	Y RADIAL	8107.2	8107.2	137.1	%			00:25:21
1	Al 396.153Radial†	23497.5	22938.1	16713	ug/L	16713	ppb	00:25:21
1	Ca 317.933Radial†	3173.7	3076.4	4386.1	ug/L	4386.1	ppb	00:25:41
1	Fe 238.204 Radial†	8479.2	8260.6	68671	ug/L	68671	ppb	00:25:21
1	K 766.490 Radial†	12181.7	9170.8	1585.4	ug/L	1585.4	ppb	00:25:21
1	Mg 279.077 IEC†	76.5	73.2	2215.6	ug/L	2215.6	ppb	00:25:41
1	Na 589.592 Radial†	459.4	1209.8	361.08	ug/L	361.08	ppb	00:25:21
1	Sr 421.552†	3827.0	3745.0	21.920	ug/L	21.920	ppb	00:25:21
1	Sc 361.383	948584.0	948584.0	105.53	%			00:26:39
1	Y 371.029	1038603.5	1038603.5	139.51	%			00:26:39
1	Ag 328.068†	-2635.6	-2867.5	10.935	ug/L	10.935	ppb	00:26:44
1	As 188.979†	-41.0	-4.0	35.760	ug/L	35.760	ppb	00:27:04
1	B 249.677†	-12.3	14.3	-8.8466	ug/L	-8.8466	ppb	00:26:44
1	Ba 233.527†	20140.0	19087.9	132.38	ug/L	132.38	ppb	00:26:44
1	Be 313.107†	-17496.7	-11849.3	2.2698	ug/L	2.2698	ppb	00:26:44
1	Cd 226.502†	510.4	712.8	0.1163	ug/L	0.1163	ppb	00:27:04
1	Co 228.616†	611.1	666.2	4.0261	ug/L	4.0261	ppb	00:27:04
1	Cr 267.716†	2395.0	2189.4	23.591	ug/L	23.591	ppb	00:27:04
1	Cu 324.752†	19379.0	12308.6	38.279	ug/L	38.279	ppb	00:26:44
1	Mn 257.610†	2990439.1	2833345.4	2801.5	ug/L	2801.5	ppb	00:26:39
1	Mo 202.031†	341.0	303.3	23.231	ug/L	23.231	ppb	00:27:04
1	Ni 231.604†	871.0	731.8	15.981	ug/L	15.981	ppb	00:27:04
1	P 214.914†	1853.3	1498.1	726.26	ug/L	726.26	ppb	00:27:04
1	Pb 220.353†	241.6	293.0	29.009	ug/L	29.009	ppb	00:27:04
1	S 181.975 Axial†	91.2	37.4	42.579	ug/L	42.579	ppb	00:27:04
1	Sb 206.836†	73.7	28.6	0.6578	ug/L	0.6578	ppb	00:27:04
1	Se 196.026†	-451.7	-399.5	-6.7816	ug/L	-6.7816	ppb	00:27:04
1	Si 251.611†	289091.8	273375.3	7707.7	ug/L	7707.7	ppb	00:26:44
1	Sn 189.927†	57.1	50.7	8.9815	ug/L	8.9815	ppb	00:27:04
1	Ti 334.940†	2316934.5	2196989.7	3176.8	ug/L	3176.8	ppb	00:26:39
1	Tl 190.801†	-212.1	-152.9	1.3773	ug/L	1.3773	ppb	00:27:04
1	U 409.014†	-12787.0	-9745.2	-277.18	ug/L	-277.18	ppb	00:26:39
1	V 292.402†	5886.4	7047.6	30.664	ug/L	30.664	ppb	00:26:44
1	Zn 213.857†	48645.5	45304.5	364.78	ug/L	364.78	ppb	00:26:44
1	SiO2†	294477.4	278449.7	16858	ug/L	16858	ppb	00:28:11
2	Sc Radial	5678.5	5678.5	102	%			00:25:46
2	Y RADIAL	8077.0	8077.0	136.6	%			00:25:46
2	Al 396.153Radial†	23375.5	22934.2	16710	ug/L	16710	ppb	00:25:46
2	Ca 317.933Radial†	3191.4	3109.3	4433.1	ug/L	4433.1	ppb	00:26:06
2	Fe 238.204 Radial†	8417.7	8242.0	68516	ug/L	68516	ppb	00:25:46
2	K 766.490 Radial†	12119.9	9170.1	1585.4	ug/L	1585.4	ppb	00:25:46
2	Mg 279.077 IEC†	77.0	74.1	2242.4	ug/L	2242.4	ppb	00:26:06
2	Na 589.592 Radial†	392.6	1146.6	342.23	ug/L	342.23	ppb	00:25:46
2	Sr 421.552†	3806.6	3743.9	21.913	ug/L	21.913	ppb	00:25:46
2	Sc 361.383	946512.2	946512.2	105.30	%			00:27:10
2	Y 371.029	1038213.6	1038213.6	139.46	%			00:27:10
2	Ag 328.068†	-2662.7	-2898.7	10.748	ug/L	10.748	ppb	00:27:15
2	As 188.979†	-47.7	-10.4	33.390	ug/L	33.390	ppb	00:27:35
2	B 249.677†	-59.7	-30.7	-9.7498	ug/L	-9.7498	ppb	00:27:15
2	Ba 233.527†	20212.2	19198.3	133.12	ug/L	133.12	ppb	00:27:15
2	Be 313.107†	-17582.5	-11967.1	2.2228	ug/L	2.2228	ppb	00:27:15
2	Cd 226.502†	500.5	704.6	0.0507	ug/L	0.0507	ppb	00:27:35
2	Co 228.616†	613.9	670.2	4.1033	ug/L	4.1033	ppb	00:27:35
2	Cr 267.716†	2438.0	2235.2	24.052	ug/L	24.052	ppb	00:27:35
2	Cu 324.752†	19235.2	12212.3	37.999	ug/L	37.999	ppb	00:27:15
2	Mn 257.610†	2977446.3	2827208.8	2795.5	ug/L	2795.5	ppb	00:27:10
2	Mo 202.031†	327.4	291.1	22.479	ug/L	22.479	ppb	00:27:35
2	Ni 231.604†	865.3	728.2	15.903	ug/L	15.903	ppb	00:27:35

2	P 214.914†	1845.7	1494.8	724.73	ug/L	724.73 ppb	00:27:35
2	Pb 220.353†	243.2	295.0	29.229	ug/L	29.229 ppb	00:27:35
2	S 181.975 Axial†	96.0	42.2	48.478	ug/L	48.478 ppb	00:27:35
2	Sb 206.836†	65.3	20.8	-1.6677	ug/L	-1.6677 ppb	00:27:35
2	Se 196.026†	-448.0	-397.0	-5.8805	ug/L	-5.8805 ppb	00:27:35
2	Si 251.611†	288735.8	273636.9	7715.1	ug/L	7715.1 ppb	00:27:15
2	Sn 189.927†	66.2	59.4	10.295	ug/L	10.295 ppb	00:27:35
2	Ti 334.940†	2309091.8	2194347.2	3173.0	ug/L	3173.0 ppb	00:27:10
2	Tl 190.801†	-209.8	-151.2	1.7634	ug/L	1.7634 ppb	00:27:35
2	U 409.014†	-12828.6	-9811.2	-278.98	ug/L	-278.98 ppb	00:27:10
2	V 292.402†	5805.2	6982.6	30.265	ug/L	30.265 ppb	00:27:15
2	Zn 213.857†	48676.8	45435.1	365.87	ug/L	365.87 ppb	00:27:15
2	SiO2†	296284.9	280777.1	16999	ug/L	16999 ppb	00:28:17
3	Sc Radial	5826.7	5826.7	105	%		00:26:11
3	Y RADIAL	8186.4	8186.4	138.5	%		00:26:11
3	Al 396.153Radial†	23772.3	22730.2	16562	ug/L	16562 ppb	00:26:11
3	Ca 317.933Radial†	3173.6	3012.8	4295.4	ug/L	4295.4 ppb	00:26:31
3	Fe 238.204 Radial†	8558.7	8166.7	67891	ug/L	67891 ppb	00:26:11
3	K 766.490 Radial†	12401.4	9136.8	1579.5	ug/L	1579.5 ppb	00:26:11
3	Mg 279.077 IEC†	77.0	72.2	2183.9	ug/L	2183.9 ppb	00:26:31
3	Na 589.592 Radial†	464.1	1205.1	359.69	ug/L	359.69 ppb	00:26:11
3	Sr 421.552†	3866.1	3705.8	21.691	ug/L	21.691 ppb	00:26:11
3	Sc 361.383	955832.1	955832.1	106.33	%		00:27:41
3	Y 371.029	1047546.8	1047546.8	140.71	%		00:27:41
3	Ag 328.068†	-2670.1	-2881.0	10.613	ug/L	10.613 ppb	00:27:46
3	As 188.979†	-34.6	2.3	37.899	ug/L	37.899 ppb	00:28:06
3	B 249.677†	-32.6	-4.7	-9.1320	ug/L	-9.1320 ppb	00:27:46
3	Ba 233.527†	20029.0	18838.8	130.65	ug/L	130.65 ppb	00:27:46
3	Be 313.107†	-17557.6	-11780.8	2.2854	ug/L	2.2854 ppb	00:27:46
3	Cd 226.502†	517.7	716.1	0.2259	ug/L	0.2259 ppb	00:28:06
3	Co 228.616†	603.4	654.5	3.8399	ug/L	3.8399 ppb	00:28:06
3	Cr 267.716†	2411.2	2187.4	23.555	ug/L	23.555 ppb	00:28:06
3	Cu 324.752†	19200.3	12001.3	37.371	ug/L	37.371 ppb	00:27:46
3	Mn 257.610†	3009020.8	2829331.4	2797.5	ug/L	2797.5 ppb	00:27:41
3	Mo 202.031†	344.3	303.9	23.214	ug/L	23.214 ppb	00:28:06
3	Ni 231.604†	889.5	742.9	16.224	ug/L	16.224 ppb	00:28:06
3	P 214.914†	1855.5	1486.9	721.12	ug/L	721.12 ppb	00:28:06
3	Pb 220.353†	232.8	283.0	27.985	ug/L	27.985 ppb	00:28:06
3	S 181.975 Axial†	99.1	44.2	50.935	ug/L	50.935 ppb	00:28:06
3	Sb 206.836†	53.0	8.6	-5.3067	ug/L	-5.3067 ppb	00:28:06
3	Se 196.026†	-446.2	-391.1	-4.6058	ug/L	-4.6058 ppb	00:28:06
3	Si 251.611†	287592.8	269888.2	7609.4	ug/L	7609.4 ppb	00:27:46
3	Sn 189.927†	63.3	56.0	9.7680	ug/L	9.7680 ppb	00:28:06
3	Ti 334.940†	2331904.4	2194418.8	3173.1	ug/L	3173.1 ppb	00:27:41
3	Tl 190.801†	-211.0	-150.4	1.9802	ug/L	1.9802 ppb	00:28:06
3	U 409.014†	-12828.9	-9692.7	-275.64	ug/L	-275.64 ppb	00:27:41
3	V 292.402†	5807.3	6930.8	30.047	ug/L	30.047 ppb	00:27:46
3	Zn 213.857†	48357.9	44684.5	359.77	ug/L	359.77 ppb	00:27:46
3	SiO2†	294052.3	275933.8	16706	ug/L	16706 ppb	00:28:22

Mean Data: 242781007|932284|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	950309.4	105.72	%	0.544				0.51%
Sc Radial	5737.4	103	%	1.4				1.37%
Y 371.029	1041454.7	139.89	%	0.709				0.51%
Y RADIAL	8123.5	137.4	%	0.96				0.70%
Ag 328.068†	-2882.4	10.765	ug/L	0.1617	10.765	ppb	0.1617	1.50%
Al 396.153Radial†	22867.5	16662	ug/L	86.7	16662	ppb	86.7	0.52%
As 188.979†	-4.1	35.683	ug/L	2.2556	35.683	ppb	2.2556	6.32%
B 249.677†	-7.1	-9.2428	ug/L	0.46167	-9.2428	ppb	0.46167	4.99%
Ba 233.527†	19041.6	132.05	ug/L	1.266	132.05	ppb	1.266	0.96%
Be 313.107†	-11865.8	2.2593	ug/L	0.03262	2.2593	ppb	0.03262	1.44%
Ca 317.933Radial†	3066.2	4371.5	ug/L	69.98	4371.5	ppb	69.98	1.60%
Cd 226.502†	711.1	0.1310	ug/L	0.08854	0.1310	ppb	0.08854	67.60%
Co 228.616†	663.6	3.9898	ug/L	0.13541	3.9898	ppb	0.13541	3.39%
Cr 267.716†	2204.0	23.733	ug/L	0.2773	23.733	ppb	0.2773	1.17%
Cu 324.752†	12174.0	37.883	ug/L	0.4649	37.883	ppb	0.4649	1.23%
Fe 238.204 Radial†	8223.1	68359	ug/L	413.1	68359	ppb	413.1	0.60%
K 766.490 Radial†	9159.2	1583.4	ug/L	3.44	1583.4	ppb	3.44	0.22%

Mg 279.077 IEC†	73.2	2214.0	ug/L	29.27	2214.0	ppb	29.27	1.32%
Mn 257.610†	2829961.9	2798.2	ug/L	3.09	2798.2	ppb	3.09	0.11%
Mo 202.031†	299.4	22.975	ug/L	0.4292	22.975	ppb	0.4292	1.87%
Na 589.592 Radial†	1187.2	354.33	ug/L	10.501	354.33	ppb	10.501	2.96%
Ni 231.604†	734.3	16.036	ug/L	0.1676	16.036	ppb	0.1676	1.04%
P 214.914†	1493.3	724.03	ug/L	2.637	724.03	ppb	2.637	0.36%
Pb 220.353†	290.3	28.741	ug/L	0.6636	28.741	ppb	0.6636	2.31%
S 181.975 Axial†	41.3	47.331	ug/L	4.2942	47.331	ppb	4.2942	9.07%
Sb 206.836†	19.4	-2.1055	ug/L	3.00627	-2.1055	ppb	3.00627	142.78%
Se 196.026†	-395.9	-5.7560	ug/L	1.09325	-5.7560	ppb	1.09325	18.99%
Si 251.611†	272300.1	7677.4	ug/L	59.02	7677.4	ppb	59.02	0.77%
Sn 189.927†	55.4	9.6814	ug/L	0.66088	9.6814	ppb	0.66088	6.83%
Sr 421.552†	3731.6	21.841	ug/L	0.1303	21.841	ppb	0.1303	0.60%
Ti 334.940†	2195251.9	3174.3	ug/L	2.18	3174.3	ppb	2.18	0.07%
Tl 190.801†	-151.5	1.7070	ug/L	0.30541	1.7070	ppb	0.30541	17.89%
U 409.014†	-9749.7	-277.27	ug/L	1.675	-277.27	ppb	1.675	0.60%
V 292.402†	6987.0	30.325	ug/L	0.3129	30.325	ppb	0.3129	1.03%
Zn 213.857†	45141.4	363.47	ug/L	3.252	363.47	ppb	3.252	0.89%
SiO2†	278386.8	16854	ug/L	146.7	16854	ppb	146.7	0.87%

Sequence No.: 96
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 12/20/2009 00:30:33
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5608.7	5608.7	101	%			00:32:25
1	Y RADIAL	5940.6	5940.6	100.5	%			00:32:25
1	Al 396.153Radial†	7001.9	6966.5	5054.9	ug/L	5054.9	ppb	00:32:25
1	Ca 317.933Radial†	3604.8	3558.6	5073.6	ug/L	5073.6	ppb	00:32:45
1	Fe 238.204 Radial†	645.0	629.3	5247.4	ug/L	5247.4	ppb	00:32:45
1	K 766.490 Radial†	31122.0	28179.6	4957.8	ug/L	4957.8	ppb	00:32:25
1	Mg 279.077 IEC†	170.6	167.9	5219.0	ug/L	5219.0	ppb	00:32:45
1	Na 589.592 Radial†	33730.2	34242.6	10220	ug/L	10220	ppb	00:32:25
1	Sr 421.552†	87670.2	87034.2	510.31	ug/L	510.31	ppb	00:32:25
1	Sc 361.383	926325.9	926325.9	103.05	%			00:33:42
1	Y 371.029	756945.9	756945.9	101.68	%			00:33:42
1	Ag 328.068†	119053.5	115159.9	499.52	ug/L	499.52	ppb	00:33:48
1	As 188.979†	1393.4	1386.9	507.89	ug/L	507.89	ppb	00:34:08
1	B 249.677†	24268.3	23575.9	481.88	ug/L	481.88	ppb	00:33:48
1	Ba 233.527†	75957.3	73711.7	502.30	ug/L	502.30	ppb	00:33:48
1	Be 313.107†	1555056.3	1513761.5	508.64	ug/L	508.64	ppb	00:33:42
1	Cd 226.502†	53019.1	51679.0	505.22	ug/L	505.22	ppb	00:33:48
1	Co 228.616†	29279.2	28499.7	499.03	ug/L	499.03	ppb	00:33:48
1	Cr 267.716†	51435.7	49833.1	506.05	ug/L	506.05	ppb	00:33:48
1	Cu 324.752†	186721.1	175139.0	495.10	ug/L	495.10	ppb	00:33:48
1	Mn 257.610†	527958.7	511840.9	505.29	ug/L	505.29	ppb	00:33:42
1	Mo 202.031†	8495.3	8224.0	498.18	ug/L	498.18	ppb	00:34:08
1	Ni 231.604†	23973.2	23170.0	505.93	ug/L	505.93	ppb	00:33:48
1	P 214.914†	5178.7	4767.3	2411.7	ug/L	2411.7	ppb	00:34:08
1	Pb 220.353†	4862.8	4782.9	505.56	ug/L	505.56	ppb	00:34:08
1	S 181.975 Axial†	890.8	815.5	999.41	ug/L	999.41	ppb	00:34:08
1	Sb 206.836†	1739.9	1647.1	500.48	ug/L	500.48	ppb	00:34:08
1	Se 196.026†	920.0	921.3	520.13	ug/L	520.13	ppb	00:34:08
1	Si 251.611†	91136.1	87861.2	2465.6	ug/L	2465.6	ppb	00:33:48
1	Sn 189.927†	3422.2	3317.5	498.14	ug/L	498.14	ppb	00:34:08
1	Ti 334.940†	354147.5	345053.1	498.76	ug/L	498.76	ppb	00:33:42
1	Tl 190.801†	1937.9	1928.6	503.60	ug/L	503.60	ppb	00:34:08
1	U 409.014†	15720.7	17627.6	484.04	ug/L	484.04	ppb	00:33:48
1	V 292.402†	79794.7	78902.4	508.47	ug/L	508.47	ppb	00:33:48
1	Zn 213.857†	64010.6	61322.5	498.43	ug/L	498.43	ppb	00:33:48
1	SiO2†	90713.2	87421.6	5267.4	ug/L	5267.4	ppb	00:35:15
2	Sc Radial	5429.0	5429.0	97.5	%			00:32:50
2	Y RADIAL	5740.4	5740.4	97.11	%			00:32:50
2	Al 396.153Radial†	6974.2	7168.1	5201.4	ug/L	5201.4	ppb	00:32:50
2	Ca 317.933Radial†	3583.1	3654.7	5210.7	ug/L	5210.7	ppb	00:33:10
2	Fe 238.204 Radial†	640.2	645.6	5382.8	ug/L	5382.8	ppb	00:33:10
2	K 766.490 Radial†	30940.1	29015.5	5105.1	ug/L	5105.1	ppb	00:32:50
2	Mg 279.077 IEC†	172.4	175.4	5452.8	ug/L	5452.8	ppb	00:33:10
2	Na 589.592 Radial†	33423.7	35036.4	10457	ug/L	10457	ppb	00:32:50
2	Sr 421.552†	87110.9	89340.7	523.83	ug/L	523.83	ppb	00:32:50
2	Sc 361.383	920277.9	920277.9	102.38	%			00:34:14
2	Y 371.029	753583.5	753583.5	101.22	%			00:34:14
2	Ag 328.068†	120831.0	117655.4	510.34	ug/L	510.34	ppb	00:34:19
2	As 188.979†	1409.1	1411.2	516.70	ug/L	516.70	ppb	00:34:39
2	B 249.677†	24803.8	24253.8	495.75	ug/L	495.75	ppb	00:34:19
2	Ba 233.527†	76971.9	75187.2	512.36	ug/L	512.36	ppb	00:34:19
2	Be 313.107†	1546569.0	1515388.6	509.18	ug/L	509.18	ppb	00:34:14
2	Cd 226.502†	53586.5	52571.4	513.94	ug/L	513.94	ppb	00:34:19
2	Co 228.616†	29673.3	29071.3	509.05	ug/L	509.05	ppb	00:34:19
2	Cr 267.716†	52094.3	50804.5	515.92	ug/L	515.92	ppb	00:34:19
2	Cu 324.752†	190427.0	179949.6	508.70	ug/L	508.70	ppb	00:34:19
2	Mn 257.610†	524080.5	511419.8	504.88	ug/L	504.88	ppb	00:34:14
2	Mo 202.031†	8570.1	8351.3	505.89	ug/L	505.89	ppb	00:34:39
2	Ni 231.604†	24221.5	23565.5	514.56	ug/L	514.56	ppb	00:34:19

2	P 214.914†	5230.3	4850.8	2453.1 ug/L	2453.1 ppb	00:34:39
2	Pb 220.353†	4913.0	4863.0	514.03 ug/L	514.03 ppb	00:34:39
2	S 181.975 Axial†	897.0	827.2	1013.8 ug/L	1013.8 ppb	00:34:39
2	Sb 206.836†	1746.6	1664.9	505.86 ug/L	505.86 ppb	00:34:39
2	Se 196.026†	926.3	933.3	527.15 ug/L	527.15 ppb	00:34:39
2	Si 251.611†	92677.6	89948.2	2524.3 ug/L	2524.3 ppb	00:34:19
2	Sn 189.927†	3443.4	3359.9	504.52 ug/L	504.52 ppb	00:34:39
2	Ti 334.940†	351490.1	344716.0	498.27 ug/L	498.27 ppb	00:34:14
2	Tl 190.801†	1972.1	1974.4	515.40 ug/L	515.40 ppb	00:34:39
2	U 409.014†	16304.4	18298.1	502.48 ug/L	502.48 ppb	00:34:19
2	V 292.402†	80912.1	80502.7	518.78 ug/L	518.78 ppb	00:34:19
2	Zn 213.857†	65003.1	62700.2	509.64 ug/L	509.64 ppb	00:34:19
2	SiO2†	91828.6	89089.6	5368.0 ug/L	5368.0 ppb	00:35:20
3	Sc Radial	5564.7	5564.7	100.0 %		00:33:15
3	Y RADIAL	5874.6	5874.6	99.38 %		00:33:15
3	Al 396.153Radial†	6965.0	6984.7	5067.8 ug/L	5067.8 ppb	00:33:15
3	Ca 317.933Radial†	3576.1	3558.2	5073.0 ug/L	5073.0 ppb	00:33:35
3	Fe 238.204 Radial†	638.0	627.4	5231.9 ug/L	5231.9 ppb	00:33:35
3	K 766.490 Radial†	30995.0	28297.2	4978.5 ug/L	4978.5 ppb	00:33:15
3	Mg 279.077 IEC†	170.2	168.9	5249.1 ug/L	5249.1 ppb	00:33:35
3	Na 589.592 Radial†	33728.4	34506.0	10299 ug/L	10299 ppb	00:33:15
3	Sr 421.552†	87341.0	87394.0	512.42 ug/L	512.42 ppb	00:33:15
3	Sc 361.383	913526.4	913526.4	101.63 %		00:34:45
3	Y 371.029	746957.2	746957.2	100.33 %		00:34:45
3	Ag 328.068†	119217.0	116939.4	507.20 ug/L	507.20 ppb	00:34:50
3	As 188.979†	1406.3	1418.6	519.37 ug/L	519.37 ppb	00:35:10
3	B 249.677†	24402.5	24037.9	491.34 ug/L	491.34 ppb	00:34:50
3	Ba 233.527†	76080.7	74865.9	510.16 ug/L	510.16 ppb	00:34:50
3	Be 313.107†	1532177.0	1512391.5	508.18 ug/L	508.18 ppb	00:34:45
3	Cd 226.502†	53107.3	52486.7	513.12 ug/L	513.12 ppb	00:34:50
3	Co 228.616†	29375.2	28992.3	507.67 ug/L	507.67 ppb	00:34:50
3	Cr 267.716†	51438.4	50535.2	513.18 ug/L	513.18 ppb	00:34:50
3	Cu 324.752†	186972.1	177924.8	502.97 ug/L	502.97 ppb	00:34:50
3	Mn 257.610†	520522.6	511702.2	505.15 ug/L	505.15 ppb	00:34:45
3	Mo 202.031†	8504.3	8348.4	505.71 ug/L	505.71 ppb	00:35:10
3	Ni 231.604†	23993.7	23516.2	513.48 ug/L	513.48 ppb	00:34:50
3	P 214.914†	5190.9	4849.7	2453.6 ug/L	2453.6 ppb	00:35:10
3	Pb 220.353†	4864.5	4850.7	512.72 ug/L	512.72 ppb	00:35:10
3	S 181.975 Axial†	897.1	833.7	1021.8 ug/L	1021.8 ppb	00:35:10
3	Sb 206.836†	1732.8	1663.8	505.66 ug/L	505.66 ppb	00:35:10
3	Se 196.026†	920.3	934.1	527.10 ug/L	527.10 ppb	00:35:10
3	Si 251.611†	91323.3	89284.6	2505.6 ug/L	2505.6 ppb	00:34:50
3	Sn 189.927†	3439.5	3381.0	507.67 ug/L	507.67 ppb	00:35:10
3	Ti 334.940†	348889.0	344693.9	498.24 ug/L	498.24 ppb	00:34:45
3	Tl 190.801†	1962.6	1979.3	516.68 ug/L	516.68 ppb	00:35:10
3	U 409.014†	15995.7	18112.0	497.38 ug/L	497.38 ppb	00:34:50
3	V 292.402†	79807.3	79999.7	515.59 ug/L	515.59 ppb	00:34:50
3	Zn 213.857†	64136.6	62316.8	506.53 ug/L	506.53 ppb	00:34:50
3	SiO2†	91228.4	89161.9	5372.4 ug/L	5372.4 ppb	00:35:26

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	920043.4	102.35	%	0.712				0.70%
Sc Radial	5534.1	99.4	%	1.68				1.69%
Y 371.029	752495.6	101.08	%	0.683				0.68%
Y RADIAL	5851.9	98.99	%	1.726				1.74%
Ag 328.068†	116584.9	505.69	ug/L	5.567	505.69	ppb	5.567	1.10%
QC value within limits for Ag 328.068 Recovery = 101.14%								
Al 396.153Radial†	7039.8	5108.0	ug/L	81.15	5108.0	ppb	81.15	1.59%
QC value within limits for Al 396.153Radial Recovery = 102.16%								
As 188.979†	1405.6	514.65	ug/L	6.010	514.65	ppb	6.010	1.17%
QC value within limits for As 188.979 Recovery = 102.93%								
B 249.677†	23955.9	489.66	ug/L	7.086	489.66	ppb	7.086	1.45%
QC value within limits for B 249.677 Recovery = 97.93%								
Ba 233.527†	74588.3	508.27	ug/L	5.287	508.27	ppb	5.287	1.04%
QC value within limits for Ba 233.527 Recovery = 101.65%								
Be 313.107†	1513847.2	508.66	ug/L	0.503	508.66	ppb	0.503	0.10%
QC value within limits for Be 313.107 Recovery = 101.73%								
Ca 317.933Radial†	3590.5	5119.1	ug/L	79.30	5119.1	ppb	79.30	1.55%

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   QC value within limits for Ca 317.933Radial  Recovery = 102.38%
Cd 226.502†            52245.7      510.76 ug/L         4.816      510.76 ppb          4.816   0.94%
   QC value within limits for Cd 226.502  Recovery = 102.15%
Co 228.616†            28854.4      505.25 ug/L         5.433      505.25 ppb          5.433   1.08%
   QC value within limits for Co 228.616  Recovery = 101.05%
Cr 267.716†            50390.9      511.72 ug/L         5.091      511.72 ppb          5.091   0.99%
   QC value within limits for Cr 267.716  Recovery = 102.34%
Cu 324.752†           177671.2      502.26 ug/L         6.827      502.26 ppb          6.827   1.36%
   QC value within limits for Cu 324.752  Recovery = 100.45%
Fe 238.204 Radial†       634.1      5287.4 ug/L        82.99      5287.4 ppb         82.99   1.57%
   QC value within limits for Fe 238.204 Radial  Recovery = 105.75%
K 766.490 Radial†      28497.4      5013.8 ug/L        79.72      5013.8 ppb         79.72   1.59%
   QC value within limits for K 766.490 Radial  Recovery = 100.28%
Mg 279.077 IEC†          170.7      5307.0 ug/L       127.17      5307.0 ppb        127.17   2.40%
   QC value within limits for Mg 279.077 IEC  Recovery = 106.14%
Mn 257.610†           511654.3      505.11 ug/L         0.206      505.11 ppb          0.206   0.04%
   QC value within limits for Mn 257.610  Recovery = 101.02%
Mo 202.031†             8307.9      503.26 ug/L         4.401      503.26 ppb          4.401   0.87%
   QC value within limits for Mo 202.031  Recovery = 100.65%
Na 589.592 Radial†     34595.0       10326 ug/L        120.7       10326 ppb         120.7   1.17%
   QC value within limits for Na 589.592 Radial  Recovery = 103.26%
Ni 231.604†            23417.2      511.32 ug/L         4.705      511.32 ppb          4.705   0.92%
   QC value within limits for Ni 231.604  Recovery = 102.26%
P 214.914†              4822.6      2439.5 ug/L        24.03      2439.5 ppb         24.03   0.98%
   QC value within limits for P 214.914  Recovery = 97.58%
Pb 220.353†             4832.2      510.77 ug/L         4.557      510.77 ppb          4.557   0.89%
   QC value within limits for Pb 220.353  Recovery = 102.15%
S 181.975 Axial†         825.5      1011.7 ug/L        11.35      1011.7 ppb         11.35   1.12%
   QC value within limits for S 181.975 Axial  Recovery = 101.17%
Sb 206.836†             1658.6      504.00 ug/L         3.047      504.00 ppb          3.047   0.60%
   QC value within limits for Sb 206.836  Recovery = 100.80%
Se 196.026†              929.6      524.79 ug/L         4.040      524.79 ppb          4.040   0.77%
   QC value within limits for Se 196.026  Recovery = 104.96%
Si 251.611†            89031.3      2498.5 ug/L        29.96      2498.5 ppb         29.96   1.20%
   QC value within limits for Si 251.611  Recovery = 99.94%
Sn 189.927†             3352.8      503.44 ug/L         4.854      503.44 ppb          4.854   0.96%
   QC value within limits for Sn 189.927  Recovery = 100.69%
Sr 421.552†            87923.0      515.52 ug/L         7.276      515.52 ppb          7.276   1.41%
   QC value within limits for Sr 421.552  Recovery = 103.10%
Ti 334.940†           344821.0      498.42 ug/L         0.295      498.42 ppb          0.295   0.06%
   QC value within limits for Ti 334.940  Recovery = 99.68%
Tl 190.801†             1960.8      511.89 ug/L         7.208      511.89 ppb          7.208   1.41%
   QC value within limits for Tl 190.801  Recovery = 102.38%
U 409.014†             18012.5      494.63 ug/L         9.520      494.63 ppb          9.520   1.92%
   QC value within limits for U 409.014  Recovery = 98.93%
V 292.402†             79801.6      514.28 ug/L         5.276      514.28 ppb          5.276   1.03%
   QC value within limits for V 292.402  Recovery = 102.86%
Zn 213.857†            62113.2      504.86 ug/L         5.786      504.86 ppb          5.786   1.15%
   QC value within limits for Zn 213.857  Recovery = 100.97%
SiO2†                  88557.7      5335.9 ug/L        59.38      5335.9 ppb         59.38   1.11%
   QC value within limits for SiO2  Recovery = 99.78%
All analyte(s) passed QC.
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Sequence No.: 97
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 12/20/2009 00:37:35
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5719.5	5719.5	103	%			00:39:27
1	Y RADIAL	6092.7	6092.7	103.1	%			00:39:27
1	Al 396.153Radial†	-30.9	-13.7	-10.020	ug/L	-10.020	ppb	00:39:27
1	Ca 317.933Radial†	18.0	-2.0	-2.8700	ug/L	-2.8700	ppb	00:39:47
1	Fe 238.204 Radial†	9.5	-1.6	-13.620	ug/L	-13.620	ppb	00:39:47
1	K 766.490 Radial†	2958.5	167.3	29.514	ug/L	29.514	ppb	00:39:27
1	Mg 279.077 IEC†	3.6	2.1	66.739	ug/L	66.739	ppb	00:39:47
1	Na 589.592 Radial†	-1000.6	-212.3	-63.374	ug/L	-63.374	ppb	00:39:27
1	Sr 421.552†	4.2	15.9	0.0935	ug/L	0.0935	ppb	00:39:27
1	Sc 361.383	897519.2	897519.2	99.845	%			00:40:44
1	Y 371.029	751244.5	751244.5	100.91	%			00:40:44
1	Ag 328.068†	539.4	170.4	0.7355	ug/L	0.7355	ppb	00:40:44
1	As 188.979†	-31.5	3.3	1.2074	ug/L	1.2074	ppb	00:41:04
1	B 249.677†	-404.7	-379.4	-7.7851	ug/L	-7.7851	ppb	00:41:04
1	Ba 233.527†	17.9	20.6	0.1376	ug/L	0.1376	ppb	00:41:04
1	Be 313.107†	-4511.2	213.0	0.0715	ug/L	0.0715	ppb	00:40:44
1	Cd 226.502†	-218.0	10.8	0.1076	ug/L	0.1076	ppb	00:41:04
1	Co 228.616†	-82.1	4.9	0.0883	ug/L	0.0883	ppb	00:41:04
1	Cr 267.716†	91.0	11.0	0.1128	ug/L	0.1128	ppb	00:41:04
1	Cu 324.752†	6111.9	65.8	0.1851	ug/L	0.1851	ppb	00:40:44
1	Mn 257.610†	552.6	62.0	0.0586	ug/L	0.0586	ppb	00:41:04
1	Mo 202.031†	37.4	17.6	1.0628	ug/L	1.0628	ppb	00:41:04
1	Ni 231.604†	122.0	28.6	0.6252	ug/L	0.6252	ppb	00:41:04
1	P 214.914†	237.3	-20.4	-10.666	ug/L	-10.666	ppb	00:41:04
1	Pb 220.353†	-85.4	-21.5	-2.2660	ug/L	-2.2660	ppb	00:41:04
1	S 181.975 Axial†	44.0	-4.9	-6.0668	ug/L	-6.0668	ppb	00:41:04
1	Sb 206.836†	39.0	-2.2	-0.6358	ug/L	-0.6358	ppb	00:41:04
1	Se 196.026†	-23.9	4.6	2.4484	ug/L	2.4484	ppb	00:41:04
1	Si 251.611†	680.9	104.5	2.9186	ug/L	2.9186	ppb	00:41:04
1	Sn 189.927†	0.1	-3.4	-0.5085	ug/L	-0.5085	ppb	00:41:04
1	Ti 334.940†	-1357.8	27.7	0.0443	ug/L	0.0443	ppb	00:40:44
1	Tl 190.801†	-34.7	13.3	3.4513	ug/L	3.4513	ppb	00:41:04
1	U 409.014†	-2734.3	-366.3	-10.091	ug/L	-10.091	ppb	00:40:44
1	V 292.402†	-1578.9	-111.9	-0.7128	ug/L	-0.7128	ppb	00:40:44
1	Zn 213.857†	790.1	-2.2	-0.0231	ug/L	-0.0231	ppb	00:41:04
1	SiO2†	679.1	73.4	4.3885	ug/L	4.3885	ppb	00:42:00
2	Sc Radial	5560.4	5560.4	99.9	%			00:39:52
2	Y RADIAL	5880.1	5880.1	99.47	%			00:39:52
2	Al 396.153Radial†	-26.0	-9.7	-7.0592	ug/L	-7.0592	ppb	00:39:52
2	Ca 317.933Radial†	19.7	0.2	0.2290	ug/L	0.2290	ppb	00:40:12
2	Fe 238.204 Radial†	12.1	1.2	10.121	ug/L	10.121	ppb	00:40:12
2	K 766.490 Radial†	2874.2	165.3	29.167	ug/L	29.167	ppb	00:39:52
2	Mg 279.077 IEC†	-0.3	-1.7	-51.914	ug/L	-51.914	ppb	00:40:12
2	Na 589.592 Radial†	-1011.8	-251.4	-75.045	ug/L	-75.045	ppb	00:39:52
2	Sr 421.552†	-22.2	-10.4	-0.0613	ug/L	-0.0613	ppb	00:39:52
2	Sc 361.383	904073.1	904073.1	100.57	%			00:41:09
2	Y 371.029	757974.2	757974.2	101.81	%			00:41:09
2	Ag 328.068†	426.5	54.2	0.2400	ug/L	0.2400	ppb	00:41:09
2	As 188.979†	-29.8	5.2	1.8766	ug/L	1.8766	ppb	00:41:29
2	B 249.677†	-401.0	-372.7	-7.6510	ug/L	-7.6510	ppb	00:41:29
2	Ba 233.527†	7.8	10.3	0.0695	ug/L	0.0695	ppb	00:41:29
2	Be 313.107†	-4512.8	244.1	0.0821	ug/L	0.0821	ppb	00:41:09
2	Cd 226.502†	-222.0	8.5	0.0824	ug/L	0.0824	ppb	00:41:29
2	Co 228.616†	-90.3	-2.7	-0.0476	ug/L	-0.0476	ppb	00:41:29
2	Cr 267.716†	95.4	14.7	0.1503	ug/L	0.1503	ppb	00:41:29
2	Cu 324.752†	6179.2	88.4	0.2502	ug/L	0.2502	ppb	00:41:09
2	Mn 257.610†	553.5	58.9	0.0601	ug/L	0.0601	ppb	00:41:29
2	Mo 202.031†	24.2	4.2	0.2522	ug/L	0.2522	ppb	00:41:29
2	Ni 231.604†	122.9	28.6	0.6247	ug/L	0.6247	ppb	00:41:29

2	P 214.914†	238.8	-20.6	-10.801	ug/L	-10.801 ppb	00:41:29
2	Pb 220.353†	-77.9	-13.4	-1.4142	ug/L	-1.4142 ppb	00:41:29
2	S 181.975 Axial†	48.3	-1.0	-1.2551	ug/L	-1.2551 ppb	00:41:29
2	Sb 206.836†	41.3	-0.2	-0.0575	ug/L	-0.0575 ppb	00:41:29
2	Se 196.026†	-32.2	-3.5	-1.8733	ug/L	-1.8733 ppb	00:41:29
2	Si 251.611†	672.7	91.4	2.5637	ug/L	2.5637 ppb	00:41:29
2	Sn 189.927†	3.6	0.1	0.0140	ug/L	0.0140 ppb	00:41:29
2	Ti 334.940†	-1311.9	83.1	0.1228	ug/L	0.1228 ppb	00:41:09
2	Tl 190.801†	-37.3	11.0	2.8632	ug/L	2.8632 ppb	00:41:29
2	U 409.014†	-2607.8	-220.7	-6.0811	ug/L	-6.0811 ppb	00:41:09
2	V 292.402†	-1560.2	-81.9	-0.5321	ug/L	-0.5321 ppb	00:41:09
2	Zn 213.857†	809.1	11.0	0.0864	ug/L	0.0864 ppb	00:41:29
2	SiO2†	762.2	151.2	9.1208	ug/L	9.1208 ppb	00:42:05
3	Sc Radial	5633.7	5633.7	101	%		00:40:17
3	Y RADIAL	6028.2	6028.2	102.0	%		00:40:17
3	Al 396.153Radial†	-15.0	1.6	1.1072	ug/L	1.1072 ppb	00:40:17
3	Ca 317.933Radial†	16.2	-3.6	-5.1013	ug/L	-5.1013 ppb	00:40:37
3	Fe 238.204 Radial†	11.6	0.5	4.4861	ug/L	4.4861 ppb	00:40:37
3	K 766.490 Radial†	2869.5	123.2	21.755	ug/L	21.755 ppb	00:40:17
3	Mg 279.077 IEC†	4.8	3.4	104.53	ug/L	104.53 ppb	00:40:37
3	Na 589.592 Radial†	-1027.6	-253.8	-75.746	ug/L	-75.746 ppb	00:40:17
3	Sr 421.552†	29.3	40.8	0.2392	ug/L	0.2392 ppb	00:40:17
3	Sc 361.383	901004.0	901004.0	100.23	%		00:41:35
3	Y 371.029	754488.4	754488.4	101.35	%		00:41:35
3	Ag 328.068†	372.0	1.2	0.0115	ug/L	0.0115 ppb	00:41:35
3	As 188.979†	-18.2	16.7	6.0669	ug/L	6.0669 ppb	00:41:55
3	B 249.677†	-387.8	-361.0	-7.4100	ug/L	-7.4100 ppb	00:41:55
3	Ba 233.527†	-12.5	-9.9	-0.0683	ug/L	-0.0683 ppb	00:41:55
3	Be 313.107†	-4499.1	242.5	0.0814	ug/L	0.0814 ppb	00:41:35
3	Cd 226.502†	-227.9	1.8	0.0173	ug/L	0.0173 ppb	00:41:55
3	Co 228.616†	-75.5	11.8	0.2077	ug/L	0.2077 ppb	00:41:55
3	Cr 267.716†	108.5	28.1	0.2862	ug/L	0.2862 ppb	00:41:55
3	Cu 324.752†	6153.8	84.0	0.2374	ug/L	0.2374 ppb	00:41:35
3	Mn 257.610†	561.8	69.0	0.0666	ug/L	0.0666 ppb	00:41:55
3	Mo 202.031†	30.0	10.0	0.6070	ug/L	0.6070 ppb	00:41:55
3	Ni 231.604†	93.2	-0.6	-0.0126	ug/L	-0.0126 ppb	00:41:55
3	P 214.914†	242.5	-16.1	-8.4519	ug/L	-8.4519 ppb	00:41:55
3	Pb 220.353†	-81.3	-17.1	-1.7956	ug/L	-1.7956 ppb	00:41:55
3	S 181.975 Axial†	41.3	-7.8	-9.5416	ug/L	-9.5416 ppb	00:41:55
3	Sb 206.836†	26.2	-15.1	-4.5321	ug/L	-4.5321 ppb	00:41:55
3	Se 196.026†	-30.1	-1.5	-0.7911	ug/L	-0.7911 ppb	00:41:55
3	Si 251.611†	672.6	93.6	2.6237	ug/L	2.6237 ppb	00:41:55
3	Sn 189.927†	-2.4	-5.9	-0.8793	ug/L	-0.8793 ppb	00:41:55
3	Ti 334.940†	-1347.1	43.6	0.0665	ug/L	0.0665 ppb	00:41:35
3	Tl 190.801†	-35.7	12.4	3.2200	ug/L	3.2200 ppb	00:41:55
3	U 409.014†	-2693.4	-315.0	-8.6790	ug/L	-8.6790 ppb	00:41:35
3	V 292.402†	-1580.5	-107.4	-0.6897	ug/L	-0.6897 ppb	00:41:35
3	Zn 213.857†	813.9	18.4	0.1469	ug/L	0.1469 ppb	00:41:55
3	SiO2†	708.9	100.6	6.0561	ug/L	6.0561 ppb	00:42:10

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	900865.4	100.22	%	0.365				0.36%
Sc Radial	5637.9	101	%	1.4				1.41%
Y 371.029	754569.0	101.36	%	0.452				0.45%
Y RADIAL	6000.3	101.5	%	1.84				1.82%
Ag 328.068†	75.3	0.3290	ug/L	0.37012	0.3290	ppb	0.37012	112.49%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-7.3	-5.3240	ug/L	5.76296	-5.3240	ppb	5.76296	108.24%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	8.4	3.0503	ug/L	2.63383	3.0503	ppb	2.63383	86.35%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-371.1	-7.6154	ug/L	0.19010	-7.6154	ppb	0.19010	2.50%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	7.0	0.0463	ug/L	0.10490	0.0463	ppb	0.10490	226.73%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	233.2	0.0783	ug/L	0.00593	0.0783	ppb	0.00593	7.58%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-1.8	-2.5808	ug/L	2.67689	-2.5808	ppb	2.67689	103.72%

```
   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                7.0      0.0691 ug/L       0.04657      0.0691 ppb        0.04657  67.38%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                4.6      0.0828 ug/L       0.12777      0.0828 ppb        0.12777 154.28%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†               17.9      0.1831 ug/L       0.09122      0.1831 ppb        0.09122  49.82%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               79.4      0.2243 ug/L       0.03449      0.2243 ppb        0.03449  15.38%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         0.0      0.3291 ug/L      12.40443      0.3291 ppb       12.40443 >999.9%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        151.9      26.812 ug/L        4.3832      26.812 ppb         4.3832  16.35%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            1.3      39.786 ug/L       81.6315      39.786 ppb        81.6315 205.18%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               63.3      0.0617 ug/L       0.00425      0.0617 ppb        0.00425   6.89%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               10.6      0.6407 ug/L       0.40637      0.6407 ppb        0.40637  63.43%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      -239.2     -71.388 ug/L        6.9497     -71.388 ppb         6.9497   9.74%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               18.9      0.4124 ug/L       0.36808      0.4124 ppb        0.36808  89.24%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -19.0     -9.9733 ug/L       1.31926     -9.9733 ppb        1.31926  13.23%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -17.3     -1.8252 ug/L       0.42667     -1.8252 ppb        0.42667  23.38%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          -4.6     -5.6212 ug/L       4.16117     -5.6212 ppb        4.16117  74.03%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               -5.8     -1.7418 ug/L       2.43370     -1.7418 ppb        2.43370 139.73%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               -0.1     -0.0720 ug/L       2.24882     -0.0720 ppb        2.24882 >999.9%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†               96.5      2.7020 ug/L       0.18997      2.7020 ppb        0.18997   7.03%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               -3.1     -0.4579 ug/L       0.44879     -0.4579 ppb        0.44879  98.01%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               15.4      0.0905 ug/L       0.15025      0.0905 ppb        0.15025 166.08%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               51.5      0.0779 ug/L       0.04049      0.0779 ppb        0.04049  51.99%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               12.2      3.1781 ug/L       0.29624      3.1781 ppb        0.29624   9.32%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              -300.6     -8.2838 ug/L       2.03411     -8.2838 ppb        2.03411  24.56%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              -100.4     -0.6449 ug/L       0.09829     -0.6449 ppb        0.09829  15.24%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                9.1      0.0701 ug/L       0.08614      0.0701 ppb        0.08614 122.94%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                    108.4      6.5218 ug/L       2.40031      6.5218 ppb        2.40031  36.80%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Daily Performance Report

Sample ID: Sample
Sample Date/Time: Thursday, December 31, 2009 11:09:45
Sample Description:
Method File: c:\elandata\Method\daily2.mth
Dataset File: c:\elandata\Dataset\090811\Sample.341
Tuning File: c:\elandata\Tuning\default2.tun
Optimization File: c:\elandata\Optimize\default.dac
Dual Detector Mode: Pulse

Acq. Dead Time(ns): 35
Current Dead Time (ns): 35

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Be	9.0	787.2	787.222	23.521	3.0
	Mg	24.0	17954.7	17954.679	328.562	1.8
	Co	58.9	52662.5	52662.500	638.671	1.2
	Rh	102.9	85840.8	85840.751	876.424	1.0
	In	114.9	107225.9	107225.935	1057.281	1.0
	Pb	208.0	59486.6	59486.611	738.160	1.2
⌈>	Ba	137.9	92930.2	92930.213	918.587	1.0
⌊	Ba++	69.0	1974.5	0.021	0.000	1.1
⌈>	Ce	139.9	110614.8	110614.809	682.543	0.6
⌊	CeO	155.9	2629.3	0.024	0.001	2.3
	Bkgd	220.0	6.9	6.900	1.557	22.6

Current Optimization File Data

Current Value	Description
0.84	Nebulizer Gas Flow
6.00	Lens Voltage
1000.00	ICP RF Power
-1875.00	Analog Stage Voltage
1100.00	Pulse Stage Voltage
50.00	Discriminator Threshold
-2.00	AC Rod Offset

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	21	7.5	894.7
Co	59	21	8.5	32687.7
In	115	21	10.0	82053.3

ICPMS #4 TUNING REPORT

File Name: default2.tun
File Path: c:\elandata\Tuning

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas Peak W
He	3.0	3.0	607	2060	0.696
Be	9.0	9.1	2058	2055	0.648
Mg	24.0	24.0	5683	2065	0.642
Mg	25.0	25.1	5957	2070	0.630
Mg	26.0	26.0	6169	2085	0.633
Co	58.9	59.0	14186	2120	0.689
Rh	102.9	102.9	24869	2220	0.692
In	114.9	115.0	27784	2255	0.667
Ce	139.9	139.9	33855	2300	0.685
Pb	206.0	206.0	49932	2460	0.699
Pb	207.0	207.0	50125	2380	0.660
Pb	208.0	208.0	50436	2490	0.762
U	238.1	238.1	57706	2480	0.753

ICPMS#4 - Summary Report

Sample ID: Blank
Sample Date/Time: Friday, January 01, 2010 01:07:04
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\091231\Blank.200

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7		ug/L		21	
	Be	9		ug/L		4	
	B	11		ug/L		57	
	Na	23		ug/L		18345	
	Mg	24		ug/L		2667	
	Al	27		ug/L		5335	
	P	31		ug/L		2122	
	K	39		ug/L		391646	
	Ca	43		ug/L		365	
>	Sc	45		ug/L		932786	
	Ti	47		ug/L		163	
	V	51		ug/L		3315	
	Cr	52		ug/L		2053	
	Cr	53		ug/L		121844	
	Mn	55		ug/L		874	
	Fe	57		ug/L		4451	
	Co	59		ug/L		202	
	Ni	60		ug/L		50	
	Cu	63		ug/L		105	
	Cu	65		ug/L		69	
	Zn	66		ug/L		91	
	Zn	67		ug/L		4784	
	Zn	68		ug/L		380	
>	Ge	74		ug/L		133341	
	As	75		ug/L		371	
	Se	77		ug/L		4280	
	Se	82		ug/L		4	
	Kr	83		ug/L		41	
	Sr	88		ug/L		185	
	Y	89		ug/L		20	
	Zr	90		ug/L		212	
	Mo	98		ug/L		50	
	Ag	107		ug/L		65	
	Cd	111		ug/L		14	
	Cd	114		ug/L		24	
>	In	115		ug/L		71408	
	Sn	120		ug/L		127	
	Sb	121		ug/L		163	
	Sb	123		ug/L		171	
	Ba	135		ug/L		21	
	Ba	137		ug/L		36	
	Ho	165		ug/L		11	
>	Lu	175		ug/L		78032	
	Tl	205		ug/L		168	
	Pb	208		ug/L		367	
	Bi	209		ug/L		18	
	Th	232		ug/L		322	
	U	238		ug/L		238	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	0.9999
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	0.9999
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	0.9996
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45					
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115					
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175					
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Friday, January 01, 2010 01:13:16
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\091231\Standard 1.201

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	10.000	ug/L	3.056	1963	0.002
	Be	9	10.000	ug/L	5.914	508	0.001
	B	11	20.000	ug/L	5.227	920	0.001
	Na	23	1000.000	ug/L	2.829	1066400	1.130
	Mg	24	1000.000	ug/L	8.211	759761	0.817
	Al	27	1000.000	ug/L	6.330	1072549	1.151
	P	31	1000.000	ug/L	1.720	61321	0.064
	K	39	1000.000	ug/L	1.423	2553608	2.334
	Ca	43	1000.000	ug/L	3.287	4383	0.004
>	Sc	45		ug/L		927284	927284.424
	Ti	47	10.000	ug/L	2.024	2060	0.002
	V	51	10.000	ug/L	1.218	23031	0.021
	Cr	52	10.000	ug/L	1.031	21136	0.021
	Cr	53		ug/L		125314	0.005
	Mn	55	10.000	ug/L	1.012	32542	0.034
	Fe	57	1000.000	ug/L	1.336	68893	0.070
	Co	59	10.000	ug/L	0.784	24076	0.026
	Ni	60	10.000	ug/L	0.887	5086	0.005
	Cu	63		ug/L		11474	0.012
	Cu	65	10.000	ug/L	1.043	5527	0.006
	Zn	66	10.000	ug/L	1.362	2941	0.022
	Zn	67		ug/L		5410	0.005
	Zn	68		ug/L		2448	0.016
>	Ge	74		ug/L		131683	131682.782
	As	75	10.000	ug/L	10.855	3509	0.024
	Se	77		ug/L		4648	0.003
	Se	82	10.000	ug/L	4.347	320	0.002
	Kr	83		ug/L		41	0.000
	Sr	88	10.000	ug/L	0.441	46167	0.638
	Y	89		ug/L		18	-0.000
	Zr	90	10.000	ug/L	1.007	24790	0.341
	Mo	98	10.000	ug/L	0.246	10190	0.141
	Ag	107	10.000	ug/L	1.024	16053	0.222
	Cd	111	10.000	ug/L	2.867	3559	0.049
	Cd	114		ug/L		8180	0.113
>	In	115		ug/L		72074	72073.759
	Sn	120	10.000	ug/L	1.854	16478	0.227
	Sb	121	10.000	ug/L	4.391	12181	0.167
	Sb	123		ug/L		9379	0.128
	Ba	135		ug/L		3832	0.048
	Ba	137	10.000	ug/L	1.286	6768	0.086
	Ho	165		ug/L		15	0.000
>	Lu	175		ug/L		78572	78572.286
	Tl	205	10.000	ug/L	2.388	22306	0.282
	Pb	208	10.000	ug/L	1.867	51023	0.645
	Bi	209		ug/L		19	0.000
	Th	232	10.000	ug/L	0.753	62303	0.789
	U	238	10.000	ug/L	0.863	64760	0.821

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Li	7					
|	Be	9					
|	B	11					
|	Na	23					
|	Mg	24					
|	Al	27					
|	P	31					
|	K	39					
|	Ca	43					
|>	Sc	45					
|	Ti	47					
|	V	51					
|	Cr	52					
|	Cr	53					
|	Mn	55					
|	Fe	57					
|	Co	59					
|	Ni	60					
|	Cu	63					
⌊	Cu	65					
⌈	Zn	66					
|	Zn	67					
|	Zn	68					
|>	Ge	74					
|	As	75					
|	Se	77					
|	Se	82					
⌊	Kr	83					
⌈	Sr	88					
|	Y	89					
|	Zr	90					
|	Mo	98					
|	Ag	107					
|	Cd	111					
|	Cd	114					
|>	In	115					
|	Sn	120					
|	Sb	121					
⌊	Sb	123					
⌈	Ba	135					
|	Ba	137					
|	Ho	165					
|>	Lu	175					
|	Tl	205					
|	Pb	208					
|	Bi	209					
|	Th	232					
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Friday, January 01, 2010 01:19:25
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\091231\Standard 2.202

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**99.943**	**ug/L**	2.459	18870	0.020
	Be	9	**100.003**	**ug/L**	0.344	5198	0.005
	B	11	**200.027**	**ug/L**	4.013	9041	0.009
	Na	23	**10005.842**	**ug/L**	2.363	11445232	12.010
	Mg	24	**10000.080**	**ug/L**	3.260	7781364	8.172
	Al	27	**10004.763**	**ug/L**	5.520	11522047	12.094
	P	31	**9998.895**	**ug/L**	1.651	603203	0.631
	K	39	**9990.468**	**ug/L**	12.382	20674996	21.289
	Ca	43	**10000.826**	**ug/L**	1.559	41984	0.044
>	Sc	45		**ug/L**		951657	951657.051
	Ti	47	**99.997**	**ug/L**	1.369	19577	0.020
	V	51	**99.966**	**ug/L**	1.008	199292	0.206
	Cr	52	**99.987**	**ug/L**	1.039	195537	0.203
	Cr	53		**ug/L**		146643	0.024
	Mn	55	**99.970**	**ug/L**	0.678	316332	0.331
	Fe	57	**9996.213**	**ug/L**	0.298	641834	0.670
	Co	59	**99.975**	**ug/L**	1.101	239193	0.251
	Ni	60	**99.952**	**ug/L**	1.613	49335	0.052
	Cu	63		**ug/L**		112747	0.118
	Cu	65	**99.951**	**ug/L**	0.965	53459	0.056
	Zn	66	**99.942**	**ug/L**	1.461	27602	0.205
	Zn	67		**ug/L**		9617	0.036
	Zn	68		**ug/L**		20149	0.147
>	Ge	74		**ug/L**		134505	134505.305
	As	75	**100.021**	**ug/L**	0.887	33176	0.244
	Se	77		**ug/L**		6970	0.020
	Se	82	**99.945**	**ug/L**	3.080	3067	0.023
	Kr	83		**ug/L**		44	0.000
	Sr	88	**99.985**	**ug/L**	1.017	458683	6.286
	Y	89		**ug/L**		62	0.001
	Zr	90	**99.991**	**ug/L**	0.488	246650	3.378
	Mo	98	**100.017**	**ug/L**	0.500	104517	1.432
	Ag	107	**99.967**	**ug/L**	1.974	156672	2.147
	Cd	111	**100.000**	**ug/L**	1.259	35882	0.492
	Cd	114		**ug/L**		83481	1.144
>	In	115		**ug/L**		72952	72951.521
	Sn	120	**99.990**	**ug/L**	1.325	163885	2.245
	Sb	121	**100.038**	**ug/L**	1.639	126684	1.734
	Sb	123		**ug/L**		97255	1.330
	Ba	135		**ug/L**		39230	0.489
	Ba	137	**99.995**	**ug/L**	1.666	68393	0.852
	Ho	165		**ug/L**		13	0.000
>	Lu	175		**ug/L**		80252	80251.690
	Tl	205	**99.992**	**ug/L**	1.347	224538	2.796
	Pb	208	**99.983**	**ug/L**	1.912	508775	6.337
	Bi	209		**ug/L**		54	0.000
	Th	232	**100.001**	**ug/L**	1.402	633591	7.893
	U	238	**99.981**	**ug/L**	2.402	646584	8.056

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45					
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115					
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175					
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Friday, January 01, 2010 01:25:34
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\091231\QC Std 1.203

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**49.282**	ug/L	1.349	9733	0.010
	Be	9	**50.006**	ug/L	1.802	2717	0.003
	B	11	**100.968**	ug/L	2.246	4795	0.005
	Na	23	**4828.833**	ug/L	3.487	5781263	5.796
	Mg	24	**4966.893**	ug/L	5.215	4037735	4.059
	Al	27	**4644.952**	ug/L	6.028	5587720	5.615
	P	31	**4983.889**	ug/L	1.593	315135	0.315
	K	39	**5080.326**	ug/L	4.430	11179378	10.826
	Ca	43	**5006.722**	ug/L	1.071	22145	0.022
>	Sc	45		ug/L		994025	994025.022
	Ti	47	**49.734**	ug/L	1.460	10257	0.010
	V	51	**51.237**	ug/L	2.607	108416	0.106
	Cr	52	**51.187**	ug/L	2.032	105626	0.104
	Cr	53		ug/L		141551	0.012
	Mn	55	**51.201**	ug/L	1.141	169671	0.170
	Fe	57	**5041.047**	ug/L	1.433	340427	0.338
	Co	59	**49.989**	ug/L	1.300	125034	0.126
	Ni	60	**51.949**	ug/L	0.118	26807	0.027
	Cu	63		ug/L		59997	0.060
	Cu	65	**50.976**	ug/L	1.118	28511	0.029
	Zn	66	**52.498**	ug/L	1.394	15201	0.107
	Zn	67		ug/L		7584	0.018
	Zn	68		ug/L		11158	0.076
>	Ge	74		ug/L		140620	140620.118
	As	75	**48.393**	ug/L	1.419	16984	0.118
	Se	77		ug/L		6209	0.012
	Se	82	**49.267**	ug/L	1.455	1582	0.011
	Kr	83		ug/L		44	0.000
	Sr	88	**51.752**	ug/L	1.263	244346	3.254
	Y	89		ug/L		32	0.000
	Zr	90	**50.049**	ug/L	1.762	127099	1.691
	Mo	98	**49.318**	ug/L	2.275	53029	0.706
	Ag	107	**51.287**	ug/L	0.961	82729	1.102
	Cd	111	**51.001**	ug/L	2.867	18831	0.251
	Cd	114		ug/L		43176	0.575
>	In	115		ug/L		75042	75042.341
	Sn	120	**50.735**	ug/L	1.505	85607	1.139
	Sb	121	**50.548**	ug/L	3.694	65909	0.876
	Sb	123		ug/L		50176	0.666
	Ba	135		ug/L		20169	0.245
	Ba	137	**49.493**	ug/L	1.250	34674	0.422
	Ho	165		ug/L		19	0.000
>	Lu	175		ug/L		82137	82136.942
	Tl	205	**48.573**	ug/L	1.507	111743	1.358
	Pb	208	**50.380**	ug/L	2.285	262634	3.193
	Bi	209		ug/L		55	0.000
	Th	232	**50.624**	ug/L	0.386	328511	3.995
	U	238	**52.721**	ug/L	0.543	349170	4.248

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7	98.563				
	Be	9	100.012				
	B	11	100.968				
	Na	23	96.577				
	Mg	24	99.338				
	Al	27	91.979				
	P	31	99.678				
	K	39	101.607				
	Ca	43	100.134				
>	Sc	45		106.6			
	Ti	47	99.467				
	V	51	102.474				
	Cr	52	102.374				
	Cr	53					
	Mn	55	102.402				
	Fe	57	100.821				
	Co	59	99.978				
	Ni	60	103.898				
	Cu	63					
	Cu	65	101.953				
	Zn	66	104.996				
	Zn	67					
	Zn	68					
>	Ge	74		105.5			
	As	75	96.785				
	Se	77					
	Se	82	98.533				
	Kr	83					
	Sr	88	103.504				
	Y	89					
	Zr	90	100.099				
	Mo	98	98.636				
	Ag	107	102.574				
	Cd	111	102.003				
	Cd	114					
>	In	115		105.1			
	Sn	120	101.470				
	Sb	121	101.096				
	Sb	123					
	Ba	135					
	Ba	137	98.985				
	Ho	165					
>	Lu	175		105.3			
	Tl	205	97.146				
	Pb	208	100.760				
	Bi	209					
	Th	232	101.247				
	U	238	105.442				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Friday, January 01, 2010 01:31:46
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\091231\QC Std 2.204

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.024**	ug/L	83.184	27	0.000
	Be	9	**-0.011**	ug/L	204.859	3	-0.000
	B	11	**3.957**	ug/L	23.991	247	0.000
	Na	23	**-0.256**	ug/L	783.065	19347	-0.000
	Mg	24	**1.801**	ug/L	205.379	4334	0.001
	Al	27	**-0.041**	ug/L	1013.599	5668	-0.000
	P	31	**-2.380**	ug/L	70.587	2121	-0.000
	K	39	**-0.367**	ug/L	1293.756	418721	-0.001
	Ca	43	**-4.203**	ug/L	87.445	372	-0.000
>	Sc	45		ug/L		998869	998868.583
	Ti	47	**-0.089**	ug/L	74.353	157	-0.000
	V	51	**-0.944**	ug/L	37.431	1612	-0.002
	Cr	52	**0.316**	ug/L	10.255	2840	0.001
	Cr	53		ug/L		133208	0.003
	Mn	55	**0.000**	ug/L	2089.741	938	0.000
	Fe	57	**4.573**	ug/L	22.226	5072	0.000
	Co	59	**-0.001**	ug/L	127.576	215	-0.000
	Ni	60	**0.001**	ug/L	85.739	55	0.000
	Cu	63		ug/L		121	0.000
	Cu	65	**-0.014**	ug/L	102.749	66	-0.000
	Zn	66	**0.053**	ug/L	59.297	111	0.000
	Zn	67		ug/L		5336	0.002
	Zn	68		ug/L		437	0.000
>	Ge	74		ug/L		139773	139772.902
	As	75	**-0.055**	ug/L	2176.759	374	-0.000
	Se	77		ug/L		4998	0.004
	Se	82	**0.036**	ug/L	802.778	5	0.000
	Kr	83		ug/L		48	0.000
	Sr	88	**0.002**	ug/L	287.228	206	0.000
	Y	89		ug/L		21	0.000
	Zr	90	**0.129**	ug/L	10.744	558	0.004
	Mo	98	**0.044**	ug/L	19.714	101	0.001
	Ag	107	**0.022**	ug/L	41.956	105	0.000
	Cd	111	**-0.002**	ug/L	1358.665	14	-0.000
	Cd	114		ug/L		51	0.000
>	In	115		ug/L		76092	76092.310
	Sn	120	**0.133**	ug/L	17.528	363	0.003
	Sb	121	**0.805**	ug/L	13.110	1236	0.014
	Sb	123		ug/L		954	0.010
	Ba	135		ug/L		33	0.000
	Ba	137	**-0.005**	ug/L	243.005	34	-0.000
	Ho	165		ug/L		11	-0.000
>	Lu	175		ug/L		80632	80632.398
	Tl	205	**0.124**	ug/L	18.181	453	0.003
	Pb	208	**0.012**	ug/L	9.106	439	0.001
	Bi	209		ug/L		18	-0.000
	Th	232	**0.095**	ug/L	26.955	938	0.008
	U	238	**0.007**	ug/L	5.227	292	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		107.1			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		104.8			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		106.6			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		103.3			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Friday, January 01, 2010 01:37:59
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\091231\QC Std 3.205

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**10.341**	**ug/L**	0.675	2049	0.002
	Be	9	**0.490**	**ug/L**	28.382	30	0.000
	B	11	**16.061**	**ug/L**	5.080	809	0.001
	Na	23	**246.739**	**ug/L**	11.730	312062	0.296
	Mg	24	**8.088**	**ug/L**	63.346	9337	0.007
	Al	27	**27.121**	**ug/L**	29.567	38053	0.033
	P	31	**49.024**	**ug/L**	9.171	5308	0.003
	K	39	**340.127**	**ug/L**	10.365	1131569	0.725
	Ca	43	**210.344**	**ug/L**	5.584	1295	0.001
>	Sc	45		**ug/L**		988416	988416.088
	Ti	47	**9.530**	**ug/L**	2.121	2095	0.002
	V	51	**9.216**	**ug/L**	12.152	22266	0.019
	Cr	52	**11.023**	**ug/L**	0.918	24324	0.022
	Cr	53		**ug/L**		138926	0.010
	Mn	55	**5.607**	**ug/L**	0.485	19301	0.019
	Fe	57	**112.532**	**ug/L**	0.814	12168	0.008
	Co	59	**1.044**	**ug/L**	1.108	2805	0.003
	Ni	60	**2.196**	**ug/L**	2.316	1178	0.001
	Cu	63		**ug/L**		1417	0.001
	Cu	65	**1.119**	**ug/L**	1.644	694	0.001
	Zn	66	**11.232**	**ug/L**	0.818	3309	0.023
	Zn	67		**ug/L**		6106	0.008
	Zn	68		**ug/L**		2716	0.017
>	Ge	74		**ug/L**		139818	139817.713
	As	75	**5.151**	**ug/L**	13.978	2143	0.013
	Se	77		**ug/L**		5238	0.005
	Se	82	**5.327**	**ug/L**	5.965	174	0.001
	Kr	83		**ug/L**		47	0.000
	Sr	88	**10.965**	**ug/L**	1.030	52175	0.689
	Y	89		**ug/L**		16	-0.000
	Zr	90	**2.012**	**ug/L**	3.475	5350	0.068
	Mo	98	**0.534**	**ug/L**	1.876	629	0.008
	Ag	107	**1.055**	**ug/L**	2.193	1776	0.023
	Cd	111	**1.107**	**ug/L**	5.125	425	0.005
	Cd	114		**ug/L**		933	0.012
>	In	115		**ug/L**		75404	75404.333
	Sn	120	**5.374**	**ug/L**	0.664	9232	0.121
	Sb	121	**3.279**	**ug/L**	2.007	4458	0.057
	Sb	123		**ug/L**		3497	0.044
	Ba	135		**ug/L**		861	0.010
	Ba	137	**2.115**	**ug/L**	4.604	1491	0.018
	Ho	165		**ug/L**		11	-0.000
>	Lu	175		**ug/L**		80650	80649.829
	Tl	205	**1.051**	**ug/L**	1.117	2545	0.029
	Pb	208	**2.122**	**ug/L**	1.313	11225	0.134
	Bi	209		**ug/L**		18	-0.000
	Th	232	**1.040**	**ug/L**	1.708	6951	0.082
	U	238	**0.210**	**ug/L**	2.560	1613	0.017

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7	103.410				
	Be	9	98.054				
	B	11	107.071				
	Na	23	98.696				
	Mg	24	53.918				
	Al	27	90.402				
	P	31	98.047				
	K	39	113.376				
	Ca	43	105.172				
>	Sc	45		106.0			
	Ti	47	95.300				
	V	51	92.160				
	Cr	52	110.232				
	Cr	53					
	Mn	55	112.137				
	Fe	57	112.532				
	Co	59	104.359				
	Ni	60	109.817				
	Cu	63					
	Cu	65	111.944				
	Zn	66	112.322				
	Zn	67					
	Zn	68					
>	Ge	74		104.9			
	As	75	103.013				
	Se	77					
	Se	82	106.535				
	Kr	83					
	Sr	88	109.645				
	Y	89					
	Zr	90	100.588				
	Mo	98	106.742				
	Ag	107	105.471				
	Cd	111	110.711				
	Cd	114					
>	In	115		105.6			
	Sn	120	107.478				
	Sb	121	109.298				
	Sb	123					
	Ba	135					
	Ba	137	105.757				
	Ho	165					
>	Lu	175		103.4			
	Tl	205	105.146				
	Pb	208	106.100				
	Bi	209					
	Th	232	103.991				
	U	238	105.226				

QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
QC Std 3	Mg	24CRDL is out of limits

QC Action

QC Action Line: Continue

ICPMS#4 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Friday, January 01, 2010 01:44:09
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\091231\QC Std 4.206

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.104**	**ug/L**	5.800	43	0.000
	Be	9	**0.063**	**ug/L**	129.891	7	0.000
	B	11	**1.543**	**ug/L**	6.408	134	0.000
	Na	23	**95578.374**	**ug/L**	0.980	114190661	114.725
	Mg	24	**97501.377**	**ug/L**	3.658	79279187	79.681
	Al	27	**95791.507**	**ug/L**	3.157	115283490	115.797
	P	31	**97426.925**	**ug/L**	1.594	6125441	6.153
	K	39	**96619.850**	**ug/L**	2.776	205317929	205.892
	Ca	43	**99077.621**	**ug/L**	1.214	431444	0.433
>	Sc	45		**ug/L**		995271	995270.605
	Ti	47	**1497.551**	**ug/L**	0.563	304190	0.305
	V	51	**-1.630**	**ug/L**	96.508	182	-0.003
	Cr	52	**3.970**	**ug/L**	3.640	10219	0.008
	Cr	53		**ug/L**		133772	0.004
	Mn	55	**5.896**	**ug/L**	0.992	20385	0.020
	Fe	57	**98342.847**	**ug/L**	0.994	6560955	6.588
	Co	59	**0.249**	**ug/L**	2.387	838	0.001
	Ni	60	**3.544**	**ug/L**	1.041	1881	0.002
	Cu	63		**ug/L**		2648	0.003
	Cu	65	**2.266**	**ug/L**	2.001	1339	0.001
	Zn	66	**3.983**	**ug/L**	3.135	1204	0.008
	Zn	67		**ug/L**		5951	0.008
	Zn	68		**ug/L**		722	0.002
>	Ge	74		**ug/L**		136284	136283.692
	As	75	**0.282**	**ug/L**	366.579	474	0.001
	Se	77		**ug/L**		6586	0.016
	Se	82	**-0.122**	**ug/L**	363.072	0	-0.000
	Kr	83		**ug/L**		82	0.000
	Sr	88	**1.154**	**ug/L**	2.090	5466	0.073
	Y	89		**ug/L**		160	0.002
	Zr	90	**0.516**	**ug/L**	48.062	1480	0.017
	Mo	98	**2081.538**	**ug/L**	0.573	2168938	29.801
	Ag	107	**0.037**	**ug/L**	46.233	124	0.001
	Cd	111	**0.421**	**ug/L**	22.350	165	0.002
	Cd	114		**ug/L**		1968	0.027
>	In	115		**ug/L**		72779	72779.062
	Sn	120	**0.146**	**ug/L**	16.750	369	0.003
	Sb	121	**0.256**	**ug/L**	10.877	489	0.004
	Sb	123		**ug/L**		449	0.004
	Ba	135		**ug/L**		293	0.003
	Ba	137	**0.636**	**ug/L**	1.001	473	0.005
	Ho	165		**ug/L**		212	0.002
>	Lu	175		**ug/L**		80436	80436.318
	Tl	205	**0.002**	**ug/L**	312.240	177	0.000
	Pb	208	**0.148**	**ug/L**	5.060	1135	0.009
	Bi	209		**ug/L**		169	0.002
	Th	232	**0.043**	**ug/L**	52.154	607	0.003
	U	238	**-0.031**	**ug/L**	6.429	45	-0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23	95.578				
	Mg	24	97.501				
	Al	27	95.792				
	P	31	97.427				
	K	39	96.620				
	Ca	43	99.078				
>	Sc	45			106.7		
	Ti	47	74.878				
	V	51					
	Cr	52	107.292				
	Cr	53					
	Mn	55	101.648				
	Fe	57	98.343				
	Co	59	99.568				
	Ni	60	131.241				
	Cu	63					
	Cu	65	78.148				
	Zn	66	110.627				
	Zn	67					
	Zn	68					
>	Ge	74			102.2		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88	96.127				
	Y	89					
	Zr	90					
	Mo	98	104.077				
	Ag	107					
	Cd	111	105.190				
	Cd	114					
>	In	115			101.9		
	Sn	120					
	Sb	121	255.651				
	Sb	123					
	Ba	135					
	Ba	137	94.918				
	Ho	165					
>	Lu	175			103.1		
	Tl	205					
	Pb	208	74.245				
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
QC Std 4	Ti	47ICSA is out of limits

QC Action

QC Action Line: Continue

ICPMS#4 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Friday, January 01, 2010 01:50:21
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\091231\QC Std 5.207

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**16.926**	**ug/L**	4.365	3366	0.003
	Be	9	**18.175**	**ug/L**	1.349	993	0.001
	B	11	**19.020**	**ug/L**	5.720	955	0.001
	Na	23	**94210.897**	**ug/L**	2.541	112747037	113.084
	Mg	24	**97156.135**	**ug/L**	3.686	79119671	79.399
	Al	27	**93237.006**	**ug/L**	4.083	112426610	112.709
	P	31	**96891.336**	**ug/L**	2.632	6100462	6.119
	K	39	**99517.422**	**ug/L**	2.440	211762083	212.067
	Ca	43	**97916.819**	**ug/L**	1.283	427042	0.428
>	Sc	45		**ug/L**		996916	996915.937
	Ti	47	**1515.187**	**ug/L**	0.815	308233	0.309
	V	51	**18.574**	**ug/L**	12.291	41630	0.038
	Cr	52	**23.285**	**ug/L**	1.877	49375	0.047
	Cr	53		**ug/L**		135264	0.005
	Mn	55	**25.339**	**ug/L**	1.803	84662	0.084
	Fe	57	**98617.853**	**ug/L**	1.932	6589246	6.606
	Co	59	**19.264**	**ug/L**	2.525	48441	0.048
	Ni	60	**22.427**	**ug/L**	0.945	11636	0.012
	Cu	63		**ug/L**		24189	0.024
	Cu	65	**20.693**	**ug/L**	2.163	11648	0.012
	Zn	66	**23.137**	**ug/L**	3.766	6483	0.047
	Zn	67		**ug/L**		6766	0.014
	Zn	68		**ug/L**		4533	0.031
>	Ge	74		**ug/L**		135021	135020.822
	As	75	**21.446**	**ug/L**	4.865	7437	0.052
	Se	77		**ug/L**		6874	0.019
	Se	82	**21.667**	**ug/L**	2.476	670	0.005
	Kr	83		**ug/L**		74	0.000
	Sr	88	**22.223**	**ug/L**	3.040	101315	1.397
	Y	89		**ug/L**		153	0.002
	Zr	90	**21.730**	**ug/L**	2.313	53354	0.734
	Mo	98	**2124.721**	**ug/L**	2.313	2201857	30.420
	Ag	107	**19.611**	**ug/L**	1.766	30556	0.421
	Cd	111	**20.267**	**ug/L**	1.845	7228	0.100
	Cd	114		**ug/L**		18242	0.252
>	In	115		**ug/L**		72389	72389.001
	Sn	120	**20.485**	**ug/L**	1.446	33418	0.460
	Sb	121	**21.896**	**ug/L**	1.983	27633	0.379
	Sb	123		**ug/L**		21072	0.289
	Ba	135		**ug/L**		7966	0.099
	Ba	137	**20.280**	**ug/L**	1.908	13918	0.173
	Ho	165		**ug/L**		226	0.003
>	Lu	175		**ug/L**		80333	80333.041
	Tl	205	**18.126**	**ug/L**	1.148	40891	0.507
	Pb	208	**18.994**	**ug/L**	1.454	97080	1.204
	Bi	209		**ug/L**		241	0.003
	Th	232	**20.173**	**ug/L**	1.233	128230	1.592
	U	238	**20.747**	**ug/L**	1.124	134535	1.672

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7	84.630				
	Be	9	90.875				
	B	11	95.102				
	Na	23	94.211				
	Mg	24	97.156				
	Al	27	93.237				
	P	31	96.891				
	K	39	99.517				
	Ca	43	97.917				
>	Sc	45		106.9			
	Ti	47	75.759				
	V	51	92.872				
	Cr	52	98.250				
	Cr	53					
	Mn	55	98.212				
	Fe	57	98.618				
	Co	59	95.132				
	Ni	60	98.798				
	Cu	63					
	Cu	65	90.362				
	Zn	66	98.037				
	Zn	67					
	Zn	68					
>	Ge	74		101.3			
	As	75	107.232				
	Se	77					
	Se	82	108.337				
	Kr	83					
	Sr	88	104.828				
	Y	89					
	Zr	90	108.650				
	Mo	98	106.236				
	Ag	107	98.056				
	Cd	111	99.349				
	Cd	114					
>	In	115		101.4			
	Sn	120	102.423				
	Sb	121	108.936				
	Sb	123					
	Ba	135					
	Ba	137	98.115				
	Ho	165					
>	Lu	175		102.9			
	Tl	205	90.632				
	Pb	208	94.028				
	Bi	209					
	Th	232	100.866				
	U	238	103.736				

QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
QC Std 5	Ti	47ICSAB is out of limits

QC Action

QC Action Line: Continue

ICPMS#4 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Friday, January 01, 2010 01:56:32
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\091231\QC Std 6.208

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**43.745**	**ug/L**	2.176	8855	0.009
	Be	9	**46.510**	**ug/L**	1.886	2590	0.003
	B	11	**93.914**	**ug/L**	1.381	4575	0.004
	Na	23	**4772.658**	**ug/L**	4.129	5857956	5.729
	Mg	24	**5332.028**	**ug/L**	7.002	4439016	4.357
	Al	27	**4552.622**	**ug/L**	5.822	5613978	5.503
	P	31	**4890.686**	**ug/L**	1.134	316926	0.309
	K	39	**5091.619**	**ug/L**	4.357	11475854	10.850
	Ca	43	**5065.650**	**ug/L**	0.622	22958	0.022
>	Sc	45		**ug/L**		1018739	1018738.836
	Ti	47	**52.310**	**ug/L**	1.245	11046	0.011
	V	51	**48.930**	**ug/L**	6.745	106212	0.101
	Cr	52	**51.003**	**ug/L**	2.069	107849	0.104
	Cr	53		**ug/L**		151610	0.018
	Mn	55	**51.460**	**ug/L**	0.017	174762	0.171
	Fe	57	**5023.170**	**ug/L**	0.687	347660	0.337
	Co	59	**49.345**	**ug/L**	2.439	126463	0.124
	Ni	60	**51.728**	**ug/L**	1.974	27350	0.027
	Cu	63		**ug/L**		60692	0.059
	Cu	65	**50.048**	**ug/L**	0.963	28687	0.028
	Zn	66	**52.147**	**ug/L**	3.215	15325	0.107
	Zn	67		**ug/L**		7966	0.020
	Zn	68		**ug/L**		11352	0.077
>	Ge	74		**ug/L**		142750	142749.538
	As	75	**49.229**	**ug/L**	1.545	17534	0.120
	Se	77		**ug/L**		7883	0.023
	Se	82	**48.693**	**ug/L**	3.789	1587	0.011
	Kr	83		**ug/L**		45	0.000
	Sr	88	**51.179**	**ug/L**	0.926	247618	3.218
	Y	89		**ug/L**		86	0.001
	Zr	90	**49.765**	**ug/L**	2.017	129507	1.681
	Mo	98	**50.015**	**ug/L**	0.685	55117	0.716
	Ag	107	**50.329**	**ug/L**	1.048	83196	1.081
	Cd	111	**50.173**	**ug/L**	1.596	18989	0.247
	Cd	114		**ug/L**		44273	0.575
>	In	115		**ug/L**		76899	76899.193
	Sn	120	**50.114**	**ug/L**	1.711	86650	1.125
	Sb	121	**49.693**	**ug/L**	2.557	66402	0.861
	Sb	123		**ug/L**		51064	0.662
	Ba	135		**ug/L**		20793	0.252
	Ba	137	**51.024**	**ug/L**	0.620	35885	0.435
	Ho	165		**ug/L**		18	0.000
>	Lu	175		**ug/L**		82454	82454.104
	Tl	205	**48.994**	**ug/L**	2.129	113131	1.370
	Pb	208	**50.436**	**ug/L**	1.666	263942	3.197
	Bi	209		**ug/L**		68	0.001
	Th	232	**50.728**	**ug/L**	0.586	330458	4.004
	U	238	**52.227**	**ug/L**	1.777	347229	4.208

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7	87.490				
	Be	9	93.019				
	B	11	93.914				
	Na	23	95.453				
	Mg	24	106.641				
	Al	27	90.151				
	P	31	97.814				
	K	39	101.832				
	Ca	43	101.313				
>	Sc	45		109.2			
	Ti	47	104.620				
	V	51	97.860				
	Cr	52	102.006				
	Cr	53					
	Mn	55	102.920				
	Fe	57	100.463				
	Co	59	98.690				
	Ni	60	103.456				
	Cu	63					
	Cu	65	100.096				
	Zn	66	104.293				
	Zn	67					
	Zn	68					
>	Ge	74		107.1			
	As	75	98.458				
	Se	77					
	Se	82	97.385				
	Kr	83					
	Sr	88	102.358				
	Y	89					
	Zr	90	99.530				
	Mo	98	100.031				
	Ag	107	100.659				
	Cd	111	100.346				
	Cd	114					
>	In	115		107.7			
	Sn	120	100.229				
	Sb	121	99.386				
	Sb	123					
	Ba	135					
	Ba	137	102.048				
	Ho	165					
>	Lu	175		105.7			
	Tl	205	97.989				
	Pb	208	100.872				
	Bi	209					
	Th	232	101.456				
	U	238	104.454				

QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
QC Std 6	Li	7CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#4 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Friday, January 01, 2010 02:02:46
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\091231\QC Std 7.209

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.084**	**ug/L**	29.226	40	0.000
	Be	9	**-0.024**	**ug/L**	113.937	3	-0.000
	B	11	**2.294**	**ug/L**	39.441	172	0.000
	Na	23	**8.841**	**ug/L**	62.614	30701	0.011
	Mg	24	**3.368**	**ug/L**	116.485	5668	0.003
	Al	27	**3.986**	**ug/L**	45.919	10671	0.005
	P	31	**1.949**	**ug/L**	47.360	2432	0.000
	K	39	**24.177**	**ug/L**	35.287	478213	0.052
	Ca	43	**3.287**	**ug/L**	85.426	411	0.000
>	Sc	45		**ug/L**		1014566	1014565.792
	Ti	47	**0.356**	**ug/L**	13.846	251	0.000
	V	51	**0.080**	**ug/L**	1760.087	3741	0.000
	Cr	52	**0.904**	**ug/L**	4.503	4097	0.002
	Cr	53		**ug/L**		144315	0.012
	Mn	55	**0.023**	**ug/L**	45.103	1027	0.000
	Fe	57	**15.706**	**ug/L**	8.719	5909	0.001
	Co	59	**-0.001**	**ug/L**	643.199	217	-0.000
	Ni	60	**-0.005**	**ug/L**	345.890	52	-0.000
	Cu	63		**ug/L**		119	0.000
	Cu	65	**-0.002**	**ug/L**	1034.266	74	-0.000
	Zn	66	**0.028**	**ug/L**	129.358	106	0.000
	Zn	67		**ug/L**		5663	0.004
	Zn	68		**ug/L**		441	0.000
>	Ge	74		**ug/L**		143108	143108.073
	As	75	**0.838**	**ug/L**	101.152	694	0.002
	Se	77		**ug/L**		6727	0.015
	Se	82	**0.356**	**ug/L**	84.885	16	0.000
	Kr	83		**ug/L**		42	-0.000
	Sr	88	**0.001**	**ug/L**	388.071	205	0.000
	Y	89		**ug/L**		14	-0.000
	Zr	90	**0.092**	**ug/L**	26.198	468	0.003
	Mo	98	**0.163**	**ug/L**	2.734	234	0.002
	Ag	107	**0.019**	**ug/L**	22.902	101	0.000
	Cd	111	**0.014**	**ug/L**	213.588	20	0.000
	Cd	114		**ug/L**		38	0.000
>	In	115		**ug/L**		77174	77174.073
	Sn	120	**0.120**	**ug/L**	19.096	345	0.003
	Sb	121	**0.398**	**ug/L**	11.888	708	0.007
	Sb	123		**ug/L**		600	0.005
	Ba	135		**ug/L**		27	0.000
	Ba	137	**-0.005**	**ug/L**	163.200	35	-0.000
	Ho	165		**ug/L**		10	-0.000
>	Lu	175		**ug/L**		81512	81512.038
	Tl	205	**0.150**	**ug/L**	24.487	516	0.004
	Pb	208	**0.007**	**ug/L**	16.677	418	0.000
	Bi	209		**ug/L**		19	-0.000
	Th	232	**0.065**	**ug/L**	32.762	753	0.005
	U	238	**0.004**	**ug/L**	97.400	274	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45			108.8		
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74			107.3		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115			108.1		
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175			104.5		
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 10
Sample Date/Time: Friday, January 01, 2010 02:08:57
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\091231\QC Std 10.210

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**843.447**	**ug/L**	3.550	164989	0.167
	Be	9	**924.825**	**ug/L**	1.878	49816	0.050
	B	11	**1.040**	**ug/L**	16.894	109	0.000
	Na	23	**48365.691**	**ug/L**	3.012	57311874	58.055
	Mg	24	**49232.306**	**ug/L**	4.293	39719351	40.234
	Al	27	**47181.563**	**ug/L**	1.184	56297331	57.035
	P	31	**23759.957**	**ug/L**	0.633	1483138	1.501
	K	39	**48143.204**	**ug/L**	2.199	101674441	102.591
	Ca	43	**49508.992**	**ug/L**	1.272	213989	0.216
>	Sc	45		**ug/L**		986883	986883.326
	Ti	47	**31.986**	**ug/L**	2.335	6612	0.007
	V	51	**969.689**	**ug/L**	1.300	1974335	1.997
	Cr	52	**943.253**	**ug/L**	1.091	1894561	1.918
	Cr	53		**ug/L**		361337	0.236
	Mn	55	**987.910**	**ug/L**	0.918	3233420	3.275
	Fe	57	**49196.896**	**ug/L**	1.477	3257543	3.296
	Co	59	**933.800**	**ug/L**	0.344	2315102	2.346
	Ni	60	**935.684**	**ug/L**	1.347	478420	0.485
	Cu	63		**ug/L**		1067336	1.081
	Cu	65	**932.803**	**ug/L**	1.060	516682	0.524
	Zn	66	**2431.780**	**ug/L**	1.298	675479	4.976
	Zn	67		**ug/L**		110951	0.782
	Zn	68		**ug/L**		469738	3.458
>	Ge	74		**ug/L**		135736	135736.170
	As	75	**952.210**	**ug/L**	1.328	315484	2.322
	Se	77		**ug/L**		17447	0.096
	Se	82	**483.947**	**ug/L**	1.633	14968	0.110
	Kr	83		**ug/L**		61	0.000
	Sr	88	**1031.437**	**ug/L**	1.350	4691903	64.846
	Y	89		**ug/L**		167	0.002
	Zr	90	**512.461**	**ug/L**	0.986	1252859	17.313
	Mo	98	**997.894**	**ug/L**	1.389	1033691	14.287
	Ag	107	**246.422**	**ug/L**	2.463	382947	5.293
	Cd	111	**1001.878**	**ug/L**	1.696	356458	4.927
	Cd	114		**ug/L**		810839	11.209
>	In	115		**ug/L**		72360	72359.590
	Sn	120	**1012.688**	**ug/L**	1.215	1645040	22.736
	Sb	121	**255.381**	**ug/L**	2.552	320436	4.426
	Sb	123		**ug/L**		243861	3.367
	Ba	135		**ug/L**		387060	4.682
	Ba	137	**947.239**	**ug/L**	1.592	667276	8.071
	Ho	165		**ug/L**		77	0.001
>	Lu	175		**ug/L**		82673	82672.687
	Tl	205	**463.332**	**ug/L**	1.820	1071299	12.957
	Pb	208	**4751.637**	**ug/L**	1.851	24897537	301.164
	Bi	209		**ug/L**		601	0.007
	Th	232	**2473.291**	**ug/L**	1.955	16138658	195.204
	U	238	**5111.441**	**ug/L**	3.100	34048991	411.862

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7	84.345				
	Be	9	92.482				
	B	11					
	Na	23	96.731				
	Mg	24	98.465				
	Al	27	94.363				
	P	31	95.040				
	K	39	96.286				
	Ca	43	99.018				
>	Sc	45		105.8			
	Ti	47					
	V	51	96.969				
	Cr	52	94.325				
	Cr	53					
	Mn	55	98.791				
	Fe	57	98.394				
	Co	59	93.380				
	Ni	60	93.568				
	Cu	63					
	Cu	65	93.280				
	Zn	66	97.271				
	Zn	67					
	Zn	68					
>	Ge	74		101.8			
	As	75	95.221				
	Se	77					
	Se	82	96.789				
	Kr	83					
	Sr	88	103.144				
	Y	89					
	Zr	90	102.492				
	Mo	98	99.789				
	Ag	107	98.569				
	Cd	111	100.188				
	Cd	114					
>	In	115		101.3			
	Sn	120	101.269				
	Sb	121	102.153				
	Sb	123					
	Ba	135					
	Ba	137	94.724				
	Ho	165					
>	Lu	175		105.9			
	Tl	205	92.666				
	Pb	208	95.033				
	Bi	209					
	Th	232	98.932				
	U	238	102.229				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 10	Li	7	LRS is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#4 - Summary Report

Sample ID: QC Std 11
Sample Date/Time: Friday, January 01, 2010 02:15:07
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\091231\QC Std 11.211

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**43.426**	**ug/L**	2.252	8697	0.009
	Be	9	**47.952**	**ug/L**	1.763	2641	0.003
	B	11	**93.438**	**ug/L**	3.956	4502	0.004
	Na	23	**4855.237**	**ug/L**	3.377	5891791	5.828
	Mg	24	**5113.891**	**ug/L**	0.396	4214698	4.179
	Al	27	**4755.852**	**ug/L**	2.221	5800411	5.749
	P	31	**4988.411**	**ug/L**	2.225	319726	0.315
	K	39	**5216.005**	**ug/L**	8.078	11621295	11.115
	Ca	43	**5009.403**	**ug/L**	1.243	22461	0.022
>	Sc	45		**ug/L**		1007790	1007789.949
	Ti	47	**50.528**	**ug/L**	1.506	10563	0.010
	V	51	**48.766**	**ug/L**	4.613	104784	0.100
	Cr	52	**51.589**	**ug/L**	1.056	107905	0.105
	Cr	53		**ug/L**		152641	0.021
	Mn	55	**51.489**	**ug/L**	2.034	172951	0.171
	Fe	57	**4996.116**	**ug/L**	2.010	342064	0.335
	Co	59	**49.434**	**ug/L**	1.002	125352	0.124
	Ni	60	**52.130**	**ug/L**	0.961	27270	0.027
	Cu	63		**ug/L**		61261	0.061
	Cu	65	**51.574**	**ug/L**	1.336	29242	0.029
	Zn	66	**53.565**	**ug/L**	1.261	15499	0.110
	Zn	67		**ug/L**		8396	0.024
	Zn	68		**ug/L**		11334	0.078
>	Ge	74		**ug/L**		140540	140540.395
	As	75	**49.030**	**ug/L**	1.172	17192	0.120
	Se	77		**ug/L**		7266	0.020
	Se	82	**50.355**	**ug/L**	1.144	1616	0.011
	Kr	83		**ug/L**		45	0.000
	Sr	88	**51.050**	**ug/L**	2.355	246120	3.209
	Y	89		**ug/L**		29	0.000
	Zr	90	**52.196**	**ug/L**	1.803	135350	1.763
	Mo	98	**49.941**	**ug/L**	1.116	54843	0.715
	Ag	107	**50.628**	**ug/L**	1.395	83397	1.087
	Cd	111	**50.989**	**ug/L**	2.022	19228	0.251
	Cd	114		**ug/L**		43813	0.571
>	In	115		**ug/L**		76634	76634.269
	Sn	120	**51.998**	**ug/L**	1.163	89598	1.167
	Sb	121	**52.149**	**ug/L**	3.888	69430	0.904
	Sb	123		**ug/L**		52361	0.681
	Ba	135		**ug/L**		20407	0.247
	Ba	137	**50.553**	**ug/L**	2.040	35629	0.431
	Ho	165		**ug/L**		12	-0.000
>	Lu	175		**ug/L**		82646	82645.913
	Tl	205	**49.661**	**ug/L**	0.603	114941	1.389
	Pb	208	**51.612**	**ug/L**	2.174	270675	3.271
	Bi	209		**ug/L**		65	0.001
	Th	232	**52.122**	**ug/L**	1.541	340271	4.114
	U	238	**53.824**	**ug/L**	1.350	358627	4.337

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7	86.852				
	Be	9	95.904				
	B	11	93.438				
	Na	23	97.105				
	Mg	24	102.278				
	Al	27	94.175				
	P	31	99.768				
	K	39	104.320				
	Ca	43	100.188				
>	Sc	45		108.0			
	Ti	47	101.057				
	V	51	97.532				
	Cr	52	103.177				
	Cr	53					
	Mn	55	102.977				
	Fe	57	99.922				
	Co	59	98.868				
	Ni	60	104.260				
	Cu	63					
	Cu	65	103.148				
	Zn	66	107.131				
	Zn	67					
	Zn	68					
>	Ge	74		105.4			
	As	75	98.060				
	Se	77					
	Se	82	100.711				
	Kr	83					
	Sr	88	102.099				
	Y	89					
	Zr	90	104.392				
	Mo	98	99.883				
	Ag	107	101.257				
	Cd	111	101.978				
	Cd	114					
>	In	115		107.3			
	Sn	120	103.995				
	Sb	121	104.298				
	Sb	123					
	Ba	135					
	Ba	137	101.106				
	Ho	165					
>	Lu	175		105.9			
	Tl	205	99.321				
	Pb	208	103.224				
	Bi	209					
	Th	232	104.243				
	U	238	107.648				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 11	Li	7	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#4 - Summary Report

Sample ID: QC Std 12
Sample Date/Time: Friday, January 01, 2010 02:21:19
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\091231\QC Std 12.212

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.165**	ug/L	22.547	56	0.000
	Be	9	**0.036**	ug/L	4.133	6	0.000
	B	11	**2.303**	ug/L	28.682	173	0.000
	Na	23	**3.547**	ug/L	165.107	24355	0.004
	Mg	24	**4.161**	ug/L	103.130	6335	0.003
	Al	27	**2.896**	ug/L	146.326	9337	0.004
	P	31	**0.820**	ug/L	54.243	2363	0.000
	K	39	**12.687**	ug/L	124.435	453781	0.027
	Ca	43	**-2.149**	ug/L	326.877	387	-0.000
>	Sc	45		ug/L		1015897	1015897.419
	Ti	47	**0.063**	ug/L	92.637	191	0.000
	V	51	**-0.203**	ug/L	791.173	3158	-0.000
	Cr	52	**0.782**	ug/L	11.375	3850	0.002
	Cr	53		ug/L		141746	0.009
	Mn	55	**0.037**	ug/L	36.781	1078	0.000
	Fe	57	**5.954**	ug/L	32.945	5253	0.000
	Co	59	**0.024**	ug/L	53.572	282	0.000
	Ni	60	**0.043**	ug/L	53.778	78	0.000
	Cu	63		ug/L		179	0.000
	Cu	65	**0.043**	ug/L	124.620	99	0.000
	Zn	66	**0.197**	ug/L	6.187	155	0.000
	Zn	67		ug/L		5701	0.004
	Zn	68		ug/L		538	0.001
>	Ge	74		ug/L		142300	142300.351
	As	75	**0.732**	ug/L	30.418	650	0.002
	Se	77		ug/L		6312	0.012
	Se	82	**-0.151**	ug/L	342.150	-1	-0.000
	Kr	83		ug/L		46	0.000
	Sr	88	**0.032**	ug/L	52.824	352	0.002
	Y	89		ug/L		20	-0.000
	Zr	90	**0.224**	ug/L	17.566	809	0.008
	Mo	98	**0.188**	ug/L	13.539	260	0.003
	Ag	107	**0.033**	ug/L	33.362	124	0.001
	Cd	111	**0.054**	ug/L	63.668	35	0.000
	Cd	114		ug/L		74	0.001
>	In	115		ug/L		76793	76793.011
	Sn	120	**0.714**	ug/L	6.148	1367	0.016
	Sb	121	**1.427**	ug/L	8.311	2074	0.025
	Sb	123		ug/L		1592	0.018
	Ba	135		ug/L		45	0.000
	Ba	137	**0.033**	ug/L	12.068	62	0.000
	Ho	165		ug/L		13	0.000
>	Lu	175		ug/L		82544	82543.611
	Tl	205	**0.255**	ug/L	7.647	767	0.007
	Pb	208	**0.325**	ug/L	20.103	2089	0.021
	Bi	209		ug/L		23	0.000
	Th	232	**0.304**	ug/L	4.467	2318	0.024
	U	238	**0.170**	ug/L	34.373	1384	0.014

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Li	7					
|	Be	9					
|	B	11					
|	Na	23					
|	Mg	24					
|	Al	27					
|	P	31					
|	K	39					
|	Ca	43					
|>	Sc	45		108.9			
|	Ti	47					
|	V	51					
|	Cr	52					
|	Cr	53					
|	Mn	55					
|	Fe	57					
|	Co	59					
|	Ni	60					
|	Cu	63					
⌊	Cu	65					
⌈	Zn	66					
|	Zn	67					
|	Zn	68					
|>	Ge	74		106.7			
|	As	75					
|	Se	77					
|	Se	82					
⌊	Kr	83					
⌈	Sr	88					
|	Y	89					
|	Zr	90					
|	Mo	98					
|	Ag	107					
|	Cd	111					
|	Cd	114					
|>	In	115		107.5			
|	Sn	120					
|	Sb	121					
⌊	Sb	123					
⌈	Ba	135					
|	Ba	137					
|	Ho	165					
|>	Lu	175		105.8			
|	Tl	205					
|	Pb	208					
|	Bi	209					
|	Th	232					
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 1201994315
Sample Date/Time: Friday, January 01, 2010 02:27:34
Sample Type:
Sample Description: LANL 6020 MB
Number of Replicates: 3
Batch ID: 932323|2|sk|
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\091231\1201994315.213

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	0.086	ug/L	17.188	40	0.000
	Be	9	0.018	ug/L	98.481	5	0.000
	B	11	0.979	ug/L	23.051	110	0.000
	Na	23	3.525	ug/L	24.931	24354	0.004
	Mg	24	-1.090	ug/L	292.014	2000	-0.001
	Al	27	0.676	ug/L	244.852	6668	0.001
	P	31	16.704	ug/L	17.237	3392	0.001
	K	39	-0.533	ug/L	1764.770	426617	-0.001
	Ca	43	-2.029	ug/L	432.020	389	-0.000
>	Sc	45		ug/L		1018976	1018976.383
	Ti	47	0.039	ug/L	169.924	187	0.000
	V	51	0.171	ug/L	348.691	3975	0.000
	Cr	52	1.184	ug/L	8.274	4696	0.002
	Cr	53		ug/L		114224	-0.019
	Mn	55	0.184	ug/L	11.106	1578	0.001
	Fe	57	21.465	ug/L	8.837	6327	0.001
	Co	59	-0.002	ug/L	899.583	216	-0.000
	Ni	60	0.284	ug/L	17.392	205	0.000
	Cu	63		ug/L		238	0.000
	Cu	65	0.099	ug/L	11.294	132	0.000
	Zn	66	0.690	ug/L	11.044	294	0.001
	Zn	67		ug/L		4728	-0.002
	Zn	68		ug/L		558	0.001
>	Ge	74		ug/L		140384	140383.818
	As	75	-0.049	ug/L	2905.700	376	-0.000
	Se	77		ug/L		4683	0.001
	Se	82	-0.082	ug/L	237.251	2	-0.000
	Kr	83		ug/L		50	0.000
	Sr	88	0.023	ug/L	57.187	310	0.001
	Y	89		ug/L		18	-0.000
	Zr	90	0.317	ug/L	16.933	1050	0.011
	Mo	98	0.089	ug/L	28.433	152	0.001
	Ag	107	-0.004	ug/L	100.057	64	-0.000
	Cd	111	0.014	ug/L	163.797	20	0.000
	Cd	114		ug/L		37	0.000
>	In	115		ug/L		76919	76919.392
	Sn	120	0.457	ug/L	5.747	926	0.010
	Sb	121	0.710	ug/L	20.368	1121	0.012
	Sb	123		ug/L		907	0.009
	Ba	135		ug/L		198	0.002
	Ba	137	0.462	ug/L	11.250	364	0.004
	Ho	165		ug/L		13	0.000
>	Lu	175		ug/L		82581	82580.517
	Tl	205	0.097	ug/L	11.691	402	0.003
	Pb	208	0.153	ug/L	34.634	1191	0.010
	Bi	209		ug/L		32	0.000
	Th	232	0.185	ug/L	27.652	1549	0.015
	U	238	0.070	ug/L	95.251	724	0.006

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45			109.2		
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74			105.3		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115			107.7		
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175			105.8		
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 1201994316
Sample Date/Time: Friday, January 01, 2010 02:33:51
Sample Type:
Sample Description: LANL 6020 LCS
Number of Replicates: 3
Batch ID: 932323|40|skj
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\091231\1201994316.214

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**2.537**	**ug/L**	3.910	537	0.001
	Be	9	**19.837**	**ug/L**	2.450	1111	0.001
	B	11	**37.561**	**ug/L**	3.258	1875	0.002
	Na	23	**269.669**	**ug/L**	6.183	351277	0.324
	Mg	24	**1210.687**	**ug/L**	6.745	1014527	0.989
	Al	27	**3395.110**	**ug/L**	4.638	4203919	4.104
	P	31	**210.443**	**ug/L**	3.127	15919	0.013
	K	39	**1286.690**	**ug/L**	7.972	3233265	2.742
	Ca	43	**2756.533**	**ug/L**	1.702	12724	0.012
>	Sc	45		**ug/L**		1022910	1022909.667
	Ti	47	**140.332**	**ug/L**	0.317	29458	0.029
	V	51	**23.910**	**ug/L**	7.852	54003	0.049
	Cr	52	**64.851**	**ug/L**	0.854	137096	0.132
	Cr	53		**ug/L**		154243	0.020
	Mn	55	**151.698**	**ug/L**	1.679	515342	0.503
	Fe	57	**4805.310**	**ug/L**	2.308	334099	0.322
	Co	59	**25.452**	**ug/L**	1.817	65611	0.064
	Ni	60	**37.190**	**ug/L**	2.189	19762	0.019
	Cu	63		**ug/L**		56645	0.055
	Cu	65	**47.654**	**ug/L**	1.217	27431	0.027
	Zn	66	**164.345**	**ug/L**	1.841	47507	0.336
	Zn	67		**ug/L**		12760	0.055
	Zn	68		**ug/L**		33639	0.236
>	Ge	74		**ug/L**		140992	140992.447
	As	75	**28.893**	**ug/L**	1.877	10323	0.070
	Se	77		**ug/L**		8046	0.025
	Se	82	**75.933**	**ug/L**	2.442	2443	0.017
	Kr	83		**ug/L**		46	0.000
	Sr	88	**65.387**	**ug/L**	1.288	318318	4.111
	Y	89		**ug/L**		15839	0.204
	Zr	90	**2.835**	**ug/L**	1.939	7642	0.096
	Mo	98	**13.210**	**ug/L**	1.678	14691	0.189
	Ag	107	**2.728**	**ug/L**	1.396	4605	0.059
	Cd	111	**16.219**	**ug/L**	1.065	6187	0.080
	Cd	114		**ug/L**		14203	0.183
>	In	115		**ug/L**		77389	77389.232
	Sn	120	**11.630**	**ug/L**	1.211	20343	0.261
	Sb	121	**12.896**	**ug/L**	1.433	17474	0.223
	Sb	123		**ug/L**		13373	0.170
	Ba	135		**ug/L**		22469	0.271
	Ba	137	**54.651**	**ug/L**	1.218	38559	0.466
	Ho	165		**ug/L**		606	0.007
>	Lu	175		**ug/L**		82729	82728.685
	Tl	205	**32.895**	**ug/L**	1.603	76270	0.920
	Pb	208	**23.496**	**ug/L**	0.890	123580	1.489
	Bi	209		**ug/L**		1103	0.013
	Th	232	**2.943**	**ug/L**	0.342	19557	0.232
	U	238	**0.519**	**ug/L**	1.761	3714	0.042

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		109.7			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		105.7			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		108.4			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		106.0			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
	Ti	47	Sample is out of limits (over linear range)

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 242781001
Sample Date/Time: Friday, January 01, 2010 02:46:21
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 932323|2|skj
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\091231\242781001.216

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**12.297**	**ug/L**	4.335	2502	0.002
	Be	9	**2.744**	**ug/L**	0.905	156	0.000
	B	11	**4.841**	**ug/L**	9.158	295	0.000
	Na	23	**331.810**	**ug/L**	5.235	424898	0.398
	Mg	24	**1587.727**	**ug/L**	4.481	1322190	1.298
	Al	27	**14067.818**	**ug/L**	9.666	17319832	17.006
	P	31	**516.953**	**ug/L**	0.113	35519	0.033
	K	39	**1515.841**	**ug/L**	4.937	3711542	3.230
	Ca	43	**1989.775**	**ug/L**	2.575	9243	0.009
>	Sc	45		**ug/L**		1017137	1017137.488
	Ti	47	**1038.915**	**ug/L**	1.317	215678	0.212
	V	51	**20.355**	**ug/L**	6.930	46284	0.042
	Cr	52	**7.566**	**ug/L**	1.474	17882	0.015
	Cr	53		**ug/L**		104166	-0.028
	Mn	55	**1919.080**	**ug/L**	1.011	6472145	6.363
	Fe	57	**28107.705**	**ug/L**	1.895	1919662	1.883
	Co	59	**6.124**	**ug/L**	1.330	15864	0.015
	Ni	60	**17.408**	**ug/L**	0.710	9228	0.009
	Cu	63		**ug/L**		29146	0.029
	Cu	65	**24.210**	**ug/L**	1.773	13892	0.014
	Zn	66	**204.549**	**ug/L**	2.760	57512	0.419
	Zn	67		**ug/L**		13271	0.061
	Zn	68		**ug/L**		41307	0.298
>	Ge	74		**ug/L**		137216	137215.961
	As	75	**5.459**	**ug/L**	14.408	2208	0.013
	Se	77		**ug/L**		3926	-0.003
	Se	82	**1.986**	**ug/L**	50.699	66	0.000
	Kr	83		**ug/L**		106	0.000
	Sr	88	**11.050**	**ug/L**	1.660	53829	0.695
	Y	89		**ug/L**		744745	9.646
	Zr	90	**42.968**	**ug/L**	1.431	112316	1.452
	Mo	98	**27.285**	**ug/L**	0.583	30214	0.391
	Ag	107	**0.811**	**ug/L**	5.449	1414	0.017
	Cd	111	**1.703**	**ug/L**	3.104	661	0.008
	Cd	114		**ug/L**		659	0.008
>	In	115		**ug/L**		77209	77208.896
	Sn	120	**3.914**	**ug/L**	1.083	6922	0.088
	Sb	121	**0.741**	**ug/L**	7.207	1168	0.013
	Sb	123		**ug/L**		931	0.010
	Ba	135		**ug/L**		89122	0.972
	Ba	137	**196.918**	**ug/L**	1.369	153891	1.678
	Ho	165		**ug/L**		26973	0.294
>	Lu	175		**ug/L**		91702	91701.648
	Tl	205	**0.685**	**ug/L**	6.504	1953	0.019
	Pb	208	**14.948**	**ug/L**	0.727	87306	0.947
	Bi	209		**ug/L**		585	0.006
	Th	232	**19.733**	**ug/L**	0.835	143197	1.557
	U	238	**2.393**	**ug/L**	2.068	17963	0.193

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		109.0			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		102.9			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		108.1			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		117.5			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
	Ti	47	Sample is out of limits (over linear range)
	Mn	55	Sample is out of limits (over linear range)

QC Action

QC Action Line: Continue

ICPMS#4 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Friday, January 01, 2010 02:52:35
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\091231\QC Std 6.217

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**44.106**	**ug/L**	3.276	8996	0.009
	Be	9	**47.245**	**ug/L**	1.810	2651	0.003
	B	11	**95.730**	**ug/L**	2.754	4701	0.005
	Na	23	**5095.754**	**ug/L**	10.405	6293299	6.117
	Mg	24	**5077.747**	**ug/L**	3.740	4264546	4.150
	Al	27	**4602.956**	**ug/L**	2.935	5719011	5.564
	P	31	**4925.934**	**ug/L**	1.095	321746	0.311
	K	39	**4999.405**	**ug/L**	2.434	11369570	10.653
	Ca	43	**5021.491**	**ug/L**	1.009	22940	0.022
>	Sc	45		**ug/L**		1026772	1026772.194
	Ti	47	**50.259**	**ug/L**	1.115	10707	0.010
	V	51	**48.210**	**ug/L**	3.706	105561	0.099
	Cr	52	**51.865**	**ug/L**	1.613	110505	0.105
	Cr	53		**ug/L**		151054	0.017
	Mn	55	**51.442**	**ug/L**	0.863	176067	0.171
	Fe	57	**5091.647**	**ug/L**	1.655	355106	0.341
	Co	59	**49.872**	**ug/L**	1.715	128850	0.125
	Ni	60	**51.760**	**ug/L**	1.904	27589	0.027
	Cu	63		**ug/L**		61635	0.060
	Cu	65	**50.992**	**ug/L**	1.997	29452	0.029
	Zn	66	**52.327**	**ug/L**	2.898	15365	0.107
	Zn	67		**ug/L**		7953	0.020
	Zn	68		**ug/L**		11422	0.077
>	Ge	74		**ug/L**		142650	142649.709
	As	75	**48.733**	**ug/L**	0.469	17345	0.119
	Se	77		**ug/L**		7359	0.019
	Se	82	**49.235**	**ug/L**	3.256	1604	0.011
	Kr	83		**ug/L**		48	0.000
	Sr	88	**51.776**	**ug/L**	0.063	250412	3.255
	Y	89		**ug/L**		185	0.002
	Zr	90	**51.183**	**ug/L**	0.471	133154	1.729
	Mo	98	**49.876**	**ug/L**	1.368	54946	0.714
	Ag	107	**50.502**	**ug/L**	0.639	83457	1.085
	Cd	111	**51.354**	**ug/L**	1.395	19429	0.253
	Cd	114		**ug/L**		44271	0.576
>	In	115		**ug/L**		76868	76868.058
	Sn	120	**49.952**	**ug/L**	1.044	86340	1.121
	Sb	121	**50.338**	**ug/L**	1.602	67244	0.872
	Sb	123		**ug/L**		51658	0.669
	Ba	135		**ug/L**		20518	0.248
	Ba	137	**50.690**	**ug/L**	0.744	35759	0.432
	Ho	165		**ug/L**		23	0.000
>	Lu	175		**ug/L**		82705	82704.874
	Tl	205	**48.142**	**ug/L**	1.686	111514	1.346
	Pb	208	**50.418**	**ug/L**	1.064	264670	3.196
	Bi	209		**ug/L**		73	0.001
	Th	232	**51.011**	**ug/L**	1.690	333303	4.026
	U	238	**52.835**	**ug/L**	1.926	352329	4.257

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7	88.212				
	Be	9	94.490				
	B	11	95.730				
	Na	23	101.915				
	Mg	24	101.555				
	Al	27	91.148				
	P	31	98.519				
	K	39	99.988				
	Ca	43	100.430				
>	Sc	45		110.1			
	Ti	47	100.518				
	V	51	96.420				
	Cr	52	103.729				
	Cr	53					
	Mn	55	102.883				
	Fe	57	101.833				
	Co	59	99.743				
	Ni	60	103.519				
	Cu	63					
	Cu	65	101.983				
	Zn	66	104.654				
	Zn	67					
	Zn	68					
>	Ge	74		107.0			
	As	75	97.467				
	Se	77					
	Se	82	98.471				
	Kr	83					
	Sr	88	103.551				
	Y	89					
	Zr	90	102.365				
	Mo	98	99.753				
	Ag	107	101.005				
	Cd	111	102.709				
	Cd	114					
>	In	115		107.6			
	Sn	120	99.904				
	Sb	121	100.675				
	Sb	123					
	Ba	135					
	Ba	137	101.380				
	Ho	165					
>	Lu	175		106.0			
	Tl	205	96.285				
	Pb	208	100.837				
	Bi	209					
	Th	232	102.022				
	U	238	105.671				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 6	Li	7	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#4 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Friday, January 01, 2010 02:58:48
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\091231\QC Std 7.218

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.041**	**ug/L**	87.973	32	0.000
	Be	9	**0.009**	**ug/L**	228.015	5	0.000
	B	11	**2.363**	**ug/L**	22.011	183	0.000
	Na	23	**-4.021**	**ug/L**	30.492	15675	-0.005
	Mg	24	**1.905**	**ug/L**	32.831	4667	0.002
	Al	27	**3.888**	**ug/L**	3.249	11004	0.005
	P	31	**-2.965**	**ug/L**	81.324	2203	-0.000
	K	39	**0.287**	**ug/L**	6064.890	443813	0.001
	Ca	43	**-1.536**	**ug/L**	188.232	406	-0.000
>	Sc	45		**ug/L**		1056350	1056349.736
	Ti	47	**0.007**	**ug/L**	1513.072	186	0.000
	V	51	**0.577**	**ug/L**	285.634	4974	0.001
	Cr	52	**1.046**	**ug/L**	5.102	4571	0.002
	Cr	53		**ug/L**		144141	0.006
	Mn	55	**0.052**	**ug/L**	29.543	1172	0.000
	Fe	57	**8.013**	**ug/L**	26.654	5607	0.001
	Co	59	**0.005**	**ug/L**	222.703	241	0.000
	Ni	60	**-0.004**	**ug/L**	277.347	55	-0.000
	Cu	63		**ug/L**		123	0.000
	Cu	65	**-0.005**	**ug/L**	470.783	75	-0.000
	Zn	66	**0.080**	**ug/L**	28.352	124	0.000
	Zn	67		**ug/L**		5613	0.002
	Zn	68		**ug/L**		435	0.000
>	Ge	74		**ug/L**		146398	146398.477
	As	75	**-0.708**	**ug/L**	92.916	154	-0.002
	Se	77		**ug/L**		6421	0.012
	Se	82	**-0.083**	**ug/L**	218.585	2	-0.000
	Kr	83		**ug/L**		48	0.000
	Sr	88	**0.005**	**ug/L**	30.472	230	0.000
	Y	89		**ug/L**		23	0.000
	Zr	90	**0.128**	**ug/L**	15.411	572	0.004
	Mo	98	**0.065**	**ug/L**	14.327	128	0.001
	Ag	107	**0.018**	**ug/L**	12.668	102	0.000
	Cd	111	**0.020**	**ug/L**	102.162	23	0.000
	Cd	114		**ug/L**		44	0.000
>	In	115		**ug/L**		78453	78452.582
	Sn	120	**0.165**	**ug/L**	1.961	430	0.004
	Sb	121	**0.537**	**ug/L**	10.044	909	0.009
	Sb	123		**ug/L**		748	0.007
	Ba	135		**ug/L**		32	0.000
	Ba	137	**0.013**	**ug/L**	123.778	47	0.000
	Ho	165		**ug/L**		10	-0.000
>	Lu	175		**ug/L**		82582	82582.498
	Tl	205	**0.222**	**ug/L**	12.527	690	0.006
	Pb	208	**0.061**	**ug/L**	6.368	707	0.004
	Bi	209		**ug/L**		22	0.000
	Th	232	**0.097**	**ug/L**	15.832	975	0.008
	U	238	**0.028**	**ug/L**	11.568	438	0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		113.2			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		109.8			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		109.9			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		105.8			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 1201994317
Sample Date/Time: Friday, January 01, 2010 03:05:03
Sample Type:
Sample Description: LANL 6020 DUP
Number of Replicates: 3
Batch ID: 932323|2|skj
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\091231\1201994317.219

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**13.430**	ug/L	1.305	2692	0.003
	Be	9	**2.687**	ug/L	8.269	151	0.000
	B	11	**4.012**	ug/L	11.646	251	0.000
	Na	23	**332.021**	ug/L	8.300	419427	0.399
	Mg	24	**1562.213**	ug/L	5.332	1282863	1.277
	Al	27	**14042.169**	ug/L	5.460	17023116	16.975
	P	31	**514.428**	ug/L	2.666	34857	0.032
	K	39	**1621.874**	ug/L	4.643	3887750	3.456
	Ca	43	**2101.317**	ug/L	2.790	9606	0.009
>	Sc	45		ug/L		1002869	1002868.842
	Ti	47	**996.086**	ug/L	1.129	203915	0.203
	V	51	**21.547**	ug/L	1.615	48067	0.044
	Cr	52	**8.274**	ug/L	1.498	19074	0.017
	Cr	53		ug/L		101087	-0.030
	Mn	55	**1808.138**	ug/L	1.178	6012560	5.995
	Fe	57	**27774.632**	ug/L	1.566	1870628	1.861
	Co	59	**4.869**	ug/L	0.889	12482	0.012
	Ni	60	**15.996**	ug/L	1.153	8365	0.008
	Cu	63		ug/L		26705	0.027
	Cu	65	**22.835**	ug/L	2.229	12926	0.013
	Zn	66	**196.799**	ug/L	2.722	54347	0.403
	Zn	67		ug/L		12722	0.059
	Zn	68		ug/L		39466	0.290
>	Ge	74		ug/L		134757	134757.361
	As	75	**4.475**	ug/L	11.357	1845	0.011
	Se	77		ug/L		3941	-0.003
	Se	82	**1.458**	ug/L	42.356	49	0.000
	Kr	83		ug/L		120	0.001
	Sr	88	**11.366**	ug/L	0.720	54290	0.715
	Y	89		ug/L		726744	9.600
	Zr	90	**44.778**	ug/L	1.890	114738	1.513
	Mo	98	**27.111**	ug/L	1.619	29437	0.388
	Ag	107	**0.724**	ug/L	2.898	1245	0.016
	Cd	111	**1.612**	ug/L	4.252	615	0.008
	Cd	114		ug/L		578	0.007
>	In	115		ug/L		75706	75705.628
	Sn	120	**3.754**	ug/L	0.923	6515	0.084
	Sb	121	**0.641**	ug/L	11.323	1014	0.011
	Sb	123		ug/L		823	0.008
	Ba	135		ug/L		85110	0.933
	Ba	137	**190.218**	ug/L	2.512	147808	1.621
	Ho	165		ug/L		26918	0.295
>	Lu	175		ug/L		91193	91193.439
	Tl	205	**0.444**	ug/L	2.768	1329	0.012
	Pb	208	**13.836**	ug/L	1.984	80385	0.877
	Bi	209		ug/L		515	0.005
	Th	232	**19.541**	ug/L	0.858	141022	1.542
	U	238	**2.358**	ug/L	1.097	17605	0.190

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		107.5			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		101.1			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		106.0			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		116.9			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
	Ti	47	Sample is out of limits (over linear range)
	Mn	55	Sample is out of limits (over linear range)

QC Action

QC Action Line: Continue

ICPMS#4 - Summary Report

Sample ID: 1201994318
Sample Date/Time: Friday, January 01, 2010 03:11:18
Sample Type:
Sample Description: LANL 6020 MS
Number of Replicates: 3
Batch ID: 932323|2|sk|
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\091231\1201994318.220

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**39.121**	**ug/L**	1.421	7521	0.008
	Be	9	**27.243**	**ug/L**	1.185	1442	0.001
	B	11	**55.155**	**ug/L**	0.289	2575	0.003
	Na	23	**1286.221**	**ug/L**	3.344	1512064	1.544
	Mg	24	**2838.513**	**ug/L**	3.475	2245679	2.320
	Al	27	**15395.734**	**ug/L**	6.502	18007794	18.611
	P	31	**1432.441**	**ug/L**	2.711	89679	0.090
	K	39	**2746.463**	**ug/L**	5.587	6066568	5.853
	Ca	43	**2957.322**	**ug/L**	2.336	12878	0.013
>	Sc	45		**ug/L**		966993	966992.874
	Ti	47	**1086.644**	**ug/L**	0.384	214493	0.222
	V	51	**46.626**	**ug/L**	2.954	96278	0.096
	Cr	52	**33.895**	**ug/L**	1.563	68755	0.069
	Cr	53		**ug/L**		101287	-0.026
	Mn	55	**1387.812**	**ug/L**	1.432	4450475	4.601
	Fe	57	**28776.188**	**ug/L**	0.867	1868796	1.928
	Co	59	**29.367**	**ug/L**	0.803	71544	0.074
	Ni	60	**38.618**	**ug/L**	0.506	19400	0.020
	Cu	63		**ug/L**		50714	0.052
	Cu	65	**44.363**	**ug/L**	0.564	24147	0.025
	Zn	66	**218.145**	**ug/L**	1.420	58306	0.446
	Zn	67		**ug/L**		12899	0.063
	Zn	68		**ug/L**		41885	0.318
>	Ge	74		**ug/L**		130432	130432.399
	As	75	**42.823**	**ug/L**	2.933	13981	0.104
	Se	77		**ug/L**		3736	-0.003
	Se	82	**11.029**	**ug/L**	9.512	331	0.003
	Kr	83		**ug/L**		109	0.001
	Sr	88	**37.059**	**ug/L**	0.944	171540	2.330
	Y	89		**ug/L**		743927	10.115
	Zr	90	**72.742**	**ug/L**	2.535	180941	2.458
	Mo	98	**46.775**	**ug/L**	1.986	49299	0.670
	Ag	107	**25.658**	**ug/L**	1.789	40595	0.551
	Cd	111	**6.856**	**ug/L**	1.236	2494	0.034
	Cd	114		**ug/L**		4598	0.062
>	In	115		**ug/L**		73548	73548.239
	Sn	120	**27.129**	**ug/L**	1.672	44924	0.609
	Sb	121	**73.201**	**ug/L**	1.663	93464	1.269
	Sb	123		**ug/L**		71063	0.964
	Ba	135		**ug/L**		82042	0.916
	Ba	137	**185.981**	**ug/L**	1.633	141858	1.585
	Ho	165		**ug/L**		27968	0.312
>	Lu	175		**ug/L**		89505	89504.771
	Tl	205	**45.526**	**ug/L**	1.091	114132	1.273
	Pb	208	**106.796**	**ug/L**	1.554	606202	6.769
	Bi	209		**ug/L**		636	0.007
	Th	232	**45.829**	**ug/L**	1.626	324094	3.617
	U	238	**27.747**	**ug/L**	1.508	200357	2.236

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		103.7			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		97.8			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		103.0			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		114.7			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
	Ti	47	Sample is out of limits (over linear range)
	Mn	55	Sample is out of limits (over linear range)

QC Action

QC Action Line: Continue

ICPMS#4 - Summary Report

Sample ID: 1201994320
Sample Date/Time: Friday, January 01, 2010 03:17:35
Sample Type:
Sample Description: LANL 6020 MSD
Number of Replicates: 3
Batch ID: 932323|2|skj
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\091231\1201994320.221

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**112.429**	**ug/L**	0.897	21070	0.022
	Be	9	**28.944**	**ug/L**	1.766	1496	0.002
	B	11	**56.794**	**ug/L**	1.788	2589	0.003
	Na	23	**1590.375**	**ug/L**	10.839	1822034	1.909
	Mg	24	**4665.147**	**ug/L**	1.158	3604053	3.812
	Al	27	**17550.093**	**ug/L**	2.406	20042795	21.215
	P	31	**1694.064**	**ug/L**	0.983	103193	0.107
	K	39	**4077.952**	**ug/L**	4.140	8600597	8.690
	Ca	43	**3677.048**	**ug/L**	2.065	15554	0.016
>	Sc	45		**ug/L**		944516	944516.376
	Ti	47	**1441.616**	**ug/L**	1.928	277828	0.294
	V	51	**57.987**	**ug/L**	2.687	116167	0.119
	Cr	52	**34.177**	**ug/L**	0.655	67700	0.069
	Cr	53		**ug/L**		94176	-0.031
	Mn	55	**1860.110**	**ug/L**	1.707	5824612	6.167
	Fe	57	**38015.798**	**ug/L**	1.208	2409658	2.547
	Co	59	**30.554**	**ug/L**	0.885	72691	0.077
	Ni	60	**42.992**	**ug/L**	0.730	21089	0.022
	Cu	63		**ug/L**		53042	0.056
	Cu	65	**48.477**	**ug/L**	0.893	25764	0.027
	Zn	66	**277.951**	**ug/L**	0.857	72006	0.569
	Zn	67		**ug/L**		14587	0.079
	Zn	68		**ug/L**		50427	0.396
>	Ge	74		**ug/L**		126457	126456.845
	As	75	**45.042**	**ug/L**	1.694	14238	0.110
	Se	77		**ug/L**		3542	-0.004
	Se	82	**11.430**	**ug/L**	1.678	333	0.003
	Kr	83		**ug/L**		115	0.001
	Sr	88	**39.502**	**ug/L**	1.784	179169	2.484
	Y	89		**ug/L**		814705	11.305
	Zr	90	**77.250**	**ug/L**	1.623	188304	2.610
	Mo	98	**53.254**	**ug/L**	1.900	54997	0.762
	Ag	107	**25.309**	**ug/L**	1.241	39245	0.544
	Cd	111	**6.838**	**ug/L**	2.235	2438	0.034
	Cd	114		**ug/L**		4560	0.063
>	In	115		**ug/L**		72078	72077.945
	Sn	120	**29.070**	**ug/L**	1.971	47165	0.653
	Sb	121	**76.913**	**ug/L**	2.211	96229	1.333
	Sb	123		**ug/L**		73869	1.023
	Ba	135		**ug/L**		99035	1.110
	Ba	137	**225.085**	**ug/L**	0.171	171074	1.918
	Ho	165		**ug/L**		30898	0.346
>	Lu	175		**ug/L**		89179	89178.718
	Tl	205	**45.700**	**ug/L**	1.495	114160	1.278
	Pb	208	**112.146**	**ug/L**	0.910	634265	7.108
	Bi	209		**ug/L**		579	0.006
	Th	232	**48.012**	**ug/L**	1.013	338275	3.789
	U	238	**28.362**	**ug/L**	1.393	204067	2.285

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		101.3			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		94.8			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		100.9			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		114.3			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
	Ti	47	Sample is out of limits (over linear range)
	Mn	55	Sample is out of limits (over linear range)

QC Action

QC Action Line: Continue

ICPMS#4 - Summary Report

Sample ID: 1201994319
Sample Date/Time: Friday, January 01, 2010 03:23:52
Sample Type:
Sample Description: LANL 6020 SDILT
Number of Replicates: 3
Batch ID: 932323|10|skj
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\091231\1201994319.222

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**2.727**	**ug/L**	4.190	531	0.001
	Be	9	**0.627**	**ug/L**	6.997	36	0.000
	B	11	**2.054**	**ug/L**	10.428	149	0.000
	Na	23	**56.910**	**ug/L**	8.455	82907	0.068
	Mg	24	**304.746**	**ug/L**	10.871	237645	0.249
	Al	27	**2796.493**	**ug/L**	7.718	3190357	3.381
	P	31	**101.904**	**ug/L**	3.693	8209	0.006
	K	39	**285.126**	**ug/L**	10.901	968122	0.608
	Ca	43	**401.067**	**ug/L**	1.974	2021	0.002
>	Sc	45		**ug/L**		942643	942643.369
	Ti	47	**208.476**	**ug/L**	1.306	40246	0.043
	V	51	**5.587**	**ug/L**	37.153	14166	0.012
	Cr	52	**1.430**	**ug/L**	4.788	4816	0.003
	Cr	53		**ug/L**		109067	-0.015
	Mn	55	**380.155**	**ug/L**	0.294	1188931	1.260
	Fe	57	**5921.747**	**ug/L**	0.781	378423	0.397
	Co	59	**1.250**	**ug/L**	1.398	3163	0.003
	Ni	60	**3.484**	**ug/L**	2.439	1752	0.002
	Cu	63		**ug/L**		5486	0.006
	Cu	65	**4.924**	**ug/L**	0.296	2674	0.003
	Zn	66	**41.484**	**ug/L**	1.282	11171	0.085
	Zn	67		**ug/L**		6035	0.010
	Zn	68		**ug/L**		8400	0.061
>	Ge	74		**ug/L**		130564	130563.626
	As	75	**0.677**	**ug/L**	108.783	580	0.002
	Se	77		**ug/L**		4132	-0.000
	Se	82	**0.331**	**ug/L**	188.591	14	0.000
	Kr	83		**ug/L**		48	0.000
	Sr	88	**2.187**	**ug/L**	1.584	10133	0.137
	Y	89		**ug/L**		139935	1.934
	Zr	90	**7.757**	**ug/L**	5.051	19178	0.262
	Mo	98	**5.303**	**ug/L**	1.768	5543	0.076
	Ag	107	**0.145**	**ug/L**	12.454	291	0.003
	Cd	111	**0.303**	**ug/L**	7.944	122	0.001
	Cd	114		**ug/L**		130	0.001
>	In	115		**ug/L**		72347	72347.496
	Sn	120	**0.803**	**ug/L**	1.329	1433	0.018
	Sb	121	**0.319**	**ug/L**	2.279	566	0.006
	Sb	123		**ug/L**		444	0.004
	Ba	135		**ug/L**		16726	0.208
	Ba	137	**42.230**	**ug/L**	0.550	28947	0.360
	Ho	165		**ug/L**		5063	0.063
>	Lu	175		**ug/L**		80344	80344.437
	Tl	205	**0.170**	**ug/L**	11.716	555	0.005
	Pb	208	**3.271**	**ug/L**	0.525	17032	0.207
	Bi	209		**ug/L**		132	0.001
	Th	232	**4.200**	**ug/L**	0.513	26967	0.332
	U	238	**0.498**	**ug/L**	1.333	3468	0.040

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		101.1			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		97.9			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		101.3			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		103.0			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
	Ti	47	Sample is out of limits (over linear range)

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 242781002
Sample Date/Time: Friday, January 01, 2010 03:30:09
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 932323|2|skj
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\091231\242781002.223

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**14.727**	**ug/L**	2.120	2762	0.003
	Be	9	**2.178**	**ug/L**	8.794	115	0.000
	B	11	**3.107**	**ug/L**	6.352	195	0.000
	Na	23	**278.946**	**ug/L**	13.038	332873	0.335
	Mg	24	**1232.936**	**ug/L**	4.176	948505	1.008
	Al	27	**13099.603**	**ug/L**	3.089	14875204	15.835
	P	31	**325.390**	**ug/L**	0.924	21426	0.021
	K	39	**1285.723**	**ug/L**	7.760	2964759	2.740
	Ca	43	**2034.722**	**ug/L**	1.719	8717	0.009
>	Sc	45		**ug/L**		938805	938805.455
	Ti	47	**954.406**	**ug/L**	1.192	182927	0.195
	V	51	**15.705**	**ug/L**	8.671	33718	0.032
	Cr	52	**6.415**	**ug/L**	1.294	14309	0.013
	Cr	53		**ug/L**		89257	-0.035
	Mn	55	**1952.052**	**ug/L**	1.136	6076690	6.472
	Fe	57	**25532.597**	**ug/L**	1.319	1610103	1.710
	Co	59	**2.619**	**ug/L**	1.471	6378	0.007
	Ni	60	**22.069**	**ug/L**	0.429	10785	0.011
	Cu	63		**ug/L**		15985	0.017
	Cu	65	**14.685**	**ug/L**	2.824	7807	0.008
	Zn	66	**144.327**	**ug/L**	2.715	37716	0.295
	Zn	67		**ug/L**		9452	0.038
	Zn	68		**ug/L**		26937	0.209
>	Ge	74		**ug/L**		127418	127417.703
	As	75	**4.548**	**ug/L**	8.316	1767	0.011
	Se	77		**ug/L**		3163	-0.007
	Se	82	**1.220**	**ug/L**	13.348	39	0.000
	Kr	83		**ug/L**		93	0.000
	Sr	88	**10.944**	**ug/L**	0.563	50356	0.688
	Y	89		**ug/L**		541702	7.430
	Zr	90	**37.685**	**ug/L**	1.087	93051	1.273
	Mo	98	**11.870**	**ug/L**	1.767	12443	0.170
	Ag	107	**0.767**	**ug/L**	1.440	1268	0.016
	Cd	111	**1.020**	**ug/L**	10.373	380	0.005
	Cd	114		**ug/L**		255	0.003
>	In	115		**ug/L**		72911	72910.898
	Sn	120	**4.089**	**ug/L**	0.114	6824	0.092
	Sb	121	**0.419**	**ug/L**	3.351	696	0.007
	Sb	123		**ug/L**		567	0.005
	Ba	135		**ug/L**		33410	0.385
	Ba	137	**78.216**	**ug/L**	0.516	57871	0.666
	Ho	165		**ug/L**		20832	0.240
>	Lu	175		**ug/L**		86773	86772.936
	Tl	205	**0.147**	**ug/L**	1.636	544	0.004
	Pb	208	**8.628**	**ug/L**	0.953	47861	0.547
	Bi	209		**ug/L**		1071	0.012
	Th	232	**19.237**	**ug/L**	1.013	132106	1.518
	U	238	**2.479**	**ug/L**	0.406	17594	0.200

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		100.6			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		95.6			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		102.1			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		111.2			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
	Ti	47	Sample is out of limits (over linear range)
	Mn	55	Sample is out of limits (over linear range)

QC Action

QC Action Line: Continue

ICPMS#4 - Summary Report

Sample ID: 242781003
Sample Date/Time: Friday, January 01, 2010 03:36:26
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 932323|2|skj
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\091231\242781003.224

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**13.184**	**ug/L**	3.624	2449	0.003
	Be	9	**2.091**	**ug/L**	1.790	110	0.000
	B	11	**2.737**	**ug/L**	6.104	177	0.000
	Na	23	**262.878**	**ug/L**	3.362	311358	0.316
	Mg	24	**1136.328**	**ug/L**	2.987	865465	0.929
	Al	27	**12642.860**	**ug/L**	0.973	14202997	15.283
	P	31	**271.325**	**ug/L**	2.781	18035	0.017
	K	39	**1287.165**	**ug/L**	20.607	2939586	2.743
	Ca	43	**1747.759**	**ug/L**	2.707	7463	0.008
>	Sc	45		**ug/L**		929033	929032.503
	Ti	47	**1064.977**	**ug/L**	0.672	201971	0.217
	V	51	**15.853**	**ug/L**	9.885	33639	0.033
	Cr	52	**5.729**	**ug/L**	3.271	12865	0.012
	Cr	53		**ug/L**		86419	-0.038
	Mn	55	**896.753**	**ug/L**	1.284	2763138	2.973
	Fe	57	**26296.324**	**ug/L**	1.077	1641127	1.762
	Co	59	**2.326**	**ug/L**	1.673	5629	0.006
	Ni	60	**6.768**	**ug/L**	0.831	3308	0.004
	Cu	63		**ug/L**		9427	0.010
	Cu	65	**8.704**	**ug/L**	1.539	4607	0.005
	Zn	66	**135.286**	**ug/L**	1.952	34868	0.277
	Zn	67		**ug/L**		8653	0.033
	Zn	68		**ug/L**		24639	0.193
>	Ge	74		**ug/L**		125682	125681.881
	As	75	**3.589**	**ug/L**	37.015	1456	0.009
	Se	77		**ug/L**		3027	-0.008
	Se	82	**1.874**	**ug/L**	18.089	58	0.000
	Kr	83		**ug/L**		92	0.000
	Sr	88	**9.217**	**ug/L**	1.701	41076	0.579
	Y	89		**ug/L**		531450	7.532
	Zr	90	**35.371**	**ug/L**	0.420	84525	1.195
	Mo	98	**8.292**	**ug/L**	1.456	8425	0.119
	Ag	107	**0.315**	**ug/L**	4.775	541	0.007
	Cd	111	**0.716**	**ug/L**	17.002	262	0.004
	Cd	114		**ug/L**		119	0.001
>	In	115		**ug/L**		70556	70555.880
	Sn	120	**3.474**	**ug/L**	0.856	5628	0.078
	Sb	121	**0.342**	**ug/L**	8.655	579	0.006
	Sb	123		**ug/L**		461	0.004
	Ba	135		**ug/L**		20320	0.239
	Ba	137	**48.731**	**ug/L**	0.965	35369	0.415
	Ho	165		**ug/L**		20665	0.243
>	Lu	175		**ug/L**		85088	85088.205
	Tl	205	**0.093**	**ug/L**	17.338	403	0.003
	Pb	208	**9.461**	**ug/L**	0.784	51422	0.600
	Bi	209		**ug/L**		457	0.005
	Th	232	**18.673**	**ug/L**	1.045	125741	1.474
	U	238	**2.741**	**ug/L**	0.746	19050	0.221

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45			99.6		
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74			94.3		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115			98.8		
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175			109.0		
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
	Ti	47	Sample is out of limits (over linear range)

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 242781004
Sample Date/Time: Friday, January 01, 2010 03:42:41
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 932323|2|skj
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\091231\242781004.225

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**15.154**	**ug/L**	2.112	2829	0.003
	Be	9	**2.026**	**ug/L**	9.656	107	0.000
	B	11	**2.618**	**ug/L**	22.730	173	0.000
	Na	23	**263.026**	**ug/L**	10.604	313770	0.316
	Mg	24	**1530.022**	**ug/L**	5.502	1171205	1.250
	Al	27	**12563.589**	**ug/L**	5.431	14200372	15.187
	P	31	**367.980**	**ug/L**	1.290	23846	0.023
	K	39	**1433.458**	**ug/L**	4.933	3247250	3.055
	Ca	43	**2151.758**	**ug/L**	1.258	9157	0.009
>	Sc	45		**ug/L**		934641	934641.011
	Ti	47	**1009.079**	**ug/L**	1.106	192539	0.206
	V	51	**19.441**	**ug/L**	3.557	40755	0.040
	Cr	52	**5.835**	**ug/L**	2.670	13146	0.012
	Cr	53		**ug/L**		82538	-0.042
	Mn	55	**866.296**	**ug/L**	0.768	2685436	2.872
	Fe	57	**26560.063**	**ug/L**	0.474	1667486	1.779
	Co	59	**2.027**	**ug/L**	1.936	4962	0.005
	Ni	60	**5.767**	**ug/L**	4.232	2842	0.003
	Cu	63		**ug/L**		10567	0.011
	Cu	65	**9.667**	**ug/L**	0.741	5140	0.005
	Zn	66	**136.931**	**ug/L**	1.482	35773	0.280
	Zn	67		**ug/L**		8741	0.033
	Zn	68		**ug/L**		25296	0.196
>	Ge	74		**ug/L**		127355	127355.113
	As	75	**4.807**	**ug/L**	5.073	1848	0.012
	Se	77		**ug/L**		2888	-0.009
	Se	82	**0.920**	**ug/L**	18.005	30	0.000
	Kr	83		**ug/L**		96	0.000
	Sr	88	**10.231**	**ug/L**	0.748	46017	0.643
	Y	89		**ug/L**		530378	7.442
	Zr	90	**41.169**	**ug/L**	1.870	99345	1.391
	Mo	98	**9.395**	**ug/L**	1.411	9637	0.135
	Ag	107	**0.268**	**ug/L**	3.557	475	0.006
	Cd	111	**0.842**	**ug/L**	2.427	309	0.004
	Cd	114		**ug/L**		83	0.001
>	In	115		**ug/L**		71260	71260.481
	Sn	120	**3.658**	**ug/L**	1.079	5979	0.082
	Sb	121	**0.334**	**ug/L**	8.774	575	0.006
	Sb	123		**ug/L**		486	0.004
	Ba	135		**ug/L**		23713	0.275
	Ba	137	**56.459**	**ug/L**	3.860	41552	0.481
	Ho	165		**ug/L**		19856	0.230
>	Lu	175		**ug/L**		86343	86343.121
	Tl	205	**0.098**	**ug/L**	10.213	423	0.003
	Pb	208	**10.097**	**ug/L**	2.451	55640	0.640
	Bi	209		**ug/L**		359	0.004
	Th	232	**19.590**	**ug/L**	3.773	133783	1.546
	U	238	**2.284**	**ug/L**	3.998	16146	0.184

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		100.2			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		95.5			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		99.8			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		110.7			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
	Ti	47	Sample is out of limits (over linear range)

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 242781005
Sample Date/Time: Friday, January 01, 2010 03:48:56
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 932323|2|skj
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\091231\242781005.226

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**17.352**	**ug/L**	2.367	3214	0.003
	Be	9	**1.962**	**ug/L**	19.047	103	0.000
	B	11	**3.254**	**ug/L**	6.882	200	0.000
	Na	23	**281.552**	**ug/L**	7.158	332164	0.338
	Mg	24	**2035.088**	**ug/L**	5.233	1547740	1.663
	Al	27	**13853.836**	**ug/L**	5.388	15547411	16.747
	P	31	**367.110**	**ug/L**	2.062	23642	0.023
	K	39	**1839.747**	**ug/L**	0.575	4030394	3.920
	Ca	43	**2433.056**	**ug/L**	1.745	10239	0.011
>	Sc	45		**ug/L**		928659	928659.029
	Ti	47	**1134.019**	**ug/L**	0.847	214960	0.231
	V	51	**19.561**	**ug/L**	7.685	40745	0.040
	Cr	52	**6.883**	**ug/L**	3.143	15039	0.014
	Cr	53		**ug/L**		82536	-0.042
	Mn	55	**1355.410**	**ug/L**	1.396	4173779	4.494
	Fe	57	**29184.823**	**ug/L**	1.877	1819756	1.955
	Co	59	**2.445**	**ug/L**	1.463	5905	0.006
	Ni	60	**6.890**	**ug/L**	1.201	3365	0.004
	Cu	63		**ug/L**		11409	0.012
	Cu	65	**10.577**	**ug/L**	1.786	5581	0.006
	Zn	66	**166.218**	**ug/L**	2.715	42938	0.340
	Zn	67		**ug/L**		9815	0.042
	Zn	68		**ug/L**		30266	0.237
>	Ge	74		**ug/L**		126006	126005.634
	As	75	**4.018**	**ug/L**	19.313	1584	0.010
	Se	77		**ug/L**		2862	-0.009
	Se	82	**1.002**	**ug/L**	66.370	33	0.000
	Kr	83		**ug/L**		93	0.000
	Sr	88	**13.027**	**ug/L**	0.748	58391	0.819
	Y	89		**ug/L**		533493	7.506
	Zr	90	**44.657**	**ug/L**	1.274	107451	1.509
	Mo	98	**11.648**	**ug/L**	3.524	11906	0.167
	Ag	107	**0.217**	**ug/L**	7.179	395	0.005
	Cd	111	**0.785**	**ug/L**	6.340	288	0.004
	Cd	114		**ug/L**		105	0.001
>	In	115		**ug/L**		71071	71070.936
	Sn	120	**3.921**	**ug/L**	0.503	6382	0.088
	Sb	121	**0.330**	**ug/L**	5.957	569	0.006
	Sb	123		**ug/L**		469	0.004
	Ba	135		**ug/L**		31537	0.365
	Ba	137	**74.502**	**ug/L**	1.240	54828	0.635
	Ho	165		**ug/L**		20535	0.238
>	Lu	175		**ug/L**		86310	86310.497
	Tl	205	**0.104**	**ug/L**	6.203	436	0.003
	Pb	208	**8.833**	**ug/L**	0.708	48722	0.560
	Bi	209		**ug/L**		292	0.003
	Th	232	**21.409**	**ug/L**	2.169	146171	1.690
	U	238	**2.534**	**ug/L**	2.414	17881	0.204

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		99.6			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		94.5			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		99.5			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		110.6			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
	Ti	47	Sample is out of limits (over linear range)
	Mn	55	Sample is out of limits (over linear range)

QC Action

QC Action Line: Continue

ICPMS#4 - Summary Report

Sample ID: 242781006
Sample Date/Time: Friday, January 01, 2010 03:55:13
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 932323|2|sk|
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\091231\242781006.227

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**14.449**	ug/L	1.008	2652	0.003
	Be	9	**2.620**	ug/L	10.227	135	0.000
	B	11	**2.703**	ug/L	23.097	173	0.000
	Na	23	**250.942**	ug/L	9.579	295036	0.301
	Mg	24	**1535.110**	ug/L	6.520	1155767	1.255
	Al	27	**13434.035**	ug/L	2.203	14922469	16.240
	P	31	**659.046**	ug/L	1.659	40333	0.042
	K	39	**1452.551**	ug/L	3.981	3230468	3.095
	Ca	43	**2249.414**	ug/L	2.973	9395	0.010
>	Sc	45		ug/L		918713	918713.090
	Ti	47	**903.958**	ug/L	1.380	169558	0.184
	V	51	**24.555**	ug/L	7.519	49753	0.051
	Cr	52	**8.118**	ug/L	3.798	17189	0.017
	Cr	53		ug/L		83776	-0.039
	Mn	55	**480.855**	ug/L	0.835	1465384	1.594
	Fe	57	**27298.874**	ug/L	0.883	1684358	1.829
	Co	59	**3.436**	ug/L	0.739	8128	0.009
	Ni	60	**9.910**	ug/L	2.162	4766	0.005
	Cu	63		ug/L		29403	0.032
	Cu	65	**27.331**	ug/L	0.662	14160	0.015
	Zn	66	**180.614**	ug/L	3.783	47148	0.370
	Zn	67		ug/L		10527	0.047
	Zn	68		ug/L		33637	0.261
>	Ge	74		ug/L		127344	127344.349
	As	75	**5.425**	ug/L	2.101	2039	0.013
	Se	77		ug/L		2870	-0.010
	Se	82	**1.133**	ug/L	90.838	37	0.000
	Kr	83		ug/L		90	0.000
	Sr	88	**10.216**	ug/L	0.300	46406	0.642
	Y	89		ug/L		514102	7.143
	Zr	90	**42.025**	ug/L	1.692	102401	1.420
	Mo	98	**10.755**	ug/L	1.171	11132	0.154
	Ag	107	**1.372**	ug/L	2.787	2187	0.029
	Cd	111	**1.050**	ug/L	9.668	385	0.005
	Cd	114		ug/L		366	0.005
>	In	115		ug/L		71965	71965.326
	Sn	120	**2.996**	ug/L	2.366	4968	0.067
	Sb	121	**0.457**	ug/L	5.071	735	0.008
	Sb	123		ug/L		621	0.006
	Ba	135		ug/L		26390	0.309
	Ba	137	**62.002**	ug/L	1.009	45120	0.528
	Ho	165		ug/L		18917	0.222
>	Lu	175		ug/L		85339	85339.368
	Tl	205	**0.168**	ug/L	3.444	584	0.005
	Pb	208	**14.489**	ug/L	0.938	78766	0.918
	Bi	209		ug/L		607	0.007
	Th	232	**17.989**	ug/L	1.015	121500	1.420
	U	238	**2.405**	ug/L	0.602	16800	0.194

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		98.5			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		95.5			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		100.8			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		109.4			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
	Ti	47	Sample is out of limits (over linear range)

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Friday, January 01, 2010 04:01:27
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\091231\QC Std 6.228

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**51.482**	**ug/L**	2.747	9569	0.010
	Be	9	**50.157**	**ug/L**	5.689	2565	0.003
	B	11	**96.588**	**ug/L**	1.210	4321	0.005
	Na	23	**4743.888**	**ug/L**	4.777	5350432	5.694
	Mg	24	**5011.244**	**ug/L**	1.769	3835848	4.095
	Al	27	**4719.902**	**ug/L**	6.063	5343520	5.706
	P	31	**4975.357**	**ug/L**	1.881	296135	0.314
	K	39	**4994.021**	**ug/L**	3.265	10354280	10.642
	Ca	43	**5019.251**	**ug/L**	2.321	20899	0.022
>	Sc	45		**ug/L**		935869	935869.176
	Ti	47	**50.694**	**ug/L**	0.473	9840	0.010
	V	51	**49.105**	**ug/L**	1.670	97986	0.101
	Cr	52	**50.582**	**ug/L**	2.141	98294	0.103
	Cr	53		**ug/L**		127757	0.006
	Mn	55	**51.316**	**ug/L**	1.796	160082	0.170
	Fe	57	**5009.549**	**ug/L**	0.751	318511	0.336
	Co	59	**49.620**	**ug/L**	0.331	116857	0.125
	Ni	60	**51.377**	**ug/L**	0.627	24961	0.027
	Cu	63		**ug/L**		55776	0.059
	Cu	65	**50.782**	**ug/L**	0.805	26740	0.029
	Zn	66	**52.340**	**ug/L**	1.162	14248	0.107
	Zn	67		**ug/L**		6903	0.016
	Zn	68		**ug/L**		10555	0.077
>	Ge	74		**ug/L**		132196	132196.196
	As	75	**48.873**	**ug/L**	1.883	16122	0.119
	Se	77		**ug/L**		5591	0.010
	Se	82	**49.884**	**ug/L**	2.037	1506	0.011
	Kr	83		**ug/L**		44	0.000
	Sr	88	**51.191**	**ug/L**	0.993	230076	3.218
	Y	89		**ug/L**		174	0.002
	Zr	90	**50.649**	**ug/L**	1.575	122445	1.711
	Mo	98	**49.033**	**ug/L**	2.040	50193	0.702
	Ag	107	**49.987**	**ug/L**	1.265	76760	1.074
	Cd	111	**50.964**	**ug/L**	0.590	17915	0.251
	Cd	114		**ug/L**		41206	0.577
>	In	115		**ug/L**		71427	71427.106
	Sn	120	**50.185**	**ug/L**	1.397	80603	1.127
	Sb	121	**50.424**	**ug/L**	2.959	62584	0.874
	Sb	123		**ug/L**		47483	0.662
	Ba	135		**ug/L**		19330	0.244
	Ba	137	**49.615**	**ug/L**	2.485	33525	0.423
	Ho	165		**ug/L**		16	0.000
>	Lu	175		**ug/L**		79230	79229.912
	Tl	205	**48.608**	**ug/L**	2.397	107848	1.359
	Pb	208	**50.024**	**ug/L**	2.445	251529	3.171
	Bi	209		**ug/L**		58	0.001
	Th	232	**50.553**	**ug/L**	1.550	316420	3.990
	U	238	**52.511**	**ug/L**	2.251	335448	4.231

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7	102.965				
	Be	9	100.314				
	B	11	96.588				
	Na	23	94.878				
	Mg	24	100.225				
	Al	27	93.463				
	P	31	99.507				
	K	39	99.880				
	Ca	43	100.385				
>	Sc	45			100.3		
	Ti	47	101.387				
	V	51	98.210				
	Cr	52	101.165				
	Cr	53					
	Mn	55	102.631				
	Fe	57	100.191				
	Co	59	99.240				
	Ni	60	102.753				
	Cu	63					
	Cu	65	101.564				
	Zn	66	104.679				
	Zn	67					
	Zn	68					
>	Ge	74			99.1		
	As	75	97.745				
	Se	77					
	Se	82	99.768				
	Kr	83					
	Sr	88	102.383				
	Y	89					
	Zr	90	101.299				
	Mo	98	98.066				
	Ag	107	99.975				
	Cd	111	101.928				
	Cd	114					
>	In	115			100.0		
	Sn	120	100.370				
	Sb	121	100.849				
	Sb	123					
	Ba	135					
	Ba	137	99.230				
	Ho	165					
>	Lu	175			101.5		
	Tl	205	97.215				
	Pb	208	100.048				
	Bi	209					
	Th	232	101.106				
	U	238	105.023				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Friday, January 01, 2010 04:07:40
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\091231\QC Std 7.229

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.075**	ug/L	38.684	36	0.000
	Be	9	**0.031**	ug/L	159.321	5	0.000
	B	11	**1.917**	ug/L	16.757	145	0.000
	Na	23	**-4.412**	ug/L	154.897	13675	-0.005
	Mg	24	**2.068**	ug/L	94.538	4334	0.002
	Al	27	**0.189**	ug/L	523.654	5668	0.000
	P	31	**0.718**	ug/L	134.051	2210	0.000
	K	39	**13.104**	ug/L	45.146	426614	0.028
	Ca	43	**0.076**	ug/L	9187.937	373	0.000
>	Sc	45		ug/L		952649	952648.861
	Ti	47	**0.090**	ug/L	39.314	184	0.000
	V	51	**-2.519**	ug/L	88.086	-1568	-0.005
	Cr	52	**0.291**	ug/L	27.162	2661	0.001
	Cr	53		ug/L		123423	-0.001
	Mn	55	**0.016**	ug/L	91.354	945	0.000
	Fe	57	**2.864**	ug/L	40.011	4729	0.000
	Co	59	**-0.001**	ug/L	426.402	205	-0.000
	Ni	60	**-0.003**	ug/L	322.888	50	-0.000
	Cu	63		ug/L		123	0.000
	Cu	65	**-0.000**	ug/L	2702.633	70	-0.000
	Zn	66	**0.062**	ug/L	48.666	109	0.000
	Zn	67		ug/L		4923	0.001
	Zn	68		ug/L		391	0.000
>	Ge	74		ug/L		134844	134843.813
	As	75	**0.226**	ug/L	398.136	452	0.001
	Se	77		ug/L		4880	0.004
	Se	82	**-0.004**	ug/L	9867.256	4	-0.000
	Kr	83		ug/L		40	-0.000
	Sr	88	**0.007**	ug/L	42.184	222	0.000
	Y	89		ug/L		33	0.000
	Zr	90	**0.122**	ug/L	21.094	521	0.004
	Mo	98	**0.040**	ug/L	28.208	93	0.001
	Ag	107	**0.014**	ug/L	69.176	89	0.000
	Cd	111	**0.019**	ug/L	79.087	21	0.000
	Cd	114		ug/L		41	0.000
>	In	115		ug/L		73482	73482.166
	Sn	120	**0.107**	ug/L	26.400	307	0.002
	Sb	121	**0.414**	ug/L	14.624	695	0.007
	Sb	123		ug/L		571	0.005
	Ba	135		ug/L		28	0.000
	Ba	137	**0.010**	ug/L	55.119	43	0.000
	Ho	165		ug/L		14	0.000
>	Lu	175		ug/L		78587	78587.356
	Tl	205	**0.129**	ug/L	25.541	452	0.004
	Pb	208	**0.033**	ug/L	2.253	535	0.002
	Bi	209		ug/L		18	-0.000
	Th	232	**0.078**	ug/L	27.606	809	0.006
	U	238	**0.020**	ug/L	3.237	364	0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		102.1			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		101.1			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		102.9			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		100.7			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 242781007
Sample Date/Time: Friday, January 01, 2010 04:13:56
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 932323|2|skj
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\091231\242781007.230

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**14.545**	**ug/L**	2.673	2700	0.003
	Be	9	**2.584**	**ug/L**	4.391	135	0.000
	B	11	**3.230**	**ug/L**	5.568	199	0.000
	Na	23	**314.894**	**ug/L**	4.635	369385	0.378
	Mg	24	**1415.000**	**ug/L**	9.876	1076637	1.156
	Al	27	**12835.644**	**ug/L**	4.363	14423565	15.516
	P	31	**425.864**	**ug/L**	1.014	27101	0.027
	K	39	**1262.543**	**ug/L**	8.627	2889241	2.690
	Ca	43	**2185.100**	**ug/L**	2.727	9238	0.010
>	Sc	45		**ug/L**		929155	929154.954
	Ti	47	**1017.785**	**ug/L**	0.647	193043	0.208
	V	51	**18.332**	**ug/L**	2.222	38382	0.038
	Cr	52	**9.855**	**ug/L**	2.407	20660	0.020
	Cr	53		**ug/L**		89829	-0.034
	Mn	55	**1463.564**	**ug/L**	1.296	4509147	4.852
	Fe	57	**28043.522**	**ug/L**	0.641	1749958	1.879
	Co	59	**2.542**	**ug/L**	1.123	6133	0.006
	Ni	60	**9.179**	**ug/L**	2.547	4469	0.005
	Cu	63		**ug/L**		19162	0.021
	Cu	65	**17.462**	**ug/L**	1.797	9174	0.010
	Zn	66	**153.771**	**ug/L**	1.705	40400	0.315
	Zn	67		**ug/L**		9920	0.042
	Zn	68		**ug/L**		28997	0.223
>	Ge	74		**ug/L**		128120	128119.893
	As	75	**4.739**	**ug/L**	12.008	1837	0.012
	Se	77		**ug/L**		3041	-0.008
	Se	82	**0.958**	**ug/L**	12.624	32	0.000
	Kr	83		**ug/L**		101	0.000
	Sr	88	**11.233**	**ug/L**	1.237	50983	0.706
	Y	89		**ug/L**		558803	7.768
	Zr	90	**39.798**	**ug/L**	1.308	96945	1.345
	Mo	98	**10.251**	**ug/L**	1.171	10608	0.147
	Ag	107	**2.887**	**ug/L**	3.773	4525	0.062
	Cd	111	**0.895**	**ug/L**	17.622	330	0.004
	Cd	114		**ug/L**		211	0.003
>	In	115		**ug/L**		71937	71937.185
	Sn	120	**4.732**	**ug/L**	1.420	7770	0.106
	Sb	121	**0.456**	**ug/L**	8.020	733	0.008
	Sb	123		**ug/L**		598	0.006
	Ba	135		**ug/L**		29583	0.342
	Ba	137	**69.398**	**ug/L**	1.496	51094	0.591
	Ho	165		**ug/L**		21327	0.247
>	Lu	175		**ug/L**		86349	86348.722
	Tl	205	**0.113**	**ug/L**	11.921	458	0.003
	Pb	208	**9.765**	**ug/L**	0.447	53849	0.619
	Bi	209		**ug/L**		1361	0.016
	Th	232	**19.437**	**ug/L**	1.262	132814	1.534
	U	238	**2.425**	**ug/L**	1.781	17138	0.195

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45			99.6		
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74			96.1		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115			100.7		
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175			110.7		
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
	Ti	47	Sample is out of limits (over linear range)
	Mn	55	Sample is out of limits (over linear range)

QC Action

QC Action Line: Continue

ICPMS#4 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Friday, January 01, 2010 04:57:52
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\091231\QC Std 6.237

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**50.926**	ug/L	1.994	9524	0.010
	Be	9	**50.275**	ug/L	3.049	2586	0.003
	B	11	**96.898**	ug/L	3.295	4359	0.005
	Na	23	**4564.160**	ug/L	3.828	5174490	5.478
	Mg	24	**5097.295**	ug/L	8.476	3920591	4.166
	Al	27	**4909.135**	ug/L	6.332	5590346	5.934
	P	31	**5365.968**	ug/L	1.717	321133	0.339
	K	39	**5447.661**	ug/L	7.415	11319225	11.609
	Ca	43	**5056.568**	ug/L	1.545	21177	0.022
>	Sc	45		ug/L		941484	941483.897
	Ti	47	**52.698**	ug/L	1.790	10282	0.011
	V	51	**48.675**	ug/L	1.438	97713	0.100
	Cr	52	**50.908**	ug/L	2.611	99485	0.103
	Cr	53		ug/L		143774	0.022
	Mn	55	**51.473**	ug/L	3.111	161516	0.171
	Fe	57	**5060.852**	ug/L	2.813	323604	0.339
	Co	59	**49.729**	ug/L	2.394	117780	0.125
	Ni	60	**51.581**	ug/L	2.609	25204	0.027
	Cu	63		ug/L		56764	0.060
	Cu	65	**51.352**	ug/L	1.345	27200	0.029
	Zn	66	**52.837**	ug/L	1.011	14427	0.108
	Zn	67		ug/L		7676	0.022
	Zn	68		ug/L		10450	0.076
>	Ge	74		ug/L		132604	132603.921
	As	75	**47.692**	ug/L	0.943	15788	0.116
	Se	77		ug/L		7576	0.025
	Se	82	**50.991**	ug/L	2.591	1544	0.012
	Kr	83		ug/L		49	0.000
	Sr	88	**51.296**	ug/L	1.467	232075	3.225
	Y	89		ug/L		83	0.001
	Zr	90	**49.693**	ug/L	2.411	120914	1.679
	Mo	98	**49.642**	ug/L	2.824	51145	0.711
	Ag	107	**49.755**	ug/L	1.292	76922	1.069
	Cd	111	**50.955**	ug/L	1.773	18031	0.251
	Cd	114		ug/L		41538	0.577
>	In	115		ug/L		71914	71914.304
	Sn	120	**49.681**	ug/L	1.635	80326	1.115
	Sb	121	**50.192**	ug/L	5.469	62689	0.870
	Sb	123		ug/L		47972	0.665
	Ba	135		ug/L		19424	0.252
	Ba	137	**50.971**	ug/L	1.192	33470	0.434
	Ho	165		ug/L		19	0.000
>	Lu	175		ug/L		76991	76990.687
	Tl	205	**47.468**	ug/L	1.546	102361	1.327
	Pb	208	**49.915**	ug/L	1.005	243925	3.164
	Bi	209		ug/L		73	0.001
	Th	232	**50.377**	ug/L	1.049	306426	3.976
	U	238	**53.212**	ug/L	0.669	330350	4.288

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7	101.852				
	Be	9	100.549				
	B	11	96.898				
	Na	23	91.283				
	Mg	24	101.946				
	Al	27	97.211				
	P	31	107.319				
	K	39	108.953				
	Ca	43	101.131				
>	Sc	45		100.9			
	Ti	47	105.396				
	V	51	97.350				
	Cr	52	101.815				
	Cr	53					
	Mn	55	102.945				
	Fe	57	101.217				
	Co	59	99.458				
	Ni	60	103.162				
	Cu	63					
	Cu	65	102.704				
	Zn	66	105.674				
	Zn	67					
	Zn	68					
>	Ge	74		99.4			
	As	75	95.384				
	Se	77					
	Se	82	101.982				
	Kr	83					
	Sr	88	102.593				
	Y	89					
	Zr	90	99.386				
	Mo	98	99.284				
	Ag	107	99.510				
	Cd	111	101.910				
	Cd	114					
>	In	115		100.7			
	Sn	120	99.362				
	Sb	121	100.384				
	Sb	123					
	Ba	135					
	Ba	137	101.941				
	Ho	165					
>	Lu	175		98.7			
	Tl	205	94.935				
	Pb	208	99.831				
	Bi	209					
	Th	232	100.754				
	U	238	106.423				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Friday, January 01, 2010 05:04:05
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\091231\QC Std 7.238

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	0.089	ug/L	44.094	38	0.000
	Be	9	0.012	ug/L	181.467	4	0.000
	B	11	3.406	ug/L	17.898	209	0.000
	Na	23	17.086	ug/L	34.990	37717	0.021
	Mg	24	0.003	ug/L	111469.476	2667	0.000
	Al	27	-0.904	ug/L	156.092	4334	-0.001
	P	31	199.106	ug/L	1.421	13969	0.013
	K	39	1.474	ug/L	1345.741	397478	0.003
	Ca	43	-4.384	ug/L	131.469	350	-0.000
>	Sc	45		ug/L		940735	940734.789
	Ti	47	0.238	ug/L	11.894	210	0.000
	V	51	-2.434	ug/L	61.808	-1384	-0.005
	Cr	52	1.099	ug/L	6.990	4173	0.002
	Cr	53		ug/L		135202	0.013
	Mn	55	0.015	ug/L	155.039	928	0.000
	Fe	57	0.652	ug/L	212.593	4529	0.000
	Co	59	0.004	ug/L	73.642	213	0.000
	Ni	60	-0.003	ug/L	735.354	49	-0.000
	Cu	63		ug/L		104	-0.000
	Cu	65	0.013	ug/L	256.751	76	0.000
	Zn	66	0.064	ug/L	76.121	110	0.000
	Zn	67		ug/L		5248	0.003
	Zn	68		ug/L		395	0.000
>	Ge	74		ug/L		135400	135399.692
	As	75	0.540	ug/L	431.223	561	0.001
	Se	77		ug/L		7091	0.020
	Se	82	-0.108	ug/L	606.425	1	-0.000
	Kr	83		ug/L		47	0.000
	Sr	88	0.013	ug/L	22.861	244	0.001
	Y	89		ug/L		19	-0.000
	Zr	90	0.118	ug/L	18.712	505	0.004
	Mo	98	0.056	ug/L	32.344	108	0.001
	Ag	107	0.008	ug/L	50.332	79	0.000
	Cd	111	0.023	ug/L	130.162	22	0.000
	Cd	114		ug/L		38	0.000
>	In	115		ug/L		72440	72439.673
	Sn	120	0.131	ug/L	5.909	342	0.003
	Sb	121	0.401	ug/L	19.229	669	0.007
	Sb	123		ug/L		543	0.005
	Ba	135		ug/L		24	0.000
	Ba	137	0.010	ug/L	61.171	43	0.000
	Ho	165		ug/L		13	0.000
>	Lu	175		ug/L		78311	78310.508
	Tl	205	0.173	ug/L	26.957	548	0.005
	Pb	208	0.025	ug/L	6.579	490	0.002
	Bi	209		ug/L		29	0.000
	Th	232	0.098	ug/L	28.295	930	0.008
	U	238	0.024	ug/L	16.070	389	0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		100.9			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		101.5			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		101.4			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		100.4			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 7	P	31	CCB is out of limits (+-/ PQL)

QC Action

QC Action Line: Continue

Daily Performance Report

Sample ID: Sample
Sample Date/Time: Monday, January 04, 2010 11:29:06
Sample Description:
Method File: c:\elandata\Method\daily2.mth
Dataset File: c:\elandata\Dataset\090811\Sample.342
Tuning File: c:\elandata\Tuning\default2.tun
Optimization File: c:\elandata\Optimize\default.dac
Dual Detector Mode: Pulse

Acq. Dead Time(ns): 35
Current Dead Time (ns): 35

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Be	9.0	1154.8	1154.847	30.567	2.6
	Mg	24.0	20442.4	20442.428	658.363	3.2
	Co	58.9	56205.4	56205.354	424.112	0.8
	Rh	102.9	98564.5	98564.477	910.824	0.9
	In	114.9	124211.4	124211.373	2030.010	1.6
	Pb	208.0	56631.6	56631.643	723.618	1.3
⌈>	Ba	137.9	104801.1	104801.096	1236.031	1.2
⌊	Ba++	69.0	1875.4	0.018	0.000	1.0
⌈>	Ce	139.9	125422.2	125422.195	961.005	0.8
⌊	CeO	155.9	3155.9	0.025	0.000	0.8
	Bkgd	220.0	7.1	7.100	1.517	21.4

Current Optimization File Data

Current Value	Description
0.84	Nebulizer Gas Flow
6.00	Lens Voltage
1000.00	ICP RF Power
-1875.00	Analog Stage Voltage
1100.00	Pulse Stage Voltage
50.00	Discriminator Threshold
-2.00	AC Rod Offset

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	13	8.5	1104.7
Co	59	13	8.5	40067.4
In	115	13	9.3	96775.7

ICPMS #4 TUNING REPORT

File Name: default2.tun
File Path: c:\elandata\Tuning

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas Peak W
He	3.0	3.0	609	2060	0.687
Be	9.0	9.0	2050	2055	0.709
Mg	24.0	24.0	5681	2065	0.630
Mg	25.0	24.9	5943	2070	0.658
Mg	26.0	25.9	6155	2085	0.630
Co	58.9	58.9	14184	2120	0.709
Rh	102.9	102.9	24874	2220	0.686
In	114.9	114.9	27777	2255	0.685
Ce	139.9	139.9	33848	2300	0.683
Pb	206.0	205.9	49920	2460	0.705
Pb	207.0	207.0	50125	2380	0.670
Pb	208.0	207.9	50424	2490	0.770
U	238.1	238.0	57687	2480	0.723

ICPMS#4 - Summary Report

Sample ID: Blank
Sample Date/Time: Monday, January 04, 2010 12:38:00
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li only w lrs.mth
Dataset File: C:\elandata\Dataset\100104\Blank.015

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7		ug/L		14	
Sc	45		ug/L		446386	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Simple Linear	
Sc	45	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Li	7					
Sc	45					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Monday, January 04, 2010 12:40:12
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li only w lrs.mth
Dataset File: C:\elandata\Dataset\100104\Standard 1.016

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	10.000	ug/L	1.455	2327	0.005
Sc	45		ug/L		428932	428932.110

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Li	7					
Sc	45					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Monday, January 04, 2010 12:42:21
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li only w lrs.mth
Dataset File: C:\elandata\Dataset\100104\Standard 2.017

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	99.945	ug/L	0.401	22482	0.051
Sc	45		ug/L		439854	439853.620

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Li	7					
Sc	45					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Monday, January 04, 2010 12:44:31
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li only w irs.mth
Dataset File: C:\elandata\Dataset\100104\QC Std 1.018

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Li	7	**50.278**	**ug/L**	3.767	11602	0.026
⌊>	Sc	45		**ug/L**		451302	451302.476

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Li	7	100.557				
⌊>	Sc	45		101.1			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Monday, January 04, 2010 12:46:43
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li only w lrs.mth
Dataset File: C:\elandata\Dataset\100104\QC Std 2.019

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	0.010	ug/L	147.348	16	0.000
Sc	45		ug/L		440392	440392.133

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Li	7					
Sc	45		98.7			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Monday, January 04, 2010 12:48:55
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li only w Irs.mth
Dataset File: C:\elandata\Dataset\100104\QC Std 3.020

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	11.149	ug/L	3.842	2579	0.006
Sc	45		ug/L		450260	450259.880

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Li	7	111.486				
Sc	45		100.9			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Monday, January 04, 2010 12:51:06
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li only w Irs.mth
Dataset File: C:\elandata\Dataset\100104\QC Std 4.021

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	0.062	ug/L	10.695	28	0.000
Sc	45		ug/L		433590	433589.696

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Li	7					
Sc	45		97.1			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Monday, January 04, 2010 12:53:17
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li only w lrs.mth
Dataset File: C:\elandata\Dataset\100104\QC Std 5.022

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	18.574	ug/L	2.267	4105	0.009
Sc	45		ug/L		430955	430955.465

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Li	7	92.871				
Sc	45		96.5			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Monday, January 04, 2010 12:55:29
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li only w lrs.mth
Dataset File: C:\elandata\Dataset\100104\QC Std 6.023

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	49.923	ug/L	0.193	11285	0.026
Sc	45		ug/L		441733	441732.862

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Li	7	99.845				
Sc	45		99.0			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Monday, January 04, 2010 12:57:43
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li only w lrs.mth
Dataset File: C:\elandata\Dataset\100104\QC Std 7.024

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Li	7	0.015	ug/L	39.122	18	0.000
⌊>	Sc	45		ug/L		441123	441123.409

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Li	7					
⌊>	Sc	45		98.8			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 1201994315
Sample Date/Time: Monday, January 04, 2010 12:59:58
Sample Type:
Sample Description: LANL 6020 MB
Number of Replicates: 3
Batch ID: 932323|2|skj
Method File: c:\elandata\Method\li only w lrs.mth
Dataset File: C:\elandata\Dataset\100104\1201994315.025

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Li	7	-0.011	ug/L	105.155	12	-0.000
⌊>	Sc	45		ug/L		437981	437981.261

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Li	7					
⌊>	Sc	45		98.1			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 1201994316
Sample Date/Time: Monday, January 04, 2010 13:02:14
Sample Type:
Sample Description: LANL 6020 LCS
Number of Replicates: 3
Batch ID: 932323|20|skj
Method File: c:\elandata\Method\li only w lrs.mth
Dataset File: C:\elandata\Dataset\100104\1201994316.026

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Li	7	6.370	ug/L	2.958	1417	0.003
⌊>	Sc	45		ug/L		431093	431092.755

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Li	7					
⌊>	Sc	45		96.6			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 242781001
Sample Date/Time: Monday, January 04, 2010 13:04:28
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 932323|2|skj
Method File: c:\elandata\Method\li only w lrs.mth
Dataset File: C:\elandata\Dataset\100104\242781001.027

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Li	7	14.539	ug/L	1.186	3360	0.007
⌊>	Sc	45		ug/L		450344	450344.111

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Li	7					
⌊>	Sc	45		100.9			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 1201994317
Sample Date/Time: Monday, January 04, 2010 13:06:44
Sample Type:
Sample Description: LANL 6020 DUP
Number of Replicates: 3
Batch ID: 932323|2|skj
Method File: c:\elandata\Method\li only w Irs.mth
Dataset File: C:\elandata\Dataset\100104\1201994317.028

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Li	7	**15.141**	**ug/L**	1.934	3406	0.008
⌊>	Sc	45		**ug/L**		438499	438498.549

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Li	7					
⌊>	Sc	45		98.2			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 1201994318
Sample Date/Time: Monday, January 04, 2010 13:09:00
Sample Type:
Sample Description: LANL 6020 MS
Number of Replicates: 3
Batch ID: 932323|2|skj
Method File: c:\elandata\Method\li only w lrs.mth
Dataset File: C:\elandata\Dataset\100104\1201994318.029

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Li	7	42.823	ug/L	0.699	9625	0.022
⌊>	Sc	45		ug/L		439168	439167.883

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Li	7					
⌊>	Sc	45		98.4			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 1201994320
Sample Date/Time: Monday, January 04, 2010 13:11:16
Sample Type:
Sample Description: LANL 6020 MSD
Number of Replicates: 3
Batch ID: 932323|2|skj
Method File: c:\elandata\Method\li only w lrs.mth
Dataset File: C:\elandata\Dataset\100104\1201994320.030

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Li	7	114.487	ug/L	0.742	26029	0.059
⌊>	Sc	45		ug/L		444572	444572.113

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Li	7					
⌊>	Sc	45		99.6			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 1201994319
Sample Date/Time: Monday, January 04, 2010 13:13:33
Sample Type:
Sample Description: LANL 6020 SDILT
Number of Replicates: 3
Batch ID: 932323|10|sk|
Method File: c:\elandata\Method\li only w lrs.mth
Dataset File: C:\elandata\Dataset\100104\1201994319.031

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Li	7	3.318	ug/L	5.897	715	0.002
⌊>	Sc	45		ug/L		414037	414036.519

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Li	7					
⌊>	Sc	45		92.8			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Monday, January 04, 2010 13:15:48
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li only w Irs.mth
Dataset File: C:\elandata\Dataset\100104\QC Std 6.032

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	50.608	ug/L	1.688	11103	0.026
Sc	45		ug/L		428769	428768.763

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Li	7	101.215				
Sc	45		96.1			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Monday, January 04, 2010 13:18:02
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li only w Irs.mth
Dataset File: C:\elandata\Dataset\100104\QC Std 7.033

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Li	7	0.030	ug/L	13.153	20	0.000
⌊>	Sc	45		ug/L		420278	420277.970

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Li	7					
⌊>	Sc	45		94.2			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 242781002
Sample Date/Time: Monday, January 04, 2010 13:20:18
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 932323|2|skj
Method File: c:\elandata\Method\li only w lrs.mth
Dataset File: C:\elandata\Dataset\100104\242781002.034

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Li	7	**14.939**	**ug/L**	1.241	3337	0.008
⌊>	Sc	45		**ug/L**		435255	435254.829

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Li	7					
⌊>	Sc	45			97.5		

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 242781003
Sample Date/Time: Monday, January 04, 2010 13:22:34
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 932323|2|skj
Method File: c:\elandata\Method\li only w lrs.mth
Dataset File: C:\elandata\Dataset\100104\242781003.035

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Li	7	13.799	ug/L	1.888	3042	0.007
⌊>	Sc	45		ug/L		429429	429429.224

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Li	7					
⌊>	Sc	45			96.2		

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 242781004
Sample Date/Time: Monday, January 04, 2010 13:24:49
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 932323|2|skj
Method File: c:\elandata\Method\li only w lrs.mth
Dataset File: C:\elandata\Dataset\100104\242781004.036

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Li	7	15.483	ug/L	1.472	3346	0.008
⌊>	Sc	45		ug/L		421267	421267.319

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Li	7					
⌊>	Sc	45		94.4			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 242781005
Sample Date/Time: Monday, January 04, 2010 13:27:05
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 932323|2|skj
Method File: c:\elandata\Method\li only w lrs.mth
Dataset File: C:\elandata\Dataset\100104\242781005.037

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Li	7	17.755	ug/L	0.195	3841	0.009
⌊>	Sc	45		ug/L		421816	421815.626

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Li	7					
⌊>	Sc	45		94.5			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 242781006
Sample Date/Time: Monday, January 04, 2010 13:29:22
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 932323|2|skj
Method File: c:\elandata\Method\li only w lrs.mth
Dataset File: C:\elandata\Dataset\100104\242781006.038

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Li	7	14.593	ug/L	2.688	3131	0.007
⌊>	Sc	45		ug/L		418124	418124.394

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Li	7					
⌊>	Sc	45		93.7			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 242781007
Sample Date/Time: Monday, January 04, 2010 13:31:39
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 932323|2|skj
Method File: c:\elandata\Method\li only w lrs.mth
Dataset File: C:\elandata\Dataset\100104\242781007.039

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Li	7	15.114	ug/L	1.219	3221	0.008
⌊>	Sc	45		ug/L		415319	415319.062

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Li	7					
⌊>	Sc	45		93.0			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Monday, January 04, 2010 13:33:54
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li only w Irs.mth
Dataset File: C:\elandata\Dataset\100104\QC Std 6.040

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	**52.000**	**ug/L**	0.938	10948	0.027
Sc	45		**ug/L**		411477	411477.440

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Li	7	104.000				
Sc	45		92.2			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Monday, January 04, 2010 13:36:07
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li only w lrs.mth
Dataset File: C:\elandata\Dataset\100104\QC Std 7.041

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	0.025	ug/L	120.839	19	0.000
Sc	45		ug/L		412855	412854.781

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Li	7					
Sc	45		92.5			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

==========

Analysis Begun

Logged In Analyst: Administrator **Technique: AA FIMS-MHS**
Spectrometer Model: FIMS-100, S/N B050-9550 **Autosampler Model: S10**

Sample Information File: C:\data-AA\Administrator\Sample Information\122309.sif
Batch ID:
Results Data Set: 122309S1
Results Library: C:\data-AA\Administrator\Results\Results.mdb

==========

Method Loaded
Method Name: SOIL **Method Last Saved: 12/7/2009 16:18:28**
Method Description: 7471A, ILM04 ANALYST JXL1

==========

Sequence No.: 1 **Autosampler Location: 1**
Sample ID: Calib Blank **Date Collected: 12/23/2009 08:39:08**
Analyst: **Data Type: Original**

Replicate Data: Calib Blank

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.00]	0.0001	-0.0000	0.0001	08:39:58	Yes
2		[0.00]	0.0001	-0.0001	0.0001	08:40:28	Yes
Mean:		[0.00]	0.0001				
SD:		0.00	0.0000				
%RSD:		0.00	16.01				

Auto-zero performed.

==========

Sequence No.: 2 **Autosampler Location: 2**
Sample ID: S0.2 **Date Collected: 12/23/2009 08:40:47**
Analyst: **Data Type: Original**

Replicate Data: S0.2

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.2]	0.0016	0.0070	0.0017	08:41:38	Yes
2		[0.2]	0.0016	0.0067	0.0017	08:42:07	Yes
Mean:		[0.2]	0.0016				
SD:		0.0	0.0000				
%RSD:		0.0	0.67				

Standard number 1 applied. [0.2]
Correlation Coef.: 1.000000 Slope: 0.00808 Intercept: 0.00000

==========

Sequence No.: 3 **Autosampler Location: 3**
Sample ID: S0.5 **Date Collected: 12/23/2009 08:42:27**
Analyst: **Data Type: Original**

Replicate Data: S0.5

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.5]	0.0041	0.0173	0.0042	08:43:17	Yes
2		[0.5]	0.0041	0.0174	0.0042	08:43:47	Yes
Mean:		[0.5]	0.0041				
SD:		0.0	0.0000				
%RSD:		0.0	0.64				

Standard number 2 applied. [0.5]
Correlation Coef.: 0.999975 Slope: 0.00822 Intercept: -0.00001

Sequence No.: 4 **Autosampler Location: 4**
Sample ID: S2.0 **Date Collected: 12/23/2009 08:44:06**
Analyst: **Data Type: Original**

Replicate Data: S2.0

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[2.0]	0.0166	0.0702	0.0167	08:44:57	Yes
2		[2.0]	0.0166	0.0701	0.0167	08:45:27	Yes
Mean:		[2.0]	0.0166				
SD:		0.0	0.0000				
%RSD:		0.0	0.03				

Standard number 3 applied. [2.0]
Correlation Coef.: 0.999994 Slope: 0.00833 Intercept: -0.00003

Sequence No.: 5 **Autosampler Location: 5**
Sample ID: S5.0 **Date Collected: 12/23/2009 08:45:47**
Analyst: **Data Type: Original**

Replicate Data: S5.0

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[5.0]	0.0414	0.1746	0.0415	08:46:39	Yes
2		[5.0]	0.0409	0.1728	0.0410	08:47:08	Yes
Mean:		[5.0]	0.0412				
SD:		0.0	0.0003				
%RSD:		0.0	0.80				

Standard number 4 applied. [5.0]
Correlation Coef.: 0.999989 Slope: 0.00824 Intercept: 0.00002

Sequence No.: 6 **Autosampler Location: 6**
Sample ID: S10.0 **Date Collected: 12/23/2009 08:47:29**
Analyst: **Data Type: Original**

2	[10.0]	0.0808	0.3413	0.0808	08:48:48	Yes
Mean:	[10.0]	0.0808				
SD:	0.0	0.0000				
%RSD:	0.0	0.02				

Standard number 5 applied. [10.0]
Correlation Coef.: 0.999947 Slope: 0.00809 Intercept: 0.00018

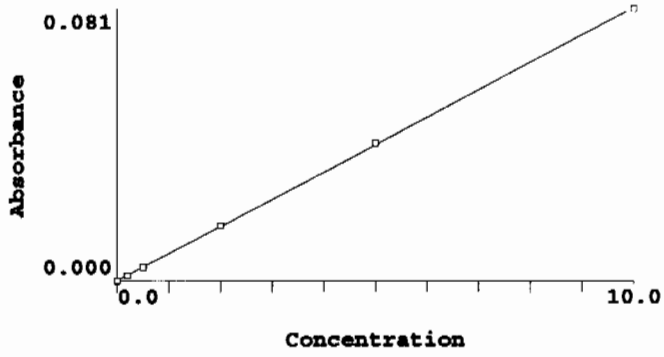

Calibration data for Hg 253.7 **Equation: Linear, Calculated Intercept**

ID	Mean Signal (Abs)	Entered Conc. ug/L	Calculated Conc. ug/L	Standard Deviation	%RSD
Calib Blank	0.0000	0	-0.023	0.00	16.0
S0.2	0.0016	0.2	0.177	0.00	0.7
S0.5	0.0041	0.5	0.485	0.00	0.6
S2.0	0.0166	2.0	2.034	0.00	0.0
S5.0	0.0412	5.0	5.065	0.00	0.8
S10.0	0.0808	10.0	9.962	0.00	0.0

Correlation Coef.: 0.999947 Slope: 0.00809 Intercept: 0.00018

Sequence No.: 7 **Autosampler Location: 9**
Sample ID: ICV **Date Collected: 12/23/2009 08:49:07**
Analyst: **Data Type: Original**

Replicate Data: ICV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.228	5.228	0.0425	0.1808	0.0426	08:49:58	Yes
2	5.198	5.198	0.0422	0.1791	0.0423	08:50:28	Yes
Mean:	5.213	5.213	0.0423				
SD:	0.021	0.021	0.0002				
%RSD:	0.400	0.400	0.40				

QC value within limits for Hg 253.7 Recovery = 104.26%
All analyte(s) passed QC.

Sequence No.: 8 **Autosampler Location: 10**
Sample ID: ICB **Date Collected: 12/23/2009 08:50:47**
Analyst: **Data Type: Original**

Replicate Data: ICB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.010	-0.010	0.0001	0.0001	0.0002	08:51:39	Yes
2	-0.015	-0.015	0.0001	0.0003	0.0002	08:52:09	Yes
Mean:	-0.012	-0.012	0.0001				
SD:	0.003	0.003	0.0000				
%RSD:	28.27	28.27	32.93				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 9 **Autosampler Location: 11**

Sample ID: CRDL **Date Collected: 12/23/2009 08:52:28**
Analyst: **Data Type: Original**

Replicate Data: CRDL

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.190	0.190	0.0017	0.0075	0.0018	08:53:20	Yes
2	0.178	0.178	0.0016	0.0066	0.0017	08:53:50	Yes
Mean:	0.184	0.184	0.0017				
SD:	0.009	0.009	0.0001				
%RSD:	4.816	4.816	4.28				

QC value within limits for Hg 253.7 Recovery = 91.91%
All analyte(s) passed QC.

Sequence No.: 10 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 12/23/2009 08:54:10**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.084	5.084	0.0413	0.1751	0.0414	08:55:00	Yes
2	5.032	5.032	0.0409	0.1735	0.0410	08:55:30	Yes
Mean:	5.058	5.058	0.0411				
SD:	0.036	0.036	0.0003				
%RSD:	0.718	0.718	0.71				

QC value within limits for Hg 253.7 Recovery = 101.16%
All analyte(s) passed QC.

Sequence No.: 11 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 12/23/2009 08:55:49**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.017	-0.017	0.0000	0.0000	0.0001	08:56:40	Yes
2	-0.015	-0.015	0.0001	0.0003	0.0002	08:57:10	Yes
Mean:	-0.016	-0.016	0.0001				
SD:	0.001	0.001	0.0000				
%RSD:	9.537	9.537	20.71				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 12 **Autosampler Location: 12**
Sample ID: 1202000143|934855|1 **Date Collected: 12/23/2009 08:57:29**
Analyst: ETL **Data Type: Original**

Replicate Data: 1202000143|934855|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.013	-0.013	0.0001	0.0004	0.0002	08:58:21	Yes
2	-0.013	-0.013	0.0001	0.0003	0.0002	08:58:51	Yes
Mean:	-0.013	-0.013	0.0001				
SD:	0.000	0.000	0.0000				
%RSD:	3.423	3.423	4.54				

Sequence No.: 13 **Autosampler Location: 13**
Sample ID: 1202000144|934855|1 **Date Collected: 12/23/2009 08:59:11**
Analyst: ETL **Data Type: Original**

Replicate Data: 1202000144|934855|1

Analyst: ETL Data Type: Original

Replicate Data: 1202000147|934855|5

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.066	0.066	0.0007	0.0029	0.0008	09:08:21	Yes
2	0.069	0.069	0.0007	0.0031	0.0008	09:08:51	Yes
Mean:	0.068	0.068	0.0007				
SD:	0.002	0.002	0.0000				
%RSD:	2.963	2.963	2.22				

Sequence No.: 19 Autosampler Location: 19
Sample ID: 242661002|934855|1 Date Collected: 12/23/2009 09:09:10
Analyst: ETL Data Type: Original

Replicate Data: 242661002|934855|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.293	0.293	0.0026	0.0107	0.0026	09:10:01	Yes
2	0.299	0.299	0.0026	0.0113	0.0027	09:10:31	Yes
Mean:	0.296	0.296	0.0026				
SD:	0.004	0.004	0.0000				
%RSD:	1.362	1.362	1.26				

Sequence No.: 20 Autosampler Location: 20
Sample ID: 242661003|934855|1 Date Collected: 12/23/2009 09:10:50
Analyst: ETL Data Type: Original

Replicate Data: 242661003|934855|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.518	0.518	0.0044	0.0188	0.0045	09:11:41	Yes
2	0.526	0.526	0.0044	0.0193	0.0045	09:12:11	Yes
Mean:	0.522	0.522	0.0044				
SD:	0.006	0.006	0.0000				
%RSD:	1.177	1.177	1.13				

Sequence No.: 21 Autosampler Location: 21
Sample ID: 242661004|934855|1 Date Collected: 12/23/2009 09:12:30
Analyst: ETL Data Type: Original

Replicate Data: 242661004|934855|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.664	0.664	0.0056	0.0237	0.0056	09:13:21	Yes
2	0.659	0.659	0.0055	0.0235	0.0056	09:13:51	Yes
Mean:	0.661	0.661	0.0055				
SD:	0.003	0.003	0.0000				
%RSD:	0.518	0.518	0.50				

Sequence No.: 22 Autosampler Location: 7
Sample ID: CCV Date Collected: 12/23/2009 09:14:11
Analyst: Data Type: Original

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.042	5.042	0.0410	0.1748	0.0411	09:15:01	Yes
2	5.017	5.017	0.0408	0.1739	0.0409	09:15:31	Yes
Mean:	5.030	5.030	0.0409				
SD:	0.017	0.017	0.0001				
%RSD:	0.348	0.348	0.35				

QC value within limits for Hg 253.7 Recovery = 100.59%
All analyte(s) passed QC.

Sequence No.: 23 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 12/23/2009 09:15:50**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.016	-0.016	0.0001	0.0005	0.0001	09:16:41	Yes
2	-0.020	-0.020	0.0000	-0.0001	0.0001	09:17:11	Yes
Mean:	-0.018	-0.018	0.0000				
SD:	0.003	0.003	0.0000				
%RSD:	15.69	15.69	53.45				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 24 **Autosampler Location: 22**
Sample ID: 242661005|934855|1 **Date Collected: 12/23/2009 09:17:30**
Analyst: ETL **Data Type: Original**

Replicate Data: 242661005|934855|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.199	0.199	0.0018	0.0074	0.0019	09:18:22	Yes
2	0.202	0.202	0.0018	0.0081	0.0019	09:18:51	Yes
Mean:	0.201	0.201	0.0018				
SD:	0.002	0.002	0.0000				
%RSD:	0.960	0.960	0.86				

Sequence No.: 25 **Autosampler Location: 23**
Sample ID: 242661006|934855|1 **Date Collected: 12/23/2009 09:19:11**
Analyst: ETL **Data Type: Original**

Replicate Data: 242661006|934855|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.252	0.252	0.0022	0.0094	0.0023	09:20:03	Yes
2	0.258	0.258	0.0023	0.0097	0.0024	09:20:33	Yes
Mean:	0.255	0.255	0.0022				
SD:	0.004	0.004	0.0000				
%RSD:	1.583	1.583	1.45				

Sequence No.: 26 **Autosampler Location: 24**
Sample ID: 242661007|934855|1 **Date Collected: 12/23/2009 09:20:53**
Analyst: ETL **Data Type: Original**

Replicate Data: 242661007|934855|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.627	0.627	0.0053	0.0224	0.0053	09:21:44	Yes
2	0.630	0.630	0.0053	0.0224	0.0054	09:22:14	Yes
Mean:	0.629	0.629	0.0053				
SD:	0.002	0.002	0.0000				
%RSD:	0.337	0.337	0.33				

Sequence No.: 27 **Autosampler Location: 25**
Sample ID: 242661008|934855|1 **Date Collected: 12/23/2009 09:22:34**
Analyst: ETL **Data Type: Original**

Sample ID: 242661013|934855|1 Date Collected: 12/23/2009 09:30:54
Analyst: ETL Data Type: Original

Replicate Data: 242661013|934855|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.070	0.070	0.0008	0.0032	0.0008	09:31:45	Yes
2	0.066	0.066	0.0007	0.0032	0.0008	09:32:15	Yes
Mean:	0.068	0.068	0.0007				
SD:	0.003	0.003	0.0000				
%RSD:	4.733	4.733	3.54				

Sequence No.: 33 Autosampler Location: 31
Sample ID: 242661014|934855|1 Date Collected: 12/23/2009 09:32:34
Analyst: ETL Data Type: Original

Replicate Data: 242661014|934855|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.237	0.237	0.0021	0.0094	0.0022	09:33:25	Yes
2	0.247	0.247	0.0022	0.0099	0.0023	09:33:55	Yes
Mean:	0.242	0.242	0.0021				
SD:	0.007	0.007	0.0001				
%RSD:	3.009	3.009	2.75				

Sequence No.: 34 Autosampler Location: 7
Sample ID: CCV Date Collected: 12/23/2009 09:34:14
Analyst: Data Type: Original

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	4.994	4.994	0.0406	0.1751	0.0407	09:35:05	Yes
2	5.001	5.001	0.0406	0.1746	0.0407	09:35:35	Yes
Mean:	4.997	4.997	0.0406				
SD:	0.005	0.005	0.0000				
%RSD:	0.092	0.092	0.09				

QC value within limits for Hg 253.7 Recovery = 99.95%
All analyte(s) passed QC.

Sequence No.: 35 Autosampler Location: 8
Sample ID: CCB Date Collected: 12/23/2009 09:35:54
Analyst: Data Type: Original

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.009	-0.009	0.0001	0.0007	0.0002	09:36:44	Yes
2	-0.010	-0.010	0.0001	0.0004	0.0002	09:37:14	Yes
Mean:	-0.009	-0.009	0.0001				
SD:	0.001	0.001	0.0000				
%RSD:	7.506	7.506	5.15				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 36 Autosampler Location: 32
Sample ID: 242661015|934855|1 Date Collected: 12/23/2009 09:37:33
Analyst: ETL Data Type: Original

Replicate Data: 242661015|934855|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored

Sequence No.: 46
Sample ID: CCV
Analyst:

Autosampler Location: 7
Date Collected: 12/23/2009 09:54:22
Data Type: Original

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.030	5.030	0.0409	0.1751	0.0410	09:55:12	Yes
2	5.038	5.038	0.0409	0.1749	0.0410	09:55:42	Yes
Mean:	5.034	5.034	0.0409				
SD:	0.005	0.005	0.0000				
%RSD:	0.108	0.108	0.11				

QC value within limits for Hg 253.7 Recovery = 100.68%
All analyte(s) passed QC.

Sequence No.: 47
Sample ID: CCB
Analyst:

Autosampler Location: 8
Date Collected: 12/23/2009 09:56:01
Data Type: Original

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.002	-0.002	0.0002	0.0008	0.0003	09:56:52	Yes
2	-0.011	-0.011	0.0001	0.0003	0.0002	09:57:22	Yes
Mean:	-0.007	-0.007	0.0001				
SD:	0.006	0.006	0.0001				
%RSD:	97.48	97.48	39.16				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 48
Sample ID: 242750003|934867|1
Analyst: ETL

Autosampler Location: 42
Date Collected: 12/23/2009 09:57:41
Data Type: Original

Replicate Data: 242750003|934867|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.148	0.148	0.0014	0.0062	0.0015	09:58:32	Yes
2	0.147	0.147	0.0014	0.0059	0.0015	09:59:02	Yes
Mean:	0.147	0.147	0.0014				
SD:	0.001	0.001	0.0000				
%RSD:	0.623	0.623	0.54				

Sequence No.: 49
Sample ID: 242750004|934867|1
Analyst: ETL

Autosampler Location: 43
Date Collected: 12/23/2009 09:59:22
Data Type: Original

Replicate Data: 242750004|934867|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.280	0.280	0.0025	0.0108	0.0025	10:00:12	Yes
2	0.279	0.279	0.0024	0.0107	0.0025	10:00:42	Yes
Mean:	0.280	0.280	0.0024				
SD:	0.001	0.001	0.0000				
%RSD:	0.368	0.368	0.34				

Sequence No.: 50
Sample ID: 242750005|934867|1
Analyst: ETL

Autosampler Location: 44
Date Collected: 12/23/2009 10:01:02
Data Type: Original

Replicate Data: 242750005|934867|1

Repl	SampleConc	StndConc	BlnkCorr	Peak	Peak	Time	Peak

==========

Analysis Begun

Logged In Analyst: Administrator **Technique: AA FIMS-MHS**
Spectrometer Model: FIMS-100, S/N B050-9550 **Autosampler Model: S10**

Sample Information File: C:\data-AA\Administrator\Sample Information\122309.sif
Batch ID:
Results Data Set: 122309S1
Results Library: C:\data-AA\Administrator\Results\Results.mdb

==========

Method Loaded
Method Name: SOIL **Method Last Saved: 12/7/2009 16:18:28**
Method Description: 7471A, ILM04 ANALYST JXL1

==========

Sequence No.: 1 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 12/23/2009 10:07:01**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.027	5.027	0.0408	0.1751	0.0409	10:07:51	Yes
2	5.026	5.026	0.0408	0.1745	0.0409	10:08:21	Yes
Mean:	5.026	5.026	0.0408				
SD:	0.001	0.001	0.0000				
%RSD:	0.013	0.013	0.01				

QC value within limits for Hg 253.7 Recovery = 100.52%
All analyte(s) passed QC.

==========

Sequence No.: 2 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 12/23/2009 10:08:40**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.006	-0.006	0.0001	0.0010	0.0002	10:09:31	Yes
2	-0.011	-0.011	0.0001	0.0004	0.0002	10:10:01	Yes
Mean:	-0.008	-0.008	0.0001				
SD:	0.003	0.003	0.0000				
%RSD:	40.05	40.05	22.96				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

==========

Sequence No.: 3 **Autosampler Location: 38**
Sample ID: 1202000174|934867|1 **Date Collected: 12/23/2009 10:10:20**
Analyst: ETL **Data Type: Original**

Replicate Data: 1202000174|934867|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.018	-0.018	0.0000	0.0003	0.0001	10:11:11	Yes
2	-0.018	-0.018	0.0000	0.0003	0.0001	10:11:41	Yes
Mean:	-0.018	-0.018	0.0000				
SD:	0.000	0.000	0.0000				
%RSD:	0.677	0.677	2.49				

==========

Sequence No.: 4 **Autosampler Location: 39**
Sample ID: 1202000175|934867|1 **Date Collected: 12/23/2009 10:12:00**
Analyst: ETL **Data Type: Original**

Sequence No.: 9
Sample ID: 242750005|934867|1
Analyst: ETL
Autosampler Location: 44
Date Collected: 12/23/2009 10:20:23
Data Type: Original

Replicate Data: 242750005|934867|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.264	0.264	0.0023	0.0102	0.0024	10:21:13	Yes
2	0.278	0.278	0.0024	0.0110	0.0025	10:21:43	Yes
Mean:	0.271	0.271	0.0024				
SD:	0.010	0.010	0.0001				
%RSD:	3.691	3.691	3.40				

Sequence No.: 10
Sample ID: 243113001|934867|1
Analyst: ETL
Autosampler Location: 45
Date Collected: 12/23/2009 10:22:02
Data Type: Original

Replicate Data: 243113001|934867|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.622	0.622	0.0052	0.0226	0.0053	10:22:53	Yes
2	0.624	0.624	0.0052	0.0226	0.0053	10:23:23	Yes
Mean:	0.623	0.623	0.0052				
SD:	0.001	0.001	0.0000				
%RSD:	0.215	0.215	0.21				

Sequence No.: 11
Sample ID: 1202000176|934867|1
Analyst: ETL
Autosampler Location: 46
Date Collected: 12/23/2009 10:23:43
Data Type: Original

Replicate Data: 1202000176|934867|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.627	0.627	0.0053	0.0231	0.0053	10:24:34	Yes
2	0.626	0.626	0.0053	0.0230	0.0053	10:25:04	Yes
Mean:	0.627	0.627	0.0053				
SD:	0.001	0.001	0.0000				
%RSD:	0.090	0.090	0.09				

Sequence No.: 12
Sample ID: 1202000177|934867|1
Analyst: ETL
Autosampler Location: 47
Date Collected: 12/23/2009 10:25:24
Data Type: Original

Replicate Data: 1202000177|934867|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.502	2.502	0.0204	0.0890	0.0205	10:26:16	Yes
2	2.511	2.511	0.0205	0.0889	0.0206	10:26:46	Yes
Mean:	2.507	2.507	0.0205				
SD:	0.006	0.006	0.0001				
%RSD:	0.259	0.259	0.26				

Sequence No.: 13
Sample ID: CCV
Analyst:
Autosampler Location: 7
Date Collected: 12/23/2009 10:27:05
Data Type: Original

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	4.992	4.992	0.0406	0.1756	0.0407	10:27:56	Yes
2	4.992	4.992	0.0406	0.1757	0.0407	10:28:25	Yes
Mean:	4.992	4.992	0.0406				

SD:	0.001	0.001	0.0000
%RSD:	0.010	0.010	0.01

QC value within limits for Hg 253.7 Recovery = 99.84%
All analyte(s) passed QC.

==========

Sequence No.: 14 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 12/23/2009 10:28:44**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.026	-0.026	-0.0000	-0.0003	0.0001	10:29:35	Yes
2	-0.025	-0.025	-0.0000	0.0002	0.0001	10:30:05	Yes
Mean:	-0.026	-0.026	-0.0000				
SD:	0.001	0.001	0.0000				
%RSD:	3.019	3.019	27.09				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

==========

Sequence No.: 15 **Autosampler Location: 48**
Sample ID: 1202000179|934867|1 **Date Collected: 12/23/2009 10:30:24**
Analyst: ETL **Data Type: Original**

Replicate Data: 1202000179|934867|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.577	2.577	0.0210	0.0908	0.0211	10:31:16	Yes
2	2.576	2.576	0.0210	0.0911	0.0211	10:31:46	Yes
Mean:	2.576	2.576	0.0210				
SD:	0.001	0.001	0.0000				
%RSD:	0.029	0.029	0.03				

==========

Sequence No.: 16 **Autosampler Location: 49**
Sample ID: 1202000178|934867|5 **Date Collected: 12/23/2009 10:32:06**
Analyst: ETL **Data Type: Original**

Replicate Data: 1202000178|934867|5

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.110	0.110	0.0011	0.0047	0.0012	10:32:58	Yes
2	0.110	0.110	0.0011	0.0050	0.0012	10:33:28	Yes
Mean:	0.110	0.110	0.0011				
SD:	0.000	0.000	0.0000				
%RSD:	0.261	0.261	0.22				

==========

Sequence No.: 17 **Autosampler Location: 50**
Sample ID: 243113002|934867|1 **Date Collected: 12/23/2009 10:33:48**
Analyst: ETL **Data Type: Original**

Replicate Data: 243113002|934867|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	35.82	35.82	0.2899	1.2895	0.2900	10:34:39	Yes
	Sample concentration is greater than that of the highest standard.						
2	35.54	35.54	0.2876	1.2806	0.2877	10:35:09	Yes
	Sample concentration is greater than that of the highest standard.						
Mean:	35.68	35.68	0.2888				
SD:	0.201	0.201	0.0016				
%RSD:	0.563	0.563	0.56				

Sample concentration is greater than that of the highest standard.

==========

SD:	0.001	0.001	0.0000
%RSD:	0.488	0.488	0.45

==========

Sequence No.: 23 **Autosampler Location: 56**
Sample ID: 243113008|934867|1 **Date Collected: 12/23/2009 10:43:52**
Analyst: ETL **Data Type: Original**

Replicate Data: 243113008|934867|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.436	0.436	0.0037	0.0265	0.0038	10:44:43	Yes
2	0.444	0.444	0.0038	0.0229	0.0039	10:45:12	Yes
Mean:	0.440	0.440	0.0037				
SD:	0.006	0.006	0.0000				
%RSD:	1.315	1.315	1.25				

==========

Sequence No.: 24 **Autosampler Location: 57**
Sample ID: 243113009|934867|1 **Date Collected: 12/23/2009 10:45:32**
Analyst: ETL **Data Type: Original**

Replicate Data: 243113009|934867|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	6.723	6.723	0.0546	0.3048	0.0547	10:46:23	Yes
2	6.021	6.021	0.0489	0.2891	0.0490	10:46:53	Yes
Mean:	6.372	6.372	0.0517				
SD:	0.496	0.496	0.0040				
%RSD:	7.788	7.788	7.76				

==========

Sequence No.: 25 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 12/23/2009 10:47:12**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	3.600	3.600	0.0293	0.1636	0.0294	10:48:03	Yes
2	2.508	2.508	0.0205	0.1401	0.0206	10:48:33	Yes
Mean:	3.054	3.054	0.0249				
SD:	0.772	0.772	0.0062				
%RSD:	25.29	25.29	25.11				

QC value less than the lower limit for Hg 253.7 Recovery = 61.08%
QC Failed. Continue with analysis.

==========

Sequence No.: 26 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 12/23/2009 10:48:51**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.024	-0.024	-0.0000	0.0001	0.0001	10:49:42	Yes
2	-0.027	-0.027	-0.0000	0.0000	0.0001	10:50:12	Yes
Mean:	-0.026	-0.026	-0.0000				
SD:	0.002	0.002	0.0000				
%RSD:	8.900	8.900	79.50				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

==========

Sequence No.: 27 **Autosampler Location: 58**
Sample ID: 243113010|934867|1 **Date Collected: 12/23/2009 10:50:31**
Analyst: ETL **Data Type: Original**

Analysis Begun

Logged In Analyst: Administrator
Technique: AA FIMS-MHS
Spectrometer Model: FIMS-100, S/N B050-9550
Autosampler Model: S10

Sample Information File: C:\data-AA\Administrator\Sample Information\122309.sif
Batch ID:
Results Data Set: 122309S1
Results Library: C:\data-AA\Administrator\Results\Results.mdb

Sequence No.: 1
Autosampler Location: 7
Sample ID: CCV
Date Collected: 12/23/2009 10:58:05
Analyst:
Data Type: Original

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.959	2.959	0.0241	0.1526	0.0242	10:58:55	Yes
2	3.046	3.046	0.0248	0.1604	0.0249	10:59:25	Yes
Mean:	3.003	3.003	0.0245				
SD:	0.062	0.062	0.0005				
%RSD:	2.053	2.053	2.04				

QC value less than the lower limit for Hg 253.7 Recovery = 60.06%
QC Failed. Continue with analysis.

Sequence No.: 2
Autosampler Location: 8
Sample ID: CCB
Date Collected: 12/23/2009 10:59:44
Analyst:
Data Type: Original

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.070	0.070	0.0008	0.0056	0.0008	11:00:35	Yes
2	-0.003	-0.003	0.0002	0.0015	0.0003	11:01:05	Yes
Mean:	0.034	0.034	0.0005				
SD:	0.052	0.052	0.0004				
%RSD:	153.5	153.5	91.64				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 3
Autosampler Location: 48
Sample ID: 1202000179|934867|1
Date Collected: 12/23/2009 11:01:24
Analyst: ETL
Data Type: Original

Replicate Data: 1202000179|934867|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	1.546	1.546	0.0127	0.0805	0.0128	11:02:15	Yes
2	1.574	1.574	0.0129	0.0846	0.0130	11:02:45	Yes
Mean:	1.560	1.560	0.0128				
SD:	0.020	0.020	0.0002				
%RSD:	1.279	1.279	1.26				

Sequence No.: 4
Autosampler Location: 49
Sample ID: 1202000178|934867|5
Date Collected: 12/23/2009 11:03:05
Analyst: ETL
Data Type: Original

Replicate Data: 1202000178|934867|5

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.041	0.041	0.0005	0.0010	0.0006	11:03:57	Yes

==========

Analysis Begun

Logged In Analyst: Administrator **Technique: AA FIMS-MHS**
Spectrometer Model: FIMS-100, S/N B050-9550 **Autosampler Model: S10**

Sample Information File: C:\data-AA\Administrator\Sample Information\122309.sif
Batch ID:
Results Data Set: 122309S1
Results Library: C:\data-AA\Administrator\Results\Results.mdb

==========

Sequence No.: 1 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 12/23/2009 11:16:35**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	4.803	4.803	0.0390	0.1767	0.0391	11:17:25	Yes
2	4.802	4.802	0.0390	0.1759	0.0391	11:17:55	Yes
Mean:	4.803	4.803	0.0390				
SD:	0.001	0.001	0.0000				
%RSD:	0.015	0.015	0.01				

QC value within limits for Hg 253.7 Recovery = 96.06%
All analyte(s) passed QC.

==========

Sequence No.: 2 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 12/23/2009 11:18:14**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.012	0.012	0.0003	0.0023	0.0004	11:19:04	Yes
2	0.012	0.012	0.0003	0.0021	0.0004	11:19:34	Yes
Mean:	0.012	0.012	0.0003				
SD:	0.000	0.000	0.0000				
%RSD:	1.044	1.044	0.36				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

==========

Sequence No.: 3 **Autosampler Location: 48**
Sample ID: 1202000179|934867|1 **Date Collected: 12/23/2009 11:19:54**
Analyst: ETL **Data Type: Original**

Replicate Data: 1202000179|934867|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.207	0.207	0.0019	0.0056	0.0020	11:20:45	Yes
2	-0.007	-0.007	0.0001	0.0009	0.0002	11:21:15	Yes
Mean:	0.100	0.100	0.0010				
SD:	0.152	0.152	0.0012				
%RSD:	151.5	151.5	123.38				

==========

Sequence No.: 4 **Autosampler Location: 49**
Sample ID: 1202000178|934867|5 **Date Collected: 12/23/2009 11:21:35**
Analyst: ETL **Data Type: Original**

Replicate Data: 1202000178|934867|5

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.025	-0.025	-0.0000	0.0003	0.0001	11:22:27	Yes

==========

Analysis Begun

Logged In Analyst: Administrator **Technique: AA FIMS-MHS**
Spectrometer Model: FIMS-100, S/N B050-9550 **Autosampler Model: S10**

Sample Information File: C:\data-AA\Administrator\Sample Information\122309.sif
Batch ID:
Results Data Set: 122309S1
Results Library: C:\data-AA\Administrator\Results\Results.mdb

==========

Sequence No.: 1 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 12/23/2009 11:29:05**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	4.655	4.655	0.0378	0.1721	0.0379	11:29:56	Yes
2	4.676	4.676	0.0380	0.1728	0.0381	11:30:26	Yes
Mean:	4.665	4.665	0.0379				
SD:	0.015	0.015	0.0001				
%RSD:	0.318	0.318	0.32				

QC value within limits for Hg 253.7 Recovery = 93.31%
All analyte(s) passed QC.

==========

Sequence No.: 2 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 12/23/2009 11:30:45**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.017	0.017	0.0003	0.0026	0.0004	11:31:36	Yes
2	0.015	0.015	0.0003	0.0022	0.0004	11:32:06	Yes
Mean:	0.016	0.016	0.0003				
SD:	0.002	0.002	0.0000				
%RSD:	11.05	11.05	4.56				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

==========

Sequence No.: 3 **Autosampler Location: 48**
Sample ID: 1202000179|934867|1 **Date Collected: 12/23/2009 11:32:25**
Analyst: ETL **Data Type: Original**

Replicate Data: 1202000179|934867|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.337	2.337	0.0191	0.0878	0.0192	11:33:17	Yes
2	2.315	2.315	0.0189	0.0856	0.0190	11:33:47	Yes
Mean:	2.326	2.326	0.0190				
SD:	0.015	0.015	0.0001				
%RSD:	0.641	0.641	0.63				

==========

Sequence No.: 4 **Autosampler Location: 49**
Sample ID: 1202000178|934867|5 **Date Collected: 12/23/2009 11:34:07**
Analyst: ETL **Data Type: Original**

Replicate Data: 1202000178|934867|5

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.296	0.296	0.0026	0.0124	0.0027	11:34:59	Yes

Replicate Data: 243113006|934867|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.693	0.693	0.0058	0.0274	0.0059	11:43:22	Yes
2	0.699	0.699	0.0058	0.0282	0.0059	11:43:51	Yes
Mean:	0.696	0.696	0.0058				
SD:	0.004	0.004	0.0000				
%RSD:	0.572	0.572	0.55				

==========

Sequence No.: 10 **Autosampler Location: 55**
Sample ID: 243113007|934867|1 **Date Collected: 12/23/2009 11:44:11**
Analyst: ETL **Data Type: Original**

Replicate Data: 243113007|934867|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.271	0.271	0.0024	0.0117	0.0025	11:45:02	Yes
2	0.276	0.276	0.0024	0.0114	0.0025	11:45:32	Yes
Mean:	0.273	0.273	0.0024				
SD:	0.003	0.003	0.0000				
%RSD:	1.230	1.230	1.14				

==========

Sequence No.: 11 **Autosampler Location: 56**
Sample ID: 243113008|934867|1 **Date Collected: 12/23/2009 11:45:52**
Analyst: ETL **Data Type: Original**

Replicate Data: 243113008|934867|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.604	0.604	0.0051	0.0240	0.0052	11:46:43	Yes
2	0.603	0.603	0.0051	0.0243	0.0052	11:47:13	Yes
Mean:	0.603	0.603	0.0051				
SD:	0.000	0.000	0.0000				
%RSD:	0.026	0.026	0.03				

==========

Sequence No.: 12 **Autosampler Location: 57**
Sample ID: 243113009|934867|1 **Date Collected: 12/23/2009 11:47:32**
Analyst: ETL **Data Type: Original**

Replicate Data: 243113009|934867|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	8.374	8.374	0.0679	0.3100	0.0680	11:48:23	Yes
2	8.367	8.367	0.0679	0.3098	0.0680	11:48:53	Yes
Mean:	8.371	8.371	0.0679				
SD:	0.005	0.005	0.0000				
%RSD:	0.055	0.055	0.05				

==========

Sequence No.: 13 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 12/23/2009 11:49:12**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	4.676	4.676	0.0380	0.1734	0.0381	11:50:03	Yes
2	4.687	4.687	0.0381	0.1731	0.0382	11:50:33	Yes
Mean:	4.681	4.681	0.0380				
SD:	0.008	0.008	0.0001				
%RSD:	0.167	0.167	0.17				

QC value within limits for Hg 253.7 Recovery = 93.63%
All analyte(s) passed QC.

Sequence No.: 14 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 12/23/2009 11:50:52**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.012	0.012	0.0003	0.0019	0.0004	11:51:43	Yes
2	0.013	0.013	0.0003	0.0020	0.0004	11:52:13	Yes
Mean:	0.013	0.013	0.0003				
SD:	0.001	0.001	0.0000				
%RSD:	7.182	7.182	2.57				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 15 **Autosampler Location: 58**
Sample ID: 243113010|934867|1 **Date Collected: 12/23/2009 11:52:32**
Analyst: ETL **Data Type: Original**

Replicate Data: 243113010|934867|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.080	0.080	0.0008	0.0040	0.0009	11:53:23	Yes
2	0.092	0.092	0.0009	0.0053	0.0010	11:53:53	Yes
Mean:	0.086	0.086	0.0009				
SD:	0.008	0.008	0.0001				
%RSD:	9.573	9.573	7.57				

Sequence No.: 16 **Autosampler Location: 59**
Sample ID: 243113011|934867|1 **Date Collected: 12/23/2009 11:54:13**
Analyst: ETL **Data Type: Original**

Replicate Data: 243113011|934867|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.105	0.105	0.0010	0.0055	0.0011	11:55:04	Yes
2	0.103	0.103	0.0010	0.0050	0.0011	11:55:34	Yes
Mean:	0.104	0.104	0.0010				
SD:	0.002	0.002	0.0000				
%RSD:	1.896	1.896	1.56				

Sequence No.: 17 **Autosampler Location: 60**
Sample ID: 243113012|934867|1 **Date Collected: 12/23/2009 11:55:54**
Analyst: ETL **Data Type: Original**

Replicate Data: 243113012|934867|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	28.43	28.43	0.2302	1.0638	0.2303	11:56:45	Yes
	Sample concentration is greater than that of the highest standard.						
2	28.36	28.36	0.2296	1.0555	0.2297	11:57:15	Yes
	Sample concentration is greater than that of the highest standard.						
Mean:	28.40	28.40	0.2299				
SD:	0.050	0.050	0.0004				
%RSD:	0.175	0.175	0.18				

Sample concentration is greater than that of the highest standard.

Sequence No.: 18 **Autosampler Location: 61**
Sample ID: 243113013|934867|1 **Date Collected: 12/23/2009 11:57:35**
Analyst: ETL **Data Type: Original**

Replicate Data: 243113013|934867|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	7.407	7.407	0.0601	0.2730	0.0602	11:58:27	Yes
2	7.399	7.399	0.0600	0.2728	0.0601	11:58:57	Yes
Mean:	7.403	7.403	0.0601				
SD:	0.005	0.005	0.0000				
%RSD:	0.072	0.072	0.07				

Sequence No.: 19
Sample ID: 243113014|934867|1
Analyst: ETL
Autosampler Location: 62
Date Collected: 12/23/2009 11:59:17
Data Type: Original

Replicate Data: 243113014|934867|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	1.541	1.541	0.0126	0.0573	0.0127	12:00:08	Yes
2	1.551	1.551	0.0127	0.0584	0.0128	12:00:38	Yes
Mean:	1.546	1.546	0.0127				
SD:	0.007	0.007	0.0001				
%RSD:	0.439	0.439	0.43				

Sequence No.: 20
Sample ID: 1202000180|934871|1
Analyst: ETL
Autosampler Location: 63
Date Collected: 12/23/2009 12:00:57
Data Type: Original

Replicate Data: 1202000180|934871|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.002	-0.002	0.0002	0.0013	0.0003	12:01:49	Yes
2	-0.005	-0.005	0.0001	0.0009	0.0002	12:02:19	Yes
Mean:	-0.004	-0.004	0.0002				
SD:	0.002	0.002	0.0000				
%RSD:	51.45	51.45	9.43				

Sequence No.: 21
Sample ID: 1202000181|934871|10
Analyst: ETL
Autosampler Location: 64
Date Collected: 12/23/2009 12:02:39
Data Type: Original

Type Ex 12/23/09

Replicate Data: 1202000181|934871|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	4.382	4.382	0.0356	0.1614	0.0357	12:03:30	Yes
2	4.367	4.367	0.0355	0.1609	0.0356	12:04:00	Yes
Mean:	4.375	4.375	0.0356				
SD:	0.011	0.011	0.0001				
%RSD:	0.258	0.258	0.26				

Sequence No.: 22
Sample ID: 242781001|934871|1
Analyst: ETL
Autosampler Location: 65
Date Collected: 12/23/2009 12:04:20
Data Type: Original

Replicate Data: 242781001|934871|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.199	0.199	0.0018	0.0083	0.0019	12:05:12	Yes
2	0.198	0.198	0.0018	0.0081	0.0019	12:05:41	Yes
Mean:	0.198	0.198	0.0018				
SD:	0.001	0.001	0.0000				
%RSD:	0.287	0.287	0.26				

Sequence No.: 23
Autosampler Location: 66

Sample ID: 242781002|934871|1 Date Collected: 12/23/2009 12:06:01
Analyst: ETL Data Type: Original

Replicate Data: 242781002|934871|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.533	0.533	0.0045	0.0209	0.0046	12:06:52	Yes
2	0.532	0.532	0.0045	0.0210	0.0046	12:07:22	Yes
Mean:	0.533	0.533	0.0045				
SD:	0.001	0.001	0.0000				
%RSD:	0.111	0.111	0.11				

Sequence No.: 24 Autosampler Location: 67
Sample ID: 242781003|934871|1 Date Collected: 12/23/2009 12:07:42
Analyst: ETL Data Type: Original

Replicate Data: 242781003|934871|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.100	0.100	0.0010	0.0048	0.0011	12:08:33	Yes
2	0.099	0.099	0.0010	0.0048	0.0011	12:09:03	Yes
Mean:	0.099	0.099	0.0010				
SD:	0.001	0.001	0.0000				
%RSD:	1.341	1.341	1.09				

Sequence No.: 25 Autosampler Location: 7
Sample ID: CCV Date Collected: 12/23/2009 12:09:22
Analyst: Data Type: Original

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	4.725	4.725	0.0384	0.1750	0.0385	12:10:13	Yes
2	4.722	4.722	0.0384	0.1742	0.0385	12:10:43	Yes
Mean:	4.723	4.723	0.0384				
SD:	0.002	0.002	0.0000				
%RSD:	0.045	0.045	0.04				

QC value within limits for Hg 253.7 Recovery = 94.47%
All analyte(s) passed QC.

Sequence No.: 26 Autosampler Location: 8
Sample ID: CCB Date Collected: 12/23/2009 12:11:02
Analyst: Data Type: Original

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.004	-0.004	0.0002	0.0005	0.0002	12:11:52	Yes
2	0.010	0.010	0.0003	0.0018	0.0004	12:12:22	Yes
Mean:	0.003	0.003	0.0002				
SD:	0.010	0.010	0.0001				
%RSD:	359.0	359.0	37.96				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 27 Autosampler Location: 68
Sample ID: 242781004|934871|1 Date Collected: 12/23/2009 12:12:41
Analyst: ETL Data Type: Original

Replicate Data: 242781004|934871|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored

1	0.067	0.067	0.0007	0.0038	0.0008	12:13:32	Yes
2	0.065	0.065	0.0007	0.0034	0.0008	12:14:02	Yes
Mean:	0.066	0.066	0.0007				
SD:	0.001	0.001	0.0000				
%RSD:	2.017	2.017	1.50				

==========

Sequence No.: 28 **Autosampler Location: 69**
Sample ID: 242781005|934871|1 **Date Collected: 12/23/2009 12:14:22**
Analyst: ETL **Data Type: Original**

Replicate Data: 242781005|934871|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.059	0.059	0.0007	0.0038	0.0008	12:15:13	Yes
2	0.051	0.051	0.0006	0.0027	0.0007	12:15:43	Yes
Mean:	0.055	0.055	0.0006				
SD:	0.006	0.006	0.0000				
%RSD:	11.06	11.06	7.82				

==========

Sequence No.: 29 **Autosampler Location: 70**
Sample ID: 242781006|934871|1 **Date Collected: 12/23/2009 12:16:03**
Analyst: ETL **Data Type: Original**

Replicate Data: 242781006|934871|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.166	0.166	0.0015	0.0073	0.0016	12:16:54	Yes
2	0.167	0.167	0.0015	0.0074	0.0016	12:17:24	Yes
Mean:	0.167	0.167	0.0015				
SD:	0.001	0.001	0.0000				
%RSD:	0.723	0.723	0.64				

==========

Sequence No.: 30 **Autosampler Location: 71**
Sample ID: 242781007|934871|1 **Date Collected: 12/23/2009 12:17:43**
Analyst: ETL **Data Type: Original**

Replicate Data: 242781007|934871|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.458	0.458	0.0039	0.0177	0.0040	12:18:35	Yes
2	0.466	0.466	0.0040	0.0181	0.0040	12:19:04	Yes
Mean:	0.462	0.462	0.0039				
SD:	0.005	0.005	0.0000				
%RSD:	1.175	1.175	1.12				

==========

Sequence No.: 31 **Autosampler Location: 72**
Sample ID: 242794001|934871|1 **Date Collected: 12/23/2009 12:19:24**
Analyst: ETL **Data Type: Original**

Replicate Data: 242794001|934871|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.058	0.058	0.0007	0.0031	0.0007	12:20:16	Yes
2	0.060	0.060	0.0007	0.0035	0.0008	12:20:45	Yes
Mean:	0.059	0.059	0.0007				
SD:	0.001	0.001	0.0000				
%RSD:	2.287	2.287	1.65				

==========

Sequence No.: 32 **Autosampler Location: 73**
Sample ID: 1202000182|934871|1 **Date Collected: 12/23/2009 12:21:06**
Analyst: ETL **Data Type: Original**

Replicate Data: 1202000182|934871|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.106	0.106	0.0010	0.0050	0.0011	12:21:58	Yes
2	0.107	0.107	0.0010	0.0049	0.0011	12:22:28	Yes
Mean:	0.106	0.106	0.0010				
SD:	0.001	0.001	0.0000				
%RSD:	0.736	0.736	0.61				

Sequence No.: 33 Autosampler Location: 74
Sample ID: 1202000183|934871|1 Date Collected: 12/23/2009 12:22:48
Analyst: ETL Data Type: Original

Replicate Data: 1202000183|934871|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	1.977	1.977	0.0162	0.0739	0.0163	12:23:39	Yes
2	1.986	1.986	0.0162	0.0747	0.0163	12:24:09	Yes
Mean:	1.982	1.982	0.0162				
SD:	0.006	0.006	0.0001				
%RSD:	0.323	0.323	0.32				

Sequence No.: 34 Autosampler Location: 75
Sample ID: 1202000185|934871|1 Date Collected: 12/23/2009 12:24:29
Analyst: ETL Data Type: Original

Replicate Data: 1202000185|934871|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.038	2.038	0.0167	0.0765	0.0168	12:25:20	Yes
2	2.044	2.044	0.0167	0.0768	0.0168	12:25:50	Yes
Mean:	2.041	2.041	0.0167				
SD:	0.004	0.004	0.0000				
%RSD:	0.209	0.209	0.21				

Sequence No.: 35 Autosampler Location: 76
Sample ID: 1202000184|934871|5 Date Collected: 12/23/2009 12:26:10
Analyst: ETL Data Type: Original

Replicate Data: 1202000184|934871|5

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.106	0.106	0.0010	0.0053	0.0011	12:27:01	Yes
2	0.104	0.104	0.0010	0.0051	0.0011	12:27:31	Yes
Mean:	0.105	0.105	0.0010				
SD:	0.002	0.002	0.0000				
%RSD:	1.908	1.908	1.57				

Sequence No.: 36 Autosampler Location: 77
Sample ID: 242794002|934871|1 Date Collected: 12/23/2009 12:27:51
Analyst: ETL Data Type: Original

Replicate Data: 242794002|934871|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.002	-0.002	0.0002	0.0011	0.0003	12:28:42	Yes
2	0.009	0.009	0.0003	0.0020	0.0004	12:29:12	Yes
Mean:	0.004	0.004	0.0002				
SD:	0.008	0.008	0.0001				
%RSD:	199.6	199.6	28.72				

Sequence No.: 37 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 12/23/2009 12:29:32**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	4.699	4.699	0.0382	0.1758	0.0383	12:30:22	Yes
2	4.678	4.678	0.0380	0.1751	0.0381	12:30:52	Yes
Mean:	4.688	4.688	0.0381				
SD:	0.014	0.014	0.0001				
%RSD:	0.308	0.308	0.31				

QC value within limits for Hg 253.7 Recovery = 93.77%
All analyte(s) passed QC.

Sequence No.: 38 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 12/23/2009 12:31:11**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.001	0.001	0.0002	0.0013	0.0003	12:32:01	Yes
2	0.007	0.007	0.0002	0.0016	0.0003	12:32:31	Yes
Mean:	0.004	0.004	0.0002				
SD:	0.004	0.004	0.0000				
%RSD:	114.2	114.2	16.54				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 39 **Autosampler Location: 78**
Sample ID: 242794003|934871|1 **Date Collected: 12/23/2009 12:32:50**
Analyst: ETL **Data Type: Original**

Replicate Data: 242794003|934871|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.079	0.079	0.0008	0.0045	0.0009	12:33:42	Yes
2	0.077	0.077	0.0008	0.0042	0.0009	12:34:11	Yes
Mean:	0.078	0.078	0.0008				
SD:	0.001	0.001	0.0000				
%RSD:	1.919	1.919	1.48				

Sequence No.: 40 **Autosampler Location: 79**
Sample ID: 242794004|934871|1 **Date Collected: 12/23/2009 12:34:31**
Analyst: ETL **Data Type: Original**

Replicate Data: 242794004|934871|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.267	0.267	0.0023	0.0107	0.0024	12:35:23	Yes
2	0.268	0.268	0.0024	0.0111	0.0024	12:35:53	Yes
Mean:	0.268	0.268	0.0023				
SD:	0.001	0.001	0.0000				
%RSD:	0.307	0.307	0.28				

Sequence No.: 41 **Autosampler Location: 80**
Sample ID: 1202000131|934849|1 **Date Collected: 12/23/2009 12:36:13**
Analyst: ETL **Data Type: Original**

Replicate Data: 1202000131|934849|1

Repl	SampleConc	StndConc	BlnkCorr	Peak	Peak	Time	Peak

Miscellaneous

Prep LogBook

Analyst: BCD1 Verified by:_____

Batch: 932283

Lab SOP: GL-MA-E-009 REV# 19

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1201994237	UI062540-I	.504	g
MS	1201994239	UI091216-01	.25	mL
MS	1201994239	UI091216-06	.25	mL
MSD	1201994241	UI091216-01	.25	mL
MSD	1201994241	UI091216-06	.25	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1201994236		SW846 3050B	17-DEC-2009 09:30	0.502 g	50 mL	99.60159	SOIL
LCS	1201994237		SW846 3050B	17-DEC-2009 09:30	0.504 g	50 mL	99.20635	SOIL
SAMPLE	242781001		SW846 3050B	17-DEC-2009 09:30	0.513 g	50 mL	97.46589	SOIL
DUP	1201994238	242781001	SW846 3050B	17-DEC-2009 09:30	0.522 g	50 mL	95.78544	SOIL
MS	1201994239	242781001	SW846 3050B	17-DEC-2009 09:30	0.507 g	50 mL	98.61933	SOIL
MSD	1201994241	242781001	SW846 3050B	17-DEC-2009 09:30	0.521 g	50 mL	95.96929	SOIL
SDILT	1201994240	242781001	SW846 3050B	17-DEC-2009 09:30	0.513 g	50 mL	97.46589	SOIL
SAMPLE	242781002		SW846 3050B	17-DEC-2009 09:30	0.515 g	50 mL	97.08738	SOIL
SAMPLE	242781003		SW846 3050B	17-DEC-2009 09:30	0.51 g	50 mL	98.03922	SOIL
SAMPLE	242781004		SW846 3050B	17-DEC-2009 09:30	0.513 g	50 mL	97.46589	SOIL
SAMPLE	242781005		SW846 3050B	17-DEC-2009 09:30	0.507 g	50 mL	98.61933	SOIL
SAMPLE	242781006		SW846 3050B	17-DEC-2009 09:30	0.525 g	50 mL	95.2381	SOIL
SAMPLE	242781007		SW846 3050B	17-DEC-2009 09:30	0.504 g	50 mL	99.20635	SOIL

Reagent/Solvent Lot ID	Amount	Description
1238343	10 mL	HYDROCHLORIC ACID
1238345	1.25 mL	Nitric Acid CONC.

Comments: The QC sample is a grey, clumpy soil.

Prep LogBook

Analyst: BCD1 Verified by:_____

Batch: 932322

Lab SOP: GL-MA-E-009 REV# 19

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1201994316	UI062540-MS	.504	g
MS	1201994318	UI091015-A	.5	mL
MS	1201994318	UI091015-B	.5	mL
MSD	1201994320	UI091015-A	.5	mL
MSD	1201994320	UI091015-B	.5	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1201994315		SW846 3050B	17-DEC-2009 09:45	0.515 g	50 mL	97.08738	SOIL
LCS	1201994316		SW846 3050B	17-DEC-2009 09:45	0.504 g	50 mL	99.20635	SOIL
SAMPLE	242781001		SW846 3050B	17-DEC-2009 09:45	0.516 g	50 mL	96.89922	SOIL
DUP	1201994317	242781001	SW846 3050B	17-DEC-2009 09:45	0.517 g	50 mL	96.7118	SOIL
MS	1201994318	242781001	SW846 3050B	17-DEC-2009 09:45	0.511 g	50 mL	97.84736	SOIL
MSD	1201994320	242781001	SW846 3050B	17-DEC-2009 09:45	0.522 g	50 mL	95.78544	SOIL
SDILT	1201994319	242781001	SW846 3050B	17-DEC-2009 09:45	0.516 g	50 mL	96.89922	SOIL
SAMPLE	242781002		SW846 3050B	17-DEC-2009 09:45	0.511 g	50 mL	97.84736	SOIL
SAMPLE	242781003		SW846 3050B	17-DEC-2009 09:45	0.501 g	50 mL	99.8004	SOIL
SAMPLE	242781004		SW846 3050B	17-DEC-2009 09:45	0.521 g	50 mL	95.96929	SOIL
SAMPLE	242781005		SW846 3050B	17-DEC-2009 09:45	0.517 g	50 mL	96.7118	SOIL
SAMPLE	242781006		SW846 3050B	17-DEC-2009 09:45	0.525 g	50 mL	95.2381	SOIL
SAMPLE	242781007		SW846 3050B	17-DEC-2009 09:45	0.502 g	50 mL	99.60159	SOIL

Reagent/Solvent Lot ID	Amount	Description
1203655-02	1.5 mL	Hydrogen Peroxide 30%
1238345	5 mL	Nitric Acid CONC.

Comments: The QC sample is a grey, clumpy soil.

Prep LogBook

Analyst: TXB3 Verified by:_____

Batch: 934870

Lab SOP: GL-MA-E-010 REV# 23

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1202000181	UI031809A	.201	g
MS	1202000183	WHG091222-14	.3	mL
MSD	1202000185	WHG091222-14	.3	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1202000180		SW846 7471A Prep	22-DEC-2009 11:45	0.513 g	30 mL	58.47953	SOIL
LCS	1202000181		SW846 7471A Prep	22-DEC-2009 11:45	0.201 g	30 mL	149.25373	SOIL
SAMPLE	242781001		SW846 7471A Prep	22-DEC-2009 11:45	0.557 g	30 mL	53.85996	SOIL
SAMPLE	242781002		SW846 7471A Prep	22-DEC-2009 11:45	0.501 g	30 mL	59.88024	SOIL
SAMPLE	242781003		SW846 7471A Prep	22-DEC-2009 11:45	0.559 g	30 mL	53.66726	SOIL
SAMPLE	242781004		SW846 7471A Prep	22-DEC-2009 11:45	0.51 g	30 mL	58.82353	SOIL
SAMPLE	242781005		SW846 7471A Prep	22-DEC-2009 11:45	0.516 g	30 mL	58.13953	SOIL
SAMPLE	242781006		SW846 7471A Prep	22-DEC-2009 11:45	0.512 g	30 mL	58.59375	SOIL
SAMPLE	242781007		SW846 7471A Prep	22-DEC-2009 11:45	0.511 g	30 mL	58.70841	SOIL
SAMPLE	242794001		SW846 7471A Prep	22-DEC-2009 11:45	0.515 g	30 mL	58.25243	SOIL
DUP	1202000182	242794001	SW846 7471A Prep	22-DEC-2009 11:45	0.515 g	30 mL	58.25243	SOIL
MS	1202000183	242794001	SW846 7471A Prep	22-DEC-2009 11:45	0.514 g	30 mL	58.36576	SOIL
MSD	1202000185	242794001	SW846 7471A Prep	22-DEC-2009 11:45	0.543 g	30 mL	55.24862	SOIL
SDILT	1202000184	242794001	SW846 7471A Prep	22-DEC-2009 11:45	0.515 g	30 mL	58.25243	SOIL
SAMPLE	242794002		SW846 7471A Prep	22-DEC-2009 11:45	0.534 g	30 mL	56.17978	SOIL
SAMPLE	242794003		SW846 7471A Prep	22-DEC-2009 11:45	0.5 g	30 mL	60	SOIL
SAMPLE	242794004		SW846 7471A Prep	22-DEC-2009 11:45	0.536 g	30 mL	55.97015	SOIL

Reagent/Solvent Lot ID	Amount	Description
1236355-A	1.125 mL	Hydrochloric Acid Conc.
1240182-1	.375 mL	NITRIC ACID
1244904-C	7.5 mL	5% KMnO4 solution
1206350-C	2 mL	Hg reducing agent
WHG091222-07	30 uL	Mercury Working Standard 1st Source CAL S 0.2/CRA
WHG091222-08	75 uL	Mercury Working Standard 1st Source CAL S 0.5
WHG091222-11	1.5 mL	Mercury Working 1st Source CAL S 10.0
WHG091222-09	300 uL	Mercury Working 1st Source CAL S 2.0
WHG091222-10	750 uL	Mercury Working 1st Source CAL S 5.0/CCV
WHG091222-12	750 uL	Mercury Working 2nd Source S 5.0/ICV

Comments: Sample 242794001 is a rocky brown soil.
Digestion Start Date: 22-DEC-09 11:45
Digestion End Date: 22-DEC-09 12:15

COMPANY - WIDE NONCONFORMANCE REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
04-JAN-10	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
ICP/MS	SW846 3050B/6020	Solid	LANL
Batch ID:	**Sample Numbers:**		
932323	See Below		

Potentially affected work order(s)(SDG): 242781(10-887)

Application Issues:

Failed RPD for MS/MSD, or PS/PSD

Failed Recovery for MSD/PSD

Specification and Requirements Nonconformance Description:	NRG Disposition:
1. Failed RPD for MS/MSD, or PS/PSD: QC 1201994320MSD 2. Failed Recovery for MSD/PSD: QC 1201994320MSD	The matrix spike and matrix spike duplicate % RPD failed outside of the control limits for Li due to possible matrix interferences and/or sample non-homogeneity. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported. The matrix spike duplicate recovery failed outside of the control limits for Li due to possible matrix interferences and/or non-homogeneity. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported.

Originator's Name:

Samantha Jacobs 06-JAN-10

Data Validator/Group Leader:

Paul Boyd 07-JAN-10

COMPANY - WIDE NONCONFORMANCE REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
06-JAN-10	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
ICP	SW846 3050B/6010B	Solid	LANL
Batch ID:	**Sample Numbers:**		
932284	See Below		

Potentially affected work order(s)(SDG): 242781(10-887)

Application Issues:

Failed Recovery for MS/PS

Failed RPD for MS/MSD, or PS/PSD

Failed RPD for DUP

Failed Recovery for MSD/PSD

Specification and Requirements Nonconformance Description:	NRG Disposition:
1. Failed Recovery for MS/PS: QC 1201994239MS 2. Failed RPD for DUP: QC 1201994238DUP 3. Failed RPD for MS/MSD, or PS/PSD: QC 1201994241MSD 4. Failed Recovery for MSD/PSD: QC 1201994241MSD	1./4. The matrix spike and matrix spike duplicate recovery failed outside of the control limits for aluminum due to possible matrix interferences and/or non-homogeneity. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported. 2. The sample and sample duplicate % RPD failed outside the control limits for calcium and magnesium due to possible sample non-homogeneity and/or matrix interference. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported. 3. The matrix spike and matrix spike duplicate % RPD failed outside of the control limits for manganese due to possible matrix interferences and/or sample non-homogeneity. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported.

Originator's Name:
Helen Camello 06-JAN-10

Data Validator/Group Leader:
Louise Smith 07-JAN-10

Standard Logbook

Serial ID: UHG1167639-01 **Opened:** 13-AUG-09 **Amount :** 125 mL
Name: MHGSTOCK1 **Received:** 13-AUG-09 **Catalog Number :** PLHG4-2Y
Type: Source Material **Expires:** 13-AUG-10 **Lot Number :** 15-37HG
Employee: Bryan Davis **Solvent :** 10% HNO3
Supplier: Spex
Description: Mercury Source Standard #1 1,000 mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Mercury	1000 mg/L		

Serial ID: UHG1167641-02 **Opened:** 13-AUG-09 **Amount :** 100 mL
Name: MHGSTOCK2 **Received:** 13-AUG-09 **Catalog Number :** AHG1KN-100
Type: Source Material **Expires:** 13-AUG-10 **Lot Number :** 4905530
Employee: Bryan Davis **Solvent :** 3% HNO3
Supplier: Ricca Chemical Company
Description: Mercury Source Standard #2 1,000 mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Mercury	999.7 mg/L		

Serial ID: UI031809A **Opened:** 18-MAR-09 **Catalog Number :** 540
Name: METALSOILSRM **Received:** 18-MAR-09 **Lot Number :** D061-540
Type: Source Material **Expires:** 10-OCT-10
Employee: Jamie Johnson
Supplier: ERA
Description: Metals LCS Soil SRM
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	10600 mg/kg	Antimony	126 mg/kg
Arsenic	225 mg/kg	Barium	565 mg/kg
Beryllium	162 mg/kg	Boron	107 mg/kg
Cadmium	69.1 mg/kg	Calcium	10000 mg/kg
Chromium	124 mg/kg	Cobalt	115 mg/kg
Copper	66.7 mg/kg	Iron	17600 mg/kg
Lead	223 mg/kg	Magnesium	4260 mg/kg
Manganese	368 mg/kg	Mercury	5.15 mg/kg
Molybdenum	107 mg/kg	Nickel	172 mg/kg
Potassium	4090 mg/kg	Selenium	147 mg/kg
Silver	35.2 mg/kg	Sodium	538 mg/kg
Strontium	117 mg/kg	Thallium	173 mg/kg
Tin	164 mg/kg	Titanium	381 mg/kg
Vanadium	93.9 mg/kg	Zinc	349 mg/kg

Standard Logbook

Serial ID: UI062540-I **Opened:** 12-JUN-09 **Amount :** 80 g
Name: ICP SOIL SRM **Received:** 12-JUN-09 **Lot Number :** D062-540
Type: Source Material **Expires:** 31-JAN-12
Employee: Bryan Davis
Supplier: ERA
Description: Metals Soil LCS SRM ICP/Hg
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	10500 mg/kg	Antimony	173 mg/kg
Arsenic	104 mg/kg	Barium	198 mg/kg
Beryllium	77.6 mg/kg	Boron	141 mg/kg
Cadmium	60.7 mg/kg	Calcium	9870 mg/kg
Chromium	236 mg/kg	Cobalt	91.2 mg/kg
Copper	174 mg/kg	Iron	18000 mg/kg
Lead	86 mg/kg	Magnesium	4000 mg/kg
Manganese	558 mg/kg	Mercury	8.46 mg/kg
Molybdenum	48.6 mg/kg	Nickel	134 mg/kg
Phosphorous	736 mg/kg	Potassium	4300 mg/kg
Selenium	286 mg/kg	Silica	2591 mg/kg
Silicon	1211 mg/kg	Silver	30.1 mg/kg
Sodium	1020 mg/kg	Strontium	227 mg/kg
Sulfur	385 mg/kg	Thallium	121 mg/kg
Tin	104 mg/kg	Titanium	462 mg/kg
Vanadium	115 mg/kg	Zinc	594 mg/kg

Serial ID: UI062540-MS **Opened:** 12-JUN-09 **Lot Number :** D062-540
Name: ICPMS SOIL SRM **Received:** 12-JUN-09
Type: Source Material **Expires:** 31-JAN-12
Employee: Bryan Davis
Supplier: ERA
Description: Metals Soil LCS SRM ICPMS
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	10500 mg/kg	Antimony	67.4 mg/kg
Arsenic	104 mg/kg	Barium	198 mg/kg
Beryllium	77.6 mg/kg	Boron	141 mg/kg
Cadmium	60.6 mg/kg	Calcium	9870 mg/kg
Chromium	236 mg/kg	Cobalt	91.2 mg/kg
Copper	174 mg/kg	Iron	18000 mg/kg
Lead	86 mg/kg	Lithium	10.6 mg/kg
Magnesium	4000 mg/kg	Manganese	558 mg/kg
Mercury	8.46 mg/kg	Molybdenum	48.6 mg/kg
Nickel	134 mg/kg	Phosphorous	755 mg/kg
Potassium	4300 mg/kg	Selenium	286 mg/kg
Silver	30.1 mg/kg	Sodium	1020 mg/kg

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Strontium	227 mg/kg	Thallium	121 mg/kg
Thorium	9.84 mg/kg	Tin	104 mg/kg
Titanium	462 mg/kg	Uranium	2.13 mg/kg
Uranium-235	.0153 mg/kg	Uranium-238	2.11 mg/kg
Vanadium	92.4 mg/kg	Zinc	594 mg/kg
Zirconium	10.6 mg/kg		

Serial ID: UI090422-40 **Opened:** 04-MAY-09 **Amount :** 500 mL
Name: TRACE ICP ICSA SOLN A **Received:** 22-APR-09 **Catalog Number :** 160005-01-03
Type: Source Material **Expires:** 04-MAY-10 **Lot Number :** 1013357
Employee: Helen Camello **Solvent :** 5%HNO3
Supplier: o2si
Description: TRACE ICP ICSA SOLN A mg/L+/-0.5%IN5%HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	5000 mg/L	Calcium	5000 mg/L
Iron	2000 mg/L	Magnesium	5000 mg/L

Serial ID: UI090610-03 **Opened:** 10-JUN-09 **Catalog Number :** 060074-06-01
Name: ICPMS Tungsten - 10mg/L S **Received:** 10-JUN-09 **Lot Number :** 1016338
Type: Source Material **Expires:** 10-JUN-10 **Solvent :** 2% HNO3
Employee: Paul Boyd
Supplier: O2SI
Description: ICPMS Tungsten standard SPIKE - 10mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Tungsten	10 mg/L		

Serial ID: UI090701-09 **Opened:** 01-JUL-09 **Amount :** 250 mL
Name: ICP-MS CRDL Master #1 **Received:** 01-JUL-09 **Catalog Number :** 160044-09-02
Type: Source Material **Expires:** 01-JUL-10 **Lot Number :** 1016477
Employee: Paul Boyd **Solvent :** +/- 0.5% IN 2% HNO3
Supplier: 02SI
Description: ICPMS CRDL Master Soln #1
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	15 mg/L	Arsenic	5 mg/L
Barium	2 mg/L	Beryllium	.5 mg/L
Boron	15 mg/L	Cadmium	1 mg/L
Calcium	100 mg/L	Chromium	3 mg/L
Cobalt	1 mg/L	Copper	1 mg/L

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Iron	25 mg/L	Lead	2 mg/L
Lithium	10 mg/L	Magnesium	15 mg/L
Manganese	5 mg/L	Nickel	2 mg/L
Phosphorous	50 mg/L	Potassium	300 mg/L
Selenium	5 mg/L	Sodium	250 mg/L
Strontium	10 mg/L	Thallium	1 mg/L
Thorium	1 mg/L	Uranium	.2 mg/L
Vanadium	10 mg/L	Zinc	10 mg/L

Serial ID: UI090701-10 **Opened:** 01-JUL-09 **Amount :** 250 mL
Name: ICP-MS CRDL Master #2 **Received:** 01-JUL-09 **Catalog Number :** 160044-08-02
Type: Source Material **Expires:** 01-JUL-10 **Lot Number :** 1016476
Employee: Paul Boyd **Solvent :** +/- 0.5% IN 2% HNO3
Supplier: 02SI
Description: ICPMS CRDL Soln #2
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	2 mg/L	Molybdenum	.5 mg/L
Silver	1 mg/L	Tin	2 mg/L
Titanium	10 mg/L	Tungsten	5 mg/L
Zirconium	2 mg/L		

Serial ID: UI090701-40 **Opened:** 01-JUL-09 **Amount :** 500 mL
Name: TRACE ICP Stock PQL St **Received:** 30-JUN-09 **Catalog Number :** 160543-01-03
Type: Source Material **Expires:** 01-JUL-10 **Lot Number :** 1016475
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3+TrHF
Supplier: 02si
Description: TRACE ICP Stock PQL Standard
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	100 mg/L	Antimony	5 mg/L
Arsenic	15 mg/L	Barium	2.5 mg/L
Beryllium	2.5 mg/L	Boron	25 mg/L
Cadmium	2.5 mg/L	Calcium	100 mg/L
Chromium	2.5 mg/L	Cobalt	2.5 mg/L
Copper	5 mg/L	Iron	50 mg/L
Lead	5 mg/L	Magnesium	150 mg/L
Manganese	5 mg/L	Molybdenum	5 mg/L
Nickel	2.5 mg/L	Phosphorous	75 mg/L
Potassium	75 mg/L	Selenium	15 mg/L
Silicon	50 mg/L	Silver	2.5 mg/L
Sodium	150 mg/L	Strontium	2.5 mg/L
Sulfur	50 mg/L	Thallium	10 mg/L

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Tin	5 mg/L	Titanium	2.5 mg/L
Uranium	25 mg/L	Vanadium	2.5 mg/L
Zinc	5 mg/L		

Serial ID: UI090828-42 **Opened:** 16-SEP-09 **Amount :** 500 mL
Name: TRACE ICP Na-1000SOUR **Received:** 27-AUG-09 **Catalog Number :** 060011-02-03
Type: Source Material **Expires:** 16-SEP-10 **Lot Number :** 1017098
Employee: Helen Camello **Solvent :** 1%HNO3
Supplier: 02SI
Description: Sodium 1000 +/- 3 ug/mL in 1% HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Sodium	1000 ug/mL		

Serial ID: UI090925-40 **Opened:** 23-OCT-09 **Amount :** 500 mL
Name: SECOND SOURCE STD -1 **Received:** 25-SEP-09 **Catalog Number :** SGELMX38-500N
Type: Source Material **Expires:** 30-SEP-10 **Lot Number :** 4909129
Employee: Helen Camello **Solvent :** 5%HNO3
Supplier: SPECTRO PURE
Description: SECOND SOURCE STD #1A 5%HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Arsenic	100 mg/L
Barium	100 mg/L	Boron	100 mg/L
Cadmium	100 mg/L	Calcium	1000 mg/L
Chromium	100 mg/L	Cobalt	100 mg/L
Copper	100 mg/L	Iron	1000 mg/L
Lead	100 mg/L	Phosphorous	500 mg/L
Potassium	500 mg/L	Selenium	500 mg/L
Sodium	500 mg/L	Strontium	100 mg/L

Serial ID: UI090925-41 **Opened:** 23-OCT-09 **Amount :** 500 mL
Name: SECOND SOURCE STD -1 **Received:** 25-SEP-09 **Catalog Number :** SGELMX39-500B
Type: Source Material **Expires:** 30-SEP-10 **Lot Number :** 4909130
Employee: Helen Camello **Solvent :** 5%HNO3,TR.HF
Supplier: SPECTRO PURE
Description: SECOND SOURCE STD #1B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	100 mg/L	Beryllium	50 mg/L
Magnesium	1000 mg/L	Manganese	100 mg/L

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Molybdenum	100 mg/L	Nickel	100 mg/L
Silver	50 mg/L	Sulfur	500 mg/L
Thallium	100 mg/L	Tin	100 mg/L
Titanium	100 mg/L	Uranium	100 mg/L
Vanadium	100 mg/L	Zinc	100 mg/L

Serial ID: UI091015-42 **Opened:** 28-OCT-09 **Amount :** 500 mL
Name: SI 1000mg/L **Received:** 15-OCT-09 **Catalog Number :** 060014-02-03
Type: Source Material **Expires:** 28-OCT-10 **Lot Number :** 1017581
Employee: Helen Camello **Solvent :** 0.3%H2O(NH4)2SiF6
Supplier: o2si
Description: Silicon 1000mg/L+/-0.3%in H2O(NH4)2SiF6
Comments: None

Analyte	Concentration	Analyte	Concentration
Silica	2139 mg/L	Silicon	1000 mg/L

Serial ID: UI091015-A **Opened:** 15-OCT-09 **Catalog Number :** 160067-03
Name: ICP-MS DOE SOIL SPIKE **Received:** 15-OCT-09 **Lot Number :** 1017142
Type: Source Material **Expires:** 15-OCT-10
Employee: Francena Armstrong
Supplier: 02si
Description: ICP-MS Spike for soil products.
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	200 mg/L	Arsenic	8 mg/L
Barium	5 mg/L	Beryllium	5 mg/L
Boron	10 mg/L	Cadmium	1 mg/L
Calcium	200 mg/L	Chromium	5 mg/L
Cobalt	5 mg/L	Copper	5 mg/L
Iron	200 mg/L	Lead	20 mg/L
Lithium	5 mg/L	Magnesium	200 mg/L
Manganese	5 mg/L	Nickel	5 mg/L
Phosphorus, Total as P	200 mg/L	Potassium	200 mg/L
Selenium	2 mg/L	Sodium	200 mg/L
Strontium	5 mg/L	Thallium	10 mg/L
Thorium	5 mg/L	Uranium	5 mg/L
Uranium-235	.036 mg/L	Uranium-238	4.964 mg/L
Vanadium	5 mg/L	Zinc	5 mg/L

Standard Logbook

Serial ID: UI091015-B **Opened:** 15-OCT-09 **Catalog Number :** 160067-03
Name: ICP-MS DOE SOIL SPIKE **Received:** 15-OCT-09 **Lot Number :** 1017142
Type: Source Material **Expires:** 15-OCT-10
Employee: Francena Armstrong
Supplier: 02si
Description: ICP-MS Spike for Soil Products
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	20 mg/L	Molybdenum	5 mg/L
Silicon	200 mg/L	Silver	5 mg/L
Tin	5 mg/L	Zirconium	5 mg/L

Serial ID: UI091102-40 **Opened:** 16-NOV-09 **Amount :** 500 mL
Name: TRACE CALSTD#1A SOUF **Received:** 02-NOV-09 **Catalog Number :** HP2270-1-500
Type: Source Material **Expires:** 31-OCT-10 **Lot Number :** 0930215
Employee: Helen Camello **Solvent :** HNO3
Supplier: Environmental Express
Description: Trace Calibration Std #1A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	2000 mg/L	Arsenic	200 mg/L
Barium	200 mg/L	Beryllium	200 mg/L
Boron	200 mg/L	Cadmium	200 mg/L
Calcium	2000 mg/L	Chromium	200 mg/L
Cobalt	200 mg/L	Copper	200 mg/L
Iron	2000 mg/L	Lead	200 mg/L
Magnesium	2000 mg/L	Manganese	200 mg/L
Nickel	200 mg/L	Phosphorous	1000 mg/L
Potassium	2000 mg/L	Selenium	200 mg/L
Sodium	2000 mg/L	Strontium	200 mg/L
Thallium	200 mg/L	Uranium	200 mg/L
Vanadium	200 mg/L	Zinc	200 mg/L

Serial ID: UI091102-41 **Opened:** 16-NOV-09 **Amount :** 500 mL
Name: TRACE CALSTD#1B SOUF **Received:** 02-NOV-09 **Catalog Number :** HP2270-2-500
Type: Source Material **Expires:** 31-OCT-10 **Lot Number :** 0930216
Employee: Helen Camello **Solvent :** HNO3
Supplier: Environmental Express
Description: Trace Calibration Standard #1B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	200 mg/L	Molybdenum	200 mg/L
Silver	200 mg/L	Sulfur	400 mg/L

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Tin	200 mg/L	Titanium	200 mg/L

Serial ID: UI091102-42 **Opened:** 17-NOV-09 **Amount :** 200 mL
Name: SILICON **Received:** 02-NOV-09 **Catalog Number :** HP100050-4F
Type: Source Material **Expires:** 17-NOV-10 **Lot Number :** 0921924
Employee: Helen Camello **Solvent :** H20/tr HF
Supplier: ENVIRNMENTAL EXPRESS
Description: SILICON 1000mg/L H20/tr HF
Comments: None

Analyte	Concentration	Analyte	Concentration
Silica	2139 mg/L	Silicon	1000 mg/L

Serial ID: UI091130-48 **Opened:** 11-DEC-09 **Amount :** 1000 mL
Name: Trace ICP ICSA **Received:** 01-DEC-09 **Catalog Number :** 160005-02
Type: Source Material **Expires:** 01-JAN-10 **Lot Number :** 1018045
Employee: Helen Camello **Solvent :** 3% HCl + 1% HNO3
Supplier: o2si
Description: Trace ICP Interferent Check Standard A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 UG/L	Calcium	500000 UG/L
Iron	200000 UG/L	Magnesium	500000 UG/L

Serial ID: UI091211-40 **Opened:** 11-DEC-09 **Amount :** 500 mL
Name: ICP HIGH RANGE STD-A **Received:** 09-DEC-09 **Catalog Number :** 160211-05-03
Type: Source Material **Expires:** 11-DEC-10 **Lot Number :** 1017958
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3
Supplier: 02SI
Description: ICP HIGH RANGE STD SOLUTION A
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	10000 ug/L	Arsenic	10000 ug/L
Barium	15000 ug/L	Beryllium	3000 ug/L
Boron	5000 ug/L	Cadmium	10000 ug/L
Chromium	25000 ug/L	Cobalt	10000 ug/L
Copper	20000 ug/L	Lead	25000 ug/L
Manganese	10000 ug/L	Molybdenum	10000 ug/L
Nickel	10000 ug/L	Phosphorous	15000 ug/L
Potassium	300000 ug/L	Selenium	10000 ug/L
Silica	107000 ug/L	Silicon	50000 ug/L
Silver	1000 ug/L	Strontium	10000 ug/L

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Sulfur	50000 ug/L	Thallium	10000 ug/L
Tin	10000 ug/L	Titanium	10000 ug/L
Vanadium	10000 ug/L	Zinc	15000 ug/L

Serial ID: UI091211-41 **Opened:** 11-DEC-09 **Amount :** 500 mL
Name: ICP HIGH RANGE STD B **Received:** 09-DEC-09 **Catalog Number :** 160211-05-03
Type: Source Material **Expires:** 11-DEC-10 **Lot Number :** 1017958
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3
Supplier: 02SI
Description: ICP HIGH RANGE STD SOLUTION B
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 ug/L	Calcium	500000 ug/L
Iron	500000 ug/L	Magnesium	500000 ug/L
Sodium	500000 ug/L	Uranium	15000 ug/L

Serial ID: UI091212-11 **Opened:** 12-DEC-09 **Amount :** 1000 mL
Name: ICP-MS ICSA Master A **Received:** 12-DEC-09 **Catalog Number :** 160013-01-01L
Type: Source Material **Expires:** 12-DEC-10 **Lot Number :** 1015303
Employee: Paul Boyd **Solvent :** 2% HNO3
Supplier: 02SI
Description: ICP-MS ICSA Master A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Calcium	1000 mg/L
Carbon	2000 mg/L	Chloride	10000 mg/L
Iron	1000 mg/L	Magnesium	1000 mg/L
Molybdenum	20 mg/L	Phosphorous	1000 mg/L
Potassium	1000 mg/L	Sodium	1000 mg/L
Sulfur	1000 mg/L	Titanium	20 mg/L

Serial ID: UI091212-60 **Opened:** 12-DEC-09 **Amount :** .5 mL
Name: ICPMS High Range Standar **Received:** 12-DEC-09 **Catalog Number :** 160212-02-01
Type: Source Material **Expires:** 12-DEC-10 **Lot Number :** 1018064
Employee: Paul Boyd **Solvent :** 2%HNO3 + Tr HF
Supplier: O2SI
Description: Linear Range Standard A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	5000 mg/L	Arsenic	100 mg/L
Barium	250 mg/L	Beryllium	100 mg/L

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Cadmium	100 mg/L	Calcium	5000 mg/L
Chromium	100 mg/L	Cobalt	100 mg/L
Copper	100 mg/L	Iron	5000 mg/L
Lead	500 mg/L	Lithium	100 mg/L
Magnesium	5000 mg/L	Manganese	100 mg/L
Nickel	100 mg/L	Phosphorous	2500 mg/L
Potassium	5000 mg/L	Selenium	50 mg/L
Sodium	5000 mg/L	Strontium	100 mg/L
Thallium	50 mg/L	Thorium	250 mg/L
Uranium	500 mg/L	Vanadium	100 mg/L
Zinc	250 mg/L		

Serial ID: UI091212-61 **Opened:** 12-DEC-09 **Amount :** .5 mL
Name: ICPMS High Range Standa **Received:** 12-DEC-09 **Catalog Number :** 160212-02-01
Type: Source Material **Expires:** 12-DEC-10 **Lot Number :** 1018064
Employee: Paul Boyd **Solvent :** 2%HNO3 + Tr HF
Supplier: O2SI
Description: Linear Range Standard B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	25 mg/L	Molybdenum	100 mg/L
Silver	25 mg/L	Tin	100 mg/L
Tungsten	100 mg/L	Zirconium	50 mg/L

Serial ID: UI091216-01 **Opened:** 16-DEC-09 **Lot Number :** 1018095
Name: METALSPIKE-1 **Received:** 16-DEC-09
Type: Source Material **Expires:** 16-DEC-10
Employee: Francena Armstrong
Supplier: OS2I
Description: Metals Spike Mix I
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 ug/mL	Arsenic	100 ug/mL
Barium	100 ug/mL	Beryllium	100 ug/mL
Boron	100 ug/mL	Cadmium	100 ug/mL
Calcium	1000 ug/mL	Cobalt	100 ug/mL
Iron	1000 ug/mL	Lead	100 ug/mL
Magnesium	1000 ug/mL	Phosphorous	100 ug/mL
Potassium	1000 ug/mL	Silver	100 ug/mL
Sodium	1000 ug/mL	Strontium	100 ug/mL

Standard Logbook

Serial ID: UI091216-06 **Opened:** 16-DEC-09 **Lot Number :** 1018096
Name: METALSPIKE-2 **Received:** 16-DEC-09
Type: Source Material **Expires:** 16-DEC-10
Employee: Francena Armstrong
Supplier: OS2I
Description: Metals Spike Mix II
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	100 ug/mL	Chromium	100 ug/mL
Copper	100 ug/mL	Manganese	100 ug/mL
Molybdenum	100 ug/mL	Nickel	100 ug/mL
Selenium	100 ug/mL	Silica	2141 ug/mL
Silicon	1000 ug/mL	Sulfur	1000 ug/mL
Thallium	100 ug/mL	Tin	100 ug/mL
Titanium	100 ug/mL	Uranium	100 ug/mL
Vanadium	100 ug/mL	Zinc	100 ug/mL

Serial ID: UI091217-06 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master A **Received:** 17-DEC-09 **Catalog Number :** 160055-01
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018209
Employee: Paul Boyd **Solvent :** +/- 0.5% in 5% HNO3 100 cm2
Supplier: 02SI
Description: ICPMS ICV/CCV SOLN A - 10ppm
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	2020 mg/L	Calcium	2000 mg/L
Iron	2000 mg/L	Magnesium	2000 mg/L
Phosphorous	2000 mg/L	Potassium	2000 mg/L
Sodium	2000 mg/L		

Serial ID: UI091217-07 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master B **Received:** 17-DEC-09 **Catalog Number :** 160054-02
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018210
Employee: Paul Boyd **Solvent :** +/- 0.5% in 5% HNO3 100 cm2
Supplier: 02SI
Description: ICPMS ICV/CCV Soln B - 10ppm
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	20 mg/L	Barium	20 mg/L
Beryllium	20 mg/L	Boron	40 mg/L
Cadmium	20 mg/L	Chromium	20 mg/L
Cobalt	20 mg/L	Copper	20 mg/L
Lead	20 mg/L	Lithium	20 mg/L

Analyte	Concentration	Analyte	Concentration
Manganese	20 mg/L	Nickel	20 mg/L
Selenium	20 mg/L	Strontium	20 mg/L
Thallium	20 mg/L	Thorium	20 mg/L
Uranium	20 mg/L	Vanadium	20 mg/L
Zinc	20 mg/L		

Serial ID: UI091217-08 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master C **Received:** 17-DEC-09 **Catalog Number :** 160054-03
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018211
Employee: Paul Boyd **Solvent :** +/- 0.5% in 5% HNO3 100 cm2
Supplier: 02SI
Description: ICPMS ICV/CCV Soln C - 10ppm
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	20 mg/L	Molybdenum	20 mg/L
Silver	20 mg/L	Tin	20 mg/L
Titanium	20 mg/L	Tungsten	20 mg/L
Zirconium	20 mg/L		

Serial ID: UI091217-12 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICSAB Master B **Received:** 17-DEC-09 **Catalog Number :** 160033-02
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018212
Employee: Paul Boyd **Solvent :** +/- 0.5% in 2% HNO3
Supplier: 02SI
Description: ICPMS ICSAB Master B
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	2 mg/L	Barium	2 mg/L
Beryllium	2 mg/L	Boron	2 mg/L
Cadmium	2 mg/L	Chromium	2 mg/L
Cobalt	2 mg/L	Copper	2 mg/L
Lead	2 mg/L	Lithium	2 mg/L
Manganese	2 mg/L	Nickel	2 mg/L
Selenium	2 mg/L	Strontium	2 mg/L
Thallium	2 mg/L	Thorium	2 mg/L
Uranium	2 mg/L	Vanadium	2 mg/L
Zinc	2 mg/L		

Standard Logbook

Serial ID: UI091217-13 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICSAB Master C **Received:** 17-DEC-09 **Catalog Number :** 160033-03
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1016926
Employee: Paul Boyd **Solvent :** +/- 0.5% in 2% HNO3
Supplier: 02SI
Description: ICPMS ICSAB Master C
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	2 mg/L	Silver	2 mg/L
Tin	2 mg/L	Tungsten	2 mg/L
Zirconium	2 mg/L		

Serial ID: UMS090303-01 **Opened:** 03-MAR-09 **Amount :** 250 mL
Name: ICPMSCalSPIKEB **Received:** 03-MAR-09 **Catalog Number :** ZGEL-100-250
Type: Source Material **Expires:** 28-FEB-10 **Lot Number :** 14-81JB
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution B
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	10 mg/L	Barium	10 mg/L
Beryllium	10 mg/L	Boron	20 mg/L
Cadmium	10 mg/L	Chromium	10 mg/L
Cobalt	10 mg/L	Copper	10 mg/L
Lead	10 mg/L	Lithium	10 mg/L
Manganese	10 mg/L	Nickel	10 mg/L
Selenium	10 mg/L	Silver	10 mg/L
Strontium	10 mg/L	Thallium	10 mg/L
Thorium	10 mg/L	Uranium	10 mg/L
Vanadium	10 mg/L	Zinc	10 mg/L

Serial ID: UMS090303-02 **Opened:** 03-MAR-09 **Catalog Number :** ZGEL-102-250
Name: ICPMSCalSPIKEA **Received:** 03-MAR-09 **Lot Number :** 14-83JB
Type: Source Material **Expires:** 28-FEB-10
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Calcium	1000 mg/L
Iron	1000 mg/L	Magnesium	1000 mg/L
Phosphorous	1000 mg/L	Potassium	1000 mg/L
Sodium	1000 mg/L		

Standard Logbook

Serial ID: UMS090303-03 **Opened:** 03-MAR-09 **Amount :** 250 ml
Name: ICPMSCalSPIKEC **Received:** 03-MAR-09 **Catalog Number :** ZGEL-101-250
Type: Source Material **Expires:** 28-FEB-10 **Lot Number :** 15-199JB
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution C
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	10 mg/L	Molybdenum	10 mg/L
Tin	10 mg/L	Titanium	10 mg/L
Zirconium	10 mg/L		

Serial ID: IHG091222-01 **Opened:** 22-DEC-09 **Instrument Id :** Mercury
Name: MHGINTER1 **Received:** 22-DEC-09 **Pipet Id :** Minou1
Type: Intermediate **Expires:** 23-DEC-09 **Solvent :** 1mL HNO3 + Typel H2O
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Intermediate 1st Source 200 ug/L
Comments: Prepare fresh daily

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167639-01	Mercury	1000 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: IHG091222-02 **Opened:** 22-DEC-09 **Pipet Id :** Minou1
Name: MHGINTER2 **Received:** 22-DEC-09 **Solvent :** 2% HNO3-1240182
Type: Intermediate **Expires:** 23-DEC-09
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Intermediate 2nd Source 200 ug/L
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167641-02	Mercury	999.7 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: WHG091222-07 **Opened:** 22-DEC-09 **Pipet Id :** Hg1289245
Name: MHGWORKCALS0.2CRA **Received:** 22-DEC-09 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 28-DEC-09
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working Standard 1st Source CAL S 0.2/CRA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG091222-01	Mercury	200 ug/L	30 uL	30 mL	.2 ug/L

Standard Logbook

Serial ID: WHG091222-08 **Opened:** 22-DEC-09 **Pipet Id :** Hg1289245
Name: MHGWORKCALS0.5 **Received:** 22-DEC-09 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 28-DEC-09
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working Standard 1st Source CAL S 0.5
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG091222-01	Mercury	200 ug/L	75 uL	30 mL	.5 ug/L

Serial ID: WHG091222-09 **Opened:** 22-DEC-09 **Pipet Id :** Hg1289245
Name: MHGWORKCALS2.0 **Received:** 22-DEC-09 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 28-DEC-09
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL S 2.0
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG091222-01	Mercury	200 ug/L	300 uL	30 mL	2 ug/L

Serial ID: WHG091222-10 **Opened:** 22-DEC-09 **Pipet Id :** Hg1289245
Name: MHGWORKCALS5.0CCV **Received:** 22-DEC-09 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 28-DEC-09
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL S 5.0/CCV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG091222-01	Mercury	200 ug/L	750 uL	30 mL	5 ug/L

Serial ID: WHG091222-11 **Opened:** 22-DEC-09 **Pipet Id :** Hg1289245
Name: MHGWORKCALS10.0 **Received:** 22-DEC-09 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 28-DEC-09
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working 1st Source CAL S 10.0
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG091222-01	Mercury	200 ug/L	1500 uL	30 mL	10 ug/L

Standard Logbook

Serial ID: WHG091222-12 **Opened:** 22-DEC-09 **Pipet Id :** Hg1289245
Name: MHGWORKS5.0ICV **Received:** 22-DEC-09 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 28-DEC-09
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 2nd Source S 5.0/ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG091222-02	Mercury	200 ug/L	750 uL	30 mL	5 ug/L

Serial ID: WHG091222-14 **Opened:** 22-DEC-09 **Pipet Id :** Hg1289245
Name: MHGSOILMSSPIKE **Received:** 22-DEC-09 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 28-DEC-09
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury soil working intermediate standard for MS
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167639-01	Mercury	1000 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: WI091219-42 **Opened:** 19-DEC-09 **Balance Id :** 216
Name: TRACE ICP 0.1 PPM STD. **Received:** 02-NOV-09 **Pipet Id :** 1099667
Type: Working **Expires:** 20-DEC-09 **Solvent :** 3%HCL and 1%HNO3 -1242318
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP 0.1 PPM CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WI091219-44	Aluminum	10000 ug/L	10 mL	100 mL	1000 ug/L
WI091219-44	Antimony	1000 ug/L	10 mL	100 mL	100 ug/L
WI091219-44	Arsenic	1000 ug/L	10 mL	100 mL	100 ug/L
WI091219-44	Barium	1000 ug/L	10 mL	100 mL	100 ug/L
WI091219-44	Beryllium	1000 ug/L	10 mL	100 mL	100 ug/L
WI091219-44	Boron	1000 ug/L	10 mL	100 mL	100 ug/L
WI091219-44	Cadmium	1000 ug/L	10 mL	100 mL	100 ug/L
WI091219-44	Calcium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI091219-44	Chromium	1000 ug/L	10 mL	100 mL	100 ug/L
WI091219-44	Cobalt	1000 ug/L	10 mL	100 mL	100 ug/L
WI091219-44	Copper	1000 ug/L	10 mL	100 mL	100 ug/L
WI091219-44	Iron	10000 ug/L	10 mL	100 mL	1000 ug/L
WI091219-44	Lead	1000 ug/L	10 mL	100 mL	100 ug/L
WI091219-44	Magnesium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI091219-44	Manganese	1000 ug/L	10 mL	100 mL	100 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WI091219-44	Molybdenum	1000 ug/L	10 mL	100 mL	100 ug/L
WI091219-44	Nickel	1000 ug/L	10 mL	100 mL	100 ug/L
WI091219-44	Phosphorous	5000 ug/L	10 mL	100 mL	500 ug/L
WI091219-44	Potassium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI091219-44	Selenium	1000 ug/L	10 mL	100 mL	100 ug/L
WI091219-44	Silica	10698 ug/L	10 mL	100 mL	1069 ug/L
WI091219-44	Silicon	5000 ug/L	10 mL	100 mL	500 ug/L
WI091219-44	Silver	1000 ug/L	10 mL	100 mL	100 ug/L
WI091219-44	Sodium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI091219-44	Strontium	1000 ug/L	10 mL	100 mL	100 ug/L
WI091219-44	Sulfur	2000 ug/L	10 mL	100 mL	200 ug/L
WI091219-44	Thallium	1000 ug/L	10 mL	100 mL	100 ug/L
WI091219-44	Tin	1000 ug/L	10 mL	100 mL	100 ug/L
WI091219-44	Titanium	1000 ug/L	10 mL	100 mL	100 ug/L
WI091219-44	Uranium	1000 ug/L	10 mL	100 mL	100 ug/L
WI091219-44	Vanadium	1000 ug/L	10 mL	100 mL	100 ug/L
WI091219-44	Zinc	1000 ug/L	10 mL	100 mL	100 ug/L

Serial ID: WI091219-43 **Opened:** 19-DEC-09 **Balance Id :** 216
Name: TRACE ICP 0.5/CCV STD. **Received:** 02-NOV-09 **Pipet Id :** 1099667
Type: Working **Expires:** 20-DEC-09 **Solvent :** 3%HCL and 1%HNO3 -1242318
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP 0.5/CCV CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090828-42	Sodium	1000 ug/mL	5 mL	1000 mL	5000 UG/L
UI091015-42	Silica	2139 mg/L	2.5 mL	1000 mL	5348.25 UG/L
UI091015-42	Silicon	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI091102-40	Aluminum	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Arsenic	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Barium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Beryllium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Boron	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Cadmium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Calcium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Chromium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Cobalt	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Copper	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Iron	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Lead	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Magnesium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Manganese	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Nickel	200 mg/L	2.5 mL	1000 mL	500 UG/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091102-40	Phosphorous	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI091102-40	Potassium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Selenium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Sodium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Strontium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Thallium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Uranium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Vanadium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Zinc	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Antimony	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Molybdenum	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Silver	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Sulfur	400 mg/L	2.5 mL	1000 mL	1000 UG/L
UI091102-41	Tin	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Titanium	200 mg/L	2.5 mL	1000 mL	500 UG/L

Serial ID: WI091219-44 **Opened:** 19-DEC-09 **Balance Id :** 216
Name: TRACE ICP SCAL 1.0 **Received:** 02-NOV-09 **Pipet Id :** 1099667
Type: Working **Expires:** 20-DEC-09 **Solvent :** 3%HCL and 1 %HNO3-1242318
Employee: Helen Camello
Supplier: o2si
Description: Trace ICP Calibration Standard 1.0ppm
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091015-42	Silica	2139 mg/L	2.5 mL	500 mL	10698 ug/L
UI091015-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI091102-40	Aluminum	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Arsenic	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Barium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Beryllium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Boron	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Cadmium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Calcium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Chromium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Cobalt	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Copper	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Iron	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Lead	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Magnesium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Manganese	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Nickel	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Phosphorous	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI091102-40	Potassium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Selenium	200 mg/L	2.5 mL	500 mL	1000 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091102-40	Sodium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Strontium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Thallium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Uranium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Vanadium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Zinc	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Antimony	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Molybdenum	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Silver	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Sulfur	400 mg/L	2.5 mL	500 mL	2000 ug/L
UI091102-41	Tin	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Titanium	200 mg/L	2.5 mL	500 mL	1000 ug/L

Serial ID: WI091219-45 **Opened:** 19-DEC-09 **Balance Id :** 216
Name: TRACE ICP S-10 STD **Received:** 22-APR-09 **Pipet Id :** 1099667
Type: Working **Expires:** 20-DEC-09 **Solvent :** 3%HCL and 1%HNO3 -1242318
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP S-10 CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090422-40	Aluminum	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Calcium	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Iron	2000 mg/L	5 mL	500 mL	20000 UG/L
UI090422-40	Magnesium	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090828-42	Sodium	1000 ug/mL	10 mL	500 mL	20000 UG/L

Serial ID: WI091219-46 **Opened:** 19-DEC-09 **Balance Id :** 216
Name: ICP TRACE ICV **Received:** 25-SEP-09 **Pipet Id :** 1099667
Type: Working **Expires:** 20-DEC-09 **Solvent :** 3%HCL AND 1%HNO3-1242318
Employee: Helen Camello
Supplier: GEL
Description: Initial Calibration Verification ICP Trace Metals
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090925-40	Aluminum	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Arsenic	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Barium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Boron	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cadmium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Calcium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Chromium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cobalt	100 mg/L	2.5 mL	500 mL	500 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090925-40	Copper	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Iron	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Lead	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Phosphorous	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Potassium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Selenium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Sodium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Strontium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Antimony	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Beryllium	50 mg/L	2.5 mL	500 mL	250 ug/L
UI090925-41	Magnesium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-41	Manganese	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Molybdenum	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Nickel	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Silver	50 mg/L	2.5 mL	500 mL	250 ug/L
UI090925-41	Sulfur	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-41	Thallium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Tin	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Titanium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Uranium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Vanadium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Zinc	100 mg/L	2.5 mL	500 mL	500 ug/L
UI091102-42	Silica	2139 mg/L	2.5 mL	500 mL	10695 ug/L
UI091102-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L

Serial ID: WI091219-47 **Opened:** 19-DEC-09 **Balance Id :** 216
Name: PQL Working Standard **Received:** 30-JUN-09 **Pipet Id :** 1099667
Type: Working **Expires:** 20-DEC-09 **Solvent :** 3%HCL &1%HNO3-1242318
Employee: Helen Carnello
Supplier: 02si
Description: PQL Working Standard
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-40	Aluminum	100 mg/L	2 mL	1000 mL	200 ug/L
UI090701-40	Antimony	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Arsenic	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Barium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Beryllium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Boron	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Cadmium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Calcium	100 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Chromium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Cobalt	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Copper	5 mg/L	2 mL	1000 mL	10 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-40	Iron	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Lead	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Magnesium	150 mg/L	2 mL	1000 mL	300 ug/L
UI090701-40	Manganese	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Molybdenum	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Nickel	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Phosphorous	75 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Potassium	75 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Selenium	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Silicon	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Silver	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sodium	150 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Strontium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sulfur	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Thallium	10 mg/L	2 mL	1000 mL	20 ug/L
UI090701-40	Tin	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Titanium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Uranium	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Vanadium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Zinc	5 mg/L	2 mL	1000 mL	10 ug/L

Serial ID: WMS091231-04 **Opened:** 31-DEC-09 **Amount :** 50 mL
Name: ICPMS Cal Standard 100 **Received:** 31-DEC-09 **Balance Id :** 4025216
Type: Working **Expires:** 01-JAN-10 **Pipet Id :** 3541598
Employee: Elizabeth Janssen **Solvent :** 2%HNO3/1%HCl-1247304
Supplier: GEL
Description: ICPMS Calibration Standard (100 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090610-03	Tungsten	10 mg/L	.5 mL	50 mL	100 ug/L
UMS090303-01	Arsenic	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Barium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Beryllium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Boron	20 mg/L	.5 mL	50 mL	200 ug/l
UMS090303-01	Cadmium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Chromium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Cobalt	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Copper	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Lead	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Lithium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Manganese	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Nickel	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Selenium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Silver	10 mg/L	.5 mL	50 mL	100 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UMS090303-01	Strontium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Thallium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Thorium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Uranium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Vanadium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Zinc	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-02	Aluminum	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Calcium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Iron	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Magnesium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Phosphorous	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Potassium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Sodium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-03	Antimony	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Molybdenum	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Tin	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Titanium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Zirconium	10 mg/L	.5 mL	50 mL	100 ug/l

Serial ID: WMS091231-04A **Opened:** 31-DEC-09 **Balance Id :** 4025216
Name: ICPMS Cal Standard 10 **Received:** 31-DEC-09 **Pipet Id :** 3541598
Type: Working **Expires:** 01-JAN-10 **Solvent :** 2%HNO3/1%HCl - 1247304
Employee: Elizabeth Janssen
Supplier: GEL
Description: ICPMS Calibration Standard (10 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS091231-04	Aluminum	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS091231-04	Antimony	100 ug/l	5 mL	50 mL	10 ug/l
WMS091231-04	Arsenic	100 ug/l	5 mL	50 mL	10 ug/l
WMS091231-04	Barium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091231-04	Beryllium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091231-04	Boron	200 ug/l	5 mL	50 mL	20 ug/l
WMS091231-04	Cadmium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091231-04	Calcium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS091231-04	Chromium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091231-04	Cobalt	100 ug/l	5 mL	50 mL	10 ug/l
WMS091231-04	Copper	100 ug/l	5 mL	50 mL	10 ug/l
WMS091231-04	Iron	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS091231-04	Lead	100 ug/l	5 mL	50 mL	10 ug/l
WMS091231-04	Lithium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091231-04	Magnesium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS091231-04	Manganese	100 ug/l	5 mL	50 mL	10 ug/l
WMS091231-04	Molybdenum	100 ug/l	5 mL	50 mL	10 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS091231-04	Nickel	100 ug/l	5 mL	50 mL	10 ug/l
WMS091231-04	Phosphorous	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS091231-04	Potassium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS091231-04	Selenium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091231-04	Silver	100 ug/l	5 mL	50 mL	10 ug/l
WMS091231-04	Sodium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS091231-04	Strontium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091231-04	Thallium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091231-04	Thorium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091231-04	Tin	100 ug/l	5 mL	50 mL	10 ug/l
WMS091231-04	Titanium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091231-04	Tungsten	100 ug/L	5 mL	50 mL	10 ug/L
WMS091231-04	Uranium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091231-04	Vanadium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091231-04	Zinc	100 ug/l	5 mL	50 mL	10 ug/l
WMS091231-04	Zirconium	100 ug/l	5 mL	50 mL	10 ug/l

Serial ID: WMS091231-05 **Opened:** 31-DEC-09 **Balance Id :** 40245216
Name: ICPMS ICV **Received:** 31-DEC-09 **Pipet Id :** 3541598
Type: Working **Expires:** 01-JAN-10 **Solvent :** 2%HNO3/1%HCl - 1247304
Employee: Elizabeth Janssen
Supplier: GEL
Description: ICPMS ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-06	Aluminum	2020 mg/L	.125 mL	50 mL	5050 ug/L
UI091217-06	Calcium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Iron	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Magnesium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Phosphorous	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Potassium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Sodium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-07	Arsenic	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Barium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Beryllium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Boron	40 mg/L	.125 mL	50 mL	100 ug/L
UI091217-07	Cadmium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Chromium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Cobalt	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Copper	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lead	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lithium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Manganese	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Nickel	20 mg/L	.125 mL	50 mL	50 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-07	Selenium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Strontium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thallium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thorium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Uranium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Vanadium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Zinc	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Antimony	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Molybdenum	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Silver	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tin	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Titanium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tungsten	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Zirconium	20 mg/L	.125 mL	50 mL	50 ug/L

Serial ID: WMS091231-06 **Opened:** 31-DEC-09 **Balance Id :** 40245216
Name: ICPMS CRDL **Received:** 31-DEC-09 **Pipet Id :** 3820544
Type: Working **Expires:** 01-JAN-10 **Solvent :** 2%HNO3/1%HCl - 1247304
Employee: Elizabeth Janssen
Supplier: GEL
Description: ICPMS CRDL
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Aluminum	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Arsenic	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Barium	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Beryllium	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-09	Boron	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Cadmium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Calcium	100 mg/L	.05 mL	50 mL	100 ug/L
UI090701-09	Chromium	3 mg/L	.05 mL	50 mL	3 ug/L
UI090701-09	Cobalt	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Copper	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Iron	25 mg/L	.05 mL	50 mL	25 ug/L
UI090701-09	Lead	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Lithium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Magnesium	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Manganese	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Nickel	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Phosphorous	50 mg/L	.05 mL	50 mL	50 ug/L
UI090701-09	Potassium	300 mg/L	.05 mL	50 mL	300 ug/L
UI090701-09	Selenium	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Sodium	250 mg/L	.05 mL	50 mL	250 ug/L
UI090701-09	Strontium	10 mg/L	.05 mL	50 mL	10 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Thallium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Thorium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Uranium	.2 mg/L	.05 mL	50 mL	.2 ug/L
UI090701-09	Vanadium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Zinc	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Antimony	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-10	Molybdenum	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-10	Silver	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-10	Tin	2 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Titanium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Tungsten	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Zirconium	2 mg/L	.05 mL	50 mL	2 ug/L

Serial ID: WMS091231-07 **Opened:** 31-DEC-09 **Balance Id :** 40245216
Name: ICPMS ICSA **Received:** 31-DEC-09 **Lot Number :** 1010773
Type: Working **Expires:** 01-JAN-10 **Pipet Id :** 3541598
Employee: Elizabeth Janssen **Solvent :** 2%HNO3/1%HCl - 1247304
Supplier: GEL
Description: ICPMS ICSA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI091212-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI091212-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: WMS091231-08 **Opened:** 31-DEC-09 **Balance Id :** 40245216
Name: ICPMS ICSAB **Received:** 31-DEC-09 **Pipet Id :** 1758088
Type: Working **Expires:** 01-JAN-10 **Solvent :** 2%HNO3/1%HCl - 1247304
Employee: Elizabeth Janssen
Supplier: GEL
Description: ICPMS ICSAB
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI091212-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI091212-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L
UI091217-12	Arsenic	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Barium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Beryllium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Boron	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Cadmium	2 mg/L	.5 mL	50 mL	20.2 ug/L
UI091217-12	Chromium	2 mg/L	.5 mL	50 mL	22.2 ug/L
UI091217-12	Cobalt	2 mg/L	.5 mL	50 mL	20.4 ug/L
UI091217-12	Copper	2 mg/L	.5 mL	50 mL	23.4 ug/L
UI091217-12	Lead	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Lithium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Manganese	2 mg/L	.5 mL	50 mL	22.7 ug/L
UI091217-12	Nickel	2 mg/L	.5 mL	50 mL	22.4 ug/L
UI091217-12	Selenium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Strontium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thallium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thorium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Uranium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Vanadium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Zinc	2 mg/L	.5 mL	50 mL	27 ug/L
UI091217-13	Antimony	2 mg/L	.5 mL	50 mL	20.5 ug/L
UI091217-13	Silver	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tin	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tungsten	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Zirconium	2 mg/L	.5 mL	50 mL	20 ug/L

Serial ID: WMS091231-70 **Opened:** 31-DEC-09 **Balance Id :** 40245216
Name: ICPMS LINEAR RANGE ST **Received:** 31-DEC-09 **Pipet Id :** 1758088
Type: Working **Expires:** 01-JAN-10 **Solvent :** 2%HNO3/1%HCl - 1247304
Employee: Elizabeth Janssen
Supplier: 02SI
Description: ICPMS LINEAR RANGE STANDARD
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-60	Aluminum	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Arsenic	100 mg/L	.5 mL	50 mL	1000 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-60	Barium	250 mg/L	.5 mL	50 mL	2500 ug/L
UI091212-60	Beryllium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Cadmium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Calcium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Chromium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Cobalt	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Copper	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Iron	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Lead	500 mg/L	.5 mL	50 mL	5000 ug/L
UI091212-60	Lithium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Magnesium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Manganese	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Nickel	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Phosphorous	2500 mg/L	.5 mL	50 mL	25000 ug/L
UI091212-60	Potassium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Selenium	50 mg/L	.5 mL	50 mL	500 ug/L
UI091212-60	Sodium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Strontium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Thallium	50 mg/L	.5 mL	50 mL	500 ug/L
UI091212-60	Thorium	250 mg/L	.5 mL	50 mL	2500 ug/L
UI091212-60	Uranium	500 mg/L	.5 mL	50 mL	5000 ug/L
UI091212-60	Vanadium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Zinc	250 mg/L	.5 mL	50 mL	2500 ug/L
UI091212-61	Antimony	25 mg/L	.5 mL	50 mL	250 ug/L
UI091212-61	Molybdenum	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-61	Silver	25 mg/L	.5 mL	50 mL	250 ug/L
UI091212-61	Tin	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-61	Tungsten	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-61	Zirconium	50 mg/L	.5 mL	50 mL	500 ug/L

Serial ID: WMS100104-04 **Opened:** 04-JAN-10 **Amount :** 50 mL
Name: ICPMS Cal Standard 100 **Received:** 04-JAN-10 **Balance Id :** 4025216
Type: Working **Expires:** 05-JAN-10 **Pipet Id :** 3541598
Employee: Paul Boyd **Solvent :** 2%HNO3/1%HCl-1249336
Supplier: GEL
Description: ICPMS Calibration Standard (100 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090610-03	Tungsten	10 mg/L	.5 mL	50 mL	100 ug/L
UMS090303-01	Arsenic	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Barium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Beryllium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Boron	20 mg/L	.5 mL	50 mL	200 ug/l
UMS090303-01	Cadmium	10 mg/L	.5 mL	50 mL	100 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UMS090303-01	Chromium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Cobalt	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Copper	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Lead	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Lithium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Manganese	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Nickel	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Selenium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Silver	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Strontium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Thallium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Thorium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Uranium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Vanadium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Zinc	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-02	Aluminum	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Calcium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Iron	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Magnesium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Phosphorous	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Potassium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Sodium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-03	Antimony	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Molybdenum	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Tin	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Titanium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Zirconium	10 mg/L	.5 mL	50 mL	100 ug/l

Serial ID: WMS100104-04A **Opened:** 04-JAN-10 **Balance Id :** 4025216
Name: ICPMS Cal Standard 10 **Received:** 04-JAN-10 **Pipet Id :** 3541598
Type: Working **Expires:** 05-JAN-10 **Solvent :** 2%HNO3/1%HCl - 1249336
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS Calibration Standard (10 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100104-04	Aluminum	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100104-04	Antimony	100 ug/l	5 mL	50 mL	10 ug/l
WMS100104-04	Arsenic	100 ug/l	5 mL	50 mL	10 ug/l
WMS100104-04	Barium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100104-04	Beryllium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100104-04	Boron	200 ug/l	5 mL	50 mL	20 ug/l
WMS100104-04	Cadmium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100104-04	Calcium	10000 ug/l	5 mL	50 mL	1000 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100104-04	Chromium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100104-04	Cobalt	100 ug/l	5 mL	50 mL	10 ug/l
WMS100104-04	Copper	100 ug/l	5 mL	50 mL	10 ug/l
WMS100104-04	Iron	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100104-04	Lead	100 ug/l	5 mL	50 mL	10 ug/l
WMS100104-04	Lithium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100104-04	Magnesium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100104-04	Manganese	100 ug/l	5 mL	50 mL	10 ug/l
WMS100104-04	Molybdenum	100 ug/l	5 mL	50 mL	10 ug/l
WMS100104-04	Nickel	100 ug/l	5 mL	50 mL	10 ug/l
WMS100104-04	Phosphorous	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100104-04	Potassium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100104-04	Selenium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100104-04	Silver	100 ug/l	5 mL	50 mL	10 ug/l
WMS100104-04	Sodium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100104-04	Strontium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100104-04	Thallium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100104-04	Thorium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100104-04	Tin	100 ug/l	5 mL	50 mL	10 ug/l
WMS100104-04	Titanium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100104-04	Tungsten	100 ug/L	5 mL	50 mL	10 ug/L
WMS100104-04	Uranium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100104-04	Vanadium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100104-04	Zinc	100 ug/l	5 mL	50 mL	10 ug/l
WMS100104-04	Zirconium	100 ug/l	5 mL	50 mL	10 ug/l

Serial ID: WMS100104-05 **Opened:** 04-JAN-10 **Balance Id :** 40245216
Name: ICPMS ICV **Received:** 04-JAN-10 **Pipet Id :** 3541598
Type: Working **Expires:** 05-JAN-10 **Solvent :** 2%HNO3/1%HCl - 1249336
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-06	Aluminum	2020 mg/L	.125 mL	50 mL	5050 ug/L
UI091217-06	Calcium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Iron	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Magnesium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Phosphorous	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Potassium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Sodium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-07	Arsenic	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Barium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Beryllium	20 mg/L	.125 mL	50 mL	50 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-07	Boron	40 mg/L	.125 mL	50 mL	100 ug/L
UI091217-07	Cadmium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Chromium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Cobalt	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Copper	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lead	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lithium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Manganese	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Nickel	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Selenium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Strontium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thallium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thorium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Uranium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Vanadium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Zinc	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Antimony	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Molybdenum	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Silver	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tin	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Titanium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tungsten	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Zirconium	20 mg/L	.125 mL	50 mL	50 ug/L

Serial ID: WMS100104-06 **Opened:** 04-JAN-10 **Balance Id :** 40245216
Name: ICPMS CRDL **Received:** 04-JAN-10 **Pipet Id :** 3820544
Type: Working **Expires:** 05-JAN-10 **Solvent :** 2%HNO3/1%HCl - 1249336
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS CRDL
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Aluminum	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Arsenic	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Barium	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Beryllium	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-09	Boron	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Cadmium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Calcium	100 mg/L	.05 mL	50 mL	100 ug/L
UI090701-09	Chromium	3 mg/L	.05 mL	50 mL	3 ug/L
UI090701-09	Cobalt	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Copper	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Iron	25 mg/L	.05 mL	50 mL	25 ug/L
UI090701-09	Lead	2 mg/L	.05 mL	50 mL	2 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Lithium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Magnesium	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Manganese	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Nickel	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Phosphorous	50 mg/L	.05 mL	50 mL	50 ug/L
UI090701-09	Potassium	300 mg/L	.05 mL	50 mL	300 ug/L
UI090701-09	Selenium	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Sodium	250 mg/L	.05 mL	50 mL	250 ug/L
UI090701-09	Strontium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Thallium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Thorium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Uranium	.2 mg/L	.05 mL	50 mL	.2 ug/L
UI090701-09	Vanadium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Zinc	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Antimony	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-10	Molybdenum	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-10	Silver	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-10	Tin	2 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Titanium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Tungsten	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Zirconium	2 mg/L	.05 mL	50 mL	2 ug/L

Serial ID: WMS100104-07 **Opened:** 04-JAN-10 **Balance Id :** 40245216
Name: ICPMS ICSA **Received:** 04-JAN-10 **Lot Number :** 1010773
Type: Working **Expires:** 05-JAN-10 **Pipet Id :** 3541598
Employee: Paul Boyd **Solvent :** 2%HNO3/1%HCl - 1249336
Supplier: GEL
Description: ICPMS ICSA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI091212-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI091212-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Standard Logbook

Serial ID: WMS100104-08 **Opened:** 04-JAN-10 **Balance Id :** 40245216
Name: ICPMS ICSAB **Received:** 04-JAN-10 **Pipet Id :** 1758088
Type: Working **Expires:** 05-JAN-10 **Solvent :** 2%HNO3/1%HCl - 1249336
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS ICSAB
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI091212-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI091212-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L
UI091217-12	Arsenic	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Barium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Beryllium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Boron	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Cadmium	2 mg/L	.5 mL	50 mL	20.2 ug/L
UI091217-12	Chromium	2 mg/L	.5 mL	50 mL	22.2 ug/L
UI091217-12	Cobalt	2 mg/L	.5 mL	50 mL	20.4 ug/L
UI091217-12	Copper	2 mg/L	.5 mL	50 mL	23.4 ug/L
UI091217-12	Lead	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Lithium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Manganese	2 mg/L	.5 mL	50 mL	22.7 ug/L
UI091217-12	Nickel	2 mg/L	.5 mL	50 mL	22.4 ug/L
UI091217-12	Selenium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Strontium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thallium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thorium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Uranium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Vanadium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Zinc	2 mg/L	.5 mL	50 mL	27 ug/L
UI091217-13	Antimony	2 mg/L	.5 mL	50 mL	20.5 ug/L
UI091217-13	Silver	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tin	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tungsten	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Zirconium	2 mg/L	.5 mL	50 mL	20 ug/L

Standard Logbook

Serial ID: 1156689-A **Opened:** 20-JUL-09 **Lot Number :** 41226920
Name: B-KMnO4(VWR)-MER **Received:** 20-JUL-09
Type: Reagent/Solvent **Expires:** 20-JUL-10
Employee: Tara Griffin **Verified:** 07-AUG-07
Supplier: VWR
Description: Potassium Permanganate
Comments: None

Serial ID: 1164796-A **Opened:** 06-AUG-09 **Lot Number :** 49149927
Name: B-NH2OH.HCl-MER **Received:** 06-AUG-09
Type: Reagent/Solvent **Expires:** 06-AUG-10
Employee: Tara Griffin
Supplier: Fisher Scientific
Description: Hydroxlyamine Hydrochloride
Comments: None

Serial ID: 1203655-02 **Opened:** 15-OCT-09 **Lot Number :** ZU74081198 mL
Name: B-H2O2 **Received:** 15-OCT-09
Type: Reagent/Solvent **Expires:** 15-OCT-10
Employee: Francena Armstrong
Supplier: EM SCIENCE
Description: Hydrogen Peroxide 30%
Comments: None

Serial ID: 1206350-C **Opened:** 22-OCT-09 **Balance Id :** BAL-002
Name: B-NaCl.NH2OH.HCl-MER **Received:** 22-OCT-09
Type: Reagent/Solvent **Expires:** 06-AUG-10
Employee: Tara Griffin
Supplier: GEL
Description: Hg reducing agent
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1164796-A	B-NH2OH.HCl-MER	N/A	120 g	1000 mL	N/A

Serial ID: 1236355-A **Opened:** 01-DEC-09 **Lot Number :** 200930201
Name: B-HCl-MER **Received:** 01-DEC-09
Type: Reagent/Solvent **Expires:** 01-DEC-10
Employee: Tara Griffin
Supplier: Aristar
Description: Hydrochloric Acid Conc.
Comments: None

Standard Logbook

Serial ID: 1238343 **Opened:** 04-DEC-09 **Lot Number :** H41032
Name: I-HCL **Received:** 04-DEC-09 **Preservative_Id :** 5 none
Type: Reagent/Solvent **Expires:** 04-DEC-10
Employee: Francena Armstrong
Supplier: J.T. BAKER
Description: HYDROCHLORIC ACID
Comments: None

Serial ID: 1238345 **Opened:** 04-DEC-09 **Lot Number :** H20053 L
Name: I-HNO3 **Received:** 04-DEC-09
Type: Reagent/Solvent **Expires:** 04-DEC-10
Employee: Francena Armstrong
Supplier: BAKER
Description: Nitric Acid CONC.
Comments: None

Serial ID: 1240182-1 **Opened:** 09-DEC-09 **Instrument Id :** MERCURY
Name: B-HNO3-MER **Received:** 09-DEC-09 **Lot Number :** H34040
Type: Reagent/Solvent **Expires:** 09-DEC-10
Employee: Tara Griffin
Supplier: Mallinckrodt Chemicals
Description: NITRIC ACID
Comments: None

Serial ID: 1242318 **Opened:** 14-DEC-09 **Amount :** 20 L
Name: B-ICP-RINSE SOLN **Received:** 01-DEC-09 **Lot Number :** H04040+G34050
Type: Reagent/Solvent **Expires:** 20-DEC-09 **Solvent :** 3%HCL+1%HNO3
Employee: Helen Camello
Supplier: GEL
Description: 3%HCL+1%HNO3 RINSE SOLN.
Comments: None

Serial ID: 1244904-C **Opened:** 18-DEC-09 **Balance Id :** BAL-002
Name: B-KMnO4-MER **Received:** 18-DEC-09
Type: Reagent/Solvent **Expires:** 18-JUN-10
Employee: Tara Griffin
Supplier: GEL
Description: 5% KMnO4 solution
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1156689-A	B-KMnO4(VWR)-MER	Crystals	50 g	1000 mL	3%

Standard Logbook

Serial ID: 1244970 **Opened:** 18-DEC-09 **Lot Number :** H41032
Name: I-HCL **Received:** 18-DEC-09 **Preservative_Id :** 5 none
Type: Reagent/Solvent **Expires:** 18-DEC-10
Employee: Francena Armstrong
Supplier: J.T. BAKER
Description: HYDROCHLORIC ACID
Comments: None

Serial ID: 1247304 **Opened:** 28-DEC-09 **Solvent :** Type I Water
Name: B-2%HNO3/1%HCl-ICPMS **Received:** 28-DEC-09
Type: Reagent/Solvent **Expires:** 04-JAN-10
Employee: Elizabeth Janssen
Supplier: GEL
Description: 2%HNO3/1%HCl Solution (Type I Water)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1238345	I-HNO3	69.0-70.0	180 mL	9 l	N/A
1244970	I-HCL	36.5-38.0	90 mL	9 l	N/A

Serial ID: 1249336 **Opened:** 04-JAN-10 **Solvent :** Type I Water
Name: B-2%HNO3/1%HCl-ICPMS **Received:** 04-JAN-10
Type: Reagent/Solvent **Expires:** 11-JAN-10
Employee: Paul Boyd
Supplier: GEL
Description: 2%HNO3/1%HCl Solution (Type I Water)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1238345	I-HNO3	69.0-70.0	180 mL	9 l	N/A
1244970	I-HCL	36.5-38.0	90 mL	9 l	N/A

Metals Analysis

Case Narrative

Metals Fractional Narrative
Los Alamos National Laboratory (LANL)
SDG 10-887-1

Sample Analysis

Sample ID	Client ID
242782001	RE03-10-5529
242782002	RE03-10-5531
1201994208	Method Blank (MB) **ICP**
1201994209	Laboratory Control Sample (LCS)
1201994212	242782001(RE03-10-5529L) Serial Dilution (SD)
1201994210	242782001(RE03-10-5529D) Sample Duplicate (DUP)
1201994211	242782001(RE03-10-5529S) Matrix Spike (MS)
1201994293	Method Blank (MB) **ICP-MS**
1201994294	Laboratory Control Sample (LCS)
1201994297	242782002(RE03-10-5531L) Serial Dilution (SD)
1201994295	242782002(RE03-10-5531D) Sample Duplicate (DUP)
1201994296	242782002(RE03-10-5531S) Matrix Spike (MS)
1202000160	Method Blank (MB) **CVAA**
1202000161	Laboratory Control Sample (LCS)
1202000164	243108001(RE16-10-225L) Serial Dilution (SD)
1202000162	243108001(RE16-10-225D) Sample Duplicate (DUP)
1202000163	243108001(RE16-10-225S) Matrix Spike (MS)

The samples in this SDG were analyzed on an "as received" basis.

Method/Analysis Information

Analytical Batch:	932270, 932312 and 934864
Prep Batch :	932269, 932311 and 934863
Standard Operating Procedures:	GL-MA-E-013 REV# 20, GL-MA-E-006 REV# 9, GL-MA-E-014 REV# 20 and GL-MA-E-010 REV# 23
Analytical Method:	SW846 3005/6010B, SW846 3005/6020 and SW846 7470A
Prep Method :	SW846 3005A and SW846 7470A Prep

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

System Configuration

The Metals analysis-ICP was performed on a P E 5300 Optima radial/axial-viewing inductively coupled plasma atomic emission spectrometer. The instrument is equipped with a Burgener nebulizer, cyclonic spray chamber, and yttrium or scandium internal standard. Operating conditions for the ICP are set at a power level of 1500 watts. The instrument has a peristaltic pump flow rate of 1.4L/min, argon gas flows of 15 L/min and 0.2 L/min for the torch and auxiliary gases, and a flow setting of 0.65L/min for the nebulizer.

The Metals analysis - ICPMS was performed on a Perkin Elmer ELAN 6100E inductively coupled plasma mass spectrometer (ICP-MS). The instrument is equipped with a cross-flow nebulizer, quadrupole mass spectrometer, and dual mode electron multiplier detector. Internal standards of scandium, germanium, indium, tantalum, and/or lutetium were utilized to cover the mass spectrum. Operating conditions are set at 1400W power and combined argon pressures of 360+/-7 kPa for the plasma and auxiliary gases, and 0.85 L/min carrier gas flow, and an initial lens voltage of 5.2.

The Metals analysis-Mercury was performed on a Perkin-Elmer Flow Injection Mercury System (FIMS-100) automated mercury analyzer. The instrument consists of a cold vapor atomic absorption spectrometer set to detect mercury at a wavelength of 253.7 nm. Sample introduction through the flow injection system is performed via a peristaltic pump at 9 mL/min and nitrogen carrier gas rate of 80 mL/min.

Calibration Information

Instrument Calibration
All initial calibration requirements have been met for this sample delivery group (SDG).

CRDL Requirements
All CRDL standard(s) met the referenced advisory control limits.

ICSA/ICSAB Statement
All interference check samples (ICSA and ICSAB) associated with this SDG met the established acceptance criteria.

Continuing Calibration Blank (CCB) Requirements
All continuing calibration blanks (CCB) bracketing this batch met the established acceptance criteria.

Continuing Calibration Verification (CCV) Requirements
All continuing calibration verifications (CCV) bracketing this SDG met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MBs analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

Quality Control (QC) Sample Statement
The following samples were selected as the quality control (QC) samples for this SDG: 242782001, 242782002 and 243108001.

Matrix Spike (MS) Recovery Statement
The percent recoveries (%R) obtained from the MS analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. All applicable elements met the acceptance criteria.

Duplicate Relative Percent Difference (RPD) Statement
The RPD obtained from the designated sample duplicate (DUP) is evaluated based on acceptance criteria of 20% when the sample is 5X the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control of +/-RL is used to evaluate the DUP results. All applicable analytes met these requirements with the exception of iron, as indicated by the "*" qualifier.

Serial Dilution % Difference Statement
The serial dilution is used to assess matrix suppression or enhancement. Raw element concentrations that are 25X the IDL/MDL for CVAA, 50X the IDL/MDL for ICP, and 100X the IDL/MDL for ICP-MS analyses are applicable for serial dilution assessment. All applicable analytes met the acceptance criteria of less than 10% difference (%D).

Technical Information

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Sample Dilutions
Dilutions are performed to minimize matrix interferences resulting from elevated mineral element concentrations present in solid samples and/or to bring over range target analyte concentrations into the linear calibration range of the instrument. The samples in this SDG did not require dilutions.

Preparation Information
The samples in this SDG were prepared exactly according to the cited SOP.

Miscellaneous Information

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Nonconformance Documentation
Nonconformance reports (NCRs) are generated to document procedural anomalies that may deviate from referenced SOP or contractual documents. The following NCR was generated for this SDG: 778533. A copy is included in the Miscellaneous Data section of this package.

Additional Comments
Additional comments were not required for this SDG.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Kristen Parson **Date:** 1/8/10

Sample Data Summary

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-887-1 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 242782001 **BASIS:** As Received **DATE COLLECTED** 09-DEC-09

CLIENT ID: RE03-10-5529 **LEVEL:** Low **DATE RECEIVED** 11-DEC-09

MATRIX: WATER **%SOLIDS:** 0

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	200	ug/L	U	68	200	200	1	P	HSC	12/19/09 12:32	121909-1	932270
7440-36-0	Antimony	3	ug/L	U	1	3	3	1	MS	BAJ	12/22/09 21:57	091222-2	932312
7440-38-2	Arsenic	30	ug/L	U	5	30	30	1	P	HSC	12/19/09 12:32	121909-1	932270
7440-39-3	Barium	5	ug/L	U	1	5	5	1	P	HSC	12/19/09 12:32	121909-1	932270
7440-41-7	Beryllium	0.50	ug/L	U	0.1	0.5	0.5	1	MS	BAJ	12/23/09 18:52	091223-3	932312
7440-42-8	Boron	50	ug/L	U	15	50	50	1	P	HSC	12/19/09 12:32	121909-1	932270
7440-43-9	Cadmium	1	ug/L	U	0.11	1	1	1	MS	BAJ	12/22/09 21:57	091222-2	932312
7440-70-2	Calcium	200	ug/L	U	50	200	200	1	P	HSC	12/19/09 12:32	121909-1	932270
7440-47-3	Chromium	5	ug/L	U	1	5	5	1	P	HSC	12/19/09 12:32	121909-1	932270
7440-48-4	Cobalt	5	ug/L	U	1	5	5	1	P	HSC	12/19/09 12:32	121909-1	932270
7440-50-8	Copper	10	ug/L	U	3	10	10	1	P	HSC	12/19/09 12:32	121909-1	932270
7439-89-6	Iron	100	ug/L	U*	30	100	100	1	P	HSC	12/19/09 12:32	121909-1	932270
7439-92-1	Lead	2	ug/L	U	0.5	2	2	1	MS	BAJ	12/22/09 21:57	091222-2	932312
7439-93-2	Lithium	10	ug/L	U	2	10	10	1	MS	BAJ	12/23/09 18:52	091223-3	932312
7439-95-4	Magnesium	300	ug/L	U	85	300	300	1	P	HSC	12/19/09 12:32	121909-1	932270
7439-96-5	Manganese	5	ug/L	U	1	5	5	1	MS	BAJ	12/23/09 18:52	091223-3	932312
7439-97-6	Mercury	0.20	ug/L	U	0.066	0.2	0.2	1	AV	ETL	12/23/09 08:47	122309W1-4	934864
7440-02-0	Nickel	5	ug/L	U	1.5	5	5	1	P	HSC	12/19/09 12:32	121909-1	932270
7440-09-7	Potassium	150	ug/L	U	50	150	150	1	P	HSC	12/19/09 12:32	121909-1	932270
7782-49-2	Selenium	30	ug/L	U	5	30	30	1	P	HSC	12/19/09 12:32	121909-1	932270
7440-21-3	Silicon	2240	ug/L		25	100	100	1	P	HSC	12/19/09 12:32	121909-1	932270
7440-22-4	Silver	5	ug/L	U	1	5	5	1	P	HSC	12/19/09 12:32	121909-1	932270
7440-23-5	Sodium	300	ug/L	U	100	300	300	1	P	HSC	12/19/09 12:32	121909-1	932270
7440-28-0	Thallium	1	ug/L	U	0.3	1	1	1	MS	BAJ	12/22/09 21:57	091222-2	932312
7440-32-6	Titanium	5	ug/L	U	1	5	5	1	P	HSC	12/19/09 12:32	121909-1	932270
7440-61-1	Uranium	0.20	ug/L	U	0.05	0.2	0.2	1	MS	BAJ	12/22/09 21:57	091222-2	932312
7440-62-2	Vanadium	5	ug/L	U	1	5	5	1	P	HSC	12/19/09 12:32	121909-1	932270
7440-66-6	Zinc	10	ug/L	U	3.3	10	10	1	P	HSC	12/19/09 12:32	121909-1	932270

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
932270	932269	SW846 3005A	50	mL	50	mL	12/16/09	FGA
932312	932311	SW846 3005A	50	mL	50	mL	12/16/09	FGA
934864	934863	SW846 7470A Prep	20	mL	20	mL	12/22/09	TXB3

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-887-1 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 242782002 **BASIS:** As Received **DATE COLLECTED** 09-DEC-09

CLIENT ID: RE03-10-5531 **LEVEL:** Low **DATE RECEIVED** 11-DEC-09

MATRIX: WATER **%SOLIDS:** 0

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	75.7	ug/L	J	68	200	200	1	P	HSC	12/19/09 13:00	121909-1	932270
7440-36-0	Antimony	3	ug/L	U	1	3	3	1	MS	BAJ	12/22/09 22:03	091222-2	932312
7440-38-2	Arsenic	30	ug/L	U	5	30	30	1	P	HSC	12/19/09 13:00	121909-1	932270
7440-39-3	Barium	1.33	ug/L	J	1	5	5	1	P	HSC	12/19/09 13:00	121909-1	932270
7440-41-7	Beryllium	0.50	ug/L	U	0.1	0.5	0.5	1	MS	BAJ	12/23/09 18:55	091223-3	932312
7440-42-8	Boron	50	ug/L	U	15	50	50	1	P	HSC	12/19/09 13:00	121909-1	932270
7440-43-9	Cadmium	1	ug/L	U	0.11	1	1	1	MS	BAJ	12/22/09 22:03	091222-2	932312
7440-70-2	Calcium	200	ug/L	U	50	200	200	1	P	HSC	12/19/09 13:00	121909-1	932270
7440-47-3	Chromium	2.64	ug/L	J	1	5	5	1	P	HSC	12/19/09 13:00	121909-1	932270
7440-48-4	Cobalt	5	ug/L	U	1	5	5	1	P	HSC	12/19/09 13:00	121909-1	932270
7440-50-8	Copper	10	ug/L	U	3	10	10	1	P	HSC	12/19/09 13:00	121909-1	932270
7439-89-6	Iron	120	ug/L	*	30	100	100	1	P	HSC	12/19/09 13:00	121909-1	932270
7439-92-1	Lead	2	ug/L	U	0.5	2	2	1	MS	BAJ	12/22/09 22:03	091222-2	932312
7439-93-2	Lithium	10	ug/L	U	2	10	10	1	MS	BAJ	12/23/09 18:55	091223-3	932312
7439-95-4	Magnesium	300	ug/L	U	85	300	300	1	P	HSC	12/19/09 13:00	121909-1	932270
7439-96-5	Manganese	6.17	ug/L		1	5	5	1	MS	BAJ	12/23/09 18:55	091223-3	932312
7439-97-6	Mercury	0.20	ug/L	U	0.066	0.2	0.2	1	AV	ETL	12/23/09 08:49	122309W1-4	934864
7440-02-0	Nickel	5	ug/L	U	1.5	5	5	1	P	HSC	12/19/09 13:00	121909-1	932270
7440-09-7	Potassium	65.6	ug/L	J	50	150	150	1	P	HSC	12/19/09 13:00	121909-1	932270
7782-49-2	Selenium	30	ug/L	U	5	30	30	1	P	HSC	12/19/09 13:00	121909-1	932270
7440-21-3	Silicon	2190	ug/L		25	100	100	1	P	HSC	12/19/09 13:00	121909-1	932270
7440-22-4	Silver	5	ug/L	U	1	5	5	1	P	HSC	12/19/09 13:00	121909-1	932270
7440-23-5	Sodium	110	ug/L	J	100	300	300	1	P	HSC	12/19/09 13:00	121909-1	932270
7440-28-0	Thallium	1	ug/L	U	0.3	1	1	1	MS	BAJ	12/22/09 22:03	091222-2	932312
7440-32-6	Titanium	2.51	ug/L	J	1	5	5	1	P	HSC	12/19/09 13:00	121909-1	932270
7440-61-1	Uranium	0.20	ug/L	U	0.05	0.2	0.2	1	MS	BAJ	12/22/09 22:03	091222-2	932312
7440-62-2	Vanadium	5	ug/L	U	1	5	5	1	P	HSC	12/19/09 13:00	121909-1	932270
7440-66-6	Zinc	3.75	ug/L	J	3.3	10	10	1	P	HSC	12/19/09 13:00	121909-1	932270

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
932270	932269	SW846 3005A	50	mL	50	mL	12/16/09	FGA
932312	932311	SW846 3005A	50	mL	50	mL	12/16/09	FGA
934864	934863	SW846 7470A Prep	20	mL	20	mL	12/22/09	TXB3

Quality Control Summary

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-887-1

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS3,MER536,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
ICV01										
	Aluminum	5050	ug/L	5000	ug/L	100.9	90.0 - 110.0	P	19-DEC-09 07:51	121909-1
	Arsenic	478	ug/L	500	ug/L	95.7	90.0 - 110.0	P	19-DEC-09 07:51	121909-1
	Barium	515	ug/L	500	ug/L	103.1	90.0 - 110.0	P	19-DEC-09 07:51	121909-1
	Boron	516	ug/L	500	ug/L	103.1	90.0 - 110.0	P	19-DEC-09 07:51	121909-1
	Calcium	5020	ug/L	5000	ug/L	100.4	90.0 - 110.0	P	19-DEC-09 07:51	121909-1
	Chromium	492	ug/L	500	ug/L	98.4	90.0 - 110.0	P	19-DEC-09 07:51	121909-1
	Cobalt	502	ug/L	500	ug/L	100.3	90.0 - 110.0	P	19-DEC-09 07:51	121909-1
	Copper	511	ug/L	500	ug/L	102.3	90.0 - 110.0	P	19-DEC-09 07:51	121909-1
	Iron	5180	ug/L	5000	ug/L	103.6	90.0 - 110.0	P	19-DEC-09 07:51	121909-1
	Magnesium	5490	ug/L	5000	ug/L	109.8	90.0 - 110.0	P	19-DEC-09 07:51	121909-1
	Nickel	499	ug/L	500	ug/L	99.7	90.0 - 110.0	P	19-DEC-09 07:51	121909-1
	Potassium	2550	ug/L	2500	ug/L	102	90.0 - 110.0	P	19-DEC-09 07:51	121909-1
	Selenium	2590	ug/L	2500	ug/L	103.5	90.0 - 110.0	P	19-DEC-09 07:51	121909-1
	Silicon	4830	ug/L	5000	ug/L	96.7	90.0 - 110.0	P	19-DEC-09 07:51	121909-1
	Silver	262	ug/L	250	ug/L	104.7	90.0 - 110.0	P	19-DEC-09 07:51	121909-1
	Sodium	2510	ug/L	2500	ug/L	100.5	90.0 - 110.0	P	19-DEC-09 07:51	121909-1
	Titanium	498	ug/L	500	ug/L	99.7	90.0 - 110.0	P	19-DEC-09 07:51	121909-1
	Vanadium	517	ug/L	500	ug/L	103.5	90.0 - 110.0	P	19-DEC-09 07:51	121909-1
	Zinc	511	ug/L	500	ug/L	102.2	90.0 - 110.0	P	19-DEC-09 07:51	121909-1
	Antimony	50	ug/L	50	ug/L	100	90.0 - 110.0	MS	22-DEC-09 19:22	091222-2
	Cadmium	50	ug/L	50	ug/L	99.9	90.0 - 110.0	MS	22-DEC-09 19:22	091222-2
	Lead	51.2	ug/L	50	ug/L	102.4	90.0 - 110.0	MS	22-DEC-09 19:22	091222-2
	Thallium	49.4	ug/L	50	ug/L	98.7	90.0 - 110.0	MS	22-DEC-09 19:22	091222-2
	Uranium	54.9	ug/L	50	ug/L	109.8	90.0 - 110.0	MS	22-DEC-09 19:22	091222-2
	Mercury	5	ug/L	5	ug/L	100	90.0 - 110.0	AV	23-DEC-09 08:29	122309W1-4
	Beryllium	50.8	ug/L	50	ug/L	101.6	90.0 - 110.0	MS	23-DEC-09 18:24	091223-3
	Lithium	50.5	ug/L	50	ug/L	100.9	90.0 - 110.0	MS	23-DEC-09 18:24	091223-3
	Manganese	51.4	ug/L	50	ug/L	102.8	90.0 - 110.0	MS	23-DEC-09 18:24	091223-3
CCV01										
	Aluminum	4920	ug/L	5000	ug/L	98.4	90.0 - 110.0	P	19-DEC-09 08:36	121909-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-887-1

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS3,MER536,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Arsenic	519	ug/L	500	ug/L	103.9	90.0 - 110.0	P	19-DEC-09 08:36	121909-1
	Barium	499	ug/L	500	ug/L	99.9	90.0 - 110.0	P	19-DEC-09 08:36	121909-1
	Boron	516	ug/L	500	ug/L	103.2	90.0 - 110.0	P	19-DEC-09 08:36	121909-1
	Calcium	4990	ug/L	5000	ug/L	99.8	90.0 - 110.0	P	19-DEC-09 08:36	121909-1
	Chromium	499	ug/L	500	ug/L	99.7	90.0 - 110.0	P	19-DEC-09 08:36	121909-1
	Cobalt	499	ug/L	500	ug/L	99.8	90.0 - 110.0	P	19-DEC-09 08:36	121909-1
	Copper	493	ug/L	500	ug/L	98.7	90.0 - 110.0	P	19-DEC-09 08:36	121909-1
	Iron	5120	ug/L	5000	ug/L	102.4	90.0 - 110.0	P	19-DEC-09 08:36	121909-1
	Magnesium	5200	ug/L	5000	ug/L	104.1	90.0 - 110.0	P	19-DEC-09 08:36	121909-1
	Nickel	499	ug/L	500	ug/L	99.9	90.0 - 110.0	P	19-DEC-09 08:36	121909-1
	Potassium	5130	ug/L	5000	ug/L	102.5	90.0 - 110.0	P	19-DEC-09 08:36	121909-1
	Selenium	515	ug/L	500	ug/L	103	90.0 - 110.0	P	19-DEC-09 08:36	121909-1
	Silicon	2450	ug/L	2500	ug/L	98	90.0 - 110.0	P	19-DEC-09 08:36	121909-1
	Silver	495	ug/L	500	ug/L	99.1	90.0 - 110.0	P	19-DEC-09 08:36	121909-1
	Sodium	10100	ug/L	10000	ug/L	100.8	90.0 - 110.0	P	19-DEC-09 08:36	121909-1
	Titanium	489	ug/L	500	ug/L	97.8	90.0 - 110.0	P	19-DEC-09 08:36	121909-1
	Vanadium	502	ug/L	500	ug/L	100.4	90.0 - 110.0	P	19-DEC-09 08:36	121909-1
	Zinc	494	ug/L	500	ug/L	98.8	90.0 - 110.0	P	19-DEC-09 08:36	121909-1
	Antimony	49.9	ug/L	50	ug/L	99.7	90.0 - 110.0	MS	22-DEC-09 19:51	091222-2
	Cadmium	51.2	ug/L	50	ug/L	102.4	90.0 - 110.0	MS	22-DEC-09 19:51	091222-2
	Lead	51	ug/L	50	ug/L	101.9	90.0 - 110.0	MS	22-DEC-09 19:51	091222-2
	Thallium	49	ug/L	50	ug/L	98	90.0 - 110.0	MS	22-DEC-09 19:51	091222-2
	Uranium	53.1	ug/L	50	ug/L	106.2	90.0 - 110.0	MS	22-DEC-09 19:51	091222-2
	Mercury	4.89	ug/L	5	ug/L	97.9	80.0 - 120.0	AV	23-DEC-09 08:34	122309W1-4
	Beryllium	53.1	ug/L	50	ug/L	106.3	90.0 - 110.0	MS	23-DEC-09 18:36	091223-3
	Lithium	52.3	ug/L	50	ug/L	104.5	90.0 - 110.0	MS	23-DEC-09 18:36	091223-3
	Manganese	51.1	ug/L	50	ug/L	102.2	90.0 - 110.0	MS	23-DEC-09 18:36	091223-3
CCV02										
	Aluminum	4930	ug/L	5000	ug/L	98.7	90.0 - 110.0	P	19-DEC-09 09:05	121909-1
	Arsenic	494	ug/L	500	ug/L	98.9	90.0 - 110.0	P	19-DEC-09 09:05	121909-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-887-1

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS3,MER536,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Barium	494	ug/L	500	ug/L	98.7	90.0 - 110.0	P	19-DEC-09 09:05	121909-1
	Boron	490	ug/L	500	ug/L	98	90.0 - 110.0	P	19-DEC-09 09:05	121909-1
	Calcium	5030	ug/L	5000	ug/L	100.6	90.0 - 110.0	P	19-DEC-09 09:05	121909-1
	Chromium	492	ug/L	500	ug/L	98.3	90.0 - 110.0	P	19-DEC-09 09:05	121909-1
	Cobalt	485	ug/L	500	ug/L	97	90.0 - 110.0	P	19-DEC-09 09:05	121909-1
	Copper	491	ug/L	500	ug/L	98.2	90.0 - 110.0	P	19-DEC-09 09:05	121909-1
	Iron	5170	ug/L	5000	ug/L	103.4	90.0 - 110.0	P	19-DEC-09 09:05	121909-1
	Magnesium	5260	ug/L	5000	ug/L	105.2	90.0 - 110.0	P	19-DEC-09 09:05	121909-1
	Nickel	487	ug/L	500	ug/L	97.4	90.0 - 110.0	P	19-DEC-09 09:05	121909-1
	Potassium	5040	ug/L	5000	ug/L	100.9	90.0 - 110.0	P	19-DEC-09 09:05	121909-1
	Selenium	509	ug/L	500	ug/L	101.8	90.0 - 110.0	P	19-DEC-09 09:05	121909-1
	Silicon	2420	ug/L	2500	ug/L	96.6	90.0 - 110.0	P	19-DEC-09 09:05	121909-1
	Silver	488	ug/L	500	ug/L	97.6	90.0 - 110.0	P	19-DEC-09 09:05	121909-1
	Sodium	9990	ug/L	10000	ug/L	99.9	90.0 - 110.0	P	19-DEC-09 09:05	121909-1
	Titanium	486	ug/L	500	ug/L	97.3	90.0 - 110.0	P	19-DEC-09 09:05	121909-1
	Vanadium	494	ug/L	500	ug/L	98.9	90.0 - 110.0	P	19-DEC-09 09:05	121909-1
	Zinc	487	ug/L	500	ug/L	97.5	90.0 - 110.0	P	19-DEC-09 09:05	121909-1
	Antimony	52	ug/L	50	ug/L	103.9	90.0 - 110.0	MS	22-DEC-09 20:08	091222-2
	Cadmium	50.4	ug/L	50	ug/L	100.8	90.0 - 110.0	MS	22-DEC-09 20:08	091222-2
	Lead	52	ug/L	50	ug/L	104	90.0 - 110.0	MS	22-DEC-09 20:08	091222-2
	Thallium	50.8	ug/L	50	ug/L	101.5	90.0 - 110.0	MS	22-DEC-09 20:08	091222-2
	Uranium	55.1	ug/L	50	ug/L	110.1	90.0 - 110.0	MS	22-DEC-09 20:08	091222-2
	Mercury	5.01	ug/L	5	ug/L	100.2	80.0 - 120.0	AV	23-DEC-09 08:58	122309W1-4
	Beryllium	51.3	ug/L	50	ug/L	102.6	90.0 - 110.0	MS	23-DEC-09 18:43	091223-3
	Lithium	51.4	ug/L	50	ug/L	102.9	90.0 - 110.0	MS	23-DEC-09 18:43	091223-3
	Manganese	50.9	ug/L	50	ug/L	101.8	90.0 - 110.0	MS	23-DEC-09 18:43	091223-3
CCV03										
	Aluminum	4910	ug/L	5000	ug/L	98.2	90.0 - 110.0	P	19-DEC-09 10:14	121909-1
	Arsenic	489	ug/L	500	ug/L	97.8	90.0 - 110.0	P	19-DEC-09 10:14	121909-1
	Barium	484	ug/L	500	ug/L	96.8	90.0 - 110.0	P	19-DEC-09 10:14	121909-1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–887–1

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS3,MER536,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Boron	478	ug/L	500	ug/L	95.7	90.0 – 110.0	P	19–DEC–09 10:14	121909–1
	Calcium	4950	ug/L	5000	ug/L	99	90.0 – 110.0	P	19–DEC–09 10:14	121909–1
	Chromium	483	ug/L	500	ug/L	96.6	90.0 – 110.0	P	19–DEC–09 10:14	121909–1
	Cobalt	485	ug/L	500	ug/L	96.9	90.0 – 110.0	P	19–DEC–09 10:14	121909–1
	Copper	478	ug/L	500	ug/L	95.7	90.0 – 110.0	P	19–DEC–09 10:14	121909–1
	Iron	5000	ug/L	5000	ug/L	100	90.0 – 110.0	P	19–DEC–09 10:14	121909–1
	Magnesium	5160	ug/L	5000	ug/L	103.2	90.0 – 110.0	P	19–DEC–09 10:14	121909–1
	Nickel	484	ug/L	500	ug/L	96.9	90.0 – 110.0	P	19–DEC–09 10:14	121909–1
	Potassium	4990	ug/L	5000	ug/L	99.8	90.0 – 110.0	P	19–DEC–09 10:14	121909–1
	Selenium	499	ug/L	500	ug/L	99.8	90.0 – 110.0	P	19–DEC–09 10:14	121909–1
	Silicon	2380	ug/L	2500	ug/L	95.2	90.0 – 110.0	P	19–DEC–09 10:14	121909–1
	Silver	481	ug/L	500	ug/L	96.2	90.0 – 110.0	P	19–DEC–09 10:14	121909–1
	Sodium	9570	ug/L	10000	ug/L	95.7	90.0 – 110.0	P	19–DEC–09 10:14	121909–1
	Titanium	473	ug/L	500	ug/L	94.5	90.0 – 110.0	P	19–DEC–09 10:14	121909–1
	Vanadium	487	ug/L	500	ug/L	97.4	90.0 – 110.0	P	19–DEC–09 10:14	121909–1
	Zinc	480	ug/L	500	ug/L	96	90.0 – 110.0	P	19–DEC–09 10:14	121909–1
	Antimony	49.9	ug/L	50	ug/L	99.8	90.0 – 110.0	MS	22–DEC–09 20:54	091222–2
	Cadmium	50.7	ug/L	50	ug/L	101.3	90.0 – 110.0	MS	22–DEC–09 20:54	091222–2
	Lead	51.6	ug/L	50	ug/L	103.3	90.0 – 110.0	MS	22–DEC–09 20:54	091222–2
	Thallium	49.3	ug/L	50	ug/L	98.6	90.0 – 110.0	MS	22–DEC–09 20:54	091222–2
	Uranium	54.7	ug/L	50	ug/L	109.4	90.0 – 110.0	MS	22–DEC–09 20:54	091222–2
	Mercury	5.84	ug/L	5	ug/L	116.8	80.0 – 120.0	AV	23–DEC–09 09:22	122309W1–4
	Beryllium	49.2	ug/L	50	ug/L	98.5	90.0 – 110.0	MS	23–DEC–09 19:04	091223–3
	Lithium	47.9	ug/L	50	ug/L	95.8	90.0 – 110.0	MS	23–DEC–09 19:04	091223–3
	Manganese	51.3	ug/L	50	ug/L	102.5	90.0 – 110.0	MS	23–DEC–09 19:04	091223–3
CCV04										
	Aluminum	4920	ug/L	5000	ug/L	98.3	90.0 – 110.0	P	19–DEC–09 11:18	121909–1
	Arsenic	496	ug/L	500	ug/L	99.2	90.0 – 110.0	P	19–DEC–09 11:18	121909–1
	Barium	491	ug/L	500	ug/L	98.3	90.0 – 110.0	P	19–DEC–09 11:18	121909–1
	Boron	479	ug/L	500	ug/L	95.8	90.0 – 110.0	P	19–DEC–09 11:18	121909–1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-887-1

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS3,MER536,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Calcium	4960	ug/L	5000	ug/L	99.3	90.0 – 110.0	P	19-DEC-09 11:18	121909-1
	Chromium	490	ug/L	500	ug/L	98.1	90.0 – 110.0	P	19-DEC-09 11:18	121909-1
	Cobalt	492	ug/L	500	ug/L	98.4	90.0 – 110.0	P	19-DEC-09 11:18	121909-1
	Copper	487	ug/L	500	ug/L	97.5	90.0 – 110.0	P	19-DEC-09 11:18	121909-1
	Iron	5050	ug/L	5000	ug/L	101	90.0 – 110.0	P	19-DEC-09 11:18	121909-1
	Magnesium	5170	ug/L	5000	ug/L	103.4	90.0 – 110.0	P	19-DEC-09 11:18	121909-1
	Nickel	492	ug/L	500	ug/L	98.4	90.0 – 110.0	P	19-DEC-09 11:18	121909-1
	Potassium	4970	ug/L	5000	ug/L	99.5	90.0 – 110.0	P	19-DEC-09 11:18	121909-1
	Selenium	508	ug/L	500	ug/L	101.6	90.0 – 110.0	P	19-DEC-09 11:18	121909-1
	Silicon	2420	ug/L	2500	ug/L	96.8	90.0 – 110.0	P	19-DEC-09 11:18	121909-1
	Silver	489	ug/L	500	ug/L	97.8	90.0 – 110.0	P	19-DEC-09 11:18	121909-1
	Sodium	9910	ug/L	10000	ug/L	99.1	90.0 – 110.0	P	19-DEC-09 11:18	121909-1
	Titanium	484	ug/L	500	ug/L	96.7	90.0 – 110.0	P	19-DEC-09 11:18	121909-1
	Vanadium	495	ug/L	500	ug/L	99	90.0 – 110.0	P	19-DEC-09 11:18	121909-1
	Zinc	487	ug/L	500	ug/L	97.4	90.0 – 110.0	P	19-DEC-09 11:18	121909-1
	Antimony	49.6	ug/L	50	ug/L	99.2	90.0 – 110.0	MS	22-DEC-09 21:34	091222-2
	Cadmium	50.7	ug/L	50	ug/L	101.3	90.0 – 110.0	MS	22-DEC-09 21:34	091222-2
	Lead	51.5	ug/L	50	ug/L	103	90.0 – 110.0	MS	22-DEC-09 21:34	091222-2
	Thallium	49	ug/L	50	ug/L	97.9	90.0 – 110.0	MS	22-DEC-09 21:34	091222-2
	Uranium	54.7	ug/L	50	ug/L	109.3	90.0 – 110.0	MS	22-DEC-09 21:34	091222-2
CCV05										
	Aluminum	5120	ug/L	5000	ug/L	102.5	90.0 – 110.0	P	19-DEC-09 12:04	121909-1
	Arsenic	497	ug/L	500	ug/L	99.4	90.0 – 110.0	P	19-DEC-09 12:04	121909-1
	Barium	495	ug/L	500	ug/L	98.9	90.0 – 110.0	P	19-DEC-09 12:04	121909-1
	Boron	477	ug/L	500	ug/L	95.5	90.0 – 110.0	P	19-DEC-09 12:04	121909-1
	Calcium	5130	ug/L	5000	ug/L	102.7	90.0 – 110.0	P	19-DEC-09 12:04	121909-1
	Chromium	493	ug/L	500	ug/L	98.5	90.0 – 110.0	P	19-DEC-09 12:04	121909-1
	Cobalt	486	ug/L	500	ug/L	97.3	90.0 – 110.0	P	19-DEC-09 12:04	121909-1
	Copper	491	ug/L	500	ug/L	98.2	90.0 – 110.0	P	19-DEC-09 12:04	121909-1
	Iron	5180	ug/L	5000	ug/L	103.6	90.0 – 110.0	P	19-DEC-09 12:04	121909-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-887-1

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS3,MER536,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Magnesium	5320	ug/L	5000	ug/L	106.3	90.0 - 110.0	P	19-DEC-09 12:04	121909-1
	Nickel	489	ug/L	500	ug/L	97.8	90.0 - 110.0	P	19-DEC-09 12:04	121909-1
	Potassium	5200	ug/L	5000	ug/L	104	90.0 - 110.0	P	19-DEC-09 12:04	121909-1
	Selenium	511	ug/L	500	ug/L	102.2	90.0 - 110.0	P	19-DEC-09 12:04	121909-1
	Silicon	2430	ug/L	2500	ug/L	97.1	90.0 - 110.0	P	19-DEC-09 12:04	121909-1
	Silver	489	ug/L	500	ug/L	97.9	90.0 - 110.0	P	19-DEC-09 12:04	121909-1
	Sodium	9870	ug/L	10000	ug/L	98.7	90.0 - 110.0	P	19-DEC-09 12:04	121909-1
	Titanium	488	ug/L	500	ug/L	97.5	90.0 - 110.0	P	19-DEC-09 12:04	121909-1
	Vanadium	496	ug/L	500	ug/L	99.2	90.0 - 110.0	P	19-DEC-09 12:04	121909-1
	Zinc	490	ug/L	500	ug/L	97.9	90.0 - 110.0	P	19-DEC-09 12:04	121909-1
	Antimony	49.7	ug/L	50	ug/L	99.4	90.0 - 110.0	MS	22-DEC-09 22:26	091222-2
	Cadmium	50.3	ug/L	50	ug/L	100.7	90.0 - 110.0	MS	22-DEC-09 22:26	091222-2
	Lead	50.8	ug/L	50	ug/L	101.7	90.0 - 110.0	MS	22-DEC-09 22:26	091222-2
	Thallium	48.7	ug/L	50	ug/L	97.4	90.0 - 110.0	MS	22-DEC-09 22:26	091222-2
	Uranium	53.8	ug/L	50	ug/L	107.7	90.0 - 110.0	MS	22-DEC-09 22:26	091222-2
CCV06										
	Aluminum	4960	ug/L	5000	ug/L	99.3	90.0 - 110.0	P	19-DEC-09 13:07	121909-1
	Arsenic	492	ug/L	500	ug/L	98.5	90.0 - 110.0	P	19-DEC-09 13:07	121909-1
	Barium	492	ug/L	500	ug/L	98.5	90.0 - 110.0	P	19-DEC-09 13:07	121909-1
	Boron	477	ug/L	500	ug/L	95.4	90.0 - 110.0	P	19-DEC-09 13:07	121909-1
	Calcium	4990	ug/L	5000	ug/L	99.9	90.0 - 110.0	P	19-DEC-09 13:07	121909-1
	Chromium	491	ug/L	500	ug/L	98.3	90.0 - 110.0	P	19-DEC-09 13:07	121909-1
	Cobalt	492	ug/L	500	ug/L	98.4	90.0 - 110.0	P	19-DEC-09 13:07	121909-1
	Copper	488	ug/L	500	ug/L	97.5	90.0 - 110.0	P	19-DEC-09 13:07	121909-1
	Iron	4970	ug/L	5000	ug/L	99.4	90.0 - 110.0	P	19-DEC-09 13:07	121909-1
	Magnesium	5180	ug/L	5000	ug/L	103.6	90.0 - 110.0	P	19-DEC-09 13:07	121909-1
	Nickel	491	ug/L	500	ug/L	98.2	90.0 - 110.0	P	19-DEC-09 13:07	121909-1
	Potassium	5010	ug/L	5000	ug/L	100.2	90.0 - 110.0	P	19-DEC-09 13:07	121909-1
	Selenium	502	ug/L	500	ug/L	100.4	90.0 - 110.0	P	19-DEC-09 13:07	121909-1
	Silicon	2420	ug/L	2500	ug/L	96.7	90.0 - 110.0	P	19-DEC-09 13:07	121909-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-887-1

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS3,MER536,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Silver	490	ug/L	500	ug/L	98	90.0 - 110.0	P	19-DEC-09 13:07	121909-1
	Sodium	9370	ug/L	10000	ug/L	93.7	90.0 - 110.0	P	19-DEC-09 13:07	121909-1
	Titanium	486	ug/L	500	ug/L	97.3	90.0 - 110.0	P	19-DEC-09 13:07	121909-1
	Vanadium	496	ug/L	500	ug/L	99.2	90.0 - 110.0	P	19-DEC-09 13:07	121909-1
	Zinc	487	ug/L	500	ug/L	97.4	90.0 - 110.0	P	19-DEC-09 13:07	121909-1

METALS
-2b-
CRDL Standard for AA & ICP

SDG No: 10-887-1

Contract: LANL01004 **Lab Code:** GEL

AA CRDL Standard Source: SPEX

ICP CRDL Standard Source Solutions Plus

Instrument ID: ICPMS3,MER536,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Advisory Limits (%R)	M	Analysis Date/Time	Run Number
CRDL01										
	Lead	2.19	ug/L	2	ug/L	109.7	70.0 - 130.0	MS	22-DEC-09 19:33	091222-2
	Thallium	.925	ug/L	1	ug/L	92.5	70.0 - 130.0	MS	22-DEC-09 19:33	091222-2
	Cadmium	1.11	ug/L	1	ug/L	111	70.0 - 130.0	MS	22-DEC-09 19:33	091222-2
	Uranium	.224	ug/L	.2	ug/L	112	70.0 - 130.0	MS	22-DEC-09 19:33	091222-2
	Antimony	2.73	ug/L	3	ug/L	90.9	70.0 - 130.0	MS	22-DEC-09 19:33	091222-2
	Mercury	.143	ug/L	.2	ug/L	71.5	70.0 - 130.0	AV	23-DEC-09 08:32	122309W1-4
	Manganese	5.62	ug/L	5	ug/L	112.5	70.0 - 130.0	MS	23-DEC-09 18:29	091223-3
	Beryllium	.591	ug/L	.5	ug/L	118.2	70.0 - 130.0	MS	23-DEC-09 18:29	091223-3
	Lithium	10.8	ug/L	10	ug/L	107.6	70.0 - 130.0	MS	23-DEC-09 18:29	091223-3
PQL01										
	Iron	98.2	ug/L	100	ug/L	98.2	70.0 - 130.0	P	19-DEC-09 08:04	121909-1
	Magnesium	313	ug/L	300	ug/L	104.3	70.0 - 130.0	P	19-DEC-09 08:04	121909-1
	Nickel	5.27	ug/L	5	ug/L	105.5	70.0 - 130.0	P	19-DEC-09 08:04	121909-1
	Potassium	165	ug/L	150	ug/L	109.8	70.0 - 130.0	P	19-DEC-09 08:04	121909-1
	Silver	5.1	ug/L	5	ug/L	101.9	70.0 - 130.0	P	19-DEC-09 08:04	121909-1
	Sodium	305	ug/L	300	ug/L	101.6	70.0 - 130.0	P	19-DEC-09 08:04	121909-1
	Arsenic	30.5	ug/L	30	ug/L	101.7	70.0 - 130.0	P	19-DEC-09 08:04	121909-1
	Barium	5.05	ug/L	5	ug/L	101	70.0 - 130.0	P	19-DEC-09 08:04	121909-1
	Chromium	5.05	ug/L	5	ug/L	101.1	70.0 - 130.0	P	19-DEC-09 08:04	121909-1
	Cobalt	4.93	ug/L	5	ug/L	98.5	70.0 - 130.0	P	19-DEC-09 08:04	121909-1
	Copper	10.3	ug/L	10	ug/L	102.5	70.0 - 130.0	P	19-DEC-09 08:04	121909-1
	Aluminum	202	ug/L	200	ug/L	100.9	70.0 - 130.0	P	19-DEC-09 08:04	121909-1
	Vanadium	4.7	ug/L	5	ug/L	94.1	70.0 - 130.0	P	19-DEC-09 08:04	121909-1
	Zinc	9.89	ug/L	10	ug/L	98.9	70.0 - 130.0	P	19-DEC-09 08:04	121909-1
	Calcium	210	ug/L	200	ug/L	104.8	70.0 - 130.0	P	19-DEC-09 08:04	121909-1
	Selenium	31.1	ug/L	30	ug/L	103.7	70.0 - 130.0	P	19-DEC-09 08:04	121909-1
	Boron	49.5	ug/L	50	ug/L	99.1	70.0 - 130.0	P	19-DEC-09 08:04	121909-1
	Silicon	102	ug/L	100	ug/L	102.4	70.0 - 130.0	P	19-DEC-09 08:04	121909-1
	Titanium	5	ug/L	5	ug/L	99.9	70.0 - 130.0	P	19-DEC-09 08:04	121909-1

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-887-1

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
ICB01										
	Aluminum	68.0	+/-200	U	68.0	200	LIQ	P	19-DEC-09 07:58	121909-1
	Arsenic	5.0	+/-30	U	5.0	30.0	LIQ	P	19-DEC-09 07:58	121909-1
	Barium	1.0	+/-5	U	1.0	5.0	LIQ	P	19-DEC-09 07:58	121909-1
	Boron	15.0	+/-50	U	15.0	50.0	LIQ	P	19-DEC-09 07:58	121909-1
	Calcium	50.0	+/-200	U	50.0	200	LIQ	P	19-DEC-09 07:58	121909-1
	Chromium	1.0	+/-5	U	1.0	5.0	LIQ	P	19-DEC-09 07:58	121909-1
	Cobalt	1.0	+/-5	U	1.0	5.0	LIQ	P	19-DEC-09 07:58	121909-1
	Copper	3.0	+/-10	U	3.0	10.0	LIQ	P	19-DEC-09 07:58	121909-1
	Iron	30.0	+/-100	U	30.0	100	LIQ	P	19-DEC-09 07:58	121909-1
	Magnesium	85.0	+/-300	U	85.0	300	LIQ	P	19-DEC-09 07:58	121909-1
	Nickel	1.5	+/-5	U	1.5	5.0	LIQ	P	19-DEC-09 07:58	121909-1
	Potassium	50.0	+/-150	U	50.0	150	LIQ	P	19-DEC-09 07:58	121909-1
	Selenium	5.0	+/-30	U	5.0	30.0	LIQ	P	19-DEC-09 07:58	121909-1
	Silicon	25.0	+/-100	U	25.0	100	LIQ	P	19-DEC-09 07:58	121909-1
	Silver	1.0	+/-5	U	1.0	5.0	LIQ	P	19-DEC-09 07:58	121909-1
	Sodium	100	+/-300	U	100	300	LIQ	P	19-DEC-09 07:58	121909-1
	Titanium	1.0	+/-5	U	1.0	5.0	LIQ	P	19-DEC-09 07:58	121909-1
	Vanadium	1.0	+/-5	U	1.0	5.0	LIQ	P	19-DEC-09 07:58	121909-1
	Zinc	3.3	+/-10	U	3.3	10.0	LIQ	P	19-DEC-09 07:58	121909-1
	Antimony	1.0	+/-3	U	1.0	3.0	LIQ	MS	22-DEC-09 19:28	091222-2
	Cadmium	0.11	+/-1	U	0.11	1.0	LIQ	MS	22-DEC-09 19:28	091222-2
	Lead	0.5	+/-2	U	0.5	2.0	LIQ	MS	22-DEC-09 19:28	091222-2
	Thallium	0.3	+/-1	U	0.3	1.0	LIQ	MS	22-DEC-09 19:28	091222-2
	Uranium	0.05	+/-.2	U	0.05	0.2	LIQ	MS	22-DEC-09 19:28	091222-2
	Mercury	0.066	+/-.2	U	0.066	0.2	LIQ	AV	23-DEC-09 08:30	122309W1-4
	Beryllium	0.1	+/-.5	U	0.1	0.5	LIQ	MS	23-DEC-09 18:27	091223-3
	Lithium	2.0	+/-10	U	2.0	10.0	LIQ	MS	23-DEC-09 18:27	091223-3
	Manganese	1.0	+/-5	U	1.0	5.0	LIQ	MS	23-DEC-09 18:27	091223-3
CCB01										
	Aluminum	68.0	+/-200	U	68.0	200	LIQ	P	19-DEC-09 08:43	121909-1
	Arsenic	12.52	+/-30	J	5.0	30.0	LIQ	P	19-DEC-09 08:43	121909-1

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-887-1

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Barium	1.0	+/-5	U	1.0	5.0	LIQ	P	19-DEC-09 08:43	121909-1
	Boron	15.0	+/-50	U	15.0	50.0	LIQ	P	19-DEC-09 08:43	121909-1
	Calcium	50.0	+/-200	U	50.0	200	LIQ	P	19-DEC-09 08:43	121909-1
	Chromium	1.0	+/-5	U	1.0	5.0	LIQ	P	19-DEC-09 08:43	121909-1
	Cobalt	1.0	+/-5	U	1.0	5.0	LIQ	P	19-DEC-09 08:43	121909-1
	Copper	3.0	+/-10	U	3.0	10.0	LIQ	P	19-DEC-09 08:43	121909-1
	Iron	30.0	+/-100	U	30.0	100	LIQ	P	19-DEC-09 08:43	121909-1
	Magnesium	85.0	+/-300	U	85.0	300	LIQ	P	19-DEC-09 08:43	121909-1
	Nickel	1.5	+/-5	U	1.5	5.0	LIQ	P	19-DEC-09 08:43	121909-1
	Potassium	99.96	+/-150	J	50.0	150	LIQ	P	19-DEC-09 08:43	121909-1
	Selenium	5.0	+/-30	U	5.0	30.0	LIQ	P	19-DEC-09 08:43	121909-1
	Silicon	25.0	+/-100	U	25.0	100	LIQ	P	19-DEC-09 08:43	121909-1
	Silver	1.0	+/-5	U	1.0	5.0	LIQ	P	19-DEC-09 08:43	121909-1
	Sodium	100	+/-300	U	100	300	LIQ	P	19-DEC-09 08:43	121909-1
	Titanium	1.0	+/-5	U	1.0	5.0	LIQ	P	19-DEC-09 08:43	121909-1
	Vanadium	1.0	+/-5	U	1.0	5.0	LIQ	P	19-DEC-09 08:43	121909-1
	Zinc	3.3	+/-10	U	3.3	10.0	LIQ	P	19-DEC-09 08:43	121909-1
	Antimony	1.0	+/-3	U	1.0	3.0	LIQ	MS	22-DEC-09 19:56	091222-2
	Cadmium	0.11	+/-1	U	0.11	1.0	LIQ	MS	22-DEC-09 19:56	091222-2
	Lead	0.5	+/-2	U	0.5	2.0	LIQ	MS	22-DEC-09 19:56	091222-2
	Thallium	0.3	+/-1	U	0.3	1.0	LIQ	MS	22-DEC-09 19:56	091222-2
	Uranium	0.05	+/-.2	U	0.05	0.2	LIQ	MS	22-DEC-09 19:56	091222-2
	Mercury	0.066	+/-.2	U	0.066	0.2	LIQ	AV	23-DEC-09 08:36	122309W1-4
	Beryllium	0.1	+/-.5	U	0.1	0.5	LIQ	MS	23-DEC-09 18:38	091223-3
	Lithium	2.0	+/-10	U	2.0	10.0	LIQ	MS	23-DEC-09 18:38	091223-3
	Manganese	1.0	+/-5	U	1.0	5.0	LIQ	MS	23-DEC-09 18:38	091223-3
CCB02										
	Aluminum	68.0	+/-200	U	68.0	200	LIQ	P	19-DEC-09 09:12	121909-1
	Arsenic	5.0	+/-30	U	5.0	30.0	LIQ	P	19-DEC-09 09:12	121909-1
	Barium	1.0	+/-5	U	1.0	5.0	LIQ	P	19-DEC-09 09:12	121909-1
	Boron	15.0	+/-50	U	15.0	50.0	LIQ	P	19-DEC-09 09:12	121909-1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–887–1

Contract: LANL01004 **Lab Code: GEL**

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	19–DEC–09 09:12	121909–1
	Chromium	1.0	+/–5	U	1.0	5.0	LIQ	P	19–DEC–09 09:12	121909–1
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	19–DEC–09 09:12	121909–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	19–DEC–09 09:12	121909–1
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	19–DEC–09 09:12	121909–1
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	19–DEC–09 09:12	121909–1
	Nickel	1.5	+/–5	U	1.5	5.0	LIQ	P	19–DEC–09 09:12	121909–1
	Potassium	69.21	+/–150	J	50.0	150	LIQ	P	19–DEC–09 09:12	121909–1
	Selenium	5.0	+/–30	U	5.0	30.0	LIQ	P	19–DEC–09 09:12	121909–1
	Silicon	25.0	+/–100	U	25.0	100	LIQ	P	19–DEC–09 09:12	121909–1
	Silver	1.0	+/–5	U	1.0	5.0	LIQ	P	19–DEC–09 09:12	121909–1
	Sodium	100	+/–300	U	100	300	LIQ	P	19–DEC–09 09:12	121909–1
	Titanium	1.0	+/–5	U	1.0	5.0	LIQ	P	19–DEC–09 09:12	121909–1
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	19–DEC–09 09:12	121909–1
	Zinc	3.3	+/–10	U	3.3	10.0	LIQ	P	19–DEC–09 09:12	121909–1
	Antimony	1.0	+/–3	U	1.0	3.0	LIQ	MS	22–DEC–09 20:14	091222–2
	Cadmium	0.11	+/–1	U	0.11	1.0	LIQ	MS	22–DEC–09 20:14	091222–2
	Lead	0.5	+/–2	U	0.5	2.0	LIQ	MS	22–DEC–09 20:14	091222–2
	Thallium	0.3	+/–1	U	0.3	1.0	LIQ	MS	22–DEC–09 20:14	091222–2
	Uranium	0.051	+/–.2	J	0.05	0.2	LIQ	MS	22–DEC–09 20:14	091222–2
	Mercury	–0.097	+/–.2	J	0.066	0.2	LIQ	AV	23–DEC–09 09:00	122309W1–4
	Beryllium	0.1	+/–.5	U	0.1	0.5	LIQ	MS	23–DEC–09 18:45	091223–3
	Lithium	2.0	+/–10	U	2.0	10.0	LIQ	MS	23–DEC–09 18:45	091223–3
	Manganese	1.0	+/–5	U	1.0	5.0	LIQ	MS	23–DEC–09 18:45	091223–3
CCB03										
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	19–DEC–09 10:21	121909–1
	Arsenic	5.0	+/–30	U	5.0	30.0	LIQ	P	19–DEC–09 10:21	121909–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	19–DEC–09 10:21	121909–1
	Boron	15.0	+/–50	U	15.0	50.0	LIQ	P	19–DEC–09 10:21	121909–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	19–DEC–09 10:21	121909–1
	Chromium	1.0	+/–5	U	1.0	5.0	LIQ	P	19–DEC–09 10:21	121909–1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10-887-1

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Cobalt	1.0	+/-5	U	1.0	5.0	LIQ	P	19-DEC-09 10:21	121909-1
	Copper	3.0	+/-10	U	3.0	10.0	LIQ	P	19-DEC-09 10:21	121909-1
	Iron	30.0	+/-100	U	30.0	100	LIQ	P	19-DEC-09 10:21	121909-1
	Magnesium	85.0	+/-300	U	85.0	300	LIQ	P	19-DEC-09 10:21	121909-1
	Nickel	1.5	+/-5	U	1.5	5.0	LIQ	P	19-DEC-09 10:21	121909-1
	Potassium	50.0	+/-150	U	50.0	150	LIQ	P	19-DEC-09 10:21	121909-1
	Selenium	5.0	+/-30	U	5.0	30.0	LIQ	P	19-DEC-09 10:21	121909-1
	Silicon	25.0	+/-100	U	25.0	100	LIQ	P	19-DEC-09 10:21	121909-1
	Silver	1.0	+/-5	U	1.0	5.0	LIQ	P	19-DEC-09 10:21	121909-1
	Sodium	100	+/-300	U	100	300	LIQ	P	19-DEC-09 10:21	121909-1
	Titanium	1.0	+/-5	U	1.0	5.0	LIQ	P	19-DEC-09 10:21	121909-1
	Vanadium	1.0	+/-5	U	1.0	5.0	LIQ	P	19-DEC-09 10:21	121909-1
	Zinc	3.3	+/-10	U	3.3	10.0	LIQ	P	19-DEC-09 10:21	121909-1
	Antimony	1.0	+/-3	U	1.0	3.0	LIQ	MS	22-DEC-09 21:00	091222-2
	Cadmium	0.11	+/-1	U	0.11	1.0	LIQ	MS	22-DEC-09 21:00	091222-2
	Lead	0.5	+/-2	U	0.5	2.0	LIQ	MS	22-DEC-09 21:00	091222-2
	Thallium	0.3	+/-1	U	0.3	1.0	LIQ	MS	22-DEC-09 21:00	091222-2
	Uranium	0.05	+/-.2	U	0.05	0.2	LIQ	MS	22-DEC-09 21:00	091222-2
	Mercury	-0.104	+/-.2	J	0.066	0.2	LIQ	AV	23-DEC-09 09:24	122309W1-4
	Beryllium	0.1	+/-.5	U	0.1	0.5	LIQ	MS	23-DEC-09 19:06	091223-3
	Lithium	2.0	+/-10	U	2.0	10.0	LIQ	MS	23-DEC-09 19:06	091223-3
	Manganese	1.0	+/-5	U	1.0	5.0	LIQ	MS	23-DEC-09 19:06	091223-3
CCB04										
	Aluminum	68.0	+/-200	U	68.0	200	LIQ	P	19-DEC-09 11:25	121909-1
	Arsenic	5.0	+/-30	U	5.0	30.0	LIQ	P	19-DEC-09 11:25	121909-1
	Barium	1.0	+/-5	U	1.0	5.0	LIQ	P	19-DEC-09 11:25	121909-1
	Boron	15.0	+/-50	U	15.0	50.0	LIQ	P	19-DEC-09 11:25	121909-1
	Calcium	50.0	+/-200	U	50.0	200	LIQ	P	19-DEC-09 11:25	121909-1
	Chromium	1.0	+/-5	U	1.0	5.0	LIQ	P	19-DEC-09 11:25	121909-1
	Cobalt	1.0	+/-5	U	1.0	5.0	LIQ	P	19-DEC-09 11:25	121909-1
	Copper	3.0	+/-10	U	3.0	10.0	LIQ	P	19-DEC-09 11:25	121909-1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10–887–1

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	19–DEC–09 11:25	121909–1
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	19–DEC–09 11:25	121909–1
	Nickel	1.5	+/–5	U	1.5	5.0	LIQ	P	19–DEC–09 11:25	121909–1
	Potassium	50.0	+/–150	U	50.0	150	LIQ	P	19–DEC–09 11:25	121909–1
	Selenium	5.0	+/–30	U	5.0	30.0	LIQ	P	19–DEC–09 11:25	121909–1
	Silicon	25.0	+/–100	U	25.0	100	LIQ	P	19–DEC–09 11:25	121909–1
	Silver	1.0	+/–5	U	1.0	5.0	LIQ	P	19–DEC–09 11:25	121909–1
	Sodium	100	+/–300	U	100	300	LIQ	P	19–DEC–09 11:25	121909–1
	Titanium	1.0	+/–5	U	1.0	5.0	LIQ	P	19–DEC–09 11:25	121909–1
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	19–DEC–09 11:25	121909–1
	Zinc	3.3	+/–10	U	3.3	10.0	LIQ	P	19–DEC–09 11:25	121909–1
	Antimony	1.0	+/–3	U	1.0	3.0	LIQ	MS	22–DEC–09 21:40	091222–2
	Cadmium	0.11	+/–1	U	0.11	1.0	LIQ	MS	22–DEC–09 21:40	091222–2
	Lead	0.5	+/–2	U	0.5	2.0	LIQ	MS	22–DEC–09 21:40	091222–2
	Thallium	0.3	+/–1	U	0.3	1.0	LIQ	MS	22–DEC–09 21:40	091222–2
	Uranium	0.05	+/–.2	U	0.05	0.2	LIQ	MS	22–DEC–09 21:40	091222–2
CCB05										
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	19–DEC–09 12:11	121909–1
	Arsenic	5.0	+/–30	U	5.0	30.0	LIQ	P	19–DEC–09 12:11	121909–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	19–DEC–09 12:11	121909–1
	Boron	15.0	+/–50	U	15.0	50.0	LIQ	P	19–DEC–09 12:11	121909–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	19–DEC–09 12:11	121909–1
	Chromium	1.0	+/–5	U	1.0	5.0	LIQ	P	19–DEC–09 12:11	121909–1
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	19–DEC–09 12:11	121909–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	19–DEC–09 12:11	121909–1
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	19–DEC–09 12:11	121909–1
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	19–DEC–09 12:11	121909–1
	Nickel	1.5	+/–5	U	1.5	5.0	LIQ	P	19–DEC–09 12:11	121909–1
	Potassium	50.0	+/–150	U	50.0	150	LIQ	P	19–DEC–09 12:11	121909–1
	Selenium	5.0	+/–30	U	5.0	30.0	LIQ	P	19–DEC–09 12:11	121909–1
	Silicon	25.0	+/–100	U	25.0	100	LIQ	P	19–DEC–09 12:11	121909–1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10-887-1

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Silver	1.0	+/-5	U	1.0	5.0	LIQ	P	19-DEC-09 12:11	121909-1
	Sodium	100	+/-300	U	100	300	LIQ	P	19-DEC-09 12:11	121909-1
	Titanium	1.0	+/-5	U	1.0	5.0	LIQ	P	19-DEC-09 12:11	121909-1
	Vanadium	1.0	+/-5	U	1.0	5.0	LIQ	P	19-DEC-09 12:11	121909-1
	Zinc	3.3	+/-10	U	3.3	10.0	LIQ	P	19-DEC-09 12:11	121909-1
	Antimony	1.0	+/-3	U	1.0	3.0	LIQ	MS	22-DEC-09 22:32	091222-2
	Cadmium	0.11	+/-1	U	0.11	1.0	LIQ	MS	22-DEC-09 22:32	091222-2
	Lead	0.5	+/-2	U	0.5	2.0	LIQ	MS	22-DEC-09 22:32	091222-2
	Thallium	0.3	+/-1	U	0.3	1.0	LIQ	MS	22-DEC-09 22:32	091222-2
	Uranium	0.05	+/-.2	U	0.05	0.2	LIQ	MS	22-DEC-09 22:32	091222-2
CCB06										
	Aluminum	68.0	+/-200	U	68.0	200	LIQ	P	19-DEC-09 13:14	121909-1
	Arsenic	5.0	+/-30	U	5.0	30.0	LIQ	P	19-DEC-09 13:14	121909-1
	Barium	1.0	+/-5	U	1.0	5.0	LIQ	P	19-DEC-09 13:14	121909-1
	Boron	15.0	+/-50	U	15.0	50.0	LIQ	P	19-DEC-09 13:14	121909-1
	Calcium	50.0	+/-200	U	50.0	200	LIQ	P	19-DEC-09 13:14	121909-1
	Chromium	1.0	+/-5	U	1.0	5.0	LIQ	P	19-DEC-09 13:14	121909-1
	Cobalt	1.0	+/-5	U	1.0	5.0	LIQ	P	19-DEC-09 13:14	121909-1
	Copper	3.0	+/-10	U	3.0	10.0	LIQ	P	19-DEC-09 13:14	121909-1
	Iron	30.0	+/-100	U	30.0	100	LIQ	P	19-DEC-09 13:14	121909-1
	Magnesium	85.0	+/-300	U	85.0	300	LIQ	P	19-DEC-09 13:14	121909-1
	Nickel	1.5	+/-5	U	1.5	5.0	LIQ	P	19-DEC-09 13:14	121909-1
	Potassium	50.0	+/-150	U	50.0	150	LIQ	P	19-DEC-09 13:14	121909-1
	Selenium	5.0	+/-30	U	5.0	30.0	LIQ	P	19-DEC-09 13:14	121909-1
	Silicon	25.0	+/-100	U	25.0	100	LIQ	P	19-DEC-09 13:14	121909-1
	Silver	1.0	+/-5	U	1.0	5.0	LIQ	P	19-DEC-09 13:14	121909-1
	Sodium	100	+/-300	U	100	300	LIQ	P	19-DEC-09 13:14	121909-1
	Titanium	1.0	+/-5	U	1.0	5.0	LIQ	P	19-DEC-09 13:14	121909-1
	Vanadium	1.0	+/-5	U	1.0	5.0	LIQ	P	19-DEC-09 13:14	121909-1
	Zinc	3.3	+/-10	U	3.3	10.0	LIQ	P	19-DEC-09 13:14	121909-1

METALS
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PREPARATION BLANK SUMMARY

SDG NO. 10-887-1
Contract: LANL01004
Matrix: WATER

Sample ID	Analyte	Result	Units	Acceptance Window	Conc Qual	M	MDL	RDL
1201994208								
	Silver	1	ug/L	+/-5	U	P	1	5
	Sodium	100	ug/L	+/-300	U	P	100	300
	Aluminum	68	ug/L	+/-200	U	P	68	200
	Arsenic	5	ug/L	+/-30	U	P	5	30
	Barium	1.78	ug/L	+/-5	J	P	1	5
	Boron	15	ug/L	+/-50	U	P	15	50
	Calcium	50	ug/L	+/-200	U	P	50	200
	Chromium	1	ug/L	+/-5	U	P	1	5
	Cobalt	1	ug/L	+/-5	U	P	1	5
	Copper	3	ug/L	+/-10	U	P	3	10
	Iron	30	ug/L	+/-100	U	P	30	100
	Magnesium	85	ug/L	+/-300	U	P	85	300
	Nickel	1.5	ug/L	+/-5	U	P	1.5	5
	Potassium	50	ug/L	+/-150	U	P	50	150
	Selenium	5	ug/L	+/-30	U	P	5	30
	Silicon	25	ug/L	+/-100	U	P	25	100
	Titanium	1	ug/L	+/-5	U	P	1	5
	Vanadium	1	ug/L	+/-5	U	P	1	5
	Zinc	3.3	ug/L	+/-10	U	P	3.3	10
1201994293								
	Antimony	1	ug/L	+/-3	U	MS	1	3
	Beryllium	0.1	ug/L	+/-0.5	U	MS	0.1	0.5
	Cadmium	0.11	ug/L	+/-1	U	MS	0.11	1
	Lead	0.5	ug/L	+/-2	U	MS	0.5	2
	Lithium	2	ug/L	+/-10	U	MS	2	10
	Manganese	1	ug/L	+/-5	U	MS	1	5
	Thallium	0.3	ug/L	+/-1	U	MS	0.3	1
	Uranium	0.05	ug/L	+/-0.2	U	MS	0.05	0.2
1202000160								
	Mercury	0.066	ug/L	+/-0.2	U	AV	0.066	0.2

METALS
-4-
Interference Check Sample

SDG No: 10-887-1

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Aluminum	522000	ug/L	500000	ug/L	104	80.0 – 120.0	19-DEC-09 08:11	121909-1
	Arsenic	-0.108	ug/L					19-DEC-09 08:11	121909-1
	Barium	2.26	ug/L					19-DEC-09 08:11	121909-1
	Boron	-5.38	ug/L					19-DEC-09 08:11	121909-1
	Calcium	485000	ug/L	500000	ug/L	97	80.0 – 120.0	19-DEC-09 08:11	121909-1
	Chromium	1.8	ug/L					19-DEC-09 08:11	121909-1
	Cobalt	-1.27	ug/L					19-DEC-09 08:11	121909-1
	Copper	2.3	ug/L					19-DEC-09 08:11	121909-1
	Iron	190000	ug/L	200000	ug/L	95.1	80.0 – 120.0	19-DEC-09 08:11	121909-1
	Magnesium	496000	ug/L	500000	ug/L	99.1	80.0 – 120.0	19-DEC-09 08:11	121909-1
	Nickel	4.21	ug/L					19-DEC-09 08:11	121909-1
	Potassium	7.68	ug/L					19-DEC-09 08:11	121909-1
	Selenium	-22.4	ug/L					19-DEC-09 08:11	121909-1
	Silicon	-0.353	ug/L					19-DEC-09 08:11	121909-1
	Silver	0.47	ug/L					19-DEC-09 08:11	121909-1
	Sodium	20.1	ug/L					19-DEC-09 08:11	121909-1
	Titanium	0.368	ug/L					19-DEC-09 08:11	121909-1
	Vanadium	-0.645	ug/L					19-DEC-09 08:11	121909-1
	Zinc	-8.3	ug/L					19-DEC-09 08:11	121909-1
ICSAB01									
	Aluminum	522000	ug/L	500000	ug/L	104	80.0 – 120.0	19-DEC-09 08:17	121909-1
	Arsenic	492	ug/L	500	ug/L	98.3	80.0 – 120.0	19-DEC-09 08:17	121909-1
	Barium	476	ug/L	500	ug/L	95.2	80.0 – 120.0	19-DEC-09 08:17	121909-1
	Boron	496	ug/L	500	ug/L	99.2	80.0 – 120.0	19-DEC-09 08:17	121909-1
	Calcium	483000	ug/L	500000	ug/L	96.6	80.0 – 120.0	19-DEC-09 08:17	121909-1
	Chromium	466	ug/L	500	ug/L	93.3	80.0 – 120.0	19-DEC-09 08:17	121909-1
	Cobalt	425	ug/L	500	ug/L	84.9	80.0 – 120.0	19-DEC-09 08:17	121909-1
	Copper	531	ug/L	500	ug/L	106	80.0 – 120.0	19-DEC-09 08:17	121909-1
	Iron	189000	ug/L	200000	ug/L	94.4	80.0 – 120.0	19-DEC-09 08:17	121909-1

METALS
–4–
Interference Check Sample

SDG No: 10–887–1

Contract: LANL01004 **Lab Code:** GEL

ICS:

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
	Magnesium	492000	ug/L	500000	ug/L	98.4	80.0 – 120.0	19–DEC–09 08:17	121909–1
	Nickel	432	ug/L	500	ug/L	86.4	80.0 – 120.0	19–DEC–09 08:17	121909–1
	Potassium	5600	ug/L	5000	ug/L	112	80.0 – 120.0	19–DEC–09 08:17	121909–1
	Selenium	2450	ug/L	2500	ug/L	97.9	80.0 – 120.0	19–DEC–09 08:17	121909–1
	Silicon	5000	ug/L	5000	ug/L	100	80.0 – 120.0	19–DEC–09 08:17	121909–1
	Silver	266	ug/L	250	ug/L	107	80.0 – 120.0	19–DEC–09 08:17	121909–1
	Sodium	5500	ug/L	5000	ug/L	110	80.0 – 120.0	19–DEC–09 08:17	121909–1
	Titanium	487	ug/L	500	ug/L	97.4	80.0 – 120.0	19–DEC–09 08:17	121909–1
	Vanadium	489	ug/L	500	ug/L	97.8	80.0 – 120.0	19–DEC–09 08:17	121909–1
	Zinc	464	ug/L	500	ug/L	92.7	80.0 – 120.0	19–DEC–09 08:17	121909–1

METALS
-4-
Interference Check Sample

SDG No: 10-887-1

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: ICPMS3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Antimony	-0.492	ug/L					22-DEC-09 19:39	091222-2
	Cadmium	0.379	ug/L					22-DEC-09 19:39	091222-2
	Lead	0.177	ug/L					22-DEC-09 19:39	091222-2
	Thallium	-0.129	ug/L					22-DEC-09 19:39	091222-2
	Uranium	-0.006	ug/L					22-DEC-09 19:39	091222-2
ICSAB01									
	Antimony	21.5	ug/L	20.1	ug/L	107	80.0 - 120.0	22-DEC-09 19:45	091222-2
	Cadmium	20.5	ug/L	20.4	ug/L	100	80.0 - 120.0	22-DEC-09 19:45	091222-2
	Lead	19.7	ug/L	20.5	ug/L	96.3	80.0 - 120.0	22-DEC-09 19:45	091222-2
	Thallium	18.7	ug/L	20	ug/L	93.6	80.0 - 120.0	22-DEC-09 19:45	091222-2
	Uranium	21.6	ug/L	20	ug/L	108	80.0 - 120.0	22-DEC-09 19:45	091222-2

METALS
–4–
Interference Check Sample

SDG No: 10–887–1

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: ICPMS3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Beryllium	0.174	ug/L					23–DEC–09 18:31	091223–3
	Lithium	–0.017	ug/L					23–DEC–09 18:31	091223–3
	Manganese	6.1	ug/L					23–DEC–09 18:31	091223–3
ICSAB01									
	Beryllium	21.5	ug/L	20	ug/L	108	80.0 – 120.0	23–DEC–09 18:34	091223–3
	Lithium	20.4	ug/L	20	ug/L	102	80.0 – 120.0	23–DEC–09 18:34	091223–3
	Manganese	26.3	ug/L	25.8	ug/L	102	80.0 – 120.0	23–DEC–09 18:34	091223–3

METALS
-5a-
Matrix Spike Summary

SDG NO. 10-887-1 **Client ID** RE03-10-5529S

Contract: LANL01004 **Level:** Low

Matrix: WATER **% Solids:**

Sample ID: 242782001 **Spike ID:** 1201994211

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Aluminum	ug/L	75-125	5030		68	U	5000	100		P
Arsenic	ug/L	75-125	488		5	U	500	97.1		P
Barium	ug/L	75-125	500		1	U	500	99.9		P
Boron	ug/L	75-125	474		15	U	500	94.8		P
Calcium	ug/L	75-125	4940		50	U	5000	98.4		P
Chromium	ug/L	75-125	488		1	U	500	97.5		P
Cobalt	ug/L	75-125	477		1	U	500	95.2		P
Copper	ug/L	75-125	495		3	U	500	99		P
Iron	ug/L	75-125	5150		30	U	5000	103		P
Magnesium	ug/L	75-125	5080		85	U	5000	99.9		P
Nickel	ug/L	75-125	485		1.5	U	500	97		P
Potassium	ug/L	75-125	5040		50	U	5000	100		P
Selenium	ug/L	75-125	491		5	U	500	97.8		P
Silicon	ug/L	75-125	7070		2240		5000	96.7		P
Silver	ug/L	75-125	482		1	U	500	96.3		P
Sodium	ug/L	75-125	5100		100	U	5000	102		P
Titanium	ug/L	75-125	490		1	U	500	98		P
Vanadium	ug/L	75-125	495		1	U	500	98.9		P
Zinc	ug/L	75-125	474		3.3	U	500	94.5		P

METALS
-5a-

Matrix Spike Summary

SDG NO. 10-887-1 **Client ID** RE03-10-5531S

Contract: LANL01004 **Level:** Low

Matrix: WATER **% Solids:**

Sample ID: 242782002 **Spike ID:** 1201994296

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Antimony	ug/L	75-125	224		1	U	200	112		MS
Beryllium	ug/L	75-125	55.8		0.1	U	50	112		MS
Cadmium	ug/L	75-125	10.6		0.11	U	10	106		MS
Lead	ug/L	75-125	43		0.5	U	40	106		MS
Lithium	ug/L	75-125	53		2	U	50	106		MS
Manganese	ug/L	75-125	60.8		6.17		50	109		MS
Thallium	ug/L	75-125	98.6		0.3	U	100	98.6		MS
Uranium	ug/L	75-125	56.3		0.05	U	50	112		MS

METALS
-5a-
Matrix Spike Summary

SDG NO. 10-887-1 **Client ID** RE16-10-225S

Contract: LANL01004 **Level:** Low

Matrix: WATER **% Solids:**

Sample ID: 243108001 **Spike ID:** 1202000163

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Mercury	ug/L	75-125	2.07		0.066	U	2	104		AV

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–887–1

Contract: LANL01004 **Lab Code:** GEL

Matrix: LIQUID **Level:** Low **Client ID:** RE03–10–5529D

Sample ID: 242782001 **Duplicate ID:** 1201994210 **Percent Solids for Dup:** N/A

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	ug/L		68	U	88.1	J	200		P
Arsenic	ug/L		5	U	5	U			P
Barium	ug/L		1	U	1.21	J	200		P
Boron	ug/L		15	U	15	U			P
Calcium	ug/L		50	U	50	U			P
Chromium	ug/L		1	U	2.54	J	200		P
Cobalt	ug/L		1	U	1	U			P
Copper	ug/L		3	U	3	U			P
Iron	ug/L	+/–100	1.1	U	115		196	*	P
Magnesium	ug/L		85	U	85	U			P
Nickel	ug/L		1.5	U	1.5	U			P
Potassium	ug/L		50	U	65.8	J	200		P
Selenium	ug/L		5	U	5	U			P
Silicon	ug/L	+/–20%	2240		2170		3.19		P
Silver	ug/L		1	U	1	U			P
Sodium	ug/L		100	U	121	J	200		P
Titanium	ug/L		1	U	2.56	J	200		P
Vanadium	ug/L		1	U	1	U			P
Zinc	ug/L		3.3	U	3.3	U			P

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–887–1

Contract: LANL01004 **Lab Code:** GEL

Matrix: LIQUID **Level:** Low **Client ID:** RE03–10–5531D

Sample ID: 242782002 **Duplicate ID:** 1201994295 **Percent Solids for Dup:** N/A

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Antimony	ug/L		1	U	1	U			MS
Beryllium	ug/L		0.1	U	0.1	U			MS
Cadmium	ug/L		0.11	U	0.11	U			MS
Lead	ug/L		0.5	U	0.5	U			MS
Lithium	ug/L		2	U	2	U			MS
Manganese	ug/L	+/–5	6.17		6.17		.0811		MS
Thallium	ug/L		0.3	U	0.3	U			MS
Uranium	ug/L		0.05	U	0.05	U			MS

Metals
-6-
Duplicate Sample Summary

SDG No.: 10-887-1

Contract: LANL01004 **Lab Code:** GEL

Matrix: LIQUID **Level:** Low **Client ID:** RE16-10-225D

Sample ID: 243108001 **Duplicate ID:** 1202000162 **Percent Solids for Dup:** N/A

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Mercury	ug/L		0.066	U	0.066	U			AV

METALS
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Laboratory Control Sample Summary

SDG NO. 10-887-1

Contract: LANL01004

Aqueous LCS Source:OS2I **Solid LCS Source:**

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1201994209								
	Aluminum	ug/L	5000	4910		98.3	80-120	P
	Arsenic	ug/L	500	487		97.5	80-120	P
	Barium	ug/L	500	498		99.6	80-120	P
	Boron	ug/L	500	473		94.6	80-120	P
	Calcium	ug/L	5000	4920		98.4	80-120	P
	Chromium	ug/L	500	493		98.5	80-120	P
	Cobalt	ug/L	500	474		94.9	80-120	P
	Copper	ug/L	500	500		100	80-120	P
	Iron	ug/L	5000	5040		101	80-120	P
	Magnesium	ug/L	5000	5100		102	80-120	P
	Nickel	ug/L	500	490		98.1	80-120	P
	Potassium	ug/L	5000	4970		99.3	80-120	P
	Selenium	ug/L	500	496		99.2	80-120	P
	Silicon	ug/L	5000	4860		97.2	80-120	P
	Silver	ug/L	500	482		96.3	80-120	P
	Sodium	ug/L	5000	4960		99.2	80-120	P
	Titanium	ug/L	500	494		98.9	80-120	P
	Vanadium	ug/L	500	502		100	80-120	P
	Zinc	ug/L	500	481		96.3	80-120	P

METALS
-7-
Laboratory Control Sample Summary

SDG NO. 10-887-1

Contract: LANL01004

Aqueous LCS Source:O2si **Solid LCS Source:**

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1201994294								
	Antimony	ug/L	50	53.9		108	80-120	MS
	Beryllium	ug/L	50	55.8		112	80-120	MS
	Cadmium	ug/L	50	51.9		104	80-120	MS
	Lead	ug/L	50	52.4		105	80-120	MS
	Lithium	ug/L	50	52.6		105	80-120	MS
	Manganese	ug/L	50	54.7		109	80-120	MS
	Thallium	ug/L	50	48.9		97.9	80-120	MS
	Uranium	ug/L	50	55.8		112	80-120	MS

METALS
-7-
Laboratory Control Sample Summary

SDG NO. 10-887-1

Contract: LANL01004

Aqueous LCS Source: GEL **Solid LCS Source:**

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202000161								
	Mercury	ug/L	2	2.02		101	80-120	AV

METALS
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Serial Dilution Sample Summary

SDG NO. 10-887-1 **Client ID** RE03-10-5529L

Contract: LANL01004

Matrix: LIQUID **Level:** Low

Sample ID: 242782001 **Serial Dilution ID:** 1201994212

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Aluminum	68	U	340	U				P
Arsenic	5	U	25	U				P
Barium	1	U	5	U				P
Boron	15	U	75	U				P
Calcium	50	U	250	U				P
Chromium	1	U	5	U				P
Cobalt	1	U	5	U				P
Copper	3	U	15	U				P
Iron	30	U	150	U				P
Magnesium	85	U	425	U				P
Nickel	1.5	U	7.5	U				P
Potassium	50	U	250	U				P
Selenium	5	U	25	U				P
Silicon	2240		2220		1.12		10	P
Silver	1	U	5	U				P
Sodium	100	U	500	U				P
Titanium	1	U	5	U				P
Vanadium	1	U	5	U				P
Zinc	3.3	U	16.5	U				P

METALS
-9-
Serial Dilution Sample Summary

SDG NO. 10-887-1 **Client ID** RE03-10-5531L

Contract: LANL01004

Matrix: LIQUID **Level:** Low

Sample ID: 242782002 **Serial Dilution ID:** 1201994297

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Antimony	1	U	5	U				MS
Beryllium	.1	U	.5	U				MS
Cadmium	.11	U	.55	U				MS
Lead	.5	U	2.5	U				MS
Lithium	2	U	10	U				MS
Manganese	6.17		6.05	J	1.94			MS
Thallium	.3	U	1.5	U				MS
Uranium	.05	U	.25	U				MS

METALS
–9–
Serial Dilution Sample Summary

SDG NO. 10–887–1 **Client ID** RE16–10–225L

Contract: LANL01004

Matrix: LIQUID **Level:** Low

Sample ID: 243108001 **Serial Dilution ID:** 1202000164

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Mercury	.066	U	.33	U				AV

METALS
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SAMPLE PREPARATION SUMMARY

SDG No: 10-887-1 **Method Type:** P

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number	932269						
1201994208	MB for batch 932269	MB	W	16-DEC-09	50mL	50mL	
1201994209	LCS for batch 932269	LCS	W	16-DEC-09	50mL	50mL	
1201994211	RE03-10-5529S	MS	W	16-DEC-09	50mL	50mL	
1201994210	RE03-10-5529D	DUP	W	16-DEC-09	50mL	50mL	
242782001	RE03-10-5529	SAMPLE	W	16-DEC-09	50mL	50mL	
242782002	RE03-10-5531	SAMPLE	W	16-DEC-09	50mL	50mL	

METALS
-13-
SAMPLE PREPARATION SUMMARY

SDG No: 10-887-1 **Method Type:** MS

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number	932311						
1201994293	MB for batch 932311	MB	W	16-DEC-09	50mL	50mL	
1201994294	LCS for batch 932311	LCS	W	16-DEC-09	50mL	50mL	
1201994296	RE03-10-5531S	MS	W	16-DEC-09	50mL	50mL	
1201994295	RE03-10-5531D	DUP	W	16-DEC-09	50mL	50mL	
242782001	RE03-10-5529	SAMPLE	W	16-DEC-09	50mL	50mL	
242782002	RE03-10-5531	SAMPLE	W	16-DEC-09	50mL	50mL	

METALS
-13-
SAMPLE PREPARATION SUMMARY

SDG No: 10-887-1 **Method Type:** AV

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number	934863						
1202000160	MB for batch 934863	MB	W	22-DEC-09	20mL	20mL	
1202000161	LCS for batch 934863	LCS	W	22-DEC-09	20mL	20mL	
1202000163	RE16-10-225S	MS	W	22-DEC-09	20mL	20mL	
1202000162	RE16-10-225D	DUP	W	22-DEC-09	20mL	20mL	
242782001	RE03-10-5529	SAMPLE	W	22-DEC-09	20mL	20mL	
242782002	RE03-10-5531	SAMPLE	W	22-DEC-09	20mL	20mL	

Metals
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Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: OPTIMA3
Start Date: 19–DEC–09 **End Date:** 19–DEC–09

Client Sdg: 10–887–1
Method P
Data File: 121909–1

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Li	Mg	Mn	Hg	Ni	K	Se	Si	Ag	Na	Tl	Ti	U	V	Zn
S0.0	1	07:18	X		X	X		X		X	X	X	X	X			X			X	X	X	X	X	X		X		X	X
S0.1	1	07:25			X	X		X			X	X	X							X	X	X	X	X			X		X	X
S0.5	1	07:31	X		X	X		X		X	X	X	X				X			X	X	X	X	X			X		X	X
SCAL	1	07:38	X		X	X		X		X	X	X	X	X			X			X	X	X	X	X	X		X		X	X
S10	1	07:45	X							X				X			X								X					
ICV01	1	07:51	X		X	X		X		X	X	X	X	X			X			X	X	X	X	X	X		X		X	X
ICB01	1	07:58	X		X	X		X		X	X	X	X	X			X			X	X	X	X	X	X		X		X	X
PQL01	1	08:04	X		X	X		X		X	X	X	X	X			X			X	X	X	X	X	X		X		X	X
ICSA01	1	08:11	X		X	X		X		X	X	X	X	X			X			X	X	X	X	X	X		X		X	X
ICSAB01	1	08:17	X		X	X		X		X	X	X	X	X			X			X	X	X	X	X	X		X		X	X
LR01	1	08:23	X		X	X		X		X	X	X	X	X			X			X	X	X	X	X	X		X		X	X
LR02	1	08:29	X		X	X		X		X	X	X	X	X			X			X	X	X	X	X	X		X		X	X
CCV01	1	08:36	X		X	X		X		X	X	X	X	X			X			X	X	X	X	X	X		X		X	X
CCB01	1	08:43	X		X	X		X		X	X	X	X	X			X			X	X	X	X	X	X		X		X	X
LR03	1	08:54	X		X	X		X		X	X	X	X	X			X			X	X	X	X	X	X		X		X	X
CCV02	1	09:05	X		X	X		X		X	X	X	X	X			X			X	X	X	X	X	X		X		X	X
CCB02	1	09:12	X		X	X		X		X	X	X	X	X			X			X	X	X	X	X	X		X		X	X
ZZZZZZ	1	09:19																												
ZZZZZZ	1	09:26																												
ZZZZZZ	1	09:33																												
ZZZZZZ	1	09:40																												
ZZZZZZ	1	09:46																												
ZZZZZZ	1	09:53																												
ZZZZZZ	1	10:00																												
ZZZZZZ	1	10:07																												
CCV03	1	10:14	X		X	X		X		X	X	X	X	X			X			X	X	X	X	X	X		X		X	X
CCB03	1	10:21	X		X	X		X		X	X	X	X	X			X			X	X	X	X	X	X		X		X	X
ZZZZZZ	1	10:30																												
ZZZZZZ	1	10:37																												
ZZZZZZ	1	10:44																												
ZZZZZZ	1	10:50																												
ZZZZZZ	1	10:57																												
ZZZZZZ	5	11:04																												
ZZZZZZ	1	11:11																												
CCV04	1	11:18	X		X	X		X		X	X	X	X	X			X			X	X	X	X	X	X		X		X	X
CCB04	1	11:25	X		X	X		X		X	X	X	X	X			X			X	X	X	X	X	X		X		X	X
ZZZZZZ	5	11:30																												
ZZZZZZ	5	11:37																												
ZZZZZZ	5	11:43																												
ZZZZZZ	25	11:50																												

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time																											
ZZZZZZ	5	11:57																											
CCV05	1	12:04	X		X	X		X		X	X	X	X	X			X			X	X	X	X	X	X		X		X	X
CCB05	1	12:11	X		X	X		X		X	X	X	X	X			X			X	X	X	X	X	X		X		X	X
1201994208	1	12:19	X		X	X		X		X	X	X	X	X			X			X	X	X	X	X	X		X		X	X
1201994209	1	12:26	X		X	X		X		X	X	X	X	X			X			X	X	X	X	X	X		X		X	X
242782001	1	12:32	X		X	X		X		X	X	X	X	X			X			X	X	X	X	X	X		X		X	X
1201994210	1	12:39	X		X	X		X		X	X	X	X	X			X			X	X	X	X	X	X		X		X	X
1201994211	1	12:46	X		X	X		X		X	X	X	X	X			X			X	X	X	X	X	X		X		X	X
1201994212	5	12:53	X		X	X		X		X	X	X	X	X			X			X	X	X	X	X	X		X		X	X
242782002	1	13:00	X		X	X		X		X	X	X	X	X			X			X	X	X	X	X	X		X		X	X
CCV06	1	13:07	X		X	X		X		X	X	X	X	X			X			X	X	X	X	X	X		X		X	X
CCB06	1	13:14	X		X	X		X		X	X	X	X	X			X			X	X	X	X	X	X		X		X	X

Metals
-14-
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: MER536
Start Date: 23-DEC-09 **End Date:** 23-DEC-09

Client Sdg: 10-887-1
Method AV
Data File: 122309W1-4

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Li	Mg	Mn	Hg	Ni	K	Se	Si	Ag	Na	Tl	Ti	U	V	Zn
S0.0	1	08:17																	X											
S0.2	1	08:19																	X											
S0.5	1	08:20																	X											
S2.0	1	08:22																	X											
S5.0	1	08:24																	X											
S10	1	08:26																	X											
ICV01	1	08:29																	X											
ICB01	1	08:30																	X											
CRDL01	1	08:32																	X											
CCV01	1	08:34																	X											
CCB01	1	08:36																	X											
1202000160	1	08:38																	X											
1202000161	1	08:40																	X											
ZZZZZZ	1	08:42																												
ZZZZZZ	1	08:44																												
242782001	1	08:47																	X											
242782002	1	08:49																	X											
ZZZZZZ	1	08:50																												
ZZZZZZ	1	08:52																												
ZZZZZZ	1	08:54																												
ZZZZZZ	1	08:56																												
CCV02	1	08:58																	X											
CCB02	1	09:00																	X											
1202000162	1	09:02																	X											
1202000163	1	09:04																	X											
1202000164	5	09:06																	X											
ZZZZZZ	1	09:08																												
ZZZZZZ	1	09:10																												
ZZZZZZ	1	09:12																												
ZZZZZZ	1	09:14																												
ZZZZZZ	1	09:16																												
ZZZZZZ	1	09:18																												
ZZZZZZ	5	09:20																												
CCV03	1	09:22																	X											
CCB03	1	09:24																	X											

Metals
-14-
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: ICPMS3
Start Date: 22-DEC-09 **End Date:** 22-DEC-09

Client Sdg: 10-887-1
Method MS
Data File: 091222-2

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Li	Mg	Mn	Hg	Ni	K	Se	Si	Ag	Na	Tl	Ti	U	V	Zn
S0.0	1	19:05		X					X						X											X		X		
S10	1	19:11		X					X						X											X		X		
S100	1	19:16		X					X						X											X		X		
ICV01	1	19:22		X					X						X											X		X		
ICB01	1	19:28		X					X						X											X		X		
CRDL01	1	19:33		X					X						X											X		X		
ICSA01	1	19:39		X					X						X											X		X		
ICSAB01	1	19:45		X					X						X											X		X		
CCV01	1	19:51		X					X						X											X		X		
CCB01	1	19:56		X					X						X											X		X		
LR01	1	20:02		X					X						X											X		X		
CCV02	1	20:08		X					X						X											X		X		
CCB02	1	20:14		X					X						X											X		X		
ZZZZZZ	1	20:19																												
ZZZZZZ	1	20:25																												
ZZZZZZ	1	20:31																												
ZZZZZZ	1	20:37																												
ZZZZZZ	1	20:42																												
ZZZZZZ	1	20:48																												
CCV03	1	20:54		X					X						X											X		X		
CCB03	1	21:00		X					X						X											X		X		
ZZZZZZ	1	21:05																												
ZZZZZZ	1	21:11																												
ZZZZZZ	1	21:17																												
ZZZZZZ	5	21:23																												
ZZZZZZ	1	21:28																												
CCV04	1	21:34		X					X						X											X		X		
CCB04	1	21:40		X					X						X											X		X		
1201994293	1	21:46		X					X						X											X		X		
1201994294	1	21:51		X					X						X											X		X		
242782001	1	21:57		X					X						X											X		X		
242782002	1	22:03		X					X						X											X		X		
1201994295	1	22:09		X					X						X											X		X		
1201994296	1	22:14		X					X						X											X		X		
1201994297	5	22:20		X					X						X											X		X		
CCV05	1	22:26		X					X						X											X		X		
CCB05	1	22:32		X					X						X											X		X		

Metals
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Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: ICPMS3
Start Date: 23-DEC-09 **End Date:** 23-DEC-09

Client Sdg: 10-887-1
Method MS
Data File: 091223-3

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Li	Mg	Mn	Hg	Ni	K	Se	Si	Ag	Na	Tl	Ti	U	V	Zn
S0.0	1	18:18					X									X		X												
S10	1	18:20					X									X		X												
S100	1	18:22					X									X		X												
ICV01	1	18:24					X									X		X												
ICB01	1	18:27					X									X		X												
CRDL01	1	18:29					X									X		X												
ICSA01	1	18:31					X									X		X												
ICSAB01	1	18:34					X									X		X												
CCV01	1	18:36					X									X		X												
CCB01	1	18:38					X									X		X												
LR01	1	18:41					X									X		X												
CCV02	1	18:43					X									X		X												
CCB02	1	18:45					X									X		X												
1201994293	1	18:48					X									X		X												
1201994294	1	18:50					X									X		X												
242782001	1	18:52					X									X		X												
242782002	1	18:55					X									X		X												
1201994295	1	18:57					X									X		X												
1201994296	1	18:59					X									X		X												
1201994297	5	19:01					X									X		X												
CCV03	1	19:04					X									X		X												
CCB03	1	19:06					X									X		X												

Standards

METALS
-10-
Instrument Detection Limits

SDG NO. 10-887-1

Contract: LANL01004 **Lab Code: GEL** **MDL Effective Date:** 01-JUL-09

ICP/MS	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
LIQUID	Aluminum		15.0	30
	Antimony		1.0	3
	Arsenic		1.6	5
	Barium		0.6	2
	Beryllium		0.1	.5
	Boron		4.0	15
	Cadmium		0.11	1
	Calcium		65.0	200
	Chromium		2.0	10
	Cobalt		0.1	1
	Copper		0.33	1
	Iron		33.0	100
	Lead		0.5	2
	Lithium		2.0	10
	Magnesium		5.2	15
	Manganese		1.0	5
	Nickel		0.5	2
	Potassium		80.0	300
	Selenium		1.0	5
	Silver		0.2	1
	Sodium		80.0	250
	Thallium		0.3	1
	Titanium		2.0	10
	Uranium		0.05	.2
	Vanadium		3.0	10
	Zinc		3.0	10

METALS
-10-
Instrument Detection Limits

SDG NO. 10-887-1

Contract: LANL01004 **Lab Code: GEL** **MDL Effective Date:** 01-JUL-09

MERCURY	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
LIQUID	Mercury		0.066	.2

METALS
-10-
Instrument Detection Limits

SDG NO. 10-887-1

Contract: LANL01004 **Lab Code: GEL** **MDL Effective Date:** 01-JUL-09

ICP	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
LIQUID	Aluminum	396.153	68.0	200
	Antimony	206.836	3.0	10
	Arsenic	188.979	5.0	30
	Barium	233.527	1.0	5
	Beryllium	313.107	1.0	5
	Boron	249.677	15.0	50
	Cadmium	226.502	1.0	5
	Calcium	317.933	50.0	200
	Chromium	267.716	1.0	5
	Cobalt	228.616	1.0	5
	Copper	324.752	3.0	10
	Iron	238.204	30.0	100
	Lead	220.353	3.3	10
	Magnesium	279.077	85.0	300
	Manganese	257.61	2.0	10
	Nickel	231.604	1.5	5
	Potassium	766.49	50.0	150
	Selenium	196.026	5.0	30
	Silicon	251.611	25.0	100
	Silver	328.068	1.0	5
	Sodium	589.592	100	300
	Thallium	190.801	5.0	20
	Titanium	334.94	1.0	5
	Uranium	409.014	10.0	50
	Vanadium	292.402	1.0	5
	Zinc	213.857	3.3	10

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA3
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-887-1
Effective Dates: 01-NOV-09

Parmname	Wavelength	Aluminum	Antimony	Arsenic	Barium	Beryllium
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.02738	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	-0.44940	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	-0.22121	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	-0.33886	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	-0.13648	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	-0.05571	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.19671	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	-0.02739	0.00000	0.00000	0.00000	0.00000
Tin	189.927	-0.00058	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA3
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-887-1
Effective Dates: 01-NOV-09

Parmname	Wavelength	Boron	Cadmium	Chromium	Cobalt	Copper
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	24.5549	0.00000	0.00000
Arsenic	188.979	0.52529	0.00000	-0.67113	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	2.54031	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.38952	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	-31.5465	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	0.78023
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.63859	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	160.41
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	5.22870	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.35099	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	1.93161	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.39273	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	1.19810

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA3
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-887-1
Effective Dates: 01-NOV-09

Parmname	Wavelength	Iron	Lead	Magnesium	Manganese	Molybdenum
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	42.8126
Antimony	206.836	-0.01635	0.00000	0.00000	0.00000	-22.2146
Arsenic	188.979	-0.21271	0.00000	0.00000	0.00000	1.34645
Barium	233.527	-0.03709	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.13266	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.09998	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	-0.01788	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.01425	0.00000	0.00000	0.00000	-2.64232
Copper	324.752	-0.05101	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.09069	0.00000	0.00000	0.00000	-2.44485
Magnesium	279.077	0.85543	0.00000	0.00000	0.00000	-20.2401
Manganese	257.61	-0.09972	0.00000	0.01862	0.00000	0.00000
Molybdenum	202.031	-0.07094	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.80633	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	-0.03176	0.00000	0.01823	12.4291	-3.60863
Selenium	196.026	-3.00009	0.00000	0.00000	0.00000	-3.17982
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	17.4444
Silver	328.068	-0.31825	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	-5.85948	0.00000
Tin	189.927	-0.01337	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.12581	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.15211	0.00000	-0.02256	0.00000	-14.2921
Zinc	213.857	0.09548	0.00000	0.03423	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA3
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-887-1
Effective Dates: 01-NOV-09

Parmname	Wavelength	Nickel	Phosphorous	Potassium	Selenium	Silicon
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	-0.64279	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	0.44040	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.33191	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	6.38465	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
GEL Job No: 10-887-1
Contract: LANL01004
Instrument: OPTIMA3
Effective Dates: 01-NOV-09
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Parmname	Wavelength	Silver	Strontium	Sulfur	Thallium	Tin
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	0.00000	-17.4077
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	-13.8713
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	3.10491
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL **GEL Job No:** 10-887-1
Contract: LANL01004
Instrument: OPTIMA3 **Effective Dates:** 01-NOV-09
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Parmname	Wavelength	Titanium	Uranium	Vanadium	Zinc
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	2.73145	0.00000	-2.31857	0.00000
Arsenic	188.979	-8.38419	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	-2.24883	0.00000
Beryllium	313.107	-1.96555	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.32181	-1.76281	0.00000
Cobalt	228.616	2.12623	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.85359	-3.92851	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	-7.67419	0.00000	2.18873	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.44145	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	1.10141	-1.94183	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000

METALS
-12-
Linear Ranges

SDG NO. 10-887-1

Contract: LANL01004 **Lab Code: GEL**

Instrument ID OPTIMA3

Analyte	Integration Time (sec)	LDR	Units	Effective Date
Antimony	20	10000	ug/L	01-NOV-09
Arsenic	20	10000	ug/L	01-NOV-09
Barium	20	15000	ug/L	01-NOV-09
Beryllium	20	3000	ug/L	01-NOV-09
Boron	20	5000	ug/L	01-NOV-09
Cadmium	20	10000	ug/L	01-NOV-09
Calcium	20	500000	ug/L	01-NOV-09
Chromium	20	25000	ug/L	01-NOV-09
Cobalt	20	10000	ug/L	01-NOV-09
Copper	20	20000	ug/L	01-NOV-09
Iron	20	500000	ug/L	01-NOV-09
Lead	20	25000	ug/L	01-NOV-09
Magnesium	20	500000	ug/L	01-NOV-09
Manganese	20	10000	ug/L	01-NOV-09
Nickel	20	10000	ug/L	01-NOV-09
Potassium	20	300000	ug/L	01-NOV-09
Selenium	20	10000	ug/L	01-NOV-09
Silicon	20	50000	ug/L	01-NOV-09
Silver	20	1000	ug/L	01-NOV-09
Aluminum	20	500000	ug/L	01-NOV-09
Sodium	20	500000	ug/L	01-NOV-09
Thallium	20	10000	ug/L	01-NOV-09
Titanium	20	10000	ug/L	01-NOV-09
Uranium	20	15000	ug/L	01-NOV-09
Vanadium	20	10000	ug/L	01-NOV-09
Zinc	20	15000	ug/L	01-NOV-09

METALS
–12–
Linear Ranges

SDG NO. 10–887–1

Contract: LANL01004 **Lab Code: GEL**

Instrument ID ICPMS3

Analyte	Integration Time (msec)	LDR	Units	Effective Date
Aluminum	1	50000	ug/L	01–NOV–09
Antimony	1000	250	ug/L	01–NOV–09
Arsenic	1000	1000	ug/L	01–NOV–09
Barium	1000	1000	ug/L	01–NOV–09
Beryllium	1000	1000	ug/L	01–NOV–09
Boron	1000	200	ug/L	01–NOV–09
Cadmium	1000	1000	ug/L	01–NOV–09
Calcium	500	50000	ug/L	01–NOV–09
Chromium	1000	1000	ug/L	01–NOV–09
Cobalt	1000	1000	ug/L	01–NOV–09
Copper	1000	1000	ug/L	01–NOV–09
Iron	500	50000	ug/L	01–NOV–09
Lead	1000	5000	ug/L	01–NOV–09
Lithium	1000	1000	ug/L	01–NOV–09
Magnesium	1	50000	ug/L	01–NOV–09
Manganese	1000	1000	ug/L	01–NOV–09
Nickel	1000	1000	ug/L	01–NOV–09
Potassium	1	50000	ug/L	01–NOV–09
Selenium	1000	500	ug/L	01–NOV–09
Silver	1000	250	ug/L	01–NOV–09
Sodium	1	50000	ug/L	01–NOV–09
Thallium	1000	500	ug/L	01–NOV–09
Titanium	1000	100	ug/L	01–NOV–09
Uranium	1000	5000	ug/L	01–NOV–09
Vanadium	1000	100	ug/L	01–NOV–09
Zinc	1000	2500	ug/L	01–NOV–09

Raw Data

Method: Hg_ReAlign
Result: 010710

Sample ID: Hg_ReAlign

Hg 253.652 **Rep: 1**

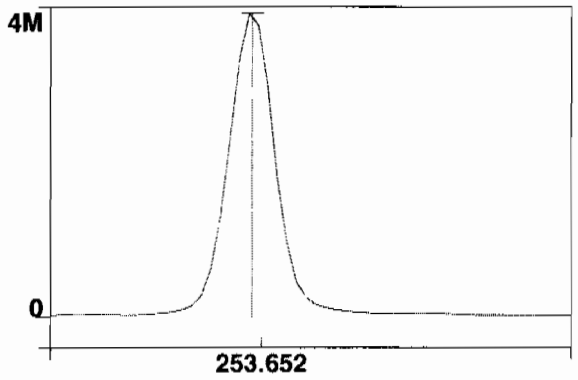

Intensity: 3436213.0 cps
Conc:

1

==========
12/19/2009 07:08:27 Hg ReAlign... Actual peak offset (nm): -0.008
Drift (nm): -0.001 Slit adjustment: -5
==========

==========
Analysis Begun

Start Time: 12/19/2009 07:18:32 **Plasma On Time: 12/14/2009 06:02:42**
Logged In Analyst: Optima3 **Technique: ICP Continuous**
Spectrometer Model: Optima 5300 DV, S/N 077C7090601Autosampler Model: S10

Sample Information File: C:\pe\Optima3\Sample Information\121909.sif
Batch ID:
Results Data Set: 121909
Results Library: C:\pe\Optima3\Results\Results.mdb

==========
Method Loaded
Method Name: General Eng.2AX **Method Last Saved: 12/18/2009 08:35:25**
IEC File: 101209.iec **MSF File:**
Method Description:

Analyte	Calibration Equation	Processing	View	Internal Standard	IEC
Ag 328.068	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Al 396.153Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
As 188.979	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
B 249.677	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ba 233.527	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Be 313.107	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ca 317.933Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	No
Cd 226.502	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Co 228.616	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cr 267.716	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cu 324.752	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Fe 238.204 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
K 766.490 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Mg 279.077 IEC	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Mn 257.610	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Mo 202.031	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Na 589.592 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	No
Ni 231.604	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
P 214.914	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Pb 220.353	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
S 181.975 Axial	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sb 206.836	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sc 361.383	Lin Thru 0	Peak Area	Axial	n/a	n/a
Sc Radial	Lin, Calc Int	Peak Area	Radial	n/a	n/a
Se 196.026	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Si 251.611	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sn 189.927	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sr 421.552	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Ti 334.940	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Tl 190.801	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
U 409.014	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
V 292.402	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y 371.029	Lin, Calc Int	Peak Area	Axial	n/a	n/a
Zn 213.857	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y RADIAL	Lin, Calc Int	Peak Area	Radial	n/a	n/a
SiO2	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes

==========
Sequence No.: 1 **Autosampler Location: 8**
Sample ID: S0 **Date Collected: 12/19/2009 07:18:33**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: S0

	Net	Corrected	Calib.	Analysis

Repl#	Analyte	Intensity	Intensity	Conc.	Units	Time
1	Sc Radial	5478.8	5478.8	98.4	%	07:20:26
1	Y RADIAL	5815.0	5815.0	98.37	%	07:20:26
1	Al 396.153Radial†	-24.1	-24.4	[0.00]	ug/L	07:20:26
1	Ca 317.933Radial†	16.7	16.9	[0.00]	ug/L	07:20:46
1	Fe 238.204 Radial†	10.3	10.5	[0.00]	ug/L	07:20:46
1	K 766.490 Radial†	2671.9	2715.1	[0.00]	ug/L	07:20:26
1	Mg 279.077 IEC†	1.3	1.3	[0.00]	ug/L	07:20:46
1	Na 589.592 Radial†	-738.0	-749.9	[0.00]	ug/L	07:20:26
1	Sr 421.552†	-45.6	-46.3	[0.00]	ug/L	07:20:26
1	Sc 361.383	898614.7	898614.7	99.967	%	07:21:43
1	Y 371.029	744516.0	744516.0	100.01	%	07:21:43
1	Ag 328.068†	322.6	322.7	[0.00]	ug/L	07:21:43
1	As 188.979†	-23.0	-23.0	[0.00]	ug/L	07:22:03
1	B 249.677†	-19.3	-19.3	[0.00]	ug/L	07:21:43
1	Ba 233.527†	0.5	0.5	[0.00]	ug/L	07:22:03
1	Be 313.107†	-4762.2	-4763.7	[0.00]	ug/L	07:21:43
1	Cd 226.502†	-226.8	-226.9	[0.00]	ug/L	07:22:03
1	Co 228.616†	-93.2	-93.3	[0.00]	ug/L	07:22:03
1	Cr 267.716†	64.4	64.4	[0.00]	ug/L	07:22:03
1	Cu 324.752†	6010.5	6012.5	[0.00]	ug/L	07:21:43
1	Mn 257.610†	495.5	495.7	[0.00]	ug/L	07:22:03
1	Mo 202.031†	22.9	22.9	[0.00]	ug/L	07:22:03
1	Ni 231.604†	81.1	81.1	[0.00]	ug/L	07:22:03
1	P 214.914†	252.5	252.6	[0.00]	ug/L	07:22:03
1	Pb 220.353†	-69.6	-69.6	[0.00]	ug/L	07:22:03
1	S 181.975 Axial†	49.0	49.0	[0.00]	ug/L	07:22:03
1	Sb 206.836†	41.9	41.9	[0.00]	ug/L	07:22:03
1	Se 196.026†	-26.4	-26.4	[0.00]	ug/L	07:22:03
1	Si 251.611†	572.2	572.4	[0.00]	ug/L	07:22:03
1	Sn 189.927†	-0.0	-0.0	[0.00]	ug/L	07:22:03
1	Ti 334.940†	-1412.7	-1413.1	[0.00]	ug/L	07:21:43
1	Tl 190.801†	-41.3	-41.3	[0.00]	ug/L	07:22:03
1	U 409.014†	-2387.3	-2388.1	[0.00]	ug/L	07:21:43
1	V 292.402†	-1470.6	-1471.1	[0.00]	ug/L	07:21:43
1	Zn 213.857†	805.5	805.7	[0.00]	ug/L	07:22:03
1	SiO2†	625.7	625.9	[0.00]	ug/L	07:22:59
2	Sc Radial	5605.4	5605.4	101	%	07:20:51
2	Y RADIAL	5959.0	5959.0	100.8	%	07:20:51
2	Al 396.153Radial†	-10.2	-10.1	[0.00]	ug/L	07:20:51
2	Ca 317.933Radial†	24.3	24.1	[0.00]	ug/L	07:21:11
2	Fe 238.204 Radial†	10.3	10.3	[0.00]	ug/L	07:21:11
2	K 766.490 Radial†	2688.1	2669.9	[0.00]	ug/L	07:20:51
2	Mg 279.077 IEC†	2.1	2.1	[0.00]	ug/L	07:21:11
2	Na 589.592 Radial†	-787.1	-781.7	[0.00]	ug/L	07:20:51
2	Sr 421.552†	11.8	11.7	[0.00]	ug/L	07:20:51
2	Sc 361.383	902152.2	902152.2	100.36	%	07:22:08
2	Y 371.029	745973.5	745973.5	100.20	%	07:22:08
2	Ag 328.068†	349.4	348.1	[0.00]	ug/L	07:22:08
2	As 188.979†	-34.6	-34.5	[0.00]	ug/L	07:22:28
2	B 249.677†	-53.5	-53.3	[0.00]	ug/L	07:22:08
2	Ba 233.527†	-5.5	-5.5	[0.00]	ug/L	07:22:28
2	Be 313.107†	-4719.3	-4702.4	[0.00]	ug/L	07:22:08
2	Cd 226.502†	-235.3	-234.5	[0.00]	ug/L	07:22:28
2	Co 228.616†	-75.1	-74.9	[0.00]	ug/L	07:22:28
2	Cr 267.716†	79.9	79.6	[0.00]	ug/L	07:22:28
2	Cu 324.752†	6108.5	6086.5	[0.00]	ug/L	07:22:08
2	Mn 257.610†	473.2	471.5	[0.00]	ug/L	07:22:28
2	Mo 202.031†	16.0	15.9	[0.00]	ug/L	07:22:28
2	Ni 231.604†	93.1	92.7	[0.00]	ug/L	07:22:28
2	P 214.914†	263.9	262.9	[0.00]	ug/L	07:22:28
2	Pb 220.353†	-67.5	-67.3	[0.00]	ug/L	07:22:28
2	S 181.975 Axial†	47.0	46.8	[0.00]	ug/L	07:22:28
2	Sb 206.836†	40.8	40.7	[0.00]	ug/L	07:22:28
2	Se 196.026†	-31.1	-31.0	[0.00]	ug/L	07:22:28
2	Si 251.611†	582.7	580.6	[0.00]	ug/L	07:22:28
2	Sn 189.927†	9.6	9.6	[0.00]	ug/L	07:22:28
2	Ti 334.940†	-1325.3	-1320.6	[0.00]	ug/L	07:22:08
2	Tl 190.801†	-47.5	-47.3	[0.00]	ug/L	07:22:28
2	U 409.014†	-2384.5	-2375.9	[0.00]	ug/L	07:22:08
2	V 292.402†	-1446.9	-1441.7	[0.00]	ug/L	07:22:08

2	Zn 213.857†	789.3	786.4	[0.00]	ug/L	07:22:28
2	SiO2†	594.9	592.8	[0.00]	ug/L	07:23:04
3	Sc Radial	5617.7	5617.7	101	%	07:21:16
3	Y RADIAL	5960.2	5960.2	100.8	%	07:21:16
3	Al 396.153Radial†	-14.7	-14.5	[0.00]	ug/L	07:21:16
3	Ca 317.933Radial†	17.9	17.7	[0.00]	ug/L	07:21:36
3	Fe 238.204 Radial†	12.0	11.9	[0.00]	ug/L	07:21:36
3	K 766.490 Radial†	2777.3	2752.4	[0.00]	ug/L	07:21:16
3	Mg 279.077 IEC†	0.8	0.8	[0.00]	ug/L	07:21:36
3	Na 589.592 Radial†	-760.1	-753.3	[0.00]	ug/L	07:21:16
3	Sr 421.552†	-0.8	-0.8	[0.00]	ug/L	07:21:16
3	Sc 361.383	895959.8	895959.8	99.672	%	07:22:33
3	Y 371.029	742903.0	742903.0	99.790	%	07:22:33
3	Ag 328.068†	437.5	439.0	[0.00]	ug/L	07:22:33
3	As 188.979†	-46.8	-47.0	[0.00]	ug/L	07:22:53
3	B 249.677†	-5.1	-5.1	[0.00]	ug/L	07:22:33
3	Ba 233.527†	-2.8	-2.8	[0.00]	ug/L	07:22:53
3	Be 313.107†	-4711.7	-4727.2	[0.00]	ug/L	07:22:33
3	Cd 226.502†	-225.4	-226.2	[0.00]	ug/L	07:22:53
3	Co 228.616†	-92.9	-93.2	[0.00]	ug/L	07:22:53
3	Cr 267.716†	96.1	96.4	[0.00]	ug/L	07:22:53
3	Cu 324.752†	6047.8	6067.7	[0.00]	ug/L	07:22:33
3	Mn 257.610†	505.6	507.2	[0.00]	ug/L	07:22:53
3	Mo 202.031†	20.7	20.8	[0.00]	ug/L	07:22:53
3	Ni 231.604†	106.5	106.9	[0.00]	ug/L	07:22:53
3	P 214.914†	257.9	258.7	[0.00]	ug/L	07:22:53
3	Pb 220.353†	-55.1	-55.3	[0.00]	ug/L	07:22:53
3	S 181.975 Axial†	51.0	51.2	[0.00]	ug/L	07:22:53
3	Sb 206.836†	40.9	41.0	[0.00]	ug/L	07:22:53
3	Se 196.026†	-28.1	-28.2	[0.00]	ug/L	07:22:53
3	Si 251.611†	577.5	579.4	[0.00]	ug/L	07:22:53
3	Sn 189.927†	0.9	0.9	[0.00]	ug/L	07:22:53
3	Ti 334.940†	-1424.4	-1429.1	[0.00]	ug/L	07:22:33
3	Tl 190.801†	-55.4	-55.6	[0.00]	ug/L	07:22:53
3	U 409.014†	-2345.0	-2352.7	[0.00]	ug/L	07:22:33
3	V 292.402†	-1490.6	-1495.5	[0.00]	ug/L	07:22:33
3	Zn 213.857†	785.9	788.5	[0.00]	ug/L	07:22:53
3	SiO2†	599.4	601.4	[0.00]	ug/L	07:23:09

Mean Data: S0

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	898908.9	3106.67	0.35%	100.00	%
Sc Radial	5567.3	76.90	1.38%	100	%
Y 371.029	744464.2	1535.89	0.21%	100.00	%
Y RADIAL	5911.4	83.50	1.41%	100.0	%
Ag 328.068†	369.9	61.12	16.52%	[0.00]	ug/L
Al 396.153Radial†	-16.4	7.33	44.73%	[0.00]	ug/L
As 188.979†	-34.8	12.01	34.47%	[0.00]	ug/L
B 249.677†	-25.9	24.77	95.49%	[0.00]	ug/L
Ba 233.527†	-2.6	3.03	116.57%	[0.00]	ug/L
Be 313.107†	-4731.1	30.86	0.65%	[0.00]	ug/L
Ca 317.933Radial†	19.6	3.95	20.19%	[0.00]	ug/L
Cd 226.502†	-229.2	4.60	2.01%	[0.00]	ug/L
Co 228.616†	-87.1	10.59	12.16%	[0.00]	ug/L
Cr 267.716†	80.2	16.00	19.96%	[0.00]	ug/L
Cu 324.752†	6055.6	38.46	0.64%	[0.00]	ug/L
Fe 238.204 Radial†	10.9	0.90	8.24%	[0.00]	ug/L
K 766.490 Radial†	2712.4	41.33	1.52%	[0.00]	ug/L
Mg 279.077 IEC†	1.4	0.62	44.68%	[0.00]	ug/L
Mn 257.610†	491.5	18.26	3.72%	[0.00]	ug/L
Mo 202.031†	19.9	3.60	18.10%	[0.00]	ug/L
Na 589.592 Radial†	-761.7	17.47	2.29%	[0.00]	ug/L
Ni 231.604†	93.6	12.92	13.80%	[0.00]	ug/L
P 214.914†	258.1	5.20	2.02%	[0.00]	ug/L
Pb 220.353†	-64.1	7.69	12.00%	[0.00]	ug/L
S 181.975 Axial†	49.0	2.20	4.48%	[0.00]	ug/L
Sb 206.836†	41.2	0.62	1.51%	[0.00]	ug/L
Se 196.026†	-28.5	2.32	8.14%	[0.00]	ug/L
Si 251.611†	577.5	4.43	0.77%	[0.00]	ug/L

Sn 189.927†	3.5	5.29	151.73%	[0.00]	ug/L
Sr 421.552†	-11.8	30.54	258.65%	[0.00]	ug/L
Ti 334.940†	-1387.6	58.58	4.22%	[0.00]	ug/L
Tl 190.801†	-48.1	7.20	14.99%	[0.00]	ug/L
U 409.014†	-2372.2	17.99	0.76%	[0.00]	ug/L
V 292.402†	-1469.4	26.93	1.83%	[0.00]	ug/L
Zn 213.857†	793.5	10.61	1.34%	[0.00]	ug/L
SiO2†	606.7	17.18	2.83%	[0.00]	ug/L

Sequence No.: 2
Sample ID: S0.1
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 2
Date Collected: 12/19/2009 07:25:19
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc Radial	5487.3	5487.3	98.6	%	07:27:16
1	Y RADIAL	5798.7	5798.7	98.09	%	07:27:16
1	K 766.490 Radial†	8549.2	5961.4	[1000]	ug/L	07:27:11
1	Sr 421.552†	17310.3	17574.4	[100]	ug/L	07:27:16
1	Sc 361.383	912189.9	912189.9	101.48	%	07:27:43
1	Y 371.029	750828.6	750828.6	100.85	%	07:27:43
1	Ag 328.068†	23552.4	22839.6	[100]	ug/L	07:27:48
1	As 188.979†	246.5	277.7	[100]	ug/L	07:28:08
1	B 249.677†	4718.4	4675.6	[100]	ug/L	07:27:48
1	Ba 233.527†	14914.6	14700.1	[100]	ug/L	07:27:48
1	Be 313.107†	292153.2	292630.7	[100]	ug/L	07:27:43
1	Cd 226.502†	10025.8	10109.1	[100]	ug/L	07:27:48
1	Co 228.616†	5539.2	5545.7	[100]	ug/L	07:28:08
1	Cr 267.716†	10041.0	9814.7	[100]	ug/L	07:27:48
1	Cu 324.752†	41032.1	34379.1	[100]	ug/L	07:27:48
1	Mn 257.610†	102308.9	100327.8	[100]	ug/L	07:27:48
1	Mo 202.031†	1670.1	1625.9	[100]	ug/L	07:28:08
1	Ni 231.604†	4765.5	4602.6	[100]	ug/L	07:27:48
1	P 214.914†	1178.9	903.6	[500]	ug/L	07:28:08
1	Pb 220.353†	888.6	939.8	[100]	ug/L	07:28:08
1	S 181.975 Axial†	203.7	151.7	[200]	ug/L	07:28:08
1	Sb 206.836†	368.9	322.4	[100]	ug/L	07:28:08
1	Se 196.026†	149.4	175.7	[100]	ug/L	07:28:08
1	Si 251.611†	18108.2	17267.1	[500]	ug/L	07:27:48
1	Sn 189.927†	664.5	651.3	[100]	ug/L	07:28:08
1	Ti 334.940†	66419.0	66839.5	[100]	ug/L	07:27:48
1	Tl 190.801†	342.9	385.9	[100]	ug/L	07:28:08
1	U 409.014†	1313.4	3666.5	[100]	ug/L	07:27:43
1	V 292.402†	14183.7	15446.6	[100]	ug/L	07:27:48
1	Zn 213.857†	12980.8	11998.3	[100]	ug/L	07:27:48
1	SiO2†	18208.6	17336.8	[1069.5]	ug/L	07:29:14
2	Sc Radial	5476.4	5476.4	98.4	%	07:27:26
2	Y RADIAL	5792.1	5792.1	97.98	%	07:27:26
2	K 766.490 Radial†	8519.1	5948.1	[1000]	ug/L	07:27:21
2	Sr 421.552†	17168.0	17464.8	[100]	ug/L	07:27:26
2	Sc 361.383	905291.1	905291.1	100.71	%	07:28:13
2	Y 371.029	745901.0	745901.0	100.19	%	07:28:13
2	Ag 328.068†	23672.6	23135.8	[100]	ug/L	07:28:18
2	As 188.979†	249.3	282.4	[100]	ug/L	07:28:38
2	B 249.677†	4606.6	4600.1	[100]	ug/L	07:28:18
2	Ba 233.527†	14882.8	14780.5	[100]	ug/L	07:28:18
2	Be 313.107†	290759.3	293440.5	[100]	ug/L	07:28:13
2	Cd 226.502†	10066.1	10224.3	[100]	ug/L	07:28:18
2	Co 228.616†	5553.2	5601.2	[100]	ug/L	07:28:38
2	Cr 267.716†	10006.3	9855.6	[100]	ug/L	07:28:18
2	Cu 324.752†	41287.6	34940.9	[100]	ug/L	07:28:18
2	Mn 257.610†	102396.0	101182.6	[100]	ug/L	07:28:18
2	Mo 202.031†	1662.6	1631.0	[100]	ug/L	07:28:38
2	Ni 231.604†	4773.8	4646.6	[100]	ug/L	07:28:18
2	P 214.914†	1198.1	931.6	[500]	ug/L	07:28:38
2	Pb 220.353†	883.0	940.8	[100]	ug/L	07:28:38
2	S 181.975 Axial†	209.0	158.5	[200]	ug/L	07:28:38
2	Sb 206.836†	371.5	327.6	[100]	ug/L	07:28:38
2	Se 196.026†	142.2	169.7	[100]	ug/L	07:28:38
2	Si 251.611†	18120.6	17415.4	[500]	ug/L	07:28:18
2	Sn 189.927†	664.9	656.7	[100]	ug/L	07:28:38
2	Ti 334.940†	66659.4	67577.1	[100]	ug/L	07:28:18
2	Tl 190.801†	347.9	393.6	[100]	ug/L	07:28:38
2	U 409.014†	1421.3	3783.5	[100]	ug/L	07:28:13

2	V 292.402†	14119.4	15489.3	[100]	ug/L	07:28:18
2	Zn 213.857†	13044.4	12158.8	[100]	ug/L	07:28:18
2	SiO2†	18265.7	17530.3	[1069.5]	ug/L	07:29:19
3	Sc Radial	5563.0	5563.0	99.9	%	07:27:36
3	Y RADIAL	5921.7	5921.7	100.2	%	07:27:36
3	K 766.490 Radial†	8355.7	5649.7	[1000]	ug/L	07:27:31
3	Sr 421.552†	17531.8	17557.2	[100]	ug/L	07:27:36
3	Sc 361.383	900253.6	900253.6	100.15	%	07:28:44
3	Y 371.029	741176.9	741176.9	99.558	%	07:28:44
3	Ag 328.068†	23727.7	23322.3	[100]	ug/L	07:28:49
3	As 188.979†	243.9	278.4	[100]	ug/L	07:29:09
3	B 249.677†	4711.2	4730.1	[100]	ug/L	07:28:49
3	Ba 233.527†	15022.9	15003.1	[100]	ug/L	07:28:49
3	Be 313.107†	288700.8	293000.7	[100]	ug/L	07:28:44
3	Cd 226.502†	10225.1	10439.0	[100]	ug/L	07:28:49
3	Co 228.616†	5580.3	5659.1	[100]	ug/L	07:29:09
3	Cr 267.716†	10071.5	9976.3	[100]	ug/L	07:28:49
3	Cu 324.752†	41363.7	35246.4	[100]	ug/L	07:28:49
3	Mn 257.610†	103350.9	102705.1	[100]	ug/L	07:28:49
3	Mo 202.031†	1694.4	1672.0	[100]	ug/L	07:29:09
3	Ni 231.604†	4799.4	4698.6	[100]	ug/L	07:28:49
3	P 214.914†	1204.5	944.6	[500]	ug/L	07:29:09
3	Pb 220.353†	886.9	949.6	[100]	ug/L	07:29:09
3	S 181.975 Axial†	203.8	154.5	[200]	ug/L	07:29:09
3	Sb 206.836†	379.2	337.5	[100]	ug/L	07:29:09
3	Se 196.026†	150.9	179.2	[100]	ug/L	07:29:09
3	Si 251.611†	18313.4	17708.6	[500]	ug/L	07:28:49
3	Sn 189.927†	673.8	669.3	[100]	ug/L	07:29:09
3	Ti 334.940†	67148.8	68436.1	[100]	ug/L	07:28:49
3	Tl 190.801†	334.2	381.8	[100]	ug/L	07:29:09
3	U 409.014†	1275.4	3645.7	[100]	ug/L	07:28:44
3	V 292.402†	14218.0	15666.2	[100]	ug/L	07:28:49
3	Zn 213.857†	13125.4	12312.2	[100]	ug/L	07:28:49
3	SiO2†	18184.1	17550.3	[1069.5]	ug/L	07:29:24

Mean Data: S0.1

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	905911.6	5992.28	0.66%	100.78	%
Sc Radial	5508.9	47.15	0.86%	99.0	%
Y 371.029	745968.8	4826.23	0.65%	100.20	%
Y RADIAL	5837.5	73.00	1.25%	98.75	%
Ag 328.068†	23099.2	243.44	1.05%	[100]	ug/L
As 188.979†	279.5	2.55	0.91%	[100]	ug/L
B 249.677†	4668.6	65.27	1.40%	[100]	ug/L
Ba 233.527†	14827.9	156.96	1.06%	[100]	ug/L
Be 313.107†	293024.0	405.43	0.14%	[100]	ug/L
Cd 226.502†	10257.5	167.47	1.63%	[100]	ug/L
Co 228.616†	5602.0	56.71	1.01%	[100]	ug/L
Cr 267.716†	9882.2	84.02	0.85%	[100]	ug/L
Cu 324.752†	34855.5	439.91	1.26%	[100]	ug/L
K 766.490 Radial†	5853.1	176.23	3.01%	[1000]	ug/L
Mn 257.610†	101405.2	1204.15	1.19%	[100]	ug/L
Mo 202.031†	1643.0	25.23	1.54%	[100]	ug/L
Ni 231.604†	4649.2	48.08	1.03%	[100]	ug/L
P 214.914†	926.6	20.94	2.26%	[500]	ug/L
Pb 220.353†	943.4	5.41	0.57%	[100]	ug/L
S 181.975 Axial†	154.9	3.43	2.22%	[200]	ug/L
Sb 206.836†	329.1	7.67	2.33%	[100]	ug/L
Se 196.026†	174.9	4.78	2.73%	[100]	ug/L
Si 251.611†	17463.7	224.68	1.29%	[500]	ug/L
Sn 189.927†	659.1	9.26	1.40%	[100]	ug/L
Sr 421.552†	17532.2	58.93	0.34%	[100]	ug/L
Ti 334.940†	67617.6	799.06	1.18%	[100]	ug/L
Tl 190.801†	387.1	5.99	1.55%	[100]	ug/L
U 409.014†	3698.6	74.30	2.01%	[100]	ug/L
V 292.402†	15534.0	116.43	0.75%	[100]	ug/L
Zn 213.857†	12156.5	157.00	1.29%	[100]	ug/L
SiO2†	17472.5	117.91	0.67%	[1069.5]	ug/L

Sequence No.: 3
Sample ID: S0.5
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 3
Date Collected: 12/19/2009 07:31:35
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc Radial	5698.6	5698.6	102	%	07:33:27
1	Y RADIAL	5996.3	5996.3	101.4	%	07:33:27
1	Al 396.153Radial†	6661.4	6524.4	[5000]	ug/L	07:33:27
1	Ca 317.933Radial†	3487.8	3387.9	[5000]	ug/L	07:33:47
1	K 766.490 Radial†	31038.0	27610.5	[5000]	ug/L	07:33:27
1	Mg 279.077 IEC†	168.2	163.0	[5000]	ug/L	07:33:47
1	Sr 421.552†	85392.6	83437.2	[500]	ug/L	07:33:27
1	Sc 361.383	911583.3	911583.3	101.41	%	07:34:45
1	Y 371.029	742613.9	742613.9	99.751	%	07:34:45
1	Ag 328.068†	115620.3	113642.9	[500]	ug/L	07:34:50
1	As 188.979†	1338.4	1354.6	[500]	ug/L	07:35:10
1	B 249.677†	23962.3	23655.1	[500]	ug/L	07:34:50
1	Ba 233.527†	73782.2	72758.9	[500]	ug/L	07:34:50
1	Be 313.107†	1493604.4	1477568.7	[500]	ug/L	07:34:45
1	Cd 226.502†	51230.7	50747.6	[500]	ug/L	07:34:50
1	Co 228.616†	28624.9	28314.0	[500]	ug/L	07:34:50
1	Cr 267.716†	49613.8	48843.9	[500]	ug/L	07:34:50
1	Cu 324.752†	181967.9	173382.3	[500]	ug/L	07:34:50
1	Mn 257.610†	510769.1	503176.0	[500]	ug/L	07:34:45
1	Mo 202.031†	8205.8	8071.8	[500]	ug/L	07:35:10
1	Ni 231.604†	23096.0	22681.3	[500]	ug/L	07:34:50
1	P 214.914†	5002.6	4674.9	[2500]	ug/L	07:35:10
1	Pb 220.353†	4633.9	4633.5	[500]	ug/L	07:35:10
1	S 181.975 Axial†	856.2	795.3	[1000]	ug/L	07:35:10
1	Sb 206.836†	1688.5	1623.8	[500]	ug/L	07:35:10
1	Se 196.026†	880.9	897.1	[500]	ug/L	07:35:10
1	Si 251.611†	88216.3	86412.3	[2500]	ug/L	07:34:50
1	Sn 189.927†	3297.6	3248.2	[500]	ug/L	07:35:10
1	Ti 334.940†	343434.3	340046.8	[500]	ug/L	07:34:45
1	Tl 190.801†	1867.7	1889.8	[500]	ug/L	07:35:10
1	U 409.014†	15743.9	17897.2	[500]	ug/L	07:34:50
1	V 292.402†	77149.3	77546.1	[500]	ug/L	07:34:50
1	Zn 213.857†	61946.9	60292.0	[500]	ug/L	07:34:50
1	SiO2†	87667.2	85841.6	[5347.5]	ug/L	07:36:18
2	Sc Radial	5544.1	5544.1	99.6	%	07:33:52
2	Y RADIAL	5872.3	5872.3	99.34	%	07:33:52
2	Al 396.153Radial†	6702.3	6746.7	[5000]	ug/L	07:33:52
2	Ca 317.933Radial†	3502.6	3497.7	[5000]	ug/L	07:34:12
2	K 766.490 Radial†	31160.7	28578.6	[5000]	ug/L	07:33:52
2	Mg 279.077 IEC†	167.3	166.6	[5000]	ug/L	07:34:12
2	Sr 421.552†	86131.2	86503.3	[500]	ug/L	07:33:52
2	Sc 361.383	910470.8	910470.8	101.29	%	07:35:16
2	Y 371.029	742224.9	742224.9	99.699	%	07:35:16
2	Ag 328.068†	116498.7	114649.4	[500]	ug/L	07:35:21
2	As 188.979†	1351.2	1368.8	[500]	ug/L	07:35:41
2	B 249.677†	24291.1	24008.5	[500]	ug/L	07:35:21
2	Ba 233.527†	74164.9	73225.7	[500]	ug/L	07:35:21
2	Be 313.107†	1488084.5	1473918.6	[500]	ug/L	07:35:16
2	Cd 226.502†	51465.4	51041.1	[500]	ug/L	07:35:21
2	Co 228.616†	28756.1	28478.0	[500]	ug/L	07:35:21
2	Cr 267.716†	49856.9	49143.7	[500]	ug/L	07:35:21
2	Cu 324.752†	183493.8	175108.1	[500]	ug/L	07:35:21
2	Mn 257.610†	509468.2	502507.1	[500]	ug/L	07:35:16
2	Mo 202.031†	8230.1	8105.7	[500]	ug/L	07:35:41
2	Ni 231.604†	23282.9	22893.7	[500]	ug/L	07:35:21
2	P 214.914†	5048.0	4725.9	[2500]	ug/L	07:35:41
2	Pb 220.353†	4679.5	4684.1	[500]	ug/L	07:35:41
2	S 181.975 Axial†	854.5	794.6	[1000]	ug/L	07:35:41
2	Sb 206.836†	1691.8	1629.1	[500]	ug/L	07:35:41

2	Se 196.026†	899.7	916.8	[500]	ug/L	07:35:41
2	Si 251.611†	89036.4	87328.2	[2500]	ug/L	07:35:21
2	Sn 189.927†	3300.4	3255.0	[500]	ug/L	07:35:41
2	Ti 334.940†	342481.4	339519.8	[500]	ug/L	07:35:16
2	Tl 190.801†	1889.7	1913.8	[500]	ug/L	07:35:41
2	U 409.014†	15663.2	17836.5	[500]	ug/L	07:35:21
2	V 292.402†	77677.0	78160.0	[500]	ug/L	07:35:21
2	Zn 213.857†	62437.5	60851.0	[500]	ug/L	07:35:21
2	SiO2†	87988.4	86264.4	[5347.5]	ug/L	07:36:23
3	Sc Radial	5544.8	5544.8	99.6	%	07:34:17
3	Y RADIAL	5884.0	5884.0	99.54	%	07:34:17
3	Al 396.153Radial†	6724.5	6768.1	[5000]	ug/L	07:34:17
3	Ca 317.933Radial†	3514.9	3509.6	[5000]	ug/L	07:34:37
3	K 766.490 Radial†	31310.5	28724.8	[5000]	ug/L	07:34:17
3	Mg 279.077 IEC†	164.6	163.8	[5000]	ug/L	07:34:37
3	Sr 421.552†	86504.2	86866.2	[500]	ug/L	07:34:17
3	Sc 361.383	916258.2	916258.2	101.93	%	07:35:47
3	Y 371.029	744779.1	744779.1	100.04	%	07:35:47
3	Ag 328.068†	114994.9	112447.6	[500]	ug/L	07:35:52
3	As 188.979†	1341.9	1351.3	[500]	ug/L	07:36:12
3	B 249.677†	23873.3	23447.2	[500]	ug/L	07:35:52
3	Ba 233.527†	73326.7	71940.9	[500]	ug/L	07:35:52
3	Be 313.107†	1496868.1	1473256.1	[500]	ug/L	07:35:47
3	Cd 226.502†	50806.8	50073.9	[500]	ug/L	07:35:52
3	Co 228.616†	28469.0	28017.1	[500]	ug/L	07:35:52
3	Cr 267.716†	49159.5	48148.5	[500]	ug/L	07:35:52
3	Cu 324.752†	180929.5	171448.0	[500]	ug/L	07:35:52
3	Mn 257.610†	513596.8	503380.4	[500]	ug/L	07:35:47
3	Mo 202.031†	8179.4	8004.6	[500]	ug/L	07:36:12
3	Ni 231.604†	22942.9	22414.9	[500]	ug/L	07:35:52
3	P 214.914†	4998.7	4646.0	[2500]	ug/L	07:36:12
3	Pb 220.353†	4660.7	4636.5	[500]	ug/L	07:36:12
3	S 181.975 Axial†	854.8	789.6	[1000]	ug/L	07:36:12
3	Sb 206.836†	1673.4	1600.5	[500]	ug/L	07:36:12
3	Se 196.026†	875.7	887.7	[500]	ug/L	07:36:12
3	Si 251.611†	87985.4	85741.9	[2500]	ug/L	07:35:52
3	Sn 189.927†	3294.7	3228.8	[500]	ug/L	07:36:12
3	Ti 334.940†	345096.9	339950.1	[500]	ug/L	07:35:47
3	Tl 190.801†	1880.0	1892.5	[500]	ug/L	07:36:12
3	U 409.014†	15626.7	17703.1	[500]	ug/L	07:35:52
3	V 292.402†	76454.9	76476.7	[500]	ug/L	07:35:52
3	Zn 213.857†	61666.8	59705.6	[500]	ug/L	07:35:52
3	SiO2†	88510.5	86227.9	[5347.5]	ug/L	07:36:28

Mean Data: S0.5

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Calib Conc.	Units
Sc 361.383	912770.8	3070.96	0.34%	101.54	%
Sc Radial	5595.8	88.97	1.59%	101	%
Y 371.029	743206.0	1376.22	0.19%	99.831	%
Y RADIAL	5917.5	68.45	1.16%	100.1	%
Ag 328.068†	113579.9	1102.25	0.97%	[500]	ug/L
Al 396.153Radial†	6679.7	134.98	2.02%	[5000]	ug/L
As 188.979†	1358.2	9.33	0.69%	[500]	ug/L
B 249.677†	23703.6	283.81	1.20%	[500]	ug/L
Ba 233.527†	72641.8	650.34	0.90%	[500]	ug/L
Be 313.107†	1474914.5	2322.40	0.16%	[500]	ug/L
Ca 317.933Radial†	3465.0	67.07	1.94%	[5000]	ug/L
Cd 226.502†	50620.9	495.86	0.98%	[500]	ug/L
Co 228.616†	28269.7	233.63	0.83%	[500]	ug/L
Cr 267.716†	48712.0	510.51	1.05%	[500]	ug/L
Cu 324.752†	173312.8	1831.02	1.06%	[500]	ug/L
K 766.490 Radial†	28304.6	605.52	2.14%	[5000]	ug/L
Mg 279.077 IEC†	164.5	1.90	1.16%	[5000]	ug/L
Mn 257.610†	503021.2	456.81	0.09%	[500]	ug/L
Mo 202.031†	8060.7	51.43	0.64%	[500]	ug/L
Ni 231.604†	22663.3	239.92	1.06%	[500]	ug/L
P 214.914†	4682.3	40.43	0.86%	[2500]	ug/L
Pb 220.353†	4651.4	28.36	0.61%	[500]	ug/L
S 181.975 Axial†	793.2	3.11	0.39%	[1000]	ug/L

Sb 206.836†	1617.8	15.24	0.94%	[500]	ug/L
Se 196.026†	900.6	14.86	1.65%	[500]	ug/L
Si 251.611†	86494.1	796.32	0.92%	[2500]	ug/L
Sn 189.927†	3244.0	13.61	0.42%	[500]	ug/L
Sr 421.552†	85602.2	1883.74	2.20%	[500]	ug/L
Ti 334.940†	339838.9	280.53	0.08%	[500]	ug/L
Tl 190.801†	1898.7	13.14	0.69%	[500]	ug/L
U 409.014†	17812.3	99.34	0.56%	[500]	ug/L
V 292.402†	77394.2	851.88	1.10%	[500]	ug/L
Zn 213.857†	60282.9	572.79	0.95%	[500]	ug/L
SiO2†	86111.3	234.29	0.27%	[5347.5]	ug/L

Sequence No.: 4
Sample ID: SCAL
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 4
Date Collected: 12/19/2009 07:38:39
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: SCAL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc Radial	5458.4	5458.4	98.0	%	07:40:52
1	Y RADIAL	5752.0	5752.0	97.30	%	07:40:52
1	Al 396.153Radial†	13231.1	13511.3	[10000]	ug/L	07:40:32
1	Ca 317.933Radial†	6909.0	7027.2	[10000]	ug/L	07:40:52
1	Fe 238.204 Radial†	1208.9	1222.1	[10000]	ug/L	07:40:52
1	K 766.490 Radial†	58416.7	56869.0	[10000]	ug/L	07:40:32
1	Mg 279.077 IEC†	328.1	333.2	[10000]	ug/L	07:40:52
1	Na 589.592 Radial†	31728.7	33123.0	[10000]	ug/L	07:40:32
1	Sr 421.552†	167103.4	170447.0	[1000]	ug/L	07:40:32
1	Sc 361.383	883286.8	883286.8	98.262	%	07:41:56
1	Y 371.029	722299.4	722299.4	97.023	%	07:41:56
1	Ag 328.068†	229508.6	233197.9	[1000]	ug/L	07:41:56
1	As 188.979†	2687.9	2770.2	[1000]	ug/L	07:42:16
1	B 249.677†	48055.0	48930.9	[1000]	ug/L	07:41:56
1	Ba 233.527†	144993.0	147560.0	[1000]	ug/L	07:41:56
1	Be 313.107†	2940610.9	2997350.5	[1000]	ug/L	07:41:50
1	Cd 226.502†	100505.1	102511.8	[1000]	ug/L	07:41:56
1	Co 228.616†	56144.1	57224.2	[1000]	ug/L	07:41:56
1	Cr 267.716†	97363.7	99005.6	[1000]	ug/L	07:41:56
1	Cu 324.752†	355274.2	355502.2	[1000]	ug/L	07:41:56
1	Mn 257.610†	999949.7	1017143.7	[1000]	ug/L	07:41:50
1	Mo 202.031†	16404.5	16674.8	[1000]	ug/L	07:42:16
1	Ni 231.604†	45154.9	45859.9	[1000]	ug/L	07:41:56
1	P 214.914†	9756.0	9670.5	[5000]	ug/L	07:42:16
1	Pb 220.353†	9330.3	9559.4	[1000]	ug/L	07:42:16
1	S 181.975 Axial†	1660.2	1640.5	[2000]	ug/L	07:42:16
1	Sb 206.836†	3356.4	3374.5	[1000]	ug/L	07:42:16
1	Se 196.026†	1787.8	1847.9	[1000]	ug/L	07:42:16
1	Si 251.611†	175705.1	178235.2	[5000]	ug/L	07:41:56
1	Sn 189.927†	6616.7	6730.2	[1000]	ug/L	07:42:16
1	Ti 334.940†	682059.7	695510.4	[1000]	ug/L	07:41:50
1	Tl 190.801†	3759.8	3874.4	[1000]	ug/L	07:42:16
1	U 409.014†	33472.3	36436.5	[1000]	ug/L	07:41:56
1	V 292.402†	153695.1	157882.8	[1000]	ug/L	07:41:56
1	Zn 213.857†	120840.9	122184.6	[1000]	ug/L	07:41:56
1	SiO2†	176496.9	179011.8	[10695]	ug/L	07:43:25
2	Sc Radial	5481.8	5481.8	98.5	%	07:41:17
2	Y RADIAL	5756.9	5756.9	97.39	%	07:41:17
2	Al 396.153Radial†	13086.7	13307.2	[10000]	ug/L	07:40:57
2	Ca 317.933Radial†	6935.3	7023.9	[10000]	ug/L	07:41:17
2	Fe 238.204 Radial†	1218.3	1226.4	[10000]	ug/L	07:41:17
2	K 766.490 Radial†	58033.5	56226.2	[10000]	ug/L	07:40:57
2	Mg 279.077 IEC†	329.5	333.2	[10000]	ug/L	07:41:17
2	Na 589.592 Radial†	31540.3	32793.8	[10000]	ug/L	07:40:57
2	Sr 421.552†	166280.3	168885.5	[1000]	ug/L	07:40:57
2	Sc 361.383	889720.3	889720.3	98.978	%	07:42:27
2	Y 371.029	726788.9	726788.9	97.626	%	07:42:27
2	Ag 328.068†	231283.9	233302.6	[1000]	ug/L	07:42:27
2	As 188.979†	2694.6	2757.3	[1000]	ug/L	07:42:48
2	B 249.677†	48707.7	49236.7	[1000]	ug/L	07:42:27
2	Ba 233.527†	146245.8	147758.7	[1000]	ug/L	07:42:27
2	Be 313.107†	2946784.0	2981948.1	[1000]	ug/L	07:42:22
2	Cd 226.502†	101381.2	102657.4	[1000]	ug/L	07:42:27
2	Co 228.616†	56748.5	57421.7	[1000]	ug/L	07:42:27
2	Cr 267.716†	98089.1	99021.9	[1000]	ug/L	07:42:27
2	Cu 324.752†	358645.1	356293.5	[1000]	ug/L	07:42:27
2	Mn 257.610†	1003368.4	1013239.3	[1000]	ug/L	07:42:22
2	Mo 202.031†	16394.9	16544.3	[1000]	ug/L	07:42:48
2	Ni 231.604†	45567.5	45944.5	[1000]	ug/L	07:42:27

2	P 214.914†	9781.5	9624.4	[5000]	ug/L	07:42:48
2	Pb 220.353†	9327.8	9488.2	[1000]	ug/L	07:42:48
2	S 181.975 Axial†	1667.8	1636.1	[2000]	ug/L	07:42:48
2	Sb 206.836†	3359.7	3353.1	[1000]	ug/L	07:42:48
2	Se 196.026†	1796.9	1843.9	[1000]	ug/L	07:42:48
2	Si 251.611†	177399.5	178654.1	[5000]	ug/L	07:42:27
2	Sn 189.927†	6623.3	6688.2	[1000]	ug/L	07:42:48
2	Ti 334.940†	684913.7	693374.7	[1000]	ug/L	07:42:22
2	Tl 190.801†	3769.1	3856.1	[1000]	ug/L	07:42:48
2	U 409.014†	33664.1	36384.0	[1000]	ug/L	07:42:27
2	V 292.402†	154988.7	158058.7	[1000]	ug/L	07:42:27
2	Zn 213.857†	122079.3	122546.6	[1000]	ug/L	07:42:27
2	SiO2†	173385.7	174569.7	[10695]	ug/L	07:43:30
3	Sc Radial	5420.9	5420.9	97.4	%	07:41:42
3	Y RADIAL	5726.3	5726.3	96.87	%	07:41:42
3	Al 396.153Radial†	13241.2	13615.2	[10000]	ug/L	07:41:22
3	Ca 317.933Radial†	6857.1	7022.7	[10000]	ug/L	07:41:42
3	Fe 238.204 Radial†	1201.5	1223.0	[10000]	ug/L	07:41:42
3	K 766.490 Radial†	58301.6	57164.1	[10000]	ug/L	07:41:22
3	Mg 279.077 IEC†	322.7	330.1	[10000]	ug/L	07:41:42
3	Na 589.592 Radial†	31620.0	33235.8	[10000]	ug/L	07:41:22
3	Sr 421.552†	167104.9	171630.6	[1000]	ug/L	07:41:22
3	Sc 361.383	881299.8	881299.8	98.041	%	07:42:59
3	Y 371.029	720248.3	720248.3	96.747	%	07:42:59
3	Ag 328.068†	229110.1	233318.0	[1000]	ug/L	07:42:59
3	As 188.979†	2675.8	2764.1	[1000]	ug/L	07:43:19
3	B 249.677†	48076.0	49062.6	[1000]	ug/L	07:42:59
3	Ba 233.527†	144549.3	147440.1	[1000]	ug/L	07:42:59
3	Be 313.107†	2928638.8	2991886.7	[1000]	ug/L	07:42:54
3	Cd 226.502†	100101.7	102331.0	[1000]	ug/L	07:42:59
3	Co 228.616†	56030.6	57237.3	[1000]	ug/L	07:42:59
3	Cr 267.716†	96920.1	98776.5	[1000]	ug/L	07:42:59
3	Cu 324.752†	354627.6	355657.8	[1000]	ug/L	07:42:59
3	Mn 257.610†	997443.7	1016882.0	[1000]	ug/L	07:42:54
3	Mo 202.031†	16337.4	16644.0	[1000]	ug/L	07:43:19
3	Ni 231.604†	45005.2	45810.8	[1000]	ug/L	07:42:59
3	P 214.914†	9701.9	9637.7	[5000]	ug/L	07:43:19
3	Pb 220.353†	9312.6	9562.7	[1000]	ug/L	07:43:19
3	S 181.975 Axial†	1665.3	1649.6	[2000]	ug/L	07:43:19
3	Sb 206.836†	3339.7	3365.2	[1000]	ug/L	07:43:19
3	Se 196.026†	1778.6	1842.6	[1000]	ug/L	07:43:19
3	Si 251.611†	175462.8	178391.2	[5000]	ug/L	07:42:59
3	Sn 189.927†	6593.5	6721.7	[1000]	ug/L	07:43:19
3	Ti 334.940†	680484.2	695468.5	[1000]	ug/L	07:42:54
3	Tl 190.801†	3751.4	3874.4	[1000]	ug/L	07:43:19
3	U 409.014†	33504.8	36546.4	[1000]	ug/L	07:42:59
3	V 292.402†	153091.7	157620.0	[1000]	ug/L	07:42:59
3	Zn 213.857†	120479.7	122093.4	[1000]	ug/L	07:42:59
3	SiO2†	176761.6	179686.8	[10695]	ug/L	07:43:35

Mean Data: SCAL

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	884768.9	4401.57	0.50%	98.427	%
Sc Radial	5453.7	30.74	0.56%	98.0	%
Y 371.029	723112.2	3345.20	0.46%	97.132	%
Y RADIAL	5745.1	16.46	0.29%	97.19	%
Ag 328.068†	233272.8	65.36	0.03%	[1000]	ug/L
Al 396.153Radial†	13477.9	156.70	1.16%	[10000]	ug/L
As 188.979†	2763.9	6.49	0.23%	[1000]	ug/L
B 249.677†	49076.7	153.41	0.31%	[1000]	ug/L
Ba 233.527†	147586.3	160.90	0.11%	[1000]	ug/L
Be 313.107†	2990395.1	7808.79	0.26%	[1000]	ug/L
Ca 317.933Radial†	7024.6	2.35	0.03%	[10000]	ug/L
Cd 226.502†	102500.1	163.51	0.16%	[1000]	ug/L
Co 228.616†	57294.4	110.43	0.19%	[1000]	ug/L
Cr 267.716†	98934.7	137.20	0.14%	[1000]	ug/L
Cu 324.752†	355817.8	419.23	0.12%	[1000]	ug/L
Fe 238.204 Radial†	1223.8	2.26	0.18%	[10000]	ug/L
K 766.490 Radial†	56753.1	479.54	0.84%	[10000]	ug/L

Mg 279.077 IEC†	332.2	1.81	0.55%	[10000]	ug/L
Mn 257.610†	1015755.0	2182.60	0.21%	[1000]	ug/L
Mo 202.031†	16621.0	68.19	0.41%	[1000]	ug/L
Na 589.592 Radial†	33050.9	229.64	0.69%	[10000]	ug/L
Ni 231.604†	45871.7	67.60	0.15%	[1000]	ug/L
P 214.914†	9644.2	23.71	0.25%	[5000]	ug/L
Pb 220.353†	9536.8	42.08	0.44%	[1000]	ug/L
S 181.975 Axial†	1642.1	6.88	0.42%	[2000]	ug/L
Sb 206.836†	3364.3	10.72	0.32%	[1000]	ug/L
Se 196.026†	1844.8	2.75	0.15%	[1000]	ug/L
Si 251.611†	178426.8	211.73	0.12%	[5000]	ug/L
Sn 189.927†	6713.4	22.19	0.33%	[1000]	ug/L
Sr 421.552†	170321.0	1376.88	0.81%	[1000]	ug/L
Ti 334.940†	694784.6	1221.12	0.18%	[1000]	ug/L
Tl 190.801†	3868.3	10.55	0.27%	[1000]	ug/L
U 409.014†	36455.7	82.89	0.23%	[1000]	ug/L
V 292.402†	157853.8	220.80	0.14%	[1000]	ug/L
Zn 213.857†	122274.9	239.67	0.20%	[1000]	ug/L
SiO2†	177756.1	2780.09	1.56%	[10695]	ug/L

Sequence No.: 5
Sample ID: S10
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 5
Date Collected: 12/19/2009 07:45:47
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S10

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc Radial	5443.9	5443.9	97.8	%	07:48:00
1	Y RADIAL	5719.5	5719.5	96.75	%	07:48:00
1	Al 396.153Radial†	66553.4	68078.1	[50000]	ug/L	07:47:40
1	Ca 317.933Radial†	34047.9	34799.9	[50000]	ug/L	07:47:40
1	Fe 238.204 Radial†	2348.4	2390.8	[20000]	ug/L	07:48:00
1	Mg 279.077 IEC†	1563.4	1597.4	[50000]	ug/L	07:48:00
1	Na 589.592 Radial†	64624.0	66850.2	[20000]	ug/L	07:47:40
1	Sc 361.383	885309.8	885309.8	98.487	%	07:48:57
1	Y 371.029	716976.9	716976.9	96.308	%	07:48:57
2	Sc Radial	5354.0	5354.0	96.2	%	07:48:25
2	Y RADIAL	5644.3	5644.3	95.48	%	07:48:25
2	Al 396.153Radial†	66773.6	69450.0	[50000]	ug/L	07:48:05
2	Ca 317.933Radial†	34121.7	35461.4	[50000]	ug/L	07:48:05
2	Fe 238.204 Radial†	2313.7	2395.0	[20000]	ug/L	07:48:25
2	Mg 279.077 IEC†	1545.8	1606.0	[50000]	ug/L	07:48:25
2	Na 589.592 Radial†	64658.1	67995.5	[20000]	ug/L	07:48:05
2	Sc 361.383	885315.1	885315.1	98.488	%	07:49:03
2	Y 371.029	716928.7	716928.7	96.301	%	07:49:03
3	Sc Radial	5394.3	5394.3	96.9	%	07:48:50
3	Y RADIAL	5697.1	5697.1	96.38	%	07:48:50
3	Al 396.153Radial†	66387.5	68533.3	[50000]	ug/L	07:48:30
3	Ca 317.933Radial†	33886.8	34954.2	[50000]	ug/L	07:48:30
3	Fe 238.204 Radial†	2336.3	2400.4	[20000]	ug/L	07:48:50
3	Mg 279.077 IEC†	1571.3	1620.3	[50000]	ug/L	07:48:50
3	Na 589.592 Radial†	64043.1	66859.0	[20000]	ug/L	07:48:30
3	Sc 361.383	884318.5	884318.5	98.377	%	07:49:08
3	Y 371.029	714960.3	714960.3	96.037	%	07:49:08

Mean Data: S10

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	884981.1	573.86	0.06%	98.451	%
Sc Radial	5397.4	45.03	0.83%	96.9	%
Y 371.029	716288.6	1150.60	0.16%	96.215	%
Y RADIAL	5687.0	38.61	0.68%	96.20	%
Al 396.153Radial†	68687.1	698.77	1.02%	[50000]	ug/L
Ca 317.933Radial†	35071.8	346.05	0.99%	[50000]	ug/L
Fe 238.204 Radial†	2395.4	4.80	0.20%	[20000]	ug/L
Mg 279.077 IEC†	1607.9	11.55	0.72%	[50000]	ug/L
Na 589.592 Radial†	67234.9	658.71	0.98%	[20000]	ug/L

Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 328.068	3	Lin Thru 0	0.0	232.0	0.00000	0.999945	
Al 396.153Radial	3	Lin Thru 0	0.0	1.372	0.00000	0.999990	
As 188.979	3	Lin Thru 0	0.0	2.755	0.00000	0.999976	
B 249.677	3	Lin Thru 0	0.0	48.73	0.00000	0.999900	
Ba 233.527	3	Lin Thru 0	0.0	147.1	0.00000	0.999980	
Be 313.107	3	Lin Thru 0	0.0	2982	0.00000	0.999984	
Ca 317.933Radial	3	Lin Thru 0	0.0	0.7014	0.00000	0.999999	
Cd 226.502	3	Lin Thru 0	0.0	102.3	0.00000	0.999988	
Co 228.616	3	Lin Thru 0	0.0	57.13	0.00000	0.999985	
Cr 267.716	3	Lin Thru 0	0.0	98.63	0.00000	0.999981	
Cu 324.752	3	Lin Thru 0	0.0	353.9	0.00000	0.999946	
Fe 238.204 Radia	2	Lin Thru 0	0.0	0.1203	0.00000	0.999962	
K 766.490 Radial	3	Lin Thru 0	0.0	5.674	0.00000	0.999995	

Mg 279.077 IEC	3	Lin Thru 0	0.0	0.0322	0.00000	0.999978
Mn 257.610	3	Lin Thru 0	0.0	1014	0.00000	0.999993
Mo 202.031	3	Lin Thru 0	0.0	16.52	0.00000	0.999927
Na 589.592 Radia	2	Lin Thru 0	0.0	3.350	0.00000	0.999977
Ni 231.604	3	Lin Thru 0	0.0	45.77	0.00000	0.999988
P 214.914	3	Lin Thru 0	0.0	1.917	0.00000	0.999928
Pb 220.353	3	Lin Thru 0	0.0	9.490	0.00000	0.999952
S 181.975 Axial	3	Lin Thru 0	0.0	0.8151	0.00000	0.999897
Sb 206.836	3	Lin Thru 0	0.0	3.338	0.00000	0.999881
Se 196.026	3	Lin Thru 0	0.0	1.835	0.00000	0.999946
Si 251.611	3	Lin Thru 0	0.0	35.46	0.00000	0.999924
Sn 189.927	3	Lin Thru 0	0.0	6.668	0.00000	0.999909
Sr 421.552	3	Lin Thru 0	0.0	170.5	0.00000	0.999995
Ti 334.940	3	Lin Thru 0	0.0	691.6	0.00000	0.999960
Tl 190.801	3	Lin Thru 0	0.0	3.854	0.00000	0.999973
U 409.014	3	Lin Thru 0	0.0	36.29	0.00000	0.999957
V 292.402	3	Lin Thru 0	0.0	157.2	0.00000	0.999969
Zn 213.857	3	Lin Thru 0	0.0	121.9	0.00000	0.999984
SiO2	3	Lin Thru 0	0.0	16.52	0.00000	0.999922

Sequence No.: 6
Sample ID: ICV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 9
Date Collected: 12/19/2009 07:51:20
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5444.4	5444.4	97.8	%			07:53:13
1	Y RADIAL	5780.0	5780.0	97.78	%			07:53:13
1	Al 396.153Radial†	6892.9	7064.9	5125.0	ug/L	5125.0	ppb	07:53:13
1	Ca 317.933Radial†	3491.7	3551.0	5062.7	ug/L	5062.7	ppb	07:53:33
1	Fe 238.204 Radial†	623.4	626.6	5224.6	ug/L	5224.6	ppb	07:53:33
1	K 766.490 Radial†	17054.5	14727.1	2590.2	ug/L	2590.2	ppb	07:53:13
1	Mg 279.077 IEC†	179.6	182.2	5664.2	ug/L	5664.2	ppb	07:53:33
1	Na 589.592 Radial†	7634.6	8568.6	2557.5	ug/L	2557.5	ppb	07:53:13
1	Sr 421.552†	91042.1	93109.2	545.93	ug/L	545.93	ppb	07:53:13
1	Sc 361.383	921038.2	921038.2	102.46	%			07:54:30
1	Y 371.029	751036.4	751036.4	100.88	%			07:54:30
1	Ag 328.068†	61913.3	60055.9	262.06	ug/L	262.06	ppb	07:54:30
1	As 188.979†	1299.5	1303.1	477.36	ug/L	477.36	ppb	07:54:50
1	B 249.677†	25924.6	25327.6	517.83	ug/L	517.83	ppb	07:54:30
1	Ba 233.527†	77370.0	75513.6	514.57	ug/L	514.57	ppb	07:54:30
1	Be 313.107†	792101.8	777801.5	261.82	ug/L	261.82	ppb	07:54:30
1	Cd 226.502†	52492.9	51460.8	503.08	ug/L	503.08	ppb	07:54:30
1	Co 228.616†	29141.1	28528.1	499.63	ug/L	499.63	ppb	07:54:50
1	Cr 267.716†	49609.9	48337.8	490.90	ug/L	490.90	ppb	07:54:30
1	Cu 324.752†	192334.8	181658.1	513.52	ug/L	513.52	ppb	07:54:30
1	Mn 257.610†	537446.4	524042.0	517.32	ug/L	517.32	ppb	07:54:30
1	Mo 202.031†	9083.7	8845.6	535.80	ug/L	535.80	ppb	07:54:50
1	Ni 231.604†	23391.3	22735.7	496.44	ug/L	496.44	ppb	07:54:50
1	P 214.914†	5165.2	4783.0	2417.5	ug/L	2417.5	ppb	07:54:50
1	Pb 220.353†	4811.1	4759.5	503.19	ug/L	503.19	ppb	07:54:50
1	S 181.975 Axial†	2127.2	2027.1	2485.8	ug/L	2485.8	ppb	07:54:50
1	Sb 206.836†	1721.3	1638.8	499.83	ug/L	499.83	ppb	07:54:50
1	Se 196.026†	4795.0	4708.3	2583.5	ug/L	2583.5	ppb	07:54:50
1	Si 251.611†	177060.6	172229.0	4844.6	ug/L	4844.6	ppb	07:54:30
1	Sn 189.927†	3651.7	3560.4	534.58	ug/L	534.58	ppb	07:54:50
1	Ti 334.940†	352297.4	345220.5	499.01	ug/L	499.01	ppb	07:54:30
1	Tl 190.801†	2053.7	2052.4	535.78	ug/L	535.78	ppb	07:54:50
1	U 409.014†	15881.3	17872.0	490.81	ug/L	490.81	ppb	07:54:30
1	V 292.402†	80574.1	80107.6	516.71	ug/L	516.71	ppb	07:54:30
1	Zn 213.857†	65324.0	62961.0	511.89	ug/L	511.89	ppb	07:54:30
1	SiO2†	175583.6	170758.3	10313	ug/L	10313	ppb	07:55:48
2	Sc Radial	5630.4	5630.4	101	%			07:53:38
2	Y RADIAL	5980.9	5980.9	101.2	%			07:53:38
2	Al 396.153Radial†	6940.6	6879.1	4989.5	ug/L	4989.5	ppb	07:53:38
2	Ca 317.933Radial†	3554.1	3494.7	4982.5	ug/L	4982.5	ppb	07:53:58
2	Fe 238.204 Radial†	635.9	617.9	5152.2	ug/L	5152.2	ppb	07:53:58
2	K 766.490 Radial†	17212.3	14306.8	2516.2	ug/L	2516.2	ppb	07:53:38
2	Mg 279.077 IEC†	175.9	172.5	5363.7	ug/L	5363.7	ppb	07:53:58
2	Na 589.592 Radial†	7648.7	8324.6	2484.7	ug/L	2484.7	ppb	07:53:38
2	Sr 421.552†	91649.9	90634.1	531.42	ug/L	531.42	ppb	07:53:38
2	Sc 361.383	912402.0	912402.0	101.50	%			07:54:56
2	Y 371.029	745300.6	745300.6	100.11	%			07:54:56
2	Ag 328.068†	61182.6	59907.8	261.40	ug/L	261.40	ppb	07:54:56
2	As 188.979†	1284.0	1299.8	476.15	ug/L	476.15	ppb	07:55:17
2	B 249.677†	25547.6	25195.7	515.13	ug/L	515.13	ppb	07:54:56
2	Ba 233.527†	76885.1	75750.7	516.17	ug/L	516.17	ppb	07:54:56
2	Be 313.107†	784684.8	777811.5	261.83	ug/L	261.83	ppb	07:54:56
2	Cd 226.502†	52050.7	51510.1	503.57	ug/L	503.57	ppb	07:54:56
2	Co 228.616†	28980.3	28638.8	501.58	ug/L	501.58	ppb	07:55:17
2	Cr 267.716†	49329.9	48520.2	492.75	ug/L	492.75	ppb	07:54:56
2	Cu 324.752†	189448.0	180590.8	510.50	ug/L	510.50	ppb	07:54:56
2	Mn 257.610†	532430.5	524065.1	517.34	ug/L	517.34	ppb	07:54:56
2	Mo 202.031†	9043.5	8889.8	538.48	ug/L	538.48	ppb	07:55:17
2	Ni 231.604†	23282.0	22844.1	498.80	ug/L	498.80	ppb	07:55:17

2	P 214.914†	5126.0	4792.1	2422.8 ug/L	2422.8 ppb	07:55:17
2	Pb 220.353†	4770.6	4764.1	503.66 ug/L	503.66 ppb	07:55:17
2	S 181.975 Axial†	2107.0	2026.8	2485.5 ug/L	2485.5 ppb	07:55:17
2	Sb 206.836†	1722.3	1655.6	504.91 ug/L	504.91 ppb	07:55:17
2	Se 196.026†	4761.3	4719.4	2589.3 ug/L	2589.3 ppb	07:55:17
2	Si 251.611†	174947.2	171782.5	4832.0 ug/L	4832.0 ppb	07:54:56
2	Sn 189.927†	3624.1	3567.0	535.55 ug/L	535.55 ppb	07:55:17
2	Ti 334.940†	348230.1	344467.9	497.92 ug/L	497.92 ppb	07:54:56
2	Tl 190.801†	2015.0	2033.3	530.79 ug/L	530.79 ppb	07:55:17
2	U 409.014†	15752.9	17892.2	491.37 ug/L	491.37 ppb	07:54:56
2	V 292.402†	79807.6	80096.8	516.68 ug/L	516.68 ppb	07:54:56
2	Zn 213.857†	64572.3	62823.9	510.77 ug/L	510.77 ppb	07:54:56
2	SiO2†	173765.9	170589.5	10303 ug/L	10303 ppb	07:55:53
3	Sc Radial	5610.4	5610.4	101 %		07:54:03
3	Y RADIAL	5950.9	5950.9	100.7 %		07:54:03
3	Al 396.153Radial†	6959.4	6922.3	5020.8 ug/L	5020.8 ppb	07:54:03
3	Ca 317.933Radial†	3558.7	3511.8	5006.8 ug/L	5006.8 ppb	07:54:23
3	Fe 238.204 Radial†	634.6	618.9	5160.6 ug/L	5160.6 ppb	07:54:23
3	K 766.490 Radial†	17312.4	14466.9	2544.4 ug/L	2544.4 ppb	07:54:03
3	Mg 279.077 IEC†	177.6	174.8	5435.5 ug/L	5435.5 ppb	07:54:23
3	Na 589.592 Radial†	7656.2	8359.1	2494.9 ug/L	2494.9 ppb	07:54:03
3	Sr 421.552†	91549.5	90857.7	532.73 ug/L	532.73 ppb	07:54:03
3	Sc 361.383	914520.1	914520.1	101.74 %		07:55:22
3	Y 371.029	748122.2	748122.2	100.49 %		07:55:22
3	Ag 328.068†	61352.7	59935.5	261.53 ug/L	261.53 ppb	07:55:22
3	As 188.979†	1301.5	1314.1	481.34 ug/L	481.34 ppb	07:55:43
3	B 249.677†	25536.8	25126.8	513.71 ug/L	513.71 ppb	07:55:22
3	Ba 233.527†	76908.9	75598.7	515.15 ug/L	515.15 ppb	07:55:22
3	Be 313.107†	787955.5	779235.9	262.30 ug/L	262.30 ppb	07:55:22
3	Cd 226.502†	51998.8	51340.4	501.91 ug/L	501.91 ppb	07:55:22
3	Co 228.616†	29162.0	28751.3	503.56 ug/L	503.56 ppb	07:55:43
3	Cr 267.716†	49364.3	48441.5	491.96 ug/L	491.96 ppb	07:55:22
3	Cu 324.752†	189845.4	180549.1	510.38 ug/L	510.38 ppb	07:55:22
3	Mn 257.610†	532871.1	523283.3	516.56 ug/L	516.56 ppb	07:55:22
3	Mo 202.031†	9106.6	8931.3	540.99 ug/L	540.99 ppb	07:55:43
3	Ni 231.604†	23413.4	22920.2	500.46 ug/L	500.46 ppb	07:55:43
3	P 214.914†	5156.1	4810.0	2432.1 ug/L	2432.1 ppb	07:55:43
3	Pb 220.353†	4797.5	4779.7	505.31 ug/L	505.31 ppb	07:55:43
3	S 181.975 Axial†	2135.9	2050.4	2514.5 ug/L	2514.5 ppb	07:55:43
3	Sb 206.836†	1729.7	1659.0	506.03 ug/L	506.03 ppb	07:55:43
3	Se 196.026†	4771.4	4718.5	2588.8 ug/L	2588.8 ppb	07:55:43
3	Si 251.611†	175040.1	171474.6	4823.3 ug/L	4823.3 ppb	07:55:22
3	Sn 189.927†	3644.0	3578.3	537.25 ug/L	537.25 ppb	07:55:43
3	Ti 334.940†	349022.1	344451.8	497.89 ug/L	497.89 ppb	07:55:22
3	Tl 190.801†	2027.2	2040.6	532.68 ug/L	532.68 ppb	07:55:43
3	U 409.014†	15749.2	17852.5	490.28 ug/L	490.28 ppb	07:55:22
3	V 292.402†	80316.8	80415.2	518.74 ug/L	518.74 ppb	07:55:22
3	Zn 213.857†	64628.8	62732.0	510.01 ug/L	510.01 ppb	07:55:22
3	SiO2†	176402.7	172784.8	10436 ug/L	10436 ppb	07:55:59

Mean Data: ICV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	915986.8	101.90	%	0.501				0.49%
Sc Radial	5561.7	99.9	%	1.83				1.84%
Y 371.029	748153.1	100.50	%	0.385				0.38%
Y RADIAL	5903.9	99.87	%	1.834				1.84%
Ag 328.068†	59966.4	261.67	ug/L	0.350	261.67	ppb	0.350	0.13%
QC value within limits for Ag 328.068 Recovery = 104.67%								
Al 396.153Radial†	6955.4	5045.1	ug/L	70.93	5045.1	ppb	70.93	1.41%
QC value within limits for Al 396.153Radial Recovery = 100.90%								
As 188.979†	1305.7	478.28	ug/L	2.714	478.28	ppb	2.714	0.57%
QC value within limits for As 188.979 Recovery = 95.66%								
B 249.677†	25216.7	515.56	ug/L	2.094	515.56	ppb	2.094	0.41%
QC value within limits for B 249.677 Recovery = 103.11%								
Ba 233.527†	75621.0	515.30	ug/L	0.815	515.30	ppb	0.815	0.16%
QC value within limits for Ba 233.527 Recovery = 103.06%								
Be 313.107†	778283.0	261.98	ug/L	0.276	261.98	ppb	0.276	0.11%
QC value within limits for Be 313.107 Recovery = 104.79%								
Ca 317.933Radial†	3519.1	5017.3	ug/L	41.14	5017.3	ppb	41.14	0.82%

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   QC value within limits for Ca 317.933Radial  Recovery = 100.35%
Cd 226.502†            51437.1      502.85 ug/L         0.853      502.85 ppb          0.853   0.17%
   QC value within limits for Cd 226.502  Recovery = 100.57%
Co 228.616†            28639.4      501.59 ug/L         1.962      501.59 ppb          1.962   0.39%
   QC value within limits for Co 228.616  Recovery = 100.32%
Cr 267.716†            48433.2      491.87 ug/L         0.927      491.87 ppb          0.927   0.19%
   QC value within limits for Cr 267.716  Recovery = 98.37%
Cu 324.752†           180932.7      511.46 ug/L         1.778      511.46 ppb          1.778   0.35%
   QC value within limits for Cu 324.752  Recovery = 102.29%
Fe 238.204 Radial†       621.1      5179.1 ug/L        39.57      5179.1 ppb         39.57   0.76%
   QC value within limits for Fe 238.204 Radial  Recovery = 103.58%
K 766.490 Radial†      14500.3      2550.3 ug/L        37.36      2550.3 ppb         37.36   1.47%
   QC value within limits for K 766.490 Radial  Recovery = 102.01%
Mg 279.077 IEC†          176.5      5487.8 ug/L       156.96      5487.8 ppb        156.96   2.86%
   QC value within limits for Mg 279.077 IEC  Recovery = 109.76%
Mn 257.610†           523796.8      517.07 ug/L         0.440      517.07 ppb          0.440   0.09%
   QC value within limits for Mn 257.610  Recovery = 103.41%
Mo 202.031†             8888.9      538.42 ug/L         2.593      538.42 ppb          2.593   0.48%
   QC value within limits for Mo 202.031  Recovery = 107.68%
Na 589.592 Radial†      8417.4      2512.4 ug/L        39.42      2512.4 ppb         39.42   1.57%
   QC value within limits for Na 589.592 Radial  Recovery = 100.49%
Ni 231.604†            22833.3      498.57 ug/L         2.025      498.57 ppb          2.025   0.41%
   QC value within limits for Ni 231.604  Recovery = 99.71%
P 214.914†              4795.0      2424.1 ug/L         7.41      2424.1 ppb          7.41   0.31%
   QC value within limits for P 214.914  Recovery = 96.96%
Pb 220.353†             4767.8      504.05 ug/L         1.114      504.05 ppb          1.114   0.22%
   QC value within limits for Pb 220.353  Recovery = 100.81%
S 181.975 Axial†        2034.8      2495.3 ug/L        16.65      2495.3 ppb         16.65   0.67%
   QC value within limits for S 181.975 Axial  Recovery = 99.81%
Sb 206.836†             1651.1      503.59 ug/L         3.303      503.59 ppb          3.303   0.66%
   QC value within limits for Sb 206.836  Recovery = 100.72%
Se 196.026†             4715.4      2587.2 ug/L         3.24      2587.2 ppb          3.24   0.13%
   QC value within limits for Se 196.026  Recovery = 103.49%
Si 251.611†           171828.7      4833.3 ug/L        10.74      4833.3 ppb         10.74   0.22%
   QC value within limits for Si 251.611  Recovery = 96.67%
Sn 189.927†             3568.6      535.79 ug/L         1.350      535.79 ppb          1.350   0.25%
   QC value within limits for Sn 189.927  Recovery = 107.16%
Sr 421.552†            91533.7      536.69 ug/L         8.027      536.69 ppb          8.027   1.50%
   QC value within limits for Sr 421.552  Recovery = 107.34%
Ti 334.940†           344713.4      498.27 ug/L         0.637      498.27 ppb          0.637   0.13%
   QC value within limits for Ti 334.940  Recovery = 99.65%
Tl 190.801†             2042.1      533.08 ug/L         2.515      533.08 ppb          2.515   0.47%
   QC value within limits for Tl 190.801  Recovery = 106.62%
U 409.014†             17872.2      490.82 ug/L         0.546      490.82 ppb          0.546   0.11%
   QC value within limits for U 409.014  Recovery = 98.16%
V 292.402†             80206.5      517.38 ug/L         1.182      517.38 ppb          1.182   0.23%
   QC value within limits for V 292.402  Recovery = 103.48%
Zn 213.857†            62838.9      510.89 ug/L         0.949      510.89 ppb          0.949   0.19%
   QC value within limits for Zn 213.857  Recovery = 102.18%
SiO2†                 171377.5       10351 ug/L          73.9       10351 ppb           73.9   0.71%
   QC value within limits for SiO2  Recovery = 96.78%
All analyte(s) passed QC.
```

Sequence No.: 7
Sample ID: ICB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 10
Date Collected: 12/19/2009 07:58:10
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5633.0	5633.0	101	%			08:00:02
1	Y RADIAL	5992.9	5992.9	101.4	%			08:00:02
1	Al 396.153Radial†	-23.8	-7.1	-5.2088	ug/L	-5.2088	ppb	08:00:02
1	Ca 317.933Radial†	11.5	-8.2	-11.756	ug/L	-11.756	ppb	08:00:22
1	Fe 238.204 Radial†	9.0	-2.0	-16.794	ug/L	-16.794	ppb	08:00:22
1	K 766.490 Radial†	2846.2	100.6	17.727	ug/L	17.727	ppb	08:00:02
1	Mg 279.077 IEC†	-0.2	-1.6	-49.006	ug/L	-49.006	ppb	08:00:22
1	Na 589.592 Radial†	-746.7	23.7	7.0683	ug/L	7.0683	ppb	08:00:02
1	Sr 421.552†	14.5	26.1	0.1533	ug/L	0.1533	ppb	08:00:02
1	Sc 361.383	908352.1	908352.1	101.05	%			08:01:19
1	Y 371.029	753325.8	753325.8	101.19	%			08:01:19
1	Ag 328.068†	383.8	9.9	0.0412	ug/L	0.0412	ppb	08:01:19
1	As 188.979†	-35.3	-0.1	-0.0516	ug/L	-0.0516	ppb	08:01:39
1	B 249.677†	34.1	59.7	1.2279	ug/L	1.2279	ppb	08:01:19
1	Ba 233.527†	-2.6	0.0	-0.0011	ug/L	-0.0011	ppb	08:01:39
1	Be 313.107†	-4773.8	6.9	0.0026	ug/L	0.0026	ppb	08:01:19
1	Cd 226.502†	-211.2	20.1	0.1987	ug/L	0.1987	ppb	08:01:39
1	Co 228.616†	-85.3	2.7	0.0493	ug/L	0.0493	ppb	08:01:39
1	Cr 267.716†	100.9	19.7	0.2010	ug/L	0.2010	ppb	08:01:39
1	Cu 324.752†	6054.8	-63.8	-0.1810	ug/L	-0.1810	ppb	08:01:19
1	Mn 257.610†	529.0	32.0	0.0308	ug/L	0.0308	ppb	08:01:39
1	Mo 202.031†	31.0	10.8	0.6520	ug/L	0.6520	ppb	08:01:39
1	Ni 231.604†	105.2	10.5	0.2291	ug/L	0.2291	ppb	08:01:39
1	P 214.914†	265.3	4.5	2.4195	ug/L	2.4195	ppb	08:01:39
1	Pb 220.353†	-57.8	6.9	0.7269	ug/L	0.7269	ppb	08:01:39
1	S 181.975 Axial†	47.4	-2.1	-2.6173	ug/L	-2.6173	ppb	08:01:39
1	Sb 206.836†	45.9	4.2	1.2983	ug/L	1.2983	ppb	08:01:39
1	Se 196.026†	-30.7	-1.9	-1.0898	ug/L	-1.0898	ppb	08:01:39
1	Si 251.611†	614.6	30.7	0.8426	ug/L	0.8426	ppb	08:01:39
1	Sn 189.927†	18.1	14.4	2.1560	ug/L	2.1560	ppb	08:01:39
1	Ti 334.940†	-1316.1	85.1	0.1251	ug/L	0.1251	ppb	08:01:19
1	Tl 190.801†	-43.5	5.0	1.2953	ug/L	1.2953	ppb	08:01:39
1	U 409.014†	-2622.0	-222.6	-6.1300	ug/L	-6.1300	ppb	08:01:19
1	V 292.402†	-1532.7	-47.3	-0.3022	ug/L	-0.3022	ppb	08:01:19
1	Zn 213.857†	813.8	11.8	0.0988	ug/L	0.0988	ppb	08:01:39
1	SiO2†	610.2	-2.8	-0.2235	ug/L	-0.2235	ppb	08:02:35
2	Sc Radial	5554.2	5554.2	99.8	%			08:00:28
2	Y RADIAL	5938.0	5938.0	100.4	%			08:00:28
2	Al 396.153Radial†	-36.9	-20.6	-14.990	ug/L	-14.990	ppb	08:00:28
2	Ca 317.933Radial†	14.6	-5.0	-7.0814	ug/L	-7.0814	ppb	08:00:48
2	Fe 238.204 Radial†	11.3	0.4	3.5031	ug/L	3.5031	ppb	08:00:48
2	K 766.490 Radial†	2706.0	-0.1	-0.0125	ug/L	-0.0125	ppb	08:00:28
2	Mg 279.077 IEC†	3.1	1.7	53.599	ug/L	53.599	ppb	08:00:48
2	Na 589.592 Radial†	-821.2	-61.5	-18.352	ug/L	-18.352	ppb	08:00:28
2	Sr 421.552†	13.0	24.8	0.1455	ug/L	0.1455	ppb	08:00:28
2	Sc 361.383	901427.5	901427.5	100.28	%			08:01:45
2	Y 371.029	746836.3	746836.3	100.32	%			08:01:45
2	Ag 328.068†	267.2	-103.5	-0.4421	ug/L	-0.4421	ppb	08:01:45
2	As 188.979†	-31.4	3.5	1.2583	ug/L	1.2583	ppb	08:02:05
2	B 249.677†	105.3	131.0	2.6871	ug/L	2.6871	ppb	08:01:45
2	Ba 233.527†	-4.1	-1.5	-0.0106	ug/L	-0.0106	ppb	08:02:05
2	Be 313.107†	-4736.5	7.9	0.0027	ug/L	0.0027	ppb	08:01:45
2	Cd 226.502†	-207.9	21.8	0.2129	ug/L	0.2129	ppb	08:02:05
2	Co 228.616†	-72.8	14.5	0.2547	ug/L	0.2547	ppb	08:02:05
2	Cr 267.716†	70.8	-9.6	-0.0960	ug/L	-0.0960	ppb	08:02:05
2	Cu 324.752†	6081.3	8.7	0.0247	ug/L	0.0247	ppb	08:01:45
2	Mn 257.610†	543.0	50.1	0.0487	ug/L	0.0487	ppb	08:02:05
2	Mo 202.031†	23.1	3.2	0.1926	ug/L	0.1926	ppb	08:02:05
2	Ni 231.604†	84.9	-8.9	-0.1951	ug/L	-0.1951	ppb	08:02:05

2	P 214.914†	243.2	-15.5	-8.0992	ug/L	-8.0992	ppb	08:02:05
2	Pb 220.353†	-66.0	-1.7	-0.1865	ug/L	-0.1865	ppb	08:02:05
2	S 181.975 Axial†	45.6	-3.5	-4.3044	ug/L	-4.3044	ppb	08:02:05
2	Sb 206.836†	46.3	4.9	1.5034	ug/L	1.5034	ppb	08:02:05
2	Se 196.026†	-26.0	2.6	1.4315	ug/L	1.4315	ppb	08:02:05
2	Si 251.611†	612.6	33.4	0.9355	ug/L	0.9355	ppb	08:02:05
2	Sn 189.927†	9.9	6.4	0.9588	ug/L	0.9588	ppb	08:02:05
2	Ti 334.940†	-1379.1	12.4	0.0194	ug/L	0.0194	ppb	08:01:45
2	Tl 190.801†	-44.4	3.8	0.9919	ug/L	0.9919	ppb	08:02:05
2	U 409.014†	-2530.9	-151.6	-4.1776	ug/L	-4.1776	ppb	08:01:45
2	V 292.402†	-1515.8	-42.1	-0.2725	ug/L	-0.2725	ppb	08:01:45
2	Zn 213.857†	798.7	2.9	0.0227	ug/L	0.0227	ppb	08:02:05
2	SiO2†	618.6	10.2	0.6041	ug/L	0.6041	ppb	08:02:40
3	Sc Radial	5718.2	5718.2	103	%			08:00:53
3	Y RADIAL	6101.0	6101.0	103.2	%			08:00:53
3	Al 396.153Radial†	-20.7	-3.8	-2.7370	ug/L	-2.7370	ppb	08:00:53
3	Ca 317.933Radial†	25.2	5.0	7.1167	ug/L	7.1167	ppb	08:01:13
3	Fe 238.204 Radial†	7.2	-3.9	-32.269	ug/L	-32.269	ppb	08:01:13
3	K 766.490 Radial†	2845.8	58.3	10.269	ug/L	10.269	ppb	08:00:53
3	Mg 279.077 IEC†	2.7	1.2	37.406	ug/L	37.406	ppb	08:01:13
3	Na 589.592 Radial†	-815.4	-32.2	-9.6081	ug/L	-9.6081	ppb	08:00:53
3	Sr 421.552†	67.8	77.8	0.4562	ug/L	0.4562	ppb	08:00:53
3	Sc 361.383	903054.1	903054.1	100.46	%			08:02:10
3	Y 371.029	749009.9	749009.9	100.61	%			08:02:10
3	Ag 328.068†	350.2	-21.3	-0.1000	ug/L	-0.1000	ppb	08:02:10
3	As 188.979†	-29.2	5.7	2.0722	ug/L	2.0722	ppb	08:02:30
3	B 249.677†	24.1	49.9	1.0284	ug/L	1.0284	ppb	08:02:10
3	Ba 233.527†	-1.9	0.7	0.0032	ug/L	0.0032	ppb	08:02:30
3	Be 313.107†	-4675.3	77.2	0.0259	ug/L	0.0259	ppb	08:02:10
3	Cd 226.502†	-222.9	7.3	0.0746	ug/L	0.0746	ppb	08:02:30
3	Co 228.616†	-86.7	0.8	0.0136	ug/L	0.0136	ppb	08:02:30
3	Cr 267.716†	86.4	5.8	0.0595	ug/L	0.0595	ppb	08:02:30
3	Cu 324.752†	5898.6	-184.0	-0.5215	ug/L	-0.5215	ppb	08:02:10
3	Mn 257.610†	557.4	63.4	0.0586	ug/L	0.0586	ppb	08:02:30
3	Mo 202.031†	20.2	0.3	0.0140	ug/L	0.0140	ppb	08:02:30
3	Ni 231.604†	112.8	18.7	0.4084	ug/L	0.4084	ppb	08:02:30
3	P 214.914†	244.1	-15.1	-7.7377	ug/L	-7.7377	ppb	08:02:30
3	Pb 220.353†	-58.9	5.4	0.5758	ug/L	0.5758	ppb	08:02:30
3	S 181.975 Axial†	50.3	1.1	1.3122	ug/L	1.3122	ppb	08:02:30
3	Sb 206.836†	42.9	1.5	0.4590	ug/L	0.4590	ppb	08:02:30
3	Se 196.026†	-19.1	9.5	5.0569	ug/L	5.0569	ppb	08:02:30
3	Si 251.611†	601.0	20.7	0.5766	ug/L	0.5766	ppb	08:02:30
3	Sn 189.927†	13.4	9.8	1.4742	ug/L	1.4742	ppb	08:02:30
3	Ti 334.940†	-1382.0	11.9	0.0196	ug/L	0.0196	ppb	08:02:10
3	Tl 190.801†	-40.1	8.1	2.1112	ug/L	2.1112	ppb	08:02:30
3	U 409.014†	-2549.8	-165.8	-4.5651	ug/L	-4.5651	ppb	08:02:10
3	V 292.402†	-1524.1	-47.7	-0.3062	ug/L	-0.3062	ppb	08:02:10
3	Zn 213.857†	798.1	0.9	0.0074	ug/L	0.0074	ppb	08:02:30
3	SiO2†	631.0	21.4	1.2795	ug/L	1.2795	ppb	08:02:45

Mean Data: ICB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	904277.9	100.60	%	0.403				0.40%
Sc Radial	5635.2	101	%	1.5				1.46%
Y 371.029	749724.0	100.71	%	0.444				0.44%
Y RADIAL	6010.6	101.7	%	1.40				1.38%
Ag 328.068†	-38.3	-0.1669	ug/L	0.24852	-0.1669	ppb	0.24852	148.86%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-10.5	-7.6454	ug/L	6.47987	-7.6454	ppb	6.47987	84.76%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	3.0	1.0930	ug/L	1.07147	1.0930	ppb	1.07147	98.03%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	80.2	1.6478	ug/L	0.90558	1.6478	ppb	0.90558	54.96%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-0.2	-0.0029	ug/L	0.00706	-0.0029	ppb	0.00706	246.00%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	30.7	0.0104	ug/L	0.01346	0.0104	ppb	0.01346	129.54%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-2.7	-3.9068	ug/L	9.82850	-3.9068	ppb	9.82850	251.57%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                16.4      0.1621 ug/L       0.07613      0.1621 ppb        0.07613  46.97%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                 6.0      0.1059 ug/L       0.13012      0.1059 ppb        0.13012 122.90%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                 5.3      0.0548 ug/L       0.14854      0.0548 ppb        0.14854 270.93%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               -79.7     -0.2259 ug/L       0.27588     -0.2259 ppb        0.27588 122.12%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -1.8     -15.187 ug/L       17.9402     -15.187 ppb        17.9402 118.13%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          52.9      9.3280 ug/L       8.90725      9.3280 ppb        8.90725  95.49%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             0.5      14.000 ug/L       55.1622      14.000 ppb        55.1622 394.03%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                48.5      0.0461 ug/L       0.01409      0.0461 ppb        0.01409  30.57%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 4.7      0.2862 ug/L       0.32916      0.2862 ppb        0.32916 115.00%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        -23.3     -6.9639 ug/L      12.91480     -6.9639 ppb       12.91480 185.45%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                 6.8      0.1475 ug/L       0.30989      0.1475 ppb        0.30989 210.16%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -8.7     -4.4724 ug/L       5.97135     -4.4724 ppb        5.97135 133.51%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                 3.5      0.3721 ug/L       0.48959      0.3721 ppb        0.48959 131.59%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -1.5     -1.8698 ug/L       2.88195     -1.8698 ppb        2.88195 154.13%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 3.5      1.0869 ug/L       0.55336      1.0869 ppb        0.55336  50.91%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 3.4      1.7995 ug/L       3.08980      1.7995 ppb        3.08980 171.70%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                28.3      0.7849 ug/L       0.18630      0.7849 ppb        0.18630  23.73%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                10.2      1.5297 ug/L       0.60050      1.5297 ppb        0.60050  39.26%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                42.9      0.2517 ug/L       0.17719      0.2517 ppb        0.17719  70.40%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                36.5      0.0547 ug/L       0.06098      0.0547 ppb        0.06098 111.50%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 5.6      1.4662 ug/L       0.57885      1.4662 ppb        0.57885  39.48%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -180.0     -4.9576 ug/L       1.03368     -4.9576 ppb        1.03368  20.85%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                -45.7     -0.2937 ug/L       0.01842     -0.2937 ppb        0.01842   6.27%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                 5.2      0.0430 ug/L       0.04892      0.0430 ppb        0.04892 113.85%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                       9.6      0.5534 ug/L       0.75275      0.5534 ppb        0.75275 136.03%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 8
Sample ID: PQL
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 11
Date Collected: 12/19/2009 08:04:56
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: PQL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5582.1	5582.1	100	%			08:06:49
1	Y RADIAL	5945.3	5945.3	100.6	%			08:06:49
1	Al 396.153Radial†	275.3	290.9	211.55	ug/L	211.55	ppb	08:06:49
1	Ca 317.933Radial†	170.8	150.8	215.00	ug/L	215.00	ppb	08:07:09
1	Fe 238.204 Radial†	21.7	10.7	89.465	ug/L	89.465	ppb	08:07:09
1	K 766.490 Radial†	3673.8	951.7	167.50	ug/L	167.50	ppb	08:06:49
1	Mg 279.077 IEC†	12.9	11.5	356.66	ug/L	356.66	ppb	08:07:09
1	Na 589.592 Radial†	247.8	1008.8	301.10	ug/L	301.10	ppb	08:06:49
1	Sr 421.552†	895.5	904.9	5.3043	ug/L	5.3043	ppb	08:06:49
1	Sc 361.383	903406.6	903406.6	100.50	%			08:08:06
1	Y 371.029	747574.7	747574.7	100.42	%			08:08:06
1	Ag 328.068†	1528.9	1151.4	4.9655	ug/L	4.9655	ppb	08:08:06
1	As 188.979†	44.5	79.1	28.742	ug/L	28.742	ppb	08:08:26
1	B 249.677†	2440.1	2453.9	50.336	ug/L	50.336	ppb	08:08:06
1	Ba 233.527†	751.9	750.7	5.1167	ug/L	5.1167	ppb	08:08:26
1	Be 313.107†	10154.0	14834.6	4.9847	ug/L	4.9847	ppb	08:08:06
1	Cd 226.502†	297.2	524.9	5.1277	ug/L	5.1277	ppb	08:08:26
1	Co 228.616†	187.0	273.1	4.7958	ug/L	4.7958	ppb	08:08:26
1	Cr 267.716†	563.8	480.8	4.8687	ug/L	4.8687	ppb	08:08:26
1	Cu 324.752†	9745.0	3641.0	10.292	ug/L	10.292	ppb	08:08:06
1	Mn 257.610†	11261.3	10713.8	10.570	ug/L	10.570	ppb	08:08:06
1	Mo 202.031†	188.9	168.0	10.178	ug/L	10.178	ppb	08:08:26
1	Ni 231.604†	326.9	231.7	5.0600	ug/L	5.0600	ppb	08:08:26
1	P 214.914†	538.1	277.3	143.13	ug/L	143.13	ppb	08:08:26
1	Pb 220.353†	30.3	94.2	9.9843	ug/L	9.9843	ppb	08:08:26
1	S 181.975 Axial†	133.0	83.3	102.19	ug/L	102.19	ppb	08:08:26
1	Sb 206.836†	75.7	34.1	10.471	ug/L	10.471	ppb	08:08:26
1	Se 196.026†	28.6	57.0	31.392	ug/L	31.392	ppb	08:08:26
1	Si 251.611†	4214.8	3616.3	101.71	ug/L	101.71	ppb	08:08:06
1	Sn 189.927†	66.5	62.7	9.4233	ug/L	9.4233	ppb	08:08:26
1	Ti 334.940†	2053.2	3430.6	4.9477	ug/L	4.9477	ppb	08:08:06
1	Tl 190.801†	27.7	75.6	19.681	ug/L	19.681	ppb	08:08:26
1	U 409.014†	-576.2	1798.9	49.542	ug/L	49.542	ppb	08:08:06
1	V 292.402†	-704.2	768.7	5.1180	ug/L	5.1180	ppb	08:08:06
1	Zn 213.857†	2005.3	1201.7	9.7905	ug/L	9.7905	ppb	08:08:26
1	SiO2†	4172.2	3544.7	214.06	ug/L	214.06	ppb	08:09:22
2	Sc Radial	5594.2	5594.2	100	%			08:07:14
2	Y RADIAL	5983.8	5983.8	101.2	%			08:07:14
2	Al 396.153Radial†	243.1	258.3	187.77	ug/L	187.77	ppb	08:07:14
2	Ca 317.933Radial†	169.7	149.3	212.87	ug/L	212.87	ppb	08:07:34
2	Fe 238.204 Radial†	22.8	11.8	98.101	ug/L	98.101	ppb	08:07:34
2	K 766.490 Radial†	3672.4	942.3	165.84	ug/L	165.84	ppb	08:07:14
2	Mg 279.077 IEC†	10.5	9.1	281.54	ug/L	281.54	ppb	08:07:34
2	Na 589.592 Radial†	270.9	1031.2	307.79	ug/L	307.79	ppb	08:07:14
2	Sr 421.552†	876.1	883.7	5.1798	ug/L	5.1798	ppb	08:07:14
2	Sc 361.383	903805.3	903805.3	100.54	%			08:08:32
2	Y 371.029	749465.8	749465.8	100.67	%			08:08:32
2	Ag 328.068†	1542.8	1164.5	5.0200	ug/L	5.0200	ppb	08:08:32
2	As 188.979†	51.8	86.3	31.360	ug/L	31.360	ppb	08:08:52
2	B 249.677†	2378.3	2391.3	49.051	ug/L	49.051	ppb	08:08:32
2	Ba 233.527†	747.5	746.0	5.0837	ug/L	5.0837	ppb	08:08:52
2	Be 313.107†	10083.9	14760.4	4.9601	ug/L	4.9601	ppb	08:08:32
2	Cd 226.502†	286.9	514.5	5.0255	ug/L	5.0255	ppb	08:08:52
2	Co 228.616†	196.7	282.8	4.9628	ug/L	4.9628	ppb	08:08:52
2	Cr 267.716†	589.4	506.1	5.1230	ug/L	5.1230	ppb	08:08:52
2	Cu 324.752†	9700.9	3592.7	10.156	ug/L	10.156	ppb	08:08:32
2	Mn 257.610†	11119.5	10567.8	10.428	ug/L	10.428	ppb	08:08:32
2	Mo 202.031†	179.5	158.7	9.6114	ug/L	9.6114	ppb	08:08:52
2	Ni 231.604†	340.6	245.2	5.3538	ug/L	5.3538	ppb	08:08:52

2	P 214.914†	538.3	277.3	143.14	ug/L	143.14 ppb	08:08:52
2	Pb 220.353†	18.7	82.7	8.7637	ug/L	8.7637 ppb	08:08:52
2	S 181.975 Axial†	129.9	80.2	98.385	ug/L	98.385 ppb	08:08:52
2	Sb 206.836†	76.4	34.7	10.668	ug/L	10.668 ppb	08:08:52
2	Se 196.026†	35.1	63.5	34.937	ug/L	34.937 ppb	08:08:52
2	Si 251.611†	4220.2	3619.9	101.82	ug/L	101.82 ppb	08:08:32
2	Sn 189.927†	74.9	71.0	10.671	ug/L	10.671 ppb	08:08:52
2	Ti 334.940†	2148.1	3524.1	5.0812	ug/L	5.0812 ppb	08:08:32
2	Tl 190.801†	36.9	84.8	22.059	ug/L	22.059 ppb	08:08:52
2	U 409.014†	-451.7	1922.9	52.958	ug/L	52.958 ppb	08:08:32
2	V 292.402†	-790.0	683.7	4.5727	ug/L	4.5727 ppb	08:08:32
2	Zn 213.857†	2012.0	1207.6	9.8383	ug/L	9.8383 ppb	08:08:52
2	SiO2†	4225.9	3596.4	217.20	ug/L	217.20 ppb	08:09:27
3	Sc Radial	5694.2	5694.2	102	%		08:07:39
3	Y RADIAL	6097.6	6097.6	103.2	%		08:07:39
3	Al 396.153Radial†	273.2	283.5	206.12	ug/L	206.12 ppb	08:07:39
3	Ca 317.933Radial†	164.1	140.9	200.83	ug/L	200.83 ppb	08:07:59
3	Fe 238.204 Radial†	24.3	12.8	106.90	ug/L	106.90 ppb	08:07:59
3	K 766.490 Radial†	3707.6	912.5	160.61	ug/L	160.61 ppb	08:07:39
3	Mg 279.077 IEC†	11.3	9.7	300.85	ug/L	300.85 ppb	08:07:59
3	Na 589.592 Radial†	268.1	1023.7	305.56	ug/L	305.56 ppb	08:07:39
3	Sr 421.552†	906.5	898.1	5.2643	ug/L	5.2643 ppb	08:07:39
3	Sc 361.383	895634.3	895634.3	99.636	%		08:08:57
3	Y 371.029	742826.7	742826.7	99.780	%		08:08:57
3	Ag 328.068†	1594.7	1230.6	5.3053	ug/L	5.3053 ppb	08:08:57
3	As 188.979†	51.5	86.5	31.414	ug/L	31.414 ppb	08:09:17
3	B 249.677†	2363.8	2398.4	49.195	ug/L	49.195 ppb	08:08:57
3	Ba 233.527†	721.7	727.0	4.9541	ug/L	4.9541 ppb	08:09:17
3	Be 313.107†	9896.0	14663.3	4.9272	ug/L	4.9272 ppb	08:08:57
3	Cd 226.502†	290.5	520.7	5.0853	ug/L	5.0853 ppb	08:09:17
3	Co 228.616†	198.0	285.8	5.0168	ug/L	5.0168 ppb	08:09:17
3	Cr 267.716†	588.8	510.8	5.1707	ug/L	5.1707 ppb	08:09:17
3	Cu 324.752†	9662.9	3642.6	10.297	ug/L	10.297 ppb	08:08:57
3	Mn 257.610†	11054.0	10603.0	10.464	ug/L	10.464 ppb	08:08:57
3	Mo 202.031†	185.2	166.0	10.054	ug/L	10.054 ppb	08:09:17
3	Ni 231.604†	340.1	247.8	5.4108	ug/L	5.4108 ppb	08:09:17
3	P 214.914†	552.1	296.0	152.88	ug/L	152.88 ppb	08:09:17
3	Pb 220.353†	21.8	85.9	9.1090	ug/L	9.1090 ppb	08:09:17
3	S 181.975 Axial†	128.9	80.4	98.568	ug/L	98.568 ppb	08:09:17
3	Sb 206.836†	72.2	31.3	9.6438	ug/L	9.6438 ppb	08:09:17
3	Se 196.026†	20.2	48.8	26.964	ug/L	26.964 ppb	08:09:17
3	Si 251.611†	4247.1	3685.1	103.65	ug/L	103.65 ppb	08:08:57
3	Sn 189.927†	76.4	73.2	10.996	ug/L	10.996 ppb	08:09:17
3	Ti 334.940†	2043.7	3438.8	4.9561	ug/L	4.9561 ppb	08:08:57
3	Tl 190.801†	35.4	83.6	21.759	ug/L	21.759 ppb	08:09:17
3	U 409.014†	-361.1	2009.8	55.350	ug/L	55.350 ppb	08:08:57
3	V 292.402†	-808.3	658.2	4.4202	ug/L	4.4202 ppb	08:08:57
3	Zn 213.857†	2020.3	1234.1	10.054	ug/L	10.054 ppb	08:09:17
3	SiO2†	4132.7	3541.2	213.84	ug/L	213.84 ppb	08:09:32

Mean Data: PQL

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	900948.7	100.23	%	0.512				0.51%
Sc Radial	5623.5	101	%	1.1				1.09%
Y 371.029	746622.4	100.29	%	0.459				0.46%
Y RADIAL	6008.9	101.6	%	1.34				1.32%
Ag 328.068†	1182.2	5.0969	ug/L	0.18247	5.0969	ppb	0.18247	3.58%
QC value within limits for Ag 328.068 Recovery = 101.94%								
Al 396.153Radial†	277.6	201.81	ug/L	12.461	201.81	ppb	12.461	6.17%
QC value within limits for Al 396.153Radial Recovery = 100.91%								
As 188.979†	84.0	30.505	ug/L	1.5273	30.505	ppb	1.5273	5.01%
QC value within limits for As 188.979 Recovery = 101.68%								
B 249.677†	2414.5	49.527	ug/L	0.7040	49.527	ppb	0.7040	1.42%
QC value within limits for B 249.677 Recovery = 99.05%								
Ba 233.527†	741.2	5.0515	ug/L	0.08594	5.0515	ppb	0.08594	1.70%
QC value within limits for Ba 233.527 Recovery = 101.03%								
Be 313.107†	14752.8	4.9573	ug/L	0.02882	4.9573	ppb	0.02882	0.58%
QC value within limits for Be 313.107 Recovery = 99.15%								
Ca 317.933Radial†	147.0	209.57	ug/L	7.646	209.57	ppb	7.646	3.65%

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   QC value within limits for Ca 317.933Radial  Recovery = 104.78%
Cd 226.502†              520.0      5.0795 ug/L       0.05136      5.0795 ppb        0.05136   1.01%
   QC value within limits for Cd 226.502  Recovery = 101.59%
Co 228.616†              280.6      4.9251 ug/L       0.11520      4.9251 ppb        0.11520   2.34%
   QC value within limits for Co 228.616  Recovery = 98.50%
Cr 267.716†              499.2      5.0541 ug/L       0.16234      5.0541 ppb        0.16234   3.21%
   QC value within limits for Cr 267.716  Recovery = 101.08%
Cu 324.752†             3625.4      10.248 ug/L        0.0801      10.248 ppb         0.0801   0.78%
   QC value within limits for Cu 324.752  Recovery = 102.48%
Fe 238.204 Radial†        11.8      98.155 ug/L        8.7175      98.155 ppb         8.7175   8.88%
   QC value within limits for Fe 238.204 Radial  Recovery = 98.16%
K 766.490 Radial†        935.5      164.65 ug/L         3.598      164.65 ppb          3.598   2.19%
   QC value within limits for K 766.490 Radial  Recovery = 109.77%
Mg 279.077 IEC†           10.1      313.02 ug/L        39.010      313.02 ppb         39.010  12.46%
   QC value within limits for Mg 279.077 IEC  Recovery = 104.34%
Mn 257.610†            10628.2      10.487 ug/L        0.0738      10.487 ppb         0.0738   0.70%
   QC value within limits for Mn 257.610  Recovery = 104.87%
Mo 202.031†              164.2      9.9476 ug/L       0.29768      9.9476 ppb        0.29768   2.99%
   QC value within limits for Mo 202.031  Recovery = 99.48%
Na 589.592 Radial†      1021.3      304.81 ug/L         3.405      304.81 ppb          3.405   1.12%
   QC value within limits for Na 589.592 Radial  Recovery = 101.60%
Ni 231.604†              241.6      5.2749 ug/L       0.18821      5.2749 ppb        0.18821   3.57%
   QC value within limits for Ni 231.604  Recovery = 105.50%
P 214.914†               283.5      146.38 ug/L         5.626      146.38 ppb          5.626   3.84%
   QC value within limits for P 214.914  Recovery = 97.59%
Pb 220.353†               87.6      9.2857 ug/L       0.62922      9.2857 ppb        0.62922   6.78%
   QC value within limits for Pb 220.353  Recovery = 92.86%
S 181.975 Axial†          81.3      99.715 ug/L        2.1474      99.715 ppb         2.1474   2.15%
   QC value within limits for S 181.975 Axial  Recovery = 99.71%
Sb 206.836†               33.4      10.261 ug/L        0.5434      10.261 ppb         0.5434   5.30%
   QC value within limits for Sb 206.836  Recovery = 102.61%
Se 196.026†               56.4      31.098 ug/L        3.9950      31.098 ppb         3.9950  12.85%
   QC value within limits for Se 196.026  Recovery = 103.66%
Si 251.611†             3640.4      102.39 ug/L         1.091      102.39 ppb          1.091   1.07%
   QC value within limits for Si 251.611  Recovery = 102.39%
Sn 189.927†               68.9      10.363 ug/L        0.8302      10.363 ppb         0.8302   8.01%
   QC value within limits for Sn 189.927  Recovery = 103.63%
Sr 421.552†              895.6      5.2495 ug/L       0.06354      5.2495 ppb        0.06354   1.21%
   QC value within limits for Sr 421.552  Recovery = 104.99%
Ti 334.940†             3464.5      4.9950 ug/L       0.07476      4.9950 ppb        0.07476   1.50%
   QC value within limits for Ti 334.940  Recovery = 99.90%
Tl 190.801†               81.3      21.166 ug/L        1.2953      21.166 ppb         1.2953   6.12%
   QC value within limits for Tl 190.801  Recovery = 105.83%
U 409.014†              1910.5      52.617 ug/L        2.9189      52.617 ppb         2.9189   5.55%
   QC value within limits for U 409.014  Recovery = 105.23%
V 292.402†               703.5      4.7037 ug/L       0.36683      4.7037 ppb        0.36683   7.80%
   QC value within limits for V 292.402  Recovery = 94.07%
Zn 213.857†             1214.5      9.8944 ug/L       0.14055      9.8944 ppb        0.14055   1.42%
   QC value within limits for Zn 213.857  Recovery = 98.94%
SiO2†                   3560.8      215.03 ug/L         1.879      215.03 ppb          1.879   0.87%
   QC value within limits for SiO2  Recovery = 100.95%
All analyte(s) passed QC.
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Sequence No.: 9
Sample ID: ICSA
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 13
Date Collected: 12/19/2009 08:11:43
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSA

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4965.4	4965.4	89.2	%			08:13:42
1	Y RADIAL	5306.3	5306.3	89.76	%			08:13:42
1	Al 396.153Radial†	638506.0	715917.4	521660	ug/L	521660	ppb	08:13:37
1	Ca 317.933Radial†	304213.5	341068.5	486270	ug/L	486270	ppb	08:13:37
1	Fe 238.204 Radial†	20544.1	23023.4	191390	ug/L	191390	ppb	08:13:42
1	K 766.490 Radial†	2335.1	-94.2	-0.8072	ug/L	-0.8072	ppb	08:13:37
1	Mg 279.077 IEC†	14271.5	16000.0	496650	ug/L	496650	ppb	08:13:42
1	Na 589.592 Radial†	-608.5	79.4	23.702	ug/L	23.702	ppb	08:13:42
1	Sr 421.552†	563.3	643.4	-0.7347	ug/L	-0.7347	ppb	08:13:42
1	Sc 361.383	778772.9	778772.9	86.635	%			08:14:09
1	Y 371.029	629428.6	629428.6	84.548	%			08:14:09
1	Ag 328.068†	-10493.1	-12481.7	3.0959	ug/L	3.0959	ppb	08:14:09
1	As 188.979†	-98.2	-78.5	0.8647	ug/L	0.8647	ppb	08:14:29
1	B 249.677†	880.6	1042.4	-4.0016	ug/L	-4.0016	ppb	08:14:09
1	Ba 233.527†	-608.4	-699.6	2.3815	ug/L	2.3815	ppb	08:14:29
1	Be 313.107†	-5164.9	-1230.5	-0.4597	ug/L	-0.4597	ppb	08:14:09
1	Cd 226.502†	1378.8	1820.7	-1.3254	ug/L	-1.3254	ppb	08:14:29
1	Co 228.616†	2.4	89.9	-1.1513	ug/L	-1.1513	ppb	08:14:29
1	Cr 267.716†	-40.4	-126.8	2.1581	ug/L	2.1581	ppb	08:14:29
1	Cu 324.752†	2906.4	-2700.9	2.1325	ug/L	2.1325	ppb	08:14:09
1	Mn 257.610†	997.1	659.4	10.487	ug/L	10.487	ppb	08:14:09
1	Mo 202.031†	-233.2	-289.1	-3.9219	ug/L	-3.9219	ppb	08:14:29
1	Ni 231.604†	276.7	225.8	4.9336	ug/L	4.9336	ppb	08:14:29
1	P 214.914†	180.9	-49.3	-2.9362	ug/L	-2.9362	ppb	08:14:29
1	Pb 220.353†	-892.7	-966.4	-0.5179	ug/L	-0.5179	ppb	08:14:29
1	S 181.975 Axial†	71.0	32.9	-62.209	ug/L	-62.209	ppb	08:14:29
1	Sb 206.836†	80.1	51.3	2.8317	ug/L	2.8317	ppb	08:14:29
1	Se 196.026†	-1063.3	-1198.8	0.9330	ug/L	0.9330	ppb	08:14:29
1	Si 251.611†	445.1	-63.7	-1.2862	ug/L	-1.2862	ppb	08:14:29
1	Sn 189.927†	-368.7	-429.0	-11.014	ug/L	-11.014	ppb	08:14:29
1	Ti 334.940†	-15524.5	-16531.7	1.4504	ug/L	1.4504	ppb	08:14:09
1	Tl 190.801†	-97.8	-64.8	-2.7545	ug/L	-2.7545	ppb	08:14:29
1	U 409.014†	-1149.3	1045.6	4.7308	ug/L	4.7308	ppb	08:14:09
1	V 292.402†	1033.1	2661.9	-1.1448	ug/L	-1.1448	ppb	08:14:29
1	Zn 213.857†	3396.8	3127.3	-9.6552	ug/L	-9.6552	ppb	08:14:29
1	SiO2†	469.8	-64.3	-2.7856	ug/L	-2.7856	ppb	08:15:26
2	Sc Radial	4901.3	4901.3	88.0	%			08:13:52
2	Y RADIAL	5232.3	5232.3	88.51	%			08:13:52
2	Al 396.153Radial†	635689.0	722076.0	526140	ug/L	526140	ppb	08:13:47
2	Ca 317.933Radial†	302103.7	343130.7	489210	ug/L	489210	ppb	08:13:47
2	Fe 238.204 Radial†	20179.1	22909.9	190450	ug/L	190450	ppb	08:13:52
2	K 766.490 Radial†	2362.7	-28.7	11.005	ug/L	11.005	ppb	08:13:47
2	Mg 279.077 IEC†	14102.8	16017.5	497190	ug/L	497190	ppb	08:13:52
2	Na 589.592 Radial†	-625.8	50.8	15.164	ug/L	15.164	ppb	08:13:52
2	Sr 421.552†	583.9	675.0	-0.5762	ug/L	-0.5762	ppb	08:13:52
2	Sc 361.383	795745.3	795745.3	88.523	%			08:14:35
2	Y 371.029	643936.1	643936.1	86.497	%			08:14:35
2	Ag 328.068†	-10312.9	-12019.8	4.7311	ug/L	4.7311	ppb	08:14:35
2	As 188.979†	-83.9	-60.0	7.4646	ug/L	7.4646	ppb	08:14:55
2	B 249.677†	671.9	785.0	-9.1583	ug/L	-9.1583	ppb	08:14:35
2	Ba 233.527†	-608.0	-684.3	2.4509	ug/L	2.4509	ppb	08:14:55
2	Be 313.107†	-5144.3	-1080.1	-0.4080	ug/L	-0.4080	ppb	08:14:35
2	Cd 226.502†	1361.4	1767.1	-1.7562	ug/L	-1.7562	ppb	08:14:55
2	Co 228.616†	-14.8	70.4	-1.4804	ug/L	-1.4804	ppb	08:14:55
2	Cr 267.716†	-95.4	-187.9	1.5222	ug/L	1.5222	ppb	08:14:55
2	Cu 324.752†	3030.9	-2631.7	2.2797	ug/L	2.2797	ppb	08:14:35
2	Mn 257.610†	1048.8	693.3	10.417	ug/L	10.417	ppb	08:14:35
2	Mo 202.031†	-240.4	-291.5	-4.1337	ug/L	-4.1337	ppb	08:14:55
2	Ni 231.604†	217.9	152.6	3.3328	ug/L	3.3328	ppb	08:14:55

2	P 214.914†	205.7	-25.7	11.586 ug/L	11.586 ppb	08:14:55
2	Pb 220.353†	-895.2	-947.2	2.5837 ug/L	2.5837 ppb	08:14:55
2	S 181.975 Axial†	85.9	48.0	-44.606 ug/L	-44.606 ppb	08:14:55
2	Sb 206.836†	88.7	59.0	5.0050 ug/L	5.0050 ppb	08:14:55
2	Se 196.026†	-1055.7	-1164.1	17.648 ug/L	17.648 ppb	08:14:55
2	Si 251.611†	453.9	-64.7	-1.3115 ug/L	-1.3115 ppb	08:14:55
2	Sn 189.927†	-384.2	-437.5	-11.990 ug/L	-11.990 ppb	08:14:55
2	Ti 334.940†	-15481.1	-16100.5	2.2289 ug/L	2.2289 ppb	08:14:35
2	Tl 190.801†	-106.0	-71.7	-4.4083 ug/L	-4.4083 ppb	08:14:55
2	U 409.014†	-1282.8	923.1	1.4750 ug/L	1.4750 ppb	08:14:35
2	V 292.402†	1054.5	2660.6	-1.0061 ug/L	-1.0061 ppb	08:14:55
2	Zn 213.857†	3381.4	3026.3	-10.402 ug/L	-10.402 ppb	08:14:55
2	SiO2†	479.1	-65.4	-2.8444 ug/L	-2.8444 ppb	08:15:31
3	Sc Radial	4971.1	4971.1	89.3 %		08:14:03
3	Y RADIAL	5311.8	5311.8	89.86 %		08:14:03
3	Al 396.153Radial†	633647.8	709660.3	517100 ug/L	517100 ppb	08:13:58
3	Ca 317.933Radial†	300431.0	336443.5	479680 ug/L	479680 ppb	08:13:58
3	Fe 238.204 Radial†	20276.7	22697.7	188690 ug/L	188690 ppb	08:14:03
3	K 766.490 Radial†	2406.6	-17.2	12.829 ug/L	12.829 ppb	08:13:58
3	Mg 279.077 IEC†	14177.2	15876.2	492800 ug/L	492800 ppb	08:14:03
3	Na 589.592 Radial†	-616.3	71.4	21.317 ug/L	21.317 ppb	08:14:03
3	Sr 421.552†	592.0	674.8	-0.4894 ug/L	-0.4894 ppb	08:14:03
3	Sc 361.383	688555.3	688555.3	76.599 %		08:15:00
3	Y 371.029	557089.3	557089.3	74.831 %		08:15:00
3	Ag 328.068†	-10825.8	-14503.0	-6.4178 ug/L	-6.4178 ppb	08:15:00
3	As 188.979†	-106.0	-103.5	-8.6520 ug/L	-8.6520 ppb	08:15:20
3	B 249.677†	803.0	1074.3	-2.9874 ug/L	-2.9874 ppb	08:15:00
3	Ba 233.527†	-575.9	-749.2	1.9467 ug/L	1.9467 ppb	08:15:20
3	Be 313.107†	-5212.8	-2074.2	-0.7498 ug/L	-0.7498 ppb	08:15:00
3	Cd 226.502†	1363.2	2008.8	0.7842 ug/L	0.7842 ppb	08:15:20
3	Co 228.616†	-1.3	85.5	-1.1883 ug/L	-1.1883 ppb	08:15:20
3	Cr 267.716†	-65.4	-165.6	1.7183 ug/L	1.7183 ppb	08:15:20
3	Cu 324.752†	2702.2	-2527.8	2.4833 ug/L	2.4833 ppb	08:15:00
3	Mn 257.610†	1011.8	829.4	10.457 ug/L	10.457 ppb	08:15:00
3	Mo 202.031†	-232.1	-322.9	-6.1608 ug/L	-6.1608 ppb	08:15:20
3	Ni 231.604†	224.5	199.6	4.3593 ug/L	4.3593 ppb	08:15:20
3	P 214.914†	183.2	-18.9	13.324 ug/L	13.324 ppb	08:15:20
3	Pb 220.353†	-884.9	-1091.2	-14.475 ug/L	-14.475 ppb	08:15:20
3	S 181.975 Axial†	84.5	61.3	-26.486 ug/L	-26.486 ppb	08:15:20
3	Sb 206.836†	85.4	70.2	8.4040 ug/L	8.4040 ppb	08:15:20
3	Se 196.026†	-1049.6	-1341.7	-85.771 ug/L	-85.771 ppb	08:15:20
3	Si 251.611†	468.7	34.4	1.5400 ug/L	1.5400 ppb	08:15:20
3	Sn 189.927†	-373.7	-491.4	-21.083 ug/L	-21.083 ppb	08:15:20
3	Ti 334.940†	-15677.1	-19078.9	-2.5757 ug/L	-2.5757 ppb	08:15:00
3	Tl 190.801†	-99.2	-81.4	-7.2071 ug/L	-7.2071 ppb	08:15:20
3	U 409.014†	-1051.8	999.1	3.7920 ug/L	3.7920 ppb	08:15:00
3	V 292.402†	1041.5	2829.1	0.2161 ug/L	0.2161 ppb	08:15:20
3	Zn 213.857†	3415.0	3664.7	-4.8544 ug/L	-4.8544 ppb	08:15:20
3	SiO2†	413.2	-67.3	-2.8308 ug/L	-2.8308 ppb	08:15:36

Mean Data: ICSA

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	754357.8	83.919	%	6.4094				7.64%
Sc Radial	4945.9	88.8	%	0.70				0.78%
Y 371.029	610151.3	81.958	%	6.2491				7.62%
Y RADIAL	5283.5	89.38	%	0.751				0.84%
Ag 328.068†	-13001.5	0.4697	ug/L	6.02056	0.4697	ppb	6.02056	>999.9%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	715884.6	521630	ug/L	4523.4	521630	ppb	4523.4	0.87%
QC value within limits for Al 396.153Radial Recovery = 104.33%								
As 188.979†	-80.7	-0.1076	ug/L	8.10215	-0.1076	ppb	8.10215	>999.9%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	967.2	-5.3824	ug/L	3.30909	-5.3824	ppb	3.30909	61.48%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-711.0	2.2597	ug/L	0.27329	2.2597	ppb	0.27329	12.09%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-1461.6	-0.5392	ug/L	0.18426	-0.5392	ppb	0.18426	34.18%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	340214.2	485050	ug/L	4882.4	485050	ppb	4882.4	1.01%

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   QC value within limits for Ca 317.933Radial  Recovery = 97.01%
Cd 226.502†            1865.5     -0.7658 ug/L       1.35952     -0.7658 ppb        1.35952 177.52%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†              81.9     -1.2734 ug/L       0.18027     -1.2734 ppb        0.18027  14.16%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†            -160.1      1.7995 ug/L       0.32565      1.7995 ppb        0.32565  18.10%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†           -2620.1      2.2985 ug/L       0.17615      2.2985 ppb        0.17615   7.66%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†    22877.0      190180 ug/L        1374.2      190180 ppb         1374.2   0.72%
   QC value within limits for Fe 238.204 Radial  Recovery = 95.09%
K 766.490 Radial†        -46.7      7.6756 ug/L       7.40261      7.6756 ppb        7.40261  96.44%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†       15964.6      495550 ug/L        2391.4      495550 ppb         2391.4   0.48%
   QC value within limits for Mg 279.077 IEC  Recovery = 99.11%
Mn 257.610†             727.4      10.454 ug/L        0.0355      10.454 ppb         0.0355   0.34%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†            -301.2     -4.7388 ug/L       1.23603     -4.7388 ppb        1.23603  26.08%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       67.2      20.061 ug/L        4.4057      20.061 ppb         4.4057  21.96%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†             192.7      4.2085 ug/L       0.81095      4.2085 ppb        0.81095  19.27%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†              -31.3      7.3245 ug/L       8.92847      7.3245 ppb        8.92847 121.90%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†           -1001.6     -4.1363 ug/L       9.08662     -4.1363 ppb        9.08662 219.68%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         47.4     -44.434 ug/L       17.8622     -44.434 ppb        17.8622  40.20%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              60.2      5.4136 ug/L       2.80850      5.4136 ppb        2.80850  51.88%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†           -1234.9     -22.397 ug/L       55.5164     -22.397 ppb        55.5164 247.88%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†              -31.4     -0.3526 ug/L       1.63904     -0.3526 ppb        1.63904 464.89%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†            -452.6     -14.696 ug/L        5.5534     -14.696 ppb         5.5534  37.79%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             664.4     -0.6001 ug/L       0.12435     -0.6001 ppb        0.12435  20.72%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†          -17237.0      0.3679 ug/L       2.57876      0.3679 ppb        2.57876 700.99%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -72.6     -4.7900 ug/L       2.25068     -4.7900 ppb        2.25068  46.99%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              989.3      3.3326 ug/L       1.67580      3.3326 ppb        1.67580  50.28%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†             2717.2     -0.6449 ug/L       0.74892     -0.6449 ppb        0.74892 116.12%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†            3272.7     -8.3039 ug/L       3.01059     -8.3039 ppb        3.01059  36.26%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                    -65.7     -2.8203 ug/L       0.03079     -2.8203 ppb        0.03079   1.09%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 10
Sample ID: ICSAB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 14
Date Collected: 12/19/2009 08:17:47
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSAB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4945.8	4945.8	88.8	%			08:19:45
1	Y RADIAL	5290.0	5290.0	89.49	%			08:19:45
1	Al 396.153Radial†	649158.0	730747.4	532440	ug/L	532440	ppb	08:19:40
1	Ca 317.933Radial†	306372.6	344851.8	491670	ug/L	491670	ppb	08:19:40
1	Fe 238.204 Radial†	20544.0	23114.7	192170	ug/L	192170	ppb	08:19:45
1	K 766.490 Radial†	31006.4	32190.2	5683.8	ug/L	5683.8	ppb	08:19:40
1	Mg 279.077 IEC†	14326.2	16125.0	500540	ug/L	500540	ppb	08:19:45
1	Na 589.592 Radial†	15924.6	18687.3	5577.6	ug/L	5577.6	ppb	08:19:45
1	Sr 421.552†	80481.3	90606.3	526.75	ug/L	526.75	ppb	08:19:40
1	Sc 361.383	846053.0	846053.0	94.120	%			08:20:13
1	Y 371.029	681027.6	681027.6	91.479	%			08:20:13
1	Ag 328.068†	43870.3	46241.1	257.76	ug/L	257.76	ppb	08:20:13
1	As 188.979†	1126.7	1232.0	480.02	ug/L	480.02	ppb	08:20:33
1	B 249.677†	22781.5	24230.6	470.74	ug/L	470.74	ppb	08:20:13
1	Ba 233.527†	61601.7	65452.8	453.04	ug/L	453.04	ppb	08:20:13
1	Be 313.107†	618819.6	662210.5	222.94	ug/L	222.94	ppb	08:20:13
1	Cd 226.502†	42944.6	45856.7	429.53	ug/L	429.53	ppb	08:20:13
1	Co 228.616†	22094.1	23561.5	409.91	ug/L	409.91	ppb	08:20:33
1	Cr 267.716†	40874.9	43348.3	443.61	ug/L	443.61	ppb	08:20:13
1	Cu 324.752†	170907.8	175529.5	505.74	ug/L	505.74	ppb	08:20:13
1	Mn 257.610†	419056.0	444744.4	448.52	ug/L	448.52	ppb	08:20:13
1	Mo 202.031†	6864.1	7273.0	453.88	ug/L	453.88	ppb	08:20:33
1	Ni 231.604†	18085.3	19121.5	417.52	ug/L	417.52	ppb	08:20:33
1	P 214.914†	4401.8	4418.7	2256.3	ug/L	2256.3	ppb	08:20:33
1	Pb 220.353†	2905.8	3151.4	436.49	ug/L	436.49	ppb	08:20:33
1	S 181.975 Axial†	1970.0	2044.0	2402.9	ug/L	2402.9	ppb	08:20:33
1	Sb 206.836†	1588.2	1646.2	487.46	ug/L	487.46	ppb	08:20:33
1	Se 196.026†	2958.8	3172.1	2387.7	ug/L	2387.7	ppb	08:20:33
1	Si 251.611†	159892.3	169303.9	4763.2	ug/L	4763.2	ppb	08:20:13
1	Sn 189.927†	2475.2	2626.4	447.80	ug/L	447.80	ppb	08:20:33
1	Ti 334.940†	284350.0	303501.9	464.10	ug/L	464.10	ppb	08:20:13
1	Tl 190.801†	1438.7	1576.7	426.40	ug/L	426.40	ppb	08:20:33
1	U 409.014†	14007.9	17255.2	450.39	ug/L	450.39	ppb	08:20:13
1	V 292.402†	68909.8	74684.2	463.64	ug/L	463.64	ppb	08:20:13
1	Zn 213.857†	55486.5	58159.4	438.24	ug/L	438.24	ppb	08:20:13
1	SiO2†	162686.8	172243.8	10406	ug/L	10406	ppb	08:21:30
2	Sc Radial	5012.9	5012.9	90.0	%			08:19:55
2	Y RADIAL	5292.6	5292.6	89.53	%			08:19:55
2	Al 396.153Radial†	634040.9	704178.7	513080	ug/L	513080	ppb	08:19:50
2	Ca 317.933Radial†	299837.9	332978.7	474740	ug/L	474740	ppb	08:19:50
2	Fe 238.204 Radial†	20307.6	22542.7	187410	ug/L	187410	ppb	08:19:55
2	K 766.490 Radial†	30485.8	31144.9	5498.6	ug/L	5498.6	ppb	08:19:50
2	Mg 279.077 IEC†	14177.9	15744.5	488730	ug/L	488730	ppb	08:19:55
2	Na 589.592 Radial†	15816.9	18327.8	5470.3	ug/L	5470.3	ppb	08:19:55
2	Sr 421.552†	78493.1	87185.8	506.85	ug/L	506.85	ppb	08:19:50
2	Sc 361.383	794837.6	794837.6	88.422	%			08:20:39
2	Y 371.029	640297.9	640297.9	86.008	%			08:20:39
2	Ag 328.068†	44144.7	49554.8	270.82	ug/L	270.82	ppb	08:20:39
2	As 188.979†	1096.9	1275.3	495.29	ug/L	495.29	ppb	08:20:59
2	B 249.677†	23009.8	26048.5	508.62	ug/L	508.62	ppb	08:20:39
2	Ba 233.527†	62311.0	70472.2	487.07	ug/L	487.07	ppb	08:20:39
2	Be 313.107†	625476.7	712104.0	239.74	ug/L	239.74	ppb	08:20:39
2	Cd 226.502†	43451.7	49370.2	464.38	ug/L	464.38	ppb	08:20:39
2	Co 228.616†	21876.1	24827.5	432.12	ug/L	432.12	ppb	08:20:59
2	Cr 267.716†	41398.8	46739.2	477.96	ug/L	477.96	ppb	08:20:39
2	Cu 324.752†	172883.1	189463.8	544.86	ug/L	544.86	ppb	08:20:39
2	Mn 257.610†	424144.0	479187.4	482.24	ug/L	482.24	ppb	08:20:39
2	Mo 202.031†	6792.1	7661.5	477.05	ug/L	477.05	ppb	08:20:59
2	Ni 231.604†	17873.4	20120.0	439.33	ug/L	439.33	ppb	08:20:59

2	P 214.914†	4374.0	4688.6	2388.3	ug/L	2388.3 ppb	08:20:59
2	Pb 220.353†	2873.4	3313.7	449.68	ug/L	449.68 ppb	08:20:59
2	S 181.975 Axial†	1954.0	2160.8	2550.0	ug/L	2550.0 ppb	08:20:59
2	Sb 206.836†	1583.3	1749.3	518.94	ug/L	518.94 ppb	08:20:59
2	Se 196.026†	2957.7	3373.4	2480.3	ug/L	2480.3 ppb	08:20:59
2	Si 251.611†	161618.2	182202.1	5126.5	ug/L	5126.5 ppb	08:20:39
2	Sn 189.927†	2485.1	2807.0	473.06	ug/L	473.06 ppb	08:20:59
2	Ti 334.940†	288683.6	327869.7	498.42	ug/L	498.42 ppb	08:20:39
2	Tl 190.801†	1439.3	1675.8	451.85	ug/L	451.85 ppb	08:20:59
2	U 409.014†	14050.3	18262.2	478.67	ug/L	478.67 ppb	08:20:39
2	V 292.402†	70005.4	80640.9	502.32	ug/L	502.32 ppb	08:20:39
2	Zn 213.857†	56214.9	62781.8	476.82	ug/L	476.82 ppb	08:20:39
2	SiO2†	160671.6	181102.4	10941	ug/L	10941 ppb	08:21:36
3	Sc Radial	5091.8	5091.8	91.5	%		08:20:05
3	Y RADIAL	5391.7	5391.7	91.21	%		08:20:05
3	Al 396.153Radial†	654310.0	715428.8	521280	ug/L	521280 ppb	08:20:00
3	Ca 317.933Radial†	309162.3	338013.7	481920	ug/L	481920 ppb	08:20:00
3	Fe 238.204 Radial†	20589.4	22501.3	187070	ug/L	187070 ppb	08:20:05
3	K 766.490 Radial†	31512.7	31743.1	5604.4	ug/L	5604.4 ppb	08:20:00
3	Mg 279.077 IEC†	14360.6	15700.3	487350	ug/L	487350 ppb	08:20:05
3	Na 589.592 Radial†	16040.8	18300.4	5462.1	ug/L	5462.1 ppb	08:20:05
3	Sr 421.552†	81447.7	89065.5	517.80	ug/L	517.80 ppb	08:20:00
3	Sc 361.383	796544.8	796544.8	88.612	%		08:21:05
3	Y 371.029	642022.6	642022.6	86.240	%		08:21:05
3	Ag 328.068†	44226.6	49540.3	270.53	ug/L	270.53 ppb	08:21:05
3	As 188.979†	1109.1	1286.4	499.27	ug/L	499.27 ppb	08:21:25
3	B 249.677†	23022.9	26007.5	507.83	ug/L	507.83 ppb	08:21:05
3	Ba 233.527†	62498.9	70533.2	487.47	ug/L	487.47 ppb	08:21:05
3	Be 313.107†	626717.7	711988.3	239.70	ug/L	239.70 ppb	08:21:05
3	Cd 226.502†	43501.3	49320.9	463.93	ug/L	463.93 ppb	08:21:05
3	Co 228.616†	21909.9	24812.6	431.87	ug/L	431.87 ppb	08:21:25
3	Cr 267.716†	41480.6	46731.2	477.87	ug/L	477.87 ppb	08:21:05
3	Cu 324.752†	172868.1	189027.8	543.61	ug/L	543.61 ppb	08:21:05
3	Mn 257.610†	424544.9	478611.7	481.67	ug/L	481.67 ppb	08:21:05
3	Mo 202.031†	6820.1	7676.7	477.95	ug/L	477.95 ppb	08:21:25
3	Ni 231.604†	17905.2	20112.6	439.16	ug/L	439.16 ppb	08:21:25
3	P 214.914†	4419.0	4728.8	2412.5	ug/L	2412.5 ppb	08:21:25
3	Pb 220.353†	2872.8	3306.1	450.74	ug/L	450.74 ppb	08:21:25
3	S 181.975 Axial†	1967.0	2170.8	2560.6	ug/L	2560.6 ppb	08:21:25
3	Sb 206.836†	1577.2	1738.7	515.45	ug/L	515.45 ppb	08:21:25
3	Se 196.026†	2951.7	3359.5	2472.8	ug/L	2472.8 ppb	08:21:25
3	Si 251.611†	161769.8	181981.4	5120.3	ug/L	5120.3 ppb	08:21:05
3	Sn 189.927†	2461.1	2773.9	468.84	ug/L	468.84 ppb	08:21:25
3	Ti 334.940†	288848.1	327355.6	498.05	ug/L	498.05 ppb	08:21:05
3	Tl 190.801†	1440.7	1673.9	451.59	ug/L	451.59 ppb	08:21:25
3	U 409.014†	14160.4	18352.4	481.20	ug/L	481.20 ppb	08:21:05
3	V 292.402†	70009.9	80476.3	501.31	ug/L	501.31 ppb	08:21:05
3	Zn 213.857†	56232.2	62665.1	475.95	ug/L	475.95 ppb	08:21:05
3	SiO2†	160728.6	180777.2	10921	ug/L	10921 ppb	08:21:41

Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	812478.5	90.385	%	3.2360				3.58%
Sc Radial	5016.8	90.1	%	1.31				1.46%
Y 371.029	654449.4	87.909	%	3.0940				3.52%
Y RADIAL	5324.8	90.08	%	0.981				1.09%
Ag 328.068†	48445.4	266.37	ug/L	7.461	266.37	ppb	7.461	2.80%
QC value within limits for Ag 328.068 Recovery = 106.55%								
Al 396.153Radial†	716785.0	522270	ug/L	9718.0	522270	ppb	9718.0	1.86%
QC value within limits for Al 396.153Radial Recovery = 104.45%								
As 188.979†	1264.6	491.53	ug/L	10.162	491.53	ppb	10.162	2.07%
QC value within limits for As 188.979 Recovery = 98.31%								
B 249.677†	25428.9	495.73	ug/L	21.645	495.73	ppb	21.645	4.37%
QC value within limits for B 249.677 Recovery = 99.15%								
Ba 233.527†	68819.4	475.86	ug/L	19.760	475.86	ppb	19.760	4.15%
QC value within limits for Ba 233.527 Recovery = 95.17%								
Be 313.107†	695434.3	234.13	ug/L	9.689	234.13	ppb	9.689	4.14%
QC value within limits for Be 313.107 Recovery = 93.65%								
Ca 317.933Radial†	338614.7	482770	ug/L	8496.4	482770	ppb	8496.4	1.76%

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   QC value within limits for Ca 317.933Radial  Recovery = 96.55%
Cd 226.502†            48182.6      452.61 ug/L        19.993      452.61 ppb        19.993   4.42%
   QC value within limits for Cd 226.502  Recovery = 90.52%
Co 228.616†            24400.5      424.63 ug/L        12.754      424.63 ppb        12.754   3.00%
   QC value within limits for Co 228.616  Recovery = 84.93%
Cr 267.716†            45606.2      466.48 ug/L        19.807      466.48 ppb        19.807   4.25%
   QC value within limits for Cr 267.716  Recovery = 93.30%
Cu 324.752†           184673.7      531.41 ug/L        22.238      531.41 ppb        22.238   4.18%
   QC value within limits for Cu 324.752  Recovery = 106.28%
Fe 238.204 Radial†     22719.6      188880 ug/L        2849.5      188880 ppb        2849.5   1.51%
   QC value within limits for Fe 238.204 Radial  Recovery = 94.44%
K 766.490 Radial†      31692.7      5595.6 ug/L         92.94      5595.6 ppb         92.94   1.66%
   QC value within limits for K 766.490 Radial  Recovery = 111.91%
Mg 279.077 IEC†        15856.6      492210 ug/L        7247.9      492210 ppb        7247.9   1.47%
   QC value within limits for Mg 279.077 IEC  Recovery = 98.44%
Mn 257.610†           467514.5      470.81 ug/L        19.304      470.81 ppb        19.304   4.10%
   QC value within limits for Mn 257.610  Recovery = 94.16%
Mo 202.031†             7537.1      469.63 ug/L        13.647      469.63 ppb        13.647   2.91%
   QC value within limits for Mo 202.031  Recovery = 93.93%
Na 589.592 Radial†     18438.5      5503.4 ug/L         64.45      5503.4 ppb         64.45   1.17%
   QC value within limits for Na 589.592 Radial  Recovery = 110.07%
Ni 231.604†            19784.7      432.01 ug/L        12.541      432.01 ppb        12.541   2.90%
   QC value within limits for Ni 231.604  Recovery = 86.40%
P 214.914†              4612.0      2352.4 ug/L         84.11      2352.4 ppb         84.11   3.58%
   QC value within limits for P 214.914  Recovery = 94.10%
Pb 220.353†             3257.1      445.64 ug/L         7.937      445.64 ppb         7.937   1.78%
   QC value within limits for Pb 220.353  Recovery = 89.13%
S 181.975 Axial†        2125.2      2504.5 ug/L         88.15      2504.5 ppb         88.15   3.52%
   QC value within limits for S 181.975 Axial  Recovery = 100.18%
Sb 206.836†             1711.4      507.28 ug/L        17.259      507.28 ppb        17.259   3.40%
   QC value within limits for Sb 206.836  Recovery = 101.46%
Se 196.026†             3301.7      2446.9 ug/L         51.44      2446.9 ppb         51.44   2.10%
   QC value within limits for Se 196.026  Recovery = 97.88%
Si 251.611†           177829.1      5003.3 ug/L        207.95      5003.3 ppb        207.95   4.16%
   QC value within limits for Si 251.611  Recovery = 100.07%
Sn 189.927†             2735.8      463.23 ug/L        13.532      463.23 ppb        13.532   2.92%
   QC value within limits for Sn 189.927  Recovery = 92.65%
Sr 421.552†            88952.5      517.13 ug/L         9.967      517.13 ppb         9.967   1.93%
   QC value within limits for Sr 421.552  Recovery = 103.43%
Ti 334.940†           319575.7      486.86 ug/L        19.711      486.86 ppb        19.711   4.05%
   QC value within limits for Ti 334.940  Recovery = 97.37%
Tl 190.801†             1642.1      443.28 ug/L        14.620      443.28 ppb        14.620   3.30%
   QC value within limits for Tl 190.801  Recovery = 88.66%
U 409.014†             17956.6      470.08 ug/L        17.102      470.08 ppb        17.102   3.64%
   QC value within limits for U 409.014  Recovery = 94.02%
V 292.402†             78600.5      489.09 ug/L        22.047      489.09 ppb        22.047   4.51%
   QC value within limits for V 292.402  Recovery = 97.82%
Zn 213.857†            61202.1      463.67 ug/L        22.027      463.67 ppb        22.027   4.75%
   QC value within limits for Zn 213.857  Recovery = 92.73%
SiO2†                 178041.1       10756 ug/L         303.6       10756 ppb         303.6   2.82%
   QC value within limits for SiO2  Recovery = 100.57%
All analyte(s) passed QC.
```

Sequence No.: 11
Sample ID: LR1
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 15
Date Collected: 12/19/2009 08:23:51
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4692.3	4692.3	84.3	%			08:25:48
1	Y RADIAL	5012.9	5012.9	84.80	%			08:25:48
1	Al 396.153Radial†	614656.2	729282.0	531400	ug/L	531400	ppb	08:25:43
1	Ca 317.933Radial†	293765.5	348521.8	496900	ug/L	496900	ppb	08:25:43
1	Fe 238.204 Radial†	48062.2	57013.0	473950	ug/L	473950	ppb	08:25:48
1	K 766.490 Radial†	2819.2	632.5	-117.10	ug/L	-117.10	ppb	08:25:43
1	Mg 279.077 IEC†	13987.6	16594.3	514860	ug/L	514860	ppb	08:25:48
1	Na 589.592 Radial†	1624875.8	1928613.4	575630	ug/L	575630	ppb	08:25:43
1	Sr 421.552†	882.2	1058.5	1.6014	ug/L	1.6014	ppb	08:25:48
1	Sc 361.383	769480.6	769480.6	85.602	%			08:26:17
1	Y 371.029	622972.7	622972.7	83.681	%			08:26:17
1	Ag 328.068†	-24603.7	-29112.1	13.395	ug/L	13.395	ppb	08:26:17
1	As 188.979†	-214.3	-215.5	-5.0853	ug/L	-5.0853	ppb	08:26:37
1	B 249.677†	1848.7	2185.6	-18.034	ug/L	-18.034	ppb	08:26:17
1	Ba 233.527†	-1673.2	-1952.1	4.3798	ug/L	4.3798	ppb	08:26:37
1	Be 313.107†	-11864.9	-9129.5	-3.0844	ug/L	-3.0844	ppb	08:26:17
1	Cd 226.502†	3618.4	4456.2	-3.7990	ug/L	-3.7990	ppb	08:26:37
1	Co 228.616†	237.2	364.2	-0.4639	ug/L	-0.4639	ppb	08:26:37
1	Cr 267.716†	46.1	-26.3	3.5909	ug/L	3.5909	ppb	08:26:37
1	Cu 324.752†	-122.5	-6198.7	6.6635	ug/L	6.6635	ppb	08:26:17
1	Mn 257.610†	-25217.2	-29950.3	8.1288	ug/L	8.1288	ppb	08:26:17
1	Mo 202.031†	-528.1	-636.8	-4.9235	ug/L	-4.9235	ppb	08:26:17
1	Ni 231.604†	271.7	223.8	4.8852	ug/L	4.8852	ppb	08:26:37
1	P 214.914†	607.7	451.8	35.364	ug/L	35.364	ppb	08:26:37
1	Pb 220.353†	-643.5	-687.6	7.8042	ug/L	7.8042	ppb	08:26:37
1	S 181.975 Axial†	120.2	91.4	7.5621	ug/L	7.5621	ppb	08:26:37
1	Sb 206.836†	58.5	27.1	-0.7172	ug/L	-0.7172	ppb	08:26:37
1	Se 196.026†	-2491.1	-2881.5	-56.706	ug/L	-56.706	ppb	08:26:37
1	Si 251.611†	-565.0	-1237.5	-34.030	ug/L	-34.030	ppb	08:26:37
1	Sn 189.927†	-420.1	-494.3	-15.912	ug/L	-15.912	ppb	08:26:37
1	Ti 334.940†	-8021.9	-7983.6	7.9674	ug/L	7.9674	ppb	08:26:17
1	Tl 190.801†	-135.5	-110.3	-14.412	ug/L	-14.412	ppb	08:26:37
1	U 409.014†	449025.2	526924.4	14458	ug/L	14458	ppb	08:26:17
1	V 292.402†	2871.1	4823.4	-2.1401	ug/L	-2.1401	ppb	08:26:17
1	Zn 213.857†	6450.9	6742.4	-7.6041	ug/L	-7.6041	ppb	08:26:37
1	SiO2†	-680.3	-1401.4	-82.979	ug/L	-82.979	ppb	08:27:34
2	Sc Radial	4757.0	4757.0	85.4	%			08:25:59
2	Y RADIAL	5107.7	5107.7	86.40	%			08:25:59
2	Al 396.153Radial†	632178.8	739878.4	539120	ug/L	539120	ppb	08:25:54
2	Ca 317.933Radial†	300099.2	351197.5	500710	ug/L	500710	ppb	08:25:54
2	Fe 238.204 Radial†	47847.0	55986.2	465420	ug/L	465420	ppb	08:25:59
2	K 766.490 Radial†	2689.4	435.1	-151.46	ug/L	-151.46	ppb	08:25:54
2	Mg 279.077 IEC†	13913.0	16281.5	505150	ug/L	505150	ppb	08:25:59
2	Na 589.592 Radial†	1647947.9	1929415.4	575870	ug/L	575870	ppb	08:25:54
2	Sr 421.552†	822.6	974.6	1.0736	ug/L	1.0736	ppb	08:25:59
2	Sc 361.383	829578.9	829578.9	92.287	%			08:26:43
2	Y 371.029	670999.6	670999.6	90.132	%			08:26:43
2	Ag 328.068†	-24230.2	-26625.1	22.193	ug/L	22.193	ppb	08:26:43
2	As 188.979†	-212.6	-195.6	0.8307	ug/L	0.8307	ppb	08:27:03
2	B 249.677†	1914.5	2100.4	-18.649	ug/L	-18.649	ppb	08:26:43
2	Ba 233.527†	-1708.3	-1848.4	4.7599	ug/L	4.7599	ppb	08:27:03
2	Be 313.107†	-11729.1	-7978.2	-2.6975	ug/L	-2.6975	ppb	08:26:43
2	Cd 226.502†	3617.7	4149.2	-5.9484	ug/L	-5.9484	ppb	08:27:03
2	Co 228.616†	228.3	334.4	-0.8544	ug/L	-0.8544	ppb	08:27:03
2	Cr 267.716†	-3.7	-84.2	3.2232	ug/L	3.2232	ppb	08:27:03
2	Cu 324.752†	-70.9	-6132.4	6.4154	ug/L	6.4154	ppb	08:26:43
2	Mn 257.610†	-25124.3	-27715.5	9.6628	ug/L	9.6628	ppb	08:26:43
2	Mo 202.031†	-514.6	-577.5	-1.9424	ug/L	-1.9424	ppb	08:26:43
2	Ni 231.604†	300.2	231.7	5.0587	ug/L	5.0587	ppb	08:27:03

2	P 214.914†	636.5	431.6	34.371	ug/L	34.371 ppb	08:27:03
2	Pb 220.353†	-640.8	-630.3	16.292	ug/L	16.292 ppb	08:27:03
2	S 181.975 Axial†	140.3	103.0	20.303	ug/L	20.303 ppb	08:27:03
2	Sb 206.836†	63.8	27.9	-0.6703	ug/L	-0.6703 ppb	08:27:03
2	Se 196.026†	-2501.1	-2681.6	27.385	ug/L	27.385 ppb	08:27:03
2	Si 251.611†	-576.5	-1202.1	-33.099	ug/L	-33.099 ppb	08:27:03
2	Sn 189.927†	-423.3	-462.2	-10.812	ug/L	-10.812 ppb	08:27:03
2	Ti 334.940†	-8412.1	-7727.5	9.0551	ug/L	9.0551 ppb	08:26:43
2	Tl 190.801†	-122.0	-84.2	-7.4033	ug/L	-7.4033 ppb	08:27:03
2	U 409.014†	444768.1	484310.7	13285	ug/L	13285 ppb	08:26:43
2	V 292.402†	2601.5	4288.3	-6.6933	ug/L	-6.6933 ppb	08:26:43
2	Zn 213.857†	6480.7	6228.8	-10.670	ug/L	-10.670 ppb	08:27:03
2	SiO2†	-535.4	-1186.8	-70.127	ug/L	-70.127 ppb	08:27:39
3	Sc Radial	4910.4	4910.4	88.2	%		08:26:10
3	Y RADIAL	5233.2	5233.2	88.53	%		08:26:10
3	Al 396.153Radial†	628142.7	712191.4	518940	ug/L	518940 ppb	08:26:05
3	Ca 317.933Radial†	298967.6	338943.6	483240	ug/L	483240 ppb	08:26:05
3	Fe 238.204 Radial†	47717.5	54090.2	449660	ug/L	449660 ppb	08:26:10
3	K 766.490 Radial†	2761.1	418.0	-147.53	ug/L	-147.53 ppb	08:26:05
3	Mg 279.077 IEC†	13878.2	15733.4	488150	ug/L	488150 ppb	08:26:10
3	Na 589.592 Radial†	1647451.6	1868607.7	557720	ug/L	557720 ppb	08:26:05
3	Sr 421.552†	859.2	986.0	1.3026	ug/L	1.3026 ppb	08:26:10
3	Sc 361.383	776834.8	776834.8	86.420	%		08:27:08
3	Y 371.029	628719.7	628719.7	84.453	%		08:27:08
3	Ag 328.068†	-24650.2	-28893.7	6.4605	ug/L	6.4605 ppb	08:27:08
3	As 188.979†	-221.8	-221.9	-11.149	ug/L	-11.149 ppb	08:27:28
3	B 249.677†	1839.3	2154.2	-15.456	ug/L	-15.456 ppb	08:27:08
3	Ba 233.527†	-1717.7	-1985.0	3.2537	ug/L	3.2537 ppb	08:27:28
3	Be 313.107†	-11829.8	-8957.7	-3.0274	ug/L	-3.0274 ppb	08:27:08
3	Cd 226.502†	3550.7	4337.9	-2.5268	ug/L	-2.5268 ppb	08:27:28
3	Co 228.616†	241.7	366.8	-0.0775	ug/L	-0.0775 ppb	08:27:28
3	Cr 267.716†	10.6	-67.9	2.7514	ug/L	2.7514 ppb	08:27:28
3	Cu 324.752†	-204.6	-6292.3	5.1597	ug/L	5.1597 ppb	08:27:08
3	Mn 257.610†	-25758.5	-30297.8	5.8607	ug/L	5.8607 ppb	08:27:08
3	Mo 202.031†	-568.2	-677.4	-9.1084	ug/L	-9.1084 ppb	08:27:08
3	Ni 231.604†	306.0	260.5	5.6873	ug/L	5.6873 ppb	08:27:28
3	P 214.914†	617.6	456.6	53.301	ug/L	53.301 ppb	08:27:28
3	Pb 220.353†	-644.2	-681.4	7.6517	ug/L	7.6517 ppb	08:27:28
3	S 181.975 Axial†	132.5	104.3	25.899	ug/L	25.899 ppb	08:27:28
3	Sb 206.836†	62.4	31.0	0.4261	ug/L	0.4261 ppb	08:27:28
3	Se 196.026†	-2448.9	-2805.2	-90.632	ug/L	-90.632 ppb	08:27:28
3	Si 251.611†	-543.6	-1206.5	-33.113	ug/L	-33.113 ppb	08:27:28
3	Sn 189.927†	-399.4	-465.7	-13.371	ug/L	-13.371 ppb	08:27:28
3	Ti 334.940†	-8307.2	-8225.0	6.9306	ug/L	6.9306 ppb	08:27:08
3	Tl 190.801†	-102.1	-70.1	-4.3326	ug/L	-4.3326 ppb	08:27:28
3	U 409.014†	451578.8	524913.5	14406	ug/L	14406 ppb	08:27:08
3	V 292.402†	2840.2	4756.0	0.3816	ug/L	0.3816 ppb	08:27:08
3	Zn 213.857†	6358.9	6564.6	-5.8321	ug/L	-5.8321 ppb	08:27:28
3	SiO2†	-523.4	-1212.3	-71.434	ug/L	-71.434 ppb	08:27:44

Mean Data: LR1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	791964.8	88.103	%	3.6468				4.14%
Sc Radial	4786.6	86.0	%	2.01				2.34%
Y 371.029	640897.3	86.088	%	3.5230				4.09%
Y RADIAL	5117.9	86.58	%	1.869				2.16%
Ag 328.068†	-28210.3	14.016	ug/L	7.8845	14.016	ppb	7.8845	56.25%
Al 396.153Radial†	727117.3	529820	ug/L	10179.1	529820	ppb	10179.1	1.92%
QC value within limits for Al 396.153Radial Recovery = 105.96%								
As 188.979†	-211.0	-5.1347	ug/L	5.99020	-5.1347	ppb	5.99020	116.66%
B 249.677†	2146.8	-17.380	ug/L	1.6944	-17.380	ppb	1.6944	9.75%
Ba 233.527†	-1928.5	4.1311	ug/L	0.78333	4.1311	ppb	0.78333	18.96%
Be 313.107†	-8688.5	-2.9364	ug/L	0.20885	-2.9364	ppb	0.20885	7.11%
Ca 317.933Radial†	346220.9	493620	ug/L	9185.6	493620	ppb	9185.6	1.86%
QC value within limits for Ca 317.933Radial Recovery = 98.72%								
Cd 226.502†	4314.5	-4.0914	ug/L	1.72944	-4.0914	ppb	1.72944	42.27%
Co 228.616†	355.2	-0.4653	ug/L	0.38848	-0.4653	ppb	0.38848	83.49%
Cr 267.716†	-59.5	3.1885	ug/L	0.42084	3.1885	ppb	0.42084	13.20%
Cu 324.752†	-6207.8	6.0795	ug/L	0.80620	6.0795	ppb	0.80620	13.26%

Fe 238.204 Radial†	55696.5	463010	ug/L	12326.4	463010	ppb	12326.4	2.66%
QC value within limits for Fe 238.204 Radial Recovery = 92.60%								
K 766.490 Radial†	495.2	-138.70	ug/L	18.804	-138.70	ppb	18.804	13.56%
Mg 279.077 IEC†	16203.1	502720	ug/L	13520.9	502720	ppb	13520.9	2.69%
QC value within limits for Mg 279.077 IEC Recovery = 100.54%								
Mn 257.610†	-29321.2	7.8841	ug/L	1.91283	7.8841	ppb	1.91283	24.26%
Mo 202.031†	-630.6	-5.3248	ug/L	3.59978	-5.3248	ppb	3.59978	67.60%
Na 589.592 Radial†	1908878.8	569740	ug/L	10410.1	569740	ppb	10410.1	1.83%
QC value greater than the upper limit for Na 589.592 Radial Recovery = 113.95%								
Ni 231.604†	238.7	5.2104	ug/L	0.42201	5.2104	ppb	0.42201	8.10%
P 214.914†	446.7	41.012	ug/L	10.6542	41.012	ppb	10.6542	25.98%
Pb 220.353†	-666.4	10.582	ug/L	4.9448	10.582	ppb	4.9448	46.73%
S 181.975 Axial†	99.6	17.922	ug/L	9.3978	17.922	ppb	9.3978	52.44%
Sb 206.836†	28.7	-0.3205	ug/L	0.64693	-0.3205	ppb	0.64693	201.87%
Se 196.026†	-2789.5	-39.984	ug/L	60.7594	-39.984	ppb	60.7594	151.96%
Si 251.611†	-1215.4	-33.414	ug/L	0.5335	-33.414	ppb	0.5335	1.60%
Sn 189.927†	-474.0	-13.365	ug/L	2.5500	-13.365	ppb	2.5500	19.08%
Sr 421.552†	1006.4	1.3259	ug/L	0.26466	1.3259	ppb	0.26466	19.96%
Ti 334.940†	-7978.7	7.9844	ug/L	1.06234	7.9844	ppb	1.06234	13.31%
Tl 190.801†	-88.2	-8.7161	ug/L	5.16646	-8.7161	ppb	5.16646	59.28%
U 409.014†	512049.5	14050	ug/L	662.6	14050	ppb	662.6	4.72%
QC value within limits for U 409.014 Recovery = 93.67%								
V 292.402†	4622.6	-2.8173	ug/L	3.58574	-2.8173	ppb	3.58574	127.28%
Zn 213.857†	6511.9	-8.0354	ug/L	2.44758	-8.0354	ppb	2.44758	30.46%
SiO2†	-1266.8	-74.847	ug/L	7.0731	-74.847	ppb	7.0731	9.45%

QC Failed. Continue with analysis.

Sequence No.: 12
Sample ID: LR2
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 16
Date Collected: 12/19/2009 08:29:53
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR2

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5447.1	5447.1	97.8	%			08:31:51
1	Y RADIAL	5800.8	5800.8	98.13	%			08:31:51
1	Al 396.153Radial†	614.4	644.3	51.060	ug/L	51.060	ppb	08:31:51
1	Ca 317.933Radial†	41.7	23.1	32.879	ug/L	32.879	ppb	08:32:11
1	Fe 238.204 Radial†	-25.4	-36.9	-13.698	ug/L	-13.698	ppb	08:32:11
1	K 766.490 Radial†	1623659.6	1656783.1	291920	ug/L	291920	ppb	08:31:46
1	Mg 279.077 IEC†	-7.8	-9.4	-93.210	ug/L	-93.210	ppb	08:32:11
1	Na 589.592 Radial†	-294.4	460.8	137.53	ug/L	137.53	ppb	08:31:51
1	Sr 421.552†	1563831.3	1598358.5	9372.6	ug/L	9372.6	ppb	08:31:46
1	Sc 361.383	863865.1	863865.1	96.102	%			08:33:28
1	Y 371.029	697025.7	697025.7	93.628	%			08:33:28
1	Ag 328.068†	-8155.2	-8855.9	1.0213	ug/L	1.0213	ppb	08:33:33
1	As 188.979†	26297.6	27399.2	10029	ug/L	10029	ppb	08:33:33
1	B 249.677†	233893.2	243407.3	4971.8	ug/L	4971.8	ppb	08:33:28
1	Ba 233.527†	2028481.0	2110771.6	14368	ug/L	14368	ppb	08:33:28
1	Be 313.107†	8211275.7	8549107.9	2886.3	ug/L	2886.3	ppb	08:33:22
1	Cd 226.502†	952935.8	991822.1	9706.2	ug/L	9706.2	ppb	08:33:28
1	Co 228.616†	509788.5	530555.8	9288.1	ug/L	9288.1	ppb	08:33:33
1	Cr 267.716†	2270999.3	2363045.2	23975	ug/L	23975	ppb	08:33:28
1	Cu 324.752†	6917777.4	7192350.6	20321	ug/L	20321	ppb	08:33:22
1	Mn 257.610†	9150004.2	9520694.7	9390.9	ug/L	9390.9	ppb	08:33:22
1	Mo 202.031†	155188.8	161464.3	9773.6	ug/L	9773.6	ppb	08:33:33
1	Ni 231.604†	430929.1	448316.7	9789.4	ug/L	9789.4	ppb	08:33:28
1	P 214.914†	34551.5	35695.1	15505	ug/L	15505	ppb	08:33:33
1	Pb 220.353†	224071.9	233225.8	24585	ug/L	24585	ppb	08:33:33
1	S 181.975 Axial†	41020.8	42635.9	52306	ug/L	52306	ppb	08:33:33
1	Sb 206.836†	33975.2	35312.3	10385	ug/L	10385	ppb	08:33:33
1	Se 196.026†	17780.4	18530.2	10126	ug/L	10126	ppb	08:33:33
1	Si 251.611†	1622065.9	1687289.6	47278	ug/L	47278	ppb	08:33:28
1	Sn 189.927†	66912.6	69623.5	10442	ug/L	10442	ppb	08:33:33
1	Ti 334.940†	6528399.3	6794620.0	9815.5	ug/L	9815.5	ppb	08:33:22
1	Tl 190.801†	35746.3	37244.5	9723.1	ug/L	9723.1	ppb	08:33:33
1	U 409.014†	-1063.6	1265.5	-11.372	ug/L	-11.372	ppb	08:33:33
1	V 292.402†	1510866.6	1573626.3	10128	ug/L	10128	ppb	08:33:28
1	Zn 213.857†	1655286.5	1721641.8	14033	ug/L	14033	ppb	08:33:28
1	SiO2†	1621563.5	1686737.7	101470	ug/L	101470	ppb	08:34:21
2	Sc Radial	5508.3	5508.3	98.9	%			08:32:21
2	Y RADIAL	5846.5	5846.5	98.90	%			08:32:21
2	Al 396.153Radial†	656.0	679.4	93.074	ug/L	93.074	ppb	08:32:21
2	Ca 317.933Radial†	40.7	21.5	30.691	ug/L	30.691	ppb	08:32:41
2	Fe 238.204 Radial†	-24.5	-35.7	-13.399	ug/L	-13.399	ppb	08:32:41
2	K 766.490 Radial†	1592082.3	1606413.9	283050	ug/L	283050	ppb	08:32:16
2	Mg 279.077 IEC†	-5.6	-7.0	-28.305	ug/L	-28.305	ppb	08:32:41
2	Na 589.592 Radial†	-359.7	398.1	118.82	ug/L	118.82	ppb	08:32:21
2	Sr 421.552†	1529669.9	1546057.6	9065.9	ug/L	9065.9	ppb	08:32:16
2	Sc 361.383	885471.4	885471.4	98.505	%			08:33:48
2	Y 371.029	716006.2	716006.2	96.177	%			08:33:48
2	Ag 328.068†	-8015.3	-8506.8	1.3835	ug/L	1.3835	ppb	08:33:53
2	As 188.979†	25907.3	26335.3	9640.3	ug/L	9640.3	ppb	08:33:53
2	B 249.677†	233463.7	237032.6	4841.8	ug/L	4841.8	ppb	08:33:48
2	Ba 233.527†	2013175.5	2043729.0	13912	ug/L	13912	ppb	08:33:48
2	Be 313.107†	8172181.3	8300929.0	2802.5	ug/L	2802.5	ppb	08:33:42
2	Cd 226.502†	946780.5	961377.5	9408.3	ug/L	9408.3	ppb	08:33:48
2	Co 228.616†	505323.2	513078.8	8982.0	ug/L	8982.0	ppb	08:33:53
2	Cr 267.716†	2257842.3	2292026.0	23255	ug/L	23255	ppb	08:33:48
2	Cu 324.752†	6856868.5	6954869.1	19650	ug/L	19650	ppb	08:33:42
2	Mn 257.610†	9097309.1	9234873.5	9109.0	ug/L	9109.0	ppb	08:33:42
2	Mo 202.031†	152811.7	155110.8	9389.1	ug/L	9389.1	ppb	08:33:53
2	Ni 231.604†	428197.3	434601.8	9489.9	ug/L	9489.9	ppb	08:33:48

2	P 214.914†	33955.7	34212.9	14834	ug/L	14834 ppb	08:33:53
2	Pb 220.353†	220934.2	224351.0	23650	ug/L	23650 ppb	08:33:53
2	S 181.975 Axial†	40452.0	41016.9	50319	ug/L	50319 ppb	08:33:53
2	Sb 206.836†	33461.0	33927.5	9972.9	ug/L	9972.9 ppb	08:33:53
2	Se 196.026†	17510.9	17805.2	9730.0	ug/L	9730.0 ppb	08:33:53
2	Si 251.611†	1616483.2	1640436.6	45968	ug/L	45968 ppb	08:33:48
2	Sn 189.927†	66028.6	67027.2	10053	ug/L	10053 ppb	08:33:53
2	Ti 334.940†	6483993.3	6583778.4	9510.9	ug/L	9510.9 ppb	08:33:42
2	Tl 190.801†	35327.2	35911.4	9375.5	ug/L	9375.5 ppb	08:33:53
2	U 409.014†	-1318.4	1033.8	-16.365	ug/L	-16.365 ppb	08:33:53
2	V 292.402†	1503274.4	1527556.7	9830.4	ug/L	9830.4 ppb	08:33:48
2	Zn 213.857†	1646160.2	1670347.8	13615	ug/L	13615 ppb	08:33:48
2	SiO2†	1643194.6	1667524.2	100330	ug/L	100330 ppb	08:34:28
3	Sc Radial	5347.2	5347.2	96.0	%		08:32:52
3	Y RADIAL	5646.4	5646.4	95.52	%		08:32:52
3	Al 396.153Radial†	614.0	655.7	75.242	ug/L	75.242 ppb	08:32:52
3	Ca 317.933Radial†	35.2	17.0	24.301	ug/L	24.301 ppb	08:33:12
3	Fe 238.204 Radial†	-21.5	-33.3	6.6826	ug/L	6.6826 ppb	08:33:12
3	K 766.490 Radial†	1632133.2	1696581.5	298940	ug/L	298940 ppb	08:32:47
3	Mg 279.077 IEC†	-4.4	-6.0	4.6751	ug/L	4.6751 ppb	08:33:12
3	Na 589.592 Radial†	-368.2	378.3	112.91	ug/L	112.91 ppb	08:32:52
3	Sr 421.552†	1572114.2	1636817.0	9598.1	ug/L	9598.1 ppb	08:32:47
3	Sc 361.383	882318.6	882318.6	98.154	%		08:34:08
3	Y 371.029	712097.8	712097.8	95.652	%		08:34:08
3	Ag 328.068†	-8070.4	-8592.1	1.0600	ug/L	1.0600 ppb	08:34:13
3	As 188.979†	25636.3	26153.2	9574.1	ug/L	9574.1 ppb	08:34:13
3	B 249.677†	232894.6	237299.7	4847.2	ug/L	4847.2 ppb	08:34:08
3	Ba 233.527†	2015206.8	2053101.5	13976	ug/L	13976 ppb	08:34:08
3	Be 313.107†	8139672.2	8297454.3	2801.3	ug/L	2801.3 ppb	08:34:01
3	Cd 226.502†	947584.7	965631.4	9449.9	ug/L	9449.9 ppb	08:34:08
3	Co 228.616†	504163.3	513730.3	8993.4	ug/L	8993.4 ppb	08:34:13
3	Cr 267.716†	2255404.9	2297733.4	23313	ug/L	23313 ppb	08:34:08
3	Cu 324.752†	6828189.6	6950525.2	19638	ug/L	19638 ppb	08:34:01
3	Mn 257.610†	9053696.6	9223442.7	9097.7	ug/L	9097.7 ppb	08:34:01
3	Mo 202.031†	152470.5	155317.5	9401.6	ug/L	9401.6 ppb	08:34:13
3	Ni 231.604†	428074.6	436030.2	9521.1	ug/L	9521.1 ppb	08:34:08
3	P 214.914†	33915.4	34295.0	14879	ug/L	14879 ppb	08:34:13
3	Pb 220.353†	220344.7	224551.9	23671	ug/L	23671 ppb	08:34:13
3	S 181.975 Axial†	40057.8	40762.0	50007	ug/L	50007 ppb	08:34:13
3	Sb 206.836†	33322.6	33907.9	9966.2	ug/L	9966.2 ppb	08:34:13
3	Se 196.026†	17433.7	17790.0	9721.8	ug/L	9721.8 ppb	08:34:13
3	Si 251.611†	1615482.8	1645281.4	46099	ug/L	46099 ppb	08:34:08
3	Sn 189.927†	65867.2	67102.2	10064	ug/L	10064 ppb	08:34:13
3	Ti 334.940†	6452914.2	6575636.6	9499.1	ug/L	9499.1 ppb	08:34:01
3	Tl 190.801†	35128.8	35837.4	9356.1	ug/L	9356.1 ppb	08:34:13
3	U 409.014†	-1074.9	1277.1	-9.7754	ug/L	-9.7754 ppb	08:34:13
3	V 292.402†	1499608.5	1529275.3	9841.5	ug/L	9841.5 ppb	08:34:08
3	Zn 213.857†	1646870.4	1677043.1	13670	ug/L	13670 ppb	08:34:08
3	SiO2†	1621980.5	1651872.1	99374	ug/L	99374 ppb	08:34:35

Mean Data: LR2

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	877218.4	97.587	%	1.2984				1.33%
Sc Radial	5434.2	97.6	%	1.46				1.50%
Y 371.029	708376.6	95.153	%	1.3463				1.41%
Y RADIAL	5764.5	97.52	%	1.773				1.82%
Ag 328.068†	-8651.6	1.1549	ug/L	0.19889	1.1549	ppb	0.19889	17.22%
Al 396.153Radial†	659.8	73.125	ug/L	21.0872	73.125	ppb	21.0872	28.84%
As 188.979†	26629.2	9747.8	ug/L	245.73	9747.8	ppb	245.73	2.52%
QC value within limits for As 188.979 Recovery = 97.48%								
B 249.677†	239246.5	4886.9	ug/L	73.56	4886.9	ppb	73.56	1.51%
QC value within limits for B 249.677 Recovery = 97.74%								
Ba 233.527†	2069200.7	14085	ug/L	247.1	14085	ppb	247.1	1.75%
QC value within limits for Ba 233.527 Recovery = 93.90%								
Be 313.107†	8382497.1	2830.1	ug/L	48.75	2830.1	ppb	48.75	1.72%
QC value within limits for Be 313.107 Recovery = 94.34%								
Ca 317.933Radial†	20.5	29.290	ug/L	4.4572	29.290	ppb	4.4572	15.22%
Cd 226.502†	972943.7	9521.5	ug/L	161.35	9521.5	ppb	161.35	1.69%
QC value within limits for Cd 226.502 Recovery = 95.21%								

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Co 228.616†          519121.6      9087.8 ug/L        173.56      9087.8 ppb        173.56   1.91%
   QC value within limits for Co 228.616  Recovery = 90.88%
Cr 267.716†         2317601.5       23514 ug/L        400.3       23514 ppb         400.3   1.70%
   QC value within limits for Cr 267.716  Recovery = 94.06%
Cu 324.752†         7032581.6       19870 ug/L        391.0       19870 ppb         391.0   1.97%
   QC value within limits for Cu 324.752  Recovery = 99.35%
Fe 238.204 Radial†      -35.3     -6.8049 ug/L     11.68145     -6.8049 ppb      11.68145 171.66%
K 766.490 Radial†    1653259.5      291300 ug/L       7964.1      291300 ppb        7964.1   2.73%
   QC value within limits for K 766.490 Radial  Recovery = 97.10%
Mg 279.077 IEC†          -7.5     -38.946 ug/L      49.8026     -38.946 ppb       49.8026 127.87%
Mn 257.610†         9326337.0      9199.2 ug/L       166.12      9199.2 ppb        166.12   1.81%
   QC value within limits for Mn 257.610  Recovery = 91.99%
Mo 202.031†          157297.6      9521.4 ug/L       218.52      9521.4 ppb        218.52   2.30%
   QC value within limits for Mo 202.031  Recovery = 95.21%
Na 589.592 Radial†      412.4      123.09 ug/L       12.850      123.09 ppb        12.850  10.44%
Ni 231.604†          439649.6      9600.1 ug/L       164.63      9600.1 ppb        164.63   1.71%
   QC value within limits for Ni 231.604  Recovery = 96.00%
P 214.914†            34734.3       15072 ug/L        375.0       15072 ppb         375.0   2.49%
   QC value within limits for P 214.914  Recovery = 100.48%
Pb 220.353†          227376.2       23969 ug/L        534.2       23969 ppb         534.2   2.23%
   QC value within limits for Pb 220.353  Recovery = 95.87%
S 181.975 Axial†      41471.6       50877 ug/L       1246.8       50877 ppb        1246.8   2.45%
   QC value within limits for S 181.975 Axial  Recovery = 101.75%
Sb 206.836†           34382.6       10108 ug/L        240.0       10108 ppb         240.0   2.37%
   QC value within limits for Sb 206.836  Recovery = 101.08%
Se 196.026†           18041.8      9859.3 ug/L       231.13      9859.3 ppb        231.13   2.34%
   QC value within limits for Se 196.026  Recovery = 98.59%
Si 251.611†         1657669.2       46448 ug/L        721.6       46448 ppb         721.6   1.55%
   QC value within limits for Si 251.611  Recovery = 92.90%
Sn 189.927†           67917.6       10186 ug/L        221.6       10186 ppb         221.6   2.18%
   QC value within limits for Sn 189.927  Recovery = 101.86%
Sr 421.552†         1593744.4      9345.5 ug/L       267.13      9345.5 ppb        267.13   2.86%
   QC value within limits for Sr 421.552  Recovery = 93.46%
Ti 334.940†         6651345.0      9608.5 ug/L       179.36      9608.5 ppb        179.36   1.87%
   QC value within limits for Ti 334.940  Recovery = 96.09%
Tl 190.801†           36331.1      9484.9 ug/L       206.54      9484.9 ppb        206.54   2.18%
   QC value within limits for Tl 190.801  Recovery = 94.85%
U 409.014†             1192.2     -12.504 ug/L       3.4375     -12.504 ppb        3.4375  27.49%
V 292.402†          1543486.1      9933.4 ug/L       168.88      9933.4 ppb        168.88   1.70%
   QC value within limits for V 292.402  Recovery = 99.33%
Zn 213.857†         1689677.6       13773 ug/L        227.2       13773 ppb         227.2   1.65%
   QC value within limits for Zn 213.857  Recovery = 91.82%
SiO2†               1668711.3      100390 ug/L       1051.1      100390 ppb        1051.1   1.05%
   QC value within limits for SiO2  Recovery = 93.83%
All analyte(s) passed QC.
```

Sequence No.: 13
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 12/19/2009 08:36:44
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5478.0	5478.0	98.4	%			08:38:36
1	Y RADIAL	5868.1	5868.1	99.27	%			08:38:36
1	Al 396.153Radial†	6604.6	6728.5	4881.5	ug/L	4881.5	ppb	08:38:36
1	Ca 317.933Radial†	3486.7	3523.9	5024.2	ug/L	5024.2	ppb	08:38:56
1	Fe 238.204 Radial†	620.1	619.3	5164.3	ug/L	5164.3	ppb	08:38:56
1	K 766.490 Radial†	31159.4	28954.6	5094.6	ug/L	5094.6	ppb	08:38:36
1	Mg 279.077 IEC†	167.6	169.0	5252.3	ug/L	5252.3	ppb	08:38:56
1	Na 589.592 Radial†	32390.5	33679.8	10052	ug/L	10052	ppb	08:38:36
1	Sr 421.552†	84442.2	85829.5	503.25	ug/L	503.25	ppb	08:38:36
1	Sc 361.383	895534.1	895534.1	99.625	%			08:39:54
1	Y 371.029	729151.2	729151.2	97.943	%			08:39:54
1	Ag 328.068†	114332.8	114393.8	496.16	ug/L	496.16	ppb	08:39:59
1	As 188.979†	1390.2	1430.3	523.52	ug/L	523.52	ppb	08:40:19
1	B 249.677†	25190.7	25311.6	517.51	ug/L	517.51	ppb	08:39:59
1	Ba 233.527†	73117.2	73395.3	500.14	ug/L	500.14	ppb	08:39:59
1	Be 313.107†	1455940.8	1466158.6	492.65	ug/L	492.65	ppb	08:39:54
1	Cd 226.502†	50630.1	51050.1	499.07	ug/L	499.07	ppb	08:39:59
1	Co 228.616†	28353.7	28547.6	499.89	ug/L	499.89	ppb	08:39:59
1	Cr 267.716†	49064.5	49169.3	499.31	ug/L	499.31	ppb	08:39:59
1	Cu 324.752†	180343.2	174967.2	494.61	ug/L	494.61	ppb	08:39:59
1	Mn 257.610†	500444.2	501838.7	495.42	ug/L	495.42	ppb	08:39:54
1	Mo 202.031†	8197.4	8208.4	497.23	ug/L	497.23	ppb	08:40:19
1	Ni 231.604†	22947.2	22940.1	500.90	ug/L	500.90	ppb	08:39:59
1	P 214.914†	4963.5	4724.1	2389.3	ug/L	2389.3	ppb	08:40:19
1	Pb 220.353†	4647.1	4728.7	499.82	ug/L	499.82	ppb	08:40:19
1	S 181.975 Axial†	861.6	815.9	999.92	ug/L	999.92	ppb	08:40:19
1	Sb 206.836†	1714.0	1679.3	510.25	ug/L	510.25	ppb	08:40:19
1	Se 196.026†	881.3	913.1	515.40	ug/L	515.40	ppb	08:40:19
1	Si 251.611†	87737.7	87490.9	2455.2	ug/L	2455.2	ppb	08:39:59
1	Sn 189.927†	3302.0	3311.0	497.16	ug/L	497.16	ppb	08:40:19
1	Ti 334.940†	335831.9	338485.0	489.27	ug/L	489.27	ppb	08:39:54
1	Tl 190.801†	1909.7	1965.0	512.91	ug/L	512.91	ppb	08:40:19
1	U 409.014†	15318.7	17748.7	487.40	ug/L	487.40	ppb	08:39:59
1	V 292.402†	76180.0	77936.4	502.35	ug/L	502.35	ppb	08:39:59
1	Zn 213.857†	61498.7	60936.9	495.31	ug/L	495.31	ppb	08:39:59
1	SiO2†	87682.4	87406.1	5266.4	ug/L	5266.4	ppb	08:41:27
2	Sc Radial	5470.7	5470.7	98.3	%			08:39:02
2	Y RADIAL	5851.8	5851.8	98.99	%			08:39:02
2	Al 396.153Radial†	6688.6	6823.0	4950.3	ug/L	4950.3	ppb	08:39:02
2	Ca 317.933Radial†	3462.2	3503.7	4995.4	ug/L	4995.4	ppb	08:39:22
2	Fe 238.204 Radial†	613.1	613.0	5112.0	ug/L	5112.0	ppb	08:39:22
2	K 766.490 Radial†	31323.5	29164.0	5131.5	ug/L	5131.5	ppb	08:39:02
2	Mg 279.077 IEC†	165.2	166.7	5181.2	ug/L	5181.2	ppb	08:39:22
2	Na 589.592 Radial†	32449.9	33784.4	10084	ug/L	10084	ppb	08:39:02
2	Sr 421.552†	84752.6	86260.4	505.77	ug/L	505.77	ppb	08:39:02
2	Sc 361.383	898202.6	898202.6	99.921	%			08:40:25
2	Y 371.029	731599.8	731599.8	98.272	%			08:40:25
2	Ag 328.068†	114436.4	114156.4	495.13	ug/L	495.13	ppb	08:40:30
2	As 188.979†	1396.5	1432.5	524.29	ug/L	524.29	ppb	08:40:50
2	B 249.677†	25180.5	25226.3	515.77	ug/L	515.77	ppb	08:40:30
2	Ba 233.527†	73300.5	73360.7	499.90	ug/L	499.90	ppb	08:40:30
2	Be 313.107†	1463841.3	1469723.4	493.85	ug/L	493.85	ppb	08:40:25
2	Cd 226.502†	50754.9	51024.0	498.82	ug/L	498.82	ppb	08:40:30
2	Co 228.616†	28381.3	28490.8	498.90	ug/L	498.90	ppb	08:40:30
2	Cr 267.716†	49228.5	49187.1	499.49	ug/L	499.49	ppb	08:40:30
2	Cu 324.752†	180319.6	174405.8	493.02	ug/L	493.02	ppb	08:40:30
2	Mn 257.610†	501757.6	501660.6	495.24	ug/L	495.24	ppb	08:40:25
2	Mo 202.031†	8258.5	8245.1	499.45	ug/L	499.45	ppb	08:40:50
2	Ni 231.604†	22915.3	22839.7	498.71	ug/L	498.71	ppb	08:40:30

2	P 214.914†	5024.0	4769.9	2413.5 ug/L	2413.5 ppb	08:40:50
2	Pb 220.353†	4668.9	4736.6	500.68 ug/L	500.68 ppb	08:40:50
2	S 181.975 Axial†	876.0	827.7	1014.4 ug/L	1014.4 ppb	08:40:50
2	Sb 206.836†	1737.3	1697.4	515.75 ug/L	515.75 ppb	08:40:50
2	Se 196.026†	889.7	918.9	518.39 ug/L	518.39 ppb	08:40:50
2	Si 251.611†	87773.8	87265.3	2448.7 ug/L	2448.7 ppb	08:40:30
2	Sn 189.927†	3318.9	3318.0	498.22 ug/L	498.22 ppb	08:40:50
2	Ti 334.940†	337085.9	338738.5	489.63 ug/L	489.63 ppb	08:40:25
2	Tl 190.801†	1909.4	1959.0	511.36 ug/L	511.36 ppb	08:40:50
2	U 409.014†	15289.2	17673.5	485.34 ug/L	485.34 ppb	08:40:30
2	V 292.402†	76392.5	77922.0	502.29 ug/L	502.29 ppb	08:40:30
2	Zn 213.857†	61499.2	60754.0	493.83 ug/L	493.83 ppb	08:40:30
2	SiO2†	86796.8	86258.4	5196.8 ug/L	5196.8 ppb	08:41:32
3	Sc Radial	5527.0	5527.0	99.3 %		08:39:27
3	Y RADIAL	5885.1	5885.1	99.56 %		08:39:27
3	Al 396.153Radial†	6729.7	6795.1	4930.3 ug/L	4930.3 ppb	08:39:27
3	Ca 317.933Radial†	3462.1	3467.7	4944.1 ug/L	4944.1 ppb	08:39:47
3	Fe 238.204 Radial†	615.5	609.1	5078.8 ug/L	5078.8 ppb	08:39:47
3	K 766.490 Radial†	31748.3	29267.2	5149.6 ug/L	5149.6 ppb	08:39:27
3	Mg 279.077 IEC†	166.7	166.6	5177.1 ug/L	5177.1 ppb	08:39:47
3	Na 589.592 Radial†	32818.5	33819.3	10094 ug/L	10094 ppb	08:39:27
3	Sr 421.552†	85542.3	86177.5	505.29 ug/L	505.29 ppb	08:39:27
3	Sc 361.383	903528.7	903528.7	100.51 %		08:40:56
3	Y 371.029	736412.2	736412.2	98.918 %		08:40:56
3	Ag 328.068†	115070.6	114112.3	494.92 ug/L	494.92 ppb	08:41:02
3	As 188.979†	1365.6	1393.4	510.12 ug/L	510.12 ppb	08:41:22
3	B 249.677†	25303.2	25199.7	515.23 ug/L	515.23 ppb	08:41:02
3	Ba 233.527†	73502.5	73129.3	498.32 ug/L	498.32 ppb	08:41:02
3	Be 313.107†	1471318.1	1468526.2	493.45 ug/L	493.45 ppb	08:40:56
3	Cd 226.502†	50979.8	50948.3	498.08 ug/L	498.08 ppb	08:41:02
3	Co 228.616†	28513.2	28454.5	498.24 ug/L	498.24 ppb	08:41:02
3	Cr 267.716†	49272.1	48940.0	496.98 ug/L	496.98 ppb	08:41:02
3	Cu 324.752†	181324.8	174342.1	492.84 ug/L	492.84 ppb	08:41:02
3	Mn 257.610†	503616.2	500549.7	494.14 ug/L	494.14 ppb	08:40:56
3	Mo 202.031†	8154.3	8092.7	490.22 ug/L	490.22 ppb	08:41:22
3	Ni 231.604†	23027.9	22816.5	498.20 ug/L	498.20 ppb	08:41:02
3	P 214.914†	4962.9	4679.4	2366.2 ug/L	2366.2 ppb	08:41:22
3	Pb 220.353†	4639.8	4680.1	494.69 ug/L	494.69 ppb	08:41:22
3	S 181.975 Axial†	861.8	808.4	990.74 ug/L	990.74 ppb	08:41:22
3	Sb 206.836†	1687.6	1637.7	497.57 ug/L	497.57 ppb	08:41:22
3	Se 196.026†	881.0	905.0	510.69 ug/L	510.69 ppb	08:41:22
3	Si 251.611†	88176.0	87147.6	2445.6 ug/L	2445.6 ppb	08:41:02
3	Sn 189.927†	3280.6	3260.4	489.56 ug/L	489.56 ppb	08:41:22
3	Ti 334.940†	338176.1	337834.6	488.32 ug/L	488.32 ppb	08:40:56
3	Tl 190.801†	1881.8	1920.3	501.31 ug/L	501.31 ppb	08:41:22
3	U 409.014†	15529.1	17821.9	489.43 ug/L	489.43 ppb	08:41:02
3	V 292.402†	76616.9	77694.6	500.73 ug/L	500.73 ppb	08:41:02
3	Zn 213.857†	61788.1	60678.6	493.22 ug/L	493.22 ppb	08:41:02
3	SiO2†	86670.9	85621.1	5158.6 ug/L	5158.6 ppb	08:41:37

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	899088.5	100.02	%	0.453				0.45%
Sc Radial	5491.9	98.6	%	0.55				0.56%
Y 371.029	732387.7	98.378	%	0.4962				0.50%
Y RADIAL	5868.3	99.27	%	0.282				0.28%
Ag 328.068†	114220.8	495.40	ug/L	0.668	495.40	ppb	0.668	0.13%
QC value within limits for Ag 328.068 Recovery = 99.08%								
Al 396.153Radial†	6782.2	4920.7	ug/L	35.38	4920.7	ppb	35.38	0.72%
QC value within limits for Al 396.153Radial Recovery = 98.41%								
As 188.979†	1418.7	519.31	ug/L	7.969	519.31	ppb	7.969	1.53%
QC value within limits for As 188.979 Recovery = 103.86%								
B 249.677†	25245.8	516.17	ug/L	1.191	516.17	ppb	1.191	0.23%
QC value within limits for B 249.677 Recovery = 103.23%								
Ba 233.527†	73295.1	499.45	ug/L	0.987	499.45	ppb	0.987	0.20%
QC value within limits for Ba 233.527 Recovery = 99.89%								
Be 313.107†	1468136.1	493.32	ug/L	0.609	493.32	ppb	0.609	0.12%
QC value within limits for Be 313.107 Recovery = 98.66%								
Ca 317.933Radial†	3498.5	4987.9	ug/L	40.58	4987.9	ppb	40.58	0.81%

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   QC value within limits for Ca 317.933Radial  Recovery = 99.76%
Cd 226.502†            51007.5      498.66 ug/L         0.514      498.66 ppb          0.514   0.10%
   QC value within limits for Cd 226.502  Recovery = 99.73%
Co 228.616†            28497.6      499.01 ug/L         0.828      499.01 ppb          0.828   0.17%
   QC value within limits for Co 228.616  Recovery = 99.80%
Cr 267.716†            49098.8      498.59 ug/L         1.400      498.59 ppb          1.400   0.28%
   QC value within limits for Cr 267.716  Recovery = 99.72%
Cu 324.752†           174571.7      493.49 ug/L         0.974      493.49 ppb          0.974   0.20%
   QC value within limits for Cu 324.752  Recovery = 98.70%
Fe 238.204 Radial†       613.8      5118.4 ug/L         43.12      5118.4 ppb          43.12   0.84%
   QC value within limits for Fe 238.204 Radial  Recovery = 102.37%
K 766.490 Radial†      29128.6      5125.2 ug/L         28.07      5125.2 ppb          28.07   0.55%
   QC value within limits for K 766.490 Radial  Recovery = 102.50%
Mg 279.077 IEC†          167.4      5203.5 ug/L         42.27      5203.5 ppb          42.27   0.81%
   QC value within limits for Mg 279.077 IEC  Recovery = 104.07%
Mn 257.610†           501349.7      494.93 ug/L         0.692      494.93 ppb          0.692   0.14%
   QC value within limits for Mn 257.610  Recovery = 98.99%
Mo 202.031†            8182.1      495.63 ug/L         4.816      495.63 ppb          4.816   0.97%
   QC value within limits for Mo 202.031  Recovery = 99.13%
Na 589.592 Radial†     33761.2       10077 ug/L          21.7       10077 ppb           21.7   0.21%
   QC value within limits for Na 589.592 Radial  Recovery = 100.77%
Ni 231.604†            22865.5      499.27 ug/L         1.434      499.27 ppb          1.434   0.29%
   QC value within limits for Ni 231.604  Recovery = 99.85%
P 214.914†              4724.5      2389.6 ug/L         23.64      2389.6 ppb          23.64   0.99%
   QC value within limits for P 214.914  Recovery = 95.59%
Pb 220.353†             4715.2      498.40 ug/L         3.234      498.40 ppb          3.234   0.65%
   QC value within limits for Pb 220.353  Recovery = 99.68%
S 181.975 Axial†         817.3      1001.7 ug/L         11.93      1001.7 ppb          11.93   1.19%
   QC value within limits for S 181.975 Axial  Recovery = 100.17%
Sb 206.836†             1671.5      507.86 ug/L         9.325      507.86 ppb          9.325   1.84%
   QC value within limits for Sb 206.836  Recovery = 101.57%
Se 196.026†              912.3      514.83 ug/L         3.881      514.83 ppb          3.881   0.75%
   QC value within limits for Se 196.026  Recovery = 102.97%
Si 251.611†            87301.3      2449.8 ug/L          4.87      2449.8 ppb           4.87   0.20%
   QC value within limits for Si 251.611  Recovery = 97.99%
Sn 189.927†             3296.5      494.98 ug/L         4.722      494.98 ppb          4.722   0.95%
   QC value within limits for Sn 189.927  Recovery = 99.00%
Sr 421.552†            86089.1      504.77 ug/L         1.341      504.77 ppb          1.341   0.27%
   QC value within limits for Sr 421.552  Recovery = 100.95%
Ti 334.940†           338352.7      489.07 ug/L         0.676      489.07 ppb          0.676   0.14%
   QC value within limits for Ti 334.940  Recovery = 97.81%
Tl 190.801†             1948.1      508.53 ug/L         6.300      508.53 ppb          6.300   1.24%
   QC value within limits for Tl 190.801  Recovery = 101.71%
U 409.014†             17748.0      487.39 ug/L         2.049      487.39 ppb          2.049   0.42%
   QC value within limits for U 409.014  Recovery = 97.48%
V 292.402†             77851.0      501.79 ug/L         0.920      501.79 ppb          0.920   0.18%
   QC value within limits for V 292.402  Recovery = 100.36%
Zn 213.857†            60789.8      494.12 ug/L         1.073      494.12 ppb          1.073   0.22%
   QC value within limits for Zn 213.857  Recovery = 98.82%
SiO2†                  86428.5      5207.3 ug/L         54.66      5207.3 ppb          54.66   1.05%
   QC value within limits for SiO2  Recovery = 97.38%
All analyte(s) passed QC.
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Sequence No.: 14
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 12/19/2009 08:43:49
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5585.9	5585.9	100	%			08:45:41
1	Y RADIAL	5963.5	5963.5	100.9	%			08:45:41
1	Al 396.153Radial†	-19.9	-3.5	-2.6070	ug/L	-2.6070	ppb	08:45:41
1	Ca 317.933Radial†	26.0	6.4	9.0609	ug/L	9.0609	ppb	08:46:01
1	Fe 238.204 Radial†	10.9	0.0	0.1134	ug/L	0.1134	ppb	08:46:01
1	K 766.490 Radial†	3304.0	580.6	102.32	ug/L	102.32	ppb	08:45:41
1	Mg 279.077 IEC†	-0.5	-1.9	-59.420	ug/L	-59.420	ppb	08:46:01
1	Na 589.592 Radial†	-711.1	52.9	15.786	ug/L	15.786	ppb	08:45:41
1	Sr 421.552†	12.4	24.2	0.1416	ug/L	0.1416	ppb	08:45:41
1	Sc 361.383	882647.5	882647.5	98.191	%			08:46:58
1	Y 371.029	730820.2	730820.2	98.167	%			08:46:58
1	Ag 328.068†	368.9	5.8	0.0252	ug/L	0.0252	ppb	08:46:58
1	As 188.979†	6.8	41.7	15.135	ug/L	15.135	ppb	08:47:18
1	B 249.677†	764.9	805.0	16.520	ug/L	16.520	ppb	08:46:58
1	Ba 233.527†	1.7	4.4	0.0279	ug/L	0.0279	ppb	08:47:18
1	Be 313.107†	-4607.0	39.2	0.0133	ug/L	0.0133	ppb	08:46:58
1	Cd 226.502†	-179.1	46.7	0.4571	ug/L	0.4571	ppb	08:47:18
1	Co 228.616†	-92.7	-7.3	-0.1243	ug/L	-0.1243	ppb	08:47:18
1	Cr 267.716†	115.0	37.0	0.3749	ug/L	0.3749	ppb	08:47:18
1	Cu 324.752†	5983.3	38.0	0.1073	ug/L	0.1073	ppb	08:46:58
1	Mn 257.610†	524.0	42.1	0.0427	ug/L	0.0427	ppb	08:47:18
1	Mo 202.031†	41.8	22.7	1.3758	ug/L	1.3758	ppb	08:47:18
1	Ni 231.604†	95.9	4.1	0.0902	ug/L	0.0902	ppb	08:47:18
1	P 214.914†	249.6	-3.9	-2.0245	ug/L	-2.0245	ppb	08:47:18
1	Pb 220.353†	-69.9	-7.1	-0.7469	ug/L	-0.7469	ppb	08:47:18
1	S 181.975 Axial†	59.8	11.9	14.576	ug/L	14.576	ppb	08:47:18
1	Sb 206.836†	48.9	8.6	2.6407	ug/L	2.6407	ppb	08:47:18
1	Se 196.026†	-20.6	7.5	4.0908	ug/L	4.0908	ppb	08:47:18
1	Si 251.611†	705.9	141.5	3.9239	ug/L	3.9239	ppb	08:47:18
1	Sn 189.927†	18.2	15.0	2.2525	ug/L	2.2525	ppb	08:47:18
1	Ti 334.940†	-1321.0	42.2	0.0632	ug/L	0.0632	ppb	08:46:58
1	Tl 190.801†	-27.2	20.4	5.2955	ug/L	5.2955	ppb	08:47:18
1	U 409.014†	-2472.0	-145.3	-4.0038	ug/L	-4.0038	ppb	08:46:58
1	V 292.402†	-1563.0	-122.4	-0.7679	ug/L	-0.7679	ppb	08:46:58
1	Zn 213.857†	855.3	77.5	0.6371	ug/L	0.6371	ppb	08:47:18
1	SiO2†	696.7	102.9	6.0890	ug/L	6.0890	ppb	08:48:14
2	Sc Radial	5679.2	5679.2	102	%			08:46:06
2	Y RADIAL	6053.6	6053.6	102.4	%			08:46:06
2	Al 396.153Radial†	-29.6	-12.7	-9.2958	ug/L	-9.2958	ppb	08:46:06
2	Ca 317.933Radial†	23.6	3.6	5.0742	ug/L	5.0742	ppb	08:46:26
2	Fe 238.204 Radial†	13.0	1.8	15.290	ug/L	15.290	ppb	08:46:26
2	K 766.490 Radial†	3283.2	506.1	89.192	ug/L	89.192	ppb	08:46:06
2	Mg 279.077 IEC†	4.8	3.4	104.14	ug/L	104.14	ppb	08:46:26
2	Na 589.592 Radial†	-724.7	51.3	15.297	ug/L	15.297	ppb	08:46:06
2	Sr 421.552†	43.4	54.4	0.3187	ug/L	0.3187	ppb	08:46:06
2	Sc 361.383	894399.5	894399.5	99.498	%			08:47:23
2	Y 371.029	741616.7	741616.7	99.618	%			08:47:23
2	Ag 328.068†	406.8	38.9	0.1763	ug/L	0.1763	ppb	08:47:23
2	As 188.979†	-4.7	30.1	10.929	ug/L	10.929	ppb	08:47:43
2	B 249.677†	639.2	668.4	13.714	ug/L	13.714	ppb	08:47:23
2	Ba 233.527†	-9.2	-6.6	-0.0444	ug/L	-0.0444	ppb	08:47:43
2	Be 313.107†	-4636.4	71.3	0.0238	ug/L	0.0238	ppb	08:47:23
2	Cd 226.502†	-191.2	37.1	0.3612	ug/L	0.3612	ppb	08:47:43
2	Co 228.616†	-80.8	5.9	0.1069	ug/L	0.1069	ppb	08:47:43
2	Cr 267.716†	119.6	40.1	0.4079	ug/L	0.4079	ppb	08:47:43
2	Cu 324.752†	6095.9	71.1	0.2016	ug/L	0.2016	ppb	08:47:23
2	Mn 257.610†	541.0	52.3	0.0512	ug/L	0.0512	ppb	08:47:43
2	Mo 202.031†	42.7	23.1	1.3976	ug/L	1.3976	ppb	08:47:43
2	Ni 231.604†	115.3	22.3	0.4874	ug/L	0.4874	ppb	08:47:43

2	P 214.914†	251.0	-5.8	-3.0602 ug/L	-3.0602 ppb	08:47:43
2	Pb 220.353†	-84.6	-20.9	-2.2067 ug/L	-2.2067 ppb	08:47:43
2	S 181.975 Axial†	53.0	4.2	5.1837 ug/L	5.1837 ppb	08:47:43
2	Sb 206.836†	59.2	18.2	5.5244 ug/L	5.5244 ppb	08:47:43
2	Se 196.026†	-25.1	3.2	1.8153 ug/L	1.8153 ppb	08:47:43
2	Si 251.611†	690.6	116.6	3.2274 ug/L	3.2274 ppb	08:47:43
2	Sn 189.927†	18.3	14.9	2.2301 ug/L	2.2301 ppb	08:47:43
2	Ti 334.940†	-1403.2	-22.7	-0.0310 ug/L	-0.0310 ppb	08:47:23
2	Tl 190.801†	-31.6	16.3	4.2296 ug/L	4.2296 ppb	08:47:43
2	U 409.014†	-2495.3	-135.7	-3.7417 ug/L	-3.7417 ppb	08:47:23
2	V 292.402†	-1448.9	13.2	0.0967 ug/L	0.0967 ppb	08:47:23
2	Zn 213.857†	859.7	70.5	0.5696 ug/L	0.5696 ppb	08:47:43
2	SiO2†	722.0	118.9	7.0682 ug/L	7.0682 ppb	08:48:19
3	Sc Radial	5731.2	5731.2	103 %		08:46:31
3	Y RADIAL	6055.8	6055.8	102.4 %		08:46:31
3	Al 396.153Radial†	-8.8	7.8	5.6564 ug/L	5.6564 ppb	08:46:31
3	Ca 317.933Radial†	22.2	2.0	2.8825 ug/L	2.8825 ppb	08:46:51
3	Fe 238.204 Radial†	11.8	0.5	4.4524 ug/L	4.4524 ppb	08:46:51
3	K 766.490 Radial†	3425.4	615.0	108.37 ug/L	108.37 ppb	08:46:31
3	Mg 279.077 IEC†	5.5	3.9	122.32 ug/L	122.32 ppb	08:46:51
3	Na 589.592 Radial†	-631.0	148.7	44.394 ug/L	44.394 ppb	08:46:31
3	Sr 421.552†	-23.4	-11.0	-0.0643 ug/L	-0.0643 ppb	08:46:31
3	Sc 361.383	887478.8	887478.8	98.728 %		08:47:49
3	Y 371.029	736256.7	736256.7	98.898 %		08:47:49
3	Ag 328.068†	372.8	7.7	0.0347 ug/L	0.0347 ppb	08:47:49
3	As 188.979†	-3.1	31.7	11.503 ug/L	11.503 ppb	08:48:09
3	B 249.677†	583.3	616.8	12.658 ug/L	12.658 ppb	08:47:49
3	Ba 233.527†	-4.3	-1.8	-0.0131 ug/L	-0.0131 ppb	08:48:09
3	Be 313.107†	-4527.8	145.0	0.0488 ug/L	0.0488 ppb	08:47:49
3	Cd 226.502†	-183.8	43.1	0.4210 ug/L	0.4210 ppb	08:48:09
3	Co 228.616†	-89.2	-3.3	-0.0536 ug/L	-0.0536 ppb	08:48:09
3	Cr 267.716†	140.5	62.2	0.6302 ug/L	0.6302 ppb	08:48:09
3	Cu 324.752†	6093.3	116.2	0.3287 ug/L	0.3287 ppb	08:47:49
3	Mn 257.610†	541.4	56.9	0.0543 ug/L	0.0543 ppb	08:48:09
3	Mo 202.031†	43.4	24.0	1.4560 ug/L	1.4560 ppb	08:48:09
3	Ni 231.604†	119.4	27.4	0.5977 ug/L	0.5977 ppb	08:48:09
3	P 214.914†	259.2	4.4	2.2580 ug/L	2.2580 ppb	08:48:09
3	Pb 220.353†	-68.2	-5.0	-0.5269 ug/L	-0.5269 ppb	08:48:09
3	S 181.975 Axial†	54.0	5.7	7.0149 ug/L	7.0149 ppb	08:48:09
3	Sb 206.836†	61.1	20.6	6.2055 ug/L	6.2055 ppb	08:48:09
3	Se 196.026†	-22.1	6.1	3.3633 ug/L	3.3633 ppb	08:48:09
3	Si 251.611†	682.5	113.8	3.1462 ug/L	3.1462 ppb	08:48:09
3	Sn 189.927†	6.9	3.5	0.5269 ug/L	0.5269 ppb	08:48:09
3	Ti 334.940†	-1301.0	69.8	0.1020 ug/L	0.1020 ppb	08:47:49
3	Tl 190.801†	-25.5	22.3	5.7757 ug/L	5.7757 ppb	08:48:09
3	U 409.014†	-2436.5	-95.6	-2.6370 ug/L	-2.6370 ppb	08:47:49
3	V 292.402†	-1542.0	-92.5	-0.5707 ug/L	-0.5707 ppb	08:47:49
3	Zn 213.857†	869.7	87.4	0.7079 ug/L	0.7079 ppb	08:48:09
3	SiO2†	737.5	140.3	8.3564 ug/L	8.3564 ppb	08:48:24

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	888175.3	98.806	%	0.6571				0.67%
Sc Radial	5665.4	102	%	1.3				1.30%
Y 371.029	736231.2	98.894	%	0.7251				0.73%
Y RADIAL	6024.3	101.9	%	0.89				0.87%
Ag 328.068†	17.5	0.0787	ug/L	0.08467	0.0787	ppb	0.08467	107.55%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-2.8	-2.0821	ug/L	7.48988	-2.0821	ppb	7.48988	359.72%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	34.5	12.522	ug/L	2.2810	12.522	ppb	2.2810	18.22%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	696.7	14.298	ug/L	1.9963	14.298	ppb	1.9963	13.96%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-1.3	-0.0099	ug/L	0.03627	-0.0099	ppb	0.03627	368.04%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	85.2	0.0287	ug/L	0.01825	0.0287	ppb	0.01825	63.71%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	4.0	5.6726	ug/L	3.13237	5.6726	ppb	3.13237	55.22%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              42.3      0.4131 ug/L       0.04846      0.4131 ppb        0.04846  11.73%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†              -1.5     -0.0237 ug/L       0.11846     -0.0237 ppb        0.11846 500.23%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              46.4      0.4710 ug/L       0.13884      0.4710 ppb        0.13884  29.48%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              75.1      0.2125 ug/L       0.11109      0.2125 ppb        0.11109  52.27%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        0.8      6.6187 ug/L       7.81697      6.6187 ppb        7.81697 118.10%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       567.2     99.962 ug/L        9.8058     99.962 ppb         9.8058   9.81%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           1.8     55.681 ug/L      100.0932     55.681 ppb       100.0932 179.76%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              50.5      0.0494 ug/L       0.00603      0.0494 ppb        0.00603  12.20%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              23.3      1.4098 ug/L       0.04147      1.4098 ppb        0.04147   2.94%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       84.3     25.159 ug/L       16.6597     25.159 ppb        16.6597  66.22%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              17.9      0.3918 ug/L       0.26697      0.3918 ppb        0.26697  68.14%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -1.8     -0.9422 ug/L       2.81945     -0.9422 ppb        2.81945 299.23%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†             -11.0     -1.1602 ug/L       0.91297     -1.1602 ppb        0.91297  78.69%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          7.3      8.9248 ug/L       4.97886      8.9248 ppb        4.97886  55.79%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              15.8      4.7902 ug/L       1.89246      4.7902 ppb        1.89246  39.51%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               5.6      3.0898 ug/L       1.16213      3.0898 ppb        1.16213  37.61%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†             124.0      3.4325 ug/L       0.42751      3.4325 ppb        0.42751  12.45%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†              11.1      1.6698 ug/L       0.98988      1.6698 ppb        0.98988  59.28%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              22.5      0.1320 ug/L       0.19170      0.1320 ppb        0.19170 145.24%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              29.8      0.0447 ug/L       0.06842      0.0447 ppb        0.06842 153.00%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              19.7      5.1003 ug/L       0.79132      5.1003 ppb        0.79132  15.52%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†             -125.5     -3.4608 ug/L       0.72537     -3.4608 ppb        0.72537  20.96%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              -67.2     -0.4140 ug/L       0.45308     -0.4140 ppb        0.45308 109.45%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              78.5      0.6382 ug/L       0.06919      0.6382 ppb        0.06919  10.84%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                   120.7      7.1712 ug/L       1.13717      7.1712 ppb        1.13717  15.86%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
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Analysis Begun

Start Time: 12/19/2009 08:54:07 **Plasma On Time: 12/14/2009 06:02:42**
Logged In Analyst: Optima3 **Technique: ICP Continuous**
Spectrometer Model: Optima 5300 DV, S/N 077C7090601Autosampler Model: S10

Sample Information File: C:\pe\Optima3\Sample Information\121909.sif
Batch ID:
Results Data Set: 121909
Results Library: C:\pe\Optima3\Results\Results.mdb

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Method Loaded
Method Name: General Eng.2AX **Method Last Saved: 12/19/2009 07:23:10**
IEC File: 101209.iec **MSF File:**
Method Description:

Analyte	Calibration Equation	Processing	View	Internal Standard	IEC
Ag 328.068	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Al 396.153Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
As 188.979	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
B 249.677	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ba 233.527	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Be 313.107	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ca 317.933Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	No
Cd 226.502	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Co 228.616	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cr 267.716	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cu 324.752	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Fe 238.204 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
K 766.490 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Mg 279.077 IEC	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Mn 257.610	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Mo 202.031	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Na 589.592 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	No
Ni 231.604	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
P 214.914	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Pb 220.353	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
S 181.975 Axial	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sb 206.836	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sc 361.383	Lin Thru 0	Peak Area	Axial	n/a	n/a
Sc Radial	Lin, Calc Int	Peak Area	Radial	n/a	n/a
Se 196.026	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Si 251.611	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sn 189.927	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sr 421.552	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Ti 334.940	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Tl 190.801	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
U 409.014	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
V 292.402	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y 371.029	Lin, Calc Int	Peak Area	Axial	n/a	n/a
Zn 213.857	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y RADIAL	Lin, Calc Int	Peak Area	Radial	n/a	n/a
SiO2	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes

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Sequence No.: 1 **Autosampler Location: 30**
Sample ID: LR1 **Date Collected: 12/19/2009 08:54:08**
Analyst: HSC **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: LR1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	5453.6	5453.6	98.0	%			08:56:06
1	Y RADIAL	5764.5	5764.5	97.52	%			08:56:06
1	Al 396.153Radial†	-42.8	-27.3	-19.920	ug/L	-19.920	ppb	08:56:06

1	Ca 317.933Radial†	24.5	5.4	7.7557 ug/L	7.7557 ppb	08:56:26
1	Fe 238.204 Radial†	7.2	-3.6	-29.566 ug/L	-29.566 ppb	08:56:26
1	K 766.490 Radial†	4057.7	1429.9	98.277 ug/L	98.277 ppb	08:56:06
1	Mg 279.077 IEC†	3.1	1.8	56.059 ug/L	56.059 ppb	08:56:26
1	Na 589.592 Radial†	1144887.8	1169525.2	349070 ug/L	349070 ppb	08:56:01
1	Sr 421.552†	-0.9	10.8	0.0635 ug/L	0.0635 ppb	08:56:06
1	Sc 361.383	854394.5	854394.5	95.048 %		08:57:34
1	Y 371.029	689985.0	689985.0	92.682 %		08:57:34
1	Ag 328.068†	308.9	-44.9	-0.2041 ug/L	-0.2041 ppb	08:57:34
1	As 188.979†	-10.8	23.4	8.4936 ug/L	8.4936 ppb	08:57:54
1	B 249.677†	263.4	303.1	6.2236 ug/L	6.2236 ppb	08:57:34
1	Ba 233.527†	16.1	19.5	0.1301 ug/L	0.1301 ppb	08:57:54
1	Be 313.107†	-4712.1	-226.5	-0.0770 ug/L	-0.0770 ppb	08:57:34
1	Cd 226.502†	-198.0	20.8	0.2067 ug/L	0.2067 ppb	08:57:54
1	Co 228.616†	-66.0	17.7	0.3113 ug/L	0.3113 ppb	08:57:54
1	Cr 267.716†	105.0	30.3	0.3061 ug/L	0.3061 ppb	08:57:54
1	Cu 324.752†	6127.1	390.8	1.1027 ug/L	1.1027 ppb	08:57:34
1	Mn 257.610†	513.5	48.7	0.0441 ug/L	0.0441 ppb	08:57:54
1	Mo 202.031†	21.7	2.9	0.1739 ug/L	0.1739 ppb	08:57:54
1	Ni 231.604†	95.6	7.0	0.1518 ug/L	0.1518 ppb	08:57:54
1	P 214.914†	254.3	9.5	4.8092 ug/L	4.8092 ppb	08:57:54
1	Pb 220.353†	-77.0	-16.9	-1.7836 ug/L	-1.7836 ppb	08:57:54
1	S 181.975 Axial†	45.0	-1.6	-1.9640 ug/L	-1.9640 ppb	08:57:54
1	Sb 206.836†	37.6	-1.7	-0.4816 ug/L	-0.4816 ppb	08:57:54
1	Se 196.026†	-24.9	2.3	1.1562 ug/L	1.1562 ppb	08:57:54
1	Si 251.611†	582.5	35.4	0.9071 ug/L	0.9071 ppb	08:57:54
1	Sn 189.927†	9.5	6.5	0.9771 ug/L	0.9771 ppb	08:57:54
1	Ti 334.940†	-1660.2	-359.1	-0.5180 ug/L	-0.5180 ppb	08:57:34
1	Tl 190.801†	-30.9	15.6	4.0441 ug/L	4.0441 ppb	08:57:54
1	U 409.014†	-2319.2	-67.8	-1.8646 ug/L	-1.8646 ppb	08:57:34
1	V 292.402†	-1481.7	-89.4	-0.5638 ug/L	-0.5638 ppb	08:57:34
1	Zn 213.857†	819.6	68.8	0.5625 ug/L	0.5625 ppb	08:57:54
1	SiO2†	652.8	80.1	4.6525 ug/L	4.6525 ppb	08:58:50
2	Sc Radial	5498.5	5498.5	98.8 %		08:56:37
2	Y RADIAL	5833.5	5833.5	98.68 %		08:56:37
2	Al 396.153Radial†	-13.3	2.9	2.0719 ug/L	2.0719 ppb	08:56:37
2	Ca 317.933Radial†	28.9	9.7	13.785 ug/L	13.785 ppb	08:56:57
2	Fe 238.204 Radial†	9.8	-1.0	-8.1758 ug/L	-8.1758 ppb	08:56:57
2	K 766.490 Radial†	3953.0	1290.0	72.436 ug/L	72.436 ppb	08:56:37
2	Mg 279.077 IEC†	2.6	1.3	39.578 ug/L	39.578 ppb	08:56:57
2	Na 589.592 Radial†	1163347.2	1178658.7	351800 ug/L	351800 ppb	08:56:32
2	Sr 421.552†	17.7	29.8	0.1744 ug/L	0.1744 ppb	08:56:37
2	Sc 361.383	856147.5	856147.5	95.243 %		08:57:59
2	Y 371.029	691778.8	691778.8	92.923 %		08:57:59
2	Ag 328.068†	371.4	20.0	0.0888 ug/L	0.0888 ppb	08:57:59
2	As 188.979†	-15.1	18.9	6.8618 ug/L	6.8618 ppb	08:58:19
2	B 249.677†	219.9	256.8	5.2702 ug/L	5.2702 ppb	08:57:59
2	Ba 233.527†	18.0	21.5	0.1448 ug/L	0.1448 ppb	08:58:19
2	Be 313.107†	-4678.9	-181.5	-0.0616 ug/L	-0.0616 ppb	08:57:59
2	Cd 226.502†	-206.5	12.3	0.1218 ug/L	0.1218 ppb	08:58:19
2	Co 228.616†	-62.7	21.3	0.3763 ug/L	0.3763 ppb	08:58:19
2	Cr 267.716†	101.2	26.1	0.2669 ug/L	0.2669 ppb	08:58:19
2	Cu 324.752†	6158.4	410.4	1.1592 ug/L	1.1592 ppb	08:57:59
2	Mn 257.610†	536.7	72.0	0.0695 ug/L	0.0695 ppb	08:58:19
2	Mo 202.031†	37.5	19.5	1.1778 ug/L	1.1778 ppb	08:58:19
2	Ni 231.604†	109.2	21.1	0.4606 ug/L	0.4606 ppb	08:58:19
2	P 214.914†	256.4	11.2	5.6694 ug/L	5.6694 ppb	08:58:19
2	Pb 220.353†	-73.6	-13.2	-1.3845 ug/L	-1.3845 ppb	08:58:19
2	S 181.975 Axial†	52.3	5.9	7.2078 ug/L	7.2078 ppb	08:58:19
2	Sb 206.836†	44.1	5.1	1.5796 ug/L	1.5796 ppb	08:58:19
2	Se 196.026†	-31.8	-4.9	-2.6664 ug/L	-2.6664 ppb	08:58:19
2	Si 251.611†	622.8	76.4	2.0510 ug/L	2.0510 ppb	08:58:19
2	Sn 189.927†	18.0	15.4	2.3087 ug/L	2.3087 ppb	08:58:19
2	Ti 334.940†	-1575.0	-266.1	-0.3803 ug/L	-0.3803 ppb	08:57:59
2	Tl 190.801†	-43.0	2.9	0.7449 ug/L	0.7449 ppb	08:58:19
2	U 409.014†	-2560.7	-316.4	-8.7173 ug/L	-8.7173 ppb	08:57:59
2	V 292.402†	-1471.3	-75.4	-0.4773 ug/L	-0.4773 ppb	08:57:59
2	Zn 213.857†	844.2	92.8	0.7563 ug/L	0.7563 ppb	08:58:19
2	SiO2†	625.0	49.6	2.7738 ug/L	2.7738 ppb	08:58:55
3	Sc Radial	5453.2	5453.2	98.0 %		08:57:07
3	Y RADIAL	5736.1	5736.1	97.03 %		08:57:07

3	Al 396.153Radial†	-19.3	-3.3	-2.4598 ug/L	-2.4598 ppb	08:57:07
3	Ca 317.933Radial†	30.3	11.4	16.232 ug/L	16.232 ppb	08:57:27
3	Fe 238.204 Radial†	12.2	1.5	12.781 ug/L	12.781 ppb	08:57:27
3	K 766.490 Radial†	4099.4	1472.8	103.07 ug/L	103.07 ppb	08:57:07
3	Mg 279.077 IEC†	3.2	1.9	58.114 ug/L	58.114 ppb	08:57:27
3	Na 589.592 Radial†	1165472.6	1190620.3	355370 ug/L	355370 ppb	08:57:02
3	Sr 421.552†	0.3	12.1	0.0709 ug/L	0.0709 ppb	08:57:07
3	Sc 361.383	857800.0	857800.0	95.427 %		08:58:24
3	Y 371.029	692234.0	692234.0	92.984 %		08:58:24
3	Ag 328.068†	412.6	62.4	0.2793 ug/L	0.2793 ppb	08:58:24
3	As 188.979†	-18.3	15.6	5.6712 ug/L	5.6712 ppb	08:58:45
3	B 249.677†	198.7	234.2	4.8027 ug/L	4.8027 ppb	08:58:24
3	Ba 233.527†	33.0	37.2	0.2525 ug/L	0.2525 ppb	08:58:45
3	Be 313.107†	-4853.4	-354.9	-0.1197 ug/L	-0.1197 ppb	08:58:24
3	Cd 226.502†	-193.5	26.4	0.2576 ug/L	0.2576 ppb	08:58:45
3	Co 228.616†	-58.3	26.0	0.4581 ug/L	0.4581 ppb	08:58:45
3	Cr 267.716†	124.1	49.9	0.5080 ug/L	0.5080 ppb	08:58:45
3	Cu 324.752†	6096.5	333.1	0.9418 ug/L	0.9418 ppb	08:58:24
3	Mn 257.610†	520.1	53.5	0.0530 ug/L	0.0530 ppb	08:58:45
3	Mo 202.031†	35.1	16.9	1.0226 ug/L	1.0226 ppb	08:58:45
3	Ni 231.604†	109.8	21.4	0.4682 ug/L	0.4682 ppb	08:58:45
3	P 214.914†	258.8	13.1	6.6958 ug/L	6.6958 ppb	08:58:45
3	Pb 220.353†	-99.9	-40.7	-4.2838 ug/L	-4.2838 ppb	08:58:45
3	S 181.975 Axial†	50.6	4.1	4.9969 ug/L	4.9969 ppb	08:58:45
3	Sb 206.836†	46.7	7.7	2.3539 ug/L	2.3539 ppb	08:58:45
3	Se 196.026†	-25.7	1.6	0.9017 ug/L	0.9017 ppb	08:58:45
3	Si 251.611†	609.1	60.8	1.6050 ug/L	1.6050 ppb	08:58:45
3	Sn 189.927†	15.0	12.2	1.8326 ug/L	1.8326 ppb	08:58:45
3	Ti 334.940†	-1565.6	-253.0	-0.3610 ug/L	-0.3610 ppb	08:58:24
3	Tl 190.801†	-46.0	-0.1	-0.0375 ug/L	-0.0375 ppb	08:58:45
3	U 409.014†	-2586.5	-338.3	-9.3227 ug/L	-9.3227 ppb	08:58:24
3	V 292.402†	-1465.2	-66.0	-0.4237 ug/L	-0.4237 ppb	08:58:24
3	Zn 213.857†	843.2	90.1	0.7314 ug/L	0.7314 ppb	08:58:45
3	SiO2†	601.9	24.0	1.2123 ug/L	1.2123 ppb	08:59:00

Mean Data: LR1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	856114.0	95.239	%	0.1895				0.20%
Sc Radial	5468.4	98.2	%	0.47				0.48%
Y 371.029	691332.6	92.863	%	0.1597				0.17%
Y RADIAL	5778.0	97.74	%	0.848				0.87%
Ag 328.068†	12.5	0.0547	ug/L	0.24352	0.0547	ppb	0.24352	445.52%
Al 396.153Radial†	-9.2	-6.7694	ug/L	11.61227	-6.7694	ppb	11.61227	171.54%
As 188.979†	19.3	7.0089	ug/L	1.41693	7.0089	ppb	1.41693	20.22%
B 249.677†	264.7	5.4321	ug/L	0.72414	5.4321	ppb	0.72414	13.33%
Ba 233.527†	26.1	0.1758	ug/L	0.06682	0.1758	ppb	0.06682	38.00%
Be 313.107†	-254.3	-0.0861	ug/L	0.03011	-0.0861	ppb	0.03011	34.97%
Ca 317.933Radial†	8.8	12.591	ug/L	4.3627	12.591	ppb	4.3627	34.65%
Cd 226.502†	19.9	0.1953	ug/L	0.06861	0.1953	ppb	0.06861	35.12%
Co 228.616†	21.6	0.3819	ug/L	0.07353	0.3819	ppb	0.07353	19.25%
Cr 267.716†	35.4	0.3603	ug/L	0.12939	0.3603	ppb	0.12939	35.91%
Cu 324.752†	378.1	1.0679	ug/L	0.11279	1.0679	ppb	0.11279	10.56%
Fe 238.204 Radial†	-1.0	-8.3201	ug/L	21.17379	-8.3201	ppb	21.17379	254.49%
K 766.490 Radial†	1397.6	91.262	ug/L	16.4784	91.262	ppb	16.4784	18.06%
Mg 279.077 IEC†	1.6	51.250	ug/L	10.1604	51.250	ppb	10.1604	19.82%
Mn 257.610†	58.1	0.0555	ug/L	0.01289	0.0555	ppb	0.01289	23.21%
Mo 202.031†	13.1	0.7914	ug/L	0.54039	0.7914	ppb	0.54039	68.28%
Na 589.592 Radial†	1179601.4	352080	ug/L	3157.5	352080	ppb	3157.5	0.90%
Ni 231.604†	16.5	0.3602	ug/L	0.18052	0.3602	ppb	0.18052	50.11%
P 214.914†	11.2	5.7248	ug/L	0.94451	5.7248	ppb	0.94451	16.50%
Pb 220.353†	-23.6	-2.4839	ug/L	1.57141	-2.4839	ppb	1.57141	63.26%
S 181.975 Axial†	2.8	3.4135	ug/L	4.78648	3.4135	ppb	4.78648	140.22%
Sb 206.836†	3.7	1.1506	ug/L	1.46556	1.1506	ppb	1.46556	127.37%
Se 196.026†	-0.3	-0.2028	ug/L	2.13729	-0.2028	ppb	2.13729	>999.9%
Si 251.611†	57.5	1.5210	ug/L	0.57658	1.5210	ppb	0.57658	37.91%
Sn 189.927†	11.4	1.7061	ug/L	0.67472	1.7061	ppb	0.67472	39.55%
Sr 421.552†	17.6	0.1029	ug/L	0.06198	0.1029	ppb	0.06198	60.21%
Ti 334.940†	-292.7	-0.4198	ug/L	0.08562	-0.4198	ppb	0.08562	20.40%
Tl 190.801†	6.1	1.5838	ug/L	2.16626	1.5838	ppb	2.16626	136.77%

U 409.014†	-240.8	-6.6348 ug/L	4.14225	-6.6348 ppb	4.14225	62.43%
V 292.402†	-77.0	-0.4883 ug/L	0.07067	-0.4883 ppb	0.07067	14.47%
Zn 213.857†	83.9	0.6834 ug/L	0.10543	0.6834 ppb	0.10543	15.43%
SiO2†	51.3	2.8795 ug/L	1.72254	2.8795 ppb	1.72254	59.82%

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Sequence No.: 2 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 12/19/2009 09:01:10**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**
User canceled analysis.

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Analysis Begun

Start Time: 12/19/2009 09:05:36 **Plasma On Time: 12/14/2009 06:02:42**
Logged In Analyst: Optima3 **Technique: ICP Continuous**
Spectrometer Model: Optima 5300 DV, S/N 077C7090601Autosampler Model: S10

Sample Information File: C:\pe\Optima3\Sample Information\121909.sif
Batch ID:
Results Data Set: 121909
Results Library: C:\pe\Optima3\Results\Results.mdb

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Sequence No.: 2 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 12/19/2009 09:05:37**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5369.0	5369.0	96.4	%			09:07:29
1	Y RADIAL	5694.7	5694.7	96.33	%			09:07:29
1	Al 396.153Radial†	6580.7	6840.1	4963.0	ug/L	4963.0	ppb	09:07:29
1	Ca 317.933Radial†	3510.2	3620.3	5161.6	ug/L	5161.6	ppb	09:07:49
1	Fe 238.204 Radial†	625.9	638.1	5320.0	ug/L	5320.0	ppb	09:07:49
1	K 766.490 Radial†	30593.9	29011.6	5104.6	ug/L	5104.6	ppb	09:07:29
1	Mg 279.077 IEC†	167.8	172.6	5363.3	ug/L	5363.3	ppb	09:07:49
1	Na 589.592 Radial†	31916.6	33857.2	10105	ug/L	10105	ppb	09:07:29
1	Sr 421.552†	83315.4	86404.8	506.62	ug/L	506.62	ppb	09:07:29
1	Sc 361.383	914636.7	914636.7	101.75	%			09:08:48
1	Y 371.029	744942.0	744942.0	100.06	%			09:08:48
1	Ag 328.068†	114886.4	112541.0	488.22	ug/L	488.22	ppb	09:08:48
1	As 188.979†	1351.8	1363.4	499.23	ug/L	499.23	ppb	09:09:08
1	B 249.677†	24376.5	23983.3	490.26	ug/L	490.26	ppb	09:08:48
1	Ba 233.527†	73633.9	72370.3	493.16	ug/L	493.16	ppb	09:08:48
1	Be 313.107†	1481352.4	1460610.7	490.79	ug/L	490.79	ppb	09:08:48
1	Cd 226.502†	51167.9	50517.2	493.84	ug/L	493.84	ppb	09:08:48
1	Co 228.616†	28217.1	27819.0	487.13	ug/L	487.13	ppb	09:09:08
1	Cr 267.716†	49303.7	48375.7	491.26	ug/L	491.26	ppb	09:08:48
1	Cu 324.752†	182806.2	173607.2	490.77	ug/L	490.77	ppb	09:08:48
1	Mn 257.610†	507226.8	498013.2	491.66	ug/L	491.66	ppb	09:08:48
1	Mo 202.031†	8300.1	8137.5	492.95	ug/L	492.95	ppb	09:09:08
1	Ni 231.604†	22900.3	22412.9	489.39	ug/L	489.39	ppb	09:09:08
1	P 214.914†	5061.9	4716.7	2385.8	ug/L	2385.8	ppb	09:09:08
1	Pb 220.353†	4720.4	4703.3	497.13	ug/L	497.13	ppb	09:09:08
1	S 181.975 Axial†	857.1	793.3	972.29	ug/L	972.29	ppb	09:09:08
1	Sb 206.836†	1703.0	1632.5	496.23	ug/L	496.23	ppb	09:09:08
1	Se 196.026†	898.1	911.2	514.84	ug/L	514.84	ppb	09:09:08
1	Si 251.611†	88010.5	85919.6	2410.9	ug/L	2410.9	ppb	09:08:48
1	Sn 189.927†	3332.3	3271.6	491.27	ug/L	491.27	ppb	09:09:08
1	Ti 334.940†	340573.8	336105.0	485.84	ug/L	485.84	ppb	09:08:48
1	Tl 190.801†	1888.2	1903.8	497.07	ug/L	497.07	ppb	09:09:08
1	U 409.014†	14905.8	17021.7	467.37	ug/L	467.37	ppb	09:08:48
1	V 292.402†	76580.5	76733.1	494.58	ug/L	494.58	ppb	09:08:48
1	Zn 213.857†	61823.8	59967.1	487.41	ug/L	487.41	ppb	09:08:48
1	SiO2†	88107.6	85985.9	5180.6	ug/L	5180.6	ppb	09:10:08
2	Sc Radial	5512.0	5512.0	99.0	%			09:07:54
2	Y RADIAL	5826.2	5826.2	98.56	%			09:07:54
2	Al 396.153Radial†	6731.0	6814.8	4944.8	ug/L	4944.8	ppb	09:07:54

2	Ca 317.933Radial†	3504.8	3520.4	5019.1 ug/L	5019.1 ppb	09:08:14
2	Fe 238.204 Radial†	620.7	616.1	5136.5 ug/L	5136.5 ppb	09:08:14
2	K 766.490 Radial†	31008.1	28606.5	5033.3 ug/L	5033.3 ppb	09:07:54
2	Mg 279.077 IEC†	166.4	166.7	5181.6 ug/L	5181.6 ppb	09:08:14
2	Na 589.592 Radial†	32296.5	33381.9	9963.5 ug/L	9963.5 ppb	09:07:54
2	Sr 421.552†	84568.2	85427.8	500.89 ug/L	500.89 ppb	09:07:54
2	Sc 361.383	924044.8	924044.8	102.80 %		09:09:15
2	Y 371.029	750584.6	750584.6	100.82 %		09:09:15
2	Ag 328.068†	115963.3	112439.0	487.71 ug/L	487.71 ppb	09:09:15
2	As 188.979†	1338.4	1336.8	489.58 ug/L	489.58 ppb	09:09:35
2	B 249.677†	24586.8	23944.0	489.49 ug/L	489.49 ppb	09:09:15
2	Ba 233.527†	74528.7	72503.9	494.06 ug/L	494.06 ppb	09:09:15
2	Be 313.107†	1495184.9	1459244.0	490.33 ug/L	490.33 ppb	09:09:15
2	Cd 226.502†	51691.9	50515.0	493.83 ug/L	493.83 ppb	09:09:15
2	Co 228.616†	28231.9	27551.0	482.42 ug/L	482.42 ppb	09:09:35
2	Cr 267.716†	49813.0	48377.8	491.28 ug/L	491.28 ppb	09:09:15
2	Cu 324.752†	184794.8	173712.5	491.06 ug/L	491.06 ppb	09:09:15
2	Mn 257.610†	513349.2	498893.6	492.51 ug/L	492.51 ppb	09:09:15
2	Mo 202.031†	8283.7	8038.5	486.94 ug/L	486.94 ppb	09:09:35
2	Ni 231.604†	22891.3	22175.0	484.20 ug/L	484.20 ppb	09:09:35
2	P 214.914†	5037.2	4642.1	2346.9 ug/L	2346.9 ppb	09:09:35
2	Pb 220.353†	4715.3	4651.1	491.63 ug/L	491.63 ppb	09:09:35
2	S 181.975 Axial†	862.1	789.6	967.74 ug/L	967.74 ppb	09:09:35
2	Sb 206.836†	1678.4	1591.5	483.70 ug/L	483.70 ppb	09:09:35
2	Se 196.026†	887.2	891.6	503.55 ug/L	503.55 ppb	09:09:35
2	Si 251.611†	89176.8	86173.5	2418.3 ug/L	2418.3 ppb	09:09:15
2	Sn 189.927†	3319.0	3225.2	484.30 ug/L	484.30 ppb	09:09:35
2	Ti 334.940†	344925.9	336930.8	487.03 ug/L	487.03 ppb	09:09:15
2	Tl 190.801†	1898.5	1894.9	494.82 ug/L	494.82 ppb	09:09:35
2	U 409.014†	15089.9	17051.7	468.22 ug/L	468.22 ppb	09:09:15
2	V 292.402†	77246.5	76614.6	493.77 ug/L	493.77 ppb	09:09:15
2	Zn 213.857†	62496.0	60002.5	487.76 ug/L	487.76 ppb	09:09:15
2	SiO2†	88167.7	85162.7	5131.1 ug/L	5131.1 ppb	09:10:13
3	Sc Radial	5599.4	5599.4	101 %		09:08:19
3	Y RADIAL	5967.2	5967.2	100.9 %		09:08:19
3	Al 396.153Radial†	6760.8	6738.4	4889.0 ug/L	4889.0 ppb	09:08:19
3	Ca 317.933Radial†	3487.3	3447.7	4915.5 ug/L	4915.5 ppb	09:08:39
3	Fe 238.204 Radial†	620.9	606.4	5056.7 ug/L	5056.7 ppb	09:08:39
3	K 766.490 Radial†	31251.0	28359.2	4989.7 ug/L	4989.7 ppb	09:08:19
3	Mg 279.077 IEC†	170.7	168.3	5231.9 ug/L	5231.9 ppb	09:08:39
3	Na 589.592 Radial†	32610.2	33184.7	9904.7 ug/L	9904.7 ppb	09:08:19
3	Sr 421.552†	85476.0	84997.4	498.37 ug/L	498.37 ppb	09:08:19
3	Sc 361.383	918700.5	918700.5	102.20 %		09:09:43
3	Y 371.029	748040.2	748040.2	100.48 %		09:09:43
3	Ag 328.068†	115324.5	112470.2	487.83 ug/L	487.83 ppb	09:09:43
3	As 188.979†	1344.1	1350.0	494.34 ug/L	494.34 ppb	09:10:03
3	B 249.677†	24449.1	23948.3	489.58 ug/L	489.58 ppb	09:09:43
3	Ba 233.527†	73997.1	72405.5	493.39 ug/L	493.39 ppb	09:09:43
3	Be 313.107†	1488761.9	1461420.5	491.06 ug/L	491.06 ppb	09:09:43
3	Cd 226.502†	51374.3	50496.7	493.66 ug/L	493.66 ppb	09:09:43
3	Co 228.616†	28250.2	27728.7	485.54 ug/L	485.54 ppb	09:10:03
3	Cr 267.716†	49599.9	48451.2	492.02 ug/L	492.02 ppb	09:09:43
3	Cu 324.752†	183769.4	173754.9	491.18 ug/L	491.18 ppb	09:09:43
3	Mn 257.610†	509669.2	498197.8	491.81 ug/L	491.81 ppb	09:09:43
3	Mo 202.031†	8281.3	8083.0	489.64 ug/L	489.64 ppb	09:10:03
3	Ni 231.604†	22910.2	22323.1	487.43 ug/L	487.43 ppb	09:10:03
3	P 214.914†	5070.0	4702.6	2378.6 ug/L	2378.6 ppb	09:10:03
3	Pb 220.353†	4743.1	4705.0	497.31 ug/L	497.31 ppb	09:10:03
3	S 181.975 Axial†	866.7	799.0	979.25 ug/L	979.25 ppb	09:10:03
3	Sb 206.836†	1694.6	1616.9	491.39 ug/L	491.39 ppb	09:10:03
3	Se 196.026†	892.7	902.0	509.00 ug/L	509.00 ppb	09:10:03
3	Si 251.611†	88656.1	86168.7	2418.1 ug/L	2418.1 ppb	09:09:43
3	Sn 189.927†	3320.7	3245.6	487.35 ug/L	487.35 ppb	09:10:03
3	Ti 334.940†	342358.9	336371.1	486.22 ug/L	486.22 ppb	09:09:43
3	Tl 190.801†	1881.3	1888.8	493.20 ug/L	493.20 ppb	09:10:03
3	U 409.014†	14957.1	17007.1	467.00 ug/L	467.00 ppb	09:09:43
3	V 292.402†	76966.2	76777.5	494.85 ug/L	494.85 ppb	09:09:43
3	Zn 213.857†	62078.6	59947.7	487.29 ug/L	487.29 ppb	09:09:43
3	SiO2†	88683.1	86165.9	5191.8 ug/L	5191.8 ppb	09:10:18

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	919127.3	102.25	%	0.525				0.51%
Sc Radial	5493.5	98.7	%	2.09				2.12%
Y 371.029	747855.6	100.46	%	0.380				0.38%
Y RADIAL	5829.4	98.61	%	2.305				2.34%
Ag 328.068†	112483.4	487.92	ug/L	0.263	487.92	ppb	0.263	0.05%
QC value within limits for Ag 328.068 Recovery = 97.58%								
Al 396.153Radial†	6797.8	4932.3	ug/L	38.56	4932.3	ppb	38.56	0.78%
QC value within limits for Al 396.153Radial Recovery = 98.65%								
As 188.979†	1350.1	494.38	ug/L	4.824	494.38	ppb	4.824	0.98%
QC value within limits for As 188.979 Recovery = 98.88%								
B 249.677†	23958.5	489.78	ug/L	0.421	489.78	ppb	0.421	0.09%
QC value within limits for B 249.677 Recovery = 97.96%								
Ba 233.527†	72426.6	493.53	ug/L	0.467	493.53	ppb	0.467	0.09%
QC value within limits for Ba 233.527 Recovery = 98.71%								
Be 313.107†	1460425.0	490.72	ug/L	0.368	490.72	ppb	0.368	0.07%
QC value within limits for Be 313.107 Recovery = 98.14%								
Ca 317.933Radial†	3529.5	5032.1	ug/L	123.55	5032.1	ppb	123.55	2.46%
QC value within limits for Ca 317.933Radial Recovery = 100.64%								
Cd 226.502†	50509.6	493.77	ug/L	0.099	493.77	ppb	0.099	0.02%
QC value within limits for Cd 226.502 Recovery = 98.75%								
Co 228.616†	27699.6	485.03	ug/L	2.394	485.03	ppb	2.394	0.49%
QC value within limits for Co 228.616 Recovery = 97.01%								
Cr 267.716†	48401.6	491.52	ug/L	0.435	491.52	ppb	0.435	0.09%
QC value within limits for Cr 267.716 Recovery = 98.30%								
Cu 324.752†	173691.5	491.01	ug/L	0.208	491.01	ppb	0.208	0.04%
QC value within limits for Cu 324.752 Recovery = 98.20%								
Fe 238.204 Radial†	620.2	5171.1	ug/L	134.97	5171.1	ppb	134.97	2.61%
QC value within limits for Fe 238.204 Radial Recovery = 103.42%								
K 766.490 Radial†	28659.1	5042.5	ug/L	58.00	5042.5	ppb	58.00	1.15%
QC value within limits for K 766.490 Radial Recovery = 100.85%								
Mg 279.077 IEC†	169.2	5258.9	ug/L	93.79	5258.9	ppb	93.79	1.78%
QC value within limits for Mg 279.077 IEC Recovery = 105.18%								
Mn 257.610†	498368.2	491.99	ug/L	0.454	491.99	ppb	0.454	0.09%
QC value within limits for Mn 257.610 Recovery = 98.40%								
Mo 202.031†	8086.3	489.84	ug/L	3.009	489.84	ppb	3.009	0.61%
QC value within limits for Mo 202.031 Recovery = 97.97%								
Na 589.592 Radial†	33474.6	9991.2	ug/L	103.18	9991.2	ppb	103.18	1.03%
QC value within limits for Na 589.592 Radial Recovery = 99.91%								
Ni 231.604†	22303.7	487.01	ug/L	2.623	487.01	ppb	2.623	0.54%
QC value within limits for Ni 231.604 Recovery = 97.40%								
P 214.914†	4687.2	2370.4	ug/L	20.69	2370.4	ppb	20.69	0.87%
QC value within limits for P 214.914 Recovery = 94.82%								
Pb 220.353†	4686.5	495.36	ug/L	3.226	495.36	ppb	3.226	0.65%
QC value within limits for Pb 220.353 Recovery = 99.07%								
S 181.975 Axial†	794.0	973.09	ug/L	5.802	973.09	ppb	5.802	0.60%
QC value within limits for S 181.975 Axial Recovery = 97.31%								
Sb 206.836†	1613.6	490.44	ug/L	6.317	490.44	ppb	6.317	1.29%
QC value within limits for Sb 206.836 Recovery = 98.09%								
Se 196.026†	901.6	509.13	ug/L	5.644	509.13	ppb	5.644	1.11%
QC value within limits for Se 196.026 Recovery = 101.83%								
Si 251.611†	86087.3	2415.8	ug/L	4.17	2415.8	ppb	4.17	0.17%
QC value within limits for Si 251.611 Recovery = 96.63%								
Sn 189.927†	3247.5	487.64	ug/L	3.494	487.64	ppb	3.494	0.72%
QC value within limits for Sn 189.927 Recovery = 97.53%								
Sr 421.552†	85610.0	501.96	ug/L	4.227	501.96	ppb	4.227	0.84%
QC value within limits for Sr 421.552 Recovery = 100.39%								
Ti 334.940†	336469.0	486.36	ug/L	0.607	486.36	ppb	0.607	0.12%
QC value within limits for Ti 334.940 Recovery = 97.27%								
Tl 190.801†	1895.8	495.03	ug/L	1.948	495.03	ppb	1.948	0.39%
QC value within limits for Tl 190.801 Recovery = 99.01%								
U 409.014†	17026.8	467.53	ug/L	0.625	467.53	ppb	0.625	0.13%
QC value within limits for U 409.014 Recovery = 93.51%								
V 292.402†	76708.4	494.40	ug/L	0.565	494.40	ppb	0.565	0.11%
QC value within limits for V 292.402 Recovery = 98.88%								
Zn 213.857†	59972.4	487.49	ug/L	0.241	487.49	ppb	0.241	0.05%
QC value within limits for Zn 213.857 Recovery = 97.50%								
SiO2†	85771.5	5167.8	ug/L	32.29	5167.8	ppb	32.29	0.62%
QC value within limits for SiO2 Recovery = 96.64%								

Sequence No.: 3
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 12/19/2009 09:12:28
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5761.3	5761.3	103	%			09:14:21
1	Y RADIAL	6142.1	6142.1	103.9	%			09:14:21
1	Al 396.153Radial†	-23.3	-6.1	-4.5054	ug/L	-4.5054	ppb	09:14:21
1	Ca 317.933Radial†	26.3	5.9	8.3647	ug/L	8.3647	ppb	09:14:41
1	Fe 238.204 Radial†	9.5	-1.7	-14.303	ug/L	-14.303	ppb	09:14:41
1	K 766.490 Radial†	3231.6	410.3	72.307	ug/L	72.307	ppb	09:14:21
1	Mg 279.077 IEC†	1.8	0.4	11.580	ug/L	11.580	ppb	09:14:41
1	Na 589.592 Radial†	-707.8	77.7	23.191	ug/L	23.191	ppb	09:14:21
1	Sr 421.552†	-11.0	1.1	0.0066	ug/L	0.0066	ppb	09:14:21
1	Sc 361.383	910094.4	910094.4	101.24	%			09:15:38
1	Y 371.029	756146.9	756146.9	101.57	%			09:15:38
1	Ag 328.068†	413.8	38.8	0.1604	ug/L	0.1604	ppb	09:15:38
1	As 188.979†	-25.2	9.9	3.6044	ug/L	3.6044	ppb	09:15:58
1	B 249.677†	241.1	264.1	5.4221	ug/L	5.4221	ppb	09:15:38
1	Ba 233.527†	6.1	8.6	0.0578	ug/L	0.0578	ppb	09:15:58
1	Be 313.107†	-4569.4	217.9	0.0731	ug/L	0.0731	ppb	09:15:38
1	Cd 226.502†	-204.0	27.7	0.2720	ug/L	0.2720	ppb	09:15:58
1	Co 228.616†	-81.8	6.3	0.1135	ug/L	0.1135	ppb	09:15:58
1	Cr 267.716†	101.9	20.5	0.2069	ug/L	0.2069	ppb	09:15:58
1	Cu 324.752†	6079.6	-50.7	-0.1440	ug/L	-0.1440	ppb	09:15:38
1	Mn 257.610†	524.8	26.9	0.0249	ug/L	0.0249	ppb	09:15:58
1	Mo 202.031†	34.8	14.5	0.8785	ug/L	0.8785	ppb	09:15:58
1	Ni 231.604†	95.9	1.1	0.0241	ug/L	0.0241	ppb	09:15:58
1	P 214.914†	255.2	-6.0	-3.0803	ug/L	-3.0803	ppb	09:15:58
1	Pb 220.353†	-70.4	-5.5	-0.5755	ug/L	-0.5755	ppb	09:15:58
1	S 181.975 Axial†	55.8	6.2	7.5575	ug/L	7.5575	ppb	09:15:58
1	Sb 206.836†	52.6	10.7	3.2541	ug/L	3.2541	ppb	09:15:58
1	Se 196.026†	-27.7	1.2	0.5957	ug/L	0.5957	ppb	09:15:58
1	Si 251.611†	649.9	64.4	1.7733	ug/L	1.7733	ppb	09:15:58
1	Sn 189.927†	12.0	8.4	1.2617	ug/L	1.2617	ppb	09:15:58
1	Ti 334.940†	-1404.4	0.5	0.0002	ug/L	0.0002	ppb	09:15:38
1	Tl 190.801†	-31.3	17.2	4.4587	ug/L	4.4587	ppb	09:15:58
1	U 409.014†	-2326.2	74.6	2.0561	ug/L	2.0561	ppb	09:15:38
1	V 292.402†	-1496.3	-8.5	-0.0351	ug/L	-0.0351	ppb	09:15:38
1	Zn 213.857†	842.5	38.6	0.3174	ug/L	0.3174	ppb	09:15:58
1	SiO2†	665.9	51.0	2.9953	ug/L	2.9953	ppb	09:16:54
2	Sc Radial	5678.0	5678.0	102	%			09:14:46
2	Y RADIAL	6057.0	6057.0	102.5	%			09:14:46
2	Al 396.153Radial†	-25.8	-8.9	-6.5567	ug/L	-6.5567	ppb	09:14:46
2	Ca 317.933Radial†	27.0	6.9	9.8800	ug/L	9.8800	ppb	09:15:06
2	Fe 238.204 Radial†	13.0	1.9	15.724	ug/L	15.724	ppb	09:15:06
2	K 766.490 Radial†	3208.7	433.6	76.423	ug/L	76.423	ppb	09:14:46
2	Mg 279.077 IEC†	4.0	2.5	78.599	ug/L	78.599	ppb	09:15:06
2	Na 589.592 Radial†	-745.4	30.8	9.2021	ug/L	9.2021	ppb	09:14:46
2	Sr 421.552†	7.5	19.2	0.1124	ug/L	0.1124	ppb	09:14:46
2	Sc 361.383	900498.5	900498.5	100.18	%			09:16:03
2	Y 371.029	746282.3	746282.3	100.24	%			09:16:03
2	Ag 328.068†	413.7	43.1	0.1920	ug/L	0.1920	ppb	09:16:03
2	As 188.979†	-35.1	-0.2	-0.0627	ug/L	-0.0627	ppb	09:16:23
2	B 249.677†	224.5	250.0	5.1285	ug/L	5.1285	ppb	09:16:03
2	Ba 233.527†	3.1	5.7	0.0390	ug/L	0.0390	ppb	09:16:23
2	Be 313.107†	-4643.3	96.0	0.0324	ug/L	0.0324	ppb	09:16:03
2	Cd 226.502†	-214.2	15.4	0.1491	ug/L	0.1491	ppb	09:16:23
2	Co 228.616†	-83.7	3.6	0.0647	ug/L	0.0647	ppb	09:16:23
2	Cr 267.716†	136.1	55.7	0.5657	ug/L	0.5657	ppb	09:16:23
2	Cu 324.752†	6016.2	-50.0	-0.1406	ug/L	-0.1406	ppb	09:16:03
2	Mn 257.610†	545.6	53.2	0.0526	ug/L	0.0526	ppb	09:16:23
2	Mo 202.031†	36.3	16.3	0.9901	ug/L	0.9901	ppb	09:16:23
2	Ni 231.604†	119.8	26.0	0.5678	ug/L	0.5678	ppb	09:16:23

2	P 214.914†	261.1	2.5	1.3372 ug/L	1.3372 ppb	09:16:23
2	Pb 220.353†	-60.3	3.8	0.4037 ug/L	0.4037 ppb	09:16:23
2	S 181.975 Axial†	52.9	3.8	4.6649 ug/L	4.6649 ppb	09:16:23
2	Sb 206.836†	61.8	20.5	6.1683 ug/L	6.1683 ppb	09:16:23
2	Se 196.026†	-29.2	-0.6	-0.2803 ug/L	-0.2803 ppb	09:16:23
2	Si 251.611†	663.7	85.1	2.3532 ug/L	2.3532 ppb	09:16:23
2	Sn 189.927†	9.6	6.1	0.9222 ug/L	0.9222 ppb	09:16:23
2	Ti 334.940†	-1305.7	84.2	0.1232 ug/L	0.1232 ppb	09:16:03
2	Tl 190.801†	-40.5	7.7	1.9919 ug/L	1.9919 ppb	09:16:23
2	U 409.014†	-2477.6	-101.0	-2.7858 ug/L	-2.7858 ppb	09:16:03
2	V 292.402†	-1515.4	-43.3	-0.2679 ug/L	-0.2679 ppb	09:16:03
2	Zn 213.857†	839.5	44.5	0.3570 ug/L	0.3570 ppb	09:16:23
2	SiO2†	657.6	49.7	2.9109 ug/L	2.9109 ppb	09:16:59
3	Sc Radial	5713.4	5713.4	103 %		09:15:11
3	Y RADIAL	6132.6	6132.6	103.7 %		09:15:11
3	Al 396.153Radial†	-11.3	5.4	3.8830 ug/L	3.8830 ppb	09:15:11
3	Ca 317.933Radial†	20.4	0.3	0.3784 ug/L	0.3784 ppb	09:15:31
3	Fe 238.204 Radial†	8.0	-3.1	-25.709 ug/L	-25.709 ppb	09:15:31
3	K 766.490 Radial†	3126.7	334.3	58.904 ug/L	58.904 ppb	09:15:11
3	Mg 279.077 IEC†	1.9	0.5	14.231 ug/L	14.231 ppb	09:15:31
3	Na 589.592 Radial†	-715.9	64.1	19.122 ug/L	19.122 ppb	09:15:11
3	Sr 421.552†	18.7	30.0	0.1761 ug/L	0.1761 ppb	09:15:11
3	Sc 361.383	909049.9	909049.9	101.13 %		09:16:29
3	Y 371.029	754134.2	754134.2	101.30 %		09:16:29
3	Ag 328.068†	321.8	-51.7	-0.2304 ug/L	-0.2304 ppb	09:16:29
3	As 188.979†	-26.3	8.8	3.1931 ug/L	3.1931 ppb	09:16:49
3	B 249.677†	254.5	277.6	5.7013 ug/L	5.7013 ppb	09:16:29
3	Ba 233.527†	14.6	17.0	0.1153 ug/L	0.1153 ppb	09:16:49
3	Be 313.107†	-4685.2	98.2	0.0328 ug/L	0.0328 ppb	09:16:29
3	Cd 226.502†	-204.8	26.6	0.2634 ug/L	0.2634 ppb	09:16:49
3	Co 228.616†	-87.8	0.3	0.0065 ug/L	0.0065 ppb	09:16:49
3	Cr 267.716†	129.3	47.7	0.4835 ug/L	0.4835 ppb	09:16:49
3	Cu 324.752†	6034.4	-88.5	-0.2513 ug/L	-0.2513 ppb	09:16:29
3	Mn 257.610†	524.7	27.4	0.0242 ug/L	0.0242 ppb	09:16:49
3	Mo 202.031†	29.5	9.3	0.5624 ug/L	0.5624 ppb	09:16:49
3	Ni 231.604†	124.2	29.2	0.6388 ug/L	0.6388 ppb	09:16:49
3	P 214.914†	241.4	-19.3	-10.008 ug/L	-10.008 ppb	09:16:49
3	Pb 220.353†	-60.5	4.3	0.4557 ug/L	0.4557 ppb	09:16:49
3	S 181.975 Axial†	44.9	-4.6	-5.5974 ug/L	-5.5974 ppb	09:16:49
3	Sb 206.836†	54.0	12.1	3.6622 ug/L	3.6622 ppb	09:16:49
3	Se 196.026†	-25.9	2.9	1.4922 ug/L	1.4922 ppb	09:16:49
3	Si 251.611†	652.4	67.7	1.8737 ug/L	1.8737 ppb	09:16:49
3	Sn 189.927†	13.7	10.1	1.5097 ug/L	1.5097 ppb	09:16:49
3	Ti 334.940†	-1452.6	-48.8	-0.0708 ug/L	-0.0708 ppb	09:16:29
3	Tl 190.801†	-33.7	14.7	3.8215 ug/L	3.8215 ppb	09:16:49
3	U 409.014†	-2398.8	0.2	0.0067 ug/L	0.0067 ppb	09:16:29
3	V 292.402†	-1438.3	47.2	0.3122 ug/L	0.3122 ppb	09:16:29
3	Zn 213.857†	828.3	25.5	0.2075 ug/L	0.2075 ppb	09:16:49
3	SiO2†	678.1	63.8	3.7903 ug/L	3.7903 ppb	09:17:04

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	906547.6	100.85	%	0.586				0.58%
Sc Radial	5717.6	103	%	0.8				0.73%
Y 371.029	752187.8	101.04	%	0.700				0.69%
Y RADIAL	6110.5	103.4	%	0.79				0.76%
Ag 328.068†	10.1	0.0407	ug/L	0.23532	0.0407	ppb	0.23532	578.43%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-3.2	-2.3930	ug/L	5.53111	-2.3930	ppb	5.53111	231.13%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	6.2	2.2449	ug/L	2.00899	2.2449	ppb	2.00899	89.49%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	263.9	5.4173	ug/L	0.28645	5.4173	ppb	0.28645	5.29%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	10.5	0.0707	ug/L	0.03977	0.0707	ppb	0.03977	56.25%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	137.4	0.0461	ug/L	0.02336	0.0461	ppb	0.02336	50.67%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	4.4	6.2077	ug/L	5.10486	6.2077	ppb	5.10486	82.23%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                23.2      0.2281 ug/L       0.06861      0.2281 ppb        0.06861  30.07%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                 3.4      0.0616 ug/L       0.05358      0.0616 ppb        0.05358  86.97%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                41.3      0.4187 ug/L       0.18795      0.4187 ppb        0.18795  44.89%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               -63.1     -0.1786 ug/L       0.06296     -0.1786 ppb        0.06296  35.25%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -1.0     -8.0959 ug/L      21.40274     -8.0959 ppb       21.40274 264.37%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         392.7      69.211 ug/L        9.1602      69.211 ppb         9.1602  13.24%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             1.1      34.803 ug/L       37.9512      34.803 ppb        37.9512 109.04%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                35.8      0.0339 ug/L       0.01617      0.0339 ppb        0.01617  47.72%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                13.4      0.8104 ug/L       0.22183      0.8104 ppb        0.22183  27.37%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†         57.5      17.172 ug/L        7.1957      17.172 ppb         7.1957  41.90%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                18.8      0.4102 ug/L       0.33629      0.4102 ppb        0.33629  81.98%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -7.6     -3.9170 ug/L       5.71870     -3.9170 ppb        5.71870 146.00%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                 0.9      0.0946 ug/L       0.58096      0.0946 ppb        0.58096 614.03%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            1.8      2.2083 ug/L       6.91295      2.2083 ppb        6.91295 313.04%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                14.5      4.3615 ug/L       1.57796      4.3615 ppb        1.57796  36.18%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 1.1      0.6025 ug/L       0.88627      0.6025 ppb        0.88627 147.10%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                72.4      2.0001 ug/L       0.30994      2.0001 ppb        0.30994  15.50%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 8.2      1.2312 ug/L       0.29497      1.2312 ppb        0.29497  23.96%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                16.8      0.0984 ug/L       0.08560      0.0984 ppb        0.08560  87.03%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                11.9      0.0175 ug/L       0.09815      0.0175 ppb        0.09815 559.38%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                13.2      3.4240 ug/L       1.28055      3.4240 ppb        1.28055  37.40%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 -8.8     -0.2410 ug/L       2.43041     -0.2410 ppb        2.43041 >999.9%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 -1.6      0.0031 ug/L       0.29189      0.0031 ppb        0.29189 >999.9%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                36.2      0.2940 ug/L       0.07745      0.2940 ppb        0.07745  26.35%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                      54.9      3.2322 ug/L       0.48516      3.2322 ppb        0.48516  15.01%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

User canceled analysis.

==========

Analysis Begun

Start Time: 12/19/2009 10:14:09 **Plasma On Time: 12/14/2009 06:02:42**
Logged In Analyst: Optima3 **Technique: ICP Continuous**
Spectrometer Model: Optima 5300 DV, S/N 077C7090601Autosampler Model: S10

Sample Information File: C:\pe\Optima3\Sample Information\121909.sif
Batch ID:
Results Data Set: 121909
Results Library: C:\pe\Optima3\Results\Results.mdb

==========

Sequence No.: 11 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 12/19/2009 10:14:10**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5553.5	5553.5	99.8	%			10:16:02
1	Y RADIAL	5849.0	5849.0	98.94	%			10:16:02
1	Al 396.153Radial†	6715.1	6748.2	4896.3	ug/L	4896.3	ppb	10:16:02
1	Ca 317.933Radial†	3514.9	3504.0	4995.8	ug/L	4995.8	ppb	10:16:22
1	Fe 238.204 Radial†	615.1	605.8	5051.3	ug/L	5051.3	ppb	10:16:22
1	K 766.490 Radial†	31181.6	28546.7	5022.9	ug/L	5022.9	ppb	10:16:02
1	Mg 279.077 IEC†	168.2	167.2	5196.7	ug/L	5196.7	ppb	10:16:22
1	Na 589.592 Radial†	31392.4	32232.1	9620.3	ug/L	9620.3	ppb	10:16:02
1	Sr 421.552†	84136.2	84357.1	494.61	ug/L	494.61	ppb	10:16:02
1	Sc 361.383	928285.0	928285.0	103.27	%			10:17:19
1	Y 371.029	755808.8	755808.8	101.52	%			10:17:19
1	Ag 328.068†	115537.1	111510.9	483.67	ug/L	483.67	ppb	10:17:25
1	As 188.979†	1372.6	1364.0	499.44	ug/L	499.44	ppb	10:17:45
1	B 249.677†	24261.4	23519.5	480.78	ug/L	480.78	ppb	10:17:25
1	Ba 233.527†	73799.7	71466.8	487.00	ug/L	487.00	ppb	10:17:25
1	Be 313.107†	1506253.3	1463318.2	491.70	ug/L	491.70	ppb	10:17:19
1	Cd 226.502†	51430.0	50031.7	489.11	ug/L	489.11	ppb	10:17:25
1	Co 228.616†	28664.8	27844.8	487.56	ug/L	487.56	ppb	10:17:25
1	Cr 267.716†	49603.2	47953.3	486.96	ug/L	486.96	ppb	10:17:25
1	Cu 324.752†	181881.2	170069.9	480.77	ug/L	480.77	ppb	10:17:25
1	Mn 257.610†	515022.7	498233.1	491.85	ug/L	491.85	ppb	10:17:19
1	Mo 202.031†	8300.7	8018.1	485.71	ug/L	485.71	ppb	10:17:45
1	Ni 231.604†	23182.5	22355.3	488.13	ug/L	488.13	ppb	10:17:25
1	P 214.914†	5080.5	4661.6	2358.9	ug/L	2358.9	ppb	10:17:45
1	Pb 220.353†	4726.8	4641.3	490.60	ug/L	490.60	ppb	10:17:45
1	S 181.975 Axial†	864.0	787.7	965.33	ug/L	965.33	ppb	10:17:45
1	Sb 206.836†	1718.0	1622.4	493.13	ug/L	493.13	ppb	10:17:45
1	Se 196.026†	897.0	897.1	506.31	ug/L	506.31	ppb	10:17:45
1	Si 251.611†	88612.6	85230.9	2391.7	ug/L	2391.7	ppb	10:17:25
1	Sn 189.927†	3382.1	3271.6	491.25	ug/L	491.25	ppb	10:17:45
1	Ti 334.940†	346373.1	336799.5	486.84	ug/L	486.84	ppb	10:17:19
1	Tl 190.801†	1904.1	1891.9	493.99	ug/L	493.99	ppb	10:17:45
1	U 409.014†	15318.0	17205.5	472.47	ug/L	472.47	ppb	10:17:25
1	V 292.402†	77029.9	76061.6	490.25	ug/L	490.25	ppb	10:17:25
1	Zn 213.857†	62259.7	59495.9	483.60	ug/L	483.60	ppb	10:17:25
1	SiO2†	89163.1	85734.8	5165.8	ug/L	5165.8	ppb	10:18:53
2	Sc Radial	5562.3	5562.3	99.9	%			10:16:27
2	Y RADIAL	5881.8	5881.8	99.50	%			10:16:27
2	Al 396.153Radial†	6767.1	6789.5	4927.6	ug/L	4927.6	ppb	10:16:27
2	Ca 317.933Radial†	3494.2	3477.8	4958.4	ug/L	4958.4	ppb	10:16:47
2	Fe 238.204 Radial†	611.6	601.3	5013.3	ug/L	5013.3	ppb	10:16:47
2	K 766.490 Radial†	30931.5	28246.8	4970.4	ug/L	4970.4	ppb	10:16:27
2	Mg 279.077 IEC†	167.7	166.4	5172.9	ug/L	5172.9	ppb	10:16:47
2	Na 589.592 Radial†	31287.8	32077.5	9574.2	ug/L	9574.2	ppb	10:16:27
2	Sr 421.552†	83971.0	84058.2	492.86	ug/L	492.86	ppb	10:16:27
2	Sc 361.383	971392.0	971392.0	108.06	%			10:17:51

2	Y 371.029	790540.5	790540.5	106.19 %			10:17:51
2	Ag 328.068†	116551.1	107484.4	466.24 ug/L	466.24	ppb	10:17:56
2	As 188.979†	1349.7	1283.8	470.03 ug/L	470.03	ppb	10:18:16
2	B 249.677†	24539.4	22734.3	464.71 ug/L	464.71	ppb	10:17:56
2	Ba 233.527†	74366.5	68820.0	468.97 ug/L	468.97	ppb	10:17:56
2	Be 313.107†	1447628.7	1344341.0	451.72 ug/L	451.72	ppb	10:17:51
2	Cd 226.502†	51680.1	48053.1	469.75 ug/L	469.75	ppb	10:17:56
2	Co 228.616†	28909.2	26839.1	469.97 ug/L	469.97	ppb	10:17:56
2	Cr 267.716†	49854.5	46054.4	467.68 ug/L	467.68	ppb	10:17:56
2	Cu 324.752†	183761.7	163994.2	463.60 ug/L	463.60	ppb	10:17:56
2	Mn 257.610†	498086.1	460428.6	454.56 ug/L	454.56	ppb	10:17:51
2	Mo 202.031†	8202.5	7570.5	458.61 ug/L	458.61	ppb	10:18:16
2	Ni 231.604†	23319.2	21485.6	469.14 ug/L	469.14	ppb	10:17:56
2	P 214.914†	4996.0	4365.2	2206.6 ug/L	2206.6	ppb	10:18:16
2	Pb 220.353†	4669.7	4385.3	463.58 ug/L	463.58	ppb	10:18:16
2	S 181.975 Axial†	857.5	744.5	912.43 ug/L	912.43	ppb	10:18:16
2	Sb 206.836†	1704.3	1535.9	466.67 ug/L	466.67	ppb	10:18:16
2	Se 196.026†	880.6	843.4	476.83 ug/L	476.83	ppb	10:18:16
2	Si 251.611†	89486.5	82231.7	2307.7 ug/L	2307.7	ppb	10:17:56
2	Sn 189.927†	3334.6	3082.3	462.85 ug/L	462.85	ppb	10:18:16
2	Ti 334.940†	333765.0	310247.8	448.46 ug/L	448.46	ppb	10:17:51
2	Tl 190.801†	1877.1	1785.1	465.92 ug/L	465.92	ppb	10:18:16
2	U 409.014†	15600.1	16808.3	461.57 ug/L	461.57	ppb	10:17:56
2	V 292.402†	77479.0	73167.1	471.49 ug/L	471.49	ppb	10:17:56
2	Zn 213.857†	62628.5	57161.7	464.60 ug/L	464.60	ppb	10:17:56
2	SiO2†	88791.1	81559.1	4914.2 ug/L	4914.2	ppb	10:18:58
3	Sc Radial	5621.6	5621.6	101 %			10:16:52
3	Y RADIAL	5952.0	5952.0	100.7 %			10:16:52
3	Al 396.153Radial†	6807.6	6758.2	4903.5 ug/L	4903.5	ppb	10:16:52
3	Ca 317.933Radial†	3483.6	3430.4	4890.8 ug/L	4890.8	ppb	10:17:12
3	Fe 238.204 Radial†	607.9	591.2	4930.1 ug/L	4930.1	ppb	10:17:12
3	K 766.490 Radial†	31287.2	28272.5	4974.6 ug/L	4974.6	ppb	10:16:52
3	Mg 279.077 IEC†	167.2	164.2	5103.2 ug/L	5103.2	ppb	10:17:12
3	Na 589.592 Radial†	31440.9	31898.8	9520.9 ug/L	9520.9	ppb	10:16:52
3	Sr 421.552†	84737.0	83930.2	492.11 ug/L	492.11	ppb	10:16:52
3	Sc 361.383	913742.9	913742.9	101.65 %			10:18:22
3	Y 371.029	742553.7	742553.7	99.743 %			10:18:22
3	Ag 328.068†	115791.4	113541.6	492.40 ug/L	492.40	ppb	10:18:27
3	As 188.979†	1346.3	1359.3	497.67 ug/L	497.67	ppb	10:18:47
3	B 249.677†	24317.2	23948.4	489.57 ug/L	489.57	ppb	10:18:27
3	Ba 233.527†	74026.4	72827.2	496.26 ug/L	496.26	ppb	10:18:27
3	Be 313.107†	1460514.8	1441535.4	484.38 ug/L	484.38	ppb	10:18:22
3	Cd 226.502†	51426.0	50820.4	496.84 ug/L	496.84	ppb	10:18:27
3	Co 228.616†	28727.0	28347.8	496.38 ug/L	496.38	ppb	10:18:27
3	Cr 267.716†	49621.1	48735.4	494.90 ug/L	494.90	ppb	10:18:27
3	Cu 324.752†	182730.2	173708.1	491.04 ug/L	491.04	ppb	10:18:27
3	Mn 257.610†	503302.9	494640.7	488.30 ug/L	488.30	ppb	10:18:22
3	Mo 202.031†	8224.5	8071.1	488.90 ug/L	488.90	ppb	10:18:47
3	Ni 231.604†	23184.4	22714.4	495.97 ug/L	495.97	ppb	10:18:27
3	P 214.914†	5034.2	4694.4	2374.4 ug/L	2374.4	ppb	10:18:47
3	Pb 220.353†	4672.5	4660.7	492.65 ug/L	492.65	ppb	10:18:47
3	S 181.975 Axial†	870.1	807.0	989.04 ug/L	989.04	ppb	10:18:47
3	Sb 206.836†	1712.3	1643.3	499.28 ug/L	499.28	ppb	10:18:47
3	Se 196.026†	896.4	910.4	513.17 ug/L	513.17	ppb	10:18:47
3	Si 251.611†	88927.9	86906.7	2438.9 ug/L	2438.9	ppb	10:18:27
3	Sn 189.927†	3324.6	3267.2	490.58 ug/L	490.58	ppb	10:18:47
3	Ti 334.940†	337899.2	333801.2	482.49 ug/L	482.49	ppb	10:18:22
3	Tl 190.801†	1889.6	1907.0	497.80 ug/L	497.80	ppb	10:18:47
3	U 409.014†	15562.2	17681.7	485.59 ug/L	485.59	ppb	10:18:27
3	V 292.402†	77205.7	77421.7	498.99 ug/L	498.99	ppb	10:18:27
3	Zn 213.857†	62221.4	60417.7	491.11 ug/L	491.11	ppb	10:18:27
3	SiO2†	88259.5	86220.0	5195.1 ug/L	5195.1	ppb	10:19:03

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	937806.7	104.33	%	3.335				3.20%
Sc Radial	5579.1	100	%	0.7				0.66%
Y 371.029	762967.7	102.49	%	3.329				3.25%
Y RADIAL	5894.2	99.71	%	0.890				0.89%

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Ag 328.068†          110845.7      480.77 ug/L        13.320      480.77 ppb        13.320   2.77%
   QC value within limits for Ag 328.068  Recovery = 96.15%
Al 396.153Radial†      6765.3      4909.1 ug/L        16.38      4909.1 ppb         16.38   0.33%
   QC value within limits for Al 396.153Radial  Recovery = 98.18%
As 188.979†            1335.7      489.05 ug/L        16.490      489.05 ppb        16.490   3.37%
   QC value within limits for As 188.979  Recovery = 97.81%
B 249.677†            23400.7      478.36 ug/L        12.606      478.36 ppb        12.606   2.64%
   QC value within limits for B 249.677  Recovery = 95.67%
Ba 233.527†           71038.0      484.07 ug/L        13.879      484.07 ppb        13.879   2.87%
   QC value within limits for Ba 233.527  Recovery = 96.81%
Be 313.107†         1416398.2      475.93 ug/L        21.285      475.93 ppb        21.285   4.47%
   QC value within limits for Be 313.107  Recovery = 95.19%
Ca 317.933Radial†      3470.7      4948.3 ug/L        53.19      4948.3 ppb         53.19   1.07%
   QC value within limits for Ca 317.933Radial  Recovery = 98.97%
Cd 226.502†           49635.0      485.24 ug/L        13.954      485.24 ppb        13.954   2.88%
   QC value within limits for Cd 226.502  Recovery = 97.05%
Co 228.616†           27677.2      484.64 ug/L        13.448      484.64 ppb        13.448   2.77%
   QC value within limits for Co 228.616  Recovery = 96.93%
Cr 267.716†           47581.0      483.18 ug/L        13.999      483.18 ppb        13.999   2.90%
   QC value within limits for Cr 267.716  Recovery = 96.64%
Cu 324.752†          169257.4      478.47 ug/L        13.864      478.47 ppb        13.864   2.90%
   QC value within limits for Cu 324.752  Recovery = 95.69%
Fe 238.204 Radial†      599.4      4998.2 ug/L        61.99      4998.2 ppb         61.99   1.24%
   QC value within limits for Fe 238.204 Radial  Recovery = 99.96%
K 766.490 Radial†     28355.3      4989.3 ug/L        29.14      4989.3 ppb         29.14   0.58%
   QC value within limits for K 766.490 Radial  Recovery = 99.79%
Mg 279.077 IEC†         165.9      5157.6 ug/L        48.58      5157.6 ppb         48.58   0.94%
   QC value within limits for Mg 279.077 IEC  Recovery = 103.15%
Mn 257.610†          484434.1      478.23 ug/L        20.582      478.23 ppb        20.582   4.30%
   QC value within limits for Mn 257.610  Recovery = 95.65%
Mo 202.031†            7886.6      477.74 ug/L        16.644      477.74 ppb        16.644   3.48%
   QC value within limits for Mo 202.031  Recovery = 95.55%
Na 589.592 Radial†    32069.5      9571.8 ug/L        49.78      9571.8 ppb         49.78   0.52%
   QC value within limits for Na 589.592 Radial  Recovery = 95.72%
Ni 231.604†           22185.1      484.42 ug/L        13.797      484.42 ppb        13.797   2.85%
   QC value within limits for Ni 231.604  Recovery = 96.88%
P 214.914†             4573.7      2313.3 ug/L        92.71      2313.3 ppb         92.71   4.01%
   QC value within limits for P 214.914  Recovery = 92.53%
Pb 220.353†            4562.4      482.28 ug/L        16.225      482.28 ppb        16.225   3.36%
   QC value within limits for Pb 220.353  Recovery = 96.46%
S 181.975 Axial†        779.7      955.60 ug/L        39.216      955.60 ppb        39.216   4.10%
   QC value within limits for S 181.975 Axial  Recovery = 95.56%
Sb 206.836†            1600.5      486.36 ug/L        17.325      486.36 ppb        17.325   3.56%
   QC value within limits for Sb 206.836  Recovery = 97.27%
Se 196.026†             883.6      498.77 ug/L        19.304      498.77 ppb        19.304   3.87%
   QC value within limits for Se 196.026  Recovery = 99.75%
Si 251.611†           84789.8      2379.4 ug/L        66.46      2379.4 ppb         66.46   2.79%
   QC value within limits for Si 251.611  Recovery = 95.18%
Sn 189.927†            3207.0      481.56 ug/L        16.205      481.56 ppb        16.205   3.37%
   QC value within limits for Sn 189.927  Recovery = 96.31%
Sr 421.552†           84115.2      493.19 ug/L         1.284      493.19 ppb         1.284   0.26%
   QC value within limits for Sr 421.552  Recovery = 98.64%
Ti 334.940†          326949.5      472.60 ug/L        21.016      472.60 ppb        21.016   4.45%
   QC value within limits for Ti 334.940  Recovery = 94.52%
Tl 190.801†            1861.3      485.91 ug/L        17.413      485.91 ppb        17.413   3.58%
   QC value within limits for Tl 190.801  Recovery = 97.18%
U 409.014†            17231.8      473.21 ug/L        12.029      473.21 ppb        12.029   2.54%
   QC value within limits for U 409.014  Recovery = 94.64%
V 292.402†            75550.2      486.91 ug/L        14.053      486.91 ppb        14.053   2.89%
   QC value within limits for V 292.402  Recovery = 97.38%
Zn 213.857†           59025.1      479.77 ug/L        13.663      479.77 ppb        13.663   2.85%
   QC value within limits for Zn 213.857  Recovery = 95.95%
SiO2†                 84504.6      5091.7 ug/L       154.40      5091.7 ppb        154.40   3.03%
   QC value within limits for SiO2  Recovery = 95.22%
All analyte(s) passed QC.
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Sequence No.: 12
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 12/19/2009 10:21:12
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5616.6	5616.6	101	%			10:23:05
1	Y RADIAL	5983.2	5983.2	101.2	%			10:23:05
1	Al 396.153Radial†	-31.6	-14.9	-10.891	ug/L	-10.891	ppb	10:23:05
1	Ca 317.933Radial†	18.6	-1.1	-1.5731	ug/L	-1.5731	ppb	10:23:25
1	Fe 238.204 Radial†	8.6	-2.3	-19.368	ug/L	-19.368	ppb	10:23:25
1	K 766.490 Radial†	2944.4	206.2	36.342	ug/L	36.342	ppb	10:23:05
1	Mg 279.077 IEC†	1.1	-0.4	-10.962	ug/L	-10.962	ppb	10:23:25
1	Na 589.592 Radial†	-793.5	-24.9	-7.4390	ug/L	-7.4390	ppb	10:23:05
1	Sr 421.552†	7.1	18.8	0.1105	ug/L	0.1105	ppb	10:23:05
1	Sc 361.383	905995.4	905995.4	100.79	%			10:24:22
1	Y 371.029	752925.4	752925.4	101.14	%			10:24:22
1	Ag 328.068†	395.5	22.5	0.0934	ug/L	0.0934	ppb	10:24:22
1	As 188.979†	-34.2	0.9	0.3236	ug/L	0.3236	ppb	10:24:42
1	B 249.677†	-14.0	12.0	0.2494	ug/L	0.2494	ppb	10:24:22
1	Ba 233.527†	-7.1	-4.5	-0.0321	ug/L	-0.0321	ppb	10:24:42
1	Be 313.107†	-4641.4	126.0	0.0422	ug/L	0.0422	ppb	10:24:22
1	Cd 226.502†	-229.2	1.7	0.0192	ug/L	0.0192	ppb	10:24:42
1	Co 228.616†	-91.8	-4.0	-0.0676	ug/L	-0.0676	ppb	10:24:42
1	Cr 267.716†	103.9	22.9	0.2328	ug/L	0.2328	ppb	10:24:42
1	Cu 324.752†	5985.0	-117.4	-0.3326	ug/L	-0.3326	ppb	10:24:22
1	Mn 257.610†	516.8	21.3	0.0193	ug/L	0.0193	ppb	10:24:42
1	Mo 202.031†	31.7	11.5	0.6977	ug/L	0.6977	ppb	10:24:42
1	Ni 231.604†	115.3	20.8	0.4545	ug/L	0.4545	ppb	10:24:42
1	P 214.914†	249.1	-10.9	-5.6026	ug/L	-5.6026	ppb	10:24:42
1	Pb 220.353†	-68.4	-3.9	-0.4052	ug/L	-0.4052	ppb	10:24:42
1	S 181.975 Axial†	52.9	3.4	4.2206	ug/L	4.2206	ppb	10:24:42
1	Sb 206.836†	48.5	6.9	2.0831	ug/L	2.0831	ppb	10:24:42
1	Se 196.026†	-38.8	-9.9	-5.4699	ug/L	-5.4699	ppb	10:24:42
1	Si 251.611†	604.5	22.3	0.6016	ug/L	0.6016	ppb	10:24:42
1	Sn 189.927†	11.6	8.1	1.2076	ug/L	1.2076	ppb	10:24:42
1	Ti 334.940†	-1406.7	-8.1	-0.0095	ug/L	-0.0095	ppb	10:24:22
1	Tl 190.801†	-39.0	9.4	2.4333	ug/L	2.4333	ppb	10:24:42
1	U 409.014†	-2585.5	-193.1	-5.3183	ug/L	-5.3183	ppb	10:24:22
1	V 292.402†	-1549.5	-67.9	-0.4298	ug/L	-0.4298	ppb	10:24:22
1	Zn 213.857†	840.2	40.0	0.3281	ug/L	0.3281	ppb	10:24:42
1	SiO2†	726.8	114.4	6.8658	ug/L	6.8658	ppb	10:25:38
2	Sc Radial	5663.0	5663.0	102	%			10:23:30
2	Y RADIAL	6054.5	6054.5	102.4	%			10:23:30
2	Al 396.153Radial†	-9.8	6.7	4.8721	ug/L	4.8721	ppb	10:23:30
2	Ca 317.933Radial†	21.1	1.2	1.6955	ug/L	1.6955	ppb	10:23:50
2	Fe 238.204 Radial†	9.2	-1.8	-15.273	ug/L	-15.273	ppb	10:23:50
2	K 766.490 Radial†	2927.1	165.2	29.125	ug/L	29.125	ppb	10:23:30
2	Mg 279.077 IEC†	1.7	0.2	7.0445	ug/L	7.0445	ppb	10:23:50
2	Na 589.592 Radial†	-797.6	-22.5	-6.7162	ug/L	-6.7162	ppb	10:23:30
2	Sr 421.552†	-8.7	3.2	0.0188	ug/L	0.0188	ppb	10:23:30
2	Sc 361.383	902480.6	902480.6	100.40	%			10:24:47
2	Y 371.029	748554.3	748554.3	100.55	%			10:24:47
2	Ag 328.068†	254.7	-116.2	-0.5047	ug/L	-0.5047	ppb	10:24:47
2	As 188.979†	-24.5	10.4	3.7686	ug/L	3.7686	ppb	10:25:07
2	B 249.677†	-20.1	5.9	0.1226	ug/L	0.1226	ppb	10:24:47
2	Ba 233.527†	-14.4	-11.7	-0.0811	ug/L	-0.0811	ppb	10:25:07
2	Be 313.107†	-4597.8	151.5	0.0509	ug/L	0.0509	ppb	10:24:47
2	Cd 226.502†	-212.0	18.0	0.1779	ug/L	0.1779	ppb	10:25:07
2	Co 228.616†	-82.5	4.9	0.0883	ug/L	0.0883	ppb	10:25:07
2	Cr 267.716†	121.3	40.7	0.4129	ug/L	0.4129	ppb	10:25:07
2	Cu 324.752†	5977.6	-101.6	-0.2879	ug/L	-0.2879	ppb	10:24:47
2	Mn 257.610†	534.6	41.0	0.0388	ug/L	0.0388	ppb	10:25:07
2	Mo 202.031†	34.9	14.9	0.9029	ug/L	0.9029	ppb	10:25:07
2	Ni 231.604†	118.0	24.0	0.5238	ug/L	0.5238	ppb	10:25:07

2	P 214.914†	254.4	-4.6	-2.3516 ug/L	-2.3516 ppb	10:25:07
2	Pb 220.353†	-71.0	-6.7	-0.6995 ug/L	-0.6995 ppb	10:25:07
2	S 181.975 Axial†	49.4	0.2	0.2426 ug/L	0.2426 ppb	10:25:07
2	Sb 206.836†	41.5	0.1	0.0609 ug/L	0.0609 ppb	10:25:07
2	Se 196.026†	-23.5	5.1	2.7465 ug/L	2.7465 ppb	10:25:07
2	Si 251.611†	605.5	25.7	0.6962 ug/L	0.6962 ppb	10:25:07
2	Sn 189.927†	7.2	3.7	0.5489 ug/L	0.5489 ppb	10:25:07
2	Ti 334.940†	-1358.1	34.9	0.0518 ug/L	0.0518 ppb	10:24:47
2	Tl 190.801†	-48.4	-0.1	-0.0293 ug/L	-0.0293 ppb	10:25:07
2	U 409.014†	-2503.2	-121.1	-3.3361 ug/L	-3.3361 ppb	10:24:47
2	V 292.402†	-1533.9	-58.4	-0.3629 ug/L	-0.3629 ppb	10:24:47
2	Zn 213.857†	833.2	36.4	0.2965 ug/L	0.2965 ppb	10:25:07
2	SiO2†	624.6	15.5	0.8798 ug/L	0.8798 ppb	10:25:43
3	Sc Radial	5677.5	5677.5	102 %		10:23:55
3	Y RADIAL	6030.0	6030.0	102.0 %		10:23:55
3	Al 396.153Radial†	-26.1	-9.2	-6.7339 ug/L	-6.7339 ppb	10:23:55
3	Ca 317.933Radial†	24.5	4.5	6.3638 ug/L	6.3638 ppb	10:24:15
3	Fe 238.204 Radial†	10.2	-0.9	-7.5989 ug/L	-7.5989 ppb	10:24:15
3	K 766.490 Radial†	2927.7	158.5	27.929 ug/L	27.929 ppb	10:23:55
3	Mg 279.077 IEC†	5.1	3.6	112.34 ug/L	112.34 ppb	10:24:15
3	Na 589.592 Radial†	-810.1	-32.7	-9.7554 ug/L	-9.7554 ppb	10:23:55
3	Sr 421.552†	29.8	41.0	0.2403 ug/L	0.2403 ppb	10:23:55
3	Sc 361.383	899794.8	899794.8	100.10 %		10:25:13
3	Y 371.029	747572.3	747572.3	100.42 %		10:25:13
3	Ag 328.068†	404.1	33.8	0.1452 ug/L	0.1452 ppb	10:25:13
3	As 188.979†	-22.4	12.4	4.5017 ug/L	4.5017 ppb	10:25:33
3	B 249.677†	29.0	54.9	1.1276 ug/L	1.1276 ppb	10:25:13
3	Ba 233.527†	0.2	2.8	0.0182 ug/L	0.0182 ppb	10:25:33
3	Be 313.107†	-4622.2	113.5	0.0382 ug/L	0.0382 ppb	10:25:13
3	Cd 226.502†	-230.4	-1.0	-0.0086 ug/L	-0.0086 ppb	10:25:33
3	Co 228.616†	-86.0	1.2	0.0203 ug/L	0.0203 ppb	10:25:33
3	Cr 267.716†	102.8	22.6	0.2292 ug/L	0.2292 ppb	10:25:33
3	Cu 324.752†	6083.4	21.8	0.0613 ug/L	0.0613 ppb	10:25:13
3	Mn 257.610†	510.0	18.1	0.0150 ug/L	0.0150 ppb	10:25:33
3	Mo 202.031†	21.0	1.1	0.0683 ug/L	0.0683 ppb	10:25:33
3	Ni 231.604†	124.9	31.2	0.6826 ug/L	0.6826 ppb	10:25:33
3	P 214.914†	246.5	-11.8	-6.1636 ug/L	-6.1636 ppb	10:25:33
3	Pb 220.353†	-69.4	-5.3	-0.5598 ug/L	-0.5598 ppb	10:25:33
3	S 181.975 Axial†	52.9	3.9	4.7370 ug/L	4.7370 ppb	10:25:33
3	Sb 206.836†	45.4	4.2	1.2541 ug/L	1.2541 ppb	10:25:33
3	Se 196.026†	-30.3	-1.8	-0.9937 ug/L	-0.9937 ppb	10:25:33
3	Si 251.611†	611.1	33.1	0.9199 ug/L	0.9199 ppb	10:25:33
3	Sn 189.927†	7.6	4.1	0.6221 ug/L	0.6221 ppb	10:25:33
3	Ti 334.940†	-1352.0	36.9	0.0555 ug/L	0.0555 ppb	10:25:13
3	Tl 190.801†	-38.5	9.6	2.4997 ug/L	2.4997 ppb	10:25:33
3	U 409.014†	-2522.3	-147.6	-4.0671 ug/L	-4.0671 ppb	10:25:13
3	V 292.402†	-1523.8	-52.9	-0.3400 ug/L	-0.3400 ppb	10:25:13
3	Zn 213.857†	835.8	41.4	0.3323 ug/L	0.3323 ppb	10:25:33
3	SiO2†	597.8	-9.4	-0.5979 ug/L	-0.5979 ppb	10:25:48

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	902756.9	100.43	%	0.346				0.34%
Sc Radial	5652.3	102	%	0.6				0.56%
Y 371.029	749684.0	100.70	%	0.383				0.38%
Y RADIAL	6022.6	101.9	%	0.61				0.60%
Ag 328.068†	-20.0	-0.0887	ug/L	0.36117	-0.0887	ppb	0.36117	407.26%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-5.8	-4.2509	ug/L	8.16959	-4.2509	ppb	8.16959	192.19%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	7.9	2.8646	ug/L	2.23093	2.8646	ppb	2.23093	77.88%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	24.3	0.4998	ug/L	0.54730	0.4998	ppb	0.54730	109.49%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-4.5	-0.0316	ug/L	0.04966	-0.0316	ppb	0.04966	156.96%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	130.3	0.0438	ug/L	0.00650	0.0438	ppb	0.00650	14.86%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	1.5	2.1620	ug/L	3.98896	2.1620	ppb	3.98896	184.50%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                 6.2      0.0628 ug/L       0.10058      0.0628 ppb        0.10058 160.07%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                 0.7      0.0136 ug/L       0.07818      0.0136 ppb        0.07818 572.90%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                28.7      0.2916 ug/L       0.10500      0.2916 ppb        0.10500  36.01%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               -65.7     -0.1864 ug/L       0.21567     -0.1864 ppb        0.21567 115.69%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -1.7     -14.080 ug/L        5.9746     -14.080 ppb         5.9746  42.43%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         176.6      31.132 ug/L        4.5515      31.132 ppb         4.5515  14.62%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             1.2      36.141 ug/L       66.6022      36.141 ppb        66.6022 184.28%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                26.8      0.0244 ug/L       0.01272      0.0244 ppb        0.01272  52.20%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 9.2      0.5563 ug/L       0.43487      0.5563 ppb        0.43487  78.18%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        -26.7     -7.9702 ug/L       1.58771     -7.9702 ppb        1.58771  19.92%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                25.3      0.5536 ug/L       0.11694      0.5536 ppb        0.11694  21.12%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -9.1     -4.7059 ug/L       2.05810     -4.7059 ppb        2.05810  43.73%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -5.3     -0.5548 ug/L       0.14721     -0.5548 ppb        0.14721  26.53%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            2.5      3.0667 ug/L       2.45938      3.0667 ppb        2.45938  80.20%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 3.7      1.1327 ug/L       1.01653      1.1327 ppb        1.01653  89.74%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -2.2     -1.2391 ug/L       4.11367     -1.2391 ppb        4.11367 332.00%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                27.0      0.7392 ug/L       0.16345      0.7392 ppb        0.16345  22.11%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 5.3      0.7929 ug/L       0.36102      0.7929 ppb        0.36102  45.53%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                21.0      0.1232 ug/L       0.11130      0.1232 ppb        0.11130  90.32%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                21.2      0.0326 ug/L       0.03652      0.0326 ppb        0.03652 112.09%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 6.3      1.6346 ug/L       1.44132      1.6346 ppb        1.44132  88.18%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -154.0     -4.2405 ug/L       1.00241     -4.2405 ppb        1.00241  23.64%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               -59.8     -0.3776 ug/L       0.04666     -0.3776 ppb        0.04666  12.36%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                39.3      0.3190 ug/L       0.01959      0.3190 ppb        0.01959   6.14%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                      40.2      2.3826 ug/L       3.95230      2.3826 ppb        3.95230 165.88%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 8
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 12/19/2009 11:18:11
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5421.2	5421.2	97.4	%			11:20:04
1	Y RADIAL	5768.9	5768.9	97.59	%			11:20:04
1	Al 396.153Radial†	6592.6	6786.7	4924.3	ug/L	4924.3	ppb	11:20:04
1	Ca 317.933Radial†	3518.3	3593.6	5123.5	ug/L	5123.5	ppb	11:20:24
1	Fe 238.204 Radial†	623.1	629.0	5244.8	ug/L	5244.8	ppb	11:20:24
1	K 766.490 Radial†	30360.9	28466.7	5008.6	ug/L	5008.6	ppb	11:20:04
1	Mg 279.077 IEC†	168.0	171.1	5318.7	ug/L	5318.7	ppb	11:20:24
1	Na 589.592 Radial†	31723.4	33340.0	9951.0	ug/L	9951.0	ppb	11:20:04
1	Sr 421.552†	83800.8	86071.0	504.66	ug/L	504.66	ppb	11:20:04
1	Sc 361.383	916565.1	916565.1	101.96	%			11:21:21
1	Y 371.029	745912.1	745912.1	100.19	%			11:21:21
1	Ag 328.068†	116199.1	113590.8	492.72	ug/L	492.72	ppb	11:21:27
1	As 188.979†	1356.6	1365.3	499.90	ug/L	499.90	ppb	11:21:47
1	B 249.677†	24066.3	23628.6	482.97	ug/L	482.97	ppb	11:21:27
1	Ba 233.527†	74033.3	72609.8	494.79	ug/L	494.79	ppb	11:21:27
1	Be 313.107†	1474137.1	1450471.3	487.38	ug/L	487.38	ppb	11:21:21
1	Cd 226.502†	51380.1	50619.5	494.85	ug/L	494.85	ppb	11:21:27
1	Co 228.616†	28786.6	28319.2	495.87	ug/L	495.87	ppb	11:21:27
1	Cr 267.716†	49665.9	48629.0	493.83	ug/L	493.83	ppb	11:21:27
1	Cu 324.752†	183621.8	174029.1	491.96	ug/L	491.96	ppb	11:21:27
1	Mn 257.610†	506237.3	495994.0	489.66	ug/L	489.66	ppb	11:21:21
1	Mo 202.031†	8229.5	8051.1	487.72	ug/L	487.72	ppb	11:21:47
1	Ni 231.604†	23227.5	22686.4	495.36	ug/L	495.36	ppb	11:21:27
1	P 214.914†	5038.6	4683.5	2368.3	ug/L	2368.3	ppb	11:21:47
1	Pb 220.353†	4663.1	4637.3	490.16	ug/L	490.16	ppb	11:21:47
1	S 181.975 Axial†	867.3	801.6	982.45	ug/L	982.45	ppb	11:21:47
1	Sb 206.836†	1713.6	1639.4	498.07	ug/L	498.07	ppb	11:21:47
1	Se 196.026†	884.4	895.9	506.25	ug/L	506.25	ppb	11:21:47
1	Si 251.611†	89190.3	86894.7	2438.6	ug/L	2438.6	ppb	11:21:27
1	Sn 189.927†	3317.6	3250.2	488.05	ug/L	488.05	ppb	11:21:47
1	Ti 334.940†	340271.1	335103.9	484.38	ug/L	484.38	ppb	11:21:21
1	Tl 190.801†	1867.5	1879.6	490.72	ug/L	490.72	ppb	11:21:47
1	U 409.014†	15812.6	17880.2	491.03	ug/L	491.03	ppb	11:21:27
1	V 292.402†	77518.7	77494.9	499.41	ug/L	499.41	ppb	11:21:27
1	Zn 213.857†	62354.6	60359.9	490.60	ug/L	490.60	ppb	11:21:27
1	SiO2†	89262.1	86936.0	5238.4	ug/L	5238.4	ppb	11:22:54
2	Sc Radial	5644.1	5644.1	101	%			11:20:29
2	Y RADIAL	5989.3	5989.3	101.3	%			11:20:29
2	Al 396.153Radial†	6837.1	6760.4	4905.2	ug/L	4905.2	ppb	11:20:29
2	Ca 317.933Radial†	3485.5	3418.5	4873.8	ug/L	4873.8	ppb	11:20:49
2	Fe 238.204 Radial†	615.6	596.4	4973.1	ug/L	4973.1	ppb	11:20:49
2	K 766.490 Radial†	31316.4	28177.5	4957.7	ug/L	4957.7	ppb	11:20:29
2	Mg 279.077 IEC†	167.3	163.7	5087.5	ug/L	5087.5	ppb	11:20:49
2	Na 589.592 Radial†	32916.4	33229.8	9918.1	ug/L	9918.1	ppb	11:20:29
2	Sr 421.552†	86839.7	85668.8	502.31	ug/L	502.31	ppb	11:20:29
2	Sc 361.383	916884.0	916884.0	102.00	%			11:21:53
2	Y 371.029	746582.4	746582.4	100.28	%			11:21:53
2	Ag 328.068†	115175.8	112547.9	488.12	ug/L	488.12	ppb	11:21:58
2	As 188.979†	1339.3	1347.9	493.53	ug/L	493.53	ppb	11:22:18
2	B 249.677†	23825.7	23384.5	478.01	ug/L	478.01	ppb	11:21:58
2	Ba 233.527†	73340.0	71904.8	489.98	ug/L	489.98	ppb	11:21:58
2	Be 313.107†	1468688.7	1444626.8	485.42	ug/L	485.42	ppb	11:21:53
2	Cd 226.502†	50884.5	50116.1	489.95	ug/L	489.95	ppb	11:21:58
2	Co 228.616†	28445.9	27975.3	489.85	ug/L	489.85	ppb	11:21:58
2	Cr 267.716†	49174.9	48130.7	488.76	ug/L	488.76	ppb	11:21:58
2	Cu 324.752†	181234.0	171625.4	485.16	ug/L	485.16	ppb	11:21:58
2	Mn 257.610†	504181.1	493805.3	487.48	ug/L	487.48	ppb	11:21:53
2	Mo 202.031†	8180.2	7999.9	484.60	ug/L	484.60	ppb	11:22:18
2	Ni 231.604†	23047.1	22501.7	491.33	ug/L	491.33	ppb	11:21:58

2	P 214.914†	5013.2	4656.8	2355.7 ug/L	2355.7 ppb	11:22:18
2	Pb 220.353†	4650.9	4623.8	488.75 ug/L	488.75 ppb	11:22:18
2	S 181.975 Axial†	857.0	791.2	969.64 ug/L	969.64 ppb	11:22:18
2	Sb 206.836†	1686.7	1612.5	490.02 ug/L	490.02 ppb	11:22:18
2	Se 196.026†	882.2	893.4	504.06 ug/L	504.06 ppb	11:22:18
2	Si 251.611†	88290.5	85982.1	2412.9 ug/L	2412.9 ppb	11:21:58
2	Sn 189.927†	3307.9	3239.6	486.43 ug/L	486.43 ppb	11:22:18
2	Ti 334.940†	338885.3	333629.2	482.24 ug/L	482.24 ppb	11:21:53
2	Tl 190.801†	1886.7	1897.8	495.44 ug/L	495.44 ppb	11:22:18
2	U 409.014†	15428.5	17498.2	480.54 ug/L	480.54 ppb	11:21:58
2	V 292.402†	76544.7	76513.5	493.14 ug/L	493.14 ppb	11:21:58
2	Zn 213.857†	61731.3	59727.5	485.48 ug/L	485.48 ppb	11:21:58
2	SiO2†	88342.5	86004.0	5182.2 ug/L	5182.2 ppb	11:23:00
3	Sc Radial	5645.6	5645.6	101 %		11:20:54
3	Y RADIAL	5995.8	5995.8	101.4 %		11:20:54
3	Al 396.153Radial†	6857.5	6778.8	4918.6 ug/L	4918.6 ppb	11:20:54
3	Ca 317.933Radial†	3499.3	3431.2	4892.0 ug/L	4892.0 ppb	11:21:14
3	Fe 238.204 Radial†	611.5	592.1	4937.6 ug/L	4937.6 ppb	11:21:14
3	K 766.490 Radial†	31288.9	28142.6	4951.6 ug/L	4951.6 ppb	11:20:54
3	Mg 279.077 IEC†	167.9	164.2	5103.4 ug/L	5103.4 ppb	11:21:14
3	Na 589.592 Radial†	32746.1	33053.7	9865.6 ug/L	9865.6 ppb	11:20:54
3	Sr 421.552†	86687.7	85497.4	501.30 ug/L	501.30 ppb	11:20:54
3	Sc 361.383	917696.3	917696.3	102.09 %		11:22:24
3	Y 371.029	747878.2	747878.2	100.46 %		11:22:24
3	Ag 328.068†	114777.1	112057.5	485.99 ug/L	485.99 ppb	11:22:29
3	As 188.979†	1342.0	1349.4	494.09 ug/L	494.09 ppb	11:22:49
3	B 249.677†	23771.8	23311.1	476.51 ug/L	476.51 ppb	11:22:29
3	Ba 233.527†	73281.2	71783.6	489.15 ug/L	489.15 ppb	11:22:29
3	Be 313.107†	1477837.5	1452313.8	488.00 ug/L	488.00 ppb	11:22:24
3	Cd 226.502†	50770.3	49960.0	488.42 ug/L	488.42 ppb	11:22:29
3	Co 228.616†	28512.8	28016.2	490.57 ug/L	490.57 ppb	11:22:29
3	Cr 267.716†	49183.8	48096.7	488.42 ug/L	488.42 ppb	11:22:29
3	Cu 324.752†	181303.5	171536.2	484.90 ug/L	484.90 ppb	11:22:29
3	Mn 257.610†	506303.5	495446.8	489.09 ug/L	489.09 ppb	11:22:24
3	Mo 202.031†	8219.2	8031.0	486.48 ug/L	486.48 ppb	11:22:49
3	Ni 231.604†	22983.7	22419.6	489.54 ug/L	489.54 ppb	11:22:29
3	P 214.914†	5017.3	4656.5	2355.6 ug/L	2355.6 ppb	11:22:49
3	Pb 220.353†	4650.6	4619.4	488.31 ug/L	488.31 ppb	11:22:49
3	S 181.975 Axial†	856.1	789.5	967.64 ug/L	967.64 ppb	11:22:49
3	Sb 206.836†	1715.8	1639.4	498.17 ug/L	498.17 ppb	11:22:49
3	Se 196.026†	901.9	912.0	514.06 ug/L	514.06 ppb	11:22:49
3	Si 251.611†	88130.9	85749.1	2406.3 ug/L	2406.3 ppb	11:22:29
3	Sn 189.927†	3323.7	3252.2	488.32 ug/L	488.32 ppb	11:22:49
3	Ti 334.940†	340568.9	334984.2	484.20 ug/L	484.20 ppb	11:22:24
3	Tl 190.801†	1892.8	1902.1	496.59 ug/L	496.59 ppb	11:22:49
3	U 409.014†	15463.1	17518.8	481.12 ug/L	481.12 ppb	11:22:29
3	V 292.402†	76385.7	76291.3	491.76 ug/L	491.76 ppb	11:22:29
3	Zn 213.857†	61617.6	59562.6	484.15 ug/L	484.15 ppb	11:22:29
3	SiO2†	88704.5	86281.8	5198.9 ug/L	5198.9 ppb	11:23:05

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	917048.5	102.02	%	0.065				0.06%
Sc Radial	5570.3	100	%	2.3				2.32%
Y 371.029	746790.9	100.31	%	0.134				0.13%
Y RADIAL	5918.0	100.1	%	2.19				2.18%
Ag 328.068†	112732.1	488.94	ug/L	3.439	488.94	ppb	3.439	0.70%
QC value within limits for Ag 328.068 Recovery = 97.79%								
Al 396.153Radial†	6775.3	4916.0	ug/L	9.77	4916.0	ppb	9.77	0.20%
QC value within limits for Al 396.153Radial Recovery = 98.32%								
As 188.979†	1354.2	495.84	ug/L	3.528	495.84	ppb	3.528	0.71%
QC value within limits for As 188.979 Recovery = 99.17%								
B 249.677†	23441.4	479.16	ug/L	3.382	479.16	ppb	3.382	0.71%
QC value within limits for B 249.677 Recovery = 95.83%								
Ba 233.527†	72099.4	491.31	ug/L	3.048	491.31	ppb	3.048	0.62%
QC value within limits for Ba 233.527 Recovery = 98.26%								
Be 313.107†	1449137.3	486.93	ug/L	1.348	486.93	ppb	1.348	0.28%
QC value within limits for Be 313.107 Recovery = 97.39%								
Ca 317.933Radial†	3481.1	4963.1	ug/L	139.17	4963.1	ppb	139.17	2.80%

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   QC value within limits for Ca 317.933Radial  Recovery = 99.26%
Cd 226.502†            50231.9      491.07 ug/L         3.356      491.07 ppb         3.356   0.68%
   QC value within limits for Cd 226.502  Recovery = 98.21%
Co 228.616†            28103.6      492.10 ug/L         3.288      492.10 ppb         3.288   0.67%
   QC value within limits for Co 228.616  Recovery = 98.42%
Cr 267.716†            48285.5      490.34 ug/L         3.029      490.34 ppb         3.029   0.62%
   QC value within limits for Cr 267.716  Recovery = 98.07%
Cu 324.752†           172396.9      487.34 ug/L         4.004      487.34 ppb         4.004   0.82%
   QC value within limits for Cu 324.752  Recovery = 97.47%
Fe 238.204 Radial†       605.8      5051.9 ug/L        168.05      5051.9 ppb        168.05   3.33%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.04%
K 766.490 Radial†      28262.2      4972.7 ug/L         31.32      4972.7 ppb         31.32   0.63%
   QC value within limits for K 766.490 Radial  Recovery = 99.45%
Mg 279.077 IEC†          166.3      5169.9 ug/L        129.15      5169.9 ppb        129.15   2.50%
   QC value within limits for Mg 279.077 IEC  Recovery = 103.40%
Mn 257.610†           495082.0      488.74 ug/L         1.132      488.74 ppb         1.132   0.23%
   QC value within limits for Mn 257.610  Recovery = 97.75%
Mo 202.031†             8027.4      486.26 ug/L         1.569      486.26 ppb         1.569   0.32%
   QC value within limits for Mo 202.031  Recovery = 97.25%
Na 589.592 Radial†     33207.8      9911.6 ug/L         43.10      9911.6 ppb         43.10   0.43%
   QC value within limits for Na 589.592 Radial  Recovery = 99.12%
Ni 231.604†            22535.9      492.07 ug/L         2.984      492.07 ppb         2.984   0.61%
   QC value within limits for Ni 231.604  Recovery = 98.41%
P 214.914†              4665.6      2359.9 ug/L          7.31      2359.9 ppb          7.31   0.31%
   QC value within limits for P 214.914  Recovery = 94.39%
Pb 220.353†             4626.8      489.07 ug/L         0.969      489.07 ppb         0.969   0.20%
   QC value within limits for Pb 220.353  Recovery = 97.81%
S 181.975 Axial†         794.1      973.24 ug/L         8.036      973.24 ppb         8.036   0.83%
   QC value within limits for S 181.975 Axial  Recovery = 97.32%
Sb 206.836†             1630.4      495.42 ug/L         4.675      495.42 ppb         4.675   0.94%
   QC value within limits for Sb 206.836  Recovery = 99.08%
Se 196.026†              900.4      508.12 ug/L         5.260      508.12 ppb         5.260   1.04%
   QC value within limits for Se 196.026  Recovery = 101.62%
Si 251.611†            86208.7      2419.3 ug/L         17.04      2419.3 ppb         17.04   0.70%
   QC value within limits for Si 251.611  Recovery = 96.77%
Sn 189.927†             3247.3      487.60 ug/L         1.022      487.60 ppb         1.022   0.21%
   QC value within limits for Sn 189.927  Recovery = 97.52%
Sr 421.552†            85745.8      502.76 ug/L         1.725      502.76 ppb         1.725   0.34%
   QC value within limits for Sr 421.552  Recovery = 100.55%
Ti 334.940†           334572.4      483.61 ug/L         1.187      483.61 ppb         1.187   0.25%
   QC value within limits for Ti 334.940  Recovery = 96.72%
Tl 190.801†             1893.2      494.25 ug/L         3.114      494.25 ppb         3.114   0.63%
   QC value within limits for Tl 190.801  Recovery = 98.85%
U 409.014†             17632.4      484.23 ug/L         5.893      484.23 ppb         5.893   1.22%
   QC value within limits for U 409.014  Recovery = 96.85%
V 292.402†             76766.6      494.77 ug/L         4.075      494.77 ppb         4.075   0.82%
   QC value within limits for V 292.402  Recovery = 98.95%
Zn 213.857†            59883.3      486.74 ug/L         3.408      486.74 ppb         3.408   0.70%
   QC value within limits for Zn 213.857  Recovery = 97.35%
SiO2†                  86407.3      5206.5 ug/L         28.89      5206.5 ppb         28.89   0.55%
   QC value within limits for SiO2  Recovery = 97.36%
All analyte(s) passed QC.
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Sequence No.: 9
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 12/19/2009 11:25:14
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Units	Sample Conc.	Units	Analysis Time
1	Sc Radial	5786.9	5786.9	104	%			11:27:07
1	Y RADIAL	6211.1	6211.1	105.1	%			11:27:07
1	Al 396.153Radial†	-13.6	3.3	2.3976	ug/L	2.3976	ppb	11:27:07
1	Ca 317.933Radial†	20.0	-0.4	-0.5254	ug/L	-0.5254	ppb	11:27:27
1	Fe 238.204 Radial†	8.5	-2.7	-22.205	ug/L	-22.205	ppb	11:27:27
1	K 766.490 Radial†	2909.0	86.1	15.173	ug/L	15.173	ppb	11:27:07
1	Mg 279.077 IEC†	1.6	0.2	5.7970	ug/L	5.7970	ppb	11:27:27
1	Na 589.592 Radial†	-745.9	44.1	13.159	ug/L	13.159	ppb	11:27:07
1	Sr 421.552†	31.8	42.4	0.2485	ug/L	0.2485	ppb	11:27:07
1	Sc 361.383	920098.0	920098.0	102.36	%			11:28:24
1	Y 371.029	759500.4	759500.4	102.02	%			11:28:24
1	Ag 328.068†	450.4	70.1	0.2915	ug/L	0.2915	ppb	11:28:29
1	As 188.979†	-23.0	12.3	4.4752	ug/L	4.4752	ppb	11:28:49
1	B 249.677†	-165.7	-135.9	-2.7865	ug/L	-2.7865	ppb	11:28:29
1	Ba 233.527†	1.0	3.6	0.0232	ug/L	0.0232	ppb	11:28:49
1	Be 313.107†	-4674.8	164.0	0.0549	ug/L	0.0549	ppb	11:28:29
1	Cd 226.502†	-217.2	17.0	0.1688	ug/L	0.1688	ppb	11:28:49
1	Co 228.616†	-94.8	-5.5	-0.0947	ug/L	-0.0947	ppb	11:28:49
1	Cr 267.716†	99.9	17.4	0.1751	ug/L	0.1751	ppb	11:28:49
1	Cu 324.752†	6107.3	-88.9	-0.2522	ug/L	-0.2522	ppb	11:28:29
1	Mn 257.610†	509.9	6.7	0.0043	ug/L	0.0043	ppb	11:28:49
1	Mo 202.031†	24.3	3.8	0.2298	ug/L	0.2298	ppb	11:28:49
1	Ni 231.604†	110.4	14.3	0.3127	ug/L	0.3127	ppb	11:28:49
1	P 214.914†	246.3	-17.4	-9.0232	ug/L	-9.0232	ppb	11:28:49
1	Pb 220.353†	-65.7	-0.1	-0.0085	ug/L	-0.0085	ppb	11:28:49
1	S 181.975 Axial†	47.2	-2.9	-3.5365	ug/L	-3.5365	ppb	11:28:49
1	Sb 206.836†	46.1	3.8	1.1615	ug/L	1.1615	ppb	11:28:49
1	Se 196.026†	-16.5	12.4	6.7024	ug/L	6.7024	ppb	11:28:49
1	Si 251.611†	655.4	62.8	1.7600	ug/L	1.7600	ppb	11:28:49
1	Sn 189.927†	7.9	4.2	0.6307	ug/L	0.6307	ppb	11:28:49
1	Ti 334.940†	-1460.0	-38.8	-0.0577	ug/L	-0.0577	ppb	11:28:29
1	Tl 190.801†	-45.0	4.1	1.0652	ug/L	1.0652	ppb	11:28:49
1	U 409.014†	-2298.8	126.3	3.4832	ug/L	3.4832	ppb	11:28:24
1	V 292.402†	-1519.5	-15.1	-0.0825	ug/L	-0.0825	ppb	11:28:29
1	Zn 213.857†	830.6	17.9	0.1469	ug/L	0.1469	ppb	11:28:49
1	SiO2†	673.9	51.8	3.1098	ug/L	3.1098	ppb	11:29:55
2	Sc Radial	5493.8	5493.8	98.7	%			11:27:32
2	Y RADIAL	5877.2	5877.2	99.42	%			11:27:32
2	Al 396.153Radial†	-23.5	-7.5	-5.4602	ug/L	-5.4602	ppb	11:27:32
2	Ca 317.933Radial†	23.6	4.3	6.1521	ug/L	6.1521	ppb	11:27:52
2	Fe 238.204 Radial†	8.8	-2.0	-16.372	ug/L	-16.372	ppb	11:27:52
2	K 766.490 Radial†	2863.7	189.5	33.406	ug/L	33.406	ppb	11:27:32
2	Mg 279.077 IEC†	-0.1	-1.5	-46.795	ug/L	-46.795	ppb	11:27:52
2	Na 589.592 Radial†	-798.6	-47.6	-14.215	ug/L	-14.215	ppb	11:27:32
2	Sr 421.552†	-0.1	11.7	0.0687	ug/L	0.0687	ppb	11:27:32
2	Sc 361.383	932950.6	932950.6	103.79	%			11:28:54
2	Y 371.029	769916.6	769916.6	103.42	%			11:28:54
2	Ag 328.068†	331.1	-50.9	-0.2244	ug/L	-0.2244	ppb	11:28:59
2	As 188.979†	-28.2	7.7	2.7909	ug/L	2.7909	ppb	11:29:19
2	B 249.677†	-172.9	-140.6	-2.8839	ug/L	-2.8839	ppb	11:28:59
2	Ba 233.527†	14.4	16.5	0.1129	ug/L	0.1129	ppb	11:29:19
2	Be 313.107†	-4707.0	195.9	0.0662	ug/L	0.0662	ppb	11:28:59
2	Cd 226.502†	-228.8	8.8	0.0876	ug/L	0.0876	ppb	11:29:19
2	Co 228.616†	-80.1	9.9	0.1731	ug/L	0.1731	ppb	11:29:19
2	Cr 267.716†	97.1	13.4	0.1358	ug/L	0.1358	ppb	11:29:19
2	Cu 324.752†	6176.2	-104.7	-0.2966	ug/L	-0.2966	ppb	11:28:59
2	Mn 257.610†	514.9	4.7	0.0038	ug/L	0.0038	ppb	11:29:19
2	Mo 202.031†	23.7	2.9	0.1773	ug/L	0.1773	ppb	11:29:19
2	Ni 231.604†	116.5	18.6	0.4072	ug/L	0.4072	ppb	11:29:19

2	P 214.914†	255.3	-12.1	-6.2696 ug/L	-6.2696 ppb	11:29:19
2	Pb 220.353†	-85.1	-17.9	-1.8845 ug/L	-1.8845 ppb	11:29:19
2	S 181.975 Axial†	53.2	2.3	2.8069 ug/L	2.8069 ppb	11:29:19
2	Sb 206.836†	46.1	3.2	0.9731 ug/L	0.9731 ppb	11:29:19
2	Se 196.026†	-23.6	5.7	3.0783 ug/L	3.0783 ppb	11:29:19
2	Si 251.611†	674.1	72.0	2.0160 ug/L	2.0160 ppb	11:29:19
2	Sn 189.927†	3.4	-0.2	-0.0278 ug/L	-0.0278 ppb	11:29:19
2	Ti 334.940†	-1257.2	176.3	0.2541 ug/L	0.2541 ppb	11:28:59
2	Tl 190.801†	-29.7	19.5	5.0552 ug/L	5.0552 ppb	11:29:19
2	U 409.014†	-2378.3	80.7	2.2239 ug/L	2.2239 ppb	11:28:54
2	V 292.402†	-1432.4	89.3	0.5757 ug/L	0.5757 ppb	11:28:59
2	Zn 213.857†	835.7	11.7	0.0969 ug/L	0.0969 ppb	11:29:19
2	SiO2†	657.8	27.1	1.6110 ug/L	1.6110 ppb	11:30:00
3	Sc Radial	5582.7	5582.7	100 %		11:27:57
3	Y RADIAL	5973.3	5973.3	101.0 %		11:27:57
3	Al 396.153Radial†	-27.6	-11.1	-8.1077 ug/L	-8.1077 ppb	11:27:57
3	Ca 317.933Radial†	22.1	2.5	3.4951 ug/L	3.4951 ppb	11:28:17
3	Fe 238.204 Radial†	8.6	-2.3	-19.379 ug/L	-19.379 ppb	11:28:17
3	K 766.490 Radial†	2871.3	150.9	26.599 ug/L	26.599 ppb	11:27:57
3	Mg 279.077 IEC†	2.1	0.7	21.435 ug/L	21.435 ppb	11:28:17
3	Na 589.592 Radial†	-742.1	21.6	6.4454 ug/L	6.4454 ppb	11:27:57
3	Sr 421.552†	1.0	12.8	0.0751 ug/L	0.0751 ppb	11:27:57
3	Sc 361.383	924411.0	924411.0	102.84 %		11:29:24
3	Y 371.029	763846.5	763846.5	102.60 %		11:29:24
3	Ag 328.068†	443.5	61.3	0.2572 ug/L	0.2572 ppb	11:29:29
3	As 188.979†	-31.3	4.4	1.6015 ug/L	1.6015 ppb	11:29:50
3	B 249.677†	-203.8	-172.2	-3.5324 ug/L	-3.5324 ppb	11:29:29
3	Ba 233.527†	-0.3	2.3	0.0146 ug/L	0.0146 ppb	11:29:50
3	Be 313.107†	-4636.9	222.1	0.0745 ug/L	0.0745 ppb	11:29:29
3	Cd 226.502†	-209.1	25.8	0.2550 ug/L	0.2550 ppb	11:29:50
3	Co 228.616†	-79.8	9.5	0.1679 ug/L	0.1679 ppb	11:29:50
3	Cr 267.716†	91.5	8.8	0.0890 ug/L	0.0890 ppb	11:29:50
3	Cu 324.752†	6095.3	-128.4	-0.3638 ug/L	-0.3638 ppb	11:29:29
3	Mn 257.610†	496.6	-8.6	-0.0108 ug/L	-0.0108 ppb	11:29:50
3	Mo 202.031†	24.5	3.9	0.2363 ug/L	0.2363 ppb	11:29:50
3	Ni 231.604†	124.6	27.6	0.6032 ug/L	0.6032 ppb	11:29:50
3	P 214.914†	241.0	-23.7	-12.278 ug/L	-12.278 ppb	11:29:50
3	Pb 220.353†	-68.3	-2.3	-0.2446 ug/L	-0.2446 ppb	11:29:50
3	S 181.975 Axial†	49.4	-1.0	-1.1990 ug/L	-1.1990 ppb	11:29:50
3	Sb 206.836†	38.4	-3.9	-1.1428 ug/L	-1.1428 ppb	11:29:50
3	Se 196.026†	-32.8	-3.4	-1.8896 ug/L	-1.8896 ppb	11:29:50
3	Si 251.611†	645.4	50.2	1.3993 ug/L	1.3993 ppb	11:29:50
3	Sn 189.927†	8.8	5.1	0.7600 ug/L	0.7600 ppb	11:29:50
3	Ti 334.940†	-1413.8	12.8	0.0186 ug/L	0.0186 ppb	11:29:29
3	Tl 190.801†	-31.6	17.4	4.5038 ug/L	4.5038 ppb	11:29:50
3	U 409.014†	-2432.5	6.8	0.1896 ug/L	0.1896 ppb	11:29:24
3	V 292.402†	-1530.9	-19.2	-0.1153 ug/L	-0.1153 ppb	11:29:29
3	Zn 213.857†	829.7	13.3	0.1067 ug/L	0.1067 ppb	11:29:50
3	SiO2†	695.2	69.4	4.1659 ug/L	4.1659 ppb	11:30:05

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	925819.9	102.99	%	0.728				0.71%
Sc Radial	5621.1	101	%	2.7				2.67%
Y 371.029	764421.2	102.68	%	0.703				0.68%
Y RADIAL	6020.5	101.8	%	2.91				2.85%
Ag 328.068†	26.9	0.1081	ug/L	0.28846	0.1081	ppb	0.28846	266.89%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-5.1	-3.7234	ug/L	5.46373	-3.7234	ppb	5.46373	146.74%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	8.1	2.9558	ug/L	1.44394	2.9558	ppb	1.44394	48.85%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-149.6	-3.0676	ug/L	0.40543	-3.0676	ppb	0.40543	13.22%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	7.5	0.0502	ug/L	0.05441	0.0502	ppb	0.05441	108.31%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	194.0	0.0652	ug/L	0.00985	0.0652	ppb	0.00985	15.11%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	2.1	3.0406	ug/L	3.36188	3.0406	ppb	3.36188	110.57%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                17.2      0.1705 ug/L       0.08368      0.1705 ppb        0.08368  49.09%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                 4.7      0.0821 ug/L       0.15314      0.0821 ppb        0.15314 186.58%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                13.2      0.1333 ug/L       0.04310      0.1333 ppb        0.04310  32.34%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -107.3     -0.3042 ug/L       0.05618     -0.3042 ppb        0.05618  18.47%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -2.3     -19.319 ug/L        2.9168     -19.319 ppb         2.9168  15.10%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         142.2      25.060 ug/L        9.2134      25.060 ppb         9.2134  36.77%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -0.2      -6.5210 ug/L      35.74393     -6.5210 ppb       35.74393 548.14%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                 0.9      -0.0009 ug/L       0.00858     -0.0009 ppb        0.00858 966.34%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 3.6       0.2145 ug/L       0.03235      0.2145 ppb        0.03235  15.09%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†          6.0       1.7964 ug/L      14.26729      1.7964 ppb       14.26729 794.21%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                20.2       0.4410 ug/L       0.14815      0.4410 ppb        0.14815  33.59%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -17.8      -9.1903 ug/L       3.00774     -9.1903 ppb        3.00774  32.73%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -6.8      -0.7125 ug/L       1.02183     -0.7125 ppb        1.02183 143.41%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -0.5      -0.6429 ug/L       3.20807     -0.6429 ppb        3.20807 499.04%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 1.1       0.3306 ug/L       1.27945      0.3306 ppb        1.27945 387.00%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 4.9       2.6304 ug/L       4.31348      2.6304 ppb        4.31348 163.99%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                61.7       1.7251 ug/L       0.30985      1.7251 ppb        0.30985  17.96%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 3.0       0.4543 ug/L       0.42248      0.4543 ppb        0.42248  93.00%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                22.3       0.1307 ug/L       0.10201      0.1307 ppb        0.10201  78.02%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                50.1       0.0717 ug/L       0.16255      0.0717 ppb        0.16255 226.72%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                13.7       3.5414 ug/L       2.16211      3.5414 ppb        2.16211  61.05%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 71.3       1.9656 ug/L       1.66196      1.9656 ppb        1.66196  84.55%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 18.3       0.1260 ug/L       0.38983      0.1260 ppb        0.38983 309.44%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                14.3       0.1168 ug/L       0.02648      0.1168 ppb        0.02648  22.67%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                      49.4       2.9623 ug/L       1.28387      2.9623 ppb        1.28387  43.34%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 6
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 12/19/2009 12:04:19
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

• Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5215.8	5215.8	93.7	%			12:06:11
1	Y RADIAL	5527.1	5527.1	93.50	%			12:06:11
1	Al 396.153Radial†	6909.2	7391.2	5364.7	ug/L	5364.7	ppb	12:06:11
1	Ca 317.933Radial†	3510.2	3727.1	5313.9	ug/L	5313.9	ppb	12:06:31
1	Fe 238.204 Radial†	609.7	639.9	5335.1	ug/L	5335.1	ppb	12:06:31
1	K 766.490 Radial†	31496.3	30906.3	5438.5	ug/L	5438.5	ppb	12:06:11
1	Mg 279.077 IEC†	166.6	176.4	5483.7	ug/L	5483.7	ppb	12:06:31
1	Na 589.592 Radial†	31745.8	34646.7	10341	ug/L	10341	ppb	12:06:11
1	Sr 421.552†	85549.9	91326.6	535.48	ug/L	535.48	ppb	12:06:11
1	Sc 361.383	922665.3	922665.3	102.64	%			12:07:30
1	Y 371.029	750972.1	750972.1	100.87	%			12:07:30
1	Ag 328.068†	116484.3	113115.2	490.70	ug/L	490.70	ppb	12:07:30
1	As 188.979†	1340.6	1340.9	491.12	ug/L	491.12	ppb	12:07:51
1	B 249.677†	24009.9	23417.7	478.66	ug/L	478.66	ppb	12:07:30
1	Ba 233.527†	74481.1	72566.0	494.49	ug/L	494.49	ppb	12:07:30
1	Be 313.107†	1497392.4	1463569.3	491.78	ug/L	491.78	ppb	12:07:30
1	Cd 226.502†	51605.6	50506.0	493.72	ug/L	493.72	ppb	12:07:30
1	Co 228.616†	28258.7	27618.2	483.60	ug/L	483.60	ppb	12:07:51
1	Cr 267.716†	49853.3	48489.6	492.42	ug/L	492.42	ppb	12:07:30
1	Cu 324.752†	185199.2	174375.2	492.95	ug/L	492.95	ppb	12:07:30
1	Mn 257.610†	512893.1	499195.8	492.82	ug/L	492.82	ppb	12:07:30
1	Mo 202.031†	8311.0	8077.1	489.30	ug/L	489.30	ppb	12:07:51
1	Ni 231.604†	22987.9	22302.4	486.98	ug/L	486.98	ppb	12:07:51
1	P 214.914†	5057.4	4669.1	2360.7	ug/L	2360.7	ppb	12:07:51
1	Pb 220.353†	4753.4	4695.1	496.35	ug/L	496.35	ppb	12:07:51
1	S 181.975 Axial†	861.2	790.0	968.09	ug/L	968.09	ppb	12:07:51
1	Sb 206.836†	1713.8	1628.4	494.85	ug/L	494.85	ppb	12:07:51
1	Se 196.026†	892.2	897.7	507.56	ug/L	507.56	ppb	12:07:51
1	Si 251.611†	89480.6	86599.2	2430.1	ug/L	2430.1	ppb	12:07:30
1	Sn 189.927†	3346.8	3257.1	489.12	ug/L	489.12	ppb	12:07:51
1	Ti 334.940†	345381.4	337876.2	488.41	ug/L	488.41	ppb	12:07:30
1	Tl 190.801†	1895.8	1895.1	494.87	ug/L	494.87	ppb	12:07:51
1	U 409.014†	14940.5	16928.0	464.78	ug/L	464.78	ppb	12:07:30
1	V 292.402†	77525.9	76999.2	496.21	ug/L	496.21	ppb	12:07:30
1	Zn 213.857†	62585.1	60180.2	489.17	ug/L	489.17	ppb	12:07:30
1	SiO2†	88749.6	85857.8	5172.8	ug/L	5172.8	ppb	12:08:51
2	Sc Radial	5269.7	5269.7	94.7	%			12:06:37
2	Y RADIAL	5569.7	5569.7	94.22	%			12:06:37
2	Al 396.153Radial†	6560.4	6947.3	5041.1	ug/L	5041.1	ppb	12:06:37
2	Ca 317.933Radial†	3456.5	3632.1	5178.5	ug/L	5178.5	ppb	12:06:57
2	Fe 238.204 Radial†	606.9	630.3	5254.7	ug/L	5254.7	ppb	12:06:57
2	K 766.490 Radial†	30150.8	29141.2	5127.6	ug/L	5127.6	ppb	12:06:37
2	Mg 279.077 IEC†	164.0	171.8	5340.7	ug/L	5340.7	ppb	12:06:57
2	Na 589.592 Radial†	30075.4	32535.7	9711.0	ug/L	9711.0	ppb	12:06:37
2	Sr 421.552†	81101.4	85693.8	502.45	ug/L	502.45	ppb	12:06:37
2	Sc 361.383	921073.8	921073.8	102.47	%			12:07:58
2	Y 371.029	750272.1	750272.1	100.78	%			12:07:58
2	Ag 328.068†	115776.1	112620.1	488.54	ug/L	488.54	ppb	12:07:58
2	As 188.979†	1363.7	1365.7	500.08	ug/L	500.08	ppb	12:08:18
2	B 249.677†	23799.3	23252.5	475.27	ug/L	475.27	ppb	12:07:58
2	Ba 233.527†	74377.2	72590.0	494.65	ug/L	494.65	ppb	12:07:58
2	Be 313.107†	1495290.2	1464038.3	491.94	ug/L	491.94	ppb	12:07:58
2	Cd 226.502†	51508.3	50498.0	493.65	ug/L	493.65	ppb	12:07:58
2	Co 228.616†	28382.1	27786.2	486.55	ug/L	486.55	ppb	12:08:18
2	Cr 267.716†	49814.0	48535.1	492.88	ug/L	492.88	ppb	12:07:58
2	Cu 324.752†	183902.9	173421.8	490.25	ug/L	490.25	ppb	12:07:58
2	Mn 257.610†	511766.6	498959.8	492.58	ug/L	492.58	ppb	12:07:58
2	Mo 202.031†	8348.8	8128.0	492.37	ug/L	492.37	ppb	12:08:18
2	Ni 231.604†	23046.5	22398.3	489.07	ug/L	489.07	ppb	12:08:18

2	P 214.914†	5077.3	4697.0	2375.7	ug/L	2375.7 ppb	12:08:18
2	Pb 220.353†	4747.1	4697.0	496.49	ug/L	496.49 ppb	12:08:18
2	S 181.975 Axial†	861.5	791.7	970.31	ug/L	970.31 ppb	12:08:18
2	Sb 206.836†	1724.5	1641.8	498.91	ug/L	498.91 ppb	12:08:18
2	Se 196.026†	893.9	900.9	509.02	ug/L	509.02 ppb	12:08:18
2	Si 251.611†	89040.6	86320.5	2422.3	ug/L	2422.3 ppb	12:07:58
2	Sn 189.927†	3336.3	3252.6	488.42	ug/L	488.42 ppb	12:08:18
2	Ti 334.940†	343776.3	336891.2	486.98	ug/L	486.98 ppb	12:07:58
2	Tl 190.801†	1892.2	1894.7	494.74	ug/L	494.74 ppb	12:08:18
2	U 409.014†	15005.0	17016.1	467.22	ug/L	467.22 ppb	12:07:58
2	V 292.402†	77237.3	76848.1	495.31	ug/L	495.31 ppb	12:07:58
2	Zn 213.857†	62496.6	60199.1	489.32	ug/L	489.32 ppb	12:07:58
2	SiO2†	89491.5	86731.3	5225.8	ug/L	5225.8 ppb	12:08:56
3	Sc Radial	5538.8	5538.8	99.5	%		12:07:02
3	Y RADIAL	5842.5	5842.5	98.83	%		12:07:02
3	Al 396.153Radial†	6787.9	6839.2	4962.3	ug/L	4962.3 ppb	12:07:02
3	Ca 317.933Radial†	3443.5	3441.6	4906.8	ug/L	4906.8 ppb	12:07:22
3	Fe 238.204 Radial†	600.6	592.8	4943.6	ug/L	4943.6 ppb	12:07:22
3	K 766.490 Radial†	31132.6	28580.4	5028.9	ug/L	5028.9 ppb	12:07:02
3	Mg 279.077 IEC†	165.4	164.8	5124.3	ug/L	5124.3 ppb	12:07:22
3	Na 589.592 Radial†	31114.0	32035.9	9561.8	ug/L	9561.8 ppb	12:07:02
3	Sr 421.552†	84223.2	84668.6	496.44	ug/L	496.44 ppb	12:07:02
3	Sc 361.383	916829.3	916829.3	101.99	%		12:08:25
3	Y 371.029	745650.2	745650.2	100.16	%		12:08:25
3	Ag 328.068†	115388.8	112763.5	489.06	ug/L	489.06 ppb	12:08:25
3	As 188.979†	1356.3	1364.6	499.63	ug/L	499.63 ppb	12:08:46
3	B 249.677†	23822.2	23382.6	477.98	ug/L	477.98 ppb	12:08:25
3	Ba 233.527†	74079.4	72634.0	494.94	ug/L	494.94 ppb	12:08:25
3	Be 313.107†	1484645.3	1460357.4	490.70	ug/L	490.70 ppb	12:08:25
3	Cd 226.502†	51428.0	50652.0	495.19	ug/L	495.19 ppb	12:08:25
3	Co 228.616†	28390.9	27923.1	488.95	ug/L	488.95 ppb	12:08:46
3	Cr 267.716†	49534.4	48486.1	492.38	ug/L	492.38 ppb	12:08:25
3	Cu 324.752†	183066.0	173432.2	490.26	ug/L	490.26 ppb	12:08:25
3	Mn 257.610†	510397.0	499929.3	493.51	ug/L	493.51 ppb	12:08:25
3	Mo 202.031†	8336.9	8154.1	493.93	ug/L	493.93 ppb	12:08:46
3	Ni 231.604†	23037.5	22493.6	491.15	ug/L	491.15 ppb	12:08:46
3	P 214.914†	5077.5	4720.2	2388.0	ug/L	2388.0 ppb	12:08:46
3	Pb 220.353†	4752.7	4723.8	499.33	ug/L	499.33 ppb	12:08:46
3	S 181.975 Axial†	873.3	807.2	989.28	ug/L	989.28 ppb	12:08:46
3	Sb 206.836†	1729.6	1654.5	502.85	ug/L	502.85 ppb	12:08:46
3	Se 196.026†	904.0	914.9	515.70	ug/L	515.70 ppb	12:08:46
3	Si 251.611†	88849.4	86535.3	2428.3	ug/L	2428.3 ppb	12:08:25
3	Sn 189.927†	3349.7	3280.8	492.62	ug/L	492.62 ppb	12:08:46
3	Ti 334.940†	342691.2	337380.5	487.68	ug/L	487.68 ppb	12:08:25
3	Tl 190.801†	1901.9	1912.8	499.41	ug/L	499.41 ppb	12:08:46
3	U 409.014†	14842.2	16924.3	464.73	ug/L	464.73 ppb	12:08:25
3	V 292.402†	76938.6	76904.2	495.73	ug/L	495.73 ppb	12:08:25
3	Zn 213.857†	62308.9	60297.4	490.15	ug/L	490.15 ppb	12:08:25
3	SiO2†	87638.2	85318.6	5140.2	ug/L	5140.2 ppb	12:09:01

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	920189.5	102.37	%	0.336				0.33%
Sc Radial	5341.4	95.9	%	3.11				3.24%
Y 371.029	748964.8	100.60	%	0.388				0.39%
Y RADIAL	5646.4	95.52	%	2.895				3.03%
Ag 328.068†	112832.9	489.43	ug/L	1.130	489.43	ppb	1.130	0.23%
QC value within limits for Ag 328.068 Recovery = 97.89%								
Al 396.153Radial†	7059.2	5122.7	ug/L	213.25	5122.7	ppb	213.25	4.16%
QC value within limits for Al 396.153Radial Recovery = 102.45%								
As 188.979†	1357.1	496.94	ug/L	5.048	496.94	ppb	5.048	1.02%
QC value within limits for As 188.979 Recovery = 99.39%								
B 249.677†	23350.9	477.30	ug/L	1.791	477.30	ppb	1.791	0.38%
QC value within limits for B 249.677 Recovery = 95.46%								
Ba 233.527†	72596.7	494.69	ug/L	0.226	494.69	ppb	0.226	0.05%
QC value within limits for Ba 233.527 Recovery = 98.94%								
Be 313.107†	1462655.0	491.48	ug/L	0.672	491.48	ppb	0.672	0.14%
QC value within limits for Be 313.107 Recovery = 98.30%								
Ca 317.933Radial†	3600.3	5133.0	ug/L	207.31	5133.0	ppb	207.31	4.04%

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   QC value within limits for Ca 317.933Radial  Recovery = 102.66%
Cd 226.502†            50552.0      494.19 ug/L        0.869      494.19 ppb        0.869   0.18%
   QC value within limits for Cd 226.502  Recovery = 98.84%
Co 228.616†            27775.8      486.37 ug/L        2.682      486.37 ppb        2.682   0.55%
   QC value within limits for Co 228.616  Recovery = 97.27%
Cr 267.716†            48503.6      492.56 ug/L        0.278      492.56 ppb        0.278   0.06%
   QC value within limits for Cr 267.716  Recovery = 98.51%
Cu 324.752†           173743.1      491.15 ug/L        1.554      491.15 ppb        1.554   0.32%
   QC value within limits for Cu 324.752  Recovery = 98.23%
Fe 238.204 Radial†       621.0      5177.8 ug/L       206.78      5177.8 ppb       206.78   3.99%
   QC value within limits for Fe 238.204 Radial  Recovery = 103.56%
K 766.490 Radial†      29542.7      5198.3 ug/L       213.75      5198.3 ppb       213.75   4.11%
   QC value within limits for K 766.490 Radial  Recovery = 103.97%
Mg 279.077 IEC†          171.0      5316.2 ug/L       180.96      5316.2 ppb       180.96   3.40%
   QC value within limits for Mg 279.077 IEC  Recovery = 106.32%
Mn 257.610†           499361.7      492.97 ug/L        0.483      492.97 ppb        0.483   0.10%
   QC value within limits for Mn 257.610  Recovery = 98.59%
Mo 202.031†             8119.7      491.87 ug/L        2.357      491.87 ppb        2.357   0.48%
   QC value within limits for Mo 202.031  Recovery = 98.37%
Na 589.592 Radial†     33072.8      9871.3 ug/L       413.63      9871.3 ppb       413.63   4.19%
   QC value within limits for Na 589.592 Radial  Recovery = 98.71%
Ni 231.604†            22398.1      489.07 ug/L        2.087      489.07 ppb        2.087   0.43%
   QC value within limits for Ni 231.604  Recovery = 97.81%
P 214.914†              4695.4      2374.8 ug/L       13.67       2374.8 ppb       13.67   0.58%
   QC value within limits for P 214.914  Recovery = 94.99%
Pb 220.353†             4705.3      497.39 ug/L        1.684      497.39 ppb        1.684   0.34%
   QC value within limits for Pb 220.353  Recovery = 99.48%
S 181.975 Axial†         796.3      975.89 ug/L       11.649      975.89 ppb       11.649   1.19%
   QC value within limits for S 181.975 Axial  Recovery = 97.59%
Sb 206.836†             1641.6      498.87 ug/L        3.996      498.87 ppb        3.996   0.80%
   QC value within limits for Sb 206.836  Recovery = 99.77%
Se 196.026†              904.5      510.76 ug/L        4.338      510.76 ppb        4.338   0.85%
   QC value within limits for Se 196.026  Recovery = 102.15%
Si 251.611†            86485.0      2426.9 ug/L         4.10      2426.9 ppb         4.10   0.17%
   QC value within limits for Si 251.611  Recovery = 97.08%
Sn 189.927†             3263.5      490.05 ug/L        2.250      490.05 ppb        2.250   0.46%
   QC value within limits for Sn 189.927  Recovery = 98.01%
Sr 421.552†            87229.7      511.46 ug/L       21.020      511.46 ppb       21.020   4.11%
   QC value within limits for Sr 421.552  Recovery = 102.29%
Ti 334.940†           337382.7      487.69 ug/L        0.716      487.69 ppb        0.716   0.15%
   QC value within limits for Ti 334.940  Recovery = 97.54%
Tl 190.801†             1900.9      496.34 ug/L        2.661      496.34 ppb        2.661   0.54%
   QC value within limits for Tl 190.801  Recovery = 99.27%
U 409.014†             16956.2      465.58 ug/L        1.422      465.58 ppb        1.422   0.31%
   QC value within limits for U 409.014  Recovery = 93.12%
V 292.402†             76917.2      495.75 ug/L        0.452      495.75 ppb        0.452   0.09%
   QC value within limits for V 292.402  Recovery = 99.15%
Zn 213.857†            60225.6      489.55 ug/L        0.531      489.55 ppb        0.531   0.11%
   QC value within limits for Zn 213.857  Recovery = 97.91%
SiO2†                  85969.2      5179.6 ug/L       43.18       5179.6 ppb       43.18   0.83%
   QC value within limits for SiO2  Recovery = 96.86%
All analyte(s) passed QC.
```

Sequence No.: 7
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 12/19/2009 12:11:12
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5707.4	5707.4	103	%			12:13:04
1	Y RADIAL	6104.4	6104.4	103.3	%			12:13:04
1	Al 396.153Radial†	-15.9	0.9	0.6021	ug/L	0.6021	ppb	12:13:04
1	Ca 317.933Radial†	23.9	3.8	5.3603	ug/L	5.3603	ppb	12:13:24
1	Fe 238.204 Radial†	9.6	-1.5	-12.798	ug/L	-12.798	ppb	12:13:24
1	K 766.490 Radial†	2816.2	34.7	6.1053	ug/L	6.1053	ppb	12:13:04
1	Mg 279.077 IEC†	0.2	-1.2	-37.921	ug/L	-37.921	ppb	12:13:24
1	Na 589.592 Radial†	-755.3	24.9	7.4376	ug/L	7.4376	ppb	12:13:04
1	Sr 421.552†	44.4	55.1	0.3229	ug/L	0.3229	ppb	12:13:04
1	Sc 361.383	923666.3	923666.3	102.75	%			12:14:21
1	Y 371.029	763001.3	763001.3	102.49	%			12:14:21
1	Ag 328.068†	383.6	3.4	0.0104	ug/L	0.0104	ppb	12:14:26
1	As 188.979†	-32.8	2.9	1.0526	ug/L	1.0526	ppb	12:14:46
1	B 249.677†	-280.0	-246.6	-5.0595	ug/L	-5.0595	ppb	12:14:46
1	Ba 233.527†	-11.2	-8.3	-0.0559	ug/L	-0.0559	ppb	12:14:46
1	Be 313.107†	-4565.7	287.8	0.0970	ug/L	0.0970	ppb	12:14:26
1	Cd 226.502†	-215.3	19.7	0.1938	ug/L	0.1938	ppb	12:14:46
1	Co 228.616†	-85.1	4.3	0.0756	ug/L	0.0756	ppb	12:14:46
1	Cr 267.716†	110.2	27.1	0.2750	ug/L	0.2750	ppb	12:14:46
1	Cu 324.752†	6002.7	-213.8	-0.6046	ug/L	-0.6046	ppb	12:14:26
1	Mn 257.610†	499.3	-5.6	-0.0061	ug/L	-0.0061	ppb	12:14:46
1	Mo 202.031†	27.5	6.9	0.4151	ug/L	0.4151	ppb	12:14:46
1	Ni 231.604†	111.9	15.3	0.3345	ug/L	0.3345	ppb	12:14:46
1	P 214.914†	246.0	-18.7	-9.6664	ug/L	-9.6664	ppb	12:14:46
1	Pb 220.353†	-71.1	-5.1	-0.5352	ug/L	-0.5352	ppb	12:14:46
1	S 181.975 Axial†	46.7	-3.5	-4.3068	ug/L	-4.3068	ppb	12:14:46
1	Sb 206.836†	36.0	-6.2	-1.8699	ug/L	-1.8699	ppb	12:14:46
1	Se 196.026†	-23.2	5.9	3.1725	ug/L	3.1725	ppb	12:14:46
1	Si 251.611†	639.4	44.8	1.2550	ug/L	1.2550	ppb	12:14:46
1	Sn 189.927†	-1.3	-4.8	-0.7190	ug/L	-0.7190	ppb	12:14:46
1	Ti 334.940†	-1257.8	163.5	0.2357	ug/L	0.2357	ppb	12:14:26
1	Tl 190.801†	-46.6	2.7	0.6997	ug/L	0.6997	ppb	12:14:46
1	U 409.014†	-2355.2	80.1	2.2087	ug/L	2.2087	ppb	12:14:21
1	V 292.402†	-1429.1	78.7	0.5112	ug/L	0.5112	ppb	12:14:26
1	Zn 213.857†	826.2	10.5	0.0874	ug/L	0.0874	ppb	12:14:46
1	SiO2†	640.8	17.0	1.0147	ug/L	1.0147	ppb	12:15:52
2	Sc Radial	5660.8	5660.8	102	%			12:13:29
2	Y RADIAL	6041.7	6041.7	102.2	%			12:13:29
2	Al 396.153Radial†	-18.9	-2.2	-1.5858	ug/L	-1.5858	ppb	12:13:29
2	Ca 317.933Radial†	23.3	3.4	4.8247	ug/L	4.8247	ppb	12:13:49
2	Fe 238.204 Radial†	10.6	-0.4	-3.4825	ug/L	-3.4825	ppb	12:13:49
2	K 766.490 Radial†	2916.4	155.8	27.467	ug/L	27.467	ppb	12:13:29
2	Mg 279.077 IEC†	3.3	1.9	57.791	ug/L	57.791	ppb	12:13:49
2	Na 589.592 Radial†	-805.1	-30.2	-9.0087	ug/L	-9.0087	ppb	12:13:29
2	Sr 421.552†	28.6	40.0	0.2344	ug/L	0.2344	ppb	12:13:29
2	Sc 361.383	916990.4	916990.4	102.01	%			12:14:51
2	Y 371.029	757415.2	757415.2	101.74	%			12:14:51
2	Ag 328.068†	386.8	9.3	0.0409	ug/L	0.0409	ppb	12:14:56
2	As 188.979†	-22.8	12.4	4.5224	ug/L	4.5224	ppb	12:15:16
2	B 249.677†	-254.8	-223.9	-4.5946	ug/L	-4.5946	ppb	12:15:16
2	Ba 233.527†	11.0	13.4	0.0914	ug/L	0.0914	ppb	12:15:16
2	Be 313.107†	-4671.3	152.0	0.0513	ug/L	0.0513	ppb	12:14:56
2	Cd 226.502†	-214.5	19.0	0.1858	ug/L	0.1858	ppb	12:15:16
2	Co 228.616†	-73.7	14.9	0.2606	ug/L	0.2606	ppb	12:15:16
2	Cr 267.716†	124.4	41.8	0.4246	ug/L	0.4246	ppb	12:15:16
2	Cu 324.752†	5983.0	-190.5	-0.5385	ug/L	-0.5385	ppb	12:14:56
2	Mn 257.610†	520.1	18.4	0.0167	ug/L	0.0167	ppb	12:15:16
2	Mo 202.031†	22.4	2.1	0.1268	ug/L	0.1268	ppb	12:15:16
2	Ni 231.604†	95.7	0.3	0.0054	ug/L	0.0054	ppb	12:15:16

2	P 214.914†	251.7	-11.3	-5.8317	ug/L	-5.8317	ppb	12:15:16
2	Pb 220.353†	-59.1	6.2	0.6490	ug/L	0.6490	ppb	12:15:16
2	S 181.975 Axial†	52.5	2.5	3.0218	ug/L	3.0218	ppb	12:15:16
2	Sb 206.836†	42.7	0.7	0.1874	ug/L	0.1874	ppb	12:15:16
2	Se 196.026†	-29.6	-0.5	-0.2974	ug/L	-0.2974	ppb	12:15:16
2	Si 251.611†	613.5	23.9	0.6644	ug/L	0.6644	ppb	12:15:16
2	Sn 189.927†	2.1	-1.5	-0.2206	ug/L	-0.2206	ppb	12:15:16
2	Ti 334.940†	-1300.8	112.4	0.1635	ug/L	0.1635	ppb	12:14:56
2	Tl 190.801†	-35.7	13.0	3.3841	ug/L	3.3841	ppb	12:15:16
2	U 409.014†	-2484.9	-63.7	-1.7545	ug/L	-1.7545	ppb	12:14:51
2	V 292.402†	-1475.3	23.2	0.1477	ug/L	0.1477	ppb	12:14:56
2	Zn 213.857†	812.1	2.6	0.0201	ug/L	0.0201	ppb	12:15:16
2	SiO2†	585.9	-32.4	-1.9828	ug/L	-1.9828	ppb	12:15:57
3	Sc Radial	5627.8	5627.8	101	%			12:13:54
3	Y RADIAL	6011.7	6011.7	101.7	%			12:13:54
3	Al 396.153Radial†	-18.9	-2.3	-1.6774	ug/L	-1.6774	ppb	12:13:54
3	Ca 317.933Radial†	17.7	-2.1	-3.0092	ug/L	-3.0092	ppb	12:14:14
3	Fe 238.204 Radial†	11.5	0.5	4.3539	ug/L	4.3539	ppb	12:14:14
3	K 766.490 Radial†	2879.6	136.2	24.009	ug/L	24.009	ppb	12:13:54
3	Mg 279.077 IEC†	1.6	0.2	5.1561	ug/L	5.1561	ppb	12:14:14
3	Na 589.592 Radial†	-784.5	-14.4	-4.3064	ug/L	-4.3064	ppb	12:13:54
3	Sr 421.552†	-24.3	-12.2	-0.0717	ug/L	-0.0717	ppb	12:13:54
3	Sc 361.383	912968.1	912968.1	101.56	%			12:15:22
3	Y 371.029	753654.3	753654.3	101.23	%			12:15:22
3	Ag 328.068†	368.9	-6.7	-0.0250	ug/L	-0.0250	ppb	12:15:27
3	As 188.979†	-32.7	2.7	0.9721	ug/L	0.9721	ppb	12:15:47
3	B 249.677†	-263.1	-233.1	-4.7856	ug/L	-4.7856	ppb	12:15:47
3	Ba 233.527†	1.4	4.0	0.0283	ug/L	0.0283	ppb	12:15:47
3	Be 313.107†	-4741.8	62.4	0.0209	ug/L	0.0209	ppb	12:15:27
3	Cd 226.502†	-223.1	9.5	0.0927	ug/L	0.0927	ppb	12:15:47
3	Co 228.616†	-79.0	9.3	0.1610	ug/L	0.1610	ppb	12:15:47
3	Cr 267.716†	111.0	29.2	0.2968	ug/L	0.2968	ppb	12:15:47
3	Cu 324.752†	5984.8	-162.9	-0.4602	ug/L	-0.4602	ppb	12:15:27
3	Mn 257.610†	511.9	12.5	0.0127	ug/L	0.0127	ppb	12:15:47
3	Mo 202.031†	12.6	-7.5	-0.4514	ug/L	-0.4514	ppb	12:15:47
3	Ni 231.604†	108.8	13.5	0.2950	ug/L	0.2950	ppb	12:15:47
3	P 214.914†	261.7	-0.4	-0.1510	ug/L	-0.1510	ppb	12:15:47
3	Pb 220.353†	-83.0	-17.7	-1.8661	ug/L	-1.8661	ppb	12:15:47
3	S 181.975 Axial†	49.8	0.1	0.0691	ug/L	0.0691	ppb	12:15:47
3	Sb 206.836†	48.8	6.8	2.0403	ug/L	2.0403	ppb	12:15:47
3	Se 196.026†	-32.3	-3.3	-1.7778	ug/L	-1.7778	ppb	12:15:47
3	Si 251.611†	603.8	17.1	0.4789	ug/L	0.4789	ppb	12:15:47
3	Sn 189.927†	8.0	4.4	0.6611	ug/L	0.6611	ppb	12:15:47
3	Ti 334.940†	-1422.6	-13.1	-0.0189	ug/L	-0.0189	ppb	12:15:27
3	Tl 190.801†	-29.8	18.8	4.8639	ug/L	4.8639	ppb	12:15:47
3	U 409.014†	-2437.8	-28.0	-0.7734	ug/L	-0.7734	ppb	12:15:22
3	V 292.402†	-1424.2	67.1	0.4184	ug/L	0.4184	ppb	12:15:27
3	Zn 213.857†	821.3	15.1	0.1218	ug/L	0.1218	ppb	12:15:47
3	SiO2†	641.1	24.5	1.4804	ug/L	1.4804	ppb	12:16:02

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	917875.0	102.11	%	0.601				0.59%
Sc Radial	5665.3	102	%	0.7				0.71%
Y 371.029	758023.6	101.82	%	0.632				0.62%
Y RADIAL	6052.6	102.4	%	0.80				0.78%
Ag 328.068†	2.0	0.0088	ug/L	0.03297	0.0088	ppb	0.03297	376.67%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-1.2	-0.8870	ug/L	1.29044	-0.8870	ppb	1.29044	145.48%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	6.0	2.1824	ug/L	2.02694	2.1824	ppb	2.02694	92.88%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-234.5	-4.8133	ug/L	0.23365	-4.8133	ppb	0.23365	4.85%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	3.0	0.0213	ug/L	0.07388	0.0213	ppb	0.07388	347.62%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	167.4	0.0564	ug/L	0.03831	0.0564	ppb	0.03831	67.94%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	1.7	2.3919	ug/L	4.68517	2.3919	ppb	4.68517	195.88%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              16.0      0.1574 ug/L       0.05616      0.1574 ppb        0.05616  35.67%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†               9.5      0.1658 ug/L       0.09261      0.1658 ppb        0.09261  55.87%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              32.7      0.3321 ug/L       0.08085      0.3321 ppb        0.08085  24.34%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -189.1     -0.5344 ug/L       0.07233     -0.5344 ppb        0.07233  13.53%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       -0.5     -3.9756 ug/L       8.58659     -3.9756 ppb        8.58659 215.98%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       108.9      19.194 ug/L       11.4662      19.194 ppb        11.4662  59.74%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           0.3      8.3422 ug/L      47.93540      8.3422 ppb       47.93540 574.61%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               8.4      0.0078 ug/L       0.01214      0.0078 ppb        0.01214 156.18%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               0.5      0.0302 ug/L       0.44121      0.0302 ppb        0.44121 >999.9%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       -6.6     -1.9592 ug/L       8.47068     -1.9592 ppb        8.47068 432.36%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               9.7      0.2116 ug/L       0.17970      0.2116 ppb        0.17970  84.91%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†              -10.2     -5.2164 ug/L       4.78744     -5.2164 ppb        4.78744  91.78%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -5.5     -0.5841 ug/L       1.25825     -0.5841 ppb        1.25825 215.42%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         -0.3     -0.4053 ug/L       3.68726     -0.4053 ppb        3.68726 909.82%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               0.4      0.1192 ug/L       1.95598      0.1192 ppb        1.95598 >999.9%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               0.7      0.3657 ug/L       2.54094      0.3657 ppb        2.54094 694.74%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†              28.6      0.7994 ug/L       0.40528      0.7994 ppb        0.40528  50.70%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†              -0.6     -0.0928 ug/L       0.69888     -0.0928 ppb        0.69888 752.72%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              27.6      0.1619 ug/L       0.20707      0.1619 ppb        0.20707 127.91%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              87.6      0.1267 ug/L       0.13119      0.1267 ppb        0.13119 103.52%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              11.5      2.9826 ug/L       2.11091      2.9826 ppb        2.11091  70.77%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -3.9     -0.1064 ug/L       2.06409     -0.1064 ppb        2.06409 >999.9%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               56.3      0.3591 ug/L       0.18887      0.3591 ppb        0.18887  52.60%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               9.4      0.0764 ug/L       0.05170      0.0764 ppb        0.05170  67.63%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                     3.1      0.1707 ug/L       1.87951      0.1707 ppb        1.87951 >999.9%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
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Analysis Begun

Start Time: 12/19/2009 12:19:02 **Plasma On Time:** 12/14/2009 06:02:42
Logged In Analyst: Optima3 **Technique:** ICP Continuous
Spectrometer Model: Optima 5300 DV, S/N 077C7090601 **Autosampler Model:** S10

Sample Information File: C:\pe\Optima3\Sample Information\121909.sif
Batch ID:
Results Data Set: 121909
Results Library: C:\pe\Optima3\Results\Results.mdb

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Sequence No.: 1 **Autosampler Location:** 38
Sample ID: 1201994208|932270|1 **Date Collected:** 12/19/2009 12:19:03
Analyst: HSC **Data Type:** Original
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: 1201994208|932270|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5705.8	5705.8	102	%			12:20:56
1	Y RADIAL	6094.1	6094.1	103.1	%			12:20:56
1	Al 396.153Radial†	-23.9	-6.9	-5.0377	ug/L	-5.0377	ppb	12:20:56
1	Ca 317.933Radial†	23.5	3.4	4.8314	ug/L	4.8314	ppb	12:21:16
1	Fe 238.204 Radial†	12.6	1.4	11.669	ug/L	11.669	ppb	12:21:16
1	K 766.490 Radial†	2877.8	95.5	16.825	ug/L	16.825	ppb	12:20:56
1	Mg 279.077 IEC†	0.5	-0.9	-26.830	ug/L	-26.830	ppb	12:21:16
1	Na 589.592 Radial†	-744.4	35.3	10.547	ug/L	10.547	ppb	12:20:56
1	Sr 421.552†	22.8	34.1	0.1998	ug/L	0.1998	ppb	12:20:56
1	Sc 361.383	943491.9	943491.9	104.96	%			12:22:13
1	Y 371.029	777040.8	777040.8	104.38	%			12:22:13
1	Ag 328.068†	376.6	-11.1	-0.0455	ug/L	-0.0455	ppb	12:22:18
1	As 188.979†	-38.8	-2.1	-0.7574	ug/L	-0.7574	ppb	12:22:38
1	B 249.677†	-287.2	-247.7	-5.0852	ug/L	-5.0852	ppb	12:22:38
1	Ba 233.527†	254.5	245.1	1.6677	ug/L	1.6677	ppb	12:22:38
1	Be 313.107†	-4300.6	633.7	0.2133	ug/L	0.2133	ppb	12:22:18
1	Cd 226.502†	-219.4	20.2	0.1963	ug/L	0.1963	ppb	12:22:38
1	Co 228.616†	-74.9	15.7	0.2744	ug/L	0.2744	ppb	12:22:38
1	Cr 267.716†	149.8	62.6	0.6340	ug/L	0.6340	ppb	12:22:38
1	Cu 324.752†	6165.7	-181.2	-0.5115	ug/L	-0.5115	ppb	12:22:18
1	Mn 257.610†	903.5	369.3	0.3660	ug/L	0.3660	ppb	12:22:38
1	Mo 202.031†	22.6	1.6	0.0984	ug/L	0.0984	ppb	12:22:38
1	Ni 231.604†	114.4	15.4	0.3369	ug/L	0.3369	ppb	12:22:38
1	P 214.914†	248.3	-21.5	-11.160	ug/L	-11.160	ppb	12:22:38
1	Pb 220.353†	-73.3	-5.8	-0.6130	ug/L	-0.6130	ppb	12:22:38
1	S 181.975 Axial†	53.3	1.8	2.1492	ug/L	2.1492	ppb	12:22:38
1	Sb 206.836†	43.3	0.1	0.0173	ug/L	0.0173	ppb	12:22:38
1	Se 196.026†	-26.5	3.3	1.8378	ug/L	1.8378	ppb	12:22:38
1	Si 251.611†	956.4	333.7	9.4023	ug/L	9.4023	ppb	12:22:38
1	Sn 189.927†	6.1	2.4	0.3537	ug/L	0.3537	ppb	12:22:38
1	Ti 334.940†	-1166.8	275.9	0.3968	ug/L	0.3968	ppb	12:22:18
1	Tl 190.801†	-43.7	6.4	1.6719	ug/L	1.6719	ppb	12:22:38
1	U 409.014†	-2308.6	172.7	4.7553	ug/L	4.7553	ppb	12:22:13
1	V 292.402†	-1440.8	96.7	0.6223	ug/L	0.6223	ppb	12:22:18
1	Zn 213.857†	1023.1	181.2	1.4841	ug/L	1.4841	ppb	12:22:38
1	SiO2†	947.9	296.5	17.934	ug/L	17.934	ppb	12:23:44
2	Sc Radial	5851.1	5851.1	105	%			12:21:21
2	Y RADIAL	6247.3	6247.3	105.7	%			12:21:21
2	Al 396.153Radial†	-27.4	-9.7	-7.0770	ug/L	-7.0770	ppb	12:21:21
2	Ca 317.933Radial†	27.3	6.4	9.0946	ug/L	9.0946	ppb	12:21:41
2	Fe 238.204 Radial†	12.5	1.0	8.3378	ug/L	8.3378	ppb	12:21:41
2	K 766.490 Radial†	2899.3	46.2	8.1469	ug/L	8.1469	ppb	12:21:21
2	Mg 279.077 IEC†	3.1	1.5	47.518	ug/L	47.518	ppb	12:21:41
2	Na 589.592 Radial†	-840.0	-37.6	-11.221	ug/L	-11.221	ppb	12:21:21
2	Sr 421.552†	30.2	40.5	0.2374	ug/L	0.2374	ppb	12:21:21
2	Sc 361.383	966773.1	966773.1	107.55	%			12:22:43
2	Y 371.029	796790.0	796790.0	107.03	%			12:22:43

2	Ag 328.068†	402.3	4.1	0.0219 ug/L	0.0219 ppb	12:22:48
2	As 188.979†	-28.9	8.0	2.9119 ug/L	2.9119 ppb	12:23:08
2	B 249.677†	-292.0	-245.6	-5.0417 ug/L	-5.0417 ppb	12:23:08
2	Ba 233.527†	275.1	258.4	1.7574 ug/L	1.7574 ppb	12:23:08
2	Be 313.107†	-4357.8	679.2	0.2287 ug/L	0.2287 ppb	12:22:48
2	Cd 226.502†	-209.1	34.7	0.3393 ug/L	0.3393 ppb	12:23:08
2	Co 228.616†	-65.2	26.5	0.4647 ug/L	0.4647 ppb	12:23:08
2	Cr 267.716†	116.8	28.5	0.2897 ug/L	0.2897 ppb	12:23:08
2	Cu 324.752†	6204.7	-286.4	-0.8088 ug/L	-0.8088 ppb	12:22:48
2	Mn 257.610†	892.1	338.0	0.3334 ug/L	0.3334 ppb	12:23:08
2	Mo 202.031†	31.8	9.6	0.5847 ug/L	0.5847 ppb	12:23:08
2	Ni 231.604†	127.6	25.0	0.5470 ug/L	0.5470 ppb	12:23:08
2	P 214.914†	258.3	-18.0	-9.2425 ug/L	-9.2425 ppb	12:23:08
2	Pb 220.353†	-53.3	14.5	1.5314 ug/L	1.5314 ppb	12:23:08
2	S 181.975 Axial†	54.1	1.3	1.6204 ug/L	1.6204 ppb	12:23:08
2	Sb 206.836†	26.1	-16.9	-5.0546 ug/L	-5.0546 ppb	12:23:08
2	Se 196.026†	-28.0	2.5	1.3907 ug/L	1.3907 ppb	12:23:08
2	Si 251.611†	928.0	285.4	8.0347 ug/L	8.0347 ppb	12:23:08
2	Sn 189.927†	5.4	1.5	0.2326 ug/L	0.2326 ppb	12:23:08
2	Ti 334.940†	-1158.3	310.6	0.4491 ug/L	0.4491 ppb	12:22:48
2	Tl 190.801†	-37.2	13.5	3.5044 ug/L	3.5044 ppb	12:23:08
2	U 409.014†	-2522.0	27.3	0.7502 ug/L	0.7502 ppb	12:22:43
2	V 292.402†	-1489.6	84.4	0.5456 ug/L	0.5456 ppb	12:22:48
2	Zn 213.857†	1023.4	158.0	1.2908 ug/L	1.2908 ppb	12:23:08
2	SiO2†	927.5	255.7	15.455 ug/L	15.455 ppb	12:23:49
3	Sc Radial	5820.8	5820.8	105 %		12:21:46
3	Y RADIAL	6198.0	6198.0	104.8 %		12:21:46
3	Al 396.153Radial†	9.7	25.7	18.675 ug/L	18.675 ppb	12:21:46
3	Ca 317.933Radial†	29.2	8.4	11.918 ug/L	11.918 ppb	12:22:06
3	Fe 238.204 Radial†	9.5	-1.8	-14.792 ug/L	-14.792 ppb	12:22:06
3	K 766.490 Radial†	2782.7	-50.9	-8.9710 ug/L	-8.9710 ppb	12:21:46
3	Mg 279.077 IEC†	4.0	2.4	74.268 ug/L	74.268 ppb	12:22:06
3	Na 589.592 Radial†	-822.6	-25.1	-7.4877 ug/L	-7.4877 ppb	12:21:46
3	Sr 421.552†	21.2	32.1	0.1880 ug/L	0.1880 ppb	12:21:46
3	Sc 361.383	903756.3	903756.3	100.54 %		12:23:13
3	Y 371.029	747120.1	747120.1	100.36 %		12:23:13
3	Ag 328.068†	373.5	1.6	0.0017 ug/L	0.0017 ppb	12:23:18
3	As 188.979†	-28.9	6.1	2.2102 ug/L	2.2102 ppb	12:23:38
3	B 249.677†	-284.0	-256.6	-5.2649 ug/L	-5.2649 ppb	12:23:38
3	Ba 233.527†	281.6	282.7	1.9210 ug/L	1.9210 ppb	12:23:38
3	Be 313.107†	-4362.1	392.4	0.1322 ug/L	0.1322 ppb	12:23:18
3	Cd 226.502†	-209.3	21.0	0.2066 ug/L	0.2066 ppb	12:23:38
3	Co 228.616†	-63.7	23.8	0.4193 ug/L	0.4193 ppb	12:23:38
3	Cr 267.716†	136.3	55.4	0.5617 ug/L	0.5617 ppb	12:23:38
3	Cu 324.752†	6121.2	32.8	0.0920 ug/L	0.0920 ppb	12:23:18
3	Mn 257.610†	872.6	376.5	0.3685 ug/L	0.3685 ppb	12:23:38
3	Mo 202.031†	40.5	20.4	1.2363 ug/L	1.2363 ppb	12:23:38
3	Ni 231.604†	99.4	5.3	0.1145 ug/L	0.1145 ppb	12:23:38
3	P 214.914†	253.4	-6.1	-3.1558 ug/L	-3.1558 ppb	12:23:38
3	Pb 220.353†	-60.0	4.3	0.4658 ug/L	0.4658 ppb	12:23:38
3	S 181.975 Axial†	52.3	3.1	3.7482 ug/L	3.7482 ppb	12:23:38
3	Sb 206.836†	44.9	3.4	1.0470 ug/L	1.0470 ppb	12:23:38
3	Se 196.026†	-35.3	-6.6	-3.6283 ug/L	-3.6283 ppb	12:23:38
3	Si 251.611†	925.6	343.2	9.6569 ug/L	9.6569 ppb	12:23:38
3	Sn 189.927†	8.5	5.0	0.7478 ug/L	0.7478 ppb	12:23:38
3	Ti 334.940†	-1196.1	197.9	0.2864 ug/L	0.2864 ppb	12:23:18
3	Tl 190.801†	-45.3	3.1	0.7938 ug/L	0.7938 ppb	12:23:38
3	U 409.014†	-2364.7	20.2	0.5566 ug/L	0.5566 ppb	12:23:13
3	V 292.402†	-1458.6	18.7	0.1409 ug/L	0.1409 ppb	12:23:18
3	Zn 213.857†	1012.6	213.6	1.7498 ug/L	1.7498 ppb	12:23:38
3	SiO2†	974.5	362.6	21.911 ug/L	21.911 ppb	12:23:54

Mean Data: 1201994208|932270|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	938007.1	104.35	%	3.545				3.40%
Sc Radial	5792.5	104	%	1.4				1.32%
Y 371.029	773650.3	103.92	%	3.359				3.23%
Y RADIAL	6179.8	104.5	%	1.32				1.27%
Ag 328.068†	-1.8	-0.0073	ug/L	0.03459	-0.0073	ppb	0.03459	472.51%

Al 396.153Radial†	3.0	2.1868	ug/L	14.31562	2.1868	ppb	14.31562 654.64%
As 188.979†	4.0	1.4549	ug/L	1.94779	1.4549	ppb	1.94779 133.88%
B 249.677†	-249.9	-5.1306	ug/L	0.11831	-5.1306	ppb	0.11831 2.31%
Ba 233.527†	262.1	1.7820	ug/L	0.12843	1.7820	ppb	0.12843 7.21%
Be 313.107†	568.4	0.1914	ug/L	0.05185	0.1914	ppb	0.05185 27.10%
Ca 317.933Radial†	6.0	8.6147	ug/L	3.56765	8.6147	ppb	3.56765 41.41%
Cd 226.502†	25.3	0.2474	ug/L	0.07977	0.2474	ppb	0.07977 32.25%
Co 228.616†	22.0	0.3862	ug/L	0.09941	0.3862	ppb	0.09941 25.74%
Cr 267.716†	48.8	0.4951	ug/L	0.18157	0.4951	ppb	0.18157 36.67%
Cu 324.752†	-144.9	-0.4094	ug/L	0.45901	-0.4094	ppb	0.45901 112.11%
Fe 238.204 Radial†	0.2	1.7384	ug/L	14.41204	1.7384	ppb	14.41204 829.03%
K 766.490 Radial†	30.3	5.3335	ug/L	13.12590	5.3335	ppb	13.12590 246.10%
Mg 279.077 IEC†	1.0	31.652	ug/L	52.3835	31.652	ppb	52.3835 165.50%
Mn 257.610†	361.3	0.3559	ug/L	0.01957	0.3559	ppb	0.01957 5.50%
Mo 202.031†	10.6	0.6398	ug/L	0.57095	0.6398	ppb	0.57095 89.24%
Na 589.592 Radial†	-9.1	-2.7206	ug/L	11.64046	-2.7206	ppb	11.64046 427.86%
Ni 231.604†	15.2	0.3328	ug/L	0.21629	0.3328	ppb	0.21629 64.99%
P 214.914†	-15.2	-7.8526	ug/L	4.17896	-7.8526	ppb	4.17896 53.22%
Pb 220.353†	4.4	0.4614	ug/L	1.07221	0.4614	ppb	1.07221 232.39%
S 181.975 Axial†	2.0	2.5059	ug/L	1.10787	2.5059	ppb	1.10787 44.21%
Sb 206.836†	-4.5	-1.3301	ug/L	3.26636	-1.3301	ppb	3.26636 245.58%
Se 196.026†	-0.3	-0.1333	ug/L	3.03501	-0.1333	ppb	3.03501 >999.9%
Si 251.611†	320.8	9.0313	ug/L	0.87246	9.0313	ppb	0.87246 9.66%
Sn 189.927†	3.0	0.4447	ug/L	0.26935	0.4447	ppb	0.26935 60.57%
Sr 421.552†	35.6	0.2084	ug/L	0.02578	0.2084	ppb	0.02578 12.37%
Ti 334.940†	261.5	0.3774	ug/L	0.08310	0.3774	ppb	0.08310 22.02%
Tl 190.801†	7.7	1.9900	ug/L	1.38302	1.9900	ppb	1.38302 69.50%
U 409.014†	73.4	2.0207	ug/L	2.37023	2.0207	ppb	2.37023 117.30%
V 292.402†	66.6	0.4363	ug/L	0.25869	0.4363	ppb	0.25869 59.29%
Zn 213.857†	184.3	1.5082	ug/L	0.23048	1.5082	ppb	0.23048 15.28%
SiO2†	304.9	18.433	ug/L	3.2568	18.433	ppb	3.2568 17.67%

Sequence No.: 2
Sample ID: 1201994209|932270|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 39
Date Collected: 12/19/2009 12:26:05
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1201994209|932270|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5652.7	5652.7	102	%			12:27:57
1	Y RADIAL	6001.8	6001.8	101.5	%			12:27:57
1	Al 396.153Radial†	6846.6	6759.5	4904.5	ug/L	4904.5	ppb	12:27:57
1	Ca 317.933Radial†	3553.3	3480.0	4961.6	ug/L	4961.6	ppb	12:28:17
1	Fe 238.204 Radial†	624.8	604.5	5040.1	ug/L	5040.1	ppb	12:28:17
1	K 766.490 Radial†	31375.9	28189.4	4961.9	ug/L	4961.9	ppb	12:27:57
1	Mg 279.077 IEC†	169.3	165.3	5138.6	ug/L	5138.6	ppb	12:28:17
1	Na 589.592 Radial†	16060.4	16579.4	4948.5	ug/L	4948.5	ppb	12:27:57
1	Sr 421.552†	86348.3	85055.2	498.71	ug/L	498.71	ppb	12:27:57
1	Sc 361.383	943042.2	943042.2	104.91	%			12:29:16
1	Y 371.029	767149.5	767149.5	103.05	%			12:29:16
1	Ag 328.068†	117036.5	111189.4	482.30	ug/L	482.30	ppb	12:29:16
1	As 188.979†	1358.1	1329.4	486.93	ug/L	486.93	ppb	12:29:36
1	B 249.677†	24245.2	23136.5	472.95	ug/L	472.95	ppb	12:29:16
1	Ba 233.527†	76674.0	73088.4	498.04	ug/L	498.04	ppb	12:29:16
1	Be 313.107†	1509837.0	1443909.4	485.20	ug/L	485.20	ppb	12:29:16
1	Cd 226.502†	51657.8	49469.5	483.62	ug/L	483.62	ppb	12:29:16
1	Co 228.616†	28300.7	27063.4	473.87	ug/L	473.87	ppb	12:29:36
1	Cr 267.716†	50990.5	48524.0	492.76	ug/L	492.76	ppb	12:29:16
1	Cu 324.752†	192383.8	177324.8	501.26	ug/L	501.26	ppb	12:29:16
1	Mn 257.610†	531166.6	505817.1	499.33	ug/L	499.33	ppb	12:29:16
1	Mo 202.031†	8436.1	8021.4	485.90	ug/L	485.90	ppb	12:29:36
1	Ni 231.604†	23603.7	22405.5	489.24	ug/L	489.24	ppb	12:29:36
1	P 214.914†	1362.8	1040.9	467.24	ug/L	467.24	ppb	12:29:36
1	Pb 220.353†	4780.5	4620.9	488.43	ug/L	488.43	ppb	12:29:36
1	S 181.975 Axial†	4256.7	4008.5	4916.6	ug/L	4916.6	ppb	12:29:36
1	Sb 206.836†	1788.7	1663.8	505.68	ug/L	505.68	ppb	12:29:36
1	Se 196.026†	888.4	875.3	494.39	ug/L	494.39	ppb	12:29:36
1	Si 251.611†	182102.2	173002.5	4866.6	ug/L	4866.6	ppb	12:29:16
1	Sn 189.927†	3552.0	3382.3	507.85	ug/L	507.85	ppb	12:29:36
1	Ti 334.940†	357583.4	342236.5	494.69	ug/L	494.69	ppb	12:29:16
1	Tl 190.801†	1938.8	1896.1	495.25	ug/L	495.25	ppb	12:29:36
1	U 409.014†	16473.6	18074.9	496.42	ug/L	496.42	ppb	12:29:16
1	V 292.402†	80070.6	77792.8	501.30	ug/L	501.30	ppb	12:29:16
1	Zn 213.857†	62984.6	59243.5	481.50	ug/L	481.50	ppb	12:29:16
1	SiO2†	182458.8	173313.3	10468	ug/L	10468	ppb	12:30:37
2	Sc Radial	5674.8	5674.8	102	%			12:28:22
2	Y RADIAL	6055.2	6055.2	102.4	%			12:28:22
2	Al 396.153Radial†	6897.3	6782.9	4921.5	ug/L	4921.5	ppb	12:28:22
2	Ca 317.933Radial†	3520.1	3433.8	4895.7	ug/L	4895.7	ppb	12:28:42
2	Fe 238.204 Radial†	629.7	606.9	5060.1	ug/L	5060.1	ppb	12:28:42
2	K 766.490 Radial†	31666.4	28353.9	4990.9	ug/L	4990.9	ppb	12:28:22
2	Mg 279.077 IEC†	171.4	166.8	5184.7	ug/L	5184.7	ppb	12:28:42
2	Na 589.592 Radial†	16190.2	16645.0	4968.0	ug/L	4968.0	ppb	12:28:22
2	Sr 421.552†	87078.8	85440.2	500.96	ug/L	500.96	ppb	12:28:22
2	Sc 361.383	935898.7	935898.7	104.11	%			12:29:44
2	Y 371.029	762924.8	762924.8	102.48	%			12:29:44
2	Ag 328.068†	115727.2	110783.4	480.57	ug/L	480.57	ppb	12:29:44
2	As 188.979†	1363.9	1344.8	492.53	ug/L	492.53	ppb	12:30:04
2	B 249.677†	24003.9	23081.1	471.81	ug/L	471.81	ppb	12:29:44
2	Ba 233.527†	76049.9	73046.7	497.76	ug/L	497.76	ppb	12:29:44
2	Be 313.107†	1500449.2	1445877.6	485.86	ug/L	485.86	ppb	12:29:44
2	Cd 226.502†	51332.4	49532.8	484.24	ug/L	484.24	ppb	12:29:44
2	Co 228.616†	28247.0	27217.7	476.58	ug/L	476.58	ppb	12:30:04
2	Cr 267.716†	50615.3	48534.7	492.87	ug/L	492.87	ppb	12:29:44
2	Cu 324.752†	189691.4	176138.6	497.91	ug/L	497.91	ppb	12:29:44
2	Mn 257.610†	526636.8	505330.9	498.85	ug/L	498.85	ppb	12:29:44
2	Mo 202.031†	8404.1	8052.1	487.76	ug/L	487.76	ppb	12:30:04
2	Ni 231.604†	23579.4	22553.8	492.48	ug/L	492.48	ppb	12:30:04

2	P 214.914†	1382.5	1069.8	482.84 ug/L	482.84 ppb	12:30:04
2	Pb 220.353†	4797.0	4671.5	493.78 ug/L	493.78 ppb	12:30:04
2	S 181.975 Axial†	4249.6	4032.6	4946.2 ug/L	4946.2 ppb	12:30:04
2	Sb 206.836†	1789.0	1677.0	509.73 ug/L	509.73 ppb	12:30:04
2	Se 196.026†	893.4	886.6	500.61 ug/L	500.61 ppb	12:30:04
2	Si 251.611†	180114.7	172418.5	4850.1 ug/L	4850.1 ppb	12:29:44
2	Sn 189.927†	3538.4	3395.0	509.76 ug/L	509.76 ppb	12:30:04
2	Ti 334.940†	353996.4	341392.8	493.47 ug/L	493.47 ppb	12:29:44
2	Tl 190.801†	1932.1	1903.8	497.21 ug/L	497.21 ppb	12:30:04
2	U 409.014†	15971.4	17712.4	486.43 ug/L	486.43 ppb	12:29:44
2	V 292.402†	79445.6	77775.1	501.20 ug/L	501.20 ppb	12:29:44
2	Zn 213.857†	62388.3	59128.9	480.54 ug/L	480.54 ppb	12:29:44
2	SiO2†	179286.6	171594.0	10364 ug/L	10364 ppb	12:30:42
3	Sc Radial	5685.9	5685.9	102 %		12:28:47
3	Y RADIAL	6048.6	6048.6	102.3 %		12:28:47
3	Al 396.153Radial†	6905.4	6777.7	4917.8 ug/L	4917.8 ppb	12:28:47
3	Ca 317.933Radial†	3533.4	3440.1	4904.7 ug/L	4904.7 ppb	12:29:07
3	Fe 238.204 Radial†	626.0	602.1	5020.0 ug/L	5020.0 ppb	12:29:07
3	K 766.490 Radial†	31453.7	28084.9	4943.4 ug/L	4943.4 ppb	12:28:47
3	Mg 279.077 IEC†	165.4	160.5	4990.0 ug/L	4990.0 ppb	12:29:07
3	Na 589.592 Radial†	16184.4	16608.3	4957.1 ug/L	4957.1 ppb	12:28:47
3	Sr 421.552†	86573.2	84778.5	497.08 ug/L	497.08 ppb	12:28:47
3	Sc 361.383	940133.6	940133.6	104.59 %		12:30:11
3	Y 371.029	766463.1	766463.1	102.96 %		12:30:11
3	Ag 328.068†	116622.1	111138.4	482.08 ug/L	482.08 ppb	12:30:11
3	As 188.979†	1340.5	1316.5	482.28 ug/L	482.28 ppb	12:30:31
3	B 249.677†	24204.7	23169.3	473.63 ug/L	473.63 ppb	12:30:11
3	Ba 233.527†	76473.7	73123.0	498.28 ug/L	498.28 ppb	12:30:11
3	Be 313.107†	1509550.6	1448088.1	486.60 ug/L	486.60 ppb	12:30:11
3	Cd 226.502†	51531.6	49501.1	483.93 ug/L	483.93 ppb	12:30:11
3	Co 228.616†	28148.2	27001.0	472.78 ug/L	472.78 ppb	12:30:31
3	Cr 267.716†	50805.1	48497.1	492.49 ug/L	492.49 ppb	12:30:11
3	Cu 324.752†	191907.5	177436.9	501.58 ug/L	501.58 ppb	12:30:11
3	Mn 257.610†	530045.2	506311.3	499.82 ug/L	499.82 ppb	12:30:11
3	Mo 202.031†	8405.2	8016.7	485.62 ug/L	485.62 ppb	12:30:31
3	Ni 231.604†	23539.0	22413.2	489.41 ug/L	489.41 ppb	12:30:31
3	P 214.914†	1374.1	1055.8	474.91 ug/L	474.91 ppb	12:30:31
3	Pb 220.353†	4795.4	4649.2	491.42 ug/L	491.42 ppb	12:30:31
3	S 181.975 Axial†	4226.1	3991.8	4896.2 ug/L	4896.2 ppb	12:30:31
3	Sb 206.836†	1782.5	1663.2	505.45 ug/L	505.45 ppb	12:30:31
3	Se 196.026†	882.2	872.0	492.54 ug/L	492.54 ppb	12:30:31
3	Si 251.611†	181620.4	173078.9	4868.8 ug/L	4868.8 ppb	12:30:11
3	Sn 189.927†	3520.2	3362.4	504.86 ug/L	504.86 ppb	12:30:31
3	Ti 334.940†	356868.3	342607.3	495.22 ug/L	495.22 ppb	12:30:11
3	Tl 190.801†	1940.6	1903.6	497.19 ug/L	497.19 ppb	12:30:31
3	U 409.014†	16245.5	17905.4	491.75 ug/L	491.75 ppb	12:30:11
3	V 292.402†	79943.8	77907.7	502.02 ug/L	502.02 ppb	12:30:11
3	Zn 213.857†	62881.8	59330.9	482.22 ug/L	482.22 ppb	12:30:11
3	SiO2†	178901.6	170450.1	10295 ug/L	10295 ppb	12:30:47

Mean Data: 1201994209|932270|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	939691.5	104.54	%	0.400				0.38%
Sc Radial	5671.2	102	%	0.3				0.30%
Y 371.029	765512.5	102.83	%	0.305				0.30%
Y RADIAL	6035.2	102.1	%	0.49				0.48%
Ag 328.068†	111037.1	481.65	ug/L	0.944	481.65	ppb	0.944	0.20%
Al 396.153Radial†	6773.4	4914.6	ug/L	8.93	4914.6	ppb	8.93	0.18%
As 188.979†	1330.2	487.25	ug/L	5.134	487.25	ppb	5.134	1.05%
B 249.677†	23129.0	472.80	ug/L	0.922	472.80	ppb	0.922	0.19%
Ba 233.527†	73086.0	498.03	ug/L	0.260	498.03	ppb	0.260	0.05%
Be 313.107†	1445958.4	485.89	ug/L	0.702	485.89	ppb	0.702	0.14%
Ca 317.933Radial†	3451.3	4920.7	ug/L	35.72	4920.7	ppb	35.72	0.73%
Cd 226.502†	49501.1	483.93	ug/L	0.310	483.93	ppb	0.310	0.06%
Co 228.616†	27094.0	474.41	ug/L	1.956	474.41	ppb	1.956	0.41%
Cr 267.716†	48518.6	492.71	ug/L	0.196	492.71	ppb	0.196	0.04%
Cu 324.752†	176966.8	500.25	ug/L	2.032	500.25	ppb	2.032	0.41%
Fe 238.204 Radial†	604.5	5040.1	ug/L	20.04	5040.1	ppb	20.04	0.40%
K 766.490 Radial†	28209.4	4965.4	ug/L	23.91	4965.4	ppb	23.91	0.48%

Mg 279.077 IEC†	164.2	5104.4	ug/L	101.71	5104.4	ppb	101.71	1.99%
Mn 257.610†	505819.8	499.33	ug/L	0.483	499.33	ppb	0.483	0.10%
Mo 202.031†	8030.1	486.43	ug/L	1.165	486.43	ppb	1.165	0.24%
Na 589.592 Radial†	16610.9	4957.9	ug/L	9.82	4957.9	ppb	9.82	0.20%
Ni 231.604†	22457.5	490.37	ug/L	1.823	490.37	ppb	1.823	0.37%
P 214.914†	1055.5	475.00	ug/L	7.803	475.00	ppb	7.803	1.64%
Pb 220.353†	4647.2	491.21	ug/L	2.679	491.21	ppb	2.679	0.55%
S 181.975 Axial†	4011.0	4919.7	ug/L	25.17	4919.7	ppb	25.17	0.51%
Sb 206.836†	1668.0	506.95	ug/L	2.408	506.95	ppb	2.408	0.47%
Se 196.026†	878.0	495.85	ug/L	4.231	495.85	ppb	4.231	0.85%
Si 251.611†	172833.3	4861.8	ug/L	10.22	4861.8	ppb	10.22	0.21%
Sn 189.927†	3379.9	507.49	ug/L	2.468	507.49	ppb	2.468	0.49%
Sr 421.552†	85091.3	498.92	ug/L	1.949	498.92	ppb	1.949	0.39%
Ti 334.940†	342078.9	494.46	ug/L	0.899	494.46	ppb	0.899	0.18%
Tl 190.801†	1901.2	496.55	ug/L	1.126	496.55	ppb	1.126	0.23%
U 409.014†	17897.5	491.53	ug/L	4.999	491.53	ppb	4.999	1.02%
V 292.402†	77825.2	501.51	ug/L	0.448	501.51	ppb	0.448	0.09%
Zn 213.857†	59234.4	481.42	ug/L	0.844	481.42	ppb	0.844	0.18%
SiO2†	171785.8	10376	ug/L	87.3	10376	ppb	87.3	0.84%

Sequence No.: 3
Sample ID: 242782001|932270|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 40
Date Collected: 12/19/2009 12:32:58
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 242782001|932270|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5849.8	5849.8	105	%			12:34:50
1	Y RADIAL	6202.5	6202.5	104.9	%			12:34:50
1	Al 396.153Radial†	-11.5	5.5	3.9476	ug/L	3.9476	ppb	12:34:50
1	Ca 317.933Radial†	35.9	14.6	20.846	ug/L	20.846	ppb	12:35:10
1	Fe 238.204 Radial†	9.5	-1.8	-15.176	ug/L	-15.176	ppb	12:35:10
1	K 766.490 Radial†	2875.2	23.9	4.1941	ug/L	4.1941	ppb	12:34:50
1	Mg 279.077 IEC†	3.1	1.5	48.052	ug/L	48.052	ppb	12:35:10
1	Na 589.592 Radial†	-718.7	77.6	23.176	ug/L	23.176	ppb	12:34:50
1	Sr 421.552†	15.8	26.9	0.1573	ug/L	0.1573	ppb	12:34:50
1	Sc 361.383	931260.4	931260.4	103.60	%			12:36:07
1	Y 371.029	772436.0	772436.0	103.76	%			12:36:07
1	Ag 328.068†	476.9	90.4	0.3821	ug/L	0.3821	ppb	12:36:07
1	As 188.979†	-28.2	7.6	2.7454	ug/L	2.7454	ppb	12:36:27
1	B 249.677†	-137.2	-106.5	-2.1839	ug/L	-2.1839	ppb	12:36:07
1	Ba 233.527†	24.9	26.6	0.1812	ug/L	0.1812	ppb	12:36:27
1	Be 313.107†	-4401.4	482.7	0.1626	ug/L	0.1626	ppb	12:36:07
1	Cd 226.502†	-221.5	15.4	0.1523	ug/L	0.1523	ppb	12:36:27
1	Co 228.616†	-62.3	27.0	0.4733	ug/L	0.4733	ppb	12:36:27
1	Cr 267.716†	120.9	36.6	0.3696	ug/L	0.3696	ppb	12:36:27
1	Cu 324.752†	6282.8	8.9	0.0245	ug/L	0.0245	ppb	12:36:07
1	Mn 257.610†	738.0	220.9	0.2154	ug/L	0.2154	ppb	12:36:27
1	Mo 202.031†	31.1	10.1	0.6132	ug/L	0.6132	ppb	12:36:27
1	Ni 231.604†	103.7	6.5	0.1428	ug/L	0.1428	ppb	12:36:27
1	P 214.914†	258.1	-8.9	-4.6370	ug/L	-4.6370	ppb	12:36:27
1	Pb 220.353†	-67.0	-0.6	-0.0603	ug/L	-0.0603	ppb	12:36:27
1	S 181.975 Axial†	50.1	-0.6	-0.7407	ug/L	-0.7407	ppb	12:36:27
1	Sb 206.836†	35.4	-7.0	-2.0982	ug/L	-2.0982	ppb	12:36:27
1	Se 196.026†	-26.0	3.4	1.8190	ug/L	1.8190	ppb	12:36:27
1	Si 251.611†	83072.4	79609.1	2244.8	ug/L	2244.8	ppb	12:36:07
1	Sn 189.927†	5.9	2.2	0.3342	ug/L	0.3342	ppb	12:36:27
1	Ti 334.940†	-1186.3	242.5	0.3496	ug/L	0.3496	ppb	12:36:07
1	Tl 190.801†	-34.2	15.1	3.9087	ug/L	3.9087	ppb	12:36:27
1	U 409.014†	-2287.8	163.9	4.5158	ug/L	4.5158	ppb	12:36:07
1	V 292.402†	-1455.0	65.0	0.4338	ug/L	0.4338	ppb	12:36:07
1	Zn 213.857†	1044.3	214.5	1.7577	ug/L	1.7577	ppb	12:36:27
1	SiO2†	82105.8	78646.8	4761.9	ug/L	4761.9	ppb	12:37:23
2	Sc Radial	5867.5	5867.5	105	%			12:35:15
2	Y RADIAL	6226.6	6226.6	105.3	%			12:35:15
2	Al 396.153Radial†	-4.3	12.3	8.9547	ug/L	8.9547	ppb	12:35:15
2	Ca 317.933Radial†	36.5	15.1	21.505	ug/L	21.505	ppb	12:35:35
2	Fe 238.204 Radial†	11.6	0.1	0.9248	ug/L	0.9248	ppb	12:35:35
2	K 766.490 Radial†	2977.0	112.3	19.784	ug/L	19.784	ppb	12:35:15
2	Mg 279.077 IEC†	5.7	4.0	123.11	ug/L	123.11	ppb	12:35:35
2	Na 589.592 Radial†	-811.9	-8.7	-2.5900	ug/L	-2.5900	ppb	12:35:15
2	Sr 421.552†	27.2	37.6	0.2204	ug/L	0.2204	ppb	12:35:15
2	Sc 361.383	923318.6	923318.6	102.72	%			12:36:33
2	Y 371.029	766887.1	766887.1	103.01	%			12:36:33
2	Ag 328.068†	315.9	-62.4	-0.2667	ug/L	-0.2667	ppb	12:36:33
2	As 188.979†	-30.0	5.6	2.0284	ug/L	2.0284	ppb	12:36:53
2	B 249.677†	-104.5	-75.8	-1.5564	ug/L	-1.5564	ppb	12:36:33
2	Ba 233.527†	20.9	22.9	0.1574	ug/L	0.1574	ppb	12:36:53
2	Be 313.107†	-4247.6	595.8	0.2003	ug/L	0.2003	ppb	12:36:33
2	Cd 226.502†	-215.5	19.4	0.1896	ug/L	0.1896	ppb	12:36:53
2	Co 228.616†	-71.2	17.8	0.3130	ug/L	0.3130	ppb	12:36:53
2	Cr 267.716†	136.1	52.4	0.5320	ug/L	0.5320	ppb	12:36:53
2	Cu 324.752†	6293.7	71.7	0.2027	ug/L	0.2027	ppb	12:36:33
2	Mn 257.610†	719.8	209.3	0.2042	ug/L	0.2042	ppb	12:36:53
2	Mo 202.031†	32.1	11.4	0.6879	ug/L	0.6879	ppb	12:36:53
2	Ni 231.604†	110.3	13.8	0.3017	ug/L	0.3017	ppb	12:36:53

2	P 214.914†	257.0	-7.8	-4.1221 ug/L	-4.1221 ppb	12:36:53
2	Pb 220.353†	-70.7	-4.8	-0.5037 ug/L	-0.5037 ppb	12:36:53
2	S 181.975 Axial†	52.7	2.3	2.8197 ug/L	2.8197 ppb	12:36:53
2	Sb 206.836†	39.0	-3.3	-0.9883 ug/L	-0.9883 ppb	12:36:53
2	Se 196.026†	-26.5	2.7	1.4628 ug/L	1.4628 ppb	12:36:53
2	Si 251.611†	82069.4	79322.2	2236.7 ug/L	2236.7 ppb	12:36:33
2	Sn 189.927†	-0.0	-3.5	-0.5252 ug/L	-0.5252 ppb	12:36:53
2	Ti 334.940†	-1236.9	183.4	0.2658 ug/L	0.2658 ppb	12:36:33
2	Tl 190.801†	-37.4	11.6	3.0124 ug/L	3.0124 ppb	12:36:53
2	U 409.014†	-2405.6	30.2	0.8317 ug/L	0.8317 ppb	12:36:33
2	V 292.402†	-1392.6	113.6	0.7362 ug/L	0.7362 ppb	12:36:33
2	Zn 213.857†	1050.6	229.3	1.8742 ug/L	1.8742 ppb	12:36:53
2	SiO2†	82131.2	79353.3	4804.7 ug/L	4804.7 ppb	12:37:29
3	Sc Radial	5872.6	5872.6	105 %		12:35:40
3	Y RADIAL	6266.5	6266.5	106.0 %		12:35:40
3	Al 396.153Radial†	-11.1	5.8	4.2109 ug/L	4.2109 ppb	12:35:40
3	Ca 317.933Radial†	31.1	9.9	14.089 ug/L	14.089 ppb	12:36:01
3	Fe 238.204 Radial†	13.7	2.1	17.566 ug/L	17.566 ppb	12:36:01
3	K 766.490 Radial†	3030.5	160.5	28.280 ug/L	28.280 ppb	12:35:40
3	Mg 279.077 IEC†	3.8	2.2	67.911 ug/L	67.911 ppb	12:36:01
3	Na 589.592 Radial†	-759.1	42.0	12.550 ug/L	12.550 ppb	12:35:40
3	Sr 421.552†	28.4	38.7	0.2270 ug/L	0.2270 ppb	12:35:40
3	Sc 361.383	920090.2	920090.2	102.36 %		12:36:58
3	Y 371.029	766121.2	766121.2	102.91 %		12:36:58
3	Ag 328.068†	463.6	83.0	0.3679 ug/L	0.3679 ppb	12:36:58
3	As 188.979†	-31.2	4.4	1.5900 ug/L	1.5900 ppb	12:37:18
3	B 249.677†	-89.6	-61.6	-1.2676 ug/L	-1.2676 ppb	12:36:58
3	Ba 233.527†	12.0	14.3	0.0990 ug/L	0.0990 ppb	12:37:18
3	Be 313.107†	-4182.6	644.8	0.2168 ug/L	0.2168 ppb	12:36:58
3	Cd 226.502†	-208.9	25.1	0.2435 ug/L	0.2435 ppb	12:37:18
3	Co 228.616†	-62.8	25.7	0.4520 ug/L	0.4520 ppb	12:37:18
3	Cr 267.716†	111.4	28.7	0.2932 ug/L	0.2932 ppb	12:37:18
3	Cu 324.752†	6255.0	55.5	0.1577 ug/L	0.1577 ppb	12:36:58
3	Mn 257.610†	695.0	187.5	0.1854 ug/L	0.1854 ppb	12:37:18
3	Mo 202.031†	36.8	16.0	0.9727 ug/L	0.9727 ppb	12:37:18
3	Ni 231.604†	108.0	11.9	0.2601 ug/L	0.2601 ppb	12:37:18
3	P 214.914†	266.4	2.2	1.1147 ug/L	1.1147 ppb	12:37:18
3	Pb 220.353†	-68.0	-2.3	-0.2439 ug/L	-0.2439 ppb	12:37:18
3	S 181.975 Axial†	52.9	2.7	3.2704 ug/L	3.2704 ppb	12:37:18
3	Sb 206.836†	42.1	-0.1	-0.0023 ug/L	-0.0023 ppb	12:37:18
3	Se 196.026†	-22.7	6.3	3.4898 ug/L	3.4898 ppb	12:37:18
3	Si 251.611†	81550.4	79095.5	2230.3 ug/L	2230.3 ppb	12:36:58
3	Sn 189.927†	6.0	2.4	0.3650 ug/L	0.3650 ppb	12:37:18
3	Ti 334.940†	-1209.8	205.7	0.2994 ug/L	0.2994 ppb	12:36:58
3	Tl 190.801†	-51.1	-1.9	-0.4862 ug/L	-0.4862 ppb	12:37:18
3	U 409.014†	-2552.3	-121.3	-3.3448 ug/L	-3.3448 ppb	12:36:58
3	V 292.402†	-1443.7	58.9	0.3806 ug/L	0.3806 ppb	12:36:58
3	Zn 213.857†	1049.0	231.3	1.8912 ug/L	1.8912 ppb	12:37:18
3	SiO2†	82504.5	79998.5	4843.8 ug/L	4843.8 ppb	12:37:34

Mean Data: 242782001|932270|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	924889.8	102.89	%	0.639				0.62%
Sc Radial	5863.3	105	%	0.2				0.20%
Y 371.029	768481.5	103.23	%	0.463				0.45%
Y RADIAL	6231.8	105.4	%	0.55				0.52%
Ag 328.068†	37.0	0.1611	ug/L	0.37053	0.1611	ppb	0.37053	230.05%
Al 396.153Radial†	7.9	5.7044	ug/L	2.81792	5.7044	ppb	2.81792	49.40%
As 188.979†	5.8	2.1213	ug/L	0.58331	2.1213	ppb	0.58331	27.50%
B 249.677†	-81.3	-1.6693	ug/L	0.46846	-1.6693	ppb	0.46846	28.06%
Ba 233.527†	21.3	0.1458	ug/L	0.04230	0.1458	ppb	0.04230	29.01%
Be 313.107†	574.4	0.1932	ug/L	0.02783	0.1932	ppb	0.02783	14.40%
Ca 317.933Radial†	13.2	18.813	ug/L	4.1045	18.813	ppb	4.1045	21.82%
Cd 226.502†	19.9	0.1951	ug/L	0.04586	0.1951	ppb	0.04586	23.50%
Co 228.616†	23.5	0.4128	ug/L	0.08705	0.4128	ppb	0.08705	21.09%
Cr 267.716†	39.2	0.3983	ug/L	0.12197	0.3983	ppb	0.12197	30.62%
Cu 324.752†	45.4	0.1283	ug/L	0.09265	0.1283	ppb	0.09265	72.23%
Fe 238.204 Radial†	0.1	1.1048	ug/L	16.37159	1.1048	ppb	16.37159	>999.9%
K 766.490 Radial†	98.9	17.419	ug/L	12.2157	17.419	ppb	12.2157	70.13%

Mg 279.077 IEC†	2.6	79.690	ug/L	38.8891	79.690	ppb	38.8891 48.80%
Mn 257.610†	205.9	0.2017	ug/L	0.01517	0.2017	ppb	0.01517 7.52%
Mo 202.031†	12.5	0.7579	ug/L	0.18975	0.7579	ppb	0.18975 25.03%
Na 589.592 Radial†	37.0	11.045	ug/L	12.9486	11.045	ppb	12.9486 117.23%
Ni 231.604†	10.8	0.2349	ug/L	0.08243	0.2349	ppb	0.08243 35.10%
P 214.914†	-4.8	-2.5481	ug/L	3.18252	-2.5481	ppb	3.18252 124.90%
Pb 220.353†	-2.6	-0.2693	ug/L	0.22276	-0.2693	ppb	0.22276 82.71%
S 181.975 Axial†	1.5	1.7831	ug/L	2.19731	1.7831	ppb	2.19731 123.23%
Sb 206.836†	-3.5	-1.0296	ug/L	1.04855	-1.0296	ppb	1.04855 101.84%
Se 196.026†	4.1	2.2572	ug/L	1.08222	2.2572	ppb	1.08222 47.94%
Si 251.611†	79342.3	2237.3	ug/L	7.26	2237.3	ppb	7.26 0.32%
Sn 189.927†	0.4	0.0580	ug/L	0.50531	0.0580	ppb	0.50531 871.46%
Sr 421.552†	34.4	0.2016	ug/L	0.03847	0.2016	ppb	0.03847 19.08%
Ti 334.940†	210.5	0.3049	ug/L	0.04220	0.3049	ppb	0.04220 13.84%
Tl 190.801†	8.3	2.1450	ug/L	2.32230	2.1450	ppb	2.32230 108.27%
U 409.014†	24.3	0.6676	ug/L	3.93284	0.6676	ppb	3.93284 589.14%
V 292.402†	79.2	0.5168	ug/L	0.19180	0.5168	ppb	0.19180 37.11%
Zn 213.857†	225.0	1.8410	ug/L	0.07267	1.8410	ppb	0.07267 3.95%
SiO2†	79332.9	4803.5	ug/L	40.92	4803.5	ppb	40.92 0.85%

Sequence No.: 4
Sample ID: 1201994210|932270|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 41
Date Collected: 12/19/2009 12:39:44
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1201994210|932270|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	5874.1	5874.1	106	%			12:41:36
1	Y RADIAL	6187.3	6187.3	104.7	%			12:41:36
1	Al 396.153Radial†	116.6	126.9	92.379	ug/L	92.379	ppb	12:41:36
1	Ca 317.933Radial†	55.2	32.8	46.736	ug/L	46.736	ppb	12:41:56
1	Fe 238.204 Radial†	25.4	13.2	109.49	ug/L	109.49	ppb	12:41:56
1	K 766.490 Radial†	3222.7	342.0	60.163	ug/L	60.163	ppb	12:41:36
1	Mg 279.077 IEC†	3.2	1.6	50.379	ug/L	50.379	ppb	12:41:56
1	Na 589.592 Radial†	-400.7	381.9	113.97	ug/L	113.97	ppb	12:41:36
1	Sr 421.552†	77.4	85.1	0.4987	ug/L	0.4987	ppb	12:41:36
1	Sc 361.383	948087.0	948087.0	105.47	%			12:42:53
1	Y 371.029	779682.7	779682.7	104.73	%			12:42:53
1	Ag 328.068†	379.7	-9.9	-0.0053	ug/L	-0.0053	ppb	12:42:58
1	As 188.979†	-29.5	6.9	2.5407	ug/L	2.5407	ppb	12:43:18
1	B 249.677†	-242.2	-203.7	-4.1965	ug/L	-4.1965	ppb	12:42:58
1	Ba 233.527†	193.2	185.8	1.2684	ug/L	1.2684	ppb	12:43:18
1	Be 313.107†	-4575.2	393.3	0.1369	ug/L	0.1369	ppb	12:42:58
1	Cd 226.502†	-214.7	25.6	0.2397	ug/L	0.2397	ppb	12:43:18
1	Co 228.616†	-55.7	34.3	0.5955	ug/L	0.5955	ppb	12:43:18
1	Cr 267.716†	335.6	238.0	2.4160	ug/L	2.4160	ppb	12:43:18
1	Cu 324.752†	6320.6	-62.8	-0.1720	ug/L	-0.1720	ppb	12:42:58
1	Mn 257.610†	6866.5	6018.8	5.9468	ug/L	5.9468	ppb	12:42:58
1	Mo 202.031†	43.7	21.5	1.3118	ug/L	1.3118	ppb	12:43:18
1	Ni 231.604†	107.8	8.6	0.1880	ug/L	0.1880	ppb	12:43:18
1	P 214.914†	261.4	-10.2	-5.3248	ug/L	-5.3248	ppb	12:43:18
1	Pb 220.353†	-79.0	-10.8	-1.1264	ug/L	-1.1264	ppb	12:43:18
1	S 181.975 Axial†	67.7	15.2	18.611	ug/L	18.611	ppb	12:43:18
1	Sb 206.836†	39.0	-4.3	-1.2819	ug/L	-1.2819	ppb	12:43:18
1	Se 196.026†	-28.3	1.7	1.2846	ug/L	1.2846	ppb	12:43:18
1	Si 251.611†	81207.1	76417.3	2154.8	ug/L	2154.8	ppb	12:42:58
1	Sn 189.927†	17.3	12.9	1.9390	ug/L	1.9390	ppb	12:43:18
1	Ti 334.940†	405.8	1772.4	2.5634	ug/L	2.5634	ppb	12:42:58
1	Tl 190.801†	-41.3	8.9	2.3665	ug/L	2.3665	ppb	12:43:18
1	U 409.014†	-2439.9	58.9	1.6048	ug/L	1.6048	ppb	12:42:53
1	V 292.402†	-1427.9	115.6	0.7375	ug/L	0.7375	ppb	12:42:58
1	Zn 213.857†	1177.4	322.8	2.6342	ug/L	2.6342	ppb	12:43:18
1	SiO2†	81524.0	76688.6	4643.3	ug/L	4643.3	ppb	12:44:24
2	Sc Radial	5823.8	5823.8	105	%			12:42:02
2	Y RADIAL	6179.4	6179.4	104.5	%			12:42:02
2	Al 396.153Radial†	103.8	115.6	84.172	ug/L	84.172	ppb	12:42:02
2	Ca 317.933Radial†	56.5	34.4	49.110	ug/L	49.110	ppb	12:42:22
2	Fe 238.204 Radial†	28.0	15.9	132.07	ug/L	132.07	ppb	12:42:22
2	K 766.490 Radial†	3220.5	366.2	64.422	ug/L	64.422	ppb	12:42:02
2	Mg 279.077 IEC†	1.3	-0.1	-3.9330	ug/L	-3.9330	ppb	12:42:22
2	Na 589.592 Radial†	-375.5	402.7	120.21	ug/L	120.21	ppb	12:42:02
2	Sr 421.552†	57.2	66.5	0.3893	ug/L	0.3893	ppb	12:42:02
2	Sc 361.383	941398.3	941398.3	104.73	%			12:43:24
2	Y 371.029	775782.7	775782.7	104.21	%			12:43:24
2	Ag 328.068†	363.8	-22.6	-0.0561	ug/L	-0.0561	ppb	12:43:29
2	As 188.979†	-30.0	6.2	2.2985	ug/L	2.2985	ppb	12:43:49
2	B 249.677†	-237.6	-200.9	-4.1414	ug/L	-4.1414	ppb	12:43:29
2	Ba 233.527†	176.5	171.1	1.1692	ug/L	1.1692	ppb	12:43:49
2	Be 313.107†	-4504.3	430.1	0.1492	ug/L	0.1492	ppb	12:43:29
2	Cd 226.502†	-227.2	12.2	0.1068	ug/L	0.1068	ppb	12:43:49
2	Co 228.616†	-84.0	6.9	0.1146	ug/L	0.1146	ppb	12:43:49
2	Cr 267.716†	340.4	244.9	2.4846	ug/L	2.4846	ppb	12:43:49
2	Cu 324.752†	6343.1	1.2	0.0102	ug/L	0.0102	ppb	12:43:29
2	Mn 257.610†	6968.7	6162.7	6.0919	ug/L	6.0919	ppb	12:43:29
2	Mo 202.031†	35.3	13.8	0.8456	ug/L	0.8456	ppb	12:43:49
2	Ni 231.604†	120.0	21.0	0.4588	ug/L	0.4588	ppb	12:43:49

2	P 214.914†	275.9	5.3	2.7209	ug/L	2.7209 ppb	12:43:49
2	Pb 220.353†	-56.0	10.6	1.1293	ug/L	1.1293 ppb	12:43:49
2	S 181.975 Axial†	67.6	15.5	19.005	ug/L	19.005 ppb	12:43:49
2	Sb 206.836†	40.2	-2.8	-0.8704	ug/L	-0.8704 ppb	12:43:49
2	Se 196.026†	-31.9	-2.0	-0.6600	ug/L	-0.6600 ppb	12:43:49
2	Si 251.611†	81906.0	77631.7	2189.0	ug/L	2189.0 ppb	12:43:29
2	Sn 189.927†	11.7	7.6	1.1529	ug/L	1.1529 ppb	12:43:49
2	Ti 334.940†	386.1	1756.3	2.5388	ug/L	2.5388 ppb	12:43:29
2	Tl 190.801†	-42.0	8.0	2.1268	ug/L	2.1268 ppb	12:43:49
2	U 409.014†	-2288.6	186.9	5.1294	ug/L	5.1294 ppb	12:43:24
2	V 292.402†	-1445.1	89.6	0.5677	ug/L	0.5677 ppb	12:43:29
2	Zn 213.857†	1170.6	324.3	2.6439	ug/L	2.6439 ppb	12:43:49
2	SiO2†	80956.7	76696.1	4643.8	ug/L	4643.8 ppb	12:44:30
3	Sc Radial	5817.7	5817.7	104	%		12:42:27
3	Y RADIAL	6198.7	6198.7	104.9	%		12:42:27
3	Al 396.153Radial†	108.8	120.5	87.746	ug/L	87.746 ppb	12:42:27
3	Ca 317.933Radial†	52.8	30.9	44.085	ug/L	44.085 ppb	12:42:47
3	Fe 238.204 Radial†	24.2	12.3	101.95	ug/L	101.95 ppb	12:42:47
3	K 766.490 Radial†	3266.5	413.5	72.759	ug/L	72.759 ppb	12:42:27
3	Mg 279.077 IEC†	3.1	1.5	47.761	ug/L	47.761 ppb	12:42:47
3	Na 589.592 Radial†	-341.9	434.4	129.66	ug/L	129.66 ppb	12:42:27
3	Sr 421.552†	88.3	96.3	0.5641	ug/L	0.5641 ppb	12:42:27
3	Sc 361.383	946317.1	946317.1	105.27	%		12:43:54
3	Y 371.029	780555.9	780555.9	104.85	%		12:43:54
3	Ag 328.068†	362.8	-25.3	-0.0765	ug/L	-0.0765 ppb	12:43:59
3	As 188.979†	-25.4	10.7	3.9094	ug/L	3.9094 ppb	12:44:19
3	B 249.677†	-133.7	-101.1	-2.0888	ug/L	-2.0888 ppb	12:43:59
3	Ba 233.527†	181.5	175.0	1.1944	ug/L	1.1944 ppb	12:44:19
3	Be 313.107†	-4104.3	832.4	0.2842	ug/L	0.2842 ppb	12:43:59
3	Cd 226.502†	-203.4	36.0	0.3424	ug/L	0.3424 ppb	12:44:19
3	Co 228.616†	-58.3	31.7	0.5503	ug/L	0.5503 ppb	12:44:19
3	Cr 267.716†	367.4	268.9	2.7276	ug/L	2.7276 ppb	12:44:19
3	Cu 324.752†	6383.2	7.8	0.0273	ug/L	0.0273 ppb	12:43:59
3	Mn 257.610†	6943.6	6104.3	6.0304	ug/L	6.0304 ppb	12:43:59
3	Mo 202.031†	40.6	18.7	1.1373	ug/L	1.1373 ppb	12:44:19
3	Ni 231.604†	126.0	26.1	0.5700	ug/L	0.5700 ppb	12:44:19
3	P 214.914†	252.8	-17.9	-9.3926	ug/L	-9.3926 ppb	12:44:19
3	Pb 220.353†	-66.6	0.8	0.0941	ug/L	0.0941 ppb	12:44:19
3	S 181.975 Axial†	60.2	8.2	10.029	ug/L	10.029 ppb	12:44:19
3	Sb 206.836†	43.5	0.1	-0.0059	ug/L	-0.0059 ppb	12:44:19
3	Se 196.026†	-12.7	16.4	9.2810	ug/L	9.2810 ppb	12:44:19
3	Si 251.611†	81154.6	76511.5	2157.4	ug/L	2157.4 ppb	12:43:59
3	Sn 189.927†	3.5	-0.1	-0.0156	ug/L	-0.0156 ppb	12:44:19
3	Ti 334.940†	416.9	1783.6	2.5788	ug/L	2.5788 ppb	12:43:59
3	Tl 190.801†	-36.3	13.6	3.5749	ug/L	3.5749 ppb	12:44:19
3	U 409.014†	-2373.8	117.3	3.2142	ug/L	3.2142 ppb	12:43:54
3	V 292.402†	-1463.9	78.8	0.5055	ug/L	0.5055 ppb	12:43:59
3	Zn 213.857†	1192.0	338.8	2.7633	ug/L	2.7633 ppb	12:44:19
3	SiO2†	81143.3	76471.6	4630.2	ug/L	4630.2 ppb	12:44:35

Mean Data: 1201994210|932270|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	945267.4	105.16	%	0.386				0.37%
Sc Radial	5838.5	105	%	0.6				0.53%
Y 371.029	778673.7	104.60	%	0.341				0.33%
Y RADIAL	6188.5	104.7	%	0.16				0.16%
Ag 328.068†	-19.3	-0.0460	ug/L	0.03665	-0.0460	ppb	0.03665	79.76%
Al 396.153Radial†	121.0	88.099	ug/L	4.1150	88.099	ppb	4.1150	4.67%
As 188.979†	7.9	2.9162	ug/L	0.86865	2.9162	ppb	0.86865	29.79%
B 249.677†	-168.6	-3.4756	ug/L	1.20131	-3.4756	ppb	1.20131	34.56%
Ba 233.527†	177.3	1.2106	ug/L	0.05153	1.2106	ppb	0.05153	4.26%
Be 313.107†	551.9	0.1901	ug/L	0.08172	0.1901	ppb	0.08172	42.98%
Ca 317.933Radial†	32.7	46.644	ug/L	2.5139	46.644	ppb	2.5139	5.39%
Cd 226.502†	24.6	0.2296	ug/L	0.11812	0.2296	ppb	0.11812	51.44%
Co 228.616†	24.3	0.4201	ug/L	0.26555	0.4201	ppb	0.26555	63.21%
Cr 267.716†	250.6	2.5427	ug/L	0.16375	2.5427	ppb	0.16375	6.44%
Cu 324.752†	-17.9	-0.0448	ug/L	0.11044	-0.0448	ppb	0.11044	246.36%
Fe 238.204 Radial†	13.8	114.50	ug/L	15.673	114.50	ppb	15.673	13.69%
K 766.490 Radial†	373.9	65.781	ug/L	6.4071	65.781	ppb	6.4071	9.74%

Mg 279.077 IEC†	1.0	31.403	ug/L	30.6294	31.403	ppb	30.6294	97.54%
Mn 257.610†	6095.3	6.0230	ug/L	0.07285	6.0230	ppb	0.07285	1.21%
Mo 202.031†	18.0	1.0982	ug/L	0.23559	1.0982	ppb	0.23559	21.45%
Na 589.592 Radial†	406.3	121.28	ug/L	7.900	121.28	ppb	7.900	6.51%
Ni 231.604†	18.6	0.4056	ug/L	0.19649	0.4056	ppb	0.19649	48.44%
P 214.914†	-7.6	-3.9988	ug/L	6.16466	-3.9988	ppb	6.16466	154.16%
Pb 220.353†	0.2	0.0323	ug/L	1.12912	0.0323	ppb	1.12912	>999.9%
S 181.975 Axial†	13.0	15.882	ug/L	5.0724	15.882	ppb	5.0724	31.94%
Sb 206.836†	-2.3	-0.7194	ug/L	0.65128	-0.7194	ppb	0.65128	90.53%
Se 196.026†	5.4	3.3019	ug/L	5.26855	3.3019	ppb	5.26855	159.56%
Si 251.611†	76853.5	2167.1	ug/L	19.05	2167.1	ppb	19.05	0.88%
Sn 189.927†	6.8	1.0254	ug/L	0.98348	1.0254	ppb	0.98348	95.91%
Sr 421.552†	82.6	0.4840	ug/L	0.08833	0.4840	ppb	0.08833	18.25%
Ti 334.940†	1770.8	2.5603	ug/L	0.02019	2.5603	ppb	0.02019	0.79%
Tl 190.801†	10.2	2.6894	ug/L	0.77621	2.6894	ppb	0.77621	28.86%
U 409.014†	121.1	3.3161	ug/L	1.76449	3.3161	ppb	1.76449	53.21%
V 292.402†	94.7	0.6035	ug/L	0.12008	0.6035	ppb	0.12008	19.90%
Zn 213.857†	328.6	2.6805	ug/L	0.07187	2.6805	ppb	0.07187	2.68%
SiO2†	76618.8	4639.1	ug/L	7.72	4639.1	ppb	7.72	0.17%

Sequence No.: 5
Sample ID: 1201994211|932270|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 42
Date Collected: 12/19/2009 12:46:45
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1201994211|932270|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5717.7	5717.7	103	%			12:48:37
1	Y RADIAL	6065.7	6065.7	102.6	%			12:48:37
1	Al 396.153Radial†	6997.9	6830.2	4956.1	ug/L	4956.1	ppb	12:48:37
1	Ca 317.933Radial†	3547.4	3434.5	4896.7	ug/L	4896.7	ppb	12:48:57
1	Fe 238.204 Radial†	640.5	612.8	5109.2	ug/L	5109.2	ppb	12:48:57
1	K 766.490 Radial†	31817.9	28268.4	4975.8	ug/L	4975.8	ppb	12:48:37
1	Mg 279.077 IEC†	167.5	161.7	5026.9	ug/L	5026.9	ppb	12:48:57
1	Na 589.592 Radial†	16594.6	16919.7	5050.0	ug/L	5050.0	ppb	12:48:37
1	Sr 421.552†	86786.2	84515.0	495.54	ug/L	495.54	ppb	12:48:37
1	Sc 361.383	931434.1	931434.1	103.62	%			12:49:56
1	Y 371.029	756771.2	756771.2	101.65	%			12:49:56
1	Ag 328.068†	115309.6	110913.1	481.12	ug/L	481.12	ppb	12:49:56
1	As 188.979†	1359.2	1346.6	493.16	ug/L	493.16	ppb	12:50:17
1	B 249.677†	23924.9	23115.4	472.50	ug/L	472.50	ppb	12:49:56
1	Ba 233.527†	76099.5	73444.8	500.45	ug/L	500.45	ppb	12:49:56
1	Be 313.107†	1487465.7	1440255.3	483.97	ug/L	483.97	ppb	12:49:56
1	Cd 226.502†	50924.2	49375.2	482.69	ug/L	482.69	ppb	12:49:56
1	Co 228.616†	28258.4	27358.7	479.04	ug/L	479.04	ppb	12:50:17
1	Cr 267.716†	49836.6	48016.2	487.61	ug/L	487.61	ppb	12:49:56
1	Cu 324.752†	187722.3	175111.6	495.01	ug/L	495.01	ppb	12:49:56
1	Mn 257.610†	524814.6	505996.8	499.52	ug/L	499.52	ppb	12:49:56
1	Mo 202.031†	8290.5	7981.1	483.47	ug/L	483.47	ppb	12:50:17
1	Ni 231.604†	23197.8	22294.2	486.80	ug/L	486.80	ppb	12:50:17
1	P 214.914†	1389.2	1082.6	489.90	ug/L	489.90	ppb	12:50:17
1	Pb 220.353†	4784.6	4681.6	494.84	ug/L	494.84	ppb	12:50:17
1	S 181.975 Axial†	4175.0	3980.2	4881.9	ug/L	4881.9	ppb	12:50:17
1	Sb 206.836†	1770.7	1667.6	506.85	ug/L	506.85	ppb	12:50:17
1	Se 196.026†	869.0	867.2	490.19	ug/L	490.19	ppb	12:50:17
1	Si 251.611†	261196.9	251498.6	7080.1	ug/L	7080.1	ppb	12:49:56
1	Sn 189.927†	3487.5	3362.2	504.84	ug/L	504.84	ppb	12:50:17
1	Ti 334.940†	349942.7	339110.5	490.17	ug/L	490.17	ppb	12:49:56
1	Tl 190.801†	1909.7	1891.1	493.89	ug/L	493.89	ppb	12:50:17
1	U 409.014†	15999.7	17813.2	489.21	ug/L	489.21	ppb	12:49:56
1	V 292.402†	77981.0	76727.3	494.47	ug/L	494.47	ppb	12:49:56
1	Zn 213.857†	61310.2	58375.7	474.40	ug/L	474.40	ppb	12:49:56
1	SiO2†	262595.3	252819.0	15283	ug/L	15283	ppb	12:51:17
2	Sc Radial	5715.2	5715.2	103	%			12:49:03
2	Y RADIAL	6058.8	6058.8	102.5	%			12:49:03
2	Al 396.153Radial†	7077.4	6910.6	5014.9	ug/L	5014.9	ppb	12:49:03
2	Ca 317.933Radial†	3555.5	3443.9	4910.0	ug/L	4910.0	ppb	12:49:23
2	Fe 238.204 Radial†	641.0	613.5	5115.2	ug/L	5115.2	ppb	12:49:23
2	K 766.490 Radial†	32087.4	28544.7	5024.4	ug/L	5024.4	ppb	12:49:03
2	Mg 279.077 IEC†	170.5	164.7	5118.8	ug/L	5118.8	ppb	12:49:23
2	Na 589.592 Radial†	16719.0	17048.1	5088.4	ug/L	5088.4	ppb	12:49:03
2	Sr 421.552†	87898.1	85635.5	502.11	ug/L	502.11	ppb	12:49:03
2	Sc 361.383	933264.7	933264.7	103.82	%			12:50:24
2	Y 371.029	759766.5	759766.5	102.06	%			12:50:24
2	Ag 328.068†	115732.7	111102.3	481.94	ug/L	481.94	ppb	12:50:24
2	As 188.979†	1344.5	1329.8	487.07	ug/L	487.07	ppb	12:50:44
2	B 249.677†	24039.2	23180.2	473.83	ug/L	473.83	ppb	12:50:24
2	Ba 233.527†	76124.2	73324.5	499.64	ug/L	499.64	ppb	12:50:24
2	Be 313.107†	1494289.7	1444012.3	485.23	ug/L	485.23	ppb	12:50:24
2	Cd 226.502†	50909.6	49264.6	481.60	ug/L	481.60	ppb	12:50:24
2	Co 228.616†	28146.8	27197.8	476.22	ug/L	476.22	ppb	12:50:44
2	Cr 267.716†	49959.7	48040.4	487.85	ug/L	487.85	ppb	12:50:24
2	Cu 324.752†	188223.1	175238.6	495.37	ug/L	495.37	ppb	12:50:24
2	Mn 257.610†	525420.3	505586.8	499.11	ug/L	499.11	ppb	12:50:24
2	Mo 202.031†	8262.4	7938.4	480.88	ug/L	480.88	ppb	12:50:44
2	Ni 231.604†	23167.8	22221.4	485.21	ug/L	485.21	ppb	12:50:44

2	P 214.914†	1377.8	1069.0	482.76 ug/L	482.76 ppb	12:50:44
2	Pb 220.353†	4758.2	4647.1	491.21 ug/L	491.21 ppb	12:50:44
2	S 181.975 Axial†	4183.5	3980.5	4882.3 ug/L	4882.3 ppb	12:50:44
2	Sb 206.836†	1749.2	1643.6	499.57 ug/L	499.57 ppb	12:50:44
2	Se 196.026†	875.3	871.6	492.60 ug/L	492.60 ppb	12:50:44
2	Si 251.611†	261464.8	251262.1	7073.5 ug/L	7073.5 ppb	12:50:24
2	Sn 189.927†	3483.2	3351.5	503.23 ug/L	503.23 ppb	12:50:44
2	Ti 334.940†	350754.3	339229.8	490.34 ug/L	490.34 ppb	12:50:24
2	Tl 190.801†	1902.9	1880.9	491.27 ug/L	491.27 ppb	12:50:44
2	U 409.014†	15934.4	17720.0	486.64 ug/L	486.64 ppb	12:50:24
2	V 292.402†	78191.1	76782.1	494.78 ug/L	494.78 ppb	12:50:24
2	Zn 213.857†	61351.9	58299.8	473.79 ug/L	473.79 ppb	12:50:24
2	SiO2†	261540.3	251305.7	15191 ug/L	15191 ppb	12:51:22
3	Sc Radial	5615.7	5615.7	101 %		12:49:28
3	Y RADIAL	5955.2	5955.2	100.7 %		12:49:28
3	Al 396.153Radial†	7082.5	7037.8	5107.5 ug/L	5107.5 ppb	12:49:28
3	Ca 317.933Radial†	3564.3	3514.0	5010.0 ug/L	5010.0 ppb	12:49:48
3	Fe 238.204 Radial†	642.8	626.3	5221.8 ug/L	5221.8 ppb	12:49:48
3	K 766.490 Radial†	32003.3	29014.8	5107.3 ug/L	5107.3 ppb	12:49:28
3	Mg 279.077 IEC†	166.4	163.5	5082.9 ug/L	5082.9 ppb	12:49:48
3	Na 589.592 Radial†	16695.7	17313.4	5167.5 ug/L	5167.5 ppb	12:49:28
3	Sr 421.552†	87394.1	86652.1	508.07 ug/L	508.07 ppb	12:49:28
3	Sc 361.383	934617.1	934617.1	103.97 %		12:50:51
3	Y 371.029	761972.1	761972.1	102.35 %		12:50:51
3	Ag 328.068†	115878.2	111081.0	481.89 ug/L	481.89 ppb	12:50:51
3	As 188.979†	1334.8	1318.6	483.02 ug/L	483.02 ppb	12:51:11
3	B 249.677†	24156.2	23259.2	475.45 ug/L	475.45 ppb	12:50:51
3	Ba 233.527†	76134.2	73228.0	498.99 ug/L	498.99 ppb	12:50:51
3	Be 313.107†	1499809.0	1447238.0	486.31 ug/L	486.31 ppb	12:50:51
3	Cd 226.502†	51109.8	49386.3	482.78 ug/L	482.78 ppb	12:50:51
3	Co 228.616†	28087.2	27101.2	474.53 ug/L	474.53 ppb	12:51:11
3	Cr 267.716†	50093.9	48099.8	488.46 ug/L	488.46 ppb	12:50:51
3	Cu 324.752†	188420.2	175165.8	495.17 ug/L	495.17 ppb	12:50:51
3	Mn 257.610†	526343.8	505742.7	499.28 ug/L	499.28 ppb	12:50:51
3	Mo 202.031†	8270.1	7934.2	480.64 ug/L	480.64 ppb	12:51:11
3	Ni 231.604†	23104.7	22128.4	483.18 ug/L	483.18 ppb	12:51:11
3	P 214.914†	1351.9	1042.2	468.72 ug/L	468.72 ppb	12:51:11
3	Pb 220.353†	4771.3	4653.1	491.85 ug/L	491.85 ppb	12:51:11
3	S 181.975 Axial†	4164.2	3956.1	4852.3 ug/L	4852.3 ppb	12:51:11
3	Sb 206.836†	1759.2	1650.8	501.66 ug/L	501.66 ppb	12:51:11
3	Se 196.026†	872.1	867.3	490.59 ug/L	490.59 ppb	12:51:11
3	Si 251.611†	261597.9	251025.8	7066.8 ug/L	7066.8 ppb	12:50:51
3	Sn 189.927†	3477.6	3341.2	501.70 ug/L	501.70 ppb	12:51:11
3	Ti 334.940†	351500.9	339459.0	490.68 ug/L	490.68 ppb	12:50:51
3	Tl 190.801†	1893.5	1869.2	488.26 ug/L	488.26 ppb	12:51:11
3	U 409.014†	15788.6	17557.6	482.15 ug/L	482.15 ppb	12:50:51
3	V 292.402†	78476.7	76947.8	495.80 ug/L	495.80 ppb	12:50:51
3	Zn 213.857†	61539.4	58394.6	474.57 ug/L	474.57 ppb	12:50:51
3	SiO2†	262195.8	251571.7	15207 ug/L	15207 ppb	12:51:27

Mean Data: 1201994211|932270|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	933105.3	103.80	%	0.178				0.17%
Sc Radial	5682.9	102	%	1.0				1.02%
Y 371.029	759503.3	102.02	%	0.351				0.34%
Y RADIAL	6026.6	101.9	%	1.05				1.03%
Ag 328.068†	111032.2	481.65	ug/L	0.460	481.65	ppb	0.460	0.10%
Al 396.153Radial†	6926.2	5026.2	ug/L	76.32	5026.2	ppb	76.32	1.52%
As 188.979†	1331.7	487.75	ug/L	5.104	487.75	ppb	5.104	1.05%
B 249.677†	23184.9	473.93	ug/L	1.476	473.93	ppb	1.476	0.31%
Ba 233.527†	73332.4	499.69	ug/L	0.735	499.69	ppb	0.735	0.15%
Be 313.107†	1443835.2	485.17	ug/L	1.172	485.17	ppb	1.172	0.24%
Ca 317.933Radial†	3464.1	4938.9	ug/L	61.93	4938.9	ppb	61.93	1.25%
Cd 226.502†	49342.0	482.36	ug/L	0.654	482.36	ppb	0.654	0.14%
Co 228.616†	27219.2	476.60	ug/L	2.283	476.60	ppb	2.283	0.48%
Cr 267.716†	48052.1	487.97	ug/L	0.440	487.97	ppb	0.440	0.09%
Cu 324.752†	175172.0	495.19	ug/L	0.180	495.19	ppb	0.180	0.04%
Fe 238.204 Radial†	617.5	5148.7	ug/L	63.38	5148.7	ppb	63.38	1.23%
K 766.490 Radial†	28609.3	5035.8	ug/L	66.48	5035.8	ppb	66.48	1.32%

Mg 279.077 IEC†	163.3	5076.2	ug/L	46.31	5076.2	ppb	46.31	0.91%
Mn 257.610†	505775.5	499.30	ug/L	0.204	499.30	ppb	0.204	0.04%
Mo 202.031†	7951.3	481.66	ug/L	1.568	481.66	ppb	1.568	0.33%
Na 589.592 Radial†	17093.7	5102.0	ug/L	59.92	5102.0	ppb	59.92	1.17%
Ni 231.604†	22214.6	485.07	ug/L	1.814	485.07	ppb	1.814	0.37%
P 214.914†	1064.6	480.46	ug/L	10.778	480.46	ppb	10.778	2.24%
Pb 220.353†	4660.6	492.63	ug/L	1.939	492.63	ppb	1.939	0.39%
S 181.975 Axial†	3972.3	4872.2	ug/L	17.18	4872.2	ppb	17.18	0.35%
Sb 206.836†	1654.0	502.70	ug/L	3.751	502.70	ppb	3.751	0.75%
Se 196.026†	868.7	491.12	ug/L	1.291	491.12	ppb	1.291	0.26%
Si 251.611†	251262.2	7073.5	ug/L	6.66	7073.5	ppb	6.66	0.09%
Sn 189.927†	3351.7	503.25	ug/L	1.567	503.25	ppb	1.567	0.31%
Sr 421.552†	85600.8	501.91	ug/L	6.268	501.91	ppb	6.268	1.25%
Ti 334.940†	339266.4	490.40	ug/L	0.261	490.40	ppb	0.261	0.05%
Tl 190.801†	1880.4	491.14	ug/L	2.821	491.14	ppb	2.821	0.57%
U 409.014†	17697.0	486.00	ug/L	3.573	486.00	ppb	3.573	0.74%
V 292.402†	76819.1	495.02	ug/L	0.697	495.02	ppb	0.697	0.14%
Zn 213.857†	58356.7	474.25	ug/L	0.412	474.25	ppb	0.412	0.09%
SiO2†	251898.8	15227	ug/L	48.9	15227	ppb	48.9	0.32%

Sequence No.: 6
Sample ID: 1201994212|932270|5
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 43
Date Collected: 12/19/2009 12:53:38
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1201994212|932270|5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5846.1	5846.1	105	%			12:55:30
1	Y RADIAL	6260.7	6260.7	105.9	%			12:55:30
1	Al 396.153Radial†	-28.0	-10.3	-7.5318	ug/L	-7.5318	ppb	12:55:30
1	Ca 317.933Radial†	23.5	2.8	3.9311	ug/L	3.9311	ppb	12:55:50
1	Fe 238.204 Radial†	8.7	-2.6	-21.907	ug/L	-21.907	ppb	12:55:50
1	K 766.490 Radial†	2850.3	1.9	0.3302	ug/L	0.3302	ppb	12:55:30
1	Mg 279.077 IEC†	1.9	0.4	13.376	ug/L	13.376	ppb	12:55:50
1	Na 589.592 Radial†	-783.0	16.0	4.7657	ug/L	4.7657	ppb	12:55:30
1	Sr 421.552†	-8.1	4.1	0.0242	ug/L	0.0242	ppb	12:55:30
1	Sc 361.383	939643.0	939643.0	104.53	%			12:56:47
1	Y 371.029	773589.3	773589.3	103.91	%			12:56:47
1	Ag 328.068†	449.0	59.6	0.2486	ug/L	0.2486	ppb	12:56:52
1	As 188.979†	-31.1	5.1	1.8505	ug/L	1.8505	ppb	12:57:12
1	B 249.677†	-255.0	-218.0	-4.4716	ug/L	-4.4716	ppb	12:57:12
1	Ba 233.527†	13.2	15.2	0.1035	ug/L	0.1035	ppb	12:57:12
1	Be 313.107†	-4612.4	318.7	0.1075	ug/L	0.1075	ppb	12:56:52
1	Cd 226.502†	-223.5	15.3	0.1524	ug/L	0.1524	ppb	12:57:12
1	Co 228.616†	-69.9	20.3	0.3551	ug/L	0.3551	ppb	12:57:12
1	Cr 267.716†	99.3	14.8	0.1496	ug/L	0.1496	ppb	12:57:12
1	Cu 324.752†	6046.1	-271.6	-0.7685	ug/L	-0.7685	ppb	12:56:52
1	Mn 257.610†	555.0	39.5	0.0365	ug/L	0.0365	ppb	12:57:12
1	Mo 202.031†	24.8	3.8	0.2306	ug/L	0.2306	ppb	12:57:12
1	Ni 231.604†	105.1	7.0	0.1518	ug/L	0.1518	ppb	12:57:12
1	P 214.914†	257.8	-11.4	-5.8136	ug/L	-5.8136	ppb	12:57:12
1	Pb 220.353†	-65.4	1.5	0.1618	ug/L	0.1618	ppb	12:57:12
1	S 181.975 Axial†	52.9	1.6	1.9880	ug/L	1.9880	ppb	12:57:12
1	Sb 206.836†	40.6	-2.4	-0.6986	ug/L	-0.6986	ppb	12:57:12
1	Se 196.026†	-29.7	0.1	-0.0285	ug/L	-0.0285	ppb	12:57:12
1	Si 251.611†	16972.3	15659.1	441.55	ug/L	441.55	ppb	12:56:52
1	Sn 189.927†	5.7	2.0	0.2934	ug/L	0.2934	ppb	12:57:12
1	Ti 334.940†	-1227.5	213.3	0.3075	ug/L	0.3075	ppb	12:56:52
1	Tl 190.801†	-43.0	6.9	1.7927	ug/L	1.7927	ppb	12:57:12
1	U 409.014†	-2388.5	87.2	2.4055	ug/L	2.4055	ppb	12:56:47
1	V 292.402†	-1483.6	50.2	0.3302	ug/L	0.3302	ppb	12:56:52
1	Zn 213.857†	822.3	-6.9	-0.0551	ug/L	-0.0551	ppb	12:57:12
1	SiO2†	17100.4	15752.4	953.78	ug/L	953.78	ppb	12:58:18
2	Sc Radial	5652.1	5652.1	102	%			12:55:55
2	Y RADIAL	5989.9	5989.9	101.3	%			12:55:55
2	Al 396.153Radial†	-20.6	-3.9	-2.8448	ug/L	-2.8448	ppb	12:55:55
2	Ca 317.933Radial†	21.3	1.4	2.0633	ug/L	2.0633	ppb	12:56:15
2	Fe 238.204 Radial†	10.7	-0.3	-2.4736	ug/L	-2.4736	ppb	12:56:15
2	K 766.490 Radial†	2931.8	175.3	30.901	ug/L	30.901	ppb	12:55:55
2	Mg 279.077 IEC†	0.4	-1.0	-32.488	ug/L	-32.488	ppb	12:56:15
2	Na 589.592 Radial†	-772.4	0.8	0.2509	ug/L	0.2509	ppb	12:55:55
2	Sr 421.552†	1.1	12.9	0.0754	ug/L	0.0754	ppb	12:55:55
2	Sc 361.383	938377.9	938377.9	104.39	%			12:57:17
2	Y 371.029	773218.7	773218.7	103.86	%			12:57:17
2	Ag 328.068†	354.3	-30.5	-0.1330	ug/L	-0.1330	ppb	12:57:22
2	As 188.979†	-33.7	2.5	0.9256	ug/L	0.9256	ppb	12:57:43
2	B 249.677†	-234.4	-198.6	-4.0770	ug/L	-4.0770	ppb	12:57:43
2	Ba 233.527†	19.6	21.4	0.1463	ug/L	0.1463	ppb	12:57:43
2	Be 313.107†	-4611.0	314.1	0.1058	ug/L	0.1058	ppb	12:57:22
2	Cd 226.502†	-212.2	25.9	0.2536	ug/L	0.2536	ppb	12:57:43
2	Co 228.616†	-73.2	17.0	0.2983	ug/L	0.2983	ppb	12:57:43
2	Cr 267.716†	89.3	5.4	0.0545	ug/L	0.0545	ppb	12:57:43
2	Cu 324.752†	5989.6	-317.9	-0.8982	ug/L	-0.8982	ppb	12:57:22
2	Mn 257.610†	520.7	7.3	0.0076	ug/L	0.0076	ppb	12:57:43
2	Mo 202.031†	31.5	10.3	0.6212	ug/L	0.6212	ppb	12:57:43
2	Ni 231.604†	125.4	26.5	0.5789	ug/L	0.5789	ppb	12:57:43

2	P 214.914†	253.5	-15.2	-7.7855	ug/L	-7.7855 ppb	12:57:43
2	Pb 220.353†	-93.4	-25.5	-2.6802	ug/L	-2.6802 ppb	12:57:43
2	S 181.975 Axial†	41.9	-8.9	-10.883	ug/L	-10.883 ppb	12:57:43
2	Sb 206.836†	20.3	-21.8	-6.5056	ug/L	-6.5056 ppb	12:57:43
2	Se 196.026†	-23.8	5.8	3.1322	ug/L	3.1322 ppb	12:57:43
2	Si 251.611†	16892.3	15604.3	439.99	ug/L	439.99 ppb	12:57:22
2	Sn 189.927†	8.3	4.5	0.6753	ug/L	0.6753 ppb	12:57:43
2	Ti 334.940†	-1289.5	152.4	0.2192	ug/L	0.2192 ppb	12:57:22
2	Tl 190.801†	-41.1	8.7	2.2442	ug/L	2.2442 ppb	12:57:43
2	U 409.014†	-2379.0	93.3	2.5707	ug/L	2.5707 ppb	12:57:17
2	V 292.402†	-1476.5	55.0	0.3632	ug/L	0.3632 ppb	12:57:22
2	Zn 213.857†	830.8	2.3	0.0177	ug/L	0.0177 ppb	12:57:43
2	SiO2†	17021.6	15699.0	950.51	ug/L	950.51 ppb	12:58:23
3	Sc Radial	5700.8	5700.8	102	%		12:56:21
3	Y RADIAL	6114.9	6114.9	103.4	%		12:56:21
3	Al 396.153Radial†	-30.8	-13.7	-10.017	ug/L	-10.017 ppb	12:56:21
3	Ca 317.933Radial†	18.9	-1.1	-1.6233	ug/L	-1.6233 ppb	12:56:41
3	Fe 238.204 Radial†	11.5	0.4	3.0348	ug/L	3.0348 ppb	12:56:41
3	K 766.490 Radial†	2816.7	38.3	6.7574	ug/L	6.7574 ppb	12:56:21
3	Mg 279.077 IEC†	2.6	1.1	34.183	ug/L	34.183 ppb	12:56:41
3	Na 589.592 Radial†	-797.3	-17.0	-5.0691	ug/L	-5.0691 ppb	12:56:21
3	Sr 421.552†	9.8	21.4	0.1254	ug/L	0.1254 ppb	12:56:21
3	Sc 361.383	926928.7	926928.7	103.12	%		12:57:48
3	Y 371.029	764737.5	764737.5	102.72	%		12:57:48
3	Ag 328.068†	397.2	15.3	0.0666	ug/L	0.0666 ppb	12:57:53
3	As 188.979†	-28.2	7.5	2.7216	ug/L	2.7216 ppb	12:58:13
3	B 249.677†	-243.0	-209.7	-4.3040	ug/L	-4.3040 ppb	12:58:13
3	Ba 233.527†	-14.4	-11.4	-0.0774	ug/L	-0.0774 ppb	12:58:13
3	Be 313.107†	-4666.4	205.8	0.0691	ug/L	0.0691 ppb	12:57:53
3	Cd 226.502†	-215.9	19.8	0.1938	ug/L	0.1938 ppb	12:58:13
3	Co 228.616†	-85.9	3.8	0.0657	ug/L	0.0657 ppb	12:58:13
3	Cr 267.716†	107.9	24.4	0.2478	ug/L	0.2478 ppb	12:58:13
3	Cu 324.752†	6050.5	-188.0	-0.5310	ug/L	-0.5310 ppb	12:57:53
3	Mn 257.610†	536.9	29.2	0.0285	ug/L	0.0285 ppb	12:58:13
3	Mo 202.031†	21.5	0.9	0.0564	ug/L	0.0564 ppb	12:58:13
3	Ni 231.604†	111.9	14.9	0.3265	ug/L	0.3265 ppb	12:58:13
3	P 214.914†	253.3	-12.4	-6.3718	ug/L	-6.3718 ppb	12:58:13
3	Pb 220.353†	-75.5	-9.1	-0.9657	ug/L	-0.9657 ppb	12:58:13
3	S 181.975 Axial†	51.1	0.6	0.6859	ug/L	0.6859 ppb	12:58:13
3	Sb 206.836†	36.4	-5.9	-1.7454	ug/L	-1.7454 ppb	12:58:13
3	Se 196.026†	-35.1	-5.5	-2.9928	ug/L	-2.9928 ppb	12:58:13
3	Si 251.611†	16923.5	15834.5	446.49	ug/L	446.49 ppb	12:57:53
3	Sn 189.927†	12.2	8.4	1.2552	ug/L	1.2552 ppb	12:58:13
3	Ti 334.940†	-1393.2	36.5	0.0526	ug/L	0.0526 ppb	12:57:53
3	Tl 190.801†	-55.2	-5.5	-1.4163	ug/L	-1.4163 ppb	12:58:13
3	U 409.014†	-2447.1	-0.9	-0.0259	ug/L	-0.0259 ppb	12:57:48
3	V 292.402†	-1524.9	-9.4	-0.0587	ug/L	-0.0587 ppb	12:57:53
3	Zn 213.857†	815.5	-2.7	-0.0253	ug/L	-0.0253 ppb	12:58:13
3	SiO2†	17073.2	15950.4	965.76	ug/L	965.76 ppb	12:58:28

Mean Data: 1201994212|932270|5

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	934983.2	104.01	%	0.779				0.75%
Sc Radial	5733.0	103	%	1.8				1.76%
Y 371.029	770515.2	103.50	%	0.673				0.65%
Y RADIAL	6121.8	103.6	%	2.29				2.21%
Ag 328.068†	14.8	0.0607	ug/L	0.19090	0.0607	ppb	0.19090	314.41%
Al 396.153Radial†	-9.3	-6.7977	ug/L	3.64181	-6.7977	ppb	3.64181	53.57%
As 188.979†	5.0	1.8326	ug/L	0.89816	1.8326	ppb	0.89816	49.01%
B 249.677†	-208.8	-4.2842	ug/L	0.19802	-4.2842	ppb	0.19802	4.62%
Ba 233.527†	8.4	0.0575	ug/L	0.11874	0.0575	ppb	0.11874	206.59%
Be 313.107†	279.5	0.0941	ug/L	0.02167	0.0941	ppb	0.02167	23.03%
Ca 317.933Radial†	1.0	1.4570	ug/L	2.82644	1.4570	ppb	2.82644	193.99%
Cd 226.502†	20.3	0.1999	ug/L	0.05091	0.1999	ppb	0.05091	25.47%
Co 228.616†	13.7	0.2397	ug/L	0.15331	0.2397	ppb	0.15331	63.96%
Cr 267.716†	14.9	0.1506	ug/L	0.09666	0.1506	ppb	0.09666	64.16%
Cu 324.752†	-259.2	-0.7326	ug/L	0.18621	-0.7326	ppb	0.18621	25.42%
Fe 238.204 Radial†	-0.9	-7.1153	ug/L	13.10279	-7.1153	ppb	13.10279	184.15%
K 766.490 Radial†	71.9	12.663	ug/L	16.1183	12.663	ppb	16.1183	127.29%

Mg 279.077 IEC†	0.2	5.0235	ug/L	34.11114	5.0235	ppb	34.11114	679.02%
Mn 257.610†	25.4	0.0242	ug/L	0.01496	0.0242	ppb	0.01496	61.79%
Mo 202.031†	5.0	0.3028	ug/L	0.28923	0.3028	ppb	0.28923	95.53%
Na 589.592 Radial†	-0.1	-0.0175	ug/L	4.92288	-0.0175	ppb	4.92288	>999.9%
Ni 231.604†	16.1	0.3524	ug/L	0.21475	0.3524	ppb	0.21475	60.94%
P 214.914†	-13.0	-6.6569	ug/L	1.01640	-6.6569	ppb	1.01640	15.27%
Pb 220.353†	-11.0	-1.1614	ug/L	1.43107	-1.1614	ppb	1.43107	123.22%
S 181.975 Axial†	-2.2	-2.7363	ug/L	7.08502	-2.7363	ppb	7.08502	258.93%
Sb 206.836†	-10.0	-2.9832	ug/L	3.09504	-2.9832	ppb	3.09504	103.75%
Se 196.026†	0.1	0.0370	ug/L	3.06304	0.0370	ppb	3.06304	>999.9%
Si 251.611†	15699.3	442.68	ug/L	3.397	442.68	ppb	3.397	0.77%
Sn 189.927†	4.9	0.7413	ug/L	0.48431	0.7413	ppb	0.48431	65.33%
Sr 421.552†	12.8	0.0750	ug/L	0.05063	0.0750	ppb	0.05063	67.52%
Ti 334.940†	134.1	0.1931	ug/L	0.12940	0.1931	ppb	0.12940	67.01%
Tl 190.801†	3.4	0.8735	ug/L	1.99587	0.8735	ppb	1.99587	228.48%
U 409.014†	59.9	1.6501	ug/L	1.45383	1.6501	ppb	1.45383	88.11%
V 292.402†	31.9	0.2116	ug/L	0.23466	0.2116	ppb	0.23466	110.92%
Zn 213.857†	-2.4	-0.0209	ug/L	0.03658	-0.0209	ppb	0.03658	175.00%
SiO2†	15800.6	956.68	ug/L	8.032	956.68	ppb	8.032	0.84%

Sequence No.: 7
Sample ID: 242782002|932270|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 44
Date Collected: 12/19/2009 13:00:39
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 242782002|932270|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5787.4	5787.4	104	%			13:02:31
1	Y RADIAL	6191.2	6191.2	104.7	%			13:02:31
1	Al 396.153Radial†	99.1	111.7	81.334	ug/L	81.334	ppb	13:02:31
1	Ca 317.933Radial†	52.1	30.6	43.590	ug/L	43.590	ppb	13:02:51
1	Fe 238.204 Radial†	25.8	14.0	116.04	ug/L	116.04	ppb	13:02:51
1	K 766.490 Radial†	3237.9	402.3	70.797	ug/L	70.797	ppb	13:02:31
1	Mg 279.077 IEC†	0.8	-0.6	-18.175	ug/L	-18.175	ppb	13:02:51
1	Na 589.592 Radial†	-410.7	366.6	109.43	ug/L	109.43	ppb	13:02:31
1	Sr 421.552†	104.6	112.4	0.6586	ug/L	0.6586	ppb	13:02:31
1	Sc 361.383	915910.6	915910.6	101.89	%			13:03:48
1	Y 371.029	758903.7	758903.7	101.94	%			13:03:48
1	Ag 328.068†	397.4	20.1	0.1263	ug/L	0.1263	ppb	13:03:48
1	As 188.979†	-32.8	2.7	1.0164	ug/L	1.0164	ppb	13:04:08
1	B 249.677†	-144.1	-115.5	-2.3869	ug/L	-2.3869	ppb	13:04:08
1	Ba 233.527†	201.9	200.8	1.3704	ug/L	1.3704	ppb	13:04:08
1	Be 313.107†	-4386.6	425.9	0.1480	ug/L	0.1480	ppb	13:03:48
1	Cd 226.502†	-201.4	31.5	0.2971	ug/L	0.2971	ppb	13:04:08
1	Co 228.616†	-58.8	29.3	0.5082	ug/L	0.5082	ppb	13:04:08
1	Cr 267.716†	360.6	273.7	2.7781	ug/L	2.7781	ppb	13:04:08
1	Cu 324.752†	6267.8	95.9	0.2769	ug/L	0.2769	ppb	13:03:48
1	Mn 257.610†	6812.0	6194.1	6.1216	ug/L	6.1216	ppb	13:03:48
1	Mo 202.031†	34.4	13.9	0.8476	ug/L	0.8476	ppb	13:04:08
1	Ni 231.604†	128.3	32.4	0.7070	ug/L	0.7070	ppb	13:04:08
1	P 214.914†	274.8	11.6	5.9570	ug/L	5.9570	ppb	13:04:08
1	Pb 220.353†	-42.7	22.2	2.3471	ug/L	2.3471	ppb	13:04:08
1	S 181.975 Axial†	62.6	12.5	15.264	ug/L	15.264	ppb	13:04:08
1	Sb 206.836†	37.8	-4.1	-1.2765	ug/L	-1.2765	ppb	13:04:08
1	Se 196.026†	-19.3	9.6	5.5891	ug/L	5.5891	ppb	13:04:08
1	Si 251.611†	79651.7	77595.7	2188.0	ug/L	2188.0	ppb	13:03:48
1	Sn 189.927†	8.6	5.0	0.7518	ug/L	0.7518	ppb	13:04:08
1	Ti 334.940†	429.8	1809.4	2.6169	ug/L	2.6169	ppb	13:03:48
1	Tl 190.801†	-28.9	19.7	5.1593	ug/L	5.1593	ppb	13:04:08
1	U 409.014†	-2369.7	46.5	1.2617	ug/L	1.2617	ppb	13:03:48
1	V 292.402†	-1394.5	100.8	0.6336	ug/L	0.6336	ppb	13:03:48
1	Zn 213.857†	1289.2	471.7	3.8537	ug/L	3.8537	ppb	13:04:08
1	SiO2†	79223.0	77145.7	4671.0	ug/L	4671.0	ppb	13:05:04
2	Sc Radial	5797.9	5797.9	104	%			13:02:56
2	Y RADIAL	6185.0	6185.0	104.6	%			13:02:56
2	Al 396.153Radial†	87.0	99.9	72.758	ug/L	72.758	ppb	13:02:56
2	Ca 317.933Radial†	53.3	31.6	45.117	ug/L	45.117	ppb	13:03:16
2	Fe 238.204 Radial†	25.8	13.9	115.36	ug/L	115.36	ppb	13:03:16
2	K 766.490 Radial†	3176.8	338.0	59.466	ug/L	59.466	ppb	13:02:56
2	Mg 279.077 IEC†	3.5	1.9	59.495	ug/L	59.495	ppb	13:03:16
2	Na 589.592 Radial†	-422.6	355.9	106.22	ug/L	106.22	ppb	13:02:56
2	Sr 421.552†	51.3	61.1	0.3576	ug/L	0.3576	ppb	13:02:56
2	Sc 361.383	928748.4	928748.4	103.32	%			13:04:14
2	Y 371.029	772788.0	772788.0	103.80	%			13:04:14
2	Ag 328.068†	435.4	51.5	0.2613	ug/L	0.2613	ppb	13:04:14
2	As 188.979†	-35.9	0.0	0.0558	ug/L	0.0558	ppb	13:04:34
2	B 249.677†	-129.0	-99.0	-2.0473	ug/L	-2.0473	ppb	13:04:34
2	Ba 233.527†	197.1	193.4	1.3192	ug/L	1.3192	ppb	13:04:34
2	Be 313.107†	-4699.0	183.1	0.0661	ug/L	0.0661	ppb	13:04:14
2	Cd 226.502†	-215.0	21.1	0.1951	ug/L	0.1951	ppb	13:04:34
2	Co 228.616†	-65.8	23.4	0.4058	ug/L	0.4058	ppb	13:04:34
2	Cr 267.716†	341.2	250.1	2.5385	ug/L	2.5385	ppb	13:04:34
2	Cu 324.752†	6292.5	34.8	0.1041	ug/L	0.1041	ppb	13:04:14
2	Mn 257.610†	6811.6	6101.3	6.0286	ug/L	6.0286	ppb	13:04:14
2	Mo 202.031†	41.4	20.2	1.2306	ug/L	1.2306	ppb	13:04:34
2	Ni 231.604†	123.9	26.3	0.5742	ug/L	0.5742	ppb	13:04:34

2	P 214.914†	256.6	-9.7	-5.1504 ug/L	-5.1504 ppb	13:04:34
2	Pb 220.353†	-71.8	-5.5	-0.5670 ug/L	-0.5670 ppb	13:04:34
2	S 181.975 Axial†	65.0	14.0	17.109 ug/L	17.109 ppb	13:04:34
2	Sb 206.836†	40.7	-1.8	-0.5838 ug/L	-0.5838 ppb	13:04:34
2	Se 196.026†	-32.8	-3.3	-1.4202 ug/L	-1.4202 ppb	13:04:34
2	Si 251.611†	81021.9	77841.3	2194.9 ug/L	2194.9 ppb	13:04:14
2	Sn 189.927†	0.0	-3.5	-0.5153 ug/L	-0.5153 ppb	13:04:34
2	Ti 334.940†	288.5	1666.8	2.4118 ug/L	2.4118 ppb	13:04:14
2	Tl 190.801†	-39.6	9.7	2.5743 ug/L	2.5743 ppb	13:04:34
2	U 409.014†	-2486.1	-34.0	-0.9572 ug/L	-0.9572 ppb	13:04:14
2	V 292.402†	-1490.7	26.6	0.1651 ug/L	0.1651 ppb	13:04:14
2	Zn 213.857†	1286.6	451.7	3.6879 ug/L	3.6879 ppb	13:04:34
2	SiO2†	78607.2	75475.0	4569.8 ug/L	4569.8 ppb	13:05:10
3	Sc Radial	5786.4	5786.4	104 %		13:03:21
3	Y RADIAL	6151.1	6151.1	104.1 %		13:03:21
3	Al 396.153Radial†	87.1	100.2	72.994 ug/L	72.994 ppb	13:03:21
3	Ca 317.933Radial†	59.3	37.4	53.364 ug/L	53.364 ppb	13:03:42
3	Fe 238.204 Radial†	27.3	15.4	128.12 ug/L	128.12 ppb	13:03:42
3	K 766.490 Radial†	3212.9	378.8	66.650 ug/L	66.650 ppb	13:03:21
3	Mg 279.077 IEC†	2.4	0.9	27.067 ug/L	27.067 ppb	13:03:42
3	Na 589.592 Radial†	-394.5	382.1	114.05 ug/L	114.05 ppb	13:03:21
3	Sr 421.552†	76.4	85.3	0.4996 ug/L	0.4996 ppb	13:03:21
3	Sc 361.383	921193.7	921193.7	102.48 %		13:04:39
3	Y 371.029	766719.3	766719.3	102.99 %		13:04:39
3	Ag 328.068†	376.5	-2.5	0.0332 ug/L	0.0332 ppb	13:04:39
3	As 188.979†	-23.8	11.6	4.2499 ug/L	4.2499 ppb	13:04:59
3	B 249.677†	-172.9	-142.8	-2.9478 ug/L	-2.9478 ppb	13:04:59
3	Ba 233.527†	194.4	192.3	1.3119 ug/L	1.3119 ppb	13:04:59
3	Be 313.107†	-4530.5	310.2	0.1090 ug/L	0.1090 ppb	13:04:39
3	Cd 226.502†	-218.4	16.0	0.1444 ug/L	0.1444 ppb	13:04:59
3	Co 228.616†	-76.5	12.4	0.2122 ug/L	0.2122 ppb	13:04:59
3	Cr 267.716†	343.9	255.4	2.5922 ug/L	2.5922 ppb	13:04:59
3	Cu 324.752†	6280.6	73.1	0.2132 ug/L	0.2132 ppb	13:04:39
3	Mn 257.610†	6730.8	6076.5	6.0060 ug/L	6.0060 ppb	13:04:39
3	Mo 202.031†	32.2	11.6	0.7097 ug/L	0.7097 ppb	13:04:59
3	Ni 231.604†	121.3	24.8	0.5423 ug/L	0.5423 ppb	13:04:59
3	P 214.914†	255.5	-8.7	-4.6644 ug/L	-4.6644 ppb	13:04:59
3	Pb 220.353†	-63.1	2.5	0.2659 ug/L	0.2659 ppb	13:04:59
3	S 181.975 Axial†	61.6	11.1	13.599 ug/L	13.599 ppb	13:04:59
3	Sb 206.836†	39.9	-2.3	-0.7559 ug/L	-0.7559 ppb	13:04:59
3	Se 196.026†	-25.2	3.9	2.5437 ug/L	2.5437 ppb	13:04:59
3	Si 251.611†	80257.4	77738.4	2192.0 ug/L	2192.0 ppb	13:04:39
3	Sn 189.927†	0.5	-3.0	-0.4441 ug/L	-0.4441 ppb	13:04:59
3	Ti 334.940†	347.8	1727.0	2.4999 ug/L	2.4999 ppb	13:04:39
3	Tl 190.801†	-43.4	5.7	1.5379 ug/L	1.5379 ppb	13:04:59
3	U 409.014†	-2518.3	-85.2	-2.3674 ug/L	-2.3674 ppb	13:04:39
3	V 292.402†	-1505.6	0.2	-0.0157 ug/L	-0.0157 ppb	13:04:39
3	Zn 213.857†	1278.9	454.4	3.7096 ug/L	3.7096 ppb	13:04:59
3	SiO2†	80360.4	77809.7	4711.2 ug/L	4711.2 ppb	13:05:15

Mean Data: 242782002|932270|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	921950.9	102.56	%	0.718				0.70%
Sc Radial	5790.6	104	%	0.1				0.11%
Y 371.029	766137.0	102.91	%	0.935				0.91%
Y RADIAL	6175.7	104.5	%	0.37				0.35%
Ag 328.068†	23.0	0.1403	ug/L	0.11470	0.1403	ppb	0.11470	81.76%
Al 396.153Radial†	103.9	75.695	ug/L	4.8851	75.695	ppb	4.8851	6.45%
As 188.979†	4.8	1.7740	ug/L	2.19729	1.7740	ppb	2.19729	123.86%
B 249.677†	-119.1	-2.4606	ug/L	0.45475	-2.4606	ppb	0.45475	18.48%
Ba 233.527†	195.5	1.3338	ug/L	0.03185	1.3338	ppb	0.03185	2.39%
Be 313.107†	306.4	0.1077	ug/L	0.04093	0.1077	ppb	0.04093	38.01%
Ca 317.933Radial†	33.2	47.357	ug/L	5.2581	47.357	ppb	5.2581	11.10%
Cd 226.502†	22.9	0.2122	ug/L	0.07774	0.2122	ppb	0.07774	36.64%
Co 228.616†	21.7	0.3754	ug/L	0.15035	0.3754	ppb	0.15035	40.05%
Cr 267.716†	259.7	2.6363	ug/L	0.12577	2.6363	ppb	0.12577	4.77%
Cu 324.752†	67.9	0.1981	ug/L	0.08739	0.1981	ppb	0.08739	44.12%
Fe 238.204 Radial†	14.4	119.84	ug/L	7.175	119.84	ppb	7.175	5.99%
K 766.490 Radial†	373.1	65.638	ug/L	5.7329	65.638	ppb	5.7329	8.73%

Mg 279.077 IEC†	0.7	22.796	ug/L	39.0108	22.796	ppb	39.0108 171.13%
Mn 257.610†	6124.0	6.0521	ug/L	0.06128	6.0521	ppb	0.06128 1.01%
Mo 202.031†	15.2	0.9293	ug/L	0.26992	0.9293	ppb	0.26992 29.05%
Na 589.592 Radial†	368.2	109.90	ug/L	3.933	109.90	ppb	3.933 3.58%
Ni 231.604†	27.8	0.6078	ug/L	0.08735	0.6078	ppb	0.08735 14.37%
P 214.914†	-2.3	-1.2859	ug/L	6.27730	-1.2859	ppb	6.27730 488.16%
Pb 220.353†	6.4	0.6820	ug/L	1.50092	0.6820	ppb	1.50092 220.07%
S 181.975 Axial†	12.5	15.324	ug/L	1.7561	15.324	ppb	1.7561 11.46%
Sb 206.836†	-2.7	-0.8721	ug/L	0.36069	-0.8721	ppb	0.36069 41.36%
Se 196.026†	3.4	2.2375	ug/L	3.51465	2.2375	ppb	3.51465 157.08%
Si 251.611†	77725.2	2191.7	ug/L	3.48	2191.7	ppb	3.48 0.16%
Sn 189.927†	-0.5	-0.0692	ug/L	0.71189	-0.0692	ppb	0.71189 >999.9%
Sr 421.552†	86.2	0.5053	ug/L	0.15057	0.5053	ppb	0.15057 29.80%
Ti 334.940†	1734.4	2.5095	ug/L	0.10290	2.5095	ppb	0.10290 4.10%
Tl 190.801†	11.7	3.0905	ug/L	1.86505	3.0905	ppb	1.86505 60.35%
U 409.014†	-24.2	-0.6876	ug/L	1.82948	-0.6876	ppb	1.82948 266.07%
V 292.402†	42.5	0.2610	ug/L	0.33514	0.2610	ppb	0.33514 128.42%
Zn 213.857†	459.3	3.7504	ug/L	0.09011	3.7504	ppb	0.09011 2.40%
SiO2†	76810.1	4650.7	ug/L	72.85	4650.7	ppb	72.85 1.57%

Sequence No.: 8
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 12/19/2009 13:07:25
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5405.0	5405.0	97.1	%			13:09:18
1	Y RADIAL	5751.1	5751.1	97.29	%			13:09:18
1	Al 396.153Radial†	6692.3	6909.7	5014.0	ug/L	5014.0	ppb	13:09:18
1	Ca 317.933Radial†	3461.8	3546.2	5056.0	ug/L	5056.0	ppb	13:09:38
1	Fe 238.204 Radial†	598.9	606.0	5053.6	ug/L	5053.6	ppb	13:09:38
1	K 766.490 Radial†	30587.8	28793.9	5066.5	ug/L	5066.5	ppb	13:09:18
1	Mg 279.077 IEC†	163.4	166.9	5188.0	ug/L	5188.0	ppb	13:09:38
1	Na 589.592 Radial†	30044.8	31708.6	9464.1	ug/L	9464.1	ppb	13:09:18
1	Sr 421.552†	82369.7	84854.9	497.53	ug/L	497.53	ppb	13:09:18
1	Sc 361.383	915252.1	915252.1	101.82	%			13:10:35
1	Y 371.029	744373.7	744373.7	99.988	%			13:10:35
1	Ag 328.068†	115927.9	113487.9	492.21	ug/L	492.21	ppb	13:10:41
1	As 188.979†	1339.8	1350.7	494.60	ug/L	494.60	ppb	13:11:01
1	B 249.677†	23779.7	23381.0	477.92	ug/L	477.92	ppb	13:10:41
1	Ba 233.527†	73912.1	72594.9	494.68	ug/L	494.68	ppb	13:10:41
1	Be 313.107†	1475043.1	1453435.1	488.38	ug/L	488.38	ppb	13:10:35
1	Cd 226.502†	51240.0	50554.3	494.23	ug/L	494.23	ppb	13:10:41
1	Co 228.616†	28624.9	28200.8	493.79	ug/L	493.79	ppb	13:10:41
1	Cr 267.716†	49513.0	48548.7	493.01	ug/L	493.01	ppb	13:10:41
1	Cu 324.752†	182768.9	173449.7	490.32	ug/L	490.32	ppb	13:10:41
1	Mn 257.610†	507618.2	498062.5	491.68	ug/L	491.68	ppb	13:10:35
1	Mo 202.031†	8182.0	8016.0	485.58	ug/L	485.58	ppb	13:11:01
1	Ni 231.604†	23108.0	22601.8	493.51	ug/L	493.51	ppb	13:10:41
1	P 214.914†	4999.9	4652.5	2352.6	ug/L	2352.6	ppb	13:11:01
1	Pb 220.353†	4644.6	4625.8	488.98	ug/L	488.98	ppb	13:11:01
1	S 181.975 Axial†	863.7	799.3	979.56	ug/L	979.56	ppb	13:11:01
1	Sb 206.836†	1696.2	1624.7	493.61	ug/L	493.61	ppb	13:11:01
1	Se 196.026†	882.9	895.7	505.55	ug/L	505.55	ppb	13:11:01
1	Si 251.611†	88813.7	86650.4	2431.7	ug/L	2431.7	ppb	13:10:41
1	Sn 189.927†	3304.7	3242.2	486.85	ug/L	486.85	ppb	13:11:01
1	Ti 334.940†	341436.0	336726.7	486.73	ug/L	486.73	ppb	13:10:35
1	Tl 190.801†	1880.0	1894.5	494.63	ug/L	494.63	ppb	13:11:01
1	U 409.014†	15682.8	17774.9	488.15	ug/L	488.15	ppb	13:10:41
1	V 292.402†	77184.9	77276.1	498.00	ug/L	498.00	ppb	13:10:41
1	Zn 213.857†	62127.1	60224.2	489.53	ug/L	489.53	ppb	13:10:41
1	SiO2†	88149.6	85968.9	5179.9	ug/L	5179.9	ppb	13:12:08
2	Sc Radial	5495.3	5495.3	98.7	%			13:09:43
2	Y RADIAL	5821.0	5821.0	98.47	%			13:09:43
2	Al 396.153Radial†	6714.1	6818.3	4947.5	ug/L	4947.5	ppb	13:09:43
2	Ca 317.933Radial†	3464.8	3490.5	4976.6	ug/L	4976.6	ppb	13:10:03
2	Fe 238.204 Radial†	595.9	592.8	4943.4	ug/L	4943.4	ppb	13:10:03
2	K 766.490 Radial†	30563.5	28251.1	4970.9	ug/L	4970.9	ppb	13:09:43
2	Mg 279.077 IEC†	168.3	169.1	5256.0	ug/L	5256.0	ppb	13:10:03
2	Na 589.592 Radial†	30065.0	31220.2	9318.3	ug/L	9318.3	ppb	13:09:43
2	Sr 421.552†	82399.8	83490.2	489.53	ug/L	489.53	ppb	13:09:43
2	Sc 361.383	918014.8	918014.8	102.13	%			13:11:07
2	Y 371.029	747425.3	747425.3	100.40	%			13:11:07
2	Ag 328.068†	115018.9	112255.2	486.84	ug/L	486.84	ppb	13:11:12
2	As 188.979†	1334.8	1341.8	491.38	ug/L	491.38	ppb	13:11:32
2	B 249.677†	23625.3	23159.6	473.40	ug/L	473.40	ppb	13:11:12
2	Ba 233.527†	73474.7	71948.1	490.27	ug/L	490.27	ppb	13:11:12
2	Be 313.107†	1478848.4	1452801.5	488.17	ug/L	488.17	ppb	13:11:07
2	Cd 226.502†	50882.3	50052.5	489.33	ug/L	489.33	ppb	13:11:12
2	Co 228.616†	28476.6	27971.1	489.77	ug/L	489.77	ppb	13:11:12
2	Cr 267.716†	49212.9	48108.5	488.54	ug/L	488.54	ppb	13:11:12
2	Cu 324.752†	181096.8	171272.2	484.16	ug/L	484.16	ppb	13:11:12
2	Mn 257.610†	508746.6	497667.0	491.28	ug/L	491.28	ppb	13:11:07
2	Mo 202.031†	8184.6	7994.4	484.26	ug/L	484.26	ppb	13:11:32
2	Ni 231.604†	22988.7	22416.7	489.47	ug/L	489.47	ppb	13:11:12

2	P 214.914†	4971.2	4609.6	2331.2 ug/L	2331.2 ppb	13:11:32
2	Pb 220.353†	4654.4	4621.6	488.54 ug/L	488.54 ppb	13:11:32
2	S 181.975 Axial†	848.0	781.4	957.62 ug/L	957.62 ppb	13:11:32
2	Sb 206.836†	1714.4	1637.5	497.46 ug/L	497.46 ppb	13:11:32
2	Se 196.026†	880.6	890.8	502.51 ug/L	502.51 ppb	13:11:32
2	Si 251.611†	88042.1	85632.3	2403.1 ug/L	2403.1 ppb	13:11:12
2	Sn 189.927†	3292.0	3220.0	483.50 ug/L	483.50 ppb	13:11:32
2	Ti 334.940†	342332.7	336595.6	486.54 ug/L	486.54 ppb	13:11:07
2	Tl 190.801†	1863.5	1872.8	489.02 ug/L	489.02 ppb	13:11:32
2	U 409.014†	15573.1	17621.2	483.94 ug/L	483.94 ppb	13:11:12
2	V 292.402†	76647.5	76521.7	493.20 ug/L	493.20 ppb	13:11:12
2	Zn 213.857†	61618.5	59542.5	483.98 ug/L	483.98 ppb	13:11:12
2	SiO2†	89228.3	86764.6	5228.3 ug/L	5228.3 ppb	13:12:14
3	Sc Radial	5482.9	5482.9	98.5 %		13:10:08
3	Y RADIAL	5806.0	5806.0	98.22 %		13:10:08
3	Al 396.153Radial†	6679.2	6798.3	4933.0 ug/L	4933.0 ppb	13:10:08
3	Ca 317.933Radial†	3438.9	3472.2	4950.4 ug/L	4950.4 ppb	13:10:28
3	Fe 238.204 Radial†	591.5	589.7	4917.7 ug/L	4917.7 ppb	13:10:28
3	K 766.490 Radial†	30602.7	28361.0	4990.3 ug/L	4990.3 ppb	13:10:08
3	Mg 279.077 IEC†	163.0	164.1	5101.9 ug/L	5101.9 ppb	13:10:28
3	Na 589.592 Radial†	30050.5	31274.5	9334.5 ug/L	9334.5 ppb	13:10:08
3	Sr 421.552†	82283.5	83561.2	489.95 ug/L	489.95 ppb	13:10:08
3	Sc 361.383	921164.5	921164.5	102.48 %		13:11:38
3	Y 371.029	751025.7	751025.7	100.88 %		13:11:38
3	Ag 328.068†	116394.1	113212.1	490.97 ug/L	490.97 ppb	13:11:43
3	As 188.979†	1338.3	1340.8	491.00 ug/L	491.00 ppb	13:12:03
3	B 249.677†	23991.1	23437.4	479.10 ug/L	479.10 ppb	13:11:43
3	Ba 233.527†	73986.3	72201.4	492.00 ug/L	492.00 ppb	13:11:43
3	Be 313.107†	1486996.7	1455801.5	489.17 ug/L	489.17 ppb	13:11:38
3	Cd 226.502†	51238.5	50229.8	491.07 ug/L	491.07 ppb	13:11:43
3	Co 228.616†	28717.2	28110.5	492.20 ug/L	492.20 ppb	13:11:43
3	Cr 267.716†	49762.3	48479.9	492.31 ug/L	492.31 ppb	13:11:43
3	Cu 324.752†	183347.5	172862.2	488.65 ug/L	488.65 ppb	13:11:43
3	Mn 257.610†	509396.6	496598.0	490.23 ug/L	490.23 ppb	13:11:38
3	Mo 202.031†	8166.4	7949.2	481.53 ug/L	481.53 ppb	13:12:03
3	Ni 231.604†	23124.8	22472.5	490.69 ug/L	490.69 ppb	13:11:43
3	P 214.914†	4984.7	4606.2	2328.8 ug/L	2328.8 ppb	13:12:03
3	Pb 220.353†	4646.5	4598.3	486.07 ug/L	486.07 ppb	13:12:03
3	S 181.975 Axial†	861.7	791.9	970.55 ug/L	970.55 ppb	13:12:03
3	Sb 206.836†	1706.0	1623.6	493.16 ug/L	493.16 ppb	13:12:03
3	Se 196.026†	875.0	882.3	497.84 ug/L	497.84 ppb	13:12:03
3	Si 251.611†	88998.9	86271.2	2421.1 ug/L	2421.1 ppb	13:11:43
3	Sn 189.927†	3311.5	3228.0	484.71 ug/L	484.71 ppb	13:12:03
3	Ti 334.940†	343273.8	336367.8	486.20 ug/L	486.20 ppb	13:11:38
3	Tl 190.801†	1863.4	1866.4	487.34 ug/L	487.34 ppb	13:12:03
3	U 409.014†	15740.8	17732.7	487.01 ug/L	487.01 ppb	13:11:43
3	V 292.402†	77474.2	77071.8	496.67 ug/L	496.67 ppb	13:11:43
3	Zn 213.857†	62245.7	59948.3	487.30 ug/L	487.30 ppb	13:11:43
3	SiO2†	88533.9	85788.2	5169.2 ug/L	5169.2 ppb	13:12:19

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	918143.8	102.14	%	0.329				0.32%
Sc Radial	5461.1	98.1	%	0.88				0.90%
Y 371.029	747608.2	100.42	%	0.447				0.45%
Y RADIAL	5792.7	97.99	%	0.622				0.63%
Ag 328.068†	112985.0	490.01	ug/L	2.808	490.01	ppb	2.808	0.57%
QC value within limits for Ag 328.068 Recovery = 98.00%								
Al 396.153Radial†	6842.1	4964.8	ug/L	43.18	4964.8	ppb	43.18	0.87%
QC value within limits for Al 396.153Radial Recovery = 99.30%								
As 188.979†	1344.4	492.33	ug/L	1.977	492.33	ppb	1.977	0.40%
QC value within limits for As 188.979 Recovery = 98.47%								
B 249.677†	23326.0	476.81	ug/L	3.008	476.81	ppb	3.008	0.63%
QC value within limits for B 249.677 Recovery = 95.36%								
Ba 233.527†	72248.1	492.32	ug/L	2.222	492.32	ppb	2.222	0.45%
QC value within limits for Ba 233.527 Recovery = 98.46%								
Be 313.107†	1454012.7	488.57	ug/L	0.530	488.57	ppb	0.530	0.11%
QC value within limits for Be 313.107 Recovery = 97.71%								
Ca 317.933Radial†	3503.0	4994.3	ug/L	54.95	4994.3	ppb	54.95	1.10%

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   QC value within limits for Ca 317.933Radial  Recovery = 99.89%
Cd 226.502†            50278.9      491.54 ug/L         2.484      491.54 ppb          2.484   0.51%
   QC value within limits for Cd 226.502  Recovery = 98.31%
Co 228.616†            28094.1      491.92 ug/L         2.026      491.92 ppb          2.026   0.41%
   QC value within limits for Co 228.616  Recovery = 98.38%
Cr 267.716†            48379.0      491.28 ug/L         2.405      491.28 ppb          2.405   0.49%
   QC value within limits for Cr 267.716  Recovery = 98.26%
Cu 324.752†           172528.1      487.71 ug/L         3.185      487.71 ppb          3.185   0.65%
   QC value within limits for Cu 324.752  Recovery = 97.54%
Fe 238.204 Radial†       596.2      4971.6 ug/L         72.19      4971.6 ppb          72.19   1.45%
   QC value within limits for Fe 238.204 Radial  Recovery = 99.43%
K 766.490 Radial†      28468.7      5009.2 ug/L         50.54      5009.2 ppb          50.54   1.01%
   QC value within limits for K 766.490 Radial  Recovery = 100.18%
Mg 279.077 IEC†          166.7      5182.0 ug/L         77.23      5182.0 ppb          77.23   1.49%
   QC value within limits for Mg 279.077 IEC  Recovery = 103.64%
Mn 257.610†           497442.5      491.06 ug/L         0.752      491.06 ppb          0.752   0.15%
   QC value within limits for Mn 257.610  Recovery = 98.21%
Mo 202.031†             7986.5      483.79 ug/L         2.067      483.79 ppb          2.067   0.43%
   QC value within limits for Mo 202.031  Recovery = 96.76%
Na 589.592 Radial†     31401.1      9372.3 ug/L         79.90      9372.3 ppb          79.90   0.85%
   QC value within limits for Na 589.592 Radial  Recovery = 93.72%
Ni 231.604†            22497.0      491.22 ug/L         2.074      491.22 ppb          2.074   0.42%
   QC value within limits for Ni 231.604  Recovery = 98.24%
P 214.914†              4622.8      2337.5 ug/L         13.10      2337.5 ppb          13.10   0.56%
   QC value within limits for P 214.914  Recovery = 93.50%
Pb 220.353†             4615.2      487.86 ug/L         1.565      487.86 ppb          1.565   0.32%
   QC value within limits for Pb 220.353  Recovery = 97.57%
S 181.975 Axial†         790.9      969.24 ug/L        11.030      969.24 ppb         11.030   1.14%
   QC value within limits for S 181.975 Axial  Recovery = 96.92%
Sb 206.836†             1628.6      494.74 ug/L         2.363      494.74 ppb          2.363   0.48%
   QC value within limits for Sb 206.836  Recovery = 98.95%
Se 196.026†              889.6      501.97 ug/L         3.886      501.97 ppb          3.886   0.77%
   QC value within limits for Se 196.026  Recovery = 100.39%
Si 251.611†            86184.6      2418.6 ug/L         14.48      2418.6 ppb          14.48   0.60%
   QC value within limits for Si 251.611  Recovery = 96.75%
Sn 189.927†             3230.1      485.02 ug/L         1.697      485.02 ppb          1.697   0.35%
   QC value within limits for Sn 189.927  Recovery = 97.00%
Sr 421.552†            83968.8      492.34 ug/L         4.504      492.34 ppb          4.504   0.91%
   QC value within limits for Sr 421.552  Recovery = 98.47%
Ti 334.940†           336563.4      486.49 ug/L         0.265      486.49 ppb          0.265   0.05%
   QC value within limits for Ti 334.940  Recovery = 97.30%
Tl 190.801†             1877.9      490.33 ug/L         3.815      490.33 ppb          3.815   0.78%
   QC value within limits for Tl 190.801  Recovery = 98.07%
U 409.014†             17709.6      486.36 ug/L         2.179      486.36 ppb          2.179   0.45%
   QC value within limits for U 409.014  Recovery = 97.27%
V 292.402†             76956.5      495.96 ug/L         2.480      495.96 ppb          2.480   0.50%
   QC value within limits for V 292.402  Recovery = 99.19%
Zn 213.857†            59905.0      486.93 ug/L         2.792      486.93 ppb          2.792   0.57%
   QC value within limits for Zn 213.857  Recovery = 97.39%
SiO2†                  86173.9      5192.5 ug/L         31.45      5192.5 ppb          31.45   0.61%
   QC value within limits for SiO2  Recovery = 97.10%
All analyte(s) passed QC.
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Sequence No.: 9
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 12/19/2009 13:14:28
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5541.2	5541.2	99.5	%			13:16:21
1	Y RADIAL	5929.7	5929.7	100.3	%			13:16:21
1	Al 396.153Radial†	-24.1	-7.8	-5.7407	ug/L	-5.7407	ppb	13:16:21
1	Ca 317.933Radial†	21.0	1.6	2.2287	ug/L	2.2287	ppb	13:16:41
1	Fe 238.204 Radial†	8.5	-2.4	-19.757	ug/L	-19.757	ppb	13:16:41
1	K 766.490 Radial†	2892.7	193.9	34.179	ug/L	34.179	ppb	13:16:21
1	Mg 279.077 IEC†	3.6	2.2	68.116	ug/L	68.116	ppb	13:16:41
1	Na 589.592 Radial†	-785.1	-27.1	-8.0967	ug/L	-8.0967	ppb	13:16:21
1	Sr 421.552†	15.3	27.2	0.1592	ug/L	0.1592	ppb	13:16:21
1	Sc 361.383	910397.5	910397.5	101.28	%			13:17:38
1	Y 371.029	751088.9	751088.9	100.89	%			13:17:38
1	Ag 328.068†	409.6	34.5	0.1424	ug/L	0.1424	ppb	13:17:43
1	As 188.979†	-37.8	-2.5	-0.8934	ug/L	-0.8934	ppb	13:18:03
1	B 249.677†	-331.8	-301.7	-6.1898	ug/L	-6.1898	ppb	13:18:03
1	Ba 233.527†	3.7	6.3	0.0416	ug/L	0.0416	ppb	13:18:03
1	Be 313.107†	-4596.8	192.3	0.0646	ug/L	0.0646	ppb	13:17:43
1	Cd 226.502†	-227.7	4.3	0.0444	ug/L	0.0444	ppb	13:18:03
1	Co 228.616†	-67.0	20.9	0.3683	ug/L	0.3683	ppb	13:18:03
1	Cr 267.716†	124.4	42.7	0.4322	ug/L	0.4322	ppb	13:18:03
1	Cu 324.752†	6129.9	-3.0	-0.0096	ug/L	-0.0096	ppb	13:17:43
1	Mn 257.610†	527.7	29.6	0.0259	ug/L	0.0259	ppb	13:18:03
1	Mo 202.031†	35.3	15.0	0.9050	ug/L	0.9050	ppb	13:18:03
1	Ni 231.604†	98.2	3.4	0.0746	ug/L	0.0746	ppb	13:18:03
1	P 214.914†	238.9	-22.2	-11.525	ug/L	-11.525	ppb	13:18:03
1	Pb 220.353†	-67.5	-2.6	-0.2726	ug/L	-0.2726	ppb	13:18:03
1	S 181.975 Axial†	48.2	-1.4	-1.6763	ug/L	-1.6763	ppb	13:18:03
1	Sb 206.836†	46.3	4.5	1.3782	ug/L	1.3782	ppb	13:18:03
1	Se 196.026†	-33.7	-4.8	-2.6476	ug/L	-2.6476	ppb	13:18:03
1	Si 251.611†	605.6	20.5	0.5478	ug/L	0.5478	ppb	13:18:03
1	Sn 189.927†	10.0	6.4	0.9551	ug/L	0.9551	ppb	13:18:03
1	Ti 334.940†	-1352.1	52.5	0.0765	ug/L	0.0765	ppb	13:17:43
1	Tl 190.801†	-32.4	16.0	4.1604	ug/L	4.1604	ppb	13:18:03
1	U 409.014†	-2453.7	-50.5	-1.3897	ug/L	-1.3897	ppb	13:17:38
1	V 292.402†	-1518.9	-30.3	-0.1780	ug/L	-0.1780	ppb	13:17:43
1	Zn 213.857†	825.2	21.3	0.1735	ug/L	0.1735	ppb	13:18:03
1	SiO2†	657.0	42.1	2.4828	ug/L	2.4828	ppb	13:19:09
2	Sc Radial	5628.2	5628.2	101	%			13:16:46
2	Y RADIAL	6039.2	6039.2	102.2	%			13:16:46
2	Al 396.153Radial†	-11.4	5.1	3.6816	ug/L	3.6816	ppb	13:16:46
2	Ca 317.933Radial†	21.3	1.5	2.1543	ug/L	2.1543	ppb	13:17:06
2	Fe 238.204 Radial†	11.2	0.2	1.8896	ug/L	1.8896	ppb	13:17:06
2	K 766.490 Radial†	2896.8	152.9	26.961	ug/L	26.961	ppb	13:16:46
2	Mg 279.077 IEC†	1.5	0.1	4.1263	ug/L	4.1263	ppb	13:17:06
2	Na 589.592 Radial†	-798.0	-27.7	-8.2573	ug/L	-8.2573	ppb	13:16:46
2	Sr 421.552†	0.9	12.7	0.0742	ug/L	0.0742	ppb	13:16:46
2	Sc 361.383	917167.0	917167.0	102.03	%			13:18:08
2	Y 371.029	757595.2	757595.2	101.76	%			13:18:08
2	Ag 328.068†	385.8	8.2	0.0341	ug/L	0.0341	ppb	13:18:13
2	As 188.979†	-33.3	2.2	0.7923	ug/L	0.7923	ppb	13:18:33
2	B 249.677†	-313.9	-281.8	-5.7834	ug/L	-5.7834	ppb	13:18:33
2	Ba 233.527†	5.3	7.8	0.0530	ug/L	0.0530	ppb	13:18:33
2	Be 313.107†	-4475.6	344.7	0.1157	ug/L	0.1157	ppb	13:18:13
2	Cd 226.502†	-200.5	32.6	0.3195	ug/L	0.3195	ppb	13:18:33
2	Co 228.616†	-71.8	16.7	0.2938	ug/L	0.2938	ppb	13:18:33
2	Cr 267.716†	89.7	7.7	0.0777	ug/L	0.0777	ppb	13:18:33
2	Cu 324.752†	6102.8	-74.3	-0.2098	ug/L	-0.2098	ppb	13:18:13
2	Mn 257.610†	554.7	52.2	0.0516	ug/L	0.0516	ppb	13:18:33
2	Mo 202.031†	27.8	7.4	0.4462	ug/L	0.4462	ppb	13:18:33
2	Ni 231.604†	122.8	26.8	0.5858	ug/L	0.5858	ppb	13:18:33

2	P 214.914†	257.0	-6.2	-3.1711	ug/L	-3.1711 ppb	13:18:33
2	Pb 220.353†	-54.7	10.5	1.1044	ug/L	1.1044 ppb	13:18:33
2	S 181.975 Axial†	44.2	-5.7	-7.0232	ug/L	-7.0232 ppb	13:18:33
2	Sb 206.836†	45.1	2.9	0.9022	ug/L	0.9022 ppb	13:18:33
2	Se 196.026†	-30.0	-0.9	-0.4616	ug/L	-0.4616 ppb	13:18:33
2	Si 251.611†	606.9	17.3	0.4704	ug/L	0.4704 ppb	13:18:33
2	Sn 189.927†	7.9	4.3	0.6440	ug/L	0.6440 ppb	13:18:33
2	Ti 334.940†	-1366.6	48.2	0.0691	ug/L	0.0691 ppb	13:18:13
2	Tl 190.801†	-38.9	10.0	2.5909	ug/L	2.5909 ppb	13:18:33
2	U 409.014†	-2362.8	56.4	1.5538	ug/L	1.5538 ppb	13:18:08
2	V 292.402†	-1523.9	-24.1	-0.1445	ug/L	-0.1445 ppb	13:18:13
2	Zn 213.857†	826.1	16.1	0.1282	ug/L	0.1282 ppb	13:18:33
2	SiO2†	603.2	-15.4	-0.9757	ug/L	-0.9757 ppb	13:19:14
3	Sc Radial	5516.8	5516.8	99.1	%		13:17:11
3	Y RADIAL	5911.5	5911.5	100.0	%		13:17:11
3	Al 396.153Radial†	-42.3	-26.3	-19.187	ug/L	-19.187 ppb	13:17:11
3	Ca 317.933Radial†	22.9	3.5	4.9640	ug/L	4.9640 ppb	13:17:31
3	Fe 238.204 Radial†	10.6	-0.2	-1.2813	ug/L	-1.2813 ppb	13:17:31
3	K 766.490 Radial†	2849.4	163.1	28.739	ug/L	28.739 ppb	13:17:11
3	Mg 279.077 IEC†	3.4	2.0	63.360	ug/L	63.360 ppb	13:17:31
3	Na 589.592 Radial†	-775.4	-20.8	-6.2114	ug/L	-6.2114 ppb	13:17:11
3	Sr 421.552†	21.5	33.5	0.1962	ug/L	0.1962 ppb	13:17:11
3	Sc 361.383	908988.7	908988.7	101.12	%		13:18:38
3	Y 371.029	751889.6	751889.6	101.00	%		13:18:38
3	Ag 328.068†	366.0	-8.0	-0.0349	ug/L	-0.0349 ppb	13:18:43
3	As 188.979†	-28.0	7.1	2.5911	ug/L	2.5911 ppb	13:19:03
3	B 249.677†	-338.0	-308.3	-6.3284	ug/L	-6.3284 ppb	13:19:03
3	Ba 233.527†	-1.4	1.3	0.0091	ug/L	0.0091 ppb	13:19:03
3	Be 313.107†	-4550.6	231.0	0.0776	ug/L	0.0776 ppb	13:18:43
3	Cd 226.502†	-213.9	17.7	0.1732	ug/L	0.1732 ppb	13:19:03
3	Co 228.616†	-68.3	19.6	0.3438	ug/L	0.3438 ppb	13:19:03
3	Cr 267.716†	109.2	27.8	0.2820	ug/L	0.2820 ppb	13:19:03
3	Cu 324.752†	6067.8	-55.1	-0.1557	ug/L	-0.1557 ppb	13:18:43
3	Mn 257.610†	542.0	44.5	0.0426	ug/L	0.0426 ppb	13:19:03
3	Mo 202.031†	27.0	6.8	0.4125	ug/L	0.4125 ppb	13:19:03
3	Ni 231.604†	95.5	0.8	0.0183	ug/L	0.0183 ppb	13:19:03
3	P 214.914†	252.5	-8.4	-4.3580	ug/L	-4.3580 ppb	13:19:03
3	Pb 220.353†	-71.6	-6.7	-0.7099	ug/L	-0.7099 ppb	13:19:03
3	S 181.975 Axial†	50.7	1.1	1.3481	ug/L	1.3481 ppb	13:19:03
3	Sb 206.836†	40.2	-1.5	-0.4327	ug/L	-0.4327 ppb	13:19:03
3	Se 196.026†	-25.3	3.5	1.8909	ug/L	1.8909 ppb	13:19:03
3	Si 251.611†	627.1	42.6	1.1851	ug/L	1.1851 ppb	13:19:03
3	Sn 189.927†	4.6	1.1	0.1672	ug/L	0.1672 ppb	13:19:03
3	Ti 334.940†	-1351.7	50.9	0.0732	ug/L	0.0732 ppb	13:18:43
3	Tl 190.801†	-35.2	13.3	3.4402	ug/L	3.4402 ppb	13:19:03
3	U 409.014†	-2360.0	38.4	1.0579	ug/L	1.0579 ppb	13:18:38
3	V 292.402†	-1443.5	41.9	0.2757	ug/L	0.2757 ppb	13:18:43
3	Zn 213.857†	824.3	21.6	0.1751	ug/L	0.1751 ppb	13:19:03
3	SiO2†	647.3	33.5	1.9906	ug/L	1.9906 ppb	13:19:19

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	912184.4	101.48	%	0.486				0.48%
Sc Radial	5562.1	99.9	%	1.05				1.05%
Y 371.029	753524.6	101.22	%	0.477				0.47%
Y RADIAL	5960.1	100.8	%	1.17				1.16%
Ag 328.068†	11.6	0.0472	ug/L	0.08939	0.0472	ppb	0.08939	189.45%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-9.7	-7.0821	ug/L	11.49330	-7.0821	ppb	11.49330	162.29%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	2.3	0.8300	ug/L	1.74256	0.8300	ppb	1.74256	209.95%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-297.3	-6.1005	ug/L	0.28326	-6.1005	ppb	0.28326	4.64%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	5.1	0.0345	ug/L	0.02278	0.0345	ppb	0.02278	65.95%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	256.0	0.0860	ug/L	0.02655	0.0860	ppb	0.02655	30.88%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	2.2	3.1157	ug/L	1.60116	3.1157	ppb	1.60116	51.39%

```
   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              18.2      0.1790 ug/L       0.13766      0.1790 ppb        0.13766  76.90%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†              19.1      0.3353 ug/L       0.03798      0.3353 ppb        0.03798  11.33%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              26.1      0.2640 ug/L       0.17791      0.2640 ppb        0.17791  67.40%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -44.1     -0.1250 ug/L       0.10360     -0.1250 ppb        0.10360  82.86%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       -0.8     -6.3828 ug/L      11.69010     -6.3828 ppb       11.69010 183.15%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       170.0      29.960 ug/L        3.7604      29.960 ppb         3.7604  12.55%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           1.5      45.201 ug/L       35.6508      45.201 ppb        35.6508  78.87%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              42.1      0.0401 ug/L       0.01304      0.0401 ppb        0.01304  32.55%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               9.7      0.5879 ug/L       0.27513      0.5879 ppb        0.27513  46.80%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      -25.2     -7.5218 ug/L       1.13765     -7.5218 ppb        1.13765  15.12%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              10.4      0.2262 ug/L       0.31264      0.2262 ppb        0.31264 138.20%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†              -12.2     -6.3514 ug/L       4.51977     -6.3514 ppb        4.51977  71.16%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               0.4      0.0406 ug/L       0.94683      0.0406 ppb        0.94683 >999.9%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         -2.0     -2.4505 ug/L       4.23903     -2.4505 ppb        4.23903 172.99%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               2.0      0.6159 ug/L       0.93876      0.6159 ppb        0.93876 152.41%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              -0.7     -0.4061 ug/L       2.26976     -0.4061 ppb        2.26976 558.93%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†              26.8      0.7344 ug/L       0.39224      0.7344 ppb        0.39224  53.41%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               3.9      0.5888 ug/L       0.39683      0.5888 ppb        0.39683  67.40%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              24.4      0.1432 ug/L       0.06255      0.1432 ppb        0.06255  43.69%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              50.5      0.0729 ug/L       0.00372      0.0729 ppb        0.00372   5.09%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              13.1      3.3972 ug/L       0.78567      3.3972 ppb        0.78567  23.13%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               14.8      0.4073 ug/L       1.57594      0.4073 ppb        1.57594 386.89%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               -4.2     -0.0156 ug/L       0.25285     -0.0156 ppb        0.25285 >999.9%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              19.7      0.1589 ug/L       0.02659      0.1589 ppb        0.02659  16.73%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                    20.1      1.1659 ug/L       1.87092      1.1659 ppb        1.87092 160.47%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

ICPMS#3 Daily Performance Report

Sample ID: Sample
Sample Date/Time: Tuesday, December 22, 2009 18:13:18
Sample Description:
Method File: c:\elandata\Method\daily2.mth
Dataset File: c:\elandata\Dataset\default\Sample.5254
Tuning File: c:\elandata\Tuning\default2.tun
Optimization File: c:\elandata\Optimize\default.dac
Dual Detector Mode: Pulse

Acq. Dead Time(ns): 35
Current Dead Time (ns): 35

Number of Replicates: 5

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Be	9.0	347.0	347.004	14.934	4.3
	Mg	24.0	2236.8	2236.775	12.014	0.5
	Co	58.9	12680.8	12680.826	71.574	0.6
	Rh	102.9	34833.0	34833.017	270.281	0.8
	In	114.9	47522.9	47522.925	645.248	1.4
	Pb	208.0	37452.4	37452.434	409.042	1.1
⌈>	Ba	137.9	42149.1	42149.109	517.583	1.2
⌊	Ba++	69.0	693.8	0.016	0.001	3.7
⌈>	Ce	139.9	52177.5	52177.515	250.879	0.5
⌊	CeO	155.9	821.5	0.016	0.000	3.1
	Bkgd	220.0	5.4	5.400	1.636	30.3

Current Optimization File Data

Current Value	Description
0.99	Nebulizer Gas Flow
7.50	Lens Voltage
1450.00	ICP RF Power
-1812.00	Analog Stage Voltage
950.00	Pulse Stage Voltage
70.00	Discriminator Threshold
-7.00	AC Rod Offset
60.00	Service DAC 1
0.00	Quadrupole Rod Offset

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	17	6.8	303.0
Co	59	17	7.8	11968.7
In	115	17	8.8	57502.8

ICPMS#3 Instrument Tuning Report

File Name: default2.tun
File Path: c:\elandata\Tuning

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas Peak W
He	3.0	3.0	578	2030	0.688
Be	9.0	9.1	2080	2010	0.736
Mg	24.0	23.9	5708	2090	0.686
Mg	25.0	25.0	5901	2010	0.706
Mg	26.0	26.0	6222	2110	0.667
Co	58.9	58.9	14204	2100	0.676
Rh	102.9	102.9	24912	2150	0.682
In	114.9	114.9	27822	2160	0.690
Ce	139.9	139.9	33913	2200	0.646
Pb	206.0	206.0	50004	2270	0.664
Pb	207.0	207.0	50270	2310	0.647
Pb	208.0	208.0	50486	2290	0.620
U	238.1	238.1	57843	2330	0.658

ICPMS#3 - Summary Report

Sample ID: Blank
Sample Date/Time: Tuesday, December 22, 2009 19:05:25
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\091220\Blank.438

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7		ug/L		8	
	Be	9		ug/L		8	
	B	11		ug/L		149	
	Na	23		ug/L		4334	
	Mg	24		ug/L		333	
	Al	27		ug/L		0	
	P	31		ug/L		839	
	K	39		ug/L		128241	
	Ca	43		ug/L		59	
>	Sc	45		ug/L		53320	
	Ti	47		ug/L		65	
	V	51		ug/L		1096	
	Cr	52		ug/L		778	
	Cr	53		ug/L		27775	
	Mn	55		ug/L		241	
	Fe	57		ug/L		1991	
	Co	59		ug/L		182	
	Ni	60		ug/L		149	
	Cu	63		ug/L		153	
	Cu	65		ug/L		117	
	Zn	66		ug/L		54	
	Zn	67		ug/L		1158	
	Zn	68		ug/L		222	
>	Ge	74		ug/L		85814	
	As	75		ug/L		427	
	Se	77		ug/L		1522	
	Se	82		ug/L		6	
	Kr	83		ug/L		32	
	Sr	88		ug/L		40	
	Y	89		ug/L		15	
	Zr	90		ug/L		406	
	Mo	98		ug/L		72	
	Ag	107		ug/L		17	
	Cd	111		ug/L		3	
	Cd	114		ug/L		9	
>	In	115		ug/L		63359	
	Sn	120		ug/L		377	
	Sb	121		ug/L		1000	
	Sb	123		ug/L		751	
	Ba	135		ug/L		12	
	Ba	137		ug/L		18	
	Ho	165		ug/L		9	
>	Lu	175		ug/L		122757	
	Tl	205		ug/L		1424	
	Pb	208		ug/L		112	
	Th	232		ug/L		1588	
	U	238		ug/L		89	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	
Be	9	Linear Thru Zero	
B	11	Linear Thru Zero	
Na	23	Linear Thru Zero	
Mg	24	Linear Thru Zero	
Al	27	Linear Thru Zero	
P	31	Linear Thru Zero	
K	39	Linear Thru Zero	
Ca	43	Linear Thru Zero	
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	
V	51	Linear Thru Zero	
Cr	52	Linear Thru Zero	
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	
Fe	57	Linear Thru Zero	
Co	59	Linear Thru Zero	
Ni	60	Linear Thru Zero	
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	
Zn	66	Linear Thru Zero	
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	
Mo	98	Linear Thru Zero	
Ag	107	Linear Thru Zero	
Cd	111	Linear Thru Zero	
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	
Sb	121	Linear Thru Zero	
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	
Pb	208	Linear Thru Zero	
Th	232	Linear Thru Zero	
U	238	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45					
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115					
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175					
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Tuesday, December 22, 2009 19:11:09
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\091220\Standard 1.439

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	10.000	ug/L	18.417	396	0.006
	Be	9	10.000	ug/L	20.348	357	0.006
	B	11	20.000	ug/L	34.357	532	0.006
	Na	23	1000.000	ug/L	18.188	307290	4.989
	Mg	24	1000.000	ug/L	22.344	222051	3.690
	Al	27	1000.000	ug/L	26.866	421860	7.052
	P	31	1000.000	ug/L	19.943	35022	0.566
	K	39	1000.000	ug/L	24.121	807558	11.009
	Ca	43	1000.000	ug/L	18.791	1548	0.025
>	Sc	45		ug/L		61817	61816.594
	Ti	47	10.000	ug/L	19.048	809	0.012
	V	51	10.000	ug/L	25.154	10502	0.154
	Cr	52	10.000	ug/L	20.833	11189	0.171
	Cr	53		ug/L		30601	-0.015
	Mn	55	10.000	ug/L	19.142	17836	0.291
	Fe	57	1000.000	ug/L	20.571	34868	0.542
	Co	59	10.000	ug/L	19.707	11373	0.185
	Ni	60	10.000	ug/L	19.103	2408	0.037
	Cu	63		ug/L		5060	0.081
	Cu	65	10.000	ug/L	20.989	2442	0.038
	Zn	66	10.000	ug/L	4.591	1683	0.019
	Zn	67		ug/L		1523	0.004
	Zn	68		ug/L		1640	0.016
>	Ge	74		ug/L		86622	86622.385
	As	75	10.000	ug/L	5.962	3126	0.031
	Se	77		ug/L		1756	0.003
	Se	82	10.000	ug/L	7.035	227	0.003
	Kr	83		ug/L		28	-0.000
	Sr	88	10.000	ug/L	0.871	27929	0.443
	Y	89		ug/L		15	0.000
	Zr	90	10.000	ug/L	5.578	18026	0.280
	Mo	98	10.000	ug/L	3.162	7492	0.118
	Ag	107	10.000	ug/L	3.828	13230	0.210
	Cd	111	10.000	ug/L	2.722	3260	0.052
	Cd	114		ug/L		7690	0.122
>	In	115		ug/L		62996	62995.615
	Sn	120	10.000	ug/L	4.968	14255	0.220
	Sb	121	10.000	ug/L	3.474	13547	0.199
	Sb	123		ug/L		10419	0.154
	Ba	135		ug/L		3357	0.027
	Ba	137	10.000	ug/L	0.621	5875	0.047
	Ho	165		ug/L		14	0.000
>	Lu	175		ug/L		124453	124453.373
	Tl	205	10.000	ug/L	2.158	57047	0.447
	Pb	208	10.000	ug/L	0.972	66753	0.535
	Th	232	10.000	ug/L	1.647	79212	0.623
	U	238	10.000	ug/L	2.113	82760	0.664

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45					
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115					
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175					
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Tuesday, December 22, 2009 19:16:49
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\091220\Standard 2.440

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**99.800**	**ug/L**	16.472	3681	0.053
	Be	9	**99.798**	**ug/L**	16.503	3308	0.048
	B	11	**200.158**	**ug/L**	16.986	4743	0.066
	Na	23	**9991.241**	**ug/L**	23.128	3138097	45.831
	Mg	24	**9992.371**	**ug/L**	21.530	2347174	34.254
	Al	27	**9990.926**	**ug/L**	7.849	4483410	64.592
	P	31	**9985.976**	**ug/L**	15.790	342257	4.956
	K	39	**9995.567**	**ug/L**	22.882	7366242	105.366
	Ca	43	**9979.974**	**ug/L**	17.304	14104	0.204
>	Sc	45		**ug/L**		69987	69986.536
	Ti	47	**99.876**	**ug/L**	16.797	7522	0.108
	V	51	**99.832**	**ug/L**	16.092	92230	1.319
	Cr	52	**99.831**	**ug/L**	16.974	101491	1.462
	Cr	53		**ug/L**		40949	0.075
	Mn	55	**99.833**	**ug/L**	15.496	171960	2.493
	Fe	57	**9985.699**	**ug/L**	14.472	328769	4.732
	Co	59	**99.834**	**ug/L**	14.781	109663	1.588
	Ni	60	**99.846**	**ug/L**	16.374	22273	0.321
	Cu	63		**ug/L**		48706	0.706
	Cu	65	**99.836**	**ug/L**	16.360	22797	0.329
	Zn	66	**99.974**	**ug/L**	1.954	15992	0.183
	Zn	67		**ug/L**		3932	0.032
	Zn	68		**ug/L**		13657	0.154
>	Ge	74		**ug/L**		87011	87011.127
	As	75	**99.980**	**ug/L**	2.940	26958	0.305
	Se	77		**ug/L**		3217	0.019
	Se	82	**99.956**	**ug/L**	1.984	2128	0.024
	Kr	83		**ug/L**		34	0.000
	Sr	88	**99.979**	**ug/L**	1.161	273099	4.335
	Y	89		**ug/L**		39	0.000
	Zr	90	**99.855**	**ug/L**	0.737	154100	2.440
	Mo	98	**100.013**	**ug/L**	2.062	75286	1.194
	Ag	107	**99.989**	**ug/L**	2.006	130729	2.075
	Cd	111	**100.001**	**ug/L**	2.865	32607	0.518
	Cd	114		**ug/L**		75795	1.203
>	In	115		**ug/L**		62984	62983.640
	Sn	120	**100.009**	**ug/L**	1.749	140449	2.224
	Sb	121	**100.045**	**ug/L**	3.890	132432	2.087
	Sb	123		**ug/L**		101936	1.607
	Ba	135		**ug/L**		34089	0.272
	Ba	137	**99.998**	**ug/L**	1.600	58863	0.470
	Ho	165		**ug/L**		19	0.000
>	Lu	175		**ug/L**		125320	125320.237
	Tl	205	**100.022**	**ug/L**	0.692	573881	4.568
	Pb	208	**99.991**	**ug/L**	1.267	664843	5.304
	Th	232	**100.000**	**ug/L**	1.398	783178	6.237
	U	238	**99.982**	**ug/L**	1.475	818056	6.528

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	0.9998
Be	9	Linear Thru Zero	0.9998
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	0.9999
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	0.9998
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	0.9999
V	51	Linear Thru Zero	0.9999
Cr	52	Linear Thru Zero	0.9999
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	0.9999
Ni	60	Linear Thru Zero	0.9999
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	0.9999
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	0.9999
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45					
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115					
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175					
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Tuesday, December 22, 2009 19:22:31
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\091220\QC Std 1.441

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**58.094**	**ug/L**	14.658	1978	0.031
	Be	9	**55.888**	**ug/L**	15.464	1710	0.027
	B	11	**113.884**	**ug/L**	13.793	2567	0.038
	Na	23	**4959.432**	**ug/L**	11.303	1452298	22.750
	Mg	24	**5080.599**	**ug/L**	11.051	1109197	17.416
	Al	27	**4947.085**	**ug/L**	18.858	2020762	31.983
	P	31	**5414.060**	**ug/L**	12.705	171677	2.687
	K	39	**5186.403**	**ug/L**	5.401	3653268	54.671
	Ca	43	**5514.607**	**ug/L**	13.848	7223	0.113
>	Sc	45		**ug/L**		64332	64332.295
	Ti	47	**54.706**	**ug/L**	14.103	3836	0.059
	V	51	**54.679**	**ug/L**	11.304	47300	0.723
	Cr	52	**56.851**	**ug/L**	14.016	53733	0.832
	Cr	53		**ug/L**		35048	0.033
	Mn	55	**57.039**	**ug/L**	12.742	90767	1.424
	Fe	57	**5413.927**	**ug/L**	11.915	165476	2.565
	Co	59	**54.947**	**ug/L**	13.433	55692	0.874
	Ni	60	**55.955**	**ug/L**	13.368	11596	0.180
	Cu	63		**ug/L**		25168	0.393
	Cu	65	**56.191**	**ug/L**	14.155	11892	0.185
	Zn	66	**52.300**	**ug/L**	4.671	8413	0.096
	Zn	67		**ug/L**		2655	0.017
	Zn	68		**ug/L**		7364	0.082
>	Ge	74		**ug/L**		87218	87217.643
	As	75	**49.197**	**ug/L**	2.570	13520	0.150
	Se	77		**ug/L**		2401	0.010
	Se	82	**51.611**	**ug/L**	1.079	1104	0.013
	Kr	83		**ug/L**		24	-0.000
	Sr	88	**51.579**	**ug/L**	1.408	142464	2.237
	Y	89		**ug/L**		21	0.000
	Zr	90	**44.000**	**ug/L**	5.166	68905	1.075
	Mo	98	**49.380**	**ug/L**	1.038	37624	0.590
	Ag	107	**49.774**	**ug/L**	0.849	65804	1.033
	Cd	111	**49.963**	**ug/L**	1.192	16474	0.259
	Cd	114		**ug/L**		39290	0.617
>	In	115		**ug/L**		63682	63681.815
	Sn	120	**51.460**	**ug/L**	1.242	73265	1.144
	Sb	121	**49.997**	**ug/L**	2.436	67440	1.043
	Sb	123		**ug/L**		51904	0.803
	Ba	135		**ug/L**		17322	0.137
	Ba	137	**51.602**	**ug/L**	0.915	30614	0.242
	Ho	165		**ug/L**		22	0.000
>	Lu	175		**ug/L**		126255	126255.072
	Tl	205	**49.348**	**ug/L**	1.211	286016	2.254
	Pb	208	**51.191**	**ug/L**	0.033	342974	2.716
	Th	232	**53.075**	**ug/L**	0.577	419572	3.310
	U	238	**54.891**	**ug/L**	1.506	452554	3.584

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	0.9998
Be	9	Linear Thru Zero	0.9998
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	0.9999
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	0.9998
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	0.9999
V	51	Linear Thru Zero	0.9999
Cr	52	Linear Thru Zero	0.9999
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	0.9999
Ni	60	Linear Thru Zero	0.9999
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	0.9999
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	0.9999
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7	116.188				
	Be	9	111.776				
	B	11	113.884				
	Na	23	99.189				
	Mg	24	101.612				
	Al	27	97.962				
	P	31	108.281				
	K	39	103.728				
	Ca	43	110.292				
>	Sc	45		120.7			
	Ti	47	109.413				
	V	51	109.358				
	Cr	52	113.702				
	Cr	53					
	Mn	55	114.077				
	Fe	57	108.279				
	Co	59	109.894				
	Ni	60	111.911				
	Cu	63					
	Cu	65	112.382				
	Zn	66	104.600				
	Zn	67					
	Zn	68					
>	Ge	74		101.6			
	As	75	98.393				
	Se	77					
	Se	82	103.222				
	Kr	83					
	Sr	88	103.159				
	Y	89					
	Zr	90	88.001				
	Mo	98	98.760				
	Ag	107	99.547				
	Cd	111	99.926				
	Cd	114					
>	In	115		100.5			
	Sn	120	102.921				
	Sb	121	99.994				
	Sb	123					
	Ba	135					
	Ba	137	103.204				
	Ho	165					
>	Lu	175		102.8			
	Tl	205	98.696				
	Pb	208	102.382				
	Th	232	106.149				
	U	238	109.781				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 1	Li	7	ICV is out of limits (+/- 10%)
QC Std 1	Be	9	ICV is out of limits (+/- 10%)
QC Std 1	B	11	ICV is out of limits (+/- 10%)
QC Std 1	Ca	43	ICV is out of limits (+/- 10%)
Sc 45 Int Std for QC	Sc	45	
QC Std 1	Cr	52	ICV is out of limits (+/- 10%)
QC Std 1	Mn	55	ICV is out of limits (+/- 10%)

QC Std 1	Ni	60ICV is out of limits (+/- 10%)
QC Std 1	Cu	65ICV is out of limits (+/- 10%)
QC Std 1	Zr	90ICV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#3 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Tuesday, December 22, 2009 19:28:15
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\091220\QC Std 2.442

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	-0.126	ug/L	65.777	5	-0.000
	Be	9	-0.131	ug/L	14.072	6	-0.000
	B	11	-1.353	ug/L	128.832	162	-0.000
	Na	23	-8.771	ug/L	40.634	3000	-0.040
	Mg	24	-0.109	ug/L	2714.371	333	-0.000
	Al	27	2.254	ug/L	19.792	1000	0.015
	P	31	-4.843	ug/L	95.872	919	-0.002
	K	39	-54.565	ug/L	70.058	125215	-0.575
	Ca	43	-1.134	ug/L	1505.682	73	-0.000
>	Sc	45		ug/L		70409	70408.566
	Ti	47	-0.187	ug/L	25.903	72	-0.000
	V	51	-0.374	ug/L	228.086	1021	-0.005
	Cr	52	-0.181	ug/L	107.494	815	-0.003
	Cr	53		ug/L		29467	-0.091
	Mn	55	-0.035	ug/L	79.607	251	-0.001
	Fe	57	-18.450	ug/L	73.960	1956	-0.009
	Co	59	-0.064	ug/L	40.350	165	-0.001
	Ni	60	-0.270	ug/L	16.878	135	-0.001
	Cu	63		ug/L		160	-0.001
	Cu	65	-0.134	ug/L	45.532	122	-0.000
	Zn	66	0.019	ug/L	49.794	56	0.000
	Zn	67		ug/L		1259	0.001
	Zn	68		ug/L		226	0.000
>	Ge	74		ug/L		84768	84767.939
	As	75	0.307	ug/L	179.609	500	0.001
	Se	77		ug/L		1554	0.001
	Se	82	0.166	ug/L	159.242	9	0.000
	Kr	83		ug/L		26	-0.000
	Sr	88	0.002	ug/L	185.311	44	0.000
	Y	89		ug/L		12	-0.000
	Zr	90	0.018	ug/L	28.420	419	0.000
	Mo	98	0.010	ug/L	62.337	76	0.000
	Ag	107	0.005	ug/L	133.141	23	0.000
	Cd	111	0.003	ug/L	332.225	3	0.000
	Cd	114		ug/L		9	0.000
>	In	115		ug/L		61180	61179.750
	Sn	120	0.025	ug/L	121.429	397	0.001
	Sb	121	-0.017	ug/L	698.841	943	-0.000
	Sb	123		ug/L		743	0.000
	Ba	135		ug/L		10	-0.000
	Ba	137	-0.004	ug/L	124.703	16	-0.000
	Ho	165		ug/L		11	0.000
>	Lu	175		ug/L		122494	122493.553
	Tl	205	0.085	ug/L	79.028	1892	0.004
	Pb	208	0.001	ug/L	354.885	116	0.000
	Th	232	0.009	ug/L	342.317	1649	0.001
	U	238	0.003	ug/L	70.937	112	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	0.9998
Be	9	Linear Thru Zero	0.9998
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	0.9999
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	0.9998
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	0.9999
V	51	Linear Thru Zero	0.9999
Cr	52	Linear Thru Zero	0.9999
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	0.9999
Ni	60	Linear Thru Zero	0.9999
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	0.9999
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	0.9999
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		132.1			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		98.8			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		96.6			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		99.8			
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Sc 45 Int Std for QC	Sc	45	

QC Action

QC Action Line: Continue

ICPMS#3 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Tuesday, December 22, 2009 19:33:59
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\091220\QC Std 3.443

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**10.523**	ug/L	26.113	409	0.006
	Be	9	**0.489**	ug/L	9.493	28	0.000
	B	11	**10.786**	ug/L	43.050	451	0.004
	Na	23	**262.269**	ug/L	29.039	90960	1.203
	Mg	24	**13.991**	ug/L	4.514	4001	0.048
	Al	27	**29.124**	ug/L	33.899	13340	0.188
	P	31	**46.641**	ug/L	39.994	2762	0.023
	K	39	**287.473**	ug/L	53.360	382045	3.030
	Ca	43	**212.772**	ug/L	34.078	385	0.004
>	Sc	45		ug/L		73755	73754.775
	Ti	47	**8.583**	ug/L	35.333	738	0.009
	V	51	**9.388**	ug/L	15.129	10511	0.124
	Cr	52	**10.393**	ug/L	28.232	11804	0.152
	Cr	53		ug/L		31342	-0.078
	Mn	55	**5.414**	ug/L	25.594	9903	0.135
	Fe	57	**87.163**	ug/L	51.129	5555	0.041
	Co	59	**0.977**	ug/L	28.542	1346	0.016
	Ni	60	**1.936**	ug/L	40.361	637	0.006
	Cu	63		ug/L		692	0.007
	Cu	65	**0.969**	ug/L	42.086	382	0.003
	Zn	66	**10.700**	ug/L	3.371	1741	0.020
	Zn	67		ug/L		1608	0.005
	Zn	68		ug/L		1725	0.017
>	Ge	74		ug/L		86034	86034.187
	As	75	**6.234**	ug/L	10.018	2062	0.019
	Se	77		ug/L		1660	0.002
	Se	82	**5.835**	ug/L	6.021	128	0.001
	Kr	83		ug/L		25	-0.000
	Sr	88	**11.262**	ug/L	1.268	30162	0.488
	Y	89		ug/L		15	0.000
	Zr	90	**1.865**	ug/L	2.336	3207	0.046
	Mo	98	**0.521**	ug/L	12.707	453	0.006
	Ag	107	**1.040**	ug/L	1.664	1348	0.022
	Cd	111	**1.110**	ug/L	5.520	357	0.006
	Cd	114		ug/L		786	0.013
>	In	115		ug/L		61682	61681.769
	Sn	120	**5.243**	ug/L	3.850	7558	0.117
	Sb	121	**2.727**	ug/L	5.096	4483	0.057
	Sb	123		ug/L		3540	0.046
	Ba	135		ug/L		739	0.006
	Ba	137	**2.169**	ug/L	1.156	1273	0.010
	Ho	165		ug/L		10	0.000
>	Lu	175		ug/L		123208	123208.286
	Tl	205	**0.925**	ug/L	1.405	6636	0.042
	Pb	208	**2.193**	ug/L	1.209	14447	0.116
	Th	232	**0.953**	ug/L	4.050	8916	0.059
	U	238	**0.224**	ug/L	2.419	1888	0.015

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	0.9998
Be	9	Linear Thru Zero	0.9998
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	0.9999
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	0.9998
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	0.9999
V	51	Linear Thru Zero	0.9999
Cr	52	Linear Thru Zero	0.9999
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	0.9999
Ni	60	Linear Thru Zero	0.9999
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	0.9999
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	0.9999
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7	105.226				
	Be	9	97.787				
	B	11	71.907				
	Na	23	104.908				
	Mg	24	93.273				
	Al	27	97.081				
	P	31	93.282				
	K	39	95.824				
	Ca	43	106.386				
>	Sc	45		138.3			
	Ti	47	85.832				
	V	51	93.883				
	Cr	52	103.928				
	Cr	53					
	Mn	55	108.278				
	Fe	57	87.163				
	Co	59	97.670				
	Ni	60	96.820				
	Cu	63					
	Cu	65	96.868				
	Zn	66	106.998				
	Zn	67					
	Zn	68					
>	Ge	74		100.3			
	As	75	124.673				
	Se	77					
	Se	82	116.694				
	Kr	83					
	Sr	88	112.620				
	Y	89					
	Zr	90	93.244				
	Mo	98	104.217				
	Ag	107	104.004				
	Cd	111	111.005				
	Cd	114					
>	In	115		97.4			
	Sn	120	104.851				
	Sb	121	90.905				
	Sb	123					
	Ba	135					
	Ba	137	108.428				
	Ho	165					
>	Lu	175		100.4			
	Tl	205	92.536				
	Pb	208	109.658				
	Th	232	95.262				
	U	238	111.868				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Sc 45 Int Std for QC Sc		45	

QC Action

QC Action Line: Continue

ICPMS#3 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Tuesday, December 22, 2009 19:39:42
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\091220\QC Std 4.444

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.038**	**ug/L**	92.260	10	0.000
	Be	9	**-0.049**	**ug/L**	171.429	7	-0.000
	B	11	**-3.607**	**ug/L**	16.487	94	-0.001
	Na	23	**100434.150**	**ug/L**	14.764	26812158	460.704
	Mg	24	**102707.430**	**ug/L**	5.332	20697345	352.082
	Al	27	**108294.808**	**ug/L**	12.831	40843668	700.130
	P	31	**110819.186**	**ug/L**	14.170	3201927	54.997
	K	39	**99846.389**	**ug/L**	13.442	61497298	1052.505
	Ca	43	**107995.040**	**ug/L**	15.809	128350	2.208
>	Sc	45		**ug/L**		59058	59058.066
	Ti	47	**1607.137**	**ug/L**	14.016	101372	1.740
	V	51	**-0.898**	**ug/L**	150.435	442	-0.012
	Cr	52	**3.254**	**ug/L**	17.922	3623	0.048
	Cr	53		**ug/L**		25835	-0.078
	Mn	55	**6.669**	**ug/L**	13.336	9969	0.167
	Fe	57	**115312.914**	**ug/L**	14.147	3182566	54.641
	Co	59	**0.217**	**ug/L**	24.009	401	0.003
	Ni	60	**2.757**	**ug/L**	15.090	681	0.009
	Cu	63		**ug/L**		1127	0.016
	Cu	65	**3.055**	**ug/L**	16.828	714	0.010
	Zn	66	**2.948**	**ug/L**	4.778	487	0.005
	Zn	67		**ug/L**		1311	0.003
	Zn	68		**ug/L**		335	0.002
>	Ge	74		**ug/L**		80796	80795.979
	As	75	**0.329**	**ug/L**	130.643	483	0.001
	Se	77		**ug/L**		1636	0.003
	Se	82	**-0.749**	**ug/L**	56.508	-9	-0.000
	Kr	83		**ug/L**		48	0.000
	Sr	88	**1.192**	**ug/L**	2.386	2997	0.052
	Y	89		**ug/L**		78	0.001
	Zr	90	**6.192**	**ug/L**	61.687	9030	0.151
	Mo	98	**2030.070**	**ug/L**	2.164	1387695	24.242
	Ag	107	**0.048**	**ug/L**	27.335	73	0.001
	Cd	111	**0.379**	**ug/L**	21.765	115	0.002
	Cd	114		**ug/L**		1317	0.023
>	In	115		**ug/L**		57248	57247.609
	Sn	120	**-0.019**	**ug/L**	22.860	316	-0.000
	Sb	121	**-0.492**	**ug/L**	4.019	316	-0.010
	Sb	123		**ug/L**		252	-0.007
	Ba	135		**ug/L**		237	0.002
	Ba	137	**0.656**	**ug/L**	7.490	384	0.003
	Ho	165		**ug/L**		282	0.002
>	Lu	175		**ug/L**		119050	119049.514
	Tl	205	**-0.129**	**ug/L**	7.772	681	-0.006
	Pb	208	**0.177**	**ug/L**	3.902	1228	0.009
	Th	232	**0.001**	**ug/L**	4935.403	1548	0.000
	U	238	**-0.006**	**ug/L**	5.557	36	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	0.9998
Be	9	Linear Thru Zero	0.9998
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	0.9999
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	0.9998
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	0.9999
V	51	Linear Thru Zero	0.9999
Cr	52	Linear Thru Zero	0.9999
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	0.9999
Ni	60	Linear Thru Zero	0.9999
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	0.9999
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	0.9999
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23	100.434				
	Mg	24	102.707				
	Al	27	108.295				
	P	31	110.819				
	K	39	99.846				
	Ca	43	107.995				
>	Sc	45		110.8			
	Ti	47	80.357				
	V	51					
	Cr	52	87.934				
	Cr	53					
	Mn	55	114.981				
	Fe	57	115.313				
	Co	59	86.893				
	Ni	60	102.096				
	Cu	63					
	Cu	65	105.337				
	Zn	66	81.891				
	Zn	67					
	Zn	68					
>	Ge	74		94.2			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88	99.369				
	Y	89					
	Zr	90					
	Mo	98	101.504				
	Ag	107					
	Cd	111	94.822				
	Cd	114					
>	In	115		90.4			
	Sn	120					
	Sb	121	-491.580				
	Sb	123					
	Ba	135					
	Ba	137	97.881				
	Ho	165					
>	Lu	175		97.0			
	Tl	205					
	Pb	208	88.623				
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
QC Std 4	Zr	90ICSA is out of limits

QC Action

QC Action Line: Continue

ICPMS#3 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Tuesday, December 22, 2009 19:45:25
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\091220\QC Std 5.445

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**21.521**	ug/L	18.269	647	0.012
	Be	9	**21.000**	ug/L	24.074	564	0.010
	B	11	**15.988**	ug/L	22.777	451	0.005
	Na	23	**109336.196**	ug/L	13.122	28127471	501.539
	Mg	24	**109843.171**	ug/L	17.925	20915212	376.544
	Al	27	**104206.284**	ug/L	20.768	37287056	673.698
	P	31	**115721.167**	ug/L	18.989	3186114	57.429
	K	39	**113467.878**	ug/L	22.717	66154375	1196.092
	Ca	43	**112005.998**	ug/L	18.593	127132	2.290
>	Sc	45		ug/L		56893	56892.759
	Ti	47	**1665.077**	ug/L	18.064	100188	1.803
	V	51	**22.017**	ug/L	20.639	17272	0.291
	Cr	52	**26.621**	ug/L	19.215	22440	0.390
	Cr	53		ug/L		28401	-0.009
	Mn	55	**30.017**	ug/L	17.844	41897	0.750
	Fe	57	**120712.503**	ug/L	18.586	3176752	57.199
	Co	59	**23.930**	ug/L	18.622	21317	0.381
	Ni	60	**26.157**	ug/L	20.012	4816	0.084
	Cu	63		ug/L		9868	0.175
	Cu	65	**25.683**	ug/L	18.270	4826	0.085
	Zn	66	**22.666**	ug/L	1.398	3439	0.042
	Zn	67		ug/L		1713	0.008
	Zn	68		ug/L		2713	0.031
>	Ge	74		ug/L		81573	81573.060
	As	75	**20.793**	ug/L	1.866	5579	0.063
	Se	77		ug/L		2059	0.007
	Se	82	**21.793**	ug/L	5.163	439	0.005
	Kr	83		ug/L		48	0.000
	Sr	88	**22.694**	ug/L	1.210	56376	0.984
	Y	89		ug/L		79	0.001
	Zr	90	**21.652**	ug/L	1.954	30658	0.529
	Mo	98	**2048.528**	ug/L	0.421	1400519	24.462
	Ag	107	**20.428**	ug/L	2.588	24286	0.424
	Cd	111	**20.452**	ug/L	3.921	6066	0.106
	Cd	114		ug/L		15326	0.268
>	In	115		ug/L		57251	57251.411
	Sn	120	**21.004**	ug/L	1.318	27086	0.467
	Sb	121	**21.517**	ug/L	0.613	26605	0.449
	Sb	123		ug/L		20397	0.344
	Ba	135		ug/L		6652	0.056
	Ba	137	**20.518**	ug/L	2.046	11522	0.096
	Ho	165		ug/L		277	0.002
>	Lu	175		ug/L		119410	119409.614
	Tl	205	**18.712**	ug/L	1.576	103412	0.855
	Pb	208	**19.741**	ug/L	2.229	125125	1.047
	Th	232	**20.691**	ug/L	0.659	155647	1.291
	U	238	**21.593**	ug/L	1.937	168392	1.410

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	0.9998
Be	9	Linear Thru Zero	0.9998
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	0.9999
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	0.9998
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	0.9999
V	51	Linear Thru Zero	0.9999
Cr	52	Linear Thru Zero	0.9999
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	0.9999
Ni	60	Linear Thru Zero	0.9999
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	0.9999
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	0.9999
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7	107.603				
	Be	9	105.001				
	B	11	79.940				
	Na	23	109.336				
	Mg	24	109.843				
	Al	27	104.206				
	P	31	115.721				
	K	39	113.468				
	Ca	43	112.006				
>	Sc	45			106.7		
	Ti	47	83.254				
	V	51	110.085				
	Cr	52	112.325				
	Cr	53					
	Mn	55	116.347				
	Fe	57	120.713				
	Co	59	118.174				
	Ni	60	115.230				
	Cu	63					
	Cu	65	112.152				
	Zn	66	96.043				
	Zn	67					
	Zn	68					
>	Ge	74			95.1		
	As	75	103.964				
	Se	77					
	Se	82	108.966				
	Kr	83					
	Sr	88	107.047				
	Y	89					
	Zr	90	108.260				
	Mo	98	102.426				
	Ag	107	102.142				
	Cd	111	100.255				
	Cd	114					
>	In	115			90.4		
	Sn	120	105.020				
	Sb	121	107.050				
	Sb	123					
	Ba	135					
	Ba	137	99.264				
	Ho	165					
>	Lu	175			97.3		
	Tl	205	93.559				
	Pb	208	97.728				
	Th	232	103.456				
	U	238	107.967				

QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
QC Std 5	B	11ICSAB is out of limits
QC Std 5	Fe	57ICSAB is out of limits

QC Action

QC Action Line: Continue

ICPMS#3 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Tuesday, December 22, 2009 19:51:09
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\091220\QC Std 6.446

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**60.562**	ug/L	5.460	1834	0.032
	Be	9	**58.868**	ug/L	2.698	1606	0.028
	B	11	**115.027**	ug/L	7.836	2299	0.038
	Na	23	**5631.187**	ug/L	2.362	1463344	25.831
	Mg	24	**5433.068**	ug/L	2.602	1052052	18.625
	Al	27	**5495.855**	ug/L	0.872	2008069	35.531
	P	31	**5976.221**	ug/L	4.147	168268	2.966
	K	39	**5719.561**	ug/L	9.665	3556245	60.291
	Ca	43	**5967.502**	ug/L	5.403	6944	0.122
>	Sc	45		ug/L		56524	56523.741
	Ti	47	**61.539**	ug/L	3.233	3831	0.067
	V	51	**60.658**	ug/L	5.474	46380	0.802
	Cr	52	**62.327**	ug/L	5.869	52287	0.912
	Cr	53		ug/L		35555	0.110
	Mn	55	**63.382**	ug/L	3.279	89615	1.583
	Fe	57	**6156.786**	ug/L	3.761	166777	2.917
	Co	59	**61.731**	ug/L	5.455	55579	0.982
	Ni	60	**62.643**	ug/L	4.333	11520	0.201
	Cu	63		ug/L		24900	0.438
	Cu	65	**62.837**	ug/L	5.073	11814	0.207
	Zn	66	**52.454**	ug/L	1.673	8464	0.096
	Zn	67		ug/L		2598	0.016
	Zn	68		ug/L		7286	0.081
>	Ge	74		ug/L		87490	87490.338
	As	75	**48.751**	ug/L	0.252	13445	0.149
	Se	77		ug/L		2285	0.008
	Se	82	**51.094**	ug/L	2.540	1097	0.012
	Kr	83		ug/L		25	-0.000
	Sr	88	**51.670**	ug/L	2.164	140985	2.241
	Y	89		ug/L		18	0.000
	Zr	90	**39.983**	ug/L	12.039	61889	0.977
	Mo	98	**50.909**	ug/L	1.799	38315	0.608
	Ag	107	**50.687**	ug/L	0.825	66195	1.052
	Cd	111	**51.200**	ug/L	2.103	16678	0.265
	Cd	114		ug/L		39302	0.625
>	In	115		ug/L		62904	62903.732
	Sn	120	**51.289**	ug/L	1.894	72129	1.141
	Sb	121	**49.855**	ug/L	3.385	66428	1.040
	Sb	123		ug/L		51103	0.800
	Ba	135		ug/L		17427	0.139
	Ba	137	**51.344**	ug/L	1.939	30189	0.241
	Ho	165		ug/L		24	0.000
>	Lu	175		ug/L		125173	125172.819
	Tl	205	**49.000**	ug/L	1.723	281474	2.238
	Pb	208	**50.953**	ug/L	2.203	338332	2.703
	Th	232	**52.370**	ug/L	0.684	410463	3.266
	U	238	**53.115**	ug/L	2.764	433962	3.468

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	0.9998
Be	9	Linear Thru Zero	0.9998
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	0.9999
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	0.9998
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	0.9999
V	51	Linear Thru Zero	0.9999
Cr	52	Linear Thru Zero	0.9999
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	0.9999
Ni	60	Linear Thru Zero	0.9999
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	0.9999
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	0.9999
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7	121.125				
	Be	9	117.735				
	B	11	115.027				
	Na	23	112.624				
	Mg	24	108.661				
	Al	27	108.829				
	P	31	119.524				
	K	39	114.391				
	Ca	43	119.350				
>	Sc	45		106.0			
	Ti	47	123.077				
	V	51	121.315				
	Cr	52	124.654				
	Cr	53					
	Mn	55	126.764				
	Fe	57	123.136				
	Co	59	123.463				
	Ni	60	125.286				
	Cu	63					
	Cu	65	125.674				
	Zn	66	104.909				
	Zn	67					
	Zn	68					
>	Ge	74		102.0			
	As	75	97.502				
	Se	77					
	Se	82	102.187				
	Kr	83					
	Sr	88	103.341				
	Y	89					
	Zr	90	79.965				
	Mo	98	101.818				
	Ag	107	101.373				
	Cd	111	102.399				
	Cd	114					
>	In	115		99.3			
	Sn	120	102.577				
	Sb	121	99.711				
	Sb	123					
	Ba	135					
	Ba	137	102.687				
	Ho	165					
>	Lu	175		102.0			
	Tl	205	98.000				
	Pb	208	101.907				
	Th	232	104.740				
	U	238	106.231				

QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
QC Std 6	Li	7CCV is out of limits (+/- 10%)
QC Std 6	Be	9CCV is out of limits (+/- 10%)
QC Std 6	B	11CCV is out of limits (+/- 10%)
QC Std 6	Na	23CCV is out of limits (+/- 10%)
QC Std 6	P	31CCV is out of limits (+/- 10%)
QC Std 6	K	39CCV is out of limits (+/- 10%)
QC Std 6	Ca	43CCV is out of limits (+/- 10%)

QC Std 6	Ti	47CCV is out of limits (+/- 10%)
QC Std 6	V	51CCV is out of limits (+/- 10%)
QC Std 6	Cr	52CCV is out of limits (+/- 10%)
QC Std 6	Mn	55CCV is out of limits (+/- 10%)
QC Std 6	Fe	57CCV is out of limits (+/- 10%)
QC Std 6	Co	59CCV is out of limits (+/- 10%)
QC Std 6	Ni	60CCV is out of limits (+/- 10%)
QC Std 6	Cu	65CCV is out of limits (+/- 10%)
QC Std 6	Zr	90CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#3 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Tuesday, December 22, 2009 19:56:54
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\091220\QC Std 7.447

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**-0.134**	ug/L	44.310	4	-0.000
	Be	9	**-0.098**	ug/L	98.425	5	-0.000
	B	11	**-2.212**	ug/L	32.531	115	-0.001
	Na	23	**1.967**	ug/L	534.027	5001	0.009
	Mg	24	**5.250**	ug/L	153.892	1333	0.018
	Al	27	**1.857**	ug/L	86.641	667	0.012
	P	31	**0.954**	ug/L	233.130	898	0.000
	K	39	**1.997**	ug/L	1832.437	134644	0.021
	Ca	43	**11.521**	ug/L	56.953	74	0.000
>	Sc	45		ug/L		55411	55411.165
	Ti	47	**0.284**	ug/L	46.903	85	0.000
	V	51	**0.596**	ug/L	226.992	1587	0.008
	Cr	52	**-0.173**	ug/L	16.449	668	-0.003
	Cr	53		ug/L		29431	0.010
	Mn	55	**-0.011**	ug/L	81.438	235	-0.000
	Fe	57	**-1.483**	ug/L	225.744	2030	-0.001
	Co	59	**-0.025**	ug/L	16.888	167	-0.000
	Ni	60	**-0.181**	ug/L	28.009	123	-0.001
	Cu	63		ug/L		155	-0.000
	Cu	65	**-0.059**	ug/L	134.403	111	-0.000
	Zn	66	**-0.007**	ug/L	573.258	52	-0.000
	Zn	67		ug/L		1238	0.001
	Zn	68		ug/L		218	-0.000
>	Ge	74		ug/L		84968	84968.460
	As	75	**0.150**	ug/L	162.756	462	0.000
	Se	77		ug/L		1487	-0.000
	Se	82	**0.279**	ug/L	175.724	12	0.000
	Kr	83		ug/L		27	-0.000
	Sr	88	**0.006**	ug/L	44.144	54	0.000
	Y	89		ug/L		11	-0.000
	Zr	90	**-0.014**	ug/L	109.979	375	-0.000
	Mo	98	**0.123**	ug/L	9.509	160	0.001
	Ag	107	**0.003**	ug/L	96.941	21	0.000
	Cd	111	**0.013**	ug/L	113.496	7	0.000
	Cd	114		ug/L		14	0.000
>	In	115		ug/L		61699	61698.780
	Sn	120	**-0.034**	ug/L	78.080	320	-0.001
	Sb	121	**-0.212**	ug/L	17.191	700	-0.004
	Sb	123		ug/L		530	-0.003
	Ba	135		ug/L		12	-0.000
	Ba	137	**-0.003**	ug/L	304.454	16	-0.000
	Ho	165		ug/L		8	-0.000
>	Lu	175		ug/L		122134	122133.786
	Tl	205	**0.034**	ug/L	160.528	1610	0.002
	Pb	208	**0.001**	ug/L	137.353	119	0.000
	Th	232	**0.046**	ug/L	53.018	1929	0.003
	U	238	**0.001**	ug/L	257.082	92	0.000

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	0.9998
Be	9Linear Thru Zero	0.9998
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	0.9999
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	0.9998
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	0.9999
V	51Linear Thru Zero	0.9999
Cr	52Linear Thru Zero	0.9999
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	0.9999
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	0.9999
Ni	60Linear Thru Zero	0.9999
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	0.9999
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Zr	90Linear Thru Zero	0.9999
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
Pb	208Linear Thru Zero	1.0000
Th	232Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		103.9			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		99.0			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		97.4			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		99.5			
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: QC Std 10
Sample Date/Time: Tuesday, December 22, 2009 20:02:40
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\091220\QC Std 10.448

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**1157.573**	ug/L	1.569	33805	0.619
	Be	9	**1111.769**	ug/L	2.316	29172	0.534
	B	11	**-3.135**	ug/L	22.575	96	-0.001
	Na	23	**55372.104**	ug/L	4.242	13875608	253.999
	Mg	24	**53624.690**	ug/L	4.244	10037191	183.826
	Al	27	**56869.013**	ug/L	0.586	20077646	367.660
	P	31	**28531.572**	ug/L	1.144	774053	14.159
	K	39	**58926.895**	ug/L	11.832	34032485	621.162
	Ca	43	**57197.458**	ug/L	0.413	63915	1.169
>	Sc	45		ug/L		54609	54609.394
	Ti	47	**41.057**	ug/L	3.222	2495	0.044
	V	51	**1120.286**	ug/L	0.118	809651	14.806
	Cr	52	**1139.756**	ug/L	1.181	911964	16.686
	Cr	53		ug/L		142133	2.082
	Mn	55	**1148.721**	ug/L	2.091	1566849	28.685
	Fe	57	**57947.239**	ug/L	1.510	1501587	27.458
	Co	59	**1155.643**	ug/L	1.062	1003963	18.382
	Ni	60	**1176.200**	ug/L	0.776	206595	3.781
	Cu	63		ug/L		442811	8.105
	Cu	65	**1164.842**	ug/L	1.055	209862	3.841
	Zn	66	**2400.731**	ug/L	1.762	368388	4.400
	Zn	67		ug/L		61060	0.716
	Zn	68		ug/L		296097	3.534
>	Ge	74		ug/L		83727	83727.152
	As	75	**941.369**	ug/L	0.907	240820	2.871
	Se	77		ug/L		9524	0.096
	Se	82	**502.225**	ug/L	0.658	10263	0.123
	Kr	83		ug/L		36	0.000
	Sr	88	**1060.039**	ug/L	2.486	2752783	45.967
	Y	89		ug/L		91	0.001
	Zr	90	**482.806**	ug/L	2.440	706864	11.799
	Mo	98	**1021.448**	ug/L	4.375	730167	12.197
	Ag	107	**254.426**	ug/L	0.760	316314	5.281
	Cd	111	**1013.550**	ug/L	3.209	314186	5.247
	Cd	114		ug/L		718683	12.003
>	In	115		ug/L		59902	59901.561
	Sn	120	**991.309**	ug/L	2.427	1320401	22.046
	Sb	121	**253.691**	ug/L	4.726	317860	5.293
	Sb	123		ug/L		245934	4.095
	Ba	135		ug/L		330413	2.669
	Ba	137	**984.463**	ug/L	0.539	572299	4.623
	Ho	165		ug/L		93	0.001
>	Lu	175		ug/L		123791	123790.620
	Tl	205	**499.853**	ug/L	1.607	2827214	22.827
	Pb	208	**5222.119**	ug/L	1.254	34291259	277.027
	Th	232	**2675.693**	ug/L	1.318	20659125	166.883
	U	238	**5566.669**	ug/L	2.847	44984997	363.438

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	0.9998
Be	9	Linear Thru Zero	0.9998
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	0.9999
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	0.9998
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	0.9999
V	51	Linear Thru Zero	0.9999
Cr	52	Linear Thru Zero	0.9999
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	0.9999
Ni	60	Linear Thru Zero	0.9999
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	0.9999
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	0.9999
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7	115.757				
	Be	9	111.177				
	B	11					
	Na	23	110.744				
	Mg	24	107.249				
	Al	27	113.738				
	P	31	114.126				
	K	39	117.854				
	Ca	43	114.395				
>	Sc	45		102.4			
	Ti	47					
	V	51	112.029				
	Cr	52	113.976				
	Cr	53					
	Mn	55	114.872				
	Fe	57	115.894				
	Co	59	115.564				
	Ni	60	117.620				
	Cu	63					
	Cu	65	116.484				
	Zn	66	96.029				
	Zn	67					
	Zn	68					
>	Ge	74		97.6			
	As	75	94.137				
	Se	77					
	Se	82	100.445				
	Kr	83					
	Sr	88	106.004				
	Y	89					
	Zr	90	96.561				
	Mo	98	102.145				
	Ag	107	101.771				
	Cd	111	101.355				
	Cd	114					
>	In	115		94.5			
	Sn	120	99.131				
	Sb	121	101.477				
	Sb	123					
	Ba	135					
	Ba	137	98.446				
	Ho	165					
>	Lu	175		100.8			
	Tl	205	99.971				
	Pb	208	104.442				
	Th	232	107.028				
	U	238	111.333				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 10	Li	7	LRS is out of limits (+/- 10%)
QC Std 10	Be	9	LRS is out of limits (+/- 10%)
QC Std 10	Na	23	LRS is out of limits (+/- 10%)
QC Std 10	Al	27	LRS is out of limits (+/- 10%)
QC Std 10	P	31	LRS is out of limits (+/- 10%)
QC Std 10	K	39	LRS is out of limits (+/- 10%)
QC Std 10	Ca	43	LRS is out of limits (+/- 10%)

QC Std 10	V	51LRS is out of limits (+/- 10%)
QC Std 10	Cr	52LRS is out of limits (+/- 10%)
QC Std 10	Mn	55LRS is out of limits (+/- 10%)
QC Std 10	Fe	57LRS is out of limits (+/- 10%)
QC Std 10	Co	59LRS is out of limits (+/- 10%)
QC Std 10	Ni	60LRS is out of limits (+/- 10%)
QC Std 10	Cu	65LRS is out of limits (+/- 10%)
QC Std 10	U	238LRS is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#3 - Summary Report

Sample ID: QC Std 11
Sample Date/Time: Tuesday, December 22, 2009 20:08:24
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\091220\QC Std 11.449

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**54.270**	ug/L	19.110	1862	0.029
	Be	9	**53.354**	ug/L	18.404	1647	0.026
	B	11	**102.370**	ug/L	14.505	2356	0.034
	Na	23	**5438.211**	ug/L	27.569	1579909	24.946
	Mg	24	**4963.038**	ug/L	14.539	1094895	17.013
	Al	27	**4716.368**	ug/L	11.522	1970918	30.491
	P	31	**5364.458**	ug/L	18.175	171195	2.662
	K	39	**5121.739**	ug/L	10.806	3645805	53.989
	Ca	43	**5422.535**	ug/L	17.034	7172	0.111
>	Sc	45		ug/L		65566	65566.433
	Ti	47	**54.125**	ug/L	20.326	3815	0.059
	V	51	**52.092**	ug/L	17.965	45364	0.688
	Cr	52	**54.745**	ug/L	18.265	52179	0.801
	Cr	53		ug/L		36135	0.047
	Mn	55	**56.300**	ug/L	19.101	90050	1.406
	Fe	57	**5455.690**	ug/L	17.860	167779	2.585
	Co	59	**54.873**	ug/L	17.065	56105	0.873
	Ni	60	**56.408**	ug/L	17.754	11780	0.181
	Cu	63		ug/L		25022	0.389
	Cu	65	**55.592**	ug/L	20.032	11832	0.183
	Zn	66	**53.364**	ug/L	0.771	8417	0.098
	Zn	67		ug/L		2678	0.018
	Zn	68		ug/L		7091	0.080
>	Ge	74		ug/L		85516	85516.056
	As	75	**50.771**	ug/L	3.422	13667	0.155
	Se	77		ug/L		2243	0.008
	Se	82	**52.925**	ug/L	5.335	1110	0.013
	Kr	83		ug/L		28	-0.000
	Sr	88	**51.837**	ug/L	1.865	142701	2.248
	Y	89		ug/L		21	0.000
	Zr	90	**54.765**	ug/L	6.115	85327	1.338
	Mo	98	**50.242**	ug/L	1.516	38160	0.600
	Ag	107	**50.112**	ug/L	2.138	66030	1.040
	Cd	111	**50.417**	ug/L	0.957	16570	0.261
	Cd	114		ug/L		38867	0.612
>	In	115		ug/L		63476	63475.604
	Sn	120	**53.270**	ug/L	0.642	75573	1.185
	Sb	121	**51.954**	ug/L	1.736	69810	1.084
	Sb	123		ug/L		53473	0.831
	Ba	135		ug/L		17239	0.139
	Ba	137	**51.887**	ug/L	1.684	30204	0.244
	Ho	165		ug/L		20	0.000
>	Lu	175		ug/L		123881	123881.397
	Tl	205	**50.746**	ug/L	1.080	288537	2.317
	Pb	208	**52.001**	ug/L	1.229	341844	2.759
	Th	232	**54.868**	ug/L	0.706	425523	3.422
	U	238	**55.067**	ug/L	0.881	445485	3.595

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	0.9998
Be	9	Linear Thru Zero	0.9998
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	0.9999
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	0.9998
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	0.9999
V	51	Linear Thru Zero	0.9999
Cr	52	Linear Thru Zero	0.9999
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	0.9999
Ni	60	Linear Thru Zero	0.9999
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	0.9999
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	0.9999
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7	108.540				
	Be	9	106.708				
	B	11	102.370				
	Na	23	108.764				
	Mg	24	99.261				
	Al	27	93.393				
	P	31	107.289				
	K	39	102.435				
	Ca	43	108.451				
>	Sc	45		123.0			
	Ti	47	108.249				
	V	51	104.183				
	Cr	52	109.491				
	Cr	53					
	Mn	55	112.600				
	Fe	57	109.114				
	Co	59	109.745				
	Ni	60	112.816				
	Cu	63					
	Cu	65	111.184				
	Zn	66	106.729				
	Zn	67					
	Zn	68					
>	Ge	74		99.7			
	As	75	101.542				
	Se	77					
	Se	82	105.850				
	Kr	83					
	Sr	88	103.674				
	Y	89					
	Zr	90	109.529				
	Mo	98	100.485				
	Ag	107	100.223				
	Cd	111	100.835				
	Cd	114					
>	In	115		100.2			
	Sn	120	106.539				
	Sb	121	103.909				
	Sb	123					
	Ba	135					
	Ba	137	103.773				
	Ho	165					
>	Lu	175		100.9			
	Tl	205	101.492				
	Pb	208	104.002				
	Th	232	109.735				
	U	238	110.134				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Sc 45 Int Std for QC	Sc	45	
QC Std 11	Mn	55	CCV is out of limits (+/- 10%)
QC Std 11	Ni	60	CCV is out of limits (+/- 10%)
QC Std 11	Cu	65	CCV is out of limits (+/- 10%)
QC Std 11	U	238	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#3 - Summary Report

Sample ID: QC Std 12
Sample Date/Time: Tuesday, December 22, 2009 20:14:10
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\091220\QC Std 12.450

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	-0.032	ug/L	400.018	8	-0.000
	Be	9	-0.082	ug/L	167.846	6	-0.000
	B	11	-2.585	ug/L	63.759	123	-0.001
	Na	23	-9.995	ug/L	36.208	2334	-0.046
	Mg	24	1.553	ug/L	188.456	667	0.005
	Al	27	0.000	ug/L		0	0.000
	P	31	-4.141	ug/L	131.328	866	-0.002
	K	39	-25.096	ug/L	84.612	138008	-0.265
	Ca	43	1.109	ug/L	1049.920	71	0.000
>	Sc	45		ug/L		64921	64921.485
	Ti	47	-0.334	ug/L	14.215	56	-0.000
	V	51	-0.858	ug/L	170.865	478	-0.011
	Cr	52	-0.204	ug/L	64.996	744	-0.003
	Cr	53		ug/L		30027	-0.046
	Mn	55	0.003	ug/L	839.122	293	0.000
	Fe	57	-7.571	ug/L	200.102	2133	-0.004
	Co	59	-0.017	ug/L	184.903	200	-0.000
	Ni	60	-0.252	ug/L	47.467	126	-0.001
	Cu	63		ug/L		163	-0.000
	Cu	65	-0.051	ug/L	162.515	129	-0.000
	Zn	66	0.439	ug/L	54.804	122	0.001
	Zn	67		ug/L		1279	0.002
	Zn	68		ug/L		293	0.001
>	Ge	74		ug/L		85018	85017.766
	As	75	0.804	ug/L	54.598	630	0.002
	Se	77		ug/L		1469	-0.000
	Se	82	-0.039	ug/L	1650.813	5	-0.000
	Kr	83		ug/L		29	-0.000
	Sr	88	0.007	ug/L	109.882	58	0.000
	Y	89		ug/L		12	-0.000
	Zr	90	0.101	ug/L	24.959	546	0.002
	Mo	98	0.171	ug/L	11.440	195	0.002
	Ag	107	-0.002	ug/L	224.589	14	-0.000
	Cd	111	0.003	ug/L	606.155	3	0.000
	Cd	114		ug/L		10	0.000
>	In	115		ug/L		61548	61548.259
	Sn	120	0.775	ug/L	6.012	1427	0.017
	Sb	121	0.398	ug/L	21.414	1482	0.008
	Sb	123		ug/L		1104	0.006
	Ba	135		ug/L		12	-0.000
	Ba	137	0.000	ug/L	4879.598	18	0.000
	Ho	165		ug/L		9	0.000
>	Lu	175		ug/L		121086	121086.271
	Tl	205	0.187	ug/L	30.756	2435	0.009
	Pb	208	0.023	ug/L	79.864	260	0.001
	Th	232	0.135	ug/L	15.521	2586	0.008
	U	238	0.051	ug/L	24.501	491	0.003

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	0.9998
Be	9	Linear Thru Zero	0.9998
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	0.9999
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	0.9998
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	0.9999
V	51	Linear Thru Zero	0.9999
Cr	52	Linear Thru Zero	0.9999
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	0.9999
Ni	60	Linear Thru Zero	0.9999
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	0.9999
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	0.9999
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		121.8			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		99.1			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		97.1			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		98.6			
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Sc 45 Int Std for QC	Sc	45	

QC Action

QC Action Line: Continue

ICPMS#3 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Tuesday, December 22, 2009 20:54:20
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\091220\QC Std 6.457

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**61.322**	ug/L	4.393	1920	0.033
	Be	9	**61.681**	ug/L	3.787	1736	0.030
	B	11	**115.652**	ug/L	9.834	2389	0.038
	Na	23	**5447.694**	ug/L	10.789	1459855	24.989
	Mg	24	**5402.253**	ug/L	8.074	1081284	18.519
	Al	27	**5878.263**	ug/L	17.673	2209855	38.003
	P	31	**5845.688**	ug/L	3.712	170111	2.901
	K	39	**5339.855**	ug/L	8.280	3425638	56.289
	Ca	43	**5644.397**	ug/L	3.767	6797	0.115
>	Sc	45		ug/L		58377	58376.733
	Ti	47	**55.985**	ug/L	1.236	3609	0.061
	V	51	**59.007**	ug/L	8.317	46640	0.780
	Cr	52	**59.534**	ug/L	4.289	51682	0.872
	Cr	53		ug/L		42590	0.210
	Mn	55	**59.688**	ug/L	4.690	87171	1.491
	Fe	57	**5742.639**	ug/L	5.270	160846	2.721
	Co	59	**57.971**	ug/L	4.423	53979	0.922
	Ni	60	**57.908**	ug/L	4.743	11016	0.186
	Cu	63		ug/L		24331	0.414
	Cu	65	**57.860**	ug/L	2.957	11257	0.191
	Zn	66	**53.374**	ug/L	2.473	8355	0.098
	Zn	67		ug/L		3040	0.022
	Zn	68		ug/L		7267	0.083
>	Ge	74		ug/L		84897	84897.105
	As	75	**50.983**	ug/L	2.257	13621	0.156
	Se	77		ug/L		2803	0.015
	Se	82	**51.924**	ug/L	4.438	1081	0.013
	Kr	83		ug/L		32	0.000
	Sr	88	**52.354**	ug/L	0.830	138201	2.270
	Y	89		ug/L		19	0.000
	Zr	90	**44.000**	ug/L	5.747	65848	1.075
	Mo	98	**50.273**	ug/L	2.362	36598	0.600
	Ag	107	**50.308**	ug/L	0.815	63571	1.044
	Cd	111	**50.670**	ug/L	1.811	15966	0.262
	Cd	114		ug/L		37358	0.614
>	In	115		ug/L		60862	60862.381
	Sn	120	**50.891**	ug/L	1.854	69235	1.132
	Sb	121	**49.884**	ug/L	2.027	64303	1.041
	Sb	123		ug/L		48958	0.793
	Ba	135		ug/L		16481	0.134
	Ba	137	**49.818**	ug/L	2.375	28729	0.234
	Ho	165		ug/L		19	0.000
>	Lu	175		ug/L		122753	122753.442
	Tl	205	**49.296**	ug/L	3.021	277739	2.251
	Pb	208	**51.640**	ug/L	1.228	336362	2.739
	Th	232	**52.682**	ug/L	1.451	404890	3.286
	U	238	**54.708**	ug/L	1.956	438460	3.572

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	0.9998
Be	9	Linear Thru Zero	0.9998
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	0.9999
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	0.9998
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	0.9999
V	51	Linear Thru Zero	0.9999
Cr	52	Linear Thru Zero	0.9999
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	0.9999
Ni	60	Linear Thru Zero	0.9999
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	0.9999
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	0.9999
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7	122.644				
	Be	9	123.363				
	B	11	115.652				
	Na	23	108.954				
	Mg	24	108.045				
	Al	27	116.401				
	P	31	116.914				
	K	39	106.797				
	Ca	43	112.888				
>	Sc	45		109.5			
	Ti	47	111.971				
	V	51	118.013				
	Cr	52	119.068				
	Cr	53					
	Mn	55	119.377				
	Fe	57	114.853				
	Co	59	115.943				
	Ni	60	115.817				
	Cu	63					
	Cu	65	115.720				
	Zn	66	106.747				
	Zn	67					
	Zn	68					
>	Ge	74		98.9			
	As	75	101.966				
	Se	77					
	Se	82	103.847				
	Kr	83					
	Sr	88	104.708				
	Y	89					
	Zr	90	87.999				
	Mo	98	100.546				
	Ag	107	100.615				
	Cd	111	101.341				
	Cd	114					
>	In	115		96.1			
	Sn	120	101.782				
	Sb	121	99.768				
	Sb	123					
	Ba	135					
	Ba	137	99.635				
	Ho	165					
>	Lu	175		100.0			
	Tl	205	98.591				
	Pb	208	103.279				
	Th	232	105.363				
	U	238	109.416				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 6	Li	7	CCV is out of limits (+/- 10%)
QC Std 6	Be	9	CCV is out of limits (+/- 10%)
QC Std 6	B	11	CCV is out of limits (+/- 10%)
QC Std 6	Al	27	CCV is out of limits (+/- 10%)
QC Std 6	P	31	CCV is out of limits (+/- 10%)
QC Std 6	Ca	43	CCV is out of limits (+/- 10%)
QC Std 6	Ti	47	CCV is out of limits (+/- 10%)

QC Std 6	V	51CCV is out of limits (+/- 10%)
QC Std 6	Cr	52CCV is out of limits (+/- 10%)
QC Std 6	Mn	55CCV is out of limits (+/- 10%)
QC Std 6	Fe	57CCV is out of limits (+/- 10%)
QC Std 6	Co	59CCV is out of limits (+/- 10%)
QC Std 6	Ni	60CCV is out of limits (+/- 10%)
QC Std 6	Cu	65CCV is out of limits (+/- 10%)
QC Std 6	Zr	90CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#3 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Tuesday, December 22, 2009 21:00:05
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\091220\QC Std 7.458

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	-0.054	ug/L	251.624	7	-0.000
	Be	9	-0.142	ug/L	31.316	4	-0.000
	B	11	-1.910	ug/L	34.908	125	-0.001
	Na	23	-12.712	ug/L	16.087	1333	-0.058
	Mg	24	-1.824	ug/L		0	-0.006
	Al	27	0.000	ug/L		0	0.000
	P	31	-0.311	ug/L	147.189	899	-0.000
	K	39	-30.507	ug/L	52.089	120172	-0.322
	Ca	43	7.046	ug/L	350.287	72	0.000
>	Sc	45		ug/L		57696	57695.888
	Ti	47	-0.052	ug/L	340.410	67	-0.000
	V	51	0.698	ug/L	20.423	1719	0.009
	Cr	52	0.156	ug/L	19.713	973	0.002
	Cr	53		ug/L		32944	0.050
	Mn	55	0.016	ug/L	161.555	284	0.000
	Fe	57	-7.677	ug/L	58.013	1943	-0.004
	Co	59	-0.028	ug/L	49.057	171	-0.000
	Ni	60	-0.103	ug/L	49.659	142	-0.000
	Cu	63		ug/L		174	0.000
	Cu	65	-0.084	ug/L	52.522	111	-0.000
	Zn	66	-0.070	ug/L	25.962	41	-0.000
	Zn	67		ug/L		1408	0.004
	Zn	68		ug/L		268	0.001
>	Ge	74		ug/L		82564	82564.416
	As	75	1.509	ug/L	24.289	790	0.005
	Se	77		ug/L		1808	0.004
	Se	82	-0.024	ug/L	2394.712	5	-0.000
	Kr	83		ug/L		26	-0.000
	Sr	88	0.006	ug/L	39.593	55	0.000
	Y	89		ug/L		13	-0.000
	Zr	90	0.035	ug/L	57.461	434	0.001
	Mo	98	0.011	ug/L	204.075	75	0.000
	Ag	107	-0.003	ug/L	64.876	13	-0.000
	Cd	111	0.011	ug/L	6.922	6	0.000
	Cd	114		ug/L		11	0.000
>	In	115		ug/L		59676	59676.008
	Sn	120	-0.046	ug/L	51.083	293	-0.001
	Sb	121	-0.222	ug/L	34.691	665	-0.005
	Sb	123		ug/L		533	-0.003
	Ba	135		ug/L		9	-0.000
	Ba	137	-0.003	ug/L	66.948	16	-0.000
	Ho	165		ug/L		13	0.000
>	Lu	175		ug/L		120011	120011.232
	Tl	205	-0.013	ug/L	308.069	1323	-0.001
	Pb	208	0.006	ug/L	19.864	147	0.000
	Th	232	-0.018	ug/L	84.202	1416	-0.001
	U	238	0.006	ug/L	38.387	134	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	0.9998
Be	9	Linear Thru Zero	0.9998
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	0.9999
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	0.9998
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	0.9999
V	51	Linear Thru Zero	0.9999
Cr	52	Linear Thru Zero	0.9999
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	0.9999
Ni	60	Linear Thru Zero	0.9999
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	0.9999
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	0.9999
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		108.2			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		96.2			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		94.2			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		97.8			
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Tuesday, December 22, 2009 21:34:34
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\091220\QC Std 6.464

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**58.183**	ug/L	3.512	1871	0.031
	Be	9	**58.601**	ug/L	4.374	1694	0.028
	B	11	**109.567**	ug/L	5.292	2334	0.036
	Na	23	**4949.581**	ug/L	5.308	1365046	22.704
	Mg	24	**5542.194**	ug/L	11.385	1137908	18.999
	Al	27	**5093.734**	ug/L	5.034	1974054	32.931
	P	31	**5621.073**	ug/L	4.807	167919	2.790
	K	39	**5179.514**	ug/L	2.997	3416309	54.598
	Ca	43	**5594.495**	ug/L	1.939	6916	0.114
>	Sc	45		ug/L		59904	59903.650
	Ti	47	**54.628**	ug/L	7.106	3613	0.059
	V	51	**56.635**	ug/L	1.539	46057	0.748
	Cr	52	**57.224**	ug/L	3.366	51031	0.838
	Cr	53		ug/L		41817	0.178
	Mn	55	**57.118**	ug/L	5.414	85656	1.426
	Fe	57	**5477.582**	ug/L	3.684	157624	2.596
	Co	59	**55.008**	ug/L	3.216	52591	0.875
	Ni	60	**56.147**	ug/L	3.146	10973	0.180
	Cu	63		ug/L		23703	0.393
	Cu	65	**56.352**	ug/L	3.511	11257	0.186
	Zn	66	**53.269**	ug/L	2.129	8249	0.098
	Zn	67		ug/L		2972	0.022
	Zn	68		ug/L		7370	0.085
>	Ge	74		ug/L		83983	83983.360
	As	75	**49.729**	ug/L	2.142	13154	0.152
	Se	77		ug/L		2850	0.016
	Se	82	**50.456**	ug/L	4.491	1039	0.012
	Kr	83		ug/L		35	0.000
	Sr	88	**51.104**	ug/L	1.347	134536	2.216
	Y	89		ug/L		20	0.000
	Zr	90	**40.711**	ug/L	7.861	60821	0.995
	Mo	98	**49.536**	ug/L	1.619	35973	0.592
	Ag	107	**49.549**	ug/L	1.216	62441	1.028
	Cd	111	**50.668**	ug/L	1.066	15924	0.262
	Cd	114		ug/L		37056	0.610
>	In	115		ug/L		60701	60701.080
	Sn	120	**50.645**	ug/L	1.529	68718	1.126
	Sb	121	**49.584**	ug/L	4.707	63765	1.034
	Sb	123		ug/L		48656	0.790
	Ba	135		ug/L		16387	0.134
	Ba	137	**49.708**	ug/L	0.510	28539	0.233
	Ho	165		ug/L		21	0.000
>	Lu	175		ug/L		122183	122183.179
	Tl	205	**48.962**	ug/L	2.044	274638	2.236
	Pb	208	**51.501**	ug/L	0.612	333930	2.732
	Th	232	**53.360**	ug/L	1.068	408222	3.328
	U	238	**54.647**	ug/L	1.872	436020	3.568

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	0.9998
Be	9	Linear Thru Zero	0.9998
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	0.9999
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	0.9998
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	0.9999
V	51	Linear Thru Zero	0.9999
Cr	52	Linear Thru Zero	0.9999
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	0.9999
Ni	60	Linear Thru Zero	0.9999
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	0.9999
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	0.9999
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7	116.366				
	Be	9	117.201				
	B	11	109.567				
	Na	23	98.992				
	Mg	24	110.844				
	Al	27	100.866				
	P	31	112.421				
	K	39	103.590				
	Ca	43	111.890				
>	Sc	45			112.3		
	Ti	47	109.255				
	V	51	113.270				
	Cr	52	114.448				
	Cr	53					
	Mn	55	114.237				
	Fe	57	109.552				
	Co	59	110.016				
	Ni	60	112.294				
	Cu	63					
	Cu	65	112.704				
	Zn	66	106.538				
	Zn	67					
	Zn	68					
>	Ge	74			97.9		
	As	75	99.458				
	Se	77					
	Se	82	100.912				
	Kr	83					
	Sr	88	102.209				
	Y	89					
	Zr	90	81.422				
	Mo	98	99.072				
	Ag	107	99.098				
	Cd	111	101.337				
	Cd	114					
>	In	115			95.8		
	Sn	120	101.289				
	Sb	121	99.167				
	Sb	123					
	Ba	135					
	Ba	137	99.416				
	Ho	165					
>	Lu	175			99.5		
	Tl	205	97.923				
	Pb	208	103.001				
	Th	232	106.720				
	U	238	109.295				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 6	Li	7	CCV is out of limits (+/- 10%)
QC Std 6	Be	9	CCV is out of limits (+/- 10%)
QC Std 6	Mg	24	CCV is out of limits (+/- 10%)
QC Std 6	P	31	CCV is out of limits (+/- 10%)
QC Std 6	Ca	43	CCV is out of limits (+/- 10%)
QC Std 6	V	51	CCV is out of limits (+/- 10%)
QC Std 6	Cr	52	CCV is out of limits (+/- 10%)

QC Std 6	Mn	55CCV is out of limits (+/- 10%)
QC Std 6	Co	59CCV is out of limits (+/- 10%)
QC Std 6	Ni	60CCV is out of limits (+/- 10%)
QC Std 6	Cu	65CCV is out of limits (+/- 10%)
QC Std 6	Zr	90CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#3 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Tuesday, December 22, 2009 21:40:19
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\091220\QC Std 7.465

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	-0.095	ug/L	43.402	6	-0.000
	Be	9	-0.140	ug/L	62.982	5	-0.000
	B	11	-2.508	ug/L	53.833	126	-0.001
	Na	23	-9.732	ug/L	27.905	2334	-0.045
	Mg	24	-0.194	ug/L	1452.908	333	-0.001
	Al	27	1.538	ug/L	88.879	667	0.010
	P	31	-4.183	ug/L	126.696	876	-0.002
	K	39	-49.803	ug/L	52.038	121179	-0.525
	Ca	43	2.998	ug/L	317.340	75	0.000
>	Sc	45		ug/L		65403	65402.928
	Ti	47	-0.066	ug/L	364.383	74	-0.000
	V	51	0.782	ug/L	67.943	2041	0.010
	Cr	52	0.132	ug/L	114.771	1066	0.002
	Cr	53		ug/L		32711	-0.012
	Mn	55	-0.007	ug/L	300.790	280	-0.000
	Fe	57	-13.492	ug/L	55.543	2000	-0.006
	Co	59	-0.069	ug/L	23.979	149	-0.001
	Ni	60	-0.152	ug/L	58.508	149	-0.000
	Cu	63		ug/L		173	-0.000
	Cu	65	-0.137	ug/L	75.664	112	-0.000
	Zn	66	-0.026	ug/L	191.856	48	-0.000
	Zn	67		ug/L		1383	0.003
	Zn	68		ug/L		245	0.000
>	Ge	74		ug/L		82390	82390.069
	As	75	0.951	ug/L	62.363	649	0.003
	Se	77		ug/L		1840	0.005
	Se	82	0.179	ug/L	258.217	9	0.000
	Kr	83		ug/L		25	-0.000
	Sr	88	0.009	ug/L	72.024	62	0.000
	Y	89		ug/L		14	0.000
	Zr	90	-0.000	ug/L	10350.096	380	-0.000
	Mo	98	0.003	ug/L	429.999	69	0.000
	Ag	107	0.008	ug/L	43.918	26	0.000
	Cd	111	0.021	ug/L	71.868	9	0.000
	Cd	114		ug/L		14	0.000
>	In	115		ug/L		59365	59364.865
	Sn	120	-0.054	ug/L	23.545	282	-0.001
	Sb	121	-0.210	ug/L	32.548	677	-0.004
	Sb	123		ug/L		549	-0.003
	Ba	135		ug/L		17	0.000
	Ba	137	-0.004	ug/L	238.210	15	-0.000
	Ho	165		ug/L		13	0.000
>	Lu	175		ug/L		118294	118293.939
	Tl	205	-0.010	ug/L	218.593	1319	-0.000
	Pb	208	0.012	ug/L	36.937	181	0.001
	Th	232	0.029	ug/L	35.877	1748	0.002
	U	238	0.012	ug/L	44.357	179	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	0.9998
Be	9	Linear Thru Zero	0.9998
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	0.9999
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	0.9998
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	0.9999
V	51	Linear Thru Zero	0.9999
Cr	52	Linear Thru Zero	0.9999
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	0.9999
Ni	60	Linear Thru Zero	0.9999
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	0.9999
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	0.9999
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		122.7			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		96.0			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		93.7			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		96.4			
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Sc 45 Int Std for QC	Sc	45	

QC Action

QC Action Line: Continue

ICPMS#3 - Summary Report

Sample ID: 1201994293
Sample Date/Time: Tuesday, December 22, 2009 21:46:05
Sample Type:
Sample Description: LANL 6020 MB
Number of Replicates: 3
Batch ID: 932312|1|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\091220\1201994293.466

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.099**	ug/L	79.114	12	0.000
	Be	9	**-0.162**	ug/L	23.065	4	-0.000
	B	11	**-4.092**	ug/L	8.267	88	-0.001
	Na	23	**4.768**	ug/L	220.132	6335	0.022
	Mg	24	**1.395**	ug/L	199.946	667	0.005
	Al	27	**3.336**	ug/L	86.603	1333	0.022
	P	31	**-2.635**	ug/L	141.479	879	-0.001
	K	39	**6.826**	ug/L	260.488	150793	0.072
	Ca	43	**23.105**	ug/L	56.772	96	0.000
>	Sc	45		ug/L		60951	60950.744
	Ti	47	**0.298**	ug/L	6.790	94	0.000
	V	51	**0.773**	ug/L	257.556	1880	0.010
	Cr	52	**2.600**	ug/L	4.090	3208	0.038
	Cr	53		ug/L		67512	0.587
	Mn	55	**0.255**	ug/L	10.321	664	0.006
	Fe	57	**8.075**	ug/L	33.560	2510	0.004
	Co	59	**-0.021**	ug/L	22.084	187	-0.000
	Ni	60	**0.194**	ug/L	64.447	208	0.001
	Cu	63		ug/L		237	0.001
	Cu	65	**0.075**	ug/L	59.100	149	0.000
	Zn	66	**5.107**	ug/L	5.496	837	0.009
	Zn	67		ug/L		3419	0.027
	Zn	68		ug/L		1075	0.010
>	Ge	74		ug/L		83781	83780.522
	As	75	**6.204**	ug/L	6.993	2001	0.019
	Se	77		ug/L		5487	0.048
	Se	82	**0.029**	ug/L	1441.016	6	0.000
	Kr	83		ug/L		29	-0.000
	Sr	88	**0.034**	ug/L	20.856	124	0.001
	Y	89		ug/L		19	0.000
	Zr	90	**1.276**	ug/L	8.915	2210	0.031
	Mo	98	**-0.035**	ug/L	22.535	42	-0.000
	Ag	107	**-0.001**	ug/L	320.523	14	-0.000
	Cd	111	**0.015**	ug/L	30.534	7	0.000
	Cd	114		ug/L		8	0.000
>	In	115		ug/L		58754	58753.679
	Sn	120	**0.079**	ug/L	64.044	452	0.002
	Sb	121	**-0.435**	ug/L	8.107	394	-0.009
	Sb	123		ug/L		326	-0.006
	Ba	135		ug/L		18	0.000
	Ba	137	**0.034**	ug/L	29.147	37	0.000
	Ho	165		ug/L		11	0.000
>	Lu	175		ug/L		120175	120174.946
	Tl	205	**-0.139**	ug/L	9.939	632	-0.006
	Pb	208	**0.019**	ug/L	21.042	233	0.001
	Th	232	**-0.030**	ug/L	97.744	1328	-0.002
	U	238	**-0.004**	ug/L	10.074	54	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	0.9998
Be	9	Linear Thru Zero	0.9998
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	0.9999
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	0.9998
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	0.9999
V	51	Linear Thru Zero	0.9999
Cr	52	Linear Thru Zero	0.9999
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	0.9999
Ni	60	Linear Thru Zero	0.9999
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	0.9999
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	0.9999
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		114.3			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		97.6			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		92.7			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		97.9			
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: 1201994294
Sample Date/Time: Tuesday, December 22, 2009 21:51:51
Sample Type:
Sample Description: LANL 6020 LCS
Number of Replicates: 3
Batch ID: 932312|1|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\091220\1201994294.467

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**56.284**	ug/L	2.945	1879	0.030
	Be	9	**63.871**	ug/L	2.285	1915	0.031
	B	11	**115.633**	ug/L	2.746	2546	0.038
	Na	23	**2067.024**	ug/L	6.166	593771	9.482
	Mg	24	**2225.857**	ug/L	12.734	473791	7.630
	Al	27	**2240.495**	ug/L	10.094	899618	14.485
	P	31	**2320.656**	ug/L	1.307	72529	1.152
	K	39	**1931.393**	ug/L	6.262	1414545	20.359
	Ca	43	**2283.725**	ug/L	2.521	2968	0.047
>	Sc	45		ug/L		62132	62131.799
	Ti	47	**50.567**	ug/L	3.576	3477	0.055
	V	51	**57.068**	ug/L	3.697	48158	0.754
	Cr	52	**59.784**	ug/L	0.712	55285	0.875
	Cr	53		ug/L		76902	0.717
	Mn	55	**57.301**	ug/L	1.886	89168	1.431
	Fe	57	**2226.099**	ug/L	2.105	67843	1.055
	Co	59	**56.084**	ug/L	0.959	55634	0.892
	Ni	60	**56.942**	ug/L	2.525	11542	0.183
	Cu	63		ug/L		24830	0.397
	Cu	65	**55.554**	ug/L	2.634	11514	0.183
	Zn	66	**54.424**	ug/L	2.656	8641	0.100
	Zn	67		ug/L		5093	0.046
	Zn	68		ug/L		7581	0.085
>	Ge	74		ug/L		86137	86136.538
	As	75	**56.851**	ug/L	1.381	15362	0.173
	Se	77		ug/L		6385	0.056
	Se	82	**50.846**	ug/L	2.162	1075	0.012
	Kr	83		ug/L		32	-0.000
	Sr	88	**51.345**	ug/L	1.398	131533	2.226
	Y	89		ug/L		19	0.000
	Zr	90	**52.058**	ug/L	1.169	75517	1.272
	Mo	98	**51.191**	ug/L	1.873	36172	0.611
	Ag	107	**51.898**	ug/L	0.906	63637	1.077
	Cd	111	**51.929**	ug/L	2.235	15882	0.269
	Cd	114		ug/L		37064	0.627
>	In	115		ug/L		59062	59061.586
	Sn	120	**52.855**	ug/L	2.394	69777	1.175
	Sb	121	**53.942**	ug/L	1.180	67399	1.125
	Sb	123		ug/L		51647	0.863
	Ba	135		ug/L		16664	0.136
	Ba	137	**51.095**	ug/L	1.259	29396	0.240
	Ho	165		ug/L		18	0.000
>	Lu	175		ug/L		122453	122452.896
	Tl	205	**48.948**	ug/L	0.220	275141	2.235
	Pb	208	**52.359**	ug/L	1.169	340211	2.778
	Th	232	**52.498**	ug/L	0.309	402541	3.274
	U	238	**55.772**	ug/L	1.221	445908	3.641

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	0.9998
Be	9	Linear Thru Zero	0.9998
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	0.9999
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	0.9998
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	0.9999
V	51	Linear Thru Zero	0.9999
Cr	52	Linear Thru Zero	0.9999
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	0.9999
Ni	60	Linear Thru Zero	0.9999
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	0.9999
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	0.9999
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45			116.5		
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74			100.4		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115			93.2		
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175			99.8		
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: 242782001
Sample Date/Time: Tuesday, December 22, 2009 21:57:37
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 932312|1|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\091220\242782001.468

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**-0.050**	**ug/L**	295.097	7	-0.000
	Be	9	**-0.162**	**ug/L**	35.627	4	-0.000
	B	11	**3.282**	**ug/L**	36.852	234	0.001
	Na	23	**9.841**	**ug/L**	152.361	7669	0.045
	Mg	24	**-0.280**	**ug/L**	956.471	333	-0.001
	Al	27	**2.506**	**ug/L**	98.063	1000	0.016
	P	31	**-1.994**	**ug/L**	105.390	890	-0.001
	K	39	**-7.852**	**ug/L**	374.680	140022	-0.083
	Ca	43	**35.199**	**ug/L**	6.776	110	0.001
>	Sc	45		**ug/L**		60425	60425.240
	Ti	47	**0.837**	**ug/L**	31.482	129	0.001
	V	51	**1.631**	**ug/L**	120.811	2509	0.022
	Cr	52	**2.533**	**ug/L**	5.067	3121	0.037
	Cr	53		**ug/L**		70352	0.644
	Mn	55	**0.198**	**ug/L**	10.602	572	0.005
	Fe	57	**2.157**	**ug/L**	196.328	2316	0.001
	Co	59	**-0.038**	**ug/L**	58.617	170	-0.001
	Ni	60	**0.017**	**ug/L**	486.675	172	0.000
	Cu	63		**ug/L**		326	0.003
	Cu	65	**0.258**	**ug/L**	20.071	184	0.001
	Zn	66	**2.349**	**ug/L**	6.301	417	0.004
	Zn	67		**ug/L**		3694	0.030
	Zn	68		**ug/L**		737	0.006
>	Ge	74		**ug/L**		84587	84587.217
	As	75	**6.199**	**ug/L**	20.855	2022	0.019
	Se	77		**ug/L**		5453	0.047
	Se	82	**-0.402**	**ug/L**	124.457	-2	-0.000
	Kr	83		**ug/L**		33	0.000
	Sr	88	**0.040**	**ug/L**	3.516	139	0.002
	Y	89		**ug/L**		24	0.000
	Zr	90	**0.639**	**ug/L**	12.371	1292	0.016
	Mo	98	**-0.013**	**ug/L**	12.647	57	-0.000
	Ag	107	**0.018**	**ug/L**	39.745	38	0.000
	Cd	111	**0.018**	**ug/L**	50.603	8	0.000
	Cd	114		**ug/L**		11	0.000
>	In	115		**ug/L**		58676	58676.338
	Sn	120	**-0.024**	**ug/L**	194.601	318	-0.001
	Sb	121	**-0.472**	**ug/L**	3.918	348	-0.010
	Sb	123		**ug/L**		284	-0.007
	Ba	135		**ug/L**		50	0.000
	Ba	137	**0.110**	**ug/L**	10.278	79	0.001
	Ho	165		**ug/L**		11	0.000
>	Lu	175		**ug/L**		119979	119978.980
	Tl	205	**0.107**	**ug/L**	61.323	1981	0.005
	Pb	208	**0.028**	**ug/L**	5.781	287	0.001
	Th	232	**0.012**	**ug/L**	537.284	1650	0.001
	U	238	**-0.001**	**ug/L**	352.950	81	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	0.9998
Be	9	Linear Thru Zero	0.9998
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	0.9999
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	0.9998
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	0.9999
V	51	Linear Thru Zero	0.9999
Cr	52	Linear Thru Zero	0.9999
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	0.9999
Ni	60	Linear Thru Zero	0.9999
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	0.9999
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	0.9999
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		113.3			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		98.6			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		92.6			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		97.7			
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: 242782002
Sample Date/Time: Tuesday, December 22, 2009 22:03:23
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 932312|1|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\091220\242782002.469

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.053**	ug/L	35.303	10	0.000
	Be	9	**-0.056**	ug/L	223.940	7	-0.000
	B	11	**0.458**	ug/L	287.309	177	0.000
	Na	23	**123.100**	ug/L	37.261	38723	0.565
	Mg	24	**12.783**	ug/L	76.413	3000	0.044
	Al	27	**60.235**	ug/L	20.248	23353	0.389
	P	31	**3.439**	ug/L	18.069	1046	0.002
	K	39	**48.791**	ug/L	24.475	175067	0.514
	Ca	43	**82.673**	ug/L	4.662	167	0.002
>	Sc	45		ug/L		59969	59968.537
	Ti	47	**2.159**	ug/L	10.404	214	0.002
	V	51	**-0.219**	ug/L	1818.106	1060	-0.003
	Cr	52	**5.141**	ug/L	1.450	5389	0.075
	Cr	53		ug/L		72791	0.693
	Mn	55	**6.425**	ug/L	2.382	9893	0.160
	Fe	57	**120.221**	ug/L	5.479	5656	0.057
	Co	59	**0.012**	ug/L	185.781	216	0.000
	Ni	60	**0.270**	ug/L	17.559	220	0.001
	Cu	63		ug/L		472	0.005
	Cu	65	**0.698**	ug/L	16.229	270	0.002
	Zn	66	**4.024**	ug/L	4.917	677	0.007
	Zn	67		ug/L		3794	0.031
	Zn	68		ug/L		1008	0.009
>	Ge	74		ug/L		84583	84582.532
	As	75	**6.697**	ug/L	11.848	2150	0.020
	Se	77		ug/L		5676	0.049
	Se	82	**-0.317**	ug/L	84.132	-1	-0.000
	Kr	83		ug/L		32	0.000
	Sr	88	**0.310**	ug/L	1.648	826	0.013
	Y	89		ug/L		605	0.010
	Zr	90	**0.411**	ug/L	10.344	967	0.010
	Mo	98	**0.104**	ug/L	7.510	139	0.001
	Ag	107	**0.042**	ug/L	12.022	66	0.001
	Cd	111	**0.009**	ug/L	6.545	5	0.000
	Cd	114		ug/L		16	0.000
>	In	115		ug/L		58728	58727.664
	Sn	120	**-0.025**	ug/L	99.649	316	-0.001
	Sb	121	**-0.590**	ug/L	2.351	203	-0.012
	Sb	123		ug/L		177	-0.009
	Ba	135		ug/L		394	0.003
	Ba	137	**1.179**	ug/L	5.886	685	0.006
	Ho	165		ug/L		73	0.001
>	Lu	175		ug/L		120603	120602.833
	Tl	205	**-0.112**	ug/L	3.581	783	-0.005
	Pb	208	**0.442**	ug/L	2.155	2935	0.023
	Th	232	**-0.110**	ug/L	1.439	731	-0.007
	U	238	**0.007**	ug/L	41.954	141	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	0.9998
Be	9	Linear Thru Zero	0.9998
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	0.9999
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	0.9998
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	0.9999
V	51	Linear Thru Zero	0.9999
Cr	52	Linear Thru Zero	0.9999
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	0.9999
Ni	60	Linear Thru Zero	0.9999
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	0.9999
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	0.9999
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45			112.5		
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74			98.6		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115			92.7		
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175			98.2		
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: 1201994295
Sample Date/Time: Tuesday, December 22, 2009 22:09:07
Sample Type:
Sample Description: LANL 6020 DUP
Number of Replicates: 3
Batch ID: 932312|1|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\091220\1201994295.470

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.034**	**ug/L**	258.751	10	0.000
	Be	9	**-0.071**	**ug/L**	44.831	7	-0.000
	B	11	**-0.276**	**ug/L**	145.367	173	-0.000
	Na	23	**121.677**	**ug/L**	4.978	40725	0.558
	Mg	24	**7.248**	**ug/L**	164.489	2000	0.025
	Al	27	**80.839**	**ug/L**	27.640	33374	0.523
	P	31	**0.778**	**ug/L**	143.165	1027	0.000
	K	39	**43.781**	**ug/L**	48.524	182495	0.462
	Ca	43	**54.293**	**ug/L**	26.189	141	0.001
>	Sc	45		**ug/L**		63702	63702.367
	Ti	47	**2.040**	**ug/L**	17.665	219	0.002
	V	51	**0.438**	**ug/L**	715.288	1691	0.006
	Cr	52	**4.890**	**ug/L**	3.051	5489	0.072
	Cr	53		**ug/L**		73273	0.629
	Mn	55	**6.036**	**ug/L**	2.644	9890	0.151
	Fe	57	**112.617**	**ug/L**	2.912	5778	0.053
	Co	59	**-0.007**	**ug/L**	130.948	210	-0.000
	Ni	60	**0.174**	**ug/L**	27.007	214	0.001
	Cu	63		**ug/L**		524	0.005
	Cu	65	**0.699**	**ug/L**	10.518	287	0.002
	Zn	66	**4.185**	**ug/L**	1.895	691	0.008
	Zn	67		**ug/L**		3780	0.032
	Zn	68		**ug/L**		982	0.009
>	Ge	74		**ug/L**		83299	83298.672
	As	75	**6.271**	**ug/L**	10.619	2007	0.019
	Se	77		**ug/L**		5685	0.050
	Se	82	**-0.204**	**ug/L**	195.212	2	-0.000
	Kr	83		**ug/L**		29	-0.000
	Sr	88	**0.302**	**ug/L**	1.724	812	0.013
	Y	89		**ug/L**		663	0.011
	Zr	90	**0.295**	**ug/L**	3.806	805	0.007
	Mo	98	**0.122**	**ug/L**	16.292	153	0.001
	Ag	107	**0.097**	**ug/L**	5.816	135	0.002
	Cd	111	**0.015**	**ug/L**	104.204	7	0.000
	Cd	114		**ug/L**		17	0.000
>	In	115		**ug/L**		59070	59069.917
	Sn	120	**-0.014**	**ug/L**	23.499	333	-0.000
	Sb	121	**-0.622**	**ug/L**	2.256	166	-0.013
	Sb	123		**ug/L**		146	-0.009
	Ba	135		**ug/L**		436	0.004
	Ba	137	**1.333**	**ug/L**	3.502	765	0.006
	Ho	165		**ug/L**		73	0.001
>	Lu	175		**ug/L**		119395	119395.057
	Tl	205	**-0.160**	**ug/L**	5.430	515	-0.007
	Pb	208	**0.445**	**ug/L**	2.451	2926	0.024
	Th	232	**-0.132**	**ug/L**	4.119	559	-0.008
	U	238	**0.007**	**ug/L**	29.010	140	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	0.9998
Be	9	Linear Thru Zero	0.9998
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	0.9999
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	0.9998
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	0.9999
V	51	Linear Thru Zero	0.9999
Cr	52	Linear Thru Zero	0.9999
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	0.9999
Ni	60	Linear Thru Zero	0.9999
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	0.9999
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	0.9999
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45			119.5		
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74			97.1		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115			93.2		
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175			97.3		
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: 1201994296
Sample Date/Time: Tuesday, December 22, 2009 22:14:51
Sample Type:
Sample Description: LANL 6020 MS
Number of Replicates: 3
Batch ID: 932312|1|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\091220\1201994296.471

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**55.677**	**ug/L**	3.261	1869	0.030
	Be	9	**63.501**	**ug/L**	3.800	1914	0.031
	B	11	**119.156**	**ug/L**	1.395	2635	0.039
	Na	23	**2368.399**	**ug/L**	4.203	683653	10.864
	Mg	24	**2256.436**	**ug/L**	17.379	482459	7.735
	Al	27	**2369.126**	**ug/L**	5.910	958244	15.316
	P	31	**2340.297**	**ug/L**	1.349	73577	1.161
	K	39	**2102.351**	**ug/L**	6.533	1533489	22.161
	Ca	43	**2271.366**	**ug/L**	4.263	2968	0.046
>	Sc	45		**ug/L**		62493	62493.092
	Ti	47	**52.642**	**ug/L**	5.163	3635	0.057
	V	51	**57.004**	**ug/L**	6.597	48319	0.753
	Cr	52	**62.171**	**ug/L**	1.993	57774	0.910
	Cr	53		**ug/L**		77804	0.725
	Mn	55	**62.890**	**ug/L**	3.070	98385	1.570
	Fe	57	**2352.142**	**ug/L**	2.240	71957	1.115
	Co	59	**55.113**	**ug/L**	1.533	54981	0.877
	Ni	60	**55.447**	**ug/L**	1.690	11309	0.178
	Cu	63		**ug/L**		25112	0.399
	Cu	65	**57.258**	**ug/L**	0.929	11935	0.189
	Zn	66	**56.222**	**ug/L**	1.262	8893	0.103
	Zn	67		**ug/L**		5117	0.046
	Zn	68		**ug/L**		8059	0.091
>	Ge	74		**ug/L**		85792	85792.048
	As	75	**86.684**	**ug/L**	1.885	23111	0.264
	Se	77		**ug/L**		5824	0.050
	Se	82	**18.910**	**ug/L**	1.476	402	0.005
	Kr	83		**ug/L**		31	-0.000
	Sr	88	**52.149**	**ug/L**	2.226	132454	2.261
	Y	89		**ug/L**		710	0.012
	Zr	90	**54.627**	**ug/L**	0.727	78563	1.335
	Mo	98	**52.289**	**ug/L**	3.646	36624	0.624
	Ag	107	**53.395**	**ug/L**	2.462	64910	1.108
	Cd	111	**10.632**	**ug/L**	2.707	3225	0.055
	Cd	114		**ug/L**		7327	0.125
>	In	115		**ug/L**		58569	58568.634
	Sn	120	**53.971**	**ug/L**	2.803	70630	1.200
	Sb	121	**224.058**	**ug/L**	2.134	274643	4.674
	Sb	123		**ug/L**		210842	3.589
	Ba	135		**ug/L**		17165	0.140
	Ba	137	**51.741**	**ug/L**	1.725	29755	0.243
	Ho	165		**ug/L**		131	0.001
>	Lu	175		**ug/L**		122403	122403.141
	Tl	205	**98.590**	**ug/L**	1.144	552532	4.502
	Pb	208	**42.964**	**ug/L**	0.591	279090	2.279
	Th	232	**54.707**	**ug/L**	1.034	419233	3.412
	U	238	**56.250**	**ug/L**	2.393	449483	3.672

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	0.9998
Be	9	Linear Thru Zero	0.9998
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	0.9999
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	0.9998
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	0.9999
V	51	Linear Thru Zero	0.9999
Cr	52	Linear Thru Zero	0.9999
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	0.9999
Ni	60	Linear Thru Zero	0.9999
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	0.9999
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	0.9999
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		117.2			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		100.0			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		92.4			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		99.7			
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: 1201994297
Sample Date/Time: Tuesday, December 22, 2009 22:20:37
Sample Type:
Sample Description: LANL 6020 SDILT
Number of Replicates: 3
Batch ID: 932312|5|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\091220\1201994297.472

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	-0.077	ug/L	64.174	6	-0.000
	Be	9	-0.086	ug/L	28.651	6	-0.000
	B	11	-1.239	ug/L	91.227	147	-0.000
	Na	23	10.545	ug/L	69.711	8002	0.048
	Mg	24	2.891	ug/L	166.205	1000	0.010
	Al	27	18.197	ug/L	40.097	7335	0.118
	P	31	-2.395	ug/L	56.422	899	-0.001
	K	39	-23.019	ug/L	104.159	133289	-0.243
	Ca	43	30.387	ug/L	47.243	106	0.001
>	Sc	45		ug/L		61799	61798.770
	Ti	47	0.073	ug/L	154.251	81	0.000
	V	51	1.274	ug/L	88.842	2297	0.017
	Cr	52	1.060	ug/L	9.153	1859	0.016
	Cr	53		ug/L		43985	0.192
	Mn	55	1.202	ug/L	2.968	2134	0.030
	Fe	57	11.929	ug/L	37.919	2655	0.006
	Co	59	-0.065	ug/L	16.443	147	-0.001
	Ni	60	-0.135	ug/L	53.234	146	-0.000
	Cu	63		ug/L		229	0.001
	Cu	65	0.051	ug/L	20.421	146	0.000
	Zn	66	0.935	ug/L	10.969	194	0.002
	Zn	67		ug/L		1976	0.010
	Zn	68		ug/L		444	0.003
>	Ge	74		ug/L		82675	82675.081
	As	75	2.324	ug/L	55.669	996	0.007
	Se	77		ug/L		2759	0.016
	Se	82	-0.300	ug/L	134.757	-0	-0.000
	Kr	83		ug/L		29	-0.000
	Sr	88	0.066	ug/L	16.215	204	0.003
	Y	89		ug/L		149	0.002
	Zr	90	-0.184	ug/L	4.537	112	-0.004
	Mo	98	-0.005	ug/L	292.305	62	-0.000
	Ag	107	0.010	ug/L	38.499	28	0.000
	Cd	111	0.014	ug/L	144.874	7	0.000
	Cd	114		ug/L		11	0.000
>	In	115		ug/L		58198	58198.386
	Sn	120	-0.154	ug/L	2.111	147	-0.003
	Sb	121	-0.299	ug/L	15.860	555	-0.006
	Sb	123		ug/L		418	-0.005
	Ba	135		ug/L		84	0.001
	Ba	137	0.228	ug/L	6.172	146	0.001
	Ho	165		ug/L		26	0.000
>	Lu	175		ug/L		119882	119882.112
	Tl	205	0.257	ug/L	34.710	2796	0.012
	Pb	208	0.083	ug/L	4.318	638	0.004
	Th	232	-0.077	ug/L	18.625	974	-0.005
	U	238	-0.002	ug/L	88.014	73	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	0.9998
Be	9	Linear Thru Zero	0.9998
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	0.9999
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	0.9998
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	0.9999
V	51	Linear Thru Zero	0.9999
Cr	52	Linear Thru Zero	0.9999
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	0.9999
Ni	60	Linear Thru Zero	0.9999
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	0.9999
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	0.9999
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		115.9			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		96.3			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		91.9			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		97.7			
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Tuesday, December 22, 2009 22:26:21
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\091220\QC Std 6.473

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**56.297**	ug/L	2.065	1814	0.030
	Be	9	**57.363**	ug/L	1.817	1662	0.028
	B	11	**107.251**	ug/L	1.571	2293	0.035
	Na	23	**4842.576**	ug/L	7.860	1337340	22.214
	Mg	24	**5539.473**	ug/L	5.305	1139428	18.989
	Al	27	**4907.829**	ug/L	2.807	1903645	31.729
	P	31	**5534.013**	ug/L	1.286	165703	2.746
	K	39	**4937.365**	ug/L	8.284	3267044	52.046
	Ca	43	**5443.339**	ug/L	0.397	6742	0.111
>	Sc	45		ug/L		59994	59994.315
	Ti	47	**53.184**	ug/L	0.891	3528	0.058
	V	51	**54.920**	ug/L	2.802	44773	0.726
	Cr	52	**56.570**	ug/L	1.163	50560	0.828
	Cr	53		ug/L		40045	0.147
	Mn	55	**56.642**	ug/L	1.265	85126	1.414
	Fe	57	**5404.686**	ug/L	0.557	155885	2.561
	Co	59	**54.503**	ug/L	0.530	52215	0.867
	Ni	60	**55.607**	ug/L	1.315	10891	0.179
	Cu	63		ug/L		23774	0.393
	Cu	65	**55.574**	ug/L	1.932	11125	0.183
	Zn	66	**52.945**	ug/L	1.489	8181	0.097
	Zn	67		ug/L		2890	0.021
	Zn	68		ug/L		7224	0.084
>	Ge	74		ug/L		83763	83763.405
	As	75	**48.570**	ug/L	2.933	12826	0.148
	Se	77		ug/L		2837	0.016
	Se	82	**48.166**	ug/L	4.924	989	0.012
	Kr	83		ug/L		27	-0.000
	Sr	88	**50.907**	ug/L	0.544	132307	2.208
	Y	89		ug/L		19	0.000
	Zr	90	**40.684**	ug/L	8.613	59996	0.994
	Mo	98	**49.879**	ug/L	0.731	35758	0.596
	Ag	107	**49.759**	ug/L	1.198	61896	1.033
	Cd	111	**50.325**	ug/L	1.311	15614	0.261
	Cd	114		ug/L		36795	0.614
>	In	115		ug/L		59918	59918.245
	Sn	120	**50.705**	ug/L	1.900	67914	1.128
	Sb	121	**49.708**	ug/L	3.304	63098	1.037
	Sb	123		ug/L		47679	0.784
	Ba	135		ug/L		16169	0.133
	Ba	137	**49.459**	ug/L	0.830	28316	0.232
	Ho	165		ug/L		17	0.000
>	Lu	175		ug/L		121847	121847.047
	Tl	205	**48.678**	ug/L	1.319	272321	2.223
	Pb	208	**50.843**	ug/L	1.155	328733	2.697
	Th	232	**52.364**	ug/L	1.853	399546	3.266
	U	238	**53.843**	ug/L	0.406	428431	3.515

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	0.9998
Be	9	Linear Thru Zero	0.9998
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	0.9999
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	0.9998
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	0.9999
V	51	Linear Thru Zero	0.9999
Cr	52	Linear Thru Zero	0.9999
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	0.9999
Ni	60	Linear Thru Zero	0.9999
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	0.9999
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	0.9999
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7	112.594				
	Be	9	114.726				
	B	11	107.251				
	Na	23	96.852				
	Mg	24	110.789				
	Al	27	97.185				
	P	31	110.680				
	K	39	98.747				
	Ca	43	108.867				
>	Sc	45		112.5			
	Ti	47	106.367				
	V	51	109.840				
	Cr	52	113.141				
	Cr	53					
	Mn	55	113.283				
	Fe	57	108.094				
	Co	59	109.005				
	Ni	60	111.213				
	Cu	63					
	Cu	65	111.148				
	Zn	66	105.891				
	Zn	67					
	Zn	68					
>	Ge	74		97.6			
	As	75	97.140				
	Se	77					
	Se	82	96.332				
	Kr	83					
	Sr	88	101.814				
	Y	89					
	Zr	90	81.368				
	Mo	98	99.759				
	Ag	107	99.519				
	Cd	111	100.649				
	Cd	114					
>	In	115		94.6			
	Sn	120	101.410				
	Sb	121	99.415				
	Sb	123					
	Ba	135					
	Ba	137	98.919				
	Ho	165					
>	Lu	175		99.3			
	Tl	205	97.357				
	Pb	208	101.685				
	Th	232	104.728				
	U	238	107.685				

QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
QC Std 6	Li	7CCV is out of limits (+/- 10%)
QC Std 6	Be	9CCV is out of limits (+/- 10%)
QC Std 6	Mg	24CCV is out of limits (+/- 10%)
QC Std 6	P	31CCV is out of limits (+/- 10%)
QC Std 6	Cr	52CCV is out of limits (+/- 10%)
QC Std 6	Mn	55CCV is out of limits (+/- 10%)
QC Std 6	Ni	60CCV is out of limits (+/- 10%)

QC Std 6	Cu	65CCV is out of limits (+/- 10%)
QC Std 6	Zr	90CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#3 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Tuesday, December 22, 2009 22:32:07
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\091220\QC Std 7.474

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	-0.055	ug/L	149.345	8	-0.000
	Be	9	-0.074	ug/L	61.113	7	-0.000
	B	11	-3.164	ug/L	36.587	114	-0.001
	Na	23	-2.207	ug/L	397.855	5001	-0.010
	Mg	24	-1.824	ug/L		0	-0.006
	Al	27	0.849	ug/L	173.205	333	0.005
	P	31	-6.863	ug/L	28.715	814	-0.003
	K	39	-47.224	ug/L	54.041	125893	-0.498
	Ca	43	-7.119	ug/L	176.590	63	-0.000
>	Sc	45		ug/L		66553	66552.875
	Ti	47	-0.212	ug/L	37.208	66	-0.000
	V	51	0.080	ug/L	874.369	1469	0.001
	Cr	52	0.078	ug/L	198.803	1029	0.001
	Cr	53		ug/L		31936	-0.031
	Mn	55	-0.027	ug/L	86.281	252	-0.001
	Fe	57	-15.966	ug/L	68.317	1943	-0.008
	Co	59	-0.070	ug/L	24.769	151	-0.001
	Ni	60	-0.244	ug/L	53.040	131	-0.001
	Cu	63		ug/L		159	-0.000
	Cu	65	-0.146	ug/L	62.199	112	-0.000
	Zn	66	-0.049	ug/L	84.236	44	-0.000
	Zn	67		ug/L		1395	0.004
	Zn	68		ug/L		253	0.001
>	Ge	74		ug/L		81402	81402.489
	As	75	1.109	ug/L	33.779	680	0.003
	Se	77		ug/L		1866	0.005
	Se	82	0.106	ug/L	367.409	8	0.000
	Kr	83		ug/L		25	-0.000
	Sr	88	0.003	ug/L	142.980	44	0.000
	Y	89		ug/L		13	-0.000
	Zr	90	0.003	ug/L	498.820	379	0.000
	Mo	98	0.018	ug/L	38.914	79	0.000
	Ag	107	-0.001	ug/L	332.853	15	-0.000
	Cd	111	0.006	ug/L	141.190	4	0.000
	Cd	114		ug/L		15	0.000
>	In	115		ug/L		58512	58511.756
	Sn	120	-0.023	ug/L	137.425	318	-0.001
	Sb	121	-0.181	ug/L	22.693	702	-0.004
	Sb	123		ug/L		558	-0.002
	Ba	135		ug/L		10	-0.000
	Ba	137	-0.004	ug/L	239.237	15	-0.000
	Ho	165		ug/L		11	0.000
>	Lu	175		ug/L		118437	118437.451
	Tl	205	0.016	ug/L	190.444	1460	0.001
	Pb	208	0.005	ug/L	46.128	139	0.000
	Th	232	0.029	ug/L	111.854	1744	0.002
	U	238	0.007	ug/L	36.131	138	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	0.9998
Be	9	Linear Thru Zero	0.9998
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	0.9999
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	0.9998
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	0.9999
V	51	Linear Thru Zero	0.9999
Cr	52	Linear Thru Zero	0.9999
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	0.9999
Ni	60	Linear Thru Zero	0.9999
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	0.9999
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	0.9999
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		124.8			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		94.9			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		92.3			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		96.5			
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Sc 45 Int Std for QC	Sc	45	

QC Action

QC Action Line: Continue

ICPMS#3 Daily Performance Report

Sample ID: Sample
Sample Date/Time: Wednesday, December 23, 2009 14:47:49
Sample Description:
Method File: c:\elandata\Method\daily2.mth
Dataset File: c:\elandata\Dataset\default\Sample.5264
Tuning File: c:\elandata\Tuning\default2.tun
Optimization File: c:\elandata\Optimize\default.dac
Dual Detector Mode: Pulse

Acq. Dead Time(ns): 35
Current Dead Time (ns): 35

Number of Replicates: 5

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Be	9.0	292.2	292.203	6.723	2.3
	Mg	24.0	2700.5	2700.455	92.493	3.4
	Co	58.9	14756.0	14756.018	192.830	1.3
	Rh	102.9	38631.2	38631.163	192.702	0.5
	In	114.9	55148.6	55148.648	411.644	0.7
	Pb	208.0	36252.7	36252.743	263.150	0.7
⌈>	Ba	137.9	44671.4	44671.447	275.656	0.6
⌊	Ba++	69.0	860.0	0.019	0.000	1.8
⌈>	Ce	139.9	55987.7	55987.704	508.264	0.9
⌊	CeO	155.9	780.4	0.014	0.000	2.2
	Bkgd	220.0	7.3	7.300	1.037	14.2

Current Optimization File Data

Current Value	Description
0.99	Nebulizer Gas Flow
7.50	Lens Voltage
1450.00	ICP RF Power
-1812.00	Analog Stage Voltage
950.00	Pulse Stage Voltage
70.00	Discriminator Threshold
-7.00	AC Rod Offset
60.00	Service DAC 1
0.00	Quadrupole Rod Offset

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	17	7.8	267.7
Co	59	17	8.5	14345.5
In	115	17	9.8	65832.0

ICPMS#3 Instrument Tuning Report

File Name: default2.tun
File Path: c:\elandata\Tuning

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas Peak W
He	3.0	3.0	581	2030	0.701
Be	9.0	9.0	2086	2010	0.732
Mg	24.0	24.0	5728	2090	0.698
Mg	25.0	25.0	5897	2010	0.661
Mg	26.0	26.0	6242	2110	0.683
Co	58.9	58.9	14200	2100	0.661
Rh	102.9	102.9	24910	2150	0.690
In	114.9	114.9	27832	2160	0.683
Ce	139.9	139.9	33911	2200	0.661
Pb	206.0	206.0	50016	2270	0.669
Pb	207.0	207.0	50282	2310	0.671
Pb	208.0	208.0	50486	2290	0.637
U	238.1	238.1	57842	2330	0.694

ICPMS#3 - Summary Report

Sample ID: Blank
Sample Date/Time: Wednesday, December 23, 2009 18:18:09
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li be and mn.mth
Dataset File: c:\elandata\Dataset\091223\Blank.070

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7		ug/L		10	
	Be	9		ug/L		6	
>	Sc	45		ug/L		118428	
	Mn	55		ug/L		330	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	
Be	9	Linear Thru Zero	
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Li	7					
|	Be	9					
|>	Sc	45					
⌊	Mn	55					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Wednesday, December 23, 2009 18:20:27
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li be and mn.mth
Dataset File: c:\elandata\Dataset\091223\Standard 1.071

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	10.000	ug/L	14.234	498	0.004
	Be	9	10.000	ug/L	16.021	354	0.003
>	Sc	45		ug/L		117458	117458.366
	Mn	55	10.000	ug/L	2.798	19218	0.161

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Li	7					
|	Be	9					
|>	Sc	45					
⌊	Mn	55					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Wednesday, December 23, 2009 18:22:42
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li be and mn.mth
Dataset File: c:\elandata\Dataset\091223\Standard 2.072

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**99.973**	**ug/L**	7.999	4722	0.040
	Be	9	**99.971**	**ug/L**	13.990	3366	0.029
>	Sc	45		**ug/L**		116802	116801.587
	Mn	55	**100.009**	**ug/L**	1.773	190004	1.626

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
>	Sc	45					
	Mn	55					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Wednesday, December 23, 2009 18:24:57
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li be and mn.mth
Dataset File: c:\elandata\Dataset\091223\QC Std 1.073

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**50.468**	**ug/L**	5.146	2441	0.020
	Be	9	**50.782**	**ug/L**	8.413	1748	0.014
>	Sc	45		**ug/L**		119543	119542.853
	Mn	55	**51.406**	**ug/L**	3.602	99959	0.836

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Li	7	100.935				
|	Be	9	101.565				
|>	Sc	45		100.9			
⌊	Mn	55	102.811				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Wednesday, December 23, 2009 18:27:16
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li be and mn.mth
Dataset File: c:\elandata\Dataset\091223\QC Std 2.074

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.004**	**ug/L**	2340.487	10	0.000
	Be	9	**0.035**	**ug/L**	181.215	8	0.000
>	Sc	45		**ug/L**		119495	119494.946
	Mn	55	**-0.017**	**ug/L**	172.697	298	-0.000

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
>	Sc	45			100.9		
	Mn	55					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Wednesday, December 23, 2009 18:29:34
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li be and mn.mth
Dataset File: c:\elandata\Dataset\091223\QC Std 3.075

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**10.763**	**ug/L**	7.700	528	0.004
	Be	9	**0.591**	**ug/L**	47.223	27	0.000
>	Sc	45		**ug/L**		119397	119397.192
	Mn	55	**5.624**	**ug/L**	5.004	11213	0.091

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Li	7	107.628				
|	Be	9	118.132				
|>	Sc	45			100.8		
⌊	Mn	55	112.485				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Wednesday, December 23, 2009 18:31:51
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li be and mn.mth
Dataset File: c:\elandata\Dataset\091223\QC Std 4.076

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**-0.017**	**ug/L**	124.985	8	-0.000
	Be	9	**0.174**	**ug/L**	46.956	11	0.000
>	Sc	45		**ug/L**		107725	107725.154
	Mn	55	**6.101**	**ug/L**	2.030	10972	0.099

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Li	7					
|	Be	9					
|>	Sc	45			91.0		
⌊	Mn	55	105.196				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Wednesday, December 23, 2009 18:34:08
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li be and mn.mth
Dataset File: c:\elandata\Dataset\091223\QC Std 5.077

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**20.411**	**ug/L**	7.439	895	0.008
	Be	9	**21.502**	**ug/L**	13.823	671	0.006
>	Sc	45		**ug/L**		107700	107699.521
	Mn	55	**26.277**	**ug/L**	4.320	46210	0.427

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7	102.057				
	Be	9	107.511				
>	Sc	45			90.9		
	Mn	55	101.849				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Wednesday, December 23, 2009 18:36:26
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li be and mn.mth
Dataset File: c:\elandata\Dataset\091223\QC Std 6.078

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**52.265**	**ug/L**	13.951	2436	0.021
	Be	9	**53.123**	**ug/L**	13.085	1757	0.015
>	Sc	45		**ug/L**		114881	114880.955
	Mn	55	**51.108**	**ug/L**	1.801	95699	0.831

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7	104.530				
	Be	9	106.245				
>	Sc	45			97.0		
	Mn	55	102.216				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Wednesday, December 23, 2009 18:38:45
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li be and mn.mth
Dataset File: c:\elandata\Dataset\091223\QC Std 7.079

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.004**	**ug/L**	601.507	10	0.000
	Be	9	**0.090**	**ug/L**	174.068	9	0.000
>	Sc	45		**ug/L**		115819	115819.352
	Mn	55	**-0.015**	**ug/L**	76.415	293	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Li	7					
|	Be	9					
|>	Sc	45			97.8		
⌊	Mn	55					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: QC Std 10
Sample Date/Time: Wednesday, December 23, 2009 18:41:05
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li be and mn.mth
Dataset File: c:\elandata\Dataset\091223\QC Std 10.080

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**999.190**	**ug/L**	11.070	44785	0.401
	Be	9	**1016.522**	**ug/L**	14.514	32449	0.290
>	Sc	45		**ug/L**		110846	110845.644
	Mn	55	**938.785**	**ug/L**	6.003	1684613	15.260

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Li	7	99.919				
|	Be	9	101.652				
|>	Sc	45			93.6		
⌊	Mn	55	93.879				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: QC Std 11
Sample Date/Time: Wednesday, December 23, 2009 18:43:23
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li be and mn.mth
Dataset File: c:\elandata\Dataset\091223\QC Std 11.081

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Li	7	**51.432**	**ug/L**	10.816	2424	0.021
|	Be	9	**51.309**	**ug/L**	14.609	1721	0.015
|>	Sc	45		**ug/L**		116219	116219.133
⌊	Mn	55	**50.883**	**ug/L**	3.113	96282	0.827

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7	102.865				
	Be	9	102.618				
>	Sc	45			98.1		
	Mn	55	101.766				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: QC Std 12
Sample Date/Time: Wednesday, December 23, 2009 18:45:42
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li be and mn.mth
Dataset File: c:\elandata\Dataset\091223\QC Std 12.082

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	-0.009	ug/L	679.248	9	-0.000
	Be	9	0.080	ug/L	136.720	9	0.000
>	Sc	45		ug/L		115666	115666.274
	Mn	55	-0.011	ug/L	56.947	303	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
>	Sc	45			97.7		
	Mn	55					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: 1201994293
Sample Date/Time: Wednesday, December 23, 2009 18:48:02
Sample Type:
Sample Description: LANL 6020 MB
Number of Replicates: 3
Batch ID: 932312|1|baj
Method File: c:\elandata\Method\li be and mn.mth
Dataset File: c:\elandata\Dataset\091223\1201994293.083

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.090**	**ug/L**	35.549	14	0.000
	Be	9	**0.010**	**ug/L**	714.147	7	0.000
>	Sc	45		**ug/L**		115591	115590.625
	Mn	55	**0.212**	**ug/L**	6.168	720	0.003

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
>	Sc	45		97.6			
	Mn	55					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: 1201994294
Sample Date/Time: Wednesday, December 23, 2009 18:50:22
Sample Type:
Sample Description: LANL 6020 LCS
Number of Replicates: 3
Batch ID: 932312|1|baj
Method File: c:\elandata\Method\li be and mn.mth
Dataset File: c:\elandata\Dataset\091223\1201994294.084

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**52.563**	**ug/L**	7.038	2484	0.021
	Be	9	**55.758**	**ug/L**	10.714	1875	0.016
>	Sc	45		**ug/L**		116752	116751.597
	Mn	55	**54.658**	**ug/L**	3.926	103806	0.888

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
>	Sc	45			98.6		
	Mn	55					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: 242782001
Sample Date/Time: Wednesday, December 23, 2009 18:52:43
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 932312|1|baj
Method File: c:\elandata\Method\li be and mn.mth
Dataset File: c:\elandata\Dataset\091223\242782001.085

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.067**	**ug/L**	163.980	13	0.000
	Be	9	**0.074**	**ug/L**	247.373	8	0.000
>	Sc	45		**ug/L**		116238	116238.242
	Mn	55	**0.224**	**ug/L**	4.972	747	0.004

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Li	7					
|	Be	9					
|>	Sc	45			98.2		
⌊	Mn	55					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: 242782002
Sample Date/Time: Wednesday, December 23, 2009 18:55:02
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 932312|1|baj
Method File: c:\elandata\Method\li be and mn.mth
Dataset File: c:\elandata\Dataset\091223\242782002.086

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.161**	**ug/L**	8.287	17	0.000
	Be	9	**0.035**	**ug/L**	129.170	7	0.000
>	Sc	45		**ug/L**		116592	116591.634
	Mn	55	**6.171**	**ug/L**	4.080	11991	0.100

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Li	7					
|	Be	9					
|>	Sc	45			98.4		
⌊	Mn	55					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: 1201994295
Sample Date/Time: Wednesday, December 23, 2009 18:57:20
Sample Type:
Sample Description: LANL 6020 DUP
Number of Replicates: 3
Batch ID: 932312|1|baj
Method File: c:\elandata\Method\li be and mn.mth
Dataset File: c:\elandata\Dataset\091223\1201994295.087

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.135**	**ug/L**	34.868	17	0.000
	Be	9	**0.089**	**ug/L**	114.819	9	0.000
>	Sc	45		**ug/L**		119420	119420.212
	Mn	55	**6.166**	**ug/L**	2.244	12291	0.100

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Li	7					
|	Be	9					
|>	Sc	45			100.8		
⌊	Mn	55					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: 1201994296
Sample Date/Time: Wednesday, December 23, 2009 18:59:39
Sample Type:
Sample Description: LANL 6020 MS
Number of Replicates: 3
Batch ID: 932312|1|baj
Method File: c:\elandata\Method\li be and mn.mth
Dataset File: c:\elandata\Dataset\091223\1201994296.088

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**52.996**	**ug/L**	10.288	2572	0.021
	Be	9	**55.822**	**ug/L**	11.518	1924	0.016
>	Sc	45		**ug/L**		119885	119885.155
	Mn	55	**60.848**	**ug/L**	1.912	118812	0.989

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
>	Sc	45			101.2		
	Mn	55					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: 1201994297
Sample Date/Time: Wednesday, December 23, 2009 19:01:58
Sample Type:
Sample Description: LANL 6020 SDILT
Number of Replicates: 3
Batch ID: 932312|5|baj
Method File: c:\elandata\Method\li be and mn.mth
Dataset File: c:\elandata\Dataset\091223\1201994297.089

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Li	7	**0.060**	**ug/L**	123.059	13	0.000
|	Be	9	**0.017**	**ug/L**	349.747	7	0.000
|>	Sc	45		**ug/L**		118314	118314.434
⌊	Mn	55	**1.211**	**ug/L**	5.000	2652	0.020

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
>	Sc	45			99.9		
	Mn	55					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Wednesday, December 23, 2009 19:04:17
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li be and mn.mth
Dataset File: c:\elandata\Dataset\091223\QC Std 6.090

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**47.896**	**ug/L**	6.596	2294	0.019
	Be	9	**49.227**	**ug/L**	13.142	1681	0.014
>	Sc	45		**ug/L**		118298	118297.972
	Mn	55	**51.267**	**ug/L**	3.695	98681	0.833

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7	95.791				
	Be	9	98.454				
>	Sc	45			99.9		
	Mn	55	102.535				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Wednesday, December 23, 2009 19:06:37
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li be and mn.mth
Dataset File: c:\elandata\Dataset\091223\QC Std 7.091

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	-0.082	ug/L	53.828	6	-0.000
	Be	9	-0.047	ug/L	102.540	5	-0.000
>	Sc	45		ug/L		118957	118956.988
	Mn	55	0.002	ug/L	785.394	334	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
>	Sc	45			100.4		
	Mn	55					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

==========
Method Name: WATER
Method Description: 7470A, 245.2, ILM04 ANALYST ETL
Element: Hg

Date: 12/23/2009
Technique:FI-MHS
Calibration Type:
Hg, Calc. Intercept : Linear
Wavelength: 253.7 nm
Sample Info Name: 122309W1.SIF Results Data Set Name: 122309W1

==========
Element: Hg Seq. No.: 1 AS Loc.: 1 Date: 12/23/2009
Sample ID: Calib Blank

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1			0.0033	0.0033	08:16:29	No
2			0.0031	0.0031	08:17:04	No
Mean:			0.0032			
SD :			0.0002			
%RSD:			5.1163			

Auto-zero performed.

==========
Element: Hg Seq. No.: 2 AS Loc.: 2 Date: 12/23/2009
Sample ID: S0.2

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1			0.0023	0.0055	08:18:26	No
2			0.0021	0.0053	08:19:00	No
Mean:			0.0022			
SD :			0.0001			
%RSD:			6.5442			

[Hg] Standard number 1 applied. [0.200]
Correlation Coefficient: 1.00000 Slope: 0.01091
Intercept : 0.00000

==========
Element: Hg Seq. No.: 3 AS Loc.: 3 Date: 12/23/2009
Sample ID: S0.5

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1			0.0035	0.0067	08:20:23	No
2			0.0034	0.0066	08:20:58	No
Mean:			0.0034			
SD :			0.0000			
%RSD:			0.6613			

[Hg] Standard number 2 applied. [0.500]
Correlation Coefficient: 0.96456 Slope: 0.00669
Intercept : 0.00032

==========
Element: Hg Seq. No.: 4 AS Loc.: 4 Date: 12/23/2009
Sample ID: S2.0

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1			0.0157	0.0189	08:22:22	No
2			0.0155	0.0187	08:22:57	No
Mean:			0.0156			
SD :			0.0001			
%RSD:			0.7915			

[Hg] Standard number 3 applied. [2.000]

Correlation Coefficient: 0.99808 Slope: 0.00772
Intercept : 0.00010

==========
Element: Hg Seq. No.: 5 AS Loc.: 5 Date: 12/23/2009
Sample ID: S5.0

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1			0.0401	0.0433	08:24:22	No
2			0.0399	0.0431	08:24:57	No
Mean:			0.0400			
SD :			0.0001			
%RSD:			0.3724			

[Hg] Standard number 4 applied. [5.000]
Correlation Coefficient: 0.99966 Slope: 0.00798
Intercept : -0.00004

==========
Element: Hg Seq. No.: 6 AS Loc.: 6 Date: 12/23/2009
Sample ID: S10

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1			0.0777	0.0809	08:26:24	No
2			0.0774	0.0806	08:26:59	No
Mean:			0.0775			
SD :			0.0002			
%RSD:			0.2896			

[Hg] Standard number 5 applied. [10.00]
Correlation Coefficient: 0.99982 Slope: 0.00778
Intercept : 0.00019

Calibration data for Hg

Standard ID	Mean Signal (Pk Height)	Entered Concentration (µg/L)	Calculated Concentration (µg/L)	Standard Deviation	%RSD
Calib Blank	0.0032	---	----	----	----
S0.2	0.0022	0.200	0.256	0.0001	6.5
S0.5	0.0034	0.500	0.419	0.0000	0.7
S2.0	0.0156	2.000	1.983	0.0001	0.8
S5.0	0.0400	5.000	5.120	0.0001	0.4
S10	0.0775	10.000	9.946	0.0002	0.3

Correlation Coefficient: 0.99982 Slope: 0.00778 Intercept: 0.0002

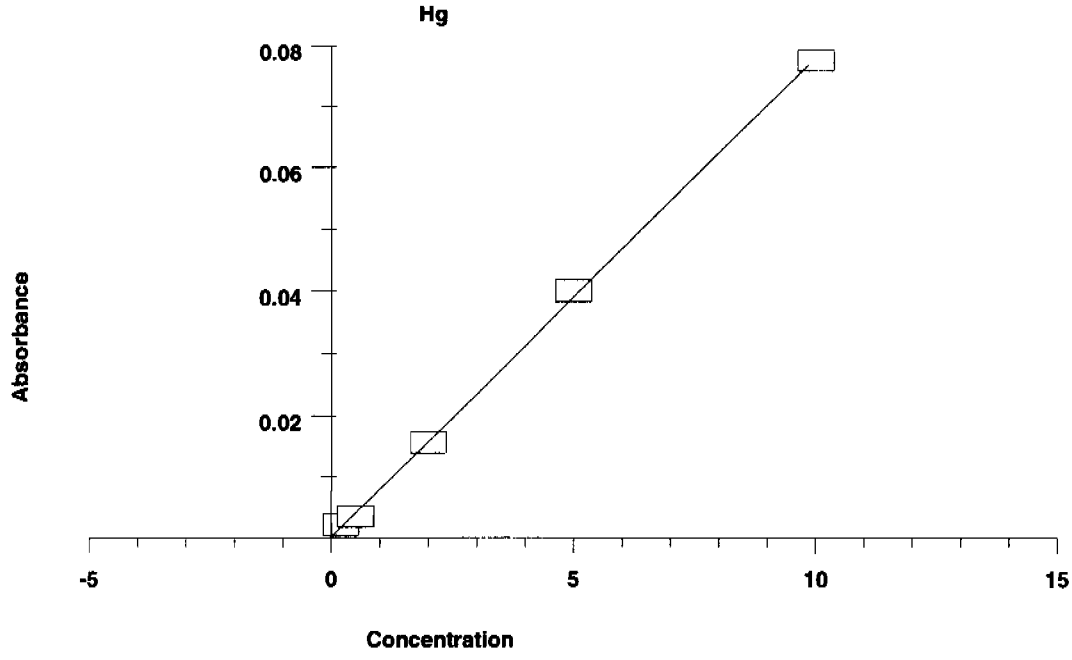

Element: Hg Seq. No.: 7 AS Loc.: 9 Date: 12/23/2009
Sample ID: ICV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	5.032	5.032	0.0393	0.0425	08:28:27	No
2	4.968	4.968	0.0388	0.0420	08:29:02	No
Mean:	5.000	5.000	0.0391			
SD :	0.0455	0.0455	0.0004			
%RSD:	0.9	0.9	0.9052			

QC value within specified limits.

Element: Hg Seq. No.: 8 AS Loc.: 10 Date: 12/23/2009
Sample ID: ICB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.059	-0.059	-0.0003	0.0029	08:30:24	No
2	-0.058	-0.058	-0.0003	0.0029	08:30:59	No
Mean:	-0.058	-0.058	-0.0003			
SD :	0.0009	0.0009	0.0000			
%RSD:	1.6	1.6	2.7603			

QC value within specified limits.

Element: Hg Seq. No.: 9 AS Loc.: 11 Date: 12/23/2009
Sample ID: CRDL

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.144	0.144	0.0013	0.0045	08:32:22	No
2	0.142	0.142	0.0013	0.0045	08:32:57	No
Mean:	0.143	0.143	0.0013			
SD :	0.0013	0.0013	0.0000			
%RSD:	0.9	0.9	0.7879			

QC value within specified limits.

==========

Element: Hg Seq. No.: 10 AS Loc.: 7 Date: 12/23/2009
Sample ID: CCV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	4.908	4.908	0.0384	0.0416	08:34:22	No
2	4.882	4.882	0.0382	0.0414	08:34:56	No
Mean:	4.895	4.895	0.0383			
SD :	0.0183	0.0183	0.0001			
%RSD:	0.4	0.4	0.3719			

QC value within specified limits.

==========

Element: Hg Seq. No.: 11 AS Loc.: 8 Date: 12/23/2009
Sample ID: CCB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.044	-0.044	-0.0002	0.0031	08:36:24	No
2	-0.050	-0.050	-0.0002	0.0030	08:36:59	No
Mean:	-0.047	-0.047	-0.0002			
SD :	0.0044	0.0044	0.0000			
%RSD:	9.4	9.4	19.6610			

QC value within specified limits.

==========

Element: Hg Seq. No.: 12 AS Loc.: 12 Date: 12/23/2009
Sample ID: 1202000160|i||934864|MB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.047	-0.047	-0.0002	0.0030	08:38:25	No
2	-0.075	-0.075	-0.0004	0.0028	08:38:59	No
Mean:	-0.061	-0.061	-0.0003			
SD :	0.0192	0.0192	0.0001			
%RSD:	31.4	31.4	52.6281			

==========

Element: Hg Seq. No.: 13 AS Loc.: 13 Date: 12/23/2009
Sample ID: 1202000161|i|||LCS

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	2.025	2.025	0.0159	0.0191	08:40:23	No
2	2.019	2.019	0.0159	0.0191	08:40:57	No
Mean:	2.022	2.022	0.0159			
SD :	0.0038	0.0038	0.0000			
%RSD:	0.2	0.2	0.1836			

==========

Element: Hg Seq. No.: 14 AS Loc.: 14 Date: 12/23/2009
Sample ID: 242751001|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.052	-0.052	-0.0002	0.0030	08:42:23	No
2	-0.053	-0.053	-0.0002	0.0030	08:42:58	No
Mean:	-0.053	-0.053	-0.0002			
SD :	0.0009	0.0009	0.0000			
%RSD:	1.7	1.7	3.1256			

==========

Element: Hg Seq. No.: 15 AS Loc.: 15 Date: 12/23/2009
Sample ID: 242751002|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.061	-0.061	-0.0003	0.0029	08:44:24	No
2	-0.058	-0.058	-0.0003	0.0029	08:44:59	No
Mean:	-0.059	-0.059	-0.0003			
SD :	0.0017	0.0017	0.0000			
%RSD:	2.9	2.9	5.0043			

Element: Hg Seq. No.: 16 AS Loc.: 16 Date: 12/23/2009
Sample ID: 242782001|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.113	-0.113	-0.0007	0.0025	08:46:26	No
2	-0.127	-0.127	-0.0008	0.0024	08:47:01	No
Mean:	-0.120	-0.120	-0.0007			
SD :	0.0096	0.0096	0.0001			
%RSD:	8.0	8.0	10.0226			

Element: Hg Seq. No.: 17 AS Loc.: 17 Date: 12/23/2009
Sample ID: 242782002|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.095	-0.095	-0.0005	0.0027	08:48:26	No
2	-0.111	-0.111	-0.0007	0.0025	08:49:01	No
Mean:	-0.103	-0.103	-0.0006			
SD :	0.0113	0.0113	0.0001			
%RSD:	11.0	11.0	14.4762			

Element: Hg Seq. No.: 18 AS Loc.: 18 Date: 12/23/2009
Sample ID: 242940001|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.084	-0.084	-0.0005	0.0027	08:50:22	No
2	-0.102	-0.102	-0.0006	0.0026	08:50:57	No
Mean:	-0.093	-0.093	-0.0005			
SD :	0.0126	0.0126	0.0001			
%RSD:	13.5	13.5	18.3806			

Element: Hg Seq. No.: 19 AS Loc.: 19 Date: 12/23/2009
Sample ID: 242940002|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.073	-0.073	-0.0004	0.0028	08:52:18	No
2	-0.099	-0.099	-0.0006	0.0026	08:52:52	No
Mean:	-0.086	-0.086	-0.0005			
SD :	0.0177	0.0177	0.0001			
%RSD:	20.6	20.6	28.9240			

Element: Hg Seq. No.: 20 AS Loc.: 20 Date: 12/23/2009
Sample ID: 243085001|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.078	-0.078	-0.0004	0.0028	08:54:14	No
2	-0.090	-0.090	-0.0005	0.0027	08:54:49	No
Mean:	-0.084	-0.084	-0.0005			
SD :	0.0084	0.0084	0.0001			

```
%RSD:      10.1       10.1   14.2857

==========================================================================================
Element: Hg    Seq. No.: 21       AS Loc.: 21   Date: 12/23/2009
Sample ID: 243108001|i|||
------------------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time    Peak
 #     µg/L        µg/L       Signal     Height            Stored
 1       -0.108    -0.108   -0.0006     0.0026   08:56:11  No
 2       -0.097    -0.097   -0.0006     0.0026   08:56:46  No
Mean:    -0.102    -0.102   -0.0006
SD  :    0.0078    0.0078    0.0001
%RSD:       7.7       7.7   10.0946

==========================================================================================
Element: Hg    Seq. No.: 22       AS Loc.: 7    Date: 12/23/2009
Sample ID: CCV
------------------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time    Peak
 #     µg/L        µg/L       Signal     Height            Stored
 1        5.012     5.012    0.0392     0.0424   08:58:10  No
 2        5.012     5.012    0.0392     0.0424   08:58:46  No
Mean:     5.012     5.012    0.0392
SD  :    0.0004    0.0004    0.0000
%RSD:
QC value within specified limits.

==========================================================================================
Element: Hg    Seq. No.: 23       AS Loc.: 8    Date: 12/23/2009
Sample ID: CCB
------------------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time    Peak
 #     µg/L        µg/L       Signal     Height            Stored
 1       -0.091    -0.091   -0.0005     0.0027   09:00:14  No
 2       -0.103    -0.103   -0.0006     0.0026   09:00:49  No
Mean:    -0.097    -0.097   -0.0006
SD  :    0.0079    0.0079    0.0001
%RSD:       8.2       8.2   10.9631
QC value within specified limits.

==========================================================================================
Element: Hg    Seq. No.: 24       AS Loc.: 22   Date: 12/23/2009
Sample ID: 1202000162|i|||DUP
------------------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time    Peak
 #     µg/L        µg/L       Signal     Height            Stored
 1       -0.097    -0.097   -0.0006     0.0026   09:02:14  No
 2       -0.106    -0.106   -0.0006     0.0026   09:02:49  No
Mean:    -0.102    -0.102   -0.0006
SD  :    0.0063    0.0063    0.0000
%RSD:       6.2       6.2    8.2058

==========================================================================================
Element: Hg    Seq. No.: 25       AS Loc.: 23   Date: 12/23/2009
Sample ID: 1202000163|i|||MS
------------------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time    Peak
 #     µg/L        µg/L       Signal     Height            Stored
 1        2.075     2.075    0.0163     0.0195   09:04:13  No
 2        2.071     2.071    0.0163     0.0195   09:04:48  No
Mean:     2.073     2.073    0.0163
SD  :    0.0027    0.0027    0.0000
%RSD:       0.1       0.1    0.1303

==========================================================================================
Element: Hg    Seq. No.: 26       AS Loc.: 24   Date: 12/23/2009
Sample ID: 1202000164|5||SDILT
```

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.157	-0.157	-0.0010	0.0022	09:06:12	No
2	-0.159	-0.159	-0.0010	0.0022	09:06:47	No
Mean:	-0.158	-0.158	-0.0010			
SD :	0.0016	0.0016	0.0000			
%RSD:	1.0	1.0	1.1798			

Element: Hg Seq. No.: 27 AS Loc.: 25 Date: 12/23/2009
Sample ID: 243108002|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.117	-0.117	-0.0007	0.0025	09:08:11	No
2	-0.128	-0.128	-0.0008	0.0024	09:08:46	No
Mean:	-0.122	-0.122	-0.0008			
SD :	0.0078	0.0078	0.0001			
%RSD:	6.4	6.4	7.9708			

Element: Hg Seq. No.: 28 AS Loc.: 26 Date: 12/23/2009
Sample ID: 1202000186|i||934874|MB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.130	-0.130	-0.0008	0.0024	09:10:10	No
2	-0.133	-0.133	-0.0008	0.0024	09:10:44	No
Mean:	-0.131	-0.131	-0.0008			
SD :	0.0019	0.0019	0.0000			
%RSD:	1.4	1.4	1.7375			

Element: Hg Seq. No.: 29 AS Loc.: 27 Date: 12/23/2009
Sample ID: 1202000187|i|||LCS

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	2.071	2.071	0.0163	0.0195	09:12:11	No
2	2.054	2.054	0.0162	0.0194	09:12:45	No
Mean:	2.063	2.063	0.0162			
SD :	0.0125	0.0125	0.0001			
%RSD:	0.6	0.6	0.6001			

Element: Hg Seq. No.: 30 AS Loc.: 28 Date: 12/23/2009
Sample ID: 242538001|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	1.931	1.931	0.0152	0.0184	09:14:11	No
2	1.724	1.724	0.0136	0.0168	09:14:46	No
Mean:	1.827	1.827	0.0144			
SD :	0.1464	0.1464	0.0011			
%RSD:	8.0	8.0	7.9026			

Element: Hg Seq. No.: 31 AS Loc.: 29 Date: 12/23/2009
Sample ID: 1202000188|i|||DUP

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	1.687	1.687	0.0133	0.0165	09:16:12	No
2	1.648	1.648	0.0130	0.0162	09:16:47	No
Mean:	1.668	1.668	0.0132			
SD :	0.0274	0.0274	0.0002			

```
%RSD:        1.6        1.6    1.6209

==========================================================================================
Element: Hg    Seq. No.: 32       AS Loc.: 30   Date: 12/23/2009
Sample ID: 1202000189|i|||MS
------------------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time    Peak
 #     µg/L        µg/L       Signal     Height            Stored
 1        3.546     3.546    0.0278     0.0310   09:18:14  No
 2        3.522     3.522    0.0276     0.0308   09:18:49  No
Mean:     3.534     3.534    0.0277
SD  :    0.0169    0.0169    0.0001
%RSD:       0.5        0.5    0.4751

==========================================================================================
Element: Hg    Seq. No.: 33       AS Loc.: 31   Date: 12/23/2009
Sample ID: 1202000190|i|5||SDILT
------------------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time    Peak
 #     µg/L        µg/L       Signal     Height            Stored
 1        0.250     0.250    0.0021     0.0053   09:20:16  No
 2        0.239     0.239    0.0020     0.0053   09:20:51  No
Mean:     0.245     0.245    0.0021
SD  :    0.0081    0.0081    0.0001
%RSD:       3.3        3.3    3.0045

==========================================================================================
Element: Hg    Seq. No.: 34       AS Loc.: 7    Date: 12/23/2009
Sample ID: CCV
------------------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time    Peak
 #     µg/L        µg/L       Signal     Height            Stored
 1        5.839     5.839    0.0456     0.0488   09:22:18  No
 2        5.843     5.843    0.0456     0.0488   09:22:54  No
Mean:     5.841     5.841    0.0456
SD  :    0.0033    0.0033    0.0000
%RSD:
QC failed, value greater than upper limit for Hg.
Current analysis method being continued.

==========================================================================================
Element: Hg    Seq. No.: 35       AS Loc.: 8    Date: 12/23/2009
Sample ID: CCB
------------------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time    Peak
 #     µg/L        µg/L       Signal     Height            Stored
 1      -0.101    -0.101    -0.0006     0.0026   09:24:22  No
 2      -0.108    -0.108    -0.0006     0.0026   09:24:56  No
Mean:   -0.104    -0.104    -0.0006
SD  :    0.0053    0.0053    0.0000
%RSD:       5.1        5.1    6.6100
QC value within specified limits.

==========================================================================================
Element: Hg    Seq. No.: 36       AS Loc.: 32   Date: 12/23/2009
Sample ID: 242538002|i|||
------------------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time    Peak
 #     µg/L        µg/L       Signal     Height            Stored
 1      -0.013    -0.013     0.0001     0.0033   09:26:19  No
 2      -0.042    -0.042    -0.0001     0.0031   09:26:54  No
Mean:   -0.027    -0.027     0.0000
SD  :    0.0206    0.0206    0.0002
%RSD:      75.3       75.3  757.1831

==========================================================================================
Element: Hg    Seq. No.: 37       AS Loc.: 33   Date: 12/23/2009
```

Miscellaneous

Prep LogBook

Analyst: FGA Verified by:_____

Batch: 932269

Lab SOP: GL-MA-E-006 REV# 9

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1201994209	UI091124-01	.25	mL
LCS	1201994209	UI091124-06	.25	mL
MS	1201994211	UI091124-01	.25	mL
MS	1201994211	UI091124-06	.25	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Ph	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1201994208		SW846 3005A	16-DEC-2009 13:30	<2	50 mL	50 mL	1	WATER
LCS	1201994209		SW846 3005A	16-DEC-2009 13:30	<2	50 mL	50 mL	1	WATER
SAMPLE	242782001		SW846 3005A	16-DEC-2009 13:30	<2	50 mL	50 mL	1	WATER
DUP	1201994210	242782001	SW846 3005A	16-DEC-2009 13:30	<2	50 mL	50 mL	1	WATER
MS	1201994211	242782001	SW846 3005A	16-DEC-2009 13:30	<2	50 mL	50 mL	1	WATER
SDILT	1201994212	242782001	SW846 3005A	16-DEC-2009 13:30	<2	50 mL	50 mL	1	WATER
SAMPLE	242782002		SW846 3005A	16-DEC-2009 13:30	<2	50 mL	50 mL	1	WATER

Reagent/Solvent Lot ID	Amount	Description
1215803	2.5 mL	HYDROCHLORIC ACID
1238345	1 mL	Nitric Acid CONC.

Comments

Prep LogBook

Analyst: FGA Verified by:_____

Batch: 932311

Lab SOP: GL-MA-E-006 REV# 9

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1201994294	UI091124-A00	.5	mL
LCS	1201994294	UI091124-B	.5	mL
MS	1201994296	UI090828-A	.5	mL
MS	1201994296	UI090828-B	.5	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Ph	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1201994293		SW846 3005A	16-DEC-2009 13:30	<2	50 mL	50 mL	1	WATER
LCS	1201994294		SW846 3005A	16-DEC-2009 13:30	<2	50 mL	50 mL	1	WATER
SAMPLE	242782001		SW846 3005A	16-DEC-2009 13:30	<2	50 mL	50 mL	1	WATER
SAMPLE	242782002		SW846 3005A	16-DEC-2009 13:30	<2	50 mL	50 mL	1	WATER
DUP	1201994295	242782002	SW846 3005A	16-DEC-2009 13:30	<2	50 mL	50 mL	1	WATER
MS	1201994296	242782002	SW846 3005A	16-DEC-2009 13:30	<2	50 mL	50 mL	1	WATER
SDILT	1201994297	242782002	SW846 3005A	16-DEC-2009 13:30	<2	50 mL	50 mL	1	WATER

Reagent/Solvent Lot ID	Amount	Description
1215803	2.5 mL	HYDROCHLORIC ACID
1238345	1 mL	Nitric Acid CONC.

Comments

Prep LogBook

Analyst: TXB3 Verified by:_____

Batch: 934863

Lab SOP: GL-MA-E-010 REV# 23

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1202000161	WHG091222-13	.2	mL
MS	1202000163	WHG091222-13	.2	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Ph	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1202000160		SW846 7470A Prep	22-DEC-2009 15:05	<2	20 mL	20 mL	1	WATER
LCS	1202000161		SW846 7470A Prep	22-DEC-2009 15:05	<2	20 mL	20 mL	1	WATER
SAMPLE	242751001		SW846 7470A Prep	22-DEC-2009 15:05	<2	20 mL	20 mL	1	WATER
SAMPLE	242751002		SW846 7470A Prep	22-DEC-2009 15:05	<2	20 mL	20 mL	1	WATER
SAMPLE	242782001		SW846 7470A Prep	22-DEC-2009 15:05	<2	20 mL	20 mL	1	WATER
SAMPLE	242782002		SW846 7470A Prep	22-DEC-2009 15:05	<2	20 mL	20 mL	1	WATER
SAMPLE	242940001		SW846 7470A Prep	22-DEC-2009 15:05	<2	20 mL	20 mL	1	WATER
SAMPLE	242940002		SW846 7470A Prep	22-DEC-2009 15:05	<2	20 mL	20 mL	1	WATER
SAMPLE	243085001		SW846 7470A Prep	22-DEC-2009 15:05	<2	20 mL	20 mL	1	WATER
SAMPLE	243108001		SW846 7470A Prep	22-DEC-2009 15:05	<2	20 mL	20 mL	1	WATER
DUP	1202000162	243108001	SW846 7470A Prep	22-DEC-2009 15:05	<2	20 mL	20 mL	1	WATER
MS	1202000163	243108001	SW846 7470A Prep	22-DEC-2009 15:05	<2	20 mL	20 mL	1	WATER
SDILT	1202000164	243108001	SW846 7470A Prep	22-DEC-2009 15:05	<2	20 mL	20 mL	1	WATER
SAMPLE	243108002		SW846 7470A Prep	22-DEC-2009 15:05	<2	20 mL	20 mL	1	WATER

Reagent/Solvent Lot ID	Amount	Description
1176183	1 mL	Sulfuric Acid, Concentrated
1240182-1	.5 mL	NITRIC ACID
1234385-C	1.5 mL	5% Potassium Persulfate
1244904-C	3 mL	5% KMnO4 solution
1206350-C	1 mL	Hg reducing agent
WHG091222-06	500 uL	Mercury Working 2nd Source 5.0/ICV
WHG091222-01	20 uL	Mercury Working 1st Source CAL 0.2/CRA
WHG091222-02	50 uL	Mercury Working 1st Source CAL 0.5
WHG091222-05	1 mL	Mercury Working 1st Source CAL 10.0
WHG091222-03	200 uL	Mercury Working 1st Source CAL 2.0
WHG091222-04	500 uL	Mercury Working 1st Source CAL 5.0/CCV

Comments Digestion Start Date: 22-DEC-09 15:05
Digestion End Date: 22-DEC-09 17:05

NCR Report No.: 778533
Revision No.:

COMPANY - WIDE NONCONFORMANCE REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
08-JAN-10	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
ICP	SW846 3005/6010B	Liquid	LANL
Batch ID:	**Sample Numbers:**		
932270	See Below		

Potentially affected work order(s)(SDG): 242782(10-887-1)

Application Issues:

Failed RPD for DUP

Specification and Requirements Nonconformance Description:

1. Failed RPD for DUP:

QC 1201994210DUP

NRG Disposition:

1. The sample and sample duplicate % RPD failed outside the control limits for iron due to possible sample non-homogeneity and/or matrix interference. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported.

Originator's Name:

Kristen Parson 08-JAN-10

Data Validator/Group Leader:

Nik-Cole Elmore 08-JAN-10

Standard Logbook

Serial ID: UHG1167639-01 **Opened:** 13-AUG-09 **Amount :** 125 mL
Name: MHGSTOCK1 **Received:** 13-AUG-09 **Catalog Number :** PLHG4-2Y
Type: Source Material **Expires:** 13-AUG-10 **Lot Number :** 15-37HG
Employee: Bryan Davis **Solvent :** 10% HNO3
Supplier: Spex
Description: Mercury Source Standard #1 1,000 mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Mercury	1000 mg/L		

Serial ID: UHG1167641-02 **Opened:** 13-AUG-09 **Amount :** 100 mL
Name: MHGSTOCK2 **Received:** 13-AUG-09 **Catalog Number :** AHG1KN-100
Type: Source Material **Expires:** 13-AUG-10 **Lot Number :** 4905530
Employee: Bryan Davis **Solvent :** 3% HNO3
Supplier: Ricca Chemical Company
Description: Mercury Source Standard #2 1,000 mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Mercury	999.7 mg/L		

Serial ID: UI090422-40 **Opened:** 04-MAY-09 **Amount :** 500 mL
Name: TRACE ICP ICSA SOLN A **Received:** 22-APR-09 **Catalog Number :** 160005-01-03
Type: Source Material **Expires:** 04-MAY-10 **Lot Number :** 1013357
Employee: Helen Camello **Solvent :** 5%HNO3
Supplier: o2si
Description: TRACE ICP ICSA SOLN A mg/L+/-0.5%IN5%HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	5000 mg/L	Calcium	5000 mg/L
Iron	2000 mg/L	Magnesium	5000 mg/L

Serial ID: UI090610-03 **Opened:** 10-JUN-09 **Catalog Number :** 060074-06-01
Name: ICPMS Tungsten - 10mg/L S **Received:** 10-JUN-09 **Lot Number :** 1016338
Type: Source Material **Expires:** 10-JUN-10 **Solvent :** 2% HNO3
Employee: Paul Boyd
Supplier: O2SI
Description: ICPMS Tungsten standard SPIKE - 10mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Tungsten	10 mg/L		

Standard Logbook

Serial ID:	UI090701-09	**Opened:**	01-JUL-09	**Amount :**	250 mL
Name:	ICP-MS CRDL Master #1	**Received:**	01-JUL-09	**Catalog Number :**	160044-09-02
Type:	Source Material	**Expires:**	01-JUL-10	**Lot Number :**	1016477
Employee:	Paul Boyd			**Solvent :**	+/- 0.5% IN 2% HNO3
Supplier:	02SI				

Description: ICPMS CRDL Master Soln #1

Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	15 mg/L	Arsenic	5 mg/L
Barium	2 mg/L	Beryllium	.5 mg/L
Boron	15 mg/L	Cadmium	1 mg/L
Calcium	100 mg/L	Chromium	3 mg/L
Cobalt	1 mg/L	Copper	1 mg/L
Iron	25 mg/L	Lead	2 mg/L
Lithium	10 mg/L	Magnesium	15 mg/L
Manganese	5 mg/L	Nickel	2 mg/L
Phosphorous	50 mg/L	Potassium	300 mg/L
Selenium	5 mg/L	Sodium	250 mg/L
Strontium	10 mg/L	Thallium	1 mg/L
Thorium	1 mg/L	Uranium	.2 mg/L
Vanadium	10 mg/L	Zinc	10 mg/L

Serial ID:	UI090701-10	**Opened:**	01-JUL-09	**Amount :**	250 mL
Name:	ICP-MS CRDL Master #2	**Received:**	01-JUL-09	**Catalog Number :**	160044-08-02
Type:	Source Material	**Expires:**	01-JUL-10	**Lot Number :**	1016476
Employee:	Paul Boyd			**Solvent :**	+/- 0.5% IN 2% HNO3
Supplier:	02SI				

Description: ICPMS CRDL Soln #2

Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	2 mg/L	Molybdenum	.5 mg/L
Silver	1 mg/L	Tin	2 mg/L
Titanium	10 mg/L	Tungsten	5 mg/L
Zirconium	2 mg/L		

Serial ID:	UI090701-40	**Opened:**	01-JUL-09	**Amount :**	500 mL
Name:	TRACE ICP Stock PQL St	**Received:**	30-JUN-09	**Catalog Number :**	160543-01-03
Type:	Source Material	**Expires:**	01-JUL-10	**Lot Number :**	1016475
Employee:	Helen Camello			**Solvent :**	+/-0.5%in2%HNO3+TrHF
Supplier:	02si				

Description: TRACE ICP Stock PQL Standard

Comments: None

Analyte	Concentration	Analyte	Concentration

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Aluminum	100 mg/L	Antimony	5 mg/L
Arsenic	15 mg/L	Barium	2.5 mg/L
Beryllium	2.5 mg/L	Boron	25 mg/L
Cadmium	2.5 mg/L	Calcium	100 mg/L
Chromium	2.5 mg/L	Cobalt	2.5 mg/L
Copper	5 mg/L	Iron	50 mg/L
Lead	5 mg/L	Magnesium	150 mg/L
Manganese	5 mg/L	Molybdenum	5 mg/L
Nickel	2.5 mg/L	Phosphorous	75 mg/L
Potassium	75 mg/L	Selenium	15 mg/L
Silicon	50 mg/L	Silver	2.5 mg/L
Sodium	150 mg/L	Strontium	2.5 mg/L
Sulfur	50 mg/L	Thallium	10 mg/L
Tin	5 mg/L	Titanium	2.5 mg/L
Uranium	25 mg/L	Vanadium	2.5 mg/L
Zinc	5 mg/L		

Serial ID: UI090828-42 **Opened:** 16-SEP-09 **Amount :** 500 mL
Name: TRACE ICP Na-1000SOUR **Received:** 27-AUG-09 **Catalog Number :** 060011-02-03
Type: Source Material **Expires:** 16-SEP-10 **Lot Number :** 1017098
Employee: Helen Camello **Solvent :** 1%HNO3
Supplier: 02SI
Description: Sodium 1000 +/- 3 ug/mL in 1% HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Sodium	1000 ug/mL		

Serial ID: UI090828-A **Opened:** 28-AUG-09 **Catalog Number :** 160067-02
Name: ICP-MS DOE Liquid SPIKE **Received:** 27-AUG-09 **Lot Number :** 1017141
Type: Source Material **Expires:** 28-AUG-10
Employee: Francena Armstrong **Verified:** 21-NOV-08
Supplier: O2Si
Description: ICP-MS DOE liquid Spike Solution A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	200 mg/L	Arsenic	8 mg/L
Barium	5 mg/L	Beryllium	5 mg/L
Boron	10 mg/L	Cadmium	1 mg/L
Calcium	200 mg/L	Chromium	5 mg/L
Cobalt	5 mg/L	Copper	5 mg/L
Iron	200 mg/L	Lead	4 mg/L
Lithium	5 mg/L	Magnesium	200 mg/L
Manganese	5 mg/L	Nickel	5 mg/L

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Phosphorus, Total as P	200 mg/L	Potassium	200 mg/L
Selenium	2 mg/L	Silicon	200 mg/L
Sodium	200 mg/L	Strontium	5 mg/L
Thallium	10 mg/L	Thorium	5 mg/L
Total Uranium	5 mg/L	Uranium	5 mg/L
Uranium-235	.0364 mg/L	Uranium-238	4.96 mg/L
Vanadium	5 mg/L	Zinc	5 mg/L

Serial ID: UI090828-B **Opened:** 28-AUG-09 **Catalog Number :** 160067-02
Name: ICP-MS DOE Liquid SPIKE **Received:** 27-AUG-09 **Lot Number :** 1017141
Type: Source Material **Expires:** 28-AUG-10
Employee: Francena Armstrong **Verified:** 21-NOV-08
Supplier: O2Si
Description: ICP-MS DOE Liquid Spike Solution B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	20 mg/L	Molybdenum	5 mg/L
Silver	5 mg/L	Tin	5 mg/L
Titanium	5 mg/L	Zirconium	5 mg/L

Serial ID: UI090925-40 **Opened:** 23-OCT-09 **Amount :** 500 mL
Name: SECOND SOURCE STD -1 **Received:** 25-SEP-09 **Catalog Number :** SGELMX38-500N
Type: Source Material **Expires:** 30-SEP-10 **Lot Number :** 4909129
Employee: Helen Camello **Solvent :** 5%HNO3
Supplier: SPECTRO PURE
Description: SECOND SOURCE STD #1A 5%HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Arsenic	100 mg/L
Barium	100 mg/L	Boron	100 mg/L
Cadmium	100 mg/L	Calcium	1000 mg/L
Chromium	100 mg/L	Cobalt	100 mg/L
Copper	100 mg/L	Iron	1000 mg/L
Lead	100 mg/L	Phosphorous	500 mg/L
Potassium	500 mg/L	Selenium	500 mg/L
Sodium	500 mg/L	Strontium	100 mg/L

Serial ID: UI090925-41 **Opened:** 23-OCT-09 **Amount :** 500 mL
Name: SECOND SOURCE STD -1 **Received:** 25-SEP-09 **Catalog Number :** SGELMX39-500B
Type: Source Material **Expires:** 30-SEP-10 **Lot Number :** 4909130
Employee: Helen Camello **Solvent :** 5%HNO3,TR.HF
Supplier: SPECTRO PURE

Standard Logbook

Description: SECOND SOURCE STD #1B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	100 mg/L	Beryllium	50 mg/L
Magnesium	1000 mg/L	Manganese	100 mg/L
Molybdenum	100 mg/L	Nickel	100 mg/L
Silver	50 mg/L	Sulfur	500 mg/L
Thallium	100 mg/L	Tin	100 mg/L
Titanium	100 mg/L	Uranium	100 mg/L
Vanadium	100 mg/L	Zinc	100 mg/L

Serial ID: UI091015-42 **Opened:** 28-OCT-09 **Amount :** 500 mL
Name: SI 1000mg/L **Received:** 15-OCT-09 **Catalog Number :** 060014-02-03
Type: Source Material **Expires:** 28-OCT-10 **Lot Number :** 1017581
Employee: Helen Camello **Solvent :** 0.3%H2O(NH4)2SiF6
Supplier: o2si
Description: Silicon 1000mg/L+/-0.3%in H2O(NH4)2SiF6
Comments: None

Analyte	Concentration	Analyte	Concentration
Silica	2139 mg/L	Silicon	1000 mg/L

Serial ID: UI091102-40 **Opened:** 16-NOV-09 **Amount :** 500 mL
Name: TRACE CALSTD#1A SOUF **Received:** 02-NOV-09 **Catalog Number :** HP2270-1-500
Type: Source Material **Expires:** 31-OCT-10 **Lot Number :** 0930215
Employee: Helen Camello **Solvent :** HNO3
Supplier: Environmental Express
Description: Trace Calibration Std #1A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	2000 mg/L	Arsenic	200 mg/L
Barium	200 mg/L	Beryllium	200 mg/L
Boron	200 mg/L	Cadmium	200 mg/L
Calcium	2000 mg/L	Chromium	200 mg/L
Cobalt	200 mg/L	Copper	200 mg/L
Iron	2000 mg/L	Lead	200 mg/L
Magnesium	2000 mg/L	Manganese	200 mg/L
Nickel	200 mg/L	Phosphorous	1000 mg/L
Potassium	2000 mg/L	Selenium	200 mg/L
Sodium	2000 mg/L	Strontium	200 mg/L
Thallium	200 mg/L	Uranium	200 mg/L
Vanadium	200 mg/L	Zinc	200 mg/L

Standard Logbook

Serial ID: UI091102-41 **Opened:** 16-NOV-09 **Amount :** 500 mL
Name: TRACE CALSTD#1B SOUF **Received:** 02-NOV-09 **Catalog Number :** HP2270-2-500
Type: Source Material **Expires:** 31-OCT-10 **Lot Number :** 0930216
Employee: Helen Camello **Solvent :** HNO3
Supplier: Environmental Express
Description: Trace Calibration Standard #1B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	200 mg/L	Molybdenum	200 mg/L
Silver	200 mg/L	Sulfur	400 mg/L
Tin	200 mg/L	Titanium	200 mg/L

Serial ID: UI091102-42 **Opened:** 17-NOV-09 **Amount :** 200 mL
Name: SILICON **Received:** 02-NOV-09 **Catalog Number :** HP100050-4F
Type: Source Material **Expires:** 17-NOV-10 **Lot Number :** 0921924
Employee: Helen Camello **Solvent :** H20/tr HF
Supplier: ENVIRNMENTAL EXPRESS
Description: SILICON 1000mg/L H20/tr HF
Comments: None

Analyte	Concentration	Analyte	Concentration
Silica	2139 mg/L	Silicon	1000 mg/L

Serial ID: UI091124-01 **Opened:** 24-NOV-09 **Lot Number :** 1017642
Name: METALSPIKE-1 **Received:** 24-NOV-09
Type: Source Material **Expires:** 24-NOV-10
Employee: Francena Armstrong
Supplier: OS2I
Description: Metals Spike Mix I
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 ug/mL	Arsenic	100 ug/mL
Barium	100 ug/mL	Beryllium	100 ug/mL
Boron	100 ug/mL	Cadmium	100 ug/mL
Calcium	1000 ug/mL	Cobalt	100 ug/mL
Iron	1000 ug/mL	Lead	100 ug/mL
Magnesium	1000 ug/mL	Phosphorous	100 ug/mL
Potassium	1000 ug/mL	Silver	100 ug/mL
Sodium	1000 ug/mL	Strontium	100 ug/mL

Standard Logbook

Serial ID: UI091124-06 **Opened:** 24-NOV-09 **Lot Number :** 1017643
Name: METALSPIKE-2 **Received:** 24-NOV-09
Type: Source Material **Expires:** 24-NOV-10
Employee: Francena Armstrong
Supplier: OS2I
Description: Metals Spike Mix II
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	100 ug/mL	Chromium	100 ug/mL
Copper	100 ug/mL	Manganese	100 ug/mL
Molybdenum	100 ug/mL	Nickel	100 ug/mL
Selenium	100 ug/mL	Silica	2141 ug/mL
Silicon	1000 ug/mL	Sulfur	1000 ug/mL
Thallium	100 ug/mL	Tin	100 ug/mL
Titanium	100 ug/mL	Uranium	100 ug/mL
Vanadium	100 ug/mL	Zinc	100 ug/mL

Serial ID: UI091124-A00 **Opened:** 24-NOV-09 **Catalog Number :** 160067-05
Name: ICP-MS ALL OTHER SPIKE **Received:** 24-NOV-09 **Lot Number :** 1017644
Type: Source Material **Expires:** 24-NOV-10
Employee: Francena Armstrong
Supplier: O2si
Description: ICP-MS SPIKE FOR ALL CLIENTS EXCEPT DOE CLIENTS (Solution A).
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	200 mg/L	Arsenic	5 mg/L
Barium	5 mg/L	Beryllium	5 mg/L
Bismuth	5 mg/L	Boron	10 mg/L
Cadmium	5 mg/L	Calcium	200 mg/L
Cesium	5 mg/L	Chromium	5 mg/L
Cobalt	5 mg/L	Copper	5 mg/L
Iron	200 mg/L	Lead	5 mg/L
Lithium	5 mg/L	Magnesium	200 mg/L
Manganese	5 mg/L	Nickel	5 mg/L
Phosphorous	200 mg/L	Potassium	200 mg/L
Selenium	5 mg/L	Sodium	200 mg/L
Strontium	5 mg/L	Thallium	5 mg/L
Thorium	5 mg/L	Uranium	5 mg/L
Uranium-235	.036 mg/L	Uranium-238	4.964 mg/L
Vanadium	5 mg/L	Zinc	5 mg/L

Standard Logbook

Serial ID: UI091124-B **Opened:** 24-NOV-09 **Catalog Number :** 160067-05
Name: ICP-MS ALL OTHER SPIKE **Received:** 24-NOV-09 **Lot Number :** 1017644
Type: Source Material **Expires:** 24-NOV-10
Employee: Francena Armstrong
Supplier: O2si
Description: MS SPIKE FOR ALL CLIENTS EXCEPT DOE CLIENTS (Solution B).
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	5 mg/L	Molybdenum	5 mg/L
Silver	5 mg/L	Tin	5 mg/L
Titanium	5 mg/L	Zirconium	5 mg/L

Serial ID: UI091130-48 **Opened:** 11-DEC-09 **Amount :** 1000 mL
Name: Trace ICP ICSA **Received:** 01-DEC-09 **Catalog Number :** 160005-02
Type: Source Material **Expires:** 01-JAN-10 **Lot Number :** 1018045
Employee: Helen Camello **Solvent :** 3% HCl + 1% HNO3
Supplier: o2si
Description: Trace ICP Interferent Check Standard A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 UG/L	Calcium	500000 UG/L
Iron	200000 UG/L	Magnesium	500000 UG/L

Serial ID: UI091211-40 **Opened:** 11-DEC-09 **Amount :** 500 mL
Name: ICP HIGH RANGE STD-A **Received:** 09-DEC-09 **Catalog Number :** 160211-05-03
Type: Source Material **Expires:** 11-DEC-10 **Lot Number :** 1017958
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3
Supplier: 02SI
Description: ICP HIGH RANGE STD SOLUTION A
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	10000 ug/L	Arsenic	10000 ug/L
Barium	15000 ug/L	Beryllium	3000 ug/L
Boron	5000 ug/L	Cadmium	10000 ug/L
Chromium	25000 ug/L	Cobalt	10000 ug/L
Copper	20000 ug/L	Lead	25000 ug/L
Manganese	10000 ug/L	Molybdenum	10000 ug/L
Nickel	10000 ug/L	Phosphorous	15000 ug/L
Potassium	300000 ug/L	Selenium	10000 ug/L
Silica	107000 ug/L	Silicon	50000 ug/L
Silver	1000 ug/L	Strontium	10000 ug/L
Sulfur	50000 ug/L	Thallium	10000 ug/L
Tin	10000 ug/L	Titanium	10000 ug/L

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Vanadium	10000 ug/L	Zinc	15000 ug/L

Serial ID: UI091211-41 **Opened:** 11-DEC-09 **Amount :** 500 mL
Name: ICP HIGH RANGE STD B **Received:** 09-DEC-09 **Catalog Number :** 160211-05-03
Type: Source Material **Expires:** 11-DEC-10 **Lot Number :** 1017958
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3
Supplier: 02SI
Description: ICP HIGH RANGE STD SOLUTION B
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 ug/L	Calcium	500000 ug/L
Iron	500000 ug/L	Magnesium	500000 ug/L
Sodium	500000 ug/L	Uranium	15000 ug/L

Serial ID: UI091212-11 **Opened:** 12-DEC-09 **Amount :** 1000 mL
Name: ICP-MS ICSA Master A **Received:** 12-DEC-09 **Catalog Number :** 160013-01-01L
Type: Source Material **Expires:** 12-DEC-10 **Lot Number :** 1015303
Employee: Paul Boyd **Solvent :** 2% HNO3
Supplier: 02SI
Description: ICP-MS ICSA Master A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Calcium	1000 mg/L
Carbon	2000 mg/L	Chloride	10000 mg/L
Iron	1000 mg/L	Magnesium	1000 mg/L
Molybdenum	20 mg/L	Phosphorous	1000 mg/L
Potassium	1000 mg/L	Sodium	1000 mg/L
Sulfur	1000 mg/L	Titanium	20 mg/L

Serial ID: UI091212-60 **Opened:** 12-DEC-09 **Amount :** .5 mL
Name: ICPMS High Range Standa **Received:** 12-DEC-09 **Catalog Number :** 160212-02-01
Type: Source Material **Expires:** 12-DEC-10 **Lot Number :** 1018064
Employee: Paul Boyd **Solvent :** 2%HNO3 + Tr HF
Supplier: O2SI
Description: Linear Range Standard A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	5000 mg/L	Arsenic	100 mg/L
Barium	250 mg/L	Beryllium	100 mg/L
Cadmium	100 mg/L	Calcium	5000 mg/L
Chromium	100 mg/L	Cobalt	100 mg/L

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Copper	100 mg/L	Iron	5000 mg/L
Lead	500 mg/L	Lithium	100 mg/L
Magnesium	5000 mg/L	Manganese	100 mg/L
Nickel	100 mg/L	Phosphorous	2500 mg/L
Potassium	5000 mg/L	Selenium	50 mg/L
Sodium	5000 mg/L	Strontium	100 mg/L
Thallium	50 mg/L	Thorium	250 mg/L
Uranium	500 mg/L	Vanadium	100 mg/L
Zinc	250 mg/L		

Serial ID: UI091212-61 **Opened:** 12-DEC-09 **Amount :** .5 mL
Name: ICPMS High Range Standar **Received:** 12-DEC-09 **Catalog Number :** 160212-02-01
Type: Source Material **Expires:** 12-DEC-10 **Lot Number :** 1018064
Employee: Paul Boyd **Solvent :** 2%HNO3 + Tr HF
Supplier: O2SI
Description: Linear Range Standard B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	25 mg/L	Molybdenum	100 mg/L
Silver	25 mg/L	Tin	100 mg/L
Tungsten	100 mg/L	Zirconium	50 mg/L

Serial ID: UI091217-06 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master A **Received:** 17-DEC-09 **Catalog Number :** 160055-01
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018209
Employee: Paul Boyd **Solvent :** +/- 0.5% in 5% HNO3 100 cm2
Supplier: 02SI
Description: ICPMS ICV/CCV SOLN A - 10ppm
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	2020 mg/L	Calcium	2000 mg/L
Iron	2000 mg/L	Magnesium	2000 mg/L
Phosphorous	2000 mg/L	Potassium	2000 mg/L
Sodium	2000 mg/L		

Serial ID: UI091217-07 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master B **Received:** 17-DEC-09 **Catalog Number :** 160054-02
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018210
Employee: Paul Boyd **Solvent :** +/- 0.5% in 5% HNO3 100 cm2
Supplier: 02SI
Description: ICPMS ICV/CCV Soln B - 10ppm
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	20 mg/L	Barium	20 mg/L
Beryllium	20 mg/L	Boron	40 mg/L
Cadmium	20 mg/L	Chromium	20 mg/L
Cobalt	20 mg/L	Copper	20 mg/L
Lead	20 mg/L	Lithium	20 mg/L
Manganese	20 mg/L	Nickel	20 mg/L
Selenium	20 mg/L	Strontium	20 mg/L
Thallium	20 mg/L	Thorium	20 mg/L
Uranium	20 mg/L	Vanadium	20 mg/L
Zinc	20 mg/L		

Serial ID: UI091217-08 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master C **Received:** 17-DEC-09 **Catalog Number :** 160054-03
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018211
Employee: Paul Boyd **Solvent :** +/- 0.5% in 5% HNO3 100 cm2
Supplier: 02SI
Description: ICPMS ICV/CCV Soln C - 10ppm
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	20 mg/L	Molybdenum	20 mg/L
Silver	20 mg/L	Tin	20 mg/L
Titanium	20 mg/L	Tungsten	20 mg/L
Zirconium	20 mg/L		

Serial ID: UI091217-12 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICSAB Master B **Received:** 17-DEC-09 **Catalog Number :** 160033-02
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018212
Employee: Paul Boyd **Solvent :** +/- 0.5% in 2% HNO3
Supplier: 02SI
Description: ICPMS ICSAB Master B
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	2 mg/L	Barium	2 mg/L
Beryllium	2 mg/L	Boron	2 mg/L
Cadmium	2 mg/L	Chromium	2 mg/L
Cobalt	2 mg/L	Copper	2 mg/L
Lead	2 mg/L	Lithium	2 mg/L
Manganese	2 mg/L	Nickel	2 mg/L
Selenium	2 mg/L	Strontium	2 mg/L
Thallium	2 mg/L	Thorium	2 mg/L
Uranium	2 mg/L	Vanadium	2 mg/L
Zinc	2 mg/L		

Standard Logbook

Serial ID: UI091217-13 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICSAB Master C **Received:** 17-DEC-09 **Catalog Number :** 160033-03
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1016926
Employee: Paul Boyd **Solvent :** +/- 0.5% in 2% HNO3
Supplier: 02SI
Description: ICPMS ICSAB Master C
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	2 mg/L	Silver	2 mg/L
Tin	2 mg/L	Tungsten	2 mg/L
Zirconium	2 mg/L		

Serial ID: UMS090303-01 **Opened:** 03-MAR-09 **Amount :** 250 mL
Name: ICPMSCalSPIKEB **Received:** 03-MAR-09 **Catalog Number :** ZGEL-100-250
Type: Source Material **Expires:** 28-FEB-10 **Lot Number :** 14-81JB
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution B
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	10 mg/L	Barium	10 mg/L
Beryllium	10 mg/L	Boron	20 mg/L
Cadmium	10 mg/L	Chromium	10 mg/L
Cobalt	10 mg/L	Copper	10 mg/L
Lead	10 mg/L	Lithium	10 mg/L
Manganese	10 mg/L	Nickel	10 mg/L
Selenium	10 mg/L	Silver	10 mg/L
Strontium	10 mg/L	Thallium	10 mg/L
Thorium	10 mg/L	Uranium	10 mg/L
Vanadium	10 mg/L	Zinc	10 mg/L

Serial ID: UMS090303-02 **Opened:** 03-MAR-09 **Catalog Number :** ZGEL-102-250
Name: ICPMSCalSPIKEA **Received:** 03-MAR-09 **Lot Number :** 14-83JB
Type: Source Material **Expires:** 28-FEB-10
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Calcium	1000 mg/L
Iron	1000 mg/L	Magnesium	1000 mg/L
Phosphorous	1000 mg/L	Potassium	1000 mg/L
Sodium	1000 mg/L		

Standard Logbook

Serial ID: UMS090303-03 **Opened:** 03-MAR-09 **Amount :** 250 ml
Name: ICPMSCalSPIKEC **Received:** 03-MAR-09 **Catalog Number :** ZGEL-101-250
Type: Source Material **Expires:** 28-FEB-10 **Lot Number :** 15-199JB
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution C
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	10 mg/L	Molybdenum	10 mg/L
Tin	10 mg/L	Titanium	10 mg/L
Zirconium	10 mg/L		

Serial ID: IHG091222-01 **Opened:** 22-DEC-09 **Instrument Id :** Mercury
Name: MHGINTER1 **Received:** 22-DEC-09 **Pipet Id :** Minou1
Type: Intermediate **Expires:** 23-DEC-09 **Solvent :** 1mL HNO3 + Typel H2O
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Intermediate 1st Source 200 ug/L
Comments: Prepare fresh daily

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167639-01	Mercury	1000 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: IHG091222-02 **Opened:** 22-DEC-09 **Pipet Id :** Minou1
Name: MHGINTER2 **Received:** 22-DEC-09 **Solvent :** 2% HNO3-1240182
Type: Intermediate **Expires:** 23-DEC-09
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Intermediate 2nd Source 200 ug/L
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167641-02	Mercury	999.7 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: WHG091222-01 **Opened:** 22-DEC-09 **Pipet Id :** Hg1289245
Name: MHGWORKCAL0.2CRA **Received:** 22-DEC-09 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 28-DEC-09
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working 1st Source CAL 0.2/CRA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG091222-01	Mercury	200 ug/L	20 uL	20 mL	.2 ug/L

Standard Logbook

Serial ID: WHG091222-02 **Opened:** 22-DEC-09 **Pipet Id :** Hg1289245
Name: MHGWORKCAL0.5 **Received:** 22-DEC-09 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 28-DEC-09
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working 1st Source CAL 0.5
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG091222-01	Mercury	200 ug/L	50 uL	20 mL	.5 ug/L

Serial ID: WHG091222-03 **Opened:** 22-DEC-09 **Pipet Id :** Hg1289245
Name: MHGWORKCAL2.0 **Received:** 22-DEC-09 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 28-DEC-09
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL 2.0
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG091222-01	Mercury	200 ug/L	200 uL	20 mL	2 ug/L

Serial ID: WHG091222-04 **Opened:** 22-DEC-09 **Pipet Id :** Hg1289245
Name: MHGWORKCAL5.0CCV **Received:** 22-DEC-09 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 28-DEC-09
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL 5.0/CCV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG091222-01	Mercury	200 ug/L	500 uL	20 mL	5 ug/L

Serial ID: WHG091222-05 **Opened:** 22-DEC-09 **Pipet Id :** Hg1289245
Name: MHGWORKCAL10.0 **Received:** 22-DEC-09 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 28-DEC-09
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL 10.0
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG091222-01	Mercury	200 ug/L	1 mL	20 mL	10 ug/L

Standard Logbook

Serial ID: WHG091222-06 **Opened:** 22-DEC-09 **Pipet Id :** Hg1289245
Name: MHGWORK5.0ICV **Received:** 22-DEC-09 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 28-DEC-09
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working 2nd Source 5.0/ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG091222-02	Mercury	200 ug/L	500 uL	20 mL	5 ug/L

Serial ID: WHG091222-13 **Opened:** 22-DEC-09 **Pipet Id :** Hg1289245
Name: MHGLIQLCSMSSPIKE **Received:** 22-DEC-09 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 28-DEC-09
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury working intermediate standard for LCS/MS
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167639-01	Mercury	1000 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: WI091219-42 **Opened:** 19-DEC-09 **Balance Id :** 216
Name: TRACE ICP 0.1 PPM STD. **Received:** 02-NOV-09 **Pipet Id :** 1099667
Type: Working **Expires:** 20-DEC-09 **Solvent :** 3%HCL and 1%HNO3 -1242318
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP 0.1 PPM CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WI091219-44	Aluminum	10000 ug/L	10 mL	100 mL	1000 ug/L
WI091219-44	Antimony	1000 ug/L	10 mL	100 mL	100 ug/L
WI091219-44	Arsenic	1000 ug/L	10 mL	100 mL	100 ug/L
WI091219-44	Barium	1000 ug/L	10 mL	100 mL	100 ug/L
WI091219-44	Beryllium	1000 ug/L	10 mL	100 mL	100 ug/L
WI091219-44	Boron	1000 ug/L	10 mL	100 mL	100 ug/L
WI091219-44	Cadmium	1000 ug/L	10 mL	100 mL	100 ug/L
WI091219-44	Calcium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI091219-44	Chromium	1000 ug/L	10 mL	100 mL	100 ug/L
WI091219-44	Cobalt	1000 ug/L	10 mL	100 mL	100 ug/L
WI091219-44	Copper	1000 ug/L	10 mL	100 mL	100 ug/L
WI091219-44	Iron	10000 ug/L	10 mL	100 mL	1000 ug/L
WI091219-44	Lead	1000 ug/L	10 mL	100 mL	100 ug/L
WI091219-44	Magnesium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI091219-44	Manganese	1000 ug/L	10 mL	100 mL	100 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WI091219-44	Molybdenum	1000 ug/L	10 mL	100 mL	100 ug/L
WI091219-44	Nickel	1000 ug/L	10 mL	100 mL	100 ug/L
WI091219-44	Phosphorous	5000 ug/L	10 mL	100 mL	500 ug/L
WI091219-44	Potassium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI091219-44	Selenium	1000 ug/L	10 mL	100 mL	100 ug/L
WI091219-44	Silica	10698 ug/L	10 mL	100 mL	1069 ug/L
WI091219-44	Silicon	5000 ug/L	10 mL	100 mL	500 ug/L
WI091219-44	Silver	1000 ug/L	10 mL	100 mL	100 ug/L
WI091219-44	Sodium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI091219-44	Strontium	1000 ug/L	10 mL	100 mL	100 ug/L
WI091219-44	Sulfur	2000 ug/L	10 mL	100 mL	200 ug/L
WI091219-44	Thallium	1000 ug/L	10 mL	100 mL	100 ug/L
WI091219-44	Tin	1000 ug/L	10 mL	100 mL	100 ug/L
WI091219-44	Titanium	1000 ug/L	10 mL	100 mL	100 ug/L
WI091219-44	Uranium	1000 ug/L	10 mL	100 mL	100 ug/L
WI091219-44	Vanadium	1000 ug/L	10 mL	100 mL	100 ug/L
WI091219-44	Zinc	1000 ug/L	10 mL	100 mL	100 ug/L

Serial ID: WI091219-43 **Opened:** 19-DEC-09 **Balance Id :** 216
Name: TRACE ICP 0.5/CCV STD. **Received:** 02-NOV-09 **Pipet Id :** 1099667
Type: Working **Expires:** 20-DEC-09 **Solvent :** 3%HCL and 1%HNO3 -1242318
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP O.5/CCV CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090828-42	Sodium	1000 ug/mL	5 mL	1000 mL	5000 UG/L
UI091015-42	Silica	2139 mg/L	2.5 mL	1000 mL	5348.25 UG/L
UI091015-42	Silicon	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI091102-40	Aluminum	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Arsenic	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Barium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Beryllium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Boron	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Cadmium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Calcium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Chromium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Cobalt	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Copper	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Iron	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Lead	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Magnesium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Manganese	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Nickel	200 mg/L	2.5 mL	1000 mL	500 UG/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091102-40	Phosphorous	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI091102-40	Potassium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Selenium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Sodium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Strontium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Thallium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Uranium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Vanadium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Zinc	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Antimony	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Molybdenum	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Silver	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Sulfur	400 mg/L	2.5 mL	1000 mL	1000 UG/L
UI091102-41	Tin	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Titanium	200 mg/L	2.5 mL	1000 mL	500 UG/L

Serial ID: WI091219-44 **Opened:** 19-DEC-09 **Balance Id :** 216
Name: TRACE ICP SCAL 1.0 **Received:** 02-NOV-09 **Pipet Id :** 1099667
Type: Working **Expires:** 20-DEC-09 **Solvent :** 3%HCL and 1 %HNO3-1242318
Employee: Helen Camello
Supplier: o2si
Description: Trace ICP Calibration Standard 1.0ppm
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091015-42	Silica	2139 mg/L	2.5 mL	500 mL	10698 ug/L
UI091015-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI091102-40	Aluminum	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Arsenic	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Barium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Beryllium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Boron	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Cadmium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Calcium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Chromium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Cobalt	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Copper	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Iron	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Lead	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Magnesium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Manganese	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Nickel	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Phosphorous	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI091102-40	Potassium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Selenium	200 mg/L	2.5 mL	500 mL	1000 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091102-40	Sodium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Strontium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Thallium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Uranium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Vanadium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Zinc	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Antimony	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Molybdenum	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Silver	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Sulfur	400 mg/L	2.5 mL	500 mL	2000 ug/L
UI091102-41	Tin	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Titanium	200 mg/L	2.5 mL	500 mL	1000 ug/L

Serial ID: WI091219-45 **Opened:** 19-DEC-09 **Balance Id :** 216
Name: TRACE ICP S-10 STD **Received:** 22-APR-09 **Pipet Id :** 1099667
Type: Working **Expires:** 20-DEC-09 **Solvent :** 3%HCL and 1%HNO3 -1242318
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP S-10 CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090422-40	Aluminum	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Calcium	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Iron	2000 mg/L	5 mL	500 mL	20000 UG/L
UI090422-40	Magnesium	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090828-42	Sodium	1000 ug/mL	10 mL	500 mL	20000 UG/L

Serial ID: WI091219-46 **Opened:** 19-DEC-09 **Balance Id :** 216
Name: ICP TRACE ICV **Received:** 25-SEP-09 **Pipet Id :** 1099667
Type: Working **Expires:** 20-DEC-09 **Solvent :** 3%HCL AND 1%HNO3-1242318
Employee: Helen Camello
Supplier: GEL
Description: Initial Calibration Verification ICP Trace Metals
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090925-40	Aluminum	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Arsenic	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Barium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Boron	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cadmium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Calcium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Chromium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cobalt	100 mg/L	2.5 mL	500 mL	500 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090925-40	Copper	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Iron	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Lead	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Phosphorous	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Potassium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Selenium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Sodium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Strontium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Antimony	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Beryllium	50 mg/L	2.5 mL	500 mL	250 ug/L
UI090925-41	Magnesium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-41	Manganese	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Molybdenum	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Nickel	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Silver	50 mg/L	2.5 mL	500 mL	250 ug/L
UI090925-41	Sulfur	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-41	Thallium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Tin	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Titanium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Uranium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Vanadium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Zinc	100 mg/L	2.5 mL	500 mL	500 ug/L
UI091102-42	Silica	2139 mg/L	2.5 mL	500 mL	10695 ug/L
UI091102-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L

Serial ID: WI091219-47 **Opened:** 19-DEC-09 **Balance Id :** 216
Name: PQL Working Standard **Received:** 30-JUN-09 **Pipet Id :** 1099667
Type: Working **Expires:** 20-DEC-09 **Solvent :** 3%HCL &1%HNO3-1242318
Employee: Helen Camello
Supplier: 02si
Description: PQL Working Standard
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-40	Aluminum	100 mg/L	2 mL	1000 mL	200 ug/L
UI090701-40	Antimony	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Arsenic	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Barium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Beryllium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Boron	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Cadmium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Calcium	100 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Chromium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Cobalt	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Copper	5 mg/L	2 mL	1000 mL	10 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-40	Iron	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Lead	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Magnesium	150 mg/L	2 mL	1000 mL	300 ug/L
UI090701-40	Manganese	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Molybdenum	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Nickel	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Phosphorous	75 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Potassium	75 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Selenium	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Silicon	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Silver	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sodium	150 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Strontium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sulfur	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Thallium	10 mg/L	2 mL	1000 mL	20 ug/L
UI090701-40	Tin	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Titanium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Uranium	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Vanadium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Zinc	5 mg/L	2 mL	1000 mL	10 ug/L

Serial ID: WMS091222-04 **Opened:** 22-DEC-09 **Amount :** 50 mL
Name: ICPMS Cal Standard 100 **Received:** 22-DEC-09 **Balance Id :** 4025216
Type: Working **Expires:** 23-DEC-09 **Pipet Id :** 3541598
Employee: Elizabeth Janssen **Solvent :** 2%HNO3/1%HCl-1245333
Supplier: GEL
Description: ICPMS Calibration Standard (100 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090610-03	Tungsten	10 mg/L	.5 mL	50 mL	100 ug/L
UMS090303-01	Arsenic	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Barium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Beryllium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Boron	20 mg/L	.5 mL	50 mL	200 ug/l
UMS090303-01	Cadmium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Chromium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Cobalt	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Copper	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Lead	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Lithium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Manganese	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Nickel	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Selenium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Silver	10 mg/L	.5 mL	50 mL	100 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UMS090303-01	Strontium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Thallium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Thorium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Uranium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Vanadium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Zinc	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-02	Aluminum	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Calcium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Iron	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Magnesium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Phosphorous	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Potassium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Sodium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-03	Antimony	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Molybdenum	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Tin	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Titanium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Zirconium	10 mg/L	.5 mL	50 mL	100 ug/l

Serial ID: WMS091222-04A **Opened:** 22-DEC-09 **Balance Id :** 4025216
Name: ICPMS Cal Standard 10 **Received:** 22-DEC-09 **Pipet Id :** 3541598
Type: Working **Expires:** 23-DEC-09 **Solvent :** 2%HNO3/1%HCl - 1245333
Employee: Elizabeth Janssen
Supplier: GEL
Description: ICPMS Calibration Standard (10 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS091222-04	Aluminum	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS091222-04	Antimony	100 ug/l	5 mL	50 mL	10 ug/l
WMS091222-04	Arsenic	100 ug/l	5 mL	50 mL	10 ug/l
WMS091222-04	Barium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091222-04	Beryllium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091222-04	Boron	200 ug/l	5 mL	50 mL	20 ug/l
WMS091222-04	Cadmium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091222-04	Calcium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS091222-04	Chromium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091222-04	Cobalt	100 ug/l	5 mL	50 mL	10 ug/l
WMS091222-04	Copper	100 ug/l	5 mL	50 mL	10 ug/l
WMS091222-04	Iron	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS091222-04	Lead	100 ug/l	5 mL	50 mL	10 ug/l
WMS091222-04	Lithium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091222-04	Magnesium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS091222-04	Manganese	100 ug/l	5 mL	50 mL	10 ug/l
WMS091222-04	Molybdenum	100 ug/l	5 mL	50 mL	10 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS091222-04	Nickel	100 ug/l	5 mL	50 mL	10 ug/l
WMS091222-04	Phosphorous	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS091222-04	Potassium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS091222-04	Selenium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091222-04	Silver	100 ug/l	5 mL	50 mL	10 ug/l
WMS091222-04	Sodium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS091222-04	Strontium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091222-04	Thallium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091222-04	Thorium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091222-04	Tin	100 ug/l	5 mL	50 mL	10 ug/l
WMS091222-04	Titanium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091222-04	Tungsten	100 ug/L	5 mL	50 mL	10 ug/L
WMS091222-04	Uranium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091222-04	Vanadium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091222-04	Zinc	100 ug/l	5 mL	50 mL	10 ug/l
WMS091222-04	Zirconium	100 ug/l	5 mL	50 mL	10 ug/l

Serial ID: WMS091222-05 **Opened:** 22-DEC-09 **Balance Id :** 40245216
Name: ICPMS ICV **Received:** 22-DEC-09 **Pipet Id :** 3541598
Type: Working **Expires:** 23-DEC-09 **Solvent :** 2%HNO3/1%HCl - 1245333
Employee: Elizabeth Janssen
Supplier: GEL
Description: ICPMS ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-06	Aluminum	2020 mg/L	.125 mL	50 mL	5050 ug/L
UI091217-06	Calcium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Iron	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Magnesium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Phosphorous	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Potassium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Sodium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-07	Arsenic	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Barium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Beryllium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Boron	40 mg/L	.125 mL	50 mL	100 ug/L
UI091217-07	Cadmium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Chromium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Cobalt	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Copper	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lead	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lithium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Manganese	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Nickel	20 mg/L	.125 mL	50 mL	50 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-07	Selenium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Strontium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thallium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thorium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Uranium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Vanadium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Zinc	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Antimony	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Molybdenum	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Silver	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tin	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Titanium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tungsten	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Zirconium	20 mg/L	.125 mL	50 mL	50 ug/L

Serial ID: WMS091222-06 **Opened:** 22-DEC-09 **Balance Id :** 40245216
Name: ICPMS CRDL **Received:** 22-DEC-09 **Pipet Id :** 3820544
Type: Working **Expires:** 23-DEC-09 **Solvent :** 2%HNO3/1%HCl - 1245333
Employee: Elizabeth Janssen
Supplier: GEL
Description: ICPMS CRDL
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Aluminum	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Arsenic	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Barium	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Beryllium	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-09	Boron	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Cadmium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Calcium	100 mg/L	.05 mL	50 mL	100 ug/L
UI090701-09	Chromium	3 mg/L	.05 mL	50 mL	3 ug/L
UI090701-09	Cobalt	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Copper	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Iron	25 mg/L	.05 mL	50 mL	25 ug/L
UI090701-09	Lead	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Lithium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Magnesium	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Manganese	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Nickel	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Phosphorous	50 mg/L	.05 mL	50 mL	50 ug/L
UI090701-09	Potassium	300 mg/L	.05 mL	50 mL	300 ug/L
UI090701-09	Selenium	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Sodium	250 mg/L	.05 mL	50 mL	250 ug/L
UI090701-09	Strontium	10 mg/L	.05 mL	50 mL	10 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Thallium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Thorium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Uranium	.2 mg/L	.05 mL	50 mL	.2 ug/L
UI090701-09	Vanadium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Zinc	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Antimony	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-10	Molybdenum	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-10	Silver	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-10	Tin	2 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Titanium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Tungsten	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Zirconium	2 mg/L	.05 mL	50 mL	2 ug/L

Serial ID: WMS091222-07 **Opened:** 22-DEC-09 **Balance Id :** 40245216
Name: ICPMS ICSA **Received:** 22-DEC-09 **Lot Number :** 1010773
Type: Working **Expires:** 23-DEC-09 **Pipet Id :** 3541598
Employee: Elizabeth Janssen **Solvent :** 2%HNO3/1%HCl - 1245333
Supplier: GEL
Description: ICPMS ICSA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI091212-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI091212-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: WMS091222-08 **Opened:** 22-DEC-09 **Balance Id :** 40245216
Name: ICPMS ICSAB **Received:** 22-DEC-09 **Pipet Id :** 1758088
Type: Working **Expires:** 23-DEC-09 **Solvent :** 2%HNO3/1%HCl - 1245333
Employee: Elizabeth Janssen
Supplier: GEL
Description: ICPMS ICSAB
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI091212-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI091212-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L
UI091217-12	Arsenic	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Barium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Beryllium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Boron	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Cadmium	2 mg/L	.5 mL	50 mL	20.2 ug/L
UI091217-12	Chromium	2 mg/L	.5 mL	50 mL	22.2 ug/L
UI091217-12	Cobalt	2 mg/L	.5 mL	50 mL	20.4 ug/L
UI091217-12	Copper	2 mg/L	.5 mL	50 mL	23.4 ug/L
UI091217-12	Lead	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Lithium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Manganese	2 mg/L	.5 mL	50 mL	22.7 ug/L
UI091217-12	Nickel	2 mg/L	.5 mL	50 mL	22.4 ug/L
UI091217-12	Selenium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Strontium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thallium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thorium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Uranium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Vanadium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Zinc	2 mg/L	.5 mL	50 mL	27 ug/L
UI091217-13	Antimony	2 mg/L	.5 mL	50 mL	20.5 ug/L
UI091217-13	Silver	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tin	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tungsten	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Zirconium	2 mg/L	.5 mL	50 mL	20 ug/L

Serial ID: WMS091222-70 **Opened:** 22-DEC-09 **Balance Id :** 40245216
Name: ICPMS LINEAR RANGE ST **Received:** 22-DEC-09 **Pipet Id :** 1758088
Type: Working **Expires:** 23-DEC-09 **Solvent :** 2%HNO3/1%HCl - 1245333
Employee: Elizabeth Janssen
Supplier: 02SI
Description: ICPMS LINEAR RANGE STANDARD
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-60	Aluminum	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Arsenic	100 mg/L	.5 mL	50 mL	1000 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-60	Barium	250 mg/L	.5 mL	50 mL	2500 ug/L
UI091212-60	Beryllium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Cadmium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Calcium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Chromium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Cobalt	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Copper	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Iron	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Lead	500 mg/L	.5 mL	50 mL	5000 ug/L
UI091212-60	Lithium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Magnesium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Manganese	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Nickel	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Phosphorous	2500 mg/L	.5 mL	50 mL	25000 ug/L
UI091212-60	Potassium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Selenium	50 mg/L	.5 mL	50 mL	500 ug/L
UI091212-60	Sodium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Strontium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Thallium	50 mg/L	.5 mL	50 mL	500 ug/L
UI091212-60	Thorium	250 mg/L	.5 mL	50 mL	2500 ug/L
UI091212-60	Uranium	500 mg/L	.5 mL	50 mL	5000 ug/L
UI091212-60	Vanadium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Zinc	250 mg/L	.5 mL	50 mL	2500 ug/L
UI091212-61	Antimony	25 mg/L	.5 mL	50 mL	250 ug/L
UI091212-61	Molybdenum	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-61	Silver	25 mg/L	.5 mL	50 mL	250 ug/L
UI091212-61	Tin	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-61	Tungsten	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-61	Zirconium	50 mg/L	.5 mL	50 mL	500 ug/L

Serial ID: WMS091223-04 **Opened:** 23-DEC-09 **Amount :** 50 mL
Name: ICPMS Cal Standard 100 **Received:** 23-DEC-09 **Balance Id :** 4025216
Type: Working **Expires:** 24-DEC-09 **Pipet Id :** 3541598
Employee: Elizabeth Janssen **Solvent :** 2%HNO3/1%HCl-1245333
Supplier: GEL
Description: ICPMS Calibration Standard (100 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090610-03	Tungsten	10 mg/L	.5 mL	50 mL	100 ug/L
UMS090303-01	Arsenic	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Barium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Beryllium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Boron	20 mg/L	.5 mL	50 mL	200 ug/l
UMS090303-01	Cadmium	10 mg/L	.5 mL	50 mL	100 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UMS090303-01	Chromium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Cobalt	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Copper	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Lead	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Lithium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Manganese	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Nickel	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Selenium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Silver	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Strontium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Thallium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Thorium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Uranium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Vanadium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Zinc	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-02	Aluminum	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Calcium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Iron	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Magnesium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Phosphorous	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Potassium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Sodium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-03	Antimony	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Molybdenum	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Tin	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Titanium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Zirconium	10 mg/L	.5 mL	50 mL	100 ug/l

Serial ID: WMS091223-04A **Opened:** 23-DEC-09 **Balance Id :** 4025216
Name: ICPMS Cal Standard 10 **Received:** 23-DEC-09 **Pipet Id :** 3541598
Type: Working **Expires:** 24-DEC-09 **Solvent :** 2%HNO3/1%HCl - 1245333
Employee: Elizabeth Janssen
Supplier: GEL
Description: ICPMS Calibration Standard (10 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS091223-04	Aluminum	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS091223-04	Antimony	100 ug/l	5 mL	50 mL	10 ug/l
WMS091223-04	Arsenic	100 ug/l	5 mL	50 mL	10 ug/l
WMS091223-04	Barium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091223-04	Beryllium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091223-04	Boron	200 ug/l	5 mL	50 mL	20 ug/l
WMS091223-04	Cadmium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091223-04	Calcium	10000 ug/l	5 mL	50 mL	1000 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS091223-04	Chromium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091223-04	Cobalt	100 ug/l	5 mL	50 mL	10 ug/l
WMS091223-04	Copper	100 ug/l	5 mL	50 mL	10 ug/l
WMS091223-04	Iron	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS091223-04	Lead	100 ug/l	5 mL	50 mL	10 ug/l
WMS091223-04	Lithium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091223-04	Magnesium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS091223-04	Manganese	100 ug/l	5 mL	50 mL	10 ug/l
WMS091223-04	Molybdenum	100 ug/l	5 mL	50 mL	10 ug/l
WMS091223-04	Nickel	100 ug/l	5 mL	50 mL	10 ug/l
WMS091223-04	Phosphorous	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS091223-04	Potassium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS091223-04	Selenium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091223-04	Silver	100 ug/l	5 mL	50 mL	10 ug/l
WMS091223-04	Sodium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS091223-04	Strontium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091223-04	Thallium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091223-04	Thorium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091223-04	Tin	100 ug/l	5 mL	50 mL	10 ug/l
WMS091223-04	Titanium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091223-04	Tungsten	100 ug/L	5 mL	50 mL	10 ug/L
WMS091223-04	Uranium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091223-04	Vanadium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091223-04	Zinc	100 ug/l	5 mL	50 mL	10 ug/l
WMS091223-04	Zirconium	100 ug/l	5 mL	50 mL	10 ug/l

Serial ID: WMS091223-05 **Opened:** 23-DEC-09 **Balance Id :** 40245216
Name: ICPMS ICV **Received:** 23-DEC-09 **Pipet Id :** 3541598
Type: Working **Expires:** 24-DEC-09 **Solvent :** 2%HNO3/1%HCl - 1245333
Employee: Elizabeth Janssen
Supplier: GEL
Description: ICPMS ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-06	Aluminum	2020 mg/L	.125 mL	50 mL	5050 ug/L
UI091217-06	Calcium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Iron	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Magnesium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Phosphorous	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Potassium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Sodium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-07	Arsenic	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Barium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Beryllium	20 mg/L	.125 mL	50 mL	50 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-07	Boron	40 mg/L	.125 mL	50 mL	100 ug/L
UI091217-07	Cadmium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Chromium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Cobalt	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Copper	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lead	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lithium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Manganese	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Nickel	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Selenium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Strontium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thallium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thorium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Uranium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Vanadium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Zinc	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Antimony	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Molybdenum	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Silver	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tin	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Titanium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tungsten	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Zirconium	20 mg/L	.125 mL	50 mL	50 ug/L

Serial ID: WMS091223-06 **Opened:** 23-DEC-09 **Balance Id :** 40245216
Name: ICPMS CRDL **Received:** 23-DEC-09 **Pipet Id :** 3820544
Type: Working **Expires:** 24-DEC-09 **Solvent :** 2%HNO3/1%HCl - 1245333
Employee: Elizabeth Janssen
Supplier: GEL
Description: ICPMS CRDL
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Aluminum	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Arsenic	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Barium	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Beryllium	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-09	Boron	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Cadmium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Calcium	100 mg/L	.05 mL	50 mL	100 ug/L
UI090701-09	Chromium	3 mg/L	.05 mL	50 mL	3 ug/L
UI090701-09	Cobalt	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Copper	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Iron	25 mg/L	.05 mL	50 mL	25 ug/L
UI090701-09	Lead	2 mg/L	.05 mL	50 mL	2 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Lithium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Magnesium	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Manganese	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Nickel	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Phosphorous	50 mg/L	.05 mL	50 mL	50 ug/L
UI090701-09	Potassium	300 mg/L	.05 mL	50 mL	300 ug/L
UI090701-09	Selenium	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Sodium	250 mg/L	.05 mL	50 mL	250 ug/L
UI090701-09	Strontium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Thallium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Thorium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Uranium	.2 mg/L	.05 mL	50 mL	.2 ug/L
UI090701-09	Vanadium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Zinc	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Antimony	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-10	Molybdenum	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-10	Silver	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-10	Tin	2 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Titanium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Tungsten	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Zirconium	2 mg/L	.05 mL	50 mL	2 ug/L

Serial ID: WMS091223-07 **Opened:** 23-DEC-09 **Balance Id :** 40245216
Name: ICPMS ICSA **Received:** 23-DEC-09 **Lot Number :** 1010773
Type: Working **Expires:** 24-DEC-09 **Pipet Id :** 3541598
Employee: Elizabeth Janssen **Solvent :** 2%HNO3/1%HCl - 1245333
Supplier: GEL
Description: ICPMS ICSA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI091212-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI091212-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Standard Logbook

Serial ID: WMS091223-08 **Opened:** 23-DEC-09 **Balance Id :** 40245216
Name: ICPMS ICSAB **Received:** 23-DEC-09 **Pipet Id :** 1758088
Type: Working **Expires:** 24-DEC-09 **Solvent :** 2%HNO3/1%HCl - 1245333
Employee: Elizabeth Janssen
Supplier: GEL
Description: ICPMS ICSAB
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI091212-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI091212-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L
UI091217-12	Arsenic	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Barium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Beryllium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Boron	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Cadmium	2 mg/L	.5 mL	50 mL	20.2 ug/L
UI091217-12	Chromium	2 mg/L	.5 mL	50 mL	22.2 ug/L
UI091217-12	Cobalt	2 mg/L	.5 mL	50 mL	20.4 ug/L
UI091217-12	Copper	2 mg/L	.5 mL	50 mL	23.4 ug/L
UI091217-12	Lead	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Lithium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Manganese	2 mg/L	.5 mL	50 mL	22.7 ug/L
UI091217-12	Nickel	2 mg/L	.5 mL	50 mL	22.4 ug/L
UI091217-12	Selenium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Strontium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thallium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thorium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Uranium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Vanadium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Zinc	2 mg/L	.5 mL	50 mL	27 ug/L
UI091217-13	Antimony	2 mg/L	.5 mL	50 mL	20.5 ug/L
UI091217-13	Silver	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tin	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tungsten	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Zirconium	2 mg/L	.5 mL	50 mL	20 ug/L

Standard Logbook

Serial ID: WMS091223-70 **Opened:** 23-DEC-09 **Balance Id :** 40245216
Name: ICPMS LINEAR RANGE ST **Received:** 23-DEC-09 **Pipet Id :** 1758088
Type: Working **Expires:** 24-DEC-09 **Solvent :** 2%HNO3/1%HCl - 1245333
Employee: Elizabeth Janssen
Supplier: 02SI
Description: ICPMS LINEAR RANGE STANDARD
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-60	Aluminum	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Arsenic	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Barium	250 mg/L	.5 mL	50 mL	2500 ug/L
UI091212-60	Beryllium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Cadmium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Calcium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Chromium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Cobalt	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Copper	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Iron	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Lead	500 mg/L	.5 mL	50 mL	5000 ug/L
UI091212-60	Lithium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Magnesium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Manganese	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Nickel	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Phosphorous	2500 mg/L	.5 mL	50 mL	25000 ug/L
UI091212-60	Potassium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Selenium	50 mg/L	.5 mL	50 mL	500 ug/L
UI091212-60	Sodium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Strontium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Thallium	50 mg/L	.5 mL	50 mL	500 ug/L
UI091212-60	Thorium	250 mg/L	.5 mL	50 mL	2500 ug/L
UI091212-60	Uranium	500 mg/L	.5 mL	50 mL	5000 ug/L
UI091212-60	Vanadium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Zinc	250 mg/L	.5 mL	50 mL	2500 ug/L
UI091212-61	Antimony	25 mg/L	.5 mL	50 mL	250 ug/L
UI091212-61	Molybdenum	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-61	Silver	25 mg/L	.5 mL	50 mL	250 ug/L
UI091212-61	Tin	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-61	Tungsten	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-61	Zirconium	50 mg/L	.5 mL	50 mL	500 ug/L

Serial ID: 1156689-A **Opened:** 20-JUL-09 **Lot Number :** 41226920
Name: B-KMnO4(VWR)-MER **Received:** 20-JUL-09
Type: Reagent/Solvent **Expires:** 20-JUL-10
Employee: Tara Griffin **Verified:** 07-AUG-07
Supplier: VWR

Standard Logbook

Description: Potassium Permanganate
Comments: None

Serial ID: 1164796-A **Opened:** 06-AUG-09 **Lot Number :** 49149927
Name: B-NH2OH.HCl-MER **Received:** 06-AUG-09
Type: Reagent/Solvent **Expires:** 06-AUG-10
Employee: Tara Griffin
Supplier: Fisher Scientific
Description: Hydroxlyamine Hydrochloride
Comments: None

Serial ID: 1176183 **Opened:** 24-AUG-09 **Lot Number :** H20001
Name: B-H2SO4-MER **Received:** 24-AUG-09
Type: Reagent/Solvent **Expires:** 24-AUG-10
Employee: Tara Griffin
Supplier: Mallinckrodt
Description: Sulfuric Acid, Concentrated
Comments: None

Serial ID: 1206350-C **Opened:** 22-OCT-09 **Balance Id :** BAL-002
Name: B-NaCl.NH2OH.HCl-MER **Received:** 22-OCT-09
Type: Reagent/Solvent **Expires:** 06-AUG-10
Employee: Tara Griffin
Supplier: GEL
Description: Hg reducing agent
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1164796-A	B-NH2OH.HCl-MER	N/A	120 g	1000 mL	N/A

Serial ID: 1215803 **Opened:** 06-NOV-09 **Lot Number :** H39037
Name: I-HCL **Received:** 06-NOV-09 **Preservative_Id :** 5 none
Type: Reagent/Solvent **Expires:** 06-NOV-10
Employee: Anthony Green
Supplier: J.T. BAKER
Description: HYDROCHLORIC ACID
Comments: None

Standard Logbook

Serial ID: 1215906 **Opened:** 06-NOV-09 **Lot Number :** H44465
Name: B-K2S2O8S-MER **Received:** 06-NOV-09
Type: Reagent/Solvent **Expires:** 06-NOV-10
Employee: Tara Griffin
Supplier: J.T BAKER
Description: Potassium Persulfate Concentrate.
Comments: None

Serial ID: 1234385-C **Opened:** 25-NOV-09 **Balance Id :** BAL-002
Name: B-K2S2O8-MER **Received:** 25-NOV-09
Type: Reagent/Solvent **Expires:** 25-MAY-10
Employee: Tara Griffin
Supplier: GEL
Description: 5% Potassium Persulfate
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1215906	B-K2S2O8S-MER	N/A	50 g	1000 mL	N/A

Serial ID: 1238345 **Opened:** 04-DEC-09 **Lot Number :** H20053 L
Name: I-HNO3 **Received:** 04-DEC-09
Type: Reagent/Solvent **Expires:** 04-DEC-10
Employee: Francena Armstrong
Supplier: BAKER
Description: Nitric Acid CONC.
Comments: None

Serial ID: 1240182-1 **Opened:** 09-DEC-09 **Instrument Id :** MERCURY
Name: B-HNO3-MER **Received:** 09-DEC-09 **Lot Number :** H34040
Type: Reagent/Solvent **Expires:** 09-DEC-10
Employee: Tara Griffin
Supplier: Mallinckrodt Chemicals
Description: NITRIC ACID
Comments: None

Serial ID: 1242318 **Opened:** 14-DEC-09 **Amount :** 20 L
Name: B-ICP-RINSE SOLN **Received:** 01-DEC-09 **Lot Number :** H04040+G34050
Type: Reagent/Solvent **Expires:** 20-DEC-09 **Solvent :** 3%HCL+1%HNO3
Employee: Helen Camello
Supplier: GEL
Description: 3%HCL+1%HNO3 RINSE SOLN.
Comments: None

Standard Logbook

Serial ID: 1244904-C **Opened:** 18-DEC-09 **Balance Id :** BAL-002
Name: B-KMnO4-MER **Received:** 18-DEC-09
Type: Reagent/Solvent **Expires:** 18-JUN-10
Employee: Tara Griffin
Supplier: GEL
Description: 5% KMnO4 solution
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1156689-A	B-KMnO4(VWR)-MER	Crystals	50 g	1000 mL	3%

Serial ID: 1244970 **Opened:** 18-DEC-09 **Lot Number :** H41032
Name: I-HCL **Received:** 18-DEC-09 **Preservative_Id :** 5 none
Type: Reagent/Solvent **Expires:** 18-DEC-10
Employee: Francena Armstrong
Supplier: J.T. BAKER
Description: HYDROCHLORIC ACID
Comments: None

Serial ID: 1245333 **Opened:** 21-DEC-09 **Solvent :** Type I Water
Name: B-2%HNO3/1%HCl-ICPMS **Received:** 21-DEC-09
Type: Reagent/Solvent **Expires:** 28-DEC-09
Employee: Elizabeth Janssen
Supplier: GEL
Description: 2%HNO3/1%HCl Solution (Type I Water)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1238345	I-HNO3	69.0-70.0	180 mL	9 l	N/A
1244970	I-HCL	36.5-38.0	90 mL	9 l	N/A

General Chemistry Analysis

Case Narrative

General Chemistry Narrative
Los Alamos National Laboratory (LANL)
SDG 10-887

Method/Analysis Information

Product:	**Cyanide, Total**		
Analytical Batch:	932527	**Method:**	SW846 9012A
Prep Batch :	932526	**Method:**	SW846 9010B Prep

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 9012A:

Sample ID	Client ID
242781001	RE03-09-13757
242781002	RE03-09-13752
242781003	RE03-09-13753
242781004	RE03-09-13754
242781005	RE03-09-13755
242781006	RE03-09-13756
242781007	RE03-10-5525
1201994740	Method Blank (MB)
1201994741	242750002(RE03-09-13466) Sample Duplicate (DUP)
1201994742	242750003(RE03-09-13468) Sample Duplicate (DUP)
1201994743	242750002(RE03-09-13466) Matrix Spike (MS)
1201994744	242750003(RE03-09-13468) Matrix Spike (MS)
1201994745	242750002(RE03-09-13466) Matrix Spike Duplicate (MSD)
1201994746	242750003(RE03-09-13468) Matrix Spike Duplicate (MSD)
1201994747	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on a "dry weight" basis.

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-095 REV# 12.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

The Flow Injection analysis was performed on a Lachat QuickChem FIA+ 8000 Series.

Initial Calibration

All initial calibration requirements have been met for this SDG.

Continuing Calibration Blanks

All continuing calibration blanks (CCBs) associated with reported data from this batch were within acceptance limits.

Calibration Verification Information (CCV)

All continuing calibration verification standards (CCVs) associated with reported data from this batch were within acceptance limits.

Y Intercept Rule

The absolute value of the intercept is less than 3 times the MDL.

Quality Control (QC) Information

Method Blank (MB) Statement

The MB analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery

The LCS spike recovery met the acceptance limits.

Quality Control (QC) Designation

The following samples were selected for QC analysis: 242750002 (RE03-09-13466) and 242750003 (RE03-09-13468).

Matrix Spike (MS)/Post Spike (PS) Recovery Statement

The MS/PS recoveries for this sample set were within the required acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement

The MSD recoveries for this sample set were within the required acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement

The RPDs between the spike and spike duplicate met the acceptance limits.

Duplicate Relative Percent Difference (RPD) Statement

The values for the sample and duplicate are less than the Practical Quantitation Limit (PQL); therefore, the RPD is not applicable. 1201994741 (RE03-09-13466) and 1201994742 (RE03-09-13468).

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times

All samples in this SDG met the specified holding time.

Sample Preservation/Integrity
All the samples from this sample group met the preservation and integrity requirements of the method.

Sample Dilutions
The following sample in this sample group was diluted due to high concentration: 1201994747 (LCS).

Sample Re-analysis
The samples in this SDG did not require re-analysis.

Miscellaneous Information

Nonconformance (NCR) Documentation
An NCR was not required for this SDG.

Additional Comments
Additional comments were not required for this SDG.

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:
Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Tom Lewis, Jr. **Date:** 05Jan10

Sample Data Summary

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis Report
for

LANL010 Los Alamos National Laboratory (72733-001-09)

Client SDG: 10-887 GEL Work Order: 242781

The Qualifiers in this report are defined as follows:

* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.

** Indicates the analyte is a surrogate compound.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the detection limit.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Valerie Davis.

Reviewed by _____

GEL LABORATORIES LLC

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: January 2, 2010

Client SDG: 10-887

Client Sample ID:	RE03-09-13752	Project:	LANL01004
Sample ID:	242781002	Client ID:	LANL010
Matrix:	S		
Collect Date:	09-DEC-09 12:00		
Receive Date:	11-DEC-09		
Collector:	Client		
Moisture:	8.37%		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Flow Injection Analysis											
SW9012A Cyanide, Total Federal "Dry Weight Corrected"											
Cyanide, Total	J	151	74.2	273	ug/kg	1	AXC2	12/17/09	0955	932527	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	SXJ1	12/16/09	1230	932526

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Certificate of Analysis

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: January 2, 2010

Client SDG: 10-887

Client Sample ID:	RE03-09-13753	Project:	LANL01004
Sample ID:	242781003	Client ID:	LANL010
Matrix:	S		
Collect Date:	09-DEC-09 12:00		
Receive Date:	11-DEC-09		
Collector:	Client		
Moisture:	8.48%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total Federal "Dry Weight Corrected"										
Cyanide, Total	U	ND	66.3	244	ug/kg	1	AXC2 12/17/09	0956	932527	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	SXJ1	12/16/09	1230	932526

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Company : Los Alamos National Laboratory
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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: January 2, 2010

Client SDG: 10-887

Client Sample ID:	RE03-09-13757	Project:	LANL01004
Sample ID:	242781001	Client ID:	LANL010
Matrix:	S		
Collect Date:	09-DEC-09 12:00		
Receive Date:	11-DEC-09		
Collector:	Client		
Moisture:	9.87%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total Federal "Dry Weight Corrected"										
Cyanide, Total	J	273	75.4	277	ug/kg	1	AXC2 12/17/09	0951	932527	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	SXJ1	12/16/09	1230	932526

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: January 2, 2010

Client SDG: 10-887

Client Sample ID:	RE03-09-13754	Project:	LANL01004
Sample ID:	242781004	Client ID:	LANL010
Matrix:	S		
Collect Date:	09-DEC-09 12:00		
Receive Date:	11-DEC-09		
Collector:	Client		
Moisture:	11.3%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total Federal "Dry Weight Corrected"										
Cyanide, Total	U	ND	72.4	266	ug/kg	1	AXC2 12/17/09	0957	932527	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	SXJ1	12/16/09	1230	932526

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Company : Los Alamos National Laboratory
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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: January 2, 2010

Client SDG: 10-887

Client Sample ID:	RE03-09-13755	Project:	LANL01004
Sample ID:	242781005	Client ID:	LANL010
Matrix:	S		
Collect Date:	09-DEC-09 12:00		
Receive Date:	11-DEC-09		
Collector:	Client		
Moisture:	10.5%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total Federal "Dry Weight Corrected"										
Cyanide, Total	U	ND	76.0	279	ug/kg	1	AXC2 12/17/09	0958	932527	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	SXJ1	12/16/09	1230	932526

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Certificate of Analysis

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: January 2, 2010

Client SDG: 10-887

Client Sample ID:	RE03-09-13756	Project:	LANL01004
Sample ID:	242781006	Client ID:	LANL010
Matrix:	S		
Collect Date:	09-DEC-09 12:00		
Receive Date:	11-DEC-09		
Collector:	Client		
Moisture:	10.5%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total Federal "Dry Weight Corrected"										
Cyanide, Total	J	215	74.5	274	ug/kg	1	AXC2 12/17/09	0959	932527	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	SXJ1	12/16/09	1230	932526

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Certificate of Analysis

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: January 2, 2010

Client SDG: 10-887

Client Sample ID:	RE03-10-5525	Project:	LANL01004
Sample ID:	242781007	Client ID:	LANL010
Matrix:	S		
Collect Date:	09-DEC-09 12:00		
Receive Date:	11-DEC-09		
Collector:	Client		
Moisture:	8.14%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total Federal "Dry Weight Corrected"										
Cyanide, Total		1100	71.2	262	ug/kg	1	AXC2 12/17/09	1000	932527	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	SXJ1	12/16/09	1230	932526

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

Quality Control Summary

GEL LABORATORIES LLC

2040 Savage Road Charleston, SC 29407 - (843) 556-8171 - www.gel.com

QC Summary

Report Date: January 2, 2010
Page 1 of 2

Los Alamos National Laboratory
PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico

Contact: Ms. Joylene Valdez

Workorder: 242781

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Flow Injection Analysis										
Batch 932527										
QC1201994741 242750002 DUP										
Cyanide, Total	U	ND	U	ND	ug/kg	N/A			AXC2	12/17/09 09:44
QC1201994742 242750003 DUP										
Cyanide, Total	U	ND	U	ND	ug/kg	N/A				12/17/09 09:47
QC1201994747 LCS										
Cyanide, Total	67900			79500	ug/kg		117	(46%-145%)		12/17/09 09:38
QC1201994740 MB										
Cyanide, Total			U	250	ug/kg					12/17/09 09:37
QC1201994743 242750002 MS										
Cyanide, Total	5470 U	ND		5120	ug/kg		93.6	(50%-130%)		12/17/09 09:45
QC1201994744 242750003 MS										
Cyanide, Total	5510 U	ND		5620	ug/kg		102	(50%-130%)		12/17/09 09:48
QC1201994745 242750002 MSD										
Cyanide, Total	5470 U	ND		4770	ug/kg	7.07	87.2	(0%-30%)		12/17/09 09:46
QC1201994746 242750003 MSD										
Cyanide, Total	5510 U	ND		5490	ug/kg	2.48	99.5	(0%-30%)		12/17/09 09:49

Notes:
RER is calculated at the 95% confidence level (2-sigma).
The Qualifiers in this report are defined as follows:

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
- E Organics--Concentration of the target analyte exceeds the instrument calibration range
- F Estimated Value
- H Analytical holding time was exceeded
- J Value is estimated
- M M if above MDC and less than LLD
- M Matrix Related Failure
- N Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor

QC Summary

Workorder: 242781

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time

N/A	RPD or %Recovery limits do not apply.
ND	Analyte concentration is not detected above the detection limit
NJ	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
P	Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%
R	Sample results are rejected
U	Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI	Gamma Spectroscopy--Uncertain identification
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
Z	Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d	5-day BOD--The 2:1 depletion requirement was not met for this sample
h	Preparation or preservation holding time was exceeded

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more.
^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.
* Indicates that a Quality Control parameter was not within specifications.
For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

Instrument QC Data Summary

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Report Run On: 02-JAN-2010 14:29

GEL Laboratories LLC
Contract: LANL01004
SDG #: 10-887

Flow Injection Analysis

Method: SW846 9012A Concentration Units:ug/L

Instrument: Lachat QuickChem FIA+ 8000 Series

Parmname: Cyanide, Total

Sample Type	Run Date	Data File	Result	Nominal	Recovery	Limits	Within Limits
ICV	**17-DEC-2009 09:12:57**	**OM_12-17-2009_09-04-52**	**141**	**150**	**94**	**(90%-110%)**	**Yes**
CCV	17-DEC-2009 09:27:16	OM_12-17-2009_09-04-52	96.3	100	96	(90%-110%)	Yes
CCV	17-DEC-2009 09:39:42	OM_12-17-2009_09-04-52	97.5	100	98	(90%-110%)	Yes
CCV	17-DEC-2009 09:52:05	OM_12-17-2009_09-04-52	97.4	100	97	(90%-110%)	Yes
CCV	17-DEC-2009 10:04:37	OM_12-17-2009_09-04-52	97.2	100	97	(90%-110%)	Yes

Sample Type	Run Date	Data File	Result	Limits	Within Limits
ICB	**17-DEC-2009 09:14:48**	**OM_12-17-2009_09-04-52**	**-0.0961**	**5**	**Yes**
CCB	17-DEC-2009 09:29:07	OM_12-17-2009_09-04-52	-0.252	5	Yes
CCB	17-DEC-2009 09:41:32	OM_12-17-2009_09-04-52	-0.749	5	Yes
CCB	17-DEC-2009 09:53:56	OM_12-17-2009_09-04-52	-0.638	5	Yes
CCB	17-DEC-2009 10:06:27	OM_12-17-2009_09-04-52	-0.0716	5	Yes

Cyanide, Total

Prep LogBook

Analyst: SXJ1 Verified by:_____

Batch: 932526

Lab SOP: GL-GC-E-067 REV# 13

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1201994747	URF1200957-01	.25	g
MS	1201994743	URF1184831-02	.025	mL
MS	1201994744	URF1184831-02	.025	mL
MSD	1201994745	URF1184831-02	.025	mL
MSD	1201994746	URF1184831-02	.025	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Ph	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1201994740		SW846 9010B Prep	16-DEC-2009 12:30	>12	0.5 g	25 mL	50	SOIL
LCS	1201994747		SW846 9010B Prep	16-DEC-2009 12:30	>12	0.25 g	25 mL	100	SOIL
SAMPLE	242750002		SW846 9010B Prep	16-DEC-2009 12:30	>12	0.5 g	25 mL	50	SOIL
DUP	1201994741	242750002	SW846 9010B Prep	16-DEC-2009 12:30	>12	0.5 g	25 mL	50	SOIL
MS	1201994743	242750002	SW846 9010B Prep	16-DEC-2009 12:30	>12	0.5 g	25 mL	50	SOIL
MSD	1201994745	242750002	SW846 9010B Prep	16-DEC-2009 12:30	>12	0.5 g	25 mL	50	SOIL
SAMPLE	242750003		SW846 9010B Prep	16-DEC-2009 12:30	>12	0.5 g	25 mL	50	SOIL
DUP	1201994742	242750003	SW846 9010B Prep	16-DEC-2009 12:30	>12	0.5 g	25 mL	50	SOIL
MS	1201994744	242750003	SW846 9010B Prep	16-DEC-2009 12:30	>12	0.5 g	25 mL	50	SOIL
MSD	1201994746	242750003	SW846 9010B Prep	16-DEC-2009 12:30	>12	0.5 g	25 mL	50	SOIL
SAMPLE	242750004		SW846 9010B Prep	16-DEC-2009 12:30	>12	0.5 g	25 mL	50	SOIL
SAMPLE	242781001		SW846 9010B Prep	16-DEC-2009 12:30	>12	0.5 g	25 mL	50	SOIL
SAMPLE	242781002		SW846 9010B Prep	16-DEC-2009 12:30	>12	0.5 g	25 mL	50	SOIL
SAMPLE	242781003		SW846 9010B Prep	16-DEC-2009 12:30	>12	0.56 g	25 mL	44.64286	SOIL
SAMPLE	242781004		SW846 9010B Prep	16-DEC-2009 12:30	>12	0.53 g	25 mL	47.16981	SOIL
SAMPLE	242781005		SW846 9010B Prep	16-DEC-2009 12:30	>12	0.5 g	25 mL	50	SOIL
SAMPLE	242781006		SW846 9010B Prep	16-DEC-2009 12:30	>12	0.51 g	25 mL	49.01961	SOIL
SAMPLE	242781007		SW846 9010B Prep	16-DEC-2009 12:30	>12	0.52 g	25 mL	48.07692	SOIL
SAMPLE	242786001		SW846 9010B Prep	16-DEC-2009 12:30	>12	0.5 g	25 mL	50	SOIL
SAMPLE	242786002		SW846 9010B Prep	16-DEC-2009 12:30	>12	0.57 g	25 mL	43.85965	SOIL
SAMPLE	242791001		SW846 9010B Prep	16-DEC-2009 12:30	>12	0.52 g	25 mL	48.07692	SOIL
SAMPLE	242791002		SW846 9010B Prep	16-DEC-2009 12:30	>12	0.56 g	25 mL	44.64286	SOIL
SAMPLE	242792002		SW846 9010B Prep	16-DEC-2009 12:30	>12	0.51 g	25 mL	49.01961	SOIL
SAMPLE	242794001		SW846 9010B Prep	16-DEC-2009 12:30	>12	0.51 g	25 mL	49.01961	SOIL
SAMPLE	242794002		SW846 9010B Prep	16-DEC-2009 12:30	>12	0.5 g	25 mL	50	SOIL
SAMPLE	242794003		SW846 9010B Prep	16-DEC-2009 12:30	>12	0.54 g	25 mL	46.2963	SOIL
SAMPLE	242794004		SW846 9010B Prep	16-DEC-2009 12:30	>12	0.5 g	25 mL	50	SOIL

Prep LogBook

Reagent/Solvent Lot ID	Amount	Description
091211-C	25 mL	0.25N Sodium Hydroxide Solution
1176724-C	1.25 mL	0.8N H3NO3S
1238146-C	2.5 mL	50% H2SO4 CN Prep
1176778-C	1 mL	51% MgCl2 Soln
1238142-C	1.25 mL	Bismuth Nitrate Solution

Comments

This is runlog Lachat1

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
200 ppb		1	axc2	12/17/2009 9:05:48	OM_12-17-2009_09-04-52
150 ppb		1	axc2	12/17/2009 9:06:40	OM_12-17-2009_09-04-52
100 ppb		1	axc2	12/17/2009 9:07:33	OM_12-17-2009_09-04-52
50 ppb		1	axc2	12/17/2009 9:08:26	OM_12-17-2009_09-04-52
10 ppb		1	axc2	12/17/2009 9:09:19	OM_12-17-2009_09-04-52
CRDL 5.0 ppb		1	axc2	12/17/2009 9:10:12	OM_12-17-2009_09-04-52
ICAL-00		1	axc2	12/17/2009 9:11:07	OM_12-17-2009_09-04-52
ICV		1	axc2	12/17/2009 9:12:57	OM_12-17-2009_09-04-52
ICB		1	axc2	12/17/2009 9:14:48	OM_12-17-2009_09-04-52
CRDL		1	axc2	12/17/2009 9:16:38	OM_12-17-2009_09-04-52
1201997429	933603	1	axc2	12/17/2009 9:18:29	OM_12-17-2009_09-04-52
1201997433	933603	1	axc2	12/17/2009 9:19:22	OM_12-17-2009_09-04-52
242779001	933603	1	axc2	12/17/2009 9:20:15	OM_12-17-2009_09-04-52
242927007	933603	1	axc2	12/17/2009 9:21:08	OM_12-17-2009_09-04-52
1201997430	933603	1	axc2	12/17/2009 9:22:01	OM_12-17-2009_09-04-52
1201997431	933603	1	axc2	12/17/2009 9:22:54	OM_12-17-2009_09-04-52
1201997432	933603	1	axc2	12/17/2009 9:23:46	OM_12-17-2009_09-04-52
242934001	933603	1	axc2	12/17/2009 9:24:39	OM_12-17-2009_09-04-52
1201997545	933603	1	axc2	12/17/2009 9:25:31	OM_12-17-2009_09-04-52
1201997547	933603	1	axc2	12/17/2009 9:26:24	OM_12-17-2009_09-04-52
CCV		1	axc2	12/17/2009 9:27:16	OM_12-17-2009_09-04-52
CCB		1	axc2	12/17/2009 9:29:07	OM_12-17-2009_09-04-52
1201997549	933603	1	axc2	12/17/2009 9:30:55	OM_12-17-2009_09-04-52
242936001	933603	1	axc2	12/17/2009 9:31:47	OM_12-17-2009_09-04-52
242940001	933603	1	axc2	12/17/2009 9:32:40	OM_12-17-2009_09-04-52
1201997546	933603	1	axc2	12/17/2009 9:33:31	OM_12-17-2009_09-04-52
1201997548	933603	1	axc2	12/17/2009 9:34:22	OM_12-17-2009_09-04-52
1201997550	933603	1	axc2	12/17/2009 9:35:16	OM_12-17-2009_09-04-52
242940002	933603	1	axc2	12/17/2009 9:36:10	OM_12-17-2009_09-04-52
242954002	933603	1	axc2	12/17/2009 9:37:03	OM_12-17-2009_09-04-52
1201994740	932527	1	axc2	12/17/2009 9:37:57	OM_12-17-2009_09-04-52
1201994747	932527	25	axc2	12/17/2009 9:38:50	OM_12-17-2009_09-04-52
CCV		1	axc2	12/17/2009 9:39:42	OM_12-17-2009_09-04-52
CCB		1	axc2	12/17/2009 9:41:32	OM_12-17-2009_09-04-52
242750002	932527	1	axc2	12/17/2009 9:43:21	OM_12-17-2009_09-04-52
1201994741	932527	1	axc2	12/17/2009 9:44:15	OM_12-17-2009_09-04-52
1201994743	932527	1	axc2	12/17/2009 9:45:07	OM_12-17-2009_09-04-52
1201994745	932527	1	axc2	12/17/2009 9:46:00	OM_12-17-2009_09-04-52
242750003	932527	1	axc2	12/17/2009 9:46:53	OM_12-17-2009_09-04-52
1201994742	932527	1	axc2	12/17/2009 9:47:45	OM_12-17-2009_09-04-52
1201994744	932527	1	axc2	12/17/2009 9:48:37	OM_12-17-2009_09-04-52
1201994746	932527	1	axc2	12/17/2009 9:49:29	OM_12-17-2009_09-04-52
242750004	932527	1	axc2	12/17/2009 9:50:21	OM_12-17-2009_09-04-52
242781001	932527	1	axc2	12/17/2009 9:51:13	OM_12-17-2009_09-04-52
CCV		1	axc2	12/17/2009 9:52:05	OM_12-17-2009_09-04-52
CCB		1	axc2	12/17/2009 9:53:56	OM_12-17-2009_09-04-52
242781002	932527	1	axc2	12/17/2009 9:55:46	OM_12-17-2009_09-04-52
242781003	932527	1	axc2	12/17/2009 9:56:40	OM_12-17-2009_09-04-52
242781004	932527	1	axc2	12/17/2009 9:57:34	OM_12-17-2009_09-04-52
242781005	932527	1	axc2	12/17/2009 9:58:27	OM_12-17-2009_09-04-52
242781006	932527	1	axc2	12/17/2009 9:59:20	OM_12-17-2009_09-04-52
242781007	932527	1	axc2	12/17/2009 10:00:14	OM_12-17-2009_09-04-52
242786001	932527	1	axc2	12/17/2009 10:01:07	OM_12-17-2009_09-04-52
242786002*	932527	1	axc2	12/17/2009 10:02:00	OM_12-17-2009_09-04-52
242791001	932527	1	axc2	12/17/2009 10:02:52	OM_12-17-2009_09-04-52
242791002	932527	1	axc2	12/17/2009 10:03:44	OM_12-17-2009_09-04-52
CCV		1	axc2	12/17/2009 10:04:37	OM_12-17-2009_09-04-52
CCB		1	axc2	12/17/2009 10:06:27	OM_12-17-2009_09-04-52

242792002	932527	1	axc2	12/17/2009	10:08:17	OM_12-17-2009_09-04-52
242794001*	932527	1	axc2	12/17/2009	10:09:09	OM_12-17-2009_09-04-52
242794002	932527	1	axc2	12/17/2009	10:10:02	OM_12-17-2009_09-04-52
242794003	932527	1	axc2	12/17/2009	10:10:53	OM_12-17-2009_09-04-52
242794004	932527	1	axc2	12/17/2009	10:11:45	OM_12-17-2009_09-04-52
1201996318	933146	1	axc2	12/17/2009	10:12:39	OM_12-17-2009_09-04-52
1201996322	933146	25	axc2	12/17/2009	10:13:33	OM_12-17-2009_09-04-52
242817001	933146	1	axc2	12/17/2009	10:14:28	OM_12-17-2009_09-04-52
1201996319	933146	1	axc2	12/17/2009	10:15:21	OM_12-17-2009_09-04-52
1201996320	933146	1	axc2	12/17/2009	10:16:14	OM_12-17-2009_09-04-52
CCV		1	axc2	12/17/2009	10:17:07	OM_12-17-2009_09-04-52
CCB		1	axc2	12/17/2009	10:18:57	OM_12-17-2009_09-04-52
1201996321	933146	1	axc2	12/17/2009	10:20:46	OM_12-17-2009_09-04-52
242817002	933146	1	axc2	12/17/2009	10:21:39	OM_12-17-2009_09-04-52
242817003*	933146	1	axc2	12/17/2009	10:22:33	OM_12-17-2009_09-04-52
242817004	933146	1	axc2	12/17/2009	10:23:27	OM_12-17-2009_09-04-52
242817005	933146	1	axc2	12/17/2009	10:24:19	OM_12-17-2009_09-04-52
242817006	933146	1	axc2	12/17/2009	10:25:11	OM_12-17-2009_09-04-52
242786002	932527	1	axc2	12/17/2009	10:26:05	OM_12-17-2009_09-04-52
242794001	932527	1	axc2	12/17/2009	10:26:57	OM_12-17-2009_09-04-52
242817002*	933146	10	axc2	12/17/2009	10:27:50	OM_12-17-2009_09-04-52
242817006*	933146	10	axc2	12/17/2009	10:28:44	OM_12-17-2009_09-04-52
CCV		1	axc2	12/17/2009	10:29:35	OM_12-17-2009_09-04-52
CCB		1	axc2	12/17/2009	10:31:26	OM_12-17-2009_09-04-52

Author: axc2 Date : 12/17/2009

Original Run Filename: OM_12-17-2009_09-04-52.OMN created 12/17/2009 09:04:52
Original Run Author's Signature: [axc2]
Current Run Filename: OM_12-17-2009_09-04-52.OMN last modified 12/17/2009 10:32:30
Current Run Author's Signature: [axc2]
Description: GL-GC-E-095 EPA 335.1, 335.3, 335.4, 9012A, CLP335.2-M
Liquid LCS nominal 50 ug/L

Sample	Rep.	Cup No.	Channel 1 TCYANIDE Conc. (ug/L)	Area (Vs)	Detection Time	ADF	MDF	Description
WCN091217-01	1	S1	200	8.92	12/17/2009@09:05:48			200 ppb
WCN091217-02	1	S2	150	6.63	12/17/2009@09:06:40			150 ppb
WCN091217-03	1	S3	100	4.19	12/17/2009@09:07:33			100 ppb
WCN091217-04	1	S4	50.0	2.28	12/17/2009@09:08:26			50 ppb
WCN091217-05	1	S5	10.0	0.532	12/17/2009@09:09:19			10 ppb
WCN091217-06	1	S6	5.00	0.294	12/17/2009@09:10:12			CRDL 5.0 ppb
WCN091217-08	1	S7	0.00	0.0339	12/17/2009@09:11:07			0.0 ppb
DQM Test: Minimum Correlation Coefficient								
		Result:	0.99949 > 0.99500					
		Message	Pass					
		Action	Continue					
WCN091217-07	1	S8	141	6.22	12/17/2009@09:12:57			ICV
		Known Conc:	150					
DQM Test: > + Percent Relative Difference								
		Result:	-6.2 < 10.0					
		Message	ICV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	-6.2 < 10.0					
		Message	ICV Passed					
		Action	Continue					
		Calibration:	Table/Fig. 1					
WCN091217-08	1	S7	-0.0961	0.0296	12/17/2009@09:14:48			ICB/CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-0.0961 < 5.01					
		Message	ICB/CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-0.0961 > -5.01					
		Message	ICB/CCB Passed					
		Action	Continue					
WCN091217-06	1	S6	5.68	0.284	12/17/2009@09:16:38			CRDL
		Known Conc:	5.00					
DQM Test: > + Concentration Limit								
		Result:	5.68 < 7.50					
		Message	CRDL Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	5.68 > 2.50					
		Message	Pass					
		Action	None					
1201997429|933603|MB	1	1	-0.0867	0.0300	12/17/2009@09:18:29			
1201997433||LCS	1	2	51.1	2.28	12/17/2009@09:19:22			
242779001	1	3	3.20	0.175	12/17/2009@09:20:15			
242927007	1	4	-0.763	2.59e-4	12/17/2009@09:21:08			
1201997430||DUP	1	5	0.209	0.0430	12/17/2009@09:22:01			
1201997431||MS	1	6	69.5	3.09	12/17/2009@09:22:54			
1201997432||MSD	1	7	78.7	3.49	12/17/2009@09:23:46			
242934001	1	8	-0.0322	0.0324	12/17/2009@09:24:39			
1201997545||DUP	1	9	-0.625	0.00630	12/17/2009@09:25:31			
1201997547||MS	1	10	96.7	4.29	12/17/2009@09:26:24			
WCN091217-03	1	S3	96.3	4.27	12/17/2009@09:27:16			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	-3.7 < 10.0					

		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Percent Relative Difference					
		Result:	-3.7 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN091217-08	1	S7	-0.252	0.0227	12/17/2009@09:29:07			CCB
		Known Conc:	0.00					
			DQM Test: > + Concentration Limit					
		Result:	-0.252 < 5.00					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	-0.252 > -5.00					
		Message	CCB Passed					
		Action	Continue					
1201997549||MSD	1	11	98.7	4.37	12/17/2009@09:30:55			
242936001	1	12	0.295	0.0468	12/17/2009@09:31:47			
242940001	1	13	0.160	0.0408	12/17/2009@09:32:40			
1201997546||DUP	1	14	-2.02	-0.0549	12/17/2009@09:33:31			
1201997548||MS	1	15	103	4.57	12/17/2009@09:34:22			
1201997550||MSD	1	16	101	4.47	12/17/2009@09:35:16			
242940002	1	17	-0.0515	0.0315	12/17/2009@09:36:10			
242954002	1	18	1.94	0.119	12/17/2009@09:37:03			
1201994740|932527|MB	1	19	-0.0260	0.0327	12/17/2009@09:37:57			
1201994747||LCS	1	20	31.8	1.43	12/17/2009@09:38:50		25.00	
WCN091217-03	1	S3	97.5	4.32	12/17/2009@09:39:42			CCV
		Known Conc:	100					
			DQM Test: > + Percent Relative Difference					
		Result:	-2.5 < 10.0					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Percent Relative Difference					
		Result:	-2.5 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN091217-08	1	S7	-0.749	8.61e-4	12/17/2009@09:41:32			CCB
		Known Conc:	0.00					
			DQM Test: > + Concentration Limit					
		Result:	-0.749 < 5.00					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	-0.749 > -5.00					
		Message	CCB Passed					
		Action	Continue					
242750002	1	21	0.121	0.0391	12/17/2009@09:43:21			
1201994741||DUP	1	22	-0.116	0.0287	12/17/2009@09:44:15			
1201994743||MS	1	23	93.7	4.16	12/17/2009@09:45:07			
1201994745||MSD	1	24	87.3	3.87	12/17/2009@09:46:00			
242750003	1	25	-0.120	0.0285	12/17/2009@09:46:53			
1201994742||DUP	1	26	0.0762	0.0371	12/17/2009@09:47:45			
1201994744||MS	1	27	102	4.51	12/17/2009@09:48:37			
1201994746||MSD	1	28	99.5	4.41	12/17/2009@09:49:29			
242750004	1	29	0.0863	0.0376	12/17/2009@09:50:21			
242781001	1	30	4.92	0.250	12/17/2009@09:51:13			
WCN091217-03	1	S3	97.4	4.32	12/17/2009@09:52:05			CCV
		Known Conc:	100					
			DQM Test: > + Percent Relative Difference					
		Result:	-2.6 < 10.0					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Percent Relative Difference					
		Result:	-2.6 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN091217-08	1	S7	-0.638	0.00575	12/17/2009@09:53:56			CCB
		Known Conc:	0.00					

DQM Test: > + Concentration Limit								
		Result:	-0.638 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-0.638 > -5.00					
		Message	CCB Passed					
		Action	Continue					
242781002	1	31	2.76	0.155	12/17/2009@09:55:46			
242781003	1	32	0.849	0.0711	12/17/2009@09:56:40			
242781004	1	33	0.204	0.0428	12/17/2009@09:57:34			
242781005	1	34	-0.302	0.0205	12/17/2009@09:58:27			
242781006	1	35	3.92	0.206	12/17/2009@09:59:20			
242781007	1	36	21.0	0.956	12/17/2009@10:00:14			
242786001	1	37	-0.149	0.0272	12/17/2009@10:01:07			
242786002	1	38	5.62	0.281	12/17/2009@10:02:00			
242791001	1	39	2.06	0.124	12/17/2009@10:02:52			
242791002	1	40	0.902	0.0735	12/17/2009@10:03:44			
WCN091217-03	1	S3	97.2	4.31	12/17/2009@10:04:37			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	-2.8 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	-2.8 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN091217-08	1	S7	-0.0716	0.0307	12/17/2009@10:06:27			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-0.0716 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-0.0716 > -5.00					
		Message	CCB Passed					
		Action	Continue					
242792002	1	41	5.12	0.259	12/17/2009@10:08:17			
242794001	1	42	4.47	0.230	12/17/2009@10:09:09			
242794002	1	43	0.0223	0.0348	12/17/2009@10:10:02			
242794003	1	44	-0.0868	0.0300	12/17/2009@10:10:53			
242794004	1	45	0.203	0.0427	12/17/2009@10:11:45			
1201996318|933146|MB	1	46	0.585	0.0595	12/17/2009@10:12:39			
1201996322||LCS	1	47	37.0	1.66	12/17/2009@10:13:33		25.00	
242817001	1	48	18.9	0.865	12/17/2009@10:14:28			
1201996319||DUP	1	49	13.4	0.623	12/17/2009@10:15:21			
1201996320||MS	1	50	96.0	4.26	12/17/2009@10:16:14			
WCN091217-03	1	S3	97.4	4.32	12/17/2009@10:17:07			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	-2.6 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	-2.6 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN091217-08	1	S7	-0.772	-1.56e-4	12/17/2009@10:18:57			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-0.772 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-0.772 > -5.00					
		Message	CCB Passed					
		Action	Continue					

1201996321||MSD	1	51	98.7	4.37	12/17/2009@10:20:46			
242817002	1	52	313	13.8	12/17/2009@10:21:39			
242817003	1	53	27.0	1.22	12/17/2009@10:22:33			
242817004	1	54	1.78	0.112	12/17/2009@10:23:27			
242817005	1	55	145	6.40	12/17/2009@10:24:19			
242817006	1	56	522	23.0	12/17/2009@10:25:11			
242786002|932527|	1	38	1.50	0.0998	12/17/2009@10:26:05			
242794001	1	42	-0.567	0.00887	12/17/2009@10:26:57			
242817002	1	52	493	21.7	12/17/2009@10:27:50		10.00	
242817006	1	56	526	23.2	12/17/2009@10:28:44		10.00	
WCN091217-03	1	S3	100	4.43	12/17/2009@10:29:35			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	0.0 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	0.0 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN091217-08	1	S7	0.0318	0.0352	12/17/2009@10:31:26			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	0.0318 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	0.0318 > -5.00					
		Message	CCB Passed					
		Action	Continue					

Analyte Properties Table for OM_12-17-2009_09-04-52.OMN

Property	Channel 1
	TCYANIDE
Concentration Units	ug/L
Callibration Fit Type	First Order
Clear Calibration	True
Force Through Zero	False
Calibration Weighting	None
Auto Dilution Trigger	True
% of High Standard	100
Quik Chem Method	10-204-00-1-A
Chemistry	Direct/Bipolar
Calibration by Height	False
Inject to Peak Start	22
Peak Base Width	39

Author: axc2 Date : 12/17/2009

Channel 1: Current View

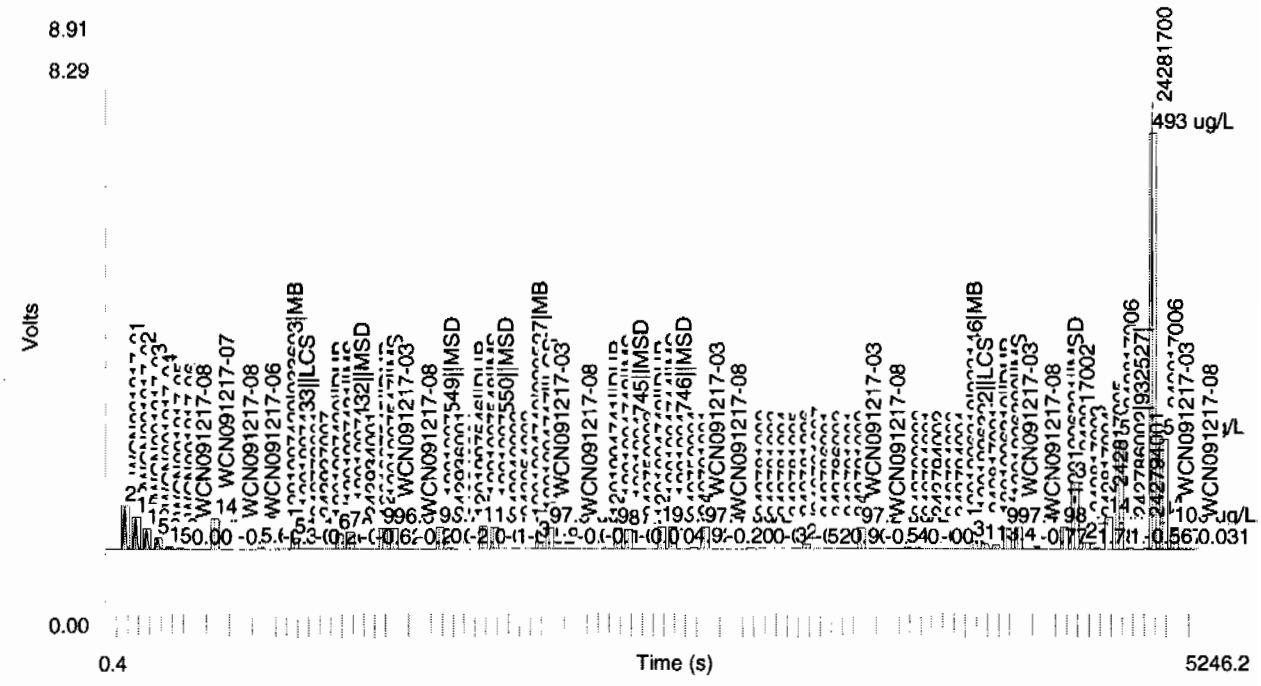

Table 1: TCYANIDE

	Conc. (ug/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	200	1	8.92	0.647	-1.2	12/17/2009	09:06:51
2	150	1	6.63	0.482	-0.1	12/17/2009	09:07:43
3	100	1	4.19	0.305	5.4	12/17/2009	09:08:36
4	50.0	1	2.28	0.164	-1.9	12/17/2009	09:09:29
5	10.0	1	0.532	0.0379	-11.6	12/17/2009	09:10:22
6	5.00	1	0.294	0.0216	-14.6	12/17/2009	09:11:16
7	0.00	1	0.0339	0.00143		12/17/2009	09:12:10

Figure 1: TCYANIDE

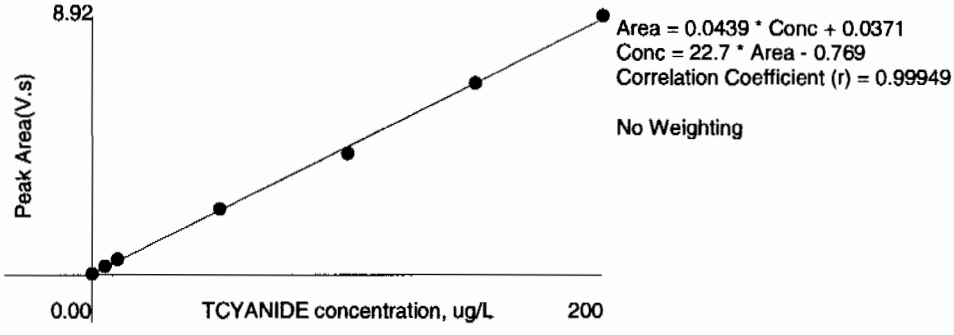

General Chemistry Analysis

Case Narrative

General Chemistry Narrative
Los Alamos National Laboratory (LANL)
SDG 10-887-1

Method/Analysis Information

Product:	**Cyanide, Total**		
Analytical Batch:	931341	**Method:**	SW846 9012A
Prep Batch :	931339	**Method:**	SW846 9010B Prep

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 9012A:

Sample ID	Client ID
242782001	RE03-10-5529
242782002	RE03-10-5531
1201992122	Method Blank (MB)
1201992123	242436001(RE16-10-302) Sample Duplicate (DUP)
1201992126	242436001(RE16-10-302) Matrix Spike (MS)
1201992129	242436001(RE16-10-302) Matrix Spike Duplicate (MSD)
1201992132	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-095 REV# 12.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

The Flow Injection analysis was performed on a Lachat QuickChem FIA+ 8000 Series.

Initial Calibration

All initial calibration requirements have been met for this SDG.

Continuing Calibration Blanks

All continuing calibration blanks (CCBs) associated with reported data from this batch were within acceptance limits.

Calibration Verification Information (CCV)
All continuing calibration verification standards (CCVs) associated with reported data from this batch were within acceptance limits.

Y Intercept Rule
The absolute value of the intercept is less than 3 times the MDL.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recovery met the acceptance limits.

Quality Control (QC) Designation
The following sample was selected for QC analysis: 242436001 (RE16-10-302).

Matrix Spike (MS)/Post Spike (PS) Recovery Statement
The MS/PS recovery for this sample set was within the required acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recovery for this sample set was within the required acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD between the spike and spike duplicate met the acceptance limits.

Duplicate Relative Percent Difference (RPD) Statement
The values for the sample and duplicate are less than the Practical Quantitation Limit (PQL); therefore, the RPD is not applicable. 1201992123 (RE16-10-302).

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times
All samples in this SDG met the specified holding time.

Sample Preservation/Integrity
All the samples from this sample group met the preservation and integrity requirements of the method.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-analysis
The samples in this SDG did not require re-analysis.

Miscellaneous Information

Nonconformance (NCR) Documentation
An NCR was not required for this SDG.

Additional Comments
Additional comments were not required for this SDG.

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:
Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Tom Lewis, Jr. **Date:** 05Jan10

Sample Data Summary

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis Report
for

LANL010 Los Alamos National Laboratory (72733-001-09)

Client SDG: 10-887-1 GEL Work Order: 242782

The Qualifiers in this report are defined as follows:

* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.

** Indicates the analyte is a surrogate compound.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the detection limit.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Valerie Davis.

Reviewed by Tom Lewis, Jr.

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: December 17, 2009

Client SDG: 10-887-1

Client Sample ID:	RE03-10-5529	Project:	LANL01004
Sample ID:	242782001	Client ID:	LANL010
Matrix:	W		
Collect Date:	09-DEC-09 12:00		
Receive Date:	11-DEC-09		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis Federal										
SW9012A Cyanide, Total "As Received"										
Cyanide, Total	U	ND	1.66	5.00	ug/L	1	AXC2 12/15/09	0946	931341	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	SXJ1	12/14/09	1400	931339

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: December 17, 2009

Client SDG: 10-887-1

Client Sample ID: RE03-10-5531
Sample ID: 242782002
Matrix: W
Collect Date: 09-DEC-09 12:00
Receive Date: 11-DEC-09
Collector: Client

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis Federal										
SW9012A Cyanide, Total "As Received"										
Cyanide, Total	U	ND	1.66	5.00	ug/L	1	AXC2 12/15/09	0947	931341	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	SXJ1	12/14/09	1400	931339

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

Quality Control Summary

GEL LABORATORIES LLC

2040 Savage Road Charleston, SC 29407 - (843) 556-8171 - www.gel.com

QC Summary

Report Date: December 17, 2009
Page 1 of 2

Los Alamos National Laboratory
PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico

Contact: Ms. Joylene Valdez

Workorder: 242782

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Flow Injection Analysis										
Batch 931341										
QC1201992123 242436001 DUP										
Cyanide, Total	U	ND	U	ND	ug/L	N/A			AXC2	12/15/09 09:20
QC1201992132 LCS										
Cyanide, Total	50.0			48.6	ug/L		97.2	(90%-110%)		12/15/09 09:19
QC1201992122 MB										
Cyanide, Total			U	5.00	ug/L					12/15/09 09:18
QC1201992126 242436001 MS										
Cyanide, Total	100	U ND		96.4	ug/L		96.4	(60%-127%)		12/15/09 09:21
QC1201992129 242436001 MSD										
Cyanide, Total	100	U ND		99.4	ug/L	3.06	99.4	(0%-20%)		12/15/09 09:22

Notes:
RER is calculated at the 95% confidence level (2-sigma).
The Qualifiers in this report are defined as follows:

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
- F Estimated Value
- H Analytical holding time was exceeded
- J Value is estimated
- M Matrix Related Failure
- N/A RPD or %Recovery limits do not apply.
- ND Analyte concentration is not detected above the detection limit
- NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- R Sample results are rejected
- U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
- X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- Y QC Samples were not spiked with this compound
- Z Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
- ^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.

QC Summary

Workorder: 242782

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time

d 5-day BOD--The 2:1 depletion requirement was not met for this sample

h Preparation or preservation holding time was exceeded

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more.
^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.
* Indicates that a Quality Control parameter was not within specifications.
For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

Instrument QC Data Summary

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Report Run On: 17-DEC-2009 10:23

GEL Laboratories LLC

Contract: **LANL01004**

SDG #: **10-887-1**

Flow Injection Analysis

Method: SW846 9012A Concentration Units:ug/L

Instrument: Lachat QuickChem FIA+ 8000 Series

Parmname: Cyanide, Total

Sample Type	Run Date	Data File	Result	Nominal	Recovery	Limits	Within Limits
ICV	**15-DEC-2009 09:12:44**	**OM_12-15-2009_09-02-12**	**138**	**150**	**92**	**(90%-110%)**	**Yes**
CCV	15-DEC-2009 09:27:01	OM_12-15-2009_09-02-12	98.9	100	99	(90%-110%)	Yes
CCV	15-DEC-2009 09:39:27	OM_12-15-2009_09-02-12	99.1	100	99	(90%-110%)	Yes
CCV	15-DEC-2009 09:51:48	OM_12-15-2009_09-02-12	98.6	100	99	(90%-110%)	Yes

Sample Type	Run Date	Data File	Result	Limits	Within Limits
ICB	**15-DEC-2009 09:14:34**	**OM_12-15-2009_09-02-12**	**2.48**	**5**	**Yes**
CCB	15-DEC-2009 09:28:51	OM_12-15-2009_09-02-12	-1.54	5	Yes
CCB	15-DEC-2009 09:41:16	OM_12-15-2009_09-02-12	-2.89	5	Yes
CCB	15-DEC-2009 09:53:38	OM_12-15-2009_09-02-12	-1.54	5	Yes

Cyanide, Total

Prep LogBook

Analyst: SXJ1 Verified by:_____

Batch: 931339

Lab SOP: GL-GC-E-067 REV# 13

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1201992132	URF1184831-02	.0125	mL
MS	1201992126	URF1184831-02	.025	mL
MS	1201992128	URF1184831-02	.025	mL
MSD	1201992129	URF1184831-02	.025	mL
MSD	1201992131	URF1184831-02	.025	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Ph	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1201992122		SW846 9010B Prep	14-DEC-2009 14:00	> 12	25 mL	25 mL	1	WATER
LCS	1201992132		SW846 9010B Prep	14-DEC-2009 14:00	> 12	25 mL	25 mL	1	WATER
SAMPLE	242436001		SW846 9010B Prep	14-DEC-2009 14:00	> 12	25 mL	25 mL	1	WATER
DUP	1201992123	242436001	SW846 9010B Prep	14-DEC-2009 14:00	> 12	25 mL	25 mL	1	WATER
MS	1201992126	242436001	SW846 9010B Prep	14-DEC-2009 14:00	> 12	25 mL	25 mL	1	WATER
MSD	1201992129	242436001	SW846 9010B Prep	14-DEC-2009 14:00	> 12	25 mL	25 mL	1	WATER
SAMPLE	242441001		SW846 9010B Prep	14-DEC-2009 14:00	> 12	1 mL	25 mL	25	OIL
SAMPLE	242448001		SW846 9010B Prep	14-DEC-2009 14:00	> 12	25 mL	25 mL	1	WATER
SAMPLE	242448002		SW846 9010B Prep	14-DEC-2009 14:00	> 12	25 mL	25 mL	1	WATER
SAMPLE	242448003		SW846 9010B Prep	14-DEC-2009 14:00	> 12	25 mL	25 mL	1	WATER
SAMPLE	242448004		SW846 9010B Prep	14-DEC-2009 14:00	> 12	25 mL	25 mL	1	WATER
SAMPLE	242448005		SW846 9010B Prep	14-DEC-2009 14:00	> 12	25 mL	25 mL	1	WATER
SAMPLE	242448006		SW846 9010B Prep	14-DEC-2009 14:00	> 12	25 mL	25 mL	1	WATER
SAMPLE	242475001		SW846 9010B Prep	14-DEC-2009 14:00	> 12	25 mL	25 mL	1	GROUND WATER
DUP	1201992125	242475001	SW846 9010B Prep	14-DEC-2009 14:00	> 12	25 mL	25 mL	1	GROUND WATER
MS	1201992128	242475001	SW846 9010B Prep	14-DEC-2009 14:00	> 12	25 mL	25 mL	1	GROUND WATER
MSD	1201992131	242475001	SW846 9010B Prep	14-DEC-2009 14:00	> 12	25 mL	25 mL	1	GROUND WATER
SAMPLE	242637001		EPA 335.4	14-DEC-2009 14:00	> 12	25 mL	25 mL	1	WASTE WATER
SAMPLE	242669001		SW846 9010B Prep	14-DEC-2009 14:00	> 12	25 mL	25 mL	1	WATER
SAMPLE	242669002		SW846 9010B Prep	14-DEC-2009 14:00	> 12	25 mL	25 mL	1	WATER
SAMPLE	242669003		SW846 9010B Prep	14-DEC-2009 14:00	> 12	25 mL	25 mL	1	WATER
SAMPLE	242669004		SW846 9010B Prep	14-DEC-2009 14:00	> 12	25 mL	25 mL	1	WATER
SAMPLE	242691002		EPA 335.4	14-DEC-2009 14:00	> 12	25 mL	25 mL	1	GROUND WATER
SAMPLE	242749001		SW846 9010B Prep	14-DEC-2009 14:00	> 12	25 mL	25 mL	1	WATER
SAMPLE	242782001		SW846 9010B Prep	14-DEC-2009 14:00	> 12	25 mL	25 mL	1	WATER
SAMPLE	242782002		SW846 9010B Prep	14-DEC-2009 14:00	> 12	25 mL	25 mL	1	WATER

Reagent/Solvent Lot ID	Amount	Description

Prep LogBook

091211-C	25 mL	0.25N Sodium Hydroxide Solution
1176724-C	1.25 mL	0.8N H3NO3S
1238146-C	2.5 mL	50% H2SO4 CN Prep
1176778-C	1 mL	51% MgCl2 Soln
1238142-C	1.25 mL	Bismuth Nitrate Solution

Comments: sample 242441001 prepped @1mL due to violent reaction w/ heat... sample 242637001 was preserved with 50% NaOH> The reference # is 1184204-C. Expiration date is 3/3/10.

This is runlog Lachat1

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
200 ppb		1	axc2	12/15/2009 9:05:34	OM_12-15-2009_09-02-12
150 ppb		1	axc2	12/15/2009 9:06:27	OM_12-15-2009_09-02-12
100 ppb		1	axc2	12/15/2009 9:07:19	OM_12-15-2009_09-02-12
50 ppb		1	axc2	12/15/2009 9:08:13	OM_12-15-2009_09-02-12
10 ppb		1	axc2	12/15/2009 9:09:06	OM_12-15-2009_09-02-12
CRDL 5.0 ppb		1	axc2	12/15/2009 9:09:59	OM_12-15-2009_09-02-12
ICAL-00		1	axc2	12/15/2009 9:10:53	OM_12-15-2009_09-02-12
ICV		1	axc2	12/15/2009 9:12:44	OM_12-15-2009_09-02-12
ICB		1	axc2	12/15/2009 9:14:34	OM_12-15-2009_09-02-12
CRDL		1	axc2	12/15/2009 9:16:24	OM_12-15-2009_09-02-12
1201992122	931341	1	axc2	12/15/2009 9:18:13	OM_12-15-2009_09-02-12
1201992132	931341	1	axc2	12/15/2009 9:19:07	OM_12-15-2009_09-02-12
242436001	931341	1	axc2	12/15/2009 9:20:00	OM_12-15-2009_09-02-12
1201992123	931341	1	axc2	12/15/2009 9:20:53	OM_12-15-2009_09-02-12
1201992126	931341	1	axc2	12/15/2009 9:21:46	OM_12-15-2009_09-02-12
1201992129	931341	1	axc2	12/15/2009 9:22:38	OM_12-15-2009_09-02-12
242441001	931341	1	axc2	12/15/2009 9:23:31	OM_12-15-2009_09-02-12
242448001	931341	1	axc2	12/15/2009 9:24:24	OM_12-15-2009_09-02-12
242448002	931341	1	axc2	12/15/2009 9:25:16	OM_12-15-2009_09-02-12
242448003	931341	1	axc2	12/15/2009 9:26:08	OM_12-15-2009_09-02-12
CCV		1	axc2	12/15/2009 9:27:01	OM_12-15-2009_09-02-12
CCB		1	axc2	12/15/2009 9:28:51	OM_12-15-2009_09-02-12
242448004	931341	1	axc2	12/15/2009 9:30:39	OM_12-15-2009_09-02-12
242448005	931341	1	axc2	12/15/2009 9:31:31	OM_12-15-2009_09-02-12
242448006	931341	1	axc2	12/15/2009 9:32:23	OM_12-15-2009_09-02-12
242475001	931341	1	axc2	12/15/2009 9:33:14	OM_12-15-2009_09-02-12
1201992125	931341	1	axc2	12/15/2009 9:34:06	OM_12-15-2009_09-02-12
1201992128	931341	1	axc2	12/15/2009 9:35:00	OM_12-15-2009_09-02-12
1201992131	931341	1	axc2	12/15/2009 9:35:53	OM_12-15-2009_09-02-12
242637001	931341	1	axc2	12/15/2009 9:36:46	OM_12-15-2009_09-02-12
242669001	931341	1	axc2	12/15/2009 9:37:40	OM_12-15-2009_09-02-12
242669002	931341	1	axc2	12/15/2009 9:38:33	OM_12-15-2009_09-02-12
CCV		1	axc2	12/15/2009 9:39:27	OM_12-15-2009_09-02-12
CCB		1	axc2	12/15/2009 9:41:16	OM_12-15-2009_09-02-12
242669003	931341	1	axc2	12/15/2009 9:43:04	OM_12-15-2009_09-02-12
242669004	931341	1	axc2	12/15/2009 9:43:58	OM_12-15-2009_09-02-12
242691002	931341	1	axc2	12/15/2009 9:44:51	OM_12-15-2009_09-02-12
242749001	931341	1	axc2	12/15/2009 9:45:43	OM_12-15-2009_09-02-12
242782001	931341	1	axc2	12/15/2009 9:46:35	OM_12-15-2009_09-02-12
242782002	931341	1	axc2	12/15/2009 9:47:27	OM_12-15-2009_09-02-12
1201994713	932514	1	axc2	12/15/2009 9:48:20	OM_12-15-2009_09-02-12
1201994720	932514	25	axc2	12/15/2009 9:49:12	OM_12-15-2009_09-02-12
242441002	932514	1	axc2	12/15/2009 9:50:04	OM_12-15-2009_09-02-12
242441003	932514	1	axc2	12/15/2009 9:50:55	OM_12-15-2009_09-02-12
CCV		1	axc2	12/15/2009 9:51:48	OM_12-15-2009_09-02-12
CCB		1	axc2	12/15/2009 9:53:38	OM_12-15-2009_09-02-12
242565001	932514	1	axc2	12/15/2009 9:55:28	OM_12-15-2009_09-02-12
242567001	932514	1	axc2	12/15/2009 9:56:22	OM_12-15-2009_09-02-12
242661012	932514	1	axc2	12/15/2009 9:57:15	OM_12-15-2009_09-02-12
1201994714	932514	1	axc2	12/15/2009 9:58:09	OM_12-15-2009_09-02-12
1201994716	932514	1	axc2	12/15/2009 9:59:02	OM_12-15-2009_09-02-12
1201994718	932514	1	axc2	12/15/2009 9:59:56	OM_12-15-2009_09-02-12
242661013	932514	1	axc2	12/15/2009 10:00:48	OM_12-15-2009_09-02-12
1201994715	932514	1	axc2	12/15/2009 10:01:41	OM_12-15-2009_09-02-12
1201994717	932514	1	axc2	12/15/2009 10:02:34	OM_12-15-2009_09-02-12
1201994719	932514	1	axc2	12/15/2009 10:03:27	OM_12-15-2009_09-02-12
CCV		1	axc2	12/15/2009 10:04:19	OM_12-15-2009_09-02-12
CCB		1	axc2	12/15/2009 10:06:09	OM_12-15-2009_09-02-12

242661014	932514	1	axc2	12/15/2009	10:07:57	OM_12-15-2009_09-02-12
242661015	932514	1	axc2	12/15/2009	10:08:50	OM_12-15-2009_09-02-12
242661016	932514	1	axc2	12/15/2009	10:09:42	OM_12-15-2009_09-02-12
242661017	932514	1	axc2	12/15/2009	10:10:34	OM_12-15-2009_09-02-12
242661018	932514	1	axc2	12/15/2009	10:11:26	OM_12-15-2009_09-02-12
242661019	932514	1	axc2	12/15/2009	10:12:20	OM_12-15-2009_09-02-12
242661020	932514	1	axc2	12/15/2009	10:13:14	OM_12-15-2009_09-02-12
242668001	932514	1	axc2	12/15/2009	10:14:09	OM_12-15-2009_09-02-12
242668002	932514	1	axc2	12/15/2009	10:15:01	OM_12-15-2009_09-02-12
242743002	932514	1	axc2	12/15/2009	10:15:55	OM_12-15-2009_09-02-12
CCV		1	axc2	12/15/2009	10:16:47	OM_12-15-2009_09-02-12
CCB		1	axc2	12/15/2009	10:18:38	OM_12-15-2009_09-02-12
242748001	932514	1	axc2	12/15/2009	10:20:28	OM_12-15-2009_09-02-12
242748002	932514	1	axc2	12/15/2009	10:21:21	OM_12-15-2009_09-02-12
242750001	932514	1	axc2	12/15/2009	10:22:15	OM_12-15-2009_09-02-12
242792001	932514	1	axc2	12/15/2009	10:23:08	OM_12-15-2009_09-02-12
1201993018	931715	1	axc2	12/15/2009	10:24:00	OM_12-15-2009_09-02-12
1201993019	931715	1	axc2	12/15/2009	10:24:53	OM_12-15-2009_09-02-12
242441001*	931715	1	axc2	12/15/2009	10:25:45	OM_12-15-2009_09-02-12
242716001	931715	1	axc2	12/15/2009	10:26:38	OM_12-15-2009_09-02-12
1201994739	931715	1	axc2	12/15/2009	10:27:30	OM_12-15-2009_09-02-12
1201994736	932522	1	axc2	12/15/2009	10:28:22	OM_12-15-2009_09-02-12
CCV		1	axc2	12/15/2009	10:29:15	OM_12-15-2009_09-02-12
CCB		1	axc2	12/15/2009	10:31:05	OM_12-15-2009_09-02-12
1201994738	932522	1	axc2	12/15/2009	10:32:55	OM_12-15-2009_09-02-12
1201994753	932522	1	axc2	12/15/2009	10:33:49	OM_12-15-2009_09-02-12
242441002	932522	1	axc2	12/15/2009	10:34:44	OM_12-15-2009_09-02-12
242441003	932522	1	axc2	12/15/2009	10:35:37	OM_12-15-2009_09-02-12
242565001	932522	1	axc2	12/15/2009	10:36:31	OM_12-15-2009_09-02-12
242567001	932522	1	axc2	12/15/2009	10:37:24	OM_12-15-2009_09-02-12
242441001	931715	1	axc2	12/15/2009	10:38:17	OM_12-15-2009_09-02-12
CCV		1	axc2	12/15/2009	10:39:09	OM_12-15-2009_09-02-12
CCB		1	axc2	12/15/2009	10:41:00	OM_12-15-2009_09-02-12

Author: axc2 Date : 12/15/2009

Original Run Filename: OM_12-15-2009_09-02-12.OMN created 12/15/2009 09:02:12
Original Run Author's Signature: [axc2]
Current Run Filename: OM_12-15-2009_09-02-12.OMN last modified 12/15/2009 10:42:05
Current Run Author's Signature: [axc2]
Description: GL-GC-E-095 EPA 335.1, 335.3, 335.4, 9012A, CLP335.2-M
Liquid LCS nominal 50 ug/L

Sample	Rep.	Cup No.	Channel 1 TCYANIDE Conc. (ug/L)	Area (Vs)	Detection Time	ADF	MDF	Description
WCN091215-01	1	S1	200	8.39	12/15/2009@09:05:34			200 ppb
WCN091215-02	1	S2	150	6.34	12/15/2009@09:06:27			150 ppb
WCN091215-03	1	S3	100	4.06	12/15/2009@09:07:19			100 ppb
WCN091215-04	1	S4	50.0	2.26	12/15/2009@09:08:13			50 ppb
WCN091215-05	1	S5	10.0	0.535	12/15/2009@09:09:06			10 ppb
WCN091215-06	1	S6	5.00	0.272	12/15/2009@09:09:59			CRDL 5.0 ppb
WCN091215-08	1	S7	0.00	2.91e-4	12/15/2009@09:10:53			0.0 ppb
DQM Test: Minimum Correlation Coefficient								
		Result:	0.99962 > 0.99500					
		Message	Pass					
		Action	Continue					
WCN091215-07	1	S8	138	5.79	12/15/2009@09:12:44			ICV
		Known Conc:	150					
DQM Test: > + Percent Relative Difference								
		Result:	-8.2 < 10.0					
		Message	ICV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	-8.2 < 10.0					
		Message	ICV Passed					
		Action	Continue					
		Calibration:	Table/Fig. 1					
WCN091215-08	1	S7	2.48	0.167	12/15/2009@09:14:34			ICB/CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	2.48 < 5.01					
		Message	ICB/CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	2.48 > -5.01					
		Message	ICB/CCB Passed					
		Action	Continue					
WCN091215-06	1	S6	4.39	0.247	12/15/2009@09:16:24			CRDL
		Known Conc:	5.00					
DQM Test: > + Concentration Limit								
		Result:	4.39 < 7.50					
		Message	CRDL Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	4.39 > 2.50					
		Message	Pass					
		Action	None					
1201992122|931341|MB	1	1	-1.54	3.22e-4	12/15/2009@09:18:13			
1201992132||LCS	1	2	48.6	2.08	12/15/2009@09:19:07			
242436001	1	3	-0.571	0.0406	12/15/2009@09:20:00			
1201992123||DUP	1	4	-2.60	-0.0439	12/15/2009@09:20:53			
1201992126||MS	1	5	96.4	4.07	12/15/2009@09:21:46			
1201992129||MSD	1	6	99.4	4.20	12/15/2009@09:22:38			
242441001	1	7	0.371	0.0798	12/15/2009@09:23:31			
242448001	1	8	5.87	0.308	12/15/2009@09:24:24			
242448002	1	9	-1.29	0.0106	12/15/2009@09:25:16			
242448003	1	10	-2.76	-0.0503	12/15/2009@09:26:08			
WCN091215-03	1	S3	98.9	4.17	12/15/2009@09:27:01			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	-1.1 < 10.0					

		Message	CCV Passed					
		Action	Continue					
		DQM Test: < - Percent Relative Difference						
		Result:	-1.1 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN091215-08	1	S7	-1.54	1.91e-4	12/15/2009@09:28:51			CCB
		Known Conc:	0.00					
		DQM Test: > + Concentration Limit						
		Result:	-1.54 < 5.00					
		Message	CCB Passed					
		Action	Continue					
		DQM Test: < - Concentration Limit						
		Result:	-1.54 > -5.00					
		Message	CCB Passed					
		Action	Continue					
242448004	1	11	-2.52	-0.0405	12/15/2009@09:30:39			
242448005	1	12	-1.27	0.0117	12/15/2009@09:31:31			
242448006	1	13	-2.41	-0.0358	12/15/2009@09:32:23			
242475001	1	14	-1.53	5.53e-4	12/15/2009@09:33:14			
1201992125||DUP	1	15	-0.467	0.0449	12/15/2009@09:34:06			
1201992128||MS	1	16	93.5	3.95	12/15/2009@09:35:00			
1201992131||MSD	1	17	93.8	3.96	12/15/2009@09:35:53			
242637001	1	18	65.0	2.77	12/15/2009@09:36:46			
242669001	1	19	-1.54	2.89e-4	12/15/2009@09:37:40			
242669002	1	20	-1.23	0.0131	12/15/2009@09:38:33			
WCN091215-03	1	S3	99.1	4.18	12/15/2009@09:39:27			CCV
		Known Conc:	100					
		DQM Test: > + Percent Relative Difference						
		Result:	-0.9 < 10.0					
		Message	CCV Passed					
		Action	Continue					
		DQM Test: < - Percent Relative Difference						
		Result:	-0.9 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN091215-08	1	S7	-2.89	-0.0556	12/15/2009@09:41:16			CCB
		Known Conc:	0.00					
		DQM Test: > + Concentration Limit						
		Result:	-2.89 < 5.00					
		Message	CCB Passed					
		Action	Continue					
		DQM Test: < - Concentration Limit						
		Result:	-2.89 > -5.00					
		Message	CCB Passed					
		Action	Continue					
242669003	1	21	-2.63	-0.0448	12/15/2009@09:43:04			
242669004	1	22	-2.63	-0.0449	12/15/2009@09:43:58			
242691002	1	23	-2.86	-0.0546	12/15/2009@09:44:51			
242749001	1	24	-1.49	0.00250	12/15/2009@09:45:43			
242782001	1	25	-1.54	3.20e-4	12/15/2009@09:46:35			
242782002	1	26	-1.54	2.83e-4	12/15/2009@09:47:27			
1201994713|932514|MB	1	27	-1.54	1.81e-4	12/15/2009@09:48:20			
1201994720||LCS	1	28	32.0	1.39	12/15/2009@09:49:12		25.00	
242441002	1	29	-1.54	3.36e-4	12/15/2009@09:50:04			
242441003	1	30	-1.19	0.0148	12/15/2009@09:50:55			
WCN091215-03	1	S3	98.6	4.17	12/15/2009@09:51:48			CCV
		Known Conc:	100					
		DQM Test: > + Percent Relative Difference						
		Result:	-1.4 < 10.0					
		Message	CCV Passed					
		Action	Continue					
		DQM Test: < - Percent Relative Difference						
		Result:	-1.4 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN091215-08	1	S7	-1.54	3.32e-4	12/15/2009@09:53:38			CCB
		Known Conc:	0.00					

DQM Test: > + Concentration Limit								
		Result:	-1.54 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.54 > -5.00					
		Message	CCB Passed					
		Action	Continue					
242565001	1	31	21.3	0.950	12/15/2009@09:55:28			
242567001	1	32	7.54	0.378	12/15/2009@09:56:22			
242661012	1	33	-0.324	0.0509	12/15/2009@09:57:15			
1201994714||DUP	1	34	-0.230	0.0548	12/15/2009@09:58:09			
1201994716||MS	1	35	78.3	3.32	12/15/2009@09:59:02			
1201994718||MSD	1	36	88.2	3.73	12/15/2009@09:59:56			
242661013	1	37	-1.54	1.71e-4	12/15/2009@10:00:48			
1201994715||DUP	1	38	-1.48	0.00300	12/15/2009@10:01:41			
1201994717||MS	1	39	96.2	4.06	12/15/2009@10:02:34			
1201994719||MSD	1	40	97.0	4.10	12/15/2009@10:03:27			
WCN091215-03	1	S3	99.3	4.19	12/15/2009@10:04:19			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	-0.7 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	-0.7 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN091215-08	1	S7	-1.54	3.28e-4	12/15/2009@10:06:09			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.54 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.54 > -5.00					
		Message	CCB Passed					
		Action	Continue					
242661014	1	41	-0.803	0.0309	12/15/2009@10:07:57			
242661015	1	42	-0.596	0.0396	12/15/2009@10:08:50			
242661016	1	43	1.62	0.132	12/15/2009@10:09:42			
242661017	1	44	0.839	0.0992	12/15/2009@10:10:34			
242661018	1	45	-0.737	0.0337	12/15/2009@10:11:26			
242661019	1	46	-2.20	-0.0272	12/15/2009@10:12:20			
242661020	1	47	-1.03	0.0216	12/15/2009@10:13:14			
242668001	1	48	0.794	0.0974	12/15/2009@10:14:09			
242668002	1	49	1.65	0.133	12/15/2009@10:15:01			
242743002	1	50	1.26	0.117	12/15/2009@10:15:55			
WCN091215-03	1	S3	99.3	4.19	12/15/2009@10:16:47			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	-0.7 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	-0.7 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN091215-08	1	S7	-2.75	-0.0501	12/15/2009@10:18:38			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-2.75 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-2.75 > -5.00					
		Message	CCB Passed					
		Action	Continue					

242748001	1	51	31.4	1.37	12/15/2009@10:20:28			
242748002	1	52	-0.809	0.0307	12/15/2009@10:21:21			
242750001	1	53	-0.900	0.0269	12/15/2009@10:22:15			
242792001	1	54	3.65	0.216	12/15/2009@10:23:08			
1201993018|931715|MB	1	55	-1.25	0.0123	12/15/2009@10:24:00			
1201993019||LCS	1	56	2.91	0.185	12/15/2009@10:24:53			
242441001	1	57	15.2	0.696	12/15/2009@10:25:45			
242716001	1	58	-2.69	-0.0475	12/15/2009@10:26:38			
1201994739||DUP	1	59	0.0316	0.0657	12/15/2009@10:27:30			
1201994736|932522|MB	1	60	-1.54	2.92e-4	12/15/2009@10:28:22			
WCN091215-03	1	S3	99.5	4.20	12/15/2009@10:29:15			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	-0.5 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	-0.5 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN091215-08	1	S7	-3.69	-0.0893	12/15/2009@10:31:05			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-3.69 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-3.69 > -5.00					
		Message	CCB Passed					
		Action	Continue					
1201994738||LCS	1	61	-2.46	-0.0381	12/15/2009@10:32:55			
1201994753||LCSD	1	62	-1.45	0.00407	12/15/2009@10:33:49			
242441002	1	63	-0.502	0.0435	12/15/2009@10:34:44			
242441003	1	64	-0.311	0.0514	12/15/2009@10:35:37			
242565001	1	65	51.2	2.19	12/15/2009@10:36:31			
242567001	1	66	5.32	0.285	12/15/2009@10:37:24			
242441001|931715|	1	57	9.24	0.448	12/15/2009@10:38:17			
WCN091215-03	1	S3	98.9	4.18	12/15/2009@10:39:09			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	-1.1 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	-1.1 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN091215-08	1	S7	-1.55	0.00	12/15/2009@10:41:00			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.55 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.55 > -5.00					
		Message	CCB Passed					
		Action	Continue					

Analyte Properties Table for OM_12-15-2009_09-02-12.OMN

Property	Channel 1
	TCYANIDE
Concentration Units	ug/L
Callibration Fit Type	First Order
Clear Calibration	True
Force Through Zero	False
Calibration Weighting	None
Auto Dilution Trigger	True

Author: axc2

Date : 12/15/2009

% of High Standard	100
Quik Chem Method	10-204-00-1-A
Chemistry	Direct/Bipolar
Calibration by Height	False
Inject to Peak Start	22
Peak Base Width	39

Channel 1: Current View

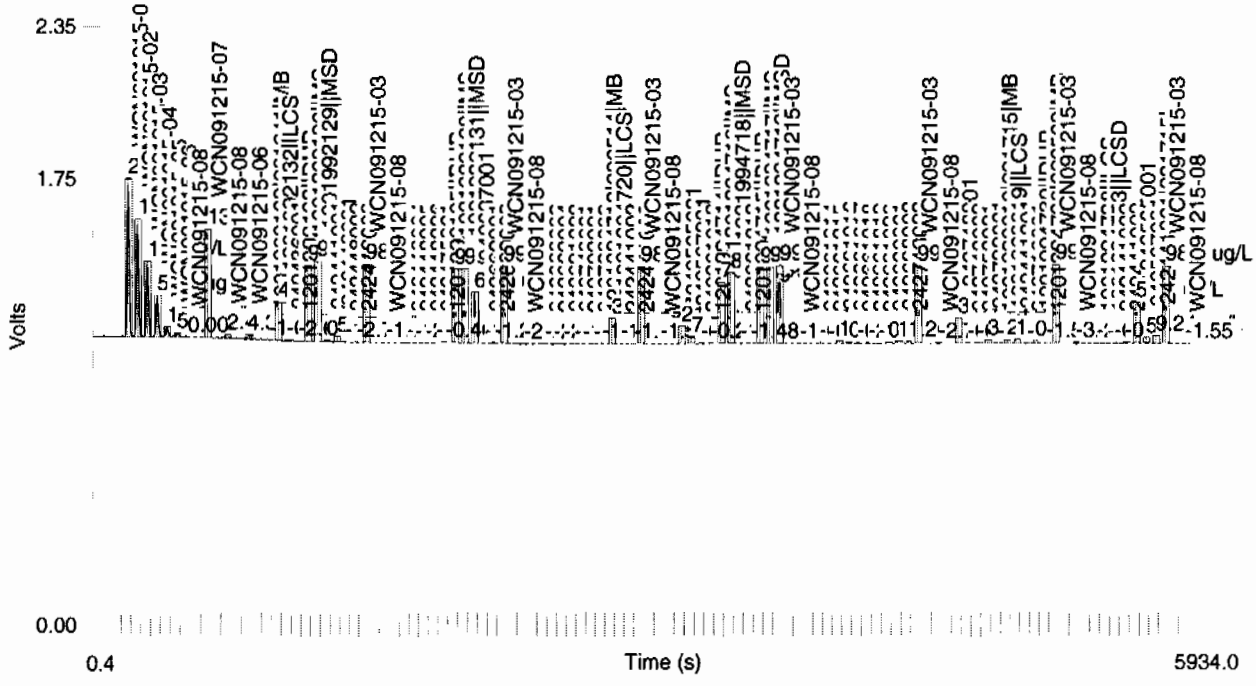

Table 1: TCYANIDE

	Conc. (ug/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	200	1	8.39	0.616	-0.2	12/15/2009	09:06:38
2	150	1	6.34	0.461	-0.7	12/15/2009	09:07:30
3	100	1	4.06	0.297	3.8	12/15/2009	09:08:22
4	50.0	1	2.26	0.164	-5.5	12/15/2009	09:09:15
5	10.0	1	0.535	0.0380	-11.1	12/15/2009	09:10:08
6	5.00	1	0.272	0.0172	1.0	12/15/2009	09:11:02
7	0.00	1	2.91e-4	0.00261		12/15/2009	09:11:56

Author: axc2 Date : 12/15/2009

Figure 1: TCYANIDE

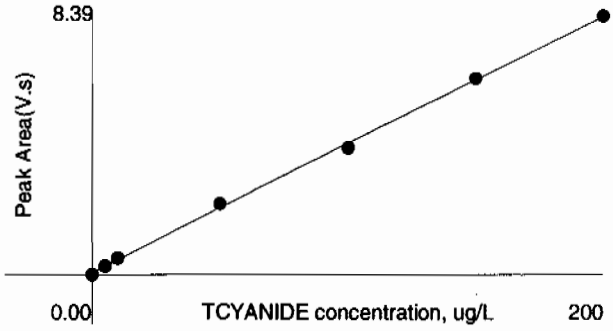

Area = 0.0415 * Conc + 0.0667
Conc = 24.1 * Area - 1.55
Correlation Coefficient (r) = 0.99962

No Weighting

Thursday, December 10, 2009

REQUEST NUMBER: 10-886

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

These Samples are on:

LANL Request Number:10-886

Per Agreement Number:126310011

Project Cost Code: MR2A054196D0

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 12/10/2009

TURNAROUND/REPORT DUE: 1/9/2010

TURNAROUND REQ'D: 30 Days

RAD SCREENING: Not Required

LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:

Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:6010B	1	RE03-09-13465	S	12/9/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-13466	S	12/9/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-13467	S	12/9/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-13468	S	12/9/2009	Plus, B, Li, Si, Ti, U
		1	RE03-10-2003	S	12/9/2009	Plus, B, Li, Si, Ti, U
		1	RE03-10-2008	W	12/9/2009	Plus, B, Li, Si, Ti, U
		1	RE03-10-3943	W	12/9/2009	Plus, B, Li, Si, Ti, U
	SW-846:6020	1	RE03-10-2003	S	12/9/2009	Plus, B, Li, Si, Ti, U
		1	RE03-10-2008	W	12/9/2009	Plus, B, Li, Si, Ti, U

Thursday, December 10, 2009

REQUEST NUMBER: 10-886

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:6020	1	RE03-10-3943	W	12/9/2009	Plus, B, Li, Si, Ti, U
	SW-846:7471A	1	RE03-10-2003	S	12/9/2009	Plus, B, Li, Si, Ti, U
	SW-846:8015M_EXTRACTABLE	1	RE03-09-13465	S	12/9/2009	
		1	RE03-09-13466	S	12/9/2009	
		1	RE03-09-13467	S	12/9/2009	
		1	RE03-09-13468	S	12/9/2009	
		1	RE03-10-2003	S	12/9/2009	
	SW-846:8082	1	RE03-09-13465	S	12/9/2009	
		1	RE03-09-13466	S	12/9/2009	
		1	RE03-09-13467	S	12/9/2009	
		1	RE03-09-13468	S	12/9/2009	
		1	RE03-10-2003	S	12/9/2009	
	SW-846:8260B	1	RE03-09-13465	S	12/9/2009	
		1	RE03-09-13466	S	12/9/2009	
		1	RE03-09-13467	S	12/9/2009	
		1	RE03-09-13468	S	12/9/2009	
		1	RE03-10-2003	S	12/9/2009	
		1	RE03-10-6937	S	12/9/2009	
	SW-846:8270C	1	RE03-09-13465	S	12/9/2009	
		1	RE03-09-13466	S	12/9/2009	
		1	RE03-09-13467	S	12/9/2009	
		1	RE03-09-13468	S	12/9/2009	
		1	RE03-10-2003	S	12/9/2009	

Thursday, December 10, 2009

REQUEST NUMBER: 10-886

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:9012A	1	RE03-09-13465	S	12/9/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-13466	S	12/9/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-13467	S	12/9/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-13468	S	12/9/2009	Plus, B, Li, Si, Ti, U

Final Page of REQUEST NUMBER 10-886

Thursday, December 10, 2009

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-886

REQUEST NUMBER: 10-886

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 1/9/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS:

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE03-09-13467	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-09-13467	1	GLASS	8270C+8082+TPH-DRO	Ice	S
RE03-09-13466	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-09-13466	1	GLASS	8270C+8082+TPH-DRO	Ice	S
RE03-09-13468	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-09-13468	1	GLASS	8270C+8082+TPH-DRO	Ice	S
RE03-09-13465	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-09-13465	1	GLASS	8270C+8082+TPH-DRO	Ice	S
RE03-09-13467	1	POLY	Metals+CN - GEL	Ice	S
RE03-09-13466	1	POLY	Metals+CN - GEL	Ice	S
RE03-09-13468	1	POLY	Metals+CN - GEL	Ice	S
RE03-09-13465	1	POLY	Metals+CN - GEL	Ice	S
RE03-10-2008	1	POLY	METALS-GEL	Nitric Acid	W
RE03-10-2003	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-10-2003	1	GLASS	8270C+8082+TPH-DRO	Ice	S
RE03-10-2003	1	POLY	METALS-GEL	Ice	S
RE03-10-3943	1	POLY	METALS-GEL	Nitric Acid	W
RE03-10-6937	1	SEPTUM AMBER GLASS	8260B Trip Blank	Ice	S

Relinquished By:		Date	Time	Received By:		Date	Time
[illegible]	[illegible]	12-10-09	1700				
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

Received for DISPOSAL By: **Date** **Time** **Remarks:**

Printed Name Signature

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2263 **EVENT NAME:** Soil Sampling at CU 03-009(a)-00

SAMPLE ID: RE03-09-13465 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12-9-09	MEDIA:	NA	@TB3
TIME COLLECTED (HH:MM)		1348	SUB-MEDIA:	OTHER	NA
PRS ID:	03-009(i)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	03-608192	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	4	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	5'	SCREEN/PORT DESC:		
FIELD MATRIX:	~~SR~~ MR 12/9/09		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+8082+TPH-DRO	500 ML GLASS	Ice	Y	
1		Metals+CN - GEL	125 ML POLY	Ice	Y	Plus, B, Li, Si, Ti, U

SAMPLE DESC: white tuff (7.5 YR 8/1)

SAMPLE COMMENTS: Samples to be collected from 4 test pits. Backhoe used to collect sample.

LOCATION DESC: 03-009 (i) - 4

FIELD SCREENING/MEASUREMENT RESULTS: PID = 56.5 ppm
BACKGROUND
α : 67 dpm
β : 1447

Samples : < MDA

COLLECTED BY (PRINT) M. Shenda **REVIEWED BY (PRINT)** M. Nauck

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) M. Nauck	12-9-09	(Printed Name) Sherri Sherwood	12-9-09
(Signature)	1600	(Signature) Sherri Sherwood	1600
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2263 **EVENT NAME:** Soil Sampling at CU 03-009(a)-00

SAMPLE ID: RE03-09-13466 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12-9-09	MEDIA:	NA	QTB3
TIME COLLECTED (HH:MM)		1416	SUB-MEDIA:	OTHER	NA
PRS ID:	03-009(i)	OK	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	03-608192	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	9	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	10'	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	MA 12/9/09 SR		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+8082+TPH-DRO	500 ML GLASS	Ice	Y	
1		Metals+CN - GEL	125 ML POLY	Ice	Y	Plus, B, Li, Si, Ti, U

SAMPLE DESC: Reddish yellow tuff (5YR 7/6)

SAMPLE COMMENTS: Samples to be collected from 4 test pits. Backhoe used to collect sample

LOCATION DESC: 03-009(i)-4

FIELD SCREENING/MEASUREMENT RESULTS: PID = 5.0 ppm BACKGROUND α: 67 β: 1447 dpm Samples: <MDA

COLLECTED BY (PRINT) D. Thomas **REVIEWED BY (PRINT)** M. Nauck

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) M. Nauck (Signature)	12-9-09 1600	(Printed Name) Sherri Sherwood (Signature) Sherri Sherwood	12-9-09 1600
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name) (Signature)		(Printed Name) (Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2263 **EVENT NAME:** Soil Sampling at CU 03-009(a)-00

SAMPLE ID: RE03-09-13467 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12-9-09	MEDIA:	NA	QTBs
TIME COLLECTED (HH:MM)		1441	SUB-MEDIA:	OTHER	NA
PRS ID:	03-009(i)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	03-608193	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	4'	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	5'	SCREEN/PORT DESC:		
FIELD MATRIX:	~~SR~~ MR 12/9/09		EXCAVATED: YES / NO / NA		NA

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	y	
1		8270C+8082+TPH-DRO	500 ML GLASS	Ice	y	
1		Metals+CN - GEL	125 ML POLY	Ice	y	Plus, B, Li, Si, Ti, U

SAMPLE DESC: white tuff (5 YR 8/1)

SAMPLE COMMENTS: Samples to be collected from 4 test pits. Backhoe used to collect samples

LOCATION DESC: 03-009(i) - 3

FIELD SCREENING/MEASUREMENT RESULTS: PID = 450 ppm
BACKGROUND
α: 67 dpm
β: 1447

samples: < MDA

COLLECTED BY (PRINT) M. Shendo **REVIEWED BY (PRINT)** M. Nauck

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) M. Nauck (Signature)	12-9-09 1600	(Printed Name) Sherri Sherwood (Signature) Sherwood, Sherri	12-9-09 1600
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name) (Signature)		(Printed Name) (Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2263 **EVENT NAME:** Soil Sampling at CU 03-009(a)-00

SAMPLE ID: RE03-09-13468 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12-9-09	MEDIA:	NA	QTB3
TIME COLLECTED (HH:MM)		1453	SUB-MEDIA:	OTHER	NA
PRS ID:	03-009(i)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	03-608193	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	9'	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	10'	SCREEN/PORT DESC:		
FIELD MATRIX:	mr 12/9/09 ~~S~~R		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+8082+TPH-DRO	500 ML GLASS	Ice	Y	
1		Metals+CN - GEL	125 ML POLY	Ice	Y	Plus, B, Li, Si, Ti, U

SAMPLE DESC: pinkish gray tuff (5 YR 7/2)

SAMPLE COMMENTS: Samples to be collected from 4 test pits. Backhoe used to collect sample.

LOCATION DESC: 03-009(i)-3

FIELD SCREENING/MEASUREMENT RESULTS: PID = ~~450 ppm~~ mr 12/9/09 0.2 ppm samples : < MDA
BACKGROUND
α: 67 DPM
β: 1447

COLLECTED BY (PRINT) M. Nauck **REVIEWED BY (PRINT)** M. Rains

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) M. Rains (Signature) [signature]	12-9-09 1600	(Printed Name) Sherri Sherwood (Signature) Sherri Sherwood	12-9-09 1600
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name) (Signature)		(Printed Name) (Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2263 **EVENT NAME:** Soil Sampling at CU 03-009(a)-00

SAMPLE ID: RE03-10-2003 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12-9-09	MEDIA:	ALLH	QTB3
TIME COLLECTED (HH:MM)		1348	SUB-MEDIA:	SOIL	ok
PRS ID:	03-009(i)	ok	SAMPLE TECH CODE:	HA	
LOCATION ID:	UNK	03-608192	FIELD QC TYPE:	FD	
LOCATION TYPE:	GENERIC	ok	FIELD PREP:	NA	
TOP DEPTH:	0	4'	SAMPLE USAGE:	QC	
BOTTOM DEPTH:	0	5'	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	~~SR~~ mf 12/9/09		EXCAVATED: YES / NO (NA)		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / (NA)

BOREHOLE: YES / NO / (NA) BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+8082+TPH-DRO	500 ML GLASS	Ice	Y	
1		METALS-GEL	125 ML POLY	Ice	Y	Plus, B, Li, Si, Ti, U

SAMPLE DESC: QC Sample of RE03-09-13465

SAMPLE COMMENTS: NA

LOCATION DESC: NA

FIELD SCREENING/MEASUREMENT RESULTS: mf 12/9/09 ~~NA~~ PID = 56.5 ppm
BACKGROUND
α: 67 DPM
β: 1447

COLLECTED BY (PRINT) D. Thomas **REVIEWED BY (PRINT)** M. Rains

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) M. Rains (Signature) [signature]	12-9-09 1600	(Printed Name) Sherri Sherwood (Signature) Sherri Sherwood	12-9-09 1600
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name) (Signature)		(Printed Name) (Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2263 **EVENT NAME:** Soil Sampling at CU 03-009(a)-00

SAMPLE ID: RE03-10-2008 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12-9-09	MEDIA:	NA	ok
TIME COLLECTED (HH:MM)		1410	SUB-MEDIA:	OTHER	
PRS ID:	03-009(i)	ok	SAMPLE TECH CODE:	DC	
LOCATION ID:	UNK	03-608192	FIELD QC TYPE:	FR	
LOCATION TYPE:	GENERIC	ok	FIELD PREP:	UF	
TOP DEPTH:	0		SAMPLE USAGE:	QC	
BOTTOM DEPTH:	0		SCREEN/PORT DESC:	NA	
FIELD MATRIX:	W		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: _____ BOREHOLE DIRECTION: _____

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		METALS-GEL	1 LITER POLY	Nitric Acid	Y	

SAMPLE DESC: QC Sample of RE03-09-13466

SAMPLE COMMENTS: NA

LOCATION DESC: NA

FIELD SCREENING/MEASUREMENT RESULTS: NA

COLLECTED BY (PRINT) M. Nauck **REVIEWED BY (PRINT)** M. Rains

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) M. Rains (Signature) [signature]	12-9-09 1600	(Printed Name) Sherrie Sherwood (Signature) Sherrie Sherwood	12-9-09 1600
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name) (Signature)		(Printed Name) (Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2263 **EVENT NAME:** Soil Sampling at CU 03-009(a)-00

SAMPLE ID: RE03-10-3943 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12-9-09	MEDIA:	NA	ok
TIME COLLECTED (HH:MM)		1348	SUB-MEDIA:	OTHER	↓
PRS ID:	03-009(i)	ok	SAMPLE TECH CODE:	DC	↓
LOCATION ID:	UNK	03-608192	FIELD QC TYPE:	FB	↓
LOCATION TYPE:	GENERIC	ok	FIELD PREP:	UF	↓
TOP DEPTH:	0	↓	SAMPLE USAGE:	QC	↓
BOTTOM DEPTH:	0	↓	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	W		EXCAVATED: YES / NO (NA)		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO (NA)

BOREHOLE: YES / NO (NA) BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		METALS-GEL	1 LITER POLY	Nitric Acid	Y	Plus, B, Li, Si, Ti, U

SAMPLE DESC: QC Sample of RE03-09-13465

SAMPLE COMMENTS: NA

LOCATION DESC: NA

FIELD SCREENING/MEASUREMENT RESULTS: NA

COLLECTED BY (PRINT) M. Nauck **REVIEWED BY (PRINT)** M. Rains

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) M. Rains (Signature) [signature]	12-9-09 1600	(Printed Name) Sherri Sherwood (Signature) Sherri Sherwood	12-9-09 1600
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name) (Signature)		(Printed Name) (Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2263 **EVENT NAME:** Soil Sampling at CU 03-009(a)-00

SAMPLE ID: RE03-10-6937 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12-9-09	MEDIA:	NA	ok
TIME COLLECTED (HH:MM)		1348	SUB-MEDIA:	OTHER	
PRS ID:	03-009(i)	ok	SAMPLE TECH CODE:	DC	
LOCATION ID:	UNK	03-608192	FIELD QC TYPE:	FTB	
LOCATION TYPE:	GENERIC	ok	FIELD PREP:	NA	
TOP DEPTH:	0		SAMPLE USAGE:	QC	
BOTTOM DEPTH:	0		SCREEN/PORT DESC:	NA	
FIELD MATRIX:	S		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	2 mre 12/9/09	8260B Trip Blank	40 ML SEPTUM AMBER GLASS	Ice		

SAMPLE DESC: QC Sample of RE03-09-13465

SAMPLE COMMENTS: NA

LOCATION DESC: NA

FIELD SCREENING/MEASUREMENT RESULTS: NA

COLLECTED BY (PRINT) L. Horne

REVIEWED BY (PRINT) M. Rains

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) M. Rains (Signature) [signature]	12-9-09 1600	(Printed Name) Sheri Sherwood (Signature) Sheri Sherwood	12-9-09 1600
RELINQUISHED BY (Printed Name) (Signature)	**Date/Time**	**RECEIVED BY** (Printed Name) (Signature)	**Date/Time**

DATA VALIDATION COVER SHEET

5114-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-886 VALIDATION DATE: 01/27/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Linda Thal ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☒ OTHER (DESCRIBE): VOCs

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☒	☐	☐	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☒	☐	☐	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. In the FTB, sample RE03-10-6937, associated with samples RE03-09-13465 and -13466, acetone was detected. In the FTB, sample RE03-10-4561 analyzed in RN 10-295 and associated with sample RE03-10-2003, benzene was detected. The associated sample results were NDs and, thus, were not qualified.
2. The CCV %D for trichlorotrifluoroethane was >20%. The associated sample results were NDs and, thus, were qualified UJ,V7c.
3. It should be noted that the MS/MSD was not spiked with trichlorotrifluoroethane. No sample data were qualified as a result.

Reviewed by: Eric Mink Level: I Date: 01/28/10

VALIDATOR'S SIGNATURE: L. Thal DATE: 01/27/10

VOLATILE ORGANIC COMPOUND (VOC) ANALYTICAL DATA VALIDATION CHECKLIST

5114-2

Volatile Organic Compound (VOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, V9	J-, V9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, V9a	J-, V9a
☐	☐	☒	3. The instrument performance sample did not pass method acceptance criteria.	R, V16	R, V16
☐	☐	☒	4. Samples were analyzed outside specific method tune time criteria.	N/A	J, V16b
☐	☐	☒	5. The required instrument performance sample information is missing. Contact the SMO or external laboratory for information.	R, V16c	R, V16c
☐	☒	☐	6. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ or R, V7	J, V7
☐	☒	☐	7. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, V7a	J, V7a
☐	☒	☐	8. The affected analytes were analyzed with an RRF of <0.05 in the initial calibration and/or CCV.	R, V7b	J, V7b
☒	☐	☐	9. The Initial Calibration Verification (ICV) and/or Continuing Calibration Verification (CCV) were recovered outside the method-specific limits.	UJ, V7c	J, V7c
☐	☒	☐	10. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, V7d	J, V7d
☐	☒	☐	11. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, V7f	R, V7f

VOLATILE ORGANIC COMPOUND (VOC) ANALYTICAL DATA VALIDATION CHECKLIST

5114-2

Volatile Organic Compound (VOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	12. The sample result is ≤5X (10X for common organic laboratory contaminants) the concentration of the related analyte in the method blank.	U, V4	N/A
☐	☒	☐	13. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X (10X for common laboratory contaminants).	N/A	J, V4a
☒	☐	☐	14. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, and/or equipment blank.	U, V4d	N/A
☐	☒	☐	15. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V4e	R, V4e
☐	☒	☐	16. The IS retention time has shifted by more than 30 seconds.	UJ, V0	J, V0
☐	☐	☒	17. Analyte is positively confirmed but outside the IS retention time window; however, spectral matches must be provided.	N/A	J, V0a
☐	☒	☐	18. Required IS retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V0b	R, V0b
☐	☐	☒	19. The quantitating IS are count is <10% of the expected value, which indicates increased potential for false negative results and other possible problems with sample quantitation. Follow method-specific windows.	R, V1a	J, V1a
☐	☐	☒	20. The IS area count for the quantitating IS is <50% but >10% for organics window relation to the previous continuing calibration. Follow the method-specific windows.	UJ, V1b	J, V1b

VOLATILE ORGANIC COMPOUND (VOC) ANALYTICAL DATA VALIDATION CHECKLIST

5114-2

Volatile Organic Compound (VOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	21. The IS area count for the quantitating IS is >200% of the area count for the previous organic continuing calibration. Follow the method-specific windows.	UJ, V1c	J, V1c
☐	☐	☒	22. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V1d	R, V1d
☐	☒	☐	23. The surrogate is <10%R. Follow the external laboratory limits located within the associated data package.	R, V3	J-, V3
☐	☒	☐	24. The surrogate is < the Lower Acceptance Limit (LAL) but ≥10%R. Follow the external laboratory limits located within the associated data package.	UJ, V3a	J-, V3a
☐	☒	☐	25. The surrogate %R is > the Upper Acceptance Limit (UAL) Follow the external laboratory limits located within the associated data package.	N/A	J+, V3b
☐	☒	☐	26. At least one surrogate is > the UAL and one surrogate is < the LAL. Follow the external laboratory limits located within the associated data package.	UJ, V3c	J, V3c
☐	☒	☐	27. Required surrogate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V3d	R, V3d
☐	☒	☐	28. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, V12	J-, V12
☐	☒	☐	29. The LCS percent recovery was < the LAL but > 10%. Follow the external laboratory limits located within the associated data package.	UV, V12a	J-, V12a
☐	☒	☐	30. The LCS percent recover was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, V12b

VOLATILE ORGANIC COMPOUND (VOC) ANALYTICAL DATA VALIDATION CHECKLIST

5114-2

Volatile Organic Compound (VOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	31. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V12c	R, V12c
☐	☒	☐	32. The affected analyte is considered not detected because mass spectrum did not meet specifications.	N/A	U, V8
☐	☒	☐	33. The mass spectrum column documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V8a	R, V8a
☐	☒	☐	34. Duplicate, dilution, or reanalysis.	UJ, V88	J, V88
☐	☐	☒	35. The affected analytes have elevated detection limits and may not meet project DQOs because the sample was diluted without any target analytees identified due to matrix interference. Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.	UJ, R, V15	R, V15
☒	☐	☐	36. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB, NQ, NQ
☐	☒	☐	37. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.	UJ, R, V19	J, R, V19

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-886**	**Date Collected:**	**12/09/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242750004**	**Date Received:**	**12/11/2009 08:50**	**%Moisture:**	**7**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-13465**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**934726**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**12/18/2009 16:13**	**Analyst:**	**RXM4**	**Purge Vol:**	**5 mL**
Prep Date:	**12/18/2009 12:20**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1r512.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.07	ug/kg	0.365	1.07
74-87-3	Chloromethane	U	1.07	ug/kg	0.322	1.07
75-01-4	Vinyl chloride	U	1.07	ug/kg	0.322	1.07
74-83-9	Bromomethane	U	1.07	ug/kg	0.322	1.07
75-00-3	Chloroethane	U	1.07	ug/kg	0.322	1.07
75-69-4	Trichlorofluoromethane	U	1.07	ug/kg	0.322	1.07
67-64-1	Acetone	U	5.37	ug/kg	1.78	5.37
75-35-4	1,1-Dichloroethylene	U	1.07	ug/kg	0.322	1.07
74-88-4	Iodomethane	U	5.37	ug/kg	1.72	5.37
75-09-2	Methylene chloride	U	5.37	ug/kg	2.15	5.37
75-15-0	Carbon disulfide	U	5.37	ug/kg	1.34	5.37
156-60-5	trans-1,2-Dichloroethylene	U	1.07	ug/kg	0.322	1.07
75-34-3	1,1-Dichloroethane	U	1.07	ug/kg	0.322	1.07
78-93-3	2-Butanone	U	5.37	ug/kg	1.61	5.37
156-59-2	cis-1,2-Dichloroethylene	U	1.07	ug/kg	0.322	1.07
594-20-7	2,2-Dichloropropane	U	1.07	ug/kg	0.322	1.07
67-66-3	Chloroform	U	1.07	ug/kg	0.322	1.07
74-97-5	Bromochloromethane	U	1.07	ug/kg	0.355	1.07
71-55-6	1,1,1-Trichloroethane	U	1.07	ug/kg	0.322	1.07
563-58-6	1,1-Dichloropropene	U	1.07	ug/kg	0.322	1.07
56-23-5	Carbon tetrachloride	U	1.07	ug/kg	0.322	1.07
107-06-2	1,2-Dichloroethane	U	1.07	ug/kg	0.322	1.07
71-43-2	Benzene	U	1.07	ug/kg	0.322	1.07
79-01-6	Trichloroethylene	U	1.07	ug/kg	0.355	1.07
78-87-5	1,2-Dichloropropane	U	1.07	ug/kg	0.322	1.07
75-27-4	Bromodichloromethane	U	1.07	ug/kg	0.322	1.07
74-95-3	Dibromomethane	U	1.07	ug/kg	0.322	1.07
108-10-1	4-Methyl-2-pentanone	U	5.37	ug/kg	1.34	5.37
10061-01-5	cis-1,3-Dichloropropylene	U	1.07	ug/kg	0.322	1.07
108-88-3	Toluene	U	1.07	ug/kg	0.322	1.07
10061-02-6	trans-1,3-Dichloropropylene	U	1.07	ug/kg	0.322	1.07
79-00-5	1,1,2-Trichloroethane	U	1.07	ug/kg	0.322	1.07
591-78-6	2-Hexanone	U	5.37	ug/kg	1.61	5.37
142-28-9	1,3-Dichloropropane	U	1.07	ug/kg	0.322	1.07
127-18-4	Tetrachloroethylene	U	1.07	ug/kg	0.322	1.07
124-48-1	Dibromochloromethane	U	1.07	ug/kg	0.322	1.07
106-93-4	1,2-Dibromoethane	U	1.07	ug/kg	0.322	1.07
108-90-7	Chlorobenzene	U	1.07	ug/kg	0.322	1.07

LT 01/27/10

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-886	**Date Collected:**	12/09/2009 12:00	**Matrix:**	S
Lab Sample ID:	242750004	**Date Received:**	12/11/2009 08:50	**%Moisture:**	7
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-13465	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	934726	**Inst:**	VOA1.I	**Dilution:**	1
Run Date:	12/18/2009 16:13	**Analyst:**	RXM4	**Purge Vol:**	5 mL
Prep Date:	12/18/2009 12:20	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	1r512.d	**Column:**	RTX-Volatiles	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
100-41-4	Ethylbenzene	U	1.07	ug/kg	0.322	1.07	
179601-23-1	m,p-Xylenes	U	2.15	ug/kg	0.322	2.15	
95-47-6	o-Xylene	U	1.07	ug/kg	0.322	1.07	
100-42-5	Styrene	U	1.07	ug/kg	0.322	1.07	
75-25-2	Bromoform	U	1.07	ug/kg	0.322	1.07	
79-34-5	1,1,2,2-Tetrachloroethane	U	1.07	ug/kg	0.322	1.07	
96-18-4	1,2,3-Trichloropropane	U	1.07	ug/kg	0.322	1.07	
108-86-1	Bromobenzene	U	1.07	ug/kg	0.322	1.07	
103-65-1	n-Propylbenzene	U	1.07	ug/kg	0.322	1.07	
95-49-8	2-Chlorotoluene	U	1.07	ug/kg	0.322	1.07	
98-82-8	Isopropylbenzene	U	1.07	ug/kg	0.322	1.07	
108-67-8	1,3,5-Trimethylbenzene	U	1.07	ug/kg	0.322	1.07	
106-43-4	4-Chlorotoluene	U	1.07	ug/kg	0.322	1.07	
98-06-6	tert-Butylbenzene	U	1.07	ug/kg	0.322	1.07	
95-63-6	1,2,4-Trimethylbenzene	U	1.07	ug/kg	0.322	1.07	
135-98-8	sec-Butylbenzene	U	1.07	ug/kg	0.322	1.07	
99-87-6	4-Isopropyltoluene	U	1.07	ug/kg	0.322	1.07	
541-73-1	1,3-Dichlorobenzene	U	1.07	ug/kg	0.322	1.07	
106-46-7	1,4-Dichlorobenzene	U	1.07	ug/kg	0.322	1.07	
104-51-8	n-Butylbenzene	U	1.07	ug/kg	0.322	1.07	
96-12-8	1,2-Dibromo-3,-chloropropane	U	1.07	ug/kg	0.322	1.07	
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.37	ug/kg	1.72	5.37	UJ,V7c
630-20-6	1,1,1,2-Tetrachloroethane	U	1.07	ug/kg	0.322	1.07	
95-50-1	1,2-Dichlorobenzene	U	1.07	ug/kg	0.322	1.07	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Hydrocarbon	18.07	6.87	ug/kg		J

LT 01/27/10

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-886	**Date Collected:**	12/09/2009 12:00	**Matrix:**	S
Lab Sample ID:	242750002	**Date Received:**	12/11/2009 08:50	**%Moisture:**	8.5
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-13466	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	934726	**Inst:**	VOA1.I	**Dilution:**	1
Run Date:	12/18/2009 15:12	**Analyst:**	RXM4	**Purge Vol:**	5 mL
Prep Date:	12/18/2009 12:18	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	1r510.d	**Column:**	RTX-Volatiles	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.09	ug/kg	0.372	1.09
74-87-3	Chloromethane	U	1.09	ug/kg	0.328	1.09
75-01-4	Vinyl chloride	U	1.09	ug/kg	0.328	1.09
74-83-9	Bromomethane	U	1.09	ug/kg	0.328	1.09
75-00-3	Chloroethane	U	1.09	ug/kg	0.328	1.09
75-69-4	Trichlorofluoromethane	U	1.09	ug/kg	0.328	1.09
67-64-1	Acetone	U	5.47	ug/kg	1.81	5.47
75-35-4	1,1-Dichloroethylene	U	1.09	ug/kg	0.328	1.09
74-88-4	Iodomethane	U	5.47	ug/kg	1.75	5.47
75-09-2	Methylene chloride	U	5.47	ug/kg	2.19	5.47
75-15-0	Carbon disulfide	U	5.47	ug/kg	1.37	5.47
156-60-5	trans-1,2-Dichloroethylene	U	1.09	ug/kg	0.328	1.09
75-34-3	1,1-Dichloroethane	U	1.09	ug/kg	0.328	1.09
78-93-3	2-Butanone	U	5.47	ug/kg	1.64	5.47
156-59-2	cis-1,2-Dichloroethylene	U	1.09	ug/kg	0.328	1.09
594-20-7	2,2-Dichloropropane	U	1.09	ug/kg	0.328	1.09
67-66-3	Chloroform	U	1.09	ug/kg	0.328	1.09
74-97-5	Bromochloromethane	U	1.09	ug/kg	0.361	1.09
71-55-6	1,1,1-Trichloroethane	U	1.09	ug/kg	0.328	1.09
563-58-6	1,1-Dichloropropene	U	1.09	ug/kg	0.328	1.09
56-23-5	Carbon tetrachloride	U	1.09	ug/kg	0.328	1.09
107-06-2	1,2-Dichloroethane	U	1.09	ug/kg	0.328	1.09
71-43-2	Benzene	U	1.09	ug/kg	0.328	1.09
79-01-6	Trichloroethylene	U	1.09	ug/kg	0.361	1.09
78-87-5	1,2-Dichloropropane	U	1.09	ug/kg	0.328	1.09
75-27-4	Bromodichloromethane	U	1.09	ug/kg	0.328	1.09
74-95-3	Dibromomethane	U	1.09	ug/kg	0.328	1.09
108-10-1	4-Methyl-2-pentanone	U	5.47	ug/kg	1.37	5.47
10061-01-5	cis-1,3-Dichloropropylene	U	1.09	ug/kg	0.328	1.09
108-88-3	Toluene	U	1.09	ug/kg	0.328	1.09
10061-02-6	trans-1,3-Dichloropropylene	U	1.09	ug/kg	0.328	1.09
79-00-5	1,1,2-Trichloroethane	U	1.09	ug/kg	0.328	1.09
591-78-6	2-Hexanone	U	5.47	ug/kg	1.64	5.47
142-28-9	1,3-Dichloropropane	U	1.09	ug/kg	0.328	1.09
127-18-4	Tetrachloroethylene	U	1.09	ug/kg	0.328	1.09
124-48-1	Dibromochloromethane	U	1.09	ug/kg	0.328	1.09
106-93-4	1,2-Dibromoethane	U	1.09	ug/kg	0.328	1.09
108-90-7	Chlorobenzene	U	1.09	ug/kg	0.328	1.09

LT 01/27/10

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-886	**Date Collected:**	12/09/2009 12:00	**Matrix:**	S
Lab Sample ID:	242750002	**Date Received:**	12/11/2009 08:50	**%Moisture:**	8.5
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-13466	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	934726	**Inst:**	VOA1.I	**Dilution:**	1
Run Date:	12/18/2009 15:12	**Analyst:**	RXM4	**Purge Vol:**	5 mL
Prep Date:	12/18/2009 12:18	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	1r510.d	**Column:**	RTX-Volatiles	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
100-41-4	Ethylbenzene	U	1.09	ug/kg	0.328	1.09	
179601-23-1	m,p-Xylenes	U	2.19	ug/kg	0.328	2.19	
95-47-6	o-Xylene	U	1.09	ug/kg	0.328	1.09	
100-42-5	Styrene	U	1.09	ug/kg	0.328	1.09	
75-25-2	Bromoform	U	1.09	ug/kg	0.328	1.09	
79-34-5	1,1,2,2-Tetrachloroethane	U	1.09	ug/kg	0.328	1.09	
96-18-4	1,2,3-Trichloropropane	U	1.09	ug/kg	0.328	1.09	
108-86-1	Bromobenzene	U	1.09	ug/kg	0.328	1.09	
103-65-1	n-Propylbenzene	U	1.09	ug/kg	0.328	1.09	
95-49-8	2-Chlorotoluene	U	1.09	ug/kg	0.328	1.09	
98-82-8	Isopropylbenzene	U	1.09	ug/kg	0.328	1.09	
108-67-8	1,3,5-Trimethylbenzene	U	1.09	ug/kg	0.328	1.09	
106-43-4	4-Chlorotoluene	U	1.09	ug/kg	0.328	1.09	
98-06-6	tert-Butylbenzene	U	1.09	ug/kg	0.328	1.09	
95-63-6	1,2,4-Trimethylbenzene	U	1.09	ug/kg	0.328	1.09	
135-98-8	sec-Butylbenzene	U	1.09	ug/kg	0.328	1.09	
99-87-6	4-Isopropyltoluene	U	1.09	ug/kg	0.328	1.09	
541-73-1	1,3-Dichlorobenzene	U	1.09	ug/kg	0.328	1.09	
106-46-7	1,4-Dichlorobenzene	U	1.09	ug/kg	0.328	1.09	
104-51-8	n-Butylbenzene	U	1.09	ug/kg	0.328	1.09	
96-12-8	1,2-Dibromo-3-chloropropane	U	1.09	ug/kg	0.328	1.09	
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.47	ug/kg	1.75	5.47	UJ,V7c
630-20-6	1,1,1,2-Tetrachloroethane	U	1.09	ug/kg	0.328	1.09	
95-50-1	1,2-Dichlorobenzene	U	1.09	ug/kg	0.328	1.09	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Flt	Qual
	Unknown Hydrocarbon	18.07	42.2	ug/kg		J

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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-886	Date Collected:	12/09/2009 12:00	Matrix:	S
Lab Sample ID:	242750001	Date Received:	12/11/2009 08:50	%Moisture:	3.9
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-13467	Method:	SW846 8260B	SOP Ref:	GL-OA-E-038
Batch ID:	934726	Inst:	VOA1.I	Dilution:	1
Run Date:	12/18/2009 14:42	Analyst:	RXM4	Purge Vol:	5 mL
Prep Date:	12/18/2009 13:45	Aliquot:	5 g	Final Volume:	5 mL
Data File:	1r509.d	Column:	RTX-Volatiles	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.04	ug/kg	0.354	1.04
74-87-3	Chloromethane	U	1.04	ug/kg	0.312	1.04
75-01-4	Vinyl chloride	U	1.04	ug/kg	0.312	1.04
74-83-9	Bromomethane	U	1.04	ug/kg	0.312	1.04
75-00-3	Chloroethane	U	1.04	ug/kg	0.312	1.04
75-69-4	Trichlorofluoromethane	U	1.04	ug/kg	0.312	1.04
67-64-1	Acetone	U	5.20	ug/kg	1.73	5.20
75-35-4	1,1-Dichloroethylene	U	1.04	ug/kg	0.312	1.04
74-88-4	Iodomethane	U	5.20	ug/kg	1.67	5.20
75-09-2	Methylene chloride	U	5.20	ug/kg	2.08	5.20
75-15-0	Carbon disulfide	U	5.20	ug/kg	1.30	5.20
156-60-5	trans-1,2-Dichloroethylene	U	1.04	ug/kg	0.312	1.04
75-34-3	1,1-Dichloroethane	U	1.04	ug/kg	0.312	1.04
78-93-3	2-Butanone	U	5.20	ug/kg	1.56	5.20
156-59-2	cis-1,2-Dichloroethylene	U	1.04	ug/kg	0.312	1.04
594-20-7	2,2-Dichloropropane	U	1.04	ug/kg	0.312	1.04
67-66-3	Chloroform	U	1.04	ug/kg	0.312	1.04
74-97-5	Bromochloromethane	U	1.04	ug/kg	0.343	1.04
71-55-6	1,1,1-Trichloroethane	U	1.04	ug/kg	0.312	1.04
563-58-6	1,1-Dichloropropene	U	1.04	ug/kg	0.312	1.04
56-23-5	Carbon tetrachloride	U	1.04	ug/kg	0.312	1.04
107-06-2	1,2-Dichloroethane	U	1.04	ug/kg	0.312	1.04
71-43-2	Benzene	U	1.04	ug/kg	0.312	1.04
79-01-6	Trichloroethylene	U	1.04	ug/kg	0.343	1.04
78-87-5	1,2-Dichloropropane	U	1.04	ug/kg	0.312	1.04
75-27-4	Bromodichloromethane	U	1.04	ug/kg	0.312	1.04
74-95-3	Dibromomethane	U	1.04	ug/kg	0.312	1.04
108-10-1	4-Methyl-2-pentanone	U	5.20	ug/kg	1.30	5.20
10061-01-5	cis-1,3-Dichloropropylene	U	1.04	ug/kg	0.312	1.04
108-88-3	Toluene	U	1.04	ug/kg	0.312	1.04
10061-02-6	trans-1,3-Dichloropropylene	U	1.04	ug/kg	0.312	1.04
79-00-5	1,1,2-Trichloroethane	U	1.04	ug/kg	0.312	1.04
591-78-6	2-Hexanone	U	5.20	ug/kg	1.56	5.20
142-28-9	1,3-Dichloropropane	U	1.04	ug/kg	0.312	1.04
127-18-4	Tetrachloroethylene	U	1.04	ug/kg	0.312	1.04
124-48-1	Dibromochloromethane	U	1.04	ug/kg	0.312	1.04
106-93-4	1,2-Dibromoethane	U	1.04	ug/kg	0.312	1.04
108-90-7	Chlorobenzene	U	1.04	ug/kg	0.312	1.04

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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-886	**Date Collected:**	12/09/2009 12:00	**Matrix:**	S
Lab Sample ID:	242750001	**Date Received:**	12/11/2009 08:50	**%Moisture:**	3.9
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-13467	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	934726	**Inst:**	VOA1.I	**Dilution:**	1
Run Date:	12/18/2009 14:42	**Analyst:**	RXM4	**Purge Vol:**	5 mL
Prep Date:	12/18/2009 13:45	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	1r509.d	**Column:**	RTX-Volatiles	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
100-41-4	Ethylbenzene	U	1.04	ug/kg	0.312	1.04	
179601-23-1	m,p-Xylenes	U	2.08	ug/kg	0.312	2.08	
95-47-6	o-Xylene	U	1.04	ug/kg	0.312	1.04	
100-42-5	Styrene	U	1.04	ug/kg	0.312	1.04	
75-25-2	Bromoform	U	1.04	ug/kg	0.312	1.04	
79-34-5	1,1,2,2-Tetrachloroethane	U	1.04	ug/kg	0.312	1.04	
96-18-4	1,2,3-Trichloropropane	U	1.04	ug/kg	0.312	1.04	
108-86-1	Bromobenzene	U	1.04	ug/kg	0.312	1.04	
103-65-1	n-Propylbenzene	U	1.04	ug/kg	0.312	1.04	
95-49-8	2-Chlorotoluene	U	1.04	ug/kg	0.312	1.04	
98-82-8	Isopropylbenzene	U	1.04	ug/kg	0.312	1.04	
108-67-8	1,3,5-Trimethylbenzene	U	1.04	ug/kg	0.312	1.04	
106-43-4	4-Chlorotoluene	U	1.04	ug/kg	0.312	1.04	
98-06-6	tert-Butylbenzene	U	1.04	ug/kg	0.312	1.04	
95-63-6	1,2,4-Trimethylbenzene	U	1.04	ug/kg	0.312	1.04	
135-98-8	sec-Butylbenzene	U	1.04	ug/kg	0.312	1.04	
99-87-6	4-Isopropyltoluene	U	1.04	ug/kg	0.312	1.04	
541-73-1	1,3-Dichlorobenzene	U	1.04	ug/kg	0.312	1.04	
106-46-7	1,4-Dichlorobenzene	U	1.04	ug/kg	0.312	1.04	
104-51-8	n-Butylbenzene	U	1.04	ug/kg	0.312	1.04	
96-12-8	1,2-Dibromo-3-chloropropane	U	1.04	ug/kg	0.312	1.04	
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.20	ug/kg	1.67	5.20	UJ,V7c
630-20-6	1,1,1,2-Tetrachloroethane	U	1.04	ug/kg	0.312	1.04	
95-50-1	1,2-Dichlorobenzene	U	1.04	ug/kg	0.312	1.04	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Siloxane	18.07	23.9	ug/kg		J

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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-886	**Date Collected:**	12/09/2009 12:00	**Matrix:**	S
Lab Sample ID:	242750003	**Date Received:**	12/11/2009 08:50	**%Moisture:**	9.3
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-13468	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	934726	**Inst:**	VOA1.I	**Dilution:**	1
Run Date:	12/18/2009 15:42	**Analyst:**	RXM4	**Purge Vol:**	5 mL
Prep Date:	12/18/2009 12:19	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	1r511.d	**Column:**	RTX-Volatiles	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.10	ug/kg	0.375	1.10
74-87-3	Chloromethane	U	1.10	ug/kg	0.331	1.10
75-01-4	Vinyl chloride	U	1.10	ug/kg	0.331	1.10
74-83-9	Bromomethane	U	1.10	ug/kg	0.331	1.10
75-00-3	Chloroethane	U	1.10	ug/kg	0.331	1.10
75-69-4	Trichlorofluoromethane	U	1.10	ug/kg	0.331	1.10
67-64-1	Acetone	U	5.51	ug/kg	1.83	5.51
75-35-4	1,1-Dichloroethylene	U	1.10	ug/kg	0.331	1.10
74-88-4	Iodomethane	U	5.51	ug/kg	1.76	5.51
75-09-2	Methylene chloride	U	5.51	ug/kg	2.21	5.51
75-15-0	Carbon disulfide	U	5.51	ug/kg	1.38	5.51
156-60-5	trans-1,2-Dichloroethylene	U	1.10	ug/kg	0.331	1.10
75-34-3	1,1-Dichloroethane	U	1.10	ug/kg	0.331	1.10
78-93-3	2-Butanone	U	5.51	ug/kg	1.65	5.51
156-59-2	cis-1,2-Dichloroethylene	U	1.10	ug/kg	0.331	1.10
594-20-7	2,2-Dichloropropane	U	1.10	ug/kg	0.331	1.10
67-66-3	Chloroform	U	1.10	ug/kg	0.331	1.10
74-97-5	Bromochloromethane	U	1.10	ug/kg	0.364	1.10
71-55-6	1,1,1-Trichloroethane	U	1.10	ug/kg	0.331	1.10
563-58-6	1,1-Dichloropropene	U	1.10	ug/kg	0.331	1.10
56-23-5	Carbon tetrachloride	U	1.10	ug/kg	0.331	1.10
107-06-2	1,2-Dichloroethane	U	1.10	ug/kg	0.331	1.10
71-43-2	Benzene	U	1.10	ug/kg	0.331	1.10
79-01-6	Trichloroethylene	U	1.10	ug/kg	0.364	1.10
78-87-5	1,2-Dichloropropane	U	1.10	ug/kg	0.331	1.10
75-27-4	Bromodichloromethane	U	1.10	ug/kg	0.331	1.10
74-95-3	Dibromomethane	U	1.10	ug/kg	0.331	1.10
108-10-1	4-Methyl-2-pentanone	U	5.51	ug/kg	1.38	5.51
10061-01-5	cis-1,3-Dichloropropylene	U	1.10	ug/kg	0.331	1.10
108-88-3	Toluene	U	1.10	ug/kg	0.331	1.10
10061-02-6	trans-1,3-Dichloropropylene	U	1.10	ug/kg	0.331	1.10
79-00-5	1,1,2-Trichloroethane	U	1.10	ug/kg	0.331	1.10
591-78-6	2-Hexanone	U	5.51	ug/kg	1.65	5.51
142-28-9	1,3-Dichloropropane	U	1.10	ug/kg	0.331	1.10
127-18-4	Tetrachloroethylene	U	1.10	ug/kg	0.331	1.10
124-48-1	Dibromochloromethane	U	1.10	ug/kg	0.331	1.10
106-93-4	1,2-Dibromoethane	U	1.10	ug/kg	0.331	1.10
108-90-7	Chlorobenzene	U	1.10	ug/kg	0.331	1.10

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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-886**	**Date Collected:**	**12/09/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242750003**	**Date Received:**	**12/11/2009 08:50**	**%Moisture:**	**9.3**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-13468**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**934726**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**12/18/2009 15:42**	**Analyst:**	**RXM4**	**Purge Vol:**	**5 mL**
Prep Date:	**12/18/2009 12:19**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1r511.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
100-41-4	Ethylbenzene	U	1.10	ug/kg	0.331	1.10	
179601-23-1	m,p-Xylenes	U	2.21	ug/kg	0.331	2.21	
95-47-6	o-Xylene	U	1.10	ug/kg	0.331	1.10	
100-42-5	Styrene	U	1.10	ug/kg	0.331	1.10	
75-25-2	Bromoform	U	1.10	ug/kg	0.331	1.10	
79-34-5	1,1,2,2-Tetrachloroethane	U	1.10	ug/kg	0.331	1.10	
96-18-4	1,2,3-Trichloropropane	U	1.10	ug/kg	0.331	1.10	
108-86-1	Bromobenzene	U	1.10	ug/kg	0.331	1.10	
103-65-1	n-Propylbenzene	U	1.10	ug/kg	0.331	1.10	
95-49-8	2-Chlorotoluene	U	1.10	ug/kg	0.331	1.10	
98-82-8	Isopropylbenzene	U	1.10	ug/kg	0.331	1.10	
108-67-8	1,3,5-Trimethylbenzene	U	1.10	ug/kg	0.331	1.10	
106-43-4	4-Chlorotoluene	U	1.10	ug/kg	0.331	1.10	
98-06-6	tert-Butylbenzene	U	1.10	ug/kg	0.331	1.10	
95-63-6	1,2,4-Trimethylbenzene	U	1.10	ug/kg	0.331	1.10	
135-98-8	sec-Butylbenzene	U	1.10	ug/kg	0.331	1.10	
99-87-6	4-Isopropyltoluene	U	1.10	ug/kg	0.331	1.10	
541-73-1	1,3-Dichlorobenzene	U	1.10	ug/kg	0.331	1.10	
106-46-7	1,4-Dichlorobenzene	U	1.10	ug/kg	0.331	1.10	
104-51-8	n-Butylbenzene	U	1.10	ug/kg	0.331	1.10	
96-12-8	1,2-Dibromo-3-chloropropane	U	1.10	ug/kg	0.331	1.10	
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.51	ug/kg	1.76	5.51	UJ,V7c
630-20-6	1,1,1,2-Tetrachloroethane	U	1.10	ug/kg	0.331	1.10	
95-50-1	1,2-Dichlorobenzene	U	1.10	ug/kg	0.331	1.10	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Siloxane	18.07	66.8	ug/kg		J
	Unknown Hydrocarbon	19.98	6.26	ug/kg		J

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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-886**	**Date Collected:**	**12/09/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242750005**	**Date Received:**	**12/11/2009 08:50**	**%Moisture:**	**6.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-10-2003**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**934726**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**12/18/2009 16:43**	**Analyst:**	**RXM4**	**Purge Vol:**	**5 mL**
Prep Date:	**12/18/2009 12:21**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1r513.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.07	ug/kg	0.365	1.07
74-87-3	Chloromethane	U	1.07	ug/kg	0.322	1.07
75-01-4	Vinyl chloride	U	1.07	ug/kg	0.322	1.07
74-83-9	Bromomethane	U	1.07	ug/kg	0.322	1.07
75-00-3	Chloroethane	U	1.07	ug/kg	0.322	1.07
75-69-4	Trichlorofluoromethane	U	1.07	ug/kg	0.322	1.07
67-64-1	Acetone	U	5.37	ug/kg	1.78	5.37
75-35-4	1,1-Dichloroethylene	U	1.07	ug/kg	0.322	1.07
74-88-4	Iodomethane	U	5.37	ug/kg	1.72	5.37
75-09-2	Methylene chloride	U	5.37	ug/kg	2.15	5.37
75-15-0	Carbon disulfide	U	5.37	ug/kg	1.34	5.37
156-60-5	trans-1,2-Dichloroethylene	U	1.07	ug/kg	0.322	1.07
75-34-3	1,1-Dichloroethane	U	1.07	ug/kg	0.322	1.07
78-93-3	2-Butanone	U	5.37	ug/kg	1.61	5.37
156-59-2	cis-1,2-Dichloroethylene	U	1.07	ug/kg	0.322	1.07
594-20-7	2,2-Dichloropropane	U	1.07	ug/kg	0.322	1.07
67-66-3	Chloroform	U	1.07	ug/kg	0.322	1.07
74-97-5	Bromochloromethane	U	1.07	ug/kg	0.354	1.07
71-55-6	1,1,1-Trichloroethane	U	1.07	ug/kg	0.322	1.07
563-58-6	1,1-Dichloropropene	U	1.07	ug/kg	0.322	1.07
56-23-5	Carbon tetrachloride	U	1.07	ug/kg	0.322	1.07
107-06-2	1,2-Dichloroethane	U	1.07	ug/kg	0.322	1.07
71-43-2	Benzene	U	1.07	ug/kg	0.322	1.07
79-01-6	Trichloroethylene	U	1.07	ug/kg	0.354	1.07
78-87-5	1,2-Dichloropropane	U	1.07	ug/kg	0.322	1.07
75-27-4	Bromodichloromethane	U	1.07	ug/kg	0.322	1.07
74-95-3	Dibromomethane	U	1.07	ug/kg	0.322	1.07
108-10-1	4-Methyl-2-pentanone	U	5.37	ug/kg	1.34	5.37
10061-01-5	cis-1,3-Dichloropropylene	U	1.07	ug/kg	0.322	1.07
108-88-3	Toluene	U	1.07	ug/kg	0.322	1.07
10061-02-6	trans-1,3-Dichloropropylene	U	1.07	ug/kg	0.322	1.07
79-00-5	1,1,2-Trichloroethane	U	1.07	ug/kg	0.322	1.07
591-78-6	2-Hexanone	U	5.37	ug/kg	1.61	5.37
142-28-9	1,3-Dichloropropane	U	1.07	ug/kg	0.322	1.07
127-18-4	Tetrachloroethylene	U	1.07	ug/kg	0.322	1.07
124-48-1	Dibromochloromethane	U	1.07	ug/kg	0.322	1.07
106-93-4	1,2-Dibromoethane	U	1.07	ug/kg	0.322	1.07
108-90-7	Chlorobenzene	U	1.07	ug/kg	0.322	1.07

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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-886	**Date Collected:**	12/09/2009 12:00	**Matrix:**	S
Lab Sample ID:	242750005	**Date Received:**	12/11/2009 08:50	**%Moisture:**	6.8
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-10-2003	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	934726	**Inst:**	VOA1.I	**Dilution:**	1
Run Date:	12/18/2009 16:43	**Analyst:**	RXM4	**Purge Vol:**	5 mL
Prep Date:	12/18/2009 12:21	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	1r513.d	**Column:**	RTX-Volatiles	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
100-41-4	Ethylbenzene	U	1.07	ug/kg	0.322	1.07	
179601-23-1	m,p-Xylenes	U	2.15	ug/kg	0.322	2.15	
95-47-6	o-Xylene	U	1.07	ug/kg	0.322	1.07	
100-42-5	Styrene	U	1.07	ug/kg	0.322	1.07	
75-25-2	Bromoform	U	1.07	ug/kg	0.322	1.07	
79-34-5	1,1,2,2-Tetrachloroethane	U	1.07	ug/kg	0.322	1.07	
96-18-4	1,2,3-Trichloropropane	U	1.07	ug/kg	0.322	1.07	
108-86-1	Bromobenzene	U	1.07	ug/kg	0.322	1.07	
103-65-1	n-Propylbenzene	U	1.07	ug/kg	0.322	1.07	
95-49-8	2-Chlorotoluene	U	1.07	ug/kg	0.322	1.07	
98-82-8	Isopropylbenzene	U	1.07	ug/kg	0.322	1.07	
108-67-8	1,3,5-Trimethylbenzene	U	1.07	ug/kg	0.322	1.07	
106-43-4	4-Chlorotoluene	U	1.07	ug/kg	0.322	1.07	
98-06-6	tert-Butylbenzene	U	1.07	ug/kg	0.322	1.07	
95-63-6	1,2,4-Trimethylbenzene	U	1.07	ug/kg	0.322	1.07	
135-98-8	sec-Butylbenzene	U	1.07	ug/kg	0.322	1.07	
99-87-6	4-Isopropyltoluene	U	1.07	ug/kg	0.322	1.07	
541-73-1	1,3-Dichlorobenzene	U	1.07	ug/kg	0.322	1.07	
106-46-7	1,4-Dichlorobenzene	U	1.07	ug/kg	0.322	1.07	
104-51-8	n-Butylbenzene	U	1.07	ug/kg	0.322	1.07	
96-12-8	1,2-Dibromo-3-chloropropane	U	1.07	ug/kg	0.322	1.07	
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.37	ug/kg	1.72	5.37	UJ,V7c
630-20-6	1,1,1,2-Tetrachloroethane	U	1.07	ug/kg	0.322	1.07	
95-50-1	1,2-Dichlorobenzene	U	1.07	ug/kg	0.322	1.07	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compouud (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Hydrocarbon	18.07	46.9	ug/kg		J

LT 01/27/10

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-886	**Date Collected:**	12/09/2009 12:00	**Matrix:**	S
Lab Sample ID:	242750006	**Date Received:**	12/11/2009 08:50		
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-10-6937	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	934726	**Inst:**	VOA1.I	**Dilution:**	1
Run Date:	12/18/2009 17:13	**Analyst:**	RXM4	**Purge Vol:**	5 mL
Prep Date:	12/18/2009 12:22	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	1r514.d	**Column:**	RTX-Volatiles	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/kg	0.340	1.00
74-87-3	Chloromethane	U	1.00	ug/kg	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/kg	0.300	1.00
74-83-9	Bromomethane	U	1.00	ug/kg	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/kg	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/kg	0.300	1.00
67-64-1	Acetone	J	1.68	ug/kg	1.66	5.00
75-35-4	1,1-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/kg	1.60	5.00
75-09-2	Methylene chloride	U	5.00	ug/kg	2.00	5.00
75-15-0	Carbon disulfide	U	5.00	ug/kg	1.25	5.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/kg	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/kg	1.50	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/kg	0.300	1.00
74-97-5	Bromochloromethane	U	1.00	ug/kg	0.330	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/kg	0.300	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/kg	0.300	1.00
56-23-5	Carbon tetrachloride	U	1.00	ug/kg	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/kg	0.300	1.00
71-43-2	Benzene	U	1.00	ug/kg	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/kg	0.330	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/kg	0.300	1.00
74-95-3	Dibromomethane	U	1.00	ug/kg	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/kg	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
108-88-3	Toluene	U	1.00	ug/kg	0.300	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/kg	0.300	1.00
591-78-6	2-Hexanone	U	5.00	ug/kg	1.50	5.00
142-28-9	1,3-Dichloropropane	U	1.00	ug/kg	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/kg	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/kg	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/kg	0.300	1.00
108-90-7	Chlorobenzene	U	1.00	ug/kg	0.300	1.00

LT 01/27/10

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-886**	**Date Collected:**	**12/09/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242750006**	**Date Received:**	**12/11/2009 08:50**		
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-10-6937**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**934726**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**12/18/2009 17:13**	**Analyst:**	**RXM4**	**Purge Vol:**	**5 mL**
Prep Date:	**12/18/2009 12:22**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1r514.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
100-41-4	Ethylbenzene	U	1.00	ug/kg	0.300	1.00	
179601-23-1	m,p-Xylenes	U	2.00	ug/kg	0.300	2.00	
95-47-6	o-Xylene	U	1.00	ug/kg	0.300	1.00	
100-42-5	Styrene	U	1.00	ug/kg	0.300	1.00	
75-25-2	Bromoform	U	1.00	ug/kg	0.300	1.00	
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00	
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/kg	0.300	1.00	
108-86-1	Bromobenzene	U	1.00	ug/kg	0.300	1.00	
103-65-1	n-Propylbenzene	U	1.00	ug/kg	0.300	1.00	
95-49-8	2-Chlorotoluene	U	1.00	ug/kg	0.300	1.00	
98-82-8	Isopropylbenzene	U	1.00	ug/kg	0.300	1.00	
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00	
106-43-4	4-Chlorotoluene	U	1.00	ug/kg	0.300	1.00	
98-06-6	tert-Butylbenzene	U	1.00	ug/kg	0.300	1.00	
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00	
135-98-8	sec-Butylbenzene	U	1.00	ug/kg	0.300	1.00	
99-87-6	4-Isopropyltoluene	U	1.00	ug/kg	0.300	1.00	
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00	
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00	
104-51-8	n-Butylbenzene	U	1.00	ug/kg	0.300	1.00	
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/kg	0.300	1.00	
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.00	ug/kg	1.60	5.00	UJ,V7c
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00	
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	No Tentatively Identified Compounds Found			ug/kg		

LT 01/27/10

DATA VALIDATION COVER SHEET

5115-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-886 VALIDATION DATE: 01/27/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Linda Thal ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☒ OTHER (DESCRIBE): SVOCs

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☒	☐	☐	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☒	☐	☐	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. The ICV or CCV %Ds for hexachlorocyclopentadiene, benzoic acid and 2-methyl-4,6-dinitrophenol were >20%. The associated sample results were NDs and, thus, were qualified UJ,SV7c.
2. The MS/MSD was performed on a sample from another LANL RN and the raw data for the parent sample were not included in the data package. The MS/MSD %Rs and RPDs for multiple target analytes did not meet laboratory acceptance criteria. Since the analysis of an MS or an MSD was not a client requirement, no sample data were qualified.

Reviewed by: Eric Mink Level: I Date: 01/28/10

VALIDATOR'S SIGNATURE: L Thal DATE: 01/27/10

SEMIVOLATILE ORGANIC COMPOUND (SVOC) ANALYTICAL DATA VALIDATION CHECKLIST

5115-2

Semivolatile Organic Compound (SVOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, SV9	J-, SV9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, SV9a	J-, SV9a
☐	☒	☐	3. The affected analytes are regarded as rejected because the analytical holding time was exceeded.	R, SV9b	R, SV9b
☐	☐	☒	4. The instrument performance sample did not pass method acceptance criteria.	R, SV16	R, SV16
☐	☐	☒	5. Samples were analyzed outside specific method tune time criteria.	N/A	J, SV16b
☐	☐	☒	6. The required instrument performance sample information is missing. Contact the SMO or external laboratory for information.	R, SV16c	R, SV16c
☐	☒	☐	7. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, SV7	J, SV7
☐	☒	☐	8. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, SV7a	J, SV7a
☐	☒	☐	9. The affected analytes were analyzed with an RRF of <0.05 in the initial calibration and/or Continuing Calibration Verification (CCV).	R, SV7b	J, SV7b
☒	☐	☐	10. The Initial Calibration Verification (ICV) and/or CCV were recovered outside the method-specific limits.	UJ, SV7c	J, SV7c
☐	☒	☐	11. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, SV7d	J, SV7d

SEMIVOLATILE ORGANIC COMPOUND (SVOC) ANALYTICAL DATA VALIDATION CHECKLIST

5115-2

Semivolatile Organic Compound (SVOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	12. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, SV7f	R, SV7f
☐	☒	☐	13. The sample result is ≤5X (10X for common organic laboratory contaminates) the concentration of the related analyte in the method blank.	U, SV4	J, V4a
☐	☒	☐	14. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was greater than 5X (10X for common laboratory contaminates).	N/A	J, SV4a
☐	☐	☒	15. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	UJ, SV4d	N/A
☐	☒	☐	16. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV4e	R, SV4e
☐	☒	☐	17. The IS retention time has shifted by more than 30 seconds.	UJ, SV0	J, SV0
☐	☐	☒	18. Analyte is positively confirmed but outside the IS retention time window; however, spectral matches must be provided.	N/A	J, SV0a
☐	☒	☐	19. Required IS retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV0b	R, SV0b
☐	☐	☒	20. The quantitating IS area count is <10% of the expected value, which indicates increased potential for false negative results and other possible problems with sample quantitation. Follow method-specific windows.	R, SV1a	J, SV1a

SEMIVOLATILE ORGANIC COMPOUND (SVOC) ANALYTICAL DATA VALIDATION CHECKLIST

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Semivolatile Organic Compound (SVOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	21. The IS area count for the quantitating IS is <50% but >10% for organics window relation to the previous continuing calibration. Follow method-specific windows.	UJ, SV1b	J, SV1b
☐	☐	☒	22. The IS area count for the quantitating IS is >200% of the area count for the previous continuing calibration. Follow method-specific windows.	UJ, SV1c	J, SV1c
☐	☐	☒	23. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV1d	R, SV1d
☐	☒	☐	24. The surrogate is <10%R. Follow the external laboratory limits located within the associated data package.	R, SV3	J-, SV3
☐	☒	☐	25. The surrogate is < the Lower Acceptance Level (LAL) but ≥10%R. Follow the external laboratory limits located within the associated data package.	UJ, SV3a	J-, SV3a
☐	☒	☐	26. The surrogate %R value is > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, SV3b
☐	☒	☐	27. At least one surrogate is > the Upper Acceptance Limit (UAL) and one surrogate is < the LAL. Follow the external laboratory limits located within the associated data package.	UJ, SV3c	J, SV3c
☐	☒	☐	28. Required surrogate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV3d	R, SV3d
☐	☒	☐	29. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, SV12	J-, SV12

SEMIVOLATILE ORGANIC COMPOUND (SVOC) ANALYTICAL DATA VALIDATION CHECKLIST

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Semivolatile Organic Compound (SVOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	30. The LCS percent recovery was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, SV12a	J-, SV12a
☐	☒	☐	31. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, SV12b
☐	☒	☐	32. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV12c	R, SV12c
☐	☐	☒	33. The affected analyte is considered not detected because mass spectrum did not meet specifications.	N/A	U, SV8
☐	☐	☒	34. The mass spectrum column documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV8a	R, SV8a
☐	☒	☐	35. Duplicate, dilution, or reanalysis.	UJ, SV88	J, SV88
☐	☐	☒	36. The affected analytes have elevated detection limits and may not meet project DQOs because the sample was diluted without any target analytees identified due to matrix interference. Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.	UJ, R, SV15	R, SV15
☒	☐	☐	37. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB, NQ, NQ
☐	☒	☐	38. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.	UJ, R, SV19	J, R, SV19

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-886	**Date Collected:**	12/09/2009 12:00	**Matrix:**	S
Lab Sample ID:	242750004	**Date Received:**	12/11/2009 08:50	**%Moisture:**	7
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-13465	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	932444	**Inst:**	MSD6.I	**Dilution:**	1
Run Date:	12/16/2009 20:28	**Analyst:**	NAG1	**Inj. Vol:**	.5 uL
Prep Date:	12/14/2009 09:47	**Aliquot:**	30.02 g	**Final Volume:**	1 mL
Data File:	s611624.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
62-75-9	N-Methyl-N-nitrosomethylamine	U	358	ug/kg	71.6	358	
108-95-2	Phenol	U	358	ug/kg	71.6	358	
95-57-8	2-Chlorophenol	U	358	ug/kg	71.6	358	
106-46-7	1,4-Dichlorobenzene	U	358	ug/kg	71.6	358	
621-64-7	N-Nitrosodipropylamine	U	358	ug/kg	71.6	358	
59-50-7	4-Chloro-3-methylphenol	U	358	ug/kg	71.6	358	
83-32-9	Acenaphthene	U	35.8	ug/kg	11.8	35.8	
121-14-2	2,4-Dinitrotoluene	U	358	ug/kg	35.8	358	
100-02-7	4-Nitrophenol	U	358	ug/kg	118	358	
87-86-5	Pentachlorophenol	U	358	ug/kg	89.5	358	
129-00-0	Pyrene	U	35.8	ug/kg	10.7	35.8	
110-86-1	Pyridine	U	358	ug/kg	71.6	358	
62-53-3	Aniline	U	358	ug/kg	107	358	
111-44-4	bis(2-Chloroethyl) ether	U	358	ug/kg	71.6	358	
541-73-1	1,3-Dichlorobenzene	U	358	ug/kg	71.6	358	
100-51-6	Benzyl alcohol	U	358	ug/kg	107	358	
95-50-1	1,2-Dichlorobenzene	U	358	ug/kg	71.6	358	
108-60-1	bis(2-Chloroisopropyl)ether	U	358	ug/kg	71.6	358	
95-48-7	o-Cresol	U	358	ug/kg	71.6	358	
65794-96-9	m,p-Cresols	U	358	ug/kg	107	358	
67-72-1	Hexachloroethane	U	358	ug/kg	71.6	358	
98-95-3	Nitrobenzene	U	358	ug/kg	71.6	358	
78-59-1	Isophorone	U	358	ug/kg	71.6	358	
88-75-5	2-Nitrophenol	U	358	ug/kg	71.6	358	
105-67-9	2,4-Dimethylphenol	U	358	ug/kg	125	358	
111-91-1	bis(2-Chloroethoxy)methane	U	358	ug/kg	71.6	358	
120-83-2	2,4-Dichlorophenol	U	358	ug/kg	71.6	358	
65-85-0	Benzoic acid	U	716	ug/kg	179	716	UJ,SV7c
91-20-3	Naphthalene	U	35.8	ug/kg	10.7	35.8	
106-47-8	4-Chloroaniline	U	358	ug/kg	71.6	358	
87-68-3	Hexachlorobutadiene	U	358	ug/kg	71.6	358	
91-57-6	2-Methylnaphthalene	U	35.8	ug/kg	7.16	35.8	
77-47-4	Hexachlorocyclopentadiene	U	358	ug/kg	71.6	358	UJ,SV7c
88-06-2	2,4,6-Trichlorophenol	U	358	ug/kg	71.6	358	
95-95-4	2,4,5-Trichlorophenol	U	358	ug/kg	71.6	358	
91-58-7	2-Chloronaphthalene	U	35.8	ug/kg	11.8	35.8	
88-74-4	2-Nitroaniline	U	358	ug/kg	71.6	358	
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	358	ug/kg	71.6	358	

LT 01/27/10

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-886	Date Collected:	12/09/2009 12:00	Matrix:	S
Lab Sample ID:	242750004	Date Received:	12/11/2009 08:50	%Moisture:	7
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-13465	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	932444	Inst:	MSD6.I	Dilution:	1
Run Date:	12/16/2009 20:28	Analyst:	NAG1	Inj. Vol:	.5 uL
Prep Date:	12/14/2009 09:47	Aliquot:	30.02 g	Final Volume:	1 mL
Data File:	s611624.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
	m-Nitroaniline						
131-11-3	Dimethylphthalate	U	358	ug/kg	71.6	358	
606-20-2	2,6-Dinitrotoluene	U	358	ug/kg	35.8	358	
208-96-8	Acenaphthylene	U	35.8	ug/kg	10.7	35.8	
51-28-5	2,4-Dinitrophenol	U	716	ug/kg	136	716	
132-64-9	Dibenzofuran	U	358	ug/kg	71.6	358	
84-66-2	Diethylphthalate	U	358	ug/kg	71.6	358	
86-73-7	Fluorene	U	35.8	ug/kg	10.7	35.8	
7005-72-3	4-Chlorophenylphenylether	U	358	ug/kg	71.6	358	
534-52-1	2-Methyl-4,6-dinitrophenol	U	358	ug/kg	71.6	358	UJ,SV7c
100-01-6	4-Nitroaniline	U	358	ug/kg	107	358	
	p-Nitroaniline						
122-39-4	Diphenylamine	U	358	ug/kg	71.6	358	
122-66-7	Azobenzene	U	358	ug/kg	71.6	358	
	1,2-Diphenylhydrazine						
101-55-3	4-Bromophenylphenylether	U	358	ug/kg	71.6	358	
118-74-1	Hexachlorobenzene	U	358	ug/kg	71.6	358	
85-01-8	Phenanthrene	U	35.8	ug/kg	10.7	35.8	
120-12-7	Anthracene	U	35.8	ug/kg	7.16	35.8	
84-74-2	Di-n-butylphthalate	U	358	ug/kg	71.6	358	
206-44-0	Fluoranthene	U	35.8	ug/kg	10.7	35.8	
85-68-7	Butylbenzylphthalate	U	358	ug/kg	71.6	358	
56-55-3	Benzo(a)anthracene	U	35.8	ug/kg	10.7	35.8	
91-94-1	3,3'-Dichlorobenzidine	U	358	ug/kg	107	358	
218-01-9	Chrysene	U	35.8	ug/kg	10.7	35.8	
117-81-7	bis(2-Ethylhexyl)phthalate	U	358	ug/kg	71.6	358	
117-84-0	Di-n-octylphthalate	U	358	ug/kg	71.6	358	
205-99-2	Benzo(b)fluoranthene	U	35.8	ug/kg	10.7	35.8	
207-08-9	Benzo(k)fluoranthene	U	35.8	ug/kg	10.7	35.8	
50-32-8	Benzo(a)pyrene	U	35.8	ug/kg	10.7	35.8	
193-39-5	Indeno(1,2,3-cd)pyrene	U	35.8	ug/kg	10.7	35.8	
53-70-3	Dibenzo(a,h)anthracene	U	35.8	ug/kg	10.7	35.8	
191-24-2	Benzo(ghi)perylene	U	35.8	ug/kg	10.7	35.8	
120-82-1	1,2,4-Trichlorobenzene	U	358	ug/kg	71.6	358	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	3.45	585	ug/kg		JA
301-02-0	9-Octadecenamide, (Z)-	11.85	477	ug/kg	98	NJ

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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-886	Date Collected:	12/09/2009 12:00	Matrix:	S
Lab Sample ID:	242750004	Date Received:	12/11/2009 08:50	%Moisture:	7
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-13465	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	932444	Inst:	MSD6.I	Dilution:	1
Run Date:	12/16/2009 20:28	Analyst:	NAG1	Inj. Vol:	.5 uL
Prep Date:	12/14/2009 09:47	Aliquot:	30.02 g	Final Volume:	1 mL
Data File:	s6l1624.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
112-84-5	13-Docosenamide, (Z)-	13.85	156	ug/kg	90	NJ

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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-886	**Date Collected:**	12/09/2009 12:00	**Matrix:**	S
Lab Sample ID:	242750002	**Date Received:**	12/11/2009 08:50	**%Moisture:**	8.5
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-13466	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	932444	**Inst:**	MSD6.I	**Dilution:**	1
Run Date:	12/16/2009 19:31	**Analyst:**	NAG1	**Inj. Vol:**	.5 uL
Prep Date:	12/14/2009 09:47	**Aliquot:**	30.01 g	**Final Volume:**	1 mL
Data File:	s611622.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
62-75-9	N-Methyl-N-nitrosomethylamine	U	364	ug/kg	72.9	364	
108-95-2	Phenol	U	364	ug/kg	72.9	364	
95-57-8	2-Chlorophenol	U	364	ug/kg	72.9	364	
106-46-7	1,4-Dichlorobenzene	U	364	ug/kg	72.9	364	
621-64-7	N-Nitrosodipropylamine	U	364	ug/kg	72.9	364	
59-50-7	4-Chloro-3-methylphenol	U	364	ug/kg	72.9	364	
83-32-9	Acenaphthene	U	36.4	ug/kg	12.0	36.4	
121-14-2	2,4-Dinitrotoluene	U	364	ug/kg	36.4	364	
100-02-7	4-Nitrophenol	U	364	ug/kg	120	364	
87-86-5	Pentachlorophenol	U	364	ug/kg	91.1	364	
129-00-0	Pyrene	U	36.4	ug/kg	10.9	36.4	
110-86-1	Pyridine	U	364	ug/kg	72.9	364	
62-53-3	Aniline	U	364	ug/kg	109	364	
111-44-4	bis(2-Chloroethyl) ether	U	364	ug/kg	72.9	364	
541-73-1	1,3-Dichlorobenzene	U	364	ug/kg	72.9	364	
100-51-6	Benzyl alcohol	U	364	ug/kg	109	364	
95-50-1	1,2-Dichlorobenzene	U	364	ug/kg	72.9	364	
108-60-1	bis(2-Chloroisopropyl)ether	U	364	ug/kg	72.9	364	
95-48-7	o-Cresol	U	364	ug/kg	72.9	364	
65794-96-9	m,p-Cresols	U	364	ug/kg	109	364	
67-72-1	Hexachloroethane	U	364	ug/kg	72.9	364	
98-95-3	Nitrobenzene	U	364	ug/kg	72.9	364	
78-59-1	Isophorone	U	364	ug/kg	72.9	364	
88-75-5	2-Nitrophenol	U	364	ug/kg	72.9	364	
105-67-9	2,4-Dimethylphenol	U	364	ug/kg	127	364	
111-91-1	bis(2-Chloroethoxy)methane	U	364	ug/kg	72.9	364	
120-83-2	2,4-Dichlorophenol	U	364	ug/kg	72.9	364	
65-85-0	Benzoic acid	U	729	ug/kg	182	729	UJ,SV7c
91-20-3	Naphthalene	U	36.4	ug/kg	10.9	36.4	
106-47-8	4-Chloroaniline	U	364	ug/kg	72.9	364	
87-68-3	Hexachlorobutadiene	U	364	ug/kg	72.9	364	
91-57-6	2-Methylnaphthalene	U	36.4	ug/kg	7.29	36.4	
77-47-4	Hexachlorocyclopentadiene	U	364	ug/kg	72.9	364	UJ,SV7c
88-06-2	2,4,6-Trichlorophenol	U	364	ug/kg	72.9	364	
95-95-4	2,4,5-Trichlorophenol	U	364	ug/kg	72.9	364	
91-58-7	2-Chloronaphthalene	U	36.4	ug/kg	12.0	36.4	
88-74-4	2-Nitroaniline	U	364	ug/kg	72.9	364	
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	364	ug/kg	72.9	364	

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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-886	Date Collected:	12/09/2009 12:00	Matrix:	S
Lab Sample ID:	242750002	Date Received:	12/11/2009 08:50	%Moisture:	8.5
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-13466	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	932444	Inst:	MSD6.I	Dilution:	1
Run Date:	12/16/2009 19:31	Analyst:	NAG1	Inj. Vol:	.5 uL
Prep Date:	12/14/2009 09:47	Aliquot:	30.01 g	Final Volume:	1 mL
Data File:	s6l1622.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
	m-Nitroaniline						
131-11-3	Dimethylphthalate	U	364	ug/kg	72.9	364	
606-20-2	2,6-Dinitrotoluene	U	364	ug/kg	36.4	364	
208-96-8	Acenaphthylene	U	36.4	ug/kg	10.9	36.4	
51-28-5	2,4-Dinitrophenol	U	729	ug/kg	138	729	
132-64-9	Dibenzofuran	U	364	ug/kg	72.9	364	
84-66-2	Diethylphthalate	U	364	ug/kg	72.9	364	
86-73-7	Fluorene	U	36.4	ug/kg	10.9	36.4	
7005-72-3	4-Chlorophenylphenylether	U	364	ug/kg	72.9	364	
534-52-1	2-Methyl-4,6-dinitrophenol	U	364	ug/kg	72.9	364	UJ,SV7c
100-01-6	4-Nitroaniline	U	364	ug/kg	109	364	
	p-Nitroaniline						
122-39-4	Diphenylamine	U	364	ug/kg	72.9	364	
122-66-7	Azobenzene	U	364	ug/kg	72.9	364	
	1,2-Diphenylhydrazine						
101-55-3	4-Bromophenylphenylether	U	364	ug/kg	72.9	364	
118-74-1	Hexachlorobenzene	U	364	ug/kg	72.9	364	
85-01-8	Phenanthrene	U	36.4	ug/kg	10.9	36.4	
120-12-7	Anthracene	U	36.4	ug/kg	7.29	36.4	
84-74-2	Di-n-butylphthalate	U	364	ug/kg	72.9	364	
206-44-0	Fluoranthene	U	36.4	ug/kg	10.9	36.4	
85-68-7	Butylbenzylphthalate	U	364	ug/kg	72.9	364	
56-55-3	Benzo(a)anthracene	U	36.4	ug/kg	10.9	36.4	
91-94-1	3,3'-Dichlorobenzidine	U	364	ug/kg	109	364	
218-01-9	Chrysene	U	36.4	ug/kg	10.9	36.4	
117-81-7	bis(2-Ethylhexyl)phthalate	U	364	ug/kg	72.9	364	
117-84-0	Di-n-octylphthalate	U	364	ug/kg	72.9	364	
205-99-2	Benzo(b)fluoranthene	U	36.4	ug/kg	10.9	36.4	
207-08-9	Benzo(k)fluoranthene	U	36.4	ug/kg	10.9	36.4	
50-32-8	Benzo(a)pyrene	U	36.4	ug/kg	10.9	36.4	
193-39-5	Indeno(1,2,3-cd)pyrene	U	36.4	ug/kg	10.9	36.4	
53-70-3	Dibenzo(a,h)anthracene	U	36.4	ug/kg	10.9	36.4	
191-24-2	Benzo(ghi)perylene	U	36.4	ug/kg	10.9	36.4	
120-82-1	1,2,4-Trichlorobenzene	U	364	ug/kg	72.9	364	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	3.46	399	ug/kg		JA
301-02-0	9-Octadecenamide, (Z)-	11.86	1440	ug/kg	98	NJ

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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-886	Date Collected:	12/09/2009 12:00	Matrix:	S
Lab Sample ID:	242750002	Date Received:	12/11/2009 08:50	%Moisture:	8.5
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-13466	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	932444	Inst:	MSD6.I	Dilution:	1
Run Date:	12/16/2009 19:31	Analyst:	NAC1	Inj. Vol:	.5 uL
Prep Date:	12/14/2009 09:47	Aliquot:	30.01 g	Final Volume:	1 mL
Data File:	s611622.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	13.86	523	ug/kg		J

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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-886**	**Date Collected:**	**12/09/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242750001**	**Date Received:**	**12/11/2009 08:50**	**%Moisture:**	**3.9**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-13467**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**932444**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**12/16/2009 19:03**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/14/2009 09:47**	**Aliquot:**	**30.03 g**	**Final Volume:**	**1 mL**
Data File:	**s611621.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
62-75-9	N-Methyl-N-nitrosomethylamine	U	347	ug/kg	69.3	347	
108-95-2	Phenol	U	347	ug/kg	69.3	347	
95-57-8	2-Chlorophenol	U	347	ug/kg	69.3	347	
106-46-7	1,4-Dichlorobenzene	U	347	ug/kg	69.3	347	
621-64-7	N-Nitrosodipropylamine	U	347	ug/kg	69.3	347	
59-50-7	4-Chloro-3-methylphenol	U	347	ug/kg	69.3	347	
83-32-9	Acenaphthene	U	34.7	ug/kg	11.4	34.7	
121-14-2	2,4-Dinitrotoluene	U	347	ug/kg	34.7	347	
100-02-7	4-Nitrophenol	U	347	ug/kg	114	347	
87-86-5	Pentachlorophenol	U	347	ug/kg	86.6	347	
129-00-0	Pyrene	U	34.7	ug/kg	10.4	34.7	
110-86-1	Pyridine	U	347	ug/kg	69.3	347	
62-53-3	Aniline	U	347	ug/kg	104	347	
111-44-4	bis(2-Chloroethyl) ether	U	347	ug/kg	69.3	347	
541-73-1	1,3-Dichlorobenzene	U	347	ug/kg	69.3	347	
100-51-6	Benzyl alcohol	U	347	ug/kg	104	347	
95-50-1	1,2-Dichlorobenzene	U	347	ug/kg	69.3	347	
108-60-1	bis(2-Chloroisopropyl)ether	U	347	ug/kg	69.3	347	
95-48-7	o-Cresol	U	347	ug/kg	69.3	347	
65794-96-9	m,p-Cresols	U	347	ug/kg	104	347	
67-72-1	Hexachloroethane	U	347	ug/kg	69.3	347	
98-95-3	Nitrobenzene	U	347	ug/kg	69.3	347	
78-59-1	Isophorone	U	347	ug/kg	69.3	347	
88-75-5	2-Nitrophenol	U	347	ug/kg	69.3	347	
105-67-9	2,4-Dimethylphenol	U	347	ug/kg	121	347	
111-91-1	bis(2-Chloroethoxy)methane	U	347	ug/kg	69.3	347	
120-83-2	2,4-Dichlorophenol	U	347	ug/kg	69.3	347	
65-85-0	Benzoic acid	U	693	ug/kg	173	693	UJ,SV7c
91-20-3	Naphthalene	U	34.7	ug/kg	10.4	34.7	
106-47-8	4-Chloroaniline	U	347	ug/kg	69.3	347	
87-68-3	Hexachlorobutadiene	U	347	ug/kg	69.3	347	
91-57-6	2-Methylnaphthalene	U	34.7	ug/kg	6.93	34.7	
77-47-4	Hexachlorocyclopentadiene	U	347	ug/kg	69.3	347	UJ,SV7c
88-06-2	2,4,6-Trichlorophenol	U	347	ug/kg	69.3	347	
95-95-4	2,4,5-Trichlorophenol	U	347	ug/kg	69.3	347	
91-58-7	2-Chloronaphthalene	U	34.7	ug/kg	11.4	34.7	
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	347	ug/kg	69.3	347	
99-09-2	3-Nitroaniline	U	347	ug/kg	69.3	347	

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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-886**	**Date Collected:**	**12/09/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242750001**	**Date Received:**	**12/11/2009 08:50**	**%Moisture:**	**3.9**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-13467**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**932444**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**12/16/2009 19:03**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/14/2009 09:47**	**Aliquot:**	**30.03 g**	**Final Volume:**	**1 mL**
Data File:	**s6l1621.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
	m-Nitroaniline						
131-11-3	Dimethylphthalate	U	347	ug/kg	69.3	347	
606-20-2	2,6-Dinitrotoluene	U	347	ug/kg	34.7	347	
208-96-8	Acenaphthylene	U	34.7	ug/kg	10.4	34.7	
51-28-5	2,4-Dinitrophenol	U	693	ug/kg	132	693	
132-64-9	Dibenzofuran	U	347	ug/kg	69.3	347	
84-66-2	Diethylphthalate	U	347	ug/kg	69.3	347	
86-73-7	Fluorene	U	34.7	ug/kg	10.4	34.7	
7005-72-3	4-Chlorophenylphenylether	U	347	ug/kg	69.3	347	
534-52-1	2-Methyl-4,6-dinitrophenol	U	347	ug/kg	69.3	347	UJ,SV7c
100-01-6	4-Nitroaniline	U	347	ug/kg	104	347	
	p-Nitroaniline						
122-39-4	Diphenylamine	U	347	ug/kg	69.3	347	
122-66-7	Azobenzene	U	347	ug/kg	69.3	347	
	1,2-Diphenylhydrazine						
101-55-3	4-Bromophenylphenylether	U	347	ug/kg	69.3	347	
118-74-1	Hexachlorobenzene	U	347	ug/kg	69.3	347	
85-01-8	Phenanthrene	U	34.7	ug/kg	10.4	34.7	
120-12-7	Anthracene	U	34.7	ug/kg	6.93	34.7	
84-74-2	Di-n-butylphthalate	U	347	ug/kg	69.3	347	
206-44-0	Fluoranthene	U	34.7	ug/kg	10.4	34.7	
85-68-7	Butylbenzylphthalate	U	347	ug/kg	69.3	347	
56-55-3	Benzo(a)anthracene	U	34.7	ug/kg	10.4	34.7	
91-94-1	3,3'-Dichlorobenzidine	U	347	ug/kg	104	347	
218-01-9	Chrysene	U	34.7	ug/kg	10.4	34.7	
117-81-7	bis(2-Ethylhexyl)phthalate	U	347	ug/kg	69.3	347	
117-84-0	Di-n-octylphthalate	U	347	ug/kg	69.3	347	
205-99-2	Benzo(b)fluoranthene	U	34.7	ug/kg	10.4	34.7	
207-08-9	Benzo(k)fluoranthene	U	34.7	ug/kg	10.4	34.7	
50-32-8	Benzo(a)pyrene	U	34.7	ug/kg	10.4	34.7	
193-39-5	Indeno(1,2,3-cd)pyrene	U	34.7	ug/kg	10.4	34.7	
53-70-3	Dibenzo(a,h)anthracene	U	34.7	ug/kg	10.4	34.7	
191-24-2	Benzo(ghi)perylene	U	34.7	ug/kg	10.4	34.7	
120-82-1	1,2,4-Trichlorobenzene	U	347	ug/kg	69.3	347	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	3.45	409	ug/kg		JA
301-02-0	9-Octadecenamide, (Z)-	11.86	1910	ug/kg	98	NJ

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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-886	**Date Collected:**	12/09/2009 12:00	**Matrix:**	S
Lab Sample ID:	242750001	**Date Received:**	12/11/2009 08:50	**%Moisture:**	3.9
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-13467	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	932444	**Inst:**	MSD6.I	**Dilution:**	1
Run Date:	12/16/2009 19:03	**Analyst:**	NAG1	**Inj. Vol:**	.5 uL
Prep Date:	12/14/2009 09:47	**Aliquot:**	30.03 g	**Final Volume:**	1 mL
Data File:	s611621.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Flt	Qual
124-26-5	Octadecanamide	11.94	205	ug/kg	94	NJ
	Unknown	13.86	808	ug/kg		J

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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-886	Date Collected:	12/09/2009 12:00	Matrix:	S
Lab Sample ID:	242750003	Date Received:	12/11/2009 08:50	%Moisture:	9.3
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-13468	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	932444	Inst:	MSD6.I	Dilution:	1
Run Date:	12/16/2009 20:00	Analyst:	NAG1	Inj. Vol:	.5 uL
Prep Date:	12/14/2009 09:47	Aliquot:	30 g	Final Volume:	1 mL
Data File:	s611623.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
62-75-9	N-Methyl-N-nitrosomethylamine	U	368	ug/kg	73.5	368	
108-95-2	Phenol	U	368	ug/kg	73.5	368	
95-57-8	2-Chlorophenol	U	368	ug/kg	73.5	368	
106-46-7	1,4-Dichlorobenzene	U	368	ug/kg	73.5	368	
621-64-7	N-Nitrosodipropylamine	U	368	ug/kg	73.5	368	
59-50-7	4-Chloro-3-methylphenol	U	368	ug/kg	73.5	368	
83-32-9	Acenaphthene	U	36.8	ug/kg	12.1	36.8	
121-14-2	2,4-Dinitrotoluene	U	368	ug/kg	36.8	368	
100-02-7	4-Nitrophenol	U	368	ug/kg	121	368	
87-86-5	Pentachlorophenol	U	368	ug/kg	91.9	368	
129-00-0	Pyrene	U	36.8	ug/kg	11.0	36.8	
110-86-1	Pyridine	U	368	ug/kg	73.5	368	
62-53-3	Aniline	U	368	ug/kg	110	368	
111-44-4	bis(2-Chloroethyl) ether	U	368	ug/kg	73.5	368	
541-73-1	1,3-Dichlorobenzene	U	368	ug/kg	73.5	368	
100-51-6	Benzyl alcohol	U	368	ug/kg	110	368	
95-50-1	1,2-Dichlorobenzene	U	368	ug/kg	73.5	368	
108-60-1	bis(2-Chloroisopropyl)ether	U	368	ug/kg	73.5	368	
95-48-7	o-Cresol	U	368	ug/kg	73.5	368	
65794-96-9	m,p-Cresols	U	368	ug/kg	110	368	
67-72-1	Hexachloroethane	U	368	ug/kg	73.5	368	
98-95-3	Nitrobenzene	U	368	ug/kg	73.5	368	
78-59-1	Isophorone	U	368	ug/kg	73.5	368	
88-75-5	2-Nitrophenol	U	368	ug/kg	73.5	368	
105-67-9	2,4-Dimethylphenol	U	368	ug/kg	129	368	
111-91-1	bis(2-Chloroethoxy)methane	U	368	ug/kg	73.5	368	
120-83-2	2,4-Dichlorophenol	U	368	ug/kg	73.5	368	
65-85-0	Benzoic acid	U	735	ug/kg	184	735	UJ,SV7c
91-20-3	Naphthalene	U	36.8	ug/kg	11.0	36.8	
106-47-8	4-Chloroaniline	U	368	ug/kg	73.5	368	
87-68-3	Hexachlorobutadiene	U	368	ug/kg	73.5	368	
91-57-6	2-Methylnaphthalene	U	36.8	ug/kg	7.35	36.8	
77-47-4	Hexachlorocyclopentadiene	U	368	ug/kg	73.5	368	UJ,SV7c
88-06-2	2,4,6-Trichlorophenol	U	368	ug/kg	73.5	368	
95-95-4	2,4,5-Trichlorophenol	U	368	ug/kg	73.5	368	
91-58-7	2-Chloronaphthalene	U	36.8	ug/kg	12.1	36.8	
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	368	ug/kg	73.5	368	
99-09-2	3-Nitroaniline	U	368	ug/kg	73.5	368	

LT 01/27/10

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-886	Date Collected:	12/09/2009 12:00	Matrix:	S
Lab Sample ID:	242750003	Date Received:	12/11/2009 08:50	%Moisture:	9.3
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-13468	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	932444	Inst:	MSD6.I	Dilution:	1
Run Date:	12/16/2009 20:00	Analyst:	NAG1	Inj. Vol:	.5 uL
Prep Date:	12/14/2009 09:47	Aliquot:	30 g	Final Volume:	1 mL
Data File:	s611623.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
	m-Nitroaniline						
131-11-3	Dimethylphthalate	U	368	ug/kg	73.5	368	
606-20-2	2,6-Dinitrotoluene	U	368	ug/kg	36.8	368	
208-96-8	Acenaphthylene	U	36.8	ug/kg	11.0	36.8	
51-28-5	2,4-Dinitrophenol	U	735	ug/kg	140	735	
132-64-9	Dibenzofuran	U	368	ug/kg	73.5	368	
84-66-2	Diethylphthalate	U	368	ug/kg	73.5	368	
86-73-7	Fluorene	U	36.8	ug/kg	11.0	36.8	
7005-72-3	4-Chlorophenylphenylether	U	368	ug/kg	73.5	368	
534-52-1	2-Methyl-4,6-dinitrophenol	U	368	ug/kg	73.5	368	UJ,SV7c
100-01-6	4-Nitroaniline	U	368	ug/kg	110	368	
	p-Nitroaniline						
122-39-4	Diphenylamine	U	368	ug/kg	73.5	368	
122-66-7	Azobenzene	U	368	ug/kg	73.5	368	
	1,2-Diphenylhydrazine						
101-55-3	4-Bromophenylphenylether	U	368	ug/kg	73.5	368	
118-74-1	Hexachlorobenzene	U	368	ug/kg	73.5	368	
85-01-8	Phenanthrene	U	36.8	ug/kg	11.0	36.8	
120-12-7	Anthracene	U	36.8	ug/kg	7.35	36.8	
84-74-2	Di-n-butylphthalate	U	368	ug/kg	73.5	368	
206-44-0	Fluoranthene	U	36.8	ug/kg	11.0	36.8	
85-68-7	Butylbenzylphthalate	U	368	ug/kg	73.5	368	
56-55-3	Benzo(a)anthracene	U	36.8	ug/kg	11.0	36.8	
91-94-1	3,3'-Dichlorobenzidine	U	368	ug/kg	110	368	
218-01-9	Chrysene	U	36.8	ug/kg	11.0	36.8	
117-81-7	bis(2-Ethylhexyl)phthalate	U	368	ug/kg	73.5	368	
117-84-0	Di-n-octylphthalate	U	368	ug/kg	73.5	368	
205-99-2	Benzo(b)fluoranthene	U	36.8	ug/kg	11.0	36.8	
207-08-9	Benzo(k)fluoranthene	U	36.8	ug/kg	11.0	36.8	
50-32-8	Benzo(a)pyrene	U	36.8	ug/kg	11.0	36.8	
193-39-5	Indeno(1,2,3-cd)pyrene	U	36.8	ug/kg	11.0	36.8	
53-70-3	Dibenzo(a,h)anthracene	U	36.8	ug/kg	11.0	36.8	
191-24-2	Benzo(ghi)perylene	U	36.8	ug/kg	11.0	36.8	
120-82-1	1,2,4-Trichlorobenzene	U	368	ug/kg	73.5	368	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	3.45	381	ug/kg		JA
301-02-0	9-Octadecenamide, (Z)-	11.86	1630	ug/kg	98	NJ

LT 01/27/10

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-886	Date Collected:	12/09/2009 12:00	Matrix:	S
Lab Sample ID:	242750003	Date Received:	12/11/2009 08:50	%Moisture:	9.3
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-13468	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	932444	Inst:	MSD6.I	Dilution:	1
Run Date:	12/16/2009 20:00	Analyst:	NAG1	Inj. Vol:	.5 uL
Prep Date:	12/14/2009 09:47	Aliquot:	30 g	Final Volume:	1 mL
Data File:	s611623.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Flt	Qual
629-54-9	Hexadecanamide	11.94	150	ug/kg	86	NJ
	Unknown	13.86	571	ug/kg		J

LT 01/27/10

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-886**	**Date Collected:**	**12/09/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242750005**	**Date Received:**	**12/11/2009 08:50**	**%Moisture:**	**6.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-10-2003**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**932444**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**12/16/2009 20:56**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/14/2009 09:47**	**Aliquot:**	**30.04 g**	**Final Volume:**	**1 mL**
Data File:	**s611625.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
62-75-9	N-Methyl-N-nitrosomethylamine	U	357	ug/kg	71.5	357	
108-95-2	Phenol	U	357	ug/kg	71.5	357	
95-57-8	2-Chlorophenol	U	357	ug/kg	71.5	357	
106-46-7	1,4-Dichlorobenzene	U	357	ug/kg	71.5	357	
621-64-7	N-Nitrosodipropylamine	U	357	ug/kg	71.5	357	
59-50-7	4-Chloro-3-methylphenol	U	357	ug/kg	71.5	357	
83-32-9	Acenaphthene	U	35.7	ug/kg	11.8	35.7	
121-14-2	2,4-Dinitrotoluene	U	357	ug/kg	35.7	357	
100-02-7	4-Nitrophenol	U	357	ug/kg	118	357	
87-86-5	Pentachlorophenol	U	357	ug/kg	89.3	357	
129-00-0	Pyrene	U	35.7	ug/kg	10.7	35.7	
110-86-1	Pyridine	U	357	ug/kg	71.5	357	
62-53-3	Aniline	U	357	ug/kg	107	357	
111-44-4	bis(2-Chloroethyl) ether	U	357	ug/kg	71.5	357	
541-73-1	1,3-Dichlorobenzene	U	357	ug/kg	71.5	357	
100-51-6	Benzyl alcohol	U	357	ug/kg	107	357	
95-50-1	1,2-Dichlorobenzene	U	357	ug/kg	71.5	357	
108-60-1	bis(2-Chloroisopropyl)ether	U	357	ug/kg	71.5	357	
95-48-7	o-Cresol	U	357	ug/kg	71.5	357	
65794-96-9	m,p-Cresols	U	357	ug/kg	107	357	
67-72-1	Hexachloroethane	U	357	ug/kg	71.5	357	
98-95-3	Nitrobenzene	U	357	ug/kg	71.5	357	
78-59-1	Isophorone	U	357	ug/kg	71.5	357	
88-75-5	2-Nitrophenol	U	357	ug/kg	71.5	357	
105-67-9	2,4-Dimethylphenol	U	357	ug/kg	125	357	
111-91-1	bis(2-Chloroethoxy)methane	U	357	ug/kg	71.5	357	
120-83-2	2,4-Dichlorophenol	U	357	ug/kg	71.5	357	
65-85-0	Benzoic acid	U	715	ug/kg	179	715	UJ,SV7c
91-20-3	Naphthalene	U	35.7	ug/kg	10.7	35.7	
106-47-8	4-Chloroaniline	U	357	ug/kg	71.5	357	
87-68-3	Hexachlorobutadiene	U	357	ug/kg	71.5	357	
91-57-6	2-Methylnaphthalene	U	35.7	ug/kg	7.15	35.7	
77-47-4	Hexachlorocyclopentadiene	U	357	ug/kg	71.5	357	UJ,SV7c
88-06-2	2,4,6-Trichlorophenol	U	357	ug/kg	71.5	357	
95-95-4	2,4,5-Trichlorophenol	U	357	ug/kg	71.5	357	
91-58-7	2-Chloronaphthalene	U	35.7	ug/kg	11.8	35.7	
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	357	ug/kg	71.5	357	
99-09-2	3-Nitroaniline	U	357	ug/kg	71.5	357	

LT 01/27/10

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-886**	**Date Collected:**	**12/09/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242750005**	**Date Received:**	**12/11/2009 08:50**	**%Moisture:**	**6.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-10-2003**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**932444**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**12/16/2009 20:56**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/14/2009 09:47**	**Aliquot:**	**30.04 g**	**Final Volume:**	**1 mL**
Data File:	**s611625.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
	m-Nitroaniline						
131-11-3	Dimethylphthalate	U	357	ug/kg	71.5	357	
606-20-2	2,6-Dinitrotoluene	U	357	ug/kg	35.7	357	
208-96-8	Acenaphthylene	U	35.7	ug/kg	10.7	35.7	
51-28-5	2,4-Dinitrophenol	U	715	ug/kg	136	715	
132-64-9	Dibenzofuran	U	357	ug/kg	71.5	357	
84-66-2	Diethylphthalate	U	357	ug/kg	71.5	357	
86-73-7	Fluorene	U	35.7	ug/kg	10.7	35.7	
7005-72-3	4-Chlorophenylphenylether	U	357	ug/kg	71.5	357	
534-52-1	2-Methyl-4,6-dinitrophenol	U	357	ug/kg	71.5	357	UJ,SV7c
100-01-6	4-Nitroaniline	U	357	ug/kg	107	357	
	p-Nitroaniline						
122-39-4	Diphenylamine	U	357	ug/kg	71.5	357	
122-66-7	Azobenzene	U	357	ug/kg	71.5	357	
	1,2-Diphenylhydrazine						
101-55-3	4-Bromophenylphenylether	U	357	ug/kg	71.5	357	
118-74-1	Hexachlorobenzene	U	357	ug/kg	71.5	357	
85-01-8	Phenanthrene	U	35.7	ug/kg	10.7	35.7	
120-12-7	Anthracene	U	35.7	ug/kg	7.15	35.7	
84-74-2	Di-n-butylphthalate	U	357	ug/kg	71.5	357	
206-44-0	Fluoranthene	U	35.7	ug/kg	10.7	35.7	
85-68-7	Butylbenzylphthalate	U	357	ug/kg	71.5	357	
56-55-3	Benzo(a)anthracene	U	35.7	ug/kg	10.7	35.7	
91-94-1	3,3'-Dichlorobenzidine	U	357	ug/kg	107	357	
218-01-9	Chrysene	U	35.7	ug/kg	10.7	35.7	
117-81-7	bis(2-Ethylhexyl)phthalate	U	357	ug/kg	71.5	357	
117-84-0	Di-n-octylphthalate	U	357	ug/kg	71.5	357	
205-99-2	Benzo(b)fluoranthene	U	35.7	ug/kg	10.7	35.7	
207-08-9	Benzo(k)fluoranthene	U	35.7	ug/kg	10.7	35.7	
50-32-8	Benzo(a)pyrene	U	35.7	ug/kg	10.7	35.7	
193-39-5	Indeno(1,2,3-cd)pyrene	U	35.7	ug/kg	10.7	35.7	
53-70-3	Dibenzo(a,h)anthracene	U	35.7	ug/kg	10.7	35.7	
191-24-2	Benzo(ghi)perylene	U	35.7	ug/kg	10.7	35.7	
120-82-1	1,2,4-Trichlorobenzene	U	357	ug/kg	71.5	357	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	3.45	325	ug/kg		JA
301-02-0	9-Octadecenamide, (Z)-	11.85	506	ug/kg	98	NJ

LT 01/27/10

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-886**	**Date Collected:**	**12/09/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242750005**	**Date Received:**	**12/11/2009 08:50**	**%Moisture:**	**6.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-10-2003**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**932444**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**12/16/2009 20:56**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/14/2009 09:47**	**Aliquot:**	**30.04 g**	**Final Volume:**	**1 mL**
Data File:	**s6l1625.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Flt	Qual
112-84-5	13-Docosenamide, (Z)-	13.85	146	ug/kg	81	NJ

LT 01/27/10

DATA VALIDATION COVER SHEET

5130-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-886 VALIDATION DATE: 01/27/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Linda Thal ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☒ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE):

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. The MS/MSD %Rs were <70% but ≥10%. The associated results for samples RE03-09-13465 and RE03-10-2003 were NDs and, thus, were qualified UJ,DR12e. The remaining associated sample results were detects and, thus, were qualified J,DR12e. It should be noted that the MS/MSD was performed on a sample from another LANL RN and the raw data for the parent sample were not present in the data package. No sample data were qualified as a result.

Reviewed by: Eric Mink Level: I Date: 01/28/10

VALIDATOR'S SIGNATURE: [signature] DATE: 01/27/10

TPH GRO AND DRO ANALYTICAL DATA VALIDATION CHECKLIST

5130-2

TPH GRO and DRO Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The retention time criteria were not met.	R, DR0 or GR0	R, DR0 or GR0
☐	☒	☐	2. Required retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, DR0b	R, GR0b
☐	☒	☐	3. The surrogate is less than 10%R. Follow external laboratory limits.	R, DR3 or GR3	J-, DR3 or GR3
☐	☒	☐	4. The surrogate is less than the Lower Acceptance Limit, but greater than or equal to 10%R. Follow external laboratory limits.	UJ, DR3a or GR3a	J-, DR3a or GR3a
☐	☒	☐	5. The surrogate %R value is greater than the Upper Acceptance Limit. Follow external laboratory limits.	N/A	J+, DR3b or GR3b
☐	☒	☐	6. Required surrogate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, DR3d or GR3d	R, DR3d or GR3d
☐	☒	☐	7. The sample result is less than or equal to 5 times the concentration of the related analyte in the method blank.	U, DR4 or GR4	N/A
☐	☒	☐	8. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank, but was greater than 5x.	N/A	J+, DR4a or GR4a
☐	☐	☒	9. The sample result is less than or equal to 5 times the concentration of the related analyte in the trip blank, rinsate blank or equipment blank.	U, DR4d or GR4d	N/A
☐	☒	☐	10. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, DR4e or GR4e	R, DR4e or GR4e
☐	☒	☐	11. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ or R, DR7 or GR7	J, DR7 or GR7

TPH GRO AND DRO ANALYTICAL DATA VALIDATION CHECKLIST	
5130-2 TPH GRO and DRO Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	12. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is less than 0.995.	UJ, DR7a or GR7a	J, DR7a or GR7a
☐	☒	☐	13. The ICV and/or CCV were recovered outside the method specific limits.	UJ, DR7c or GR7c	J, DR7c or GR7c
☐	☒	☐	14. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, DR7d or GR7d	J, DR7d or GR7d
☐	☒	☐	15. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, DR7f or GR7f	R, DR7f or GR7f
☐	☒	☐	16. The holding time was greater than 1 and less than or equal to 2 times the applicable holding time requirement.	UJ, DR9 or GR9	J-, DR9 or GR9
☐	☒	☐	17. The holding time was greater than 2 times the applicable holding time requirement.	R, DR9a or GR9a	J-, DR9a or GR9a
☐	☒	☐	18. The LCS percent recovery was less than 10%. Follow the external laboratory limits.	R, DR12 or GR12	J-, DR12 or GR12
☐	☒	☐	19. The LCS percent recovery was less than the Lower Acceptance Limit, but greater than 10%. Follow the external laboratory limits.	UJ, DR12a or GR12a	J-, DR12a or GR12a
☐	☒	☐	20. The LCS percent recovery was greater than the Upper Acceptance Limit. Follow the external laboratory limits.	N/A	J+, DR12b or GR12b
☐	☒	☐	21. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or the external laboratory for information.	R, DR12c or GR12c	R, DR12c or GR12c
☐	☒	☐	22. The MS/MSD percent recovery was less than 10%.	R, DR12d or GR12d	R, DR12d or Gr12d
☒	☐	☐	23. The MS/MSD percent recovery was greater than 10%, but less than 70%.	UJ, DR12e or GR12e	J, DR12e or GR12e

TPH GRO AND DRO ANALYTICAL DATA VALIDATION CHECKLIST	
5130-2 **TPH GRO and DRO Analytical Data Validation Checklist**	Records Use only Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	24. The MS/MSD percent recovery was greater than 70%.	N/A	J+, DR12f or GR12f
☐	☒	☐	25. The MS/MSD relative percent difference was greater than 30%.	UJ, DR12g or GR12g	J, DR12g or GR12g
☐	☐	☒	26. The affected analytes have elevated detection limits and may not meet project DQOs because the sample was diluted without any target analytes identified due to matrix interference. (Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.)	UJ, R, DR15 or GR15	R, DR15 or GR15
☐	☒	☐	27. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.	UJ, R, DR19 or GR19	J, R, DR19 or GR19
☐	☒	☐	28. Duplicate, dilution, or reanalysis.	UJ, DR88 or GR88	J, DR88 or GR88

Flame Ionization Detector
Certificate of Analysis
Sample Summary

SDG Number:	10-886	Date Collected:	12/09/2009 12:00	Matrix:	S
Lab Sample ID:	242750001	Date Received:	12/11/2009 08:50	%Moisture:	3.9
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-13467	Method:	SW846 8015A/B SVOC	SOP Ref:	GL-OA-E-003
Batch ID:	933001	Inst:	FID7.I	Dilution:	1
Run Date:	12/16/2009 21:06	Analyst:	KXR2	Inj. Vol:	1 uL
Prep Date:	12/15/2009 16:56	Aliquot:	30 g	Final Volume:	1 mL
Data File:	009f0901.d	Column:	DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
DRO	Diesel Range Organics	J	5.44	mg/kg	2.26	6.94	J,DR12e

LT 01/27/10

Flame Ionization Detector
Certificate of Analysis
Sample Summary

SDG Number:	10-886	Date Collected:	12/09/2009 12:00	Matrix:	S
Lab Sample ID:	242750002	Date Received:	12/11/2009 08:50	%Moisture:	8.5
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-13466	Method:	SW846 8015A/B SVOC	SOP Ref:	GL-OA-E-003
Batch ID:	933001	Inst:	FID7.I	Dilution:	1
Run Date:	12/16/2009 21:43	Analyst:	KXR2	Inj. Vol:	1 uL
Prep Date:	12/15/2009 16:56	Aliquot:	30.04 g	Final Volume:	1 mL
Data File:	010f1001.d	Column:	DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
DRO	Diesel Range Organics	J	3.94	mg/kg	2.37	7.28	J,DR12e

LT 01/27/10

Flame Ionization Detector
Certificate of Analysis
Sample Summary

SDG Number:	10-886	Date Collected:	12/09/2009 12:00	Matrix:	S
Lab Sample ID:	242750003	Date Received:	12/11/2009 08:50	%Moisture:	9.3
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-13468	Method:	SW846 8015A/B SVOC	SOP Ref:	GL-OA-E-003
Batch ID:	933001	Inst:	FID7.I	Dilution:	1
Run Date:	12/16/2009 22:20	Analyst:	KXR2	Inj. Vol:	1 uL
Prep Date:	12/15/2009 16:56	Aliquot:	30.02 g	Final Volume:	1 mL
Data File:	011f1101.d	Column:	DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
DRO	Diesel Range Organics	J	4.51	mg/kg	2.39	7.35	J,DR12e

LT 01/27/10

Flame Ionization Detector
Certificate of Analysis
Sample Summary

SDG Number:	10–886	Date Collected:	12/09/2009 12:00	Matrix:	S
Lab Sample ID:	242750004	Date Received:	12/11/2009 08:50	%Moisture:	7
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03–09–13465	Method:	SW846 8015A/B SVOC	SOP Ref:	GL–OA–E–003
Batch ID:	933001	Inst:	FID7.I	Dilution:	1
Run Date:	12/16/2009 22:56	Analyst:	KXR2	Inj. Vol:	1 uL
Prep Date:	12/15/2009 16:56	Aliquot:	30.06 g	Final Volume:	1 mL
Data File:	012f1201.d	Column:	DB–5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
DRO	Diesel Range Organics	U	7.15	mg/kg	2.32	7.15	UJ,DR12e

LT 01/27/10

Flame Ionization Detector
Certificate of Analysis
Sample Summary

SDG Number:	10-886	Date Collected:	12/09/2009 12:00	Matrix:	S
Lab Sample ID:	242750005	Date Received:	12/11/2009 08:50	%Moisture:	6.8
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-10-2003	Method:	SW846 8015A/B SVOC	SOP Ref:	GL-OA-E-003
Batch ID:	933001	Inst:	FID7.I	Dilution:	1
Run Date:	12/16/2009 23:33	Analyst:	KXR2	Inj. Vol:	1 uL
Prep Date:	12/15/2009 16:56	Aliquot:	30 g	Final Volume:	1 mL
Data File:	013f1301.d	Column:	DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
DRO	Diesel Range Organics	U	7.16	mg/kg	2.33	7.16	UJ,DR12e

LT 01/27/10

DATA VALIDATION COVER SHEET

5116-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-886 VALIDATION DATE: 01/28/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Linda Thal ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☒ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE): Polychlorinated Biphenyls

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. The MS/MSD was performed on a sample from another LANL RN and the raw data for the parent sample were not included in the data package. No sample data were qualified as a result.

Reviewed by: Eric Mink Level: I Date: 01/28/10

VALIDATOR'S SIGNATURE: L Thal DATE: 01/28/10

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2

Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, P9	J-, P9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, P9	J-, P9a
☐	☒	☐	3. The affected analytes are regarded as rejected because the analytical holding time was exceeded.	R, P9b	R, P9b
☐	☒	☐	4. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, P7	J, P7
☐	☒	☐	5. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, P7a	J, P7a
☐	☒	☐	6. The Initial Calibration Verification (ICV) and/or Continuing Calibration Verification (CCV) were recovered outside the method-specific limits.	UJ, P7c	J, P7c
☐	☒	☐	7. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, P7d	J, P7d
☐	☐	☒	8. The multicomponent standard was not analyzed within 72 hours of the initial analysis.	R, P7e	J, P7e
☐	☒	☐	9. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, P7f	R, P7f
☐	☐	☒	10. The breakdown criteria have been exceeded. This can cause low bias in reported results. If compound is detected, qualify J-. If compound is not present, but breakdown products are present, qualify R. If no compounds or breakdown products are present, qualify UJ (4,4' DDT and Endrin).	UJ, R, P13	J-, P13

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2

Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below if Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	11. The breakdown criteria have been exceeded. This can cause high bias in the reported results and potential false positive results for the breakdown products Endrin ketone, Endrin aldehyde, DDD, and DDE.	UJ, P13a	J+, P13a
☐	☐	☒	12. The breakdown documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P13b	R, P13b
☐	☒	☐	13. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, P4	N/A
☐	☒	☐	14. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was greater than 5X.	N/A	J, P4a
☐	☐	☒	15. The sample result is ≤5X the concentration of the related analyte in the instrument blank and continuing calibration blank.	UJ, P4b	N/A
☐	☐	☒	16. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	UJ, P4d	N/A
☐	☒	☐	17. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P4e	R, P4e
☐	☒	☐	18. The analyte RT shifted by more than 0.05 minutes from the mid-level standard of the initial calibration.	R, P0	J, P0
☐	☒	☐	19. Required retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P0b	R, P0b
☐	☒	☐	20. The surrogate is <10%R. Follow the external laboratory limits located within the associated data package.	R, P3	J-, P3

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2

Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	21. The surrogate is < the Lower Acceptance Level (LAL) but ≥10%R. Follow the external laboratory limits located within the associated data package.	UJ, P3a	J-, P3a
☐	☒	☐	22. The surrogate %R value is > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, P3b
☐	☒	☐	23. At least one surrogate is > the Upper Acceptance Limit (UAL) and one surrogate is < the LAL. Follow the external laboratory limits located within the associated data package.	UJ, P3c	J, P3c
☐	☒	☐	24. Required surrogate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P3d	R, P3d
☐	☒	☐	25. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, P12	J-, P12
☐	☒	☐	26. The LCS percent recovery was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, P12a	J-, P12a
☐	☒	☐	27. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, P12b
☐	☒	☐	28. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P12c	R, P12c
☐	☐	☒	29. The analyte was not confirmed on a second dissimilar column.	N/A	R, P8
☐	☐	☒	30. The second dissimilar column documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P8a	R, P8a
☐	☒	☐	31. Duplicate, Dilution, or reanalysis.	UJ, P88	J, P88

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2 Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	32. The affected analytes have elevated detection limits and may not meet project DQOs because the sample was diluted without any target analytees identified due to matrix interference. Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.	UJ, R, P15	R, P15
☒	☐	☐	33. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB, NQ, NQ
☐	☒	☐	34. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.	UJ, R, P19	J, R, P19

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10-886	**Date Collected:**	12/09/2009 12:00	**Matrix:**	S
Lab Sample ID:	242750004	**Date Received:**	12/11/2009 08:50	**%Moisture:**	7
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-13465	**Method:**	SW846 8082	**SOP Ref:**	GL-OA-E-040
Batch ID:	933342	**Inst:**	ECD1A.I	**Dilution:**	1
Run Date:	12/16/2009 19:22	**Analyst:**	YS1	**Inj. Vol:**	1 uL
Prep Date:	12/15/2009 20:23	**Aliquot:**	30.01 g	**Final Volume:**	1 mL
Data File:	067f6701.d	**Column:**	1 CLP1	**Level:**	LOW
	067b6701.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.58	ug/kg	1.19	3.58	1
11104-28-2	Aroclor-1221	U	3.58	ug/kg	1.19	3.58	1
11141-16-5	Aroclor-1232	U	3.58	ug/kg	1.19	3.58	1
53469-21-9	Aroclor-1242	U	3.58	ug/kg	1.19	3.58	1
12672-29-6	Aroclor-1248	U	3.58	ug/kg	1.19	3.58	1
11097-69-1	Aroclor-1254	U	3.58	ug/kg	1.19	3.58	1
11096-82-5	Aroclor-1260	U	3.58	ug/kg	1.19	3.58	1

LT 01/28/10

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10-886	**Date Collected:**	12/09/2009 12:00	**Matrix:**	S
Lab Sample ID:	242750002	**Date Received:**	12/11/2009 08:50	**%Moisture:**	8.5
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-13466	**Method:**	SW846 8082	**SOP Ref:**	GL-OA-E-040
Batch ID:	933342	**Inst:**	ECD1A.I	**Dilution:**	1
Run Date:	12/16/2009 18:57	**Analyst:**	YS1	**Inj. Vol:**	1 uL
Prep Date:	12/15/2009 20:23	**Aliquot:**	30.05 g	**Final Volume:**	1 mL
Data File:	065f6501.d	**Column:**	1 CLP1	**Level:**	LOW
	065b6501.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.64	ug/kg	1.21	3.64	1
11104-28-2	Aroclor-1221	U	3.64	ug/kg	1.21	3.64	1
11141-16-5	Aroclor-1232	U	3.64	ug/kg	1.21	3.64	1
53469-21-9	Aroclor-1242	U	3.64	ug/kg	1.21	3.64	1
12672-29-6	Aroclor-1248	U	3.64	ug/kg	1.21	3.64	1
11097-69-1	Aroclor-1254	U	3.64	ug/kg	1.21	3.64	1
11096-82-5	Aroclor-1260	U	3.64	ug/kg	1.21	3.64	1

LT 01/28/10

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10-886	Date Collected:	12/09/2009 12:00	Matrix:	S
Lab Sample ID:	242750001	Date Received:	12/11/2009 08:50	%Moisture:	3.9
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-13467	Method:	SW846 8082	SOP Ref:	GL-OA-E-040
Batch ID:	933342	Inst:	ECD1A.I	Dilution:	1
Run Date:	12/16/2009 18:44	Analyst:	YS1	Inj. Vol:	1 uL
Prep Date:	12/15/2009 20:23	Aliquot:	30.01 g	Final Volume:	1 mL
Data File:	064f6401.d	Column:	1 CLP1	Level:	LOW
	064b6401.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.47	ug/kg	1.15	3.47	1
11104-28-2	Aroclor-1221	U	3.47	ug/kg	1.15	3.47	1
11141-16-5	Aroclor-1232	U	3.47	ug/kg	1.15	3.47	1
53469-21-9	Aroclor-1242	U	3.47	ug/kg	1.15	3.47	1
12672-29-6	Aroclor-1248	U	3.47	ug/kg	1.15	3.47	1
11097-69-1	Aroclor-1254	U	3.47	ug/kg	1.15	3.47	1
11096-82-5	Aroclor-1260	U	3.47	ug/kg	1.15	3.47	1

LT 01/28/10

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10-886	**Date Collected:**	12/09/2009 12:00	**Matrix:**	S
Lab Sample ID:	242750003	**Date Received:**	12/11/2009 08:50	**%Moisture:**	9.3
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-13468	**Method:**	SW846 8082	**SOP Ref:**	GL-OA-E-040
Batch ID:	933342	**Inst:**	ECD1A.I	**Dilution:**	1
Run Date:	12/16/2009 19:10	**Analyst:**	YS1	**Inj. Vol:**	1 uL
Prep Date:	12/15/2009 20:23	**Aliquot:**	30.04 g	**Final Volume:**	1 mL
Data File:	066f6601.d	**Column:**	1 CLP1	**Level:**	LOW
	066b6601.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.67	ug/kg	1.22	3.67	1
11104-28-2	Aroclor-1221	U	3.67	ug/kg	1.22	3.67	1
11141-16-5	Aroclor-1232	U	3.67	ug/kg	1.22	3.67	1
53469-21-9	Aroclor-1242	U	3.67	ug/kg	1.22	3.67	1
12672-29-6	Aroclor-1248	U	3.67	ug/kg	1.22	3.67	1
11097-69-1	Aroclor-1254	U	3.67	ug/kg	1.22	3.67	1
11096-82-5	Aroclor-1260	U	3.67	ug/kg	1.22	3.67	1

LT 01/28/10

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10-886	**Date Collected:**	12/09/2009 12:00	**Matrix:**	S
Lab Sample ID:	242750005	**Date Received:**	12/11/2009 08:50	**%Moisture:**	6.8
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-10-2003	**Method:**	SW846 8082	**SOP Ref:**	GL-OA-E-040
Batch ID:	933342	**Inst:**	ECD1A.I	**Dilution:**	1
Run Date:	12/16/2009 19:35	**Analyst:**	YS1	**Inj. Vol:**	1 uL
Prep Date:	12/15/2009 20:23	**Aliquot:**	30.07 g	**Final Volume:**	1 mL
Data File:	068f6801.d	**Column:**	1 CLP1	**Level:**	LOW
	068b6801.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.57	ug/kg	1.19	3.57	1
11104-28-2	Aroclor-1221	U	3.57	ug/kg	1.19	3.57	1
11141-16-5	Aroclor-1232	U	3.57	ug/kg	1.19	3.57	1
53469-21-9	Aroclor-1242	U	3.57	ug/kg	1.19	3.57	1
12672-29-6	Aroclor-1248	U	3.57	ug/kg	1.19	3.57	1
11097-69-1	Aroclor-1254	U	3.57	ug/kg	1.19	3.57	1
11096-82-5	Aroclor-1260	U	3.57	ug/kg	1.19	3.57	1

LT 01/28/10

DATA VALIDATION COVER SHEET

5118-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-886 VALIDATION DATE: 01/28/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Linda Thal ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☒ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE):

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☐	☐	☒	8. QUANTITATION REPORTS
☐	☐	☒	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. In the soil MB, Na was detected. The associated sample results were detects >5X but ≤50X the MB concentration and, thus, were qualified J,I4a.
2. In the soil ICB or CCB, Tl and Na detected. The Tl results for all associated samples <u>except</u> sample RE03-09-13466 were detects ≤5X the ICB concentration and, thus, were qualified U,I4b. The remaining associated sample results were detects >5X the greatest blank concentration and, thus, were not qualified. In the water ICB or CCB, Se and Be were detected. The associated sample results were NDs and, thus, were not qualified.
3. In the FB, sample RE03-10-3943 associated with samples RE03-09-13465 and -13466, Si was detected. The associated result for sample RE03-09-13465 was a detect ≤5X the FB concentration and, thus, was qualified U,I4d. The associated result for sample RE03-09-13466 was a detect >5X the FB concentration and, thus, was not qualified. In the FR blank, sample RE03-10-2008 associated with all soil samples, Mn, Si and Na were detected. The Si results for all associated samples <u>except</u> sample RE03-09-13467 were detects ≤5X the FR blank concentration and, thus, were qualified U,I4d. The remaining associated sample results were detects >5X the FR blank concentrations and, thus, were not qualified.
4. The soil MS %Rs for Al and Mg were > the laboratory's UAL. The soil MS %Rs for Ca, Fe and Si were < the laboratory's LAL but ≥10%. The associated Mg sample results were detects and, thus, were qualified J+,I6b. The Si result for all samples <u>except</u> sample RE03-09-13467 were qualified NDs and, thus, were qualified UJ,I6a. The associated Ca sample results and the Si result for sample RE03-09-13467 were detects and, thus, were qualified J-,I6a. The associated parent sample results for Al and Fe were detects >4X the spike amounts and, thus, no sample results were qualified, based on professional judgment.

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5. It should be noted that the water and soil matrix QC for Hg were performed on samples from other LANL RNs. No sample data were qualified as a result.

Reviewed by: Eric Mink Level: I Date: 01/28/10

VALIDATOR'S SIGNATURE: [signature] DATE: 01/28/10

METALS ANALYTICAL DATA VALIDATION CHECKLIST

5118-2

Metals Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, I9	J-, I9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, I9a	J-, I9a
☐	☐	☒	3. The instrument performance sample did not pass method acceptance criteria.	R, I16	R, I16
☐	☐	☒	4. The mass calibration is not within 0.1 amu or %RSD is >5% for any isotope (Be, Mg, Co, In, Pb).	UJ, I16a	J, I16a
☐	☐	☒	5. Samples were analyzed outside specific method tune time criteria.	N/A	J, I16b
☐	☐	☒	6. The required instrument performance sample information is missing. Contact the SMO or external laboratory for information.	R, I16c	R, I16c
☐	☒	☐	7. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, I7	J, I7
☐	☒	☐	8. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, I7a	J, I7a
☐	☒	☐	9. The initial Calibration Verification (ICV) and/or Continuing Calibration Verification (CCV) were recovered outside the method-specific limits.	UJ, I7c	J, I7c
☐	☒	☐	10. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, I7d	J, I7d
☐	☒	☐	11. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, I7f	R, I7f
☐	☒	☐	12. Metals interference check sample percent recover value is <50%.	R, I2	J-, I2

METALS ANALYTICAL DATA VALIDATION CHECKLIST

5118-2

Metals Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	13. Metals interference check sample percent recovery value is ≥50% and <80%	UJ, I2a	J-, I2a
☐	☒	☐	14. Metals interference check sample percent recovery value is >120%.	N/A	J+, I2b
☐	☒	☐	15. Metals interference check sample was not analyzed with the samples.	R, I2c	R, I2c
☐	☒	☐	16. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, I4	N/A
☒	☐	☐	17. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X.	N/A	J, I4a
☒	☐	☐	18. The sample result is ≤5X the concentration of the related analyte in the instrument blank and continuing calibration blank.	U, I4b	N/A
☐	☒	☐	19. Continuing calibration blanks were not analyzed at the appropriate method frequency.	UJ, I4c	J, I4c
☒	☐	☐	20. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	U, I4d	N/A
☐	☒	☐	21. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, I4e	R, I4e
☐	☒	☐	22. The associated matrix spike recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I6	R, I6
☒	☐	☐	23. The associated matrix spike recovery was <the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I6a	J+, I6a
☒	☐	☐	24. The associated matrix spike recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	UJ, I6b	J+, I6b

METALS ANALYTICAL DATA VALIDATION CHECKLIST

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Metals Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	25. Required matrix spike information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. If the LCS information is present, do not Reject. Qualify data based on the LCS information.	R, I6c	R, I6c
☐	☒	☐	26. The sample and the duplicate sample results were ≥5X the RL and the duplicate RPD was >20% for water samples and >35% for soil samples.	UJ, I10a	J, I10a
☐	☒	☐	27. The duplicate sample was not prepared and/or analyzed with the samples for unspecified reasons. The duplicate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	UJ, I10d	J, I10d
☐	☒	☐	28. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I12	R, I12
☐	☒	☐	29. The LCS percent recover was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I12a	J-, I12a
☐	☒	☐	30. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, I12b
☐	☒	☐	31. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. Do not Reject if MS/MSD information is present. Qualify according to MS/MSD criteria.	R, I12c	R, I12c
☐	☐	☒	32. The quantitating IS area count is <10% for metals window in relation to the initial calibration blank. Follow the method-specific windows.	R, I1a	J, I1a

METALS ANALYTICAL DATA VALIDATION CHECKLIST

5118-2 Metals Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	33. The IS area count for the quantitating IS is <60% but >10% for metals window in relation to the initial calibration blank. Follow the method-specific windows.	UJ, I1b	J, I1b
☐	☐	☒	34. The IS area count for the quantitating IS is >125% in relation to the metals initial calibration blank. Follow method-specific windows.	UJ, I1c	J, I1c
☐	☐	☒	35. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, I1d	R, I1d
☐	☐	☒	36. Serial dilution sample RPD was >10% and the sample result was >50X the MDL (>100X the MDL for ICPMS). Qualify ONLY the sample used for the serial dilution.	UJ, I18	J, I18
☐	☐	☒	37. Serial dilution sample was not analyzed with the samples.	UJ, I18a	J, I18
☐	☐	☒	38. The sample result was reported as detected between the IDL and the EDL.	N/A	J, I1
☐	☒	☐	39. Duplicate, dilution, or reanalysis.	UJ, I88	J, I88
☒	☐	☐	40. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB, NQ, NQ
☐	☒	☐	41. The LANL project chemist identified quality deficiencies in the reported data that require further qualification. This code can ONLY be used and/or under advisement by the LANL project chemist.	UJ, R, I19	J, R, I19

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-886 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 242750001 **BASIS:** Dry Weight **DATE COLLECTED** 09-DEC-09

CLIENT ID: RE03-09-13467 **LEVEL:** Low **DATE RECEIVED** 11-DEC-09

MATRIX: SOIL **%SOLIDS:** 96.1

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	3850000	ug/kg		6840	20100	20100	1	P	HSC	12/18/09 11:28	121809A-1	932281
7440-36-0	Antimony	1010	ug/kg	U	332	1010	1010	1	P	HSC	12/18/09 11:28	121809A-1	932281
7440-38-2	Arsenic	1540	ug/kg		201	1000	1000	2	MS	BAJ	12/20/09 18:47	091220-2	932320
7440-39-3	Barium	30900	ug/kg	*	101	503	503	1	P	HSC	12/18/09 11:28	121809A-1	932281
7440-41-7	Beryllium	376	ug/kg	*	20.1	100	100	2	MS	BAJ	12/23/09 21:06	091223-3	932320
7440-42-8	Boron	1210	ug/kg	J	1010	5030	5030	1	P	HSC	12/18/09 11:28	121809A-1	932281
7440-43-9	Cadmium	503	ug/kg	U	101	503	503	1	P	HSC	12/18/09 11:28	121809A-1	932281
7440-70-2	Calcium J-,I6a	1200000	ug/kg	N	8050	25200	25200	1	P	HSC	12/18/09 11:28	121809A-1	932281
7440-47-3	Chromium	2780	ug/kg		151	503	503	1	P	HSC	12/18/09 11:28	121809A-1	932281
7440-48-4	Cobalt	914	ug/kg		151	503	503	1	P	HSC	12/18/09 11:28	121809A-1	932281
7440-50-8	Copper	1690	ug/kg		302	1010	1010	1	P	HSC	12/18/09 11:28	121809A-1	932281
7439-89-6	Iron	11200000	ug/kg		8050	25200	25200	1	P	HSC	12/18/09 11:28	121809A-1	932281
7439-92-1	Lead	9390	ug/kg		252	1010	1010	1	P	HSC	12/18/09 11:28	121809A-1	932281
7439-93-2	Lithium	21.2	mg/kg		0.402	2.01	2.01	2	MS	BAJ	12/24/09 09:08	091223-14	932320
7439-95-4	Magnesium J+,I6b	969000	ug/kg	N	8560	30200	30200	1	P	HSC	12/18/09 11:28	121809A-1	932281
7439-96-5	Manganese	150000	ug/kg	*N	201	1010	1010	1	P	HSC	12/18/09 11:28	121809A-1	932281
7439-97-6	Mercury	13.1	ug/kg		3.84	11.3	11.3	1	AV	JXL1	12/29/09 09:56	122909S2-15	936546
7440-02-0	Nickel	2240	ug/kg	*	100	402	402	2	MS	BAJ	12/20/09 18:47	091220-2	932320
7440-09-7	Potassium	467000	ug/kg		6440	25200	25200	1	P	HSC	12/18/09 11:28	121809A-1	932281
7782-49-2	Selenium	1000	ug/kg	U	502	1000	1000	2	MS	BAJ	12/20/09 18:47	091220-2	932320
7440-21-3	Silicon J-,I6a	1540000	ug/kg	N	1510	10100	10100	1	P	HSC	12/18/09 11:28	121809A-1	932281
7440-22-4	Silver	281	ug/kg	J	101	503	503	1	P	HSC	12/18/09 11:28	121809A-1	932281
7440-23-5	Sodium J,I4a	211000	ug/kg		7050	25200	25200	1	P	HSC	12/18/09 11:28	121809A-1	932281
7440-28-0	Thallium U,I4b	186	ug/kg	J	60.3	201	201	2	MS	BAJ	12/20/09 18:47	091220-2	932320
7440-32-6	Titanium	406000	ug/kg		101	503	503	1	P	HSC	12/18/09 11:28	121809A-1	932281
7440-61-1	Uranium	337	ug/kg	*	13.3	40.2	40.2	2	MS	BAJ	12/23/09 21:06	091223-3	932320
7440-62-2	Vanadium	7650	ug/kg		101	503	503	1	P	HSC	12/18/09 11:28	121809A-1	932281
7440-66-6	Zinc	39400	ug/kg		332	1010	1010	1	P	HSC	12/18/09 11:28	121809A-1	932281

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
932281	932280	SW846 3050B	0.517	g	50	mL	12/15/09	BCD1
932320	932319	SW846 3050B	0.518	g	50	mL	12/15/09	BCD1
934867	934866	SW846 7471A Prep	0.513	g	30	mL	12/22/09	TXB3

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METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-886 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 242750002 **BASIS:** Dry Weight **DATE COLLECTED** 09-DEC-09

CLIENT ID: RE03-09-13466 **LEVEL:** Low **DATE RECEIVED** 11-DEC-09

MATRIX: SOIL **%SOLIDS:** 91.5

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	2710000	ug/Kg		7250	21300	21300	1	P	HSC	12/18/09 12:18	121809A-1	932281
7440-36-0	Antimony	1070	ug/Kg	U	352	1070	1070	1	P	HSC	12/18/09 12:18	121809A-1	932281
7440-38-2	Arsenic	4.34	mg/kg		0.214	1.07	1.07	2	MS	BAJ	12/20/09 19:30	091220-2	932320
7440-39-3	Barium	21100	ug/Kg	*	107	533	533	1	P	HSC	12/18/09 12:18	121809A-1	932281
7440-41-7	Beryllium	1.11	mg/kg	*	0.0214	0.107	0.107	2	MS	BAJ	12/23/09 21:23	091223-3	932320
7440-42-8	Boron	1550	ug/Kg	J	1070	5330	5330	1	P	HSC	12/18/09 12:18	121809A-1	932281
7440-43-9	Cadmium	533	ug/Kg	U	107	533	533	1	P	HSC	12/18/09 12:18	121809A-1	932281
7440-70-2	Calcium J-,I6a	1050000	ug/Kg	N	8520	26600	26600	1	P	HSC	12/18/09 12:18	121809A-1	932281
7440-47-3	Chromium	2160	ug/Kg		160	533	533	1	P	HSC	12/18/09 12:18	121809A-1	932281
7440-48-4	Cobalt	951	ug/Kg		160	533	533	1	P	HSC	12/18/09 12:18	121809A-1	932281
7440-50-8	Copper	1730	ug/Kg		320	1070	1070	1	P	HSC	12/18/09 12:18	121809A-1	932281
7439-89-6	Iron	19300000	ug/Kg		8520	26600	26600	1	P	HSC	12/18/09 12:18	121809A-1	932281
7439-92-1	Lead	7650	ug/Kg		266	1070	1070	1	P	HSC	12/18/09 12:18	121809A-1	932281
7439-93-2	Lithium	17.1	mg/kg		0.427	2.14	2.14	2	MS	BAJ	12/24/09 09:31	091223-14	932320
7439-95-4	Magnesium J+,I6b	751000	ug/Kg	N	9060	32000	32000	1	P	HSC	12/18/09 12:18	121809A-1	932281
7439-96-5	Manganese	160000	ug/Kg	*N	213	1070	1070	1	P	HSC	12/18/09 12:18	121809A-1	932281
7439-97-6	Mercury	10.1	ug/kg	J	4.25	12.5	12.5	1	AV	JXL1	12/29/09 09:57	122909S2-15	936546
7440-02-0	Nickel	4.14	mg/kg	*	0.107	0.427	0.427	2	MS	BAJ	12/20/09 19:30	091220-2	932320
7440-09-7	Potassium	280000	ug/Kg		6820	26600	26600	1	P	HSC	12/18/09 12:18	121809A-1	932281
7782-49-2	Selenium	1.07	mg/kg	U	0.534	1.07	1.07	2	MS	BAJ	12/20/09 19:30	091220-2	932320
7440-21-3	Silicon U,I4d	1140000	ug/Kg	N	1600	10700	10700	1	P	HSC	12/18/09 12:18	121809A-1	932281
7440-22-4	Silver	370	ug/Kg	J	107	533	533	1	P	HSC	12/18/09 12:18	121809A-1	932281
7440-23-5	Sodium J,I4a	130000	ug/Kg		7460	26600	26600	1	P	HSC	12/18/09 12:18	121809A-1	932281
7440-28-0	Thallium	0.431	mg/kg		0.0641	0.214	0.214	2	MS	BAJ	12/20/09 19:30	091220-2	932320
7440-32-6	Titanium	547000	ug/Kg		107	533	533	1	P	HSC	12/18/09 12:18	121809A-1	932281
7440-61-1	Uranium	0.463	mg/kg	*	0.0141	0.0427	0.0427	2	MS	BAJ	12/23/09 21:23	091223-3	932320
7440-62-2	Vanadium	7770	ug/Kg		107	533	533	1	P	HSC	12/18/09 12:18	121809A-1	932281
7440-66-6	Zinc	26900	ug/Kg		352	1070	1070	1	P	HSC	12/18/09 12:18	121809A-1	932281

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
932281	932280	SW846 3050B	0.513	g	50	mL	12/15/09	BCD1
932320	932319	SW846 3050B	0.512	g	50	mL	12/15/09	BCD1
934867	934866	SW846 7471A Prep	0.504	g	30	mL	12/22/09	TXB3

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METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-886 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 242750003 **BASIS:** Dry Weight **DATE COLLECTED** 09-DEC-09

CLIENT ID: RE03-09-13468 **LEVEL:** Low **DATE RECEIVED** 11-DEC-09

MATRIX: SOIL **%SOLIDS:** 90.7

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	1260000	ug/Kg		7450	21900	21900	1	P	HSC	12/18/09 12:25	121809A-1	932281
7440-36-0	Antimony	1100	ug/Kg	U	362	1100	1100	1	P	HSC	12/18/09 12:25	121809A-1	932281
7440-38-2	Arsenic	1.04	mg/kg	J	0.217	1.09	1.09	2	MS	BAJ	12/20/09 19:36	091220-2	932320
7440-39-3	Barium	16600	ug/Kg	*	110	548	548	1	P	HSC	12/18/09 12:25	121809A-1	932281
7440-41-7	Beryllium	0.408	mg/kg	*	0.0217	0.109	0.109	2	MS	BAJ	12/23/09 21:25	091223-3	932320
7440-42-8	Boron	5480	ug/Kg	U	1100	5480	5480	1	P	HSC	12/18/09 12:25	121809A-1	932281
7440-43-9	Cadmium	548	ug/Kg	U	110	548	548	1	P	HSC	12/18/09 12:25	121809A-1	932281
7440-70-2	Calcium J-,I6a	583000	ug/Kg	N	8770	27400	27400	1	P	HSC	12/18/09 12:25	121809A-1	932281
7440-47-3	Chromium	2030	ug/Kg		164	548	548	1	P	HSC	12/18/09 12:25	121809A-1	932281
7440-48-4	Cobalt	818	ug/Kg		164	548	548	1	P	HSC	12/18/09 12:25	121809A-1	932281
7440-50-8	Copper	843	ug/Kg	J	329	1100	1100	1	P	HSC	12/18/09 12:25	121809A-1	932281
7439-89-6	Iron	9560000	ug/Kg		8770	27400	27400	1	P	HSC	12/18/09 12:25	121809A-1	932281
7439-92-1	Lead	17000	ug/Kg		274	1100	1100	1	P	HSC	12/18/09 12:25	121809A-1	932281
7439-93-2	Lithium	23.6	mg/kg		0.435	2.17	2.17	2	MS	BAJ	12/24/09 09:22	091223-14	932320
7439-95-4	Magnesium J+,I6b	847000	ug/Kg	N	9320	32900	32900	1	P	HSC	12/18/09 12:25	121809A-1	932281
7439-96-5	Manganese	232000	ug/Kg	*N	219	1100	1100	1	P	HSC	12/18/09 12:25	121809A-1	932281
7439-97-6	Mercury	18.8	ug/kg		4.3	12.7	12.7	1	AV	JXL1	12/29/09 09:59	122909S2-15	936546
7440-02-0	Nickel	2.44	mg/kg	*	0.109	0.435	0.435	2	MS	BAJ	12/20/09 19:36	091220-2	932320
7440-09-7	Potassium	528000	ug/Kg		7010	27400	27400	1	P	HSC	12/18/09 12:25	121809A-1	932281
7782-49-2	Selenium	1.09	mg/kg	U	0.544	1.09	1.09	2	MS	BAJ	12/20/09 19:36	091220-2	932320
7440-21-3	Silicon U,I4d	796000	ug/Kg	N	1640	11000	11000	1	P	HSC	12/18/09 12:25	121809A-1	932281
7440-22-4	Silver	190	ug/Kg	J	110	548	548	1	P	HSC	12/18/09 12:25	121809A-1	932281
7440-23-5	Sodium J,I4a	185000	ug/Kg		7670	27400	27400	1	P	HSC	12/18/09 12:25	121809A-1	932281
7440-28-0	Thallium U,I4b	0.174	mg/kg	J	0.0652	0.217	0.217	2	MS	BAJ	12/20/09 19:36	091220-2	932320
7440-32-6	Titanium	400000	ug/Kg		110	548	548	1	P	HSC	12/18/09 12:25	121809A-1	932281
7440-61-1	Uranium	0.320	mg/kg	*	0.0144	0.0435	0.0435	2	MS	BAJ	12/23/09 21:25	091223-3	932320
7440-62-2	Vanadium	5560	ug/Kg		110	548	548	1	P	HSC	12/18/09 12:25	121809A-1	932281
7440-66-6	Zinc	59200	ug/Kg		362	1100	1100	1	P	HSC	12/18/09 12:25	121809A-1	932281

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
932281	932280	SW846 3050B	0.503	g	50	mL	12/15/09	BCD1
932320	932319	SW846 3050B	0.507	g	50	mL	12/15/09	BCD1
934867	934866	SW846 7471A Prep	0.513	g	30	mL	12/22/09	TXB3

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METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-886 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 242750004 **BASIS:** Dry Weight **DATE COLLECTED** 09-DEC-09

CLIENT ID: RE03-09-13465 **LEVEL:** Low **DATE RECEIVED** 11-DEC-09

MATRIX: SOIL **%SOLIDS:** 93

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	878000	ug/Kg		7080	20800	20800	1	P	HSC	12/18/09 12:32	121809A-1	932281
7440-36-0	Antimony	1040	ug/Kg	U	344	1040	1040	1	P	HSC	12/18/09 12:32	121809A-1	932281
7440-38-2	Arsenic	1.02	mg/kg	J	0.214	1.07	1.07	2	MS	BAJ	12/20/09 19:43	091220-2	932320
7440-39-3	Barium	18500	ug/Kg	*	104	521	521	1	P	HSC	12/18/09 12:32	121809A-1	932281
7440-41-7	Beryllium	0.241	mg/kg	*	0.0214	0.107	0.107	2	MS	BAJ	12/23/09 21:27	091223-3	932320
7440-42-8	Boron	5210	ug/Kg	U	1040	5210	5210	1	P	HSC	12/18/09 12:32	121809A-1	932281
7440-43-9	Cadmium	521	ug/Kg	U	104	521	521	1	P	HSC	12/18/09 12:32	121809A-1	932281
7440-70-2	Calcium J-,I6a	575000	ug/Kg	N	8330	26000	26000	1	P	HSC	12/18/09 12:32	121809A-1	932281
7440-47-3	Chromium	1620	ug/Kg		156	521	521	1	P	HSC	12/18/09 12:32	121809A-1	932281
7440-48-4	Cobalt	732	ug/Kg		156	521	521	1	P	HSC	12/18/09 12:32	121809A-1	932281
7440-50-8	Copper	696	ug/Kg	J	312	1040	1040	1	P	HSC	12/18/09 12:32	121809A-1	932281
7439-89-6	Iron	8630000	ug/Kg		8330	26000	26000	1	P	HSC	12/18/09 12:32	121809A-1	932281
7439-92-1	Lead	4930	ug/Kg		260	1040	1040	1	P	HSC	12/18/09 12:32	121809A-1	932281
7439-93-2	Lithium	13.5	mg/kg		0.428	2.14	2.14	2	MS	BAJ	12/24/09 09:24	091223-14	932320
7439-95-4	Magnesium J+,I6b	528000	ug/Kg	N	8850	31200	31200	1	P	HSC	12/18/09 12:32	121809A-1	932281
7439-96-5	Manganese	192000	ug/Kg	*N	208	1040	1040	1	P	HSC	12/18/09 12:32	121809A-1	932281
7439-97-6	Mercury	12.5	ug/kg		3.74	11	11	1	AV	JXL1	12/29/09 10:01	122909S2-15	936546
7440-02-0	Nickel	2.73	mg/kg	*	0.107	0.428	0.428	2	MS	BAJ	12/20/09 19:43	091220-2	932320
7440-09-7	Potassium	314000	ug/Kg		6670	26000	26000	1	P	HSC	12/18/09 12:32	121809A-1	932281
7782-49-2	Selenium	1.07	mg/kg	U	0.535	1.07	1.07	2	MS	BAJ	12/20/09 19:43	091220-2	932320
7440-21-3	Silicon U,I4d	784000	ug/Kg	N	1560	10400	10400	1	P	HSC	12/18/09 12:32	121809A-1	932281
7440-22-4	Silver	255	ug/Kg	J	104	521	521	1	P	HSC	12/18/09 12:32	121809A-1	932281
7440-23-5	Sodium J,I4a	121000	ug/Kg		7290	26000	26000	1	P	HSC	12/18/09 12:32	121809A-1	932281
7440-28-0	Thallium U,I4b	0.168	mg/kg	J	0.0642	0.214	0.214	2	MS	BAJ	12/20/09 19:43	091220-2	932320
7440-32-6	Titanium	421000	ug/Kg		104	521	521	1	P	HSC	12/18/09 12:32	121809A-1	932281
7440-61-1	Uranium	0.385	mg/kg	*	0.0141	0.0428	0.0428	2	MS	BAJ	12/23/09 21:27	091223-3	932320
7440-62-2	Vanadium	5070	ug/Kg		104	521	521	1	P	HSC	12/18/09 12:32	121809A-1	932281
7440-66-6	Zinc	29800	ug/Kg		344	1040	1040	1	P	HSC	12/18/09 12:32	121809A-1	932281

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
932281	932280	SW846 3050B	0.516	g	50	mL	12/15/09	BCD1
932320	932319	SW846 3050B	0.502	g	50	mL	12/15/09	BCD1
934867	934866	SW846 7471A Prep	0.538	g	30	mL	12/22/09	TXB3

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METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-886 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 242750005 **BASIS:** Dry Weight **DATE COLLECTED** 09-DEC-09

CLIENT ID: RE03-10-2003 **LEVEL:** Low **DATE RECEIVED** 11-DEC-09

MATRIX: SOIL **%SOLIDS:** 93.2

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	821000	ug/Kg		7130	21000	21000	1	P	HSC	12/18/09 12:39	121809A-1	932281
7440-36-0	Antimony	1050	ug/Kg	U	346	1050	1050	1	P	HSC	12/18/09 12:39	121809A-1	932281
7440-38-2	Arsenic	1.1	mg/kg		0.203	1.02	1.02	2	MS	BAJ	12/20/09 19:49	091220-2	932320
7440-39-3	Barium	17200	ug/Kg	*	105	524	524	1	P	HSC	12/18/09 12:39	121809A-1	932281
7440-41-7	Beryllium	0.308	mg/kg	*	0.0203	0.102	0.102	2	MS	BAJ	12/23/09 21:30	091223-3	932320
7440-42-8	Boron	5240	ug/Kg	U	1050	5240	5240	1	P	HSC	12/18/09 12:39	121809A-1	932281
7440-43-9	Cadmium	524	ug/Kg	U	105	524	524	1	P	HSC	12/18/09 12:39	121809A-1	932281
7440-70-2	Calcium J-,I6a	628000	ug/Kg	N	8390	26200	26200	1	P	HSC	12/18/09 12:39	121809A-1	932281
7440-47-3	Chromium	1640	ug/Kg		157	524	524	1	P	HSC	12/18/09 12:39	121809A-1	932281
7440-48-4	Cobalt	730	ug/Kg		157	524	524	1	P	HSC	12/18/09 12:39	121809A-1	932281
7440-50-8	Copper	729	ug/Kg	J	314	1050	1050	1	P	HSC	12/18/09 12:39	121809A-1	932281
7439-89-6	Iron	9240000	ug/Kg		8390	26200	26200	1	P	HSC	12/18/09 12:39	121809A-1	932281
7439-92-1	Lead	4840	ug/Kg		262	1050	1050	1	P	HSC	12/18/09 12:39	121809A-1	932281
7439-93-2	Lithium	20.6	mg/kg		0.407	2.03	2.03	2	MS	BAJ	12/24/09 09:26	091223-14	932320
7439-95-4	Magnesium J+,I6b	471000	ug/Kg	N	8910	31400	31400	1	P	HSC	12/18/09 12:39	121809A-1	932281
7439-96-5	Manganese	189000	ug/Kg	*N	210	1050	1050	1	P	HSC	12/18/09 12:39	121809A-1	932281
7439-97-6	Mercury	11.9	ug/kg	J	4.23	12.4	12.4	1	AV	JXL1	12/29/09 10:02	122909S2-15	936546
7440-02-0	Nickel	3.39	mg/kg	*	0.102	0.407	0.407	2	MS	BAJ	12/20/09 19:49	091220-2	932320
7440-09-7	Potassium	251000	ug/Kg		6710	26200	26200	1	P	HSC	12/18/09 12:39	121809A-1	932281
7782-49-2	Selenium	1.02	mg/kg	U	0.508	1.02	1.02	2	MS	BAJ	12/20/09 19:49	091220-2	932320
7440-21-3	Silicon U,I4d	853000	ug/Kg	N	1570	10500	10500	1	P	HSC	12/18/09 12:39	121809A-1	932281
7440-22-4	Silver	133	ug/Kg	J	105	524	524	1	P	HSC	12/18/09 12:39	121809A-1	932281
7440-23-5	Sodium J,I4a	119000	ug/Kg		7340	26200	26200	1	P	HSC	12/18/09 12:39	121809A-1	932281
7440-28-0	Thallium U,I4b	0.209	mg/kg		0.061	0.203	0.203	2	MS	BAJ	12/20/09 19:49	091220-2	932320
7440-32-6	Titanium	485000	ug/Kg		105	524	524	1	P	HSC	12/18/09 12:39	121809A-1	932281
7440-61-1	Uranium	0.441	mg/kg	*	0.0134	0.0407	0.0407	2	MS	BAJ	12/23/09 21:30	091223-3	932320
7440-62-2	Vanadium	5330	ug/Kg		105	524	524	1	P	HSC	12/18/09 12:39	121809A-1	932281
7440-66-6	Zinc	33100	ug/Kg		346	1050	1050	1	P	HSC	12/18/09 12:39	121809A-1	932281

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
932281	932280	SW846 3050B	0.512	g	50	mL	12/15/09	BCD1
932320	932319	SW846 3050B	0.528	g	50	mL	12/15/09	BCD1
934867	934866	SW846 7471A Prep	0.507	g	30	mL	12/22/09	TXB3

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METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-886-1 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 242751001 **BASIS:** As Received **DATE COLLECTED** 09-DEC-09

CLIENT ID: RE03-10-2008 **LEVEL:** Low **DATE RECEIVED** 11-DEC-09

MATRIX: WATER **%SOLIDS:** 0

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	200	ug/L	U	68	200	200	1	P	HSC	12/17/09 18:27	121709-1	932268
7440-36-0	Antimony	3	ug/L	U	1	3	3	1	MS	BAJ	12/21/09 01:15	091220-2	932310
7440-38-2	Arsenic	30	ug/L	U	5	30	30	1	P	HSC	12/17/09 18:27	121709-1	932268
7440-39-3	Barium	5	ug/L	U	1	5	5	1	P	HSC	12/17/09 18:27	121709-1	932268
7440-41-7	Beryllium	0.50	ug/L	U	0.1	0.5	0.5	1	MS	BAJ	12/22/09 03:41	091221-3	932310
7440-42-8	Boron	50	ug/L	U	15	50	50	1	P	HSC	12/17/09 18:27	121709-1	932268
7440-43-9	Cadmium	1	ug/L	U	0.11	1	1	1	MS	BAJ	12/21/09 01:15	091220-2	932310
7440-70-2	Calcium	200	ug/L	U	50	200	200	1	P	HSC	12/17/09 18:27	121709-1	932268
7440-47-3	Chromium	5	ug/L	U	1	5	5	1	P	HSC	12/17/09 18:27	121709-1	932268
7440-48-4	Cobalt	5	ug/L	U	1	5	5	1	P	HSC	12/17/09 18:27	121709-1	932268
7440-50-8	Copper	10	ug/L	U	3	10	10	1	P	HSC	12/17/09 18:27	121709-1	932268
7439-89-6	Iron	100	ug/L	U	30	100	100	1	P	HSC	12/17/09 18:27	121709-1	932268
7439-92-1	Lead	2	ug/L	U	0.5	2	2	1	MS	BAJ	12/22/09 03:41	091221-3	932310
7439-93-2	Lithium	10	ug/L	U	2	10	10	1	MS	BAJ	12/23/09 18:51	091223-5	932310
7439-95-4	Magnesium	300	ug/L	U	85	300	300	1	P	HSC	12/17/09 18:27	121709-1	932268
7439-96-5	Manganese	1.3	ug/L	J	1	5	5	1	MS	BAJ	12/22/09 03:41	091221-3	932310
7439-97-6	Mercury	0.20	ug/L	U	0.066	0.2	0.2	1	AV	ETL	12/23/09 08:42	122309W1-6	934864
7440-02-0	Nickel	5	ug/L	U	1.5	5	5	1	P	HSC	12/17/09 18:27	121709-1	932268
7440-09-7	Potassium	150	ug/L	U	50	150	150	1	P	HSC	12/17/09 18:27	121709-1	932268
7782-49-2	Selenium	30	ug/L	U	5	30	30	1	P	HSC	12/17/09 18:27	121709-1	932268
7440-21-3	Silicon	2300	ug/L		25	100	100	1	P	HSC	12/17/09 18:27	121709-1	932268
7440-22-4	Silver	5	ug/L	U	1	5	5	1	P	HSC	12/17/09 18:27	121709-1	932268
7440-23-5	Sodium	137	ug/L	J	100	300	300	1	P	HSC	12/17/09 18:27	121709-1	932268
7440-28-0	Thallium	1	ug/L	U	0.3	1	1	1	MS	BAJ	12/22/09 22:14	091222-4	932310
7440-32-6	Titanium	5	ug/L	U	1	5	5	1	P	HSC	12/17/09 18:27	121709-1	932268
7440-61-1	Uranium	0.20	ug/L	U	0.05	0.2	0.2	1	MS	BAJ	12/23/09 18:51	091223-5	932310
7440-62-2	Vanadium	5	ug/L	U	1	5	5	1	P	HSC	12/17/09 18:27	121709-1	932268
7440-66-6	Zinc	10	ug/L	U	3.3	10	10	1	P	HSC	12/17/09 18:27	121709-1	932268

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
932268	932267	SW846 3005A	50	mL	50	mL	12/15/09	BCD1
932310	932309	SW846 3005A	50	mL	50	mL	12/15/09	BCD1
934864	934863	SW846 7470A Prep	20	mL	20	mL	12/22/09	TXB3

LT 01/28/10

METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-886-1 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 242751002 **BASIS:** As Received **DATE COLLECTED** 09-DEC-09

CLIENT ID: RE03-10-3943 **LEVEL:** Low **DATE RECEIVED** 11-DEC-09

MATRIX: WATER **%SOLIDS:** 0

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	200	ug/L	U	68	200	200	1	P	HSC	12/17/09 18:55	121709-1	932268
7440-36-0	Antimony	3	ug/L	U	1	3	3	1	MS	BAJ	12/21/09 01:33	091220-2	932310
7440-38-2	Arsenic	30	ug/L	U	5	30	30	1	P	HSC	12/17/09 18:55	121709-1	932268
7440-39-3	Barium	5	ug/L	U	1	5	5	1	P	HSC	12/17/09 18:55	121709-1	932268
7440-41-7	Beryllium	0.50	ug/L	U	0.1	0.5	0.5	1	MS	BAJ	12/22/09 03:56	091221-3	932310
7440-42-8	Boron	50	ug/L	U	15	50	50	1	P	HSC	12/17/09 18:55	121709-1	932268
7440-43-9	Cadmium	1	ug/L	U	0.11	1	1	1	MS	BAJ	12/21/09 01:33	091220-2	932310
7440-70-2	Calcium	200	ug/L	U	50	200	200	1	P	HSC	12/17/09 18:55	121709-1	932268
7440-47-3	Chromium	5	ug/L	U	1	5	5	1	P	HSC	12/17/09 18:55	121709-1	932268
7440-48-4	Cobalt	5	ug/L	U	1	5	5	1	P	HSC	12/17/09 18:55	121709-1	932268
7440-50-8	Copper	10	ug/L	U	3	10	10	1	P	HSC	12/17/09 18:55	121709-1	932268
7439-89-6	Iron	100	ug/L	U	30	100	100	1	P	HSC	12/17/09 18:55	121709-1	932268
7439-92-1	Lead	2	ug/L	U	0.5	2	2	1	MS	BAJ	12/22/09 03:56	091221-3	932310
7439-93-2	Lithium	10	ug/L	U	2	10	10	1	MS	BAJ	12/23/09 18:54	091223-5	932310
7439-95-4	Magnesium	300	ug/L	U	85	300	300	1	P	HSC	12/17/09 18:55	121709-1	932268
7439-96-5	Manganese	5	ug/L	U	1	5	5	1	MS	BAJ	12/22/09 03:56	091221-3	932310
7439-97-6	Mercury	0.20	ug/L	U	0.066	0.2	0.2	1	AV	ETL	12/23/09 08:44	122309W1-6	934864
7440-02-0	Nickel	5	ug/L	U	1.5	5	5	1	P	HSC	12/17/09 18:55	121709-1	932268
7440-09-7	Potassium	150	ug/L	U	50	150	150	1	P	HSC	12/17/09 18:55	121709-1	932268
7782-49-2	Selenium	30	ug/L	U	5	30	30	1	P	HSC	12/17/09 18:55	121709-1	932268
7440-21-3	Silicon	2140	ug/L		25	100	100	1	P	HSC	12/17/09 18:55	121709-1	932268
7440-22-4	Silver	5	ug/L	U	1	5	5	1	P	HSC	12/17/09 18:55	121709-1	932268
7440-23-5	Sodium	300	ug/L	U	100	300	300	1	P	HSC	12/17/09 18:55	121709-1	932268
7440-28-0	Thallium	1	ug/L	U	0.3	1	1	1	MS	BAJ	12/22/09 22:28	091222-4	932310
7440-32-6	Titanium	5	ug/L	U	1	5	5	1	P	HSC	12/17/09 18:55	121709-1	932268
7440-61-1	Uranium	0.20	ug/L	U	0.05	0.2	0.2	1	MS	BAJ	12/23/09 18:54	091223-5	932310
7440-62-2	Vanadium	5	ug/L	U	1	5	5	1	P	HSC	12/17/09 18:55	121709-1	932268
7440-66-6	Zinc	10	ug/L	U	3.3	10	10	1	P	HSC	12/17/09 18:55	121709-1	932268

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
932268	932267	SW846 3005A	50	mL	50	mL	12/15/09	BCD1
932310	932309	SW846 3005A	50	mL	50	mL	12/15/09	BCD1
934864	934863	SW846 7470A Prep	20	mL	20	mL	12/22/09	TXB3

LT 01/28/10

DATA VALIDATION COVER SHEET

5120-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-886 VALIDATION DATE: 01/28/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Linda Thal ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☒ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE):

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☐	☐	☒	8. QUANTITATION REPORTS
☐	☐	☒	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. Total cyanide was detected in the ICB associated with sample RE03-09-13467. The associated sample result was an ND and, thus, was not qualified.
2. It should be noted that the matrix QC analyses for batch 932514 were performed on a sample from another LANL RN. No sample data were qualified as a result.

Reviewed by: Eric Mink Level: I Date: 01/28/10

VALIDATOR'S SIGNATURE: L. Thal DATE: 01/28/10

GENERAL CHEMISTRY ANALYTICAL DATA VALIDATION CHECKLIST

5120-2

General Chemistry Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, I9	J-, I9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, I9a	J-, I9a
☐	☐	☒	3. The affected analytes are regarded as rejected because the analytical holding time was exceeded.	R, I9b	R, I9b
☐	☒	☐	4. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, I7	J, I7
☐	☒	☐	5. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, I7a	J, I7a
☐	☒	☐	6. The ICV and/or CCV were recovered outside the method specific limits.	UJ, I7c	J, I7c
☐	☒	☐	7. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, I7d	J, I7d
☐	☒	☐	8. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, I7f	R, I7f
☐	☐	☒	9. The interference check sample percent recovery value is <50%.	R, I2	J-, I2
☐	☐	☒	10. The interference check sample percent recovery value is ≥50% and <80%.	UJ, I2a	J-, I2a
☐	☐	☒	11. The interference check sample percent recovery value is >120%.	N/A	J+, I2b
☐	☐	☒	12. The interference check sample was not analyzed with the samples.	R, I2c	R, I2c
☐	☒	☐	13. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, I4	N/A

GENERAL CHEMISTRY ANALYTICAL DATA VALIDATION CHECKLIST

5120-2

General Chemistry Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	14. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X.	N/A	J, I4a
☒	☐	☐	15. The sample result is ≤5X the concentration of the related analyte in the instrument blank and continuing calibration blank.	U, I4b	N/A
☐	☒	☐	16. Continuing calibration blanks were not analyzed at the appropriate method frequency.	UJ, I4c	J, I4c
☐	☐	☒	17. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	U, I4d	N/A
☐	☒	☐	18. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, I4e	R, I4e
☐	☒	☐	19. The associate matrix spike recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I6	R, I6
☐	☒	☐	20. The associated matrix spike recovery was below the Lower Acceptance Limit (LAL) but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I6a	J-, I6a
☐	☒	☐	21. The associated matrix spike recovery was above the Upper Acceptance Limit (UAL). Follow the external laboratory limits located within the associated data package.	UJ, I6b	J+, I6b
☐	☒	☐	22. Required matrix spike information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. If LCS information is present, do not reject. Qualify data based on LCS information.	R, I6c	R, I6c
☐	☒	☐	23. The sample and/or the duplicate sample results RPD is not within the acceptance limits. Follow the external laboratory limits located within the associated data package.	UJ, I10b	J, I10b

GENERAL CHEMISTRY ANALYTICAL DATA VALIDATION CHECKLIST	
5120-2 **General Chemistry Analytical Data Validation Checklist**	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	24. The duplicate sample was not prepared and/or analyzed with the samples for unspecified reasons. The duplicate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	UJ, I10d	J, I10d
☐	☒	☐	25. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I12	R, I12
☐	☒	☐	26. The LCS percent recover was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I12a	J-, I12a
☐	☒	☐	27. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, I12b
☐	☒	☐	28. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. Do not Reject if MS/MSD information is present. Qualify according to MS/MSD criteria.	R, I12c	R, I12c
☐	☒	☐	29. Duplicate, dilution, or reanalysis	UJ, I88	J, I88
☐	☒	☐	30. The LANL project chemist identified quality deficiencies in the reported data that require further qualification. This code can ONLY be used and/or under advisement by the LANL project chemist.	UJ, R, I19	J, R, I19
☒	☐	☐	31. Qualification of data via data validation does not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB NQ, NQ (no qualification)

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: January 1, 2010

Client SDG: 10-886

Client Sample ID:	RE03-09-13467	Project:	LANL01004
Sample ID:	242750001	Client ID:	LANL010
Matrix:	S		
Collect Date:	09-DEC-09 12:00		
Receive Date:	11-DEC-09		
Collector:	Client		
Moisture:	3.92%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total Federal "Dry Weight Corrected"										
Cyanide, Total	U	ND	65.5	241	ug/kg	1	AXC2 12/15/09	1022	932514	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	SXJ1	12/14/09	1200	932513

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

LT 01/28/10

GEL LABORATORIES LLC

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: January 1, 2010

Client SDG: 10-886

Client Sample ID:	RE03-09-13466	Project:	LANL01004
Sample ID:	242750002	Client ID:	LANL010
Matrix:	S		
Collect Date:	09-DEC-09 12:00		
Receive Date:	11-DEC-09		
Collector:	Client		
Moisture:	8.53%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total Federal "Dry Weight Corrected"										
Cyanide, Total	U	ND	74.3	273	ug/kg	1	AXC2 12/17/09	0943	932527	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	SXJ1	12/16/09	1230	932526

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

LT 01/28/10

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: January 1, 2010

Client SDG: 10-886

Client Sample ID:	RE03-09-13468	Project:	LANL01004
Sample ID:	242750003	Client ID:	LANL010
Matrix:	S		
Collect Date:	09-DEC-09 12:00		
Receive Date:	11-DEC-09		
Collector:	Client		
Moisture:	9.31%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total Federal "Dry Weight Corrected"										
Cyanide, Total	U	ND	75.0	276	ug/kg	1	AXC2 12/17/09	0946	932527	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	SXJ1	12/16/09	1230	932526

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

LT 01/28/10

GEL LABORATORIES LLC

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: January 1, 2010

Client SDG: 10-886

Client Sample ID:	RE03-09-13465	Project:	LANL01004
Sample ID:	242750004	Client ID:	LANL010
Matrix:	S		
Collect Date:	09-DEC-09 12:00		
Receive Date:	11-DEC-09		
Collector:	Client		
Moisture:	6.96%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total Federal "Dry Weight Corrected"										
Cyanide, Total	U	ND	73.1	269	ug/kg	1	AXC2 12/17/09	0950	932527	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	SXJ1	12/16/09	1230	932526

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

LT 01/28/10

Thursday, December 10, 2009

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-886

REQUEST NUMBER: 10-886

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 1/9/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS: 242750, 242751

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE03-09-13467	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-09-13467	1	GLASS	8270C+8082+TPH-DRO	Ice	S
RE03-09-13466	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-09-13466	1	GLASS	8270C+8082+TPH-DRO	Ice	S
RE03-09-13468	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-09-13468	1	GLASS	8270C+8082+TPH-DRO	Ice	S
RE03-09-13465	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-09-13465	1	GLASS	8270C+8082+TPH-DRO	Ice	S
RE03-09-13467	1	POLY	Metals+CN - GEL	Ice	S
RE03-09-13466	1	POLY	Metals+CN - GEL	Ice	S
RE03-09-13468	1	POLY	Metals+CN - GEL	Ice	S
RE03-09-13465	1	POLY	Metals+CN - GEL	Ice	S
RE03-10-2008	1	POLY	METALS-GEL	Nitric Acid	W
RE03-10-2003	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-10-2003	1	GLASS	8270C+8082+TPH-DRO	Ice	S
RE03-10-2003	1	POLY	METALS-GEL	Ice	S
RE03-10-3943	1	POLY	METALS-GEL	Nitric Acid	W
RE03-10-6937	1	SEPTUM AMBER GLASS	8260B Trip Blank	Ice	S

Relinquished By:		Date	Time	Received By:		Date	Time
[illegible]	[illegible]	12-10-09	1700	Greg Tyler	[illegible]	12-11-09	0850
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

Received for DISPOSAL By:		Date	Time	Remarks:
Printed Name	Signature			

Thursday, December 10, 2009

REQUEST NUMBER: 10-886

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis
General Engineering Laboratories, Inc., Charleston, SC.
2040 Savage Rd
Charleston, SC 29407

These Samples are on:
LANL Request Number:10-886
Per Agreement Number:126310011
Project Cost Code: MR2A054196D0

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 12/10/2009
TURNAROUND/REPORT DUE: 1/9/2010
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Not Required
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:6010B	1	RE03-09-13465	S	12/9/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-13466	S	12/9/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-13467	S	12/9/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-13468	S	12/9/2009	Plus, B, Li, Si, Ti, U
		1	RE03-10-2003	S	12/9/2009	Plus, B, Li, Si, Ti, U
		1	RE03-10-2008	W	12/9/2009	Plus, B, Li, Si, Ti, U
		1	RE03-10-3943	W	12/9/2009	Plus, B, Li, Si, Ti, U
	SW-846:6020	1	RE03-10-2003	S	12/9/2009	Plus, B, Li, Si, Ti, U
		1	RE03-10-2008	W	12/9/2009	Plus, B, Li, Si, Ti, U

Thursday, December 10, 2009

REQUEST NUMBER: 10-886

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:6020	1	RE03-10-3943	W	12/9/2009	Plus, B, Li, Si, Ti, U
	SW-846:7471A	1	RE03-10-2003	S	12/9/2009	Plus, B, Li, Si, Ti, U
	SW-846:8015M_EXTRACTABLE	1	RE03-09-13465	S	12/9/2009	
		1	RE03-09-13466	S	12/9/2009	
		1	RE03-09-13467	S	12/9/2009	
		1	RE03-09-13468	S	12/9/2009	
		1	RE03-10-2003	S	12/9/2009	
	SW-846:8082	1	RE03-09-13465	S	12/9/2009	
		1	RE03-09-13466	S	12/9/2009	
		1	RE03-09-13467	S	12/9/2009	
		1	RE03-09-13468	S	12/9/2009	
		1	RE03-10-2003	S	12/9/2009	
	SW-846:8260B	1	RE03-09-13465	S	12/9/2009	
		1	RE03-09-13466	S	12/9/2009	
		1	RE03-09-13467	S	12/9/2009	
		1	RE03-09-13468	S	12/9/2009	
		1	RE03-10-2003	S	12/9/2009	
		1	RE03-10-6937	S	12/9/2009	
	SW-846:8270C	1	RE03-09-13465	S	12/9/2009	
		1	RE03-09-13466	S	12/9/2009	
		1	RE03-09-13467	S	12/9/2009	
		1	RE03-09-13468	S	12/9/2009	
		1	RE03-10-2003	S	12/9/2009	

Thursday, December 10, 2009

REQUEST NUMBER: 10-886

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:9012A	1	RE03-09-13465	S	12/9/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-13466	S	12/9/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-13467	S	12/9/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-13468	S	12/9/2009	Plus, B, Li, Si, Ti, U

Final Page of REQUEST NUMBER 10-886

GEL Laboratories LLC

a member of The GEL Group INC

PO Box 30712 Charleston, SC 29417
2040 Savage Road Charleston, SC 29407
P 843.556.8171 F 843.766.1178

www.gel.com

December 19, 2009

Ms. Joylene Valdez
Los Alamos National Laboratory
PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545

Re: LANL ER Project
Work Orders: 242750 242751
SDG: 10-886

Dear Ms. Valdez:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the following analytical results for the sample(s) we received on December 11, 2009, and analyzed for FID Flame Ionization Detector, GC Semivolatile PCB, GC/MS Semivolatile, GC/MS Volatile, General Chemistry and Metals. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 4485.

Sincerely,

for

Valerie Davis
Project Manager

Purchase Order: 72733-001-09
Chain of Custody: 10-886
Enclosures

problem solved

Los Alamos National Laboratory (72733-001-09)
LANL ER Project
Work Order #: 242750 and 242751
SDG: 10-886

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GC Semivolatile PCB Analysis **451**
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- Quality Control Summary 464
- Sample Data 470
- Standards Data 496
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Case Narrative

Case Narrative for
Los Alamos National Laboratory (72733-001-09)
LANL ER Project
Workorder #: 242750 and 242751
SDG # : 10-886

December 19, 2009

Laboratory Identification:

GEL Laboratories LLC
2040 Savage Road
Charleston, South Carolina 29407
(843) 556-8171

Summary

Sample receipt The samples arrived at GEL Laboratories LLC, Charleston, South Carolina on December 11, 2009 for analysis. The samples were prepared/analyzed within the required holding time. Shipping container temperatures were checked, documented, and within specifications. The samples were screened according to GEL Standard Operating Procedure. The samples were delivered with proper chain of custody documentation and signatures. All sample containers arrived without any visible signs of tampering or breakage. Containers were checked for pH, where appropriate, and matched the preservative as documented on the accompanying chain of custody. Shipping container temperature was within specification (0 - 6C).

Sample Identification The laboratory received the following samples:

Laboratory ID	Client ID
242750001	RE03-09-13467
242750002	RE03-09-13466
242750003	RE03-09-13468
242750004	RE03-09-13465
242750005	RE03-10-2003
242750006	RE03-10-6937
242751001	RE03-10-2008
242751002	RE03-10-3943

Case Narrative

Sample analyses were conducted using methodology as outlined in GEL Laboratories, LLC (GEL) Standard Operating Procedures. Any technical or administrative problems during analysis, data review, and reduction are contained in the analytical case narratives in the enclosed data package.

Data Package The enclosed data package contains the following sections: Case Narrative, Chain of Custody, Cooler Receipt Checklist, Data Package Qualifier Definitions and data from the following fractions: FID Flame Ionization Detector, GC Semivolatile PCB, GC/MS Semivolatile, GC/MS Volatile, General Chemistry and Metals.

I certify that this data report is in compliance with the terms and conditions of the subcontract and task order, both technically and for completeness, for other than the conditions detailed in the attached case narrative.

for

Valerie Davis
Project Manager

List of current GEL Certifications as of 19 December 2009

State	Certification
Arizona	AZ0668
Arkansas	88–0651
CLIA	42D0904046
California – NELAP	01151CA
Colorado	GEL
Connecticut	PH–0169
Dept. of Navy	NFESC 413
EPA Region 5	WG–15J
Florida – NELAP	E87156
Georgia	E87156 (FL/NELAP)
Georgia DW	967
Hawaii	N/A
ISO 17025	2567.01
Idaho	SC00012
Illinois – NELAP	200029
Indiana	C–SC–01
Kansas – NELAP	E–10332
Kentucky	90129
Louisiana – NELAP	03046
Maryland	270
Massachusetts	M–SC012
Nevada	SC00012
New Jersey – NELAP	SC002
New Mexico	FL NELAP E87156
New York – NELAP	11501
North Carolina	233
North Carolina DW	45709
Oklahoma	9904
Pennsylvania – NELAP	68–00485
South Carolina	10120001/10120002
Tennessee	TN 02934
Texas – NELAP	T104704235–07B–TX
U.S. Dept. of Agriculture	S–52597
Utah – NELAP	GEL
Vermont	VT87156
Virginia	00151
Washington	C1641

Chain of Custody and Supporting Documentation

Thursday, December 10, 2009

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-886

REQUEST NUMBER: 10-886

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 1/9/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS: 242750, 242751

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE03-09-13467	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-09-13467	1	GLASS	8270C+8082+TPH-DRO	Ice	S
RE03-09-13466	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-09-13466	1	GLASS	8270C+8082+TPH-DRO	Ice	S
RE03-09-13468	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-09-13468	1	GLASS	8270C+8082+TPH-DRO	Ice	S
RE03-09-13465	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-09-13465	1	GLASS	8270C+8082+TPH-DRO	Ice	S
RE03-09-13467	1	POLY	Metals+CN - GEL	Ice	S
RE03-09-13466	1	POLY	Metals+CN - GEL	Ice	S
RE03-09-13468	1	POLY	Metals+CN - GEL	Ice	S
RE03-09-13465	1	POLY	Metals+CN - GEL	Ice	S
RE03-10-2008	1	POLY	METALS-GEL	Nitric Acid	W
RE03-10-2003	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-10-2003	1	GLASS	8270C+8082+TPH-DRO	Ice	S
RE03-10-2003	1	POLY	METALS-GEL	Ice	S
RE03-10-3943	1	POLY	METALS-GEL	Nitric Acid	W
RE03-10-6937	1	SEPTUM AMBER GLASS	8260B Trip Blank	Ice	S

Relinquished By:		Date	Time	Received By:		Date	Time
[illegible]	[illegible]	12-10-09	1700	Greg Tyler	[illegible]	12-11-09	0850
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

Received for DISPOSAL By: Date Time

Printed Name Signature

Remarks:

Thursday, December 10, 2009

REQUEST NUMBER: 10-886

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

These Samples are on:

LANL Request Number:10-886

Per Agreement Number:126310011

Project Cost Code: MR2A054196D0

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 12/10/2009

TURNAROUND/REPORT DUE: 1/9/2010

TURNAROUND REQ'D: 30 Days

RAD SCREENING: Not Required

LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:

Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:6010B	1	RE03-09-13465	S	12/9/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-13466	S	12/9/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-13467	S	12/9/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-13468	S	12/9/2009	Plus, B, Li, Si, Ti, U
		1	RE03-10-2003	S	12/9/2009	Plus, B, Li, Si, Ti, U
		1	RE03-10-2008	W	12/9/2009	Plus, B, Li, Si, Ti, U
		1	RE03-10-3943	W	12/9/2009	Plus, B, Li, Si, Ti, U
	SW-846:6020	1	RE03-10-2003	S	12/9/2009	Plus, B, Li, Si, Ti, U
		1	RE03-10-2008	W	12/9/2009	Plus, B, Li, Si, Ti, U

Thursday, December 10, 2009

REQUEST NUMBER: 10-886

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:6020	1	RE03-10-3943	W	12/9/2009	Plus, B, Li, Si, Ti, U
	SW-846:7471A	1	RE03-10-2003	S	12/9/2009	Plus, B, Li, Si, Ti, U
	SW-846:8015M_EXTRACTABLE	1	RE03-09-13465	S	12/9/2009	
		1	RE03-09-13466	S	12/9/2009	
		1	RE03-09-13467	S	12/9/2009	
		1	RE03-09-13468	S	12/9/2009	
		1	RE03-10-2003	S	12/9/2009	
	SW-846:8082	1	RE03-09-13465	S	12/9/2009	
		1	RE03-09-13466	S	12/9/2009	
		1	RE03-09-13467	S	12/9/2009	
		1	RE03-09-13468	S	12/9/2009	
		1	RE03-10-2003	S	12/9/2009	
	SW-846:8260B	1	RE03-09-13465	S	12/9/2009	
		1	RE03-09-13466	S	12/9/2009	
		1	RE03-09-13467	S	12/9/2009	
		1	RE03-09-13468	S	12/9/2009	
		1	RE03-10-2003	S	12/9/2009	
		1	RE03-10-6937	S	12/9/2009	
	SW-846:8270C	1	RE03-09-13465	S	12/9/2009	
		1	RE03-09-13466	S	12/9/2009	
		1	RE03-09-13467	S	12/9/2009	
		1	RE03-09-13468	S	12/9/2009	
		1	RE03-10-2003	S	12/9/2009	

Thursday, December 10, 2009

REQUEST NUMBER: 10-886

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:9012A	1	RE03-09-13465	S	12/9/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-13466	S	12/9/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-13467	S	12/9/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-13468	S	12/9/2009	Plus, B, Li, Si, Ti, U

Final Page of REQUEST NUMBER 10-886

GEL Laboratories LLC

SAMPLE RECEIPT & REVIEW FORM

Client: LANL	**SDG/ARCOC/Work Order: 10-886**
Received By: Greg Tyler	**Date Received: 12/11/09**

Suspected Hazard Information	**Yes**	**No**	*If Counts > x2 area background on samples not marked "radioactive", contact the Radiation Safety Group of further investigation.
COC/Samples marked as radioactive?		X	Maximum Counts Observed*: 40cpm
Classified Radioactive II by RSO?		X	
COC/Samples marked containing PCBs?		X	
Shipped as a DOT Hazardous?		X	Hazard Class Shipped: UN#:
Samples identified as Foreign Soil?		X	

	Sample Receipt Criteria	**Yes**	**NA**	**No**	**Comments/Qualifiers (Required for Non-Conforming Items)**
1	Shipping containers received intact and sealed?	X			Circle Applicable: seals broken damaged container leaking container other (describe)
2	Samples requiring cold preservation within 0 ≤ 6 deg. C?	X			Preservation Method: ice bags **blue ice** dry ice **none** other 1-3 12C
3	Chain of custody documents included with shipment?	X			
4	Sample containers intact and sealed?	X			Circle Applicable: seals broken damaged container leaking container other (describe)
5	Samples requiring chemical preservation at proper pH?	X			Sample ID's, containers affected and observed pH: If Preservation added, Lot#:
6	VOA vials free of headspace (defined as < 6mm bubble)?	~~X~~	X		Sample ID's and containers affected:
7	Are Encore containers present?			X	(If yes, immediately deliver to Volatiles laboratory)
8	Samples received within holding time?	X			Id's and tests affected:
9	Sample ID's on COC match ID's on bottles?	X			Sample ID's and containers affected:
10	Date & time on COC match date & time on bottles?		X		Sample ID's affected: **No time on Chain of Custody.**
11	Number of containers received match number indicated on COC?	X			Sample ID's affected:
12	COC form is properly signed in relinquished/received sections?	X			

Comments:
Fed Ex Tracking Numbers
7209 7849 1970 1C 7209 7849 1969 12C
7209 7849 2027 1C
7209 7849 1991 1C
7209 7849 2038 1C
7209 7849 2049 1C
7209 7849 2050 2C
7209 7849 2060 2C
7209 7849 1980 3C

PM (or PMA) review: Initials P. Neh. Date 12-15-09

ORIGIN ID: SAFA (505)665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 10DEC09
ACTWGT: 50.0 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843)556-8171
REF: 6B010AMR1A015AGWM0

1c

FedEx Express

1 of 2

TRK# 0201 7209 7849 1970

FRI - 11DEC A1
PRIORITY OVERNIGHT

MASTER

29407
SC-US
CHS

XX CHSA

Part # 156148-434 NHII V3 09-09

ORIGIN ID: SAFA (505)665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 10DEC09
ACTWGT: 51.0 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843)556-8171
REF: 6B010AMR2A054196D0

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FedEx Express

1 of 2

TRK# 0201 7209 7849 2027

FRI - 11DEC A1
PRIORITY OVERNIGHT

MASTER

29407
SC-US
CHS

XX CHSA

Part # 156148-434 NRIT V3 09-09

ORIGIN ID: SAFA (505)665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 10DEC09
ACTWGT: 51.0 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843)556-8171
REF: 6B010AMR1A015AGWM0

1c

FedEx Express

TRK# 0201 7209 7849 1991

FRI - 11DEC A1
PRIORITY OVERNIGHT

29407
SC-US
CHS

CHSA

ORIGIN ID: SAFA (505)665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 10DEC09
ACTWGT: 55.0 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843)556-8171
REF: 6B010AMR2A054196D0

1c

FedEx Express

2 of 2

MPS# 0263 7209 7849 2038
Mstr# 7209 7849 2027 0201

FRI - 11DEC A1
PRIORITY OVERNIGHT

29407
SC-US

XX CHSA

JOYLENE VALDEZ (505)665-9968
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 10DEC09
ACTWGT: 59.0 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843)556-8171
REF: 6B010AAREW01105800

1c

FedEx Express

TRK# 0201 7209 7849 2049

FRI - 11DEC A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

ORIGIN ID: SAFA (505)665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 10DEC09
ACTWGT: 34.0 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843)556-8171
REF: 6B010AWE6L11550000

2c

FedEx Express

TRK# 0201 7209 7849 2050

FRI - 11DEC A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

ORIGIN ID: SAFA (505)665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 10DEC09
ACTWGT: 36.0 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843)556-8171
REF: 6B010AMR8R0325BF00

2c

FedEx Express

TRK# 0201 7209 7849 2060

FRI - 11DEC A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

ORIGIN ID: SAFA (505)665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 10DEC09
ACTWGT: 50.0 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843)556-8171
REF: 6B010AMR1A015AGWM0

3c

FedEx Express

2 of 2
MPS# 0263 7209 7849 1980
Mstr# 7209 7849 1970 0201

FRI - 11DEC A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

ORIGIN ID: SAFA (505)665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 10DEC09
ACTWGT: 41.0 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843)556-9171
REF: 6B010AMR3A0352VA00

12c

FedEx Express

2 of 2
MPS# 0263 7209 7849 1969
Matrix 7209 7849 1958 0201

FRI - 11DEC A1
PRIORITY OVERNIGHT

29407
SC-US
CHS

XX CHSA

Data Review Qualifier Flag Definition Sheet

Data Review Qualifier Definitions

Qualifier	Explanation
*	A quality control analyte recovery is outside of specified acceptance criteria
**	Analyte is a surrogate compound
<	Result is less than value reported
>	Result is greater than value reported
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL
A	The TIC is a suspected aldol-condensation product
B	Target analyte was detected in the associated blank
B	Metals-Either presence of analyte detected in the associated blank, or MDL/IDL < sample value < PQL
BD	Results are either below the MDC or tracer recovery is low
C	Analyte has been confirmed by GC/MS analysis
D	Results are reported from a diluted aliquot of the sample
d	5-day BOD-The 2:1 depletion requirement was not met for this sample
E	Organics-Concentration of the target analyte exceeds the instrument calibration range
E	Metals-%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
H	Analytical holding time was exceeded
h	Preparation or preservation holding time was exceeded
J	Value is estimated
N	Metals-The Matrix spike sample recovery is not within specified control limits
N	Organics-Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A	Spike recovery limits do not apply. Sample concentration exceeds spike concentration by 4X or more
ND	Analyte concentration is not detected above the reporting limit
UI	Gamma Spectroscopy-Uncertain identification
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
Z	Paint Filter Test-Particulates passed through the filter, however no free liquids were observed.

GC/MS Volatile Analysis

GC/MS Volatile Organics
Los Alamos National Laboratory (LANL)
SDG 10-886

Method/Analysis Information

Procedure:	Volatile Organic Compounds (VOC) by Gas Chromatograph/Mass Spectrometer
Analytical Method:	SW846 8260B
Prep Method:	SW846 5030
Analytical Batch Number:	934726
Prep Batch Number:	934721

Sample Analysis

The following client and quality control samples were analyzed to complete this SDG using the methods referenced in the Analysis Information section:

Sample ID	Client ID
242750001	RE03-09-13467
242750002	RE03-09-13466
242750003	RE03-09-13468
242750004	RE03-09-13465
242750005	RE03-10-2003
242750006	RE03-10-6937
1201999839	Method Blank (MB)
1201999842	Laboratory Control Sample (LCS)
1201999843	Laboratory Control Sample (LCS)
1201999840	242750001(RE03-09-13467) Post Spike (PS)
1201999841	242750001(RE03-09-13467) Post Spike Duplicate (PSD)

NOTE: For volatile organic analyses the matrix spike designations may be indicated as "PS" or "PSD". The "PS" designation (post spike) indicates that the matrix was fortified prior to analysis but after applying any prep factors, such as a dilution. The laboratory considers the MS/MSD and PS/PSD designations interchangeable.
Samples 242750 001, 002, 003, 004 and 005 in this SDG were analyzed on an "dry weight" basis. Samples 242750 006 in this SDG were analyzed on a "as received" basis.

Preparation/Analytical Method Verification

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-038 REV# 13.

Raw data reports are processed and reviewed by the analyst using the Target software package. False positives have been removed from the Target quantitation reports per standard operating procedures (SOP) section 19.1.2.

Calibration Information

Please note that the 'Cal Date' indicated on each quantitation report reflects the date and time of the most recent calibrated analyte(s) in the Target processing method. Since the laboratory may calibrate with multiple solutions on different days using the same processing method, the Target software will update the 'Cal Date' to the last calibration file, date and time. The correct dates and times for all calibration files are located on the Calibration History report in the Standard Data section in the data package.

The surrogate compounds were calibrated using a minimum five-point calibration curve. The surrogates were added by the auto sampler at a concentration of 50 ug/L. GEL Laboratories LLC will not have surrogate recoveries reported for Dibromofluoromethane. This is due to increased regulations for this analyte and an industry shortage.

Due to software limitations, the Calibration Summary Form 6 may not indicate all the calibration files comprising the initial calibration. A complete list of the initial calibration data files are shown in the Calibration History report located in the Standard Data section of the data package.

The linear equation used in Target and indicated on the initial calibration summary form is not a conventional linear equation (slope intercept formula) and does not match the equation found in SW-846 method 8000B. The x and y axes are inversed in Target, so that the instrument response is treated as the independent variable (x) and the concentration ratio is treated as the dependent variable (y). The equation used in Target to calculate sample results is adjusted to account for the linear equation inversion and reciprocal slope. The adjusted calculation has been independently verified to produce valid results.

Initial Calibration

All initial calibration requirements have been met for this sample delivery groups (SDG). A second source initial calibration verification (ICV) was included in the standard section directly behind the initial calibration.

Continuing Calibration Verification Requirements

All associated calibration verification standard(s) (ICV or CCV) met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement

The MB analyzed with this SDG met the acceptance criteria.

Surrogate Recoveries

Surrogate recoveries in all client and quality control samples were within the acceptance limits.

Laboratory Control Sample (LCS) Recovery

The LCS spike recoveries met the acceptance limits.

QC Sample Designation

Sample 242750001 (RE03-09-13467) was designated for spike analysis in this SDG.

Matrix Spike (PS) Recovery Statement

The spike recoveries for this SDG were within the required acceptance limits.

Matrix Spike Duplicate (PSD) Recovery Statement

The spike duplicate recoveries for this SDG were within the required acceptance limits.

Relative Percent Difference (RPD) Statement

The RPD(s) between the matrix spike pair met the acceptance limits.

Internal Standard (ISTD) Acceptance
The internal standard responses in all client and quality control samples met the required acceptance criteria.

Technical Information

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection or sample receipt. Those holding times expressed in hours are calculated in the ALPHALIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Sample Preservation and Integrity
All samples met the sample preservation and integrity requirements.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-extraction/Re-analysis
Re-analyses were not required for samples in this SDG.

Miscellaneous Information

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted: Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. An electronic signature page inserted after the case narrative of each electronic package will indicate the analyst, reviewer, and report specialist names associated with the generation of the data and package. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Nonconformance (NCR) Documentation
A nonconformance report was not required for this SDG.

Manual Integrations
Data files associated with the initial calibration, continuing calibration check, and samples did not require manual integrations.

TIC Comment
Tentatively identified compounds (TIC) were required for this SDG.

Additional Comments
Additional comments were not required for this SDG.

Residual Chlorine
Residual Chlorine was not detected in any of the samples in this SDG.

System Configuration

The Volatile-GC/MS analysis was performed on the following instrument configuration:

Instrument ID	Instrument	System Configuration	Column ID	Column Description	P & T Trap
VOA1.I	Gas Chromatograph/Mass Spectrometer	HP6890/HP5973	RTX-624	Restek, 60m x 0.25mm x 1.4um	Trap 10

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis Report
for

LANL010 Los Alamos National Laboratory (72733-001-09)

Client SDG: 10-886 GEL Work Order: 242750

The Qualifiers in this report are defined as follows:

* A quality control analyte recovery is outside of specified acceptance criteria

** Analyte is a surrogate compound

J Value is estimated

U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

Review/Validation

GEL requires all analytical data to be verified by a qualified data reviewer. In addition, all CLP-like deliverables receive a third level review of the fractional data package.

The following data validator verified the information presented in this case narrative:

Signature: Stacy Calloway **Name: Stacy Calloway**

Date: 06 JAN 2010 **Title: Data Validator**

Roadmap for LANL 10-886 VOA

This roadmap was analyzed by ron01469 on 12-23-2009, 12:40.
This roadmap was reviewed by sar00518 on 12-24-2009, 09:50.

Sample

exclude	manual	datafile	smpid	clientid	injdate	injtime	sublist	dilution	batchid	comment
■	N	/chem/VOA1.i/121809v1/1r507.d	242750001	RE03-09-13467	18-DEC-2009	13:31	10-886.sub	1	934726	
□	N	/chem/VOA1.i/121809v1/1r509.d	242750001	RE03-09-13467	18-DEC-2009	14:42	10-886.sub	1	934726	
□	N	/chem/VOA1.i/121809v1/1r510.d	242750002	RE03-09-13466	18-DEC-2009	15:12	10-886.sub	1	934726	
□	N	/chem/VOA1.i/121809v1/1r511.d	242750003	RE03-09-13468	18-DEC-2009	15:42	10-886.sub	1	934726	
□	N	/chem/VOA1.i/121809v1/1r512.d	242750004	RE03-09-13465	18-DEC-2009	16:13	10-886.sub	1	934726	
□	N	/chem/VOA1.i/121809v1/1r513.d	242750005	RE03-10-2003	18-DEC-2009	16:43	10-886.sub	1	934726	
□	N	/chem/VOA1.i/121809v1/1r514.d	242750006	RE03-10-6937	18-DEC-2009	17:13	10-886.sub	1	934726	

QC Sample

exclude	manual	datafile	smpid	clientid	sampletype	injdate	injtime	sublist	dilution	batchid	comment
□	N	/chem/VOA1.i/121809v1/1r503LA.d	1201999842	LCS	lcs	18-DEC-2009	10:23	all.sub	1	934726	
□	N	/chem/VOA1.i/121809v1/1r505sLA.d	1201999843	LCS	lcs	18-DEC-2009	11:28	all.sub	1	934726	
□	N	/chem/VOA1.i/121809v1/1r508BA.d	1201999839	BLANK	mb	18-DEC-2009	14:12	all.sub	1	934726	
□	N	/chem/VOA1.i/121809v1/1r520.d	1201999840	RE03-09-13467MS	ms	18-DEC-2009	20:18	10-886.sub	1	934726	
□	N	/chem/VOA1.i/121809v1/1r521.d	1201999841	RE03-09-13467MSD	msd	18-DEC-2009	20:48	10-886.sub	1	934726	

Sample Data Summary

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-886	Date Collected:	12/09/2009 12:00	Matrix:	S
Lab Sample ID:	242750004	Date Received:	12/11/2009 08:50	%Moisture:	7
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-13465	Method:	SW846 8260B	SOP Ref:	GL-OA-E-038
Batch ID:	934726	Inst:	VOA1.I	Dilution:	1
Run Date:	12/18/2009 16:13	Analyst:	RXM4	Purge Vol:	5 mL
Prep Date:	12/18/2009 12:20	Aliquot:	5 g	Final Volume:	5 mL
Data File:	1r512.d	Column:	RTX-Volatiles	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.07	ug/kg	0.365	1.07
74-87-3	Chloromethane	U	1.07	ug/kg	0.322	1.07
75-01-4	Vinyl chloride	U	1.07	ug/kg	0.322	1.07
74-83-9	Bromomethane	U	1.07	ug/kg	0.322	1.07
75-00-3	Chloroethane	U	1.07	ug/kg	0.322	1.07
75-69-4	Trichlorofluoromethane	U	1.07	ug/kg	0.322	1.07
67-64-1	Acetone	U	5.37	ug/kg	1.78	5.37
75-35-4	1,1-Dichloroethylene	U	1.07	ug/kg	0.322	1.07
74-88-4	Iodomethane	U	5.37	ug/kg	1.72	5.37
75-09-2	Methylene chloride	U	5.37	ug/kg	2.15	5.37
75-15-0	Carbon disulfide	U	5.37	ug/kg	1.34	5.37
156-60-5	trans-1,2-Dichloroethylene	U	1.07	ug/kg	0.322	1.07
75-34-3	1,1-Dichloroethane	U	1.07	ug/kg	0.322	1.07
78-93-3	2-Butanone	U	5.37	ug/kg	1.61	5.37
156-59-2	cis-1,2-Dichloroethylene	U	1.07	ug/kg	0.322	1.07
594-20-7	2,2-Dichloropropane	U	1.07	ug/kg	0.322	1.07
67-66-3	Chloroform	U	1.07	ug/kg	0.322	1.07
74-97-5	Bromochloromethane	U	1.07	ug/kg	0.355	1.07
71-55-6	1,1,1-Trichloroethane	U	1.07	ug/kg	0.322	1.07
563-58-6	1,1-Dichloropropene	U	1.07	ug/kg	0.322	1.07
56-23-5	Carbon tetrachloride	U	1.07	ug/kg	0.322	1.07
107-06-2	1,2-Dichloroethane	U	1.07	ug/kg	0.322	1.07
71-43-2	Benzene	U	1.07	ug/kg	0.322	1.07
79-01-6	Trichloroethylene	U	1.07	ug/kg	0.355	1.07
78-87-5	1,2-Dichloropropane	U	1.07	ug/kg	0.322	1.07
75-27-4	Bromodichloromethane	U	1.07	ug/kg	0.322	1.07
74-95-3	Dibromomethane	U	1.07	ug/kg	0.322	1.07
108-10-1	4-Methyl-2-pentanone	U	5.37	ug/kg	1.34	5.37
10061-01-5	cis-1,3-Dichloropropylene	U	1.07	ug/kg	0.322	1.07
108-88-3	Toluene	U	1.07	ug/kg	0.322	1.07
10061-02-6	trans-1,3-Dichloropropylene	U	1.07	ug/kg	0.322	1.07
79-00-5	1,1,2-Trichloroethane	U	1.07	ug/kg	0.322	1.07
591-78-6	2-Hexanone	U	5.37	ug/kg	1.61	5.37
142-28-9	1,3-Dichloropropane	U	1.07	ug/kg	0.322	1.07
127-18-4	Tetrachloroethylene	U	1.07	ug/kg	0.322	1.07
124-48-1	Dibromochloromethane	U	1.07	ug/kg	0.322	1.07
106-93-4	1,2-Dibromoethane	U	1.07	ug/kg	0.322	1.07
108-90-7	Chlorobenzene	U	1.07	ug/kg	0.322	1.07

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-886**	**Date Collected:**	**12/09/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242750004**	**Date Received:**	**12/11/2009 08:50**	**%Moisture:**	**7**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-13465**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**934726**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**12/18/2009 16:13**	**Analyst:**	**RXM4**	**Purge Vol:**	**5 mL**
Prep Date:	**12/18/2009 12:20**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1r512.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.07	ug/kg	0.322	1.07
179601-23-1	m,p-Xylenes	U	2.15	ug/kg	0.322	2.15
95-47-6	o-Xylene	U	1.07	ug/kg	0.322	1.07
100-42-5	Styrene	U	1.07	ug/kg	0.322	1.07
75-25-2	Bromoform	U	1.07	ug/kg	0.322	1.07
79-34-5	1,1,2,2-Tetrachloroethane	U	1.07	ug/kg	0.322	1.07
96-18-4	1,2,3-Trichloropropane	U	1.07	ug/kg	0.322	1.07
108-86-1	Bromobenzene	U	1.07	ug/kg	0.322	1.07
103-65-1	n-Propylbenzene	U	1.07	ug/kg	0.322	1.07
95-49-8	2-Chlorotoluene	U	1.07	ug/kg	0.322	1.07
98-82-8	Isopropylbenzene	U	1.07	ug/kg	0.322	1.07
108-67-8	1,3,5-Trimethylbenzene	U	1.07	ug/kg	0.322	1.07
106-43-4	4-Chlorotoluene	U	1.07	ug/kg	0.322	1.07
98-06-6	tert-Butylbenzene	U	1.07	ug/kg	0.322	1.07
95-63-6	1,2,4-Trimethylbenzene	U	1.07	ug/kg	0.322	1.07
135-98-8	sec-Butylbenzene	U	1.07	ug/kg	0.322	1.07
99-87-6	4-Isopropyltoluene	U	1.07	ug/kg	0.322	1.07
541-73-1	1,3-Dichlorobenzene	U	1.07	ug/kg	0.322	1.07
106-46-7	1,4-Dichlorobenzene	U	1.07	ug/kg	0.322	1.07
104-51-8	n-Butylbenzene	U	1.07	ug/kg	0.322	1.07
96-12-8	1,2-Dibromo-3-chloropropane	U	1.07	ug/kg	0.322	1.07
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.37	ug/kg	1.72	5.37
630-20-6	1,1,1,2-Tetrachloroethane	U	1.07	ug/kg	0.322	1.07
95-50-1	1,2-Dichlorobenzene	U	1.07	ug/kg	0.322	1.07

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Hydrocarbon	18.07	6.87	ug/kg		J

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-886**	**Date Collected:**	**12/09/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242750002**	**Date Received:**	**12/11/2009 08:50**	**%Moisture:**	**8.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-13466**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**934726**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**12/18/2009 15:12**	**Analyst:**	**RXM4**	**Purge Vol:**	**5 mL**
Prep Date:	**12/18/2009 12:18**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1r510.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.09	ug/kg	0.372	1.09
74-87-3	Chloromethane	U	1.09	ug/kg	0.328	1.09
75-01-4	Vinyl chloride	U	1.09	ug/kg	0.328	1.09
74-83-9	Bromomethane	U	1.09	ug/kg	0.328	1.09
75-00-3	Chloroethane	U	1.09	ug/kg	0.328	1.09
75-69-4	Trichlorofluoromethane	U	1.09	ug/kg	0.328	1.09
67-64-1	Acetone	U	5.47	ug/kg	1.81	5.47
75-35-4	1,1-Dichloroethylene	U	1.09	ug/kg	0.328	1.09
74-88-4	Iodomethane	U	5.47	ug/kg	1.75	5.47
75-09-2	Methylene chloride	U	5.47	ug/kg	2.19	5.47
75-15-0	Carbon disulfide	U	5.47	ug/kg	1.37	5.47
156-60-5	trans-1,2-Dichloroethylene	U	1.09	ug/kg	0.328	1.09
75-34-3	1,1-Dichloroethane	U	1.09	ug/kg	0.328	1.09
78-93-3	2-Butanone	U	5.47	ug/kg	1.64	5.47
156-59-2	cis-1,2-Dichloroethylene	U	1.09	ug/kg	0.328	1.09
594-20-7	2,2-Dichloropropane	U	1.09	ug/kg	0.328	1.09
67-66-3	Chloroform	U	1.09	ug/kg	0.328	1.09
74-97-5	Bromochloromethane	U	1.09	ug/kg	0.361	1.09
71-55-6	1,1,1-Trichloroethane	U	1.09	ug/kg	0.328	1.09
563-58-6	1,1-Dichloropropene	U	1.09	ug/kg	0.328	1.09
56-23-5	Carbon tetrachloride	U	1.09	ug/kg	0.328	1.09
107-06-2	1,2-Dichloroethane	U	1.09	ug/kg	0.328	1.09
71-43-2	Benzene	U	1.09	ug/kg	0.328	1.09
79-01-6	Trichloroethylene	U	1.09	ug/kg	0.361	1.09
78-87-5	1,2-Dichloropropane	U	1.09	ug/kg	0.328	1.09
75-27-4	Bromodichloromethane	U	1.09	ug/kg	0.328	1.09
74-95-3	Dibromomethane	U	1.09	ug/kg	0.328	1.09
108-10-1	4-Methyl-2-pentanone	U	5.47	ug/kg	1.37	5.47
10061-01-5	cis-1,3-Dichloropropylene	U	1.09	ug/kg	0.328	1.09
108-88-3	Toluene	U	1.09	ug/kg	0.328	1.09
10061-02-6	trans-1,3-Dichloropropylene	U	1.09	ug/kg	0.328	1.09
79-00-5	1,1,2-Trichloroethane	U	1.09	ug/kg	0.328	1.09
591-78-6	2-Hexanone	U	5.47	ug/kg	1.64	5.47
142-28-9	1,3-Dichloropropane	U	1.09	ug/kg	0.328	1.09
127-18-4	Tetrachloroethylene	U	1.09	ug/kg	0.328	1.09
124-48-1	Dibromochloromethane	U	1.09	ug/kg	0.328	1.09
106-93-4	1,2-Dibromoethane	U	1.09	ug/kg	0.328	1.09
108-90-7	Chlorobenzene	U	1.09	ug/kg	0.328	1.09

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-886**	**Date Collected:**	**12/09/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242750002**	**Date Received:**	**12/11/2009 08:50**	**%Moisture:**	**8.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-13466**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**934726**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**12/18/2009 15:12**	**Analyst:**	**RXM4**	**Purge Vol:**	**5 mL**
Prep Date:	**12/18/2009 12:18**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1r510.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.09	ug/kg	0.328	1.09
179601-23-1	m,p-Xylenes	U	2.19	ug/kg	0.328	2.19
95-47-6	o-Xylene	U	1.09	ug/kg	0.328	1.09
100-42-5	Styrene	U	1.09	ug/kg	0.328	1.09
75-25-2	Bromoform	U	1.09	ug/kg	0.328	1.09
79-34-5	1,1,2,2-Tetrachloroethane	U	1.09	ug/kg	0.328	1.09
96-18-4	1,2,3-Trichloropropane	U	1.09	ug/kg	0.328	1.09
108-86-1	Bromobenzene	U	1.09	ug/kg	0.328	1.09
103-65-1	n-Propylbenzene	U	1.09	ug/kg	0.328	1.09
95-49-8	2-Chlorotoluene	U	1.09	ug/kg	0.328	1.09
98-82-8	Isopropylbenzene	U	1.09	ug/kg	0.328	1.09
108-67-8	1,3,5-Trimethylbenzene	U	1.09	ug/kg	0.328	1.09
106-43-4	4-Chlorotoluene	U	1.09	ug/kg	0.328	1.09
98-06-6	tert-Butylbenzene	U	1.09	ug/kg	0.328	1.09
95-63-6	1,2,4-Trimethylbenzene	U	1.09	ug/kg	0.328	1.09
135-98-8	sec-Butylbenzene	U	1.09	ug/kg	0.328	1.09
99-87-6	4-Isopropyltoluene	U	1.09	ug/kg	0.328	1.09
541-73-1	1,3-Dichlorobenzene	U	1.09	ug/kg	0.328	1.09
106-46-7	1,4-Dichlorobenzene	U	1.09	ug/kg	0.328	1.09
104-51-8	n-Butylbenzene	U	1.09	ug/kg	0.328	1.09
96-12-8	1,2-Dibromo-3-chloropropane	U	1.09	ug/kg	0.328	1.09
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.47	ug/kg	1.75	5.47
630-20-6	1,1,1,2-Tetrachloroethane	U	1.09	ug/kg	0.328	1.09
95-50-1	1,2-Dichlorobenzene	U	1.09	ug/kg	0.328	1.09

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Hydrocarbon	18.07	42.2	ug/kg		J

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-886	**Date Collected:**	12/09/2009 12:00	**Matrix:**	S
Lab Sample ID:	242750001	**Date Received:**	12/11/2009 08:50	**%Moisture:**	3.9
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-13467	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	934726	**Inst:**	VOA1.I	**Dilution:**	1
Run Date:	12/18/2009 14:42	**Analyst:**	RXM4	**Purge Vol:**	5 mL
Prep Date:	12/18/2009 13:45	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	1r509.d	**Column:**	RTX-Volatiles	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.04	ug/kg	0.354	1.04
74-87-3	Chloromethane	U	1.04	ug/kg	0.312	1.04
75-01-4	Vinyl chloride	U	1.04	ug/kg	0.312	1.04
74-83-9	Bromomethane	U	1.04	ug/kg	0.312	1.04
75-00-3	Chloroethane	U	1.04	ug/kg	0.312	1.04
75-69-4	Trichlorofluoromethane	U	1.04	ug/kg	0.312	1.04
67-64-1	Acetone	U	5.20	ug/kg	1.73	5.20
75-35-4	1,1-Dichloroethylene	U	1.04	ug/kg	0.312	1.04
74-88-4	Iodomethane	U	5.20	ug/kg	1.67	5.20
75-09-2	Methylene chloride	U	5.20	ug/kg	2.08	5.20
75-15-0	Carbon disulfide	U	5.20	ug/kg	1.30	5.20
156-60-5	trans-1,2-Dichloroethylene	U	1.04	ug/kg	0.312	1.04
75-34-3	1,1-Dichloroethane	U	1.04	ug/kg	0.312	1.04
78-93-3	2-Butanone	U	5.20	ug/kg	1.56	5.20
156-59-2	cis-1,2-Dichloroethylene	U	1.04	ug/kg	0.312	1.04
594-20-7	2,2-Dichloropropane	U	1.04	ug/kg	0.312	1.04
67-66-3	Chloroform	U	1.04	ug/kg	0.312	1.04
74-97-5	Bromochloromethane	U	1.04	ug/kg	0.343	1.04
71-55-6	1,1,1-Trichloroethane	U	1.04	ug/kg	0.312	1.04
563-58-6	1,1-Dichloropropene	U	1.04	ug/kg	0.312	1.04
56-23-5	Carbon tetrachloride	U	1.04	ug/kg	0.312	1.04
107-06-2	1,2-Dichloroethane	U	1.04	ug/kg	0.312	1.04
71-43-2	Benzene	U	1.04	ug/kg	0.312	1.04
79-01-6	Trichloroethylene	U	1.04	ug/kg	0.343	1.04
78-87-5	1,2-Dichloropropane	U	1.04	ug/kg	0.312	1.04
75-27-4	Bromodichloromethane	U	1.04	ug/kg	0.312	1.04
74-95-3	Dibromomethane	U	1.04	ug/kg	0.312	1.04
108-10-1	4-Methyl-2-pentanone	U	5.20	ug/kg	1.30	5.20
10061-01-5	cis-1,3-Dichloropropylene	U	1.04	ug/kg	0.312	1.04
108-88-3	Toluene	U	1.04	ug/kg	0.312	1.04
10061-02-6	trans-1,3-Dichloropropylene	U	1.04	ug/kg	0.312	1.04
79-00-5	1,1,2-Trichloroethane	U	1.04	ug/kg	0.312	1.04
591-78-6	2-Hexanone	U	5.20	ug/kg	1.56	5.20
142-28-9	1,3-Dichloropropane	U	1.04	ug/kg	0.312	1.04
127-18-4	Tetrachloroethylene	U	1.04	ug/kg	0.312	1.04
124-48-1	Dibromochloromethane	U	1.04	ug/kg	0.312	1.04
106-93-4	1,2-Dibromoethane	U	1.04	ug/kg	0.312	1.04
108-90-7	Chlorobenzene	U	1.04	ug/kg	0.312	1.04

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-886	Date Collected:	12/09/2009 12:00	Matrix:	S
Lab Sample ID:	242750001	Date Received:	12/11/2009 08:50	%Moisture:	3.9
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-13467	Method:	SW846 8260B	SOP Ref:	GL-OA-E-038
Batch ID:	934726	Inst:	VOA1.I	Dilution:	1
Run Date:	12/18/2009 14:42	Analyst:	RXM4	Purge Vol:	5 mL
Prep Date:	12/18/2009 13:45	Aliquot:	5 g	Final Volume:	5 mL
Data File:	1r509.d	Column:	RTX-Volatiles	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.04	ug/kg	0.312	1.04
179601-23-1	m,p-Xylenes	U	2.08	ug/kg	0.312	2.08
95-47-6	o-Xylene	U	1.04	ug/kg	0.312	1.04
100-42-5	Styrene	U	1.04	ug/kg	0.312	1.04
75-25-2	Bromoform	U	1.04	ug/kg	0.312	1.04
79-34-5	1,1,2,2-Tetrachloroethane	U	1.04	ug/kg	0.312	1.04
96-18-4	1,2,3-Trichloropropane	U	1.04	ug/kg	0.312	1.04
108-86-1	Bromobenzene	U	1.04	ug/kg	0.312	1.04
103-65-1	n-Propylbenzene	U	1.04	ug/kg	0.312	1.04
95-49-8	2-Chlorotoluene	U	1.04	ug/kg	0.312	1.04
98-82-8	Isopropylbenzene	U	1.04	ug/kg	0.312	1.04
108-67-8	1,3,5-Trimethylbenzene	U	1.04	ug/kg	0.312	1.04
106-43-4	4-Chlorotoluene	U	1.04	ug/kg	0.312	1.04
98-06-6	tert-Butylbenzene	U	1.04	ug/kg	0.312	1.04
95-63-6	1,2,4-Trimethylbenzene	U	1.04	ug/kg	0.312	1.04
135-98-8	sec-Butylbenzene	U	1.04	ug/kg	0.312	1.04
99-87-6	4-Isopropyltoluene	U	1.04	ug/kg	0.312	1.04
541-73-1	1,3-Dichlorobenzene	U	1.04	ug/kg	0.312	1.04
106-46-7	1,4-Dichlorobenzene	U	1.04	ug/kg	0.312	1.04
104-51-8	n-Butylbenzene	U	1.04	ug/kg	0.312	1.04
96-12-8	1,2-Dibromo-3-chloropropane	U	1.04	ug/kg	0.312	1.04
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.20	ug/kg	1.67	5.20
630-20-6	1,1,1,2-Tetrachloroethane	U	1.04	ug/kg	0.312	1.04
95-50-1	1,2-Dichlorobenzene	U	1.04	ug/kg	0.312	1.04

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Siloxane	18.07	23.9	ug/kg		J

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-886	**Date Collected:**	12/09/2009 12:00	**Matrix:**	S
Lab Sample ID:	242750003	**Date Received:**	12/11/2009 08:50	**%Moisture:**	9.3
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-13468	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	934726	**Inst:**	VOA1.I	**Dilution:**	1
Run Date:	12/18/2009 15:42	**Analyst:**	RXM4	**Purge Vol:**	5 mL
Prep Date:	12/18/2009 12:19	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	1r511.d	**Column:**	RTX-Volatiles	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.10	ug/kg	0.375	1.10
74-87-3	Chloromethane	U	1.10	ug/kg	0.331	1.10
75-01-4	Vinyl chloride	U	1.10	ug/kg	0.331	1.10
74-83-9	Bromomethane	U	1.10	ug/kg	0.331	1.10
75-00-3	Chloroethane	U	1.10	ug/kg	0.331	1.10
75-69-4	Trichlorofluoromethane	U	1.10	ug/kg	0.331	1.10
67-64-1	Acetone	U	5.51	ug/kg	1.83	5.51
75-35-4	1,1-Dichloroethylene	U	1.10	ug/kg	0.331	1.10
74-88-4	Iodomethane	U	5.51	ug/kg	1.76	5.51
75-09-2	Methylene chloride	U	5.51	ug/kg	2.21	5.51
75-15-0	Carbon disulfide	U	5.51	ug/kg	1.38	5.51
156-60-5	trans-1,2-Dichloroethylene	U	1.10	ug/kg	0.331	1.10
75-34-3	1,1-Dichloroethane	U	1.10	ug/kg	0.331	1.10
78-93-3	2-Butanone	U	5.51	ug/kg	1.65	5.51
156-59-2	cis-1,2-Dichloroethylene	U	1.10	ug/kg	0.331	1.10
594-20-7	2,2-Dichloropropane	U	1.10	ug/kg	0.331	1.10
67-66-3	Chloroform	U	1.10	ug/kg	0.331	1.10
74-97-5	Bromochloromethane	U	1.10	ug/kg	0.364	1.10
71-55-6	1,1,1-Trichloroethane	U	1.10	ug/kg	0.331	1.10
563-58-6	1,1-Dichloropropene	U	1.10	ug/kg	0.331	1.10
56-23-5	Carbon tetrachloride	U	1.10	ug/kg	0.331	1.10
107-06-2	1,2-Dichloroethane	U	1.10	ug/kg	0.331	1.10
71-43-2	Benzene	U	1.10	ug/kg	0.331	1.10
79-01-6	Trichloroethylene	U	1.10	ug/kg	0.364	1.10
78-87-5	1,2-Dichloropropane	U	1.10	ug/kg	0.331	1.10
75-27-4	Bromodichloromethane	U	1.10	ug/kg	0.331	1.10
74-95-3	Dibromomethane	U	1.10	ug/kg	0.331	1.10
108-10-1	4-Methyl-2-pentanone	U	5.51	ug/kg	1.38	5.51
10061-01-5	cis-1,3-Dichloropropylene	U	1.10	ug/kg	0.331	1.10
108-88-3	Toluene	U	1.10	ug/kg	0.331	1.10
10061-02-6	trans-1,3-Dichloropropylene	U	1.10	ug/kg	0.331	1.10
79-00-5	1,1,2-Trichloroethane	U	1.10	ug/kg	0.331	1.10
591-78-6	2-Hexanone	U	5.51	ug/kg	1.65	5.51
142-28-9	1,3-Dichloropropane	U	1.10	ug/kg	0.331	1.10
127-18-4	Tetrachloroethylene	U	1.10	ug/kg	0.331	1.10
124-48-1	Dibromochloromethane	U	1.10	ug/kg	0.331	1.10
106-93-4	1,2-Dibromoethane	U	1.10	ug/kg	0.331	1.10
108-90-7	Chlorobenzene	U	1.10	ug/kg	0.331	1.10

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-886	**Date Collected:**	12/09/2009 12:00	**Matrix:**	S
Lab Sample ID:	242750003	**Date Received:**	12/11/2009 08:50	**%Moisture:**	9.3
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-13468	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	934726	**Inst:**	VOA1.I	**Dilution:**	1
Run Date:	12/18/2009 15:42	**Analyst:**	RXM4	**Purge Vol:**	5 mL
Prep Date:	12/18/2009 12:19	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	1r511.d	**Column:**	RTX-Volatiles	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.10	ug/kg	0.331	1.10
179601-23-1	m,p-Xylenes	U	2.21	ug/kg	0.331	2.21
95-47-6	o-Xylene	U	1.10	ug/kg	0.331	1.10
100-42-5	Styrene	U	1.10	ug/kg	0.331	1.10
75-25-2	Bromoform	U	1.10	ug/kg	0.331	1.10
79-34-5	1,1,2,2-Tetrachloroethane	U	1.10	ug/kg	0.331	1.10
96-18-4	1,2,3-Trichloropropane	U	1.10	ug/kg	0.331	1.10
108-86-1	Bromobenzene	U	1.10	ug/kg	0.331	1.10
103-65-1	n-Propylbenzene	U	1.10	ug/kg	0.331	1.10
95-49-8	2-Chlorotoluene	U	1.10	ug/kg	0.331	1.10
98-82-8	Isopropylbenzene	U	1.10	ug/kg	0.331	1.10
108-67-8	1,3,5-Trimethylbenzene	U	1.10	ug/kg	0.331	1.10
106-43-4	4-Chlorotoluene	U	1.10	ug/kg	0.331	1.10
98-06-6	tert-Butylbenzene	U	1.10	ug/kg	0.331	1.10
95-63-6	1,2,4-Trimethylbenzene	U	1.10	ug/kg	0.331	1.10
135-98-8	sec-Butylbenzene	U	1.10	ug/kg	0.331	1.10
99-87-6	4-Isopropyltoluene	U	1.10	ug/kg	0.331	1.10
541-73-1	1,3-Dichlorobenzene	U	1.10	ug/kg	0.331	1.10
106-46-7	1,4-Dichlorobenzene	U	1.10	ug/kg	0.331	1.10
104-51-8	n-Butylbenzene	U	1.10	ug/kg	0.331	1.10
96-12-8	1,2-Dibromo-3-chloropropane	U	1.10	ug/kg	0.331	1.10
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.51	ug/kg	1.76	5.51
630-20-6	1,1,1,2-Tetrachloroethane	U	1.10	ug/kg	0.331	1.10
95-50-1	1,2-Dichlorobenzene	U	1.10	ug/kg	0.331	1.10

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Siloxane	18.07	66.8	ug/kg		J
	Unknown Hydrocarbon	19.98	6.26	ug/kg		J

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-886**	**Date Collected:**	**12/09/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242750005**	**Date Received:**	**12/11/2009 08:50**	**%Moisture:**	**6.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-10-2003**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**934726**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**12/18/2009 16:43**	**Analyst:**	**RXM4**	**Purge Vol:**	**5 mL**
Prep Date:	**12/18/2009 12:21**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1r513.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.07	ug/kg	0.365	1.07
74-87-3	Chloromethane	U	1.07	ug/kg	0.322	1.07
75-01-4	Vinyl chloride	U	1.07	ug/kg	0.322	1.07
74-83-9	Bromomethane	U	1.07	ug/kg	0.322	1.07
75-00-3	Chloroethane	U	1.07	ug/kg	0.322	1.07
75-69-4	Trichlorofluoromethane	U	1.07	ug/kg	0.322	1.07
67-64-1	Acetone	U	5.37	ug/kg	1.78	5.37
75-35-4	1,1-Dichloroethylene	U	1.07	ug/kg	0.322	1.07
74-88-4	Iodomethane	U	5.37	ug/kg	1.72	5.37
75-09-2	Methylene chloride	U	5.37	ug/kg	2.15	5.37
75-15-0	Carbon disulfide	U	5.37	ug/kg	1.34	5.37
156-60-5	trans-1,2-Dichloroethylene	U	1.07	ug/kg	0.322	1.07
75-34-3	1,1-Dichloroethane	U	1.07	ug/kg	0.322	1.07
78-93-3	2-Butanone	U	5.37	ug/kg	1.61	5.37
156-59-2	cis-1,2-Dichloroethylene	U	1.07	ug/kg	0.322	1.07
594-20-7	2,2-Dichloropropane	U	1.07	ug/kg	0.322	1.07
67-66-3	Chloroform	U	1.07	ug/kg	0.322	1.07
74-97-5	Bromochloromethane	U	1.07	ug/kg	0.354	1.07
71-55-6	1,1,1-Trichloroethane	U	1.07	ug/kg	0.322	1.07
563-58-6	1,1-Dichloropropene	U	1.07	ug/kg	0.322	1.07
56-23-5	Carbon tetrachloride	U	1.07	ug/kg	0.322	1.07
107-06-2	1,2-Dichloroethane	U	1.07	ug/kg	0.322	1.07
71-43-2	Benzene	U	1.07	ug/kg	0.322	1.07
79-01-6	Trichloroethylene	U	1.07	ug/kg	0.354	1.07
78-87-5	1,2-Dichloropropane	U	1.07	ug/kg	0.322	1.07
75-27-4	Bromodichloromethane	U	1.07	ug/kg	0.322	1.07
74-95-3	Dibromomethane	U	1.07	ug/kg	0.322	1.07
108-10-1	4-Methyl-2-pentanone	U	5.37	ug/kg	1.34	5.37
10061-01-5	cis-1,3-Dichloropropylene	U	1.07	ug/kg	0.322	1.07
108-88-3	Toluene	U	1.07	ug/kg	0.322	1.07
10061-02-6	trans-1,3-Dichloropropylene	U	1.07	ug/kg	0.322	1.07
79-00-5	1,1,2-Trichloroethane	U	1.07	ug/kg	0.322	1.07
591-78-6	2-Hexanone	U	5.37	ug/kg	1.61	5.37
142-28-9	1,3-Dichloropropane	U	1.07	ug/kg	0.322	1.07
127-18-4	Tetrachloroethylene	U	1.07	ug/kg	0.322	1.07
124-48-1	Dibromochloromethane	U	1.07	ug/kg	0.322	1.07
106-93-4	1,2-Dibromoethane	U	1.07	ug/kg	0.322	1.07
108-90-7	Chlorobenzene	U	1.07	ug/kg	0.322	1.07

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-886	**Date Collected:**	12/09/2009 12:00	**Matrix:**	S
Lab Sample ID:	242750005	**Date Received:**	12/11/2009 08:50	**%Moisture:**	6.8
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-10-2003	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	934726	**Inst:**	VOA1.I	**Dilution:**	1
Run Date:	12/18/2009 16:43	**Analyst:**	RXM4	**Purge Vol:**	5 mL
Prep Date:	12/18/2009 12:21	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	1r513.d	**Column:**	RTX-Volatiles	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.07	ug/kg	0.322	1.07
179601-23-1	m,p-Xylenes	U	2.15	ug/kg	0.322	2.15
95-47-6	o-Xylene	U	1.07	ug/kg	0.322	1.07
100-42-5	Styrene	U	1.07	ug/kg	0.322	1.07
75-25-2	Bromoform	U	1.07	ug/kg	0.322	1.07
79-34-5	1,1,2,2-Tetrachloroethane	U	1.07	ug/kg	0.322	1.07
96-18-4	1,2,3-Trichloropropane	U	1.07	ug/kg	0.322	1.07
108-86-1	Bromobenzene	U	1.07	ug/kg	0.322	1.07
103-65-1	n-Propylbenzene	U	1.07	ug/kg	0.322	1.07
95-49-8	2-Chlorotoluene	U	1.07	ug/kg	0.322	1.07
98-82-8	Isopropylbenzene	U	1.07	ug/kg	0.322	1.07
108-67-8	1,3,5-Trimethylbenzene	U	1.07	ug/kg	0.322	1.07
106-43-4	4-Chlorotoluene	U	1.07	ug/kg	0.322	1.07
98-06-6	tert-Butylbenzene	U	1.07	ug/kg	0.322	1.07
95-63-6	1,2,4-Trimethylbenzene	U	1.07	ug/kg	0.322	1.07
135-98-8	sec-Butylbenzene	U	1.07	ug/kg	0.322	1.07
99-87-6	4-Isopropyltoluene	U	1.07	ug/kg	0.322	1.07
541-73-1	1,3-Dichlorobenzene	U	1.07	ug/kg	0.322	1.07
106-46-7	1,4-Dichlorobenzene	U	1.07	ug/kg	0.322	1.07
104-51-8	n-Butylbenzene	U	1.07	ug/kg	0.322	1.07
96-12-8	1,2-Dibromo-3-chloropropane	U	1.07	ug/kg	0.322	1.07
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.37	ug/kg	1.72	5.37
630-20-6	1,1,1,2-Tetrachloroethane	U	1.07	ug/kg	0.322	1.07
95-50-1	1,2-Dichlorobenzene	U	1.07	ug/kg	0.322	1.07

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Hydrocarbon	18.07	46.9	ug/kg		J

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-886**	**Date Collected:**	**12/09/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242750006**	**Date Received:**	**12/11/2009 08:50**		
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-10-6937**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**934726**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**12/18/2009 17:13**	**Analyst:**	**RXM4**	**Purge Vol:**	**5 mL**
Prep Date:	**12/18/2009 12:22**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1r514.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/kg	0.340	1.00
74-87-3	Chloromethane	U	1.00	ug/kg	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/kg	0.300	1.00
74-83-9	Bromomethane	U	1.00	ug/kg	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/kg	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/kg	0.300	1.00
67-64-1	Acetone	J	1.68	ug/kg	1.66	5.00
75-35-4	1,1-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/kg	1.60	5.00
75-09-2	Methylene chloride	U	5.00	ug/kg	2.00	5.00
75-15-0	Carbon disulfide	U	5.00	ug/kg	1.25	5.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/kg	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/kg	1.50	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/kg	0.300	1.00
74-97-5	Bromochloromethane	U	1.00	ug/kg	0.330	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/kg	0.300	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/kg	0.300	1.00
56-23-5	Carbon tetrachloride	U	1.00	ug/kg	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/kg	0.300	1.00
71-43-2	Benzene	U	1.00	ug/kg	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/kg	0.330	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/kg	0.300	1.00
74-95-3	Dibromomethane	U	1.00	ug/kg	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/kg	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
108-88-3	Toluene	U	1.00	ug/kg	0.300	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/kg	0.300	1.00
591-78-6	2-Hexanone	U	5.00	ug/kg	1.50	5.00
142-28-9	1,3-Dichloropropane	U	1.00	ug/kg	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/kg	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/kg	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/kg	0.300	1.00
108-90-7	Chlorobenzene	U	1.00	ug/kg	0.300	1.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-886**	**Date Collected:**	**12/09/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242750006**	**Date Received:**	**12/11/2009 08:50**		
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-10-6937**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**934726**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**12/18/2009 17:13**	**Analyst:**	**RXM4**	**Purge Vol:**	**5 mL**
Prep Date:	**12/18/2009 12:22**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1r514.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.00	ug/kg	0.300	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/kg	0.300	2.00
95-47-6	o-Xylene	U	1.00	ug/kg	0.300	1.00
100-42-5	Styrene	U	1.00	ug/kg	0.300	1.00
75-25-2	Bromoform	U	1.00	ug/kg	0.300	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/kg	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/kg	0.300	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/kg	0.300	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/kg	0.300	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/kg	0.300	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/kg	0.300	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/kg	0.300	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/kg	0.300	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/kg	0.300	1.00
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.00	ug/kg	1.60	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated Units	Fit	Qual
	No Tentatively Identified Compounds Found		ug/kg		

QC Summary

Volatile

Surrogate Recovery Report

SDG Number: 10-886

Matrix Type: SOLID

CAP Column (1) : RTX-Volatiles

Sample ID	Client ID	DCED4 %REC	TOL %REC	BFB %REC
1201999842	LCS for batch 934721	100	92	95
1201999843	LCS for batch 934721	105	104	106
1201999839	MB for batch 934721	105	104	102
242750001	RE03-09-13467	110	100	103
242750002	RE03-09-13466	120	106	111
242750003	RE03-09-13468	114	105	109
242750004	RE03-09-13465	122	111	110
242750005	RE03-10-2003	121	108	110
242750006	RE03-10-6937	112	99	103
1201999840	RE03-09-13467PS	115	96	95
1201999841	RE03-09-13467PSD	123	106	106

Surrogate		Acceptance Limits
DCED4	= 1,2-Dichloroethane-d4	(68%-131%)
TOL	= Toluene-d8	(75%-129%)
BFB	= Bromofluorobenzene	(68%-133%)

* Recovery outside Acceptance Limits

\# Column to be used to flag recovery values

D Sample Diluted

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-886
Client ID: RE03-09-13467PS
Lab Sample ID: 1201999840
Instrument: VOA1.I
Analyst: RXM4
Purge Vol: 5 mL

Sample Type: Post Spike
Matrix: S
%Moisture: 3.9
Analysis Date: 12/18/2009 20:18
Prep Batch ID: 934721
Batch ID: 934726
Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
75-71-8	PS	Dichlorodifluoromethane	50.0	0.00	U	37.6	75	25-149
74-87-3	PS	Chloromethane	50.0	0.00	U	39.5	79	39-140
75-01-4	PS	Vinyl chloride	50.0	0.00	U	39.3	79	47-129
74-83-9	PS	Bromomethane	50.0	0.00	U	40.6	81	31-135
75-00-3	PS	Chloroethane	50.0	0.00	U	42.5	85	53-128
75-69-4	PS	Trichlorofluoromethane	50.0	0.00	U	48.1	96	51-151
67-64-1	PS	Acetone	250	0.00	U	195	78	21-153
75-35-4	PS	1,1-Dichloroethylene	50.0	0.00	U	42.6	85	61-125
74-88-4	PS	Iodomethane	250	0.00	U	193	77	53-142
75-09-2	PS	Methylene chloride	50.0	0.00	U	38.5	77	59-136
75-15-0	PS	Carbon disulfide	250	0.00	U	207	83	46-129
156-60-5	PS	trans-1,2-Dichloroethylene	50.0	0.00	U	40.5	81	56-126
75-34-3	PS	1,1-Dichloroethane	50.0	0.00	U	43.1	86	62-125
78-93-3	PS	2-Butanone	250	0.00	U	192	77	26-152
156-59-2	PS	cis-1,2-Dichloroethylene	50.0	0.00	U	40.6	81	60-130
594-20-7	PS	2,2-Dichloropropane	50.0	0.00	U	46.9	94	55-135
67-66-3	PS	Chloroform	50.0	0.00	U	43.5	87	60-127
74-97-5	PS	Bromochloromethane	50.0	0.00	U	40.3	81	61-131
71-55-6	PS	1,1,1-Trichloroethane	50.0	0.00	U	47.8	96	59-131
563-58-6	PS	1,1-Dichloropropene	50.0	0.00	U	45.1	90	57-128
56-23-5	PS	Carbon tetrachloride	50.0	0.00	U	48.7	97	58-136
107-06-2	PS	1,2-Dichloroethane	50.0	0.00	U	45.8	92	58-126

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-886
Client ID: RE03-09-13467PS
Lab Sample ID: 1201999840
Instrument: VOA1.I
Analyst: RXM4
Purge Vol: 5 mL

Sample Type: Post Spike
Matrix: S
%Moisture: 3.9
Analysis Date: 12/18/2009 20:18
Prep Batch ID: 934721
Batch ID: 934726
Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
71-43-2	PS	Benzene	50.0	0.00	U	41.7	83	56-123
79-01-6	PS	Trichloroethylene	50.0	0.00	U	42.0	84	51-137
78-87-5	PS	1,2-Dichloropropane	50.0	0.00	U	42.2	84	60-126
75-27-4	PS	Bromodichloromethane	50.0	0.00	U	46.2	92	55-138
74-95-3	PS	Dibromomethane	50.0	0.00	U	42.1	84	60-132
108-10-1	PS	4-Methyl-2-pentanone	250	0.00	U	213	85	58-136
10061-01-5	PS	cis-1,3-Dichloropropylene	50.0	0.00	U	44.7	89	54-133
108-88-3	PS	Toluene	50.0	0.00	U	40.6	81	52-128
10061-02-6	PS	trans-1,3-Dichloropropylene	50.0	0.00	U	47.2	94	53-137
79-00-5	PS	1,1,2-Trichloroethane	50.0	0.00	U	42.2	84	59-130
591-78-6	PS	2-Hexanone	250	0.00	U	195	78	31-148
142-28-9	PS	1,3-Dichloropropane	50.0	0.00	U	41.9	84	57-127
127-18-4	PS	Tetrachloroethylene	50.0	0.00	U	40.2	80	51-128
124-48-1	PS	Dibromochloromethane	50.0	0.00	U	45.0	90	59-139
106-93-4	PS	1,2-Dibromoethane	50.0	0.00	U	42.9	86	57-133
108-90-7	PS	Chlorobenzene	50.0	0.00	U	41.0	82	53-122
100-41-4	PS	Ethylbenzene	50.0	0.00	U	42.6	85	51-125
179601-23-1	PS	m,p-Xylenes	100	0.00	U	82.8	83	50-126
95-47-6	PS	o-Xylene	50.0	0.00	U	42.1	84	52-127
100-42-5	PS	Styrene	50.0	0.00	U	43.4	87	49-135
75-25-2	PS	Bromoform	50.0	0.00	U	37.9	76	57-149
79-34-5	PS	1,1,2,2-Tetrachloroethane	50.0	0.00	U	41.1	82	63-127

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-886
Client ID: RE03-09-13467PS
Lab Sample ID: 1201999840
Instrument: VOA1.I
Analyst: RXM4
Purge Vol: 5 mL

Sample Type: Post Spike
Matrix: S
%Moisture: 3.9
Analysis Date: 12/18/2009 20:18
Prep Batch ID: 934721
Batch ID: 934726
Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
96-18-4	PS	1,2,3-Trichloropropane	50.0	0.00	U	42.4	85	57-149
108-86-1	PS	Bromobenzene	50.0	0.00	U	38.7	77	49-131
103-65-1	PS	n-Propylbenzene	50.0	0.00	U	40.5	81	40-136
95-49-8	PS	2-Chlorotoluene	50.0	0.00	U	40.8	82	44-135
98-82-8	PS	Isopropylbenzene	50.0	0.00	U	41.4	83	44-140
108-67-8	PS	1,3,5-Trimethylbenzene	50.0	0.00	U	41.4	83	42-140
106-43-4	PS	4-Chlorotoluene	50.0	0.00	U	40.6	81	44-132
98-06-6	PS	tert-Butylbenzene	50.0	0.00	U	39.6	79	42-142
95-63-6	PS	1,2,4-Trimethylbenzene	50.0	0.00	U	40.3	81	43-137
135-98-8	PS	sec-Butylbenzene	50.0	0.00	U	40.4	81	39-139
99-87-6	PS	4-Isopropyltoluene	50.0	0.00	U	40.2	80	38-145
541-73-1	PS	1,3-Dichlorobenzene	50.0	0.00	U	37.9	76	43-129
106-46-7	PS	1,4-Dichlorobenzene	50.0	0.00	U	37.7	75	44-125
104-51-8	PS	n-Butylbenzene	50.0	0.00	U	41.0	82	36-141
96-12-8	PS	1,2-Dibromo-3-chloropropane	50.0	0.00	U	37.0	74	47-151
630-20-6	PS	1,1,1,2-Tetrachloroethane	50.0	0.00	U	43.9	88	59-131
95-50-1	PS	1,2-Dichlorobenzene	50.0	0.00	U	38.7	77	43-129

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-886
Client ID: RE03-09-13467PSD
Lab Sample ID: 1201999841
Instrument: VOA1.I
Analyst: RXM4
Purge Vol: 5 mL

Sample Type: Post Spike Duplicate
Matrix: S
%Moisture: 3.9
Analysis Date: 12/18/2009 20:48
Dilution: 1
Prep Batch ID: 934721
Batch ID: 934726

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
75-71-8	PSD	Dichlorodifluoromethane	50.0	0.00	U	42.3	85	25-149	12	0-25
74-87-3	PSD	Chloromethane	50.0	0.00	U	46.1	92	39-140	15	0-25
75-01-4	PSD	Vinyl chloride	50.0	0.00	U	46.2	92	47-129	16	0-25
74-83-9	PSD	Bromomethane	50.0	0.00	U	47.2	94	31-135	15	0-25
75-00-3	PSD	Chloroethane	50.0	0.00	U	49.4	99	53-128	15	0-25
75-69-4	PSD	Trichlorofluoromethane	50.0	0.00	U	53.9	108	51-151	12	0-25
67-64-1	PSD	Acetone	250	0.00	U	221	88	21-153	13	0-25
75-35-4	PSD	1,1-Dichloroethylene	50.0	0.00	U	49.1	98	61-125	14	0-25
74-88-4	PSD	Iodomethane	250	0.00	U	230	92	53-142	17	0-25
75-09-2	PSD	Methylene chloride	50.0	0.00	U	45.9	92	59-136	18	0-25
75-15-0	PSD	Carbon disulfide	250	0.00	U	243	97	46-129	16	0-25
156-60-5	PSD	trans-1,2-Dichloroethylene	50.0	0.00	U	48.0	96	56-126	17	0-25
75-34-3	PSD	1,1-Dichloroethane	50.0	0.00	U	50.6	101	62-125	16	0-25
78-93-3	PSD	2-Butanone	250	0.00	U	220	88	26-152	14	0-25
156-59-2	PSD	cis-1,2-Dichloroethylene	50.0	0.00	U	48.5	97	60-130	18	0-25
594-20-7	PSD	2,2-Dichloropropane	50.0	0.00	U	54.2	108	55-135	14	0-25
67-66-3	PSD	Chloroform	50.0	0.00	U	50.1	100	60-127	14	0-25
74-97-5	PSD	Bromochloromethane	50.0	0.00	U	47.5	95	61-131	16	0-25
71-55-6	PSD	1,1,1-Trichloroethane	50.0	0.00	U	54.2	108	59-131	13	0-25
563-58-6	PSD	1,1-Dichloropropene	50.0	0.00	U	52.8	106	57-128	16	0-25
56-23-5	PSD	Carbon tetrachloride	50.0	0.00	U	55.6	111	58-136	13	0-25
107-06-2	PSD	1,2-Dichloroethane	50.0	0.00	U	51.8	104	58-126	12	0-25

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-886
Client ID: RE03-09-13467PSD
Lab Sample ID: 1201999841
Instrument: VOA1.I
Analyst: RXM4
Purge Vol: 5 mL

Sample Type: Post Spike Duplicate
Matrix: S
%Moisture: 3.9
Analysis Date: 12/18/2009 20:48
Prep Batch ID: 934721
Batch ID: 934726
Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
71-43-2	PSD	Benzene	50.0	0.00	U	49.2	98	56-123	16	0-25
79-01-6	PSD	Trichloroethylene	50.0	0.00	U	49.4	99	51-137	16	0-25
78-87-5	PSD	1,2-Dichloropropane	50.0	0.00	U	49.5	99	60-126	16	0-25
75-27-4	PSD	Bromodichloromethane	50.0	0.00	U	53.5	107	55-138	15	0-25
74-95-3	PSD	Dibromomethane	50.0	0.00	U	48.8	98	60-132	15	0-25
108-10-1	PSD	4-Methyl-2-pentanone	250	0.00	U	244	98	58-136	14	0-25
10061-01-5	PSD	cis-1,3-Dichloropropylene	50.0	0.00	U	53.0	106	54-133	17	0-25
108-88-3	PSD	Toluene	50.0	0.00	U	47.8	96	52-128	16	0-25
10061-02-6	PSD	trans-1,3-Dichloropropylene	50.0	0.00	U	54.7	109	53-137	15	0-25
79-00-5	PSD	1,1,2-Trichloroethane	50.0	0.00	U	49.1	98	59-130	15	0-25
591-78-6	PSD	2-Hexanone	250	0.00	U	227	91	31-148	16	0-25
142-28-9	PSD	1,3-Dichloropropane	50.0	0.00	U	49.6	99	57-127	17	0-25
127-18-4	PSD	Tetrachloroethylene	50.0	0.00	U	47.3	95	51-128	16	0-25
124-48-1	PSD	Dibromochloromethane	50.0	0.00	U	52.1	104	59-139	15	0-25
106-93-4	PSD	1,2-Dibromoethane	50.0	0.00	U	50.6	101	57-133	16	0-25
108-90-7	PSD	Chlorobenzene	50.0	0.00	U	48.9	98	53-122	18	0-25
100-41-4	PSD	Ethylbenzene	50.0	0.00	U	49.8	100	51-125	16	0-25
179601-23-1	PSD	m,p-Xylenes	100	0.00	U	97.6	98	50-126	16	0-25
95-47-6	PSD	o-Xylene	50.0	0.00	U	49.6	99	52-127	16	0-25
100-42-5	PSD	Styrene	50.0	0.00	U	51.3	103	49-135	17	0-25
75-25-2	PSD	Bromoform	50.0	0.00	U	44.8	90	57-149	17	0-25
79-34-5	PSD	1,1,2,2-Tetrachloroethane	50.0	0.00	U	48.7	97	63-127	17	0-25

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-886
Client ID: RE03-09-13467PSD
Lab Sample ID: 1201999841
Instrument: VOA1.I
Analyst: RXM4
Purge Vol: 5 mL

Sample Type: Post Spike Duplicate
Matrix: S
%Moisture: 3.9
Analysis Date: 12/18/2009 20:48
Dilution: 1
Prep Batch ID: 934721
Batch ID: 934726

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
96-18-4	PSD	1,2,3-Trichloropropane	50.0	0.00	U	49.7	99	57-149	16	0-25
108-86-1	PSD	Bromobenzene	50.0	0.00	U	47.8	96	49-131	21	0-25
103-65-1	PSD	n-Propylbenzene	50.0	0.00	U	49.4	99	40-136	20	0-25
95-49-8	PSD	2-Chlorotoluene	50.0	0.00	U	49.0	98	44-135	18	0-25
98-82-8	PSD	Isopropylbenzene	50.0	0.00	U	50.1	100	44-140	19	0-25
108-67-8	PSD	1,3,5-Trimethylbenzene	50.0	0.00	U	49.2	98	42-140	17	0-25
106-43-4	PSD	4-Chlorotoluene	50.0	0.00	U	49.5	99	44-132	20	0-25
98-06-6	PSD	tert-Butylbenzene	50.0	0.00	U	48.0	96	42-142	19	0-25
95-63-6	PSD	1,2,4-Trimethylbenzene	50.0	0.00	U	48.8	98	43-137	19	0-25
135-98-8	PSD	sec-Butylbenzene	50.0	0.00	U	48.8	98	39-139	19	0-25
99-87-6	PSD	4-Isopropyltoluene	50.0	0.00	U	48.5	97	38-145	19	0-25
541-73-1	PSD	1,3-Dichlorobenzene	50.0	0.00	U	46.6	93	43-129	21	0-25
106-46-7	PSD	1,4-Dichlorobenzene	50.0	0.00	U	46.3	93	44-125	21	0-25
104-51-8	PSD	n-Butylbenzene	50.0	0.00	U	50.0	100	36-141	20	0-25
96-12-8	PSD	1,2-Dibromo-3-chloropropane	50.0	0.00	U	44.6	89	47-151	19	0-25
630-20-6	PSD	1,1,1,2-Tetrachloroethane	50.0	0.00	U	50.9	102	59-131	15	0-25
95-50-1	PSD	1,2-Dichlorobenzene	50.0	0.00	U	47.5	95	43-129	21	0-25

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-886
Sample Type: Laboratory Control Sample
Client ID: LCS for batch 934721
Matrix: SOIL
Lab Sample ID: 1201999842
Instrument: VOA1.I
Analysis Date: 12/18/2009 10:23
Dilution: 1
Analyst: RXM4
Prep Batch ID 934721
Purge Vol: 5 mL
Batch ID: 934726

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
75-71-8	LCS	Dichlorodifluoromethane	50.0	0.0	41.2	82	33-155
74-87-3	LCS	Chloromethane	50.0	0.0	41.1	82	53-132
75-01-4	LCS	Vinyl chloride	50.0	0.0	43.4	87	61-128
74-83-9	LCS	Bromomethane	50.0	0.0	42.1	84	63-126
75-00-3	LCS	Chloroethane	50.0	0.0	45.5	91	67-124
75-69-4	LCS	Trichlorofluoromethane	50.0	0.0	51.3	103	67-151
67-64-1	LCS	Acetone	250	0.0	218	87	29-160
75-35-4	LCS	1,1-Dichloroethylene	50.0	0.0	45.4	91	70-125
74-88-4	LCS	Iodomethane	250	0.0	211	84	74-131
75-09-2	LCS	Methylene chloride	50.0	0.0	41.1	82	72-127
75-15-0	LCS	Carbon disulfide	250	0.0	240	96	64-127
156-60-5	LCS	trans-1,2-Dichloroethylene	50.0	0.0	45.5	91	71-122
75-34-3	LCS	1,1-Dichloroethane	50.0	0.0	44.8	90	75-120
78-93-3	LCS	2-Butanone	250	0.0	218	87	35-162
156-59-2	LCS	cis-1,2-Dichloroethylene	50.0	0.0	45.2	90	76-122
594-20-7	LCS	2,2-Dichloropropane	50.0	0.0	53.5	107	74-135
67-66-3	LCS	Chloroform	50.0	0.0	45.9	92	77-120
74-97-5	LCS	Bromochloromethane	50.0	0.0	44.0	88	76-122
71-55-6	LCS	1,1,1-Trichloroethane	50.0	0.0	50.0	100	75-128
563-58-6	LCS	1,1-Dichloropropene	50.0	0.0	51.0	102	77-125
56-23-5	LCS	Carbon tetrachloride	50.0	0.0	51.0	102	77-134
107-06-2	LCS	1,2-Dichloroethane	50.0	0.0	44.1	88	72-120

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-886
Client ID: LCS for batch 934721
Lab Sample ID: 1201999842
Instrument: VOA1.I
Analyst: RXM4
Purge Vol: 5 mL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 12/18/2009 10:23
Dilution: 1
Prep Batch ID: 934721
Batch ID: 934726

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
71-43-2	LCS	Benzene	50.0	0.0	47.2	94	72-120
79-01-6	LCS	Trichloroethylene	50.0	0.0	46.7	93	78-121
78-87-5	LCS	1,2-Dichloropropane	50.0	0.0	46.3	93	74-120
75-27-4	LCS	Bromodichloromethane	50.0	0.0	47.1	94	79-125
74-95-3	LCS	Dibromomethane	50.0	0.0	43.9	88	78-122
108-10-1	LCS	4-Methyl-2-pentanone	250	0.0	237	95	71-134
10061-01-5	LCS	cis-1,3-Dichloropropylene	50.0	0.0	49.4	99	80-125
108-88-3	LCS	Toluene	50.0	0.0	45.9	92	65-124
10061-02-6	LCS	trans-1,3-Dichloropropylene	50.0	0.0	50.2	100	71-134
79-00-5	LCS	1,1,2-Trichloroethane	50.0	0.0	45.5	91	76-120
591-78-6	LCS	2-Hexanone	250	0.0	219	88	42-159
142-28-9	LCS	1,3-Dichloropropane	50.0	0.0	44.5	89	72-120
127-18-4	LCS	Tetrachloroethylene	50.0	0.0	45.8	92	74-123
124-48-1	LCS	Dibromochloromethane	50.0	0.0	46.2	92	83-128
106-93-4	LCS	1,2-Dibromoethane	50.0	0.0	46.2	92	79-121
108-90-7	LCS	Chlorobenzene	50.0	0.0	45.6	91	75-120
100-41-4	LCS	Ethylbenzene	50.0	0.0	47.3	95	74-120
179601-23-1	LCS	m,p-Xylenes	100	0.0	93.2	93	74-120
95-47-6	LCS	o-Xylene	50.0	0.0	46.7	93	74-120
100-42-5	LCS	Styrene	50.0	0.0	47.6	95	76-125
75-25-2	LCS	Bromoform	50.0	0.0	42.8	86	77-138
79-34-5	LCS	1,1,2,2-Tetrachloroethane	50.0	0.0	48.6	97	72-122

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-886
Client ID: LCS for batch 934721
Lab Sample ID: 1201999842
Instrument: VOA1.I
Analyst: RXM4
Purge Vol: 5 mL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 12/18/2009 10:23
Dilution: 1
Prep Batch ID: 934721
Batch ID: 934726

CAS No	Parmname		Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
96-18-4	LCS	1,2,3-Trichloropropane	50.0	0.0	46.7	93	75-135
108-86-1	LCS	Bromobenzene	50.0	0.0	46.1	92	73-120
103-65-1	LCS	n-Propylbenzene	50.0	0.0	48.5	97	68-121
95-49-8	LCS	2-Chlorotoluene	50.0	0.0	47.5	95	69-120
98-82-8	LCS	Isopropylbenzene	50.0	0.0	48.7	97	66-127
108-67-8	LCS	1,3,5-Trimethylbenzene	50.0	0.0	47.8	96	67-126
106-43-4	LCS	4-Chlorotoluene	50.0	0.0	47.5	95	72-120
98-06-6	LCS	tert-Butylbenzene	50.0	0.0	45.3	91	72-124
95-63-6	LCS	1,2,4-Trimethylbenzene	50.0	0.0	45.7	91	72-122
135-98-8	LCS	sec-Butylbenzene	50.0	0.0	45.1	90	71-124
99-87-6	LCS	4-Isopropyltoluene	50.0	0.0	45.1	90	72-130
541-73-1	LCS	1,3-Dichlorobenzene	50.0	0.0	44.4	89	73-120
106-46-7	LCS	1,4-Dichlorobenzene	50.0	0.0	44.9	90	73-120
104-51-8	LCS	n-Butylbenzene	50.0	0.0	46.0	92	72-128
96-12-8	LCS	1,2-Dibromo-3-chloropropane	50.0	0.0	42.6	85	68-145
630-20-6	LCS	1,1,1,2-Tetrachloroethane	50.0	0.0	46.5	93	78-121
95-50-1	LCS	1,2-Dichlorobenzene	50.0	0.0	44.5	89	74-120

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-886
Client ID: LCS for batch 934721
Lab Sample ID: 1201999843
Instrument: VOA1.I
Analyst: RXM4
Purge Vol: 5 mL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 12/18/2009 11:28
Dilution: 1
Prep Batch ID: 934721
Batch ID: 934726

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
76-13-1	LCS	1,1,2-Trichloro-1,2,2-Trifluor *Trichlorotrifluoroethane*	250	0.0	326	130	52-139

Method Blank Summary

SDG Number:	10-886	Client:	LANL010	Matrix:	SOIL
Client ID:	MB for batch 934721	Instrument ID:	VOA1.I	Data File:	1r508BA.d
Lab Sample ID:	1201999839	Prep Date:	12/18/2009 08:00	Analyzed:	12/18/09 14:12
Column:	RTX-Volatiles	Heated Purge:	Yes		

This method blank applies to the following samples and quality control samples:

	Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01	LCS for batch 934721	1201999842	1r503LA.d	12/18/09	1023
02	LCS for batch 934721	1201999843	1r505sLA.d	12/18/09	1128
03	RE03-09-13467	242750001	1r509.d	12/18/09	1442
04	RE03-09-13466	242750002	1r510.d	12/18/09	1512
05	RE03-09-13468	242750003	1r511.d	12/18/09	1542
06	RE03-09-13465	242750004	1r512.d	12/18/09	1613
07	RE03-10-2003	242750005	1r513.d	12/18/09	1643
08	RE03-10-6937	242750006	1r514.d	12/18/09	1713
09	RE03-09-13467PS	1201999840	1r520.d	12/18/09	2018
10	RE03-09-13467PSD	1201999841	1r521.d	12/18/09	2048

Instrument Performance Check

BFB

Lab Name GEL Laboratories LLC **Client SDG:** 10-886

Instrument ID: VOA1.I **Injection Date/Time:** 17-DEC-09 12:56

Column Description: RTX-Volatiles **Lab File ID** /121709v1/1r408.d

m/e	Ion Abundance Criteria	% Relative Abundance
95	Base Peak, 100% Relative Abundance	100
50	15.0 - 40.0% of mass 95	19.2
75	30.0 - 60.0% of mass 95	51.4
96	5.0 - 9.0% of mass 95	6.9
173	Less than 2.0% of mass 174	0.8
174	50.0 - 100.0% of mass 95	74.1
175	5.0 -9.0% of mass 174	7.6
176	95.0 - 101.0% of mass 174	95.5
177	5.0 - 9.0% of mass 176	6.5

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
VSTD0005	W1VM091217-04	/121709v1/1r409.d	17-DEC-09 13:26
VSTD001	W1VM091217-06	/121709v1/1r411.d	17-DEC-09 14:26
VSTD002	W1VM091217-08	/121709v1/1r413.d	17-DEC-09 15:27
VSTD005	W1VM091217-09	/121709v1/1r414.d	17-DEC-09 15:57
VSTD010	W1VM091217-10	/121709v1/1r415.d	17-DEC-09 16:26
VSTD020	W1VM091217-11	/121709v1/1r416.d	17-DEC-09 16:56
VSTD050	W1VM091217-12	/121709v1/1r417.d	17-DEC-09 17:26
VSTD100	W1VM091217-13	/121709v1/1r418.d	17-DEC-09 17:56
VSTD005S	W1VM091217-14	/121709v1/1r420.d	17-DEC-09 18:56
VSTD010S	W1VM091217-15	/121709v1/1r421.d	17-DEC-09 19:26
VSTD025S	W1VM091217-16	/121709v1/1r422.d	17-DEC-09 19:56
VSTD050S	W1VM091217-17	/121709v1/1r423.d	17-DEC-09 20:27
VSTD100S	W1VM091217-18	/121709v1/1r424.d	17-DEC-09 20:57
VSTD250S	W1VM091217-19	/121709v1/1r425.d	17-DEC-09 21:27
VSTD500S	W1VM091217-20	/121709v1/1r426.d	17-DEC-09 21:57
ICV	W1VM091217-18	/121709v1/1r428.d	17-DEC-09 22:57
SHORT ICV	W1VM091217-20	/121709v1/1r430.d	17-DEC-09 23:58

Instrument Performance Check

BFB

Lab Name GEL Laboratories LLC **Client SDG:** 10-886

Instrument ID: VOA1.I **Injection Date/Time:** 18-DEC-09 09:19

Column Description: RTX-Volatiles **Lab File ID** /121809v1/1r501.d

m/e	Ion Abundance Criteria	% Relative Abundance
95	Base Peak, 100% Relative Abundance	100
50	15.0 - 40.0% of mass 95	19.1
75	30.0 - 60.0% of mass 95	51.2
96	5.0 - 9.0% of mass 95	6.7
173	Less than 2.0% of mass 174	0.9
174	50.0 - 100.0% of mass 95	74.1
175	5.0 -9.0% of mass 174	7.3
176	95.0 - 101.0% of mass 174	97.5
177	5.0 - 9.0% of mass 176	6.4

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
VSTD050	W1VM091218-02	/121809v1/1r503.d	18-DEC-09 10:23
LCS	1201999842	/121809v1/1r503LA.d	18-DEC-09 10:23
VSTD250S	W1VM091218-04	/121809v1/1r505.d	18-DEC-09 11:28
LCS	1201999843	/121809v1/1r505sLA.d	18-DEC-09 11:28
BLANK	1201999839	/121809v1/1r508BA.d	18-DEC-09 14:12
RE03-09-13467	242750001	/121809v1/1r509.d	18-DEC-09 14:42
RE03-09-13466	242750002	/121809v1/1r510.d	18-DEC-09 15:12
RE03-09-13468	242750003	/121809v1/1r511.d	18-DEC-09 15:42
RE03-09-13465	242750004	/121809v1/1r512.d	18-DEC-09 16:13
RE03-10-2003	242750005	/121809v1/1r513.d	18-DEC-09 16:43
RE03-10-6937	242750006	/121809v1/1r514.d	18-DEC-09 17:13
RE03-09-13467MS	1201999840	/121809v1/1r520.d	18-DEC-09 20:18
RE03-09-13467MSD	1201999841	/121809v1/1r521.d	18-DEC-09 20:48

Internal Standard
Area and RT Summary

Lab Name : GEL Laboratories LLC

Instrument: VOA1.I

GC Column: RTX-Volatiles

Client SDG: 10-886

STD Analysis Time: 18-DEC-09 10:23

Data File: 1r503.d

	Fluorobenzene			Chlorobenzene-d5			1,4-Dichlorobenzene-d4		
	Area	#	RT #	Area	#	RT #	Area	#	RT #
12 Hour STD	1008338		13.7	722547		17.2	377666		19.6
Upper Limit	2016676		14.2	1445094		17.7	755332		20.1
Lower Limit	504169		13.2	361274		16.7	188833		19.1
Sample ID									
BLK01LCS	1008338		13.7	722547		17.2	377666		19.6
BLK01SLCS	909934		13.7	633426		17.2	332065		19.6
BLK01	891540		13.7	618261		17.2	327113		19.6
RE03-09-13467	797261		13.7	562716		17.2	287537		19.6
RE03-09-13466	741859		13.7	519217		17.2	261786		19.6
RE03-09-13468	780927		13.7	548987		17.2	276965		19.6
RE03-09-13465	739987		13.7	503820		17.2	260730		19.6
RE03-10-2003	728914		13.7	511715		17.2	270689		19.6
RE03-10-6937	769754		13.7	542424		17.2	284192		19.6
RE03-09-13467MS	768389		13.7	546621		17.2	314163		19.6
RE03-09-13467MSD	732168		13.7	520556		17.2	287580		19.6

Area Upper Limit = +100% of internal standard area
Area Lower Limit = - 50% of internal standard area

RT Upper Limit = + 0.50 minutes of internal standard RT
RT Lower Limit = - 0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Value outside of QC Limits

Sample Data

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-886	**Date Collected:**	12/09/2009 12:00	**Matrix:**	S
Lab Sample ID:	242750004	**Date Received:**	12/11/2009 08:50	**%Moisture:**	7
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-13465	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	934726	**Inst:**	VOA1.I	**Dilution:**	1
Run Date:	12/18/2009 16:13	**Analyst:**	RXM4	**Purge Vol:**	5 mL
Prep Date:	12/18/2009 12:20	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	1r512.d	**Column:**	RTX-Volatiles	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.07	ug/kg	0.365	1.07
74-87-3	Chloromethane	U	1.07	ug/kg	0.322	1.07
75-01-4	Vinyl chloride	U	1.07	ug/kg	0.322	1.07
74-83-9	Bromomethane	U	1.07	ug/kg	0.322	1.07
75-00-3	Chloroethane	U	1.07	ug/kg	0.322	1.07
75-69-4	Trichlorofluoromethane	U	1.07	ug/kg	0.322	1.07
67-64-1	Acetone	U	5.37	ug/kg	1.78	5.37
75-35-4	1,1-Dichloroethylene	U	1.07	ug/kg	0.322	1.07
74-88-4	Iodomethane	U	5.37	ug/kg	1.72	5.37
75-09-2	Methylene chloride	U	5.37	ug/kg	2.15	5.37
75-15-0	Carbon disulfide	U	5.37	ug/kg	1.34	5.37
156-60-5	trans-1,2-Dichloroethylene	U	1.07	ug/kg	0.322	1.07
75-34-3	1,1-Dichloroethane	U	1.07	ug/kg	0.322	1.07
78-93-3	2-Butanone	U	5.37	ug/kg	1.61	5.37
156-59-2	cis-1,2-Dichloroethylene	U	1.07	ug/kg	0.322	1.07
594-20-7	2,2-Dichloropropane	U	1.07	ug/kg	0.322	1.07
67-66-3	Chloroform	U	1.07	ug/kg	0.322	1.07
74-97-5	Bromochloromethane	U	1.07	ug/kg	0.355	1.07
71-55-6	1,1,1-Trichloroethane	U	1.07	ug/kg	0.322	1.07
563-58-6	1,1-Dichloropropene	U	1.07	ug/kg	0.322	1.07
56-23-5	Carbon tetrachloride	U	1.07	ug/kg	0.322	1.07
107-06-2	1,2-Dichloroethane	U	1.07	ug/kg	0.322	1.07
71-43-2	Benzene	U	1.07	ug/kg	0.322	1.07
79-01-6	Trichloroethylene	U	1.07	ug/kg	0.355	1.07
78-87-5	1,2-Dichloropropane	U	1.07	ug/kg	0.322	1.07
75-27-4	Bromodichloromethane	U	1.07	ug/kg	0.322	1.07
74-95-3	Dibromomethane	U	1.07	ug/kg	0.322	1.07
108-10-1	4-Methyl-2-pentanone	U	5.37	ug/kg	1.34	5.37
10061-01-5	cis-1,3-Dichloropropylene	U	1.07	ug/kg	0.322	1.07
108-88-3	Toluene	U	1.07	ug/kg	0.322	1.07
10061-02-6	trans-1,3-Dichloropropylene	U	1.07	ug/kg	0.322	1.07
79-00-5	1,1,2-Trichloroethane	U	1.07	ug/kg	0.322	1.07
591-78-6	2-Hexanone	U	5.37	ug/kg	1.61	5.37
142-28-9	1,3-Dichloropropane	U	1.07	ug/kg	0.322	1.07
127-18-4	Tetrachloroethylene	U	1.07	ug/kg	0.322	1.07
124-48-1	Dibromochloromethane	U	1.07	ug/kg	0.322	1.07
106-93-4	1,2-Dibromoethane	U	1.07	ug/kg	0.322	1.07
108-90-7	Chlorobenzene	U	1.07	ug/kg	0.322	1.07

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-886	Date Collected:	12/09/2009 12:00	Matrix:	S
Lab Sample ID:	242750004	Date Received:	12/11/2009 08:50	%Moisture:	7
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-13465	Method:	SW846 8260B	SOP Ref:	GL-OA-E-038
Batch ID:	934726	Inst:	VOA1.I	Dilution:	1
Run Date:	12/18/2009 16:13	Analyst:	RXM4	Purge Vol:	5 mL
Prep Date:	12/18/2009 12:20	Aliquot:	5 g	Final Volume:	5 mL
Data File:	1r512.d	Column:	RTX-Volatiles	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.07	ug/kg	0.322	1.07
179601-23-1	m,p-Xylenes	U	2.15	ug/kg	0.322	2.15
95-47-6	o-Xylene	U	1.07	ug/kg	0.322	1.07
100-42-5	Styrene	U	1.07	ug/kg	0.322	1.07
75-25-2	Bromoform	U	1.07	ug/kg	0.322	1.07
79-34-5	1,1,2,2-Tetrachloroethane	U	1.07	ug/kg	0.322	1.07
96-18-4	1,2,3-Trichloropropane	U	1.07	ug/kg	0.322	1.07
108-86-1	Bromobenzene	U	1.07	ug/kg	0.322	1.07
103-65-1	n-Propylbenzene	U	1.07	ug/kg	0.322	1.07
95-49-8	2-Chlorotoluene	U	1.07	ug/kg	0.322	1.07
98-82-8	Isopropylbenzene	U	1.07	ug/kg	0.322	1.07
108-67-8	1,3,5-Trimethylbenzene	U	1.07	ug/kg	0.322	1.07
106-43-4	4-Chlorotoluene	U	1.07	ug/kg	0.322	1.07
98-06-6	tert-Butylbenzene	U	1.07	ug/kg	0.322	1.07
95-63-6	1,2,4-Trimethylbenzene	U	1.07	ug/kg	0.322	1.07
135-98-8	sec-Butylbenzene	U	1.07	ug/kg	0.322	1.07
99-87-6	4-Isopropyltoluene	U	1.07	ug/kg	0.322	1.07
541-73-1	1,3-Dichlorobenzene	U	1.07	ug/kg	0.322	1.07
106-46-7	1,4-Dichlorobenzene	U	1.07	ug/kg	0.322	1.07
104-51-8	n-Butylbenzene	U	1.07	ug/kg	0.322	1.07
96-12-8	1,2-Dibromo-3-chloropropane	U	1.07	ug/kg	0.322	1.07
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.37	ug/kg	1.72	5.37
630-20-6	1,1,1,2-Tetrachloroethane	U	1.07	ug/kg	0.322	1.07
95-50-1	1,2-Dichlorobenzene	U	1.07	ug/kg	0.322	1.07

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Hydrocarbon	18.07	6.87	ug/kg		J

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/121809v1/1r512.d
Lab Smp Id: 242750004 Client Smp ID: RE03-09-13465
Inj Date : 18-DEC-2009 16:13
Operator : RXM4 Inst ID: VOA1.i
Smp Info : |242750004|934726|1|VOAF|1|
Misc Info : LANL 5G N/A
Comment :
Method : /chem/VOA1.i/121809v1/VOA1-8260ox-121709.m
Meth Date : 19-Dec-2009 14:24 ron01469 Quant Type: ISTD
Cal Date : 17-DEC-2009 21:57 Cal File: 1r426.d
Als bottle: 12
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-886.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	6.96030	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
* 52 Fluorobenzene	96	13.686	13.682	(1.000)	739987	50.0000	
* 76 Chlorobenzene-d5	117	17.162	17.162	(1.000)	503820	50.0000	
* 102 1,4-Dichlorobenzene-d4	152	19.610	19.610	(1.000)	260730	50.0000	
$ 48 1,2-Dichloroethane-d4	65	13.341	13.341	(0.975)	547555	61.0683	65.6
$ 65 Toluene-d8	98	15.518	15.518	(0.904)	1600063	55.6108	59.8
$ 87 Bromofluorobenzene	95	18.391	18.386	(0.938)	587083	54.7824	58.9

ION RATIO REPORT

VOA REPORT

Data file: 1r512.d
Report Date: 12/19/2009 14:24
Lab. ID: 242750004 SampleType: SAMPLE
Injection Date: 18-DEC-2009 16:13
Operator: RXM4 Instrument: VOA1.i
Sample Info: |242750004|934726|1|VOAF|1|
Miscellaneous Info: LANL 5G N/A
Comment:
Method used: /chem/VOA1.i/121809v1/VOA1-8260ox-121709.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-886
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
51 1,2-Dichloroethane			CAS#: 107-06-2			
62	11878	13.68	13.44	80-120	100	(T)
64	1857	13.68	13.44	2- 62	16	(T)
64 4-Methyl-2-pentanone			CAS#: 108-10-1			
58	15351	15.52	15.36	80-120	100	(T)
43	7189	15.51	15.36	198-258	47	(QT)
100	1007889	15.52	15.36	0- 60	6566	(QT)
83 Bromoform			CAS#: 75-25-2			
173	1836	18.39	18.11	80-120	100	(T)
171	105	18.39	18.11	22- 82	6	(QT)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/121809v1/1r512.d
Lab Smp Id: 242750004 Client Smp ID: RE03-09-13465
Inj Date : 18-DEC-2009 16:13
Operator : RXM4 Inst ID: VOA1.i
Smp Info : |242750004|934726|1|VOAF|1|
Misc Info : LANL 5G N/A
Comment :
Method : /chem/VOA1.i/121809v1/VOA1-8260ox-121709.m
Meth Date : 19-Dec-2009 14:24 ron01469 Quant Type: ISTD
Cal Date : 17-DEC-2009 21:57 Cal File: 1r426.d
Als bottle: 12
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-886.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	6.96030	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 76 Chlorobenzene-d5	17.162	1676828	50.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ug/l)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown Hydrocarbon					CAS #:		
18.073	214390	6.39271639	6.9	0		0	76

Data File: /chem/VOA1.i/121809v1/1r512.d
Date : 18-DEC-2009 16:13
Client ID: RE03-09-13465
Sample Info: |2427500041934726|1|VOAF|1|

Column phase: RTX-Volatiles

Instrument: VOA1.i

Operator: RXM4
Column diameter: 0.25

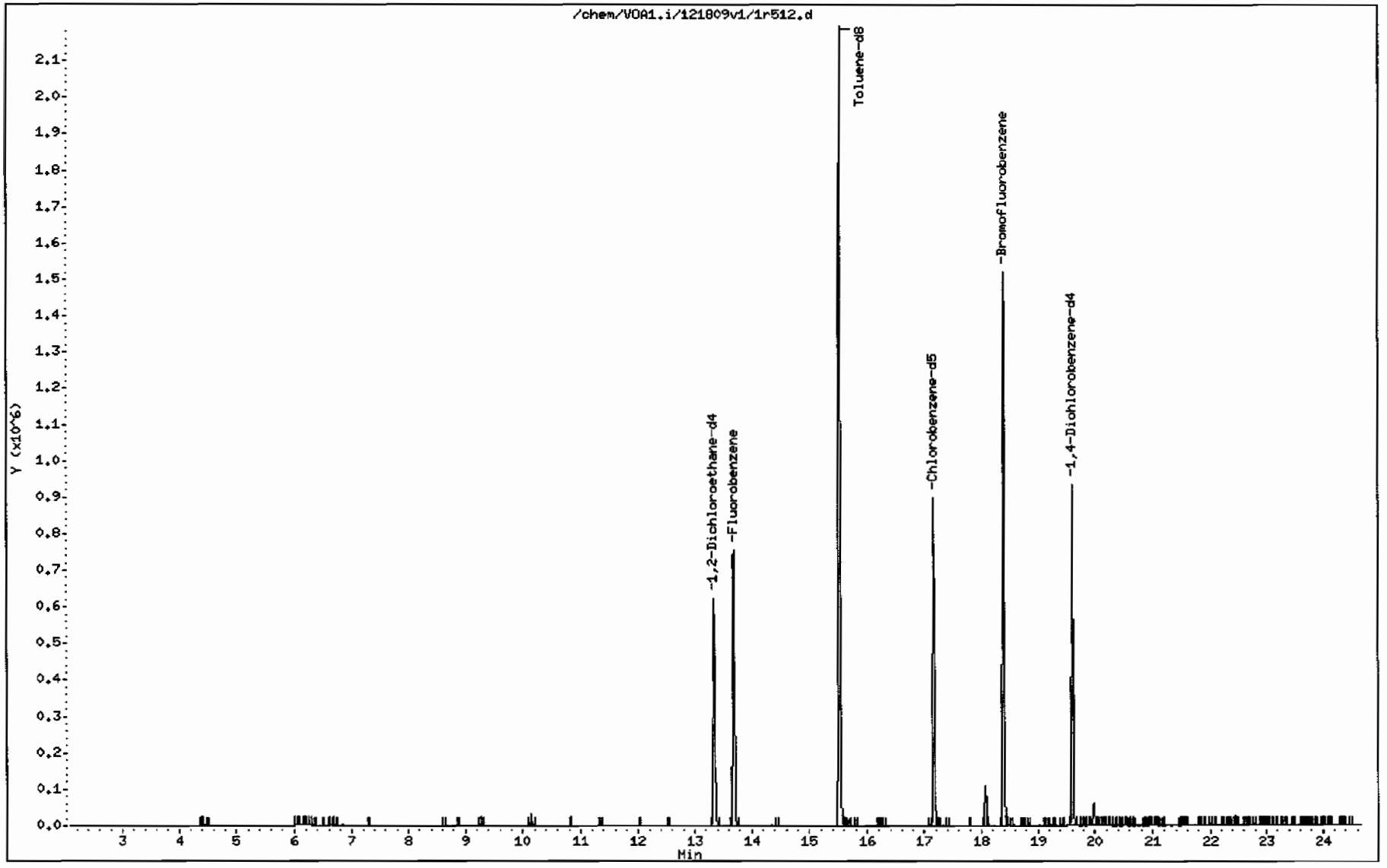

Data File: /chem/VOA1.i/121809v1/1r512.d

Date : 18-DEC-2009 16:13

Client ID: RE03-09-13465

Instrument: VOA1.i

Sample Info: |2427500041934726|1|VOAF|1|

Operator: RXH4

Column phase: RTX-Volatiles

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Hydrocarbon						
Anthracene, 9,10-dihydro-9,10-dimethyl-	22566-43-4	NIST05.L	63100	30	C16H16	208
Trisiloxane, 1,1,3,3,5,5-hexamethyl-	1189-93-1	NIST05.L	63149	27	C6H20O2Si3	208
Quinoline, 7-chloro-4-hydrazino-	23834-14-2	NIST05.L	52228	25	C9H8ClN3	193

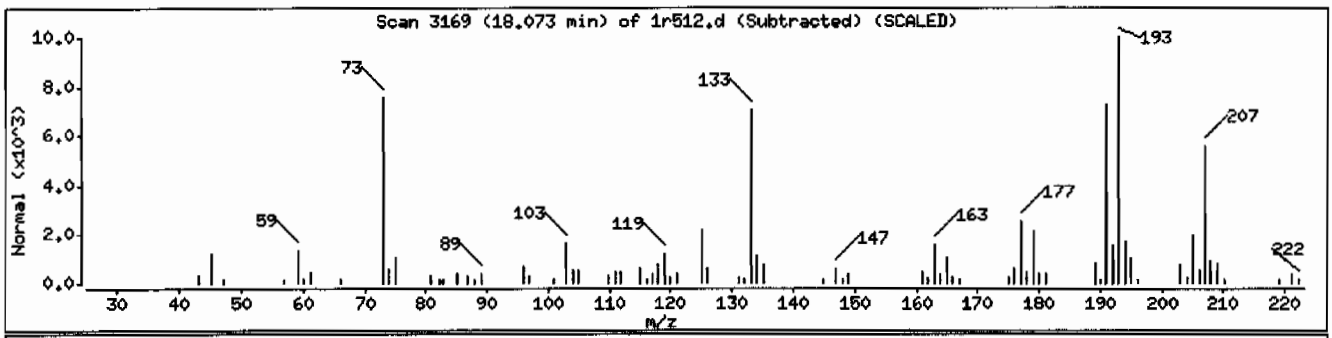

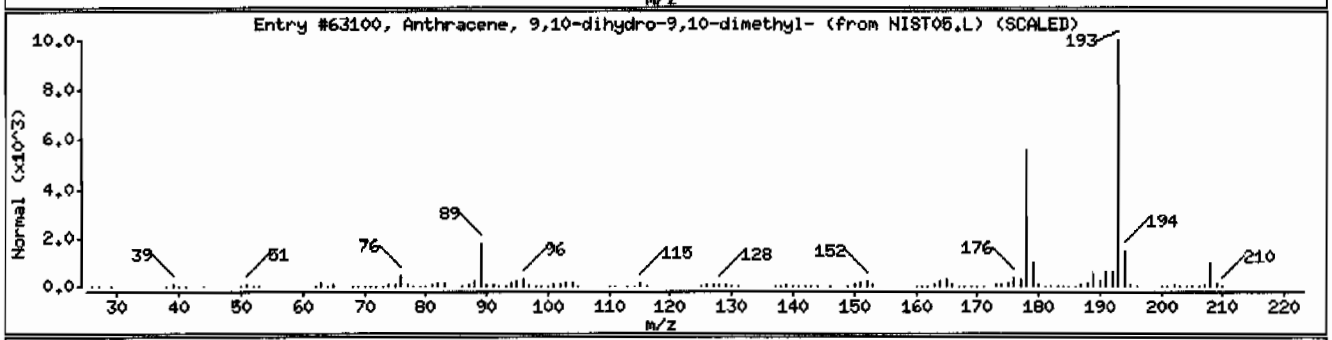

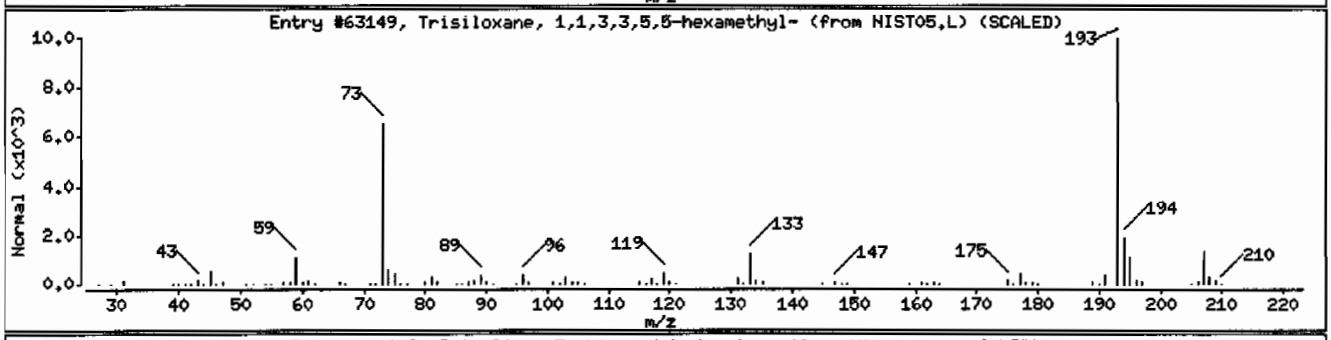

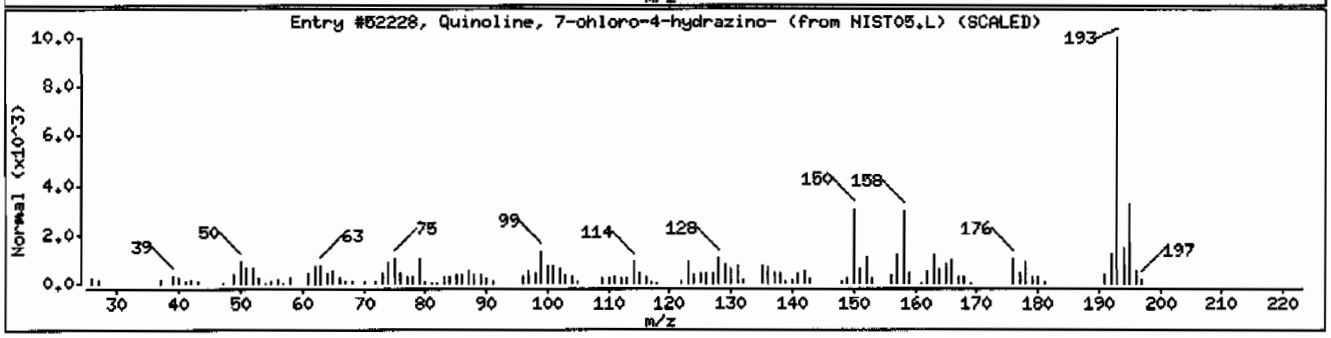

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-886**	**Date Collected:**	**12/09/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242750002**	**Date Received:**	**12/11/2009 08:50**	**%Moisture:**	**8.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-13466**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**934726**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**12/18/2009 15:12**	**Analyst:**	**RXM4**	**Purge Vol:**	**5 mL**
Prep Date:	**12/18/2009 12:18**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1r510.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.09	ug/kg	0.372	1.09
74-87-3	Chloromethane	U	1.09	ug/kg	0.328	1.09
75-01-4	Vinyl chloride	U	1.09	ug/kg	0.328	1.09
74-83-9	Bromomethane	U	1.09	ug/kg	0.328	1.09
75-00-3	Chloroethane	U	1.09	ug/kg	0.328	1.09
75-69-4	Trichlorofluoromethane	U	1.09	ug/kg	0.328	1.09
67-64-1	Acetone	U	5.47	ug/kg	1.81	5.47
75-35-4	1,1-Dichloroethylene	U	1.09	ug/kg	0.328	1.09
74-88-4	Iodomethane	U	5.47	ug/kg	1.75	5.47
75-09-2	Methylene chloride	U	5.47	ug/kg	2.19	5.47
75-15-0	Carbon disulfide	U	5.47	ug/kg	1.37	5.47
156-60-5	trans-1,2-Dichloroethylene	U	1.09	ug/kg	0.328	1.09
75-34-3	1,1-Dichloroethane	U	1.09	ug/kg	0.328	1.09
78-93-3	2-Butanone	U	5.47	ug/kg	1.64	5.47
156-59-2	cis-1,2-Dichloroethylene	U	1.09	ug/kg	0.328	1.09
594-20-7	2,2-Dichloropropane	U	1.09	ug/kg	0.328	1.09
67-66-3	Chloroform	U	1.09	ug/kg	0.328	1.09
74-97-5	Bromochloromethane	U	1.09	ug/kg	0.361	1.09
71-55-6	1,1,1-Trichloroethane	U	1.09	ug/kg	0.328	1.09
563-58-6	1,1-Dichloropropene	U	1.09	ug/kg	0.328	1.09
56-23-5	Carbon tetrachloride	U	1.09	ug/kg	0.328	1.09
107-06-2	1,2-Dichloroethane	U	1.09	ug/kg	0.328	1.09
71-43-2	Benzene	U	1.09	ug/kg	0.328	1.09
79-01-6	Trichloroethylene	U	1.09	ug/kg	0.361	1.09
78-87-5	1,2-Dichloropropane	U	1.09	ug/kg	0.328	1.09
75-27-4	Bromodichloromethane	U	1.09	ug/kg	0.328	1.09
74-95-3	Dibromomethane	U	1.09	ug/kg	0.328	1.09
108-10-1	4-Methyl-2-pentanone	U	5.47	ug/kg	1.37	5.47
10061-01-5	cis-1,3-Dichloropropylene	U	1.09	ug/kg	0.328	1.09
108-88-3	Toluene	U	1.09	ug/kg	0.328	1.09
10061-02-6	trans-1,3-Dichloropropylene	U	1.09	ug/kg	0.328	1.09
79-00-5	1,1,2-Trichloroethane	U	1.09	ug/kg	0.328	1.09
591-78-6	2-Hexanone	U	5.47	ug/kg	1.64	5.47
142-28-9	1,3-Dichloropropane	U	1.09	ug/kg	0.328	1.09
127-18-4	Tetrachloroethylene	U	1.09	ug/kg	0.328	1.09
124-48-1	Dibromochloromethane	U	1.09	ug/kg	0.328	1.09
106-93-4	1,2-Dibromoethane	U	1.09	ug/kg	0.328	1.09
108-90-7	Chlorobenzene	U	1.09	ug/kg	0.328	1.09

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-886**	**Date Collected:**	**12/09/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242750002**	**Date Received:**	**12/11/2009 08:50**	**%Moisture:**	**8.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-13466**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**934726**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**12/18/2009 15:12**	**Analyst:**	**RXM4**	**Purge Vol:**	**5 mL**
Prep Date:	**12/18/2009 12:18**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1r510.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.09	ug/kg	0.328	1.09
179601-23-1	m,p-Xylenes	U	2.19	ug/kg	0.328	2.19
95-47-6	o-Xylene	U	1.09	ug/kg	0.328	1.09
100-42-5	Styrene	U	1.09	ug/kg	0.328	1.09
75-25-2	Bromoform	U	1.09	ug/kg	0.328	1.09
79-34-5	1,1,2,2-Tetrachloroethane	U	1.09	ug/kg	0.328	1.09
96-18-4	1,2,3-Trichloropropane	U	1.09	ug/kg	0.328	1.09
108-86-1	Bromobenzene	U	1.09	ug/kg	0.328	1.09
103-65-1	n-Propylbenzene	U	1.09	ug/kg	0.328	1.09
95-49-8	2-Chlorotoluene	U	1.09	ug/kg	0.328	1.09
98-82-8	Isopropylbenzene	U	1.09	ug/kg	0.328	1.09
108-67-8	1,3,5-Trimethylbenzene	U	1.09	ug/kg	0.328	1.09
106-43-4	4-Chlorotoluene	U	1.09	ug/kg	0.328	1.09
98-06-6	tert-Butylbenzene	U	1.09	ug/kg	0.328	1.09
95-63-6	1,2,4-Trimethylbenzene	U	1.09	ug/kg	0.328	1.09
135-98-8	sec-Butylbenzene	U	1.09	ug/kg	0.328	1.09
99-87-6	4-Isopropyltoluene	U	1.09	ug/kg	0.328	1.09
541-73-1	1,3-Dichlorobenzene	U	1.09	ug/kg	0.328	1.09
106-46-7	1,4-Dichlorobenzene	U	1.09	ug/kg	0.328	1.09
104-51-8	n-Butylbenzene	U	1.09	ug/kg	0.328	1.09
96-12-8	1,2-Dibromo-3-chloropropane	U	1.09	ug/kg	0.328	1.09
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.47	ug/kg	1.75	5.47
630-20-6	1,1,1,2-Tetrachloroethane	U	1.09	ug/kg	0.328	1.09
95-50-1	1,2-Dichlorobenzene	U	1.09	ug/kg	0.328	1.09

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Hydrocarbon	18.07	42.2	ug/kg		J

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/121809v1/1r510.d
Lab Smp Id: 242750002 Client Smp ID: RE03-09-13466
Inj Date : 18-DEC-2009 15:12
Operator : RXM4 Inst ID: VOA1.i
Smp Info : |242750002|934726|1|VOAF|1|
Misc Info : LANL 5G N/A
Comment :
Method : /chem/VOA1.i/121809v1/VOA1-8260ox-121709.m
Meth Date : 19-Dec-2009 14:24 ron01469 Quant Type: ISTD
Cal Date : 17-DEC-2009 21:57 Cal File: 1r426.d
Als bottle: 10
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-886.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	8.52580	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
* 52 Fluorobenzene	96	13.686	13.682	(1.000)	741859	50.0000	
* 76 Chlorobenzene-d5	117	17.162	17.162	(1.000)	519217	50.0000	
* 102 1,4-Dichlorobenzene-d4	152	19.610	19.610	(1.000)	261786	50.0000	
$ 48 1,2-Dichloroethane-d4	65	13.341	13.341	(0.975)	537853	59.8349	65.4
$ 65 Toluene-d8	98	15.518	15.518	(0.904)	1565986	52.8125	57.7
$ 87 Bromofluorobenzene	95	18.391	18.386	(0.938)	595497	55.3433	60.5

ION RATIO REPORT

VOA REPORT

Data file: 1r510.d
Report Date: 12/19/2009 14:24
Lab. ID: 242750002 SampleType: SAMPLE
Injection Date: 18-DEC-2009 15:12
Operator: RXM4 Instrument: VOA1.i
Sample Info: |242750002|934726|1|VOAF|1|
Miscellaneous Info: LANL 5G N/A
Comment:
Method used: /chem/VOA1.i/121809v1/VOA1-8260ox-121709.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-886
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
51 1,2-Dichloroethane				CAS#: 107-06-2		
62	12276	13.68	13.44	80-120	100	(T)
64	1881	13.69	13.44	2- 62	15	(T)
64 4-Methyl-2-pentanone				CAS#: 108-10-1		
58	14526	15.52	15.36	80-120	100	(T)
43	6820	15.52	15.36	198-258	47	(QT)
100	974206	15.52	15.36	0- 60	6707	(QT)
82 Styrene				CAS#: 100-42-5		
104	8123	18.07	17.80	80-120	100	(T)
78	357	17.81	17.80	26- 86	4	(Q)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/121809v1/1r510.d
Lab Smp Id: 242750002 Client Smp ID: RE03-09-13466
Inj Date : 18-DEC-2009 15:12
Operator : RXM4 Inst ID: VOA1.i
Smp Info : |242750002|934726|1|VOAF|1|
Misc Info : LANL 5G N/A
Comment :
Method : /chem/VOA1.i/121809v1/VOA1-8260ox-121709.m
Meth Date : 19-Dec-2009 14:24 ron01469 Quant Type: ISTD
Cal Date : 17-DEC-2009 21:57 Cal File: 1r426.d
Als bottle: 10
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-886.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	8.52580	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 76 Chlorobenzene-d5	17.162	1689481	50.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ug/l)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown Hydrocarbon					CAS #:		
18.068	1303531	38.5778377	42.2	0		0	76

Data File: /chem/VOA1.i/121809v1/1r510.d
Date : 18-DEC-2009 15:12
Client ID: RE03-09-13466
Sample Info: |2427500021934726|1|VOAF|1|

Column phase: RTX-Volatiles

Instrument: VOA1.i

Operator: RXM4
Column diameter: 0.25

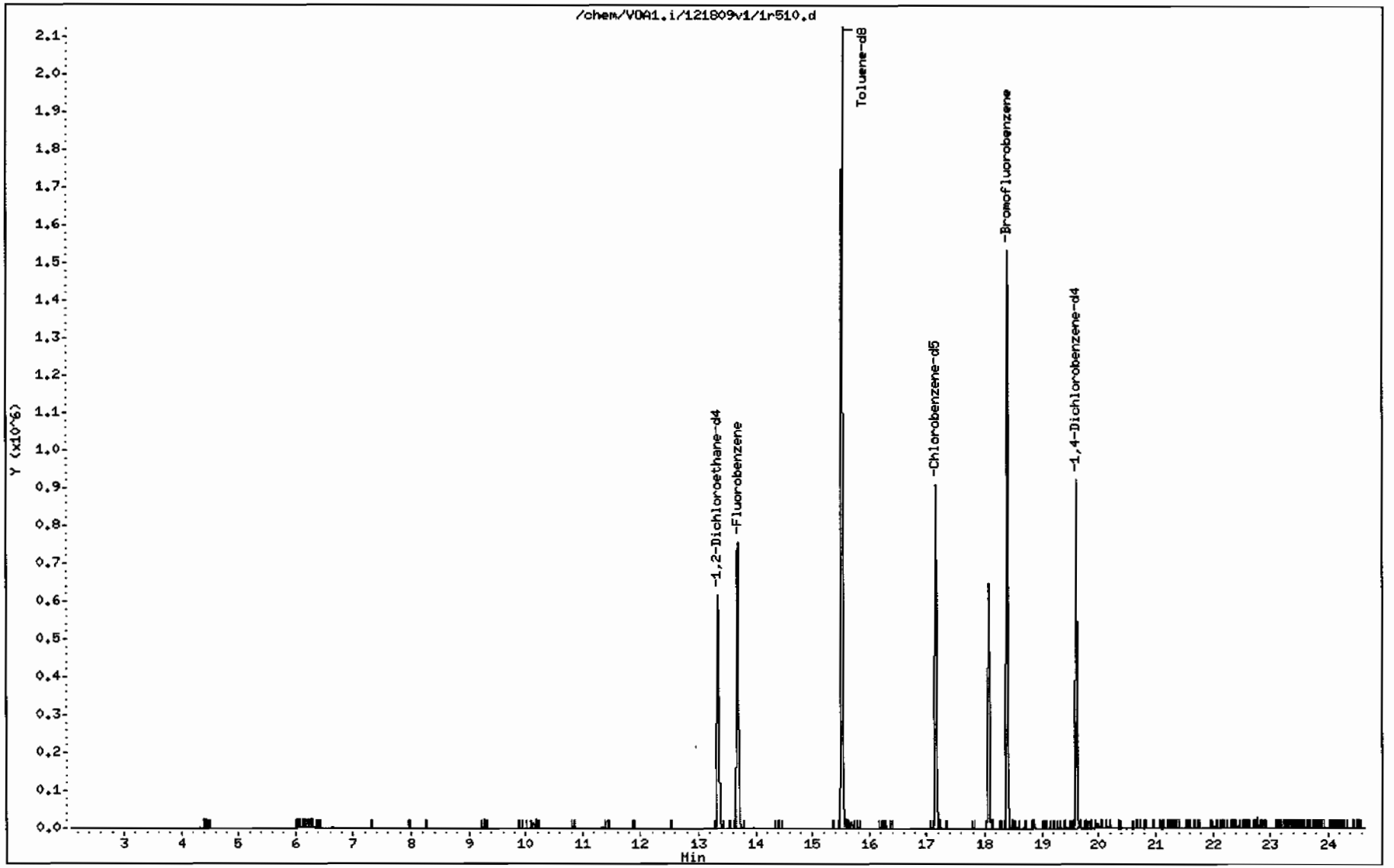

Data File: /chem/VOA1.i/121809v1/1r510.d

Page 1

Date : 18-DEC-2009 15:12

Client ID: RE03-09-13466

Instrument: VOA1.i

Sample Info: |2427500021934726|1|VOAF|1|

Operator: RXH4

Column phase: RTX-Volatiles

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Hydrocarbon						
Anthracene, 9,10-dihydro-9,10-dimethyl-	22566-43-4	NIST05.L	63100	25	C16H16	208
4-Pyridinecarboxylic acid, 2,6-dichloro-	5398-44-7	NIST05.L	50668	25	C6H3Cl2NO2	191
Trisiloxane, 1,1,3,3,5,5-hexamethyl-	1189-93-1	NIST05.L	63149	22	C6H20O2Si3	208

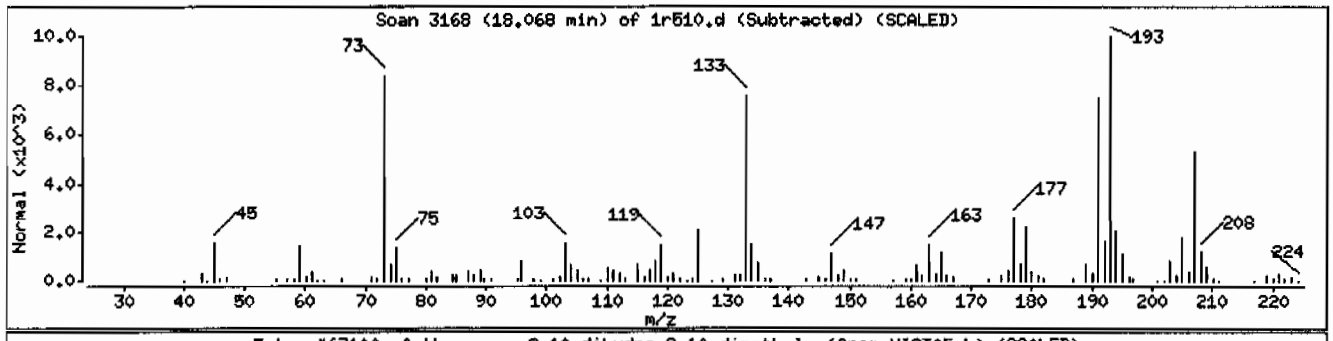

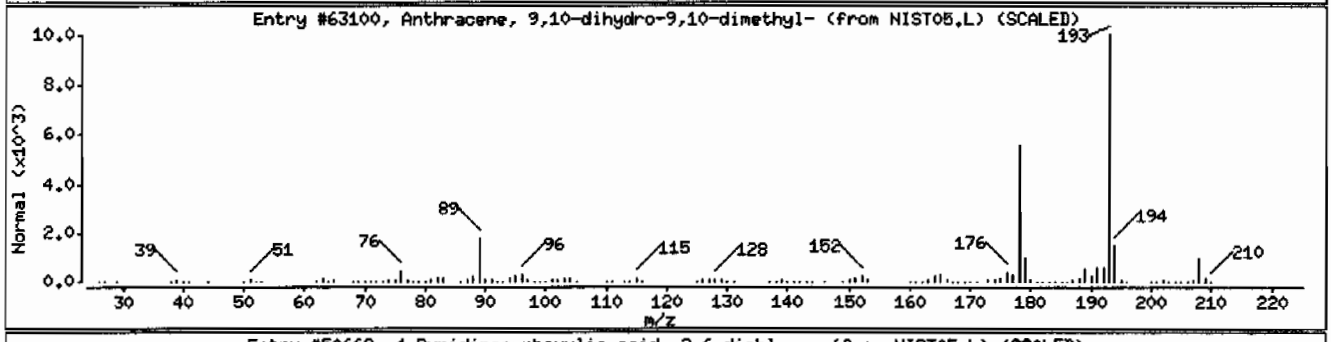

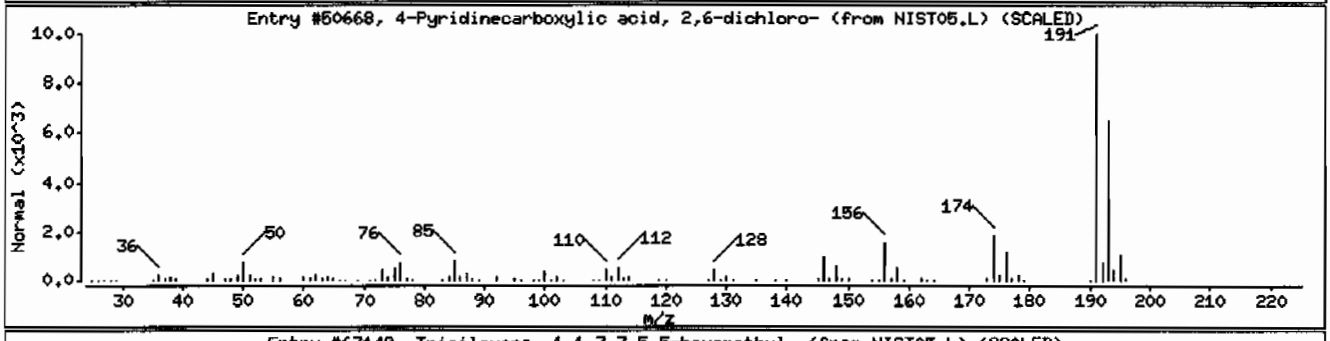

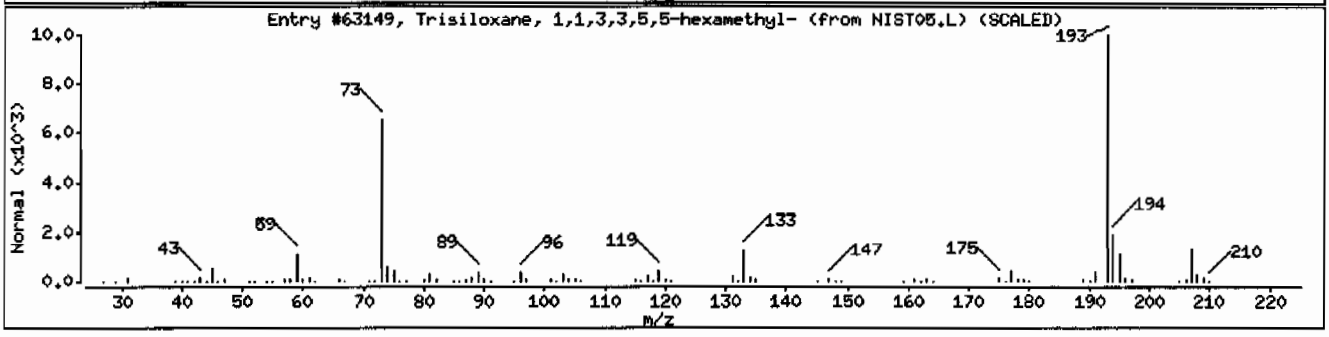

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-886	Date Collected:	12/09/2009 12:00	Matrix:	S
Lab Sample ID:	242750001	Date Received:	12/11/2009 08:50	%Moisture:	3.9
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-13467	Method:	SW846 8260B	SOP Ref:	GL-OA-E-038
Batch ID:	934726	Inst:	VOA1.I	Dilution:	1
Run Date:	12/18/2009 14:42	Analyst:	RXM4	Purge Vol:	5 mL
Prep Date:	12/18/2009 13:45	Aliquot:	5 g	Final Volume:	5 mL
Data File:	1r509.d	Column:	RTX-Volatiles	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.04	ug/kg	0.354	1.04
74-87-3	Chloromethane	U	1.04	ug/kg	0.312	1.04
75-01-4	Vinyl chloride	U	1.04	ug/kg	0.312	1.04
74-83-9	Bromomethane	U	1.04	ug/kg	0.312	1.04
75-00-3	Chloroethane	U	1.04	ug/kg	0.312	1.04
75-69-4	Trichlorofluoromethane	U	1.04	ug/kg	0.312	1.04
67-64-1	Acetone	U	5.20	ug/kg	1.73	5.20
75-35-4	1,1-Dichloroethylene	U	1.04	ug/kg	0.312	1.04
74-88-4	Iodomethane	U	5.20	ug/kg	1.67	5.20
75-09-2	Methylene chloride	U	5.20	ug/kg	2.08	5.20
75-15-0	Carbon disulfide	U	5.20	ug/kg	1.30	5.20
156-60-5	trans-1,2-Dichloroethylene	U	1.04	ug/kg	0.312	1.04
75-34-3	1,1-Dichloroethane	U	1.04	ug/kg	0.312	1.04
78-93-3	2-Butanone	U	5.20	ug/kg	1.56	5.20
156-59-2	cis-1,2-Dichloroethylene	U	1.04	ug/kg	0.312	1.04
594-20-7	2,2-Dichloropropane	U	1.04	ug/kg	0.312	1.04
67-66-3	Chloroform	U	1.04	ug/kg	0.312	1.04
74-97-5	Bromochloromethane	U	1.04	ug/kg	0.343	1.04
71-55-6	1,1,1-Trichloroethane	U	1.04	ug/kg	0.312	1.04
563-58-6	1,1-Dichloropropene	U	1.04	ug/kg	0.312	1.04
56-23-5	Carbon tetrachloride	U	1.04	ug/kg	0.312	1.04
107-06-2	1,2-Dichloroethane	U	1.04	ug/kg	0.312	1.04
71-43-2	Benzene	U	1.04	ug/kg	0.312	1.04
79-01-6	Trichloroethylene	U	1.04	ug/kg	0.343	1.04
78-87-5	1,2-Dichloropropane	U	1.04	ug/kg	0.312	1.04
75-27-4	Bromodichloromethane	U	1.04	ug/kg	0.312	1.04
74-95-3	Dibromomethane	U	1.04	ug/kg	0.312	1.04
108-10-1	4-Methyl-2-pentanone	U	5.20	ug/kg	1.30	5.20
10061-01-5	cis-1,3-Dichloropropylene	U	1.04	ug/kg	0.312	1.04
108-88-3	Toluene	U	1.04	ug/kg	0.312	1.04
10061-02-6	trans-1,3-Dichloropropylene	U	1.04	ug/kg	0.312	1.04
79-00-5	1,1,2-Trichloroethane	U	1.04	ug/kg	0.312	1.04
591-78-6	2-Hexanone	U	5.20	ug/kg	1.56	5.20
142-28-9	1,3-Dichloropropane	U	1.04	ug/kg	0.312	1.04
127-18-4	Tetrachloroethylene	U	1.04	ug/kg	0.312	1.04
124-48-1	Dibromochloromethane	U	1.04	ug/kg	0.312	1.04
106-93-4	1,2-Dibromoethane	U	1.04	ug/kg	0.312	1.04
108-90-7	Chlorobenzene	U	1.04	ug/kg	0.312	1.04

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-886**	**Date Collected:**	**12/09/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242750001**	**Date Received:**	**12/11/2009 08:50**	**%Moisture:**	**3.9**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-13467**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**934726**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**12/18/2009 14:42**	**Analyst:**	**RXM4**	**Purge Vol:**	**5 mL**
Prep Date:	**12/18/2009 13:45**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1r509.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.04	ug/kg	0.312	1.04
179601-23-1	m,p-Xylenes	U	2.08	ug/kg	0.312	2.08
95-47-6	o-Xylene	U	1.04	ug/kg	0.312	1.04
100-42-5	Styrene	U	1.04	ug/kg	0.312	1.04
75-25-2	Bromoform	U	1.04	ug/kg	0.312	1.04
79-34-5	1,1,2,2-Tetrachloroethane	U	1.04	ug/kg	0.312	1.04
96-18-4	1,2,3-Trichloropropane	U	1.04	ug/kg	0.312	1.04
108-86-1	Bromobenzene	U	1.04	ug/kg	0.312	1.04
103-65-1	n-Propylbenzene	U	1.04	ug/kg	0.312	1.04
95-49-8	2-Chlorotoluene	U	1.04	ug/kg	0.312	1.04
98-82-8	Isopropylbenzene	U	1.04	ug/kg	0.312	1.04
108-67-8	1,3,5-Trimethylbenzene	U	1.04	ug/kg	0.312	1.04
106-43-4	4-Chlorotoluene	U	1.04	ug/kg	0.312	1.04
98-06-6	tert-Butylbenzene	U	1.04	ug/kg	0.312	1.04
95-63-6	1,2,4-Trimethylbenzene	U	1.04	ug/kg	0.312	1.04
135-98-8	sec-Butylbenzene	U	1.04	ug/kg	0.312	1.04
99-87-6	4-Isopropyltoluene	U	1.04	ug/kg	0.312	1.04
541-73-1	1,3-Dichlorobenzene	U	1.04	ug/kg	0.312	1.04
106-46-7	1,4-Dichlorobenzene	U	1.04	ug/kg	0.312	1.04
104-51-8	n-Butylbenzene	U	1.04	ug/kg	0.312	1.04
96-12-8	1,2-Dibromo-3-chloropropane	U	1.04	ug/kg	0.312	1.04
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.20	ug/kg	1.67	5.20
630-20-6	1,1,1,2-Tetrachloroethane	U	1.04	ug/kg	0.312	1.04
95-50-1	1,2-Dichlorobenzene	U	1.04	ug/kg	0.312	1.04

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Siloxane	18.07	23.9	ug/kg		J

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VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/121809v1/1r509.d
Lab Smp Id: 242750001 Client Smp ID: RE03-09-13467
Inj Date : 18-DEC-2009 14:42
Operator : RXM4 Inst ID: VOA1.i
Smp Info : |242750001|934726|1|VOAF|1|
Misc Info : LANL 5G N/A
Comment :
Method : /chem/VOA1.i/121809v1/VOA1-8260ox-121709.m
Meth Date : 19-Dec-2009 14:24 ron01469 Quant Type: ISTD
Cal Date : 17-DEC-2009 21:57 Cal File: 1r426.d
Als bottle: 9
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-886.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	3.92340	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
* 52 Fluorobenzene	96	13.686	13.682	(1.000)	797261	50.0000	
* 76 Chlorobenzene-d5	117	17.162	17.162	(1.000)	562716	50.0000	
* 102 1,4-Dichlorobenzene-d4	152	19.610	19.610	(1.000)	287537	50.0000	
$ 48 1,2-Dichloroethane-d4	65	13.341	13.341	(0.975)	532820	55.1560	57.4
$ 65 Toluene-d8	98	15.518	15.518	(0.904)	1600632	49.8081	51.8
$ 87 Bromofluorobenzene	95	18.391	18.386	(0.938)	609653	51.5847	53.7

ION RATIO REPORT

VOA REPORT

Data file: 1r509.d
Report Date: 12/19/2009 14:24
Lab. ID: 242750001 SampleType: SAMPLE
Injection Date: 18-DEC-2009 14:42
Operator: RXM4 Instrument: VOA1.i
Sample Info: |242750001|934726|1|VOAF|1|
Miscellaneous Info: LANL 5G N/A
Comment:
Method used: /chem/VOA1.i/121809v1/VOA1-8260ox-121709.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-886
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
51 1,2-Dichloroethane				CAS#: 107-06-2		
62	12567	13.68	13.44	80-120	100	(T)
64	2225	13.69	13.44	2- 62	18	(T)
64 4-Methyl-2-pentanone				CAS#: 108-10-1		
58	15385	15.52	15.36	80-120	100	(T)
43	7030	15.52	15.36	198-258	46	(QT)
100	1005383	15.52	15.36	0- 60	6535	(QT)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/121809v1/1r509.d
Lab Smp Id: 242750001 Client Smp ID: RE03-09-13467
Inj Date : 18-DEC-2009 14:42
Operator : RXM4 Inst ID: VOA1.i
Smp Info : |242750001|934726|1|VOAF|1|
Misc Info : LANL 5G N/A
Comment :
Method : /chem/VOA1.i/121809v1/VOA1-8260ox-121709.m
Meth Date : 19-Dec-2009 14:24 ron01469 Quant Type: ISTD
Cal Date : 17-DEC-2009 21:57 Cal File: 1r426.d
Als bottle: 9
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-886.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	3.92340	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 76 Chlorobenzene-d5	17.162	1838421	50.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ug/l)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown Siloxane					CAS #:		
18.068	845974	23.0081582	23.9	0		0	76

Data File: /chem/VOA1.i/121809v1/1r509.d
Date : 18-DEC-2009 14:42
Client ID: RE03-09-13467
Sample Info: |24275000|934726|1|VOAF|1|

Column phase: RTX-Volatiles

Instrument: VOA1.i

Operator: RXM4
Column diameter: 0.25

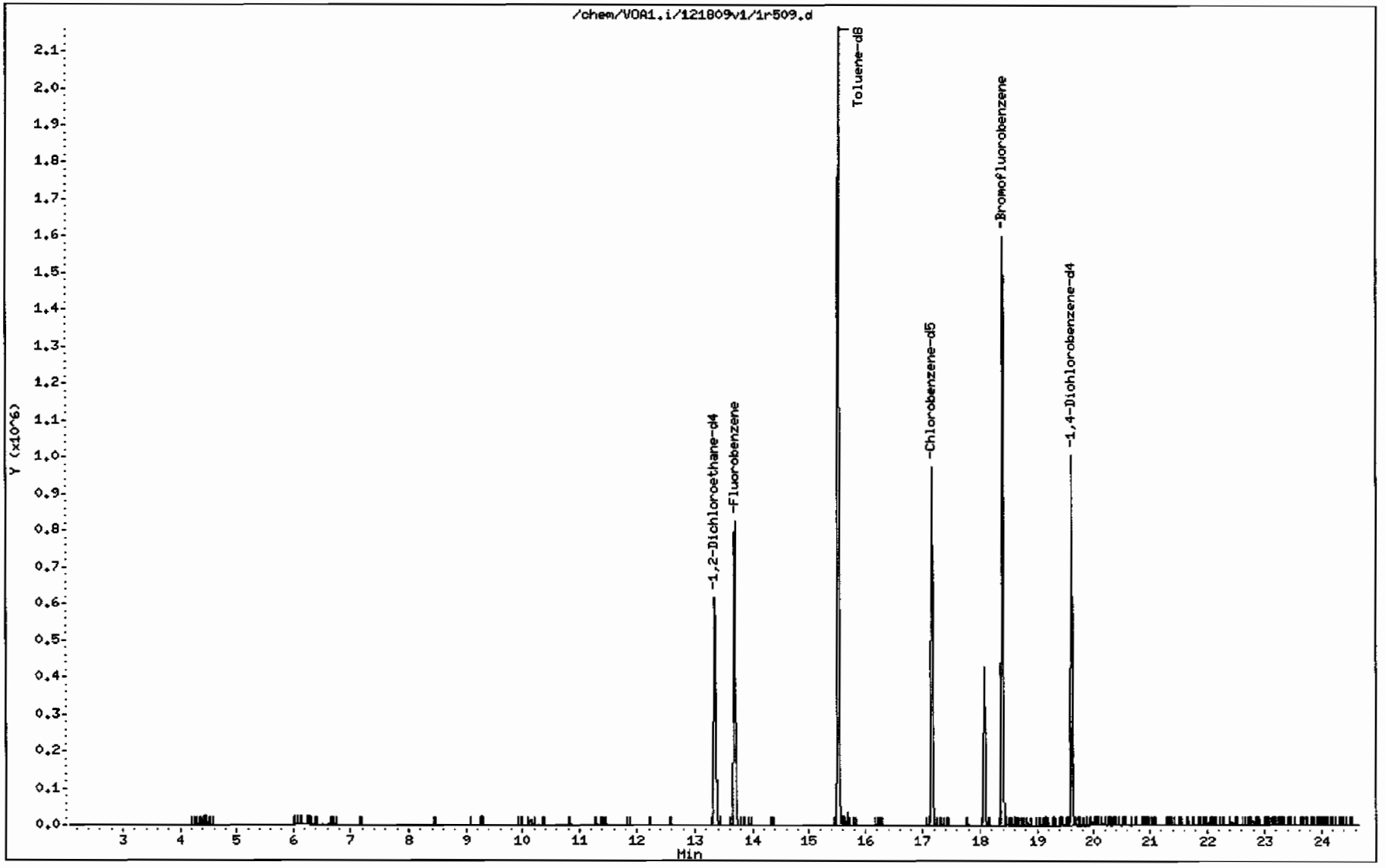

Data File: /chem/VOA1.i/121809v1/1r509.d

Page 1

Date : 18-DEC-2009 14:42

Client ID: RE03-09-13467

Instrument: VOA1.i

Sample Info: |2427500001|9347261|1|VOAF|1|

Operator: RXM4

Column phase: RTX-Volatiles

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Siloxane						
Cyclotrisiloxane, hexamethyl-	541-05-9	NIST05.L	73123	35	C6H18O3Si3	222
Clopidol	2971-90-6	NIST05.L	50706	25	C7H7Cl2NO	191
1-(3-Nitro-phenyl)-pyrrolidine	1000300-34-7	NIST05.L	50801	25	C10H12N2O2	192

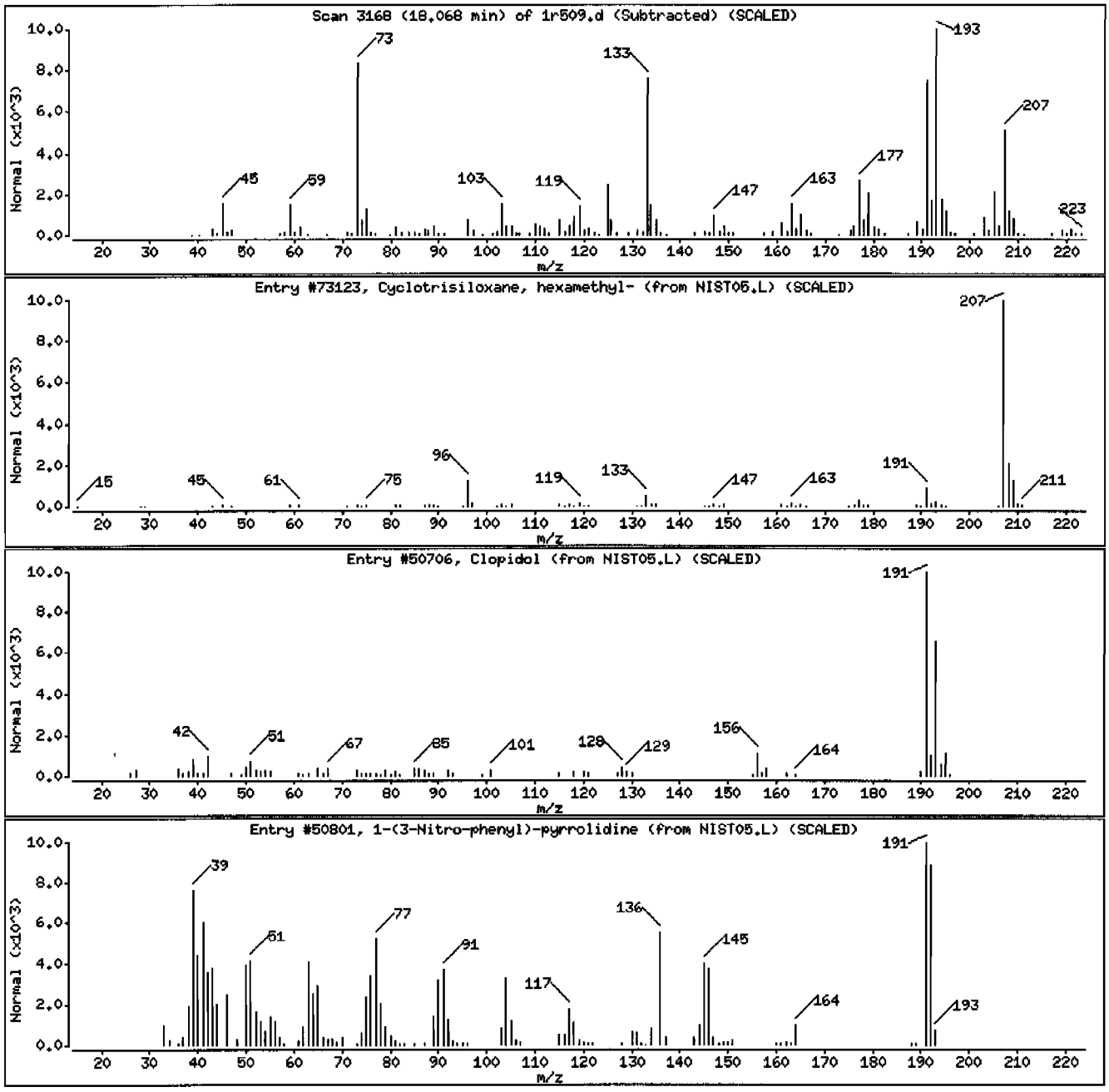

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-886**	**Date Collected:**	**12/09/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242750003**	**Date Received:**	**12/11/2009 08:50**	**%Moisture:**	**9.3**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-13468**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**934726**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**12/18/2009 15:42**	**Analyst:**	**RXM4**	**Purge Vol:**	**5 mL**
Prep Date:	**12/18/2009 12:19**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1r511.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.10	ug/kg	0.375	1.10
74-87-3	Chloromethane	U	1.10	ug/kg	0.331	1.10
75-01-4	Vinyl chloride	U	1.10	ug/kg	0.331	1.10
74-83-9	Bromomethane	U	1.10	ug/kg	0.331	1.10
75-00-3	Chloroethane	U	1.10	ug/kg	0.331	1.10
75-69-4	Trichlorofluoromethane	U	1.10	ug/kg	0.331	1.10
67-64-1	Acetone	U	5.51	ug/kg	1.83	5.51
75-35-4	1,1-Dichloroethylene	U	1.10	ug/kg	0.331	1.10
74-88-4	Iodomethane	U	5.51	ug/kg	1.76	5.51
75-09-2	Methylene chloride	U	5.51	ug/kg	2.21	5.51
75-15-0	Carbon disulfide	U	5.51	ug/kg	1.38	5.51
156-60-5	trans-1,2-Dichloroethylene	U	1.10	ug/kg	0.331	1.10
75-34-3	1,1-Dichloroethane	U	1.10	ug/kg	0.331	1.10
78-93-3	2-Butanone	U	5.51	ug/kg	1.65	5.51
156-59-2	cis-1,2-Dichloroethylene	U	1.10	ug/kg	0.331	1.10
594-20-7	2,2-Dichloropropane	U	1.10	ug/kg	0.331	1.10
67-66-3	Chloroform	U	1.10	ug/kg	0.331	1.10
74-97-5	Bromochloromethane	U	1.10	ug/kg	0.364	1.10
71-55-6	1,1,1-Trichloroethane	U	1.10	ug/kg	0.331	1.10
563-58-6	1,1-Dichloropropene	U	1.10	ug/kg	0.331	1.10
56-23-5	Carbon tetrachloride	U	1.10	ug/kg	0.331	1.10
107-06-2	1,2-Dichloroethane	U	1.10	ug/kg	0.331	1.10
71-43-2	Benzene	U	1.10	ug/kg	0.331	1.10
79-01-6	Trichloroethylene	U	1.10	ug/kg	0.364	1.10
78-87-5	1,2-Dichloropropane	U	1.10	ug/kg	0.331	1.10
75-27-4	Bromodichloromethane	U	1.10	ug/kg	0.331	1.10
74-95-3	Dibromomethane	U	1.10	ug/kg	0.331	1.10
108-10-1	4-Methyl-2-pentanone	U	5.51	ug/kg	1.38	5.51
10061-01-5	cis-1,3-Dichloropropylene	U	1.10	ug/kg	0.331	1.10
108-88-3	Toluene	U	1.10	ug/kg	0.331	1.10
10061-02-6	trans-1,3-Dichloropropylene	U	1.10	ug/kg	0.331	1.10
79-00-5	1,1,2-Trichloroethane	U	1.10	ug/kg	0.331	1.10
591-78-6	2-Hexanone	U	5.51	ug/kg	1.65	5.51
142-28-9	1,3-Dichloropropane	U	1.10	ug/kg	0.331	1.10
127-18-4	Tetrachloroethylene	U	1.10	ug/kg	0.331	1.10
124-48-1	Dibromochloromethane	U	1.10	ug/kg	0.331	1.10
106-93-4	1,2-Dibromoethane	U	1.10	ug/kg	0.331	1.10
108-90-7	Chlorobenzene	U	1.10	ug/kg	0.331	1.10

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-886**	**Date Collected:**	**12/09/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242750003**	**Date Received:**	**12/11/2009 08:50**	**%Moisture:**	**9.3**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-13468**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**934726**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**12/18/2009 15:42**	**Analyst:**	**RXM4**	**Purge Vol:**	**5 mL**
Prep Date:	**12/18/2009 12:19**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1r511.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.10	ug/kg	0.331	1.10
179601-23-1	m,p-Xylenes	U	2.21	ug/kg	0.331	2.21
95-47-6	o-Xylene	U	1.10	ug/kg	0.331	1.10
100-42-5	Styrene	U	1.10	ug/kg	0.331	1.10
75-25-2	Bromoform	U	1.10	ug/kg	0.331	1.10
79-34-5	1,1,2,2-Tetrachloroethane	U	1.10	ug/kg	0.331	1.10
96-18-4	1,2,3-Trichloropropane	U	1.10	ug/kg	0.331	1.10
108-86-1	Bromobenzene	U	1.10	ug/kg	0.331	1.10
103-65-1	n-Propylbenzene	U	1.10	ug/kg	0.331	1.10
95-49-8	2-Chlorotoluene	U	1.10	ug/kg	0.331	1.10
98-82-8	Isopropylbenzene	U	1.10	ug/kg	0.331	1.10
108-67-8	1,3,5-Trimethylbenzene	U	1.10	ug/kg	0.331	1.10
106-43-4	4-Chlorotoluene	U	1.10	ug/kg	0.331	1.10
98-06-6	tert-Butylbenzene	U	1.10	ug/kg	0.331	1.10
95-63-6	1,2,4-Trimethylbenzene	U	1.10	ug/kg	0.331	1.10
135-98-8	sec-Butylbenzene	U	1.10	ug/kg	0.331	1.10
99-87-6	4-Isopropyltoluene	U	1.10	ug/kg	0.331	1.10
541-73-1	1,3-Dichlorobenzene	U	1.10	ug/kg	0.331	1.10
106-46-7	1,4-Dichlorobenzene	U	1.10	ug/kg	0.331	1.10
104-51-8	n-Butylbenzene	U	1.10	ug/kg	0.331	1.10
96-12-8	1,2-Dibromo-3-chloropropane	U	1.10	ug/kg	0.331	1.10
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.51	ug/kg	1.76	5.51
630-20-6	1,1,1,2-Tetrachloroethane	U	1.10	ug/kg	0.331	1.10
95-50-1	1,2-Dichlorobenzene	U	1.10	ug/kg	0.331	1.10

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Siloxane	18.07	66.8	ug/kg		J
	Unknown Hydrocarbon	19.98	6.26	ug/kg		J

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/121809v1/1r511.d
Lab Smp Id: 242750003 Client Smp ID: RE03-09-13468
Inj Date : 18-DEC-2009 15:42
Operator : RXM4 Inst ID: VOA1.i
Smp Info : |242750003|934726|1|VOAF|1|
Misc Info : LANL 5G N/A
Comment :
Method : /chem/VOA1.i/121809v1/VOA1-8260ox-121709.m
Meth Date : 19-Dec-2009 14:24 ron01469 Quant Type: ISTD
Cal Date : 17-DEC-2009 21:57 Cal File: 1r426.d
Als bottle: 11
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-886.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	9.31100	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
* 52 Fluorobenzene	96	13.686	13.682	(1.000)	780927	50.0000	
* 76 Chlorobenzene-d5	117	17.162	17.162	(1.000)	548987	50.0000	
* 102 1,4-Dichlorobenzene-d4	152	19.610	19.610	(1.000)	276965	50.0000	
$ 48 1,2-Dichloroethane-d4	65	13.341	13.341	(0.975)	538212	56.8794	62.7
$ 65 Toluene-d8	98	15.518	15.518	(0.904)	1638714	52.2684	57.6
$ 87 Bromofluorobenzene	95	18.386	18.386	(0.938)	621697	54.6118	60.2

ION RATIO REPORT

VOA REPORT

Data file: 1r511.d
Report Date: 12/19/2009 14:24
Lab. ID: 242750003 SampleType: SAMPLE
Injection Date: 18-DEC-2009 15:42
Operator: RXM4 Instrument: VOA1.i
Sample Info: |242750003|934726|1|VOAF|1|
Miscellaneous Info: LANL 5G N/A
Comment:
Method used: /chem/VOA1.i/121809v1/VOA1-8260ox-121709.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-886
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
51 1,2-Dichloroethane CAS#: 107-06-2						
62	11712	13.69	13.44	80-120	100	(T)
64	1903	13.69	13.44	2- 62	16	(T)
64 4-Methyl-2-pentanone CAS#: 108-10-1						
58	15494	15.52	15.36	80-120	100	(T)
43	7469	15.51	15.36	198-258	48	(QT)
100	1041507	15.52	15.36	0- 60	6722	(QT)
82 Styrene CAS#: 100-42-5						
104	11957	18.06	17.80	80-120	100	(T)
78	480	17.82	17.80	26- 86	4	(Q)
83 Bromoform CAS#: 75-25-2						
173	516	18.07	18.11	80-120	100	( )
171	150	18.40	18.11	22- 82	29	(T)
84 Isopropylbenzene CAS#: 98-82-8						
105	10465	18.07	18.13	80-120	100	( )
120	5051	18.06	18.13	0- 53	48	(T)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/121809v1/1r511.d
Lab Smp Id: 242750003 Client Smp ID: RE03-09-13468
Inj Date : 18-DEC-2009 15:42
Operator : RXM4 Inst ID: VOA1.i
Smp Info : |242750003|934726|1|VOAF|1|
Misc Info : LANL 5G N/A
Comment :
Method : /chem/VOA1.i/121809v1/VOA1-8260ox-121709.m
Meth Date : 19-Dec-2009 14:24 ron01469 Quant Type: ISTD
Cal Date : 17-DEC-2009 21:57 Cal File: 1r426.d
Als bottle: 11
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-886.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	9.31100	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 76 Chlorobenzene-d5	17.162	1794147	50.000
* 102 1,4-Dichlorobenzene-d4	19.610	1794978	50.000

	CONCENTRATIONS				QUANT		
RT	AREA	ON-COL(ug/l)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown Siloxane				CAS #:			
18.068	2175204	60.6194489	66.8	0		0	76

RT	AREA	CONCENTRATIONS ON-COL(ug/l)	FINAL(ug/Kg)	QUAL	QUANT LIBRARY	LIB ENTRY	CPND #
Unknown Hydrocarbon					CAS #:		
19.983	203901	5.67975752	6.3	0		0	102

Data File: /chem/VOA1.i/121809v1/1r511.d

Date : 18-DEC-2009 15:42

Client ID: RE03-09-13468

Sample Info: |2427500031934726|1|VOAF|1|

Column phase: RTX-Volatiles

Instrument: VOA1.i

Operator: RXM4

Column diameter: 0.25

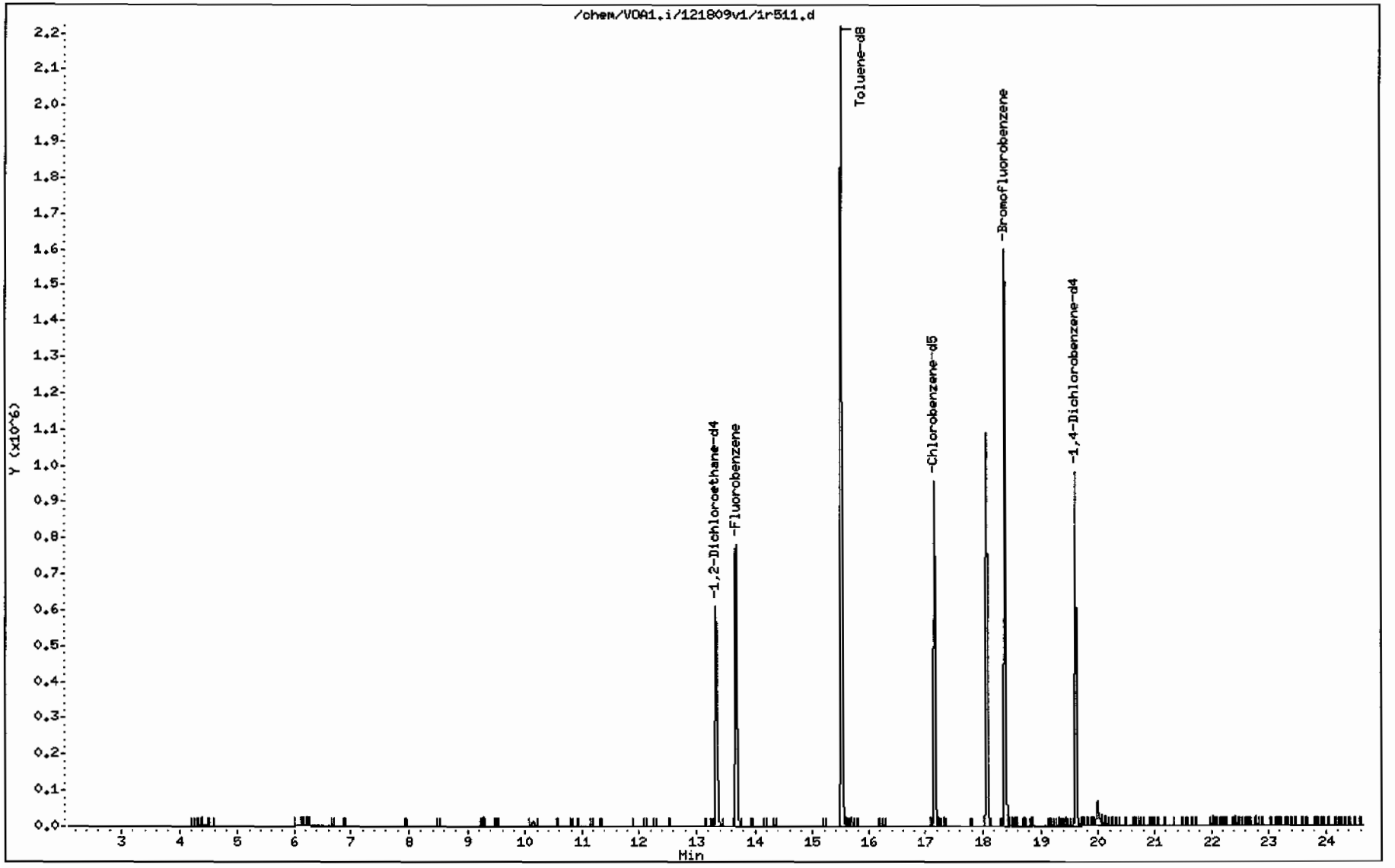

Data File: /chem/VOA1.i/121809v1/1r511.d

Date : 18-DEC-2009 15:42

Client ID: RE03-09-13468

Instrument: VOA1.i

Sample Info: |2427500031934726|1|VOAF|1|

Operator: RXH4

Column phase: RTX-Volatiles

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Siloxane						
Cyclotrisiloxane, hexamethyl-	541-05-9	NIST05.L	73123	38	C6H18O3Si3	222
Anthracene, 9,10-dihydro-9,10-dimethyl-	22566-43-4	NIST05.L	63100	30	C16H16	208
Trisiloxane, 1,1,3,3,5,5-hexamethyl-	1189-93-1	NIST05.L	63149	27	C6H20O2Si3	208

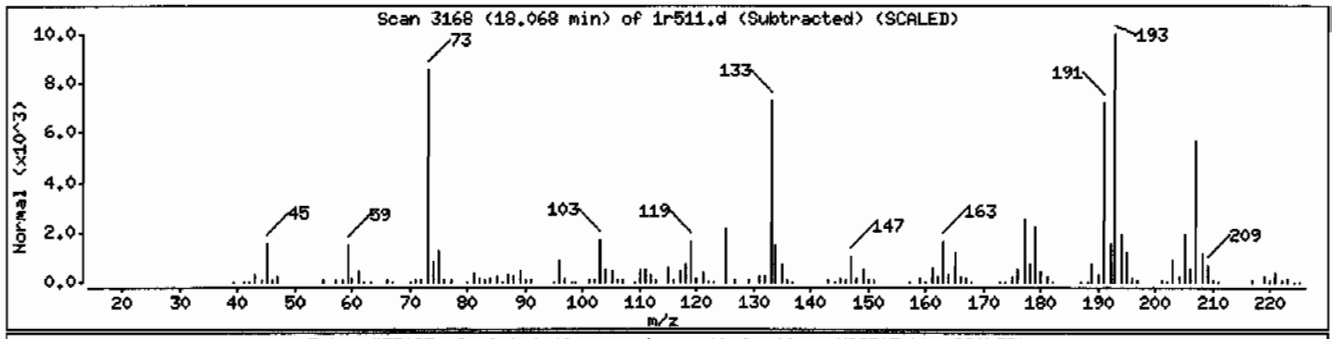

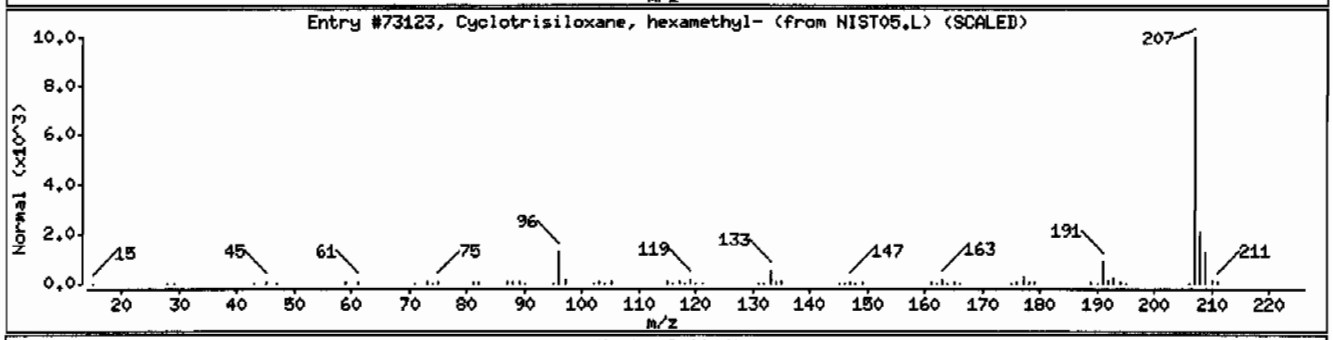

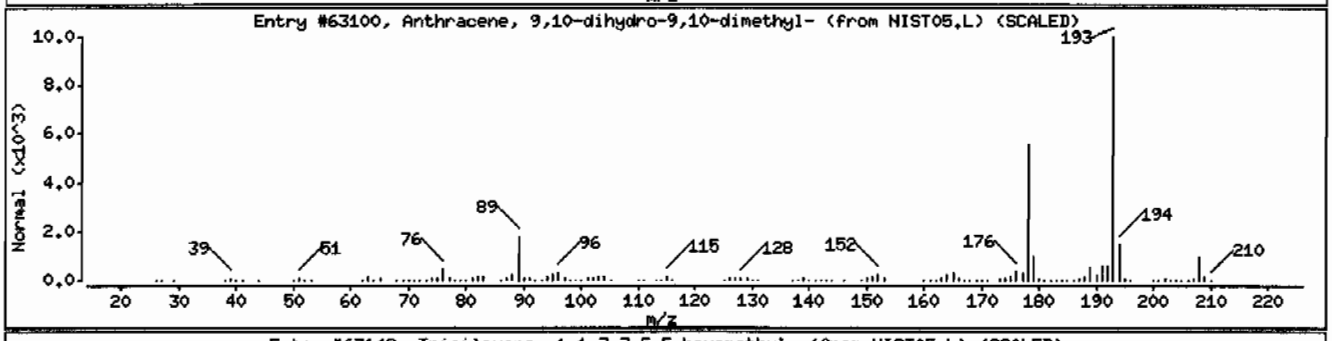

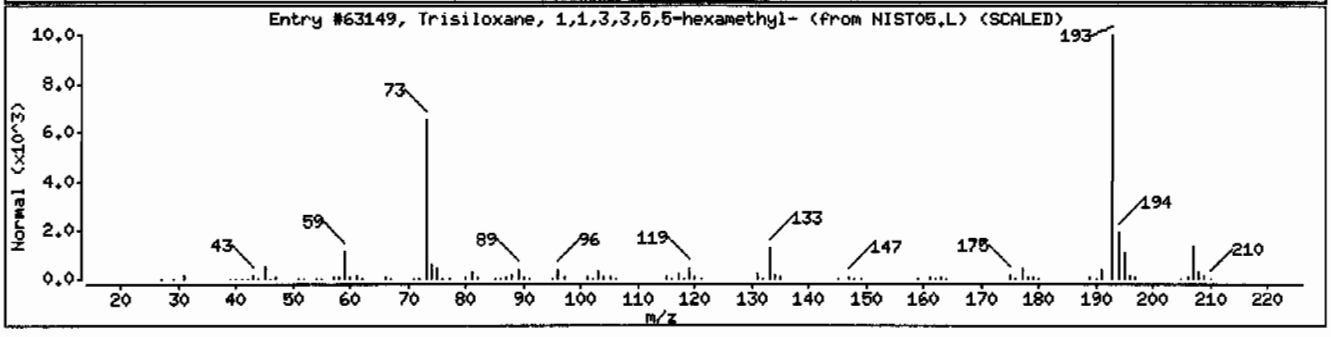

Data File: /chem/VOA1.i/121809v1/1r511.d

Date : 18-DEC-2009 15:42

Client ID: RE03-09-13468

Instrument: VOA1.i

Sample Info: |2427500003|934726|1|VOAF|1|

Operator: RXM4

Column phase: RTX-Volatiles

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Hydrocarbon						
1,4-Cyclohexadiene, 1,3,6-tris(trimethyl	1000150-10-8	NIST05.L	121967	25	C15H32Si3	296

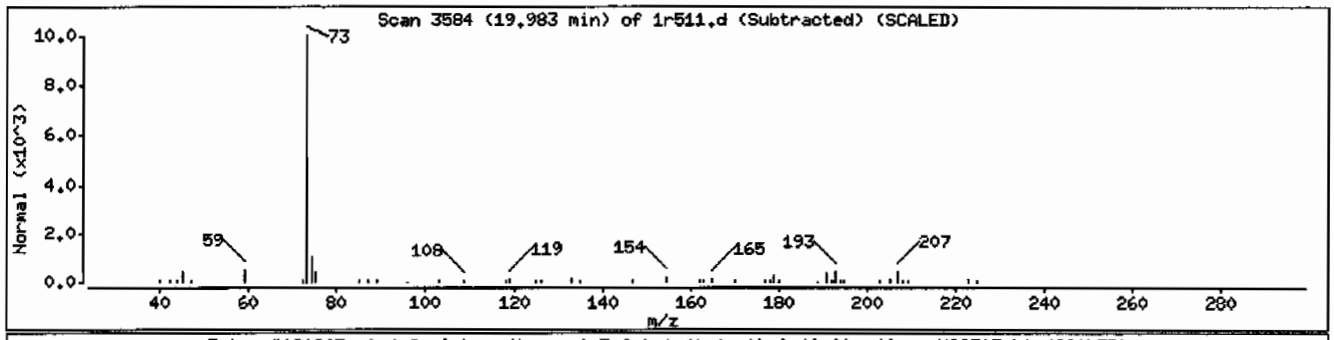

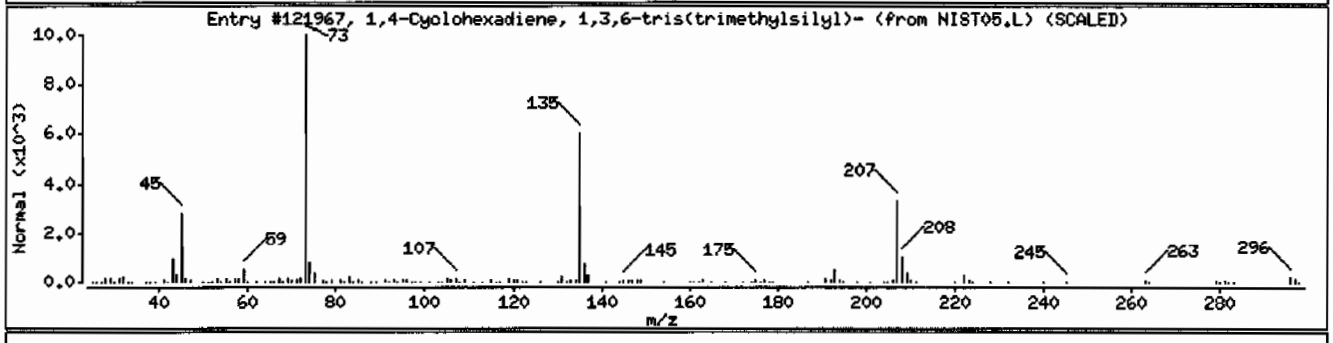

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-886	Date Collected:	12/09/2009 12:00	Matrix:	S
Lab Sample ID:	242750005	Date Received:	12/11/2009 08:50	%Moisture:	6.8
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-10-2003	Method:	SW846 8260B	SOP Ref:	GL-OA-E-038
Batch ID:	934726	Inst:	VOA1.I	Dilution:	1
Run Date:	12/18/2009 16:43	Analyst:	RXM4	Purge Vol:	5 mL
Prep Date:	12/18/2009 12:21	Aliquot:	5 g	Final Volume:	5 mL
Data File:	1r513.d	Column:	RTX-Volatiles	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.07	ug/kg	0.365	1.07
74-87-3	Chloromethane	U	1.07	ug/kg	0.322	1.07
75-01-4	Vinyl chloride	U	1.07	ug/kg	0.322	1.07
74-83-9	Bromomethane	U	1.07	ug/kg	0.322	1.07
75-00-3	Chloroethane	U	1.07	ug/kg	0.322	1.07
75-69-4	Trichlorofluoromethane	U	1.07	ug/kg	0.322	1.07
67-64-1	Acetone	U	5.37	ug/kg	1.78	5.37
75-35-4	1,1-Dichloroethylene	U	1.07	ug/kg	0.322	1.07
74-88-4	Iodomethane	U	5.37	ug/kg	1.72	5.37
75-09-2	Methylene chloride	U	5.37	ug/kg	2.15	5.37
75-15-0	Carbon disulfide	U	5.37	ug/kg	1.34	5.37
156-60-5	trans-1,2-Dichloroethylene	U	1.07	ug/kg	0.322	1.07
75-34-3	1,1-Dichloroethane	U	1.07	ug/kg	0.322	1.07
78-93-3	2-Butanone	U	5.37	ug/kg	1.61	5.37
156-59-2	cis-1,2-Dichloroethylene	U	1.07	ug/kg	0.322	1.07
594-20-7	2,2-Dichloropropane	U	1.07	ug/kg	0.322	1.07
67-66-3	Chloroform	U	1.07	ug/kg	0.322	1.07
74-97-5	Bromochloromethane	U	1.07	ug/kg	0.354	1.07
71-55-6	1,1,1-Trichloroethane	U	1.07	ug/kg	0.322	1.07
563-58-6	1,1-Dichloropropene	U	1.07	ug/kg	0.322	1.07
56-23-5	Carbon tetrachloride	U	1.07	ug/kg	0.322	1.07
107-06-2	1,2-Dichloroethane	U	1.07	ug/kg	0.322	1.07
71-43-2	Benzene	U	1.07	ug/kg	0.322	1.07
79-01-6	Trichloroethylene	U	1.07	ug/kg	0.354	1.07
78-87-5	1,2-Dichloropropane	U	1.07	ug/kg	0.322	1.07
75-27-4	Bromodichloromethane	U	1.07	ug/kg	0.322	1.07
74-95-3	Dibromomethane	U	1.07	ug/kg	0.322	1.07
108-10-1	4-Methyl-2-pentanone	U	5.37	ug/kg	1.34	5.37
10061-01-5	cis-1,3-Dichloropropylene	U	1.07	ug/kg	0.322	1.07
108-88-3	Toluene	U	1.07	ug/kg	0.322	1.07
10061-02-6	trans-1,3-Dichloropropylene	U	1.07	ug/kg	0.322	1.07
79-00-5	1,1,2-Trichloroethane	U	1.07	ug/kg	0.322	1.07
591-78-6	2-Hexanone	U	5.37	ug/kg	1.61	5.37
142-28-9	1,3-Dichloropropane	U	1.07	ug/kg	0.322	1.07
127-18-4	Tetrachloroethylene	U	1.07	ug/kg	0.322	1.07
124-48-1	Dibromochloromethane	U	1.07	ug/kg	0.322	1.07
106-93-4	1,2-Dibromoethane	U	1.07	ug/kg	0.322	1.07
108-90-7	Chlorobenzene	U	1.07	ug/kg	0.322	1.07

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-886**	**Date Collected:**	**12/09/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242750005**	**Date Received:**	**12/11/2009 08:50**	**%Moisture:**	**6.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-10-2003**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**934726**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**12/18/2009 16:43**	**Analyst:**	**RXM4**	**Purge Vol:**	**5 mL**
Prep Date:	**12/18/2009 12:21**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1r513.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.07	ug/kg	0.322	1.07
179601-23-1	m,p-Xylenes	U	2.15	ug/kg	0.322	2.15
95-47-6	o-Xylene	U	1.07	ug/kg	0.322	1.07
100-42-5	Styrene	U	1.07	ug/kg	0.322	1.07
75-25-2	Bromoform	U	1.07	ug/kg	0.322	1.07
79-34-5	1,1,2,2-Tetrachloroethane	U	1.07	ug/kg	0.322	1.07
96-18-4	1,2,3-Trichloropropane	U	1.07	ug/kg	0.322	1.07
108-86-1	Bromobenzene	U	1.07	ug/kg	0.322	1.07
103-65-1	n-Propylbenzene	U	1.07	ug/kg	0.322	1.07
95-49-8	2-Chlorotoluene	U	1.07	ug/kg	0.322	1.07
98-82-8	Isopropylbenzene	U	1.07	ug/kg	0.322	1.07
108-67-8	1,3,5-Trimethylbenzene	U	1.07	ug/kg	0.322	1.07
106-43-4	4-Chlorotoluene	U	1.07	ug/kg	0.322	1.07
98-06-6	tert-Butylbenzene	U	1.07	ug/kg	0.322	1.07
95-63-6	1,2,4-Trimethylbenzene	U	1.07	ug/kg	0.322	1.07
135-98-8	sec-Butylbenzene	U	1.07	ug/kg	0.322	1.07
99-87-6	4-Isopropyltoluene	U	1.07	ug/kg	0.322	1.07
541-73-1	1,3-Dichlorobenzene	U	1.07	ug/kg	0.322	1.07
106-46-7	1,4-Dichlorobenzene	U	1.07	ug/kg	0.322	1.07
104-51-8	n-Butylbenzene	U	1.07	ug/kg	0.322	1.07
96-12-8	1,2-Dibromo-3-chloropropane	U	1.07	ug/kg	0.322	1.07
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.37	ug/kg	1.72	5.37
630-20-6	1,1,1,2-Tetrachloroethane	U	1.07	ug/kg	0.322	1.07
95-50-1	1,2-Dichlorobenzene	U	1.07	ug/kg	0.322	1.07

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Hydrocarbon	18.07	46.9	ug/kg		J

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/121809v1/1r513.d
Lab Smp Id: 242750005 Client Smp ID: RE03-10-2003
Inj Date : 18-DEC-2009 16:43
Operator : RXM4 Inst ID: VOA1.i
Smp Info : |242750005|934726|1|VOAF|1|
Misc Info : LANL 5G N/A
Comment :
Method : /chem/VOA1.i/121809v1/VOA1-8260ox-121709.m
Meth Date : 19-Dec-2009 14:24 ron01469 Quant Type: ISTD
Cal Date : 17-DEC-2009 21:57 Cal File: 1r426.d
Als bottle: 13
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-886.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	6.83140	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
* 52 Fluorobenzene	96	13.686	13.682	(1.000)	728914	50.0000	
* 76 Chlorobenzene-d5	117	17.157	17.162	(1.000)	511715	50.0000	
* 102 1,4-Dichlorobenzene-d4	152	19.610	19.610	(1.000)	270689	50.0000	
$ 48 1,2-Dichloroethane-d4	65	13.341	13.341	(0.975)	535253	60.6032	65.0
$ 65 Toluene-d8	98	15.518	15.518	(0.904)	1573059	53.8288	57.8
$ 87 Bromofluorobenzene	95	18.391	18.386	(0.938)	611007	54.9171	58.9

ION RATIO REPORT

VOA REPORT

Data file: 1r513.d
Report Date: 12/19/2009 14:24
Lab. ID: 242750005 SampleType: SAMPLE
Injection Date: 18-DEC-2009 16:43
Operator: RXM4 Instrument: VOA1.i
Sample Info: |242750005|934726|1|VOAF|1|
Miscellaneous Info: LANL 5G N/A
Comment:
Method used: /chem/VOA1.i/121809v1/VOA1-8260ox-121709.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-886
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
51 1,2-Dichloroethane				CAS#: 107-06-2		
62	11795	13.68	13.44	80-120	100	(T)
64	1763	13.68	13.44	2- 62	15	(T)
64 4-Methyl-2-pentanone				CAS#: 108-10-1		
58	15004	15.52	15.36	80-120	100	(T)
43	7312	15.52	15.36	198-258	49	(QT)
100	996037	15.52	15.36	0- 60	6638	(QT)
82 Styrene				CAS#: 100-42-5		
104	8855	18.07	17.80	80-120	100	(T)
78	107	18.07	17.80	26- 86	1	(QT)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/121809v1/1r513.d
Lab Smp Id: 242750005 Client Smp ID: RE03-10-2003
Inj Date : 18-DEC-2009 16:43
Operator : RXM4 Inst ID: VOA1.i
Smp Info : |242750005|934726|1|VOAF|1|
Misc Info : LANL 5G N/A
Comment :
Method : /chem/VOA1.i/121809v1/VOA1-8260ox-121709.m
Meth Date : 19-Dec-2009 14:24 ron01469 Quant Type: ISTD
Cal Date : 17-DEC-2009 21:57 Cal File: 1r426.d
Als bottle: 13
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-886.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	6.83140	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 76 Chlorobenzene-d5	17.157	1683951	50.000

	CONCENTRATIONS			QUANT			
RT	AREA	ON-COL(ug/l)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown Hydrocarbon					CAS #:		
18.068	1472702	43.7275661	46.9	0		0	76

Data File: /chem/VOA1.i/121809v1/1r513.d
Date : 18-DEC-2009 16:43
Client ID: RE03-10-2003
Sample Info: |2427500051934726|1|VOAF|1|

Column phase: RTX-Volatiles

Instrument: VOA1.i

Operator: RXM4
Column diameter: 0.25

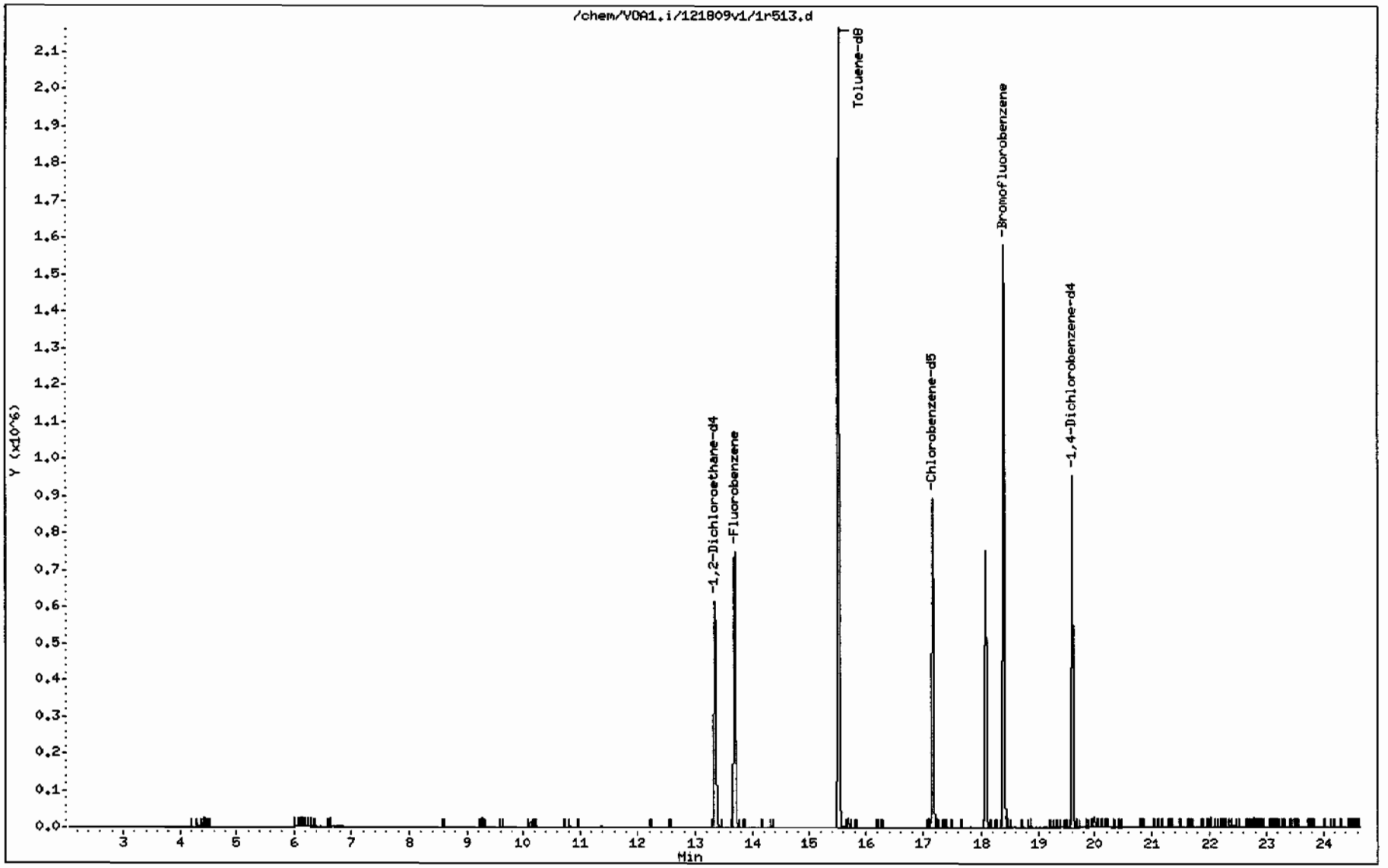

Data File: /chem/VOA1.i/121809v1/1r513.d

Page 1

Date : 18-DEC-2009 16:43

Client ID: RE03-10-2003

Instrument: VOA1.i

Sample Info: |2427500051934726|1|VOAF|1|

Operator: RXH4

Column phase: RTX-Volatiles

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Hydrocarbon						
Anthracene, 9,10-dihydro-9,10-dimethyl-	22566-43-4	NIST05.L	63100	30	C16H16	208
1H-Indole, 2-phenyl-	948-65-2	NIST05.L	52073	22	C14H11N	193
1,4-Cyclopentadiene-1-carboxylic acid, 3	14485-75-7	NIST05.L	51990	22	C11H15NO2	193

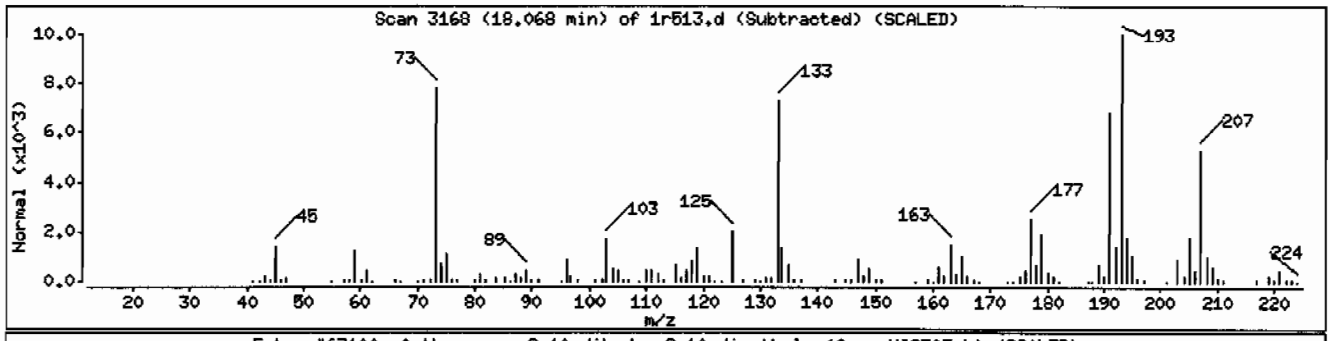

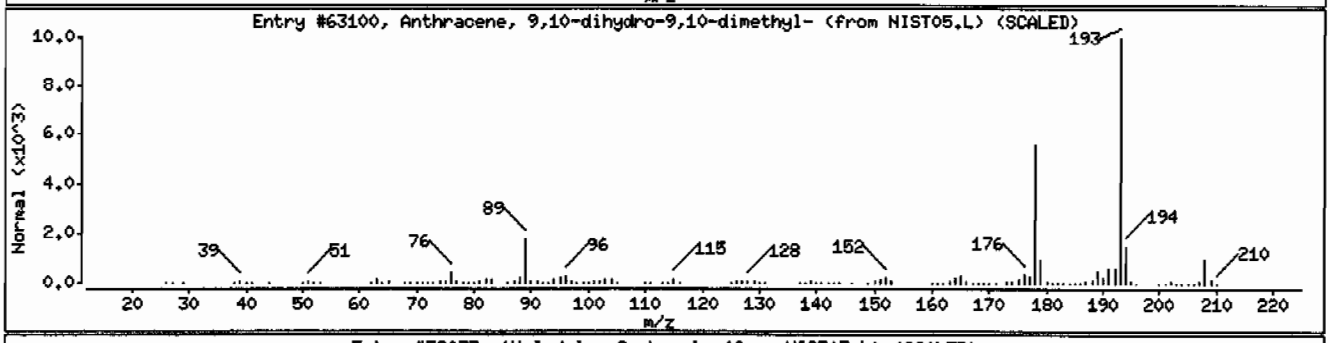

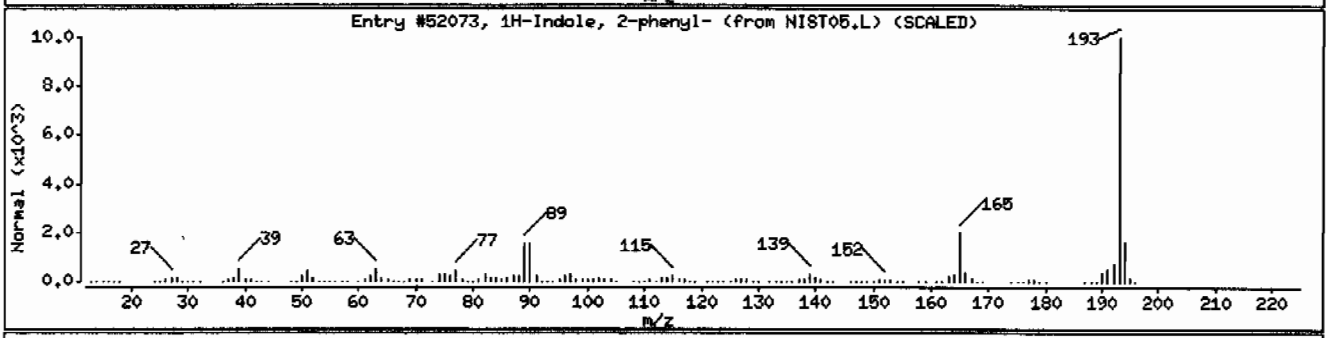

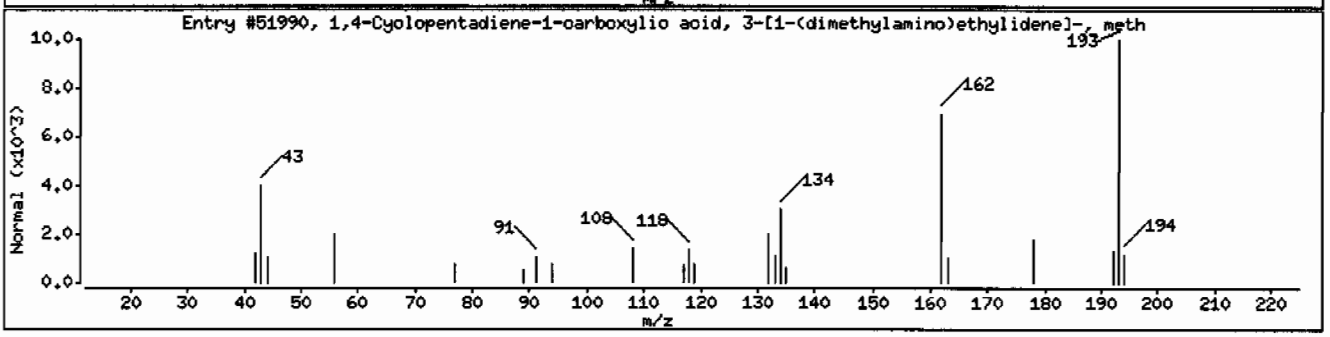

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-886	Date Collected:	12/09/2009 12:00	Matrix:	S
Lab Sample ID:	242750006	Date Received:	12/11/2009 08:50		
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-10-6937	Method:	SW846 8260B	SOP Ref:	GL-OA-E-038
Batch ID:	934726	Inst:	VOA1.I	Dilution:	1
Run Date:	12/18/2009 17:13	Analyst:	RXM4	Purge Vol:	5 mL
Prep Date:	12/18/2009 12:22	Aliquot:	5 g	Final Volume:	5 mL
Data File:	1r514.d	Column:	RTX-Volatiles	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/kg	0.340	1.00
74-87-3	Chloromethane	U	1.00	ug/kg	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/kg	0.300	1.00
74-83-9	Bromomethane	U	1.00	ug/kg	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/kg	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/kg	0.300	1.00
67-64-1	Acetone	J	1.68	ug/kg	1.66	5.00
75-35-4	1,1-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/kg	1.60	5.00
75-09-2	Methylene chloride	U	5.00	ug/kg	2.00	5.00
75-15-0	Carbon disulfide	U	5.00	ug/kg	1.25	5.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/kg	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/kg	1.50	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/kg	0.300	1.00
74-97-5	Bromochloromethane	U	1.00	ug/kg	0.330	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/kg	0.300	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/kg	0.300	1.00
56-23-5	Carbon tetrachloride	U	1.00	ug/kg	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/kg	0.300	1.00
71-43-2	Benzene	U	1.00	ug/kg	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/kg	0.330	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/kg	0.300	1.00
74-95-3	Dibromomethane	U	1.00	ug/kg	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/kg	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
108-88-3	Toluene	U	1.00	ug/kg	0.300	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/kg	0.300	1.00
591-78-6	2-Hexanone	U	5.00	ug/kg	1.50	5.00
142-28-9	1,3-Dichloropropane	U	1.00	ug/kg	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/kg	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/kg	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/kg	0.300	1.00
108-90-7	Chlorobenzene	U	1.00	ug/kg	0.300	1.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-886	**Date Collected:**	12/09/2009 12:00	**Matrix:**	S
Lab Sample ID:	242750006	**Date Received:**	12/11/2009 08:50		
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-10-6937	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	934726	**Inst:**	VOA1.I	**Dilution:**	1
Run Date:	12/18/2009 17:13	**Analyst:**	RXM4	**Purge Vol:**	5 mL
Prep Date:	12/18/2009 12:22	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	1r514.d	**Column:**	RTX-Volatiles	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.00	ug/kg	0.300	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/kg	0.300	2.00
95-47-6	o-Xylene	U	1.00	ug/kg	0.300	1.00
100-42-5	Styrene	U	1.00	ug/kg	0.300	1.00
75-25-2	Bromoform	U	1.00	ug/kg	0.300	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/kg	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/kg	0.300	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/kg	0.300	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/kg	0.300	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/kg	0.300	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/kg	0.300	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/kg	0.300	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/kg	0.300	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/kg	0.300	1.00
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.00	ug/kg	1.60	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated Units	Fit	Qual
	No Tentatively Identified Compounds Found		ug/kg		

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/121809v1/1r514.d
Lab Smp Id: 242750006 Client Smp ID: RE03-10-6937
Inj Date : 18-DEC-2009 17:13
Operator : RXM4 Inst ID: VOA1.i
Smp Info : |242750006|934726|1|VOAF|1|
Misc Info : LANL 5G N/A TB
Comment :
Method : /chem/VOA1.i/121809v1/VOA1-8260ox-121709.m
Meth Date : 19-Dec-2009 14:24 ron01469 Quant Type: ISTD
Cal Date : 17-DEC-2009 21:57 Cal File: 1r426.d
Als bottle: 14
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-886.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	0.00000	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
* 52 Fluorobenzene	96	13.686	13.682	(1.000)	769754	50.0000	
* 76 Chlorobenzene-d5	117	17.162	17.162	(1.000)	542424	50.0000	
* 102 1,4-Dichlorobenzene-d4	152	19.610	19.610	(1.000)	284192	50.0000	
$ 48 1,2-Dichloroethane-d4	65	13.341	13.341	(0.975)	524133	56.1956	56.2
$ 65 Toluene-d8	98	15.518	15.518	(0.904)	1533315	49.4983	49.5
$ 87 Bromofluorobenzene	95	18.386	18.386	(0.938)	604285	51.7323	51.7
16 Acetone	43	9.267	9.258	(0.677)	7802	1.67543	1.7(a)

QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).

ION RATIO REPORT

VOA REPORT

Data file: lr514.d
Report Date: 12/19/2009 14:25
Lab. ID: 242750006 SampleType: SAMPLE
Injection Date: 18-DEC-2009 17:13
Operator: RXM4 Instrument: VOA1.i
Sample Info: |242750006|934726|1|VOAF|1|
Miscellaneous Info: LANL 5G N/A TB
Comment:
Method used: /chem/VOA1.i/121809v1/VOA1-8260ox-121709.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-886
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
16 Acetone			CAS#: 67-64-1			
43	7802	9.27	9.26	80-120	100	( )
58	2711	9.27	9.26	5- 65	35	( )
51 1,2-Dichloroethane			CAS#: 107-06-2			
62	12223	13.68	13.44	80-120	100	(T)
64	1997	13.68	13.44	2- 62	16	(T)
64 4-Methyl-2-pentanone			CAS#: 108-10-1			
58	14347	15.52	15.36	80-120	100	(T)
43	7573	15.52	15.36	198-258	53	(QT)
100	976290	15.52	15.36	0- 60	6805	(QT)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/121809v1/1r514.d
Lab Smp Id: 242750006 Client Smp ID: RE03-10-6937
Inj Date : 18-DEC-2009 17:13
Operator : RXM4 Inst ID: VOA1.i
Smp Info : |242750006|934726|1|VOAF|1|
Misc Info : LANL 5G N/A TB
Comment :
Method : /chem/VOA1.i/121809v1/VOA1-8260ox-121709.m
Meth Date : 19-Dec-2009 14:24 ron01469 Quant Type: ISTD
Cal Date : 17-DEC-2009 21:57 Cal File: 1r426.d
Als bottle: 14
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-886.sub
Target Version: 3.50
Processing Host: prdsvr07

- NO TENTATIVELY IDENTIFIED COMPOUNDS -

Data File: /chem/VOA1.i/121809v1/1r514.d
Date : 18-DEC-2009 17:13
Client ID: RE03-10-6937
Sample Info: |2427500061934726|1|VOAF|1|

Column phase: RTX-Volatiles

Instrument: VOA1.i

Operator: RXM4
Column diameter: 0.25

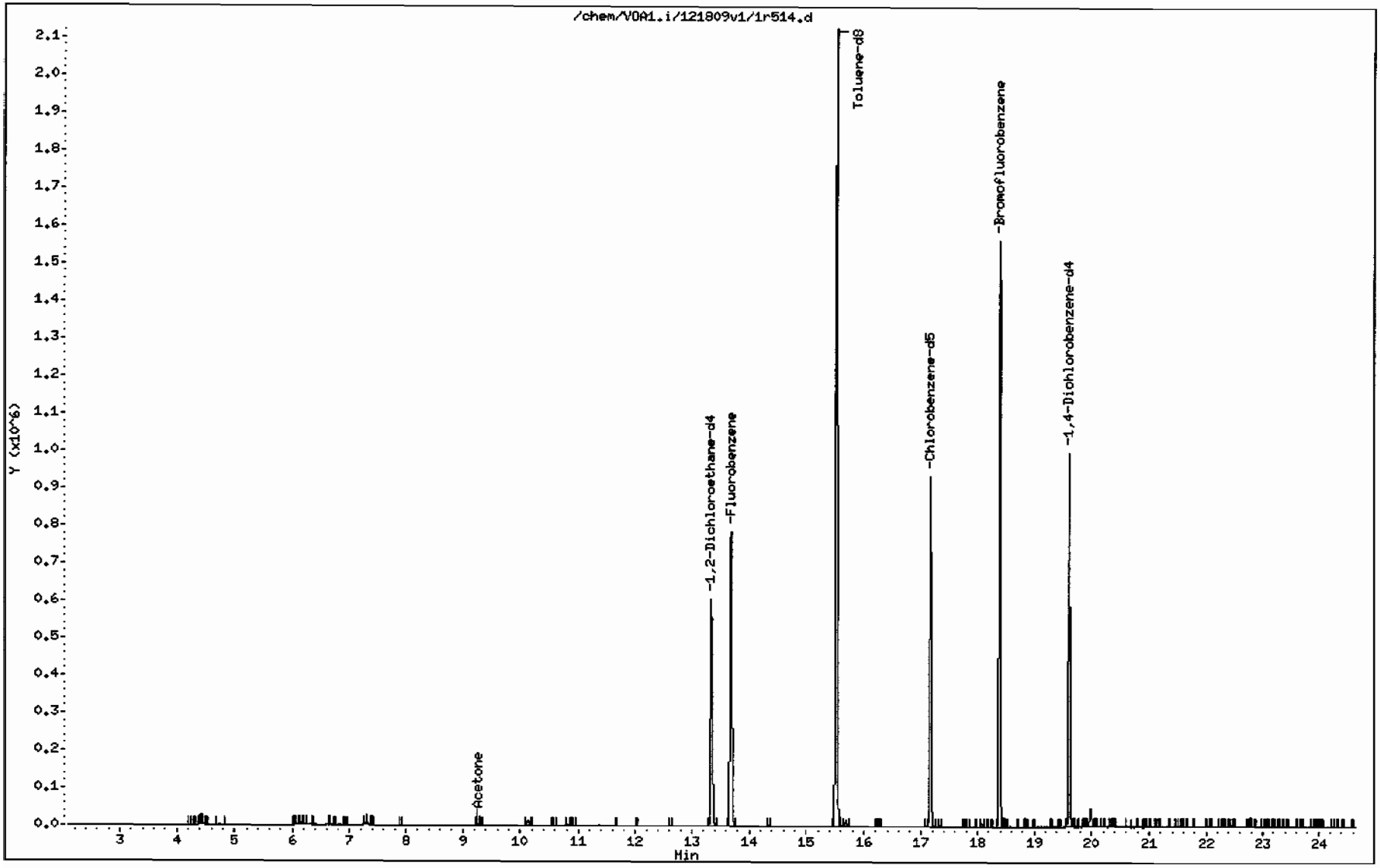

Data File: /chem/VOA1.i/121809v1/1r514.d

Date : 18-DEC-2009 17:13

Client ID: RE03-10-6937

Instrument: VOA1.i

Sample Info: |2427500061934726|1|VOAF|1|

Operator: RXM4

Column phase: RTX-Volatiles

Column diameter: 0.25

16 Acetone

Concentration: 1.7 ug/Kg

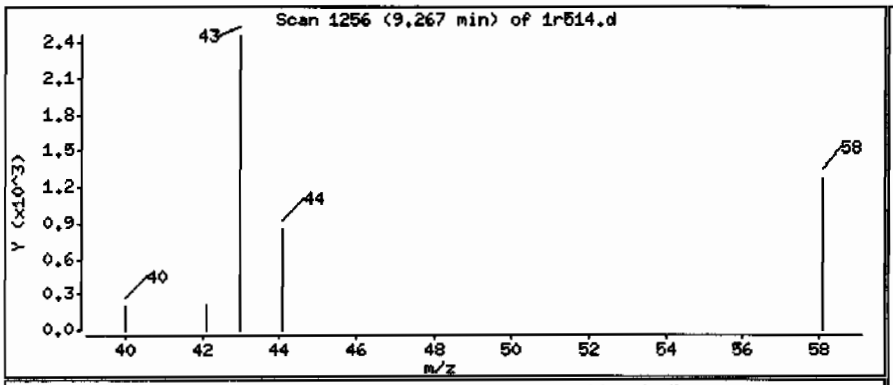

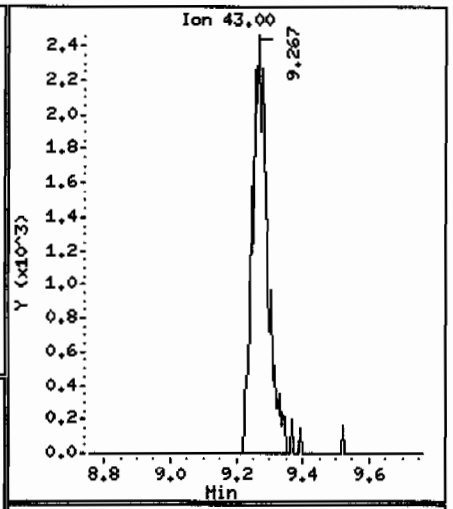

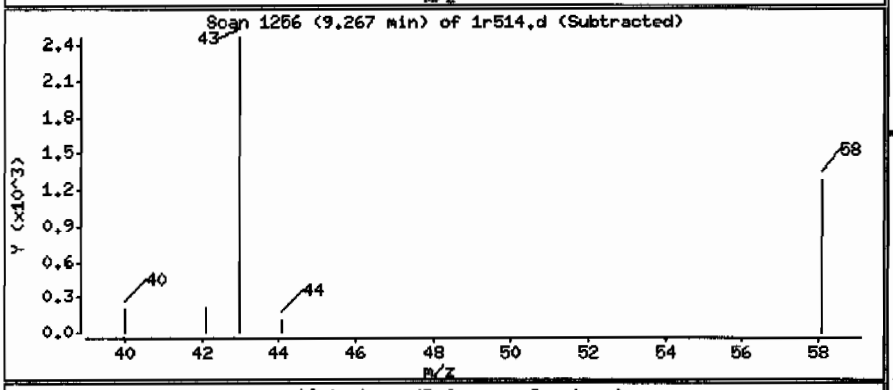

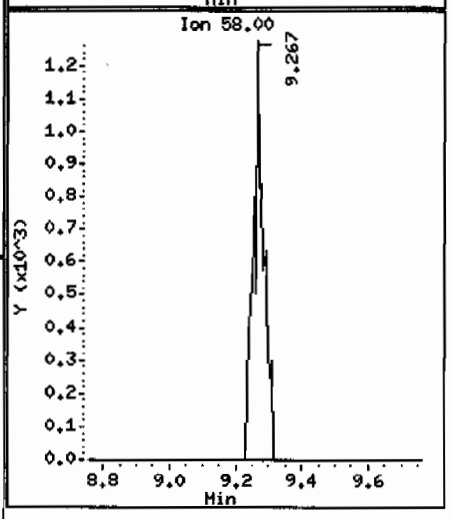

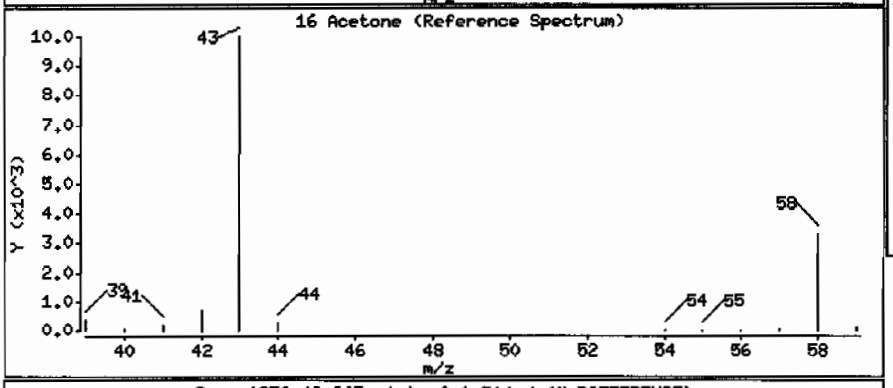

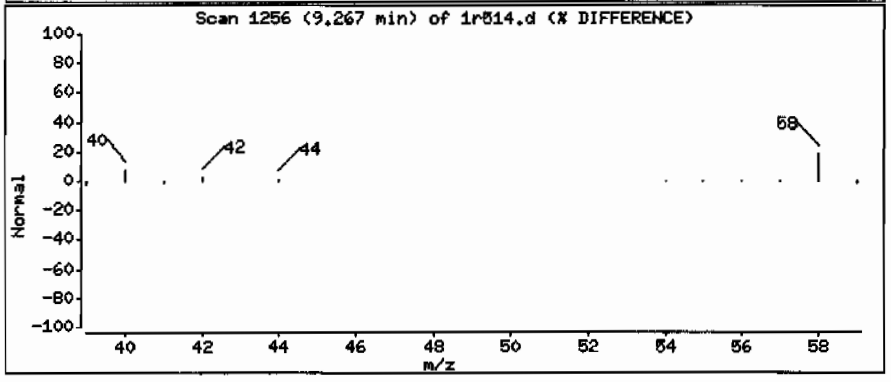

Standard Data

EPA 524.2/Low level SW846 8260B and Regular level 8260B and EPA 624
Calibration Standard Concentration Levels

	Level 1	Level 1a	Level 2	Level 3	Level 4 #	Level 5	Level 6	Level 7 !	Level 7a
Fluorobenzene (IS)									
1,2-Dichloroethane-d4(surr)		0.5	1	2	5	10	20	50	100
Dichlorodifluoromethane		0.5	1	2	5	10	20	50	100
Chloromethane		0.5	1	2	5	10	20	50	100
Vinyl chloride		0.5	1	2	5	10	20	50	100
Bromomethane		0.5	1	2	5	10	20	50	100
Chloroethane		0.5	1	2	5	10	20	50	100
Trichlorofluoromethane		0.5	1	2	5	10	20	50	100
1,1-Dichloroethene		0.5	1	2	5	10	20	50	100
Acetone	1	2.5	5	10	25	50	100	250	500
Iodomethane	1	2.5	5	10	25	50	100	250	500
Carbon disulfide	1	2.5	5	10	25	50	100	250	500
Methylene chloride		0.5	1	2	5	10	20	50	100
trans-1,2-Dichloroethene		0.5	1	2	5	10	20	50	100
1,1-Dichloroethane		0.5	1	2	5	10	20	50	100
Ethyl ether		0.5	1	2	5	10	20	50	100
Vinyl acetate	1	2.5	5	10	25	50	100	250	500
cis-1,2-Dichloroethene		0.5	1	2	5	10	20	50	100
1,2-Dichloroethene (total)		1	2	4	10	20	40	100	200
Cyclohexene		0.5	1	2	5	10	20	50	100
2-Chloroethylvinyl ether			5	10	25	50	100	250	500
2,2-Dichloropropane		0.5	1	2	5	10	20	50	100
2-Butanone	1	2.5	5	10	25	50	100	250	500
Bromochloromethane		0.5	1	2	5	10	20	50	100
Chloroform		0.5	1	2	5	10	20	50	100
1,1,1-Trichloroethane		0.5	1	2	5	10	20	50	100
1,1-Dichloropropene		0.5	1	2	5	10	20	50	100
Carbon tetrachloride		0.5	1	2	5	10	20	50	100
Benzene		0.5	1	2	5	10	20	50	100
1,2-Dichloroethane		0.5	1	2	5	10	20	50	100
Trichloroethene		0.5	1	2	5	10	20	50	100
1,2-Dichloropropane		0.5	1	2	5	10	20	50	100
Dibromomethane		0.5	1	2	5	10	20	50	100
Bromodichloromethane		0.5	1	2	5	10	20	50	100
cis-1,3-Dichloropropene		0.5	1	2	5	10	20	50	100
tert-Butylmethylether		0.5	1	2	5	10	20	50	100
Ethyl Ether			1	2	5	10	20	50	100
Acetonitrile			25	50	125	250	500	1250	2500
Methyl acetate			5	10	25	50	100	250	500
Cyclohexane			1	2	5	10	20	50	100
Methylcyclohexane			1	2	5	10	20	50	100
n-Butyl alcohol			50	100	250	500	1000	2500	5000
2-Nitropropane			5	10	25	50	100	250	500
Ethyl acetate			5	10	25	50	100	250	500
Acrolein			5	10	25	50	100	250	500
Trichlorotrifluoroethane			5	10	25	50	100	250	500
Allyl chloride			5	10	25	50	100	250	500
Acrylonitrile			5	10	25	50	100	250	500
1,4-Dioxane			50	100	250	500	1000	2500	5000
Isobutyl alcohol			50	100	250	500	1000	2500	5000
Methacrylonitrile			5	10	25	50	100	250	500
Propionitrile			5	10	25	50	100	250	500
Methyl methacrylate			5	10	25	50	100	250	500
Chlorotrifluoroethylene			5	10	25	50	100	250	500
2-Chloro-1,1,1-trifluoroethane			5	10	25	50	100	250	500

tert-Butyl alcohol			50	100	250	500	1000	2500	5000
Isopropyl ether			1	2	5	10	20	50	100
Ethyl tert-butyl ether			1	2	5	10	20	50	100
Isopropyl alcohol			50	100	250	500	1000	2500	5000
Methyl tert-amyl ether			1	2	5	10	20	50	100
1-Chlorohexane			1	2	5	10	20	50	100
2-Chloro-1,3-butadiene(chloroprene)			1	2	5	10	20	50	100
Chlorobenzene-d5 (IS)									
Toluene-d8 (surr)		0.5	1	2	5	10	20	50	100
4-Methyl-2-pentanone	1	2.5	5	10	25	50	100	250	500
Toluene		0.5	1	2	5	10	20	50	100
trans-1,3-Dichloropropene		0.5	1	2	5	10	20	50	100
1,1,2-Trichloroethane		0.5	1	2	5	10	20	50	100
Tetrachloroethene		0.5	1	2	5	10	20	50	100
1,3-Dichloropropane		0.5	1	2	5	10	20	50	100
2-Hexanone	1	2.5	5	10	25	50	20	250	500
Dibromochloromethane		0.5	1	2	5	10	20	50	100
1,2-Dibromoethane		0.5	1	2	5	10	20	50	100
Chlorobenzene		0.5	1	2	5	10	20	50	100
1,1,1,2-Tetrachloroethane		0.5	1	2	5	10	20	50	100
Ethylbenzene		0.5	1	2	5	10	20	50	100
m,p-Xylene		1	2	4	10	20	20	100	200
o-Xylene		0.5	1	2	5	10	20	50	100
Xylenes (total)		1.5	3	6	15	30	60	150	300
Stryene		0.5	1	2	5	10	20	50	100
Cyclohexanone			50	100	250	500	1000	2500	5000
Ethyl methacrylate			5	10	25	50	100	250	500
1,4-Dichlorobenzene-d4 (IS)									
Bromofluorobenzene (surr)		0.5	1	2	5	10	20	50	100
Bromoform		0.5	1	2	5	10	20	50	100
Isopropylbenzene		0.5	1	2	5	10	20	50	100
1,1,2,2-Tetrachloroethane		0.5	1	2	5	10	20	50	100
Bromobenzene		0.5	1	2	5	10	20	50	100
1,2,3-Trichloropropane		0.5	1	2	5	10	20	50	100
n-Propylbenzene		0.5	1	2	5	10	20	50	100
2-Chlorotoluene		0.5	1	2	5	10	20	50	100
1,3,5-Trimethylbenzene		0.5	1	2	5	10	20	50	100
4-Chlorotoluene		0.5	1	2	5	10	20	50	100
1,2,4-Trimethylbenzene		0.5	1	2	5	10	20	50	100
sec-Butylbenzene		0.5	1	2	5	10	20	50	100
1,3-Dichlorobenzene		0.5	1	2	5	10	20	50	100
tert-Butylbenzene		0.5	1	2	5	10	20	50	100
Isopropyltoluene		0.5	1	2	5	10	20	50	100
1,4-Dichlorobenzene		0.5	1	2	5	10	20	50	100
n-Butylbenzene		0.5	1	2	5	10	20	50	100
1,2-Dichlorobenzene		0.5	1	2	5	10	20	50	100
1,2-Dibromo-3-chloropropa		0.5	1	2	5	10	20	50	100
1,2,4-Trichlorobenzene		0.5	1	2	5	10	20	50	100
Hexachlorobutadiene		0.5	1	2	5	10	20	50	100
Naphthalene		0.5	1	2	5	10	20	50	100
1,2,3-Trichlorobenzene		0.5	1	2	5	10	20	50	100
cis-1,4-Dichloro-2-butene			5	10	25	50	100	250	500
trans-1,4-Dichloro-2-butene			5	10	25	50	100	250	500
Tetrahydrofuran			5	10	25	50	100	250	500
Pentachloroethane			5	10	25	50	100	250	500
Benzyl chloride			5	10	25	50	100	250	500
bis(2-Chloro-isopropyl)ether			5	10	25	50	100	250	500

Report Date: 21-Dec-2009 12:39

Calibration History

Method : /chem/VOA1.i/121809v1/VOA1-8260ox-121709.m
Start Cal Date: 17-DEC-2009 13:26
End Cal Date : 17-DEC-2009 21:57

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 1.00000		
17-DEC-2009 18:56	CALsubS+SS	/chem/VOA1.i/121709v1/1r420.d
17-DEC-2009 14:26	CALsubL+	/chem/VOA1.i/121709v1/1r411.d
Cal Level: 2 , Cal Amount: 2.00000		
17-DEC-2009 19:26	CALsubS+SS	/chem/VOA1.i/121709v1/1r421.d
17-DEC-2009 15:27	CALsubL+	/chem/VOA1.i/121709v1/1r413.d
Cal Level: 3 , Cal Amount: 5.00000		
17-DEC-2009 19:56	CALsubS+SS	/chem/VOA1.i/121709v1/1r422.d
17-DEC-2009 15:57	CALsubL+	/chem/VOA1.i/121709v1/1r414.d
Cal Level: 4 , Cal Amount: 10.00000		
17-DEC-2009 20:27	CALsubS+SS	/chem/VOA1.i/121709v1/1r423.d
17-DEC-2009 16:26	CALsubL+	/chem/VOA1.i/121709v1/1r415.d
Cal Level: 5 , Cal Amount: 20.00000		
17-DEC-2009 20:57	CALsubS+SS	/chem/VOA1.i/121709v1/1r424.d
17-DEC-2009 16:56	CALsubL+	/chem/VOA1.i/121709v1/1r416.d
Cal Level: 6 , Cal Amount: 50.00000		
17-DEC-2009 21:27	CALsubS+SS	/chem/VOA1.i/121709v1/1r425.d
17-DEC-2009 17:26	CALsubL+	/chem/VOA1.i/121709v1/1r417.d
Cal Level: 7 , Cal Amount: 100.00000		
17-DEC-2009 21:57	CALsubS+SS	/chem/VOA1.i/121709v1/1r426.d
17-DEC-2009 17:56	CALsubL+	/chem/VOA1.i/121709v1/1r418.d
Cal Level: 8 , Cal Amount: 200.00000		
17-DEC-2009 13:26	BENZENE+	/chem/VOA1.i/121709v1/1r409.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 6

Ccal Level: 6 , Ccal Amount: 50.0		
18-DEC-2009 10:23	CALsubL+	/chem/VOA1.i/121809v1/1r503.d
Ccal Level: 6 , Ccal Amount: 50.0		
18-DEC-2009 11:28	CALsubS+SS	/chem/VOA1.i/121809v1/1r505.d
Ccal Level: 6 , Ccal Amount: 50.0		
18-DEC-2009 09:53	CALsubL+	/chem/VOA1.i/121809v1/1r502.d

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 17-DEC-2009 13:26
End Cal Date : 17-DEC-2009 21:57
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/VOA1.i/121809v1/VOA1-8260ox-121709.m
Cal Date : 19-Dec-2009 14:24 ron01469

Calibration File Names:
Level 1: /chem/VOA1.i/121709v1/1r420.d
Level 2: /chem/VOA1.i/121709v1/1r421.d
Level 3: /chem/VOA1.i/121709v1/1r422.d
Level 4: /chem/VOA1.i/121709v1/1r423.d
Level 5: /chem/VOA1.i/121709v1/1r424.d
Level 6: /chem/VOA1.i/121709v1/1r425.d
Level 7: /chem/VOA1.i/121709v1/1r426.d
Level 8: /chem/VOA1.i/121709v1/1r409.d

Compound	1 Level 1	2 Level 2	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	200 Level 8									
M 1 Xylenes (total)	0.94993	0.96986	1.04684	0.90933	1.06190	1.03526					
	1.06685	+++++					AVRG		1.00571		6.17558
M 2 1,2-Dichloroethylene (total)	0.39459	0.39809	0.41845	0.36222	0.42047	0.42125					
	0.43750	+++++					AVRG		0.40751		6.07931
M 3 1,3-Dichloropropylene	0.79149	0.76022	0.87890	0.81655	0.94687	0.96481					
	1.03716	+++++					AVRG		0.88514		11.52028
4 Chlorotrifluoroethylene	17314	61906	95503	209513	408505	655803					
	880678	+++++					LINR	0.03423	0.22684		0.99712
5 Dichlorodifluoromethane	4634	11507	35600	44395	86248	277079					
	567930	+++++					LINR	0.00522	0.28418		0.99905

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 17-DEC-2009 13:26
End Cal Date : 17-DEC-2009 21:57
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/VOA1.i/121809v1/VOA1-8260ox-121709.m
Cal Date : 19-Dec-2009 14:24 ron01469

Compound	1 Level 1 100 Level 7	2 Level 2 200 Level 8	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
6 Chloromethane	0.48851	0.54050	0.55024	0.44982	0.52271	0.54415					
	0.54196	+++++					AVRG		0.51970		7.16679
7 Vinyl chloride	0.47524	0.47673	0.45732	0.35896	0.42278	0.41726					
	0.41654	+++++					AVRG		0.43212		9.62913
8 2-Chloro-1,1,1-trifluoroethan	+++++	127797	215500	434110	811927	1347525					
	1771053	+++++					LINR	0.01494	0.45635		0.99554
9 Bromomethane	0.28178	0.29746	0.29450	0.24489	0.29091	0.28413					
	0.27975	+++++					AVRG		0.28192		6.24822
10 Chloroethane	0.29181	0.30650	0.30544	0.26230	0.31984	0.31793					
	0.30933	+++++					AVRG		0.30188		6.53884
11 Trichlorofluoromethane	0.41202	0.43953	0.45287	0.39013	0.45602	0.49371					
	0.48982	+++++					AVRG		0.44773		8.47603
12 Ethyl Ether	0.38139	0.40440	0.35425	0.33145	0.38356	0.37554					
	0.38665	+++++					AVRG		0.37389		6.39758
13 Acrolein	0.06484	0.07110	0.06960	0.07066	0.06970	0.07601					
	0.07601	+++++					AVRG		0.07113		5.49913
14 Trichlorotrifluoroethane	0.31728	0.28283	0.30430	0.31273	0.26693	0.29034					
	0.30209	+++++					AVRG		0.29664		5.97728

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 17-DEC-2009 13:26
End Cal Date : 17-DEC-2009 21:57
Quant Method : ISTD
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Integrator : HP RTE
Method file : /chem/VOA1.i/121809v1/VOA1-8260ox-121709.m
Cal Date : 19-Dec-2009 14:24 ron01469

Compound	1 Level 1	2 Level 2	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	ml	m2	%RSD or R^2
	100 Level 7	200 Level 8									
15 1,1-Dichloroethylene	0.65853	0.69826	0.73125	0.60544	0.70006	0.73825					
	0.76533	+++++					AVRG		0.69959		7.69119
16 Acetone	0.33125	0.28405	0.28838	0.28737	0.31028	0.30716					
	0.30886	+++++					AVRG		0.30248		5.59393
17 Isopropyl Alcohol	+++++	64668	116421	230606	462328	1308642					
	2563752	+++++					LINR	1.83876	0.02704		0.99372
18 Iodomethane	0.54837	0.54749	0.58063	0.50333	0.57106	0.56342					
	0.56625	+++++					AVRG		0.55436		4.58679
19 Carbon disulfide	1.04837	1.13754	1.19034	1.00430	1.16007	1.18939					
	1.23769	+++++					AVRG		1.13824		7.32545
20 Allyl chloride	7872	16357	54830	122945	239242	782349					
	1746543	+++++					LINR	0.29193	0.18284		0.99540
21 Methyl acetate	0.30480	0.26240	0.29161	0.27818	0.30010	0.29235					
	0.29241	+++++					AVRG		0.28883		4.95133
22 Acetonitrile	0.05118	0.04733	0.04993	0.04960	0.05166	0.04925					
	0.04992	+++++					AVRG		0.04984		2.81886
23 Methylene chloride	+++++	26319	53903	88749	140147	424848					
	921999	+++++					LINR	-0.00189	0.45451		0.99942

GEL Laboratories LLC

INITIAL CALIBRATION DATA

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Integrator : HP RTE
Method file : /chem/VOA1.i/121809v1/VOA1-8260ox-121709.m
Cal Date : 19-Dec-2009 14:24 ron01469

Compound	1 Level 1	2 Level 2	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	200 Level 8									
24 tert-Butyl Alcohol	36962	107148	188587	384290	775596	2176446					
	4204060	+++++					LINR	1.31682	0.04416		0.99435
25 tert-Butyl methyl ether	1.06428	1.09533	1.10199	1.08828	1.14951	1.13923					
	1.21507	+++++					AVRG		1.12196		4.50006
26 trans-1,2-Dichloroethylene	0.37150	0.37356	0.40077	0.34641	0.39809	0.40670					
	0.41945	+++++					AVRG		0.38807		6.49661
27 Acrylonitrile	0.13879	0.14421	0.14079	0.14300	0.13986	0.14918					
	0.14607	+++++					AVRG		0.14313		2.57275
28 Isopropyl ether	+++++	86054	143189	299636	589102	1525953					
	3114768	+++++					LINR	0.00936	1.61143		0.99953
29 Vinyl acetate	0.65280	0.62757	0.65723	0.69621	0.76396	0.72816					
	0.70592	+++++					AVRG		0.69026		6.89010
30 1,1-Dichloroethane	0.77767	0.75144	0.79985	0.69776	0.80088	0.80133					
	0.82728	+++++					AVRG		0.77946		5.51872
31 2-Chloro-1,3-butadiene	0.53856	0.49255	0.57665	0.63047	0.56687	0.66611					
	0.71558	+++++					AVRG		0.59811		12.87774
32 Ethyl tert-butyl ether	+++++	75681	125441	264555	516269	1389733					
	2866711	+++++					LINR	0.01815	1.48731		0.99916

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Method file : /chem/VOA1.i/121809v1/VOA1-8260ox-121709.m
Cal Date : 19-Dec-2009 14:24 ron01469

Compound	1 Level 1	2 Level 2	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	200 Level 8									
33 2,2-Dichloropropane	0.44641	0.43999	0.44785	0.39838	0.48384	0.48070					
	0.48654	+++++					AVRG		0.45482		6.97777
34 Ethyl acetate	0.39622	0.37301	0.34819	0.35996	0.34694	0.36845					
	0.35650	+++++					AVRG		0.36418		4.69288
35 2-Butanone	0.32498	0.29983	0.31772	0.32315	0.35854	0.37774					
	0.36734	+++++					AVRG		0.33847		8.62892
36 cis-1,2-Dichloroethylene	0.41768	0.42262	0.43613	0.37802	0.44285	0.43580					
	0.45555	+++++					AVRG		0.42695		5.84108
37 Propionitrile	0.05471	0.05478	0.05443	0.05651	0.05444	0.05843					
	0.05690	+++++					AVRG		0.05574		2.79347
38 Tetrahydrofuran	0.33776	0.31409	0.31712	0.32320	0.30804	0.32423					
	0.30668	+++++					AVRG		0.31873		3.37891
39 Bromochloromethane	0.16937	0.18243	0.18561	0.17346	0.18913	0.18835					
	0.19783	+++++					AVRG		0.18374		5.28735
40 Methacrylonitrile	0.28749	0.28017	0.27957	0.29144	0.27868	0.29282					
	0.28296	+++++					AVRG		0.28473		2.05414
41 Chloroform	0.73934	0.75629	0.78313	0.67523	0.77565	0.78273					
	0.80194	+++++					AVRG		0.75919		5.55678

GEL Laboratories LLC

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Method file : /chem/VOA1.i/121809v1/VOA1-8260ox-121709.m
Cal Date : 19-Dec-2009 14:24 ron01469

Compound	1 Level 1	2 Level 2	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	200 Level 8									
42 Cyclohexane	0.71265	0.69334	0.75433	0.63572	0.76413	0.79603					
	0.79977	+++++					AVRG		0.73657		8.07339
43 1,1,1-Trichloroethane	0.48350	0.49398	0.51618	0.44034	0.54030	0.53477					
	0.53794	+++++					AVRG		0.50671		7.24508
44 Carbon tetrachloride	0.46456	0.47955	0.50223	0.44108	0.53314	0.54219					
	0.54465	+++++					AVRG		0.50106		8.15357
45 1,1-Dichloropropene	0.52226	0.53493	0.57439	0.47763	0.58059	0.59363					
	0.60749	+++++					AVRG		0.55584		8.28840
46 Isobutyl alcohol	0.01217	0.01218	0.01260	0.01292	0.01020	0.01420					
	0.01342	+++++					AVRG		0.01253		10.00060
47 Benzene	1.63393	1.59398	1.70750	1.44978	1.70316	1.69875					
	1.73137	1.46121					AVRG		1.62246		6.91796
49 Methyl tert-amyl ether	+++++	62439	104740	221271	432966	1170797					
	2409070	+++++					LINR	0.01872	1.25082		0.99919
50 Cyclohexene	0.54435	0.53848	0.59015	0.49810	0.59826	0.60785					
	0.61552	+++++					AVRG		0.57039		7.68512
51 1,2-Dichloroethane	0.60710	0.60440	0.60894	0.55428	0.61814	0.59887					
	0.61173	+++++					AVRG		0.60049		3.53686

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INITIAL CALIBRATION DATA

Start Cal Date : 17-DEC-2009 13:26
End Cal Date : 17-DEC-2009 21:57
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Integrator : HP RTE
Method file : /chem/VOA1.i/121809v1/VOA1-8260ox-121709.m
Cal Date : 19-Dec-2009 14:24 ron01469

Compound	1 Level 1 100 Level 7	2 Level 2 200 Level 8	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
53 n-Butyl alcohol	17909	31598	93677	213836	355810	1166468					
	2504807	+++++					LINR	4.05022	0.01261		0.99621
54 Trichloroethylene	0.40162	0.40745	0.43496	0.36932	0.42004	0.43163					
	0.44230	+++++					AVRG		0.41533		6.03315
55 Methylcyclohexane	0.62627	0.65054	0.68846	0.59693	0.71382	0.73247					
	0.74367	+++++					AVRG		0.67888		8.21647
56 Methyl methacrylate	0.22886	0.23546	0.23690	0.25298	0.24564	0.26211					
	0.25565	+++++					AVRG		0.24537		4.95406
57 1,2-Dichloropropane	0.42618	0.42979	0.45262	0.40054	0.46037	0.46437					
	0.48246	+++++					AVRG		0.44519		6.24291
58 1,4-Dioxane	0.00358	0.00330	0.00348	0.00358	0.00336	0.00371					
	0.00357	+++++					AVRG		0.00351		4.06886
59 Dibromomethane	0.26029	0.24224	0.24588	0.23433	0.25880	0.25261					
	0.26232	+++++					AVRG		0.25092		4.17552
60 Bromodichloromethane	0.50926	0.51863	0.55953	0.51519	0.58920	0.60255					
	0.62066	+++++					AVRG		0.55929		8.20445
61 2-Chloroethylvinyl ether	3320	6654	16837	44891	72737	+++++					
	+++++	+++++					LINR	0.08117	0.04822		0.99689

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 17-DEC-2009 13:26
End Cal Date : 17-DEC-2009 21:57
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/VOA1.i/121809v1/VOA1-8260ox-121709.m
Cal Date : 19-Dec-2009 14:24 ron01469

Compound	1 Level 1	2 Level 2	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	200 Level 8									
62 2-Nitropropane	7070	14240	41325	90077	194039	547484					
	1089774	+++++					LINR	0.12959	0.11432		0.99946
63 cis-1,3-Dichloropropylene	0.58612	0.56484	0.64871	0.59482	0.69712	0.72465					
	0.75586	+++++					AVRG		0.65316		11.40729
64 4-Methyl-2-pentanone	0.21479	0.20124	0.23607	0.23812	0.26615	0.28741					
	0.26603	+++++					AVRG		0.24426		12.55053
66 Toluene	1.46521	1.42863	1.49665	1.27740	1.49413	1.48160					
	1.53694	+++++					AVRG		1.45437		5.82261
67 Ethyl methacrylate	0.62982	0.65076	0.67701	0.72386	0.70269	0.72791					
	0.69966	+++++					AVRG		0.68739		5.35198
68 trans-1,3-Dichloropropylene	0.76770	0.71716	0.82801	0.78620	0.90451	0.92116					
	0.99882	+++++					AVRG		0.84622		11.72422
69 1,1,2-Trichloroethane	0.38168	0.40632	0.41313	0.40400	0.43605	0.42541					
	0.44735	+++++					AVRG		0.41628		5.27763
70 Tetrachloroethylene	0.47569	0.43289	0.45867	0.37578	0.45285	0.44838					
	0.45872	+++++					AVRG		0.44328		7.31412
71 2-Hexanone	0.56340	0.54183	0.59354	0.60315	0.68692	0.72227					
	0.65208	+++++					AVRG		0.62331		10.59945

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 17-DEC-2009 13:26
End Cal Date : 17-DEC-2009 21:57
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/VOA1.i/121809v1/VOA1-8260ox-121709.m
Cal Date : 19-Dec-2009 14:24 ron01469

Compound	1 Level 1	2 Level 2	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	200 Level 8									
72 1,3-Dichloropropane	0.88365	0.83969	0.89719	0.82861	0.92961	0.88191					
	0.92565	+++++					AVRG		0.88376		4.38843
73 Dibromochloromethane	0.45877	0.47737	0.51711	0.48955	0.55570	0.55863					
	0.60098	+++++					AVRG		0.52259		9.81323
74 1,2-Dibromoethane	0.45115	0.44054	0.45840	0.43614	0.49979	0.48669					
	0.51336	+++++					AVRG		0.46944		6.47778
75 1-Chlorohexane	+++++	0.63060	0.44690	0.47806	0.44136	0.48274					
	0.48848	+++++					AVRG		0.49469		14.02193
77 Chlorobenzene	1.47658	1.48489	1.58303	1.39069	1.59300	1.52504					
	1.58393	+++++					AVRG		1.51959		4.89896
78 Ethylbenzene	2.73939	2.65894	2.87432	2.49270	2.95069	2.86045					
	2.93464	+++++					AVRG		2.78730		5.98349
79 1,1,1,2-Tetrachloroethane	0.46710	0.47705	0.50032	0.46956	0.54220	0.53154					
	0.56441	+++++					AVRG		0.50746		7.66207
80 m,p-Xylenes	0.96338	0.99443	1.06188	0.91699	1.06459	1.03480					
	1.06400	+++++					AVRG		1.01429		5.71200
81 o-Xylene	0.92296	0.92068	1.01675	0.89402	1.05652	1.03617					
	1.07254	+++++					AVRG		0.98852		7.45464

GEL Laboratories LLC

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Method file : /chem/VOA1.i/121809v1/VOA1-8260ox-121709.m
Cal Date : 19-Dec-2009 14:24 ron01469

Compound	1 Level 1 100 Level 7	2 Level 2 200 Level 8	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
82 Styrene	1.46715	1.50616	1.68975	1.53152	1.79110	1.79165					
	1.86481	+++++					AVRG		1.66316		9.65288
83 Bromoform	4145	7916	21098	44307	78595	249234					
	535740	+++++					LINR	0.02681	0.72529		0.99945
84 Isopropylbenzene	4.68173	4.56078	4.98694	4.23435	5.31092	5.26026					
	5.48304	+++++					AVRG		4.93115		9.23815
85 cis-1,4-Dichloro-2-butene	0.34725	0.34844	0.37013	0.38870	0.38152	0.41058					
	0.40570	+++++					AVRG		0.37890		6.66885
86 Cyclohexanone	0.06763	0.06943	0.06963	0.07265	0.07578	0.08184					
	+++++	+++++					AVRG		0.07283		7.23346
88 1,1,2,2-Tetrachloroethane	1.22461	1.05159	1.10817	1.13584	1.24257	1.24947					
	1.30412	+++++					AVRG		1.18805		7.62825
89 n-Propylbenzene	5.91393	5.84477	6.21942	5.20861	6.52547	6.56652					
	6.67002	+++++					AVRG		6.13553		8.47766
90 trans-1,4-Dichloro-2-butene	0.31943	0.33408	0.34483	0.36424	0.35879	0.38701					
	0.38138	+++++					AVRG		0.35568		6.90918
91 Bromobenzene	1.21267	1.14263	1.17695	1.03606	1.22066	1.19524					
	1.25396	+++++					AVRG		1.17688		6.05619

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 17-DEC-2009 13:26
End Cal Date : 17-DEC-2009 21:57
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/VOA1.i/121809v1/VOA1-8260ox-121709.m
Cal Date : 19-Dec-2009 14:24 ron01469

Compound	1 Level 1 100 Level 7	2 Level 2 200 Level 8	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
92 1,2,3-Trichloropropane	0.29455	0.30883	0.31100	0.28319	0.31857	0.31270					
	0.32356	+++++					AVRG		0.30749		4.56165
93 1,3,5-Trimethylbenzene	3.92739	4.01597	4.40384	3.75330	4.56192	4.61175					
	4.71321	+++++					AVRG		4.28391		8.85752
94 2-Chlorotoluene	4.18989	4.13985	4.38991	3.70327	4.45640	4.42540					
	4.59915	+++++					AVRG		4.27198		6.93165
95 4-Chlorotoluene	3.74203	3.75004	3.94133	3.30902	4.02416	4.08453					
	4.23945	+++++					AVRG		3.87008		7.87163
96 tert-Butylbenzene	3.19861	3.62558	3.54064	3.03120	3.64733	3.76217					
	3.79753	+++++					AVRG		3.51472		8.25815
97 1,2,4-Trimethylbenzene	4.14843	4.08556	4.56169	3.88972	4.69789	4.73207					
	4.85492	+++++					AVRG		4.42433		8.50974
98 Pentachloroethane	0.37983	0.43833	0.41420	0.49680	0.33943	0.45190					
	0.42032	+++++					AVRG		0.42012		12.05499
99 sec-Butylbenzene	5.25649	5.29490	5.79412	4.90035	5.96681	6.06611					
	6.14338	+++++					AVRG		5.63173		8.51043
100 4-Isopropyltoluene	3.88557	3.91207	4.39734	3.76386	4.59180	4.64160					
	4.70377	+++++					AVRG		4.27086		9.45356

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 17-DEC-2009 13:26
End Cal Date : 17-DEC-2009 21:57
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/VOA1.i/121809v1/VOA1-8260ox-121709.m
Cal Date : 19-Dec-2009 14:24 ron01469

Compound	1 Level 1 100 Level 7	2 Level 2 200 Level 8	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
101 1,3-Dichlorobenzene	2.26506	2.22860	2.34003	2.03460	2.38750	2.32771					
	2.42644	+++++					AVRG		2.28713		5.68981
103 1,4-Dichlorobenzene	2.37087	2.32322	2.31533	2.06880	2.41564	2.35216					
	2.47272	+++++					AVRG		2.33125		5.49155
104 Benzyl chloride	1.65395	1.74973	1.88958	2.06407	2.04500	2.19972					
	2.09266	+++++					AVRG		1.95639		10.13450
105 n-Butylbenzene	4.15554	4.15464	4.58993	3.92961	4.86897	4.90702					
	5.03734	+++++					AVRG		4.52044		9.72252
106 1,2-Dichlorobenzene	2.14225	2.09966	2.15610	1.96170	2.27666	2.24067					
	2.33585	+++++					AVRG		2.17327		5.73170
107 bis(2-Chloroisopropyl)ether	0.35444	0.44472	0.43116	0.46324	0.47339	0.53988					
	0.49699	+++++					AVRG		0.45769		12.64882
108 1,2-Dibromo-3-chloropropane	1016	1990	5799	13390	22261	73669					
	168000	+++++					LINR	0.04224	0.22710		0.99776
109 1,2,4-Trichlorobenzene	1.26932	1.11504	1.11692	1.07128	1.28838	1.22946					
	1.47355	+++++					AVRG		1.22342		11.32429
110 Hexachlorobutadiene	0.77567	0.75620	0.80958	0.72497	0.86849	0.86453					
	0.92769	+++++					AVRG		0.81816		8.79704

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 17-DEC-2009 13:26
End Cal Date : 17-DEC-2009 21:57
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/VOA1.i/121809v1/VOA1-8260ox-121709.m
Cal Date : 19-Dec-2009 14:24 ron01469

Compound	1 Level 1 100 Level 7	2 Level 2 200 Level 8	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
111 Naphthalene	18385	27302	69676	156979	280194	848437					
	2078041	+++++					LINR	0.04766	2.79235		0.99432
112 1,2,3-Trichlorobenzene	1.03792	0.79225	0.80520	0.83009	1.04491	0.85728					
	1.03151	+++++					AVRG		0.91417		12.88300
$ 48 1,2-Dichloroethane-d4	0.61083	0.60209	0.58068	0.60294	0.59083	0.66971					
	0.58381	+++++					AVRG		0.60584		4.98389
$ 65 Toluene-d8	2.94102	2.87365	2.77552	2.90697	2.85289	2.80136					
	2.83664	+++++					AVRG		2.85543		2.02109
$ 87 Bromofluorobenzene	2.14130	2.01859	2.01923	2.10724	1.99625	2.04053					
	2.06272	+++++					AVRG		2.05512		2.55181

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 17-DEC-2009 13:26
End Cal Date : 17-DEC-2009 21:57
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/VOA1.i/121809v1/VOA1-8260ox-121709.m
Cal Date : 19-Dec-2009 14:24 ron01469

Curve	Formula	Units
Averaged	Amt = Rsp/ml	Response
Linear	Amt = b + Rsp/ml	Response

Data File: /chem/VOA1.i/121709v1/1r428.d
Report Date: 21-Dec-2009 09:53

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA1.i Injection Date: 17-DEC-2009 22:57
Lab File ID: 1r428.d Init. Cal. Date(s): 17-DEC-2009 17-DEC-2009
Analysis Type: WATER Init. Cal. Times: 13:26 21:57
Lab Sample ID: W1VM091217-18 Quant Type: ISTD
Method: /chem/VOA1.i/121709v1/VOA1-8260ox-121709.m

COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
M 1 Xylenes (total)	1.00571	1.08274	1.08274	0.050	7.65971	30.00000	Averaged	
M 2 1,2-Dichloroethylene (total	0.40751	0.42827	0.42827	0.050	5.09444	30.00000	Averaged	
M 3 1,3-Dichloropropylene	0.88514	1.01603	1.01603	0.050	14.78691	30.00000	Averaged	
5 Dichlorodifluoromethane	44.17390	50.00000	0.24958	0.050	-11.65221	30.00000	Linear	
6 Chloromethane	0.51970	0.48595	0.48595	0.100	-6.49415	30.00000	Averaged	spcc
7 Vinyl chloride	0.43212	0.40394	0.40394	0.050	-6.51979	20.00000	Averaged	ccc
9 Bromomethane	0.28210	0.28119	0.28119	0.050	-0.32083	30.00000	Averaged	
10 Chloroethane	0.30188	0.30482	0.30482	0.050	0.97392	30.00000	Averaged	
11 Trichlorofluoromethane	0.44773	0.47946	0.47946	0.050	7.08587	30.00000	Averaged	
12 Ethyl Ether	0.37389	0.38351	0.38351	0.010	2.57247	30.00000	Averaged	
16 Acetone	0.30248	0.28929	0.28929	0.000	-4.36166	40.00000	Averaged	
22 Acetonitrile	0.04984	0.05445	0.05445	0.010	9.26527	30.00000	Averaged	
15 1,1-Dichloroethylene	0.69959	0.69867	0.69867	0.050	-0.13124	20.00000	Averaged	ccc
21 Methyl acetate	0.28883	0.31596	0.31596	0.010	9.39216	40.00000	Averaged	
18 Iodomethane	0.55436	0.55775	0.55775	0.050	0.61108	30.00000	Averaged	
23 Methylene chloride	49.74003	50.00000	0.45301	0.000	-0.51994	30.00000	Linear	
19 Carbon disulfide	1.13824	1.18438	1.18438	0.050	4.05313	30.00000	Averaged	
25 tert-Butyl methyl ether	1.12196	1.20960	1.20960	0.050	7.81191	30.00000	Averaged	
26 trans-1,2-Dichloroethylene	0.38807	0.40463	0.40463	0.050	4.26889	30.00000	Averaged	
29 Vinyl acetate	0.69026	0.78885	0.78885	0.010	14.28310	40.00000	Averaged	
30 1,1-Dichloroethane	0.77946	0.80732	0.80732	0.100	3.57386	30.00000	Averaged	spcc
35 2-Butanone	0.33847	0.33028	0.33028	0.030	-2.41926	40.00000	Averaged	
36 cis-1,2-Dichloroethylene	0.42695	0.45191	0.45191	0.050	5.84534	30.00000	Averaged	
33 2,2-Dichloropropane	0.45439	0.47156	0.47156	0.050	3.78034	30.00000	Averaged	
41 Chloroform	0.75919	0.80022	0.80022	0.010	5.40526	20.00000	Averaged	ccc
39 Bromochloromethane	0.18374	0.20003	0.20003	0.010	8.86726	30.00000	Averaged	
43 1,1,1-Trichloroethane	0.50671	0.53061	0.53061	0.010	4.71555	30.00000	Averaged	
42 Cyclohexane	0.73657	0.77955	0.77955	0.010	5.83609	30.00000	Averaged	
45 1,1-Dichloropropene	0.55584	0.60113	0.60113	0.010	8.14672	30.00000	Averaged	
53 n-Butyl alcohol	5603	5000	0.01362	0.001	12.05240	40.00000	Linear	
44 Carbon tetrachloride	0.50106	0.53826	0.53826	0.010	7.42421	30.00000	Averaged	
$ 48 1,2-Dichloroethane-d4	0.59741	0.65263	0.65263	0.010	9.24242	30.00000	Averaged	
51 1,2-Dichloroethane	0.60049	0.62546	0.62546	0.010	4.15714	30.00000	Averaged	
47 Benzene	1.62246	1.71937	1.71937	0.010	5.97318	30.00000	Averaged	
50 Cyclohexene	0.57039	0.58842	0.58842	0.010	3.16148	30.00000	Averaged	

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA1.i Injection Date: 17-DEC-2009 22:57
Lab File ID: 1r428.d Init. Cal. Date(s): 17-DEC-2009 17-DEC-2009
Analysis Type: WATER Init. Cal. Times: 13:26 21:57
Lab Sample ID: W1VM091217-18 Quant Type: ISTD
Method: /chem/VOA1.i/121709v1/VOA1-8260ox-121709.m

COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
54 Trichloroethylene	0.41533	0.44171	0.44171	0.010	6.35017	30.00000	Averaged	
57 1,2-Dichloropropane	0.44519	0.48303	0.48303	0.010	8.49895	20.00000	Averaged	ccc
55 Methylcyclohexane	0.67888	0.73751	0.73751	0.010	8.63596	30.00000	Averaged	
60 Bromodichloromethane	0.55929	0.62904	0.62904	0.010	12.47140	30.00000	Averaged	
59 Dibromomethane	0.25092	0.26506	0.26506	0.010	5.63271	30.00000	Averaged	
61 2-Chloroethylvinyl ether	455	250	0.08699	0.000	82.02379	30.00000	Linear	<-
64 4-Methyl-2-pentanone	0.24426	0.26174	0.26174	0.010	7.15811	40.00000	Averaged	
63 cis-1,3-Dichloropropylene	0.65316	0.74796	0.74796	0.010	14.51395	30.00000	Averaged	
$ 65 Toluene-d8	2.78542	3.07353	3.07353	0.010	10.34355	30.00000	Averaged	
66 Toluene	1.45437	1.53247	1.53247	0.010	5.37034	20.00000	Averaged	ccc
68 trans-1,3-Dichloropropylene	0.84622	0.98007	0.98007	0.010	15.81730	30.00000	Averaged	
69 1,1,2-Trichloroethane	0.41628	0.45507	0.45507	0.010	9.31814	30.00000	Averaged	
71 2-Hexanone	0.62331	0.60444	0.60444	0.010	-3.02719	40.00000	Averaged	
72 1,3-Dichloropropane	0.88376	0.94928	0.94928	0.010	7.41405	30.00000	Averaged	
70 Tetrachloroethylene	0.44328	0.46018	0.46018	0.010	3.81270	30.00000	Averaged	
73 Dibromochloromethane	0.52259	0.59588	0.59588	0.010	14.02580	30.00000	Averaged	
74 1,2-Dibromoethane	0.46944	0.52465	0.52465	0.010	11.76021	30.00000	Averaged	
77 Chlorobenzene	1.51959	1.61504	1.61504	0.300	6.28123	30.00000	Averaged	spcc
79 1,1,1,2-Tetrachloroethane	0.50746	0.56614	0.56614	0.010	11.56535	30.00000	Averaged	
78 Ethylbenzene	2.78730	2.96337	2.96337	0.010	6.31659	20.00000	Averaged	ccc
80 m,p-Xylenes	1.01429	1.07930	1.07930	0.010	6.40871	30.00000	Averaged	
81 o-Xylene	0.98852	1.08964	1.08964	0.010	10.22890	30.00000	Averaged	
82 Styrene	1.66316	1.86998	1.86998	0.010	12.43542	30.00000	Averaged	
83 Bromoform	50.23179	50.00000	0.70922	0.100	0.46358	30.00000	Linear	spcc
84 Isopropylbenzene	4.93115	5.28643	5.28643	0.010	7.20479	30.00000	Averaged	
88 1,1,2,2-Tetrachloroethane	1.18805	1.29626	1.29626	0.300	9.10775	30.00000	Averaged	spcc
$ 87 Bromofluorobenzene	2.00113	2.08223	2.08223	0.010	4.05263	30.00000	Averaged	
92 1,2,3-Trichloropropane	0.30749	0.32497	0.32497	0.010	5.68755	30.00000	Averaged	
91 Bromobenzene	1.17688	1.24576	1.24576	0.010	5.85268	30.00000	Averaged	
89 n-Propylbenzene	6.13553	6.49581	6.49581	0.010	5.87193	30.00000	Averaged	
94 2-Chlorotoluene	4.27198	4.49512	4.49512	0.010	5.22330	30.00000	Averaged	
93 1,3,5-Trimethylbenzene	4.28391	4.58482	4.58482	0.010	7.02413	30.00000	Averaged	
95 4-Chlorotoluene	3.87008	4.15567	4.15567	0.010	7.37932	30.00000	Averaged	
96 tert-Butylbenzene	3.51472	3.65977	3.65977	0.010	4.12685	30.00000	Averaged	
97 1,2,4-Trimethylbenzene	4.42433	4.67781	4.67781	0.010	5.72929	30.00000	Averaged	
99 sec-Butylbenzene	5.63174	5.96950	5.96950	0.010	5.99744	30.00000	Averaged	

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA1.i Injection Date: 17-DEC-2009 22:57
Lab File ID: 1r428.d Init. Cal. Date(s): 17-DEC-2009 17-DEC-2009
Analysis Type: WATER Init. Cal. Times: 13:26 21:57
Lab Sample ID: W1VM091217-18 Quant Type: ISTD
Method: /chem/VOA1.i/121709v1/VOA1-8260ox-121709.m

COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
100 4-Isopropyltoluene	4.27086	4.57059	4.57059	0.010	7.01819	30.00000	Averaged
101 1,3-Dichlorobenzene	2.28713	2.37127	2.37127	0.010	3.67889	30.00000	Averaged
103 1,4-Dichlorobenzene	2.33125	2.42033	2.42033	0.010	3.82106	30.00000	Averaged
105 n-Butylbenzene	4.52044	4.87577	4.87577	0.010	7.86066	30.00000	Averaged
106 1,2-Dichlorobenzene	2.17327	2.25477	2.25477	0.010	3.74986	30.00000	Averaged
108 1,2-Dibromo-3-chloropropane	47.43781	50.00000	0.20587	0.010	-5.12437	30.00000	Linear
109 1,2,4-Trichlorobenzene	1.22342	1.19337	1.19337	0.010	-2.45661	30.00000	Averaged
110 Hexachlorobutadiene	0.81816	0.83470	0.83470	0.010	2.02097	30.00000	Averaged
111 Naphthalene	38.09339	50.00000	1.99432	0.010	-23.81322	30.00000	Linear
112 1,2,3-Trichlorobenzene	0.91417	0.74663	0.74663	0.010	-18.32692	30.00000	Averaged

Average %D / Drift Results.

Calculated Average %D/Drift = 7.89459
Maximun Average %D/Drift = 20.00000
* Passed Average %D/Drift Test.

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/121709v1/1r428.d
Lab Smp Id: W1VM091217-18 Client Smp ID: ICV
Inj Date : 17-DEC-2009 22:57
Operator : RXM4 Inst ID: VOA1.i
Smp Info : |W1VM091217-18|ICV|1|VOAF|1|
Misc Info : GEL 5ML N/A UVM091129-01D/IVM091214-01
Comment :
Method : /chem/VOA1.i/121709v1/VOA1-8260ox-121709.m
Meth Date : 21-Dec-2009 09:53 ehl Quant Type: ISTD
Cal Date : 17-DEC-2009 21:27 Cal File: 1r425.d
Als bottle: 22 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: CALsubL+.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (Uf/Vo) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	sample purged

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
M 1 Xylenes (total)	106				2057420	150.000	162
M 2 1,2-Dichloroethylene (total)	96				763050	100.000	105
M 3 1,3-Dichloropropylene	75				1287095	100.000	115
5 Dichlorodifluoromethane	85	5.012	5.012	(0.366)	222340	50.0000	44.2
6 Chloromethane	50	5.557	5.557	(0.406)	432908	50.0000	46.8
7 Vinyl chloride	62	5.937	5.937	(0.434)	359853	50.0000	46.7
9 Bromomethane	96	6.952	6.952	(0.508)	250500	50.0000	49.8
10 Chloroethane	64	7.219	7.219	(0.528)	271547	50.0000	50.5
11 Trichlorofluoromethane	101	7.845	7.845	(0.573)	427124	50.0000	53.5
12 Ethyl Ether	59	8.480	8.480	(0.620)	341650	50.0000	51.3
16 Acetone	43	9.253	9.253	(0.676)	1288556	250.000	239
22 Acetonitrile	41	9.976	9.976	(0.729)	1212770	1250.00	1360
15 1,1-Dichloroethylene	61	9.097	9.097	(0.665)	622411	50.0000	49.9
21 Methyl acetate	43	9.838	9.838	(0.719)	1407371	250.000	273
18 Iodomethane	142	9.474	9.474	(0.692)	2484361	250.000	252

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
23 Methylene chloride	84	10.137	10.137	(0.741)	403566	50.0000	49.7
19 Carbon disulfide	76	9.580	9.580	(0.700)	5275512	250.000	260
25 tert-Butyl methyl ether	73	10.441	10.441	(0.763)	1077575	50.0000	53.9
26 trans-1,2-Dichloroethylene	96	10.552	10.552	(0.771)	360469	50.0000	52.1
29 Vinyl acetate	43	11.297	11.297	(0.826)	3513753	250.000	286
30 1,1-Dichloroethane	63	11.325	11.325	(0.828)	719197	50.0000	51.8
35 2-Butanone	43	12.186	12.186	(0.891)	1471158	250.000	244
36 cis-1,2-Dichloroethylene	96	12.204	12.204	(0.892)	402581	50.0000	52.9
33 2,2-Dichloropropane	77	12.163	12.163	(0.889)	420092	50.0000	51.9
41 Chloroform	83	12.614	12.614	(0.922)	712878	50.0000	52.7
39 Bromochloromethane	128	12.558	12.558	(0.918)	178199	50.0000	54.4
43 1,1,1-Trichloroethane	97	12.844	12.844	(0.939)	472693	50.0000	52.4
42 Cyclohexane	56	12.839	12.839	(0.938)	694465	50.0000	52.9
45 1,1-Dichloropropene	75	13.051	13.051	(0.954)	535515	50.0000	54.1
53 n-Butyl alcohol	56	13.930	13.930	(1.018)	1213639	5000.00	5600
44 Carbon tetrachloride	117	13.023	13.023	(0.952)	479509	50.0000	53.7
$ 48 1,2-Dichloroethane-d4	65	13.341	13.341	(0.975)	581394	50.0000	54.6
51 1,2-Dichloroethane	62	13.438	13.438	(0.982)	557188	50.0000	52.1
47 Benzene	78	13.332	13.332	(0.974)	1531701	50.0000	53.0
50 Cyclohexene	54	13.396	13.396	(0.979)	524195	50.0000	51.6
* 52 Fluorobenzene	96	13.682	13.682	(1.000)	890850	50.0000	
54 Trichloroethylene	95	14.114	14.114	(1.032)	393495	50.0000	53.2
57 1,2-Dichloropropane	63	14.460	14.460	(1.057)	430304	50.0000	54.2
55 Methylcyclohexane	83	14.280	14.280	(1.044)	657008	50.0000	54.3
60 Bromodichloromethane	83	14.750	14.750	(1.078)	560380	50.0000	56.2
59 Dibromomethane	93	14.621	14.621	(1.069)	236126	50.0000	52.8
61 2-Chloroethylvinyl ether	63	15.030	15.030	(1.099)	387483	250.000	455
64 4-Methyl-2-pentanone	58	15.357	15.357	(0.895)	828937	250.000	268
63 cis-1,3-Dichloropropylene	75	15.256	15.256	(1.115)	666320	50.0000	57.2
$ 65 Toluene-d8	98	15.518	15.518	(0.904)	1946766	50.0000	55.2
66 Toluene	92	15.596	15.596	(0.909)	970662	50.0000	52.7
68 trans-1,3-Dichloropropylene	75	15.877	15.877	(0.925)	620775	50.0000	57.9
69 1,1,2-Trichloroethane	83	16.103	16.103	(0.939)	288237	50.0000	54.6
71 2-Hexanone	43	16.264	16.264	(0.948)	1914262	250.000	242
72 1,3-Dichloropropane	76	16.305	16.305	(0.950)	601272	50.0000	53.7
70 Tetrachloroethylene	164	16.190	16.190	(0.944)	291478	50.0000	51.9
73 Dibromochloromethane	129	16.545	16.545	(0.964)	377431	50.0000	57.0
74 1,2-Dibromoethane	107	16.724	16.724	(0.975)	332309	50.0000	55.9
* 76 Chlorobenzene-d5	117	17.157	17.157	(1.000)	633397	50.0000	
77 Chlorobenzene	112	17.189	17.189	(1.002)	1022964	50.0000	53.1
79 1,1,1,2-Tetrachloroethane	131	17.258	17.258	(1.006)	358594	50.0000	55.8
78 Ethylbenzene	91	17.217	17.217	(1.003)	1876987	50.0000	53.2
80 m,p-Xylenes	106	17.336	17.336	(1.010)	1367248	100.000	106
81 o-Xylene	106	17.783	17.783	(1.036)	690172	50.0000	55.1
82 Styrene	104	17.801	17.801	(1.038)	1184442	50.0000	56.2
83 Bromoform	173	18.105	18.105	(0.923)	245870	50.0000	50.2
84 Isopropylbenzene	105	18.128	18.128	(0.924)	1832693	50.0000	53.6

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
88 1,1,2,2-Tetrachloroethane	83	18.506	18.506	(0.944)	449385	50.0000	54.6
$ 87 Bromofluorobenzene	95	18.386	18.386	(0.938)	721865	50.0000	52.0
92 1,2,3-Trichloropropane	110	18.607	18.607	(0.949)	112662	50.0000	52.8
91 Bromobenzene	156	18.588	18.588	(0.948)	431879	50.0000	52.9
89 n-Propylbenzene	91	18.556	18.556	(0.946)	2251960	50.0000	52.9
94 2-Chlorotoluene	91	18.740	18.740	(0.956)	1558364	50.0000	52.6
93 1,3,5-Trimethylbenzene	105	18.717	18.717	(0.954)	1589461	50.0000	53.5
95 4-Chlorotoluene	91	18.851	18.851	(0.961)	1440682	50.0000	53.7
96 tert-Butylbenzene	119	19.076	19.076	(0.973)	1268765	50.0000	52.1
97 1,2,4-Trimethylbenzene	105	19.132	19.132	(0.976)	1621698	50.0000	52.9
99 sec-Butylbenzene	105	19.302	19.302	(0.984)	2069499	50.0000	53.0
100 4-Isopropyltoluene	119	19.422	19.422	(0.990)	1584529	50.0000	53.5
101 1,3-Dichlorobenzene	146	19.541	19.541	(0.996)	822071	50.0000	51.8
* 102 1,4-Dichlorobenzene-d4	152	19.610	19.610	(1.000)	346679	50.0000	
103 1,4-Dichlorobenzene	146	19.638	19.638	(1.001)	839077	50.0000	51.9
105 n-Butylbenzene	91	19.868	19.868	(1.013)	1690328	50.0000	53.9
106 1,2-Dichlorobenzene	146	20.080	20.080	(1.024)	781680	50.0000	51.9
108 1,2-Dibromo-3-chloropropane	157	21.000	21.000	(1.071)	71370	50.0000	47.4
109 1,2,4-Trichlorobenzene	180	22.022	22.022	(1.123)	413715	50.0000	48.8
110 Hexachlorobutadiene	225	22.105	22.105	(1.127)	289372	50.0000	51.0
111 Naphthalene	128	22.437	22.437	(1.144)	691390	50.0000	38.1
112 1,2,3-Trichlorobenzene	180	22.791	22.791	(1.162)	258840	50.0000	40.8

Data File: /chem/VOA1.i/121709v1/1r428.d

Date : 17-DEC-2009 22:57

Client ID: ICV

Sample Info: |W1VH091217-18|ICV|1|VOAF|1|

Purge Volume: 5.0

Column phase: RTX-Volatiles

Instrument: VOA1.i

Operator: RXM4

Column diameter: 0.25

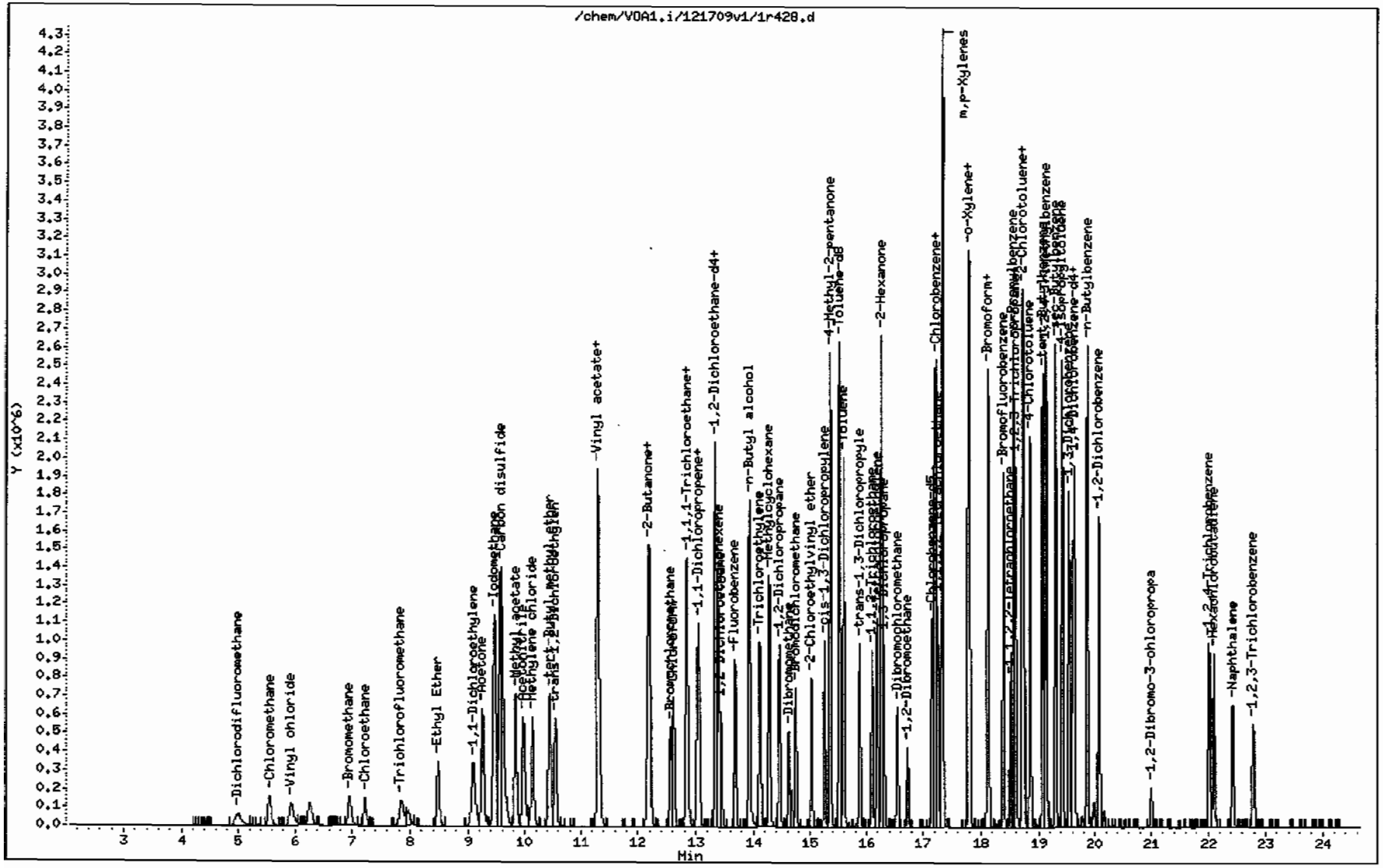

Data File: /chem/VOA1.i/121709v1/1r430.d
Report Date: 18-Dec-2009 09:22

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA1.i
Lab File ID: 1r430.d
Analysis Type: WATER
Lab Sample ID: W1VM091217-20
Method: /chem/VOA1.i/121709v1/VOA1-8260ox-121709.m

Injection Date: 17-DEC-2009 23:58
Init. Cal. Date(s): 17-DEC-2009 17-DEC-2009
Init. Cal. Times: 13:26 21:57
Quant Type: ISTD

COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
4 Chlorotrifluoroethylene	137	150	0.20454	0.010	-8.69028	30.00000	Linear
8 2-Chloro-1,1,1-trifluoroeth	156	150	0.47282	0.010	4.10632	30.00000	Linear
13 Acrolein	0.07113	0.08417	0.08417	0.001	18.33635	30.00000	Averaged
14 Trichlorotrifluoroethane	0.29664	0.35238	0.35238	0.030	18.78925	30.00000	Averaged
17 Isopropyl Alcohol	2723	2500	0.02846	0.000	8.93625	40.00000	Linear
20 Allyl chloride	266	250	0.18352	0.010	6.20960	30.00000	Linear
24 tert-Butyl Alcohol	2701	2500	0.04655	0.010	8.04183	40.00000	Linear
27 Acrylonitrile	0.14313	0.16467	0.16467	0.010	15.04894	30.00000	Averaged
28 Isopropyl ether	51.22072	50.00000	1.63570	0.010	2.44144	30.00000	Linear
31 2-Chloro-1,3-butadiene	0.59811	0.73987	0.73987	0.010	23.70038	30.00000	Averaged
32 Ethyl tert-butyl ether	50.60234	50.00000	1.47823	0.010	1.20467	30.00000	Linear
37 Propionitrile	0.05574	0.06140	0.06140	0.010	10.14507	30.00000	Averaged
34 Ethyl acetate	0.36418	0.38260	0.38260	0.010	5.05761	40.00000	Averaged
40 Methacrylonitrile	0.28473	0.31562	0.31562	0.010	10.84664	30.00000	Averaged
38 Tetrahydrofuran	0.31873	0.37618	0.37618	0.010	18.02448	30.00000	Averaged
46 Isobutyl alcohol	0.01253	0.01403	0.01403	0.001	12.00188	40.00000	Averaged
49 Methyl tert-amyl ether	50.82410	50.00000	1.24801	0.010	1.64821	30.00000	Linear
56 Methyl methacrylate	0.24537	0.28333	0.28333	0.010	15.47002	30.00000	Averaged
67 Ethyl methacrylate	0.68739	0.79692	0.79692	0.010	15.93469	30.00000	Averaged
75 1-Chlorohexane	0.49469	0.48337	0.48337	0.000	-2.28757	30.00000	Averaged
58 1,4-Dioxane	0.00351	0.00409	0.00409	0.001	16.51266	40.00000	Averaged
62 2-Nitropropane	268	250	0.11981	0.000	7.39385	30.00000	Linear
85 cis-1,4-Dichloro-2-butene	0.37890	0.46792	0.46792	0.010	23.49365	30.00000	Averaged
86 Cyclohexanone	0.07283	0.04492	0.04492	0.010	-38.32462	40.00000	Averaged
90 trans-1,4-Dichloro-2-butene	0.35568	0.44422	0.44422	0.010	24.89510	30.00000	Averaged
98 Pentachloroethane	0.42012	0.51504	0.51504	0.010	22.59531	30.00000	Averaged
104 Benzyl chloride	1.95639	2.22255	2.22255	0.010	13.60510	30.00000	Averaged
107 bis(2-Chloroisopropyl)ether	0.45769	0.57767	0.57767	0.010	26.21523	30.00000	Averaged
$ 48 1,2-Dichloroethane-d4	0.60584	0.61775	0.61775	0.010	1.96606	30.00000	Averaged
$ 65 Toluene-d8	2.85543	3.05423	3.05423	0.010	6.96200	30.00000	Averaged
$ 87 Bromofluorobenzene	2.05512	2.23181	2.23181	0.010	8.59736	30.00000	Averaged

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA1.i Injection Date: 17-DEC-2009 23:58
Lab File ID: 1r430.d Init. Cal. Date(s): 17-DEC-2009 17-DEC-2009
Analysis Type: WATER Init. Cal. Times: 13:26 21:57
Lab Sample ID: W1VM091217-20 Quant Type: ISTD
Method: /chem/VOA1.i/121709v1/VOA1-8260ox-121709.m

Average %D / Drift Results.	
Calculated Average %D/Drift =	12.82201
Maximun Average %D/Drift =	20.00000
* Passed Average %D/Drift Test.	

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VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/121709v1/1r430.d
Lab Smp Id: W1VM091217-20 Client Smp ID: SHORT ICV
Inj Date : 17-DEC-2009 23:58
Operator : RXM4 Inst ID: VOA1.i
Smp Info : |W1VM091217-20|SHORT ICV|1|VOAF|1|
Misc Info : GEL 5ML N/A UVM091118-08C/UVM091105-02E
Comment :
Method : /chem/VOA1.i/121709v1/VOA1-8260ox-121709.m
Meth Date : 18-Dec-2009 09:22 ron01469 Quant Type: ISTD
Cal Date : 17-DEC-2009 21:57 Cal File: 1r426.d
Als bottle: 24 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: CALsubS+SS.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (Uf/Vo) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	sample purged

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
4 Chlorotrifluoroethylene	116	4.897	4.897	(0.358)	583804	150.000	137
8 2-Chloro-1,1,1-trifluoroethane	118	6.312	6.312	(0.461)	1349548	150.000	156
13 Acrolein	56	8.954	8.954	(0.654)	400431	250.000	296
14 Trichlorotrifluoroethane	101	8.996	8.996	(0.658)	1676309	250.000	297
17 Isopropyl Alcohol	45	9.447	9.447	(0.690)	1353921	2500.00	2720
20 Allyl chloride	76	9.852	9.852	(0.720)	873041	250.000	266
24 tert-Butyl Alcohol	59	10.197	10.197	(0.745)	2214363	2500.00	2700
27 Acrylonitrile	53	10.671	10.671	(0.780)	783344	250.000	288
28 Isopropyl ether	45	11.196	11.196	(0.818)	1556246	50.0000	51.2
31 2-Chloro-1,3-butadiene	53	11.394	11.394	(0.833)	703930	50.0000	61.8
32 Ethyl tert-butyl ether	59	11.758	11.758	(0.859)	1406424	50.0000	50.6
37 Propionitrile	54	12.402	12.402	(0.906)	292076	250.000	275
34 Ethyl acetate	43	12.163	12.163	(0.889)	1820085	250.000	263
40 Methacrylonitrile	41	12.563	12.563	(0.918)	1501432	250.000	277
38 Tetrahydrofuran	42	12.540	12.540	(0.639)	640867	250.000	295

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
46 Isobutyl alcohol	41	13.111	13.111	(0.958)	667397	2500.00	2800
49 Methyl tert-amyl ether	73	13.346	13.346	(0.975)	1187396	50.0000	50.8
56 Methyl methacrylate	69	14.437	14.437	(1.055)	1347834	250.000	289
67 Ethyl methacrylate	69	15.808	15.808	(0.921)	2614016	250.000	290
75 1-Chlorohexane	55	17.028	17.028	(1.245)	459894	50.0000	48.8
58 1,4-Dioxane	88	14.543	14.543	(1.063)	194645	2500.00	2910
62 2-Nitropropane	43	15.077	15.077	(1.102)	569946	250.000	268
85 cis-1,4-Dichloro-2-butene	53	18.276	18.276	(0.932)	797153	250.000	309
86 Cyclohexanone	55	18.386	18.386	(1.072)	736654	1250.00	771
90 trans-1,4-Dichloro-2-butene	53	18.566	18.566	(0.947)	756783	250.000	312
98 Pentachloroethane	167	19.196	19.196	(0.979)	877430	250.000	306(A)
104 Benzyl chloride	91	19.772	19.772	(1.008)	3786361	250.000	284
107 bis(2-Chloroisopropyl)ether	45	20.163	20.163	(1.028)	984129	250.000	316
* 52 Fluorobenzene	96	13.682	13.682	(1.000)	951428	50.0000	
* 76 Chlorobenzene-d5	117	17.157	17.157	(1.000)	656029	50.0000	
* 102 1,4-Dichlorobenzene-d4	152	19.611	19.611	(1.000)	340721	50.0000	
$ 48 1,2-Dichloroethane-d4	65	13.341	13.341	(0.975)	587745	50.0000	51.0
$ 65 Toluene-d8	98	15.518	15.518	(0.904)	2003665	50.0000	53.5
$ 87 Bromofluorobenzene	95	18.386	18.386	(0.938)	760425	50.0000	54.3

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.

Data File: /chem/VOA1.i/121709v1/1r430.d
Date : 17-DEC-2009 23:58
Client ID: SHORT ICV
Sample Info: IWLVM091217-20|SHORT ICV|1|VOAF1|1
Purge Volume: 5.0
Column phase: RTX-Volatiles

Instrument: VOA1.i
Operator: RXH4
Column diameter: 0.25

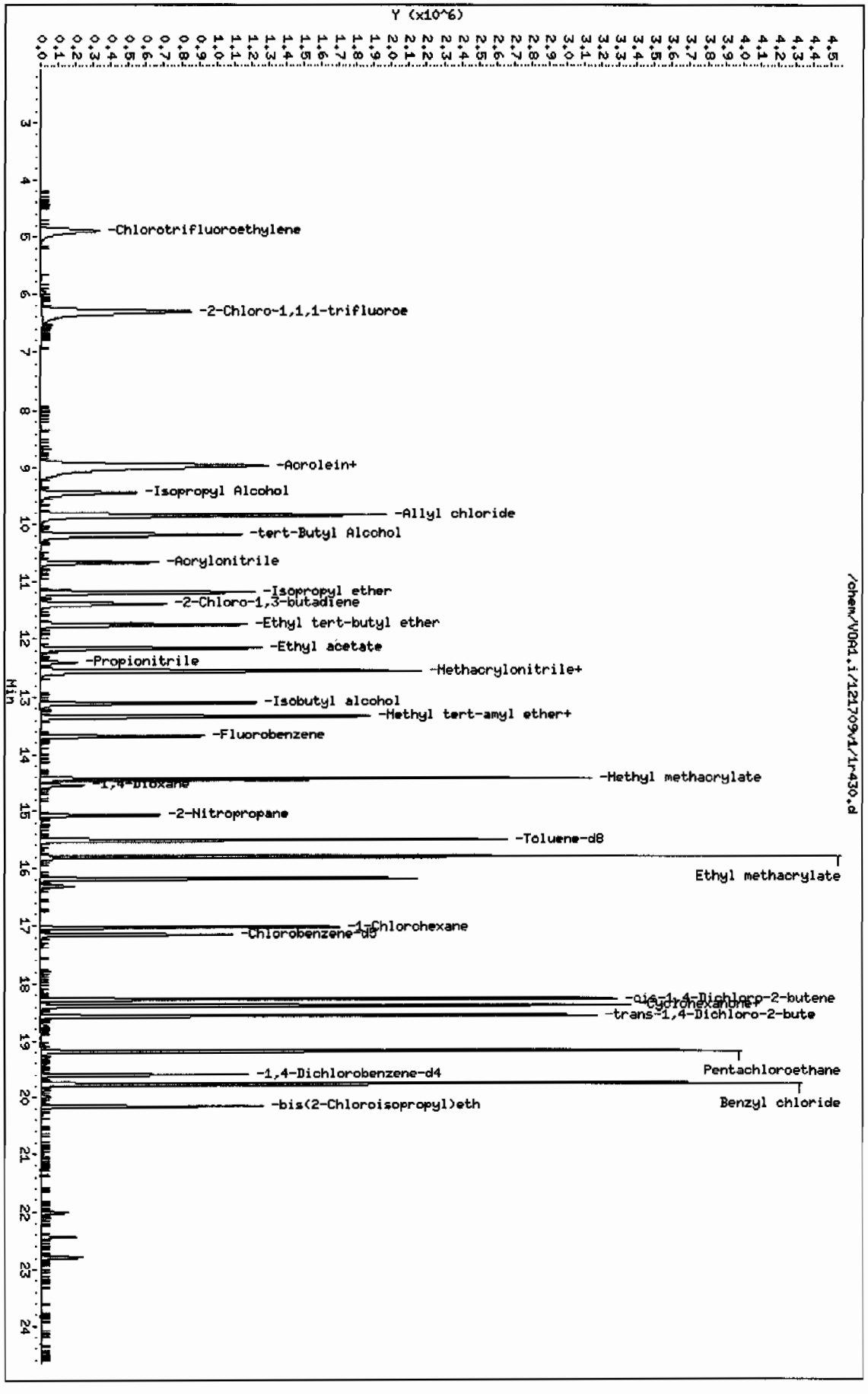

Page 1

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA1.i Injection Date: 18-DEC-2009 10:23
Lab File ID: 1r503.d Init. Cal. Date(s): 17-DEC-2009 17-DEC-2009
Analysis Type: SOIL Init. Cal. Times: 13:26 21:57
Lab Sample ID: W1VM091218-02 Quant Type: ISTD
Method: /chem/VOA1.i/121809v1/VOA1-8260ox-121709.m

	COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
M	1 Xylenes (total)	1.00571	0.93834	0.93834	0.050	-6.69836	30.00000	Averaged	
M	2 1,2-Dichloroethylene (total	0.40751	0.36976	0.36976	0.050	-9.26483	30.00000	Averaged	
M	3 1,3-Dichloropropylene	0.88514	0.87542	0.87542	0.050	-1.09767	30.00000	Averaged	
	5 Dichlorodifluoromethane	41.24481	50.00000	0.23293	0.050	-17.51038	30.00000	Linear	
	6 Chloromethane	0.51970	0.42702	0.42702	0.100	-17.83232	30.00000	Averaged	spcc
	7 Vinyl chloride	0.43212	0.37493	0.37493	0.050	-13.23437	20.00000	Averaged	ccc
	9 Bromomethane	0.28192	0.23726	0.23726	0.050	-15.84118	30.00000	Averaged	
	10 Chloroethane	0.30188	0.27493	0.27493	0.050	-8.92647	30.00000	Averaged	
	11 Trichlorofluoromethane	0.44773	0.45957	0.45957	0.050	2.64503	30.00000	Averaged	
	12 Ethyl Ether	0.37389	0.32605	0.32605	0.010	-12.79488	30.00000	Averaged	
	16 Acetone	0.30248	0.26357	0.26357	0.000	-12.86288	40.00000	Averaged	
	22 Acetonitrile	0.04984	0.04203	0.04203	0.010	-15.66054	30.00000	Averaged	
	15 1,1-Dichloroethylene	0.69959	0.63453	0.63453	0.050	-9.29995	20.00000	Averaged	ccc
	21 Methyl acetate	0.28883	0.25609	0.25609	0.010	-11.33553	40.00000	Averaged	
	18 Iodomethane	0.55436	0.46713	0.46713	0.050	-15.73597	30.00000	Averaged	
	23 Methylene chloride	41.10179	50.00000	0.37449	0.000	-17.79642	30.00000	Linear	
	19 Carbon disulfide	1.13824	1.09361	1.09361	0.050	-3.92084	30.00000	Averaged	
	25 tert-Butyl methyl ether	1.12196	1.02204	1.02204	0.050	-8.90587	30.00000	Averaged	
	26 trans-1,2-Dichloroethylene	0.38807	0.35353	0.35353	0.050	-8.90131	30.00000	Averaged	
	29 Vinyl acetate	0.69026	0.71466	0.71466	0.010	3.53399	40.00000	Averaged	
	30 1,1-Dichloroethane	0.77946	0.69915	0.69915	0.100	-10.30320	30.00000	Averaged	spcc
	35 2-Butanone	0.33847	0.29513	0.29513	0.030	-12.80590	40.00000	Averaged	
	36 cis-1,2-Dichloroethylene	0.42695	0.38599	0.38599	0.050	-9.59477	30.00000	Averaged	
	33 2,2-Dichloropropane	0.45482	0.48652	0.48652	0.050	6.97035	30.00000	Averaged	
	41 Chloroform	0.75919	0.69631	0.69631	0.010	-8.28225	20.00000	Averaged	ccc
	39 Bromochloromethane	0.18374	0.16161	0.16161	0.010	-12.04652	30.00000	Averaged	
	43 1,1,1-Trichloroethane	0.50671	0.50621	0.50621	0.010	-0.09918	30.00000	Averaged	
	42 Cyclohexane	0.73657	0.73599	0.73599	0.010	-0.07869	30.00000	Averaged	
	45 1,1-Dichloropropene	0.55584	0.56688	0.56688	0.010	1.98451	30.00000	Averaged	
	53 n-Butyl alcohol	4678	5000	0.01129	0.001	-6.44178	40.00000	Linear	
	44 Carbon tetrachloride	0.50106	0.51113	0.51113	0.010	2.01044	30.00000	Averaged	
$	48 1,2-Dichloroethane-d4	0.60584	0.60476	0.60476	0.010	-0.17842	30.00000	Averaged	
	51 1,2-Dichloroethane	0.60049	0.52969	0.52969	0.010	-11.79009	30.00000	Averaged	
	47 Benzene	1.62246	1.53034	1.53034	0.010	-5.67741	30.00000	Averaged	
	50 Cyclohexene	0.57039	0.55360	0.55360	0.010	-2.94312	30.00000	Averaged	

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA1.i
Lab File ID: 1r503.d
Analysis Type: SOIL
Lab Sample ID: W1VM091218-02
Method: /chem/VOA1.i/121809v1/VOA1-8260ox-121709.m

Injection Date: 18-DEC-2009 10:23
Init. Cal. Date(s): 17-DEC-2009 17-DEC-2009
Init. Cal. Times: 13:26 21:57
Quant Type: ISTD

	COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
	54 Trichloroethylene	0.41533	0.38803	0.38803	0.010	-6.57475	30.00000	Averaged	
	57 1,2-Dichloropropane	0.44519	0.41194	0.41194	0.010	-7.46955	20.00000	Averaged	ccc
	55 Methylcyclohexane	0.67888	0.64165	0.64165	0.010	-5.48441	30.00000	Averaged	
	60 Bromodichloromethane	0.55929	0.52692	0.52692	0.010	-5.78735	30.00000	Averaged	
	59 Dibromomethane	0.25092	0.22050	0.22050	0.010	-12.12321	30.00000	Averaged	
	61 2-Chloroethylvinyl ether	498	250	0.09518	0.000	99	30.00000	Linear	<-
	64 4-Methyl-2-pentanone	0.24426	0.23124	0.23124	0.010	-5.33159	40.00000	Averaged	
	63 cis-1,3-Dichloropropylene	0.65316	0.64535	0.64535	0.010	-1.19594	30.00000	Averaged	
$	65 Toluene-d8	2.85543	2.63675	2.63675	0.010	-7.65837	30.00000	Averaged	
	66 Toluene	1.45437	1.33551	1.33551	0.010	-8.17199	20.00000	Averaged	ccc
	68 trans-1,3-Dichloropropylene	0.84622	0.85024	0.85024	0.010	0.47508	30.00000	Averaged	
	69 1,1,2-Trichloroethane	0.41628	0.37854	0.37854	0.010	-9.06563	30.00000	Averaged	
	71 2-Hexanone	0.62331	0.54567	0.54567	0.010	-12.45687	40.00000	Averaged	
	72 1,3-Dichloropropane	0.88376	0.78569	0.78569	0.010	-11.09685	30.00000	Averaged	
	70 Tetrachloroethylene	0.44328	0.40612	0.40612	0.010	-8.38347	30.00000	Averaged	
	73 Dibromochloromethane	0.52259	0.48251	0.48251	0.010	-7.66937	30.00000	Averaged	
	74 1,2-Dibromoethane	0.46944	0.43396	0.43396	0.010	-7.55857	30.00000	Averaged	
	77 Chlorobenzene	1.51959	1.38682	1.38682	0.300	-8.73734	30.00000	Averaged	spcc
	79 1,1,1,2-Tetrachloroethane	0.50746	0.47157	0.47157	0.010	-7.07137	30.00000	Averaged	
	78 Ethylbenzene	2.78730	2.63923	2.63923	0.010	-5.31239	20.00000	Averaged	ccc
	80 m,p-Xylenes	1.01429	0.94560	0.94560	0.010	-6.77241	30.00000	Averaged	
	81 o-Xylene	0.98852	0.92382	0.92382	0.010	-6.54471	30.00000	Averaged	
	82 Styrene	1.66316	1.58412	1.58412	0.010	-4.75239	30.00000	Averaged	
	83 Bromoform	42.82263	50.00000	0.60174	0.100	-14.35474	30.00000	Linear	spcc
	84 Isopropylbenzene	4.93115	4.80548	4.80548	0.010	-2.54838	30.00000	Averaged	
	88 1,1,2,2-Tetrachloroethane	1.18805	1.15468	1.15468	0.300	-2.80921	30.00000	Averaged	spcc
$	87 Bromofluorobenzene	2.05512	1.94749	1.94749	0.010	-5.23724	30.00000	Averaged	
	92 1,2,3-Trichloropropane	0.30749	0.28693	0.28693	0.010	-6.68632	30.00000	Averaged	
	91 Bromobenzene	1.17688	1.08618	1.08618	0.010	-7.70653	30.00000	Averaged	
	89 n-Propylbenzene	6.13553	5.95136	5.95136	0.010	-3.00167	30.00000	Averaged	
	94 2-Chlorotoluene	4.27198	4.06216	4.06216	0.010	-4.91157	30.00000	Averaged	
	93 1,3,5-Trimethylbenzene	4.28391	4.09265	4.09265	0.010	-4.46467	30.00000	Averaged	
	95 4-Chlorotoluene	3.87008	3.67684	3.67684	0.010	-4.99312	30.00000	Averaged	
	96 tert-Butylbenzene	3.51472	3.18484	3.18484	0.010	-9.38564	30.00000	Averaged	
	97 1,2,4-Trimethylbenzene	4.42433	4.04799	4.04799	0.010	-8.50605	30.00000	Averaged	
	99 sec-Butylbenzene	5.63173	5.08225	5.08225	0.010	-9.75695	30.00000	Averaged	

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA1.i
Lab File ID: 1r503.d
Analysis Type: SOIL
Lab Sample ID: W1VM091218-02
Method: /chem/VOA1.i/121809v1/VOA1-8260ox-121709.m

Injection Date: 18-DEC-2009 10:23
Init. Cal. Date(s): 17-DEC-2009 17-DEC-2009
Init. Cal. Times: 13:26 21:57
Quant Type: ISTD

COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
100 4-Isopropyltoluene	4.27086	3.84955	3.84955	0.010	-9.86461	30.00000	Averaged
101 1,3-Dichlorobenzene	2.28713	2.03201	2.03201	0.010	-11.15492	30.00000	Averaged
103 1,4-Dichlorobenzene	2.33125	2.09246	2.09246	0.010	-10.24290	30.00000	Averaged
105 n-Butylbenzene	4.52044	4.15861	4.15861	0.010	-8.00432	30.00000	Averaged
106 1,2-Dichlorobenzene	2.17327	1.93369	1.93369	0.010	-11.02388	30.00000	Averaged
108 1,2-Dibromo-3-chloropropane	42.63717	50.00000	0.18406	0.010	-14.72565	30.00000	Linear
109 1,2,4-Trichlorobenzene	1.22342	1.00084	1.00084	0.010	-18.19297	30.00000	Averaged
110 Hexachlorobutadiene	0.81816	0.58181	0.58181	0.010	-28.88799	30.00000	Averaged
111 Naphthalene	39.73049	50.00000	2.08600	0.010	-20.53902	30.00000	Linear
112 1,2,3-Trichlorobenzene	0.91417	0.81828	0.81828	0.010	-10.48843	30.00000	Averaged

Average %D / Drift Results.

Calculated Average %D/Drift = 9.71840
Maximun Average %D/Drift = 20.00000
* Passed Average %D/Drift Test.

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/121809v1/1r503.d
Lab Smp Id: W1VM091218-02 Client Smp ID: VSTD050
Inj Date : 18-DEC-2009 10:23
Operator : RXM4 Inst ID: VOA1.i
Smp Info : |W1VM091218-02|LCSD|1|VOAF|1|
Misc Info : GEL 5G N/A UVM091129-01D/IVM091214-01
Comment :
Method : /chem/VOA1.i/121809v1/VOA1-8260ox-121709.m
Meth Date : 19-Dec-2009 14:24 ron01469 Quant Type: ISTD
Cal Date : 17-DEC-2009 21:57 Cal File: 1r426.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: CALsubL+.sub
Target Version: 3.50

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	0.00000	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
M 1 Xylenes (total)	106				2033991	150.000	140
M 2 1,2-Dichloroethylene (total)	96				745676	100.000	90.8
M 3 1,3-Dichloropropylene	75				1265071	100.000	99.6
5 Dichlorodifluoromethane	85	5.005	5.005	(0.366)	234876	50.0000	41.2
6 Chloromethane	50	5.564	5.564	(0.407)	430585	50.0000	41.1
7 Vinyl chloride	62	5.937	5.937	(0.434)	378054	50.0000	43.4
9 Bromomethane	96	6.961	6.961	(0.509)	239237	50.0000	42.1
10 Chloroethane	64	7.219	7.219	(0.528)	277223	50.0000	45.5
11 Trichlorofluoromethane	101	7.850	7.850	(0.574)	463405	50.0000	51.3
12 Ethyl Ether	59	8.480	8.480	(0.620)	328771	50.0000	43.6
16 Acetone	43	9.258	9.258	(0.677)	1328850	250.000	218
22 Acetonitrile	41	9.976	9.976	(0.729)	1059568	1250.00	1050
15 1,1-Dichloroethylene	61	9.097	9.097	(0.665)	639818	50.0000	45.4

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
	21 Methyl acetate	43	9.838	9.838	(0.719)	1291141	250.000	222
	18 Iodomethane	142	9.474	9.474	(0.692)	2355119	250.000	211
	23 Methylene chloride	84	10.142	10.142	(0.741)	377610	50.0000	41.1
	19 Carbon disulfide	76	9.580	9.580	(0.700)	5513665	250.000	240
	25 tert-Butyl methyl ether	73	10.446	10.446	(0.763)	1030559	50.0000	45.5
	26 trans-1,2-Dichloroethylene	96	10.547	10.547	(0.771)	356473	50.0000	45.5
	29 Vinyl acetate	43	11.297	11.297	(0.826)	3603080	250.000	259
	30 1,1-Dichloroethane	63	11.329	11.329	(0.828)	704979	50.0000	44.8
	35 2-Butanone	43	12.186	12.186	(0.891)	1487935	250.000	218
	36 cis-1,2-Dichloroethylene	96	12.204	12.204	(0.892)	389203	50.0000	45.2
	33 2,2-Dichloropropane	77	12.163	12.163	(0.889)	490575	50.0000	53.5
	41 Chloroform	83	12.614	12.614	(0.922)	702114	50.0000	45.8
	39 Bromochloromethane	128	12.559	12.559	(0.918)	162953	50.0000	44.0
	43 1,1,1-Trichloroethane	97	12.844	12.844	(0.939)	510433	50.0000	50.0
	42 Cyclohexane	56	12.839	12.839	(0.938)	742123	50.0000	50.0
	45 1,1-Dichloropropene	75	13.051	13.051	(0.954)	571602	50.0000	51.0
	53 n-Butyl alcohol	56	13.930	13.930	(1.018)	1138467	5000.00	4680
	44 Carbon tetrachloride	117	13.023	13.023	(0.952)	515395	50.0000	51.0
$	48 1,2-Dichloroethane-d4	65	13.341	13.341	(0.975)	609801	50.0000	49.9
	51 1,2-Dichloroethane	62	13.442	13.442	(0.982)	534111	50.0000	44.1
	47 Benzene	78	13.332	13.332	(0.974)	1543105	50.0000	47.2
	50 Cyclohexene	54	13.396	13.396	(0.979)	558217	50.0000	48.5
*	52 Fluorobenzene	96	13.682	13.682	(1.000)	1008338	50.0000	
	54 Trichloroethylene	95	14.114	14.114	(1.032)	391261	50.0000	46.7
	57 1,2-Dichloropropane	63	14.455	14.455	(1.057)	415371	50.0000	46.3
	55 Methylcyclohexane	83	14.285	14.285	(1.044)	646997	50.0000	47.2
	60 Bromodichloromethane	83	14.750	14.750	(1.078)	531314	50.0000	47.1
	59 Dibromomethane	93	14.621	14.621	(1.069)	222341	50.0000	43.9
	61 2-Chloroethylvinyl ether	63	15.030	15.030	(1.099)	479869	250.000	498
	64 4-Methyl-2-pentanone	58	15.357	15.357	(0.895)	835394	250.000	237
	63 cis-1,3-Dichloropropylene	75	15.256	15.256	(1.115)	650730	50.0000	49.4
$	65 Toluene-d8	98	15.518	15.518	(0.904)	1905179	50.0000	46.2
	66 Toluene	92	15.597	15.597	(0.909)	964972	50.0000	45.9
	68 trans-1,3-Dichloropropylene	75	15.877	15.877	(0.925)	614340	50.0000	50.2
	69 1,1,2-Trichloroethane	83	16.103	16.103	(0.938)	273511	50.0000	45.5
	71 2-Hexanone	43	16.269	16.269	(0.948)	1971349	250.000	219
	72 1,3-Dichloropropane	76	16.305	16.305	(0.950)	567697	50.0000	44.4
	70 Tetrachloroethylene	164	16.190	16.190	(0.943)	293439	50.0000	45.8
	73 Dibromochloromethane	129	16.549	16.549	(0.964)	348634	50.0000	46.2
	74 1,2-Dibromoethane	107	16.729	16.729	(0.975)	313553	50.0000	46.2
*	76 Chlorobenzene-d5	117	17.162	17.162	(1.000)	722547	50.0000	
	77 Chlorobenzene	112	17.194	17.194	(1.002)	1002044	50.0000	45.6
	79 1,1,1,2-Tetrachloroethane	131	17.258	17.258	(1.006)	340732	50.0000	46.5
	78 Ethylbenzene	91	17.217	17.217	(1.003)	1906968	50.0000	47.3
	80 m,p-Xylenes	106	17.336	17.336	(1.010)	1366484	100.000	93.2
	81 o-Xylene	106	17.783	17.783	(1.036)	667507	50.0000	46.7
	82 Styrene	104	17.801	17.801	(1.037)	1144602	50.0000	47.6

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
83 Bromoform	173	18.105	18.105	(0.923)	227256	50.0000	42.8
84 Isopropylbenzene	105	18.128	18.128	(0.924)	1814869	50.0000	48.7
88 1,1,2,2-Tetrachloroethane	83	18.506	18.506	(0.944)	436082	50.0000	48.6
$ 87 Bromofluorobenzene	95	18.386	18.386	(0.938)	735502	50.0000	47.4
92 1,2,3-Trichloropropane	110	18.602	18.602	(0.949)	108362	50.0000	46.6
91 Bromobenzene	156	18.593	18.593	(0.948)	410215	50.0000	46.1
89 n-Propylbenzene	91	18.556	18.556	(0.946)	2247630	50.0000	48.5
94 2-Chlorotoluene	91	18.740	18.740	(0.956)	1534141	50.0000	47.5
93 1,3,5-Trimethylbenzene	105	18.717	18.717	(0.954)	1545656	50.0000	47.8
95 4-Chlorotoluene	91	18.855	18.855	(0.962)	1388619	50.0000	47.5
96 tert-Butylbenzene	119	19.076	19.076	(0.973)	1202807	50.0000	45.3
97 1,2,4-Trimethylbenzene	105	19.136	19.136	(0.976)	1528790	50.0000	45.7
99 sec-Butylbenzene	105	19.302	19.302	(0.984)	1919395	50.0000	45.1
100 4-Isopropyltoluene	119	19.422	19.422	(0.990)	1453847	50.0000	45.1
101 1,3-Dichlorobenzene	146	19.541	19.541	(0.996)	767420	50.0000	44.4
* 102 1,4-Dichlorobenzene-d4	152	19.610	19.610	(1.000)	377666	50.0000	
103 1,4-Dichlorobenzene	146	19.638	19.638	(1.001)	790252	50.0000	44.9
105 n-Butylbenzene	91	19.868	19.868	(1.013)	1570565	50.0000	46.0
106 1,2-Dichlorobenzene	146	20.075	20.075	(1.024)	730290	50.0000	44.5
108 1,2-Dibromo-3-chloropropane	157	21.000	21.000	(1.071)	69514	50.0000	42.6
109 1,2,4-Trichlorobenzene	180	22.022	22.022	(1.123)	377985	50.0000	40.9
110 Hexachlorobutadiene	225	22.105	22.105	(1.127)	219730	50.0000	35.6
111 Naphthalene	128	22.437	22.437	(1.144)	787718	50.0000	39.7
112 1,2,3-Trichlorobenzene	180	22.786	22.786	(1.162)	309038	50.0000	44.8

Data File: /chem/VOA1.i/121809v1/1r503.d
Date : 18-DEC-2009 10:23
Client ID: VSTD050
Sample Info: IW1VH091218-02ILCSD11IVOAF11I
Column phase: RTX-Volatiles

Instrument: VOA1.i
Operator: RXH4
Column diameter: 0.25

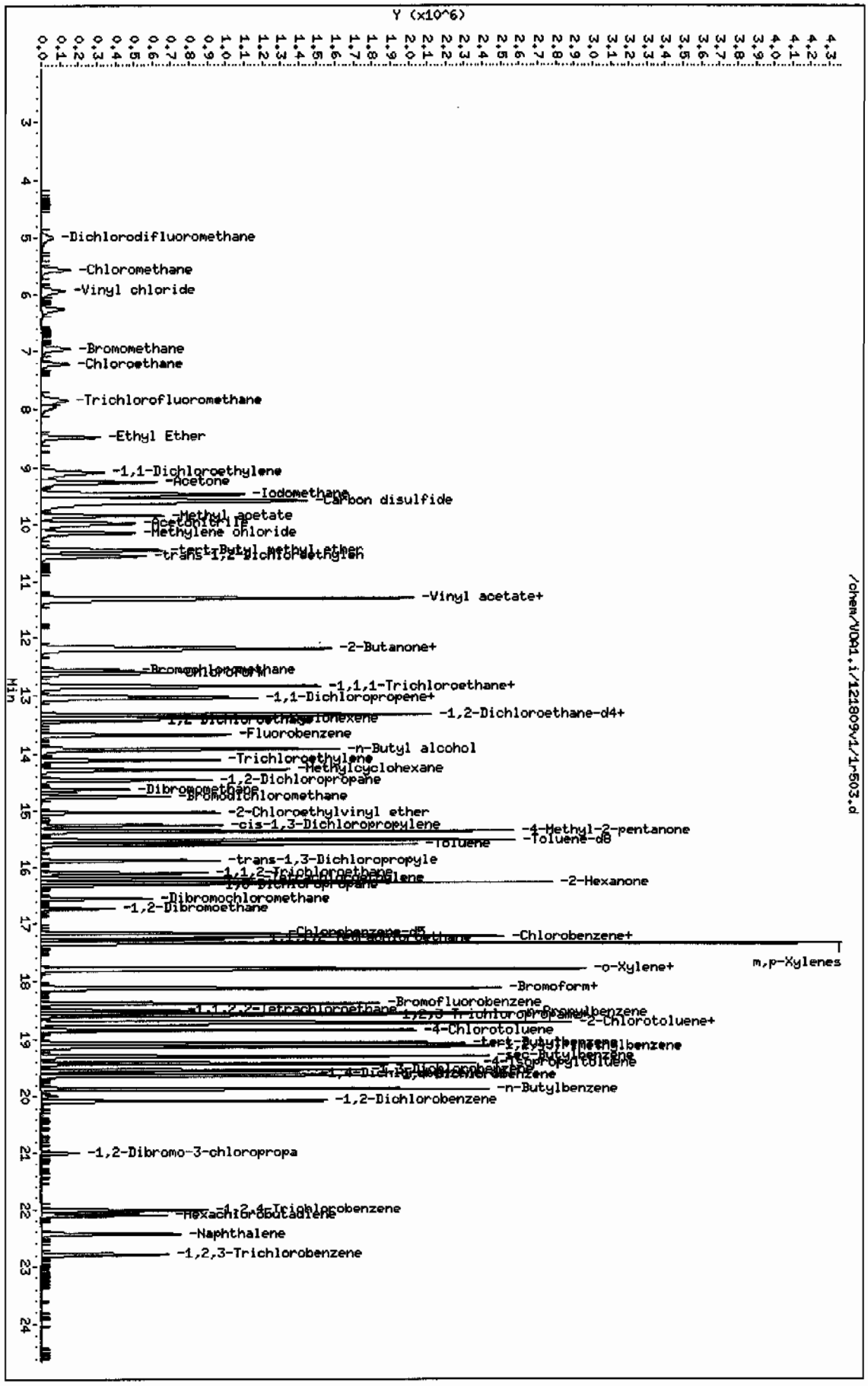

Page 1

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA1.i
Lab File ID: 1r505.d
Analysis Type: SOIL
Lab Sample ID: W1VM091218-04
Method: /chem/VOA1.i/121809v1/VOA1-8260ox-121709.m

Injection Date: 18-DEC-2009 11:28
Init. Cal. Date(s): 17-DEC-2009 17-DEC-2009
Init. Cal. Times: 13:26 21:57
Quant Type: ISTD

	COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
	4 Chlorotrifluoroethylene	144	150	0.21493	0.010	-4.10918	30.00000	Linear	
	8 2-Chloro-1,1,1-trifluoroeth	160	150	0.48460	0.010	6.68810	30.00000	Linear	
	13 Acrolein	0.07113	0.09158	0.09158	0.001	28.75205	30.00000	Averaged	
	14 Trichlorotrifluoroethane	0.29664	0.38681	0.38681	0.030	30.39725	30.00000	Averaged	<-
	17 Isopropyl Alcohol	2819	2500	0.02949	0.000	12.74998	40.00000	Linear	
	20 Allyl chloride	275	250	0.19066	0.010	10.11498	30.00000	Linear	
	24 tert-Butyl Alcohol	2911	2500	0.05026	0.010	16.44849	40.00000	Linear	
	27 Acrylonitrile	0.14313	0.16582	0.16582	0.010	15.85097	30.00000	Averaged	
	28 Isopropyl ether	48.74094	50.00000	1.55578	0.010	-2.51812	30.00000	Linear	
	31 2-Chloro-1,3-butadiene	0.59811	0.78820	0.78820	0.010	31.78106	30.00000	Averaged	<-
	32 Ethyl tert-butyl ether	50.00521	50.00000	1.46046	0.010	0.01042	30.00000	Linear	
	37 Propionitrile	0.05574	0.06355	0.06355	0.010	14.01528	30.00000	Averaged	
	34 Ethyl acetate	0.36418	0.38226	0.38226	0.010	4.96333	40.00000	Averaged	
	40 Methacrylonitrile	0.28473	0.30948	0.30948	0.010	8.69057	30.00000	Averaged	
	38 Tetrahydrofuran	0.31873	0.36754	0.36754	0.010	15.31430	30.00000	Averaged	
	46 Isobutyl alcohol	0.01253	0.01411	0.01411	0.001	12.63397	40.00000	Averaged	
	49 Methyl tert-amyl ether	51.15137	50.00000	1.25620	0.010	2.30275	30.00000	Linear	
	56 Methyl methacrylate	0.24537	0.29063	0.29063	0.010	18.44547	30.00000	Averaged	
	67 Ethyl methacrylate	0.68739	0.80215	0.80215	0.010	16.69534	30.00000	Averaged	
	75 1-Chlorohexane	0.49469	0.49534	0.49534	0.000	0.13191	30.00000	Averaged	
	58 1,4-Dioxane	0.00351	0.00406	0.00406	0.001	15.65449	40.00000	Averaged	
	62 2-Nitropropane	272	250	0.12146	0.000	8.83880	30.00000	Linear	
	85 cis-1,4-Dichloro-2-butene	0.37890	0.49585	0.49585	0.010	30.86485	30.00000	Averaged	<-
	86 Cyclohexanone	0.07283	0.04707	0.04707	0.010	-35.36111	40.00000	Averaged	
	90 trans-1,4-Dichloro-2-butene	0.35568	0.45902	0.45902	0.010	29.05501	30.00000	Averaged	
	98 Pentachloroethane	0.42012	0.64189	0.64189	0.010	52.78791	30.00000	Averaged	<-
	104 Benzyl chloride	1.95639	2.73149	2.73149	0.010	39.61917	30.00000	Averaged	<-
	107 bis(2-Chloroisopropyl)ether	0.45769	0.57478	0.57478	0.010	25.58382	30.00000	Averaged	
$	48 1,2-Dichloroethane-d4	0.60584	0.63352	0.63352	0.010	4.56869	30.00000	Averaged	
$	65 Toluene-d8	2.85543	2.98312	2.98312	0.010	4.47157	30.00000	Averaged	
$	87 Bromofluorobenzene	2.05512	2.17585	2.17585	0.010	5.87465	30.00000	Averaged	

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA1.i
Lab File ID: 1r505.d
Analysis Type: SOIL
Lab Sample ID: W1VM091218-04
Method: /chem/VOA1.i/121809v1/VOA1-8260ox-121709.m

Injection Date: 18-DEC-2009 11:28
Init. Cal. Date(s): 17-DEC-2009 17-DEC-2009
Init. Cal. Times: 13:26 21:57
Quant Type: ISTD

Average %D / Drift Results.	
Calculated Average %D/Drift =	9.71840
Maximun Average %D/Drift =	20.00000
* Passed Average %D/Drift Test.	

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/121809v1/1r505.d
Lab Smp Id: W1VM091218-04 Client Smp ID: VSTD250S
Inj Date : 18-DEC-2009 11:28
Operator : RXM4 Inst ID: VOA1.i
Smp Info : |W1VM091218-04|SHORT|1|VOAF|1|
Misc Info : GEL 5G N/A UVM091118-08C/UVM091105-02E
Comment :
Method : /chem/VOA1.i/121809v1/VOA1-8260ox-121709.m
Meth Date : 19-Dec-2009 14:24 ron01469 Quant Type: ISTD
Cal Date : 17-DEC-2009 21:57 Cal File: 1r426.d
Als bottle: 5 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: CALsubS+SS.sub
Target Version: 3.50

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	0.00000	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
4 Chlorotrifluoroethylene	116	4.897	4.897	(0.358)	586711	150.000	144
8 2-Chloro-1,1,1-trifluoroethane	118	6.308	6.308	(0.461)	1322854	150.000	160
13 Acrolein	56	8.959	8.959	(0.655)	416676	250.000	322
14 Trichlorotrifluoroethane	101	8.991	8.991	(0.657)	1759865	250.000	326
17 Isopropyl Alcohol	45	9.452	9.452	(0.691)	1341790	2500.00	2820
20 Allyl chloride	76	9.857	9.857	(0.720)	867454	250.000	275
24 tert-Butyl Alcohol	59	10.202	10.202	(0.745)	2286691	2500.00	2910
27 Acrylonitrile	53	10.676	10.676	(0.780)	754404	250.000	290
28 Isopropyl ether	45	11.201	11.201	(0.818)	1415653	50.0000	48.7
31 2-Chloro-1,3-butadiene	53	11.399	11.399	(0.833)	717209	50.0000	65.9
32 Ethyl tert-butyl ether	59	11.758	11.758	(0.859)	1328925	50.0000	50.0
37 Propionitrile	54	12.407	12.407	(0.906)	289154	250.000	285
34 Ethyl acetate	43	12.167	12.167	(0.889)	1739145	250.000	262

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
40 Methacrylonitrile	41	12.563	12.563	(0.918)	1408021	250.000	272
38 Tetrahydrofuran	42	12.540	12.540	(0.639)	610243	250.000	288
46 Isobutyl alcohol	41	13.111	13.111	(0.958)	641893	2500.00	2820
49 Methyl tert-amyl ether	73	13.350	13.350	(0.975)	1143061	50.0000	51.2
56 Methyl methacrylate	69	14.441	14.441	(1.055)	1322269	250.000	296
67 Ethyl methacrylate	69	15.813	15.813	(0.921)	2540509	250.000	292
75 1-Chlorohexane	55	17.028	17.028	(1.244)	450728	50.0000	50.1
58 1,4-Dioxane	88	14.547	14.547	(1.063)	184785	2500.00	2890
62 2-Nitropropane	43	15.081	15.081	(1.102)	552605	250.000	272
85 cis-1,4-Dichloro-2-butene	53	18.276	18.276	(0.932)	823273	250.000	327
86 Cyclohexanone	55	18.386	18.386	(1.071)	745450	1250.00	808
90 trans-1,4-Dichloro-2-butene	53	18.566	18.566	(0.947)	762122	250.000	323
98 Pentachloroethane	167	19.196	19.196	(0.979)	1065740	250.000	382(A)
104 Benzyl chloride	91	19.772	19.772	(1.008)	4535162	250.000	349
107 bis(2-Chloroisopropyl)ether	45	20.163	20.163	(1.028)	954328	250.000	314
* 52 Fluorobenzene	96	13.686	13.682	(1.000)	909934	50.0000	
* 76 Chlorobenzene-d5	117	17.162	17.162	(1.000)	633426	50.0000	
* 102 1,4-Dichlorobenzene-d4	152	19.611	19.610	(1.000)	332065	50.0000	
$ 48 1,2-Dichloroethane-d4	65	13.341	13.341	(0.975)	576460	50.0000	52.3
$ 65 Toluene-d8	98	15.518	15.518	(0.904)	1889584	50.0000	52.2
$ 87 Bromofluorobenzene	95	18.386	18.386	(0.938)	722525	50.0000	52.9

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.

Data File: /chem/VOA1.i/121809v1/1r505.d
Date : 18-DEC-2009 11:28
Client ID: VSTD250S
Sample Info: !WLVH091218-04|SHORT|1|VOAF|1|
Column phase: RTX-Volatiles

Instrument: VOA1.i
Operator: RXH4
Column diameter: 0.25

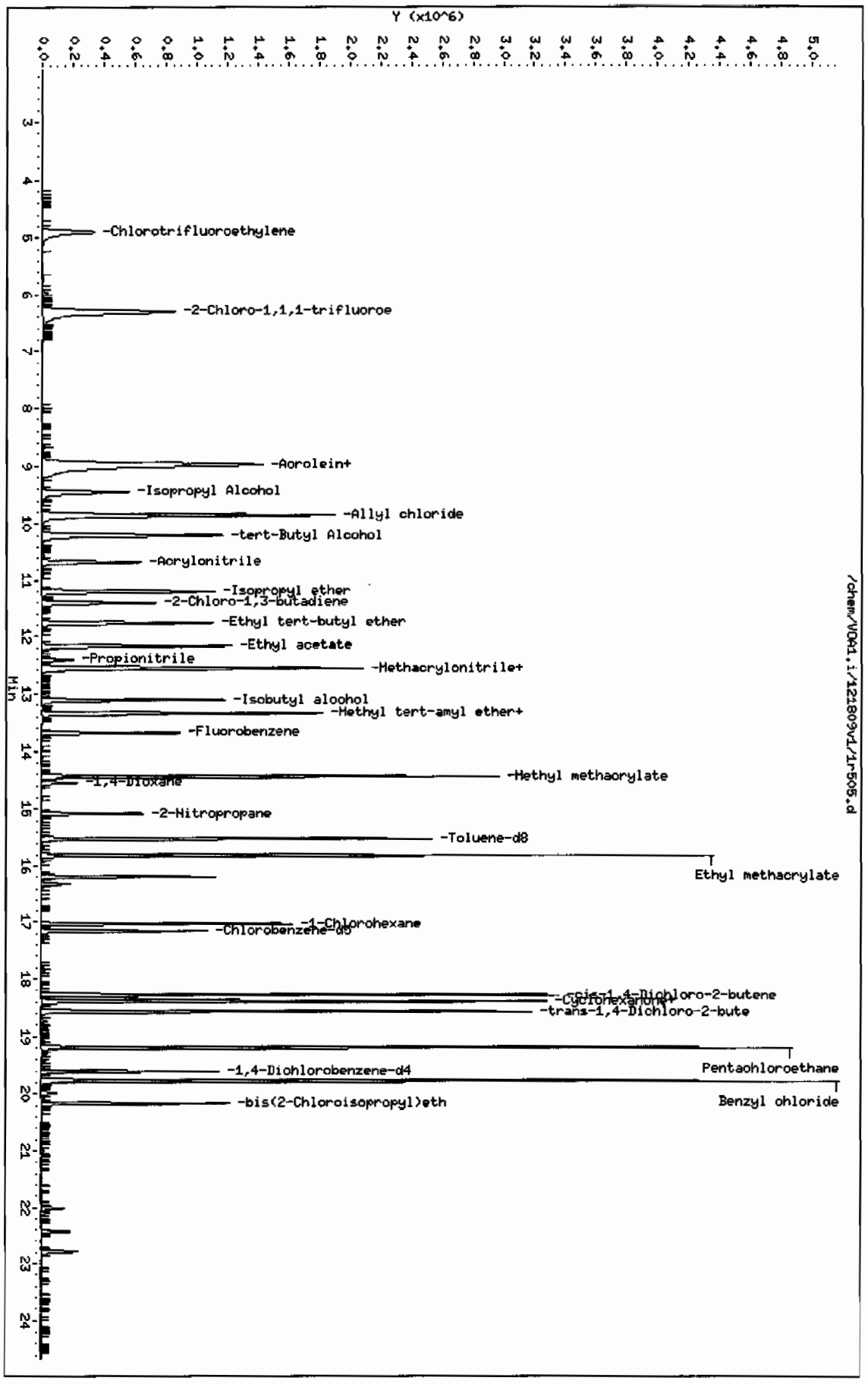

Page 1

QC Data

Data File: /chem/VOA1.i/121709v1/1r408.d

Page 1

Date : 17-DEC-2009 12:56

Client ID: BFB01

Instrument: VOA1.i

Sample Info: |UVH091117-02|BFB|1|VOAF|1|

Operator: RXM4

Column phase: RTX-Volatiles

Column diameter: 0.25

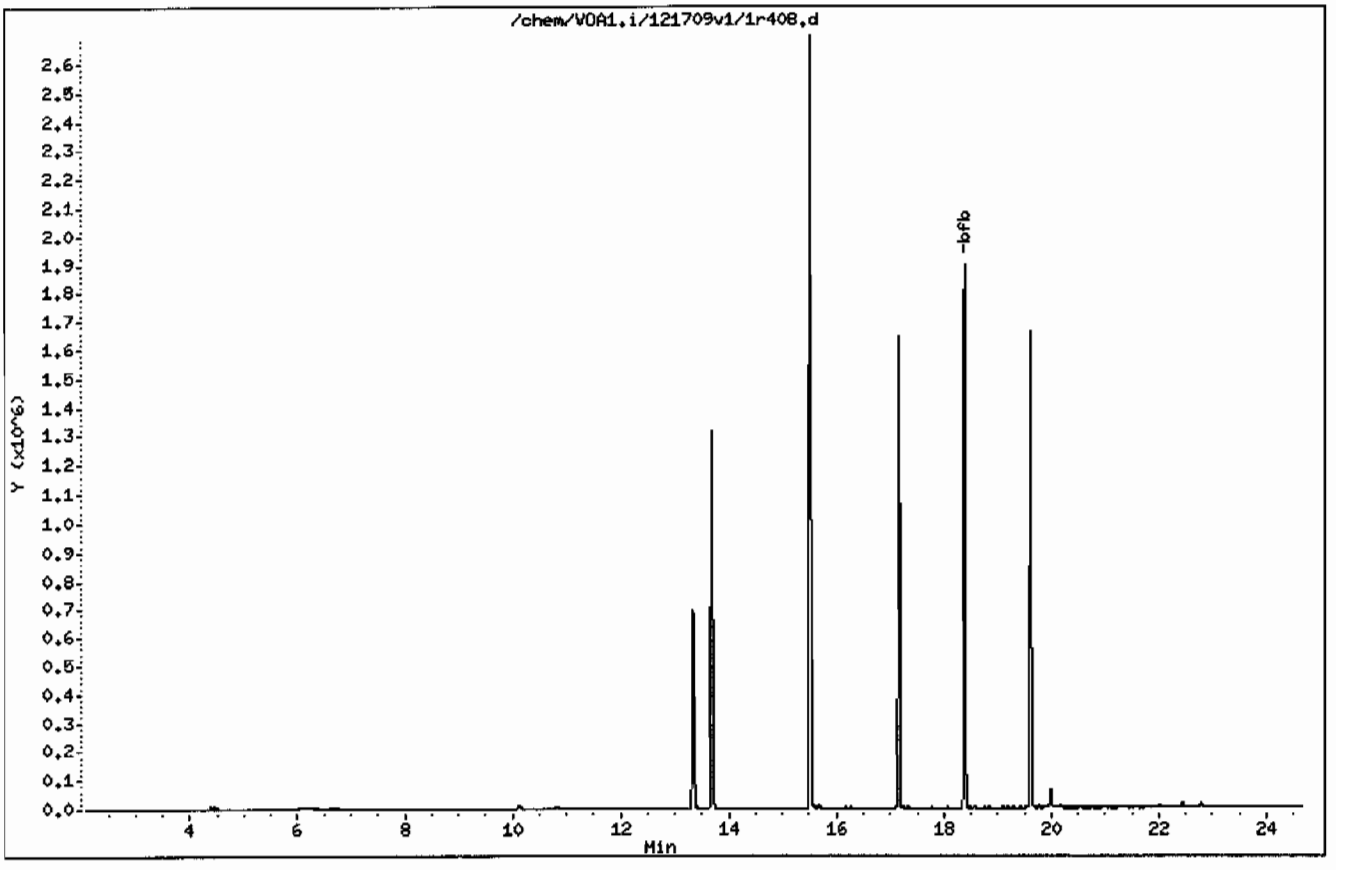

Data File: /chem/VOA1.i/121709v1/1r408.d

Date : 17-DEC-2009 12:56

Client ID: BFB01

Instrument: VOA1.i

Sample Info: |UVM091117-02|BFB|1|VOAF|1|

Operator: RXM4

Column phase: RTX-Volatiles

Column diameter: 0.25

1 bfb

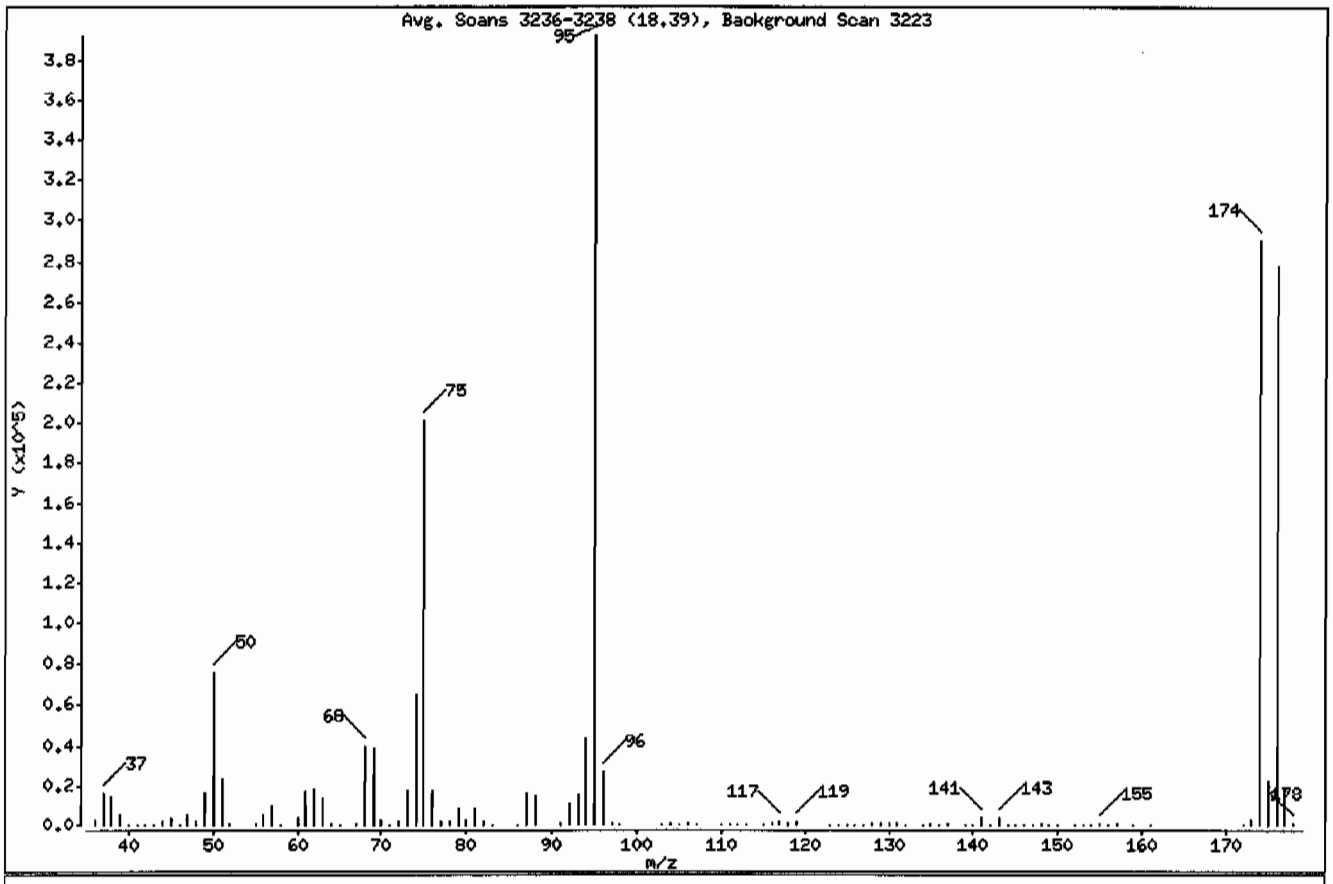

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	19.22
75	30.00 - 60.00% of mass 95	51.37
96	5.00 - 9.00% of mass 95	6.90
173	Less than 2.00% of mass 174	0.61 (0.83)
174	50.00 - 100.00% of mass 95	74.08
175	5.00 - 9.00% of mass 174	5.65 (7.63)
176	95.00 - 101.00% of mass 174	70.75 (95.51)
177	6.00 - 9.00% of mass 176	4.62 (6.54)

Data File: /chem/VOA1.i/121709v1/1r408.d

Date : 17-DEC-2009 12:56

Client ID: BFB01 Instrument: VOA1.i

Sample Info: |UVM091117-02|BFB|1|VOAF|1|

Operator: RXH4

Column phase: RTX-Volatiles Column diameter: 0.25

Data File: 1r408.d
Spectrum: Avg. Scans 3236-3238 (18.39), Background Scan 3223
Location of Maximum: 95.00
Number of points: 110

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	2874	68.00	39568	104.00	1329	140.00	263
37.00	16337	69.00	39040	105.00	411	141.00	3454
38.00	14622	70.00	2858	106.00	1316	142.00	441
39.00	5793	71.00	56	107.00	383	143.00	3213
40.00	268	72.00	2112	110.00	180	144.00	185
41.00	187	73.00	16760	111.00	260	145.00	364
42.00	431	74.00	65024	112.00	137	146.00	417
43.00	265	75.00	201536	113.00	208	147.00	241
44.00	1554	76.00	16848	115.00	318	148.00	868
45.00	3164	77.00	2254	116.00	1330	149.00	204
46.00	99	78.00	1672	117.00	2101	150.00	433
47.00	5349	79.00	8263	118.00	1270	152.00	111
48.00	1967	80.00	2473	119.00	1528	153.00	239
49.00	15962	81.00	8380	123.00	56	154.00	145
50.00	75392	82.00	1795	124.00	230	155.00	932
51.00	23576	83.00	239	125.00	72	156.00	174
52.00	1041	86.00	388	126.00	88	157.00	675
55.00	1234	87.00	16023	127.00	82	159.00	408
56.00	5159	88.00	14205	128.00	1243	161.00	448
57.00	9746	91.00	1126	129.00	651	172.00	388
58.00	352	92.00	10615	130.00	1286	173.00	2409
60.00	3488	93.00	15217	131.00	506	174.00	290624
61.00	17304	94.00	43696	132.00	52	175.00	22168
62.00	17712	95.00	392320	134.00	67	176.00	277568
63.00	13232	96.00	27088	135.00	559	177.00	18144
64.00	1214	97.00	893	136.00	123	178.00	473
65.00	111	98.00	234	137.00	596		
67.00	839	103.00	180	139.00	117		

Data File: /chem/VOA1.i/121809v1/1r501.d

Page 1

Date : 18-DEC-2009 09:19

Client ID: BFB01

Instrument: VOA1.i

Sample Info: |UVM091117-02|BFB|1|VOAF|1|

Operator: RXM4

Column phase: RTX-Volatiles

Column diameter: 0.25

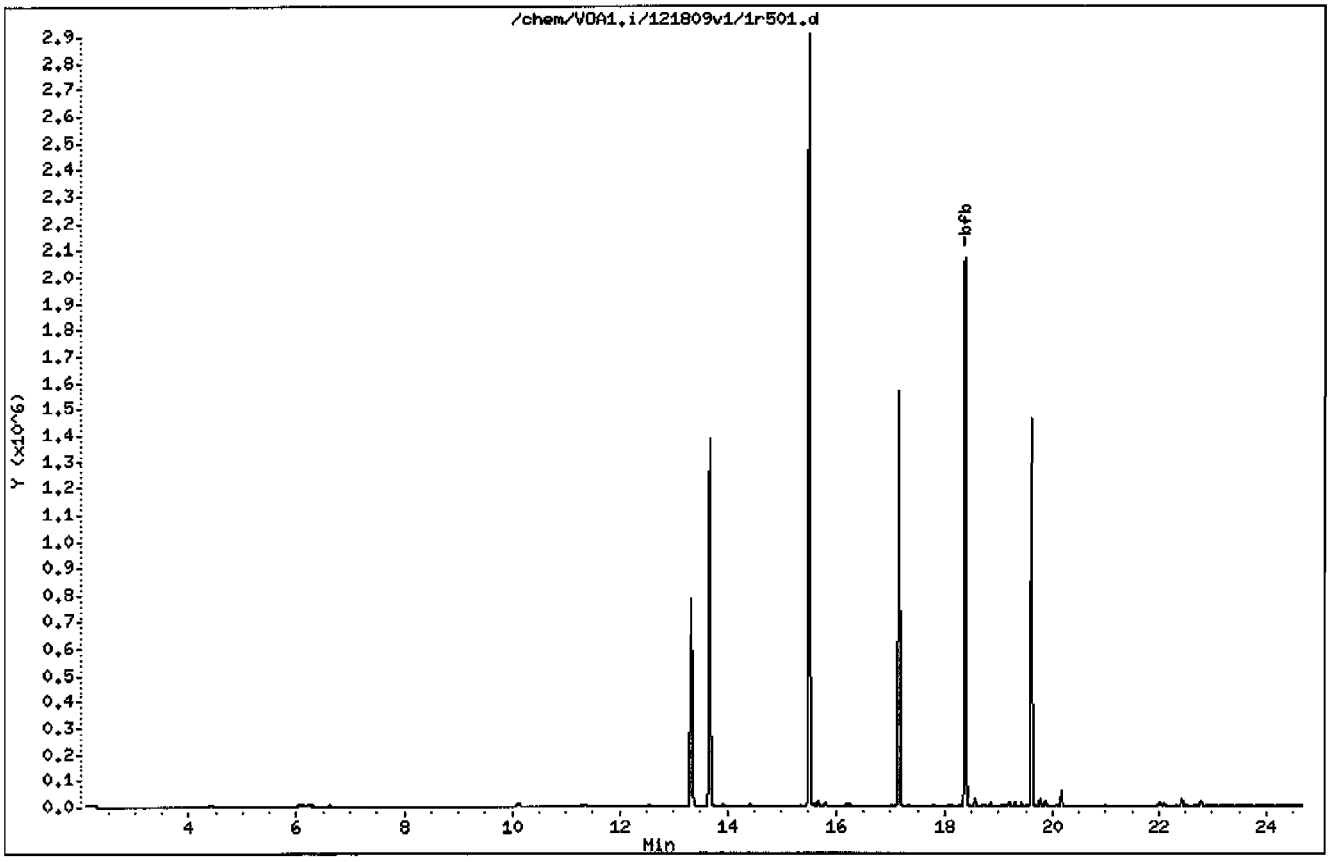

Data File: /chem/VOA1.i/121809v1/1r501.d

Date : 18-DEC-2009 09:19

Client ID: BFB01

Instrument: VOA1.i

Sample Info: |UVM091117-02|BFB|1|VOAF|1|

Operator: RXM4

Column phase: RTX-Volatiles

Column diameter: 0.25

1 bfb

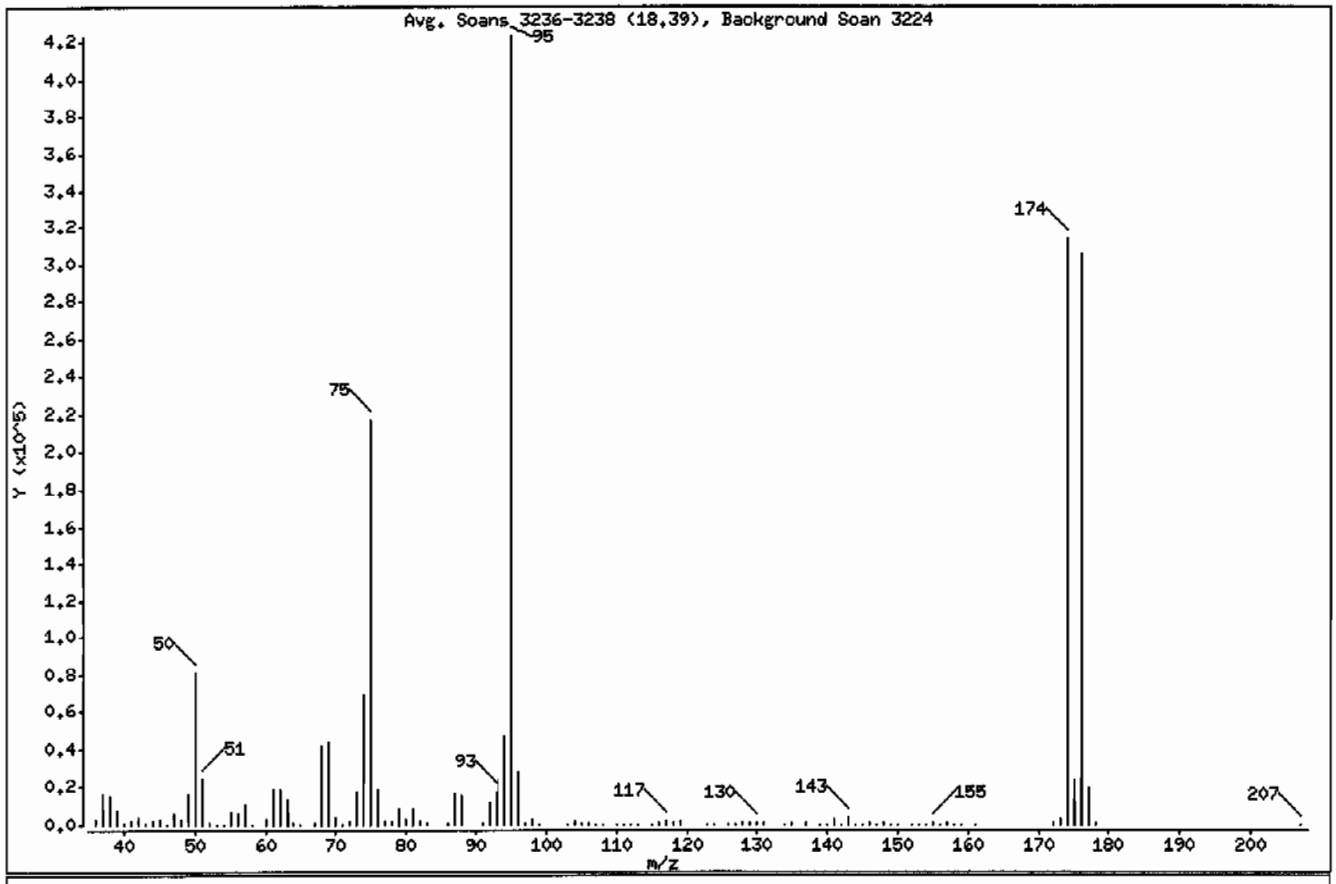

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	19.14
75	30.00 - 60.00% of mass 95	51.21
96	5.00 - 9.00% of mass 95	6.74
173	Less than 2.00% of mass 174	0.66 (0.89)
174	50.00 - 100.00% of mass 95	74.12
175	5.00 - 9.00% of mass 174	5.41 (7.30)
176	95.00 - 101.00% of mass 174	72.24 (97.47)
177	5.00 - 9.00% of mass 176	4.60 (6.36)

Date : 18-DEC-2009 09:19

Client ID: BFB01 Instrument: VOA1.i

Sample Info: |UVH091117-02|BFB|1|VOAF|1|

Operator: RXM4

Column phase: RTX-Volatiles Column diameter: 0.25

Data File: 1r501.d
Spectrum: Avg. Scans 3236-3238 (18.39), Background Scan 3224
Location of Maximum: 95.00
Number of points: 113

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	2910	67.00	1150	103.00	141	142.00	430
37.00	16688	68.00	41888	104.00	1593	143.00	3685
38.00	15558	69.00	43960	105.00	689	144.00	173
39.00	7420	70.00	4036	106.00	1413	145.00	361
40.00	656	71.00	141	107.00	416	146.00	488
41.00	1707	72.00	1872	108.00	58	147.00	281
42.00	3433	73.00	17272	110.00	51	148.00	922
43.00	786	74.00	69272	111.00	213	149.00	289
44.00	1573	75.00	216768	112.00	140	150.00	360
45.00	3026	76.00	18176	113.00	303	152.00	55
46.00	191	77.00	2206	115.00	411	153.00	313
47.00	5692	78.00	1555	116.00	1236	154.00	123
48.00	2556	79.00	8878	117.00	2380	155.00	910
49.00	16195	80.00	2781	118.00	1243	156.00	141
50.00	81024	81.00	8780	119.00	1738	157.00	645
51.00	24136	82.00	1879	123.00	50	158.00	50
52.00	1056	83.00	747	124.00	248	159.00	413
53.00	304	86.00	499	126.00	120	161.00	464
54.00	461	87.00	16600	127.00	55	172.00	524
55.00	6732	88.00	15109	128.00	1133	173.00	2807
56.00	6165	91.00	1224	129.00	623	174.00	313728
57.00	10497	92.00	12086	130.00	1356	175.00	22888
58.00	430	93.00	17696	131.00	548	176.00	305792
60.00	3319	94.00	46744	134.00	53	177.00	19456
61.00	18712	95.00	423296	135.00	639	178.00	600
62.00	18472	96.00	28528	137.00	609	207.00	17
63.00	13547	97.00	1024	139.00	149		
64.00	1377	98.00	2595	140.00	163		
65.00	241	99.00	179	141.00	3385		

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-886			Matrix:	SOIL
Lab Sample ID:	1201999839				
Client Sample:	QC for batch 934721	Client:	LANL010	Project:	QC
Client ID:	MB for batch 934721	Method:	SW846 8260B	SOP Ref:	GL-OA-E-038
Batch ID:	934726	Inst:	VOA1J	Dilution:	1
Run Date:	12/18/2009 14:12	Analyst:	RXM4	Purge Vol:	5 mL
Prep Date:	12/18/2009 08:00	Aliquot:	5 g	Final Volume:	5 mL
Data File:	1r508BA.d	Column:	RTX-Volatiles	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/kg	0.340	1.00
74-87-3	Chloromethane	U	1.00	ug/kg	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/kg	0.300	1.00
74-83-9	Bromomethane	U	1.00	ug/kg	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/kg	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/kg	0.300	1.00
67-64-1	Acetone	U	5.00	ug/kg	1.66	5.00
75-35-4	1,1-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/kg	1.60	5.00
75-09-2	Methylene chloride	U	5.00	ug/kg	2.00	5.00
75-15-0	Carbon disulfide	U	5.00	ug/kg	1.25	5.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/kg	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/kg	1.50	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/kg	0.300	1.00
74-97-5	Bromochloromethane	U	1.00	ug/kg	0.330	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/kg	0.300	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/kg	0.300	1.00
56-23-5	Carbon tetrachloride	U	1.00	ug/kg	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/kg	0.300	1.00
71-43-2	Benzene	U	1.00	ug/kg	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/kg	0.330	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/kg	0.300	1.00
74-95-3	Dibromomethane	U	1.00	ug/kg	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/kg	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
108-88-3	Toluene	U	1.00	ug/kg	0.300	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/kg	0.300	1.00
591-78-6	2-Hexanone	U	5.00	ug/kg	1.50	5.00
142-28-9	1,3-Dichloropropane	U	1.00	ug/kg	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/kg	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/kg	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/kg	0.300	1.00
108-90-7	Chlorobenzene	U	1.00	ug/kg	0.300	1.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-886**			**Matrix:**	**SOIL**
Lab Sample ID:	**1201999839**				
Client Sample:	**QC for batch 934721**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 934721**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**934726**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**12/18/2009 14:12**	**Analyst:**	**RXM4**	**Purge Vol:**	**5 mL**
Prep Date:	**12/18/2009 08:00**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1r508BA.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.00	ug/kg	0.300	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/kg	0.300	2.00
95-47-6	o-Xylene	U	1.00	ug/kg	0.300	1.00
100-42-5	Styrene	U	1.00	ug/kg	0.300	1.00
75-25-2	Bromoform	U	1.00	ug/kg	0.300	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/kg	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/kg	0.300	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/kg	0.300	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/kg	0.300	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/kg	0.300	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/kg	0.300	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/kg	0.300	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/kg	0.300	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/kg	0.300	1.00
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.00	ug/kg	1.60	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated Units	Fit	Qual
	No Tentatively Identified Compounds Found		ug/kg		

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/121809v1/1r508BA.d
Lab Smp Id: 1201999839 Client Smp ID: BLANK
Inj Date : 18-DEC-2009 14:12
Operator : RXM4 Inst ID: VOA1.i
Smp Info : |1201999839|934726|1|VOAF|1|
Misc Info : GEL 5G N/A
Comment :
Method : /chem/VOA1.i/121809v1/VOA1-8260ox-121709.m
Meth Date : 19-Dec-2009 14:24 ron01469 Quant Type: ISTD
Cal Date : 17-DEC-2009 21:57 Cal File: 1r426.d
Als bottle: 8 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	0.00000	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
$ 48 1,2-Dichloroethane-d4	65	13.332	13.341	(0.975)	568457	52.6222	52.6
* 52 Fluorobenzene	96	13.677	13.682	(1.000)	891540	50.0000	
$ 65 Toluene-d8	98	15.514	15.518	(0.904)	1832273	51.8939	51.9
* 76 Chlorobenzene-d5	117	17.157	17.162	(1.000)	618261	50.0000	
$ 87 Bromofluorobenzene	95	18.386	18.386	(0.938)	687744	51.1518	51.2
* 102 1,4-Dichlorobenzene-d4	152	19.611	19.610	(1.000)	327113	50.0000	
109 1,2,4-Trichlorobenzene	180	22.018	22.022	(1.123)	5723	0.71502	0.72(a)
111 Naphthalene	128	22.437	22.437	(1.144)	15726	3.24378	3.2
112 1,2,3-Trichlorobenzene	180	22.787	22.786	(1.162)	8619	1.44113	1.4

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/121809v1/1r508BA.d
Lab Smp Id: 1201999839 Client Smp ID: BLANK
Inj Date : 18-DEC-2009 14:12
Operator : RXM4 Inst ID: VOA1.i
Smp Info : |1201999839|934726|1|VOAF|1|
Misc Info : GEL 5G N/A
Comment :
Method : /chem/VOA1.i/121809v1/VOA1-8260ox-121709.m
Meth Date : 19-Dec-2009 14:24 ron01469 Quant Type: ISTD
Cal Date : 17-DEC-2009 21:57 Cal File: 1r426.d
Als bottle: 8 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50
Processing Host: prdsvr07

- NO TENTATIVELY IDENTIFIED COMPOUNDS -

Data File: /chem/VOA1.i/121809v1/1r508BA.d
Date : 18-DEC-2009 14:12
Client ID: BLANK
Sample Info: |1201999839|934726|1|VOAF|1|

Column phase: RTX-Volatiles

Instrument: VOA1.i

Operator: RXM4
Column diameter: 0.25

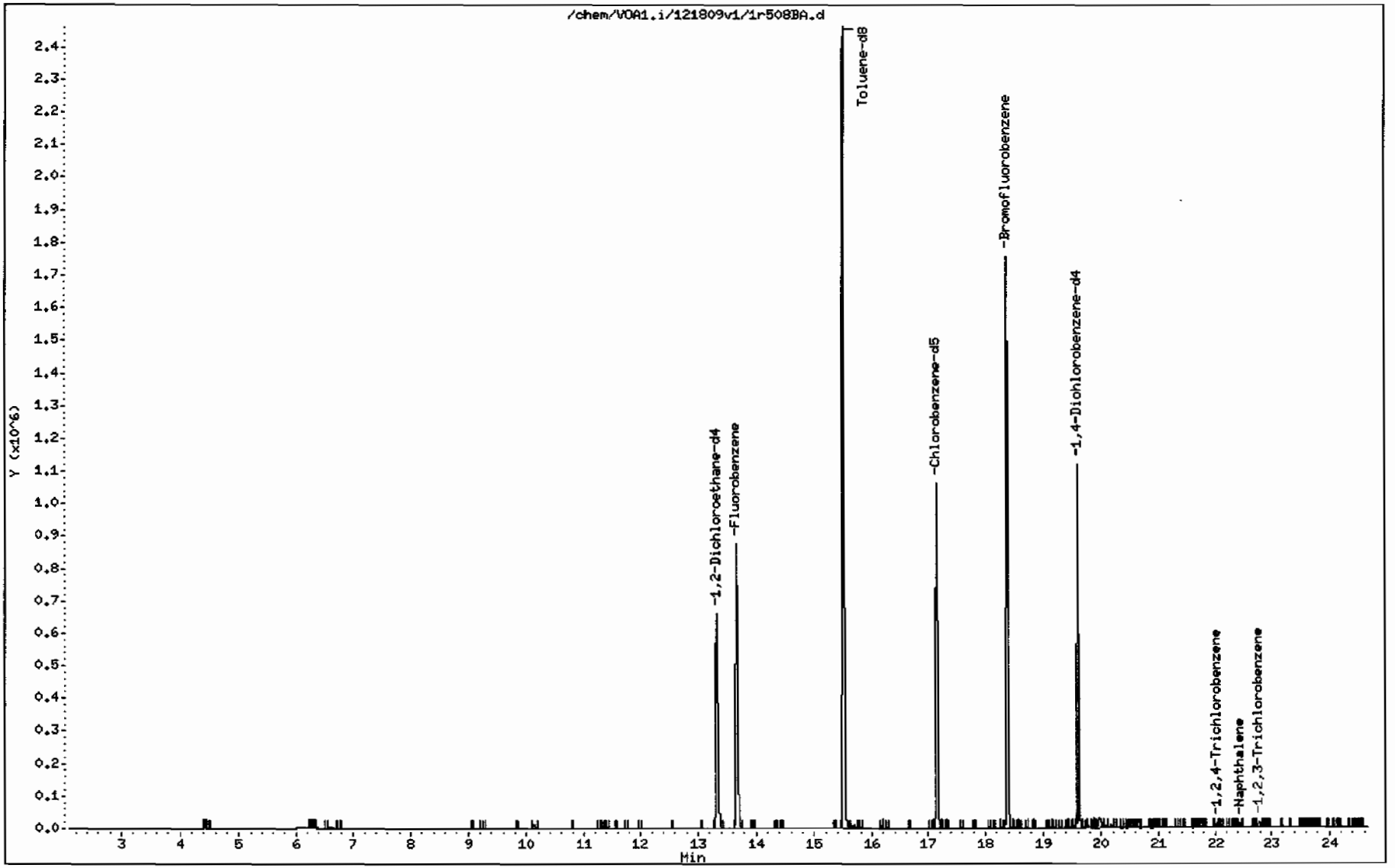

Data File: /chem/VOA1.i/121809v1/1r508BA.d

Date : 18-DEC-2009 14:12

Client ID: BLANK

Instrument: VOA1.i

Sample Info: |12019998391934726|1|VOAF|1|

Operator: RXM4

Column phase: RTX-Volatiles

Column diameter: 0.25

109 1,2,4-Trichlorobenzene

Concentration: 0.72 ug/Kg

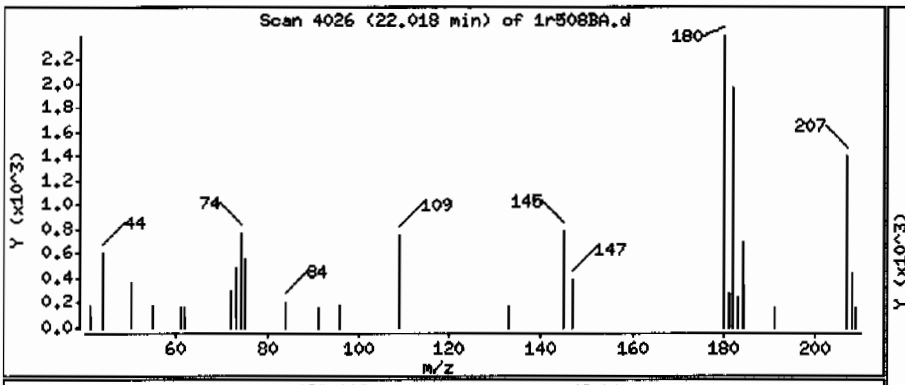

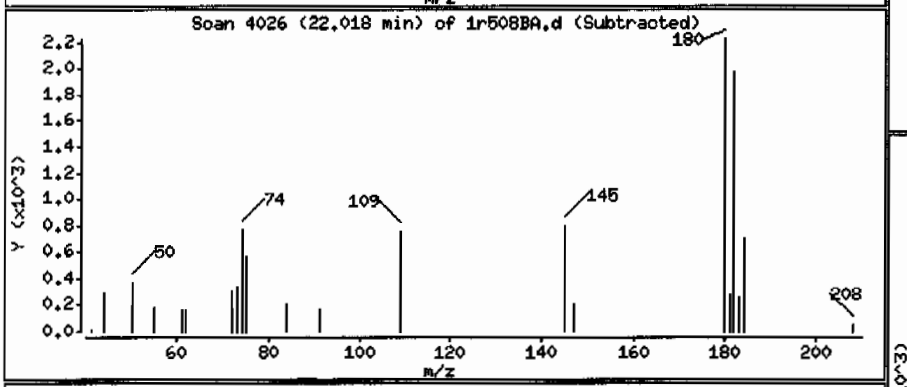

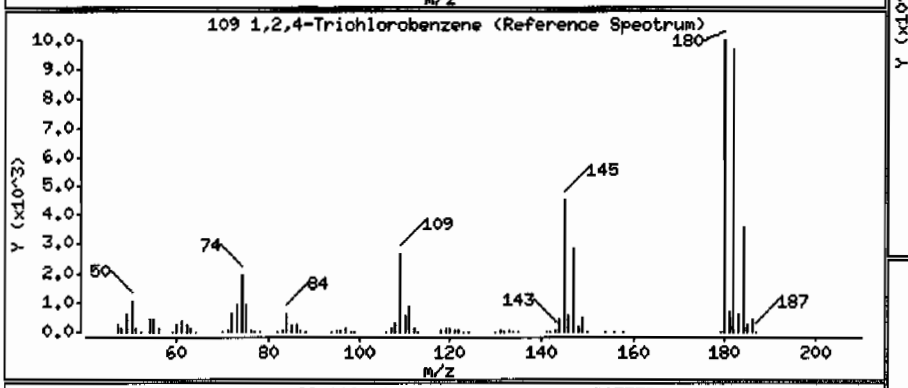

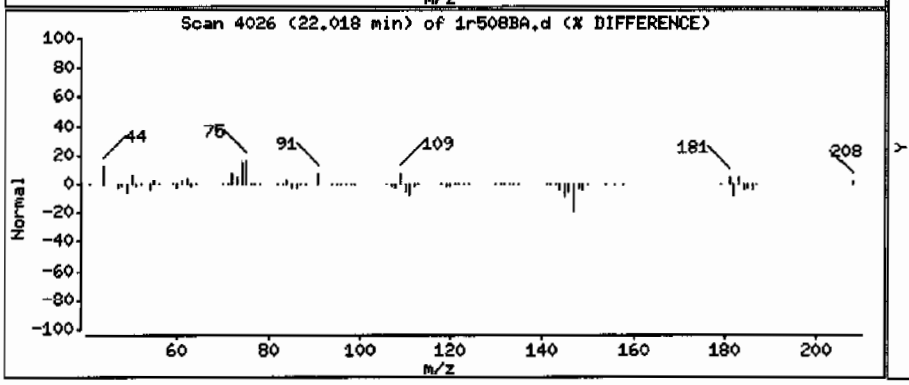

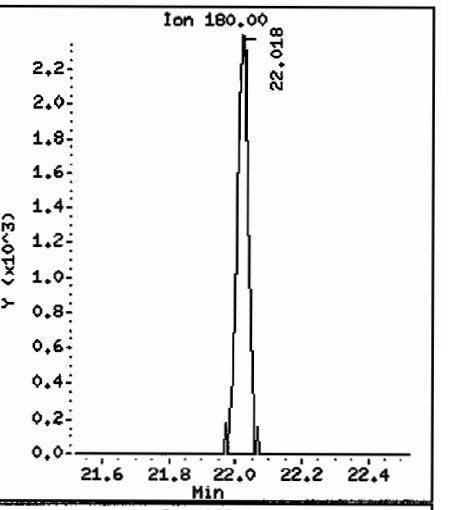

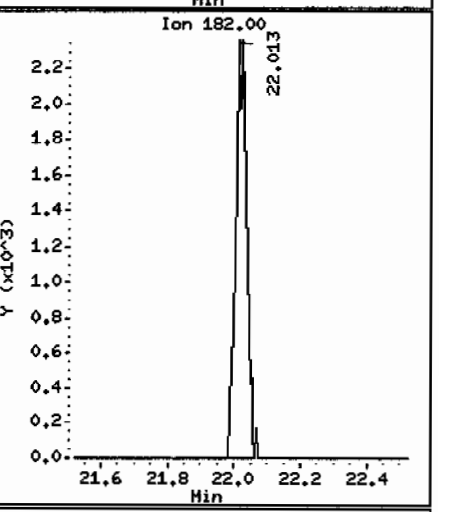

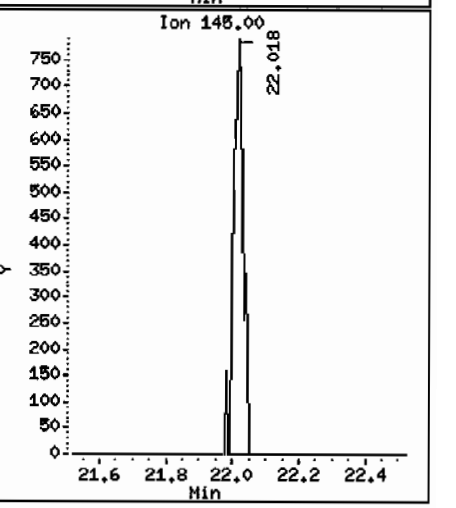

Data File: /chem/VOA1.i/121809v1/1r508BA.d

Page 3

Date : 18-DEC-2009 14:12

Client ID: BLANK

Instrument: VOA1.i

Sample Info: |120199983919347261|VOAF|1|

Operator: RXM4

Column phase: RTX-Volatiles

Column diameter: 0.25

111 Naphthalene

Concentration: 3.2 ug/Kg

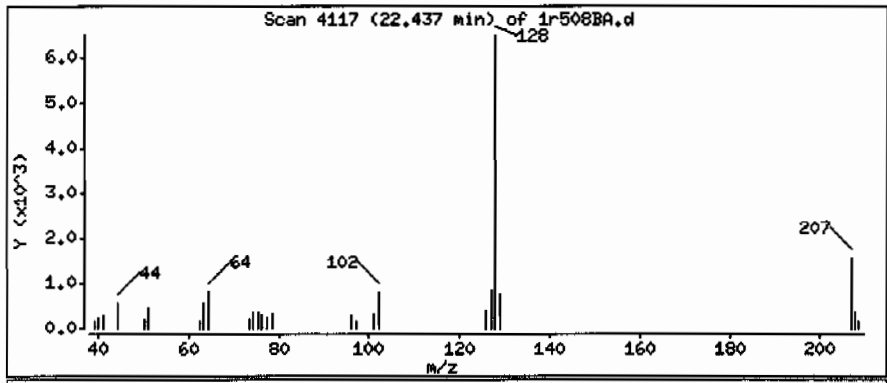

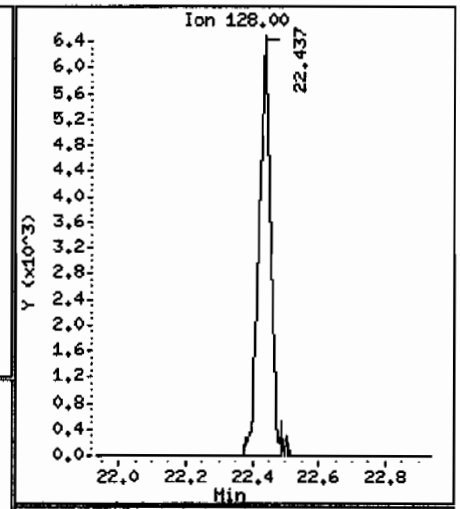

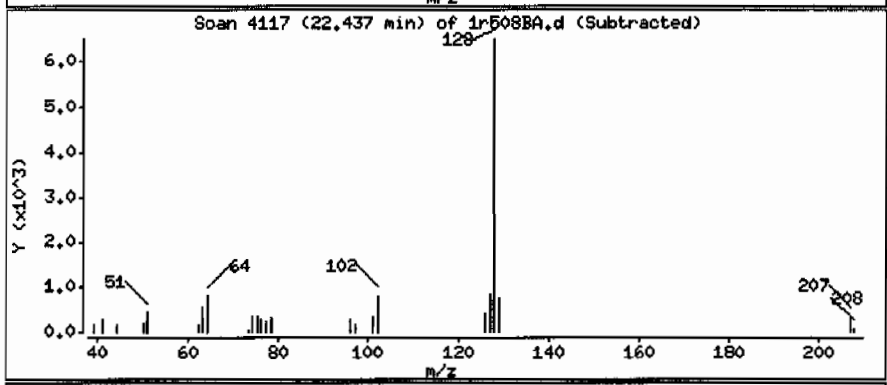

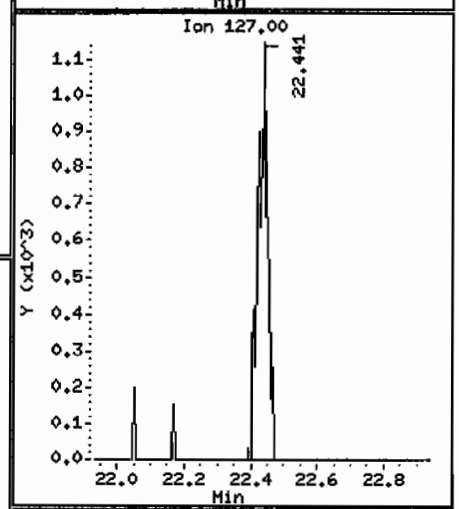

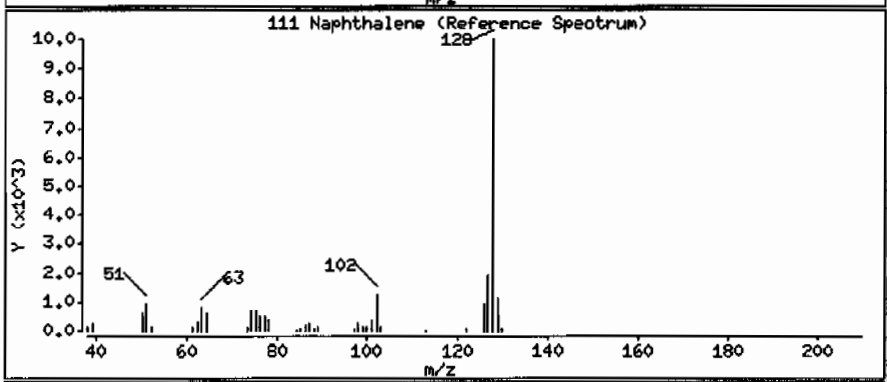

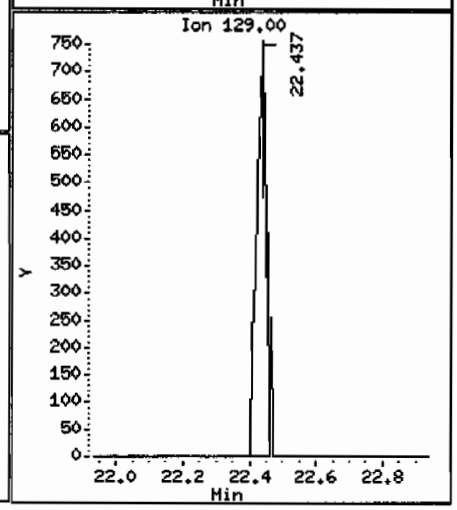

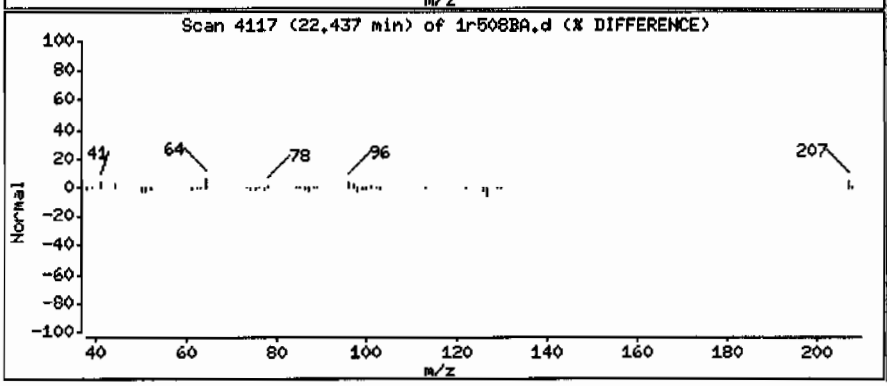

Data File: /chem/VOA1.i/121809v1/1r508BA.d

Date : 18-DEC-2009 14:12

Client ID: BLANK

Instrument: VOA1.i

Sample Info: |120199983919347261|1|VOAF|1|

Operator: RXM4

Column phase: RTX-Volatiles

Column diameter: 0.25

112 1,2,3-Trichlorobenzene

Concentration: 1.4 ug/Kg

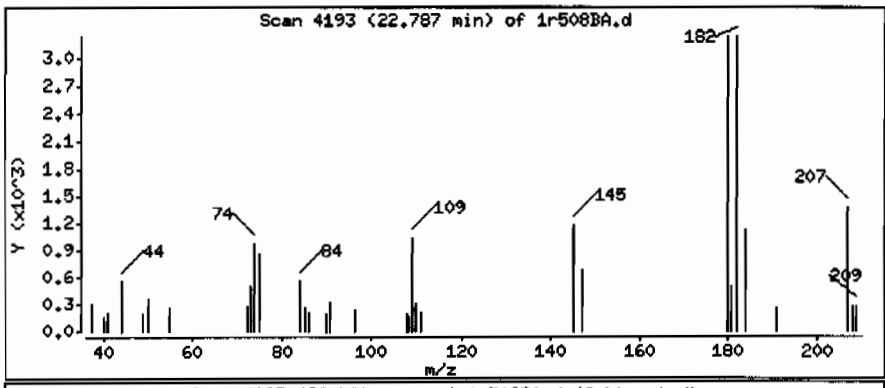

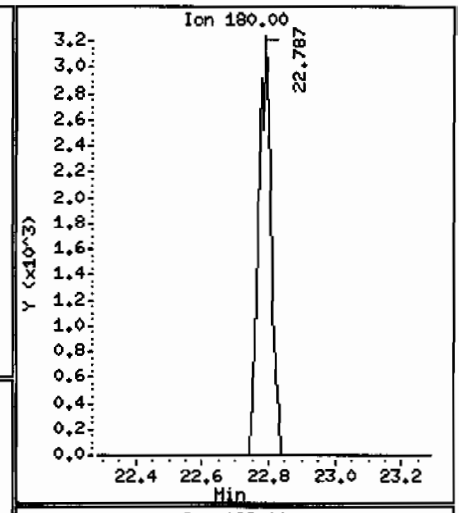

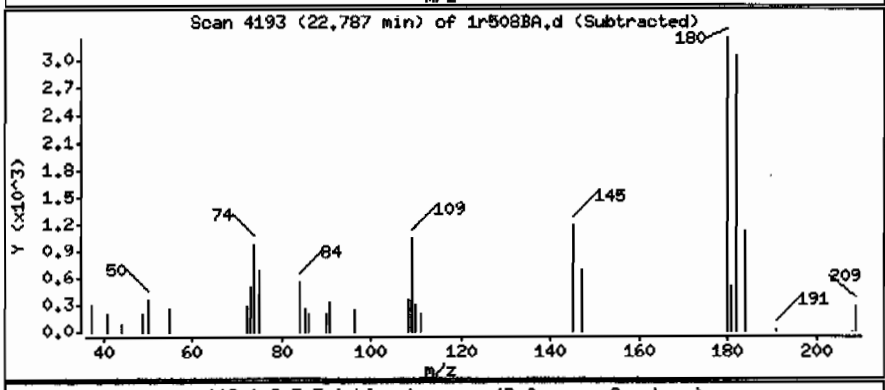

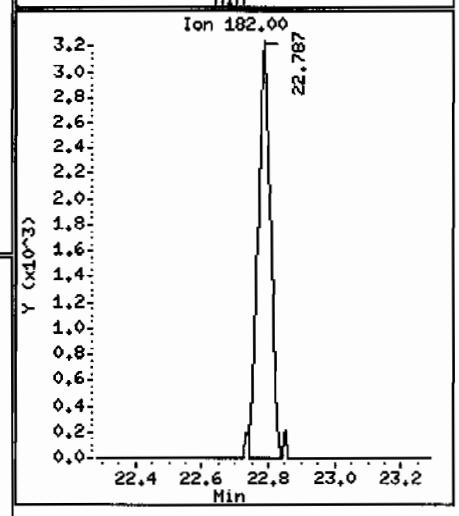

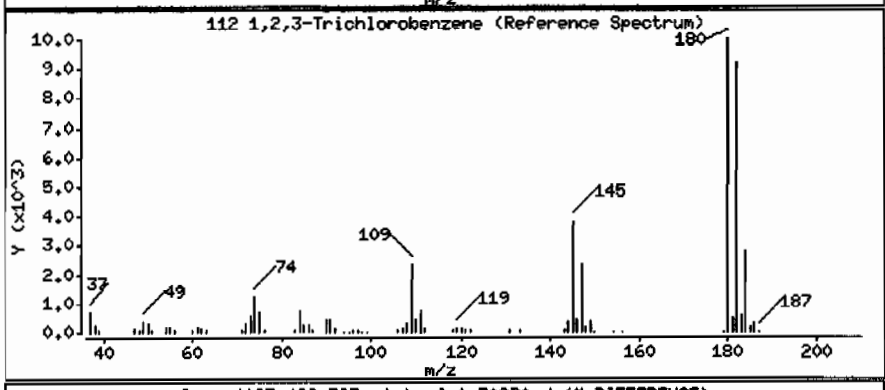

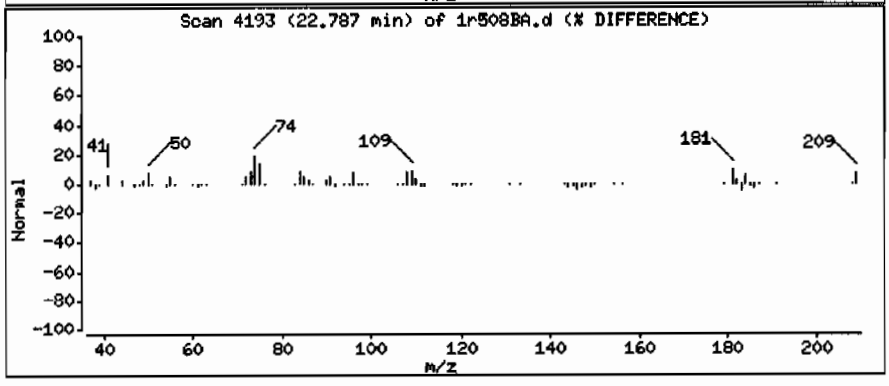

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-886			**Matrix:**	SOIL
Lab Sample ID:	1201999842				
Client Sample:	QC for batch 934721	**Client:**	LANL010	**Project:**	QC
Client ID:	LCS for batch 934721	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	934726	**Inst:**	VOA1.I	**Dilution:**	1
Run Date:	12/18/2009 10:23	**Analyst:**	RXM4	**Purge Vol:**	5 mL
Prep Date:	12/18/2009 08:01	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	1r503LA.d	**Column:**	RTX-Volatiles	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane		41.2	ug/kg	0.340	1.00
74-87-3	Chloromethane		41.1	ug/kg	0.300	1.00
75-01-4	Vinyl chloride		43.4	ug/kg	0.300	1.00
74-83-9	Bromomethane		42.1	ug/kg	0.300	1.00
75-00-3	Chloroethane		45.5	ug/kg	0.300	1.00
75-69-4	Trichlorofluoromethane		51.3	ug/kg	0.300	1.00
67-64-1	Acetone		218	ug/kg	1.66	5.00
75-35-4	1,1-Dichloroethylene		45.4	ug/kg	0.300	1.00
74-88-4	Iodomethane		211	ug/kg	1.60	5.00
75-09-2	Methylene chloride		41.1	ug/kg	2.00	5.00
75-15-0	Carbon disulfide		240	ug/kg	1.25	5.00
156-60-5	trans-1,2-Dichloroethylene		45.5	ug/kg	0.300	1.00
75-34-3	1,1-Dichloroethane		44.8	ug/kg	0.300	1.00
78-93-3	2-Butanone		218	ug/kg	1.50	5.00
156-59-2	cis-1,2-Dichloroethylene		45.2	ug/kg	0.300	1.00
594-20-7	2,2-Dichloropropane		53.5	ug/kg	0.300	1.00
67-66-3	Chloroform		45.9	ug/kg	0.300	1.00
74-97-5	Bromochloromethane		44.0	ug/kg	0.330	1.00
71-55-6	1,1,1-Trichloroethane		50.0	ug/kg	0.300	1.00
563-58-6	1,1-Dichloropropene		51.0	ug/kg	0.300	1.00
56-23-5	Carbon tetrachloride		51.0	ug/kg	0.300	1.00
107-06-2	1,2-Dichloroethane		44.1	ug/kg	0.300	1.00
71-43-2	Benzene		47.2	ug/kg	0.300	1.00
79-01-6	Trichloroethylene		46.7	ug/kg	0.330	1.00
78-87-5	1,2-Dichloropropane		46.3	ug/kg	0.300	1.00
75-27-4	Bromodichloromethane		47.1	ug/kg	0.300	1.00
74-95-3	Dibromomethane		43.9	ug/kg	0.300	1.00
108-10-1	4-Methyl-2-pentanone		237	ug/kg	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene		49.4	ug/kg	0.300	1.00
108-88-3	Toluene		45.9	ug/kg	0.300	1.00
10061-02-6	trans-1,3-Dichloropropylene		50.2	ug/kg	0.300	1.00
79-00-5	1,1,2-Trichloroethane		45.5	ug/kg	0.300	1.00
591-78-6	2-Hexanone		219	ug/kg	1.50	5.00
142-28-9	1,3-Dichloropropane		44.5	ug/kg	0.300	1.00
127-18-4	Tetrachloroethylene		45.8	ug/kg	0.300	1.00
124-48-1	Dibromochloromethane		46.2	ug/kg	0.300	1.00
106-93-4	1,2-Dibromoethane		46.2	ug/kg	0.300	1.00
108-90-7	Chlorobenzene		45.6	ug/kg	0.300	1.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-886**			**Matrix:**	**SOIL**
Lab Sample ID:	**1201999842**				
Client Sample:	**QC for batch 934721**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 934721**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**934726**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**12/18/2009 10:23**	**Analyst:**	**RXM4**	**Purge Vol:**	**5 mL**
Prep Date:	**12/18/2009 08:01**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1r503LA.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene		47.3	ug/kg	0.300	1.00
179601-23-1	m,p-Xylenes		93.2	ug/kg	0.300	2.00
95-47-6	o-Xylene		46.7	ug/kg	0.300	1.00
100-42-5	Styrene		47.6	ug/kg	0.300	1.00
75-25-2	Bromoform		42.8	ug/kg	0.300	1.00
79-34-5	1,1,2,2-Tetrachloroethane		48.6	ug/kg	0.300	1.00
96-18-4	1,2,3-Trichloropropane		46.7	ug/kg	0.300	1.00
108-86-1	Bromobenzene		46.1	ug/kg	0.300	1.00
103-65-1	n-Propylbenzene		48.5	ug/kg	0.300	1.00
95-49-8	2-Chlorotoluene		47.5	ug/kg	0.300	1.00
98-82-8	Isopropylbenzene		48.7	ug/kg	0.300	1.00
108-67-8	1,3,5-Trimethylbenzene		47.8	ug/kg	0.300	1.00
106-43-4	4-Chlorotoluene		47.5	ug/kg	0.300	1.00
98-06-6	tert-Butylbenzene		45.3	ug/kg	0.300	1.00
95-63-6	1,2,4-Trimethylbenzene		45.7	ug/kg	0.300	1.00
135-98-8	sec-Butylbenzene		45.1	ug/kg	0.300	1.00
99-87-6	4-Isopropyltoluene		45.1	ug/kg	0.300	1.00
541-73-1	1,3-Dichlorobenzene		44.4	ug/kg	0.300	1.00
106-46-7	1,4-Dichlorobenzene		44.9	ug/kg	0.300	1.00
104-51-8	n-Butylbenzene		46.0	ug/kg	0.300	1.00
96-12-8	1,2-Dibromo-3-chloropropane		42.6	ug/kg	0.300	1.00
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.00	ug/kg	1.60	5.00
630-20-6	1,1,1,2-Tetrachloroethane		46.5	ug/kg	0.300	1.00
95-50-1	1,2-Dichlorobenzene		44.5	ug/kg	0.300	1.00

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/121809v1/1r503LA.d
Lab Smp Id: 1201999842 Client Smp ID: LCS
Inj Date : 18-DEC-2009 10:23
Operator : RXM4 Inst ID: VOA1.i
Smp Info : |1201999842|934726|1|VOAF|1|
Misc Info : GEL 5G N/A UVM091214-01A/IVM091217-01
Comment :
Method : /chem/VOA1.i/121809v1/VOA1-8260ox-121709.m
Meth Date : 19-Dec-2009 14:24 ron01469 Quant Type: ISTD
Cal Date : 17-DEC-2009 21:57 Cal File: 1r426.d
Als bottle: 3 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	0.00000	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
M 1 Xylenes (total)	106				2033991	139.955	140
M 2 1,2-Dichloroethylene (total)	96				745676	90.7519	90.8
M 3 1,3-Dichloropropylene	75				1265070	99.6395	99.6
5 Dichlorodifluoromethane	85	5.005	5.005	(0.366)	234876	41.2447	41.2
6 Chloromethane	50	5.564	5.564	(0.407)	430585	41.0838	41.1
7 Vinyl chloride	62	5.937	5.937	(0.434)	378054	43.3827	43.4
9 Bromomethane	96	6.961	6.961	(0.509)	239237	42.0794	42.1
10 Chloroethane	64	7.219	7.219	(0.528)	277223	45.5367	45.5
11 Trichlorofluoromethane	101	7.850	7.850	(0.574)	463405	51.3224	51.3
12 Ethyl Ether	59	8.480	8.480	(0.620)	328771	43.6025	43.6
15 1,1-Dichloroethylene	61	9.097	9.097	(0.665)	639818	45.3500	45.4
16 Acetone	43	9.258	9.258	(0.677)	1328850	217.843	218

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
	18 Iodomethane	142	9.474	9.474	(0.692)	2355119	210.660	211
	19 Carbon disulfide	76	9.580	9.580	(0.700)	5513665	240.198	240
	21 Methyl acetate	43	9.838	9.838	(0.719)	1291141	221.661	222
	22 Acetonitrile	41	9.976	9.976	(0.729)	1059568	1054.24	1050
	23 Methylene chloride	84	10.142	10.142	(0.741)	377610	41.1017	41.1
	25 tert-Butyl methyl ether	73	10.446	10.446	(0.763)	1030559	45.5471	45.5
	26 trans-1,2-Dichloroethylene	96	10.547	10.547	(0.771)	356473	45.5493	45.5
	29 Vinyl acetate	43	11.297	11.297	(0.826)	3603080	258.835	259
	30 1,1-Dichloroethane	63	11.329	11.329	(0.828)	704979	44.8484	44.8
	33 2,2-Dichloropropane	77	12.163	12.163	(0.889)	490575	53.4851	53.5
	35 2-Butanone	43	12.186	12.186	(0.891)	1487935	217.985	218
	36 cis-1,2-Dichloroethylene	96	12.204	12.204	(0.892)	389203	45.2026	45.2
	39 Bromochloromethane	128	12.559	12.559	(0.918)	162953	43.9767	44.0
	41 Chloroform	83	12.614	12.614	(0.922)	702114	45.8589	45.8
	42 Cyclohexane	56	12.839	12.839	(0.938)	742123	49.9606	50.0
	43 1,1,1-Trichloroethane	97	12.844	12.844	(0.939)	510433	49.9504	50.0
	44 Carbon tetrachloride	117	13.023	13.023	(0.952)	515395	51.0052	51.0
	45 1,1-Dichloropropene	75	13.051	13.051	(0.954)	571602	50.9922	51.0
	47 Benzene	78	13.332	13.332	(0.974)	1543105	47.1613	47.2
$	48 1,2-Dichloroethane-d4	65	13.341	13.341	(0.975)	609801	49.9108	49.9
	50 Cyclohexene	54	13.396	13.396	(0.979)	558217	48.5284	48.5
	51 1,2-Dichloroethane	62	13.442	13.442	(0.982)	534111	44.1049	44.1
*	52 Fluorobenzene	96	13.682	13.682	(1.000)	1008338	50.0000	
	53 n-Butyl alcohol	56	13.930	13.930	(1.018)	1138467	4677.91	4680
	54 Trichloroethylene	95	14.114	14.114	(1.032)	391261	46.7126	46.7
	55 Methylcyclohexane	83	14.285	14.285	(1.044)	646997	47.2578	47.2
	57 1,2-Dichloropropane	63	14.455	14.455	(1.057)	415371	46.2652	46.3
	59 Dibromomethane	93	14.621	14.621	(1.069)	222341	43.9382	43.9
	60 Bromodichloromethane	83	14.750	14.750	(1.078)	531314	47.1063	47.1
	61 2-Chloroethylvinyl ether	63	15.030	15.030	(1.099)	479869	497.512	498(AR)
	63 cis-1,3-Dichloropropylene	75	15.256	15.256	(1.115)	650730	49.4020	49.4
	64 4-Methyl-2-pentanone	58	15.357	15.357	(0.895)	835394	236.671	237
$	65 Toluene-d8	98	15.518	15.518	(0.904)	1905179	46.1708	46.2
	66 Toluene	92	15.597	15.597	(0.909)	964972	45.9140	45.9
	68 trans-1,3-Dichloropropylene	75	15.877	15.877	(0.925)	614340	50.2375	50.2
	69 1,1,2-Trichloroethane	83	16.103	16.103	(0.938)	273511	45.4671	45.5
	70 Tetrachloroethylene	164	16.190	16.190	(0.943)	293439	45.8081	45.8
	71 2-Hexanone	43	16.269	16.269	(0.948)	1971349	218.858	219
	72 1,3-Dichloropropane	76	16.305	16.305	(0.950)	567697	44.4515	44.4
	73 Dibromochloromethane	129	16.549	16.549	(0.964)	348634	46.1653	46.2
	74 1,2-Dibromoethane	107	16.729	16.729	(0.975)	313553	46.2207	46.2
*	76 Chlorobenzene-d5	117	17.162	17.162	(1.000)	722547	50.0000	
	77 Chlorobenzene	112	17.194	17.194	(1.002)	1002044	45.6313	45.6
	78 Ethylbenzene	91	17.217	17.217	(1.003)	1906968	47.3438	47.3
	79 1,1,1,2-Tetrachloroethane	131	17.258	17.258	(1.006)	340732	46.4643	46.5
	80 m,p-Xylenes	106	17.336	17.336	(1.010)	1366484	93.2276	93.2
	81 o-Xylene	106	17.783	17.783	(1.036)	667507	46.7277	46.7

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
82 Styrene	104	17.801	17.801	(1.037)	1144602	47.6238	47.6
83 Bromoform	173	18.105	18.105	(0.923)	227256	42.8226	42.8
84 Isopropylbenzene	105	18.128	18.128	(0.924)	1814869	48.7259	48.7
$ 87 Bromofluorobenzene	95	18.386	18.386	(0.938)	735502	47.3814	47.4
88 1,1,2,2-Tetrachloroethane	83	18.506	18.506	(0.944)	436082	48.5954	48.6
89 n-Propylbenzene	91	18.556	18.556	(0.946)	2247630	48.4992	48.5
91 Bromobenzene	156	18.593	18.593	(0.948)	410215	46.1467	46.1
92 1,2,3-Trichloropropane	110	18.602	18.602	(0.949)	108362	46.6566	46.6
93 1,3,5-Trimethylbenzene	105	18.717	18.717	(0.954)	1545656	47.7677	47.8
94 2-Chlorotoluene	91	18.740	18.740	(0.956)	1534141	47.5443	47.5
95 4-Chlorotoluene	91	18.855	18.855	(0.962)	1388619	47.5035	47.5
96 tert-Butylbenzene	119	19.076	19.076	(0.973)	1202807	45.3072	45.3
97 1,2,4-Trimethylbenzene	105	19.136	19.136	(0.976)	1528790	45.7470	45.7
99 sec-Butylbenzene	105	19.302	19.302	(0.984)	1919395	45.1216	45.1
100 4-Isopropyltoluene	119	19.422	19.422	(0.990)	1453847	45.0677	45.1
101 1,3-Dichlorobenzene	146	19.541	19.541	(0.996)	767420	44.4226	44.4
* 102 1,4-Dichlorobenzene-d4	152	19.610	19.610	(1.000)	377666	50.0000	
103 1,4-Dichlorobenzene	146	19.638	19.638	(1.001)	790252	44.8786	44.9
105 n-Butylbenzene	91	19.868	19.868	(1.013)	1570565	45.9979	46.0
106 1,2-Dichlorobenzene	146	20.075	20.075	(1.024)	730290	44.4881	44.5
108 1,2-Dibromo-3-chloropropane	157	21.000	21.000	(1.071)	69514	42.6368	42.6
109 1,2,4-Trichlorobenzene	180	22.022	22.022	(1.123)	377985	40.9035	40.9
110 Hexachlorobutadiene	225	22.105	22.105	(1.127)	219730	35.5559	35.6
111 Naphthalene	128	22.437	22.437	(1.144)	787718	39.7305	39.7
112 1,2,3-Trichlorobenzene	180	22.786	22.786	(1.162)	309038	44.7558	44.8

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
R - Spike/Surrogate failed recovery limits.

Data File: /chem/VOA1.i/121809v1/1r503LA.d
Date : 18-DEC-2009 10:23
Client ID: LCS
Sample Info: 1120199984219347261|1|VO6F|1|
Column phase: RTX-Volatiles

Instrument: VOA1.i
Operator: RXH4
Column diameter: 0.25

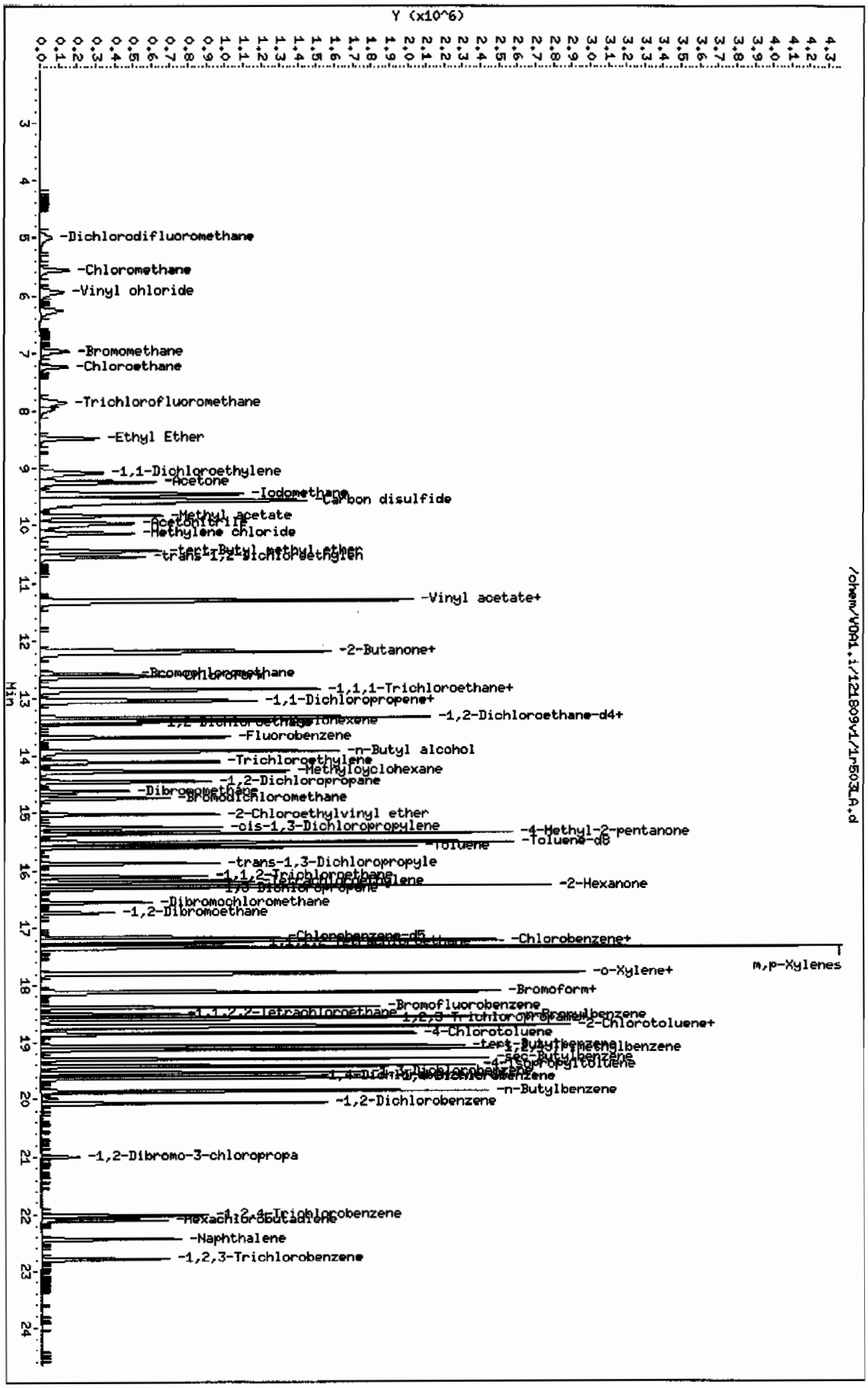

Page 1

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-886**			**Matrix:**	**SOIL**
Lab Sample ID:	**1201999843**				
Client Sample:	**QC for batch 934721**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 934721**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**934726**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**12/18/2009 11:28**	**Analyst:**	**RXM4**	**Purge Vol:**	**5 mL**
Prep Date:	**12/18/2009 08:02**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1r505sLA.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/kg	0.340	1.00
74-87-3	Chloromethane	U	1.00	ug/kg	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/kg	0.300	1.00
74-83-9	Bromomethane	U	1.00	ug/kg	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/kg	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/kg	0.300	1.00
67-64-1	Acetone	U	5.00	ug/kg	1.66	5.00
75-35-4	1,1-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/kg	1.60	5.00
75-09-2	Methylene chloride	U	5.00	ug/kg	2.00	5.00
75-15-0	Carbon disulfide	U	5.00	ug/kg	1.25	5.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/kg	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/kg	1.50	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/kg	0.300	1.00
74-97-5	Bromochloromethane	U	1.00	ug/kg	0.330	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/kg	0.300	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/kg	0.300	1.00
56-23-5	Carbon tetrachloride	U	1.00	ug/kg	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/kg	0.300	1.00
71-43-2	Benzene	U	1.00	ug/kg	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/kg	0.330	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/kg	0.300	1.00
74-95-3	Dibromomethane	U	1.00	ug/kg	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/kg	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
108-88-3	Toluene	U	1.00	ug/kg	0.300	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/kg	0.300	1.00
591-78-6	2-Hexanone	U	5.00	ug/kg	1.50	5.00
142-28-9	1,3-Dichloropropane	U	1.00	ug/kg	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/kg	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/kg	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/kg	0.300	1.00
108-90-7	Chlorobenzene	U	1.00	ug/kg	0.300	1.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-886			**Matrix:**	SOIL
Lab Sample ID:	1201999843				
Client Sample:	QC for batch 934721	**Client:**	LANL010	**Project:**	QC
Client ID:	LCS for batch 934721	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	934726	**Inst:**	VOA1.I	**Dilution:**	1
Run Date:	12/18/2009 11:28	**Analyst:**	RXM4	**Purge Vol:**	5 mL
Prep Date:	12/18/2009 08:02	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	1r505sLA.d	**Column:**	RTX-Volatiles	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.00	ug/kg	0.300	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/kg	0.300	2.00
95-47-6	o-Xylene	U	1.00	ug/kg	0.300	1.00
100-42-5	Styrene	U	1.00	ug/kg	0.300	1.00
75-25-2	Bromoform	U	1.00	ug/kg	0.300	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/kg	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/kg	0.300	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/kg	0.300	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/kg	0.300	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/kg	0.300	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/kg	0.300	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/kg	0.300	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/kg	0.300	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/kg	0.300	1.00
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*		326	ug/kg	1.60	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/121809v1/1r505sLA.d
Lab Smp Id: 1201999843 Client Smp ID: LCS
Inj Date : 18-DEC-2009 11:28
Operator : RXM4 Inst ID: VOA1.i
Smp Info : |1201999843|934726|1|VOAF|1|
Misc Info : GEL 5G N/A UVM091118-08C/UVM091105-02E
Comment :
Method : /chem/VOA1.i/121809v1/VOA1-8260ox-121709.m
Meth Date : 19-Dec-2009 14:24 ron01469 Quant Type: ISTD
Cal Date : 17-DEC-2009 21:57 Cal File: 1r426.d
Als bottle: 5 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	0.00000	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
4 Chlorotrifluoroethylene	116	4.897	4.897	(0.358)	586711	143.836	144
8 2-Chloro-1,1,1-trifluoroethane	118	6.308	6.308	(0.461)	1322854	160.032	160
13 Acrolein	56	8.959	8.959	(0.655)	416676	321.880	322
14 Trichlorotrifluoroethane	101	8.991	8.991	(0.657)	1759865	325.993	326
17 Isopropyl Alcohol	45	9.452	9.452	(0.691)	1341790	2818.75	2820
20 Allyl chloride	76	9.857	9.857	(0.720)	867454	275.287	275
24 tert-Butyl Alcohol	59	10.202	10.202	(0.745)	2286691	2911.21	2910
27 Acrylonitrile	53	10.676	10.676	(0.780)	754404	289.627	290
28 Isopropyl ether	45	11.201	11.201	(0.818)	1415653	48.7409	48.7
31 2-Chloro-1,3-butadiene	53	11.399	11.399	(0.833)	717209	65.8905	65.9
32 Ethyl tert-butyl ether	59	11.758	11.758	(0.859)	1328925	50.0052	50.0
34 Ethyl acetate	43	12.167	12.167	(0.889)	1739145	262.408	262

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
37 Propionitrile	54	12.407	12.407	(0.906)	289154	285.038	285
38 Tetrahydrofuran	42	12.540	12.540	(0.639)	610243	288.286	288
40 Methacrylonitrile	41	12.563	12.563	(0.918)	1408021	271.726	272
46 Isobutyl alcohol	41	13.111	13.111	(0.958)	641893	2815.85	2820
$ 48 1,2-Dichloroethane-d4	65	13.341	13.341	(0.975)	576460	52.2843	52.3
49 Methyl tert-amyl ether	73	13.350	13.350	(0.975)	1143061	51.1514	51.2
* 52 Fluorobenzene	96	13.686	13.682	(1.000)	909934	50.0000	
56 Methyl methacrylate	69	14.441	14.441	(1.055)	1322269	296.114	296
58 1,4-Dioxane	88	14.547	14.547	(1.063)	184785	2891.36	2890
62 2-Nitropropane	43	15.081	15.081	(1.102)	552605	272.097	272
$ 65 Toluene-d8	98	15.518	15.518	(0.904)	1889584	52.2358	52.2
67 Ethyl methacrylate	69	15.813	15.813	(0.921)	2540509	291.738	292
75 1-Chlorohexane	55	17.028	17.028	(1.244)	450728	50.0660	50.1
* 76 Chlorobenzene-d5	117	17.162	17.162	(1.000)	633426	50.0000	
85 cis-1,4-Dichloro-2-butene	53	18.276	18.276	(0.932)	823273	327.162	327
86 Cyclohexanone	55	18.386	18.386	(1.071)	745450	807.986	808
$ 87 Bromofluorobenzene	95	18.386	18.386	(0.938)	722525	52.9373	52.9
90 trans-1,4-Dichloro-2-butene	53	18.566	18.566	(0.947)	762122	322.638	323
98 Pentachloroethane	167	19.196	19.196	(0.979)	1065740	381.970	382(AR)
* 102 1,4-Dichlorobenzene-d4	152	19.611	19.610	(1.000)	332065	50.0000	
104 Benzyl chloride	91	19.772	19.772	(1.008)	4535162	349.048	349
107 bis(2-Chloroisopropyl)ether	45	20.163	20.163	(1.028)	954328	313.960	314

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
R - Spike/Surrogate failed recovery limits.

Data File: /chem/VOA1.i/121809v1/1r505sLA.d
Date : 18-DEC-2009 11:28
Client ID: LCS
Sample Info: !120199984319347261!1!VOAF!1!
Column phase: RTX-Volatiles

Instrument: VOA1.i
Operator: RXM4
Column diameter: 0.25

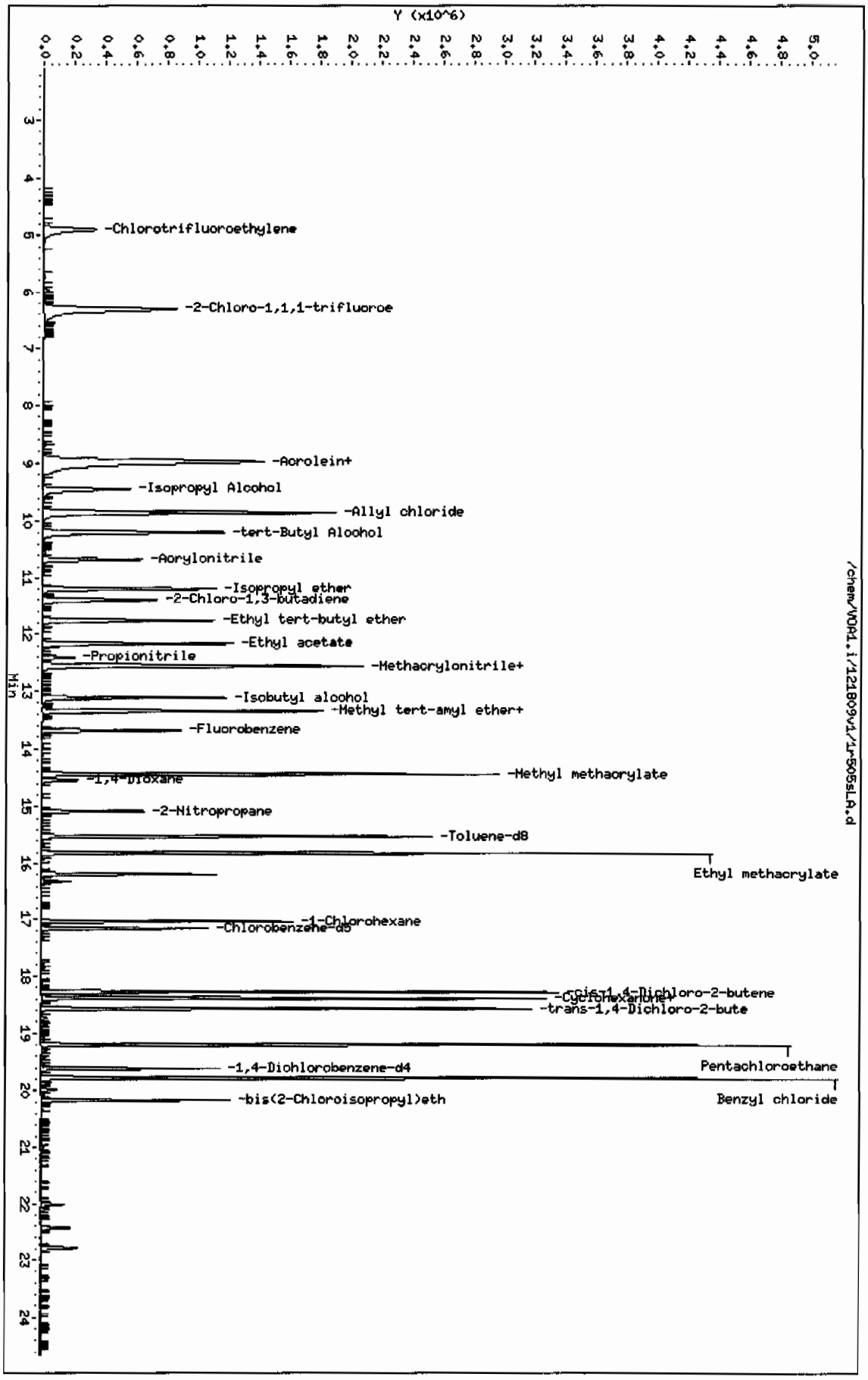

Page 1

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-886	Date Collected:	12/09/2009 12:00	Matrix:	S
Lab Sample ID:	1201999840	Date Received:	12/11/2009 08:50	%Moisture:	3.9
Client Sample:	QC for batch 934721	Client:	LANL010	Project:	QC
Client ID:	RE03-09-13467PS	Method:	SW846 8260B	SOP Ref:	GL-OA-E-038
Batch ID:	934726	Inst:	VOA1.I	Dilution:	1
Run Date:	12/18/2009 20:18	Analyst:	RXM4	Purge Vol:	5 mL
Prep Date:	12/18/2009 12:16	Aliquot:	5 g	Final Volume:	5 mL
Data File:	1r520.d	Column:	RTX-Volatiles	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane		39.1	ug/kg	0.354	1.04
74-87-3	Chloromethane		41.2	ug/kg	0.312	1.04
75-01-4	Vinyl chloride		40.9	ug/kg	0.312	1.04
74-83-9	Bromomethane		42.2	ug/kg	0.312	1.04
75-00-3	Chloroethane		44.2	ug/kg	0.312	1.04
75-69-4	Trichlorofluoromethane		50.1	ug/kg	0.312	1.04
67-64-1	Acetone		203	ug/kg	1.73	5.20
75-35-4	1,1-Dichloroethylene		44.3	ug/kg	0.312	1.04
74-88-4	Iodomethane		201	ug/kg	1.67	5.20
75-09-2	Methylene chloride		40.1	ug/kg	2.08	5.20
75-15-0	Carbon disulfide		215	ug/kg	1.30	5.20
156-60-5	trans-1,2-Dichloroethylene		42.2	ug/kg	0.312	1.04
75-34-3	1,1-Dichloroethane		44.8	ug/kg	0.312	1.04
78-93-3	2-Butanone		200	ug/kg	1.56	5.20
156-59-2	cis-1,2-Dichloroethylene		42.3	ug/kg	0.312	1.04
594-20-7	2,2-Dichloropropane		48.8	ug/kg	0.312	1.04
67-66-3	Chloroform		45.3	ug/kg	0.312	1.04
74-97-5	Bromochloromethane		42.0	ug/kg	0.343	1.04
71-55-6	1,1,1-Trichloroethane		49.7	ug/kg	0.312	1.04
563-58-6	1,1-Dichloropropene		46.9	ug/kg	0.312	1.04
56-23-5	Carbon tetrachloride		50.7	ug/kg	0.312	1.04
107-06-2	1,2-Dichloroethane		47.7	ug/kg	0.312	1.04
71-43-2	Benzene		43.4	ug/kg	0.312	1.04
79-01-6	Trichloroethylene		43.7	ug/kg	0.343	1.04
78-87-5	1,2-Dichloropropane		43.9	ug/kg	0.312	1.04
75-27-4	Bromodichloromethane		48.1	ug/kg	0.312	1.04
74-95-3	Dibromomethane		43.8	ug/kg	0.312	1.04
108-10-1	4-Methyl-2-pentanone		222	ug/kg	1.30	5.20
10061-01-5	cis-1,3-Dichloropropylene		46.5	ug/kg	0.312	1.04
108-88-3	Toluene		42.3	ug/kg	0.312	1.04
10061-02-6	trans-1,3-Dichloropropylene		49.1	ug/kg	0.312	1.04
79-00-5	1,1,2-Trichloroethane		43.9	ug/kg	0.312	1.04
591-78-6	2-Hexanone		203	ug/kg	1.56	5.20
142-28-9	1,3-Dichloropropane		43.6	ug/kg	0.312	1.04
127-18-4	Tetrachloroethylene		41.9	ug/kg	0.312	1.04
124-48-1	Dibromochloromethane		46.8	ug/kg	0.312	1.04
106-93-4	1,2-Dibromoethane		44.7	ug/kg	0.312	1.04
108-90-7	Chlorobenzene		42.6	ug/kg	0.312	1.04

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-886	**Date Collected:**	12/09/2009 12:00	**Matrix:**	S
Lab Sample ID:	1201999840	**Date Received:**	12/11/2009 08:50	**%Moisture:**	3.9
Client Sample:	QC for batch 934721	**Client:**	LANL010	**Project:**	QC
Client ID:	RE03-09-13467PS	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	934726	**Inst:**	VOA1.I	**Dilution:**	1
Run Date:	12/18/2009 20:18	**Analyst:**	RXM4	**Purge Vol:**	5 mL
Prep Date:	12/18/2009 12:16	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	1r520.d	**Column:**	RTX-Volatiles	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene		44.4	ug/kg	0.312	1.04
179601-23-1	m,p-Xylenes		86.2	ug/kg	0.312	2.08
95-47-6	o-Xylene		43.8	ug/kg	0.312	1.04
100-42-5	Styrene		45.1	ug/kg	0.312	1.04
75-25-2	Bromoform		39.5	ug/kg	0.312	1.04
79-34-5	1,1,2,2-Tetrachloroethane		42.8	ug/kg	0.312	1.04
96-18-4	1,2,3-Trichloropropane		44.1	ug/kg	0.312	1.04
108-86-1	Bromobenzene		40.3	ug/kg	0.312	1.04
103-65-1	n-Propylbenzene		42.2	ug/kg	0.312	1.04
95-49-8	2-Chlorotoluene		42.5	ug/kg	0.312	1.04
98-82-8	Isopropylbenzene		43.1	ug/kg	0.312	1.04
108-67-8	1,3,5-Trimethylbenzene		43.1	ug/kg	0.312	1.04
106-43-4	4-Chlorotoluene		42.2	ug/kg	0.312	1.04
98-06-6	tert-Butylbenzene		41.2	ug/kg	0.312	1.04
95-63-6	1,2,4-Trimethylbenzene		41.9	ug/kg	0.312	1.04
135-98-8	sec-Butylbenzene		42.1	ug/kg	0.312	1.04
99-87-6	4-Isopropyltoluene		41.9	ug/kg	0.312	1.04
541-73-1	1,3-Dichlorobenzene		39.5	ug/kg	0.312	1.04
106-46-7	1,4-Dichlorobenzene		39.3	ug/kg	0.312	1.04
104-51-8	n-Butylbenzene		42.6	ug/kg	0.312	1.04
96-12-8	1,2-Dibromo-3-chloropropane		38.5	ug/kg	0.312	1.04
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.20	ug/kg	1.67	5.20
630-20-6	1,1,1,2-Tetrachloroethane		45.7	ug/kg	0.312	1.04
95-50-1	1,2-Dichlorobenzene		40.2	ug/kg	0.312	1.04

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VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/121809v1/1r520.d
Lab Smp Id: 1201999840 Client Smp ID: RE03-09-13467MS
Inj Date : 18-DEC-2009 20:18
Operator : RXM4 Inst ID: VOA1.i
Smp Info : |1201999840|934726|1|VOAF|1|
Misc Info : LANL 5G N/A MS 242750001
Comment :
Method : /chem/VOA1.i/121809v1/VOA1-8260ox-121709.m
Meth Date : 19-Dec-2009 14:24 ron01469 Quant Type: ISTD
Cal Date : 17-DEC-2009 21:57 Cal File: 1r426.d
Als bottle: 20 QC Sample: MS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-886.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	3.92340	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
* 52 Fluorobenzene	96	13.686	13.682	(1.000)	768389	50.0000	
* 76 Chlorobenzene-d5	117	17.162	17.162	(1.000)	546621	50.0000	
* 102 1,4-Dichlorobenzene-d4	152	19.610	19.610	(1.000)	314163	50.0000	
$ 48 1,2-Dichloroethane-d4	65	13.341	13.341	(0.975)	535829	57.5516	59.9
$ 65 Toluene-d8	98	15.518	15.518	(0.904)	1499857	48.0465	50.0
$ 87 Bromofluorobenzene	95	18.386	18.386	(0.938)	610662	47.2910	49.2
5 Dichlorodifluoromethane	85	5.012	5.005	(0.366)	162993	37.5832	39.1
6 Chloromethane	50	5.557	5.564	(0.406)	315787	39.5395	41.2
7 Vinyl chloride	62	5.937	5.937	(0.434)	261170	39.3289	40.9
9 Bromomethane	96	6.957	6.961	(0.508)	175779	40.5726	42.2
10 Chloroethane	64	7.219	7.219	(0.527)	196991	42.4624	44.2
11 Trichlorofluoromethane	101	7.854	7.850	(0.574)	330880	48.0886	50.0

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
16 Acetone	43	9.258	9.258	(0.676)	904597	194.602	202
15 1,1-Dichloroethylene	61	9.092	9.097	(0.664)	458028	42.6028	44.3
103 1,4-Dichlorobenzene	146	19.638	19.638	(1.001)	552397	37.7118	39.2
18 Iodomethane	142	9.475	9.474	(0.692)	1646612	193.280	201
23 Methylene chloride	84	10.147	10.142	(0.741)	269662	38.5118	40.1
19 Carbon disulfide	76	9.590	9.580	(0.701)	3615140	206.671	215
26 trans-1,2-Dichloroethylene	96	10.552	10.547	(0.771)	241626	40.5158	42.2
30 1,1-Dichloroethane	63	11.325	11.329	(0.827)	516137	43.0884	44.8
35 2-Butanone	43	12.190	12.186	(0.891)	1000076	192.265	200
36 cis-1,2-Dichloroethylene	96	12.204	12.204	(0.892)	266637	40.6380	42.3
101 1,3-Dichlorobenzene	146	19.541	19.541	(0.996)	545014	37.9255	39.5
33 2,2-Dichloropropane	77	12.167	12.163	(0.889)	327964	46.9222	48.8
41 Chloroform	83	12.618	12.614	(0.922)	507869	43.5304	45.3
106 1,2-Dichlorobenzene	146	20.075	20.075	(1.024)	527819	38.6533	40.2
39 Bromochloromethane	128	12.563	12.559	(0.918)	113865	40.3251	42.0
43 1,1,1-Trichloroethane	97	12.849	12.844	(0.939)	372001	47.7716	49.7
45 1,1-Dichloropropene	75	13.051	13.051	(0.954)	384873	45.0560	46.9
44 Carbon tetrachloride	117	13.028	13.023	(0.952)	374933	48.6914	50.7
51 1,2-Dichloroethane	62	13.442	13.442	(0.982)	423112	45.8497	47.7
47 Benzene	78	13.336	13.332	(0.974)	1040592	41.7346	43.4
54 Trichloroethylene	95	14.119	14.114	(1.032)	267902	41.9728	43.7
57 1,2-Dichloropropane	63	14.460	14.455	(1.056)	288450	42.1613	43.9
60 Bromodichloromethane	83	14.754	14.750	(1.078)	397326	46.2275	48.1
59 Dibromomethane	93	14.625	14.621	(1.069)	162295	42.0875	43.8
64 4-Methyl-2-pentanone	58	15.357	15.357	(0.895)	568718	212.976	222
63 cis-1,3-Dichloropropylene	75	15.256	15.256	(1.115)	448489	44.6808	46.5
66 Toluene	92	15.597	15.597	(0.909)	646186	40.6413	42.3
68 trans-1,3-Dichloropropylene	75	15.877	15.877	(0.925)	436408	47.1728	49.1
69 1,1,2-Trichloroethane	83	16.103	16.103	(0.938)	192142	42.2206	43.9
71 2-Hexanone	43	16.269	16.269	(0.948)	1326301	194.635	202
72 1,3-Dichloropropane	76	16.305	16.305	(0.950)	404707	41.8881	43.6
70 Tetrachloroethylene	164	16.190	16.190	(0.943)	195000	40.2383	41.9
73 Dibromochloromethane	129	16.549	16.549	(0.964)	257044	44.9917	46.8
74 1,2-Dibromoethane	107	16.729	16.729	(0.975)	220254	42.9169	44.7
77 Chlorobenzene	112	17.194	17.194	(1.002)	680619	40.9694	42.6
79 1,1,1,2-Tetrachloroethane	131	17.258	17.258	(1.006)	243559	43.9026	45.7
78 Ethylbenzene	91	17.217	17.217	(1.003)	1299599	42.6490	44.4
80 m,p-Xylenes	106	17.337	17.336	(1.010)	918051	82.7916	86.2
81 o-Xylene	106	17.783	17.783	(1.036)	455259	42.1266	43.8
82 Styrene	104	17.806	17.801	(1.038)	788601	43.3717	45.1
83 Bromoform	173	18.105	18.105	(0.923)	166664	37.9117	39.4
88 1,1,2,2-Tetrachloroethane	83	18.506	18.506	(0.944)	306919	41.1153	42.8
92 1,2,3-Trichloropropane	110	18.607	18.602	(0.949)	81893	42.3873	44.1(Q)
91 Bromobenzene	156	18.593	18.593	(0.948)	286365	38.7260	40.3
89 n-Propylbenzene	91	18.556	18.556	(0.946)	1563078	40.5456	42.2
94 2-Chlorotoluene	91	18.740	18.740	(0.956)	1095366	40.8080	42.5
84 Isopropylbenzene	105	18.128	18.128	(0.924)	1283697	41.4314	43.1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
93 1,3,5-Trimethylbenzene	105	18.717	18.717	(0.954)	1115291	41.4346	43.1
95 4-Chlorotoluene	91	18.855	18.855	(0.962)	986901	40.5853	42.2
96 tert-Butylbenzene	119	19.076	19.076	(0.973)	873745	39.5648	41.2
97 1,2,4-Trimethylbenzene	105	19.132	19.136	(0.976)	1119679	40.2774	41.9
99 sec-Butylbenzene	105	19.302	19.302	(0.984)	1430103	40.4148	42.1
100 4-Isopropyltoluene	119	19.422	19.422	(0.990)	1079035	40.2101	41.8
105 n-Butylbenzene	91	19.868	19.868	(1.013)	1163659	40.9695	42.6
108 1,2-Dibromo-3-chloropropane	157	21.001	21.000	(1.071)	49782	36.9999	38.5

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: /chem/VOA1.i/121809v1/1r520.d
Date : 18-DEC-2009 20:18
Client ID: RE03-09-13467MS
Sample Info: 1120199984019347261|1|VOAF|1|
Column phase: RTX-Volatiles

Instrument: VOA1.i
Operator: RXH4
Column diameter: 0.25

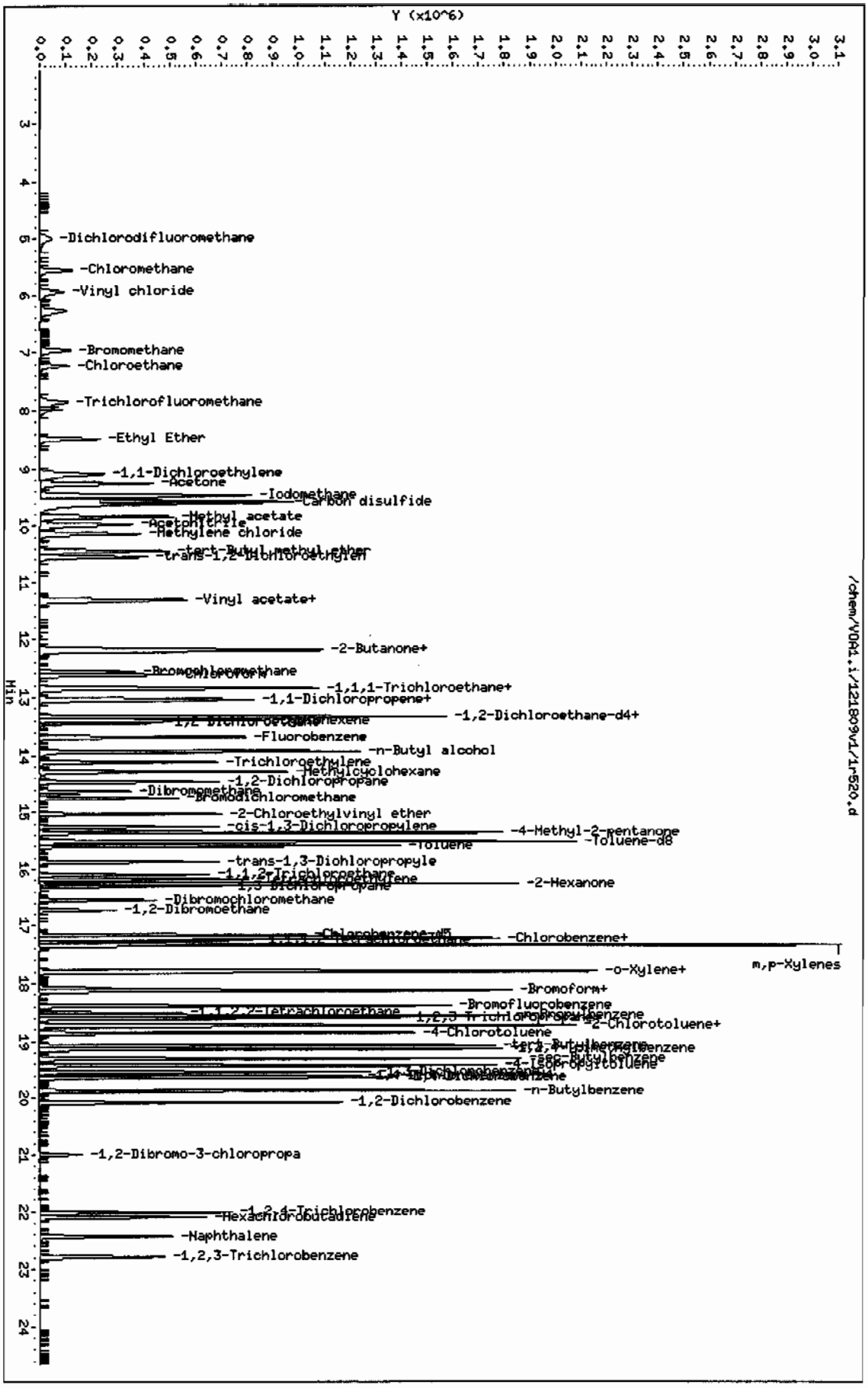

Page 1

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-886	**Date Collected:**	12/09/2009 12:00	**Matrix:**	S
Lab Sample ID:	1201999841	**Date Received:**	12/11/2009 08:50	**%Moisture:**	3.9
Client Sample:	QC for batch 934721	**Client:**	LANL010	**Project:**	QC
Client ID:	RE03-09-13467PSD	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	934726	**Inst:**	VOA1.I	**Dilution:**	1
Run Date:	12/18/2009 20:48	**Analyst:**	RXM4	**Purge Vol:**	5 mL
Prep Date:	12/18/2009 12:17	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	1r521.d	**Column:**	RTX-Volatiles	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane		44.1	ug/kg	0.354	1.04
74-87-3	Chloromethane		48.0	ug/kg	0.312	1.04
75-01-4	Vinyl chloride		48.1	ug/kg	0.312	1.04
74-83-9	Bromomethane		49.1	ug/kg	0.312	1.04
75-00-3	Chloroethane		51.4	ug/kg	0.312	1.04
75-69-4	Trichlorofluoromethane		56.1	ug/kg	0.312	1.04
67-64-1	Acetone		230	ug/kg	1.73	5.20
75-35-4	1,1-Dichloroethylene		51.1	ug/kg	0.312	1.04
74-88-4	Iodomethane		239	ug/kg	1.67	5.20
75-09-2	Methylene chloride		47.8	ug/kg	2.08	5.20
75-15-0	Carbon disulfide		253	ug/kg	1.30	5.20
156-60-5	trans-1,2-Dichloroethylene		49.9	ug/kg	0.312	1.04
75-34-3	1,1-Dichloroethane		52.6	ug/kg	0.312	1.04
78-93-3	2-Butanone		229	ug/kg	1.56	5.20
156-59-2	cis-1,2-Dichloroethylene		50.5	ug/kg	0.312	1.04
594-20-7	2,2-Dichloropropane		56.4	ug/kg	0.312	1.04
67-66-3	Chloroform		52.1	ug/kg	0.312	1.04
74-97-5	Bromochloromethane		49.4	ug/kg	0.343	1.04
71-55-6	1,1,1-Trichloroethane		56.4	ug/kg	0.312	1.04
563-58-6	1,1-Dichloropropene		55.0	ug/kg	0.312	1.04
56-23-5	Carbon tetrachloride		57.8	ug/kg	0.312	1.04
107-06-2	1,2-Dichloroethane		53.9	ug/kg	0.312	1.04
71-43-2	Benzene		51.2	ug/kg	0.312	1.04
79-01-6	Trichloroethylene		51.4	ug/kg	0.343	1.04
78-87-5	1,2-Dichloropropane		51.5	ug/kg	0.312	1.04
75-27-4	Bromodichloromethane		55.7	ug/kg	0.312	1.04
74-95-3	Dibromomethane		50.8	ug/kg	0.312	1.04
108-10-1	4-Methyl-2-pentanone		254	ug/kg	1.30	5.20
10061-01-5	cis-1,3-Dichloropropylene		55.2	ug/kg	0.312	1.04
108-88-3	Toluene		49.7	ug/kg	0.312	1.04
10061-02-6	trans-1,3-Dichloropropylene		56.9	ug/kg	0.312	1.04
79-00-5	1,1,2-Trichloroethane		51.1	ug/kg	0.312	1.04
591-78-6	2-Hexanone		237	ug/kg	1.56	5.20
142-28-9	1,3-Dichloropropane		51.6	ug/kg	0.312	1.04
127-18-4	Tetrachloroethylene		49.2	ug/kg	0.312	1.04
124-48-1	Dibromochloromethane		54.3	ug/kg	0.312	1.04
106-93-4	1,2-Dibromoethane		52.6	ug/kg	0.312	1.04
108-90-7	Chlorobenzene		50.9	ug/kg	0.312	1.04

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-886**	**Date Collected:**	**12/09/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**1201999841**	**Date Received:**	**12/11/2009 08:50**	**%Moisture:**	**3.9**
Client Sample:	**QC for batch 934721**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**RE03-09-13467PSD**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**934726**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**12/18/2009 20:48**	**Analyst:**	**RXM4**	**Purge Vol:**	**5 mL**
Prep Date:	**12/18/2009 12:17**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1r521.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene		51.8	ug/kg	0.312	1.04
179601-23-1	m,p-Xylenes		102	ug/kg	0.312	2.08
95-47-6	o-Xylene		51.7	ug/kg	0.312	1.04
100-42-5	Styrene		53.4	ug/kg	0.312	1.04
75-25-2	Bromoform		46.7	ug/kg	0.312	1.04
79-34-5	1,1,2,2-Tetrachloroethane		50.7	ug/kg	0.312	1.04
96-18-4	1,2,3-Trichloropropane		51.7	ug/kg	0.312	1.04
108-86-1	Bromobenzene		49.8	ug/kg	0.312	1.04
103-65-1	n-Propylbenzene		51.4	ug/kg	0.312	1.04
95-49-8	2-Chlorotoluene		51.0	ug/kg	0.312	1.04
98-82-8	Isopropylbenzene		52.2	ug/kg	0.312	1.04
108-67-8	1,3,5-Trimethylbenzene		51.2	ug/kg	0.312	1.04
106-43-4	4-Chlorotoluene		51.6	ug/kg	0.312	1.04
98-06-6	tert-Butylbenzene		50.0	ug/kg	0.312	1.04
95-63-6	1,2,4-Trimethylbenzene		50.8	ug/kg	0.312	1.04
135-98-8	sec-Butylbenzene		50.8	ug/kg	0.312	1.04
99-87-6	4-Isopropyltoluene		50.5	ug/kg	0.312	1.04
541-73-1	1,3-Dichlorobenzene		48.5	ug/kg	0.312	1.04
106-46-7	1,4-Dichlorobenzene		48.2	ug/kg	0.312	1.04
104-51-8	n-Butylbenzene		52.1	ug/kg	0.312	1.04
96-12-8	1,2-Dibromo-3-chloropropane		46.4	ug/kg	0.312	1.04
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.20	ug/kg	1.67	5.20
630-20-6	1,1,1,2-Tetrachloroethane		52.9	ug/kg	0.312	1.04
95-50-1	1,2-Dichlorobenzene		49.4	ug/kg	0.312	1.04

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/121809v1/1r521.d
Lab Smp Id: 1201999841 Client Smp ID: RE03-09-13467MSD
Inj Date : 18-DEC-2009 20:48
Operator : RXM4 Inst ID: VOA1.i
Smp Info : |1201999841|934726|1|VOAF|1|
Misc Info : LANL 5G N/A MSD 242750001
Comment :
Method : /chem/VOA1.i/121809v1/VOA1-8260ox-121709.m
Meth Date : 19-Dec-2009 14:24 ron01469 Quant Type: ISTD
Cal Date : 17-DEC-2009 21:57 Cal File: 1r426.d
Als bottle: 21 QC Sample: MSD
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-886.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	3.92340	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
* 52 Fluorobenzene	96	13.686	13.682	(1.000)	732168	50.0000	
* 76 Chlorobenzene-d5	117	17.157	17.162	(1.000)	520556	50.0000	
* 102 1,4-Dichlorobenzene-d4	152	19.610	19.610	(1.000)	287580	50.0000	
$ 48 1,2-Dichloroethane-d4	65	13.341	13.341	(0.975)	544764	61.4059	63.9
$ 65 Toluene-d8	98	15.518	15.518	(0.904)	1571697	52.8688	55.0
$ 87 Bromofluorobenzene	95	18.386	18.386	(0.938)	624033	52.7936	54.9
5 Dichlorodifluoromethane	85	5.005	5.005	(0.366)	175128	42.3457	44.1
6 Chloromethane	50	5.564	5.564	(0.407)	350776	46.0932	48.0
7 Vinyl chloride	62	5.937	5.937	(0.434)	292273	46.1899	48.1
9 Bromomethane	96	6.957	6.961	(0.508)	194895	47.2103	49.1
10 Chloroethane	64	7.219	7.219	(0.527)	218170	49.3541	51.4
11 Trichlorofluoromethane	101	7.859	7.850	(0.574)	353670	53.9436	56.1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
16 Acetone	43	9.258	9.258	(0.676)	979930	221.237	230
15 1,1-Dichloroethylene	61	9.097	9.097	(0.665)	502564	49.0578	51.1
103 1,4-Dichlorobenzene	146	19.638	19.638	(1.001)	621135	46.3243	48.2
18 Iodomethane	142	9.475	9.474	(0.692)	1863894	229.608	239
23 Methylene chloride	84	10.147	10.142	(0.741)	306412	45.9434	47.8
19 Carbon disulfide	76	9.580	9.580	(0.700)	4045033	242.687	252
26 trans-1,2-Dichloroethylene	96	10.552	10.547	(0.771)	272484	47.9503	49.9
30 1,1-Dichloroethane	63	11.325	11.329	(0.827)	577291	50.5779	52.6
35 2-Butanone	43	12.190	12.186	(0.891)	1090599	220.041	229
36 cis-1,2-Dichloroethylene	96	12.209	12.204	(0.892)	303489	48.5429	50.5
101 1,3-Dichlorobenzene	146	19.541	19.541	(0.996)	613258	46.6190	48.5
33 2,2-Dichloropropane	77	12.163	12.163	(0.889)	360882	54.1861	56.4
41 Chloroform	83	12.614	12.614	(0.922)	556549	50.0627	52.1
106 1,2-Dichlorobenzene	146	20.075	20.075	(1.024)	593782	47.5034	49.4
39 Bromochloromethane	128	12.563	12.559	(0.918)	127682	47.4554	49.4
43 1,1,1-Trichloroethane	97	12.844	12.844	(0.938)	401964	54.1730	56.4
45 1,1-Dichloropropene	75	13.051	13.051	(0.954)	429913	52.8185	55.0
44 Carbon tetrachloride	117	13.028	13.023	(0.952)	407658	55.5604	57.8
51 1,2-Dichloroethane	62	13.442	13.442	(0.982)	455609	51.8136	53.9
47 Benzene	78	13.337	13.332	(0.974)	1168352	49.1767	51.2
54 Trichloroethylene	95	14.119	14.114	(1.032)	300317	49.3791	51.4
57 1,2-Dichloropropane	63	14.460	14.455	(1.056)	322722	49.5043	51.5
60 Bromodichloromethane	83	14.754	14.750	(1.078)	438336	53.5218	55.7
59 Dibromomethane	93	14.625	14.621	(1.069)	179170	48.7623	50.8
64 4-Methyl-2-pentanone	58	15.362	15.357	(0.895)	621493	244.393	254
63 cis-1,3-Dichloropropylene	75	15.256	15.256	(1.115)	506985	53.0072	55.2
66 Toluene	92	15.597	15.597	(0.909)	723118	47.7571	49.7
68 trans-1,3-Dichloropropylene	75	15.877	15.877	(0.925)	481966	54.7059	56.9
69 1,1,2-Trichloroethane	83	16.103	16.103	(0.939)	212800	49.1013	51.1
71 2-Hexanone	43	16.269	16.269	(0.948)	1474805	227.265	236
72 1,3-Dichloropropane	76	16.310	16.305	(0.951)	456542	49.6192	51.6
70 Tetrachloroethylene	164	16.190	16.190	(0.944)	218072	47.2523	49.2
73 Dibromochloromethane	129	16.549	16.549	(0.965)	283647	52.1342	54.3
74 1,2-Dibromoethane	107	16.724	16.729	(0.975)	247093	50.5573	52.6
77 Chlorobenzene	112	17.194	17.194	(1.002)	773200	48.8727	50.9
79 1,1,1,2-Tetrachloroethane	131	17.258	17.258	(1.006)	268711	50.8616	52.9
78 Ethylbenzene	91	17.222	17.217	(1.004)	1445339	49.8067	51.8
80 m,p-Xylenes	106	17.337	17.336	(1.010)	1030840	97.6180	102
81 o-Xylene	106	17.783	17.783	(1.036)	510786	49.6313	51.6
82 Styrene	104	17.802	17.801	(1.038)	887720	51.2677	53.4
83 Bromoform	173	18.105	18.105	(0.923)	181436	44.8334	46.7
88 1,1,2,2-Tetrachloroethane	83	18.506	18.506	(0.944)	333012	48.7344	50.7
92 1,2,3-Trichloropropane	110	18.607	18.602	(0.949)	87844	49.6704	51.7
91 Bromobenzene	156	18.589	18.593	(0.948)	323653	47.8144	49.8
89 n-Propylbenzene	91	18.556	18.556	(0.946)	1744318	49.4293	51.4
94 2-Chlorotoluene	91	18.741	18.740	(0.956)	1204818	49.0347	51.0
84 Isopropylbenzene	105	18.128	18.128	(0.924)	1421059	50.1044	52.2

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
93 1,3,5-Trimethylbenzene	105	18.718	18.717	(0.954)	1211245	49.1590	51.2
95 4-Chlorotoluene	91	18.851	18.855	(0.961)	1102579	49.5338	51.6
96 tert-Butylbenzene	119	19.077	19.076	(0.973)	971111	48.0385	50.0
97 1,2,4-Trimethylbenzene	105	19.136	19.136	(0.976)	1241214	48.7765	50.8
99 sec-Butylbenzene	105	19.302	19.302	(0.984)	1581151	48.8138	50.8
100 4-Isopropyltoluene	119	19.422	19.422	(0.990)	1192372	48.5409	50.5
105 n-Butylbenzene	91	19.868	19.868	(1.013)	1301185	50.0461	52.1
108 1,2-Dibromo-3-chloropropane	157	21.001	21.000	(1.071)	55488	44.5932	46.4

Data File: /chem/VOA1.i/121809v1/1r521.d

Date : 18-DEC-2009 20:48

Client ID: RE03-09-13467MSD

Sample Info: |1201999841|934726|1|VOAF|1|

Column phase: RTX-Volatiles

Instrument: VOA1.i

Operator: RXM4

Column diameter: 0.25

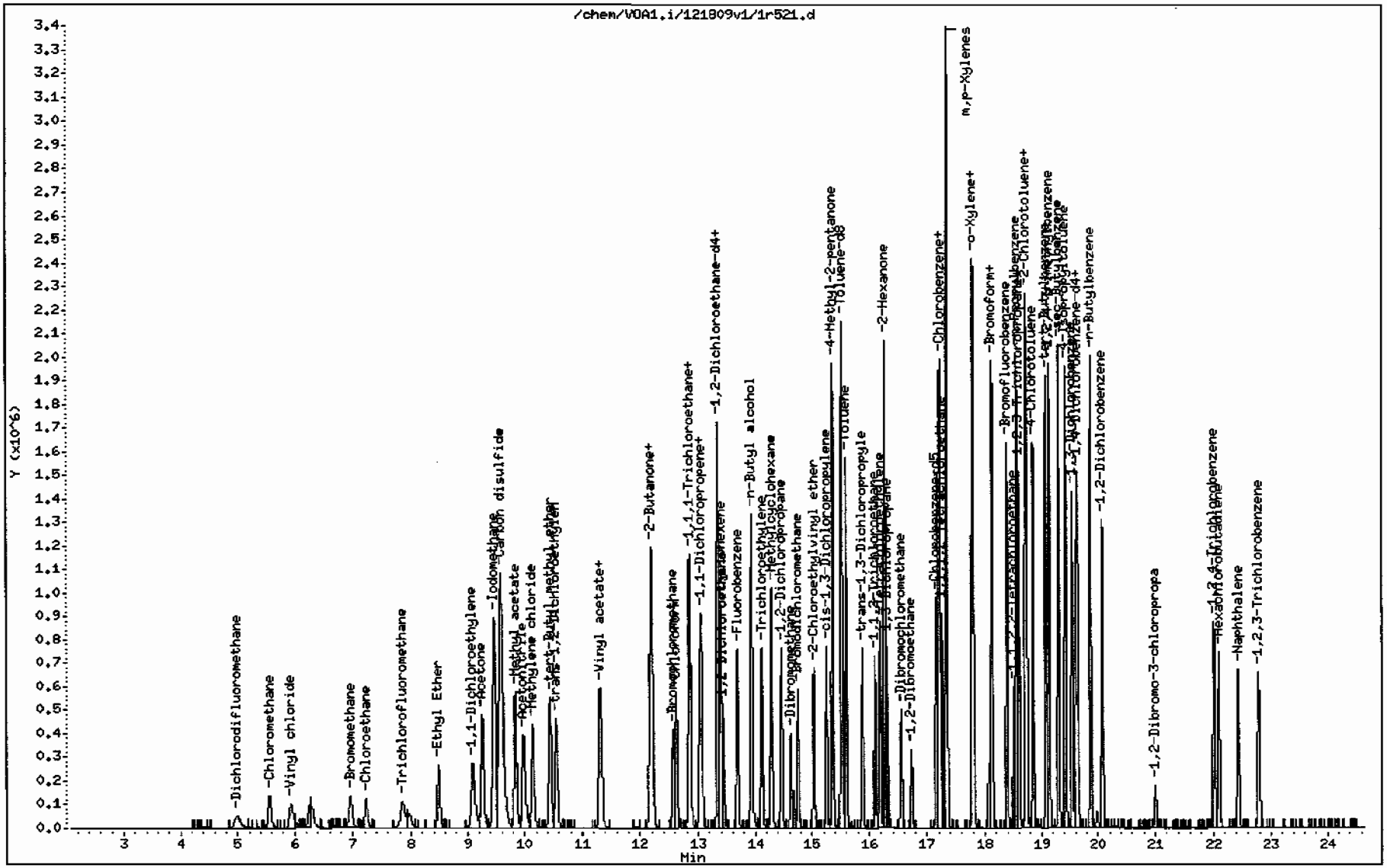

Miscellaneous Data

Prep Logbook

Volatile Organic Compounds (VOC) by Gas Chromatograph/Mass Spectrometer

Batch ID: **934721** Verified by: _____

Analyst: Ronda Eagle
Method: SW846 5030
Lab SOP: GL-OA-E-038 REV# 13
Instrument: Sartorius Balance B-001

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units

Sample ID	Run Date	Matrix	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check 1
1201999839 MB	18-DEC-2009 08:00:00	Soil	5	5	1	
1201999842 LCS	18-DEC-2009 08:01:00	Soil	5	5	1	
1201999843 LCS	18-DEC-2009 08:02:00	Soil	5	5	1	
1201999840 PS (242750001)	18-DEC-2009 12:16:00	Soil	5	5	1	
1201999841 PSD (242750001)	18-DEC-2009 12:17:00	Soil	5	5	1	
242750002	18-DEC-2009 12:18:00	Soil	5	5	1	
242750003	18-DEC-2009 12:19:00	Soil	5	5	1	
242750004	18-DEC-2009 12:20:00	Soil	5	5	1	
242750005	18-DEC-2009 12:21:00	Soil	5	5	1	
242750006	18-DEC-2009 12:22:00	Soil	5	5	1	
242781008	18-DEC-2009 12:23:00	Soil	5	5	1	
242792001	18-DEC-2009 12:24:00	Soil	5	5	1	
242792002	18-DEC-2009 12:25:00	Soil	5	5	1	
242793001	18-DEC-2009 12:26:00	Soil	5	5	1	
242793002	18-DEC-2009 12:27:00	Soil	5	5	1	
242750001	18-DEC-2009 13:45:00	Soil	5	5	1	

Reagent/Solvent Lot ID	Description	Amount

Comments:

GEL Laboratories, LLC
Revision:11/22/04

ORGANIC RUN LOG - INSTRUMENT ID#VOA1

Date: 12/17/2009 Method 8260B/624 Operator: RJE

REVIEWED BY:
DATE:

HARDWARE CONFIGURATION & METHOD CONDITIONS SUMMARY No# 2

Daily Instrument Readings:
Multiplier Voltage: 1306

CALIBRATION & CC INFORMATION:

Initial Calibration Date: 12/17/2009

(See pg. 293 for ICAL Std. Sci. Ids)

NaHSO4 lot # N/A

Cl test lot # 84515

Sequence Number: 121709v1

	Daily Standard Solution ID#	Volume Added for Purge (ul) Smpl	CCV	LCS	BFB
ICV	W1VM091217-18		5+5		
IS	UVM091203-01	1	1	1	
SS	UVM091117-02	1	1	1	
	N/A			5+5	
BFB	UVM091117-02				1
SHORT	W1VM091217-20		5+5	5+5	

Purge Amount	
5	Water Purge Vol:ML
5	Soil Purge Wt.:G
N/A	Mid level ext. MeOH Vol: ul
N/A	Methanol Lot #
X	Heated Purge

Analysis Date Time	Data File	Lab Sample ID	Client	Batch #	Wt.(g) or Vol(ml/ul)	Dil. Factor	pH	AS Slot #	Matrix w or s	Analyst	Cl test (Y/N)	Acceptable O/X	Comments
12/17/2009 7:38	1R401.D	UVM090821-02	GEL	BFB	5ML	1	N/A	1	W	RXM4	N/A	X	See 1R408
12/17/2009 8:08	1R402.D	W1VM091217-01	GEL	CCV/LCS	5G	1	N/A	2	S	RXM4	N/A	X	UVM091129-01D/IVM091214-01
12/17/2009 9:24	1R403.D	W1VM091217-02	GEL	CCV/LCS	5G	1	N/A	3	S	RXM4	N/A	X	UVM091129-01E/IVM091214-01
12/17/2009 9:54	1R404.D	W1VM091217-03	GEL	LCS	5G	1	N/A	4	S	RXM4	N/A	X	UVM091129-01E/IVM091214-01
12/17/2009 10:24	1R405.D	W1VM091217-04	GEL	SHORT	5G	1	N/A	5	S	RXM4	N/A	X	UVM091118-01C/UVM091105-02E
12/17/2009 10:54	1R406.D	12019---	GEL	BLANK	5G	1	N/A	6	S	RXM4	N/A	X	
12/17/2009 12:25	1R407.D	12019---	GEL	BLANK	5ML	1	N/A	1	W	RXM4	N/A	X	
12/17/2009 12:56	1R408.D	UVM091117-02	GEL	BFB	5ML	1	N/A	2	W	RXM4	N/A	O	
12/17/2009 13:26	1R409.D	W1VM091217-04	GEL	VSTD0005	5ML	1	N/A	3	W	RXM4	N/A	O	UVM090911-01D/UVM091130-01B
12/17/2009 13:56	1R410.D	W1VM091217-05	GEL	VSTD0005	5ML	1	N/A	4	W	RXM4	N/A	X	UVM090911-01D/UVM091130-01B: not needed
12/17/2009 14:26	1R411.D	W1VM091217-06	GEL	VSTD001	5ML	1	N/A	5	W	RXM4	N/A	O	UVM090911-02D/UVM091130-02B
12/17/2009 14:57	1R412.D	W1VM091217-07	GEL	VSTD001	5ML	1	N/A	6	W	RXM4	N/A	X	UVM090911-02D/UVM091130-02B: not needed
12/17/2009 15:27	1R413.D	W1VM091217-08	GEL	VSTD002	5ML	1	N/A	7	W	RXM4	N/A	O	UVM090911-03D/UVM091130-03B
12/17/2009 15:57	1R414.D	W1VM091217-09	GEL	VSTD005	5ML	1	N/A	8	W	RXM4	N/A	O	UVM090911-04D/UVM091130-04B
12/17/2009 16:26	1R415.D	W1VM091217-10	GEL	VSTD010	5ML	1	N/A	9	W	RXM4	N/A	O	UVM090911-05D/UVM091130-05B
12/17/2009 16:56	1R416.D	W1VM091217-11	GEL	VSTD020	5ML	1	N/A	10	W	RXM4	N/A	O	UVM090911-06D/UVM091130-06B
12/17/2009 17:26	1R417.D	W1VM091217-12	GEL	VSTD050	5ML	1	N/A	11	W	RXM4	N/A	O	UVM090911-07D/UVM091130-07B
12/17/2009 17:56	1R418.D	W1VM091217-13	GEL	VSTD100	5ML	1	N/A	12	W	RXM4	N/A	O	UVM090911-08D/UVM091130-08B
12/17/2009 18:26	1R419.D	12019---	GEL	BLANK	5ML	1	N/A	13	W	RXM4	N/A	X	instrument rinse
12/17/2009 18:56	1R420.D	W1VM091217-14	GEL	VSTD005S	5ML	1	N/A	14	W	RXM4	N/A	O	UVM091118-01/UVM091110-01D
12/17/2009 19:26	1R421.D	W1VM091217-15	GEL	VSTD010S	5ML	1	N/A	15	W	RXM4	N/A	O	UVM091118-02/UVM091110-02D
12/17/2009 19:56	1R422.D	W1VM091217-16	GEL	VSTD025S	5ML	1	N/A	16	W	RXM4	N/A	O	UVM091118-03/UVM091110-03D
12/17/2009 20:27	1R423.D	W1VM091217-17	GEL	VSTD050S	5ML	1	N/A	17	W	RXM4	N/A	O	UVM091118-04/UVM091110-04D
12/17/2009 20:57	1R424.D	W1VM091217-18	GEL	VSTD100S	5ML	1	N/A	18	W	RXM4	N/A	O	UVM091118-05/UVM091110-05D
12/17/2009 21:27	1R425.D	W1VM091217-19	GEL	VSTD250S	5ML	1	N/A	19	W	RXM4	N/A	O	UVM091118-06/UVM091110-06D
12/17/2009 21:57	1R426.D	W1VM091217-20	GEL	VSTD500S	5ML	1	N/A	20	W	RXM4	N/A	O	UVM091118-07/UVM091110-07D
12/17/2009 22:27	1R427.D	12019---	GEL	BLANK	5ML	1	N/A	21	W	RXM4	N/A	X	instrument rinse
12/17/2009 22:57	1R428.D	W1VM091217-18	GEL	ICV	5ML	1	N/A	22	W	RXM4	N/A	O	UVM091129-01D/IVM091214-01
12/17/2009 23:27	1R429.D	W1VM091217-19	GEL	ICV	5ML	1	N/A	23	W	RXM4	N/A	X	UVM091129-01E/IVM091214-01
12/17/2009 23:58	1R430.D	W1VM091217-20	GEL	SHORT ICV	5ML	1		24	W	RXM4	N/A	O	UVM091118-01C/UVM091105-02E

GEL Laboratories, LLC
Revision:11/22/04

ORGANIC RUN LOG - INSTRUMENT ID#VOA1

Date: 12/18/2009 Method 8260B/624 Operator: RJE

REVIEWED BY: _____
DATE: _____

HARDWARE CONFIGURATION & METHOD CONDITIONS SUMMARY No# 2

Daily Instrument Readings:
Multiplier Voltage: 1306

CALIBRATION & CC INFORMATION:

Initial Calibration Date: 12/17/2009

(See pg. 283 for ICAL Std. Sci. Ids)

NaHSO4 lot # N/A

Cl test lot # N/A

Sequence Number: 121809v1 AM

Daily Standard

	Solution ID#	Volume Added for Purge (ul) Blk/ Smpl	CCV	MS/ LCS	BFB
CCV	W1VM091218-02		5+5		
IS	UVM091203-01	1	1	1	
SS	UVM091117-02	1	1	1	
LCS/MS	W1VM091218-02			5+5	
BFB	UVM091117-02				1
SHORT	W1VM091218-04		5+5	5+5	

Purge Amount

5	Water Purge Vol:ML
5	Soil Purge Wt.:G
	Mid level ext. MeOH Vol:
N/A	ul
N/A	Methanol Lot #
X	Heated Purge

Analysis Date Time	Data File	Lab Sample ID	Client	Batch #	Wt.(g) or Vol(ml/ul)	Dil. Factor	pH	AS Slot #	Matrix w or s	Analyst	Cl test (Y/N)	Acceptable O/X	Comments
12/18/2009 9:19	1R501.D	UVM091117-02	GEL	BFB	5ML	1	N/A	1	W	RXM4	N/A	O	
12/18/2009 9:53	1R502.D	W1VM091218-01	GEL	CCV/LCS	5G	1	N/A	2	S	RXM4	N/A	X	See 1R503
12/18/2009 10:23	1R503.D	W1VM091218-02	GEL	CCV/LCS	5G	1	N/A	3	S	RXM4	N/A	O	UVM091214-01A/IVM091217-01
12/18/2009 10:57	1R504.D	W1VM091218-03	GEL	LCSD	5G	1	N/A	4	S	RXM4	N/A	X	not needed.
12/18/2009 11:28	1R505.D	W1VM091218-04	GEL	SHORT	5G	1	N/A	5	S	RXM4	N/A	O	UVM091118-08C/UVM091105-02E
12/18/2009 11:58	1R506.D	12019--	GEL	BLANK	5G	1	N/A	6	S	RXM4	N/A	X	
12/18/2009 13:31	1R507.D	242750001	LANL	934726	5G	1	N/A	7	S	RXM4	N/A	X	
12/18/2009 14:12	1R508.D	12019--	GEL	BLANK	5G	1	N/A	8	S	RXM4	N/A	O	
12/18/2009 14:42	1R509.D	242750001	LANL	934726	5G	1	N/A	9	S	RXM4	N/A	O	
12/18/2009 15:12	1R510.D	242750002	LANL	934726	5G	1	N/A	10	S	RXM4	N/A	O	
12/18/2009 15:42	1R511.D	242750003	LANL	934726	5G	1	N/A	11	S	RXM4	N/A	O	
12/18/2009 16:13	1R512.D	242750004	LANL	934726	5G	1	N/A	12	S	RXM4	N/A	O	
12/18/2009 16:43	1R513.D	242750005	LANL	934726	5G	1	N/A	13	S	RXM4	N/A	O	
12/18/2009 17:13	1R514.D	242750006	LANL	934726	5G	1	N/A	14	S	RXM4	N/A	O	TB
12/18/2009 17:44	1R515.D	242781008	LANL	934726	5G	1	N/A	15	S	RXM4	N/A	O	TB
12/18/2009 18:15	1R516.D	242792001	LANL	934726	5G	1	N/A	16	S	RXM4	N/A	O	
12/18/2009 18:46	1R517.D	242792002	LANL	934726	5G	1	N/A	17	S	RXM4	N/A	O	
12/18/2009 19:16	1R518.D	242793001	LANL	934726	5G	1	N/A	18	S	RXM4	N/A	O	TB
12/18/2009 19:47	1R519.D	242793002	LANL	934726	5G	1	N/A	19	S	RXM4	N/A	O	TB
12/18/2009 20:18	1R520.D	1201999840	LANL	934726	5G	1	N/A	20	S	RXM4	N/A	O	MS 242750001
12/18/2009 20:48	1R521.D	1201999841	LANL	934726	5G	1	N/A	21	S	RXM4	N/A	O	MSD 242750001

GC/MS Semivolatile Analysis

Semi-Volatile Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-886

Method/Analysis Information

Procedure:	**Analysis of Semivolatile Organic Compounds by Gas Chromatography/Mass Spectrometry**
Analytical Method:	SW846 8270C
Prep Method:	SW846 3550B
Analytical Batch Number:	932444
Prep Batch Number:	932443

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 8270C:

Sample ID	Client ID
242750001	RE03-09-13467
242750002	RE03-09-13466
242750003	RE03-09-13468
242750004	RE03-09-13465
242750005	RE03-10-2003
1201994527	Method Blank (MB)
1201994528	Laboratory Control Sample (LCS)
1201994529	242791001(RE16-10-2878) Matrix Spike (MS)
1201994530	242791001(RE16-10-2878) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on a "dry weight" basis.

Preparation/Analytical Method Verification

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-009 REV# 23.

Raw data reports are processed and reviewed by the analyst using the Target software package. False positives have been removed from the Target quantitation reports per standard operating procedures (SOP) section 18.2.

Calibration Information

Please note that the 'Cal Date' indicated on each quantitation report reflects the date and time of the most recent calibrated analyte(s) in the Target processing method. Since the laboratory may calibrate with multiple solutions on different days using the same processing method, the Target software will update the 'Cal Date' to the last calibration file, date and time. The correct dates and times for all calibration files are located on the Calibration History report in the Standard Data section in the data package.

Due to software limitations, the Calibration Summary Form 6 may not indicate all the calibration files comprising the initial calibration. A complete list of the initial calibration data files are shown in the Calibration History report located in the Standard Data section of the data package. Please note that the

second level of the initial calibration (5 mg/L) is only used for n-Nitrosodipropylamine. The various calibration mixes may not be calibrated using all of the calibration levels. In addition, not all of the mixes are calibrated using the same levels.

Diphenylamine has now superseded N-Nitroso-diphenylamine as a CCC on Quantitation Reports, Initial Calibration Reports, Calibration Check Standard Reports, etc. Previous versions of EPA Method 8270 (prior to 8270C) listed N-Nitroso-diphenylamine as a CCC. However, as stated in EPA Method 8270C, Revision 3, December, 1996, Section 1.4.5, "N-Nitroso-diphenylamine decomposes in the gas chromatographic inlet and cannot be separated from Diphenylamine." Studies of these two compounds at GEL, both independent of each other and together, show that they not only co-elute, but also have similar mass spectra. N-Nitroso-diphenylamine and Diphenylamine will be reported as Diphenylamine on all reports and forms.

The linear equation used in Target and indicated on the initial calibration summary form is not a conventional linear equation (slope intercept formula) and does not match the equation found in SW-846 method 8000B. The x and y axes are inversed in Target, so that the instrument response is treated as the independent variable (x) and the concentration ratio is treated as the dependent variable (y). The equation used in Target to calculate sample results is adjusted to account for the linear equation inversion and reciprocal slope. The adjusted calculation has been independently verified to produce valid results.

Initial Calibration
All initial calibration requirements have been met for this sample delivery group (SDG). A second source initial calibration verification (ICV) was included in the standard section directly behind the initial calibration.

CCV Requirements
All associated calibration verification standard(s) (ICV or CCV) met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Surrogate Recoveries
All the surrogate recoveries were within the established acceptance criteria for this SDG.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

QC Sample Designation
The non-SDG sample 242791001(RE16-10-2878) was selected for analysis as the matrix spike and matrix spike duplicate. Please see the associated raw data files located in the Miscellaneous Section of the data report.

Matrix Spike (MS) Recovery Statement
Multiple MS recoveries were not within the acceptance limits. Since the MS and MSD both displayed failures, they were attributed to matrix interference and the data have been reported. Please see the spike recovery report for the specific failures.

Matrix Spike Duplicate (MSD) Recovery Statement
Multiple MSD recoveries were not within the acceptance limits. Since the MS and MSD both displayed failures, they were attributed to matrix interference and the data have been reported. Please see the spike recovery report for the specific failures.

MS/MSD Relative Percent Difference (RPD) Statement

The relative percent differences (RPD) were not within the acceptance limits. The failures were attributed to matrix interference and the data have been reported. Please see the spike recovery report for the specific failures.

Internal Standard (ISTD) Acceptance
The internal standards for the samples reported in this SDG were acceptable.

Technical Information

Holding Time Specifications
All samples in this SDG met the specified holding time. GEL assigns holding times based on the associated methodology that assigns the date and time from sample collection or sample receipt. Those holding times expressed in hours are calculated in the ALPHALIMS system. Those holding times expressed as days expire at midnight on the day of expiration.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-extraction/Re-analysis
Re-extractions or re-analyses were not required in this SDG except for confirmations and/or dilutions.

Miscellaneous Information

Nonconformance (NCR) Documentation
A non-conformance report was not required for the samples reported in this SDG.

Manual Integrations
Some initial calibration standards, continuing calibration standards, and/or samples may require manual integrations due to software limitations. Please see the raw data in the Miscellaneous Section.

Additional Comments
Additional comments were not required for this SDG.

Electronic Package Comment
The following package was generated using an electronic data processing program referred to as "virtual packaging". In an effort to increase quality and efficiency, the laboratory is developing systems to eventually generate all data packages electronically. The following change from "traditional" packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. An electronic signature page inserted after the case narrative of each electronic package will indicate the analyst, reviewer, and report specialist names associated with the generation of the data and package. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

System Configuration

The samples reported in this SDG were analyzed on one or more of the following instrument systems. Instrument systems are referenced in the raw data and individual form headers by the Instrument ID designations listed below:

Instrument ID	Instrument	System Configuration	Column ID	Column Description
MSD6.I	HP Mass Spectrometer	HP6890/HP5973	DB-5MS	25m x 0.20mm x 0.33 um (5% Phenylmethylpolysiloxane)

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

Reviewer: [illegible] **Date:** 1-6-10

Roadmap for LANL 10-886 SVOA

This roadmap was analyzed by nat00999 on 12-18-2009, 14:16.
This roadmap was reviewed by bar00895 on 12-21-2009, 07:27.

Sample

exclude	manual	datafile	smpid	injdate	injtime	sublist	clientid	dilution	batchid	comment
☐	N	/chem/MSD6.i/s121609.b/s6l1621.d	242750001	16-DEC-2009	19:03	10-886.sub	RE03-09-13467	1	932444	
☐	N	/chem/MSD6.i/s121609.b/s6l1622.d	242750002	16-DEC-2009	19:31	10-886.sub	RE03-09-13466	1	932444	
☐	N	/chem/MSD6.i/s121609.b/s6l1623.d	242750003	16-DEC-2009	20:00	10-886.sub	RE03-09-13468	1	932444	
☐	N	/chem/MSD6.i/s121609.b/s6l1624.d	242750004	16-DEC-2009	20:28	10-886.sub	RE03-09-13465	1	932444	
☐	N	/chem/MSD6.i/s121609.b/s6l1625.d	242750005	16-DEC-2009	20:56	10-886.sub	RE03-10-2003	1	932444	

QC Sample

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	batchid	comment
☐	N	/chem/MSD6.i/s121609.b/s6l1613-4.d	1201994527	mb	16-DEC-2009	15:15	10-886.sub	SBLK01	1	932444	
☐	N	/chem/MSD6.i/s121609.b/s6l1614-4.d	1201994528	lcs	16-DEC-2009	15:45	10-886.sub	SBLK01LCS	1	932444	

Sample Data Summary

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-886	Date Collected:	12/09/2009 12:00	Matrix:	S
Lab Sample ID:	242750004	Date Received:	12/11/2009 08:50	%Moisture:	7
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-13465	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	932444	Inst:	MSD6.I	Dilution:	1
Run Date:	12/16/2009 20:28	Analyst:	NAG1	Inj. Vol:	.5 uL
Prep Date:	12/14/2009 09:47	Aliquot:	30.02 g	Final Volume:	1 mL
Data File:	s6l1624.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	358	ug/kg	71.6	358
108-95-2	Phenol	U	358	ug/kg	71.6	358
95-57-8	2-Chlorophenol	U	358	ug/kg	71.6	358
106-46-7	1,4-Dichlorobenzene	U	358	ug/kg	71.6	358
621-64-7	N-Nitrosodipropylamine	U	358	ug/kg	71.6	358
59-50-7	4-Chloro-3-methylphenol	U	358	ug/kg	71.6	358
83-32-9	Acenaphthene	U	35.8	ug/kg	11.8	35.8
121-14-2	2,4-Dinitrotoluene	U	358	ug/kg	35.8	358
100-02-7	4-Nitrophenol	U	358	ug/kg	118	358
87-86-5	Pentachlorophenol	U	358	ug/kg	89.5	358
129-00-0	Pyrene	U	35.8	ug/kg	10.7	35.8
110-86-1	Pyridine	U	358	ug/kg	71.6	358
62-53-3	Aniline	U	358	ug/kg	107	358
111-44-4	bis(2-Chloroethyl) ether	U	358	ug/kg	71.6	358
541-73-1	1,3-Dichlorobenzene	U	358	ug/kg	71.6	358
100-51-6	Benzyl alcohol	U	358	ug/kg	107	358
95-50-1	1,2-Dichlorobenzene	U	358	ug/kg	71.6	358
108-60-1	bis(2-Chloroisopropyl)ether	U	358	ug/kg	71.6	358
95-48-7	o-Cresol	U	358	ug/kg	71.6	358
65794-96-9	m,p-Cresols	U	358	ug/kg	107	358
67-72-1	Hexachloroethane	U	358	ug/kg	71.6	358
98-95-3	Nitrobenzene	U	358	ug/kg	71.6	358
78-59-1	Isophorone	U	358	ug/kg	71.6	358
88-75-5	2-Nitrophenol	U	358	ug/kg	71.6	358
105-67-9	2,4-Dimethylphenol	U	358	ug/kg	125	358
111-91-1	bis(2-Chloroethoxy)methane	U	358	ug/kg	71.6	358
120-83-2	2,4-Dichlorophenol	U	358	ug/kg	71.6	358
65-85-0	Benzoic acid	U	716	ug/kg	179	716
91-20-3	Naphthalene	U	35.8	ug/kg	10.7	35.8
106-47-8	4-Chloroaniline	U	358	ug/kg	71.6	358
87-68-3	Hexachlorobutadiene	U	358	ug/kg	71.6	358
91-57-6	2-Methylnaphthalene	U	35.8	ug/kg	7.16	35.8
77-47-4	Hexachlorocyclopentadiene	U	358	ug/kg	71.6	358
88-06-2	2,4,6-Trichlorophenol	U	358	ug/kg	71.6	358
95-95-4	2,4,5-Trichlorophenol	U	358	ug/kg	71.6	358
91-58-7	2-Chloronaphthalene	U	35.8	ug/kg	11.8	35.8
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	358	ug/kg	71.6	358
99-09-2	3-Nitroaniline	U	358	ug/kg	71.6	358

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-886	Date Collected:	12/09/2009 12:00	Matrix:	S
Lab Sample ID:	242750004	Date Received:	12/11/2009 08:50	%Moisture:	7
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-13465	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	932444	Inst:	MSD6.I	Dilution:	1
Run Date:	12/16/2009 20:28	Analyst:	NAG1	Inj. Vol:	.5 uL
Prep Date:	12/14/2009 09:47	Aliquot:	30.02 g	Final Volume:	1 mL
Data File:	s6l1624.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	358	ug/kg	71.6	358
606-20-2	2,6-Dinitrotoluene	U	358	ug/kg	35.8	358
208-96-8	Acenaphthylene	U	35.8	ug/kg	10.7	35.8
51-28-5	2,4-Dinitrophenol	U	716	ug/kg	136	716
132-64-9	Dibenzofuran	U	358	ug/kg	71.6	358
84-66-2	Diethylphthalate	U	358	ug/kg	71.6	358
86-73-7	Fluorene	U	35.8	ug/kg	10.7	35.8
7005-72-3	4-Chlorophenylphenylether	U	358	ug/kg	71.6	358
534-52-1	2-Methyl-4,6-dinitrophenol	U	358	ug/kg	71.6	358
100-01-6	4-Nitroaniline	U	358	ug/kg	107	358
	p-Nitroaniline					
122-39-4	Diphenylamine	U	358	ug/kg	71.6	358
122-66-7	Azobenzene	U	358	ug/kg	71.6	358
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	358	ug/kg	71.6	358
118-74-1	Hexachlorobenzene	U	358	ug/kg	71.6	358
85-01-8	Phenanthrene	U	35.8	ug/kg	10.7	35.8
120-12-7	Anthracene	U	35.8	ug/kg	7.16	35.8
84-74-2	Di-n-butylphthalate	U	358	ug/kg	71.6	358
206-44-0	Fluoranthene	U	35.8	ug/kg	10.7	35.8
85-68-7	Butylbenzylphthalate	U	358	ug/kg	71.6	358
56-55-3	Benzo(a)anthracene	U	35.8	ug/kg	10.7	35.8
91-94-1	3,3'-Dichlorobenzidine	U	358	ug/kg	107	358
218-01-9	Chrysene	U	35.8	ug/kg	10.7	35.8
117-81-7	bis(2-Ethylhexyl)phthalate	U	358	ug/kg	71.6	358
117-84-0	Di-n-octylphthalate	U	358	ug/kg	71.6	358
205-99-2	Benzo(b)fluoranthene	U	35.8	ug/kg	10.7	35.8
207-08-9	Benzo(k)fluoranthene	U	35.8	ug/kg	10.7	35.8
50-32-8	Benzo(a)pyrene	U	35.8	ug/kg	10.7	35.8
193-39-5	Indeno(1,2,3-cd)pyrene	U	35.8	ug/kg	10.7	35.8
53-70-3	Dibenzo(a,h)anthracene	U	35.8	ug/kg	10.7	35.8
191-24-2	Benzo(ghi)perylene	U	35.8	ug/kg	10.7	35.8
120-82-1	1,2,4-Trichlorobenzene	U	358	ug/kg	71.6	358

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	3.45	585	ug/kg		JA
301-02-0	9-Octadecenamide, (Z)-	11.85	477	ug/kg	98	NJ

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-886	Date Collected:	12/09/2009 12:00	Matrix:	S
Lab Sample ID:	242750004	Date Received:	12/11/2009 08:50	%Moisture:	7
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-13465	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	932444	Inst:	MSD6.I	Dilution:	1
Run Date:	12/16/2009 20:28	Analyst:	NAG1	Inj. Vol:	.5 uL
Prep Date:	12/14/2009 09:47	Aliquot:	30.02 g	Final Volume:	1 mL
Data File:	s6l1624.d	Columu:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
112-84-5	13-Docosenamide, (Z)-	13.85	156	ug/kg	90	NJ

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-886	Date Collected:	12/09/2009 12:00	Matrix:	S
Lab Sample ID:	242750002	Date Received:	12/11/2009 08:50	%Moisture:	8.5
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-13466	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	932444	Inst:	MSD6.I	Dilution:	1
Run Date:	12/16/2009 19:31	Analyst:	NAG1	Inj. Vol:	.5 uL
Prep Date:	12/14/2009 09:47	Aliquot:	30.01 g	Final Volume:	1 mL
Data File:	s6l1622.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	364	ug/kg	72.9	364
108-95-2	Phenol	U	364	ug/kg	72.9	364
95-57-8	2-Chlorophenol	U	364	ug/kg	72.9	364
106-46-7	1,4-Dichlorobenzene	U	364	ug/kg	72.9	364
621-64-7	N-Nitrosodipropylamine	U	364	ug/kg	72.9	364
59-50-7	4-Chloro-3-methylphenol	U	364	ug/kg	72.9	364
83-32-9	Acenaphthene	U	36.4	ug/kg	12.0	36.4
121-14-2	2,4-Dinitrotoluene	U	364	ug/kg	36.4	364
100-02-7	4-Nitrophenol	U	364	ug/kg	120	364
87-86-5	Pentachlorophenol	U	364	ug/kg	91.1	364
129-00-0	Pyrene	U	36.4	ug/kg	10.9	36.4
110-86-1	Pyridine	U	364	ug/kg	72.9	364
62-53-3	Aniline	U	364	ug/kg	109	364
111-44-4	bis(2-Chloroethyl) ether	U	364	ug/kg	72.9	364
541-73-1	1,3-Dichlorobenzene	U	364	ug/kg	72.9	364
100-51-6	Benzyl alcohol	U	364	ug/kg	109	364
95-50-1	1,2-Dichlorobenzene	U	364	ug/kg	72.9	364
108-60-1	bis(2-Chloroisopropyl)ether	U	364	ug/kg	72.9	364
95-48-7	o-Cresol	U	364	ug/kg	72.9	364
65794-96-9	m,p-Cresols	U	364	ug/kg	109	364
67-72-1	Hexachloroethane	U	364	ug/kg	72.9	364
98-95-3	Nitrobenzene	U	364	ug/kg	72.9	364
78-59-1	Isophorone	U	364	ug/kg	72.9	364
88-75-5	2-Nitrophenol	U	364	ug/kg	72.9	364
105-67-9	2,4-Dimethylphenol	U	364	ug/kg	127	364
111-91-1	bis(2-Chloroethoxy)methane	U	364	ug/kg	72.9	364
120-83-2	2,4-Dichlorophenol	U	364	ug/kg	72.9	364
65-85-0	Benzoic acid	U	729	ug/kg	182	729
91-20-3	Naphthalene	U	36.4	ug/kg	10.9	36.4
106-47-8	4-Chloroaniline	U	364	ug/kg	72.9	364
87-68-3	Hexachlorobutadiene	U	364	ug/kg	72.9	364
91-57-6	2-Methylnaphthalene	U	36.4	ug/kg	7.29	36.4
77-47-4	Hexachlorocyclopentadiene	U	364	ug/kg	72.9	364
88-06-2	2,4,6-Trichlorophenol	U	364	ug/kg	72.9	364
95-95-4	2,4,5-Trichlorophenol	U	364	ug/kg	72.9	364
91-58-7	2-Chloronaphthalene	U	36.4	ug/kg	12.0	36.4
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	364	ug/kg	72.9	364
99-09-2	3-Nitroaniline	U	364	ug/kg	72.9	364

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-886	Date Collected:	12/09/2009 12:00	Matrix:	S
Lab Sample ID:	242750002	Date Received:	12/11/2009 08:50	%Moisture:	8.5
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-13466	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	932444	Inst:	MSD6.I	Dilution:	1
Run Date:	12/16/2009 19:31	Analyst:	NAG1	Inj. Vol:	.5 uL
Prep Date:	12/14/2009 09:47	Aliquot:	30.01 g	Final Volume:	1 mL
Data File:	s6l1622.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	364	ug/kg	72.9	364
606-20-2	2,6-Dinitrotoluene	U	364	ug/kg	36.4	364
208-96-8	Acenaphthylene	U	36.4	ug/kg	10.9	36.4
51-28-5	2,4-Dinitrophenol	U	729	ug/kg	138	729
132-64-9	Dibenzofuran	U	364	ug/kg	72.9	364
84-66-2	Diethylphthalate	U	364	ug/kg	72.9	364
86-73-7	Fluorene	U	36.4	ug/kg	10.9	36.4
7005-72-3	4-Chlorophenylphenylether	U	364	ug/kg	72.9	364
534-52-1	2-Methyl-4,6-dinitrophenol	U	364	ug/kg	72.9	364
100-01-6	4-Nitroaniline	U	364	ug/kg	109	364
	p-Nitroaniline					
122-39-4	Diphenylamine	U	364	ug/kg	72.9	364
122-66-7	Azobenzene	U	364	ug/kg	72.9	364
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	364	ug/kg	72.9	364
118-74-1	Hexachlorobenzene	U	364	ug/kg	72.9	364
85-01-8	Phenanthrene	U	36.4	ug/kg	10.9	36.4
120-12-7	Anthracene	U	36.4	ug/kg	7.29	36.4
84-74-2	Di-n-butylphthalate	U	364	ug/kg	72.9	364
206-44-0	Fluoranthene	U	36.4	ug/kg	10.9	36.4
85-68-7	Butylbenzylphthalate	U	364	ug/kg	72.9	364
56-55-3	Benzo(a)anthracene	U	36.4	ug/kg	10.9	36.4
91-94-1	3,3'-Dichlorobenzidine	U	364	ug/kg	109	364
218-01-9	Chrysene	U	36.4	ug/kg	10.9	36.4
117-81-7	bis(2-Ethylhexyl)phthalate	U	364	ug/kg	72.9	364
117-84-0	Di-n-octylphthalate	U	364	ug/kg	72.9	364
205-99-2	Benzo(b)fluoranthene	U	36.4	ug/kg	10.9	36.4
207-08-9	Benzo(k)fluoranthene	U	36.4	ug/kg	10.9	36.4
50-32-8	Benzo(a)pyrene	U	36.4	ug/kg	10.9	36.4
193-39-5	Indeno(1,2,3-cd)pyrene	U	36.4	ug/kg	10.9	36.4
53-70-3	Dibenzo(a,h)anthracene	U	36.4	ug/kg	10.9	36.4
191-24-2	Benzo(ghi)perylene	U	36.4	ug/kg	10.9	36.4
120-82-1	1,2,4-Trichlorobenzene	U	364	ug/kg	72.9	364

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	3.46	399	ug/kg		JA
301-02-0	9-Octadecenamide, (Z)-	11.86	1440	ug/kg	98	NJ

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-886**	**Date Collected:**	**12/09/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242750002**	**Date Received:**	**12/11/2009 08:50**	**%Moisture:**	**8.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-13466**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**932444**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**12/16/2009 19:31**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/14/2009 09:47**	**Aliquot:**	**30.01 g**	**Final Volume:**	**1 mL**
Data File:	**s6l1622.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	13.86	523	ug/kg		J

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-886	**Date Collected:**	12/09/2009 12:00	**Matrix:**	S
Lab Sample ID:	242750001	**Date Received:**	12/11/2009 08:50	**%Moisture:**	3.9
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-13467	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	932444	**Inst:**	MSD6.I	**Dilution:**	1
Run Date:	12/16/2009 19:03	**Analyst:**	NAG1	**Inj. Vol:**	.5 uL
Prep Date:	12/14/2009 09:47	**Aliquot:**	30.03 g	**Final Volume:**	1 mL
Data File:	s6l1621.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	347	ug/kg	69.3	347
108-95-2	Phenol	U	347	ug/kg	69.3	347
95-57-8	2-Chlorophenol	U	347	ug/kg	69.3	347
106-46-7	1,4-Dichlorobenzene	U	347	ug/kg	69.3	347
621-64-7	N-Nitrosodipropylamine	U	347	ug/kg	69.3	347
59-50-7	4-Chloro-3-methylphenol	U	347	ug/kg	69.3	347
83-32-9	Acenaphthene	U	34.7	ug/kg	11.4	34.7
121-14-2	2,4-Dinitrotoluene	U	347	ug/kg	34.7	347
100-02-7	4-Nitrophenol	U	347	ug/kg	114	347
87-86-5	Pentachlorophenol	U	347	ug/kg	86.6	347
129-00-0	Pyrene	U	34.7	ug/kg	10.4	34.7
110-86-1	Pyridine	U	347	ug/kg	69.3	347
62-53-3	Aniline	U	347	ug/kg	104	347
111-44-4	bis(2-Chloroethyl) ether	U	347	ug/kg	69.3	347
541-73-1	1,3-Dichlorobenzene	U	347	ug/kg	69.3	347
100-51-6	Benzyl alcohol	U	347	ug/kg	104	347
95-50-1	1,2-Dichlorobenzene	U	347	ug/kg	69.3	347
108-60-1	bis(2-Chloroisopropyl)ether	U	347	ug/kg	69.3	347
95-48-7	o-Cresol	U	347	ug/kg	69.3	347
65794-96-9	m,p-Cresols	U	347	ug/kg	104	347
67-72-1	Hexachloroethane	U	347	ug/kg	69.3	347
98-95-3	Nitrobenzene	U	347	ug/kg	69.3	347
78-59-1	Isophorone	U	347	ug/kg	69.3	347
88-75-5	2-Nitrophenol	U	347	ug/kg	69.3	347
105-67-9	2,4-Dimethylphenol	U	347	ug/kg	121	347
111-91-1	bis(2-Chloroethoxy)methane	U	347	ug/kg	69.3	347
120-83-2	2,4-Dichlorophenol	U	347	ug/kg	69.3	347
65-85-0	Benzoic acid	U	693	ug/kg	173	693
91-20-3	Naphthalene	U	34.7	ug/kg	10.4	34.7
106-47-8	4-Chloroaniline	U	347	ug/kg	69.3	347
87-68-3	Hexachlorobutadiene	U	347	ug/kg	69.3	347
91-57-6	2-Methylnaphthalene	U	34.7	ug/kg	6.93	34.7
77-47-4	Hexachlorocyclopentadiene	U	347	ug/kg	69.3	347
88-06-2	2,4,6-Trichlorophenol	U	347	ug/kg	69.3	347
95-95-4	2,4,5-Trichlorophenol	U	347	ug/kg	69.3	347
91-58-7	2-Chloronaphthalene	U	34.7	ug/kg	11.4	34.7
88-74-4	2-Nitroaniline	U	347	ug/kg	69.3	347
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	347	ug/kg	69.3	347

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-886**	**Date Collected:**	**12/09/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242750001**	**Date Received:**	**12/11/2009 08:50**	**%Moisture:**	**3.9**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-13467**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**932444**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**12/16/2009 19:03**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/14/2009 09:47**	**Aliquot:**	**30.03 g**	**Final Volume:**	**1 mL**
Data File:	**s6l1621.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	347	ug/kg	69.3	347
606-20-2	2,6-Dinitrotoluene	U	347	ug/kg	34.7	347
208-96-8	Acenaphthylene	U	34.7	ug/kg	10.4	34.7
51-28-5	2,4-Dinitrophenol	U	693	ug/kg	132	693
132-64-9	Dibenzofuran	U	347	ug/kg	69.3	347
84-66-2	Diethylphthalate	U	347	ug/kg	69.3	347
86-73-7	Fluorene	U	34.7	ug/kg	10.4	34.7
7005-72-3	4-Chlorophenylphenylether	U	347	ug/kg	69.3	347
534-52-1	2-Methyl-4,6-dinitrophenol	U	347	ug/kg	69.3	347
100-01-6	4-Nitroaniline	U	347	ug/kg	104	347
	p-Nitroaniline					
122-39-4	Diphenylamine	U	347	ug/kg	69.3	347
122-66-7	Azobenzene	U	347	ug/kg	69.3	347
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	347	ug/kg	69.3	347
118-74-1	Hexachlorobenzene	U	347	ug/kg	69.3	347
85-01-8	Phenanthrene	U	34.7	ug/kg	10.4	34.7
120-12-7	Anthracene	U	34.7	ug/kg	6.93	34.7
84-74-2	Di-n-butylphthalate	U	347	ug/kg	69.3	347
206-44-0	Fluoranthene	U	34.7	ug/kg	10.4	34.7
85-68-7	Butylbenzylphthalate	U	347	ug/kg	69.3	347
56-55-3	Benzo(a)anthracene	U	34.7	ug/kg	10.4	34.7
91-94-1	3,3'-Dichlorobenzidine	U	347	ug/kg	104	347
218-01-9	Chrysene	U	34.7	ug/kg	10.4	34.7
117-81-7	bis(2-Ethylhexyl)phthalate	U	347	ug/kg	69.3	347
117-84-0	Di-n-octylphthalate	U	347	ug/kg	69.3	347
205-99-2	Benzo(b)fluoranthene	U	34.7	ug/kg	10.4	34.7
207-08-9	Benzo(k)fluoranthene	U	34.7	ug/kg	10.4	34.7
50-32-8	Benzo(a)pyrene	U	34.7	ug/kg	10.4	34.7
193-39-5	Indeno(1,2,3-cd)pyrene	U	34.7	ug/kg	10.4	34.7
53-70-3	Dibenzo(a,h)anthracene	U	34.7	ug/kg	10.4	34.7
191-24-2	Benzo(ghi)perylene	U	34.7	ug/kg	10.4	34.7
120-82-1	1,2,4-Trichlorobenzene	U	347	ug/kg	69.3	347

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	3.45	409	ug/kg		JA
301-02-0	9-Octadecenamide, (Z)-	11.86	1910	ug/kg	98	NJ

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-886**	**Date Collected:**	**12/09/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242750001**	**Date Received:**	**12/11/2009 08:50**	**%Moisture:**	**3.9**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-13467**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**932444**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**12/16/2009 19:03**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/14/2009 09:47**	**Aliquot:**	**30.03 g**	**Final Volume:**	**1 mL**
Data File:	**s6l1621.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
124-26-5	Octadecanamide	11.94	205	ug/kg	94	NJ
	Unknown	13.86	808	ug/kg		J

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-886	**Date Collected:**	12/09/2009 12:00	**Matrix:**	S
Lab Sample ID:	242750003	**Date Received:**	12/11/2009 08:50	**%Moisture:**	9.3
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-13468	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	932444	**Inst:**	MSD6.I	**Dilution:**	1
Run Date:	12/16/2009 20:00	**Analyst:**	NAG1	**Inj. Vol:**	.5 uL
Prep Date:	12/14/2009 09:47	**Aliquot:**	30 g	**Final Volume:**	1 mL
Data File:	s6l1623.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	368	ug/kg	73.5	368
108-95-2	Phenol	U	368	ug/kg	73.5	368
95-57-8	2-Chlorophenol	U	368	ug/kg	73.5	368
106-46-7	1,4-Dichlorobenzene	U	368	ug/kg	73.5	368
621-64-7	N-Nitrosodipropylamine	U	368	ug/kg	73.5	368
59-50-7	4-Chloro-3-methylphenol	U	368	ug/kg	73.5	368
83-32-9	Acenaphthene	U	36.8	ug/kg	12.1	36.8
121-14-2	2,4-Dinitrotoluene	U	368	ug/kg	36.8	368
100-02-7	4-Nitrophenol	U	368	ug/kg	121	368
87-86-5	Pentachlorophenol	U	368	ug/kg	91.9	368
129-00-0	Pyrene	U	36.8	ug/kg	11.0	36.8
110-86-1	Pyridine	U	368	ug/kg	73.5	368
62-53-3	Aniline	U	368	ug/kg	110	368
111-44-4	bis(2-Chloroethyl) ether	U	368	ug/kg	73.5	368
541-73-1	1,3-Dichlorobenzene	U	368	ug/kg	73.5	368
100-51-6	Benzyl alcohol	U	368	ug/kg	110	368
95-50-1	1,2-Dichlorobenzene	U	368	ug/kg	73.5	368
108-60-1	bis(2-Chloroisopropyl)ether	U	368	ug/kg	73.5	368
95-48-7	o-Cresol	U	368	ug/kg	73.5	368
65794-96-9	m,p-Cresols	U	368	ug/kg	110	368
67-72-1	Hexachloroethane	U	368	ug/kg	73.5	368
98-95-3	Nitrobenzene	U	368	ug/kg	73.5	368
78-59-1	Isophorone	U	368	ug/kg	73.5	368
88-75-5	2-Nitrophenol	U	368	ug/kg	73.5	368
105-67-9	2,4-Dimethylphenol	U	368	ug/kg	129	368
111-91-1	bis(2-Chloroethoxy)methane	U	368	ug/kg	73.5	368
120-83-2	2,4-Dichlorophenol	U	368	ug/kg	73.5	368
65-85-0	Benzoic acid	U	735	ug/kg	184	735
91-20-3	Naphthalene	U	36.8	ug/kg	11.0	36.8
106-47-8	4-Chloroaniline	U	368	ug/kg	73.5	368
87-68-3	Hexachlorobutadiene	U	368	ug/kg	73.5	368
91-57-6	2-Methylnaphthalene	U	36.8	ug/kg	7.35	36.8
77-47-4	Hexachlorocyclopentadiene	U	368	ug/kg	73.5	368
88-06-2	2,4,6-Trichlorophenol	U	368	ug/kg	73.5	368
95-95-4	2,4,5-Trichlorophenol	U	368	ug/kg	73.5	368
91-58-7	2-Chloronaphthalene	U	36.8	ug/kg	12.1	36.8
88-74-4	2-Nitroaniline	U	368	ug/kg	73.5	368
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	368	ug/kg	73.5	368

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-886	Date Collected:	12/09/2009 12:00	Matrix:	S
Lab Sample ID:	242750003	Date Received:	12/11/2009 08:50	%Moisture:	9.3
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-13468	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	932444	Inst:	MSD6.I	Dilution:	1
Run Date:	12/16/2009 20:00	Analyst:	NAG1	Inj. Vol:	.5 uL
Prep Date:	12/14/2009 09:47	Aliquot:	30 g	Final Volume:	1 mL
Data File:	s611623.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	368	ug/kg	73.5	368
606-20-2	2,6-Dinitrotoluene	U	368	ug/kg	36.8	368
208-96-8	Acenaphthylene	U	36.8	ug/kg	11.0	36.8
51-28-5	2,4-Dinitrophenol	U	735	ug/kg	140	735
132-64-9	Dibenzofuran	U	368	ug/kg	73.5	368
84-66-2	Diethylphthalate	U	368	ug/kg	73.5	368
86-73-7	Fluorene	U	36.8	ug/kg	11.0	36.8
7005-72-3	4-Chlorophenylphenylether	U	368	ug/kg	73.5	368
534-52-1	2-Methyl-4,6-dinitrophenol	U	368	ug/kg	73.5	368
100-01-6	4-Nitroaniline	U	368	ug/kg	110	368
	p-Nitroaniline					
122-39-4	Diphenylamine	U	368	ug/kg	73.5	368
122-66-7	Azobenzene	U	368	ug/kg	73.5	368
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	368	ug/kg	73.5	368
118-74-1	Hexachlorobenzene	U	368	ug/kg	73.5	368
85-01-8	Phenanthrene	U	36.8	ug/kg	11.0	36.8
120-12-7	Anthracene	U	36.8	ug/kg	7.35	36.8
84-74-2	Di-n-butylphthalate	U	368	ug/kg	73.5	368
206-44-0	Fluoranthene	U	36.8	ug/kg	11.0	36.8
85-68-7	Butylbenzylphthalate	U	368	ug/kg	73.5	368
56-55-3	Benzo(a)anthracene	U	36.8	ug/kg	11.0	36.8
91-94-1	3,3'-Dichlorobenzidine	U	368	ug/kg	110	368
218-01-9	Chrysene	U	36.8	ug/kg	11.0	36.8
117-81-7	bis(2-Ethylhexyl)phthalate	U	368	ug/kg	73.5	368
117-84-0	Di-n-octylphthalate	U	368	ug/kg	73.5	368
205-99-2	Benzo(b)fluoranthene	U	36.8	ug/kg	11.0	36.8
207-08-9	Benzo(k)fluoranthene	U	36.8	ug/kg	11.0	36.8
50-32-8	Benzo(a)pyrene	U	36.8	ug/kg	11.0	36.8
193-39-5	Indeno(1,2,3-cd)pyrene	U	36.8	ug/kg	11.0	36.8
53-70-3	Dibenzo(a,h)anthracene	U	36.8	ug/kg	11.0	36.8
191-24-2	Benzo(ghi)perylene	U	36.8	ug/kg	11.0	36.8
120-82-1	1,2,4-Trichlorobenzene	U	368	ug/kg	73.5	368

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	3.45	381	ug/kg		JA
301-02-0	9-Octadecenamide, (Z)-	11.86	1630	ug/kg	98	NJ

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-886	**Date Collected:**	12/09/2009 12:00	**Matrix:**	S
Lab Sample ID:	242750003	**Date Received:**	12/11/2009 08:50	**%Moisture:**	9.3
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-13468	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	932444	**Inst:**	MSD6.I	**Dilution:**	1
Run Date:	12/16/2009 20:00	**Analyst:**	NAG1	**Inj. Vol:**	.5 uL
Prep Date:	12/14/2009 09:47	**Aliquot:**	30 g	**Final Volume:**	1 mL
Data File:	s6l1623.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
629-54-9	Hexadecanamide	11.94	150	ug/kg	86	NJ
	Unknown	13.86	571	ug/kg		J

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-886	**Date Collected:**	12/09/2009 12:00	**Matrix:**	S
Lab Sample ID:	242750005	**Date Received:**	12/11/2009 08:50	**%Moisture:**	6.8
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-10-2003	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	932444	**Inst:**	MSD6.I	**Dilution:**	1
Run Date:	12/16/2009 20:56	**Analyst:**	NAG1	**Inj. Vol:**	.5 uL
Prep Date:	12/14/2009 09:47	**Aliquot:**	30.04 g	**Final Volume:**	1 mL
Data File:	s6l1625.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	357	ug/kg	71.5	357
108-95-2	Phenol	U	357	ug/kg	71.5	357
95-57-8	2-Chlorophenol	U	357	ug/kg	71.5	357
106-46-7	1,4-Dichlorobenzene	U	357	ug/kg	71.5	357
621-64-7	N-Nitrosodipropylamine	U	357	ug/kg	71.5	357
59-50-7	4-Chloro-3-methylphenol	U	357	ug/kg	71.5	357
83-32-9	Acenaphthene	U	35.7	ug/kg	11.8	35.7
121-14-2	2,4-Dinitrotoluene	U	357	ug/kg	35.7	357
100-02-7	4-Nitrophenol	U	357	ug/kg	118	357
87-86-5	Pentachlorophenol	U	357	ug/kg	89.3	357
129-00-0	Pyrene	U	35.7	ug/kg	10.7	35.7
110-86-1	Pyridine	U	357	ug/kg	71.5	357
62-53-3	Aniline	U	357	ug/kg	107	357
111-44-4	bis(2-Chloroethyl) ether	U	357	ug/kg	71.5	357
541-73-1	1,3-Dichlorobenzene	U	357	ug/kg	71.5	357
100-51-6	Benzyl alcohol	U	357	ug/kg	107	357
95-50-1	1,2-Dichlorobenzene	U	357	ug/kg	71.5	357
108-60-1	bis(2-Chloroisopropyl)ether	U	357	ug/kg	71.5	357
95-48-7	o-Cresol	U	357	ug/kg	71.5	357
65794-96-9	m,p-Cresols	U	357	ug/kg	107	357
67-72-1	Hexachloroethane	U	357	ug/kg	71.5	357
98-95-3	Nitrobenzene	U	357	ug/kg	71.5	357
78-59-1	Isophorone	U	357	ug/kg	71.5	357
88-75-5	2-Nitrophenol	U	357	ug/kg	71.5	357
105-67-9	2,4-Dimethylphenol	U	357	ug/kg	125	357
111-91-1	bis(2-Chloroethoxy)methane	U	357	ug/kg	71.5	357
120-83-2	2,4-Dichlorophenol	U	357	ug/kg	71.5	357
65-85-0	Benzoic acid	U	715	ug/kg	179	715
91-20-3	Naphthalene	U	35.7	ug/kg	10.7	35.7
106-47-8	4-Chloroaniline	U	357	ug/kg	71.5	357
87-68-3	Hexachlorobutadiene	U	357	ug/kg	71.5	357
91-57-6	2-Methylnaphthalene	U	35.7	ug/kg	7.15	35.7
77-47-4	Hexachlorocyclopentadiene	U	357	ug/kg	71.5	357
88-06-2	2,4,6-Trichlorophenol	U	357	ug/kg	71.5	357
95-95-4	2,4,5-Trichlorophenol	U	357	ug/kg	71.5	357
91-58-7	2-Chloronaphthalene	U	35.7	ug/kg	11.8	35.7
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	357	ug/kg	71.5	357
99-09-2	3-Nitroaniline	U	357	ug/kg	71.5	357

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-886**	**Date Collected:**	**12/09/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242750005**	**Date Received:**	**12/11/2009 08:50**	**%Moisture:**	**6.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-10-2003**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**932444**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**12/16/2009 20:56**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/14/2009 09:47**	**Aliquot:**	**30.04 g**	**Final Volume:**	**1 mL**
Data File:	**s611625.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	357	ug/kg	71.5	357
606-20-2	2,6-Dinitrotoluene	U	357	ug/kg	35.7	357
208-96-8	Acenaphthylene	U	35.7	ug/kg	10.7	35.7
51-28-5	2,4-Dinitrophenol	U	715	ug/kg	136	715
132-64-9	Dibenzofuran	U	357	ug/kg	71.5	357
84-66-2	Diethylphthalate	U	357	ug/kg	71.5	357
86-73-7	Fluorene	U	35.7	ug/kg	10.7	35.7
7005-72-3	4-Chlorophenylphenylether	U	357	ug/kg	71.5	357
534-52-1	2-Methyl-4,6-dinitrophenol	U	357	ug/kg	71.5	357
100-01-6	4-Nitroaniline	U	357	ug/kg	107	357
	p-Nitroaniline					
122-39-4	Diphenylamine	U	357	ug/kg	71.5	357
122-66-7	Azobenzene	U	357	ug/kg	71.5	357
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	357	ug/kg	71.5	357
118-74-1	Hexachlorobenzene	U	357	ug/kg	71.5	357
85-01-8	Phenanthrene	U	35.7	ug/kg	10.7	35.7
120-12-7	Anthracene	U	35.7	ug/kg	7.15	35.7
84-74-2	Di-n-butylphthalate	U	357	ug/kg	71.5	357
206-44-0	Fluoranthene	U	35.7	ug/kg	10.7	35.7
85-68-7	Butylbenzylphthalate	U	357	ug/kg	71.5	357
56-55-3	Benzo(a)anthracene	U	35.7	ug/kg	10.7	35.7
91-94-1	3,3'-Dichlorobenzidine	U	357	ug/kg	107	357
218-01-9	Chrysene	U	35.7	ug/kg	10.7	35.7
117-81-7	bis(2-Ethylhexyl)phthalate	U	357	ug/kg	71.5	357
117-84-0	Di-n-octylphthalate	U	357	ug/kg	71.5	357
205-99-2	Benzo(b)fluoranthene	U	35.7	ug/kg	10.7	35.7
207-08-9	Benzo(k)fluoranthene	U	35.7	ug/kg	10.7	35.7
50-32-8	Benzo(a)pyrene	U	35.7	ug/kg	10.7	35.7
193-39-5	Indeno(1,2,3-cd)pyrene	U	35.7	ug/kg	10.7	35.7
53-70-3	Dibenzo(a,h)anthracene	U	35.7	ug/kg	10.7	35.7
191-24-2	Benzo(ghi)perylene	U	35.7	ug/kg	10.7	35.7
120-82-1	1,2,4-Trichlorobenzene	U	357	ug/kg	71.5	357

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	3.45	325	ug/kg		JA
301-02-0	9-Octadecenamide, (Z)-	11.85	506	ug/kg	98	NJ

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-886**	**Date Collected:**	**12/09/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242750005**	**Date Received:**	**12/11/2009 08:50**	**%Moisture:**	**6.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-10-2003**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**932444**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**12/16/2009 20:56**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/14/2009 09:47**	**Aliquot:**	**30.04 g**	**Final Volume:**	**1 mL**
Data File:	**s611625.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
112-84-5	13-Docosenamide, (Z)-	13.85	146	ug/kg	81	NJ

QC Summary

Semi-Volatile

Surrogate Recovery Report

SDG Number: 10-886

Matrix Type: SOLID

CAP Column (1) : J&W DB-5MS

Sample ID	Client ID	2FP %REC	PHL %REC	NBZ %REC	FBP %REC	TBP %REC	TPH %REC
1201994527	MB for batch 932443	67	68	68	69	71	86
1201994528	LCS for batch 932443	67	67	66	65	85	85
242750001	RE03-09-13467	65	70	65	60	83	87
242750002	RE03-09-13466	62	49	62	58	80	81
242750003	RE03-09-13468	41	42	41	39	61	73
242750004	RE03-09-13465	75	65	53	44	68	75
242750005	RE03-10-2003	46	49	49	45	53	87

Surrogate			Acceptance Limits
2FP	=	2-Fluorophenol	(35%-96%)
PHL	=	Phenol-d5	(36%-96%)
NBZ	=	Nitrobenzene-d5	(34%-104%)
FBP	=	2-Fluorobiphenyl	(36%-100%)
TBP	=	2,4,6-Tribromophenol	(37%-106%)
TPH	=	p-Terphenyl-d14	(40%-124%)

* Recovery outside Acceptance Limits

\# Column to be used to flag recovery values

D Sample Diluted

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-886
Client ID: LCS for batch 932443
Lab Sample ID: 1201994528
Instrument: MSD6.I
Analyst: NAG1
Inj. Vol: .5 uL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 12/16/2009 15:45
Dilution: 1
Prep Batch ID: 932443
Batch ID: 932444

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
62-75-9	LCS	N-Methyl-N-nitrosomethylam	1670	0.0	946	57	31-95
108-95-2	LCS	Phenol	1670	0.0	1190	71	37-104
95-57-8	LCS	2-Chlorophenol	1670	0.0	1160	69	40-105
106-46-7	LCS	1,4-Dichlorobenzene	1670	0.0	964	58	34-103
621-64-7	LCS	N-Nitrosodipropylamine	1670	0.0	996	60	36-110
59-50-7	LCS	4-Chloro-3-methylphenol	1670	0.0	1200	72	46-114
83-32-9	LCS	Acenaphthene	1670	0.0	1180	71	40-105
121-14-2	LCS	2,4-Dinitrotoluene	1670	0.0	1340	81	49-107
100-02-7	LCS	4-Nitrophenol	1670	0.0	1340	81	33-110
87-86-5	LCS	Pentachlorophenol	1670	0.0	1250	75	38-116
129-00-0	LCS	Pyrene	1670	0.0	1230	74	43-108
110-86-1	LCS	Pyridine	1670	0.0	897	54	13-129
62-53-3	LCS	Aniline	1670	0.0	1120	67	30-121
111-44-4	LCS	bis(2-Chloroethyl) ether	1670	0.0	1010	61	37-106
541-73-1	LCS	1,3-Dichlorobenzene	1670	0.0	950	57	33-103
100-51-6	LCS	Benzyl alcohol	1670	0.0	1390	84	31-100
95-50-1	LCS	1,2-Dichlorobenzene	1670	0.0	1020	61	34-108
108-60-1	LCS	bis(2-Chloroisopropyl)ether	1670	0.0	1070	64	34-120
95-48-7	LCS	o-Cresol	1670	0.0	866	52	39-111
65794-96-9	LCS	m,p-Cresols	1670	0.0	1250	75	43-118
67-72-1	LCS	Hexachloroethane	1670	0.0	944	57	34-105
98-95-3	LCS	Nitrobenzene	1670	0.0	1100	66	37-110

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-886
Client ID: LCS for batch 932443
Lab Sample ID: 1201994528
Instrument: MSD6.I
Analyst: NAG1
Inj. Vol: .5 uL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 12/16/2009 15:45
Dilution: 1
Prep Batch ID: 932443
Batch ID: 932444

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
78-59-1	LCS	Isophorone	1670	0.0	940	56	41-108
88-75-5	LCS	2-Nitrophenol	1670	0.0	1180	71	35-112
105-67-9	LCS	2,4-Dimethylphenol	1670	0.0	1030	62	35-114
111-91-1	LCS	bis(2-Chloroethoxy)methane	1670	0.0	865	52	40-109
120-83-2	LCS	2,4-Dichlorophenol	1670	0.0	1200	72	45-109
65-85-0	LCS	Benzoic acid	3330	0.0	3080	92	27-137
91-20-3	LCS	Naphthalene	1670	0.0	1020	61	35-105
106-47-8	LCS	4-Chloroaniline	1670	0.0	1140	69	30-122
87-68-3	LCS	Hexachlorobutadiene	1670	0.0	1060	63	37-111
91-57-6	LCS	2-Methylnaphthalene	1670	0.0	1060	63	40-106
77-47-4	LCS	Hexachlorocyclopentadiene	1670	0.0	1040	62	24-135
88-06-2	LCS	2,4,6-Trichlorophenol	1670	0.0	1180	71	46-107
95-95-4	LCS	2,4,5-Trichlorophenol	1670	0.0	1190	71	44-110
91-58-7	LCS	2-Chloronaphthalene	1670	0.0	1090	65	44-104
88-74-4	LCS	2-Nitroaniline *o-Nitroaniline*	1670	0.0	1100	66	44-113
99-09-2	LCS	3-Nitroaniline *m-Nitroaniline*	1670	0.0	1380	83	48-113
131-11-3	LCS	Dimethylphthalate	1670	0.0	1240	75	47-104
606-20-2	LCS	2,6-Dinitrotoluene	1670	0.0	1210	72	47-103
208-96-8	LCS	Acenaphthylene	1670	0.0	1220	73	43-104
51-28-5	LCS	2,4-Dinitrophenol	1670	0.0	1500	90	32-114
132-64-9	LCS	Dibenzofuran	1670	0.0	1500	90	47-112
84-66-2	LCS	Diethylphthalate	1670	0.0	1300	78	50-108

Semi-Volatile
Quality Control Summary
Spike Recovery Report

SDG Number: 10-886
Client ID: LCS for batch 932443
Lab Sample ID: 1201994528
Instrument: MSD6.I
Analyst: NAG1
Inj. Vol: .5 uL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 12/16/2009 15:45
Dilution: 1
Prep Batch ID: 932443
Batch ID: 932444

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
86-73-7	LCS	Fluorene	1670	0.0	1280	77	49-102
7005-72-3	LCS	4-Chlorophenylphenylether	1670	0.0	1300	78	50-109
534-52-1	LCS	2-Methyl-4,6-dinitrophenol	1670	0.0	1250	75	35-114
100-01-6	LCS	4-Nitroaniline *p-Nitroaniline*	1670	0.0	1500	90	44-139
122-39-4	LCS	Diphenylamine	1670	0.0	1200	72	46-111
122-66-7	LCS	Azobenzene *1,2-Diphenylhydrazine*	1670	0.0	1250	75	40-119
101-55-3	LCS	4-Bromophenylphenylether	1670	0.0	1250	75	45-112
118-74-1	LCS	Hexachlorobenzene	1670	0.0	1220	73	44-115
85-01-8	LCS	Phenanthrene	1670	0.0	1190	72	45-107
120-12-7	LCS	Anthracene	1670	0.0	1220	73	46-106
84-74-2	LCS	Di-n-butylphthalate	1670	0.0	1390	84	52-115
206-44-0	LCS	Fluoranthene	1670	0.0	1360	82	50-115
85-68-7	LCS	Butylbenzylphthalate	1670	0.0	1410	85	49-115
56-55-3	LCS	Benzo(a)anthracene	1670	0.0	1390	83	48-105
91-94-1	LCS	3,3'-Dichlorobenzidine	1670	0.0	1070	64	45-98
218-01-9	LCS	Chrysene	1670	0.0	1300	78	48-105
117-81-7	LCS	bis(2-Ethylhexyl)phthalate	1670	0.0	1460	88	50-117
117-84-0	LCS	Di-n-octylphthalate	1670	0.0	1480	89	39-123
205-99-2	LCS	Benzo(b)fluoranthene	1670	0.0	1430	86	46-111
207-08-9	LCS	Benzo(k)fluoranthene	1670	0.0	1320	79	46-114
50-32-8	LCS	Benzo(a)pyrene	1670	0.0	1440	87	49-112
193-39-5	LCS	Indeno(1,2,3-cd)pyrene	1670	0.0	1430	86	45-128

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-886
Client ID: LCS for batch 932443
Lab Sample ID: 1201994528
Instrument: MSD6.I
Analyst: NAG1
Inj. Vol: .5 uL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 12/16/2009 15:45
Dilution: 1
Prep Batch ID: 932443
Batch ID: 932444

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
53-70-3	LCS	Dibenzo(a,h)anthracene	1670	0.0	1350	81	44-131
191-24-2	LCS	Benzo(ghi)perylene	1670	0.0	1490	89	42-128
120-82-1	LCS	1,2,4-Trichlorobenzene	1670	0.0	1060	63	36-109

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-886
Client ID: RE16-10-2878MS
Lab Sample ID: 1201994529
Instrument: MSD6.I
Analyst: NAG1
Inj. Vol: .5 uL

Sample Type: Matrix Spike
Matrix: S
%Moisture: 12.6
Analysis Date: 12/16/2009 22:46
Prep Batch ID: 932443
Batch ID: 932444
Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
62-75-9	MS	N-Methyl-N-nitrosomethylam	1900	0.00	U	961	51	32-90
108-95-2	MS	Phenol	1900	0.00	U	1310	69	32-105
95-57-8	MS	2-Chlorophenol	1900	0.00	U	1140	60	33-106
106-46-7	MS	1,4-Dichlorobenzene	1900	0.00	U	637	34	33-95
621-64-7	MS	N-Nitrosodipropylamine	1900	0.00	U	1110	59	31-109
59-50-7	MS	4-Chloro-3-methylphenol	1900	0.00	U	1650	87	38-119
83-32-9	MS	Acenaphthene	1900	0.00	U	1050	56	39-100
121-14-2	MS	2,4-Dinitrotoluene	1900	0.00	U	1250	66	42-107
100-02-7	MS	4-Nitrophenol	1900	0.00	U	1080	57	24-120
87-86-5	MS	Pentachlorophenol	1900	0.00	U	1160	61	26-121
129-00-0	MS	Pyrene	1900	0.00	U	1390	73	34-120
110-86-1	MS	Pyridine	1900	0.00	U	502	26 *	30-95
62-53-3	MS	Aniline	1900	0.00	U	707	37	34-111
111-44-4	MS	bis(2-Chloroethyl) ether	1900	0.00	U	882	46	34-101
541-73-1	MS	1,3-Dichlorobenzene	1900	0.00	U	828	44	31-97
100-51-6	MS	Benzyl alcohol	1900	0.00	U	212	11 *	17-120
95-50-1	MS	1,2-Dichlorobenzene	1900	0.00	U	740	39	32-102
108-60-1	MS	bis(2-Chloroisopropyl)ether	1900	0.00	U	1190	63	32-113
95-48-7	MS	o-Cresol	1900	0.00	U	1330	70	31-119
65794-96-9	MS	m,p-Cresols	1900	0.00	U	1510	79	35-125
67-72-1	MS	Hexachloroethane	1900	0.00	U	605	32	30-100
98-95-3	MS	Nitrobenzene	1900	0.00	U	920	48	33-108

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-886
Client ID: RE16-10-2878MS
Lab Sample ID: 1201994529
Instrument: MSD6.I
Analyst: NAG1
Inj. Vol: .5 uL

Sample Type: Matrix Spike
Matrix: S
%Moisture: 12.6
Analysis Date: 12/16/2009 22:46
Prep Batch ID: 932443
Batch ID: 932444
Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
78-59-1	MS	Isophorone	1900	0.00	U	1090	57	34-110
88-75-5	MS	2-Nitrophenol	1900	0.00	U	1020	53	32-108
105-67-9	MS	2,4-Dimethylphenol	1900	0.00	U	936	49	32-115
111-91-1	MS	bis(2-Chloroethoxy)methane	1900	0.00	U	1010	53	35-108
120-83-2	MS	2,4-Dichlorophenol	1900	0.00	U	1300	69	38-110
65-85-0	MS	Benzoic acid	3800	0.00	U	3800	100	18-134
91-20-3	MS	Naphthalene	1900	0.00	U	880	46	31-105
106-47-8	MS	4-Chloroaniline	1900	0.00	U	770	41	29-123
87-68-3	MS	Hexachlorobutadiene	1900	0.00	U	876	46	31-109
91-57-6	MS	2-Methylnaphthalene	1900	0.00	U	1190	63	32-110
77-47-4	MS	Hexachlorocyclopentadiene	1900	0.00	U	263	14 *	21-122
88-06-2	MS	2,4,6-Trichlorophenol	1900	0.00	U	1140	60	37-108
95-95-4	MS	2,4,5-Trichlorophenol	1900	0.00	U	1360	72	37-116
91-58-7	MS	2-Chloronaphthalene	1900	0.00	U	1010	53	37-103
88-74-4	MS	2-Nitroaniline *o-Nitroaniline*	1900	0.00	U	1090	57	36-115
99-09-2	MS	3-Nitroaniline *m-Nitroaniline*	1900	0.00	U	1020	53	39-117
131-11-3	MS	Dimethylphthalate	1900	0.00	U	1240	65	41-105
606-20-2	MS	2,6-Dinitrotoluene	1900	0.00	U	1200	63	41-103
208-96-8	MS	Acenaphthylene	1900	0.00	U	1120	59	41-103
51-28-5	MS	2,4-Dinitrophenol	1900	0.00	U	1080	57	25-104
132-64-9	MS	Dibenzofuran	1900	0.00	U	1440	76	40-114
84-66-2	MS	Diethylphthalate	1900	0.00	U	1340	70	43-110

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-886
Client ID: RE16-10-2878MS
Lab Sample ID: 1201994529
Instrument: MSD6.I
Analyst: NAG1
Inj. Vol: .5 uL

Sample Type: Matrix Spike
Matrix: S
%Moisture: 12.6
Analysis Date: 12/16/2009 22:46
Prep Batch ID: 932443
Batch ID: 932444
Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
86-73-7	MS	Fluorene	1900	0.00	U	1240	65	48-99
7005-72-3	MS	4-Chlorophenylphenylether	1900	0.00	U	1280	67	42-111
534-52-1	MS	2-Methyl-4,6-dinitrophenol	1900	0.00	U	877	46	19-118
100-01-6	MS	4-Nitroaniline *p-Nitroaniline*	1900	0.00	U	1320	69	35-139
122-39-4	MS	Diphenylamine	1900	0.00	U	1120	59	41-112
122-66-7	MS	Azobenzene *1,2-Diphenylhydrazine*	1900	0.00	U	1210	64	37-118
101-55-3	MS	4-Bromophenylphenylether	1900	0.00	U	1200	63	39-112
118-74-1	MS	Hexachlorobenzene	1900	0.00	U	1040	55	38-113
85-01-8	MS	Phenanthrene	1900	0.00	U	1240	65	38-110
120-12-7	MS	Anthracene	1900	0.00	U	1240	65	38-112
84-74-2	MS	Di-n-butylphthalate	1900	0.00	U	1360	72	42-119
206-44-0	MS	Fluoranthene	1900	0.00	U	1260	67	38-119
85-68-7	MS	Butylbenzylphthalate	1900	0.00	U	1610	85	39-126
56-55-3	MS	Benzo(a)anthracene	1900	0.00	U	1210	64	39-110
91-94-1	MS	3,3'-Dichlorobenzidine	1900	0.00	U	0.00	0 *	35-106
218-01-9	MS	Chrysene	1900	0.00	U	1190	62	39-109
117-81-7	MS	bis(2-Ethylhexyl)phthalate	1900	0.00	U	1530	81	40-125
117-84-0	MS	Di-n-octylphthalate	1900	0.00	U	2160	114	30-147
205-99-2	MS	Benzo(b)fluoranthene	1900	0.00	U	1380	73	38-117
207-08-9	MS	Benzo(k)fluoranthene	1900	0.00	U	1410	74	39-120
50-32-8	MS	Benzo(a)pyrene	1900	0.00	U	1270	67	40-115
193-39-5	MS	Indeno(1,2,3-cd)pyrene	1900	0.00	U	970	51	32-120

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-886
Client ID: RE16-10-2878MS
Lab Sample ID: 1201994529
Instrument: MSD6.I
Analyst: NAG1
Inj. Vol: .5 uL

Sample Type: Matrix Spike
Matrix: S
%Moisture: 12.6
Analysis Date: 12/16/2009 22:46
Prep Batch ID: 932443
Batch ID: 932444
Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
53-70-3	MS	Dibenzo(a,h)anthracene	1900	0.00	U	1000	53	32-124
191-24-2	MS	Benzo(ghi)perylene	1900	0.00	U	832	44	28-119
120-82-1	MS	1,2,4-Trichlorobenzene	1900	0.00	U	875	46	31-105

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-886
Client ID: RE16-10-2878MSD
Lab Sample ID: 1201994530
Instrument: MSD6.I
Analyst: NAG1
Inj. Vol: .5 uL

Sample Type: Matrix Spike Duplicate
Matrix: S
%Moisture: 12.6
Analysis Date: 12/17/2009 17:29
Dilution: 1
Prep Batch ID: 932443
Batch ID: 932444

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
62-75-9	MSD	N-Methyl-N-nitrosomethylam	1900	0.00	U	476	25 *	32-90	67 *	0-30
108-95-2	MSD	Phenol	1900	0.00	U	884	46	32-105	39 *	0-30
95-57-8	MSD	2-Chlorophenol	1900	0.00	U	820	43	33-106	32 *	0-30
106-46-7	MSD	1,4-Dichlorobenzene	1900	0.00	U	498	26 *	33-95	25	0-30
621-64-7	MSD	N-Nitrosodipropylamine	1900	0.00	U	861	45	31-109	26	0-30
59-50-7	MSD	4-Chloro-3-methylphenol	1900	0.00	U	1030	54	38-119	46 *	0-30
83-32-9	MSD	Acenaphthene	1900	0.00	U	913	48	39-100	14	0-30
121-14-2	MSD	2,4-Dinitrotoluene	1900	0.00	U	1020	54	42-107	20	0-30
100-02-7	MSD	4-Nitrophenol	1900	0.00	U	929	49	24-120	15	0-30
87-86-5	MSD	Pentachlorophenol	1900	0.00	U	1100	58	26-121	5	0-30
129-00-0	MSD	Pyrene	1900	0.00	U	1180	62	34-120	16	0-30
110-86-1	MSD	Pyridine	1900	0.00	U	445	23 *	30-95	12	0-30
62-53-3	MSD	Aniline	1900	0.00	U	404	21 *	34-111	55 *	0-30
111-44-4	MSD	bis(2-Chloroethyl) ether	1900	0.00	U	648	34	34-101	31 *	0-30
541-73-1	MSD	1,3-Dichlorobenzene	1900	0.00	U	483	25 *	31-97	53 *	0-30
100-51-6	MSD	Benzyl alcohol	1900	0.00	U	0.00	0 *	17-120	200 *	0-30
95-50-1	MSD	1,2-Dichlorobenzene	1900	0.00	U	572	30 *	32-102	26	0-30
108-60-1	MSD	bis(2-Chloroisopropyl)ether	1900	0.00	U	687	36	32-113	54 *	0-30
95-48-7	MSD	o-Cresol	1900	0.00	U	770	40	31-119	53 *	0-30
65794-96-9	MSD	m,p-Cresols	1900	0.00	U	930	49	35-125	47 *	0-30
67-72-1	MSD	Hexachloroethane	1900	0.00	U	456	24 *	30-100	28	0-30
98-95-3	MSD	Nitrobenzene	1900	0.00	U	773	41	33-108	17	0-30

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-886
Client ID: RE16-10-2878MSD
Lab Sample ID: 1201994530
Instrument: MSD6.I
Analyst: NAG1
Inj. Vol: .5 uL

Sample Type: Matrix Spike Duplicate
Matrix: S
%Moisture: 12.6
Analysis Date: 12/17/2009 17:29
Dilution: 1
Prep Batch ID: 932443
Batch ID: 932444

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
78-59-1	MSD Isophorone	1900	0.00	U	928	49	34-110	16	0-30
88-75-5	MSD 2-Nitrophenol	1900	0.00	U	824	43	32-108	21	0-30
105-67-9	MSD 2,4-Dimethylphenol	1900	0.00	U	688	36	32-115	30	0-30
111-91-1	MSD bis(2-Chloroethoxy)methane	1900	0.00	U	865	45	35-108	15	0-30
120-83-2	MSD 2,4-Dichlorophenol	1900	0.00	U	982	52	38-110	28	0-30
65-85-0	MSD Benzoic acid	3810	0.00	U	2520	66	18-134	40 *	0-30
91-20-3	MSD Naphthalene	1900	0.00	U	753	40	31-105	16	0-30
106-47-8	MSD 4-Chloroaniline	1900	0.00	U	477	25 *	29-123	47 *	0-30
87-68-3	MSD Hexachlorobutadiene	1900	0.00	U	704	37	31-109	22	0-30
91-57-6	MSD 2-Methylnaphthalene	1900	0.00	U	964	51	32-110	21	0-30
77-47-4	MSD Hexachlorocyclopentadiene	1900	0.00	U	233	12 *	21-122	12	0-30
88-06-2	MSD 2,4,6-Trichlorophenol	1900	0.00	U	985	52	37-108	15	0-30
95-95-4	MSD 2,4,5-Trichlorophenol	1900	0.00	U	918	48	37-116	39 *	0-30
91-58-7	MSD 2-Chloronaphthalene	1900	0.00	U	890	47	37-103	13	0-30
88-74-4	MSD 2-Nitroaniline *o-Nitroaniline*	1900	0.00	U	854	45	36-115	24	0-30
99-09-2	MSD 3-Nitroaniline *m-Nitroaniline*	1900	0.00	U	658	35 *	39-117	43 *	0-30
131-11-3	MSD Dimethylphthalate	1900	0.00	U	1090	57	41-105	13	0-30
606-20-2	MSD 2,6-Dinitrotoluene	1900	0.00	U	999	52	41-103	19	0-30
208-96-8	MSD Acenaphthylene	1900	0.00	U	988	52	41-103	13	0-30
51-28-5	MSD 2,4-Dinitrophenol	1900	0.00	U	889	47	25-104	19	0-30
132-64-9	MSD Dibenzofuran	1900	0.00	U	1200	63	40-114	18	0-30
84-66-2	MSD Diethylphthalate	1900	0.00	U	1130	59	43-110	17	0-30

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number:	10-886	Sample Type:	Matrix Spike Duplicate
Client ID:	RE16-10-2878MSD	Matrix:	S
Lab Sample ID:	1201994530	%Moisture:	12.6
Instrument:	MSD6.I	Analysis Date:	12/17/2009 17:29
Analyst:	NAG1	Prep Batch ID:	932443
Inj. Vol:	.5 uL	Batch ID:	932444

Dilution: 1

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
86-73-7	MSD Fluorene	1900	0.00	U	1030	54	48-99	19	0-30
7005-72-3	MSD 4-Chlorophenylphenylether	1900	0.00	U	1040	55	42-111	21	0-30
534-52-1	MSD 2-Methyl-4,6-dinitrophenol	1900	0.00	U	824	43	19-118	6	0-30
100-01-6	MSD 4-Nitroaniline *p-Nitroaniline*	1900	0.00	U	905	48	35-139	37 *	0-30
122-39-4	MSD Diphenylamine	1900	0.00	U	958	50	41-112	16	0-30
122-66-7	MSD Azobenzene *1,2-Diphenylhydrazine*	1900	0.00	U	1040	55	37-118	15	0-30
101-55-3	MSD 4-Bromophenylphenylether	1900	0.00	U	1030	54	39-112	15	0-30
118-74-1	MSD Hexachlorobenzene	1900	0.00	U	955	50	38-113	8	0-30
85-01-8	MSD Phenanthrene	1900	0.00	U	1050	55	38-110	17	0-30
120-12-7	MSD Anthracene	1900	0.00	U	1050	55	38-112	16	0-30
84-74-2	MSD Di-n-butylphthalate	1900	0.00	U	1250	65	42-119	9	0-30
206-44-0	MSD Fluoranthene	1900	0.00	U	1080	57	38-119	16	0-30
85-68-7	MSD Butylbenzylphthalate	1900	0.00	U	1370	72	39-126	16	0-30
56-55-3	MSD Benzo(a)anthracene	1900	0.00	U	1020	54	39-110	17	0-30
91-94-1	MSD 3,3'-Dichlorobenzidine	1900	0.00	U	0.00	0 *	35-106	0	0-30
218-01-9	MSD Chrysene	1900	0.00	U	1040	54	39-109	14	0-30
117-81-7	MSD bis(2-Ethylhexyl)phthalate	1900	0.00	U	1220	64	40-125	23	0-30
117-84-0	MSD Di-n-octylphthalate	1900	0.00	U	1380	72	30-147	44 *	0-30
205-99-2	MSD Benzo(b)fluoranthene	1900	0.00	U	1110	58	38-117	21	0-30
207-08-9	MSD Benzo(k)fluoranthene	1900	0.00	U	1190	62	39-120	17	0-30
50-32-8	MSD Benzo(a)pyrene	1900	0.00	U	1110	58	40-115	14	0-30
193-39-5	MSD Indeno(1,2,3-cd)pyrene	1900	0.00	U	995	52	32-120	3	0-30

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-886
Client ID: RE16-10-2878MSD
Lab Sample ID: 1201994530
Instrument: MSD6.I
Analyst: NAG1
Inj. Vol: .5 uL

Sample Type: Matrix Spike Duplicate
Matrix: S
%Moisture: 12.6
Analysis Date: 12/17/2009 17:29
Dilution: 1
Prep Batch ID: 932443
Batch ID: 932444

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
53-70-3	MSD Dibenzo(a,h)anthracene	1900	0.00	U	499	26 *	32-124	67 *	0-30
191-24-2	MSD Benzo(ghi)perylene	1900	0.00	U	914	48	28-119	9	0-30
120-82-1	MSD 1,2,4-Trichlorobenzene	1900	0.00	U	740	39	31-105	17	0-30

Method Blank Summary

SDG Number:	10-886	Client:	LANL010	Matrix:	SOIL
Client ID:	MB for batch 932443	Instrument ID:	MSD6.I	Data File:	s6l1613-1.d
Lab Sample ID:	1201994527	Prep Date:	12/14/2009 09:47	Analyzed:	12/16/09 15:15
Column:	J&W DB-5MS	Level:	LOW		

This method blank applies to the following samples and quality control samples:

	Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01	LCS for batch 932443	1201994528	s6l1614-1.d	12/16/09	1545
02	RE03-09-13467	242750001	s6l1621.d	12/16/09	1903
03	RE03-09-13466	242750002	s6l1622.d	12/16/09	1931
04	RE03-09-13468	242750003	s6l1623.d	12/16/09	2000
05	RE03-09-13465	242750004	s6l1624.d	12/16/09	2028
06	RE03-10-2003	242750005	s6l1625.d	12/16/09	2056

Instrument Performance Check

DFTPP

Lab Name GEL Laboratories LLC **Client SDG:** 10-886

Instrument ID: MSD6.I **Injection Date/Time:** 09-NOV-09 18:00

Column Description: Phenomenex ZB-5MS **Lab File ID** /chem/MSD6.i/s110909.b/s6k0911.d

m/e	Ion Abundance Criteria	% Relative Abundance
198	Base Peak, 100% Relative Abundance	100
51	30 - 60% of mass 198	45.4
68	Less than 2% of mass 69	1.6
69	Mass 69 Relative Abundance	43
70	Less than 2% of mass 69	0.5
127	40 - 60% of mass 198	51.4
197	0 - 1% of mass 198	0.6
199	5 - 9% of mass 198	6.9
275	10 - 30% of mass 198	23.7
365	Greater than 1% of mass 198	2.4
441	Present, but less than mass 443	73.9
442	Greater than 40% of mass 198	77.9
443	17 - 23% of mass 442	19.2

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
MEGAICAL	WBN091106-08	/chem/MSD6.i/s110909.b/s6k091	09-NOV-09 18:53
MEGAICAL	WBN091106-07	/chem/MSD6.i/s110909.b/s6k091	09-NOV-09 19:31
MEGAICAL	WBN091106-06	/chem/MSD6.i/s110909.b/s6k091	09-NOV-09 20:09
MEGAICAL	WBN091106-05.1	/chem/MSD6.i/s110909.b/s6k091	09-NOV-09 20:46
MEGAICAL	WBN091106-04	/chem/MSD6.i/s110909.b/s6k091	09-NOV-09 21:25
MEGAICAL	WBN091106-03	/chem/MSD6.i/s110909.b/s6k091	09-NOV-09 22:01
MEGAICAL	WBN091106-02	/chem/MSD6.i/s110909.b/s6k091	09-NOV-09 22:39
MEGAICAL	WBN091106-01	/chem/MSD6.i/s110909.b/s6k092	09-NOV-09 23:16

Instrument Performance Check

DFTPP

Lab Name GEL Laboratories LLC **Client SDG:** 10-886

Instrument ID: MSD6.I **Injection Date/Time:** 10-NOV-09 11:07

Column Description: Phenomenex ZB-5MS **Lab File ID** /chem/MSD6.i/s110909.b/s6k0921.d

m/e	Ion Abundance Criteria	% Relative Abundance
198	Base Peak, 100% Relative Abundance	100
51	30 - 60% of mass 198	45.1
68	Less than 2% of mass 69	1.6
69	Mass 69 Relative Abundance	43.1
70	Less than 2% of mass 69	0.5
127	40 - 60% of mass 198	50.9
197	0 - 1% of mass 198	0.4
199	5 - 9% of mass 198	7
275	10 - 30% of mass 198	23.3
365	Greater than 1% of mass 198	2.6
441	Present, but less than mass 443	72.6
442	Greater than 40% of mass 198	76
443	17 - 23% of mass 442	19.9

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
AP12ICAL	WBN091016-01	/chem/MSD6.i/s110909.b/s6k092	10-NOV-09 11:59
AP12ICAL	WBN091016-02	/chem/MSD6.i/s110909.b/s6k092	10-NOV-09 12:36
AP12ICAL	WBN091016-03	/chem/MSD6.i/s110909.b/s6k092	10-NOV-09 13:13
AP12ICAL	WBN091016-04	/chem/MSD6.i/s110909.b/s6k092	10-NOV-09 13:51
AP12ICAL	WBN091016-05	/chem/MSD6.i/s110909.b/s6k092	10-NOV-09 14:30
AP12ICAL	WBN091016-06	/chem/MSD6.i/s110909.b/s6k092	10-NOV-09 15:06
AP12ICAL	WBN091016-07	/chem/MSD6.i/s110909.b/s6k092	10-NOV-09 15:43
MEGAICV	WBN091106-09.1	/chem/MSD6.i/s110909.b/s6k093	10-NOV-09 20:29
AP12ICV	WBN091016-08.1	/chem/MSD6.i/s110909.b/s6k093	10-NOV-09 21:07

Instrument Performance Check

DFTPP

Lab Name GEL Laboratories LLC **Client SDG:** 10-886

Instrument ID: MSD6.I **Injection Date/Time:** 16-DEC-09 14:04

Column Description: Phenomenex ZB-5MS **Lab File ID** /chem/MSD6.i/s121609.b/s611610.d

m/e	Ion Abundance Criteria	% Relative Abundance
198	Base Peak, 100% Relative Abundance	100
51	30 - 60% of mass 198	38.6
68	Less than 2% of mass 69	1.5
69	Mass 69 Relative Abundance	38.9
70	Less than 2% of mass 69	0.5
127	40 - 60% of mass 198	49.8
197	0 - 1% of mass 198	0.4
199	5 - 9% of mass 198	6.9
275	10 - 30% of mass 198	23.9
365	Greater than 1% of mass 198	2.5
441	Present, but less than mass 443	75.4
442	Greater than 40% of mass 198	84.1
443	17 - 23% of mass 442	19.3

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
MEGACVS	WBN091111-17.4	/chem/MSD6.i/s121609.b/s611611	16-DEC-09 14:18
AP12CVS	WBN091201-03.5	/chem/MSD6.i/s121609.b/s611612	16-DEC-09 14:46
SBLK01	1201994527	/chem/MSD6.i/s121609.b/s611613	16-DEC-09 15:15
SBLK01LCS	1201994528	/chem/MSD6.i/s121609.b/s611614	16-DEC-09 15:45
RE03-09-13467	242750001	/chem/MSD6.i/s121609.b/s611621	16-DEC-09 19:03
RE03-09-13466	242750002	/chem/MSD6.i/s121609.b/s611622	16-DEC-09 19:31
RE03-09-13468	242750003	/chem/MSD6.i/s121609.b/s611623	16-DEC-09 20:00
RE03-09-13465	242750004	/chem/MSD6.i/s121609.b/s611624	16-DEC-09 20:28
RE03-10-2003	242750005	/chem/MSD6.i/s121609.b/s611625	16-DEC-09 20:56

Internal Standard
Area and RT Summary

Lab Name : GEL Laboratories LLC

Client SDG: 10-886

Instrument: MSD6.I

STD Analysis Time: 16-DEC-09 14:18

GC Column: J&W DB-5MS

Data File: s611611.d

	1,4-Dichlorobenzene-d4			Naphthalene-d8			Acenaphthene-d10			Phenanthrene-d10			Chrysene-d12			Perylene-d12		
	Area	#	RT #	Area	#	RT #	Area	#	RT #	Area	#	RT #	Area	#	RT #	Area	#	RT #
12 Hour STD	209214		4.85	828674		6.13	435590		8	744475		9.61	599948		12.6	527608		15.0
Upper Limit	418428		5.35	1657348		6.63	871180		8.5	1488950		10.1	1199896		13.1	1055216		15.5
Lower Limit	104607		4.35	414337		5.63	217795		7.5	372238		9.11	299974		12.1	263804		14.5
Sample ID																		
BLK01	213205		4.84	803720		6.13	443898		8	755605		9.61	628686		12.6	545942		15.0
BLK01LCS	222177		4.84	901365		6.13	432311		8	823729		9.61	674416		12.6	578792		15.0
RE03-09-13467	189058		4.84	725197		6.13	403131		8	716842		9.61	582140		12.6	426969		15.0
RE03-09-13466	233379		4.84	647015		6.13	435557		8	799343		9.61	658952		12.6	506688		15.0
RE03-09-13468	205985		4.85	793593		6.13	437782		8	781859		9.61	622120		12.6	497245		15.0
RE03-09-13465	148735		4.85	596688		6.13	386406		8	748717		9.61	591223		12.6	434371		15.0
RE03-10-2003	208217		4.85	791595		6.13	431794		8	741895		9.61	567743		12.6	420776		15.0

Area Upper Limit = +100% of internal standard area
Area Lower Limit = - 50% of internal standard area

RT Upper Limit = + 0.50 minutes of internal standard RT
RT Lower Limit = - 0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Value outside of QC Limits

Sample Data

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-886	Date Collected:	12/09/2009 12:00	Matrix:	S
Lab Sample ID:	242750004	Date Received:	12/11/2009 08:50	%Moisture:	7
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-13465	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	932444	Inst:	MSD6.I	Dilution:	1
Run Date:	12/16/2009 20:28	Analyst:	NAG1	Inj. Vol:	.5 uL
Prep Date:	12/14/2009 09:47	Aliquot:	30.02 g	Final Volume:	1 mL
Data File:	s611624.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	358	ug/kg	71.6	358
108-95-2	Phenol	U	358	ug/kg	71.6	358
95-57-8	2-Chlorophenol	U	358	ug/kg	71.6	358
106-46-7	1,4-Dichlorobenzene	U	358	ug/kg	71.6	358
621-64-7	N-Nitrosodipropylamine	U	358	ug/kg	71.6	358
59-50-7	4-Chloro-3-methylphenol	U	358	ug/kg	71.6	358
83-32-9	Acenaphthene	U	35.8	ug/kg	11.8	35.8
121-14-2	2,4-Dinitrotoluene	U	358	ug/kg	35.8	358
100-02-7	4-Nitrophenol	U	358	ug/kg	118	358
87-86-5	Pentachlorophenol	U	358	ug/kg	89.5	358
129-00-0	Pyrene	U	35.8	ug/kg	10.7	35.8
110-86-1	Pyridine	U	358	ug/kg	71.6	358
62-53-3	Aniline	U	358	ug/kg	107	358
111-44-4	bis(2-Chloroethyl) ether	U	358	ug/kg	71.6	358
541-73-1	1,3-Dichlorobenzene	U	358	ug/kg	71.6	358
100-51-6	Benzyl alcohol	U	358	ug/kg	107	358
95-50-1	1,2-Dichlorobenzene	U	358	ug/kg	71.6	358
108-60-1	bis(2-Chloroisopropyl)ether	U	358	ug/kg	71.6	358
95-48-7	o-Cresol	U	358	ug/kg	71.6	358
65794-96-9	m,p-Cresols	U	358	ug/kg	107	358
67-72-1	Hexachloroethane	U	358	ug/kg	71.6	358
98-95-3	Nitrobenzene	U	358	ug/kg	71.6	358
78-59-1	Isophorone	U	358	ug/kg	71.6	358
88-75-5	2-Nitrophenol	U	358	ug/kg	71.6	358
105-67-9	2,4-Dimethylphenol	U	358	ug/kg	125	358
111-91-1	bis(2-Chloroethoxy)methane	U	358	ug/kg	71.6	358
120-83-2	2,4-Dichlorophenol	U	358	ug/kg	71.6	358
65-85-0	Benzoic acid	U	716	ug/kg	179	716
91-20-3	Naphthalene	U	35.8	ug/kg	10.7	35.8
106-47-8	4-Chloroaniline	U	358	ug/kg	71.6	358
87-68-3	Hexachlorobutadiene	U	358	ug/kg	71.6	358
91-57-6	2-Methylnaphthalene	U	35.8	ug/kg	7.16	35.8
77-47-4	Hexachlorocyclopentadiene	U	358	ug/kg	71.6	358
88-06-2	2,4,6-Trichlorophenol	U	358	ug/kg	71.6	358
95-95-4	2,4,5-Trichlorophenol	U	358	ug/kg	71.6	358
91-58-7	2-Chloronaphthalene	U	35.8	ug/kg	11.8	35.8
88-74-4	2-Nitroaniline	U	358	ug/kg	71.6	358
	o-Nitroaniline					
99-09-2	3-Nitroaniline	U	358	ug/kg	71.6	358

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-886**	**Date Collected:**	**12/09/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242750004**	**Date Received:**	**12/11/2009 08:50**	**%Moisture:**	**7**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-13465**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**932444**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**12/16/2009 20:28**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/14/2009 09:47**	**Aliquot:**	**30.02 g**	**Final Volume:**	**1 mL**
Data File:	**s6l1624.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	358	ug/kg	71.6	358
606-20-2	2,6-Dinitrotoluene	U	358	ug/kg	35.8	358
208-96-8	Acenaphthylene	U	35.8	ug/kg	10.7	35.8
51-28-5	2,4-Dinitrophenol	U	716	ug/kg	136	716
132-64-9	Dibenzofuran	U	358	ug/kg	71.6	358
84-66-2	Diethylphthalate	U	358	ug/kg	71.6	358
86-73-7	Fluorene	U	35.8	ug/kg	10.7	35.8
7005-72-3	4-Chlorophenylphenylether	U	358	ug/kg	71.6	358
534-52-1	2-Methyl-4,6-dinitrophenol	U	358	ug/kg	71.6	358
100-01-6	4-Nitroaniline	U	358	ug/kg	107	358
	p-Nitroaniline					
122-39-4	Diphenylamine	U	358	ug/kg	71.6	358
122-66-7	Azobenzene	U	358	ug/kg	71.6	358
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	358	ug/kg	71.6	358
118-74-1	Hexachlorobenzene	U	358	ug/kg	71.6	358
85-01-8	Phenanthrene	U	35.8	ug/kg	10.7	35.8
120-12-7	Anthracene	U	35.8	ug/kg	7.16	35.8
84-74-2	Di-n-butylphthalate	U	358	ug/kg	71.6	358
206-44-0	Fluoranthene	U	35.8	ug/kg	10.7	35.8
85-68-7	Butylbenzylphthalate	U	358	ug/kg	71.6	358
56-55-3	Benzo(a)anthracene	U	35.8	ug/kg	10.7	35.8
91-94-1	3,3'-Dichlorobenzidine	U	358	ug/kg	107	358
218-01-9	Chrysene	U	35.8	ug/kg	10.7	35.8
117-81-7	bis(2-Ethylhexyl)phthalate	U	358	ug/kg	71.6	358
117-84-0	Di-n-octylphthalate	U	358	ug/kg	71.6	358
205-99-2	Benzo(b)fluoranthene	U	35.8	ug/kg	10.7	35.8
207-08-9	Benzo(k)fluoranthene	U	35.8	ug/kg	10.7	35.8
50-32-8	Benzo(a)pyrene	U	35.8	ug/kg	10.7	35.8
193-39-5	Indeno(1,2,3-cd)pyrene	U	35.8	ug/kg	10.7	35.8
53-70-3	Dibenzo(a,h)anthracene	U	35.8	ug/kg	10.7	35.8
191-24-2	Benzo(ghi)perylene	U	35.8	ug/kg	10.7	35.8
120-82-1	1,2,4-Trichlorobenzene	U	358	ug/kg	71.6	358

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	3.45	585	ug/kg		JA
301-02-0	9-Octadecenamide, (Z)-	11.85	477	ug/kg	98	NJ

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-886	**Date Collected:**	12/09/2009 12:00	**Matrix:**	S
Lab Sample ID:	242750004	**Date Received:**	12/11/2009 08:50	**%Moisture:**	7
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-13465	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	932444	**Inst:**	MSD6.I	**Dilution:**	1
Run Date:	12/16/2009 20:28	**Analyst:**	NAG1	**Inj. Vol:**	.5 uL
Prep Date:	12/14/2009 09:47	**Aliquot:**	30.02 g	**Final Volume:**	1 mL
Data File:	s611624.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
112-84-5	13-Docosenamide, (Z)-	13.85	156	ug/kg	90	NJ

GEL Laboratories LLC

Data file : /chem/MSD6.i/s121609.b/s611624.d
Lab Smp Id: 242750004 Client Smp ID: RE03-09-13465
Inj Date : 16-DEC-2009 20:28
Operator : nagl Inst ID: MSD6.i
Smp Info : |242750004|932444|1|SVMF|1|LANL
Misc Info : |MSD8270_S|WBN091208-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s121609.b/MSD6-M8270C-AQA-110909.m
Meth Date : 17-Dec-2009 08:11 nat00999 Quant Type: ISTD
Cal Date : 11-NOV-2009 04:38 Cal File: s6k0954.d
Als bottle: 15
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-886.sub
Target Version: 3.50
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.02000	weight of sample
M	6.96000	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	4.849	4.849	(1.000)	148735	40.0000	
* 29 Naphthalene-d8	136	6.128	6.131	(1.000)	596688	40.0000	
* 46 Acenaphthene-d10	164	7.998	8.001	(1.000)	386406	40.0000	
* 67 Phenanthrene-d10	188	9.614	9.611	(1.000)	748717	40.0000	
* 91 Chrysene-d12	240	12.633	12.633	(1.000)	591223	40.0000	
* 98 Perylene-d12	264	14.978	14.973	(1.000)	434371	40.0000	
$ 3 2-Fluorophenol	112	3.684	3.674	(0.760)	279163	74.9499	2680
$ 5 Phenol-d5	99	4.459	4.457	(0.920)	304426	64.7573	2320
$ 20 Nitrobenzene-d5	82	5.384	5.389	(0.879)	111753	26.4758	948
$ 39 2-Fluorobiphenyl	172	7.254	7.254	(0.907)	219516	22.0442	789
$ 60 2,4,6-Tribromophenol	329	8.849	8.850	(1.106)	76830	68.1229	2440
$ 81 p-Terphenyl-d14	244	11.319	11.316	(0.896)	358504	37.6009	1350

ION RATIO REPORT

SV REPORT

Data file: s611624.d
Report Date: 12/17/2009 08:27
Lab. ID: 242750004 SampleType: SAMPLE
Injection Date: 16-DEC-2009 20:28
Operator: nag1 Instrument: MSD6.i
Sample Info: |242750004|932444|1|SVMF|1|LANL
Miscellaneous Info: |MSD8270_S|WBN091208-01
Comment:
Method used: /chem/MSD6.i/s121609.b/MSD6-M8270C-AQA-110909.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-886
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
1 N-Methyl-N-nitrosomethylamine				CAS#: 62-75-9		
74	5492	2.42	2.70	80-120	100	(T)
42	901	2.41	2.70	59-119	16	(QT)
43	1067	2.42	2.70	8- 68	19	(T)
4 Aniline				CAS#: 62-53-3		
66	14403	4.46	4.54	80-120	100	(T)
93	336	4.21	4.54	228-288	2	(QT)
17 N-Nitrosodipropylamine				CAS#: 621-64-7		
70	5329	5.36	5.23	80-120	100	(T)
42	3362	5.36	5.23	40-100	63	(T)
22 Isophorone				CAS#: 78-59-1		
82	111753	5.38	5.64	80-120	100	(T)
138	133	6.08	5.64	0- 49	0	(T)
43 Dimethylphthalate				CAS#: 131-11-3		
163	69988	8.00	7.69	80-120	100	(T)
164	386406	8.00	7.69	0- 40	552	(QT)
50 2,4-Dinitrotoluene				CAS#: 121-14-2		
165	49368	8.00	8.19	80-120	100	(T)
89	583	8.00	8.19	40-100	1	(QT)
63	509	8.00	8.19	17- 77	1	(QT)

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
53 Fluorene			CAS#: 86-73-7			
166	5379	8.85	8.59	80-120	100	(T)
165	4853	8.85	8.59	62-122	90	(T)
167	253	8.84	8.59	0- 44	5	(T)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

Data file : /chem/MSD6.i/s121609.b/s611624.d
Lab Smp Id: 242750004 Client Smp ID: RE03-09-13465
Inj Date : 16-DEC-2009 20:28
Operator : nag1 Inst ID: MSD6.i
Smp Info : |242750004|932444|1|SVMF|1|LANL
Misc Info : |MSD8270_S|WBN091208-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s121609.b/MSD6-M8270C-AQA-110909.m
Meth Date : 17-Dec-2009 08:11 nat00999 Quant Type: ISTD
Cal Date : 11-NOV-2009 04:38 Cal File: s6k0954.d
Als bottle: 15
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-886.sub
Target Version: 3.50
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.02000	weight of sample
M	6.96000	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	4.849	860605	40.000
* 91 Chrysene-d12	12.633	1596015	40.000
* 98 Perylene-d12	14.978	1193187	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #

RT	AREA	CONCENTRATIONS ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	QUANT LIBRARY	LIB ENTRY	CPND #
Unknown Aldol Condensate				CAS #:			
3.450	351385	16.3319724	585	0		0	10
9-Octadecenamide, (Z)-				CAS #: 301-02-0			
11.851	531400	13.3181566	477	98	NIST05.L	112657	91
13-Docosenamide, (Z)-				CAS #: 112-84-5			
13.854	129875	4.35387754	156	90	NIST05.L	146308	98

Data File: /chem/MSD6.i/s121609.b/s611624.d
Date : 16-DEC-2009 20:28
Client ID: RE03-09-13465
Sample Info: |2427500041932444|1|SVMF|1|LANL
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Page 1

Instrument: MSD6.i

Operator: nag1
Column diameter: 0.20

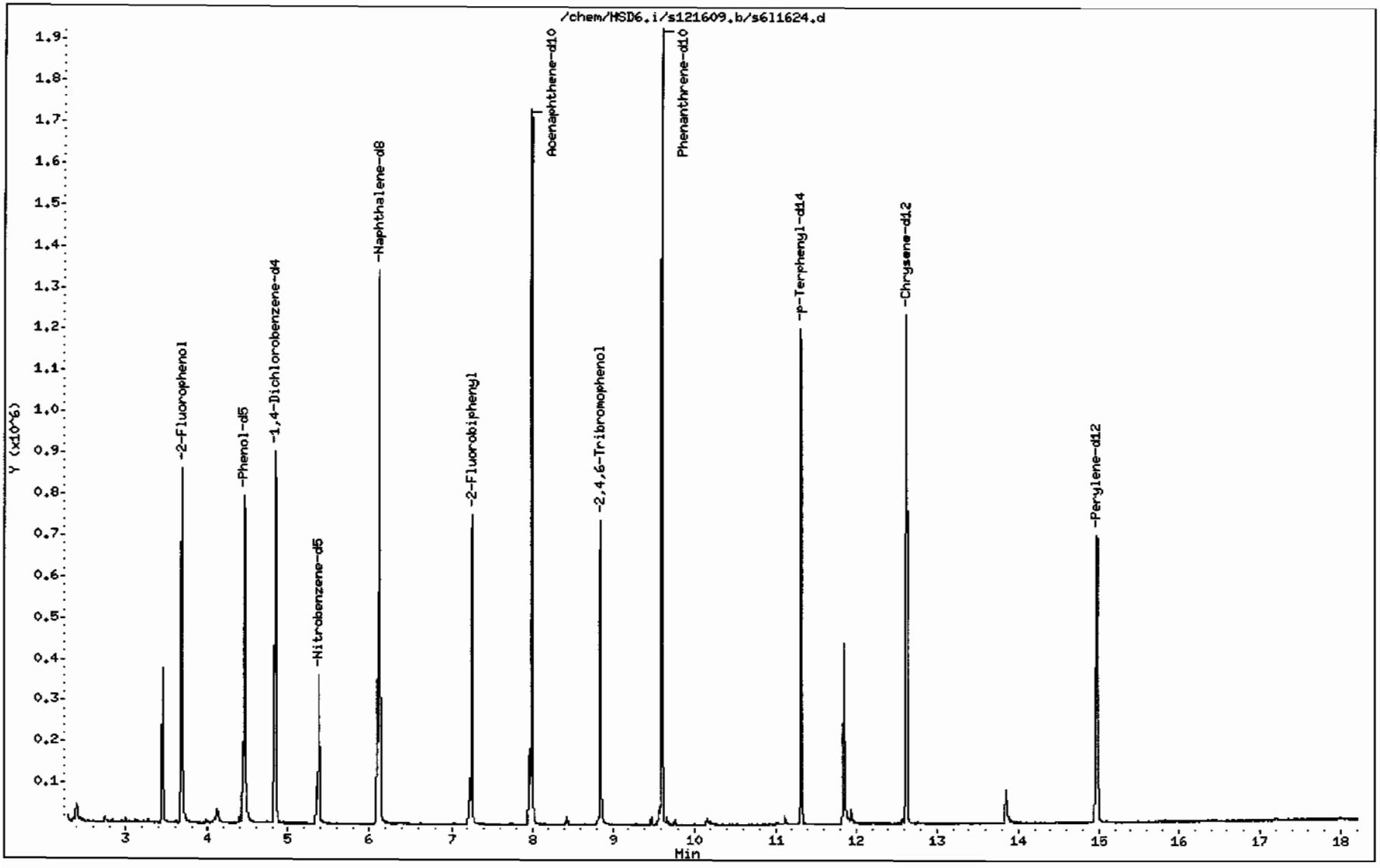

Data File: /chem/MSD6.i/s121609.b/s611624.d

Date : 16-DEC-2009 20:28

Client ID: RE03-09-13465

Instrument: MSD6.i

Sample Info: |2427500041932444|1|SVMF|1|LANL

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	45	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7945	45	C6H12O2	116
Acetic acid, 1,1-dimethylethyl ester	540-88-5	NIST05.L	7977	39	C6H12O2	116

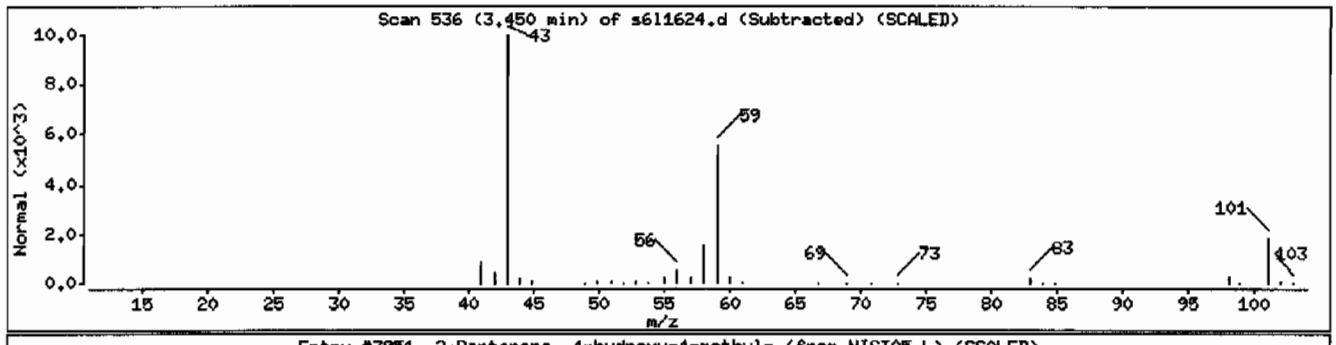

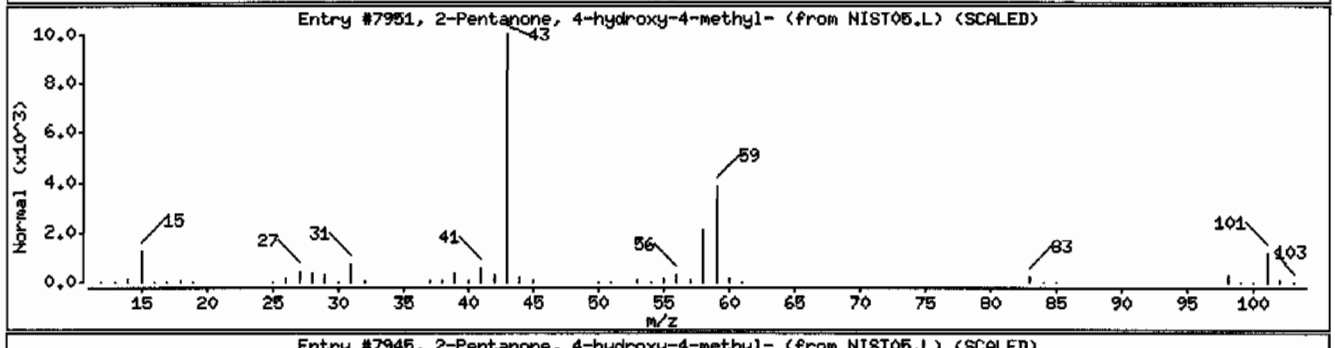

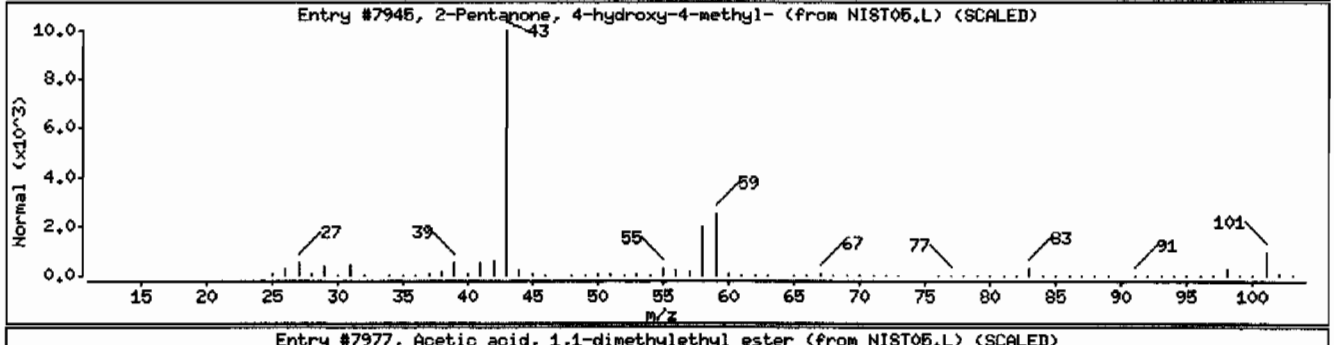

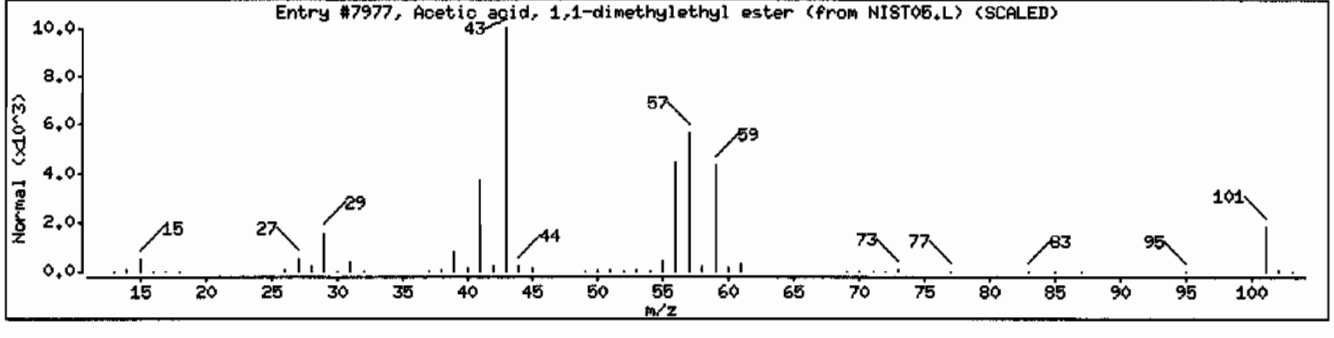

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Date : 16-DEC-2009 20:28

Client ID: RE03-09-13465

Instrument: MSD6.i

Sample Info: 1242780004193244411SVMF11LANL

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
9-Octadecenamide, (Z)-	301-02-0	NIST05.L	112657	98	C18H35NO	281
9-Octadecenamide, (Z)-	301-02-0	NIST05.L	112656	93	C18H35NO	281
9-Octadecenamide, (Z)-	301-02-0	NIST05.L	112655	91	C18H35NO	281

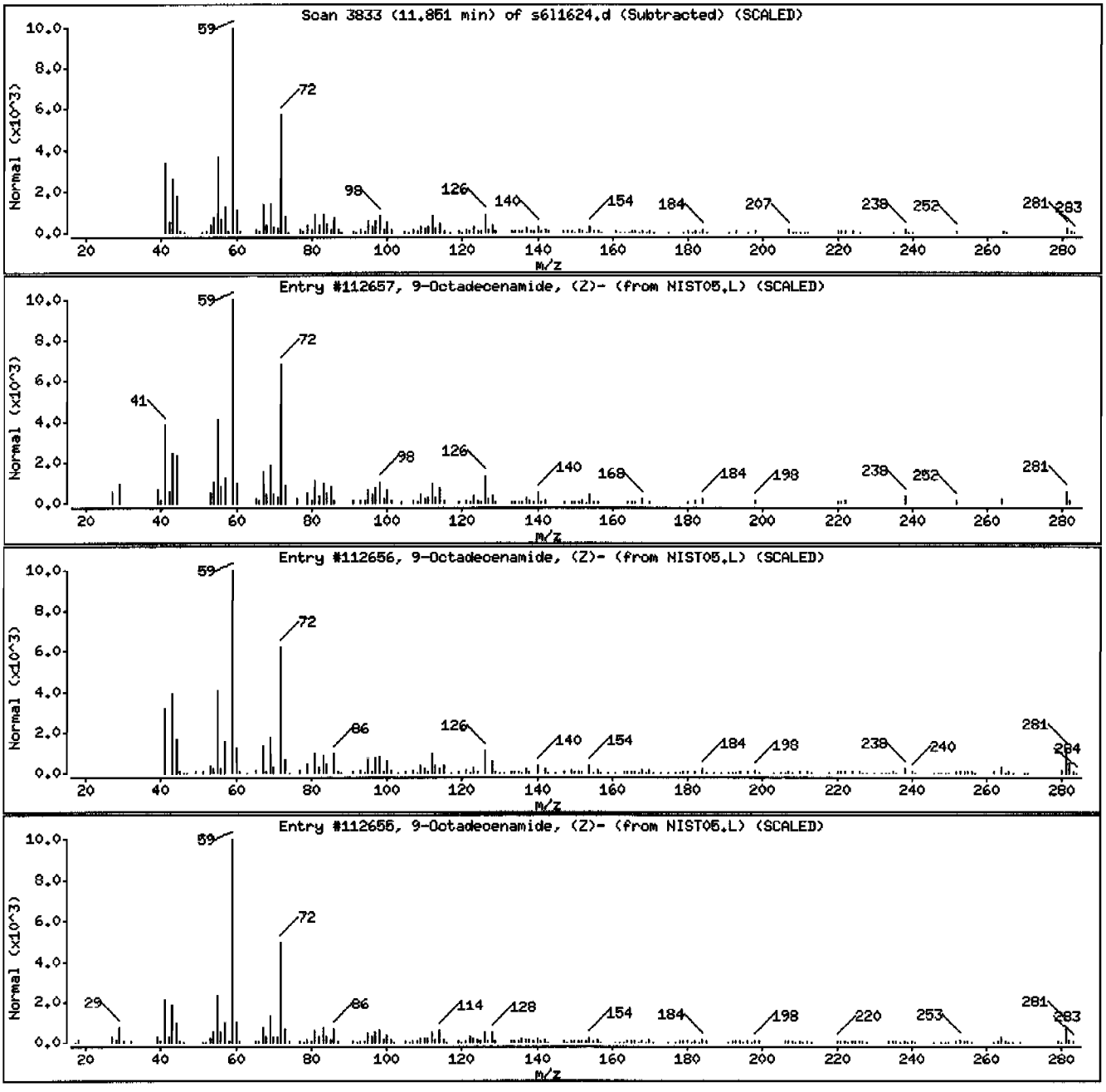

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Date : 16-DEC-2009 20:28

Client ID: RE03-09-13465

Instrument: MSD6.i

Sample Info: 1242750004|932444|1|SVHF|1|LANL

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
13-Docosenamide, (Z)-	112-84-5	NIST05.L	146308	90	C22H43NO	337
9-Octadecenamide, (Z)-	301-02-0	NIST05.L	112656	76	C18H35NO	281
9-Octadecenamide, (Z)-	301-02-0	NIST05.L	112655	72	C18H35NO	281

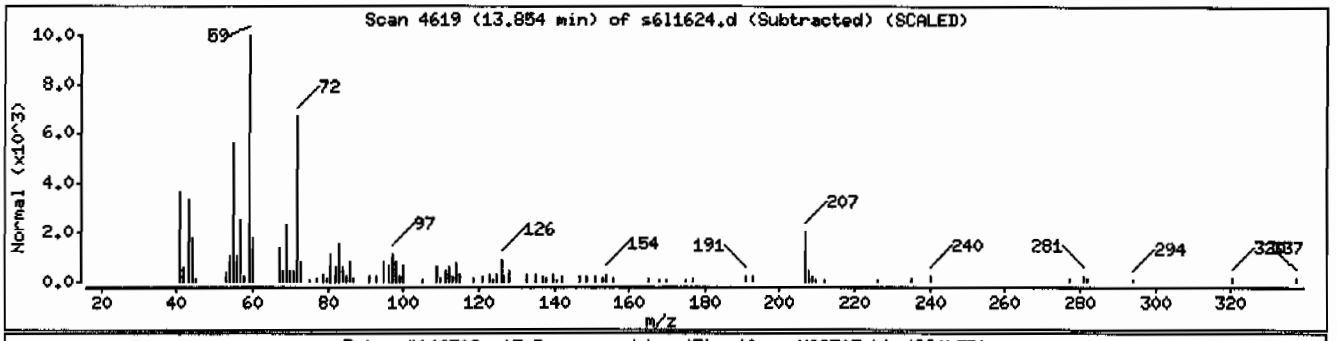

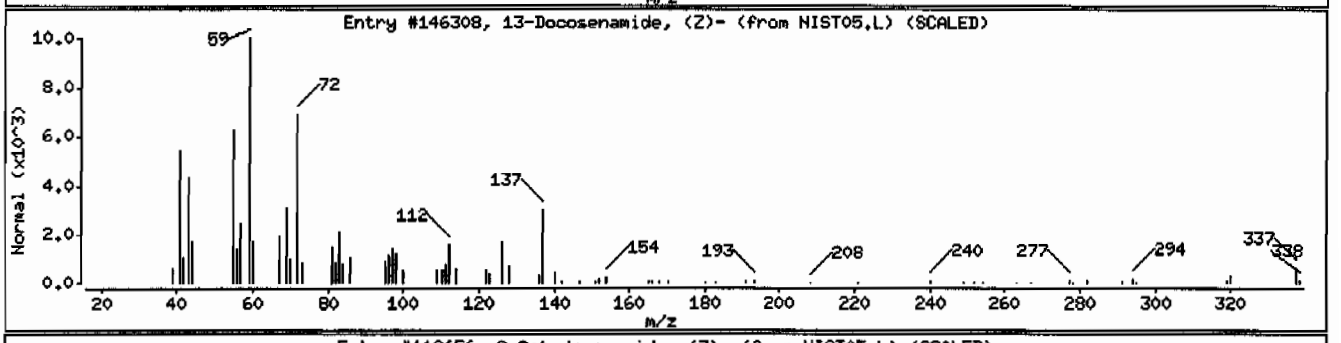

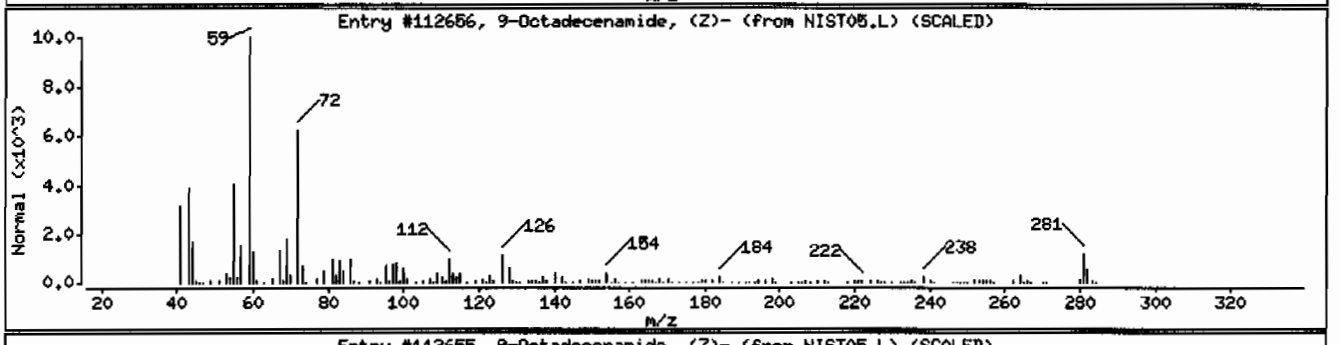

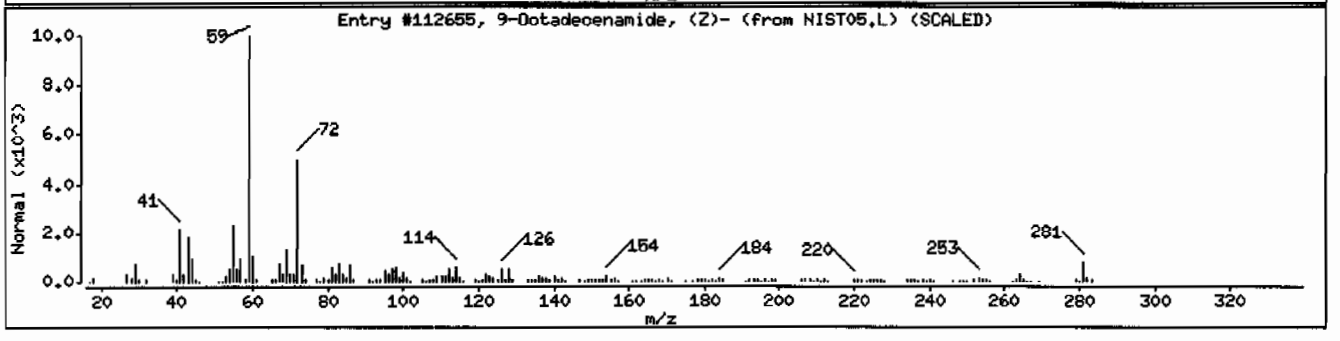

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-886**	**Date Collected:**	**12/09/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242750002**	**Date Received:**	**12/11/2009 08:50**	**%Moisture:**	**8.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-13466**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**932444**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**12/16/2009 19:31**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/14/2009 09:47**	**Aliquot:**	**30.01 g**	**Final Volume:**	**1 mL**
Data File:	**s6l1622.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	364	ug/kg	72.9	364
108-95-2	Phenol	U	364	ug/kg	72.9	364
95-57-8	2-Chlorophenol	U	364	ug/kg	72.9	364
106-46-7	1,4-Dichlorobenzene	U	364	ug/kg	72.9	364
621-64-7	N-Nitrosodipropylamine	U	364	ug/kg	72.9	364
59-50-7	4-Chloro-3-methylphenol	U	364	ug/kg	72.9	364
83-32-9	Acenaphthene	U	36.4	ug/kg	12.0	36.4
121-14-2	2,4-Dinitrotoluene	U	364	ug/kg	36.4	364
100-02-7	4-Nitrophenol	U	364	ug/kg	120	364
87-86-5	Pentachlorophenol	U	364	ug/kg	91.1	364
129-00-0	Pyrene	U	36.4	ug/kg	10.9	36.4
110-86-1	Pyridine	U	364	ug/kg	72.9	364
62-53-3	Aniline	U	364	ug/kg	109	364
111-44-4	bis(2-Chloroethyl) ether	U	364	ug/kg	72.9	364
541-73-1	1,3-Dichlorobenzene	U	364	ug/kg	72.9	364
100-51-6	Benzyl alcohol	U	364	ug/kg	109	364
95-50-1	1,2-Dichlorobenzene	U	364	ug/kg	72.9	364
108-60-1	bis(2-Chloroisopropyl)ether	U	364	ug/kg	72.9	364
95-48-7	o-Cresol	U	364	ug/kg	72.9	364
65794-96-9	m,p-Cresols	U	364	ug/kg	109	364
67-72-1	Hexachloroethane	U	364	ug/kg	72.9	364
98-95-3	Nitrobenzene	U	364	ug/kg	72.9	364
78-59-1	Isophorone	U	364	ug/kg	72.9	364
88-75-5	2-Nitrophenol	U	364	ug/kg	72.9	364
105-67-9	2,4-Dimethylphenol	U	364	ug/kg	127	364
111-91-1	bis(2-Chloroethoxy)methane	U	364	ug/kg	72.9	364
120-83-2	2,4-Dichlorophenol	U	364	ug/kg	72.9	364
65-85-0	Benzoic acid	U	729	ug/kg	182	729
91-20-3	Naphthalene	U	36.4	ug/kg	10.9	36.4
106-47-8	4-Chloroaniline	U	364	ug/kg	72.9	364
87-68-3	Hexachlorobutadiene	U	364	ug/kg	72.9	364
91-57-6	2-Methylnaphthalene	U	36.4	ug/kg	7.29	36.4
77-47-4	Hexachlorocyclopentadiene	U	364	ug/kg	72.9	364
88-06-2	2,4,6-Trichlorophenol	U	364	ug/kg	72.9	364
95-95-4	2,4,5-Trichlorophenol	U	364	ug/kg	72.9	364
91-58-7	2-Chloronaphthalene	U	36.4	ug/kg	12.0	36.4
88-74-4	2-Nitroaniline	U	364	ug/kg	72.9	364
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	364	ug/kg	72.9	364

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-886	Date Collected:	12/09/2009 12:00	Matrix:	S
Lab Sample ID:	242750002	Date Received:	12/11/2009 08:50	%Moisture:	8.5
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-13466	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	932444	Inst:	MSD6.I	Dilution:	1
Run Date:	12/16/2009 19:31	Analyst:	NAG1	Inj. Vol:	.5 uL
Prep Date:	12/14/2009 09:47	Aliquot:	30.01 g	Final Volume:	1 mL
Data File:	s6l1622.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	364	ug/kg	72.9	364
606-20-2	2,6-Dinitrotoluene	U	364	ug/kg	36.4	364
208-96-8	Acenaphthylene	U	36.4	ug/kg	10.9	36.4
51-28-5	2,4-Dinitrophenol	U	729	ug/kg	138	729
132-64-9	Dibenzofuran	U	364	ug/kg	72.9	364
84-66-2	Diethylphthalate	U	364	ug/kg	72.9	364
86-73-7	Fluorene	U	36.4	ug/kg	10.9	36.4
7005-72-3	4-Chlorophenylphenylether	U	364	ug/kg	72.9	364
534-52-1	2-Methyl-4,6-dinitrophenol	U	364	ug/kg	72.9	364
100-01-6	4-Nitroaniline	U	364	ug/kg	109	364
	p-Nitroaniline					
122-39-4	Diphenylamine	U	364	ug/kg	72.9	364
122-66-7	Azobenzene	U	364	ug/kg	72.9	364
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	364	ug/kg	72.9	364
118-74-1	Hexachlorobenzene	U	364	ug/kg	72.9	364
85-01-8	Phenanthrene	U	36.4	ug/kg	10.9	36.4
120-12-7	Anthracene	U	36.4	ug/kg	7.29	36.4
84-74-2	Di-n-butylphthalate	U	364	ug/kg	72.9	364
206-44-0	Fluoranthene	U	36.4	ug/kg	10.9	36.4
85-68-7	Butylbenzylphthalate	U	364	ug/kg	72.9	364
56-55-3	Benzo(a)anthracene	U	36.4	ug/kg	10.9	36.4
91-94-1	3,3'-Dichlorobenzidine	U	364	ug/kg	109	364
218-01-9	Chrysene	U	36.4	ug/kg	10.9	36.4
117-81-7	bis(2-Ethylhexyl)phthalate	U	364	ug/kg	72.9	364
117-84-0	Di-n-octylphthalate	U	364	ug/kg	72.9	364
205-99-2	Benzo(b)fluoranthene	U	36.4	ug/kg	10.9	36.4
207-08-9	Benzo(k)fluoranthene	U	36.4	ug/kg	10.9	36.4
50-32-8	Benzo(a)pyrene	U	36.4	ug/kg	10.9	36.4
193-39-5	Indeno(1,2,3-cd)pyrene	U	36.4	ug/kg	10.9	36.4
53-70-3	Dibenzo(a,h)anthracene	U	36.4	ug/kg	10.9	36.4
191-24-2	Benzo(ghi)perylene	U	36.4	ug/kg	10.9	36.4
120-82-1	1,2,4-Trichlorobenzene	U	364	ug/kg	72.9	364

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	3.46	399	ug/kg		JA
301-02-0	9-Octadecenamide, (Z)-	11.86	1440	ug/kg	98	NJ

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-886	**Date Collected:**	12/09/2009 12:00	**Matrix:**	S
Lab Sample ID:	242750002	**Date Received:**	12/11/2009 08:50	**%Moisture:**	8.5
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-13466	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	932444	**Inst:**	MSD6.I	**Dilution:**	1
Run Date:	12/16/2009 19:31	**Analyst:**	NAG1	**Inj. Vol:**	.5 uL
Prep Date:	12/14/2009 09:47	**Aliquot:**	30.01 g	**Final Volume:**	1 mL
Data File:	s61622.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	13.86	523	ug/kg		J

GEL Laboratories LLC

Data file : /chem/MSD6.i/s121609.b/s611622.d
Lab Smp Id: 242750002 Client Smp ID: RE03-09-13466
Inj Date : 16-DEC-2009 19:31
Operator : nagl Inst ID: MSD6.i
Smp Info : |242750002|932444|1|SVMF|1|LANL
Misc Info : |MSD8270_S|WBN091208-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s121609.b/MSD6-M8270C-AQA-110909.m
Meth Date : 17-Dec-2009 08:11 nat00999 Quant Type: ISTD
Cal Date : 11-NOV-2009 04:38 Cal File: s6k0954.d
Als bottle: 13
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-886.sub
Target Version: 3.50
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.01000	weight of sample
M	8.53000	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	4.839	4.849	(1.000)	233379	40.0000	
* 29 Naphthalene-d8	136	6.126	6.131	(1.000)	647015	40.0000	
* 46 Acenaphthene-d10	164	8.001	8.001	(1.000)	435557	40.0000	
* 67 Phenanthrene-d10	188	9.614	9.611	(1.000)	799343	40.0000	
* 91 Chrysene-d12	240	12.633	12.633	(1.000)	658952	40.0000	
* 98 Perylene-d12	264	14.980	14.973	(1.000)	506688	40.0000	
$ 3 2-Fluorophenol	112	3.687	3.674	(0.762)	360324	61.6535	2250
$ 5 Phenol-d5	99	4.459	4.457	(0.922)	362234	49.1075	1790
$ 20 Nitrobenzene-d5	82	5.382	5.389	(0.879)	140802	30.7633	1120
$ 39 2-Fluorobiphenyl	172	7.254	7.254	(0.907)	324763	28.9330	1050
$ 60 2,4,6-Tribromophenol	329	8.850	8.850	(1.106)	102295	80.4666	2930
$ 81 p-Terphenyl-d14	244	11.319	11.316	(0.896)	429373	40.4051	1470

ION RATIO REPORT

SV REPORT

Data file: s611622.d
Report Date: 12/17/2009 08:26
Lab. ID: 242750002 SampleType: SAMPLE
Injection Date: 16-DEC-2009 19:31
Operator: nagl Instrument: MSD6.i
Sample Info: |242750002|932444|1|SVMF|1|LANL
Miscellaneous Info: |MSD8270_S|WBN091208-01
Comment:
Method used: /chem/MSD6.i/s121609.b/MSD6-M8270C-AQA-110909.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-886
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
1 N-Methyl-N-nitrosomethylamine				CAS#: 62-75-9		
74	9595	2.41	2.70	80-120	100	(T)
42	2322	2.41	2.70	59-119	24	(QT)
43	20346	2.41	2.70	8- 68	212	(QT)
4 Aniline				CAS#: 62-53-3		
66	24286	4.46	4.54	80-120	100	(T)
93	507	4.22	4.54	228-288	2	(QT)
17 N-Nitrosodipropylamine				CAS#: 621-64-7		
70	11898	5.36	5.23	80-120	100	(T)
42	6858	5.37	5.23	40-100	58	(T)
22 Isophorone				CAS#: 78-59-1		
82	140802	5.38	5.64	80-120	100	(T)
138	1637	6.11	5.64	0- 49	1	(T)
43 Dimethylphthalate				CAS#: 131-11-3		
163	78710	8.00	7.69	80-120	100	(T)
164	435557	8.00	7.69	0- 40	553	(QT)
50 2,4-Dinitrotoluene				CAS#: 121-14-2		
165	57280	8.00	8.19	80-120	100	(T)
89	625	8.00	8.19	40-100	1	(QT)
63	254	8.00	8.19	17- 77	0	(QT)

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
53 Fluorene			CAS#: 86-73-7			
166	6619	8.85	8.59	80-120	100	(T)
165	6212	8.85	8.59	62-122	94	(T)
167	2080	8.85	8.59	0- 44	31	(T)
55 2-Methyl-4,6-dinitrophenol				CAS#: 534-52-1		
198	118	8.85	8.63	80-120	100	(T)
105	684	8.85	8.63	11- 71	579	(QT)
51	558	8.85	8.63	21- 81	472	(QT)
61 4-Bromophenylphenylether				CAS#: 101-55-3		
248	6345	8.85	9.11	80-120	100	(T)
141	47170	8.85	9.11	48-108	743	(QT)
250	12785	8.85	9.11	69-129	201	(QT)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

Data file : /chem/MSD6.i/s121609.b/s6l1622.d
Lab Smp Id: 242750002 Client Smp ID: RE03-09-13466
Inj Date : 16-DEC-2009 19:31
Operator : nag1 Inst ID: MSD6.i
Smp Info : |242750002|932444|1|SVMF|1|LANL
Misc Info : |MSD8270_S|WBN091208-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s121609.b/MSD6-M8270C-AQA-110909.m
Meth Date : 17-Dec-2009 08:11 nat00999 Quant Type: ISTD
Cal Date : 11-NOV-2009 04:38 Cal File: s6k0954.d
Als bottle: 13
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-886.sub
Target Version: 3.50
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.01000	weight of sample
M	8.53000	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	4.839	1376376	40.000
* 91 Chrysene-d12	12.633	1765916	40.000
* 98 Perylene-d12	14.980	1385008	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #

RT	AREA	CONCENTRATIONS ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	QUANT LIBRARY	LIB ENTRY	CPND #
Unknown Aldol Condensate				CAS #:			
3.458	376510	10.9420574	399	0		0	10
9-Octadecenamide, (Z)-				CAS #: 301-02-0			
11.856	1743760	39.4981201	1440	98	NIST05.L	112657	91
Unknown				CAS #:			
13.857	496672	14.3442224	522	0		0	98

Data File: /chem/MSD6.i/s121609.b/s611622.d
Date : 16-DEC-2009 19:31
Client ID: RE03-09-13466
Sample Info: |2427500021932444|1|SVHF|1|LANL
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Page 1

Instrument: MSD6.i

Operator: nag1
Column diameter: 0.20

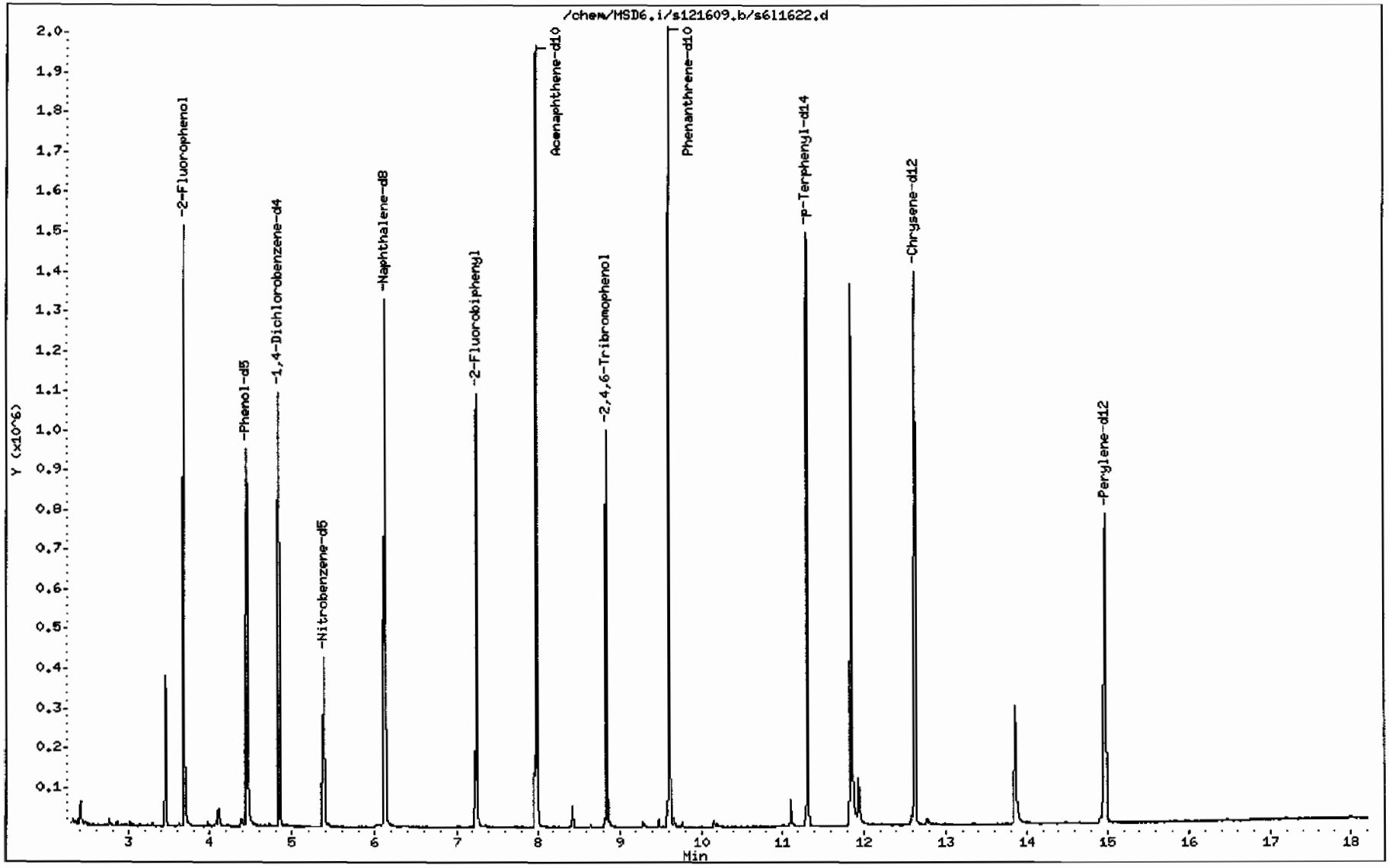

Data File: /chem/MSD6.i/s121609.b/s611622.d

Date : 16-DEC-2009 19:31

Client ID: RE03-09-13466

Instrument: MSD6.i

Sample Info: |2427500021932444|1|SVHF|1|LANL

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	59	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	42	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7945	37	C6H12O2	116

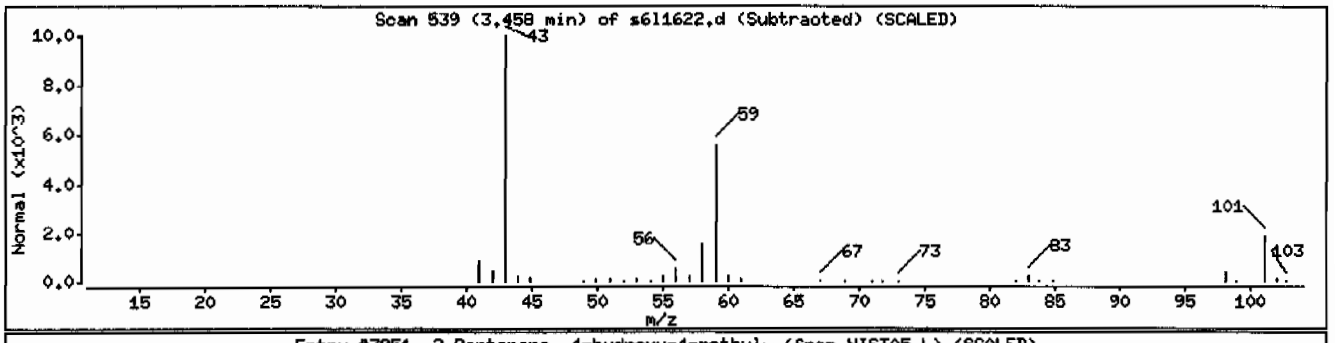

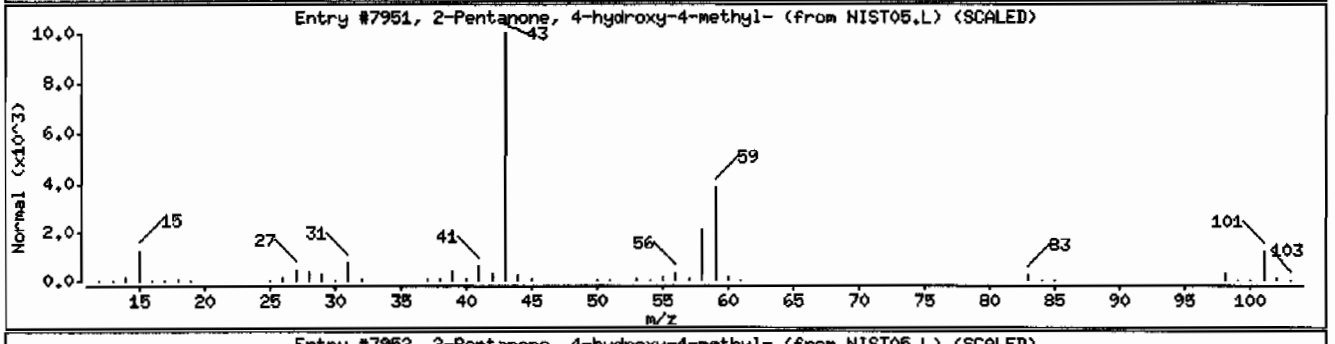

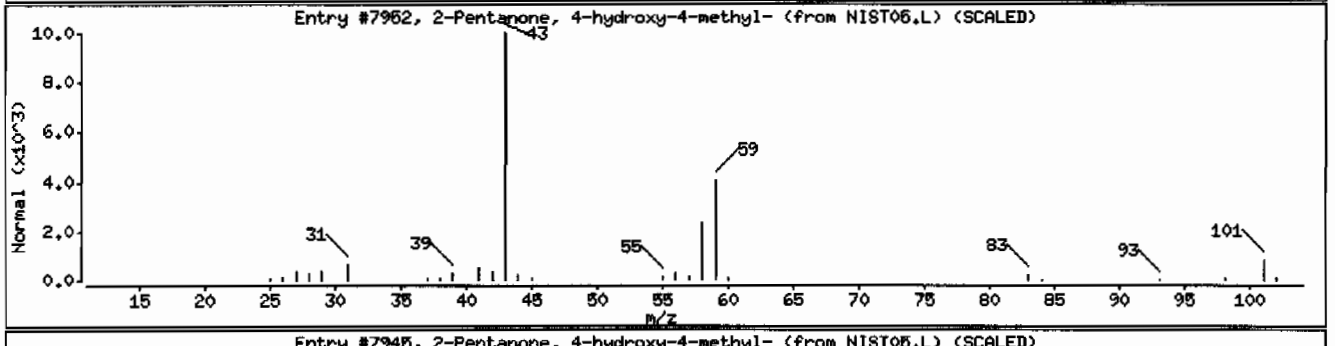

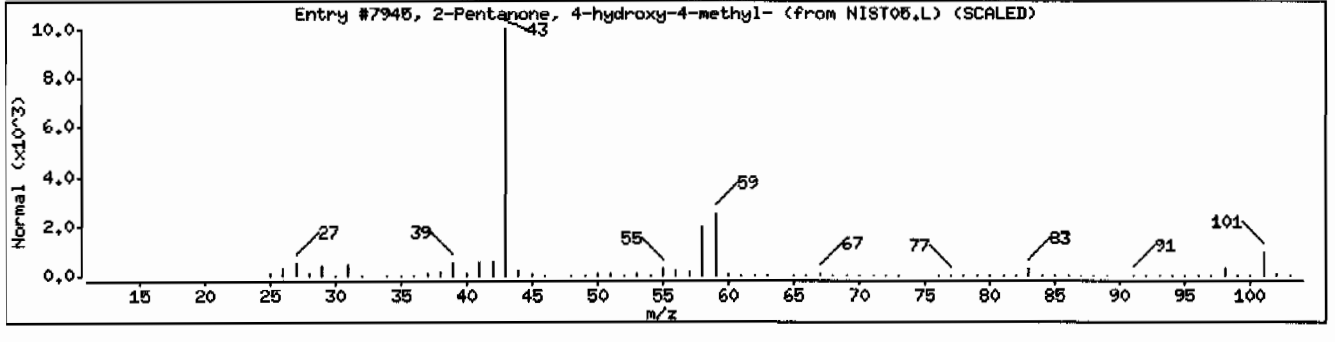

Data File: /chem/MSD6.i/s121609.b/s611622.d

Date : 16-DEC-2009 19:31

Client ID: RE03-09-13466

Instrument: MSD6.i

Sample Info: |2427500021932444|1|SVMF|1|LANL

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
9-Octadecenamide, (Z)-	301-02-0	NIST05.L	112657	98	C18H35NO	281
9-Octadecenamide, (Z)-	301-02-0	NIST05.L	112656	94	C18H35NO	281
Hexadecanamide	629-54-9	NIST05.L	95460	64	C16H33NO	255

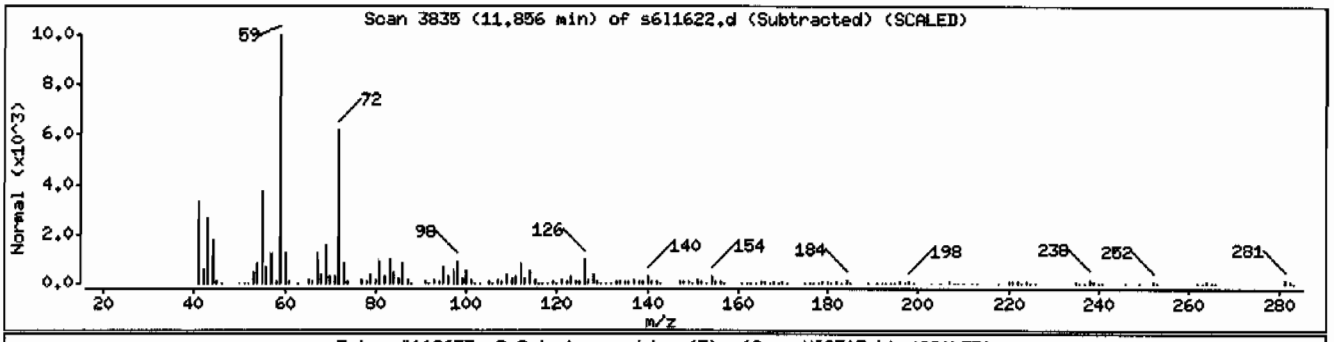

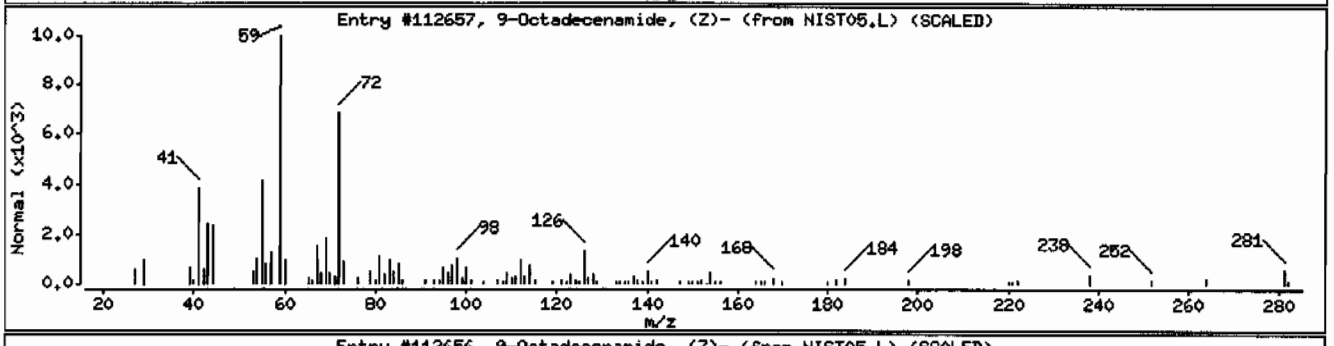

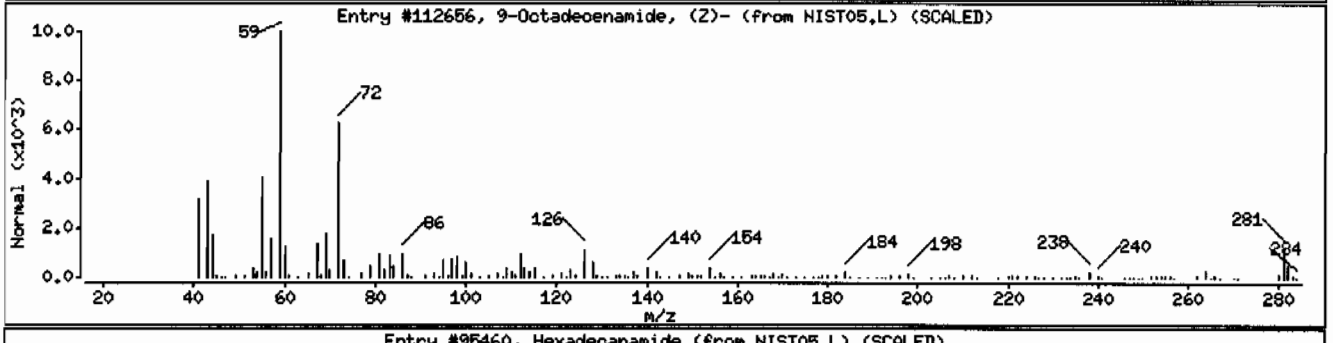

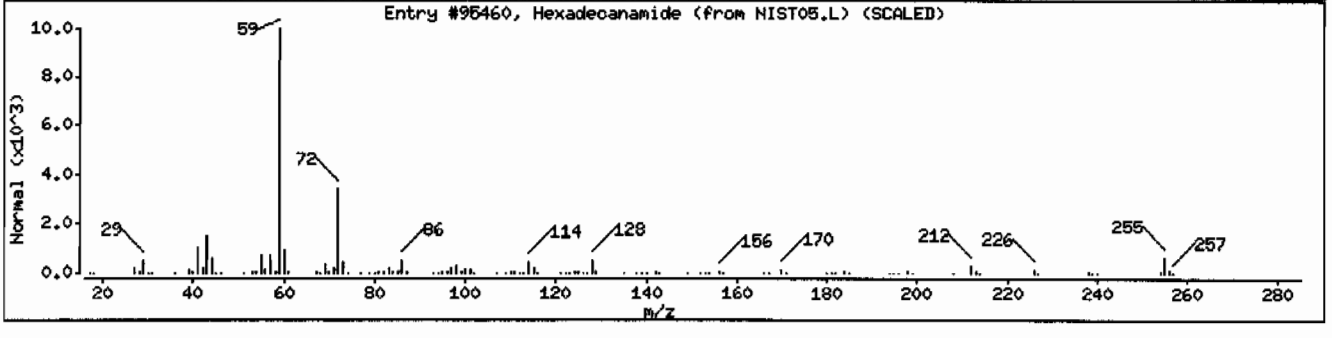

Data File: /chem/MSD6.i/s121609.b/s611622.d

Date : 16-DEC-2009 19:31

Client ID: RE03-09-13466 Instrument: MSD6.i

Sample Info: |2427500021932444|1|SVMF|1|LANL

Volume Injected (uL): 0.5 Operator: nagl

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
9-Octadecenamide, (Z)-	301-02-0	NIST05.L	112655	93	C18H35NO	281
13-Docosenamide, (Z)-	112-84-5	NIST05.L	146307	91	C22H43NO	337
9-Octadecenamide, (Z)-	301-02-0	NIST05.L	112656	87	C18H35NO	281

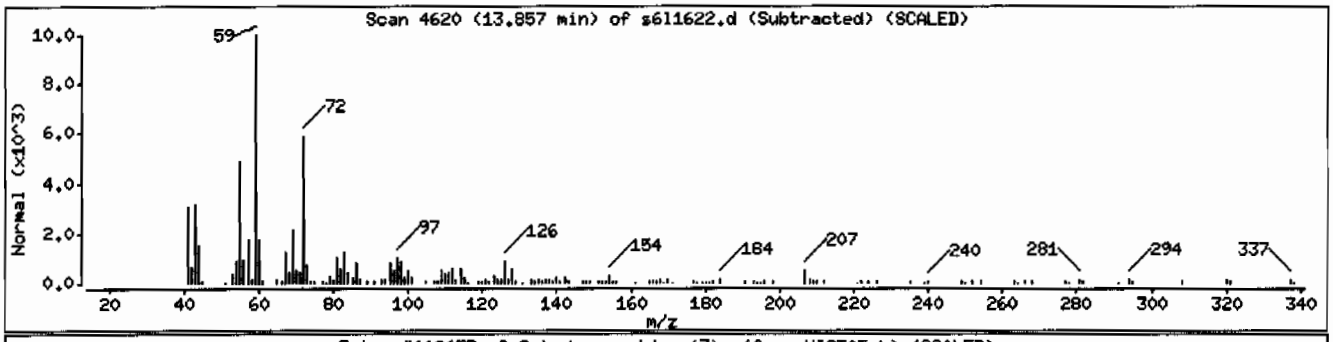

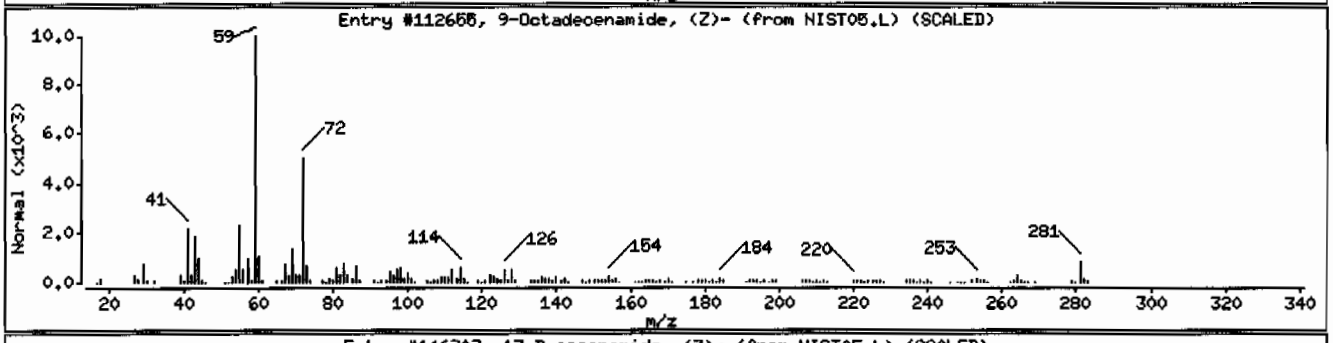

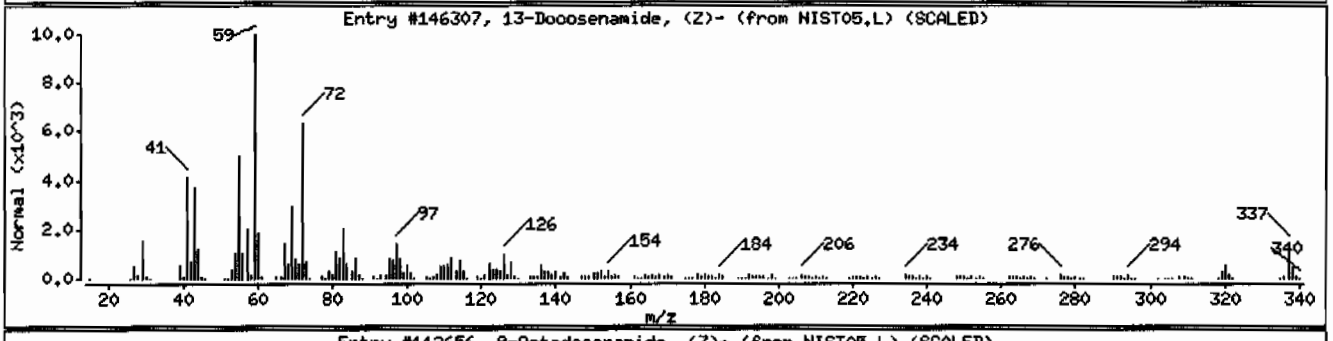

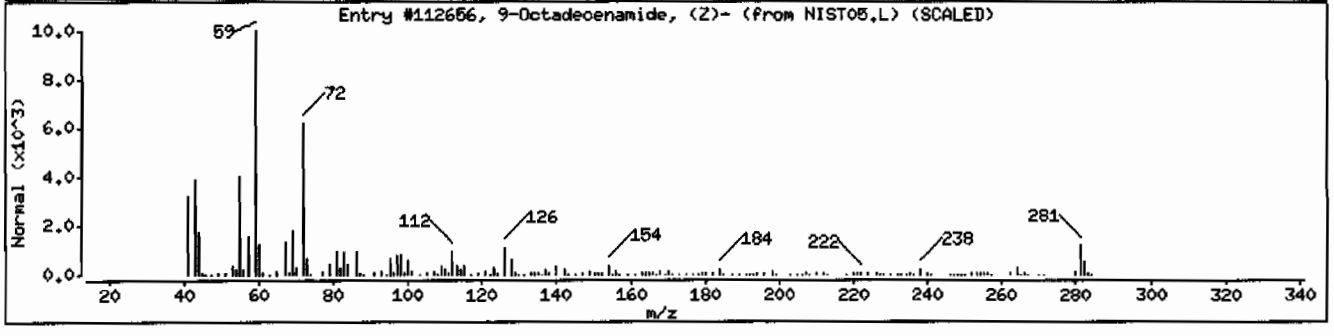

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-886	Date Collected:	12/09/2009 12:00	Matrix:	S
Lab Sample ID:	242750001	Date Received:	12/11/2009 08:50	%Moisture:	3.9
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-13467	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	932444	Inst:	MSD6.I	Dilution:	1
Run Date:	12/16/2009 19:03	Analyst:	NAG1	Inj. Vol:	.5 uL
Prep Date:	12/14/2009 09:47	Aliquot:	30.03 g	Final Volume:	1 mL
Data File:	s6l1621.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	347	ug/kg	69.3	347
108-95-2	Phenol	U	347	ug/kg	69.3	347
95-57-8	2-Chlorophenol	U	347	ug/kg	69.3	347
106-46-7	1,4-Dichlorobenzene	U	347	ug/kg	69.3	347
621-64-7	N-Nitrosodipropylamine	U	347	ug/kg	69.3	347
59-50-7	4-Chloro-3-methylphenol	U	347	ug/kg	69.3	347
83-32-9	Acenaphthene	U	34.7	ug/kg	11.4	34.7
121-14-2	2,4-Dinitrotoluene	U	347	ug/kg	34.7	347
100-02-7	4-Nitrophenol	U	347	ug/kg	114	347
87-86-5	Pentachlorophenol	U	347	ug/kg	86.6	347
129-00-0	Pyrene	U	34.7	ug/kg	10.4	34.7
110-86-1	Pyridine	U	347	ug/kg	69.3	347
62-53-3	Aniline	U	347	ug/kg	104	347
111-44-4	bis(2-Chloroethyl) ether	U	347	ug/kg	69.3	347
541-73-1	1,3-Dichlorobenzene	U	347	ug/kg	69.3	347
100-51-6	Benzyl alcohol	U	347	ug/kg	104	347
95-50-1	1,2-Dichlorobenzene	U	347	ug/kg	69.3	347
108-60-1	bis(2-Chloroisopropyl)ether	U	347	ug/kg	69.3	347
95-48-7	o-Cresol	U	347	ug/kg	69.3	347
65794-96-9	m,p-Cresols	U	347	ug/kg	104	347
67-72-1	Hexachloroethane	U	347	ug/kg	69.3	347
98-95-3	Nitrobenzene	U	347	ug/kg	69.3	347
78-59-1	Isophorone	U	347	ug/kg	69.3	347
88-75-5	2-Nitrophenol	U	347	ug/kg	69.3	347
105-67-9	2,4-Dimethylphenol	U	347	ug/kg	121	347
111-91-1	bis(2-Chloroethoxy)methane	U	347	ug/kg	69.3	347
120-83-2	2,4-Dichlorophenol	U	347	ug/kg	69.3	347
65-85-0	Benzoic acid	U	693	ug/kg	173	693
91-20-3	Naphthalene	U	34.7	ug/kg	10.4	34.7
106-47-8	4-Chloroaniline	U	347	ug/kg	69.3	347
87-68-3	Hexachlorobutadiene	U	347	ug/kg	69.3	347
91-57-6	2-Methylnaphthalene	U	34.7	ug/kg	6.93	34.7
77-47-4	Hexachlorocyclopentadiene	U	347	ug/kg	69.3	347
88-06-2	2,4,6-Trichlorophenol	U	347	ug/kg	69.3	347
95-95-4	2,4,5-Trichlorophenol	U	347	ug/kg	69.3	347
91-58-7	2-Chloronaphthalene	U	34.7	ug/kg	11.4	34.7
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	347	ug/kg	69.3	347
99-09-2	3-Nitroaniline	U	347	ug/kg	69.3	347

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-886	Date Collected:	12/09/2009 12:00	Matrix:	S
Lab Sample ID:	242750001	Date Received:	12/11/2009 08:50	%Moisture:	3.9
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-13467	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	932444	Inst:	MSD6.I	Dilution:	1
Run Date:	12/16/2009 19:03	Analyst:	NAG1	Inj. Vol:	.5 uL
Prep Date:	12/14/2009 09:47	Aliquot:	30.03 g	Final Volume:	1 mL
Data File:	s6l1621.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	347	ug/kg	69.3	347
606-20-2	2,6-Dinitrotoluene	U	347	ug/kg	34.7	347
208-96-8	Acenaphthylene	U	34.7	ug/kg	10.4	34.7
51-28-5	2,4-Dinitrophenol	U	693	ug/kg	132	693
132-64-9	Dibenzofuran	U	347	ug/kg	69.3	347
84-66-2	Diethylphthalate	U	347	ug/kg	69.3	347
86-73-7	Fluorene	U	34.7	ug/kg	10.4	34.7
7005-72-3	4-Chlorophenylphenylether	U	347	ug/kg	69.3	347
534-52-1	2-Methyl-4,6-dinitrophenol	U	347	ug/kg	69.3	347
100-01-6	4-Nitroaniline	U	347	ug/kg	104	347
	p-Nitroaniline					
122-39-4	Diphenylamine	U	347	ug/kg	69.3	347
122-66-7	Azobenzene	U	347	ug/kg	69.3	347
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	347	ug/kg	69.3	347
118-74-1	Hexachlorobenzene	U	347	ug/kg	69.3	347
85-01-8	Phenanthrene	U	34.7	ug/kg	10.4	34.7
120-12-7	Anthracene	U	34.7	ug/kg	6.93	34.7
84-74-2	Di-n-butylphthalate	U	347	ug/kg	69.3	347
206-44-0	Fluoranthene	U	34.7	ug/kg	10.4	34.7
85-68-7	Butylbenzylphthalate	U	347	ug/kg	69.3	347
56-55-3	Benzo(a)anthracene	U	34.7	ug/kg	10.4	34.7
91-94-1	3,3'-Dichlorobenzidine	U	347	ug/kg	104	347
218-01-9	Chrysene	U	34.7	ug/kg	10.4	34.7
117-81-7	bis(2-Ethylhexyl)phthalate	U	347	ug/kg	69.3	347
117-84-0	Di-n-octylphthalate	U	347	ug/kg	69.3	347
205-99-2	Benzo(b)fluoranthene	U	34.7	ug/kg	10.4	34.7
207-08-9	Benzo(k)fluoranthene	U	34.7	ug/kg	10.4	34.7
50-32-8	Benzo(a)pyrene	U	34.7	ug/kg	10.4	34.7
193-39-5	Indeno(1,2,3-cd)pyrene	U	34.7	ug/kg	10.4	34.7
53-70-3	Dibenzo(a,h)anthracene	U	34.7	ug/kg	10.4	34.7
191-24-2	Benzo(ghi)perylene	U	34.7	ug/kg	10.4	34.7
120-82-1	1,2,4-Trichlorobenzene	U	347	ug/kg	69.3	347

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	3.45	409	ug/kg		JA
301-02-0	9-Octadecenamide, (Z)-	11.86	1910	ug/kg	98	NJ

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-886**	**Date Collected:**	**12/09/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242750001**	**Date Received:**	**12/11/2009 08:50**	**%Moisture:**	**3.9**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-13467**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**932444**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**12/16/2009 19:03**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/14/2009 09:47**	**Aliquot:**	**30.03 g**	**Final Volume:**	**1 mL**
Data File:	**s611621.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
124-26-5	Octadecanamide	11.94	205	ug/kg	94	NJ
	Unknown	13.86	808	ug/kg		J

GEL Laboratories LLC

Data file : /chem/MSD6.i/s121609.b/s611621.d
Lab Smp Id: 242750001 Client Smp ID: RE03-09-13467
Inj Date : 16-DEC-2009 19:03
Operator : nag1 Inst ID: MSD6.i
Smp Info : |242750001|932444|1|SVMF|1|LANL
Misc Info : |MSD8270_S|WBN091208-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s121609.b/MSD6-M8270C-AQA-110909.m
Meth Date : 17-Dec-2009 08:11 nat00999 Quant Type: ISTD
Cal Date : 11-NOV-2009 04:38 Cal File: s6k0954.d
Als bottle: 12
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-886.sub
Target Version: 3.50
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.03000	weight of sample
M	3.92000	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	4.844	4.849	(1.000)	189058	40.0000	
* 29 Naphthalene-d8	136	6.128	6.131	(1.000)	725197	40.0000	
* 46 Acenaphthene-d10	164	8.001	8.001	(1.000)	403131	40.0000	
* 67 Phenanthrene-d10	188	9.614	9.611	(1.000)	716842	40.0000	
* 91 Chrysene-d12	240	12.633	12.633	(1.000)	582140	40.0000	
* 98 Perylene-d12	264	14.978	14.973	(1.000)	426969	40.0000	
$ 3 2-Fluorophenol	112	3.685	3.674	(0.761)	307970	65.0489	2250
$ 5 Phenol-d5	99	4.459	4.457	(0.921)	421029	70.4591	2440
$ 20 Nitrobenzene-d5	82	5.384	5.389	(0.879)	167585	32.6676	1130
$ 39 2-Fluorobiphenyl	172	7.254	7.254	(0.907)	311832	30.0156	1040
$ 60 2,4,6-Tribromophenol	329	8.850	8.850	(1.106)	98083	83.3592	2890
$ 81 p-Terphenyl-d14	244	11.319	11.316	(0.896)	408499	43.5130	1510

ION RATIO REPORT

SV REPORT

Data file: s611621.d
Report Date: 12/17/2009 08:26
Lab. ID: 242750001 SampleType: SAMPLE
Injection Date: 16-DEC-2009 19:03
Operator: nagl Instrument: MSD6.i
Sample Info: |242750001|932444|1|SVMF|1|LANL
Miscellaneous Info: |MSD8270_S|WBN091208-01
Comment:
Method used: /chem/MSD6.i/s121609.b/MSD6-M8270C-AQA-110909.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-886
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
1 N-Methyl-N-nitrosomethylamine				CAS#: 62-75-9		
74	6910	2.37	2.70	80-120	100	(T)
42	284	2.36	2.70	59-119	4	(QT)
43	17183	2.39	2.70	8- 68	249	(QT)
4 Aniline				CAS#: 62-53-3		
66	20741	4.46	4.54	80-120	100	(T)
93	377	4.22	4.54	228-288	2	(QT)
17 N-Nitrosodipropylamine				CAS#: 621-64-7		
70	22661	5.38	5.23	80-120	100	(T)
42	13562	5.38	5.23	40-100	60	(T)
22 Isophorone				CAS#: 78-59-1		
82	167585	5.38	5.64	80-120	100	(T)
138	3613	6.13	5.64	0- 49	2	(T)
43 Dimethylphthalate				CAS#: 131-11-3		
163	71055	8.00	7.69	80-120	100	(T)
164	403131	8.00	7.69	0- 40	567	(QT)
50 2,4-Dinitrotoluene				CAS#: 121-14-2		
165	52016	8.00	8.19	80-120	100	(T)
89	467	8.00	8.19	40-100	1	(QT)
63	528	8.00	8.19	17- 77	1	(QT)

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
53 Fluorene			CAS#: 86-73-7			
166	6024	8.85	8.59	80-120	100	(T)
165	6237	8.85	8.59	62-122	104	(T)
167	1960	8.85	8.59	0- 44	33	(T)
61 4-Bromophenylphenylether				CAS#: 101-55-3		
248	5902	8.85	9.11	80-120	100	(T)
141	44199	8.85	9.11	48-108	749	(QT)
250	12336	8.85	9.11	69-129	209	(QT)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

Data file : /chem/MSD6.i/s121609.b/s611621.d
Lab Smp Id: 242750001 Client Smp ID: RE03-09-13467
Inj Date : 16-DEC-2009 19:03
Operator : nag1 Inst ID: MSD6.i
Smp Info : |242750001|932444|1|SVMF|1|LANL
Misc Info : |MSD8270_S|WBN091208-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s121609.b/MSD6-M8270C-AQA-110909.m
Meth Date : 17-Dec-2009 08:11 nat00999 Quant Type: ISTD
Cal Date : 11-NOV-2009 04:38 Cal File: s6k0954.d
Als bottle: 12
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-886.sub
Target Version: 3.50
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.03000	weight of sample
M	3.92000	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	4.844	1104523	40.000
* 91 Chrysene-d12	12.633	1558743	40.000
* 98 Perylene-d12	14.978	1161828	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #

RT	AREA	CONCENTRATIONS ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	QUANT LIBRARY	LIB ENTRY	CPND #
Unknown Aldol Condensate					CAS #:		
3.445	325822	11.7995418	409	0		0	10
9-Octadecenamide, (Z)-					CAS #: 301-02-0		
11.859	2150203	55.1778666	1910	98	NIST05.L	112657	91
Octadecanamide					CAS #: 124-26-5		
11.943	230383	5.91203168	205	94	NIST05.L	114053	91
Unknown					CAS #:		
13.857	677044	23.3096079	808	0		0	98

Data File: /chem/MSD6.i/s121609.b/s611621.d
Date : 16-DEC-2009 19:03
Client ID: RE03-09-13467
Sample Info: |2427500011932444|1|SVMFI1|LANL
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD6.i

Operator: nag1
Column diameter: 0.20

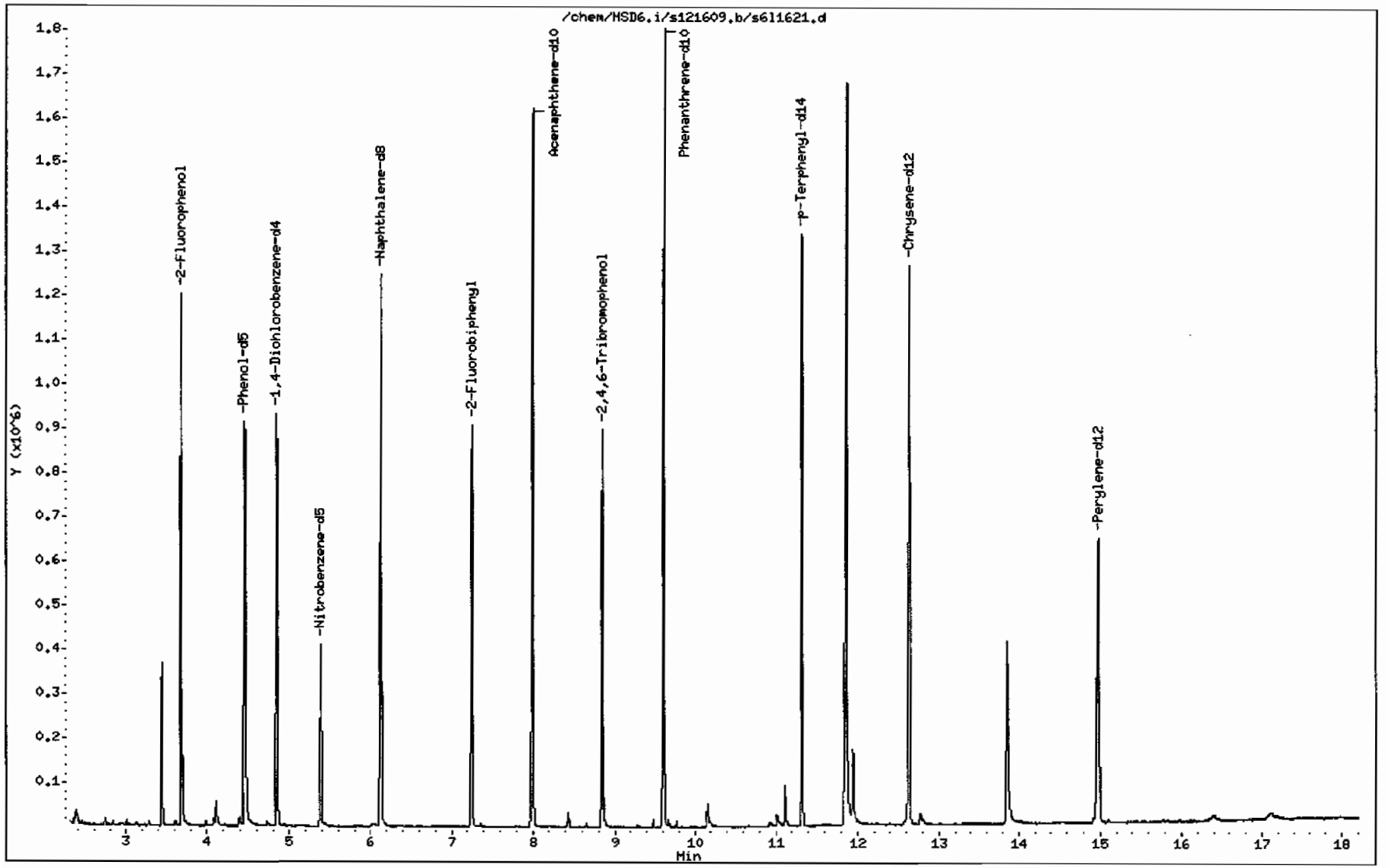

Data File: /chem/MSD6.i/s121609.b/s611621.d

Date : 16-DEC-2009 19:03

Client ID: RE03-09-13467

Instrument: MSD6.i

Sample Info: |2427500001|932444|1|SVMF|1|LANL

Volume Injected (uL): 0.5

Operator: nagl

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	59	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	39	C6H12O2	116
Acetic acid, 1,1-dimethylethyl ester	540-88-5	NIST05.L	7977	39	C6H12O2	116

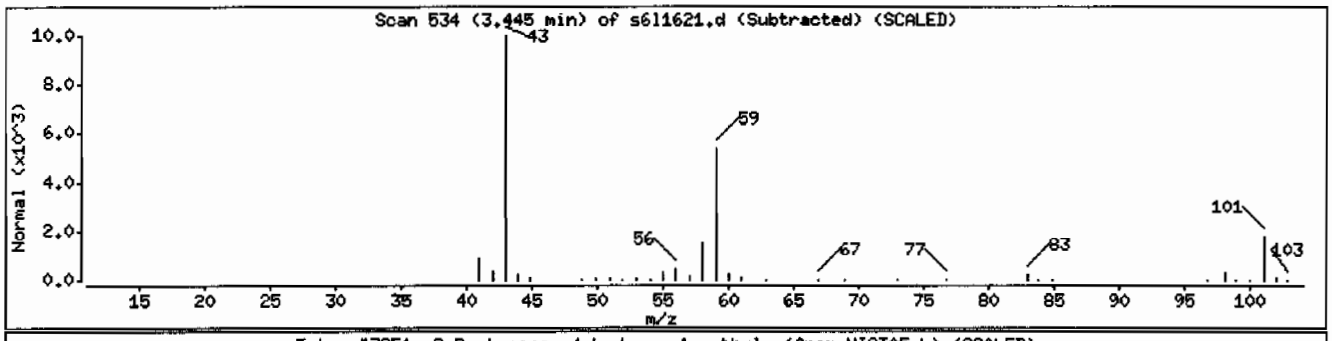

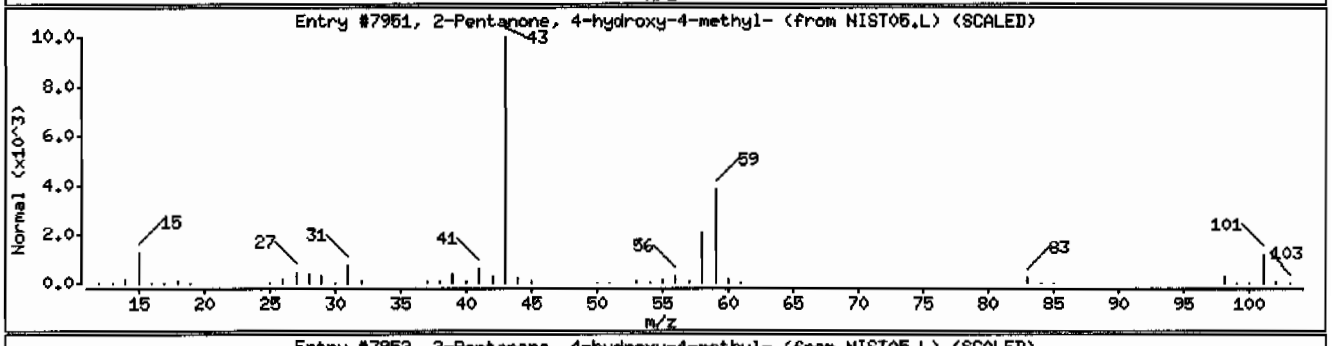

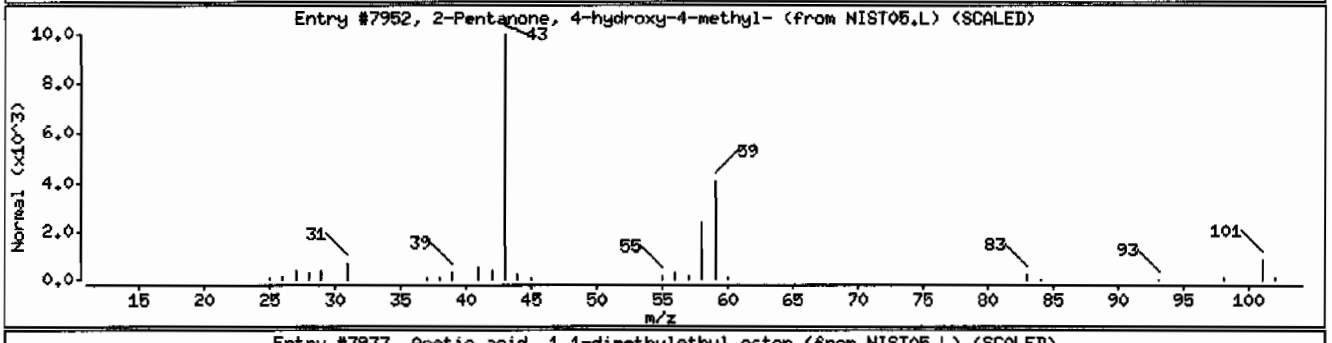

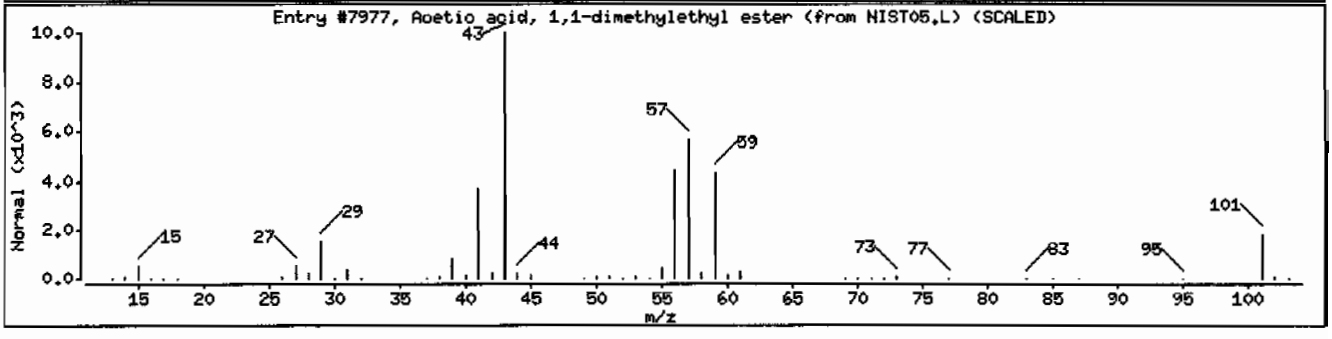

Data File: /chem/MSD6.i/s121609.b/s611621.d

Date : 16-DEC-2009 19:03

Client ID: RE03-09-13467

Instrument: MSD6.i

Sample Info: 1242750001|932444|1|SVMF|1|LANL

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
9-Octadecenamide, (Z)-	301-02-0	NIST05.L	112657	98	C18H35NO	281
9-Octadecenamide, (Z)-	301-02-0	NIST05.L	112655	94	C18H35NO	281
9-Octadecenamide, (Z)-	301-02-0	NIST05.L	112656	90	C18H35NO	281

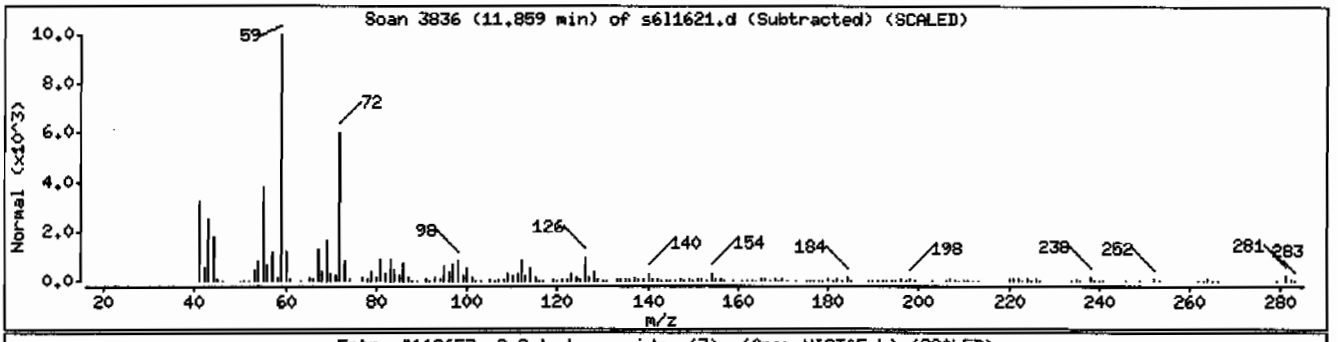

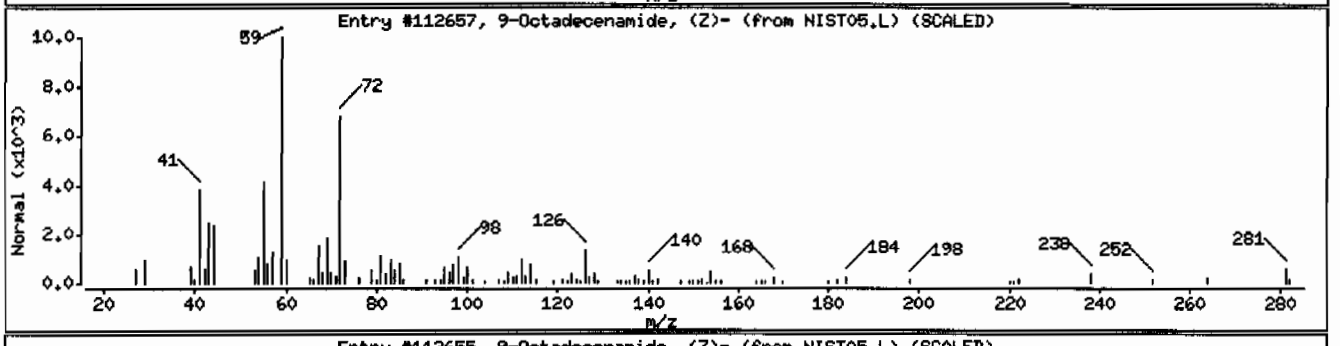

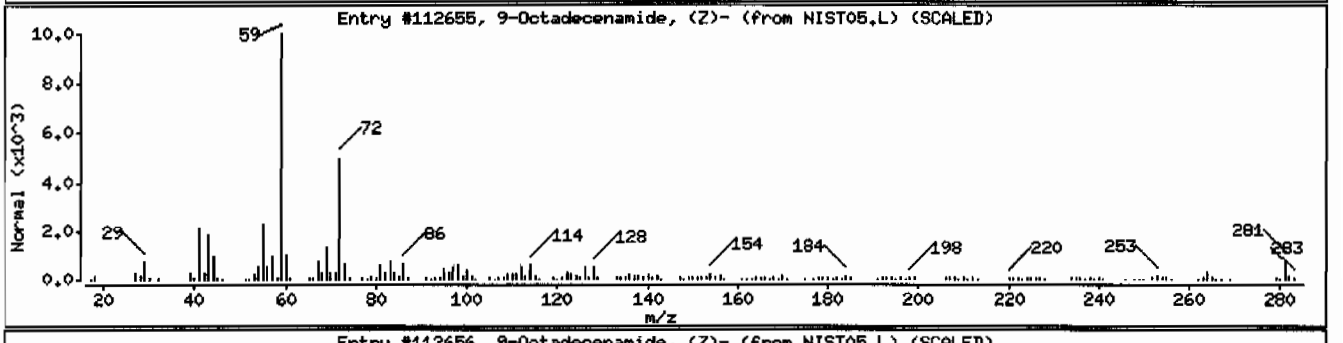

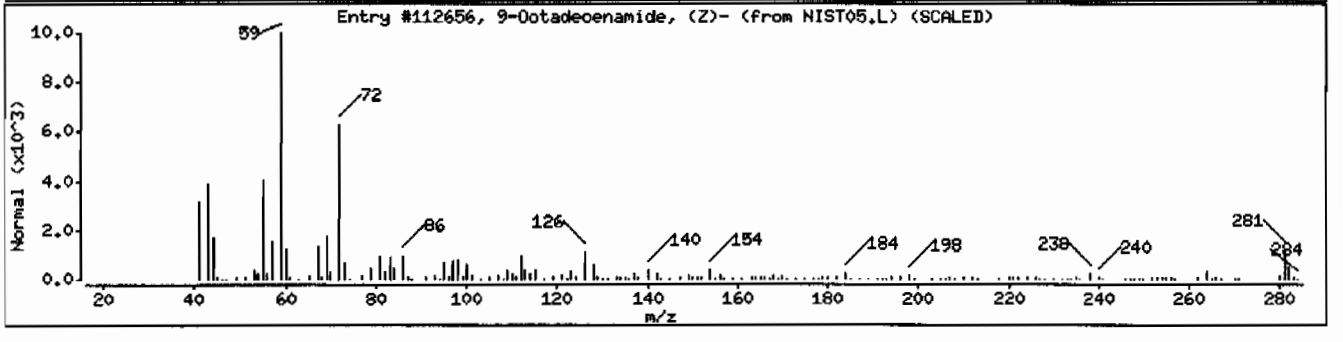

Data File: /chem/MSD6.i/s121609.b/s611621.d

Date : 16-DEC-2009 19:03

Client ID: RE03-09-13467

Instrument: MSD6.i

Sample Info: |2427500001|932444|1|SVMF|1|LANL

Volume Injected (uL): 0.5

Operator: nagl

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Octadecanamide	124-26-5	NIST05.L	114053	94	C18H37NO	283
Hexadecanamide	629-54-9	NIST05.L	95461	91	C16H33NO	255
Dodecanamide	1120-16-7	NIST05.L	56472	90	C12H25NO	199

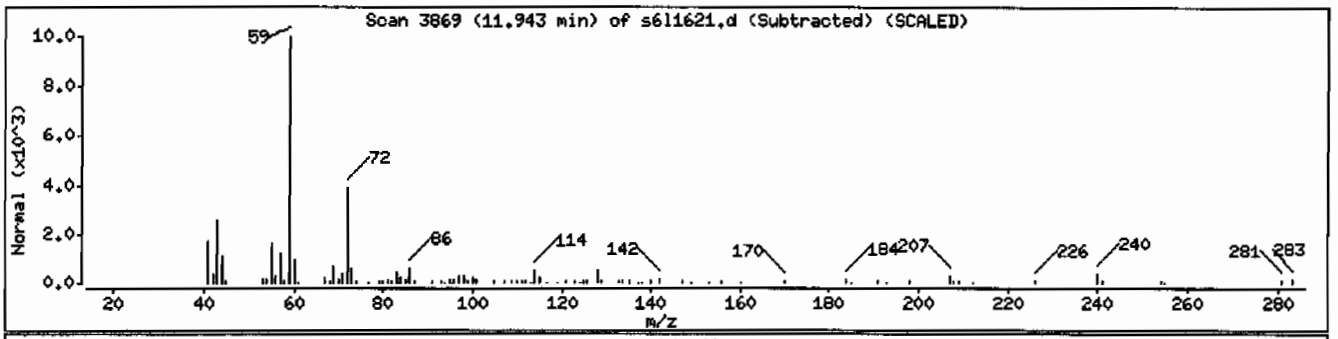

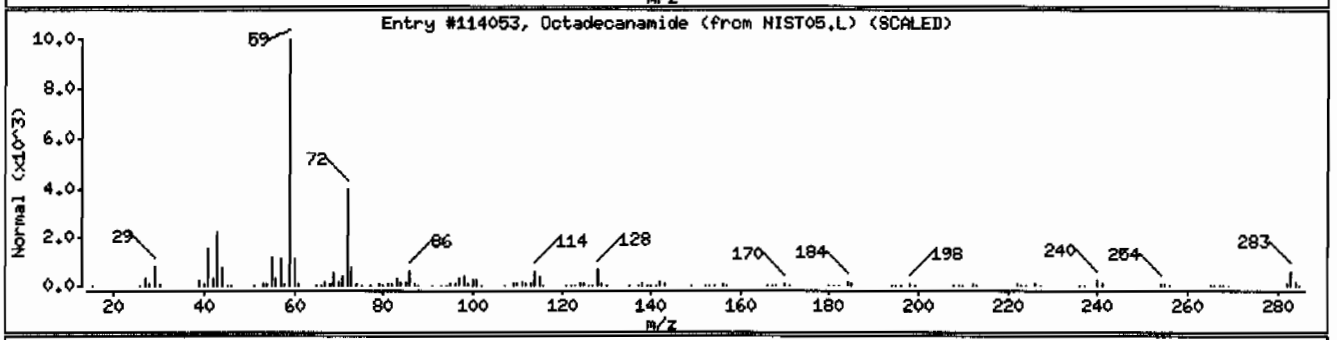

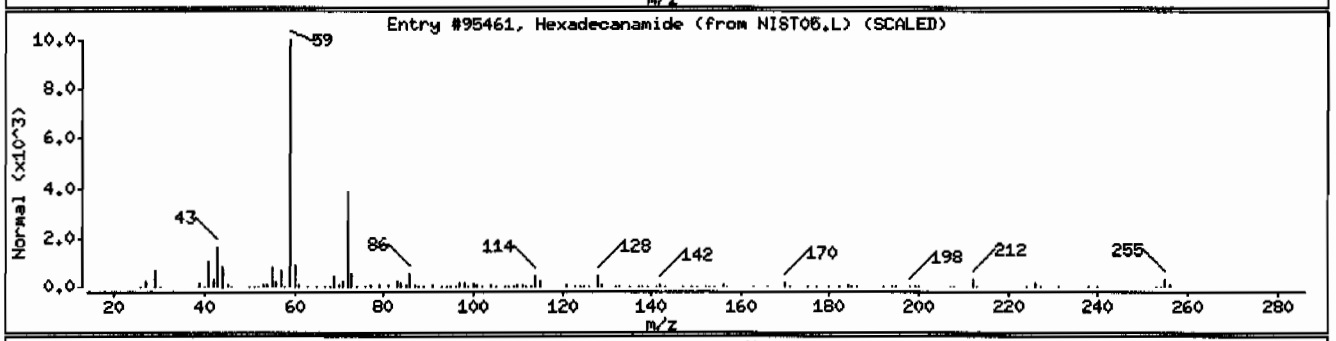

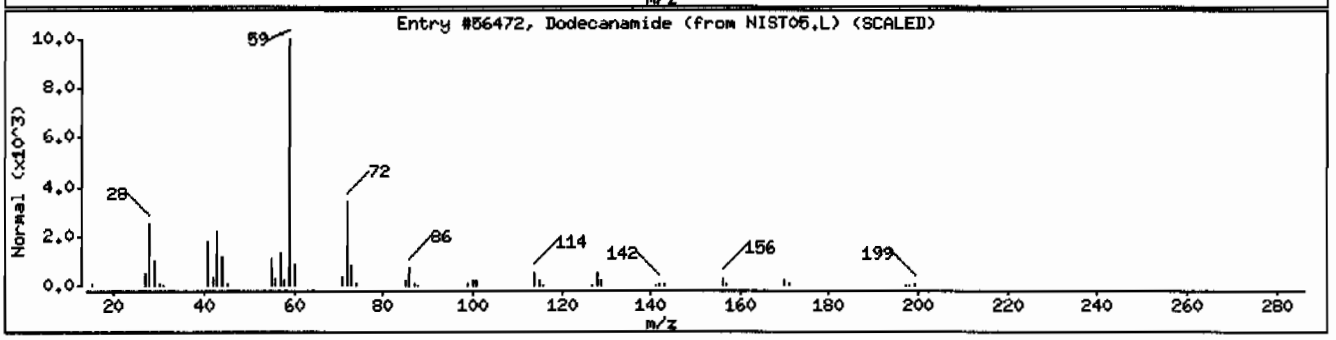

Data File: /chem/MSD6.i/s121609.b/s611621.d

Date : 16-DEC-2009 19:03

Client ID: RE03-09-13467

Instrument: MSD6.i

Sample Info: |2427500001|932444|1|SVMF|1|LANL

Volume Injected (uL): 0.5

Operator: nagl

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
9-Octadecenamide, (Z)-	301-02-0	NIST05.L	112656	95	C18H35NO	281
9-Octadecenamide, (Z)-	301-02-0	NIST05.L	112655	93	C18H35NO	281
9-Octadecenamide, (Z)-	301-02-0	NIST05.L	112657	91	C18H35NO	281

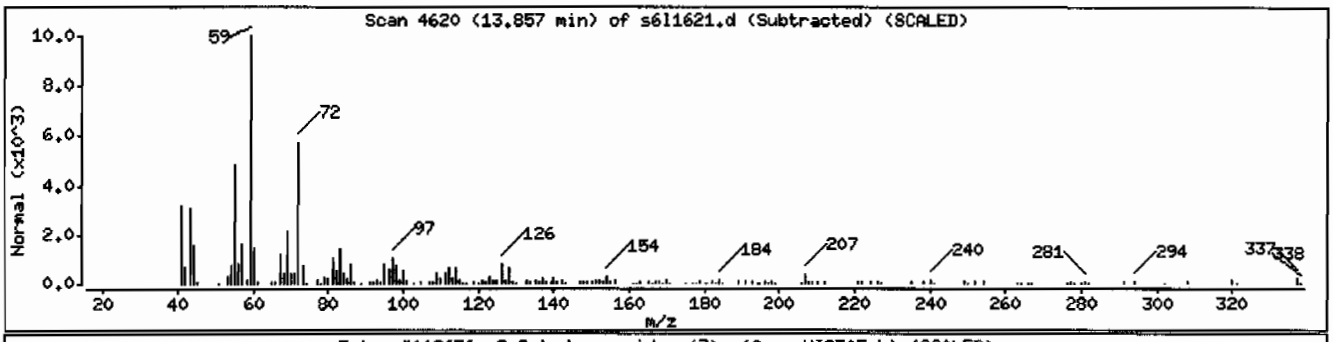

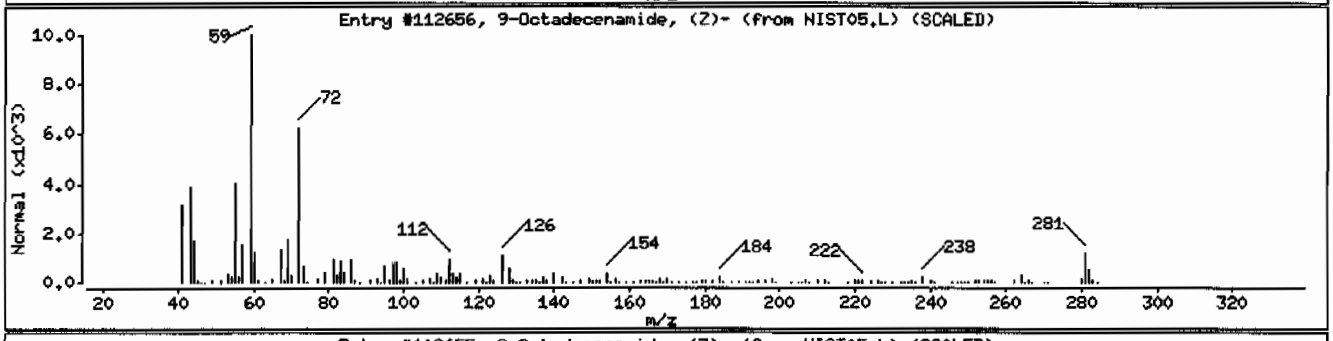

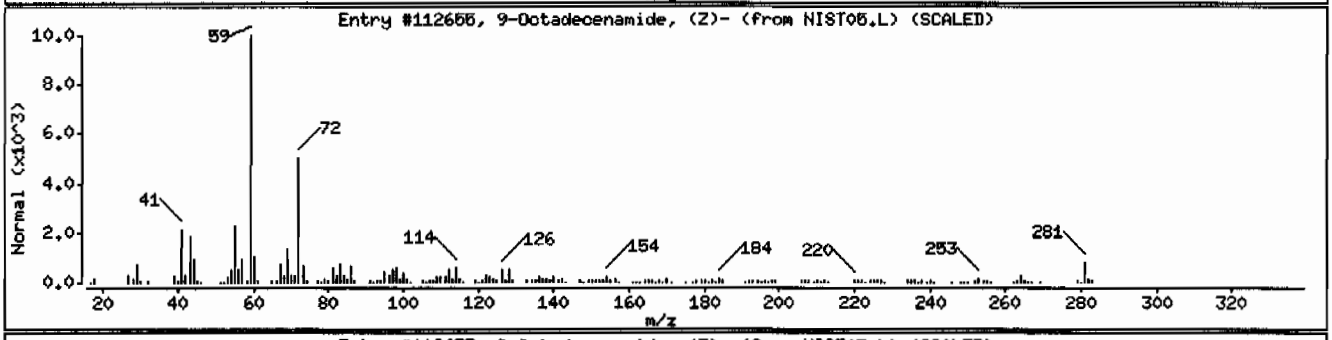

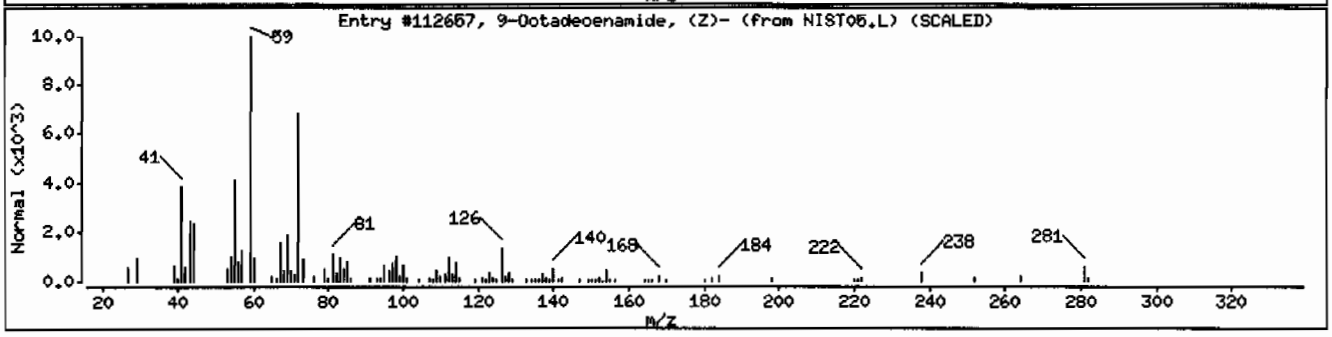

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-886**	**Date Collected:**	**12/09/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242750003**	**Date Received:**	**12/11/2009 08:50**	**%Moisture:**	**9.3**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-13468**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**932444**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**12/16/2009 20:00**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/14/2009 09:47**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**s6l1623.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	368	ug/kg	73.5	368
108-95-2	Phenol	U	368	ug/kg	73.5	368
95-57-8	2-Chlorophenol	U	368	ug/kg	73.5	368
106-46-7	1,4-Dichlorobenzene	U	368	ug/kg	73.5	368
621-64-7	N-Nitrosodipropylamine	U	368	ug/kg	73.5	368
59-50-7	4-Chloro-3-methylphenol	U	368	ug/kg	73.5	368
83-32-9	Acenaphthene	U	36.8	ug/kg	12.1	36.8
121-14-2	2,4-Dinitrotoluene	U	368	ug/kg	36.8	368
100-02-7	4-Nitrophenol	U	368	ug/kg	121	368
87-86-5	Pentachlorophenol	U	368	ug/kg	91.9	368
129-00-0	Pyrene	U	36.8	ug/kg	11.0	36.8
110-86-1	Pyridine	U	368	ug/kg	73.5	368
62-53-3	Aniline	U	368	ug/kg	110	368
111-44-4	bis(2-Chloroethyl) ether	U	368	ug/kg	73.5	368
541-73-1	1,3-Dichlorobenzene	U	368	ug/kg	73.5	368
100-51-6	Benzyl alcohol	U	368	ug/kg	110	368
95-50-1	1,2-Dichlorobenzene	U	368	ug/kg	73.5	368
108-60-1	bis(2-Chloroisopropyl)ether	U	368	ug/kg	73.5	368
95-48-7	o-Cresol	U	368	ug/kg	73.5	368
65794-96-9	m,p-Cresols	U	368	ug/kg	110	368
67-72-1	Hexachloroethane	U	368	ug/kg	73.5	368
98-95-3	Nitrobenzene	U	368	ug/kg	73.5	368
78-59-1	Isophorone	U	368	ug/kg	73.5	368
88-75-5	2-Nitrophenol	U	368	ug/kg	73.5	368
105-67-9	2,4-Dimethylphenol	U	368	ug/kg	129	368
111-91-1	bis(2-Chloroethoxy)methane	U	368	ug/kg	73.5	368
120-83-2	2,4-Dichlorophenol	U	368	ug/kg	73.5	368
65-85-0	Benzoic acid	U	735	ug/kg	184	735
91-20-3	Naphthalene	U	36.8	ug/kg	11.0	36.8
106-47-8	4-Chloroaniline	U	368	ug/kg	73.5	368
87-68-3	Hexachlorobutadiene	U	368	ug/kg	73.5	368
91-57-6	2-Methylnaphthalene	U	36.8	ug/kg	7.35	36.8
77-47-4	Hexachlorocyclopentadiene	U	368	ug/kg	73.5	368
88-06-2	2,4,6-Trichlorophenol	U	368	ug/kg	73.5	368
95-95-4	2,4,5-Trichlorophenol	U	368	ug/kg	73.5	368
91-58-7	2-Chloronaphthalene	U	36.8	ug/kg	12.1	36.8
88-74-4	2-Nitroaniline	U	368	ug/kg	73.5	368
	o-Nitroaniline					
99-09-2	3-Nitroaniline	U	368	ug/kg	73.5	368

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-886	Date Collected:	12/09/2009 12:00	Matrix:	S
Lab Sample ID:	242750003	Date Received:	12/11/2009 08:50	%Moisture:	9.3
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-13468	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	932444	Inst:	MSD6.I	Dilution:	1
Run Date:	12/16/2009 20:00	Analyst:	NAG1	Inj. Vol:	.5 uL
Prep Date:	12/14/2009 09:47	Aliquot:	30 g	Final Volume:	1 mL
Data File:	s6l1623.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	368	ug/kg	73.5	368
606-20-2	2,6-Dinitrotoluene	U	368	ug/kg	36.8	368
208-96-8	Acenaphthylene	U	36.8	ug/kg	11.0	36.8
51-28-5	2,4-Dinitrophenol	U	735	ug/kg	140	735
132-64-9	Dibenzofuran	U	368	ug/kg	73.5	368
84-66-2	Diethylphthalate	U	368	ug/kg	73.5	368
86-73-7	Fluorene	U	36.8	ug/kg	11.0	36.8
7005-72-3	4-Chlorophenylphenylether	U	368	ug/kg	73.5	368
534-52-1	2-Methyl-4,6-dinitrophenol	U	368	ug/kg	73.5	368
100-01-6	4-Nitroaniline	U	368	ug/kg	110	368
	p-Nitroaniline					
122-39-4	Diphenylamine	U	368	ug/kg	73.5	368
122-66-7	Azobenzene	U	368	ug/kg	73.5	368
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	368	ug/kg	73.5	368
118-74-1	Hexachlorobenzene	U	368	ug/kg	73.5	368
85-01-8	Phenanthrene	U	36.8	ug/kg	11.0	36.8
120-12-7	Anthracene	U	36.8	ug/kg	7.35	36.8
84-74-2	Di-n-butylphthalate	U	368	ug/kg	73.5	368
206-44-0	Fluoranthene	U	36.8	ug/kg	11.0	36.8
85-68-7	Butylbenzylphthalate	U	368	ug/kg	73.5	368
56-55-3	Benzo(a)anthracene	U	36.8	ug/kg	11.0	36.8
91-94-1	3,3'-Dichlorobenzidine	U	368	ug/kg	110	368
218-01-9	Chrysene	U	36.8	ug/kg	11.0	36.8
117-81-7	bis(2-Ethylhexyl)phthalate	U	368	ug/kg	73.5	368
117-84-0	Di-n-octylphthalate	U	368	ug/kg	73.5	368
205-99-2	Benzo(b)fluoranthene	U	36.8	ug/kg	11.0	36.8
207-08-9	Benzo(k)fluoranthene	U	36.8	ug/kg	11.0	36.8
50-32-8	Benzo(a)pyrene	U	36.8	ug/kg	11.0	36.8
193-39-5	Indeno(1,2,3-cd)pyrene	U	36.8	ug/kg	11.0	36.8
53-70-3	Dibenzo(a,h)anthracene	U	36.8	ug/kg	11.0	36.8
191-24-2	Benzo(ghi)perylene	U	36.8	ug/kg	11.0	36.8
120-82-1	1,2,4-Trichlorobenzene	U	368	ug/kg	73.5	368

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	3.45	381	ug/kg		JA
301-02-0	9-Octadecenamide, (Z)-	11.86	1630	ug/kg	98	NJ

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-886	**Date Collected:**	12/09/2009 12:00	**Matrix:**	S
Lab Sample ID:	242750003	**Date Received:**	12/11/2009 08:50	**%Moisture:**	9.3
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-13468	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	932444	**Inst:**	MSD6.I	**Dilution:**	1
Run Date:	12/16/2009 20:00	**Analyst:**	NAG1	**Inj. Vol:**	.5 uL
Prep Date:	12/14/2009 09:47	**Aliquot:**	30 g	**Final Volume:**	1 mL
Data File:	s6l1623.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
629-54-9	Hexadecanamide	11.94	150	ug/kg	86	NJ
	Unknown	13.86	571	ug/kg		J

GEL Laboratories LLC

Data file : /chem/MSD6.i/s121609.b/s611623.d
Lab Smp Id: 242750003 Client Smp ID: RE03-09-13468
Inj Date : 16-DEC-2009 20:00
Operator : nagl Inst ID: MSD6.i
Smp Info : |242750003|932444|1|SVMF|1|LANL
Misc Info : |MSD8270_S|WBN091208-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s121609.b/MSD6-M8270C-AQA-110909.m
Meth Date : 17-Dec-2009 08:11 nat00999 Quant Type: ISTD
Cal Date : 11-NOV-2009 04:38 Cal File: s6k0954.d
Als bottle: 14
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-886.sub
Target Version: 3.50
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	9.31000	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	4.852	4.849	(1.000)	205985	40.0000	
* 29 Naphthalene-d8	136	6.128	6.131	(1.000)	793593	40.0000	
* 46 Acenaphthene-d10	164	7.998	8.001	(1.000)	437782	40.0000	
* 67 Phenanthrene-d10	188	9.614	9.611	(1.000)	781859	40.0000	
* 91 Chrysene-d12	240	12.633	12.633	(1.000)	622120	40.0000	
* 98 Perylene-d12	264	14.980	14.973	(1.000)	497245	40.0000	
$ 3 2-Fluorophenol	112	3.690	3.674	(0.760)	212320	41.1606	1510
$ 5 Phenol-d5	99	4.459	4.457	(0.919)	275150	42.2624	1550
$ 20 Nitrobenzene-d5	82	5.384	5.389	(0.879)	115449	20.5651	756
$ 39 2-Fluorobiphenyl	172	7.254	7.254	(0.907)	217891	19.3132	710
$ 60 2,4,6-Tribromophenol	329	8.850	8.850	(1.106)	77655	60.7740	2230
$ 81 p-Terphenyl-d14	244	11.319	11.316	(0.896)	364019	36.2832	1330

ION RATIO REPORT

SV REPORT

Data file: s611623.d
Report Date: 12/17/2009 08:27
Lab. ID: 242750003 SampleType: SAMPLE
Injection Date: 16-DEC-2009 20:00
Operator: nagl Instrument: MSD6.i
Sample Info: |242750003|932444|1|SVMF|1|LANL
Miscellaneous Info: |MSD8270_S|WBN091208-01
Comment:
Method used: /chem/MSD6.i/s121609.b/MSD6-M8270C-AQA-110909.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-886
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
4 Aniline		CAS#: 62-53-3				
66	13683	4.46	4.54	80-120	100	(T)
93	182	4.23	4.54	228-288	1	(QT)
17 N-Nitrosodipropylamine				CAS#: 621-64-7		
70	15830	5.38	5.23	80-120	100	(T)
42	9119	5.38	5.23	40-100	58	(T)
22 Isophorone		CAS#: 78-59-1				
82	115449	5.38	5.64	80-120	100	(T)
138	3675	6.13	5.64	0- 49	3	(T)
43 Dimethylphthalate			CAS#: 131-11-3			
163	78111	8.00	7.69	80-120	100	(T)
164	437782	8.00	7.69	0- 40	560	(QT)
50 2,4-Dinitrotoluene			CAS#: 121-14-2			
165	57631	8.00	8.19	80-120	100	(T)
89	589	8.00	8.19	40-100	1	(QT)
63	515	8.00	8.19	17- 77	1	(QT)
53 Fluorene		CAS#: 86-73-7				
166	4624	8.85	8.59	80-120	100	(T)
165	4759	8.85	8.59	62-122	103	(T)
167	868	8.85	8.59	0- 44	19	(T)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

Data file : /chem/MSD6.i/s121609.b/s611623.d
Lab Smp Id: 242750003 Client Smp ID: RE03-09-13468
Inj Date : 16-DEC-2009 20:00
Operator : nag1 Inst ID: MSD6.i
Smp Info : |242750003|932444|1|SVMF|1|LANL
Misc Info : |MSD8270_S|WBN091208-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s121609.b/MSD6-M8270C-AQA-110909.m
Meth Date : 17-Dec-2009 08:11 nat00999 Quant Type: ISTD
Cal Date : 11-NOV-2009 04:38 Cal File: s6k0954.d
Als bottle: 14
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-886.sub
Target Version: 3.50
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	9.31000	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	4.852	1220576	40.000
* 91 Chrysene-d12	12.633	1669055	40.000
* 98 Perylene-d12	14.980	1372415	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #

RT	AREA	CONCENTRATIONS ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	QUANT LIBRARY	LIB ENTRY	CPND #
Unknown Aldol Condensate				CAS #:			
3.448	316653	10.3771470	381	0		0	10
9-Octadecenamide, (Z)-				CAS #: 301-02-0			
11.859	1851125	44.3634008	1630	98	NIST05.L	112657	91
Hexadecanamide				CAS #: 629-54-9			
11.943	170278	4.08083187	150	86	NIST05.L	95461	91
Unknown				CAS #:			
13.857	532826	15.5295876	571	0		0	98

Data File: /chem/MSD6.i/s121609.b/s611623.d

Date : 16-DEC-2009 20:00

Client ID: RE03-09-13468

Sample Info: 1242750003|932444|1|SVMF|1|LANL

Volume Injected (uL): 0.5

Column phase: J&W DB-5MS

Instrument: MSD6.i

Operator: nag1

Column diameter: 0.20

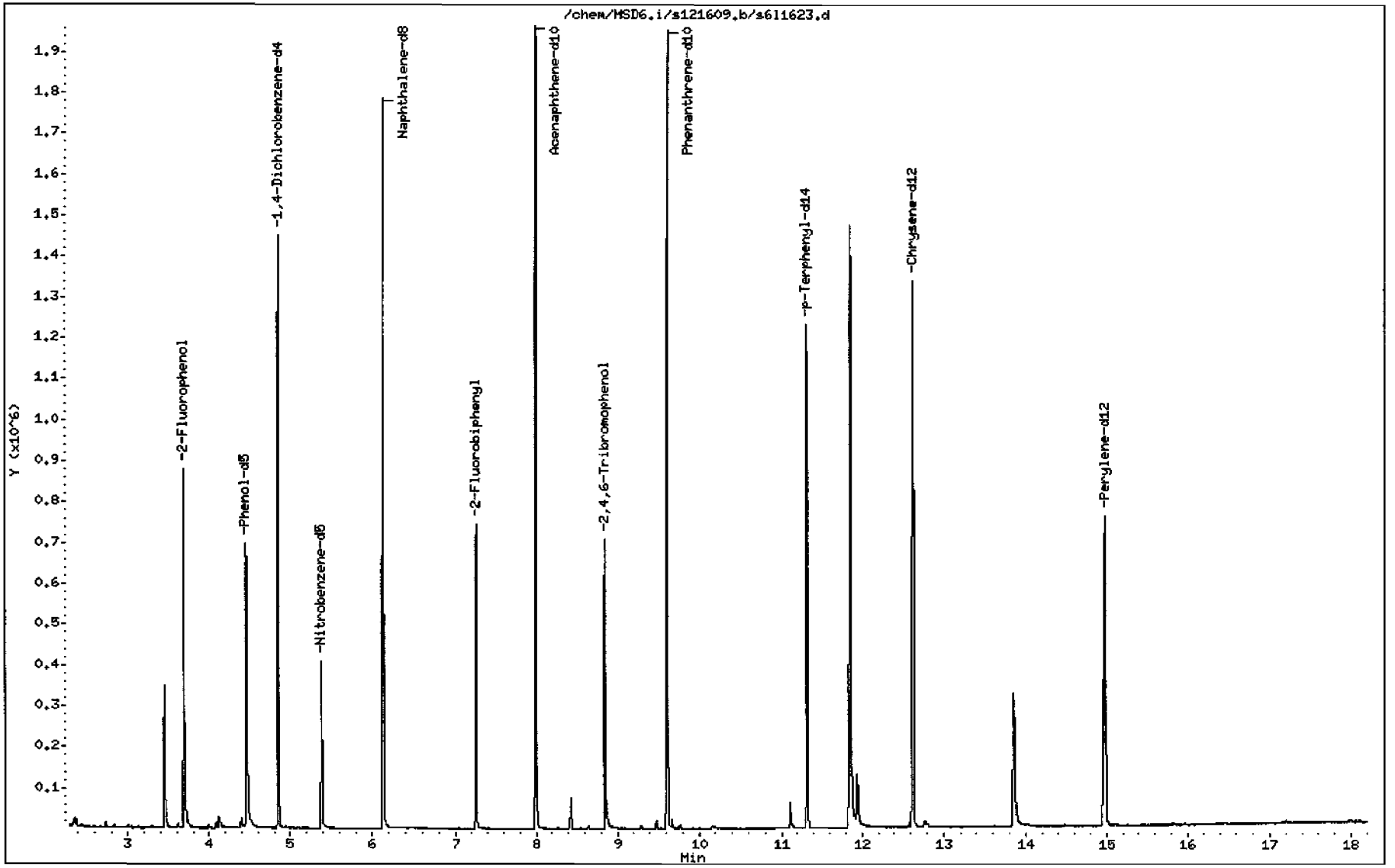

Data File: /chem/MSD6.i/s121609.b/s611623.d

Date : 16-DEC-2009 20:00

Client ID: RE03-09-13468

Instrument: MSD6.i

Sample Info: |2427500031932444|1|SVMF|1|LANL

Volume Injected (uL): 0.5

Operator: nagl

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	56	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	38	C6H12O2	116
3-Hexanol	623-37-0	NIST05.L	4318	33	C6H14O	102

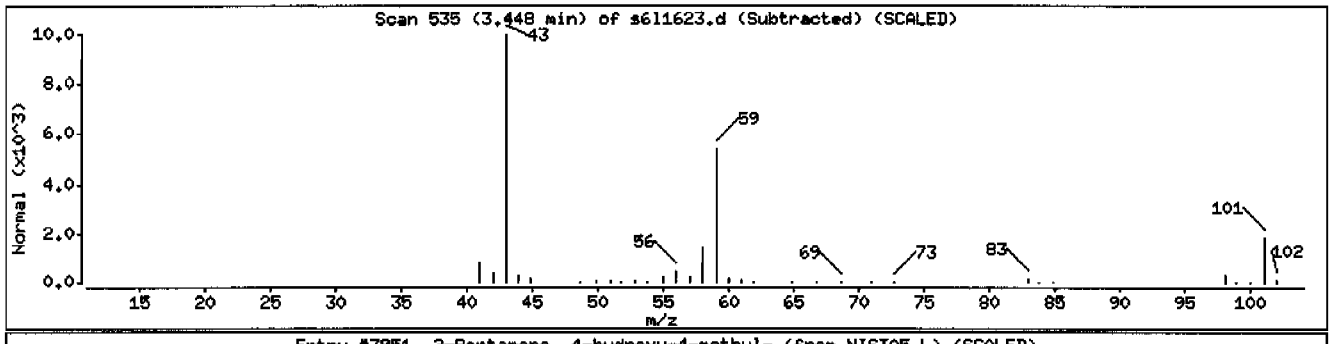

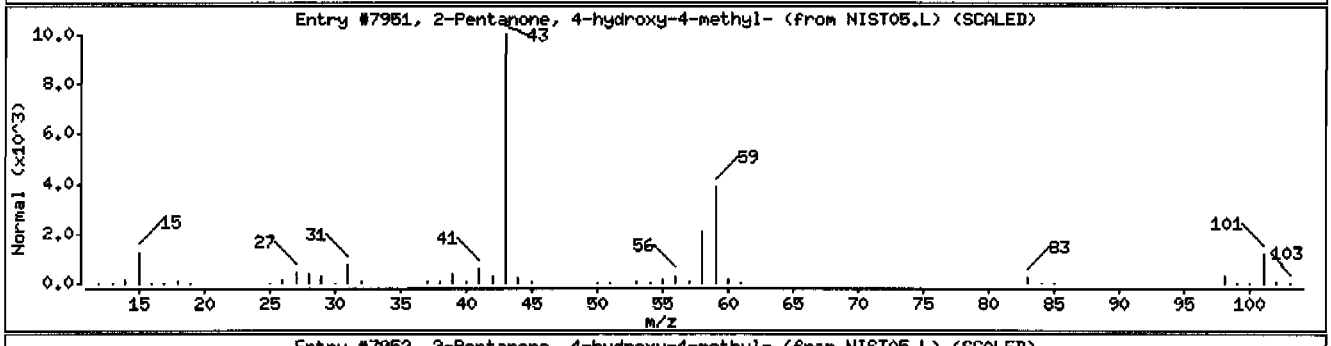

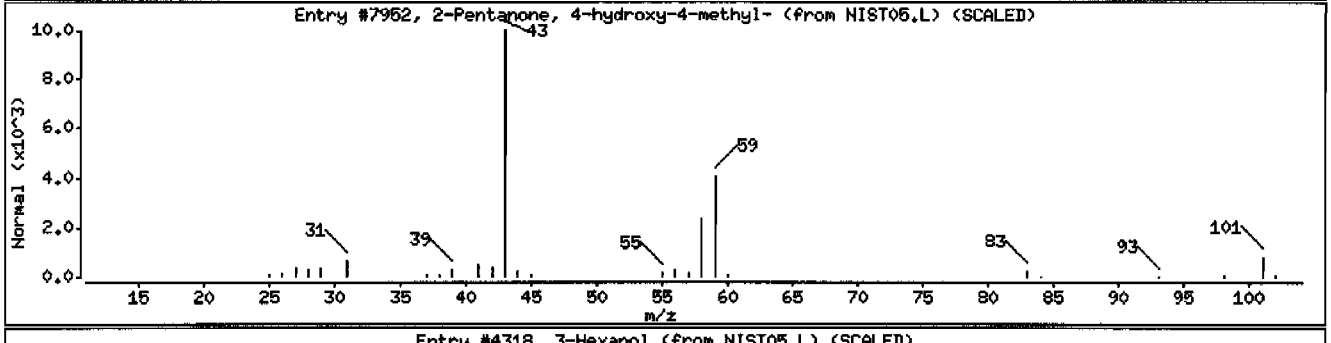

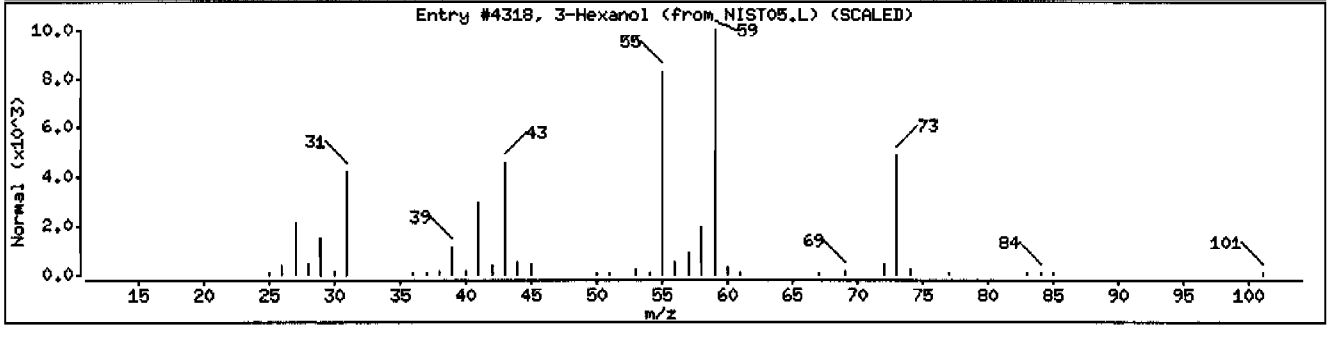

Data File: /chem/MSD6.i/s121609.b/s611623.d

Date : 16-DEC-2009 20:00

Client ID: RE03-09-13468

Instrument: MSD6.i

Sample Info: 1242750003193244411SVMF11LANL

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
9-Octadecenamide, (Z)-	301-02-0	NIST05.L	112657	98	C18H35NO	281
9-Octadecenamide, (Z)-	301-02-0	NIST05.L	112656	97	C18H35NO	281
9-Octadecenamide, (Z)-	301-02-0	NIST05.L	112655	94	C18H35NO	281

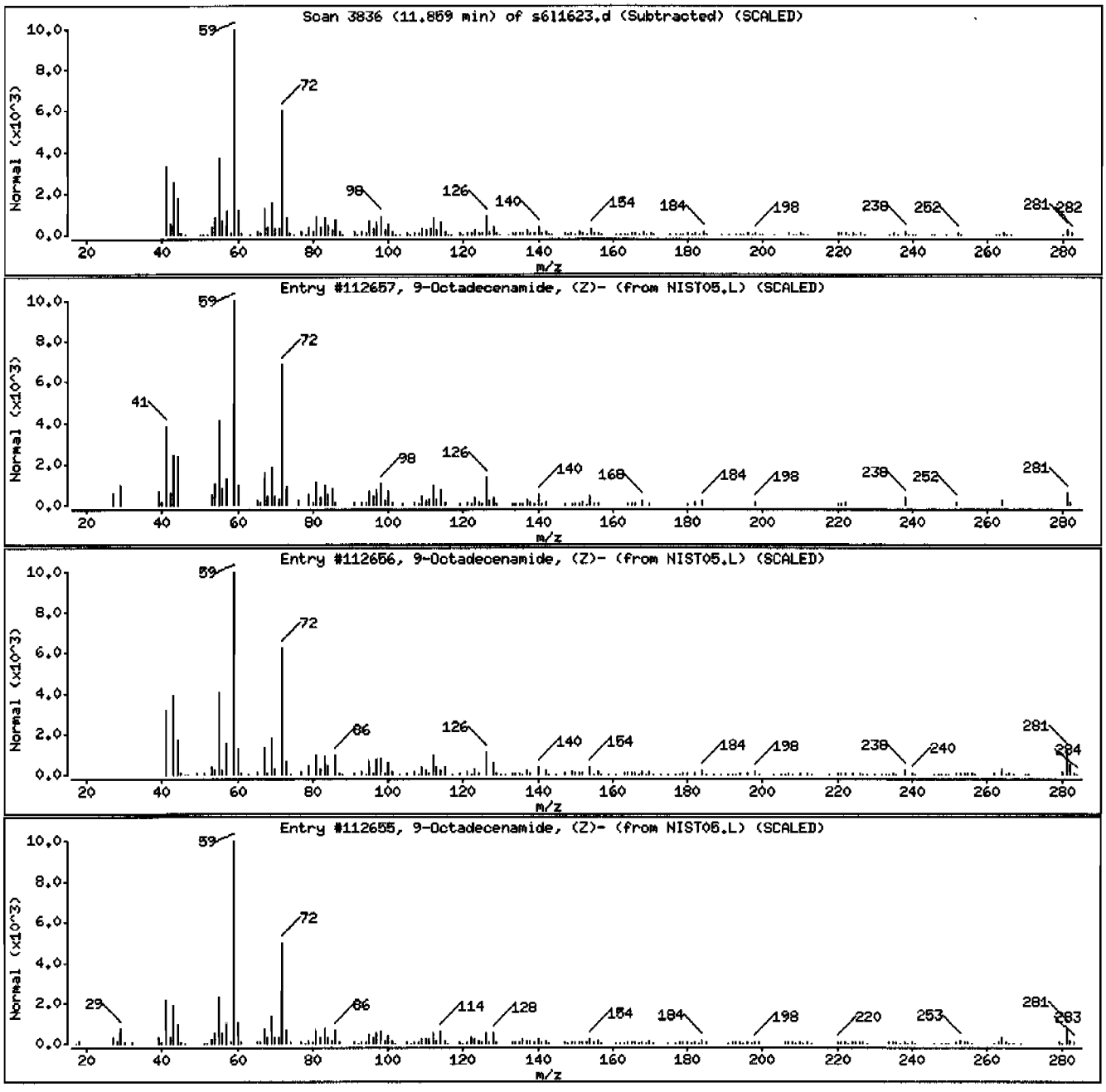

Data File: /chem/MSD6.i/s121609.b/s611623.d

Date : 16-DEC-2009 20:00

Client ID: RE03-09-13468

Instrument: MSD6.i

Sample Info: 1242750003193244411SVMF11LANL

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Hexadecanamide	629-54-9	NIST05.L	95461	86	C16H33NO	255
Tetradecanamide	638-58-4	NIST05.L	76595	86	C14H29NO	227
Hexadecanamide	629-54-9	NIST05.L	95460	86	C16H33NO	255

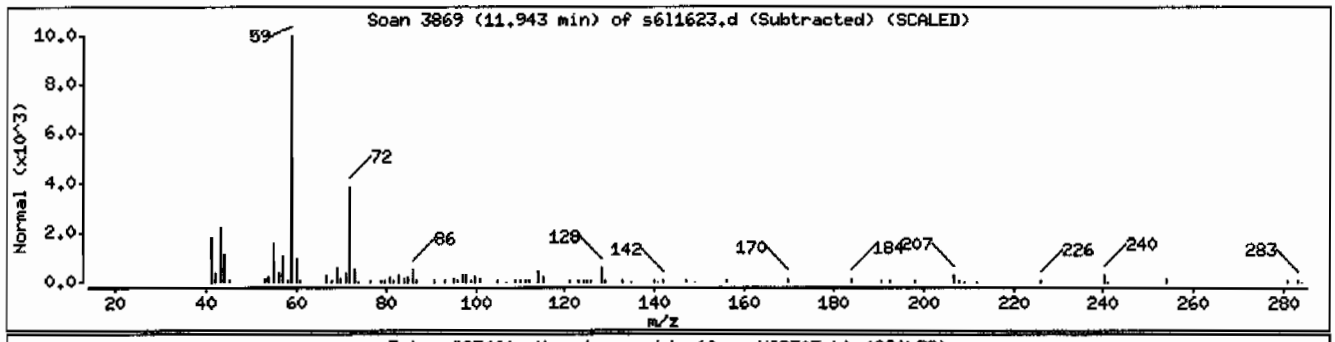

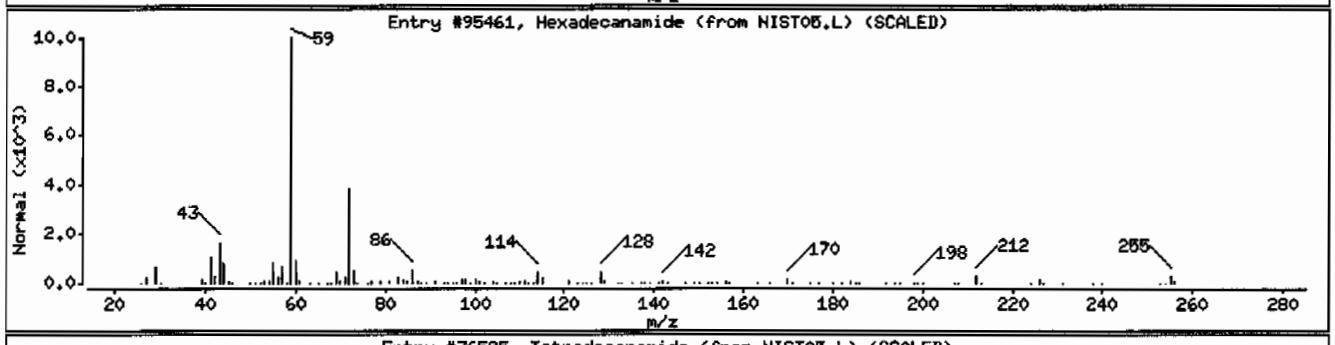

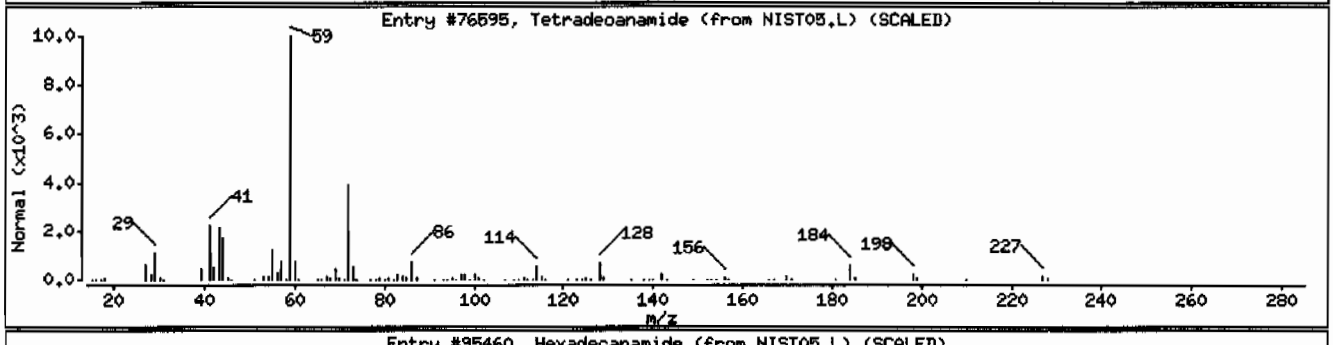

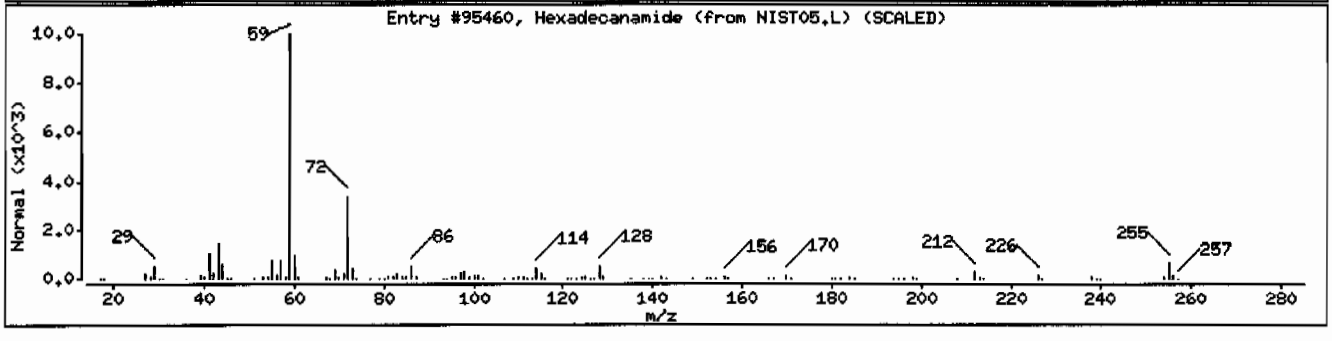

Data File: /chem/MSD6.i/s121609.b/s611623.d

Date : 16-DEC-2009 20:00

Client ID: RE03-09-13468 Instrument: MSD6.i

Sample Info: |2427500031932444|1|SVMF|1|LANL

Volume Injected (uL): 0.5 Operator: nagl

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
9-Octadecenamide, (Z)-	301-02-0	NIST05.L	112656	95	C18H35NO	281
Benzeneethanamine, 2-fluoro-.beta.,3,4-t	61338-98-5	NIST05.L	77768	64	C11H16FNO3	229
9-Octadecenamide, (Z)-	301-02-0	NIST05.L	112655	64	C18H35NO	281

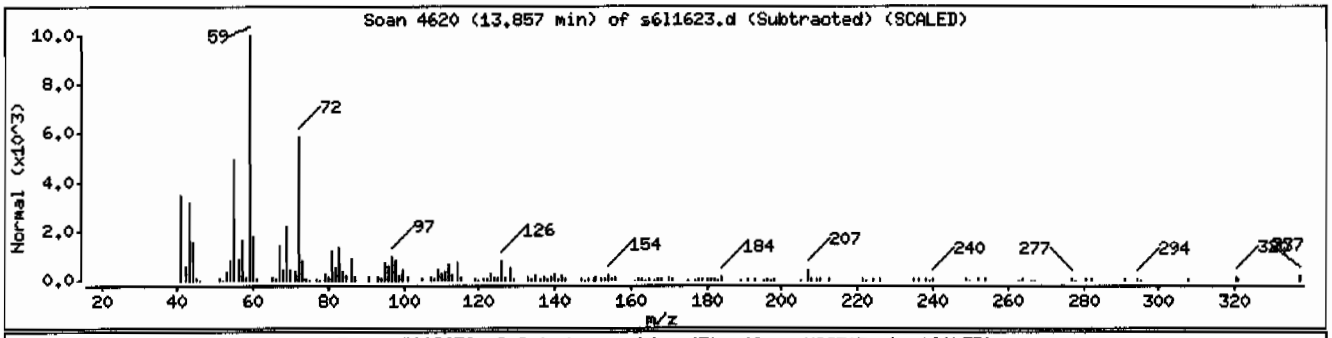

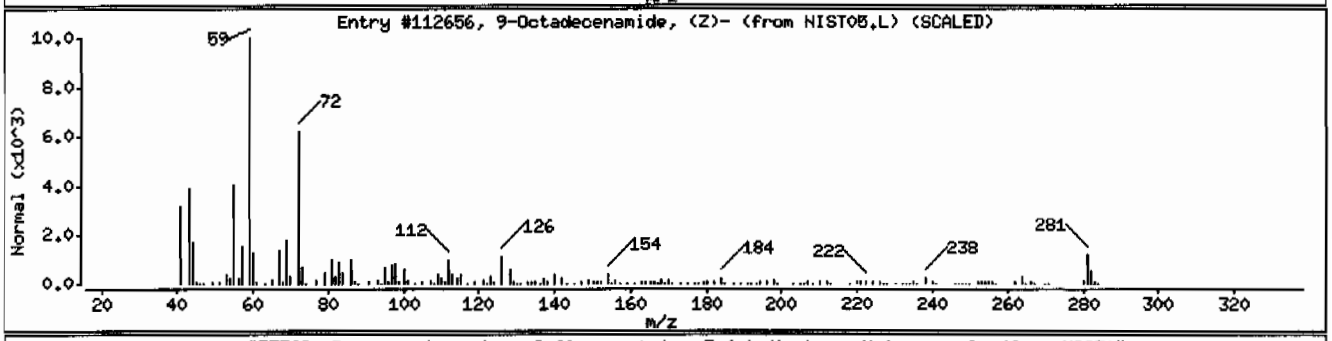

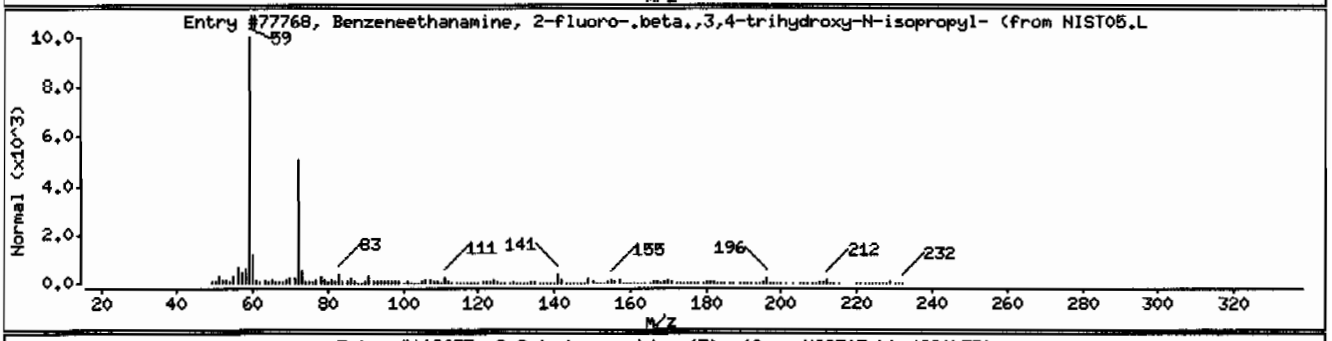

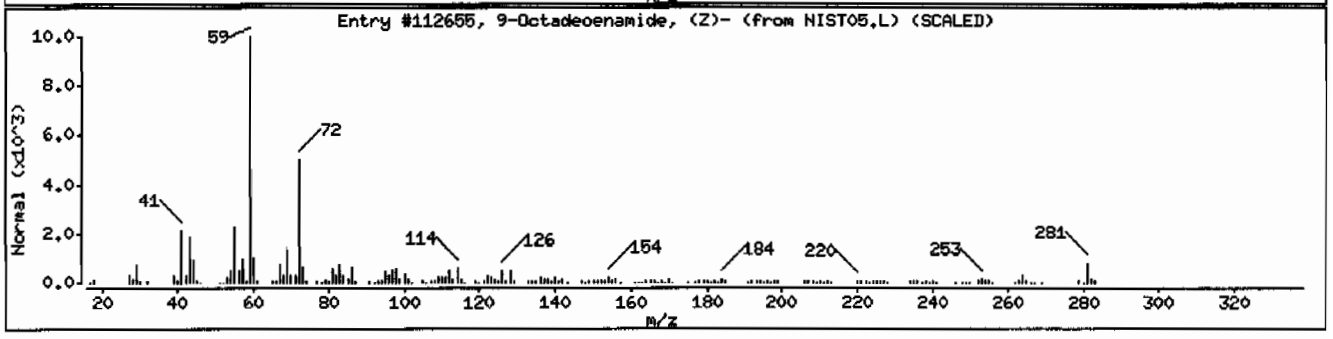

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-886	Date Collected:	12/09/2009 12:00	Matrix:	S
Lab Sample ID:	242750005	Date Received:	12/11/2009 08:50	%Moisture:	6.8
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-10-2003	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	932444	Inst:	MSD6.I	Dilution:	1
Run Date:	12/16/2009 20:56	Analyst:	NAG1	Inj. Vol:	.5 uL
Prep Date:	12/14/2009 09:47	Aliquot:	30.04 g	Final Volume:	1 mL
Data File:	s6l1625.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	357	ug/kg	71.5	357
108-95-2	Phenol	U	357	ug/kg	71.5	357
95-57-8	2-Chlorophenol	U	357	ug/kg	71.5	357
106-46-7	1,4-Dichlorobenzene	U	357	ug/kg	71.5	357
621-64-7	N-Nitrosodipropylamine	U	357	ug/kg	71.5	357
59-50-7	4-Chloro-3-methylphenol	U	357	ug/kg	71.5	357
83-32-9	Acenaphthene	U	35.7	ug/kg	11.8	35.7
121-14-2	2,4-Dinitrotoluene	U	357	ug/kg	35.7	357
100-02-7	4-Nitrophenol	U	357	ug/kg	118	357
87-86-5	Pentachlorophenol	U	357	ug/kg	89.3	357
129-00-0	Pyrene	U	35.7	ug/kg	10.7	35.7
110-86-1	Pyridine	U	357	ug/kg	71.5	357
62-53-3	Aniline	U	357	ug/kg	107	357
111-44-4	bis(2-Chloroethyl) ether	U	357	ug/kg	71.5	357
541-73-1	1,3-Dichlorobenzene	U	357	ug/kg	71.5	357
100-51-6	Benzyl alcohol	U	357	ug/kg	107	357
95-50-1	1,2-Dichlorobenzene	U	357	ug/kg	71.5	357
108-60-1	bis(2-Chloroisopropyl)ether	U	357	ug/kg	71.5	357
95-48-7	o-Cresol	U	357	ug/kg	71.5	357
65794-96-9	m,p-Cresols	U	357	ug/kg	107	357
67-72-1	Hexachloroethane	U	357	ug/kg	71.5	357
98-95-3	Nitrobenzene	U	357	ug/kg	71.5	357
78-59-1	Isophorone	U	357	ug/kg	71.5	357
88-75-5	2-Nitrophenol	U	357	ug/kg	71.5	357
105-67-9	2,4-Dimethylphenol	U	357	ug/kg	125	357
111-91-1	bis(2-Chloroethoxy)methane	U	357	ug/kg	71.5	357
120-83-2	2,4-Dichlorophenol	U	357	ug/kg	71.5	357
65-85-0	Benzoic acid	U	715	ug/kg	179	715
91-20-3	Naphthalene	U	35.7	ug/kg	10.7	35.7
106-47-8	4-Chloroaniline	U	357	ug/kg	71.5	357
87-68-3	Hexachlorobutadiene	U	357	ug/kg	71.5	357
91-57-6	2-Methylnaphthalene	U	35.7	ug/kg	7.15	35.7
77-47-4	Hexachlorocyclopentadiene	U	357	ug/kg	71.5	357
88-06-2	2,4,6-Trichlorophenol	U	357	ug/kg	71.5	357
95-95-4	2,4,5-Trichlorophenol	U	357	ug/kg	71.5	357
91-58-7	2-Chloronaphthalene	U	35.7	ug/kg	11.8	35.7
88-74-4	2-Nitroaniline	U	357	ug/kg	71.5	357
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	357	ug/kg	71.5	357

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-886**	**Date Collected:**	**12/09/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242750005**	**Date Received:**	**12/11/2009 08:50**	**%Moisture:**	**6.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-10-2003**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**932444**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**12/16/2009 20:56**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/14/2009 09:47**	**Aliquot:**	**30.04 g**	**Final Volume:**	**1 mL**
Data File:	**s6l1625.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	357	ug/kg	71.5	357
606-20-2	2,6-Dinitrotoluene	U	357	ug/kg	35.7	357
208-96-8	Acenaphthylene	U	35.7	ug/kg	10.7	35.7
51-28-5	2,4-Dinitrophenol	U	715	ug/kg	136	715
132-64-9	Dibenzofuran	U	357	ug/kg	71.5	357
84-66-2	Diethylphthalate	U	357	ug/kg	71.5	357
86-73-7	Fluorene	U	35.7	ug/kg	10.7	35.7
7005-72-3	4-Chlorophenylphenylether	U	357	ug/kg	71.5	357
534-52-1	2-Methyl-4,6-dinitrophenol	U	357	ug/kg	71.5	357
100-01-6	4-Nitroaniline	U	357	ug/kg	107	357
	p-Nitroaniline					
122-39-4	Diphenylamine	U	357	ug/kg	71.5	357
122-66-7	Azobenzene	U	357	ug/kg	71.5	357
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	357	ug/kg	71.5	357
118-74-1	Hexachlorobenzene	U	357	ug/kg	71.5	357
85-01-8	Phenanthrene	U	35.7	ug/kg	10.7	35.7
120-12-7	Anthracene	U	35.7	ug/kg	7.15	35.7
84-74-2	Di-n-butylphthalate	U	357	ug/kg	71.5	357
206-44-0	Fluoranthene	U	35.7	ug/kg	10.7	35.7
85-68-7	Butylbenzylphthalate	U	357	ug/kg	71.5	357
56-55-3	Benzo(a)anthracene	U	35.7	ug/kg	10.7	35.7
91-94-1	3,3'-Dichlorobenzidine	U	357	ug/kg	107	357
218-01-9	Chrysene	U	35.7	ug/kg	10.7	35.7
117-81-7	bis(2-Ethylhexyl)phthalate	U	357	ug/kg	71.5	357
117-84-0	Di-n-octylphthalate	U	357	ug/kg	71.5	357
205-99-2	Benzo(b)fluoranthene	U	35.7	ug/kg	10.7	35.7
207-08-9	Benzo(k)fluoranthene	U	35.7	ug/kg	10.7	35.7
50-32-8	Benzo(a)pyrene	U	35.7	ug/kg	10.7	35.7
193-39-5	Indeno(1,2,3-cd)pyrene	U	35.7	ug/kg	10.7	35.7
53-70-3	Dibenzo(a,h)anthracene	U	35.7	ug/kg	10.7	35.7
191-24-2	Benzo(ghi)perylene	U	35.7	ug/kg	10.7	35.7
120-82-1	1,2,4-Trichlorobenzene	U	357	ug/kg	71.5	357

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	3.45	325	ug/kg		JA
301-02-0	9-Octadecenamide, (Z)-	11.85	506	ug/kg	98	NJ

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-886	**Date Collected:**	12/09/2009 12:00	**Matrix:**	S
Lab Sample ID:	242750005	**Date Received:**	12/11/2009 08:50	**%Moisture:**	6.8
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-10-2003	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	932444	**Inst:**	MSD6.I	**Dilution:**	1
Run Date:	12/16/2009 20:56	**Analyst:**	NAG1	**Inj. Vol:**	.5 uL
Prep Date:	12/14/2009 09:47	**Aliquot:**	30.04 g	**Final Volume:**	1 mL
Data File:	s6l1625.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
112-84-5	13-Docosenamide, (Z)-	13.85	146	ug/kg	81	NJ

GEL Laboratories LLC

Data file : /chem/MSD6.i/s121609.b/s611625.d
Lab Smp Id: 242750005 Client Smp ID: RE03-10-2003
Inj Date : 16-DEC-2009 20:56
Operator : nagl Inst ID: MSD6.i
Smp Info : |242750005|932444|1|SVMF|1|LANL
Misc Info : |MSD8270_S|WBN091208-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s121609.b/MSD6-M8270C-AQA-110909.m
Meth Date : 17-Dec-2009 08:11 nat00999 Quant Type: ISTD
Cal Date : 11-NOV-2009 04:38 Cal File: s6k0954.d
Als bottle: 16
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-886.sub
Target Version: 3.50
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.04000	weight of sample
M	6.83000	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	4.852	4.849	(1.000)	208217	40.0000	
* 29 Naphthalene-d8	136	6.128	6.131	(1.000)	791595	40.0000	
* 46 Acenaphthene-d10	164	7.999	8.001	(1.000)	431794	40.0000	
* 67 Phenanthrene-d10	188	9.611	9.611	(1.000)	741895	40.0000	
* 91 Chrysene-d12	240	12.631	12.633	(1.000)	567743	40.0000	
* 98 Perylene-d12	264	14.975	14.973	(1.000)	420776	40.0000	
$ 3 2-Fluorophenol	112	3.690	3.674	(0.760)	237528	45.5539	1630
$ 5 Phenol-d5	99	4.459	4.457	(0.919)	320480	48.6973	1740
$ 20 Nitrobenzene-d5	82	5.384	5.389	(0.879)	137146	24.4916	875
$ 39 2-Fluorobiphenyl	172	7.254	7.254	(0.907)	252546	22.6953	811
$ 60 2,4,6-Tribromophenol	329	8.850	8.850	(1.106)	66701	52.9251	1890
$ 81 p-Terphenyl-d14	244	11.319	11.316	(0.896)	397039	43.3647	1550

ION RATIO REPORT

SV REPORT

Data file: s611625.d
Report Date: 12/17/2009 08:28
Lab. ID: 242750005 SampleType: SAMPLE
Injection Date: 16-DEC-2009 20:56
Operator: nagl Instrument: MSD6.i
Sample Info: |242750005|932444|1|SVMF|1|LANL
Miscellaneous Info: |MSD8270_S|WBN091208-01
Comment:
Method used: /chem/MSD6.i/s121609.b/MSD6-M8270C-AQA-110909.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-886
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
4 Aniline		CAS#: 62-53-3				
66	13935	4.46	4.54	80-120	100	(T)
93	214	4.23	4.54	228-288	2	(QT)
17 N-Nitrosodipropylamine				CAS#: 621-64-7		
70	18633	5.38	5.23	80-120	100	(T)
42	10891	5.38	5.23	40-100	58	(T)
22 Isophorone		CAS#: 78-59-1				
82	137146	5.38	5.64	80-120	100	(T)
138	4018	6.13	5.64	0- 49	3	(T)
43 Dimethylphthalate			CAS#: 131-11-3			
163	76800	8.00	7.69	80-120	100	(T)
164	431794	8.00	7.69	0- 40	562	(QT)
50 2,4-Dinitrotoluene			CAS#: 121-14-2			
165	56394	8.00	8.19	80-120	100	(T)
89	578	8.00	8.19	40-100	1	(QT)
63	267	8.00	8.19	17- 77	0	(QT)
53 Fluorene		CAS#: 86-73-7				
166	4275	8.85	8.59	80-120	100	(T)
165	3963	8.85	8.59	62-122	93	(T)
167	1207	8.85	8.59	0- 44	28	(T)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

Data file : /chem/MSD6.i/s121609.b/s611625.d
Lab Smp Id: 242750005 Client Smp ID: RE03-10-2003
Inj Date : 16-DEC-2009 20:56
Operator : nag1 Inst ID: MSD6.i
Smp Info : |242750005|932444|1|SVMF|1|LANL
Misc Info : |MSD8270_S|WBN091208-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s121609.b/MSD6-M8270C-AQA-110909.m
Meth Date : 17-Dec-2009 08:11 nat00999 Quant Type: ISTD
Cal Date : 11-NOV-2009 04:38 Cal File: s6k0954.d
Als bottle: 16
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-886.sub
Target Version: 3.50
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.04000	weight of sample
M	6.83000	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	4.852	1220220	40.000
* 91 Chrysene-d12	12.631	1518968	40.000
* 98 Perylene-d12	14.975	1156505	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #

RT	AREA	CONCENTRATIONS ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	QUANT LIBRARY	LIB ENTRY	CPND #
Unknown Aldol Condensate				CAS #:			
3.448	277362	9.09219170	325	0		0	10
9-Octadecenamide, (Z)-				CAS #: 301-02-0			
11.851	537891	14.1646455	506	98	NIST05.L	112657	91
13-Docosenamide, (Z)-				CAS #: 112-84-5			
13.849	118346	4.09322612	146	81	NIST05.L	146308	98

Data File: /chem/MSD6.i/s121609.b/s611625.d
Date : 16-DEC-2009 20:56
Client ID: RE03-10-2003
Sample Info: |2427500051932444|1|SVMF|1|LANL
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD6.i

Operator: nag1
Column diameter: 0.20

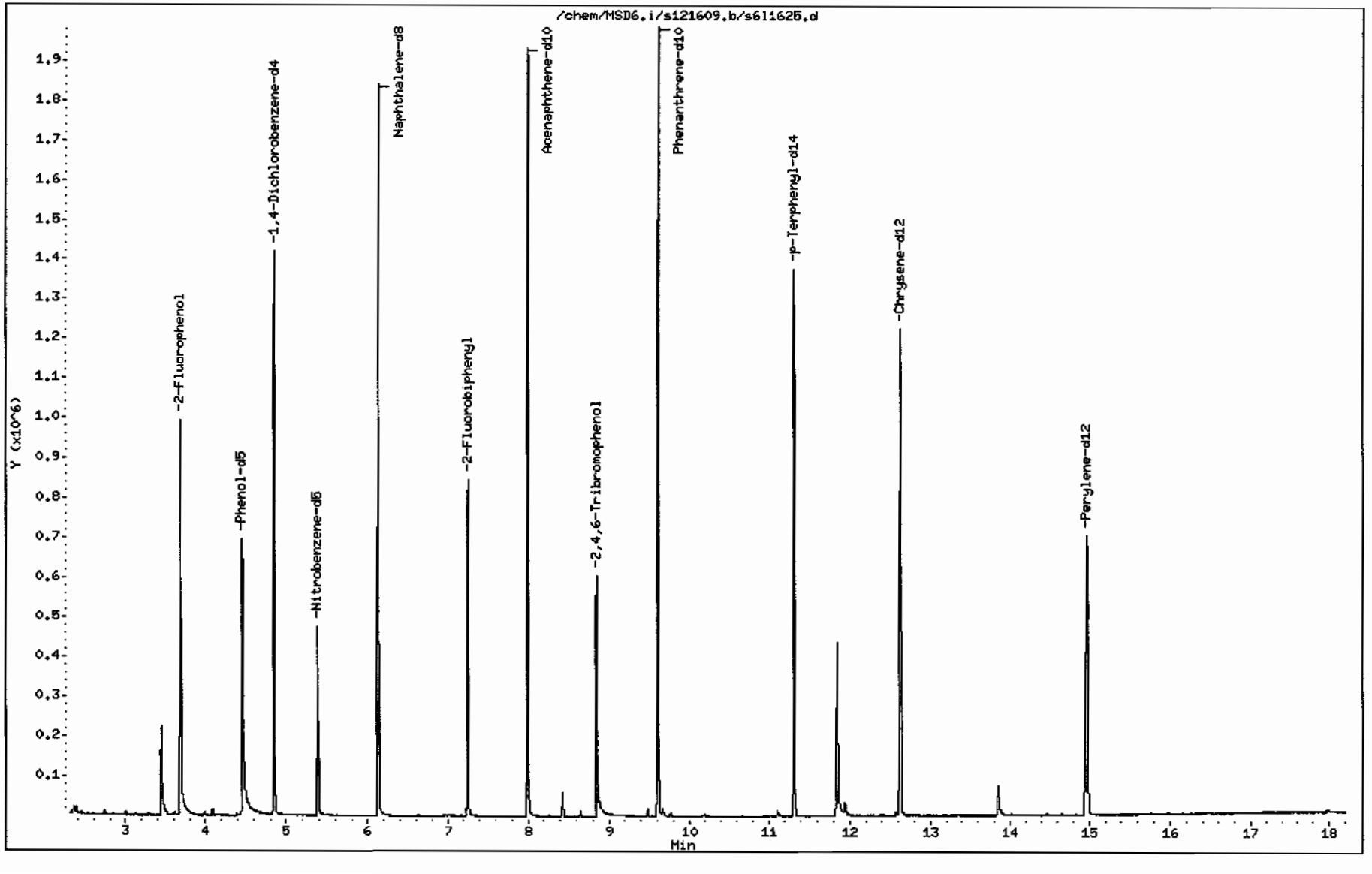

Data File: /chem/MSD6.i/s121609.b/s611625.d

Page 1

Date : 16-DEC-2009 20:56

Client ID: RE03-10-2003

Instrument: MSD6.i

Sample Info: |242750005|932444|1|SVMF|1|LANL

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7945	59	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	59	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	36	C6H12O2	116

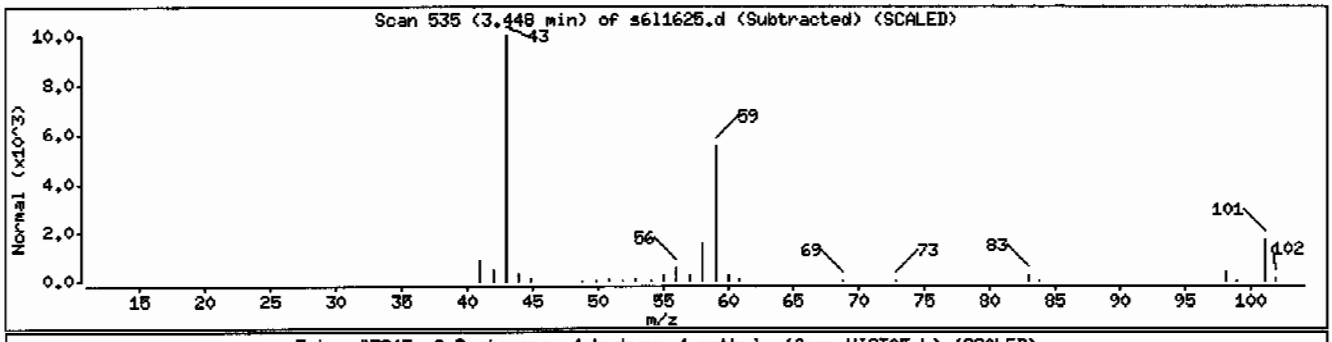

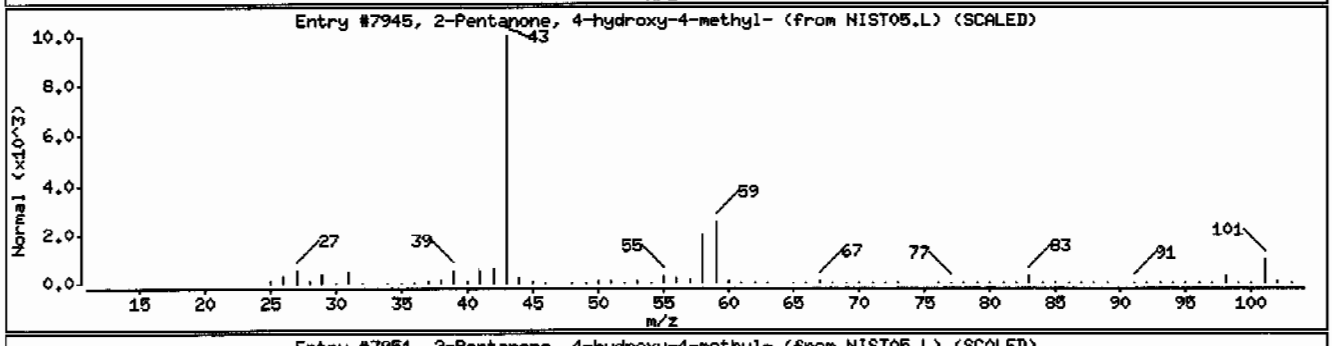

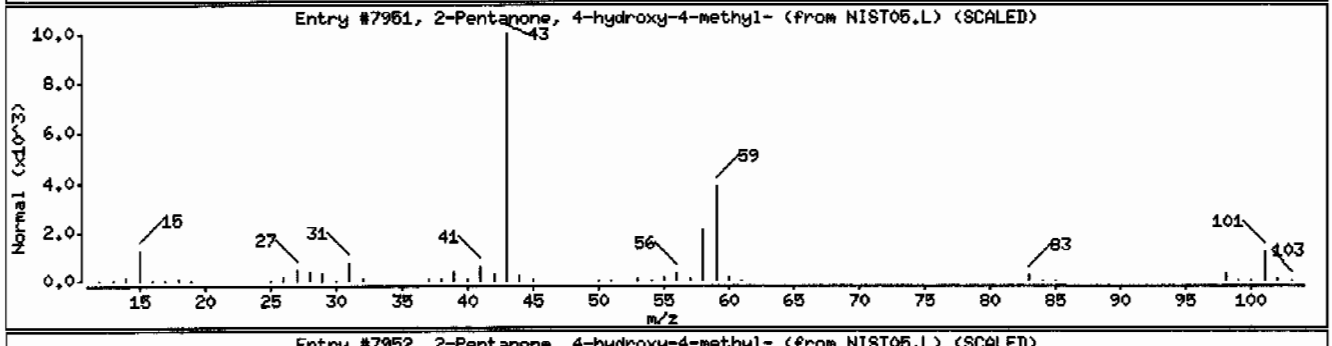

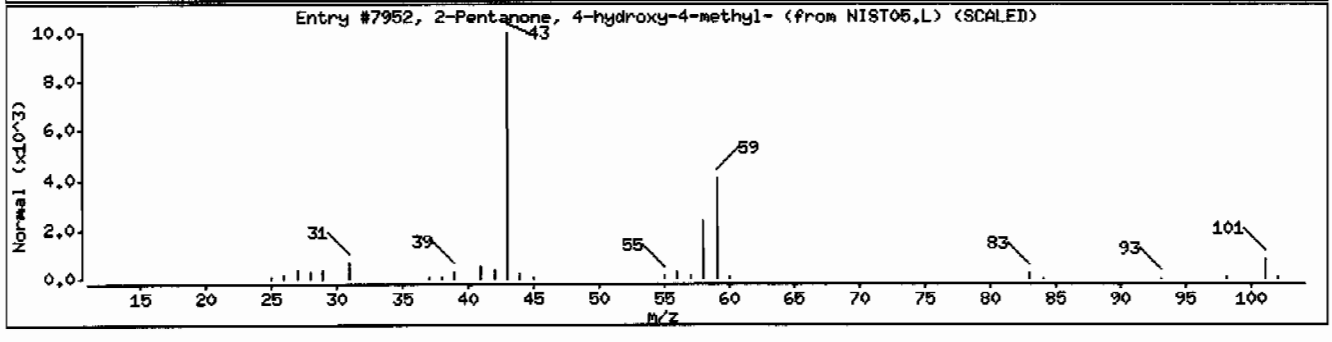

Data File: /chem/MSD6.i/s121609.b/s611625.d

Date : 16-DEC-2009 20:56

Client ID: RE03-10-2003

Instrument: MSD6.i

Sample Info: 1242750005|932444|1|SVMF|1|LANL

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
9-Octadecenamide, (Z)-	301-02-0	NIST05.L	112657	98	C18H35NO	281
9-Octadecenamide, (Z)-	301-02-0	NIST05.L	112656	90	C18H35NO	281
9-Octadecenamide, (Z)-	301-02-0	NIST05.L	112655	70	C18H35NO	281

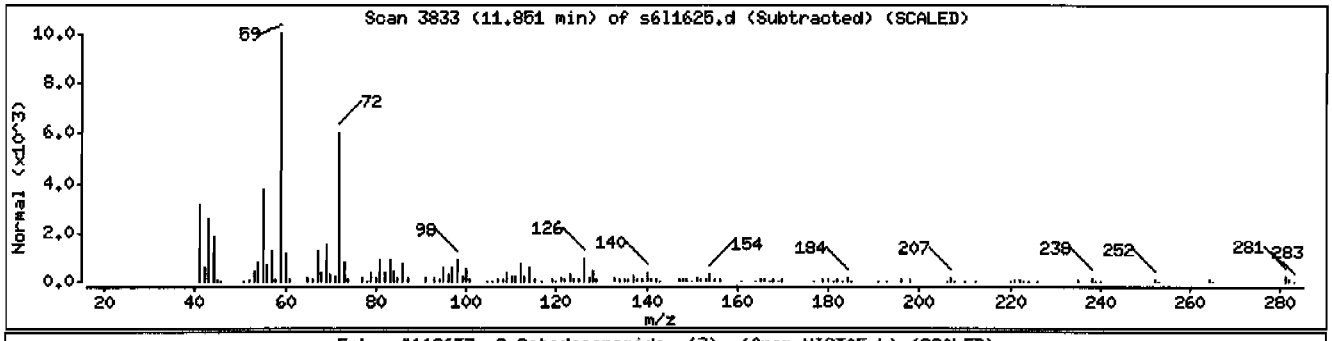

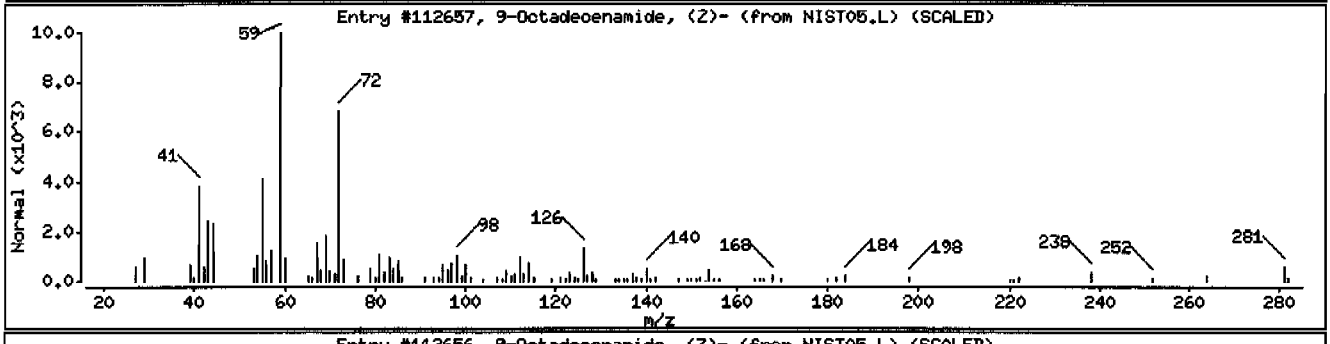

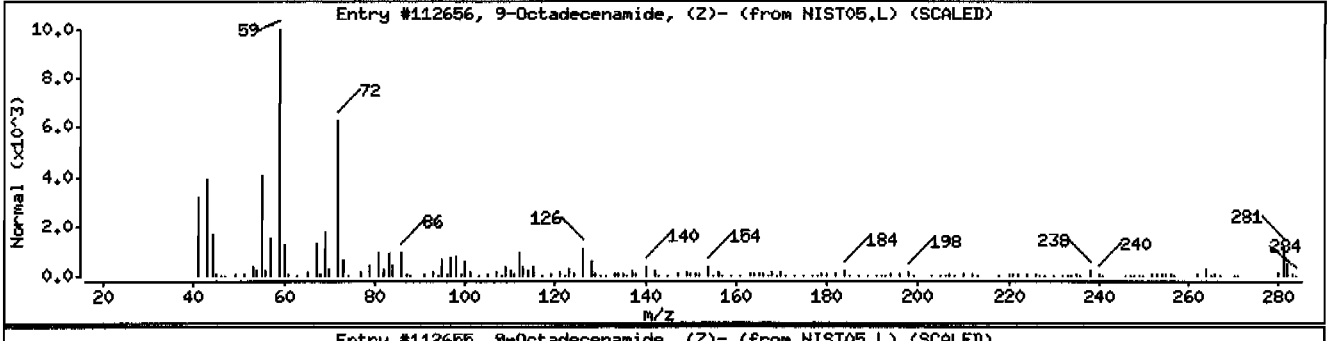

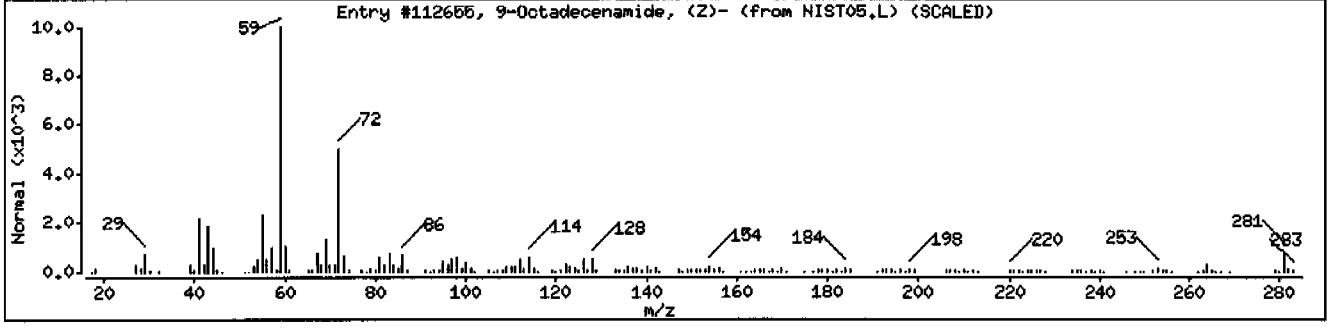

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Date : 16-DEC-2009 20:56

Client ID: RE03-10-2003

Instrument: MSD6.i

Sample Info: |2427500005|932444|1|SVHF|1|LANL

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
13-Docosenamide, (Z)-	112-84-5	NIST05.L	146308	81	C22H43NO	337
9-Octadecenamide, (Z)-	301-02-0	NIST05.L	112655	78	C18H35NO	281
9-Octadecenamide, (Z)-	301-02-0	NIST05.L	112656	76	C18H35NO	281

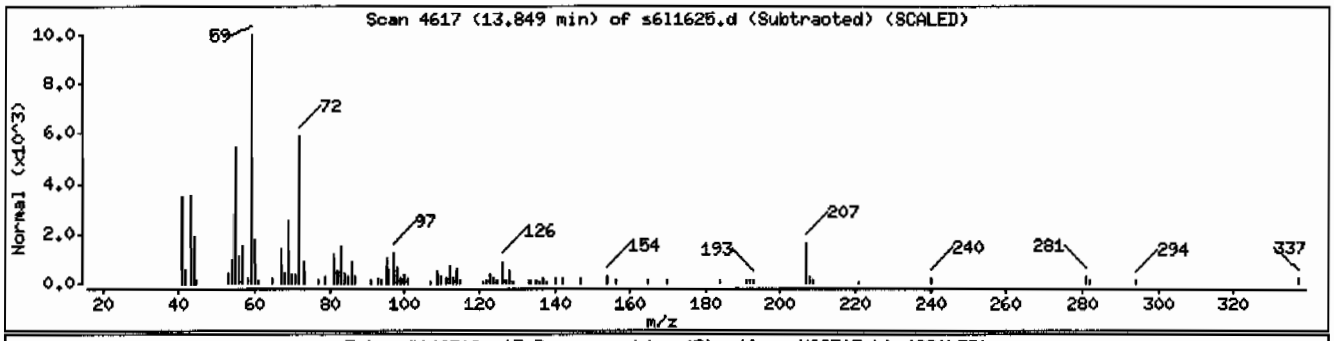

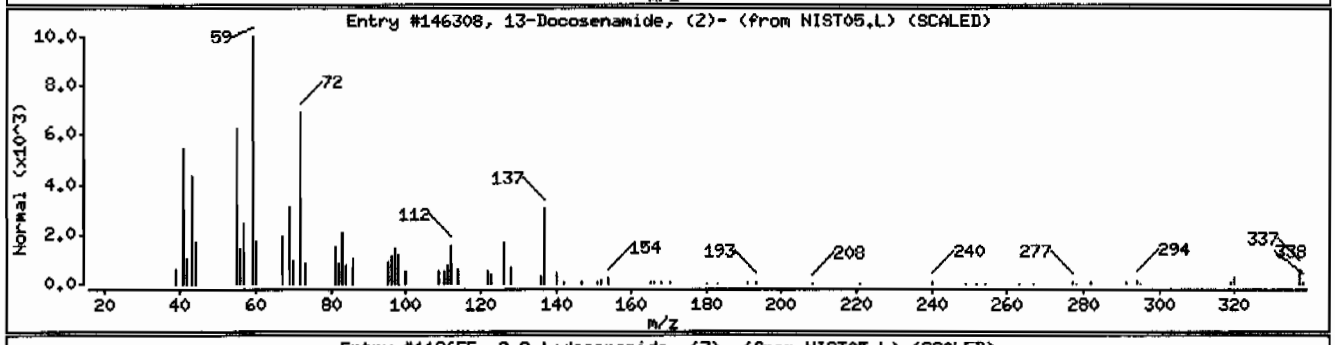

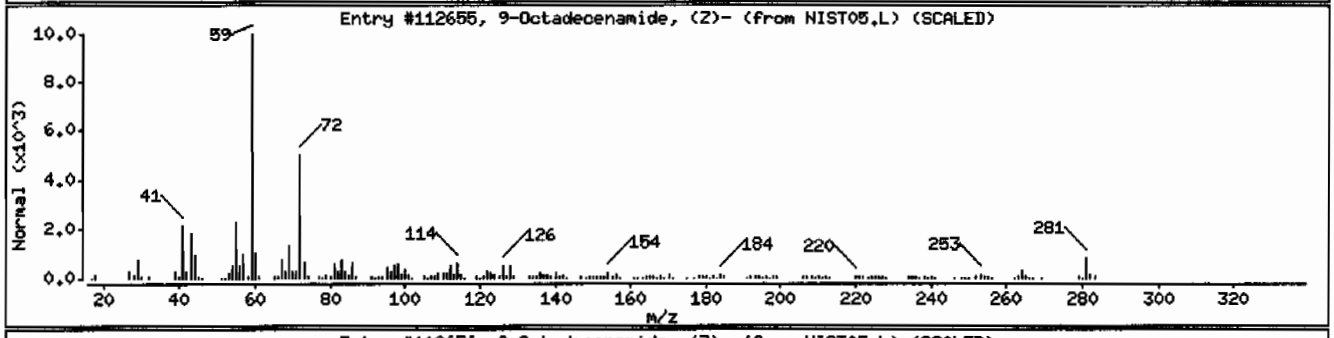

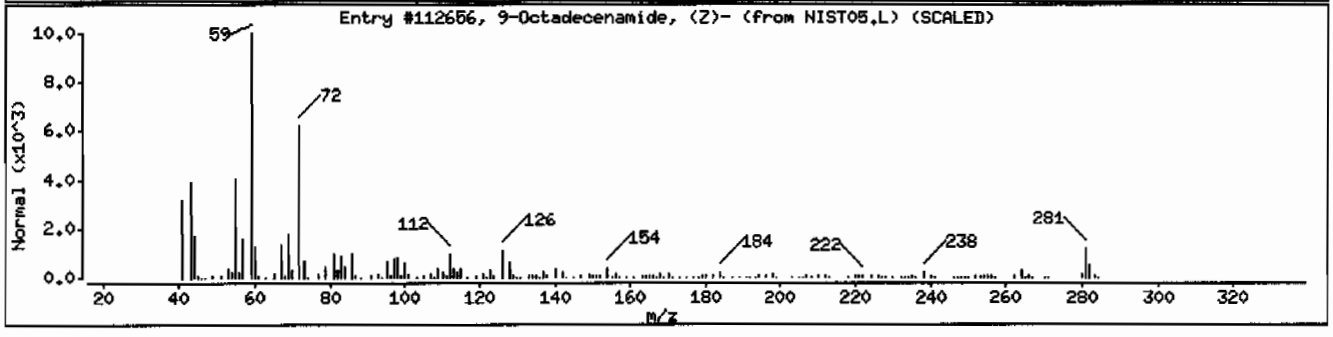

Standard Data

SW846 8270C//8270D/EPA 625								
Calibration Standard Concentration Levels*								
	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
1,4-Dichlorobenzene-d4 (INTERNAL STANDARD)								
Naphthalene-d8 (INTERNAL STANDARD)								
Acenaphthene-d10 (INTERNAL STANDARD)								
Phenanthrene-d10 (INTERNAL STANDARD)								
Chrysene-d12 (INTERNAL STANDARD)								
Perylene-d12 (INTERNAL STANDARD)								
2-Fluorophenol (SURROGATE)		10	20	40	50	80	100	120
Phenol-d5 (SURROGATE)		10	20	40	50	80	100	120
2-Chlorophenol-d4 (CLP SURROGATE)		10	20	40	50	80	100	120
1,2-Dichlorobenzene-d4 (CLP SURROGATE)		10	20	40	50	80	100	120
Nitrobenzene-d5 (SURROGATE)		10	20	40	50	80	100	120
2-Fluorobiphenyl (SURROGATE)		10	20	40	50	80	100	120
2,4,6-Tribromophenol (SURROGATE)		10	20	40	50	80	100	120
p-Terphenyl-d14 (SURROGATE)		10	20	40	50	80	100	120
N-Nitrosodimethylamine		10	20	40	50	80	100	120
Pyridine		10	20	40	50	80	100	120
Aniline		10	20	40	50	80	100	120
Benzaldehyde		10	20	40	50	80	100	120
Phenol		10	20	40	50	80	100	120
bis(2-Chloroethyl)ether	1	10	20	40	50	80	100	120
2-Chlorophenol		10	20	40	50	80	100	120
n-Decane		10	20	40	50	80	100	120
1,3-Dichlorobenzene		10	20	40	50	80	100	120
1,4-Dichlorobenzene		10	20	40	50	80	100	120
Benzyl Alcohol		10	20	40	50	80	100	120
1,2-Dichlorobenzene		10	20	40	50	80	100	120
bis(2-Chloroisopropyl)ether		10	20	40	50	80	100	120
o-Cresol (2-Methylphenol)		10	20	40	50	80	100	120
Acetophenone		10	20	40	50	80	100	120
N-Nitrosodipropylamine	1	10	20	40	50	80	100	120
m,p-Cresols (3-Methylphenol & 4-Methylphenol)		10	20	40	50	80	100	120
Hexachloroethane		10	20	40	50	80	100	120
Nitrobenzene		10	20	40	50	80	100	120
Isophorone		10	20	40	50	80	100	120
2-Nitrophenol		10	20	40	50	80	100	120
2,4-Dimethylphenol		10	20	40	50	80	100	120
bis(2-Chloroethoxy)methane		10	20	40	50	80	100	120
2,4-Dichlorophenol		10	20	40	50	80	100	120
Benzoic Acid			20	40	50	80	100	120
1,2,4-Trichlorobenzene		10	20	40	50	80	100	120
Naphthalene	1	10	20	40	50	80	100	120
alpha-Terpineol		10	20	40	50	80	100	120
4-Chloroaniline		10	20	40	50	80	100	120
Caprolactam		10	20	40	50	80	100	120

SW846 8270C//8270D/EPA 625								
Calibration Standard Concentration Levels*								
	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Hexachlorobutadiene		10	20	40	50	80	100	120
4-Chloro-3-methylphenol		10	20	40	50	80	100	120

2-Methylnaphthalene	1	10	20	40	50	80	100	120
1-Methylnaphthalene	1	10	20	40	50	80	100	120
Hexachlorocyclopentadiene		10	20	40	50	80	100	120
1,1'-Biphenyl		10	20	40	50	80	100	120
2,3-Dichloroaniline		10	20	40	50	80	100	120
2,4,6-Trichlorophenol		10	20	40	50	80	100	120
2,4,5-Trichlorophenol		10	20	40	50	80	100	120
2-Chloronaphthalene	1	10	20	40	50	80	100	120
o-Nitroaniline		10	20	40	50	80	100	120
m-Nitroaniline		10	20	40	50	80	100	120
Dimethylphthalate	1	10	20	40	50	80	100	120
2,6-Dinitrotoluene		10	20	40	50	80	100	120
Acenaphthylene	1	10	20	40	50	80	100	120
Acenaphthene	1	10	20	40	50	80	100	120
2,4-Dinitrophenol			20	40	50	80	100	120
Dibenzofuran		10	20	40	50	80	100	120
2,4-Dinitrotoluene		10	20	40	50	80	100	120
Diethylphthalate	1	10	20	40	50	80	100	120
4-Nitrophenol		10	20	40	50	80	100	120
Fluorene	1	10	20	40	50	80	100	120
4-Chlorophenyl phenyl ether		10	20	40	50	80	100	120
2-Methyl-4,6-dinitrophenol		10	20	40	50	80	100	120
p-Nitroaniline		10	20	40	50	80	100	120
Diphenylamine		10	20	40	50	80	100	120
1,2-Diphenylhydrazine		10	20	40	50	80	100	120
Tributylphosphate		10	20	40	50	80	100	120
4-Bromophenyl phenyether		10	20	40	50	80	100	120
Hexachlorobenzene		10	20	40	50	80	100	120
Atrazine		10	20	40	50	80	100	120
Pentachlorophenol		10	20	40	50	80	100	120
n-Octadecane		10	20	40	50	80	100	120
Phenanthrene	1	10	20	40	50	80	100	120
Anthracene	1	10	20	40	50	80	100	120
Di-n-butylphthalate	1	10	20	40	50	80	100	120
Fluoranthene	1	10	20	40	50	80	100	120
Benzidine		10	20	40	50	80	100	120
Pyrene	1	10	20	40	50	80	100	120
Butylbenzylphthalate	1	10	20	40	50	80	100	120
Benzo(a)anthracene	1	10	20	40	50	80	100	120
3,3'-Dichlorobenzidene		10	20	40	50	80	100	120
Chrysene	1	10	20	40	50	80	100	120
bis (2-Ethylhexyl) phthalate	1	10	20	40	50	80	100	120
Di-n-octylphthalate	1	10	20	40	50	80	100	120

SW846 8270C//8270D/EPA 625								
Calibration Standard Concentration Levels*								
	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Benzo(b)fluoranthene	1	10	20	40	50	80	100	120
Benzo(k)fluoranthene	1	10	20	40	50	80	100	120
Benzo(a)pyrene	1	10	20	40	50	80	100	120
Indeno-(1,2,3-cd)pyrene	1	10	20	40	50	80	100	120
Dibenzo(a,h)anthracene	1	10	20	40	50	80	100	120
Benzo(ghi)perylene	1	10	20	40	50	80	100	120
Carbazole	1	10	20	40	50	80	100	120

APPENDIX IX

1,4-Dioxane		10	20	40	50	80	100	120
Methyl methacrylate		10	20	40	50	80	100	120
Ethyl methacrylate		10	20	40	50	80	100	120
2-Picoline		10	20	40	50	80	100	120
N-Nitrosomethylethylamine		10	20	40	50	80	100	120
Methyl methanesulfonate		10	20	40	50	80	100	120
N-Nitrosodiethylamine		10	20	40	50	80	100	120
Ethyl methanesulfonate		10	20	40	50	80	100	120
Pentachloroethane		10	20	40	50	80	100	120
N-Nitrosopyrrolidine		10	20	40	50	80	100	120
N-Nitrosomorpholine		10	20	40	50	80	100	120
o-Toluidine		10	20	40	50	80	100	120
N-Nitrosopiperidine		10	20	40	50	80	100	120
a,a-Dimethhylphenethylamine		10	20	40	50	80	100	120
Triethylphosphorothioate		10	20	40	50	80	100	120
2,6-Dichlorophenol		10	20	40	50	80	100	120
Hexachloropropene		10	20	40	50	80	100	120
p-Phenylenediamine		10	20	40	50	80	100	120
N-Nitrosodi-n-butylamine		10	20	40	50	80	100	120
Safrole		10	20	40	50	80	100	120
1,2,4,5-Tetrachlorobenzene		10	20	40	50	80	100	120
Isosafrole		10	20	40	50	80	100	120
1,4-Naphthoquinone		10	20	40	50	80	100	120
m-Dinitrobenzene		10	20	40	50	80	100	120
Pentachlorobenzene		10	20	40	50	80	100	120
1-Naphthylamine		10	20	40	50	80	100	120
2-Naphthylamine		10	20	40	50	80	100	120
2,3,4,6-Tetrachlorophenol		10	20	40	50	80	100	120
5-Nitro-o-toluidine		10	20	40	50	80	100	120
Thionazin		10	20	40	50	80	100	120
Sulfotepp		10	20	40	50	80	100	120
Phorate		10	20	40	50	80	100	120
1,3,5-Trinitrobenzene		10	20	40	50	80	100	120
Phenacetin		10	20	40	50	80	100	120
Diallate (cis and trans)		10	20	40	50	80	100	120

SW846 8270C//8270D/EPA 625

Calibration Standard Concentration Levels*

	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Dimethoate		10	20	40	50	80	100	120
4-Aminobiphenyl		10	20	40	50	80	100	120
Pentachloronitrobenzene		10	20	40	50	80	100	120
Pronamide		10	20	40	50	80	100	120
Dinoseb		10	20	40	50	80	100	120
Disulfoton		10	20	40	50	80	100	120
Methyl parathion		10	20	40	50	80	100	120
4-Nitroquinoline oxide		10	20	40	50	80	100	120
Methapyrilene		10	20	40	50	80	100	120
Isodrin		10	20	40	50	80	100	120
Aramite		10	20	40	50	80	100	120
Kepone		10	20	40	50	80	100	120
p-(Dimethylamino)azobenzene		10	20	40	50	80	100	120

Chlorobenzilate		10	20	40	50	80	100	120
3,3'-Dimethylbenzidine		10	20	40	50	80	100	120
Famphur		10	20	40	50	80	100	120
2-Acetylaminofluorene		10	20	40	50	80	100	120
7,12-Dimethylbenz(a)anthracene		10	20	40	50	80	100	120
3-Methylcholanthrene		10	20	40	50	80	100	120
Hexachlorophene		500	1000	1250	1500	1750	2000	
p-Benzoquinone		10	20	40	50	80	100	120
Parathion		10	20	40	50	80	100	120
Methoxychlor		10	20	40	50	80	100	120
2-Ethoxyethanol		50	75	100	125	150	200	250
cis-Diallate		1.5	3	6	7.5	12	15	18
trans-Diallate		8.5	17	34	42	68	85	102
Dibenzo(a,e)pyrene		50	75	100	125	150	200	250
Phthalic anhydride		50	75	100	125	150	200	250
1,4-Dinitrobenzene		50	75	100	125	150	200	250
(2,3-Dibromopropyl)phosphate		50	75	100	125	150	200	250
Methylenebis(2-chloroaniline)		50	75	100	125	150	200	250
p-Toluidine		10	20	40	50	80	100	120
m-Toluidine		10	20	40	50	80	10	120

SW846 8270C//8270D/EPA 625								
Calibration Standard Concentration Levels*								
	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
bis(Chloromethyl)ether		10	20	40	50	80	100	120
Thiophenol		10	20	40	50	80	100	120
4-Chlorothiophenol		10	20	40	50	80	100	120
4-Chlorothio anisole		10	20	40	50	80	100	120
Phthalic acid		10	20	40	50	80	100	120
Hydroxymethyl phthalamide		10	20	40	50	80	100	120
Diphenyl sulfide		10	20	40	50	80	100	120
Diphenyl disulfide		10	20	40	50	80	100	120
Phenyl sulfone		10	20	40	50	80	100	120
Octachlorostyrene		10	20	40	50	80	100	120
2,2'-Dichlorobenzil		10	20	40	50	80	100	120
bis(p-Chlorophenyl)disulfide		10	20	40	50	80	100	120
bis(p-Chlorophenyl)sulfone		10	20	40	50	80	10	120

All values are mg/L without the prep factor.
# Indicates the calibration verification concentration level used
* Usual calibration levels using SCAN methodology
Level 1 may be included at request of client
(06/08)

Report Date: 17-Dec-2009 08:12

Calibration History

Method : /chem/MSD6.i/s121609.b/MSD6-M8270C-AQA-110909.m
Start Cal Date: 09-NOV-2009 18:53
End Cal Date : 11-NOV-2009 04:38

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 1.00000		
09-NOV-2009 18:53	MEGA	/chem/MSD6.i/s110909.b/s6k0913.d
Cal Level: 2 , Cal Amount: 10.00000		
11-NOV-2009 01:47	NEV	/chem/MSD6.i/s110909.b/s6k0948.d
10-NOV-2009 22:55	HEX	/chem/MSD6.i/s110909.b/s6k0942.d
10-NOV-2009 16:20	PEST	/chem/MSD6.i/s110909.b/s6k0930.d
10-NOV-2009 11:59	AP12	/chem/MSD6.i/s110909.b/s6k0923.d
09-NOV-2009 19:31	MEGA	/chem/MSD6.i/s110909.b/s6k0914.d
Cal Level: 3 , Cal Amount: 20.00000		
11-NOV-2009 02:16	NEV	/chem/MSD6.i/s110909.b/s6k0949.d
10-NOV-2009 23:24	HEX	/chem/MSD6.i/s110909.b/s6k0943.d
10-NOV-2009 16:56	PEST	/chem/MSD6.i/s110909.b/s6k0931.d
10-NOV-2009 12:36	AP12	/chem/MSD6.i/s110909.b/s6k0924.d
09-NOV-2009 20:09	MEGA	/chem/MSD6.i/s110909.b/s6k0915.d
Cal Level: 4 , Cal Amount: 40.00000		
11-NOV-2009 02:44	NEV	/chem/MSD6.i/s110909.b/s6k0950.d
10-NOV-2009 23:53	HEX	/chem/MSD6.i/s110909.b/s6k0944.d
10-NOV-2009 17:33	PEST	/chem/MSD6.i/s110909.b/s6k0932.d
10-NOV-2009 13:13	AP12	/chem/MSD6.i/s110909.b/s6k0925.d
09-NOV-2009 20:46	MEGA	/chem/MSD6.i/s110909.b/s6k0916.d
Cal Level: 5 , Cal Amount: 50.00000		
11-NOV-2009 03:12	NEV	/chem/MSD6.i/s110909.b/s6k0951.d
11-NOV-2009 00:21	HEX	/chem/MSD6.i/s110909.b/s6k0945.d
10-NOV-2009 18:09	PEST	/chem/MSD6.i/s110909.b/s6k0933.d
10-NOV-2009 13:51	AP12	/chem/MSD6.i/s110909.b/s6k0926.d
09-NOV-2009 21:25	MEGA	/chem/MSD6.i/s110909.b/s6k0917.d
Cal Level: 6 , Cal Amount: 80.00000		
11-NOV-2009 03:41	NEV	/chem/MSD6.i/s110909.b/s6k0952.d
11-NOV-2009 00:50	HEX	/chem/MSD6.i/s110909.b/s6k0946.d
10-NOV-2009 18:45	PEST	/chem/MSD6.i/s110909.b/s6k0934.d
10-NOV-2009 14:30	AP12	/chem/MSD6.i/s110909.b/s6k0927.d
09-NOV-2009 22:01	MEGA	/chem/MSD6.i/s110909.b/s6k0918.d
Cal Level: 7 , Cal Amount: 100.00000		

11-NOV-2009 04:10	NEV	/chem/MSD6.i/s110909.b/s6k0953.d
11-NOV-2009 01:18	HEX	/chem/MSD6.i/s110909.b/s6k0947.d
10-NOV-2009 19:21	PEST	/chem/MSD6.i/s110909.b/s6k0935.d
10-NOV-2009 15:06	AP12	/chem/MSD6.i/s110909.b/s6k0928.d
09-NOV-2009 22:39	MEGA	/chem/MSD6.i/s110909.b/s6k0919.d

Cal Level: 8 , Cal Amount: 120.00000		
11-NOV-2009 04:38	NEV	/chem/MSD6.i/s110909.b/s6k0954.d
10-NOV-2009 19:58	PEST	/chem/MSD6.i/s110909.b/s6k0936.d
10-NOV-2009 15:43	AP12	/chem/MSD6.i/s110909.b/s6k0929.d
09-NOV-2009 23:16	MEGA	/chem/MSD6.i/s110909.b/s6k0920.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 40.0		
16-DEC-2009 14:18	MEGA	/chem/MSD6.i/s121609.b/s611611.d
Ccal Level: 4 , Ccal Amount: 40.0		
16-DEC-2009 14:46	AP12	/chem/MSD6.i/s121609.b/s611612.d
Ccal Level: 4 , Ccal Amount: 40.0		
16-DEC-2009 11:57	AP12	/chem/MSD6.i/s121609.b/s611607.d
Ccal Level: 4 , Ccal Amount: 40.0		
16-DEC-2009 12:53	PEST	/chem/MSD6.i/s121609.b/s611609.d
Ccal Level: 4 , Ccal Amount: 40.0		
16-DEC-2009 12:25	MEGA	/chem/MSD6.i/s121609.b/s611608.d
Ccal Level: 4 , Ccal Amount: 40.0		
16-DEC-2009 11:28	MEGA	/chem/MSD6.i/s121609.b/s611606.d
Ccal Level: 4 , Ccal Amount: 40.0		
16-DEC-2009 09:38	MEGA	/chem/MSD6.i/s121609.b/s611604.d
Ccal Level: 4 , Ccal Amount: 40.0		
16-DEC-2009 08:47	MEGA	/chem/MSD6.i/s121609.b/s611602.d

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Start Cal Date : 09-NOV-2009 18:53
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Cal Date : 17-Dec-2009 08:11 nat00999

Calibration File Names:
Level 1: /chem/MSD6.i/s110909.b/s6k0913.d
Level 2: /chem/MSD6.i/s110909.b/s6k0948.d
Level 3: /chem/MSD6.i/s110909.b/s6k0949.d
Level 4: /chem/MSD6.i/s110909.b/s6k0950.d
Level 5: /chem/MSD6.i/s110909.b/s6k0951.d
Level 6: /chem/MSD6.i/s110909.b/s6k0952.d
Level 7: /chem/MSD6.i/s110909.b/s6k0953.d
Level 8: /chem/MSD6.i/s110909.b/s6k0954.d

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
1 N-Methyl-N-nitrosomethylamine	+++++	0.62711	0.72014	0.69994	0.71294	0.67761					
	0.66245	0.66663					AVRG		0.68098		4.78734
2 Pyridine	+++++	0.78506	0.84345	0.94451	0.94132	0.77430					
	0.82190	0.82246					AVRG		0.84757		8.16958
4 Aniline	+++++	0.51792	0.56281	0.52949	0.53182	0.51964					
	0.51849	0.51247					AVRG		0.52752		3.21865
209 Benzaldehyde	+++++	0.94297	0.91161	0.92064	0.86617	0.84259					
	0.79828	0.74667					AVRG		0.86127		8.23824
6 Phenol	+++++	1.29580	1.38609	1.27955	1.27629	1.24279					
	1.20107	1.21677					AVRG		1.27120		4.82676

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
7 bis(2-Chloroethyl) ether	0.93365	0.90056	0.92748	0.85273	0.86174	0.82247					
	0.79075	0.79709					AVRG		0.86081		6.48811
8 2-Chlorophenol	*****	1.05270	1.10343	1.04994	1.05384	0.99340					
	0.95375	0.94058					AVRG		1.02109		5.85808
203 n-Decane	*****	1.57696	1.59018	1.40648	1.36249	1.17658					
	*****	*****					AVRG		1.42254		11.98709
9 1,3-Dichlorobenzene	*****	1.22415	1.27608	1.20806	1.21136	1.14335					
	1.08668	1.07881					AVRG		1.17550		6.31837
11 1,4-Dichlorobenzene	*****	1.27202	1.32037	1.21925	1.20743	1.15141					
	1.09639	1.07447					AVRG		1.19162		7.54222
12 Benzyl alcohol	*****	0.60900	0.65716	0.63043	0.62465	0.64143					
	0.63021	0.64767					AVRG		0.63436		2.50657
13 1,2-Dichlorobenzene	*****	1.16666	1.21707	1.13327	1.12016	1.08966					
	1.03460	1.02472					AVRG		1.11231		6.21300
14 bis(2-Chloroisopropyl)ether	*****	2.07635	2.13325	1.99088	1.97675	1.86028					
	1.72252	1.69272					AVRG		1.92182		8.81925
15 o-Cresol	*****	0.82992	0.88629	0.84024	0.85639	0.80893					
	0.80386	0.79407					AVRG		0.83139		3.92027

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
16 Acetophenone	+++++	1.20921	1.17591	1.21168	1.15285	1.16925					
	1.13524	1.12939					AVRG		1.16908		2.80572
17 N-Nitrosodipropylamine	0.65638	0.74117	0.78851	0.72893	0.73002	0.72328					
	0.70725	0.59369					AVRG		0.70865		8.34285
18 m,p-Cresols	+++++	1.03591	1.12590	1.04958	1.05532	1.04720					
	1.02399	1.03632					AVRG		1.05346		3.18987
19 Hexachloroethane	+++++	0.45806	0.49524	0.47390	0.46960	0.45628					
	0.43995	0.43396					AVRG		0.46100		4.53111
21 Nitrobenzene	+++++	0.31691	0.32516	0.29885	0.29715	0.27038					
	0.24823	0.23966					AVRG		0.28519		11.62250
22 Isophorone	+++++	0.55891	0.57824	0.53268	0.53266	0.49425					
	0.45829	0.38358					AVRG		0.50552		13.23015
23 2-Nitrophenol	+++++	0.13453	0.14214	0.13601	0.13806	0.12888					
	0.12072	0.12047					AVRG		0.13154		6.43934
24 2,4-Dimethylphenol	+++++	0.23987	0.22536	0.21067	0.20421	0.21065					
	0.21868	0.21622					AVRG		0.21795		5.40955
25 bis(2-Chloroethoxy)methane	+++++	0.33208	0.34147	0.30906	0.30442	0.28195					
	0.26036	0.25310					AVRG		0.29749		11.40063

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
26 2,4-Dichlorophenol	+++++	0.19875	0.21444	0.20921	0.20622	0.19391					
	0.18142	0.17985					AVRG		0.19769		6.80078
27 Benzoic acid	+++++	+++++	0.10585	0.12338	0.14032	0.14157					
	0.15049	0.14556					AVRG		0.13453		12.46641
28 1,2,4-Trichlorobenzene	+++++	0.27809	0.27557	0.25214	0.25046	0.22876					
	0.21050	0.20278					AVRG		0.24261		12.25857
30 Naphthalene	0.93577	0.85146	0.85267	0.76017	0.74029	0.64713					
	+++++	+++++					AVRG		0.79792		12.82401
204 alpha-Terpineol	+++++	0.23577	0.25490	0.22003	0.21987	0.20427					
	0.17723	+++++					AVRG		0.21868		12.15593
31 4-Chloroaniline	+++++	0.26389	0.28196	0.26991	0.26064	0.24995					
	0.23771	0.23114					AVRG		0.25646		7.00922
189 Caprolactam	+++++	0.06766	0.07272	0.08214	0.08102	0.07115					
	0.07075	0.07172					AVRG		0.07388		7.43636
32 Hexachlorobutadiene	+++++	0.14265	0.14557	0.13182	0.13097	0.11864					
	0.10931	0.10542					AVRG		0.12634		12.40746
33 4-Chloro-3-methylphenol	+++++	0.20824	0.22585	0.20971	0.20633	0.19424					
	0.17957	0.17303					AVRG		0.19957		9.25582

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
34 2-Methylnaphthalene	0.56779	0.53746	0.54769	0.49857	0.47476	0.43707					
	0.39981	0.38884					AVRG		0.48150		14.15789
35 1-Methylnaphthalene	0.55872	0.52838	0.53208	0.48366	0.46920	0.42612					
	0.38935	0.38051					AVRG		0.47100		14.29869
36 Hexachlorocyclopentadiene	+++++	0.13520	0.17775	0.15114	0.16219	0.15378					
	0.18308	0.16783					AVRG		0.16157		10.19735
208 1,1'-Biphenyl	+++++	1.32152	1.23439	1.25731	1.19710	1.16580					
	1.12776	1.10528					AVRG		1.20131		6.32036
205 2,3-Dichloroaniline	+++++	0.51880	0.53286	0.48272	0.49159	0.46096					
	0.42997	0.43664					AVRG		0.47908		8.16477
37 2,4,6-Trichlorophenol	+++++	0.27570	0.29634	0.28058	0.28008	0.26989					
	0.25242	0.25556					AVRG		0.27294		5.58990
38 2,4,5-Trichlorophenol	+++++	0.28031	0.30282	0.29443	0.29832	0.29160					
	0.28523	0.28197					AVRG		0.29067		2.92500
40 2-Chloronaphthalene	0.91208	0.94921	0.97975	0.90835	0.91949	0.87198					
	0.81926	0.82647					AVRG		0.89832		6.24992
42 o-Nitroaniline	+++++	0.28653	0.32807	0.30812	0.31848	0.31056					
	0.29539	0.30412					AVRG		0.30732		4.50651

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
41 m-Nitroaniline	+++++	0.19029	0.23187	0.23025	0.23197	0.23511					
	0.22216	0.23314					AVRG		0.22497		7.03906
43 Dimethylphthalate	+++++	1.10253	1.11895	1.05121	1.05401	1.01311					
	0.95493	0.88796					AVRG		1.02610		7.97599
44 2,6-Dinitrotoluene	+++++	0.24859	0.25869	0.24751	0.24771	0.24514					
	0.22903	0.23656					AVRG		0.24475		3.87474
45 Acenaphthylene	1.45077	1.53234	1.59736	1.47314	1.47686	1.41153					
	1.30118	1.31187					AVRG		1.44438		7.03164
47 Acenaphthene	0.97754	0.93463	0.97051	0.90906	0.90733	0.85875					
	0.82122	0.83304					AVRG		0.90151		6.58830
48 2,4-Dinitrophenol	+++++	+++++	15920	45695	60199	121040					
	185455	+++++					LINR	0.36255	0.13077		0.99262
49 Dibenzofuran	+++++	1.31036	1.35172	1.24091	1.23630	1.17505					
	1.09035	1.11352					AVRG		1.21689		7.96140
50 2,4-Dinitrotoluene	+++++	0.28688	0.32526	0.31392	0.31582	0.31468					
	0.30077	0.30301					AVRG		0.30862		4.09740
51 Diethylphthalate	+++++	1.08427	1.13193	1.06273	1.05585	1.00787					
	0.93441	0.95637					AVRG		1.03335		6.84784

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Compound	1 Level 1 100 Level 7	10 Level 2 120 Level 8	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
52 4-Nitrophenol	+++++	12277	40572	90802	114423	208122					
	294363	379687					LINR	0.18209	0.20146		0.99664
53 Fluorene	1.06940	1.05468	1.10259	1.00777	1.00699	0.94775					
	0.89677	0.90440					AVRG		0.99879		7.65829
54 4-Chlorophenylphenylether	+++++	0.49941	0.52344	0.48539	0.48490	0.45443					
	0.43029	0.42560					AVRG		0.47192		7.71070
55 2-Methyl-4,6-dinitrophenol	+++++	9251	34357	85168	107219	199515					
	279188	346834					LINR	0.17722	0.10780		0.99957
56 p-Nitroaniline	+++++	18297	49968	114446	144020	267165					
	377942	477974					LINR	0.17663	0.25514		0.99741
133 Diphenylamine	+++++	0.51235	0.51279	0.48995	0.49110	0.46341					
	0.45142	0.45392					AVRG		0.48213		5.41113
58 1,2-Diphenylhydrazine	+++++	0.65288	0.67935	0.62730	0.62752	0.58724					
	0.56393	0.55466					AVRG		0.61327		7.55575
59 Tributylphosphate	+++++	1.19922	1.25332	1.24022	1.27997	1.24188					
	1.19433	1.14050					AVRG		1.22135		3.81011
61 4-Bromophenylphenylether	+++++	0.16321	0.16758	0.15949	0.16092	0.15366					
	0.14977	0.15022					AVRG		0.15784		4.30183

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
63 Hexachlorobenzene	+++++	0.17072	0.17525	0.16702	0.16690	0.16190					
	0.15730	0.15822					AVRG		0.16533		3.97990
207 Atrazine	+++++	0.04466	0.04316	0.04336	0.04050	0.04104					
	0.03746	0.03425					AVRG		0.04063		9.04410
65 Pentachlorophenol	+++++	12427	38945	80211	100581	192628					
	259470	326879					LINR	0.13427	0.09964		0.99838
206 n-Octadecane	+++++	0.51627	0.51598	0.45832	0.46068	0.40718					
	0.37377	0.35992					AVRG		0.44173		14.37986
68 Phenanthrene	0.95060	0.88603	0.89746	0.83221	0.81673	0.77346					
	0.73349	0.72773					AVRG		0.82721		9.72714
69 Anthracene	0.87683	0.86194	0.90534	0.83970	0.83829	0.78921					
	0.75133	0.75196					AVRG		0.82682		6.91971
72 Di-n-butylphthalate	+++++	1.00113	1.04654	0.99105	0.98676	0.92173					
	0.85606	0.84350					AVRG		0.94954		8.15043
76 Fluoranthene	0.78392	0.79487	0.87026	0.82674	0.81613	0.77420					
	0.73596	0.73727					AVRG		0.79242		5.73137
77 Benzidine	+++++	0.35813	0.40641	0.39242	0.37729	0.37701					
	0.39765	0.44234					AVRG		0.39304		6.85454

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Compound	1 Level 1 100 Level 7	10 Level 2 120 Level 8	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
79 Pyrene	1.12114	1.31021	1.22539	1.10007	1.11660	1.02083					
	0.96007	0.94734					AVRG		1.10021		11.38295
85 Butylbenzylphthalate	+++++	0.52543	0.54028	0.51608	0.52406	0.49119					
	0.46906	0.45845					AVRG		0.50351		6.16544
89 Benzo(a)anthracene	0.94221	0.85505	0.89830	0.85692	0.85716	0.83423					
	0.82127	0.83891					AVRG		0.86301		4.55256
90 3,3'-Dichlorobenzidine	+++++	0.23529	0.28074	0.29290	0.29384	0.28532					
	0.28779	0.30173					AVRG		0.28252		7.74710
92 Chrysene	0.87195	0.83557	0.87346	0.82487	0.82639	0.80729					
	0.78155	0.79409					AVRG		0.82690		4.03552
93 bis(2-Ethylhexyl)phthalate	7340	107837	270739	551016	645048	1078889					
	1389660	1700943					WLINR	0.01019	0.70092		0.99014
94 Di-n-octylphthalate	+++++	1.19610	1.35485	1.31605	1.35770	1.25055					
	1.27306	1.15060					AVRG		1.27127		6.18607
95 Benzo(b)fluoranthene	0.74161	0.85750	0.94279	0.90432	0.93361	0.89239					
	0.89332	0.91506					AVRG		0.88507		7.19928
96 Benzo(k)fluoranthene	0.73172	0.86857	0.95518	0.92430	0.92244	0.89945					
	0.88010	0.85909					AVRG		0.88011		7.72381

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
97 Benzo(a)pyrene	0.54179	0.70605	0.81133	0.81358	0.82559	0.80913					
	0.80179	0.80647					AVRG		0.76447		12.74919
99 Indeno(1,2,3-cd)pyrene	5888	60939	200863	402882	510813	1012558					
	1348903	1889688					LINR	0.07592	0.78768		0.99752
100 Dibenzo(a,h)anthracene	3385	46770	157194	361792	411532	815285					
	1094612	1529825					LINR	0.06768	0.63666		0.99908
101 Benzo(ghi)perylene	0.41694	0.53228	0.60870	0.60962	0.60436	0.63133					
	0.62968	0.63931					AVRG		0.58403		12.88683
102 1,4-Dioxane	+++++	0.37671	0.37043	0.39061	0.37803	0.36375					
	0.35237	0.33052					AVRG		0.36606		5.38827
103 Methyl methacrylate	+++++	0.19626	0.19646	0.20436	0.20625	0.18540					
	0.18964	0.17876					AVRG		0.19388		5.13081
104 Ethyl methacrylate	+++++	0.79650	0.81191	0.84398	0.82898	0.80568					
	0.79571	0.75648					AVRG		0.80561		3.45659
105 2-Picoline	+++++	1.39124	1.31746	1.36987	1.31904	1.28927					
	1.27506	1.19912					AVRG		1.30872		4.85814
106 N-Nitrosomethylethylamine	+++++	0.50512	0.48970	0.52453	0.49928	0.51969					
	0.51463	0.52429					AVRG		0.51104		2.61826

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INITIAL CALIBRATION DATA

Start Cal Date : 09-NOV-2009 18:53
End Cal Date : 11-NOV-2009 04:38
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD6.i/s121609.b/MSD6-M8270C-AQA-110909.m
Cal Date : 17-Dec-2009 08:11 nat00999

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
107 Methyl methanesulfonate	+++++	0.56429	0.53321	0.56316	0.50377	0.53102					
	0.50923	0.49498					AVRG		0.52852		5.24900
108 N-Nitrosodiethylamine	+++++	0.50310	0.47987	0.51154	0.48534	0.49862					
	0.49304	0.49722					AVRG		0.49553		2.15019
109 Ethyl Methanesulfonate	+++++	0.65808	0.64977	0.67344	0.62747	0.66045					
	0.64399	0.64860					AVRG		0.65169		2.21442
110 Pentachloroethane	+++++	0.32209	0.31386	0.33094	0.32010	0.31614					
	0.31148	0.30303					AVRG		0.31681		2.78134
111 N-Nitrosopyrrolidine	+++++	0.44182	0.46376	0.50830	0.47779	0.50143					
	0.49385	0.44600					AVRG		0.47614		5.57640
113 N-Nitrosomorpholine	+++++	0.71032	0.67134	0.71256	0.65887	0.68726					
	0.65974	0.65547					AVRG		0.67936		3.58698
114 o-Toluidine	+++++	1.74797	1.65530	1.71709	1.64005	1.64679					
	1.58070	1.58178					AVRG		1.65281		3.79762
115 N-Nitrosopiperidine	+++++	0.13834	0.13623	0.14736	0.13885	0.14290					
	0.13997	0.14373					AVRG		0.14105		2.69891
116 a,a-Dimethylphenethylamine	+++++	0.78770	0.81587	0.88476	0.87463	0.88336					
	0.86623	0.87565					AVRG		0.85546		4.44785

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	100 Level 7	120 Level 8									
117 Triethylphosphorothioate	+++++	0.14741	0.14492	0.13783	0.14116	0.13439					
	0.12857	0.12370					AVRG		0.13685		6.28357
118 2,6-Dichlorophenol	+++++	0.19682	0.19992	0.21240	0.20960	0.21251					
	0.20568	0.21118					AVRG		0.20687		3.05257
119 Hexachloropropene	+++++	0.08644	0.09499	0.10791	0.10350	0.10830					
	0.10654	0.11112					AVRG		0.10269		8.60612
120 p-Phenylenediamine	+++++	0.19714	0.24091	0.25567	0.24421	0.23168					
	0.22043	0.21678					AVRG		0.22955		8.57933
121 N-Nitrosodi-n-butylamine	+++++	0.22447	0.22501	0.22216	0.21154	0.19839					
	0.19348	0.19524					AVRG		0.21004		6.76180
122 Safrole	+++++	0.18675	0.18585	0.19677	0.19040	0.18675					
	0.17956	0.17958					AVRG		0.18653		3.22597
123 1,2,4,5-Tetrachlorobenzene	+++++	0.45393	0.42422	0.44255	0.41650	0.41676					
	0.40609	0.40229					AVRG		0.42319		4.45863
124 Isosafrole	+++++	0.34011	0.33198	0.35164	0.33779	0.34233					
	0.33627	0.33702					AVRG		0.33959		1.83025
125 1,4-Naphthoquinone	+++++	0.30018	0.32824	0.34894	0.32634	0.29745					
	0.28366	0.26235					AVRG		0.30674		9.65282

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
126 m-Dinitrobenzene	+++++	0.15441	0.17500	0.17160	0.17355	0.17392					
	0.16754	0.16904					AVRG		0.16929		4.19006
127 Pentachlorobenzene	+++++	0.38426	0.36575	0.37736	0.36552	0.35674					
	0.35182	0.35035					AVRG		0.36454		3.50537
128 1-Naphthylamine	+++++	0.90674	0.92102	0.95184	0.91692	0.90718					
	0.86367	0.88454					AVRG		0.90742		3.07978
129 2-Naphthylamine	+++++	0.96578	1.00999	1.02440	0.99125	0.97953					
	0.93471	0.95520					AVRG		0.98012		3.19024
130 2,3,4,6-Tetrachlorophenol	+++++	0.20640	0.23481	0.21862	0.21374	0.22201					
	0.21460	0.22254					AVRG		0.21896		4.07356
131 5-Nitro-o-toluidine	+++++	0.22084	0.26615	0.28994	0.29013	0.29251					
	0.28841	0.30508					AVRG		0.27901		10.07623
132 Thionazin	+++++	0.16760	0.17396	0.17237	0.17849	0.17822					
	0.16987	0.16398					AVRG		0.17207		3.11896
134 Sulfotepp	+++++	0.08934	0.08802	0.08507	0.08886	0.08655					
	0.08265	0.08005					AVRG		0.08579		4.00843
135 Phorate	+++++	0.38230	0.38968	0.37391	0.38904	0.37359					
	0.35020	0.32660					AVRG		0.36933		6.25438

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	100 Level 7	120 Level 8									
136 1,3,5-Trinitrobenzene	+++++	14861	45341	104071	130665	222134					
	265730	408609					LINR	0.09141	0.12978		0.99734
137 Phenacetin	+++++	0.21732	0.25812	0.27209	0.26902	0.27044					
	0.26738	0.28241					AVRG		0.26240		8.05167
138 Diallate	+++++	0.26191	0.24374	0.25182	0.23998	0.23522					
	0.22716	0.22410					AVRG		0.24056		5.55643
139 Dimethoate	+++++	0.18955	0.19806	0.21061	0.22946	0.23158					
	0.22398	0.21950					AVRG		0.21468		7.45885
140 4-Aminobiphenyl	+++++	0.50489	0.50584	0.54599	0.56556	0.56494					
	0.53276	0.52934					AVRG		0.53562		4.66298
141 Pentachloronitrobenzene	+++++	0.06195	0.06081	0.06546	0.06329	0.06151					
	0.06084	0.05959					AVRG		0.06192		3.12402
142 Pronamide	+++++	0.26962	0.26582	0.27431	0.26759	0.26151					
	0.25173	0.25174					AVRG		0.26319		3.31411
143 Dinoseb	+++++	11996	47856	123552	154632	280906					
	375481	479562					LINR	0.15482	0.14736		0.99949
144 Disulfoton	+++++	0.31933	0.32969	0.31920	0.32975	0.31125					
	0.29624	0.27823					AVRG		0.31196		6.02930

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	100 Level 7	120 Level 8										
145 Methyl parathion	+++++	0.14493	0.15978	0.17270	0.18140	0.18775						
	0.18141	0.17864					AVRG		0.17237		8.70434	
146 4-Nitroquinoline-1-oxide	+++++	0.02012	0.03296	0.02700	0.02533	0.02224						
	0.01930	0.01750					AVRG		0.02349		22.76469	<-
147 Methapyrilene	+++++	0.40623	0.42209	0.41103	0.39768	0.37937						
	0.35132	0.33430					AVRG		0.38600		8.45747	
148 Isodrin	+++++	0.10136	0.09753	0.10130	0.09757	0.09481						
	0.09122	0.09037					AVRG		0.09631		4.58453	
149 Aramite	+++++	0.03841	0.04251	0.04600	0.04566	0.04690						
	0.04564	0.04428					AVRG		0.04420		6.60357	
150 Kepone	+++++	0.05674	0.06191	0.06311	0.06098	0.06085						
	0.06194	0.06656					AVRG		0.06173		4.75009	
151 p-(Dimethylamino)azobenzene	+++++	0.31224	0.31378	0.33288	0.32474	0.31931						
	0.31446	0.30396					AVRG		0.31734		2.95033	
152 Chlorobenzilate	+++++	0.30009	0.27506	0.30295	0.29512	0.29377						
	0.29203	0.28006					AVRG		0.29130		3.50189	
153 3,3'-Dimethylbenzidine	+++++	0.49489	0.52397	0.53487	0.52482	0.53397						
	0.53619	0.54473					AVRG		0.52763		3.04743	

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	ml	m2	%RSD or R^2
	100 Level 7	120 Level 8									
154 Famphur	+++++	0.28850	0.33742	0.33640	0.36516	0.37704					
	0.35655	0.33317					AVRG		0.34203		8.41381
155 2-Acetylaminofluorene	+++++	23996	98558	217618	290992	478700					
	598627	953419					LINR	0.12414	0.37309		0.99874
157 7,12Dimethylbenz(a)anthracene	+++++	0.45745	0.44941	0.48919	0.48420	0.49542					
	0.49422	0.48353					AVRG		0.47906		3.80416
158 3-Methylcholanthrene	+++++	0.29343	0.35502	0.37871	0.37695	0.38953					
	0.38995	0.40328					AVRG		0.36955		9.94080
26 Phthalic anhydride	+++++	10939	40864	83487	108159	203846					
	306459	+++++					LINR	0.14938	0.09004		0.99590
173 Carbazole	0.68572	0.63216	0.65059	0.65023	0.64669	0.65901					
	0.65208	0.65947					AVRG		0.65449		2.32370
174 Hexachlorophene	+++++	0.04700	0.06194	0.06687	0.06701	0.06606					
	+++++	+++++					AVRG		0.06178		13.78238
179 Dibenzo(a,e)pyrene	+++++	21397	67635	183254	214017	467062					
	+++++	+++++					LINR	0.16800	0.36891		0.99459
185 (2,3-Dibromopropyl)phosphate	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+00		0.000e+00 <-

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	100 Level 7	120 Level 8									
184 p-Benzoquinone	+++++	0.09983	0.11502	0.14598	0.13665	0.14571					
	0.12211	0.12583					AVRG		0.12730		13.25929
191 Parathion	+++++	0.05089	0.05709	0.06102	0.06360	0.06315					
	0.06253	0.06173					AVRG		0.06000		7.60183
192 Methoxychlor	+++++	0.54663	0.59527	0.57022	0.57190	0.55995					
	0.49223	0.53082					AVRG		0.55243		6.05482
210 m-Toluidine	+++++	1.07152	1.09862	1.08267	1.09477	1.19760					
	1.39731	0.92523					AVRG		1.12396		12.87193
211 p-Toluidine	+++++	0.98878	1.01175	0.93629	0.93823	0.84629					
	0.67790	+++++					AVRG		0.89987		13.64283
212 Cis Diallate	+++++	0.25680	0.24216	0.25774	0.25015	0.25647					
	0.24871	0.25860					AVRG		0.25295		2.41779
213 Trans Diallate	+++++	0.30813	0.28675	0.29626	0.28232	0.27673					
	0.26725	0.26364					AVRG		0.28301		5.55643
214 1,4-Dinitrobenzene	+++++	0.15465	0.18602	0.18671	0.19154	0.19074					
	0.18381	0.19324					AVRG		0.18382		7.23195
215 2-Ethoxyethanol	+++++	0.69474	0.75708	0.72314	0.72734	0.69576					
	0.68979	0.68463					AVRG		0.71035		3.71426

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Compound	1 Level 1 100 Level 7	10 Level 2 120 Level 8	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
216 Methylenebis(2-chloroaniline)	+++++	11622	37526	94270	117296	226774					
	306702	394688					LINR	0.14094	0.14618		0.99920
229 2,2'-Dichlorobenzil	+++++	0.65548	0.70788	0.67278	+++++	0.85557					
	0.79635	+++++					AVRG		0.73761		11.58274
230 4-Chlorothioanisole	+++++	65505	120100	275307	+++++	727615					
	828249	+++++					LINR	0.13623	0.30665		0.99347
231 4-Chlorothiophenol	+++++	14955	49890	195788	+++++	593706					
	683100	+++++					LINR	0.29380	0.27176		0.99219
232 bis(p-Chlorophenyl)sulfone	+++++	0.41911	0.42098	0.38909	+++++	0.48605					
	0.44832	+++++					AVRG		0.43271		8.42306
233 bis(p-Chlorophenyl)disulfide	+++++	0.19644	0.20913	0.18244	+++++	0.22594					
	0.20806	+++++					AVRG		0.20440		7.90920
234 Diphenyl disulfide	+++++	0.20078	0.21401	0.19911	+++++	0.24759					
	0.23595	+++++					AVRG		0.21949		9.81334
235 Diphenyl sulfide	+++++	0.77537	0.76082	0.73538	+++++	0.86393					
	0.82035	+++++					AVRG		0.79117		6.45415
236 Phenyl sulfone	+++++	0.43220	0.43102	0.40994	+++++	0.50304					
	0.47114	+++++					AVRG		0.44947		8.28032

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	100 Level 7	120 Level 8									
237 Hydroxymethyl phthalimide	+++++	0.14671	0.15531	0.12673	+++++	0.19818					
	0.17963	+++++					AVRG		0.16131		17.36813 <-
238 Phthalic acid	+++++	13646	40994	115933	+++++	343308					
	402020	+++++					LINR	0.25337	0.15547		0.99358
239 Thiophenol	+++++	41092	104698	327879	+++++	922601					
	1046955	+++++					LINR	0.23456	1.46946		0.99364
240 bis(Chloromethyl)ether	+++++	1.01755	1.00429	0.94829	+++++	1.10480					
	1.05711	+++++					AVRG		1.02641		5.71407
241 Octachlorostyrene	+++++	0.06097	0.06109	0.05953	+++++	0.07399					
	0.07072	+++++					AVRG		0.06526		10.12747
M 225 Trichlorophenols	+++++	0.27800	0.29958	0.28751	0.28920	0.28074					
	0.26883	0.26877					AVRG		0.28180		3.98593
M 226 Tetrachlorophenols	+++++	0.20640	0.23481	0.21862	0.21374	0.22201					
	0.21460	0.22254					AVRG		0.21896		4.07356
M 227 Benzo(b,k)fluoranthene	0.73667	0.86303	0.94898	0.91431	0.92802	0.89592					
	0.88671	0.88707					AVRG		0.88259		7.33906
M 228 TTO Sum Semivolatiles	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+00		0.000e+00 <-

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	100 Level 7	120 Level 8										
$ 3 2-Fluorophenol	+++++	0.98202	1.07204	1.02934	1.03017	0.98830						
	0.95348	0.95648					AVRG		1.00169		4.36295	
$ 5 Phenol-d5	+++++	1.23734	1.34586	1.27212	1.28456	1.26316						
	1.22407	1.22277					AVRG		1.26427		3.41674	
$ 187 2-Chlorophenol-d4	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
$ 188 1,2-Dichlorobenzene-d4	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
$ 20 Nitrobenzene-d5	+++++	0.30745	0.31426	0.29453	0.29315	0.27101						
	0.25359	0.24671					AVRG		0.28296		9.27927	
$ 39 2-Fluorobiphenyl	+++++	1.11512	1.14628	1.04977	1.05601	0.99136						
	0.92488	0.93239					AVRG		1.03083		8.29816	
$ 60 2,4,6-Tribromophenol	+++++	0.10485	0.11685	0.11180	0.11267	0.12310						
	0.12190	0.12607					AVRG		0.11675		6.41378	
$ 81 p-Terphenyl-d14	+++++	0.71309	0.69797	0.64349	0.66522	0.61764						
	0.59401	0.58404					AVRG		0.64507		7.73004	

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Curve	Formula	Units
Averaged	Amt = Rsp/ml	Response
Linear	Amt = b + Rsp/ml	Response
Wt Linear	Amt = b + Rsp/ml	Response

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD6.i Injection Date: 10-NOV-2009 20:29
Lab File ID: s6k0937.d Init. Cal. Date(s): 09-NOV-2009 11-NOV-2009
Analysis Type: Init. Cal. Times: 18:53 04:38
Lab Sample ID: WBN091106-09.1 Quant Type: ISTD
Method: /chem/MSD6.i/s110909.b/MSD6-M8270C-AQA-110909.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
$ 3 2-Fluorophenol	1.00169	1.03466	1.03466	0.000	3.29147	60.00000	Averaged
$ 5 Phenol-d5	1.26427	1.24245	1.24245	0.000	-1.72556	60.00000	Averaged
$ 20 Nitrobenzene-d5	0.28296	0.29902	0.29902	0.000	5.67523	60.00000	Averaged
$ 39 2-Fluorobiphenyl	1.03083	1.08174	1.08174	0.000	4.93820	60.00000	Averaged
$ 60 2,4,6-Tribromophenol	0.11675	0.12945	0.12945	0.000	10.88297	60.00000	Averaged
$ 81 p-Terphenyl-d14	0.64507	0.72359	0.72359	0.000	12.17316	60.00000	Averaged
1 N-Methyl-N-nitrosomethylami	0.68098	0.64081	0.64081	0.000	-5.89855	60.00000	Averaged
2 Pyridine	0.84757	0.77144	0.77144	0.000	-8.98267	60.00000	Averaged
4 Aniline	0.52752	0.51930	0.51930	0.000	-1.55765	60.00000	Averaged
6 Phenol	1.27120	1.23489	1.23489	0.001	-2.85632	20.00000	Averaged ccc
7 bis(2-Chloroethyl) ether	0.86081	0.80936	0.80936	0.000	-5.97614	60.00000	Averaged
8 2-Chlorophenol	1.02109	1.01772	1.01772	0.000	-0.32996	60.00000	Averaged
203 n-Decane	1.42254	1.44155	1.44155	0.000	1.33631	60.00000	Averaged
9 1,3-Dichlorobenzene	1.17550	1.19665	1.19665	0.000	1.79939	60.00000	Averaged
11 1,4-Dichlorobenzene	1.19162	1.18877	1.18877	0.001	-0.23932	20.00000	Averaged ccc
13 1,2-Dichlorobenzene	1.11231	1.12583	1.12583	0.000	1.21558	60.00000	Averaged
14 bis(2-Chloroisopropyl)ether	1.92182	1.94108	1.94108	0.000	1.00230	60.00000	Averaged
12 Benzyl alcohol	0.63436	0.65075	0.65075	0.000	2.58272	60.00000	Averaged
15 o-Cresol	0.83139	0.83798	0.83798	0.000	0.79318	60.00000	Averaged
18 m,p-Cresols	1.05346	1.05662	1.05662	0.000	0.29972	60.00000	Averaged
17 N-Nitrosodipropylamine	0.70865	0.69204	0.69204	0.050	-2.34415	60.00000	Averaged spcc
19 Hexachloroethane	0.46100	0.44650	0.44650	0.000	-3.14409	60.00000	Averaged
21 Nitrobenzene	0.28519	0.29957	0.29957	0.000	5.04113	60.00000	Averaged
22 Isophorone	0.50552	0.52435	0.52435	0.000	3.72478	60.00000	Averaged
23 2-Nitrophenol	0.13154	0.13639	0.13639	0.001	3.68222	20.00000	Averaged ccc
24 2,4-Dimethylphenol	0.21795	0.23088	0.23088	0.000	5.93159	60.00000	Averaged
25 bis(2-Chloroethoxy)methane	0.29749	0.30276	0.30276	0.000	1.77222	60.00000	Averaged
26 2,4-Dichlorophenol	0.19769	0.20590	0.20590	0.001	4.15386	20.00000	Averaged ccc
27 Benzoic acid	0.13453	0.14567	0.14567	0.000	8.28081	60.00000	Averaged
28 1,2,4-Trichlorobenzene	0.24261	0.24953	0.24953	0.000	2.85087	60.00000	Averaged
30 Naphthalene	0.79792	0.83170	0.83170	0.000	4.23406	60.00000	Averaged
204 alpha-Terpineol	0.21868	0.21801	0.21801	0.000	-0.30655	60.00000	Averaged
31 4-Chloroaniline	0.25646	0.26546	0.26546	0.000	3.51176	60.00000	Averaged
32 Hexachlorobutadiene	0.12634	0.13489	0.13489	0.001	6.77038	20.00000	Averaged ccc
33 4-Chloro-3-methylphenol	0.19957	0.20148	0.20148	0.001	0.96147	20.00000	Averaged ccc
34 2-Methylnaphthalene	0.48150	0.55976	0.55976	0.000	16.25394	60.00000	Averaged

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD6.i Injection Date: 10-NOV-2009 20:29
Lab File ID: s6k0937.d Init. Cal. Date(s): 09-NOV-2009 11-NOV-2009
Analysis Type: Init. Cal. Times: 18:53 04:38
Lab Sample ID: WBN091106-09.1 Quant Type: ISTD
Method: /chem/MSD6.i/s110909.b/MSD6-M8270C-AQA-110909.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
35 1-Methylnaphthalene	0.47100	0.53047	0.53047	0.000	12.62514	60.00000	Averaged
36 Hexachlorocyclopentadiene	0.16157	0.12441	0.12441	0.050	-22.99690	60.00000	Averaged spcc
205 2,3-Dichloroaniline	0.47908	0.48878	0.48878	0.000	2.02564	60.00000	Averaged
37 2,4,6-Trichlorophenol	0.27294	0.27425	0.27425	0.001	0.48093	20.00000	Averaged ccc
38 2,4,5-Trichlorophenol	0.29067	0.30912	0.30912	0.000	6.34737	60.00000	Averaged
40 2-Chloronaphthalene	0.89832	0.89821	0.89821	0.000	-0.01212	60.00000	Averaged
42 o-Nitroaniline	0.30732	0.29883	0.29883	0.000	-2.76487	60.00000	Averaged
41 m-Nitroaniline	0.22497	0.22544	0.22544	0.000	0.20968	60.00000	Averaged
43 Dimethylphthalate	1.02610	1.07233	1.07233	0.000	4.50566	60.00000	Averaged
44 2,6-Dinitrotoluene	0.24475	0.24571	0.24571	0.000	0.39287	60.00000	Averaged
50 2,4-Dinitrotoluene	0.30862	0.32387	0.32387	0.000	4.94261	60.00000	Averaged
45 Acenaphthylene	1.44438	1.60997	1.60997	0.000	11.46448	60.00000	Averaged
47 Acenaphthene	0.90151	0.96315	0.96315	0.001	6.83729	20.00000	Averaged ccc
48 2,4-Dinitrophenol	35.88405	40.00000	0.06990	0.050	-10.28987	60.00000	Linear spcc
49 Dibenzofuran	1.21689	1.24464	1.24464	0.000	2.28092	60.00000	Averaged
51 Diethylphthalate	1.03335	1.08103	1.08103	0.000	4.61479	60.00000	Averaged
52 4-Nitrophenol	37.16907	40.00000	0.15052	0.050	-7.07733	60.00000	Linear spcc
53 Fluorene	0.99879	1.09503	1.09503	0.000	9.63571	60.00000	Averaged
54 4-Chlorophenylphenylether	0.47192	0.49481	0.49481	0.000	4.84948	60.00000	Averaged
55 2-Methyl-4,6-dinitrophenol	44.79678	40.00000	0.10162	0.000	11.99194	60.00000	Linear
56 p-Nitroaniline	37.18126	40.00000	0.19210	0.000	-7.04684	60.00000	Linear
133 Diphenylamine	0.48213	0.48382	0.48382	0.001	0.34977	20.00000	Averaged ccc
58 1,2-Diphenylhydrazine	0.61327	0.61966	0.61966	0.000	1.04277	60.00000	Averaged
61 4-Bromophenylphenylether	0.15784	0.15705	0.15705	0.000	-0.50023	60.00000	Averaged
63 Hexachlorobenzene	0.16533	0.16268	0.16268	0.000	-1.60406	60.00000	Averaged
65 Pentachlorophenol	41.23337	40.00000	0.08933	0.001	3.08343	20.00000	Linear ccc
206 n-Octadecane	0.44173	0.45929	0.45929	0.000	3.97491	60.00000	Averaged
68 Phenanthrene	0.82721	0.88585	0.88585	0.000	7.08867	60.00000	Averaged
69 Anthracene	0.82682	0.90991	0.90991	0.000	10.04830	60.00000	Averaged
72 Di-n-butylphthalate	0.94954	1.02135	1.02135	0.000	7.56331	60.00000	Averaged
76 Fluoranthene	0.79242	0.90654	0.90654	0.001	14.40110	20.00000	Averaged ccc
79 Pyrene	1.10021	1.20816	1.20816	0.000	9.81213	60.00000	Averaged
85 Butylbenzylphthalate	0.50351	0.54090	0.54090	0.000	7.42706	60.00000	Averaged
89 Benzo(a)anthracene	0.86301	0.92157	0.92157	0.000	6.78546	60.00000	Averaged
92 Chrysene	0.82690	0.90169	0.90169	0.000	9.04505	60.00000	Averaged
93 bis(2-Ethylhexyl)phthalate	41.60196	40.00000	0.72185	0.000	4.00491	60.00000	Wt Linear

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD6.i Injection Date: 10-NOV-2009 20:29
Lab File ID: s6k0937.d Init. Cal. Date(s): 09-NOV-2009 11-NOV-2009
Analysis Type: Init. Cal. Times: 18:53 04:38
Lab Sample ID: WBN091106-09.1 Quant Type: ISTD
Method: /chem/MSD6.i/s110909.b/MSD6-M8270C-AQA-110909.m

	COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
	94 Di-n-octylphthalate	1.27127	1.35676	1.35676	0.001	6.72426	20.00000	Averaged	ccc
	95 Benzo(b)fluoranthene	0.88507	0.99154	0.99154	0.000	12.02912	60.00000	Averaged	
	96 Benzo(k)fluoranthene	0.88011	1.01364	1.01364	0.000	15.17242	60.00000	Averaged	
	97 Benzo(a)pyrene	0.76447	0.88080	0.88080	0.001	15.21790	20.00000	Averaged	ccc
	99 Indeno(1,2,3-cd)pyrene	40.05227	40.00000	0.72891	0.000	0.13069	60.00000	Linear	
	100 Dibenzo(a,h)anthracene	37.95723	40.00000	0.56106	0.000	-5.10692	60.00000	Linear	
	101 Benzo(ghi)perylene	0.58403	0.61594	0.61594	0.000	5.46367	60.00000	Averaged	
	126 m-Dinitrobenzene	0.16929	0.17081	0.17081	0.000	0.89311	60.00000	Averaged	
	130 2,3,4,6-Tetrachlorophenol	0.21896	0.23318	0.23318	0.000	6.49309	60.00000	Averaged	
	143 Dinoseb	37.88463	40.00000	0.11675	0.000	-5.28842	60.00000	Linear	
	173 Carbazole	0.65449	0.70032	0.70032	0.000	7.00193	60.00000	Averaged	
	184 p-Benzoquinone	0.12730	0.14364	0.14364	0.000	12.83157	60.00000	Averaged	
	192 Methoxychlor	0.55243	0.57593	0.57593	0.000	4.25434	60.00000	Averaged	
	211 p-Toluidine	0.89987	0.90823	0.90823	0.000	0.92871	60.00000	Averaged	
	210 m-Toluidine	1.12396	1.11262	1.11262	0.000	-1.00903	60.00000	Averaged	
	26 Phthalic anhydride	71.32284	40.00000	0.14710	0.000	78.30709	60.00000	Linear	<-
	179 Dibenzo(a,e)pyrene	23.04060	40.00000	0.15052	0.000	-42.39851	60.00000	Linear	
	214 1,4-Dinitrobenzene	0.18382	0.17485	0.17485	0.000	-4.87689	60.00000	Averaged	
	215 2-Ethoxyethanol	0.71035	0.75383	0.75383	0.000	6.12038	60.00000	Averaged	
	216 Methylenebis(2-chloroanilin	38.25405	40.00000	0.11920	0.000	-4.36487	60.00000	Linear	
M	225 Trichlorophenols	0.28180	0.29168	0.29168	0.000	3.50642	60.00000	Averaged	
M	226 Tetrachlorophenols	0.21896	0.23318	0.23318	0.000	6.49309	60.00000	Averaged	
M	227 Benzo(b,k)fluoranthene	0.88259	1.00259	1.00259	0.000	13.59635	60.00000	Averaged	

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Data file : /chem/MSD6.i/s110909.b/s6k0937.d
Lab Smp Id: WBN091106-09.1 Client Smp ID: MEGAICV
Inj Date : 10-NOV-2009 20:29
Operator : JMB3 Inst ID: MSD6.i
Smp Info : |WBN091106-09.1|40 PPM|1|SVMF|1|MEGAICV
Misc Info : |MSD8270|WBN091106-10
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s110909.b/MSD6-M8270C-AQA-110909.m
Meth Date : 11-Nov-2009 10:50 nat00999 Quant Type: ISTD
Cal Date : 11-NOV-2009 02:44 Cal File: s6k0950.d
Als bottle: 17 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: MEGA.sub
Target Version: 3.50
Processing Host: hpclp1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	4.834	4.834	(1.000)	267857	40.0000	
* 29 Naphthalene-d8	136	6.116	6.116	(1.000)	1007489	40.0000	
* 46 Acenaphthene-d10	164	7.986	7.986	(1.000)	511035	40.0000	
* 67 Phenanthrene-d10	188	9.599	9.599	(1.000)	891521	40.0000	
* 91 Chrysene-d12	240	12.618	12.618	(1.000)	688764	40.0000	
* 98 Perylene-d12	264	14.955	14.955	(1.000)	524055	40.0000	
$ 3 2-Fluorophenol	112	3.646	3.646	(0.754)	277141	40.0000	41.3
$ 5 Phenol-d5	99	4.431	4.431	(0.917)	332800	40.0000	39.3
$ 20 Nitrobenzene-d5	82	5.371	5.371	(0.878)	301256	40.0000	42.3
$ 39 2-Fluorobiphenyl	172	7.242	7.242	(0.907)	552805	40.0000	42.0
$ 60 2,4,6-Tribromophenol	329	8.834	8.834	(1.106)	66156	40.0000	44.4
$ 81 p-Terphenyl-d14	244	11.306	11.306	(0.896)	498384	40.0000	44.9
1 N-Methyl-N-nitrosomethylamine	74	2.663	2.663	(0.551)	171645	40.0000	37.6
2 Pyridine	79	2.701	2.701	(0.559)	206635	40.0000	36.4
4 Aniline	66	4.518	4.518	(0.935)	139099	40.0000	39.4
6 Phenol	94	4.444	4.444	(0.919)	330773	40.0000	38.8
7 bis(2-Chloroethyl) ether	63	4.559	4.559	(0.943)	216794	40.0000	37.6
8 2-Chlorophenol	128	4.633	4.633	(0.958)	272604	40.0000	39.9
203 n-Decane	43	4.643	4.643	(0.960)	386128	40.0000	40.5
9 1,3-Dichlorobenzene	146	4.783	4.783	(0.989)	320531	40.0000	40.7
11 1,4-Dichlorobenzene	146	4.852	4.852	(1.004)	318420	40.0000	39.9
13 1,2-Dichlorobenzene	146	5.002	5.002	(1.035)	301561	40.0000	40.5
14 bis(2-Chloroisopropyl)ether	45	5.068	5.068	(1.048)	519933	40.0000	40.4
12 Benzyl alcohol	108	4.941	4.941	(1.022)	174307	40.0000	41.0
15 o-Cresol	107	5.025	5.025	(1.040)	224459	40.0000	40.3
18 m,p-Cresols	107	5.180	5.180	(1.072)	283022	40.0000	40.1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
17 N-Nitrosodipropylamine	70	5.206	5.206	(1.077)	185368	40.0000	39.1
19 Hexachloroethane	117	5.338	5.338	(1.104)	119599	40.0000	38.7
21 Nitrobenzene	77	5.392	5.392	(0.882)	301811	40.0000	42.0
22 Isophorone	82	5.626	5.626	(0.920)	528272	40.0000	41.5
23 2-Nitrophenol	139	5.708	5.708	(0.933)	137410	40.0000	41.5
24 2,4-Dimethylphenol	122	5.718	5.718	(0.935)	232609	40.0000	42.4
25 bis(2-Chloroethoxy)methane	93	5.825	5.825	(0.952)	305032	40.0000	40.7
26 2,4-Dichlorophenol	162	5.950	5.950	(0.973)	207439	40.0000	41.7
27 Benzoic acid	105	5.812	5.812	(0.950)	146760	40.0000	43.3(H)
28 1,2,4-Trichlorobenzene	180	6.047	6.047	(0.989)	251400	40.0000	41.1
30 Naphthalene	128	6.138	6.138	(1.004)	837929	40.0000	41.7
204 alpha-Terpineol	59	6.123	6.123	(1.001)	219641	40.0000	39.9
31 4-Chloroaniline	127	6.172	6.172	(1.009)	267452	40.0000	41.4
32 Hexachlorobutadiene	225	6.251	6.251	(1.022)	135904	40.0000	42.7
33 4-Chloro-3-methylphenol	107	6.653	6.653	(1.088)	202993	40.0000	40.4
34 2-Methylnaphthalene	142	6.862	6.862	(1.122)	563953	40.0000	46.5
35 1-Methylnaphthalene	142	6.969	6.969	(1.140)	534441	40.0000	45.0
36 Hexachlorocyclopentadiene	237	7.020	7.020	(0.879)	63579	40.0000	30.8
205 2,3-Dichloroaniline	161	7.155	7.155	(0.896)	249785	40.0000	40.8
37 2,4,6-Trichlorophenol	196	7.147	7.147	(0.895)	140152	40.0000	40.2
38 2,4,5-Trichlorophenol	196	7.183	7.183	(0.899)	157970	40.0000	42.5
40 2-Chloronaphthalene	162	7.384	7.384	(0.925)	459019	40.0000	40.0
42 o-Nitroaniline	65	7.479	7.479	(0.936)	152711	40.0000	38.9
41 m-Nitroaniline	138	7.922	7.922	(0.992)	115209	40.0000	40.1
43 Dimethylphthalate	163	7.670	7.670	(0.960)	548000	40.0000	41.8
44 2,6-Dinitrotoluene	165	7.739	7.739	(0.969)	125566	40.0000	40.2
50 2,4-Dinitrotoluene	165	8.172	8.172	(1.023)	165511	40.0000	42.0
45 Acenaphthylene	152	7.835	7.835	(0.981)	822752	40.0000	44.6
47 Acenaphthene	154	8.024	8.024	(1.005)	492203	40.0000	42.7
48 2,4-Dinitrophenol	184	8.029	8.029	(1.005)	35722	40.0000	35.9
49 Dibenzofuran	168	8.205	8.205	(1.027)	636057	40.0000	40.9
51 Diethylphthalate	149	8.424	8.424	(1.055)	552446	40.0000	41.8
52 4-Nitrophenol	139	8.070	8.070	(1.011)	76920	40.0000	37.2
53 Fluorene	166	8.577	8.577	(1.074)	559601	40.0000	43.8
54 4-Chlorophenylphenylether	204	8.564	8.564	(1.072)	252864	40.0000	41.9
55 2-Methyl-4,6-dinitrophenol	198	8.613	8.613	(0.897)	90597	40.0000	44.8
56 p-Nitroaniline	138	8.582	8.582	(1.075)	98168	40.0000	37.2
133 Diphenylamine	169	8.689	8.689	(0.905)	431336	40.0000	40.1
58 1,2-Diphenylhydrazine	77	8.738	8.738	(0.910)	552443	40.0000	40.4
61 4-Bromophenylphenylether	248	9.094	9.094	(0.947)	140012	40.0000	39.8
63 Hexachlorobenzene	284	9.173	9.173	(0.956)	145031	40.0000	39.4
65 Pentachlorophenol	266	9.375	9.375	(0.977)	79644	40.0000	41.2
206 n-Octadecane	57	9.431	9.431	(0.982)	409467	40.0000	41.6
68 Phenanthrene	178	9.624	9.624	(1.003)	789756	40.0000	42.8
69 Anthracene	178	9.680	9.680	(1.008)	811200	40.0000	44.0
72 Di-n-butylphthalate	149	10.190	10.190	(1.062)	910557	40.0000	43.0
76 Fluoranthene	202	10.914	10.914	(1.137)	808196	40.0000	45.8

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
79 Pyrene	202	11.166	11.166	(0.885)	832137	40.0000	43.9
85 Butylbenzylphthalate	149	11.841	11.841	(0.938)	372553	40.0000	43.0
89 Benzo(a)anthracene	228	12.598	12.598	(0.998)	634741	40.0000	42.7
92 Chrysene	228	12.654	12.654	(1.003)	621053	40.0000	43.6
93 bis(2-Ethylhexyl)phthalate	149	12.570	12.570	(0.996)	497186	40.0000	41.6
94 Di-n-octylphthalate	149	13.561	13.561	(0.907)	711015	40.0000	42.7
95 Benzo(b)fluoranthene	252	14.275	14.275	(0.954)	519622	40.0000	44.8
96 Benzo(k)fluoranthene	252	14.326	14.326	(0.958)	531203	40.0000	46.1
97 Benzo(a)pyrene	252	14.853	14.853	(0.993)	461589	40.0000	46.1
99 Indeno(1,2,3-cd)pyrene	276	16.945	16.945	(1.133)	381990	40.0000	40.0
100 Dibenzo(a,h)anthracene	278	16.978	16.978	(1.135)	294025	40.0000	38.0
101 Benzo(ghi)perylene	276	17.460	17.460	(1.167)	322785	40.0000	42.2
126 m-Dinitrobenzene	168	7.708	7.708	(0.965)	87288	40.0000	40.4
130 2,3,4,6-Tetrachlorophenol	232	8.325	8.325	(1.042)	119161	40.0000	42.6
143 Dinoseb	211	9.561	9.561	(0.996)	104085	40.0000	37.9
173 Carbazole	167	9.841	9.841	(1.025)	624352	40.0000	42.8
184 p-Benzoquinone	54	4.085	4.085	(0.845)	38475	40.0000	45.1
192 Methoxychlor	227	12.468	12.468	(0.988)	396683	40.0000	41.7
211 p-Toluidine	106	5.252	5.252	(1.086)	243276	40.0000	40.4
210 m-Toluidine	106	5.285	5.285	(1.093)	298023	40.0000	39.6
26 Phthalic anhydride	104	6.911	6.911	(1.130)	148201	40.0000	71.3
179 Dibenzo(a,e)pyrene	302	21.182	21.182	(1.416)	78881	40.0000	23.0
214 1,4-Dinitrobenzene	75	7.624	7.624	(0.955)	89355	40.0000	38.0
215 2-Ethoxyethanol	59	2.454	2.454	(0.508)	201919	40.0000	42.4
216 Methylenebis(2-chloroaniline)	231	12.539	12.539	(0.994)	82098	40.0000	38.2
M 225 Trichlorophenols	196				298122	80.0000	82.8
M 226 Tetrachlorophenols	232				119161	40.0000	42.6
M 227 Benzo(b,k)fluoranthene	252				1050825	80.0000	90.9

QC Flag Legend

H - Operator selected an alternate compound hit.

Data File: /chem/MSD6.i/s110909.b/s6k0937.d
Date : 10-NOV-2009 20:29
Client ID: MEGAICV
Sample Info: WBN091106-09,1|40 PPM|1|SVMF1|MEGAICV
Column phase: J&W DB-5MS

Instrument: MSD6.i
Operator: JHB3
Column diameter: 0.20

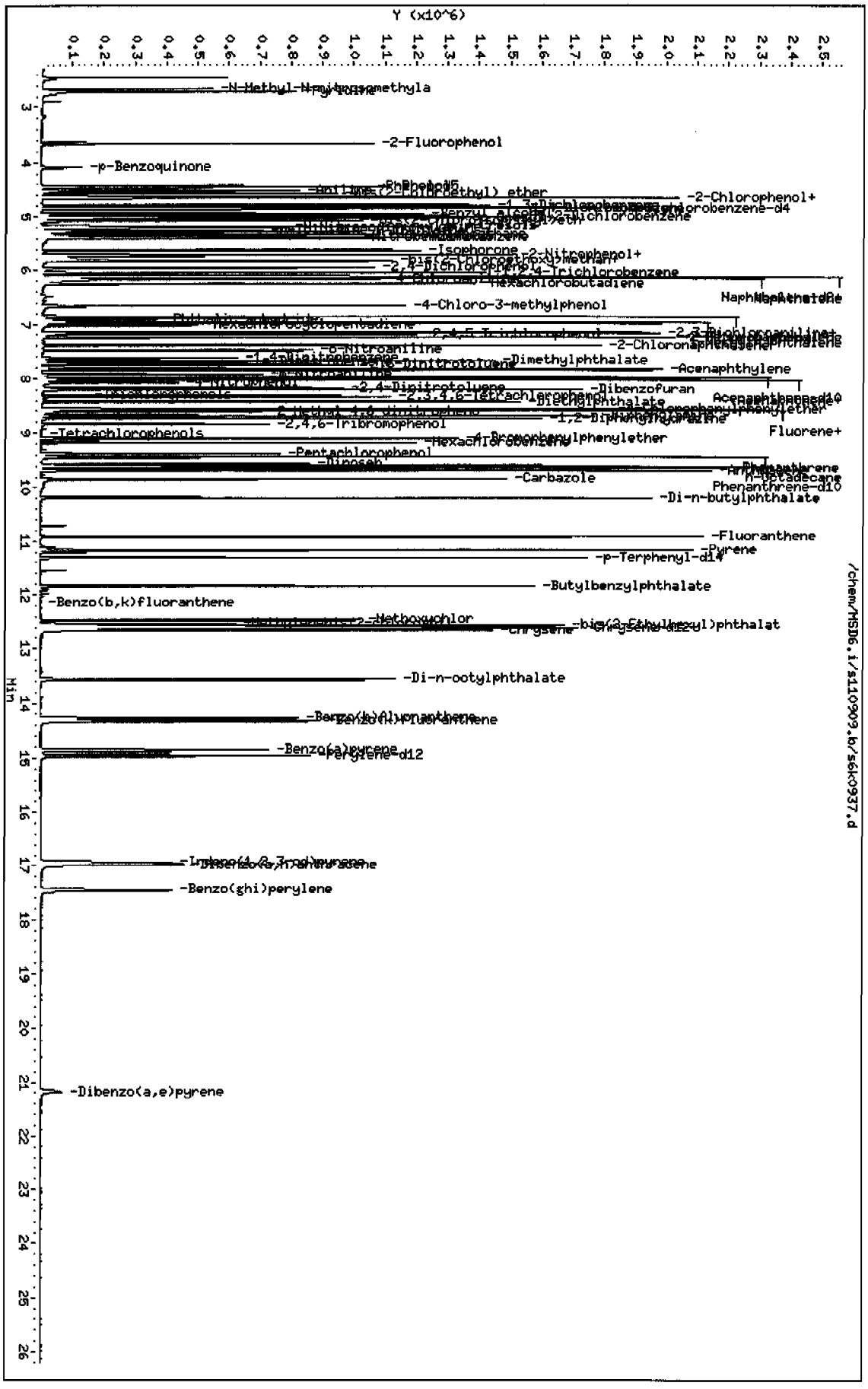

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD6.i Injection Date: 10-NOV-2009 21:07
Lab File ID: s6k0938.d Init. Cal. Date(s): 09-NOV-2009 11-NOV-2009
Analysis Type: Init. Cal. Times: 18:53 04:38
Lab Sample ID: WBN091016-08.1 Quant Type: ISTD
Method: /chem/MSD6.i/s110909.b/MSD6-M8270C-AQA-110909.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
209 Benzaldehyde	0.86127	0.67526	0.67526	0.000	-21.59733	60.00000	Averaged
16 Acetophenone	1.16908	1.08481	1.08481	0.000	-7.20809	60.00000	Averaged
189 Caprolactam	0.07388	0.08118	0.08118	0.000	9.87786	60.00000	Averaged
208 1,1'-Biphenyl	1.20131	1.15865	1.15865	0.000	-3.55099	60.00000	Averaged
207 Atrazine	0.04063	0.03738	0.03738	0.000	-8.01727	60.00000	Averaged
77 Benzidine	0.39304	0.35886	0.35886	0.000	-8.69608	60.00000	Averaged
90 3,3'-Dichlorobenzidine	0.28252	0.30132	0.30132	0.000	6.65684	60.00000	Averaged
102 1,4-Dioxane	0.36606	0.45837	0.45837	0.000	25.21672	60.00000	Averaged
103 Methyl methacrylate	0.19388	0.26059	0.26059	0.000	34.40927	60.00000	Averaged
104 Ethyl methacrylate	0.80561	0.97594	0.97594	0.000	21.14390	60.00000	Averaged
105 2-Picoline	1.30872	1.36092	1.36092	0.000	3.98846	60.00000	Averaged
106 N-Nitrosomethylethylamine	0.51104	0.53755	0.53755	0.000	5.18772	60.00000	Averaged
107 Methyl methanesulfonate	0.52852	0.52223	0.52223	0.000	-1.19058	60.00000	Averaged
108 N-Nitrosodiethylamine	0.49553	0.51026	0.51026	0.000	2.97098	60.00000	Averaged
109 Ethyl Methanesulfonate	0.65169	0.73760	0.73760	0.000	13.18337	60.00000	Averaged
110 Pentachloroethane	0.31681	0.42390	0.42390	0.000	33.80401	60.00000	Averaged
111 N-Nitrosopyrrolidine	0.47614	0.46325	0.46325	0.000	-2.70540	60.00000	Averaged
113 N-Nitrosomorpholine	0.67936	0.65676	0.65676	0.000	-3.32751	60.00000	Averaged
114 o-Toluidine	1.65281	1.64899	1.64899	0.000	-0.23102	60.00000	Averaged
115 N-Nitrosopiperidine	0.14105	0.14180	0.14180	0.000	0.52679	60.00000	Averaged
116 a,a-Dimethylphenethylamine	0.85546	0.87204	0.87204	0.000	1.93819	60.00000	Averaged
118 2,6-Dichlorophenol	0.20687	0.20008	0.20008	0.000	-3.28259	60.00000	Averaged
119 Hexachloropropene	0.10269	0.14537	0.14537	0.000	41.57055	60.00000	Averaged
120 p-Phenylenediamine	0.22955	0.23182	0.23182	0.000	0.99155	60.00000	Averaged
121 N-Nitrosodi-n-butylamine	0.21004	0.21749	0.21749	0.000	3.54470	60.00000	Averaged
122 Safrole	0.18653	0.20933	0.20933	0.000	12.22661	60.00000	Averaged
123 1,2,4,5-Tetrachlorobenzene	0.42319	0.42512	0.42512	0.000	0.45545	60.00000	Averaged
124 Isosafrole	0.33959	0.43257	0.43257	0.000	27.38086	60.00000	Averaged
125 1,4-Naphthoquinone	0.30674	0.30375	0.30375	0.000	-0.97466	60.00000	Averaged
127 Pentachlorobenzene	0.36454	0.36394	0.36394	0.000	-0.16566	60.00000	Averaged
128 1-Naphthylamine	0.90742	0.91190	0.91190	0.000	0.49410	60.00000	Averaged
129 2-Naphthylamine	0.98012	0.91865	0.91865	0.000	-6.27177	60.00000	Averaged
131 5-Nitro-o-toluidine	0.27901	0.28996	0.28996	0.000	3.92480	60.00000	Averaged
136 1,3,5-Trinitrobenzene	46.05690	40.00000	0.13757	0.000	15.14226	60.00000	Linear
137 Phenacetin	0.26240	0.25991	0.25991	0.000	-0.94903	60.00000	Averaged
138 Diallate	0.24056	0.23148	0.23148	0.000	-3.77545	60.00000	Averaged

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD6.i
Lab File ID: s6k0938.d
Analysis Type:
Lab Sample ID: WBN091016-08.1
Method: /chem/MSD6.i/s110909.b/MSD6-M8270C-AQA-110909.m

Injection Date: 10-NOV-2009 21:07
Init. Cal. Date(s): 09-NOV-2009 11-NOV-2009
Init. Cal. Times: 18:53 04:38
Quant Type: ISTD

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
140 4-Aminobiphenyl	0.53562	0.58994	0.58994	0.000	10.14239	60.00000	Averaged
141 Pentachloronitrobenzene	0.06192	0.06213	0.06213	0.000	0.34079	60.00000	Averaged
142 Pronamide	0.26319	0.26234	0.26234	0.000	-0.32101	60.00000	Averaged
146 4-Nitroquinoline-1-oxide	0.02349	0.02580	0.02580	0.000	9.82299	60.00000	Averaged
147 Methapyrilene	0.38600	0.39422	0.39422	0.000	2.12820	60.00000	Averaged
148 Isodrin	0.09631	0.08838	0.08838	0.000	-8.22821	60.00000	Averaged
149 Aramite	0.04420	0.04155	0.04155	0.000	-5.99495	60.00000	Averaged
150 Kepone	0.06173	0.05889	0.05889	0.000	-4.59530	60.00000	Averaged
151 p-(Dimethylamino)azobenzene	0.31734	0.33079	0.33079	0.000	4.23929	60.00000	Averaged
152 Chlorobenzilate	0.29130	0.29321	0.29321	0.000	0.65640	60.00000	Averaged
153 3,3'-Dimethylbenzidine	0.52763	0.57778	0.57778	0.000	9.50435	60.00000	Averaged
155 2-Acetylaminofluorene	41.44131	40.00000	0.34022	0.000	3.60328	60.00000	Linear
157 7,12Dimethylbenz(a)anthrace	0.47906	0.41447	0.41447	0.000	-13.48259	60.00000	Averaged
158 3-Methylcholanthrene	0.36955	0.35869	0.35869	0.000	-2.93887	60.00000	Averaged
212 Cis Diallate	0.25295	0.25705	0.25705	0.000	1.62146	60.00000	Averaged
213 Trans Diallate	0.28301	0.27233	0.27233	0.000	-3.77545	60.00000	Averaged

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Data file : /chem/MSD6.i/s110909.b/s6k0938.d
Lab Smp Id: WBN091016-08.1 Client Smp ID: AP12ICV
Inj Date : 10-NOV-2009 21:07
Operator : JMB3 Inst ID: MSD6.i
Smp Info : |WBN091016-08.1|40 PPM|1|SVMF|1|AP12ICV
Misc Info : |MSD8270|WBN091106-10
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s110909.b/MSD6-M8270C-AQA-110909.m
Meth Date : 11-Nov-2009 09:25 nat00999 Quant Type: ISTD
Cal Date : 11-NOV-2009 02:44 Cal File: s6k0950.d
Als bottle: 18 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AP12.sub
Target Version: 3.50
Processing Host: hpclp1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	4.834	4.834	(1.000)	282437	40.0000	
* 29 Naphthalene-d8	136	6.113	6.113	(1.000)	974498	40.0000	
* 46 Acenaphthene-d10	164	7.983	7.983	(1.000)	519475	40.0000	
* 67 Phenanthrene-d10	188	9.599	9.599	(1.000)	914999	40.0000	
* 91 Chrysene-d12	240	12.613	12.613	(1.000)	718441	40.0000	
* 98 Perylene-d12	264	14.950	14.950	(1.000)	524113	40.0000	
209 Benzaldehyde	77	4.428	4.428	(0.916)	190719	40.0000	31.4
16 Acetophenone	105	5.211	5.211	(1.078)	306390	40.0000	37.1
189 Caprolactam	113	6.531	6.531	(1.068)	79108	40.0000	44.0
208 1,1'-Biphenyl	154	7.354	7.354	(0.921)	601890	40.0000	38.6
207 Atrazine	173	9.249	9.249	(0.964)	34200	40.0000	36.8
77 Benzidine	184	11.038	11.038	(0.875)	257818	40.0000	36.5
90 3,3'-Dichlorobenzidine	252	12.539	12.539	(0.994)	216482	40.0000	42.7
102 1,4-Dioxane	88	2.456	2.456	(0.508)	129460	40.0000	50.1
103 Methyl methacrylate	100	2.454	2.454	(0.508)	73600	40.0000	53.8
104 Ethyl methacrylate	69	2.971	2.971	(0.615)	275642	40.0000	48.4
105 2-Picoline	93	3.228	3.228	(0.668)	384374	40.0000	41.6
106 N-Nitrosomethylethylamine	88	3.297	3.297	(0.682)	151823	40.0000	42.1
107 Methyl methanesulfonate	80	3.521	3.521	(0.728)	147497	40.0000	39.5
108 N-Nitrosodiethylamine	102	3.858	3.858	(0.798)	144115	40.0000	41.2
109 Ethyl Methanesulfonate	79	4.097	4.097	(0.848)	208326	40.0000	45.3
110 Pentachloroethane	167	4.574	4.574	(0.946)	119725	40.0000	53.5
111 N-Nitrosopyrrolidine	100	5.190	5.190	(1.074)	130840	40.0000	38.9(Q)
113 N-Nitrosomorpholine	56	5.223	5.223	(1.081)	185493	40.0000	38.7
114 o-Toluidine	106	5.249	5.249	(1.086)	465737	40.0000	39.9
115 N-Nitrosopiperidine	114	5.539	5.539	(0.906)	138180	40.0000	40.2

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
116 a,a-Dimethylphenethylamine	58	5.962	5.962	(0.975)	849798	40.0000	40.8
118 2,6-Dichlorophenol	162	6.184	6.184	(1.012)	194979	40.0000	38.7
119 Hexachloropropene	213	6.222	6.222	(1.018)	141665	40.0000	56.6
120 p-Phenylenediamine	108	6.541	6.541	(1.070)	225910	40.0000	40.4
121 N-Nitrosodi-n-butylamine	84	6.515	6.515	(1.066)	211942	40.0000	41.4(T)
122 Safrole	162	6.750	6.750	(1.104)	203993	40.0000	44.9
123 1,2,4,5-Tetrachlorobenzene	216	7.035	7.035	(0.881)	220840	40.0000	40.2
124 Isosafrole	162	7.305	7.305	(0.915)	224711	40.0000	51.0
125 1,4-Naphthoquinone	158	7.565	7.565	(0.948)	157789	40.0000	39.6
127 Pentachlorobenzene	250	8.156	8.156	(1.022)	189057	40.0000	39.9
128 1-Naphthylamine	143	8.284	8.284	(1.038)	473709	40.0000	40.2
129 2-Naphthylamine	143	8.368	8.368	(1.048)	477216	40.0000	37.5
131 5-Nitro-o-toluidine	152	8.574	8.574	(1.074)	150626	40.0000	41.6
136 1,3,5-Trinitrobenzene	75	8.946	8.946	(0.932)	125876	40.0000	46.0
137 Phenacetin	108	9.010	9.010	(0.939)	237813	40.0000	39.6(Q)
138 Diallate	86	8.990	8.990	(0.937)	211803	40.0000	38.5
140 4-Aminobiphenyl	169	9.374	9.374	(0.977)	539794	40.0000	44.0
141 Pentachloronitrobenzene	237	9.392	9.392	(0.978)	56852	40.0000	40.1(Q)
142 Pronamide	173	9.423	9.423	(0.982)	240044	40.0000	39.9
146 4-Nitroquinoline-1-oxide	101	10.445	10.445	(1.088)	23608	40.0000	43.9
147 Methapyrilene	58	10.518	10.518	(1.096)	360709	40.0000	40.8
148 Isodrin	193	10.750	10.750	(1.120)	80870	40.0000	36.7
149 Aramite	185	11.265	11.265	(1.174)	38019	40.0000	37.6
150 Kepone	272	11.933	11.933	(1.243)	53886	40.0000	38.2
151 p-(Dimethylamino)azobenzene	120	11.456	11.456	(0.908)	237654	40.0000	41.7
152 Chlorobenzilate	251	11.499	11.499	(0.912)	210653	40.0000	40.3
153 3,3'-Dimethylbenzidine	212	11.838	11.838	(0.939)	415103	40.0000	43.8
155 2-Acetylaminofluorene	181	12.154	12.154	(0.964)	244425	40.0000	41.4
157 7,12Dimethylbenz(a)anthracene	256	14.251	14.251	(0.953)	217229	40.0000	34.6
158 3-Methylcholanthrene	268	15.477	15.477	(1.035)	187994	40.0000	38.8(Q)
212 Cis Diallate	86	9.092	9.092	(0.947)	35280	6.00000	6.1
213 Trans Diallate	86	8.990	8.990	(0.937)	211803	34.0000	32.7

QC Flag Legend

T - Target compound detected outside RT window.
Q - Qualifier signal failed the ratio test.

Data File: /chem/MSD6.i/s110909.b/s6k0938.d
Date : 10-NOV-2009 21:07
Client ID: AP12ICV
Sample Info: WBN091016-08,1140 PPM11SVHF11AP12ICV
Column phase: J&W DB-5MS

Instrument: MSD6.i
Operator: JHB3
Column diameter: 0.20

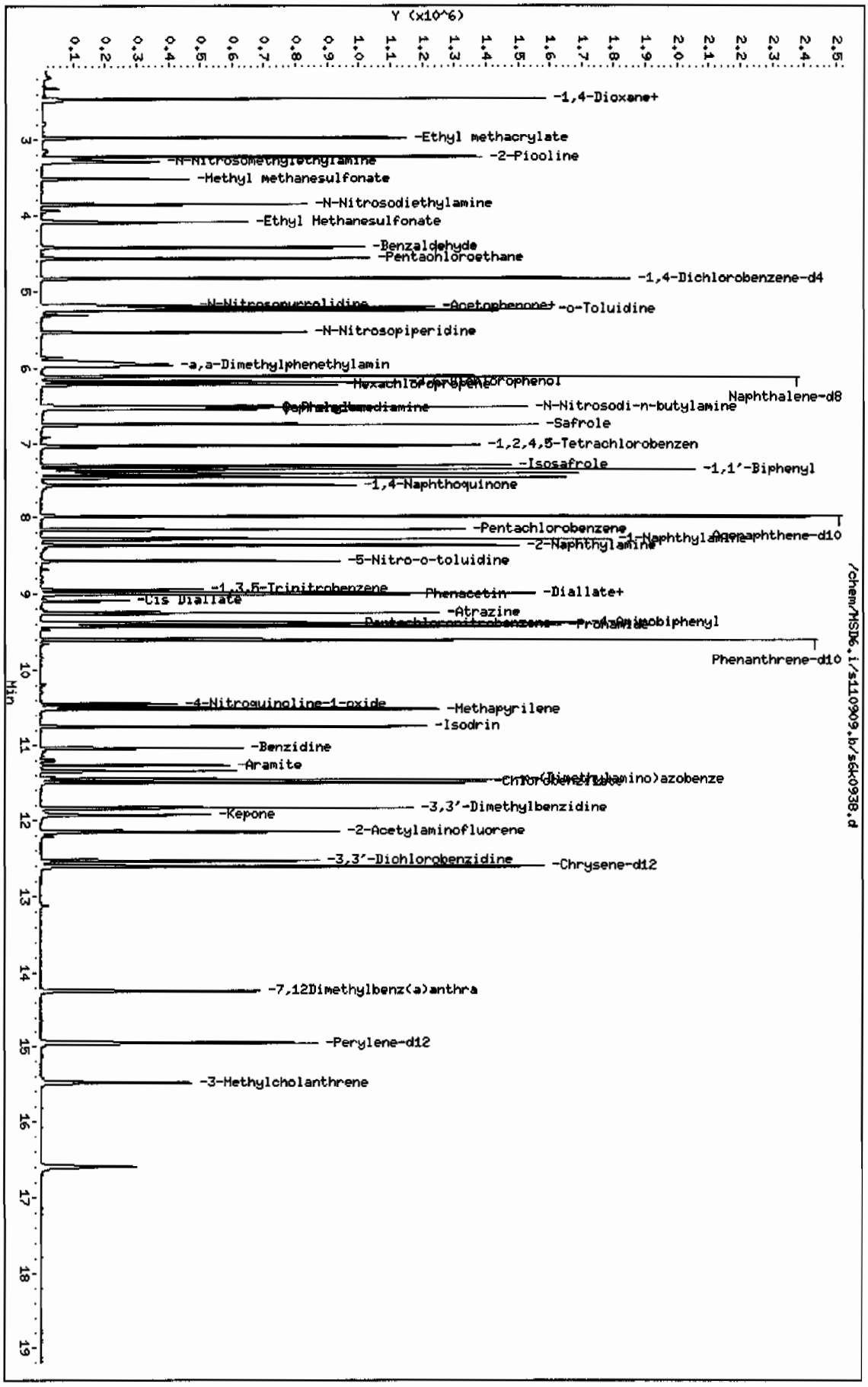

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD6.i Injection Date: 16-DEC-2009 14:18
Lab File ID: s611611.d Init. Cal. Date(s): 09-NOV-2009 11-NOV-2009
Analysis Type: WATER Init. Cal. Times: 18:53 04:38
Lab Sample ID: WBN091111-17.4 Quant Type: ISTD
Method: /chem/MSD6.i/s121609.b/MSD6-M8270C-AQA-110909.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
$ 3 2-Fluorophenol	1.00169	0.99383	0.99383	0.000	-0.78474	60.00000	Averaged
$ 5 Phenol-d5	1.26427	1.27179	1.27179	0.000	0.59511	60.00000	Averaged
$ 20 Nitrobenzene-d5	0.28296	0.28440	0.28440	0.000	0.50791	60.00000	Averaged
$ 39 2-Fluorobiphenyl	1.03083	1.07143	1.07143	0.000	3.93838	60.00000	Averaged
$ 60 2,4,6-Tribromophenol	0.11675	0.13188	0.13188	0.000	12.96090	60.00000	Averaged
$ 81 p-Terphenyl-d14	0.64507	0.70417	0.70417	0.000	9.16172	60.00000	Averaged
1 N-Methyl-N-nitrosomethylami	0.68098	0.62678	0.62678	0.000	-7.95869	60.00000	Averaged
2 Pyridine	0.84757	0.74535	0.74535	0.000	-12.06041	60.00000	Averaged
4 Aniline	0.52752	0.50228	0.50228	0.000	-4.78378	60.00000	Averaged
6 Phenol	1.27120	1.27161	1.27161	0.001	0.03272	20.00000	Averaged ccc
7 bis(2-Chloroethyl) ether	0.86081	0.78504	0.78504	0.000	-8.80158	60.00000	Averaged
8 2-Chlorophenol	1.02109	1.00553	1.00553	0.000	-1.52396	60.00000	Averaged
203 n-Decane	1.42254	1.19641	1.19641	0.000	-15.89621	60.00000	Averaged
9 1,3-Dichlorobenzene	1.17550	1.20399	1.20399	0.000	2.42360	60.00000	Averaged
11 1,4-Dichlorobenzene	1.19162	1.20297	1.20297	0.001	0.95238	20.00000	Averaged ccc
13 1,2-Dichlorobenzene	1.11231	1.13899	1.13899	0.000	2.39858	60.00000	Averaged
14 bis(2-Chloroisopropyl)ether	1.92182	1.82850	1.82850	0.000	-4.85585	60.00000	Averaged
12 Benzyl alcohol	0.63436	0.66385	0.66385	0.000	4.64855	60.00000	Averaged
15 o-Cresol	0.83139	0.83695	0.83695	0.000	0.66940	60.00000	Averaged
18 m,p-Cresols	1.05346	1.10132	1.10132	0.000	4.54301	60.00000	Averaged
17 N-Nitrosodipropylamine	0.70865	0.73103	0.73103	0.050	3.15790	60.00000	Averaged spcc
19 Hexachloroethane	0.46100	0.44040	0.44040	0.000	-4.46784	60.00000	Averaged
21 Nitrobenzene	0.28519	0.28894	0.28894	0.000	1.31336	60.00000	Averaged
22 Isophorone	0.50552	0.51771	0.51771	0.000	2.41251	60.00000	Averaged
23 2-Nitrophenol	0.13154	0.14019	0.14019	0.001	6.57497	20.00000	Averaged ccc
24 2,4-Dimethylphenol	0.21795	0.23988	0.23988	0.000	10.06300	60.00000	Averaged
25 bis(2-Chloroethoxy)methane	0.29749	0.30035	0.30035	0.000	0.96047	60.00000	Averaged
26 2,4-Dichlorophenol	0.19769	0.21227	0.21227	0.001	7.37910	20.00000	Averaged ccc
27 Benzoic acid	0.13453	0.17926	0.17926	0.000	33.24910	60.00000	Averaged
28 1,2,4-Trichlorobenzene	0.24261	0.24702	0.24702	0.000	1.81626	60.00000	Averaged
30 Naphthalene	0.79792	0.82601	0.82601	0.000	3.52090	60.00000	Averaged
204 alpha-Terpineol	0.21868	0.20547	0.20547	0.000	-6.03838	60.00000	Averaged
31 4-Chloroaniline	0.25646	0.26906	0.26906	0.000	4.91254	60.00000	Averaged
32 Hexachlorobutadiene	0.12634	0.12994	0.12994	0.001	2.85236	20.00000	Averaged ccc
33 4-Chloro-3-methylphenol	0.19957	0.20185	0.20185	0.001	1.14311	20.00000	Averaged ccc
34 2-Methylnaphthalene	0.48150	0.56492	0.56492	0.000	17.32452	60.00000	Averaged

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD6.i
Lab File ID: s611611.d
Analysis Type: WATER
Lab Sample ID: WBN091111-17.4
Method: /chem/MSD6.i/s121609.b/MSD6-M8270C-AQA-110909.m

Injection Date: 16-DEC-2009 14:18
Init. Cal. Date(s): 09-NOV-2009 11-NOV-2009
Init. Cal. Times: 18:53 04:38
Quant Type: ISTD

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
35 1-Methylnaphthalene	0.47100	0.54136	0.54136	0.000	14.93862	60.00000	Averaged	
36 Hexachlorocyclopentadiene	0.16157	0.11758	0.11758	0.050	-27.22798	60.00000	Averaged	spcc
205 2,3-Dichloroaniline	0.47908	0.48572	0.48572	0.000	1.38553	60.00000	Averaged	
37 2,4,6-Trichlorophenol	0.27294	0.27815	0.27815	0.001	1.90905	20.00000	Averaged	ccc
38 2,4,5-Trichlorophenol	0.29067	0.30694	0.30694	0.000	5.59814	60.00000	Averaged	
40 2-Chloronaphthalene	0.89832	0.90517	0.90517	0.000	0.76191	60.00000	Averaged	
42 o-Nitroaniline	0.30732	0.28055	0.28055	0.000	-8.71181	60.00000	Averaged	
41 m-Nitroaniline	0.22497	0.23011	0.23011	0.000	2.28581	60.00000	Averaged	
43 Dimethylphthalate	1.02610	1.06035	1.06035	0.000	3.33737	60.00000	Averaged	
44 2,6-Dinitrotoluene	0.24475	0.24919	0.24919	0.000	1.81632	60.00000	Averaged	
50 2,4-Dinitrotoluene	0.30862	0.31750	0.31750	0.000	2.87665	60.00000	Averaged	
45 Acenaphthylene	1.44438	1.63158	1.63158	0.000	12.96066	60.00000	Averaged	
47 Acenaphthene	0.90151	0.98114	0.98114	0.001	8.83322	20.00000	Averaged	ccc
48 2,4-Dinitrophenol	44.24466	40.00000	0.09723	0.050	10.61166	60.00000	Linear	spcc
49 Dibenzofuran	1.21689	1.24362	1.24362	0.000	2.19663	60.00000	Averaged	
51 Diethylphthalate	1.03335	1.08027	1.08027	0.000	4.54116	60.00000	Averaged	
52 4-Nitrophenol	41.90769	40.00000	0.17438	0.050	4.76924	60.00000	Linear	spcc
53 Fluorene	0.99879	1.12099	1.12099	0.000	12.23437	60.00000	Averaged	
54 4-Chlorophenylphenylether	0.47192	0.49797	0.49797	0.000	5.51874	60.00000	Averaged	
55 2-Methyl-4,6-dinitrophenol	52.18245	40.00000	0.12152	0.000	30.45612	60.00000	Linear	
56 p-Nitroaniline	38.97065	40.00000	0.20351	0.000	-2.57337	60.00000	Linear	
133 Diphenylamine	0.48213	0.49507	0.49507	0.001	2.68245	20.00000	Averaged	ccc
58 1,2-Diphenylhydrazine	0.61327	0.60577	0.60577	0.000	-1.22350	60.00000	Averaged	
61 4-Bromophenylphenylether	0.15784	0.16120	0.16120	0.000	2.13226	60.00000	Averaged	
63 Hexachlorobenzene	0.16533	0.16912	0.16912	0.000	2.29179	60.00000	Averaged	
65 Pentachlorophenol	41.01949	40.00000	0.08880	0.001	2.54873	20.00000	Linear	ccc
206 n-Octadecane	0.44173	0.43248	0.43248	0.000	-2.09463	60.00000	Averaged	
68 Phenanthrene	0.82721	0.89358	0.89358	0.000	8.02236	60.00000	Averaged	
69 Anthracene	0.82682	0.93056	0.93056	0.000	12.54639	60.00000	Averaged	
72 Di-n-butylphthalate	0.94954	1.05256	1.05256	0.000	10.85042	60.00000	Averaged	
76 Fluoranthene	0.79242	0.92392	0.92392	0.001	16.59515	20.00000	Averaged	ccc
79 Pyrene	1.10021	1.16971	1.16971	0.000	6.31716	60.00000	Averaged	
85 Butylbenzylphthalate	0.50351	0.54745	0.54745	0.000	8.72860	60.00000	Averaged	
89 Benzo(a)anthracene	0.86301	0.95056	0.95056	0.000	10.14528	60.00000	Averaged	
92 Chrysene	0.82690	0.92095	0.92095	0.000	11.37418	60.00000	Averaged	
93 bis(2-Ethylhexyl)phthalate	45.54644	40.00000	0.79097	0.000	13.86609	60.00000	Wt Linear	

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD6.i Injection Date: 16-DEC-2009 14:18
Lab File ID: s611611.d Init. Cal. Date(s): 09-NOV-2009 11-NOV-2009
Analysis Type: WATER Init. Cal. Times: 18:53 04:38
Lab Sample ID: WBN091111-17.4 Quant Type: ISTD
Method: /chem/MSD6.i/s121609.b/MSD6-M8270C-AQA-110909.m

	COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
	94 Di-n-octylphthalate	1.27127	1.40099	1.40099	0.001	10.20395	20.00000	Averaged	ccc
	95 Benzo(b)fluoranthene	0.88507	0.99141	0.99141	0.000	12.01479	60.00000	Averaged	
	96 Benzo(k)fluoranthene	0.88011	1.02279	1.02279	0.000	16.21184	60.00000	Averaged	
	97 Benzo(a)pyrene	0.76447	0.90445	0.90445	0.001	18.31071	20.00000	Averaged	ccc
	99 Indeno(1,2,3-cd)pyrene	44.53953	40.00000	0.81728	0.000	11.34883	60.00000	Linear	
	100 Dibenzo(a,h)anthracene	44.22786	40.00000	0.66086	0.000	10.56964	60.00000	Linear	
	101 Benzo(ghi)perylene	0.58403	0.69184	0.69184	0.000	18.46032	60.00000	Averaged	
	126 m-Dinitrobenzene	0.16929	0.17392	0.17392	0.000	2.73258	60.00000	Averaged	
	130 2,3,4,6-Tetrachlorophenol	0.21896	0.23026	0.23026	0.000	5.16146	60.00000	Averaged	
	143 Dinoseb	42.43059	40.00000	0.13350	0.000	6.07648	60.00000	Linear	
	173 Carbazole	0.65449	0.66231	0.66231	0.000	1.19442	60.00000	Averaged	
	184 p-Benzoquinone	0.12730	0.05012	0.05012	0.000	-60.62921	60.00000	Averaged	<-
	192 Methoxychlor	0.55243	0.49272	0.49272	0.000	-10.80878	60.00000	Averaged	
	211 p-Toluidine	0.89987	0.95511	0.95511	0.000	6.13856	60.00000	Averaged	
	210 m-Toluidine	1.12396	1.14096	1.14096	0.000	1.51251	60.00000	Averaged	
	26 Phthalic anhydride	52.55150	40.00000	0.10484	0.000	31.37875	60.00000	Linear	
	214 1,4-Dinitrobenzene	0.18382	0.17843	0.17843	0.000	-2.93150	60.00000	Averaged	
	215 2-Ethoxyethanol	0.71035	0.59017	0.59017	0.000	-16.91888	60.00000	Averaged	
	216 Methylenebis(2-chloroanilin	41.77903	40.00000	0.13208	0.000	4.44758	60.00000	Linear	
M	225 Trichlorophenols	0.28180	0.29254	0.29254	0.000	3.81162	60.00000	Averaged	
M	226 Tetrachlorophenols	0.21896	0.23026	0.23026	0.000	5.16146	60.00000	Averaged	
M	227 Benzo(b,k)fluoranthene	0.88259	1.00710	1.00710	0.000	14.10741	60.00000	Averaged	

GEL Laboratories LLC

Data file : /chem/MSD6.i/s121609.b/s611611.d
Lab Smp Id: WBN091111-17.4 Client Smp ID: MEGACVS
Inj Date : 16-DEC-2009 14:18
Operator : nag1 Inst ID: MSD6.i
Smp Info : |WBN091111-17.4|CVS|1|SVMF|1|MEGACVS
Misc Info : |MSD8270|WBN091208-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s121609.b/MSD6-M8270C-AQA-110909.m
Meth Date : 17-Dec-2009 08:11 nat00999 Quant Type: ISTD
Cal Date : 11-NOV-2009 04:38 Cal File: s6k0954.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: MEGA.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vo *Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vo	1000.00000	volume of sample ext
Vi	0.50000	volume injected

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	4.849	4.849	(1.000)	209214	40.0000	
* 29 Naphthalene-d8	136	6.131	6.131	(1.000)	828674	40.0000	
* 46 Acenaphthene-d10	164	8.001	8.001	(1.000)	435590	40.0000	
* 67 Phenanthrene-d10	188	9.611	9.611	(1.000)	744475	40.0000	
* 91 Chrysene-d12	240	12.633	12.633	(1.000)	599948	40.0000	
* 98 Perylene-d12	264	14.973	14.973	(1.000)	527608	40.0000	
$ 3 2-Fluorophenol	112	3.674	3.674	(0.758)	207923	40.0000	39.7
$ 5 Phenol-d5	99	4.457	4.457	(0.919)	266077	40.0000	40.2
$ 20 Nitrobenzene-d5	82	5.389	5.389	(0.879)	235671	40.0000	40.2
$ 39 2-Fluorobiphenyl	172	7.254	7.254	(0.907)	466704	40.0000	41.6
$ 60 2,4,6-Tribromophenol	329	8.850	8.850	(1.106)	57446	40.0000	45.2
$ 81 p-Terphenyl-d14	244	11.316	11.316	(0.896)	422463	40.0000	43.7
1 N-Methyl-N-nitrosomethylamine	74	2.701	2.701	(0.557)	131131	40.0000	36.8

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
2 Pyridine	79	2.737	2.737	(0.564)	155938	40.0000	35.2
4 Aniline	66	4.538	4.538	(0.936)	105085	40.0000	38.1
6 Phenol	94	4.469	4.469	(0.922)	266039	40.0000	40.0
7 bis(2-Chloroethyl) ether	63	4.574	4.574	(0.943)	164242	40.0000	36.5
8 2-Chlorophenol	128	4.650	4.650	(0.959)	210371	40.0000	39.4
203 n-Decane	43	4.655	4.655	(0.960)	250305	40.0000	33.6
9 1,3-Dichlorobenzene	146	4.798	4.798	(0.989)	251891	40.0000	41.0
11 1,4-Dichlorobenzene	146	4.867	4.867	(1.004)	251678	40.0000	40.4
13 1,2-Dichlorobenzene	146	5.017	5.017	(1.035)	238292	40.0000	41.0
14 bis(2-Chloroisopropyl)ether	45	5.083	5.083	(1.048)	382548	40.0000	38.0
12 Benzyl alcohol	108	4.961	4.961	(1.023)	138887	40.0000	41.8
15 o-Cresol	107	5.045	5.045	(1.040)	175102	40.0000	40.3
18 m,p-Cresols	107	5.203	5.203	(1.073)	230411	40.0000	41.8
17 N-Nitrosodipropylamine	70	5.226	5.226	(1.078)	152942	40.0000	41.3
19 Hexachloroethane	117	5.348	5.348	(1.103)	92138	40.0000	38.2
21 Nitrobenzene	77	5.410	5.410	(0.882)	239434	40.0000	40.5
22 Isophorone	82	5.644	5.644	(0.921)	429014	40.0000	41.0
23 2-Nitrophenol	139	5.726	5.726	(0.934)	116175	40.0000	42.6
24 2,4-Dimethylphenol	122	5.736	5.736	(0.936)	198786	40.0000	44.0
25 bis(2-Chloroethoxy)methane	93	5.840	5.840	(0.953)	248892	40.0000	40.4
26 2,4-Dichlorophenol	162	5.968	5.968	(0.973)	175905	40.0000	43.0
27 Benzoic acid	105	5.850	5.850	(0.954)	148547	40.0000	53.3
28 1,2,4-Trichlorobenzene	180	6.062	6.062	(0.989)	204700	40.0000	40.7
30 Naphthalene	128	6.154	6.154	(1.004)	684493	40.0000	41.4
204 alpha-Terpineol	59	6.138	6.138	(1.001)	170271	40.0000	37.6
31 4-Chloroaniline	127	6.189	6.189	(1.010)	222960	40.0000	42.0
32 Hexachlorobutadiene	225	6.261	6.261	(1.021)	107681	40.0000	41.1
33 4-Chloro-3-methylphenol	107	6.676	6.676	(1.089)	167265	40.0000	40.4
34 2-Methylnaphthalene	142	6.875	6.875	(1.121)	468131	40.0000	46.9
35 1-Methylnaphthalene	142	6.984	6.984	(1.139)	448615	40.0000	46.0
36 Hexachlorocyclopentadiene	237	7.033	7.033	(0.879)	51215	40.0000	29.1
205 2,3-Dichloroaniline	161	7.170	7.170	(0.896)	211573	40.0000	40.6
37 2,4,6-Trichlorophenol	196	7.165	7.165	(0.896)	121159	40.0000	40.8
38 2,4,5-Trichlorophenol	196	7.203	7.203	(0.900)	133700	40.0000	42.2
40 2-Chloronaphthalene	162	7.400	7.400	(0.925)	394282	40.0000	40.3
42 o-Nitroaniline	65	7.499	7.499	(0.937)	122205	40.0000	36.5
41 m-Nitroaniline	138	7.942	7.942	(0.993)	100235	40.0000	40.9
43 Dimethylphthalate	163	7.685	7.685	(0.960)	461876	40.0000	41.3
44 2,6-Dinitrotoluene	165	7.756	7.756	(0.969)	108546	40.0000	40.7
50 2,4-Dinitrotoluene	165	8.192	8.192	(1.024)	138299	40.0000	41.2
45 Acenaphthylene	152	7.851	7.851	(0.981)	710701	40.0000	45.2
47 Acenaphthene	154	8.037	8.037	(1.004)	427376	40.0000	43.5
48 2,4-Dinitrophenol	184	8.052	8.052	(1.006)	42354	40.0000	44.2
49 Dibenzofuran	168	8.220	8.220	(1.027)	541708	40.0000	40.9
51 Diethylphthalate	149	8.437	8.437	(1.054)	470556	40.0000	41.8
52 4-Nitrophenol	139	8.103	8.103	(1.013)	75960	40.0000	41.9
53 Fluorene	166	8.592	8.592	(1.074)	488292	40.0000	44.9

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
54 4-Chlorophenylphenylether	204	8.574	8.574	(1.072)	216909	40.0000	42.2
55 2-Methyl-4,6-dinitrophenol	198	8.633	8.633	(0.898)	90472	40.0000	52.2
56 p-Nitroaniline	138	8.605	8.605	(1.075)	88647	40.0000	39.0
133 Diphenylamine	169	8.702	8.702	(0.905)	368565	40.0000	41.1
58 1,2-Diphenylhydrazine	77	8.750	8.750	(0.910)	450977	40.0000	39.5
61 4-Bromophenylphenylether	248	9.107	9.107	(0.948)	120012	40.0000	40.8
63 Hexachlorobenzene	284	9.183	9.183	(0.955)	125905	40.0000	40.9
65 Pentachlorophenol	266	9.390	9.390	(0.977)	66111	40.0000	41.0
206 n-Octadecane	57	9.436	9.436	(0.982)	321970	40.0000	39.2
68 Phenanthrene	178	9.637	9.637	(1.003)	665245	40.0000	43.2
69 Anthracene	178	9.693	9.693	(1.008)	692779	40.0000	45.0
72 Di-n-butylphthalate	149	10.197	10.197	(1.061)	783608	40.0000	44.3
76 Fluoranthene	202	10.926	10.926	(1.137)	687837	40.0000	46.6
79 Pyrene	202	11.176	11.176	(0.885)	701764	40.0000	42.5
85 Butylbenzylphthalate	149	11.849	11.849	(0.938)	328444	40.0000	43.5
89 Benzo(a)anthracene	228	12.613	12.613	(0.998)	570287	40.0000	44.0
92 Chrysene	228	12.669	12.669	(1.003)	552523	40.0000	44.5
93 bis(2-Ethylhexyl)phthalate	149	12.575	12.575	(0.995)	474542	40.0000	45.5
94 Di-n-octylphthalate	149	13.564	13.564	(0.906)	739175	40.0000	44.1
95 Benzo(b)fluoranthene	252	14.295	14.295	(0.955)	523078	40.0000	44.8
96 Benzo(k)fluoranthene	252	14.343	14.343	(0.958)	539631	40.0000	46.5
97 Benzo(a)pyrene	252	14.871	14.871	(0.993)	477193	40.0000	47.3
99 Indeno(1,2,3-cd)pyrene	276	16.963	16.963	(1.133)	431201	40.0000	44.5
100 Dibenzo(a,h)anthracene	278	16.993	16.993	(1.135)	348677	40.0000	44.2
101 Benzo(ghi)perylene	276	17.480	17.480	(1.167)	365021	40.0000	47.4(Q)
126 m-Dinitrobenzene	168	7.728	7.728	(0.966)	75758	40.0000	41.1
130 2,3,4,6-Tetrachlorophenol	232	8.342	8.342	(1.043)	100299	40.0000	42.1
143 Dinoseb	211	9.573	9.573	(0.996)	99385	40.0000	42.4
173 Carbazole	167	9.856	9.856	(1.025)	493075	40.0000	40.5
184 p-Benzoquinone	54	4.107	4.107	(0.847)	10486	40.0000	15.7
192 Methoxychlor	227	12.478	12.478	(0.988)	295607	40.0000	35.7
211 p-Toluidine	106	5.269	5.269	(1.087)	199823	40.0000	42.4
210 m-Toluidine	106	5.303	5.303	(1.094)	238705	40.0000	40.6
26 Phthalic anhydride	104	6.933	6.933	(1.131)	86882	40.0000	52.6
214 1,4-Dinitrobenzene	75	7.647	7.647	(0.956)	77721	40.0000	38.8
215 2-Ethoxyethanol	59	2.487	2.487	(0.513)	123472	40.0000	33.2
216 Methylenebis(2-chloroaniline)	231	12.554	12.554	(0.994)	79240	40.0000	41.8(Q)
M 225 Trichlorophenols	196				254859	80.0000	83.0
M 226 Tetrachlorophenols	232				100299	40.0000	42.1
M 227 Benzo(b,k)fluoranthene	252				1062709	80.0000	91.3

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: /chem/MSD6.i/s121609.b/s611611.d
Date : 16-DEC-2009 14:18
Client ID: MEGACVS
Sample Info: IWBN091111-17,4ICVSI1ISVMFI1HEGACVS
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD6.i
Operator: nagl
Column diameter: 0.20

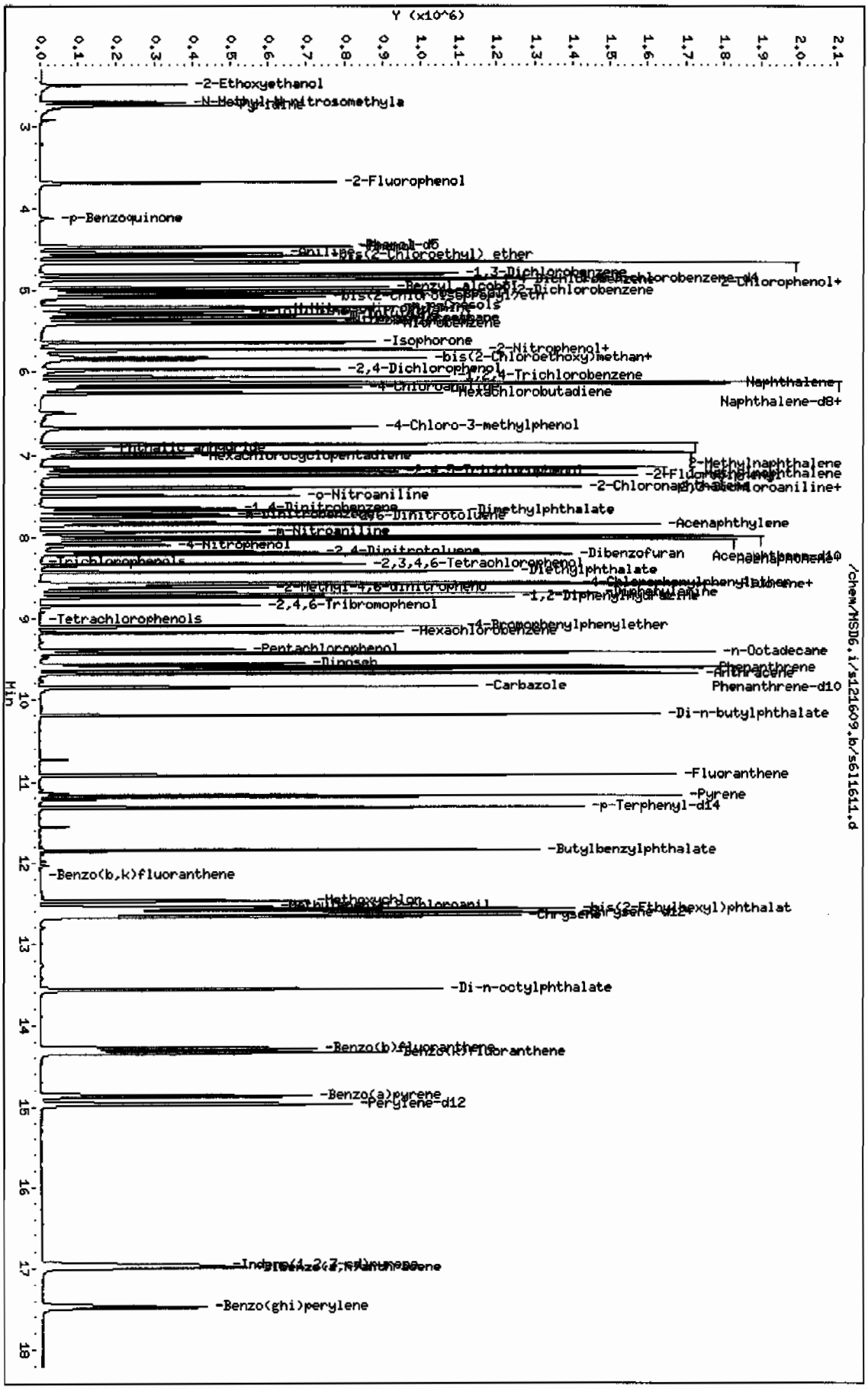

Page 1

Data File: /chem/MSD6.i/s121609.b/s611612.d
Report Date: 17-Dec-2009 08:10

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD6.i
Lab File ID: s611612.d
Analysis Type: WATER
Lab Sample ID: WBN091201-03.5 Quant Type: ISTD
Method: /chem/MSD6.i/s121609.b/MSD6-M8270C-AQA-110909.m

Injection Date: 16-DEC-2009 14:46
Init. Cal. Date(s): 09-NOV-2009 11-NOV-2009
Init. Cal. Times: 18:53 04:38

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
209 Benzaldehyde	0.86127	0.89433	0.89433	0.000	3.83819	60.00000	Averaged
16 Acetophenone	1.16908	1.20934	1.20934	0.000	3.44420	60.00000	Averaged
189 Caprolactam	0.07388	0.08702	0.08702	0.000	17.78166	60.00000	Averaged
208 1,1'-Biphenyl	1.20131	1.18926	1.18926	0.000	-1.00269	60.00000	Averaged
207 Atrazine	0.04063	0.04262	0.04262	0.000	4.89142	60.00000	Averaged
77 Benzidine	0.39304	0.31459	0.31459	0.000	-19.95903	60.00000	Averaged
90 3,3'-Dichlorobenzidine	0.28252	0.29864	0.29864	0.000	5.70779	60.00000	Averaged
102 1,4-Dioxane	0.36606	0.30348	0.30348	0.000	-17.09632	60.00000	Averaged
103 Methyl methacrylate	0.19388	0.16111	0.16111	0.000	-16.90047	60.00000	Averaged
104 Ethyl methacrylate	0.80561	0.76511	0.76511	0.000	-5.02691	60.00000	Averaged
105 2-Picoline	1.30872	1.28600	1.28600	0.000	-1.73593	60.00000	Averaged
106 N-Nitrosomethylethylamine	0.51104	0.49714	0.49714	0.000	-2.71936	60.00000	Averaged
107 Methyl methanesulfonate	0.52852	0.50298	0.50298	0.000	-4.83357	60.00000	Averaged
108 N-Nitrosodiethylamine	0.49553	0.48965	0.48965	0.000	-1.18636	60.00000	Averaged
109 Ethyl Methanesulfonate	0.65169	0.64864	0.64864	0.000	-0.46754	60.00000	Averaged
110 Pentachloroethane	0.31681	0.32035	0.32035	0.000	1.11932	60.00000	Averaged
111 N-Nitrosopyrrolidine	0.47614	0.52670	0.52670	0.000	10.61979	60.00000	Averaged
113 N-Nitrosomorpholine	0.67936	0.65595	0.65595	0.000	-3.44649	60.00000	Averaged
114 o-Toluidine	1.65281	1.70381	1.70381	0.000	3.08559	60.00000	Averaged
115 N-Nitrosopiperidine	0.14105	0.14355	0.14355	0.000	1.77059	60.00000	Averaged
116 a,a-Dimethylphenethylamine	0.85546	0.81197	0.81197	0.000	-5.08299	60.00000	Averaged
118 2,6-Dichlorophenol	0.20687	0.22230	0.22230	0.000	7.45815	60.00000	Averaged
119 Hexachloropropene	0.10269	0.09458	0.09458	0.000	-7.89586	60.00000	Averaged
120 p-Phenylenediamine	0.22955	0.23919	0.23919	0.000	4.20076	60.00000	Averaged
121 N-Nitrosodi-n-butylamine	0.21004	0.20880	0.20880	0.000	-0.59269	60.00000	Averaged
122 Safrole	0.18653	0.19390	0.19390	0.000	3.95271	60.00000	Averaged
123 1,2,4,5-Tetrachlorobenzene	0.42319	0.41604	0.41604	0.000	-1.68968	60.00000	Averaged
124 Isosafrole	0.33959	0.34019	0.34019	0.000	0.17555	60.00000	Averaged
125 1,4-Naphthoquinone	0.30674	0.33933	0.33933	0.000	10.62648	60.00000	Averaged
127 Pentachlorobenzene	0.36454	0.37434	0.37434	0.000	2.68650	60.00000	Averaged
128 1-Naphthylamine	0.90742	0.95277	0.95277	0.000	4.99866	60.00000	Averaged
129 2-Naphthylamine	0.98012	1.04054	1.04054	0.000	6.16436	60.00000	Averaged
131 5-Nitro-o-toluidine	0.27901	0.30162	0.30162	0.000	8.10290	60.00000	Averaged
136 1,3,5-Trinitrobenzene	41.92332	40.00000	0.12416	0.000	4.80831	60.00000	Linear
137 Phenacetin	0.26240	0.27085	0.27085	0.000	3.22108	60.00000	Averaged
138 Diallate	0.24056	0.23725	0.23725	0.000	-1.37609	60.00000	Averaged

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD6.i Injection Date: 16-DEC-2009 14:46
Lab File ID: s611612.d Init. Cal. Date(s): 09-NOV-2009 11-NOV-2009
Analysis Type: WATER Init. Cal. Times: 18:53 04:38
Lab Sample ID: WBN091201-03.5 Quant Type: ISTD
Method: /chem/MSD6.i/s121609.b/MSD6-M8270C-AQA-110909.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
140 4-Aminobiphenyl	0.53562	0.52632	0.52632	0.000	-1.73602	60.00000	Averaged
141 Pentachloronitrobenzene	0.06192	0.06268	0.06268	0.000	1.21547	60.00000	Averaged
142 Pronamide	0.26319	0.26537	0.26537	0.000	0.82951	60.00000	Averaged
146 4-Nitroquinoline-1-oxide	0.02349	0.02648	0.02648	0.000	12.72728	60.00000	Averaged
147 Methapyrilene	0.38600	0.41378	0.41378	0.000	7.19639	60.00000	Averaged
148 Isodrin	0.09631	0.10285	0.10285	0.000	6.79289	60.00000	Averaged
149 Aramite	0.04420	0.04833	0.04833	0.000	9.33169	60.00000	Averaged
150 Kepone	0.06173	0.07299	0.07299	0.000	18.24238	60.00000	Averaged
151 p-(Dimethylamino)azobenzene	0.31734	0.30077	0.30077	0.000	-5.22199	60.00000	Averaged
152 Chlorobenzilate	0.29130	0.27011	0.27011	0.000	-7.27354	60.00000	Averaged
153 3,3'-Dimethylbenzidine	0.52763	0.46893	0.46893	0.000	-11.12535	60.00000	Averaged
155 2-Acetylaminofluorene	43.62004	40.00000	0.36054	0.000	9.05009	60.00000	Linear
157 7,12Dimethylbenz(a)anthrace	0.47906	0.45602	0.45602	0.000	-4.80852	60.00000	Averaged
158 3-Methylcholanthrene	0.36955	0.40849	0.40849	0.000	10.53626	60.00000	Averaged
212 Cis Diallate	0.25295	0.23891	0.23891	0.000	-5.54879	60.00000	Averaged
213 Trans Diallate	0.28301	0.27912	0.27912	0.000	-1.37609	60.00000	Averaged

GEL Laboratories LLC

Data file : /chem/MSD6.i/s121609.b/s611612.d
Lab Smp Id: WBN091201-03.5 Client Smp ID: AP12CVS
Inj Date : 16-DEC-2009 14:46
Operator : nagl Inst ID: MSD6.i
Smp Info : |WBN091201-03.5|CVS|1|SVMF|1|AP12CVS
Misc Info : |MSD8270|WBN091208-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s121609.b/MSD6-M8270C-AQA-110909.m
Meth Date : 17-Dec-2009 08:10 nat00999 Quant Type: ISTD
Cal Date : 11-NOV-2009 04:38 Cal File: s6k0954.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AP12.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vo *Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vo	1000.00000	volume of sample ext
Vi	0.50000	volume injected

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	4.849	4.849	(1.000)	183991	40.0000	
* 29 Naphthalene-d8	136	6.128	6.128	(1.000)	690217	40.0000	
* 46 Acenaphthene-d10	164	7.999	7.999	(1.000)	389642	40.0000	
* 67 Phenanthrene-d10	188	9.612	9.612	(1.000)	696322	40.0000	
* 91 Chrysene-d12	240	12.626	12.626	(1.000)	639146	40.0000	
* 98 Perylene-d12	264	14.970	14.970	(1.000)	580165	40.0000	
209 Benzaldehyde	77	4.449	4.449	(0.918)	164549	40.0000	41.5
16 Acetophenone	105	5.229	5.229	(1.078)	222508	40.0000	41.4
189 Caprolactam	113	6.551	6.551	(1.069)	60061	40.0000	47.1
208 1,1'-Biphenyl	154	7.367	7.367	(0.921)	463387	40.0000	39.6
207 Atrazine	173	9.268	9.268	(0.964)	29679	40.0000	42.0
77 Benzidine	184	11.051	11.051	(0.875)	201069	40.0000	32.0
90 3,3'-Dichlorobenzidine	252	12.552	12.552	(0.994)	190875	40.0000	42.3

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
102 1,4-Dioxane	88	2.490	2.490	(0.513)	55837	40.0000	33.2
103 Methyl methacrylate	100	2.484	2.484	(0.512)	29643	40.0000	33.2
104 Ethyl methacrylate	69	2.994	2.994	(0.617)	140773	40.0000	38.0
105 2-Picoline	93	3.257	3.257	(0.672)	236613	40.0000	39.3
106 N-Nitrosomethylethylamine	88	3.325	3.325	(0.686)	91469	40.0000	38.9
107 Methyl methanesulfonate	80	3.552	3.552	(0.733)	92543	40.0000	38.1
108 N-Nitrosodiethylamine	102	3.883	3.883	(0.801)	90092	40.0000	39.5
109 Ethyl Methanesulfonate	79	4.120	4.120	(0.850)	119344	40.0000	39.8
110 Pentachloroethane	167	4.592	4.592	(0.947)	58942	40.0000	40.4
111 N-Nitrosopyrrolidine	100	5.211	5.211	(1.075)	96908	40.0000	44.2(Q)
113 N-Nitrosomorpholine	56	5.244	5.244	(1.081)	120689	40.0000	38.6
114 o-Toluidine	106	5.267	5.267	(1.086)	313486	40.0000	41.2
115 N-Nitrosopiperidine	114	5.557	5.557	(0.907)	99081	40.0000	40.7
116 a,a-Dimethylphenethylamine	58	5.930	5.930	(0.968)	560438	40.0000	38.0
118 2,6-Dichlorophenol	162	6.202	6.202	(1.012)	153436	40.0000	43.0
119 Hexachloropropene	213	6.235	6.235	(1.017)	65279	40.0000	36.8
120 p-Phenylenediamine	108	6.561	6.561	(1.071)	165092	40.0000	41.7
121 N-Nitrosodi-n-butylamine	84	6.528	6.528	(1.065)	144116	40.0000	39.8(T)
122 Safrole	162	6.765	6.765	(1.104)	133832	40.0000	41.6
123 1,2,4,5-Tetrachlorobenzene	216	7.051	7.051	(0.881)	162108	40.0000	39.3
124 Isosafrole	162	7.318	7.318	(0.915)	132551	40.0000	40.1
125 1,4-Naphthoquinone	158	7.583	7.583	(0.948)	132218	40.0000	44.2
127 Pentachlorobenzene	250	8.172	8.172	(1.022)	145857	40.0000	41.1
128 1-Naphthylamine	143	8.302	8.302	(1.038)	371241	40.0000	42.0
129 2-Naphthylamine	143	8.386	8.386	(1.048)	405438	40.0000	42.5
131 5-Nitro-o-toluidine	152	8.592	8.592	(1.074)	117522	40.0000	43.2
136 1,3,5-Trinitrobenzene	75	8.972	8.972	(0.933)	86454	40.0000	41.9
137 Phenacetin	108	9.028	9.028	(0.939)	188597	40.0000	41.3(Q)
138 Diallate	86	9.000	9.000	(0.936)	165203	40.0000	39.4
140 4-Aminobiphenyl	169	9.392	9.392	(0.977)	366486	40.0000	39.3
141 Pentachloronitrobenzene	237	9.405	9.405	(0.979)	43642	40.0000	40.5(Q)
142 Pronamide	173	9.433	9.433	(0.981)	184784	40.0000	40.3
146 4-Nitroquinoline-1-oxide	101	10.463	10.463	(1.089)	18441	40.0000	45.1
147 Methapyrilene	58	10.524	10.524	(1.095)	288125	40.0000	42.9
148 Isodrin	193	10.761	10.761	(1.120)	71616	40.0000	42.7
149 Aramite	185	11.273	11.273	(1.173)	33650	40.0000	43.7
150 Kepone	272	11.940	11.940	(1.242)	50824	40.0000	47.3
151 p-(Dimethylamino)azobenzene	120	11.467	11.467	(0.908)	192234	40.0000	37.9
152 Chlorobenzilate	251	11.507	11.507	(0.911)	172639	40.0000	37.1
153 3,3'-Dimethylbenzidine	212	11.851	11.851	(0.939)	299717	40.0000	35.5
155 2-Acetylaminofluorene	181	12.172	12.172	(0.964)	230436	40.0000	43.6
157 7,12Dimethylbenz(a)anthracene	256	14.267	14.267	(0.953)	264569	40.0000	38.1
158 3-Methylcholanthrene	268	15.493	15.493	(1.035)	236990	40.0000	44.2(Q)
212 Cis Diallate	86	9.102	9.102	(0.947)	24954	6.00000	5.7
213 Trans Diallate	86	9.000	9.000	(0.936)	165203	34.0000	33.5

QC Flag Legend

T - Target compound detected outside RT window.
Q - Qualifier signal failed the ratio test.

Data File: /chem/MSD6.i/s121609.b/s611612.d
Date : 16-DEC-2009 14:46
Client ID: AP12CVS
Sample Info: IWBN091201-03,5ICVS1ISVMF1ISVAP12CVS
Volume Injected (uL): 0.5
Column Phase: J&W DB-5MS

Instrument: MSD6.i
Operator: nagl
Column diameter: 0.20

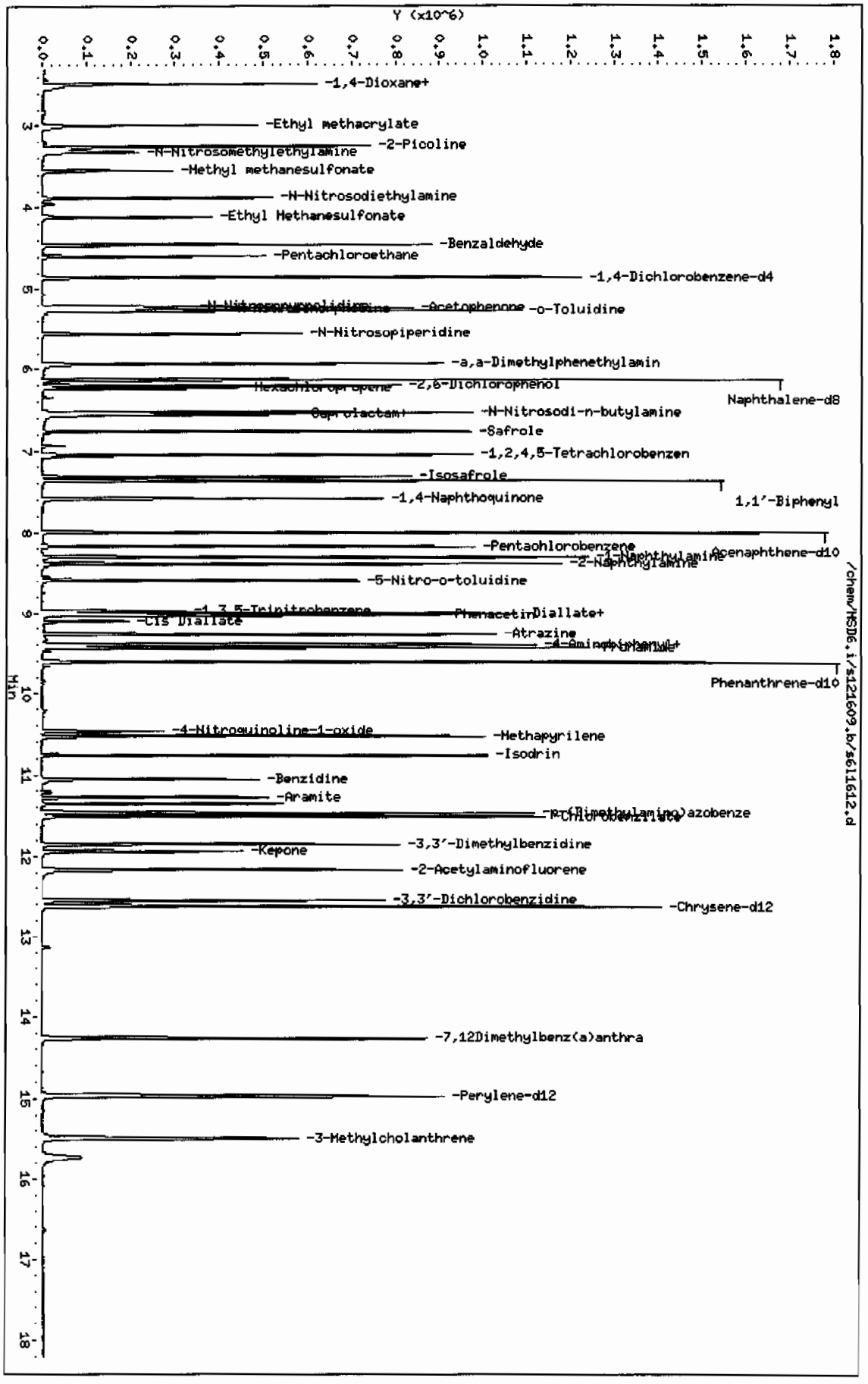

Page 1

QC Data

Data File: /chem/MSD6.i/s110909.b/s6k0911.d

Date : 09-NOV-2009 18:00

Client ID: DFTPP

Instrument: MSD6.i

Sample Info: |WBN091101-01|50 PPM|1|SVMF|1|DFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

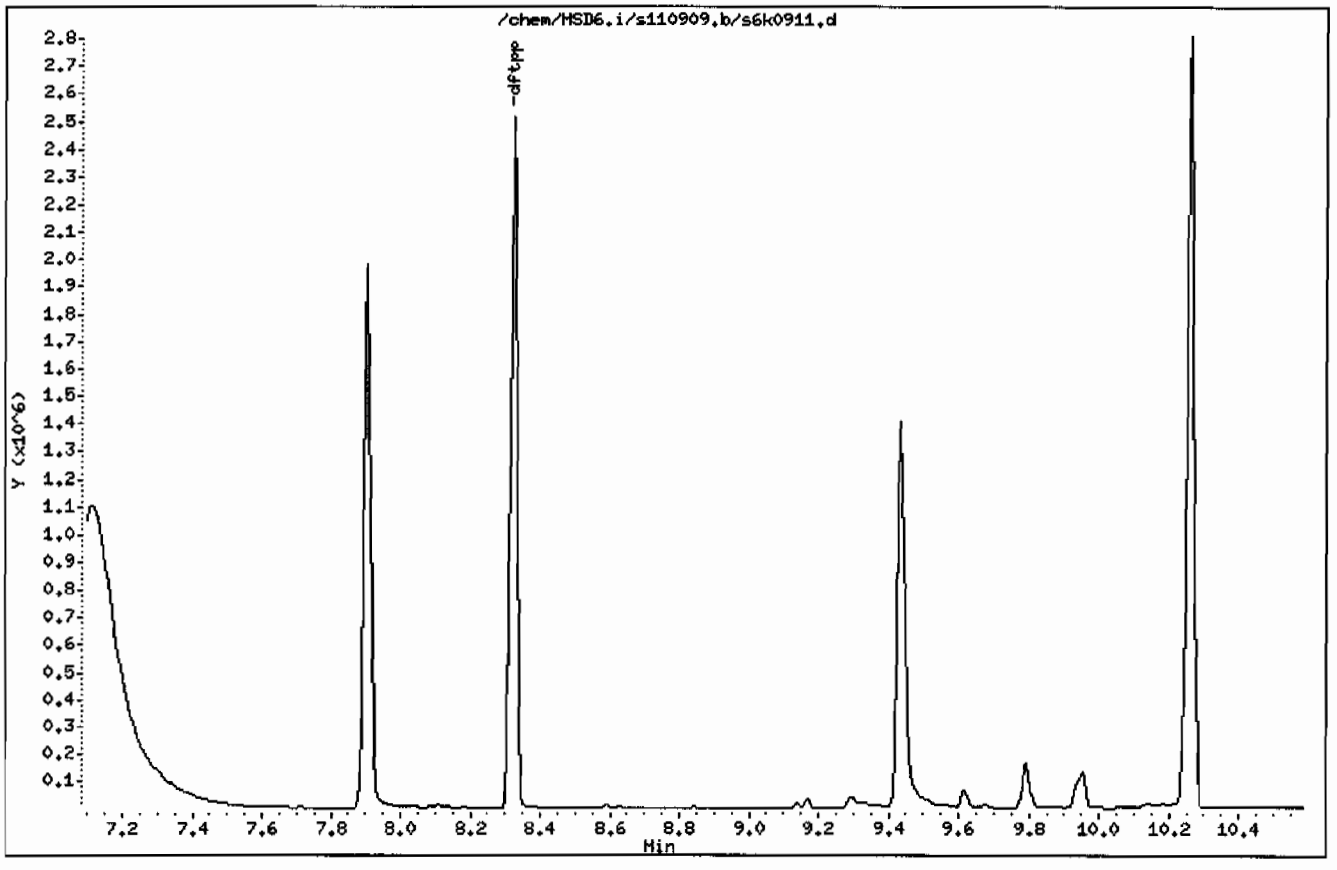

Data File: /chem/MSD6.i/s110909.b/s6k0911.d

Date : 09-NOV-2009 18:00

Client ID: DFTPP

Instrument: MSD6.i

Sample Info: |WBN091101-01|50 PPM|1|SVMF|1|DFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

1 dftpp

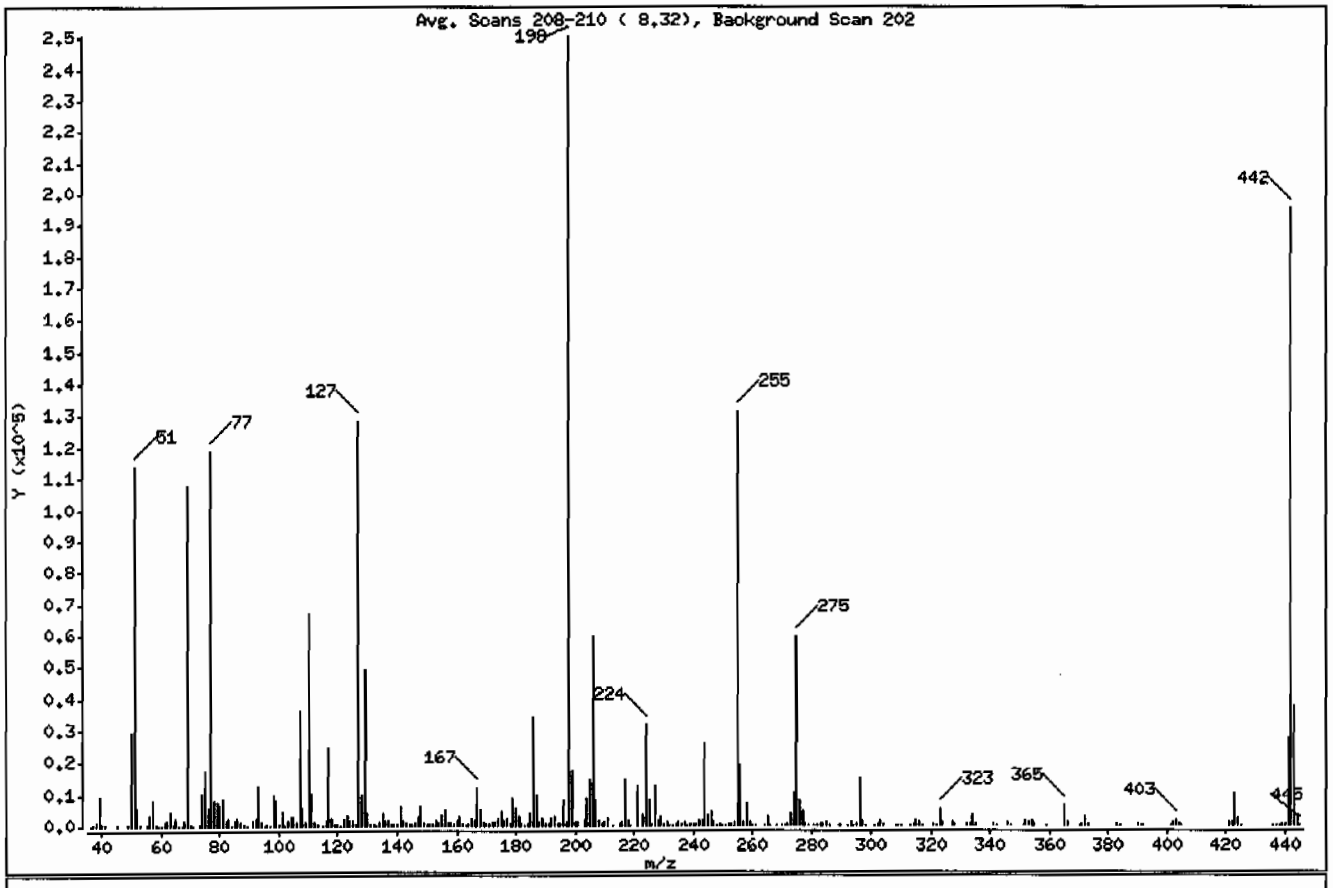

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	45.40
68	Less than 2.00% of mass 69	0.67 (1.56)
69	Mass 69 relative abundance	42.98
70	Less than 2.00% of mass 69	0.23 (0.53)
127	40.00 - 60.00% of mass 198	51.37
197	Less than 1.00% of mass 198	0.57
199	5.00 - 9.00% of mass 198	6.92
275	10.00 - 30.00% of mass 198	23.67
365	Greater than 1.00% of mass 198	2.45
441	Present, but less than mass 443	11.05
442	Greater than 40.00% of mass 198	77.94
443	17.00 - 23.00% of mass 442	14.94 (19.17)

Data File: /chem/MSD6.i/s110909.b/s6k0911.d

Date : 09-NOV-2009 18:00

Client ID: DFTPP

Instrument: MSD6.i

Sample Info: |WBN091101-01|50 PPM|1|SVMF|1|DFTPP

Operator: JWB3

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

Data File: s6k0911.d
Spectrum: Avg. Scans 208-210 (8.32), Background Scan 202
Location of Maximum: 198.00
Number of points: 303

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	8	122.00	2302	198.00	250752	284.00	336
37.00	393	123.00	3695	199.00	17344	285.00	937
38.00	1200	124.00	1621	200.00	1195	286.00	170
39.00	9016	125.00	1448	201.00	1207	289.00	255
40.00	406	126.00	632	203.00	1659	290.00	159
41.00	292	127.00	128832	204.00	8363	292.00	259
45.00	305	128.00	9787	205.00	14289	293.00	1083
49.00	640	129.00	49280	206.00	59576	294.00	255
50.00	29544	130.00	4085	207.00	7878	295.00	324
51.00	113864	131.00	795	208.00	1898	296.00	14712
52.00	5719	132.00	464	209.00	609	297.00	1998
53.00	291	133.00	153	210.00	1016	298.00	48
55.00	556	134.00	1412	211.00	2089	301.00	220
56.00	3212	135.00	3908	213.00	96	302.00	374
57.00	7977	136.00	1509	215.00	674	303.00	1716
58.00	306	137.00	2002	216.00	1188	304.00	518
59.00	43	138.00	459	217.00	14324	308.00	142
60.00	144	139.00	392	218.00	1841	309.00	104
61.00	1384	140.00	751	219.00	194	310.00	127
62.00	1579	141.00	6116	221.00	12869	313.00	98
63.00	4522	142.00	1931	223.00	3368	314.00	758
64.00	592	143.00	1380	224.00	31752	315.00	1571
65.00	2251	144.00	329	225.00	7987	316.00	915
66.00	47	145.00	339	226.00	839	317.00	119
67.00	98	146.00	1032	227.00	12952	321.00	481
68.00	1681	147.00	3100	228.00	1848	322.00	229
69.00	107792	148.00	6347	229.00	2774	323.00	5178
70.00	566	149.00	1410	230.00	478	324.00	998
71.00	154	150.00	411	231.00	1257	327.00	960
73.00	818	151.00	692	232.00	280	328.00	487
74.00	10556	152.00	489	233.00	226	332.00	397
75.00	17208	153.00	1814	234.00	759	333.00	430
76.00	5735	154.00	1411	235.00	1001	334.00	3299
77.00	118792	155.00	3187	236.00	589	335.00	849
78.00	8119	156.00	5061	237.00	1093	341.00	644

Data File: /chem/MSD6.i/s110909.b/s6k0911.d

Date : 09-NOV-2009 18:00

Client ID: DFTPP

Instrument: MSD6.i

Sample Info: |WBN091101-01|50 PPM|1|SVMF|1|DFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

Data File: s6k0911.d
Spectrum: Avg. Scans 208-210 (8.32), Background Scan 202
Location of Maximum: 198.00
Number of points: 303

m/z	Y	m/z	Y	m/z	Y	m/z	Y
79.00	7616	157.00	1047	238.00	176	342.00	184
80.00	6053	158.00	1005	239.00	483	346.00	1112
81.00	8741	159.00	819	240.00	449	347.00	197
82.00	1932	160.00	1690	241.00	776	351.00	99
83.00	2188	161.00	2737	242.00	1684	352.00	1491
84.00	232	162.00	809	243.00	1819	353.00	1169
85.00	1461	163.00	190	244.00	25832	354.00	1725
86.00	2130	164.00	335	245.00	3598	355.00	318
87.00	1162	165.00	2034	246.00	4786	359.00	103
88.00	449	166.00	1979	247.00	980	365.00	6134
89.00	268	167.00	12360	248.00	210	366.00	872
91.00	1835	168.00	5121	249.00	829	370.00	96
92.00	2163	169.00	1038	250.00	174	371.00	434
93.00	12786	170.00	446	251.00	238	372.00	2651
94.00	908	171.00	470	252.00	289	373.00	754
95.00	251	172.00	1064	253.00	569	383.00	711
96.00	626	173.00	1291	254.00	1047	384.00	258
97.00	236	174.00	2515	255.00	131328	390.00	402
98.00	9808	175.00	4789	256.00	18784	391.00	259
99.00	8032	176.00	1446	257.00	1424	392.00	153
100.00	745	177.00	2269	258.00	6873	401.00	116
101.00	4358	178.00	802	259.00	1148	402.00	1140
102.00	258	179.00	8475	260.00	228	403.00	1594
103.00	1616	180.00	5994	261.00	261	404.00	514
104.00	3096	181.00	2983	264.00	141	405.00	98
105.00	2795	182.00	429	265.00	2620	421.00	1430
106.00	910	183.00	259	266.00	251	422.00	1234
107.00	36184	184.00	679	268.00	180	423.00	10131
108.00	5604	185.00	3929	270.00	163	424.00	2144
109.00	997	186.00	34256	271.00	257	425.00	193
110.00	66656	187.00	9747	272.00	290	436.00	45
111.00	10177	188.00	1146	273.00	3906	437.00	191
112.00	1133	189.00	2105	274.00	10561	438.00	232
113.00	472	190.00	292	275.00	59368	439.00	301
115.00	217	191.00	815	276.00	7957	440.00	309

Data File: /chem/MSD6.i/s110909.b/s6k0911.d

Date : 09-NOV-2009 18:00

Client ID: DFTPP

Instrument: MSD6.i

Sample Info: |WBN091101-01|50 PPM|1|SVMF|1|DFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

Data File: s6k0911.d
Spectrum: Avg. Scans 208-210 (8.32), Background Scan 202
Location of Maximum: 198.00
Number of points: 303

m/z	Y	m/z	Y	m/z	Y	m/z	Y
116.00	1841	192.00	2423	277.00	4641	441.00	27712
117.00	25072	193.00	3008	278.00	676	442.00	195456
118.00	2060	194.00	699	279.00	175	443.00	37472
119.00	345	195.00	448	281.00	87	444.00	3400
120.00	476	196.00	7876	282.00	46	445.00	197
121.00	165	197.00	1433	283.00	505		

Data File: /chem/MSD6.i/s110909.b/s6k0921.d

Page 1

Date : 10-NOV-2009 11:07

Client ID: DFTPP

Instrument: MSD6.i

Sample Info: |WBN091101-01|50 PPM|1|SVHF|1|DFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

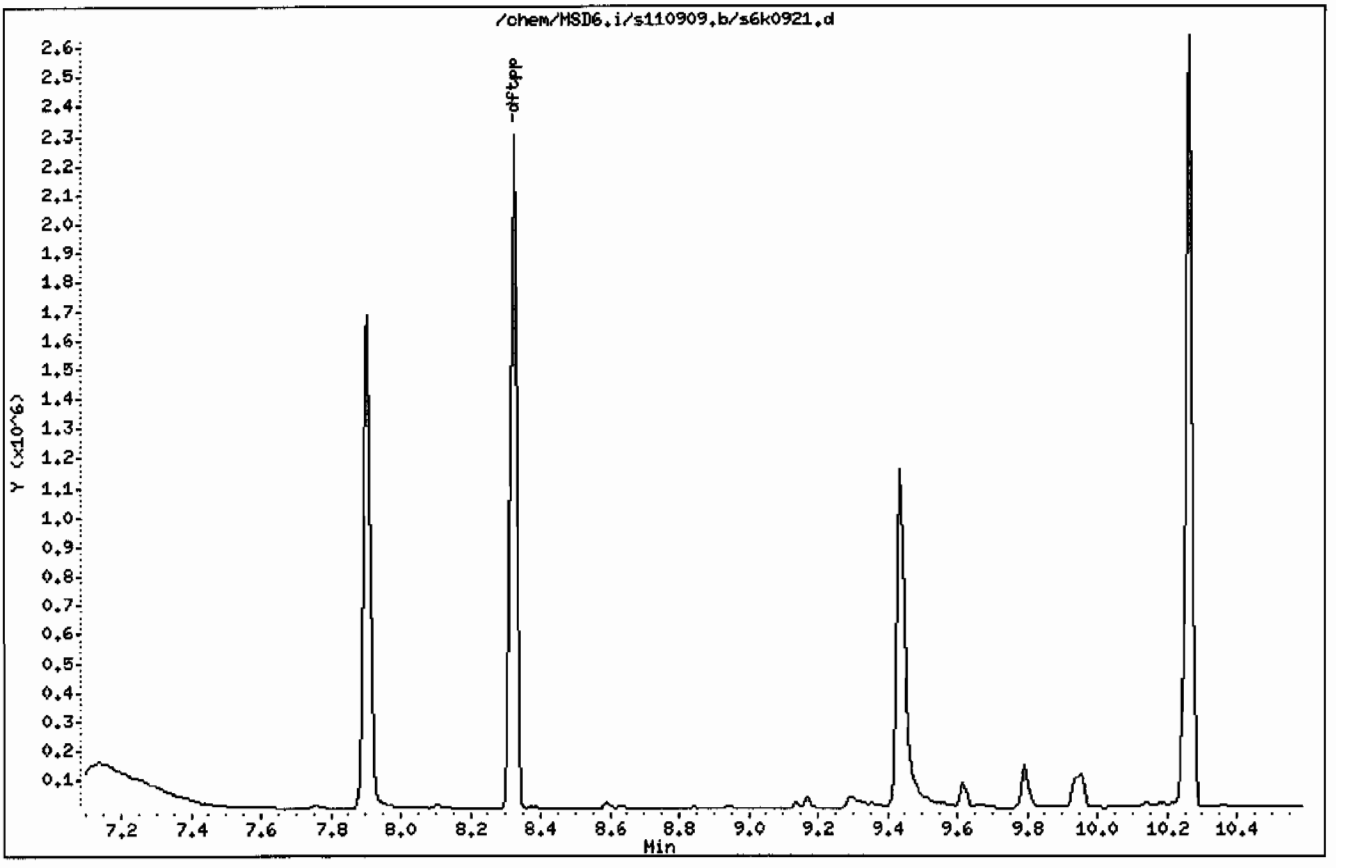

Data File: /chem/MSD6.i/s110909.b/s6k0921.d

Date : 10-NOV-2009 11:07

Client ID: DFTPP

Instrument: MSD6.i

Sample Info: |WBN091101-01|50 PPM|1|SVMF|1|DFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

1 dftpp

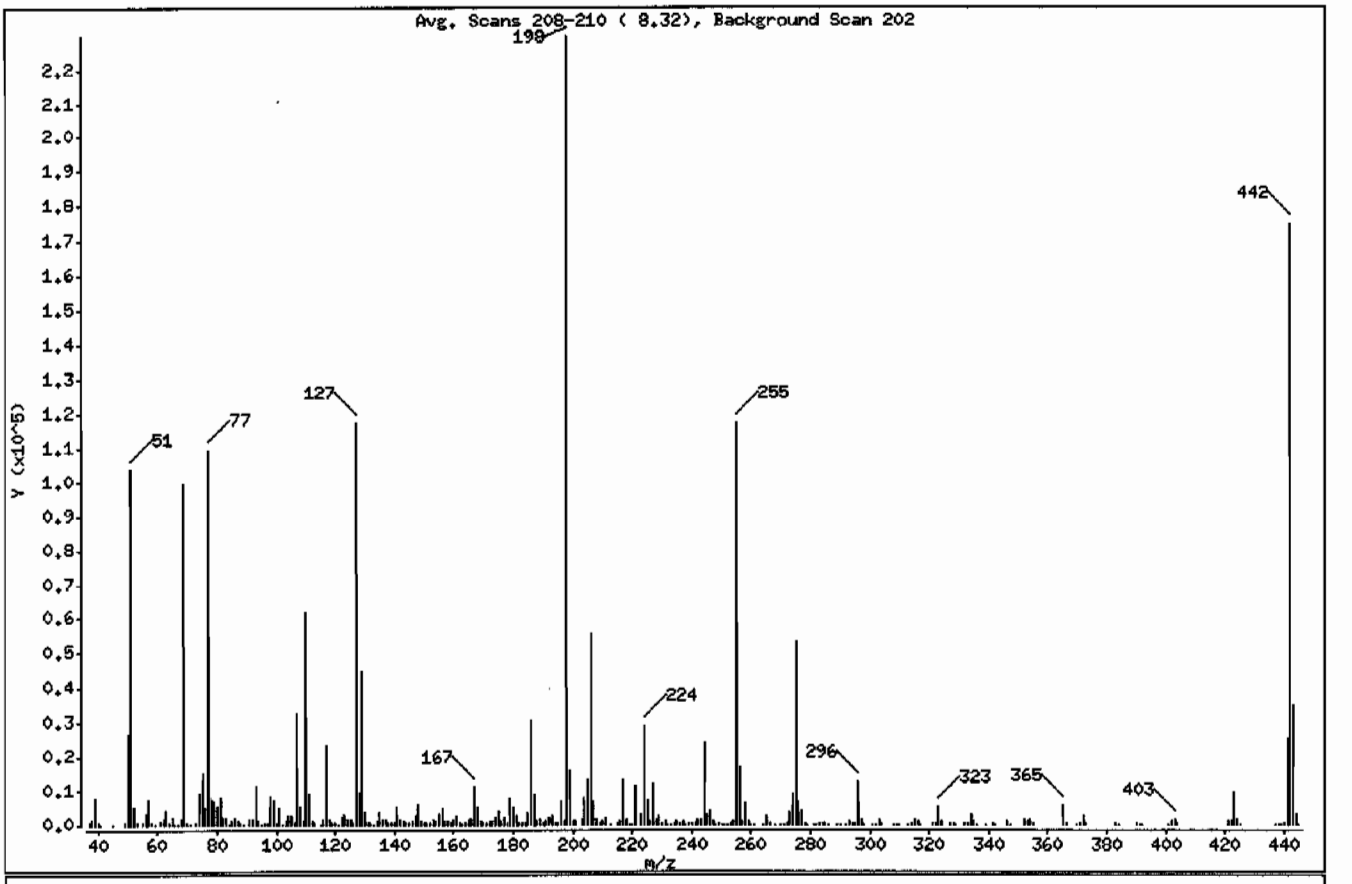

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	45.09
68	Less than 2.00% of mass 69	0.69 (1.59)
69	Mass 69 relative abundance	43.13
70	Less than 2.00% of mass 69	0.21 (0.50)
127	40.00 - 60.00% of mass 198	50.95
197	Less than 1.00% of mass 198	0.38
199	5.00 - 9.00% of mass 198	7.01
275	10.00 - 30.00% of mass 198	23.31
365	Greater than 1.00% of mass 198	2.61
441	Present, but less than mass 443	11.00
442	Greater than 40.00% of mass 198	76.04
443	17.00 - 23.00% of mass 442	15.14 (19.92)

Data File: /chem/MSD6.i/s110909.b/s6k0921.d

Date : 10-NOV-2009 11:07

Client ID: DFTPP

Instrument: MSD6.i

Sample Info: |WBN091101-01|50 PPM|1|SVMF|1|DFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

Data File: s6k0921.d
Spectrum: Avg. Scans 208-210 (8.32), Background Scan 202
Location of Maximum: 198.00
Number of points: 301

m/z	Y	m/z	Y	m/z	Y	m/z	Y
37.00	446	124.00	1597	200.00	1296	285.00	727
38.00	1364	125.00	1527	201.00	1130	286.00	93
39.00	8081	126.00	500	203.00	1398	289.00	109
40.00	429	127.00	117112	204.00	7870	290.00	48
41.00	123	128.00	9305	205.00	12990	292.00	179
45.00	232	129.00	44864	206.00	55704	293.00	996
49.00	676	130.00	3877	207.00	6919	294.00	284
50.00	26328	131.00	762	208.00	1589	295.00	295
51.00	103656	132.00	413	209.00	492	296.00	12743
52.00	5217	133.00	83	210.00	869	297.00	1758
53.00	281	134.00	1179	211.00	2059	298.00	106
55.00	508	135.00	3584	213.00	155	301.00	200
56.00	3141	136.00	1380	215.00	501	302.00	236
57.00	7300	137.00	1770	216.00	1098	303.00	1828
58.00	351	138.00	422	217.00	13179	304.00	578
59.00	89	139.00	313	218.00	1725	308.00	164
61.00	1282	140.00	577	219.00	178	309.00	120
62.00	1522	141.00	5319	220.00	48	310.00	179
63.00	4035	142.00	1826	221.00	11795	313.00	116
64.00	709	143.00	1268	223.00	3181	314.00	633
65.00	2010	144.00	322	224.00	29056	315.00	1462
66.00	201	145.00	315	225.00	7532	316.00	903
67.00	136	146.00	853	226.00	796	317.00	97
68.00	1576	147.00	2856	227.00	12169	321.00	535
69.00	99128	148.00	5895	228.00	1834	322.00	301
70.00	492	149.00	1137	229.00	2389	323.00	5031
71.00	87	150.00	371	230.00	448	324.00	932
73.00	640	151.00	713	231.00	1077	327.00	782
74.00	9704	152.00	430	232.00	217	328.00	460
75.00	15458	153.00	1634	233.00	234	329.00	92
76.00	5031	154.00	1294	234.00	764	332.00	329
77.00	109208	155.00	2977	235.00	895	333.00	541
78.00	7381	156.00	4520	236.00	588	334.00	3026
79.00	6803	157.00	931	237.00	934	335.00	912
80.00	5387	158.00	937	238.00	52	336.00	92

Data File: /chem/MSD6.i/s110909.b/s6k0921.d

Date : 10-NOV-2009 11:07

Client ID: DFTPP

Instrument: MSD6.i

Sample Info: |WBN091101-01|50 PPM|1|SVMF|1|DFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

Data File: s6k0921.d
Spectrum: Avg. Scans 208-210 (8.32), Background Scan 202
Location of Maximum: 198.00
Number of points: 301

m/z	Y	m/z	Y	m/z	Y	m/z	Y
81.00	7979	159.00	792	239.00	467	339.00	88
82.00	2000	160.00	1501	240.00	364	341.00	550
83.00	1851	161.00	2637	241.00	638	342.00	176
84.00	203	162.00	756	242.00	1412	346.00	1020
85.00	1319	163.00	204	243.00	1572	347.00	119
86.00	1985	164.00	328	244.00	24152	352.00	1335
87.00	1000	165.00	1810	245.00	3200	353.00	950
88.00	412	166.00	1695	246.00	4314	354.00	1475
89.00	260	167.00	10891	247.00	844	355.00	296
91.00	1676	168.00	5136	248.00	166	365.00	5995
92.00	1806	169.00	973	249.00	748	366.00	747
93.00	11677	170.00	306	250.00	170	370.00	103
94.00	892	171.00	442	251.00	190	371.00	323
95.00	199	172.00	897	252.00	210	372.00	2543
96.00	636	173.00	1105	253.00	472	373.00	611
97.00	286	174.00	2178	254.00	899	383.00	675
98.00	8556	175.00	4297	255.00	117320	384.00	156
99.00	7312	176.00	1290	256.00	16728	390.00	314
100.00	595	177.00	2105	257.00	1320	391.00	189
101.00	4548	178.00	636	258.00	6484	392.00	157
102.00	251	179.00	8002	259.00	1064	401.00	199
103.00	1289	180.00	5191	260.00	200	402.00	1090
104.00	2626	181.00	2701	261.00	212	403.00	1396
105.00	2533	182.00	448	264.00	192	404.00	427
106.00	724	183.00	312	265.00	2469	421.00	1265
107.00	33008	184.00	599	266.00	401	422.00	1145
108.00	5264	185.00	3797	268.00	43	423.00	9473
109.00	994	186.00	30448	270.00	167	424.00	1846
110.00	61616	187.00	8914	271.00	186	425.00	183
111.00	9026	188.00	970	272.00	329	437.00	54
112.00	1057	189.00	1726	273.00	3492	438.00	170
113.00	367	190.00	298	274.00	9124	439.00	228
115.00	227	191.00	976	275.00	53576	440.00	294
116.00	1610	192.00	2282	276.00	7126	441.00	25272
117.00	23152	193.00	2535	277.00	3970	442.00	174784

Data File: /chem/MSD6.i/s110909.b/s6k0921.d

Date : 10-NOV-2009 11:07

Client ID: DFTPP

Instrument: MSD6.i

Sample Info: |WBN091101-01|50 PPM|1|SVMF|1|DFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

Data File: s6k0921.d
Spectrum: Avg. Scans 208-210 (8.32), Background Scan 202
Location of Maximum: 198.00
Number of points: 301

m/z	Y	m/z	Y	m/z	Y	m/z	Y
118.00	1681	194.00	518	278.00	653	443.00	34808
119.00	280	195.00	333	279.00	140	444.00	3177
120.00	427	196.00	6863	281.00	140	445.00	129
121.00	176	197.00	878	282.00	42		
122.00	2199	198.00	229824	283.00	507		
123.00	3315	199.00	16104	284.00	294		

Data File: /chem/MSD6.i/s121609.b/s611610.d

Page 1

Date : 16-DEC-2009 14:04

Client ID: DFTPP

Instrument: MSD6.i

Sample Info: |WBN091213-01|50 PPM|1|SVMF|1|DFTPP

Operator: nag1

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

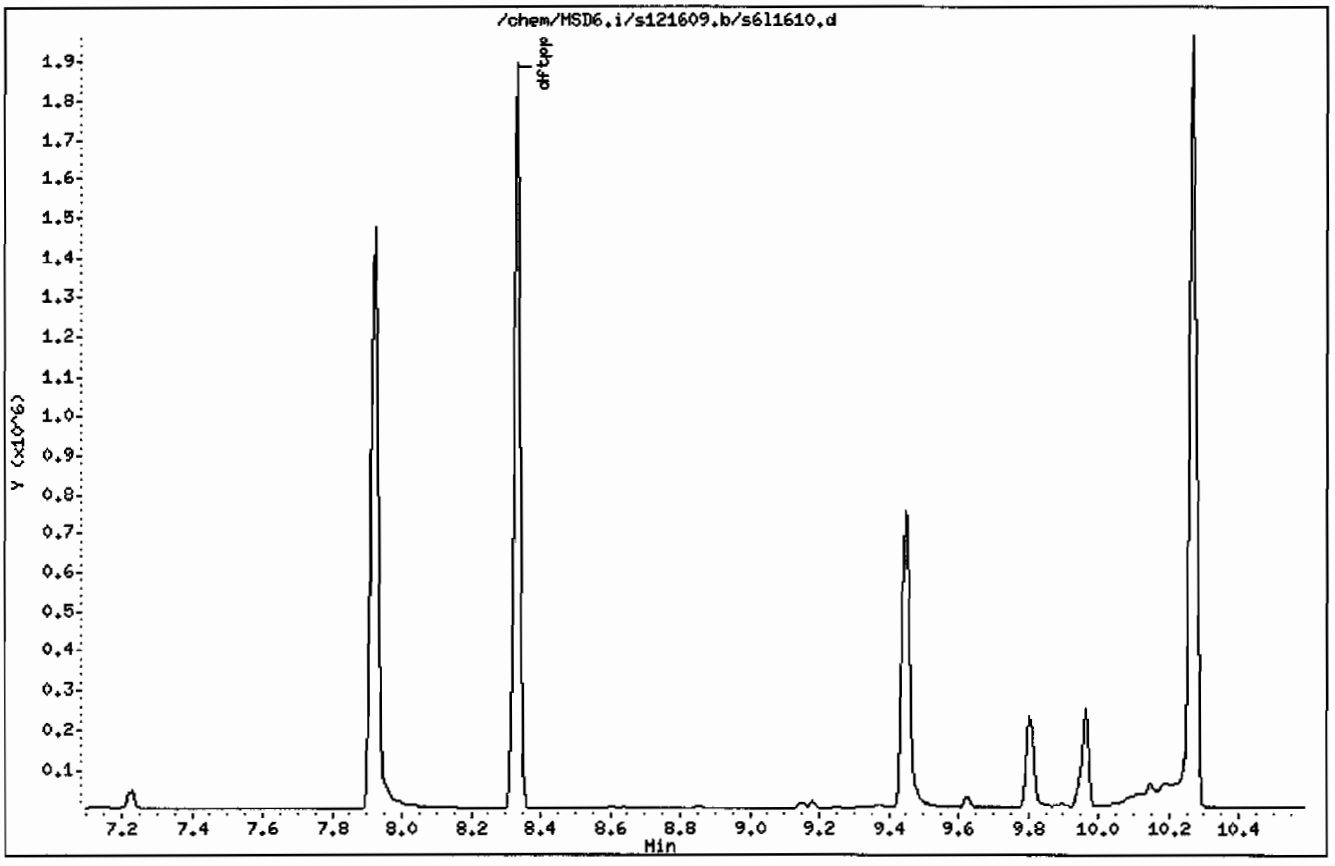

Data File: /chem/MSD6.i/s121609.b/s611610.d

Date : 16-DEC-2009 14:04

Client ID: DFTPP

Instrument: MSD6.i

Sample Info: IWBN091213-01|50 PPM|1|SVMF|1|DFTPP

Operator: nag1

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

1 dftpp

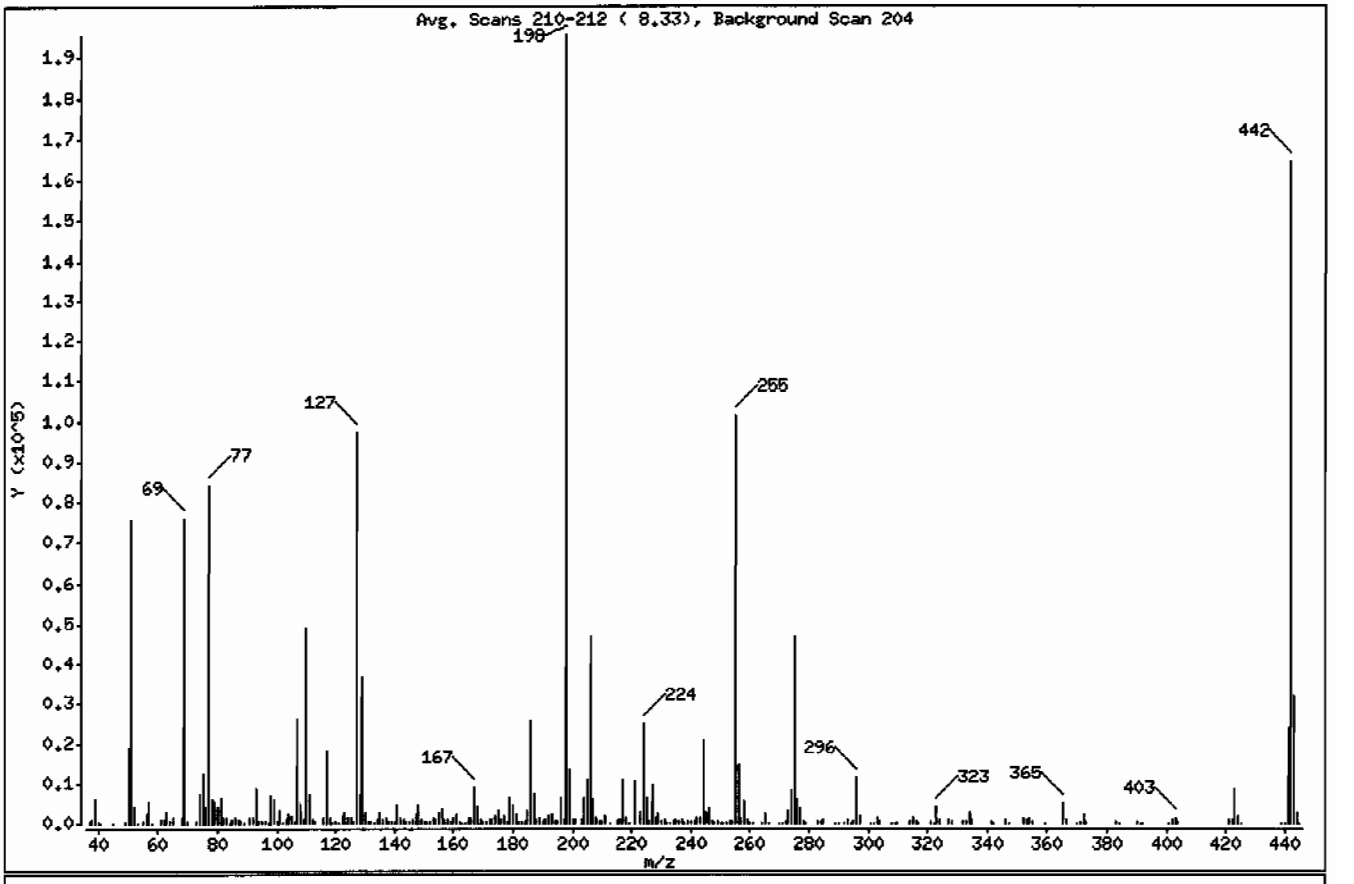

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	38.58
68	Less than 2.00% of mass 69	0.60 (1.55)
69	Mass 69 relative abundance	38.87
70	Less than 2.00% of mass 69	0.18 (0.46)
127	40.00 - 60.00% of mass 198	49.76
197	Less than 1.00% of mass 198	0.39
199	5.00 - 9.00% of mass 198	6.85
275	10.00 - 30.00% of mass 198	23.90
365	Greater than 1.00% of mass 198	2.53
441	Present, but less than mass 443	12.26
442	Greater than 40.00% of mass 198	84.12
443	17.00 - 23.00% of mass 442	16.25 (19.31)

Date : 16-DEC-2009 14:04

Client ID: DFTPP Instrument: MSD6.i

Sample Info: |WBN091213-01|50 PPM|1|SVMF|1|DFTPP

Operator: nag1

Column phase: Phenomenex ZB-5MS Column diameter: 0.20

Data File: s611610.d
Spectrum: Avg. Scans 210-212 (8.33), Background Scan 204
Location of Maximum: 198.00
Number of points: 285

m/z	Y	m/z	Y	m/z	Y	m/z	Y
37.00	329	125.00	1239	197.00	771	279.00	48
38.00	800	126.00	464	198.00	195520	283.00	389
39.00	5756	127.00	97296	199.00	13402	284.00	282
40.00	317	128.00	7203	200.00	1053	285.00	704
41.00	192	129.00	36776	201.00	1049	289.00	102
45.00	198	130.00	2919	203.00	1095	290.00	94
49.00	521	131.00	574	204.00	6249	292.00	179
50.00	18904	132.00	372	205.00	10640	293.00	808
51.00	75424	133.00	153	206.00	46704	294.00	198
52.00	4067	134.00	944	207.00	5993	295.00	230
53.00	102	135.00	2851	208.00	1490	296.00	11069
55.00	367	136.00	1121	209.00	435	297.00	1610
56.00	2294	137.00	1343	210.00	587	301.00	151
57.00	5603	138.00	353	211.00	1701	302.00	197
58.00	220	139.00	229	213.00	87	303.00	1443
61.00	883	140.00	486	215.00	424	304.00	362
62.00	1006	141.00	4439	216.00	939	308.00	171
63.00	2855	142.00	1382	217.00	10922	309.00	141
64.00	449	143.00	977	218.00	1417	310.00	154
65.00	1519	144.00	282	219.00	189	314.00	585
68.00	1176	145.00	229	221.00	10498	315.00	1178
69.00	75992	146.00	770	223.00	2628	316.00	671
70.00	347	147.00	2140	224.00	24936	317.00	150
73.00	536	148.00	4633	225.00	6382	321.00	364
74.00	7170	149.00	927	226.00	610	322.00	202
75.00	12152	150.00	277	227.00	9574	323.00	4130
76.00	3973	151.00	611	228.00	1407	324.00	746
77.00	84224	152.00	420	229.00	2157	327.00	709
78.00	5895	153.00	1331	230.00	328	328.00	354
79.00	5312	154.00	954	231.00	907	332.00	267
80.00	4022	155.00	2506	232.00	114	333.00	384
81.00	6110	156.00	3769	233.00	187	334.00	2531
82.00	1550	157.00	765	234.00	545	335.00	677
83.00	1500	158.00	843	235.00	701	341.00	469
84.00	196	159.00	601	236.00	448	342.00	151

Data File: /chem/MSD6.i/s121609.b/s611610.d

Date : 16-DEC-2009 14:04

Client ID: DFTPP

Instrument: MSD6.i

Sample Info: |WBN091213-01|50 PPM|1|SVMF|1|DFTPP

Operator: nag1

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

Data File: s611610.d
Spectrum: Avg. Scans 210-212 (8.33), Background Scan 204
Location of Maximum: 198.00
Number of points: 285

m/z	Y	m/z	Y	m/z	Y	m/z	Y
85.00	1077	160.00	1373	237.00	890	346.00	807
86.00	1548	161.00	2161	238.00	42	347.00	105
87.00	796	162.00	584	239.00	365	352.00	1163
88.00	329	163.00	167	240.00	317	353.00	845
89.00	119	164.00	210	241.00	460	354.00	1304
91.00	1416	165.00	1422	242.00	1270	355.00	271
92.00	1386	166.00	1453	243.00	1388	359.00	42
93.00	8764	167.00	8782	244.00	20600	365.00	4950
94.00	622	168.00	3877	245.00	2574	366.00	699
95.00	244	169.00	734	246.00	3645	370.00	47
96.00	492	170.00	285	247.00	671	371.00	312
97.00	132	171.00	320	248.00	91	372.00	2209
98.00	6678	172.00	755	249.00	637	373.00	578
99.00	5704	173.00	1047	250.00	113	383.00	573
100.00	458	174.00	1675	251.00	185	384.00	196
101.00	3366	175.00	3343	252.00	178	390.00	329
102.00	203	176.00	1067	253.00	455	391.00	220
103.00	1104	177.00	1614	254.00	651	392.00	205
104.00	2175	178.00	538	255.00	101120	401.00	47
105.00	1940	179.00	6318	256.00	14592	402.00	889
106.00	607	180.00	4630	257.00	1128	403.00	1334
107.00	25984	181.00	2109	258.00	5317	404.00	418
108.00	4283	182.00	343	259.00	927	421.00	1059
109.00	688	183.00	233	260.00	162	422.00	1010
110.00	49096	184.00	494	261.00	188	423.00	8360
111.00	7198	185.00	2975	264.00	88	424.00	1746
112.00	793	186.00	25656	265.00	2138	425.00	45
113.00	291	187.00	7054	266.00	179	439.00	149
116.00	1473	188.00	750	270.00	141	440.00	195
117.00	17920	189.00	1519	271.00	166	441.00	23968
118.00	1367	190.00	249	272.00	261	442.00	164480
119.00	210	191.00	691	273.00	3040	443.00	31768
120.00	291	192.00	1920	274.00	8204	444.00	2860
121.00	95	193.00	2261	275.00	46720	445.00	104
122.00	1769	194.00	440	276.00	5923		

Date : 16-DEC-2009 14:04

Client ID: DFTPP Instrument: MSD6.i

Sample Info: |WBN091213-01|50 PPM|1|SVMF|1|DFTPP

Operator: nagi

Column phase: Phenomenex ZB-5MS Column diameter: 0.20

Data File: s611610.d
Spectrum: Avg. Scans 210-212 (8.33), Background Scan 204
Location of Maximum: 198.00
Number of points: 285

m/z	Y	m/z	Y	m/z	Y	m/z	Y
123.00	2752	195.00	266	277.00	3457		
124.00	1194	196.00	6169	278.00	487		

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-886			**Matrix:**	SOIL
Lab Sample ID:	1201994527				
Client Sample:	QC for batch 932443	**Client:**	LANL010	**Project:**	QC
Client ID:	MB for batch 932443	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	932444	**Inst:**	MSD6.I	**Dilution:**	1
Run Date:	12/16/2009 15:15	**Analyst:**	NAG1	**Inj. Vol:**	.5 uL
Prep Date:	12/14/2009 09:47	**Aliquot:**	30 g	**Final Volume:**	1 mL
Data File:	s6l1613-1.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	333	ug/kg	66.7	333
108-95-2	Phenol	U	333	ug/kg	66.7	333
95-57-8	2-Chlorophenol	U	333	ug/kg	66.7	333
106-46-7	1,4-Dichlorobenzene	U	333	ug/kg	66.7	333
621-64-7	N-Nitrosodipropylamine	U	333	ug/kg	66.7	333
59-50-7	4-Chloro-3-methylphenol	U	333	ug/kg	66.7	333
83-32-9	Acenaphthene	U	33.3	ug/kg	11.0	33.3
121-14-2	2,4-Dinitrotoluene	U	333	ug/kg	33.3	333
100-02-7	4-Nitrophenol	U	333	ug/kg	110	333
87-86-5	Pentachlorophenol	U	333	ug/kg	83.3	333
129-00-0	Pyrene	U	33.3	ug/kg	10.0	33.3
110-86-1	Pyridine	U	333	ug/kg	66.7	333
62-53-3	Aniline	U	333	ug/kg	100	333
111-44-4	bis(2-Chloroethyl) ether	U	333	ug/kg	66.7	333
541-73-1	1,3-Dichlorobenzene	U	333	ug/kg	66.7	333
100-51-6	Benzyl alcohol	U	333	ug/kg	100	333
95-50-1	1,2-Dichlorobenzene	U	333	ug/kg	66.7	333
108-60-1	bis(2-Chloroisopropyl)ether	U	333	ug/kg	66.7	333
95-48-7	o-Cresol	U	333	ug/kg	66.7	333
65794-96-9	m,p-Cresols	U	333	ug/kg	100	333
67-72-1	Hexachloroethane	U	333	ug/kg	66.7	333
98-95-3	Nitrobenzene	U	333	ug/kg	66.7	333
78-59-1	Isophorone	U	333	ug/kg	66.7	333
88-75-5	2-Nitrophenol	U	333	ug/kg	66.7	333
105-67-9	2,4-Dimethylphenol	U	333	ug/kg	117	333
111-91-1	bis(2-Chloroethoxy)methane	U	333	ug/kg	66.7	333
120-83-2	2,4-Dichlorophenol	U	333	ug/kg	66.7	333
65-85-0	Benzoic acid	U	667	ug/kg	167	667
91-20-3	Naphthalene	U	33.3	ug/kg	10.0	33.3
106-47-8	4-Chloroaniline	U	333	ug/kg	66.7	333
87-68-3	Hexachlorobutadiene	U	333	ug/kg	66.7	333
91-57-6	2-Methylnaphthalene	U	33.3	ug/kg	6.67	33.3
77-47-4	Hexachlorocyclopentadiene	U	333	ug/kg	66.7	333
88-06-2	2,4,6-Trichlorophenol	U	333	ug/kg	66.7	333
95-95-4	2,4,5-Trichlorophenol	U	333	ug/kg	66.7	333
91-58-7	2-Chloronaphthalene	U	33.3	ug/kg	11.0	33.3
88-74-4	2-Nitroaniline	U	333	ug/kg	66.7	333
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	333	ug/kg	66.7	333

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-886**			**Matrix:**	**SOIL**
Lab Sample ID:	**1201994527**				
Client Sample:	**QC for batch 932443**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 932443**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**932444**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**12/16/2009 15:15**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/14/2009 09:47**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**s6l1613-1.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	333	ug/kg	66.7	333
606-20-2	2,6-Dinitrotoluene	U	333	ug/kg	33.3	333
208-96-8	Acenaphthylene	U	33.3	ug/kg	10.0	33.3
51-28-5	2,4-Dinitrophenol	U	667	ug/kg	127	667
132-64-9	Dibenzofuran	U	333	ug/kg	66.7	333
84-66-2	Diethylphthalate	U	333	ug/kg	66.7	333
86-73-7	Fluorene	U	33.3	ug/kg	10.0	33.3
7005-72-3	4-Chlorophenylphenylether	U	333	ug/kg	66.7	333
534-52-1	2-Methyl-4,6-dinitrophenol	U	333	ug/kg	66.7	333
100-01-6	4-Nitroaniline	U	333	ug/kg	100	333
	p-Nitroaniline					
122-39-4	Diphenylamine	U	333	ug/kg	66.7	333
122-66-7	Azobenzene	U	333	ug/kg	66.7	333
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	333	ug/kg	66.7	333
118-74-1	Hexachlorobenzene	U	333	ug/kg	66.7	333
85-01-8	Phenanthrene	U	33.3	ug/kg	10.0	33.3
120-12-7	Anthracene	U	33.3	ug/kg	6.67	33.3
84-74-2	Di-n-butylphthalate	U	333	ug/kg	66.7	333
206-44-0	Fluoranthene	U	33.3	ug/kg	10.0	33.3
85-68-7	Butylbenzylphthalate	U	333	ug/kg	66.7	333
56-55-3	Benzo(a)anthracene	U	33.3	ug/kg	10.0	33.3
91-94-1	3,3'-Dichlorobenzidine	U	333	ug/kg	100	333
218-01-9	Chrysene	U	33.3	ug/kg	10.0	33.3
117-81-7	bis(2-Ethylhexyl)phthalate	U	333	ug/kg	66.7	333
117-84-0	Di-n-octylphthalate	U	333	ug/kg	66.7	333
205-99-2	Benzo(b)fluoranthene	U	33.3	ug/kg	10.0	33.3
207-08-9	Benzo(k)fluoranthene	U	33.3	ug/kg	10.0	33.3
50-32-8	Benzo(a)pyrene	U	33.3	ug/kg	10.0	33.3
193-39-5	Indeno(1,2,3-cd)pyrene	U	33.3	ug/kg	10.0	33.3
53-70-3	Dibenzo(a,h)anthracene	U	33.3	ug/kg	10.0	33.3
191-24-2	Benzo(ghi)perylene	U	33.3	ug/kg	10.0	33.3
120-82-1	1,2,4-Trichlorobenzene	U	333	ug/kg	66.7	333

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	2.22	401	ug/kg		J
	Unknown Aldol Condensate	3.45	441	ug/kg		JA

GEL Laboratories LLC

Data file : /chem/MSD6.i/s121609.b/s611613-4.d
Lab Smp Id: 1201994527 Client Smp ID: SBLK01
Inj Date : 16-DEC-2009 15:15
Operator : nag1 Inst ID: MSD6.i
Smp Info : |1201994527|932444|1|SVMF|1|SBLK01
Misc Info : |MSD8270_S|WBN091208-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s121609.b/MSD6-M8270C-AQA-110909.m
Meth Date : 17-Dec-2009 08:11 nat00999 Quant Type: ISTD
Cal Date : 11-NOV-2009 04:38 Cal File: s6k0954.d
Als bottle: 4 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-886.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	0.00000	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	4.844	4.849	(1.000)	213205	40.0000	
* 29 Naphthalene-d8	136	6.126	6.131	(1.000)	803720	40.0000	
* 46 Acenaphthene-d10	164	7.996	8.001	(1.000)	443898	40.0000	
* 67 Phenanthrene-d10	188	9.606	9.611	(1.000)	755605	40.0000	
* 91 Chrysene-d12	240	12.626	12.633	(1.000)	628686	40.0000	
* 98 Perylene-d12	264	14.968	14.973	(1.000)	545942	40.0000	
$ 3 2-Fluorophenol	112	3.687	3.674	(0.761)	355317	66.5496	2220
$ 5 Phenol-d5	99	4.454	4.457	(0.920)	456839	67.7932	2260
$ 20 Nitrobenzene-d5	82	5.379	5.389	(0.878)	192951	33.9375	1130
$ 39 2-Fluorobiphenyl	172	7.252	7.254	(0.907)	394967	34.5263	1150
$ 60 2,4,6-Tribromophenol	329	8.844	8.850	(1.106)	92216	71.1753	2370
$ 81 p-Terphenyl-d14	244	11.316	11.316	(0.896)	433496	42.7569	1420

GEL Laboratories LLC

Data file : /chem/MSD6.i/s121609.b/s611613-4.d
Lab Smp Id: 1201994527 Client Smp ID: SBLK01
Inj Date : 16-DEC-2009 15:15
Operator : nagl Inst ID: MSD6.i
Smp Info : |1201994527|932444|1|SVMF|1|SBLK01
Misc Info : |MSD8270_S|WBN091208-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s121609.b/MSD6-M8270C-AQA-110909.m
Meth Date : 17-Dec-2009 08:11 nat00999 Quant Type: ISTD
Cal Date : 11-NOV-2009 04:38 Cal File: s6k0954.d
Als bottle: 4 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-886.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	0.00000	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	4.844	1235594	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown				CAS #:			
2.224	371635	12.0309580	401	0		0	10
Unknown Aldol Condensate				CAS #:			
3.450	408534	13.2255105	441	0		0	10

Data File: /chem/MSD6.i/s121609.b/s611613-4.d
Date : 16-DEC-2009 15:15
Client ID: SBLK01
Sample Info: |1201994527|932444|1|SVMF|1|SBLK01
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD6.i

Operator: nag1
Column diameter: 0.20

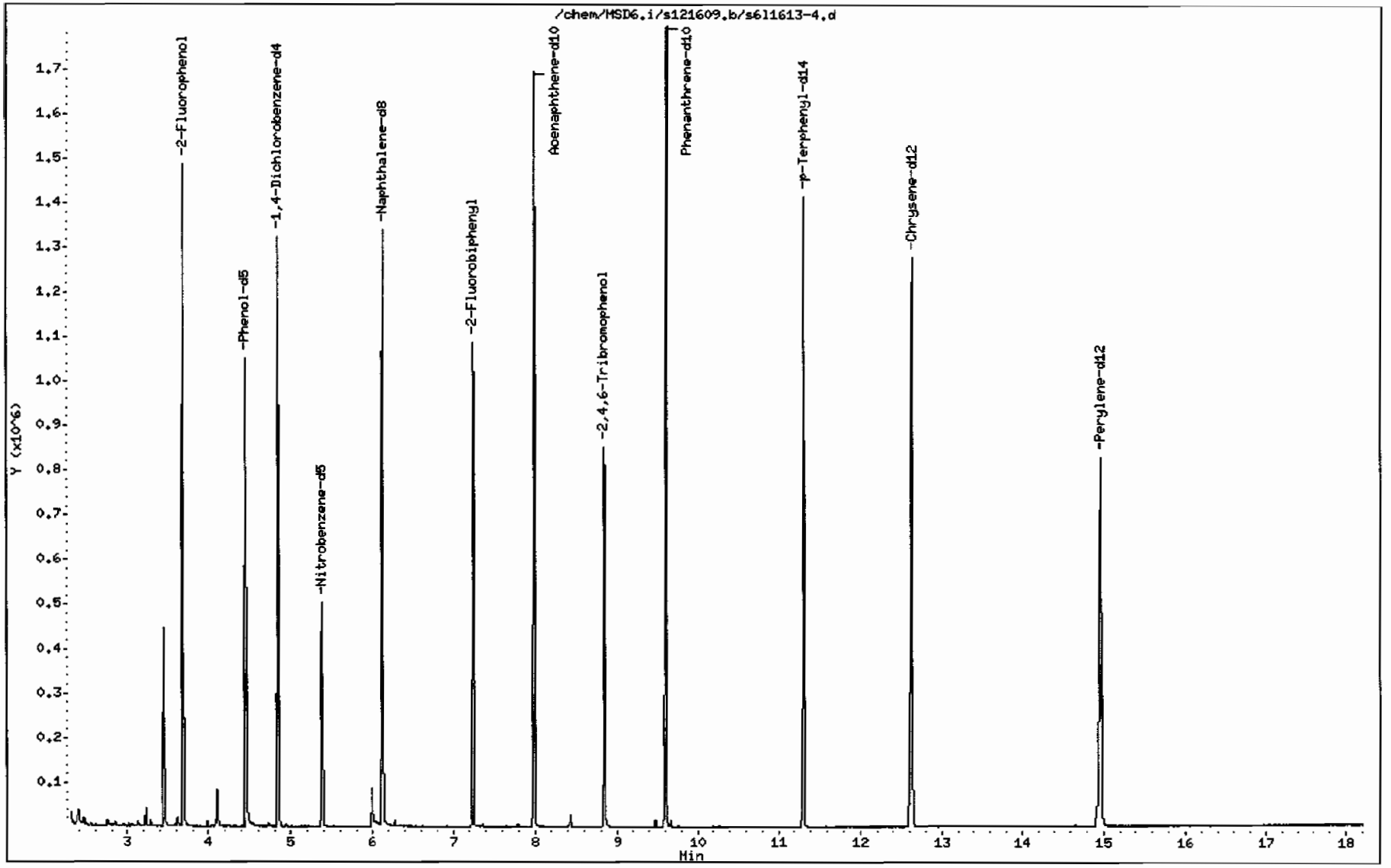

Data File: /chem/MSD6.i/s121609.b/s611613-4.d

Date : 16-DEC-2009 15:15

Client ID: SBLK01

Instrument: MSD6.i

Sample Info: |1201994527|932444|1|SVMF|1|SBLK01

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Propane, 2,2-dimethoxy-	77-76-9	NIST05.L	4663	78	C5H12O2	104
Propane, 2,2-dimethoxy-	77-76-9	NIST05.L	4658	40	C5H12O2	104
Propanoic acid, 2-methyl-, propyl ester	644-49-5	NIST05.L	13119	17	C7H14O2	130

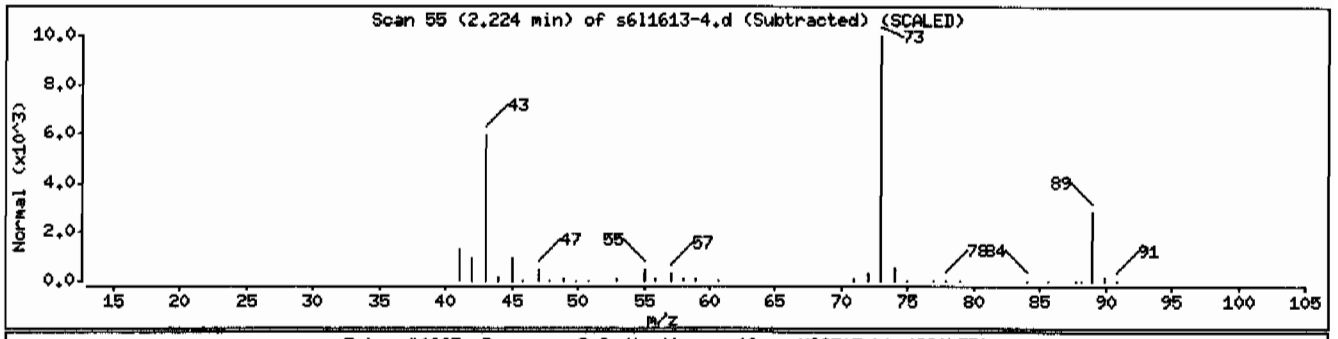

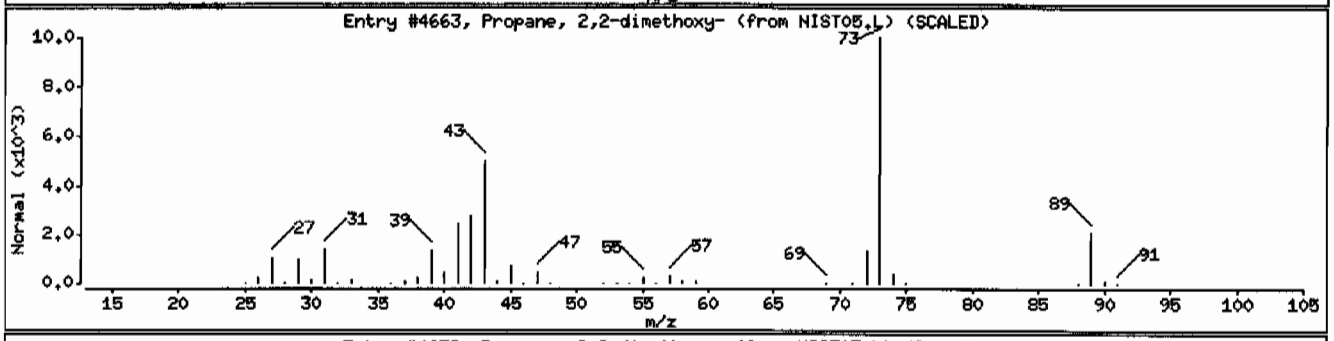

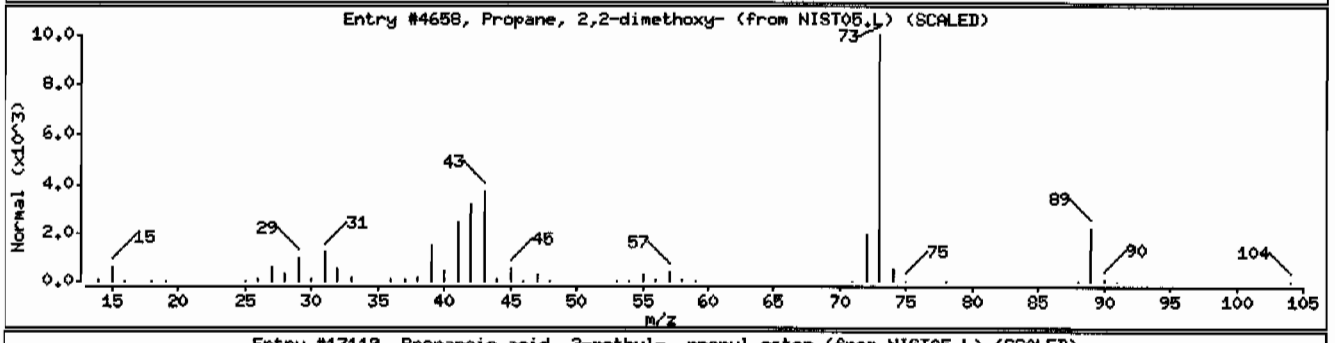

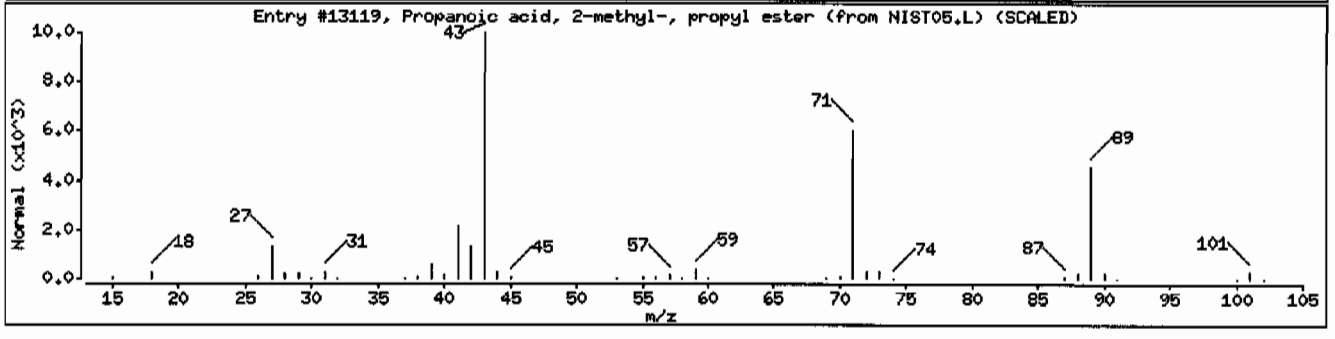

Data File: /chem/MSD6.i/s121609.b/s611613-4.d

Date : 16-DEC-2009 15:15

Client ID: SBLK01

Instrument: MSD6.i

Sample Info: |1201994527|932444|1|SVMF|1|SBLK01

Volume Injected (uL): 0.5

Operator: nagl

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	59	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	38	C6H12O2	116
Acetic acid, cyano-, methyl ester	105-34-0	NIST05.L	3380	9	C4H5NO2	99

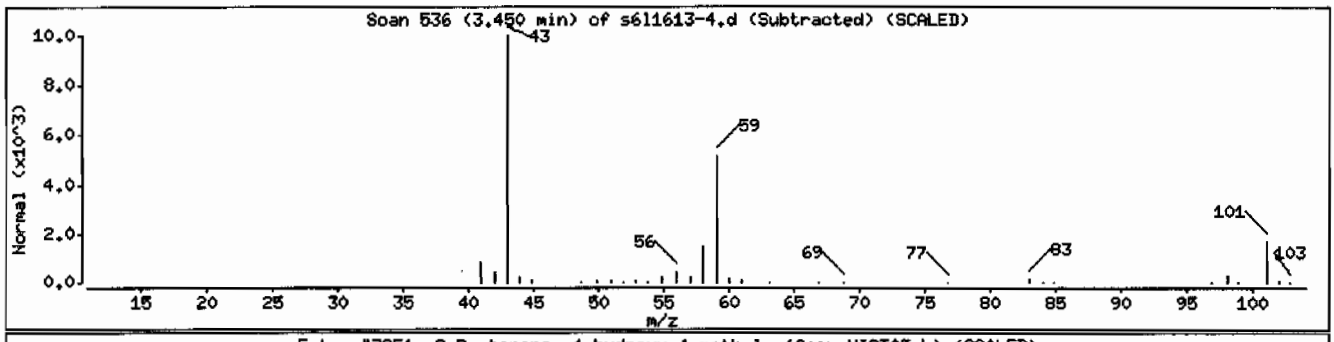

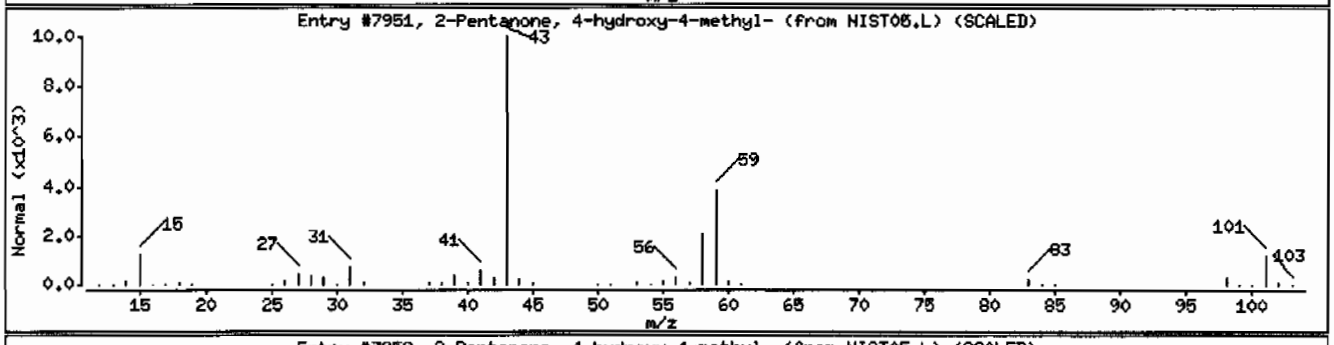

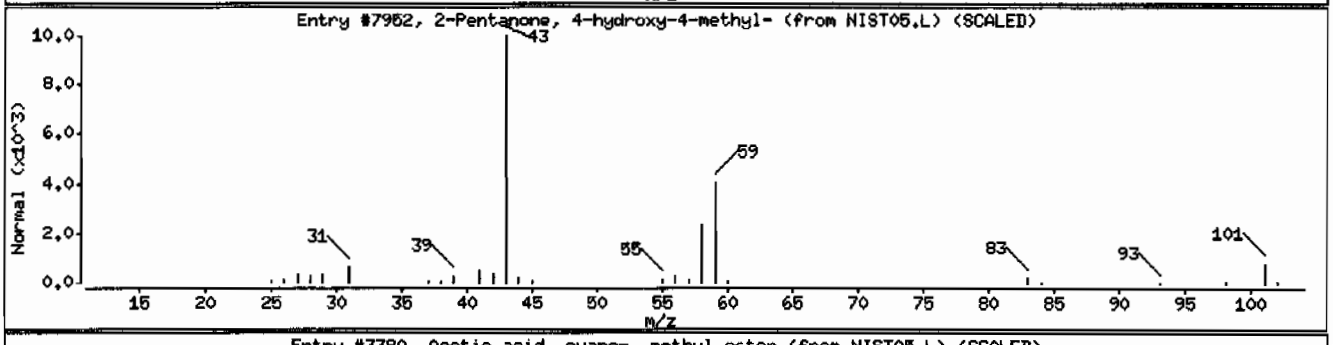

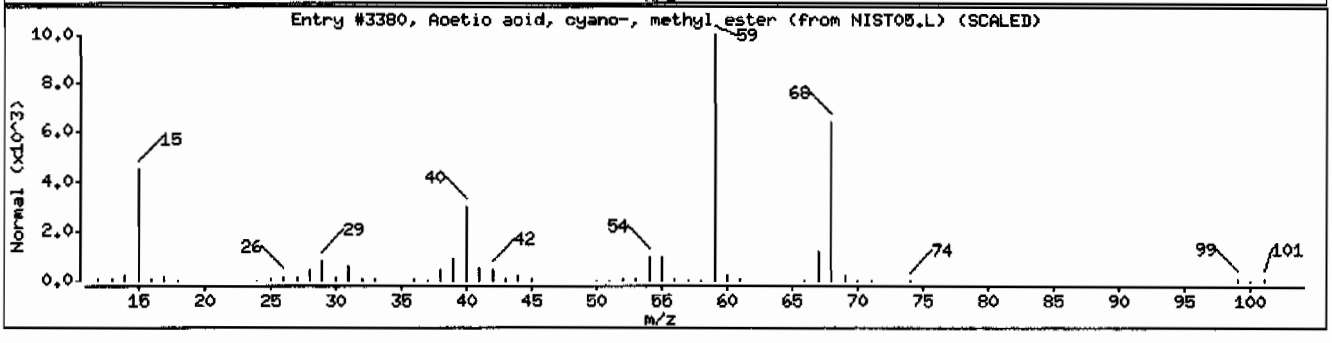

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-886			Matrix:	SOIL
Lab Sample ID:	1201994528				
Client Sample:	QC for batch 932443	Client:	LANL010	Project:	QC
Client ID:	LCS for batch 932443	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	932444	Inst:	MSD6.I	Dilution:	1
Run Date:	12/16/2009 15:45	Analyst:	NAG1	Inj. Vol:	.5 uL
Prep Date:	12/14/2009 09:47	Aliquot:	30 g	Final Volume:	1 mL
Data File:	s6l1614-1.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine		946	ug/kg	66.7	333
108-95-2	Phenol		1190	ug/kg	66.7	333
95-57-8	2-Chlorophenol		1160	ug/kg	66.7	333
106-46-7	1,4-Dichlorobenzene		964	ug/kg	66.7	333
621-64-7	N-Nitrosodipropylamine		996	ug/kg	66.7	333
59-50-7	4-Chloro-3-methylphenol		1200	ug/kg	66.7	333
83-32-9	Acenaphthene		1180	ug/kg	11.0	33.3
121-14-2	2,4-Dinitrotoluene		1340	ug/kg	33.3	333
100-02-7	4-Nitrophenol		1340	ug/kg	110	333
87-86-5	Pentachlorophenol		1250	ug/kg	83.3	333
129-00-0	Pyrene		1230	ug/kg	10.0	33.3
110-86-1	Pyridine		897	ug/kg	66.7	333
62-53-3	Aniline		1120	ug/kg	100	333
111-44-4	bis(2-Chloroethyl) ether		1010	ug/kg	66.7	333
541-73-1	1,3-Dichlorobenzene		950	ug/kg	66.7	333
100-51-6	Benzyl alcohol		1390	ug/kg	100	333
95-50-1	1,2-Dichlorobenzene		1020	ug/kg	66.7	333
108-60-1	bis(2-Chloroisopropyl)ether		1070	ug/kg	66.7	333
95-48-7	o-Cresol		866	ug/kg	66.7	333
65794-96-9	m,p-Cresols		1250	ug/kg	100	333
67-72-1	Hexachloroethane		944	ug/kg	66.7	333
98-95-3	Nitrobenzene		1100	ug/kg	66.7	333
78-59-1	Isophorone		940	ug/kg	66.7	333
88-75-5	2-Nitrophenol		1180	ug/kg	66.7	333
105-67-9	2,4-Dimethylphenol		1030	ug/kg	117	333
111-91-1	bis(2-Chloroethoxy)methane		865	ug/kg	66.7	333
120-83-2	2,4-Dichlorophenol		1200	ug/kg	66.7	333
65-85-0	Benzoic acid		3080	ug/kg	167	667
91-20-3	Naphthalene		1020	ug/kg	10.0	33.3
106-47-8	4-Chloroaniline		1140	ug/kg	66.7	333
87-68-3	Hexachlorobutadiene		1060	ug/kg	66.7	333
91-57-6	2-Methylnaphthalene		1060	ug/kg	6.67	33.3
77-47-4	Hexachlorocyclopentadiene		1040	ug/kg	66.7	333
88-06-2	2,4,6-Trichlorophenol		1180	ug/kg	66.7	333
95-95-4	2,4,5-Trichlorophenol		1190	ug/kg	66.7	333
91-58-7	2-Chloronaphthalene		1090	ug/kg	11.0	33.3
88-74-4	2-Nitroaniline		1100	ug/kg	66.7	333
	o-Nitroaniline					
99-09-2	3-Nitroaniline		1380	ug/kg	66.7	333

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-886			Matrix:	SOIL
Lab Sample ID:	1201994528				
Client Sample:	QC for batch 932443	Client:	LANL010	Project:	QC
Client ID:	LCS for batch 932443	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	932444	Inst:	MSD6.I	Dilution:	1
Run Date:	12/16/2009 15:45	Analyst:	NAG1	Inj. Vol:	.5 uL
Prep Date:	12/14/2009 09:47	Aliquot:	30 g	Final Volume:	1 mL
Data File:	s6l1614-1.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate		1240	ug/kg	66.7	333
606-20-2	2,6-Dinitrotoluene		1210	ug/kg	33.3	333
208-96-8	Acenaphthylene		1220	ug/kg	10.0	33.3
51-28-5	2,4-Dinitrophenol		1500	ug/kg	127	667
132-64-9	Dibenzofuran		1500	ug/kg	66.7	333
84-66-2	Diethylphthalate		1300	ug/kg	66.7	333
86-73-7	Fluorene		1280	ug/kg	10.0	33.3
7005-72-3	4-Chlorophenylphenylether		1300	ug/kg	66.7	333
534-52-1	2-Methyl-4,6-dinitrophenol		1250	ug/kg	66.7	333
100-01-6	4-Nitroaniline		1500	ug/kg	100	333
	p-Nitroaniline					
122-39-4	Diphenylamine		1200	ug/kg	66.7	333
122-66-7	Azobenzene		1250	ug/kg	66.7	333
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether		1250	ug/kg	66.7	333
118-74-1	Hexachlorobenzene		1220	ug/kg	66.7	333
85-01-8	Phenanthrene		1190	ug/kg	10.0	33.3
120-12-7	Anthracene		1220	ug/kg	6.67	33.3
84-74-2	Di-n-butylphthalate		1390	ug/kg	66.7	333
206-44-0	Fluoranthene		1360	ug/kg	10.0	33.3
85-68-7	Butylbenzylphthalate		1410	ug/kg	66.7	333
56-55-3	Benzo(a)anthracene		1390	ug/kg	10.0	33.3
91-94-1	3,3'-Dichlorobenzidine		1070	ug/kg	100	333
218-01-9	Chrysene		1300	ug/kg	10.0	33.3
117-81-7	bis(2-Ethylhexyl)phthalate		1460	ug/kg	66.7	333
117-84-0	Di-n-octylphthalate		1480	ug/kg	66.7	333
205-99-2	Benzo(b)fluoranthene		1430	ug/kg	10.0	33.3
207-08-9	Benzo(k)fluoranthene		1320	ug/kg	10.0	33.3
50-32-8	Benzo(a)pyrene		1440	ug/kg	10.0	33.3
193-39-5	Indeno(1,2,3-cd)pyrene		1430	ug/kg	10.0	33.3
53-70-3	Dibenzo(a,h)anthracene		1350	ug/kg	10.0	33.3
191-24-2	Benzo(ghi)perylene		1490	ug/kg	10.0	33.3
120-82-1	1,2,4-Trichlorobenzene		1060	ug/kg	66.7	333

GEL Laboratories LLC

Data file : /chem/MSD6.i/s121609.b/s611614-4.d
Lab Smp Id: 1201994528 Client Smp ID: SBLK01LCS
Inj Date : 16-DEC-2009 15:45
Operator : nagl Inst ID: MSD6.i
Smp Info : |1201994528|932444|1|SVMF|1|SBLK01LCS
Misc Info : |MSD8270_S|WBN091208-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s121609.b/MSD6-M8270C-AQA-110909.m
Meth Date : 17-Dec-2009 08:11 nat00999 Quant Type: ISTD
Cal Date : 11-NOV-2009 04:38 Cal File: s6k0954.d
Als bottle: 5 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-886.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	0.00000	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	4.844	4.849	(1.000)	222177	40.0000	
* 29 Naphthalene-d8	136	6.128	6.131	(1.000)	901365	40.0000	
* 46 Acenaphthene-d10	164	8.001	8.001	(1.000)	432311	40.0000	
* 67 Phenanthrene-d10	188	9.611	9.611	(1.000)	823729	40.0000	
* 91 Chrysene-d12	240	12.636	12.633	(1.000)	674416	40.0000	
* 98 Perylene-d12	264	14.975	14.973	(1.000)	578792	40.0000	
$ 3 2-Fluorophenol	112	3.684	3.674	(0.761)	372834	67.0105	2230
$ 5 Phenol-d5	99	4.462	4.457	(0.921)	469261	66.8245	2230
$ 20 Nitrobenzene-d5	82	5.386	5.389	(0.879)	211354	33.1473	1100
$ 39 2-Fluorobiphenyl	172	7.254	7.254	(0.907)	362416	32.5299	1080
$ 60 2,4,6-Tribromophenol	329	8.852	8.850	(1.106)	107810	85.4415	2850
$ 81 p-Terphenyl-d14	244	11.316	11.316	(0.896)	463851	42.6487	1420

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
6 Phenol	94	4.474	4.469	(0.924)	252199	35.7184	1190(Q)
8 2-Chlorophenol	128	4.650	4.650	(0.960)	196801	34.6995	1160
11 1,4-Dichlorobenzene	146	4.859	4.867	(1.003)	191411	28.9194	964
17 N-Nitrosodipropylamine	70	5.216	5.226	(1.077)	117602	29.8774	996(Q)
28 1,2,4-Trichlorobenzene	180	6.059	6.062	(0.989)	173287	31.6963	1060
33 4-Chloro-3-methylphenol	107	6.683	6.676	(1.091)	162030	36.0304	1200
47 Acenaphthene	154	8.037	8.037	(1.004)	345185	35.4279	1180
50 2,4-Dinitrotoluene	165	8.189	8.192	(1.024)	134310	40.2669	1340
52 4-Nitrophenol	139	8.110	8.103	(1.014)	71925	40.3171	1340
65 Pentachlorophenol	266	9.395	9.390	(0.977)	66085	37.5769	1250
79 Pyrene	202	11.178	11.176	(0.885)	683973	36.8720	1230
2 Pyridine	79	2.785	2.737	(0.575)	126735	26.9203	897
4 Aniline	66	4.533	4.538	(0.936)	98294	33.5466	1120
7 bis(2-Chloroethyl) ether	63	4.566	4.574	(0.943)	145160	30.3600	1010
9 1,3-Dichlorobenzene	146	4.790	4.798	(0.989)	186152	28.5106	950
12 Benzyl alcohol	108	4.961	4.961	(1.024)	147171	41.7682	1390
13 1,2-Dichlorobenzene	146	5.009	5.017	(1.034)	188857	30.5682	1020
14 bis(2-Chloroisopropyl)ether	45	5.076	5.083	(1.048)	341558	31.9972	1070
15 o-Cresol	107	5.053	5.045	(1.043)	119990	25.9838	866
18 m,p-Cresols	107	5.198	5.203	(1.073)	219772	37.5592	1250
19 Hexachloroethane	117	5.346	5.348	(1.104)	72516	28.3202	944
21 Nitrobenzene	77	5.404	5.410	(0.882)	212840	33.1190	1100
22 Isophorone	82	5.639	5.644	(0.920)	321407	28.2150	940
23 2-Nitrophenol	139	5.723	5.726	(0.934)	105064	35.4437	1180
24 2,4-Dimethylphenol	122	5.738	5.736	(0.936)	152351	31.0201	1030
25 bis(2-Chloroethoxy)methane	93	5.840	5.840	(0.953)	174011	25.9573	865
26 2,4-Dichlorophenol	162	5.970	5.968	(0.974)	160733	36.0819	1200
27 Benzoic acid	105	5.868	5.850	(0.958)	280267	92.4518	3080
30 Naphthalene	128	6.151	6.154	(1.004)	552768	30.7429	1020
31 4-Chloroaniline	127	6.192	6.189	(1.010)	198075	34.2747	1140
32 Hexachlorobutadiene	225	6.261	6.261	(1.022)	90184	31.6773	1060
34 2-Methylnaphthalene	142	6.875	6.875	(1.122)	343818	31.6879	1060
36 Hexachlorocyclopentadiene	237	7.033	7.033	(0.879)	54376	31.1398	1040
37 2,4,6-Trichlorophenol	196	7.168	7.165	(0.896)	104480	35.4186	1180
38 2,4,5-Trichlorophenol	196	7.211	7.203	(0.901)	112266	35.7367	1190
40 2-Chloronaphthalene	162	7.399	7.400	(0.925)	317174	32.6685	1090
42 o-Nitroaniline	65	7.499	7.499	(0.937)	109117	32.8518	1100
41 m-Nitroaniline	138	7.940	7.942	(0.992)	100428	41.3040	1380
43 Dimethylphthalate	163	7.680	7.685	(0.960)	413335	37.2714	1240
44 2,6-Dinitrotoluene	165	7.756	7.756	(0.969)	95775	36.2074	1210
45 Acenaphthylene	152	7.851	7.851	(0.981)	572428	36.6693	1220
48 2,4-Dinitrophenol	184	8.052	8.052	(1.006)	42991	44.9210	1500(Q)
49 Dibenzofuran	168	8.220	8.220	(1.027)	591964	45.0099	1500
51 Diethylphthalate	149	8.437	8.437	(1.054)	434374	38.8939	1300
53 Fluorene	166	8.592	8.592	(1.074)	413862	38.3392	1280
54 4-Chlorophenylphenylether	204	8.574	8.574	(1.072)	199458	39.1062	1300
55 2-Methyl-4,6-dinitrophenol	198	8.635	8.633	(0.898)	67586	37.5343	1250

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
56 p-Nitroaniline	138	8.605	8.605	(1.075)	104686	45.0291	1500
133 Diphenylamine	169	8.704	8.702	(0.906)	358751	36.1327	1200
58 1,2-Diphenylhydrazine	77	8.750	8.750	(0.910)	472482	37.4119	1250
61 4-Bromophenylphenylether	248	9.107	9.107	(0.948)	121862	37.4915	1250
63 Hexachlorobenzene	284	9.186	9.183	(0.956)	124574	36.5890	1220
68 Phenanthrene	178	9.639	9.637	(1.003)	609394	35.7731	1190
69 Anthracene	178	9.693	9.693	(1.008)	624974	36.7049	1220
72 Di-n-butylphthalate	149	10.197	10.197	(1.061)	817015	41.7825	1390
76 Fluoranthene	202	10.926	10.926	(1.137)	666126	40.8204	1360
85 Butylbenzylphthalate	149	11.851	11.849	(0.938)	358880	42.2744	1410
89 Benzo(a)anthracene	228	12.613	12.613	(0.998)	606807	41.7031	1390
90 3,3'-Dichlorobenzidine	252	12.554	12.552	(0.994)	152910	32.1016	1070
92 Chrysene	228	12.669	12.669	(1.003)	544751	39.0731	1300
93 bis(2-Ethylhexyl)phthalate	149	12.575	12.575	(0.995)	514043	43.9048	1460
94 Di-n-octylphthalate	149	13.566	13.564	(0.906)	818399	44.4901	1480
95 Benzo(b)fluoranthene	252	14.292	14.295	(0.954)	551120	43.0332	1430
96 Benzo(k)fluoranthene	252	14.341	14.343	(0.958)	505143	39.6658	1320
97 Benzo(a)pyrene	252	14.873	14.871	(0.993)	478979	43.3007	1440
99 Indeno(1,2,3-cd)pyrene	276	16.965	16.963	(1.133)	453867	42.8580	1430
100 Dibenzo(a,h)anthracene	278	16.998	16.993	(1.135)	347439	40.4217	1350
101 Benzo(ghi)perylene	276	17.485	17.480	(1.168)	377799	44.7059	1490
1 N-Methyl-N-nitrosomethylamine	74	2.734	2.701	(0.564)	107401	28.3947	946

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: /chem/MSD6.i/s121609.b/s611614-4.d
Date : 16-DEC-2009 15:45
Client ID: SBLK01LCS
Sample Info: 1120199452819324441|SVMF1|SBLK01LCS
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD6.i
Operator: nag1
Column diameter: 0.20

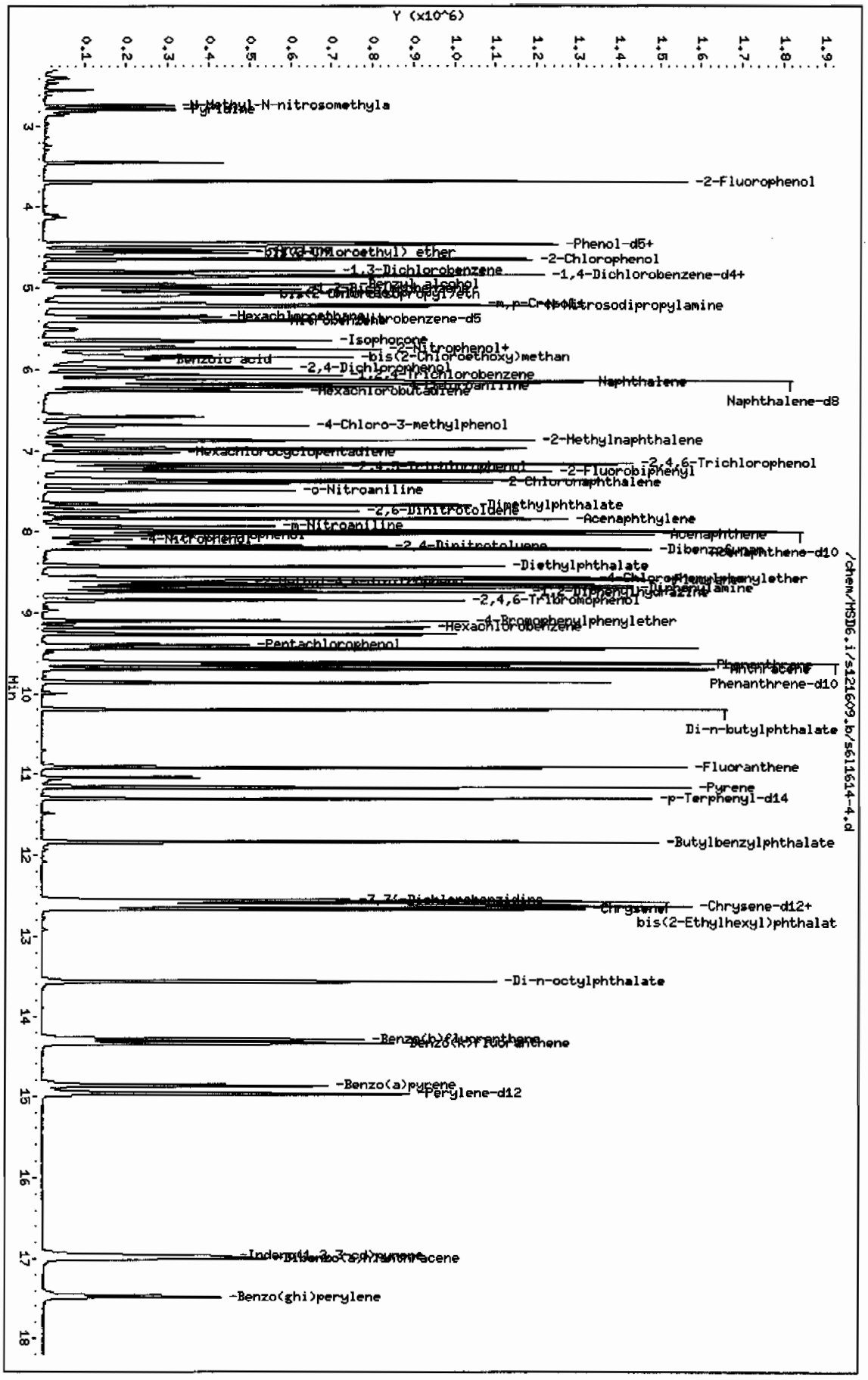

Page 1

Miscellaneous Data

Prep Logbook

Extraction of Semivolatile and Nonvolatile Organic Compounds from Soil, Sludge, and Other Miscellaneous Solid Samples

Batch ID: 932443 **Verified by:** _____

Analyst: Robin Hunt

Method: SW846 3550B

Lab SOP: GL-OA-E-010 REV# 18

Instrument: Semi-Volatiles Manual

Sample ID	Run Date	Aliqnot (g)	Prepped Aliqnot (mL)	Prepped Factor (mL/g)
1201994527 MB	14-DEC-2009 09:47:05	30	1	0.03333
1201994528 LCS	14-DEC-2009 09:47:05	30	1	0.03333
242298004 - 2	14-DEC-2009 09:47:05	30	1	0.03333
242668001	14-DEC-2009 09:47:05	30.07	1	0.03326
242668002	14-DEC-2009 09:47:05	30.02	1	0.03331
242743002	14-DEC-2009 09:47:05	30.05	1	0.03328
242746001	14-DEC-2009 09:47:05	30.01	1	0.03332
242746002	14-DEC-2009 09:47:05	30.02	1	0.03331
242750001	14-DEC-2009 09:47:05	30.03	1	0.0333
242750002	14-DEC-2009 09:47:05	30.01	1	0.03332
242750003	14-DEC-2009 09:47:05	30	1	0.03333
242750004	14-DEC-2009 09:47:05	30.02	1	0.03331
242750005	14-DEC-2009 09:47:05	30.04	1	0.03329
242784003	14-DEC-2009 09:47:05	30.03	1	0.0333
242784004	14-DEC-2009 09:47:05	30	1	0.03333
242791001	14-DEC-2009 09:47:05	30.03	1	0.0333
1201994529 MS (242791001)	14-DEC-2009 09:47:05	30.09	1	0.03323
1201994530 MSD (242791001)	14-DEC-2009 09:47:05	30.02	1	0.03331
242791002	14-DEC-2009 09:47:05	30.01	1	0.03332
242794001	14-DEC-2009 09:47:05	30.03	1	0.0333
242794002	14-DEC-2009 09:47:05	30.03	1	0.0333
242794003	14-DEC-2009 09:47:05	30	1	0.03333
242794004	14-DEC-2009 09:47:05	30	1	0.03333

Type	Sample Id	Description	Serial Number	Spike Amt	Units
LCS	1201994528	BENZIDINE LCS	UE091130-21	1	mL
LCS	1201994528	BNA LCS w/o Benzidine 50ppm	UE091202-11	1	mL
MS	1201994529	BENZIDINE LCS	UE091130-21	1	mL
MS	1201994529	BNA LCS w/o Benzidine 50ppm	UE091202-11	1	mL
MSD	1201994530	BENZIDINE LCS	UE091130-21	1	mL
MSD	1201994530	BNA LCS w/o Benzidine 50ppm	UE091202-11	1	mL
SURR	All	BNA for all Surrogate	UE091130-10	1	mL
REGNT	All	Acetone	1233927	150	mL
REGNT	All	Methylene Chloride	1239699-D	150	mL
SOURC	All	SODIUM SULFATE	1237409	30	g

Comments:

Verified By: JAM

Final Solvent: CH2Cl2

GEL ORGANIC RUN LOG INSTRUMENT ID: MSD6

DATE: 11/09/2009 METHOD: See raw data OPERATOR: JMB3 REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT:1198658-D
Multiplier Voltage: 1565 Emv Extr. Injection Volume: 0.5, 1.0 ul
DFTPP Solution ID: WBN091101-01 Internal Std ID: WBN091106-10
CALIBRATION & QC INFORMATION:
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.

SOP: GL-OA-E-009 Rev. 22 Sequence Number: /chem/MSD6.i/s110909.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
s6k0901.d	WBN091101-01	JMB3	09-NOV-2009 11:20	50 PPM	s110909	1.0	DFTPP	DUSE
s6k0902.d	inst blk	JMB3	09-NOV-2009 11:35	--------	s110909	1.0	INST BLK	DUSE
s6k0903.d	WBN091106-08	JMB3	09-NOV-2009 12:23	1 PPM	s110909	1.0	MEGAICAL	DUSE
s6k0904.d	WBN091106-07	JMB3	09-NOV-2009 13:00	10 PPM	s110909	1.0	MEGAICAL	DUSE
s6k0905.d	WBN091106-06	JMB3	09-NOV-2009 13:36	20 PPM	s110909	1.0	MEGAICAL	DUSE
s6k0906.d	WBN091106-05.1	JMB3	09-NOV-2009 14:14	40 PPM	s110909	1.0	MEGAICAL	DUSE
s6k0907.d	WBN091106-04	JMB3	09-NOV-2009 14:52	50 PPM	s110909	1.0	MEGAICAL	DUSE
s6k0908.d	WBN091106-03	JMB3	09-NOV-2009 15:30	80 PPM	s110909	1.0	MEGAICAL	DUSE
s6k0909.d	WBN091106-02	JMB3	09-NOV-2009 16:06	100 PPM	s110909	1.0	MEGAICAL	DUSE
s6k0910.d	WBN091106-01	JMB3	09-NOV-2009 16:43	120 PPM	s110909	1.0	MEGAICAL	DUSE
s6k0911-D.d	WBN091101-01	JMB3	09-NOV-2009 18:00	50 PPM	s110909	1.0	DFTPP	
s6k0911.d	WBN091101-01	JMB3	09-NOV-2009 18:00	50 PPM	s110909	1.0	DFTPP	
s6k0912.d	inst blk	JMB3	09-NOV-2009 18:15	--------	s110909	1.0	INST BLK	
s6k0913.d	WBN091106-08	JMB3	09-NOV-2009 18:53	1 PPM	s110909	1.0	MEGAICAL	
s6k0914.d	WBN091106-07	JMB3	09-NOV-2009 19:31	10 PPM	s110909	1.0	MEGAICAL	
s6k0915.d	WBN091106-06	JMB3	09-NOV-2009 20:09	20 PPM	s110909	1.0	MEGAICAL	
s6k0916.d	WBN091106-05.1	JMB3	09-NOV-2009 20:46	40 PPM	s110909	1.0	MEGAICAL	
s6k0917.d	WBN091106-04	JMB3	09-NOV-2009 21:25	50 PPM	s110909	1.0	MEGAICAL	
s6k0918.d	WBN091106-03	JMB3	09-NOV-2009 22:01	80 PPM	s110909	1.0	MEGAICAL	

s6k0919.d	WBN091106-02	JMB3	09-NOV-2009 22:39	100 PPM	s110909	1.0	MEGAICAL	
s6k0920.d	WBN091106-01	JMB3	09-NOV-2009 23:16	120 PPM	s110909	1.0	MEGAICAL	
s6k0921-D.d	WBN091101-01	JMB3	10-NOV-2009 11:07	50 PPM	s110909	1.0	DFTPP	
s6k0921.d	WBN091101-01	JMB3	10-NOV-2009 11:07	50 PPM	s110909	1.0	DFTPP	
s6k0922.d	inst blk	JMB3	10-NOV-2009 11:21	--------	s110909	1.0	INST BLK	
s6k0923.d	WBN091016-01	JMB3	10-NOV-2009 11:59	10 PPM	s110909	1.0	AP12ICAL	
s6k0924.d	WBN091016-02	JMB3	10-NOV-2009 12:36	20 PPM	s110909	1.0	AP12ICAL	
s6k0925.d	WBN091016-03	JMB3	10-NOV-2009 13:13	40 PPM	s110909	1.0	AP12ICAL	
s6k0926.d	WBN091016-04	JMB3	10-NOV-2009 13:51	50 PPM	s110909	1.0	AP12ICAL	
s6k0927.d	WBN091016-05	JMB3	10-NOV-2009 14:30	80 PPM	s110909	1.0	AP12ICAL	
s6k0928.d	WBN091016-06	JMB3	10-NOV-2009 15:06	100 PPM	s110909	1.0	AP12ICAL	
s6k0929.d	WBN091016-07	JMB3	10-NOV-2009 15:43	120 PPM	s110909	1.0	AP12ICAL	
s6k0930.d	WBN091029-25	JMB3	10-NOV-2009 16:20	10 PPM	s110909	1.0	PESTICAL	
s6k0931.d	WBN091029-24	JMB3	10-NOV-2009 16:56	20 PPM	s110909	1.0	PESTICAL	
s6k0932.d	WBN091029-23.1	JMB3	10-NOV-2009 17:33	40 PPM	s110909	1.0	PESTICAL	
s6k0933.d	WBN091029-22	JMB3	10-NOV-2009 18:09	50 PPM	s110909	1.0	PESTICAL	
s6k0934.d	WBN091029-21	JMB3	10-NOV-2009 18:45	80 PPM	s110909	1.0	PESTICAL	
s6k0935.d	WBN091029-20	JMB3	10-NOV-2009 19:21	100 PPM	s110909	1.0	PESTICAL	
s6k0936.d	WBN091029-19	JMB3	10-NOV-2009 19:58	120 PPM	s110909	1.0	PESTICAL	
s6k0937-D.d	WBN091106-09.1	JMB3	10-NOV-2009 20:29	40 PPM	s110909	1.0	MEGAICV	FAILED SC 8270D
s6k0937.d	WBN091106-09.1	JMB3	10-NOV-2009 20:29	40 PPM	s110909	1.0	MEGAICV	
s6k0938-D.d	WBN091016-08.1	JMB3	10-NOV-2009 21:07	40 PPM	s110909	1.0	AP12ICV	
s6k0938.d	WBN091016-08.1	JMB3	10-NOV-2009 21:07	40 PPM	s110909	1.0	AP12ICV	
s6k0939-D.d	WBN091029-26.1	JMB3	10-NOV-2009 21:35	40 PPM	s110909	1.0	PESTICV	
s6k0939.d	WBN091029-26.1	JMB3	10-NOV-2009 21:35	40 PPM	s110909	1.0	PESTICV	
s6k0940-D.d	WBN091101-01	JMB3	10-NOV-2009 22:12	50 PPM	s110909	1.0	DFTPP	
s6k0940.d	WBN091101-01	JMB3	10-NOV-2009 22:12	50 PPM	s110909	1.0	DFTPP	

s6k0941.d	inst blk	JMB3	10-NOV-2009 22:26	--------	s110909		1.0	INST BLK	
s6k0942.d	WBN091016-16	JMB3	10-NOV-2009 22:55	500 PPM	s110909		1.0	HEXICAL	
s6k0943.d	WBN091016-15	JMB3	10-NOV-2009 23:24	1000 PPM	s110909		1.0	HEXICAL	
s6k0944.d	WBN091016-14	JMB3	10-NOV-2009 23:53	1250 PPM	s110909		1.0	HEXICAL	
s6k0945.d	WBN091016-13	JMB3	11-NOV-2009 00:21	1500 PPM	s110909		1.0	HEXICAL	
s6k0946.d	WBN091016-12	JMB3	11-NOV-2009 00:50	1750 PPM	s110909		1.0	HEXICAL	
s6k0947.d	UBN090828-02.4-16	JMB3	11-NOV-2009 01:18	500 PPM	s110909		1.0	HEXICAL	
s6k0948.d	UBN090924-01	JMB3	11-NOV-2009 01:47	10 PPM	s110909		1.0	NEVICAL	
s6k0949.d	UBN090924-02	JMB3	11-NOV-2009 02:16	20 PPM	s110909		1.0	NEVICAL	
s6k0950.d	UBN090924-03	JMB3	11-NOV-2009 02:44	40 PPM	s110909		1.0	NEVICAL	
s6k0951.d	UBN090924-04	JMB3	11-NOV-2009 03:12	50 PPM	s110909		1.0	NEVICAL	DUSE - disabled
s6k0952.d	UBN090924-05	JMB3	11-NOV-2009 03:41	80 PPM	s110909		1.0	NEVICAL	
s6k0953.d	UBN090924-06	JMB3	11-NOV-2009 04:10	100 PPM	s110909		1.0	NEVICAL	
s6k0954.d	UBN090924-07	JMB3	11-NOV-2009 04:38	120 PPM	s110909		1.0	NEVICAL	DUSE - disabled
s6k0955-D.d	WBN091016-10.1	JMB3	11-NOV-2009 05:07	1250 PPM	s110909		1.0	HEXICV	DUSE - failed >70%-130%
s6k0955.d	WBN091016-10.1	JMB3	11-NOV-2009 05:07	1250 PPM	s110909		1.0	HEXICV	

GEL ORGANIC RUN LOG INSTRUMENT ID: MSD6

DATE: 12/16/2009 METHOD: See raw data OPERATOR: nagl REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT:1202440-D
Multiplier Voltage: 1588 Emv Extr. Injection Volume: 0.5, 1.0 ul
DFTPP Solution ID: WBN091213-01 Internal Std ID: WBN091208-01
CALIBRATION & QC INFORMATION:
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.

SOP: GL-OA-E-009 Rev. 23 Sequence Number: /chem/MSD6.i/s121609.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
s611601.d	WBN091213-01	nagl	16-DEC-2009 08:36	50 PPM	s121609	1.0	DFTPP	DUSE
s611602.d	WBN091106-09.1	nagl	16-DEC-2009 08:47	CVS	s121609	1.0	MEGACVS	DUSE
s611603.d	WBN091213-01	nagl	16-DEC-2009 09:25	50 PPM	s121609	1.0	DFTPP	DUSE
s611604.d	WBN091106-09.1	nagl	16-DEC-2009 09:38	CVS	s121609	1.0	MEGACVS	DUSE
s611605.d	WBN091213-01	nagl	16-DEC-2009 11:14	50 PPM	s121609	1.0	DFTPP	DUSE
s611606.d	WBN091106-09.1	nagl	16-DEC-2009 11:28	CVS	s121609	1.0	MEGACVS	DUSE
s611607.d	WBN091201-03.5	nagl	16-DEC-2009 11:57	CVS	s121609	1.0	AP12CVS	DUSE
s611608.d	WBN091106-09.1	nagl	16-DEC-2009 12:25	CVS	s121609	1.0	MEGACVS	DUSE
s611609.d	WBN091202-23.5	nagl	16-DEC-2009 12:53	CVS	s121609	1.0	PESTCVS	DUSE - MAINENTANCE
s611610.d	WBN091213-01	nagl	16-DEC-2009 14:04	50 PPM	s121609	1.0	DFTPP	
s611611.d	WBN091111-17.4	nagl	16-DEC-2009 14:18	CVS	s121609	1.0	MEGACVS	209214
s611612.d	WBN091201-03.5	nagl	16-DEC-2009 14:46	CVS	s121609	1.0	AP12CVS	
s611613-1.d	1201994527	nagl	16-DEC-2009 15:15	932444	10-854	1.0	SBLK01	
s611613-2.d	1201994527	nagl	16-DEC-2009 15:15	932444	10-883	1.0	SBLK01	
s611613-3.d	1201994527	nagl	16-DEC-2009 15:15	932444	10-884	1.0	SBLK01	
s611613-4.d	1201994527	nagl	16-DEC-2009 15:15	932444	10-886	1.0	SBLK01	
s611613-5.d	1201994527	nagl	16-DEC-2009 15:15	932444	10-899	1.0	SBLK01	
s611613-6.d	1201994527	nagl	16-DEC-2009 15:15	932444	10-903	1.0	SBLK01	
s611613-7.d	1201994527	nagl	16-DEC-2009 15:15	932444	10-901	1.0	SBLK01	

s611613.d	1201994527	nag1	16-DEC-2009 15:15	932444	10-788	1.0	SBLK01	
s611614-1.d	1201994528	nag1	16-DEC-2009 15:45	932444	10-854	1.0	SBLK01LCS	
s611614-2.d	1201994528	nag1	16-DEC-2009 15:45	932444	10-883	1.0	SBLK01LCS	
s611614-3.d	1201994528	nag1	16-DEC-2009 15:45	932444	10-884	1.0	SBLK01LCS	
s611614-4.d	1201994528	nag1	16-DEC-2009 15:45	932444	10-886	1.0	SBLK01LCS	
s611614-5.d	1201994528	nag1	16-DEC-2009 15:45	932444	10-899	1.0	SBLK01LCS	
s611614-6.d	1201994528	nag1	16-DEC-2009 15:45	932444	10-903	1.0	SBLK01LCS	
s611614-7.d	1201994528	nag1	16-DEC-2009 15:45	932444	10-901	1.0	SBLK01LCS	
s611614.d	1201994528	nag1	16-DEC-2009 15:45	932444	10-788	1.0	SBLK01LCS	
s611615.d	242298004	nag1	16-DEC-2009 16:13	932444	10-788	1.0	LANLRE	
s611616.d	242668001	nag1	16-DEC-2009 16:42	932444	10-854	1.0	LANL	
s611617.d	242668002	nag1	16-DEC-2009 17:10	932444	10-854	1.0	LANL	
s611618.d	242743002	nag1	16-DEC-2009 17:38	932444	10-883	1.0	LANL	
s611619.d	242746001	nag1	16-DEC-2009 18:07	932444	10-884	1.0	LANL	
s611620.d	242746002	nag1	16-DEC-2009 18:36	932444	10-884	1.0	LANL	
s611621.d	242750001	nag1	16-DEC-2009 19:03	932444	10-886	1.0	LANL	
s611622.d	242750002	nag1	16-DEC-2009 19:31	932444	10-886	1.0	LANL	
s611623.d	242750003	nag1	16-DEC-2009 20:00	932444	10-886	1.0	LANL	
s611624.d	242750004	nag1	16-DEC-2009 20:28	932444	10-886	1.0	LANL	
s611625.d	242750005	nag1	16-DEC-2009 20:56	932444	10-886	1.0	LANL	
s611626.d	242784003	nag1	16-DEC-2009 21:23	932444	10-899	1.0	LANL	
s611627.d	242784004	nag1	16-DEC-2009 21:51	932444	10-899	1.0	LANL	
s611628.d	242791001	nag1	16-DEC-2009 22:19	932444	10-903	1.0	LANL	
s611629.d	1201994529	nag1	16-DEC-2009 22:46	932444	10-903	1.0	LANL_MS	failed spike
s611630.d	1201994530	nag1	16-DEC-2009 23:13	932444	10-903	1.0	LANL_MSD	DUSE - failed IS/spike - RR - see s611717
s611631.d	242791002	nag1	16-DEC-2009 23:41	932444	10-903	1.0	LANL	
s611632.d	242794001	nag1	17-DEC-2009 00:08	932444	10-901	1.0	LANL	

s611633.d	242794002	nagl	17-DEC-2009 00:36	932444	10-901		1.0	LANL
s611634.d	242794003	nagl	17-DEC-2009 01:03	932444	10-901		1.0	LANL
s611635.d	242794004	nagl	17-DEC-2009 01:30	932444	10-901		1.0	LANL

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Data file : /chem/MSD6.i/s121609.b/s611629.d
Lab Smp Id: 1201994529 Client Smp ID: RE16-10-2878MS
Inj Date : 16-DEC-2009 22:46
Operator : nag1 Inst ID: MSD6.i
Smp Info : |1201994529|932444|1|SVMF|1|LANL_MS
Misc Info : |MSD8270_S|WBN091208-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s121609.b/MSD6-M8270C-AQA-110909.m
Meth Date : 17-Dec-2009 08:11 nat00999 Quant Type: ISTD
Cal Date : 11-NOV-2009 04:38 Cal File: s6k0954.d
Als bottle: 20 QC Sample: MS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-903.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.09000	weight of sample
M	12.55480	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	4.849	4.849	(1.000)	163674	40.0000	
* 29 Naphthalene-d8	136	6.131	6.131	(1.000)	738236	40.0000	
* 46 Acenaphthene-d10	164	8.003	8.001	(1.000)	448525	40.0000	
* 67 Phenanthrene-d10	188	9.616	9.611	(1.000)	817803	40.0000	
* 91 Chrysene-d12	240	12.638	12.633	(1.000)	532879	40.0000	
* 98 Perylene-d12	264	14.978	14.973	(1.000)	292729	40.0000	
$ 3 2-Fluorophenol	112	3.690	3.674	(0.761)	278264	67.8897	2580
$ 5 Phenol-d5	99	4.469	4.457	(0.922)	344249	66.5447	2530(H)
$ 20 Nitrobenzene-d5	82	5.389	5.389	(0.879)	126211	24.1679	918
$ 39 2-Fluorobiphenyl	172	7.257	7.254	(0.907)	314417	27.2014	1030
$ 60 2,4,6-Tribromophenol	329	8.855	8.850	(1.106)	93901	71.7282	2730
$ 81 p-Terphenyl-d14	244	11.319	11.316	(0.896)	361402	42.0550	1600

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
6 Phenol	94	4.479	4.469	(0.924)	179202	34.4517	1310(Q)
8 2-Chlorophenol	128	4.658	4.650	(0.961)	125001	29.9178	1140
11 1,4-Dichlorobenzene	146	4.867	4.867	(1.004)	81762	16.7685	637
17 N-Nitrosodipropylamine	70	5.218	5.226	(1.076)	84897	29.2778	1110(Q)
28 1,2,4-Trichlorobenzene	180	6.062	6.062	(0.989)	103101	23.0256	875
33 4-Chloro-3-methylphenol	107	6.696	6.676	(1.092)	160191	43.4928	1650
47 Acenaphthene	154	8.037	8.037	(1.004)	280590	27.7571	1050
50 2,4-Dinitrotoluene	165	8.195	8.192	(1.024)	114109	32.9738	1250
52 4-Nitrophenol	139	8.139	8.103	(1.017)	47752	28.4222	1080
65 Pentachlorophenol	266	9.402	9.390	(0.978)	51378	30.5911	1160
79 Pyrene	202	11.181	11.176	(0.885)	536884	36.6301	1390
2 Pyridine	79	2.772	2.737	(0.572)	45848	13.2198	502(R)
4 Aniline	66	4.538	4.538	(0.936)	40181	18.6150	707(Q)
7 bis(2-Chloroethyl) ether	63	4.574	4.574	(0.943)	81729	23.2033	882
9 1,3-Dichlorobenzene	146	4.798	4.798	(0.989)	104729	21.7734	827
12 Benzyl alcohol	108	4.969	4.961	(1.025)	14496	5.58458	212(aR)
13 1,2-Dichlorobenzene	146	5.015	5.017	(1.034)	88599	19.4663	740
14 bis(2-Chloroisopropyl)ether	45	5.083	5.083	(1.048)	246197	31.3076	1190
15 o-Cresol	107	5.058	5.045	(1.043)	118735	34.9025	1330
18 m,p-Cresols	107	5.203	5.203	(1.073)	170939	39.6556	1510
19 Hexachloroethane	117	5.348	5.348	(1.103)	30048	15.9293	605
21 Nitrobenzene	77	5.410	5.410	(0.882)	127426	24.2096	920
22 Isophorone	82	5.641	5.644	(0.920)	267366	28.6574	1090
23 2-Nitrophenol	139	5.728	5.726	(0.934)	64927	26.7434	1020
24 2,4-Dimethylphenol	122	5.748	5.736	(0.938)	99016	24.6155	936
25 bis(2-Chloroethoxy)methane	93	5.840	5.840	(0.953)	145323	26.4681	1000
26 2,4-Dichlorophenol	162	5.978	5.968	(0.975)	125218	34.3208	1300
27 Benzoic acid	105	5.876	5.850	(0.958)	248070	99.9133	3800
30 Naphthalene	128	6.154	6.154	(1.004)	340898	23.1490	880
31 4-Chloroaniline	127	6.194	6.189	(1.010)	95865	20.2539	770
32 Hexachlorobutadiene	225	6.261	6.261	(1.021)	53747	23.0504	876
34 2-Methylnaphthalene	142	6.877	6.875	(1.122)	277963	31.2793	1190
36 Hexachlorocyclopentadiene	237	7.033	7.033	(0.879)	12532	6.91734	263(aR)
37 2,4,6-Trichlorophenol	196	7.170	7.165	(0.896)	91938	30.0402	1140
38 2,4,5-Trichlorophenol	196	7.221	7.203	(0.902)	116586	35.7703	1360(H)
40 2-Chloronaphthalene	162	7.402	7.400	(0.925)	268724	26.6776	1010
42 o-Nitroaniline	65	7.504	7.499	(0.938)	98604	28.6135	1090
41 m-Nitroaniline	138	7.945	7.942	(0.993)	67440	26.7341	1020
43 Dimethylphthalate	163	7.682	7.685	(0.960)	376026	32.6814	1240
44 2,6-Dinitrotoluene	165	7.759	7.756	(0.969)	86985	31.6956	1200
45 Acenaphthylene	152	7.851	7.851	(0.981)	479000	29.5752	1120
48 2,4-Dinitrophenol	184	8.060	8.052	(1.007)	20232	28.3001	1080(Q)
49 Dibenzofuran	168	8.223	8.220	(1.027)	517904	37.9552	1440
51 Diethylphthalate	149	8.437	8.437	(1.054)	407695	35.1854	1340
53 Fluorene	166	8.592	8.592	(1.074)	366609	32.7341	1240
54 4-Chlorophenylphenylether	204	8.577	8.574	(1.072)	177882	33.6152	1280
55 2-Methyl-4,6-dinitrophenol	198	8.638	8.633	(0.898)	35208	23.0638	876

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
56 p-Nitroaniline	138	8.610	8.605	(1.076)	78839	34.6223	1320
133 Diphenylamine	169	8.704	8.702	(0.905)	290252	29.4455	1120
58 1,2-Diphenylhydrazine	77	8.753	8.750	(0.910)	398198	31.7585	1210
61 4-Bromophenylphenylether	248	9.109	9.107	(0.947)	101763	31.5348	1200
63 Hexachlorobenzene	284	9.188	9.183	(0.955)	92196	27.2754	1040
68 Phenanthrene	178	9.642	9.637	(1.003)	553469	32.7255	1240
69 Anthracene	178	9.695	9.693	(1.008)	550432	32.5613	1240
72 Di-n-butylphthalate	149	10.200	10.197	(1.061)	696557	35.8803	1360
76 Fluoranthene	202	10.929	10.926	(1.136)	538775	33.2555	1260
85 Butylbenzylphthalate	149	11.851	11.849	(0.938)	284536	42.4194	1610
89 Benzo(a)anthracene	228	12.618	12.613	(0.998)	365948	31.8300	1210
92 Chrysene	228	12.672	12.669	(1.003)	343788	31.2083	1190
93 bis(2-Ethylhexyl)phthalate	149	12.577	12.575	(0.995)	372265	40.2745	1530
94 Di-n-octylphthalate	149	13.566	13.564	(0.906)	529631	56.9284	2160
95 Benzo(b)fluoranthene	252	14.297	14.295	(0.955)	234939	36.2718	1380
96 Benzo(k)fluoranthene	252	14.343	14.343	(0.958)	239075	37.1187	1410
97 Benzo(a)pyrene	252	14.876	14.871	(0.993)	186639	33.3609	1270
99 Indeno(1,2,3-cd)pyrene	276	16.970	16.963	(1.133)	129568	25.5139	970
100 Dibenzo(a,h)anthracene	278	17.001	16.993	(1.135)	110177	26.3542	1000
101 Benzo(ghi)perylene	276	17.488	17.480	(1.168)	93592	21.8977	832
1 N-Methyl-N-nitrosomethylamine	74	2.726	2.701	(0.562)	70428	25.2752	960

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
R - Spike/Surrogate failed recovery limits.
H - Operator selected an alternate compound hit.

Data File: /chem/MSD6.i/s121609.b/s611629.d
Date : 16-DEC-2009 22:46
Client ID: RE16-10-2878MS
Sample Info: 1120199452919324441|1|SVHF1|LANL_MS
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD6.i
Operator: nagl
Column diameter: 0.20

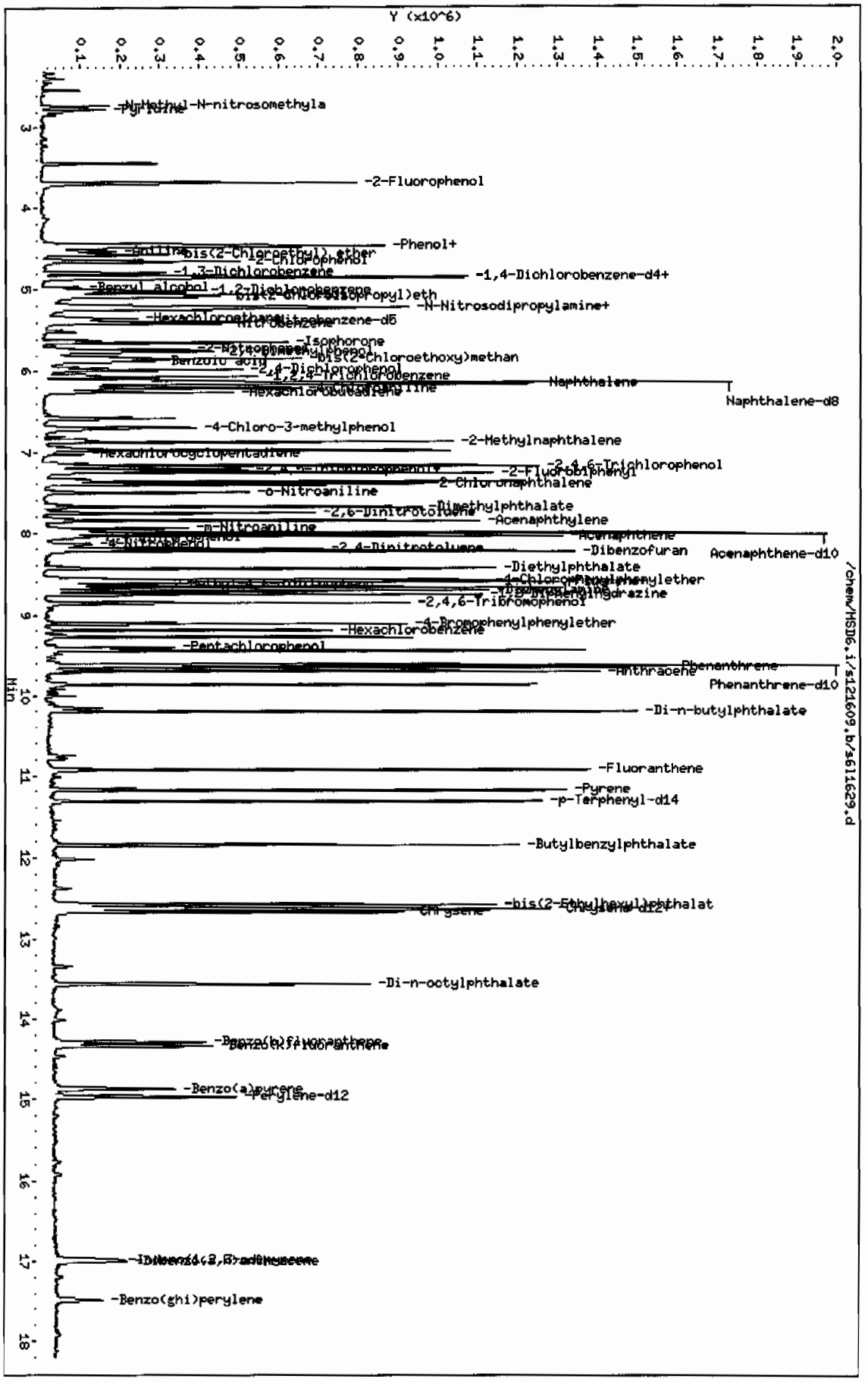

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Data file : /chem/MSD6.i/s121709.b/s611717.d
Lab Smp Id: 1201994530 Client Smp ID: RE16-10-2878MSD
Inj Date : 17-DEC-2009 17:29
Operator : nagl Inst ID: MSD6.i
Smp Info : |1201994530|932444|1|SVMF|1|LANL0001MSD
Misc Info : |MSD8270_S|WBN091208-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s121709.b/MSD6-M8270C-AQA-110909.m
Meth Date : 18-Dec-2009 07:24 nat00999 Quant Type: ISTD
Cal Date : 11-NOV-2009 04:38 Cal File: s6k0954.d
Als bottle: 17 QC Sample: MSD
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-903.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.02000	weight of sample
M	12.55480	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	4.800	4.800	(1.000)	129085	40.0000	
* 29 Naphthalene-d8	136	6.080	6.080	(1.000)	515847	40.0000	
* 46 Acenaphthene-d10	164	7.950	7.950	(1.000)	279099	40.0000	
* 67 Phenanthrene-d10	188	9.563	9.563	(1.000)	473949	40.0000	
* 91 Chrysene-d12	240	12.575	12.575	(1.000)	311788	40.0000	
* 98 Perylene-d12	264	14.893	14.893	(1.000)	210612	40.0000	
$ 3 2-Fluorophenol	112	3.639	3.626	(0.758)	142945	44.2201	1680
$ 5 Phenol-d5	99	4.416	4.410	(0.920)	199032	48.7829	1860
$ 20 Nitrobenzene-d5	82	5.336	5.338	(0.878)	81738	22.3996	853
$ 39 2-Fluorobiphenyl	172	7.206	7.206	(0.906)	186834	25.9759	990
$ 60 2,4,6-Tribromophenol	329	8.804	8.801	(1.107)	49410	60.6545	2310
$ 81 p-Terphenyl-d14	244	11.273	11.270	(0.896)	177869	35.3750	1350

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
6 Phenol	94	4.428	4.423	(0.922)	95211	23.2091	884(Q)
8 2-Chlorophenol	128	4.604	4.602	(0.959)	70953	21.5323	820
11 1,4-Dichlorobenzene	146	4.818	4.816	(1.004)	50256	13.0688	498(R)
17 N-Nitrosodipropylamine	70	5.165	5.170	(1.076)	51665	22.5916	860(Q)
28 1,2,4-Trichlorobenzene	180	6.011	6.011	(0.989)	60779	19.4257	740
33 4-Chloro-3-methylphenol	107	6.643	6.632	(1.093)	69599	27.0431	1030
47 Acenaphthene	154	7.983	7.986	(1.004)	150738	23.9637	913
50 2,4-Dinitrotoluene	165	8.141	8.143	(1.024)	57739	26.8131	1020
52 4-Nitrophenol	139	8.098	8.062	(1.019)	24033	24.3807	929
65 Pentachlorophenol	266	9.351	9.344	(0.978)	27869	28.9762	1100
79 Pyrene	202	11.130	11.130	(0.885)	266462	31.0715	1180
2 Pyridine	79	2.693	2.685	(0.561)	31930	11.6736	445(R)
4 Aniline	66	4.487	4.487	(0.935)	18044	10.5993	404(QR)
7 bis(2-Chloroethyl) ether	63	4.525	4.525	(0.943)	47236	17.0040	648(R)
9 1,3-Dichlorobenzene	146	4.750	4.749	(0.989)	48125	12.6862	483(R)
13 1,2-Dichlorobenzene	146	4.966	4.966	(1.034)	53925	15.0228	572(R)
14 bis(2-Chloroisopropyl)ether	45	5.035	5.035	(1.049)	111888	18.0408	687
15 o-Cresol	107	5.004	4.999	(1.042)	54212	20.2058	770
18 m,p-Cresols	107	5.152	5.152	(1.073)	83018	24.4196	930
19 Hexachloroethane	117	5.300	5.300	(1.104)	17796	11.9621	456(R)
21 Nitrobenzene	77	5.356	5.358	(0.881)	74606	20.2851	773
22 Isophorone	82	5.588	5.593	(0.919)	158801	24.3589	928
23 2-Nitrophenol	139	5.674	5.674	(0.933)	36689	21.6272	824
24 2,4-Dimethylphenol	122	5.690	5.690	(0.936)	50800	18.0735	688
25 bis(2-Chloroethoxy)methane	93	5.789	5.792	(0.952)	87124	22.7092	865
26 2,4-Dichlorophenol	162	5.924	5.922	(0.974)	65748	25.7897	982
27 Benzoic acid	105	5.797	5.784	(0.953)	114913	66.2357	2520
30 Naphthalene	128	6.100	6.102	(1.003)	203459	19.7724	753
31 4-Chloroaniline	127	6.143	6.141	(1.010)	41429	12.5264	477(R)
32 Hexachlorobutadiene	225	6.212	6.212	(1.022)	30125	18.4895	704
34 2-Methylnaphthalene	142	6.826	6.826	(1.123)	157127	25.3043	964
36 Hexachlorocyclopentadiene	237	6.984	6.984	(0.879)	6893	6.11442	233(aR)
37 2,4,6-Trichlorophenol	196	7.119	7.117	(0.896)	49257	25.8645	985
38 2,4,5-Trichlorophenol	196	7.168	7.157	(0.902)	48885	24.1035	918
40 2-Chloronaphthalene	162	7.349	7.348	(0.924)	146431	23.3616	890
42 o-Nitroaniline	65	7.450	7.450	(0.937)	48092	22.4274	854
41 m-Nitroaniline	138	7.891	7.894	(0.993)	27100	17.2641	658(R)
43 Dimethylphthalate	163	7.629	7.636	(0.960)	205487	28.7009	1090
44 2,6-Dinitrotoluene	165	7.705	7.708	(0.969)	44799	26.2332	999
45 Acenaphthylene	152	7.800	7.802	(0.981)	261489	25.9462	988
48 2,4-Dinitrophenol	184	8.009	8.003	(1.007)	8063	23.3390	889(Q)
49 Dibenzofuran	168	8.169	8.169	(1.028)	267522	31.5072	1200
51 Diethylphthalate	149	8.386	8.391	(1.055)	214336	29.7270	1130
53 Fluorene	166	8.541	8.544	(1.074)	187874	26.9583	1030
54 4-Chlorophenylphenylether	204	8.526	8.528	(1.072)	89752	27.2569	1040
55 2-Methyl-4,6-dinitrophenol	198	8.584	8.584	(0.898)	18588	21.6417	824
56 p-Nitroaniline	138	8.554	8.554	(1.076)	29728	23.7641	905

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
133 Diphenylamine	169	8.653	8.653	(0.905)	143667	25.1488	958
58 1,2-Diphenylhydrazine	77	8.702	8.702	(0.910)	198775	27.3552	1040
61 4-Bromophenylphenylether	248	9.058	9.058	(0.947)	50417	26.9584	1030
63 Hexachlorobenzene	284	9.135	9.137	(0.955)	49117	25.0731	955
68 Phenanthrene	178	9.588	9.588	(1.003)	269212	27.4666	1050
69 Anthracene	178	9.644	9.644	(1.009)	270118	27.5720	1050
72 Di-n-butylphthalate	149	10.154	10.151	(1.062)	368181	32.7249	1250
76 Fluoranthene	202	10.880	10.880	(1.138)	265878	28.3176	1080
85 Butylbenzylphthalate	149	11.803	11.803	(0.939)	141487	36.0507	1370
89 Benzo(a)anthracene	228	12.557	12.557	(0.999)	180956	26.9005	1020
92 Chrysene	228	12.608	12.608	(1.003)	175277	27.1940	1040
93 bis(2-Ethylhexyl)phthalate	149	12.524	12.524	(0.996)	172521	31.9847	1220
94 Di-n-octylphthalate	149	13.505	13.502	(0.907)	242115	36.1709	1380
95 Benzo(b)fluoranthene	252	14.221	14.218	(0.955)	136171	29.2201	1110
96 Benzo(k)fluoranthene	252	14.267	14.267	(0.958)	144222	31.1224	1180
97 Benzo(a)pyrene	252	14.794	14.794	(0.993)	116783	29.0134	1100
99 Indeno(1,2,3-cd)pyrene	276	16.881	16.878	(1.133)	95779	26.1306	995
100 Dibenzo(a,h)anthracene	278	16.907	16.909	(1.135)	34823	13.0952	499(R)
101 Benzo(ghi)perylene	276	17.391	17.388	(1.168)	73803	24.0003	914(Q)
1 N-Methyl-N-nitrosomethylamine	74	2.650	2.650	(0.552)	27471	12.5005	476(R)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
R - Spike/Surrogate failed recovery limits.

Data File: /chem/MSD6.i/s121709.b/s611717.d
Date : 17-DEC-2009 17:29
Client ID: RE16-10-2879MSD
Sample Info: 1120199453019324441ISVHF11ILAML0001MSD
Volume Injected (ul): 0.5
Column phase: J&W DB-5MS

Instrument: MSD6.i
Operator: nag1
Column diameter: 0.20

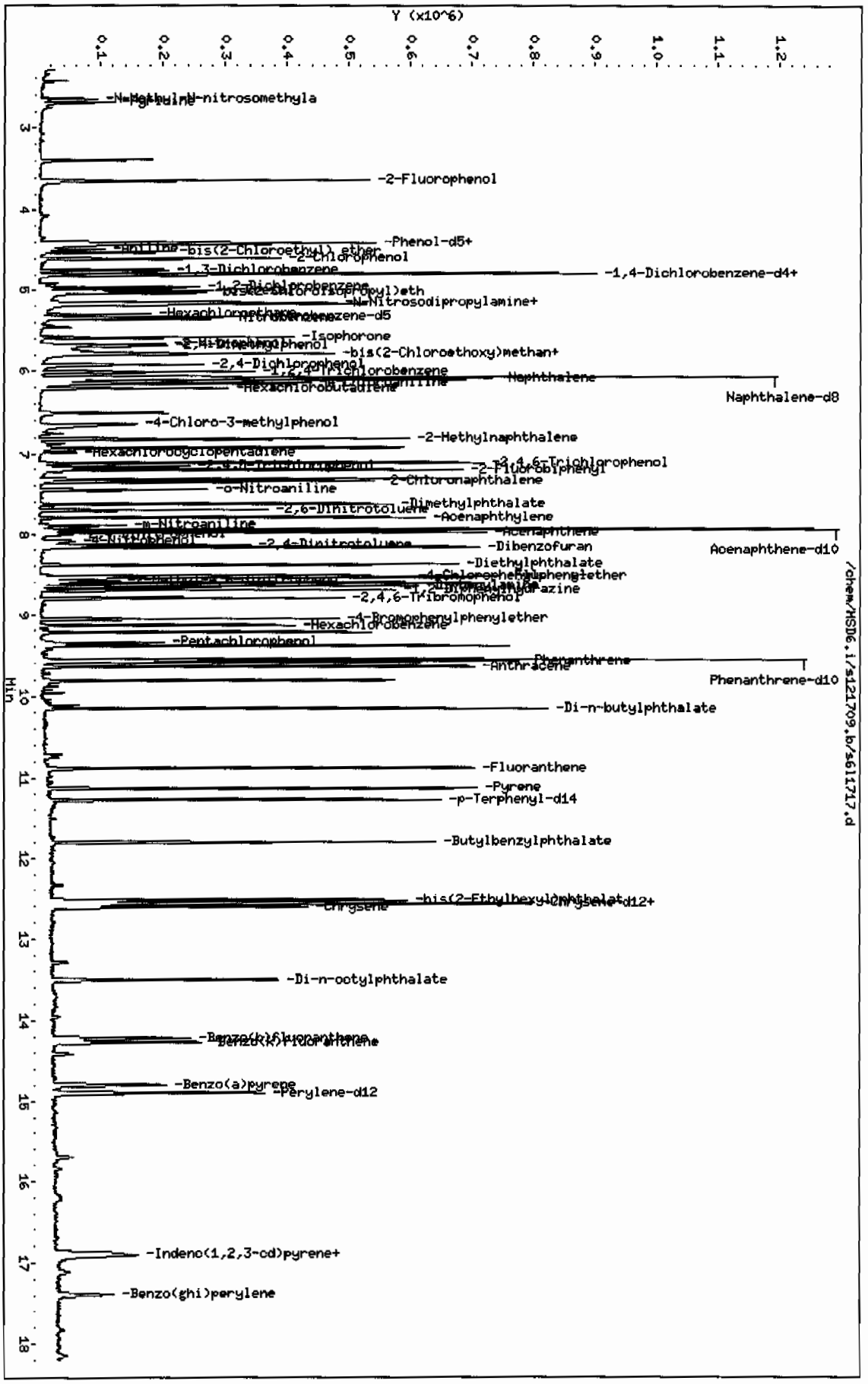

Page 1

GC SEMIVOLATILE DRO ANALYSIS

DRO Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-886

Method/Analysis Information

Procedure:	**Analysis of Diesel Range Organics by Flame Ionization Detector**
Analytical Method:	SW846 8015A/B SVOC
Prep Method:	SW846 3550B
Analytical Batch Number:	933001
Prep Batch Number:	933000

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 8015A/B SVOC:

Sample ID	Client ID
242750001	RE03-09-13467
242750002	RE03-09-13466
242750003	RE03-09-13468
242750004	RE03-09-13465
242750005	RE03-10-2003
1201995990	Method Blank (MB)
1201995991	Laboratory Control Sample (LCS)
1201995992	242794001(RE03-09-13470) Matrix Spike (MS)
1201995993	242794001(RE03-09-13470) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on a "dry weight" basis.

Preparation/Analytical Method Verification

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-003 REV# 18.

Raw data reports are processed and reviewed by the analyst using the Target software package. False positives have been removed from the Target quantitation reports per standard operating procedures (SOP) section 23.0.

Calibration Information

Initial Calibration
All initial calibration requirements have been met for this sample delivery group (SDG).

The linear equation used in Target and indicated on the initial calibration summary form is not a conventional linear equation (slope intercept formula) and does not match the equation found in SW-846 method 8000B. The x and y axes are inversed in Target, so that the instrument response is treated as the independent variable (x) and the concentration ratio is treated as the dependent variable (y). The equation used in Target to calculate sample results is adjusted to account for the linear equation inversion and reciprocal slope. The adjusted calculation has been independently verified to produce valid results.

Continuing Calibration Verification (CCV) Requirements
All associated calibration verification standard(s) (ICV or CCV) met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Surrogate Recoveries
All surrogate recoveries were within the established acceptance criteria for this SDG.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

QC Sample Designation
A LANL sample of similar matrix associated with another SDG (#10-901) was selected for the matrix spike and matrix spike duplicate analysis. A Form III and QC raw data are included in the package summarizing the results.

Matrix Spike (MS) Recovery Statement
The MS recovery was within the established acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recovery was within the established acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD between the MS and MSD met the acceptance limits.

Technical Information

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-extraction/Re-analysis
Re-extractions or re-analyses were not required in this SDG.

Miscellaneous Information

Electronic Package Comment

The following package was generated using an electronic data processing program referred to as "virtual packaging". In an effort to increase quality and efficiency, the laboratory is developing systems to eventually

generate all data packages electronically. The following change from "traditional" packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. An electronic signature page inserted after the case narrative of each electronic package will indicate the analyst, reviewer, and report specialist names associated with the generation of the data and package. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Nonconformance (NCR) Documentation
Nonconformance report (NCR) is for documentation of any procedural anomalies that may deviate from referenced SOP or contractual document. A NCR was not required for this SDG.

Manual Integration
Certain standards and QC samples may have required manual integration to correctly position the baseline as set in the calibration standard injections. If manual integration was performed, copies of all manual integration peak profiles are included in the raw data section of this fraction.

Additional Comments
The additional comments field is used to address special issues associated with each analysis, clarify method/contractual issues pertaining to the analysis, and to list any report documents generated as a result of sample analysis or review. The following additional comments were required:

Due to software limitation, the Form VIIs will display the results either in the % difference or % drift depending on the type of the calibration curve. If the curve of all analytes is generated using an average response factor (RF), the Form VII will display results using the difference calculation (RF). If the curve of one or more analytes is generated using a linear curve, the Form VII will display results using the % drift calculation (by concentration) for all analytes.

System Configuration

The GC-FID analysis was performed on the following instrument configuration:

Instrument ID	Instrument	System Configuration	Column ID	Column Description
FID7.I	Agilent GC FID	Agilent 6890N GC/FID	DB-5MS	30m x 0.25mm, 0.25um(J&W)

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Jimi Cao **Date:** 1/7/10

Roadmap for LANL 10-886 DRO

This roadmap was analyzed by kev01577 on 12-17-2009, 14:39.
This roadmap was reviewed by jcb on 12-18-2009, 08:53.
This roadmap was packaged by yml on 01-05-2010, 11:31.

Sample

exclude	manual	datafile	smpid	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/fid7.i/121609dr/009f0901.d	242750001	16-DEC-2009	21:06	10-886.sub	RE03-09-13467	1.00000	933001	USE
☐	N	/chem/fid7.i/121609dr/010f1001.d	242750002	16-DEC-2009	21:43	10-886.sub	RE03-09-13466	1.00000	933001	USE
☐	N	/chem/fid7.i/121609dr/011f1101.d	242750003	16-DEC-2009	22:20	10-886.sub	RE03-09-13468	1.00000	933001	USE
☐	N	/chem/fid7.i/121609dr/012f1201.d	242750004	16-DEC-2009	22:56	10-886.sub	RE03-09-13465	1.00000	933001	USE
☐	N	/chem/fid7.i/121609dr/013f1301.d	242750005	16-DEC-2009	23:33	10-886.sub	RE03-10-2003	1.00000	933001	USE

QC Sample

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/fid7.i/121609dr/005f0501a.d	1201995990	mb	16-DEC-2009	18:39	10-886.sub	DBLK01	1.00000	933001	
☐	N	/chem/fid7.i/121609dr/006f0601a.d	1201995991	lcs	16-DEC-2009	19:16	10-886.sub	DBLK01LCS	1.00000	933001	

SAMPLE DATA SUMMARY

Flame Ionization Detector
Certificate of Analysis
Sample Summary

SDG Number:	10-886	Date Collected:	12/09/2009 12:00	Matrix:	S
Lab Sample ID:	242750001	Date Received:	12/11/2009 08:50	%Moisture:	3.9
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-13467	Method:	SW846 8015A/B SVOC	SOP Ref:	GL-OA-E-003
Batch ID:	933001	Inst:	FID7.I	Dilution:	1
Run Date:	12/16/2009 21:06	Analyst:	KXR2	Inj. Vol:	1 uL
Prep Date:	12/15/2009 16:56	Aliquot:	30 g	Final Volume:	1 mL
Data File:	009f0901.d	Column:	DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics	J	5.44	mg/kg	2.26	6.94

Flame Ionization Detector
Certificate of Analysis
Sample Summary

SDG Number:	10-886	Date Collected:	12/09/2009 12:00	Matrix:	S
Lab Sample ID:	242750002	Date Received:	12/11/2009 08:50	%Moisture:	8.5
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-13466	Method:	SW846 8015A/B SVOC	SOP Ref:	GL-OA-E-003
Batch ID:	933001	Inst:	FID7.I	Dilution:	1
Run Date:	12/16/2009 21:43	Analyst:	KXR2	Inj. Vol:	1 uL
Prep Date:	12/15/2009 16:56	Aliquot:	30.04 g	Final Volume:	1 mL
Data File:	010f1001.d	Column:	DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics	J	3.94	mg/kg	2.37	7.28

Flame Ionization Detector
Certificate of Analysis
Sample Summary

SDG Number:	10–886	Date Collected:	12/09/2009 12:00	Matrix:	S
Lab Sample ID:	242750003	Date Received:	12/11/2009 08:50	%Moisture:	9.3
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03–09–13468	Method:	SW846 8015A/B SVOC	SOP Ref:	GL–OA–E–003
Batch ID:	933001	Inst:	FID7.I	Dilution:	1
Run Date:	12/16/2009 22:20	Analyst:	KXR2	Inj. Vol:	1 uL
Prep Date:	12/15/2009 16:56	Aliquot:	30.02 g	Final Volume:	1 mL
Data File:	011f1101.d	Column:	DB–5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics	J	4.51	mg/kg	2.39	7.35

Flame Ionization Detector
Certificate of Analysis
Sample Summary

SDG Number:	10-886	Date Collected:	12/09/2009 12:00	Matrix:	S
Lab Sample ID:	242750004	Date Received:	12/11/2009 08:50	%Moisture:	7
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-13465	Method:	SW846 8015A/B SVOC	SOP Ref:	GL-OA-E-003
Batch ID:	933001	Inst:	FID7.I	Dilution:	1
Run Date:	12/16/2009 22:56	Analyst:	KXR2	Inj. Vol:	1 uL
Prep Date:	12/15/2009 16:56	Aliquot:	30.06 g	Final Volume:	1 mL
Data File:	012f1201.d	Column:	DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics	U	7.15	mg/kg	2.32	7.15

Flame Ionization Detector
Certificate of Analysis
Sample Summary

SDG Number:	10-886	Date Collected:	12/09/2009 12:00	Matrix:	S
Lab Sample ID:	242750005	Date Received:	12/11/2009 08:50	%Moisture:	6.8
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-10-2003	Method:	SW846 8015A/B SVOC	SOP Ref:	GL-OA-E-003
Batch ID:	933001	Inst:	FID7.I	Dilution:	1
Run Date:	12/16/2009 23:33	Analyst:	KXR2	Inj. Vol:	1 uL
Prep Date:	12/15/2009 16:56	Aliquot:	30 g	Final Volume:	1 mL
Data File:	013f1301.d	Column:	DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics	U	7.16	mg/kg	2.33	7.16

QUALITY CONTROL SUMMARY

Flame Ionization Detector

Surrogate Recovery Report

SDG Number: 10-886

Matrix Type: SOLID

CAP Column (1) : DB-5MS

Sample ID	Client ID	OTP %REC
1201995990	MB for batch 933000	47
1201995991	LCS for batch 933000	80
242750001	RE03-09-13467	47
242750002	RE03-09-13466	41
242750003	RE03-09-13468	45
242750004	RE03-09-13465	38
242750005	RE03-10-2003	44

Surrogate	Acceptance Limits
OTP = o-Terphenyl	(24%-124%)

* Recovery outside Acceptance Limits

\# Column to be used to flag recovery values

D Sample Diluted

Flame Ionization Detector
Quality Control Summary
Spike Recovery Report

SDG Number: 10–886
Client ID: LCS for batch 933000
Lab Sample ID: 1201995991
Instrument: FID7.I
Analyst: KXR2
Inj. Vol: 1 uL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 12/16/2009 19:16
Dilution: 1
Prep Batch ID: 933000
Batch ID: 933001

CAS No		Parmname	Amount Added mg/kg	Sample Conc. mg/kg	Spike Conc. mg/kg	Recovery %	Acceptance Limits
DRO	LCS	Diesel Range Organics	33.3	0.0	22.2	67	53–114

Flame Ionization Detector
Quality Control Summary
Spike Recovery Report

SDG Number:	**10–901**	**Sample Type:**	**Matrix Spike**	
Client ID:	**RE03–09–13470MS**	**Matrix:**	**S**	
Lab Sample ID:	**1201995992**	**%Moisture:**	**4.4**	
Instrument:	**FID7.I**	**Analysis Date:**	**12/17/2009 03:13**	**Dilution: 1**
Analyst:	**KXR2**	**Prep Batch ID:**	**933000**	
Inj. Vol:	**1 uL**	**Batch ID:**	**933001**	

CAS No		Parmname	Amount Added mg/kg	Sample Conc. mg/kg		Spike Conc. mg/kg	Recovery %	Acceptance Limits
DRO	MS	Diesel Range Organics	34.9	2.86	J	17.3	41	21–122

Flame Ionization Detector
Quality Control Summary
Spike Recovery Report

SDG Number: 10-901
Client ID: RE03-09-13470MSD
Lab Sample ID: 1201995993
Instrument: FID7.I
Analyst: KXR2
Inj. Vol: 1 uL

Sample Type: Matrix Spike Duplicate
Matrix: S
%Moisture: 4.4
Analysis Date: 12/17/2009 03:50
Prep Batch ID: 933000
Batch ID: 933001
Dilution: 1

CAS No	Parmname	Amount Added mg/kg	Sample Conc. mg/kg		Spike Conc. mg/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
DRO	MSD Diesel Range Organics	34.8	2.86	J	18.2	44	21-122	5	0-30

Method Blank Summary

SDG Number:	10-886	Client:	LANL010	Matrix:	SOIL
Client ID:	MB for batch 933000	Instrument ID:	FID7.I	Data File:	005f0501.d
Lab Sample ID:	1201995990	Prep Date:	12/15/2009 16:56	Analyzed:	12/16/09 18:39
Column:	DB-5MS	Level:	LOW		

This method blank applies to the following samples and quality control samples:

Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01 LCS for batch 933000	1201995991	006f0601.d	12/16/09	1916
02 RE03-09-13467	242750001	009f0901.d	12/16/09	2106
03 RE03-09-13466	242750002	010f1001.d	12/16/09	2143
04 RE03-09-13468	242750003	011f1101.d	12/16/09	2220
05 RE03-09-13465	242750004	012f1201.d	12/16/09	2256
06 RE03-10-2003	242750005	013f1301.d	12/16/09	2333

SAMPLE
DATA

Flame Ionization Detector
Certificate of Analysis
Sample Summary

SDG Number:	10–886	Date Collected:	12/09/2009 12:00	Matrix:	S
Lab Sample ID:	242750001	Date Received:	12/11/2009 08:50	%Moisture:	3.9
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03–09–13467	Method:	SW846 8015A/B SVOC	SOP Ref:	GL–OA–E–003
Batch ID:	933001	Inst:	FID7.I	Dilution:	1
Run Date:	12/16/2009 21:06	Analyst:	KXR2	Inj. Vol:	1 uL
Prep Date:	12/15/2009 16:56	Aliquot:	30 g	Final Volume:	1 mL
Data File:	009f0901.d	Column:	DB–5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics	J	5.44	mg/kg	2.26	6.94

GEL Laboratories LLC

DB-5MS .25mm

Data file : /chem/fid7.i/121609dr/009f0901.d
Lab Smp Id: 242750001 Client Smp ID: RE03-09-13467
Inj Date : 16-DEC-2009 21:06
Operator : KXR2 Inst ID: fid7.i
Smp Info : |242750001|1|
Misc Info : |FIDDRO_S|933001|FIDF|LANL|
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fid7.i/121609dr/FID7a.i_b_DRO_121309.m
Meth Date : 17-Dec-2009 11:49 kev01577 Quant Type: ESTD
Cal Date : 13-DEC-2009 18:58 Cal File: 007f0701.d
Als bottle: 9
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-886.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weigth of sample extracted (g)
M	3.92340	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (mg/L)	FINAL (mg/Kg)	
S 1 Diesel Range Organics					CAS #:	
7.480-	17.855		2104742	156.869	5.4	(a)
$ 2 o-Terphenyl					CAS #: 84-15-1	
13.593	13.597	-0.004	245997	9.33061	0.32	(M)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

Data File: /chem/fid7.i/121609dr/009f0901.d
Date : 16-DEC-2009 21:06
Client ID: RE03-09-13467
Sample Info: |2427500011|1|
Volume Injected (uL): 1.0
Column phase: DB-5MS

Instrument: fid7.i

Operator: KXR2
Column diameter: 0.25

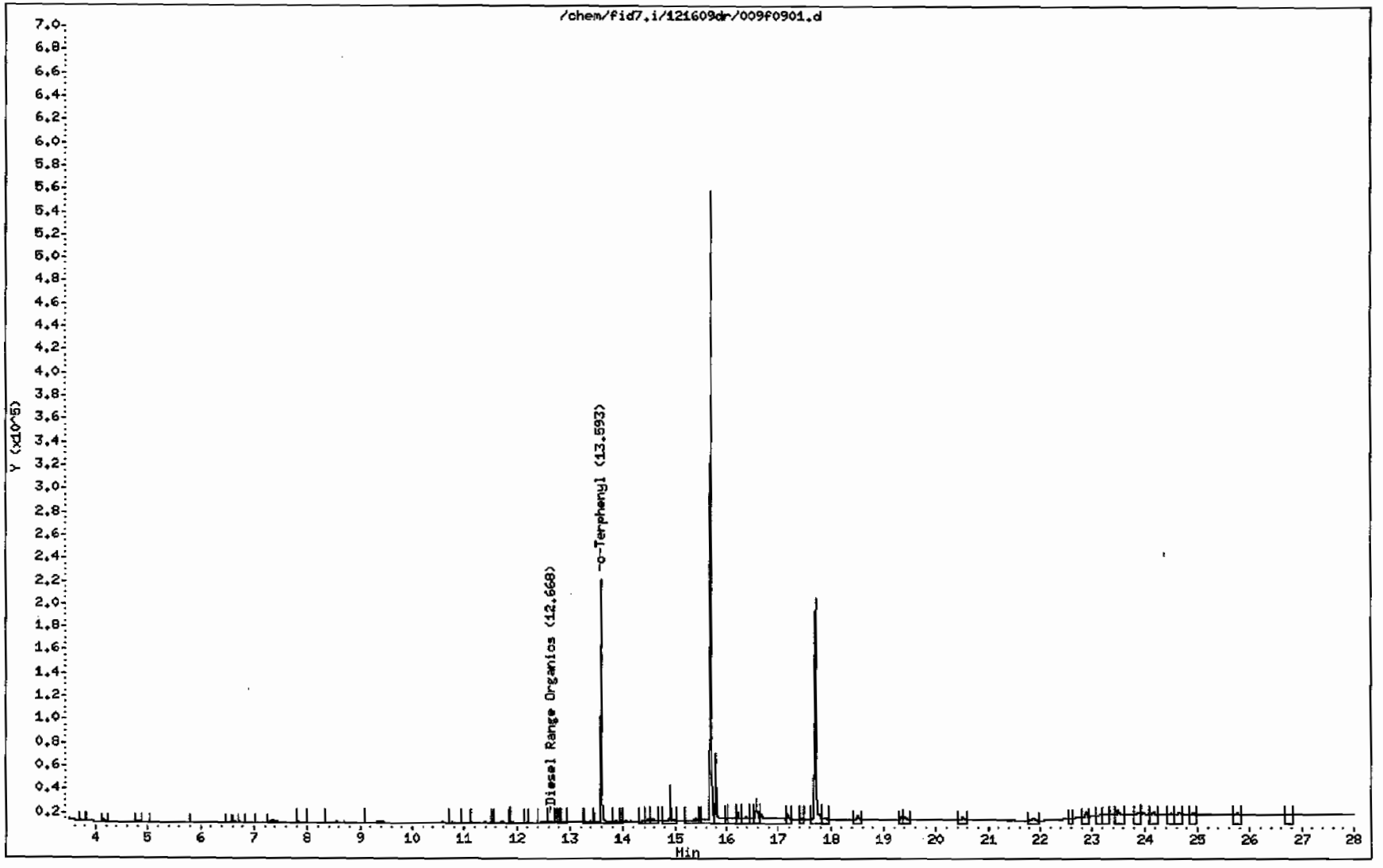

Data File: /chem/fid7.i/121609dr/0090f0901.d
Injection Date: 16-DEC-2009 21:06
Instrument: fid7.i
Client Sample ID: RE03-09-13467

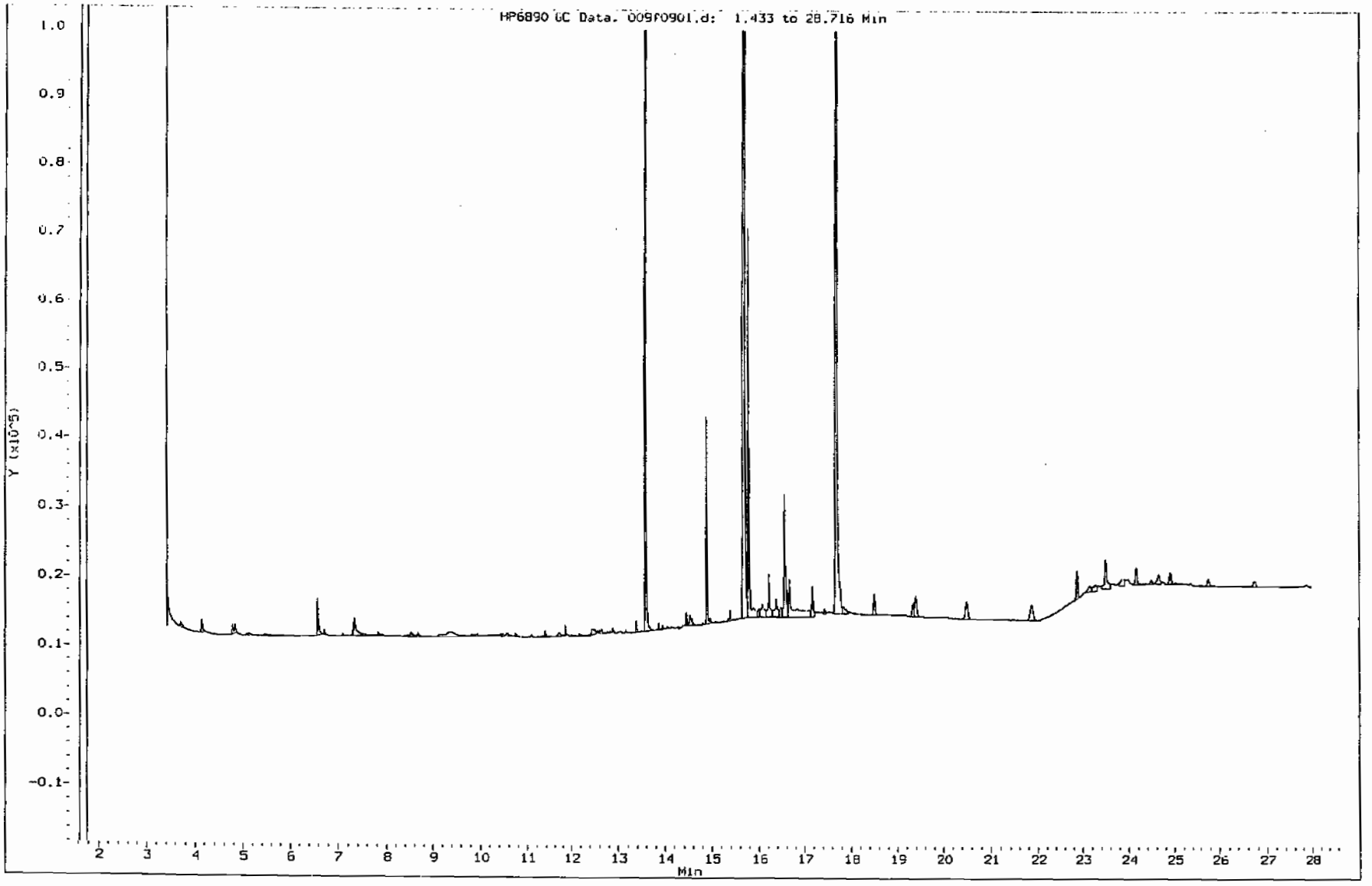

12/17/09

Data File: /chem/fid7.i/121609dr/009f0901.d
Injection Date: 16-DEC-2009 21:06
Instrument: fid7.i
Client Sample ID: RE03-09-13467

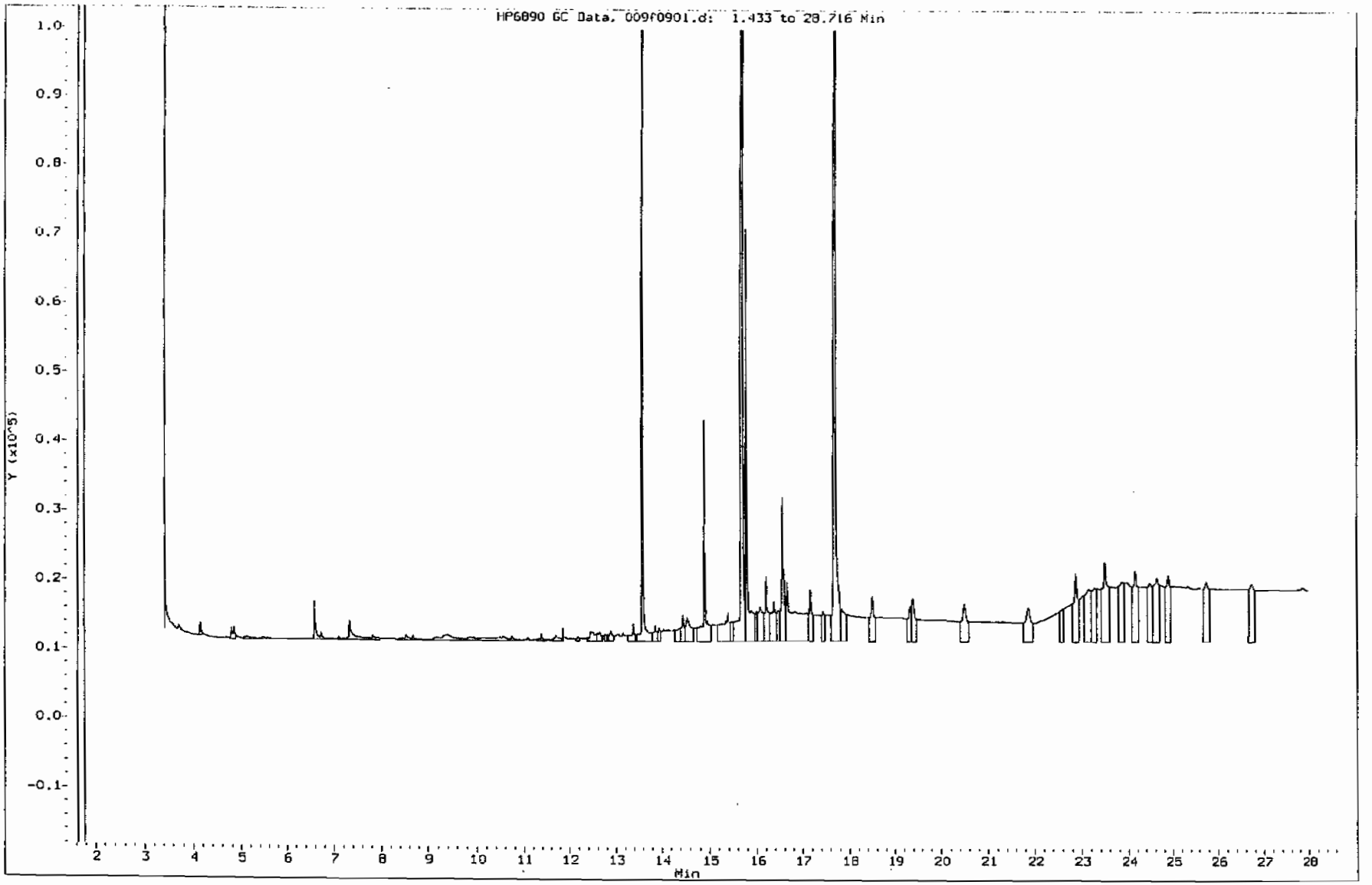

Flame Ionization Detector
Certificate of Analysis
Sample Summary

SDG Number:	10-886	**Date Collected:**	12/09/2009 12:00	**Matrix:**	S
Lab Sample ID:	242750002	**Date Received:**	12/11/2009 08:50	**%Moisture:**	8.5
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-13466	**Method:**	SW846 8015A/B SVOC	**SOP Ref:**	GL-OA-E-003
Batch ID:	933001	**Inst:**	FID7.I	**Dilution:**	1
Run Date:	12/16/2009 21:43	**Analyst:**	KXR2	**Inj. Vol:**	1 uL
Prep Date:	12/15/2009 16:56	**Aliquot:**	30.04 g	**Final Volume:**	1 mL
Data File:	010f1001.d	**Column:**	DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics	J	3.94	mg/kg	2.37	7.28

GEL Laboratories LLC

DB-5MS .25mm

Data file : /chem/fid7.i/121609dr/010f1001.d
Lab Smp Id: 242750002 Client Smp ID: RE03-09-13466
Inj Date : 16-DEC-2009 21:43
Operator : KXR2 Inst ID: fid7.i
Smp Info : |242750002|1|
Misc Info : |FIDDRO_S|933001|FIDF|LANL|
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fid7.i/121609dr/FID7a.i_b_DRO_121309.m
Meth Date : 17-Dec-2009 11:49 kev01577 Quant Type: ESTD
Cal Date : 13-DEC-2009 18:58 Cal File: 007f0701.d
Als bottle: 10
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-886.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.04000	Weigth of sample extracted (g)
M	8.52580	% Moisture

Cpnd Variable Local Compound Variable

	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (mg/L)	FINAL (mg/Kg)	
S	1 Diesel Range Organics					CAS #:	
	7.480- 17.855			1452872	108.284	3.9	(a)
$	2 o-Terphenyl					CAS #: 84-15-1	
	13.593	13.597	-0.004	215042	8.15652	0.30	(M)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

Data File: /chem/fid7.i/121609dr/010f1001.d
Date : 16-DEC-2009 21:43
Client ID: RE03-09-13466
Sample Info: 1242760002111
Volume Injected (uL): 1.0
Column phase: DB-5MS

Instrument: fid7.i
Operator: KXR2
Column diameter: 0.25

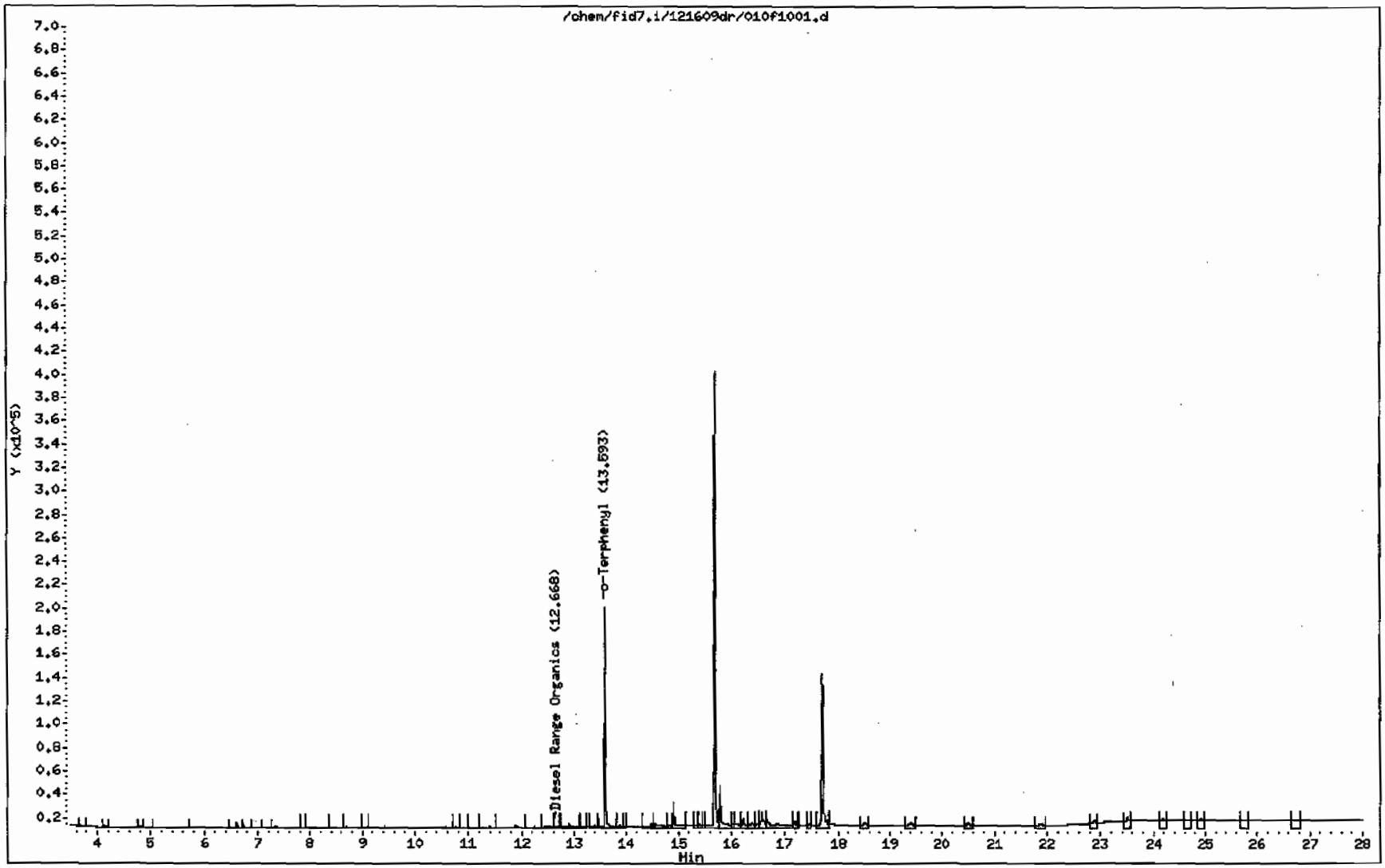

Betm KM 12/17/09

Data File: /chem/fid7.i/121609dr/010f1001.d
Injection Date: 16-DEC-2009 21:43
Instrument: fid7.i
Client Sample ID: RE03-09-13466

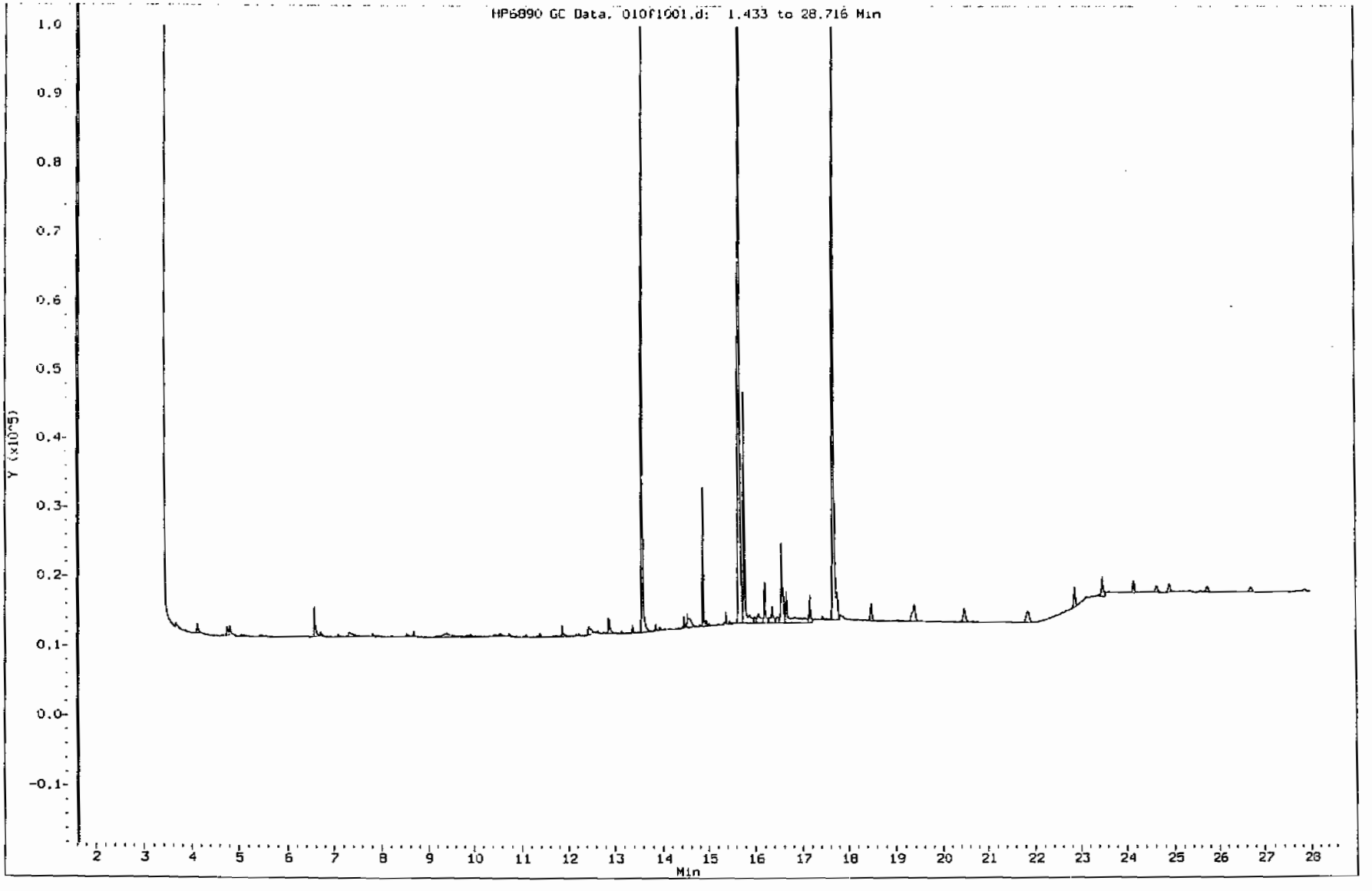

Data File: /chem/fid7.i/121609dr/010f1001.d
Injection Date: 16-DEC-2009 21:43
Instrument: fid7.i
Client Sample ID: RE03-09-13466

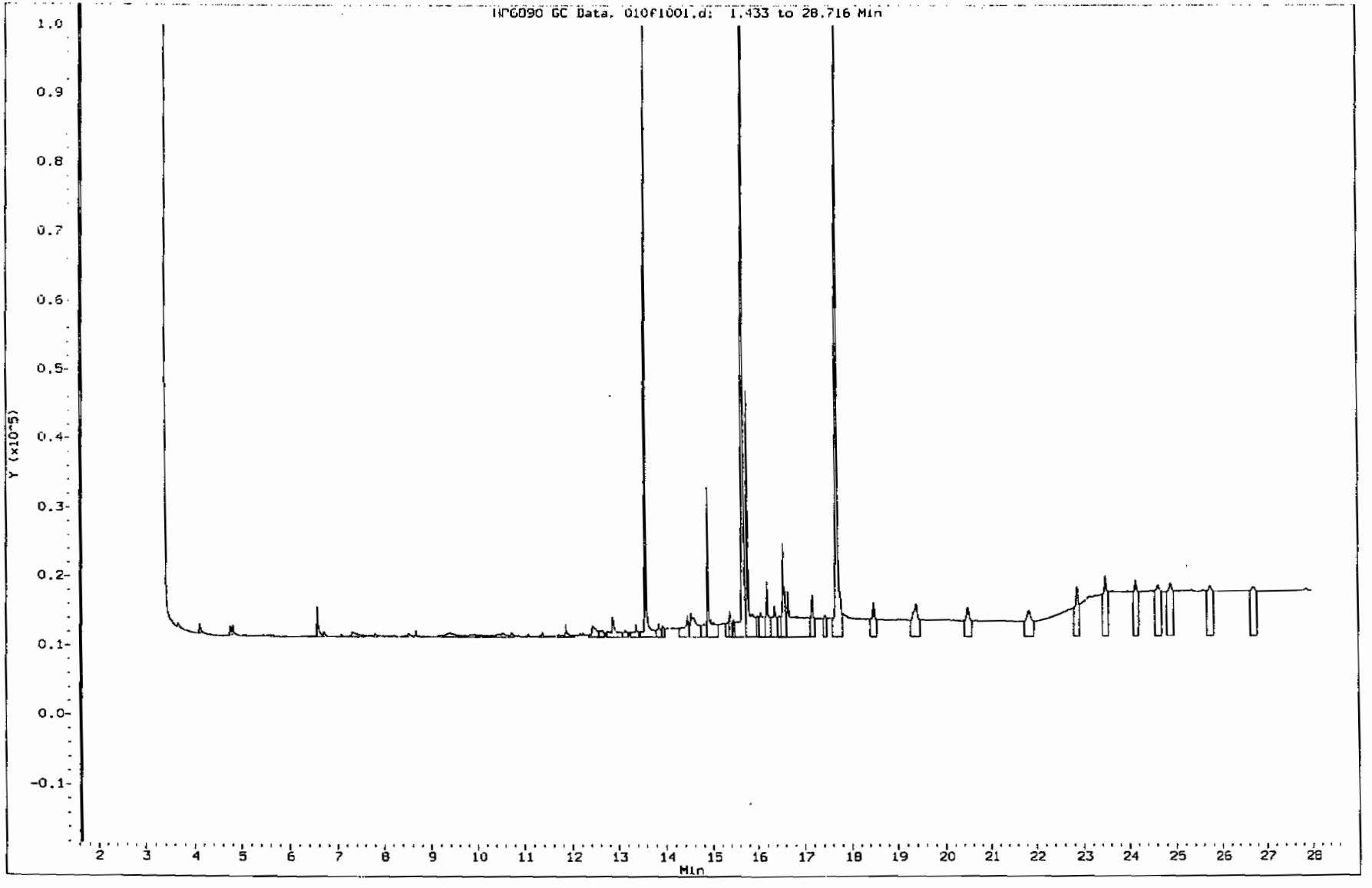

Flame Ionization Detector
Certificate of Analysis
Sample Summary

SDG Number:	10–886	Date Collected:	12/09/2009 12:00	Matrix:	S
Lab Sample ID:	242750003	Date Received:	12/11/2009 08:50	%Moisture:	9.3
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03–09–13468	Method:	SW846 8015A/B SVOC	SOP Ref:	GL–OA–E–003
Batch ID:	933001	Inst:	FID7.I	Dilution:	1
Run Date:	12/16/2009 22:20	Analyst:	KXR2	Inj. Vol:	1 uL
Prep Date:	12/15/2009 16:56	Aliquot:	30.02 g	Final Volume:	1 mL
Data File:	011f1101.d	Column:	DB–5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics	J	4.51	mg/kg	2.39	7.35

GEL Laboratories LLC

DB-5MS .25mm

Data file : /chem/fid7.i/121609dr/011f1101.d
Lab Smp Id: 242750003 Client Smp ID: RE03-09-13468
Inj Date : 16-DEC-2009 22:20
Operator : KXR2 Inst ID: fid7.i
Smp Info : |242750003|1|
Misc Info : |FIDDRO_S|933001|FIDF|LANL|
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fid7.i/121609dr/FID7a.i_b_DRO_121309.m
Meth Date : 17-Dec-2009 11:49 kev01577 Quant Type: ESTD
Cal Date : 13-DEC-2009 18:58 Cal File: 007f0701.d
Als bottle: 11
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-886.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.02000	Weigth of sample extracted (g)
M	9.31100	% Moisture

Cpnd Variable Local Compound Variable

	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (mg/L)	FINAL (mg/Kg)	
S	1 Diesel Range Organics					CAS #:	
	7.480-	17.855		1648784	122.886	4.5	(a)
$	2 o-Terphenyl					CAS #: 84-15-1	
	13.593	13.597	-0.004	236282	8.96213	0.33	(M)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

Data File: /chem/fid7.i/121609dr/011f1101.d

Date : 16-DEC-2009 22:20

Client ID: RE03-09-13468

Sample Info: !242750003|1|

Volume Injected (uL): 1.0

Column phase: DB-5MS

Instrument: fid7.i

Operator: KXR2

Column diameter: 0.25

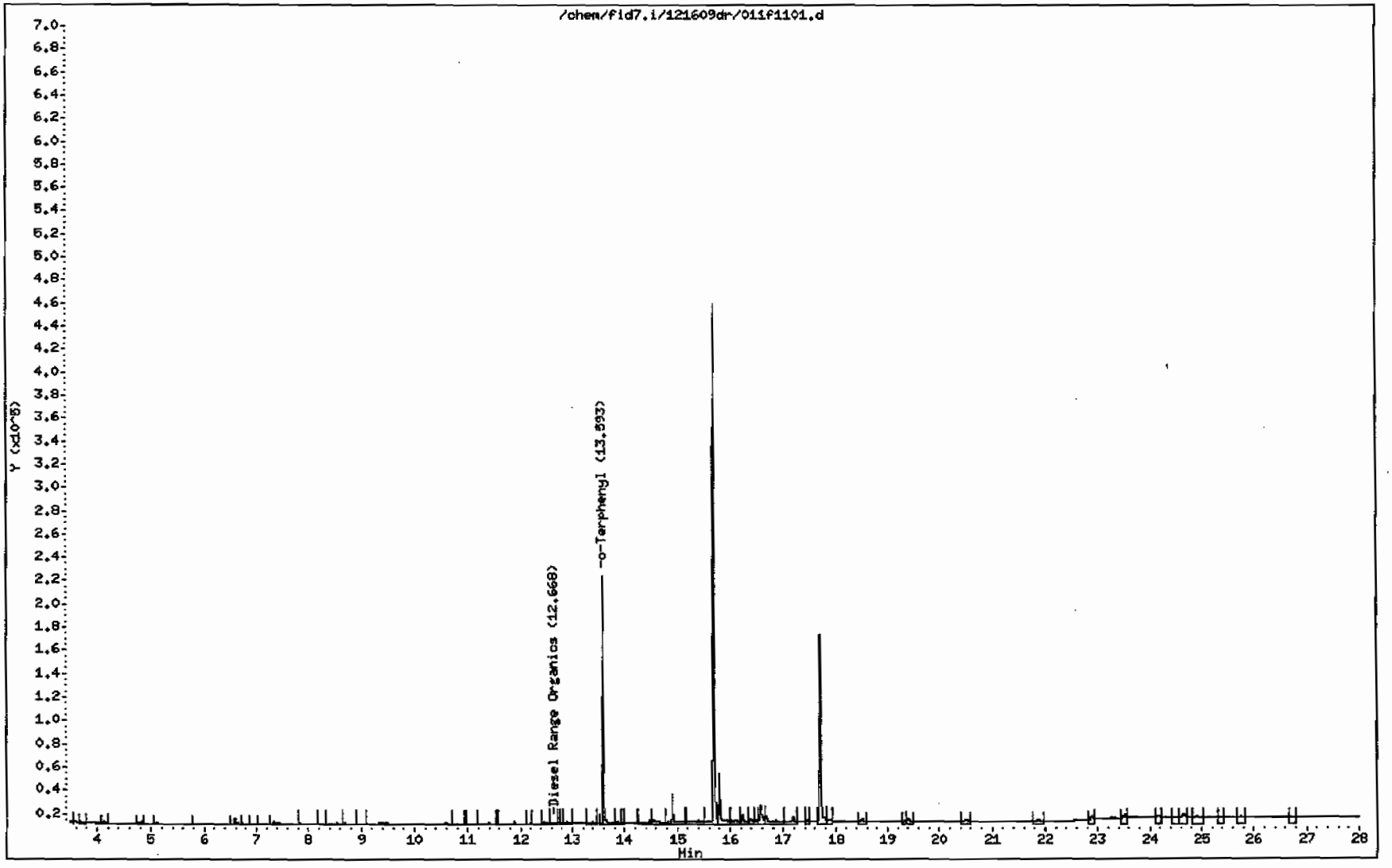

Data file: /chem/fid7.i/121609dr/011f1101.d
Injection Date: 16-DEC-2009 22:20
Instrument: fid7.i
Client Sample ID: RE03-09-13468

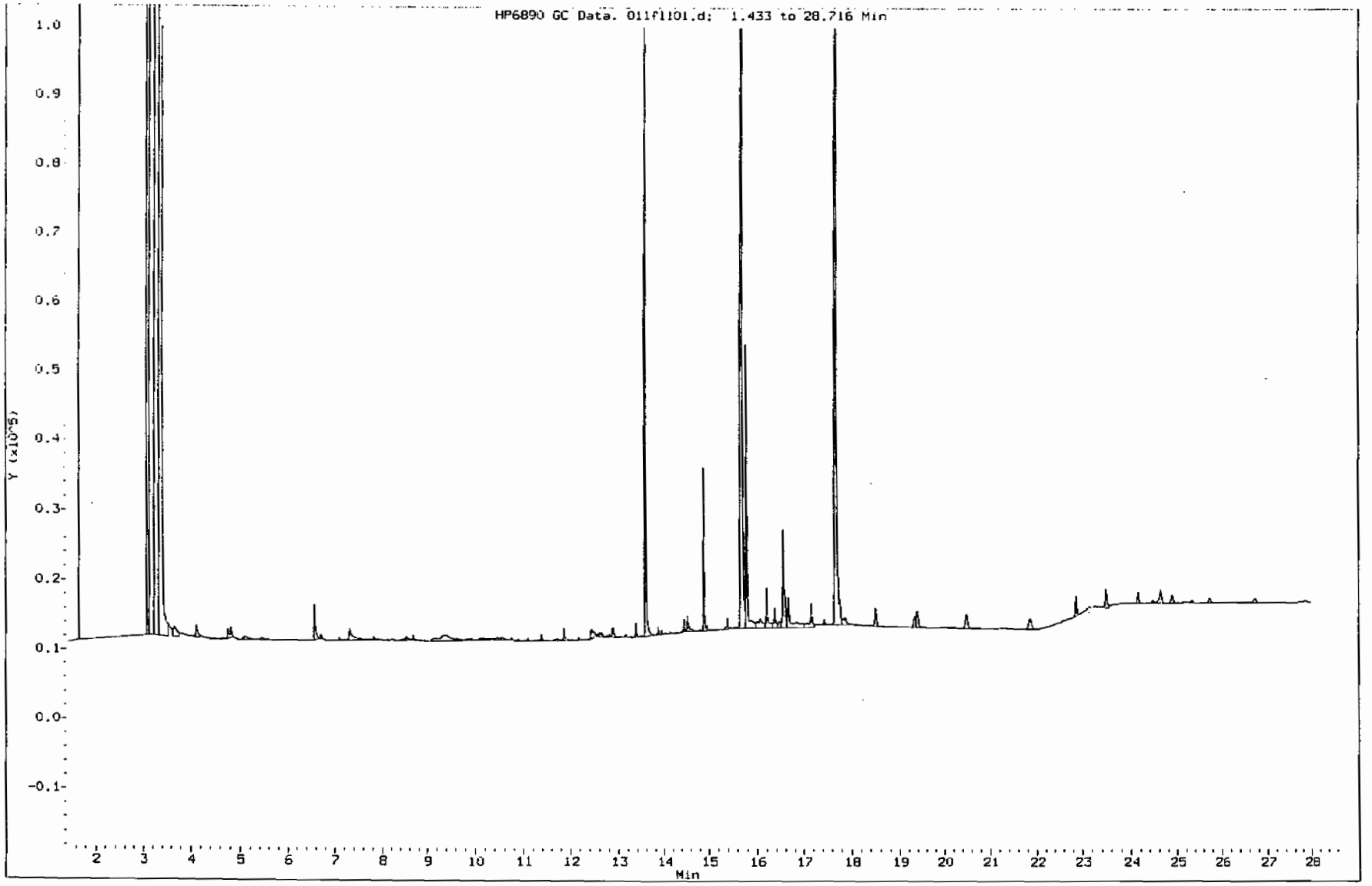

Data File: /chem/fid7.i/121609dr/011f1101.d
Injection Date: 16-DEC-2009 22:20
Instrument: fid7.i
Client Sample ID: RE03-09-13468

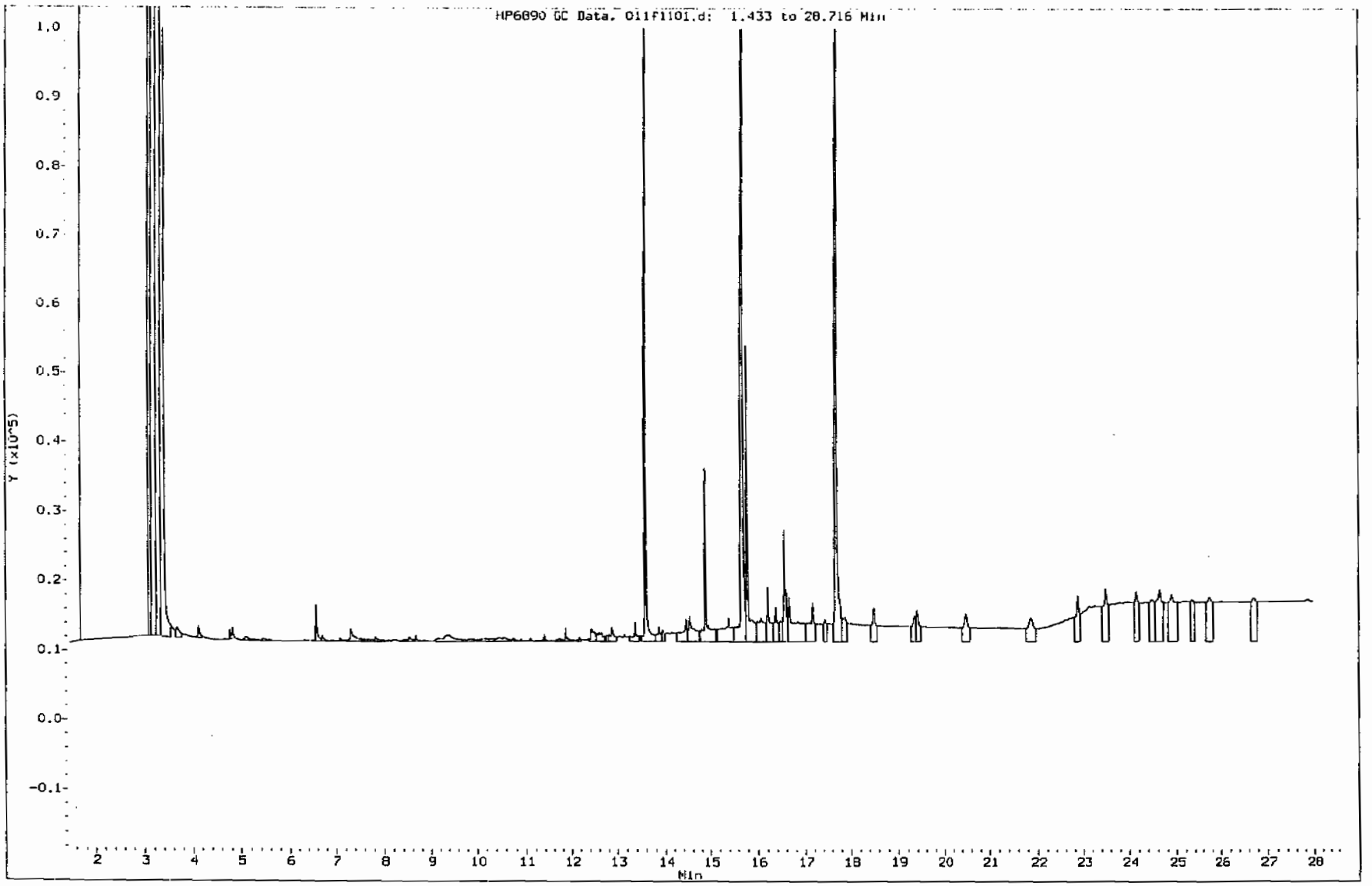

Flame Ionization Detector
Certificate of Analysis
Sample Summary

SDG Number:	10-886	Date Collected:	12/09/2009 12:00	Matrix:	S
Lab Sample ID:	242750004	Date Received:	12/11/2009 08:50	%Moisture:	7
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-13465	Method:	SW846 8015A/B SVOC	SOP Ref:	GL-OA-E-003
Batch ID:	933001	Inst:	FID7.I	Dilution:	1
Run Date:	12/16/2009 22:56	Analyst:	KXR2	Inj. Vol:	1 uL
Prep Date:	12/15/2009 16:56	Aliquot:	30.06 g	Final Volume:	1 mL
Data File:	012f1201.d	Column:	DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics	U	7.15	mg/kg	2.32	7.15

GEL Laboratories LLC

DB-5MS .25mm

Data file : /chem/fid7.i/121609dr/012f1201.d
Lab Smp Id: 242750004 Client Smp ID: RE03-09-13465
Inj Date : 16-DEC-2009 22:56
Operator : KXR2 Inst ID: fid7.i
Smp Info : |242750004|1|
Misc Info : |FIDDRO_S|933001|FIDF|LANL|
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fid7.i/121609dr/FID7a.i_b_DRO_121309.m
Meth Date : 17-Dec-2009 11:49 kev01577 Quant Type: ESTD
Cal Date : 13-DEC-2009 18:58 Cal File: 007f0701.d
Als bottle: 12
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-886.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.06000	Weigth of sample extracted (g)
M	6.96030	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (mg/L)	FINAL (mg/Kg)
$ 2 o-Terphenyl					CAS #: 84-15-1
13.592	13.597	-0.005	198811	7.54088	0.27

Data File: /chem/fid7.i/121609dr/012f1201.d
Date : 16-DEC-2009 22:56
Client ID: RE03-09-13465
Sample Info: |242750004|1|
Volume Injected (uL): 1.0
Column phase: DB-5MS

Instrument: fid7.i

Operator: KXR2
Column diameter: 0.25

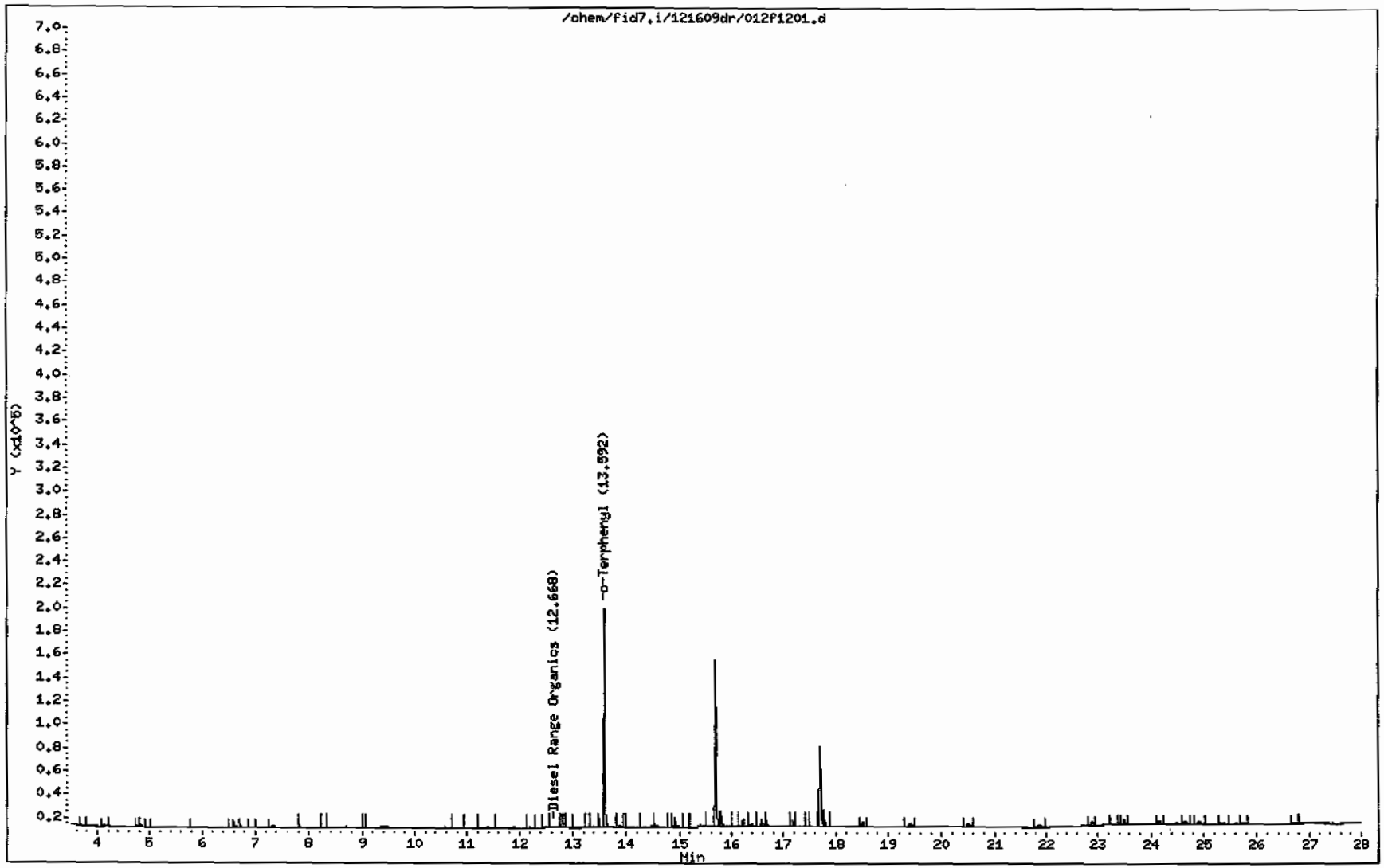

Flame Ionization Detector
Certificate of Analysis
Sample Summary

SDG Number:	10–886	Date Collected:	12/09/2009 12:00	Matrix:	S
Lab Sample ID:	242750005	Date Received:	12/11/2009 08:50	%Moisture:	6.8
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03–10–2003	Method:	SW846 8015A/B SVOC	SOP Ref:	GL–OA–E–003
Batch ID:	933001	Inst:	FID7.I	Dilution:	1
Run Date:	12/16/2009 23:33	Analyst:	KXR2	Inj. Vol:	1 uL
Prep Date:	12/15/2009 16:56	Aliquot:	30 g	Final Volume:	1 mL
Data File:	013f1301.d	Column:	DB–5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics	U	7.16	mg/kg	2.33	7.16

GEL Laboratories LLC

DB-5MS .25mm

Data file : /chem/fid7.i/121609dr/013f1301.d
Lab Smp Id: 242750005 Client Smp ID: RE03-10-2003
Inj Date : 16-DEC-2009 23:33
Operator : KXR2 Inst ID: fid7.i
Smp Info : |242750005|1|
Misc Info : |FIDDRO_S|933001|FIDF|LANL|
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fid7.i/121609dr/FID7a.i_b_DRO_121309.m
Meth Date : 17-Dec-2009 11:49 kev01577 Quant Type: ESTD
Cal Date : 13-DEC-2009 18:58 Cal File: 007f0701.d
Als bottle: 13
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-886.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weigth of sample extracted (g)
M	6.83140	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (mg/L)	FINAL (mg/Kg)
$ 2 o-Terphenyl					CAS #: 84-15-1
13.593	13.597	-0.004	230691	8.75008	0.31

Data File: /chem/fid7.i/121609dr/013f1301.d
Date : 16-DEC-2009 23:33
Client ID: RE03-10-2003
Sample Info: |2427500061|1|
Volume Injected (uL): 1.0
Column phase: DB-5MS

Instrument: fid7.i

Operator: KXR2
Column diameter: 0.25

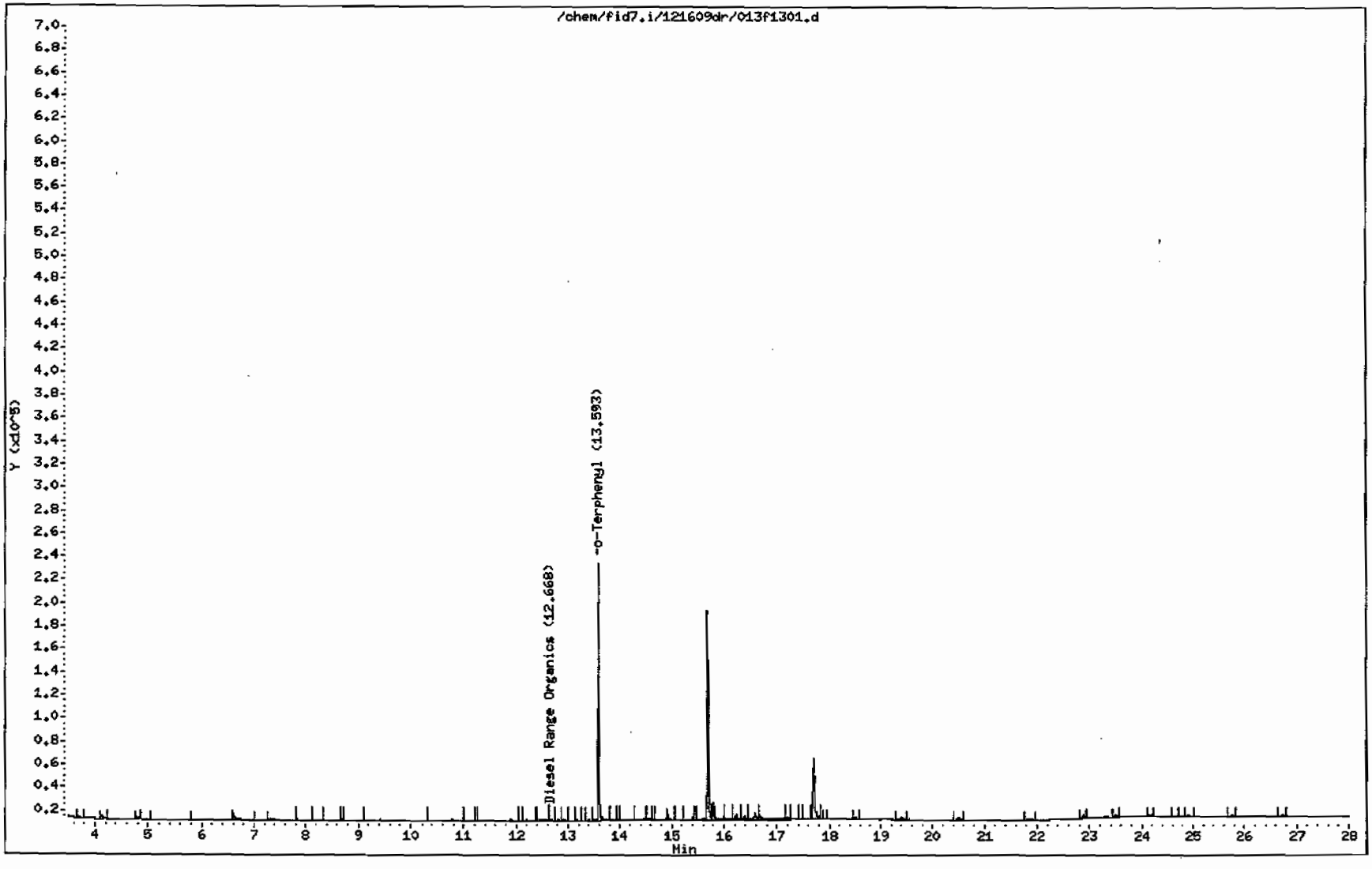

STANDARDS DATA

Report Date: 17-Dec-2009 13:09

Calibration History

Method : /chem/fid7.i/121609dr/FID7a.i_b_DRO_121309.m
Start Cal Date: 13-DEC-2009 16:31
End Cal Date : 13-DEC-2009 18:58

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 3 , Cal Amount: 200.00000		
13-DEC-2009 16:31	dro	/chem/fid7.i/121309dr/003f0301.d
Cal Level: 4 , Cal Amount: 500.00000		
13-DEC-2009 17:07	dro	/chem/fid7.i/121309dr/004f0401.d
Cal Level: 5 , Cal Amount: 1000.00000		
13-DEC-2009 17:45	dro	/chem/fid7.i/121309dr/005f0501.d
Cal Level: 6 , Cal Amount: 2000.00000		
13-DEC-2009 18:22	dro	/chem/fid7.i/121309dr/006f0601.d
Cal Level: 7 , Cal Amount: 5000.00000		
13-DEC-2009 18:58	dro	/chem/fid7.i/121309dr/007f0701.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 5

Ccal Level: 5 , Ccal Amount: 1000		
17-DEC-2009 06:16	dro	/chem/fid7.i/121609dr/024f2401.d
Ccal Level: 5 , Ccal Amount: 1000		
16-DEC-2009 17:24	dro	/chem/fid7.i/121609dr/003f0301.d

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COMPOUND LISTING

Method file : /chem/fid7.i/121609dr/FID7a.i_b_DRO_121309.m
Quant Method : ESTD Target Version : 3.50
Last Update : 17-Dec-2009 11:49 Number of Cpnds : 6
Data Type : GC DATA

Global Integrator : Falcon

Chromat Events	Values
Initial:Start Threshold	100.000000
Initial:End Threshold	50.000000
Initial:Area Threshold	100.000000
Initial:P-P Resolution	1.000000
Initial:Bunch Factor	11.000000
Initial:Negative Peaks	OFF
Initial:Tension	7.000000
5.000:Force Cluster ON	n/a
17.000:Force Cluster OFF	n/a
17.371:Tension	1.000000

	Compound	RT	RT Window	RF
	3 Decane (C10)	7.509	7.479-7.539	
S	1 Diesel Range Organics	12.668	7.480-17.855	1.342e+04
$	2 o-Terphenyl	13.597	13.567-13.627	2.636e+04
	4 Octacosane (C28)	17.825	17.795-17.855	
S	75 JP-4	6.750	3.500-10.000	
S	76 Motor oil	17.000	14.000-20.000	

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INITIAL CALIBRATION DATA

Start Cal Date : 13-DEC-2009 16:31
End Cal Date : 13-DEC-2009 18:58
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/fid7.i/121609dr/FID7a.i_b_DRO_121309.m
Cal Date : 17-Dec-2009 11:49 kev01577
Curve Type : Average

Calibration File Names:
Level 3: /chem/fid7.i/121309dr/003f0301.d
Level 4: /chem/fid7.i/121309dr/004f0401.d
Level 5: /chem/fid7.i/121309dr/005f0501.d
Level 6: /chem/fid7.i/121309dr/006f0601.d
Level 7: /chem/fid7.i/121309dr/007f0701.d

	Compound	200.000 Level 3	500.000 Level 4	1000.000 Level 5	2000.000 Level 6	5000.000 Level 7	RRF	% RSD
	3 Decane (C10)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
S	1 Diesel Range Organics	12370	13330	13518	14106	13763	13417	4.871
	4 Octacosane (C28)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
S	75 JP-4	+++++	+++++	+++++	+++++	+++++	+++++	+++++
S	76 Motor oil	+++++	+++++	+++++	+++++	+++++	+++++	+++++
$	2 o-Terphenyl	24795	27259	25475	26481	27813	26365	4.710

FORM 7
SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-886

Instrument ID: FID7 Calibration Date: 12/16/09 Time: 1724

Lab File ID: 003F0301 Init. Calib. Date(s): 12/13/09 12/13/09

Init. Calib. Times: 1631 1858

GC Column: DB-5MS ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Diesel Range Organics	13417.204	13736.002	0.01	2.4	15.0
o-Terphenyl	26364.536	24730.250	0.01	-6.2	15.0

FORM VII SV

FORM 7
SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-886

Instrument ID: FID7 Calibration Date: 12/17/09 Time: 0010

Lab File ID: 014F1401 Init. Calib. Date(s): 12/13/09 12/13/09

Init. Calib. Times: 1631 1858

GC Column: DB-5MS ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Diesel Range Organics	13417.204	14197.288	0.01	5.8	15.0
o-Terphenyl	26364.536	25633.658	0.01	-2.8	15.0

FORM VII SV

GEL Laboratories LLC

DB-5MS .25mm

Data file : /chem/fid7.i/121609dr/003f0301.d
Lab Smp Id: UFI091118-02 D1 Client Smp ID: DTSD01
Inj Date : 16-DEC-2009 17:24
Operator : KXR2 Inst ID: fid7.i
Smp Info : |UFI091118-02 D1
Misc Info :
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fid7.i/121609dr/FID7a.i_b_DRO_121309.m
Meth Date : 17-Dec-2009 11:49 kev01577 Quant Type: ESTD
Cal Date : 13-DEC-2009 18:58 Cal File: 007f0701.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: dro.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (mg/L)	AMOUNTS ON-COL (mg/L)
S 1 Diesel Range Organics					CAS #:
7.480~ 17.855			13736002	1000.00	1020
$ 2 o-Terphenyl					CAS #: 84-15-1
13.597	13.597	0.000	618256	25.0000	23.4

Data File: /chem/fid7.i/121609dr/003f0301.d

Date : 16-DEC-2009 17:24

Client ID: DTSD01

Sample Info: IUFI091118-02 D1

Column phase: DB-5MS

Instrument: fid7.i

Operator: KXR2

Column diameter: 0.25

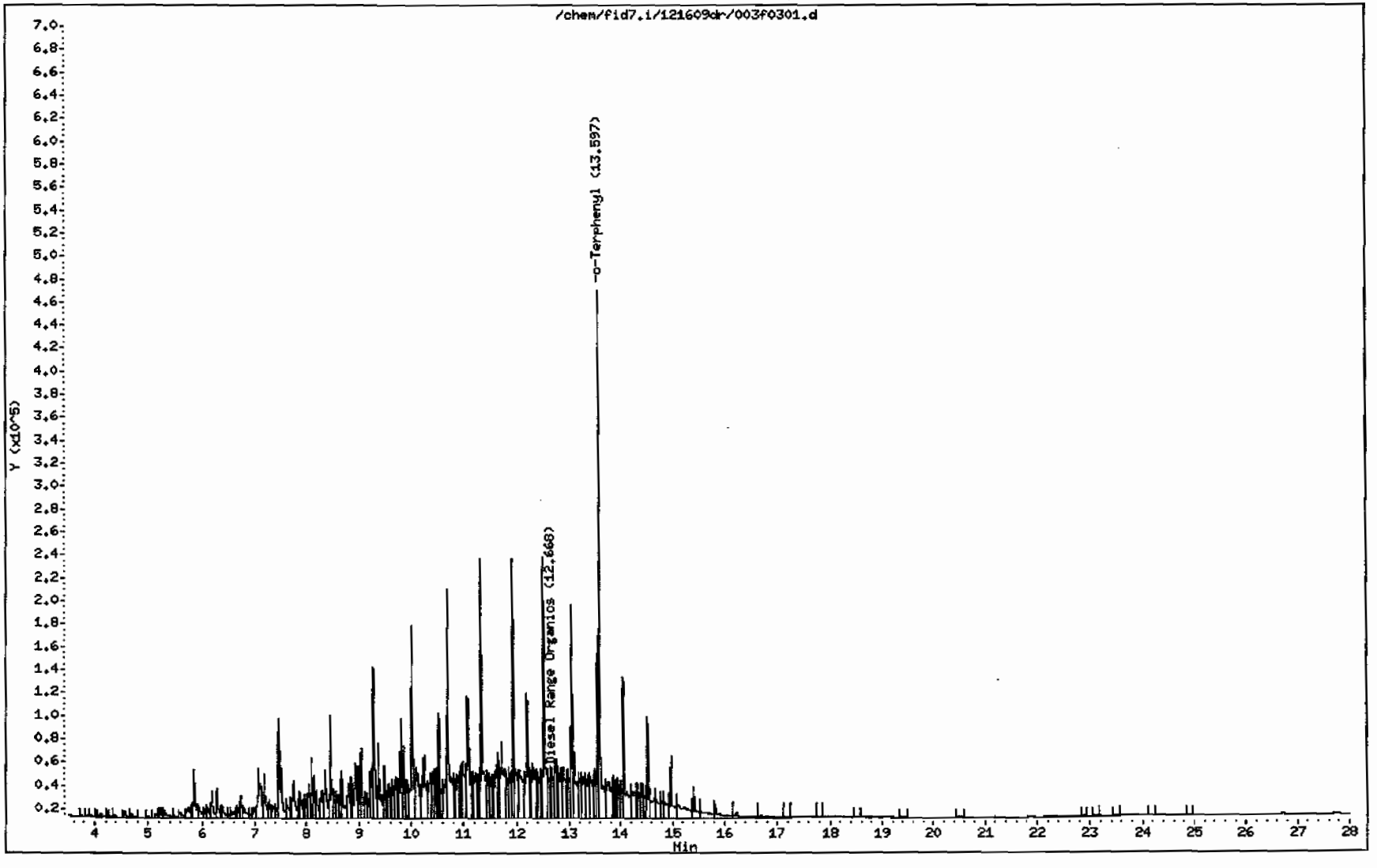

GEL Laboratories LLC

DB-5MS .25mm

Data file : /chem/fid7.i/121609dr/014f1401.d
Lab Smp Id: UFI091118-02 D2 Client Smp ID: DSTD02
Inj Date : 17-DEC-2009 00:10
Operator : KXR2 Inst ID: fid7.i
Smp Info : |UFI091118-02 D2
Misc Info :
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fid7.i/121609dr/FID7a.i_b_DRO_121309.m
Meth Date : 17-Dec-2009 14:05 kev01577 Quant Type: ESTD
Cal Date : 13-DEC-2009 18:58 Cal File: 007f0701.d
Als bottle: 14 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: dro.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (mg/L)	AMOUNTS ON-COL (mg/L)
S 1 Diesel Range Organics					CAS #:
7.480- 17.855			14197287	1000.00	1060
$ 2 o-Terphenyl					CAS #: 84-15-1
13.598	13.597	0.001	640841	25.0000	24.3

Data File: /chem/fid7.i/121609dr/014f1401.d
Date : 17-DEC-2009 00:10
Client ID: DSTD02
Sample Info: !UFI091118-02 D2

Column phase: DB-5MS

Instrument: fid7.i

Operator: KXR2
Column diameter: 0.25

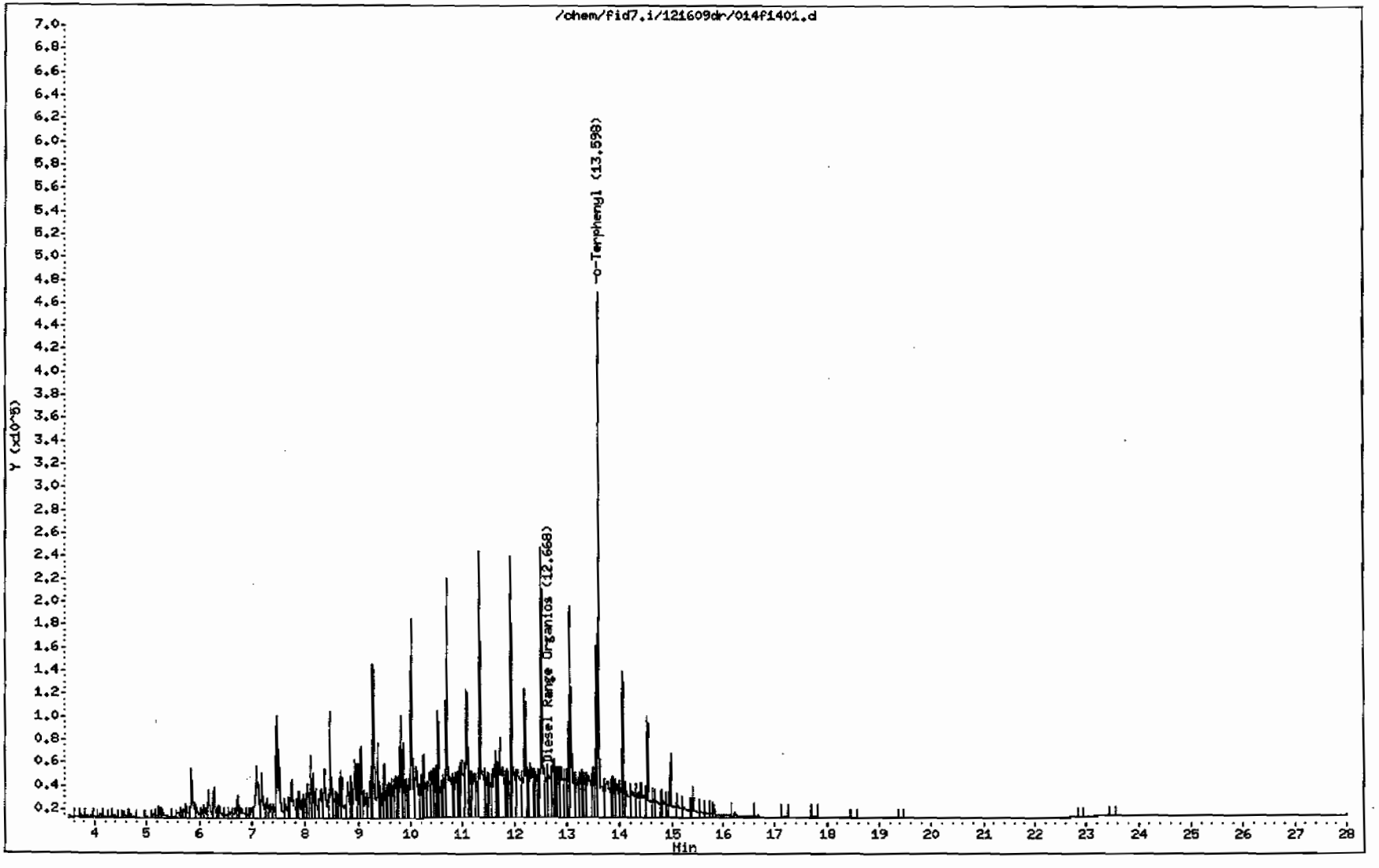

8D
DRO ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-886

GC Column: DB-5MS ID: 0.25 (mm) Init. Calib. Date(s): 12/13/09 12/13/09

Instrument ID: FID7

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 13.60

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	RT
01	DIBLK01	WFI091130-06	12/13/09	1516	13.59	
02	RTMARKER	UFI091013-03	12/13/09	1553		
03	CSTD01	UFI090827-10	12/13/09	1631	13.59	
04	CSTD02	UFI090827-11	12/13/09	1707	13.59	
05	CSTD03	UFI090827-12	12/13/09	1745	13.60	
06	CSTD04	UFI090827-13	12/13/09	1822	13.61	
07	CSTD05	UFI090827-14	12/13/09	1858	13.62	
08	DSTD01	WFI090928-01	12/13/09	1936	13.60	
09	DIBLK02	WFI091130-06	12/13/09	2012	13.59	
10	ZZZZZ	ZZZZZ	12/13/09	2049	13.59	
11	ZZZZZ	ZZZZZ	12/13/09	2126	13.59	
12	ZZZZZ	ZZZZZ	12/13/09	2203	13.59	
13	ZZZZZ	ZZZZZ	12/13/09	2240	13.59	
14	ZZZZZ	ZZZZZ	12/13/09	2318	13.60	
15	ZZZZZ	ZZZZZ	12/13/09	2354	13.59	
16	ZZZZZ	ZZZZZ	12/14/09	0032	13.59	
17	ZZZZZ	ZZZZZ	12/14/09	0109	13.59	
18	ZZZZZ	ZZZZZ	12/14/09	0146	13.59	
19	ZZZZZ	ZZZZZ	12/14/09	0223	13.59	
20	DSTD02	UFI091118-02	12/14/09	0300	13.60	
21	DIBLK03	WFI091130-06	12/14/09	0337	13.60	
22	ZZZZZ	ZZZZZ	12/14/09	0413	13.59	
23	ZZZZZ	ZZZZZ	12/14/09	0450	13.59	
24	ZZZZZ	ZZZZZ	12/14/09	0527	13.59	
25	ZZZZZ	ZZZZZ	12/14/09	0604	13.59	
26	ZZZZZ	ZZZZZ	12/14/09	0641	13.59	
27	ZZZZZ	ZZZZZ	12/14/09	0718	13.59	
28	ZZZZZ	ZZZZZ	12/14/09	0755	13.59	
29	ZZZZZ	ZZZZZ	12/14/09	0832	13.59	
30	ZZZZZ	ZZZZZ	12/14/09	0909	13.59	
31	DSTD03	UFI091118-02	12/14/09	0946	13.60	
32	DIBLK04	WFI091130-06	12/14/09	1023	13.60	

S1 = o-Terphenyl QC LIMITS (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

8D
DRO ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-886

GC Column: DB-5MS ID: 0.25 (mm) Init. Calib. Date(s): 12/13/09 12/13/09

Instrument ID: FID7

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 13.60

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	RT
01	DIBLK01	WFI091130-06	12/16/09	1610	13.59	
02	RTMARKER	UFI091013-03	12/16/09	1647		
03	DTSD01	UFI091118-02	12/16/09	1724	13.60	
04	DIBLK02	WFI091130-06	12/16/09	1801	13.59	
05	DBLK01	1201995990	12/16/09	1839	13.59	
06	DBLK01LCS	1201995991	12/16/09	1916	13.59	
07	ZZZZZ	ZZZZZ	12/16/09	1952	13.59	
08	ZZZZZ	ZZZZZ	12/16/09	2029	13.59	
09	RE03-09-13467	242750001	12/16/09	2106	13.59	
10	RE03-09-13466	242750002	12/16/09	2143	13.59	
11	RE03-09-13468	242750003	12/16/09	2220	13.59	
12	RE03-09-13465	242750004	12/16/09	2256	13.59	
13	RE03-10-2003	242750005	12/16/09	2333	13.59	
14	DSTD02	UFI091118-02	12/17/09	0010	13.60	
15	DIBLK03	WFI091130-06	12/17/09	0047	13.59	
16	ZZZZZ	ZZZZZ	12/17/09	0123	13.59	
17	ZZZZZ	ZZZZZ	12/17/09	0200	13.59	
18	ZZZZZ	ZZZZZ	12/17/09	0236	13.59	
19	ZZZZZ	ZZZZZ	12/17/09	0313	13.59	
20	ZZZZZ	ZZZZZ	12/17/09	0350	13.59	
21	ZZZZZ	ZZZZZ	12/17/09	0427	13.59	
22	ZZZZZ	ZZZZZ	12/17/09	0503	13.59	
23	ZZZZZ	ZZZZZ	12/17/09	0540	13.59	
24	DSTD03	UFI091118-02	12/17/09	0616	13.60	
25	DIBLK04	WFI091130-06	12/17/09	0652	13.59	
26						
27						
28						
29						
30						
31						
32						

S1 = o-Terphenyl QC LIMITS (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

QUALITY CONTROL DATA

Flame Ionization Detector
Certificate of Analysis
Sample Summary

SDG Number:	10–886			Matrix:	SOIL
Lab Sample ID:	1201995990				
Client Sample:	QC for batch 933000	Client:	LANL010	Project:	QC
Client ID:	MB for batch 933000	Method:	SW846 8015A/B SVOC	SOP Ref:	GL–OA–E–003
Batch ID:	933001	Inst:	FID7.I	Dilution:	1
Run Date:	12/16/2009 18:39	Analyst:	KXR2	Inj. Vol:	1 uL
Prep Date:	12/15/2009 16:56	Aliquot:	30 g	Final Volume:	1 mL
Data File:	005f0501.d	Column:	DB–5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics	U	6.67	mg/kg	2.17	6.67

GEL Laboratories LLC

DB-5MS .25mm

Data file : /chem/fid7.i/121609dr/005f0501a.d
Lab Smp Id: 1201995990 Client Smp ID: DBLK01
Inj Date : 16-DEC-2009 18:39
Operator : KXR2 Inst ID: fid7.i
Smp Info : |1201995990|1|
Misc Info : |FIDDRO_S|933001|FIDF|MB|
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fid7.i/121609dr/FID7a.i_b_DRO_121309.m
Meth Date : 17-Dec-2009 14:05 kev01577 Quant Type: ESTD
Cal Date : 13-DEC-2009 18:58 Cal File: 007f0701.d
Als bottle: 5 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-886.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weigth of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (mg/L)	FINAL (mg/Kg)
$ 2 o-Terphenyl					CAS #: 84-15-1
13.592	13.597	-0.005	245909	9.32726	0.31

Data File: /chem/fid7.i/121609dr/005f0501a.d
Date : 16-DEC-2009 18:39
Client ID: DBLK01
Sample Info: |1201995990|1|
Volume Injected (uL): 1.0
Column phase: DB-5MS

Instrument: fid7.i

Operator: KXR2
Column diameter: 0.25

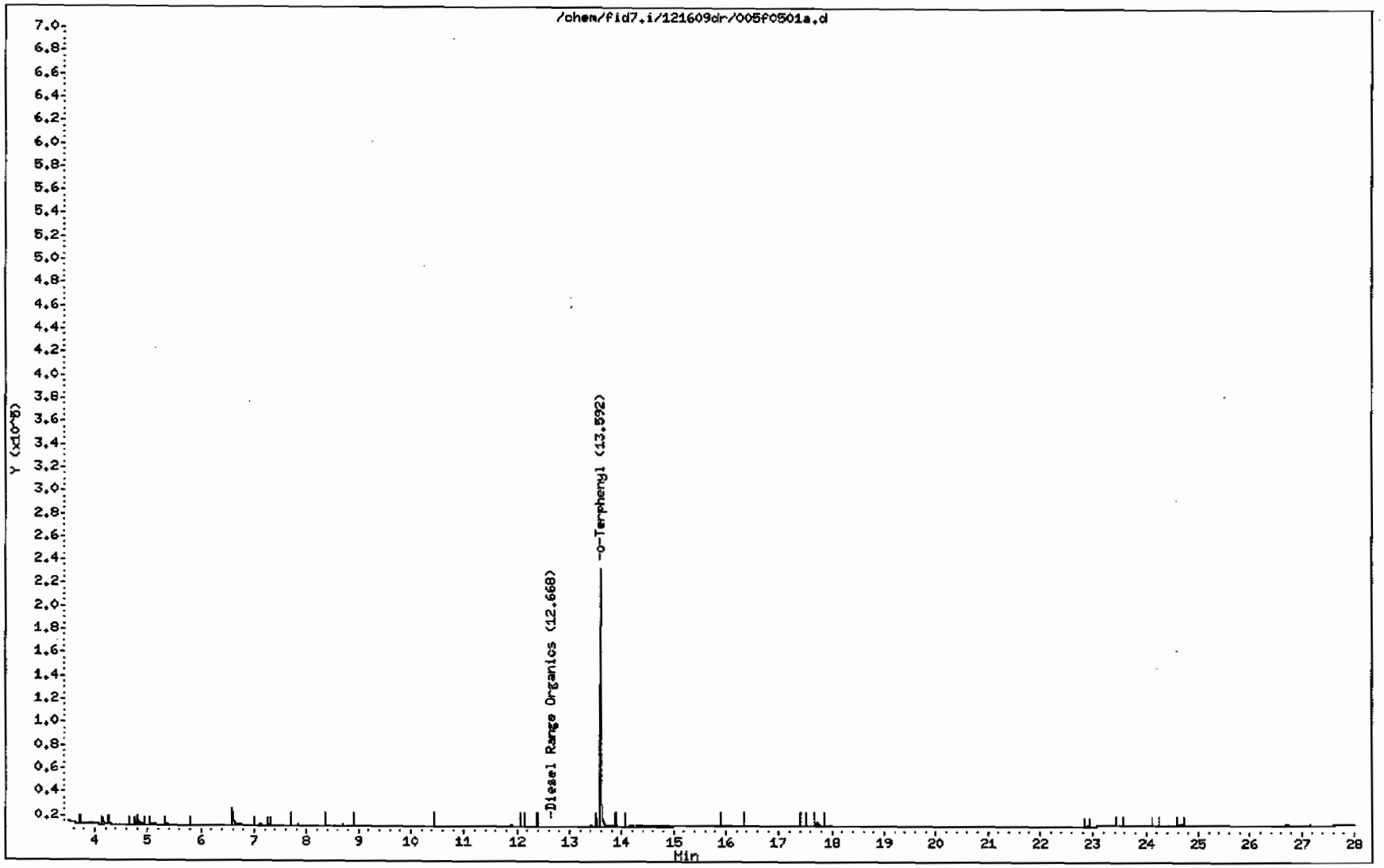

Flame Ionization Detector
Certificate of Analysis
Sample Summary

SDG Number:	10–886			**Matrix:**	SOIL
Lab Sample ID:	1201995991				
Client Sample:	QC for batch 933000	**Client:**	LANL010	**Project:**	QC
Client ID:	LCS for batch 933000	**Method:**	SW846 8015A/B SVOC	**SOP Ref:**	GL–OA–E–003
Batch ID:	933001	**Inst:**	FID7.I	**Dilution:**	1
Run Date:	12/16/2009 19:16	**Analyst:**	KXR2	**Inj. Vol:**	1 uL
Prep Date:	12/15/2009 16:56	**Aliquot:**	30 g	**Final Volume:**	1 mL
Data File:	006f0601.d	**Column:**	DB–5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics		22.2	mg/kg	2.17	6.67

GEL Laboratories LLC

DB-5MS .25mm

Data file : /chem/fid7.i/121609dr/006f0601a.d
Lab Smp Id: 1201995991 Client Smp ID: DBLK01LCS
Inj Date : 16-DEC-2009 19:16
Operator : KXR2 Inst ID: fid7.i
Smp Info : |1201995991|1|
Misc Info : |FIDDRO_S|933001|FIDF|LCS|
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fid7.i/121609dr/FID7a.i_b_DRO_121309.m
Meth Date : 17-Dec-2009 14:05 kev01577 Quant Type: ESTD
Cal Date : 13-DEC-2009 18:58 Cal File: 007f0701.d
Als bottle: 6 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-886.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weigth of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (mg/L)	FINAL (mg/Kg)
S 1 Diesel Range Organics					CAS #:
7.480- 17.855			8928086	665.421	22.2
$ 2 o-Terphenyl					CAS #: 84-15-1
13.594	13.597	-0.003	423124	16.0490	0.53

Data File: /chem/fid7.i/121609dr/006f0601a.d
Date : 16-DEC-2009 19:16
Client ID: DBLK01LCS
Sample Info: |1201995991|1|
Volume Injected (uL): 1.0
Column phase: DB-5MS

Instrument: fid7.i

Operator: KXR2
Column diameter: 0.25

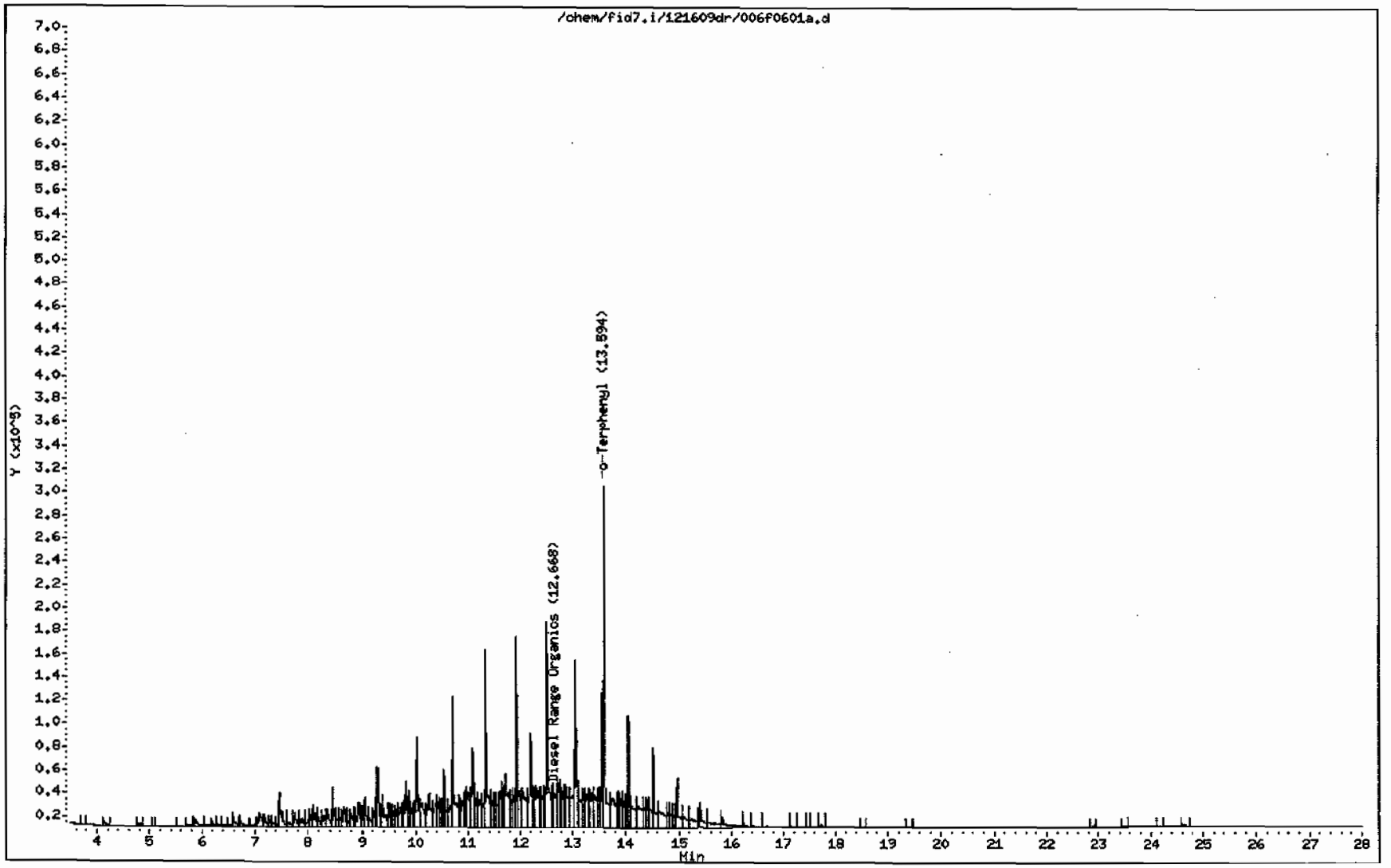

MISCELLANEOUS DATA

GEL ORGANIC RUN LOG INSTRUMENT ID: FID7.i

DATE: 12/14/2009 METHOD: FID7a.i_b_DRO_121309.m OPERATOR:KXR2 REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 16 on pg. 16 Solvent REMAT ID:CH2CL2

Calibration & QC Information
GC Column: DB-5MS 30m x 0.25mm x 0.25um
Initial Calibration Dates: See Calibration History and Standards Log
Initial Calibration Std ID's: See Calibration History and Standards Log
FID analysis of GEL SOP:GL-OA-E-003

Sequence Number:121309DR Injection Volume: 1.0 ul

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001f0101.d	WFI091130-06 B1	KXR2	13-DEC-2009 15:16		SDGa20942	1.0		CLEAN
002f0201.d	UFI091013-03 RT	KXR2	13-DEC-2009 15:53		SDGa20942	1.0		RTMARKER
003f0301.d	UFI090827-10 200	KXR2	13-DEC-2009 16:31		SDGa20942	1.0		CAL. LEVEL 1
004f0401.d	UFI090827-11 500	KXR2	13-DEC-2009 17:07		SDGa20942	1.0		CAL. LEVEL 2
005f0501.d	UFI090827-12 1000	KXR2	13-DEC-2009 17:45		SDGa20942	1.0		CAL. LEVEL 3
006f0601.d	UFI090827-13 2000	KXR2	13-DEC-2009 18:22		SDGa20942	1.0		CAL. LEVEL 4
007f0701.d	UFI090827-14 5000	KXR2	13-DEC-2009 18:58		SDGa20942	1.0		CAL. LEVEL 5
008f0801.d	WFI090928-01 D1	KXR2	13-DEC-2009 19:36		SDGa20942	1.0		PASSES
009f0901.d	WFI091130-06 B2	KXR2	13-DEC-2009 20:12		SDGa20942	1.0		CLEAN
010f1001.d	1201993826	KXR2	13-DEC-2009 20:49	932074	10-830	1.0	MB	USE
011f1101.d	1201993827	KXR2	13-DEC-2009 21:26	932074	10-830	1.0	LCS	USE
012f1201.d	242439002	KXR2	13-DEC-2009 22:03	932074	10-830	1.0	LANL	USE
013f1301.d	1201993828	KXR2	13-DEC-2009 22:40	932074	10-830	1.0	MS	USE
014f1401.d	1201993829	KXR2	13-DEC-2009 23:18	932074	10-830	1.0	MSD	USE
015f1501.d	242439003	KXR2	13-DEC-2009 23:54	932074	10-830	1.0	LANL	USE

Instrument Batch: /chem/fid7.i/121309dr Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
016f1601.d	242439004	KXR2	14-DEC-2009 00:32	932074	10-830	1.0	LANL	USE

017f1701.d	242439005	KXR2	14-DEC-2009 01:09	932074	10-830		5.0	LANL	USE
018f1801.d	242439006	KXR2	14-DEC-2009 01:46	932074	10-830		1.0	LANL	USE
019f1901.d	242439007	KXR2	14-DEC-2009 02:23	932074	10-830		1.0	LANL	USE
020f2001.d	UFI091118-02 D2	KXR2	14-DEC-2009 03:00		SDGa20942		1.0		PASSES
021f2101.d	WFI091130-06 B3	KXR2	14-DEC-2009 03:37		SDGa20942		1.0		CLEAN
022f2201.d	242439008	KXR2	14-DEC-2009 04:13	932074	10-830		1.0	LANL	USE
023f2301.d	242439009	KXR2	14-DEC-2009 04:50	932074	10-830		1.0	LANL	USE
024f2401.d	242439010	KXR2	14-DEC-2009 05:27	932074	10-830		1.0	LANL	USE
025f2501.d	242439011	KXR2	14-DEC-2009 06:04	932074	10-830		1.0	LANL	USE
026f2601.d	242439012	KXR2	14-DEC-2009 06:41	932074	10-830		1.0	LANL	USE
027f2701.d	242439013	KXR2	14-DEC-2009 07:18	932074	10-830		20.0	LANL	USE
028f2801.d	242439014	KXR2	14-DEC-2009 07:55	932074	10-830		1.0	LANL	USE
029f2901.d	242439015	KXR2	14-DEC-2009 08:32	932074	10-830		10.0	LANL	USE
030f3001.d	242439016	KXR2	14-DEC-2009 09:09	932074	10-830		1.0	LANL	USE
031f3101.d	UFI091118-02 D3	KXR2	14-DEC-2009 09:46		SDGa20942		1.0		PASSES
032f3201.d	WFI091130-06 B4	KXR2	14-DEC-2009 10:23		SDGa20942		1.0		CLEAN

GEL ORGANIC RUN LOG INSTRUMENT ID: FID7.i

DATE: 12/17/2009 METHOD: FID7a.i_b_DRO_121309.m OPERATOR:KXR2 REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 16 on pg. 16 Solvent REMAT ID:CH2CL2

Calibration & QC Information
GC Column: DB-5MS 30m x 0.25mm x 0.25um
Initial Calibration Dates: See Calibration History and Standards Log
Initial Calibration Std ID's: See Calibration History and Standards Log
FID analysis of GEL SOP:GL-OA-E-003

Sequence Number:121609DR Injection Volume: 1.0 ul

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001f0101.d	WFI091130-06 B1	KXR2	16-DEC-2009 16:10		SDGa14471	1.0		CLEAN
002f0201.d	UFI091013-03 RT	KXR2	16-DEC-2009 16:47		SDGa14471	1.0		RTMARKER
003f0301.d	UFI091118-02 D1	KXR2	16-DEC-2009 17:24		SDGa14471	1.0		PASSES
004f0401.d	WFI091130-06 B2	KXR2	16-DEC-2009 18:01		SDGa14471	1.0		CLEAN
005f0501.d	1201995990	KXR2	16-DEC-2009 18:39	933001	10-854	1.0	MB	USE
006f0601.d	1201995991	KXR2	16-DEC-2009 19:16	933001	10-854	1.0	LCS	USE
007f0701.d	242668001	KXR2	16-DEC-2009 19:52	933001	10-854	1.0	LANL	USE
008f0801.d	242668002	KXR2	16-DEC-2009 20:29	933001	10-854	10.0	LANL	USE
009f0901.d	242750001	KXR2	16-DEC-2009 21:06	933001	10-886	1.0	LANL	USE
010f1001.d	242750002	KXR2	16-DEC-2009 21:43	933001	10-886	1.0	LANL	USE
011f1101.d	242750003	KXR2	16-DEC-2009 22:20	933001	10-886	1.0	LANL	USE
012f1201.d	242750004	KXR2	16-DEC-2009 22:56	933001	10-886	1.0	LANL	USE
013f1301.d	242750005	KXR2	16-DEC-2009 23:33	933001	10-886	1.0	LANL	USE
014f1401.d	UFI091118-02 D2	KXR2	17-DEC-2009 00:10		SDGa14471	1.0		PASSES
015f1501.d	WFI091130-06 B3	KXR2	17-DEC-2009 00:47		SDGa14471	1.0		CLEAN

Instrument Batch: /chem/fid7.i/121609dr Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
016f1601.d	242784003	KXR2	17-DEC-2009 01:23	933001	10-899	1.0	LANL	USE

017f1701.d	242784004	KXR2	17-DEC-2009 02:00	933001	10-899		5.0	LANL	USE
018f1801.d	242794001	KXR2	17-DEC-2009 02:36	933001	10-901		1.0	LANL	USE
019f1901.d	1201995992	KXR2	17-DEC-2009 03:13	933001	10-901		1.0	LANL	USE
020f2001.d	1201995993	KXR2	17-DEC-2009 03:50	933001	10-901		1.0	LANL	USE
021f2101.d	242794002	KXR2	17-DEC-2009 04:27	933001	10-901		1.0	LANL	USE
022f2201.d	242794003	KXR2	17-DEC-2009 05:03	933001	10-901		1.0	LANL	USE
023f2301.d	242794004	KXR2	17-DEC-2009 05:40	933001	10-901		10.0	LANL	USE
024f2401.d	UFI091118-02 D3	KXR2	17-DEC-2009 06:16		SDGa14471		1.0		PASSES
025f2501.d	WFI091130-06 B4	KXR2	17-DEC-2009 06:52		SDGa14471		1.0		CLEAN

Prep Logbook

Extraction of Semivolatile and Nonvolatile Organic Compounds from Soil, Sludge, and Other Miscellaneous Solid Samples

Batch ID: 933000 **Verified by:** _____

Analyst: Joshua McCartney

Method: SW846 3550B

Lab SOP: GL-OA-E-010 REV# 18

Instrument: Semi-Volatiles Manual

Sample ID	Run Date	Aliquot (g)	Prepped Aliquot (mL)	Prepped Factor (mL/g)
1201995990 MB	15-DEC-2009 16:56:05	30	1	0.03333
1201995991 LCS	15-DEC-2009 16:56:05	30	1	0.03333
242668001	15-DEC-2009 16:56:05	30.08	1	0.03324
242668002	15-DEC-2009 16:56:05	30	1	0.03333
242750001	15-DEC-2009 16:56:05	30	1	0.03333
242750002	15-DEC-2009 16:56:05	30.04	1	0.03329
242750003	15-DEC-2009 16:56:05	30.02	1	0.03331
242750004	15-DEC-2009 16:56:05	30.06	1	0.03327
242750005	15-DEC-2009 16:56:05	30	1	0.03333
242784003	15-DEC-2009 16:56:05	30	1	0.03333
242784004	15-DEC-2009 16:56:05	30.01	1	0.03332
242794001	15-DEC-2009 16:56:05	30.04	1	0.03329
1201995992 MS (242794001)	15-DEC-2009 16:56:05	30	1	0.03333
1201995993 MSD (242794001)	15-DEC-2009 16:56:05	30.02	1	0.03331
242794002	15-DEC-2009 16:56:05	30	1	0.03333
242794003	15-DEC-2009 16:56:05	30	1	0.03333
242794004	15-DEC-2009 16:56:05	30.01	1	0.03332

Type	Sample Id	Description	Serial Number	Spike Amt	Units
LCS	1201995991	TPH DRO LCS	UE091030-08	1	mL
MS	1201995992	TPH DRO LCS	UE091030-08	1	mL
MSD	1201995993	TPH DRO LCS	UE091030-08	1	mL
SURR	All	20 ppm surrogate	WE091210-04	1	mL
REGNT	All	Methylene Chloride	1242565-D	300	mL
SOURC	All	SODIUM SULFATE	1242582	30	g

Comments:

Verified By: RWH

Final Solvent: CH2Cl2

GEL Laboratories LLC

DB-5MS .25mm

Data file : /chem/fid7.i/121609dr/019f1901.d
Lab Smp Id: 1201995992 Client Smp ID: RE03-09-13470MS
Inj Date : 17-DEC-2009 03:13
Operator : KXR2 Inst ID: fid7.i
Smp Info : |1201995992|1|
Misc Info : |FIDDRO_S|933001|FIDF|MS|
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fid7.i/121609dr/FID7a.i_b_DRO_121309.m
Meth Date : 17-Dec-2009 14:05 kev01577 Quant Type: ESTD
Cal Date : 13-DEC-2009 18:58 Cal File: 007f0701.d
Als bottle: 19 QC Sample: MS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-901.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weigth of sample extracted (g)
M	4.36000	% Moisture

Cpnd Variable Local Compound Variable

	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (mg/L)	FINAL (mg/Kg)
S	1 Diesel Range Organics					CAS #:
	7.480- 17.855			6649131	495.568	17.3
$	2 o-Terphenyl					CAS #: 84-15-1
	13.594	13.597	-0.003	295758	11.2180	0.39

Data File: /chem/fid7.i/121609dr/019f1901.d
Date : 17-DEC-2009 03:13
Client ID: RE03-09-13470MS
Sample Info: |1201998992|1|
Volume Injected (uL): 1.0
Column phase: DB-5MS

Instrument: fid7.i

Operator: KXR2
Column diameter: 0.25

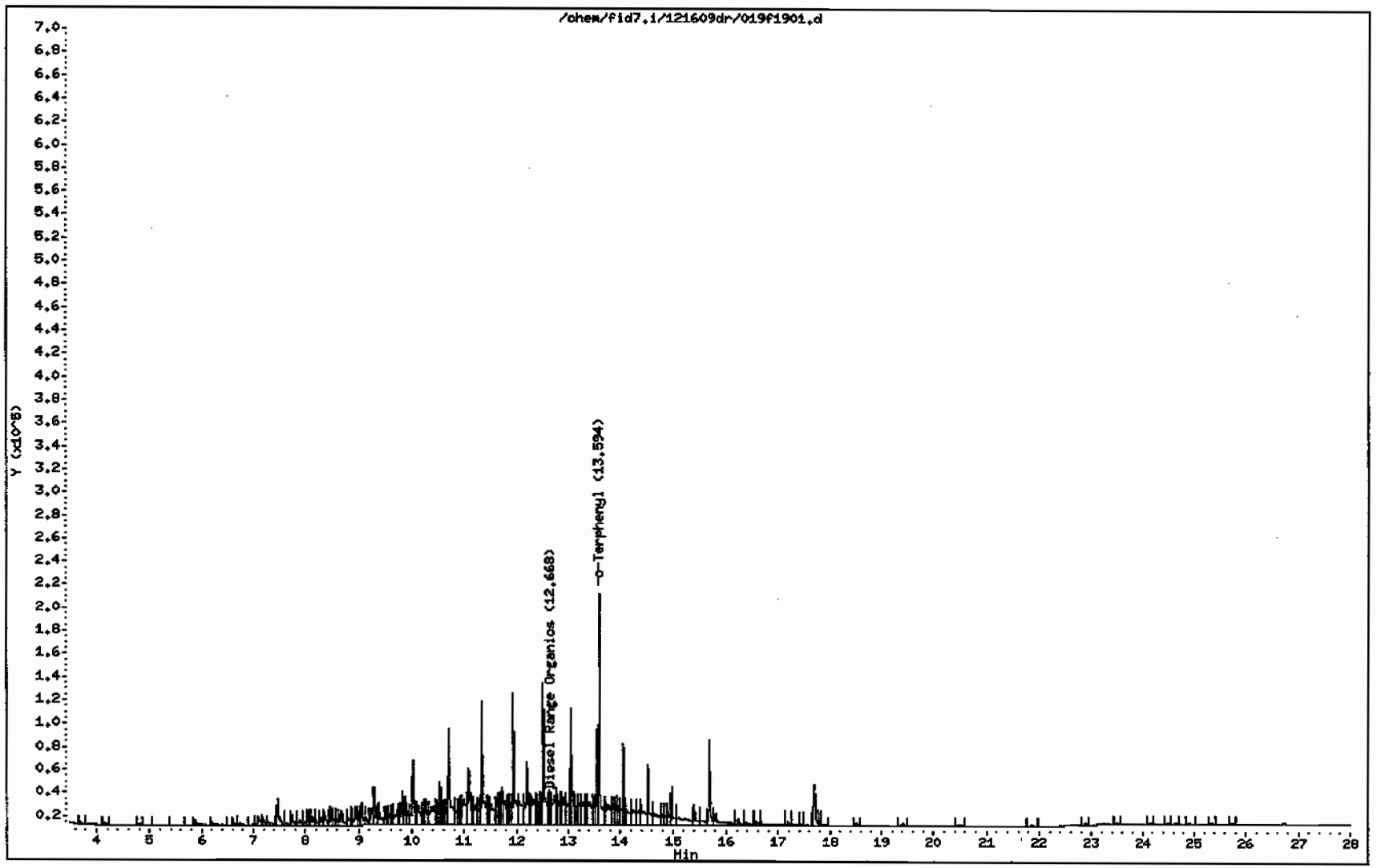

GEL Laboratories LLC

DB-5MS .25mm

Data file : /chem/fid7.i/121609dr/020f2001.d
Lab Smp Id: 1201995993 Client Smp ID: RE03-09-13470MSD
Inj Date : 17-DEC-2009 03:50
Operator : KXR2 Inst ID: fid7.i
Smp Info : |1201995993|1|
Misc Info : |FIDDRO_S|933001|FIDF|MSD|
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fid7.i/121609dr/FID7a.i_b_DRO_121309.m
Meth Date : 17-Dec-2009 14:05 kev01577 Quant Type: ESTD
Cal Date : 13-DEC-2009 18:58 Cal File: 007f0701.d
Als bottle: 20 QC Sample: MSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-901.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.02000	Weigth of sample extracted (g)
M	4.36000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (mg/L)	FINAL (mg/Kg)
S 1 Diesel Range Organics					CAS #:
7.480- 17.855			6996089	521.427	18.2
$ 2 o-Terphenyl					CAS #: 84-15-1
13.593	13.597	-0.004	281166	10.6646	0.37

Data File: /ohem/fid7.i/121609dr/020f2001.d
Date : 17-DEC-2009 03:50
Client ID: RE03-09-13470MSD
Sample Info: |1201998993|1|
Volume Injected (uL): 1.0
Column phase: DB-5MS

Instrument: fid7.i

Operator: KXR2
Column diameter: 0.25

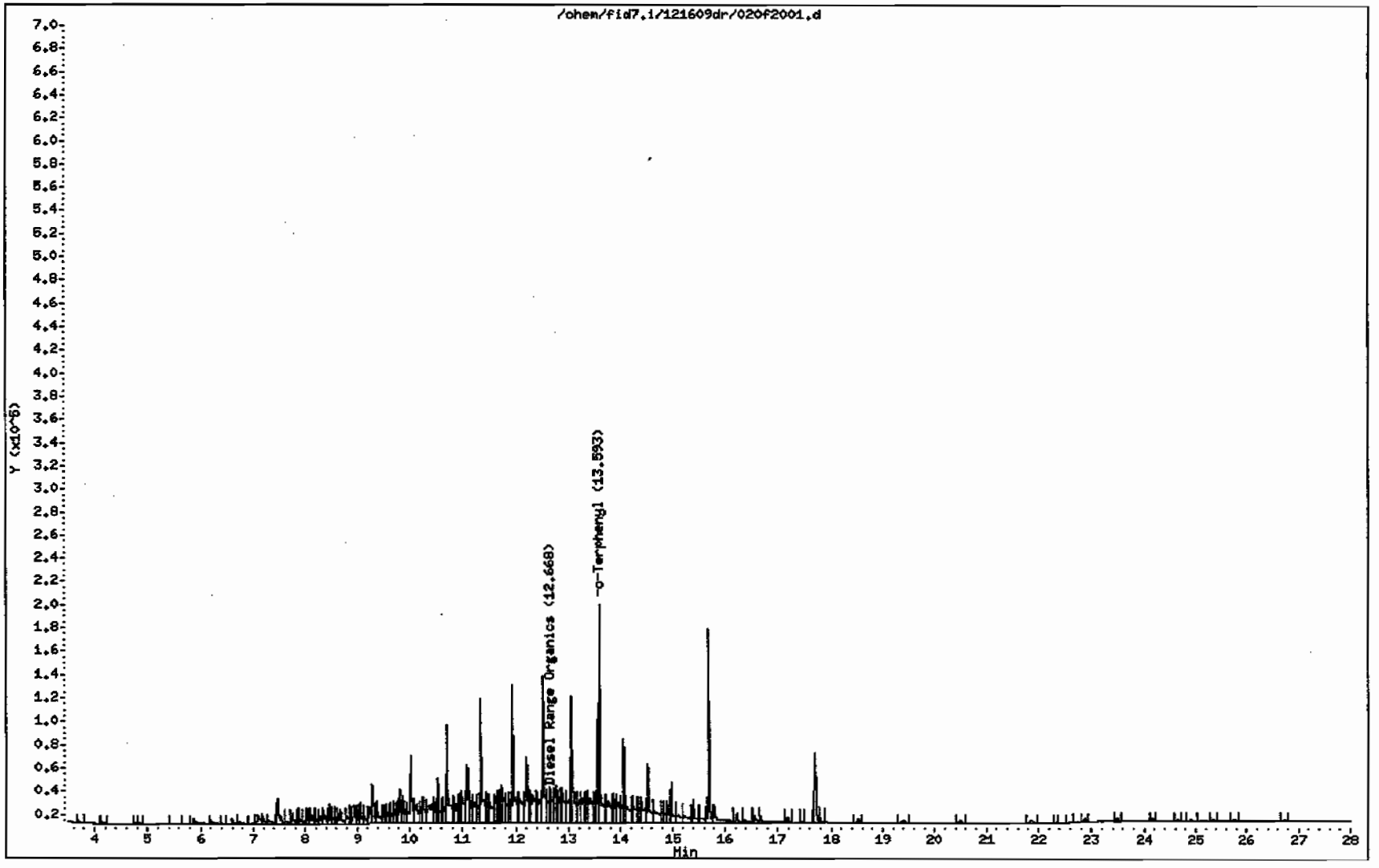

GC SEMIVOLATILE PCB ANALYSIS

PCB Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-886

Method/Analysis Information

Procedure:	**Analysis of Polychlorinated Biphenyls by ECD**
Analytical Method:	SW846 8082
Prep Method:	SW846 3550B
Analytical Batch Number:	933342
Prep Batch Number:	933337

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 8082:

Sample ID	Client ID
242750001	RE03-09-13467
242750002	RE03-09-13466
242750003	RE03-09-13468
242750004	RE03-09-13465
242750005	RE03-10-2003
1201996856	Method Blank (MB)
1201996857	Laboratory Control Sample (LCS)
1201996858	242781001(RE03-09-13757) Matrix Spike (MS)
1201996859	242781001(RE03-09-13757) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on a "dry weight" basis.

Preparation/Analytical Method Verification

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-040 REV# 14.

Raw data reports are processed and reviewed by the analyst using the Target software package. False positives have been removed from the Target quantitation reports per standard operating procedures (SOP) section 23.0.

Calibration Information

Please note that the 'Cal Date' indicated on each quantitation report reflects the date and time of the most recent calibrated analyte(s) in the Target processing method. Since the laboratory may calibrate with multiple solutions on different days using the same processing method, the Target software will update the 'Cal Date' to the last calibration

file, date and time. The correct dates and times for all calibration files are located on the Calibration History report in the Standard Data section in the data package.

Due to software limitations, the Calibration Summary Form 6 may not indicate all the calibration files comprising the initial calibration. A complete list of the initial calibration data files are shown in the Calibration History report located in the Standard Data section of the data package.

Initial Calibration
All initial calibration requirements have been met for this sample delivery group (SDG).

The linear equation used in Target and indicated on the initial calibration summary form is not a conventional linear equation (slope intercept formula) and does not match the equation found in SW-846 method 8000B. The x and y axes are inversed in Target, so that the instrument response is treated as the independent variable (x) and the concentration ratio is treated as the dependent variable (y). The equation used in Target to calculate sample results is adjusted to account for the linear equation inversion and reciprocal slope. The adjusted calculation has been independently verified to produce valid results.

Continuing Calibration Verification (CCV) Requirements
All associated calibration verification standard(s) (ICV or CCV) met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Surrogate Recoveries
All the surrogate recoveries were within the established acceptance criteria for this SDG.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

QC Sample Designation
A LANL sample of similar matrix associated with another SDG (#10-887) was selected for the matrix spike and matrix spike duplicate analysis. A Form III and QC raw data are included in the package summarizing the results.

Matrix Spike (MS) Recovery Statement
The MS recoveries were within the established acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recoveries were within the established acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD between the MS and MSD met the acceptance limits.

Technical Information

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP. All sample extracts were cleaned using alumina. Additionally, copper was added to all sample extracts to remove sulfur.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-extraction/Re-analysis
Re-extractions or re-analyses were not required in this SDG.

Miscellaneous Information

Electronic Package Comment

The following package was generated using an electronic data processing program referred to as "virtual packaging". In an effort to increase quality and efficiency, the laboratory is developing systems to eventually generate all data packages electronically. The following change from "traditional" packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. An electronic signature page inserted after the case narrative of each electronic package will indicate the analyst, reviewer, and report specialist names associated with the generation of the data and package. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Nonconformance (NCR) Documentation
Nonconformance report (NCR) is for documentation of any procedural anomalies that may deviate from referenced SOP or contractual document. A NCR was not required for this SDG.

Manual Integration
Certain standards and samples may have required manual integration to correctly position the baseline as set in the calibration standard injections. If manual integration was performed, copies of all manual integration peak profiles are included in the raw data section of this PCB fraction.

Additional Comments
The additional comments field is used to address special issues associated with each analysis, clarify method/contractual issues pertaining to the analysis, and to list any report documents generated as a result of sample analysis or review. The following additional comments were required:

The higher results from either column have been chosen and reported in the data package for the client samples, MB and LCS.

The data reported on the form I and III may differ slightly from the data reported on the form X. This is due to software limitations in rounding differences between the forms.

Aroclors quantitated on the raw data report by the Target data system do not necessarily represent positive Aroclor identification. In order for positive identification to be made, the Aroclor must match in pattern and retention time; as well as quantitate relatively close between the primary and confirmation columns, as specified in SW846 method 8000. When these conditions are not met, the Aroclor is reported as a non-detect on the data report. These situations will be noted on the raw data as DMP, representing does not match pattern, or DNC does not confirm.

Due to software limitation, the Form VIIs will display the results either in the % difference or % drift depending on the type of the calibration curve. If the curve of all analytes is generated using an average response factor (RF), the Form VII will display results using the %difference calculation (RF). If the curve of one or more analytes is generated using a linear curve, the Form VII will display results using the % drift calculation (by concentration) for all analytes.

System Configuration

The Semi-Volatiles-PCB analysis was performed on the following instrument configuration:

Instrument ID	Instrument	System Configuration	Column ID	Column Description
ECD1A.I_1	HP Gas Chromatograph	HP6890 Series ECD	Rtx-CLP I	30m x 0.25mm, 0.25um (Rtx-CLPesticide)
ECD1A.I_2	HP Gas Chromatograph	HP6890 Series ECD	Rtx-CLP II	30m x 0.25mm, 0.20um (Rtx-CLPesticideII)

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Jimi Cao Date: 1/7/10

Roadmap for LANL 10-886 PCB

This roadmap was analyzed by yip00818 on 12-17-2009, 11:19.
This roadmap was reviewed by jim01140 on 12-18-2009, 09:48.
This roadmap was packaged by yml on 01-06-2010, 11:12.
This roadmap was validated by jim01140 on 01-07-2010, 09:28.

Front Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd1a.i/121609.b/064f6401.d	242750001	sample	16-DEC-2009	18:44	10-886.sub	RE03-09-13467	1.00000	933342	UPLOAD BOTH COLUMNS, USE HIGHER
☐	N	/chem/ecd1a.i/121609.b/065f6501.d	242750002	sample	16-DEC-2009	18:57	10-886.sub	RE03-09-13466	1.00000	933342	UPLOAD BOTH COLUMNS, USE HIGHER
☐	N	/chem/ecd1a.i/121609.b/066f6601.d	242750003	sample	16-DEC-2009	19:10	10-886.sub	RE03-09-13468	1.00000	933342	UPLOAD BOTH COLUMNS, USE HIGHER
☐	N	/chem/ecd1a.i/121609.b/067f6701.d	242750004	sample	16-DEC-2009	19:22	10-886.sub	RE03-09-13465	1.00000	933342	UPLOAD BOTH COLUMNS, USE HIGHER
☐	N	/chem/ecd1a.i/121609.b/068f6801.d	242750005	sample	16-DEC-2009	19:35	10-886.sub	RE03-10-2003	1.00000	933342	UPLOAD BOTH COLUMNS, USE HIGHER

Back Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd1a.i/121609.b/064b6401.d	242750001	sample	16-DEC-2009	18:44	10-886.sub	RE03-09-13467	1.00000	933342	UPLOAD BOTH COLUMNS, USE HIGHER
☐	N	/chem/ecd1a.i/121609.b/065b6501.d	242750002	sample	16-DEC-2009	18:57	10-886.sub	RE03-09-13466	1.00000	933342	UPLOAD BOTH COLUMNS, USE HIGHER
☐	N	/chem/ecd1a.i/121609.b/066b6601.d	242750003	sample	16-DEC-2009	19:10	10-886.sub	RE03-09-13468	1.00000	933342	UPLOAD BOTH COLUMNS, USE HIGHER
☐	N	/chem/ecd1a.i/121609.b/067b6701.d	242750004	sample	16-DEC-2009	19:22	10-886.sub	RE03-09-13465	1.00000	933342	UPLOAD BOTH COLUMNS, USE HIGHER
☐	N	/chem/ecd1a.i/121609.b/068b6801.d	242750005	sample	16-DEC-2009	19:35	10-886.sub	RE03-10-2003	1.00000	933342	UPLOAD BOTH COLUMNS, USE HIGHER

Front QC Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd1a.i/121609.b/052f5201-5.d	1201996856	mb	16-DEC-2009	16:21	10-886.sub	PBLK01	1.00000	933342	
☐	N	/chem/ecd1a.i/121609.b/053f5301-5.d	1201996857	lcs	16-DEC-2009	16:32	10-886.sub	PBLK01LCS	1.00000	933342	

Back QC Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd1a.i/121609.b/052b5201-5.d	1201996856	mb	16-DEC-2009	16:21	10-886.sub	PIBLK01	1.00000	933342	
☐	N	/chem/ecd1a.i/121609.b/053b5301-5.d	1201996857	lcs	16-DEC-2009	16:32	10-886.sub	PBLK01LCS	1.00000	933342	

SAMPLE DATA SUMMARY

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10–886	**Date Collected:**	12/09/2009 12:00	**Matrix:**	S
Lab Sample ID:	242750004	**Date Received:**	12/11/2009 08:50	**%Moisture:**	7
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03–09–13465	**Method:**	SW846 8082	**SOP Ref:**	GL–OA–E–040
Batch ID:	933342	**Inst:**	ECD1A.I	**Dilution:**	1
Run Date:	12/16/2009 19:22	**Analyst:**	YS1	**Inj. Vol:**	1 uL
Prep Date:	12/15/2009 20:23	**Aliquot:**	30.01 g	**Final Volume:**	1 mL
Data File:	067f6701.d	**Column:**	1 CLP1	**Level:**	LOW
	067b6701.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	3.58	ug/kg	1.19	3.58	1
11104–28–2	Aroclor–1221	U	3.58	ug/kg	1.19	3.58	1
11141–16–5	Aroclor–1232	U	3.58	ug/kg	1.19	3.58	1
53469–21–9	Aroclor–1242	U	3.58	ug/kg	1.19	3.58	1
12672–29–6	Aroclor–1248	U	3.58	ug/kg	1.19	3.58	1
11097–69–1	Aroclor–1254	U	3.58	ug/kg	1.19	3.58	1
11096–82–5	Aroclor–1260	U	3.58	ug/kg	1.19	3.58	1

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10-886	**Date Collected:**	12/09/2009 12:00	**Matrix:**	S
Lab Sample ID:	242750002	**Date Received:**	12/11/2009 08:50	**%Moisture:**	8.5
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-13466	**Method:**	SW846 8082	**SOP Ref:**	GL-OA-E-040
Batch ID:	933342	**Inst:**	ECD1A.I	**Dilution:**	1
Run Date:	12/16/2009 18:57	**Analyst:**	YS1	**Inj. Vol:**	1 uL
Prep Date:	12/15/2009 20:23	**Aliquot:**	30.05 g	**Final Volume:**	1 mL
Data File:	065f6501.d	**Column:**	1 CLP1	**Level:**	LOW
	065b6501.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.64	ug/kg	1.21	3.64	1
11104-28-2	Aroclor-1221	U	3.64	ug/kg	1.21	3.64	1
11141-16-5	Aroclor-1232	U	3.64	ug/kg	1.21	3.64	1
53469-21-9	Aroclor-1242	U	3.64	ug/kg	1.21	3.64	1
12672-29-6	Aroclor-1248	U	3.64	ug/kg	1.21	3.64	1
11097-69-1	Aroclor-1254	U	3.64	ug/kg	1.21	3.64	1
11096-82-5	Aroclor-1260	U	3.64	ug/kg	1.21	3.64	1

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–886**	**Date Collected:**	**12/09/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242750001**	**Date Received:**	**12/11/2009 08:50**	**%Moisture:**	**3.9**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03–09–13467**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**933342**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**12/16/2009 18:44**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**12/15/2009 20:23**	**Aliquot:**	**30.01 g**	**Final Volume:**	**1 mL**
Data File:	**064f6401.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	064b6401.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	3.47	ug/kg	1.15	3.47	1
11104–28–2	Aroclor–1221	U	3.47	ug/kg	1.15	3.47	1
11141–16–5	Aroclor–1232	U	3.47	ug/kg	1.15	3.47	1
53469–21–9	Aroclor–1242	U	3.47	ug/kg	1.15	3.47	1
12672–29–6	Aroclor–1248	U	3.47	ug/kg	1.15	3.47	1
11097–69–1	Aroclor–1254	U	3.47	ug/kg	1.15	3.47	1
11096–82–5	Aroclor–1260	U	3.47	ug/kg	1.15	3.47	1

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10-886	**Date Collected:**	12/09/2009 12:00	**Matrix:**	S
Lab Sample ID:	242750003	**Date Received:**	12/11/2009 08:50	**%Moisture:**	9.3
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-13468	**Method:**	SW846 8082	**SOP Ref:**	GL-OA-E-040
Batch ID:	933342	**Inst:**	ECD1A.I	**Dilution:**	1
Run Date:	12/16/2009 19:10	**Analyst:**	YS1	**Inj. Vol:**	1 uL
Prep Date:	12/15/2009 20:23	**Aliquot:**	30.04 g	**Final Volume:**	1 mL
Data File:	066f6601.d	**Column:**	1 CLP1	**Level:**	LOW
	066b6601.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.67	ug/kg	1.22	3.67	1
11104-28-2	Aroclor-1221	U	3.67	ug/kg	1.22	3.67	1
11141-16-5	Aroclor-1232	U	3.67	ug/kg	1.22	3.67	1
53469-21-9	Aroclor-1242	U	3.67	ug/kg	1.22	3.67	1
12672-29-6	Aroclor-1248	U	3.67	ug/kg	1.22	3.67	1
11097-69-1	Aroclor-1254	U	3.67	ug/kg	1.22	3.67	1
11096-82-5	Aroclor-1260	U	3.67	ug/kg	1.22	3.67	1

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10–886	**Date Collected:**	12/09/2009 12:00	**Matrix:**	S
Lab Sample ID:	242750005	**Date Received:**	12/11/2009 08:50	**%Moisture:**	6.8
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03–10–2003	**Method:**	SW846 8082	**SOP Ref:**	GL–OA–E–040
Batch ID:	933342	**Inst:**	ECD1A.I	**Dilution:**	1
Run Date:	12/16/2009 19:35	**Analyst:**	YS1	**Inj. Vol:**	1 uL
Prep Date:	12/15/2009 20:23	**Aliquot:**	30.07 g	**Final Volume:**	1 mL
Data File:	068f6801.d	**Column:**	1 CLP1	**Level:**	LOW
	068b6801.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	3.57	ug/kg	1.19	3.57	1
11104–28–2	Aroclor–1221	U	3.57	ug/kg	1.19	3.57	1
11141–16–5	Aroclor–1232	U	3.57	ug/kg	1.19	3.57	1
53469–21–9	Aroclor–1242	U	3.57	ug/kg	1.19	3.57	1
12672–29–6	Aroclor–1248	U	3.57	ug/kg	1.19	3.57	1
11097–69–1	Aroclor–1254	U	3.57	ug/kg	1.19	3.57	1
11096–82–5	Aroclor–1260	U	3.57	ug/kg	1.19	3.57	1

QUALITY CONTROL SUMMARY

PCB

Surrogate Recovery Report

SDG Number: 10-886

Matrix Type: SOLID

CAP Column (1) : CLP1 **CAP Column (2) : CLP2**

Sample ID	Client ID	4CMX 1 %REC #	4CMX 2 %REC #	DCB 1 %REC #	DCB 2 %REC #
1201996856	MB for batch 933337	82	79	87	83
1201996857	LCS for batch 933337	84	80	90	84
242750001	RE03-09-13467	69	66	75	74
242750002	RE03-09-13466	76	73	82	81
242750003	RE03-09-13468	75	72	84	82
242750004	RE03-09-13465	55	54	63	62
242750005	RE03-10-2003	64	62	69	68

Surrogate		Acceptance Limits
4CMX	= 4cmx	(34%-105%)
DCB	= Decachlorobiphenyl	(33%-115%)

* Recovery outside Acceptance Limits

\# Column to be used to flag recovery values

D Sample Diluted

PCB

Quality Control Summary
Spike Recovery Report

SDG Number: 10-886
Client ID: LCS for batch 933337
Lab Sample ID: 1201996857
Instrument: ECD1A.I
Analyst: YS1
Inj. Vol: 1 uL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 12/16/2009 16:32
Dilution: 1
Prep Batch ID: 933337
Batch ID: 933342

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
12674-11-2	LCS	Aroclor-1016	33.3	0.0	29.7	89	41-110
11096-82-5	LCS	Aroclor-1260	33.3	0.0	36.0	108	48-110

PCB

Quality Control Summary
Spike Recovery Report

SDG Number: 10-887
Client ID: RE03-09-13757MS
Lab Sample ID: 1201996858
Instrument: ECD1A.I
Analyst: YS1
Inj. Vol: 1 uL

Sample Type: Matrix Spike
Matrix: S
%Moisture: 9.9
Analysis Date: 12/16/2009 19:58
Prep Batch ID: 933337
Batch ID: 933342

Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
12674-11-2	MS	Aroclor-1016	37.0	0.00	U	25.6	69	23-117
11096-82-5	MS	Aroclor-1260	37.0	2.50	J	32.5	81	27-116

PCB

Quality Control Summary
Spike Recovery Report

SDG Number: 10–887
Client ID: RE03–09–13757MSD
Lab Sample ID: 1201996859
Instrument: ECD1A.I
Analyst: YS1
Inj. Vol: 1 uL

Sample Type: Matrix Spike Duplicate
Matrix: S
%Moisture: 9.9
Analysis Date: 12/16/2009 20:08
Dilution: 1
Prep Batch ID: 933337
Batch ID: 933342

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
12674–11–2	MSD Aroclor–1016	36.9	0.00	U	26.6	72	23–117	4	0–30
11096–82–5	MSD Aroclor–1260	36.9	2.50	J	33.2	83	27–116	2	0–30

Method Blank Summary

SDG Number:	10-886	Client:	LANL010	Matrix:	SOIL
Client ID:	MB for batch 933337	Instrument ID:	ECD1A.I_2 ECD1A.I_1	Data File:	052b5201-1.d 052f5201-1.d
Lab Sample ID:	1201996856				
Column:	CLP2 CLP1	Prep Date:	12/15/2009 20:23	Analyzed:	12/16/09 16:21
		Level:	LOW		

This method blank applies to the following samples and quality control samples:

Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01 LCS for batch 933337	1201996857	053f5301-1.d 053b5301-1.d	12/16/09	1632
02 RE03-09-13467	242750001	064f6401.d 064b6401.d	12/16/09	1844
03 RE03-09-13466	242750002	065f6501.d 065b6501.d	12/16/09	1857
04 RE03-09-13468	242750003	066f6601.d 066b6601.d	12/16/09	1910
05 RE03-09-13465	242750004	067f6701.d 067b6701.d	12/16/09	1922
06 RE03-10-2003	242750005	068f6801.d 068b6801.d	12/16/09	1935

SAMPLE DATA

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10-886	**Date Collected:**	12/09/2009 12:00	**Matrix:**	S
Lab Sample ID:	242750004	**Date Received:**	12/11/2009 08:50	**%Moisture:**	7
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-13465	**Method:**	SW846 8082	**SOP Ref:**	GL-OA-E-040
Batch ID:	933342	**Inst:**	ECD1A.I	**Dilution:**	1
Run Date:	12/16/2009 19:22	**Analyst:**	YS1	**Inj. Vol:**	1 uL
Prep Date:	12/15/2009 20:23	**Aliquot:**	30.01 g	**Final Volume:**	1 mL
Data File:	067f6701.d	**Column:**	1 CLP1	**Level:**	LOW
	067b6701.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.58	ug/kg	1.19	3.58	1
11104-28-2	Aroclor-1221	U	3.58	ug/kg	1.19	3.58	1
11141-16-5	Aroclor-1232	U	3.58	ug/kg	1.19	3.58	1
53469-21-9	Aroclor-1242	U	3.58	ug/kg	1.19	3.58	1
12672-29-6	Aroclor-1248	U	3.58	ug/kg	1.19	3.58	1
11097-69-1	Aroclor-1254	U	3.58	ug/kg	1.19	3.58	1
11096-82-5	Aroclor-1260	U	3.58	ug/kg	1.19	3.58	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/121609.b/067f6701.d
Lab Smp Id: 242750004 Client Smp ID: RE03-09-13465
Inj Date : 16-DEC-2009 19:22
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |242750004|1|
Misc Info : |ECD82P_1S|933342|SVAF|LANL|SOIL|RE03-09-13465|||
Comment :
Method : /chem/ecd1a.i/121609.b/ECD1-F-8082-121409.m
Meth Date : 17-Dec-2009 07:24 yip00818 Quant Type: ESTD
Cal Date : 14-DEC-2009 11:34 Cal File: 040f4001.d
Als bottle: 67
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-886.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.01000	Weight of sample extracted (g)
M	6.96030	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.972	1.972	0.000	41398109	110.198	3.9	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.287	5.290	-0.003	39917406	125.708	4.5	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/121609.b/067f6701.d
Date : 16-DEC-2009 19:22
Client ID: RE03-09-13465
Sample Info: |242750004|1|
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1
Column diameter: 0.25

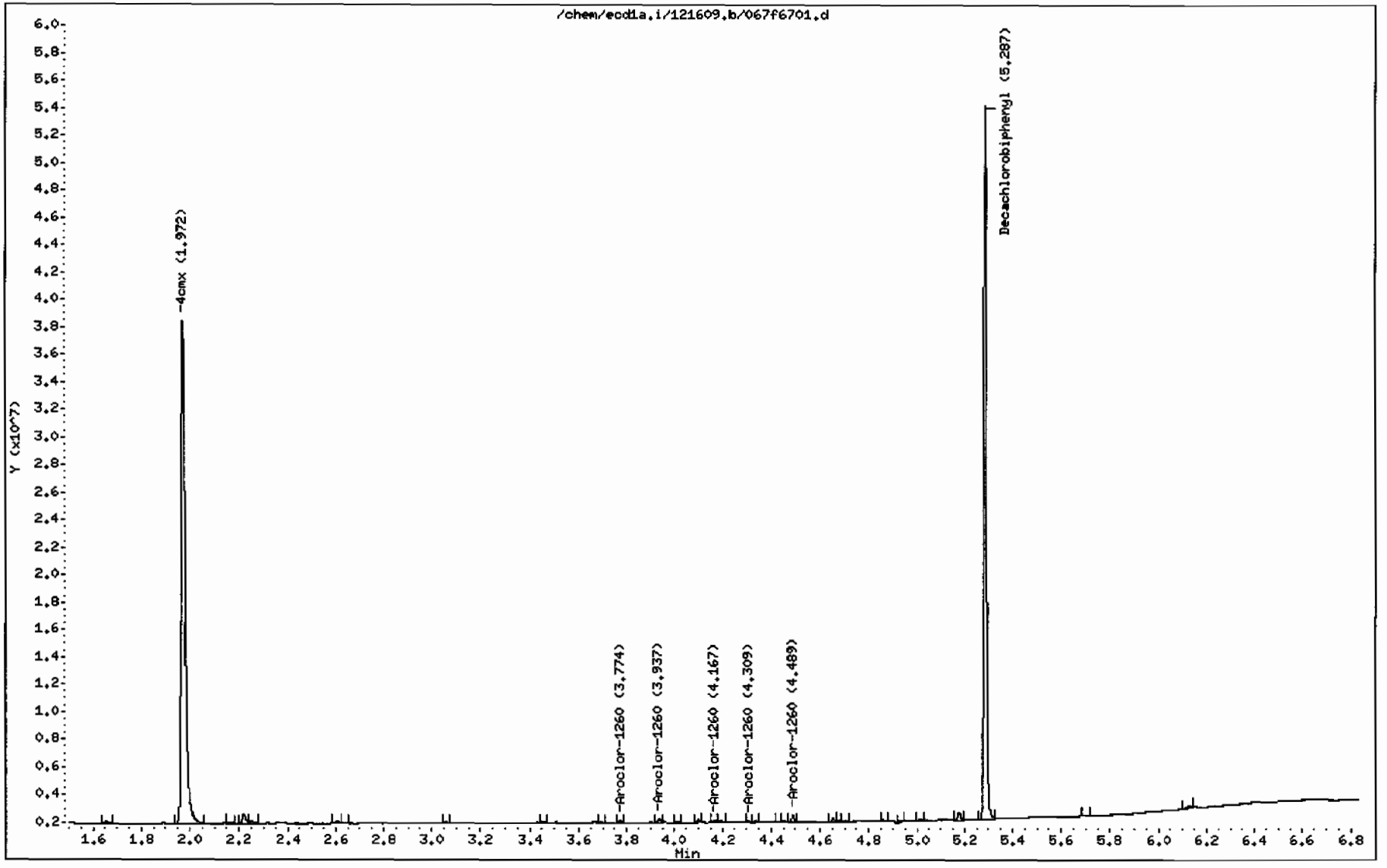

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/121609.b/067b6701.d
Lab Smp Id: 242750004 Client Smp ID: RE03-09-13465
Inj Date : 16-DEC-2009 19:22
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |242750004|1|
Misc Info : |ECD82P_1S|933342|SVAF|LANL|SOIL|RE03-09-13465|||
Comment :
Method : /chem/ecd1a.i/121609.b/ECD1-B-8082-121409.m
Meth Date : 17-Dec-2009 07:24 yip00818 Quant Type: ESTD
Cal Date : 14-DEC-2009 12:16 Cal File: 044b4401.d
Als bottle: 67
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-886.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.01000	Weight of sample extracted (g)
M	6.96030	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.302	2.303	-0.001	32186716	107.280	3.8	80.00- 120.00	100.00
$ 12 Decachlorobipheny1					CAS #: 2051-24-3		
5.949	5.950	-0.001	28919513	123.997	4.4	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/121609.b/067b6701.d

Date : 16-DEC-2009 19:22

Client ID: RE03-09-13465

Sample Info: |242750004|1|

Volume Injected (uL): 1.0

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

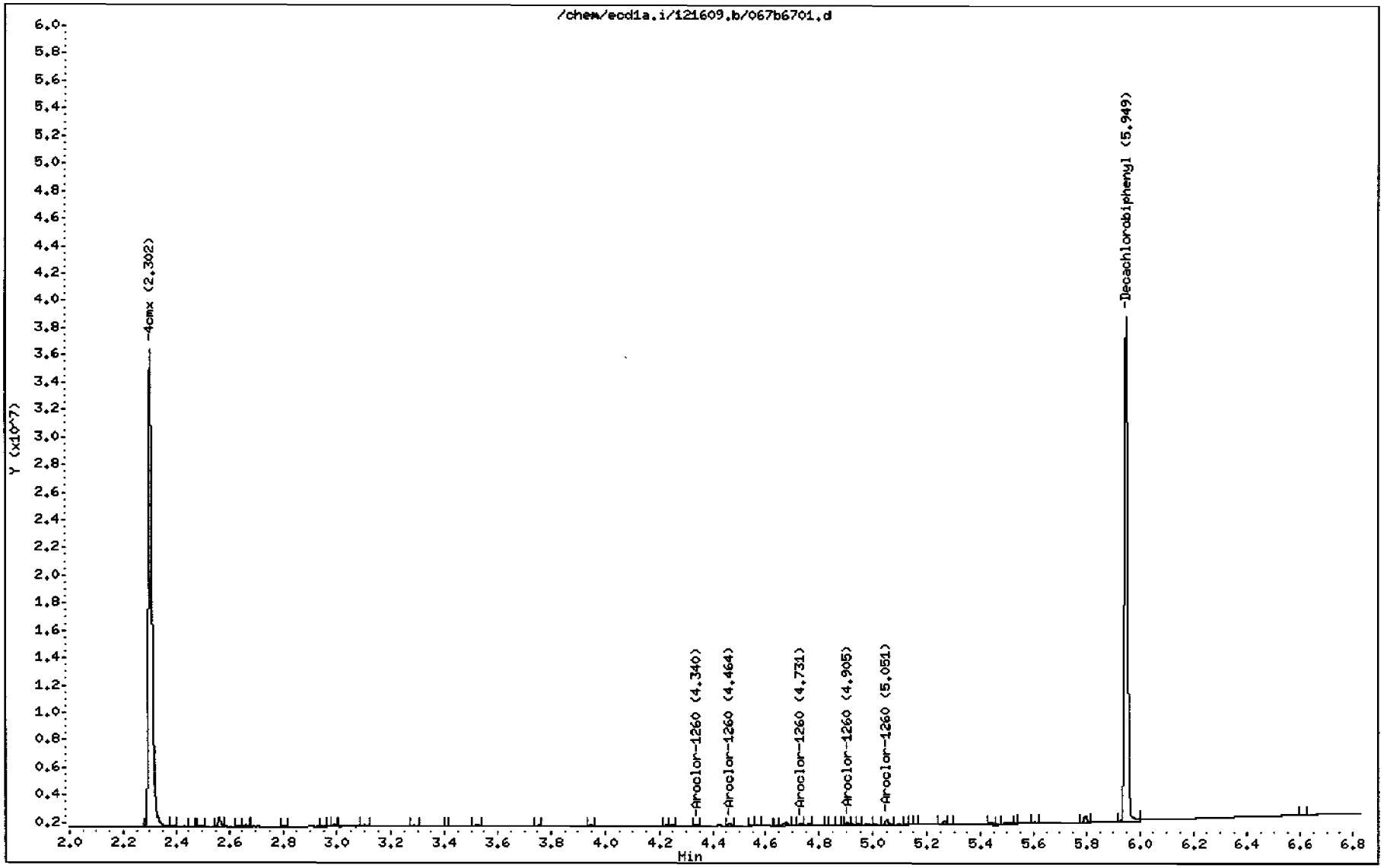

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10-886	**Date Collected:**	12/09/2009 12:00	**Matrix:**	S
Lab Sample ID:	242750002	**Date Received:**	12/11/2009 08:50	**%Moisture:**	8.5
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-13466	**Method:**	SW846 8082	**SOP Ref:**	GL-OA-E-040
Batch ID:	933342	**Inst:**	ECD1A.I	**Dilution:**	1
Run Date:	12/16/2009 18:57	**Analyst:**	YS1	**Inj. Vol:**	1 uL
Prep Date:	12/15/2009 20:23	**Aliquot:**	30.05 g	**Final Volume:**	1 mL
Data File:	065f6501.d	**Column:**	1 CLP1	**Level:**	LOW
	065b6501.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.64	ug/kg	1.21	3.64	1
11104-28-2	Aroclor-1221	U	3.64	ug/kg	1.21	3.64	1
11141-16-5	Aroclor-1232	U	3.64	ug/kg	1.21	3.64	1
53469-21-9	Aroclor-1242	U	3.64	ug/kg	1.21	3.64	1
12672-29-6	Aroclor-1248	U	3.64	ug/kg	1.21	3.64	1
11097-69-1	Aroclor-1254	U	3.64	ug/kg	1.21	3.64	1
11096-82-5	Aroclor-1260	U	3.64	ug/kg	1.21	3.64	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/121609.b/065f6501.d
Lab Smp Id: 242750002 Client Smp ID: RE03-09-13466
Inj Date : 16-DEC-2009 18:57
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |242750002|1|
Misc Info : |ECD82P_1S|933342|SVAF|LANL|SOIL|RE03-09-13466|||
Comment :
Method : /chem/ecd1a.i/121609.b/ECD1-F-8082-121409.m
Meth Date : 17-Dec-2009 07:24 yip00818 Quant Type: ESTD
Cal Date : 14-DEC-2009 11:34 Cal File: 040f4001.d
Als bottle: 65
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-886.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.05000	Weight of sample extracted (g)
M	8.52580	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.973	1.972	0.001	56802442	151.203	5.5	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.288	5.290	-0.002	52135573	164.186	6.0	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/121609.b/065f6501.d

Date : 16-DEC-2009 18:57

Client ID: RE03-09-13466

Sample Info: |242750002|1|

Volume Injected (uL): 1.0

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

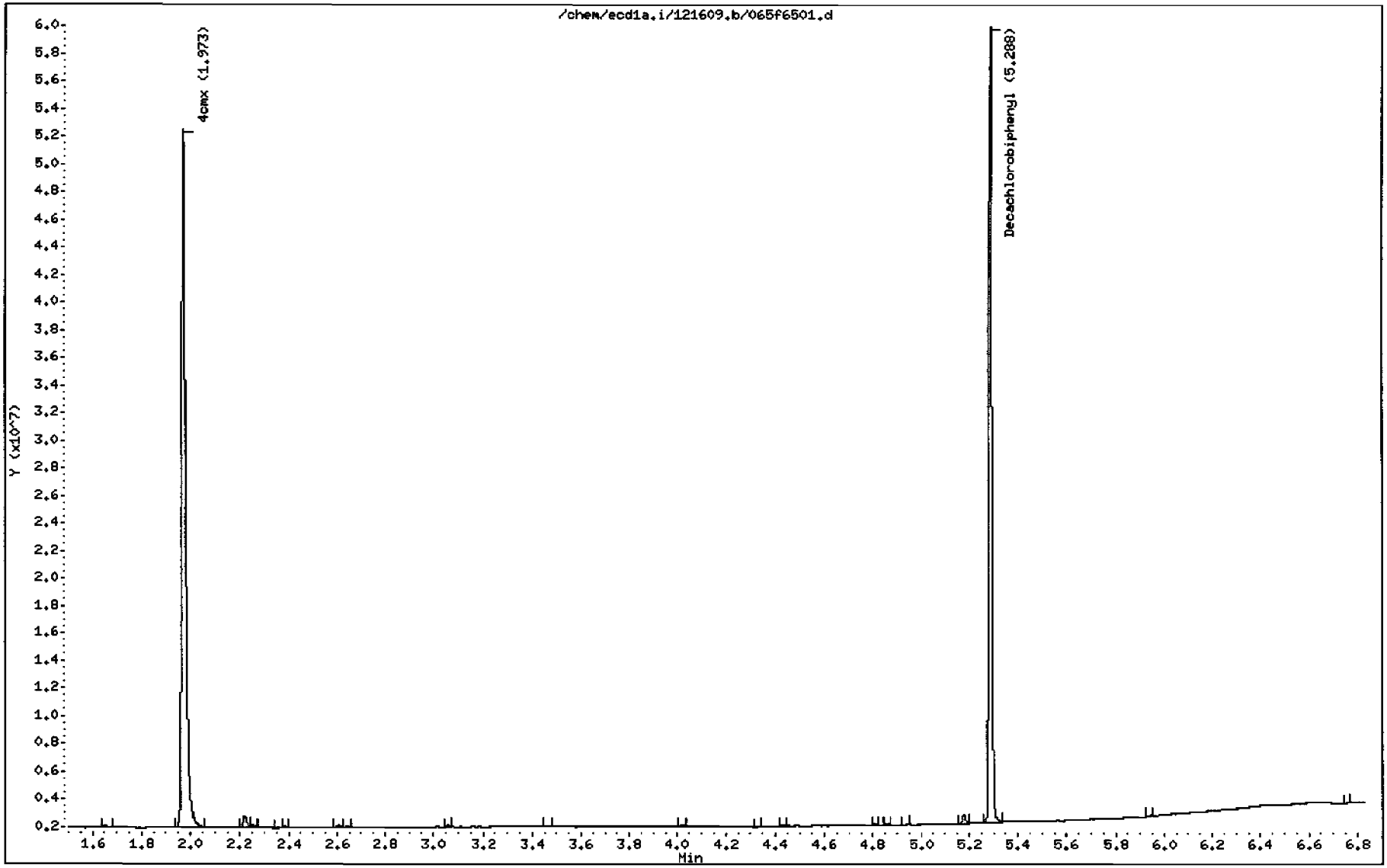

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/121609.b/065b6501.d
Lab Smp Id: 242750002 Client Smp ID: RE03-09-13466
Inj Date : 16-DEC-2009 18:57
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |242750002|1|
Misc Info : |ECD82P_1S|933342|SVAF|LANL|SOIL|RE03-09-13466|||
Comment :
Method : /chem/ecd1a.i/121609.b/ECD1-B-8082-121409.m
Meth Date : 17-Dec-2009 07:24 yip00818 Quant Type: ESTD
Cal Date : 14-DEC-2009 12:16 Cal File: 044b4401.d
Als bottle: 65
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-886.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.05000	Weight of sample extracted (g)
M	8.52580	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.303	2.303	0.000	43510498	145.023	5.3	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.949	5.950	-0.001	37564154	161.063	5.8	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/121609.b/065b6501.d
Date : 16-DEC-2009 18:57
Client ID: RE03-09-13466
Sample Info: |242750002|1|
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1
Column diameter: 0.25

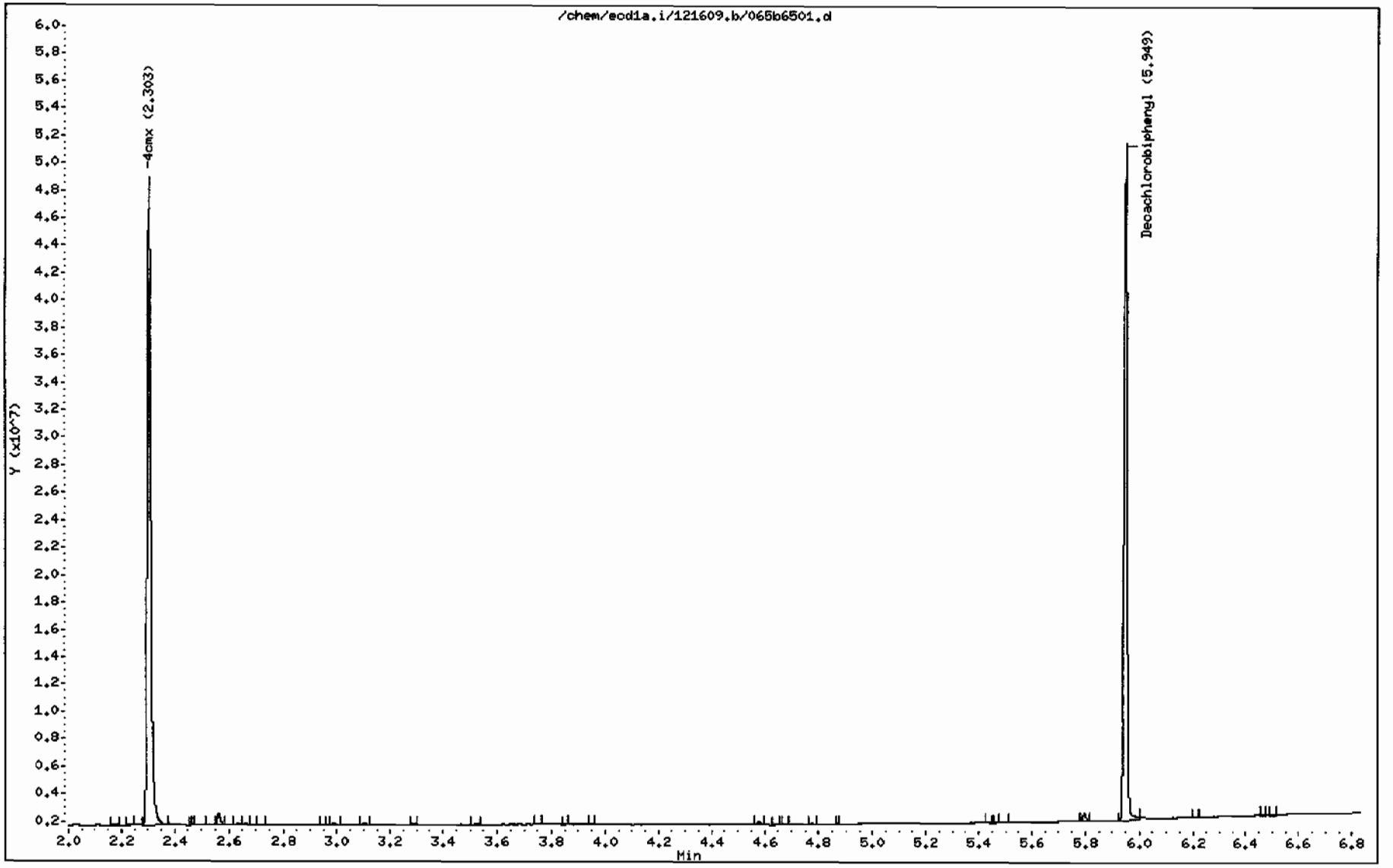

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10-886**	**Date Collected:**	**12/09/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242750001**	**Date Received:**	**12/11/2009 08:50**	**%Moisture:**	**3.9**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-13467**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**933342**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**12/16/2009 18:44**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**12/15/2009 20:23**	**Aliquot:**	**30.01 g**	**Final Volume:**	**1 mL**
Data File:	**064f6401.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	064b6401.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.47	ug/kg	1.15	3.47	1
11104-28-2	Aroclor-1221	U	3.47	ug/kg	1.15	3.47	1
11141-16-5	Aroclor-1232	U	3.47	ug/kg	1.15	3.47	1
53469-21-9	Aroclor-1242	U	3.47	ug/kg	1.15	3.47	1
12672-29-6	Aroclor-1248	U	3.47	ug/kg	1.15	3.47	1
11097-69-1	Aroclor-1254	U	3.47	ug/kg	1.15	3.47	1
11096-82-5	Aroclor-1260	U	3.47	ug/kg	1.15	3.47	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/121609.b/064f6401.d
Lab Smp Id: 242750001 Client Smp ID: RE03-09-13467
Inj Date : 16-DEC-2009 18:44
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |242750001|1|
Misc Info : |ECD82P_1S|933342|SVAF|LANL|SOIL|RE03-09-13467|||
Comment :
Method : /chem/ecd1a.i/121609.b/ECD1-F-8082-121409.m
Meth Date : 17-Dec-2009 07:24 yip00818 Quant Type: ESTD
Cal Date : 14-DEC-2009 11:34 Cal File: 040f4001.d
Als bottle: 64
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-886.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.01000	Weight of sample extracted (g)
M	3.92340	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.974	1.972	0.002	51647795	137.482	4.8	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.289	5.290	-0.001	47404645	149.287	5.2	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/121609.b/064f6401.d
Date : 16-DEC-2009 18:44
Client ID: RE03-09-13467
Sample Info: |24275000|1|
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1
Column diameter: 0.25

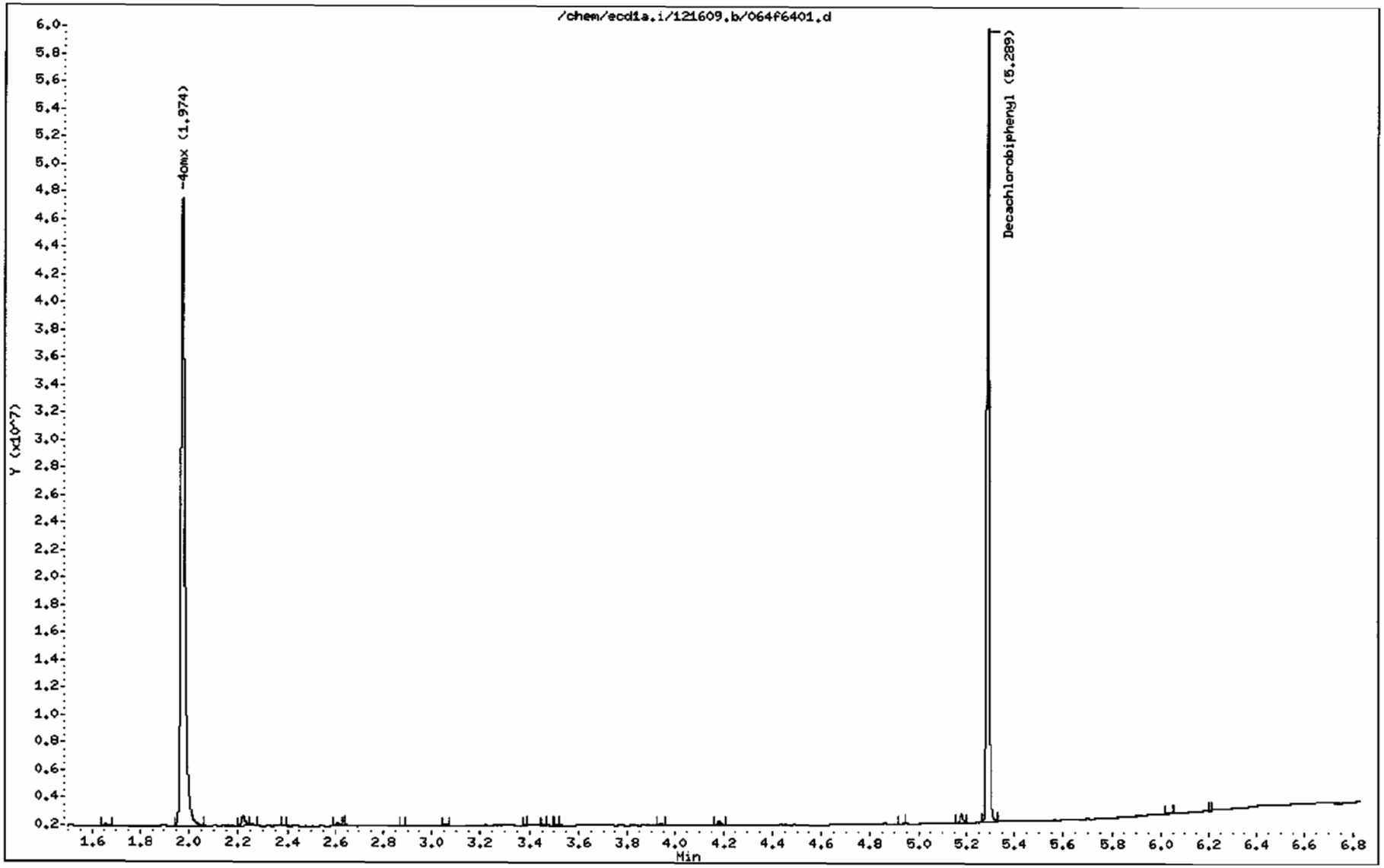

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/121609.b/064b6401.d
Lab Smp Id: 242750001 Client Smp ID: RE03-09-13467
Inj Date : 16-DEC-2009 18:44
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |242750001|1|
Misc Info : |ECD82P_1S|933342|SVAF|LANL|SOIL|RE03-09-13467|||
Comment :
Method : /chem/ecd1a.i/121609.b/ECD1-B-8082-121409.m
Meth Date : 17-Dec-2009 07:24 yip00818 Quant Type: ESTD
Cal Date : 14-DEC-2009 12:16 Cal File: 044b4401.d
Als bottle: 64
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-886.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.01000	Weight of sample extracted (g)
M	3.92340	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.303	2.303	0.000	39352835	131.165	4.5	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.950	5.950	0.000	34415950	147.564	5.1	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/121609.b/064b6401.d
Date : 16-DEC-2009 18:44
Client ID: RE03-09-13467
Sample Info: 1242750001111
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1
Column diameter: 0.25

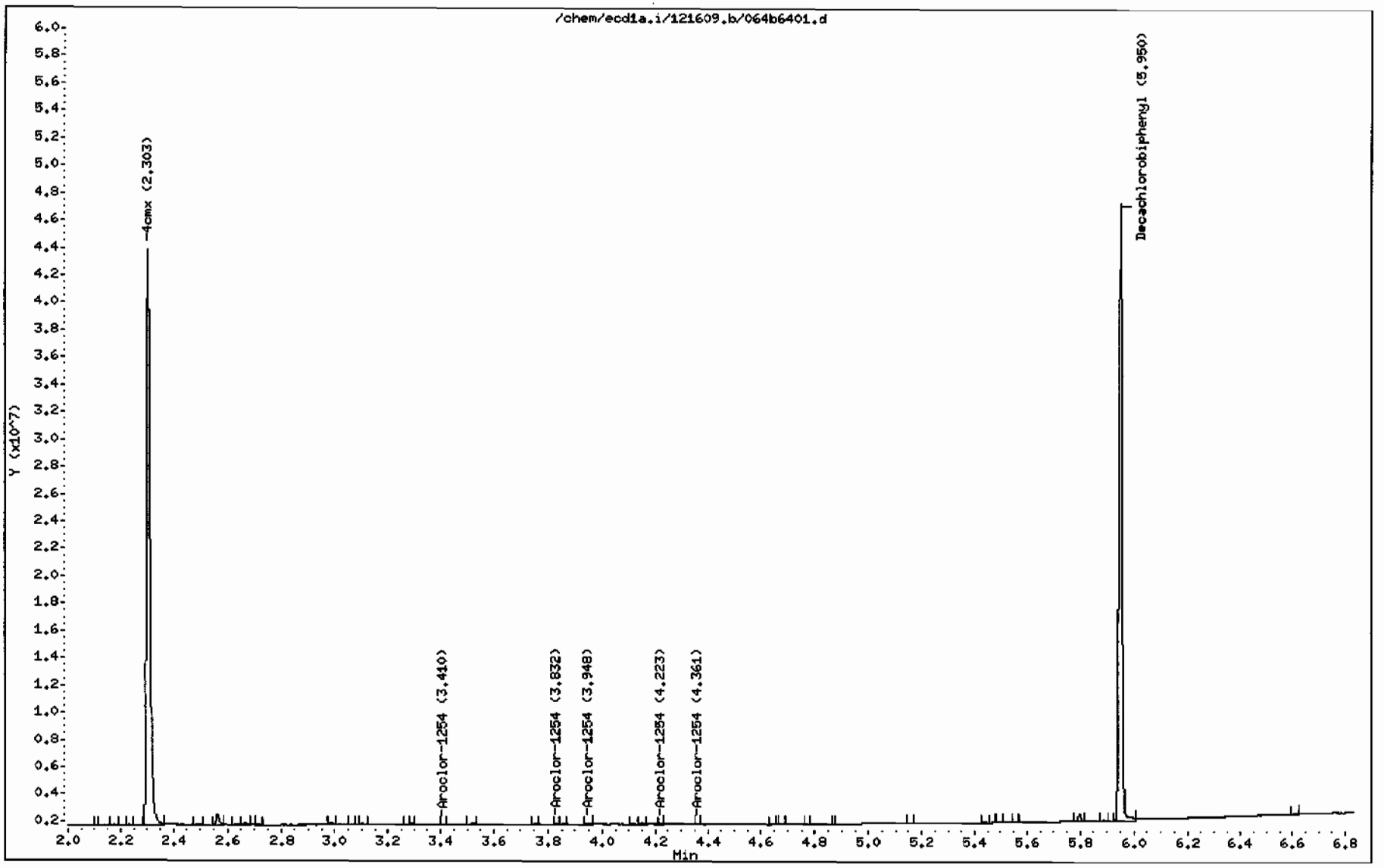

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–886**	**Date Collected:**	**12/09/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242750003**	**Date Received:**	**12/11/2009 08:50**	**%Moisture:**	**9.3**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03–09–13468**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**933342**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**12/16/2009 19:10**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**12/15/2009 20:23**	**Aliquot:**	**30.04 g**	**Final Volume:**	**1 mL**
Data File:	**066f6601.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	066b6601.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	3.67	ug/kg	1.22	3.67	1
11104–28–2	Aroclor–1221	U	3.67	ug/kg	1.22	3.67	1
11141–16–5	Aroclor–1232	U	3.67	ug/kg	1.22	3.67	1
53469–21–9	Aroclor–1242	U	3.67	ug/kg	1.22	3.67	1
12672–29–6	Aroclor–1248	U	3.67	ug/kg	1.22	3.67	1
11097–69–1	Aroclor–1254	U	3.67	ug/kg	1.22	3.67	1
11096–82–5	Aroclor–1260	U	3.67	ug/kg	1.22	3.67	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/121609.b/066f6601.d
Lab Smp Id: 242750003 Client Smp ID: RE03-09-13468
Inj Date : 16-DEC-2009 19:10
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |242750003|1|
Misc Info : |ECD82P_1S|933342|SVAF|LANL|SOIL|RE03-09-13468|||
Comment :
Method : /chem/ecd1a.i/121609.b/ECD1-F-8082-121409.m
Meth Date : 17-Dec-2009 07:24 yip00818 Quant Type: ESTD
Cal Date : 14-DEC-2009 11:34 Cal File: 040f4001.d
Als bottle: 66
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-886.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.04000	Weight of sample extracted (g)
M	9.31100	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.973	1.972	0.001	56398022	150.127	5.5	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.287	5.290	-0.003	53555630	168.658	6.2	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/121609.b/066f6601.d

Date : 16-DEC-2009 19:10

Client ID: RE03-09-13468

Sample Info: |2427500031|1|

Volume Injected (uL): 1.0

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

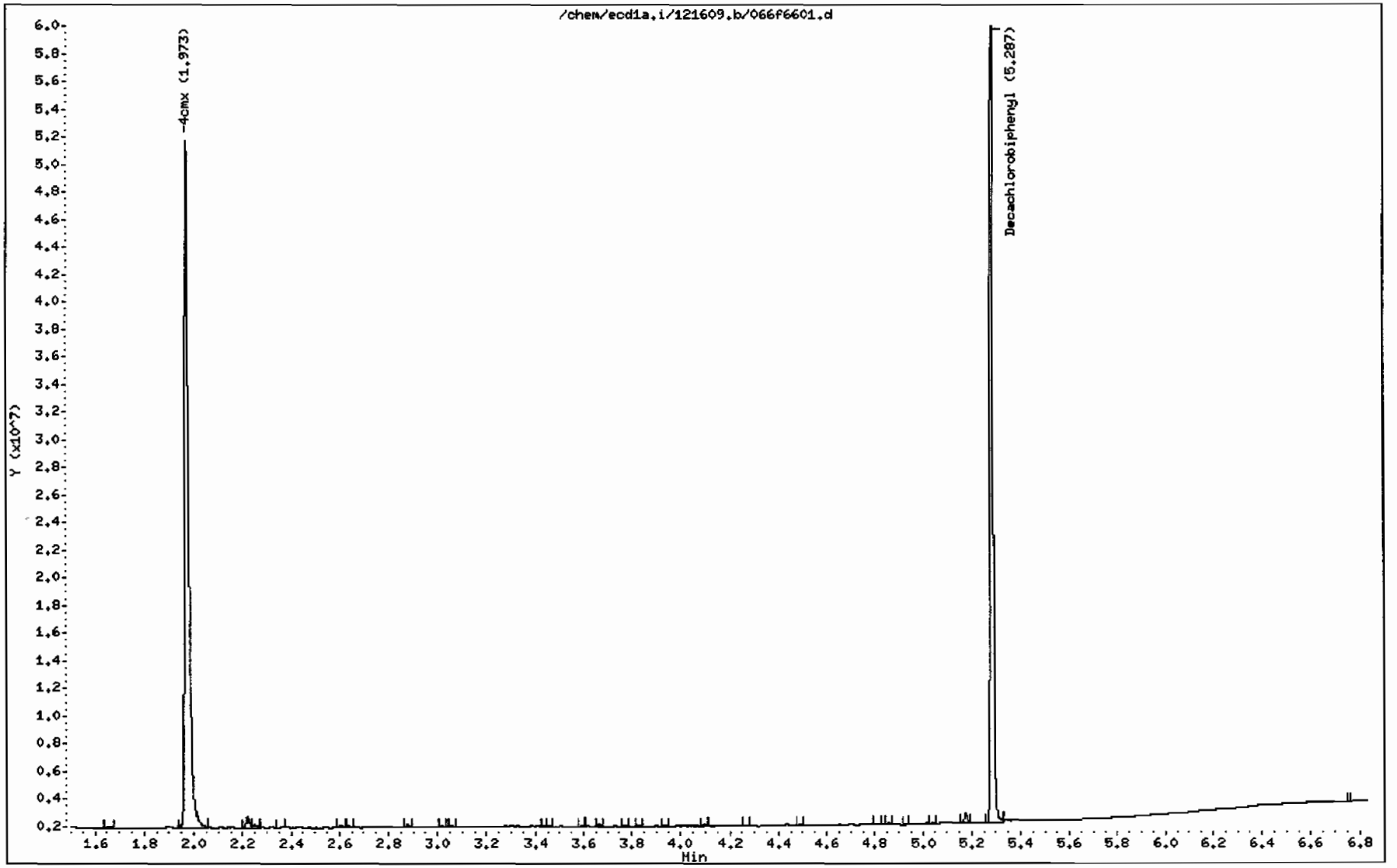

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/121609.b/066b6601.d
Lab Smp Id: 242750003 Client Smp ID: RE03-09-13468
Inj Date : 16-DEC-2009 19:10
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |242750003|1|
Misc Info : |ECD82P_1S|933342|SVAF|LANL|SOIL|RE03-09-13468|||
Comment :
Method : /chem/ecd1a.i/121609.b/ECD1-B-8082-121409.m
Meth Date : 17-Dec-2009 07:24 yip00818 Quant Type: ESTD
Cal Date : 14-DEC-2009 12:16 Cal File: 044b4401.d
Als bottle: 66
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-886.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.04000	Weight of sample extracted (g)
M	9.31100	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.303	2.303	0.000	43456050	144.841	5.3	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.949	5.950	-0.001	38397367	164.635	6.0	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/121609.b/066b6601.d
Date : 16-DEC-2009 19:10
Client ID: RE03-09-13468
Sample Info: |242750003|1|
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd1a.i
Operator: YS1
Column diameter: 0.25

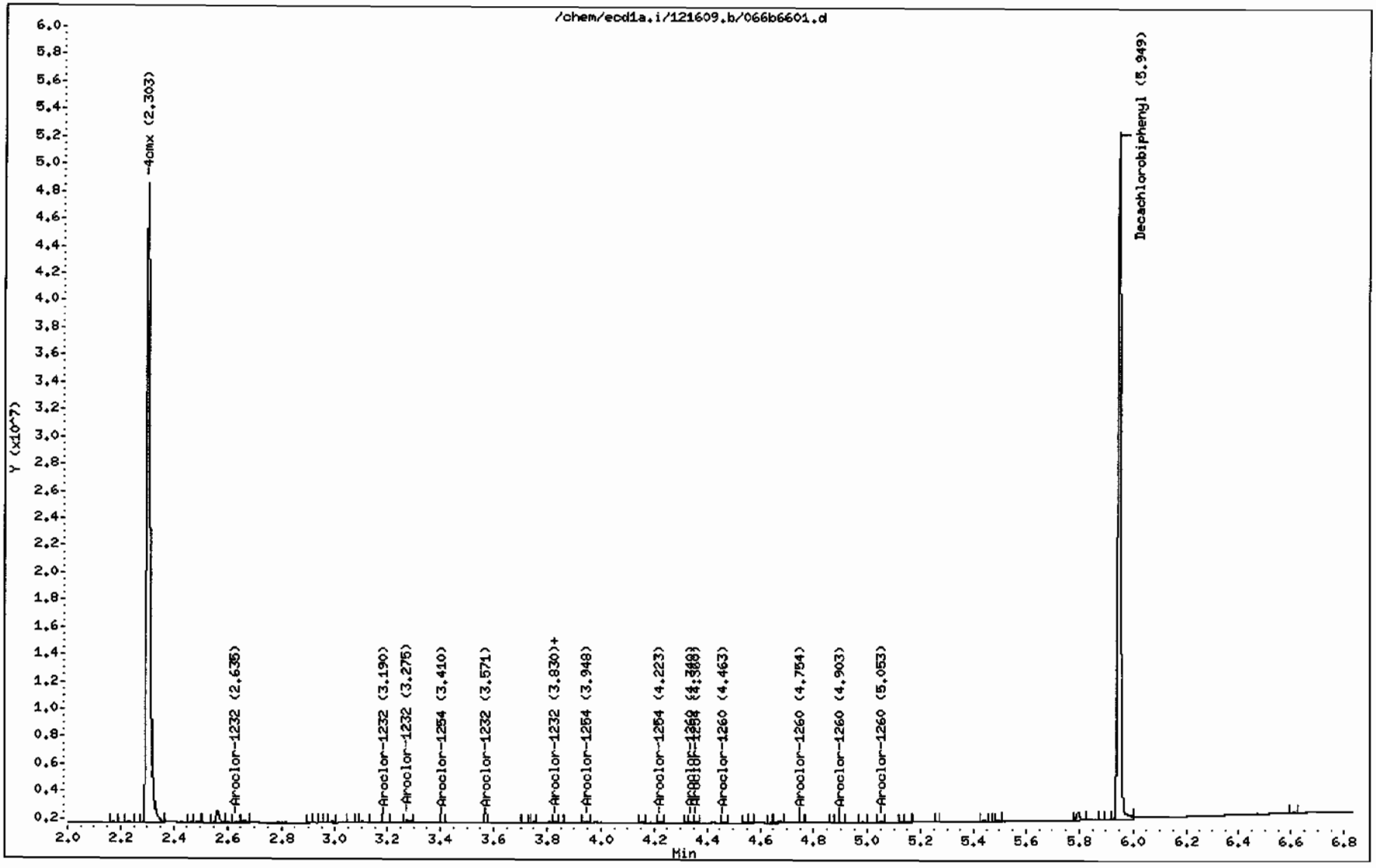

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10-886	**Date Collected:**	12/09/2009 12:00	**Matrix:**	S
Lab Sample ID:	242750005	**Date Received:**	12/11/2009 08:50	**%Moisture:**	6.8
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-10-2003	**Method:**	SW846 8082	**SOP Ref:**	GL-OA-E-040
Batch ID:	933342	**Inst:**	ECD1A.I	**Dilution:**	1
Run Date:	12/16/2009 19:35	**Analyst:**	YS1	**Inj. Vol:**	1 uL
Prep Date:	12/15/2009 20:23	**Aliquot:**	30.07 g	**Final Volume:**	1 mL
Data File:	068f6801.d	**Column:**	1 CLP1	**Level:**	LOW
	068b6801.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.57	ug/kg	1.19	3.57	1
11104-28-2	Aroclor-1221	U	3.57	ug/kg	1.19	3.57	1
11141-16-5	Aroclor-1232	U	3.57	ug/kg	1.19	3.57	1
53469-21-9	Aroclor-1242	U	3.57	ug/kg	1.19	3.57	1
12672-29-6	Aroclor-1248	U	3.57	ug/kg	1.19	3.57	1
11097-69-1	Aroclor-1254	U	3.57	ug/kg	1.19	3.57	1
11096-82-5	Aroclor-1260	U	3.57	ug/kg	1.19	3.57	1

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RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/121609.b/068f6801.d
Lab Smp Id: 242750005 Client Smp ID: RE03-10-2003
Inj Date : 16-DEC-2009 19:35
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |242750005|1|
Misc Info : |ECD82P_1S|933342|SVAF|LANL|SOIL|RE03-10-2003|||
Comment :
Method : /chem/ecd1a.i/121609.b/ECD1-F-8082-121409.m
Meth Date : 17-Dec-2009 07:24 yip00818 Quant Type: ESTD
Cal Date : 14-DEC-2009 11:34 Cal File: 040f4001.d
Als bottle: 68
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-886.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.07000	Weight of sample extracted (g)
M	6.83140	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.972	1.972	0.000	48183543	128.260	4.6	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.287	5.290	-0.003	44056737	138.744	5.0	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/121609.b/068f6801.d

Date : 16-DEC-2009 19:35

Client ID: RE03-10-2003

Sample Info: |242750005|1|

Volume Injected (uL): 1.0

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

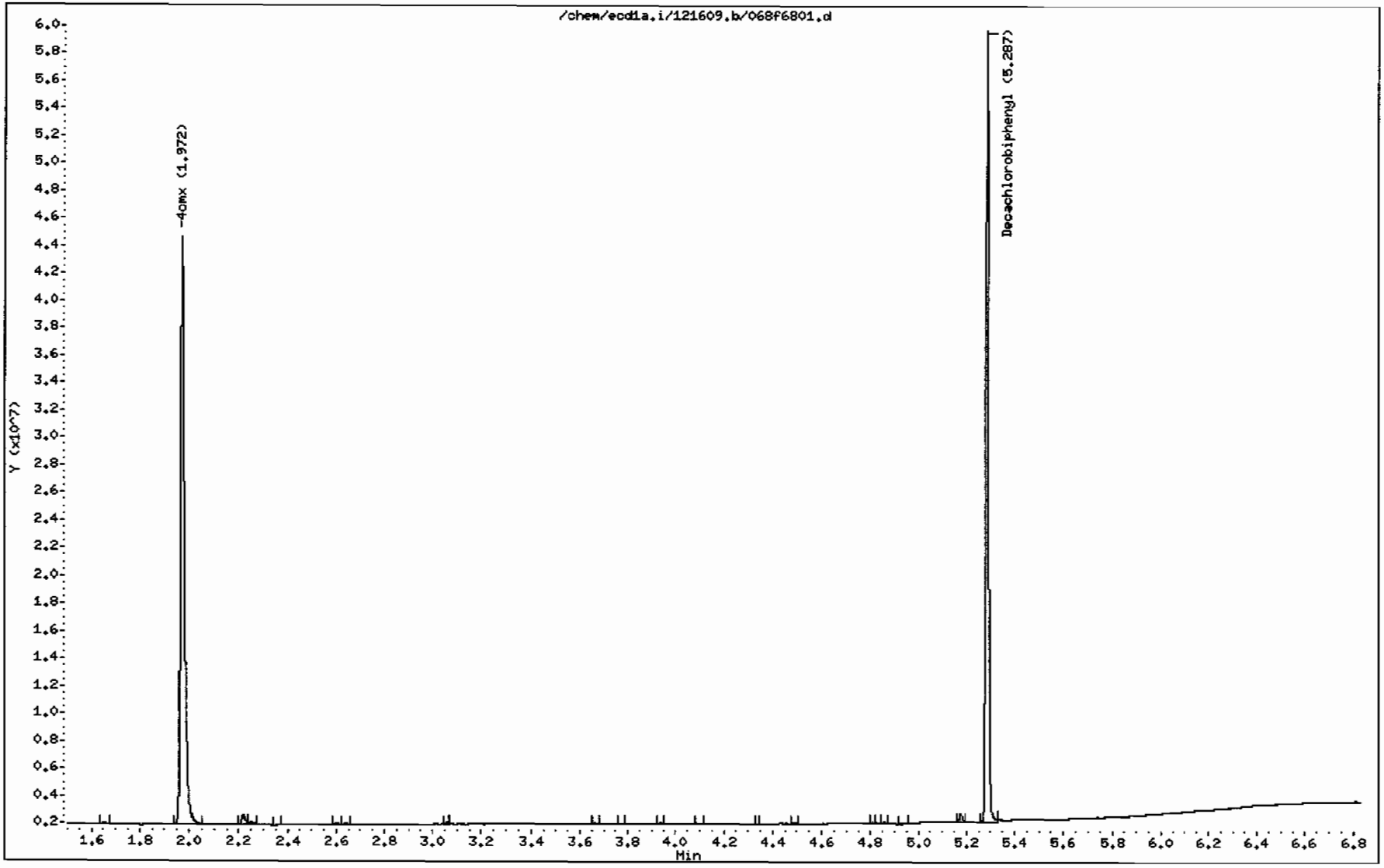

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/121609.b/068b6801.d
Lab Smp Id: 242750005 Client Smp ID: RE03-10-2003
Inj Date : 16-DEC-2009 19:35
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |242750005|1|
Misc Info : |ECD82P_1S|933342|SVAF|LANL|SOIL|RE03-10-2003|||
Comment :
Method : /chem/ecd1a.i/121609.b/ECD1-B-8082-121409.m
Meth Date : 17-Dec-2009 07:24 yip00818 Quant Type: ESTD
Cal Date : 14-DEC-2009 12:16 Cal File: 044b4401.d
Als bottle: 68
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-886.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.07000	Weight of sample extracted (g)
M	6.83140	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.302	2.303	-0.001	37350465	124.491	4.4	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.949	5.950	-0.001	31724178	136.023	4.8	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/121609.b/068b6801.d
Date : 16-DEC-2009 19:35
Client ID: RE03-10-2003
Sample Info: |2427500051|1|
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd1a.i
Operator: YS1
Column diameter: 0.25

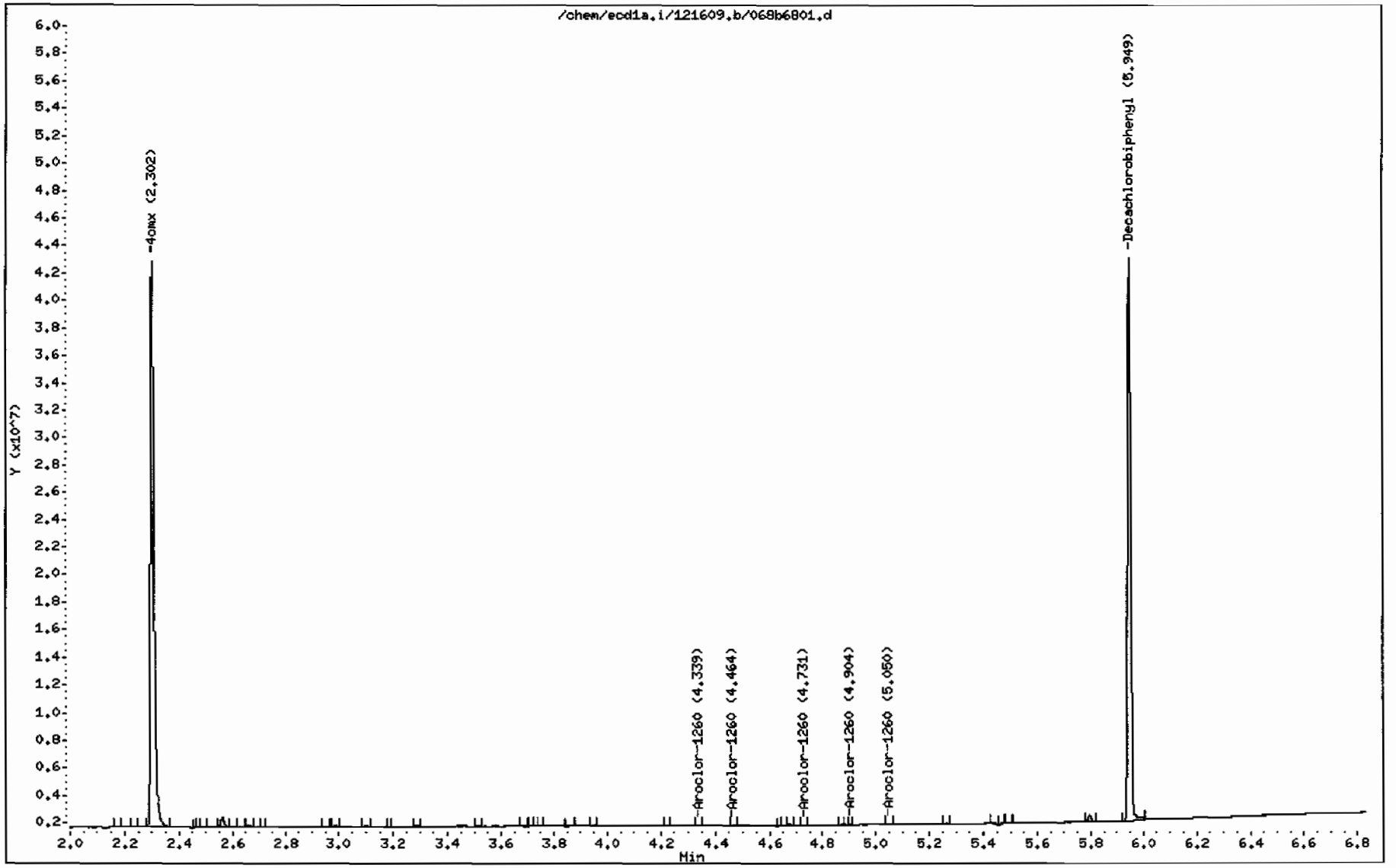

STANDARDS DATA

Report Date: 17-Dec-2009 11:42

Calibration History

Method : /chem/ecd1a.i/121609.b/ECD1-F-8082-121409.m
Start Cal Date: 14-DEC-2009 05:36
End Cal Date : 14-DEC-2009 12:37

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 100.00000		
14-DEC-2009 11:34	AR1268	/chem/ecd1a.i/121409.b/040f4001.d
14-DEC-2009 09:28	AR1248	/chem/ecd1a.i/121409.b/028f2801.d
14-DEC-2009 08:25	AR1242	/chem/ecd1a.i/121409.b/022f2201.d
14-DEC-2009 07:22	AR1254	/chem/ecd1a.i/121409.b/016f1601.d
14-DEC-2009 10:31	AR1660	/chem/ecd1a.i/121409.b/034f3401.d
Cal Level: 2 , Cal Amount: 200.00000		
14-DEC-2009 11:44	AR1268	/chem/ecd1a.i/121409.b/041f4101.d
14-DEC-2009 09:38	AR1248	/chem/ecd1a.i/121409.b/029f2901.d
14-DEC-2009 08:35	AR1242	/chem/ecd1a.i/121409.b/023f2301.d
14-DEC-2009 07:32	AR1254	/chem/ecd1a.i/121409.b/017f1701.d
14-DEC-2009 10:41	AR1660	/chem/ecd1a.i/121409.b/035f3501.d
Cal Level: 3 , Cal Amount: 500.00000		
14-DEC-2009 11:55	AR1268	/chem/ecd1a.i/121409.b/042f4201.d
14-DEC-2009 09:49	AR1248	/chem/ecd1a.i/121409.b/030f3001.d
14-DEC-2009 08:46	AR1242	/chem/ecd1a.i/121409.b/024f2401.d
14-DEC-2009 07:43	AR1254	/chem/ecd1a.i/121409.b/018f1801.d
14-DEC-2009 10:52	AR1660	/chem/ecd1a.i/121409.b/036f3601.d
Cal Level: 4 , Cal Amount: 1000.00000		
14-DEC-2009 12:37	DDTANALOGSTD	/chem/ecd1a.i/121409.b/046f4601.d
14-DEC-2009 09:59	AR1248	/chem/ecd1a.i/121409.b/031f3101.d
14-DEC-2009 08:56	AR1242	/chem/ecd1a.i/121409.b/025f2501.d
14-DEC-2009 07:53	AR1254	/chem/ecd1a.i/121409.b/019f1901.d
14-DEC-2009 11:02	AR1660	/chem/ecd1a.i/121409.b/037f3701.d
14-DEC-2009 12:06	AR1268	/chem/ecd1a.i/121409.b/043f4301.d
14-DEC-2009 05:58	AR1262	/chem/ecd1a.i/121409.b/008f0801.d
14-DEC-2009 05:47	AR1221	/chem/ecd1a.i/121409.b/007f0701.d
14-DEC-2009 05:36	AR1232	/chem/ecd1a.i/121409.b/006f0601.d
Cal Level: 5 , Cal Amount: 4000.00000		
14-DEC-2009 12:16	AR1268	/chem/ecd1a.i/121409.b/044f4401.d
14-DEC-2009 10:10	AR1248	/chem/ecd1a.i/121409.b/032f3201.d
14-DEC-2009 09:07	AR1242	/chem/ecd1a.i/121409.b/026f2601.d
14-DEC-2009 08:04	AR1254	/chem/ecd1a.i/121409.b/020f2001.d
14-DEC-2009 11:13	AR1660	/chem/ecd1a.i/121409.b/038f3801.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 1000		
16-DEC-2009 21:43	AR1660	/chem/ecd1a.i/121609.b/080f8001.d
Ccal Level: 4 , Ccal Amount: 1000		
16-DEC-2009 20:40	AR1660	/chem/ecd1a.i/121609.b/074f7401.d
Ccal Level: 4 , Ccal Amount: 1000		
16-DEC-2009 18:23	AR1660	/chem/ecd1a.i/121609.b/062f6201.d
Ccal Level: 4 , Ccal Amount: 1000		
16-DEC-2009 16:00	AR1660	/chem/ecd1a.i/121609.b/050f5001.d
Ccal Level: 4 , Ccal Amount: 1000		
16-DEC-2009 10:46	AR1660	/chem/ecd1a.i/121609.b/024f2401.d
Ccal Level: 4 , Ccal Amount: 1000		
16-DEC-2009 13:58	AR1660	/chem/ecd1a.i/121609.b/040f4001.d
Ccal Level: 4 , Ccal Amount: 1000		
16-DEC-2009 13:12	AR1660	/chem/ecd1a.i/121609.b/036f3601.d
Ccal Level: 4 , Ccal Amount: 1000		
16-DEC-2009 08:13	AR1254	/chem/ecd1a.i/121609.b/011f1101.d
Ccal Level: 4 , Ccal Amount: 1000		
16-DEC-2009 08:03	AR1268	/chem/ecd1a.i/121609.b/010f1001.d
Ccal Level: 4 , Ccal Amount: 1000		
16-DEC-2009 07:52	AR1262	/chem/ecd1a.i/121609.b/009f0901.d
Ccal Level: 4 , Ccal Amount: 1000		
16-DEC-2009 07:42	AR1221	/chem/ecd1a.i/121609.b/008f0801.d
Ccal Level: 4 , Ccal Amount: 1000		
16-DEC-2009 07:21	AR1232	/chem/ecd1a.i/121609.b/006f0601.d
Ccal Level: 4 , Ccal Amount: 1000		
16-DEC-2009 07:10	AR1248	/chem/ecd1a.i/121609.b/005f0501.d
Ccal Level: 4 , Ccal Amount: 1000		
16-DEC-2009 07:00	AR1242	/chem/ecd1a.i/121609.b/004f0401.d
Ccal Level: 4 , Ccal Amount: 1000		
16-DEC-2009 06:39	AR1660	/chem/ecd1a.i/121609.b/002f0201.d

Report Date: 17-Dec-2009 11:41

Calibration History

Method : /chem/ecd1a.i/121609.b/ECD1-B-8082-121409.m
Start Cal Date: 11-DEC-2009 10:17
End Cal Date : 14-DEC-2009 12:37

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 100.00000		
14-DEC-2009 11:34	AR1268	/chem/ecd1a.i/121409.b/040b4001.d
14-DEC-2009 09:28	AR1248	/chem/ecd1a.i/121409.b/028b2801.d
14-DEC-2009 08:25	AR1242	/chem/ecd1a.i/121409.b/022b2201.d
14-DEC-2009 07:22	AR1254	/chem/ecd1a.i/121409.b/016b1601.d
14-DEC-2009 10:31	AR1660	/chem/ecd1a.i/121409.b/034b3401.d
Cal Level: 2 , Cal Amount: 200.00000		
14-DEC-2009 11:44	AR1268	/chem/ecd1a.i/121409.b/041b4101.d
14-DEC-2009 09:38	AR1248	/chem/ecd1a.i/121409.b/029b2901.d
14-DEC-2009 08:35	AR1242	/chem/ecd1a.i/121409.b/023b2301.d
14-DEC-2009 07:32	AR1254	/chem/ecd1a.i/121409.b/017b1701.d
14-DEC-2009 10:41	AR1660	/chem/ecd1a.i/121409.b/035b3501.d
Cal Level: 3 , Cal Amount: 500.00000		
14-DEC-2009 11:55	AR1268	/chem/ecd1a.i/121409.b/042b4201.d
14-DEC-2009 09:49	AR1248	/chem/ecd1a.i/121409.b/030b3001.d
14-DEC-2009 08:46	AR1242	/chem/ecd1a.i/121409.b/024b2401.d
14-DEC-2009 07:43	AR1254	/chem/ecd1a.i/121409.b/018b1801.d
14-DEC-2009 10:52	AR1660	/chem/ecd1a.i/121409.b/036b3601.d
Cal Level: 4 , Cal Amount: 1000.00000		
14-DEC-2009 12:37	DDTANALOGSTD	/chem/ecd1a.i/121409.b/046b4601.d
14-DEC-2009 12:06	AR1268	/chem/ecd1a.i/121409.b/043b4301.d
14-DEC-2009 05:58	AR1262	/chem/ecd1a.i/121409.b/008b0801.d
14-DEC-2009 05:47	AR1221	/chem/ecd1a.i/121409.b/007b0701.d
14-DEC-2009 05:36	AR1232	/chem/ecd1a.i/121409.b/006b0601.d
14-DEC-2009 09:59	AR1248	/chem/ecd1a.i/121409.b/031b3101.d
14-DEC-2009 08:56	AR1242	/chem/ecd1a.i/121409.b/025b2501.d
14-DEC-2009 07:53	AR1254	/chem/ecd1a.i/121409.b/019b1901.d
14-DEC-2009 11:02	AR1660	/chem/ecd1a.i/121409.b/037b3701.d
Cal Level: 5 , Cal Amount: 4000.00000		
14-DEC-2009 12:16	AR1268	/chem/ecd1a.i/121409.b/044b4401.d
14-DEC-2009 10:10	AR1248	/chem/ecd1a.i/121409.b/032b3201.d
14-DEC-2009 09:07	AR1242	/chem/ecd1a.i/121409.b/026b2601.d
14-DEC-2009 08:04	AR1254	/chem/ecd1a.i/121409.b/020b2001.d
14-DEC-2009 11:13	AR1660	/chem/ecd1a.i/121409.b/038b3801.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

| Ccal Level: 4 , Ccal Amount: 1000 |

16-DEC-2009 20:40	AR1660	/chem/ecd1a.i/121609.b/074b7401.d
Ccal Level: 4 , Ccal Amount: 1000		
16-DEC-2009 21:43	AR1660	/chem/ecd1a.i/121609.b/080b8001.d
Ccal Level: 4 , Ccal Amount: 1000		
16-DEC-2009 18:23	AR1660	/chem/ecd1a.i/121609.b/062b6201.d
Ccal Level: 4 , Ccal Amount: 1000		
16-DEC-2009 16:00	AR1660	/chem/ecd1a.i/121609.b/050b5001.d
Ccal Level: 4 , Ccal Amount: 1000		
16-DEC-2009 10:46	AR1660	/chem/ecd1a.i/121609.b/024b2401.d
Ccal Level: 4 , Ccal Amount: 1000		
16-DEC-2009 13:58	AR1660	/chem/ecd1a.i/121609.b/040b4001.d
Ccal Level: 4 , Ccal Amount: 1000		
16-DEC-2009 06:39	AR1660	/chem/ecd1a.i/121609.b/002b0201.d
Ccal Level: 4 , Ccal Amount: 1000		
16-DEC-2009 13:12	AR1660	/chem/ecd1a.i/121609.b/036b3601.d
Ccal Level: 4 , Ccal Amount: 1000		
16-DEC-2009 08:13	AR1254	/chem/ecd1a.i/121609.b/011b1101.d
Ccal Level: 4 , Ccal Amount: 1000		
16-DEC-2009 08:03	AR1268	/chem/ecd1a.i/121609.b/010b1001.d
Ccal Level: 4 , Ccal Amount: 1000		
16-DEC-2009 07:52	AR1262	/chem/ecd1a.i/121609.b/009b0901.d
Ccal Level: 4 , Ccal Amount: 1000		
16-DEC-2009 07:42	AR1221	/chem/ecd1a.i/121609.b/008b0801.d
Ccal Level: 4 , Ccal Amount: 1000		
16-DEC-2009 07:21	AR1232	/chem/ecd1a.i/121609.b/006b0601.d
Ccal Level: 4 , Ccal Amount: 1000		
16-DEC-2009 07:10	AR1248	/chem/ecd1a.i/121609.b/005b0501.d
Ccal Level: 4 , Ccal Amount: 1000		
16-DEC-2009 07:00	AR1242	/chem/ecd1a.i/121609.b/004b0401.d

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd1a.i/121609.b/ECD1-F-8082-121409.m
Quant Method : ESTD Target Version : 3.50
Last Update : 17-Dec-2009 07:29 Number of Cpnds : 15
Data Type : GC MULTI COMP

Global Integrator : Falcon

Chromat Events	Values
Initial:Start Threshold	12031.000000
Initial:End Threshold	6015.500000
Initial:Area Threshold	15489.000000
Initial:P-P Resolution	1.000000
Initial:Bunch Factor	2.000000
Initial:Negative Peaks	OFF
Initial:Tension	0.500000

Compound	RT	RT Window	RF
1 Aroclor-1016	2.430	2.400-2.460	1.387e+04
	2.707	2.677-2.737	1.010e+04
	2.800	2.770-2.830	1.176e+04
	2.837	2.807-2.867	6.599e+03
	3.048	3.018-3.078	8.673e+03
63 4,4-DDD	3.953	3.933-3.973	3.938e+05
64 4,4-DDE	3.603	3.583-3.623	4.795e+05
62 4,4-DDT	4.118	4.098-4.138	3.238e+05
2 Aroclor-1221	2.086	2.056-2.116	4.301e+03
	2.180	2.151-2.211	2.440e+03
	2.205	2.176-2.236	1.027e+04
3 Aroclor-1232	2.430	2.400-2.460	6.717e+03
	2.719	2.689-2.749	8.157e+03
	2.800	2.770-2.830	5.751e+03
	3.049	3.019-3.079	3.954e+03
	3.303	3.273-3.333	3.533e+03
4 Aroclor-1242	2.430	2.400-2.460	1.166e+04
	2.720	2.690-2.750	1.345e+04
	2.839	2.809-2.869	5.506e+03
	3.049	3.019-3.079	7.245e+03
	3.303	3.273-3.333	6.811e+03

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd1a.i/121609.b/ECD1-F-8082-121409.m

Compound	RT	RT Window	RF
5 Aroclor-1248	3.101	3.071-3.131	7.848e+03
	3.252	3.222-3.282	6.870e+03
	3.303	3.273-3.333	1.331e+04
	3.435	3.405-3.465	1.101e+04
	3.668	3.638-3.698	7.455e+03
6 Aroclor-1254	3.277	3.247-3.307	1.249e+04
	3.433	3.403-3.463	1.672e+04
	3.667	3.637-3.697	2.071e+04
	3.830	3.800-3.860	1.569e+04
	3.939	3.909-3.969	1.517e+04
7 Aroclor-1260	3.775	3.745-3.805	1.675e+04
	3.938	3.908-3.968	2.474e+04
	4.168	4.138-4.198	1.469e+04
	4.312	4.282-4.342	1.518e+04
	4.491	4.461-4.521	3.435e+04
8 Aroclor-1262	3.776	3.746-3.806	1.402e+04
	3.938	3.908-3.968	1.841e+04
	4.169	4.139-4.199	2.251e+04
	4.312	4.282-4.342	2.033e+04
	4.491	4.461-4.521	4.317e+04
9 Aroclor-1268	4.676	4.646-4.706	5.438e+04
	4.698	4.668-4.728	5.419e+04
	4.811	4.781-4.841	4.052e+04
	5.014	4.984-5.044	1.833e+04
	5.180	5.150-5.210	1.233e+05
M 10 Aroclor-Total	1.000	0.980-1.020	
$ 11 4cmx	1.972	1.942-2.002	3.757e+05
$ 12 Decachlorobiphenyl	5.290	5.260-5.320	3.175e+05

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd1a.i/121609.b/ECD1-B-8082-121409.m
Quant Method : ESTD Target Version : 3.50
Last Update : 17-Dec-2009 07:29 Number of Cpnds : 15
Data Type : GC MULTI COMP

Global Integrator : Falcon

Chromat Events	Values
Initial:Start Threshold	7222.000000
Initial:End Threshold	3611.000000
Initial:Area Threshold	6833.000000
Initial:P-P Resolution	0.000000
Initial:Bunch Factor	2.000000
Initial:Negative Peaks	OFF
Initial:Tension	0.500000

Compound	RT	RT Window	RF
1 Aroclor-1016	3.201	3.171-3.231	1.261e+04
	3.283	3.253-3.313	9.328e+03
	3.347	3.317-3.377	5.411e+03
	3.574	3.544-3.604	7.052e+03
	3.650	3.620-3.680	6.551e+03
62 4,4-DDT	4.670	4.650-4.690	2.436e+05
63 4,4-DDE	4.139	4.119-4.159	3.580e+05
64 4,4-DDD	4.483	4.463-4.503	2.893e+05
2 Aroclor-1221	2.501	2.470-2.530	3.640e+03
	2.595	2.566-2.626	2.329e+03
	2.636	2.606-2.666	8.119e+03
3 Aroclor-1232	2.636	2.606-2.666	6.156e+03
	3.201	3.171-3.231	6.302e+03
	3.284	3.254-3.314	4.701e+03
	3.575	3.545-3.605	3.243e+03
	3.808	3.778-3.838	3.151e+03
4 Aroclor-1242	3.201	3.171-3.231	1.059e+04
	3.284	3.254-3.314	8.054e+03
	3.574	3.544-3.604	5.962e+03
	3.808	3.778-3.838	6.057e+03
	3.836	3.806-3.866	6.701e+03

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd1a.i/121609.b/ECD1-B-8082-121409.m

Compound	RT	RT Window	RF
5 Aroclor-1248	3.410	3.380-3.440	8.054e+03
	3.575	3.545-3.605	9.874e+03
	3.809	3.779-3.839	1.122e+04
	3.837	3.807-3.867	1.248e+04
	3.973	3.943-4.003	1.210e+04
6 Aroclor-1254	3.409	3.379-3.439	6.435e+03
	3.832	3.802-3.862	1.156e+04
	3.947	3.917-3.977	1.243e+04
	4.224	4.194-4.254	1.688e+04
	4.360	4.330-4.390	1.244e+04
7 Aroclor-1260	4.341	4.311-4.371	1.368e+04
	4.465	4.435-4.495	1.603e+04
	4.731	4.701-4.761	1.256e+04
	4.905	4.875-4.935	1.281e+04
	5.052	5.022-5.082	2.790e+04
8 Aroclor-1262	4.465	4.435-4.495	1.292e+04
	4.732	4.702-4.762	1.831e+04
	4.905	4.875-4.935	1.658e+04
	5.052	5.022-5.082	3.329e+04
	5.265	5.235-5.295	2.297e+04
9 Aroclor-1268	5.263	5.233-5.293	4.358e+04
	5.291	5.261-5.321	4.039e+04
	5.441	5.411-5.471	3.144e+04
	5.605	5.575-5.635	1.427e+04
	5.798	5.768-5.828	8.886e+04
M 10 Aroclor-Total	1.000	0.980-1.020	
$ 11 4cmx	2.303	2.273-2.333	3.000e+05
$ 12 Decachlorobiphenyl	5.950	5.920-5.980	2.332e+05

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 14-DEC-2009 05:36
End Cal Date : 14-DEC-2009 12:37
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd1a.i/121609.b/ECD1-F-8082-121409.m
Cal Date : 17-Dec-2009 07:29 yip00818
Curve Type : Average

Calibration File Names:
Level 1: /chem/ecd1a.i/121409.b/040f4001.d
Level 2: /chem/ecd1a.i/121409.b/041f4101.d
Level 3: /chem/ecd1a.i/121409.b/042f4201.d
Level 4: /chem/ecd1a.i/121409.b/046f4601.d
Level 5: /chem/ecd1a.i/121409.b/044f4401.d

Compound	100.000 Level 1	200.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
1 Aroclor-1016(1)	15975	14641	13829	13236	11653	13867	11.596
(2)	10801	10349	9832	9922	9584	10098	4.757
(3)	13242	12280	11732	11291	10240	11757	9.507
(4)	7178	6867	6609	6421	5920	6599	7.183
(5)	9710	9021	8649	8224	7763	8673	8.604
63 4,4-DDD	+++++	+++++	+++++	393799	+++++	393799	0.000
64 4,4-DDE	+++++	+++++	+++++	479509	+++++	479509	0.000
62 4,4-DDT	+++++	+++++	+++++	323817	+++++	323817	0.000
2 Aroclor-1221(1)	+++++	+++++	+++++	4301	+++++	4301	0.000
(2)	+++++	+++++	+++++	2440	+++++	2440	0.000
(3)	+++++	+++++	+++++	10272	+++++	10272	0.000
3 Aroclor-1232(1)	+++++	+++++	+++++	6717	+++++	6717	0.000
(2)	+++++	+++++	+++++	8157	+++++	8157	0.000
(3)	+++++	+++++	+++++	5751	+++++	5751	0.000
(4)	+++++	+++++	+++++	3954	+++++	3954	0.000
(5)	+++++	+++++	+++++	3533	+++++	3533	0.000
4 Aroclor-1242(1)	13692	12467	11522	10819	9798	11660	12.846
(2)	14782	14429	13236	12555	12263	13453	8.301
(3)	6076	5890	5423	5191	4949	5506	8.563
(4)	8395	7578	7079	6747	6426	7245	10.645
(5)	7587	7189	6604	6378	6296	6811	8.178
5 Aroclor-1248(1)	9070	8103	7743	7247	7078	7848	10.119
(2)	7785	7181	6827	6444	6114	6870	9.456
(3)	15108	13267	13037	12915	12225	13310	8.094
(4)	12682	11331	10815	10392	9852	11015	9.799
(5)	8605	7806	7405	7124	6336	7455	11.244

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 14-DEC-2009 05:36
End Cal Date : 14-DEC-2009 12:37
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd1a.i/121609.b/ECD1-F-8082-121409.m
Cal Date : 17-Dec-2009 07:29 yip00818
Curve Type : Average

Compound	100.000 Level 1	200.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
6 Aroclor-1254(1)	14281	12975	12313	11911	10947	12485	9.963
(2)	18803	17181	16666	15949	15010	16722	8.494
(3)	22492	20906	20786	20326	19059	20714	5.957
(4)	16753	15627	15809	15513	14770	15694	4.535
(5)	16595	15169	15433	15075	13591	15172	7.071
7 Aroclor-1260(1)	18145	17177	16842	16407	15189	16752	6.464
(2)	26410	24871	24973	24571	22887	24743	5.081
(3)	16099	14386	14855	14472	13625	14687	6.171
(4)	16517	14719	15311	15032	14343	15185	5.451
(5)	35425	33953	34899	34487	32987	34350	2.719
8 Aroclor-1262(1)	+++++	+++++	+++++	14019	+++++	14019	0.000
(2)	+++++	+++++	+++++	18406	+++++	18406	0.000
(3)	+++++	+++++	+++++	22511	+++++	22511	0.000
(4)	+++++	+++++	+++++	20327	+++++	20327	0.000
(5)	+++++	+++++	+++++	43170	+++++	43170	0.000
9 Aroclor-1268(1)	56914	55996	53872	52565	52528	54375	3.680
(2)	57500	55307	54092	52376	51697	54194	4.300
(3)	43006	41368	40020	38976	39247	40524	4.120
(4)	19620	18932	18085	17425	17569	18326	5.094
(5)	128350	126812	122798	118830	119599	123278	3.436
M 10 Aroclor-Total	+++++	+++++	+++++	+++++	+++++	+++++	+++++
$ 11 4cmx	367897	454677	359986	359846	335942	375669	12.182
$ 12 Decachlorobiphenyl	316645	388263	307193	296602	278999	317541	13.206

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 11-DEC-2009 10:17
End Cal Date : 14-DEC-2009 12:37
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd1a.i/121609.b/ECD1-B-8082-121409.m
Cal Date : 17-Dec-2009 07:29 yip00818
Curve Type : Average

Calibration File Names:
Level 1: /chem/ecd1a.i/121409.b/040b4001.d
Level 2: /chem/ecd1a.i/121409.b/041b4101.d
Level 3: /chem/ecd1a.i/121409.b/042b4201.d
Level 4: /chem/ecd1a.i/121409.b/046b4601.d
Level 5: /chem/ecd1a.i/121409.b/044b4401.d

Compound	100.000 Level 1	200.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
1 Aroclor-1016(1)	14281	12734	12848	12156	11039	12612	9.333
(2)	10954	9913	9256	8806	7710	9328	13.003
(3)	6310	5679	5380	5089	4598	5411	11.852
(4)	8214	7430	6981	6696	5938	7052	12.003
(5)	7754	6843	6481	6115	5561	6551	12.561
62 4,4-DDT	+++++	+++++	+++++	243613	+++++	243613	0.000
63 4,4-DDE	+++++	+++++	+++++	357996	+++++	357996	0.000
64 4,4-DDD	+++++	+++++	+++++	289343	+++++	289343	0.000
2 Aroclor-1221(1)	+++++	+++++	+++++	3640	+++++	3640	0.000
(2)	+++++	+++++	+++++	2329	+++++	2329	0.000
(3)	+++++	+++++	+++++	8119	+++++	8119	0.000
3 Aroclor-1232(1)	+++++	+++++	+++++	6156	+++++	6156	0.000
(2)	+++++	+++++	+++++	6302	+++++	6302	0.000
(3)	+++++	+++++	+++++	4701	+++++	4701	0.000
(4)	+++++	+++++	+++++	3243	+++++	3243	0.000
(5)	+++++	+++++	+++++	3151	+++++	3151	0.000
4 Aroclor-1242(1)	12348	11309	9989	9755	9542	10589	11.338
(2)	9730	8628	7875	7358	6677	8054	14.627
(3)	7163	6326	5763	5452	5107	5962	13.534
(4)	7183	6468	5900	5548	5185	6057	12.997
(5)	7820	7123	6589	6229	5746	6701	11.977
5 Aroclor-1248(1)	9914	8542	7972	7289	6553	8054	15.880
(2)	11996	10356	9798	9046	8173	9874	14.605
(3)	13306	11756	11119	10365	9555	11220	12.723
(4)	14720	13121	12480	11577	10516	12483	12.732
(5)	14361	12633	11977	11210	10342	12104	12.596

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 11-DEC-2009 10:17
End Cal Date : 14-DEC-2009 12:37
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd1a.i/121609.b/ECD1-B-8082-121409.m
Cal Date : 17-Dec-2009 07:29 yip00818
Curve Type : Average

Compound	100.000 Level 1	200.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
6 Aroclor-1254(1)	7857	6938	6317	5878	5185	6435	15.850
(2)	13759	12316	11389	10708	9625	11559	13.615
(3)	14674	13172	12243	11576	10492	12431	12.786
(4)	19102	17554	16808	16165	14771	16880	9.533
(5)	14276	12708	12612	11843	10739	12435	10.425
7 Aroclor-1260(1)	15678	14232	13583	13177	11731	13680	10.567
(2)	18142	16574	16035	15527	13867	16029	9.709
(3)	14298	13064	12524	12030	10903	12564	9.989
(4)	14593	13310	12766	12230	11150	12810	9.970
(5)	30553	28626	28257	27276	24777	27898	7.569
8 Aroclor-1262(1)	+++++	+++++	+++++	12922	+++++	12922	0.000
(2)	+++++	+++++	+++++	18311	+++++	18311	0.000
(3)	+++++	+++++	+++++	16579	+++++	16579	0.000
(4)	+++++	+++++	+++++	33287	+++++	33287	0.000
(5)	+++++	+++++	+++++	22972	+++++	22972	0.000
9 Aroclor-1268(1)	48327	45655	43354	41349	39206	43578	8.193
(2)	44968	41865	39872	38249	36983	40388	7.790
(3)	35350	32573	30975	29630	28674	31440	8.372
(4)	16410	14977	13894	13214	12876	14274	10.077
(5)	96769	92419	87897	84047	83161	88859	6.460
M 10 Aroclor-Total	+++++	+++++	+++++	+++++	+++++	+++++	+++++
$ 11 4cmx	307069	367145	286931	282899	256086	300026	13.893
$ 12 Decachlorobiphenyl	248884	286011	224119	212175	194946	233227	15.194

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-886

Instrument ID: ECD1A Calibration Date: 12/16/09 Time: 0639

Lab File ID: 002F0201 Init. Calib. Date(s): 12/14/09 12/14/09

Heated Purge: (Y/N) N Init. Calib. Times: 1031 1113

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	13866.870	12066.339	0.01	-13.0	15.0
(2)	10097.726	10100.208	0.01	0.0	15.0
(3)	11757.020	10438.521	0.01	-11.2	15.0
(4)	6599.010	6287.978	0.01	-4.7	15.0
(5)	8673.402	8115.136	0.01	-6.4	15.0
Aroclor-1260	16752.150	16400.977	0.01	-2.1	15.0
(2)	24742.603	25366.903	0.01	2.5	15.0
(3)	14687.346	15079.874	0.01	2.7	15.0
(4)	15184.529	15601.813	0.01	2.7	15.0
(5)	34350.443	35835.023	0.01	4.3	15.0
4cmx	375669.41	361320.59	0.01	-3.8	15.0
Decachlorobiphenyl	317540.53	295500.06	0.01	-6.9	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-886

Instrument ID: ECD1A Calibration Date: 12/16/09 Time: 0639

Lab File ID: 002B0201 Init. Calib. Date(s): 12/14/09 12/14/09

Heated Purge: (Y/N) N Init. Calib. Times: 1031 1113

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	12611.539	11845.265	0.01	-6.1	15.0
(2)	9327.875	8019.212	0.01	-14.0	15.0
(3)	5411.316	5005.109	0.01	-7.5	15.0
(4)	7051.879	6330.838	0.01	-10.2	15.0
(5)	6550.733	5990.341	0.01	-8.6	15.0
Aroclor-1260	13680.027	12633.049	0.01	-7.6	15.0
(2)	16029.019	15575.001	0.01	-2.8	15.0
(3)	12563.933	11771.250	0.01	-6.3	15.0
(4)	12810.076	11994.226	0.01	-6.4	15.0
(5)	27897.674	27263.087	0.01	-2.3	15.0
4cmx	300025.77	281215.27	0.01	-6.3	15.0
Decachlorobiphenyl	233227.08	214673.03	0.01	-8.0	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-886

Instrument ID: ECD1A Calibration Date: 12/16/09 Time: 1600

Lab File ID: 050F5001 Init. Calib. Date(s): 12/14/09 12/14/09

Heated Purge: (Y/N) N Init. Calib. Times: 1031 1113

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	13866.870	12501.405	0.01	-9.8	15.0
(2)	10097.726	10743.225	0.01	6.4	15.0
(3)	11757.020	10715.850	0.01	-8.8	15.0
(4)	6599.010	6502.213	0.01	-1.5	15.0
(5)	8673.402	8295.816	0.01	-4.4	15.0
Aroclor-1260	16752.150	16419.827	0.01	-2.0	15.0
(2)	24742.603	25459.040	0.01	2.9	15.0
(3)	14687.346	15089.459	0.01	2.7	15.0
(4)	15184.529	15503.850	0.01	2.1	15.0
(5)	34350.443	36107.879	0.01	5.1	15.0
4cmx	375669.41	378150.04	0.01	0.7	15.0
Decachlorobiphenyl	317540.53	307246.06	0.01	-3.2	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-886

Instrument ID: ECD1A Calibration Date: 12/16/09 Time: 1600

Lab File ID: 050B5001 Init. Calib. Date(s): 12/14/09 12/14/09

Heated Purge: (Y/N) N Init. Calib. Times: 1031 1113

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	12611.539	12399.906	0.01	-1.7	15.0
(2)	9327.875	8081.502	0.01	-13.4	15.0
(3)	5411.316	5006.397	0.01	-7.5	15.0
(4)	7051.879	6299.966	0.01	-10.7	15.0
(5)	6550.733	6004.756	0.01	-8.3	15.0
Aroclor-1260	13680.027	12350.992	0.01	-9.7	15.0
(2)	16029.019	15214.728	0.01	-5.1	15.0
(3)	12563.933	11569.713	0.01	-7.9	15.0
(4)	12810.076	11722.896	0.01	-8.5	15.0
(5)	27897.674	26851.487	0.01	-3.8	15.0
4cmx	300025.77	291174.26	0.01	-3.0	15.0
Decachlorobiphenyl	233227.08	215138.44	0.01	-7.8	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-886

Instrument ID: ECD1A Calibration Date: 12/16/09 Time: 1823

Lab File ID: 062F6201 Init. Calib. Date(s): 12/14/09 12/14/09

Heated Purge: (Y/N) N Init. Calib. Times: 1031 1113

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	13866.870	12394.036	0.01	-10.6	15.0
(2)	10097.726	10254.172	0.01	1.5	15.0
(3)	11757.020	10707.282	0.01	-8.9	15.0
(4)	6599.010	6451.325	0.01	-2.2	15.0
(5)	8673.402	8202.522	0.01	-5.4	15.0
Aroclor-1260	16752.150	16703.466	0.01	-0.3	15.0
(2)	24742.603	25828.004	0.01	4.4	15.0
(3)	14687.346	15347.449	0.01	4.5	15.0
(4)	15184.529	15947.036	0.01	5.0	15.0
(5)	34350.443	37170.253	0.01	8.2	15.0
4cmx	375669.41	373931.77	0.01	-0.5	15.0
Decachlorobiphenyl	317540.53	320009.62	0.01	0.8	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-886

Instrument ID: ECD1A Calibration Date: 12/16/09 Time: 1823

Lab File ID: 062B6201 Init. Calib. Date(s): 12/14/09 12/14/09

Heated Purge: (Y/N) N Init. Calib. Times: 1031 1113

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	12611.539	12305.260	0.01	-2.4	15.0
(2)	9327.875	8093.067	0.01	-13.2	15.0
(3)	5411.316	5040.306	0.01	-6.8	15.0
(4)	7051.879	6572.321	0.01	-6.8	15.0
(5)	6550.733	6083.776	0.01	-7.1	15.0
Aroclor-1260	13680.027	12697.285	0.01	-7.2	15.0
(2)	16029.019	15734.960	0.01	-1.8	15.0
(3)	12563.933	11992.577	0.01	-4.5	15.0
(4)	12810.076	12265.433	0.01	-4.2	15.0
(5)	27897.674	28097.085	0.01	0.7	15.0
4cmx	300025.77	286789.32	0.01	-4.4	15.0
Decachlorobiphenyl	233227.08	229781.04	0.01	-1.5	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-886

Instrument ID: ECD1A Calibration Date: 12/16/09 Time: 2040

Lab File ID: 074F7401 Init. Calib. Date(s): 12/14/09 12/14/09

Heated Purge: (Y/N) N Init. Calib. Times: 1031 1113

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	13866.870	12623.170	0.01	-9.0	15.0
(2)	10097.726	10375.463	0.01	2.8	15.0
(3)	11757.020	10910.428	0.01	-7.2	15.0
(4)	6599.010	6595.514	0.01	-0.0	15.0
(5)	8673.402	8456.799	0.01	-2.5	15.0
Aroclor-1260	16752.150	17089.467	0.01	2.0	15.0
(2)	24742.603	26332.086	0.01	6.4	15.0
(3)	14687.346	15762.712	0.01	7.3	15.0
(4)	15184.529	16442.081	0.01	8.3	15.0
(5)	34350.443	38210.492	0.01	11.2	15.0
4cmx	375669.41	378914.25	0.01	0.9	15.0
Decachlorobiphenyl	317540.53	338200.53	0.01	6.5	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-886

Instrument ID: ECD1A Calibration Date: 12/16/09 Time: 2040

Lab File ID: 074B7401 Init. Calib. Date(s): 12/14/09 12/14/09

Heated Purge: (Y/N) N Init. Calib. Times: 1031 1113

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	12611.539	12209.331	0.01	-3.2	15.0
(2)	9327.875	8213.389	0.01	-11.9	15.0
(3)	5411.316	5122.341	0.01	-5.3	15.0
(4)	7051.879	6728.406	0.01	-4.6	15.0
(5)	6550.733	6261.393	0.01	-4.4	15.0
Aroclor-1260	13680.027	12999.600	0.01	-5.0	15.0
(2)	16029.019	16027.792	0.01	-0.0	15.0
(3)	12563.933	12333.615	0.01	-1.8	15.0
(4)	12810.076	12672.775	0.01	-1.1	15.0
(5)	27897.674	29076.757	0.01	4.2	15.0
4cmx	300025.77	291380.03	0.01	-2.9	15.0
Decachlorobiphenyl	233227.08	240040.54	0.01	2.9	15.0

FORM VII PEST

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/121609.b/002f0201.d
Lab Smp Id: WAR091211-60 01 Client Smp ID: AR166001
Inj Date : 16-DEC-2009 06:39
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR091211-60 01
Misc Info :
Comment :
Method : /chem/ecd1a.i/121609.b/ECD1-F-8082-121409.m
Meth Date : 17-Dec-2009 07:29 yip00818 Quant Type: ESTD
Cal Date : 14-DEC-2009 11:34 Cal File: 040f4001.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.972	1.972	0.000	36132059	100.000	96.2	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.290	5.290	0.000	29550006	100.000	93.0	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.430	2.430	0.000	12066339	1000.00	870	80.00- 120.00	100.00
2.707	2.707	0.000	10100208	1000.00	1000	63.95- 103.95	83.71
2.800	2.800	0.000	10438521	1000.00	888	66.26- 106.26	86.51
2.837	2.837	0.000	6287978	1000.00	953	32.06- 72.06	52.11
3.048	3.048	0.000	8115136	1000.00	936	47.49- 87.49	67.25
Average of Peak Amounts =					929		
7 Aroclor-1260					CAS #: 11096-82-5		
3.775	3.775	0.000	16400977	1000.00	979	80.00- 120.00	100.00
3.938	3.938	0.000	25366903	1000.00	1020	134.58- 174.58	154.67
4.168	4.168	0.000	15079874	1000.00	1030	72.46- 112.46	91.94
4.312	4.312	0.000	15601813	1000.00	1030	76.67- 116.67	95.13
4.491	4.491	0.000	35835023	1000.00	1040	204.79- 244.79	218.49
Average of Peak Amounts =					1.02e+03		

Data File: /chem/ecdia.i/121609.b/002f0201.d
Date : 16-DEC-2009 06:39
Client ID: AR166001
Sample Info: IWAR091211-60 01
Column phase: CLP1

Instrument: ecdia.i
Operator: YSI
Column diameter: 0.25

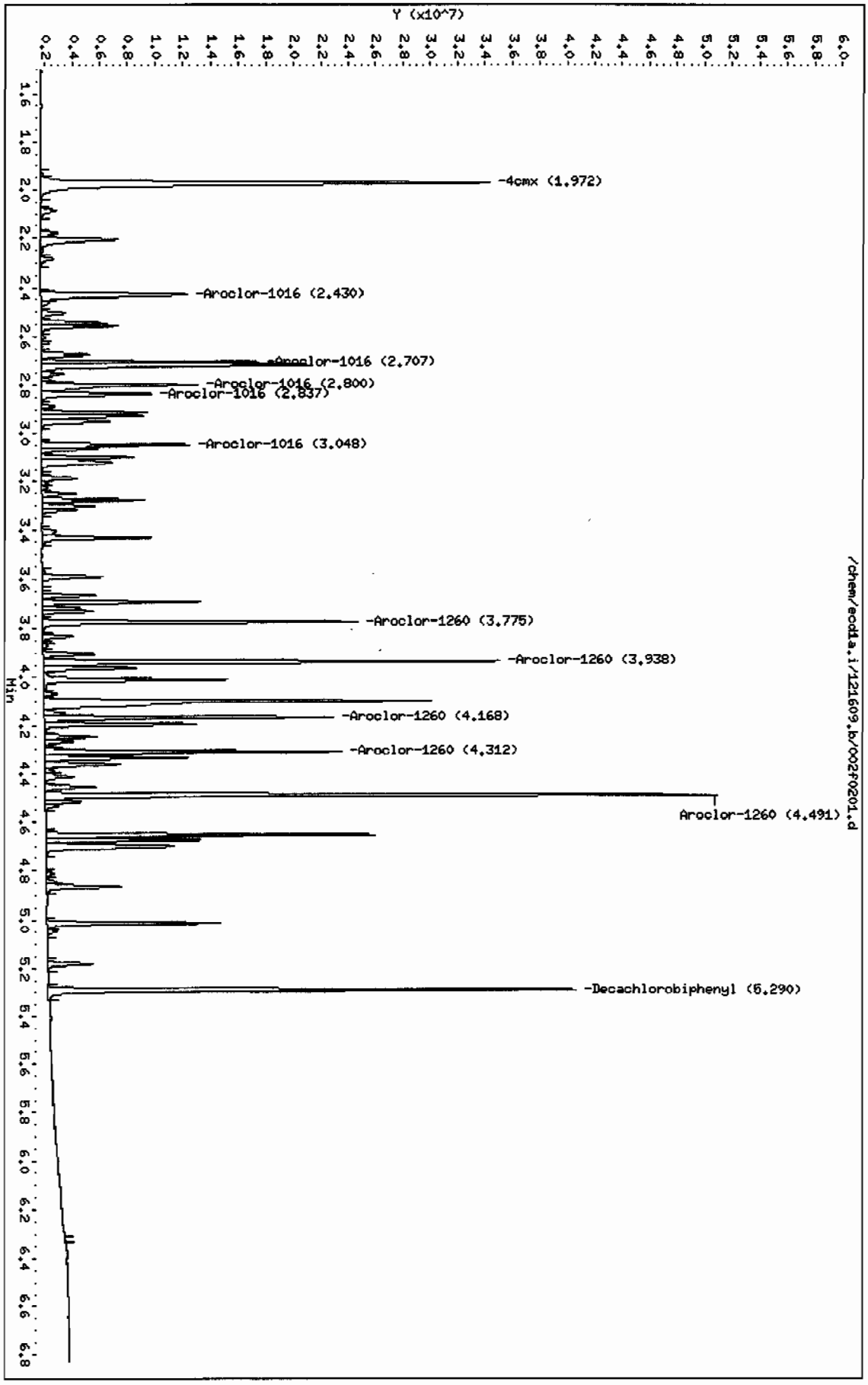

Page 1

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/121609.b/002b0201.d
Lab Smp Id: WAR091211-60 01 Client Smp ID: AR166001
Inj Date : 16-DEC-2009 06:39
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR091211-60 01
Misc Info :
Comment :
Method : /chem/ecd1a.i/121609.b/ECD1-B-8082-121409.m
Meth Date : 17-Dec-2009 07:29 yip00818 Quant Type: ESTD
Cal Date : 14-DEC-2009 12:16 Cal File: 044b4401.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.303	2.303	0.000	28121527	100.000	93.7	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.950	5.950	0.000	21467303	100.000	92.0	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.201	3.201	0.000	11845265	1000.00	939	80.00- 120.00	100.00(M)
3.283	3.283	0.000	8019212	1000.00	860	47.27- 87.27	67.70
3.347	3.347	0.000	5005109	1000.00	925	21.95- 61.95	42.25
3.574	3.574	0.000	6330838	1000.00	898	35.11- 75.11	53.45
3.650	3.650	0.000	5990340	1000.00	914	31.28- 71.28	60.26
Average of Peak Amounts =					907		
7 Aroclor-1260					CAS #: 11096-82-5		
4.341	4.341	0.000	12633049	1000.00	923	80.00- 120.00	100.00
4.465	4.465	0.000	15575001	1000.00	972	103.29- 143.29	123.29
4.731	4.731	0.000	11771250	1000.00	937	74.88- 114.88	93.18
4.905	4.905	0.000	11994226	1000.00	936	77.49- 117.49	94.94
5.052	5.052	0.000	27263087	1000.00	977	203.67- 243.67	215.81
Average of Peak Amounts =					949		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd1a.i/121609.b/002b0201.d

Date : 16-DEC-2009 06:39

Client ID: AR166001

Sample Info: IWAR091211-60 01

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

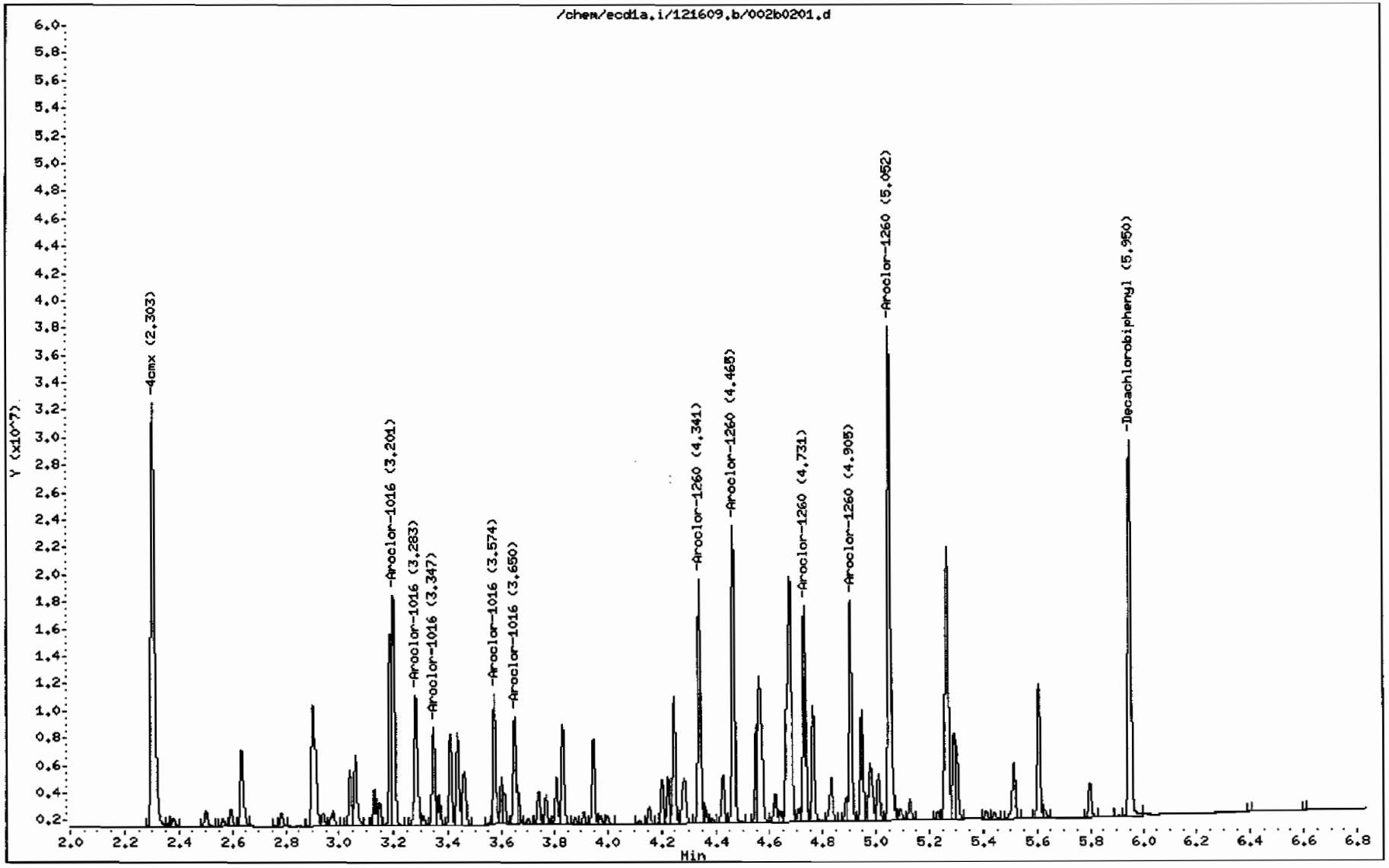

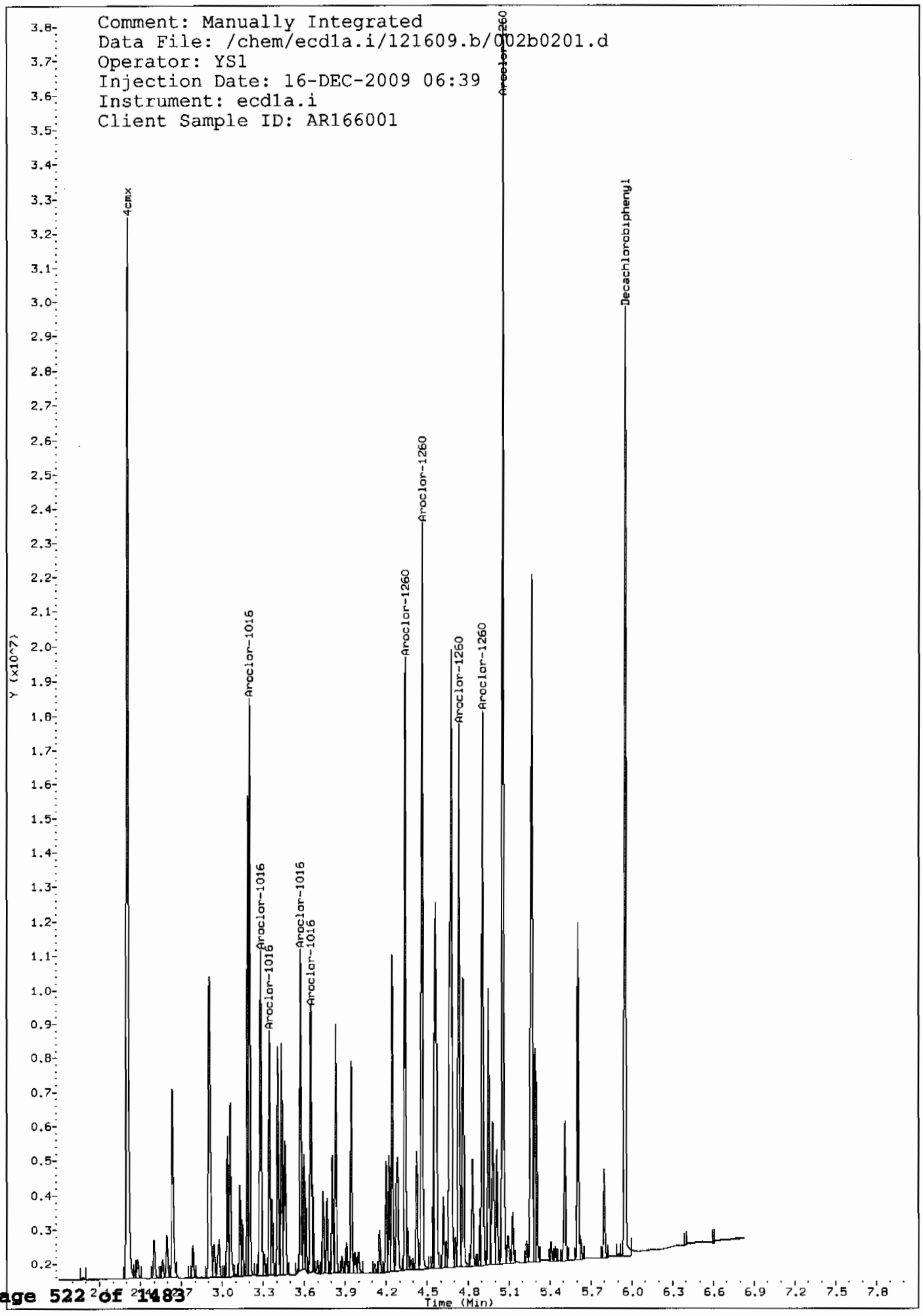
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Operator: YS1
Injection Date: 16-DEC-2009 06:39
Instrument: ecd1a.i
Client Sample ID: AR166001
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

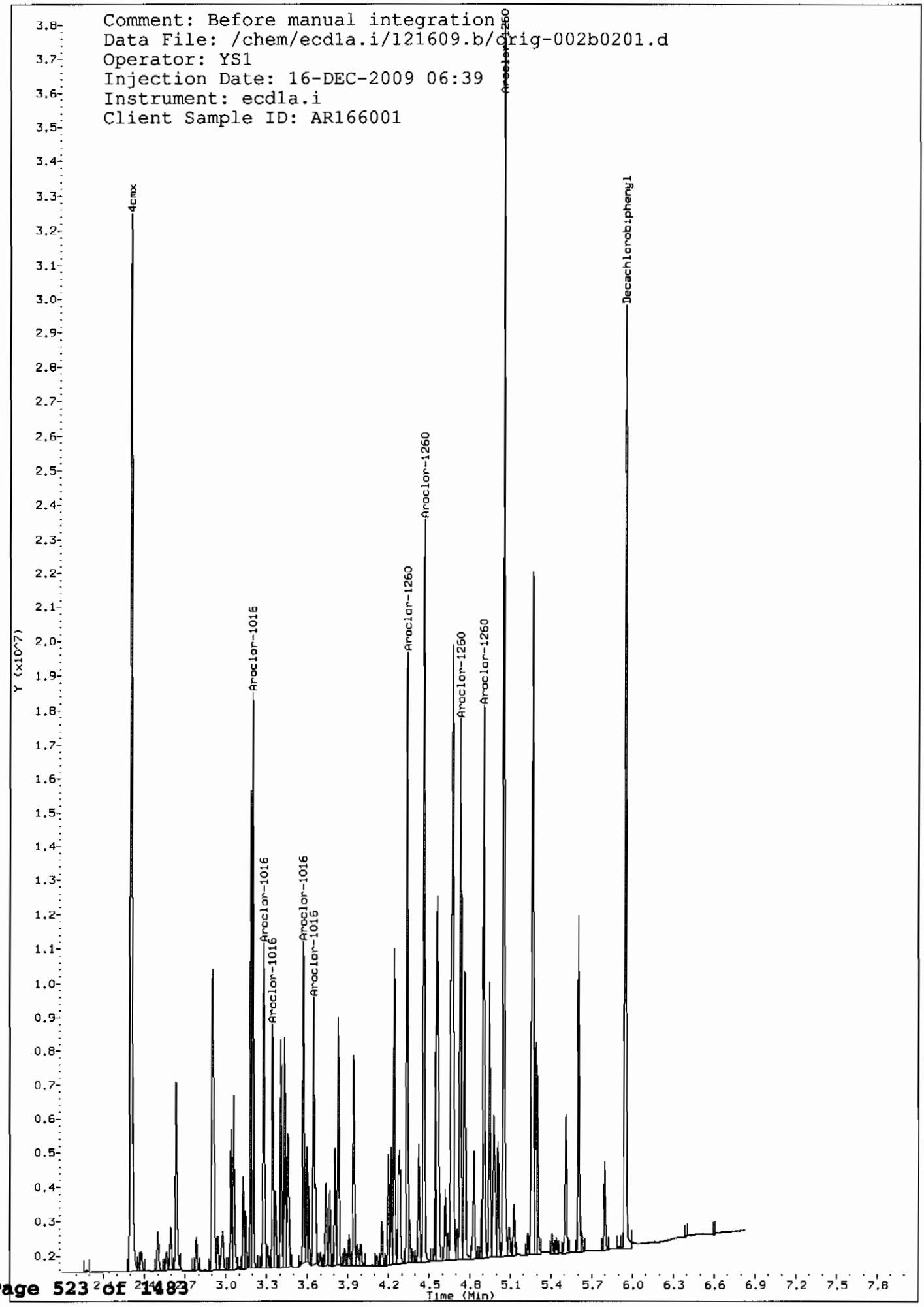
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Operator: YS1
Injection Date: 16-DEC-2009 06:39
Instrument: ecd1a.i
Client Sample ID: AR166001
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/121609.b/004f0401.d
Lab Smp Id: WAR091102-42 Client Smp ID: AR124201
Inj Date : 16-DEC-2009 07:00
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR091102-42
Misc Info :
Comment :
Method : /chem/ecd1a.i/121609.b/ECD1-F-8082-121409.m
Meth Date : 17-Dec-2009 07:29 yip00818 Quant Type: ESTD
Cal Date : 14-DEC-2009 11:34 Cal File: 040f4001.d
Als bottle: 4 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1242.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.974	1.972	0.002	37840985	100.000	101	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.290	5.290	0.000	31080994	100.000	97.9	80.00- 120.00	100.00
4 Aroclor-1242					CAS #: 53469-21-9		
2.430	2.430	0.000	10697173	1000.00	917	80.00- 120.00	100.00
2.720	2.720	0.000	13676665	1000.00	1020	107.85- 147.85	127.85
2.839	2.839	0.000	5417859	1000.00	984	30.65- 70.65	50.65
3.049	3.049	0.000	7065274	1000.00	975	46.05- 86.05	66.05
3.303	3.303	0.000	7222050	1000.00	1060	47.51- 87.51	67.51
Average of Peak Amounts =					991		

Data File: /chem/ecd1a.i/121609.b/004f0401.d

Date : 16-DEC-2009 07:00

Client ID: AR124201

Sample Info: IWAR091102-42

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

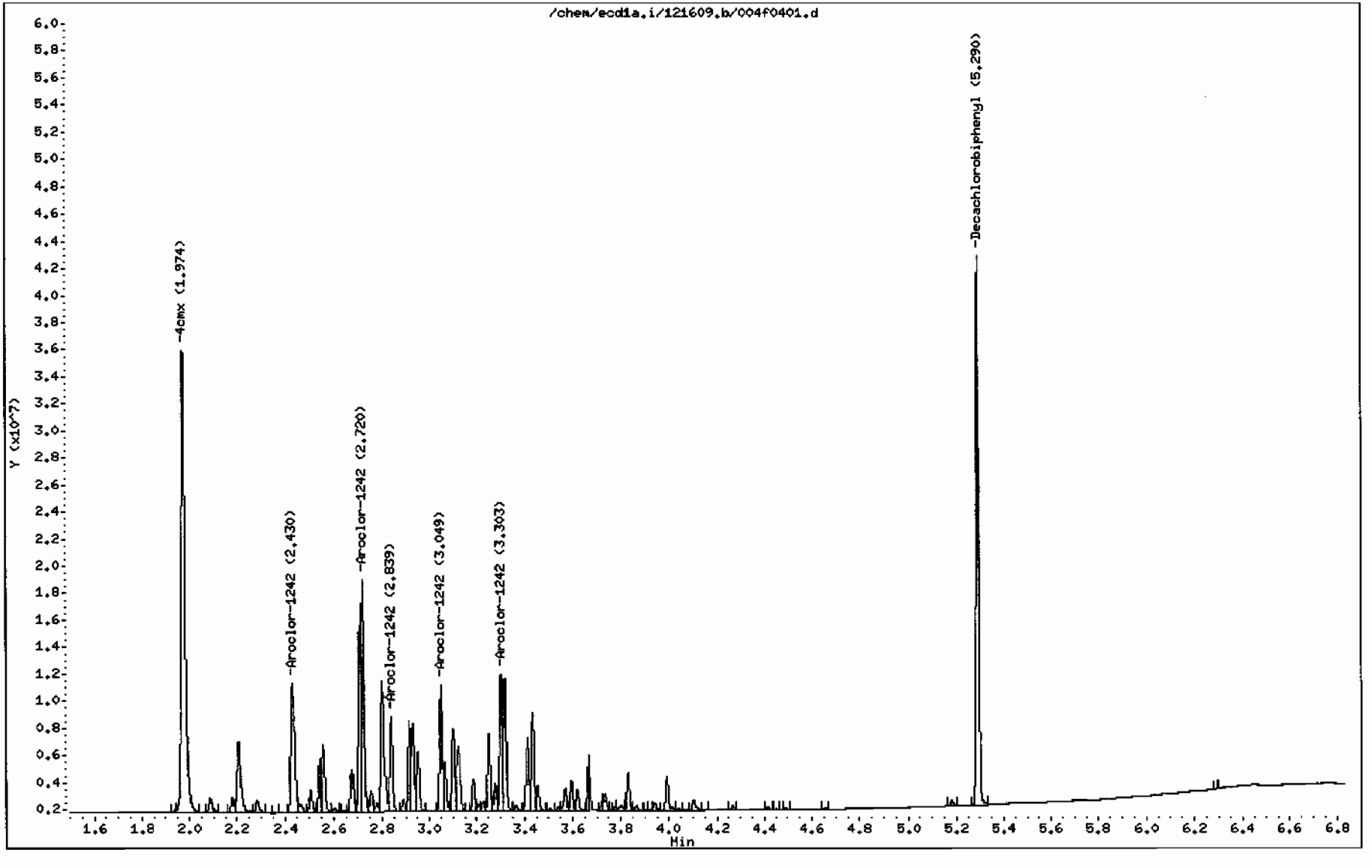

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/121609.b/004b0401.d
Lab Smp Id: WAR091102-42 Client Smp ID: AR124201
Inj Date : 16-DEC-2009 07:00
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR091102-42
Misc Info :
Comment :
Method : /chem/ecd1a.i/121609.b/ECD1-B-8082-121409.m
Meth Date : 17-Dec-2009 07:29 yip00818 Quant Type: ESTD
Cal Date : 14-DEC-2009 12:16 Cal File: 044b4401.d
Als bottle: 4 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1242.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.304	2.303	0.001	29192418	100.000	97.3	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.951	5.950	0.001	22183120	100.000	95.1	80.00- 120.00	100.00
4 Aroclor-1242					CAS #: 53469-21-9		
3.201	3.201	0.000	10432384	1000.00	985	80.00- 120.00	100.00
3.284	3.284	0.000	6908864	1000.00	858	46.23- 86.23	66.23
3.574	3.574	0.000	5524895	1000.00	927	32.96- 72.96	52.96
3.808	3.808	0.000	5851271	1000.00	966	36.09- 76.09	56.09
3.836	3.836	0.000	6475163	1000.00	966	42.07- 82.07	62.07
Average of Peak Amounts =					940		

Data File: /chem/ecd1a.i/121609.b/004b0401.d

Date : 16-DEC-2009 07:00

Client ID: AR124201

Sample Info: IWAR091102-42

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

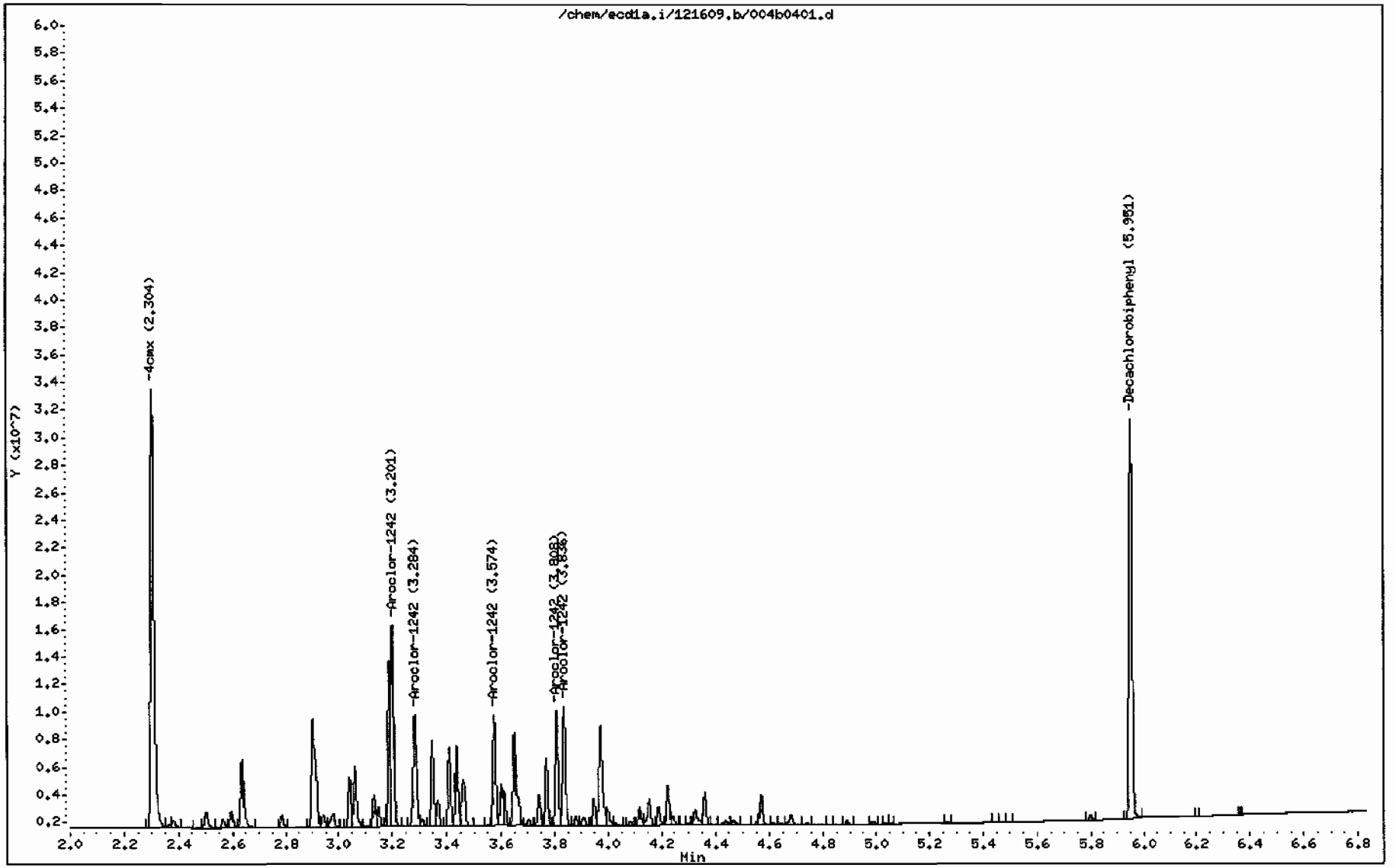

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/121609.b/005f0501.d
Lab Smp Id: WAR091027-48 Client Smp ID: AR124801
Inj Date : 16-DEC-2009 07:10
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR091027-48
Misc Info :
Comment :
Method : /chem/ecd1a.i/121609.b/ECD1-F-8082-121409.m
Meth Date : 17-Dec-2009 07:29 yip00818 Quant Type: ESTD
Cal Date : 14-DEC-2009 11:34 Cal File: 040f4001.d
Als bottle: 5 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1248.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.973	1.972	0.001	41664673	100.000	111	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.291	5.290	0.001	35464201	100.000	112	80.00- 120.00	100.00
5 Aroclor-1248					CAS #: 12672-29-6		
3.101	3.101	0.000	8278860	1000.00	1050	80.00- 120.00	100.00
3.252	3.252	0.000	7528449	1000.00	1100	70.94- 110.94	90.94
3.303	3.303	0.000	14754396	1000.00	1110	158.22- 198.22	178.22
3.435	3.435	0.000	11852525	1000.00	1080	123.17- 163.17	143.17
3.668	3.668	0.000	7661140	1000.00	1030	72.54- 112.54	92.54

Average of Peak Amounts = 1.07e+03

Data File: /chem/ecd1a.i/121609.b/005f0501.d

Date : 16-DEC-2009 07:10

Client ID: AR124801

Sample Info: IWAR091027-48

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

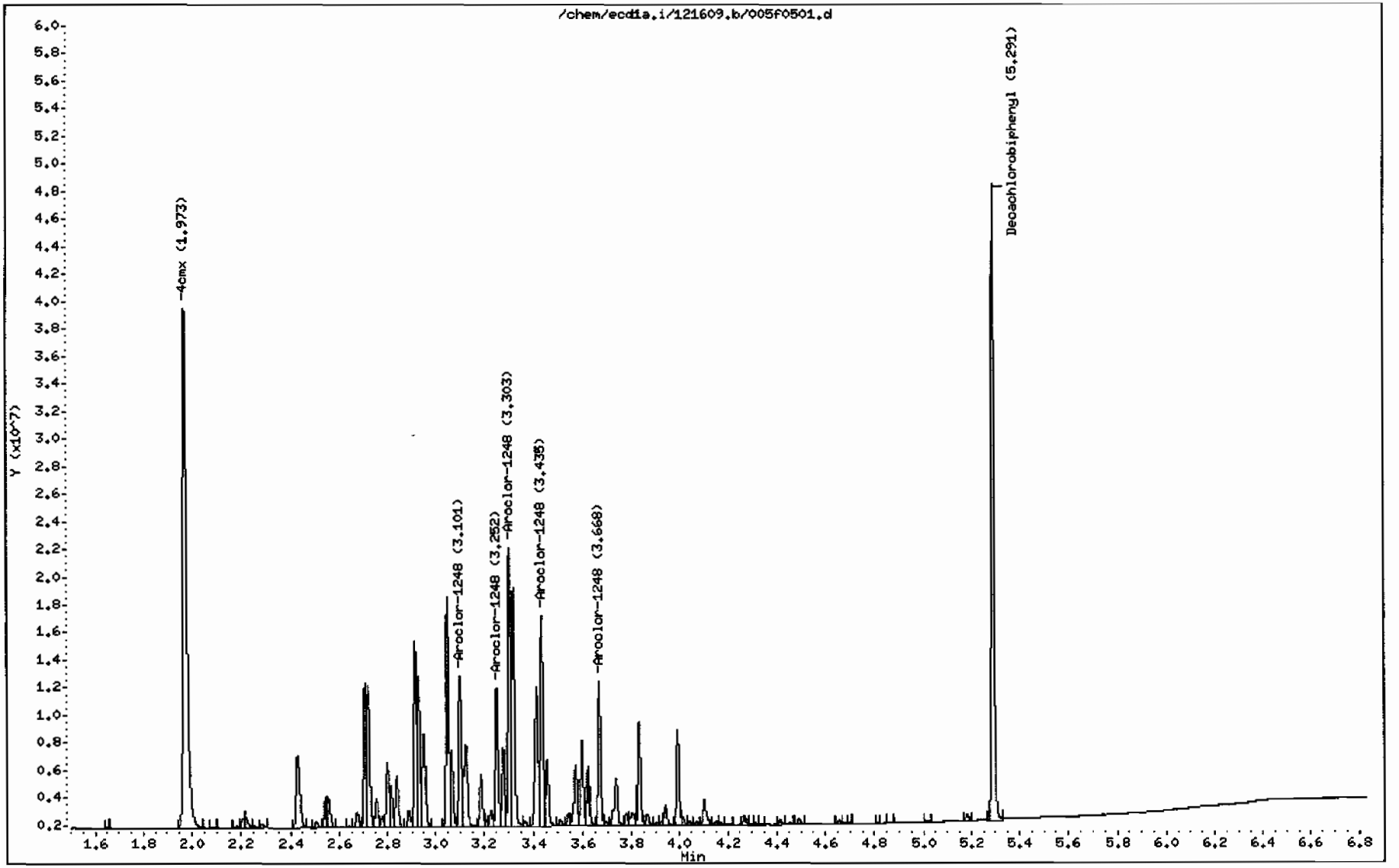

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/121609.b/005b0501.d
Lab Smp Id: WAR091027-48 Client Smp ID: AR124801
Inj Date : 16-DEC-2009 07:10
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR091027-48
Misc Info :
Comment :
Method : /chem/ecd1a.i/121609.b/ECD1-B-8082-121409.m
Meth Date : 17-Dec-2009 07:29 yip00818 Quant Type: ESTD
Cal Date : 14-DEC-2009 12:16 Cal File: 044b4401.d
Als bottle: 5 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1248.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.303	2.303	0.000	32365715	100.000	108	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.951	5.950	0.001	25096669	100.000	108	80.00- 120.00	100.00
5 Aroclor-1248					CAS #: 12672-29-6		
3.410	3.410	0.000	7874757	1000.00	978	80.00- 120.00	100.00
3.575	3.575	0.000	9899671	1000.00	1000	105.71- 145.71	125.71
3.809	3.809	0.000	11498194	1000.00	1020	126.01- 166.01	146.01
3.837	3.837	0.000	12728780	1000.00	1020	141.64- 181.64	161.64
3.973	3.973	0.000	12310878	1000.00	1020	136.33- 176.33	156.33

Average of Peak Amounts = 1.01e+03

Data File: /chem/ecd1a.i/121609.b/005b0501.d

Date : 16-DEC-2009 07:10

Client ID: AR124801

Sample Info: IWAR091027-48

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

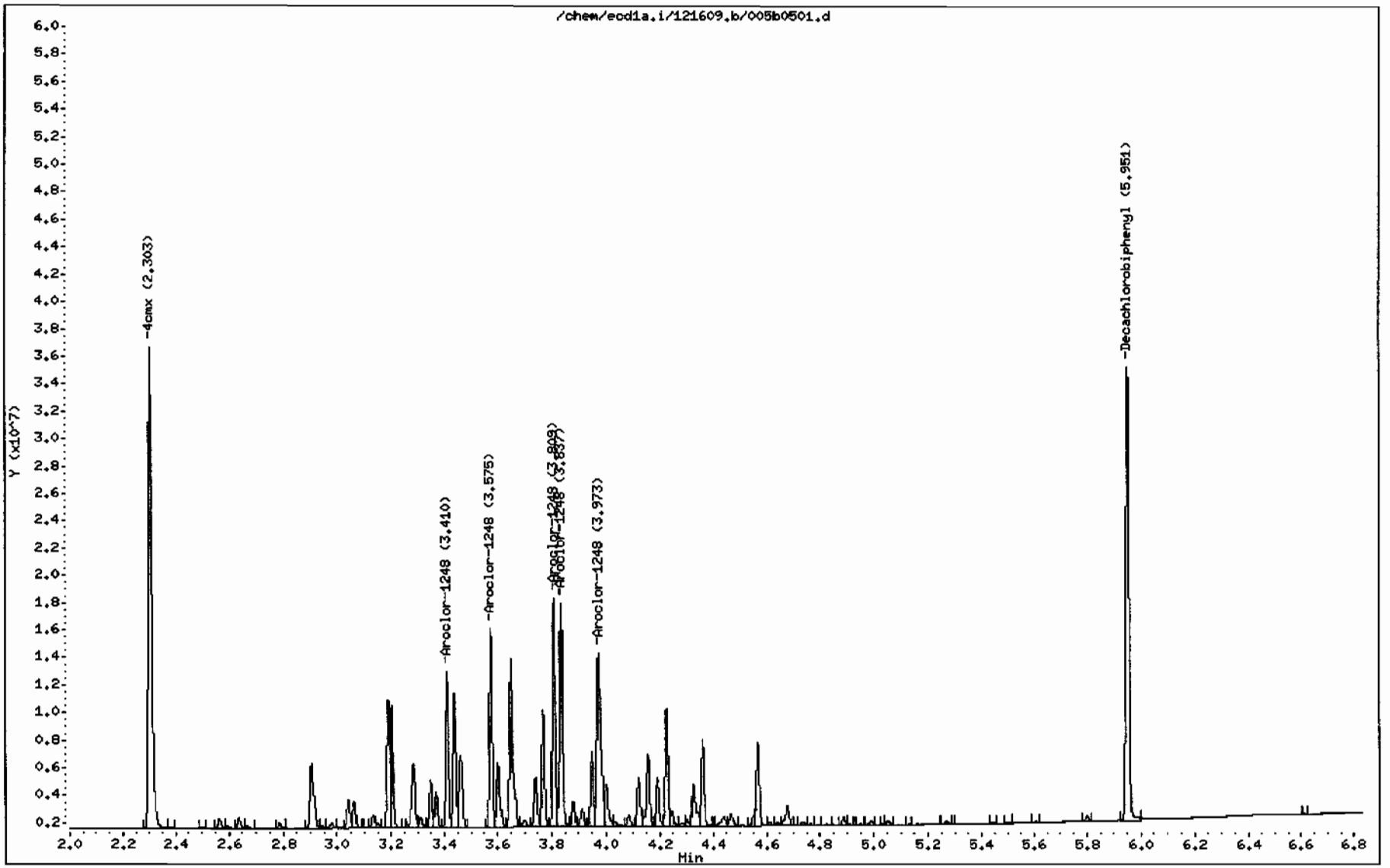

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/121609.b/006f0601.d
Lab Smp Id: WAR090930-32 Client Smp ID: AR123201
Inj Date : 16-DEC-2009 07:21
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR090930-32
Misc Info :
Comment :
Method : /chem/ecd1a.i/121609.b/ECD1-F-8082-121409.m
Meth Date : 17-Dec-2009 07:29 yip00818 Quant Type: ESTD
Cal Date : 14-DEC-2009 11:34 Cal File: 040f4001.d
Als bottle: 6 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1232.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.973	1.972	0.001	51235543	100.000	136	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.290	5.290	0.000	42714674	100.000	134	80.00- 120.00	100.00
3 Aroclor-1232					CAS #: 11141-16-5		
2.430	2.430	0.000	6974323	1000.00	1040	80.00- 120.00	100.00
2.719	2.719	0.000	8900204	1000.00	1090	107.61- 147.61	127.61
2.800	2.800	0.000	5974406	1000.00	1040	65.66- 105.66	85.66
3.049	3.049	0.000	4410116	1000.00	1120	43.23- 83.23	63.23
3.303	3.303	0.000	4252706	1000.00	1200	40.98- 80.98	60.98

Average of Peak Amounts = 1.1e+03

Data File: /chem/ecd1a.i/121609.b/006f0601.d
Date : 16-DEC-2009 07:21
Client ID: AR123201
Sample Info: IWAR090930-32

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1
Column diameter: 0.25

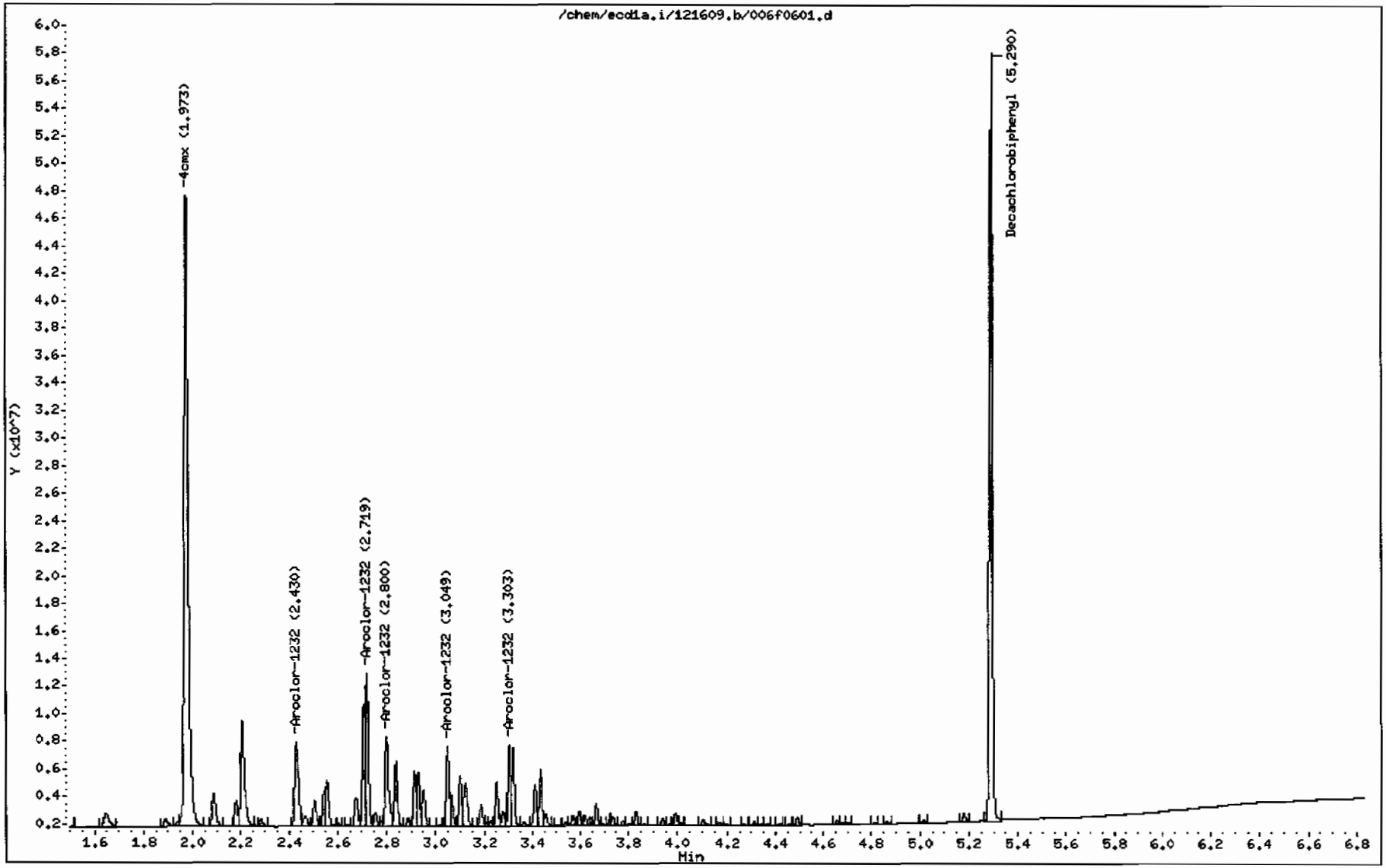

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/121609.b/006b0601.d
Lab Smp Id: WAR090930-32 Client Smp ID: AR123201
Inj Date : 16-DEC-2009 07:21
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR090930-32
Misc Info :
Comment :
Method : /chem/ecd1a.i/121609.b/ECD1-B-8082-121409.m
Meth Date : 17-Dec-2009 07:29 yip00818 Quant Type: ESTD
Cal Date : 14-DEC-2009 12:16 Cal File: 044b4401.d
Als bottle: 6 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1232.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.303	2.303	0.000	39106080	100.000	130	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.951	5.950	0.001	30315268	100.000	130	80.00- 120.00	100.00
3 Aroclor-1232					CAS #: 11141-16-5		
2.636	2.636	0.000	6130202	1000.00	996	80.00- 120.00	100.00
3.201	3.201	0.000	6920831	1000.00	1100	92.90- 132.90	112.90
3.284	3.284	0.000	4627388	1000.00	984	55.49- 95.49	75.49
3.575	3.575	0.000	3485394	1000.00	1070	36.86- 76.86	56.86
3.808	3.808	0.000	3484902	1000.00	1100	36.85- 76.85	56.85

Average of Peak Amounts = 1.05e+03

Data File: /chem/ecd1a.i/121609.b/006b0601.d
Date : 16-DEC-2009 07:21
Client ID: AR123201
Sample Info: IWAR090930-32

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1
Column diameter: 0.25

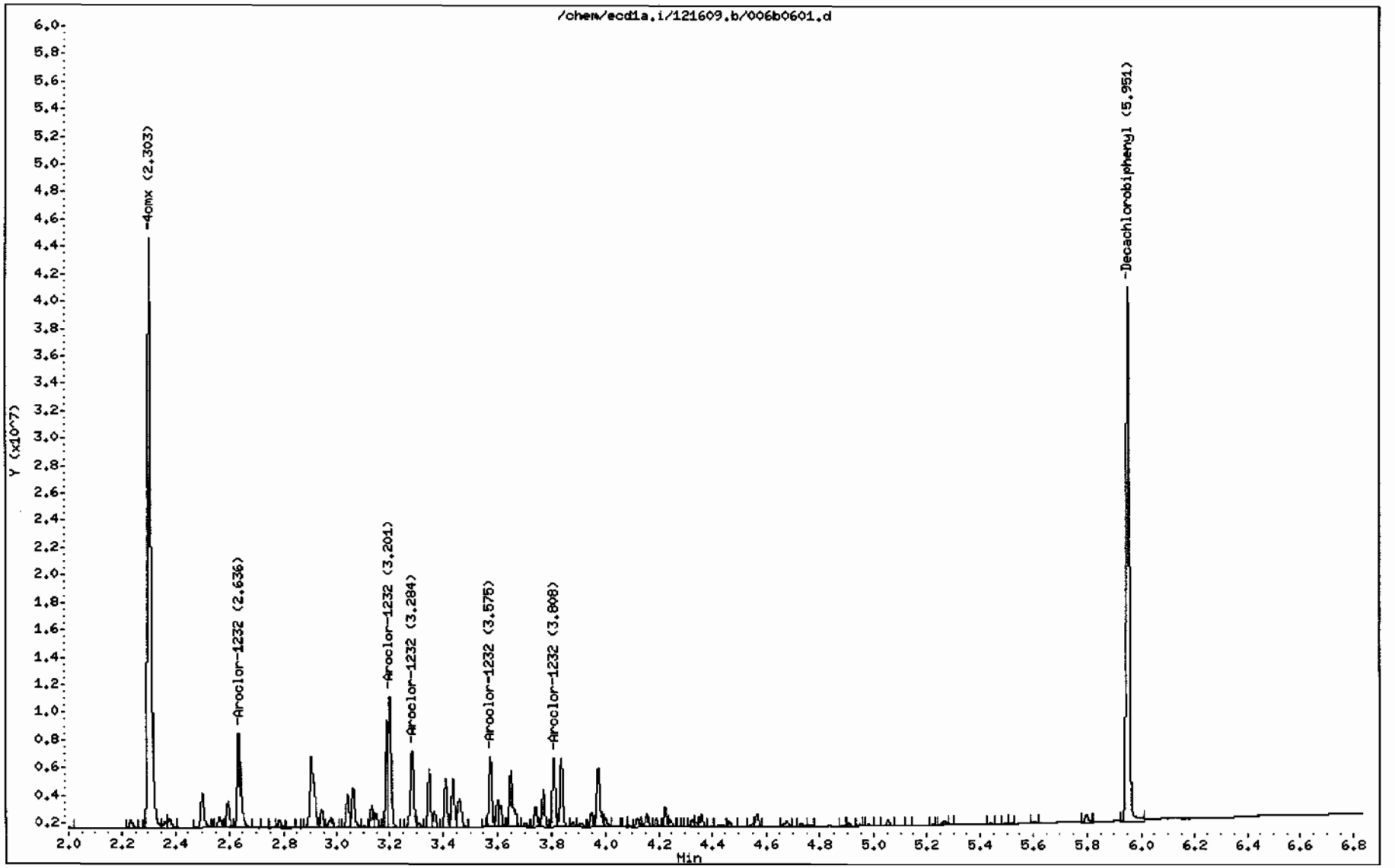

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RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/121609.b/008f0801.d
Lab Smp Id: WAR090803-21 Client Smp ID: AR122101
Inj Date : 16-DEC-2009 07:42
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR090803-21
Misc Info :
Comment :
Method : /chem/ecd1a.i/121609.b/ECD1-F-8082-121409.m
Meth Date : 17-Dec-2009 07:29 yip00818 Quant Type: ESTD
Cal Date : 14-DEC-2009 11:34 Cal File: 040f4001.d
Als bottle: 8 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1221.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.973	1.972	0.001	38649286	100.000	103	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.290	5.290	0.000	32840010	100.000	103	80.00- 120.00	100.00
2 Aroclor-1221					CAS #: 11104-28-2		
2.086	2.086	0.000	4438417	1000.00	1030	80.00- 120.00	100.00
2.180	2.180	0.000	2551623	1000.00	1040	37.49- 77.49	57.49
2.205	2.205	0.000	10731329	1000.00	1040	221.78- 261.78	241.78

Average of Peak Amounts = 1.04e+03

Data File: /chem/ecd1a.i/121609.b/008f0801.d

Date : 16-DEC-2009 07:42

Client ID: AR122101

Sample Info: IWAR090803-21

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

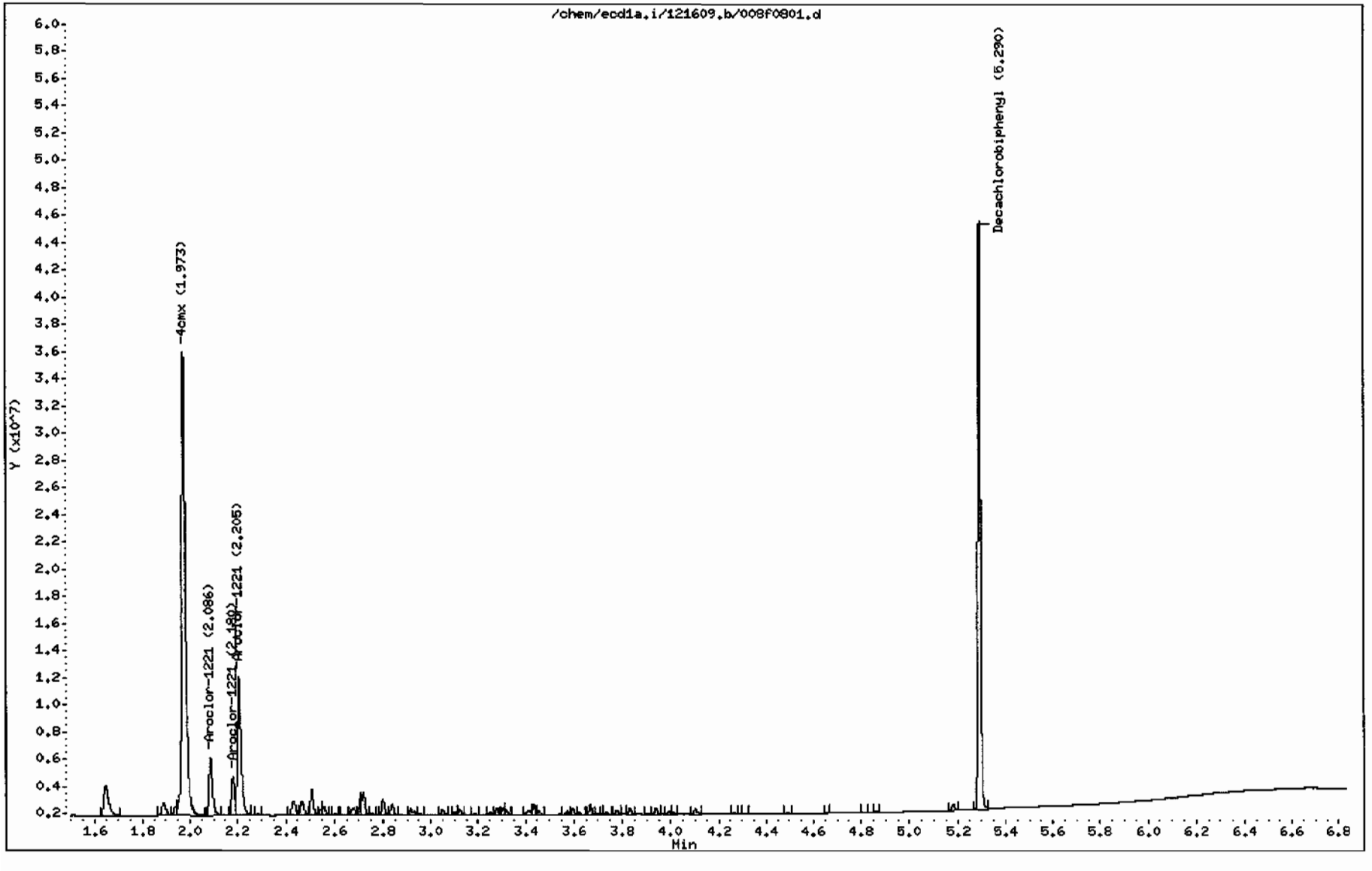

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/121609.b/008b0801.d
Lab Smp Id: WAR090803-21 Client Smp ID: AR122101
Inj Date : 16-DEC-2009 07:42
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR090803-21
Misc Info :
Comment :
Method : /chem/ecd1a.i/121609.b/ECD1-B-8082-121409.m
Meth Date : 17-Dec-2009 07:29 yip00818 Quant Type: ESTD
Cal Date : 14-DEC-2009 12:16 Cal File: 044b4401.d
Als bottle: 8 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1221.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.304	2.303	0.001	29456505	100.000	98.2	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.950	5.950	0.000	22953168	100.000	98.4	80.00- 120.00	100.00
2 Aroclor-1221					CAS #: 11104-28-2		
2.501	2.501	0.000	3643456	1000.00	1000	80.00- 120.00	100.00
2.595	2.595	0.000	2343599	1000.00	1010	44.32- 84.32	64.32
2.636	2.636	0.000	8187844	1000.00	1010	204.73- 244.73	224.73

Average of Peak Amounts = 1.01e+03

Data File: /chem/ecd1a.i/121609.b/008b0801.d
Date : 16-DEC-2009 07:42
Client ID: AR122101
Sample Info: IWAR090803-21

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1
Column diameter: 0.25

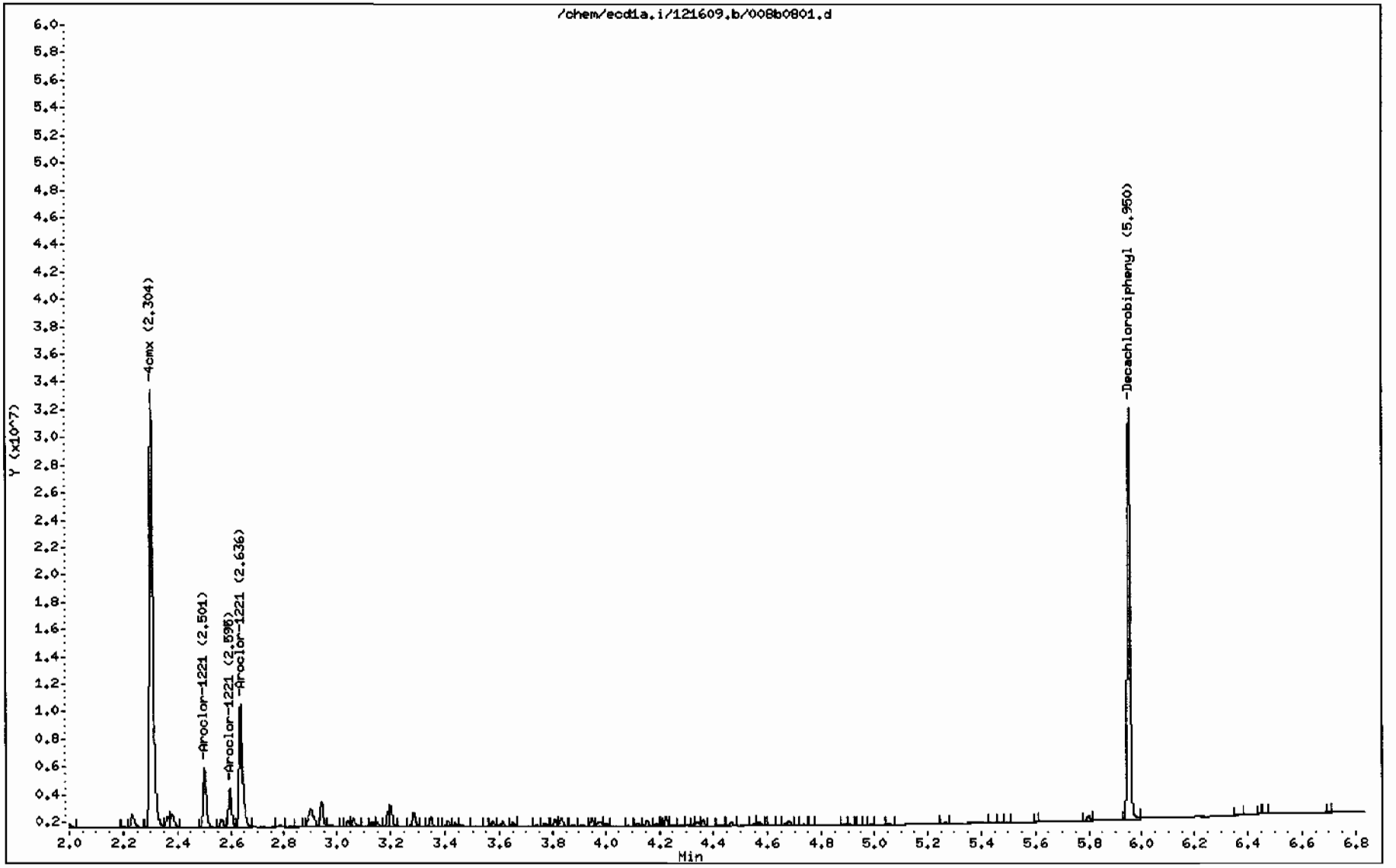

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/121609.b/011f1101.d
Lab Smp Id: WAR091216-54 Client Smp ID: AR125401
Inj Date : 16-DEC-2009 08:13
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR091216-54
Misc Info :
Comment :
Method : /chem/ecd1a.i/121609.b/ECD1-F-8082-121409.m
Meth Date : 17-Dec-2009 07:29 yip00818 Quant Type: ESTD
Cal Date : 14-DEC-2009 11:34 Cal File: 040f4001.d
Als bottle: 11 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1254.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.973	1.972	0.001	37462929	100.000	99.7	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.289	5.290	-0.001	32062309	100.000	101	80.00- 120.00	100.00
6 Aroclor-1254					CAS #: 11097-69-1		
3.277	3.277	0.000	11740439	1000.00	940	80.00- 120.00	100.00
3.433	3.433	0.000	16181025	1000.00	968	117.82- 157.82	137.82
3.667	3.667	0.000	21464495	1000.00	1040	162.83- 202.83	182.83
3.830	3.830	0.000	16587894	1000.00	1060	121.29- 161.29	141.29
3.939	3.939	0.000	15558659	1000.00	1020	112.52- 152.52	132.52

Average of Peak Amounts = 1.01e+03

Data File: /chem/ecd1a.i/121609.b/011f1101.d

Date : 16-DEC-2009 08:13

Client ID: AR125401

Sample Info: IWAR091216-54

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

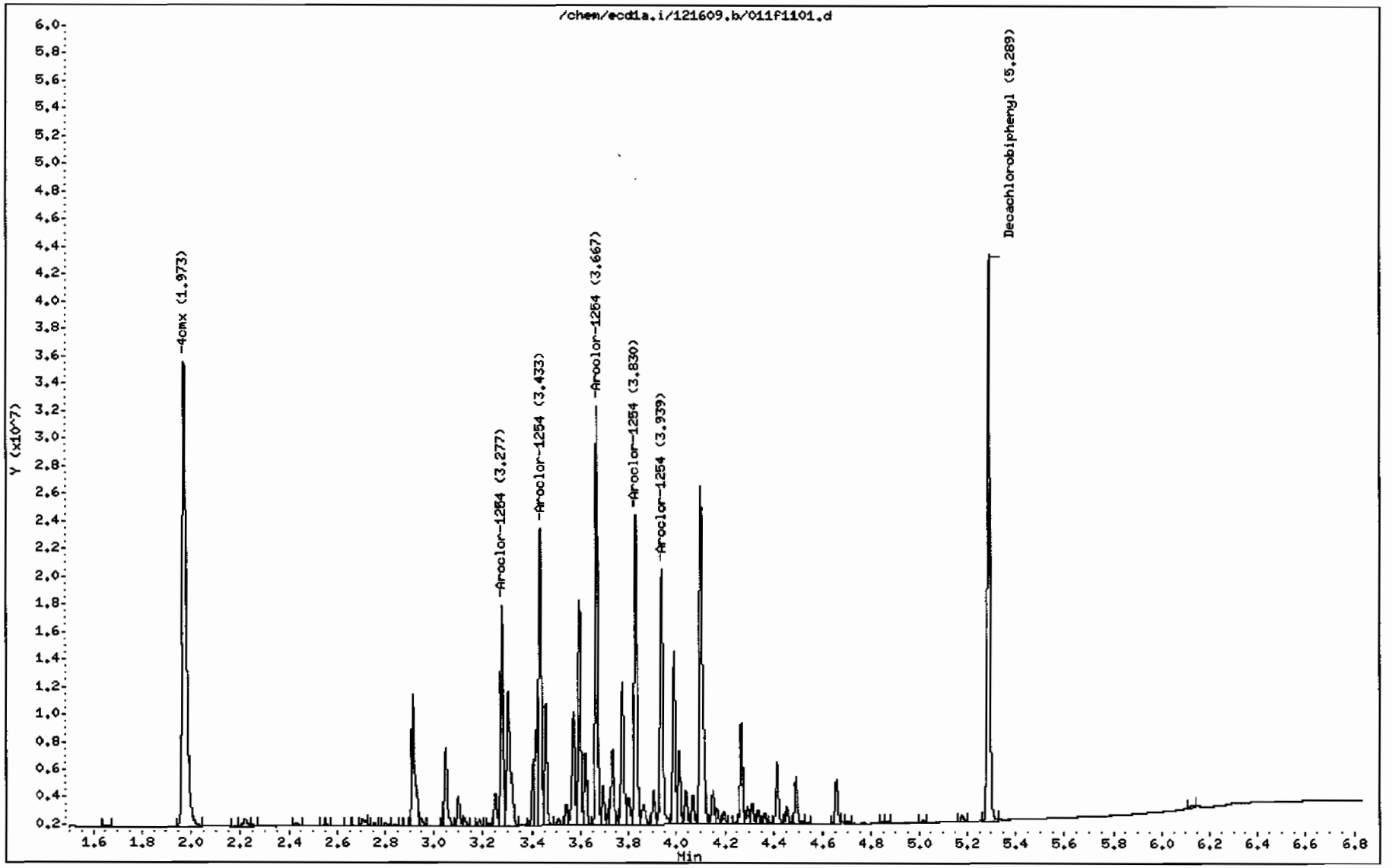

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/121609.b/011b1101.d
Lab Smp Id: WAR091216-54 Client Smp ID: AR125401
Inj Date : 16-DEC-2009 08:13
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR091216-54
Misc Info :
Comment :
Method : /chem/ecd1a.i/121609.b/ECD1-B-8082-121409.m
Meth Date : 17-Dec-2009 07:29 yip00818 Quant Type: ESTD
Cal Date : 14-DEC-2009 12:16 Cal File: 044b4401.d
Als bottle: 11 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1254.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.303	2.303	0.000	29140043	100.000	97.1	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.950	5.950	0.000	22581159	100.000	96.8	80.00- 120.00	100.00
6 Aroclor-1254					CAS #: 11097-69-1		
3.409	3.409	0.000	5764247	1000.00	896	80.00- 120.00	100.00
3.832	3.832	0.000	10391118	1000.00	899	160.27- 200.27	180.27
3.947	3.947	0.000	11639160	1000.00	936	181.92- 221.92	201.92
4.224	4.224	0.000	16398545	1000.00	971	264.49- 304.49	284.49
4.360	4.360	0.000	12242599	1000.00	984	192.39- 232.39	212.39
Average of Peak Amounts =					937		

Data File: /chem/ecd1a.i/121609.b/011b1101.d

Date : 16-DEC-2009 08:13

Client ID: AR125401

Sample Info: IWAR091216-54

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

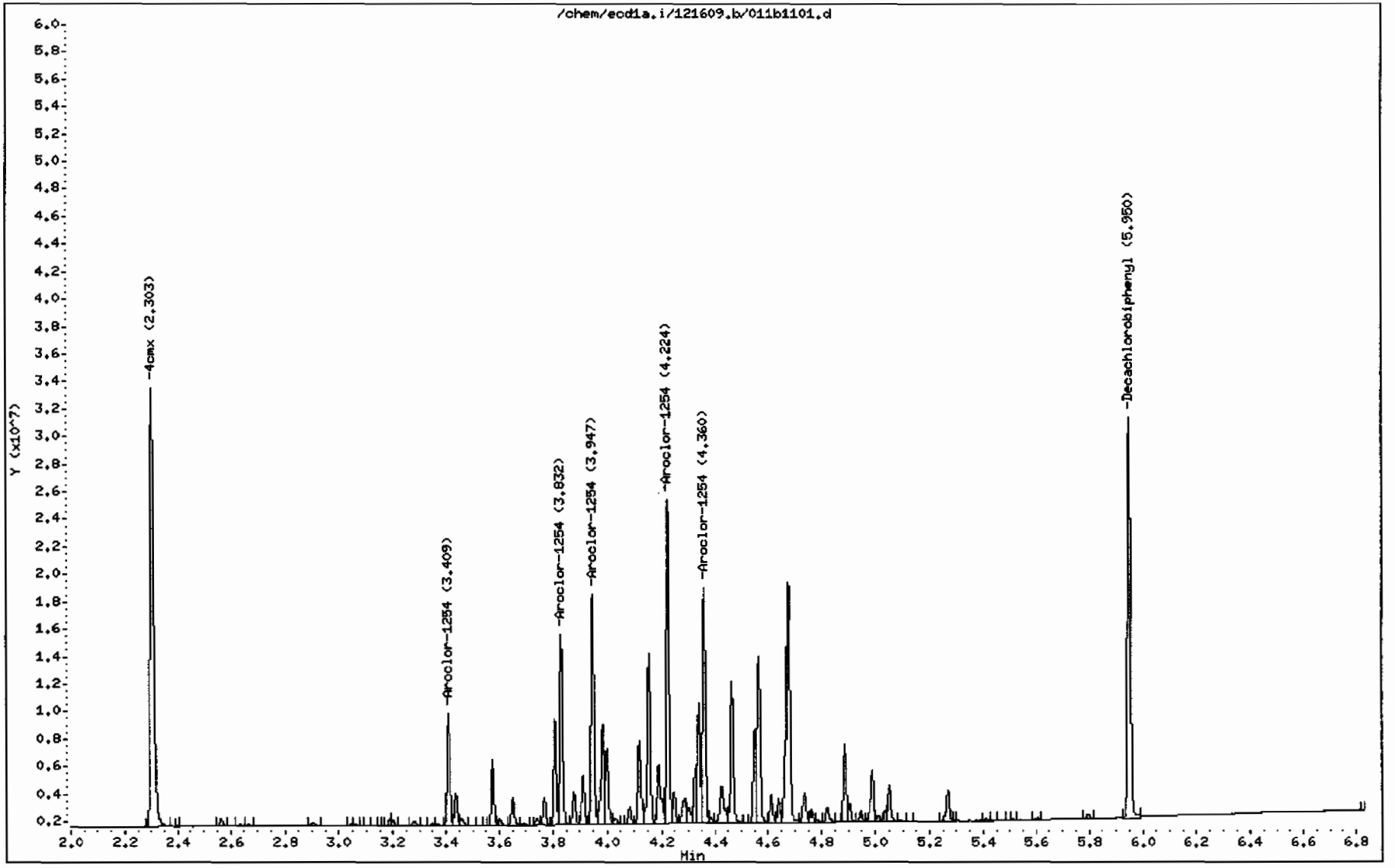

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RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/121609.b/050f5001.d
Lab Smp Id: WAR091211-60 05 Client Smp ID: AR166005
Inj Date : 16-DEC-2009 16:00
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR091211-60 05
Misc Info :
Comment :
Method : /chem/ecd1a.i/121609.b/ECD1-F-8082-121409.m
Meth Date : 16-Dec-2009 16:54 yip00818 Quant Type: ESTD
Cal Date : 14-DEC-2009 11:34 Cal File: 040f4001.d
Als bottle: 50 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.973	1.972	0.001	37815004	100.000	101	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.287	5.290	-0.003	30724606	100.000	96.8	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.428	2.430	-0.002	12501405	1000.00	902	80.00- 120.00	100.00
2.706	2.707	-0.001	10743225	1000.00	1060	65.94- 105.94	85.94
2.798	2.800	-0.002	10715850	1000.00	911	65.72- 105.72	85.72
2.836	2.837	-0.001	6502213	1000.00	985	32.01- 72.01	52.01
3.047	3.048	-0.001	8295816	1000.00	956	46.36- 86.36	66.36
Average of Peak Amounts =					964		
7 Aroclor-1260					CAS #: 11096-82-5		
3.773	3.775	-0.002	16419827	1000.00	980	80.00- 120.00	100.00
3.936	3.938	-0.002	25459040	1000.00	1030	135.05- 175.05	155.05
4.166	4.168	-0.002	15089459	1000.00	1030	71.90- 111.90	91.90
4.309	4.312	-0.003	15503850	1000.00	1020	74.42- 114.42	94.42
4.488	4.491	-0.003	36107879	1000.00	1050	199.90- 239.90	219.90
Average of Peak Amounts =					1.02e+03		

Data File: /chem/ecd1a.i/121609.b/050f5001.d
Date : 16-DEC-2009 16:00
Client ID: AR166005
Sample Info: IWAR091211-60 05

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1
Column diameter: 0.25

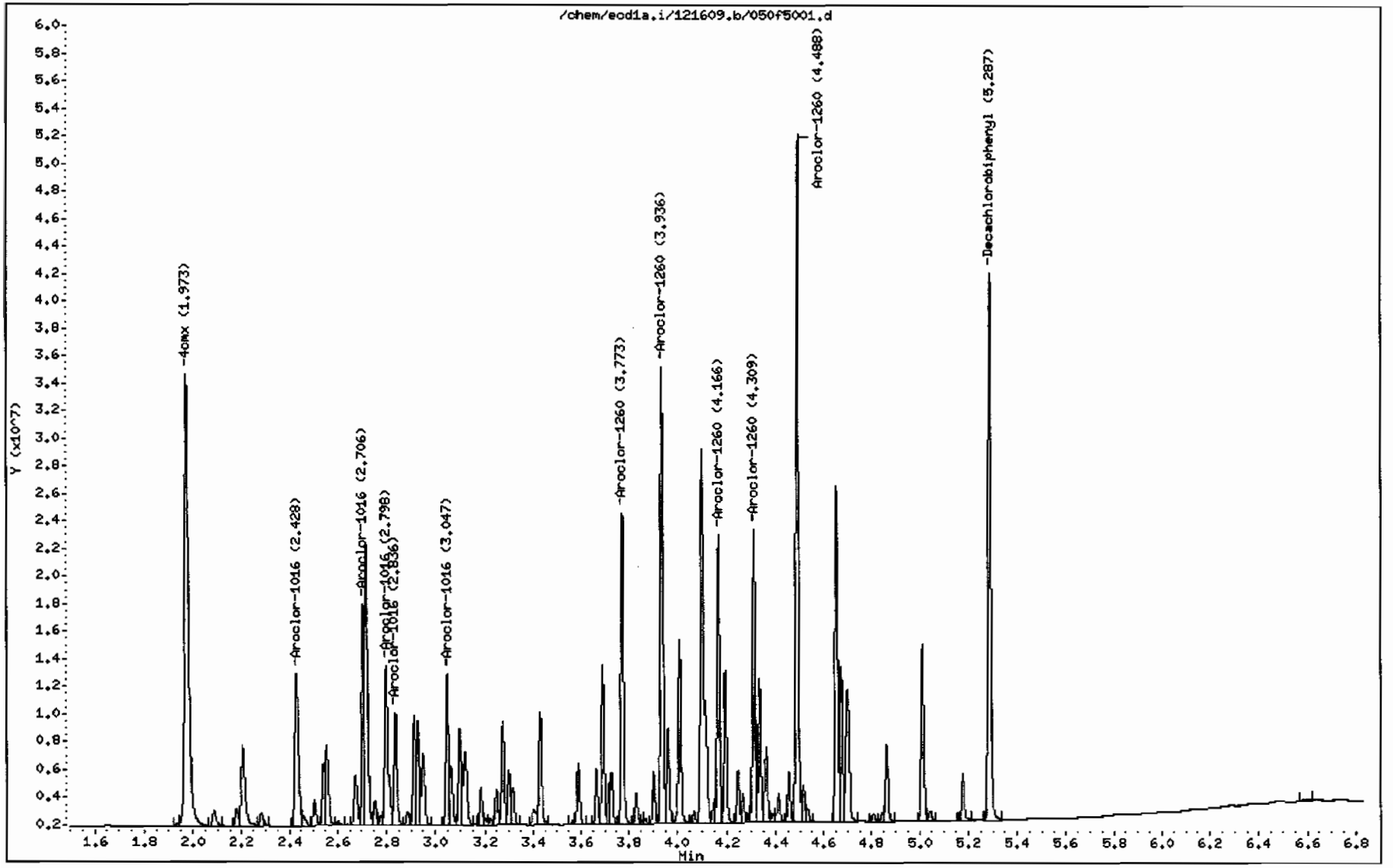

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/121609.b/050b5001.d
Lab Smp Id: WAR091211-60 05 Client Smp ID: AR166005
Inj Date : 16-DEC-2009 16:00
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR091211-60 05
Misc Info :
Comment :
Method : /chem/ecd1a.i/121609.b/ECD1-B-8082-121409.m
Meth Date : 16-Dec-2009 16:55 yip00818 Quant Type: ESTD
Cal Date : 14-DEC-2009 12:16 Cal File: 044b4401.d
Als bottle: 50 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.303	2.303	0.000	29117426	100.000	97.0	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.949	5.950	-0.001	21513844	100.000	92.2	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.199	3.201	-0.002	12399906	1000.00	983	80.00- 120.00	100.00(M)
3.283	3.283	0.000	8081502	1000.00	866	45.17- 85.17	65.17
3.346	3.347	-0.001	5006397	1000.00	925	20.37- 60.37	40.37
3.573	3.574	-0.001	6299966	1000.00	893	30.81- 70.81	50.81
3.648	3.650	-0.002	6004756	1000.00	917	28.43- 68.43	48.43
Average of Peak Amounts =					917		
7 Aroclor-1260					CAS #: 11096-82-5		
4.339	4.341	-0.002	12350992	1000.00	903	80.00- 120.00	100.00
4.463	4.465	-0.002	15214728	1000.00	949	103.19- 143.19	123.19
4.730	4.731	-0.001	11569713	1000.00	921	73.67- 113.67	93.67
4.903	4.905	-0.002	11722896	1000.00	915	74.91- 114.91	94.91
5.050	5.052	-0.002	26851487	1000.00	962	197.40- 237.40	217.40
Average of Peak Amounts =					930		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd1a.i/121609.b/050b5001.d
Date : 16-DEC-2009 16:00
Client ID: AR166005
Sample Info: IWAR091211-60 05
Column phase: CLP2

Instrument: ecd1a.i
Operator: YSI
Column diameter: 0.25

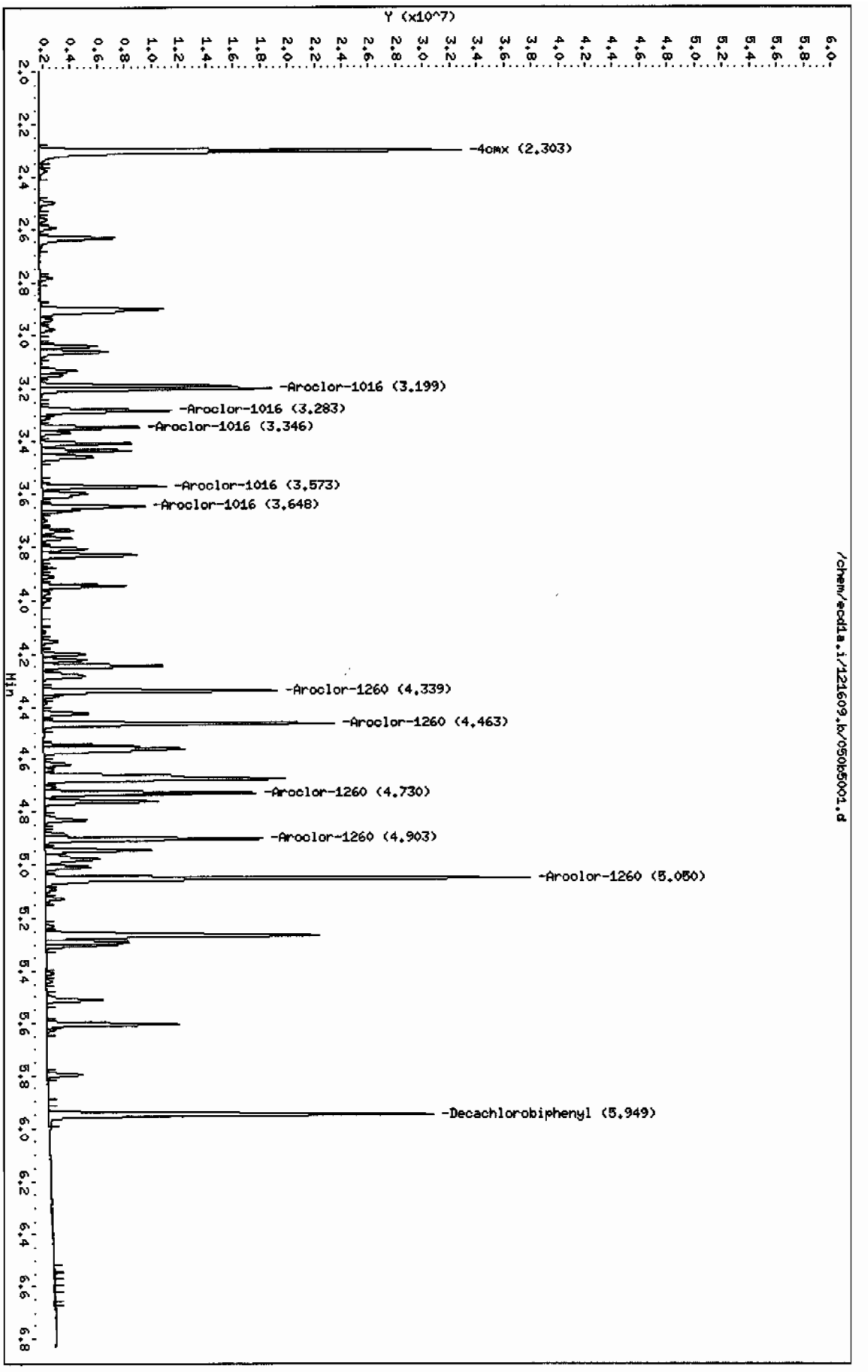

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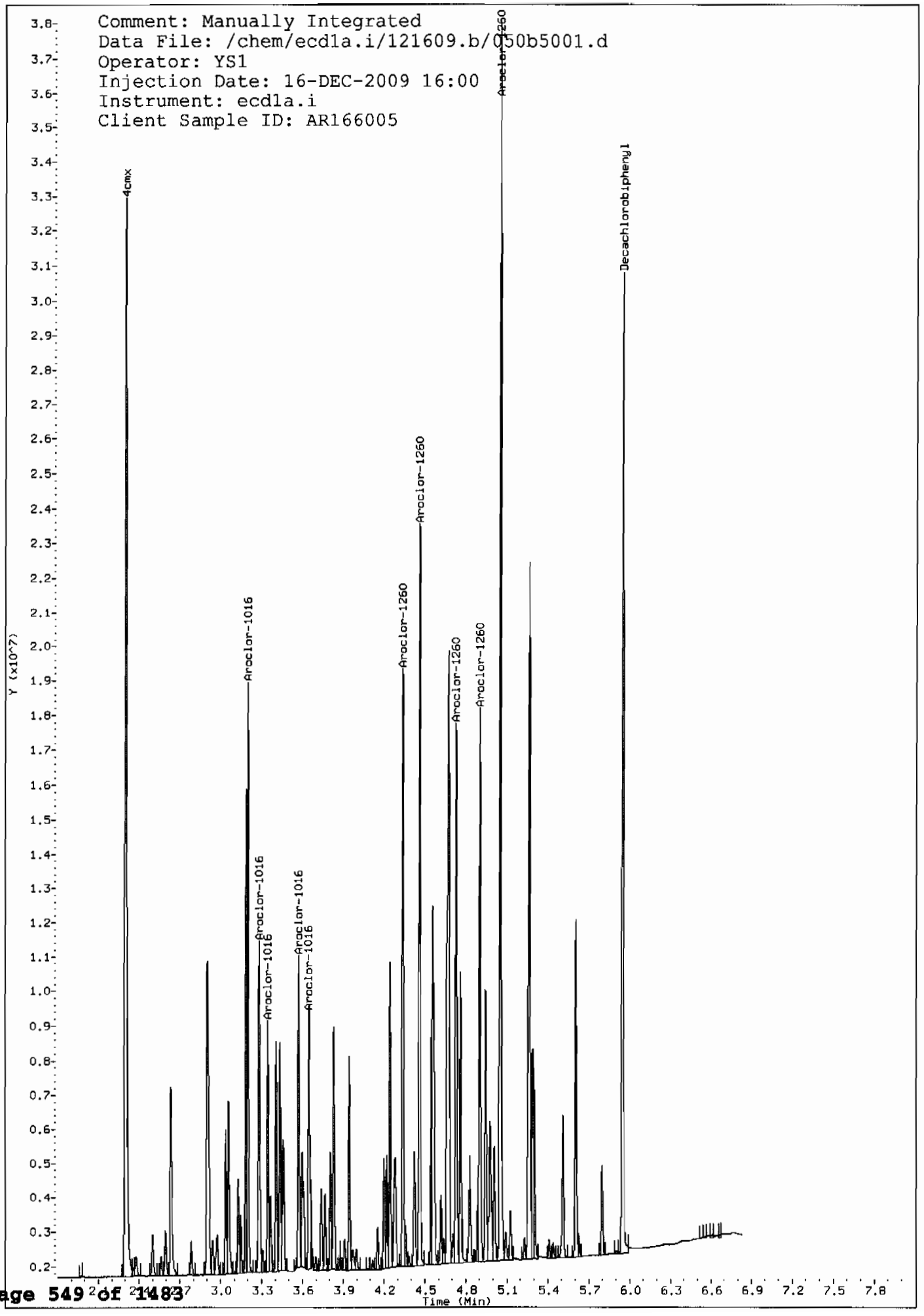
Comment: Manually Integrated
Data File: /chem/ecd1a.i/121609.b/050b5001.d
Operator: YS1
Injection Date: 16-DEC-2009 16:00
Instrument: ecd1a.i
Client Sample ID: AR166005
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

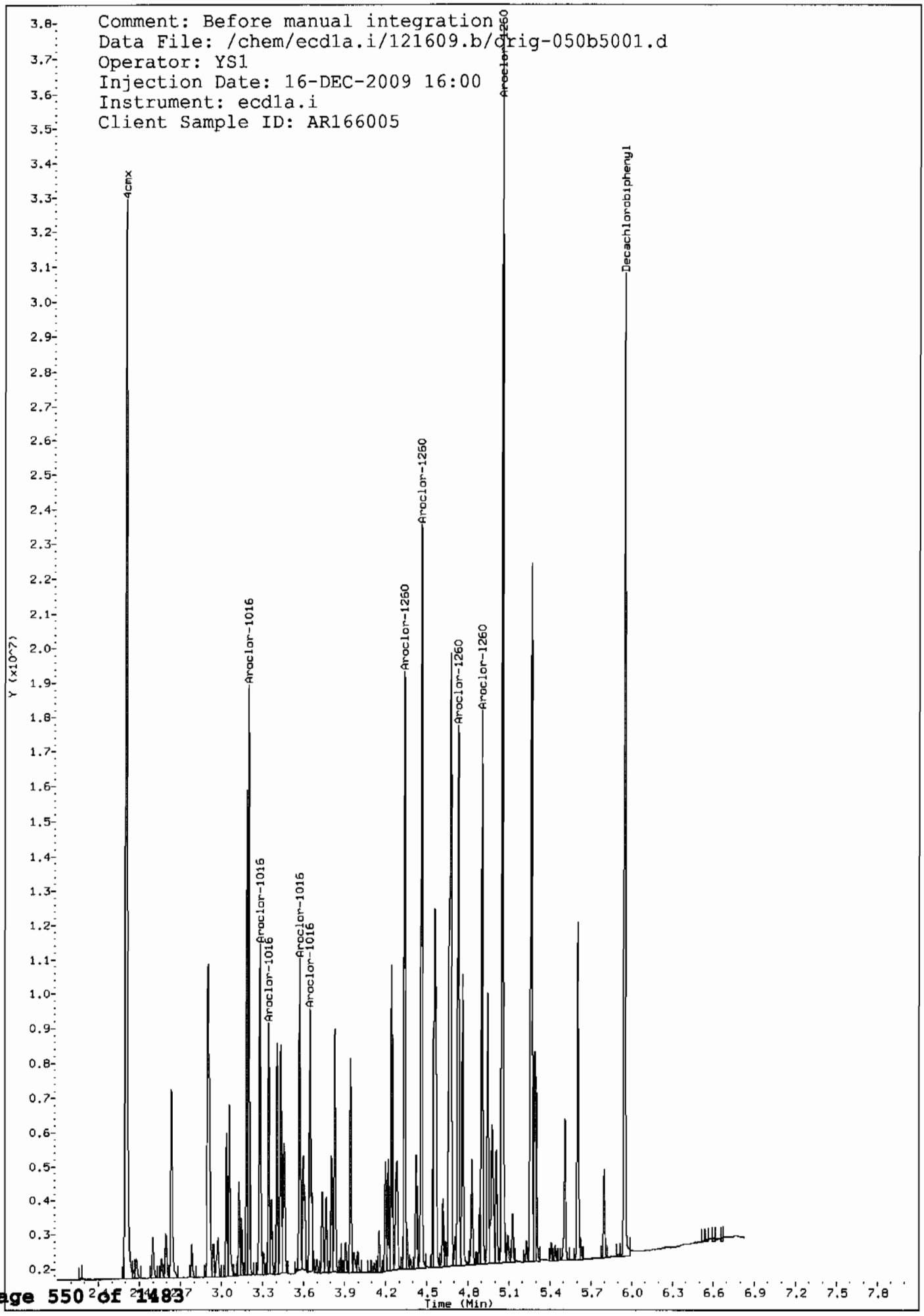
Comment: Before manual integration
Data File: /chem/ecd1a.i/121609.b/drig-050b5001.d
Operator: YS1
Injection Date: 16-DEC-2009 16:00
Instrument: ecd1a.i
Client Sample ID: AR166005
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/121609.b/062f6201.d
Lab Smp Id: WAR091211-60 06 Client Smp ID: AR166006
Inj Date : 16-DEC-2009 18:23
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR091211-60 06
Misc Info :
Comment :
Method : /chem/ecd1a.i/121609.b/ECD1-F-8082-121409.m
Meth Date : 17-Dec-2009 07:24 yip00818 Quant Type: ESTD
Cal Date : 14-DEC-2009 11:34 Cal File: 040f4001.d
Als bottle: 62 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

AMOUNTS

RT	EXP RT	DLT RT	RESPONSE	CAL-AMT (ug/L)	ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.973	1.972	0.001	37393177	100.000	99.5	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.287	5.290	-0.003	32000962	100.000	101	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.429	2.430	-0.001	12394036	1000.00	894	80.00- 120.00	100.00
2.706	2.707	-0.001	10254172	1000.00	1020	62.73- 102.73	82.73
2.798	2.800	-0.002	10707281	1000.00	911	66.39- 106.39	86.39
2.837	2.837	0.000	6451324	1000.00	978	32.05- 72.05	52.05
3.047	3.048	-0.001	8202521	1000.00	946	46.18- 86.18	66.18
Average of Peak Amounts =					949		
7 Aroclor-1260					CAS #: 11096-82-5		
3.773	3.775	-0.002	16703466	1000.00	997	80.00- 120.00	100.00
3.937	3.938	-0.001	25828003	1000.00	1040	134.63- 174.63	154.63
4.167	4.168	-0.001	15347448	1000.00	1040	71.88- 111.88	91.88
4.310	4.312	-0.002	15947036	1000.00	1050	75.47- 115.47	95.47
4.489	4.491	-0.002	37170253	1000.00	1080	202.53- 242.53	222.53
Average of Peak Amounts =					1.04e+03		

Data File: /chem/ecd1a.i/121609.b/062f6201.d
Date : 16-DEC-2009 18:23
Client ID: AR166006
Sample Info: IWAR091211-60 06

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1
Column diameter: 0.25

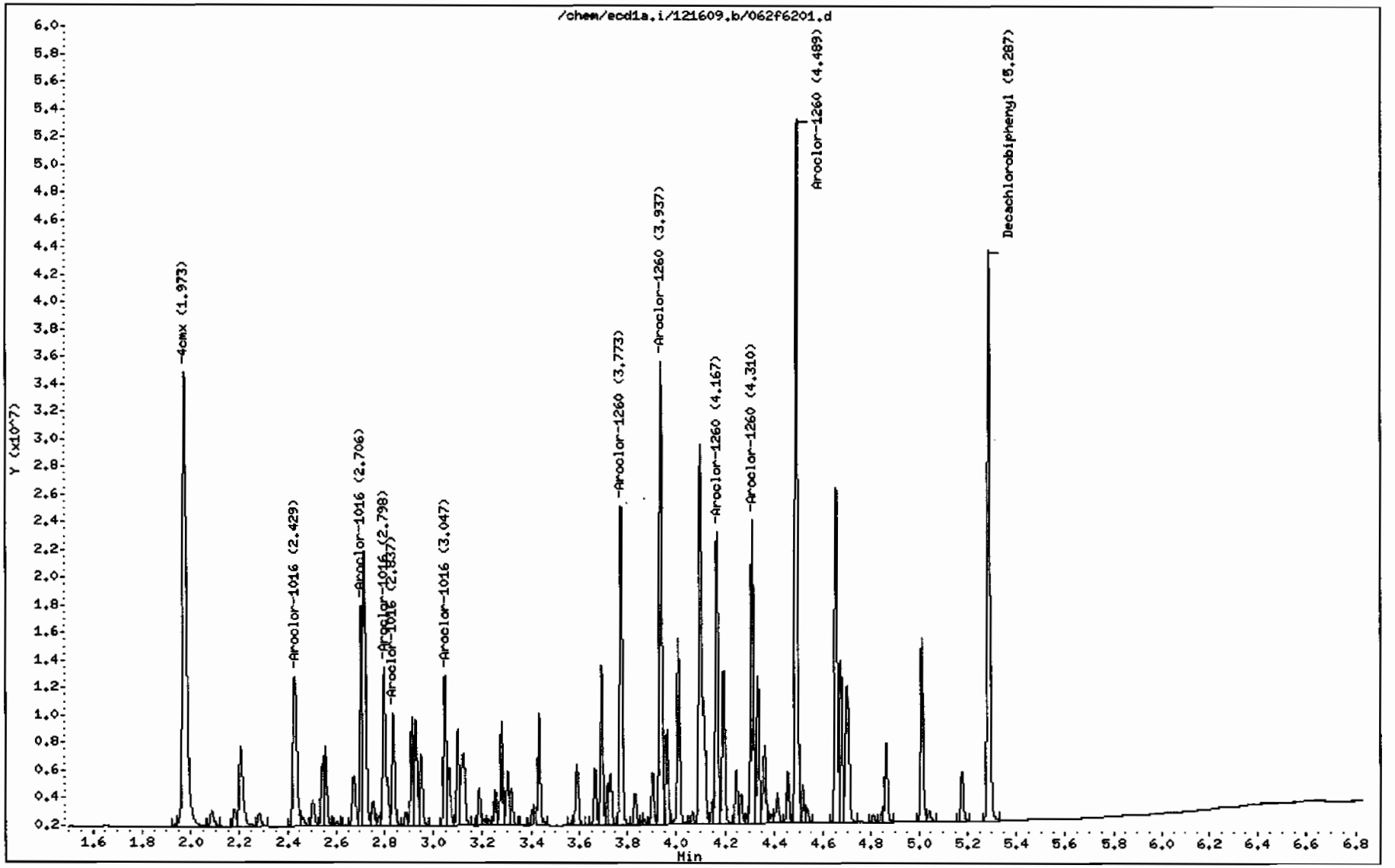

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/121609.b/062b6201.d
Lab Smp Id: WAR091211-60 06 Client Smp ID: AR166006
Inj Date : 16-DEC-2009 18:23
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR091211-60 06
Misc Info :
Comment :
Method : /chem/ecd1a.i/121609.b/ECD1-B-8082-121409.m
Meth Date : 17-Dec-2009 07:24 yip00818 Quant Type: ESTD
Cal Date : 14-DEC-2009 12:16 Cal File: 044b4401.d
Als bottle: 62 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.302	2.303	-0.001	28678932	100.000	95.6	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.949	5.950	-0.001	22978104	100.000	98.5	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.200	3.201	-0.001	12305259	1000.00	976	80.00- 120.00	100.00
3.282	3.283	-0.001	8093066	1000.00	868	45.77- 85.77	65.77
3.347	3.347	0.000	5040305	1000.00	931	20.96- 60.96	40.96
3.573	3.574	-0.001	6572321	1000.00	932	33.41- 73.41	53.41
3.649	3.650	-0.001	6083776	1000.00	929	29.44- 69.44	49.44
Average of Peak Amounts =					927		
7 Aroclor-1260					CAS #: 11096-82-5		
4.339	4.341	-0.002	12697285	1000.00	928	80.00- 120.00	100.00
4.464	4.465	-0.001	15734960	1000.00	982	103.92- 143.92	123.92
4.730	4.731	-0.001	11992577	1000.00	954	74.45- 114.45	94.45
4.904	4.905	-0.001	12265433	1000.00	957	76.60- 116.60	96.60
5.051	5.052	-0.001	28097085	1000.00	1010	201.28- 241.28	221.28
Average of Peak Amounts =					966		

Data File: /chem/ecd1a.i/121609.b/062b6201.d

Date : 16-DEC-2009 18:23

Client ID: AR166006

Sample Info: IWAR091211-60 06

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

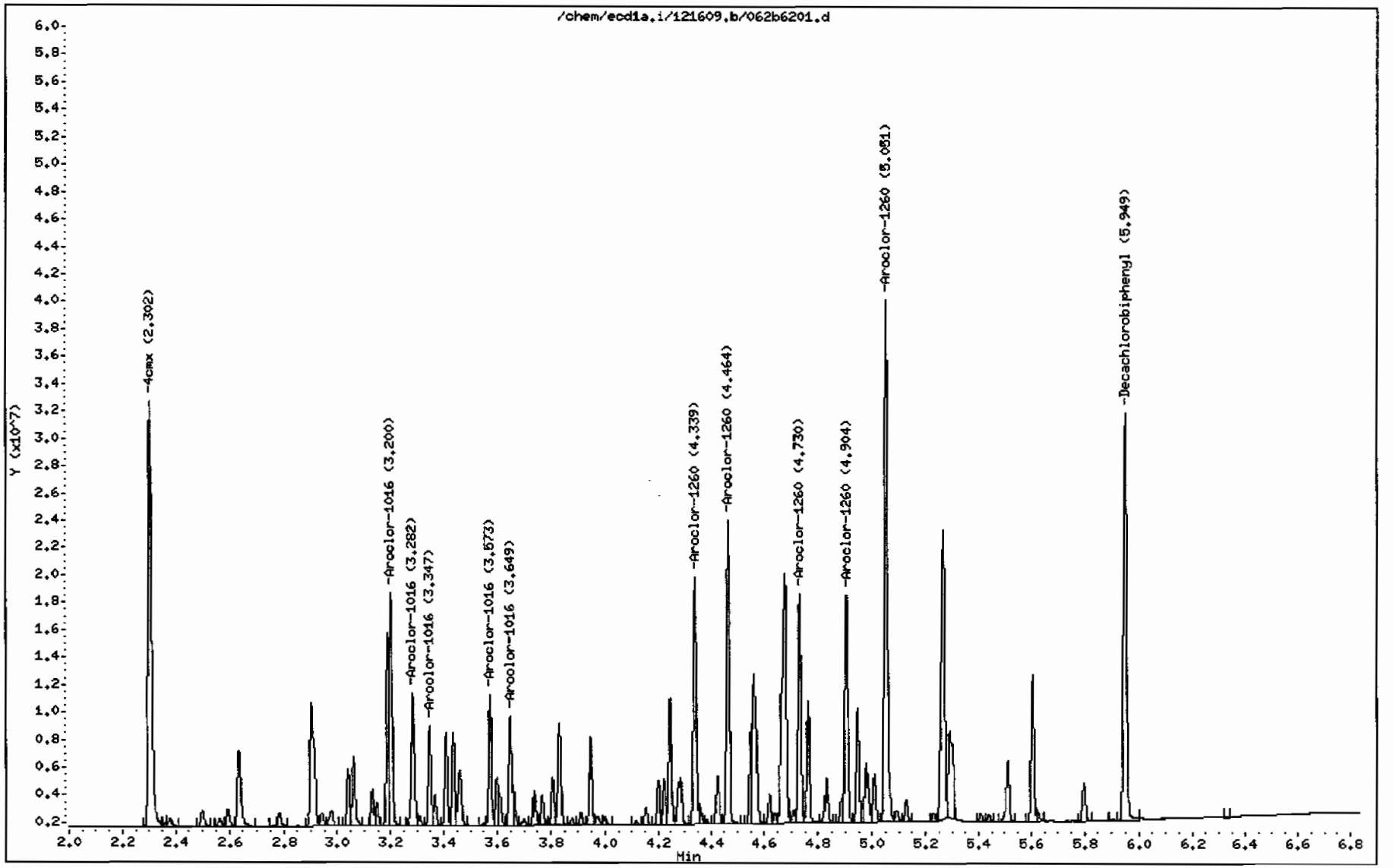

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/121609.b/074f7401.d
Lab Smp Id: WAR091211-60 07 Client Smp ID: AR166007
Inj Date : 16-DEC-2009 20:40
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR091211-60 07
Misc Info :
Comment :
Method : /chem/ecd1a.i/121609.b/ECD1-F-8082-121409.m
Meth Date : 17-Dec-2009 07:27 yip00818 Quant Type: ESTD
Cal Date : 14-DEC-2009 11:34 Cal File: 040f4001.d
Als bottle: 74 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

AMOUNTS

RT	EXP RT	DLT RT	RESPONSE	CAL-AMT (ug/L)	ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.973	1.972	0.001	37891425	100.000	101	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.289	5.290	-0.001	33820053	100.000	106	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.430	2.430	0.000	12623170	1000.00	910	80.00- 120.00	100.00
2.707	2.707	0.000	10375463	1000.00	1030	62.19- 102.19	82.19
2.800	2.800	0.000	10910427	1000.00	928	66.43- 106.43	86.43
2.837	2.837	0.000	6595514	1000.00	999	32.25- 72.25	52.25
3.048	3.048	0.000	8456798	1000.00	975	46.99- 86.99	66.99
Average of Peak Amounts =					968		
7 Aroclor-1260					CAS #: 11096-82-5		
3.775	3.775	0.000	17089467	1000.00	1020	80.00- 120.00	100.00
3.937	3.938	-0.001	26332086	1000.00	1060	134.08- 174.08	154.08
4.168	4.168	0.000	15762712	1000.00	1070	72.24- 112.24	92.24
4.312	4.312	0.000	16442080	1000.00	1080	76.21- 116.21	96.21
4.490	4.491	-0.001	38210492	1000.00	1110	203.59- 243.59	223.59
Average of Peak Amounts =					1.07e+03		

Data File: /chem/ecd1a.i/121609.b/074f7401.d
Date : 16-DEC-2009 20:40
Client ID: AR166007
Sample Info: IWAR091211-60 07

Column phase: CLP1

Instrument: ecd1a.i
Operator: YSI
Column diameter: 0.25

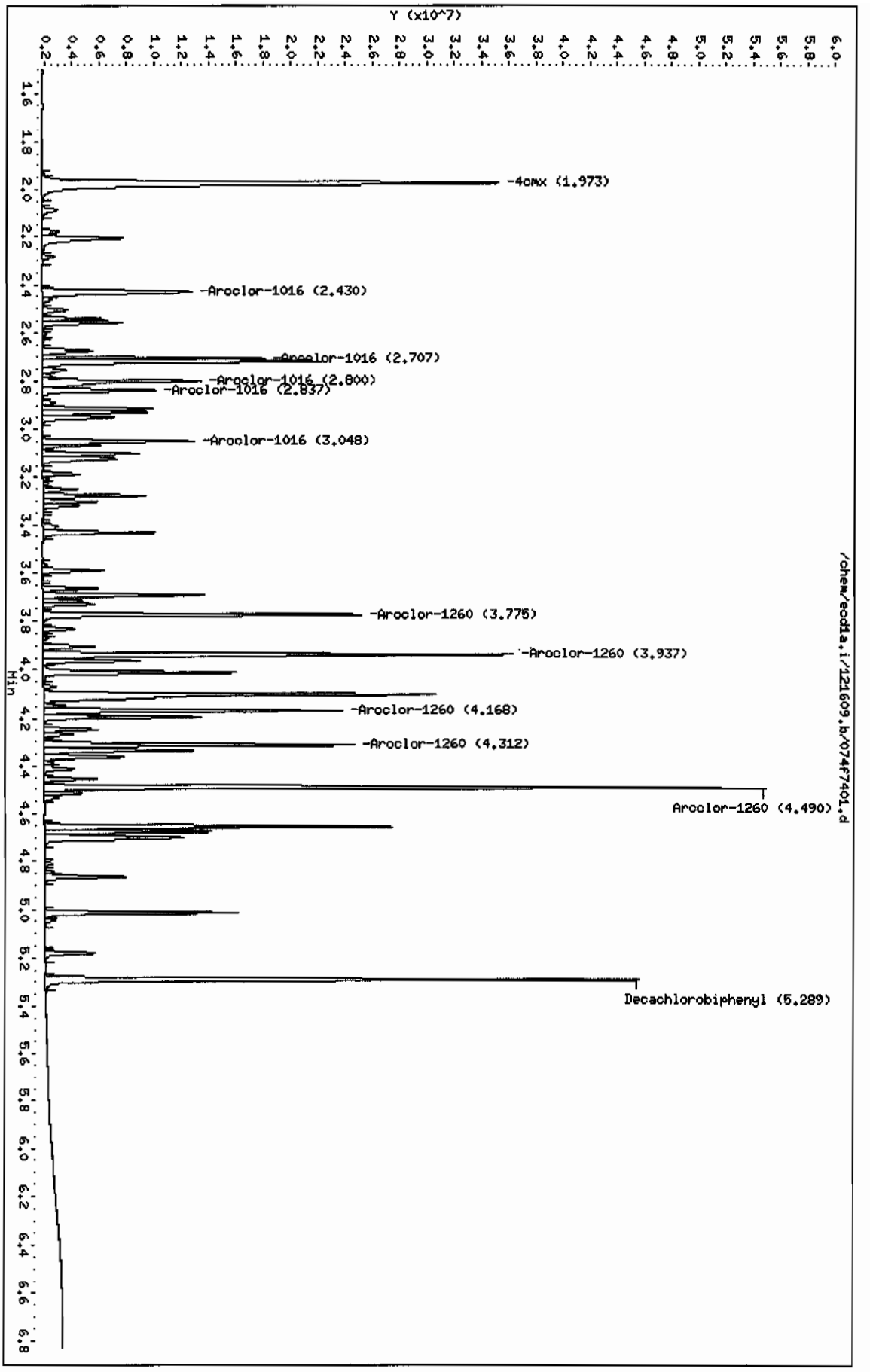

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GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/121609.b/074b7401.d
Lab Smp Id: WAR091211-60 07 Client Smp ID: AR166007
Inj Date : 16-DEC-2009 20:40
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR091211-60 07
Misc Info :
Comment :
Method : /chem/ecd1a.i/121609.b/ECD1-B-8082-121409.m
Meth Date : 17-Dec-2009 07:29 yip00818 Quant Type: ESTD
Cal Date : 14-DEC-2009 12:16 Cal File: 044b4401.d
Als bottle: 74 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.303	2.303	0.000	29138003	100.000	97.1	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.950	5.950	0.000	24004054	100.000	103	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.201	3.201	0.000	12209331	1000.00	968	80.00- 120.00	100.00(M)
3.283	3.283	0.000	8213389	1000.00	880	44.88- 84.88	67.27
3.347	3.347	0.000	5122341	1000.00	946	20.66- 60.66	41.95
3.574	3.574	0.000	6728405	1000.00	954	32.99- 72.99	55.11
3.650	3.650	0.000	6261393	1000.00	956	28.99- 68.99	51.28
Average of Peak Amounts =					941		
7 Aroclor-1260					CAS #: 11096-82-5		
4.340	4.341	-0.001	12999600	1000.00	950	80.00- 120.00	100.00
4.464	4.465	-0.001	16027792	1000.00	1000	104.06- 144.06	123.29
4.731	4.731	0.000	12333615	1000.00	982	75.41- 115.41	94.88
4.904	4.905	-0.001	12672775	1000.00	989	77.99- 117.99	97.49
5.051	5.052	-0.001	29076757	1000.00	1040	204.52- 244.52	223.67
Average of Peak Amounts =					993		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecdla.i/121609.b/074b7401.d
Date : 16-DEC-2009 20:40
Client ID: AR166007
Sample Info: IWAR091211-60 07

Column phase: CLP2

Instrument: ecdla.i
Operator: YSI
Column diameter: 0.25

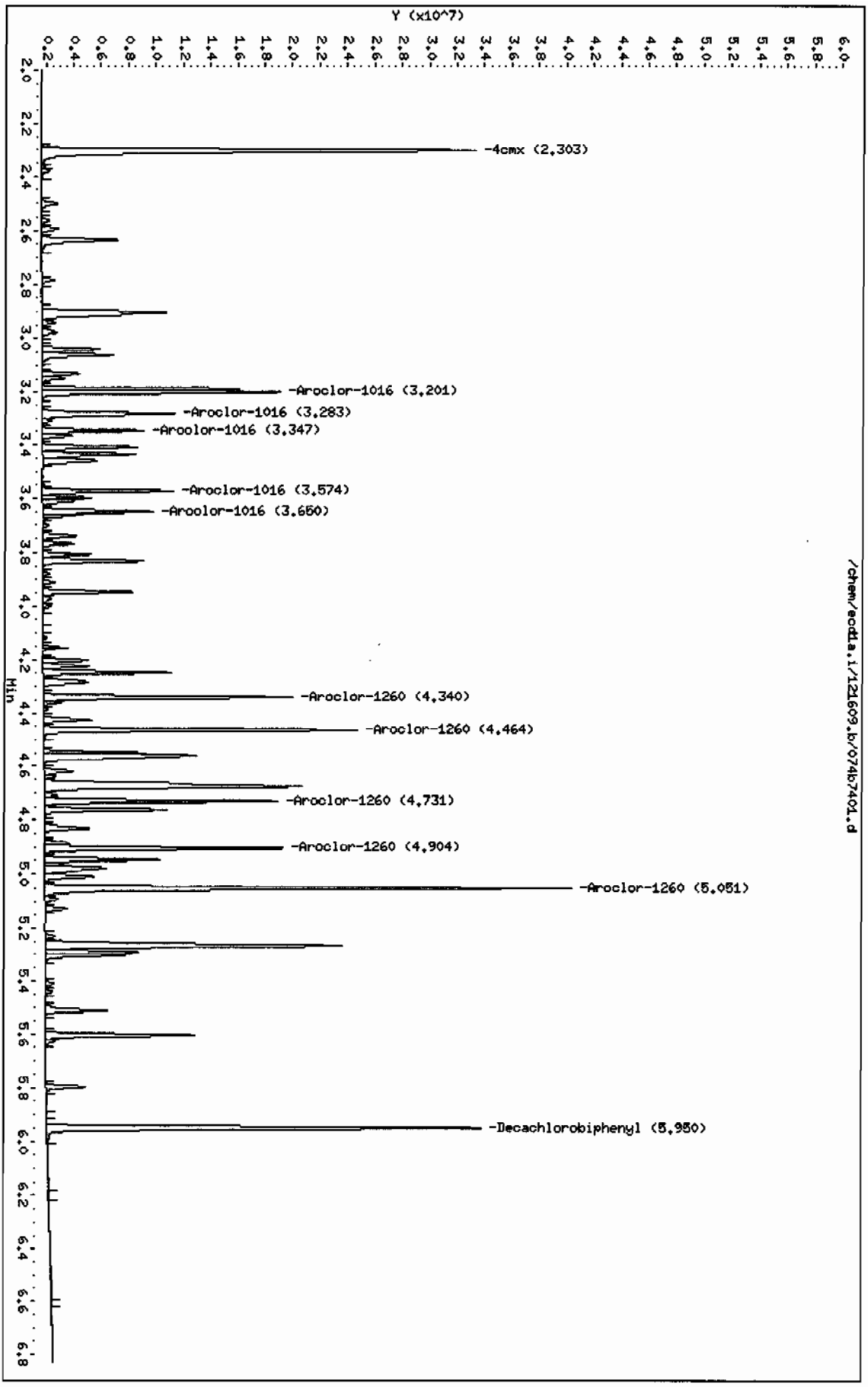

Page 1

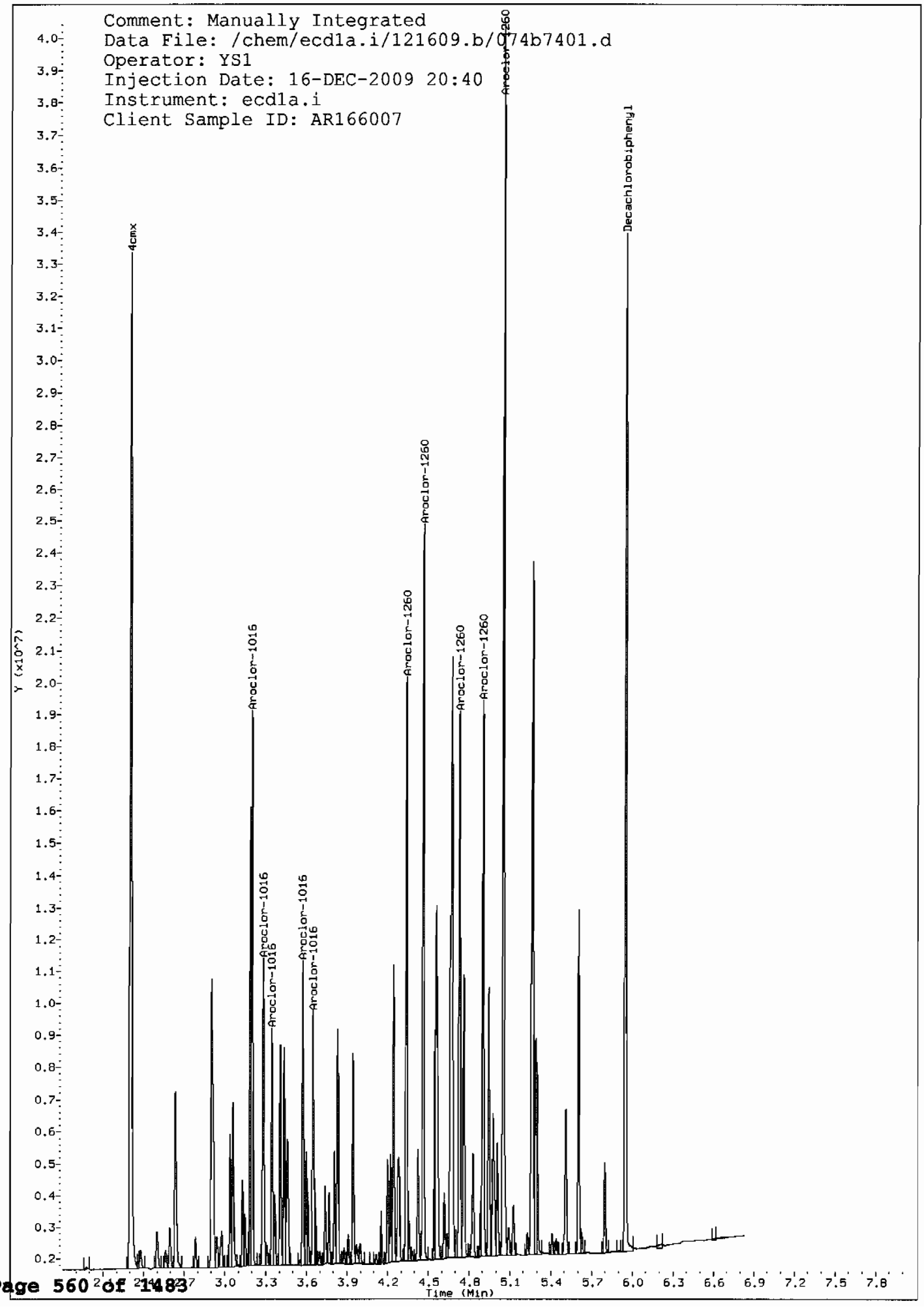
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Operator: YS1
Injection Date: 16-DEC-2009 20:40
Instrument: ecd1a.i
Client Sample ID: AR166007
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

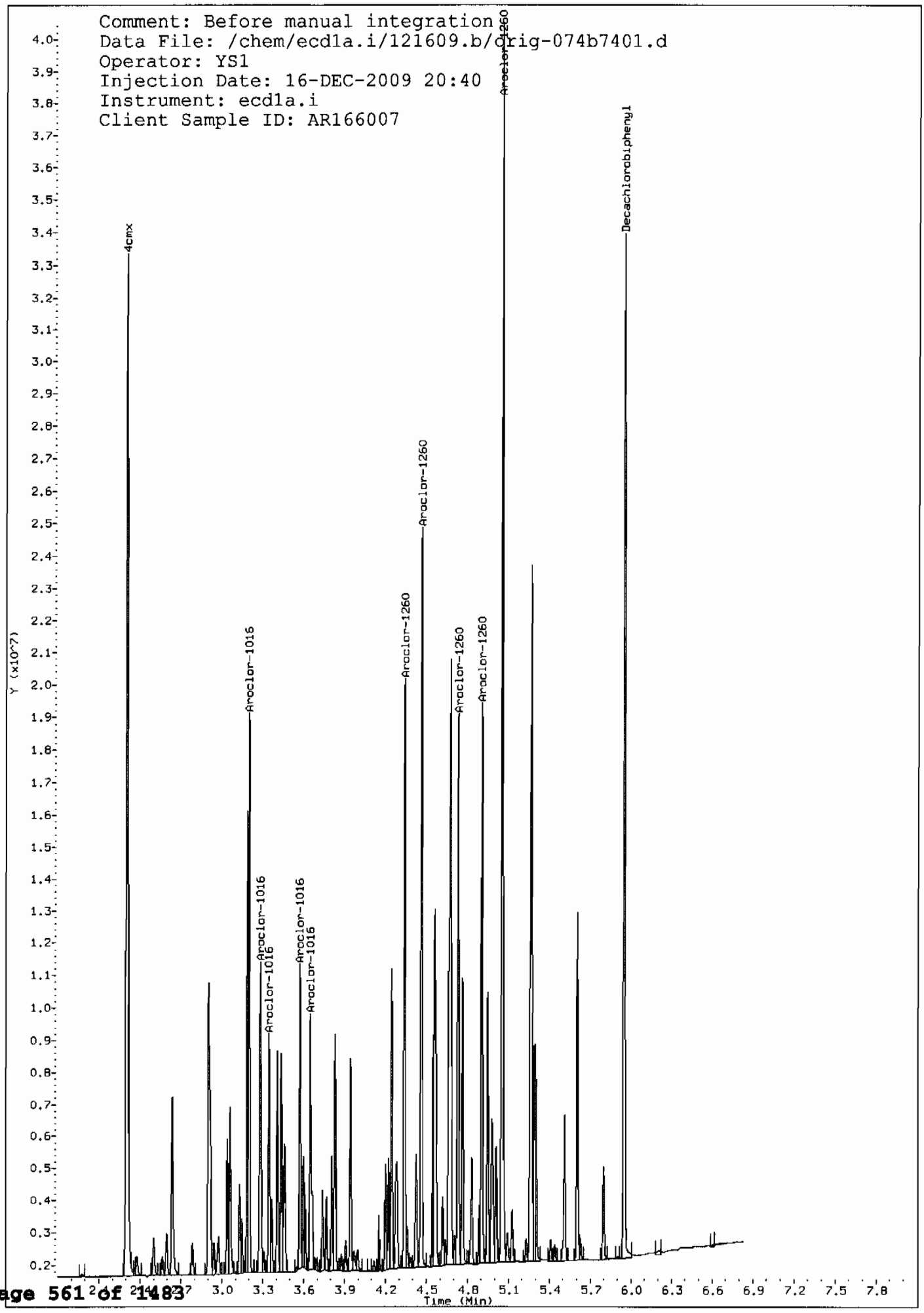
Comment: Before manual integration
Data File: /chem/ecd1a.i/121609.b/drig-074b7401.d
Operator: YS1
Injection Date: 16-DEC-2009 20:40
Instrument: ecd1a.i
Client Sample ID: AR166007
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-886

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 12/14/09 12/14/09

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 1.97 DCB: 5.29

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR091130-99	12/14/09	0444	1.97	5.29
02	ZZZZZ	ZZZZZ	12/14/09	0454	1.97	5.29
03	ZZZZZ	ZZZZZ	12/14/09	0505	1.97	5.29
04	ZZZZZ	ZZZZZ	12/14/09	0515	1.97	5.29
05	ZZZZZ	ZZZZZ	12/14/09	0526	1.97	5.29
06	AR123201	WAR090930-32	12/14/09	0536	1.97	5.29
07	AR122101	WAR090803-21	12/14/09	0547	1.97	5.29
08	AR126201	WAR090803-62	12/14/09	0558	1.97	5.29
09	ZZZZZ	ZZZZZ	12/14/09	0608	1.97	5.29
10	ZZZZZ	ZZZZZ	12/14/09	0619	1.97	5.29
11	ZZZZZ	ZZZZZ	12/14/09	0629	1.97	5.29
12	ZZZZZ	ZZZZZ	12/14/09	0640	1.97	5.29
13	ZZZZZ	ZZZZZ	12/14/09	0650	1.97	5.29
14	ZZZZZ	ZZZZZ	12/14/09	0701	1.97	5.29
15	ZZZZZ	ZZZZZ	12/14/09	0711	1.97	5.29
16	AR125401	WAR091214-05	12/14/09	0722	1.97	5.29
17	AR125402	WAR091214-06	12/14/09	0732	1.97	5.29
18	AR125403	WAR091214-07	12/14/09	0743	1.97	5.29
19	AR125404	WAR091214-08	12/14/09	0753	1.97	5.29
20	AR125405	IAR091027-01	12/14/09	0804	1.97	5.29
21	AR125401	WAR091102-54	12/14/09	0814	1.97	5.29
22	AR124201	WAR091214-09	12/14/09	0825	1.97	5.29
23	AR124202	WAR091214-10	12/14/09	0835	1.97	5.29
24	AR124203	WAR091214-11	12/14/09	0846	1.97	5.29
25	AR124204	WAR091214-12	12/14/09	0856	1.97	5.29
26	AR124205	IAR0911111-0	12/14/09	0907	1.97	5.29
27	AR124201	WAR091102-42	12/14/09	0917	1.97	5.29
28	AR124801	WAR091214-13	12/14/09	0928	1.97	5.29
29	AR124802	WAR091214-14	12/14/09	0938	1.97	5.29
30	AR124803	WAR091214-15	12/14/09	0949	1.97	5.29
31	AR124804	WAR091214-16	12/14/09	0959	1.97	5.29
32	AR124805	IAR091027-02	12/14/09	1010	1.97	5.29

QC LIMITS
S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-886

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 12/14/09 12/14/09

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 1.97 DCB: 5.29

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	AR124801	WAR091027-48	12/14/09	1020	1.97	5.29
02	AR166001	WAR091214-01	12/14/09	1031	1.97	5.29
03	AR166002	WAR091214-02	12/14/09	1041	1.97	5.29
04	AR166003	WAR091214-03	12/14/09	1052	1.97	5.29
05	AR166004	WAR091214-04	12/14/09	1102	1.97	5.29
06	AR166005	IAR091102-01	12/14/09	1113	1.97	5.29
07	AR166001	WAR091211-60	12/14/09	1123	1.97	5.29
08	AR126801	WAR091214-17	12/14/09	1134	1.97	5.29
09	AR126802	WAR091214-18	12/14/09	1144	1.97	5.29
10	AR126803	WAR091214-19	12/14/09	1155	1.97	5.29
11	AR126804	WAR091214-20	12/14/09	1206	1.97	5.29
12	AR126805	IAR090817-02	12/14/09	1216	1.97	5.29
13	AR126801	WAR091106-68	12/14/09	1227	1.97	5.29
14	DDTANALOGSTD	WAR091020-DD	12/14/09	1237		
15	PIBLK02	WAR091130-99	12/14/09	1248	1.97	5.29
16	ZZZZZ	ZZZZZ	12/14/09	1258	1.97	5.29
17	ZZZZZ	ZZZZZ	12/14/09	1309	1.97	5.29
18	ZZZZZ	ZZZZZ	12/14/09	1319	1.97	5.29
19	ZZZZZ	ZZZZZ	12/14/09	1330	1.97	5.29
20	ZZZZZ	ZZZZZ	12/14/09	1340	1.97	5.29
21	ZZZZZ	ZZZZZ	12/14/09	1351	1.97	5.29
22	ZZZZZ	ZZZZZ	12/14/09	1403	1.97	5.29
23	ZZZZZ	ZZZZZ	12/14/09	1416	1.97	5.29
24	ZZZZZ	ZZZZZ	12/14/09	1429	1.97	5.29
25	ZZZZZ	ZZZZZ	12/14/09	1441	1.97	5.29
26	AR166002	WAR091211-60	12/14/09	1452	1.97	5.29
27	PIBLK03	WAR091130-99	12/14/09	1502	1.97	5.29
28	ZZZZZ	ZZZZZ	12/14/09	1513	1.97	5.29
29	ZZZZZ	ZZZZZ	12/14/09	1525	1.97	5.29
30	ZZZZZ	ZZZZZ	12/14/09	1538	1.97	5.29
31	ZZZZZ	ZZZZZ	12/14/09	1551	1.97	5.29
32	ZZZZZ	ZZZZZ	12/14/09	1603	1.97	5.27

QC LIMITS
S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-886

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 12/14/09 12/14/09

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.30 DCB: 5.94

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR091130-99	12/14/09	0444	2.30	5.95
02	ZZZZZ	ZZZZZ	12/14/09	0454	2.30	5.94
03	ZZZZZ	ZZZZZ	12/14/09	0505	2.30	5.95
04	ZZZZZ	ZZZZZ	12/14/09	0515	2.30	5.95
05	ZZZZZ	ZZZZZ	12/14/09	0526	2.30	5.95
06	AR123201	WAR090930-32	12/14/09	0536	2.30	5.95
07	AR122101	WAR090803-21	12/14/09	0547	2.30	5.95
08	AR126201	WAR090803-62	12/14/09	0558	2.30	5.94
09	ZZZZZ	ZZZZZ	12/14/09	0608	2.30	5.94
10	ZZZZZ	ZZZZZ	12/14/09	0619	2.30	5.95
11	ZZZZZ	ZZZZZ	12/14/09	0629	2.30	5.94
12	ZZZZZ	ZZZZZ	12/14/09	0640	2.30	5.94
13	ZZZZZ	ZZZZZ	12/14/09	0650	2.30	5.95
14	ZZZZZ	ZZZZZ	12/14/09	0701	2.30	5.94
15	ZZZZZ	ZZZZZ	12/14/09	0711	2.30	5.95
16	AR125401	WAR091214-05	12/14/09	0722	2.30	5.94
17	AR125402	WAR091214-06	12/14/09	0732	2.30	5.94
18	AR125403	WAR091214-07	12/14/09	0743	2.30	5.94
19	AR125404	WAR091214-08	12/14/09	0753	2.30	5.94
20	AR125405	IAR091027-01	12/14/09	0804	2.30	5.95
21	AR125401	WAR091102-54	12/14/09	0814	2.30	5.94
22	AR124201	WAR091214-09	12/14/09	0825	2.30	5.94
23	AR124202	WAR091214-10	12/14/09	0835	2.30	5.94
24	AR124203	WAR091214-11	12/14/09	0846	2.30	5.94
25	AR124204	WAR091214-12	12/14/09	0856	2.30	5.94
26	AR124205	IAR0911111-0	12/14/09	0907	2.30	5.94
27	AR124201	WAR091102-42	12/14/09	0917	2.30	5.94
28	AR124801	WAR091214-13	12/14/09	0928	2.30	5.94
29	AR124802	WAR091214-14	12/14/09	0938	2.30	5.94
30	AR124803	WAR091214-15	12/14/09	0949	2.30	5.94
31	AR124804	WAR091214-16	12/14/09	0959	2.30	5.94
32	AR124805	IAR091027-02	12/14/09	1010	2.30	5.94

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-886

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 12/14/09 12/14/09

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.30 DCB: 5.94

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	AR124801	WAR091027-48	12/14/09	1020	2.30	5.95
02	AR166001	WAR091214-01	12/14/09	1031	2.30	5.94
03	AR166002	WAR091214-02	12/14/09	1041	2.30	5.94
04	AR166003	WAR091214-03	12/14/09	1052	2.30	5.94
05	AR166004	WAR091214-04	12/14/09	1102	2.30	5.94
06	AR166005	IAR091102-01	12/14/09	1113	2.30	5.94
07	AR166001	WAR091211-60	12/14/09	1123	2.30	5.94
08	AR126801	WAR091214-17	12/14/09	1134	2.30	5.95
09	AR126802	WAR091214-18	12/14/09	1144	2.30	5.94
10	AR126803	WAR091214-19	12/14/09	1155	2.30	5.94
11	AR126804	WAR091214-20	12/14/09	1206	2.30	5.94
12	AR126805	IAR090817-02	12/14/09	1216	2.30	5.94
13	AR126801	WAR091106-68	12/14/09	1227	2.30	5.94
14	DDTANALOGSTD	WAR091020-DD	12/14/09	1237		
15	PIBLK02	WAR091130-99	12/14/09	1248	2.30	5.94
16	ZZZZZ	ZZZZZ	12/14/09	1258	2.30	5.94
17	ZZZZZ	ZZZZZ	12/14/09	1309	2.30	5.94
18	ZZZZZ	ZZZZZ	12/14/09	1319	2.30	5.94
19	ZZZZZ	ZZZZZ	12/14/09	1330	2.30	5.94
20	ZZZZZ	ZZZZZ	12/14/09	1340	2.30	5.94
21	ZZZZZ	ZZZZZ	12/14/09	1351	2.30	5.94
22	ZZZZZ	ZZZZZ	12/14/09	1403	2.30	5.94
23	ZZZZZ	ZZZZZ	12/14/09	1416	2.30	5.94
24	ZZZZZ	ZZZZZ	12/14/09	1429	2.30	5.94
25	ZZZZZ	ZZZZZ	12/14/09	1441	2.30	5.94
26	AR166002	WAR091211-60	12/14/09	1452	2.30	5.94
27	PIBLK03	WAR091130-99	12/14/09	1502	2.30	5.94
28	ZZZZZ	ZZZZZ	12/14/09	1513	2.30	5.94
29	ZZZZZ	ZZZZZ	12/14/09	1525	2.30	5.94
30	ZZZZZ	ZZZZZ	12/14/09	1538	2.30	5.94
31	ZZZZZ	ZZZZZ	12/14/09	1551	2.30	5.94
32	ZZZZZ	ZZZZZ	12/14/09	1603	2.30	5.94

QC LIMITS
S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-886

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 12/14/09 12/14/09

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 1.97 DCB: 5.29

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR091130-99	12/16/09	0628	1.97	5.29
02	AR166001	WAR091211-60	12/16/09	0639	1.97	5.29
03	ZZZZZ	ZZZZZ	12/16/09	0649	1.97	5.29
04	AR124201	WAR091102-42	12/16/09	0700	1.97	5.29
05	AR124801	WAR091027-48	12/16/09	0710	1.97	5.29
06	AR123201	WAR090930-32	12/16/09	0721	1.97	5.29
07	ZZZZZ	ZZZZZ	12/16/09	0731	1.97	5.29
08	AR122101	WAR090803-21	12/16/09	0742	1.97	5.29
09	AR126201	WAR090803-62	12/16/09	0752	1.97	5.29
10	AR126801	WAR091106-68	12/16/09	0803	1.97	5.29
11	AR125401	WAR091216-54	12/16/09	0813	1.97	5.29
12	DDTANALOGSTD	WAR091020-DD	12/16/09	0824		
13	PIBLK02	WAR091130-99	12/16/09	0834	1.97	5.29
14	ZZZZZ	ZZZZZ	12/16/09	0846	1.97	5.29
15	ZZZZZ	ZZZZZ	12/16/09	0857	1.97	5.29
16	ZZZZZ	ZZZZZ	12/16/09	0909	1.97	5.29
17	ZZZZZ	ZZZZZ	12/16/09	0920	1.97	5.29
18	ZZZZZ	ZZZZZ	12/16/09	0930	1.97	5.29
19	ZZZZZ	ZZZZZ	12/16/09	0943	1.97	5.29
20	ZZZZZ	ZZZZZ	12/16/09	0955	1.97	5.29
21	ZZZZZ	ZZZZZ	12/16/09	1008	1.97	5.29
22	ZZZZZ	ZZZZZ	12/16/09	1021	1.97	5.29
23	ZZZZZ	ZZZZZ	12/16/09	1033	1.97	5.29
24	AR166002	WAR091211-60	12/16/09	1046	1.97	5.29
25	PIBLK03	WAR091130-99	12/16/09	1056	1.97	5.29
26	ZZZZZ	ZZZZZ	12/16/09	1107	1.97	5.29
27	ZZZZZ	ZZZZZ	12/16/09	1119	1.97	5.29
28	ZZZZZ	ZZZZZ	12/16/09	1132	1.97	5.29
29	ZZZZZ	ZZZZZ	12/16/09	1144	1.97	5.29
30	ZZZZZ	ZZZZZ	12/16/09	1157		
31	ZZZZZ	ZZZZZ	12/16/09	1209	1.97	5.29
32	ZZZZZ	ZZZZZ	12/16/09	1222	1.97	5.29

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-886

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 12/14/09 12/14/09

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 1.97 DCB: 5.29

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	ZZZZZ	ZZZZZ	12/16/09	1235	1.97	5.29
02	ZZZZZ	ZZZZZ	12/16/09	1247	1.97	5.29
03	ZZZZZ	ZZZZZ	12/16/09	1300	1.97	5.29
04	AR166003	WAR091211-60	12/16/09	1312	1.97	5.29
05	PIBLK04	WAR091130-99	12/16/09	1323	1.97	5.29
06	ZZZZZ	ZZZZZ	12/16/09	1333	1.97	5.29
07	ZZZZZ	ZZZZZ	12/16/09	1346	1.97	5.29
08	AR166004	WAR091211-60	12/16/09	1358	1.97	5.29
09	PIBLK05	WAR091130-99	12/16/09	1409	1.97	5.29
10	ZZZZZ	ZZZZZ	12/16/09	1419	1.97	5.29
11	ZZZZZ	ZZZZZ	12/16/09	1432	1.97	5.29
12	ZZZZZ	ZZZZZ	12/16/09	1444	1.97	5.29
13	ZZZZZ	ZZZZZ	12/16/09	1457	1.97	5.29
14	ZZZZZ	ZZZZZ	12/16/09	1510	1.97	5.29
15	ZZZZZ	ZZZZZ	12/16/09	1522	1.97	5.29
16	ZZZZZ	ZZZZZ	12/16/09	1535	1.97	5.29
17	ZZZZZ	ZZZZZ	12/16/09	1548	1.97	5.29
18	AR166005	WAR091211-60	12/16/09	1600	1.97	5.29
19	PIBLK06	WAR091130-99	12/16/09	1611	1.97	5.29
20	PBLK01	1201996856	12/16/09	1621	1.97	5.29
21	PBLK01LCS	1201996857	12/16/09	1632	1.97	5.29
22	ZZZZZ	ZZZZZ	12/16/09	1642	1.97	5.29
23	ZZZZZ	ZZZZZ	12/16/09	1655	1.97	5.29
24	ZZZZZ	ZZZZZ	12/16/09	1708	1.97	5.29
25	ZZZZZ	ZZZZZ	12/16/09	1720	1.97	5.29
26	ZZZZZ	ZZZZZ	12/16/09	1733	1.97	5.29
27	ZZZZZ	ZZZZZ	12/16/09	1745	1.97	5.29
28	ZZZZZ	ZZZZZ	12/16/09	1758	1.97	5.29
29	ZZZZZ	ZZZZZ	12/16/09	1811	1.97	5.29
30	AR166006	WAR091211-60	12/16/09	1823	1.97	5.29
31	PIBLK07	WAR091130-99	12/16/09	1834	1.97	5.29
32	RE03-09-13467	242750001	12/16/09	1844	1.97	5.29

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-886

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 12/14/09 12/14/09

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 1.97 DCB: 5.29

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	RE03-09-13466	242750002	12/16/09	1857	1.97	5.29
02	RE03-09-13468	242750003	12/16/09	1910	1.97	5.29
03	RE03-09-13465	242750004	12/16/09	1922	1.97	5.29
04	RE03-10-2003	242750005	12/16/09	1935	1.97	5.29
05	ZZZZZ	ZZZZZ	12/16/09	1947	1.97	5.29
06	ZZZZZ	ZZZZZ	12/16/09	1958	1.97	5.29
07	ZZZZZ	ZZZZZ	12/16/09	2008	1.97	5.29
08	ZZZZZ	ZZZZZ	12/16/09	2019	1.97	5.29
09	ZZZZZ	ZZZZZ	12/16/09	2030	1.97	5.29
10	AR166007	WAR091211-60	12/16/09	2040	1.97	5.29
11	PIBLK08	WAR091130-99	12/16/09	2051	1.97	5.29
12	ZZZZZ	ZZZZZ	12/16/09	2101	1.97	5.29
13	ZZZZZ	ZZZZZ	12/16/09	2112	1.97	5.29
14	ZZZZZ	ZZZZZ	12/16/09	2122	1.97	5.29
15	ZZZZZ	ZZZZZ	12/16/09	2133	1.97	5.29
16	AR166008	WAR091211-60	12/16/09	2143	1.97	5.29
17	ZZZZZ	ZZZZZ	12/16/09	2154	1.97	5.29
18						
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27						
28						
29						
30						
31						
32						

QC LIMITS
S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-886

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 12/14/09 12/14/09

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.30 DCB: 5.95

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR091130-99	12/16/09	0628	2.30	5.95
02	AR166001	WAR091211-60	12/16/09	0639	2.30	5.95
03	ZZZZZ	ZZZZZ	12/16/09	0649	2.30	5.95
04	AR124201	WAR091102-42	12/16/09	0700	2.30	5.95
05	AR124801	WAR091027-48	12/16/09	0710	2.30	5.95
06	AR123201	WAR090930-32	12/16/09	0721	2.30	5.95
07	ZZZZZ	ZZZZZ	12/16/09	0731	2.30	5.95
08	AR122101	WAR090803-21	12/16/09	0742	2.30	5.95
09	AR126201	WAR090803-62	12/16/09	0752	2.30	5.95
10	AR126801	WAR091106-68	12/16/09	0803	2.30	5.95
11	AR125401	WAR091216-54	12/16/09	0813	2.30	5.95
12	DDTANALOGSTD	WAR091020-DD	12/16/09	0824		
13	PIBLK02	WAR091130-99	12/16/09	0834	2.30	5.95
14	ZZZZZ	ZZZZZ	12/16/09	0846	2.30	5.95
15	ZZZZZ	ZZZZZ	12/16/09	0857	2.30	5.95
16	ZZZZZ	ZZZZZ	12/16/09	0909	2.30	5.95
17	ZZZZZ	ZZZZZ	12/16/09	0920	2.30	5.95
18	ZZZZZ	ZZZZZ	12/16/09	0930	2.30	5.95
19	ZZZZZ	ZZZZZ	12/16/09	0943	2.30	5.95
20	ZZZZZ	ZZZZZ	12/16/09	0955	2.30	5.95
21	ZZZZZ	ZZZZZ	12/16/09	1008	2.30	5.95
22	ZZZZZ	ZZZZZ	12/16/09	1021	2.30	5.95
23	ZZZZZ	ZZZZZ	12/16/09	1033	2.30	5.95
24	AR166002	WAR091211-60	12/16/09	1046	2.30	5.95
25	PIBLK03	WAR091130-99	12/16/09	1056	2.30	5.95
26	ZZZZZ	ZZZZZ	12/16/09	1107	2.30	5.95
27	ZZZZZ	ZZZZZ	12/16/09	1119	2.30	5.95
28	ZZZZZ	ZZZZZ	12/16/09	1132	2.30	5.95
29	ZZZZZ	ZZZZZ	12/16/09	1144	2.30	5.95
30	ZZZZZ	ZZZZZ	12/16/09	1157		
31	ZZZZZ	ZZZZZ	12/16/09	1209	2.30	5.95
32	ZZZZZ	ZZZZZ	12/16/09	1222	2.30	5.95

QC LIMITS
S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-886

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 12/14/09 12/14/09

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.30 DCB: 5.95

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	ZZZZZ	ZZZZZ	12/16/09	1235	2.30	5.95
02	ZZZZZ	ZZZZZ	12/16/09	1247	2.30	5.95
03	ZZZZZ	ZZZZZ	12/16/09	1300	2.30	5.95
04	AR16003	WAR091211-60	12/16/09	1312	2.30	5.95
05	PIBLK04	WAR091130-99	12/16/09	1323	2.30	5.95
06	ZZZZZ	ZZZZZ	12/16/09	1333	2.30	5.95
07	ZZZZZ	ZZZZZ	12/16/09	1346	2.30	5.95
08	AR166004	WAR091211-60	12/16/09	1358	2.30	5.95
09	PIBLK05	WAR091130-99	12/16/09	1409	2.30	5.95
10	ZZZZZ	ZZZZZ	12/16/09	1419	2.30	5.95
11	ZZZZZ	ZZZZZ	12/16/09	1432	2.30	5.95
12	ZZZZZ	ZZZZZ	12/16/09	1444	2.30	5.95
13	ZZZZZ	ZZZZZ	12/16/09	1457	2.30	5.95
14	ZZZZZ	ZZZZZ	12/16/09	1510	2.30	5.95
15	ZZZZZ	ZZZZZ	12/16/09	1522	2.30	5.95
16	ZZZZZ	ZZZZZ	12/16/09	1535	2.30	5.95
17	ZZZZZ	ZZZZZ	12/16/09	1548	2.30	5.95
18	AR166005	WAR091211-60	12/16/09	1600	2.30	5.95
19	PIBLK06	WAR091130-99	12/16/09	1611	2.30	5.95
20	PIBLK01	1201996856	12/16/09	1621	2.30	5.95
21	PBLK01LCS	1201996857	12/16/09	1632	2.30	5.95
22	ZZZZZ	ZZZZZ	12/16/09	1642	2.30	5.95
23	ZZZZZ	ZZZZZ	12/16/09	1655	2.30	5.95
24	ZZZZZ	ZZZZZ	12/16/09	1708	2.30	5.95
25	ZZZZZ	ZZZZZ	12/16/09	1720	2.30	5.95
26	ZZZZZ	ZZZZZ	12/16/09	1733	2.30	5.95
27	ZZZZZ	ZZZZZ	12/16/09	1745	2.30	5.95
28	ZZZZZ	ZZZZZ	12/16/09	1758	2.30	5.95
29	ZZZZZ	ZZZZZ	12/16/09	1811	2.30	5.95
30	AR166006	WAR091211-60	12/16/09	1823	2.30	5.95
31	PIBLK07	WAR091130-99	12/16/09	1834	2.30	5.95
32	RE03-09-13467	242750001	12/16/09	1844	2.30	5.95

QC LIMITS
S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-886

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 12/14/09 12/14/09

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.30 DCB: 5.95

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	RE03-09-13466	242750002	12/16/09	1857	2.30	5.95
02	RE03-09-13468	242750003	12/16/09	1910	2.30	5.95
03	RE03-09-13465	242750004	12/16/09	1922	2.30	5.95
04	RE03-10-2003	242750005	12/16/09	1935	2.30	5.95
05	ZZZZZ	ZZZZZ	12/16/09	1947	2.30	5.95
06	ZZZZZ	ZZZZZ	12/16/09	1958	2.30	5.95
07	ZZZZZ	ZZZZZ	12/16/09	2008	2.30	5.95
08	ZZZZZ	ZZZZZ	12/16/09	2019	2.30	5.95
09	ZZZZZ	ZZZZZ	12/16/09	2030	2.30	5.95
10	AR166007	WAR091211-60	12/16/09	2040	2.30	5.95
11	PIBLK08	WAR091130-99	12/16/09	2051	2.30	5.95
12	ZZZZZ	ZZZZZ	12/16/09	2101	2.30	5.95
13	ZZZZZ	ZZZZZ	12/16/09	2112	2.30	5.95
14	ZZZZZ	ZZZZZ	12/16/09	2122	2.30	5.95
15	ZZZZZ	ZZZZZ	12/16/09	2133	2.30	5.95
16	AR166008	WAR091211-60	12/16/09	2143	2.30	5.95
17	PIBLK09	WAR091130-99	12/16/09	2154	2.30	5.95
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						
31						
32						

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

Identification Summary

SDG Number: 10–886 **Client ID:** LCS for batch 933337

Lab Sample ID: 1201996857

Data File:	053f5301.d	**Data File:**	053b5301.d
Inst:	ECD1A.I_1	**Inst:**	ECD1A.I_2
Column:	CLP1	**Column:**	CLP2
Analyzed:	16–DEC–09 16:32	**Analyzed:**	16–DEC–09 16:32

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor–1016							2.63
Column 1	1	2.43	2.4 – 2.46	28.2		ug/kg	
	2	2.71	2.68 – 2.74	31.3		ug/kg	
	3	2.8	2.77 – 2.83	28.2		ug/kg	
	4	2.84	2.81 – 2.87	30.6		ug/kg	
	5	3.05	3.02 – 3.08	30.1		ug/kg	
					29.7		
Column 2	1	3.2	3.17 – 3.23	30.7		ug/kg	
	2	3.28	3.25 – 3.31	27.4		ug/kg	
	3	3.35	3.32 – 3.38	28.7		ug/kg	
	4	3.57	3.54 – 3.6	28.6		ug/kg	
	5	3.65	3.62 – 3.68	29.2		ug/kg	
					28.9		
Aroclor–1260							7.2
Column 1	1	3.78	3.74 – 3.8	34.1		ug/kg	
	2	3.94	3.91 – 3.97	36		ug/kg	
	3	4.17	4.14 – 4.2	36.4		ug/kg	
	4	4.31	4.28 – 4.34	36.1		ug/kg	
	5	4.49	4.46 – 4.52	37.5		ug/kg	
					36		
Column 2	1	4.34	4.31 – 4.37	31.6		ug/kg	
	2	4.46	4.43 – 4.49	33.8		ug/kg	
	3	4.73	4.7 – 4.76	33.1		ug/kg	
	4	4.9	4.87 – 4.93	33.6		ug/kg	
	5	5.05	5.02 – 5.08	35.5		ug/kg	
					33.5		

QUALITY CONTROL DATA

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10-886			**Matrix:**	SOIL
Lab Sample ID:	1201996856				
Client Sample:	QC for batch 933337	**Client:**	LANL010	**Project:**	QC
Client ID:	MB for batch 933337	**Method:**	SW846 8082	**SOP Ref:**	GL-OA-E-040
Batch ID:	933342	**Inst:**	ECD1A.I	**Dilution:**	1
Run Date:	12/16/2009 16:21	**Analyst:**	YS1	**Inj. Vol:**	1 uL
Prep Date:	12/15/2009 20:23	**Aliquot:**	30 g	**Final Volume:**	1 mL
Data File:	052f5201-1.d	**Column:**	1 CLP1	**Level:**	LOW
	052b5201-1.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.33	ug/kg	1.11	3.33	1
11104-28-2	Aroclor-1221	U	3.33	ug/kg	1.11	3.33	1
11141-16-5	Aroclor-1232	U	3.33	ug/kg	1.11	3.33	1
53469-21-9	Aroclor-1242	U	3.33	ug/kg	1.11	3.33	1
12672-29-6	Aroclor-1248	U	3.33	ug/kg	1.11	3.33	1
11097-69-1	Aroclor-1254	U	3.33	ug/kg	1.11	3.33	1
11096-82-5	Aroclor-1260	U	3.33	ug/kg	1.11	3.33	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/121609.b/052f5201-5.d
Lab Smp Id: 1201996856 Client Smp ID: PBLK01
Inj Date : 16-DEC-2009 16:21
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1201996856|1|
Misc Info : |ECD82P_1S|933342|SVAF|QC A|SOIL|MB|||
Comment :
Method : /chem/ecd1a.i/121609.b/ECD1-F-8082-121409.m
Meth Date : 17-Dec-2009 07:29 yip00818 Quant Type: ESTD
Cal Date : 14-DEC-2009 11:34 Cal File: 040f4001.d
Als bottle: 52 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-886.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.974	1.972	0.002	61953843	164.916	5.5	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.289	5.290	-0.001	55317071	174.205	5.8	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/121609.b/052f5201-5.d

Date : 16-DEC-2009 16:21

Client ID: PBLK01

Sample Info: |120199685611|

Volume Injected (uL): 1.0

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

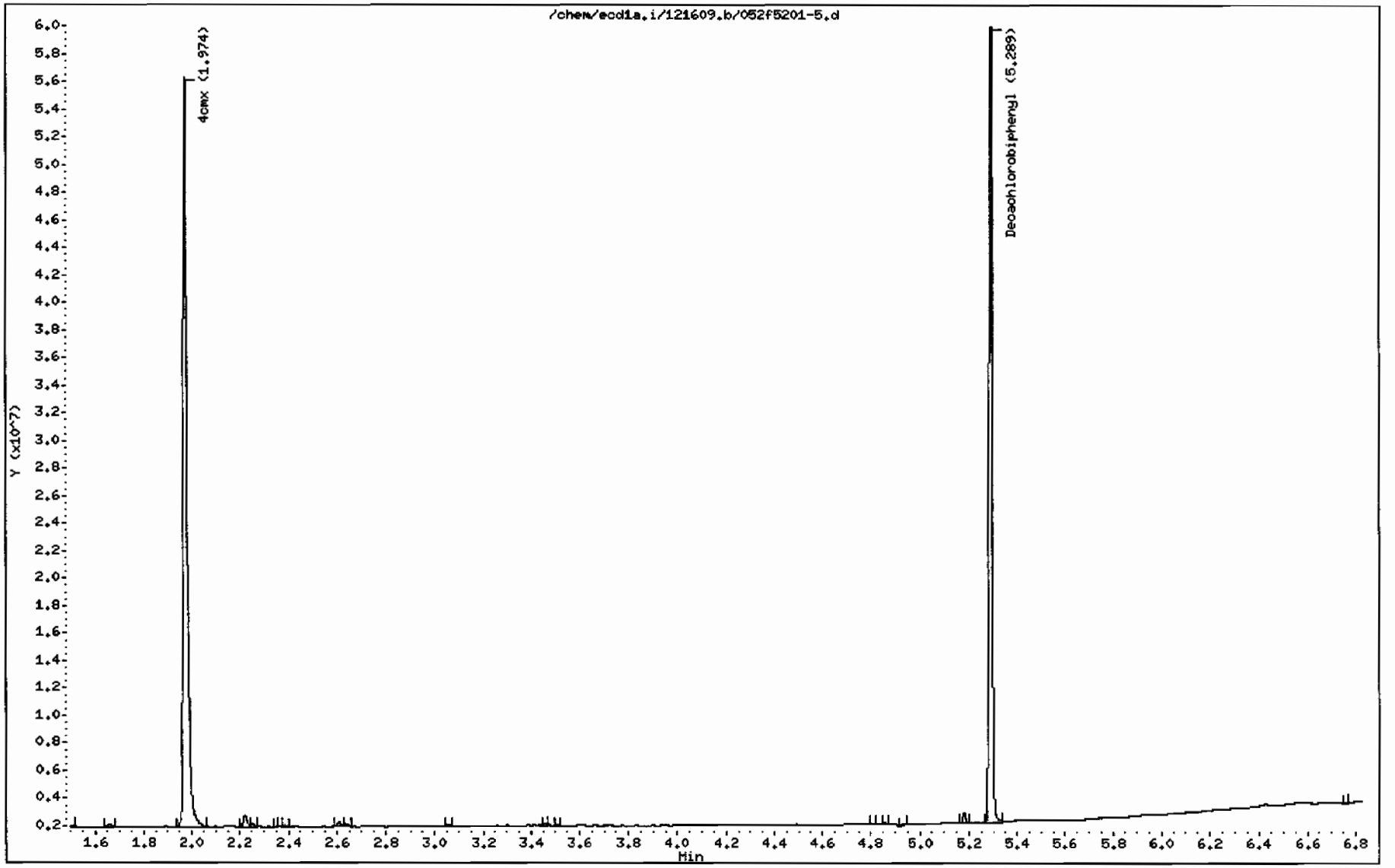

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/121609.b/052b5201-5.d
Lab Smp Id: 1201996856 Client Smp ID: PBLK01
Inj Date : 16-DEC-2009 16:21
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1201996856|1|
Misc Info : |ECD82P_1S|933342|SVAF|QC A|SOIL|MB|||
Comment :
Method : /chem/ecd1a.i/121609.b/ECD1-B-8082-121409.m
Meth Date : 17-Dec-2009 07:29 yip00818 Quant Type: ESTD
Cal Date : 14-DEC-2009 12:16 Cal File: 044b4401.d
Als bottle: 52 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-886.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.304	2.303	0.001	47696650	158.975	5.3	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.950	5.950	0.000	38829921	166.490	5.5	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/121609.b/052b5201-5.d
Date : 16-DEC-2009 16:21
Client ID: PBLK01
Sample Info: !120199685611!
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1
Column diameter: 0.25

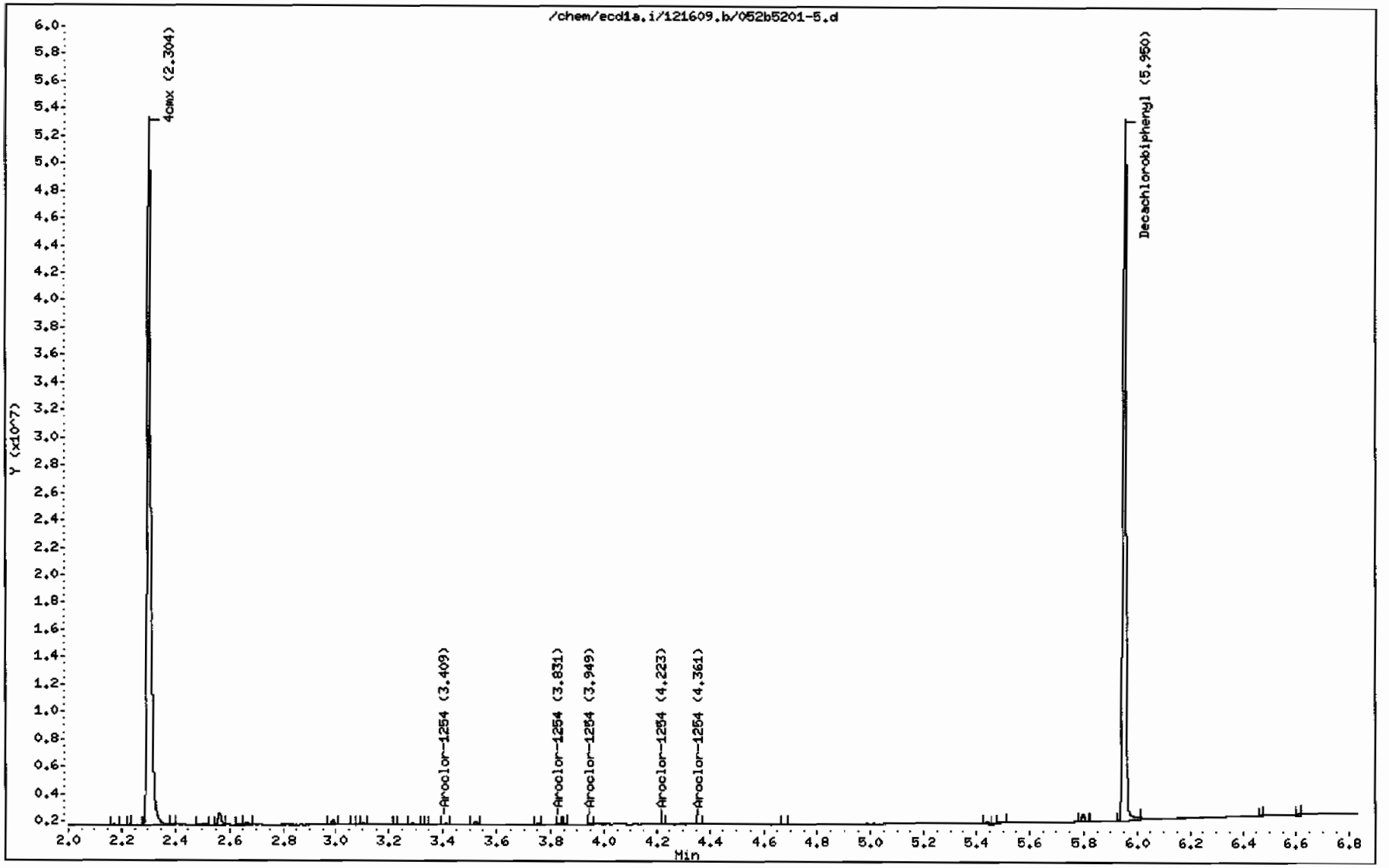

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10–886			**Matrix:**	SOIL
Lab Sample ID:	1201996857				
Client Sample:	QC for batch 933337	**Client:**	LANL010	**Project:**	QC
Client ID:	LCS for batch 933337	**Method:**	SW846 8082	**SOP Ref:**	GL–OA–E–040
Batch ID:	933342	**Inst:**	ECD1A.I	**Dilution:**	1
Run Date:	12/16/2009 16:32	**Analyst:**	YS1	**Inj. Vol:**	1 uL
Prep Date:	12/15/2009 20:23	**Aliquot:**	30 g	**Final Volume:**	1 mL
Data File:	053f5301–1.d	**Column:**	1 CLP1	**Level:**	LOW
	053b5301–1.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016		29.7	ug/kg	1.11	3.33	1
11104–28–2	Aroclor–1221	U	3.33	ug/kg	1.11	3.33	1
11141–16–5	Aroclor–1232	U	3.33	ug/kg	1.11	3.33	1
53469–21–9	Aroclor–1242	U	3.33	ug/kg	1.11	3.33	1
12672–29–6	Aroclor–1248	U	3.33	ug/kg	1.11	3.33	1
11097–69–1	Aroclor–1254	U	3.33	ug/kg	1.11	3.33	1
11096–82–5	Aroclor–1260		36.0	ug/kg	1.11	3.33	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/121609.b/053f5301-5.d
Lab Smp Id: 1201996857 Client Smp ID: PBLK01LCS
Inj Date : 16-DEC-2009 16:32
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1201996857|1|
Misc Info : |ECD82P_1S|933342|SVAF|QC A|SOIL|LCS|||
Comment :
Method : /chem/ecd1a.i/121609.b/ECD1-F-8082-121409.m
Meth Date : 17-Dec-2009 07:29 yip00818 Quant Type: ESTD
Cal Date : 14-DEC-2009 11:34 Cal File: 040f4001.d
Als bottle: 53 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-886.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.973	1.972	0.001	63302343	168.505	5.6	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.289	5.290	-0.001	57219860	180.197	6.0	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.429	2.430	-0.001	11732294	846.067	28.2	80.00- 120.00	100.00
2.708	2.707	0.001	9479712	938.797	31.3	63.95- 103.95	80.80
2.800	2.800	0.000	9943463	845.747	28.2	66.26- 106.26	84.75
2.838	2.837	0.001	6055256	917.601	30.6	32.06- 72.06	51.61

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
1 Aroclor-1016 (continued)							
3.048	3.048	0.000	7827734	902.499	30.1	47.49- 87.49	66.72
Average of Peak Concentrations =					29.7		
7 Aroclor-1260					CAS #: 11096-82-5		
3.775	3.775	0.000	17144477	1023.42	34.1	80.00- 120.00	100.00
3.938	3.938	0.000	26700172	1079.12	36.0	134.58- 174.58	155.74
4.168	4.168	0.000	16049372	1092.73	36.4	72.46- 112.46	93.61
4.311	4.312	-0.001	16457392	1083.83	36.1	76.67- 116.67	95.99
4.489	4.491	-0.002	38652968	1125.25	37.5	204.79- 244.79	225.45
Average of Peak Concentrations =					36.0		

Data File: /chem/ecd1a.i/121609.b/053f5301-5.d

Date : 16-DEC-2009 16:32

Client ID: PBLK01LCS

Sample Info: |120199685711|

Volume Injected (uL): 1.0

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

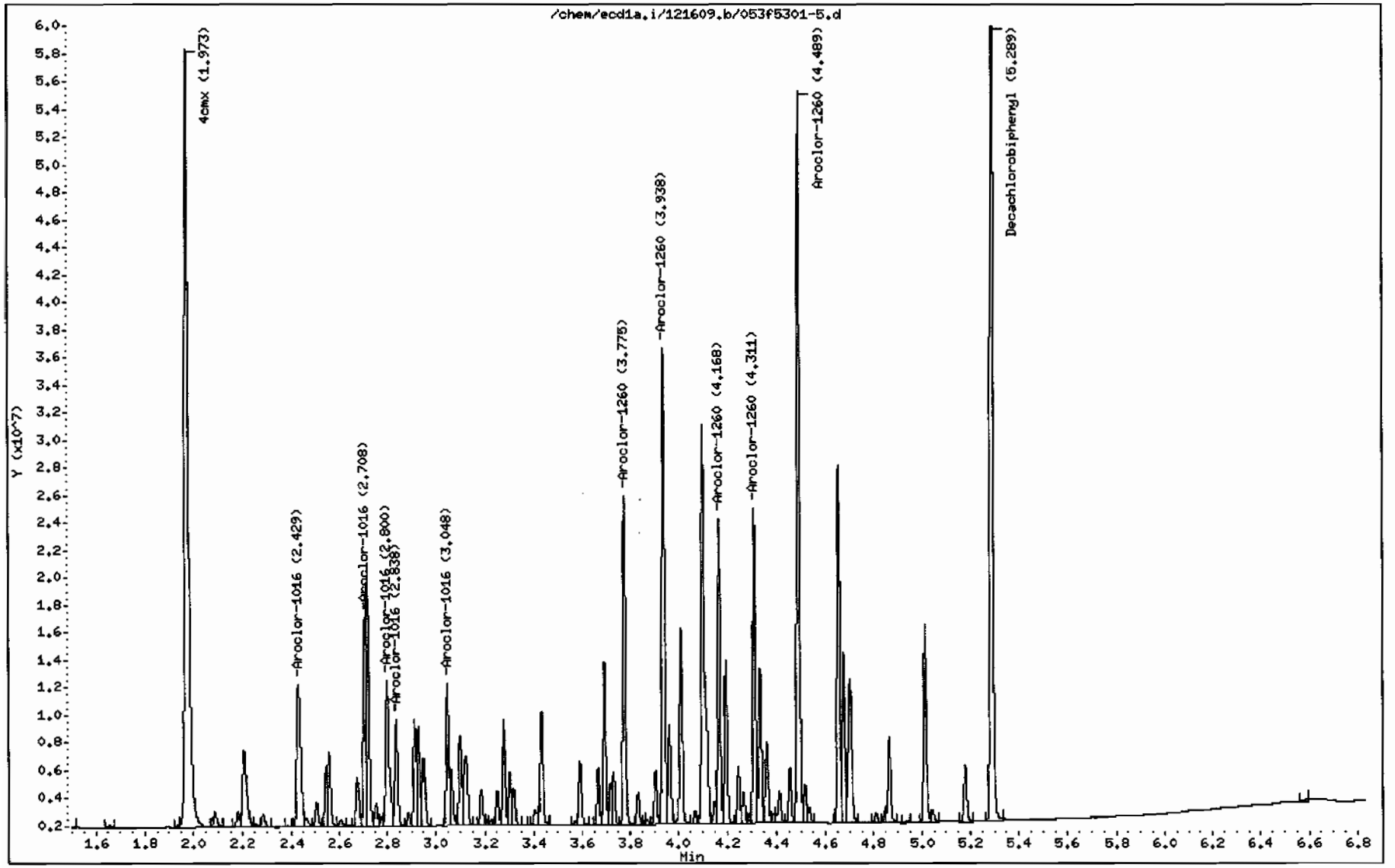

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/121609.b/053b5301-5.d
Lab Smp Id: 1201996857 Client Smp ID: PBLK01LCS
Inj Date : 16-DEC-2009 16:32
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1201996857|1|
Misc Info : |ECD82P_1S|933342|SVAF|QC A|SOIL|LCS|||
Comment :
Method : /chem/ecd1a.i/121609.b/ECD1-B-8082-121409.m
Meth Date : 17-Dec-2009 07:29 yip00818 Quant Type: ESTD
Cal Date : 14-DEC-2009 12:16 Cal File: 044b4401.d
Als bottle: 53 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-886.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.303	2.303	0.000	48118607	160.382	5.3	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.950	5.950	0.000	39380522	168.851	5.6	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.201	3.201	0.000	11605040	920.192	30.7	80.00- 120.00	100.00(M)
3.284	3.283	0.001	7657464	820.923	27.4	47.27- 87.27	65.98
3.348	3.347	0.001	4661726	861.477	28.7	21.95- 61.95	40.17
3.574	3.574	0.000	6046017	857.363	28.6	35.11- 75.11	52.10

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
1 Aroclor-1016 (continued)							
3.650	3.650	0.000	5731967	875.012	29.2	31.28- 71.28	49.39
Average of Peak Concentrations =					28.9		
7 Aroclor-1260					CAS #: 11096-82-5		
4.340	4.341	-0.001	12967113	947.886	31.6	80.00- 120.00	100.00
4.464	4.465	-0.001	16271686	1015.14	33.8	103.29- 143.29	125.48
4.731	4.731	0.000	12459999	991.728	33.0	74.88- 114.88	96.09
4.904	4.905	-0.001	12930533	1009.40	33.6	77.49- 117.49	99.72
5.052	5.052	0.000	29704799	1064.78	35.5	203.67- 243.67	229.08
Average of Peak Concentrations =					33.5		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd1a.i/121609.b/053b5301-5.d

Date : 16-DEC-2009 16:32

Client ID: PBLK01LCS

Sample Info: |1201996857|1|

Volume Injected (uL): 1.0

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

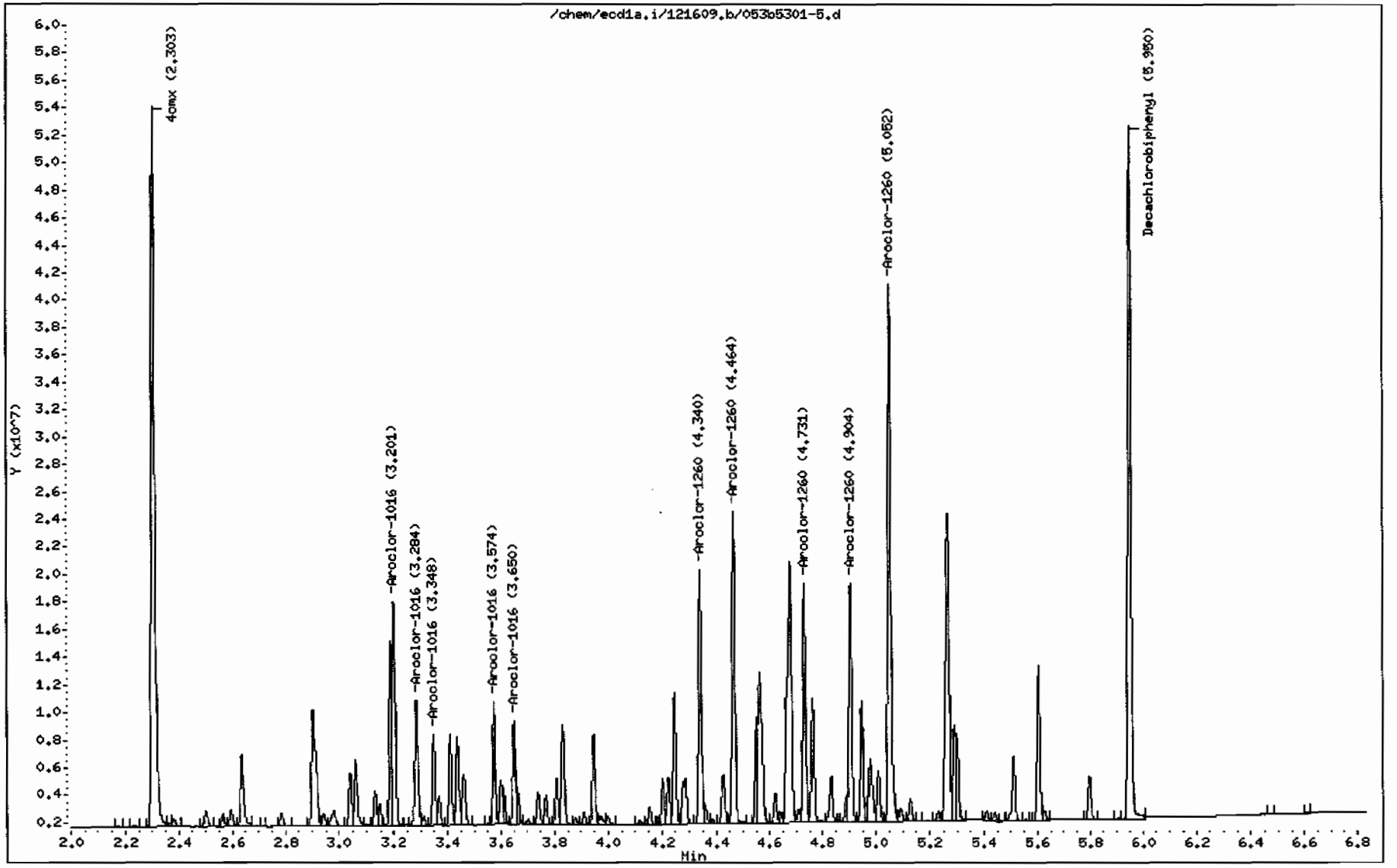

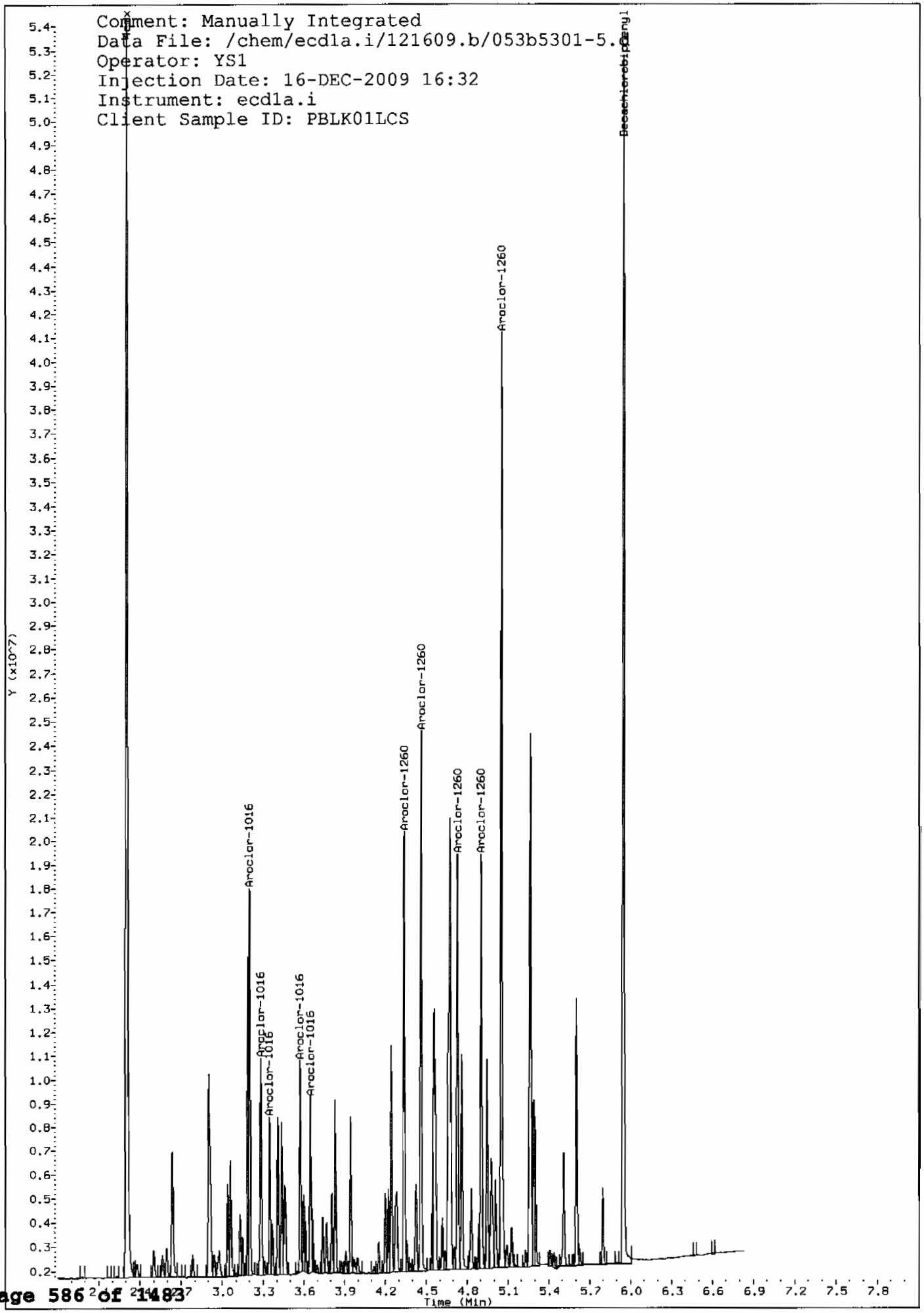
Comment: Manually Integrated
Data File: /chem/ecd1a.i/121609.b/053b5301-5.d
Operator: YS1
Injection Date: 16-DEC-2009 16:32
Instrument: ecd1a.i
Client Sample ID: PBLK01LCS
Decachlorobiphenyl
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1016
Aroclor-1016
Aroclor-1016
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Y (x10^7)
Time (Min)

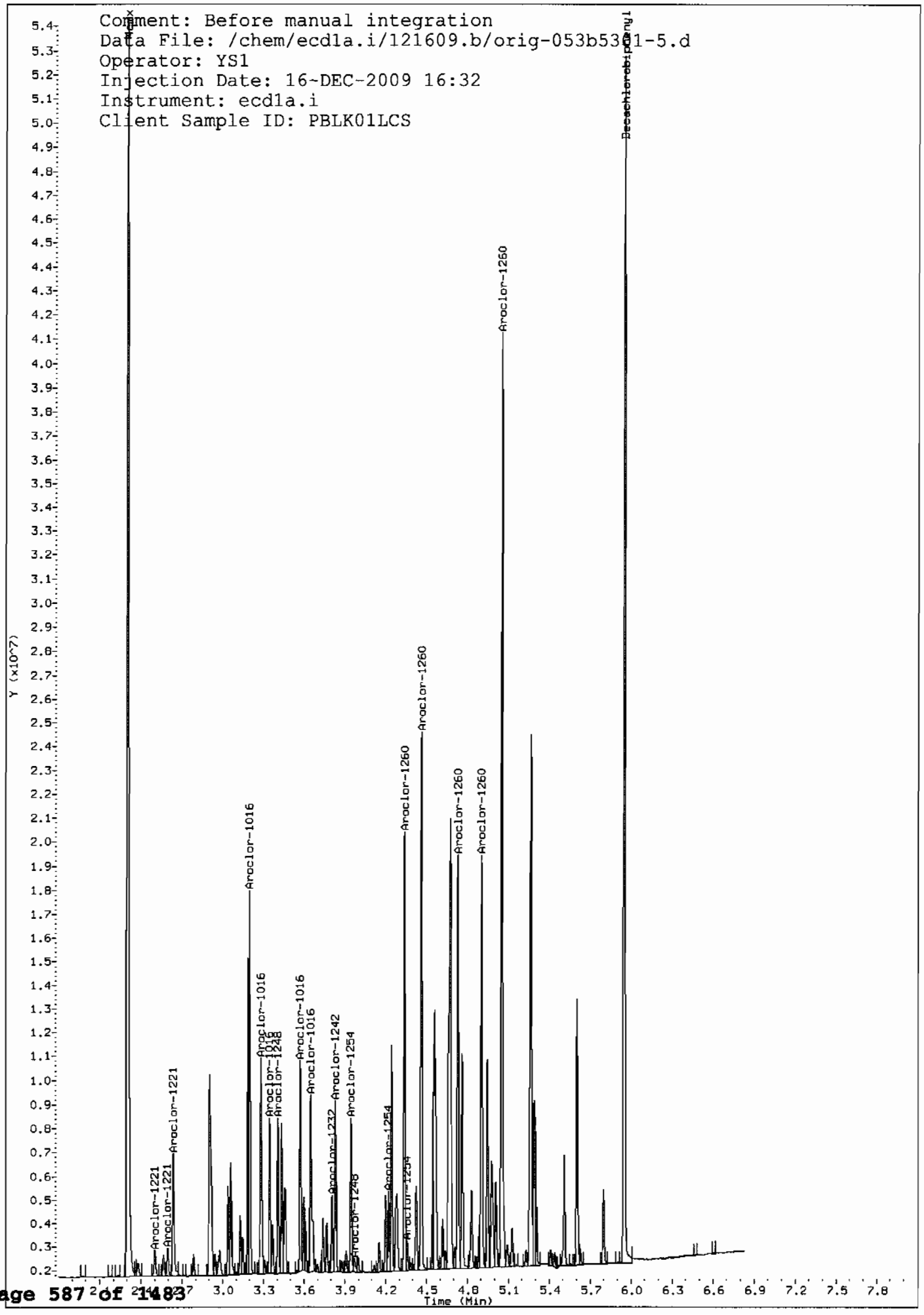
Comment: Before manual integration
Data File: /chem/ecd1a.i/121609.b/orig-053b5301-5.d
Operator: YS1
Injection Date: 16-DEC-2009 16:32
Instrument: ecd1a.i
Client Sample ID: PBLK01LCS
Decachlorobiphenyl
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1248
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Aroclor-1016
Aroclor-1242
Aroclor-1232
Aroclor-1254
Aroclor-1254
Aroclor-1254
Aroclor-1221
Aroclor-1221
Aroclor-1221
Y (x10^7)
Time (Min)

MISCELLANEOUS DATA

GEL ORGANIC RUN LOG INSTRUMENT ID: ECD1

DATE: 12/15/2009 METHOD: ECD1-F-8082-121409.m OPERATOR:YS1 REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1

SOLVENT LOT DA385
ALUMINA LOT 1230997-A
COPPER LOT 236547-A

Calibration & QC Information
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.
GEL SOP GL-OA-E-040 Polychlorinated Biphenyl: EPA 8082
Chromatogram Abbreviation Legend: AB-Assign Baseline, AP-Assign Peak,
DNC-Do Not Call, DMP-Doesn't Match Pattern, NC-Not Confirmed, RT-Retention Time,
BF-Before, AF-After.

Sequence Number: /chem/ecd1a.i/121409.b Injection Volume: 0.5 ul

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001f0101.d	WAR091130-99 01	YS1	14-DEC-2009 04:44		121409	1.0	CLEAN	
002f0201.d	WAR091211-60 01	YS1	14-DEC-2009 04:54		121409	1.0	DUSE RE-ICAL	
003f0301.d	WAR091102-54	YS1	14-DEC-2009 05:05		121409	1.0	DUSE RE-ICAL	
004f0401.d	WAR091102-42	YS1	14-DEC-2009 05:15		121409	1.0	DUSE RE-ICAL	
005f0501.d	WAR091027-48	YS1	14-DEC-2009 05:26		121409	1.0	DUSE RE-ICAL	
006f0601.d	WAR090930-32	YS1	14-DEC-2009 05:36		121409	1.0	PATTERN ONLY	
007f0701.d	WAR090803-21	YS1	14-DEC-2009 05:47		121409	1.0	PATTERN ONLY	
008f0801.d	WAR090803-62	YS1	14-DEC-2009 05:58		121409	1.0	PATTERN ONLY	
009f0901.d	WAR091106-68	YS1	14-DEC-2009 06:08		121409	1.0	DUSE RE-ICAL	
010f1001.d	1660-1	YS1	14-DEC-2009 06:19		121409	1.0	DUSE	
011f1101.d	1660-2	YS1	14-DEC-2009 06:29		121409	1.0	DUSE	
012f1201.d	1660-3	YS1	14-DEC-2009 06:40		121409	1.0	DUSE	
013f1301.d	1660-4	YS1	14-DEC-2009 06:50		121409	1.0	DUSE	
014f1401.d	IAR091102-01	YS1	14-DEC-2009 07:01		121409	1.0	DUSE	
015f1501.d	WAR091211-60 01	YS1	14-DEC-2009 07:11		121409	1.0	DUSE	

Instrument Batch: /chem/ecd1a.i/121409.b Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments

016f1601.d	WAR091214-05 54	YS1	14-DEC-2009 07:22		121409	1.0		AR1254 I-CAL LEVEL 1
017f1701.d	WAR091214-06 54	YS1	14-DEC-2009 07:32		121409	1.0		AR1254 I-CAL LEVEL 2
018f1801.d	WAR091214-07 54	YS1	14-DEC-2009 07:43		121409	1.0		AR1254 I-CAL LEVEL 3
019f1901.d	WAR091214-08 54	YS1	14-DEC-2009 07:53		121409	1.0		AR1254 I-CAL LEVEL 4
020f2001.d	IAR091027-01	YS1	14-DEC-2009 08:04		121409	1.0		AR1254 I-CAL LEVEL 5
021f2101.d	WAR091102-54	YS1	14-DEC-2009 08:14		121409	1.0		PASSED ON BOTH COLUMNS
022f2201.d	WAR091214-09 42	YS1	14-DEC-2009 08:25		121409	1.0		AR1242 I-CAL LEVEL 1
023f2301.d	WAR091214-10 42	YS1	14-DEC-2009 08:35		121409	1.0		AR1242 I-CAL LEVEL 2
024f2401.d	WAR091214-11 42	YS1	14-DEC-2009 08:46		121409	1.0		AR1242 I-CAL LEVEL 3
025f2501.d	WAR091214-12 42	YS1	14-DEC-2009 08:56		121409	1.0		AR1242 I-CAL LEVEL 4
026f2601.d	IAR0911111-01	YS1	14-DEC-2009 09:07		121409	1.0		AR1242 I-CAL LEVEL 5
027f2701.d	WAR091102-42	YS1	14-DEC-2009 09:17		121409	1.0		PASSED ON BOTH COLUMNS
028f2801.d	WAR091214-13 48	YS1	14-DEC-2009 09:28		121409	1.0		AR1248 I-CAL LEVEL 1
029f2901.d	WAR091214-14 48	YS1	14-DEC-2009 09:38		121409	1.0		AR1248 I-CAL LEVEL 2
030f3001.d	WAR091214-15 48	YS1	14-DEC-2009 09:49		121409	1.0		AR1248 I-CAL LEVEL 3
031f3101.d	WAR091214-16 48	YS1	14-DEC-2009 09:59		121409	1.0		AR1248 I-CAL LEVEL 4
032f3201.d	IAR091027-02	YS1	14-DEC-2009 10:10		121409	1.0		AR1248 I-CAL LEVEL 5
033f3301.d	WAR091027-48	YS1	14-DEC-2009 10:20		121409	1.0		PASSED ON BOTH COLUMNS
034f3401.d	WAR091214-01 60	YS1	14-DEC-2009 10:31		121409	1.0		AR1660 I-CAL LEVEL 1
035f3501.d	WAR091214-02 60	YS1	14-DEC-2009 10:41		121409	1.0		AR1660 I-CAL LEVEL 2

Instrument Batch: /chem/ecd1a.i/121409.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
036f3601.d	WAR091214-03 60	YS1	14-DEC-2009 10:52		121409	1.0		AR1660 I-CAL LEVEL 3
037f3701.d	WAR091214-04 60	YS1	14-DEC-2009 11:02		121409	1.0		AR1660 I-CAL LEVEL 4
038f3801.d	IAR091102-01	YS1	14-DEC-2009 11:13		121409	1.0		AR1660 I-CAL LEVEL 5
039f3901.d	WAR091211-60 01	YS1	14-DEC-2009 11:23		121409	1.0		PASSED ON BOTH COLUMNS
040f4001.d	WAR091214-17 68	YS1	14-DEC-2009 11:34		121409	1.0		AR1268 I-CAL LEVEL 1

041f4101.d	WAR091214-18 68	YS1	14-DEC-2009 11:44		121409		1.0		AR1268 I-CAL LEVEL 2
042f4201.d	WAR091214-19 68	YS1	14-DEC-2009 11:55		121409		1.0		AR1268 I-CAL LEVEL 3
043f4301.d	WAR091214-20 68	YS1	14-DEC-2009 12:06		121409		1.0		AR1268 I-CAL LEVEL 4
044f4401.d	IAR090817-02	YS1	14-DEC-2009 12:16		121409		1.0		AR1268 I-CAL LEVEL 5
045f4501.d	WAR091106-68	YS1	14-DEC-2009 12:27		121409		1.0		PASSED ON BOTH COLUMNS
046f4601.d	WAR091020-DDT	YS1	14-DEC-2009 12:37		121409		1.0		DDT ANALOG STANDARD
047f4701.d	WAR091130-99 02	YS1	14-DEC-2009 12:48		121409		1.0		CLEAN
048f4801.d	1201991693	YS1	14-DEC-2009 12:58	931140	10-782		1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
049f4901.d	1201991694	YS1	14-DEC-2009 13:09	931140	10-782		1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
050f5001.d	242297001	YS1	14-DEC-2009 13:19	931140	10-782		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
051f5101.d	242297002	YS1	14-DEC-2009 13:30	931140	10-782		10.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
052f5201.d	242297003	YS1	14-DEC-2009 13:40	931140	10-782		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
053f5301.d	242297004	YS1	14-DEC-2009 13:51	931140	10-782		5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
054f5401.d	242297005	YS1	14-DEC-2009 14:03	931140	10-782		5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
055f5501.d	242297006	YS1	14-DEC-2009 14:16	931140	10-782		10.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
056f5601.d	242297007	YS1	14-DEC-2009 14:29	931140	10-782	5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
057f5701.d	242297008	YS1	14-DEC-2009 14:41	931140	10-782	25.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
058f5801.d	WAR091211-60 02	YS1	14-DEC-2009 14:52		121409	1.0		PASSED ON BOTH COLUMNS
059f5901.d	WAR091130-99 03	YS1	14-DEC-2009 15:02		121409	1.0		CLEAN
060f6001.d	242297009	YS1	14-DEC-2009 15:13	931140	10-782	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
061f6101.d	242297010	YS1	14-DEC-2009 15:25	931140	10-782	1.0	LANL	DCB LOW RE
062f6201.d	242297011	YS1	14-DEC-2009 15:38	931140	10-782	5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
063f6301.d	242297012	YS1	14-DEC-2009 15:51	931140	10-782	5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
064f6401.d	242297013	YS1	14-DEC-2009 16:03	931140	10-782	10.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER

065f6501.d	242305004	YS1	14-DEC-2009 16:16	931140	10-786	5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
066f6601.d	1201991695	YS1	14-DEC-2009 16:28	931140	10-786	5.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
067f6701.d	1201991696	YS1	14-DEC-2009 16:41	931140	10-786	5.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
068f6801.d	242305005	YS1	14-DEC-2009 16:53	931140	10-786	5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
069f6901.d	242305006	YS1	14-DEC-2009 17:06	931140	10-786	5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
070f7001.d	WAR091211-60 03	YS1	14-DEC-2009 17:19		121409	1.0		PASSED ON BOTH COLUMNS
071f7101.d	WAR091130-99 04	YS1	14-DEC-2009 17:31		121409	1.0		CLEAN
072f7201.d	1201992645	YS1	14-DEC-2009 17:44	931553	242521	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
073f7301.d	1201992646	YS1	14-DEC-2009 17:57	931553	242521	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
074f7401.d	242264001	YS1	14-DEC-2009 18:09	931553	242264	5.0	ENRG	UPLOAD BOTH COLUMNS, USE HIGHER
075f7501.d	242521001	YS1	14-DEC-2009 18:22	931553	242521	5.0	EMSC	UPLOAD BOTH COLUMNS, USE HIGHER

Instrument Batch: /chem/ecd1a.i/121409.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
076f7601.d	1201992647	YS1	14-DEC-2009 18:35	931553	242521	5.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
077f7701.d	1201992648	YS1	14-DEC-2009 18:47	931553	242521	5.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
078f7801.d	242521002	YS1	14-DEC-2009 19:00	931553	242521	5.0	EMSC	UPLOAD BOTH COLUMNS, USE HIGHER
079f7901.d	242521003	YS1	14-DEC-2009 19:12	931553	242521	5.0	EMSC	UPLOAD BOTH COLUMNS, USE HIGHER
080f8001.d	242521004	YS1	14-DEC-2009 19:25	931553	242521	5.0	EMSC	UPLOAD BOTH COLUMNS, USE HIGHER
081f8101.d	242521005	YS1	14-DEC-2009 19:38	931553	242521	5.0	EMSC	UPLOAD BOTH COLUMNS, USE HIGHER
082f8201.d	WAR091211-60 04	YS1	14-DEC-2009 19:50		121409	1.0		PASSED ON BOTH COLUMNS
083f8301.d	WAR091130-99 05	YS1	14-DEC-2009 20:03		121409	1.0		CLEAN
084f8401.d	242521006	YS1	14-DEC-2009 20:15	931553	242521	5.0	EMSC	UPLOAD BOTH COLUMNS, USE HIGHER
085f8501.d	242521007	YS1	14-DEC-2009 20:28	931553	242521	5.0	EMSC	UPLOAD BOTH COLUMNS, USE HIGHER
086f8601.d	242521008	YS1	14-DEC-2009 20:41	931553	242521	5.0	EMSC	UPLOAD BOTH COLUMNS, USE HIGHER
087f8701.d	WAR091211-60 05	YS1	14-DEC-2009 20:53		121409	1.0		PASSED ON BOTH COLUMNS
088f8801.d	WAR091130-99 06	YS1	14-DEC-2009 21:06		121409	1.0		CLEAN
089f8901.d	242297010	YS1	14-DEC-2009 21:19	931140	10-782	1.0	LANL	

090f9001.d	WAR091211-60 06	YS1	14-DEC-2009 21:31		121409	1.0	PASSED ON BOTH COLUMNS
091f9101.d	WAR091130-99 07	YS1	14-DEC-2009 21:44		121409	1.0	CLEAN
092f9201.d	1660	YS1	14-DEC-2009 21:56		121409	1.0	screen
093f9301.d	1660	YS1	14-DEC-2009 22:09		121409	1.0	screen
094f9401.d	1660	YS1	14-DEC-2009 22:22		121409	1.0	screen

GEL ORGANIC RUN LOG INSTRUMENT ID: ECD1

DATE: 12/17/2009 METHOD: ECD1-F-8082-121409.m OPERATOR:YS1 REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT DA385
ALUMINA LOT 1230997-A
COPPER LOT 236547-A

Calibration & QC Information
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.
GEL SOP GL-OA-E-040 Polychlorinated Biphenyl: EPA 8082
Chromatogram Abbreviation Legend: AB-Assign Baseline, AP-Assign Peak,
DNC-Do Not Call, DMP-Doesn't Match Pattern, NC-Not Confirmed, RT-Retention Time,
BF-Before, AF-After.

Sequence Number: /chem/ecd1a.i/121609.b Injection Volume: 0.5 ul

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001f0101.d	WAR091130-99 01	YS1	16-DEC-2009 06:28		121609	1.0		CLEAN
002f0201.d	WAR091211-60 01	YS1	16-DEC-2009 06:39		121609	1.0		PASSED ON BOTH COLUMNS
003f0301.d	WAR091102-54	YS1	16-DEC-2009 06:49		121609	1.0		DUSE
004f0401.d	WAR091102-42	YS1	16-DEC-2009 07:00		121609	1.0		PASSED ON BOTH COLUMNS
005f0501.d	WAR091027-48	YS1	16-DEC-2009 07:10		121609	1.0		PASSED ON BOTH COLUMNS
006f0601.d	WAR090930-32	YS1	16-DEC-2009 07:21		121609	1.0		PATTERN ONLY
007f0701.d	54SCREEN	YS1	16-DEC-2009 07:31		121609	1.0		SCREEN DUSE
008f0801.d	WAR090803-21	YS1	16-DEC-2009 07:42		121609	1.0		PATTERN ONLY
009f0901.d	WAR090803-62	YS1	16-DEC-2009 07:52		121609	1.0		PATTERN ONLY
010f1001.d	WAR091106-68	YS1	16-DEC-2009 08:03		121609	1.0		PASSED ON BOTH COLUMNS
011f1101.d	WAR091216-54	YS1	16-DEC-2009 08:13		121609	1.0		PASSED ON BOTH COLUMNS
012f1201.d	WAR091020-DDT	YS1	16-DEC-2009 08:24		121609	1.0		DDT ANALOG STANDARD
013f1301.d	WAR091130-99 02	YS1	16-DEC-2009 08:34		121609	1.0		CLEAN
014f1401.d	WE091215-16	YS1	16-DEC-2009 08:46		121609	1.0		SCRAAE FOR PREP
015f1501.d	1201996864	YS1	16-DEC-2009 08:57	933347	EUI-7412	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER

Instrument Batch: /chem/ecd1a.i/121609.b Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments

016f1601.d	1201996865	YS1	16-DEC-2009 09:09	933347	EUI-7412	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
017f1701.d	1201996871	YS1	16-DEC-2009 09:20	933347	EUI-7412	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
018f1801.d	242214001	YS1	16-DEC-2009 09:30	933347	EUI-7412	5.0	CARE	UPLOAD BOTH COLUMNS, USE HIGHER
019f1901.d	242214002	YS1	16-DEC-2009 09:43	933347	EUI-7412	5.0	CARE	UPLOAD BOTH COLUMNS, USE HIGHER
020f2001.d	1201996866	YS1	16-DEC-2009 09:55	933347	EUI-7412	5.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
021f2101.d	1201996867	YS1	16-DEC-2009 10:08	933347	EUI-7412	5.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
022f2201.d	242214003	YS1	16-DEC-2009 10:21	933347	EUI-7412	5.0	CARE	UPLOAD BOTH COLUMNS, USE HIGHER
023f2301.d	242214004	YS1	16-DEC-2009 10:33	933347	EUI-7412	200.0	CARE	DUSE RR 40X
024f2401.d	WAR091211-60 02	YS1	16-DEC-2009 10:46		121609	1.0		PASSED ON BOTH COLUMNS
025f2501.d	WAR091130-99 03	YS1	16-DEC-2009 10:56		121609	1.0		CLEAN
026f2601.d	242218001	YS1	16-DEC-2009 11:07	933347	EUI-7416	200.0	CARE	UPLOAD BOTH COLUMNS, USE HIGHER
027f2701.d	242722001	YS1	16-DEC-2009 11:19	933347	EUI-7427	10.0	CARE	UPLOAD BOTH COLUMNS, USE HIGHER
028f2801.d	242567001	YS1	16-DEC-2009 11:32	933347	EUI-7422	25.0	CARE	UPLOAD BOTH COLUMNS, USE HIGHER
029f2901.d	242565001	YS1	16-DEC-2009 11:44	933347	EUI-7420	20.0	CARE	UPLOAD BOTH COLUMNS, USE HIGHER
030f3001.d	242566001	YS1	16-DEC-2009 11:57		EUI-7421	5.0		DUS RE-DILUT RE-RUN
031f3101.d	242917001	YS1	16-DEC-2009 12:09	933347	EUI-7430	20.0	CARE	UPLOAD BOTH COLUMNS, USE HIGHER
032f3201.d	242917002	YS1	16-DEC-2009 12:22	933347	EUI-7430	100.0	CARE	UPLOAD BOTH COLUMNS, USE HIGHER
033f3301.d	242917003	YS1	16-DEC-2009 12:35	933347	EUI-7430	100.0	CARE	UPLOAD BOTH COLUMNS, USE HIGHER
034f3401.d	242917004	YS1	16-DEC-2009 12:47	933347	EUI-7430	100.0	CARE	UPLOAD BOTH COLUMNS, USE HIGHER
035f3501.d	242917005	YS1	16-DEC-2009 13:00	933347	EUI-7430	100.0	CARE	UPLOAD BOTH COLUMNS, USE HIGHER

Instrument Batch: /chem/ecd1a.i/121609.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
036f3601.d	WAR091211-60 03	YS1	16-DEC-2009 13:12		121609	1.0		PASSED ON BOTH COLUMNS
037f3701.d	WAR091130-99 04	YS1	16-DEC-2009 13:23		121609	1.0		CLEAN
038f3801.d	242214004	YS1	16-DEC-2009 13:33	933347	EUI-7412	40.0	CARE	UPLOAD BOTH COLUMNS, USE HIGHER
039f3901.d	242566001	YS1	16-DEC-2009 13:46	933347	EUI-7421	5.0	CARE	UPLOAD BOTH COLUMNS, USE HIGHER
040f4001.d	WAR091211-60 04	YS1	16-DEC-2009 13:58		121609	1.0		PASSED ON BOTH COLUMNS

041f4101.d	WAR091130-99 05	YS1	16-DEC-2009 14:09		121609		1.0		CLEAN
042f4201.d	1201995802	YS1	16-DEC-2009 14:19	932922	121609		1.0	QC A	DUSE 4CMX LOW RE THE BATCH
043f4301.d	1201995803	YS1	16-DEC-2009 14:32	932922			1.0	QC A	DUSE
044f4401.d	242701001	YS1	16-DEC-2009 14:44	932922	242701		5.0	EMSC	DUSE
045f4501.d	1201995804	YS1	16-DEC-2009 14:57	932922	51-T8)(242701001MS)		5.0	QC A	DUSE
046f4601.d	1201995805	YS1	16-DEC-2009 15:10	932922	51-T8)(242701001MSD		5.0	QC A	DUSE
047f4701.d	242701002	YS1	16-DEC-2009 15:22	932922	242701		5.0	EMSC	DUSE
048f4801.d	242701003	YS1	16-DEC-2009 15:35	932922	242701		5.0	EMSC	DUSE
049f4901.d	242701004	YS1	16-DEC-2009 15:48	932922	242701		5.0	EMSC	DUSE
050f5001.d	WAR091211-60 05	YS1	16-DEC-2009 16:00		121609		1.0		PASSED ON BOTH COLUMNS
051f5101.d	WAR091130-99 06	YS1	16-DEC-2009 16:11		121609		1.0		CLEAN
052f5201.d	1201996856	YS1	16-DEC-2009 16:21	933342	10-782		1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
053f5301.d	1201996857	YS1	16-DEC-2009 16:32	933342	10-782		1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
054f5401.d	242297010	YS1	16-DEC-2009 16:42	933342	10-782		5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
055f5501.d	242439005	YS1	16-DEC-2009 16:55	933342	10-830		5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER

Instrument Batch: /chem/ecd1a.i/121609.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
056f5601.d	242445002	YS1	16-DEC-2009 17:08	933342	10-832	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
057f5701.d	242447001	YS1	16-DEC-2009 17:20	933342	10-833	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
058f5801.d	242447002	YS1	16-DEC-2009 17:33	933342	10-833	5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
059f5901.d	242447003	YS1	16-DEC-2009 17:45	933342	10-833	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
060f6001.d	242668001	YS1	16-DEC-2009 17:58	933342	10-854	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
061f6101.d	242668002	YS1	16-DEC-2009 18:11	933342	10-854	5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
062f6201.d	WAR091211-60 06	YS1	16-DEC-2009 18:23		121609	1.0		PASSED ON BOTH COLUMNS
063f6301.d	WAR091130-99 07	YS1	16-DEC-2009 18:34		121609	1.0		CLEAN
064f6401.d	242750001	YS1	16-DEC-2009 18:44	933342	10-886	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER

065f6501.d	242750002	YS1	16-DEC-2009 18:57	933342	10-886		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
066f6601.d	242750003	YS1	16-DEC-2009 19:10	933342	10-886		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
067f6701.d	242750004	YS1	16-DEC-2009 19:22	933342	10-886		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
068f6801.d	242750005	YS1	16-DEC-2009 19:35	933342	10-886		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
069f6901.d	242781001	YS1	16-DEC-2009 19:47	933342	10-887		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
070f7001.d	1201996858	YS1	16-DEC-2009 19:58	933342	10-887		1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
071f7101.d	1201996859	YS1	16-DEC-2009 20:08	933342	10-887		1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
072f7201.d	242781002	YS1	16-DEC-2009 20:19	933342	10-887		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
073f7301.d	242781003	YS1	16-DEC-2009 20:30	933342	10-887		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
074f7401.d	WAR091211-60 07	YS1	16-DEC-2009 20:40		121609		1.0		PASSED ON BOTH COLUMNS
075f7501.d	WAR091130-99 08	YS1	16-DEC-2009 20:51		121609		1.0		CLEAN

Instrument Batch: /chem/ecd1a.i/121609.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
076f7601.d	242781004	YS1	16-DEC-2009 21:01	933342	10-887	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
077f7701.d	242781005	YS1	16-DEC-2009 21:12	933342	10-887	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
078f7801.d	242781006	YS1	16-DEC-2009 21:22	933342	10-887	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
079f7901.d	242781007	YS1	16-DEC-2009 21:33	933342	10-887	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
080f8001.d	WAR091211-60 08	YS1	16-DEC-2009 21:43		121609	1.0		PASSED ON BOTH COLUMNS
081f8101.d	WAR091130-99 09	YS1	16-DEC-2009 21:54		121609	1.0		CLEAN

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RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/121609.b/070b7001.d
Lab Smp Id: 1201996858 Client Smp ID: RE03-09-13757MS
Inj Date : 16-DEC-2009 19:58
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1201996858|1|
Misc Info : |ECD82P_1S|933342|SVAF|QC A|SOIL|MS|||
Comment :
Method : /chem/ecd1a.i/121609.b/ECD1-B-8082-121409.m
Meth Date : 17-Dec-2009 07:29 yip00818 Quant Type: ESTD
Cal Date : 14-DEC-2009 12:16 Cal File: 044b4401.d
Als bottle: 70 QC Sample: MS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-887.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.01000	Weight of sample extracted (g)
M	9.86880	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.303	2.303	0.000	36931623	123.095	4.6	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.950	5.950	0.000	31890808	136.737	5.0	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.200	3.201	-0.001	9036963	716.563	26.5	80.00- 120.00	100.00(M)
3.284	3.283	0.001	6003161	643.572	23.8	44.88- 84.88	66.43
3.347	3.347	0.000	3648098	674.161	24.9	20.66- 60.66	40.37
3.575	3.574	0.001	4736513	671.667	24.8	32.99- 72.99	52.41

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
1 Aroclor-1016 (continued)							
3.650	3.650	0.000	4449840	679.289	25.1	28.99- 68.99	58.85
Average of Peak Concentrations =					25.0		
6 Aroclor-1254					CAS #: 11097-69-1		
3.409	3.409	0.000	3646896	566.706	21.0	80.00- 120.00	100.00
3.832	3.832	0.000	4868088	421.140	15.6	160.27- 200.27	133.49
3.948	3.947	0.001	4224728	339.846	12.6	181.92- 221.92	115.84
4.224	4.224	0.000	2709256	160.500	5.9	264.49- 304.49	74.29
4.360	4.360	0.000	1275374	102.559	3.8	192.39- 232.39	34.97
Average of Peak Concentrations =					11.8		
7 Aroclor-1260					CAS #: 11096-82-5		
4.340	4.341	-0.001	11397011	833.113	30.8	80.00- 120.00	100.00
4.465	4.465	0.000	14447761	901.350	33.3	104.06- 144.06	126.77
4.730	4.731	-0.001	10998968	875.440	32.4	75.41- 115.41	96.51
4.905	4.905	0.000	11096034	866.196	32.0	77.99- 117.99	97.36
5.051	5.052	-0.001	25809164	925.137	34.2	204.52- 244.52	226.46
Average of Peak Concentrations =					32.5		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecdia.i/121609.b/070b7001.d
Date : 16-DEC-2009 19:58
Client ID: RE03-09-13787MS
Sample Info: 1120199685811
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecdia.i
Operator: YS1
Column diameter: 0.25

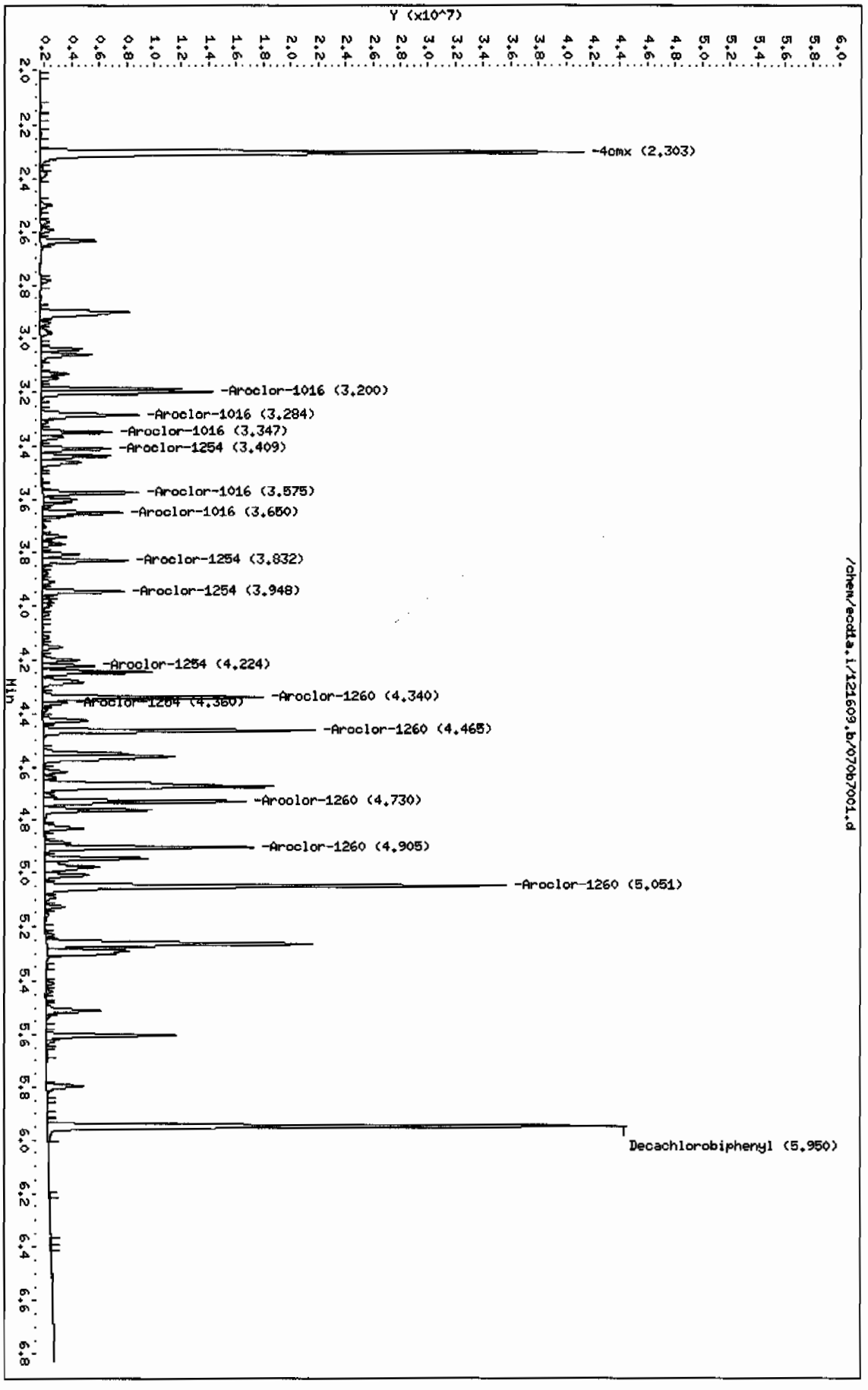

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RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/121609.b/070f7001.d
Lab Smp Id: 1201996858 Client Smp ID: RE03-09-13757MS
Inj Date : 16-DEC-2009 19:58
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1201996858|1|
Misc Info : |ECD82P_1S|933342|SVAF|QC A|SOIL|MS|||
Comment :
Method : /chem/ecd1a.i/121609.b/ECD1-F-8082-121409.m
Meth Date : 17-Dec-2009 07:29 yip00818 Quant Type: ESTD
Cal Date : 14-DEC-2009 11:34 Cal File: 040f4001.d
Als bottle: 70 QC Sample: MS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-887.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.01000	Weight of sample extracted (g)
M	9.86880	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.973	1.972	0.001	48111635	128.069	4.7	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.288	5.290	-0.002	44565620	140.346	5.2	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.430	2.430	0.000	9050960	652.704	24.1	80.00- 120.00	100.00
2.707	2.707	0.000	7651064	757.702	28.0	63.95- 103.95	84.53
2.800	2.800	0.000	7684669	653.624	24.2	66.26- 106.26	84.90
2.837	2.837	0.000	4613972	699.192	25.8	32.06- 72.06	50.98

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
1 Aroclor-1016 (continued)							
3.048	3.048	0.000	6021291	694.225	25.7	47.49- 87.49	66.53
Average of Peak Concentrations =					25.6		
6 Aroclor-1254					CAS #: 11097-69-1		
3.278	3.277	0.001	4850927	388.526	14.4	80.00- 120.00	100.00
3.432	3.433	-0.001	5576518	333.485	12.3	117.82- 157.82	114.96
3.666	3.667	-0.001	3283435	158.513	5.9	162.83- 202.83	67.69
3.830	3.830	0.000	2161452	137.723	5.1	121.29- 161.29	44.56
3.937	3.939	-0.002	23145900	1525.52	56.4	112.52- 152.52	477.14
Average of Peak Concentrations =					18.8		
7 Aroclor-1260					CAS #: 11096-82-5		
3.775	3.775	0.000	14598423	871.436	32.2	80.00- 120.00	100.00
3.937	3.938	-0.001	23145900	935.467	34.6	134.58- 174.58	158.55
4.167	4.168	-0.001	13713745	933.712	34.5	72.46- 112.46	93.94
4.310	4.312	-0.002	13261085	873.329	32.3	76.67- 116.67	90.84
4.490	4.491	-0.001	33407900	972.561	36.0	204.79- 244.79	228.85
Average of Peak Concentrations =					33.9		

Data File: /chem/ecd1a.i/121609.b/070F7001.d
Date : 16-DEC-2009 19:58
Client ID: REQ3-09-13757MS
Sample Info: 1120199685811
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecd1a.i
Operator: YS1
Column diameter: 0.25

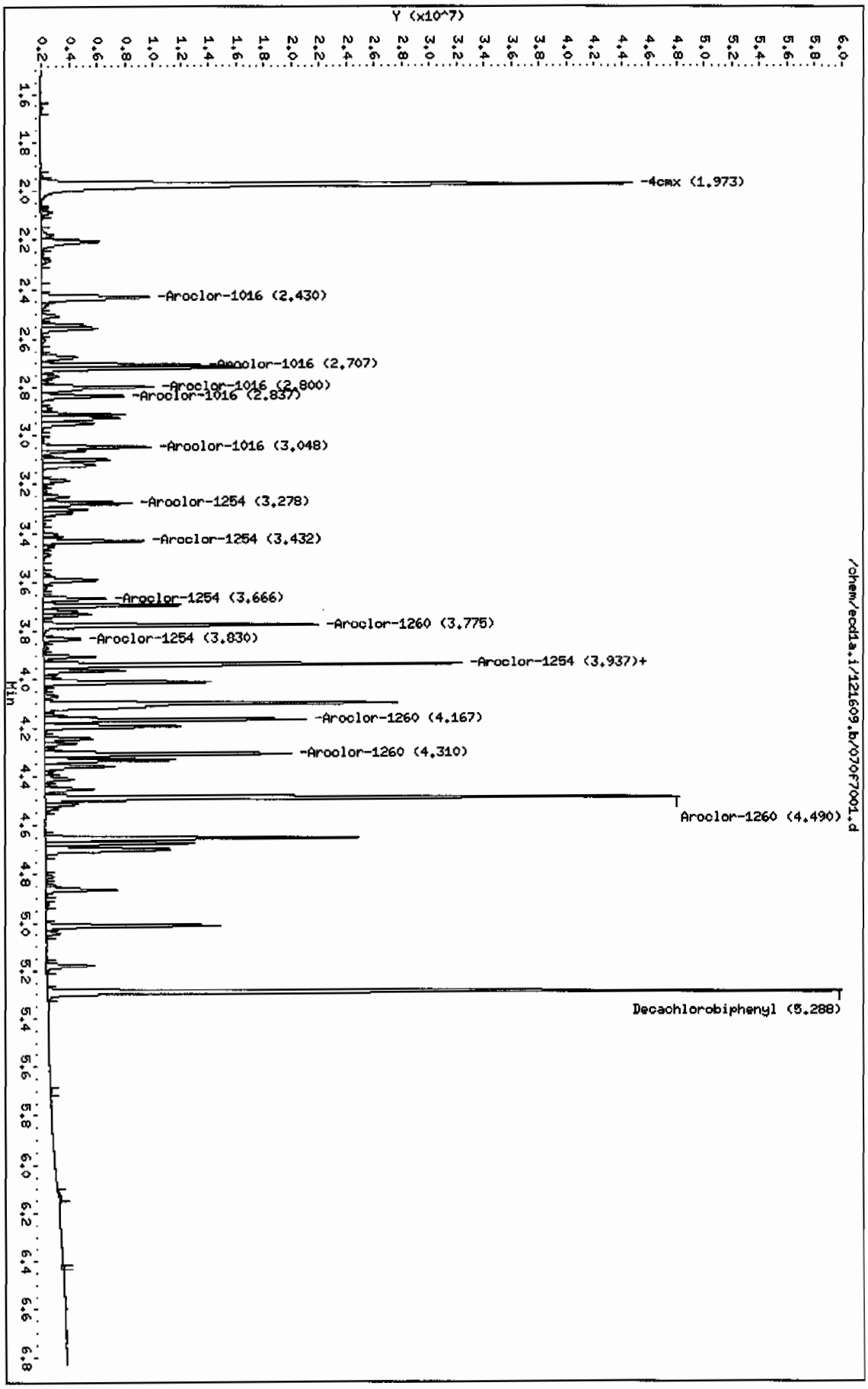

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RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/121609.b/071b7101.d
Lab Smp Id: 1201996859 Client Smp ID: RE03-09-13757MSD
Inj Date : 16-DEC-2009 20:08
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1201996859|1|
Misc Info : |ECD82P_1S|933342|SVAF|QC A|SOIL|MSD|||
Comment :
Method : /chem/ecd1a.i/121609.b/ECD1-B-8082-121409.m
Meth Date : 17-Dec-2009 07:29 yip00818 Quant Type: ESTD
Cal Date : 14-DEC-2009 12:16 Cal File: 044b4401.d
Als bottle: 71 QC Sample: MSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-887.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.04000	Weight of sample extracted (g)
M	9.86880	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.303	2.303	0.000	37551728	125.162	4.6	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.950	5.950	0.000	32753256	140.435	5.2	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.201	3.201	0.000	9256445	733.966	27.1	80.00- 120.00	100.00(M)
3.284	3.283	0.001	6245508	669.553	24.7	44.88- 84.88	67.47
3.348	3.347	0.001	3758497	694.562	25.6	20.66- 60.66	40.60
3.574	3.574	0.000	4941988	700.804	25.9	32.99- 72.99	53.39

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
1 Aroclor-1016 (continued)							
3.650	3.650	0.000	4643203	708.807	26.2	28.99- 68.99	60.02
Average of Peak Concentrations =					25.9		
6 Aroclor-1254					CAS #: 11097-69-1		
3.409	3.409	0.000	3787599	588.570	21.7	80.00- 120.00	100.00
3.832	3.832	0.000	5055066	437.315	16.2	160.27- 200.27	133.46
3.948	3.947	0.001	4255920	342.356	12.6	181.92- 221.92	112.36
4.224	4.224	0.000	2614738	154.901	5.7	264.49- 304.49	69.03
4.361	4.360	0.001	1162034	93.4451	3.4	192.39- 232.39	30.68
Average of Peak Concentrations =					11.9		
7 Aroclor-1260					CAS #: 11096-82-5		
4.341	4.341	0.000	11632595	850.334	31.4	80.00- 120.00	100.00
4.465	4.465	0.000	14648358	913.865	33.8	104.06- 144.06	125.93
4.731	4.731	0.000	11229037	893.752	33.0	75.41- 115.41	96.53
4.905	4.905	0.000	11381455	888.477	32.8	77.99- 117.99	97.84
5.052	5.052	0.000	26546748	951.576	35.1	204.52- 244.52	228.21
Average of Peak Concentrations =					33.2		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecdla.i/121609.b/071b7101.d
Date : 16-DEC-2009 20:08
Client ID: RE03-09-13757MSD
Sample Info: 1120199685911
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecdla.i
Operator: YSI
Column diameter: 0.25

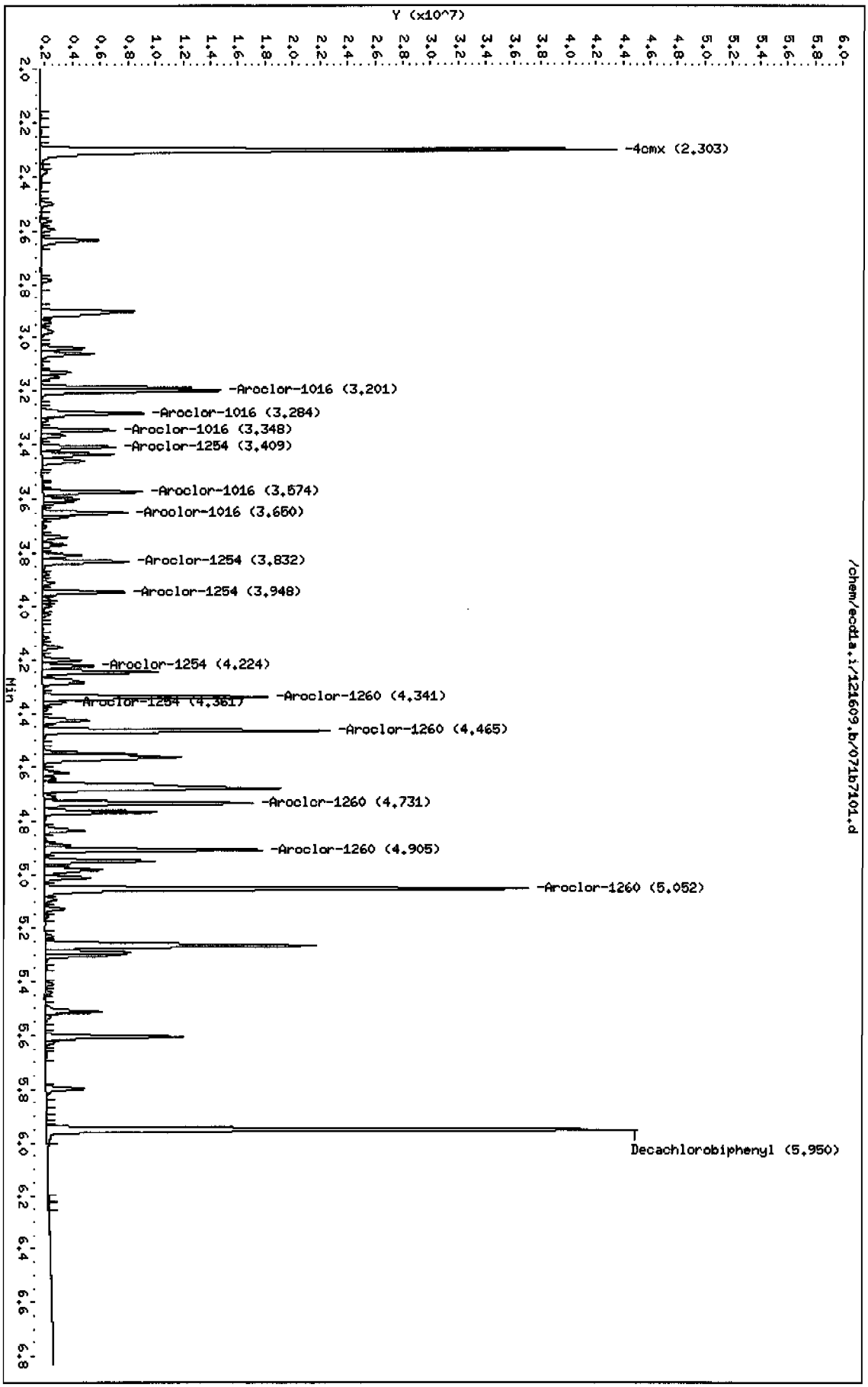

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GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/121609.b/071f7101.d
Lab Smp Id: 1201996859 Client Smp ID: RE03-09-13757MSD
Inj Date : 16-DEC-2009 20:08
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1201996859|1|
Misc Info : |ECD82P_1S|933342|SVAF|QC A|SOIL|MSD|||
Comment :
Method : /chem/ecd1a.i/121609.b/ECD1-F-8082-121409.m
Meth Date : 17-Dec-2009 07:29 yip00818 Quant Type: ESTD
Cal Date : 14-DEC-2009 11:34 Cal File: 040f4001.d
Als bottle: 71 QC Sample: MSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-887.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.04000	Weight of sample extracted (g)
M	9.86880	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.973	1.972	0.001	48948487	130.297	4.8	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.289	5.290	-0.001	46432928	146.227	5.4	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.429	2.430	-0.001	9402676	678.068	25.0	80.00- 120.00	100.00
2.707	2.707	0.000	7853185	777.718	28.7	63.95- 103.95	83.52
2.800	2.800	0.000	8043502	684.145	25.3	66.26- 106.26	85.54
2.838	2.837	0.001	4862526	736.857	27.2	32.06- 72.06	51.71

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
1 Aroclor-1016 (continued)							
3.048	3.048	0.000	6336986	730.623	27.0	47.49- 87.49	67.40
Average of Peak Concentrations =					26.6		
6 Aroclor-1254					CAS #: 11097-69-1		
3.278	3.277	0.001	4999563	400.430	14.8	80.00- 120.00	100.00
3.433	3.433	0.000	5662787	338.644	12.5	117.82- 157.82	113.27
3.667	3.667	0.000	3177762	153.412	5.7	162.83- 202.83	63.56
3.831	3.830	0.001	2067647	131.746	4.9	121.29- 161.29	41.36
3.938	3.939	-0.001	23700994	1562.10	57.7	112.52- 152.52	474.06
Average of Peak Concentrations =					19.1		
7 Aroclor-1260					CAS #: 11096-82-5		
3.775	3.775	0.000	15024828	896.890	33.1	80.00- 120.00	100.00
3.938	3.938	0.000	23700994	957.902	35.4	134.58- 174.58	157.75
4.168	4.168	0.000	14062127	957.431	35.4	72.46- 112.46	93.59
4.311	4.312	-0.001	13991463	921.429	34.0	76.67- 116.67	93.12
4.491	4.491	0.000	34502837	1004.44	37.1	204.79- 244.79	229.64
Average of Peak Concentrations =					35.0		

Data File: /chem/ecdla.i/121609.b/071f7101.d
Date : 16-DEC-2009 20:08
Client ID: RE03-09-13757MSD
Sample Info: !120199685911!
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecdla.i
Operator: YS1
Column diameter: 0.25

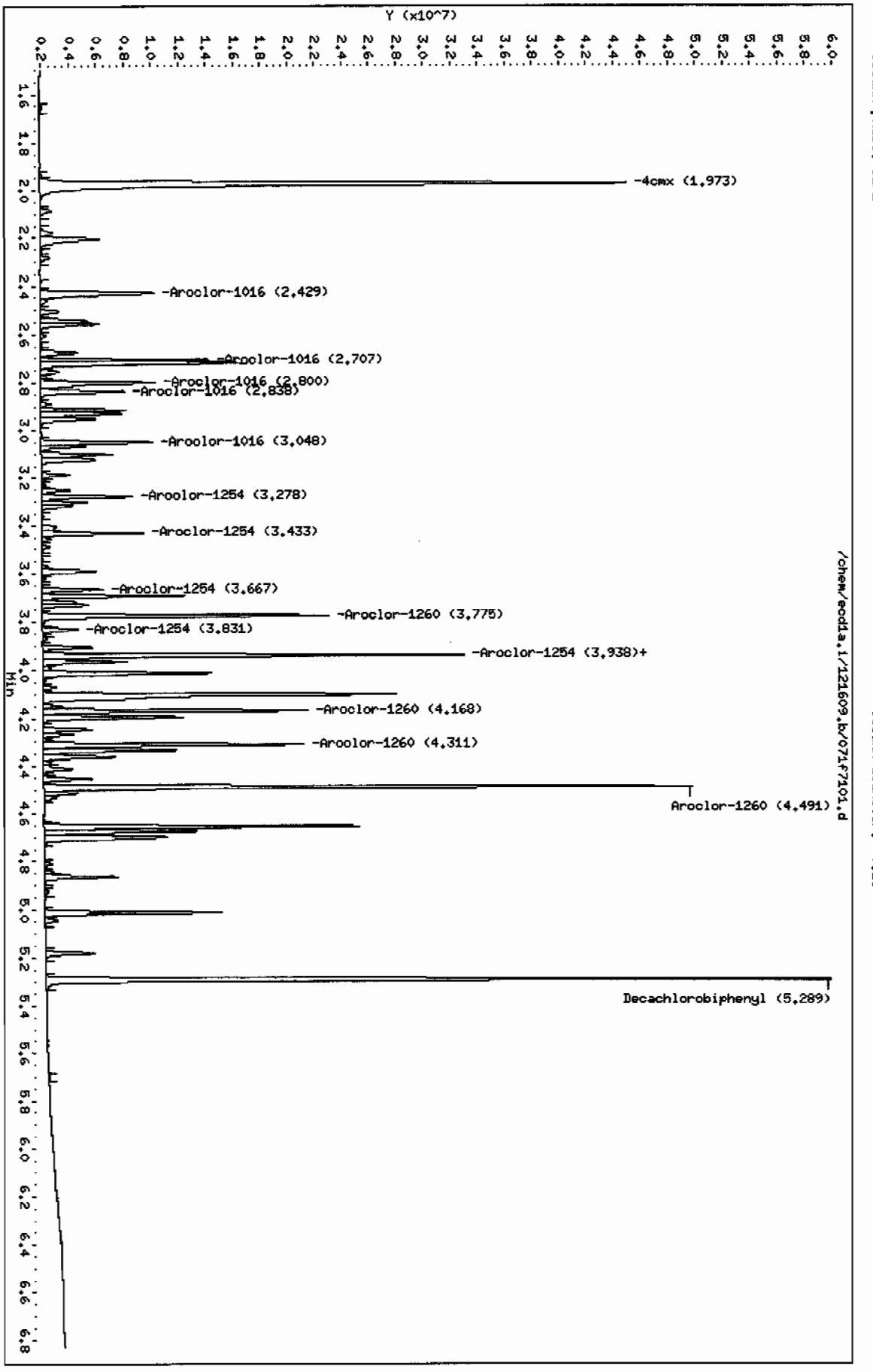

Page 1

Prep Logbook

Extraction of Semivolatile and Nonvolatile Organic Compounds from Soil, Sludge, and Other Miscellaneous Solid Samples

Batch ID: 933337 **Verified by:** _____

Analyst: Andrew Schwemin

Method: SW846 3550B

Lab SOP: GL–OA–E–010 REV# 18

Instrument: Semi–Volatiles Manual

Sample ID	Run Date	Aliquot (g)	Clean Up	Prior to Clean up (mL)	Amount Cleaned (mL)	After Clean up (mL)	Prepped Aliquot (mL)	Prepped Factor (mL/g)
1201996856 MB	15–DEC–2009 20:23:57	30	H2SO4/KMn2		2	9	1	0.03333
1201996857 LCS	15–DEC–2009 20:23:57	30	H2SO4/KMn2		2	9	1	0.03333
242297010 – 2	15–DEC–2009 20:23:57	30.06	H2SO4/KMn2		2	9	1	0.03327
242439005 – 2	15–DEC–2009 20:23:57	30.15	H2SO4/KMn2		2	9	1	0.03317
242445002	15–DEC–2009 20:23:57	30.11	H2SO4/KMn2		2	9	1	0.03321
242447001	15–DEC–2009 20:23:57	30.17	H2SO4/KMn2		2	9	1	0.03315
242447002	15–DEC–2009 20:23:57	30.05	H2SO4/KMn2		2	9	1	0.03328
242447003	15–DEC–2009 20:23:57	30.01	H2SO4/KMn2		2	9	1	0.03332
242668001	15–DEC–2009 20:23:57	30.03	H2SO4/KMn2		2	9	1	0.0333
242668002	15–DEC–2009 20:23:57	30.02	H2SO4/KMn2		2	9	1	0.03331
242750001	15–DEC–2009 20:23:57	30.01	H2SO4/KMn2		2	9	1	0.03332
242750002	15–DEC–2009 20:23:57	30.05	H2SO4/KMn2		2	9	1	0.03328
242750003	15–DEC–2009 20:23:57	30.04	H2SO4/KMn2		2	9	1	0.03329
242750004	15–DEC–2009 20:23:57	30.01	H2SO4/KMn2		2	9	1	0.03332
242750005	15–DEC–2009 20:23:57	30.07	H2SO4/KMn2		2	9	1	0.03326
242781001	15–DEC–2009 20:23:57	30.02	H2SO4/KMn2		2	9	1	0.03331
1201996858 MS (242781001)	15–DEC–2009 20:23:57	30.01	H2SO4/KMn2		2	9	1	0.03332
1201996859 MSD (242781001)	15–DEC–2009 20:23:57	30.04	H2SO4/KMn2		2	9	1	0.03329
242781002	15–DEC–2009 20:23:57	30.14	H2SO4/KMn2		2	9	1	0.03318
242781003	15–DEC–2009 20:23:57	30.07	H2SO4/KMn2		2	9	1	0.03326
242781004	15–DEC–2009 20:23:57	30.03	H2SO4/KMn2		2	9	1	0.0333
242781005	15–DEC–2009 20:23:57	30.04	H2SO4/KMn2		2	9	1	0.03329
242781006	15–DEC–2009 20:23:57	30.04	H2SO4/KMn2		2	9	1	0.03329
242781007	15–DEC–2009 20:23:57	30.02	H2SO4/KMn2		2	9	1	0.03331

Type	Sample Id	Description	Serial Number	Spike Amt	Units
LCS	1201996857	PCB Laboratory Control	WE091210–07	1	mL
MS	1201996858	PCB Laboratory Control	WE091210–07	1	mL
MSD	1201996859	PCB Laboratory Control	WE091210–07	1	mL
SURR	All	PEST LOW LEVEL SURROGATE 200 UG/L	UE091130–15	1	mL
REGNT	All	1:1 sulfuric acid	1133264a	5	mL
REGNT	All	Acetone	1233927	150	mL
REGNT	All	Hexane	1241300–B2	150	mL
REGNT	All	5% Potassium Permanganate	B1202457–F	5	mL
SOURC	All	SODIUM SULFATE	1242582	30	g

Comments:

Clean up Date: 12/15/09

Clean up Initials: AJS

Verified By: AV

Final Solvent: Hexane

Clean Up SOP: GL–OA–E–037

Metals Analysis

Case Narrative

Metals Fractional Narrative
Los Alamos National Laboratory (LANL)
SDG 10-886

Sample Analysis

Sample ID	Client ID
242750001	RE03-09-13467
242750002	RE03-09-13466
242750003	RE03-09-13468
242750004	RE03-09-13465
242750005	RE03-10-2003
1201994230	Method Blank (MB) **ICP**
1201994231	Laboratory Control Sample (LCS)
1201994234	242750001(RE03-09-13467L) Serial Dilution (SD)
1201994232	242750001(RE03-09-13467D) Sample Duplicate (DUP)
1201994233	242750001(RE03-09-13467S) Matrix Spike (MS)
1201994235	242750001(RE03-09-13467SD) Matrix Spike Duplicate (MSD)
1201994309	Method Blank (MB) **ICP-MS**
1201994310	Laboratory Control Sample (LCS)
1201994313	242750001(RE03-09-13467L) Serial Dilution (SD)
1201994311	242750001(RE03-09-13467D) Sample Duplicate (DUP)
1201994312	242750001(RE03-09-13467S) Matrix Spike (MS)
1201994314	242750001(RE03-09-13467SD) Matrix Spike Duplicate (MSD)
1202003901	Method Blank (MB) **CVAA**
1202003902	Laboratory Control Sample (LCS)
1202003905	243092001(RE16-10-2881L) Serial Dilution (SD)
1202003903	243092001(RE16-10-2881D) Sample Duplicate (DUP)
1202003904	243092001(RE16-10-2881S) Matrix Spike (MS)
1202003906	243092001(RE16-10-2881SD) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on a "dry weight" basis.

Method/Analysis Information

Analytical Batch:	932281, 932320 and 936546
Prep Batch :	932280, 932319 and 936545
Standard Operating Procedures:	GL-MA-E-013 REV# 20, GL-MA-E-009 REV# 19, GL-MA-E-014 REV# 20 and GL-MA-E-010 REV# 23
Analytical Method:	SW846 3050B/6010B, SW846 3050B/6020 and SW846 7471A
Prep Method :	SW846 3050B and SW846 7471A Prep

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

System Configuration

The Metals analysis-ICP was performed on a P E 5300 Optima radial/axial-viewing inductively coupled plasma atomic emission spectrometer. The instrument is equipped with a Burgener nebulizer, cyclonic spray chamber, and yttrium or scandium internal standard. Operating conditions for the ICP are set at a power level of 1500 watts. The instrument has a peristaltic pump flow rate of 1.4L/min, argon gas flows of 15 L/min and 0.2 L/min for the torch and auxiliary gases, and a flow setting of 0.65L/min for the nebulizer.

The Metals analysis - ICPMS was performed on a Perkin Elmer ELAN 9000 inductively coupled plasma mass spectrometer (ICP-MS). The instrument is equipped with a cross-flow nebulizer, quadrupole mass spectrometer, and dual mode electron multiplier detector. Internal standards of scandium, germanium, indium, tantalum, and/or lutetium were utilized to cover the mass spectrum. Operating conditions are set at 1400W power and combined argon pressures of 360+/-7 kPa for the plasma and auxiliary gases, and 0.85 L/min carrier gas flow, and an initial lens voltage of 5.2.

The Metals analysis-Mercury was performed on a Perkin-Elmer Flow Injection Mercury System (FIMS-100) automated mercury analyzer. The instrument consists of a cold vapor atomic absorption spectrometer set to detect mercury at a wavelength of 253.7 nm. Sample introduction through the flow injection system is performed via a peristaltic pump at 9 mL/min and nitrogen carrier gas rate of 80 mL/min.

Calibration Information

Instrument Calibration
All initial calibration requirements have been met for this sample delivery group (SDG).

CRDL Requirements
All CRDL standard(s) met the referenced advisory control limits.

ICSA/ICSAB Statement
All interference check samples (ICSA and ICSAB) associated with this SDG met the established acceptance criteria.

Continuing Calibration Blank (CCB) Requirements
All continuing calibration blanks (CCB) bracketing this batch met the established acceptance criteria.

Continuing Calibration Verification (CCV) Requirements
All continuing calibration verifications (CCV) bracketing this SDG met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MBs analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

Quality Control (QC) Sample Statement
The following samples were selected as the quality control (QC) samples for this SDG: 242750001 (RE03-09-13467)-ICP and ICP-MS and 243092001 (RE16-10-2881)-CVAA.

Matrix Spike (MS) Recovery Statement
The percent recoveries (%R) obtained from the MS analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. The MS met the recommended quality control acceptance criteria for percent recoveries for all applicable analytes calcium, magnesium and silicon as indicated by the "N" qualifiers.

Matrix Spike Duplicate (MSD) Recovery Statement
The percent recovery (%R) obtained from the MSD analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. The MSD met the recommended quality control acceptance criteria for percent recoveries for all applicable analytes with the exceptions of calcium, manganese and silicon as indicated by the "N" qualifiers.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD(s) between the MS and MSD met the acceptance limits.

Duplicate Relative Percent Difference (RPD) Statement
The relative percent difference (RPD) obtained from the designated sample duplicate (DUP) is evaluated based on acceptance criteria of 20% when the sample is >5X the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the

contract required detection limit (RL), a control of +/-RL is used to evaluate the DUP results. All applicable analytes met these requirements with the exceptions of barium, manganese, beryllium, nickel and uranium as indicated by the "*" qualifiers.

Serial Dilution % Difference Statement
The serial dilution is used to assess matrix suppression or enhancement. Raw element concentrations that are 25X the IDL/MDL for CVAA, 50X the IDL/MDL for ICP, and 100X the IDL/MDL for ICP-MS analyses are applicable for serial dilution assessment. All applicable analytes met the acceptance criteria of less than 10% difference (%D).

Technical Information

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Sample Dilutions
Dilutions are performed to minimize matrix interferences resulting from elevated mineral element concentrations present in solid samples and/or to bring over range target analyte concentrations into the linear calibration range of the instrument. The samples in this SDG were diluted the standard 2x for solids on the ICPMS.

Preparation Information
The samples in this SDG were prepared exactly according to the cited SOP.

Miscellaneous Information

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Nonconformance Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. The following NCR was generated for this SDG: NCR ID 772597 and 774176. A copy is included in the Miscellaneous Data section of this package.

Additional Comments
Additional comments were not required for this SDG.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Nik-Cole A Elmore **Date:** 1-7-10

Sample Data Summary

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-886 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 242750001 **BASIS:** Dry Weight **DATE COLLECTED** 09-DEC-09

CLIENT ID: RE03-09-13467 **LEVEL:** Low **DATE RECEIVED** 11-DEC-09

MATRIX: SOIL **%SOLIDS:** 96.1

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	3850000	ug/kg		6840	20100	20100	1	P	HSC	12/18/09 11:28	121809A-1	932281
7440-36-0	Antimony	1010	ug/kg	U	332	1010	1010	1	P	HSC	12/18/09 11:28	121809A-1	932281
7440-38-2	Arsenic	1540	ug/kg		201	1000	1000	2	MS	BAJ	12/20/09 18:47	091220-2	932320
7440-39-3	Barium	30900	ug/kg	*	101	503	503	1	P	HSC	12/18/09 11:28	121809A-1	932281
7440-41-7	Beryllium	376	ug/kg	*	20.1	100	100	2	MS	BAJ	12/23/09 21:06	091223-3	932320
7440-42-8	Boron	1210	ug/kg	J	1010	5030	5030	1	P	HSC	12/18/09 11:28	121809A-1	932281
7440-43-9	Cadmium	503	ug/kg	U	101	503	503	1	P	HSC	12/18/09 11:28	121809A-1	932281
7440-70-2	Calcium	1200000	ug/kg	N	8050	25200	25200	1	P	HSC	12/18/09 11:28	121809A-1	932281
7440-47-3	Chromium	2780	ug/kg		151	503	503	1	P	HSC	12/18/09 11:28	121809A-1	932281
7440-48-4	Cobalt	914	ug/kg		151	503	503	1	P	HSC	12/18/09 11:28	121809A-1	932281
7440-50-8	Copper	1690	ug/kg		302	1010	1010	1	P	HSC	12/18/09 11:28	121809A-1	932281
7439-89-6	Iron	11200000	ug/kg		8050	25200	25200	1	P	HSC	12/18/09 11:28	121809A-1	932281
7439-92-1	Lead	9390	ug/kg		252	1010	1010	1	P	HSC	12/18/09 11:28	121809A-1	932281
7439-93-2	Lithium	21.2	mg/kg		0.402	2.01	2.01	2	MS	BAJ	12/24/09 09:08	091223-14	932320
7439-95-4	Magnesium	969000	ug/kg	N	8560	30200	30200	1	P	HSC	12/18/09 11:28	121809A-1	932281
7439-96-5	Manganese	150000	ug/kg	*N	201	1010	1010	1	P	HSC	12/18/09 11:28	121809A-1	932281
7439-97-6	Mercury	13.1	ug/kg		3.84	11.3	11.3	1	AV	JXL1	12/29/09 09:56	122909S2-15	936546
7440-02-0	Nickel	2240	ug/kg	*	100	402	402	2	MS	BAJ	12/20/09 18:47	091220-2	932320
7440-09-7	Potassium	467000	ug/kg		6440	25200	25200	1	P	HSC	12/18/09 11:28	121809A-1	932281
7782-49-2	Selenium	1000	ug/kg	U	502	1000	1000	2	MS	BAJ	12/20/09 18:47	091220-2	932320
7440-21-3	Silicon	1540000	ug/kg	N	1510	10100	10100	1	P	HSC	12/18/09 11:28	121809A-1	932281
7440-22-4	Silver	281	ug/kg	J	101	503	503	1	P	HSC	12/18/09 11:28	121809A-1	932281
7440-23-5	Sodium	211000	ug/kg		7050	25200	25200	1	P	HSC	12/18/09 11:28	121809A-1	932281
7440-28-0	Thallium	186	ug/kg	J	60.3	201	201	2	MS	BAJ	12/20/09 18:47	091220-2	932320
7440-32-6	Titanium	406000	ug/kg		101	503	503	1	P	HSC	12/18/09 11:28	121809A-1	932281
7440-61-1	Uranium	337	ug/kg	*	13.3	40.2	40.2	2	MS	BAJ	12/23/09 21:06	091223-3	932320
7440-62-2	Vanadium	7650	ug/kg		101	503	503	1	P	HSC	12/18/09 11:28	121809A-1	932281
7440-66-6	Zinc	39400	ug/kg		332	1010	1010	1	P	HSC	12/18/09 11:28	121809A-1	932281

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
932281	932280	SW846 3050B	0.517	g	50	mL	12/15/09	BCD1
932320	932319	SW846 3050B	0.518	g	50	mL	12/15/09	BCD1
934867	934866	SW846 7471A Prep	0.513	g	30	mL	12/22/09	TXB3

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

936546	936545	SW846 7471A Prep	0.553	g	30	mL	12/28/09	JXL1

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-886 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 242750002 **BASIS:** Dry Weight **DATE COLLECTED** 09-DEC-09

CLIENT ID: RE03-09-13466 **LEVEL:** Low **DATE RECEIVED** 11-DEC-09

MATRIX: SOIL **%SOLIDS:** 91.5

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	2710000	ug/Kg		7250	21300	21300	1	P	HSC	12/18/09 12:18	121809A-1	932281
7440-36-0	Antimony	1070	ug/Kg	U	352	1070	1070	1	P	HSC	12/18/09 12:18	121809A-1	932281
7440-38-2	Arsenic	4.34	mg/kg		0.214	1.07	1.07	2	MS	BAJ	12/20/09 19:30	091220-2	932320
7440-39-3	Barium	21100	ug/Kg	*	107	533	533	1	P	HSC	12/18/09 12:18	121809A-1	932281
7440-41-7	Beryllium	1.11	mg/kg	*	0.0214	0.107	0.107	2	MS	BAJ	12/23/09 21:23	091223-3	932320
7440-42-8	Boron	1550	ug/Kg	J	1070	5330	5330	1	P	HSC	12/18/09 12:18	121809A-1	932281
7440-43-9	Cadmium	533	ug/Kg	U	107	533	533	1	P	HSC	12/18/09 12:18	121809A-1	932281
7440-70-2	Calcium	1050000	ug/Kg	N	8520	26600	26600	1	P	HSC	12/18/09 12:18	121809A-1	932281
7440-47-3	Chromium	2160	ug/Kg		160	533	533	1	P	HSC	12/18/09 12:18	121809A-1	932281
7440-48-4	Cobalt	951	ug/Kg		160	533	533	1	P	HSC	12/18/09 12:18	121809A-1	932281
7440-50-8	Copper	1730	ug/Kg		320	1070	1070	1	P	HSC	12/18/09 12:18	121809A-1	932281
7439-89-6	Iron	19300000	ug/Kg		8520	26600	26600	1	P	HSC	12/18/09 12:18	121809A-1	932281
7439-92-1	Lead	7650	ug/Kg		266	1070	1070	1	P	HSC	12/18/09 12:18	121809A-1	932281
7439-93-2	Lithium	17.1	mg/kg		0.427	2.14	2.14	2	MS	BAJ	12/24/09 09:31	091223-14	932320
7439-95-4	Magnesium	751000	ug/Kg	N	9060	32000	32000	1	P	HSC	12/18/09 12:18	121809A-1	932281
7439-96-5	Manganese	160000	ug/Kg	*N	213	1070	1070	1	P	HSC	12/18/09 12:18	121809A-1	932281
7439-97-6	Mercury	10.1	ug/kg	J	4.25	12.5	12.5	1	AV	JXL1	12/29/09 09:57	122909S2-15	936546
7440-02-0	Nickel	4.14	mg/kg	*	0.107	0.427	0.427	2	MS	BAJ	12/20/09 19:30	091220-2	932320
7440-09-7	Potassium	280000	ug/Kg		6820	26600	26600	1	P	HSC	12/18/09 12:18	121809A-1	932281
7782-49-2	Selenium	1.07	mg/kg	U	0.534	1.07	1.07	2	MS	BAJ	12/20/09 19:30	091220-2	932320
7440-21-3	Silicon	1140000	ug/Kg	N	1600	10700	10700	1	P	HSC	12/18/09 12:18	121809A-1	932281
7440-22-4	Silver	370	ug/Kg	J	107	533	533	1	P	HSC	12/18/09 12:18	121809A-1	932281
7440-23-5	Sodium	130000	ug/Kg		7460	26600	26600	1	P	HSC	12/18/09 12:18	121809A-1	932281
7440-28-0	Thallium	0.431	mg/kg		0.0641	0.214	0.214	2	MS	BAJ	12/20/09 19:30	091220-2	932320
7440-32-6	Titanium	547000	ug/Kg		107	533	533	1	P	HSC	12/18/09 12:18	121809A-1	932281
7440-61-1	Uranium	0.463	mg/kg	*	0.0141	0.0427	0.0427	2	MS	BAJ	12/23/09 21:23	091223-3	932320
7440-62-2	Vanadium	7770	ug/Kg		107	533	533	1	P	HSC	12/18/09 12:18	121809A-1	932281
7440-66-6	Zinc	26900	ug/Kg		352	1070	1070	1	P	HSC	12/18/09 12:18	121809A-1	932281

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
932281	932280	SW846 3050B	0.513	g	50	mL	12/15/09	BCD1
932320	932319	SW846 3050B	0.512	g	50	mL	12/15/09	BCD1
934867	934866	SW846 7471A Prep	0.504	g	30	mL	12/22/09	TXB3

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

936546	936545	SW846 7471A Prep	0.525	g	30	mL	12/28/09	JXL1

METALS
–1–
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10–886 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 242750003 **BASIS:** Dry Weight **DATE COLLECTED** 09–DEC–09

CLIENT ID: RE03–09–13468 **LEVEL:** Low **DATE RECEIVED** 11–DEC–09

MATRIX: SOIL **%SOLIDS:** 90.7

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429–90–5	Aluminum	1260000	ug/Kg		7450	21900	21900	1	P	HSC	12/18/09 12:25	121809A–1	932281
7440–36–0	Antimony	1100	ug/Kg	U	362	1100	1100	1	P	HSC	12/18/09 12:25	121809A–1	932281
7440–38–2	Arsenic	1.04	mg/kg	J	0.217	1.09	1.09	2	MS	BAJ	12/20/09 19:36	091220–2	932320
7440–39–3	Barium	16600	ug/Kg	*	110	548	548	1	P	HSC	12/18/09 12:25	121809A–1	932281
7440–41–7	Beryllium	0.408	mg/kg	*	0.0217	0.109	0.109	2	MS	BAJ	12/23/09 21:25	091223–3	932320
7440–42–8	Boron	5480	ug/Kg	U	1100	5480	5480	1	P	HSC	12/18/09 12:25	121809A–1	932281
7440–43–9	Cadmium	548	ug/Kg	U	110	548	548	1	P	HSC	12/18/09 12:25	121809A–1	932281
7440–70–2	Calcium	583000	ug/Kg	N	8770	27400	27400	1	P	HSC	12/18/09 12:25	121809A–1	932281
7440–47–3	Chromium	2030	ug/Kg		164	548	548	1	P	HSC	12/18/09 12:25	121809A–1	932281
7440–48–4	Cobalt	818	ug/Kg		164	548	548	1	P	HSC	12/18/09 12:25	121809A–1	932281
7440–50–8	Copper	843	ug/Kg	J	329	1100	1100	1	P	HSC	12/18/09 12:25	121809A–1	932281
7439–89–6	Iron	9560000	ug/Kg		8770	27400	27400	1	P	HSC	12/18/09 12:25	121809A–1	932281
7439–92–1	Lead	17000	ug/Kg		274	1100	1100	1	P	HSC	12/18/09 12:25	121809A–1	932281
7439–93–2	Lithium	23.6	mg/kg		0.435	2.17	2.17	2	MS	BAJ	12/24/09 09:22	091223–14	932320
7439–95–4	Magnesium	847000	ug/Kg	N	9320	32900	32900	1	P	HSC	12/18/09 12:25	121809A–1	932281
7439–96–5	Manganese	232000	ug/Kg	*N	219	1100	1100	1	P	HSC	12/18/09 12:25	121809A–1	932281
7439–97–6	Mercury	18.8	ug/kg		4.3	12.7	12.7	1	AV	JXL1	12/29/09 09:59	122909S2–15	936546
7440–02–0	Nickel	2.44	mg/kg	*	0.109	0.435	0.435	2	MS	BAJ	12/20/09 19:36	091220–2	932320
7440–09–7	Potassium	528000	ug/Kg		7010	27400	27400	1	P	HSC	12/18/09 12:25	121809A–1	932281
7782–49–2	Selenium	1.09	mg/kg	U	0.544	1.09	1.09	2	MS	BAJ	12/20/09 19:36	091220–2	932320
7440–21–3	Silicon	796000	ug/Kg	N	1640	11000	11000	1	P	HSC	12/18/09 12:25	121809A–1	932281
7440–22–4	Silver	190	ug/Kg	J	110	548	548	1	P	HSC	12/18/09 12:25	121809A–1	932281
7440–23–5	Sodium	185000	ug/Kg		7670	27400	27400	1	P	HSC	12/18/09 12:25	121809A–1	932281
7440–28–0	Thallium	0.174	mg/kg	J	0.0652	0.217	0.217	2	MS	BAJ	12/20/09 19:36	091220–2	932320
7440–32–6	Titanium	400000	ug/Kg		110	548	548	1	P	HSC	12/18/09 12:25	121809A–1	932281
7440–61–1	Uranium	0.320	mg/kg	*	0.0144	0.0435	0.0435	2	MS	BAJ	12/23/09 21:25	091223–3	932320
7440–62–2	Vanadium	5560	ug/Kg		110	548	548	1	P	HSC	12/18/09 12:25	121809A–1	932281
7440–66–6	Zinc	59200	ug/Kg		362	1100	1100	1	P	HSC	12/18/09 12:25	121809A–1	932281

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
932281	932280	SW846 3050B	0.503	g	50	mL	12/15/09	BCD1
932320	932319	SW846 3050B	0.507	g	50	mL	12/15/09	BCD1
934867	934866	SW846 7471A Prep	0.513	g	30	mL	12/22/09	TXB3

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

936546	936545	SW846 7471A Prep	0.523	g	30	mL	12/28/09	JXL1

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-886 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 242750004 **BASIS:** Dry Weight **DATE COLLECTED** 09-DEC-09

CLIENT ID: RE03-09-13465 **LEVEL:** Low **DATE RECEIVED** 11-DEC-09

MATRIX: SOIL **%SOLIDS:** 93

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	878000	ug/Kg		7080	20800	20800	1	P	HSC	12/18/09 12:32	121809A-1	932281
7440-36-0	Antimony	1040	ug/Kg	U	344	1040	1040	1	P	HSC	12/18/09 12:32	121809A-1	932281
7440-38-2	Arsenic	1.02	mg/kg	J	0.214	1.07	1.07	2	MS	BAJ	12/20/09 19:43	091220-2	932320
7440-39-3	Barium	18500	ug/Kg	*	104	521	521	1	P	HSC	12/18/09 12:32	121809A-1	932281
7440-41-7	Beryllium	0.241	mg/kg	*	0.0214	0.107	0.107	2	MS	BAJ	12/23/09 21:27	091223-3	932320
7440-42-8	Boron	5210	ug/Kg	U	1040	5210	5210	1	P	HSC	12/18/09 12:32	121809A-1	932281
7440-43-9	Cadmium	521	ug/Kg	U	104	521	521	1	P	HSC	12/18/09 12:32	121809A-1	932281
7440-70-2	Calcium	575000	ug/Kg	N	8330	26000	26000	1	P	HSC	12/18/09 12:32	121809A-1	932281
7440-47-3	Chromium	1620	ug/Kg		156	521	521	1	P	HSC	12/18/09 12:32	121809A-1	932281
7440-48-4	Cobalt	732	ug/Kg		156	521	521	1	P	HSC	12/18/09 12:32	121809A-1	932281
7440-50-8	Copper	696	ug/Kg	J	312	1040	1040	1	P	HSC	12/18/09 12:32	121809A-1	932281
7439-89-6	Iron	8630000	ug/Kg		8330	26000	26000	1	P	HSC	12/18/09 12:32	121809A-1	932281
7439-92-1	Lead	4930	ug/Kg		260	1040	1040	1	P	HSC	12/18/09 12:32	121809A-1	932281
7439-93-2	Lithium	13.5	mg/kg		0.428	2.14	2.14	2	MS	BAJ	12/24/09 09:24	091223-14	932320
7439-95-4	Magnesium	528000	ug/Kg	N	8850	31200	31200	1	P	HSC	12/18/09 12:32	121809A-1	932281
7439-96-5	Manganese	192000	ug/Kg	*N	208	1040	1040	1	P	HSC	12/18/09 12:32	121809A-1	932281
7439-97-6	Mercury	12.5	ug/kg		3.74	11	11	1	AV	JXL1	12/29/09 10:01	122909S2-15	936546
7440-02-0	Nickel	2.73	mg/kg	*	0.107	0.428	0.428	2	MS	BAJ	12/20/09 19:43	091220-2	932320
7440-09-7	Potassium	314000	ug/Kg		6670	26000	26000	1	P	HSC	12/18/09 12:32	121809A-1	932281
7782-49-2	Selenium	1.07	mg/kg	U	0.535	1.07	1.07	2	MS	BAJ	12/20/09 19:43	091220-2	932320
7440-21-3	Silicon	784000	ug/Kg	N	1560	10400	10400	1	P	HSC	12/18/09 12:32	121809A-1	932281
7440-22-4	Silver	255	ug/Kg	J	104	521	521	1	P	HSC	12/18/09 12:32	121809A-1	932281
7440-23-5	Sodium	121000	ug/Kg		7290	26000	26000	1	P	HSC	12/18/09 12:32	121809A-1	932281
7440-28-0	Thallium	0.168	mg/kg	J	0.0642	0.214	0.214	2	MS	BAJ	12/20/09 19:43	091220-2	932320
7440-32-6	Titanium	421000	ug/Kg		104	521	521	1	P	HSC	12/18/09 12:32	121809A-1	932281
7440-61-1	Uranium	0.385	mg/kg	*	0.0141	0.0428	0.0428	2	MS	BAJ	12/23/09 21:27	091223-3	932320
7440-62-2	Vanadium	5070	ug/Kg		104	521	521	1	P	HSC	12/18/09 12:32	121809A-1	932281
7440-66-6	Zinc	29800	ug/Kg		344	1040	1040	1	P	HSC	12/18/09 12:32	121809A-1	932281

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
932281	932280	SW846 3050B	0.516	g	50	mL	12/15/09	BCD1
932320	932319	SW846 3050B	0.502	g	50	mL	12/15/09	BCD1
934867	934866	SW846 7471A Prep	0.538	g	30	mL	12/22/09	TXB3

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

936546	936545	SW846 7471A Prep	0.586	g	30	mL	12/28/09	JXL1

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-886 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 242750005 **BASIS:** Dry Weight **DATE COLLECTED** 09-DEC-09

CLIENT ID: RE03-10-2003 **LEVEL:** Low **DATE RECEIVED** 11-DEC-09

MATRIX: SOIL **%SOLIDS:** 93.2

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	821000	ug/Kg		7130	21000	21000	1	P	HSC	12/18/09 12:39	121809A-1	932281
7440-36-0	Antimony	1050	ug/Kg	U	346	1050	1050	1	P	HSC	12/18/09 12:39	121809A-1	932281
7440-38-2	Arsenic	1.1	mg/kg		0.203	1.02	1.02	2	MS	BAJ	12/20/09 19:49	091220-2	932320
7440-39-3	Barium	17200	ug/Kg	*	105	524	524	1	P	HSC	12/18/09 12:39	121809A-1	932281
7440-41-7	Beryllium	0.308	mg/kg	*	0.0203	0.102	0.102	2	MS	BAJ	12/23/09 21:30	091223-3	932320
7440-42-8	Boron	5240	ug/Kg	U	1050	5240	5240	1	P	HSC	12/18/09 12:39	121809A-1	932281
7440-43-9	Cadmium	524	ug/Kg	U	105	524	524	1	P	HSC	12/18/09 12:39	121809A-1	932281
7440-70-2	Calcium	628000	ug/Kg	N	8390	26200	26200	1	P	HSC	12/18/09 12:39	121809A-1	932281
7440-47-3	Chromium	1640	ug/Kg		157	524	524	1	P	HSC	12/18/09 12:39	121809A-1	932281
7440-48-4	Cobalt	730	ug/Kg		157	524	524	1	P	HSC	12/18/09 12:39	121809A-1	932281
7440-50-8	Copper	729	ug/Kg	J	314	1050	1050	1	P	HSC	12/18/09 12:39	121809A-1	932281
7439-89-6	Iron	9240000	ug/Kg		8390	26200	26200	1	P	HSC	12/18/09 12:39	121809A-1	932281
7439-92-1	Lead	4840	ug/Kg		262	1050	1050	1	P	HSC	12/18/09 12:39	121809A-1	932281
7439-93-2	Lithium	20.6	mg/kg		0.407	2.03	2.03	2	MS	BAJ	12/24/09 09:26	091223-14	932320
7439-95-4	Magnesium	471000	ug/Kg	N	8910	31400	31400	1	P	HSC	12/18/09 12:39	121809A-1	932281
7439-96-5	Manganese	189000	ug/Kg	*N	210	1050	1050	1	P	HSC	12/18/09 12:39	121809A-1	932281
7439-97-6	Mercury	11.9	ug/kg	J	4.23	12.4	12.4	1	AV	JXL1	12/29/09 10:02	122909S2-15	936546
7440-02-0	Nickel	3.39	mg/kg	*	0.102	0.407	0.407	2	MS	BAJ	12/20/09 19:49	091220-2	932320
7440-09-7	Potassium	251000	ug/Kg		6710	26200	26200	1	P	HSC	12/18/09 12:39	121809A-1	932281
7782-49-2	Selenium	1.02	mg/kg	U	0.508	1.02	1.02	2	MS	BAJ	12/20/09 19:49	091220-2	932320
7440-21-3	Silicon	853000	ug/Kg	N	1570	10500	10500	1	P	HSC	12/18/09 12:39	121809A-1	932281
7440-22-4	Silver	133	ug/Kg	J	105	524	524	1	P	HSC	12/18/09 12:39	121809A-1	932281
7440-23-5	Sodium	119000	ug/Kg		7340	26200	26200	1	P	HSC	12/18/09 12:39	121809A-1	932281
7440-28-0	Thallium	0.209	mg/kg		0.061	0.203	0.203	2	MS	BAJ	12/20/09 19:49	091220-2	932320
7440-32-6	Titanium	485000	ug/Kg		105	524	524	1	P	HSC	12/18/09 12:39	121809A-1	932281
7440-61-1	Uranium	0.441	mg/kg	*	0.0134	0.0407	0.0407	2	MS	BAJ	12/23/09 21:30	091223-3	932320
7440-62-2	Vanadium	5330	ug/Kg		105	524	524	1	P	HSC	12/18/09 12:39	121809A-1	932281
7440-66-6	Zinc	33100	ug/Kg		346	1050	1050	1	P	HSC	12/18/09 12:39	121809A-1	932281

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
932281	932280	SW846 3050B	0.512	g	50	mL	12/15/09	BCD1
932320	932319	SW846 3050B	0.528	g	50	mL	12/15/09	BCD1
934867	934866	SW846 7471A Prep	0.507	g	30	mL	12/22/09	TXB3

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

936546	936545	SW846 7471A Prep	0.518	g	30	mL	12/28/09	JXL1

Quality Control Summary

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-886

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
ICV01										
	Aluminum	5120	ug/L	5000	ug/L	102.4	90.0 – 110.0	P	18-DEC-09 07:13	121809A-1
	Antimony	523	ug/L	500	ug/L	104.7	90.0 – 110.0	P	18-DEC-09 07:13	121809A-1
	Barium	531	ug/L	500	ug/L	106.2	90.0 – 110.0	P	18-DEC-09 07:13	121809A-1
	Boron	535	ug/L	500	ug/L	107	90.0 – 110.0	P	18-DEC-09 07:13	121809A-1
	Cadmium	521	ug/L	500	ug/L	104.2	90.0 – 110.0	P	18-DEC-09 07:13	121809A-1
	Calcium	4990	ug/L	5000	ug/L	99.7	90.0 – 110.0	P	18-DEC-09 07:13	121809A-1
	Chromium	508	ug/L	500	ug/L	101.7	90.0 – 110.0	P	18-DEC-09 07:13	121809A-1
	Cobalt	519	ug/L	500	ug/L	103.7	90.0 – 110.0	P	18-DEC-09 07:13	121809A-1
	Copper	528	ug/L	500	ug/L	105.5	90.0 – 110.0	P	18-DEC-09 07:13	121809A-1
	Iron	5100	ug/L	5000	ug/L	102	90.0 – 110.0	P	18-DEC-09 07:13	121809A-1
	Lead	520	ug/L	500	ug/L	104	90.0 – 110.0	P	18-DEC-09 07:13	121809A-1
	Magnesium	5400	ug/L	5000	ug/L	108	90.0 – 110.0	P	18-DEC-09 07:13	121809A-1
	Manganese	539	ug/L	500	ug/L	107.8	90.0 – 110.0	P	18-DEC-09 07:13	121809A-1
	Potassium	2480	ug/L	2500	ug/L	99.4	90.0 – 110.0	P	18-DEC-09 07:13	121809A-1
	Silicon	4970	ug/L	5000	ug/L	99.5	90.0 – 110.0	P	18-DEC-09 07:13	121809A-1
	Silver	271	ug/L	250	ug/L	108.2	90.0 – 110.0	P	18-DEC-09 07:13	121809A-1
	Sodium	2500	ug/L	2500	ug/L	100.2	90.0 – 110.0	P	18-DEC-09 07:13	121809A-1
	Titanium	519	ug/L	500	ug/L	103.8	90.0 – 110.0	P	18-DEC-09 07:13	121809A-1
	Vanadium	537	ug/L	500	ug/L	107.3	90.0 – 110.0	P	18-DEC-09 07:13	121809A-1
	Zinc	534	ug/L	500	ug/L	106.9	90.0 – 110.0	P	18-DEC-09 07:13	121809A-1
	Arsenic	51.2	ug/L	50	ug/L	102.4	90.0 – 110.0	MS	20-DEC-09 16:57	091220-2
	Nickel	53.8	ug/L	50	ug/L	107.6	90.0 – 110.0	MS	20-DEC-09 16:57	091220-2
	Selenium	51.6	ug/L	50	ug/L	103.2	90.0 – 110.0	MS	20-DEC-09 16:57	091220-2
	Thallium	51	ug/L	50	ug/L	102	90.0 – 110.0	MS	20-DEC-09 16:57	091220-2
	Beryllium	50.5	ug/L	50	ug/L	100.9	90.0 – 110.0	MS	23-DEC-09 20:31	091223-3
	Uranium	52.8	ug/L	50	ug/L	105.6	90.0 – 110.0	MS	23-DEC-09 20:31	091223-3
	Lithium	50	ug/L	50	ug/L	99.9	90.0 – 110.0	MS	24-DEC-09 08:37	091223-14
	Mercury	5.1	ug/L	5	ug/L	102	90.0 – 110.0	AV	29-DEC-09 09:29	122909S2-15
CCV01										
	Aluminum	5100	ug/L	5000	ug/L	102	90.0 – 110.0	P	18-DEC-09 07:59	121809A-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-886

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Antimony	518	ug/L	500	ug/L	103.5	90.0 – 110.0	P	18-DEC-09 07:59	121809A-1
	Barium	515	ug/L	500	ug/L	103	90.0 – 110.0	P	18-DEC-09 07:59	121809A-1
	Boron	533	ug/L	500	ug/L	106.7	90.0 – 110.0	P	18-DEC-09 07:59	121809A-1
	Cadmium	517	ug/L	500	ug/L	103.4	90.0 – 110.0	P	18-DEC-09 07:59	121809A-1
	Calcium	5100	ug/L	5000	ug/L	102.1	90.0 – 110.0	P	18-DEC-09 07:59	121809A-1
	Chromium	512	ug/L	500	ug/L	102.3	90.0 – 110.0	P	18-DEC-09 07:59	121809A-1
	Cobalt	507	ug/L	500	ug/L	101.3	90.0 – 110.0	P	18-DEC-09 07:59	121809A-1
	Copper	511	ug/L	500	ug/L	102.1	90.0 – 110.0	P	18-DEC-09 07:59	121809A-1
	Iron	5180	ug/L	5000	ug/L	103.6	90.0 – 110.0	P	18-DEC-09 07:59	121809A-1
	Lead	516	ug/L	500	ug/L	103.2	90.0 – 110.0	P	18-DEC-09 07:59	121809A-1
	Magnesium	5270	ug/L	5000	ug/L	105.5	90.0 – 110.0	P	18-DEC-09 07:59	121809A-1
	Manganese	517	ug/L	500	ug/L	103.5	90.0 – 110.0	P	18-DEC-09 07:59	121809A-1
	Potassium	5230	ug/L	5000	ug/L	104.5	90.0 – 110.0	P	18-DEC-09 07:59	121809A-1
	Silicon	2540	ug/L	2500	ug/L	101.5	90.0 – 110.0	P	18-DEC-09 07:59	121809A-1
	Silver	511	ug/L	500	ug/L	102.3	90.0 – 110.0	P	18-DEC-09 07:59	121809A-1
	Sodium	10100	ug/L	10000	ug/L	100.6	90.0 – 110.0	P	18-DEC-09 07:59	121809A-1
	Titanium	511	ug/L	500	ug/L	102.2	90.0 – 110.0	P	18-DEC-09 07:59	121809A-1
	Vanadium	514	ug/L	500	ug/L	102.9	90.0 – 110.0	P	18-DEC-09 07:59	121809A-1
	Zinc	513	ug/L	500	ug/L	102.7	90.0 – 110.0	P	18-DEC-09 07:59	121809A-1
	Arsenic	49.2	ug/L	50	ug/L	98.4	90.0 – 110.0	MS	20-DEC-09 17:28	091220-2
	Nickel	52.4	ug/L	50	ug/L	104.8	90.0 – 110.0	MS	20-DEC-09 17:28	091220-2
	Selenium	50.7	ug/L	50	ug/L	101.3	90.0 – 110.0	MS	20-DEC-09 17:28	091220-2
	Thallium	49	ug/L	50	ug/L	98	90.0 – 110.0	MS	20-DEC-09 17:28	091220-2
	Beryllium	51.5	ug/L	50	ug/L	103	90.0 – 110.0	MS	23-DEC-09 20:43	091223-3
	Uranium	52.6	ug/L	50	ug/L	105.2	90.0 – 110.0	MS	23-DEC-09 20:43	091223-3
	Lithium	49.4	ug/L	50	ug/L	98.9	90.0 – 110.0	MS	24-DEC-09 08:45	091223-14
	Mercury	5.13	ug/L	5	ug/L	102.6	80.0 – 120.0	AV	29-DEC-09 09:34	122909S2-15
CCV02										
	Aluminum	4960	ug/L	5000	ug/L	99.3	90.0 – 110.0	P	18-DEC-09 08:20	121809A-1
	Antimony	519	ug/L	500	ug/L	103.8	90.0 – 110.0	P	18-DEC-09 08:20	121809A-1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–886

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Barium	518	ug/L	500	ug/L	103.6	90.0 – 110.0	P	18–DEC–09 08:20	121809A–1
	Boron	517	ug/L	500	ug/L	103.4	90.0 – 110.0	P	18–DEC–09 08:20	121809A–1
	Cadmium	521	ug/L	500	ug/L	104.2	90.0 – 110.0	P	18–DEC–09 08:20	121809A–1
	Calcium	4920	ug/L	5000	ug/L	98.5	90.0 – 110.0	P	18–DEC–09 08:20	121809A–1
	Chromium	516	ug/L	500	ug/L	103.1	90.0 – 110.0	P	18–DEC–09 08:20	121809A–1
	Cobalt	511	ug/L	500	ug/L	102.3	90.0 – 110.0	P	18–DEC–09 08:20	121809A–1
	Copper	514	ug/L	500	ug/L	102.7	90.0 – 110.0	P	18–DEC–09 08:20	121809A–1
	Iron	5000	ug/L	5000	ug/L	99.9	90.0 – 110.0	P	18–DEC–09 08:20	121809A–1
	Lead	521	ug/L	500	ug/L	104.2	90.0 – 110.0	P	18–DEC–09 08:20	121809A–1
	Magnesium	5120	ug/L	5000	ug/L	102.4	90.0 – 110.0	P	18–DEC–09 08:20	121809A–1
	Manganese	521	ug/L	500	ug/L	104.3	90.0 – 110.0	P	18–DEC–09 08:20	121809A–1
	Potassium	4930	ug/L	5000	ug/L	98.6	90.0 – 110.0	P	18–DEC–09 08:20	121809A–1
	Silicon	2560	ug/L	2500	ug/L	102.2	90.0 – 110.0	P	18–DEC–09 08:20	121809A–1
	Silver	514	ug/L	500	ug/L	102.9	90.0 – 110.0	P	18–DEC–09 08:20	121809A–1
	Sodium	9690	ug/L	10000	ug/L	96.9	90.0 – 110.0	P	18–DEC–09 08:20	121809A–1
	Titanium	514	ug/L	500	ug/L	102.8	90.0 – 110.0	P	18–DEC–09 08:20	121809A–1
	Vanadium	519	ug/L	500	ug/L	103.7	90.0 – 110.0	P	18–DEC–09 08:20	121809A–1
	Zinc	517	ug/L	500	ug/L	103.4	90.0 – 110.0	P	18–DEC–09 08:20	121809A–1
	Arsenic	51.4	ug/L	50	ug/L	102.9	90.0 – 110.0	MS	20–DEC–09 17:46	091220–2
	Nickel	53.5	ug/L	50	ug/L	107	90.0 – 110.0	MS	20–DEC–09 17:46	091220–2
	Selenium	52.7	ug/L	50	ug/L	105.4	90.0 – 110.0	MS	20–DEC–09 17:46	091220–2
	Thallium	51.4	ug/L	50	ug/L	102.8	90.0 – 110.0	MS	20–DEC–09 17:46	091220–2
	Beryllium	51	ug/L	50	ug/L	102.1	90.0 – 110.0	MS	23–DEC–09 21:02	091223–3
	Uranium	52.4	ug/L	50	ug/L	104.7	90.0 – 110.0	MS	23–DEC–09 21:02	091223–3
	Lithium	51	ug/L	50	ug/L	101.9	90.0 – 110.0	MS	24–DEC–09 08:50	091223–14
	Mercury	5.23	ug/L	5	ug/L	104.5	80.0 – 120.0	AV	29–DEC–09 09:46	122909S2–15
CCV03										
	Aluminum	5090	ug/L	5000	ug/L	101.9	90.0 – 110.0	P	18–DEC–09 09:28	121809A–1
	Antimony	520	ug/L	500	ug/L	104	90.0 – 110.0	P	18–DEC–09 09:28	121809A–1
	Barium	520	ug/L	500	ug/L	103.9	90.0 – 110.0	P	18–DEC–09 09:28	121809A–1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-886

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Boron	518	ug/L	500	ug/L	103.6	90.0 - 110.0	P	18-DEC-09 09:28	121809A-1
	Cadmium	520	ug/L	500	ug/L	104	90.0 - 110.0	P	18-DEC-09 09:28	121809A-1
	Calcium	5100	ug/L	5000	ug/L	102.1	90.0 - 110.0	P	18-DEC-09 09:28	121809A-1
	Chromium	518	ug/L	500	ug/L	103.6	90.0 - 110.0	P	18-DEC-09 09:28	121809A-1
	Cobalt	520	ug/L	500	ug/L	104	90.0 - 110.0	P	18-DEC-09 09:28	121809A-1
	Copper	517	ug/L	500	ug/L	103.3	90.0 - 110.0	P	18-DEC-09 09:28	121809A-1
	Iron	5110	ug/L	5000	ug/L	102.2	90.0 - 110.0	P	18-DEC-09 09:28	121809A-1
	Lead	516	ug/L	500	ug/L	103.2	90.0 - 110.0	P	18-DEC-09 09:28	121809A-1
	Magnesium	5250	ug/L	5000	ug/L	105	90.0 - 110.0	P	18-DEC-09 09:28	121809A-1
	Manganese	523	ug/L	500	ug/L	104.5	90.0 - 110.0	P	18-DEC-09 09:28	121809A-1
	Potassium	5010	ug/L	5000	ug/L	100.1	90.0 - 110.0	P	18-DEC-09 09:28	121809A-1
	Silicon	2570	ug/L	2500	ug/L	102.8	90.0 - 110.0	P	18-DEC-09 09:28	121809A-1
	Silver	520	ug/L	500	ug/L	104	90.0 - 110.0	P	18-DEC-09 09:28	121809A-1
	Sodium	9630	ug/L	10000	ug/L	96.3	90.0 - 110.0	P	18-DEC-09 09:28	121809A-1
	Titanium	518	ug/L	500	ug/L	103.5	90.0 - 110.0	P	18-DEC-09 09:28	121809A-1
	Vanadium	523	ug/L	500	ug/L	104.6	90.0 - 110.0	P	18-DEC-09 09:28	121809A-1
	Zinc	519	ug/L	500	ug/L	103.7	90.0 - 110.0	P	18-DEC-09 09:28	121809A-1
	Arsenic	49	ug/L	50	ug/L	98	90.0 - 110.0	MS	20-DEC-09 18:35	091220-2
	Nickel	50.1	ug/L	50	ug/L	100.1	90.0 - 110.0	MS	20-DEC-09 18:35	091220-2
	Selenium	49.6	ug/L	50	ug/L	99.2	90.0 - 110.0	MS	20-DEC-09 18:35	091220-2
	Thallium	48.7	ug/L	50	ug/L	97.4	90.0 - 110.0	MS	20-DEC-09 18:35	091220-2
	Beryllium	48.4	ug/L	50	ug/L	96.9	90.0 - 110.0	MS	23-DEC-09 21:18	091223-3
	Uranium	52.4	ug/L	50	ug/L	104.7	90.0 - 110.0	MS	23-DEC-09 21:18	091223-3
	Lithium	51.2	ug/L	50	ug/L	102.3	90.0 - 110.0	MS	24-DEC-09 09:05	091223-14
	Mercury	5.44	ug/L	5	ug/L	108.9	80.0 - 120.0	AV	29-DEC-09 10:06	122909S2-15
CCV04										
	Aluminum	5070	ug/L	5000	ug/L	101.5	90.0 - 110.0	P	18-DEC-09 10:39	121809A-1
	Antimony	520	ug/L	500	ug/L	104.1	90.0 - 110.0	P	18-DEC-09 10:39	121809A-1
	Barium	528	ug/L	500	ug/L	105.5	90.0 - 110.0	P	18-DEC-09 10:39	121809A-1
	Boron	524	ug/L	500	ug/L	104.7	90.0 - 110.0	P	18-DEC-09 10:39	121809A-1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–886

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Cadmium	527	ug/L	500	ug/L	105.5	90.0 – 110.0	P	18–DEC–09 10:39	121809A–1
	Calcium	5080	ug/L	5000	ug/L	101.5	90.0 – 110.0	P	18–DEC–09 10:39	121809A–1
	Chromium	525	ug/L	500	ug/L	104.9	90.0 – 110.0	P	18–DEC–09 10:39	121809A–1
	Cobalt	529	ug/L	500	ug/L	105.7	90.0 – 110.0	P	18–DEC–09 10:39	121809A–1
	Copper	525	ug/L	500	ug/L	105	90.0 – 110.0	P	18–DEC–09 10:39	121809A–1
	Iron	5100	ug/L	5000	ug/L	101.9	90.0 – 110.0	P	18–DEC–09 10:39	121809A–1
	Lead	515	ug/L	500	ug/L	103.1	90.0 – 110.0	P	18–DEC–09 10:39	121809A–1
	Magnesium	5230	ug/L	5000	ug/L	104.6	90.0 – 110.0	P	18–DEC–09 10:39	121809A–1
	Manganese	525	ug/L	500	ug/L	105.1	90.0 – 110.0	P	18–DEC–09 10:39	121809A–1
	Potassium	4970	ug/L	5000	ug/L	99.4	90.0 – 110.0	P	18–DEC–09 10:39	121809A–1
	Silicon	2610	ug/L	2500	ug/L	104.5	90.0 – 110.0	P	18–DEC–09 10:39	121809A–1
	Silver	529	ug/L	500	ug/L	105.7	90.0 – 110.0	P	18–DEC–09 10:39	121809A–1
	Sodium	9750	ug/L	10000	ug/L	97.5	90.0 – 110.0	P	18–DEC–09 10:39	121809A–1
	Titanium	522	ug/L	500	ug/L	104.3	90.0 – 110.0	P	18–DEC–09 10:39	121809A–1
	Vanadium	531	ug/L	500	ug/L	106.1	90.0 – 110.0	P	18–DEC–09 10:39	121809A–1
	Zinc	526	ug/L	500	ug/L	105.2	90.0 – 110.0	P	18–DEC–09 10:39	121809A–1
	Arsenic	48.6	ug/L	50	ug/L	97.3	90.0 – 110.0	MS	20–DEC–09 19:18	091220–2
	Nickel	51.5	ug/L	50	ug/L	102.9	90.0 – 110.0	MS	20–DEC–09 19:18	091220–2
	Selenium	49.2	ug/L	50	ug/L	98.5	90.0 – 110.0	MS	20–DEC–09 19:18	091220–2
	Thallium	47.9	ug/L	50	ug/L	95.9	90.0 – 110.0	MS	20–DEC–09 19:18	091220–2
	Beryllium	50.8	ug/L	50	ug/L	101.6	90.0 – 110.0	MS	23–DEC–09 21:32	091223–3
	Uranium	51.5	ug/L	50	ug/L	102.9	90.0 – 110.0	MS	23–DEC–09 21:32	091223–3
	Lithium	48.9	ug/L	50	ug/L	97.7	90.0 – 110.0	MS	24–DEC–09 09:17	091223–14
	Mercury	5.45	ug/L	5	ug/L	108.9	80.0 – 120.0	AV	29–DEC–09 10:26	122909S2–15
CCV05										
	Aluminum	5040	ug/L	5000	ug/L	100.9	90.0 – 110.0	P	18–DEC–09 11:42	121809A–1
	Antimony	530	ug/L	500	ug/L	106	90.0 – 110.0	P	18–DEC–09 11:42	121809A–1
	Barium	528	ug/L	500	ug/L	105.5	90.0 – 110.0	P	18–DEC–09 11:42	121809A–1
	Boron	523	ug/L	500	ug/L	104.6	90.0 – 110.0	P	18–DEC–09 11:42	121809A–1
	Cadmium	527	ug/L	500	ug/L	105.5	90.0 – 110.0	P	18–DEC–09 11:42	121809A–1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-886

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Calcium	5070	ug/L	5000	ug/L	101.4	90.0 - 110.0	P	18-DEC-09 11:42	121809A-1
	Chromium	523	ug/L	500	ug/L	104.6	90.0 - 110.0	P	18-DEC-09 11:42	121809A-1
	Cobalt	530	ug/L	500	ug/L	106	90.0 - 110.0	P	18-DEC-09 11:42	121809A-1
	Copper	526	ug/L	500	ug/L	105.1	90.0 - 110.0	P	18-DEC-09 11:42	121809A-1
	Iron	5040	ug/L	5000	ug/L	100.8	90.0 - 110.0	P	18-DEC-09 11:42	121809A-1
	Lead	522	ug/L	500	ug/L	104.3	90.0 - 110.0	P	18-DEC-09 11:42	121809A-1
	Magnesium	5170	ug/L	5000	ug/L	103.3	90.0 - 110.0	P	18-DEC-09 11:42	121809A-1
	Manganese	530	ug/L	500	ug/L	106	90.0 - 110.0	P	18-DEC-09 11:42	121809A-1
	Potassium	4970	ug/L	5000	ug/L	99.4	90.0 - 110.0	P	18-DEC-09 11:42	121809A-1
	Silicon	2620	ug/L	2500	ug/L	104.7	90.0 - 110.0	P	18-DEC-09 11:42	121809A-1
	Silver	528	ug/L	500	ug/L	105.6	90.0 - 110.0	P	18-DEC-09 11:42	121809A-1
	Sodium	9560	ug/L	10000	ug/L	95.6	90.0 - 110.0	P	18-DEC-09 11:42	121809A-1
	Titanium	525	ug/L	500	ug/L	105	90.0 - 110.0	P	18-DEC-09 11:42	121809A-1
	Vanadium	529	ug/L	500	ug/L	105.8	90.0 - 110.0	P	18-DEC-09 11:42	121809A-1
	Zinc	526	ug/L	500	ug/L	105.2	90.0 - 110.0	P	18-DEC-09 11:42	121809A-1
	Arsenic	49.1	ug/L	50	ug/L	98.2	90.0 - 110.0	MS	20-DEC-09 19:55	091220-2
	Nickel	51.7	ug/L	50	ug/L	103.4	90.0 - 110.0	MS	20-DEC-09 19:55	091220-2
	Selenium	49.9	ug/L	50	ug/L	99.8	90.0 - 110.0	MS	20-DEC-09 19:55	091220-2
	Thallium	48.8	ug/L	50	ug/L	97.7	90.0 - 110.0	MS	20-DEC-09 19:55	091220-2
	Lithium	50.5	ug/L	50	ug/L	101	90.0 - 110.0	MS	24-DEC-09 09:27	091223-14
	Mercury	5.2	ug/L	5	ug/L	104.1	80.0 - 120.0	AV	29-DEC-09 10:46	122909S2-15
CCV06										
	Aluminum	5030	ug/L	5000	ug/L	100.7	90.0 - 110.0	P	18-DEC-09 12:46	121809A-1
	Antimony	526	ug/L	500	ug/L	105.2	90.0 - 110.0	P	18-DEC-09 12:46	121809A-1
	Barium	526	ug/L	500	ug/L	105.1	90.0 - 110.0	P	18-DEC-09 12:46	121809A-1
	Boron	521	ug/L	500	ug/L	104.3	90.0 - 110.0	P	18-DEC-09 12:46	121809A-1
	Cadmium	524	ug/L	500	ug/L	104.8	90.0 - 110.0	P	18-DEC-09 12:46	121809A-1
	Calcium	5050	ug/L	5000	ug/L	100.9	90.0 - 110.0	P	18-DEC-09 12:46	121809A-1
	Chromium	518	ug/L	500	ug/L	103.5	90.0 - 110.0	P	18-DEC-09 12:46	121809A-1
	Cobalt	529	ug/L	500	ug/L	105.8	90.0 - 110.0	P	18-DEC-09 12:46	121809A-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-886

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Copper	523	ug/L	500	ug/L	104.7	90.0 - 110.0	P	18-DEC-09 12:46	121809A-1
	Iron	5000	ug/L	5000	ug/L	100	90.0 - 110.0	P	18-DEC-09 12:46	121809A-1
	Lead	515	ug/L	500	ug/L	103.1	90.0 - 110.0	P	18-DEC-09 12:46	121809A-1
	Magnesium	5120	ug/L	5000	ug/L	102.4	90.0 - 110.0	P	18-DEC-09 12:46	121809A-1
	Manganese	530	ug/L	500	ug/L	106	90.0 - 110.0	P	18-DEC-09 12:46	121809A-1
	Potassium	4960	ug/L	5000	ug/L	99.2	90.0 - 110.0	P	18-DEC-09 12:46	121809A-1
	Silicon	2600	ug/L	2500	ug/L	104.2	90.0 - 110.0	P	18-DEC-09 12:46	121809A-1
	Silver	525	ug/L	500	ug/L	105	90.0 - 110.0	P	18-DEC-09 12:46	121809A-1
	Sodium	9370	ug/L	10000	ug/L	93.7	90.0 - 110.0	P	18-DEC-09 12:46	121809A-1
	Titanium	526	ug/L	500	ug/L	105.2	90.0 - 110.0	P	18-DEC-09 12:46	121809A-1
	Vanadium	525	ug/L	500	ug/L	105	90.0 - 110.0	P	18-DEC-09 12:46	121809A-1
	Zinc	522	ug/L	500	ug/L	104.4	90.0 - 110.0	P	18-DEC-09 12:46	121809A-1
	Lithium	49.9	ug/L	50	ug/L	99.7	90.0 - 110.0	MS	24-DEC-09 09:33	091223-14
	Mercury	5.15	ug/L	5	ug/L	102.9	80.0 - 120.0	AV	29-DEC-09 11:06	122909S2-15
CCV07										
	Mercury	5.04	ug/L	5	ug/L	100.8	80.0 - 120.0	AV	29-DEC-09 11:26	122909S2-15
CCV08										
	Mercury	5.34	ug/L	5	ug/L	106.8	80.0 - 120.0	AV	29-DEC-09 11:46	122909S2-15
CCV09										
	Mercury	5.28	ug/L	5	ug/L	105.5	80.0 - 120.0	AV	29-DEC-09 12:07	122909S2-15
CCV10										
	Mercury	5.27	ug/L	5	ug/L	105.5	80.0 - 120.0	AV	29-DEC-09 12:12	122909S2-15
CCV11										
	Mercury	5.43	ug/L	5	ug/L	108.7	80.0 - 120.0	AV	29-DEC-09 13:15	122909S2-15

METALS
-2b-
CRDL Standard for AA & ICP

SDG No: 10-886

Contract: LANL01004 **Lab Code:** GEL

AA CRDL Standard Source: SPEX

ICP CRDL Standard Source Solutions Plus

Instrument ID: HG3,ICPMS5,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Advisory Limits (%R)	M	Analysis Date/Time	Run Number
CRDL01										
	Nickel	2.14	ug/L	2	ug/L	107.1	70.0 – 130.0	MS	20-DEC-09 17:09	091220-2
	Thallium	1.24	ug/L	1	ug/L	124.2	70.0 – 130.0	MS	20-DEC-09 17:09	091220-2
	Arsenic	5.52	ug/L	5	ug/L	110.4	70.0 – 130.0	MS	20-DEC-09 17:09	091220-2
	Selenium	5.61	ug/L	5	ug/L	112.2	70.0 – 130.0	MS	20-DEC-09 17:09	091220-2
	Beryllium	.495	ug/L	.5	ug/L	99	70.0 – 130.0	MS	23-DEC-09 20:36	091223-3
	Uranium	.256	ug/L	.2	ug/L	128	70.0 – 130.0	MS	23-DEC-09 20:36	091223-3
	Lithium	10.9	ug/L	10	ug/L	108.7	70.0 – 130.0	MS	24-DEC-09 08:40	091223-14
	Mercury	.183	ug/L	.2	ug/L	91.5	70.0 – 130.0	AV	29-DEC-09 09:33	122909S2-15
PQL01										
	Aluminum	208	ug/L	200	ug/L	103.9	70.0 – 130.0	P	18-DEC-09 07:27	121809A-1
	Iron	89.8	ug/L	100	ug/L	89.8	70.0 – 130.0	P	18-DEC-09 07:27	121809A-1
	Lead	9.4	ug/L	10	ug/L	94	70.0 – 130.0	P	18-DEC-09 07:27	121809A-1
	Magnesium	295	ug/L	300	ug/L	98.3	70.0 – 130.0	P	18-DEC-09 07:27	121809A-1
	Manganese	11.1	ug/L	10	ug/L	111.2	70.0 – 130.0	P	18-DEC-09 07:27	121809A-1
	Potassium	141	ug/L	150	ug/L	94.1	70.0 – 130.0	P	18-DEC-09 07:27	121809A-1
	Silver	5.5	ug/L	5	ug/L	110	70.0 – 130.0	P	18-DEC-09 07:27	121809A-1
	Sodium	302	ug/L	300	ug/L	100.6	70.0 – 130.0	P	18-DEC-09 07:27	121809A-1
	Antimony	11.3	ug/L	10	ug/L	113.2	70.0 – 130.0	P	18-DEC-09 07:27	121809A-1
	Barium	5.33	ug/L	5	ug/L	106.6	70.0 – 130.0	P	18-DEC-09 07:27	121809A-1
	Cadmium	5.23	ug/L	5	ug/L	104.7	70.0 – 130.0	P	18-DEC-09 07:27	121809A-1
	Chromium	5.15	ug/L	5	ug/L	103	70.0 – 130.0	P	18-DEC-09 07:27	121809A-1
	Cobalt	5.32	ug/L	5	ug/L	106.4	70.0 – 130.0	P	18-DEC-09 07:27	121809A-1
	Copper	10.4	ug/L	10	ug/L	103.7	70.0 – 130.0	P	18-DEC-09 07:27	121809A-1
	Vanadium	5.16	ug/L	5	ug/L	103.2	70.0 – 130.0	P	18-DEC-09 07:27	121809A-1
	Zinc	10.9	ug/L	10	ug/L	109	70.0 – 130.0	P	18-DEC-09 07:27	121809A-1
	Calcium	218	ug/L	200	ug/L	109.1	70.0 – 130.0	P	18-DEC-09 07:27	121809A-1
	Boron	51.6	ug/L	50	ug/L	103.1	70.0 – 130.0	P	18-DEC-09 07:27	121809A-1
	Silicon	107	ug/L	100	ug/L	106.5	70.0 – 130.0	P	18-DEC-09 07:27	121809A-1
	Titanium	5.38	ug/L	5	ug/L	107.6	70.0 – 130.0	P	18-DEC-09 07:27	121809A-1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–886

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
ICB01										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	18–DEC–09 07:20	121809A–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	18–DEC–09 07:20	121809A–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	18–DEC–09 07:20	121809A–1
	Boron	10.0	+/–50	U	10.0	50.0	SOL	P	18–DEC–09 07:20	121809A–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	18–DEC–09 07:20	121809A–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	18–DEC–09 07:20	121809A–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	18–DEC–09 07:20	121809A–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	18–DEC–09 07:20	121809A–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	18–DEC–09 07:20	121809A–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	18–DEC–09 07:20	121809A–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	18–DEC–09 07:20	121809A–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	18–DEC–09 07:20	121809A–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	18–DEC–09 07:20	121809A–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	18–DEC–09 07:20	121809A–1
	Silicon	15.0	+/–100	U	15.0	100	SOL	P	18–DEC–09 07:20	121809A–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	18–DEC–09 07:20	121809A–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	18–DEC–09 07:20	121809A–1
	Titanium	1.0	+/–5	U	1.0	5.0	SOL	P	18–DEC–09 07:20	121809A–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	18–DEC–09 07:20	121809A–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	18–DEC–09 07:20	121809A–1
	Arsenic	1.0	+/–5	U	1.0	5.0	SOL	MS	20–DEC–09 17:03	091220–2
	Nickel	0.5	+/–2	U	0.5	2.0	SOL	MS	20–DEC–09 17:03	091220–2
	Selenium	2.5	+/–5	U	2.5	5.0	SOL	MS	20–DEC–09 17:03	091220–2
	Thallium	0.339	+/–1	J	0.3	1.0	SOL	MS	20–DEC–09 17:03	091220–2
	Beryllium	0.1	+/–.5	U	0.1	0.5	SOL	MS	23–DEC–09 20:34	091223–3
	Uranium	0.066	+/–.2	U	0.066	0.2	SOL	MS	23–DEC–09 20:34	091223–3
	Lithium	2.0	+/–10	U	2.0	10.0	SOL	MS	24–DEC–09 08:38	091223–14
	Mercury	0.068	+/–.2	U	0.068	0.2	SOL	AV	29–DEC–09 09:31	122909S2–15
CCB01										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	18–DEC–09 08:05	121809A–1
	Antimony	4.0	+/–10	J	3.3	10.0	SOL	P	18–DEC–09 08:05	121809A–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–886

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	18–DEC–09 08:05	121809A–1
	Boron	14.94	+/–50	J	10.0	50.0	SOL	P	18–DEC–09 08:05	121809A–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	18–DEC–09 08:05	121809A–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	18–DEC–09 08:05	121809A–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	18–DEC–09 08:05	121809A–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	18–DEC–09 08:05	121809A–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	18–DEC–09 08:05	121809A–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	18–DEC–09 08:05	121809A–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	18–DEC–09 08:05	121809A–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	18–DEC–09 08:05	121809A–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	18–DEC–09 08:05	121809A–1
	Potassium	137.08	+/–250	J	64.0	250	SOL	P	18–DEC–09 08:05	121809A–1
	Silicon	15.0	+/–100	U	15.0	100	SOL	P	18–DEC–09 08:05	121809A–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	18–DEC–09 08:05	121809A–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	18–DEC–09 08:05	121809A–1
	Titanium	1.0	+/–5	U	1.0	5.0	SOL	P	18–DEC–09 08:05	121809A–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	18–DEC–09 08:05	121809A–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	18–DEC–09 08:05	121809A–1
	Arsenic	1.0	+/–5	U	1.0	5.0	SOL	MS	20–DEC–09 17:34	091220–2
	Nickel	0.5	+/–2	U	0.5	2.0	SOL	MS	20–DEC–09 17:34	091220–2
	Selenium	2.5	+/–5	U	2.5	5.0	SOL	MS	20–DEC–09 17:34	091220–2
	Thallium	0.303	+/–1	J	0.3	1.0	SOL	MS	20–DEC–09 17:34	091220–2
	Beryllium	0.1	+/–.5	U	0.1	0.5	SOL	MS	23–DEC–09 20:45	091223–3
	Uranium	0.066	+/–.2	U	0.066	0.2	SOL	MS	23–DEC–09 20:45	091223–3
	Lithium	2.0	+/–10	U	2.0	10.0	SOL	MS	24–DEC–09 08:47	091223–14
	Mercury	0.068	+/–.2	U	0.068	0.2	SOL	AV	29–DEC–09 09:36	122909S2–15
CCB02										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	18–DEC–09 08:27	121809A–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	18–DEC–09 08:27	121809A–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	18–DEC–09 08:27	121809A–1
	Boron	10.0	+/–50	U	10.0	50.0	SOL	P	18–DEC–09 08:27	121809A–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–886

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	18–DEC–09 08:27	121809A–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	18–DEC–09 08:27	121809A–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	18–DEC–09 08:27	121809A–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	18–DEC–09 08:27	121809A–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	18–DEC–09 08:27	121809A–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	18–DEC–09 08:27	121809A–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	18–DEC–09 08:27	121809A–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	18–DEC–09 08:27	121809A–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	18–DEC–09 08:27	121809A–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	18–DEC–09 08:27	121809A–1
	Silicon	15.0	+/–100	U	15.0	100	SOL	P	18–DEC–09 08:27	121809A–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	18–DEC–09 08:27	121809A–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	18–DEC–09 08:27	121809A–1
	Titanium	1.0	+/–5	U	1.0	5.0	SOL	P	18–DEC–09 08:27	121809A–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	18–DEC–09 08:27	121809A–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	18–DEC–09 08:27	121809A–1
	Arsenic	1.0	+/–5	U	1.0	5.0	SOL	MS	20–DEC–09 17:52	091220–2
	Nickel	0.5	+/–2	U	0.5	2.0	SOL	MS	20–DEC–09 17:52	091220–2
	Selenium	2.5	+/–5	U	2.5	5.0	SOL	MS	20–DEC–09 17:52	091220–2
	Thallium	0.59	+/–1	J	0.3	1.0	SOL	MS	20–DEC–09 17:52	091220–2
	Beryllium	0.1	+/–.5	U	0.1	0.5	SOL	MS	23–DEC–09 21:04	091223–3
	Uranium	0.066	+/–.2	U	0.066	0.2	SOL	MS	23–DEC–09 21:04	091223–3
	Lithium	2.0	+/–10	U	2.0	10.0	SOL	MS	24–DEC–09 08:52	091223–14
	Mercury	0.068	+/–.2	U	0.068	0.2	SOL	AV	29–DEC–09 09:47	122909S2–15
CCB03										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	18–DEC–09 09:35	121809A–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	18–DEC–09 09:35	121809A–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	18–DEC–09 09:35	121809A–1
	Boron	10.0	+/–50	U	10.0	50.0	SOL	P	18–DEC–09 09:35	121809A–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	18–DEC–09 09:35	121809A–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	18–DEC–09 09:35	121809A–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–886

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	18–DEC–09 09:35	121809A–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	18–DEC–09 09:35	121809A–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	18–DEC–09 09:35	121809A–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	18–DEC–09 09:35	121809A–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	18–DEC–09 09:35	121809A–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	18–DEC–09 09:35	121809A–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	18–DEC–09 09:35	121809A–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	18–DEC–09 09:35	121809A–1
	Silicon	15.0	+/–100	U	15.0	100	SOL	P	18–DEC–09 09:35	121809A–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	18–DEC–09 09:35	121809A–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	18–DEC–09 09:35	121809A–1
	Titanium	1.0	+/–5	U	1.0	5.0	SOL	P	18–DEC–09 09:35	121809A–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	18–DEC–09 09:35	121809A–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	18–DEC–09 09:35	121809A–1
	Arsenic	1.0	+/–5	U	1.0	5.0	SOL	MS	20–DEC–09 18:41	091220–2
	Nickel	0.5	+/–2	U	0.5	2.0	SOL	MS	20–DEC–09 18:41	091220–2
	Selenium	2.5	+/–5	U	2.5	5.0	SOL	MS	20–DEC–09 18:41	091220–2
	Thallium	0.3	+/–1	U	0.3	1.0	SOL	MS	20–DEC–09 18:41	091220–2
	Beryllium	0.1	+/–.5	U	0.1	0.5	SOL	MS	23–DEC–09 21:20	091223–3
	Uranium	0.066	+/–.2	U	0.066	0.2	SOL	MS	23–DEC–09 21:20	091223–3
	Lithium	2.0	+/–10	U	2.0	10.0	SOL	MS	24–DEC–09 09:07	091223–14
	Mercury	0.068	+/–.2	U	0.068	0.2	SOL	AV	29–DEC–09 10:07	122909S2–15
CCB04										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	18–DEC–09 10:46	121809A–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	18–DEC–09 10:46	121809A–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	18–DEC–09 10:46	121809A–1
	Boron	10.0	+/–50	U	10.0	50.0	SOL	P	18–DEC–09 10:46	121809A–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	18–DEC–09 10:46	121809A–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	18–DEC–09 10:46	121809A–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	18–DEC–09 10:46	121809A–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	18–DEC–09 10:46	121809A–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–886

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	18–DEC–09 10:46	121809A–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	18–DEC–09 10:46	121809A–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	18–DEC–09 10:46	121809A–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	18–DEC–09 10:46	121809A–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	18–DEC–09 10:46	121809A–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	18–DEC–09 10:46	121809A–1
	Silicon	15.0	+/–100	U	15.0	100	SOL	P	18–DEC–09 10:46	121809A–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	18–DEC–09 10:46	121809A–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	18–DEC–09 10:46	121809A–1
	Titanium	1.0	+/–5	U	1.0	5.0	SOL	P	18–DEC–09 10:46	121809A–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	18–DEC–09 10:46	121809A–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	18–DEC–09 10:46	121809A–1
	Arsenic	1.0	+/–5	U	1.0	5.0	SOL	MS	20–DEC–09 19:24	091220–2
	Nickel	0.5	+/–2	U	0.5	2.0	SOL	MS	20–DEC–09 19:24	091220–2
	Selenium	2.5	+/–5	U	2.5	5.0	SOL	MS	20–DEC–09 19:24	091220–2
	Thallium	0.3	+/–1	U	0.3	1.0	SOL	MS	20–DEC–09 19:24	091220–2
	Beryllium	0.1	+/–.5	U	0.1	0.5	SOL	MS	23–DEC–09 21:35	091223–3
	Uranium	0.066	+/–.2	U	0.066	0.2	SOL	MS	23–DEC–09 21:35	091223–3
	Lithium	2.0	+/–10	U	2.0	10.0	SOL	MS	24–DEC–09 09:19	091223–14
	Mercury	0.068	+/–.2	U	0.068	0.2	SOL	AV	29–DEC–09 10:27	122909S2–15
CCB05										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	18–DEC–09 11:49	121809A–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	18–DEC–09 11:49	121809A–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	18–DEC–09 11:49	121809A–1
	Boron	10.0	+/–50	U	10.0	50.0	SOL	P	18–DEC–09 11:49	121809A–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	18–DEC–09 11:49	121809A–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	18–DEC–09 11:49	121809A–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	18–DEC–09 11:49	121809A–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	18–DEC–09 11:49	121809A–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	18–DEC–09 11:49	121809A–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	18–DEC–09 11:49	121809A–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–886

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	18–DEC–09 11:49	121809A–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	18–DEC–09 11:49	121809A–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	18–DEC–09 11:49	121809A–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	18–DEC–09 11:49	121809A–1
	Silicon	15.0	+/–100	U	15.0	100	SOL	P	18–DEC–09 11:49	121809A–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	18–DEC–09 11:49	121809A–1
	Sodium	89.38	+/–250	J	70.0	250	SOL	P	18–DEC–09 11:49	121809A–1
	Titanium	1.0	+/–5	U	1.0	5.0	SOL	P	18–DEC–09 11:49	121809A–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	18–DEC–09 11:49	121809A–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	18–DEC–09 11:49	121809A–1
	Arsenic	1.0	+/–5	U	1.0	5.0	SOL	MS	20–DEC–09 20:01	091220–2
	Nickel	0.5	+/–2	U	0.5	2.0	SOL	MS	20–DEC–09 20:01	091220–2
	Selenium	2.5	+/–5	U	2.5	5.0	SOL	MS	20–DEC–09 20:01	091220–2
	Thallium	0.3	+/–1	U	0.3	1.0	SOL	MS	20–DEC–09 20:01	091220–2
	Lithium	2.0	+/–10	U	2.0	10.0	SOL	MS	24–DEC–09 09:29	091223–14
	Mercury	0.068	+/–.2	U	0.068	0.2	SOL	AV	29–DEC–09 10:48	122909S2–15
CCB06										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	18–DEC–09 12:53	121809A–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	18–DEC–09 12:53	121809A–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	18–DEC–09 12:53	121809A–1
	Boron	10.0	+/–50	U	10.0	50.0	SOL	P	18–DEC–09 12:53	121809A–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	18–DEC–09 12:53	121809A–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	18–DEC–09 12:53	121809A–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	18–DEC–09 12:53	121809A–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	18–DEC–09 12:53	121809A–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	18–DEC–09 12:53	121809A–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	18–DEC–09 12:53	121809A–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	18–DEC–09 12:53	121809A–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	18–DEC–09 12:53	121809A–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	18–DEC–09 12:53	121809A–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	18–DEC–09 12:53	121809A–1

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-886

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Silicon	15.0	+/-100	U	15.0	100	SOL	P	18-DEC-09 12:53	121809A-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	18-DEC-09 12:53	121809A-1
	Sodium	101.7	+/-250	J	70.0	250	SOL	P	18-DEC-09 12:53	121809A-1
	Titanium	1.0	+/-5	U	1.0	5.0	SOL	P	18-DEC-09 12:53	121809A-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	18-DEC-09 12:53	121809A-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	18-DEC-09 12:53	121809A-1
	Lithium	2.0	+/-10	U	2.0	10.0	SOL	MS	24-DEC-09 09:34	091223-14
	Mercury	0.068	+/-.2	U	0.068	0.2	SOL	AV	29-DEC-09 11:08	122909S2-15
CCB07	Mercury	0.068	+/-.2	U	0.068	0.2	SOL	AV	29-DEC-09 11:28	122909S2-15
CCB08	Mercury	0.068	+/-.2	U	0.068	0.2	SOL	AV	29-DEC-09 11:48	122909S2-15
CCB09	Mercury	0.068	+/-.2	U	0.068	0.2	SOL	AV	29-DEC-09 12:08	122909S2-15
CCB10	Mercury	0.068	+/-.2	U	0.068	0.2	SOL	AV	29-DEC-09 12:13	122909S2-15
CCB11	Mercury	0.068	+/-.2	U	0.068	0.2	SOL	AV	29-DEC-09 13:17	122909S2-15

METALS
–3b–
PREPARATION BLANK SUMMARY

SDG NO. 10–886

Contract: LANL01004

Matrix: SOIL

Sample ID	Analyte	Result	Units	Acceptance Window	Conc Qual	M	MDL	RDL
1201994230								
	Aluminum	6250	ug/kg	+/–18382.353	U	P	6250	18400
	Antimony	303	ug/kg	+/–919.118	U	P	303	919
	Barium	91.9	ug/kg	+/–459.559	U	P	91.9	460
	Boron	919	ug/kg	+/–4595.588	U	P	919	4600
	Cadmium	91.9	ug/kg	+/–459.559	U	P	91.9	460
	Calcium	7350	ug/kg	+/–22977.941	U	P	7350	23000
	Chromium	138	ug/kg	+/–459.559	U	P	138	460
	Cobalt	138	ug/kg	+/–459.559	U	P	138	460
	Copper	276	ug/kg	+/–919.118	U	P	276	919
	Iron	7350	ug/kg	+/–22977.941	U	P	7350	23000
	Lead	230	ug/kg	+/–919.118	U	P	230	919
	Magnesium	7810	ug/kg	+/–27573.529	U	P	7810	27600
	Manganese	184	ug/kg	+/–919.118	U	P	184	919
	Potassium	5880	ug/kg	+/–22977.941	U	P	5880	23000
	Silicon	1380	ug/kg	+/–9191.176	U	P	1380	9190
	Silver	91.9	ug/kg	+/–459.559	U	P	91.9	460
	Sodium	7510	ug/kg	+/–22977.941	J	P	6430	23000
	Titanium	91.9	ug/kg	+/–459.559	U	P	91.9	460
	Vanadium	91.9	ug/kg	+/–459.559	U	P	91.9	460
	Zinc	303	ug/kg	+/–919.118	U	P	303	919
1201994309								
	Arsenic	198	ug/kg	+/–988.142	U	MS	198	988
	Beryllium	19.8	ug/kg	+/–98.814	U	MS	19.8	98.8
	Lithium	0.395	mg/kg	+/–1.976	U	MS	0.395	1.98
	Nickel	98.8	ug/kg	+/–395.257	U	MS	98.8	395
	Selenium	494	ug/kg	+/–988.142	U	MS	494	988
	Thallium	59.3	ug/kg	+/–197.628	U	MS	59.3	198
	Uranium	13	ug/kg	+/–39.526	U	MS	13	39.5
1202003901								
	Mercury	3.96	ug/kg	+/–11.65	U	AV	3.96	11.7

METALS
–4–
Interference Check Sample

SDG No: 10–886

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Aluminum	536000	ug/L	500000	ug/L	107	80.0 – 120.0	18–DEC–09 07:33	121809A–1
	Antimony	5.01	ug/L					18–DEC–09 07:33	121809A–1
	Barium	1.98	ug/L					18–DEC–09 07:33	121809A–1
	Boron	–2.78	ug/L					18–DEC–09 07:33	121809A–1
	Cadmium	–0.577	ug/L					18–DEC–09 07:33	121809A–1
	Calcium	492000	ug/L	500000	ug/L	98.5	80.0 – 120.0	18–DEC–09 07:33	121809A–1
	Chromium	1.37	ug/L					18–DEC–09 07:33	121809A–1
	Cobalt	–1.39	ug/L					18–DEC–09 07:33	121809A–1
	Copper	2.42	ug/L					18–DEC–09 07:33	121809A–1
	Iron	190000	ug/L	200000	ug/L	95	80.0 – 120.0	18–DEC–09 07:33	121809A–1
	Lead	–2.23	ug/L					18–DEC–09 07:33	121809A–1
	Magnesium	495000	ug/L	500000	ug/L	99	80.0 – 120.0	18–DEC–09 07:33	121809A–1
	Manganese	11.3	ug/L					18–DEC–09 07:33	121809A–1
	Potassium	5.93	ug/L					18–DEC–09 07:33	121809A–1
	Silicon	0.773	ug/L					18–DEC–09 07:33	121809A–1
	Silver	–0.196	ug/L					18–DEC–09 07:33	121809A–1
	Sodium	4.84	ug/L					18–DEC–09 07:33	121809A–1
	Titanium	2.48	ug/L					18–DEC–09 07:33	121809A–1
	Vanadium	1.48	ug/L					18–DEC–09 07:33	121809A–1
	Zinc	–8.4	ug/L					18–DEC–09 07:33	121809A–1
ICSAB01									
	Aluminum	498000	ug/L	500000	ug/L	99.6	80.0 – 120.0	18–DEC–09 07:40	121809A–1
	Antimony	568	ug/L	500	ug/L	114	80.0 – 120.0	18–DEC–09 07:40	121809A–1
	Barium	529	ug/L	500	ug/L	106	80.0 – 120.0	18–DEC–09 07:40	121809A–1
	Boron	558	ug/L	500	ug/L	112	80.0 – 120.0	18–DEC–09 07:40	121809A–1
	Cadmium	508	ug/L	500	ug/L	102	80.0 – 120.0	18–DEC–09 07:40	121809A–1
	Calcium	458000	ug/L	500000	ug/L	91.5	80.0 – 120.0	18–DEC–09 07:40	121809A–1
	Chromium	519	ug/L	500	ug/L	104	80.0 – 120.0	18–DEC–09 07:40	121809A–1
	Cobalt	469	ug/L	500	ug/L	93.9	80.0 – 120.0	18–DEC–09 07:40	121809A–1

METALS
–4–
Interference Check Sample

SDG No: 10–886

Contract: LANL01004 **Lab Code:** GEL

ICS:

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
	Copper	591	ug/L	500	ug/L	118	80.0 – 120.0	18–DEC–09 07:40	121809A–1
	Iron	175000	ug/L	200000	ug/L	87.7	80.0 – 120.0	18–DEC–09 07:40	121809A–1
	Lead	478	ug/L	500	ug/L	95.7	80.0 – 120.0	18–DEC–09 07:40	121809A–1
	Magnesium	460000	ug/L	500000	ug/L	92	80.0 – 120.0	18–DEC–09 07:40	121809A–1
	Manganese	528	ug/L	500	ug/L	106	80.0 – 120.0	18–DEC–09 07:40	121809A–1
	Potassium	5140	ug/L	5000	ug/L	103	80.0 – 120.0	18–DEC–09 07:40	121809A–1
	Silicon	5600	ug/L	5000	ug/L	112	80.0 – 120.0	18–DEC–09 07:40	121809A–1
	Silver	285	ug/L	250	ug/L	114	80.0 – 120.0	18–DEC–09 07:40	121809A–1
	Sodium	5130	ug/L	5000	ug/L	103	80.0 – 120.0	18–DEC–09 07:40	121809A–1
	Titanium	544	ug/L	500	ug/L	109	80.0 – 120.0	18–DEC–09 07:40	121809A–1
	Vanadium	550	ug/L	500	ug/L	110	80.0 – 120.0	18–DEC–09 07:40	121809A–1
	Zinc	527	ug/L	500	ug/L	105	80.0 – 120.0	18–DEC–09 07:40	121809A–1

METALS
-4-
Interference Check Sample

SDG No: 10-886

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: ICPMS5

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Lithium	0.047	ug/L					24-DEC-09 08:42	091223-14
ICSAB01									
	Lithium	18.4	ug/L	20	ug/L	91.8	80.0 - 120.0	24-DEC-09 08:44	091223-14

METALS
–4–
Interference Check Sample

SDG No: 10–886

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: ICPMS5

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Arsenic	–0.222	ug/L					20–DEC–09 17:15	091220–2
	Nickel	3.17	ug/L					20–DEC–09 17:15	091220–2
	Selenium	–0.872	ug/L					20–DEC–09 17:15	091220–2
	Thallium	0.044	ug/L					20–DEC–09 17:15	091220–2
ICSAB01									
	Arsenic	20.1	ug/L	20	ug/L	100	80.0 – 120.0	20–DEC–09 17:21	091220–2
	Nickel	22.2	ug/L	22.7	ug/L	97.8	80.0 – 120.0	20–DEC–09 17:21	091220–2
	Selenium	19.5	ug/L	20	ug/L	97.5	80.0 – 120.0	20–DEC–09 17:21	091220–2
	Thallium	20.9	ug/L	20	ug/L	104	80.0 – 120.0	20–DEC–09 17:21	091220–2

METALS
–4–
Interference Check Sample

SDG No: 10–886

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: ICPMS5

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Beryllium	0.067	ug/L					23–DEC–09 20:38	091223–3
	Uranium	–0.006	ug/L					23–DEC–09 20:38	091223–3
ICSAB01									
	Beryllium	19.3	ug/L	20	ug/L	96.6	80.0 – 120.0	23–DEC–09 20:41	091223–3
	Uranium	22.8	ug/L	20	ug/L	114	80.0 – 120.0	23–DEC–09 20:41	091223–3

METALS
–5a–
Matrix Spike Summary

SDG NO. 10–886 **Client ID** RE03–09–13467S

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 96.1

Sample ID: 242750001 **Spike ID:** 1201994233

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Aluminum	ug/kg		5570000		3850000		507000	340	N/A	P
Antimony	ug/kg	75–125	50600		332	U	50700	99.7		P
Barium	ug/kg	75–125	83200		30900		50700	103		P
Boron	ug/kg	75–125	53800		1210	J	50700	104		P
Cadmium	ug/kg	75–125	51700		101	U	50700	102		P
Calcium	ug/kg	75–125	1490000		1200000		507000	57.1	N	P
Chromium	ug/kg	75–125	54300		2780		50700	102		P
Cobalt	ug/kg	75–125	51600		914		50700	99.9		P
Copper	ug/kg	75–125	56500		1690		50700	108		P
Iron	ug/kg		11300000		11200000		507000	14.9	N/A	P
Lead	ug/kg	75–125	61400		9390		50700	102		P
Magnesium	ug/kg	75–125	1620000		969000		507000	129	N	P
Manganese	ug/kg	75–125	207000		150000		50700	112		P
Potassium	ug/kg	75–125	1080000		467000		507000	120		P
Silicon	ug/kg	75–125	1610000		1540000		507000	13.1	N	P
Silver	ug/kg	75–125	53600		281	J	50700	105		P
Sodium	ug/kg	75–125	656000		211000		507000	87.8		P
Titanium	ug/kg		447000		406000		50700	81.5	N/A	P
Vanadium	ug/kg	75–125	59200		7650		50700	102		P
Zinc	ug/kg	75–125	87900		39400		50700	95.7		P

METALS
-5a-
Matrix Spike Duplicate Summary

SDG NO. 10-886 **Client ID** RE03-09-13467SD

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 96.1

Sample ID: 242750001 **Spike ID:** 1201994235

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Aluminum	ug/kg		5030000		3850000		510000	231	N/A	P
Antimony	ug/kg	75-125	50000		332	U	51000	98.1		P
Barium	ug/kg	75-125	83000		30900		51000	102		P
Boron	ug/kg	75-125	54300		1210	J	51000	104		P
Cadmium	ug/kg	75-125	51800		101	U	51000	101		P
Calcium	ug/kg	75-125	1450000		1200000		510000	47.4	N	P
Chromium	ug/kg	75-125	54700		2780		51000	102		P
Cobalt	ug/kg	75-125	51300		914		51000	98.8		P
Copper	ug/kg	75-125	56500		1690		51000	107		P
Iron	ug/kg		12000000		11200000		510000	147	N/A	P
Lead	ug/kg	75-125	61900		9390		51000	103		P
Magnesium	ug/kg	75-125	1590000		969000		510000	121		P
Manganese	ug/kg	75-125	244000		150000		51000	184	N	P
Potassium	ug/kg	75-125	1050000		467000		510000	113		P
Silicon	ug/kg	75-125	1540000		1540000		510000	-.524	N	P
Silver	ug/kg	75-125	53800		281	J	51000	105		P
Sodium	ug/kg	75-125	653000		211000		510000	86.7		P
Titanium	ug/kg		512000		406000		51000	207	N/A	P
Vanadium	ug/kg	75-125	60000		7650		51000	103		P
Zinc	ug/kg	75-125	93600		39400		51000	106		P

METALS
–5a–
Matrix Spike Summary

SDG NO. 10–886 **Client ID** RE03–09–13467S

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 96.1

Sample ID: 242750001 **Spike ID:** 1201994312

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Arsenic	ug/kg	75–125	9240		1540		8280	93		MS
Beryllium	ug/kg	75–125	5420		376		5170	97.5		MS
Lithium	mg/kg		26.4		21.2		5.17	101	N/A	MS
Nickel	ug/kg	75–125	6980		2240		5170	91.7		MS
Selenium	ug/kg	75–125	1950		502	U	2070	86.8		MS
Thallium	ug/kg	75–125	10200		186	J	10300	96.9		MS
Uranium	ug/kg	75–125	6350		337		5170	116		MS

METALS
–5a–
Matrix Spike Duplicate Summary

SDG NO. 10–886 **Client ID** RE03–09–13467SD

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 96.1

Sample ID: 242750001 **Spike ID:** 1201994314

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Arsenic	ug/kg	75–125	9460		1540		8290	95.5		MS
Beryllium	ug/kg	75–125	5500		376		5180	98.9		MS
Lithium	mg/kg		26.7		21.2		5.18	108	N/A	MS
Nickel	ug/kg	75–125	7000		2240		5180	91.9		MS
Selenium	ug/kg	75–125	2010		502	U	2070	89.5		MS
Thallium	ug/kg	75–125	10200		186	J	10400	96.1		MS
Uranium	ug/kg	75–125	6320		337		5180	115		MS

METALS
–5a–
Matrix Spike Summary

SDG NO. 10–886 **Client ID:** RE16–10–2881S

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 89

Sample ID: 243092001 **Spike ID:** 1202003904

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Mercury	ug/kg	75–125	140		3.92	U	121	113		AV

METALS
–5a–
Matrix Spike Duplicate Summary

SDG NO.	10–886	**Client ID**	RE16–10–2881SD
Contract:	LANL01004	**Level:**	Low
Matrix:	SOIL	**% Solids:**	89
Sample ID:	243092001	**Spike ID:**	1202003906

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Mercury	ug/kg	75–125	150		3.92	U	130	113		AV

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–886

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE03–09–13467D

Sample ID: 242750001 **Duplicate ID:** 1201994232 **Percent Solids for Dup:** 96.1

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	ug/kg	+/–20%	3850000		4250000		9.9		P
Antimony	ug/kg		332	U	330	U			P
Barium	ug/kg	+/–20%	30900		43300		33.4	*	P
Boron	ug/kg	+/–5000	1210	J	1270	J	5		P
Cadmium	ug/kg		101	U	100	U			P
Calcium	ug/kg	+/–20%	1200000		1330000		10		P
Chromium	ug/kg	+/–20%	2780		3090		10.7		P
Cobalt	ug/kg	+/–500	914		985		7.4		P
Copper	ug/kg	+/–1000	1690		2060		19.6		P
Iron	ug/kg	+/–20%	11200000		10900000		3.01		P
Lead	ug/kg	+/–20%	9390		10600		12.3		P
Magnesium	ug/kg	+/–20%	969000		1030000		5.9		P
Manganese	ug/kg	+/–20%	150000		194000		25.6	*	P
Potassium	ug/kg	+/–20%	467000		513000		9.43		P
Silicon	ug/kg	+/–20%	1540000		1410000		9.34		P
Silver	ug/kg	+/–500	281	J	310	J	9.81		P
Sodium	ug/kg	+/–20%	211000		212000		.296		P
Titanium	ug/kg	+/–20%	406000		390000		4.01		P
Vanadium	ug/kg	+/–20%	7650		8110		5.81		P
Zinc	ug/kg	+/–20%	39400		37100		5.9		P

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–886

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE03–09–13467SD

Sample ID: 1201994233 **Duplicate ID:** 1201994235 **Percent Solids for Dup:** 96.1

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	ug/kg	+/–20	5570000		5030000		10.3		P
Antimony	ug/kg	+/–20	50600		50000		1.03		P
Barium	ug/kg	+/–20	83200		83000		.289		P
Boron	ug/kg	+/–20	53800		54300		.914		P
Cadmium	ug/kg	+/–20	51700		51800		.113		P
Calcium	ug/kg	+/–20	1490000		1450000		3.25		P
Chromium	ug/kg	+/–20	54300		54700		.726		P
Cobalt	ug/kg	+/–20	51600		51300		.55		P
Copper	ug/kg	+/–20	56500		56500		.0402		P
Iron	ug/kg	+/–20	11300000		12000000		5.77		P
Lead	ug/kg	+/–20	61400		61900		.839		P
Magnesium	ug/kg	+/–20	1620000		1590000		2.31		P
Manganese	ug/kg	+/–20	207000		244000		16.4		P
Potassium	ug/kg	+/–20	1080000		1050000		2.81		P
Silicon	ug/kg	+/–20	1610000		1540000		4.37		P
Silver	ug/kg	+/–20	53600		53800		.361		P
Sodium	ug/kg	+/–20	656000		653000		.456		P
Titanium	ug/kg	+/–20	447000		512000		13.4		P
Vanadium	ug/kg	+/–20	59200		60000		1.3		P
Zinc	ug/kg	+/–20	87900		93600		6.26		P

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–886

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE03–09–13467D

Sample ID: 242750001 **Duplicate ID:** 1201994311 **Percent Solids for Dup:** 96.1

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Arsenic	ug/kg	+/–1020	1540		1770		14.4		MS
Beryllium	ug/kg	+/–102	376		504		29.2	*	MS
Lithium	mg/kg	+/–20%	21.2		19.3		9		MS
Nickel	ug/kg	+/–20%	2240		2800		22.3	*	MS
Selenium	ug/kg		502	U	511	U			MS
Thallium	ug/kg	+/–204	186	J	197	J	5.88		MS
Uranium	ug/kg	+/–20%	337		441		26.8	*	MS

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–886

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE03–09–13467SD

Sample ID: 1201994312 **Duplicate ID:** 1201994314 **Percent Solids for Dup:** 96.1

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Arsenic	ug/kg	+/–20	9240		9460		2.37		MS
Beryllium	ug/kg	+/–20	5420		5500		1.51		MS
Lithium	mg/kg	+/–20	26.4		26.7		1.42		MS
Nickel	ug/kg	+/–20	6980		7000		.288		MS
Selenium	ug/kg	+/–20	1950		2010		3.04		MS
Thallium	ug/kg	+/–20	10200		10200		.56		MS
Uranium	ug/kg	+/–20	6350		6320		.481		MS

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–886

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE16–10–2881D

Sample ID: 243092001 **Duplicate ID:** 1202003903 **Percent Solids for Dup:** 89

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Mercury	ug/kg		3.92	U	4.07	U			AV

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–886

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE16–10–2881SD

Sample ID: 1202003904 **Duplicate ID:** 1202003906 **Percent Solids for Dup:** 89

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Mercury	ug/kg	+/–20	140		150		7		AV

METALS
–7–
Laboratory Control Sample Summary

SDG NO. 10–886

Contract: LANL01004

Aqueous LCS Source: **Solid LCS Source:** ERA

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1201994231								
	Antimony	ug/kg	173000	159000		91.6	71–130	P
	Barium	ug/kg	198000	193000		97.4	80–120	P
	Boron	ug/kg	141000	152000		108	75–125	P
	Cadmium	ug/kg	60700	58800		96.9	81–120	P
	Calcium	ug/kg	9870000	10000000		101	83–117	P
	Chromium	ug/kg	236000	238000		101	80–120	P
	Cobalt	ug/kg	91200	91200		100	81–120	P
	Copper	ug/kg	174000	189000		108	81–118	P
	Iron	ug/kg	18000000	17900000		99.3	51–149	P
	Lead	ug/kg	86000	86900		101	79–121	P
	Aluminum	ug/kg	10500000	8510000		81.1	56–144	P
	Magnesium	ug/kg	4000000	3760000		93.9	79–122	P
	Manganese	ug/kg	558000	551000		98.7	81–119	P
	Potassium	ug/kg	4300000	3920000		91.1	74–127	P
	Silicon	ug/kg	1210000	1910000		158	10–190	P
	Silver	ug/kg	30100	31600		105	66–134	P
	Sodium	ug/kg	1020000	962000		94.3	74–127	P
	Titanium	ug/kg	462000	569000		123	39–161	P
	Vanadium	ug/kg	115000	123000		107	79–121	P
	Zinc	ug/kg	594000	583000		98.2	80–121	P

METALS
–7–
Laboratory Control Sample Summary

SDG NO. 10–886

Contract: LANL01004

Aqueous LCS Source: **Solid LCS Source:** ERA

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1201994310								
	Arsenic	ug/kg	104000	109000		105	83–120	MS
	Beryllium	ug/kg	77600	91800		118	81.2–126.8	MS
	Lithium	mg/kg	10.6	12.2	J	115	66.7–133.7	MS
	Nickel	ug/kg	134000	144000		107	83.3–121.4	MS
	Selenium	ug/kg	286000	301000		105	80.2–125.9	MS
	Thallium	ug/kg	121000	126000		104	78–123.2	MS
	Uranium	ug/kg	2130	2610		123	61.9–130.7	MS

METALS
-7-
Laboratory Control Sample Summary

SDG NO. 10-886

Contract: LANL01004

Aqueous LCS Source: **Solid LCS Source:** ERA

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202003902								
	Mercury	ug/kg	5150	5680		110	71.6-128.3	AV

METALS
-9-
Serial Dilution Sample Summary

SDG NO. 10-886 **Client ID** RE03-09-13467L

Contract: LANL01004

Matrix: SOLID **Level:** Low

Sample ID: 242750001 **Serial Dilution ID:** 1201994234

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Aluminum	38200		37700		1.44		10	P
Antimony	3.3	U	16.5	U				P
Barium	307		315		2.61		10	P
Boron	12	J	50	U	100			P
Cadmium	1	U	5	U				P
Calcium	12000		12200		1.67		10	P
Chromium	27.6		27.9		1.09			P
Cobalt	9.08		9.35	J	2.97			P
Copper	16.8		15	U	100			P
Iron	112000		113000		.893		10	P
Lead	93.3		94		.75			P
Magnesium	9620		9550		.728		10	P
Manganese	1490		1560		4.36		10	P
Potassium	4640		4380		5.71		10	P
Silicon	15300		15400		.654		10	P
Silver	2.79	J	5	U	100			P
Sodium	2100		2510		19.3			P
Titanium	4030		4170		3.47		10	P
Vanadium	76		79.5		4.61		10	P
Zinc	391		398		1.66		10	P

METALS
–9–
Serial Dilution Sample Summary

SDG NO. 10–886 **Client ID** RE03–09–13467L

Contract: LANL01004

Matrix: SOLID **Level:** Low

Sample ID: 242750001 **Serial Dilution ID:** 1201994313

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Arsenic	7.65		8	J	4.58			MS
Beryllium	1.87		1.96	J	4.81			MS
Lithium	105		113		7.14			MS
Nickel	11.1		12.7		14			MS
Selenium	2.5	U	12.5	U				MS
Thallium	.926	J	1.5	U	100			MS
Uranium	1.68		1.67		.893			MS

METALS
-9-
Serial Dilution Sample Summary

SDG NO. 10-886 **Client ID** RE16-10-2881L

Contract: LANL01004

Matrix: SOLID **Level:** Low

Sample ID: 243092001 **Serial Dilution ID:** 1202003905

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Mercury	.068	U	.34	U				AV

METALS
-13-
SAMPLE PREPARATION SUMMARY

SDG No: 10-886 **Method Type:** P

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number	932280						
1201994230	MB for batch 932280	MB	S	15-DEC-09	.544g	50mL	
1201994231	LCS for batch 932280	LCS	S	15-DEC-09	.521g	50mL	
1201994233	RE03-09-13467S	MS	S	15-DEC-09	.513g	50mL	
1201994235	RE03-09-13467SD	MSD	S	15-DEC-09	.51g	50mL	
1201994232	RE03-09-13467D	DUP	S	15-DEC-09	.52g	50mL	
242750001	RE03-09-13467	SAMPLE	S	15-DEC-09	.517g	50mL	
242750002	RE03-09-13466	SAMPLE	S	15-DEC-09	.513g	50mL	
242750003	RE03-09-13468	SAMPLE	S	15-DEC-09	.503g	50mL	
242750004	RE03-09-13465	SAMPLE	S	15-DEC-09	.516g	50mL	
242750005	RE03-10-2003	SAMPLE	S	15-DEC-09	.512g	50mL	

METALS
–13–
SAMPLE PREPARATION SUMMARY

SDG No: 10–886 **Method Type:** MS

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number	932319						
1201994309	MB for batch 932319	MB	S	15–DEC–09	.506g	50mL	
1201994310	LCS for batch 932319	LCS	S	15–DEC–09	.502g	50mL	
1201994312	RE03–09–13467S	MS	S	15–DEC–09	.503g	50mL	
1201994314	RE03–09–13467SD	MSD	S	15–DEC–09	.502g	50mL	
1201994311	RE03–09–13467D	DUP	S	15–DEC–09	.509g	50mL	
242750001	RE03–09–13467	SAMPLE	S	15–DEC–09	.518g	50mL	
242750002	RE03–09–13466	SAMPLE	S	15–DEC–09	.512g	50mL	
242750003	RE03–09–13468	SAMPLE	S	15–DEC–09	.507g	50mL	
242750004	RE03–09–13465	SAMPLE	S	15–DEC–09	.502g	50mL	
242750005	RE03–10–2003	SAMPLE	S	15–DEC–09	.528g	50mL	

METALS
–13–
SAMPLE PREPARATION SUMMARY

SDG No: 10–886 **Method Type**: AV

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number 936545							
1202003901	MB for batch 936545	MB	S	28–DEC–09	.515g	30mL	
1202003902	LCS for batch 936545	LCS	S	28–DEC–09	.209g	30mL	
1202003904	RE16–10–2881S	MS	S	28–DEC–09	.555g	30mL	
1202003906	RE16–10–2881SD	MSD	S	28–DEC–09	.515g	30mL	
1202003903	RE16–10–2881D	DUP	S	28–DEC–09	.56g	30mL	
242750001	RE03–09–13467	SAMPLE	S	28–DEC–09	.553g	30mL	
242750002	RE03–09–13466	SAMPLE	S	28–DEC–09	.525g	30mL	
242750003	RE03–09–13468	SAMPLE	S	28–DEC–09	.523g	30mL	
242750004	RE03–09–13465	SAMPLE	S	28–DEC–09	.586g	30mL	
242750005	RE03–10–2003	SAMPLE	S	28–DEC–09	.518g	30mL	

METALS
-13-
SAMPLE PREPARATION SUMMARY

SDG No: 10-886 **Method Type:**

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number 934866							
1202000174	MB for batch 934866	MB	S	22-DEC-09	.5g	30mL	
1202000175	LCS for batch 934866	LCS	S	22-DEC-09	.208g	30mL	
1202000177	RE16-10-206S	MS	S	22-DEC-09	.564g	30mL	
1202000179	RE16-10-206SD	MSD	S	22-DEC-09	.579g	30mL	
1202000176	RE16-10-206D	DUP	S	22-DEC-09	.578g	30mL	
242750001	RE03-09-13467	SAMPLE	S	22-DEC-09	.513g	30mL	
242750002	RE03-09-13466	SAMPLE	S	22-DEC-09	.504g	30mL	
242750003	RE03-09-13468	SAMPLE	S	22-DEC-09	.513g	30mL	
242750004	RE03-09-13465	SAMPLE	S	22-DEC-09	.538g	30mL	
242750005	RE03-10-2003	SAMPLE	S	22-DEC-09	.507g	30mL	

Metals
–14–
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: ICPMS5
Start Date: 20–DEC–09 **End Date:** 20–DEC–09

Client Sdg: 10–886
Method MS
Data File: 091220–2

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Li	Mg	Mn	Hg	Ni	K	Se	Si	Ag	Na	Tl	Ti	U	V	Zn
S0.0	1	16:39			X															X		X				X				
S10	1	16:45			X															X		X				X				
S100	1	16:51			X															X		X				X				
ICV01	1	16:57			X															X		X				X				
ICB01	1	17:03			X															X		X				X				
CRDL01	1	17:09			X															X		X				X				
ICSA01	1	17:15			X															X		X				X				
ICSAB01	1	17:21			X															X		X				X				
CCV01	1	17:28			X															X		X				X				
CCB01	1	17:34			X															X		X				X				
LR01	1	17:40			X															X		X				X				
CCV02	1	17:46			X															X		X				X				
CCB02	1	17:52			X															X		X				X				
1201994309	2	17:58			X															X		X				X				
1201994310	20	18:04			X															X		X				X				
ZZZZZZ	40	18:10																												
ZZZZZZ	2	18:17																												
ZZZZZZ	2	18:23																												
ZZZZZZ	2	18:29																												
CCV03	1	18:35			X															X		X				X				
CCB03	1	18:41			X															X		X				X				
242750001	2	18:47			X															X		X				X				
1201994311	2	18:53			X															X		X				X				
1201994312	2	19:00			X															X		X				X				
1201994314	2	19:06			X															X		X				X				
1201994313	10	19:12			X															X		X				X				
CCV04	1	19:18			X															X		X				X				
CCB04	1	19:24			X															X		X				X				
242750002	2	19:30			X															X		X				X				
242750003	2	19:36			X															X		X				X				
242750004	2	19:43			X															X		X				X				
242750005	2	19:49			X															X		X				X				
CCV05	1	19:55			X															X		X				X				
CCB05	1	20:01			X															X		X				X				

Metals
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Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: ICPMS5
Start Date: 23–DEC–09 **End Date:** 24–DEC–09

Client Sdg: 10–886
Method MS
Data File: 091223–14

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Li	Mg	Mn	Hg	Ni	K	Se	Si	Ag	Na	Tl	Ti	U	V	Zn
S0.0	1	08:32														X														
S10	1	08:33														X														
S100	1	08:35														X														
ICV01	1	08:37														X														
ICB01	1	08:38														X														
CRDL01	1	08:40														X														
ICSA01	1	08:42														X														
ICSAB01	1	08:44														X														
CCV01	1	08:45														X														
CCB01	1	08:47														X														
LR01	1	08:49														X														
CCV02	1	08:50														X														
CCB02	1	08:52														X														
1201994309	2	08:54														X														
1201994310	20	08:56														X														
ZZZZZZ	2	08:58																												
ZZZZZZ	2	09:00																												
ZZZZZZ	2	09:01																												
ZZZZZZ	2	09:03																												
CCV03	1	09:05														X														
CCB03	1	09:07														X														
242750001	2	09:08														X														
1201994311	2	09:10														X														
1201994312	2	09:12														X														
1201994314	2	09:13														X														
1201994313	10	09:15														X														
CCV04	1	09:17														X														
CCB04	1	09:19														X														
ZZZZZZ	2	09:20																												
242750003	2	09:22														X														
242750004	2	09:24														X														
242750005	2	09:26														X														
CCV05	1	09:27														X														
CCB05	1	09:29														X														
242750002	2	09:31														X														
CCV06	1	09:33														X														
CCB06	1	09:34														X														

Metals
-14-
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: ICPMS5
Start Date: 23-DEC-09
End Date: 24-DEC-09
Client Sdg: 10-886
Method MS
Data File: 091223-3

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Li	Mg	Mn	Hg	Ni	K	Se	Si	Ag	Na	Tl	Ti	U	V	Zn
S0.0	1	20:25					X																					X		
S10	1	20:27					X																					X		
S100	1	20:29					X																					X		
ICV01	1	20:31					X																					X		
ICB01	1	20:34					X																					X		
CRDL01	1	20:36					X																					X		
ICSA01	1	20:38					X																					X		
ICSAB01	1	20:41					X																					X		
CCV01	1	20:43					X																					X		
CCB01	1	20:45					X																					X		
1201994309	2	20:48					X																					X		
1201994310	20	20:50					X																					X		
ZZZZZZ	40	20:52																												
ZZZZZZ	2	20:55																												
ZZZZZZ	2	20:57																												
ZZZZZZ	2	20:59																												
CCV02	1	21:02					X																					X		
CCB02	1	21:04					X																					X		
242750001	2	21:06					X																					X		
1201994311	2	21:09					X																					X		
1201994312	2	21:11					X																					X		
1201994314	2	21:13					X																					X		
1201994313	10	21:16					X																					X		
CCV03	1	21:18					X																					X		
CCB03	1	21:20					X																					X		
242750002	2	21:23					X																					X		
242750003	2	21:25					X																					X		
242750004	2	21:27					X																					X		
242750005	2	21:30					X																					X		
CCV04	1	21:32					X																					X		
CCB04	1	21:35					X																					X		

Metals
–14–
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: OPTIMA3
Start Date: 18–DEC–09
End Date: 18–DEC–09
Client Sdg: 10–886
Method P
Data File: 121809A–1

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Li	Mg	Mn	Hg	Ni	K	Se	Si	Ag	Na	Tl	Ti	U	V	Zn
S0.0	1	06:41	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
S0.1	1	06:47		X		X		X	X		X	X	X		X			X			X		X	X			X		X	X
S0.5	1	06:54	X	X		X		X	X	X	X	X	X		X		X	X			X		X	X			X		X	X
SCAL	1	07:00	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
S10	1	07:08	X							X				X			X								X					
ICV01	1	07:13	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
ICB01	1	07:20	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
PQL01	1	07:27	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
ICSA01	1	07:33	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
ICSAB01	1	07:40	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
LR01	1	07:46	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
LR02	1	07:52	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
CCV01	1	07:59	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
CCB01	1	08:05	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
LR03	1	08:13	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
CCV02	1	08:20	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
CCB02	1	08:27	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
ZZZZZZ	1	08:40																												
ZZZZZZ	1	08:47																												
ZZZZZZ	1	08:53																												
ZZZZZZ	1	09:00																												
ZZZZZZ	1	09:07																												
ZZZZZZ	1	09:14																												
ZZZZZZ	5	09:21																												
CCV03	1	09:28	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
CCB03	1	09:35	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
ZZZZZZ	1	09:42																												
ZZZZZZ	1	09:49																												
ZZZZZZ	1	09:56																												
ZZZZZZ	1	10:03																												
ZZZZZZ	1	10:11																												
ZZZZZZ	1	10:18																												
ZZZZZZ	1	10:25																												
ZZZZZZ	1	10:32																												
CCV04	1	10:39	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
CCB04	1	10:46	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
1201994230	1	10:54	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
1201994231	1	11:01	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
ZZZZZZ	1	11:07																												
ZZZZZZ	1	11:14																												

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time																												
ZZZZZZ	1	11:21																												
242750001	1	11:28	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
1201994232	1	11:35	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
CCV05	1	11:42	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
CCB05	1	11:49	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
1201994233	1	11:56	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
1201994235	1	12:03	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
1201994234	5	12:11	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
242750002	1	12:18	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
242750003	1	12:25	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
242750004	1	12:32	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
242750005	1	12:39	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
CCV06	1	12:46	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
CCB06	1	12:53	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X

Metals
-14-
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: HG3
Start Date: 29-DEC-09 **End Date:** 29-DEC-09

Client Sdg: 10-886
Method AV
Data File: 122909S2-15

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Li	Mg	Mn	Hg	Ni	K	Se	Si	Ag	Na	Tl	Ti	U	V	Zn
S0.0	1	09:19																	X											
S0.2	1	09:21																	X											
S0.5	1	09:22																	X											
S2.0	1	09:24																	X											
S5.0	1	09:26																	X											
S10.0	1	09:27																	X											
ICV01	1	09:29																	X											
ICB01	1	09:31																	X											
CRDL01	1	09:33																	X											
CCV01	1	09:34																	X											
CCB01	1	09:36																	X											
ZZZZZZ	1	09:38																												
ZZZZZZ	10	09:39																												
ZZZZZZ	1	09:41																												
ZZZZZZ	1	09:43																												
CCV02	1	09:46																	X											
CCB02	1	09:47																	X											
1202003901	1	09:49																	X											
ZZZZZZ	10	09:51																												
ZZZZZZ	1	09:52																												
ZZZZZZ	1	09:54																												
242750001	1	09:56																	X											
242750002	1	09:57																	X											
242750003	1	09:59																	X											
242750004	1	10:01																	X											
242750005	1	10:02																	X											
ZZZZZZ	1	10:04																												
CCV03	1	10:06																	X											
CCB03	1	10:07																	X											
ZZZZZZ	1	10:09																												
ZZZZZZ	1	10:11																												
ZZZZZZ	1	10:12																												
ZZZZZZ	1	10:14																												
ZZZZZZ	1	10:16																												
ZZZZZZ	1	10:17																												
ZZZZZZ	1	10:19																												
1202003903	1	10:21																	X											
1202003904	1	10:22																	X											
1202003906	1	10:24																	X											
CCV04	1	10:26																	X											

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time																												
CCB04	1	10:27																	X											
1202003905	5	10:29																	X											
ZZZZZZ	1	10:31																												
ZZZZZZ	1	10:32																												
ZZZZZZ	1	10:34																												
ZZZZZZ	1	10:36																												
ZZZZZZ	1	10:38																												
ZZZZZZ	10	10:39																												
ZZZZZZ	1	10:41																												
ZZZZZZ	1	10:43																												
ZZZZZZ	1	10:44																												
CCV05	1	10:46																	X											
CCB05	1	10:48																	X											
ZZZZZZ	1	10:49																												
ZZZZZZ	5	10:51																												
ZZZZZZ	1	10:53																												
ZZZZZZ	1	10:54																												
ZZZZZZ	1	10:56																												
ZZZZZZ	1	10:58																												
ZZZZZZ	1	10:59																												
ZZZZZZ	1	11:01																												
ZZZZZZ	1	11:03																												
ZZZZZZ	1	11:04																												
CCV06	1	11:06																	X											
CCB06	1	11:08																	X											
ZZZZZZ	1	11:09																												
ZZZZZZ	1	11:11																												
ZZZZZZ	1	11:13																												
ZZZZZZ	1	11:14																												
ZZZZZZ	1	11:16																												
ZZZZZZ	1	11:18																												
ZZZZZZ	1	11:19																												
ZZZZZZ	1	11:21																												
ZZZZZZ	1	11:23																												
ZZZZZZ	1	11:24																												
CCV07	1	11:26																	X											
CCB07	1	11:28																	X											
ZZZZZZ	1	11:30																												
ZZZZZZ	1	11:31																												
ZZZZZZ	10	11:33																												

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Li	Mg	Mn	Hg	Ni	K	Se	Si	Ag	Na	Tl	Ti	U	V	Zn
ZZZZZZ	1	11:35																												
ZZZZZZ	1	11:36																												
ZZZZZZ	1	11:38																												
ZZZZZZ	1	11:40																												
ZZZZZZ	5	11:41																												
ZZZZZZ	1	11:43																												
ZZZZZZ	1	11:45																												
CCV08	1	11:46																	X											
CCB08	1	11:48																	X											
ZZZZZZ	1	11:50																												
ZZZZZZ	1	11:51																												
ZZZZZZ	1	11:53																												
ZZZZZZ	1	11:55																												
ZZZZZZ	1	11:56																												
ZZZZZZ	1	11:58																												
ZZZZZZ	1	12:00																												
ZZZZZZ	1	12:01																												
ZZZZZZ	1	12:03																												
ZZZZZZ	1	12:05																												
CCV09	1	12:07																	X											
CCB09	1	12:08																	X											
ZZZZZZ	1	12:10																												
CCV10	1	12:12																	X											
CCB10	1	12:13																	X											
1202003902	10	13:07																	X											
ZZZZZZ	1	13:08																												
ZZZZZZ	1	13:10																												
ZZZZZZ	10	13:12																												
ZZZZZZ	10	13:13																												
CCV11	1	13:15																	X											
CCB11	1	13:17																	X											

Standards

METALS
-10-
Instrument Detection Limits

SDG NO. 10-886

Contract: LANL01004 **Lab Code: GEL** **MDL Effective Date:** 01-JUL-09

ICP/MS	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
SOLID	Aluminum		15.0	50
	Antimony		0.5	3
	Arsenic		1.0	5
	Barium		0.5	2
	Beryllium		0.1	.5
	Boron		4.0	15
	Cadmium		0.1	1
	Calcium		33.0	100
	Chromium		1.0	3
	Cobalt		0.3	1
	Copper		0.33	1
	Iron		25.0	100
	Lead		0.5	2
	Lithium		2.0	10
	Magnesium		7.5	25
	Manganese		1.0	5
	Nickel		0.5	2
	Potassium		80.0	300
	Selenium		2.5	5
	Silver		0.2	1
	Sodium		80.0	250
	Thallium		0.3	1
	Titanium		2.0	10
	Uranium		0.066	.2
	Vanadium		2.0	10
	Zinc		2.0	10

METALS
–10–
Instrument Detection Limits

SDG NO. 10–886

Contract: LANL01004 **Lab Code: GEL** **MDL Effective Date:** 15–JUN–09

MERCURY	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
SOLID	Mercury		0.068	.2

METALS
-10-
Instrument Detection Limits

SDG NO. 10-886

Contract: LANL01004 **Lab Code: GEL** **MDL Effective Date:** 01-JUL-09

ICP	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
SOLID	Aluminum	396.153	68.0	200
	Antimony	206.836	3.3	10
	Arsenic	188.979	5.0	30
	Barium	233.527	1.0	5
	Beryllium	313.107	1.0	5
	Boron	249.677	10.0	50
	Cadmium	226.502	1.0	5
	Calcium	317.933	80.0	250
	Chromium	267.716	1.5	5
	Cobalt	228.616	1.5	5
	Copper	324.752	3.0	10
	Iron	238.204	80.0	250
	Lead	220.353	2.5	10
	Magnesium	279.077	85.0	300
	Manganese	257.61	2.0	10
	Nickel	231.604	1.5	5
	Potassium	766.49	64.0	250
	Selenium	196.026	5.0	30
	Silicon	251.611	15.0	100
	Silver	328.068	1.0	5
	Sodium	589.592	70.0	250
	Thallium	190.801	5.0	20
	Titanium	334.94	1.0	5
	Uranium	409.014	10.0	50
	Vanadium	292.402	1.0	5
	Zinc	213.857	3.3	10

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA3
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-886
Effective Dates: 01-NOV-09

Parmname	Wavelength	Aluminum	Antimony	Arsenic	Barium	Beryllium
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.02738	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	-0.44940	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	-0.22121	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	-0.33886	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	-0.13648	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	-0.05571	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.19671	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	-0.02739	0.00000	0.00000	0.00000	0.00000
Tin	189.927	-0.00058	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA3
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-886
Effective Dates: 01-NOV-09

Parmname	Wavelength	Boron	Cadmium	Chromium	Cobalt	Copper
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	24.5549	0.00000	0.00000
Arsenic	188.979	0.52529	0.00000	-0.67113	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	2.54031	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.38952	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	-31.5465	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	0.78023
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.63859	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	160.41
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	5.22870	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.35099	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	1.93161	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.39273	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	1.19810

METALS
–11–
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA3
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10–886
Effective Dates: 01–NOV–09

Parmname	Wavelength	Iron	Lead	Magnesium	Manganese	Molybdenum
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	42.8126
Antimony	206.836	–0.01635	0.00000	0.00000	0.00000	–22.2146
Arsenic	188.979	–0.21271	0.00000	0.00000	0.00000	1.34645
Barium	233.527	–0.03709	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.13266	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.09998	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	–0.01788	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.01425	0.00000	0.00000	0.00000	–2.64232
Copper	324.752	–0.05101	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.09069	0.00000	0.00000	0.00000	–2.44485
Magnesium	279.077	0.85543	0.00000	0.00000	0.00000	–20.2401
Manganese	257.61	–0.09972	0.00000	0.01862	0.00000	0.00000
Molybdenum	202.031	–0.07094	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.80633	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	–0.03176	0.00000	0.01823	12.4291	–3.60863
Selenium	196.026	–3.00009	0.00000	0.00000	0.00000	–3.17982
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	17.4444
Silver	328.068	–0.31825	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	–5.85948	0.00000
Tin	189.927	–0.01337	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.12581	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.15211	0.00000	–0.02256	0.00000	–14.2921
Zinc	213.857	0.09548	0.00000	0.03423	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL **GEL Job No:** 10-886
Contract: LANL01004
Instrument: OPTIMA3 **Effective Dates:** 01-NOV-09
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Parmname	Wavelength	Nickel	Phosphorous	Potassium	Selenium	Silicon
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	-0.64279	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	0.44040	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.33191	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	6.38465	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA3
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-886
Effective Dates: 01-NOV-09

Parmname	Wavelength	Silver	Strontium	Sulfur	Thallium	Tin
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	0.00000	-17.4077
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	-13.8713
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	3.10491
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA3
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-886
Effective Dates: 01-NOV-09

Parmname	Wavelength	Titanium	Uranium	Vanadium	Zinc
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	2.73145	0.00000	-2.31857	0.00000
Arsenic	188.979	-8.38419	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	-2.24883	0.00000
Beryllium	313.107	-1.96555	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.32181	-1.76281	0.00000
Cobalt	228.616	2.12623	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.85359	-3.92851	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	-7.67419	0.00000	2.18873	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.44145	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	1.10141	-1.94183	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000

METALS
-12-
Linear Ranges

SDG NO. 10-886

Contract: LANL01004 **Lab Code: GEL**

Instrument ID ICPMS5

Analyte	Integration Time (msec)	LDR	Units	Effective Date
Antimony	1000	250	ug/L	01-NOV-09
Arsenic	1000	1000	ug/L	01-NOV-09
Barium	1000	1000	ug/L	01-NOV-09
Beryllium	1000	1000	ug/L	01-NOV-09
Boron	1000	200	ug/L	01-NOV-09
Cadmium	1000	1000	ug/L	01-NOV-09
Calcium	500	50000	ug/L	01-NOV-09
Chromium	1000	1000	ug/L	01-NOV-09
Cobalt	1000	1000	ug/L	01-NOV-09
Aluminum	1	50000	ug/L	01-NOV-09
Copper	1000	1000	ug/L	01-NOV-09
Iron	500	50000	ug/L	01-NOV-09
Lead	1000	5000	ug/L	01-NOV-09
Lithium	1000	1000	ug/L	01-NOV-09
Magnesium	1	50000	ug/L	01-NOV-09
Manganese	1000	1000	ug/L	01-NOV-09
Nickel	1000	1000	ug/L	01-NOV-09
Potassium	1	50000	ug/L	01-NOV-09
Selenium	1000	500	ug/L	01-NOV-09
Silver	1000	250	ug/L	01-NOV-09
Sodium	1	50000	ug/L	01-NOV-09
Thallium	1000	500	ug/L	01-NOV-09
Titanium	1000	100	ug/L	01-NOV-09
Uranium	1000	5000	ug/L	01-NOV-09
Vanadium	1000	100	ug/L	01-NOV-09
Zinc	1000	2500	ug/L	01-NOV-09

METALS
–12–
Linear Ranges

SDG NO. 10–886

Contract: LANL01004 **Lab Code: GEL**

Instrument ID OPTIMA3

Analyte	Integration Time (sec)	LDR	Units	Effective Date
Titanium	20	10000	ug/L	01–NOV–09
Uranium	20	15000	ug/L	01–NOV–09
Vanadium	20	10000	ug/L	01–NOV–09
Zinc	20	15000	ug/L	01–NOV–09
Aluminum	20	500000	ug/L	01–NOV–09
Antimony	20	10000	ug/L	01–NOV–09
Arsenic	20	10000	ug/L	01–NOV–09
Barium	20	15000	ug/L	01–NOV–09
Beryllium	20	3000	ug/L	01–NOV–09
Boron	20	5000	ug/L	01–NOV–09
Cadmium	20	10000	ug/L	01–NOV–09
Calcium	20	500000	ug/L	01–NOV–09
Chromium	20	25000	ug/L	01–NOV–09
Cobalt	20	10000	ug/L	01–NOV–09
Copper	20	20000	ug/L	01–NOV–09
Iron	20	500000	ug/L	01–NOV–09
Lead	20	25000	ug/L	01–NOV–09
Magnesium	20	500000	ug/L	01–NOV–09
Manganese	20	10000	ug/L	01–NOV–09
Nickel	20	10000	ug/L	01–NOV–09
Potassium	20	300000	ug/L	01–NOV–09
Selenium	20	10000	ug/L	01–NOV–09
Silicon	20	50000	ug/L	01–NOV–09
Silver	20	1000	ug/L	01–NOV–09
Sodium	20	500000	ug/L	01–NOV–09
Thallium	20	10000	ug/L	01–NOV–09

Raw Data

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Reprocessing Begun
Logged In Analyst: Optima3 **Technique: ICP Continuous**

Results Data Set (original): 121809
Results Library (original): C:\pe\Optima3\Results\Results.mdb
Results Data Set (reprocessed): 121809A
Results Library (reprocessed): C:\pe\Optima3\Results\Results.mdb

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Method Loaded
Method Name: General Eng.2AX **Method Last Saved: 12/18/2009 08:35:25**
IEC File: 101209.iec **MSF File:**
Method Description:

Analyte	Calibration Equation	Processing	View	Internal Standard	IEC
Ag 328.068	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Al 396.153Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
As 188.979	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
B 249.677	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ba 233.527	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Be 313.107	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ca 317.933Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	No
Cd 226.502	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Co 228.616	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cr 267.716	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cu 324.752	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Fe 238.204 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
K 766.490 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Mg 279.077 IEC	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Mn 257.610	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Mo 202.031	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Na 589.592 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	No
Ni 231.604	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
P 214.914	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Pb 220.353	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
S 181.975 Axial	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sb 206.836	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sc 361.383	Lin Thru 0	Peak Area	Axial	n/a	n/a
Sc Radial	Lin, Calc Int	Peak Area	Radial	n/a	n/a
Se 196.026	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Si 251.611	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sn 189.927	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sr 421.552	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Ti 334.940	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Tl 190.801	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
U 409.014	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
V 292.402	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y 371.029	Lin, Calc Int	Peak Area	Axial	n/a	n/a
Zn 213.857	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y RADIAL	Lin, Calc Int	Peak Area	Radial	n/a	n/a
SiO2	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes

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Sequence No.: 1 **Autosampler Location: 8**
Sample ID: S0 **Date Collected: 12/18/2009 06:41:01**
Analyst: **Data Type: Reprocessed on 12/18/2009 08:37:40**
Logged In Analyst (Original) : Optima3
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: S0

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc 361.383	920304.5	920304.5	99.503	%	06:44:10
1	Sc Radial	5754.0	5754.0	101	%	06:42:53
1	Y 371.029	755235.6	755235.6	99.384	%	06:44:10
1	Y RADIAL	5894.1	5894.1	100.7	%	06:42:53
1	Ag 328.068†	344.2	346.0	[0.00]	ug/L	06:44:10

1	Al 396.153Radial†	-28.2	-27.9	[0.00]	ug/L	06:42:53
1	As 188.979†	-40.0	-40.2	[0.00]	ug/L	06:44:30
1	B 249.677†	-441.1	-443.3	[0.00]	ug/L	06:44:30
1	Ba 233.527†	0.5	0.5	[0.00]	ug/L	06:44:30
1	Be 313.107†	-4602.4	-4625.4	[0.00]	ug/L	06:44:10
1	Ca 317.933Radial†	15.8	15.6	[0.00]	ug/L	06:43:13
1	Cd 226.502†	-215.0	-216.1	[0.00]	ug/L	06:44:30
1	Co 228.616†	-87.8	-88.2	[0.00]	ug/L	06:44:30
1	Cr 267.716†	107.4	107.9	[0.00]	ug/L	06:44:30
1	Cu 324.752†	6097.5	6128.0	[0.00]	ug/L	06:44:10
1	Fe 238.204 Radial†	17.1	16.9	[0.00]	ug/L	06:43:13
1	K 766.490 Radial†	2988.5	2953.9	[0.00]	ug/L	06:42:53
1	Mg 279.077 IEC†	-0.8	-0.8	[0.00]	ug/L	06:43:13
1	Mn 257.610†	488.8	491.3	[0.00]	ug/L	06:44:30
1	Mo 202.031†	25.0	25.1	[0.00]	ug/L	06:44:30
1	Na 589.592 Radial†	-1289.9	-1275.0	[0.00]	ug/L	06:42:53
1	Ni 231.604†	84.4	84.8	[0.00]	ug/L	06:44:30
1	P 214.914†	264.8	266.1	[0.00]	ug/L	06:44:30
1	Pb 220.353†	-54.5	-54.8	[0.00]	ug/L	06:44:30
1	S 181.975 Axial†	54.3	54.6	[0.00]	ug/L	06:44:30
1	Sb 206.836†	43.3	43.5	[0.00]	ug/L	06:44:30
1	Se 196.026†	-31.8	-31.9	[0.00]	ug/L	06:44:30
1	Si 251.611†	570.6	573.5	[0.00]	ug/L	06:44:30
1	Sn 189.927†	3.7	3.7	[0.00]	ug/L	06:44:30
1	Sr 421.552†	3.0	3.0	[0.00]	ug/L	06:42:53
1	Ti 334.940†	-1491.1	-1498.6	[0.00]	ug/L	06:44:10
1	Tl 190.801†	-38.3	-38.5	[0.00]	ug/L	06:44:30
1	U 409.014†	-2813.2	-2827.2	[0.00]	ug/L	06:44:10
1	V 292.402†	-1586.0	-1593.9	[0.00]	ug/L	06:44:10
1	Zn 213.857†	800.7	804.7	[0.00]	ug/L	06:44:30
1	SiO2†	592.1	595.0	[0.00]	ug/L	06:45:26
2	Sc 361.383	931738.0	931738.0	100.74	%	06:44:35
2	Sc Radial	5708.3	5708.3	100	%	06:43:18
2	Y 371.029	766817.7	766817.7	100.91	%	06:44:35
2	Y RADIAL	5892.0	5892.0	100.7	%	06:43:18
2	Ag 328.068†	273.1	271.1	[0.00]	ug/L	06:44:35
2	Al 396.153Radial†	-45.8	-45.6	[0.00]	ug/L	06:43:18
2	As 188.979†	-29.2	-29.0	[0.00]	ug/L	06:44:55
2	B 249.677†	-490.5	-486.9	[0.00]	ug/L	06:44:55
2	Ba 233.527†	-0.5	-0.5	[0.00]	ug/L	06:44:55
2	Be 313.107†	-4738.4	-4703.6	[0.00]	ug/L	06:44:35
2	Ca 317.933Radial†	15.2	15.2	[0.00]	ug/L	06:43:38
2	Cd 226.502†	-211.1	-209.6	[0.00]	ug/L	06:44:55
2	Co 228.616†	-94.2	-93.5	[0.00]	ug/L	06:44:55
2	Cr 267.716†	108.5	107.7	[0.00]	ug/L	06:44:55
2	Cu 324.752†	6171.2	6125.9	[0.00]	ug/L	06:44:35
2	Fe 238.204 Radial†	14.0	13.9	[0.00]	ug/L	06:43:38
2	K 766.490 Radial†	3003.7	2992.7	[0.00]	ug/L	06:43:18
2	Mg 279.077 IEC†	6.8	6.8	[0.00]	ug/L	06:43:38
2	Mn 257.610†	502.0	498.3	[0.00]	ug/L	06:44:55
2	Mo 202.031†	26.5	26.3	[0.00]	ug/L	06:44:55
2	Na 589.592 Radial†	-1283.5	-1278.9	[0.00]	ug/L	06:43:18
2	Ni 231.604†	80.0	79.4	[0.00]	ug/L	06:44:55
2	P 214.914†	244.5	242.7	[0.00]	ug/L	06:44:55
2	Pb 220.353†	-70.7	-70.1	[0.00]	ug/L	06:44:55
2	S 181.975 Axial†	51.8	51.4	[0.00]	ug/L	06:44:55
2	Sb 206.836†	38.9	38.6	[0.00]	ug/L	06:44:55
2	Se 196.026†	-30.0	-29.8	[0.00]	ug/L	06:44:55
2	Si 251.611†	576.1	571.9	[0.00]	ug/L	06:44:55
2	Sn 189.927†	7.8	7.8	[0.00]	ug/L	06:44:55
2	Sr 421.552†	-15.5	-15.4	[0.00]	ug/L	06:43:18
2	Ti 334.940†	-1500.9	-1489.9	[0.00]	ug/L	06:44:35
2	Tl 190.801†	-44.6	-44.2	[0.00]	ug/L	06:44:55
2	U 409.014†	-2785.3	-2764.9	[0.00]	ug/L	06:44:35
2	V 292.402†	-1404.3	-1394.0	[0.00]	ug/L	06:44:35
2	Zn 213.857†	805.0	799.1	[0.00]	ug/L	06:44:55
2	SiO2†	611.4	606.9	[0.00]	ug/L	06:45:31
3	Sc 361.383	922668.2	922668.2	99.758	%	06:45:01
3	Sc Radial	5599.9	5599.9	98.5	%	06:43:43
3	Y 371.029	757689.8	757689.8	99.707	%	06:45:01
3	Y RADIAL	5774.1	5774.1	98.65	%	06:43:43

3	Ag 328.068†	387.2	388.2	[0.00]	ug/L	06:45:01
3	Al 396.153Radial†	-21.2	-21.5	[0.00]	ug/L	06:43:43
3	As 188.979†	-22.6	-22.7	[0.00]	ug/L	06:45:21
3	B 249.677†	-451.7	-452.8	[0.00]	ug/L	06:45:21
3	Ba 233.527†	5.6	5.6	[0.00]	ug/L	06:45:21
3	Be 313.107†	-4715.4	-4726.9	[0.00]	ug/L	06:45:01
3	Ca 317.933Radial†	21.4	21.7	[0.00]	ug/L	06:44:03
3	Cd 226.502†	-213.6	-214.1	[0.00]	ug/L	06:45:21
3	Co 228.616†	-93.6	-93.9	[0.00]	ug/L	06:45:21
3	Cr 267.716†	94.3	94.5	[0.00]	ug/L	06:45:21
3	Cu 324.752†	6103.5	6118.3	[0.00]	ug/L	06:45:01
3	Fe 238.204 Radial†	15.2	15.5	[0.00]	ug/L	06:44:03
3	K 766.490 Radial†	3015.1	3062.2	[0.00]	ug/L	06:43:43
3	Mg 279.077 IEC†	2.0	2.0	[0.00]	ug/L	06:44:03
3	Mn 257.610†	497.4	498.6	[0.00]	ug/L	06:45:21
3	Mo 202.031†	31.1	31.1	[0.00]	ug/L	06:45:21
3	Na 589.592 Radial†	-1287.1	-1307.2	[0.00]	ug/L	06:43:43
3	Ni 231.604†	75.9	76.0	[0.00]	ug/L	06:45:21
3	P 214.914†	266.8	267.5	[0.00]	ug/L	06:45:21
3	Pb 220.353†	-66.3	-66.5	[0.00]	ug/L	06:45:21
3	S 181.975 Axial†	48.7	48.8	[0.00]	ug/L	06:45:21
3	Sb 206.836†	39.8	39.9	[0.00]	ug/L	06:45:21
3	Se 196.026†	-41.0	-41.1	[0.00]	ug/L	06:45:21
3	Si 251.611†	581.5	582.9	[0.00]	ug/L	06:45:21
3	Sn 189.927†	3.5	3.5	[0.00]	ug/L	06:45:21
3	Sr 421.552†	31.5	32.0	[0.00]	ug/L	06:43:43
3	Ti 334.940†	-1513.3	-1517.0	[0.00]	ug/L	06:45:01
3	Tl 190.801†	-46.1	-46.2	[0.00]	ug/L	06:45:21
3	U 409.014†	-2762.2	-2768.9	[0.00]	ug/L	06:45:01
3	V 292.402†	-1549.3	-1553.0	[0.00]	ug/L	06:45:01
3	Zn 213.857†	815.4	817.4	[0.00]	ug/L	06:45:21
3	SiO2†	599.9	601.4	[0.00]	ug/L	06:45:36

Mean Data: S0

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	924903.6	6035.66	0.65%	100.00	%
Sc Radial	5687.4	79.14	1.39%	100	%
Y 371.029	759914.4	6103.10	0.80%	100.00	%
Y RADIAL	5853.4	68.66	1.17%	100.0	%
Ag 328.068†	335.1	59.28	17.69%	[0.00]	ug/L
Al 396.153Radial†	-31.7	12.51	39.48%	[0.00]	ug/L
As 188.979†	-30.6	8.85	28.89%	[0.00]	ug/L
B 249.677†	-461.0	22.92	4.97%	[0.00]	ug/L
Ba 233.527†	1.8	3.27	178.13%	[0.00]	ug/L
Be 313.107†	-4685.3	53.17	1.13%	[0.00]	ug/L
Ca 317.933Radial†	17.5	3.66	20.92%	[0.00]	ug/L
Cd 226.502†	-213.3	3.33	1.56%	[0.00]	ug/L
Co 228.616†	-91.9	3.15	3.43%	[0.00]	ug/L
Cr 267.716†	103.4	7.70	7.45%	[0.00]	ug/L
Cu 324.752†	6124.1	5.14	0.08%	[0.00]	ug/L
Fe 238.204 Radial†	15.4	1.46	9.43%	[0.00]	ug/L
K 766.490 Radial†	3002.9	54.88	1.83%	[0.00]	ug/L
Mg 279.077 IEC†	2.6	3.83	145.21%	[0.00]	ug/L
Mn 257.610†	496.1	4.14	0.83%	[0.00]	ug/L
Mo 202.031†	27.5	3.18	11.55%	[0.00]	ug/L
Na 589.592 Radial†	-1287.0	17.58	1.37%	[0.00]	ug/L
Ni 231.604†	80.1	4.43	5.53%	[0.00]	ug/L
P 214.914†	258.7	13.95	5.39%	[0.00]	ug/L
Pb 220.353†	-63.8	8.01	12.56%	[0.00]	ug/L
S 181.975 Axial†	51.6	2.91	5.65%	[0.00]	ug/L
Sb 206.836†	40.7	2.52	6.19%	[0.00]	ug/L
Se 196.026†	-34.3	6.03	17.60%	[0.00]	ug/L
Si 251.611†	576.1	5.97	1.04%	[0.00]	ug/L
Sn 189.927†	5.0	2.39	47.78%	[0.00]	ug/L
Sr 421.552†	6.5	23.89	366.36%	[0.00]	ug/L
Ti 334.940†	-1501.8	13.86	0.92%	[0.00]	ug/L
Tl 190.801†	-43.0	4.01	9.34%	[0.00]	ug/L
U 409.014†	-2787.0	34.91	1.25%	[0.00]	ug/L
V 292.402†	-1513.6	105.63	6.98%	[0.00]	ug/L

Zn 213.857†	807.0	9.36	1.16%	[0.00] ug/L
SiO2†	601.1	5.95	0.99%	[0.00] ug/L

Sequence No.: 2
Sample ID: S0.1
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 2
Date Collected: 12/18/2009 06:47:47
Data Type: Reprocessed on 12/18/2009 08:37:42

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc 361.383	951136.9	951136.9	102.84	%	06:50:11
1	Sc Radial	5746.6	5746.6	101	%	06:49:44
1	Y 371.029	770444.0	770444.0	101.39	%	06:50:11
1	Y RADIAL	5915.4	5915.4	101.1	%	06:49:44
1	Ag 328.068†	24065.3	23066.4	[100]	ug/L	06:50:16
1	As 188.979†	246.4	270.3	[100]	ug/L	06:50:36
1	B 249.677†	4220.1	4564.8	[100]	ug/L	06:50:16
1	Ba 233.527†	15277.5	14854.3	[100]	ug/L	06:50:16
1	Be 313.107†	293064.4	289666.7	[100]	ug/L	06:50:11
1	Cd 226.502†	10330.9	10259.2	[100]	ug/L	06:50:16
1	Co 228.616†	5687.8	5622.7	[100]	ug/L	06:50:36
1	Cr 267.716†	10273.7	9887.0	[100]	ug/L	06:50:16
1	Cu 324.752†	41551.9	34281.7	[100]	ug/L	06:50:16
1	K 766.490 Radial†	9112.9	6016.1	[1000]	ug/L	06:49:39
1	Mn 257.610†	104562.2	101182.2	[100]	ug/L	06:50:16
1	Mo 202.031†	1729.7	1654.5	[100]	ug/L	06:50:36
1	Ni 231.604†	4854.7	4640.7	[100]	ug/L	06:50:16
1	P 214.914†	1229.3	936.6	[500]	ug/L	06:50:36
1	Pb 220.353†	914.2	952.8	[100]	ug/L	06:50:36
1	S 181.975 Axial†	218.8	161.1	[200]	ug/L	06:50:36
1	Sb 206.836†	387.6	336.2	[100]	ug/L	06:50:36
1	Se 196.026†	147.4	177.6	[100]	ug/L	06:50:36
1	Si 251.611†	18597.4	17508.3	[500]	ug/L	06:50:16
1	Sn 189.927†	689.4	665.3	[100]	ug/L	06:50:36
1	Sr 421.552†	18058.0	17865.4	[100]	ug/L	06:49:44
1	Ti 334.940†	67495.1	67135.3	[100]	ug/L	06:50:16
1	Tl 190.801†	349.7	383.0	[100]	ug/L	06:50:36
1	U 409.014†	1159.8	3914.8	[100]	ug/L	06:50:11
1	V 292.402†	14362.6	15480.1	[100]	ug/L	06:50:16
1	Zn 213.857†	13302.7	12128.7	[100]	ug/L	06:50:16
1	SiO2†	18484.6	17373.6	[1069.5]	ug/L	06:51:42
2	Sc 361.383	940365.7	940365.7	101.67	%	06:50:41
2	Sc Radial	5822.9	5822.9	102	%	06:49:54
2	Y 371.029	763525.7	763525.7	100.48	%	06:50:41
2	Y RADIAL	5980.9	5980.9	102.2	%	06:49:54
2	Ag 328.068†	24286.9	23552.5	[100]	ug/L	06:50:46
2	As 188.979†	246.4	272.9	[100]	ug/L	06:51:06
2	B 249.677†	4361.6	4750.9	[100]	ug/L	06:50:46
2	Ba 233.527†	15412.9	15157.6	[100]	ug/L	06:50:46
2	Be 313.107†	290904.8	290806.8	[100]	ug/L	06:50:41
2	Cd 226.502†	10467.4	10508.6	[100]	ug/L	06:50:46
2	Co 228.616†	5639.2	5638.3	[100]	ug/L	06:51:06
2	Cr 267.716†	10413.0	10138.4	[100]	ug/L	06:50:46
2	Cu 324.752†	42157.3	35340.0	[100]	ug/L	06:50:46
2	K 766.490 Radial†	9088.2	5873.7	[1000]	ug/L	06:49:49
2	Mn 257.610†	105948.9	103710.7	[100]	ug/L	06:50:46
2	Mo 202.031†	1722.0	1666.2	[100]	ug/L	06:51:06
2	Ni 231.604†	4963.5	4801.8	[100]	ug/L	06:50:46
2	P 214.914†	1210.8	932.1	[500]	ug/L	06:51:06
2	Pb 220.353†	891.9	941.0	[100]	ug/L	06:51:06
2	S 181.975 Axial†	213.0	157.9	[200]	ug/L	06:51:06
2	Sb 206.836†	379.0	332.1	[100]	ug/L	06:51:06
2	Se 196.026†	156.7	188.4	[100]	ug/L	06:51:06
2	Si 251.611†	18791.9	17906.8	[500]	ug/L	06:50:46
2	Sn 189.927†	692.1	675.7	[100]	ug/L	06:51:06
2	Sr 421.552†	18562.4	18123.9	[100]	ug/L	06:49:54
2	Ti 334.940†	68321.6	68700.0	[100]	ug/L	06:50:46
2	Tl 190.801†	352.7	389.9	[100]	ug/L	06:51:06

2	U 409.014†	1215.2	3982.2	[100]	ug/L	06:50:41
2	V 292.402†	14571.1	15845.2	[100]	ug/L	06:50:46
2	Zn 213.857†	13424.8	12397.0	[100]	ug/L	06:50:46
2	SiO2†	18587.7	17681.0	[1069.5]	ug/L	06:51:47
3	Sc 361.383	956491.0	956491.0	103.42	%	06:51:12
3	Sc Radial	5690.4	5690.4	100	%	06:50:04
3	Y 371.029	774972.9	774972.9	101.98	%	06:51:12
3	Y RADIAL	5850.1	5850.1	99.94	%	06:50:04
3	Ag 328.068†	24052.3	22922.9	[100]	ug/L	06:51:17
3	As 188.979†	251.4	273.7	[100]	ug/L	06:51:37
3	B 249.677†	4216.8	4538.6	[100]	ug/L	06:51:17
3	Ba 233.527†	15355.6	14846.7	[100]	ug/L	06:51:17
3	Be 313.107†	295389.9	290320.2	[100]	ug/L	06:51:12
3	Cd 226.502†	10384.2	10254.6	[100]	ug/L	06:51:17
3	Co 228.616†	5698.4	5602.1	[100]	ug/L	06:51:37
3	Cr 267.716†	10324.6	9880.3	[100]	ug/L	06:51:17
3	Cu 324.752†	41861.3	34354.8	[100]	ug/L	06:51:17
3	K 766.490 Radial†	9081.0	6073.3	[1000]	ug/L	06:49:59
3	Mn 257.610†	105169.3	101200.1	[100]	ug/L	06:51:17
3	Mo 202.031†	1719.9	1635.6	[100]	ug/L	06:51:37
3	Ni 231.604†	4866.8	4625.9	[100]	ug/L	06:51:17
3	P 214.914†	1231.1	931.7	[500]	ug/L	06:51:37
3	Pb 220.353†	913.0	946.6	[100]	ug/L	06:51:37
3	S 181.975 Axial†	215.5	156.8	[200]	ug/L	06:51:37
3	Sb 206.836†	383.1	329.8	[100]	ug/L	06:51:37
3	Se 196.026†	150.9	180.2	[100]	ug/L	06:51:37
3	Si 251.611†	18623.7	17432.5	[500]	ug/L	06:51:17
3	Sn 189.927†	681.6	654.1	[100]	ug/L	06:51:37
3	Sr 421.552†	18171.1	18155.0	[100]	ug/L	06:50:04
3	Ti 334.940†	67899.8	67159.3	[100]	ug/L	06:51:17
3	Tl 190.801†	356.6	387.8	[100]	ug/L	06:51:37
3	U 409.014†	1235.5	3981.7	[100]	ug/L	06:51:12
3	V 292.402†	14433.9	15470.9	[100]	ug/L	06:51:17
3	Zn 213.857†	13343.8	12096.1	[100]	ug/L	06:51:17
3	SiO2†	18575.7	17361.1	[1069.5]	ug/L	06:51:52

Mean Data: S0.1

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	949331.2	8212.90	0.87%	102.64	%
Sc Radial	5753.3	66.52	1.16%	101	%
Y 371.029	769647.5	5765.02	0.75%	101.28	%
Y RADIAL	5915.5	65.36	1.10%	101.1	%
Ag 328.068†	23180.6	329.95	1.42%	[100]	ug/L
As 188.979†	272.3	1.80	0.66%	[100]	ug/L
B 249.677†	4618.1	115.77	2.51%	[100]	ug/L
Ba 233.527†	14952.9	177.37	1.19%	[100]	ug/L
Be 313.107†	290264.6	572.09	0.20%	[100]	ug/L
Cd 226.502†	10340.8	145.33	1.41%	[100]	ug/L
Co 228.616†	5621.1	18.18	0.32%	[100]	ug/L
Cr 267.716†	9968.6	147.15	1.48%	[100]	ug/L
Cu 324.752†	34658.9	591.04	1.71%	[100]	ug/L
K 766.490 Radial†	5987.7	102.78	1.72%	[1000]	ug/L
Mn 257.610†	102031.0	1454.72	1.43%	[100]	ug/L
Mo 202.031†	1652.1	15.45	0.94%	[100]	ug/L
Ni 231.604†	4689.5	97.54	2.08%	[100]	ug/L
P 214.914†	933.5	2.74	0.29%	[500]	ug/L
Pb 220.353†	946.8	5.87	0.62%	[100]	ug/L
S 181.975 Axial†	158.6	2.26	1.43%	[200]	ug/L
Sb 206.836†	332.7	3.24	0.97%	[100]	ug/L
Se 196.026†	182.1	5.67	3.11%	[100]	ug/L
Si 251.611†	17615.9	254.77	1.45%	[500]	ug/L
Sn 189.927†	665.0	10.82	1.63%	[100]	ug/L
Sr 421.552†	18048.1	158.97	0.88%	[100]	ug/L
Ti 334.940†	67664.9	896.54	1.32%	[100]	ug/L
Tl 190.801†	386.9	3.54	0.91%	[100]	ug/L
U 409.014†	3959.6	38.79	0.98%	[100]	ug/L
V 292.402†	15598.7	213.50	1.37%	[100]	ug/L
Zn 213.857†	12207.3	165.13	1.35%	[100]	ug/L
SiO2†	17471.9	181.17	1.04%	[1069.5]	ug/L

Sequence No.: 3
Sample ID: S0.5
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 3
Date Collected: 12/18/2009 06:54:03
Data Type: Reprocessed on 12/18/2009 08:37:51

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc 361.383	1089081.9	1089081.9	117.75	%	06:57:15
1	Sc Radial	5650.4	5650.4	99.3	%	06:55:56
1	Y 371.029	874109.3	874109.3	115.03	%	06:57:15
1	Y RADIAL	5796.0	5796.0	99.02	%	06:55:56
1	Ag 328.068†	112966.1	95601.5	[500]	ug/L	06:57:15
1	Al 396.153Radial†	6630.7	6705.8	[5000]	ug/L	06:55:56
1	As 188.979†	1365.5	1190.2	[500]	ug/L	06:57:35
1	B 249.677†	22882.5	19894.0	[500]	ug/L	06:57:15
1	Ba 233.527†	72295.6	61395.3	[500]	ug/L	06:57:15
1	Be 313.107†	1422977.8	1213150.2	[500]	ug/L	06:57:15
1	Ca 317.933Radial†	3579.2	3585.2	[5000]	ug/L	06:56:16
1	Cd 226.502†	50398.5	43014.2	[500]	ug/L	06:57:15
1	Co 228.616†	28950.7	24678.3	[500]	ug/L	06:57:35
1	Cr 267.716†	48426.0	41022.5	[500]	ug/L	06:57:15
1	Cu 324.752†	177665.8	144758.7	[500]	ug/L	06:57:15
1	K 766.490 Radial†	33153.5	30368.0	[5000]	ug/L	06:55:56
1	Mg 279.077 IEC†	177.9	176.4	[5000]	ug/L	06:56:16
1	Mn 257.610†	496578.0	421223.2	[500]	ug/L	06:57:15
1	Mo 202.031†	8491.0	7183.4	[500]	ug/L	06:57:35
1	Ni 231.604†	23442.3	19828.3	[500]	ug/L	06:57:35
1	P 214.914†	5191.4	4150.1	[2500]	ug/L	06:57:35
1	Pb 220.353†	4873.1	4202.3	[500]	ug/L	06:57:35
1	S 181.975 Axial†	857.3	676.5	[1000]	ug/L	06:57:35
1	Sb 206.836†	1723.6	1423.1	[500]	ug/L	06:57:35
1	Se 196.026†	909.6	806.8	[500]	ug/L	06:57:35
1	Si 251.611†	86863.2	73192.5	[2500]	ug/L	06:57:15
1	Sn 189.927†	3412.0	2892.7	[500]	ug/L	06:57:35
1	Sr 421.552†	90043.8	90627.8	[500]	ug/L	06:55:56
1	Ti 334.940†	331609.6	283121.5	[500]	ug/L	06:57:15
1	Tl 190.801†	1945.7	1695.3	[500]	ug/L	06:57:35
1	U 409.014†	14179.2	14828.7	[500]	ug/L	06:57:15
1	V 292.402†	74615.9	64881.3	[500]	ug/L	06:57:15
1	Zn 213.857†	60562.6	50625.8	[500]	ug/L	06:57:15
1	SiO2†	91972.2	77506.3	[5347.5]	ug/L	06:58:35
2	Sc 361.383	990969.6	990969.6	107.14	%	06:57:42
2	Sc Radial	5649.0	5649.0	99.3	%	06:56:21
2	Y 371.029	795843.5	795843.5	104.73	%	06:57:42
2	Y RADIAL	5790.1	5790.1	98.92	%	06:56:21
2	Ag 328.068†	115601.4	107559.4	[500]	ug/L	06:57:42
2	Al 396.153Radial†	6637.1	6714.0	[5000]	ug/L	06:56:21
2	As 188.979†	1369.6	1308.9	[500]	ug/L	06:58:02
2	B 249.677†	23267.1	22176.9	[500]	ug/L	06:57:42
2	Ba 233.527†	74029.0	69091.8	[500]	ug/L	06:57:42
2	Be 313.107†	1461284.0	1368548.3	[500]	ug/L	06:57:42
2	Ca 317.933Radial†	3538.1	3544.6	[5000]	ug/L	06:56:41
2	Cd 226.502†	51681.7	48449.5	[500]	ug/L	06:57:42
2	Co 228.616†	28937.8	27100.4	[500]	ug/L	06:58:02
2	Cr 267.716†	49800.5	46377.1	[500]	ug/L	06:57:42
2	Cu 324.752†	181464.8	163242.9	[500]	ug/L	06:57:42
2	K 766.490 Radial†	33307.6	30531.2	[5000]	ug/L	06:56:21
2	Mg 279.077 IEC†	179.5	178.1	[5000]	ug/L	06:56:41
2	Mn 257.610†	508719.6	474308.2	[500]	ug/L	06:57:42
2	Mo 202.031†	8492.1	7898.4	[500]	ug/L	06:58:02
2	Ni 231.604†	23420.1	21778.7	[500]	ug/L	06:58:02
2	P 214.914†	5167.1	4563.8	[2500]	ug/L	06:58:02
2	Pb 220.353†	4841.5	4582.6	[500]	ug/L	06:58:02
2	S 181.975 Axial†	867.9	758.4	[1000]	ug/L	06:58:02
2	Sb 206.836†	1733.1	1576.9	[500]	ug/L	06:58:02

2	Se 196.026†	908.5	882.2	[500]	ug/L	06:58:02
2	Si 251.611†	88764.3	82270.5	[2500]	ug/L	06:57:42
2	Sn 189.927†	3428.0	3194.4	[500]	ug/L	06:58:02
2	Sr 421.552†	89719.2	90322.9	[500]	ug/L	06:56:21
2	Ti 334.940†	339780.5	318629.8	[500]	ug/L	06:57:42
2	Tl 190.801†	1924.0	1838.7	[500]	ug/L	06:58:02
2	U 409.014†	14797.6	16598.1	[500]	ug/L	06:57:42
2	V 292.402†	76606.5	73012.9	[500]	ug/L	06:57:42
2	Zn 213.857†	61995.9	57055.7	[500]	ug/L	06:57:42
2	SiO2†	89154.8	82609.9	[5347.5]	ug/L	06:58:40
3	Sc 361.383	912848.9	912848.9	98.697	%	06:58:10
3	Sc Radial	5691.3	5691.3	100	%	06:56:46
3	Y 371.029	732570.4	732570.4	96.402	%	06:58:10
3	Y RADIAL	5822.4	5822.4	99.47	%	06:56:46
3	Ag 328.068†	116678.6	117884.3	[500]	ug/L	06:58:10
3	Al 396.153Radial†	6687.8	6715.0	[5000]	ug/L	06:56:46
3	As 188.979†	1381.5	1430.4	[500]	ug/L	06:58:30
3	B 249.677†	23589.1	24361.6	[500]	ug/L	06:58:10
3	Ba 233.527†	75135.1	76125.5	[500]	ug/L	06:58:10
3	Be 313.107†	1480791.8	1505031.8	[500]	ug/L	06:58:10
3	Ca 317.933Radial†	3517.0	3497.2	[5000]	ug/L	06:57:06
3	Cd 226.502†	52213.3	53116.1	[500]	ug/L	06:58:10
3	Co 228.616†	28863.3	29336.3	[500]	ug/L	06:58:30
3	Cr 267.716†	50434.6	50997.2	[500]	ug/L	06:58:10
3	Cu 324.752†	184369.7	180680.3	[500]	ug/L	06:58:10
3	K 766.490 Radial†	33427.1	30401.6	[5000]	ug/L	06:56:46
3	Mg 279.077 IEC†	175.1	172.3	[5000]	ug/L	06:57:06
3	Mn 257.610†	516681.7	523008.8	[500]	ug/L	06:58:10
3	Mo 202.031†	8471.5	8555.8	[500]	ug/L	06:58:30
3	Ni 231.604†	23427.9	23657.2	[500]	ug/L	06:58:30
3	P 214.914†	5160.5	4969.9	[2500]	ug/L	06:58:30
3	Pb 220.353†	4860.8	4988.8	[500]	ug/L	06:58:30
3	S 181.975 Axial†	851.4	811.0	[1000]	ug/L	06:58:30
3	Sb 206.836†	1724.8	1706.9	[500]	ug/L	06:58:30
3	Se 196.026†	914.3	960.6	[500]	ug/L	06:58:30
3	Si 251.611†	90049.5	90662.6	[2500]	ug/L	06:58:10
3	Sn 189.927†	3423.3	3463.5	[500]	ug/L	06:58:30
3	Sr 421.552†	90522.7	90455.0	[500]	ug/L	06:56:46
3	Ti 334.940†	344830.9	350886.4	[500]	ug/L	06:58:10
3	Tl 190.801†	1912.2	1980.5	[500]	ug/L	06:58:30
3	U 409.014†	14995.4	17980.4	[500]	ug/L	06:58:10
3	V 292.402†	77745.3	80285.6	[500]	ug/L	06:58:10
3	Zn 213.857†	62913.3	62937.0	[500]	ug/L	06:58:10
3	SiO2†	90110.6	90699.5	[5347.5]	ug/L	06:58:45

Mean Data: S0.5

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	997633.5	88305.32	8.85%	107.86	%
Sc Radial	5663.5	24.02	0.42%	99.6	%
Y 371.029	800841.1	70901.66	8.85%	105.39	%
Y RADIAL	5802.8	17.23	0.30%	99.14	%
Ag 328.068†	107015.0	11151.40	10.42%	[500]	ug/L
Al 396.153Radial†	6711.6	5.02	0.07%	[5000]	ug/L
As 188.979†	1309.8	120.06	9.17%	[500]	ug/L
B 249.677†	22144.2	2234.00	10.09%	[500]	ug/L
Ba 233.527†	68870.8	7367.59	10.70%	[500]	ug/L
Be 313.107†	1362243.4	146042.91	10.72%	[500]	ug/L
Ca 317.933Radial†	3542.3	44.07	1.24%	[5000]	ug/L
Cd 226.502†	48193.3	5055.79	10.49%	[500]	ug/L
Co 228.616†	27038.4	2329.63	8.62%	[500]	ug/L
Cr 267.716†	46132.2	4991.88	10.82%	[500]	ug/L
Cu 324.752†	162894.0	17963.35	11.03%	[500]	ug/L
K 766.490 Radial†	30433.6	86.18	0.28%	[5000]	ug/L
Mg 279.077 IEC†	175.6	2.97	1.69%	[5000]	ug/L
Mn 257.610†	472846.7	50908.52	10.77%	[500]	ug/L
Mo 202.031†	7879.2	686.39	8.71%	[500]	ug/L
Ni 231.604†	21754.7	1914.59	8.80%	[500]	ug/L
P 214.914†	4561.3	409.92	8.99%	[2500]	ug/L
Pb 220.353†	4591.2	393.32	8.57%	[500]	ug/L

S 181.975 Axial†	748.6	67.79	9.06%	[1000]	ug/L
Sb 206.836†	1569.0	142.07	9.05%	[500]	ug/L
Se 196.026†	883.2	76.93	8.71%	[500]	ug/L
Si 251.611†	82041.9	8737.29	10.65%	[2500]	ug/L
Sn 189.927†	3183.5	285.60	8.97%	[500]	ug/L
Sr 421.552†	90468.6	152.89	0.17%	[500]	ug/L
Ti 334.940†	317545.9	33895.47	10.67%	[500]	ug/L
Tl 190.801†	1838.2	142.56	7.76%	[500]	ug/L
U 409.014†	16469.1	1579.79	9.59%	[500]	ug/L
V 292.402†	72726.6	7706.18	10.60%	[500]	ug/L
Zn 213.857†	56872.8	6157.66	10.83%	[500]	ug/L
SiO2†	83605.2	6652.64	7.96%	[5347.5]	ug/L

Sequence No.: 4
Sample ID: SCAL
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 4
Date Collected: 12/18/2009 07:00:56
Data Type: Reprocessed on 12/18/2009 08:37:52

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: SCAL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc 361.383	930578.0	930578.0	100.61	%	07:04:07
1	Sc Radial	5590.2	5590.2	98.3	%	07:03:09
1	Y 371.029	739147.4	739147.4	97.267	%	07:04:13
1	Y RADIAL	5711.0	5711.0	97.57	%	07:03:09
1	Ag 328.068†	230080.2	228342.1	[1000]	ug/L	07:04:13
1	Al 396.153Radial†	13125.7	13385.5	[10000]	ug/L	07:02:49
1	As 188.979†	2714.2	2728.3	[1000]	ug/L	07:04:33
1	B 249.677†	47284.0	47456.7	[1000]	ug/L	07:04:13
1	Ba 233.527†	146445.4	145550.6	[1000]	ug/L	07:04:13
1	Be 313.107†	2880238.4	2867360.7	[1000]	ug/L	07:04:07
1	Ca 317.933Radial†	6886.4	6988.6	[10000]	ug/L	07:03:09
1	Cd 226.502†	101657.2	101250.6	[1000]	ug/L	07:04:13
1	Co 228.616†	56648.0	56394.5	[1000]	ug/L	07:04:13
1	Cr 267.716†	98575.7	97871.3	[1000]	ug/L	07:04:13
1	Cu 324.752†	354620.4	346333.9	[1000]	ug/L	07:04:13
1	Fe 238.204 Radial†	1331.3	1339.0	[10000]	ug/L	07:03:09
1	K 766.490 Radial†	62579.2	60664.1	[10000]	ug/L	07:02:49
1	Mg 279.077 IEC†	338.6	341.8	[10000]	ug/L	07:03:09
1	Mn 257.610†	1005873.5	999243.8	[1000]	ug/L	07:04:07
1	Mo 202.031†	16766.4	16636.7	[1000]	ug/L	07:04:33
1	Na 589.592 Radial†	40326.3	42314.3	[10000]	ug/L	07:02:49
1	Ni 231.604†	45510.4	45152.7	[1000]	ug/L	07:04:13
1	P 214.914†	9900.6	9581.5	[5000]	ug/L	07:04:33
1	Pb 220.353†	9538.8	9544.4	[1000]	ug/L	07:04:33
1	S 181.975 Axial†	1662.8	1601.0	[2000]	ug/L	07:04:33
1	Sb 206.836†	3426.0	3364.4	[1000]	ug/L	07:04:33
1	Se 196.026†	1789.2	1812.6	[1000]	ug/L	07:04:33
1	Si 251.611†	176410.2	174758.4	[5000]	ug/L	07:04:13
1	Sn 189.927†	6792.5	6746.1	[1000]	ug/L	07:04:33
1	Sr 421.552†	179667.7	182784.3	[1000]	ug/L	07:02:49
1	Ti 334.940†	681949.1	679292.6	[1000]	ug/L	07:04:07
1	Tl 190.801†	3820.2	3839.9	[1000]	ug/L	07:04:33
1	U 409.014†	33291.4	35875.4	[1000]	ug/L	07:04:13
1	V 292.402†	154389.0	154961.2	[1000]	ug/L	07:04:13
1	Zn 213.857†	120708.6	119165.5	[1000]	ug/L	07:04:13
1	SiO2†	177049.2	175368.5	[10695]	ug/L	07:05:42
2	Sc 361.383	971525.1	971525.1	105.04	%	07:04:39
2	Sc Radial	5582.6	5582.6	98.2	%	07:03:34
2	Y 371.029	714407.3	714407.3	94.012	%	07:04:45
2	Y RADIAL	5681.9	5681.9	97.07	%	07:03:34
2	Ag 328.068†	233572.9	222029.2	[1000]	ug/L	07:04:45
2	Al 396.153Radial†	13012.2	13288.1	[10000]	ug/L	07:03:14
2	As 188.979†	2712.7	2613.2	[1000]	ug/L	07:05:05
2	B 249.677†	48240.3	46386.4	[1000]	ug/L	07:04:45
2	Ba 233.527†	149572.0	142392.5	[1000]	ug/L	07:04:45
2	Be 313.107†	2902216.8	2767630.7	[1000]	ug/L	07:04:39
2	Ca 317.933Radial†	6972.3	7085.7	[10000]	ug/L	07:03:34
2	Cd 226.502†	103659.9	98898.7	[1000]	ug/L	07:04:45
2	Co 228.616†	57971.6	55281.5	[1000]	ug/L	07:04:45
2	Cr 267.716†	100784.0	95844.2	[1000]	ug/L	07:04:45
2	Cu 324.752†	362245.4	338737.9	[1000]	ug/L	07:04:45
2	Fe 238.204 Radial†	1353.3	1363.3	[10000]	ug/L	07:03:34
2	K 766.490 Radial†	62694.4	60868.1	[10000]	ug/L	07:03:14
2	Mg 279.077 IEC†	342.9	346.7	[10000]	ug/L	07:03:34
2	Mn 257.610†	1010095.3	961126.8	[1000]	ug/L	07:04:39
2	Mo 202.031†	16748.3	15917.1	[1000]	ug/L	07:05:05
2	Na 589.592 Radial†	40077.4	42116.6	[10000]	ug/L	07:03:14
2	Ni 231.604†	46551.0	44237.1	[1000]	ug/L	07:04:45

2	P 214.914†	9891.6	9158.1	[5000]	ug/L	07:05:05
2	Pb 220.353†	9551.6	9157.1	[1000]	ug/L	07:05:05
2	S 181.975 Axial†	1653.9	1522.9	[2000]	ug/L	07:05:05
2	Sb 206.836†	3420.6	3215.8	[1000]	ug/L	07:05:05
2	Se 196.026†	1773.4	1722.6	[1000]	ug/L	07:05:05
2	Si 251.611†	180147.7	170926.7	[5000]	ug/L	07:04:45
2	Sn 189.927†	6785.1	6454.5	[1000]	ug/L	07:05:05
2	Sr 421.552†	177976.6	181310.3	[1000]	ug/L	07:03:14
2	Ti 334.940†	685619.2	654219.5	[1000]	ug/L	07:04:39
2	Tl 190.801†	3819.1	3678.8	[1000]	ug/L	07:05:05
2	U 409.014†	34140.9	35289.6	[1000]	ug/L	07:04:45
2	V 292.402†	157716.0	151661.1	[1000]	ug/L	07:04:45
2	Zn 213.857†	123319.5	116594.6	[1000]	ug/L	07:04:45
2	SiO2†	178340.8	169181.5	[10695]	ug/L	07:05:48
3	Sc 361.383	929727.0	929727.0	100.52	%	07:05:11
3	Sc Radial	5554.4	5554.4	97.7	%	07:03:59
3	Y 371.029	735297.8	735297.8	96.761	%	07:05:17
3	Y RADIAL	5666.7	5666.7	96.81	%	07:03:59
3	Ag 328.068†	233212.8	231667.8	[1000]	ug/L	07:05:17
3	Al 396.153Radial†	13266.0	13615.3	[10000]	ug/L	07:03:39
3	As 188.979†	2696.2	2712.8	[1000]	ug/L	07:05:37
3	B 249.677†	48131.9	48343.2	[1000]	ug/L	07:05:17
3	Ba 233.527†	149084.8	148309.5	[1000]	ug/L	07:05:17
3	Be 313.107†	2908882.3	2898476.3	[1000]	ug/L	07:05:11
3	Ca 317.933Radial†	6935.6	7084.2	[10000]	ug/L	07:03:59
3	Cd 226.502†	103480.8	103157.2	[1000]	ug/L	07:05:17
3	Co 228.616†	57753.6	57545.8	[1000]	ug/L	07:05:17
3	Cr 267.716†	100358.6	99734.6	[1000]	ug/L	07:05:17
3	Cu 324.752†	360308.7	352315.3	[1000]	ug/L	07:05:17
3	Fe 238.204 Radial†	1354.1	1371.1	[10000]	ug/L	07:03:59
3	K 766.490 Radial†	63489.9	62006.9	[10000]	ug/L	07:03:39
3	Mg 279.077 IEC†	342.3	347.9	[10000]	ug/L	07:03:59
3	Mn 257.610†	1012930.2	1007179.0	[1000]	ug/L	07:05:11
3	Mo 202.031†	16686.9	16572.8	[1000]	ug/L	07:05:37
3	Na 589.592 Radial†	40498.1	42754.7	[10000]	ug/L	07:03:39
3	Ni 231.604†	46362.6	46042.0	[1000]	ug/L	07:05:17
3	P 214.914†	9883.7	9573.7	[5000]	ug/L	07:05:37
3	Pb 220.353†	9523.7	9538.1	[1000]	ug/L	07:05:37
3	S 181.975 Axial†	1661.8	1601.6	[2000]	ug/L	07:05:37
3	Sb 206.836†	3404.1	3345.8	[1000]	ug/L	07:05:37
3	Se 196.026†	1785.5	1810.5	[1000]	ug/L	07:05:37
3	Si 251.611†	179528.8	178021.3	[5000]	ug/L	07:05:17
3	Sn 189.927†	6769.1	6729.0	[1000]	ug/L	07:05:37
3	Sr 421.552†	180630.1	184947.9	[1000]	ug/L	07:03:39
3	Ti 334.940†	687333.9	685269.8	[1000]	ug/L	07:05:11
3	Tl 190.801†	3786.7	3810.0	[1000]	ug/L	07:05:37
3	U 409.014†	34090.2	36700.3	[1000]	ug/L	07:05:17
3	V 292.402†	157325.7	158023.1	[1000]	ug/L	07:05:17
3	Zn 213.857†	122993.3	121548.2	[1000]	ug/L	07:05:17
3	SiO2†	178044.4	176519.6	[10695]	ug/L	07:05:53

Mean Data: SCAL

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	943943.3	23890.25	2.53%	102.06	%
Sc Radial	5575.8	18.86	0.34%	98.0	%
Y 371.029	729617.5	13312.32	1.82%	96.013	%
Y RADIAL	5686.6	22.50	0.40%	97.15	%
Ag 328.068†	227346.3	4895.86	2.15%	[1000]	ug/L
Al 396.153Radial†	13429.6	167.99	1.25%	[10000]	ug/L
As 188.979†	2684.8	62.47	2.33%	[1000]	ug/L
B 249.677†	47395.4	979.86	2.07%	[1000]	ug/L
Ba 233.527†	145417.6	2960.77	2.04%	[1000]	ug/L
Be 313.107†	2844489.3	68355.50	2.40%	[1000]	ug/L
Ca 317.933Radial†	7052.8	55.65	0.79%	[10000]	ug/L
Cd 226.502†	101102.2	2133.14	2.11%	[1000]	ug/L
Co 228.616†	56407.3	1132.22	2.01%	[1000]	ug/L
Cr 267.716†	97816.7	1945.78	1.99%	[1000]	ug/L
Cu 324.752†	345795.7	6804.67	1.97%	[1000]	ug/L
Fe 238.204 Radial†	1357.8	16.76	1.23%	[10000]	ug/L

K 766.490 Radial†	61179.7	723.64	1.18%	[10000]	ug/L
Mg 279.077 IEC†	345.5	3.23	0.93%	[10000]	ug/L
Mn 257.610†	989183.2	24619.37	2.49%	[1000]	ug/L
Mo 202.031†	16375.5	398.28	2.43%	[1000]	ug/L
Na 589.592 Radial†	42395.2	326.64	0.77%	[10000]	ug/L
Ni 231.604†	45143.9	902.50	2.00%	[1000]	ug/L
P 214.914†	9437.8	242.20	2.57%	[5000]	ug/L
Pb 220.353†	9413.2	221.81	2.36%	[1000]	ug/L
S 181.975 Axial†	1575.2	45.24	2.87%	[2000]	ug/L
Sb 206.836†	3308.7	80.97	2.45%	[1000]	ug/L
Se 196.026†	1781.9	51.38	2.88%	[1000]	ug/L
Si 251.611†	174568.8	3551.11	2.03%	[5000]	ug/L
Sn 189.927†	6643.2	163.63	2.46%	[1000]	ug/L
Sr 421.552†	183014.1	1829.64	1.00%	[1000]	ug/L
Ti 334.940†	672927.3	16474.75	2.45%	[1000]	ug/L
Tl 190.801†	3776.3	85.72	2.27%	[1000]	ug/L
U 409.014†	35955.1	708.75	1.97%	[1000]	ug/L
V 292.402†	154881.8	3181.74	2.05%	[1000]	ug/L
Zn 213.857†	119102.8	2477.40	2.08%	[1000]	ug/L
SiO2†	173689.9	3946.58	2.27%	[10695]	ug/L

Sequence No.: 5
Sample ID: S10
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 5
Date Collected: 12/18/2009 07:08:03
Data Type: Reprocessed on 12/18/2009 08:37:53

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S10

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc 361.383	912426.8	912426.8	98.651	%	07:11:14
1	Sc Radial	5486.5	5486.5	96.5	%	07:10:17
1	Y 371.029	727943.5	727943.5	95.793	%	07:11:14
1	Y RADIAL	5591.7	5591.7	95.53	%	07:10:17
1	Al 396.153Radial†	63678.7	66041.9	[50000]	ug/L	07:09:57
1	Ca 317.933Radial†	33686.5	34902.3	[50000]	ug/L	07:09:57
1	Fe 238.204 Radial†	2566.0	2644.5	[20000]	ug/L	07:10:17
1	Mg 279.077 IEC†	1598.4	1654.2	[50000]	ug/L	07:10:17
1	Na 589.592 Radial†	79376.2	83569.4	[20000]	ug/L	07:09:57
2	Sc 361.383	911946.0	911946.0	98.599	%	07:11:19
2	Sc Radial	5517.8	5517.8	97.0	%	07:10:42
2	Y 371.029	727775.0	727775.0	95.771	%	07:11:19
2	Y RADIAL	5640.6	5640.6	96.37	%	07:10:42
2	Al 396.153Radial†	63814.7	65808.2	[50000]	ug/L	07:10:22
2	Ca 317.933Radial†	33616.8	34632.8	[50000]	ug/L	07:10:22
2	Fe 238.204 Radial†	2593.1	2657.3	[20000]	ug/L	07:10:42
2	Mg 279.077 IEC†	1610.6	1657.4	[50000]	ug/L	07:10:42
2	Na 589.592 Radial†	78980.6	82695.6	[20000]	ug/L	07:10:22
3	Sc 361.383	920054.5	920054.5	99.476	%	07:11:25
3	Sc Radial	5515.8	5515.8	97.0	%	07:11:07
3	Y 371.029	733510.5	733510.5	96.525	%	07:11:25
3	Y RADIAL	5632.7	5632.7	96.23	%	07:11:07
3	Al 396.153Radial†	64649.1	66692.5	[50000]	ug/L	07:10:47
3	Ca 317.933Radial†	34039.5	35081.2	[50000]	ug/L	07:10:47
3	Fe 238.204 Radial†	2592.3	2657.6	[20000]	ug/L	07:11:07
3	Mg 279.077 IEC†	1615.5	1663.1	[50000]	ug/L	07:11:07
3	Na 589.592 Radial†	80563.3	84357.2	[20000]	ug/L	07:10:47

Mean Data: S10

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	914809.1	4549.02	0.50%	98.909	%
Sc Radial	5506.7	17.49	0.32%	96.8	%
Y 371.029	729743.0	3263.87	0.45%	96.030	%
Y RADIAL	5621.7	26.29	0.47%	96.04	%
Al 396.153Radial†	66180.9	458.27	0.69%	[50000]	ug/L
Ca 317.933Radial†	34872.1	225.73	0.65%	[50000]	ug/L
Fe 238.204 Radial†	2653.1	7.49	0.28%	[20000]	ug/L
Mg 279.077 IEC†	1658.2	4.48	0.27%	[50000]	ug/L
Na 589.592 Radial†	83540.8	831.17	0.99%	[20000]	ug/L

Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 328.068	3	Lin Thru 0	0.0	224.7	0.00000	0.999718	
Al 396.153Radial	3	Lin Thru 0	0.0	1.325	0.00000	0.999995	
As 188.979	3	Lin Thru 0	0.0	2.672	0.00000	0.999951	
B 249.677	3	Lin Thru 0	0.0	46.77	0.00000	0.999649	
Ba 233.527	3	Lin Thru 0	0.0	143.9	0.00000	0.999768	
Be 313.107	3	Lin Thru 0	0.0	2821	0.00000	0.999853	
Ca 317.933Radial	3	Lin Thru 0	0.0	0.6978	0.00000	0.999997	
Cd 226.502	3	Lin Thru 0	0.0	100.2	0.00000	0.999820	
Co 228.616	3	Lin Thru 0	0.0	55.94	0.00000	0.999862	
Cr 267.716	3	Lin Thru 0	0.0	96.73	0.00000	0.999735	
Cu 324.752	3	Lin Thru 0	0.0	341.8	0.00000	0.999727	
Fe 238.204 Radia	2	Lin Thru 0	0.0	0.1333	0.00000	0.999956	

K 766.490 Radial	3	Lin Thru 0	0.0	6.111	0.00000	0.999996
Mg 279.077 IEC	3	Lin Thru 0	0.0	0.0332	0.00000	0.999953
Mn 257.610	3	Lin Thru 0	0.0	980.8	0.00000	0.999838
Mo 202.031	3	Lin Thru 0	0.0	16.25	0.00000	0.999885
Na 589.592 Radia	2	Lin Thru 0	0.0	4.190	0.00000	0.999982
Ni 231.604	3	Lin Thru 0	0.0	44.83	0.00000	0.999886
P 214.914	3	Lin Thru 0	0.0	1.875	0.00000	0.999910
Pb 220.353	3	Lin Thru 0	0.0	9.368	0.00000	0.999951
S 181.975 Axial	3	Lin Thru 0	0.0	0.7799	0.00000	0.999801
Sb 206.836	3	Lin Thru 0	0.0	3.275	0.00000	0.999783
Se 196.026	3	Lin Thru 0	0.0	1.779	0.00000	0.999992
Si 251.611	3	Lin Thru 0	0.0	34.50	0.00000	0.999705
Sn 189.927	3	Lin Thru 0	0.0	6.588	0.00000	0.999860
Sr 421.552	3	Lin Thru 0	0.0	182.6	0.00000	0.999989
Ti 334.940	3	Lin Thru 0	0.0	665.4	0.00000	0.999742
Tl 190.801	3	Lin Thru 0	0.0	3.757	0.00000	0.999940
U 409.014	3	Lin Thru 0	0.0	35.39	0.00000	0.999367
V 292.402	3	Lin Thru 0	0.0	153.0	0.00000	0.999697
Zn 213.857	3	Lin Thru 0	0.0	118.1	0.00000	0.999832
SiO2	3	Lin Thru 0	0.0	16.12	0.00000	0.999887

Sequence No.: 6
Sample ID: ICV
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 9
Date Collected: 12/18/2009 07:13:36
Data Type: Reprocessed on 12/18/2009 08:37:54

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc 361.383	935704.5	935704.5	101.17	%			07:16:46
1	Sc Radial	5774.2	5774.2	102	%			07:15:29
1	Y 371.029	754688.2	754688.2	99.312	%			07:16:46
1	Y RADIAL	5922.0	5922.0	101.2	%			07:15:29
1	Ag 328.068†	61094.4	60054.1	270.47	ug/L	270.47	ppb	07:16:46
1	Al 396.153Radial†	6866.0	6794.4	5105.8	ug/L	5105.8	ppb	07:15:29
1	As 188.979†	1300.5	1316.1	496.98	ug/L	496.98	ppb	07:17:07
1	B 249.677†	24890.2	25063.9	533.91	ug/L	533.91	ppb	07:16:46
1	Ba 233.527†	77222.2	76329.0	531.71	ug/L	531.71	ppb	07:16:46
1	Be 313.107†	776337.0	772061.0	274.69	ug/L	274.69	ppb	07:16:46
1	Ca 317.933Radial†	3517.7	3447.3	4939.9	ug/L	4939.9	ppb	07:15:49
1	Cd 226.502†	52639.1	52244.7	521.31	ug/L	521.31	ppb	07:16:46
1	Co 228.616†	29401.3	29153.8	521.47	ug/L	521.47	ppb	07:17:07
1	Cr 267.716†	49743.2	49065.7	508.10	ug/L	508.10	ppb	07:16:46
1	Cu 324.752†	188424.6	180125.5	527.20	ug/L	527.20	ppb	07:16:46
1	Fe 238.204 Radial†	698.2	672.3	5060.7	ug/L	5060.7	ppb	07:15:49
1	K 766.490 Radial†	18443.4	15163.1	2475.8	ug/L	2475.8	ppb	07:15:29
1	Mg 279.077 IEC†	182.1	176.7	5324.9	ug/L	5324.9	ppb	07:15:49
1	Mn 257.610†	535448.8	528772.0	539.53	ug/L	539.53	ppb	07:16:46
1	Mo 202.031†	9206.7	9072.9	558.55	ug/L	558.55	ppb	07:17:07
1	Na 589.592 Radial†	9363.5	10509.7	2508.6	ug/L	2508.6	ppb	07:15:29
1	Ni 231.604†	23649.0	23295.9	519.28	ug/L	519.28	ppb	07:17:07
1	P 214.914†	5209.1	4890.2	2529.1	ug/L	2529.1	ppb	07:17:07
1	Pb 220.353†	4863.5	4871.1	521.68	ug/L	521.68	ppb	07:17:07
1	S 181.975 Axial†	2104.4	2028.5	2599.9	ug/L	2599.9	ppb	07:17:07
1	Sb 206.836†	1759.9	1698.9	528.10	ug/L	528.10	ppb	07:17:07
1	Se 196.026†	4771.4	4750.6	2688.0	ug/L	2688.0	ppb	07:17:07
1	Si 251.611†	174745.2	172152.0	4977.6	ug/L	4977.6	ppb	07:16:46
1	Sn 189.927†	3698.2	3650.5	554.66	ug/L	554.66	ppb	07:17:07
1	Sr 421.552†	96977.8	95513.0	523.08	ug/L	523.08	ppb	07:15:29
1	Ti 334.940†	348309.5	345790.7	519.49	ug/L	519.49	ppb	07:16:46
1	Tl 190.801†	2047.6	2066.9	553.53	ug/L	553.53	ppb	07:17:07
1	U 409.014†	15650.4	18256.7	514.33	ug/L	514.33	ppb	07:16:46
1	V 292.402†	80434.3	81019.5	537.03	ug/L	537.03	ppb	07:16:46
1	Zn 213.857†	65267.3	63706.9	534.99	ug/L	534.99	ppb	07:16:46
1	SiO2†	175729.7	173100.1	10711	ug/L	10711	ppb	07:18:04
2	Sc 361.383	940188.1	940188.1	101.65	%			07:17:13
2	Sc Radial	5733.0	5733.0	101	%			07:15:54
2	Y 371.029	759204.1	759204.1	99.907	%			07:17:13
2	Y RADIAL	5885.4	5885.4	100.5	%			07:15:54
2	Ag 328.068†	61378.7	60045.8	270.43	ug/L	270.43	ppb	07:17:13
2	Al 396.153Radial†	6897.2	6873.9	5166.0	ug/L	5166.0	ppb	07:15:54
2	As 188.979†	1299.0	1308.5	494.14	ug/L	494.14	ppb	07:17:33
2	B 249.677†	25054.3	25108.1	534.87	ug/L	534.87	ppb	07:17:13
2	Ba 233.527†	77483.9	76222.4	530.97	ug/L	530.97	ppb	07:17:13
2	Be 313.107†	780323.4	772323.1	274.78	ug/L	274.78	ppb	07:17:13
2	Ca 317.933Radial†	3507.2	3461.8	4960.7	ug/L	4960.7	ppb	07:16:14
2	Cd 226.502†	52799.5	52154.4	520.41	ug/L	520.41	ppb	07:17:13
2	Co 228.616†	29264.4	28880.5	516.57	ug/L	516.57	ppb	07:17:33
2	Cr 267.716†	50088.4	49170.7	509.19	ug/L	509.19	ppb	07:17:13
2	Cu 324.752†	189095.7	179897.5	526.53	ug/L	526.53	ppb	07:17:13
2	Fe 238.204 Radial†	695.3	674.3	5075.6	ug/L	5075.6	ppb	07:16:14
2	K 766.490 Radial†	18373.4	15224.2	2485.8	ug/L	2485.8	ppb	07:15:54
2	Mg 279.077 IEC†	183.7	179.6	5410.4	ug/L	5410.4	ppb	07:16:14
2	Mn 257.610†	536942.1	527717.0	538.45	ug/L	538.45	ppb	07:17:13
2	Mo 202.031†	9175.3	8998.6	553.97	ug/L	553.97	ppb	07:17:33
2	Na 589.592 Radial†	9299.6	10512.5	2509.2	ug/L	2509.2	ppb	07:15:54
2	Ni 231.604†	23585.0	23121.4	515.39	ug/L	515.39	ppb	07:17:33

2	P 214.914†	5212.5	4869.1	2517.9 ug/L	2517.9 ppb		07:17:33
2	Pb 220.353†	4874.2	4858.7	520.35 ug/L	520.35 ppb		07:17:33
2	S 181.975 Axial†	2092.6	2007.0	2572.3 ug/L	2572.3 ppb		07:17:33
2	Sb 206.836†	1732.9	1664.1	517.32 ug/L	517.32 ppb		07:17:33
2	Se 196.026†	4751.7	4708.8	2664.5 ug/L	2664.5 ppb		07:17:33
2	Si 251.611†	175278.4	171852.9	4969.0 ug/L	4969.0 ppb		07:17:13
2	Sn 189.927†	3708.8	3643.5	553.60 ug/L	553.60 ppb		07:17:33
2	Sr 421.552†	96667.2	95891.1	525.15 ug/L	525.15 ppb		07:15:54
2	Ti 334.940†	349243.4	345067.6	518.40 ug/L	518.40 ppb		07:17:13
2	Tl 190.801†	2036.7	2046.6	548.13 ug/L	548.13 ppb		07:17:33
2	U 409.014†	15718.4	18249.8	514.13 ug/L	514.13 ppb		07:17:13
2	V 292.402†	80680.6	80882.7	536.07 ug/L	536.07 ppb		07:17:13
2	Zn 213.857†	65376.6	63506.7	533.31 ug/L	533.31 ppb		07:17:13
2	SiO2†	175484.6	172030.7	10645 ug/L	10645 ppb		07:18:09
3	Sc 361.383	943802.1	943802.1	102.04 %			07:17:39
3	Sc Radial	5656.1	5656.1	99.4 %			07:16:19
3	Y 371.029	761623.5	761623.5	100.22 %			07:17:39
3	Y RADIAL	5808.7	5808.7	99.24 %			07:16:19
3	Ag 328.068†	61674.6	60104.5	270.72 ug/L	270.72 ppb		07:17:39
3	Al 396.153Radial†	6691.7	6760.4	5080.2 ug/L	5080.2 ppb		07:16:19
3	As 188.979†	1306.3	1310.8	495.00 ug/L	495.00 ppb		07:17:59
3	B 249.677†	25196.8	25153.3	535.82 ug/L	535.82 ppb		07:17:39
3	Ba 233.527†	77717.3	76159.2	530.53 ug/L	530.53 ppb		07:17:39
3	Be 313.107†	783348.9	772348.5	274.79 ug/L	274.79 ppb		07:17:39
3	Ca 317.933Radial†	3527.3	3529.3	5057.5 ug/L	5057.5 ppb		07:16:39
3	Cd 226.502†	53046.9	52197.9	520.83 ug/L	520.83 ppb		07:17:39
3	Co 228.616†	29436.8	28939.2	517.62 ug/L	517.62 ppb		07:17:59
3	Cr 267.716†	50124.7	49017.6	507.60 ug/L	507.60 ppb		07:17:39
3	Cu 324.752†	190744.3	180800.8	529.18 ug/L	529.18 ppb		07:17:39
3	Fe 238.204 Radial†	697.6	686.0	5163.6 ug/L	5163.6 ppb		07:16:39
3	K 766.490 Radial†	18162.2	15259.8	2491.6 ug/L	2491.6 ppb		07:16:19
3	Mg 279.077 IEC†	182.9	181.2	5460.0 ug/L	5460.0 ppb		07:16:39
3	Mn 257.610†	539315.3	528020.1	538.77 ug/L	538.77 ppb		07:17:39
3	Mo 202.031†	9227.7	9015.4	555.01 ug/L	555.01 ppb		07:17:59
3	Na 589.592 Radial†	9111.2	10448.6	2494.0 ug/L	2494.0 ppb		07:16:19
3	Ni 231.604†	23691.1	23136.6	515.73 ug/L	515.73 ppb		07:17:59
3	P 214.914†	5220.2	4857.0	2511.0 ug/L	2511.0 ppb		07:17:59
3	Pb 220.353†	4871.1	4837.3	518.04 ug/L	518.04 ppb		07:17:59
3	S 181.975 Axial†	2109.7	2015.8	2583.7 ug/L	2583.7 ppb		07:17:59
3	Sb 206.836†	1764.5	1688.5	524.91 ug/L	524.91 ppb		07:17:59
3	Se 196.026†	4771.7	4710.4	2665.7 ug/L	2665.7 ppb		07:17:59
3	Si 251.611†	176172.3	172068.6	4975.2 ug/L	4975.2 ppb		07:17:39
3	Sn 189.927†	3746.1	3666.0	557.03 ug/L	557.03 ppb		07:17:59
3	Sr 421.552†	94798.8	95317.2	522.00 ug/L	522.00 ppb		07:16:19
3	Ti 334.940†	350987.6	345461.3	519.00 ug/L	519.00 ppb		07:17:39
3	Tl 190.801†	2054.9	2056.7	550.83 ug/L	550.83 ppb		07:17:59
3	U 409.014†	15945.4	18413.1	518.73 ug/L	518.73 ppb		07:17:39
3	V 292.402†	81073.2	80963.4	536.61 ug/L	536.61 ppb		07:17:39
3	Zn 213.857†	65854.2	63728.5	535.18 ug/L	535.18 ppb		07:17:39
3	SiO2†	175904.4	171781.0	10629 ug/L	10629 ppb		07:18:15

Mean Data: ICV

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	939898.2	101.62	%	0.439				0.43%
Sc Radial	5721.1	101	%	1.1				1.05%
Y 371.029	758505.3	99.815	%	0.4632				0.46%
Y RADIAL	5872.0	100.3	%	0.99				0.99%
Ag 328.068†	60068.1	270.54	ug/L	0.157	270.54	ppb	0.157	0.06%
QC value within limits for Ag 328.068 Recovery = 108.22%								
Al 396.153Radial†	6809.6	5117.3	ug/L	44.03	5117.3	ppb	44.03	0.86%
QC value within limits for Al 396.153Radial Recovery = 102.35%								
As 188.979†	1311.8	495.37	ug/L	1.458	495.37	ppb	1.458	0.29%
QC value within limits for As 188.979 Recovery = 99.07%								
B 249.677†	25108.4	534.87	ug/L	0.954	534.87	ppb	0.954	0.18%
QC value within limits for B 249.677 Recovery = 106.97%								
Ba 233.527†	76236.9	531.07	ug/L	0.595	531.07	ppb	0.595	0.11%
QC value within limits for Ba 233.527 Recovery = 106.21%								
Be 313.107†	772244.2	274.76	ug/L	0.056	274.76	ppb	0.056	0.02%
QC value within limits for Be 313.107 Recovery = 109.90%								

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Ca 317.933Radial†       3479.5      4986.0 ug/L        62.77      4986.0 ppb        62.77   1.26%
   QC value within limits for Ca 317.933Radial  Recovery = 99.72%
Cd 226.502†            52199.0      520.85 ug/L        0.453      520.85 ppb        0.453   0.09%
   QC value within limits for Cd 226.502  Recovery = 104.17%
Co 228.616†            28991.2      518.56 ug/L        2.578      518.56 ppb        2.578   0.50%
   QC value within limits for Co 228.616  Recovery = 103.71%
Cr 267.716†            49084.7      508.30 ug/L        0.809      508.30 ppb        0.809   0.16%
   QC value within limits for Cr 267.716  Recovery = 101.66%
Cu 324.752†           180274.6      527.64 ug/L        1.377      527.64 ppb        1.377   0.26%
   QC value within limits for Cu 324.752  Recovery = 105.53%
Fe 238.204 Radial†       677.6      5099.9 ug/L        55.63      5099.9 ppb        55.63   1.09%
   QC value within limits for Fe 238.204 Radial  Recovery = 102.00%
K 766.490 Radial†      15215.7      2484.4 ug/L         7.99      2484.4 ppb         7.99   0.32%
   QC value within limits for K 766.490 Radial  Recovery = 99.38%
Mg 279.077 IEC†          179.2      5398.4 ug/L        68.30      5398.4 ppb        68.30   1.27%
   QC value within limits for Mg 279.077 IEC  Recovery = 107.97%
Mn 257.610†           528169.7      538.91 ug/L        0.553      538.91 ppb        0.553   0.10%
   QC value within limits for Mn 257.610  Recovery = 107.78%
Mo 202.031†             9029.0      555.84 ug/L        2.396      555.84 ppb        2.396   0.43%
   QC value greater than the upper limit for Mo 202.031  Recovery = 111.17%
Na 589.592 Radial†     10490.3      2503.9 ug/L         8.62      2503.9 ppb         8.62   0.34%
   QC value within limits for Na 589.592 Radial  Recovery = 100.16%
Ni 231.604†            23184.7      516.80 ug/L        2.154      516.80 ppb        2.154   0.42%
   QC value within limits for Ni 231.604  Recovery = 103.36%
P 214.914†              4872.1      2519.3 ug/L         9.14      2519.3 ppb         9.14   0.36%
   QC value within limits for P 214.914  Recovery = 100.77%
Pb 220.353†             4855.7      520.02 ug/L        1.837      520.02 ppb        1.837   0.35%
   QC value within limits for Pb 220.353  Recovery = 104.00%
S 181.975 Axial†        2017.1      2585.3 ug/L        13.85      2585.3 ppb        13.85   0.54%
   QC value within limits for S 181.975 Axial  Recovery = 103.41%
Sb 206.836†             1683.8      523.44 ug/L        5.535      523.44 ppb        5.535   1.06%
   QC value within limits for Sb 206.836  Recovery = 104.69%
Se 196.026†             4723.3      2672.7 ug/L        13.23      2672.7 ppb        13.23   0.49%
   QC value within limits for Se 196.026  Recovery = 106.91%
Si 251.611†           172024.5      4973.9 ug/L         4.44      4973.9 ppb         4.44   0.09%
   QC value within limits for Si 251.611  Recovery = 99.48%
Sn 189.927†             3653.4      555.09 ug/L        1.757      555.09 ppb        1.757   0.32%
   QC value greater than the upper limit for Sn 189.927  Recovery = 111.02%
Sr 421.552†            95573.8      523.41 ug/L        1.598      523.41 ppb        1.598   0.31%
   QC value within limits for Sr 421.552  Recovery = 104.68%
Ti 334.940†           345439.9      518.96 ug/L        0.544      518.96 ppb        0.544   0.10%
   QC value within limits for Ti 334.940  Recovery = 103.79%
Tl 190.801†             2056.7      550.83 ug/L        2.700      550.83 ppb        2.700   0.49%
   QC value greater than the upper limit for Tl 190.801  Recovery = 110.17%
U 409.014†             18306.6      515.73 ug/L        2.604      515.73 ppb        2.604   0.50%
   QC value within limits for U 409.014  Recovery = 103.15%
V 292.402†             80955.2      536.57 ug/L        0.481      536.57 ppb        0.481   0.09%
   QC value within limits for V 292.402  Recovery = 107.31%
Zn 213.857†            63647.4      534.49 ug/L        1.026      534.49 ppb        1.026   0.19%
   QC value within limits for Zn 213.857  Recovery = 106.90%
SiO2†                 172303.9       10662 ug/L         43.4       10662 ppb         43.4   0.41%
   QC value within limits for SiO2  Recovery = 99.69%
QC Failed.  Continue with analysis.
```

Sequence No.: 7
Sample ID: ICB
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 10
Date Collected: 12/18/2009 07:20:25
Data Type: Reprocessed on 12/18/2009 08:37:56
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc 361.383	916270.2	916270.2	99.067	%			07:23:35
1	Sc Radial	5618.7	5618.7	98.8	%			07:22:18
1	Y 371.029	749898.6	749898.6	98.682	%			07:23:35
1	Y RADIAL	5805.3	5805.3	99.18	%			07:22:18
1	Ag 328.068†	382.7	51.2	0.2247	ug/L	0.2247	ppb	07:23:35
1	Al 396.153Radial†	-32.4	-1.2	-0.9132	ug/L	-0.9132	ppb	07:22:18
1	As 188.979†	-25.8	4.5	1.6966	ug/L	1.6966	ppb	07:23:55
1	B 249.677†	-316.4	141.6	3.0299	ug/L	3.0299	ppb	07:23:55
1	Ba 233.527†	12.4	10.7	0.0734	ug/L	0.0734	ppb	07:23:55
1	Be 313.107†	-4623.2	18.5	0.0067	ug/L	0.0067	ppb	07:23:35
1	Ca 317.933Radial†	19.3	2.1	2.9733	ug/L	2.9733	ppb	07:22:38
1	Cd 226.502†	-208.6	2.7	0.0289	ug/L	0.0289	ppb	07:23:55
1	Co 228.616†	-92.9	-1.9	-0.0323	ug/L	-0.0323	ppb	07:23:55
1	Cr 267.716†	65.8	-36.9	-0.3812	ug/L	-0.3812	ppb	07:23:55
1	Cu 324.752†	6153.9	87.9	0.2562	ug/L	0.2562	ppb	07:23:35
1	Fe 238.204 Radial†	13.1	-2.1	-16.002	ug/L	-16.002	ppb	07:22:38
1	K 766.490 Radial†	2928.6	-38.6	-6.3098	ug/L	-6.3098	ppb	07:22:18
1	Mg 279.077 IEC†	3.9	1.4	40.757	ug/L	40.757	ppb	07:22:38
1	Mn 257.610†	530.3	39.2	0.0377	ug/L	0.0377	ppb	07:23:55
1	Mo 202.031†	39.1	11.9	0.7336	ug/L	0.7336	ppb	07:23:55
1	Na 589.592 Radial†	-1317.6	-46.7	-11.138	ug/L	-11.138	ppb	07:22:18
1	Ni 231.604†	96.0	16.8	0.3740	ug/L	0.3740	ppb	07:23:55
1	P 214.914†	256.1	-0.2	-0.1280	ug/L	-0.1280	ppb	07:23:55
1	Pb 220.353†	-59.4	3.9	0.4174	ug/L	0.4174	ppb	07:23:55
1	S 181.975 Axial†	52.7	1.6	2.0600	ug/L	2.0600	ppb	07:23:55
1	Sb 206.836†	49.6	9.4	2.8924	ug/L	2.8924	ppb	07:23:55
1	Se 196.026†	-38.2	-4.3	-2.4575	ug/L	-2.4575	ppb	07:23:55
1	Si 251.611†	605.7	35.3	1.0127	ug/L	1.0127	ppb	07:23:55
1	Sn 189.927†	4.2	-0.8	-0.1226	ug/L	-0.1226	ppb	07:23:55
1	Sr 421.552†	64.6	58.8	0.3222	ug/L	0.3222	ppb	07:22:18
1	Ti 334.940†	-1443.8	44.4	0.0683	ug/L	0.0683	ppb	07:23:35
1	Tl 190.801†	-39.2	3.4	0.9088	ug/L	0.9088	ppb	07:23:55
1	U 409.014†	-2862.9	-102.9	-2.9040	ug/L	-2.9040	ppb	07:23:35
1	V 292.402†	-1517.2	-17.8	-0.1081	ug/L	-0.1081	ppb	07:23:35
1	Zn 213.857†	816.2	16.8	0.1399	ug/L	0.1399	ppb	07:23:55
1	SiO2†	630.4	35.2	2.1628	ug/L	2.1628	ppb	07:24:51
2	Sc 361.383	922344.1	922344.1	99.723	%			07:24:00
2	Sc Radial	5613.3	5613.3	98.7	%			07:22:43
2	Y 371.029	757827.3	757827.3	99.725	%			07:24:00
2	Y RADIAL	5794.8	5794.8	99.00	%			07:22:43
2	Ag 328.068†	380.5	46.4	0.1955	ug/L	0.1955	ppb	07:24:00
2	Al 396.153Radial†	-22.6	8.8	6.6615	ug/L	6.6615	ppb	07:22:43
2	As 188.979†	-29.6	1.0	0.3542	ug/L	0.3542	ppb	07:24:20
2	B 249.677†	-322.9	137.2	2.9384	ug/L	2.9384	ppb	07:24:20
2	Ba 233.527†	-0.7	-2.5	-0.0183	ug/L	-0.0183	ppb	07:24:20
2	Be 313.107†	-4578.5	94.1	0.0335	ug/L	0.0335	ppb	07:24:00
2	Ca 317.933Radial†	23.7	6.5	9.2733	ug/L	9.2733	ppb	07:23:03
2	Cd 226.502†	-213.8	-1.1	-0.0082	ug/L	-0.0082	ppb	07:24:20
2	Co 228.616†	-93.2	-1.6	-0.0286	ug/L	-0.0286	ppb	07:24:20
2	Cr 267.716†	85.4	-17.7	-0.1840	ug/L	-0.1840	ppb	07:24:20
2	Cu 324.752†	6073.6	-33.6	-0.0997	ug/L	-0.0997	ppb	07:24:00
2	Fe 238.204 Radial†	11.4	-3.8	-28.823	ug/L	-28.823	ppb	07:23:03
2	K 766.490 Radial†	2928.9	-35.3	-5.7797	ug/L	-5.7797	ppb	07:22:43
2	Mg 279.077 IEC†	-0.1	-2.7	-81.458	ug/L	-81.458	ppb	07:23:03
2	Mn 257.610†	539.2	44.6	0.0441	ug/L	0.0441	ppb	07:24:20
2	Mo 202.031†	23.6	-3.8	-0.2375	ug/L	-0.2375	ppb	07:24:20
2	Na 589.592 Radial†	-1302.8	-33.0	-7.8823	ug/L	-7.8823	ppb	07:22:43
2	Ni 231.604†	98.6	18.8	0.4186	ug/L	0.4186	ppb	07:24:20

2	P 214.914†	254.6	-3.5	-1.7913 ug/L	-1.7913 ppb	07:24:20
2	Pb 220.353†	-73.1	-9.5	-1.0062 ug/L	-1.0062 ppb	07:24:20
2	S 181.975 Axial†	52.2	0.7	0.9106 ug/L	0.9106 ppb	07:24:20
2	Sb 206.836†	42.0	1.5	0.4774 ug/L	0.4774 ppb	07:24:20
2	Se 196.026†	-38.0	-3.8	-2.2129 ug/L	-2.2129 ppb	07:24:20
2	Si 251.611†	631.6	57.2	1.6598 ug/L	1.6598 ppb	07:24:20
2	Sn 189.927†	16.0	11.0	1.6720 ug/L	1.6720 ppb	07:24:20
2	Sr 421.552†	-53.5	-60.7	-0.3327 ug/L	-0.3327 ppb	07:22:43
2	Ti 334.940†	-1451.7	46.0	0.0687 ug/L	0.0687 ppb	07:24:00
2	Tl 190.801†	-42.0	0.9	0.2357 ug/L	0.2357 ppb	07:24:20
2	U 409.014†	-2698.1	81.5	2.3060 ug/L	2.3060 ppb	07:24:00
2	V 292.402†	-1483.1	26.5	0.1765 ug/L	0.1765 ppb	07:24:00
2	Zn 213.857†	802.0	-2.8	-0.0206 ug/L	-0.0206 ppb	07:24:20
2	SiO2†	581.3	-18.2	-1.1281 ug/L	-1.1281 ppb	07:24:56
3	Sc 361.383	912878.1	912878.1	98.700 %		07:24:25
3	Sc Radial	5587.7	5587.7	98.2 %		07:23:08
3	Y 371.029	749747.3	749747.3	98.662 %		07:24:25
3	Y RADIAL	5814.5	5814.5	99.33 %		07:23:08
3	Ag 328.068†	431.2	101.8	0.4521 ug/L	0.4521 ppb	07:24:25
3	Al 396.153Radial†	-19.5	11.8	8.9475 ug/L	8.9475 ppb	07:23:08
3	As 188.979†	-19.9	10.5	3.9127 ug/L	3.9127 ppb	07:24:45
3	B 249.677†	-314.9	141.9	3.0361 ug/L	3.0361 ppb	07:24:45
3	Ba 233.527†	9.8	8.0	0.0555 ug/L	0.0555 ppb	07:24:45
3	Be 313.107†	-4603.7	20.9	0.0073 ug/L	0.0073 ppb	07:24:25
3	Ca 317.933Radial†	21.6	4.5	6.4669 ug/L	6.4669 ppb	07:23:28
3	Cd 226.502†	-201.1	9.5	0.0964 ug/L	0.0964 ppb	07:24:45
3	Co 228.616†	-92.4	-1.8	-0.0329 ug/L	-0.0329 ppb	07:24:45
3	Cr 267.716†	105.2	3.3	0.0344 ug/L	0.0344 ppb	07:24:45
3	Cu 324.752†	5978.4	-66.9	-0.1962 ug/L	-0.1962 ppb	07:24:25
3	Fe 238.204 Radial†	13.9	-1.3	-9.7074 ug/L	-9.7074 ppb	07:23:28
3	K 766.490 Radial†	3070.5	122.3	20.024 ug/L	20.024 ppb	07:23:08
3	Mg 279.077 IEC†	1.5	-1.2	-35.033 ug/L	-35.033 ppb	07:23:28
3	Mn 257.610†	562.0	73.3	0.0744 ug/L	0.0744 ppb	07:24:45
3	Mo 202.031†	20.3	-7.0	-0.4292 ug/L	-0.4292 ppb	07:24:45
3	Na 589.592 Radial†	-1306.6	-42.9	-10.237 ug/L	-10.237 ppb	07:23:08
3	Ni 231.604†	95.7	16.8	0.3756 ug/L	0.3756 ppb	07:24:45
3	P 214.914†	259.1	3.8	2.0734 ug/L	2.0734 ppb	07:24:45
3	Pb 220.353†	-66.7	-3.8	-0.3993 ug/L	-0.3993 ppb	07:24:45
3	S 181.975 Axial†	50.2	-0.8	-1.0022 ug/L	-1.0022 ppb	07:24:45
3	Sb 206.836†	47.0	7.0	2.1342 ug/L	2.1342 ppb	07:24:45
3	Se 196.026†	-38.2	-4.4	-2.5259 ug/L	-2.5259 ppb	07:24:45
3	Si 251.611†	605.9	37.8	1.0946 ug/L	1.0946 ppb	07:24:45
3	Sn 189.927†	8.5	3.6	0.5503 ug/L	0.5503 ppb	07:24:45
3	Sr 421.552†	-1.2	-7.8	-0.0426 ug/L	-0.0426 ppb	07:23:08
3	Ti 334.940†	-1539.2	-57.7	-0.0850 ug/L	-0.0850 ppb	07:24:25
3	Tl 190.801†	-53.0	-10.7	-2.8560 ug/L	-2.8560 ppb	07:24:45
3	U 409.014†	-2855.5	-106.2	-2.9989 ug/L	-2.9989 ppb	07:24:25
3	V 292.402†	-1499.9	-6.0	-0.0504 ug/L	-0.0504 ppb	07:24:25
3	Zn 213.857†	807.5	11.1	0.0936 ug/L	0.0936 ppb	07:24:45
3	SiO2†	645.0	52.4	3.2507 ug/L	3.2507 ppb	07:25:01

Mean Data: ICB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	917164.1	99.163	%	0.5185				0.52%
Sc Radial	5606.6	98.6	%	0.29				0.30%
Y 371.029	752491.1	99.023	%	0.6082				0.61%
Y RADIAL	5804.9	99.17	%	0.168				0.17%
Ag 328.068†	66.5	0.2908	ug/L	0.14050	0.2908	ppb	0.14050	48.32%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	6.5	4.8986	ug/L	5.16135	4.8986	ppb	5.16135	105.36%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	5.3	1.9878	ug/L	1.79707	1.9878	ppb	1.79707	90.40%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	140.3	3.0015	ug/L	0.05468	3.0015	ppb	0.05468	1.82%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	5.4	0.0368	ug/L	0.04860	0.0368	ppb	0.04860	131.94%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	44.5	0.0158	ug/L	0.01530	0.0158	ppb	0.01530	96.82%
QC value within limits for Be 313.107 Recovery = Not calculated								

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Ca 317.933Radial†          4.4      6.2378 ug/L       3.15625      6.2378 ppb        3.15625  50.60%
   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                3.7      0.0390 ug/L       0.05303      0.0390 ppb        0.05303 135.80%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†               -1.8     -0.0313 ug/L       0.00233     -0.0313 ppb        0.00233   7.44%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -17.1     -0.1769 ug/L       0.20789     -0.1769 ppb        0.20789 117.49%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               -4.2     -0.0132 ug/L       0.23828     -0.0132 ppb        0.23828 >999.9%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        -2.4     -18.177 ug/L        9.7416     -18.177 ppb         9.7416  53.59%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         16.1      2.6449 ug/L      15.05326      2.6449 ppb       15.05326 569.14%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           -0.8     -25.245 ug/L       61.6930     -25.245 ppb        61.6930 244.38%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               52.4      0.0521 ug/L       0.01963      0.0521 ppb        0.01963  37.70%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                0.4      0.0223 ug/L       0.62341      0.0223 ppb        0.62341 >999.9%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       -40.9     -9.7524 ug/L       1.68116     -9.7524 ppb        1.68116  17.24%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               17.5      0.3894 ug/L       0.02532      0.3894 ppb        0.02532   6.50%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 0.0      0.0514 ug/L       1.93860      0.0514 ppb        1.93860 >999.9%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               -3.1     -0.3294 ug/L       0.71438     -0.3294 ppb        0.71438 216.90%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           0.5      0.6561 ug/L       1.54688      0.6561 ppb        1.54688 235.76%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                6.0      1.8347 ug/L       1.23502      1.8347 ppb        1.23502  67.32%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               -4.2     -2.3988 ug/L       0.16456     -2.3988 ppb        0.16456   6.86%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†               43.4      1.2557 ug/L       0.35239      1.2557 ppb        0.35239  28.06%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                4.6      0.6999 ug/L       0.90660      0.6999 ppb        0.90660 129.54%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               -3.2     -0.0177 ug/L       0.32813     -0.0177 ppb        0.32813 >999.9%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               10.9      0.0173 ug/L       0.08863      0.0173 ppb        0.08863 510.94%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               -2.1     -0.5705 ug/L       2.00772     -0.5705 ppb        2.00772 351.93%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -42.5     -1.1990 ug/L       3.03575     -1.1990 ppb        3.03575 253.20%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 0.9      0.0060 ug/L       0.15047      0.0060 ppb        0.15047 >999.9%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                8.4      0.0710 ug/L       0.08262      0.0710 ppb        0.08262 116.45%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                     23.2      1.4285 ug/L       2.27985      1.4285 ppb        2.27985 159.60%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 8
Sample ID: PQL
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 11
Date Collected: 12/18/2009 07:27:12
Data Type: Reprocessed on 12/18/2009 08:37:57
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: PQL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc 361.383	922857.8	922857.8	99.779	%			07:30:22
1	Sc Radial	5707.0	5707.0	100	%			07:29:05
1	Y 371.029	756529.4	756529.4	99.555	%			07:30:22
1	Y RADIAL	5891.4	5891.4	100.6	%			07:29:05
1	Ag 328.068†	1609.8	1278.3	5.6852	ug/L	5.6852	ppb	07:30:22
1	Al 396.153Radial†	248.3	279.1	210.28	ug/L	210.28	ppb	07:29:05
1	As 188.979†	49.6	80.4	30.101	ug/L	30.101	ppb	07:30:42
1	B 249.677†	1953.6	2419.0	51.696	ug/L	51.696	ppb	07:30:22
1	Ba 233.527†	768.0	767.8	5.3493	ug/L	5.3493	ppb	07:30:42
1	Be 313.107†	10282.8	14990.8	5.3245	ug/L	5.3245	ppb	07:30:22
1	Ca 317.933Radial†	172.7	154.6	221.50	ug/L	221.50	ppb	07:29:25
1	Cd 226.502†	315.2	529.2	5.2771	ug/L	5.2771	ppb	07:30:42
1	Co 228.616†	200.1	292.4	5.2418	ug/L	5.2418	ppb	07:30:42
1	Cr 267.716†	599.1	497.0	5.1305	ug/L	5.1305	ppb	07:30:42
1	Cu 324.752†	9724.7	3622.2	10.601	ug/L	10.601	ppb	07:30:22
1	Fe 238.204 Radial†	27.3	11.8	88.549	ug/L	88.549	ppb	07:29:25
1	K 766.490 Radial†	3918.6	902.2	147.40	ug/L	147.40	ppb	07:29:05
1	Mg 279.077 IEC†	12.3	9.6	289.56	ug/L	289.56	ppb	07:29:25
1	Mn 257.610†	11407.9	10937.1	11.155	ug/L	11.155	ppb	07:30:22
1	Mo 202.031†	193.9	166.8	10.271	ug/L	10.271	ppb	07:30:42
1	Na 589.592 Radial†	25.4	1312.3	313.22	ug/L	313.22	ppb	07:29:05
1	Ni 231.604†	337.4	258.0	5.7518	ug/L	5.7518	ppb	07:30:42
1	P 214.914†	540.9	283.3	149.58	ug/L	149.58	ppb	07:30:42
1	Pb 220.353†	29.1	93.0	9.9794	ug/L	9.9794	ppb	07:30:42
1	S 181.975 Axial†	133.4	82.1	105.27	ug/L	105.27	ppb	07:30:42
1	Sb 206.836†	79.6	39.1	12.231	ug/L	12.231	ppb	07:30:42
1	Se 196.026†	21.8	56.1	31.888	ug/L	31.888	ppb	07:30:42
1	Si 251.611†	4228.5	3661.8	105.88	ug/L	105.88	ppb	07:30:22
1	Sn 189.927†	78.8	74.0	11.258	ug/L	11.258	ppb	07:30:42
1	Sr 421.552†	941.6	931.9	5.1019	ug/L	5.1019	ppb	07:29:05
1	Ti 334.940†	2116.9	3623.4	5.4297	ug/L	5.4297	ppb	07:30:22
1	Tl 190.801†	49.0	92.1	24.587	ug/L	24.587	ppb	07:30:42
1	U 409.014†	-777.5	2007.8	56.720	ug/L	56.720	ppb	07:30:22
1	V 292.402†	-748.5	763.5	5.2315	ug/L	5.2315	ppb	07:30:22
1	Zn 213.857†	2106.5	1304.1	10.978	ug/L	10.978	ppb	07:30:42
1	SiO2†	4291.1	3699.5	228.91	ug/L	228.91	ppb	07:31:38
2	Sc 361.383	924308.5	924308.5	99.936	%			07:30:47
2	Sc Radial	5803.1	5803.1	102	%			07:29:30
2	Y 371.029	758641.8	758641.8	99.833	%			07:30:47
2	Y RADIAL	6015.7	6015.7	102.8	%			07:29:30
2	Ag 328.068†	1548.9	1214.8	5.4008	ug/L	5.4008	ppb	07:30:47
2	Al 396.153Radial†	249.1	275.8	207.79	ug/L	207.79	ppb	07:29:30
2	As 188.979†	45.9	76.5	28.666	ug/L	28.666	ppb	07:31:07
2	B 249.677†	1895.6	2357.8	50.389	ug/L	50.389	ppb	07:30:47
2	Ba 233.527†	773.4	772.0	5.3784	ug/L	5.3784	ppb	07:31:07
2	Be 313.107†	10196.4	14888.2	5.2878	ug/L	5.2878	ppb	07:30:47
2	Ca 317.933Radial†	173.9	153.0	219.18	ug/L	219.18	ppb	07:29:50
2	Cd 226.502†	307.7	521.2	5.1974	ug/L	5.1974	ppb	07:31:07
2	Co 228.616†	209.5	301.5	5.4027	ug/L	5.4027	ppb	07:31:07
2	Cr 267.716†	603.8	500.8	5.1694	ug/L	5.1694	ppb	07:31:07
2	Cu 324.752†	9641.7	3523.8	10.313	ug/L	10.313	ppb	07:30:47
2	Fe 238.204 Radial†	27.2	11.3	84.711	ug/L	84.711	ppb	07:29:50
2	K 766.490 Radial†	3854.8	775.0	126.60	ug/L	126.60	ppb	07:29:30
2	Mg 279.077 IEC†	11.2	8.4	251.43	ug/L	251.43	ppb	07:29:50
2	Mn 257.610†	11371.6	10882.9	11.100	ug/L	11.100	ppb	07:30:47
2	Mo 202.031†	182.6	155.2	9.5513	ug/L	9.5513	ppb	07:31:07
2	Na 589.592 Radial†	-31.8	1255.8	299.75	ug/L	299.75	ppb	07:29:30
2	Ni 231.604†	350.1	270.2	6.0242	ug/L	6.0242	ppb	07:31:07

2	P 214.914†	535.9	277.5	146.49 ug/L	146.49 ppb	07:31:07
2	Pb 220.353†	21.1	84.9	9.1172 ug/L	9.1172 ppb	07:31:07
2	S 181.975 Axial†	132.7	81.2	104.10 ug/L	104.10 ppb	07:31:07
2	Sb 206.836†	76.3	35.7	11.131 ug/L	11.131 ppb	07:31:07
2	Se 196.026†	22.4	56.7	32.172 ug/L	32.172 ppb	07:31:07
2	Si 251.611†	4262.1	3688.8	106.68 ug/L	106.68 ppb	07:30:47
2	Sn 189.927†	65.9	60.9	9.2660 ug/L	9.2660 ppb	07:31:07
2	Sr 421.552†	934.3	909.2	4.9774 ug/L	4.9774 ppb	07:29:30
2	Ti 334.940†	2017.0	3520.1	5.2739 ug/L	5.2739 ppb	07:30:47
2	Tl 190.801†	38.1	81.1	21.670 ug/L	21.670 ppb	07:31:07
2	U 409.014†	-740.4	2046.2	57.804 ug/L	57.804 ppb	07:30:47
2	V 292.402†	-753.3	759.8	5.1992 ug/L	5.1992 ppb	07:30:47
2	Zn 213.857†	2089.7	1283.9	10.808 ug/L	10.808 ppb	07:31:07
2	SiO2†	4314.0	3715.7	229.97 ug/L	229.97 ppb	07:31:43
3	Sc 361.383	923581.5	923581.5	99.857 %		07:31:13
3	Sc Radial	5702.8	5702.8	100 %		07:29:55
3	Y 371.029	760483.7	760483.7	100.07 %		07:31:13
3	Y RADIAL	5892.0	5892.0	100.7 %		07:29:55
3	Ag 328.068†	1548.9	1216.0	5.4149 ug/L	5.4149 ppb	07:31:13
3	Al 396.153Radial†	241.3	272.3	205.13 ug/L	205.13 ppb	07:29:55
3	As 188.979†	58.7	89.4	33.472 ug/L	33.472 ppb	07:31:33
3	B 249.677†	1998.7	2462.6	52.628 ug/L	52.628 ppb	07:31:13
3	Ba 233.527†	754.9	754.2	5.2542 ug/L	5.2542 ppb	07:31:33
3	Be 313.107†	10315.8	15015.8	5.3333 ug/L	5.3333 ppb	07:31:13
3	Ca 317.933Radial†	167.1	149.1	213.68 ug/L	213.68 ppb	07:30:15
3	Cd 226.502†	310.2	523.9	5.2233 ug/L	5.2233 ppb	07:31:33
3	Co 228.616†	204.1	296.3	5.3115 ug/L	5.3115 ppb	07:31:33
3	Cr 267.716†	601.6	499.1	5.1531 ug/L	5.1531 ppb	07:31:33
3	Cu 324.752†	9596.9	3486.6	10.205 ug/L	10.205 ppb	07:31:13
3	Fe 238.204 Radial†	28.3	12.8	96.214 ug/L	96.214 ppb	07:30:15
3	K 766.490 Radial†	3928.3	914.7	149.46 ug/L	149.46 ppb	07:29:55
3	Mg 279.077 IEC†	14.1	11.4	343.41 ug/L	343.41 ppb	07:30:15
3	Mn 257.610†	11377.4	10897.6	11.114 ug/L	11.114 ppb	07:31:13
3	Mo 202.031†	199.0	171.8	10.573 ug/L	10.573 ppb	07:31:33
3	Na 589.592 Radial†	-61.4	1225.8	292.58 ug/L	292.58 ppb	07:29:55
3	Ni 231.604†	327.1	247.5	5.5168 ug/L	5.5168 ppb	07:31:33
3	P 214.914†	534.4	276.4	145.93 ug/L	145.93 ppb	07:31:33
3	Pb 220.353†	20.9	84.7	9.1019 ug/L	9.1019 ppb	07:31:33
3	S 181.975 Axial†	134.9	83.5	107.04 ug/L	107.04 ppb	07:31:33
3	Sb 206.836†	74.3	33.8	10.602 ug/L	10.602 ppb	07:31:33
3	Se 196.026†	25.2	59.6	33.828 ug/L	33.828 ppb	07:31:33
3	Si 251.611†	4269.8	3699.8	106.97 ug/L	106.97 ppb	07:31:13
3	Sn 189.927†	75.3	70.4	10.710 ug/L	10.710 ppb	07:31:33
3	Sr 421.552†	903.6	894.6	4.8979 ug/L	4.8979 ppb	07:29:55
3	Ti 334.940†	2117.4	3622.3	5.4301 ug/L	5.4301 ppb	07:31:13
3	Tl 190.801†	42.5	85.5	22.839 ug/L	22.839 ppb	07:31:33
3	U 409.014†	-974.8	1810.8	51.151 ug/L	51.151 ppb	07:31:13
3	V 292.402†	-775.4	737.2	5.0530 ug/L	5.0530 ppb	07:31:13
3	Zn 213.857†	2100.0	1296.0	10.908 ug/L	10.908 ppb	07:31:33
3	SiO2†	4250.3	3655.3	226.16 ug/L	226.16 ppb	07:31:48

Mean Data: PQL

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	923582.6	99.857	%	0.0784				0.08%
Sc Radial	5737.7	101	%	1.0				0.99%
Y 371.029	758551.7	99.821	%	0.2604				0.26%
Y RADIAL	5933.0	101.4	%	1.22				1.21%
Ag 328.068†	1236.4	5.5003	ug/L	0.16032	5.5003	ppb	0.16032	2.91%
QC value within limits for Ag 328.068 Recovery = 110.01%								
Al 396.153Radial†	275.7	207.73	ug/L	2.574	207.73	ppb	2.574	1.24%
QC value within limits for Al 396.153Radial Recovery = 103.87%								
As 188.979†	82.1	30.746	ug/L	2.4674	30.746	ppb	2.4674	8.03%
QC value within limits for As 188.979 Recovery = 102.49%								
B 249.677†	2413.1	51.571	ug/L	1.1246	51.571	ppb	1.1246	2.18%
QC value within limits for B 249.677 Recovery = 103.14%								
Ba 233.527†	764.7	5.3273	ug/L	0.06493	5.3273	ppb	0.06493	1.22%
QC value within limits for Ba 233.527 Recovery = 106.55%								
Be 313.107†	14965.0	5.3152	ug/L	0.02414	5.3152	ppb	0.02414	0.45%
QC value within limits for Be 313.107 Recovery = 106.30%								

Ca 317.933Radial†	152.2	218.12 ug/L	4.018	218.12 ppb	4.018	1.84%
QC value within limits for Ca 317.933Radial Recovery = 109.06%						
Cd 226.502†	524.8	5.2326 ug/L	0.04062	5.2326 ppb	0.04062	0.78%
QC value within limits for Cd 226.502 Recovery = 104.65%						
Co 228.616†	296.7	5.3186 ug/L	0.08071	5.3186 ppb	0.08071	1.52%
QC value within limits for Co 228.616 Recovery = 106.37%						
Cr 267.716†	499.0	5.1510 ug/L	0.01953	5.1510 ppb	0.01953	0.38%
QC value within limits for Cr 267.716 Recovery = 103.02%						
Cu 324.752†	3544.2	10.373 ug/L	0.2048	10.373 ppb	0.2048	1.97%
QC value within limits for Cu 324.752 Recovery = 103.73%						
Fe 238.204 Radial†	11.9	89.824 ug/L	5.8567	89.824 ppb	5.8567	6.52%
QC value within limits for Fe 238.204 Radial Recovery = 89.82%						
K 766.490 Radial†	864.0	141.15 ug/L	12.647	141.15 ppb	12.647	8.96%
QC value within limits for K 766.490 Radial Recovery = 94.10%						
Mg 279.077 IEC†	9.8	294.80 ug/L	46.213	294.80 ppb	46.213	15.68%
QC value within limits for Mg 279.077 IEC Recovery = 98.27%						
Mn 257.610†	10905.9	11.123 ug/L	0.0285	11.123 ppb	0.0285	0.26%
QC value within limits for Mn 257.610 Recovery = 111.23%						
Mo 202.031†	164.6	10.132 ug/L	0.5250	10.132 ppb	0.5250	5.18%
QC value within limits for Mo 202.031 Recovery = 101.32%						
Na 589.592 Radial†	1264.6	301.85 ug/L	10.482	301.85 ppb	10.482	3.47%
QC value within limits for Na 589.592 Radial Recovery = 100.62%						
Ni 231.604†	258.6	5.7642 ug/L	0.25395	5.7642 ppb	0.25395	4.41%
QC value within limits for Ni 231.604 Recovery = 115.28%						
P 214.914†	279.1	147.33 ug/L	1.963	147.33 ppb	1.963	1.33%
QC value within limits for P 214.914 Recovery = 98.22%						
Pb 220.353†	87.5	9.3995 ug/L	0.50225	9.3995 ppb	0.50225	5.34%
QC value within limits for Pb 220.353 Recovery = 93.99%						
S 181.975 Axial†	82.3	105.47 ug/L	1.480	105.47 ppb	1.480	1.40%
QC value within limits for S 181.975 Axial Recovery = 105.47%						
Sb 206.836†	36.2	11.321 ug/L	0.8313	11.321 ppb	0.8313	7.34%
QC value within limits for Sb 206.836 Recovery = 113.21%						
Se 196.026†	57.5	32.629 ug/L	1.0475	32.629 ppb	1.0475	3.21%
QC value within limits for Se 196.026 Recovery = 108.76%						
Si 251.611†	3683.5	106.51 ug/L	0.569	106.51 ppb	0.569	0.53%
QC value within limits for Si 251.611 Recovery = 106.51%						
Sn 189.927†	68.4	10.411 ug/L	1.0288	10.411 ppb	1.0288	9.88%
QC value within limits for Sn 189.927 Recovery = 104.11%						
Sr 421.552†	911.9	4.9924 ug/L	0.10280	4.9924 ppb	0.10280	2.06%
QC value within limits for Sr 421.552 Recovery = 99.85%						
Ti 334.940†	3588.6	5.3779 ug/L	0.09008	5.3779 ppb	0.09008	1.67%
QC value within limits for Ti 334.940 Recovery = 107.56%						
Tl 190.801†	86.3	23.032 ug/L	1.4678	23.032 ppb	1.4678	6.37%
QC value within limits for Tl 190.801 Recovery = 115.16%						
U 409.014†	1954.9	55.225 ug/L	3.5693	55.225 ppb	3.5693	6.46%
QC value within limits for U 409.014 Recovery = 110.45%						
V 292.402†	753.5	5.1612 ug/L	0.09511	5.1612 ppb	0.09511	1.84%
QC value within limits for V 292.402 Recovery = 103.22%						
Zn 213.857†	1294.7	10.898 ug/L	0.0857	10.898 ppb	0.0857	0.79%
QC value within limits for Zn 213.857 Recovery = 108.98%						
SiO2†	3690.2	228.35 ug/L	1.968	228.35 ppb	1.968	0.86%
QC value within limits for SiO2 Recovery = 107.21%						

All analyte(s) passed QC.

Sequence No.: 9
Sample ID: ICSA
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 13
Date Collected: 12/18/2009 07:33:59
Data Type: Reprocessed on 12/18/2009 08:37:58
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSA

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc 361.383	804254.9	804254.9	86.956	%			07:36:25
1	Sc Radial	4937.1	4937.1	86.8	%			07:35:58
1	Y 371.029	642052.4	642052.4	84.490	%			07:36:25
1	Y RADIAL	5085.4	5085.4	86.88	%			07:35:58
1	Ag 328.068†	-10781.9	-12734.5	0.8501	ug/L	0.8501	ppb	07:36:25
1	Al 396.153Radial†	641961.5	739552.2	558350	ug/L	558350	ppb	07:35:53
1	As 188.979†	-95.4	-79.0	0.2582	ug/L	0.2582	ppb	07:36:45
1	B 249.677†	505.6	1042.5	-3.4980	ug/L	-3.4980	ppb	07:36:25
1	Ba 233.527†	-658.4	-759.0	1.9785	ug/L	1.9785	ppb	07:36:45
1	Be 313.107†	-5009.0	-1075.1	-0.4269	ug/L	-0.4269	ppb	07:36:25
1	Ca 317.933Radial†	309750.5	356805.9	511300	ug/L	511300	ppb	07:35:53
1	Cd 226.502†	1427.1	1854.4	-0.9193	ug/L	-0.9193	ppb	07:36:45
1	Co 228.616†	7.8	100.9	-0.9682	ug/L	-0.9682	ppb	07:36:45
1	Cr 267.716†	-77.3	-192.3	1.5100	ug/L	1.5100	ppb	07:36:45
1	Cu 324.752†	3198.3	-2445.9	2.7593	ug/L	2.7593	ppb	07:36:25
1	Fe 238.204 Radial†	22500.8	25904.8	194360	ug/L	194360	ppb	07:35:58
1	K 766.490 Radial†	2580.0	-30.8	12.982	ug/L	12.982	ppb	07:35:53
1	Mg 279.077 IEC†	14627.8	16848.1	506750	ug/L	506750	ppb	07:35:58
1	Mn 257.610†	1729.7	1493.1	11.467	ug/L	11.467	ppb	07:36:25
1	Mo 202.031†	-240.2	-303.7	-4.8986	ug/L	-4.8986	ppb	07:36:45
1	Na 589.592 Radial†	-1162.8	-52.5	-12.531	ug/L	-12.531	ppb	07:35:58
1	Ni 231.604†	194.7	143.8	3.2058	ug/L	3.2058	ppb	07:36:45
1	P 214.914†	196.4	-32.9	15.146	ug/L	15.146	ppb	07:36:45
1	Pb 220.353†	-930.2	-1005.9	1.9269	ug/L	1.9269	ppb	07:36:45
1	S 181.975 Axial†	73.0	32.4	-68.314	ug/L	-68.314	ppb	07:36:45
1	Sb 206.836†	86.9	59.3	4.5585	ug/L	4.5585	ppb	07:36:45
1	Se 196.026†	-1029.7	-1149.9	21.912	ug/L	21.912	ppb	07:36:45
1	Si 251.611†	517.2	18.7	1.0791	ug/L	1.0791	ppb	07:36:45
1	Sn 189.927†	-384.6	-447.2	-11.894	ug/L	-11.894	ppb	07:36:45
1	Sr 421.552†	633.1	722.8	-0.7803	ug/L	-0.7803	ppb	07:35:58
1	Ti 334.940†	-14791.8	-15509.0	3.3478	ug/L	3.3478	ppb	07:36:25
1	Tl 190.801†	-86.1	-56.0	0.1621	ug/L	0.1621	ppb	07:36:45
1	U 409.014†	-1230.1	1372.4	14.336	ug/L	14.336	ppb	07:36:25
1	V 292.402†	1275.8	2980.8	1.1835	ug/L	1.1835	ppb	07:36:45
1	Zn 213.857†	3424.1	3130.7	-9.4047	ug/L	-9.4047	ppb	07:36:45
1	SiO2†	575.3	60.5	4.9248	ug/L	4.9248	ppb	07:37:41
2	Sc 361.383	794352.4	794352.4	85.885	%			07:36:50
2	Sc Radial	5031.1	5031.1	88.5	%			07:36:08
2	Y 371.029	634800.4	634800.4	83.536	%			07:36:50
2	Y RADIAL	5183.3	5183.3	88.55	%			07:36:08
2	Ag 328.068†	-10614.9	-12694.5	-0.5920	ug/L	-0.5920	ppb	07:36:50
2	Al 396.153Radial†	611442.2	691231.8	521870	ug/L	521870	ppb	07:36:03
2	As 188.979†	-97.7	-83.2	-2.2508	ug/L	-2.2508	ppb	07:37:10
2	B 249.677†	493.8	1036.0	-2.8122	ug/L	-2.8122	ppb	07:36:50
2	Ba 233.527†	-601.0	-701.7	2.1462	ug/L	2.1462	ppb	07:37:10
2	Be 313.107†	-4977.0	-1109.6	-0.4394	ug/L	-0.4394	ppb	07:36:50
2	Ca 317.933Radial†	296707.4	335393.1	480610	ug/L	480610	ppb	07:36:03
2	Cd 226.502†	1383.3	1823.9	-0.6033	ug/L	-0.6033	ppb	07:37:10
2	Co 228.616†	-23.4	64.6	-1.5249	ug/L	-1.5249	ppb	07:37:10
2	Cr 267.716†	-84.9	-202.2	1.2972	ug/L	1.2972	ppb	07:37:10
2	Cu 324.752†	3120.3	-2491.0	2.3113	ug/L	2.3113	ppb	07:36:50
2	Fe 238.204 Radial†	22198.2	25078.4	188160	ug/L	188160	ppb	07:36:08
2	K 766.490 Radial†	2590.1	-75.0	4.1868	ug/L	4.1868	ppb	07:36:03
2	Mg 279.077 IEC†	14408.0	16284.8	489810	ug/L	489810	ppb	07:36:08
2	Mn 257.610†	1749.6	1541.1	11.213	ug/L	11.213	ppb	07:36:50
2	Mo 202.031†	-224.3	-288.7	-4.4120	ug/L	-4.4120	ppb	07:37:10
2	Na 589.592 Radial†	-1101.3	42.0	10.026	ug/L	10.026	ppb	07:36:08
2	Ni 231.604†	215.6	170.9	3.8121	ug/L	3.8121	ppb	07:37:10

2	P 214.914†	182.0	-46.8	0.3741	ug/L	0.3741 ppb	07:37:10
2	Pb 220.353†	-925.6	-1013.9	-6.6005	ug/L	-6.6005 ppb	07:37:10
2	S 181.975 Axial†	95.2	59.2	-26.762	ug/L	-26.762 ppb	07:37:10
2	Sb 206.836†	85.1	58.4	5.1911	ug/L	5.1911 ppb	07:37:10
2	Se 196.026†	-1040.5	-1177.2	-17.334	ug/L	-17.334 ppb	07:37:10
2	Si 251.611†	465.5	-34.1	-0.4618	ug/L	-0.4618 ppb	07:37:10
2	Sn 189.927†	-382.1	-449.9	-15.579	ug/L	-15.579 ppb	07:37:10
2	Sr 421.552†	630.2	705.9	-0.5887	ug/L	-0.5887 ppb	07:36:08
2	Ti 334.940†	-14680.6	-15591.6	1.6257	ug/L	1.6257 ppb	07:36:50
2	Tl 190.801†	-100.0	-73.5	-5.4823	ug/L	-5.4823 ppb	07:37:10
2	U 409.014†	-1388.3	1170.6	9.4120	ug/L	9.4120 ppb	07:36:50
2	V 292.402†	1205.8	2917.6	1.3338	ug/L	1.3338 ppb	07:37:10
2	Zn 213.857†	3424.2	3179.9	-7.8200	ug/L	-7.8200 ppb	07:37:10
2	SiO2†	469.0	-55.0	-2.2702	ug/L	-2.2702 ppb	07:37:46
3	Sc 361.383	800010.2	800010.2	86.497	%		07:37:16
3	Sc Radial	5103.1	5103.1	89.7	%		07:36:18
3	Y 371.029	638817.6	638817.6	84.064	%		07:37:16
3	Y RADIAL	5254.3	5254.3	89.76	%		07:36:18
3	Ag 328.068†	-10680.4	-12682.8	-0.8458	ug/L	-0.8458 ppb	07:37:16
3	Al 396.153Radial†	626177.2	697901.5	526900	ug/L	526900 ppb	07:36:13
3	As 188.979†	-101.4	-86.6	-3.6388	ug/L	-3.6388 ppb	07:37:36
3	B 249.677†	525.0	1068.0	-2.0332	ug/L	-2.0332 ppb	07:37:16
3	Ba 233.527†	-645.0	-747.5	1.8023	ug/L	1.8023 ppb	07:37:36
3	Be 313.107†	-4998.6	-1093.6	-0.4325	ug/L	-0.4325 ppb	07:37:16
3	Ca 317.933Radial†	303579.5	338319.6	484810	ug/L	484810 ppb	07:36:13
3	Cd 226.502†	1421.2	1856.3	-0.2084	ug/L	-0.2084 ppb	07:37:36
3	Co 228.616†	-31.6	55.3	-1.6878	ug/L	-1.6878 ppb	07:37:36
3	Cr 267.716†	-83.5	-200.0	1.3063	ug/L	1.3063 ppb	07:37:36
3	Cu 324.752†	3114.1	-2523.8	2.1787	ug/L	2.1787 ppb	07:37:16
3	Fe 238.204 Radial†	22429.8	24982.4	187440	ug/L	187440 ppb	07:36:18
3	K 766.490 Radial†	2606.4	-98.2	0.6183	ug/L	0.6183 ppb	07:36:13
3	Mg 279.077 IEC†	14576.8	16243.1	488560	ug/L	488560 ppb	07:36:18
3	Mn 257.610†	1843.8	1635.6	11.261	ug/L	11.261 ppb	07:37:16
3	Mo 202.031†	-252.7	-319.7	-6.3714	ug/L	-6.3714 ppb	07:37:36
3	Na 589.592 Radial†	-1090.8	71.3	17.020	ug/L	17.020 ppb	07:36:18
3	Ni 231.604†	195.9	146.4	3.2652	ug/L	3.2652 ppb	07:37:36
3	P 214.914†	183.1	-47.0	2.5566	ug/L	2.5566 ppb	07:37:36
3	Pb 220.353†	-904.5	-981.9	-2.0060	ug/L	-2.0060 ppb	07:37:36
3	S 181.975 Axial†	93.6	56.6	-31.080	ug/L	-31.080 ppb	07:37:36
3	Sb 206.836†	86.5	59.3	5.2799	ug/L	5.2799 ppb	07:37:36
3	Se 196.026†	-1025.9	-1151.8	-4.5676	ug/L	-4.5676 ppb	07:37:36
3	Si 251.611†	532.4	39.4	1.7014	ug/L	1.7014 ppb	07:37:36
3	Sn 189.927†	-383.0	-447.8	-14.836	ug/L	-14.836 ppb	07:37:36
3	Sr 421.552†	609.2	672.4	-0.8108	ug/L	-0.8108 ppb	07:36:18
3	Ti 334.940†	-14428.9	-15179.7	2.4604	ug/L	2.4604 ppb	07:37:16
3	Tl 190.801†	-88.3	-59.1	-1.5101	ug/L	-1.5101 ppb	07:37:36
3	U 409.014†	-1192.8	1408.0	16.212	ug/L	16.212 ppb	07:37:16
3	V 292.402†	1283.4	2997.4	1.9214	ug/L	1.9214 ppb	07:37:36
3	Zn 213.857†	3420.4	3147.3	-7.9808	ug/L	-7.9808 ppb	07:37:36
3	SiO2†	483.0	-42.7	-1.4339	ug/L	-1.4339 ppb	07:37:51

Mean Data: ICSA

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	799539.2	86.446	%	0.5371				0.62%
Sc Radial	5023.8	88.3	%	1.46				1.66%
Y 371.029	638556.8	84.030	%	0.4781				0.57%
Y RADIAL	5174.4	88.40	%	1.449				1.64%
Ag 328.068†	-12704.0	-0.1959	ug/L	0.91469	-0.1959	ppb	0.91469	466.87%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	709561.9	535710	ug/L	19769.7	535710	ppb	19769.7	3.69%
QC value within limits for Al 396.153Radial Recovery = 107.14%								
As 188.979†	-82.9	-1.8771	ug/L	1.97519	-1.8771	ppb	1.97519	105.22%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	1048.8	-2.7811	ug/L	0.73290	-2.7811	ppb	0.73290	26.35%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-736.1	1.9757	ug/L	0.17200	1.9757	ppb	0.17200	8.71%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-1092.8	-0.4329	ug/L	0.00625	-0.4329	ppb	0.00625	1.44%
QC value within limits for Be 313.107 Recovery = Not calculated								

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Ca 317.933Radial†     343506.2      492240 ug/L       16637.5      492240 ppb        16637.5   3.38%
   QC value within limits for Ca 317.933Radial  Recovery = 98.45%
Cd 226.502†             1844.9     -0.5770 ug/L       0.35616     -0.5770 ppb        0.35616  61.73%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†               73.6     -1.3936 ug/L       0.37730     -1.3936 ppb        0.37730  27.07%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†             -198.1      1.3712 ug/L       0.12030      1.3712 ppb        0.12030   8.77%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -2486.9      2.4164 ug/L       0.30428      2.4164 ppb        0.30428  12.59%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†     25321.9      189990 ug/L        3805.0      189990 ppb         3805.0   2.00%
   QC value within limits for Fe 238.204 Radial  Recovery = 94.99%
K 766.490 Radial†        -68.0      5.9291 ug/L       6.36338      5.9291 ppb        6.36338 107.32%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†        16458.7      495040 ug/L       10162.9      495040 ppb        10162.9   2.05%
   QC value within limits for Mg 279.077 IEC  Recovery = 99.01%
Mn 257.610†             1556.6      11.314 ug/L        0.1349      11.314 ppb         0.1349   1.19%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†             -304.0     -5.2273 ug/L       1.02024     -5.2273 ppb        1.02024  19.52%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        20.3      4.8382 ug/L      15.44361      4.8382 ppb       15.44361 319.20%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              153.7      3.4277 ug/L       0.33426      3.4277 ppb        0.33426   9.75%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -42.2      6.0256 ug/L       7.97359      6.0256 ppb        7.97359 132.33%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†            -1000.6     -2.2265 ug/L       4.26799     -2.2265 ppb        4.26799 191.69%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          49.4     -42.052 ug/L       22.8457     -42.052 ppb        22.8457  54.33%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               59.0      5.0098 ug/L       0.39340      5.0098 ppb        0.39340   7.85%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†            -1159.6      0.0035 ug/L      20.01827      0.0035 ppb       20.01827 >999.9%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                8.0      0.7729 ug/L       1.11364      0.7729 ppb        1.11364 144.09%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†             -448.3     -14.103 ug/L        1.9493     -14.103 ppb         1.9493  13.82%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              700.4     -0.7266 ug/L       0.12039     -0.7266 ppb        0.12039  16.57%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†           -15426.8      2.4780 ug/L       0.86118      2.4780 ppb        0.86118  34.75%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -62.9     -2.2768 ug/L       2.89927     -2.2768 ppb        2.89927 127.34%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              1317.0      13.320 ug/L        3.5118      13.320 ppb         3.5118  26.37%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              2965.3      1.4796 ug/L       0.38992      1.4796 ppb        0.38992  26.35%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†             3152.6     -8.4018 ug/L       0.87223     -8.4018 ppb        0.87223  10.38%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                    -12.4      0.4069 ug/L       3.93490      0.4069 ppb        3.93490 966.99%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 10
Sample ID: ICSAB
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 14
Date Collected: 12/18/2009 07:40:03
Data Type: Reprocessed on 12/18/2009 08:37:59

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSAB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc 361.383	771695.6	771695.6	83.435	%			07:42:28
1	Sc Radial	5110.8	5110.8	89.9	%			07:42:00
1	Y 371.029	613022.7	613022.7	80.670	%			07:42:28
1	Y RADIAL	5277.8	5277.8	90.17	%			07:42:00
1	Ag 328.068†	44516.7	53019.7	293.08	ug/L	293.08	ppb	07:42:28
1	Al 396.153Radial†	617389.9	687078.6	518710	ug/L	518710	ppb	07:41:55
1	As 188.979†	1131.2	1386.4	551.46	ug/L	551.46	ppb	07:42:48
1	B 249.677†	22732.9	27707.1	566.43	ug/L	566.43	ppb	07:42:28
1	Ba 233.527†	63558.9	76175.7	537.46	ug/L	537.46	ppb	07:42:28
1	Be 313.107†	626026.1	754999.0	268.66	ug/L	268.66	ppb	07:42:28
1	Ca 317.933Radial†	299302.6	333054.0	477260	ug/L	477260	ppb	07:41:55
1	Cd 226.502†	44329.2	53343.3	514.09	ug/L	514.09	ppb	07:42:28
1	Co 228.616†	22283.8	26799.8	476.65	ug/L	476.65	ppb	07:42:48
1	Cr 267.716†	42186.4	50458.5	525.80	ug/L	525.80	ppb	07:42:28
1	Cu 324.752†	173900.5	202301.6	601.34	ug/L	601.34	ppb	07:42:28
1	Fe 238.204 Radial†	22381.9	24891.7	186780	ug/L	186780	ppb	07:42:00
1	K 766.490 Radial†	32201.6	32831.8	5382.2	ug/L	5382.2	ppb	07:41:55
1	Mg 279.077 IEC†	14577.1	16219.1	487840	ug/L	487840	ppb	07:42:00
1	Mn 257.610†	431303.9	516436.5	536.08	ug/L	536.08	ppb	07:42:28
1	Mo 202.031†	6920.4	8266.8	521.84	ug/L	521.84	ppb	07:42:48
1	Na 589.592 Radial†	19244.1	22702.3	5418.8	ug/L	5418.8	ppb	07:42:00
1	Ni 231.604†	18134.0	21654.1	482.68	ug/L	482.68	ppb	07:42:48
1	P 214.914†	4486.8	5118.8	2666.8	ug/L	2666.8	ppb	07:42:48
1	Pb 220.353†	2965.5	3618.1	488.09	ug/L	488.09	ppb	07:42:48
1	S 181.975 Axial†	1955.9	2292.7	2837.6	ug/L	2837.6	ppb	07:42:48
1	Sb 206.836†	1608.2	1886.8	571.31	ug/L	571.31	ppb	07:42:48
1	Se 196.026†	3058.2	3699.7	2720.8	ug/L	2720.8	ppb	07:42:48
1	Si 251.611†	164545.7	196637.6	5687.5	ug/L	5687.5	ppb	07:42:28
1	Sn 189.927†	2523.8	3019.8	510.68	ug/L	510.68	ppb	07:42:48
1	Sr 421.552†	82024.7	91272.6	495.48	ug/L	495.48	ppb	07:41:55
1	Ti 334.940†	291498.1	350872.3	551.73	ug/L	551.73	ppb	07:42:28
1	Tl 190.801†	1449.2	1779.9	491.34	ug/L	491.34	ppb	07:42:48
1	U 409.014†	14460.6	20118.5	544.05	ug/L	544.05	ppb	07:42:28
1	V 292.402†	70848.4	86427.9	555.00	ug/L	555.00	ppb	07:42:28
1	Zn 213.857†	56929.8	67425.3	532.76	ug/L	532.76	ppb	07:42:28
1	SiO2†	163648.5	195537.2	12103	ug/L	12103	ppb	07:43:46
2	Sc 361.383	767608.7	767608.7	82.993	%			07:42:54
2	Sc Radial	5705.9	5705.9	100	%			07:42:10
2	Y 371.029	610321.1	610321.1	80.314	%			07:42:54
2	Y RADIAL	5867.5	5867.5	100.2	%			07:42:10
2	Ag 328.068†	44325.4	53073.3	286.48	ug/L	286.48	ppb	07:42:54
2	Al 396.153Radial†	623851.5	621861.1	469470	ug/L	469470	ppb	07:42:05
2	As 188.979†	1107.0	1364.5	539.81	ug/L	539.81	ppb	07:43:14
2	B 249.677†	22689.2	27799.7	571.39	ug/L	571.39	ppb	07:42:54
2	Ba 233.527†	63607.3	76639.6	539.87	ug/L	539.87	ppb	07:42:54
2	Be 313.107†	626849.2	759985.5	270.44	ug/L	270.44	ppb	07:42:54
2	Ca 317.933Radial†	302221.6	301224.6	431650	ug/L	431650	ppb	07:42:05
2	Cd 226.502†	44504.4	53837.3	521.27	ug/L	521.27	ppb	07:42:54
2	Co 228.616†	22223.4	26869.1	478.20	ug/L	478.20	ppb	07:43:14
2	Cr 267.716†	42518.5	51127.8	532.32	ug/L	532.32	ppb	07:42:54
2	Cu 324.752†	173617.8	203070.7	602.44	ug/L	602.44	ppb	07:42:54
2	Fe 238.204 Radial†	21973.9	21887.3	164230	ug/L	164230	ppb	07:42:10
2	K 766.490 Radial†	32553.4	29445.0	4826.6	ug/L	4826.6	ppb	07:42:05
2	Mg 279.077 IEC†	14398.3	14349.0	431600	ug/L	431600	ppb	07:42:10
2	Mn 257.610†	432361.7	520463.2	538.99	ug/L	538.99	ppb	07:42:54
2	Mo 202.031†	6902.0	8288.8	521.59	ug/L	521.59	ppb	07:43:14
2	Na 589.592 Radial†	19159.0	20383.9	4865.4	ug/L	4865.4	ppb	07:42:10
2	Ni 231.604†	18096.2	21724.3	484.25	ug/L	484.25	ppb	07:43:14

2	P 214.914†	4448.0	5100.7	2658.3	ug/L	2658.3 ppb	07:43:14
2	Pb 220.353†	2962.9	3633.9	480.58	ug/L	480.58 ppb	07:43:14
2	S 181.975 Axial†	1951.1	2299.4	2855.9	ug/L	2855.9 ppb	07:43:14
2	Sb 206.836†	1632.8	1926.7	584.34	ug/L	584.34 ppb	07:43:14
2	Se 196.026†	3041.9	3699.5	2645.4	ug/L	2645.4 ppb	07:43:14
2	Si 251.611†	164408.3	197522.0	5713.3	ug/L	5713.3 ppb	07:42:54
2	Sn 189.927†	2511.9	3021.6	505.89	ug/L	505.89 ppb	07:43:14
2	Sr 421.552†	82785.2	82510.4	447.91	ug/L	447.91 ppb	07:42:05
2	Ti 334.940†	293032.9	354581.7	554.92	ug/L	554.92 ppb	07:42:54
2	Tl 190.801†	1461.2	1803.6	496.35	ug/L	496.35 ppb	07:43:14
2	U 409.014†	14531.1	20295.8	551.88	ug/L	551.88 ppb	07:42:54
2	V 292.402†	71423.3	87572.7	564.66	ug/L	564.66 ppb	07:42:54
2	Zn 213.857†	57126.2	68025.2	541.91	ug/L	541.91 ppb	07:42:54
2	SiO2†	164034.8	197046.9	12197	ug/L	12197 ppb	07:43:51
3	Sc 361.383	810771.6	810771.6	87.660	%		07:43:20
3	Sc Radial	5374.4	5374.4	94.5	%		07:42:21
3	Y 371.029	644037.0	644037.0	84.751	%		07:43:20
3	Y RADIAL	5554.8	5554.8	94.90	%		07:42:21
3	Ag 328.068†	44229.4	50120.4	276.44	ug/L	276.44 ppb	07:43:20
3	Al 396.153Radial†	632624.6	669502.6	505440	ug/L	505440 ppb	07:42:16
3	As 188.979†	1110.1	1297.0	516.05	ug/L	516.05 ppb	07:43:40
3	B 249.677†	22632.2	26279.1	537.48	ug/L	537.48 ppb	07:43:20
3	Ba 233.527†	63456.9	72387.9	510.66	ug/L	510.66 ppb	07:43:20
3	Be 313.107†	624084.7	716622.1	255.00	ug/L	255.00 ppb	07:43:20
3	Ca 317.933Radial†	306063.9	323872.7	464100	ug/L	464100 ppb	07:42:16
3	Cd 226.502†	44331.8	50785.7	489.69	ug/L	489.69 ppb	07:43:20
3	Co 228.616†	22245.5	25468.9	453.00	ug/L	453.00 ppb	07:43:40
3	Cr 267.716†	42112.1	47936.8	499.48	ug/L	499.48 ppb	07:43:20
3	Cu 324.752†	173392.2	191676.5	569.67	ug/L	569.67 ppb	07:43:20
3	Fe 238.204 Radial†	22086.0	23356.9	175260	ug/L	175260 ppb	07:42:21
3	K 766.490 Radial†	32871.0	31782.6	5210.6	ug/L	5210.6 ppb	07:42:16
3	Mg 279.077 IEC†	14464.5	15304.4	460330	ug/L	460330 ppb	07:42:21
3	Mn 257.610†	430786.7	490932.3	509.45	ug/L	509.45 ppb	07:43:20
3	Mo 202.031†	6870.7	7810.4	492.95	ug/L	492.95 ppb	07:43:40
3	Na 589.592 Radial†	19032.7	21428.2	5114.7	ug/L	5114.7 ppb	07:42:21
3	Ni 231.604†	18089.6	20556.0	458.21	ug/L	458.21 ppb	07:43:40
3	P 214.914†	4462.0	4831.4	2522.9	ug/L	2522.9 ppb	07:43:40
3	Pb 220.353†	2955.7	3435.6	466.53	ug/L	466.53 ppb	07:43:40
3	S 181.975 Axial†	1954.5	2178.1	2693.3	ug/L	2693.3 ppb	07:43:40
3	Sb 206.836†	1627.0	1815.4	549.29	ug/L	549.29 ppb	07:43:40
3	Se 196.026†	3036.0	3497.7	2570.3	ug/L	2570.3 ppb	07:43:40
3	Si 251.611†	164146.7	186677.5	5399.5	ug/L	5399.5 ppb	07:43:20
3	Sn 189.927†	2512.2	2860.9	485.03	ug/L	485.03 ppb	07:43:40
3	Sr 421.552†	83978.1	88862.8	482.40	ug/L	482.40 ppb	07:42:16
3	Ti 334.940†	291204.4	333698.9	525.26	ug/L	525.26 ppb	07:43:20
3	Tl 190.801†	1456.5	1704.5	470.74	ug/L	470.74 ppb	07:43:40
3	U 409.014†	14448.7	19269.6	521.56	ug/L	521.56 ppb	07:43:20
3	V 292.402†	70920.8	82417.9	529.52	ug/L	529.52 ppb	07:43:20
3	Zn 213.857†	56940.1	64148.5	507.25	ug/L	507.25 ppb	07:43:20
3	SiO2†	164166.3	186674.8	11555	ug/L	11555 ppb	07:43:56

Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	783358.6	84.696	%	2.5763				3.04%
Sc Radial	5397.0	94.9	%	5.24				5.53%
Y 371.029	622460.3	81.912	%	2.4654				3.01%
Y RADIAL	5566.7	95.10	%	5.041				5.30%
Ag 328.068†	52071.1	285.33	ug/L	8.378	285.33	ppb	8.378	2.94%
QC value within limits for Ag 328.068 Recovery = 114.13%								
Al 396.153Radial†	659480.8	497880	ug/L	25476.4	497880	ppb	25476.4	5.12%
QC value within limits for Al 396.153Radial Recovery = 99.58%								
As 188.979†	1349.3	535.77	ug/L	18.049	535.77	ppb	18.049	3.37%
QC value within limits for As 188.979 Recovery = 107.15%								
B 249.677†	27262.0	558.44	ug/L	18.314	558.44	ppb	18.314	3.28%
QC value within limits for B 249.677 Recovery = 111.69%								
Ba 233.527†	75067.7	529.33	ug/L	16.214	529.33	ppb	16.214	3.06%
QC value within limits for Ba 233.527 Recovery = 105.87%								
Be 313.107†	743868.8	264.70	ug/L	8.444	264.70	ppb	8.444	3.19%
QC value within limits for Be 313.107 Recovery = 105.88%								

Ca 317.933Radial†	319383.7	457670 ug/L	23476.0	457670 ppb	23476.0	5.13%
QC value within limits for Ca 317.933Radial Recovery = 91.53%						
Cd 226.502†	52655.4	508.35 ug/L	16.552	508.35 ppb	16.552	3.26%
QC value within limits for Cd 226.502 Recovery = 101.67%						
Co 228.616†	26379.3	469.28 ug/L	14.122	469.28 ppb	14.122	3.01%
QC value within limits for Co 228.616 Recovery = 93.86%						
Cr 267.716†	49841.0	519.20 ug/L	17.386	519.20 ppb	17.386	3.35%
QC value within limits for Cr 267.716 Recovery = 103.84%						
Cu 324.752†	199016.3	591.15 ug/L	18.610	591.15 ppb	18.610	3.15%
QC value within limits for Cu 324.752 Recovery = 118.23%						
Fe 238.204 Radial†	23378.6	175420 ug/L	11272.0	175420 ppb	11272.0	6.43%
QC value within limits for Fe 238.204 Radial Recovery = 87.71%						
K 766.490 Radial†	31353.1	5139.8 ug/L	284.45	5139.8 ppb	284.45	5.53%
QC value within limits for K 766.490 Radial Recovery = 102.80%						
Mg 279.077 IEC†	15290.8	459920 ug/L	28125.4	459920 ppb	28125.4	6.12%
QC value within limits for Mg 279.077 IEC Recovery = 91.98%						
Mn 257.610†	509277.3	528.17 ug/L	16.284	528.17 ppb	16.284	3.08%
QC value within limits for Mn 257.610 Recovery = 105.63%						
Mo 202.031†	8122.0	512.13 ug/L	16.613	512.13 ppb	16.613	3.24%
QC value within limits for Mo 202.031 Recovery = 102.43%						
Na 589.592 Radial†	21504.8	5133.0 ug/L	277.15	5133.0 ppb	277.15	5.40%
QC value within limits for Na 589.592 Radial Recovery = 102.66%						
Ni 231.604†	21311.5	475.05 ug/L	14.605	475.05 ppb	14.605	3.07%
QC value within limits for Ni 231.604 Recovery = 95.01%						
P 214.914†	5017.0	2616.0 ug/L	80.72	2616.0 ppb	80.72	3.09%
QC value within limits for P 214.914 Recovery = 104.64%						
Pb 220.353†	3562.5	478.40 ug/L	10.945	478.40 ppb	10.945	2.29%
QC value within limits for Pb 220.353 Recovery = 95.68%						
S 181.975 Axial†	2256.7	2795.6 ug/L	89.06	2795.6 ppb	89.06	3.19%
QC value within limits for S 181.975 Axial Recovery = 111.83%						
Sb 206.836†	1876.3	568.31 ug/L	17.717	568.31 ppb	17.717	3.12%
QC value within limits for Sb 206.836 Recovery = 113.66%						
Se 196.026†	3632.3	2645.5 ug/L	75.22	2645.5 ppb	75.22	2.84%
QC value within limits for Se 196.026 Recovery = 105.82%						
Si 251.611†	193612.3	5600.1 ug/L	174.24	5600.1 ppb	174.24	3.11%
QC value within limits for Si 251.611 Recovery = 112.00%						
Sn 189.927†	2967.4	500.53 ug/L	13.639	500.53 ppb	13.639	2.72%
QC value within limits for Sn 189.927 Recovery = 100.11%						
Sr 421.552†	87548.6	475.26 ug/L	24.574	475.26 ppb	24.574	5.17%
QC value within limits for Sr 421.552 Recovery = 95.05%						
Ti 334.940†	346384.3	543.97 ug/L	16.284	543.97 ppb	16.284	2.99%
QC value within limits for Ti 334.940 Recovery = 108.79%						
Tl 190.801†	1762.7	486.14 ug/L	13.570	486.14 ppb	13.570	2.79%
QC value within limits for Tl 190.801 Recovery = 97.23%						
U 409.014†	19894.6	539.16 ug/L	15.740	539.16 ppb	15.740	2.92%
QC value within limits for U 409.014 Recovery = 107.83%						
V 292.402†	85472.8	549.73 ug/L	18.157	549.73 ppb	18.157	3.30%
QC value within limits for V 292.402 Recovery = 109.95%						
Zn 213.857†	66533.0	527.31 ug/L	17.966	527.31 ppb	17.966	3.41%
QC value within limits for Zn 213.857 Recovery = 105.46%						
SiO2†	193086.3	11952 ug/L	347.0	11952 ppb	347.0	2.90%
QC value within limits for SiO2 Recovery = 111.75%						

All analyte(s) passed QC.

Sequence No.: 11
Sample ID: LR1
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 15
Date Collected: 12/18/2009 07:46:06
Data Type: Reprocessed on 12/18/2009 08:38:00

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc 361.383	794454.4	794454.4	85.896	%			07:48:35
1	Sc Radial	5019.2	5019.2	88.3	%			07:48:05
1	Y 371.029	631359.2	631359.2	83.083	%			07:48:35
1	Y RADIAL	5169.3	5169.3	88.31	%			07:48:05
1	Ag 328.068†	-25003.9	-29444.6	-2.7988	ug/L	-2.7988	ppb	07:48:35
1	Al 396.153Radial†	601587.0	681709.8	514680	ug/L	514680	ppb	07:48:00
1	As 188.979†	-232.6	-240.1	-21.648	ug/L	-21.648	ppb	07:48:55
1	B 249.677†	1687.7	2425.8	-6.7848	ug/L	-6.7848	ppb	07:48:35
1	Ba 233.527†	-1807.6	-2106.3	1.8420	ug/L	1.8420	ppb	07:48:55
1	Be 313.107†	-11904.9	-9174.4	-3.2723	ug/L	-3.2723	ppb	07:48:35
1	Ca 317.933Radial†	295254.7	334545.4	479400	ug/L	479400	ppb	07:48:00
1	Cd 226.502†	3564.3	4362.9	-0.6380	ug/L	-0.6380	ppb	07:48:55
1	Co 228.616†	229.0	358.5	0.0164	ug/L	0.0164	ppb	07:48:55
1	Cr 267.716†	-34.4	-143.5	1.7229	ug/L	1.7229	ppb	07:48:55
1	Cu 324.752†	72.7	-6039.5	4.8797	ug/L	4.8797	ppb	07:48:35
1	Fe 238.204 Radial†	52003.8	58911.8	442010	ug/L	442010	ppb	07:48:05
1	K 766.490 Radial†	3013.9	412.2	-139.40	ug/L	-139.40	ppb	07:48:00
1	Mg 279.077 IEC†	14283.9	16182.9	486530	ug/L	486530	ppb	07:48:05
1	Mn 257.610†	-23011.6	-27286.2	7.1932	ug/L	7.1932	ppb	07:48:35
1	Mo 202.031†	-544.0	-660.8	-9.3010	ug/L	-9.3010	ppb	07:48:35
1	Na 589.592 Radial†	1937041.2	2196212.5	524210	ug/L	524210	ppb	07:48:00
1	Ni 231.604†	306.4	276.6	6.1660	ug/L	6.1660	ppb	07:48:55
1	P 214.914†	590.0	428.2	48.191	ug/L	48.191	ppb	07:48:55
1	Pb 220.353†	-664.7	-710.0	3.3417	ug/L	3.3417	ppb	07:48:55
1	S 181.975 Axial†	113.8	80.9	2.4645	ug/L	2.4645	ppb	07:48:55
1	Sb 206.836†	60.8	30.2	0.3298	ug/L	0.3298	ppb	07:48:55
1	Se 196.026†	-2377.8	-2734.0	-122.73	ug/L	-122.73	ppb	07:48:55
1	Si 251.611†	-476.2	-1130.4	-31.854	ug/L	-31.854	ppb	07:48:55
1	Sn 189.927†	-406.7	-478.5	-16.662	ug/L	-16.662	ppb	07:48:55
1	Sr 421.552†	888.5	1000.3	1.0352	ug/L	1.0352	ppb	07:48:05
1	Ti 334.940†	-7190.2	-6869.0	8.1503	ug/L	8.1503	ppb	07:48:35
1	Tl 190.801†	-149.4	-130.9	-21.110	ug/L	-21.110	ppb	07:48:55
1	U 409.014†	447495.7	523761.4	14746	ug/L	14746	ppb	07:48:35
1	V 292.402†	3558.9	5656.9	8.8890	ug/L	8.8890	ppb	07:48:35
1	Zn 213.857†	6441.2	6691.8	-2.2086	ug/L	-2.2086	ppb	07:48:55
1	SiO2†	-441.6	-1115.2	-67.197	ug/L	-67.197	ppb	07:49:54
2	Sc 361.383	790306.4	790306.4	85.447	%			07:49:02
2	Sc Radial	5071.9	5071.9	89.2	%			07:48:16
2	Y 371.029	628969.8	628969.8	82.769	%			07:49:02
2	Y RADIAL	5211.3	5211.3	89.03	%			07:48:16
2	Ag 328.068†	-24738.0	-29286.2	-2.2530	ug/L	-2.2530	ppb	07:49:02
2	Al 396.153Radial†	613028.4	687449.8	519020	ug/L	519020	ppb	07:48:11
2	As 188.979†	-247.8	-259.4	-28.919	ug/L	-28.919	ppb	07:49:22
2	B 249.677†	1755.4	2515.4	-4.8092	ug/L	-4.8092	ppb	07:49:02
2	Ba 233.527†	-1801.1	-2109.7	1.7998	ug/L	1.7998	ppb	07:49:22
2	Be 313.107†	-11816.2	-9143.3	-3.2618	ug/L	-3.2618	ppb	07:49:02
2	Ca 317.933Radial†	300295.4	336718.1	482510	ug/L	482510	ppb	07:48:11
2	Cd 226.502†	3551.7	4369.9	-0.5231	ug/L	-0.5231	ppb	07:49:22
2	Co 228.616†	215.3	343.8	-0.2395	ug/L	-0.2395	ppb	07:49:22
2	Cr 267.716†	-24.8	-132.5	1.8416	ug/L	1.8416	ppb	07:49:22
2	Cu 324.752†	20.4	-6100.1	4.6796	ug/L	4.6796	ppb	07:49:02
2	Fe 238.204 Radial†	52497.6	58852.6	441570	ug/L	441570	ppb	07:48:16
2	K 766.490 Radial†	2990.3	350.3	-151.58	ug/L	-151.58	ppb	07:48:11
2	Mg 279.077 IEC†	14479.7	16234.1	488070	ug/L	488070	ppb	07:48:16
2	Mn 257.610†	-23144.0	-27581.7	6.8189	ug/L	6.8189	ppb	07:49:02
2	Mo 202.031†	-544.6	-664.8	-9.5792	ug/L	-9.5792	ppb	07:49:02
2	Na 589.592 Radial†	1976648.3	2217797.4	529370	ug/L	529370	ppb	07:48:11
2	Ni 231.604†	319.5	293.8	6.5501	ug/L	6.5501	ppb	07:49:22

2	P 214.914†	588.5	430.0	50.977	ug/L	50.977 ppb	07:49:22
2	Pb 220.353†	-656.7	-704.7	4.9165	ug/L	4.9165 ppb	07:49:22
2	S 181.975 Axial†	128.4	98.7	24.451	ug/L	24.451 ppb	07:49:22
2	Sb 206.836†	52.0	20.2	-2.9302	ug/L	-2.9302 ppb	07:49:22
2	Se 196.026†	-2410.9	-2787.3	-153.43	ug/L	-153.43 ppb	07:49:22
2	Si 251.611†	-539.5	-1207.4	-34.065	ug/L	-34.065 ppb	07:49:22
2	Sn 189.927†	-427.0	-504.7	-20.316	ug/L	-20.316 ppb	07:49:22
2	Sr 421.552†	935.6	1042.6	1.2380	ug/L	1.2380 ppb	07:48:16
2	Ti 334.940†	-7309.6	-7052.7	8.0564	ug/L	8.0564 ppb	07:49:02
2	Tl 190.801†	-135.0	-115.0	-16.757	ug/L	-16.757 ppb	07:49:22
2	U 409.014†	443806.4	522178.1	14701	ug/L	14701 ppb	07:49:02
2	V 292.402†	3424.2	5521.0	8.0134	ug/L	8.0134 ppb	07:49:02
2	Zn 213.857†	6427.6	6715.3	-2.0223	ug/L	-2.0223 ppb	07:49:22
2	SiO2†	-565.2	-1262.6	-76.297	ug/L	-76.297 ppb	07:49:59
3	Sc 361.383	796884.8	796884.8	86.159	%		07:49:28
3	Sc Radial	5077.8	5077.8	89.3	%		07:48:27
3	Y 371.029	634593.9	634593.9	83.509	%		07:49:28
3	Y RADIAL	5192.9	5192.9	88.72	%		07:48:27
3	Ag 328.068†	-24885.9	-29218.8	-2.7293	ug/L	-2.7293 ppb	07:49:28
3	Al 396.153Radial†	605908.3	678681.1	512400	ug/L	512400 ppb	07:48:22
3	As 188.979†	-239.9	-247.8	-24.938	ug/L	-24.938 ppb	07:49:48
3	B 249.677†	1727.0	2465.5	-5.5607	ug/L	-5.5607 ppb	07:49:28
3	Ba 233.527†	-1854.8	-2154.6	1.3982	ug/L	1.3982 ppb	07:49:48
3	Be 313.107†	-11772.8	-8978.8	-3.2037	ug/L	-3.2037 ppb	07:49:28
3	Ca 317.933Radial†	298486.9	334303.7	479050	ug/L	479050 ppb	07:48:22
3	Cd 226.502†	3592.3	4382.7	-0.1578	ug/L	-0.1578 ppb	07:49:48
3	Co 228.616†	245.6	376.9	0.3749	ug/L	0.3749 ppb	07:49:48
3	Cr 267.716†	-12.2	-117.5	1.9424	ug/L	1.9424 ppb	07:49:48
3	Cu 324.752†	199.1	-5893.0	5.1638	ug/L	5.1638 ppb	07:49:28
3	Fe 238.204 Radial†	52274.1	58534.3	439180	ug/L	439180 ppb	07:48:27
3	K 766.490 Radial†	3085.9	453.4	-133.25	ug/L	-133.25 ppb	07:48:22
3	Mg 279.077 IEC†	14385.0	16109.3	484310	ug/L	484310 ppb	07:48:27
3	Mn 257.610†	-23659.5	-27956.4	6.2687	ug/L	6.2687 ppb	07:49:28
3	Mo 202.031†	-609.1	-734.5	-14.034	ug/L	-14.034 ppb	07:49:28
3	Na 589.592 Radial†	1961921.0	2198742.7	524820	ug/L	524820 ppb	07:48:22
3	Ni 231.604†	266.2	228.9	5.1008	ug/L	5.1008 ppb	07:49:48
3	P 214.914†	630.5	473.0	73.545	ug/L	73.545 ppb	07:49:48
3	Pb 220.353†	-688.9	-735.8	0.2922	ug/L	0.2922 ppb	07:49:48
3	S 181.975 Axial†	114.6	81.4	3.5182	ug/L	3.5182 ppb	07:49:48
3	Sb 206.836†	87.3	60.6	9.5042	ug/L	9.5042 ppb	07:49:48
3	Se 196.026†	-2418.2	-2772.4	-153.26	ug/L	-153.26 ppb	07:49:48
3	Si 251.611†	-567.6	-1234.8	-34.798	ug/L	-34.798 ppb	07:49:48
3	Sn 189.927†	-416.9	-488.8	-18.308	ug/L	-18.308 ppb	07:49:48
3	Sr 421.552†	896.9	998.1	1.0263	ug/L	1.0263 ppb	07:48:27
3	Ti 334.940†	-7413.7	-7102.9	7.7867	ug/L	7.7867 ppb	07:49:28
3	Tl 190.801†	-128.3	-105.9	-14.510	ug/L	-14.510 ppb	07:49:48
3	U 409.014†	448445.6	523275.0	14733	ug/L	14733 ppb	07:49:28
3	V 292.402†	3384.8	5442.2	7.7758	ug/L	7.7758 ppb	07:49:28
3	Zn 213.857†	6471.0	6703.5	-1.7567	ug/L	-1.7567 ppb	07:49:48
3	SiO2†	-594.5	-1291.2	-77.937	ug/L	-77.937 ppb	07:50:04

Mean Data: LR1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	793881.9	85.834	%	0.3596				0.42%
Sc Radial	5056.3	88.9	%	0.57				0.64%
Y 371.029	631640.9	83.120	%	0.3714				0.45%
Y RADIAL	5191.2	88.69	%	0.360				0.41%
Ag 328.068†	-29316.6	-2.5937	ug/L	0.29709	-2.5937	ppb	0.29709	11.45%
Al 396.153Radial†	682613.6	515360	ug/L	3362.4	515360	ppb	3362.4	0.65%
QC value within limits for Al 396.153Radial Recovery = 103.07%								
As 188.979†	-249.1	-25.168	ug/L	3.6413	-25.168	ppb	3.6413	14.47%
B 249.677†	2468.9	-5.7183	ug/L	0.99720	-5.7183	ppb	0.99720	17.44%
Ba 233.527†	-2123.5	1.6800	ug/L	0.24493	1.6800	ppb	0.24493	14.58%
Be 313.107†	-9098.9	-3.2459	ug/L	0.03698	-3.2459	ppb	0.03698	1.14%
Ca 317.933Radial†	335189.1	480320	ug/L	1905.4	480320	ppb	1905.4	0.40%
QC value within limits for Ca 317.933Radial Recovery = 96.06%								
Cd 226.502†	4371.8	-0.4396	ug/L	0.25079	-0.4396	ppb	0.25079	57.04%
Co 228.616†	359.7	0.0506	ug/L	0.30861	0.0506	ppb	0.30861	609.77%
Cr 267.716†	-131.2	1.8356	ug/L	0.10987	1.8356	ppb	0.10987	5.99%

Cu 324.752†	-6010.9	4.9077	ug/L	0.24330	4.9077	ppb	0.24330	4.96%
Fe 238.204 Radial†	58766.3	440920	ug/L	1523.1	440920	ppb	1523.1	0.35%
QC value less than the lower limit for Fe 238.204 Radial Recovery = 88.18%								
K 766.490 Radial†	405.3	-141.41	ug/L	9.330	-141.41	ppb	9.330	6.60%
Mg 279.077 IEC†	16175.5	486300	ug/L	1886.7	486300	ppb	1886.7	0.39%
QC value within limits for Mg 279.077 IEC Recovery = 97.26%								
Mn 257.610†	-27608.1	6.7603	ug/L	0.46503	6.7603	ppb	0.46503	6.88%
Mo 202.031†	-686.7	-10.971	ug/L	2.6559	-10.971	ppb	2.6559	24.21%
Na 589.592 Radial†	2204250.8	526130	ug/L	2816.5	526130	ppb	2816.5	0.54%
QC value within limits for Na 589.592 Radial Recovery = 105.23%								
Ni 231.604†	266.4	5.9390	ug/L	0.75086	5.9390	ppb	0.75086	12.64%
P 214.914†	443.7	57.571	ug/L	13.9039	57.571	ppb	13.9039	24.15%
Pb 220.353†	-716.8	2.8501	ug/L	2.35103	2.8501	ppb	2.35103	82.49%
S 181.975 Axial†	87.0	10.144	ug/L	12.4009	10.144	ppb	12.4009	122.24%
Sb 206.836†	37.0	2.3013	ug/L	6.44739	2.3013	ppb	6.44739	280.17%
Se 196.026†	-2764.5	-143.14	ug/L	17.675	-143.14	ppb	17.675	12.35%
Si 251.611†	-1190.9	-33.572	ug/L	1.5327	-33.572	ppb	1.5327	4.57%
Sn 189.927†	-490.7	-18.428	ug/L	1.8296	-18.428	ppb	1.8296	9.93%
Sr 421.552†	1013.7	1.0998	ug/L	0.11972	1.0998	ppb	0.11972	10.89%
Ti 334.940†	-7008.2	7.9978	ug/L	0.18876	7.9978	ppb	0.18876	2.36%
Tl 190.801†	-117.3	-17.459	ug/L	3.3554	-17.459	ppb	3.3554	19.22%
U 409.014†	523071.5	14727	ug/L	22.9	14727	ppb	22.9	0.16%
QC value within limits for U 409.014 Recovery = 98.18%								
V 292.402†	5540.0	8.2261	ug/L	0.58632	8.2261	ppb	0.58632	7.13%
Zn 213.857†	6703.5	-1.9959	ug/L	0.22712	-1.9959	ppb	0.22712	11.38%
SiO2†	-1223.0	-73.810	ug/L	5.7857	-73.810	ppb	5.7857	7.84%

QC Failed. Continue with analysis.

Sequence No.: 12
Sample ID: LR2
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 16
Date Collected: 12/18/2009 07:52:14
Data Type: Reprocessed on 12/18/2009 08:38:02

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR2

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc 361.383	903928.2	903928.2	97.732	%			07:55:49
1	Sc Radial	5609.8	5609.8	98.6	%			07:54:11
1	Y 371.029	717673.5	717673.5	94.441	%			07:55:49
1	Y RADIAL	5719.8	5719.8	97.72	%			07:54:11
1	Ag 328.068†	-8825.3	-9365.2	-1.5267	ug/L	-1.5267	ppb	07:55:54
1	Al 396.153Radial†	584.2	624.0	48.950	ug/L	48.950	ppb	07:54:11
1	As 188.979†	26455.2	27099.7	10227	ug/L	10227	ppb	07:55:54
1	B 249.677†	235612.6	241540.9	5140.7	ug/L	5140.7	ppb	07:55:49
1	Ba 233.527†	2061320.5	2109151.0	14677	ug/L	14677	ppb	07:55:49
1	Be 313.107†	8209014.2	8404187.3	2998.9	ug/L	2998.9	ppb	07:55:42
1	Ca 317.933Radial†	40.8	23.8	34.143	ug/L	34.143	ppb	07:54:31
1	Cd 226.502†	981429.2	1004416.3	10032	ug/L	10032	ppb	07:55:49
1	Co 228.616†	513903.7	525920.5	9402.5	ug/L	9402.5	ppb	07:55:54
1	Cr 267.716†	2321454.7	2375220.0	24573	ug/L	24573	ppb	07:55:49
1	Cu 324.752†	6933058.9	7087814.5	20735	ug/L	20735	ppb	07:55:42
1	Fe 238.204 Radial†	-21.4	-37.2	17.713	ug/L	17.713	ppb	07:54:31
1	K 766.490 Radial†	1719837.7	1740616.5	284760	ug/L	284760	ppb	07:54:06
1	Mg 279.077 IEC†	-5.7	-8.4	-53.779	ug/L	-53.779	ppb	07:54:31
1	Mn 257.610†	9306679.6	9522142.3	9708.5	ug/L	9708.5	ppb	07:55:42
1	Mo 202.031†	156669.7	160277.6	9860.6	ug/L	9860.6	ppb	07:55:54
1	Na 589.592 Radial†	-701.3	576.0	137.48	ug/L	137.48	ppb	07:54:11
1	Ni 231.604†	440838.2	450987.6	10053	ug/L	10053	ppb	07:55:49
1	P 214.914†	35935.9	36511.1	16295	ug/L	16295	ppb	07:55:54
1	Pb 220.353†	228355.8	233718.6	24957	ug/L	24957	ppb	07:55:54
1	S 181.975 Axial†	40729.9	41623.4	53370	ug/L	53370	ppb	07:55:54
1	Sb 206.836†	34419.1	35177.1	10538	ug/L	10538	ppb	07:55:54
1	Se 196.026†	17959.6	18410.6	10379	ug/L	10379	ppb	07:55:54
1	Si 251.611†	1652216.9	1689980.1	48685	ug/L	48685	ppb	07:55:49
1	Sn 189.927†	68367.2	69948.7	10617	ug/L	10617	ppb	07:55:54
1	Sr 421.552†	1687720.2	1711051.3	9371.4	ug/L	9371.4	ppb	07:54:06
1	Ti 334.940†	6581488.6	6735711.9	10113	ug/L	10113	ppb	07:55:42
1	Tl 190.801†	36045.2	36924.6	9890.8	ug/L	9890.8	ppb	07:55:54
1	U 409.014†	-1381.6	1373.3	-8.5860	ug/L	-8.5860	ppb	07:55:54
1	V 292.402†	1531568.1	1568621.3	10371	ug/L	10371	ppb	07:55:49
1	Zn 213.857†	1692234.4	1730695.2	14570	ug/L	14570	ppb	07:55:49
1	SiO2†	1658941.0	1696835.2	104600	ug/L	104600	ppb	07:56:41
2	Sc 361.383	900674.3	900674.3	97.380	%			07:56:09
2	Sc Radial	5530.8	5530.8	97.2	%			07:54:42
2	Y 371.029	714923.8	714923.8	94.080	%			07:56:09
2	Y RADIAL	5634.7	5634.7	96.26	%			07:54:42
2	Ag 328.068†	-8974.9	-9551.4	-2.3708	ug/L	-2.3708	ppb	07:56:14
2	Al 396.153Radial†	607.2	656.1	67.391	ug/L	67.391	ppb	07:54:42
2	As 188.979†	26800.4	27551.9	10396	ug/L	10396	ppb	07:56:14
2	B 249.677†	234895.6	241675.7	5143.3	ug/L	5143.3	ppb	07:56:09
2	Ba 233.527†	2054837.9	2110113.8	14684	ug/L	14684	ppb	07:56:09
2	Be 313.107†	8219972.3	8445785.6	3013.7	ug/L	3013.7	ppb	07:56:02
2	Ca 317.933Radial†	36.5	20.0	28.702	ug/L	28.702	ppb	07:55:02
2	Cd 226.502†	976681.3	1003168.6	10020	ug/L	10020	ppb	07:56:09
2	Co 228.616†	516855.9	530851.8	9491.0	ug/L	9491.0	ppb	07:56:14
2	Cr 267.716†	2311762.9	2373849.0	24559	ug/L	24559	ppb	07:56:09
2	Cu 324.752†	6920476.7	7100522.5	20772	ug/L	20772	ppb	07:56:02
2	Fe 238.204 Radial†	-24.4	-40.5	-4.6082	ug/L	-4.6082	ppb	07:55:02
2	K 766.490 Radial†	1725712.4	1771561.5	289820	ug/L	289820	ppb	07:54:37
2	Mg 279.077 IEC†	-5.5	-8.3	-46.700	ug/L	-46.700	ppb	07:55:02
2	Mn 257.610†	9304376.6	9554180.4	9741.2	ug/L	9741.2	ppb	07:56:02
2	Mo 202.031†	158242.9	162472.3	9995.7	ug/L	9995.7	ppb	07:56:14
2	Na 589.592 Radial†	-612.2	657.5	156.94	ug/L	156.94	ppb	07:54:42
2	Ni 231.604†	438791.3	450515.3	10043	ug/L	10043	ppb	07:56:09

2	P 214.914†	36121.6	36834.5	16464	ug/L	16464	ppb	07:56:14
2	Pb 220.353†	230154.4	236409.6	25245	ug/L	25245	ppb	07:56:14
2	S 181.975 Axial†	41103.7	42157.8	54055	ug/L	54055	ppb	07:56:14
2	Sb 206.836†	34786.5	35681.6	10698	ug/L	10698	ppb	07:56:14
2	Se 196.026†	18220.2	18744.6	10567	ug/L	10567	ppb	07:56:14
2	Si 251.611†	1647882.9	1691637.1	48729	ug/L	48729	ppb	07:56:09
2	Sn 189.927†	68943.1	70792.7	10745	ug/L	10745	ppb	07:56:14
2	Sr 421.552†	1690737.3	1738592.8	9522.3	ug/L	9522.3	ppb	07:54:37
2	Ti 334.940†	6577924.6	6756381.2	10144	ug/L	10144	ppb	07:56:02
2	Tl 190.801†	36463.5	37487.4	10041	ug/L	10041	ppb	07:56:14
2	U 409.014†	-1346.4	1404.4	-7.6776	ug/L	-7.6776	ppb	07:56:14
2	V 292.402†	1525804.0	1568363.8	10372	ug/L	10372	ppb	07:56:09
2	Zn 213.857†	1687794.5	1732391.4	14584	ug/L	14584	ppb	07:56:09
2	SiO2†	1652865.8	1696729.0	104590	ug/L	104590	ppb	07:56:48
3	Sc 361.383	891250.4	891250.4	96.361	%			07:56:28
3	Sc Radial	5511.2	5511.2	96.9	%			07:55:12
3	Y 371.029	708547.4	708547.4	93.240	%			07:56:28
3	Y RADIAL	5647.6	5647.6	96.48	%			07:55:12
3	Ag 328.068†	-8740.8	-9406.0	-1.7436	ug/L	-1.7436	ppb	07:56:34
3	Al 396.153Radial†	576.3	626.4	44.682	ug/L	44.682	ppb	07:55:12
3	As 188.979†	26547.7	27580.8	10407	ug/L	10407	ppb	07:56:34
3	B 249.677†	231852.1	241067.7	5130.2	ug/L	5130.2	ppb	07:56:28
3	Ba 233.527†	2031995.0	2108720.2	14674	ug/L	14674	ppb	07:56:28
3	Be 313.107†	8141702.4	8453814.0	3016.6	ug/L	3016.6	ppb	07:56:22
3	Ca 317.933Radial†	37.5	21.2	30.443	ug/L	30.443	ppb	07:55:32
3	Cd 226.502†	963826.9	1000433.7	9992.4	ug/L	9992.4	ppb	07:56:28
3	Co 228.616†	513996.9	533497.0	9538.2	ug/L	9538.2	ppb	07:56:34
3	Cr 267.716†	2285998.4	2372213.1	24542	ug/L	24542	ppb	07:56:28
3	Cu 324.752†	6867967.7	7121174.5	20832	ug/L	20832	ppb	07:56:22
3	Fe 238.204 Radial†	-23.0	-39.1	7.4247	ug/L	7.4247	ppb	07:55:32
3	K 766.490 Radial†	1729040.2	1781313.8	291420	ug/L	291420	ppb	07:55:07
3	Mg 279.077 IEC†	-5.4	-8.2	-44.151	ug/L	-44.151	ppb	07:55:32
3	Mn 257.610†	9224250.2	9572056.9	9759.4	ug/L	9759.4	ppb	07:56:22
3	Mo 202.031†	156683.1	162571.8	10002	ug/L	10002	ppb	07:56:34
3	Na 589.592 Radial†	-711.7	552.6	131.90	ug/L	131.90	ppb	07:55:12
3	Ni 231.604†	433006.0	449276.0	10015	ug/L	10015	ppb	07:56:28
3	P 214.914†	35879.6	36975.7	16530	ug/L	16530	ppb	07:56:34
3	Pb 220.353†	228346.5	237032.6	25311	ug/L	25311	ppb	07:56:34
3	S 181.975 Axial†	40738.9	42225.6	54142	ug/L	54142	ppb	07:56:34
3	Sb 206.836†	34450.0	35710.2	10708	ug/L	10708	ppb	07:56:34
3	Se 196.026†	18015.5	18730.0	10559	ug/L	10559	ppb	07:56:34
3	Si 251.611†	1627725.1	1688611.0	48640	ug/L	48640	ppb	07:56:28
3	Sn 189.927†	68451.9	71031.6	10781	ug/L	10781	ppb	07:56:34
3	Sr 421.552†	1686972.7	1740897.8	9534.9	ug/L	9534.9	ppb	07:55:07
3	Ti 334.940†	6521129.1	6768865.3	10163	ug/L	10163	ppb	07:56:22
3	Tl 190.801†	36156.1	37564.3	10061	ug/L	10061	ppb	07:56:34
3	U 409.014†	-1434.3	1298.6	-10.636	ug/L	-10.636	ppb	07:56:34
3	V 292.402†	1508867.3	1567355.0	10365	ug/L	10365	ppb	07:56:28
3	Zn 213.857†	1667999.3	1730175.0	14566	ug/L	14566	ppb	07:56:28
3	SiO2†	1668113.0	1730498.9	106680	ug/L	106680	ppb	07:56:56

Mean Data: LR2

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	898617.6	97.158	%	0.7119				0.73%
Sc Radial	5550.6	97.6	%	0.92				0.94%
Y 371.029	713714.9	93.920	%	0.6161				0.66%
Y RADIAL	5667.4	96.82	%	0.784				0.81%
Ag 328.068†	-9440.9	-1.8803	ug/L	0.43836	-1.8803	ppb	0.43836	23.31%
Al 396.153Radial†	635.5	53.674	ug/L	12.0689	53.674	ppb	12.0689	22.49%
As 188.979†	27410.8	10343	ug/L	101.1	10343	ppb	101.1	0.98%
QC value within limits for As 188.979 Recovery = 103.43%								
B 249.677†	241428.1	5138.1	ug/L	6.94	5138.1	ppb	6.94	0.13%
QC value within limits for B 249.677 Recovery = 102.76%								
Ba 233.527†	2109328.4	14679	ug/L	5.0	14679	ppb	5.0	0.03%
QC value within limits for Ba 233.527 Recovery = 97.86%								
Be 313.107†	8434595.6	3009.7	ug/L	9.49	3009.7	ppb	9.49	0.32%
QC value within limits for Be 313.107 Recovery = 100.32%								
Ca 317.933Radial†	21.7	31.096	ug/L	2.7785	31.096	ppb	2.7785	8.94%
Cd 226.502†	1002672.9	10015	ug/L	20.3	10015	ppb	20.3	0.20%

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   QC value within limits for Cd 226.502  Recovery = 100.15%
Co 228.616†          530089.8      9477.2 ug/L        68.89      9477.2 ppb        68.89   0.73%
   QC value within limits for Co 228.616  Recovery = 94.77%
Cr 267.716†         2373760.7       24558 ug/L         15.6       24558 ppb         15.6   0.06%
   QC value within limits for Cr 267.716  Recovery = 98.23%
Cu 324.752†         7103170.5       20780 ug/L         49.3       20780 ppb         49.3   0.24%
   QC value within limits for Cu 324.752  Recovery = 103.90%
Fe 238.204 Radial†      -38.9      6.8433 ug/L     11.17210      6.8433 ppb     11.17210 163.26%
K 766.490 Radial†   1764497.3      288670 ug/L       3477.2      288670 ppb       3477.2   1.20%
   QC value within limits for K 766.490 Radial  Recovery = 96.22%
Mg 279.077 IEC†         -8.3     -48.210 ug/L       4.9886     -48.210 ppb       4.9886  10.35%
Mn 257.610†         9549459.9      9736.4 ug/L        25.78      9736.4 ppb        25.78   0.26%
   QC value within limits for Mn 257.610  Recovery = 97.36%
Mo 202.031†          161773.9      9952.7 ug/L        79.78      9952.7 ppb        79.78   0.80%
   QC value within limits for Mo 202.031  Recovery = 99.53%
Na 589.592 Radial†      595.4      142.11 ug/L       13.146      142.11 ppb       13.146   9.25%
Ni 231.604†          450259.6       10037 ug/L        19.8       10037 ppb         19.8   0.20%
   QC value within limits for Ni 231.604  Recovery = 100.37%
P 214.914†            36773.8       16430 ug/L       120.9       16430 ppb        120.9   0.74%
   QC value within limits for P 214.914  Recovery = 109.53%
Pb 220.353†          235720.3       25171 ug/L       188.2       25171 ppb        188.2   0.75%
   QC value within limits for Pb 220.353  Recovery = 100.68%
S 181.975 Axial†      42002.3       53856 ug/L       422.9       53856 ppb        422.9   0.79%
   QC value within limits for S 181.975 Axial  Recovery = 107.71%
Sb 206.836†           35523.0       10648 ug/L        95.1       10648 ppb         95.1   0.89%
   QC value within limits for Sb 206.836  Recovery = 106.48%
Se 196.026†           18628.4       10501 ug/L       106.3       10501 ppb        106.3   1.01%
   QC value within limits for Se 196.026  Recovery = 105.01%
Si 251.611†         1690076.0       48685 ug/L        44.2       48685 ppb         44.2   0.09%
   QC value within limits for Si 251.611  Recovery = 97.37%
Sn 189.927†           70591.0       10714 ug/L        86.4       10714 ppb         86.4   0.81%
   QC value within limits for Sn 189.927  Recovery = 107.14%
Sr 421.552†         1730180.6      9476.2 ug/L       90.95      9476.2 ppb        90.95   0.96%
   QC value within limits for Sr 421.552  Recovery = 94.76%
Ti 334.940†         6753652.8       10140 ug/L        25.2       10140 ppb         25.2   0.25%
   QC value within limits for Ti 334.940  Recovery = 101.40%
Tl 190.801†           37325.4      9997.5 ug/L       92.94      9997.5 ppb        92.94   0.93%
   QC value within limits for Tl 190.801  Recovery = 99.97%
U 409.014†             1358.8     -8.9664 ug/L     1.51529     -8.9664 ppb      1.51529  16.90%
V 292.402†          1568113.4       10369 ug/L         3.7       10369 ppb          3.7   0.04%
   QC value within limits for V 292.402  Recovery = 103.69%
Zn 213.857†         1731087.2       14573 ug/L         9.8       14573 ppb          9.8   0.07%
   QC value within limits for Zn 213.857  Recovery = 97.16%
SiO2†               1708021.0      105290 ug/L      1203.8      105290 ppb       1203.8   1.14%
   QC value within limits for SiO2  Recovery = 98.40%
All analyte(s) passed QC.
```

Sequence No.: 13
Sample ID: CCV
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 12/18/2009 07:59:06
Data Type: Reprocessed on 12/18/2009 08:38:03

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc 361.383	950609.4	950609.4	102.78	%			08:02:17
1	Sc Radial	5643.1	5643.1	99.2	%			08:00:58
1	Y 371.029	762079.8	762079.8	100.28	%			08:02:17
1	Y RADIAL	5769.9	5769.9	98.57	%			08:00:58
1	Ag 328.068†	117703.9	114186.0	511.32	ug/L	511.32	ppb	08:02:17
1	Al 396.153Radial†	6624.4	6708.0	5042.7	ug/L	5042.7	ppb	08:00:58
1	As 188.979†	1431.2	1423.1	537.03	ug/L	537.03	ppb	08:02:37
1	B 249.677†	25239.3	25017.8	532.94	ug/L	532.94	ppb	08:02:17
1	Ba 233.527†	76113.3	74053.3	515.85	ug/L	515.85	ppb	08:02:17
1	Be 313.107†	1494844.9	1459107.5	518.21	ug/L	518.21	ppb	08:02:17
1	Ca 317.933Radial†	3559.5	3570.0	5115.7	ug/L	5115.7	ppb	08:01:18
1	Cd 226.502†	53144.8	51920.9	518.06	ug/L	518.06	ppb	08:02:17
1	Co 228.616†	28989.5	28297.4	506.04	ug/L	506.04	ppb	08:02:37
1	Cr 267.716†	50944.5	49463.5	512.19	ug/L	512.19	ppb	08:02:17
1	Cu 324.752†	185495.1	174355.0	510.33	ug/L	510.33	ppb	08:02:17
1	Fe 238.204 Radial†	704.9	695.0	5230.6	ug/L	5230.6	ppb	08:01:18
1	K 766.490 Radial†	34797.0	32067.2	5238.9	ug/L	5238.9	ppb	08:00:58
1	Mg 279.077 IEC†	174.8	173.5	5226.7	ug/L	5226.7	ppb	08:01:18
1	Mn 257.610†	522146.5	507530.9	517.89	ug/L	517.89	ppb	08:02:17
1	Mo 202.031†	8528.3	8270.2	509.17	ug/L	509.17	ppb	08:02:37
1	Na 589.592 Radial†	40557.6	42162.9	10064	ug/L	10064	ppb	08:00:58
1	Ni 231.604†	23434.5	22720.7	506.46	ug/L	506.46	ppb	08:02:37
1	P 214.914†	5186.5	4787.5	2476.2	ug/L	2476.2	ppb	08:02:37
1	Pb 220.353†	4877.4	4809.3	514.94	ug/L	514.94	ppb	08:02:37
1	S 181.975 Axial†	870.6	795.5	1019.0	ug/L	1019.0	ppb	08:02:37
1	Sb 206.836†	1762.4	1674.0	518.44	ug/L	518.44	ppb	08:02:37
1	Se 196.026†	914.4	924.0	537.49	ug/L	537.49	ppb	08:02:37
1	Si 251.611†	91182.2	88140.4	2542.6	ug/L	2542.6	ppb	08:02:17
1	Sn 189.927†	3429.3	3331.5	506.26	ug/L	506.26	ppb	08:02:37
1	Sr 421.552†	90260.0	90961.8	498.15	ug/L	498.15	ppb	08:00:58
1	Ti 334.940†	348215.9	340301.5	511.26	ug/L	511.26	ppb	08:02:17
1	Tl 190.801†	1941.0	1931.5	517.41	ug/L	517.41	ppb	08:02:37
1	U 409.014†	15005.9	17387.1	489.72	ug/L	489.72	ppb	08:02:17
1	V 292.402†	78307.9	77704.0	514.59	ug/L	514.59	ppb	08:02:17
1	Zn 213.857†	63737.6	61207.0	513.90	ug/L	513.90	ppb	08:02:17
1	SiO2†	89755.8	86727.6	5353.3	ug/L	5353.3	ppb	08:03:38
2	Sc 361.383	936907.4	936907.4	101.30	%			08:02:45
2	Sc Radial	5761.8	5761.8	101	%			08:01:23
2	Y 371.029	751569.4	751569.4	98.902	%			08:02:45
2	Y RADIAL	5930.5	5930.5	101.3	%			08:01:23
2	Ag 328.068†	116294.4	114469.3	512.53	ug/L	512.53	ppb	08:02:45
2	Al 396.153Radial†	6722.2	6667.1	5011.5	ug/L	5011.5	ppb	08:01:23
2	As 188.979†	1407.3	1419.9	535.81	ug/L	535.81	ppb	08:03:05
2	B 249.677†	24929.5	25071.1	534.09	ug/L	534.09	ppb	08:02:45
2	Ba 233.527†	74941.6	73979.6	515.34	ug/L	515.34	ppb	08:02:45
2	Be 313.107†	1471092.9	1456930.2	517.44	ug/L	517.44	ppb	08:02:45
2	Ca 317.933Radial†	3577.7	3514.0	5035.5	ug/L	5035.5	ppb	08:01:43
2	Cd 226.502†	52356.7	51899.2	517.86	ug/L	517.86	ppb	08:02:45
2	Co 228.616†	28821.1	28543.7	510.45	ug/L	510.45	ppb	08:03:05
2	Cr 267.716†	50270.9	49523.5	512.80	ug/L	512.80	ppb	08:02:45
2	Cu 324.752†	183271.3	174799.1	511.62	ug/L	511.62	ppb	08:02:45
2	Fe 238.204 Radial†	698.9	674.5	5076.6	ug/L	5076.6	ppb	08:01:43
2	K 766.490 Radial†	34851.2	31398.2	5129.5	ug/L	5129.5	ppb	08:01:23
2	Mg 279.077 IEC†	177.7	172.8	5205.4	ug/L	5205.4	ppb	08:01:43
2	Mn 257.610†	515090.6	507995.1	518.35	ug/L	518.35	ppb	08:02:45
2	Mo 202.031†	8482.5	8346.3	513.84	ug/L	513.84	ppb	08:03:05
2	Na 589.592 Radial†	40650.2	41412.2	9884.7	ug/L	9884.7	ppb	08:01:23
2	Ni 231.604†	23362.8	22983.4	512.31	ug/L	512.31	ppb	08:03:05

2	P 214.914†	5156.0	4831.1	2499.5	ug/L	2499.5 ppb	08:03:05
2	Pb 220.353†	4864.8	4866.3	521.04	ug/L	521.04 ppb	08:03:05
2	S 181.975 Axial†	871.6	808.8	1036.1	ug/L	1036.1 ppb	08:03:05
2	Sb 206.836†	1743.8	1680.8	520.72	ug/L	520.72 ppb	08:03:05
2	Se 196.026†	918.1	940.6	546.39	ug/L	546.39 ppb	08:03:05
2	Si 251.611†	89775.2	88048.9	2539.9	ug/L	2539.9 ppb	08:02:45
2	Sn 189.927†	3432.2	3383.2	514.10	ug/L	514.10 ppb	08:03:05
2	Sr 421.552†	91456.9	90269.3	494.36	ug/L	494.36 ppb	08:01:23
2	Ti 334.940†	343237.9	340342.1	511.31	ug/L	511.31 ppb	08:02:45
2	Tl 190.801†	1946.8	1964.8	526.28	ug/L	526.28 ppb	08:03:05
2	U 409.014†	14788.6	17386.2	489.71	ug/L	489.71 ppb	08:02:45
2	V 292.402†	77133.7	77659.1	514.39	ug/L	514.39 ppb	08:02:45
2	Zn 213.857†	62807.8	61196.1	513.79	ug/L	513.79 ppb	08:02:45
2	SiO2†	90546.6	88785.4	5480.8	ug/L	5480.8 ppb	08:03:43
3	Sc 361.383	948036.1	948036.1	102.50	%		08:03:12
3	Sc Radial	5627.5	5627.5	98.9	%		08:01:49
3	Y 371.029	760307.4	760307.4	100.05	%		08:03:12
3	Y RADIAL	5793.7	5793.7	98.98	%		08:01:49
3	Ag 328.068†	117102.7	113910.3	510.09	ug/L	510.09 ppb	08:03:12
3	Al 396.153Radial†	6867.3	6972.0	5242.1	ug/L	5242.1 ppb	08:01:49
3	As 188.979†	1405.5	1401.8	529.06	ug/L	529.06 ppb	08:03:32
3	B 249.677†	25174.6	25021.4	533.03	ug/L	533.03 ppb	08:03:12
3	Ba 233.527†	75537.6	73692.7	513.35	ug/L	513.35 ppb	08:03:12
3	Be 313.107†	1485760.8	1454192.8	516.47	ug/L	516.47 ppb	08:03:12
3	Ca 317.933Radial†	3582.3	3603.0	5163.0	ug/L	5163.0 ppb	08:02:09
3	Cd 226.502†	52757.5	51683.4	515.68	ug/L	515.68 ppb	08:03:12
3	Co 228.616†	28770.1	28159.9	503.58	ug/L	503.58 ppb	08:03:32
3	Cr 267.716†	50566.6	49229.4	509.77	ug/L	509.77 ppb	08:03:12
3	Cu 324.752†	184939.2	174302.6	510.17	ug/L	510.17 ppb	08:03:12
3	Fe 238.204 Radial†	702.3	694.3	5225.2	ug/L	5225.2 ppb	08:02:09
3	K 766.490 Radial†	35131.0	32502.0	5310.0	ug/L	5310.0 ppb	08:01:49
3	Mg 279.077 IEC†	179.8	179.0	5392.7	ug/L	5392.7 ppb	08:02:09
3	Mn 257.610†	518809.0	505653.8	515.97	ug/L	515.97 ppb	08:03:12
3	Mo 202.031†	8456.2	8222.4	506.23	ug/L	506.23 ppb	08:03:32
3	Na 589.592 Radial†	41113.4	42838.0	10225	ug/L	10225 ppb	08:01:49
3	Ni 231.604†	23265.0	22617.2	504.15	ug/L	504.15 ppb	08:03:32
3	P 214.914†	5143.5	4759.2	2461.2	ug/L	2461.2 ppb	08:03:32
3	Pb 220.353†	4839.0	4784.7	512.35	ug/L	512.35 ppb	08:03:32
3	S 181.975 Axial†	872.9	800.0	1024.7	ug/L	1024.7 ppb	08:03:32
3	Sb 206.836†	1742.0	1658.9	513.77	ug/L	513.77 ppb	08:03:32
3	Se 196.026†	911.6	923.7	537.33	ug/L	537.33 ppb	08:03:32
3	Si 251.611†	90499.0	87714.7	2530.3	ug/L	2530.3 ppb	08:03:12
3	Sn 189.927†	3407.9	3319.7	504.48	ug/L	504.48 ppb	08:03:32
3	Sr 421.552†	92887.7	93869.8	514.08	ug/L	514.08 ppb	08:01:49
3	Ti 334.940†	346451.2	339499.4	510.05	ug/L	510.05 ppb	08:03:12
3	Tl 190.801†	1924.8	1920.8	514.58	ug/L	514.58 ppb	08:03:32
3	U 409.014†	14955.6	17377.7	489.46	ug/L	489.46 ppb	08:03:12
3	V 292.402†	78020.1	77630.1	514.07	ug/L	514.07 ppb	08:03:12
3	Zn 213.857†	63336.8	60984.3	512.03	ug/L	512.03 ppb	08:03:12
3	SiO2†	89879.1	87084.9	5375.5	ug/L	5375.5 ppb	08:03:48

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	945184.3	102.19	%	0.787				0.77%
Sc Radial	5677.5	99.8	%	1.29				1.29%
Y 371.029	757985.5	99.746	%	0.7404				0.74%
Y RADIAL	5831.4	99.62	%	1.480				1.49%
Ag 328.068†	114188.5	511.32	ug/L	1.220	511.32	ppb	1.220	0.24%
QC value within limits for Ag 328.068 Recovery = 102.26%								
Al 396.153Radial†	6782.4	5098.8	ug/L	125.10	5098.8	ppb	125.10	2.45%
QC value within limits for Al 396.153Radial Recovery = 101.98%								
As 188.979†	1414.9	533.97	ug/L	4.292	533.97	ppb	4.292	0.80%
QC value within limits for As 188.979 Recovery = 106.79%								
B 249.677†	25036.8	533.35	ug/L	0.641	533.35	ppb	0.641	0.12%
QC value within limits for B 249.677 Recovery = 106.67%								
Ba 233.527†	73908.5	514.85	ug/L	1.323	514.85	ppb	1.323	0.26%
QC value within limits for Ba 233.527 Recovery = 102.97%								
Be 313.107†	1456743.5	517.37	ug/L	0.874	517.37	ppb	0.874	0.17%
QC value within limits for Be 313.107 Recovery = 103.47%								

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Ca 317.933Radial†       3562.3      5104.7 ug/L         64.43      5104.7 ppb          64.43   1.26%
   QC value within limits for Ca 317.933Radial  Recovery = 102.09%
Cd 226.502†            51834.5      517.20 ug/L         1.316      517.20 ppb          1.316   0.25%
   QC value within limits for Cd 226.502  Recovery = 103.44%
Co 228.616†            28333.7      506.69 ug/L         3.485      506.69 ppb          3.485   0.69%
   QC value within limits for Co 228.616  Recovery = 101.34%
Cr 267.716†            49405.5      511.59 ug/L         1.606      511.59 ppb          1.606   0.31%
   QC value within limits for Cr 267.716  Recovery = 102.32%
Cu 324.752†           174485.6      510.71 ug/L         0.794      510.71 ppb          0.794   0.16%
   QC value within limits for Cu 324.752  Recovery = 102.14%
Fe 238.204 Radial†       687.9      5177.4 ug/L         87.41      5177.4 ppb          87.41   1.69%
   QC value within limits for Fe 238.204 Radial  Recovery = 103.55%
K 766.490 Radial†      31989.1      5226.1 ug/L         90.93      5226.1 ppb          90.93   1.74%
   QC value within limits for K 766.490 Radial  Recovery = 104.52%
Mg 279.077 IEC†          175.1      5274.9 ug/L        102.55      5274.9 ppb         102.55   1.94%
   QC value within limits for Mg 279.077 IEC  Recovery = 105.50%
Mn 257.610†           507059.9      517.40 ug/L         1.260      517.40 ppb          1.260   0.24%
   QC value within limits for Mn 257.610  Recovery = 103.48%
Mo 202.031†            8279.6      509.75 ug/L         3.839      509.75 ppb          3.839   0.75%
   QC value within limits for Mo 202.031  Recovery = 101.95%
Na 589.592 Radial†     42137.7       10058 ug/L         170.2       10058 ppb          170.2   1.69%
   QC value within limits for Na 589.592 Radial  Recovery = 100.58%
Ni 231.604†            22773.8      507.64 ug/L         4.208      507.64 ppb          4.208   0.83%
   QC value within limits for Ni 231.604  Recovery = 101.53%
P 214.914†              4792.6      2479.0 ug/L         19.30      2479.0 ppb          19.30   0.78%
   QC value within limits for P 214.914  Recovery = 99.16%
Pb 220.353†             4820.1      516.11 ug/L         4.458      516.11 ppb          4.458   0.86%
   QC value within limits for Pb 220.353  Recovery = 103.22%
S 181.975 Axial†         801.4      1026.6 ug/L          8.72      1026.6 ppb           8.72   0.85%
   QC value within limits for S 181.975 Axial  Recovery = 102.66%
Sb 206.836†             1671.2      517.65 ug/L         3.544      517.65 ppb          3.544   0.68%
   QC value within limits for Sb 206.836  Recovery = 103.53%
Se 196.026†              929.4      540.40 ug/L         5.188      540.40 ppb          5.188   0.96%
   QC value within limits for Se 196.026  Recovery = 108.08%
Si 251.611†            87968.0      2537.6 ug/L          6.46      2537.6 ppb           6.46   0.25%
   QC value within limits for Si 251.611  Recovery = 101.50%
Sn 189.927†             3344.8      508.28 ug/L         5.117      508.28 ppb          5.117   1.01%
   QC value within limits for Sn 189.927  Recovery = 101.66%
Sr 421.552†            91700.3      502.19 ug/L        10.463      502.19 ppb         10.463   2.08%
   QC value within limits for Sr 421.552  Recovery = 100.44%
Ti 334.940†           340047.7      510.87 ug/L         0.711      510.87 ppb          0.711   0.14%
   QC value within limits for Ti 334.940  Recovery = 102.17%
Tl 190.801†             1939.0      519.43 ug/L         6.103      519.43 ppb          6.103   1.17%
   QC value within limits for Tl 190.801  Recovery = 103.89%
U 409.014†             17383.6      489.63 ug/L         0.148      489.63 ppb          0.148   0.03%
   QC value within limits for U 409.014  Recovery = 97.93%
V 292.402†             77664.4      514.35 ug/L         0.261      514.35 ppb          0.261   0.05%
   QC value within limits for V 292.402  Recovery = 102.87%
Zn 213.857†            61129.1      513.24 ug/L         1.051      513.24 ppb          1.051   0.20%
   QC value within limits for Zn 213.857  Recovery = 102.65%
SiO2†                  87532.6      5403.2 ug/L         68.11      5403.2 ppb          68.11   1.26%
   QC value within limits for SiO2  Recovery = 101.04%
All analyte(s) passed QC.
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Sequence No.: 14
Sample ID: CCB
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 12/18/2009 08:05:58
Data Type: Reprocessed on 12/18/2009 08:38:04

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc 361.383	948807.8	948807.8	102.58	%			08:09:08
1	Sc Radial	5754.3	5754.3	101	%			08:07:51
1	Y 371.029	773331.4	773331.4	101.77	%			08:09:08
1	Y RADIAL	5926.7	5926.7	101.3	%			08:07:51
1	Ag 328.068†	352.5	8.5	0.0338	ug/L	0.0338	ppb	08:09:13
1	Al 396.153Radial†	-26.4	5.6	4.1866	ug/L	4.1866	ppb	08:07:51
1	As 188.979†	0.5	31.1	11.621	ug/L	11.621	ppb	08:09:33
1	B 249.677†	283.2	737.1	15.761	ug/L	15.761	ppb	08:09:13
1	Ba 233.527†	-15.3	-16.7	-0.1151	ug/L	-0.1151	ppb	08:09:33
1	Be 313.107†	-4538.4	261.3	0.0926	ug/L	0.0926	ppb	08:09:13
1	Ca 317.933Radial†	16.7	-1.0	-1.3842	ug/L	-1.3842	ppb	08:08:11
1	Cd 226.502†	-172.4	45.2	0.4516	ug/L	0.4516	ppb	08:09:33
1	Co 228.616†	-89.0	5.1	0.0925	ug/L	0.0925	ppb	08:09:33
1	Cr 267.716†	113.9	7.7	0.0779	ug/L	0.0779	ppb	08:09:33
1	Cu 324.752†	6141.7	-137.1	-0.4012	ug/L	-0.4012	ppb	08:09:13
1	Fe 238.204 Radial†	15.5	-0.1	-0.9245	ug/L	-0.9245	ppb	08:08:11
1	K 766.490 Radial†	3932.4	883.8	144.60	ug/L	144.60	ppb	08:07:51
1	Mg 279.077 IEC†	5.2	2.5	76.527	ug/L	76.527	ppb	08:08:11
1	Mn 257.610†	538.9	29.3	0.0284	ug/L	0.0284	ppb	08:09:33
1	Mo 202.031†	34.5	6.1	0.3763	ug/L	0.3763	ppb	08:09:33
1	Na 589.592 Radial†	-1070.8	228.6	54.574	ug/L	54.574	ppb	08:07:51
1	Ni 231.604†	91.4	9.0	0.2006	ug/L	0.2006	ppb	08:09:33
1	P 214.914†	249.6	-15.4	-8.1353	ug/L	-8.1353	ppb	08:09:33
1	Pb 220.353†	-66.8	-1.3	-0.1399	ug/L	-0.1399	ppb	08:09:33
1	S 181.975 Axial†	51.7	-1.2	-1.5751	ug/L	-1.5751	ppb	08:09:33
1	Sb 206.836†	55.9	13.9	4.2604	ug/L	4.2604	ppb	08:09:33
1	Se 196.026†	-24.7	10.2	5.7573	ug/L	5.7573	ppb	08:09:33
1	Si 251.611†	656.0	63.4	1.7796	ug/L	1.7796	ppb	08:09:33
1	Sn 189.927†	13.3	8.0	1.2082	ug/L	1.2082	ppb	08:09:33
1	Sr 421.552†	-19.5	-25.8	-0.1412	ug/L	-0.1412	ppb	08:07:51
1	Ti 334.940†	-1538.6	1.9	-0.0002	ug/L	-0.0002	ppb	08:09:13
1	Tl 190.801†	-34.9	8.9	2.3798	ug/L	2.3798	ppb	08:09:33
1	U 409.014†	-2612.5	240.3	6.7917	ug/L	6.7917	ppb	08:09:08
1	V 292.402†	-1472.2	78.6	0.5339	ug/L	0.5339	ppb	08:09:13
1	Zn 213.857†	877.9	48.7	0.4091	ug/L	0.4091	ppb	08:09:33
1	SiO2†	729.8	110.3	6.7101	ug/L	6.7101	ppb	08:10:39
2	Sc 361.383	948622.2	948622.2	102.56	%			08:09:38
2	Sc Radial	5755.2	5755.2	101	%			08:08:16
2	Y 371.029	771820.2	771820.2	101.57	%			08:09:38
2	Y RADIAL	5940.6	5940.6	101.5	%			08:08:16
2	Ag 328.068†	394.0	49.1	0.2081	ug/L	0.2081	ppb	08:09:43
2	Al 396.153Radial†	-21.4	10.5	7.9263	ug/L	7.9263	ppb	08:08:16
2	As 188.979†	-1.0	29.6	11.084	ug/L	11.084	ppb	08:10:03
2	B 249.677†	197.5	653.6	13.976	ug/L	13.976	ppb	08:09:43
2	Ba 233.527†	10.3	8.2	0.0581	ug/L	0.0581	ppb	08:10:03
2	Be 313.107†	-4641.1	160.2	0.0570	ug/L	0.0570	ppb	08:09:43
2	Ca 317.933Radial†	20.2	2.4	3.5003	ug/L	3.5003	ppb	08:08:36
2	Cd 226.502†	-169.1	48.4	0.4832	ug/L	0.4832	ppb	08:10:03
2	Co 228.616†	-86.3	7.8	0.1408	ug/L	0.1408	ppb	08:10:03
2	Cr 267.716†	87.9	-17.7	-0.1861	ug/L	-0.1861	ppb	08:10:03
2	Cu 324.752†	6048.2	-227.1	-0.6647	ug/L	-0.6647	ppb	08:09:43
2	Fe 238.204 Radial†	14.9	-0.7	-5.1823	ug/L	-5.1823	ppb	08:08:36
2	K 766.490 Radial†	3828.5	780.5	127.69	ug/L	127.69	ppb	08:08:16
2	Mg 279.077 IEC†	1.8	-0.9	-26.010	ug/L	-26.010	ppb	08:08:36
2	Mn 257.610†	567.2	57.0	0.0581	ug/L	0.0581	ppb	08:10:03
2	Mo 202.031†	41.0	12.5	0.7675	ug/L	0.7675	ppb	08:10:03
2	Na 589.592 Radial†	-1002.8	296.0	70.664	ug/L	70.664	ppb	08:08:16
2	Ni 231.604†	89.0	6.7	0.1498	ug/L	0.1498	ppb	08:10:03

2	P 214.914†	265.5	0.1	0.1966	ug/L	0.1966	ppb	08:10:03
2	Pb 220.353†	-65.5	-0.1	-0.0062	ug/L	-0.0062	ppb	08:10:03
2	S 181.975 Axial†	57.2	4.1	5.2817	ug/L	5.2817	ppb	08:10:03
2	Sb 206.836†	58.5	16.3	5.0530	ug/L	5.0530	ppb	08:10:03
2	Se 196.026†	-27.5	7.5	4.1861	ug/L	4.1861	ppb	08:10:03
2	Si 251.611†	662.5	69.9	1.9632	ug/L	1.9632	ppb	08:10:03
2	Sn 189.927†	20.9	15.4	2.3350	ug/L	2.3350	ppb	08:10:03
2	Sr 421.552†	14.0	7.4	0.0403	ug/L	0.0403	ppb	08:08:16
2	Ti 334.940†	-1465.2	73.3	0.1048	ug/L	0.1048	ppb	08:09:43
2	Tl 190.801†	-37.7	6.2	1.6475	ug/L	1.6475	ppb	08:10:03
2	U 409.014†	-2399.2	447.8	12.656	ug/L	12.656	ppb	08:09:38
2	V 292.402†	-1464.3	86.0	0.5975	ug/L	0.5975	ppb	08:09:43
2	Zn 213.857†	879.5	50.4	0.4285	ug/L	0.4285	ppb	08:10:03
2	SiO2†	683.7	65.5	3.9265	ug/L	3.9265	ppb	08:10:44
3	Sc 361.383	938277.4	938277.4	101.45	%			08:10:08
3	Sc Radial	5809.5	5809.5	102	%			08:08:41
3	Y 371.029	765034.7	765034.7	100.67	%			08:10:08
3	Y RADIAL	6006.5	6006.5	102.6	%			08:08:41
3	Ag 328.068†	388.9	48.3	0.2078	ug/L	0.2078	ppb	08:10:13
3	Al 396.153Radial†	-46.0	-13.4	-10.124	ug/L	-10.124	ppb	08:08:41
3	As 188.979†	-14.7	16.2	6.0357	ug/L	6.0357	ppb	08:10:33
3	B 249.677†	247.4	704.9	15.073	ug/L	15.073	ppb	08:10:13
3	Ba 233.527†	25.9	23.6	0.1648	ug/L	0.1648	ppb	08:10:33
3	Be 313.107†	-4643.9	107.6	0.0381	ug/L	0.0381	ppb	08:10:13
3	Ca 317.933Radial†	25.5	7.5	10.762	ug/L	10.762	ppb	08:09:01
3	Cd 226.502†	-176.0	39.8	0.3979	ug/L	0.3979	ppb	08:10:33
3	Co 228.616†	-86.8	6.3	0.1153	ug/L	0.1153	ppb	08:10:33
3	Cr 267.716†	146.5	41.1	0.4230	ug/L	0.4230	ppb	08:10:33
3	Cu 324.752†	6123.6	-87.8	-0.2572	ug/L	-0.2572	ppb	08:10:13
3	Fe 238.204 Radial†	14.5	-1.2	-9.2939	ug/L	-9.2939	ppb	08:09:01
3	K 766.490 Radial†	3934.8	849.2	138.94	ug/L	138.94	ppb	08:08:41
3	Mg 279.077 IEC†	2.8	0.1	2.3652	ug/L	2.3652	ppb	08:09:01
3	Mn 257.610†	542.6	38.8	0.0386	ug/L	0.0386	ppb	08:10:33
3	Mo 202.031†	41.1	13.0	0.8014	ug/L	0.8014	ppb	08:10:33
3	Na 589.592 Radial†	-1119.8	190.7	45.516	ug/L	45.516	ppb	08:08:41
3	Ni 231.604†	90.9	9.5	0.2118	ug/L	0.2118	ppb	08:10:33
3	P 214.914†	262.1	-0.4	-0.1385	ug/L	-0.1385	ppb	08:10:33
3	Pb 220.353†	-88.0	-23.0	-2.4515	ug/L	-2.4515	ppb	08:10:33
3	S 181.975 Axial†	44.4	-7.8	-10.022	ug/L	-10.022	ppb	08:10:33
3	Sb 206.836†	50.0	8.6	2.6890	ug/L	2.6890	ppb	08:10:33
3	Se 196.026†	-29.1	5.6	3.1177	ug/L	3.1177	ppb	08:10:33
3	Si 251.611†	678.6	92.9	2.6242	ug/L	2.6242	ppb	08:10:33
3	Sn 189.927†	21.9	16.6	2.5214	ug/L	2.5214	ppb	08:10:33
3	Sr 421.552†	-10.6	-16.9	-0.0928	ug/L	-0.0928	ppb	08:08:41
3	Ti 334.940†	-1528.2	-4.6	-0.0093	ug/L	-0.0093	ppb	08:10:13
3	Tl 190.801†	-38.3	5.2	1.3913	ug/L	1.3913	ppb	08:10:33
3	U 409.014†	-2608.4	215.8	6.0986	ug/L	6.0986	ppb	08:10:08
3	V 292.402†	-1479.5	55.2	0.3853	ug/L	0.3853	ppb	08:10:13
3	Zn 213.857†	897.0	77.2	0.6536	ug/L	0.6536	ppb	08:10:33
3	SiO2†	757.8	145.9	8.8970	ug/L	8.8970	ppb	08:10:49

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	945235.8	102.20	%	0.652				0.64%
Sc Radial	5773.0	102	%	0.6				0.55%
Y 371.029	770062.1	101.34	%	0.582				0.57%
Y RADIAL	5957.9	101.8	%	0.73				0.72%
Ag 328.068†	35.3	0.1499	ug/L	0.10058	0.1499	ppb	0.10058	67.09%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	0.9	0.6630	ug/L	9.52696	0.6630	ppb	9.52696	>999.9%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	25.6	9.5802	ug/L	3.08137	9.5802	ppb	3.08137	32.16%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	698.6	14.937	ug/L	0.9006	14.937	ppb	0.9006	6.03%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	5.0	0.0359	ug/L	0.14124	0.0359	ppb	0.14124	392.97%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	176.3	0.0626	ug/L	0.02767	0.0626	ppb	0.02767	44.22%
QC value within limits for Be 313.107 Recovery = Not calculated								

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Ca 317.933Radial†          3.0      4.2928 ug/L       6.11185      4.2928 ppb        6.11185 142.37%
   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†               44.4      0.4442 ug/L       0.04316      0.4442 ppb        0.04316   9.72%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                6.4      0.1162 ug/L       0.02420      0.1162 ppb        0.02420  20.83%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†               10.3      0.1049 ug/L       0.30547      0.1049 ppb        0.30547 291.19%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -150.7     -0.4410 ug/L       0.20662     -0.4410 ppb        0.20662  46.85%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        -0.7     -5.1336 ug/L       4.18494     -5.1336 ppb        4.18494  81.52%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        837.8      137.08 ug/L         8.608      137.08 ppb          8.608   6.28%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            0.6      17.627 ug/L       52.9452      17.627 ppb        52.9452 300.36%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               41.7      0.0417 ug/L       0.01510      0.0417 ppb        0.01510  36.23%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               10.5      0.6484 ug/L       0.23627      0.6484 ppb        0.23627  36.44%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       238.5      56.918 ug/L       12.7367      56.918 ppb        12.7367  22.38%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                8.4      0.1874 ug/L       0.03302      0.1874 ppb        0.03302  17.62%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -5.2     -2.6924 ug/L       4.71666     -2.6924 ppb        4.71666 175.18%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               -8.1     -0.8659 ug/L       1.37482     -0.8659 ppb        1.37482 158.78%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          -1.6     -2.1053 ug/L       7.66580     -2.1053 ppb        7.66580 364.12%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               12.9      4.0008 ug/L       1.20318      4.0008 ppb        1.20318  30.07%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                7.8      4.3537 ug/L       1.32775      4.3537 ppb        1.32775  30.50%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†               75.4      2.1223 ug/L       0.44421      2.1223 ppb        0.44421  20.93%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               13.3      2.0215 ug/L       0.71049      2.0215 ppb        0.71049  35.15%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              -11.8     -0.0646 ug/L       0.09398     -0.0646 ppb        0.09398 145.54%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               23.5      0.0318 ug/L       0.06339      0.0318 ppb        0.06339 199.49%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                6.8      1.8062 ug/L       0.51299      1.8062 ppb        0.51299  28.40%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               301.3      8.5155 ug/L       3.60254      8.5155 ppb        3.60254  42.31%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                73.2      0.5055 ug/L       0.10889      0.5055 ppb        0.10889  21.54%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               58.8      0.4971 ug/L       0.13589      0.4971 ppb        0.13589  27.34%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                    107.2      6.5112 ug/L       2.49126      6.5112 ppb        2.49126  38.26%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
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Sequence No.: 15
Sample ID: LR1
Analyst: HSC
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 37
Date Collected: 12/18/2009 08:13:24
Data Type: Reprocessed on 12/18/2009 08:38:05

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc 361.383	933146.4	933146.4	100.89	%			08:16:36
1	Sc Radial	5701.5	5701.5	100	%			08:15:18
1	Y 371.029	751883.1	751883.1	98.943	%			08:16:36
1	Y RADIAL	5896.3	5896.3	100.7	%			08:15:18
1	Ag 328.068†	-27349.9	-27443.4	2.6606	ug/L	2.6606	ppb	08:16:36
1	Al 396.153Radial†	-31.1	0.6	1.6943	ug/L	1.6943	ppb	08:15:18
1	As 188.979†	-249.8	-216.9	-23.612	ug/L	-23.612	ppb	08:16:56
1	B 249.677†	2820.1	3256.3	20.162	ug/L	20.162	ppb	08:16:36
1	Ba 233.527†	-1933.4	-1918.2	0.6341	ug/L	0.6341	ppb	08:16:56
1	Be 313.107†	-4506.5	218.6	0.0775	ug/L	0.0775	ppb	08:16:36
1	Ca 317.933Radial†	6.3	-11.2	-16.058	ug/L	-16.058	ppb	08:15:38
1	Cd 226.502†	3515.8	3698.0	-0.3523	ug/L	-0.3523	ppb	08:16:56
1	Co 228.616†	240.9	330.6	0.5174	ug/L	0.5174	ppb	08:16:56
1	Cr 267.716†	-537.3	-635.9	0.1817	ug/L	0.1817	ppb	08:16:56
1	Cu 324.752†	-902.5	-7018.6	-1.5184	ug/L	-1.5184	ppb	08:16:36
1	Fe 238.204 Radial†	49817.5	49679.2	372740	ug/L	372740	ppb	08:15:18
1	K 766.490 Radial†	3339.6	328.4	65.922	ug/L	65.922	ppb	08:15:18
1	Mg 279.077 IEC†	13.0	10.3	-9.7708	ug/L	-9.7708	ppb	08:15:38
1	Mn 257.610†	-37684.8	-37848.0	-1.4239	ug/L	-1.4239	ppb	08:16:36
1	Mo 202.031†	-443.5	-467.1	-2.2944	ug/L	-2.2944	ppb	08:16:56
1	Na 589.592 Radial†	-1015.6	273.9	65.370	ug/L	65.370	ppb	08:15:18
1	Ni 231.604†	151.7	70.3	1.5638	ug/L	1.5638	ppb	08:16:56
1	P 214.914†	813.2	547.3	-5.4263	ug/L	-5.4263	ppb	08:16:56
1	Pb 220.353†	253.7	315.3	3.0036	ug/L	3.0036	ppb	08:16:56
1	S 181.975 Axial†	77.5	25.2	32.369	ug/L	32.369	ppb	08:16:56
1	Sb 206.836†	30.5	-10.4	2.4893	ug/L	2.4893	ppb	08:16:56
1	Se 196.026†	-2113.4	-2060.5	-26.556	ug/L	-26.556	ppb	08:16:56
1	Si 251.611†	-670.6	-1240.8	-35.466	ug/L	-35.466	ppb	08:16:56
1	Sn 189.927†	-28.2	-33.0	-0.0214	ug/L	-0.0214	ppb	08:16:56
1	Sr 421.552†	110.6	103.9	0.5690	ug/L	0.5690	ppb	08:15:18
1	Ti 334.940†	-1493.5	21.5	0.0102	ug/L	0.0102	ppb	08:16:56
1	Tl 190.801†	-46.3	-2.9	-1.1684	ug/L	-1.1684	ppb	08:16:56
1	U 409.014†	-900.7	1894.2	6.6494	ug/L	6.6494	ppb	08:16:36
1	V 292.402†	7898.7	9342.5	4.0595	ug/L	4.0595	ppb	08:16:56
1	Zn 213.857†	5133.5	4281.1	0.6766	ug/L	0.6766	ppb	08:16:56
1	SiO2†	-735.1	-1329.7	-81.402	ug/L	-81.402	ppb	08:17:54
2	Sc 361.383	928240.4	928240.4	100.36	%			08:17:02
2	Sc Radial	5740.0	5740.0	101	%			08:15:43
2	Y 371.029	748294.2	748294.2	98.471	%			08:17:02
2	Y RADIAL	5932.6	5932.6	101.4	%			08:15:43
2	Ag 328.068†	-27412.0	-27648.5	0.8792	ug/L	0.8792	ppb	08:17:02
2	Al 396.153Radial†	-46.1	-14.0	-9.3915	ug/L	-9.3915	ppb	08:15:43
2	As 188.979†	-259.8	-228.3	-28.255	ug/L	-28.255	ppb	08:17:22
2	B 249.677†	2608.6	3060.2	16.314	ug/L	16.314	ppb	08:17:02
2	Ba 233.527†	-1931.0	-1925.9	0.4831	ug/L	0.4831	ppb	08:17:22
2	Be 313.107†	-4478.1	223.3	0.0792	ug/L	0.0792	ppb	08:17:02
2	Ca 317.933Radial†	12.3	-5.3	-7.6434	ug/L	-7.6434	ppb	08:16:03
2	Cd 226.502†	3511.8	3712.4	0.0510	ug/L	0.0510	ppb	08:17:22
2	Co 228.616†	236.0	327.1	0.4940	ug/L	0.4940	ppb	08:17:22
2	Cr 267.716†	-580.8	-682.1	-0.3441	ug/L	-0.3441	ppb	08:17:22
2	Cu 324.752†	-862.7	-6983.7	-1.5478	ug/L	-1.5478	ppb	08:17:02
2	Fe 238.204 Radial†	49806.8	49334.9	370160	ug/L	370160	ppb	08:15:43
2	K 766.490 Radial†	3359.2	325.5	65.362	ug/L	65.362	ppb	08:15:43
2	Mg 279.077 IEC†	12.8	10.1	-14.233	ug/L	-14.233	ppb	08:16:03
2	Mn 257.610†	-37305.1	-37667.0	-1.4969	ug/L	-1.4969	ppb	08:17:02
2	Mo 202.031†	-423.1	-449.1	-1.3710	ug/L	-1.3710	ppb	08:17:22
2	Na 589.592 Radial†	-975.5	320.5	76.494	ug/L	76.494	ppb	08:15:43
2	Ni 231.604†	203.4	122.6	2.7310	ug/L	2.7310	ppb	08:17:22

2	P 214.914†	794.0	532.4	-11.254	ug/L	-11.254 ppb	08:17:22
2	Pb 220.353†	262.0	324.8	4.2381	ug/L	4.2381 ppb	08:17:22
2	S 181.975 Axial†	76.4	24.5	31.397	ug/L	31.397 ppb	08:17:22
2	Sb 206.836†	31.6	-9.2	2.9069	ug/L	2.9069 ppb	08:17:22
2	Se 196.026†	-2110.7	-2068.9	-39.129	ug/L	-39.129 ppb	08:17:22
2	Si 251.611†	-683.4	-1257.0	-35.962	ug/L	-35.962 ppb	08:17:22
2	Sn 189.927†	-13.7	-18.7	2.1095	ug/L	2.1095 ppb	08:17:22
2	Sr 421.552†	76.2	69.0	0.3778	ug/L	0.3778 ppb	08:15:43
2	Ti 334.940†	-1500.3	6.9	-0.0126	ug/L	-0.0126 ppb	08:17:22
2	Tl 190.801†	-38.7	4.5	0.7993	ug/L	0.7993 ppb	08:17:22
2	U 409.014†	-780.8	2009.0	10.220	ug/L	10.220 ppb	08:17:02
2	V 292.402†	7760.9	9246.6	3.8478	ug/L	3.8478 ppb	08:17:22
2	Zn 213.857†	5110.1	4284.6	0.9459	ug/L	0.9459 ppb	08:17:22
2	SiO2†	-736.2	-1334.7	-81.770	ug/L	-81.770 ppb	08:17:59
3	Sc 361.383	926278.1	926278.1	100.15	%		08:17:28
3	Sc Radial	5757.9	5757.9	101	%		08:16:08
3	Y 371.029	747551.1	747551.1	98.373	%		08:17:28
3	Y RADIAL	5915.5	5915.5	101.1	%		08:16:08
3	Ag 328.068†	-27200.7	-27495.4	1.3860	ug/L	1.3860 ppb	08:17:28
3	Al 396.153Radial†	-65.2	-32.7	-23.453	ug/L	-23.453 ppb	08:16:08
3	As 188.979†	-256.5	-225.5	-27.298	ug/L	-27.298 ppb	08:17:48
3	B 249.677†	2402.8	2860.2	12.110	ug/L	12.110 ppb	08:17:28
3	Ba 233.527†	-1919.5	-1918.5	0.5140	ug/L	0.5140 ppb	08:17:48
3	Be 313.107†	-4458.3	233.6	0.0829	ug/L	0.0829 ppb	08:17:28
3	Ca 317.933Radial†	10.4	-7.2	-10.337	ug/L	-10.337 ppb	08:16:28
3	Cd 226.502†	3511.5	3719.5	0.1752	ug/L	0.1752 ppb	08:17:48
3	Co 228.616†	198.8	290.3	-0.1586	ug/L	-0.1586 ppb	08:17:48
3	Cr 267.716†	-579.2	-681.7	-0.3481	ug/L	-0.3481 ppb	08:17:48
3	Cu 324.752†	-899.7	-7022.5	-1.6886	ug/L	-1.6886 ppb	08:17:28
3	Fe 238.204 Radial†	49890.3	49263.7	369620	ug/L	369620 ppb	08:16:08
3	K 766.490 Radial†	3288.2	245.0	52.176	ug/L	52.176 ppb	08:16:08
3	Mg 279.077 IEC†	10.9	8.1	-73.168	ug/L	-73.168 ppb	08:16:28
3	Mn 257.610†	-37599.8	-38040.1	-1.9294	ug/L	-1.9294 ppb	08:17:28
3	Mo 202.031†	-445.8	-472.7	-2.8593	ug/L	-2.8593 ppb	08:17:48
3	Na 589.592 Radial†	-1038.5	261.2	62.346	ug/L	62.346 ppb	08:16:08
3	Ni 231.604†	193.3	112.9	2.5150	ug/L	2.5150 ppb	08:17:48
3	P 214.914†	784.5	524.6	-15.033	ug/L	-15.033 ppb	08:17:48
3	Pb 220.353†	264.6	328.0	4.6087	ug/L	4.6087 ppb	08:17:48
3	S 181.975 Axial†	80.9	29.1	37.367	ug/L	37.367 ppb	08:17:48
3	Sb 206.836†	24.0	-16.7	0.5015	ug/L	0.5015 ppb	08:17:48
3	Se 196.026†	-2122.1	-2084.7	-49.631	ug/L	-49.631 ppb	08:17:48
3	Si 251.611†	-717.4	-1292.5	-36.949	ug/L	-36.949 ppb	08:17:48
3	Sn 189.927†	-35.8	-40.7	-1.2444	ug/L	-1.2444 ppb	08:17:48
3	Sr 421.552†	49.7	42.6	0.2334	ug/L	0.2334 ppb	08:16:08
3	Ti 334.940†	-1473.8	30.2	0.0249	ug/L	0.0249 ppb	08:17:48
3	Tl 190.801†	-61.1	-18.0	-5.1827	ug/L	-5.1827 ppb	08:17:48
3	U 409.014†	-994.7	1793.8	4.2049	ug/L	4.2049 ppb	08:17:28
3	V 292.402†	7696.5	9198.7	3.5819	ug/L	3.5819 ppb	08:17:48
3	Zn 213.857†	5119.2	4304.5	1.1690	ug/L	1.1690 ppb	08:17:48
3	SiO2†	-738.3	-1338.3	-81.908	ug/L	-81.908 ppb	08:18:04

Mean Data: LR1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	929221.6	100.47	%	0.382				0.38%
Sc Radial	5733.1	101	%	0.5				0.50%
Y 371.029	749242.8	98.596	%	0.3048				0.31%
Y RADIAL	5914.8	101.0	%	0.31				0.31%
Ag 328.068†	-27529.1	1.6419	ug/L	0.91785	1.6419	ppb	0.91785	55.90%
Al 396.153Radial†	-15.4	-10.383	ug/L	12.6031	-10.383	ppb	12.6031	121.38%
As 188.979†	-223.6	-26.389	ug/L	2.4516	-26.389	ppb	2.4516	9.29%
B 249.677†	3058.9	16.195	ug/L	4.0274	16.195	ppb	4.0274	24.87%
Ba 233.527†	-1920.9	0.5437	ug/L	0.07977	0.5437	ppb	0.07977	14.67%
Be 313.107†	225.2	0.0799	ug/L	0.00274	0.0799	ppb	0.00274	3.43%
Ca 317.933Radial†	-7.9	-11.346	ug/L	4.2971	-11.346	ppb	4.2971	37.87%
Cd 226.502†	3710.0	-0.0420	ug/L	0.27581	-0.0420	ppb	0.27581	656.41%
Co 228.616†	316.0	0.2843	ug/L	0.38374	0.2843	ppb	0.38374	135.00%
Cr 267.716†	-666.6	-0.1702	ug/L	0.30472	-0.1702	ppb	0.30472	179.06%
Cu 324.752†	-7008.3	-1.5850	ug/L	0.09099	-1.5850	ppb	0.09099	5.74%
Fe 238.204 Radial†	49425.9	370840	ug/L	1667.1	370840	ppb	1667.1	0.45%

K 766.490 Radial†	299.6	61.153	ug/L	7.7796	61.153	ppb	7.7796	12.72%
Mg 279.077 IEC†	9.5	-32.390	ug/L	35.3844	-32.390	ppb	35.3844	109.24%
Mn 257.610†	-37851.7	-1.6167	ug/L	0.27322	-1.6167	ppb	0.27322	16.90%
Mo 202.031†	-462.9	-2.1749	ug/L	0.75135	-2.1749	ppb	0.75135	34.55%
Na 589.592 Radial†	285.2	68.070	ug/L	7.4504	68.070	ppb	7.4504	10.95%
Ni 231.604†	101.9	2.2699	ug/L	0.62100	2.2699	ppb	0.62100	27.36%
P 214.914†	534.8	-10.571	ug/L	4.8394	-10.571	ppb	4.8394	45.78%
Pb 220.353†	322.7	3.9501	ug/L	0.84044	3.9501	ppb	0.84044	21.28%
S 181.975 Axial†	26.3	33.711	ug/L	3.2035	33.711	ppb	3.2035	9.50%
Sb 206.836†	-12.1	1.9659	ug/L	1.28530	1.9659	ppb	1.28530	65.38%
Se 196.026†	-2071.3	-38.439	ug/L	11.5526	-38.439	ppb	11.5526	30.05%
Si 251.611†	-1263.4	-36.126	ug/L	0.7549	-36.126	ppb	0.7549	2.09%
Sn 189.927†	-30.8	0.2812	ug/L	1.69735	0.2812	ppb	1.69735	603.54%
Sr 421.552†	71.8	0.3934	ug/L	0.16833	0.3934	ppb	0.16833	42.79%
Ti 334.940†	19.5	0.0075	ug/L	0.01889	0.0075	ppb	0.01889	252.17%
Tl 190.801†	-5.5	-1.8506	ug/L	3.04877	-1.8506	ppb	3.04877	164.74%
U 409.014†	1899.0	7.0247	ug/L	3.02493	7.0247	ppb	3.02493	43.06%
V 292.402†	9262.6	3.8298	ug/L	0.23931	3.8298	ppb	0.23931	6.25%
Zn 213.857†	4290.1	0.9305	ug/L	0.24657	0.9305	ppb	0.24657	26.50%
SiO2†	-1334.2	-81.693	ug/L	0.2612	-81.693	ppb	0.2612	0.32%

Sequence No.: 16
Sample ID: CCV
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 12/18/2009 08:20:15
Data Type: Reprocessed on 12/18/2009 08:38:06

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc 361.383	944056.0	944056.0	102.07	%			08:23:26
1	Sc Radial	5820.9	5820.9	102	%			08:22:07
1	Y 371.029	756528.4	756528.4	99.554	%			08:23:26
1	Y RADIAL	5946.3	5946.3	101.6	%			08:22:07
1	Ag 328.068†	117206.0	114493.1	512.65	ug/L	512.65	ppb	08:23:26
1	Al 396.153Radial†	6734.9	6612.1	4970.4	ug/L	4970.4	ppb	08:22:07
1	As 188.979†	1374.8	1377.5	519.98	ug/L	519.98	ppb	08:23:46
1	B 249.677†	24256.9	24225.9	516.03	ug/L	516.03	ppb	08:23:26
1	Ba 233.527†	75722.2	74184.2	516.76	ug/L	516.76	ppb	08:23:26
1	Be 313.107†	1492206.2	1466618.5	520.88	ug/L	520.88	ppb	08:23:26
1	Ca 317.933Radial†	3558.1	3459.0	4956.7	ug/L	4956.7	ppb	08:22:27
1	Cd 226.502†	52993.3	52131.4	520.17	ug/L	520.17	ppb	08:23:26
1	Co 228.616†	28759.9	28268.3	505.51	ug/L	505.51	ppb	08:23:46
1	Cr 267.716†	50781.1	49647.5	514.09	ug/L	514.09	ppb	08:23:26
1	Cu 324.752†	185002.0	175124.8	512.57	ug/L	512.57	ppb	08:23:26
1	Fe 238.204 Radial†	703.3	671.7	5055.7	ug/L	5055.7	ppb	08:22:27
1	K 766.490 Radial†	33891.8	30111.6	4919.0	ug/L	4919.0	ppb	08:22:07
1	Mg 279.077 IEC†	181.6	174.8	5264.1	ug/L	5264.1	ppb	08:22:27
1	Mn 257.610†	521101.0	510033.1	520.42	ug/L	520.42	ppb	08:23:26
1	Mo 202.031†	8415.4	8217.1	505.89	ug/L	505.89	ppb	08:23:46
1	Na 589.592 Radial†	40280.9	40644.1	9701.4	ug/L	9701.4	ppb	08:22:07
1	Ni 231.604†	23281.5	22729.1	506.64	ug/L	506.64	ppb	08:23:46
1	P 214.914†	5166.7	4803.1	2484.3	ug/L	2484.3	ppb	08:23:46
1	Pb 220.353†	4844.6	4810.2	515.02	ug/L	515.02	ppb	08:23:46
1	S 181.975 Axial†	867.3	798.1	1022.3	ug/L	1022.3	ppb	08:23:46
1	Sb 206.836†	1731.4	1655.6	512.76	ug/L	512.76	ppb	08:23:46
1	Se 196.026†	916.0	931.7	541.31	ug/L	541.31	ppb	08:23:46
1	Si 251.611†	90807.8	88389.5	2550.0	ug/L	2550.0	ppb	08:23:26
1	Sn 189.927†	3427.1	3352.5	509.43	ug/L	509.43	ppb	08:23:46
1	Sr 421.552†	90967.3	88874.5	486.72	ug/L	486.72	ppb	08:22:07
1	Ti 334.940†	346969.0	341431.7	512.95	ug/L	512.95	ppb	08:23:26
1	Tl 190.801†	1910.8	1915.0	513.05	ug/L	513.05	ppb	08:23:46
1	U 409.014†	14791.3	17278.2	486.66	ug/L	486.66	ppb	08:23:26
1	V 292.402†	78127.8	78056.5	516.87	ug/L	516.87	ppb	08:23:26
1	Zn 213.857†	63572.2	61475.4	516.19	ug/L	516.19	ppb	08:23:26
1	SiO2†	91096.3	88647.1	5472.7	ug/L	5472.7	ppb	08:24:47
2	Sc 361.383	927605.5	927605.5	100.29	%			08:23:54
2	Sc Radial	5896.1	5896.1	104	%			08:22:32
2	Y 371.029	744951.0	744951.0	98.031	%			08:23:54
2	Y RADIAL	6080.8	6080.8	103.9	%			08:22:32
2	Ag 328.068†	115659.1	114987.1	514.81	ug/L	514.81	ppb	08:23:54
2	Al 396.153Radial†	6788.4	6579.8	4945.4	ug/L	4945.4	ppb	08:22:32
2	As 188.979†	1380.8	1407.4	531.14	ug/L	531.14	ppb	08:24:14
2	B 249.677†	23872.0	24263.5	516.82	ug/L	516.82	ppb	08:23:54
2	Ba 233.527†	74682.8	74463.4	518.70	ug/L	518.70	ppb	08:23:54
2	Be 313.107†	1470889.9	1471290.7	522.53	ug/L	522.53	ppb	08:23:54
2	Ca 317.933Radial†	3548.9	3405.8	4880.5	ug/L	4880.5	ppb	08:22:52
2	Cd 226.502†	52224.2	52285.4	521.73	ug/L	521.73	ppb	08:23:54
2	Co 228.616†	28908.2	28915.9	517.12	ug/L	517.12	ppb	08:24:14
2	Cr 267.716†	50062.9	49813.7	515.81	ug/L	515.81	ppb	08:23:54
2	Cu 324.752†	182023.8	175369.5	513.28	ug/L	513.28	ppb	08:23:54
2	Fe 238.204 Radial†	696.5	656.4	4941.2	ug/L	4941.2	ppb	08:22:52
2	K 766.490 Radial†	34339.9	30121.6	4920.7	ug/L	4920.7	ppb	08:22:32
2	Mg 279.077 IEC†	174.5	165.7	4991.1	ug/L	4991.1	ppb	08:22:52
2	Mn 257.610†	512817.4	510827.6	521.23	ug/L	521.23	ppb	08:23:54
2	Mo 202.031†	8472.9	8420.7	518.41	ug/L	518.41	ppb	08:24:14
2	Na 589.592 Radial†	40660.7	40508.6	9669.0	ug/L	9669.0	ppb	08:22:32
2	Ni 231.604†	23386.3	23238.1	517.99	ug/L	517.99	ppb	08:24:14

2	P 214.914†	5181.4	4907.5	2540.1 ug/L	2540.1 ppb	08:24:14
2	Pb 220.353†	4882.5	4932.1	528.07 ug/L	528.07 ppb	08:24:14
2	S 181.975 Axial†	871.5	817.3	1047.0 ug/L	1047.0 ppb	08:24:14
2	Sb 206.836†	1745.1	1699.3	526.53 ug/L	526.53 ppb	08:24:14
2	Se 196.026†	909.0	940.6	545.99 ug/L	545.99 ppb	08:24:14
2	Si 251.611†	89322.2	88486.0	2552.5 ug/L	2552.5 ppb	08:23:54
2	Sn 189.927†	3441.1	3426.1	520.58 ug/L	520.58 ppb	08:24:14
2	Sr 421.552†	92187.6	88918.5	486.96 ug/L	486.96 ppb	08:22:32
2	Ti 334.940†	341588.2	342095.1	513.94 ug/L	513.94 ppb	08:23:54
2	Tl 190.801†	1936.0	1973.4	528.53 ug/L	528.53 ppb	08:24:14
2	U 409.014†	14656.6	17400.9	490.14 ug/L	490.14 ppb	08:23:54
2	V 292.402†	77092.2	78381.3	519.18 ug/L	519.18 ppb	08:23:54
2	Zn 213.857†	62579.1	61589.8	517.10 ug/L	517.10 ppb	08:23:54
2	SiO2†	91007.2	90141.0	5564.8 ug/L	5564.8 ppb	08:24:52
3	Sc 361.383	935385.4	935385.4	101.13 %		08:24:21
3	Sc Radial	5875.8	5875.8	103 %		08:22:58
3	Y 371.029	750905.7	750905.7	98.815 %		08:24:21
3	Y RADIAL	6008.3	6008.3	102.6 %		08:22:58
3	Ag 328.068†	116754.4	115111.0	515.38 ug/L	515.38 ppb	08:24:21
3	Al 396.153Radial†	6803.9	6617.4	4974.1 ug/L	4974.1 ppb	08:22:58
3	As 188.979†	1376.6	1391.8	525.34 ug/L	525.34 ppb	08:24:41
3	B 249.677†	24111.6	24302.5	517.66 ug/L	517.66 ppb	08:24:21
3	Ba 233.527†	75326.4	74480.5	518.82 ug/L	518.82 ppb	08:24:21
3	Be 313.107†	1486932.6	1474955.5	523.84 ug/L	523.84 ppb	08:24:21
3	Ca 317.933Radial†	3574.5	3442.4	4932.9 ug/L	4932.9 ppb	08:23:18
3	Cd 226.502†	52654.0	52277.2	521.64 ug/L	521.64 ppb	08:24:21
3	Co 228.616†	28846.4	28615.1	511.72 ug/L	511.72 ppb	08:24:41
3	Cr 267.716†	50609.2	49938.7	517.10 ug/L	517.10 ppb	08:24:21
3	Cu 324.752†	184219.1	176030.7	515.22 ug/L	515.22 ppb	08:24:21
3	Fe 238.204 Radial†	701.2	663.3	4992.7 ug/L	4992.7 ppb	08:23:18
3	K 766.490 Radial†	34366.1	30261.3	4943.5 ug/L	4943.5 ppb	08:22:58
3	Mg 279.077 IEC†	178.0	169.6	5109.7 ug/L	5109.7 ppb	08:23:18
3	Mn 257.610†	518165.3	511862.7	522.28 ug/L	522.28 ppb	08:24:21
3	Mo 202.031†	8455.0	8332.7	513.00 ug/L	513.00 ppb	08:24:41
3	Na 589.592 Radial†	40670.2	40653.2	9703.5 ug/L	9703.5 ppb	08:22:58
3	Ni 231.604†	23330.5	22989.0	512.44 ug/L	512.44 ppb	08:24:41
3	P 214.914†	5180.3	4863.5	2516.2 ug/L	2516.2 ppb	08:24:41
3	Pb 220.353†	4844.0	4853.5	519.67 ug/L	519.67 ppb	08:24:41
3	S 181.975 Axial†	868.6	807.3	1034.1 ug/L	1034.1 ppb	08:24:41
3	Sb 206.836†	1729.0	1669.0	516.99 ug/L	516.99 ppb	08:24:41
3	Se 196.026†	915.3	939.3	545.40 ug/L	545.40 ppb	08:24:41
3	Si 251.611†	90425.5	88836.2	2562.8 ug/L	2562.8 ppb	08:24:21
3	Sn 189.927†	3424.2	3380.8	513.72 ug/L	513.72 ppb	08:24:41
3	Sr 421.552†	92113.8	89153.9	488.25 ug/L	488.25 ppb	08:22:58
3	Ti 334.940†	345310.8	342943.1	515.21 ug/L	515.21 ppb	08:24:21
3	Tl 190.801†	1931.8	1953.1	523.19 ug/L	523.19 ppb	08:24:41
3	U 409.014†	14996.7	17615.6	496.20 ug/L	496.20 ppb	08:24:21
3	V 292.402†	77792.0	78433.9	519.45 ug/L	519.45 ppb	08:24:21
3	Zn 213.857†	63159.6	61644.8	517.59 ug/L	517.59 ppb	08:24:21
3	SiO2†	90687.3	89070.0	5498.6 ug/L	5498.6 ppb	08:24:57

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	935682.3	101.17	%	0.890				0.88%
Sc Radial	5864.3	103	%	0.7				0.66%
Y 371.029	750795.1	98.800	%	0.7619				0.77%
Y RADIAL	6011.8	102.7	%	1.15				1.12%
Ag 328.068†	114863.7	514.28	ug/L	1.441	514.28	ppb	1.441	0.28%
QC value within limits for Ag 328.068 Recovery = 102.86%								
Al 396.153Radial†	6603.1	4963.3	ug/L	15.58	4963.3	ppb	15.58	0.31%
QC value within limits for Al 396.153Radial Recovery = 99.27%								
As 188.979†	1392.3	525.48	ug/L	5.585	525.48	ppb	5.585	1.06%
QC value within limits for As 188.979 Recovery = 105.10%								
B 249.677†	24263.9	516.84	ug/L	0.815	516.84	ppb	0.815	0.16%
QC value within limits for B 249.677 Recovery = 103.37%								
Ba 233.527†	74376.0	518.10	ug/L	1.157	518.10	ppb	1.157	0.22%
QC value within limits for Ba 233.527 Recovery = 103.62%								
Be 313.107†	1470954.9	522.41	ug/L	1.483	522.41	ppb	1.483	0.28%
QC value within limits for Be 313.107 Recovery = 104.48%								

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Ca 317.933Radial†       3435.8      4923.4 ug/L        38.99      4923.4 ppb        38.99   0.79%
   QC value within limits for Ca 317.933Radial  Recovery = 98.47%
Cd 226.502†            52231.3      521.18 ug/L        0.873      521.18 ppb        0.873   0.17%
   QC value within limits for Cd 226.502  Recovery = 104.24%
Co 228.616†            28599.7      511.45 ug/L        5.809      511.45 ppb        5.809   1.14%
   QC value within limits for Co 228.616  Recovery = 102.29%
Cr 267.716†            49800.0      515.67 ug/L        1.510      515.67 ppb        1.510   0.29%
   QC value within limits for Cr 267.716  Recovery = 103.13%
Cu 324.752†           175508.3      513.69 ug/L        1.370      513.69 ppb        1.370   0.27%
   QC value within limits for Cu 324.752  Recovery = 102.74%
Fe 238.204 Radial†       663.8      4996.6 ug/L        57.32      4996.6 ppb        57.32   1.15%
   QC value within limits for Fe 238.204 Radial  Recovery = 99.93%
K 766.490 Radial†      30164.8      4927.7 ug/L        13.68      4927.7 ppb        13.68   0.28%
   QC value within limits for K 766.490 Radial  Recovery = 98.55%
Mg 279.077 IEC†          170.0      5121.7 ug/L       136.89      5121.7 ppb       136.89   2.67%
   QC value within limits for Mg 279.077 IEC  Recovery = 102.43%
Mn 257.610†           510907.8      521.31 ug/L        0.934      521.31 ppb        0.934   0.18%
   QC value within limits for Mn 257.610  Recovery = 104.26%
Mo 202.031†             8323.5      512.44 ug/L        6.276      512.44 ppb        6.276   1.22%
   QC value within limits for Mo 202.031  Recovery = 102.49%
Na 589.592 Radial†     40602.0      9691.3 ug/L        19.33      9691.3 ppb        19.33   0.20%
   QC value within limits for Na 589.592 Radial  Recovery = 96.91%
Ni 231.604†            22985.4      512.36 ug/L        5.674      512.36 ppb        5.674   1.11%
   QC value within limits for Ni 231.604  Recovery = 102.47%
P 214.914†              4858.0      2513.6 ug/L        28.00      2513.6 ppb        28.00   1.11%
   QC value within limits for P 214.914  Recovery = 100.54%
Pb 220.353†             4865.3      520.92 ug/L        6.616      520.92 ppb        6.616   1.27%
   QC value within limits for Pb 220.353  Recovery = 104.18%
S 181.975 Axial†         807.6      1034.5 ug/L        12.33      1034.5 ppb        12.33   1.19%
   QC value within limits for S 181.975 Axial  Recovery = 103.45%
Sb 206.836†             1674.6      518.76 ug/L        7.052      518.76 ppb        7.052   1.36%
   QC value within limits for Sb 206.836  Recovery = 103.75%
Se 196.026†              937.2      544.23 ug/L        2.551      544.23 ppb        2.551   0.47%
   QC value within limits for Se 196.026  Recovery = 108.85%
Si 251.611†            88570.5      2555.1 ug/L         6.78      2555.1 ppb         6.78   0.27%
   QC value within limits for Si 251.611  Recovery = 102.20%
Sn 189.927†             3386.5      514.58 ug/L        5.626      514.58 ppb        5.626   1.09%
   QC value within limits for Sn 189.927  Recovery = 102.92%
Sr 421.552†            88982.3      487.31 ug/L        0.823      487.31 ppb        0.823   0.17%
   QC value within limits for Sr 421.552  Recovery = 97.46%
Ti 334.940†           342156.6      514.03 ug/L        1.135      514.03 ppb        1.135   0.22%
   QC value within limits for Ti 334.940  Recovery = 102.81%
Tl 190.801†             1947.1      521.59 ug/L        7.862      521.59 ppb        7.862   1.51%
   QC value within limits for Tl 190.801  Recovery = 104.32%
U 409.014†             17431.6      491.00 ug/L        4.826      491.00 ppb        4.826   0.98%
   QC value within limits for U 409.014  Recovery = 98.20%
V 292.402†             78290.6      518.50 ug/L        1.423      518.50 ppb        1.423   0.27%
   QC value within limits for V 292.402  Recovery = 103.70%
Zn 213.857†            61570.0      516.96 ug/L        0.713      516.96 ppb        0.713   0.14%
   QC value within limits for Zn 213.857  Recovery = 103.39%
SiO2†                  89286.0      5512.1 ug/L        47.51      5512.1 ppb        47.51   0.86%
   QC value within limits for SiO2  Recovery = 103.08%
All analyte(s) passed QC.
```

Sequence No.: 17
Sample ID: CCB
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 12/18/2009 08:27:06
Data Type: Reprocessed on 12/18/2009 08:38:07
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc 361.383	925884.1	925884.1	100.11	%			08:30:16
1	Sc Radial	5789.4	5789.4	102	%			08:28:59
1	Y 371.029	759877.2	759877.2	99.995	%			08:30:16
1	Y RADIAL	5977.9	5977.9	102.1	%			08:28:59
1	Ag 328.068†	352.4	17.0	0.0810	ug/L	0.0810	ppb	08:30:16
1	Al 396.153Radial†	-7.2	24.6	18.565	ug/L	18.565	ppb	08:28:59
1	As 188.979†	-28.9	1.8	0.6635	ug/L	0.6635	ppb	08:30:36
1	B 249.677†	-170.7	290.5	6.2083	ug/L	6.2083	ppb	08:30:16
1	Ba 233.527†	4.7	2.8	0.0204	ug/L	0.0204	ppb	08:30:36
1	Be 313.107†	-4603.1	87.1	0.0309	ug/L	0.0309	ppb	08:30:16
1	Ca 317.933Radial†	21.8	3.9	5.6386	ug/L	5.6386	ppb	08:29:19
1	Cd 226.502†	-202.8	10.7	0.1049	ug/L	0.1049	ppb	08:30:36
1	Co 228.616†	-72.6	19.4	0.3462	ug/L	0.3462	ppb	08:30:36
1	Cr 267.716†	85.2	-18.3	-0.1882	ug/L	-0.1882	ppb	08:30:36
1	Cu 324.752†	6082.3	-48.2	-0.1401	ug/L	-0.1401	ppb	08:30:16
1	Fe 238.204 Radial†	17.8	2.1	15.424	ug/L	15.424	ppb	08:29:19
1	K 766.490 Radial†	3402.0	339.1	55.486	ug/L	55.486	ppb	08:28:59
1	Mg 279.077 IEC†	2.5	-0.2	-4.8957	ug/L	-4.8957	ppb	08:29:19
1	Mn 257.610†	536.7	40.0	0.0425	ug/L	0.0425	ppb	08:30:36
1	Mo 202.031†	26.3	-1.2	-0.0748	ug/L	-0.0748	ppb	08:30:36
1	Na 589.592 Radial†	-1161.2	146.3	34.910	ug/L	34.910	ppb	08:28:59
1	Ni 231.604†	87.0	6.8	0.1521	ug/L	0.1521	ppb	08:30:36
1	P 214.914†	262.6	3.6	1.9681	ug/L	1.9681	ppb	08:30:36
1	Pb 220.353†	-82.5	-18.6	-1.9851	ug/L	-1.9851	ppb	08:30:36
1	S 181.975 Axial†	59.2	7.6	9.6936	ug/L	9.6936	ppb	08:30:36
1	Sb 206.836†	54.8	14.0	4.3228	ug/L	4.3228	ppb	08:30:36
1	Se 196.026†	-35.5	-1.2	-0.5989	ug/L	-0.5989	ppb	08:30:36
1	Si 251.611†	640.9	64.2	1.8361	ug/L	1.8361	ppb	08:30:36
1	Sn 189.927†	18.6	13.6	2.0577	ug/L	2.0577	ppb	08:30:36
1	Sr 421.552†	-21.5	-27.7	-0.1516	ug/L	-0.1516	ppb	08:28:59
1	Ti 334.940†	-1495.5	7.9	0.0123	ug/L	0.0123	ppb	08:30:16
1	Tl 190.801†	-39.2	3.8	1.0080	ug/L	1.0080	ppb	08:30:36
1	U 409.014†	-2795.3	-5.4	-0.1535	ug/L	-0.1535	ppb	08:30:16
1	V 292.402†	-1503.0	12.2	0.0762	ug/L	0.0762	ppb	08:30:16
1	Zn 213.857†	851.1	43.1	0.3630	ug/L	0.3630	ppb	08:30:36
1	SiO2†	623.6	21.9	1.3042	ug/L	1.3042	ppb	08:31:32
2	Sc 361.383	923488.4	923488.4	99.847	%			08:30:41
2	Sc Radial	5806.6	5806.6	102	%			08:29:24
2	Y 371.029	758627.4	758627.4	99.831	%			08:30:41
2	Y RADIAL	6001.8	6001.8	102.5	%			08:29:24
2	Ag 328.068†	310.4	-24.2	-0.1117	ug/L	-0.1117	ppb	08:30:41
2	Al 396.153Radial†	-26.5	5.7	4.3482	ug/L	4.3482	ppb	08:29:24
2	As 188.979†	-20.5	10.1	3.7886	ug/L	3.7886	ppb	08:31:01
2	B 249.677†	-181.7	279.1	5.9670	ug/L	5.9670	ppb	08:30:41
2	Ba 233.527†	-9.6	-11.5	-0.0789	ug/L	-0.0789	ppb	08:31:01
2	Be 313.107†	-4614.0	64.3	0.0228	ug/L	0.0228	ppb	08:30:41
2	Ca 317.933Radial†	31.2	13.0	18.649	ug/L	18.649	ppb	08:29:44
2	Cd 226.502†	-213.7	-0.8	-0.0072	ug/L	-0.0072	ppb	08:31:01
2	Co 228.616†	-80.8	10.9	0.1928	ug/L	0.1928	ppb	08:31:01
2	Cr 267.716†	117.2	14.0	0.1442	ug/L	0.1442	ppb	08:31:01
2	Cu 324.752†	6192.4	77.9	0.2274	ug/L	0.2274	ppb	08:30:41
2	Fe 238.204 Radial†	14.7	-1.0	-7.3708	ug/L	-7.3708	ppb	08:29:44
2	K 766.490 Radial†	3399.1	326.3	53.374	ug/L	53.374	ppb	08:29:24
2	Mg 279.077 IEC†	1.3	-1.4	-40.714	ug/L	-40.714	ppb	08:29:44
2	Mn 257.610†	558.8	63.6	0.0648	ug/L	0.0648	ppb	08:31:01
2	Mo 202.031†	11.7	-15.8	-0.9721	ug/L	-0.9721	ppb	08:31:01
2	Na 589.592 Radial†	-1097.8	211.7	50.537	ug/L	50.537	ppb	08:29:24
2	Ni 231.604†	94.0	14.0	0.3125	ug/L	0.3125	ppb	08:31:01

2	P 214.914†	249.8	-8.6	-4.5678	ug/L	-4.5678 ppb	08:31:01
2	Pb 220.353†	-73.1	-9.4	-1.0076	ug/L	-1.0076 ppb	08:31:01
2	S 181.975 Axial†	45.6	-5.9	-7.6226	ug/L	-7.6226 ppb	08:31:01
2	Sb 206.836†	50.7	10.1	3.0890	ug/L	3.0890 ppb	08:31:01
2	Se 196.026†	-27.3	6.9	3.8588	ug/L	3.8588 ppb	08:31:01
2	Si 251.611†	627.5	52.4	1.5118	ug/L	1.5118 ppb	08:31:01
2	Sn 189.927†	16.7	11.7	1.7850	ug/L	1.7850 ppb	08:31:01
2	Sr 421.552†	-12.0	-18.3	-0.1002	ug/L	-0.1002 ppb	08:29:24
2	Ti 334.940†	-1485.1	14.4	0.0210	ug/L	0.0210 ppb	08:30:41
2	Tl 190.801†	-47.1	-4.2	-1.1109	ug/L	-1.1109 ppb	08:31:01
2	U 409.014†	-2657.7	125.2	3.5397	ug/L	3.5397 ppb	08:30:41
2	V 292.402†	-1439.1	72.3	0.4659	ug/L	0.4659 ppb	08:30:41
2	Zn 213.857†	851.3	45.6	0.3861	ug/L	0.3861 ppb	08:31:01
2	SiO2†	623.9	23.7	1.4567	ug/L	1.4567 ppb	08:31:37
3	Sc 361.383	927981.6	927981.6	100.33	%		08:31:06
3	Sc Radial	5758.5	5758.5	101	%		08:29:49
3	Y 371.029	764088.1	764088.1	100.55	%		08:31:06
3	Y RADIAL	5944.2	5944.2	101.6	%		08:29:49
3	Ag 328.068†	293.4	-42.6	-0.1961	ug/L	-0.1961 ppb	08:31:06
3	Al 396.153Radial†	-16.6	15.3	11.572	ug/L	11.572 ppb	08:29:49
3	As 188.979†	-28.6	2.1	0.7772	ug/L	0.7772 ppb	08:31:26
3	B 249.677†	-127.4	334.0	7.1431	ug/L	7.1431 ppb	08:31:06
3	Ba 233.527†	10.3	8.4	0.0575	ug/L	0.0575 ppb	08:31:26
3	Be 313.107†	-4619.8	80.8	0.0287	ug/L	0.0287 ppb	08:31:06
3	Ca 317.933Radial†	28.9	11.1	15.856	ug/L	15.856 ppb	08:30:09
3	Cd 226.502†	-200.7	13.2	0.1327	ug/L	0.1327 ppb	08:31:26
3	Co 228.616†	-81.6	10.5	0.1873	ug/L	0.1873 ppb	08:31:26
3	Cr 267.716†	100.5	-3.2	-0.0346	ug/L	-0.0346 ppb	08:31:26
3	Cu 324.752†	6058.0	-86.2	-0.2526	ug/L	-0.2526 ppb	08:31:06
3	Fe 238.204 Radial†	14.4	-1.2	-9.3139	ug/L	-9.3139 ppb	08:30:09
3	K 766.490 Radial†	3244.9	201.9	33.027	ug/L	33.027 ppb	08:29:49
3	Mg 279.077 IEC†	0.8	-1.9	-56.081	ug/L	-56.081 ppb	08:30:09
3	Mn 257.610†	542.3	44.4	0.0454	ug/L	0.0454 ppb	08:31:26
3	Mo 202.031†	25.5	-2.2	-0.1334	ug/L	-0.1334 ppb	08:31:26
3	Na 589.592 Radial†	-1136.3	164.7	39.306	ug/L	39.306 ppb	08:29:49
3	Ni 231.604†	88.1	7.8	0.1728	ug/L	0.1728 ppb	08:31:26
3	P 214.914†	268.8	9.2	4.9499	ug/L	4.9499 ppb	08:31:26
3	Pb 220.353†	-64.3	-0.3	-0.0282	ug/L	-0.0282 ppb	08:31:26
3	S 181.975 Axial†	56.8	5.0	6.3678	ug/L	6.3678 ppb	08:31:26
3	Sb 206.836†	47.0	6.2	1.9021	ug/L	1.9021 ppb	08:31:26
3	Se 196.026†	-23.3	11.1	6.2087	ug/L	6.2087 ppb	08:31:26
3	Si 251.611†	626.6	48.4	1.3937	ug/L	1.3937 ppb	08:31:26
3	Sn 189.927†	7.4	2.4	0.3668	ug/L	0.3668 ppb	08:31:26
3	Sr 421.552†	33.9	27.0	0.1477	ug/L	0.1477 ppb	08:29:49
3	Ti 334.940†	-1467.8	38.9	0.0584	ug/L	0.0584 ppb	08:31:06
3	Tl 190.801†	-32.7	10.3	2.7534	ug/L	2.7534 ppb	08:31:26
3	U 409.014†	-2722.8	73.2	2.0702	ug/L	2.0702 ppb	08:31:06
3	V 292.402†	-1564.8	-46.0	-0.2984	ug/L	-0.2984 ppb	08:31:06
3	Zn 213.857†	850.6	40.7	0.3468	ug/L	0.3468 ppb	08:31:26
3	SiO2†	621.6	18.5	1.1226	ug/L	1.1226 ppb	08:31:42

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	925784.7	100.10	%	0.243				0.24%
Sc Radial	5784.8	102	%	0.4				0.42%
Y 371.029	760864.2	100.12	%	0.376				0.38%
Y RADIAL	5974.7	102.1	%	0.49				0.48%
Ag 328.068†	-16.6	-0.0756	ug/L	0.14201	-0.0756	ppb	0.14201	187.81%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	15.2	11.495	ug/L	7.1085	11.495	ppb	7.1085	61.84%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	4.7	1.7431	ug/L	1.77239	1.7431	ppb	1.77239	101.68%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	301.2	6.4395	ug/L	0.62117	6.4395	ppb	0.62117	9.65%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-0.1	-0.0003	ug/L	0.07053	-0.0003	ppb	0.07053	>999.9%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	77.4	0.0275	ug/L	0.00418	0.0275	ppb	0.00418	15.21%
QC value within limits for Be 313.107 Recovery = Not calculated								

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Ca 317.933Radial†          9.3      13.381 ug/L        6.8494      13.381 ppb        6.8494  51.19%
   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                7.7       0.0768 ug/L       0.07406      0.0768 ppb       0.07406  96.46%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†               13.6       0.2421 ug/L       0.09018      0.2421 ppb       0.09018  37.25%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†               -2.5      -0.0262 ug/L       0.16636     -0.0262 ppb       0.16636 635.16%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -18.8      -0.0551 ug/L       0.25104     -0.0551 ppb       0.25104 455.72%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        -0.1      -0.4203 ug/L      13.75575     -0.4203 ppb      13.75575 >999.9%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        289.1      47.296 ug/L       12.4021      47.296 ppb       12.4021  26.22%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           -1.1     -33.897 ug/L       26.2647     -33.897 ppb       26.2647  77.48%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               49.4       0.0509 ug/L       0.01216      0.0509 ppb       0.01216  23.88%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               -6.4      -0.3934 ug/L       0.50197     -0.3934 ppb       0.50197 127.59%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       174.2      41.584 ug/L        8.0587      41.584 ppb        8.0587  19.38%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                9.5       0.2125 ug/L       0.08726      0.2125 ppb       0.08726  41.07%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 1.4       0.7834 ug/L       4.86817      0.7834 ppb       4.86817 621.41%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               -9.4      -1.0070 ug/L       0.97846     -1.0070 ppb       0.97846  97.17%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           2.2       2.8129 ug/L       9.18916      2.8129 ppb       9.18916 326.68%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               10.1       3.1047 ug/L       1.21042      3.1047 ppb       1.21042  38.99%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                5.6       3.1562 ug/L       3.45777      3.1562 ppb       3.45777 109.55%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†               55.0       1.5805 ug/L       0.22905      1.5805 ppb       0.22905  14.49%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                9.2       1.4032 ug/L       0.90779      1.4032 ppb       0.90779  64.70%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               -6.3      -0.0347 ug/L       0.16006     -0.0347 ppb       0.16006 461.35%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               20.4       0.0306 ug/L       0.02446      0.0306 ppb       0.02446  80.00%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                3.3       0.8835 ug/L       1.93515      0.8835 ppb       1.93515 219.04%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                64.4       1.8188 ug/L       1.85938      1.8188 ppb       1.85938 102.23%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                12.9       0.0812 ug/L       0.38215      0.0812 ppb       0.38215 470.44%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               43.1       0.3653 ug/L       0.01975      0.3653 ppb       0.01975   5.41%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                     21.3       1.2945 ug/L       0.16725      1.2945 ppb       0.16725  12.92%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 8
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 12/18/2009 09:28:35
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5693.3	5693.3	100	%			09:30:27
1	Y RADIAL	5832.2	5832.2	99.64	%			09:30:27
1	Al 396.153Radial†	6845.6	6870.2	5165.0	ug/L	5165.0	ppb	09:30:27
1	Ca 317.933Radial†	3580.1	3558.9	5099.8	ug/L	5099.8	ppb	09:30:47
1	Fe 238.204 Radial†	694.7	678.5	5107.4	ug/L	5107.4	ppb	09:30:47
1	K 766.490 Radial†	33956.9	30918.7	5051.0	ug/L	5051.0	ppb	09:30:27
1	Mg 279.077 IEC†	174.0	171.2	5155.7	ug/L	5155.7	ppb	09:30:47
1	Na 589.592 Radial†	39723.9	40969.5	9779.0	ug/L	9779.0	ppb	09:30:27
1	Sr 421.552†	92512.6	92409.8	506.08	ug/L	506.08	ppb	09:30:27
1	Sc 361.383	938090.2	938090.2	101.43	%			09:31:45
1	Y 371.029	754261.2	754261.2	99.256	%			09:31:45
1	Ag 328.068†	117349.4	115364.7	516.53	ug/L	516.53	ppb	09:31:50
1	As 188.979†	1386.3	1397.4	527.46	ug/L	527.46	ppb	09:32:10
1	B 249.677†	23943.2	24067.6	512.62	ug/L	512.62	ppb	09:31:50
1	Ba 233.527†	75125.6	74067.7	515.96	ug/L	515.96	ppb	09:31:50
1	Be 313.107†	1489875.2	1473617.4	523.37	ug/L	523.37	ppb	09:31:45
1	Cd 226.502†	52253.8	51732.6	516.19	ug/L	516.19	ppb	09:31:50
1	Co 228.616†	29215.9	28897.1	516.75	ug/L	516.75	ppb	09:31:50
1	Cr 267.716†	50461.9	49649.2	514.11	ug/L	514.11	ppb	09:31:50
1	Cu 324.752†	183837.1	175128.8	512.58	ug/L	512.58	ppb	09:31:50
1	Mn 257.610†	519988.3	512182.8	522.62	ug/L	522.62	ppb	09:31:45
1	Mo 202.031†	8456.2	8309.8	511.60	ug/L	511.60	ppb	09:32:10
1	Ni 231.604†	23451.1	23041.4	513.60	ug/L	513.60	ppb	09:31:50
1	P 214.914†	5174.7	4843.2	2505.7	ug/L	2505.7	ppb	09:32:10
1	Pb 220.353†	4829.1	4825.0	516.66	ug/L	516.66	ppb	09:32:10
1	S 181.975 Axial†	866.2	802.4	1027.9	ug/L	1027.9	ppb	09:32:10
1	Sb 206.836†	1752.5	1687.2	522.55	ug/L	522.55	ppb	09:32:10
1	Se 196.026†	905.8	927.4	539.06	ug/L	539.06	ppb	09:32:10
1	Si 251.611†	90324.4	88478.7	2552.4	ug/L	2552.4	ppb	09:31:50
1	Sn 189.927†	3419.3	3366.2	511.53	ug/L	511.53	ppb	09:32:10
1	Ti 334.940†	347748.6	344362.1	517.34	ug/L	517.34	ppb	09:31:45
1	Tl 190.801†	1925.4	1941.3	520.05	ug/L	520.05	ppb	09:32:10
1	U 409.014†	15780.8	18346.0	516.83	ug/L	516.83	ppb	09:31:50
1	V 292.402†	78125.0	78540.4	520.15	ug/L	520.15	ppb	09:31:50
1	Zn 213.857†	63070.2	61376.6	515.30	ug/L	515.30	ppb	09:31:50
1	SiO2†	90873.2	88994.7	5493.9	ug/L	5493.9	ppb	09:33:18
2	Sc Radial	5691.2	5691.2	100	%			09:30:52
2	Y RADIAL	5849.1	5849.1	99.93	%			09:30:52
2	Al 396.153Radial†	6675.8	6703.1	5038.8	ug/L	5038.8	ppb	09:30:52
2	Ca 317.933Radial†	3594.5	3574.6	5122.3	ug/L	5122.3	ppb	09:31:12
2	Fe 238.204 Radial†	701.0	685.1	5156.9	ug/L	5156.9	ppb	09:31:12
2	K 766.490 Radial†	33470.3	30445.1	4973.6	ug/L	4973.6	ppb	09:30:52
2	Mg 279.077 IEC†	180.2	177.4	5344.3	ug/L	5344.3	ppb	09:31:12
2	Na 589.592 Radial†	38723.3	39984.6	9543.9	ug/L	9543.9	ppb	09:30:52
2	Sr 421.552†	89922.4	89856.2	492.09	ug/L	492.09	ppb	09:30:52
2	Sc 361.383	935160.7	935160.7	101.11	%			09:32:16
2	Y 371.029	751574.1	751574.1	98.902	%			09:32:16
2	Ag 328.068†	118659.3	117022.7	523.94	ug/L	523.94	ppb	09:32:21
2	As 188.979†	1372.7	1388.3	524.06	ug/L	524.06	ppb	09:32:41
2	B 249.677†	24301.8	24496.3	521.76	ug/L	521.76	ppb	09:32:21
2	Ba 233.527†	76049.6	75213.6	523.94	ug/L	523.94	ppb	09:32:21
2	Be 313.107†	1484613.6	1473015.1	523.15	ug/L	523.15	ppb	09:32:16
2	Cd 226.502†	52842.1	52475.8	523.61	ug/L	523.61	ppb	09:32:21
2	Co 228.616†	29505.6	29273.8	523.49	ug/L	523.49	ppb	09:32:21
2	Cr 267.716†	51042.0	50378.7	521.66	ug/L	521.66	ppb	09:32:21
2	Cu 324.752†	185999.4	177835.2	520.50	ug/L	520.50	ppb	09:32:21
2	Mn 257.610†	517698.2	511523.8	521.95	ug/L	521.95	ppb	09:32:16
2	Mo 202.031†	8448.0	8327.8	512.71	ug/L	512.71	ppb	09:32:41
2	Ni 231.604†	23637.8	23298.5	519.33	ug/L	519.33	ppb	09:32:21

2	P 214.914†	5189.5	4873.9	2520.8 ug/L	2520.8 ppb	09:32:41
2	Pb 220.353†	4837.1	4847.9	519.06 ug/L	519.06 ppb	09:32:41
2	S 181.975 Axial†	863.9	802.8	1028.3 ug/L	1028.3 ppb	09:32:41
2	Sb 206.836†	1741.2	1681.4	520.68 ug/L	520.68 ppb	09:32:41
2	Se 196.026†	924.7	948.8	551.26 ug/L	551.26 ppb	09:32:41
2	Si 251.611†	91324.0	89746.2	2589.1 ug/L	2589.1 ppb	09:32:21
2	Sn 189.927†	3418.1	3375.6	512.94 ug/L	512.94 ppb	09:32:41
2	Ti 334.940†	346976.4	344672.4	517.81 ug/L	517.81 ppb	09:32:16
2	Tl 190.801†	1921.6	1943.5	520.57 ug/L	520.57 ppb	09:32:41
2	U 409.014†	15974.6	18586.4	523.60 ug/L	523.60 ppb	09:32:21
2	V 292.402†	78950.2	79597.9	527.09 ug/L	527.09 ppb	09:32:21
2	Zn 213.857†	63722.4	62216.4	522.36 ug/L	522.36 ppb	09:32:21
2	SiO2†	91079.0	89478.9	5524.0 ug/L	5524.0 ppb	09:33:23
3	Sc Radial	5734.6	5734.6	101 %		09:31:17
3	Y RADIAL	5886.9	5886.9	100.6 %		09:31:17
3	Al 396.153Radial†	6774.9	6750.8	5075.0 ug/L	5075.0 ppb	09:31:17
3	Ca 317.933Radial†	3599.7	3552.5	5090.7 ug/L	5090.7 ppb	09:31:37
3	Fe 238.204 Radial†	693.3	672.1	5059.3 ug/L	5059.3 ppb	09:31:37
3	K 766.490 Radial†	33854.2	30572.4	4994.4 ug/L	4994.4 ppb	09:31:17
3	Mg 279.077 IEC†	178.4	174.3	5248.7 ug/L	5248.7 ppb	09:31:37
3	Na 589.592 Radial†	39104.6	40069.4	9564.2 ug/L	9564.2 ppb	09:31:17
3	Sr 421.552†	91019.3	90263.0	494.32 ug/L	494.32 ppb	09:31:17
3	Sc 361.383	945082.3	945082.3	102.18 %		09:32:47
3	Y 371.029	758155.6	758155.6	99.769 %		09:32:47
3	Ag 328.068†	118925.7	116051.4	519.57 ug/L	519.57 ppb	09:32:52
3	As 188.979†	1362.9	1364.4	515.12 ug/L	515.12 ppb	09:33:12
3	B 249.677†	24444.1	24383.2	519.36 ug/L	519.36 ppb	09:32:52
3	Ba 233.527†	76099.9	74473.2	518.78 ug/L	518.78 ppb	09:32:52
3	Be 313.107†	1501014.1	1473650.9	523.38 ug/L	523.38 ppb	09:32:47
3	Cd 226.502†	53017.3	52098.6	519.85 ug/L	519.85 ppb	09:32:52
3	Co 228.616†	29586.7	29046.9	519.42 ug/L	519.42 ppb	09:32:52
3	Cr 267.716†	51222.2	50025.2	517.99 ug/L	517.99 ppb	09:32:52
3	Cu 324.752†	186563.2	176455.7	516.46 ug/L	516.46 ppb	09:32:52
3	Mn 257.610†	524622.3	512924.9	523.37 ug/L	523.37 ppb	09:32:47
3	Mo 202.031†	8440.5	8232.8	506.86 ug/L	506.86 ppb	09:33:12
3	Ni 231.604†	23825.1	23236.3	517.95 ug/L	517.95 ppb	09:32:52
3	P 214.914†	5161.6	4792.6	2478.1 ug/L	2478.1 ppb	09:33:12
3	Pb 220.353†	4823.8	4784.6	512.31 ug/L	512.31 ppb	09:33:12
3	S 181.975 Axial†	865.3	795.2	1018.7 ug/L	1018.7 ppb	09:33:12
3	Sb 206.836†	1746.9	1668.9	516.70 ug/L	516.70 ppb	09:33:12
3	Se 196.026†	929.6	944.0	548.23 ug/L	548.23 ppb	09:33:12
3	Si 251.611†	91674.5	89141.0	2571.7 ug/L	2571.7 ppb	09:32:52
3	Sn 189.927†	3419.0	3341.0	507.70 ug/L	507.70 ppb	09:33:12
3	Ti 334.940†	350694.5	344708.5	517.86 ug/L	517.86 ppb	09:32:47
3	Tl 190.801†	1910.6	1912.7	512.43 ug/L	512.43 ppb	09:33:12
3	U 409.014†	16061.6	18505.6	521.34 ug/L	521.34 ppb	09:32:52
3	V 292.402†	79066.4	78891.9	522.40 ug/L	522.40 ppb	09:32:52
3	Zn 213.857†	63863.2	61692.5	517.95 ug/L	517.95 ppb	09:32:52
3	SiO2†	92188.4	89618.9	5532.9 ug/L	5532.9 ppb	09:33:28

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	939444.4	101.57	%	0.551				0.54%
Sc Radial	5706.4	100	%	0.4				0.43%
Y 371.029	754663.7	99.309	%	0.4355				0.44%
Y RADIAL	5856.1	100.0	%	0.48				0.48%
Ag 328.068†	116146.3	520.01	ug/L	3.727	520.01	ppb	3.727	0.72%
QC value within limits for Ag 328.068 Recovery = 104.00%								
Al 396.153Radial†	6774.7	5092.9	ug/L	64.99	5092.9	ppb	64.99	1.28%
QC value within limits for Al 396.153Radial Recovery = 101.86%								
As 188.979†	1383.4	522.22	ug/L	6.375	522.22	ppb	6.375	1.22%
QC value within limits for As 188.979 Recovery = 104.44%								
B 249.677†	24315.7	517.91	ug/L	4.740	517.91	ppb	4.740	0.92%
QC value within limits for B 249.677 Recovery = 103.58%								
Ba 233.527†	74584.9	519.56	ug/L	4.046	519.56	ppb	4.046	0.78%
QC value within limits for Ba 233.527 Recovery = 103.91%								
Be 313.107†	1473427.8	523.30	ug/L	0.127	523.30	ppb	0.127	0.02%
QC value within limits for Be 313.107 Recovery = 104.66%								
Ca 317.933Radial†	3562.0	5104.3	ug/L	16.27	5104.3	ppb	16.27	0.32%

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   QC value within limits for Ca 317.933Radial  Recovery = 102.09%
Cd 226.502†            52102.3      519.89 ug/L         3.709      519.89 ppb          3.709   0.71%
   QC value within limits for Cd 226.502  Recovery = 103.98%
Co 228.616†            29072.6      519.89 ug/L         3.392      519.89 ppb          3.392   0.65%
   QC value within limits for Co 228.616  Recovery = 103.98%
Cr 267.716†            50017.7      517.92 ug/L         3.777      517.92 ppb          3.777   0.73%
   QC value within limits for Cr 267.716  Recovery = 103.58%
Cu 324.752†           176473.3      516.52 ug/L         3.960      516.52 ppb          3.960   0.77%
   QC value within limits for Cu 324.752  Recovery = 103.30%
Fe 238.204 Radial†       678.6      5107.9 ug/L        48.79      5107.9 ppb          48.79   0.96%
   QC value within limits for Fe 238.204 Radial  Recovery = 102.16%
K 766.490 Radial†      30645.4      5006.3 ug/L        40.06      5006.3 ppb          40.06   0.80%
   QC value within limits for K 766.490 Radial  Recovery = 100.13%
Mg 279.077 IEC†          174.3      5249.6 ug/L        94.31      5249.6 ppb          94.31   1.80%
   QC value within limits for Mg 279.077 IEC  Recovery = 104.99%
Mn 257.610†           512210.5      522.65 ug/L         0.711      522.65 ppb          0.711   0.14%
   QC value within limits for Mn 257.610  Recovery = 104.53%
Mo 202.031†             8290.1      510.39 ug/L         3.109      510.39 ppb          3.109   0.61%
   QC value within limits for Mo 202.031  Recovery = 102.08%
Na 589.592 Radial†     40341.2      9629.0 ug/L       130.28      9629.0 ppb         130.28   1.35%
   QC value within limits for Na 589.592 Radial  Recovery = 96.29%
Ni 231.604†            23192.0      516.96 ug/L         2.990      516.96 ppb          2.990   0.58%
   QC value within limits for Ni 231.604  Recovery = 103.39%
P 214.914†              4836.6      2501.6 ug/L        21.64      2501.6 ppb          21.64   0.87%
   QC value within limits for P 214.914  Recovery = 100.06%
Pb 220.353†             4819.2      516.01 ug/L         3.419      516.01 ppb          3.419   0.66%
   QC value within limits for Pb 220.353  Recovery = 103.20%
S 181.975 Axial†         800.1      1025.0 ug/L         5.44      1025.0 ppb           5.44   0.53%
   QC value within limits for S 181.975 Axial  Recovery = 102.50%
Sb 206.836†             1679.2      519.98 ug/L         2.989      519.98 ppb          2.989   0.57%
   QC value within limits for Sb 206.836  Recovery = 104.00%
Se 196.026†              940.1      546.18 ug/L         6.355      546.18 ppb          6.355   1.16%
   QC value within limits for Se 196.026  Recovery = 109.24%
Si 251.611†            89122.0      2571.1 ug/L        18.38      2571.1 ppb          18.38   0.71%
   QC value within limits for Si 251.611  Recovery = 102.84%
Sn 189.927†             3360.9      510.72 ug/L         2.713      510.72 ppb          2.713   0.53%
   QC value within limits for Sn 189.927  Recovery = 102.14%
Sr 421.552†            90843.0      497.50 ug/L         7.515      497.50 ppb          7.515   1.51%
   QC value within limits for Sr 421.552  Recovery = 99.50%
Ti 334.940†           344581.0      517.67 ug/L         0.284      517.67 ppb          0.284   0.05%
   QC value within limits for Ti 334.940  Recovery = 103.53%
Tl 190.801†             1932.5      517.68 ug/L         4.557      517.68 ppb          4.557   0.88%
   QC value within limits for Tl 190.801  Recovery = 103.54%
U 409.014†             18479.3      520.59 ug/L         3.449      520.59 ppb          3.449   0.66%
   QC value within limits for U 409.014  Recovery = 104.12%
V 292.402†             79010.1      523.21 ug/L         3.537      523.21 ppb          3.537   0.68%
   QC value within limits for V 292.402  Recovery = 104.64%
Zn 213.857†            61761.9      518.54 ug/L         3.565      518.54 ppb          3.565   0.69%
   QC value within limits for Zn 213.857  Recovery = 103.71%
SiO2†                  89364.2      5517.0 ug/L        20.41      5517.0 ppb          20.41   0.37%
   QC value within limits for SiO2  Recovery = 103.17%
All analyte(s) passed QC.
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Sequence No.: 9
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 12/18/2009 09:35:37
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5930.0	5930.0	104	%			09:37:30
1	Y RADIAL	6131.5	6131.5	104.8	%			09:37:30
1	Al 396.153Radial†	-27.0	5.8	4.4349	ug/L	4.4349	ppb	09:37:30
1	Ca 317.933Radial†	32.6	13.8	19.780	ug/L	19.780	ppb	09:37:50
1	Fe 238.204 Radial†	11.9	-4.0	-29.880	ug/L	-29.880	ppb	09:37:50
1	K 766.490 Radial†	3140.6	9.2	1.4804	ug/L	1.4804	ppb	09:37:30
1	Mg 279.077 IEC†	0.9	-1.7	-52.579	ug/L	-52.579	ppb	09:37:50
1	Na 589.592 Radial†	-1112.1	220.4	52.609	ug/L	52.609	ppb	09:37:30
1	Sr 421.552†	15.9	8.7	0.0474	ug/L	0.0474	ppb	09:37:30
1	Sc 361.383	946350.8	946350.8	102.32	%			09:38:47
1	Y 371.029	770940.9	770940.9	101.45	%			09:38:47
1	Ag 328.068†	362.2	19.0	0.0679	ug/L	0.0679	ppb	09:38:52
1	As 188.979†	-30.8	0.5	0.1939	ug/L	0.1939	ppb	09:39:12
1	B 249.677†	-206.5	259.2	5.5456	ug/L	5.5456	ppb	09:39:12
1	Ba 233.527†	23.1	20.7	0.1433	ug/L	0.1433	ppb	09:39:12
1	Be 313.107†	-4600.5	189.0	0.0672	ug/L	0.0672	ppb	09:38:52
1	Cd 226.502†	-196.2	21.5	0.2183	ug/L	0.2183	ppb	09:39:12
1	Co 228.616†	-89.1	4.8	0.0830	ug/L	0.0830	ppb	09:39:12
1	Cr 267.716†	92.8	-12.7	-0.1344	ug/L	-0.1344	ppb	09:39:12
1	Cu 324.752†	6186.8	-77.5	-0.2283	ug/L	-0.2283	ppb	09:38:52
1	Mn 257.610†	555.6	47.0	0.0459	ug/L	0.0459	ppb	09:39:12
1	Mo 202.031†	11.1	-16.7	-1.0303	ug/L	-1.0303	ppb	09:39:12
1	Ni 231.604†	103.4	21.0	0.4685	ug/L	0.4685	ppb	09:39:12
1	P 214.914†	265.4	0.6	0.4022	ug/L	0.4022	ppb	09:39:12
1	Pb 220.353†	-64.0	1.2	0.1342	ug/L	0.1342	ppb	09:39:12
1	S 181.975 Axial†	53.4	0.6	0.7693	ug/L	0.7693	ppb	09:39:12
1	Sb 206.836†	48.0	6.3	1.9194	ug/L	1.9194	ppb	09:39:12
1	Se 196.026†	-37.9	-2.8	-1.6641	ug/L	-1.6641	ppb	09:39:12
1	Si 251.611†	690.5	98.8	2.8768	ug/L	2.8768	ppb	09:39:12
1	Sn 189.927†	14.0	8.7	1.3167	ug/L	1.3167	ppb	09:39:12
1	Ti 334.940†	-1476.9	58.4	0.0853	ug/L	0.0853	ppb	09:38:52
1	Tl 190.801†	-49.8	-5.7	-1.5130	ug/L	-1.5130	ppb	09:39:12
1	U 409.014†	-2560.9	284.2	8.0344	ug/L	8.0344	ppb	09:38:47
1	V 292.402†	-1519.9	28.2	0.1883	ug/L	0.1883	ppb	09:38:52
1	Zn 213.857†	857.5	31.0	0.2644	ug/L	0.2644	ppb	09:39:12
1	SiO2†	704.1	87.1	5.4290	ug/L	5.4290	ppb	09:40:18
2	Sc Radial	5832.3	5832.3	103	%			09:37:55
2	Y RADIAL	6014.8	6014.8	102.8	%			09:37:55
2	Al 396.153Radial†	-27.2	5.2	3.8914	ug/L	3.8914	ppb	09:37:55
2	Ca 317.933Radial†	28.9	10.7	15.268	ug/L	15.268	ppb	09:38:15
2	Fe 238.204 Radial†	14.7	-1.1	-8.2401	ug/L	-8.2401	ppb	09:38:15
2	K 766.490 Radial†	3138.8	57.9	9.4561	ug/L	9.4561	ppb	09:37:55
2	Mg 279.077 IEC†	1.4	-1.3	-39.269	ug/L	-39.269	ppb	09:38:15
2	Na 589.592 Radial†	-1115.1	199.6	47.641	ug/L	47.641	ppb	09:37:55
2	Sr 421.552†	-3.4	-9.8	-0.0538	ug/L	-0.0538	ppb	09:37:55
2	Sc 361.383	950419.1	950419.1	102.76	%			09:39:17
2	Y 371.029	774617.0	774617.0	101.93	%			09:39:17
2	Ag 328.068†	398.6	52.8	0.2240	ug/L	0.2240	ppb	09:39:22
2	As 188.979†	-28.6	2.8	1.0556	ug/L	1.0556	ppb	09:39:42
2	B 249.677†	-206.2	260.4	5.5691	ug/L	5.5691	ppb	09:39:42
2	Ba 233.527†	4.5	2.5	0.0177	ug/L	0.0177	ppb	09:39:42
2	Be 313.107†	-4566.9	241.0	0.0855	ug/L	0.0855	ppb	09:39:22
2	Cd 226.502†	-199.5	19.2	0.1923	ug/L	0.1923	ppb	09:39:42
2	Co 228.616†	-97.8	-3.3	-0.0577	ug/L	-0.0577	ppb	09:39:42
2	Cr 267.716†	97.7	-8.3	-0.0890	ug/L	-0.0890	ppb	09:39:42
2	Cu 324.752†	6076.7	-210.5	-0.6164	ug/L	-0.6164	ppb	09:39:22
2	Mn 257.610†	603.3	91.1	0.0928	ug/L	0.0928	ppb	09:39:42
2	Mo 202.031†	40.0	11.4	0.7004	ug/L	0.7004	ppb	09:39:42
2	Ni 231.604†	97.7	15.0	0.3352	ug/L	0.3352	ppb	09:39:42

2	P 214.914†	259.1	-6.6	-3.4315	ug/L	-3.4315 ppb	09:39:42
2	Pb 220.353†	-84.0	-17.9	-1.9077	ug/L	-1.9077 ppb	09:39:42
2	S 181.975 Axial†	44.6	-8.2	-10.461	ug/L	-10.461 ppb	09:39:42
2	Sb 206.836†	42.8	0.9	0.3098	ug/L	0.3098 ppb	09:39:42
2	Se 196.026†	-26.1	8.9	4.9786	ug/L	4.9786 ppb	09:39:42
2	Si 251.611†	790.9	193.6	5.5957	ug/L	5.5957 ppb	09:39:42
2	Sn 189.927†	6.1	0.9	0.1406	ug/L	0.1406 ppb	09:39:42
2	Ti 334.940†	-1526.8	16.0	0.0204	ug/L	0.0204 ppb	09:39:22
2	Tl 190.801†	-45.3	-1.1	-0.2870	ug/L	-0.2870 ppb	09:39:42
2	U 409.014†	-2489.8	364.0	10.289	ug/L	10.289 ppb	09:39:17
2	V 292.402†	-1520.5	34.0	0.2524	ug/L	0.2524 ppb	09:39:22
2	Zn 213.857†	837.2	7.7	0.0660	ug/L	0.0660 ppb	09:39:42
2	SiO2†	686.3	66.8	4.1069	ug/L	4.1069 ppb	09:40:23
3	Sc Radial	5712.0	5712.0	100	%		09:38:20
3	Y RADIAL	5898.7	5898.7	100.8	%		09:38:20
3	Al 396.153Radial†	-11.8	19.9	15.007	ug/L	15.007 ppb	09:38:20
3	Ca 317.933Radial†	20.9	3.3	4.6858	ug/L	4.6858 ppb	09:38:40
3	Fe 238.204 Radial†	12.1	-3.4	-25.468	ug/L	-25.468 ppb	09:38:40
3	K 766.490 Radial†	3150.0	133.5	21.840	ug/L	21.840 ppb	09:38:20
3	Mg 279.077 IEC†	0.6	-2.0	-60.235	ug/L	-60.235 ppb	09:38:40
3	Na 589.592 Radial†	-1186.6	105.5	25.181	ug/L	25.181 ppb	09:38:20
3	Sr 421.552†	0.8	-5.7	-0.0314	ug/L	-0.0314 ppb	09:38:20
3	Sc 361.383	940996.1	940996.1	101.74	%		09:39:48
3	Y 371.029	766134.3	766134.3	100.82	%		09:39:48
3	Ag 328.068†	341.4	0.5	-0.0112	ug/L	-0.0112 ppb	09:39:53
3	As 188.979†	-20.3	10.7	4.0025	ug/L	4.0025 ppb	09:40:13
3	B 249.677†	-245.7	219.6	4.6981	ug/L	4.6981 ppb	09:40:13
3	Ba 233.527†	-4.4	-6.2	-0.0431	ug/L	-0.0431 ppb	09:40:13
3	Be 313.107†	-4658.3	106.7	0.0377	ug/L	0.0377 ppb	09:39:53
3	Cd 226.502†	-215.5	1.4	0.0170	ug/L	0.0170 ppb	09:40:13
3	Co 228.616†	-101.5	-7.9	-0.1406	ug/L	-0.1406 ppb	09:40:13
3	Cr 267.716†	106.0	0.8	0.0063	ug/L	0.0063 ppb	09:40:13
3	Cu 324.752†	6140.6	-88.5	-0.2601	ug/L	-0.2601 ppb	09:39:53
3	Mn 257.610†	629.1	122.2	0.1232	ug/L	0.1232 ppb	09:40:13
3	Mo 202.031†	31.9	3.8	0.2319	ug/L	0.2319 ppb	09:40:13
3	Ni 231.604†	99.3	17.5	0.3909	ug/L	0.3909 ppb	09:40:13
3	P 214.914†	265.1	1.8	1.0289	ug/L	1.0289 ppb	09:40:13
3	Pb 220.353†	-75.2	-10.1	-1.0725	ug/L	-1.0725 ppb	09:40:13
3	S 181.975 Axial†	54.1	1.6	2.0333	ug/L	2.0333 ppb	09:40:13
3	Sb 206.836†	31.6	-9.6	-2.9122	ug/L	-2.9122 ppb	09:40:13
3	Se 196.026†	-33.7	1.2	0.5840	ug/L	0.5840 ppb	09:40:13
3	Si 251.611†	690.6	102.7	2.9632	ug/L	2.9632 ppb	09:40:13
3	Sn 189.927†	12.6	7.4	1.1200	ug/L	1.1200 ppb	09:40:13
3	Ti 334.940†	-1554.2	-25.9	-0.0418	ug/L	-0.0418 ppb	09:39:53
3	Tl 190.801†	-38.4	5.3	1.4034	ug/L	1.4034 ppb	09:40:13
3	U 409.014†	-2577.3	253.8	7.1759	ug/L	7.1759 ppb	09:39:48
3	V 292.402†	-1488.3	50.8	0.3515	ug/L	0.3515 ppb	09:39:53
3	Zn 213.857†	854.5	32.9	0.2806	ug/L	0.2806 ppb	09:40:13
3	SiO2†	664.9	52.4	3.2206	ug/L	3.2206 ppb	09:40:28

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	945922.0	102.27	%	0.511				0.50%
Sc Radial	5824.8	102	%	1.9				1.87%
Y 371.029	770564.1	101.40	%	0.560				0.55%
Y RADIAL	6015.0	102.8	%	1.99				1.94%
Ag 328.068†	24.1	0.0936	ug/L	0.11966	0.0936	ppb	0.11966	127.86%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	10.3	7.7778	ug/L	6.26675	7.7778	ppb	6.26675	80.57%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	4.7	1.7507	ug/L	1.99713	1.7507	ppb	1.99713	114.08%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	246.4	5.2709	ug/L	0.49624	5.2709	ppb	0.49624	9.41%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	5.7	0.0393	ug/L	0.09508	0.0393	ppb	0.09508	241.77%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	178.9	0.0635	ug/L	0.02407	0.0635	ppb	0.02407	37.94%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	9.2	13.244	ug/L	7.7477	13.244	ppb	7.7477	58.50%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                14.0      0.1425 ug/L       0.10946      0.1425 ppb        0.10946  76.80%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                -2.2     -0.0384 ug/L       0.11304     -0.0384 ppb        0.11304 294.21%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                -6.7     -0.0724 ug/L       0.07179     -0.0724 ppb        0.07179  99.19%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -125.5     -0.3683 ug/L       0.21545     -0.3683 ppb        0.21545  58.51%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -2.8     -21.196 ug/L       11.4349     -21.196 ppb        11.4349  53.95%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          66.9      10.925 ug/L       10.2589      10.925 ppb        10.2589  93.90%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -1.7     -50.694 ug/L       10.6091     -50.694 ppb        10.6091  20.93%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                86.8      0.0873 ug/L       0.03894      0.0873 ppb        0.03894  44.61%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                -0.5     -0.0327 ug/L       0.89520     -0.0327 ppb        0.89520 >999.9%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        175.2      41.810 ug/L       14.6140      41.810 ppb        14.6140  34.95%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                17.9      0.3982 ug/L       0.06694      0.3982 ppb        0.06694  16.81%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -1.4     -0.6668 ug/L       2.41470     -0.6668 ppb        2.41470 362.13%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -8.9     -0.9487 ug/L       1.02656     -0.9487 ppb        1.02656 108.21%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -2.0     -2.5529 ug/L       6.87801     -2.5529 ppb        6.87801 269.42%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                -0.8     -0.2277 ug/L       2.46020     -0.2277 ppb        2.46020 >999.9%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 2.4      1.2995 ug/L       3.37866      1.2995 ppb        3.37866 260.00%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†               131.7      3.8119 ug/L       1.54541      3.8119 ppb        1.54541  40.54%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 5.7      0.8591 ug/L       0.62995      0.8591 ppb        0.62995  73.33%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                -2.3     -0.0126 ug/L       0.05318     -0.0126 ppb        0.05318 421.04%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                16.2      0.0213 ug/L       0.06352      0.0213 ppb        0.06352 298.52%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                -0.5     -0.1322 ug/L       1.46436     -0.1322 ppb        1.46436 >999.9%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                300.7      8.4998 ug/L       1.60798      8.4998 ppb        1.60798  18.92%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 37.6      0.2641 ug/L       0.08222      0.2641 ppb        0.08222  31.13%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                23.9      0.2037 ug/L       0.11948      0.2037 ppb        0.11948  58.66%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                      68.8      4.2522 ug/L       1.11137      4.2522 ppb        1.11137  26.14%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 18
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 12/18/2009 10:39:28
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5757.4	5757.4	101	%			10:41:21
1	Y RADIAL	5933.7	5933.7	101.4	%			10:41:21
1	Al 396.153Radial†	6811.3	6760.1	5081.9	ug/L	5081.9	ppb	10:41:21
1	Ca 317.933Radial†	3575.2	3514.2	5035.8	ug/L	5035.8	ppb	10:41:41
1	Fe 238.204 Radial†	696.8	672.9	5065.1	ug/L	5065.1	ppb	10:41:41
1	K 766.490 Radial†	33899.6	30484.3	4979.9	ug/L	4979.9	ppb	10:41:21
1	Mg 279.077 IEC†	179.1	174.3	5250.3	ug/L	5250.3	ppb	10:41:41
1	Na 589.592 Radial†	40147.0	40945.6	9773.3	ug/L	9773.3	ppb	10:41:21
1	Sr 421.552†	92656.4	91522.8	501.22	ug/L	501.22	ppb	10:41:21
1	Sc 361.383	936268.5	936268.5	101.23	%			10:42:38
1	Y 371.029	752468.4	752468.4	99.020	%			10:42:38
1	Ag 328.068†	119548.0	117761.8	527.20	ug/L	527.20	ppb	10:42:44
1	As 188.979†	1366.7	1380.7	521.24	ug/L	521.24	ppb	10:43:04
1	B 249.677†	24235.7	24402.5	519.76	ug/L	519.76	ppb	10:42:44
1	Ba 233.527†	76334.1	75405.7	525.28	ug/L	525.28	ppb	10:42:44
1	Be 313.107†	1489380.3	1475986.7	524.21	ug/L	524.21	ppb	10:42:38
1	Cd 226.502†	52932.0	52502.7	523.89	ug/L	523.89	ppb	10:42:44
1	Co 228.616†	29641.5	29373.5	525.26	ug/L	525.26	ppb	10:42:44
1	Cr 267.716†	51157.8	50433.4	522.22	ug/L	522.22	ppb	10:42:44
1	Cu 324.752†	187313.0	178915.2	523.66	ug/L	523.66	ppb	10:42:44
1	Mn 257.610†	520478.6	513664.7	524.13	ug/L	524.13	ppb	10:42:38
1	Mo 202.031†	8440.5	8310.5	511.64	ug/L	511.64	ppb	10:43:04
1	Ni 231.604†	23832.1	23462.7	522.99	ug/L	522.99	ppb	10:42:44
1	P 214.914†	5191.7	4870.0	2518.3	ug/L	2518.3	ppb	10:43:04
1	Pb 220.353†	4819.2	4824.5	516.58	ug/L	516.58	ppb	10:43:04
1	S 181.975 Axial†	880.5	818.2	1048.1	ug/L	1048.1	ppb	10:43:04
1	Sb 206.836†	1744.1	1682.3	520.88	ug/L	520.88	ppb	10:43:04
1	Se 196.026†	919.6	942.7	547.56	ug/L	547.56	ppb	10:43:04
1	Si 251.611†	91791.8	90101.5	2599.5	ug/L	2599.5	ppb	10:42:44
1	Sn 189.927†	3417.5	3371.1	512.25	ug/L	512.25	ppb	10:43:04
1	Ti 334.940†	349389.2	346649.9	520.77	ug/L	520.77	ppb	10:42:38
1	Tl 190.801†	1929.3	1948.8	522.01	ug/L	522.01	ppb	10:43:04
1	U 409.014†	16199.5	18789.9	529.36	ug/L	529.36	ppb	10:42:44
1	V 292.402†	79290.0	79841.2	528.68	ug/L	528.68	ppb	10:42:44
1	Zn 213.857†	63835.5	62253.6	522.66	ug/L	522.66	ppb	10:42:44
1	SiO2†	91347.5	89637.6	5533.9	ug/L	5533.9	ppb	10:44:11
2	Sc Radial	5781.9	5781.9	102	%			10:41:46
2	Y RADIAL	5923.0	5923.0	101.2	%			10:41:46
2	Al 396.153Radial†	6816.1	6736.5	5064.1	ug/L	5064.1	ppb	10:41:46
2	Ca 317.933Radial†	3593.6	3517.4	5040.4	ug/L	5040.4	ppb	10:42:06
2	Fe 238.204 Radial†	695.9	669.1	5037.3	ug/L	5037.3	ppb	10:42:06
2	K 766.490 Radial†	33897.3	30340.5	4956.4	ug/L	4956.4	ppb	10:41:46
2	Mg 279.077 IEC†	175.9	170.4	5132.8	ug/L	5132.8	ppb	10:42:06
2	Na 589.592 Radial†	40157.4	40788.2	9735.7	ug/L	9735.7	ppb	10:41:46
2	Sr 421.552†	92743.6	91221.8	499.57	ug/L	499.57	ppb	10:41:46
2	Sc 361.383	936860.0	936860.0	101.29	%			10:43:10
2	Y 371.029	752555.5	752555.5	99.032	%			10:43:10
2	Ag 328.068†	120817.2	118940.2	532.45	ug/L	532.45	ppb	10:43:15
2	As 188.979†	1362.1	1375.4	519.25	ug/L	519.25	ppb	10:43:35
2	B 249.677†	24747.7	24892.9	530.23	ug/L	530.23	ppb	10:43:15
2	Ba 233.527†	77247.3	76259.6	531.22	ug/L	531.22	ppb	10:43:15
2	Be 313.107†	1493371.1	1478997.7	525.28	ug/L	525.28	ppb	10:43:10
2	Cd 226.502†	53638.0	53166.7	530.52	ug/L	530.52	ppb	10:43:15
2	Co 228.616†	30062.8	29771.0	532.36	ug/L	532.36	ppb	10:43:15
2	Cr 267.716†	51752.9	50989.0	527.97	ug/L	527.97	ppb	10:43:15
2	Cu 324.752†	189969.2	181420.7	530.99	ug/L	530.99	ppb	10:43:15
2	Mn 257.610†	522279.7	515118.2	525.61	ug/L	525.61	ppb	10:43:10
2	Mo 202.031†	8425.8	8290.7	510.42	ug/L	510.42	ppb	10:43:35
2	Ni 231.604†	24078.4	23691.0	528.08	ug/L	528.08	ppb	10:43:15

2	P 214.914†	5157.4	4832.8	2497.3 ug/L	2497.3 ppb	10:43:35
2	Pb 220.353†	4798.0	4800.6	514.02 ug/L	514.02 ppb	10:43:35
2	S 181.975 Axial†	866.1	803.4	1029.1 ug/L	1029.1 ppb	10:43:35
2	Sb 206.836†	1743.9	1681.0	520.28 ug/L	520.28 ppb	10:43:35
2	Se 196.026†	916.3	938.9	545.31 ug/L	545.31 ppb	10:43:35
2	Si 251.611†	93206.9	91441.3	2638.3 ug/L	2638.3 ppb	10:43:15
2	Sn 189.927†	3400.7	3352.3	509.41 ug/L	509.41 ppb	10:43:35
2	Ti 334.940†	350328.6	347359.4	521.83 ug/L	521.83 ppb	10:43:10
2	Tl 190.801†	1917.9	1936.4	518.68 ug/L	518.68 ppb	10:43:35
2	U 409.014†	16477.5	19054.2	536.83 ug/L	536.83 ppb	10:43:15
2	V 292.402†	80201.8	80691.9	534.24 ug/L	534.24 ppb	10:43:15
2	Zn 213.857†	64770.5	63136.8	530.11 ug/L	530.11 ppb	10:43:15
2	SiO2†	91942.6	90168.1	5566.9 ug/L	5566.9 ppb	10:44:17
3	Sc Radial	5678.8	5678.8	99.8 %		10:42:11
3	Y RADIAL	5815.5	5815.5	99.35 %		10:42:11
3	Al 396.153Radial†	6709.7	6751.6	5075.6 ug/L	5075.6 ppb	10:42:11
3	Ca 317.933Radial†	3608.0	3596.0	5153.0 ug/L	5153.0 ppb	10:42:31
3	Fe 238.204 Radial†	703.0	688.6	5183.2 ug/L	5183.2 ppb	10:42:31
3	K 766.490 Radial†	33359.7	30407.6	4967.3 ug/L	4967.3 ppb	10:42:11
3	Mg 279.077 IEC†	178.4	176.0	5301.3 ug/L	5301.3 ppb	10:42:31
3	Na 589.592 Radial†	39460.9	40807.9	9740.4 ug/L	9740.4 ppb	10:42:11
3	Sr 421.552†	91329.7	91462.1	500.89 ug/L	500.89 ppb	10:42:11
3	Sc 361.383	932333.0	932333.0	100.80 %		10:43:41
3	Y 371.029	748260.2	748260.2	98.466 %		10:43:41
3	Ag 328.068†	118817.7	117535.8	526.24 ug/L	526.24 ppb	10:43:46
3	As 188.979†	1345.3	1365.2	515.48 ug/L	515.48 ppb	10:44:06
3	B 249.677†	24189.9	24458.2	520.93 ug/L	520.93 ppb	10:43:46
3	Ba 233.527†	76213.4	75604.3	526.66 ug/L	526.66 ppb	10:43:46
3	Be 313.107†	1484050.8	1476910.2	524.54 ug/L	524.54 ppb	10:43:41
3	Cd 226.502†	53062.1	52852.5	527.37 ug/L	527.37 ppb	10:43:46
3	Co 228.616†	29670.8	29526.3	527.98 ug/L	527.98 ppb	10:43:46
3	Cr 267.716†	51060.0	50549.7	523.43 ug/L	523.43 ppb	10:43:46
3	Cu 324.752†	185598.5	177995.5	520.97 ug/L	520.97 ppb	10:43:46
3	Mn 257.610†	520426.3	515783.1	526.30 ug/L	526.30 ppb	10:43:41
3	Mo 202.031†	8375.1	8280.8	509.82 ug/L	509.82 ppb	10:44:06
3	Ni 231.604†	23810.7	23540.8	524.74 ug/L	524.74 ppb	10:43:46
3	P 214.914†	5117.7	4818.2	2490.9 ug/L	2490.9 ppb	10:44:06
3	Pb 220.353†	4785.6	4811.3	515.15 ug/L	515.15 ppb	10:44:06
3	S 181.975 Axial†	849.8	791.4	1013.8 ug/L	1013.8 ppb	10:44:06
3	Sb 206.836†	1733.6	1679.1	519.80 ug/L	519.80 ppb	10:44:06
3	Se 196.026†	904.4	931.5	541.59 ug/L	541.59 ppb	10:44:06
3	Si 251.611†	91440.5	90135.8	2600.5 ug/L	2600.5 ppb	10:43:46
3	Sn 189.927†	3386.0	3354.1	509.68 ug/L	509.68 ppb	10:44:06
3	Ti 334.940†	348901.2	347622.7	522.24 ug/L	522.24 ppb	10:43:41
3	Tl 190.801†	1905.5	1933.3	517.89 ug/L	517.89 ppb	10:44:06
3	U 409.014†	15909.7	18569.9	523.13 ug/L	523.13 ppb	10:43:46
3	V 292.402†	79025.9	79909.8	529.07 ug/L	529.07 ppb	10:43:46
3	Zn 213.857†	63789.9	62474.6	524.51 ug/L	524.51 ppb	10:43:46
3	SiO2†	92203.1	90867.2	5610.2 ug/L	5610.2 ppb	10:44:22

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	935153.8	101.11	%	0.266				0.26%
Sc Radial	5739.4	101	%	0.9				0.94%
Y 371.029	751094.7	98.839	%	0.3231				0.33%
Y RADIAL	5890.7	100.6	%	1.12				1.11%
Ag 328.068†	118079.2	528.63	ug/L	3.343	528.63	ppb	3.343	0.63%
QC value within limits for Ag 328.068 Recovery = 105.73%								
Al 396.153Radial†	6749.4	5073.8	ug/L	9.02	5073.8	ppb	9.02	0.18%
QC value within limits for Al 396.153Radial Recovery = 101.48%								
As 188.979†	1373.8	518.66	ug/L	2.923	518.66	ppb	2.923	0.56%
QC value within limits for As 188.979 Recovery = 103.73%								
B 249.677†	24584.5	523.64	ug/L	5.738	523.64	ppb	5.738	1.10%
QC value within limits for B 249.677 Recovery = 104.73%								
Ba 233.527†	75756.5	527.72	ug/L	3.110	527.72	ppb	3.110	0.59%
QC value within limits for Ba 233.527 Recovery = 105.54%								
Be 313.107†	1477298.2	524.68	ug/L	0.548	524.68	ppb	0.548	0.10%
QC value within limits for Be 313.107 Recovery = 104.94%								
Ca 317.933Radial†	3542.5	5076.4	ug/L	66.39	5076.4	ppb	66.39	1.31%

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   QC value within limits for Ca 317.933Radial  Recovery = 101.53%
Cd 226.502†            52840.6      527.26 ug/L         3.318      527.26 ppb          3.318   0.63%
   QC value within limits for Cd 226.502  Recovery = 105.45%
Co 228.616†            29557.0      528.54 ug/L         3.583      528.54 ppb          3.583   0.68%
   QC value within limits for Co 228.616  Recovery = 105.71%
Cr 267.716†            50657.4      524.54 ug/L         3.032      524.54 ppb          3.032   0.58%
   QC value within limits for Cr 267.716  Recovery = 104.91%
Cu 324.752†           179443.8      525.21 ug/L         5.183      525.21 ppb          5.183   0.99%
   QC value within limits for Cu 324.752  Recovery = 105.04%
Fe 238.204 Radial†       676.9      5095.2 ug/L        77.48      5095.2 ppb          77.48   1.52%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.90%
K 766.490 Radial†      30410.8      4967.9 ug/L        11.78      4967.9 ppb          11.78   0.24%
   QC value within limits for K 766.490 Radial  Recovery = 99.36%
Mg 279.077 IEC†          173.6      5228.1 ug/L        86.41      5228.1 ppb          86.41   1.65%
   QC value within limits for Mg 279.077 IEC  Recovery = 104.56%
Mn 257.610†           514855.3      525.34 ug/L         1.109      525.34 ppb          1.109   0.21%
   QC value within limits for Mn 257.610  Recovery = 105.07%
Mo 202.031†             8294.0      510.63 ug/L         0.928      510.63 ppb          0.928   0.18%
   QC value within limits for Mo 202.031  Recovery = 102.13%
Na 589.592 Radial†     40847.3      9749.8 ug/L        20.47      9749.8 ppb          20.47   0.21%
   QC value within limits for Na 589.592 Radial  Recovery = 97.50%
Ni 231.604†            23564.9      525.27 ug/L         2.586      525.27 ppb          2.586   0.49%
   QC value within limits for Ni 231.604  Recovery = 105.05%
P 214.914†              4840.3      2502.2 ug/L        14.31      2502.2 ppb          14.31   0.57%
   QC value within limits for P 214.914  Recovery = 100.09%
Pb 220.353†             4812.1      515.25 ug/L         1.284      515.25 ppb          1.284   0.25%
   QC value within limits for Pb 220.353  Recovery = 103.05%
S 181.975 Axial†         804.3      1030.3 ug/L        17.19      1030.3 ppb          17.19   1.67%
   QC value within limits for S 181.975 Axial  Recovery = 103.03%
Sb 206.836†             1680.8      520.32 ug/L         0.542      520.32 ppb          0.542   0.10%
   QC value within limits for Sb 206.836  Recovery = 104.06%
Se 196.026†              937.7      544.82 ug/L         3.016      544.82 ppb          3.016   0.55%
   QC value within limits for Se 196.026  Recovery = 108.96%
Si 251.611†            90559.5      2612.8 ug/L        22.15      2612.8 ppb          22.15   0.85%
   QC value within limits for Si 251.611  Recovery = 104.51%
Sn 189.927†             3359.1      510.45 ug/L         1.567      510.45 ppb          1.567   0.31%
   QC value within limits for Sn 189.927  Recovery = 102.09%
Sr 421.552†            91402.3      500.56 ug/L         0.872      500.56 ppb          0.872   0.17%
   QC value within limits for Sr 421.552  Recovery = 100.11%
Ti 334.940†           347210.7      521.61 ug/L         0.759      521.61 ppb          0.759   0.15%
   QC value within limits for Ti 334.940  Recovery = 104.32%
Tl 190.801†             1939.5      519.53 ug/L         2.188      519.53 ppb          2.188   0.42%
   QC value within limits for Tl 190.801  Recovery = 103.91%
U 409.014†             18804.7      529.77 ug/L         6.857      529.77 ppb          6.857   1.29%
   QC value within limits for U 409.014  Recovery = 105.95%
V 292.402†             80147.6      530.66 ug/L         3.100      530.66 ppb          3.100   0.58%
   QC value within limits for V 292.402  Recovery = 106.13%
Zn 213.857†            62621.7      525.76 ug/L         3.877      525.76 ppb          3.877   0.74%
   QC value within limits for Zn 213.857  Recovery = 105.15%
SiO2†                  90224.3      5570.3 ug/L        38.30      5570.3 ppb          38.30   0.69%
   QC value within limits for SiO2  Recovery = 104.17%
All analyte(s) passed QC.
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Sequence No.: 19
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 12/18/2009 10:46:31
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	5735.2	5735.2	101	%			10:48:24
1	Y RADIAL	5913.5	5913.5	101.0	%			10:48:24
1	Al 396.153Radial†	-40.8	-8.8	-6.6315	ug/L	-6.6315	ppb	10:48:24
1	Ca 317.933Radial†	23.2	5.5	7.8586	ug/L	7.8586	ppb	10:48:44
1	Fe 238.204 Radial†	13.1	-2.4	-17.968	ug/L	-17.968	ppb	10:48:44
1	K 766.490 Radial†	3032.6	4.4	0.6914	ug/L	0.6914	ppb	10:48:24
1	Mg 279.077 IEC†	0.5	-2.1	-63.239	ug/L	-63.239	ppb	10:48:44
1	Na 589.592 Radial†	-1032.2	263.4	62.859	ug/L	62.859	ppb	10:48:24
1	Sr 421.552†	10.6	4.0	0.0220	ug/L	0.0220	ppb	10:48:24
1	Sc 361.383	923975.4	923975.4	99.900	%			10:49:41
1	Y 371.029	759769.9	759769.9	99.981	%			10:49:41
1	Ag 328.068†	423.4	88.7	0.3823	ug/L	0.3823	ppb	10:49:41
1	As 188.979†	-34.9	-4.3	-1.6089	ug/L	-1.6089	ppb	10:50:01
1	B 249.677†	-372.1	88.6	1.8962	ug/L	1.8962	ppb	10:50:01
1	Ba 233.527†	6.7	4.9	0.0336	ug/L	0.0336	ppb	10:50:01
1	Be 313.107†	-4649.8	30.8	0.0113	ug/L	0.0113	ppb	10:49:41
1	Cd 226.502†	-222.2	-9.2	-0.0897	ug/L	-0.0897	ppb	10:50:01
1	Co 228.616†	-79.2	12.6	0.2245	ug/L	0.2245	ppb	10:50:01
1	Cr 267.716†	107.9	4.7	0.0455	ug/L	0.0455	ppb	10:50:01
1	Cu 324.752†	5978.1	-140.0	-0.4103	ug/L	-0.4103	ppb	10:49:41
1	Mn 257.610†	576.0	80.5	0.0815	ug/L	0.0815	ppb	10:50:01
1	Mo 202.031†	25.8	-1.7	-0.1039	ug/L	-0.1039	ppb	10:50:01
1	Ni 231.604†	95.4	15.4	0.3437	ug/L	0.3437	ppb	10:50:01
1	P 214.914†	250.7	-7.8	-4.0767	ug/L	-4.0767	ppb	10:50:01
1	Pb 220.353†	-59.2	4.6	0.4890	ug/L	0.4890	ppb	10:50:01
1	S 181.975 Axial†	48.7	-2.9	-3.6536	ug/L	-3.6536	ppb	10:50:01
1	Sb 206.836†	42.6	2.0	0.6109	ug/L	0.6109	ppb	10:50:01
1	Se 196.026†	-31.9	2.3	1.2384	ug/L	1.2384	ppb	10:50:01
1	Si 251.611†	642.8	67.4	1.9533	ug/L	1.9533	ppb	10:50:01
1	Sn 189.927†	6.1	1.1	0.1714	ug/L	0.1714	ppb	10:50:01
1	Ti 334.940†	-1364.6	135.9	0.2009	ug/L	0.2009	ppb	10:49:41
1	Tl 190.801†	-40.5	2.4	0.6463	ug/L	0.6463	ppb	10:50:01
1	U 409.014†	-2491.5	293.0	8.2826	ug/L	8.2826	ppb	10:49:41
1	V 292.402†	-1485.2	26.9	0.1915	ug/L	0.1915	ppb	10:49:41
1	Zn 213.857†	835.8	29.6	0.2528	ug/L	0.2528	ppb	10:50:01
1	SiO2†	661.8	61.4	3.8086	ug/L	3.8086	ppb	10:50:57
2	Sc Radial	5748.6	5748.6	101	%			10:48:49
2	Y RADIAL	5952.2	5952.2	101.7	%			10:48:49
2	Al 396.153Radial†	-21.7	10.2	7.7218	ug/L	7.7218	ppb	10:48:49
2	Ca 317.933Radial†	32.7	14.8	21.278	ug/L	21.278	ppb	10:49:09
2	Fe 238.204 Radial†	12.4	-3.2	-23.962	ug/L	-23.962	ppb	10:49:09
2	K 766.490 Radial†	3036.1	0.9	0.1152	ug/L	0.1152	ppb	10:48:49
2	Mg 279.077 IEC†	4.2	1.5	45.460	ug/L	45.460	ppb	10:49:09
2	Na 589.592 Radial†	-1096.3	202.4	48.309	ug/L	48.309	ppb	10:48:49
2	Sr 421.552†	-8.1	-14.6	-0.0800	ug/L	-0.0800	ppb	10:48:49
2	Sc 361.383	915502.4	915502.4	98.984	%			10:50:06
2	Y 371.029	750579.0	750579.0	98.772	%			10:50:06
2	Ag 328.068†	311.4	-20.5	-0.1031	ug/L	-0.1031	ppb	10:50:06
2	As 188.979†	-32.7	-2.4	-0.8878	ug/L	-0.8878	ppb	10:50:26
2	B 249.677†	-390.4	66.7	1.4283	ug/L	1.4283	ppb	10:50:26
2	Ba 233.527†	-2.6	-4.5	-0.0321	ug/L	-0.0321	ppb	10:50:26
2	Be 313.107†	-4605.1	32.9	0.0116	ug/L	0.0116	ppb	10:50:06
2	Cd 226.502†	-220.7	-9.7	-0.0940	ug/L	-0.0940	ppb	10:50:26
2	Co 228.616†	-89.7	1.2	0.0210	ug/L	0.0210	ppb	10:50:26
2	Cr 267.716†	77.1	-25.5	-0.2650	ug/L	-0.2650	ppb	10:50:26
2	Cu 324.752†	6113.6	52.3	0.1519	ug/L	0.1519	ppb	10:50:06
2	Mn 257.610†	574.3	84.1	0.0825	ug/L	0.0825	ppb	10:50:26
2	Mo 202.031†	20.6	-6.7	-0.4135	ug/L	-0.4135	ppb	10:50:26
2	Ni 231.604†	86.6	7.4	0.1641	ug/L	0.1641	ppb	10:50:26

2	P 214.914†	260.5	4.5	2.3759 ug/L	2.3759 ppb	10:50:26
2	Pb 220.353†	-60.7	2.5	0.2655 ug/L	0.2655 ppb	10:50:26
2	S 181.975 Axial†	49.3	-1.8	-2.3186 ug/L	-2.3186 ppb	10:50:26
2	Sb 206.836†	42.0	1.8	0.5395 ug/L	0.5395 ppb	10:50:26
2	Se 196.026†	-29.5	4.5	2.4301 ug/L	2.4301 ppb	10:50:26
2	Si 251.611†	642.3	72.8	2.1172 ug/L	2.1172 ppb	10:50:26
2	Sn 189.927†	4.3	-0.7	-0.1051 ug/L	-0.1051 ppb	10:50:26
2	Ti 334.940†	-1500.5	-14.1	-0.0217 ug/L	-0.0217 ppb	10:50:06
2	Tl 190.801†	-47.9	-5.4	-1.4429 ug/L	-1.4429 ppb	10:50:26
2	U 409.014†	-2618.5	141.6	4.0061 ug/L	4.0061 ppb	10:50:06
2	V 292.402†	-1503.9	-5.7	-0.0303 ug/L	-0.0303 ppb	10:50:06
2	Zn 213.857†	825.8	27.2	0.2301 ug/L	0.2301 ppb	10:50:26
2	SiO2†	662.7	68.4	4.2591 ug/L	4.2591 ppb	10:51:02
3	Sc Radial	5806.6	5806.6	102 %		10:49:14
3	Y RADIAL	5977.7	5977.7	102.1 %		10:49:14
3	Al 396.153Radial†	-24.9	7.2	5.4666 ug/L	5.4666 ppb	10:49:14
3	Ca 317.933Radial†	26.6	8.6	12.264 ug/L	12.264 ppb	10:49:34
3	Fe 238.204 Radial†	15.0	-0.7	-5.2961 ug/L	-5.2961 ppb	10:49:34
3	K 766.490 Radial†	3233.6	164.3	26.870 ug/L	26.870 ppb	10:49:14
3	Mg 279.077 IEC†	2.9	0.2	7.2057 ug/L	7.2057 ppb	10:49:34
3	Na 589.592 Radial†	-1106.6	203.1	48.487 ug/L	48.487 ppb	10:49:14
3	Sr 421.552†	-16.2	-22.4	-0.1229 ug/L	-0.1229 ppb	10:49:14
3	Sc 361.383	910754.4	910754.4	98.470 %		10:50:31
3	Y 371.029	746882.0	746882.0	98.285 %		10:50:31
3	Ag 328.068†	344.6	14.8	0.0656 ug/L	0.0656 ppb	10:50:31
3	As 188.979†	-26.0	4.3	1.5956 ug/L	1.5956 ppb	10:50:51
3	B 249.677†	-380.1	75.0	1.6045 ug/L	1.6045 ppb	10:50:51
3	Ba 233.527†	1.5	-0.3	-0.0024 ug/L	-0.0024 ppb	10:50:51
3	Be 313.107†	-4615.4	-1.8	-0.0005 ug/L	-0.0005 ppb	10:50:31
3	Cd 226.502†	-212.8	-2.8	-0.0278 ug/L	-0.0278 ppb	10:50:51
3	Co 228.616†	-101.4	-11.2	-0.1994 ug/L	-0.1994 ppb	10:50:51
3	Cr 267.716†	110.3	8.6	0.0893 ug/L	0.0893 ppb	10:50:51
3	Cu 324.752†	6001.2	-29.6	-0.0869 ug/L	-0.0869 ppb	10:50:31
3	Mn 257.610†	565.2	77.9	0.0788 ug/L	0.0788 ppb	10:50:51
3	Mo 202.031†	27.7	0.6	0.0356 ug/L	0.0356 ppb	10:50:51
3	Ni 231.604†	74.2	-4.7	-0.1056 ug/L	-0.1056 ppb	10:50:51
3	P 214.914†	266.0	11.4	6.0790 ug/L	6.0790 ppb	10:50:51
3	Pb 220.353†	-65.1	-2.3	-0.2471 ug/L	-0.2471 ppb	10:50:51
3	S 181.975 Axial†	52.4	1.6	2.0699 ug/L	2.0699 ppb	10:50:51
3	Sb 206.836†	41.5	1.5	0.4335 ug/L	0.4335 ppb	10:50:51
3	Se 196.026†	-32.3	1.5	0.8234 ug/L	0.8234 ppb	10:50:51
3	Si 251.611†	638.8	72.6	2.0981 ug/L	2.0981 ppb	10:50:51
3	Sn 189.927†	-1.6	-6.6	-0.9994 ug/L	-0.9994 ppb	10:50:51
3	Ti 334.940†	-1421.2	58.5	0.0893 ug/L	0.0893 ppb	10:50:31
3	Tl 190.801†	-42.9	-0.5	-0.1412 ug/L	-0.1412 ppb	10:50:51
3	U 409.014†	-2798.4	-54.9	-1.5508 ug/L	-1.5508 ppb	10:50:31
3	V 292.402†	-1485.3	5.3	0.0330 ug/L	0.0330 ppb	10:50:31
3	Zn 213.857†	823.6	29.3	0.2494 ug/L	0.2494 ppb	10:50:51
3	SiO2†	677.8	87.3	5.3990 ug/L	5.3990 ppb	10:51:07

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	916744.1	99.118	%	0.7241				0.73%
Sc Radial	5763.5	101	%	0.7				0.66%
Y 371.029	752410.3	99.013	%	0.8733				0.88%
Y RADIAL	5947.8	101.6	%	0.55				0.54%
Ag 328.068†	27.7	0.1149	ug/L	0.24643	0.1149	ppb	0.24643	214.39%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	2.9	2.1856	ug/L	7.71870	2.1856	ppb	7.71870	353.15%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-0.8	-0.3004	ug/L	1.68106	-0.3004	ppb	1.68106	559.69%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	76.7	1.6430	ug/L	0.23631	1.6430	ppb	0.23631	14.38%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	0.0	-0.0003	ug/L	0.03290	-0.0003	ppb	0.03290	>999.9%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	20.6	0.0075	ug/L	0.00690	0.0075	ppb	0.00690	92.14%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	9.6	13.800	ug/L	6.8404	13.800	ppb	6.8404	49.57%

```
   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                -7.2     -0.0705 ug/L       0.03705     -0.0705 ppb        0.03705  52.56%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                 0.9      0.0154 ug/L       0.21201      0.0154 ppb        0.21201 >999.9%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                -4.1     -0.0434 ug/L       0.19318     -0.0434 ppb        0.19318 444.93%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               -39.1     -0.1151 ug/L       0.28216     -0.1151 ppb        0.28216 245.06%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -2.1     -15.742 ug/L        9.5298     -15.742 ppb         9.5298  60.54%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          56.5      9.2257 ug/L      15.28341      9.2257 ppb       15.28341 165.66%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -0.1     -3.5245 ug/L      55.13801     -3.5245 ppb       55.13801 >999.9%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                80.9      0.0810 ug/L       0.00194      0.0810 ppb        0.00194   2.39%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                -2.6     -0.1606 ug/L       0.22985     -0.1606 ppb        0.22985 143.12%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        223.0      53.219 ug/L        8.3497      53.219 ppb         8.3497  15.69%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                 6.0      0.1341 ug/L       0.22612      0.1341 ppb        0.22612 168.63%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                  2.7      1.4594 ug/L       5.13947      1.4594 ppb        5.13947 352.16%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                 1.6      0.1691 ug/L       0.37738      0.1691 ppb        0.37738 223.15%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -1.0     -1.3008 ug/L       2.99445     -1.3008 ppb        2.99445 230.21%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 1.8      0.5280 ug/L       0.08925      0.5280 ppb        0.08925  16.90%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 2.7      1.4973 ug/L       0.83407      1.4973 ppb        0.83407  55.71%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                70.9      2.0562 ug/L       0.08963      2.0562 ppb        0.08963   4.36%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                -2.1     -0.3110 ug/L       0.61197     -0.3110 ppb        0.61197 196.77%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               -11.0     -0.0603 ug/L       0.07445     -0.0603 ppb        0.07445 123.45%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                60.1      0.0895 ug/L       0.11132      0.0895 ppb        0.11132 124.38%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                -1.2     -0.3126 ug/L       1.05511     -0.3126 ppb        1.05511 337.52%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                126.6      3.5793 ug/L       4.93053      3.5793 ppb        4.93053 137.75%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                  8.8      0.0647 ug/L       0.11423      0.0647 ppb        0.11423 176.46%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                28.7      0.2441 ug/L       0.01225      0.2441 ppb        0.01225   5.02%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                      72.3      4.4889 ug/L       0.81971      4.4889 ppb        0.81971  18.26%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

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Analysis Begun

Start Time: 12/18/2009 10:54:22 **Plasma On Time:** 12/14/2009 06:02:42
Logged In Analyst: Optima3 **Technique:** ICP Continuous
Spectrometer Model: Optima 5300 DV, S/N 077C7090601 **Autosampler Model:** S10

Sample Information File: C:\pe\Optima3\Sample Information\121809.sif
Batch ID:
Results Data Set: 121809A
Results Library: C:\pe\Optima3\Results\Results.mdb

==========

Sequence No.: 1 **Autosampler Location:** 38
Sample ID: 1201994230|932281|1 **Date Collected:** 12/18/2009 10:54:24
Analyst: HSC **Data Type:** Original
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: 1201994230|932281|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5698.9	5698.9	100	%			10:56:17
1	Y RADIAL	5884.8	5884.8	100.5	%			10:56:17
1	Al 396.153Radial†	-2.0	29.6	22.387	ug/L	22.387	ppb	10:56:17
1	Ca 317.933Radial†	39.7	22.1	31.678	ug/L	31.678	ppb	10:56:37
1	Fe 238.204 Radial†	19.0	3.6	26.905	ug/L	26.905	ppb	10:56:37
1	K 766.490 Radial†	2981.7	-27.3	-4.5024	ug/L	-4.5024	ppb	10:56:17
1	Mg 279.077 IEC†	-0.1	-2.7	-82.764	ug/L	-82.764	ppb	10:56:37
1	Na 589.592 Radial†	-978.4	310.6	74.128	ug/L	74.128	ppb	10:56:17
1	Sr 421.552†	26.5	19.9	0.1086	ug/L	0.1086	ppb	10:56:17
1	Sc 361.383	952935.5	952935.5	103.03	%			10:57:34
1	Y 371.029	774623.4	774623.4	101.94	%			10:57:34
1	Ag 328.068†	384.7	38.3	0.1716	ug/L	0.1716	ppb	10:57:39
1	As 188.979†	-20.7	10.6	3.9642	ug/L	3.9642	ppb	10:57:59
1	B 249.677†	-411.0	62.1	1.3237	ug/L	1.3237	ppb	10:57:59
1	Ba 233.527†	-6.3	-7.9	-0.0524	ug/L	-0.0524	ppb	10:57:59
1	Be 313.107†	-4750.7	74.3	0.0272	ug/L	0.0272	ppb	10:57:39
1	Cd 226.502†	-224.8	-4.9	-0.0513	ug/L	-0.0513	ppb	10:57:59
1	Co 228.616†	-95.6	-0.9	-0.0176	ug/L	-0.0176	ppb	10:57:59
1	Cr 267.716†	139.3	31.8	0.3267	ug/L	0.3267	ppb	10:57:59
1	Cu 324.752†	6167.0	-138.5	-0.4038	ug/L	-0.4038	ppb	10:57:39
1	Mn 257.610†	1117.5	588.5	0.6043	ug/L	0.6043	ppb	10:57:59
1	Mo 202.031†	25.4	-2.9	-0.1740	ug/L	-0.1740	ppb	10:57:59
1	Ni 231.604†	97.9	14.9	0.3330	ug/L	0.3330	ppb	10:57:59
1	P 214.914†	265.0	-1.6	-0.7693	ug/L	-0.7693	ppb	10:57:59
1	Pb 220.353†	-58.5	7.0	0.7508	ug/L	0.7508	ppb	10:57:59
1	S 181.975 Axial†	61.6	8.2	10.530	ug/L	10.530	ppb	10:57:59
1	Sb 206.836†	37.1	-4.7	-1.4297	ug/L	-1.4297	ppb	10:57:59
1	Se 196.026†	-28.5	6.6	3.7965	ug/L	3.7965	ppb	10:57:59
1	Si 251.611†	885.0	282.8	8.2009	ug/L	8.2009	ppb	10:57:59
1	Sn 189.927†	9.3	4.1	0.6186	ug/L	0.6186	ppb	10:57:59
1	Ti 334.940†	-1257.2	281.6	0.4196	ug/L	0.4196	ppb	10:57:39
1	Tl 190.801†	-50.5	-6.0	-1.5964	ug/L	-1.5964	ppb	10:57:59
1	U 409.014†	-2451.1	408.1	11.528	ug/L	11.528	ppb	10:57:34
1	V 292.402†	-1453.5	102.9	0.6857	ug/L	0.6857	ppb	10:57:39
1	Zn 213.857†	1092.9	253.7	2.1474	ug/L	2.1474	ppb	10:57:59
1	SiO2†	894.9	267.4	16.596	ug/L	16.596	ppb	10:59:05
2	Sc Radial	5820.3	5820.3	102	%			10:56:42
2	Y RADIAL	6027.6	6027.6	103.0	%			10:56:42
2	Al 396.153Radial†	1.3	33.0	24.918	ug/L	24.918	ppb	10:56:42
2	Ca 317.933Radial†	36.8	18.4	26.409	ug/L	26.409	ppb	10:57:03
2	Fe 238.204 Radial†	16.5	0.7	5.2726	ug/L	5.2726	ppb	10:57:03
2	K 766.490 Radial†	2984.4	-86.7	-14.235	ug/L	-14.235	ppb	10:56:42
2	Mg 279.077 IEC†	2.9	0.2	6.9694	ug/L	6.9694	ppb	10:57:03
2	Na 589.592 Radial†	-924.7	383.4	91.515	ug/L	91.515	ppb	10:56:42
2	Sr 421.552†	-4.5	-10.9	-0.0600	ug/L	-0.0600	ppb	10:56:42
2	Sc 361.383	938382.5	938382.5	101.46	%			10:58:04
2	Y 371.029	763511.7	763511.7	100.47	%			10:58:04

2	Ag 328.068†	327.9	-11.9	-0.0598 ug/L	-0.0598 ppb	10:58:10
2	As 188.979†	-22.0	8.9	3.3524 ug/L	3.3524 ppb	10:58:30
2	B 249.677†	-416.6	50.5	1.0783 ug/L	1.0783 ppb	10:58:30
2	Ba 233.527†	3.3	1.4	0.0106 ug/L	0.0106 ppb	10:58:30
2	Be 313.107†	-4701.8	51.0	0.0189 ug/L	0.0189 ppb	10:58:10
2	Cd 226.502†	-220.4	-3.9	-0.0397 ug/L	-0.0397 ppb	10:58:30
2	Co 228.616†	-98.6	-5.3	-0.0977 ug/L	-0.0977 ppb	10:58:30
2	Cr 267.716†	137.9	32.6	0.3337 ug/L	0.3337 ppb	10:58:30
2	Cu 324.752†	6142.3	-70.0	-0.2046 ug/L	-0.2046 ppb	10:58:10
2	Mn 257.610†	1092.5	580.7	0.5925 ug/L	0.5925 ppb	10:58:30
2	Mo 202.031†	18.3	-9.5	-0.5815 ug/L	-0.5815 ppb	10:58:30
2	Ni 231.604†	84.7	3.4	0.0756 ug/L	0.0756 ppb	10:58:30
2	P 214.914†	265.1	2.6	1.4278 ug/L	1.4278 ppb	10:58:30
2	Pb 220.353†	-66.3	-1.5	-0.1575 ug/L	-0.1575 ppb	10:58:30
2	S 181.975 Axial†	55.1	2.7	3.4298 ug/L	3.4298 ppb	10:58:30
2	Sb 206.836†	34.8	-6.4	-1.9594 ug/L	-1.9594 ppb	10:58:30
2	Se 196.026†	-35.2	-0.4	-0.1903 ug/L	-0.1903 ppb	10:58:30
2	Si 251.611†	871.2	282.7	8.2046 ug/L	8.2046 ppb	10:58:30
2	Sn 189.927†	11.5	6.3	0.9586 ug/L	0.9586 ppb	10:58:30
2	Ti 334.940†	-1242.4	277.2	0.4130 ug/L	0.4130 ppb	10:58:10
2	Tl 190.801†	-56.0	-12.2	-3.2323 ug/L	-3.2323 ppb	10:58:30
2	U 409.014†	-2427.2	394.6	11.151 ug/L	11.151 ppb	10:58:04
2	V 292.402†	-1479.2	55.7	0.3760 ug/L	0.3760 ppb	10:58:10
2	Zn 213.857†	1088.4	265.8	2.2501 ug/L	2.2501 ppb	10:58:30
2	SiO2†	877.1	263.4	16.367 ug/L	16.367 ppb	10:59:10
3	Sc Radial	5823.3	5823.3	102 %		10:57:08
3	Y RADIAL	6026.4	6026.4	103.0 %		10:57:08
3	Al 396.153Radial†	-5.7	26.1	19.745 ug/L	19.745 ppb	10:57:08
3	Ca 317.933Radial†	32.3	14.1	20.162 ug/L	20.162 ppb	10:57:28
3	Fe 238.204 Radial†	18.9	3.1	22.977 ug/L	22.977 ppb	10:57:28
3	K 766.490 Radial†	2931.9	-139.4	-22.858 ug/L	-22.858 ppb	10:57:08
3	Mg 279.077 IEC†	3.3	0.6	18.217 ug/L	18.217 ppb	10:57:28
3	Na 589.592 Radial†	-977.4	332.4	79.346 ug/L	79.346 ppb	10:57:08
3	Sr 421.552†	-17.1	-23.2	-0.1273 ug/L	-0.1273 ppb	10:57:08
3	Sc 361.383	950286.7	950286.7	102.74 %		10:58:35
3	Y 371.029	773670.8	773670.8	101.81 %		10:58:35
3	Ag 328.068†	320.8	-22.9	-0.1022 ug/L	-0.1022 ppb	10:58:40
3	As 188.979†	-24.2	7.0	2.6370 ug/L	2.6370 ppb	10:59:00
3	B 249.677†	-415.3	56.8	1.2115 ug/L	1.2115 ppb	10:59:00
3	Ba 233.527†	5.5	3.5	0.0253 ug/L	0.0253 ppb	10:59:00
3	Be 313.107†	-4599.4	208.7	0.0746 ug/L	0.0746 ppb	10:58:40
3	Cd 226.502†	-223.8	-4.5	-0.0472 ug/L	-0.0472 ppb	10:59:00
3	Co 228.616†	-79.6	14.4	0.2556 ug/L	0.2556 ppb	10:59:00
3	Cr 267.716†	112.4	6.0	0.0598 ug/L	0.0598 ppb	10:59:00
3	Cu 324.752†	6101.0	-186.0	-0.5430 ug/L	-0.5430 ppb	10:58:40
3	Mn 257.610†	1090.1	564.9	0.5779 ug/L	0.5779 ppb	10:59:00
3	Mo 202.031†	23.3	-4.9	-0.2968 ug/L	-0.2968 ppb	10:59:00
3	Ni 231.604†	106.0	23.0	0.5135 ug/L	0.5135 ppb	10:59:00
3	P 214.914†	264.0	-1.8	-0.8517 ug/L	-0.8517 ppb	10:59:00
3	Pb 220.353†	-59.2	6.2	0.6606 ug/L	0.6606 ppb	10:59:00
3	S 181.975 Axial†	53.6	0.5	0.6870 ug/L	0.6870 ppb	10:59:00
3	Sb 206.836†	51.4	9.3	2.8713 ug/L	2.8713 ppb	10:59:00
3	Se 196.026†	-34.2	1.0	0.6227 ug/L	0.6227 ppb	10:59:00
3	Si 251.611†	875.9	276.4	8.0189 ug/L	8.0189 ppb	10:59:00
3	Sn 189.927†	15.7	10.3	1.5600 ug/L	1.5600 ppb	10:59:00
3	Ti 334.940†	-1327.1	210.2	0.3128 ug/L	0.3128 ppb	10:58:40
3	Tl 190.801†	-48.4	-4.1	-1.0975 ug/L	-1.0975 ppb	10:59:00
3	U 409.014†	-2526.5	328.0	9.2657 ug/L	9.2657 ppb	10:58:35
3	V 292.402†	-1553.2	1.9	0.0229 ug/L	0.0229 ppb	10:58:40
3	Zn 213.857†	1099.7	263.3	2.2245 ug/L	2.2245 ppb	10:59:00
3	SiO2†	873.8	249.4	15.485 ug/L	15.485 ppb	10:59:15

Mean Data: 1201994230|932281|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	947201.6	102.41	%	0.838				0.82%
Sc Radial	5780.8	102	%	1.2				1.23%
Y 371.029	770601.9	101.41	%	0.810				0.80%
Y RADIAL	5979.6	102.2	%	1.40				1.37%
Ag 328.068†	1.2	0.0032	ug/L	0.14741	0.0032	ppb	0.14741	>999.9%

Al 396.153Radial†	29.6	22.350	ug/L	2.5872	22.350	ppb	2.5872 11.58%
As 188.979†	8.8	3.3178	ug/L	0.66424	3.3178	ppb	0.66424 20.02%
B 249.677†	56.5	1.2045	ug/L	0.12283	1.2045	ppb	0.12283 10.20%
Ba 233.527†	-1.0	-0.0055	ug/L	0.04128	-0.0055	ppb	0.04128 749.91%
Be 313.107†	111.3	0.0402	ug/L	0.03006	0.0402	ppb	0.03006 74.74%
Ca 317.933Radial†	18.2	26.083	ug/L	5.7646	26.083	ppb	5.7646 22.10%
Cd 226.502†	-4.5	-0.0461	ug/L	0.00589	-0.0461	ppb	0.00589 12.79%
Co 228.616†	2.7	0.0468	ug/L	0.18526	0.0468	ppb	0.18526 396.17%
Cr 267.716†	23.5	0.2400	ug/L	0.15617	0.2400	ppb	0.15617 65.06%
Cu 324.752†	-131.5	-0.3838	ug/L	0.17007	-0.3838	ppb	0.17007 44.31%
Fe 238.204 Radial†	2.5	18.385	ug/L	11.5243	18.385	ppb	11.5243 62.68%
K 766.490 Radial†	-84.5	-13.865	ug/L	9.1833	-13.865	ppb	9.1833 66.23%
Mg 279.077 IEC†	-0.6	-19.193	ug/L	55.3410	-19.193	ppb	55.3410 288.34%
Mn 257.610†	578.1	0.5916	ug/L	0.01321	0.5916	ppb	0.01321 2.23%
Mo 202.031†	-5.7	-0.3508	ug/L	0.20906	-0.3508	ppb	0.20906 59.60%
Na 589.592 Radial†	342.1	81.663	ug/L	8.9219	81.663	ppb	8.9219 10.93%
Ni 231.604†	13.8	0.3074	ug/L	0.22007	0.3074	ppb	0.22007 71.59%
P 214.914†	-0.2	-0.0644	ug/L	1.29291	-0.0644	ppb	1.29291 >999.9%
Pb 220.353†	3.9	0.4180	ug/L	0.50042	0.4180	ppb	0.50042 119.73%
S 181.975 Axial†	3.8	4.8822	ug/L	5.07964	4.8822	ppb	5.07964 104.04%
Sb 206.836†	-0.6	-0.1726	ug/L	2.64938	-0.1726	ppb	2.64938 >999.9%
Se 196.026†	2.4	1.4096	ug/L	2.10669	1.4096	ppb	2.10669 149.45%
Si 251.611†	280.6	8.1415	ug/L	0.10620	8.1415	ppb	0.10620 1.30%
Sn 189.927†	6.9	1.0457	ug/L	0.47671	1.0457	ppb	0.47671 45.59%
Sr 421.552†	-4.7	-0.0262	ug/L	0.12152	-0.0262	ppb	0.12152 463.70%
Ti 334.940†	256.3	0.3818	ug/L	0.05984	0.3818	ppb	0.05984 15.67%
Tl 190.801†	-7.4	-1.9754	ug/L	1.11673	-1.9754	ppb	1.11673 56.53%
U 409.014†	376.9	10.648	ug/L	1.2119	10.648	ppb	1.2119 11.38%
V 292.402†	53.5	0.3615	ug/L	0.33165	0.3615	ppb	0.33165 91.73%
Zn 213.857†	260.9	2.2073	ug/L	0.05343	2.2073	ppb	0.05343 2.42%
SiO2†	260.1	16.149	ug/L	0.5864	16.149	ppb	0.5864 3.63%

Sequence No.: 2
Sample ID: 1201994231|932281|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 39
Date Collected: 12/18/2009 11:01:26
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1201994231|932281|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5900.5	5900.5	104	%			11:03:39
1	Y RADIAL	6682.1	6682.1	114.2	%			11:03:39
1	Al 396.153Radial†	120837.6	116505.5	87937	ug/L	87937	ppb	11:03:19
1	Ca 317.933Radial†	74930.1	72206.6	103470	ug/L	103470	ppb	11:03:19
1	Fe 238.204 Radial†	25647.1	24705.5	185390	ug/L	185390	ppb	11:03:19
1	K 766.490 Radial†	260044.9	247651.2	40460	ug/L	40460	ppb	11:03:19
1	Mg 279.077 IEC†	1352.0	1300.6	38983	ug/L	38983	ppb	11:03:39
1	Na 589.592 Radial†	42019.0	41788.6	9974.5	ug/L	9974.5	ppb	11:03:19
1	Sr 421.552†	434581.1	418880.9	2293.2	ug/L	2293.2	ppb	11:03:19
1	Sc 361.383	943397.7	943397.7	102.00	%			11:04:40
1	Y 371.029	827663.8	827663.8	108.92	%			11:04:40
1	Ag 328.068†	60726.1	59200.6	329.10	ug/L	329.10	ppb	11:04:40
1	As 188.979†	2833.4	2808.5	1129.5	ug/L	1129.5	ppb	11:04:46
1	B 249.677†	76063.5	75033.4	1577.3	ug/L	1577.3	ppb	11:04:40
1	Ba 233.527†	293496.1	287740.7	2009.0	ug/L	2009.0	ppb	11:04:40
1	Be 313.107†	2348731.3	2307372.6	829.54	ug/L	829.54	ppb	11:04:40
1	Cd 226.502†	64235.4	63189.4	613.07	ug/L	613.07	ppb	11:04:46
1	Co 228.616†	54955.5	53970.0	950.81	ug/L	950.81	ppb	11:04:46
1	Cr 267.716†	244196.2	239305.6	2479.6	ug/L	2479.6	ppb	11:04:40
1	Cu 324.752†	688406.6	668787.2	1965.9	ug/L	1965.9	ppb	11:04:40
1	Mn 257.610†	5729535.2	5616718.6	5744.4	ug/L	5744.4	ppb	11:04:40
1	Mo 202.031†	8779.5	8579.9	541.00	ug/L	541.00	ppb	11:04:46
1	Ni 231.604†	62411.6	61108.0	1362.4	ug/L	1362.4	ppb	11:04:46
1	P 214.914†	15402.6	14841.9	7497.5	ug/L	7497.5	ppb	11:04:46
1	Pb 220.353†	8536.3	8432.8	904.47	ug/L	904.47	ppb	11:04:46
1	S 181.975 Axial†	3254.8	3139.4	4008.1	ug/L	4008.1	ppb	11:04:46
1	Sb 206.836†	5712.8	5560.2	1654.9	ug/L	1654.9	ppb	11:04:46
1	Se 196.026†	4833.3	4772.8	3259.5	ug/L	3259.5	ppb	11:04:46
1	Si 251.611†	703054.5	688695.9	19936	ug/L	19936	ppb	11:04:40
1	Sn 189.927†	7193.8	7047.7	1083.0	ug/L	1083.0	ppb	11:04:46
1	Ti 334.940†	4022856.4	3945495.0	5933.7	ug/L	5933.7	ppb	11:04:40
1	Tl 190.801†	4573.2	4526.6	1278.3	ug/L	1278.3	ppb	11:04:46
1	U 409.014†	-7638.5	-4701.7	-160.97	ug/L	-160.97	ppb	11:04:40
1	V 292.402†	202220.1	199769.5	1278.0	ug/L	1278.0	ppb	11:04:40
1	Zn 213.857†	736155.8	720917.4	6076.1	ug/L	6076.1	ppb	11:04:40
1	SiO2†	704932.9	690512.5	42776	ug/L	42776	ppb	11:05:20
2	Sc Radial	5955.4	5955.4	105	%			11:04:04
2	Y RADIAL	6719.3	6719.3	114.8	%			11:04:04
2	Al 396.153Radial†	123349.6	117829.7	88937	ug/L	88937	ppb	11:03:44
2	Ca 317.933Radial†	76452.8	72994.4	104600	ug/L	104600	ppb	11:03:44
2	Fe 238.204 Radial†	26087.5	24897.9	186840	ug/L	186840	ppb	11:03:44
2	K 766.490 Radial†	265704.6	250743.2	40966	ug/L	40966	ppb	11:03:44
2	Mg 279.077 IEC†	1375.8	1311.3	39303	ug/L	39303	ppb	11:04:04
2	Na 589.592 Radial†	42661.8	42028.7	10032	ug/L	10032	ppb	11:03:44
2	Sr 421.552†	443177.8	423225.2	2317.0	ug/L	2317.0	ppb	11:03:44
2	Sc 361.383	948426.1	948426.1	102.54	%			11:04:55
2	Y 371.029	832570.0	832570.0	109.56	%			11:04:55
2	Ag 328.068†	61150.6	59298.8	330.00	ug/L	330.00	ppb	11:04:55
2	As 188.979†	2827.1	2787.6	1121.9	ug/L	1121.9	ppb	11:05:00
2	B 249.677†	76781.9	75338.6	1583.6	ug/L	1583.6	ppb	11:04:55
2	Ba 233.527†	295283.6	287958.2	2010.6	ug/L	2010.6	ppb	11:04:55
2	Be 313.107†	2366708.6	2312695.5	831.43	ug/L	831.43	ppb	11:04:55
2	Cd 226.502†	64230.3	62850.5	609.54	ug/L	609.54	ppb	11:05:00
2	Co 228.616†	54961.7	53690.4	945.79	ug/L	945.79	ppb	11:05:00
2	Cr 267.716†	245891.1	239689.2	2483.6	ug/L	2483.6	ppb	11:04:55
2	Cu 324.752†	691973.0	668686.8	1965.7	ug/L	1965.7	ppb	11:04:55
2	Mn 257.610†	5759392.5	5616053.8	5743.9	ug/L	5743.9	ppb	11:04:55
2	Mo 202.031†	8817.9	8571.7	540.60	ug/L	540.60	ppb	11:05:00
2	Ni 231.604†	62345.4	60719.0	1353.7	ug/L	1353.7	ppb	11:05:00

2	P 214.914†	15413.6	14772.6	7459.7	ug/L	7459.7 ppb	11:05:00
2	Pb 220.353†	8538.9	8390.9	900.11	ug/L	900.11 ppb	11:05:00
2	S 181.975 Axial†	3263.0	3130.4	3996.4	ug/L	3996.4 ppb	11:05:00
2	Sb 206.836†	5700.3	5518.3	1641.8	ug/L	1641.8 ppb	11:05:00
2	Se 196.026†	4797.2	4712.5	3230.1	ug/L	3230.1 ppb	11:05:00
2	Si 251.611†	706955.9	688846.2	19940	ug/L	19940 ppb	11:04:55
2	Sn 189.927†	7192.4	7009.0	1077.2	ug/L	1077.2 ppb	11:05:00
2	Ti 334.940†	4044552.1	3945742.2	5934.1	ug/L	5934.1 ppb	11:04:55
2	Tl 190.801†	4597.7	4526.7	1278.4	ug/L	1278.4 ppb	11:05:00
2	U 409.014†	-7423.9	-4452.8	-154.13	ug/L	-154.13 ppb	11:04:55
2	V 292.402†	203443.1	199911.0	1278.7	ug/L	1278.7 ppb	11:04:55
2	Zn 213.857†	740207.6	721042.2	6077.1	ug/L	6077.1 ppb	11:04:55
2	SiO2†	702378.1	684356.8	42394	ug/L	42394 ppb	11:05:25
3	Sc Radial	5850.3	5850.3	103	%		11:04:30
3	Y RADIAL	6623.0	6623.0	113.1	%		11:04:30
3	Al 396.153Radial†	121570.1	118216.4	89229	ug/L	89229 ppb	11:04:10
3	Ca 317.933Radial†	75117.8	73008.6	104620	ug/L	104620 ppb	11:04:10
3	Fe 238.204 Radial†	25620.8	24891.9	186790	ug/L	186790 ppb	11:04:10
3	K 766.490 Radial†	261701.7	251411.3	41075	ug/L	41075 ppb	11:04:10
3	Mg 279.077 IEC†	1344.7	1304.6	39104	ug/L	39104 ppb	11:04:30
3	Na 589.592 Radial†	42076.2	42191.5	10071	ug/L	10071 ppb	11:04:10
3	Sr 421.552†	436797.5	424627.7	2324.7	ug/L	2324.7 ppb	11:04:10
3	Sc 361.383	939448.2	939448.2	101.57	%		11:05:09
3	Y 371.029	826037.3	826037.3	108.70	%		11:05:09
3	Ag 328.068†	60537.6	59265.3	329.84	ug/L	329.84 ppb	11:05:09
3	As 188.979†	2849.8	2836.3	1140.0	ug/L	1140.0 ppb	11:05:14
3	B 249.677†	75859.3	75145.9	1579.5	ug/L	1579.5 ppb	11:05:09
3	Ba 233.527†	292022.0	287499.1	2007.4	ug/L	2007.4 ppb	11:05:09
3	Be 313.107†	2340493.4	2308942.8	830.09	ug/L	830.09 ppb	11:05:09
3	Cd 226.502†	64223.6	63442.5	615.46	ug/L	615.46 ppb	11:05:14
3	Co 228.616†	54915.2	54156.9	954.15	ug/L	954.15 ppb	11:05:14
3	Cr 267.716†	243437.7	239565.3	2482.3	ug/L	2482.3 ppb	11:05:09
3	Cu 324.752†	683889.4	667177.2	1961.3	ug/L	1961.3 ppb	11:05:09
3	Mn 257.610†	5697168.9	5608468.4	5736.1	ug/L	5736.1 ppb	11:05:09
3	Mo 202.031†	8803.6	8639.8	544.79	ug/L	544.79 ppb	11:05:14
3	Ni 231.604†	62295.2	61250.7	1365.6	ug/L	1365.6 ppb	11:05:14
3	P 214.914†	15371.9	14875.2	7515.4	ug/L	7515.4 ppb	11:05:14
3	Pb 220.353†	8581.8	8512.7	913.19	ug/L	913.19 ppb	11:05:14
3	S 181.975 Axial†	3239.6	3137.8	4005.8	ug/L	4005.8 ppb	11:05:14
3	Sb 206.836†	5700.4	5571.5	1658.4	ug/L	1658.4 ppb	11:05:14
3	Se 196.026†	4814.3	4774.1	3264.6	ug/L	3264.6 ppb	11:05:14
3	Si 251.611†	698433.1	687043.7	19888	ug/L	19888 ppb	11:05:09
3	Sn 189.927†	7200.3	7083.8	1088.6	ug/L	1088.6 ppb	11:05:14
3	Ti 334.940†	4002262.4	3941800.6	5928.2	ug/L	5928.2 ppb	11:05:09
3	Tl 190.801†	4574.4	4546.6	1283.6	ug/L	1283.6 ppb	11:05:14
3	U 409.014†	-7768.8	-4861.5	-165.67	ug/L	-165.67 ppb	11:05:09
3	V 292.402†	201417.9	199813.2	1278.1	ug/L	1278.1 ppb	11:05:09
3	Zn 213.857†	732636.6	720486.8	6072.3	ug/L	6072.3 ppb	11:05:09
3	SiO2†	701875.6	690408.0	42769	ug/L	42769 ppb	11:05:31

Mean Data: 1201994231|932281|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	943757.4	102.04	%	0.487				0.48%
Sc Radial	5902.1	104	%	0.9				0.89%
Y 371.029	828757.0	109.06	%	0.448				0.41%
Y RADIAL	6674.8	114.0	%	0.83				0.73%
Ag 328.068†	59254.9	329.65	ug/L	0.481	329.65	ppb	0.481	0.15%
Al 396.153Radial†	117517.2	88701	ug/L	677.3	88701	ppb	677.3	0.76%
As 188.979†	2810.8	1130.5	ug/L	9.12	1130.5	ppb	9.12	0.81%
B 249.677†	75172.7	1580.1	ug/L	3.22	1580.1	ppb	3.22	0.20%
Ba 233.527†	287732.7	2009.0	ug/L	1.60	2009.0	ppb	1.60	0.08%
Be 313.107†	2309670.3	830.35	ug/L	0.971	830.35	ppb	0.971	0.12%
Ca 317.933Radial†	72736.5	104230	ug/L	657.7	104230	ppb	657.7	0.63%
Cd 226.502†	63160.8	612.69	ug/L	2.979	612.69	ppb	2.979	0.49%
Co 228.616†	53939.1	950.25	ug/L	4.209	950.25	ppb	4.209	0.44%
Cr 267.716†	239520.1	2481.9	ug/L	2.04	2481.9	ppb	2.04	0.08%
Cu 324.752†	668217.1	1964.3	ug/L	2.62	1964.3	ppb	2.62	0.13%
Fe 238.204 Radial†	24831.8	186340	ug/L	821.0	186340	ppb	821.0	0.44%
K 766.490 Radial†	249935.2	40833	ug/L	328.4	40833	ppb	328.4	0.80%

Mg 279.077 IEC†	1305.5	39130	ug/L	161.8	39130	ppb	161.8	0.41%
Mn 257.610†	5613746.9	5741.5	ug/L	4.63	5741.5	ppb	4.63	0.08%
Mo 202.031†	8597.1	542.13	ug/L	2.312	542.13	ppb	2.312	0.43%
Na 589.592 Radial†	42002.9	10026	ug/L	48.4	10026	ppb	48.4	0.48%
Ni 231.604†	61025.9	1360.6	ug/L	6.14	1360.6	ppb	6.14	0.45%
P 214.914†	14829.9	7490.9	ug/L	28.46	7490.9	ppb	28.46	0.38%
Pb 220.353†	8445.5	905.92	ug/L	6.662	905.92	ppb	6.662	0.74%
S 181.975 Axial†	3135.9	4003.4	ug/L	6.19	4003.4	ppb	6.19	0.15%
Sb 206.836†	5550.0	1651.7	ug/L	8.72	1651.7	ppb	8.72	0.53%
Se 196.026†	4753.1	3251.4	ug/L	18.63	3251.4	ppb	18.63	0.57%
Si 251.611†	688195.3	19921	ug/L	29.1	19921	ppb	29.1	0.15%
Sn 189.927†	7046.9	1082.9	ug/L	5.68	1082.9	ppb	5.68	0.52%
Sr 421.552†	422244.6	2311.7	ug/L	16.40	2311.7	ppb	16.40	0.71%
Ti 334.940†	3944345.9	5932.0	ug/L	3.30	5932.0	ppb	3.30	0.06%
Tl 190.801†	4533.3	1280.1	ug/L	3.01	1280.1	ppb	3.01	0.24%
U 409.014†	-4672.0	-160.26	ug/L	5.805	-160.26	ppb	5.805	3.62%
V 292.402†	199831.2	1278.3	ug/L	0.38	1278.3	ppb	0.38	0.03%
Zn 213.857†	720815.4	6075.2	ug/L	2.52	6075.2	ppb	2.52	0.04%
SiO2†	688425.8	42646	ug/L	218.6	42646	ppb	218.6	0.51%

Sequence No.: 6
Sample ID: 242750001|932281|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 43
Date Collected: 12/18/2009 11:28:42
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 242750001|932281|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5861.9	5861.9	103	%			11:30:55
1	Y RADIAL	7036.6	7036.6	120.2	%			11:30:55
1	Al 396.153Radial†	51769.8	50260.3	37946	ug/L	37946	ppb	11:30:35
1	Ca 317.933Radial†	8670.0	8394.4	12029	ug/L	12029	ppb	11:30:55
1	Fe 238.204 Radial†	15207.2	14739.1	110590	ug/L	110590	ppb	11:30:35
1	K 766.490 Radial†	32239.7	28277.0	4615.5	ug/L	4615.5	ppb	11:30:35
1	Mg 279.077 IEC†	334.4	321.8	9587.4	ug/L	9587.4	ppb	11:30:55
1	Na 589.592 Radial†	7729.8	8786.6	2097.3	ug/L	2097.3	ppb	11:30:35
1	Sr 421.552†	12951.4	12559.3	68.676	ug/L	68.676	ppb	11:30:35
1	Sc 361.383	975640.2	975640.2	105.49	%			11:31:53
1	Y 371.029	916911.9	916911.9	120.66	%			11:31:53
1	Ag 328.068†	-7934.6	-7857.1	2.4941	ug/L	2.4941	ppb	11:31:58
1	As 188.979†	-89.6	-54.3	30.279	ug/L	30.279	ppb	11:32:18
1	B 249.677†	780.1	1200.6	10.952	ug/L	10.952	ppb	11:31:58
1	Ba 233.527†	45769.3	43387.3	305.77	ug/L	305.77	ppb	11:31:58
1	Be 313.107†	-17472.1	-11878.2	3.6444	ug/L	3.6444	ppb	11:31:58
1	Cd 226.502†	951.8	1115.5	0.0963	ug/L	0.0963	ppb	11:32:18
1	Co 228.616†	1020.6	1059.4	8.9851	ug/L	8.9851	ppb	11:32:18
1	Cr 267.716†	2672.7	2430.3	27.383	ug/L	27.383	ppb	11:32:18
1	Cu 324.752†	10368.0	3704.8	16.479	ug/L	16.479	ppb	11:31:58
1	Mn 257.610†	1518423.1	1438963.8	1478.0	ug/L	1478.0	ppb	11:31:53
1	Mo 202.031†	-2.2	-29.6	6.0208	ug/L	6.0208	ppb	11:32:18
1	Ni 231.604†	1378.5	1226.7	27.349	ug/L	27.349	ppb	11:32:18
1	P 214.914†	4223.6	3745.2	1919.5	ug/L	1919.5	ppb	11:32:18
1	Pb 220.353†	858.0	877.2	93.067	ug/L	93.067	ppb	11:32:18
1	S 181.975 Axial†	231.5	167.8	207.72	ug/L	207.72	ppb	11:32:18
1	Sb 206.836†	67.8	23.6	-3.3366	ug/L	-3.3366	ppb	11:32:18
1	Se 196.026†	-610.9	-544.8	34.832	ug/L	34.832	ppb	11:32:18
1	Si 251.611†	554894.5	525462.0	15229	ug/L	15229	ppb	11:31:53
1	Sn 189.927†	21.1	15.0	5.0198	ug/L	5.0198	ppb	11:32:18
1	Ti 334.940†	2803617.7	2659321.8	3997.0	ug/L	3997.0	ppb	11:31:53
1	Tl 190.801†	-227.1	-172.4	-5.8824	ug/L	-5.8824	ppb	11:32:18
1	U 409.014†	-15464.7	-11873.5	-349.51	ug/L	-349.51	ppb	11:31:53
1	V 292.402†	14189.3	14965.1	76.106	ug/L	76.106	ppb	11:31:58
1	Zn 213.857†	50742.5	47296.7	389.53	ug/L	389.53	ppb	11:31:58
1	SiO2†	553567.6	524179.1	32512	ug/L	32512	ppb	11:33:26
2	Sc Radial	5833.5	5833.5	103	%			11:31:20
2	Y RADIAL	7017.8	7017.8	119.9	%			11:31:20
2	Al 396.153Radial†	51856.1	50589.2	38194	ug/L	38194	ppb	11:31:00
2	Ca 317.933Radial†	8617.9	8384.6	12015	ug/L	12015	ppb	11:31:20
2	Fe 238.204 Radial†	15297.8	14899.3	111790	ug/L	111790	ppb	11:31:00
2	K 766.490 Radial†	32385.3	28571.4	4663.5	ug/L	4663.5	ppb	11:31:00
2	Mg 279.077 IEC†	336.6	325.5	9698.8	ug/L	9698.8	ppb	11:31:20
2	Na 589.592 Radial†	7672.1	8766.9	2092.6	ug/L	2092.6	ppb	11:31:00
2	Sr 421.552†	12971.0	12639.7	69.116	ug/L	69.116	ppb	11:31:00
2	Sc 361.383	961972.0	961972.0	104.01	%			11:32:24
2	Y 371.029	906361.3	906361.3	119.27	%			11:32:24
2	Ag 328.068†	-7928.4	-7957.9	2.4596	ug/L	2.4596	ppb	11:32:29
2	As 188.979†	-87.7	-53.7	31.205	ug/L	31.205	ppb	11:32:49
2	B 249.677†	810.5	1240.3	11.642	ug/L	11.642	ppb	11:32:29
2	Ba 233.527†	45592.7	43834.0	308.92	ug/L	308.92	ppb	11:32:29
2	Be 313.107†	-17269.8	-11919.0	3.7549	ug/L	3.7549	ppb	11:32:29
2	Cd 226.502†	954.3	1130.8	0.1286	ug/L	0.1286	ppb	11:32:49
2	Co 228.616†	1021.1	1073.6	9.0868	ug/L	9.0868	ppb	11:32:49
2	Cr 267.716†	2678.8	2472.2	27.842	ug/L	27.842	ppb	11:32:49
2	Cu 324.752†	10375.2	3851.3	16.969	ug/L	16.969	ppb	11:32:29
2	Mn 257.610†	1519280.9	1460241.2	1499.8	ug/L	1499.8	ppb	11:32:24
2	Mo 202.031†	-7.5	-34.7	5.7932	ug/L	5.7932	ppb	11:32:49
2	Ni 231.604†	1381.4	1248.1	27.827	ug/L	27.827	ppb	11:32:49

2	P 214.914†	4222.9	3801.4	1948.6	ug/L	1948.6	ppb	11:32:49
2	Pb 220.353†	855.1	885.9	93.953	ug/L	93.953	ppb	11:32:49
2	S 181.975 Axial†	238.3	177.5	220.11	ug/L	220.11	ppb	11:32:49
2	Sb 206.836†	59.4	16.4	-5.6659	ug/L	-5.6659	ppb	11:32:49
2	Se 196.026†	-615.5	-557.5	31.391	ug/L	31.391	ppb	11:32:49
2	Si 251.611†	555439.2	533460.0	15461	ug/L	15461	ppb	11:32:24
2	Sn 189.927†	34.0	27.7	6.9646	ug/L	6.9646	ppb	11:32:49
2	Ti 334.940†	2808314.7	2701601.5	4060.6	ug/L	4060.6	ppb	11:32:24
2	Tl 190.801†	-229.8	-178.0	-6.7589	ug/L	-6.7589	ppb	11:32:49
2	U 409.014†	-15611.1	-12222.5	-359.53	ug/L	-359.53	ppb	11:32:24
2	V 292.402†	14140.2	15108.9	76.772	ug/L	76.772	ppb	11:32:29
2	Zn 213.857†	50786.6	48022.5	395.55	ug/L	395.55	ppb	11:32:29
2	SiO2†	549753.9	527968.7	32747	ug/L	32747	ppb	11:33:31
3	Sc Radial	5901.4	5901.4	104	%			11:31:45
3	Y RADIAL	7072.6	7072.6	120.8	%			11:31:45
3	Al 396.153Radial†	52922.1	51034.3	38530	ug/L	38530	ppb	11:31:25
3	Ca 317.933Radial†	8608.2	8278.5	11863	ug/L	11863	ppb	11:31:45
3	Fe 238.204 Radial†	15580.6	15000.1	112540	ug/L	112540	ppb	11:31:25
3	K 766.490 Radial†	32582.1	28397.5	4635.2	ug/L	4635.2	ppb	11:31:25
3	Mg 279.077 IEC†	336.7	321.9	9588.1	ug/L	9588.1	ppb	11:31:45
3	Na 589.592 Radial†	7772.8	8777.8	2095.2	ug/L	2095.2	ppb	11:31:25
3	Sr 421.552†	13185.0	12700.3	69.450	ug/L	69.450	ppb	11:31:25
3	Sc 361.383	964696.0	964696.0	104.30	%			11:32:55
3	Y 371.029	908766.9	908766.9	119.59	%			11:32:55
3	Ag 328.068†	-7784.2	-7798.2	3.4163	ug/L	3.4163	ppb	11:33:00
3	As 188.979†	-82.2	-48.1	33.276	ug/L	33.276	ppb	11:33:20
3	B 249.677†	906.0	1329.6	13.451	ug/L	13.451	ppb	11:33:00
3	Ba 233.527†	45294.3	43424.1	306.10	ug/L	306.10	ppb	11:33:00
3	Be 313.107†	-17460.5	-12055.0	3.6749	ug/L	3.6749	ppb	11:33:00
3	Cd 226.502†	940.8	1115.2	-0.1020	ug/L	-0.1020	ppb	11:33:20
3	Co 228.616†	1027.8	1077.2	9.1757	ug/L	9.1757	ppb	11:33:20
3	Cr 267.716†	2659.3	2446.3	27.584	ug/L	27.584	ppb	11:33:20
3	Cu 324.752†	10382.2	3829.8	16.945	ug/L	16.945	ppb	11:33:00
3	Mn 257.610†	1516628.8	1453573.7	1493.1	ug/L	1493.1	ppb	11:32:55
3	Mo 202.031†	2.7	-24.9	6.4522	ug/L	6.4522	ppb	11:33:20
3	Ni 231.604†	1373.5	1236.7	27.573	ug/L	27.573	ppb	11:33:20
3	P 214.914†	4194.9	3763.2	1927.7	ug/L	1927.7	ppb	11:33:20
3	Pb 220.353†	847.0	875.9	92.897	ug/L	92.897	ppb	11:33:20
3	S 181.975 Axial†	233.9	172.6	213.78	ug/L	213.78	ppb	11:33:20
3	Sb 206.836†	71.2	27.6	-2.2283	ug/L	-2.2283	ppb	11:33:20
3	Se 196.026†	-610.4	-551.0	37.396	ug/L	37.396	ppb	11:33:20
3	Si 251.611†	553152.6	529759.7	15354	ug/L	15354	ppb	11:32:55
3	Sn 189.927†	18.7	13.0	4.7247	ug/L	4.7247	ppb	11:33:20
3	Ti 334.940†	2805039.2	2690836.7	4044.4	ug/L	4044.4	ppb	11:32:55
3	Tl 190.801†	-219.4	-167.4	-4.0847	ug/L	-4.0847	ppb	11:33:20
3	U 409.014†	-15524.2	-12096.9	-356.07	ug/L	-356.07	ppb	11:32:55
3	V 292.402†	13939.5	14878.2	75.180	ug/L	75.180	ppb	11:33:00
3	Zn 213.857†	50123.8	47249.2	388.94	ug/L	388.94	ppb	11:33:00
3	SiO2†	548143.2	524931.9	32559	ug/L	32559	ppb	11:33:37

Mean Data: 242750001|932281|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	967436.1	104.60	%	0.782				0.75%
Sc Radial	5865.6	103	%	0.6				0.58%
Y 371.029	910680.0	119.84	%	0.728				0.61%
Y RADIAL	7042.4	120.3	%	0.48				0.40%
Ag 328.068†	-7871.1	2.7900	ug/L	0.54268	2.7900	ppb	0.54268	19.45%
Al 396.153Radial†	50628.0	38223	ug/L	293.3	38223	ppb	293.3	0.77%
As 188.979†	-52.0	31.586	ug/L	1.5345	31.586	ppb	1.5345	4.86%
B 249.677†	1256.9	12.015	ug/L	1.2902	12.015	ppb	1.2902	10.74%
Ba 233.527†	43548.5	306.93	ug/L	1.732	306.93	ppb	1.732	0.56%
Be 313.107†	-11950.8	3.6914	ug/L	0.05703	3.6914	ppb	0.05703	1.54%
Ca 317.933Radial†	8352.5	11969	ug/L	92.1	11969	ppb	92.1	0.77%
Cd 226.502†	1120.5	0.0410	ug/L	0.12487	0.0410	ppb	0.12487	304.81%
Co 228.616†	1070.1	9.0826	ug/L	0.09540	9.0826	ppb	0.09540	1.05%
Cr 267.716†	2449.6	27.603	ug/L	0.2301	27.603	ppb	0.2301	0.83%
Cu 324.752†	3795.3	16.798	ug/L	0.2762	16.798	ppb	0.2762	1.64%
Fe 238.204 Radial†	14879.5	111640	ug/L	987.7	111640	ppb	987.7	0.88%
K 766.490 Radial†	28415.3	4638.0	ug/L	24.12	4638.0	ppb	24.12	0.52%

Mg 279.077 IEC†	323.1	9624.8	ug/L	64.09	9624.8	ppb	64.09	0.67%
Mn 257.610†	1450926.3	1490.3	ug/L	11.17	1490.3	ppb	11.17	0.75%
Mo 202.031†	-29.8	6.0887	ug/L	0.33472	6.0887	ppb	0.33472	5.50%
Na 589.592 Radial†	8777.1	2095.0	ug/L	2.36	2095.0	ppb	2.36	0.11%
Ni 231.604†	1237.2	27.583	ug/L	0.2387	27.583	ppb	0.2387	0.87%
P 214.914†	3769.9	1931.9	ug/L	15.00	1931.9	ppb	15.00	0.78%
Pb 220.353†	879.7	93.306	ug/L	0.5671	93.306	ppb	0.5671	0.61%
S 181.975 Axial†	172.7	213.87	ug/L	6.194	213.87	ppb	6.194	2.90%
Sb 206.836†	22.5	-3.7436	ug/L	1.75460	-3.7436	ppb	1.75460	46.87%
Se 196.026†	-551.1	34.540	ug/L	3.0136	34.540	ppb	3.0136	8.73%
Si 251.611†	529560.6	15348	ug/L	116.0	15348	ppb	116.0	0.76%
Sn 189.927†	18.5	5.5697	ug/L	1.21698	5.5697	ppb	1.21698	21.85%
Sr 421.552†	12633.1	69.081	ug/L	0.3881	69.081	ppb	0.3881	0.56%
Ti 334.940†	2683920.0	4034.0	ug/L	33.02	4034.0	ppb	33.02	0.82%
Tl 190.801†	-172.6	-5.5754	ug/L	1.36328	-5.5754	ppb	1.36328	24.45%
U 409.014†	-12064.3	-355.03	ug/L	5.087	-355.03	ppb	5.087	1.43%
V 292.402†	14984.1	76.020	ug/L	0.7995	76.020	ppb	0.7995	1.05%
Zn 213.857†	47522.8	391.34	ug/L	3.661	391.34	ppb	3.661	0.94%
SiO2†	525693.2	32606	ug/L	124.4	32606	ppb	124.4	0.38%

Sequence No.: 7
Sample ID: 1201994232|932281|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 44
Date Collected: 12/18/2009 11:35:47
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1201994232|932281|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5739.3	5739.3	101	%			11:38:00
1	Y RADIAL	6977.0	6977.0	119.2	%			11:38:00
1	Al 396.153Radial†	57667.4	57177.9	43168	ug/L	43168	ppb	11:37:40
1	Ca 317.933Radial†	9566.2	9462.2	13559	ug/L	13559	ppb	11:37:40
1	Fe 238.204 Radial†	14934.3	14783.9	110920	ug/L	110920	ppb	11:37:40
1	K 766.490 Radial†	35329.3	32007.1	5220.6	ug/L	5220.6	ppb	11:37:40
1	Mg 279.077 IEC†	351.1	345.3	10295	ug/L	10295	ppb	11:38:00
1	Na 589.592 Radial†	7868.0	9083.9	2168.2	ug/L	2168.2	ppb	11:37:40
1	Sr 421.552†	16955.6	16795.9	91.865	ug/L	91.865	ppb	11:37:40
1	Sc 361.383	953901.9	953901.9	103.14	%			11:38:57
1	Y 371.029	907282.8	907282.8	119.39	%			11:38:57
1	Ag 328.068†	-7631.4	-7734.5	3.1522	ug/L	3.1522	ppb	11:39:03
1	As 188.979†	-81.2	-48.1	31.830	ug/L	31.830	ppb	11:39:23
1	B 249.677†	856.6	1291.6	12.852	ug/L	12.852	ppb	11:39:03
1	Ba 233.527†	64321.9	62364.7	437.65	ug/L	437.65	ppb	11:39:03
1	Be 313.107†	-15852.4	-10685.2	3.8773	ug/L	3.8773	ppb	11:39:03
1	Cd 226.502†	907.9	1093.6	-0.1551	ug/L	-0.1551	ppb	11:39:23
1	Co 228.616†	1042.2	1102.4	10.009	ug/L	10.009	ppb	11:39:23
1	Cr 267.716†	2980.7	2786.7	31.084	ug/L	31.084	ppb	11:39:23
1	Cu 324.752†	11774.7	5292.7	21.142	ug/L	21.142	ppb	11:39:03
1	Mn 257.610†	1955249.0	1895313.9	1943.3	ug/L	1943.3	ppb	11:38:57
1	Mo 202.031†	-21.4	-48.3	4.8957	ug/L	4.8957	ppb	11:39:23
1	Ni 231.604†	1458.8	1334.3	29.750	ug/L	29.750	ppb	11:39:23
1	P 214.914†	2789.6	2446.0	1227.4	ug/L	1227.4	ppb	11:39:23
1	Pb 220.353†	956.9	991.6	106.42	ug/L	106.42	ppb	11:39:23
1	S 181.975 Axial†	328.7	267.1	333.96	ug/L	333.96	ppb	11:39:23
1	Sb 206.836†	70.7	27.8	-2.0131	ug/L	-2.0131	ppb	11:39:23
1	Se 196.026†	-568.5	-516.9	52.249	ug/L	52.249	ppb	11:39:23
1	Si 251.611†	501116.7	485306.8	14065	ug/L	14065	ppb	11:38:57
1	Sn 189.927†	19.7	14.1	5.0598	ug/L	5.0598	ppb	11:39:23
1	Ti 334.940†	2674783.5	2594972.6	3900.4	ug/L	3900.4	ppb	11:38:57
1	Tl 190.801†	-246.5	-196.1	-10.083	ug/L	-10.083	ppb	11:39:23
1	U 409.014†	-15109.3	-11863.0	-349.26	ug/L	-349.26	ppb	11:38:57
1	V 292.402†	14794.6	15858.5	81.999	ug/L	81.999	ppb	11:39:03
1	Zn 213.857†	47869.4	45607.2	375.14	ug/L	375.14	ppb	11:39:03
1	SiO2†	499963.0	484163.1	30030	ug/L	30030	ppb	11:40:31
2	Sc Radial	5872.8	5872.8	103	%			11:38:25
2	Y RADIAL	7142.7	7142.7	122.0	%			11:38:25
2	Al 396.153Radial†	57377.4	55597.3	41975	ug/L	41975	ppb	11:38:05
2	Ca 317.933Radial†	9491.2	9174.0	13146	ug/L	13146	ppb	11:38:05
2	Fe 238.204 Radial†	14855.9	14371.4	107830	ug/L	107830	ppb	11:38:05
2	K 766.490 Radial†	35168.5	31055.1	5064.7	ug/L	5064.7	ppb	11:38:05
2	Mg 279.077 IEC†	355.4	341.5	10184	ug/L	10184	ppb	11:38:25
2	Na 589.592 Radial†	7698.6	8742.5	2086.7	ug/L	2086.7	ppb	11:38:05
2	Sr 421.552†	16794.8	16257.9	88.923	ug/L	88.923	ppb	11:38:05
2	Sc 361.383	966564.0	966564.0	104.50	%			11:39:29
2	Y 371.029	917974.8	917974.8	120.80	%			11:39:29
2	Ag 328.068†	-7615.0	-7621.8	2.6248	ug/L	2.6248	ppb	11:39:34
2	As 188.979†	-74.5	-40.6	34.138	ug/L	34.138	ppb	11:39:54
2	B 249.677†	888.5	1311.3	13.684	ug/L	13.684	ppb	11:39:34
2	Ba 233.527†	64272.4	61500.3	431.53	ug/L	431.53	ppb	11:39:34
2	Be 313.107†	-15906.7	-10535.8	3.9282	ug/L	3.9282	ppb	11:39:34
2	Cd 226.502†	887.9	1062.9	-0.1521	ug/L	-0.1521	ppb	11:39:54
2	Co 228.616†	1027.7	1075.2	9.5692	ug/L	9.5692	ppb	11:39:54
2	Cr 267.716†	2985.5	2753.4	30.683	ug/L	30.683	ppb	11:39:54
2	Cu 324.752†	11649.0	5022.9	20.194	ug/L	20.194	ppb	11:39:34
2	Mn 257.610†	1977925.6	1892177.8	1939.8	ug/L	1939.8	ppb	11:39:29
2	Mo 202.031†	-8.9	-36.0	5.4316	ug/L	5.4316	ppb	11:39:54
2	Ni 231.604†	1462.8	1319.7	29.422	ug/L	29.422	ppb	11:39:54

2	P 214.914†	2789.8	2410.8	1210.8	ug/L	1210.8 ppb	11:39:54
2	Pb 220.353†	964.7	986.9	105.90	ug/L	105.90 ppb	11:39:54
2	S 181.975 Axial†	305.2	240.5	300.05	ug/L	300.05 ppb	11:39:54
2	Sb 206.836†	70.1	26.4	-2.4570	ug/L	-2.4570 ppb	11:39:54
2	Se 196.026†	-580.1	-520.8	40.493	ug/L	40.493 ppb	11:39:54
2	Si 251.611†	507971.2	485500.7	14071	ug/L	14071 ppb	11:39:29
2	Sn 189.927†	10.8	5.3	3.6370	ug/L	3.6370 ppb	11:39:54
2	Ti 334.940†	2709599.6	2594313.3	3899.4	ug/L	3899.4 ppb	11:39:29
2	Tl 190.801†	-237.4	-184.2	-6.9828	ug/L	-6.9828 ppb	11:39:54
2	U 409.014†	-15518.2	-12062.4	-354.51	ug/L	-354.51 ppb	11:39:29
2	V 292.402†	14776.9	15653.6	81.129	ug/L	81.129 ppb	11:39:34
2	Zn 213.857†	47970.8	45096.2	371.11	ug/L	371.11 ppb	11:39:34
2	SiO2†	500648.9	478469.0	29676	ug/L	29676 ppb	11:40:36
3	Sc Radial	5787.9	5787.9	102	%		11:38:50
3	Y RADIAL	7024.0	7024.0	120.0	%		11:38:50
3	Al 396.153Radial†	56857.9	55902.0	42205	ug/L	42205 ppb	11:38:30
3	Ca 317.933Radial†	9406.0	9225.1	13219	ug/L	13219 ppb	11:38:30
3	Fe 238.204 Radial†	14683.4	14412.9	108140	ug/L	108140 ppb	11:38:30
3	K 766.490 Radial†	34846.3	31238.1	5094.7	ug/L	5094.7 ppb	11:38:30
3	Mg 279.077 IEC†	355.1	346.3	10328	ug/L	10328 ppb	11:38:50
3	Na 589.592 Radial†	7580.7	8736.0	2085.2	ug/L	2085.2 ppb	11:38:30
3	Sr 421.552†	16601.9	16307.0	89.191	ug/L	89.191 ppb	11:38:30
3	Sc 361.383	959866.8	959866.8	103.78	%		11:40:00
3	Y 371.029	912837.0	912837.0	120.12	%		11:40:00
3	Ag 328.068†	-7378.2	-7444.6	3.5101	ug/L	3.5101 ppb	11:40:05
3	As 188.979†	-84.8	-51.1	30.223	ug/L	30.223 ppb	11:40:25
3	B 249.677†	782.3	1214.8	11.579	ug/L	11.579 ppb	11:40:05
3	Ba 233.527†	63246.9	60941.3	427.66	ug/L	427.66 ppb	11:40:05
3	Be 313.107†	-16109.6	-10837.5	3.8103	ug/L	3.8103 ppb	11:40:05
3	Cd 226.502†	902.2	1082.6	0.0138	ug/L	0.0138 ppb	11:40:25
3	Co 228.616†	1041.4	1095.4	9.9341	ug/L	9.9341 ppb	11:40:25
3	Cr 267.716†	2993.8	2781.4	30.975	ug/L	30.975 ppb	11:40:25
3	Cu 324.752†	11622.7	5075.2	20.364	ug/L	20.364 ppb	11:40:05
3	Mn 257.610†	1959829.2	1887946.2	1935.5	ug/L	1935.5 ppb	11:40:00
3	Mo 202.031†	-11.8	-38.9	5.2786	ug/L	5.2786 ppb	11:40:25
3	Ni 231.604†	1461.9	1328.5	29.620	ug/L	29.620 ppb	11:40:25
3	P 214.914†	2769.9	2410.3	1210.3	ug/L	1210.3 ppb	11:40:25
3	Pb 220.353†	961.2	990.0	106.26	ug/L	106.26 ppb	11:40:25
3	S 181.975 Axial†	330.7	267.1	334.13	ug/L	334.13 ppb	11:40:25
3	Sb 206.836†	72.9	29.6	-1.4824	ug/L	-1.4824 ppb	11:40:25
3	Se 196.026†	-585.5	-529.9	36.362	ug/L	36.362 ppb	11:40:25
3	Si 251.611†	503390.9	484478.7	14041	ug/L	14041 ppb	11:40:00
3	Sn 189.927†	16.0	10.4	4.4254	ug/L	4.4254 ppb	11:40:25
3	Ti 334.940†	2686951.9	2590581.2	3893.8	ug/L	3893.8 ppb	11:40:00
3	Tl 190.801†	-217.6	-166.7	-2.3913	ug/L	-2.3913 ppb	11:40:25
3	U 409.014†	-15322.2	-11977.1	-352.14	ug/L	-352.14 ppb	11:40:00
3	V 292.402†	14497.7	15483.2	79.980	ug/L	79.980 ppb	11:40:05
3	Zn 213.857†	47131.4	44607.6	366.94	ug/L	366.94 ppb	11:40:05
3	SiO2†	505876.9	486849.2	30196	ug/L	30196 ppb	11:40:41

Mean Data: 1201994232|932281|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	960110.9	103.81	%	0.685				0.66%
Sc Radial	5800.0	102	%	1.2				1.17%
Y 371.029	912698.2	120.11	%	0.704				0.59%
Y RADIAL	7047.9	120.4	%	1.46				1.21%
Ag 328.068†	-7600.3	3.0957	ug/L	0.44539	3.0957	ppb	0.44539	14.39%
Al 396.153Radial†	56225.7	42450	ug/L	633.1	42450	ppb	633.1	1.49%
As 188.979†	-46.6	32.064	ug/L	1.9677	32.064	ppb	1.9677	6.14%
B 249.677†	1272.6	12.705	ug/L	1.0600	12.705	ppb	1.0600	8.34%
Ba 233.527†	61602.1	432.28	ug/L	5.041	432.28	ppb	5.041	1.17%
Be 313.107†	-10686.2	3.8719	ug/L	0.05915	3.8719	ppb	0.05915	1.53%
Ca 317.933Radial†	9287.1	13308	ug/L	220.4	13308	ppb	220.4	1.66%
Cd 226.502†	1079.7	-0.0978	ug/L	0.09666	-0.0978	ppb	0.09666	98.87%
Co 228.616†	1091.0	9.8376	ug/L	0.23543	9.8376	ppb	0.23543	2.39%
Cr 267.716†	2773.8	30.914	ug/L	0.2072	30.914	ppb	0.2072	0.67%
Cu 324.752†	5130.3	20.566	ug/L	0.5052	20.566	ppb	0.5052	2.46%
Fe 238.204 Radial†	14522.8	108960	ug/L	1704.2	108960	ppb	1704.2	1.56%
K 766.490 Radial†	31433.4	5126.7	ug/L	82.73	5126.7	ppb	82.73	1.61%

Mg 279.077 IEC†	344.4	10269	ug/L	75.5	10269	ppb	75.5	0.74%
Mn 257.610†	1891812.6	1939.5	ug/L	3.90	1939.5	ppb	3.90	0.20%
Mo 202.031†	-41.1	5.2020	ug/L	0.27603	5.2020	ppb	0.27603	5.31%
Na 589.592 Radial†	8854.1	2113.4	ug/L	47.50	2113.4	ppb	47.50	2.25%
Ni 231.604†	1327.5	29.597	ug/L	0.1647	29.597	ppb	0.1647	0.56%
P 214.914†	2422.4	1216.2	ug/L	9.72	1216.2	ppb	9.72	0.80%
Pb 220.353†	989.5	106.19	ug/L	0.265	106.19	ppb	0.265	0.25%
S 181.975 Axial†	258.2	322.72	ug/L	19.627	322.72	ppb	19.627	6.08%
Sb 206.836†	28.0	-1.9842	ug/L	0.48792	-1.9842	ppb	0.48792	24.59%
Se 196.026†	-522.6	43.035	ug/L	8.2430	43.035	ppb	8.2430	19.15%
Si 251.611†	485095.4	14059	ug/L	15.7	14059	ppb	15.7	0.11%
Sn 189.927†	10.0	4.3741	ug/L	0.71280	4.3741	ppb	0.71280	16.30%
Sr 421.552†	16453.6	89.993	ug/L	1.6269	89.993	ppb	1.6269	1.81%
Ti 334.940†	2593289.0	3897.9	ug/L	3.56	3897.9	ppb	3.56	0.09%
Tl 190.801†	-182.3	-6.4856	ug/L	3.86965	-6.4856	ppb	3.86965	59.67%
U 409.014†	-11967.5	-351.97	ug/L	2.626	-351.97	ppb	2.626	0.75%
V 292.402†	15665.1	81.036	ug/L	1.0126	81.036	ppb	1.0126	1.25%
Zn 213.857†	45103.6	371.06	ug/L	4.100	371.06	ppb	4.100	1.11%
SiO2†	483160.4	29967	ug/L	265.4	29967	ppb	265.4	0.89%

Sequence No.: 8
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 12/18/2009 11:42:52
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5735.3	5735.3	101	%			11:44:44
1	Y RADIAL	5923.3	5923.3	101.2	%			11:44:44
1	Al 396.153Radial†	6764.3	6739.4	5066.2	ug/L	5066.2	ppb	11:44:44
1	Ca 317.933Radial†	3580.1	3532.7	5062.3	ug/L	5062.3	ppb	11:45:04
1	Fe 238.204 Radial†	687.7	666.5	5017.6	ug/L	5017.6	ppb	11:45:04
1	K 766.490 Radial†	33856.1	30570.4	4994.0	ug/L	4994.0	ppb	11:44:44
1	Mg 279.077 IEC†	176.0	171.9	5178.8	ug/L	5178.8	ppb	11:45:04
1	Na 589.592 Radial†	39350.7	40309.0	9621.4	ug/L	9621.4	ppb	11:44:44
1	Sr 421.552†	92069.4	91293.9	499.97	ug/L	499.97	ppb	11:44:44
1	Sc 361.383	926830.1	926830.1	100.21	%			11:46:02
1	Y 371.029	742275.3	742275.3	97.679	%			11:46:02
1	Ag 328.068†	117933.7	117353.5	525.36	ug/L	525.36	ppb	11:46:07
1	As 188.979†	1365.3	1393.1	525.91	ug/L	525.91	ppb	11:46:27
1	B 249.677†	24013.7	24424.8	520.24	ug/L	520.24	ppb	11:46:07
1	Ba 233.527†	75288.2	75129.9	523.35	ug/L	523.35	ppb	11:46:07
1	Be 313.107†	1473276.9	1474899.9	523.83	ug/L	523.83	ppb	11:46:02
1	Cd 226.502†	52417.9	52522.2	524.09	ug/L	524.09	ppb	11:46:07
1	Co 228.616†	29453.2	29483.9	527.23	ug/L	527.23	ppb	11:46:07
1	Cr 267.716†	50375.7	50167.6	519.47	ug/L	519.47	ppb	11:46:07
1	Cu 324.752†	184869.3	178360.9	522.03	ug/L	522.03	ppb	11:46:07
1	Mn 257.610†	520912.9	519334.0	529.90	ug/L	529.90	ppb	11:46:02
1	Mo 202.031†	8389.7	8344.7	513.74	ug/L	513.74	ppb	11:46:27
1	Ni 231.604†	23454.0	23325.1	519.92	ug/L	519.92	ppb	11:46:07
1	P 214.914†	5195.2	4925.7	2548.3	ug/L	2548.3	ppb	11:46:27
1	Pb 220.353†	4800.7	4854.6	519.80	ug/L	519.80	ppb	11:46:27
1	S 181.975 Axial†	864.2	810.8	1038.6	ug/L	1038.6	ppb	11:46:27
1	Sb 206.836†	1755.7	1711.3	529.88	ug/L	529.88	ppb	11:46:27
1	Se 196.026†	919.2	951.6	552.38	ug/L	552.38	ppb	11:46:27
1	Si 251.611†	91101.8	90336.4	2606.2	ug/L	2606.2	ppb	11:46:07
1	Sn 189.927†	3396.6	3384.6	514.30	ug/L	514.30	ppb	11:46:27
1	Ti 334.940†	348541.3	349318.6	524.78	ug/L	524.78	ppb	11:46:02
1	Tl 190.801†	1926.4	1965.3	526.47	ug/L	526.47	ppb	11:46:27
1	U 409.014†	16166.1	18919.5	533.04	ug/L	533.04	ppb	11:46:07
1	V 292.402†	78078.8	79430.1	526.03	ug/L	526.03	ppb	11:46:07
1	Zn 213.857†	63167.2	62228.8	522.48	ug/L	522.48	ppb	11:46:07
1	SiO2†	91427.6	90636.5	5595.7	ug/L	5595.7	ppb	11:47:35
2	Sc Radial	5734.5	5734.5	101	%			11:45:10
2	Y RADIAL	5865.7	5865.7	100.2	%			11:45:10
2	Al 396.153Radial†	6681.1	6657.9	5004.4	ug/L	5004.4	ppb	11:45:10
2	Ca 317.933Radial†	3555.3	3508.6	5027.7	ug/L	5027.7	ppb	11:45:30
2	Fe 238.204 Radial†	685.1	664.0	4999.1	ug/L	4999.1	ppb	11:45:30
2	K 766.490 Radial†	33527.5	30249.1	4941.5	ug/L	4941.5	ppb	11:45:10
2	Mg 279.077 IEC†	173.6	169.5	5106.9	ug/L	5106.9	ppb	11:45:30
2	Na 589.592 Radial†	38923.8	39891.0	9521.6	ug/L	9521.6	ppb	11:45:10
2	Sr 421.552†	90986.8	90232.8	494.16	ug/L	494.16	ppb	11:45:10
2	Sc 361.383	920336.4	920336.4	99.506	%			11:46:33
2	Y 371.029	737207.0	737207.0	97.012	%			11:46:33
2	Ag 328.068†	118890.0	119144.9	533.35	ug/L	533.35	ppb	11:46:38
2	As 188.979†	1367.6	1405.0	530.34	ug/L	530.34	ppb	11:46:58
2	B 249.677†	24242.2	24823.5	528.74	ug/L	528.74	ppb	11:46:38
2	Ba 233.527†	76180.0	76556.2	533.28	ug/L	533.28	ppb	11:46:38
2	Be 313.107†	1463466.3	1475414.1	524.02	ug/L	524.02	ppb	11:46:33
2	Cd 226.502†	52901.5	53377.3	532.63	ug/L	532.63	ppb	11:46:38
2	Co 228.616†	29712.7	29952.0	535.61	ug/L	535.61	ppb	11:46:38
2	Cr 267.716†	50862.5	51011.5	528.21	ug/L	528.21	ppb	11:46:38
2	Cu 324.752†	186705.1	181507.5	531.24	ug/L	531.24	ppb	11:46:38
2	Mn 257.610†	517508.6	519580.7	530.15	ug/L	530.15	ppb	11:46:33
2	Mo 202.031†	8414.1	8428.3	518.88	ug/L	518.88	ppb	11:46:58
2	Ni 231.604†	23698.0	23735.5	529.07	ug/L	529.07	ppb	11:46:38

2	P 214.914†	5181.9	4948.9	2559.3 ug/L	2559.3 ppb	11:46:58
2	Pb 220.353†	4811.8	4899.4	524.58 ug/L	524.58 ppb	11:46:58
2	S 181.975 Axial†	866.6	819.3	1049.5 ug/L	1049.5 ppb	11:46:58
2	Sb 206.836†	1738.4	1706.4	528.37 ug/L	528.37 ppb	11:46:58
2	Se 196.026†	917.2	956.1	554.85 ug/L	554.85 ppb	11:46:58
2	Si 251.611†	91603.8	91482.4	2639.3 ug/L	2639.3 ppb	11:46:38
2	Sn 189.927†	3401.3	3413.2	518.65 ug/L	518.65 ppb	11:46:58
2	Ti 334.940†	346677.9	349900.1	525.65 ug/L	525.65 ppb	11:46:33
2	Tl 190.801†	1933.7	1986.2	531.98 ug/L	531.98 ppb	11:46:58
2	U 409.014†	16273.0	19140.8	539.28 ug/L	539.28 ppb	11:46:38
2	V 292.402†	78813.9	80718.7	534.54 ug/L	534.54 ppb	11:46:38
2	Zn 213.857†	63819.5	63329.1	531.73 ug/L	531.73 ppb	11:46:38
2	SiO2†	91407.8	91260.3	5634.2 ug/L	5634.2 ppb	11:47:40
3	Sc Radial	5658.4	5658.4	99.5 %		11:45:35
3	Y RADIAL	5822.1	5822.1	99.46 %		11:45:35
3	Al 396.153Radial†	6663.2	6729.1	5058.2 ug/L	5058.2 ppb	11:45:35
3	Ca 317.933Radial†	3566.8	3567.6	5112.3 ug/L	5112.3 ppb	11:45:55
3	Fe 238.204 Radial†	689.9	678.0	5103.6 ug/L	5103.6 ppb	11:45:55
3	K 766.490 Radial†	33312.5	30480.4	4979.3 ug/L	4979.3 ppb	11:45:35
3	Mg 279.077 IEC†	174.7	173.0	5211.1 ug/L	5211.1 ppb	11:45:55
3	Na 589.592 Radial†	38525.9	40010.5	9550.1 ug/L	9550.1 ppb	11:45:35
3	Sr 421.552†	90329.9	90786.6	497.19 ug/L	497.19 ppb	11:45:35
3	Sc 361.383	922833.5	922833.5	99.776 %		11:47:04
3	Y 371.029	739839.9	739839.9	97.358 %		11:47:04
3	Ag 328.068†	117541.5	117470.0	525.91 ug/L	525.91 ppb	11:47:10
3	As 188.979†	1357.5	1391.1	525.17 ug/L	525.17 ppb	11:47:30
3	B 249.677†	23875.5	24390.1	519.48 ug/L	519.48 ppb	11:47:10
3	Ba 233.527†	75344.8	75512.0	526.01 ug/L	526.01 ppb	11:47:10
3	Be 313.107†	1471987.9	1479975.0	525.63 ug/L	525.63 ppb	11:47:04
3	Cd 226.502†	52302.3	52632.8	525.19 ug/L	525.19 ppb	11:47:10
3	Co 228.616†	29356.8	29514.6	527.79 ug/L	527.79 ppb	11:47:10
3	Cr 267.716†	50339.8	50349.4	521.35 ug/L	521.35 ppb	11:47:10
3	Cu 324.752†	184508.8	178798.6	523.32 ug/L	523.32 ppb	11:47:10
3	Mn 257.610†	518470.7	519137.6	529.71 ug/L	529.71 ppb	11:47:04
3	Mo 202.031†	8405.0	8396.4	516.93 ug/L	516.93 ppb	11:47:30
3	Ni 231.604†	23553.7	23526.5	524.41 ug/L	524.41 ppb	11:47:10
3	P 214.914†	5171.7	4924.6	2547.5 ug/L	2547.5 ppb	11:47:30
3	Pb 220.353†	4785.8	4860.4	520.41 ug/L	520.41 ppb	11:47:30
3	S 181.975 Axial†	856.8	807.1	1033.9 ug/L	1033.9 ppb	11:47:30
3	Sb 206.836†	1753.8	1717.1	531.70 ug/L	531.70 ppb	11:47:30
3	Se 196.026†	915.1	951.4	552.55 ug/L	552.55 ppb	11:47:30
3	Si 251.611†	90699.3	90326.6	2605.9 ug/L	2605.9 ppb	11:47:10
3	Sn 189.927†	3398.5	3401.2	516.83 ug/L	516.83 ppb	11:47:30
3	Ti 334.940†	347245.1	349525.9	525.10 ug/L	525.10 ppb	11:47:04
3	Tl 190.801†	1913.9	1961.2	525.35 ug/L	525.35 ppb	11:47:30
3	U 409.014†	15980.6	18803.4	529.74 ug/L	529.74 ppb	11:47:10
3	V 292.402†	77865.2	79553.5	526.87 ug/L	526.87 ppb	11:47:10
3	Zn 213.857†	63098.3	62432.8	524.17 ug/L	524.17 ppb	11:47:10
3	SiO2†	90772.0	90374.5	5579.4 ug/L	5579.4 ppb	11:47:45

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	923333.3	99.830	%	0.3542				0.35%
Sc Radial	5709.4	100	%	0.8				0.77%
Y 371.029	739774.1	97.350	%	0.3336				0.34%
Y RADIAL	5870.4	100.3	%	0.87				0.86%
Ag 328.068†	117989.5	528.20	ug/L	4.464	528.20	ppb	4.464	0.85%
QC value within limits for Ag 328.068 Recovery = 105.64%								
Al 396.153Radial†	6708.8	5042.9	ug/L	33.62	5042.9	ppb	33.62	0.67%
QC value within limits for Al 396.153Radial Recovery = 100.86%								
As 188.979†	1396.4	527.14	ug/L	2.797	527.14	ppb	2.797	0.53%
QC value within limits for As 188.979 Recovery = 105.43%								
B 249.677†	24546.1	522.82	ug/L	5.143	522.82	ppb	5.143	0.98%
QC value within limits for B 249.677 Recovery = 104.56%								
Ba 233.527†	75732.7	527.55	ug/L	5.139	527.55	ppb	5.139	0.97%
QC value within limits for Ba 233.527 Recovery = 105.51%								
Be 313.107†	1476763.0	524.50	ug/L	0.990	524.50	ppb	0.990	0.19%
QC value within limits for Be 313.107 Recovery = 104.90%								
Ca 317.933Radial†	3536.3	5067.4	ug/L	42.51	5067.4	ppb	42.51	0.84%

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   QC value within limits for Ca 317.933Radial  Recovery = 101.35%
Cd 226.502†            52844.1      527.30 ug/L         4.648      527.30 ppb          4.648   0.88%
   QC value within limits for Cd 226.502  Recovery = 105.46%
Co 228.616†            29650.1      530.21 ug/L         4.686      530.21 ppb          4.686   0.88%
   QC value within limits for Co 228.616  Recovery = 106.04%
Cr 267.716†            50509.5      523.01 ug/L         4.598      523.01 ppb          4.598   0.88%
   QC value within limits for Cr 267.716  Recovery = 104.60%
Cu 324.752†           179555.7      525.53 ug/L         4.985      525.53 ppb          4.985   0.95%
   QC value within limits for Cu 324.752  Recovery = 105.11%
Fe 238.204 Radial†       669.5      5040.1 ug/L        55.72      5040.1 ppb          55.72   1.11%
   QC value within limits for Fe 238.204 Radial  Recovery = 100.80%
K 766.490 Radial†      30433.3      4971.6 ug/L        27.10      4971.6 ppb          27.10   0.55%
   QC value within limits for K 766.490 Radial  Recovery = 99.43%
Mg 279.077 IEC†          171.5      5165.6 ug/L        53.35      5165.6 ppb          53.35   1.03%
   QC value within limits for Mg 279.077 IEC  Recovery = 103.31%
Mn 257.610†           519350.8      529.92 ug/L         0.222      529.92 ppb          0.222   0.04%
   QC value within limits for Mn 257.610  Recovery = 105.98%
Mo 202.031†             8389.8      516.52 ug/L         2.594      516.52 ppb          2.594   0.50%
   QC value within limits for Mo 202.031  Recovery = 103.30%
Na 589.592 Radial†     40070.2      9564.4 ug/L        51.39      9564.4 ppb          51.39   0.54%
   QC value within limits for Na 589.592 Radial  Recovery = 95.64%
Ni 231.604†            23529.0      524.47 ug/L         4.574      524.47 ppb          4.574   0.87%
   QC value within limits for Ni 231.604  Recovery = 104.89%
P 214.914†              4933.1      2551.7 ug/L         6.58      2551.7 ppb           6.58   0.26%
   QC value within limits for P 214.914  Recovery = 102.07%
Pb 220.353†             4871.5      521.60 ug/L         2.602      521.60 ppb          2.602   0.50%
   QC value within limits for Pb 220.353  Recovery = 104.32%
S 181.975 Axial†         812.4      1040.7 ug/L         8.00      1040.7 ppb           8.00   0.77%
   QC value within limits for S 181.975 Axial  Recovery = 104.07%
Sb 206.836†             1711.6      529.98 ug/L         1.670      529.98 ppb          1.670   0.32%
   QC value within limits for Sb 206.836  Recovery = 106.00%
Se 196.026†              953.0      553.26 ug/L         1.379      553.26 ppb          1.379   0.25%
   QC value greater than the upper limit for Se 196.026  Recovery = 110.65%
Si 251.611†            90715.1      2617.1 ug/L        19.23      2617.1 ppb          19.23   0.73%
   QC value within limits for Si 251.611  Recovery = 104.69%
Sn 189.927†             3399.6      516.59 ug/L         2.181      516.59 ppb          2.181   0.42%
   QC value within limits for Sn 189.927  Recovery = 103.32%
Sr 421.552†            90771.1      497.11 ug/L         2.906      497.11 ppb          2.906   0.58%
   QC value within limits for Sr 421.552  Recovery = 99.42%
Ti 334.940†           349581.5      525.18 ug/L         0.438      525.18 ppb          0.438   0.08%
   QC value within limits for Ti 334.940  Recovery = 105.04%
Tl 190.801†             1970.9      527.93 ug/L         3.548      527.93 ppb          3.548   0.67%
   QC value within limits for Tl 190.801  Recovery = 105.59%
U 409.014†             18954.6      534.02 ug/L         4.842      534.02 ppb          4.842   0.91%
   QC value within limits for U 409.014  Recovery = 106.80%
V 292.402†             79900.8      529.15 ug/L         4.688      529.15 ppb          4.688   0.89%
   QC value within limits for V 292.402  Recovery = 105.83%
Zn 213.857†            62663.6      526.13 ug/L         4.929      526.13 ppb          4.929   0.94%
   QC value within limits for Zn 213.857  Recovery = 105.23%
SiO2†                  90757.1      5603.1 ug/L        28.18      5603.1 ppb          28.18   0.50%
   QC value within limits for SiO2  Recovery = 104.78%
QC Failed.  Continue with analysis.
```

Sequence No.: 9
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 12/18/2009 11:49:56
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5861.6	5861.6	103	%			11:51:48
1	Y RADIAL	6112.4	6112.4	104.4	%			11:51:48
1	Al 396.153Radial†	-27.5	5.0	3.7722	ug/L	3.7722	ppb	11:51:48
1	Ca 317.933Radial†	28.8	10.5	15.012	ug/L	15.012	ppb	11:52:08
1	Fe 238.204 Radial†	13.4	-2.4	-17.815	ug/L	-17.815	ppb	11:52:08
1	K 766.490 Radial†	2970.6	-120.6	-19.787	ug/L	-19.787	ppb	11:51:48
1	Mg 279.077 IEC†	6.2	3.3	100.57	ug/L	100.57	ppb	11:52:08
1	Na 589.592 Radial†	-942.3	372.7	88.962	ug/L	88.962	ppb	11:51:48
1	Sr 421.552†	36.1	28.5	0.1562	ug/L	0.1562	ppb	11:51:48
1	Sc 361.383	939969.6	939969.6	101.63	%			11:53:05
1	Y 371.029	762297.8	762297.8	100.31	%			11:53:05
1	Ag 328.068†	410.2	68.6	0.2934	ug/L	0.2934	ppb	11:53:10
1	As 188.979†	-30.5	0.7	0.2422	ug/L	0.2422	ppb	11:53:30
1	B 249.677†	-350.8	115.9	2.4805	ug/L	2.4805	ppb	11:53:30
1	Ba 233.527†	-15.4	-17.0	-0.1183	ug/L	-0.1183	ppb	11:53:30
1	Be 313.107†	-4937.3	-172.9	-0.0612	ug/L	-0.0612	ppb	11:53:10
1	Cd 226.502†	-213.3	3.4	0.0354	ug/L	0.0354	ppb	11:53:30
1	Co 228.616†	-99.3	-5.9	-0.1045	ug/L	-0.1045	ppb	11:53:30
1	Cr 267.716†	105.9	0.8	0.0057	ug/L	0.0057	ppb	11:53:30
1	Cu 324.752†	6141.7	-80.8	-0.2372	ug/L	-0.2372	ppb	11:53:10
1	Mn 257.610†	513.7	9.4	0.0059	ug/L	0.0059	ppb	11:53:30
1	Mo 202.031†	27.7	-0.2	-0.0159	ug/L	-0.0159	ppb	11:53:30
1	Ni 231.604†	70.7	-10.6	-0.2359	ug/L	-0.2359	ppb	11:53:30
1	P 214.914†	263.2	0.3	0.1970	ug/L	0.1970	ppb	11:53:30
1	Pb 220.353†	-65.7	-0.8	-0.0854	ug/L	-0.0854	ppb	11:53:30
1	S 181.975 Axial†	55.2	2.7	3.4745	ug/L	3.4745	ppb	11:53:30
1	Sb 206.836†	40.6	-0.7	-0.2141	ug/L	-0.2141	ppb	11:53:30
1	Se 196.026†	-29.1	5.7	3.1265	ug/L	3.1265	ppb	11:53:30
1	Si 251.611†	590.8	5.2	0.1577	ug/L	0.1577	ppb	11:53:30
1	Sn 189.927†	7.2	2.1	0.3176	ug/L	0.3176	ppb	11:53:30
1	Ti 334.940†	-1506.1	19.8	0.0273	ug/L	0.0273	ppb	11:53:10
1	Tl 190.801†	-47.4	-3.6	-0.9679	ug/L	-0.9679	ppb	11:53:30
1	U 409.014†	-2567.6	260.5	7.3646	ug/L	7.3646	ppb	11:53:05
1	V 292.402†	-1507.5	30.3	0.2170	ug/L	0.2170	ppb	11:53:10
1	Zn 213.857†	822.9	2.6	0.0222	ug/L	0.0222	ppb	11:53:30
1	SiO2†	608.5	-2.4	-0.1355	ug/L	-0.1355	ppb	11:54:36
2	Sc Radial	5764.8	5764.8	101	%			11:52:13
2	Y RADIAL	5977.6	5977.6	102.1	%			11:52:13
2	Al 396.153Radial†	-37.3	-5.1	-3.8050	ug/L	-3.8050	ppb	11:52:13
2	Ca 317.933Radial†	31.0	13.1	18.749	ug/L	18.749	ppb	11:52:33
2	Fe 238.204 Radial†	12.2	-3.4	-25.384	ug/L	-25.384	ppb	11:52:33
2	K 766.490 Radial†	3075.8	31.5	5.1159	ug/L	5.1159	ppb	11:52:13
2	Mg 279.077 IEC†	4.3	1.6	47.778	ug/L	47.778	ppb	11:52:33
2	Na 589.592 Radial†	-932.0	367.5	87.720	ug/L	87.720	ppb	11:52:13
2	Sr 421.552†	7.0	0.4	0.0018	ug/L	0.0018	ppb	11:52:13
2	Sc 361.383	946744.7	946744.7	102.36	%			11:53:35
2	Y 371.029	769218.5	769218.5	101.22	%			11:53:35
2	Ag 328.068†	345.4	2.4	-0.0043	ug/L	-0.0043	ppb	11:53:40
2	As 188.979†	-28.9	2.4	0.8945	ug/L	0.8945	ppb	11:54:00
2	B 249.677†	-348.6	120.5	2.5791	ug/L	2.5791	ppb	11:54:00
2	Ba 233.527†	-20.1	-21.5	-0.1498	ug/L	-0.1498	ppb	11:54:00
2	Be 313.107†	-4786.5	9.2	0.0035	ug/L	0.0035	ppb	11:53:40
2	Cd 226.502†	-209.9	8.2	0.0848	ug/L	0.0848	ppb	11:54:00
2	Co 228.616†	-97.2	-3.1	-0.0562	ug/L	-0.0562	ppb	11:54:00
2	Cr 267.716†	91.1	-14.4	-0.1516	ug/L	-0.1516	ppb	11:54:00
2	Cu 324.752†	5988.4	-273.9	-0.8024	ug/L	-0.8024	ppb	11:53:40
2	Mn 257.610†	561.3	52.3	0.0499	ug/L	0.0499	ppb	11:54:00
2	Mo 202.031†	17.4	-10.6	-0.6510	ug/L	-0.6510	ppb	11:54:00
2	Ni 231.604†	79.8	-2.2	-0.0480	ug/L	-0.0480	ppb	11:54:00

2	P 214.914†	259.0	-5.7	-2.9013	ug/L	-2.9013 ppb	11:54:00
2	Pb 220.353†	-66.5	-1.1	-0.1208	ug/L	-0.1208 ppb	11:54:00
2	S 181.975 Axial†	45.0	-7.6	-9.7781	ug/L	-9.7781 ppb	11:54:00
2	Sb 206.836†	48.6	6.8	2.0887	ug/L	2.0887 ppb	11:54:00
2	Se 196.026†	-27.3	7.6	4.2014	ug/L	4.2014 ppb	11:54:00
2	Si 251.611†	599.1	9.2	0.2719	ug/L	0.2719 ppb	11:54:00
2	Sn 189.927†	12.9	7.6	1.1547	ug/L	1.1547 ppb	11:54:00
2	Ti 334.940†	-1452.0	83.3	0.1227	ug/L	0.1227 ppb	11:53:40
2	Tl 190.801†	-37.0	6.9	1.8247	ug/L	1.8247 ppb	11:54:00
2	U 409.014†	-2559.5	286.5	8.1014	ug/L	8.1014 ppb	11:53:35
2	V 292.402†	-1514.9	33.7	0.2315	ug/L	0.2315 ppb	11:53:40
2	Zn 213.857†	822.3	-3.7	-0.0294	ug/L	-0.0294 ppb	11:54:00
2	SiO2†	641.1	25.2	1.5780	ug/L	1.5780 ppb	11:54:41
3	Sc Radial	5946.2	5946.2	105	%		11:52:38
3	Y RADIAL	6163.6	6163.6	105.3	%		11:52:38
3	Al 396.153Radial†	6.6	38.0	28.691	ug/L	28.691 ppb	11:52:38
3	Ca 317.933Radial†	24.4	5.8	8.3660	ug/L	8.3660 ppb	11:52:58
3	Fe 238.204 Radial†	16.1	-0.0	-0.1386	ug/L	-0.1386 ppb	11:52:58
3	K 766.490 Radial†	2989.5	-143.5	-23.520	ug/L	-23.520 ppb	11:52:38
3	Mg 279.077 IEC†	2.3	-0.4	-12.741	ug/L	-12.741 ppb	11:52:58
3	Na 589.592 Radial†	-945.0	383.1	91.447	ug/L	91.447 ppb	11:52:38
3	Sr 421.552†	12.7	5.6	0.0306	ug/L	0.0306 ppb	11:52:38
3	Sc 361.383	935181.0	935181.0	101.11	%		11:54:06
3	Y 371.029	761114.2	761114.2	100.16	%		11:54:06
3	Ag 328.068†	431.6	91.7	0.3994	ug/L	0.3994 ppb	11:54:11
3	As 188.979†	-23.3	7.6	2.8496	ug/L	2.8496 ppb	11:54:31
3	B 249.677†	-346.9	117.9	2.5219	ug/L	2.5219 ppb	11:54:31
3	Ba 233.527†	-10.6	-12.4	-0.0862	ug/L	-0.0862 ppb	11:54:31
3	Be 313.107†	-4758.6	-21.0	-0.0070	ug/L	-0.0070 ppb	11:54:11
3	Cd 226.502†	-217.9	-2.2	-0.0220	ug/L	-0.0220 ppb	11:54:31
3	Co 228.616†	-101.7	-8.7	-0.1559	ug/L	-0.1559 ppb	11:54:31
3	Cr 267.716†	111.4	6.8	0.0666	ug/L	0.0666 ppb	11:54:31
3	Cu 324.752†	6016.3	-173.9	-0.5087	ug/L	-0.5087 ppb	11:54:11
3	Mn 257.610†	565.2	63.0	0.0644	ug/L	0.0644 ppb	11:54:31
3	Mo 202.031†	26.5	-1.4	-0.0835	ug/L	-0.0835 ppb	11:54:31
3	Ni 231.604†	89.4	8.3	0.1862	ug/L	0.1862 ppb	11:54:31
3	P 214.914†	262.6	1.0	0.6285	ug/L	0.6285 ppb	11:54:31
3	Pb 220.353†	-61.5	2.9	0.3211	ug/L	0.3211 ppb	11:54:31
3	S 181.975 Axial†	48.2	-4.0	-5.1040	ug/L	-5.1040 ppb	11:54:31
3	Sb 206.836†	40.2	-0.9	-0.2926	ug/L	-0.2926 ppb	11:54:31
3	Se 196.026†	-39.8	-5.1	-2.8818	ug/L	-2.8818 ppb	11:54:31
3	Si 251.611†	621.6	38.7	1.1309	ug/L	1.1309 ppb	11:54:31
3	Sn 189.927†	5.9	0.8	0.1276	ug/L	0.1276 ppb	11:54:31
3	Ti 334.940†	-1373.9	143.0	0.2112	ug/L	0.2112 ppb	11:54:11
3	Tl 190.801†	-43.2	0.3	0.0743	ug/L	0.0743 ppb	11:54:31
3	U 409.014†	-2478.7	335.6	9.4826	ug/L	9.4826 ppb	11:54:06
3	V 292.402†	-1549.5	-18.8	-0.1061	ug/L	-0.1061 ppb	11:54:11
3	Zn 213.857†	829.7	13.5	0.1142	ug/L	0.1142 ppb	11:54:31
3	SiO2†	648.3	40.0	2.5030	ug/L	2.5030 ppb	11:54:46

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	940631.8	101.70	%	0.628				0.62%
Sc Radial	5857.5	103	%	1.6				1.55%
Y 371.029	764210.1	100.57	%	0.576				0.57%
Y RADIAL	6084.5	103.9	%	1.64				1.58%
Ag 328.068†	54.2	0.2295	ug/L	0.20928	0.2295	ppb	0.20928	91.18%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	12.6	9.5528	ug/L	17.00185	9.5528	ppb	17.00185	177.98%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	3.6	1.3288	ug/L	1.35688	1.3288	ppb	1.35688	102.12%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	118.1	2.5272	ug/L	0.04950	2.5272	ppb	0.04950	1.96%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-17.0	-0.1181	ug/L	0.03181	-0.1181	ppb	0.03181	26.93%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-61.6	-0.0216	ug/L	0.03474	-0.0216	ppb	0.03474	161.02%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	9.8	14.042	ug/L	5.2588	14.042	ppb	5.2588	37.45%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                 3.1      0.0328 ug/L       0.05347      0.0328 ppb        0.05347 163.23%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                -5.9     -0.1055 ug/L       0.04987     -0.1055 ppb        0.04987  47.24%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                -2.3     -0.0264 ug/L       0.11262     -0.0264 ppb        0.11262 425.99%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -176.2     -0.5161 ug/L       0.28268     -0.5161 ppb        0.28268  54.77%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -1.9     -14.446 ug/L       12.9555     -14.446 ppb        12.9555  89.68%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         -77.5     -12.730 ug/L       15.5674     -12.730 ppb        15.5674 122.29%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             1.5      45.203 ug/L       56.7005      45.203 ppb        56.7005 125.43%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                41.6      0.0401 ug/L       0.03045      0.0401 ppb        0.03045  75.94%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                -4.0     -0.2502 ug/L       0.34881     -0.2502 ppb        0.34881 139.44%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        374.4      89.376 ug/L        1.8977      89.376 ppb         1.8977   2.12%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                -1.5     -0.0326 ug/L       0.21147     -0.0326 ppb        0.21147 649.03%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -1.5     -0.6919 ug/L       1.92553     -0.6919 ppb        1.92553 278.28%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                 0.3      0.0383 ug/L       0.24556      0.0383 ppb        0.24556 641.37%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -3.0     -3.8025 ug/L       6.72147     -3.8025 ppb        6.72147 176.76%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 1.7      0.5273 ug/L       1.35273      0.5273 ppb        1.35273 256.53%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 2.7      1.4820 ug/L       3.81720      1.4820 ppb        3.81720 257.56%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                17.7      0.5202 ug/L       0.53197      0.5202 ppb        0.53197 102.27%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 3.5      0.5333 ug/L       0.54650      0.5333 ppb        0.54650 102.48%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                11.5      0.0628 ug/L       0.08210      0.0628 ppb        0.08210 130.63%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                82.0      0.1204 ug/L       0.09195      0.1204 ppb        0.09195  76.40%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 1.2      0.3104 ug/L       1.41117      0.3104 ppb        1.41117 454.65%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                294.2      8.3162 ug/L       1.07521      8.3162 ppb        1.07521  12.93%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 15.1      0.1141 ug/L       0.19089      0.1141 ppb        0.19089 167.27%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                 4.1      0.0357 ug/L       0.07277      0.0357 ppb        0.07277 203.95%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                      21.0      1.3152 ug/L       1.33874      1.3152 ppb        1.33874 101.79%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 10
Sample ID: 1201994233|932281|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 45
Date Collected: 12/18/2009 11:56:57
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1201994233|932281|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5935.3	5935.3	104	%			11:59:10
1	Y RADIAL	7076.8	7076.8	120.9	%			11:59:10
1	Al 396.153Radial†	72862.9	69851.9	52716	ug/L	52716	ppb	11:58:50
1	Ca 317.933Radial†	10331.4	9882.5	14161	ug/L	14161	ppb	11:58:50
1	Fe 238.204 Radial†	14906.6	14268.7	107070	ug/L	107070	ppb	11:58:50
1	K 766.490 Radial†	68105.3	62258.4	10171	ug/L	10171	ppb	11:58:50
1	Mg 279.077 IEC†	528.9	504.1	15087	ug/L	15087	ppb	11:59:10
1	Na 589.592 Radial†	25939.1	26142.9	6240.0	ug/L	6240.0	ppb	11:58:50
1	Sr 421.552†	103848.9	99505.7	544.86	ug/L	544.86	ppb	11:58:50
1	Sc 361.383	953947.5	953947.5	103.14	%			12:00:09
1	Y 371.029	890496.8	890496.8	117.18	%			12:00:09
1	Ag 328.068†	113807.7	110007.6	527.25	ug/L	527.25	ppb	12:00:09
1	As 188.979†	1296.7	1287.8	534.95	ug/L	534.95	ppb	12:00:29
1	B 249.677†	25938.6	25609.9	532.06	ug/L	532.06	ppb	12:00:09
1	Ba 233.527†	121288.6	117594.0	822.36	ug/L	822.36	ppb	12:00:09
1	Be 313.107†	1507724.4	1466505.5	528.52	ug/L	528.52	ppb	12:00:09
1	Cd 226.502†	53712.7	52290.6	511.58	ug/L	511.58	ppb	12:00:09
1	Co 228.616†	29755.7	28941.6	507.87	ug/L	507.87	ppb	12:00:29
1	Cr 267.716†	53267.1	51541.9	535.75	ug/L	535.75	ppb	12:00:09
1	Cu 324.752†	201100.0	188853.3	557.93	ug/L	557.93	ppb	12:00:09
1	Mn 257.610†	2057824.5	1994675.9	2044.1	ug/L	2044.1	ppb	12:00:09
1	Mo 202.031†	8282.2	8002.5	499.93	ug/L	499.93	ppb	12:00:29
1	Ni 231.604†	24369.3	23547.3	524.89	ug/L	524.89	ppb	12:00:29
1	P 214.914†	3816.4	3441.4	1685.6	ug/L	1685.6	ppb	12:00:29
1	Pb 220.353†	5712.9	5602.7	601.90	ug/L	601.90	ppb	12:00:29
1	S 181.975 Axial†	4387.2	4202.0	5377.5	ug/L	5377.5	ppb	12:00:29
1	Sb 206.836†	1727.6	1634.4	495.53	ug/L	495.53	ppb	12:00:29
1	Se 196.026†	391.2	413.6	566.46	ug/L	566.46	ppb	12:00:29
1	Si 251.611†	568174.3	550299.6	15937	ug/L	15937	ppb	12:00:09
1	Sn 189.927†	3519.1	3407.0	520.04	ug/L	520.04	ppb	12:00:29
1	Ti 334.940†	3032437.9	2941614.1	4421.0	ug/L	4421.0	ppb	12:00:09
1	Tl 190.801†	1746.0	1735.9	505.28	ug/L	505.28	ppb	12:00:29
1	U 409.014†	4250.6	6908.2	180.73	ug/L	180.73	ppb	12:00:09
1	V 292.402†	93043.5	91724.4	585.82	ug/L	585.82	ppb	12:00:09
1	Zn 213.857†	108545.5	104433.6	869.80	ug/L	869.80	ppb	12:00:09
1	SiO2†	571307.8	553312.6	34293	ug/L	34293	ppb	12:01:29
2	Sc Radial	5837.2	5837.2	103	%			11:59:35
2	Y RADIAL	6981.8	6981.8	119.3	%			11:59:35
2	Al 396.153Radial†	73685.2	71826.2	54206	ug/L	54206	ppb	11:59:15
2	Ca 317.933Radial†	10417.5	10132.6	14520	ug/L	14520	ppb	11:59:15
2	Fe 238.204 Radial†	15062.1	14660.2	110010	ug/L	110010	ppb	11:59:15
2	K 766.490 Radial†	68543.1	63781.4	10420	ug/L	10420	ppb	11:59:15
2	Mg 279.077 IEC†	535.8	519.4	15543	ug/L	15543	ppb	11:59:35
2	Na 589.592 Radial†	26112.0	26728.9	6379.9	ug/L	6379.9	ppb	11:59:15
2	Sr 421.552†	104878.1	102180.5	559.51	ug/L	559.51	ppb	11:59:15
2	Sc 361.383	953770.9	953770.9	103.12	%			12:00:36
2	Y 371.029	890146.9	890146.9	117.14	%			12:00:36
2	Ag 328.068†	113603.7	109830.3	527.43	ug/L	527.43	ppb	12:00:36
2	As 188.979†	1306.0	1297.1	538.77	ug/L	538.77	ppb	12:00:56
2	B 249.677†	25911.6	25588.4	531.21	ug/L	531.21	ppb	12:00:36
2	Ba 233.527†	120811.3	117152.9	819.40	ug/L	819.40	ppb	12:00:36
2	Be 313.107†	1503621.2	1462797.1	527.18	ug/L	527.18	ppb	12:00:36
2	Cd 226.502†	53507.1	52100.9	509.39	ug/L	509.39	ppb	12:00:36
2	Co 228.616†	29922.5	29108.7	510.86	ug/L	510.86	ppb	12:00:56
2	Cr 267.716†	53223.2	51508.9	535.46	ug/L	535.46	ppb	12:00:36
2	Cu 324.752†	200629.3	188432.9	556.85	ug/L	556.85	ppb	12:00:36
2	Mn 257.610†	2050382.8	1987828.7	2037.4	ug/L	2037.4	ppb	12:00:36
2	Mo 202.031†	8363.7	8083.1	505.09	ug/L	505.09	ppb	12:00:56
2	Ni 231.604†	24555.7	23732.4	529.01	ug/L	529.01	ppb	12:00:56

2	P 214.914†	3816.9	3442.6	1684.7 ug/L	1684.7 ppb	12:00:56
2	Pb 220.353†	5782.9	5671.7	609.37 ug/L	609.37 ppb	12:00:56
2	S 181.975 Axial†	4436.9	4251.0	5440.0 ug/L	5440.0 ppb	12:00:56
2	Sb 206.836†	1750.2	1656.6	502.54 ug/L	502.54 ppb	12:00:56
2	Se 196.026†	395.9	418.2	578.18 ug/L	578.18 ppb	12:00:56
2	Si 251.611†	565948.5	548243.1	15877 ug/L	15877 ppb	12:00:36
2	Sn 189.927†	3546.2	3433.9	524.21 ug/L	524.21 ppb	12:00:56
2	Ti 334.940†	3023128.5	2933130.6	4408.2 ug/L	4408.2 ppb	12:00:36
2	Tl 190.801†	1754.9	1744.7	507.53 ug/L	507.53 ppb	12:00:56
2	U 409.014†	4199.7	6859.6	178.99 ug/L	178.99 ppb	12:00:36
2	V 292.402†	92691.0	91399.2	583.34 ug/L	583.34 ppb	12:00:36
2	Zn 213.857†	108185.1	104103.7	866.68 ug/L	866.68 ppb	12:00:36
2	SiO2†	563075.3	545431.9	33804 ug/L	33804 ppb	12:01:35
3	Sc Radial	5363.4	5363.4	94.3 %		12:00:00
3	Y RADIAL	6527.0	6527.0	111.5 %		12:00:00
3	Al 396.153Radial†	72350.4	76752.4	57926 ug/L	57926 ppb	11:59:40
3	Ca 317.933Radial†	10223.4	10823.5	15510 ug/L	15510 ppb	11:59:40
3	Fe 238.204 Radial†	14779.3	15656.7	117490 ug/L	117490 ppb	11:59:40
3	K 766.490 Radial†	67570.4	68649.1	11217 ug/L	11217 ppb	11:59:40
3	Mg 279.077 IEC†	549.1	579.7	17350 ug/L	17350 ppb	12:00:00
3	Na 589.592 Radial†	25599.8	28433.2	6786.7 ug/L	6786.7 ppb	11:59:40
3	Sr 421.552†	102725.2	108923.9	596.43 ug/L	596.43 ppb	11:59:40
3	Sc 361.383	952906.9	952906.9	103.03 %		12:01:04
3	Y 371.029	891834.1	891834.1	117.36 %		12:01:04
3	Ag 328.068†	113559.4	109887.2	530.16 ug/L	530.16 ppb	12:01:04
3	As 188.979†	1319.3	1311.2	545.14 ug/L	545.14 ppb	12:01:24
3	B 249.677†	25785.9	25489.1	528.10 ug/L	528.10 ppb	12:01:04
3	Ba 233.527†	120512.5	116969.2	818.40 ug/L	818.40 ppb	12:01:04
3	Be 313.107†	1503883.4	1464373.6	527.72 ug/L	527.72 ppb	12:01:04
3	Cd 226.502†	53437.2	52080.1	508.43 ug/L	508.43 ppb	12:01:04
3	Co 228.616†	29711.4	28930.1	507.56 ug/L	507.56 ppb	12:01:24
3	Cr 267.716†	53212.0	51544.9	535.96 ug/L	535.96 ppb	12:01:04
3	Cu 324.752†	200088.4	188084.2	556.22 ug/L	556.22 ppb	12:01:04
3	Mn 257.610†	2044256.4	1983685.2	2033.9 ug/L	2033.9 ppb	12:01:04
3	Mo 202.031†	8298.2	8026.8	502.16 ug/L	502.16 ppb	12:01:24
3	Ni 231.604†	24378.6	23582.1	525.66 ug/L	525.66 ppb	12:01:24
3	P 214.914†	3793.4	3423.2	1669.7 ug/L	1669.7 ppb	12:01:24
3	Pb 220.353†	5714.7	5610.5	603.05 ug/L	603.05 ppb	12:01:24
3	S 181.975 Axial†	4385.0	4204.5	5379.7 ug/L	5379.7 ppb	12:01:24
3	Sb 206.836†	1730.1	1638.5	496.94 ug/L	496.94 ppb	12:01:24
3	Se 196.026†	385.6	408.5	595.95 ug/L	595.95 ppb	12:01:24
3	Si 251.611†	563843.8	546697.9	15832 ug/L	15832 ppb	12:01:04
3	Sn 189.927†	3526.2	3417.5	521.93 ug/L	521.93 ppb	12:01:24
3	Ti 334.940†	3016105.7	2928972.3	4402.0 ug/L	4402.0 ppb	12:01:04
3	Tl 190.801†	1732.6	1724.6	502.23 ug/L	502.23 ppb	12:01:24
3	U 409.014†	4509.2	7163.7	186.64 ug/L	186.64 ppb	12:01:04
3	V 292.402†	92702.6	91491.9	582.83 ug/L	582.83 ppb	12:01:04
3	Zn 213.857†	107882.5	103905.1	864.25 ug/L	864.25 ppb	12:01:04
3	SiO2†	564538.1	547346.8	33922 ug/L	33922 ppb	12:01:40

Mean Data: 1201994233|932281|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	953541.8	103.10	%	0.060				0.06%
Sc Radial	5712.0	100	%	5.4				5.35%
Y 371.029	890825.9	117.23	%	0.117				0.10%
Y RADIAL	6861.9	117.2	%	5.02				4.28%
Ag 328.068†	109908.3	528.28	ug/L	1.632	528.28	ppb	1.632	0.31%
Al 396.153Radial†	72810.2	54949	ug/L	2683.2	54949	ppb	2683.2	4.88%
As 188.979†	1298.7	539.62	ug/L	5.149	539.62	ppb	5.149	0.95%
B 249.677†	25562.5	530.46	ug/L	2.085	530.46	ppb	2.085	0.39%
Ba 233.527†	117238.7	820.05	ug/L	2.059	820.05	ppb	2.059	0.25%
Be 313.107†	1464558.7	527.80	ug/L	0.674	527.80	ppb	0.674	0.13%
Ca 317.933Radial†	10279.5	14730	ug/L	698.4	14730	ppb	698.4	4.74%
Cd 226.502†	52157.2	509.80	ug/L	1.610	509.80	ppb	1.610	0.32%
Co 228.616†	28993.5	508.76	ug/L	1.820	508.76	ppb	1.820	0.36%
Cr 267.716†	51531.9	535.73	ug/L	0.253	535.73	ppb	0.253	0.05%
Cu 324.752†	188456.8	557.00	ug/L	0.869	557.00	ppb	0.869	0.16%
Fe 238.204 Radial†	14861.9	111520	ug/L	5369.1	111520	ppb	5369.1	4.81%
K 766.490 Radial†	64896.3	10603	ug/L	546.6	10603	ppb	546.6	5.16%

Mg 279.077 IEC†	534.4	15994	ug/L	1197.1	15994	ppb	1197.1	7.49%
Mn 257.610†	1988729.9	2038.5	ug/L	5.19	2038.5	ppb	5.19	0.25%
Mo 202.031†	8037.5	502.39	ug/L	2.590	502.39	ppb	2.590	0.52%
Na 589.592 Radial†	27101.7	6468.9	ug/L	283.99	6468.9	ppb	283.99	4.39%
Ni 231.604†	23620.6	526.52	ug/L	2.193	526.52	ppb	2.193	0.42%
P 214.914†	3435.8	1680.0	ug/L	8.95	1680.0	ppb	8.95	0.53%
Pb 220.353†	5628.3	604.77	ug/L	4.019	604.77	ppb	4.019	0.66%
S 181.975 Axial†	4219.2	5399.1	ug/L	35.46	5399.1	ppb	35.46	0.66%
Sb 206.836†	1643.2	498.34	ug/L	3.705	498.34	ppb	3.705	0.74%
Se 196.026†	413.4	580.20	ug/L	14.852	580.20	ppb	14.852	2.56%
Si 251.611†	548413.5	15882	ug/L	52.6	15882	ppb	52.6	0.33%
Sn 189.927†	3419.5	522.06	ug/L	2.087	522.06	ppb	2.087	0.40%
Sr 421.552†	103536.7	566.93	ug/L	26.575	566.93	ppb	26.575	4.69%
Ti 334.940†	2934572.3	4410.4	ug/L	9.65	4410.4	ppb	9.65	0.22%
Tl 190.801†	1735.1	505.02	ug/L	2.661	505.02	ppb	2.661	0.53%
U 409.014†	6977.1	182.12	ug/L	4.011	182.12	ppb	4.011	2.20%
V 292.402†	91538.5	584.00	ug/L	1.601	584.00	ppb	1.601	0.27%
Zn 213.857†	104147.5	866.91	ug/L	2.782	866.91	ppb	2.782	0.32%
SiO2†	548697.1	34006	ug/L	255.3	34006	ppb	255.3	0.75%

Sequence No.: 11
Sample ID: 1201994235|932281|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 46
Date Collected: 12/18/2009 12:03:51
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1201994235|932281|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5768.8	5768.8	101	%			12:06:04
1	Y RADIAL	6912.5	6912.5	118.1	%			12:06:04
1	Al 396.153Radial†	66492.3	65585.3	49495	ug/L	49495	ppb	12:05:44
1	Ca 317.933Radial†	10080.1	9920.3	14216	ug/L	14216	ppb	12:05:44
1	Fe 238.204 Radial†	15975.4	15734.4	118070	ug/L	118070	ppb	12:05:44
1	K 766.490 Radial†	66832.2	62885.9	10269	ug/L	10269	ppb	12:05:44
1	Mg 279.077 IEC†	529.5	519.3	15534	ug/L	15534	ppb	12:06:04
1	Na 589.592 Radial†	26031.2	26950.7	6432.9	ug/L	6432.9	ppb	12:05:44
1	Sr 421.552†	102356.6	100905.1	552.52	ug/L	552.52	ppb	12:05:44
1	Sc 361.383	947454.4	947454.4	102.44	%			12:07:03
1	Y 371.029	863968.8	863968.8	113.69	%			12:07:08
1	Ag 328.068†	111695.9	108702.3	525.14	ug/L	525.14	ppb	12:07:08
1	As 188.979†	1235.2	1236.4	522.50	ug/L	522.50	ppb	12:07:28
1	B 249.677†	25766.6	25614.4	530.72	ug/L	530.72	ppb	12:07:08
1	Ba 233.527†	119070.2	116234.3	813.33	ug/L	813.33	ppb	12:07:08
1	Be 313.107†	1469302.1	1439015.8	519.96	ug/L	519.96	ppb	12:07:03
1	Cd 226.502†	53103.5	52052.8	508.10	ug/L	508.10	ppb	12:07:08
1	Co 228.616†	29216.5	28613.0	500.52	ug/L	500.52	ppb	12:07:28
1	Cr 267.716†	52930.9	51567.6	536.22	ug/L	536.22	ppb	12:07:08
1	Cu 324.752†	197150.6	186334.0	551.13	ug/L	551.13	ppb	12:07:08
1	Mn 257.610†	2399037.7	2341441.0	2398.8	ug/L	2398.8	ppb	12:07:03
1	Mo 202.031†	8056.8	7837.5	490.56	ug/L	490.56	ppb	12:07:28
1	Ni 231.604†	23954.8	23304.5	519.47	ug/L	519.47	ppb	12:07:28
1	P 214.914†	4056.1	3700.9	1815.1	ug/L	1815.1	ppb	12:07:28
1	Pb 220.353†	5702.5	5630.6	603.23	ug/L	603.23	ppb	12:07:28
1	S 181.975 Axial†	4256.9	4104.0	5252.4	ug/L	5252.4	ppb	12:07:28
1	Sb 206.836†	1703.3	1622.1	490.05	ug/L	490.05	ppb	12:07:28
1	Se 196.026†	347.4	373.4	576.75	ug/L	576.75	ppb	12:07:28
1	Si 251.611†	534359.4	521064.7	15090	ug/L	15090	ppb	12:07:08
1	Sn 189.927†	3445.0	3358.0	512.76	ug/L	512.76	ppb	12:07:28
1	Ti 334.940†	3424838.0	3344823.5	5026.9	ug/L	5026.9	ppb	12:07:03
1	Tl 190.801†	1670.5	1673.7	495.40	ug/L	495.40	ppb	12:07:28
1	U 409.014†	4062.5	6752.8	174.95	ug/L	174.95	ppb	12:07:08
1	V 292.402†	92977.7	92278.3	586.96	ug/L	586.96	ppb	12:07:08
1	Zn 213.857†	113632.7	110121.0	916.95	ug/L	916.95	ppb	12:07:08
1	SiO2†	541692.4	528198.2	32736	ug/L	32736	ppb	12:08:38
2	Sc Radial	5833.6	5833.6	103	%			12:06:29
2	Y RADIAL	7012.4	7012.4	119.8	%			12:06:29
2	Al 396.153Radial†	66238.2	64609.7	48758	ug/L	48758	ppb	12:06:09
2	Ca 317.933Radial†	10036.3	9767.2	13996	ug/L	13996	ppb	12:06:09
2	Fe 238.204 Radial†	15919.4	15504.9	116350	ug/L	116350	ppb	12:06:09
2	K 766.490 Radial†	66732.0	62056.5	10133	ug/L	10133	ppb	12:06:09
2	Mg 279.077 IEC†	538.0	521.9	15614	ug/L	15614	ppb	12:06:29
2	Na 589.592 Radial†	25960.9	26597.2	6348.5	ug/L	6348.5	ppb	12:06:09
2	Sr 421.552†	102063.8	99499.0	544.83	ug/L	544.83	ppb	12:06:09
2	Sc 361.383	949966.1	949966.1	102.71	%			12:07:35
2	Y 371.029	863721.6	863721.6	113.66	%			12:07:40
2	Ag 328.068†	111657.9	108377.0	523.10	ug/L	523.10	ppb	12:07:40
2	As 188.979†	1246.6	1244.4	525.16	ug/L	525.16	ppb	12:08:00
2	B 249.677†	25626.2	25411.2	526.59	ug/L	526.59	ppb	12:07:40
2	Ba 233.527†	118399.0	115273.5	806.58	ug/L	806.58	ppb	12:07:40
2	Be 313.107†	1469893.7	1435799.5	518.81	ug/L	518.81	ppb	12:07:35
2	Cd 226.502†	52662.7	51486.6	502.62	ug/L	502.62	ppb	12:07:40
2	Co 228.616†	29401.7	28717.9	502.44	ug/L	502.44	ppb	12:08:00
2	Cr 267.716†	52679.5	51186.3	532.24	ug/L	532.24	ppb	12:07:40
2	Cu 324.752†	196757.5	185442.5	548.43	ug/L	548.43	ppb	12:07:40
2	Mn 257.610†	2399842.6	2336032.7	2393.1	ug/L	2393.1	ppb	12:07:35
2	Mo 202.031†	8127.1	7885.2	493.37	ug/L	493.37	ppb	12:08:00
2	Ni 231.604†	24127.0	23410.3	521.83	ug/L	521.83	ppb	12:08:00

2	P 214.914†	4072.6	3706.4	1819.7 ug/L	1819.7 ppb	12:08:00
2	Pb 220.353†	5733.7	5646.2	604.89 ug/L	604.89 ppb	12:08:00
2	S 181.975 Axial†	4313.9	4148.5	5309.7 ug/L	5309.7 ppb	12:08:00
2	Sb 206.836†	1707.2	1621.5	490.06 ug/L	490.06 ppb	12:08:00
2	Se 196.026†	337.5	362.9	565.55 ug/L	565.55 ppb	12:08:00
2	Si 251.611†	532218.5	517601.2	14989 ug/L	14989 ppb	12:07:40
2	Sn 189.927†	3464.7	3368.3	514.28 ug/L	514.28 ppb	12:08:00
2	Ti 334.940†	3429769.0	3340784.9	5020.8 ug/L	5020.8 ppb	12:07:35
2	Tl 190.801†	1683.7	1682.3	497.57 ug/L	497.57 ppb	12:08:00
2	U 409.014†	4095.7	6774.7	175.80 ug/L	175.80 ppb	12:07:40
2	V 292.402†	92599.3	91670.0	583.30 ug/L	583.30 ppb	12:07:40
2	Zn 213.857†	113115.0	109323.7	910.35 ug/L	910.35 ppb	12:07:40
2	SiO2†	538888.7	524070.3	32480 ug/L	32480 ppb	12:08:43
3	Sc Radial	5769.3	5769.3	101 %		12:06:55
3	Y RADIAL	6912.3	6912.3	118.1 %		12:06:55
3	Al 396.153Radial†	66560.6	65647.5	49542 ug/L	49542 ppb	12:06:34
3	Ca 317.933Radial†	10152.9	9991.3	14317 ug/L	14317 ppb	12:06:34
3	Fe 238.204 Radial†	15962.7	15720.7	117970 ug/L	117970 ppb	12:06:34
3	K 766.490 Radial†	67307.8	63349.4	10345 ug/L	10345 ppb	12:06:34
3	Mg 279.077 IEC†	527.1	517.0	15463 ug/L	15463 ppb	12:06:55
3	Na 589.592 Radial†	25996.1	26914.1	6424.1 ug/L	6424.1 ppb	12:06:34
3	Sr 421.552†	102524.3	101062.4	553.39 ug/L	553.39 ppb	12:06:34
3	Sc 361.383	944489.3	944489.3	102.12 %		12:08:07
3	Y 371.029	873843.7	873843.7	114.99 %		12:08:12
3	Ag 328.068†	113159.3	110477.7	533.02 ug/L	533.02 ppb	12:08:12
3	As 188.979†	1282.5	1286.5	540.93 ug/L	540.93 ppb	12:08:32
3	B 249.677†	26096.0	26015.9	539.30 ug/L	539.30 ppb	12:08:12
3	Ba 233.527†	119498.0	117018.2	818.78 ug/L	818.78 ppb	12:08:12
3	Be 313.107†	1458071.2	1432520.7	517.59 ug/L	517.59 ppb	12:08:07
3	Cd 226.502†	53278.1	52386.6	511.44 ug/L	511.44 ppb	12:08:12
3	Co 228.616†	29435.8	28917.2	506.06 ug/L	506.06 ppb	12:08:32
3	Cr 267.716†	53233.6	52026.3	540.97 ug/L	540.97 ppb	12:08:12
3	Cu 324.752†	199983.7	189712.6	561.00 ug/L	561.00 ppb	12:08:12
3	Mn 257.610†	2370343.5	2320693.9	2377.6 ug/L	2377.6 ppb	12:08:07
3	Mo 202.031†	8127.4	7931.3	496.32 ug/L	496.32 ppb	12:08:32
3	Ni 231.604†	24084.3	23504.7	523.94 ug/L	523.94 ppb	12:08:32
3	P 214.914†	4092.7	3749.1	1839.4 ug/L	1839.4 ppb	12:08:32
3	Pb 220.353†	5756.6	5701.0	610.77 ug/L	610.77 ppb	12:08:32
3	S 181.975 Axial†	4289.7	4149.2	5310.4 ug/L	5310.4 ppb	12:08:32
3	Sb 206.836†	1700.4	1624.4	490.96 ug/L	490.96 ppb	12:08:32
3	Se 196.026†	338.6	365.8	572.21 ug/L	572.21 ppb	12:08:32
3	Si 251.611†	538767.6	527019.1	15262 ug/L	15262 ppb	12:08:12
3	Sn 189.927†	3466.4	3389.6	517.56 ug/L	517.56 ppb	12:08:32
3	Ti 334.940†	3389785.3	3320993.5	4991.1 ug/L	4991.1 ppb	12:08:07
3	Tl 190.801†	1691.8	1699.7	501.88 ug/L	501.88 ppb	12:08:32
3	U 409.014†	4217.6	6917.1	179.60 ug/L	179.60 ppb	12:08:12
3	V 292.402†	93815.7	93383.9	594.33 ug/L	594.33 ppb	12:08:12
3	Zn 213.857†	114300.2	111122.9	925.41 ug/L	925.41 ppb	12:08:12
3	SiO2†	543376.6	531507.6	32941 ug/L	32941 ppb	12:08:49

Mean Data: 1201994235|932281|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	947303.3	102.42	%	0.296				0.29%
Sc Radial	5790.6	102	%	0.7				0.64%
Y 371.029	867178.0	114.12	%	0.760				0.67%
Y RADIAL	6945.7	118.7	%	0.99				0.83%
Ag 328.068†	109185.7	527.09	ug/L	5.242	527.09	ppb	5.242	0.99%
Al 396.153Radial†	65280.8	49265	ug/L	439.4	49265	ppb	439.4	0.89%
As 188.979†	1255.8	529.53	ug/L	9.961	529.53	ppb	9.961	1.88%
B 249.677†	25680.5	532.20	ug/L	6.482	532.20	ppb	6.482	1.22%
Ba 233.527†	116175.3	812.90	ug/L	6.115	812.90	ppb	6.115	0.75%
Be 313.107†	1435778.7	518.79	ug/L	1.187	518.79	ppb	1.187	0.23%
Ca 317.933Radial†	9892.9	14176	ug/L	164.0	14176	ppb	164.0	1.16%
Cd 226.502†	51975.3	507.39	ug/L	4.454	507.39	ppb	4.454	0.88%
Co 228.616†	28749.4	503.01	ug/L	2.809	503.01	ppb	2.809	0.56%
Cr 267.716†	51593.4	536.48	ug/L	4.371	536.48	ppb	4.371	0.81%
Cu 324.752†	187163.0	553.52	ug/L	6.620	553.52	ppb	6.620	1.20%
Fe 238.204 Radial†	15653.4	117460	ug/L	965.8	117460	ppb	965.8	0.82%
K 766.490 Radial†	62763.9	10249	ug/L	107.3	10249	ppb	107.3	1.05%

Mg 279.077 IEC†	519.4	15537	ug/L	75.2	15537	ppb	75.2	0.48%
Mn 257.610†	2332722.5	2389.8	ug/L	10.95	2389.8	ppb	10.95	0.46%
Mo 202.031†	7884.7	493.41	ug/L	2.881	493.41	ppb	2.881	0.58%
Na 589.592 Radial†	26820.7	6401.8	ug/L	46.40	6401.8	ppb	46.40	0.72%
Ni 231.604†	23406.5	521.75	ug/L	2.233	521.75	ppb	2.233	0.43%
P 214.914†	3718.8	1824.8	ug/L	12.91	1824.8	ppb	12.91	0.71%
Pb 220.353†	5659.3	606.30	ug/L	3.963	606.30	ppb	3.963	0.65%
S 181.975 Axial†	4133.9	5290.8	ug/L	33.26	5290.8	ppb	33.26	0.63%
Sb 206.836†	1622.7	490.36	ug/L	0.523	490.36	ppb	0.523	0.11%
Se 196.026†	367.4	571.51	ug/L	5.633	571.51	ppb	5.633	0.99%
Si 251.611†	521895.0	15114	ug/L	138.0	15114	ppb	138.0	0.91%
Sn 189.927†	3372.0	514.87	ug/L	2.452	514.87	ppb	2.452	0.48%
Sr 421.552†	100488.9	550.25	ug/L	4.713	550.25	ppb	4.713	0.86%
Ti 334.940†	3335534.0	5012.9	ug/L	19.16	5012.9	ppb	19.16	0.38%
Tl 190.801†	1685.2	498.28	ug/L	3.301	498.28	ppb	3.301	0.66%
U 409.014†	6814.9	176.78	ug/L	2.476	176.78	ppb	2.476	1.40%
V 292.402†	92444.0	588.20	ug/L	5.617	588.20	ppb	5.617	0.96%
Zn 213.857†	110189.2	917.57	ug/L	7.550	917.57	ppb	7.550	0.82%
SiO2†	527925.3	32719	ug/L	231.0	32719	ppb	231.0	0.71%

Sequence No.: 12
Sample ID: 1201994234|932281|5
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 47
Date Collected: 12/18/2009 12:11:00
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1201994234|932281|5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5799.8	5799.8	102	%			12:12:53
1	Y RADIAL	6193.6	6193.6	105.8	%			12:12:53
1	Al 396.153Radial†	10068.2	9904.8	7478.0	ug/L	7478.0	ppb	12:12:53
1	Ca 317.933Radial†	1774.3	1722.4	2468.2	ug/L	2468.2	ppb	12:13:13
1	Fe 238.204 Radial†	3126.4	3050.4	22887	ug/L	22887	ppb	12:13:13
1	K 766.490 Radial†	8573.3	5404.2	881.75	ug/L	881.75	ppb	12:12:53
1	Mg 279.077 IEC†	72.1	68.0	2026.8	ug/L	2026.8	ppb	12:13:13
1	Na 589.592 Radial†	833.6	2104.4	502.30	ug/L	502.30	ppb	12:12:53
1	Sr 421.552†	2580.8	2524.3	13.803	ug/L	13.803	ppb	12:12:53
1	Sc 361.383	932668.5	932668.5	100.84	%			12:14:10
1	Y 371.029	778142.1	778142.1	102.40	%			12:14:10
1	Ag 328.068†	-1335.5	-1659.5	0.3548	ug/L	0.3548	ppb	12:14:15
1	As 188.979†	-48.2	-17.2	4.1078	ug/L	4.1078	ppb	12:14:35
1	B 249.677†	-84.2	377.5	5.0251	ug/L	5.0251	ppb	12:14:15
1	Ba 233.527†	9057.7	8980.4	63.291	ug/L	63.291	ppb	12:14:15
1	Be 313.107†	-7112.9	-2368.3	0.8010	ug/L	0.8010	ppb	12:14:15
1	Cd 226.502†	15.9	229.1	0.0018	ug/L	0.0018	ppb	12:14:35
1	Co 228.616†	133.1	223.9	1.9250	ug/L	1.9250	ppb	12:14:35
1	Cr 267.716†	624.0	515.4	5.7906	ug/L	5.7906	ppb	12:14:15
1	Cu 324.752†	6855.9	674.7	3.1413	ug/L	3.1413	ppb	12:14:15
1	Mn 257.610†	307014.1	303961.9	312.16	ug/L	312.16	ppb	12:14:10
1	Mo 202.031†	16.3	-11.4	0.9246	ug/L	0.9246	ppb	12:14:35
1	Ni 231.604†	323.6	240.9	5.3697	ug/L	5.3697	ppb	12:14:35
1	P 214.914†	1039.6	772.2	395.66	ug/L	395.66	ppb	12:14:35
1	Pb 220.353†	110.0	172.9	18.253	ug/L	18.253	ppb	12:14:35
1	S 181.975 Axial†	86.4	34.1	42.269	ug/L	42.269	ppb	12:14:35
1	Sb 206.836†	57.5	16.3	2.7938	ug/L	2.7938	ppb	12:14:35
1	Se 196.026†	-133.3	-98.0	15.471	ug/L	15.471	ppb	12:14:35
1	Si 251.611†	108781.5	107299.7	3109.8	ug/L	3109.8	ppb	12:14:15
1	Sn 189.927†	11.4	6.3	1.5225	ug/L	1.5225	ppb	12:14:35
1	Ti 334.940†	558551.3	555402.9	834.78	ug/L	834.78	ppb	12:14:10
1	Tl 190.801†	-81.4	-37.8	-1.6913	ug/L	-1.6913	ppb	12:14:35
1	U 409.014†	-4681.7	-1855.7	-55.333	ug/L	-55.333	ppb	12:14:10
1	V 292.402†	1656.6	3156.5	16.160	ug/L	16.160	ppb	12:14:15
1	Zn 213.857†	10606.5	9711.2	79.962	ug/L	79.962	ppb	12:14:15
1	SiO2†	108272.4	106769.9	6622.5	ug/L	6622.5	ppb	12:15:41
2	Sc Radial	5831.0	5831.0	103	%			12:13:18
2	Y RADIAL	6263.6	6263.6	107.0	%			12:13:18
2	Al 396.153Radial†	10237.5	10017.1	7562.7	ug/L	7562.7	ppb	12:13:18
2	Ca 317.933Radial†	1768.5	1707.4	2446.7	ug/L	2446.7	ppb	12:13:38
2	Fe 238.204 Radial†	3120.7	3028.5	22722	ug/L	22722	ppb	12:13:38
2	K 766.490 Radial†	8493.3	5281.3	861.66	ug/L	861.66	ppb	12:13:18
2	Mg 279.077 IEC†	67.0	62.7	1867.3	ug/L	1867.3	ppb	12:13:38
2	Na 589.592 Radial†	797.4	2064.7	492.83	ug/L	492.83	ppb	12:13:18
2	Sr 421.552†	2554.5	2485.0	13.588	ug/L	13.588	ppb	12:13:18
2	Sc 361.383	944933.4	944933.4	102.17	%			12:14:40
2	Y 371.029	788131.6	788131.6	103.71	%			12:14:40
2	Ag 328.068†	-1231.5	-1540.5	0.8316	ug/L	0.8316	ppb	12:14:45
2	As 188.979†	-45.4	-13.9	5.3232	ug/L	5.3232	ppb	12:15:06
2	B 249.677†	18.1	478.8	7.2131	ug/L	7.2131	ppb	12:14:45
2	Ba 233.527†	9084.8	8890.4	62.658	ug/L	62.658	ppb	12:14:45
2	Be 313.107†	-7176.0	-2338.6	0.8121	ug/L	0.8121	ppb	12:14:45
2	Cd 226.502†	21.4	234.2	0.0692	ug/L	0.0692	ppb	12:15:06
2	Co 228.616†	116.6	206.0	1.6072	ug/L	1.6072	ppb	12:15:06
2	Cr 267.716†	596.6	480.6	5.4288	ug/L	5.4288	ppb	12:14:45
2	Cu 324.752†	6930.7	659.7	3.0891	ug/L	3.0891	ppb	12:14:45
2	Mn 257.610†	310375.3	303300.2	311.47	ug/L	311.47	ppb	12:14:40
2	Mo 202.031†	21.9	-6.1	1.2353	ug/L	1.2353	ppb	12:15:06
2	Ni 231.604†	325.2	238.3	5.3119	ug/L	5.3119	ppb	12:15:06

2	P 214.914†	1030.7	750.1	384.02	ug/L	384.02 ppb	12:15:06
2	Pb 220.353†	127.2	188.3	19.933	ug/L	19.933 ppb	12:15:06
2	S 181.975 Axial†	89.1	35.6	44.137	ug/L	44.137 ppb	12:15:06
2	Sb 206.836†	47.2	5.5	-0.5189	ug/L	-0.5189 ppb	12:15:06
2	Se 196.026†	-149.1	-111.6	7.3026	ug/L	7.3026 ppb	12:15:06
2	Si 251.611†	108287.8	105416.4	3055.2	ug/L	3055.2 ppb	12:14:45
2	Sn 189.927†	5.3	0.2	0.5893	ug/L	0.5893 ppb	12:15:06
2	Ti 334.940†	566105.1	555607.1	835.09	ug/L	835.09 ppb	12:14:40
2	Tl 190.801†	-89.0	-44.1	-3.3749	ug/L	-3.3749 ppb	12:15:06
2	U 409.014†	-4901.0	-2010.2	-59.676	ug/L	-59.676 ppb	12:14:40
2	V 292.402†	1611.3	3090.8	15.748	ug/L	15.748 ppb	12:14:45
2	Zn 213.857†	10641.5	9608.9	79.117	ug/L	79.117 ppb	12:14:45
2	SiO2†	110110.4	107175.2	6647.6	ug/L	6647.6 ppb	12:15:47
3	Sc Radial	5866.0	5866.0	103	%		12:13:43
3	Y RADIAL	6274.8	6274.8	107.2	%		12:13:43
3	Al 396.153Radial†	10279.0	9997.7	7548.1	ug/L	7548.1 ppb	12:13:43
3	Ca 317.933Radial†	1745.1	1674.4	2399.4	ug/L	2399.4 ppb	12:14:03
3	Fe 238.204 Radial†	3079.8	2970.6	22288	ug/L	22288 ppb	12:14:03
3	K 766.490 Radial†	8676.3	5409.1	882.57	ug/L	882.57 ppb	12:13:43
3	Mg 279.077 IEC†	66.2	61.5	1832.8	ug/L	1832.8 ppb	12:14:03
3	Na 589.592 Radial†	866.9	2127.5	507.82	ug/L	507.82 ppb	12:13:43
3	Sr 421.552†	2574.8	2489.9	13.615	ug/L	13.615 ppb	12:13:43
3	Sc 361.383	944064.5	944064.5	102.07	%		12:15:11
3	Y 371.029	788025.4	788025.4	103.70	%		12:15:11
3	Ag 328.068†	-1223.6	-1533.8	0.7119	ug/L	0.7119 ppb	12:15:16
3	As 188.979†	-41.9	-10.5	6.5043	ug/L	6.5043 ppb	12:15:36
3	B 249.677†	-87.8	375.0	5.0516	ug/L	5.0516 ppb	12:15:16
3	Ba 233.527†	9151.8	8964.3	63.155	ug/L	63.155 ppb	12:15:16
3	Be 313.107†	-7198.6	-2367.2	0.7957	ug/L	0.7957 ppb	12:15:16
3	Cd 226.502†	9.8	222.8	-0.0013	ug/L	-0.0013 ppb	12:15:36
3	Co 228.616†	142.0	231.0	2.0673	ug/L	2.0673 ppb	12:15:36
3	Cr 267.716†	606.1	490.4	5.5202	ug/L	5.5202 ppb	12:15:16
3	Cu 324.752†	6805.3	543.1	2.7259	ug/L	2.7259 ppb	12:15:16
3	Mn 257.610†	308786.1	302022.9	310.12	ug/L	310.12 ppb	12:15:11
3	Mo 202.031†	19.4	-8.5	1.0571	ug/L	1.0571 ppb	12:15:36
3	Ni 231.604†	289.3	203.3	4.5319	ug/L	4.5319 ppb	12:15:36
3	P 214.914†	1033.6	753.9	386.44	ug/L	386.44 ppb	12:15:36
3	Pb 220.353†	109.0	170.6	18.068	ug/L	18.068 ppb	12:15:36
3	S 181.975 Axial†	87.1	33.7	41.726	ug/L	41.726 ppb	12:15:36
3	Sb 206.836†	59.2	17.4	3.0922	ug/L	3.0922 ppb	12:15:36
3	Se 196.026†	-137.9	-100.8	12.040	ug/L	12.040 ppb	12:15:36
3	Si 251.611†	108477.9	105700.1	3063.5	ug/L	3063.5 ppb	12:15:16
3	Sn 189.927†	1.9	-3.2	0.0686	ug/L	0.0686 ppb	12:15:36
3	Ti 334.940†	563390.5	553457.7	831.85	ug/L	831.85 ppb	12:15:11
3	Tl 190.801†	-74.0	-29.5	0.4649	ug/L	0.4649 ppb	12:15:36
3	U 409.014†	-4667.6	-1785.8	-53.282	ug/L	-53.282 ppb	12:15:11
3	V 292.402†	1616.9	3097.7	15.872	ug/L	15.872 ppb	12:15:16
3	Zn 213.857†	10647.8	9624.6	79.299	ug/L	79.299 ppb	12:15:16
3	SiO2†	110052.0	107217.3	6650.2	ug/L	6650.2 ppb	12:15:52

Mean Data: 1201994234|932281|5

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	940555.5	101.69	%	0.740				0.73%
Sc Radial	5832.3	103	%	0.6				0.57%
Y 371.029	784766.4	103.27	%	0.755				0.73%
Y RADIAL	6244.0	106.7	%	0.75				0.71%
Ag 328.068†	-1577.9	0.6328	ug/L	0.24806	0.6328	ppb	0.24806	39.20%
Al 396.153Radial†	9973.2	7529.6	ug/L	45.32	7529.6	ppb	45.32	0.60%
As 188.979†	-13.8	5.3118	ug/L	1.19829	5.3118	ppb	1.19829	22.56%
B 249.677†	410.4	5.7633	ug/L	1.25568	5.7633	ppb	1.25568	21.79%
Ba 233.527†	8945.0	63.035	ug/L	0.3329	63.035	ppb	0.3329	0.53%
Be 313.107†	-2358.0	0.8029	ug/L	0.00840	0.8029	ppb	0.00840	1.05%
Ca 317.933Radial†	1701.4	2438.1	ug/L	35.15	2438.1	ppb	35.15	1.44%
Cd 226.502†	228.7	0.0232	ug/L	0.03984	0.0232	ppb	0.03984	171.61%
Co 228.616†	220.3	1.8665	ug/L	0.23556	1.8665	ppb	0.23556	12.62%
Cr 267.716†	495.5	5.5798	ug/L	0.18810	5.5798	ppb	0.18810	3.37%
Cu 324.752†	625.9	2.9855	ug/L	0.22630	2.9855	ppb	0.22630	7.58%
Fe 238.204 Radial†	3016.5	22632	ug/L	309.2	22632	ppb	309.2	1.37%
K 766.490 Radial†	5364.9	875.33	ug/L	11.846	875.33	ppb	11.846	1.35%

Mg 279.077 IEC†	64.1	1909.0	ug/L	103.54	1909.0	ppb	103.54	5.42%
Mn 257.610†	303095.0	311.25	ug/L	1.034	311.25	ppb	1.034	0.33%
Mo 202.031†	-8.7	1.0724	ug/L	0.15589	1.0724	ppb	0.15589	14.54%
Na 589.592 Radial†	2098.9	500.98	ug/L	7.584	500.98	ppb	7.584	1.51%
Ni 231.604†	227.5	5.0711	ug/L	0.46791	5.0711	ppb	0.46791	9.23%
P 214.914†	758.8	388.71	ug/L	6.138	388.71	ppb	6.138	1.58%
Pb 220.353†	177.3	18.751	ug/L	1.0275	18.751	ppb	1.0275	5.48%
S 181.975 Axial†	34.5	42.710	ug/L	1.2648	42.710	ppb	1.2648	2.96%
Sb 206.836†	13.1	1.7891	ug/L	2.00429	1.7891	ppb	2.00429	112.03%
Se 196.026†	-103.5	11.605	ug/L	4.1016	11.605	ppb	4.1016	35.34%
Si 251.611†	106138.7	3076.2	ug/L	29.43	3076.2	ppb	29.43	0.96%
Sn 189.927†	1.1	0.7268	ug/L	0.73660	0.7268	ppb	0.73660	101.35%
Sr 421.552†	2499.7	13.668	ug/L	0.1169	13.668	ppb	0.1169	0.86%
Ti 334.940†	554822.5	833.90	ug/L	1.786	833.90	ppb	1.786	0.21%
Tl 190.801†	-37.1	-1.5338	ug/L	1.92477	-1.5338	ppb	1.92477	125.49%
U 409.014†	-1883.9	-56.097	ug/L	3.2644	-56.097	ppb	3.2644	5.82%
V 292.402†	3115.0	15.926	ug/L	0.2112	15.926	ppb	0.2112	1.33%
Zn 213.857†	9648.2	79.459	ug/L	0.4447	79.459	ppb	0.4447	0.56%
SiO2†	107054.1	6640.1	ug/L	15.33	6640.1	ppb	15.33	0.23%

Sequence No.: 13
Sample ID: 242750002|932281|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 48
Date Collected: 12/18/2009 12:18:03
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 242750002|932281|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5675.8	5675.8	99.8	%			12:19:56
1	Y RADIAL	7265.6	7265.6	124.1	%			12:19:56
1	Al 396.153Radial†	34545.1	34647.6	26157	ug/L	26157	ppb	12:19:56
1	Ca 317.933Radial†	7075.7	7072.7	10135	ug/L	10135	ppb	12:19:56
1	Fe 238.204 Radial†	24830.6	24866.1	186570	ug/L	186570	ppb	12:19:56
1	K 766.490 Radial†	19491.1	16528.1	2694.0	ug/L	2694.0	ppb	12:19:56
1	Mg 279.077 IEC†	247.1	245.0	7212.7	ug/L	7212.7	ppb	12:20:17
1	Na 589.592 Radial†	3955.9	5251.0	1253.4	ug/L	1253.4	ppb	12:19:56
1	Sr 421.552†	12372.2	12391.1	67.772	ug/L	67.772	ppb	12:19:56
1	Sc 361.383	932392.2	932392.2	100.81	%			12:21:15
1	Y 371.029	915803.5	915803.5	120.51	%			12:21:15
1	Ag 328.068†	-12823.2	-13055.2	4.8021	ug/L	4.8021	ppb	12:21:20
1	As 188.979†	-105.5	-74.1	44.274	ug/L	44.274	ppb	12:21:40
1	B 249.677†	1397.4	1847.2	14.690	ug/L	14.690	ppb	12:21:20
1	Ba 233.527†	27897.2	27671.3	199.42	ug/L	199.42	ppb	12:21:20
1	Be 313.107†	-1263.1	3432.4	11.347	ug/L	11.347	ppb	12:21:20
1	Cd 226.502†	1651.1	1851.1	-0.1512	ug/L	-0.1512	ppb	12:21:40
1	Co 228.616†	1173.6	1256.0	8.9748	ug/L	8.9748	ppb	12:21:40
1	Cr 267.716†	1787.6	1669.9	20.888	ug/L	20.888	ppb	12:21:20
1	Cu 324.752†	8645.5	2452.0	16.690	ug/L	16.690	ppb	12:21:20
1	Mn 257.610†	1476331.0	1463977.5	1511.1	ug/L	1511.1	ppb	12:21:15
1	Mo 202.031†	410.0	379.2	36.564	ug/L	36.564	ppb	12:21:20
1	Ni 231.604†	1754.1	1659.9	37.010	ug/L	37.010	ppb	12:21:40
1	P 214.914†	3435.2	3148.9	1536.9	ug/L	1536.9	ppb	12:21:40
1	Pb 220.353†	687.4	745.7	70.205	ug/L	70.205	ppb	12:21:40
1	S 181.975 Axial†	156.1	103.2	127.23	ug/L	127.23	ppb	12:21:40
1	Sb 206.836†	72.5	31.2	-1.7291	ug/L	-1.7291	ppb	12:21:40
1	Se 196.026†	-879.0	-837.7	99.352	ug/L	99.352	ppb	12:21:40
1	Si 251.611†	373643.3	370066.2	10725	ug/L	10725	ppb	12:21:15
1	Sn 189.927†	55.7	50.2	11.186	ug/L	11.186	ppb	12:21:40
1	Ti 334.940†	3456072.5	3429816.3	5154.8	ug/L	5154.8	ppb	12:21:15
1	Tl 190.801†	-247.6	-202.6	-5.2618	ug/L	-5.2618	ppb	12:21:40
1	U 409.014†	-13947.8	-11048.7	-335.75	ug/L	-335.75	ppb	12:21:15
1	V 292.402†	14930.6	16324.3	72.512	ug/L	72.512	ppb	12:21:20
1	Zn 213.857†	33082.4	32009.7	252.81	ug/L	252.81	ppb	12:21:20
1	SiO2†	376832.6	373204.9	23148	ug/L	23148	ppb	12:22:50
2	Sc Radial	5767.8	5767.8	101	%			12:20:22
2	Y RADIAL	7312.5	7312.5	124.9	%			12:20:22
2	Al 396.153Radial†	33639.2	33202.2	25066	ug/L	25066	ppb	12:20:22
2	Ca 317.933Radial†	6931.4	6817.4	9769.1	ug/L	9769.1	ppb	12:20:22
2	Fe 238.204 Radial†	24110.4	23759.1	178260	ug/L	178260	ppb	12:20:22
2	K 766.490 Radial†	19129.2	15859.8	2584.4	ug/L	2584.4	ppb	12:20:22
2	Mg 279.077 IEC†	243.4	237.4	6989.7	ug/L	6989.7	ppb	12:20:42
2	Na 589.592 Radial†	3782.0	5016.3	1197.3	ug/L	1197.3	ppb	12:20:22
2	Sr 421.552†	12053.3	11878.9	64.970	ug/L	64.970	ppb	12:20:22
2	Sc 361.383	949490.3	949490.3	102.66	%			12:21:47
2	Y 371.029	931832.3	931832.3	122.62	%			12:21:47
2	Ag 328.068†	-12775.6	-12779.9	3.2452	ug/L	3.2452	ppb	12:21:52
2	As 188.979†	-85.5	-52.6	50.852	ug/L	50.852	ppb	12:22:12
2	B 249.677†	1291.6	1719.2	13.055	ug/L	13.055	ppb	12:21:52
2	Ba 233.527†	27883.1	27159.2	195.55	ug/L	195.55	ppb	12:21:52
2	Be 313.107†	-1665.2	3063.2	11.179	ug/L	11.179	ppb	12:21:52
2	Cd 226.502†	1654.5	1825.0	0.4175	ug/L	0.4175	ppb	12:22:12
2	Co 228.616†	1166.5	1228.2	8.6334	ug/L	8.6334	ppb	12:22:12
2	Cr 267.716†	1764.2	1615.1	20.168	ug/L	20.168	ppb	12:21:52
2	Cu 324.752†	8606.1	2259.2	15.702	ug/L	15.702	ppb	12:21:52
2	Mn 257.610†	1494496.9	1455301.4	1501.4	ug/L	1501.4	ppb	12:21:47
2	Mo 202.031†	411.1	372.9	35.589	ug/L	35.589	ppb	12:21:52
2	Ni 231.604†	1754.3	1628.8	36.316	ug/L	36.316	ppb	12:22:12

2	P 214.914†	3438.5	3090.7	1512.3	ug/L	1512.3 ppb	12:22:12
2	Pb 220.353†	710.3	755.7	71.716	ug/L	71.716 ppb	12:22:12
2	S 181.975 Axial†	152.6	97.0	119.49	ug/L	119.49 ppb	12:22:12
2	Sb 206.836†	61.1	18.9	-5.5492	ug/L	-5.5492 ppb	12:22:12
2	Se 196.026†	-902.1	-844.5	70.127	ug/L	70.127 ppb	12:22:12
2	Si 251.611†	379326.3	368927.7	10692	ug/L	10692 ppb	12:21:47
2	Sn 189.927†	60.9	54.3	11.655	ug/L	11.655 ppb	12:22:12
2	Ti 334.940†	3506533.8	3417235.2	5135.9	ug/L	5135.9 ppb	12:21:47
2	Tl 190.801†	-251.4	-201.9	-5.2944	ug/L	-5.2944 ppb	12:22:12
2	U 409.014†	-14060.0	-10908.9	-330.75	ug/L	-330.75 ppb	12:21:47
2	V 292.402†	14874.9	16003.3	71.695	ug/L	71.695 ppb	12:21:52
2	Zn 213.857†	33099.8	31435.6	248.76	ug/L	248.76 ppb	12:21:52
2	SiO2†	377513.6	367137.0	22771	ug/L	22771 ppb	12:22:55
3	Sc Radial	5806.1	5806.1	102	%		12:20:47
3	Y RADIAL	7359.0	7359.0	125.7	%		12:20:47
3	Al 396.153Radial†	33780.2	33121.5	25005	ug/L	25005 ppb	12:20:47
3	Ca 317.933Radial†	6953.1	6793.5	9735.0	ug/L	9735.0 ppb	12:20:47
3	Fe 238.204 Radial†	24165.6	23656.2	177490	ug/L	177490 ppb	12:20:47
3	K 766.490 Radial†	19336.2	15938.1	2597.2	ug/L	2597.2 ppb	12:20:47
3	Mg 279.077 IEC†	243.4	235.8	6942.4	ug/L	6942.4 ppb	12:21:07
3	Na 589.592 Radial†	3832.2	5040.9	1203.2	ug/L	1203.2 ppb	12:20:47
3	Sr 421.552†	12167.7	11912.5	65.154	ug/L	65.154 ppb	12:20:47
3	Sc 361.383	937698.5	937698.5	101.38	%		12:22:19
3	Y 371.029	920685.2	920685.2	121.16	%		12:22:19
3	Ag 328.068†	-12760.0	-12921.0	2.3713	ug/L	2.3713 ppb	12:22:24
3	As 188.979†	-95.5	-63.6	46.514	ug/L	46.514 ppb	12:22:44
3	B 249.677†	1410.0	1851.8	15.992	ug/L	15.992 ppb	12:22:24
3	Ba 233.527†	28066.0	27681.2	199.15	ug/L	199.15 ppb	12:22:24
3	Be 313.107†	-1528.3	3177.9	11.193	ug/L	11.193 ppb	12:22:24
3	Cd 226.502†	1657.5	1848.2	0.7264	ug/L	0.7264 ppb	12:22:44
3	Co 228.616†	1179.8	1255.5	9.1695	ug/L	9.1695 ppb	12:22:44
3	Cr 267.716†	1693.7	1567.3	19.665	ug/L	19.665 ppb	12:22:24
3	Cu 324.752†	8684.6	2442.0	16.198	ug/L	16.198 ppb	12:22:24
3	Mn 257.610†	1475887.6	1455253.0	1501.3	ug/L	1501.3 ppb	12:22:19
3	Mo 202.031†	433.7	400.3	37.218	ug/L	37.218 ppb	12:22:24
3	Ni 231.604†	1754.6	1650.5	36.800	ug/L	36.800 ppb	12:22:44
3	P 214.914†	3454.2	3148.3	1543.5	ug/L	1543.5 ppb	12:22:44
3	Pb 220.353†	716.5	770.6	73.354	ug/L	73.354 ppb	12:22:44
3	S 181.975 Axial†	153.5	99.8	123.11	ug/L	123.11 ppb	12:22:44
3	Sb 206.836†	77.9	36.2	-0.1978	ug/L	-0.1978 ppb	12:22:44
3	Se 196.026†	-896.2	-849.7	64.849	ug/L	64.849 ppb	12:22:44
3	Si 251.611†	373825.0	368148.1	10670	ug/L	10670 ppb	12:22:19
3	Sn 189.927†	55.4	49.7	10.935	ug/L	10.935 ppb	12:22:44
3	Ti 334.940†	3453592.5	3407969.9	5121.9	ug/L	5121.9 ppb	12:22:19
3	Tl 190.801†	-250.8	-204.4	-6.0652	ug/L	-6.0652 ppb	12:22:44
3	U 409.014†	-13918.8	-10941.9	-331.58	ug/L	-331.58 ppb	12:22:19
3	V 292.402†	15099.6	16407.2	74.489	ug/L	74.489 ppb	12:22:24
3	Zn 213.857†	33381.0	32118.5	254.61	ug/L	254.61 ppb	12:22:24
3	SiO2†	376967.0	371222.1	23025	ug/L	23025 ppb	12:23:01

Mean Data: 242750002|932281|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	939860.3	101.62	%	0.946				0.93%
Sc Radial	5749.9	101	%	1.2				1.16%
Y 371.029	922773.7	121.43	%	1.081				0.89%
Y RADIAL	7312.3	124.9	%	0.80				0.64%
Ag 328.068†	-12918.7	3.4728	ug/L	1.23133	3.4728	ppb	1.23133	35.46%
Al 396.153Radial†	33657.1	25410	ug/L	648.3	25410	ppb	648.3	2.55%
As 188.979†	-63.4	47.213	ug/L	3.3442	47.213	ppb	3.3442	7.08%
B 249.677†	1806.1	14.579	ug/L	1.4719	14.579	ppb	1.4719	10.10%
Ba 233.527†	27503.9	198.04	ug/L	2.162	198.04	ppb	2.162	1.09%
Be 313.107†	3224.5	11.240	ug/L	0.0934	11.240	ppb	0.0934	0.83%
Ca 317.933Radial†	6894.5	9879.7	ug/L	221.76	9879.7	ppb	221.76	2.24%
Cd 226.502†	1841.4	0.3309	ug/L	0.44518	0.3309	ppb	0.44518	134.55%
Co 228.616†	1246.6	8.9259	ug/L	0.27137	8.9259	ppb	0.27137	3.04%
Cr 267.716†	1617.4	20.240	ug/L	0.6148	20.240	ppb	0.6148	3.04%
Cu 324.752†	2384.4	16.197	ug/L	0.4940	16.197	ppb	0.4940	3.05%
Fe 238.204 Radial†	24093.8	180770	ug/L	5032.8	180770	ppb	5032.8	2.78%
K 766.490 Radial†	16108.6	2625.2	ug/L	59.93	2625.2	ppb	59.93	2.28%

Mg 279.077 IEC†	239.4	7048.3	ug/L	144.33	7048.3	ppb	144.33	2.05%
Mn 257.610†	1458177.3	1504.6	ug/L	5.62	1504.6	ppb	5.62	0.37%
Mo 202.031†	384.1	36.457	ug/L	0.8200	36.457	ppb	0.8200	2.25%
Na 589.592 Radial†	5102.7	1218.0	ug/L	30.78	1218.0	ppb	30.78	2.53%
Ni 231.604†	1646.4	36.709	ug/L	0.3563	36.709	ppb	0.3563	0.97%
P 214.914†	3129.3	1530.9	ug/L	16.45	1530.9	ppb	16.45	1.07%
Pb 220.353†	757.3	71.758	ug/L	1.5746	71.758	ppb	1.5746	2.19%
S 181.975 Axial†	100.0	123.27	ug/L	3.873	123.27	ppb	3.873	3.14%
Sb 206.836†	28.8	-2.4920	ug/L	2.75608	-2.4920	ppb	2.75608	110.60%
Se 196.026†	-844.0	78.109	ug/L	18.5852	78.109	ppb	18.5852	23.79%
Si 251.611†	369047.3	10696	ug/L	28.0	10696	ppb	28.0	0.26%
Sn 189.927†	51.4	11.258	ug/L	0.3654	11.258	ppb	0.3654	3.25%
Sr 421.552†	12060.8	65.965	ug/L	1.5671	65.965	ppb	1.5671	2.38%
Ti 334.940†	3418340.4	5137.5	ug/L	16.49	5137.5	ppb	16.49	0.32%
Tl 190.801†	-203.0	-5.5405	ug/L	0.45474	-5.5405	ppb	0.45474	8.21%
U 409.014†	-10966.5	-332.69	ug/L	2.677	-332.69	ppb	2.677	0.80%
V 292.402†	16245.0	72.899	ug/L	1.4363	72.899	ppb	1.4363	1.97%
Zn 213.857†	31854.6	252.06	ug/L	2.999	252.06	ppb	2.999	1.19%
SiO2†	370521.3	22981	ug/L	191.9	22981	ppb	191.9	0.83%

Sequence No.: 14
Sample ID: 242750003|932281|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 49
Date Collected: 12/18/2009 12:25:12
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 242750003|932281|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5829.4	5829.4	102	%			12:27:05
1	Y RADIAL	7249.5	7249.5	123.9	%			12:27:05
1	Al 396.153Radial†	15582.1	15234.2	11502	ug/L	11502	ppb	12:27:05
1	Ca 317.933Radial†	3782.0	3672.4	5262.5	ug/L	5262.5	ppb	12:27:25
1	Fe 238.204 Radial†	11990.2	11682.7	87655	ug/L	87655	ppb	12:27:05
1	K 766.490 Radial†	33494.5	29675.6	4833.0	ug/L	4833.0	ppb	12:27:05
1	Mg 279.077 IEC†	266.8	257.6	7676.9	ug/L	7676.9	ppb	12:27:25
1	Na 589.592 Radial†	5915.2	7058.1	1684.7	ug/L	1684.7	ppb	12:27:05
1	Sr 421.552†	4371.4	4258.4	23.274	ug/L	23.274	ppb	12:27:05
1	Sc 361.383	952004.6	952004.6	102.93	%			12:28:23
1	Y 371.029	916494.3	916494.3	120.60	%			12:28:23
1	Ag 328.068†	-6117.3	-6278.2	1.7479	ug/L	1.7479	ppb	12:28:28
1	As 188.979†	-119.3	-85.2	12.279	ug/L	12.279	ppb	12:28:48
1	B 249.677†	479.7	927.1	8.1527	ug/L	8.1527	ppb	12:28:28
1	Ba 233.527†	21819.2	21196.3	150.67	ug/L	150.67	ppb	12:28:28
1	Be 313.107†	-15450.9	-10325.7	3.5233	ug/L	3.5233	ppb	12:28:28
1	Cd 226.502†	741.8	934.0	0.5761	ug/L	0.5761	ppb	12:28:48
1	Co 228.616†	848.8	916.5	7.4225	ug/L	7.4225	ppb	12:28:48
1	Cr 267.716†	1759.9	1606.4	18.369	ug/L	18.369	ppb	12:28:48
1	Cu 324.752†	7375.1	1041.1	7.5170	ug/L	7.5170	ppb	12:28:28
1	Mn 257.610†	2131862.1	2070677.6	2119.8	ug/L	2119.8	ppb	12:28:23
1	Mo 202.031†	27.7	-0.6	6.1797	ug/L	6.1797	ppb	12:28:48
1	Ni 231.604†	1302.4	1185.2	26.425	ug/L	26.425	ppb	12:28:48
1	P 214.914†	3479.0	3121.2	1597.6	ug/L	1597.6	ppb	12:28:48
1	Pb 220.353†	1466.4	1488.5	154.27	ug/L	154.27	ppb	12:28:48
1	S 181.975 Axial†	90.9	36.7	44.754	ug/L	44.754	ppb	12:28:48
1	Sb 206.836†	56.6	14.3	-4.6189	ug/L	-4.6189	ppb	12:28:48
1	Se 196.026†	-448.7	-401.6	41.987	ug/L	41.987	ppb	12:28:48
1	Si 251.611†	256970.4	249079.1	7218.0	ug/L	7218.0	ppb	12:28:28
1	Sn 189.927†	54.4	47.9	8.9874	ug/L	8.9874	ppb	12:28:48
1	Ti 334.940†	2501704.7	2431989.7	3655.0	ug/L	3655.0	ppb	12:28:23
1	Tl 190.801†	-200.5	-151.9	0.0796	ug/L	0.0796	ppb	12:28:48
1	U 409.014†	-11286.1	-8177.8	-242.17	ug/L	-242.17	ppb	12:28:23
1	V 292.402†	9149.5	10402.7	50.343	ug/L	50.343	ppb	12:28:28
1	Zn 213.857†	67171.0	64451.8	537.10	ug/L	537.10	ppb	12:28:28
1	SiO2†	261302.4	253262.7	15707	ug/L	15707	ppb	12:29:55
2	Sc Radial	5843.0	5843.0	103	%			12:27:30
2	Y RADIAL	7245.3	7245.3	123.8	%			12:27:30
2	Al 396.153Radial†	15539.3	15157.3	11443	ug/L	11443	ppb	12:27:30
2	Ca 317.933Radial†	3837.0	3717.3	5326.9	ug/L	5326.9	ppb	12:27:50
2	Fe 238.204 Radial†	11914.7	11582.1	86900	ug/L	86900	ppb	12:27:30
2	K 766.490 Radial†	33356.4	29465.5	4798.6	ug/L	4798.6	ppb	12:27:30
2	Mg 279.077 IEC†	266.3	256.6	7646.4	ug/L	7646.4	ppb	12:27:50
2	Na 589.592 Radial†	5953.9	7082.4	1690.5	ug/L	1690.5	ppb	12:27:30
2	Sr 421.552†	4301.8	4180.7	22.849	ug/L	22.849	ppb	12:27:30
2	Sc 361.383	949009.0	949009.0	102.61	%			12:28:54
2	Y 371.029	915496.1	915496.1	120.47	%			12:28:54
2	Ag 328.068†	-6071.4	-6252.2	1.6050	ug/L	1.6050	ppb	12:28:59
2	As 188.979†	-106.6	-73.2	16.604	ug/L	16.604	ppb	12:29:19
2	B 249.677†	401.9	852.7	6.6630	ug/L	6.6630	ppb	12:28:59
2	Ba 233.527†	21834.3	21277.8	151.21	ug/L	151.21	ppb	12:28:59
2	Be 313.107†	-15755.0	-10669.5	3.3889	ug/L	3.3889	ppb	12:28:59
2	Cd 226.502†	738.3	932.8	0.6399	ug/L	0.6399	ppb	12:29:19
2	Co 228.616†	859.4	929.4	7.6794	ug/L	7.6794	ppb	12:29:19
2	Cr 267.716†	1784.6	1635.9	18.658	ug/L	18.658	ppb	12:29:19
2	Cu 324.752†	7430.6	1117.8	7.7030	ug/L	7.7030	ppb	12:28:59
2	Mn 257.610†	2120867.1	2066499.8	2115.5	ug/L	2115.5	ppb	12:28:54
2	Mo 202.031†	39.0	10.5	6.8076	ug/L	6.8076	ppb	12:29:19
2	Ni 231.604†	1305.6	1192.4	26.585	ug/L	26.585	ppb	12:29:19

2	P 214.914†	3461.4	3114.8	1594.7	ug/L	1594.7	ppb	12:29:19
2	Pb 220.353†	1463.6	1490.3	154.52	ug/L	154.52	ppb	12:29:19
2	S 181.975 Axial†	78.2	24.6	29.245	ug/L	29.245	ppb	12:29:19
2	Sb 206.836†	69.5	27.0	-0.7204	ug/L	-0.7204	ppb	12:29:19
2	Se 196.026†	-455.0	-409.1	35.475	ug/L	35.475	ppb	12:29:19
2	Si 251.611†	257580.8	250462.1	7258.1	ug/L	7258.1	ppb	12:28:59
2	Sn 189.927†	52.5	46.2	8.7301	ug/L	8.7301	ppb	12:29:19
2	Ti 334.940†	2489500.0	2427767.0	3648.7	ug/L	3648.7	ppb	12:28:54
2	Tl 190.801†	-220.2	-171.6	-5.2455	ug/L	-5.2455	ppb	12:29:19
2	U 409.014†	-11026.9	-7959.8	-235.91	ug/L	-235.91	ppb	12:28:54
2	V 292.402†	9122.9	10404.8	50.500	ug/L	50.500	ppb	12:28:59
2	Zn 213.857†	67355.4	64837.5	540.44	ug/L	540.44	ppb	12:28:59
2	SiO2†	264417.2	257099.7	15945	ug/L	15945	ppb	12:30:01
3	Sc Radial	5820.8	5820.8	102	%			12:27:55
3	Y RADIAL	7220.5	7220.5	123.4	%			12:27:55
3	Al 396.153Radial†	15530.0	15205.9	11480	ug/L	11480	ppb	12:27:55
3	Ca 317.933Radial†	3857.4	3751.6	5375.9	ug/L	5375.9	ppb	12:28:15
3	Fe 238.204 Radial†	11906.2	11618.0	87169	ug/L	87169	ppb	12:27:55
3	K 766.490 Radial†	33357.3	29590.2	4818.9	ug/L	4818.9	ppb	12:27:55
3	Mg 279.077 IEC†	272.6	263.7	7859.6	ug/L	7859.6	ppb	12:28:15
3	Na 589.592 Radial†	5928.8	7080.0	1689.9	ug/L	1689.9	ppb	12:27:55
3	Sr 421.552†	4320.4	4214.9	23.035	ug/L	23.035	ppb	12:27:55
3	Sc 361.383	950405.3	950405.3	102.76	%			12:29:25
3	Y 371.029	915831.5	915831.5	120.52	%			12:29:25
3	Ag 328.068†	-6048.1	-6220.9	1.8449	ug/L	1.8449	ppb	12:29:30
3	As 188.979†	-111.7	-78.1	14.889	ug/L	14.889	ppb	12:29:50
3	B 249.677†	537.7	984.3	9.4403	ug/L	9.4403	ppb	12:29:30
3	Ba 233.527†	22029.4	21436.4	152.33	ug/L	152.33	ppb	12:29:30
3	Be 313.107†	-15628.2	-10523.6	3.4537	ug/L	3.4537	ppb	12:29:30
3	Cd 226.502†	729.1	922.8	0.5133	ug/L	0.5133	ppb	12:29:50
3	Co 228.616†	839.2	908.6	7.2877	ug/L	7.2877	ppb	12:29:50
3	Cr 267.716†	1779.8	1628.7	18.593	ug/L	18.593	ppb	12:29:50
3	Cu 324.752†	7485.7	1160.8	7.8425	ug/L	7.8425	ppb	12:29:30
3	Mn 257.610†	2128919.5	2071299.1	2120.4	ug/L	2120.4	ppb	12:29:25
3	Mo 202.031†	26.4	-1.9	6.0686	ug/L	6.0686	ppb	12:29:50
3	Ni 231.604†	1301.9	1186.9	26.463	ug/L	26.463	ppb	12:29:50
3	P 214.914†	3473.6	3121.6	1598.2	ug/L	1598.2	ppb	12:29:50
3	Pb 220.353†	1479.3	1503.5	155.91	ug/L	155.91	ppb	12:29:50
3	S 181.975 Axial†	78.8	25.1	29.910	ug/L	29.910	ppb	12:29:50
3	Sb 206.836†	65.5	23.1	-1.9199	ug/L	-1.9199	ppb	12:29:50
3	Se 196.026†	-447.5	-401.3	40.719	ug/L	40.719	ppb	12:29:50
3	Si 251.611†	259907.8	252357.7	7313.0	ug/L	7313.0	ppb	12:29:30
3	Sn 189.927†	63.8	57.1	10.399	ug/L	10.399	ppb	12:29:50
3	Ti 334.940†	2497695.9	2432178.2	3655.3	ug/L	3655.3	ppb	12:29:25
3	Tl 190.801†	-209.2	-160.6	-2.2467	ug/L	-2.2467	ppb	12:29:50
3	U 409.014†	-11373.0	-8280.8	-245.02	ug/L	-245.02	ppb	12:29:25
3	V 292.402†	9275.8	10540.5	51.315	ug/L	51.315	ppb	12:29:30
3	Zn 213.857†	67812.2	65185.6	543.36	ug/L	543.36	ppb	12:29:30
3	SiO2†	265216.7	257499.2	15969	ug/L	15969	ppb	12:30:06

Mean Data: 242750003|932281|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	950473.0	102.76	%	0.162				0.16%
Sc Radial	5831.0	103	%	0.2				0.19%
Y 371.029	915940.6	120.53	%	0.067				0.06%
Y RADIAL	7238.4	123.7	%	0.27				0.22%
Ag 328.068†	-6250.5	1.7326	ug/L	0.12067	1.7326	ppb	0.12067	6.96%
Al 396.153Radial†	15199.1	11475	ug/L	29.4	11475	ppb	29.4	0.26%
As 188.979†	-78.9	14.591	ug/L	2.1780	14.591	ppb	2.1780	14.93%
B 249.677†	921.4	8.0853	ug/L	1.38988	8.0853	ppb	1.38988	17.19%
Ba 233.527†	21303.5	151.40	ug/L	0.843	151.40	ppb	0.843	0.56%
Be 313.107†	-10506.3	3.4553	ug/L	0.06718	3.4553	ppb	0.06718	1.94%
Ca 317.933Radial†	3713.8	5321.7	ug/L	56.91	5321.7	ppb	56.91	1.07%
Cd 226.502†	929.8	0.5764	ug/L	0.06331	0.5764	ppb	0.06331	10.98%
Co 228.616†	918.2	7.4632	ug/L	0.19903	7.4632	ppb	0.19903	2.67%
Cr 267.716†	1623.7	18.540	ug/L	0.1518	18.540	ppb	0.1518	0.82%
Cu 324.752†	1106.6	7.6875	ug/L	0.16328	7.6875	ppb	0.16328	2.12%
Fe 238.204 Radial†	11627.6	87241	ug/L	382.7	87241	ppb	382.7	0.44%
K 766.490 Radial†	29577.1	4816.8	ug/L	17.28	4816.8	ppb	17.28	0.36%

Mg 279.077 IEC†	259.3	7727.6	ug/L	115.31	7727.6	ppb	115.31	1.49%
Mn 257.610†	2069492.2	2118.6	ug/L	2.69	2118.6	ppb	2.69	0.13%
Mo 202.031†	2.7	6.3520	ug/L	0.39853	6.3520	ppb	0.39853	6.27%
Na 589.592 Radial†	7073.5	1688.4	ug/L	3.19	1688.4	ppb	3.19	0.19%
Ni 231.604†	1188.2	26.491	ug/L	0.0836	26.491	ppb	0.0836	0.32%
P 214.914†	3119.2	1596.8	ug/L	1.86	1596.8	ppb	1.86	0.12%
Pb 220.353†	1494.1	154.90	ug/L	0.882	154.90	ppb	0.882	0.57%
S 181.975 Axial†	28.8	34.636	ug/L	8.7686	34.636	ppb	8.7686	25.32%
Sb 206.836†	21.5	-2.4197	ug/L	1.99675	-2.4197	ppb	1.99675	82.52%
Se 196.026†	-404.0	39.394	ug/L	3.4524	39.394	ppb	3.4524	8.76%
Si 251.611†	250633.0	7263.0	ug/L	47.71	7263.0	ppb	47.71	0.66%
Sn 189.927†	50.4	9.3721	ug/L	0.89844	9.3721	ppb	0.89844	9.59%
Sr 421.552†	4218.0	23.053	ug/L	0.2134	23.053	ppb	0.2134	0.93%
Ti 334.940†	2430644.9	3653.0	ug/L	3.75	3653.0	ppb	3.75	0.10%
Tl 190.801†	-161.3	-2.4709	ug/L	2.66963	-2.4709	ppb	2.66963	108.04%
U 409.014†	-8139.5	-241.03	ug/L	4.657	-241.03	ppb	4.657	1.93%
V 292.402†	10449.3	50.719	ug/L	0.5216	50.719	ppb	0.5216	1.03%
Zn 213.857†	64825.0	540.30	ug/L	3.130	540.30	ppb	3.130	0.58%
SiO2†	255953.9	15874	ug/L	145.1	15874	ppb	145.1	0.91%

Sequence No.: 15
Sample ID: 242750004|932281|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 50
Date Collected: 12/18/2009 12:32:17
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 242750004|932281|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5303.9	5303.9	93.3	%			12:34:10
1	Y RADIAL	6862.2	6862.2	117.2	%			12:34:10
1	Al 396.153Radial†	11256.7	12102.2	9137.0	ug/L	9137.0	ppb	12:34:10
1	Ca 317.933Radial†	3873.9	4136.5	5927.5	ug/L	5927.5	ppb	12:34:30
1	Fe 238.204 Radial†	11208.9	12003.9	90065	ug/L	90065	ppb	12:34:10
1	K 766.490 Radial†	21633.0	20194.1	3284.7	ug/L	3284.7	ppb	12:34:10
1	Mg 279.077 IEC†	172.2	182.0	5397.9	ug/L	5397.9	ppb	12:34:30
1	Na 589.592 Radial†	3579.1	5124.8	1223.2	ug/L	1223.2	ppb	12:34:10
1	Sr 421.552†	5136.0	5500.8	30.073	ug/L	30.073	ppb	12:34:10
1	Sc 361.383	949433.9	949433.9	102.65	%			12:35:27
1	Y 371.029	928986.6	928986.6	122.25	%			12:35:27
1	Ag 328.068†	-5619.0	-5808.9	4.7055	ug/L	4.7055	ppb	12:35:33
1	As 188.979†	-112.5	-79.0	18.201	ug/L	18.201	ppb	12:35:53
1	B 249.677†	265.4	719.6	3.3959	ug/L	3.3959	ppb	12:35:33
1	Ba 233.527†	25750.1	25082.9	177.77	ug/L	177.77	ppb	12:35:33
1	Be 313.107†	-22075.5	-16819.8	1.9703	ug/L	1.9703	ppb	12:35:33
1	Cd 226.502†	620.8	818.0	-0.8204	ug/L	-0.8204	ppb	12:35:53
1	Co 228.616†	877.5	946.7	7.1311	ug/L	7.1311	ppb	12:35:53
1	Cr 267.716†	1477.3	1335.8	15.642	ug/L	15.642	ppb	12:35:53
1	Cu 324.752†	7168.5	859.2	7.1078	ug/L	7.1078	ppb	12:35:33
1	Mn 257.610†	1850700.8	1802388.5	1846.5	ug/L	1846.5	ppb	12:35:27
1	Mo 202.031†	25.9	-2.3	6.2481	ug/L	6.2481	ppb	12:35:53
1	Ni 231.604†	1440.0	1322.7	29.492	ug/L	29.492	ppb	12:35:53
1	P 214.914†	3245.2	2902.6	1478.4	ug/L	1478.4	ppb	12:35:53
1	Pb 220.353†	443.4	495.7	47.573	ug/L	47.573	ppb	12:35:53
1	S 181.975 Axial†	80.5	26.8	32.600	ug/L	32.600	ppb	12:35:53
1	Sb 206.836†	56.6	14.5	-5.3169	ug/L	-5.3169	ppb	12:35:53
1	Se 196.026†	-402.7	-358.0	73.516	ug/L	73.516	ppb	12:35:53
1	Si 251.611†	267447.1	259961.0	7533.9	ug/L	7533.9	ppb	12:35:33
1	Sn 189.927†	105.7	98.0	16.693	ug/L	16.693	ppb	12:35:53
1	Ti 334.940†	2755234.0	2685549.3	4036.1	ug/L	4036.1	ppb	12:35:27
1	Tl 190.801†	-238.3	-189.2	-8.5914	ug/L	-8.5914	ppb	12:35:53
1	U 409.014†	-14642.6	-11477.3	-335.71	ug/L	-335.71	ppb	12:35:27
1	V 292.402†	8888.7	10172.7	47.821	ug/L	47.821	ppb	12:35:33
1	Zn 213.857†	36552.8	34801.3	285.79	ug/L	285.79	ppb	12:35:33
1	SiO2†	271779.7	264156.7	16383	ug/L	16383	ppb	12:37:00
2	Sc Radial	6030.1	6030.1	106	%			12:34:35
2	Y RADIAL	7611.1	7611.1	130.0	%			12:34:35
2	Al 396.153Radial†	11305.5	10694.6	8074.3	ug/L	8074.3	ppb	12:34:35
2	Ca 317.933Radial†	3914.0	3674.0	5264.8	ug/L	5264.8	ppb	12:34:55
2	Fe 238.204 Radial†	11231.3	10577.6	79363	ug/L	79363	ppb	12:34:35
2	K 766.490 Radial†	21964.0	17712.8	2878.2	ug/L	2878.2	ppb	12:34:35
2	Mg 279.077 IEC†	172.7	160.3	4754.7	ug/L	4754.7	ppb	12:34:55
2	Na 589.592 Radial†	3704.3	4780.7	1141.1	ug/L	1141.1	ppb	12:34:35
2	Sr 421.552†	5175.4	4874.8	26.650	ug/L	26.650	ppb	12:34:35
2	Sc 361.383	951704.9	951704.9	102.90	%			12:35:58
2	Y 371.029	931203.6	931203.6	122.54	%			12:35:58
2	Ag 328.068†	-5615.7	-5792.6	1.2068	ug/L	1.2068	ppb	12:36:03
2	As 188.979†	-116.6	-82.7	15.185	ug/L	15.185	ppb	12:36:24
2	B 249.677†	311.3	763.6	5.7558	ug/L	5.7558	ppb	12:36:03
2	Ba 233.527†	25816.1	25087.3	177.40	ug/L	177.40	ppb	12:36:03
2	Be 313.107†	-22211.4	-16900.6	1.9479	ug/L	1.9479	ppb	12:36:03
2	Cd 226.502†	623.2	818.9	0.2582	ug/L	0.2582	ppb	12:36:24
2	Co 228.616†	858.2	925.9	6.9044	ug/L	6.9044	ppb	12:36:24
2	Cr 267.716†	1506.2	1360.4	15.703	ug/L	15.703	ppb	12:36:24
2	Cu 324.752†	7149.5	824.1	6.4592	ug/L	6.4592	ppb	12:36:03
2	Mn 257.610†	1857930.6	1805112.6	1848.3	ug/L	1848.3	ppb	12:35:58
2	Mo 202.031†	28.2	-0.1	5.6250	ug/L	5.6250	ppb	12:36:24
2	Ni 231.604†	1394.5	1275.2	28.431	ug/L	28.431	ppb	12:36:24

2	P 214.914†	3265.6	2914.9	1493.3	ug/L	1493.3 ppb	12:36:24
2	Pb 220.353†	444.6	495.9	48.232	ug/L	48.232 ppb	12:36:24
2	S 181.975 Axial†	96.6	42.3	52.592	ug/L	52.592 ppb	12:36:24
2	Sb 206.836†	75.4	32.6	0.0886	ug/L	0.0886 ppb	12:36:24
2	Se 196.026†	-409.1	-363.3	37.906	ug/L	37.906 ppb	12:36:24
2	Si 251.611†	267818.3	259700.1	7526.5	ug/L	7526.5 ppb	12:36:03
2	Sn 189.927†	110.8	102.6	17.191	ug/L	17.191 ppb	12:36:24
2	Ti 334.940†	2763995.8	2687659.5	4039.3	ug/L	4039.3 ppb	12:35:58
2	Tl 190.801†	-239.0	-189.3	-8.6113	ug/L	-8.6113 ppb	12:36:24
2	U 409.014†	-14564.4	-11367.3	-331.25	ug/L	-331.25 ppb	12:35:58
2	V 292.402†	8846.4	10110.9	49.035	ug/L	49.035 ppb	12:36:03
2	Zn 213.857†	36562.6	34725.9	286.20	ug/L	286.20 ppb	12:36:03
2	SiO2†	262608.1	254611.6	15792	ug/L	15792 ppb	12:37:05
3	Sc Radial	5881.9	5881.9	103	%		12:35:00
3	Y RADIAL	7367.1	7367.1	125.9	%		12:35:00
3	Al 396.153Radial†	11021.1	10688.4	8069.6	ug/L	8069.6 ppb	12:35:00
3	Ca 317.933Radial†	3899.0	3752.6	5377.5	ug/L	5377.5 ppb	12:35:20
3	Fe 238.204 Radial†	10921.5	10545.0	79119	ug/L	79119 ppb	12:35:00
3	K 766.490 Radial†	21465.0	17752.4	2884.7	ug/L	2884.7 ppb	12:35:00
3	Mg 279.077 IEC†	178.6	170.1	5049.9	ug/L	5049.9 ppb	12:35:20
3	Na 589.592 Radial†	3524.4	4694.9	1120.6	ug/L	1120.6 ppb	12:35:00
3	Sr 421.552†	5024.0	4851.4	26.521	ug/L	26.521 ppb	12:35:00
3	Sc 361.383	951457.9	951457.9	102.87	%		12:36:29
3	Y 371.029	930297.1	930297.1	122.42	%		12:36:29
3	Ag 328.068†	-5545.3	-5725.6	1.4220	ug/L	1.4220 ppb	12:36:34
3	As 188.979†	-108.8	-75.2	17.963	ug/L	17.963 ppb	12:36:55
3	B 249.677†	265.7	719.3	4.8425	ug/L	4.8425 ppb	12:36:34
3	Ba 233.527†	25783.4	25062.0	177.21	ug/L	177.21 ppb	12:36:34
3	Be 313.107†	-21952.2	-16654.3	2.0360	ug/L	2.0360 ppb	12:36:34
3	Cd 226.502†	632.2	827.9	0.3723	ug/L	0.3723 ppb	12:36:55
3	Co 228.616†	865.6	933.4	7.0399	ug/L	7.0399 ppb	12:36:55
3	Cr 267.716†	1481.5	1336.8	15.455	ug/L	15.455 ppb	12:36:55
3	Cu 324.752†	7161.1	837.2	6.4850	ug/L	6.4850 ppb	12:36:34
3	Mn 257.610†	1858083.2	1805729.7	1848.9	ug/L	1848.9 ppb	12:36:29
3	Mo 202.031†	23.3	-4.9	5.3124	ug/L	5.3124 ppb	12:36:55
3	Ni 231.604†	1445.2	1324.8	29.539	ug/L	29.539 ppb	12:36:55
3	P 214.914†	3247.9	2898.5	1484.7	ug/L	1484.7 ppb	12:36:55
3	Pb 220.353†	424.0	476.0	46.124	ug/L	46.124 ppb	12:36:55
3	S 181.975 Axial†	91.8	37.6	46.666	ug/L	46.666 ppb	12:36:55
3	Sb 206.836†	65.6	23.1	-2.8722	ug/L	-2.8722 ppb	12:36:55
3	Se 196.026†	-398.1	-352.7	43.077	ug/L	43.077 ppb	12:36:55
3	Si 251.611†	267980.6	259925.5	7533.0	ug/L	7533.0 ppb	12:36:34
3	Sn 189.927†	95.8	88.1	14.996	ug/L	14.996 ppb	12:36:55
3	Ti 334.940†	2763550.2	2687923.8	4039.7	ug/L	4039.7 ppb	12:36:29
3	Tl 190.801†	-222.1	-172.9	-4.2548	ug/L	-4.2548 ppb	12:36:55
3	U 409.014†	-14553.9	-11360.7	-331.04	ug/L	-331.04 ppb	12:36:29
3	V 292.402†	8867.0	10133.2	49.220	ug/L	49.220 ppb	12:36:34
3	Zn 213.857†	36473.1	34648.1	285.55	ug/L	285.55 ppb	12:36:34
3	SiO2†	267757.8	259683.8	16106	ug/L	16106 ppb	12:37:11

Mean Data: 242750004|932281|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	950865.6	102.81	%	0.135				0.13%
Sc Radial	5738.6	101	%	6.7				6.69%
Y 371.029	930162.4	122.40	%	0.147				0.12%
Y RADIAL	7280.1	124.4	%	6.53				5.25%
Ag 328.068†	-5775.7	2.4448	ug/L	1.96081	2.4448	ppb	1.96081	80.20%
Al 396.153Radial†	11161.7	8426.9	ug/L	614.91	8426.9	ppb	614.91	7.30%
As 188.979†	-78.9	17.116	ug/L	1.6766	17.116	ppb	1.6766	9.80%
B 249.677†	734.2	4.6647	ug/L	1.18995	4.6647	ppb	1.18995	25.51%
Ba 233.527†	25077.4	177.46	ug/L	0.281	177.46	ppb	0.281	0.16%
Be 313.107†	-16791.6	1.9847	ug/L	0.04579	1.9847	ppb	0.04579	2.31%
Ca 317.933Radial†	3854.4	5523.3	ug/L	354.60	5523.3	ppb	354.60	6.42%
Cd 226.502†	821.6	-0.0633	ug/L	0.65818	-0.0633	ppb	0.65818	>999.9%
Co 228.616†	935.3	7.0251	ug/L	0.11407	7.0251	ppb	0.11407	1.62%
Cr 267.716†	1344.3	15.600	ug/L	0.1291	15.600	ppb	0.1291	0.83%
Cu 324.752†	840.1	6.6840	ug/L	0.36723	6.6840	ppb	0.36723	5.49%
Fe 238.204 Radial†	11042.2	82849	ug/L	6250.3	82849	ppb	6250.3	7.54%
K 766.490 Radial†	18553.1	3015.9	ug/L	232.83	3015.9	ppb	232.83	7.72%

Mg 279.077 IEC†	170.8	5067.5	ug/L	321.99	5067.5	ppb	321.99	6.35%
Mn 257.610†	1804410.2	1847.9	ug/L	1.21	1847.9	ppb	1.21	0.07%
Mo 202.031†	-2.4	5.7285	ug/L	0.47637	5.7285	ppb	0.47637	8.32%
Na 589.592 Radial†	4866.8	1161.7	ug/L	54.31	1161.7	ppb	54.31	4.67%
Ni 231.604†	1307.6	29.154	ug/L	0.6262	29.154	ppb	0.6262	2.15%
P 214.914†	2905.3	1485.5	ug/L	7.45	1485.5	ppb	7.45	0.50%
Pb 220.353†	489.2	47.310	ug/L	1.0780	47.310	ppb	1.0780	2.28%
S 181.975 Axial†	35.6	43.952	ug/L	10.2682	43.952	ppb	10.2682	23.36%
Sb 206.836†	23.4	-2.7002	ug/L	2.70687	-2.7002	ppb	2.70687	100.25%
Se 196.026†	-358.0	51.500	ug/L	19.2412	51.500	ppb	19.2412	37.36%
Si 251.611†	259862.2	7531.1	ug/L	4.06	7531.1	ppb	4.06	0.05%
Sn 189.927†	96.2	16.293	ug/L	1.1507	16.293	ppb	1.1507	7.06%
Sr 421.552†	5075.6	27.748	ug/L	2.0143	27.748	ppb	2.0143	7.26%
Ti 334.940†	2687044.2	4038.4	ug/L	1.94	4038.4	ppb	1.94	0.05%
Tl 190.801†	-183.8	-7.1525	ug/L	2.50949	-7.1525	ppb	2.50949	35.09%
U 409.014†	-11401.7	-332.67	ug/L	2.637	-332.67	ppb	2.637	0.79%
V 292.402†	10138.9	48.692	ug/L	0.7598	48.692	ppb	0.7598	1.56%
Zn 213.857†	34725.1	285.85	ug/L	0.330	285.85	ppb	0.330	0.12%
SiO2†	259484.0	16094	ug/L	296.1	16094	ppb	296.1	1.84%

Sequence No.: 16
Sample ID: 242750005|932281|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 51
Date Collected: 12/18/2009 12:39:21
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 242750005|932281|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	6060.9	6060.9	107	%			12:41:14
1	Y RADIAL	7769.7	7769.7	132.7	%			12:41:14
1	Al 396.153Radial†	10775.9	10143.6	7658.2	ug/L	7658.2	ppb	12:41:14
1	Ca 317.933Radial†	4381.1	4093.7	5866.2	ug/L	5866.2	ppb	12:41:14
1	Fe 238.204 Radial†	12269.7	11498.2	86271	ug/L	86271	ppb	12:41:14
1	K 766.490 Radial†	18572.8	14425.5	2340.5	ug/L	2340.5	ppb	12:41:14
1	Mg 279.077 IEC†	163.8	151.1	4471.0	ug/L	4471.0	ppb	12:41:34
1	Na 589.592 Radial†	3607.4	4672.1	1115.2	ug/L	1115.2	ppb	12:41:14
1	Sr 421.552†	5232.5	4903.6	26.803	ug/L	26.803	ppb	12:41:14
1	Sc 361.383	921689.3	921689.3	99.652	%			12:42:31
1	Y 371.029	929369.7	929369.7	122.30	%			12:42:31
1	Ag 328.068†	-6226.1	-6582.9	0.0501	ug/L	0.0501	ppb	12:42:36
1	As 188.979†	-122.9	-92.7	18.222	ug/L	18.222	ppb	12:42:57
1	B 249.677†	347.7	809.9	5.8261	ug/L	5.8261	ppb	12:42:36
1	Ba 233.527†	23574.9	23655.3	167.72	ug/L	167.72	ppb	12:42:36
1	Be 313.107†	-24327.9	-19727.4	2.2880	ug/L	2.2880	ppb	12:42:36
1	Cd 226.502†	726.8	942.6	0.8039	ug/L	0.8039	ppb	12:42:57
1	Co 228.616†	931.1	1026.2	7.1462	ug/L	7.1462	ppb	12:42:57
1	Cr 267.716†	1457.9	1359.6	15.843	ug/L	15.843	ppb	12:42:57
1	Cu 324.752†	7002.6	903.0	7.0424	ug/L	7.0424	ppb	12:42:36
1	Mn 257.610†	1791526.5	1797278.2	1841.0	ug/L	1841.0	ppb	12:42:31
1	Mo 202.031†	45.0	17.6	7.2044	ug/L	7.2044	ppb	12:42:57
1	Ni 231.604†	1454.6	1379.5	30.759	ug/L	30.759	ppb	12:42:57
1	P 214.914†	3604.3	3358.2	1724.0	ug/L	1724.0	ppb	12:42:57
1	Pb 220.353†	413.1	478.4	45.703	ug/L	45.703	ppb	12:42:57
1	S 181.975 Axial†	93.3	42.0	52.342	ug/L	52.342	ppb	12:42:57
1	Sb 206.836†	57.6	17.1	-6.3299	ug/L	-6.3299	ppb	12:42:57
1	Se 196.026†	-468.8	-436.1	17.852	ug/L	17.852	ppb	12:42:57
1	Si 251.611†	285441.5	285860.9	8284.9	ug/L	8284.9	ppb	12:42:36
1	Sn 189.927†	119.2	114.6	19.164	ug/L	19.164	ppb	12:42:57
1	Ti 334.940†	3129630.0	3142046.0	4722.2	ug/L	4722.2	ppb	12:42:31
1	Tl 190.801†	-257.2	-215.1	-10.321	ug/L	-10.321	ppb	12:42:57
1	U 409.014†	-15762.6	-13030.6	-379.13	ug/L	-379.13	ppb	12:42:31
1	V 292.402†	9335.0	10881.2	52.184	ug/L	52.184	ppb	12:42:36
1	Zn 213.857†	39711.5	39043.0	322.10	ug/L	322.10	ppb	12:42:36
1	SiO2†	288980.1	289386.8	17949	ug/L	17949	ppb	12:44:04
2	Sc Radial	5851.1	5851.1	103	%			12:41:39
2	Y RADIAL	7497.8	7497.8	128.1	%			12:41:39
2	Al 396.153Radial†	10749.1	10480.0	7912.2	ug/L	7912.2	ppb	12:41:39
2	Ca 317.933Radial†	4355.2	4215.8	6041.2	ug/L	6041.2	ppb	12:41:39
2	Fe 238.204 Radial†	12213.5	11856.3	88957	ug/L	88957	ppb	12:41:39
2	K 766.490 Radial†	18445.3	14926.2	2423.2	ug/L	2423.2	ppb	12:41:39
2	Mg 279.077 IEC†	160.1	153.0	4526.2	ug/L	4526.2	ppb	12:41:59
2	Na 589.592 Radial†	3631.4	4816.7	1149.7	ug/L	1149.7	ppb	12:41:39
2	Sr 421.552†	5163.7	5012.7	27.398	ug/L	27.398	ppb	12:41:39
2	Sc 361.383	942702.7	942702.7	101.92	%			12:43:02
2	Y 371.029	944886.7	944886.7	124.34	%			12:43:02
2	Ag 328.068†	-6180.8	-6399.2	1.7449	ug/L	1.7449	ppb	12:43:07
2	As 188.979†	-129.5	-96.4	16.080	ug/L	16.080	ppb	12:43:27
2	B 249.677†	387.8	841.5	6.1468	ug/L	6.1468	ppb	12:43:07
2	Ba 233.527†	23317.4	22875.3	162.39	ug/L	162.39	ppb	12:43:07
2	Be 313.107†	-23956.7	-18819.1	2.3341	ug/L	2.3341	ppb	12:43:07
2	Cd 226.502†	743.5	942.7	0.5349	ug/L	0.5349	ppb	12:43:27
2	Co 228.616†	921.1	995.6	6.8536	ug/L	6.8536	ppb	12:43:27
2	Cr 267.716†	1440.1	1309.5	15.365	ug/L	15.365	ppb	12:43:27
2	Cu 324.752†	7057.1	799.8	6.8774	ug/L	6.8774	ppb	12:43:07
2	Mn 257.610†	1777962.8	1743897.2	1786.8	ug/L	1786.8	ppb	12:43:02
2	Mo 202.031†	24.2	-3.7	6.0800	ug/L	6.0800	ppb	12:43:27
2	Ni 231.604†	1436.1	1328.8	29.628	ug/L	29.628	ppb	12:43:27

2	P 214.914†	3602.3	3275.5	1677.9	ug/L	1677.9 ppb	12:43:27
2	Pb 220.353†	449.5	504.8	48.357	ug/L	48.357 ppb	12:43:27
2	S 181.975 Axial†	99.0	45.5	56.816	ug/L	56.816 ppb	12:43:27
2	Sb 206.836†	67.2	25.3	-3.4280	ug/L	-3.4280 ppb	12:43:27
2	Se 196.026†	-458.6	-415.6	37.579	ug/L	37.579 ppb	12:43:27
2	Si 251.611†	283694.3	277761.8	8050.2	ug/L	8050.2 ppb	12:43:07
2	Sn 189.927†	121.8	114.5	19.197	ug/L	19.197 ppb	12:43:27
2	Ti 334.940†	3105786.2	3048648.0	4581.8	ug/L	4581.8 ppb	12:43:02
2	Tl 190.801†	-243.1	-195.6	-6.5031	ug/L	-6.5031 ppb	12:43:27
2	U 409.014†	-15692.6	-12609.3	-367.56	ug/L	-367.56 ppb	12:43:02
2	V 292.402†	9241.6	10580.8	49.972	ug/L	49.972 ppb	12:43:07
2	Zn 213.857†	39560.0	38006.0	313.07	ug/L	313.07 ppb	12:43:07
2	SiO2†	288499.8	282451.6	17519	ug/L	17519 ppb	12:44:09
3	Sc Radial	5997.6	5997.6	105	%		12:42:04
3	Y RADIAL	7695.7	7695.7	131.5	%		12:42:04
3	Al 396.153Radial†	11045.0	10505.3	7931.3	ug/L	7931.3 ppb	12:42:04
3	Ca 317.933Radial†	4473.6	4224.7	6053.9	ug/L	6053.9 ppb	12:42:04
3	Fe 238.204 Radial†	12550.8	11886.1	89181	ug/L	89181 ppb	12:42:04
3	K 766.490 Radial†	18899.7	14919.2	2422.0	ug/L	2422.0 ppb	12:42:04
3	Mg 279.077 IEC†	162.8	151.7	4489.4	ug/L	4489.4 ppb	12:42:24
3	Na 589.592 Radial†	3745.3	4838.6	1154.9	ug/L	1154.9 ppb	12:42:04
3	Sr 421.552†	5355.5	5072.0	27.723	ug/L	27.723 ppb	12:42:04
3	Sc 361.383	949370.8	949370.8	102.65	%		12:43:33
3	Y 371.029	949617.1	949617.1	124.96	%		12:43:33
3	Ag 328.068†	-6180.0	-6355.8	2.0207	ug/L	2.0207 ppb	12:43:38
3	As 188.979†	-126.4	-92.5	17.554	ug/L	17.554 ppb	12:43:58
3	B 249.677†	257.6	712.0	3.3470	ug/L	3.3470 ppb	12:43:38
3	Ba 233.527†	23528.8	22920.6	162.72	ug/L	162.72 ppb	12:43:38
3	Be 313.107†	-23881.6	-18580.8	2.4177	ug/L	2.4177 ppb	12:43:38
3	Cd 226.502†	752.9	946.7	0.5530	ug/L	0.5530 ppb	12:43:58
3	Co 228.616†	930.5	998.4	6.9027	ug/L	6.9027 ppb	12:43:58
3	Cr 267.716†	1483.9	1342.2	15.711	ug/L	15.711 ppb	12:43:58
3	Cu 324.752†	7123.8	816.2	6.9369	ug/L	6.9369 ppb	12:43:38
3	Mn 257.610†	1791372.0	1744708.6	1787.7	ug/L	1787.7 ppb	12:43:33
3	Mo 202.031†	36.0	7.5	6.7906	ug/L	6.7906 ppb	12:43:58
3	Ni 231.604†	1443.8	1326.5	29.577	ug/L	29.577 ppb	12:43:58
3	P 214.914†	3572.2	3221.4	1648.8	ug/L	1648.8 ppb	12:43:58
3	Pb 220.353†	415.2	468.3	44.451	ug/L	44.451 ppb	12:43:58
3	S 181.975 Axial†	95.8	41.7	51.927	ug/L	51.927 ppb	12:43:58
3	Sb 206.836†	70.9	28.4	-2.5159	ug/L	-2.5159 ppb	12:43:58
3	Se 196.026†	-460.3	-414.2	39.076	ug/L	39.076 ppb	12:43:58
3	Si 251.611†	287046.5	279072.6	8088.1	ug/L	8088.1 ppb	12:43:38
3	Sn 189.927†	107.1	99.3	16.901	ug/L	16.901 ppb	12:43:58
3	Ti 334.940†	3127454.3	3048355.1	4581.4	ug/L	4581.4 ppb	12:43:33
3	Tl 190.801†	-257.7	-208.1	-9.8395	ug/L	-9.8395 ppb	12:43:58
3	U 409.014†	-16074.2	-12873.0	-375.04	ug/L	-375.04 ppb	12:43:33
3	V 292.402†	9372.6	10644.7	50.351	ug/L	50.351 ppb	12:43:38
3	Zn 213.857†	39805.2	37972.3	312.76	ug/L	312.76 ppb	12:43:38
3	SiO2†	287721.1	279704.8	17349	ug/L	17349 ppb	12:44:14

Mean Data: 242750005|932281|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	937920.9	101.41	%	1.562				1.54%
Sc Radial	5969.9	105	%	1.9				1.80%
Y 371.029	941291.2	123.87	%	1.394				1.13%
Y RADIAL	7654.4	130.8	%	2.40				1.84%
Ag 328.068†	-6446.0	1.2719	ug/L	1.06703	1.2719	ppb	1.06703	83.89%
Al 396.153Radial†	10376.3	7833.9	ug/L	152.48	7833.9	ppb	152.48	1.95%
As 188.979†	-93.9	17.285	ug/L	1.0960	17.285	ppb	1.0960	6.34%
B 249.677†	787.8	5.1066	ug/L	1.53230	5.1066	ppb	1.53230	30.01%
Ba 233.527†	23150.4	164.27	ug/L	2.985	164.27	ppb	2.985	1.82%
Be 313.107†	-19042.4	2.3466	ug/L	0.06574	2.3466	ppb	0.06574	2.80%
Ca 317.933Radial†	4178.0	5987.1	ug/L	104.89	5987.1	ppb	104.89	1.75%
Cd 226.502†	944.0	0.6306	ug/L	0.15039	0.6306	ppb	0.15039	23.85%
Co 228.616†	1006.7	6.9675	ug/L	0.15669	6.9675	ppb	0.15669	2.25%
Cr 267.716†	1337.1	15.639	ug/L	0.2467	15.639	ppb	0.2467	1.58%
Cu 324.752†	839.6	6.9522	ug/L	0.08354	6.9522	ppb	0.08354	1.20%
Fe 238.204 Radial†	11746.9	88136	ug/L	1619.7	88136	ppb	1619.7	1.84%
K 766.490 Radial†	14757.0	2395.2	ug/L	47.42	2395.2	ppb	47.42	1.98%

Mg 279.077 IEC†	151.9	4495.5	ug/L	28.12	4495.5	ppb	28.12	0.63%
Mn 257.610†	1761961.3	1805.2	ug/L	31.03	1805.2	ppb	31.03	1.72%
Mo 202.031†	7.1	6.6916	ug/L	0.56869	6.6916	ppb	0.56869	8.50%
Na 589.592 Radial†	4775.8	1139.9	ug/L	21.59	1139.9	ppb	21.59	1.89%
Ni 231.604†	1345.0	29.988	ug/L	0.6682	29.988	ppb	0.6682	2.23%
P 214.914†	3285.0	1683.6	ug/L	37.91	1683.6	ppb	37.91	2.25%
Pb 220.353†	483.8	46.170	ug/L	1.9947	46.170	ppb	1.9947	4.32%
S 181.975 Axial†	43.1	53.695	ug/L	2.7110	53.695	ppb	2.7110	5.05%
Sb 206.836†	23.6	-4.0913	ug/L	1.99163	-4.0913	ppb	1.99163	48.68%
Se 196.026†	-422.0	31.502	ug/L	11.8453	31.502	ppb	11.8453	37.60%
Si 251.611†	280898.4	8141.1	ug/L	126.01	8141.1	ppb	126.01	1.55%
Sn 189.927†	109.5	18.421	ug/L	1.3166	18.421	ppb	1.3166	7.15%
Sr 421.552†	4996.1	27.308	ug/L	0.4669	27.308	ppb	0.4669	1.71%
Ti 334.940†	3079683.0	4628.4	ug/L	81.16	4628.4	ppb	81.16	1.75%
Tl 190.801†	-206.3	-8.8877	ug/L	2.07913	-8.8877	ppb	2.07913	23.39%
U 409.014†	-12837.6	-373.91	ug/L	5.866	-373.91	ppb	5.866	1.57%
V 292.402†	10702.2	50.836	ug/L	1.1827	50.836	ppb	1.1827	2.33%
Zn 213.857†	38340.4	315.98	ug/L	5.306	315.98	ppb	5.306	1.68%
SiO2†	283847.7	17606	ug/L	309.5	17606	ppb	309.5	1.76%

Sequence No.: 17
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 12/18/2009 12:46:25
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5715.9	5715.9	101	%			12:48:18
1	Y RADIAL	5875.3	5875.3	100.4	%			12:48:18
1	Al 396.153Radial†	6699.1	6697.3	5034.7	ug/L	5034.7	ppb	12:48:18
1	Ca 317.933Radial†	3559.8	3524.5	5050.6	ug/L	5050.6	ppb	12:48:38
1	Fe 238.204 Radial†	679.0	660.2	4970.0	ug/L	4970.0	ppb	12:48:38
1	K 766.490 Radial†	33576.7	30406.4	4967.3	ug/L	4967.3	ppb	12:48:18
1	Mg 279.077 IEC†	177.1	173.6	5228.2	ug/L	5228.2	ppb	12:48:38
1	Na 589.592 Radial†	38126.3	39223.3	9362.2	ug/L	9362.2	ppb	12:48:18
1	Sr 421.552†	90454.9	89997.5	492.87	ug/L	492.87	ppb	12:48:18
1	Sc 361.383	938479.8	938479.8	101.47	%			12:49:35
1	Y 371.029	751775.1	751775.1	98.929	%			12:49:35
1	Ag 328.068†	117794.5	115755.4	518.20	ug/L	518.20	ppb	12:49:41
1	As 188.979†	1368.7	1379.5	520.82	ug/L	520.82	ppb	12:50:01
1	B 249.677†	24004.1	24117.9	513.70	ug/L	513.70	ppb	12:49:41
1	Ba 233.527†	75585.1	74489.8	518.89	ug/L	518.89	ppb	12:49:41
1	Be 313.107†	1485635.2	1468829.0	521.68	ug/L	521.68	ppb	12:49:35
1	Cd 226.502†	52314.0	51770.5	516.59	ug/L	516.59	ppb	12:49:41
1	Co 228.616†	29499.1	29164.2	521.50	ug/L	521.50	ppb	12:49:41
1	Cr 267.716†	50141.9	49313.2	510.62	ug/L	510.62	ppb	12:49:41
1	Cu 324.752†	185460.9	176653.9	517.04	ug/L	517.04	ppb	12:49:41
1	Mn 257.610†	525010.4	516919.4	527.43	ug/L	527.43	ppb	12:49:35
1	Mo 202.031†	8372.6	8223.9	506.31	ug/L	506.31	ppb	12:50:01
1	Ni 231.604†	23497.1	23077.1	514.40	ug/L	514.40	ppb	12:49:41
1	P 214.914†	5191.3	4857.5	2512.6	ug/L	2512.6	ppb	12:50:01
1	Pb 220.353†	4779.8	4774.5	511.23	ug/L	511.23	ppb	12:50:01
1	S 181.975 Axial†	858.7	794.7	1017.9	ug/L	1017.9	ppb	12:50:01
1	Sb 206.836†	1754.1	1688.0	522.65	ug/L	522.65	ppb	12:50:01
1	Se 196.026†	916.0	937.1	544.05	ug/L	544.05	ppb	12:50:01
1	Si 251.611†	90904.5	89013.4	2568.0	ug/L	2568.0	ppb	12:49:41
1	Sn 189.927†	3380.1	3326.2	505.44	ug/L	505.44	ppb	12:50:01
1	Ti 334.940†	352941.5	349337.6	524.81	ug/L	524.81	ppb	12:49:35
1	Tl 190.801†	1927.3	1942.4	520.39	ug/L	520.39	ppb	12:50:01
1	U 409.014†	16300.0	18851.2	531.13	ug/L	531.13	ppb	12:49:41
1	V 292.402†	77874.0	78261.1	518.30	ug/L	518.30	ppb	12:49:41
1	Zn 213.857†	63073.8	61354.3	515.12	ug/L	515.12	ppb	12:49:41
1	SiO2†	90831.7	88916.6	5489.4	ug/L	5489.4	ppb	12:51:09
2	Sc Radial	5664.8	5664.8	99.6	%			12:48:43
2	Y RADIAL	5806.2	5806.2	99.19	%			12:48:43
2	Al 396.153Radial†	6644.3	6702.6	5038.3	ug/L	5038.3	ppb	12:48:43
2	Ca 317.933Radial†	3544.2	3540.9	5074.0	ug/L	5074.0	ppb	12:49:03
2	Fe 238.204 Radial†	680.2	667.5	5024.6	ug/L	5024.6	ppb	12:49:03
2	K 766.490 Radial†	33273.8	30403.8	4966.8	ug/L	4966.8	ppb	12:48:43
2	Mg 279.077 IEC†	171.6	169.7	5111.7	ug/L	5111.7	ppb	12:49:03
2	Na 589.592 Radial†	37886.0	39324.4	9386.3	ug/L	9386.3	ppb	12:48:43
2	Sr 421.552†	89696.8	90048.7	493.15	ug/L	493.15	ppb	12:48:43
2	Sc 361.383	927320.3	927320.3	100.26	%			12:50:07
2	Y 371.029	741552.0	741552.0	97.584	%			12:50:07
2	Ag 328.068†	118077.3	117434.4	525.72	ug/L	525.72	ppb	12:50:12
2	As 188.979†	1359.7	1386.8	523.54	ug/L	523.54	ppb	12:50:32
2	B 249.677†	24086.0	24484.2	521.50	ug/L	521.50	ppb	12:50:12
2	Ba 233.527†	75921.6	75721.9	527.47	ug/L	527.47	ppb	12:50:12
2	Be 313.107†	1468491.8	1469350.0	521.87	ug/L	521.87	ppb	12:50:07
2	Cd 226.502†	52604.4	52680.5	525.67	ug/L	525.67	ppb	12:50:12
2	Co 228.616†	29713.0	29727.4	531.59	ug/L	531.59	ppb	12:50:12
2	Cr 267.716†	50387.3	50152.6	519.31	ug/L	519.31	ppb	12:50:12
2	Cu 324.752†	185550.5	178942.8	523.74	ug/L	523.74	ppb	12:50:12
2	Mn 257.610†	521998.2	520141.8	530.73	ug/L	530.73	ppb	12:50:07
2	Mo 202.031†	8408.6	8359.1	514.63	ug/L	514.63	ppb	12:50:32
2	Ni 231.604†	23640.8	23499.1	523.80	ug/L	523.80	ppb	12:50:12

2	P 214.914†	5200.1	4927.8	2549.2 ug/L	2549.2 ppb	12:50:32
2	Pb 220.353†	4802.6	4853.9	519.72 ug/L	519.72 ppb	12:50:32
2	S 181.975 Axial†	868.5	814.7	1043.6 ug/L	1043.6 ppb	12:50:32
2	Sb 206.836†	1755.8	1710.6	529.65 ug/L	529.65 ppb	12:50:32
2	Se 196.026†	920.7	952.6	552.97 ug/L	552.97 ppb	12:50:32
2	Si 251.611†	91261.9	90448.0	2609.5 ug/L	2609.5 ppb	12:50:12
2	Sn 189.927†	3387.5	3373.7	512.66 ug/L	512.66 ppb	12:50:32
2	Ti 334.940†	349759.9	350350.2	526.33 ug/L	526.33 ppb	12:50:07
2	Tl 190.801†	1927.0	1965.0	526.36 ug/L	526.36 ppb	12:50:32
2	U 409.014†	16333.0	19077.4	537.50 ug/L	537.50 ppb	12:50:12
2	V 292.402†	78180.9	79490.8	526.45 ug/L	526.45 ppb	12:50:12
2	Zn 213.857†	63335.1	62363.0	523.59 ug/L	523.59 ppb	12:50:12
2	SiO2†	91558.1	90718.4	5600.8 ug/L	5600.8 ppb	12:51:14
3	Sc Radial	5770.4	5770.4	101 %		12:49:08
3	Y RADIAL	5915.2	5915.2	101.1 %		12:49:08
3	Al 396.153Radial†	6750.7	6685.3	5025.4 ug/L	5025.4 ppb	12:49:08
3	Ca 317.933Radial†	3565.8	3497.0	5011.1 ug/L	5011.1 ppb	12:49:28
3	Fe 238.204 Radial†	689.5	664.1	4999.7 ug/L	4999.7 ppb	12:49:28
3	K 766.490 Radial†	33766.7	30278.0	4946.2 ug/L	4946.2 ppb	12:49:08
3	Mg 279.077 IEC†	171.7	166.6	5017.5 ug/L	5017.5 ppb	12:49:28
3	Na 589.592 Radial†	38425.4	39159.5	9347.0 ug/L	9347.0 ppb	12:49:08
3	Sr 421.552†	91176.6	89858.3	492.11 ug/L	492.11 ppb	12:49:08
3	Sc 361.383	923636.3	923636.3	99.863 %		12:50:38
3	Y 371.029	738009.8	738009.8	97.117 %		12:50:38
3	Ag 328.068†	118791.2	118619.1	530.99 ug/L	530.99 ppb	12:50:43
3	As 188.979†	1354.1	1386.6	523.48 ug/L	523.48 ppb	12:51:03
3	B 249.677†	24332.8	24827.2	528.83 ug/L	528.83 ppb	12:50:43
3	Ba 233.527†	76031.2	76133.7	530.33 ug/L	530.33 ppb	12:50:43
3	Be 313.107†	1461049.6	1467739.6	521.30 ug/L	521.30 ppb	12:50:38
3	Cd 226.502†	52734.3	53019.9	529.06 ug/L	529.06 ppb	12:50:43
3	Co 228.616†	29745.4	29878.1	534.27 ug/L	534.27 ppb	12:50:43
3	Cr 267.716†	50540.4	50506.4	522.97 ug/L	522.97 ppb	12:50:43
3	Cu 324.752†	186752.5	180884.7	529.42 ug/L	529.42 ppb	12:50:43
3	Mn 257.610†	520763.4	520981.8	531.58 ug/L	531.58 ppb	12:50:38
3	Mo 202.031†	8318.2	8302.1	511.12 ug/L	511.12 ppb	12:51:03
3	Ni 231.604†	23644.9	23597.3	525.99 ug/L	525.99 ppb	12:50:43
3	P 214.914†	5139.4	4887.7	2526.8 ug/L	2526.8 ppb	12:51:03
3	Pb 220.353†	4742.0	4812.3	515.26 ug/L	515.26 ppb	12:51:03
3	S 181.975 Axial†	848.8	798.4	1022.7 ug/L	1022.7 ppb	12:51:03
3	Sb 206.836†	1735.4	1697.1	525.30 ug/L	525.30 ppb	12:51:03
3	Se 196.026†	910.1	945.6	548.96 ug/L	548.96 ppb	12:51:03
3	Si 251.611†	91740.1	91289.9	2633.9 ug/L	2633.9 ppb	12:50:43
3	Sn 189.927†	3347.9	3347.5	508.67 ug/L	508.67 ppb	12:51:03
3	Ti 334.940†	349100.5	351081.3	527.42 ug/L	527.42 ppb	12:50:38
3	Tl 190.801†	1902.5	1948.0	521.85 ug/L	521.85 ppb	12:51:03
3	U 409.014†	16333.3	19142.7	539.34 ug/L	539.34 ppb	12:50:43
3	V 292.402†	78356.0	79977.2	529.58 ug/L	529.58 ppb	12:50:43
3	Zn 213.857†	63583.9	62864.0	527.82 ug/L	527.82 ppb	12:50:43
3	SiO2†	90820.4	90343.9	5577.8 ug/L	5577.8 ppb	12:51:19

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	929812.1	100.53	%	0.836				0.83%
Sc Radial	5717.0	101	%	0.9				0.92%
Y 371.029	743779.0	97.877	%	0.9406				0.96%
Y RADIAL	5865.6	100.2	%	0.94				0.94%
Ag 328.068†	117269.7	524.97	ug/L	6.427	524.97	ppb	6.427	1.22%
QC value within limits for Ag 328.068 Recovery = 104.99%								
Al 396.153Radial†	6695.1	5032.8	ug/L	6.65	5032.8	ppb	6.65	0.13%
QC value within limits for Al 396.153Radial Recovery = 100.66%								
As 188.979†	1384.3	522.61	ug/L	1.550	522.61	ppb	1.550	0.30%
QC value within limits for As 188.979 Recovery = 104.52%								
B 249.677†	24476.4	521.34	ug/L	7.566	521.34	ppb	7.566	1.45%
QC value within limits for B 249.677 Recovery = 104.27%								
Ba 233.527†	75448.5	525.56	ug/L	5.957	525.56	ppb	5.957	1.13%
QC value within limits for Ba 233.527 Recovery = 105.11%								
Be 313.107†	1468639.5	521.62	ug/L	0.290	521.62	ppb	0.290	0.06%
QC value within limits for Be 313.107 Recovery = 104.32%								
Ca 317.933Radial†	3520.8	5045.2	ug/L	31.78	5045.2	ppb	31.78	0.63%

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   QC value within limits for Ca 317.933Radial  Recovery = 100.90%
Cd 226.502†            52490.3      523.77 ug/L         6.451      523.77 ppb          6.451   1.23%
   QC value within limits for Cd 226.502  Recovery = 104.75%
Co 228.616†            29589.9      529.12 ug/L         6.732      529.12 ppb          6.732   1.27%
   QC value within limits for Co 228.616  Recovery = 105.82%
Cr 267.716†            49990.7      517.64 ug/L         6.345      517.64 ppb          6.345   1.23%
   QC value within limits for Cr 267.716  Recovery = 103.53%
Cu 324.752†           178827.1      523.40 ug/L         6.196      523.40 ppb          6.196   1.18%
   QC value within limits for Cu 324.752  Recovery = 104.68%
Fe 238.204 Radial†       663.9      4998.1 ug/L        27.35      4998.1 ppb         27.35   0.55%
   QC value within limits for Fe 238.204 Radial  Recovery = 99.96%
K 766.490 Radial†      30362.7      4960.1 ug/L        12.02      4960.1 ppb         12.02   0.24%
   QC value within limits for K 766.490 Radial  Recovery = 99.20%
Mg 279.077 IEC†          169.9      5119.1 ug/L       105.55      5119.1 ppb        105.55   2.06%
   QC value within limits for Mg 279.077 IEC  Recovery = 102.38%
Mn 257.610†           519347.7      529.92 ug/L         2.190      529.92 ppb          2.190   0.41%
   QC value within limits for Mn 257.610  Recovery = 105.98%
Mo 202.031†             8295.0      510.68 ug/L         4.179      510.68 ppb          4.179   0.82%
   QC value within limits for Mo 202.031  Recovery = 102.14%
Na 589.592 Radial†     39235.7      9365.2 ug/L        19.84      9365.2 ppb         19.84   0.21%
   QC value within limits for Na 589.592 Radial  Recovery = 93.65%
Ni 231.604†            23391.1      521.40 ug/L         6.160      521.40 ppb          6.160   1.18%
   QC value within limits for Ni 231.604  Recovery = 104.28%
P 214.914†              4891.0      2529.5 ug/L        18.41      2529.5 ppb         18.41   0.73%
   QC value within limits for P 214.914  Recovery = 101.18%
Pb 220.353†             4813.5      515.40 ug/L         4.247      515.40 ppb          4.247   0.82%
   QC value within limits for Pb 220.353  Recovery = 103.08%
S 181.975 Axial†         802.6      1028.1 ug/L        13.65      1028.1 ppb         13.65   1.33%
   QC value within limits for S 181.975 Axial  Recovery = 102.81%
Sb 206.836†             1698.6      525.87 ug/L         3.532      525.87 ppb          3.532   0.67%
   QC value within limits for Sb 206.836  Recovery = 105.17%
Se 196.026†              945.1      548.66 ug/L         4.467      548.66 ppb          4.467   0.81%
   QC value within limits for Se 196.026  Recovery = 109.73%
Si 251.611†            90250.4      2603.8 ug/L        33.31      2603.8 ppb         33.31   1.28%
   QC value within limits for Si 251.611  Recovery = 104.15%
Sn 189.927†             3349.1      508.92 ug/L         3.615      508.92 ppb          3.615   0.71%
   QC value within limits for Sn 189.927  Recovery = 101.78%
Sr 421.552†            89968.2      492.71 ug/L         0.539      492.71 ppb          0.539   0.11%
   QC value within limits for Sr 421.552  Recovery = 98.54%
Ti 334.940†           350256.4      526.19 ug/L         1.311      526.19 ppb          1.311   0.25%
   QC value within limits for Ti 334.940  Recovery = 105.24%
Tl 190.801†             1951.8      522.87 ug/L         3.113      522.87 ppb          3.113   0.60%
   QC value within limits for Tl 190.801  Recovery = 104.57%
U 409.014†             19023.8      535.99 ug/L         4.308      535.99 ppb          4.308   0.80%
   QC value within limits for U 409.014  Recovery = 107.20%
V 292.402†             79243.0      524.77 ug/L         5.825      524.77 ppb          5.825   1.11%
   QC value within limits for V 292.402  Recovery = 104.95%
Zn 213.857†            62193.8      522.17 ug/L         6.469      522.17 ppb          6.469   1.24%
   QC value within limits for Zn 213.857  Recovery = 104.43%
SiO2†                  89993.0      5556.0 ug/L        58.81      5556.0 ppb         58.81   1.06%
   QC value within limits for SiO2  Recovery = 103.90%
All analyte(s) passed QC.
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Sequence No.: 18
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 12/18/2009 12:53:28
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5856.0	5856.0	103	%			12:55:21
1	Y RADIAL	5965.0	5965.0	101.9	%			12:55:21
1	Al 396.153Radial†	-2.9	28.9	21.768	ug/L	21.768	ppb	12:55:21
1	Ca 317.933Radial†	26.7	8.4	12.061	ug/L	12.061	ppb	12:55:41
1	Fe 238.204 Radial†	11.7	-4.1	-30.795	ug/L	-30.795	ppb	12:55:41
1	K 766.490 Radial†	2976.7	-111.9	-18.357	ug/L	-18.357	ppb	12:55:21
1	Mg 279.077 IEC†	2.9	0.2	6.1343	ug/L	6.1343	ppb	12:55:41
1	Na 589.592 Radial†	-849.0	462.4	110.37	ug/L	110.37	ppb	12:55:21
1	Sr 421.552†	-10.1	-16.3	-0.0896	ug/L	-0.0896	ppb	12:55:21
1	Sc 361.383	932152.4	932152.4	100.78	%			12:56:38
1	Y 371.029	757314.8	757314.8	99.658	%			12:56:38
1	Ag 328.068†	321.5	-16.1	-0.0917	ug/L	-0.0917	ppb	12:56:43
1	As 188.979†	-30.1	0.8	0.2809	ug/L	0.2809	ppb	12:57:03
1	B 249.677†	-353.2	110.5	2.3674	ug/L	2.3674	ppb	12:57:03
1	Ba 233.527†	-30.2	-31.8	-0.2216	ug/L	-0.2216	ppb	12:57:03
1	Be 313.107†	-4867.6	-144.5	-0.0509	ug/L	-0.0509	ppb	12:56:43
1	Cd 226.502†	-224.2	-9.2	-0.0894	ug/L	-0.0894	ppb	12:57:03
1	Co 228.616†	-92.8	-0.2	-0.0016	ug/L	-0.0016	ppb	12:57:03
1	Cr 267.716†	92.3	-11.8	-0.1266	ug/L	-0.1266	ppb	12:57:03
1	Cu 324.752†	6031.5	-139.4	-0.4095	ug/L	-0.4095	ppb	12:56:43
1	Mn 257.610†	516.1	16.1	0.0132	ug/L	0.0132	ppb	12:57:03
1	Mo 202.031†	39.1	11.2	0.6894	ug/L	0.6894	ppb	12:57:03
1	Ni 231.604†	65.2	-15.4	-0.3446	ug/L	-0.3446	ppb	12:57:03
1	P 214.914†	262.2	1.5	0.8863	ug/L	0.8863	ppb	12:57:03
1	Pb 220.353†	-62.8	1.5	0.1719	ug/L	0.1719	ppb	12:57:03
1	S 181.975 Axial†	53.5	1.5	1.8612	ug/L	1.8612	ppb	12:57:03
1	Sb 206.836†	43.5	2.5	0.7960	ug/L	0.7960	ppb	12:57:03
1	Se 196.026†	-25.0	9.5	5.2551	ug/L	5.2551	ppb	12:57:03
1	Si 251.611†	589.3	8.6	0.2404	ug/L	0.2404	ppb	12:57:03
1	Sn 189.927†	11.4	6.3	0.9590	ug/L	0.9590	ppb	12:57:03
1	Ti 334.940†	-1416.4	96.4	0.1403	ug/L	0.1403	ppb	12:56:43
1	Tl 190.801†	-48.6	-5.3	-1.3988	ug/L	-1.3988	ppb	12:57:03
1	U 409.014†	-2391.3	414.3	11.712	ug/L	11.712	ppb	12:56:38
1	V 292.402†	-1512.8	12.6	0.1198	ug/L	0.1198	ppb	12:56:43
1	Zn 213.857†	815.9	2.5	0.0267	ug/L	0.0267	ppb	12:57:03
1	SiO2†	538.6	-66.7	-4.1581	ug/L	-4.1581	ppb	12:58:09
2	Sc Radial	5588.8	5588.8	98.3	%			12:55:46
2	Y RADIAL	5800.4	5800.4	99.09	%			12:55:46
2	Al 396.153Radial†	-24.7	6.5	4.9401	ug/L	4.9401	ppb	12:55:46
2	Ca 317.933Radial†	23.7	6.6	9.4311	ug/L	9.4311	ppb	12:56:06
2	Fe 238.204 Radial†	14.3	-0.8	-6.2251	ug/L	-6.2251	ppb	12:56:06
2	K 766.490 Radial†	2768.4	-185.7	-30.439	ug/L	-30.439	ppb	12:55:46
2	Mg 279.077 IEC†	1.8	-0.8	-23.312	ug/L	-23.312	ppb	12:56:06
2	Na 589.592 Radial†	-849.8	422.2	100.78	ug/L	100.78	ppb	12:55:46
2	Sr 421.552†	10.4	4.1	0.0223	ug/L	0.0223	ppb	12:55:46
2	Sc 361.383	929082.8	929082.8	100.45	%			12:57:08
2	Y 371.029	754661.2	754661.2	99.309	%			12:57:08
2	Ag 328.068†	257.9	-78.3	-0.3572	ug/L	-0.3572	ppb	12:57:13
2	As 188.979†	-29.2	1.5	0.5782	ug/L	0.5782	ppb	12:57:33
2	B 249.677†	-378.3	84.5	1.8066	ug/L	1.8066	ppb	12:57:33
2	Ba 233.527†	-7.1	-8.9	-0.0609	ug/L	-0.0609	ppb	12:57:33
2	Be 313.107†	-4835.3	-128.2	-0.0453	ug/L	-0.0453	ppb	12:57:13
2	Cd 226.502†	-230.4	-16.1	-0.1607	ug/L	-0.1607	ppb	12:57:33
2	Co 228.616†	-85.8	6.4	0.1144	ug/L	0.1144	ppb	12:57:33
2	Cr 267.716†	107.2	3.3	0.0317	ug/L	0.0317	ppb	12:57:33
2	Cu 324.752†	5977.1	-173.8	-0.5089	ug/L	-0.5089	ppb	12:57:13
2	Mn 257.610†	521.9	23.5	0.0238	ug/L	0.0238	ppb	12:57:33
2	Mo 202.031†	24.0	-3.6	-0.2235	ug/L	-0.2235	ppb	12:57:33
2	Ni 231.604†	61.6	-18.8	-0.4185	ug/L	-0.4185	ppb	12:57:33

2	P 214.914†	272.2	12.3	6.6644	ug/L	6.6644 ppb	12:57:33
2	Pb 220.353†	-70.3	-6.2	-0.6619	ug/L	-0.6619 ppb	12:57:33
2	S 181.975 Axial†	52.4	0.5	0.6773	ug/L	0.6773 ppb	12:57:33
2	Sb 206.836†	49.6	8.7	2.6768	ug/L	2.6768 ppb	12:57:33
2	Se 196.026†	-24.0	10.3	5.7968	ug/L	5.7968 ppb	12:57:33
2	Si 251.611†	618.0	39.2	1.1435	ug/L	1.1435 ppb	12:57:33
2	Sn 189.927†	18.6	13.5	2.0487	ug/L	2.0487 ppb	12:57:33
2	Ti 334.940†	-1475.0	33.4	0.0464	ug/L	0.0464 ppb	12:57:13
2	Tl 190.801†	-36.4	6.7	1.7857	ug/L	1.7857 ppb	12:57:33
2	U 409.014†	-2458.2	339.9	9.6065	ug/L	9.6065 ppb	12:57:08
2	V 292.402†	-1452.7	67.5	0.4570	ug/L	0.4570 ppb	12:57:13
2	Zn 213.857†	823.2	12.4	0.1097	ug/L	0.1097 ppb	12:57:33
2	SiO2†	615.0	11.1	0.7045	ug/L	0.7045 ppb	12:58:14
3	Sc Radial	5846.5	5846.5	103	%		12:56:11
3	Y RADIAL	6087.6	6087.6	104.0	%		12:56:11
3	Al 396.153Radial†	-26.8	5.6	4.2153	ug/L	4.2153 ppb	12:56:11
3	Ca 317.933Radial†	27.8	9.5	13.625	ug/L	13.625 ppb	12:56:31
3	Fe 238.204 Radial†	12.5	-3.3	-24.832	ug/L	-24.832 ppb	12:56:31
3	K 766.490 Radial†	3000.0	-84.6	-13.879	ug/L	-13.879 ppb	12:56:11
3	Mg 279.077 IEC†	2.8	0.1	3.1399	ug/L	3.1399 ppb	12:56:31
3	Na 589.592 Radial†	-918.3	393.6	93.958	ug/L	93.958 ppb	12:56:11
3	Sr 421.552†	49.5	41.6	0.2277	ug/L	0.2277 ppb	12:56:11
3	Sc 361.383	928415.8	928415.8	100.38	%		12:57:39
3	Y 371.029	753596.9	753596.9	99.169	%		12:57:39
3	Ag 328.068†	269.6	-66.5	-0.3102	ug/L	-0.3102 ppb	12:57:44
3	As 188.979†	-24.5	6.2	2.3199	ug/L	2.3199 ppb	12:58:04
3	B 249.677†	-376.1	86.3	1.8503	ug/L	1.8503 ppb	12:58:04
3	Ba 233.527†	-14.5	-16.3	-0.1133	ug/L	-0.1133 ppb	12:58:04
3	Be 313.107†	-4949.1	-245.1	-0.0864	ug/L	-0.0864 ppb	12:57:44
3	Cd 226.502†	-211.7	2.4	0.0261	ug/L	0.0261 ppb	12:58:04
3	Co 228.616†	-114.9	-22.6	-0.4031	ug/L	-0.4031 ppb	12:58:04
3	Cr 267.716†	91.8	-11.9	-0.1258	ug/L	-0.1258 ppb	12:58:04
3	Cu 324.752†	6053.9	-93.0	-0.2734	ug/L	-0.2734 ppb	12:57:44
3	Mn 257.610†	518.2	20.1	0.0180	ug/L	0.0180 ppb	12:58:04
3	Mo 202.031†	33.8	6.1	0.3761	ug/L	0.3761 ppb	12:58:04
3	Ni 231.604†	74.4	-6.0	-0.1336	ug/L	-0.1336 ppb	12:58:04
3	P 214.914†	256.1	-3.6	-1.8607	ug/L	-1.8607 ppb	12:58:04
3	Pb 220.353†	-58.1	5.9	0.6362	ug/L	0.6362 ppb	12:58:04
3	S 181.975 Axial†	54.7	2.9	3.6998	ug/L	3.6998 ppb	12:58:04
3	Sb 206.836†	44.9	4.0	1.2428	ug/L	1.2428 ppb	12:58:04
3	Se 196.026†	-31.3	3.1	1.6653	ug/L	1.6653 ppb	12:58:04
3	Si 251.611†	590.4	12.0	0.3469	ug/L	0.3469 ppb	12:58:04
3	Sn 189.927†	5.3	0.3	0.0434	ug/L	0.0434 ppb	12:58:04
3	Ti 334.940†	-1339.6	167.3	0.2481	ug/L	0.2481 ppb	12:57:44
3	Tl 190.801†	-53.1	-9.9	-2.6370	ug/L	-2.6370 ppb	12:58:04
3	U 409.014†	-2473.8	322.5	9.1187	ug/L	9.1187 ppb	12:57:39
3	V 292.402†	-1449.4	69.7	0.4821	ug/L	0.4821 ppb	12:57:44
3	Zn 213.857†	810.5	0.4	0.0069	ug/L	0.0069 ppb	12:58:04
3	SiO2†	632.4	28.9	1.7901	ug/L	1.7901 ppb	12:58:19

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	929883.7	100.54	%	0.215				0.21%
Sc Radial	5763.8	101	%	2.7				2.63%
Y 371.029	755191.0	99.378	%	0.2520				0.25%
Y RADIAL	5951.0	101.7	%	2.46				2.42%
Ag 328.068†	-53.6	-0.2531	ug/L	0.14166	-0.2531	ppb	0.14166	55.98%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	13.7	10.308	ug/L	9.9315	10.308	ppb	9.9315	96.35%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	2.8	1.0596	ug/L	1.10146	1.0596	ppb	1.10146	103.95%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	93.8	2.0081	ug/L	0.31195	2.0081	ppb	0.31195	15.53%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-19.0	-0.1319	ug/L	0.08199	-0.1319	ppb	0.08199	62.14%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-172.6	-0.0609	ug/L	0.02226	-0.0609	ppb	0.02226	36.55%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	8.2	11.706	ug/L	2.1194	11.706	ppb	2.1194	18.11%

```
   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              -7.7     -0.0747 ug/L       0.09426     -0.0747 ppb        0.09426 126.26%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†              -5.5     -0.0968 ug/L       0.27157     -0.0968 ppb        0.27157 280.59%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -6.8     -0.0736 ug/L       0.09117     -0.0736 ppb        0.09117 123.96%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -135.4     -0.3973 ug/L       0.11822     -0.3973 ppb        0.11822  29.76%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       -2.7     -20.617 ug/L       12.8158     -20.617 ppb        12.8158  62.16%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†      -127.4     -20.892 ug/L        8.5658     -20.892 ppb         8.5658  41.00%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          -0.2     -4.6792 ug/L      16.20558     -4.6792 ppb       16.20558 346.33%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              19.9      0.0183 ug/L       0.00532      0.0183 ppb        0.00532  29.00%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               4.6      0.2807 ug/L       0.46387      0.2807 ppb        0.46387 165.27%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       426.1      101.70 ug/L         8.243      101.70 ppb          8.243   8.10%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              -13.4     -0.2989 ug/L       0.14787     -0.2989 ppb        0.14787  49.47%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                3.4      1.8967 ug/L       4.35143      1.8967 ppb        4.35143 229.42%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               0.4      0.0487 ug/L       0.65776      0.0487 ppb        0.65776 >999.9%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          1.6      2.0794 ug/L       1.52300      2.0794 ppb        1.52300  73.24%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               5.1      1.5719 ug/L       0.98263      1.5719 ppb        0.98263  62.51%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               7.6      4.2391 ug/L       2.24534      4.2391 ppb        2.24534  52.97%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†              19.9      0.5769 ug/L       0.49358      0.5769 ppb        0.49358  85.55%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               6.7      1.0170 ug/L       1.00394      1.0170 ppb        1.00394  98.71%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               9.8      0.0535 ug/L       0.16092      0.0535 ppb        0.16092 301.06%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              99.0      0.1450 ug/L       0.10093      0.1450 ppb        0.10093  69.63%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -2.8     -0.7500 ug/L       2.28163     -0.7500 ppb        2.28163 304.21%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              358.9      10.146 ug/L        1.3781      10.146 ppb         1.3781  13.58%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               49.9      0.3530 ug/L       0.20233      0.3530 ppb        0.20233  57.32%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               5.1      0.0478 ug/L       0.05457      0.0478 ppb        0.05457 114.26%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                    -8.9     -0.5545 ug/L       3.16763     -0.5545 ppb        3.16763 571.26%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

ICPMS #5 Daily Performance Report

Sample ID: Sample
Sample Date/Time: Sunday, December 20, 2009 11:52:29
Sample Description:
Method File: c:\elandata\Method\Daily2.mth
Dataset File: c:\elandata\Dataset\default2\Sample.1572
Tuning File: c:\elandata\Tuning\default2.tun
Optimization File: c:\elandata\Optimize\default.dac
Dual Detector Mode: Pulse

Acq. Dead Time(ns): 35
Current Dead Time (ns): 35

Number of Replicates: 5

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Be	9.0	6232.8	6232.760	121.551	2.0
	Mg	24.0	57272.0	57271.978	417.606	0.7
	Co	58.9	130761.4	130761.384	1494.165	1.1
	Rh	102.9	239845.5	239845.479	1133.917	0.5
	In	114.9	311512.3	311512.270	1968.737	0.6
	Pb	208.0	299156.1	299156.147	3325.827	1.1
⌈>	Ba	137.9	296479.7	296479.705	2795.772	0.9
⌊	Ba++	69.0	6994.0	0.024	0.000	1.3
⌈>	Ce	139.9	363593.5	363593.523	1445.927	0.4
⌊	CeO	155.9	8869.6	0.024	0.000	1.8
	Bkgd	220.0	25.1	25.100	1.557	6.2

Current Optimization File Data

Current Value	Description
0.88	Nebulizer Gas Flow
8.25	Lens Voltage
1450.00	ICP RF Power
-1687.50	Analog Stage Voltage
1200.00	Pulse Stage Voltage
275.00	Discriminator Threshold
-6.00	AC Rod Offset

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	13	7.5	7027.7
Co	59	13	8.0	126550.7
In	115	13	9.0	309282.8

ICPMS #5 Instrument Tuning Report

File Name: default2.tun
File Path: c:\elandata\Tuning

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Pk. Width
He	3.0	3.0	587	2055	0.640
Be	9.0	9.0	2037	2070	0.646
Mg	24.0	24.0	5685	2070	0.663
Mg	25.0	25.0	5949	2070	0.668
Mg	26.0	26.0	6165	2070	0.670
Co	58.9	59.0	14190	2105	0.642
Rh	102.9	102.9	24879	2165	0.630
In	114.9	114.9	27793	2185	0.626
Ce	139.9	139.9	33865	2200	0.642
Pb	206.0	206.0	49936	2270	0.640
Pb	207.0	207.0	50183	2235	0.691
Pb	208.0	208.0	50427	2260	0.720
U	238.1	238.1	57732	2275	0.721

ICPMS#5 - Summary Report

Sample ID: Blank
Sample Date/Time: Sunday, December 20, 2009 16:39:14
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\091220\Blank.055

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7		ug/L		168	
	Be	9		ug/L		23	
	B	11		ug/L		933	
	Na	23		ug/L		18679	
	Mg	24		ug/L		1000	
	Al	27		ug/L		13341	
	P	31		ug/L		8956	
	K	39		ug/L		679456	
	Ca	43		ug/L		629	
>	Sc	45		ug/L		852945	
	Ti	47		ug/L		516	
	V	51		ug/L		8030	
	Cr	52		ug/L		8176	
	Cr	53		ug/L		164826	
	Mn	55		ug/L		1587	
	Fe	57		ug/L		9628	
	Co	59		ug/L		188	
	Ni	60		ug/L		119	
	Cu	63		ug/L		281	
	Cu	65		ug/L		176	
	Zn	66		ug/L		439	
	Zn	67		ug/L		19237	
	Zn	68		ug/L		1442	
>	Ge	74		ug/L		695712	
	As	75		ug/L		11	
	Se	77		ug/L		10335	
	Se	82		ug/L		-32	
	Kr	83		ug/L		191	
	Sr	88		ug/L		262	
	Y	89		ug/L		88	
	Mo	98		ug/L		103	
	Ag	107		ug/L		74	
	Cd	111		ug/L		37	
	Cd	114		ug/L		55	
>	In	115		ug/L		421813	
	Sn	120		ug/L		320	
	Sb	121		ug/L		464	
	Sb	123		ug/L		349	
	Ba	135		ug/L		59	
	Ba	137		ug/L		68	
	Ho	165		ug/L		69	
>	Lu	175		ug/L		657548	
	Tl	205		ug/L		3472	
	Pb	208		ug/L		956	
	Bi	209		ug/L		49	
	Th	232		ug/L		848	
	U	238		ug/L		502	

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	0.9999
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9999
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9999
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45					
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115					
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175					
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Sunday, December 20, 2009 16:45:21
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\091220\Standard 1.056

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	10.000	ug/L	1.337	26839	0.031
	Be	9	10.000	ug/L	4.345	6341	0.007
	B	11	20.000	ug/L	2.397	15145	0.016
	Na	23	1000.000	ug/L	8.067	5529538	6.401
	Mg	24	1000.000	ug/L	6.577	4075052	4.732
	Al	27	1000.000	ug/L	6.673	6308913	7.305
	P	31	1000.000	ug/L	2.233	404958	0.460
	K	39	1000.000	ug/L	7.911	9241933	9.934
	Ca	43	1000.000	ug/L	1.898	21754	0.025
>	Sc	45		ug/L		861183	861182.898
	Ti	47	10.000	ug/L	1.841	10784	0.012
	V	51	10.000	ug/L	8.599	138624	0.152
	Cr	52	10.000	ug/L	1.460	106699	0.114
	Cr	53		ug/L		176646	0.012
	Mn	55	10.000	ug/L	1.699	166990	0.192
	Fe	57	1000.000	ug/L	1.172	338508	0.382
	Co	59	10.000	ug/L	1.882	132552	0.154
	Ni	60	10.000	ug/L	1.666	28835	0.033
	Cu	63		ug/L		69282	0.080
	Cu	65	10.000	ug/L	0.345	34190	0.039
	Zn	66	10.000	ug/L	2.495	21816	0.030
	Zn	67		ug/L		22452	0.004
	Zn	68		ug/L		17348	0.022
>	Ge	74		ug/L		708354	708354.096
	As	75	10.000	ug/L	2.513	21162	0.030
	Se	77		ug/L		12297	0.003
	Se	82	10.000	ug/L	1.141	2120	0.003
	Kr	83		ug/L		171	-0.000
	Sr	88	10.000	ug/L	3.582	252462	0.606
	Y	89		ug/L		123	0.000
	Mo	98	10.000	ug/L	2.633	59650	0.143
	Ag	107	10.000	ug/L	2.832	106710	0.256
	Cd	111	10.000	ug/L	2.224	24594	0.059
	Cd	114		ug/L		58578	0.141
>	In	115		ug/L		416063	416063.045
	Sn	120	10.000	ug/L	2.740	103541	0.248
	Sb	121	10.000	ug/L	1.841	86107	0.206
	Sb	123		ug/L		67753	0.162
	Ba	135		ug/L		24794	0.038
	Ba	137	10.000	ug/L	4.261	43822	0.067
	Ho	165		ug/L		80	0.000
>	Lu	175		ug/L		651665	651665.028
	Tl	205	10.000	ug/L	3.004	342955	0.521
	Pb	208	10.000	ug/L	3.863	530598	0.814
	Bi	209		ug/L		97	0.000
	Th	232	10.000	ug/L	3.851	637066	0.977
	U	238	10.000	ug/L	5.084	664043	1.020

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45					
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115					
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175					
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Sunday, December 20, 2009 16:51:25
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\091220\Standard 2.057

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**99.988**	**ug/L**	0.448	260478	0.306
	Be	9	**99.973**	**ug/L**	1.090	60841	0.071
	B	11	**199.929**	**ug/L**	3.008	136449	0.159
	Na	23	**10007.211**	**ug/L**	9.856	58752239	69.040
	Mg	24	**10002.424**	**ug/L**	3.601	41286786	48.508
	Al	27	**9996.775**	**ug/L**	6.375	60195943	70.745
	P	31	**9994.483**	**ug/L**	0.701	3714746	4.355
	K	39	**9999.098**	**ug/L**	2.419	84446004	98.441
	Ca	43	**9998.048**	**ug/L**	2.666	205295	0.241
>	Sc	45		**ug/L**		850943	850943.416
	Ti	47	**99.991**	**ug/L**	2.284	101033	0.118
	V	51	**99.885**	**ug/L**	1.813	1164608	1.359
	Cr	52	**99.953**	**ug/L**	1.368	936907	1.092
	Cr	53		**ug/L**		268144	0.122
	Mn	55	**99.888**	**ug/L**	0.551	1469270	1.725
	Fe	57	**9982.719**	**ug/L**	0.873	2775182	3.250
	Co	59	**99.893**	**ug/L**	1.383	1179997	1.387
	Ni	60	**99.952**	**ug/L**	1.970	270807	0.318
	Cu	63		**ug/L**		630670	0.741
	Cu	65	**99.937**	**ug/L**	1.415	316225	0.371
	Zn	66	**99.957**	**ug/L**	1.002	201012	0.289
	Zn	67		**ug/L**		52138	0.048
	Zn	68		**ug/L**		152686	0.218
>	Ge	74		**ug/L**		693706	693706.215
	As	75	**100.017**	**ug/L**	1.029	210751	0.304
	Se	77		**ug/L**		26136	0.023
	Se	82	**99.978**	**ug/L**	2.236	20591	0.030
	Kr	83		**ug/L**		204	0.000
	Sr	88	**99.887**	**ug/L**	1.679	2217320	5.442
	Y	89		**ug/L**		315	0.001
	Mo	98	**99.982**	**ug/L**	1.047	573072	1.406
	Ag	107	**99.920**	**ug/L**	2.140	966537	2.373
	Cd	111	**99.974**	**ug/L**	1.961	234488	0.576
	Cd	114		**ug/L**		552277	1.356
>	In	115		**ug/L**		407417	407416.918
	Sn	120	**99.934**	**ug/L**	2.063	948313	2.327
	Sb	121	**99.953**	**ug/L**	1.940	801273	1.966
	Sb	123		**ug/L**		638729	1.567
	Ba	135		**ug/L**		243278	0.376
	Ba	137	**99.971**	**ug/L**	1.399	421943	0.653
	Ho	165		**ug/L**		83	0.000
>	Lu	175		**ug/L**		646195	646194.714
	Tl	205	**99.860**	**ug/L**	2.347	2955516	4.569
	Pb	208	**99.851**	**ug/L**	0.259	4570325	7.071
	Bi	209		**ug/L**		468	0.001
	Th	232	**99.845**	**ug/L**	0.713	5460564	8.449
	U	238	**99.873**	**ug/L**	1.018	5838300	9.034

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	0.9999
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	0.9999
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	0.9999
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	0.9999
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9999
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9999
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45					
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115					
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175					
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Sunday, December 20, 2009 16:57:29
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\091220\QC Std 1.058

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**52.579**	ug/L	1.718	136535	0.161
	Be	9	**52.836**	ug/L	1.360	32039	0.038
	B	11	**104.705**	ug/L	0.316	71637	0.083
	Na	23	**4917.039**	ug/L	7.998	28764117	33.923
	Mg	24	**5135.742**	ug/L	5.539	21110630	24.906
	Al	27	**5072.791**	ug/L	7.370	30449994	35.899
	P	31	**5035.085**	ug/L	1.157	1868615	2.194
	K	39	**5378.405**	ug/L	9.546	45568294	52.950
	Ca	43	**5187.980**	ug/L	0.504	106419	0.125
>	Sc	45		ug/L		847656	847655.745
	Ti	47	**51.479**	ug/L	1.184	52057	0.061
	V	51	**53.516**	ug/L	0.992	625254	0.728
	Cr	52	**53.418**	ug/L	0.974	502603	0.583
	Cr	53		ug/L		218543	0.065
	Mn	55	**55.067**	ug/L	1.233	807518	0.951
	Fe	57	**5452.885**	ug/L	2.690	1514335	1.775
	Co	59	**52.896**	ug/L	0.785	622538	0.734
	Ni	60	**53.773**	ug/L	0.481	145172	0.171
	Cu	63		ug/L		334904	0.395
	Cu	65	**52.560**	ug/L	1.046	165740	0.195
	Zn	66	**53.721**	ug/L	1.784	108549	0.155
	Zn	67		ug/L		36473	0.025
	Zn	68		ug/L		81861	0.116
>	Ge	74		ug/L		695795	695794.939
	As	75	**51.178**	ug/L	1.240	108165	0.155
	Se	77		ug/L		18710	0.012
	Se	82	**51.579**	ug/L	1.434	10638	0.015
	Kr	83		ug/L		173	-0.000
	Sr	88	**53.872**	ug/L	2.439	1206499	2.935
	Y	89		ug/L		151	0.000
	Mo	98	**50.598**	ug/L	1.691	292639	0.712
	Ag	107	**52.664**	ug/L	1.377	514064	1.251
	Cd	111	**52.024**	ug/L	2.293	123133	0.300
	Cd	114		ug/L		287965	0.700
>	In	115		ug/L		411053	411052.605
	Sn	120	**52.964**	ug/L	1.170	507284	1.233
	Sb	121	**52.215**	ug/L	1.698	422572	1.027
	Sb	123		ug/L		332711	0.809
	Ba	135		ug/L		125267	0.192
	Ba	137	**51.001**	ug/L	1.230	217235	0.333
	Ho	165		ug/L		111	0.000
>	Lu	175		ug/L		652014	652014.104
	Tl	205	**50.992**	ug/L	1.031	1524527	2.333
	Pb	208	**54.129**	ug/L	0.712	2500158	3.833
	Bi	209		ug/L		548	0.001
	Th	232	**51.675**	ug/L	2.082	2851713	4.373
	U	238	**52.992**	ug/L	1.716	3125719	4.794

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	0.9999
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	0.9999
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	0.9999
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	0.9999
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9999
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9999
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7	105.158				
	Be	9	105.672				
	B	11	104.705				
	Na	23	98.341				
	Mg	24	102.715				
	Al	27	100.451				
	P	31	100.702				
	K	39	107.568				
	Ca	43	103.760				
>	Sc	45		99.4			
	Ti	47	102.958				
	V	51	107.031				
	Cr	52	106.837				
	Cr	53					
	Mn	55	110.134				
	Fe	57	109.058				
	Co	59	105.792				
	Ni	60	107.546				
	Cu	63					
	Cu	65	105.120				
	Zn	66	107.442				
	Zn	67					
	Zn	68					
>	Ge	74		100.0			
	As	75	102.356				
	Se	77					
	Se	82	103.157				
	Kr	83					
	Sr	88	107.744				
	Y	89					
	Mo	98	101.196				
	Ag	107	105.328				
	Cd	111	104.049				
	Cd	114					
>	In	115		97.4			
	Sn	120	105.929				
	Sb	121	104.430				
	Sb	123					
	Ba	135					
	Ba	137	102.002				
	Ho	165					
>	Lu	175		99.2			
	Tl	205	101.984				
	Pb	208	108.257				
	Bi	209					
	Th	232	103.350				
	U	238	105.984				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 1	Mn	55	ICV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Sunday, December 20, 2009 17:03:37
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\091220\QC Std 2.059

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	0.016	ug/L	43.312	218	0.000
	Be	9	0.003	ug/L	230.955	26	0.000
	B	11	0.888	ug/L	25.229	1596	0.001
	Na	23	0.923	ug/L	191.416	25025	0.006
	Mg	24	1.241	ug/L	72.261	6335	0.006
	Al	27	-0.932	ug/L	60.598	8003	-0.007
	P	31	0.515	ug/L	308.261	9504	0.000
	K	39	15.444	ug/L	87.477	839889	0.152
	Ca	43	0.305	ug/L	270.405	660	0.000
>	Sc	45		ug/L		886693	886692.591
	Ti	47	-0.001	ug/L	4420.499	536	-0.000
	V	51	0.413	ug/L	93.762	13313	0.006
	Cr	52	0.152	ug/L	98.520	9984	0.002
	Cr	53		ug/L		172554	0.001
	Mn	55	-0.001	ug/L	507.525	1641	-0.000
	Fe	57	4.128	ug/L	17.916	11198	0.001
	Co	59	0.002	ug/L	97.181	215	0.000
	Ni	60	0.006	ug/L	47.881	140	0.000
	Cu	63		ug/L		333	0.000
	Cu	65	0.008	ug/L	24.161	209	0.000
	Zn	66	-0.006	ug/L	195.902	425	-0.000
	Zn	67		ug/L		19477	0.000
	Zn	68		ug/L		1506	0.000
>	Ge	74		ug/L		695070	695069.661
	As	75	-0.233	ug/L	84.941	-476	-0.001
	Se	77		ug/L		11548	0.002
	Se	82	-0.004	ug/L	2361.127	-33	-0.000
	Kr	83		ug/L		187	-0.000
	Sr	88	0.003	ug/L	13.052	346	0.000
	Y	89		ug/L		70	-0.000
	Mo	98	0.036	ug/L	10.534	323	0.001
	Ag	107	0.004	ug/L	37.746	116	0.000
	Cd	111	0.003	ug/L	143.690	45	0.000
	Cd	114		ug/L		78	0.000
>	In	115		ug/L		427297	427297.460
	Sn	120	0.028	ug/L	13.192	604	0.001
	Sb	121	0.185	ug/L	19.521	2029	0.004
	Sb	123		ug/L		1566	0.003
	Ba	135		ug/L		48	-0.000
	Ba	137	0.002	ug/L	124.787	76	0.000
	Ho	165		ug/L		75	0.000
>	Lu	175		ug/L		657465	657464.709
	Tl	205	0.339	ug/L	20.631	13683	0.016
	Pb	208	0.002	ug/L	29.788	1056	0.000
	Bi	209		ug/L		52	0.000
	Th	232	0.058	ug/L	16.315	4094	0.005
	U	238	0.007	ug/L	28.763	929	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	0.9999
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	0.9999
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	0.9999
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		104.0			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		99.9			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		101.3			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		100.0			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Sunday, December 20, 2009 17:09:44
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\091220\QC Std 3.060

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**10.558**	**ug/L**	0.571	28651	0.032
	Be	9	**0.537**	**ug/L**	5.328	362	0.000
	B	11	**15.814**	**ug/L**	1.532	12070	0.013
	Na	23	**229.243**	**ug/L**	3.208	1413310	1.582
	Mg	24	**18.213**	**ug/L**	11.847	78886	0.088
	Al	27	**34.774**	**ug/L**	10.207	230520	0.246
	P	31	**56.957**	**ug/L**	1.664	31139	0.025
	K	39	**318.664**	**ug/L**	6.650	3469610	3.137
	Ca	43	**212.494**	**ug/L**	3.213	5157	0.005
>	Sc	45		**ug/L**		881569	881569.231
	Ti	47	**9.238**	**ug/L**	2.853	10151	0.011
	V	51	**11.634**	**ug/L**	6.875	147766	0.158
	Cr	52	**11.426**	**ug/L**	3.374	118411	0.125
	Cr	53		**ug/L**		188957	0.021
	Mn	55	**6.108**	**ug/L**	2.381	94606	0.105
	Fe	57	**128.060**	**ug/L**	2.193	46699	0.042
	Co	59	**1.147**	**ug/L**	2.139	14229	0.016
	Ni	60	**2.141**	**ug/L**	1.285	6130	0.007
	Cu	63		**ug/L**		8196	0.009
	Cu	65	**1.166**	**ug/L**	1.645	4003	0.004
	Zn	66	**11.318**	**ug/L**	1.141	23873	0.033
	Zn	67		**ug/L**		22892	0.004
	Zn	68		**ug/L**		18604	0.024
>	Ge	74		**ug/L**		715454	715454.467
	As	75	**5.518**	**ug/L**	7.876	11999	0.017
	Se	77		**ug/L**		12898	0.003
	Se	82	**5.611**	**ug/L**	7.760	1161	0.002
	Kr	83		**ug/L**		163	-0.000
	Sr	88	**12.053**	**ug/L**	1.149	277670	0.657
	Y	89		**ug/L**		75	-0.000
	Mo	98	**0.549**	**ug/L**	1.789	3367	0.008
	Ag	107	**1.094**	**ug/L**	2.631	11047	0.026
	Cd	111	**1.092**	**ug/L**	3.487	2691	0.006
	Cd	114		**ug/L**		6309	0.015
>	In	115		**ug/L**		422434	422434.127
	Sn	120	**5.515**	**ug/L**	0.853	54580	0.128
	Sb	121	**3.395**	**ug/L**	0.998	28671	0.067
	Sb	123		**ug/L**		22165	0.052
	Ba	135		**ug/L**		5264	0.008
	Ba	137	**2.131**	**ug/L**	3.440	9243	0.014
	Ho	165		**ug/L**		69	0.000
>	Lu	175		**ug/L**		659409	659409.060
	Tl	205	**1.242**	**ug/L**	3.438	40937	0.057
	Pb	208	**2.383**	**ug/L**	1.236	112209	0.169
	Bi	209		**ug/L**		91	0.000
	Th	232	**1.268**	**ug/L**	2.384	71597	0.107
	U	238	**0.255**	**ug/L**	0.973	15715	0.023

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	0.9999
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	0.9999
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	0.9999
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7	105.585				
	Be	9	107.302				
	B	11	105.426				
	Na	23	91.697				
	Mg	24	121.417				
	Al	27	115.912				
	P	31	113.914				
	K	39	106.221				
	Ca	43	106.247				
>	Sc	45		103.4			
	Ti	47	92.382				
	V	51	116.336				
	Cr	52	114.258				
	Cr	53					
	Mn	55	122.163				
	Fe	57	128.060				
	Co	59	114.713				
	Ni	60	107.064				
	Cu	63					
	Cu	65	116.628				
	Zn	66	113.180				
	Zn	67					
	Zn	68					
>	Ge	74		102.8			
	As	75	110.368				
	Se	77					
	Se	82	112.218				
	Kr	83					
	Sr	88	120.533				
	Y	89					
	Mo	98	109.823				
	Ag	107	109.389				
	Cd	111	109.156				
	Cd	114					
>	In	115		100.1			
	Sn	120	110.309				
	Sb	121	113.158				
	Sb	123					
	Ba	135					
	Ba	137	106.538				
	Ho	165					
>	Lu	175		100.3			
	Tl	205	124.177				
	Pb	208	119.127				
	Bi	209					
	Th	232	126.802				
	U	238	127.518				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Sunday, December 20, 2009 17:15:50
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\091220\QC Std 4.061

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.123**	**ug/L**	9.077	434	0.000
	Be	9	**0.058**	**ug/L**	16.445	52	0.000
	B	11	**1.244**	**ug/L**	9.544	1576	0.001
	Na	23	**87933.157**	**ug/L**	6.750	458695867	606.651
	Mg	24	**93128.928**	**ug/L**	1.574	341507982	451.640
	Al	27	**93940.265**	**ug/L**	3.107	502688926	664.790
	P	31	**91819.878**	**ug/L**	2.041	30261537	40.009
	K	39	**93068.074**	**ug/L**	3.190	693438785	916.249
	Ca	43	**91371.151**	**ug/L**	1.514	1662760	2.198
>	Sc	45		**ug/L**		756204	756203.827
	Ti	47	**1422.369**	**ug/L**	2.308	1270932	1.680
	V	51	**0.515**	**ug/L**	44.060	12430	0.007
	Cr	52	**2.507**	**ug/L**	0.856	27955	0.027
	Cr	53		**ug/L**		122947	-0.031
	Mn	55	**6.555**	**ug/L**	0.750	87003	0.113
	Fe	57	**100732.530**	**ug/L**	0.600	24809205	32.796
	Co	59	**0.309**	**ug/L**	5.730	3406	0.004
	Ni	60	**3.166**	**ug/L**	2.130	7725	0.010
	Cu	63		**ug/L**		12177	0.016
	Cu	65	**2.454**	**ug/L**	3.092	7051	0.009
	Zn	66	**3.414**	**ug/L**	2.534	6626	0.010
	Zn	67		**ug/L**		16900	-0.001
	Zn	68		**ug/L**		2797	0.002
>	Ge	74		**ug/L**		630632	630632.134
	As	75	**-0.222**	**ug/L**	171.687	-417	-0.001
	Se	77		**ug/L**		11690	0.004
	Se	82	**-0.872**	**ug/L**	14.715	-193	-0.000
	Kr	83		**ug/L**		475	0.000
	Sr	88	**1.273**	**ug/L**	1.456	26017	0.069
	Y	89		**ug/L**		821	0.002
	Mo	98	**1891.531**	**ug/L**	1.874	9888988	26.608
	Ag	107	**0.079**	**ug/L**	9.304	765	0.002
	Cd	111	**0.459**	**ug/L**	83.186	1011	0.003
	Cd	114		**ug/L**		14795	0.040
>	In	115		**ug/L**		371674	371674.230
	Sn	120	**0.107**	**ug/L**	6.359	1209	0.002
	Sb	121	**0.066**	**ug/L**	16.625	890	0.001
	Sb	123		**ug/L**		686	0.001
	Ba	135		**ug/L**		1572	0.003
	Ba	137	**0.684**	**ug/L**	1.919	2703	0.004
	Ho	165		**ug/L**		1581	0.003
>	Lu	175		**ug/L**		591739	591738.946
	Tl	205	**0.044**	**ug/L**	15.598	4306	0.002
	Pb	208	**0.208**	**ug/L**	0.330	9582	0.015
	Bi	209		**ug/L**		1682	0.003
	Th	232	**0.056**	**ug/L**	31.854	3545	0.005
	U	238	**-0.002**	**ug/L**	12.294	365	-0.000

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	0.9999
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	0.9999
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	0.9999
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	0.9999
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9999
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9999
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23	87.933				
	Mg	24	93.129				
	Al	27	93.940				
	P	31	91.820				
	K	39	93.068				
	Ca	43	91.371				
>	Sc	45		88.7			
	Ti	47	71.118				
	V	51					
	Cr	52	67.768				
	Cr	53					
	Mn	55	113.020				
	Fe	57	100.733				
	Co	59	123.478				
	Ni	60	117.275				
	Cu	63					
	Cu	65	84.609				
	Zn	66	94.841				
	Zn	67					
	Zn	68					
>	Ge	74		90.6			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88	106.124				
	Y	89					
	Mo	98	94.577				
	Ag	107					
	Cd	111	114.636				
	Cd	114					
>	In	115		88.1			
	Sn	120					
	Sb	121	65.789				
	Sb	123					
	Ba	135					
	Ba	137	102.044				
	Ho	165					
>	Lu	175		90.0			
	Tl	205					
	Pb	208	104.070				
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 4	Ti	47	ICSA is out of limits

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Sunday, December 20, 2009 17:21:56
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\091220\QC Std 5.062

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**19.924**	**ug/L**	1.222	44530	0.061
	Be	9	**18.511**	**ug/L**	0.901	9656	0.013
	B	11	**17.372**	**ug/L**	1.431	10874	0.014
	Na	23	**83608.197**	**ug/L**	3.949	419986710	576.813
	Mg	24	**94792.185**	**ug/L**	5.223	334541899	459.706
	Al	27	**96751.950**	**ug/L**	10.271	498288638	684.688
	P	31	**91057.056**	**ug/L**	2.702	28890970	39.677
	K	39	**96132.576**	**ug/L**	11.681	689299552	946.419
	Ca	43	**91139.445**	**ug/L**	0.755	1597199	2.193
>	Sc	45		**ug/L**		728233	728233.107
	Ti	47	**1420.727**	**ug/L**	1.400	1222352	1.678
	V	51	**21.941**	**ug/L**	2.721	224356	0.299
	Cr	52	**23.553**	**ug/L**	2.138	194236	0.257
	Cr	53		**ug/L**		139812	-0.001
	Mn	55	**28.456**	**ug/L**	2.728	359052	0.491
	Fe	57	**101062.195**	**ug/L**	1.004	23967129	32.903
	Co	59	**21.005**	**ug/L**	1.482	212445	0.292
	Ni	60	**22.208**	**ug/L**	1.029	51563	0.071
	Cu	63		**ug/L**		115937	0.159
	Cu	65	**21.117**	**ug/L**	2.628	57289	0.078
	Zn	66	**22.551**	**ug/L**	1.706	40060	0.065
	Zn	67		**ug/L**		22305	0.009
	Zn	68		**ug/L**		27527	0.043
>	Ge	74		**ug/L**		608224	608223.542
	As	75	**20.092**	**ug/L**	0.742	37127	0.061
	Se	77		**ug/L**		13700	0.008
	Se	82	**19.501**	**ug/L**	3.354	3498	0.006
	Kr	83		**ug/L**		485	0.001
	Sr	88	**23.194**	**ug/L**	1.081	458386	1.264
	Y	89		**ug/L**		785	0.002
	Mo	98	**1922.436**	**ug/L**	2.720	9803125	27.043
	Ag	107	**19.391**	**ug/L**	1.356	167013	0.460
	Cd	111	**19.295**	**ug/L**	1.794	40303	0.111
	Cd	114		**ug/L**		108279	0.299
>	In	115		**ug/L**		362597	362597.010
	Sn	120	**21.023**	**ug/L**	1.446	177775	0.490
	Sb	121	**20.917**	**ug/L**	0.944	149567	0.411
	Sb	123		**ug/L**		117544	0.323
	Ba	135		**ug/L**		44358	0.075
	Ba	137	**20.085**	**ug/L**	0.820	77332	0.131
	Ho	165		**ug/L**		1577	0.003
>	Lu	175		**ug/L**		589072	589072.227
	Tl	205	**20.848**	**ug/L**	2.301	564878	0.954
	Pb	208	**21.519**	**ug/L**	1.603	898428	1.524
	Bi	209		**ug/L**		2477	0.004
	Th	232	**22.144**	**ug/L**	3.224	1104249	1.874
	U	238	**22.313**	**ug/L**	2.507	1189147	2.018

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	0.9999
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	0.9999
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	0.9999
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	0.9999
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9999
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9999
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7	99.619				
	Be	9	92.557				
	B	11	86.861				
	Na	23	83.608				
	Mg	24	94.792				
	Al	27	96.752				
	P	31	91.057				
	K	39	96.133				
	Ca	43	91.139				
>	Sc	45		85.4			
	Ti	47	71.036				
	V	51	109.704				
	Cr	52	99.381				
	Cr	53					
	Mn	55	110.293				
	Fe	57	101.062				
	Co	59	103.728				
	Ni	60	97.832				
	Cu	63					
	Cu	65	92.216				
	Zn	66	95.555				
	Zn	67					
	Zn	68					
>	Ge	74		87.4			
	As	75	100.458				
	Se	77					
	Se	82	97.505				
	Kr	83					
	Sr	88	109.405				
	Y	89					
	Mo	98	96.122				
	Ag	107	96.953				
	Cd	111	94.583				
	Cd	114					
>	In	115		86.0			
	Sn	120	105.114				
	Sb	121	104.066				
	Sb	123					
	Ba	135					
	Ba	137	97.170				
	Ho	165					
>	Lu	175		89.6			
	Tl	205	104.241				
	Pb	208	106.531				
	Bi	209					
	Th	232	110.719				
	U	238	111.564				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 5	Ti	47	ICSAB is out of limits

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Sunday, December 20, 2009 17:28:03
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\091220\QC Std 6.063

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**52.869**	**ug/L**	1.185	118298	0.162
	Be	9	**52.394**	**ug/L**	1.422	27378	0.037
	B	11	**98.764**	**ug/L**	2.751	58272	0.079
	Na	23	**4549.082**	**ug/L**	4.793	22950093	31.384
	Mg	24	**4877.942**	**ug/L**	7.799	17274506	23.656
	Al	27	**4901.437**	**ug/L**	1.521	25345660	34.686
	P	31	**4721.346**	**ug/L**	3.251	1510022	2.057
	K	39	**5247.791**	**ug/L**	8.921	38335231	51.664
	Ca	43	**4952.914**	**ug/L**	1.248	87574	0.119
>	Sc	45		**ug/L**		730498	730498.187
	Ti	47	**50.051**	**ug/L**	1.729	43624	0.059
	V	51	**52.839**	**ug/L**	3.759	531952	0.719
	Cr	52	**51.614**	**ug/L**	2.060	418653	0.564
	Cr	53		**ug/L**		182660	0.057
	Mn	55	**54.627**	**ug/L**	2.338	690237	0.943
	Fe	57	**5485.423**	**ug/L**	1.432	1312719	1.786
	Co	59	**51.956**	**ug/L**	1.775	526883	0.721
	Ni	60	**52.403**	**ug/L**	2.133	121900	0.167
	Cu	63		**ug/L**		282804	0.387
	Cu	65	**51.113**	**ug/L**	1.670	138887	0.190
	Zn	66	**50.958**	**ug/L**	1.589	91387	0.147
	Zn	67		**ug/L**		30673	0.022
	Zn	68		**ug/L**		69283	0.110
>	Ge	74		**ug/L**		617352	617352.062
	As	75	**49.198**	**ug/L**	0.151	92264	0.149
	Se	77		**ug/L**		16062	0.011
	Se	82	**50.664**	**ug/L**	1.346	9272	0.015
	Kr	83		**ug/L**		150	-0.000
	Sr	88	**50.339**	**ug/L**	2.697	1041608	2.743
	Y	89		**ug/L**		143	0.000
	Mo	98	**48.213**	**ug/L**	2.163	257638	0.678
	Ag	107	**49.995**	**ug/L**	2.215	450864	1.187
	Cd	111	**50.621**	**ug/L**	2.144	110705	0.291
	Cd	114		**ug/L**		258385	0.680
>	In	115		**ug/L**		379824	379824.348
	Sn	120	**50.906**	**ug/L**	1.835	450484	1.186
	Sb	121	**51.195**	**ug/L**	2.174	382803	1.007
	Sb	123		**ug/L**		302661	0.796
	Ba	135		**ug/L**		113679	0.175
	Ba	137	**47.301**	**ug/L**	1.974	200836	0.309
	Ho	165		**ug/L**		101	0.000
>	Lu	175		**ug/L**		649985	649984.572
	Tl	205	**48.977**	**ug/L**	0.586	1459894	2.241
	Pb	208	**51.798**	**ug/L**	1.250	2385027	3.668
	Bi	209		**ug/L**		512	0.001
	Th	232	**50.128**	**ug/L**	1.117	2757978	4.242
	U	238	**51.235**	**ug/L**	2.311	3012505	4.635

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	0.9999
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	0.9999
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	0.9999
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	0.9999
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9999
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9999
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7	105.739				
	Be	9	104.789				
	B	11	98.764				
	Na	23	90.982				
	Mg	24	97.559				
	Al	27	97.058				
	P	31	94.427				
	K	39	104.956				
	Ca	43	99.058				
>	Sc	45		85.6			
	Ti	47	100.102				
	V	51	105.678				
	Cr	52	103.228				
	Cr	53					
	Mn	55	109.255				
	Fe	57	109.708				
	Co	59	103.912				
	Ni	60	104.806				
	Cu	63					
	Cu	65	102.227				
	Zn	66	101.916				
	Zn	67					
	Zn	68					
>	Ge	74		88.7			
	As	75	98.397				
	Se	77					
	Se	82	101.329				
	Kr	83					
	Sr	88	100.679				
	Y	89					
	Mo	98	96.426				
	Ag	107	99.989				
	Cd	111	101.243				
	Cd	114					
>	In	115		90.0			
	Sn	120	101.811				
	Sb	121	102.390				
	Sb	123					
	Ba	135					
	Ba	137	94.601				
	Ho	165					
>	Lu	175		98.8			
	Tl	205	97.954				
	Pb	208	103.597				
	Bi	209					
	Th	232	100.256				
	U	238	102.469				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Sunday, December 20, 2009 17:34:12
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\091220\QC Std 7.064

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	-0.004	ug/L	112.789	140	-0.000
	Be	9	0.024	ug/L	79.910	33	0.000
	B	11	0.504	ug/L	28.074	1125	0.000
	Na	23	2.013	ug/L	131.445	27030	0.014
	Mg	24	0.950	ug/L	46.227	4334	0.005
	Al	27	0.235	ug/L	353.498	13006	0.002
	P	31	1.871	ug/L	109.036	8513	0.001
	K	39	6.316	ug/L	125.255	646004	0.062
	Ca	43	0.216	ug/L	918.257	559	0.000
>	Sc	45		ug/L		752859	752859.128
	Ti	47	0.036	ug/L	78.482	487	0.000
	V	51	0.154	ug/L	345.317	8633	0.002
	Cr	52	-0.280	ug/L	35.561	4916	-0.003
	Cr	53		ug/L		147174	0.002
	Mn	55	0.000	ug/L	865.727	1402	0.000
	Fe	57	4.013	ug/L	18.233	9480	0.001
	Co	59	0.002	ug/L	18.831	186	0.000
	Ni	60	0.008	ug/L	79.247	124	0.000
	Cu	63		ug/L		264	0.000
	Cu	65	0.012	ug/L	56.544	189	0.000
	Zn	66	-0.026	ug/L	88.359	351	-0.000
	Zn	67		ug/L		16296	-0.002
	Zn	68		ug/L		1270	-0.000
>	Ge	74		ug/L		630333	630332.505
	As	75	-0.086	ug/L	526.724	-155	-0.000
	Se	77		ug/L		10031	0.001
	Se	82	-0.022	ug/L	708.756	-33	-0.000
	Kr	83		ug/L		164	-0.000
	Sr	88	0.001	ug/L	56.058	253	0.000
	Y	89		ug/L		70	-0.000
	Mo	98	0.080	ug/L	18.804	532	0.001
	Ag	107	0.003	ug/L	48.572	99	0.000
	Cd	111	0.000	ug/L	3391.182	34	0.000
	Cd	114		ug/L		67	0.000
>	In	115		ug/L		389151	389151.182
	Sn	120	0.021	ug/L	12.196	488	0.000
	Sb	121	0.082	ug/L	24.161	1054	0.002
	Sb	123		ug/L		857	0.001
	Ba	135		ug/L		53	-0.000
	Ba	137	0.001	ug/L	245.832	71	0.000
	Ho	165		ug/L		72	0.000
>	Lu	175		ug/L		655712	655712.227
	Tl	205	0.303	ug/L	24.151	12549	0.014
	Pb	208	0.000	ug/L	301.761	968	0.000
	Bi	209		ug/L		52	0.000
	Th	232	0.072	ug/L	17.533	4860	0.006
	U	238	0.006	ug/L	29.856	829	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	0.9999
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	0.9999
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	0.9999
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		88.3			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		90.6			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		92.3			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		99.7			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 10
Sample Date/Time: Sunday, December 20, 2009 17:40:19
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\091220\QC Std 10.065

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**982.457**	ug/L	1.696	1982967	3.006
	Be	9	**1019.021**	ug/L	0.965	480619	0.729
	B	11	**1.853**	ug/L	6.078	1696	0.001
	Na	23	**44883.697**	ug/L	3.218	204255831	309.653
	Mg	24	**50200.323**	ug/L	4.428	160559723	243.452
	Al	27	**50661.629**	ug/L	6.411	236383483	358.519
	P	31	**23627.667**	ug/L	3.421	6797049	10.295
	K	39	**50613.779**	ug/L	4.630	329465995	498.290
	Ca	43	**48220.688**	ug/L	0.608	765879	1.160
>	Sc	45		ug/L		659786	659785.862
	Ti	47	**40.179**	ug/L	2.016	31713	0.047
	V	51	**945.192**	ug/L	2.938	8489673	12.862
	Cr	52	**925.908**	ug/L	2.369	6675735	10.111
	Cr	53		ug/L		960339	1.262
	Mn	55	**1011.874**	ug/L	2.704	11525430	17.472
	Fe	57	**51959.722**	ug/L	2.518	11165625	16.917
	Co	59	**927.072**	ug/L	2.905	8487860	12.868
	Ni	60	**852.287**	ug/L	1.488	1789275	2.712
	Cu	63		ug/L		4408055	6.682
	Cu	65	**891.673**	ug/L	8.377	2185913	3.314
	Zn	66	**2311.273**	ug/L	1.721	3743752	6.685
	Zn	67		ug/L		597137	1.039
	Zn	68		ug/L		2539964	4.534
>	Ge	74		ug/L		560005	560005.132
	As	75	**845.144**	ug/L	1.781	1437345	2.567
	Se	77		ug/L		68710	0.108
	Se	82	**474.207**	ug/L	2.280	78923	0.141
	Kr	83		ug/L		264	0.000
	Sr	88	**1000.674**	ug/L	1.998	18630190	54.518
	Y	89		ug/L		733	0.002
	Mo	98	**974.739**	ug/L	0.774	4686124	13.712
	Ag	107	**218.615**	ug/L	2.538	1773943	5.191
	Cd	111	**871.860**	ug/L	1.296	1715360	5.019
	Cd	114		ug/L		4328627	12.666
>	In	115		ug/L		341764	341763.500
	Sn	120	**973.513**	ug/L	0.627	7748879	22.672
	Sb	121	**238.339**	ug/L	0.562	1602498	4.688
	Sb	123		ug/L		1289155	3.771
	Ba	135		ug/L		1812248	2.961
	Ba	137	**881.785**	ug/L	1.425	3525075	5.759
	Ho	165		ug/L		547	0.001
>	Lu	175		ug/L		612137	612137.040
	Tl	205	**471.651**	ug/L	2.496	13210645	21.580
	Pb	208	**4859.546**	ug/L	1.783	210634330	344.138
	Bi	209		ug/L		5922	0.010
	Th	232	**2505.539**	ug/L	1.936	129775534	212.029
	U	238	**5260.093**	ug/L	2.165	291242789	475.824

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	0.9999
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	0.9999
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	0.9999
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	0.9999
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9999
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9999
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7	98.246				
	Be	9	101.902				
	B	11					
	Na	23	89.767				
	Mg	24	100.401				
	Al	27	101.323				
	P	31	94.511				
	K	39	101.228				
	Ca	43	96.441				
>	Sc	45		77.4			
	Ti	47					
	V	51	94.519				
	Cr	52	92.591				
	Cr	53					
	Mn	55	101.187				
	Fe	57	103.919				
	Co	59	92.707				
	Ni	60	85.229				
	Cu	63					
	Cu	65	89.167				
	Zn	66	92.451				
	Zn	67					
	Zn	68					
>	Ge	74		80.5			
	As	75	84.514				
	Se	77					
	Se	82	94.841				
	Kr	83					
	Sr	88	100.067				
	Y	89					
	Mo	98	97.474				
	Ag	107	87.446				
	Cd	111	87.186				
	Cd	114					
>	In	115		81.0			
	Sn	120	97.351				
	Sb	121	95.336				
	Sb	123					
	Ba	135					
	Ba	137	88.179				
	Ho	165					
>	Lu	175		93.1			
	Tl	205	94.330				
	Pb	208	97.191				
	Bi	209					
	Th	232	100.222				
	U	238	105.202				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 10	Na	23	LRS is out of limits (+/- 10%)
Sc 45 Int Std for QC	Sc	45	
QC Std 10	Ni	60	LRS is out of limits (+/- 10%)
QC Std 10	Cu	65	LRS is out of limits (+/- 10%)
QC Std 10	As	75	LRS is out of limits (+/- 10%)
QC Std 10	Ag	107	LRS is out of limits (+/- 10%)
QC Std 10	Cd	111	LRS is out of limits (+/- 10%)

QC Std 10	Ba	137LRS is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 11
Sample Date/Time: Sunday, December 20, 2009 17:46:23
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\091220\QC Std 11.066

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**55.838**	**ug/L**	1.750	125791	0.171
	Be	9	**55.556**	**ug/L**	2.501	29231	0.040
	B	11	**105.636**	**ug/L**	1.873	62701	0.084
	Na	23	**5272.332**	**ug/L**	6.146	26775109	36.374
	Mg	24	**5251.198**	**ug/L**	7.850	18718694	25.466
	Al	27	**5273.516**	**ug/L**	4.357	27457798	37.319
	P	31	**4869.699**	**ug/L**	2.638	1568188	2.122
	K	39	**5781.879**	**ug/L**	6.658	42494242	56.922
	Ca	43	**5143.373**	**ug/L**	0.570	91571	0.124
>	Sc	45		**ug/L**		735627	735627.059
	Ti	47	**51.903**	**ug/L**	3.015	45532	0.061
	V	51	**53.047**	**ug/L**	1.818	537840	0.722
	Cr	52	**52.906**	**ug/L**	3.104	431908	0.578
	Cr	53		**ug/L**		187288	0.061
	Mn	55	**55.424**	**ug/L**	1.973	705277	0.957
	Fe	57	**5598.881**	**ug/L**	2.108	1348931	1.823
	Co	59	**53.626**	**ug/L**	1.990	547600	0.744
	Ni	60	**53.521**	**ug/L**	1.215	125376	0.170
	Cu	63		**ug/L**		292384	0.397
	Cu	65	**52.775**	**ug/L**	1.844	144396	0.196
	Zn	66	**54.259**	**ug/L**	2.372	96892	0.157
	Zn	67		**ug/L**		33391	0.027
	Zn	68		**ug/L**		72153	0.115
>	Ge	74		**ug/L**		614954	614953.851
	As	75	**51.440**	**ug/L**	1.899	96083	0.156
	Se	77		**ug/L**		15338	0.010
	Se	82	**52.722**	**ug/L**	0.675	9612	0.016
	Kr	83		**ug/L**		164	-0.000
	Sr	88	**52.716**	**ug/L**	1.812	1086455	2.872
	Y	89		**ug/L**		134	0.000
	Mo	98	**49.902**	**ug/L**	0.568	265591	0.702
	Ag	107	**52.196**	**ug/L**	1.973	468821	1.239
	Cd	111	**51.917**	**ug/L**	0.979	113080	0.299
	Cd	114		**ug/L**		267181	0.706
>	In	115		**ug/L**		378215	378214.517
	Sn	120	**52.897**	**ug/L**	0.502	466197	1.232
	Sb	121	**53.894**	**ug/L**	0.685	401345	1.060
	Sb	123		**ug/L**		317322	0.838
	Ba	135		**ug/L**		118433	0.182
	Ba	137	**48.591**	**ug/L**	0.669	206438	0.317
	Ho	165		**ug/L**		111	0.000
>	Lu	175		**ug/L**		650326	650325.868
	Tl	205	**51.417**	**ug/L**	1.639	1533198	2.353
	Pb	208	**54.209**	**ug/L**	1.514	2497259	3.839
	Bi	209		**ug/L**		542	0.001
	Th	232	**53.202**	**ug/L**	1.918	2928367	4.502
	U	238	**55.409**	**ug/L**	1.881	3259885	5.012

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	0.9999
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	0.9999
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	0.9999
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7	111.676				
	Be	9	111.111				
	B	11	105.636				
	Na	23	105.447				
	Mg	24	105.024				
	Al	27	104.426				
	P	31	97.394				
	K	39	115.638				
	Ca	43	102.867				
>	Sc	45		86.2			
	Ti	47	103.806				
	V	51	106.094				
	Cr	52	105.812				
	Cr	53					
	Mn	55	110.848				
	Fe	57	111.978				
	Co	59	107.253				
	Ni	60	107.042				
	Cu	63					
	Cu	65	105.550				
	Zn	66	108.518				
	Zn	67					
	Zn	68					
>	Ge	74		88.4			
	As	75	102.880				
	Se	77					
	Se	82	105.445				
	Kr	83					
	Sr	88	105.433				
	Y	89					
	Mo	98	99.804				
	Ag	107	104.391				
	Cd	111	103.833				
	Cd	114					
>	In	115		89.7			
	Sn	120	105.793				
	Sb	121	107.789				
	Sb	123					
	Ba	135					
	Ba	137	97.182				
	Ho	165					
>	Lu	175		98.9			
	Tl	205	102.835				
	Pb	208	108.417				
	Bi	209					
	Th	232	106.405				
	U	238	110.817				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 11	Li	7	CCV is out of limits (+/- 10%)
QC Std 11	Be	9	CCV is out of limits (+/- 10%)
QC Std 11	K	39	CCV is out of limits (+/- 10%)
QC Std 11	Mn	55	CCV is out of limits (+/- 10%)
QC Std 11	Fe	57	CCV is out of limits (+/- 10%)
QC Std 11	U	238	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 12
Sample Date/Time: Sunday, December 20, 2009 17:52:30
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\091220\QC Std 12.067

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	0.071	ug/L	4.449	320	0.000
	Be	9	0.025	ug/L	28.086	34	0.000
	B	11	0.542	ug/L	31.382	1175	0.000
	Na	23	0.920	ug/L	181.658	21685	0.006
	Mg	24	1.546	ug/L	26.677	6668	0.007
	Al	27	-0.378	ug/L	239.782	10004	-0.003
	P	31	0.130	ug/L	1910.138	8127	0.000
	K	39	3.969	ug/L	62.255	643168	0.039
	Ca	43	0.365	ug/L	361.740	574	0.000
>	Sc	45		ug/L		769651	769651.223
	Ti	47	-0.016	ug/L	68.248	451	-0.000
	V	51	0.492	ug/L	80.392	12404	0.007
	Cr	52	-0.225	ug/L	45.049	5484	-0.002
	Cr	53		ug/L		149020	0.000
	Mn	55	0.007	ug/L	123.196	1522	0.000
	Fe	57	0.484	ug/L	293.464	8807	0.000
	Co	59	0.010	ug/L	54.847	281	0.000
	Ni	60	0.014	ug/L	3.712	140	0.000
	Cu	63		ug/L		434	0.000
	Cu	65	0.028	ug/L	11.849	238	0.000
	Zn	66	0.028	ug/L	113.734	449	0.000
	Zn	67		ug/L		17853	0.001
	Zn	68		ug/L		1561	0.000
>	Ge	74		ug/L		630300	630300.320
	As	75	0.598	ug/L	58.182	1155	0.002
	Se	77		ug/L		9377	0.000
	Se	82	-0.004	ug/L	3638.424	-30	-0.000
	Kr	83		ug/L		178	0.000
	Sr	88	0.012	ug/L	43.704	497	0.001
	Y	89		ug/L		68	-0.000
	Mo	98	0.104	ug/L	8.229	668	0.001
	Ag	107	0.007	ug/L	23.984	136	0.000
	Cd	111	0.005	ug/L	183.512	46	0.000
	Cd	114		ug/L		127	0.000
>	In	115		ug/L		391094	391094.393
	Sn	120	0.125	ug/L	14.285	1439	0.003
	Sb	121	0.410	ug/L	10.455	3583	0.008
	Sb	123		ug/L		2815	0.006
	Ba	135		ug/L		75	0.000
	Ba	137	0.010	ug/L	52.181	109	0.000
	Ho	165		ug/L		73	0.000
>	Lu	175		ug/L		649397	649396.794
	Tl	205	0.590	ug/L	22.951	20938	0.027
	Pb	208	0.054	ug/L	40.161	3447	0.004
	Bi	209		ug/L		47	-0.000
	Th	232	0.122	ug/L	12.981	7550	0.010
	U	238	0.082	ug/L	17.396	5293	0.007

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	0.9999
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	0.9999
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	0.9999
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		90.2			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		90.6			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		92.7			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		98.8			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1201994309
Sample Date/Time: Sunday, December 20, 2009 17:58:40
Sample Type:
Sample Description: LANL 6020 MB
Number of Replicates: 3
Batch ID: 932320|2|ba|
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\091220\1201994309.068

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.012**	**ug/L**	41.914	185	0.000
	Be	9	**0.018**	**ug/L**	47.873	31	0.000
	B	11	**0.401**	**ug/L**	4.837	1110	0.000
	Na	23	**9.579**	**ug/L**	7.265	69167	0.066
	Mg	24	**2.305**	**ug/L**	75.133	9671	0.011
	Al	27	**3.662**	**ug/L**	43.115	32706	0.026
	P	31	**22.823**	**ug/L**	23.809	16056	0.010
	K	39	**-0.400**	**ug/L**	1704.875	622663	-0.004
	Ca	43	**2.166**	**ug/L**	83.459	620	0.000
>	Sc	45		**ug/L**		785894	785894.083
	Ti	47	**0.158**	**ug/L**	9.663	623	0.000
	V	51	**0.417**	**ug/L**	84.873	11855	0.006
	Cr	52	**0.335**	**ug/L**	22.511	10408	0.004
	Cr	53		**ug/L**		114126	-0.048
	Mn	55	**0.134**	**ug/L**	1.096	3276	0.002
	Fe	57	**8.860**	**ug/L**	5.032	11138	0.003
	Co	59	**0.008**	**ug/L**	14.460	266	0.000
	Ni	60	**0.074**	**ug/L**	4.637	295	0.000
	Cu	63		**ug/L**		698	0.001
	Cu	65	**0.078**	**ug/L**	12.615	389	0.000
	Zn	66	**0.630**	**ug/L**	2.540	1558	0.002
	Zn	67		**ug/L**		13261	-0.007
	Zn	68		**ug/L**		2160	0.001
>	Ge	74		**ug/L**		634853	634853.039
	As	75	**0.247**	**ug/L**	30.132	486	0.001
	Se	77		**ug/L**		6784	-0.004
	Se	82	**0.125**	**ug/L**	23.797	-6	0.000
	Kr	83		**ug/L**		154	-0.000
	Sr	88	**0.022**	**ug/L**	10.202	739	0.001
	Y	89		**ug/L**		98	0.000
	Mo	98	**0.064**	**ug/L**	13.151	464	0.001
	Ag	107	**0.002**	**ug/L**	66.756	90	0.000
	Cd	111	**0.009**	**ug/L**	183.699	56	0.000
	Cd	114		**ug/L**		88	0.000
>	In	115		**ug/L**		404708	404707.716
	Sn	120	**0.157**	**ug/L**	2.607	1788	0.004
	Sb	121	**0.107**	**ug/L**	16.688	1294	0.002
	Sb	123		**ug/L**		1022	0.002
	Ba	135		**ug/L**		163	0.000
	Ba	137	**0.047**	**ug/L**	8.687	276	0.000
	Ho	165		**ug/L**		68	-0.000
>	Lu	175		**ug/L**		671406	671406.216
	Tl	205	**0.235**	**ug/L**	7.223	10762	0.011
	Pb	208	**0.059**	**ug/L**	9.097	3766	0.004
	Bi	209		**ug/L**		95	0.000
	Th	232	**0.182**	**ug/L**	22.312	11219	0.015
	U	238	**0.076**	**ug/L**	12.627	5107	0.007

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	0.9999
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	0.9999
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	0.9999
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		92.1			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		91.3			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		95.9			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		102.1			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1201994310
Sample Date/Time: Sunday, December 20, 2009 18:04:49
Sample Type:
Sample Description: LANL 6020 LCS
Number of Replicates: 3
Batch ID: 932320|20|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\091220\1201994310.069

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	5.530	ug/L	0.856	13330	0.017
	Be	9	40.973	ug/L	4.089	22830	0.029
	B	11	72.393	ug/L	2.498	45759	0.058
	Na	23	519.791	ug/L	9.845	2808996	3.586
	Mg	24	2266.143	ug/L	5.401	8558938	10.990
	Al	27	7118.249	ug/L	8.222	39250571	50.374
	P	31	390.871	ug/L	1.995	140799	0.170
	K	39	2314.048	ug/L	0.993	18362372	22.782
	Ca	43	5199.004	ug/L	0.849	97977	0.125
>	Sc	45		ug/L		778745	778745.429
	Ti	47	235.931	ug/L	0.095	217502	0.279
	V	51	67.156	ug/L	2.401	718906	0.914
	Cr	52	120.409	ug/L	1.467	1031475	1.315
	Cr	53		ug/L		261456	0.142
	Mn	55	284.055	ug/L	1.580	3820640	4.905
	Fe	57	9390.365	ug/L	2.195	2389286	3.057
	Co	59	50.338	ug/L	2.458	544300	0.699
	Ni	60	72.038	ug/L	2.544	178623	0.229
	Cu	63		ug/L		517912	0.665
	Cu	65	88.907	ug/L	0.582	257453	0.330
	Zn	66	310.318	ug/L	2.311	562806	0.898
	Zn	67		ug/L		105856	0.141
	Zn	68		ug/L		416825	0.663
>	Ge	74		ug/L		626725	626725.278
	As	75	54.774	ug/L	3.082	104246	0.166
	Se	77		ug/L		29384	0.032
	Se	82	151.158	ug/L	1.275	28137	0.045
	Kr	83		ug/L		184	0.000
	Sr	88	116.807	ug/L	0.220	2467488	6.364
	Y	89		ug/L		139071	0.359
	Mo	98	25.271	ug/L	1.647	137915	0.355
	Ag	107	9.889	ug/L	0.135	91109	0.235
	Cd	111	31.746	ug/L	0.539	70892	0.183
	Cd	114		ug/L		169865	0.438
>	In	115		ug/L		387700	387700.299
	Sn	120	24.470	ug/L	0.854	221236	0.570
	Sb	121	20.789	ug/L	0.520	158962	0.409
	Sb	123		ug/L		124213	0.320
	Ba	135		ug/L		243122	0.375
	Ba	137	99.352	ug/L	1.372	420317	0.649
	Ho	165		ug/L		9554	0.015
>	Lu	175		ug/L		647687	647686.683
	Tl	205	63.373	ug/L	0.977	1881392	2.900
	Pb	208	46.529	ug/L	1.264	2135042	3.295
	Bi	209		ug/L		18689	0.029
	Th	232	5.872	ug/L	1.449	322689	0.497
	U	238	1.141	ug/L	0.232	67325	0.103

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	0.9999
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	0.9999
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	0.9999
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		91.3			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		90.1			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		91.9			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		98.5			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Ti 47 Upper, S, EEE	Ti	47	Sample is out of limits (over linear range)

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 8
Sample Date/Time: Sunday, December 20, 2009 18:35:29
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\091220\QC Std 8.074

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**51.206**	ug/L	3.076	128040	0.157
	Be	9	**50.716**	ug/L	2.210	29620	0.036
	B	11	**98.596**	ug/L	1.373	65030	0.079
	Na	23	**4997.134**	ug/L	5.536	28152115	34.475
	Mg	24	**4898.156**	ug/L	8.903	19398312	23.754
	Al	27	**5057.420**	ug/L	14.338	29217914	35.790
	P	31	**4672.977**	ug/L	2.590	1670700	2.036
	K	39	**5250.841**	ug/L	6.515	42855895	51.694
	Ca	43	**4878.156**	ug/L	1.989	96426	0.117
>	Sc	45		ug/L		816547	816546.828
	Ti	47	**48.516**	ug/L	1.706	47283	0.057
	V	51	**51.610**	ug/L	2.821	580942	0.702
	Cr	52	**50.796**	ug/L	2.118	460654	0.555
	Cr	53		ug/L		193898	0.044
	Mn	55	**52.414**	ug/L	2.044	740375	0.905
	Fe	57	**5247.063**	ug/L	3.033	1403605	1.708
	Co	59	**50.160**	ug/L	3.442	568474	0.696
	Ni	60	**50.072**	ug/L	0.733	130216	0.159
	Cu	63		ug/L		304488	0.373
	Cu	65	**49.821**	ug/L	1.839	151319	0.185
	Zn	66	**51.618**	ug/L	1.264	99107	0.149
	Zn	67		ug/L		32773	0.022
	Zn	68		ug/L		74263	0.110
>	Ge	74		ug/L		661035	661034.937
	As	75	**49.018**	ug/L	3.187	98403	0.149
	Se	77		ug/L		16154	0.010
	Se	82	**49.595**	ug/L	2.185	9716	0.015
	Kr	83		ug/L		150	-0.000
	Sr	88	**51.618**	ug/L	1.151	1113097	2.812
	Y	89		ug/L		235	0.000
	Mo	98	**48.196**	ug/L	1.228	268387	0.678
	Ag	107	**50.250**	ug/L	0.898	472256	1.193
	Cd	111	**50.485**	ug/L	1.801	115050	0.291
	Cd	114		ug/L		268240	0.678
>	In	115		ug/L		395737	395737.255
	Sn	120	**51.224**	ug/L	1.955	472404	1.193
	Sb	121	**51.614**	ug/L	1.457	402169	1.015
	Sb	123		ug/L		314982	0.795
	Ba	135		ug/L		117489	0.180
	Ba	137	**48.949**	ug/L	0.254	208612	0.320
	Ho	165		ug/L		112	0.000
>	Lu	175		ug/L		652359	652358.808
	Tl	205	**48.722**	ug/L	2.028	1457481	2.229
	Pb	208	**51.757**	ug/L	0.646	2391946	3.665
	Bi	209		ug/L		547	0.001
	Th	232	**50.070**	ug/L	2.467	2764437	4.237
	U	238	**51.364**	ug/L	2.159	3031203	4.646

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	0.9999
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	0.9999
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	0.9999
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	0.9999
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9999
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9999
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7	102.413				
	Be	9	101.432				
	B	11	98.596				
	Na	23	99.943				
	Mg	24	97.963				
	Al	27	100.147				
	P	31	93.460				
	K	39	105.017				
	Ca	43	97.563				
>	Sc	45		95.7			
	Ti	47	97.032				
	V	51	103.220				
	Cr	52	101.592				
	Cr	53					
	Mn	55	104.828				
	Fe	57	104.941				
	Co	59	100.321				
	Ni	60	100.144				
	Cu	63					
	Cu	65	99.642				
	Zn	66	103.236				
	Zn	67					
	Zn	68					
>	Ge	74		95.0			
	As	75	98.036				
	Se	77					
	Se	82	99.191				
	Kr	83					
	Sr	88	103.235				
	Y	89					
	Mo	98	96.392				
	Ag	107	100.499				
	Cd	111	100.971				
	Cd	114					
>	In	115		93.8			
	Sn	120	102.447				
	Sb	121	103.227				
	Sb	123					
	Ba	135					
	Ba	137	97.897				
	Ho	165					
>	Lu	175		99.2			
	Tl	205	97.443				
	Pb	208	103.514				
	Bi	209					
	Th	232	100.140				
	U	238	102.729				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 9
Sample Date/Time: Sunday, December 20, 2009 18:41:37
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\091220\QC Std 9.075

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	0.066	ug/L	13.363	323	0.000
	Be	9	0.007	ug/L	142.670	26	0.000
	B	11	0.465	ug/L	29.815	1185	0.000
	Na	23	-0.127	ug/L	862.016	17011	-0.001
	Mg	24	1.287	ug/L	39.820	6001	0.006
	Al	27	-0.114	ug/L	161.139	12005	-0.001
	P	31	-0.944	ug/L	153.086	8166	-0.000
	K	39	2.609	ug/L	178.858	665868	0.026
	Ca	43	-0.998	ug/L	158.141	577	-0.000
>	Sc	45		ug/L		809601	809601.444
	Ti	47	0.025	ug/L	31.900	514	0.000
	V	51	0.597	ug/L	112.993	14172	0.008
	Cr	52	-0.021	ug/L	224.528	7576	-0.000
	Cr	53		ug/L		152234	-0.005
	Mn	55	0.017	ug/L	20.163	1737	0.000
	Fe	57	4.361	ug/L	11.907	10288	0.001
	Co	59	0.002	ug/L	68.696	206	0.000
	Ni	60	0.001	ug/L	696.353	114	0.000
	Cu	63		ug/L		329	0.000
	Cu	65	0.011	ug/L	16.163	201	0.000
	Zn	66	-0.010	ug/L	133.272	402	-0.000
	Zn	67		ug/L		17359	-0.002
	Zn	68		ug/L		1389	0.000
>	Ge	74		ug/L		667393	667393.013
	As	75	0.061	ug/L	391.055	134	0.000
	Se	77		ug/L		9551	-0.001
	Se	82	0.005	ug/L	2197.048	-30	0.000
	Kr	83		ug/L		169	-0.000
	Sr	88	0.005	ug/L	15.972	361	0.000
	Y	89		ug/L		90	0.000
	Mo	98	0.031	ug/L	16.210	271	0.000
	Ag	107	0.003	ug/L	32.219	99	0.000
	Cd	111	0.006	ug/L	44.549	49	0.000
	Cd	114		ug/L		80	0.000
>	In	115		ug/L		396978	396978.255
	Sn	120	0.029	ug/L	19.020	571	0.001
	Sb	121	0.125	ug/L	20.197	1412	0.002
	Sb	123		ug/L		1188	0.002
	Ba	135		ug/L		72	0.000
	Ba	137	0.010	ug/L	15.314	109	0.000
	Ho	165		ug/L		75	0.000
>	Lu	175		ug/L		652118	652117.571
	Tl	205	0.299	ug/L	25.113	12371	0.014
	Pb	208	0.003	ug/L	25.761	1096	0.000
	Bi	209		ug/L		45	-0.000
	Th	232	0.049	ug/L	20.236	3537	0.004
	U	238	0.009	ug/L	9.758	1002	0.001

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	0.9999
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	0.9999
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	0.9999
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	0.9999
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9999
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9999
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovr	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		94.9			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		95.9			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		94.1			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		99.2			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 242750001
Sample Date/Time: Sunday, December 20, 2009 18:47:46
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 932320|2|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\091220\242750001.076

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**98.470**	**ug/L**	1.015	260835	0.301
	Be	9	**1.575**	**ug/L**	0.452	998	0.001
	B	11	**3.744**	**ug/L**	1.672	3527	0.003
	Na	23	**877.008**	**ug/L**	1.359	5254615	6.050
	Mg	24	**4680.065**	**ug/L**	9.514	19647859	22.697
	Al	27	**19626.212**	**ug/L**	5.532	120215874	138.889
	P	31	**495.194**	**ug/L**	4.064	195715	0.216
	K	39	**2457.985**	**ug/L**	4.487	21637028	24.199
	Ca	43	**3491.723**	**ug/L**	1.481	73309	0.084
>	Sc	45		**ug/L**		865283	865283.139
	Ti	47	**871.572**	**ug/L**	1.026	891245	1.030
	V	51	**27.125**	**ug/L**	3.287	327406	0.369
	Cr	52	**13.074**	**ug/L**	2.532	131790	0.143
	Cr	53		**ug/L**		102417	-0.075
	Mn	55	**536.062**	**ug/L**	1.887	8008685	9.256
	Fe	57	**38659.719**	**ug/L**	1.669	10898402	12.587
	Co	59	**4.468**	**ug/L**	1.366	53840	0.062
	Ni	60	**11.149**	**ug/L**	2.193	30815	0.035
	Cu	63		**ug/L**		37265	0.043
	Cu	65	**5.942**	**ug/L**	1.725	19281	0.022
	Zn	66	**128.889**	**ug/L**	1.215	232534	0.373
	Zn	67		**ug/L**		48113	0.050
	Zn	68		**ug/L**		174640	0.278
>	Ge	74		**ug/L**		622753	622752.594
	As	75	**7.645**	**ug/L**	1.717	14468	0.023
	Se	77		**ug/L**		4866	-0.007
	Se	82	**0.762**	**ug/L**	36.074	112	0.000
	Kr	83		**ug/L**		342	0.000
	Sr	88	**29.312**	**ug/L**	0.728	624567	1.597
	Y	89		**ug/L**		1408040	3.601
	Mo	98	**2.054**	**ug/L**	1.650	11393	0.029
	Ag	107	**0.252**	**ug/L**	4.209	2406	0.006
	Cd	111	**0.905**	**ug/L**	5.412	2071	0.005
	Cd	114		**ug/L**		290	0.001
>	In	115		**ug/L**		390956	390956.149
	Sn	120	**7.241**	**ug/L**	0.617	66225	0.169
	Sb	121	**0.184**	**ug/L**	3.009	1845	0.004
	Sb	123		**ug/L**		1485	0.003
	Ba	135		**ug/L**		273064	0.401
	Ba	137	**107.888**	**ug/L**	1.841	479871	0.705
	Ho	165		**ug/L**		107349	0.158
>	Lu	175		**ug/L**		681014	681014.180
	Tl	205	**0.926**	**ug/L**	1.802	32434	0.042
	Pb	208	**44.577**	**ug/L**	1.216	2150635	3.157
	Bi	209		**ug/L**		25831	0.038
	Th	232	**17.079**	**ug/L**	1.603	985067	1.445
	U	238	**1.454**	**ug/L**	2.130	90124	0.132

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	0.9999
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	0.9999
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	0.9999
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	0.9999
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9999
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9999
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		101.4			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		89.5			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		92.7			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		103.6			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Ti 47 Upper, S, EEE	Ti	47	Sample is out of limits (over linear range)

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1201994311
Sample Date/Time: Sunday, December 20, 2009 18:53:56
Sample Type:
Sample Description: LANL 6020 DUP
Number of Replicates: 3
Batch ID: 932320|2|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\091220\1201994311.077

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**91.839**	ug/L	1.253	238322	0.281
	Be	9	**2.261**	ug/L	1.544	1393	0.002
	B	11	**6.744**	ug/L	1.144	5481	0.005
	Na	23	**1075.320**	ug/L	8.692	6308885	7.419
	Mg	24	**6072.530**	ug/L	12.744	24975957	29.449
	Al	27	**33806.426**	ug/L	9.718	202765281	239.239
	P	31	**402.302**	ug/L	0.995	157483	0.175
	K	39	**3125.364**	ug/L	6.005	26762331	30.769
	Ca	43	**6092.056**	ug/L	1.724	124846	0.147
>	Sc	45		ug/L		847619	847618.712
	Ti	47	**825.267**	ug/L	1.728	826751	0.975
	V	51	**38.040**	ug/L	1.072	446745	0.518
	Cr	52	**18.529**	ug/L	0.186	179634	0.202
	Cr	53		ug/L		105781	-0.068
	Mn	55	**437.851**	ug/L	2.196	6409278	7.560
	Fe	57	**43111.275**	ug/L	2.345	11905422	14.036
	Co	59	**4.803**	ug/L	1.277	56701	0.067
	Ni	60	**13.710**	ug/L	0.337	37097	0.044
	Cu	63		ug/L		68729	0.081
	Cu	65	**11.001**	ug/L	1.436	34828	0.041
	Zn	66	**128.595**	ug/L	0.149	225020	0.372
	Zn	67		ug/L		47848	0.052
	Zn	68		ug/L		174046	0.286
>	Ge	74		ug/L		603918	603917.674
	As	75	**8.675**	ug/L	0.435	15921	0.026
	Se	77		ug/L		4947	-0.007
	Se	82	**1.047**	ug/L	20.868	160	0.000
	Kr	83		ug/L		376	0.000
	Sr	88	**55.094**	ug/L	1.378	1151079	3.002
	Y	89		ug/L		1539491	4.015
	Mo	98	**2.005**	ug/L	0.934	10907	0.028
	Ag	107	**0.335**	ug/L	0.898	3113	0.008
	Cd	111	**0.989**	ug/L	9.724	2215	0.006
	Cd	114		ug/L		401	0.001
>	In	115		ug/L		383397	383397.236
	Sn	120	**5.150**	ug/L	2.445	46271	0.120
	Sb	121	**0.236**	ug/L	3.023	2201	0.005
	Sb	123		ug/L		1792	0.004
	Ba	135		ug/L		630540	0.935
	Ba	137	**242.090**	ug/L	2.424	1066066	1.581
	Ho	165		ug/L		116203	0.172
>	Lu	175		ug/L		674299	674299.283
	Tl	205	**0.965**	ug/L	1.966	33330	0.044
	Pb	208	**44.159**	ug/L	0.373	2109650	3.127
	Bi	209		ug/L		26930	0.040
	Th	232	**17.190**	ug/L	0.335	981735	1.455
	U	238	**1.948**	ug/L	0.484	119318	0.176

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	0.9999
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	0.9999
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	0.9999
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		99.4			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		86.8			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		90.9			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		102.5			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Ti 47 Upper, S, EEE	Ti	47	Sample is out of limits (over linear range)

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1201994312
Sample Date/Time: Sunday, December 20, 2009 19:00:06
Sample Type:
Sample Description: LANL 6020 MS
Number of Replicates: 3
Batch ID: 932320|2|ba|
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\091220\1201994312.078

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**122.567**	ug/L	1.406	316052	0.375
	Be	9	**24.328**	ug/L	0.661	14672	0.017
	B	11	**46.511**	ug/L	2.842	32128	0.037
	Na	23	**1886.478**	ug/L	6.225	10984967	13.015
	Mg	24	**5829.279**	ug/L	5.517	23807864	28.270
	Al	27	**23681.667**	ug/L	1.474	141161246	167.589
	P	31	**1245.623**	ug/L	1.863	466036	0.543
	K	39	**4084.042**	ug/L	3.146	34537873	40.207
	Ca	43	**4666.224**	ug/L	1.809	95172	0.112
>	Sc	45		ug/L		842303	842303.304
	Ti	47	**909.552**	ug/L	1.515	905564	1.074
	V	51	**51.996**	ug/L	2.104	603823	0.708
	Cr	52	**36.788**	ug/L	0.724	346467	0.402
	Cr	53		ug/L		125342	-0.044
	Mn	55	**463.093**	ug/L	1.243	6736304	7.996
	Fe	57	**41258.595**	ug/L	2.988	11321841	13.433
	Co	59	**27.193**	ug/L	1.158	318115	0.377
	Ni	60	**33.742**	ug/L	3.898	90542	0.107
	Cu	63		ug/L		179300	0.213
	Cu	65	**28.694**	ug/L	1.754	89990	0.107
	Zn	66	**150.210**	ug/L	0.821	260917	0.434
	Zn	67		ug/L		52061	0.059
	Zn	68		ug/L		195185	0.323
>	Ge	74		ug/L		599650	599649.866
	As	75	**44.642**	ug/L	1.258	81319	0.136
	Se	77		ug/L		5851	-0.005
	Se	82	**9.417**	ug/L	1.887	1651	0.003
	Kr	83		ug/L		376	0.000
	Sr	88	**57.586**	ug/L	1.592	1204632	3.137
	Y	89		ug/L		1474697	3.842
	Mo	98	**26.013**	ug/L	2.102	140563	0.366
	Ag	107	**24.383**	ug/L	2.821	222300	0.579
	Cd	111	**5.869**	ug/L	5.826	13000	0.034
	Cd	114		ug/L		25717	0.067
>	In	115		ug/L		383975	383975.284
	Sn	120	**29.369**	ug/L	2.688	262822	0.684
	Sb	121	**55.583**	ug/L	3.151	420029	1.093
	Sb	123		ug/L		332158	0.865
	Ba	135		ug/L		337802	0.498
	Ba	137	**131.626**	ug/L	0.117	583301	0.860
	Ho	165		ug/L		112890	0.166
>	Lu	175		ug/L		678463	678463.299
	Tl	205	**49.343**	ug/L	1.198	1535254	2.258
	Pb	208	**129.891**	ug/L	0.878	6241715	9.198
	Bi	209		ug/L		24220	0.036
	Th	232	**41.096**	ug/L	1.147	2360411	3.478
	U	238	**27.442**	ug/L	1.221	1684667	2.482

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	0.9999
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	0.9999
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	0.9999
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	0.9999
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9999
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9999
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		98.8			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		86.2			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		91.0			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		103.2			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Ti 47 Upper, S, EEE	Ti	47	Sample is out of limits (over linear range)

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1201994314
Sample Date/Time: Sunday, December 20, 2009 19:06:15
Sample Type:
Sample Description: LANL 6020 MSD
Number of Replicates: 3
Batch ID: 932320|2|ba|
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\091220\1201994314.079

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**124.778**	ug/L	1.707	318853	0.382
	Be	9	**24.385**	ug/L	2.853	14569	0.017
	B	11	**47.216**	ug/L	3.927	32299	0.038
	Na	23	**1739.521**	ug/L	6.365	10028713	12.001
	Mg	24	**5421.866**	ug/L	3.925	21938915	26.294
	Al	27	**20900.015**	ug/L	10.575	123560093	147.904
	P	31	**1356.417**	ug/L	2.736	501987	0.591
	K	39	**3639.158**	ug/L	7.774	30559689	35.827
	Ca	43	**4651.445**	ug/L	3.580	93989	0.112
>	Sc	45		ug/L		834718	834717.889
	Ti	47	**960.517**	ug/L	1.584	947404	1.135
	V	51	**51.184**	ug/L	2.639	589049	0.696
	Cr	52	**34.959**	ug/L	1.440	326624	0.382
	Cr	53		ug/L		120082	-0.049
	Mn	55	**639.685**	ug/L	1.296	9220030	11.045
	Fe	57	**42498.172**	ug/L	4.304	11553002	13.836
	Co	59	**27.695**	ug/L	3.640	320922	0.384
	Ni	60	**33.772**	ug/L	2.807	89798	0.107
	Cu	63		ug/L		172734	0.207
	Cu	65	**27.472**	ug/L	2.199	85374	0.102
	Zn	66	**158.275**	ug/L	1.155	274046	0.458
	Zn	67		ug/L		53799	0.062
	Zn	68		ug/L		204191	0.340
>	Ge	74		ug/L		597802	597801.807
	As	75	**45.622**	ug/L	1.652	82843	0.139
	Se	77		ug/L		5691	-0.005
	Se	82	**9.688**	ug/L	4.095	1695	0.003
	Kr	83		ug/L		341	0.000
	Sr	88	**54.116**	ug/L	1.631	1136844	2.948
	Y	89		ug/L		1476941	3.831
	Mo	98	**26.031**	ug/L	2.443	141248	0.366
	Ag	107	**24.239**	ug/L	2.132	221946	0.576
	Cd	111	**6.001**	ug/L	2.443	13353	0.035
	Cd	114		ug/L		25747	0.067
>	In	115		ug/L		385557	385557.275
	Sn	120	**30.511**	ug/L	1.153	274230	0.711
	Sb	121	**60.757**	ug/L	1.591	461121	1.195
	Sb	123		ug/L		365665	0.948
	Ba	135		ug/L		346018	0.505
	Ba	137	**133.646**	ug/L	3.181	597376	0.873
	Ho	165		ug/L		116564	0.170
>	Lu	175		ug/L		684620	684619.807
	Tl	205	**48.970**	ug/L	2.927	1536958	2.241
	Pb	208	**136.845**	ug/L	2.247	6633616	9.691
	Bi	209		ug/L		29248	0.043
	Th	232	**41.458**	ug/L	2.205	2402074	3.508
	U	238	**27.505**	ug/L	1.214	1703661	2.488

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	0.9999
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	0.9999
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	0.9999
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		97.9			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		85.9			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		91.4			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		104.1			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Ti 47 Upper, S, EEE	Ti	47	Sample is out of limits (over linear range)

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1201994313
Sample Date/Time: Sunday, December 20, 2009 19:12:23
Sample Type:
Sample Description: LANL 6020 SDILT
Number of Replicates: 3
Batch ID: 932320|10|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\091220\1201994313.080

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**21.495**	ug/L	1.946	51340	0.066
	Be	9	**0.347**	ug/L	7.340	214	0.000
	B	11	**1.028**	ug/L	10.465	1489	0.001
	Na	23	**172.572**	ug/L	13.096	944211	1.191
	Mg	24	**1016.167**	ug/L	5.697	3836124	4.928
	Al	27	**4316.076**	ug/L	6.320	23783558	30.544
	P	31	**119.121**	ug/L	2.635	48572	0.052
	K	39	**625.845**	ug/L	0.134	5416321	6.161
	Ca	43	**794.302**	ug/L	3.065	15453	0.019
>	Sc	45		ug/L		778438	778437.554
	Ti	47	**200.758**	ug/L	0.437	185071	0.237
	V	51	**6.041**	ug/L	3.483	71333	0.082
	Cr	52	**2.135**	ug/L	3.965	25611	0.023
	Cr	53		ug/L		116335	-0.044
	Mn	55	**121.364**	ug/L	2.346	1632429	2.096
	Fe	57	**8817.019**	ug/L	1.300	2243179	2.871
	Co	59	**1.007**	ug/L	2.092	11051	0.014
	Ni	60	**2.534**	ug/L	1.625	6385	0.008
	Cu	63		ug/L		7943	0.010
	Cu	65	**1.367**	ug/L	0.624	4116	0.005
	Zn	66	**28.301**	ug/L	0.973	51805	0.082
	Zn	67		ug/L		21841	0.007
	Zn	68		ug/L		39130	0.060
>	Ge	74		ug/L		628029	628028.850
	As	75	**1.600**	ug/L	4.771	3063	0.005
	Se	77		ug/L		6165	-0.005
	Se	82	**0.326**	ug/L	15.565	32	0.000
	Kr	83		ug/L		175	0.000
	Sr	88	**6.144**	ug/L	0.885	130802	0.335
	Y	89		ug/L		305471	0.783
	Mo	98	**0.407**	ug/L	2.228	2330	0.006
	Ag	107	**0.046**	ug/L	0.411	498	0.001
	Cd	111	**0.154**	ug/L	6.921	381	0.001
	Cd	114		ug/L		87	0.000
>	In	115		ug/L		390058	390058.156
	Sn	120	**1.453**	ug/L	1.901	13497	0.034
	Sb	121	**0.084**	ug/L	7.180	1074	0.002
	Sb	123		ug/L		891	0.001
	Ba	135		ug/L		56040	0.085
	Ba	137	**22.549**	ug/L	0.996	97227	0.147
	Ho	165		ug/L		21396	0.032
>	Lu	175		ug/L		659792	659791.732
	Tl	205	**0.175**	ug/L	9.933	8781	0.008
	Pb	208	**9.677**	ug/L	1.145	453110	0.685
	Bi	209		ug/L		5214	0.008
	Th	232	**3.731**	ug/L	1.364	209158	0.316
	U	238	**0.295**	ug/L	0.409	18101	0.027

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	0.9999
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	0.9999
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	0.9999
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	0.9999
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9999
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9999
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		91.3			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		90.3			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		92.5			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		100.3			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Ti 47 Upper, S, EEE	Ti	47	Sample is out of limits (over linear range)

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 8
Sample Date/Time: Sunday, December 20, 2009 19:18:31
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\091220\QC Std 8.081

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**50.364**	ug/L	0.712	119851	0.154
	Be	9	**50.041**	ug/L	1.582	27803	0.036
	B	11	**95.943**	ug/L	1.760	60212	0.076
	Na	23	**4424.380**	ug/L	4.016	23715097	30.524
	Mg	24	**4682.290**	ug/L	6.721	17624934	22.707
	Al	27	**4574.300**	ug/L	7.286	25169649	32.371
	P	31	**4706.419**	ug/L	2.265	1600820	2.051
	K	39	**5073.327**	ug/L	3.243	39420190	49.947
	Ca	43	**4942.775**	ug/L	2.377	92915	0.119
>	Sc	45		ug/L		776742	776742.464
	Ti	47	**49.704**	ug/L	1.312	46069	0.059
	V	51	**51.292**	ug/L	0.450	549420	0.698
	Cr	52	**50.816**	ug/L	0.596	438463	0.555
	Cr	53		ug/L		192148	0.054
	Mn	55	**54.046**	ug/L	2.917	726085	0.933
	Fe	57	**5405.512**	ug/L	1.798	1375628	1.760
	Co	59	**51.297**	ug/L	0.336	553225	0.712
	Ni	60	**51.455**	ug/L	2.187	127263	0.164
	Cu	63		ug/L		300646	0.387
	Cu	65	**50.478**	ug/L	2.211	145837	0.188
	Zn	66	**51.235**	ug/L	0.743	96051	0.148
	Zn	67		ug/L		31193	0.021
	Zn	68		ug/L		71860	0.109
>	Ge	74		ug/L		645368	645367.762
	As	75	**48.636**	ug/L	2.681	95349	0.148
	Se	77		ug/L		15916	0.010
	Se	82	**49.224**	ug/L	3.906	9419	0.015
	Kr	83		ug/L		165	-0.000
	Sr	88	**50.730**	ug/L	3.025	1087708	2.764
	Y	89		ug/L		213	0.000
	Mo	98	**48.028**	ug/L	1.285	265978	0.676
	Ag	107	**50.161**	ug/L	3.534	468682	1.191
	Cd	111	**49.366**	ug/L	2.358	111864	0.284
	Cd	114		ug/L		264575	0.672
>	In	115		ug/L		393590	393589.632
	Sn	120	**50.626**	ug/L	2.115	464225	1.179
	Sb	121	**50.843**	ug/L	1.107	394001	1.000
	Sb	123		ug/L		309372	0.785
	Ba	135		ug/L		116361	0.177
	Ba	137	**47.684**	ug/L	2.964	204363	0.311
	Ho	165		ug/L		110	0.000
>	Lu	175		ug/L		656262	656261.756
	Tl	205	**47.939**	ug/L	1.603	1442643	2.193
	Pb	208	**51.671**	ug/L	3.008	2401345	3.659
	Bi	209		ug/L		550	0.001
	Th	232	**49.113**	ug/L	2.527	2727403	4.156
	U	238	**51.104**	ug/L	3.131	3032964	4.623

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	0.9999
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	0.9999
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	0.9999
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	0.9999
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9999
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9999
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7	100.728				
	Be	9	100.082				
	B	11	95.943				
	Na	23	88.488				
	Mg	24	93.646				
	Al	27	90.580				
	P	31	94.128				
	K	39	101.467				
	Ca	43	98.856				
>	Sc	45		91.1			
	Ti	47	99.408				
	V	51	102.584				
	Cr	52	101.631				
	Cr	53					
	Mn	55	108.092				
	Fe	57	108.110				
	Co	59	102.593				
	Ni	60	102.909				
	Cu	63					
	Cu	65	100.957				
	Zn	66	102.470				
	Zn	67					
	Zn	68					
>	Ge	74		92.8			
	As	75	97.272				
	Se	77					
	Se	82	98.448				
	Kr	83					
	Sr	88	101.460				
	Y	89					
	Mo	98	96.057				
	Ag	107	100.322				
	Cd	111	98.732				
	Cd	114					
>	In	115		93.3			
	Sn	120	101.252				
	Sb	121	101.686				
	Sb	123					
	Ba	135					
	Ba	137	95.369				
	Ho	165					
>	Lu	175		99.8			
	Tl	205	95.877				
	Pb	208	103.342				
	Bi	209					
	Th	232	98.225				
	U	238	102.207				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 8	Na	23	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 9
Sample Date/Time: Sunday, December 20, 2009 19:24:39
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\091220\QC Std 9.082

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.031**	ug/L	6.480	232	0.000
	Be	9	**0.007**	ug/L	23.561	26	0.000
	B	11	**0.394**	ug/L	31.296	1119	0.000
	Na	23	**0.900**	ug/L	16.024	22351	0.006
	Mg	24	**0.797**	ug/L	66.125	4001	0.004
	Al	27	**-0.428**	ug/L	115.508	10004	-0.003
	P	31	**-0.091**	ug/L	3407.645	8309	-0.000
	K	39	**-0.156**	ug/L	693.149	632366	-0.002
	Ca	43	**-1.661**	ug/L	109.780	554	-0.000
>	Sc	45		ug/L		795287	795287.291
	Ti	47	**0.009**	ug/L	144.254	490	0.000
	V	51	**-0.009**	ug/L	1284.820	7392	-0.000
	Cr	52	**-0.234**	ug/L	21.129	5583	-0.003
	Cr	53		ug/L		154650	0.001
	Mn	55	**0.004**	ug/L	103.219	1534	0.000
	Fe	57	**3.530**	ug/L	22.840	9889	0.001
	Co	59	**0.002**	ug/L	25.560	192	0.000
	Ni	60	**0.006**	ug/L	74.805	126	0.000
	Cu	63		ug/L		330	0.000
	Cu	65	**0.009**	ug/L	31.760	190	0.000
	Zn	66	**-0.013**	ug/L	60.368	389	-0.000
	Zn	67		ug/L		16787	-0.002
	Zn	68		ug/L		1319	-0.000
>	Ge	74		ug/L		656615	656614.577
	As	75	**-0.310**	ug/L	139.192	-609	-0.001
	Se	77		ug/L		9841	0.000
	Se	82	**0.058**	ug/L	106.593	-19	0.000
	Kr	83		ug/L		172	-0.000
	Sr	88	**0.003**	ug/L	18.204	312	0.000
	Y	89		ug/L		77	-0.000
	Mo	98	**0.029**	ug/L	22.889	257	0.000
	Ag	107	**0.004**	ug/L	15.867	111	0.000
	Cd	111	**0.003**	ug/L	185.892	40	0.000
	Cd	114		ug/L		72	0.000
>	In	115		ug/L		397137	397137.159
	Sn	120	**0.026**	ug/L	15.997	541	0.001
	Sb	121	**0.113**	ug/L	12.776	1322	0.002
	Sb	123		ug/L		1061	0.002
	Ba	135		ug/L		54	-0.000
	Ba	137	**0.003**	ug/L	69.020	79	0.000
	Ho	165		ug/L		75	0.000
>	Lu	175		ug/L		656206	656206.190
	Tl	205	**0.270**	ug/L	32.352	11561	0.012
	Pb	208	**0.002**	ug/L	67.557	1056	0.000
	Bi	209		ug/L		45	-0.000
	Th	232	**0.049**	ug/L	25.962	3586	0.004
	U	238	**0.008**	ug/L	25.002	958	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	0.9999
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	0.9999
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	0.9999
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		93.2			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		94.4			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		94.2			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		99.8			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 242750002
Sample Date/Time: Sunday, December 20, 2009 19:30:48
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 932320|2|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\091220\242750002.083

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**75.476**	ug/L	1.067	199742	0.231
	Be	9	**4.667**	ug/L	4.168	2906	0.003
	B	11	**1.515**	ug/L	2.926	1988	0.001
	Na	23	**580.563**	ug/L	11.985	3483155	4.005
	Mg	24	**3898.113**	ug/L	15.139	16366579	18.904
	Al	27	**11711.638**	ug/L	7.800	71636692	82.880
	P	31	**744.196**	ug/L	4.779	289322	0.324
	K	39	**1495.306**	ug/L	4.047	13415071	14.721
	Ca	43	**4710.953**	ug/L	2.080	98590	0.113
>	Sc	45		ug/L		864363	864362.717
	Ti	47	**1887.853**	ug/L	1.838	1927782	2.230
	V	51	**32.755**	ug/L	2.608	393285	0.446
	Cr	52	**10.672**	ug/L	3.069	109011	0.117
	Cr	53		ug/L		99919	-0.078
	Mn	55	**763.430**	ug/L	2.858	11393596	13.182
	Fe	57	**90662.197**	ug/L	2.604	25517903	29.517
	Co	59	**6.806**	ug/L	2.210	81856	0.094
	Ni	60	**19.404**	ug/L	3.103	53498	0.062
	Cu	63		ug/L		55298	0.064
	Cu	65	**9.329**	ug/L	3.398	30138	0.035
	Zn	66	**116.195**	ug/L	0.773	215890	0.336
	Zn	67		ug/L		44729	0.042
	Zn	68		ug/L		160845	0.249
>	Ge	74		ug/L		641123	641123.496
	As	75	**20.306**	ug/L	1.262	39549	0.062
	Se	77		ug/L		5267	-0.007
	Se	82	**0.658**	ug/L	46.100	95	0.000
	Kr	83		ug/L		451	0.000
	Sr	88	**37.055**	ug/L	4.199	803035	2.019
	Y	89		ug/L		2202684	5.539
	Mo	98	**18.291**	ug/L	2.442	102451	0.257
	Ag	107	**0.255**	ug/L	5.558	2478	0.006
	Cd	111	**1.149**	ug/L	5.113	2665	0.007
	Cd	114		ug/L		1543	0.004
>	In	115		ug/L		397938	397937.755
	Sn	120	**11.787**	ug/L	1.033	109517	0.275
	Sb	121	**0.355**	ug/L	3.929	3215	0.007
	Sb	123		ug/L		2562	0.006
	Ba	135		ug/L		239444	0.346
	Ba	137	**90.967**	ug/L	1.928	411717	0.594
	Ho	165		ug/L		167345	0.241
>	Lu	175		ug/L		692940	692940.139
	Tl	205	**2.017**	ug/L	1.727	67590	0.092
	Pb	208	**35.694**	ug/L	1.285	1752424	2.528
	Bi	209		ug/L		15187	0.022
	Th	232	**20.109**	ug/L	1.973	1179875	1.702
	U	238	**1.935**	ug/L	3.034	121809	0.175

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	0.9999
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	0.9999
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	0.9999
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	0.9999
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9999
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9999
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		101.3			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		92.2			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		94.3			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		105.4			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Ti 47 Upper, S, EEE	Ti	47	Sample is out of limits (over linear range)
Fe 57 Upper, S, EEE	Fe	57	Sample is out of limits (over linear range)

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 242750003
Sample Date/Time: Sunday, December 20, 2009 19:36:57
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 932320|2|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\091220\242750003.084

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**97.077**	ug/L	1.728	266319	0.297
	Be	9	**1.678**	ug/L	5.384	1098	0.001
	B	11	**1.220**	ug/L	6.022	1851	0.001
	Na	23	**918.534**	ug/L	12.551	5684929	6.337
	Mg	24	**4075.916**	ug/L	1.799	17723160	19.767
	Al	27	**5716.272**	ug/L	4.826	36258375	40.453
	P	31	**759.302**	ug/L	2.597	305810	0.331
	K	39	**3137.139**	ug/L	6.700	28389770	30.885
	Ca	43	**2411.102**	ug/L	2.478	52623	0.058
>	Sc	45		ug/L		896275	896274.935
	Ti	47	**798.519**	ug/L	2.672	845536	0.943
	V	51	**20.053**	ug/L	4.221	252804	0.273
	Cr	52	**11.610**	ug/L	4.505	122140	0.127
	Cr	53		ug/L		108034	-0.073
	Mn	55	**742.584**	ug/L	2.604	11489206	12.822
	Fe	57	**34798.629**	ug/L	3.602	10157100	11.329
	Co	59	**3.893**	ug/L	3.992	48596	0.054
	Ni	60	**11.211**	ug/L	2.383	32087	0.036
	Cu	63		ug/L		24849	0.027
	Cu	65	**4.008**	ug/L	3.591	13527	0.015
	Zn	66	**220.874**	ug/L	2.202	422138	0.639
	Zn	67		ug/L		79241	0.092
	Zn	68		ug/L		313627	0.473
>	Ge	74		ug/L		660294	660294.261
	As	75	**4.762**	ug/L	2.248	9559	0.014
	Se	77		ug/L		5427	-0.007
	Se	82	**1.038**	ug/L	10.483	173	0.000
	Kr	83		ug/L		356	0.000
	Sr	88	**14.437**	ug/L	1.583	322165	0.787
	Y	89		ug/L		1893425	4.626
	Mo	98	**2.610**	ug/L	2.054	15127	0.037
	Ag	107	**0.148**	ug/L	2.882	1513	0.004
	Cd	111	**0.979**	ug/L	7.909	2343	0.006
	Cd	114		ug/L		891	0.002
>	In	115		ug/L		409315	409314.707
	Sn	120	**7.556**	ug/L	2.819	72308	0.176
	Sb	121	**0.177**	ug/L	3.032	1871	0.003
	Sb	123		ug/L		1513	0.003
	Ba	135		ug/L		168807	0.242
	Ba	137	**64.323**	ug/L	1.850	292797	0.420
	Ho	165		ug/L		143003	0.205
>	Lu	175		ug/L		696821	696820.735
	Tl	205	**0.798**	ug/L	0.800	29132	0.037
	Pb	208	**68.339**	ug/L	1.776	3372801	4.840
	Bi	209		ug/L		7975	0.011
	Th	232	**14.018**	ug/L	1.257	827408	1.186
	U	238	**1.341**	ug/L	2.982	85021	0.121

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	0.9999
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	0.9999
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	0.9999
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	0.9999
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9999
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9999
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		105.1			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		94.9			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		97.0			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		106.0			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Ti 47 Upper, S, EEE	Ti	47	Sample is out of limits (over linear range)

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 242750004
Sample Date/Time: Sunday, December 20, 2009 19:43:07
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 932320|2|ba|
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\091220\242750004.085

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**56.380**	ug/L	2.157	153820	0.172
	Be	9	**1.108**	ug/L	6.741	730	0.001
	B	11	**0.493**	ug/L	1.006	1324	0.000
	Na	23	**544.146**	ug/L	4.554	3363623	3.754
	Mg	24	**2373.949**	ug/L	10.956	10244709	11.513
	Al	27	**3858.198**	ug/L	9.412	24311592	27.303
	P	31	**790.966**	ug/L	0.939	316341	0.345
	K	39	**1355.759**	ug/L	3.137	12595700	13.347
	Ca	43	**3002.647**	ug/L	1.819	64993	0.072
>	Sc	45		ug/L		890783	890783.420
	Ti	47	**1293.532**	ug/L	0.978	1361686	1.528
	V	51	**17.024**	ug/L	3.312	214671	0.232
	Cr	52	**5.914**	ug/L	0.764	66066	0.065
	Cr	53		ug/L		101152	-0.080
	Mn	55	**655.835**	ug/L	1.815	10089665	11.324
	Fe	57	**36180.365**	ug/L	1.477	10501433	11.779
	Co	59	**3.522**	ug/L	1.167	43738	0.049
	Ni	60	**12.763**	ug/L	0.795	36306	0.041
	Cu	63		ug/L		25124	0.028
	Cu	65	**4.343**	ug/L	0.767	14562	0.016
	Zn	66	**111.364**	ug/L	1.559	213711	0.322
	Zn	67		ug/L		45476	0.041
	Zn	68		ug/L		158060	0.237
>	Ge	74		ug/L		662171	662171.194
	As	75	**4.753**	ug/L	1.584	9570	0.014
	Se	77		ug/L		5443	-0.007
	Se	82	**0.809**	ug/L	25.445	129	0.000
	Kr	83		ug/L		436	0.000
	Sr	88	**15.802**	ug/L	2.959	350886	0.861
	Y	89		ug/L		2186850	5.369
	Mo	98	**2.806**	ug/L	1.867	16176	0.039
	Ag	107	**0.203**	ug/L	0.955	2038	0.005
	Cd	111	**1.131**	ug/L	5.370	2688	0.007
	Cd	114		ug/L		420	0.001
>	In	115		ug/L		407290	407289.993
	Sn	120	**12.957**	ug/L	0.582	123213	0.302
	Sb	121	**0.144**	ug/L	2.746	1602	0.003
	Sb	123		ug/L		1289	0.002
	Ba	135		ug/L		171418	0.241
	Ba	137	**63.857**	ug/L	1.467	297189	0.417
	Ho	165		ug/L		163710	0.230
>	Lu	175		ug/L		712457	712456.761
	Tl	205	**0.785**	ug/L	2.145	29353	0.036
	Pb	208	**19.228**	ug/L	0.515	971150	1.362
	Bi	209		ug/L		6231	0.009
	Th	232	**18.903**	ug/L	0.204	1140635	1.600
	U	238	**1.642**	ug/L	1.809	106334	0.148

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	0.9999
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	0.9999
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	0.9999
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	0.9999
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9999
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9999
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		104.4			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		95.2			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		96.6			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		108.4			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Ti 47 Upper, S, EEE	Ti	47	Sample is out of limits (over linear range)

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 242750005
Sample Date/Time: Sunday, December 20, 2009 19:49:17
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 932320|2|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\091220\242750005.086

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**87.572**	ug/L	1.798	252857	0.268
	Be	9	**1.306**	ug/L	4.621	906	0.001
	B	11	**0.558**	ug/L	15.330	1451	0.000
	Na	23	**749.608**	ug/L	7.671	4896020	5.172
	Mg	24	**4005.084**	ug/L	8.192	18331099	19.423
	Al	27	**6193.298**	ug/L	4.383	41362709	43.828
	P	31	**798.169**	ug/L	1.941	337907	0.348
	K	39	**2211.050**	ug/L	5.887	21278201	21.768
	Ca	43	**4130.045**	ug/L	1.849	94412	0.099
>	Sc	45		ug/L		943168	943167.860
	Ti	47	**1503.574**	ug/L	2.356	1675735	1.776
	V	51	**24.661**	ug/L	1.679	325385	0.336
	Cr	52	**10.739**	ug/L	1.551	119659	0.117
	Cr	53		ug/L		106557	-0.080
	Mn	55	**885.662**	ug/L	2.736	14427844	15.293
	Fe	57	**42573.768**	ug/L	0.588	13084230	13.861
	Co	59	**4.711**	ug/L	1.134	61880	0.065
	Ni	60	**16.691**	ug/L	1.888	50234	0.053
	Cu	63		ug/L		32385	0.034
	Cu	65	**5.306**	ug/L	1.534	18794	0.020
	Zn	66	**142.054**	ug/L	1.446	278325	0.411
	Zn	67		ug/L		56070	0.055
	Zn	68		ug/L		207209	0.304
>	Ge	74		ug/L		676436	676435.599
	As	75	**5.420**	ug/L	9.054	11157	0.016
	Se	77		ug/L		5643	-0.007
	Se	82	**1.056**	ug/L	3.105	181	0.000
	Kr	83		ug/L		510	0.000
	Sr	88	**28.070**	ug/L	1.258	635688	1.529
	Y	89		ug/L		2661306	6.405
	Mo	98	**3.236**	ug/L	2.053	19018	0.046
	Ag	107	**0.267**	ug/L	2.332	2704	0.006
	Cd	111	**1.524**	ug/L	5.838	3682	0.009
	Cd	114		ug/L		467	0.001
>	In	115		ug/L		415497	415497.089
	Sn	120	**15.601**	ug/L	1.352	151270	0.363
	Sb	121	**0.161**	ug/L	2.739	1777	0.003
	Sb	123		ug/L		1367	0.002
	Ba	135		ug/L		257765	0.360
	Ba	137	**94.603**	ug/L	1.441	442196	0.618
	Ho	165		ug/L		196587	0.275
>	Lu	175		ug/L		715673	715673.319
	Tl	205	**1.029**	ug/L	2.765	37454	0.047
	Pb	208	**25.820**	ug/L	1.561	1309541	1.829
	Bi	209		ug/L		5842	0.008
	Th	232	**22.207**	ug/L	2.978	1345513	1.879
	U	238	**1.991**	ug/L	1.814	129394	0.180

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	0.9999
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	0.9999
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	0.9999
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	0.9999
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9999
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9999
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		110.6			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		97.2			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		98.5			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		108.8			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Ti 47 Upper, S, EEE	Ti	47	Sample is out of limits (over linear range)

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 8
Sample Date/Time: Sunday, December 20, 2009 19:55:26
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\091220\QC Std 8.087

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**49.187**	ug/L	2.450	118420	0.150
	Be	9	**49.720**	ug/L	3.270	27943	0.036
	B	11	**94.321**	ug/L	1.804	59920	0.075
	Na	23	**4759.274**	ug/L	18.553	25704105	32.834
	Mg	24	**4388.510**	ug/L	3.245	16743554	21.283
	Al	27	**5247.493**	ug/L	1.258	29217914	37.135
	P	31	**4716.778**	ug/L	1.877	1623377	2.055
	K	39	**5098.228**	ug/L	6.895	40143497	50.192
	Ca	43	**5008.312**	ug/L	1.460	95274	0.120
>	Sc	45		ug/L		786244	786244.279
	Ti	47	**50.898**	ug/L	3.465	47704	0.060
	V	51	**52.479**	ug/L	2.310	568672	0.714
	Cr	52	**51.826**	ug/L	2.030	452291	0.566
	Cr	53		ug/L		195707	0.056
	Mn	55	**54.716**	ug/L	3.579	743567	0.945
	Fe	57	**5477.895**	ug/L	2.955	1409955	1.783
	Co	59	**51.846**	ug/L	2.579	565656	0.720
	Ni	60	**51.708**	ug/L	1.850	129433	0.165
	Cu	63		ug/L		304684	0.387
	Cu	65	**51.232**	ug/L	2.886	149741	0.190
	Zn	66	**50.883**	ug/L	0.940	99104	0.147
	Zn	67		ug/L		32932	0.021
	Zn	68		ug/L		74543	0.109
>	Ge	74		ug/L		670533	670533.011
	As	75	**49.088**	ug/L	3.692	99940	0.149
	Se	77		ug/L		16254	0.009
	Se	82	**49.921**	ug/L	1.841	9919	0.015
	Kr	83		ug/L		177	-0.000
	Sr	88	**50.904**	ug/L	0.349	1117347	2.773
	Y	89		ug/L		274	0.000
	Mo	98	**47.864**	ug/L	0.277	271312	0.673
	Ag	107	**50.274**	ug/L	1.263	480924	1.194
	Cd	111	**49.528**	ug/L	1.552	114891	0.285
	Cd	114		ug/L		272612	0.677
>	In	115		ug/L		402808	402808.096
	Sn	120	**50.110**	ug/L	0.791	470394	1.167
	Sb	121	**50.650**	ug/L	0.349	401741	0.996
	Sb	123		ug/L		316276	0.784
	Ba	135		ug/L		119314	0.183
	Ba	137	**48.726**	ug/L	1.295	207570	0.318
	Ho	165		ug/L		123	0.000
>	Lu	175		ug/L		652105	652105.067
	Tl	205	**48.836**	ug/L	0.396	1460479	2.234
	Pb	208	**52.323**	ug/L	1.665	2416958	3.705
	Bi	209		ug/L		565	0.001
	Th	232	**49.238**	ug/L	1.710	2717749	4.167
	U	238	**51.299**	ug/L	0.392	3026474	4.640

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	0.9999
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	0.9999
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	0.9999
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7	98.375				
	Be	9	99.439				
	B	11	94.321				
	Na	23	95.185				
	Mg	24	87.770				
	Al	27	103.911				
	P	31	94.336				
	K	39	101.965				
	Ca	43	100.166				
>	Sc	45		92.2			
	Ti	47	101.795				
	V	51	104.958				
	Cr	52	103.651				
	Cr	53					
	Mn	55	109.433				
	Fe	57	109.558				
	Co	59	103.692				
	Ni	60	103.416				
	Cu	63					
	Cu	65	102.464				
	Zn	66	101.766				
	Zn	67					
	Zn	68					
>	Ge	74		96.4			
	As	75	98.177				
	Se	77					
	Se	82	99.842				
	Kr	83					
	Sr	88	101.807				
	Y	89					
	Mo	98	95.728				
	Ag	107	100.549				
	Cd	111	99.056				
	Cd	114					
>	In	115		95.5			
	Sn	120	100.220				
	Sb	121	101.301				
	Sb	123					
	Ba	135					
	Ba	137	97.453				
	Ho	165					
>	Lu	175		99.2			
	Tl	205	97.671				
	Pb	208	104.646				
	Bi	209					
	Th	232	98.476				
	U	238	102.597				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 8	Mg	24	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 9
Sample Date/Time: Sunday, December 20, 2009 20:01:35
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\091220\QC Std 9.088

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	0.019	ug/L	11.521	210	0.000
	Be	9	0.007	ug/L	77.520	26	0.000
	B	11	0.204	ug/L	48.058	1032	0.000
	Na	23	1.185	ug/L	35.382	24688	0.008
	Mg	24	1.014	ug/L	65.234	5001	0.005
	Al	27	-0.774	ug/L	68.686	8336	-0.005
	P	31	1.200	ug/L	153.378	9052	0.001
	K	39	4.786	ug/L	62.918	692746	0.047
	Ca	43	-2.115	ug/L	34.537	563	-0.000
>	Sc	45		ug/L		821042	821041.770
	Ti	47	0.060	ug/L	77.302	555	0.000
	V	51	0.353	ug/L	87.357	11686	0.005
	Cr	52	-0.425	ug/L	14.819	4058	-0.005
	Cr	53		ug/L		162802	0.005
	Mn	55	0.014	ug/L	28.491	1725	0.000
	Fe	57	4.796	ug/L	13.898	10549	0.002
	Co	59	0.005	ug/L	45.224	238	0.000
	Ni	60	0.004	ug/L	47.694	125	0.000
	Cu	63		ug/L		304	0.000
	Cu	65	0.010	ug/L	64.435	200	0.000
	Zn	66	-0.024	ug/L	42.086	389	-0.000
	Zn	67		ug/L		17683	-0.002
	Zn	68		ug/L		1494	0.000
>	Ge	74		ug/L		691728	691727.967
	As	75	-0.115	ug/L	265.333	-232	-0.000
	Se	77		ug/L		10329	0.000
	Se	82	0.110	ug/L	76.860	-9	0.000
	Kr	83		ug/L		163	-0.000
	Sr	88	0.004	ug/L	38.831	341	0.000
	Y	89		ug/L		97	0.000
	Mo	98	0.025	ug/L	33.456	249	0.000
	Ag	107	0.003	ug/L	32.081	106	0.000
	Cd	111	0.004	ug/L	87.174	46	0.000
	Cd	114		ug/L		73	0.000
>	In	115		ug/L		411412	411411.638
	Sn	120	0.022	ug/L	23.750	524	0.001
	Sb	121	0.105	ug/L	17.893	1304	0.002
	Sb	123		ug/L		1006	0.002
	Ba	135		ug/L		58	-0.000
	Ba	137	0.002	ug/L	121.055	76	0.000
	Ho	165		ug/L		71	0.000
>	Lu	175		ug/L		652808	652808.367
	Tl	205	0.251	ug/L	33.014	10939	0.012
	Pb	208	0.002	ug/L	61.501	1060	0.000
	Bi	209		ug/L		53	0.000
	Th	232	0.048	ug/L	25.319	3495	0.004
	U	238	0.008	ug/L	23.506	949	0.001

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	0.9999
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	0.9999
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	0.9999
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	0.9999
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9999
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9999
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		96.3			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		99.4			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		97.5			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		99.3			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS #5 Daily Performance Report

Sample ID: Sample
Sample Date/Time: Wednesday, December 23, 2009 12:26:02
Sample Description:
Method File: c:\elandata\Method\Daily2.mth
Dataset File: c:\elandata\Dataset\default2\Sample.1589
Tuning File: c:\elandata\Tuning\default2.tun
Optimization File: c:\elandata\Optimize\default.dac
Dual Detector Mode: Pulse

Acq. Dead Time(ns): 35
Current Dead Time (ns): 35

Number of Replicates: 5

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Be	9.0	5349.4	5349.402	135.539	2.5
	Mg	24.0	52926.7	52926.672	590.570	1.1
	Co	58.9	124214.1	124214.107	932.643	0.8
	Rh	102.9	223598.5	223598.525	1242.440	0.6
	In	114.9	288884.4	288884.362	1949.196	0.7
	Pb	208.0	333111.0	333111.027	3223.695	1.0
⌈>	Ba	137.9	283219.6	283219.638	2581.305	0.9
⌊	Ba++	69.0	6219.6	0.022	0.000	1.6
⌈>	Ce	139.9	348697.6	348697.637	5080.698	1.5
⌊	CeO	155.9	7860.7	0.023	0.001	2.7
	Bkgd	220.0	23.9	23.900	1.673	7.0

Current Optimization File Data

Current Value	Description
0.88	Nebulizer Gas Flow
8.25	Lens Voltage
1450.00	ICP RF Power
-1687.50	Analog Stage Voltage
1200.00	Pulse Stage Voltage
275.00	Discriminator Threshold
-6.00	AC Rod Offset

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	21	7.5	7193.5
Co	59	21	8.3	136217.7
In	115	21	9.5	317836.8

ICPMS #5 Instrument Tuning Report

File Name: default2.tun
File Path: c:\elandata\Tuning

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Pk. Width
He	3.0	3.0	597	2065	0.571
Be	9.0	9.0	2043	2070	0.622
Mg	24.0	24.0	5693	2070	0.645
Mg	25.0	25.0	5945	2070	0.634
Mg	26.0	26.0	6175	2070	0.639
Co	58.9	58.9	14186	2105	0.621
Rh	102.9	102.9	24877	2165	0.598
In	114.9	114.9	27791	2185	0.613
Ce	139.9	139.9	33863	2200	0.621
Pb	206.0	206.0	49936	2270	0.623
Pb	207.0	207.0	50183	2235	0.675
Pb	208.0	208.0	50427	2260	0.705
U	238.1	238.1	57730	2275	0.712

ICPMS#5 - Summary Report

Sample ID: Blank
Sample Date/Time: Wednesday, December 23, 2009 20:25:01
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li be and u.mth
Dataset File: c:\elandata\Dataset\091223\Blank.104

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7		ug/L		89	
	Be	9		ug/L		21	
>	Sc	45		ug/L		820398	
>	Lu	175		ug/L		613989	
	U	238		ug/L		584	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Simple Linear	
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Lu	175	Simple Linear	
U	238	Simple Linear	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
>	Sc	45					
>	Lu	175					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Wednesday, December 23, 2009 20:27:20
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li be and u.mth
Dataset File: c:\elandata\Dataset\091223\Standard 1.105

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**10.000**	**ug/L**	9.750	22501	0.027
	Be	9	**10.000**	**ug/L**	8.402	5972	0.007
>	Sc	45		**ug/L**		833218	833217.643
>	Lu	175		**ug/L**		604702	604701.761
	U	238	**10.000**	**ug/L**	6.562	605032	1.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
>	Sc	45					
>	Lu	175					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Wednesday, December 23, 2009 20:29:36
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li be and u.mth
Dataset File: c:\elandata\Dataset\091223\Standard 2.106

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	99.979	ug/L	11.854	222199	0.264
	Be	9	99.973	ug/L	5.643	58770	0.070
>	Sc	45		ug/L		843165	843164.761
>	Lu	175		ug/L		616697	616697.204
	U	238	99.872	ug/L	8.444	5449145	8.858

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
>	Sc	45					
>	Lu	175					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Wednesday, December 23, 2009 20:31:53
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li be and u.mth
Dataset File: c:\elandata\Dataset\091223\QC Std 1.107

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	50.404	ug/L	10.945	115938	0.133
	Be	9	50.468	ug/L	7.846	30680	0.035
>	Sc	45		ug/L		872767	872766.501
>	Lu	175		ug/L		614917	614916.997
	U	238	52.774	ug/L	9.625	2868888	4.681

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7	100.807				
	Be	9	100.937				
>	Sc	45		106.4			
>	Lu	175		100.2			
	U	238	105.548				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Wednesday, December 23, 2009 20:34:12
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li be and u.mth
Dataset File: c:\elandata\Dataset\091223\QC Std 2.108

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	0.025	ug/L	28.569	149	0.000
	Be	9	-0.001	ug/L	362.445	21	-0.000
>	Sc	45		ug/L		857133	857132.926
>	Lu	175		ug/L		605870	605870.251
	U	238	0.011	ug/L	4.632	1144	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
>	Sc	45		104.5			
>	Lu	175		98.7			
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Wednesday, December 23, 2009 20:36:31
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li be and u.mth
Dataset File: c:\elandata\Dataset\091223\QC Std 3.109

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	10.872	ug/L	12.679	25369	0.029
	Be	9	0.495	ug/L	5.564	326	0.000
>	Sc	45		ug/L		883410	883409.647
>	Lu	175		ug/L		606315	606314.779
	U	238	0.256	ug/L	12.437	14304	0.023

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7	108.715				
	Be	9	98.915				
>	Sc	45		107.7			
>	Lu	175		98.8			
	U	238	128.187				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Wednesday, December 23, 2009 20:38:49
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li be and u.mth
Dataset File: c:\elandata\Dataset\091223\QC Std 4.110

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.129**	**ug/L**	19.207	337	0.000
	Be	9	**0.067**	**ug/L**	40.833	54	0.000
>	Sc	45		**ug/L**		753251	753251.278
>	Lu	175		**ug/L**		555479	555478.676
	U	238	**-0.006**	**ug/L**	8.825	215	-0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
>	Sc	45		91.8			
>	Lu	175		90.5			
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Wednesday, December 23, 2009 20:41:08
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li be and u.mth
Dataset File: c:\elandata\Dataset\091223\QC Std 5.111

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	22.316	ug/L	14.497	44131	0.059
	Be	9	19.315	ug/L	6.083	10118	0.013
>	Sc	45		ug/L		751394	751393.510
>	Lu	175		ug/L		551087	551086.679
	U	238	22.829	ug/L	7.239	1113511	2.025

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7	111.578				
	Be	9	96.573				
>	Sc	45		91.6			
>	Lu	175		89.8			
	U	238	114.147				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Wednesday, December 23, 2009 20:43:27
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li be and u.mth
Dataset File: c:\elandata\Dataset\091223\QC Std 6.112

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**53.259**	**ug/L**	13.870	115254	0.141
	Be	9	**51.521**	**ug/L**	7.803	29479	0.036
>	Sc	45		**ug/L**		822410	822409.510
>	Lu	175		**ug/L**		620732	620731.960
	U	238	**52.586**	**ug/L**	9.533	2891500	4.664

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7	106.518				
	Be	9	103.042				
>	Sc	45		100.2			
>	Lu	175		101.1			
	U	238	105.171				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Wednesday, December 23, 2009 20:45:47
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li be and u.mth
Dataset File: c:\elandata\Dataset\091223\QC Std 7.113

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	0.004	ug/L	207.875	101	0.000
	Be	9	0.003	ug/L	218.068	23	0.000
>	Sc	45		ug/L		859144	859143.905
>	Lu	175		ug/L		621362	621362.345
	U	238	0.009	ug/L	10.997	1108	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
>	Sc	45		104.7			
>	Lu	175		101.2			
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1201994309
Sample Date/Time: Wednesday, December 23, 2009 20:48:08
Sample Type:
Sample Description: LANL 6020 MB
Number of Replicates: 3
Batch ID: 932320|2|baj
Method File: c:\elandata\Method\li be and u.mth
Dataset File: c:\elandata\Dataset\091223\1201994309.114

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	-0.004	ug/L	107.185	87	-0.000
	Be	9	0.002	ug/L	82.810	24	0.000
>	Sc	45		ug/L		884994	884994.259
>	Lu	175		ug/L		638086	638085.855
	U	238	0.047	ug/L	7.882	3241	0.004

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
>	Sc	45		107.9			
>	Lu	175		103.9			
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1201994310
Sample Date/Time: Wednesday, December 23, 2009 20:50:28
Sample Type:
Sample Description: LANL 6020 LCS
Number of Replicates: 3
Batch ID: 932320|20|baj
Method File: c:\elandata\Method\li be and u.mth
Dataset File: c:\elandata\Dataset\091223\1201994310.115

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**6.357**	**ug/L**	14.571	14249	0.017
	Be	9	**46.090**	**ug/L**	9.385	27176	0.032
>	Sc	45		**ug/L**		846570	846570.312
>	Lu	175		**ug/L**		627680	627680.250
	U	238	**1.310**	**ug/L**	9.591	73282	0.116

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
>	Sc	45		103.2			
>	Lu	175		102.2			
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 8
Sample Date/Time: Wednesday, December 23, 2009 21:02:10
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li be and u.mth
Dataset File: c:\elandata\Dataset\091223\QC Std 8.120

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	52.639	ug/L	11.136	116406	0.139
	Be	9	51.026	ug/L	1.841	29847	0.036
>	Sc	45		ug/L		838552	838552.260
>	Lu	175		ug/L		611346	611346.359
	U	238	52.345	ug/L	5.767	2835020	4.643

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7	105.278				
	Be	9	102.051				
>	Sc	45		102.2			
>	Lu	175		99.6			
	U	238	104.690				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 9
Sample Date/Time: Wednesday, December 23, 2009 21:04:30
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li be and u.mth
Dataset File: c:\elandata\Dataset\091223\QC Std 9.121

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.031**	**ug/L**	22.050	162	0.000
	Be	9	**0.001**	**ug/L**	422.589	22	0.000
>	Sc	45		**ug/L**		855182	855181.983
>	Lu	175		**ug/L**		617324	617323.577
	U	238	**0.007**	**ug/L**	12.610	961	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	**7**					
	Be	9					
>	Sc	45		104.2			
>	Lu	175		100.5			
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 242750001
Sample Date/Time: Wednesday, December 23, 2009 21:06:51
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 932320|2|baj
Method File: c:\elandata\Method\li be and u.mth
Dataset File: c:\elandata\Dataset\091223\242750001.122

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	113.223	ug/L	12.791	279629	0.299
	Be	9	1.870	ug/L	9.875	1242	0.001
>	Sc	45		ug/L		940095	940094.731
>	Lu	175		ug/L		641603	641603.239
	U	238	1.677	ug/L	5.373	96065	0.149

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
>	Sc	45		114.6			
>	Lu	175		104.5			
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1201994311
Sample Date/Time: Wednesday, December 23, 2009 21:09:11
Sample Type:
Sample Description: LANL 6020 DUP
Number of Replicates: 3
Batch ID: 932320|2|baj
Method File: c:\elandata\Method\li be and u.mth
Dataset File: c:\elandata\Dataset\091223\1201994311.123

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**104.653**	**ug/L**	12.757	256640	0.277
	Be	9	**2.467**	**ug/L**	6.982	1623	0.002
>	Sc	45		**ug/L**		932610	932609.859
>	Lu	175		**ug/L**		645211	645210.909
	U	238	**2.158**	**ug/L**	3.046	124081	0.191

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
>	Sc	45		113.7			
>	Lu	175		105.1			
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1201994312
Sample Date/Time: Wednesday, December 23, 2009 21:11:32
Sample Type:
Sample Description: LANL 6020 MS
Number of Replicates: 3
Batch ID: 932320|2|baj
Method File: c:\elandata\Method\li be and u.mth
Dataset File: c:\elandata\Dataset\091223\1201994312.124

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**136.490**	**ug/L**	11.078	339408	0.361
	Be	9	**26.190**	**ug/L**	7.020	17239	0.018
>	Sc	45		**ug/L**		944637	944636.998
>	Lu	175		**ug/L**		636550	636550.318
	U	238	**30.696**	**ug/L**	7.054	1733120	2.723

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
>	Sc	45		115.1			
>	Lu	175		103.7			
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1201994314
Sample Date/Time: Wednesday, December 23, 2009 21:13:54
Sample Type:
Sample Description: LANL 6020 MSD
Number of Replicates: 3
Batch ID: 932320|2|baj
Method File: c:\elandata\Method\li be and u.mth
Dataset File: c:\elandata\Dataset\091223\1201994314.125

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**140.927**	**ug/L**	15.889	341487	0.373
	Be	9	**26.536**	**ug/L**	6.080	17056	0.018
>	Sc	45		**ug/L**		923192	923192.138
>	Lu	175		**ug/L**		640690	640690.013
	U	238	**30.488**	**ug/L**	8.152	1728354	2.704

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
>	Sc	45		112.5			
>	Lu	175		104.3			
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1201994313
Sample Date/Time: Wednesday, December 23, 2009 21:16:16
Sample Type:
Sample Description: LANL 6020 SDILT
Number of Replicates: 3
Batch ID: 932320|10|baj
Method File: c:\elandata\Method\li be and u.mth
Dataset File: c:\elandata\Dataset\091223\1201994313.126

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**24.329**	**ug/L**	12.330	53329	0.064
	Be	9	**0.392**	**ug/L**	10.857	247	0.000
>	Sc	45		**ug/L**		831329	831328.746
>	Lu	175		**ug/L**		610877	610877.343
	U	238	**0.333**	**ug/L**	8.209	18561	0.030

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
>	Sc	45		101.3			
>	Lu	175		99.5			
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 8
Sample Date/Time: Wednesday, December 23, 2009 21:18:37
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li be and u.mth
Dataset File: c:\elandata\Dataset\091223\QC Std 8.127

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**50.655**	**ug/L**	11.973	113751	0.134
	Be	9	**48.432**	**ug/L**	4.873	28748	0.034
>	Sc	45		**ug/L**		851430	851429.601
>	Lu	175		**ug/L**		617472	617471.836
	U	238	**52.346**	**ug/L**	6.656	2863307	4.643

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7	101.311				
	Be	9	96.865				
>	Sc	45		103.8			
>	Lu	175		100.6			
	U	238	104.691				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 9
Sample Date/Time: Wednesday, December 23, 2009 21:20:57
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li be and u.mth
Dataset File: c:\elandata\Dataset\091223\QC Std 9.128

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	0.029	ug/L	15.485	155	0.000
	Be	9	0.010	ug/L	78.326	27	0.000
>	Sc	45		ug/L		845083	845083.471
>	Lu	175		ug/L		624222	624222.233
	U	238	0.008	ug/L	21.435	1009	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
>	Sc	45		103.0			
>	Lu	175		101.7			
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 242750002
Sample Date/Time: Wednesday, December 23, 2009 21:23:18
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 932320|2|baj
Method File: c:\elandata\Method\li be and u.mth
Dataset File: c:\elandata\Dataset\091223\242750002.129

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**88.303**	**ug/L**	9.908	216209	0.233
	Be	9	**5.185**	**ug/L**	8.350	3373	0.004
>	Sc	45		**ug/L**		929600	929600.394
>	Lu	175		**ug/L**		659363	659362.892
	U	238	**2.168**	**ug/L**	5.963	127318	0.192

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
>	Sc	45		113.3			
>	Lu	175		107.4			
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 242750003
Sample Date/Time: Wednesday, December 23, 2009 21:25:38
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 932320|2|baj
Method File: c:\elandata\Method\li be and u.mth
Dataset File: c:\elandata\Dataset\091223\242750003.130

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Li	7	**114.505**	**ug/L**	16.211	274857	0.303
|	Be	9	**1.874**	**ug/L**	11.288	1213	0.001
⌊>	Sc	45		**ug/L**		916762	916762.135
⌈>	Lu	175		**ug/L**		664011	664010.918
⌊	U	238	**1.471**	**ug/L**	6.102	87202	0.130

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈	Li	7					
|	Be	9					
⌊>	Sc	45		111.7			
⌈>	Lu	175		108.1			
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 242750004
Sample Date/Time: Wednesday, December 23, 2009 21:27:58
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 932320|2|baj
Method File: c:\elandata\Method\li be and u.mth
Dataset File: c:\elandata\Dataset\091223\242750004.131

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	64.462	ug/L	11.260	157579	0.170
	Be	9	1.126	ug/L	9.322	750	0.001
>	Sc	45		ug/L		928512	928512.454
>	Lu	175		ug/L		673013	673012.948
	U	238	1.798	ug/L	11.029	107506	0.159

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
>	Sc	45		113.2			
>	Lu	175		109.6			
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 242750005
Sample Date/Time: Wednesday, December 23, 2009 21:30:19
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 932320|2|baj
Method File: c:\elandata\Method\li be and u.mth
Dataset File: c:\elandata\Dataset\091223\242750005.132

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	104.852	ug/L	11.156	266848	0.277
	Be	9	1.517	ug/L	7.977	1042	0.001
>	Sc	45		ug/L		964721	964721.055
>	Lu	175		ug/L		685244	685243.541
	U	238	2.169	ug/L	6.144	132244	0.192

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
>	Sc	45		117.6			
>	Lu	175		111.6			
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Wednesday, December 23, 2009 21:32:40
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li be and u.mth
Dataset File: c:\elandata\Dataset\091223\QC Std 6.133

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**53.374**	**ug/L**	17.555	108419	0.141
	Be	9	**50.814**	**ug/L**	7.555	27347	0.035
>	Sc	45		**ug/L**		774685	774685.216
>	Lu	175		**ug/L**		616028	616028.305
	U	238	**51.446**	**ug/L**	5.222	2811411	4.563

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7	106.748				
	Be	9	101.628				
>	Sc	45		94.4			
>	Lu	175		100.3			
	U	238	102.891				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Wednesday, December 23, 2009 21:35:00
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li be and u.mth
Dataset File: c:\elandata\Dataset\091223\QC Std 7.134

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	0.019	ug/L	18.851	127	0.000
	Be	9	0.008	ug/L	101.482	24	0.000
>	Sc	45		ug/L		800200	800199.879
>	Lu	175		ug/L		604106	604105.606
	U	238	0.008	ug/L	11.487	1020	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
>	Sc	45		97.5			
>	Lu	175		98.4			
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Blank
Sample Date/Time: Thursday, December 24, 2009 08:32:08
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li and be.mth
Dataset File: c:\elandata\Dataset\091223\Blank.401

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7		ug/L		205	
Be	9		ug/L		21	
Sc	45		ug/L		580214	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	
Be	9	Linear Thru Zero	
Sc	45	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
Li	7					
Be	9					
Sc	45					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Thursday, December 24, 2009 08:33:50
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li and be.mth
Dataset File: c:\elandata\Dataset\091223\Standard 1.402

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	**10.000**	**ug/L**	1.211	20596	0.035
Be	9	**10.000**	**ug/L**	0.913	4570	0.008
Sc	45		**ug/L**		585309	585308.583

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
Li	7					
Be	9					
Sc	45					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Thursday, December 24, 2009 08:35:30
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li and be.mth
Dataset File: c:\elandata\Dataset\091223\Standard 2.403

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	100.020	ug/L	2.482	206817	0.356
Be	9	100.017	ug/L	0.084	45949	0.079
Sc	45		ug/L		581185	581184.697

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
Li	7					
Be	9					
Sc	45					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Thursday, December 24, 2009 08:37:11
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li and be.mth
Dataset File: c:\elandata\Dataset\091223\QC Std 1.404

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Li	7	**49.965**	**ug/L**	2.044	104976	0.178
|	Be	9	**51.068**	**ug/L**	0.724	23824	0.040
⌊>	Sc	45		**ug/L**		589936	589936.448

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈	Li	7	99.930				
|	Be	9	102.136				
⌊>	Sc	45		101.7			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Thursday, December 24, 2009 08:38:54
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li and be.mth
Dataset File: c:\elandata\Dataset\091223\QC Std 2.405

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	-0.022	ug/L	15.532	159	-0.000
Be	9	0.007	ug/L	41.160	25	0.000
Sc	45		ug/L		581133	581133.392

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
Li	7					
Be	9					
Sc	45		100.2			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Thursday, December 24, 2009 08:40:37
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li and be.mth
Dataset File: c:\elandata\Dataset\091223\QC Std 3.406

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	**10.867**	**ug/L**	0.853	22667	0.039
Be	9	**0.516**	**ug/L**	7.240	259	0.000
Sc	45		**ug/L**		581484	581484.091

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
Li	7	108.666				
Be	9	103.280				
Sc	45		100.2			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Thursday, December 24, 2009 08:42:19
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li and be.mth
Dataset File: c:\elandata\Dataset\091223\QC Std 4.407

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Li	7	**0.047**	**ug/L**	17.722	297	0.000
|	Be	9	**0.062**	**ug/L**	27.808	49	0.000
⌊>	Sc	45		**ug/L**		572431	572430.719

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈	Li	7					
|	Be	9					
⌊>	Sc	45		98.7			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Thursday, December 24, 2009 08:44:01
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li and be.mth
Dataset File: c:\elandata\Dataset\091223\QC Std 5.408

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	18.349	ug/L	2.022	37458	0.065
Be	9	17.557	ug/L	0.918	7945	0.014
Sc	45		ug/L		571289	571288.986

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
Li	7	91.747				
Be	9	87.785				
Sc	45		98.5			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Thursday, December 24, 2009 08:45:44
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li and be.mth
Dataset File: c:\elandata\Dataset\091223\QC Std 6.409

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	**49.434**	**ug/L**	2.751	100733	0.176
Be	9	**49.747**	**ug/L**	2.093	22509	0.039
Sc	45		**ug/L**		572203	572203.302

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
Li	7	98.867				
Be	9	99.494				
Sc	45		98.6			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Thursday, December 24, 2009 08:47:28
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li and be.mth
Dataset File: c:\elandata\Dataset\091223\QC Std 7.410

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Li	7	-0.036	ug/L	15.975	129	-0.000
|	Be	9	0.021	ug/L	40.616	31	0.000
⌊>	Sc	45		ug/L		572599	572599.457

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈	Li	7					
|	Be	9					
⌊>	Sc	45		98.7			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 10
Sample Date/Time: Thursday, December 24, 2009 08:49:11
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li and be.mth
Dataset File: c:\elandata\Dataset\091223\QC Std 10.411

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Li	7	**940.719**	**ug/L**	0.930	1777322	3.344
|	Be	9	**960.687**	**ug/L**	0.609	403424	0.759
⌊>	Sc	45		**ug/L**		531467	531466.742

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈	Li	7	94.072				
|	Be	9	96.069				
⌊>	Sc	45		91.6			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 11
Sample Date/Time: Thursday, December 24, 2009 08:50:51
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li and be.mth
Dataset File: c:\elandata\Dataset\091223\QC Std 11.412

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	50.955	ug/L	2.714	103564	0.181
Be	9	50.208	ug/L	1.652	22661	0.040
Sc	45		ug/L		570817	570816.524

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
Li	7	101.911				
Be	9	100.416				
Sc	45		98.4			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 12
Sample Date/Time: Thursday, December 24, 2009 08:52:34
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li and be.mth
Dataset File: c:\elandata\Dataset\091223\QC Std 12.413

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Li	7	**0.017**	**ug/L**	41.453	239	0.000
|	Be	9	**0.027**	**ug/L**	40.078	34	0.000
⌊>	Sc	45		**ug/L**		578400	578399.675

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈	Li	7					
|	Be	9					
⌊>	Sc	45		99.7			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1201994309
Sample Date/Time: Thursday, December 24, 2009 08:54:19
Sample Type:
Sample Description: LANL 6020 MB
Number of Replicates: 3
Batch ID: 932320|2|baj
Method File: c:\elandata\Method\li and be.mth
Dataset File: c:\elandata\Dataset\091223\1201994309.414

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Li	7	-0.025	ug/L	32.862	152	-0.000
|	Be	9	0.006	ug/L	2.690	24	0.000
⌊>	Sc	45		ug/L		576917	576917.337

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈	Li	7					
|	Be	9					
⌊>	Sc	45		99.4			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1201994310
Sample Date/Time: Thursday, December 24, 2009 08:56:03
Sample Type:
Sample Description: LANL 6020 LCS
Number of Replicates: 3
Batch ID: 932320|20|ba|
Method File: c:\elandata\Method\li and be.mth
Dataset File: c:\elandata\Dataset\091223\1201994310.415

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	**6.139**	**ug/L**	0.874	13008	0.022
Be	9	**44.729**	**ug/L**	1.423	20753	0.035
Sc	45		**ug/L**		586668	586667.784

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
Li	7					
Be	9					
Sc	45		101.1			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 8
Sample Date/Time: Thursday, December 24, 2009 09:05:17
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li and be.mth
Dataset File: c:\elandata\Dataset\091223\QC Std 8.420

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	**51.147**	**ug/L**	0.714	110371	0.182
Be	9	**49.429**	**ug/L**	1.099	23684	0.039
Sc	45		**ug/L**		605880	605880.340

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
Li	7	102.294				
Be	9	98.857				
Sc	45		104.4			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 9
Sample Date/Time: Thursday, December 24, 2009 09:07:01
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li and be.mth
Dataset File: c:\elandata\Dataset\091223\QC Std 9.421

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Li	7	0.008	ug/L	59.065	228	0.000
|	Be	9	0.027	ug/L	3.630	35	0.000
⌊>	Sc	45		ug/L		599717	599716.508

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈	Li	7					
|	Be	9					
⌊>	Sc	45			103.4		

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 242750001
Sample Date/Time: Thursday, December 24, 2009 09:08:45
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 932320|2|baj
Method File: c:\elandata\Method\li and be.mth
Dataset File: c:\elandata\Dataset\091223\242750001.422

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	**105.269**	**ug/L**	1.132	255195	0.374
Be	9	**1.774**	**ug/L**	7.935	980	0.001
Sc	45		**ug/L**		681342	681341.861

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
Li	7					
Be	9					
Sc	45		117.4			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1201994311
Sample Date/Time: Thursday, December 24, 2009 09:10:29
Sample Type:
Sample Description: LANL 6020 DUP
Number of Replicates: 3
Batch ID: 932320|2|baj
Method File: c:\elandata\Method\li and be.mth
Dataset File: c:\elandata\Dataset\091223\1201994311.423

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	**94.536**	**ug/L**	1.532	232931	0.336
Be	9	**2.258**	**ug/L**	6.488	1260	0.002
Sc	45		**ug/L**		692487	692486.990

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
Li	7					
Be	9					
Sc	45		119.4			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1201994312
Sample Date/Time: Thursday, December 24, 2009 09:12:14
Sample Type:
Sample Description: LANL 6020 MS
Number of Replicates: 3
Batch ID: 932320|2|baj
Method File: c:\elandata\Method\li and be.mth
Dataset File: c:\elandata\Dataset\091223\1201994312.424

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	127.386	ug/L	1.500	304148	0.453
Be	9	24.940	ug/L	2.089	13250	0.020
Sc	45		ug/L		671165	671164.974

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
Li	7					
Be	9					
Sc	45		115.7			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1201994314
Sample Date/Time: Thursday, December 24, 2009 09:13:59
Sample Type:
Sample Description: LANL 6020 MSD
Number of Replicates: 3
Batch ID: 932320|2|baj
Method File: c:\elandata\Method\li and be.mth
Dataset File: c:\elandata\Dataset\091223\1201994314.425

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	**128.950**	**ug/L**	1.566	314772	0.458
Be	9	**24.748**	**ug/L**	0.443	13443	0.020
Sc	45		**ug/L**		686192	686192.365

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
Li	7					
Be	9					
Sc	45		118.3			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1201994313
Sample Date/Time: Thursday, December 24, 2009 09:15:45
Sample Type:
Sample Description: LANL 6020 SDILT
Number of Replicates: 3
Batch ID: 932320|10|baj
Method File: c:\elandata\Method\li and be.mth
Dataset File: c:\elandata\Dataset\091223\1201994313.426

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	**22.490**	**ug/L**	0.490	49341	0.080
Be	9	**0.389**	**ug/L**	8.419	211	0.000
Sc	45		**ug/L**		614487	614486.597

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
Li	7					
Be	9					
Sc	45		105.9			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 8
Sample Date/Time: Thursday, December 24, 2009 09:17:30
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li and be.mth
Dataset File: c:\elandata\Dataset\091223\QC Std 8.427

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	**48.870**	**ug/L**	2.713	103805	0.174
Be	9	**48.385**	**ug/L**	2.225	22821	0.038
Sc	45		**ug/L**		596538	596538.214

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
Li	7	97.740				
Be	9	96.770				
Sc	45		102.8			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 9
Sample Date/Time: Thursday, December 24, 2009 09:19:14
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li and be.mth
Dataset File: c:\elandata\Dataset\091223\QC Std 9.428

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	-0.010	ug/L	52.994	191	-0.000
Be	9	0.014	ug/L	61.120	29	0.000
Sc	45		ug/L		601944	601943.939

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
Li	7					
Be	9					
Sc	45		103.7			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 242750003
Sample Date/Time: Thursday, December 24, 2009 09:22:42
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 932320|2|baj
Method File: c:\elandata\Method\li and be.mth
Dataset File: c:\elandata\Dataset\091223\242750003.430

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Li	7	**108.533**	**ug/L**	1.448	258392	0.386
|	Be	9	**1.769**	**ug/L**	0.653	960	0.001
⌊>	Sc	45		**ug/L**		669225	669224.828

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈	Li	7					
|	Be	9					
⌊>	Sc	45		115.3			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 242750004
Sample Date/Time: Thursday, December 24, 2009 09:24:27
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 932320|2|baj
Method File: c:\elandata\Method\li and be.mth
Dataset File: c:\elandata\Dataset\091223\242750004.431

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	**62.948**	**ug/L**	2.254	145928	0.224
Be	9	**1.155**	**ug/L**	7.253	618	0.001
Sc	45		**ug/L**		651277	651277.063

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
Li	7					
Be	9					
Sc	45		112.2			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 242750005
Sample Date/Time: Thursday, December 24, 2009 09:26:11
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 932320|2|baj
Method File: c:\elandata\Method\li and be.mth
Dataset File: c:\elandata\Dataset\091223\242750005.432

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	**101.193**	**ug/L**	1.819	247071	0.360
Be	9	**1.487**	**ug/L**	3.169	832	0.001
Sc	45		**ug/L**		686295	686294.950

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
Li	7					
Be	9					
Sc	45		118.3			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Thursday, December 24, 2009 09:27:56
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li and be.mth
Dataset File: c:\elandata\Dataset\091223\QC Std 6.433

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	50.479	ug/L	2.422	103010	0.179
Be	9	49.894	ug/L	1.298	22609	0.039
Sc	45		ug/L		573054	573053.852

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
Li	7	100.957				
Be	9	99.787				
Sc	45		98.8			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Thursday, December 24, 2009 09:29:40
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li and be.mth
Dataset File: c:\elandata\Dataset\091223\QC Std 7.434

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	-0.013	ug/L	40.162	176	-0.000
Be	9	0.027	ug/L	50.814	33	0.000
Sc	45		ug/L		573387	573387.093

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
Li	7					
Be	9					
Sc	45		98.8			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 242750002
Sample Date/Time: Thursday, December 24, 2009 09:31:25
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 932320|2|baj
Method File: c:\elandata\Method\li and be.mth
Dataset File: c:\elandata\Dataset\091223\242750002.435

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	80.033	ug/L	1.203	195231	0.284
Be	9	4.894	ug/L	1.691	2675	0.004
Sc	45		ug/L		685439	685438.545

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
Li	7					
Be	9					
Sc	45		118.1			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Thursday, December 24, 2009 09:33:08
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li and be.mth
Dataset File: c:\elandata\Dataset\091223\QC Std 6.436

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Li	7	**49.849**	**ug/L**	1.403	101730	0.177
|	Be	9	**49.200**	**ug/L**	0.240	22294	0.039
⌊>	Sc	45		**ug/L**		572958	572958.262

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈	Li	7	99.699				
|	Be	9	98.400				
⌊>	Sc	45		98.7			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Thursday, December 24, 2009 09:34:52
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li and be.mth
Dataset File: c:\elandata\Dataset\091223\QC Std 7.437

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	-0.017	ug/L	40.307	166	-0.000
Be	9	0.016	ug/L	24.909	28	0.000
Sc	45		ug/L		569882	569881.724

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
Li	7					
Be	9					
Sc	45		98.2			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

Analysis Begun

Logged In Analyst: Administrator
Technique: AA FIMS-MHS
Spectrometer Model: FIMS-100, S/N B050-9550
Autosampler Model: S10

Sample Information File: C:\data-AA\Administrator\Sample Information\122909S1.SIF
Batch ID:
Results Data Set: 122909S2
Results Library: C:\data-AA\Administrator\Results\Results.mdb

Sequence No.: 1
Autosampler Location: 1
Sample ID: Calib Blank
Date Collected: 12/29/2009 09:18:15
Analyst:
Data Type: Original

Replicate Data: Calib Blank

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.00]	0.0001	-0.0004	0.0001	09:19:06	Yes
2		[0.00]	0.0001	-0.0004	0.0001	09:19:35	Yes
Mean:		[0.00]	0.0001				
SD:		0.00	0.0000				
%RSD:		0.00	6.28				

Auto-zero performed.

Sequence No.: 2
Autosampler Location: 2
Sample ID: S0.2
Date Collected: 12/29/2009 09:19:54
Analyst:
Data Type: Original

Replicate Data: S0.2

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.2]	0.0022	0.0110	0.0023	09:20:45	Yes
2		[0.2]	0.0022	0.0108	0.0023	09:21:15	Yes
Mean:		[0.2]	0.0022				
SD:		0.0	0.0000				
%RSD:		0.0	0.94				

Standard number 1 applied. [0.2]
Correlation Coef.: 1.000000 Slope: 0.01101 Intercept: 0.00000

Sequence No.: 3
Autosampler Location: 3
Sample ID: S0.5
Date Collected: 12/29/2009 09:21:34
Analyst:
Data Type: Original

Replicate Data: S0.5

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.5]	0.0056	0.0286	0.0057	09:22:25	Yes
2		[0.5]	0.0056	0.0275	0.0057	09:22:55	Yes
Mean:		[0.5]	0.0056				
SD:		0.0	0.0000				
%RSD:		0.0	0.85				

Standard number 2 applied. [0.5]
Correlation Coef.: 0.999977 Slope: 0.01119 Intercept: -0.00001

Sequence No.: 4
Autosampler Location: 4
Sample ID: S2.0
Date Collected: 12/29/2009 09:23:15
Analyst:
Data Type: Original

Replicate Data: S2.0

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored

1	[2.0]	0.0227	0.1160	0.0228	09:24:06	Yes
2	[2.0]	0.0226	0.1141	0.0227	09:24:36	Yes
Mean:	[2.0]	0.0227				
SD:	0.0	0.0001				
%RSD:	0.0	0.33				

Standard number 3 applied. [2.0]
Correlation Coef.: 0.999992 Slope: 0.01136 Intercept: -0.00005

Sequence No.: 5 **Autosampler Location: 5**
Sample ID: S5.0 **Date Collected: 12/29/2009 09:24:56**
Analyst: **Data Type: Original**

Replicate Data: S5.0

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[5.0]	0.0561	0.2847	0.0562	09:25:48	Yes
2		[5.0]	0.0556	0.2796	0.0557	09:26:18	Yes
Mean:		[5.0]	0.0558				
SD:		0.0	0.0004				
%RSD:		0.0	0.69				

Standard number 4 applied. [5.0]
Correlation Coef.: 0.999977 Slope: 0.01118 Intercept: 0.00005

Sequence No.: 6 **Autosampler Location: 6**
Sample ID: S10.0 **Date Collected: 12/29/2009 09:26:38**
Analyst: **Data Type: Original**

Replicate Data: S10.0

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[10.0]	0.1095	0.5553	0.1096	09:27:28	Yes
2		[10.0]	0.1088	0.5482	0.1089	09:27:58	Yes
Mean:		[10.0]	0.1092				
SD:		0.0	0.0005				
%RSD:		0.0	0.46				

Standard number 5 applied. [10.0]
Correlation Coef.: 0.999922 Slope: 0.01094 Intercept: 0.00032

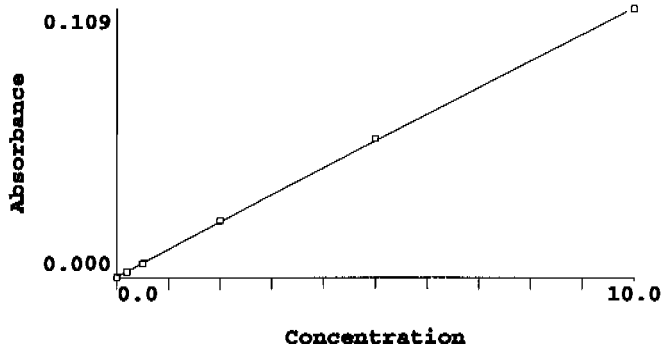

Calibration data for Hg 253.7 **Equation: Linear, Calculated Intercept**

ID	Mean Signal (Abs)	Entered Conc. ug/L	Calculated Conc. ug/L	Standard Deviation	%RSD
Calib Blank	0.0000	0	-0.030	0.00	6.3
S0.2	0.0022	0.2	0.172	0.00	0.9
S0.5	0.0056	0.5	0.482	0.00	0.8
S2.0	0.0227	2.0	2.045	0.00	0.3
S5.0	0.0558	5.0	5.077	0.00	0.7
S10.0	0.1092	10.0	9.954	0.00	0.5

Correlation Coef.: 0.999922 Slope: 0.01094 Intercept: 0.00032

Sequence No.: 7
Sample ID: ICV
Analyst:
Autosampler Location: 9
Date Collected: 12/29/2009 09:28:17
Data Type: Original

Replicate Data: ICV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.105	5.105	0.0561	0.2818	0.0562	09:29:08	Yes
2	5.094	5.094	0.0560	0.2785	0.0561	09:29:38	Yes
Mean:	5.099	5.099	0.0561				
SD:	0.008	0.008	0.0001				
%RSD:	0.148	0.148	0.15				

QC value within limits for Hg 253.7 Recovery = 101.99%
All analyte(s) passed QC.

Sequence No.: 8
Sample ID: ICB
Analyst:
Autosampler Location: 10
Date Collected: 12/29/2009 09:29:58
Data Type: Original

Replicate Data: ICB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.024	-0.024	0.0001	-0.0000	0.0002	09:30:48	Yes
2	-0.025	-0.025	0.0000	0.0001	0.0001	09:31:18	Yes
Mean:	-0.024	-0.024	0.0001				
SD:	0.001	0.001	0.0000				
%RSD:	4.032	4.032	19.39				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 9
Sample ID: CRDL
Analyst:
Autosampler Location: 11
Date Collected: 12/29/2009 09:31:38
Data Type: Original

Replicate Data: CRDL

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.186	0.186	0.0024	0.0118	0.0024	09:32:30	Yes
2	0.181	0.181	0.0023	0.0112	0.0024	09:33:00	Yes
Mean:	0.183	0.183	0.0023				
SD:	0.004	0.004	0.0000				
%RSD:	1.939	1.939	1.67				

QC value within limits for Hg 253.7 Recovery = 91.53%
All analyte(s) passed QC.

Sequence No.: 10
Sample ID: CCV
Analyst:
Autosampler Location: 7
Date Collected: 12/29/2009 09:33:20
Data Type: Original

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.135	5.135	0.0565	0.2806	0.0566	09:34:10	Yes
2	5.125	5.125	0.0564	0.2774	0.0565	09:34:40	Yes
Mean:	5.130	5.130	0.0564				
SD:	0.007	0.007	0.0001				
%RSD:	0.140	0.140	0.14				

QC value within limits for Hg 253.7 Recovery = 102.60%
All analyte(s) passed QC.

Sequence No.: 11
Sample ID: CCB
Analyst:
Autosampler Location: 8
Date Collected: 12/29/2009 09:34:59
Data Type: Original

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.023	-0.023	0.0001	0.0000	0.0002	09:35:50	Yes
2	-0.027	-0.027	0.0000	0.0000	0.0001	09:36:20	Yes
Mean:	-0.025	-0.025	0.0000				
SD:	0.003	0.003	0.0000				
%RSD:	10.99	10.99	64.91				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 12 **Autosampler Location: 12**
Sample ID: 1202003901|936546|1 **Date Collected: 12/29/2009 09:36:40**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202003901|936546|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.023	-0.023	0.0001	0.0004	0.0002	09:37:31	Yes
2	-0.024	-0.024	0.0001	0.0001	0.0002	09:38:01	Yes
Mean:	-0.023	-0.023	0.0001				
SD:	0.000	0.000	0.0000				
%RSD:	1.700	1.700	6.57				

Sequence No.: 13 **Autosampler Location: 13**
Sample ID: 1202003902|936546|10 **Date Collected: 12/29/2009 09:38:21**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202003902|936546|10

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	6.835	6.835	0.0751	0.3653	0.0752	09:39:13	Yes
2	6.814	6.814	0.0748	0.3632	0.0749	09:39:43	Yes
Mean:	6.825	6.825	0.0750				
SD:	0.015	0.015	0.0002				
%RSD:	0.221	0.221	0.22				

Sequence No.: 14 **Autosampler Location: 14**
Sample ID: 242668001|936546|1 **Date Collected: 12/29/2009 09:40:03**
Analyst: JXL **Data Type: Original**

Replicate Data: 242668001|936546|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.259	0.259	0.0032	0.0151	0.0032	09:40:54	Yes
2	0.259	0.259	0.0032	0.0156	0.0033	09:41:24	Yes
Mean:	0.259	0.259	0.0032				
SD:	0.001	0.001	0.0000				
%RSD:	0.200	0.200	0.18				

Sequence No.: 15 **Autosampler Location: 15**
Sample ID: 242668002|936546|1 **Date Collected: 12/29/2009 09:41:43**
Analyst: JXL **Data Type: Original**

Replicate Data: 242668002|936546|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.304	0.304	0.0036	0.0178	0.0037	09:42:33	Yes
2	0.303	0.303	0.0036	0.0180	0.0037	09:43:03	Yes
Mean:	0.303	0.303	0.0036				
SD:	0.000	0.000	0.0000				

==========

Analysis Begun

Logged In Analyst: Administrator **Technique: AA FIMS-MHS**
Spectrometer Model: FIMS-100, S/N B050-9550 **Autosampler Model: S10**

Sample Information File: C:\data-AA\Administrator\Sample Information\122909S1.SIF
Batch ID:
Results Data Set: 122909S2
Results Library: C:\data-AA\Administrator\Results\Results.mdb

==========

Method Loaded
Method Name: SOIL **Method Last Saved: 12/29/2009 09:11:27**
Method Description: 7471A, ILM04 ANALYST JXL

==========

Sequence No.: 1 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 12/29/2009 09:44:49**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.239	5.239	0.0576	0.2800	0.0577	09:45:39	Yes
2	5.211	5.211	0.0573	0.2748	0.0574	09:46:09	Yes
Mean:	5.225	5.225	0.0575				
SD:	0.020	0.020	0.0002				
%RSD:	0.376	0.376	0.37				

QC value within limits for Hg 253.7 Recovery = 104.50%
All analyte(s) passed QC.

==========

Sequence No.: 2 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 12/29/2009 09:46:28**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.021	-0.021	0.0001	0.0006	0.0002	09:47:19	Yes
2	-0.023	-0.023	0.0001	0.0004	0.0002	09:47:48	Yes
Mean:	-0.022	-0.022	0.0001				
SD:	0.002	0.002	0.0000				
%RSD:	7.876	7.876	23.99				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

==========

Sequence No.: 3 **Autosampler Location: 12**
Sample ID: 1202003901|936546|1 **Date Collected: 12/29/2009 09:48:08**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202003901|936546|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.022	-0.022	0.0001	0.0007	0.0002	09:49:00	Yes
2	-0.021	-0.021	0.0001	0.0009	0.0002	09:49:30	Yes
Mean:	-0.021	-0.021	0.0001				
SD:	0.001	0.001	0.0000				
%RSD:	3.335	3.335	8.52				

==========

Sequence No.: 4 **Autosampler Location: 13**
Sample ID: 1202003902|936546|10 **Date Collected: 12/29/2009 09:49:50**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202003902|936546|10

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	4.004	4.004	0.0441	0.2106	0.0442	09:50:41	Yes
2	0.276	0.276	0.0033	0.0123	0.0034	09:51:11	Yes
Mean:	2.140	2.140	0.0237				
SD:	2.636	2.636	0.0288				
%RSD:	123.2	123.2	121.50				

Sequence No.: 5 Autosampler Location: 14
Sample ID: 242668001|936546|1 Date Collected: 12/29/2009 09:51:32
Analyst: JXL Data Type: Original

Replicate Data: 242668001|936546|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.008	0.008	0.0004	0.0036	0.0005	09:52:22	Yes
2	-0.011	-0.011	0.0002	0.0025	0.0003	09:52:52	Yes
Mean:	-0.002	-0.002	0.0003				
SD:	0.013	0.013	0.0001				
%RSD:	778.8	778.8	47.39				

Sequence No.: 6 Autosampler Location: 15
Sample ID: 242668002|936546|1 Date Collected: 12/29/2009 09:53:11
Analyst: JXL Data Type: Original

Replicate Data: 242668002|936546|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.330	0.330	0.0039	0.0204	0.0040	09:54:02	Yes
2	-0.003	-0.003	0.0003	0.0023	0.0004	09:54:32	Yes
Mean:	0.164	0.164	0.0021				
SD:	0.235	0.235	0.0026				
%RSD:	143.9	143.9	121.90				

Sequence No.: 7 Autosampler Location: 16
Sample ID: 242750001|936546|1 Date Collected: 12/29/2009 09:54:51
Analyst: JXL Data Type: Original

Replicate Data: 242750001|936546|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.232	0.232	0.0029	0.0138	0.0030	09:55:41	Yes
2	0.231	0.231	0.0028	0.0136	0.0029	09:56:11	Yes
Mean:	0.232	0.232	0.0029				
SD:	0.001	0.001	0.0000				
%RSD:	0.473	0.473	0.42				

Sequence No.: 8 Autosampler Location: 17
Sample ID: 242750002|936546|1 Date Collected: 12/29/2009 09:56:30
Analyst: JXL Data Type: Original

Replicate Data: 242750002|936546|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.161	0.161	0.0021	0.0101	0.0022	09:57:21	Yes
2	0.161	0.161	0.0021	0.0099	0.0022	09:57:51	Yes
Mean:	0.161	0.161	0.0021				
SD:	0.000	0.000	0.0000				
%RSD:	0.143	0.143	0.12				

Sequence No.: 9
Sample ID: 242750003|936546|1
Analyst: JXL

Autosampler Location: 18
Date Collected: 12/29/2009 09:58:10
Data Type: Original

Replicate Data: 242750003|936546|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.296	0.296	0.0036	0.0175	0.0037	09:59:01	Yes
2	0.297	0.297	0.0036	0.0172	0.0037	09:59:31	Yes
Mean:	0.297	0.297	0.0036				
SD:	0.001	0.001	0.0000				
%RSD:	0.402	0.402	0.37				

Sequence No.: 10
Sample ID: 242750004|936546|1
Analyst: JXL

Autosampler Location: 19
Date Collected: 12/29/2009 09:59:50
Data Type: Original

Replicate Data: 242750004|936546|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.228	0.228	0.0028	0.0134	0.0029	10:00:41	Yes
2	0.227	0.227	0.0028	0.0134	0.0029	10:01:11	Yes
Mean:	0.228	0.228	0.0028				
SD:	0.001	0.001	0.0000				
%RSD:	0.262	0.262	0.23				

Sequence No.: 11
Sample ID: 242750005|936546|1
Analyst: JXL

Autosampler Location: 20
Date Collected: 12/29/2009 10:01:30
Data Type: Original

Replicate Data: 242750005|936546|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.190	0.190	0.0024	0.0117	0.0025	10:02:21	Yes
2	0.192	0.192	0.0024	0.0115	0.0025	10:02:51	Yes
Mean:	0.191	0.191	0.0024				
SD:	0.001	0.001	0.0000				
%RSD:	0.651	0.651	0.56				

Sequence No.: 12
Sample ID: 243086001|936546|1
Analyst: JXL

Autosampler Location: 21
Date Collected: 12/29/2009 10:03:10
Data Type: Original

Replicate Data: 243086001|936546|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.035	0.035	0.0007	0.0037	0.0008	10:04:01	Yes
2	0.036	0.036	0.0007	0.0042	0.0008	10:04:31	Yes
Mean:	0.036	0.036	0.0007				
SD:	0.001	0.001	0.0000				
%RSD:	2.989	2.989	1.63				

Sequence No.: 13
Sample ID: CCV
Analyst:

Autosampler Location: 7
Date Collected: 12/29/2009 10:04:50
Data Type: Original

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.424	5.424	0.0596	0.2840	0.0597	10:05:41	Yes
2	5.465	5.465	0.0601	0.2843	0.0602	10:06:11	Yes
Mean:	5.444	5.444	0.0599				

SD:	0.029	0.029	0.0003
%RSD:	0.532	0.532	0.53

QC value within limits for Hg 253.7 Recovery = 108.88%
All analyte(s) passed QC.

Sequence No.: 14 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 12/29/2009 10:06:30**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.008	-0.008	0.0002	0.0027	0.0003	10:07:21	Yes
2	0.004	0.004	0.0004	0.0040	0.0005	10:07:51	Yes
Mean:	-0.002	-0.002	0.0003				
SD:	0.009	0.009	0.0001				
%RSD:	349.6	349.6	31.55				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 15 **Autosampler Location: 22**
Sample ID: 243086002|936546|1 **Date Collected: 12/29/2009 10:08:10**
Analyst: JXL **Data Type: Original**

Replicate Data: 243086002|936546|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.067	0.067	0.0011	0.0053	0.0011	10:09:01	Yes
2	0.063	0.063	0.0010	0.0047	0.0011	10:09:31	Yes
Mean:	0.065	0.065	0.0010				
SD:	0.002	0.002	0.0000				
%RSD:	3.776	3.776	2.60				

Sequence No.: 16 **Autosampler Location: 23**
Sample ID: 243086003|936546|1 **Date Collected: 12/29/2009 10:09:51**
Analyst: JXL **Data Type: Original**

Replicate Data: 243086003|936546|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.383	0.383	0.0045	0.0214	0.0046	10:10:42	Yes
2	0.382	0.382	0.0045	0.0210	0.0046	10:11:12	Yes
Mean:	0.383	0.383	0.0045				
SD:	0.001	0.001	0.0000				
%RSD:	0.250	0.250	0.23				

Sequence No.: 17 **Autosampler Location: 24**
Sample ID: 243086004|936546|1 **Date Collected: 12/29/2009 10:11:32**
Analyst: JXL **Data Type: Original**

Replicate Data: 243086004|936546|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.330	0.330	0.0039	0.0184	0.0040	10:12:24	Yes
2	0.325	0.325	0.0039	0.0183	0.0040	10:12:54	Yes
Mean:	0.327	0.327	0.0039				
SD:	0.004	0.004	0.0000				
%RSD:	1.079	1.079	0.99				

Sequence No.: 18 **Autosampler Location: 25**
Sample ID: 243086005|936546|1 **Date Collected: 12/29/2009 10:13:14**
Analyst: JXL **Data Type: Original**

Replicate Data: 243086005|936546|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.510	0.510	0.0059	0.0280	0.0060	10:14:06	Yes
2	0.514	0.514	0.0059	0.0278	0.0060	10:14:35	Yes
Mean:	0.512	0.512	0.0059				
SD:	0.003	0.003	0.0000				
%RSD:	0.614	0.614	0.58				

Sequence No.: 19 Autosampler Location: 26
Sample ID: 243088003|936546|1 Date Collected: 12/29/2009 10:14:56
Analyst: JXL Data Type: Original

Replicate Data: 243088003|936546|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.006	0.006	0.0004	0.0022	0.0005	10:15:47	Yes
2	0.001	0.001	0.0003	0.0016	0.0004	10:16:17	Yes
Mean:	0.003	0.003	0.0004				
SD:	0.003	0.003	0.0000				
%RSD:	96.14	96.14	9.82				

Sequence No.: 20 Autosampler Location: 27
Sample ID: 243088004|936546|1 Date Collected: 12/29/2009 10:16:36
Analyst: JXL Data Type: Original

Replicate Data: 243088004|936546|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.000	0.000	0.0003	0.0019	0.0004	10:17:26	Yes
2	0.003	0.003	0.0004	0.0021	0.0005	10:17:56	Yes
Mean:	0.002	0.002	0.0003				
SD:	0.002	0.002	0.0000				
%RSD:	103.0	103.0	5.75				

Sequence No.: 21 Autosampler Location: 28
Sample ID: 243092001|936546|1 Date Collected: 12/29/2009 10:18:15
Analyst: JXL Data Type: Original

Replicate Data: 243092001|936546|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.056	0.056	0.0009	0.0052	0.0010	10:19:06	Yes
2	0.056	0.056	0.0009	0.0049	0.0010	10:19:36	Yes
Mean:	0.056	0.056	0.0009				
SD:	0.000	0.000	0.0000				
%RSD:	0.121	0.121	0.08				

Sequence No.: 22 Autosampler Location: 29
Sample ID: 1202003903|936546|1 Date Collected: 12/29/2009 10:19:55
Analyst: JXL Data Type: Original

Replicate Data: 1202003903|936546|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.052	0.052	0.0009	0.0051	0.0010	10:20:46	Yes
2	0.052	0.052	0.0009	0.0047	0.0010	10:21:16	Yes
Mean:	0.052	0.052	0.0009				
SD:	0.000	0.000	0.0000				
%RSD:	0.858	0.858	0.55				

Sequence No.: 23
Sample ID: 1202003904|936546|1
Analyst: JXL
Autosampler Location: 30
Date Collected: 12/29/2009 10:21:35
Data Type: Original

Replicate Data: 1202003904|936546|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.321	2.321	0.0257	0.1207	0.0258	10:22:26	Yes
2	2.302	2.302	0.0255	0.1193	0.0256	10:22:56	Yes
Mean:	2.311	2.311	0.0256				
SD:	0.013	0.013	0.0001				
%RSD:	0.573	0.573	0.57				

Sequence No.: 24
Sample ID: 1202003906|936546|1
Analyst: JXL
Autosampler Location: 31
Date Collected: 12/29/2009 10:23:15
Data Type: Original

Replicate Data: 1202003906|936546|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.297	2.297	0.0254	0.1187	0.0255	10:24:06	Yes
2	2.302	2.302	0.0255	0.1180	0.0256	10:24:36	Yes
Mean:	2.300	2.300	0.0255				
SD:	0.003	0.003	0.0000				
%RSD:	0.149	0.149	0.15				

Sequence No.: 25
Sample ID: CCV
Analyst:
Autosampler Location: 7
Date Collected: 12/29/2009 10:24:55
Data Type: Original

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.412	5.412	0.0595	0.2768	0.0596	10:25:46	Yes
2	5.477	5.477	0.0602	0.2787	0.0603	10:26:15	Yes
Mean:	5.445	5.445	0.0599				
SD:	0.046	0.046	0.0005				
%RSD:	0.853	0.853	0.85				

QC value within limits for Hg 253.7 Recovery = 108.89%
All analyte(s) passed QC.

Sequence No.: 26
Sample ID: CCB
Analyst:
Autosampler Location: 8
Date Collected: 12/29/2009 10:26:34
Data Type: Original

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.020	-0.020	0.0001	0.0012	0.0002	10:27:25	Yes
2	-0.019	-0.019	0.0001	0.0013	0.0002	10:27:55	Yes
Mean:	-0.019	-0.019	0.0001				
SD:	0.001	0.001	0.0000				
%RSD:	3.143	3.143	5.86				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 27
Sample ID: 1202003905|936546|5
Analyst: JXL
Autosampler Location: 32
Date Collected: 12/29/2009 10:28:14
Data Type: Original

Replicate Data: 1202003905|936546|5

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.005	-0.005	0.0003	0.0018	0.0004	10:29:05	Yes
2	-0.004	-0.004	0.0003	0.0022	0.0004	10:29:35	Yes
Mean:	-0.005	-0.005	0.0003				
SD:	0.001	0.001	0.0000				
%RSD:	22.17	22.17	4.06				

==========

Sequence No.: 28 **Autosampler Location: 33**
Sample ID: 243092002|936546|1 **Date Collected: 12/29/2009 10:29:54**
Analyst: JXL **Data Type: Original**

Replicate Data: 243092002|936546|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.100	0.100	0.0014	0.0072	0.0015	10:30:45	Yes
2	0.101	0.101	0.0014	0.0072	0.0015	10:31:15	Yes
Mean:	0.101	0.101	0.0014				
SD:	0.001	0.001	0.0000				
%RSD:	0.962	0.962	0.74				

==========

Sequence No.: 29 **Autosampler Location: 34**
Sample ID: 243092003|936546|1 **Date Collected: 12/29/2009 10:31:35**
Analyst: JXL **Data Type: Original**

Replicate Data: 243092003|936546|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.169	0.169	0.0022	0.0106	0.0023	10:32:26	Yes
2	0.169	0.169	0.0022	0.0108	0.0023	10:32:56	Yes
Mean:	0.169	0.169	0.0022				
SD:	0.000	0.000	0.0000				
%RSD:	0.196	0.196	0.17				

==========

Sequence No.: 30 **Autosampler Location: 35**
Sample ID: 243390001|936546|1 **Date Collected: 12/29/2009 10:33:16**
Analyst: JXL **Data Type: Original**

Replicate Data: 243390001|936546|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.235	0.235	0.0029	0.0142	0.0030	10:34:08	Yes
2	0.233	0.233	0.0029	0.0138	0.0030	10:34:38	Yes
Mean:	0.234	0.234	0.0029				
SD:	0.002	0.002	0.0000				
%RSD:	0.717	0.717	0.64				

==========

Sequence No.: 31 **Autosampler Location: 36**
Sample ID: 243390002|936546|1 **Date Collected: 12/29/2009 10:34:58**
Analyst: JXL **Data Type: Original**

Replicate Data: 243390002|936546|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.009	0.009	0.0004	0.0026	0.0005	10:35:49	Yes
2	0.009	0.009	0.0004	0.0027	0.0005	10:36:19	Yes
Mean:	0.009	0.009	0.0004				
SD:	0.000	0.000	0.0000				
%RSD:	0.447	0.447	0.10				

==========

Sequence No.: 32 **Autosampler Location: 37**
Sample ID: 1202003907|936549|1 **Date Collected: 12/29/2009 10:36:40**

Sequence No.: 37 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 12/29/2009 10:45:02**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.199	5.199	0.0572	0.2626	0.0573	10:45:53	Yes
2	5.208	5.208	0.0573	0.2625	0.0574	10:46:23	Yes
Mean:	5.203	5.203	0.0572				
SD:	0.006	0.006	0.0001				
%RSD:	0.125	0.125	0.12				

QC value within limits for Hg 253.7 Recovery = 104.07%
All analyte(s) passed QC.

Sequence No.: 38 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 12/29/2009 10:46:42**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.024	-0.024	0.0001	0.0004	0.0002	10:47:32	Yes
2	-0.025	-0.025	0.0001	0.0004	0.0002	10:48:02	Yes
Mean:	-0.024	-0.024	0.0001				
SD:	0.001	0.001	0.0000				
%RSD:	2.981	2.981	13.47				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 39 **Autosampler Location: 42**
Sample ID: 1202003914|936549|1 **Date Collected: 12/29/2009 10:48:21**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202003914|936549|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.521	2.521	0.0279	0.1277	0.0280	10:49:12	Yes
2	2.519	2.519	0.0279	0.1274	0.0280	10:49:42	Yes
Mean:	2.520	2.520	0.0279				
SD:	0.001	0.001	0.0000				
%RSD:	0.057	0.057	0.06				

Sequence No.: 40 **Autosampler Location: 43**
Sample ID: 1202003913|936549|5 **Date Collected: 12/29/2009 10:50:02**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202003913|936549|5

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.056	0.056	0.0009	0.0051	0.0010	10:50:53	Yes
2	0.048	0.048	0.0008	0.0044	0.0009	10:51:23	Yes
Mean:	0.052	0.052	0.0009				
SD:	0.006	0.006	0.0001				
%RSD:	11.82	11.82	7.54				

Sequence No.: 41 **Autosampler Location: 44**
Sample ID: 242661002|936549|1 **Date Collected: 12/29/2009 10:51:42**
Analyst: JXL **Data Type: Original**

Sample ID: 242661007|936549|1
Analyst: JXL
Date Collected: 12/29/2009 11:00:08
Data Type: Original

Replicate Data: 242661007|936549|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.763	2.763	0.0305	0.1413	0.0306	11:01:00	Yes
2	2.761	2.761	0.0305	0.1407	0.0306	11:01:30	Yes
Mean:	2.762	2.762	0.0305				
SD:	0.002	0.002	0.0000				
%RSD:	0.065	0.065	0.06				

Sequence No.: 47
Autosampler Location: 50
Sample ID: 242661008|936549|1
Date Collected: 12/29/2009 11:01:50
Analyst: JXL
Data Type: Original

Replicate Data: 242661008|936549|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.007	-0.007	0.0002	0.0014	0.0003	11:02:42	Yes
2	-0.008	-0.008	0.0002	0.0016	0.0003	11:03:12	Yes
Mean:	-0.008	-0.008	0.0002				
SD:	0.001	0.001	0.0000				
%RSD:	6.916	6.916	2.51				

Sequence No.: 48
Autosampler Location: 51
Sample ID: 242661009|936549|1
Date Collected: 12/29/2009 11:03:31
Analyst: JXL
Data Type: Original

Replicate Data: 242661009|936549|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.047	0.047	0.0008	0.0045	0.0009	11:04:22	Yes
2	0.048	0.048	0.0008	0.0043	0.0009	11:04:52	Yes
Mean:	0.047	0.047	0.0008				
SD:	0.001	0.001	0.0000				
%RSD:	1.110	1.110	0.68				

Sequence No.: 49
Autosampler Location: 7
Sample ID: CCV
Date Collected: 12/29/2009 11:05:12
Analyst:
Data Type: Original

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.162	5.162	0.0568	0.2610	0.0569	11:06:02	Yes
2	5.129	5.129	0.0564	0.2585	0.0565	11:06:32	Yes
Mean:	5.145	5.145	0.0566				
SD:	0.023	0.023	0.0003				
%RSD:	0.447	0.447	0.44				

QC value within limits for Hg 253.7 Recovery = 102.91%
All analyte(s) passed QC.

Sequence No.: 50
Autosampler Location: 8
Sample ID: CCB
Date Collected: 12/29/2009 11:06:51
Analyst:
Data Type: Original

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.024	-0.024	0.0001	0.0002	0.0002	11:07:41	Yes
2	-0.021	-0.021	0.0001	0.0008	0.0002	11:08:11	Yes

Mean:	-0.022	-0.022	0.0001
SD:	0.002	0.002	0.0000
%RSD:	7.267	7.267	23.23

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

==========

Sequence No.: 51 **Autosampler Location: 52**
Sample ID: 242661010|936549|1 **Date Collected: 12/29/2009 11:08:31**
Analyst: JXL **Data Type: Original**

Replicate Data: 242661010|936549|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.062	0.062	0.0010	0.0050	0.0011	11:09:21	Yes
2	0.064	0.064	0.0010	0.0055	0.0011	11:09:51	Yes
Mean:	0.063	0.063	0.0010				
SD:	0.002	0.002	0.0000				
%RSD:	2.513	2.513	1.71				

==========

Sequence No.: 52 **Autosampler Location: 53**
Sample ID: 242661011|936549|1 **Date Collected: 12/29/2009 11:10:11**
Analyst: JXL **Data Type: Original**

Replicate Data: 242661011|936549|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.306	0.306	0.0037	0.0173	0.0038	11:11:02	Yes
2	0.306	0.306	0.0037	0.0171	0.0038	11:11:32	Yes
Mean:	0.306	0.306	0.0037				
SD:	0.000	0.000	0.0000				
%RSD:	0.028	0.028	0.03				

==========

Sequence No.: 53 **Autosampler Location: 54**
Sample ID: 242661012|936549|1 **Date Collected: 12/29/2009 11:11:52**
Analyst: JXL **Data Type: Original**

Replicate Data: 242661012|936549|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.330	0.330	0.0039	0.0187	0.0040	11:12:43	Yes
2	0.332	0.332	0.0040	0.0190	0.0041	11:13:13	Yes
Mean:	0.331	0.331	0.0039				
SD:	0.002	0.002	0.0000				
%RSD:	0.478	0.478	0.44				

==========

Sequence No.: 54 **Autosampler Location: 55**
Sample ID: 242661013|936549|1 **Date Collected: 12/29/2009 11:13:33**
Analyst: JXL **Data Type: Original**

Replicate Data: 242661013|936549|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.041	0.041	0.0008	0.0040	0.0009	11:14:24	Yes
2	0.043	0.043	0.0008	0.0040	0.0009	11:14:54	Yes
Mean:	0.042	0.042	0.0008				
SD:	0.001	0.001	0.0000				
%RSD:	2.810	2.810	1.65				

==========

Sequence No.: 55 **Autosampler Location: 56**
Sample ID: 242661014|936549|1 **Date Collected: 12/29/2009 11:15:13**
Analyst: JXL **Data Type: Original**

Sequence No.: 60
Sample ID: 242661019|936549|1
Analyst: JXL

Autosampler Location: 61
Date Collected: 12/29/2009 11:23:38
Data Type: Original

Replicate Data: 242661019|936549|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.071	0.071	0.0011	0.0057	0.0012	11:24:29	Yes
2	0.068	0.068	0.0011	0.0053	0.0012	11:24:59	Yes
Mean:	0.069	0.069	0.0011				
SD:	0.002	0.002	0.0000				
%RSD:	2.984	2.984	2.09				

Sequence No.: 61
Sample ID: CCV
Analyst:

Autosampler Location: 7
Date Collected: 12/29/2009 11:25:20
Data Type: Original

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.039	5.039	0.0554	0.2589	0.0555	11:26:10	Yes
2	5.039	5.039	0.0554	0.2581	0.0555	11:26:40	Yes
Mean:	5.039	5.039	0.0554				
SD:	0.000	0.000	0.0000				
%RSD:	0.007	0.007	0.01				

QC value within limits for Hg 253.7 Recovery = 100.78%
All analyte(s) passed QC.

Sequence No.: 62
Sample ID: CCB
Analyst:

Autosampler Location: 8
Date Collected: 12/29/2009 11:26:59
Data Type: Original

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.022	-0.022	0.0001	0.0008	0.0002	11:27:49	Yes
2	-0.024	-0.024	0.0001	0.0006	0.0002	11:28:19	Yes
Mean:	-0.023	-0.023	0.0001				
SD:	0.002	0.002	0.0000				
%RSD:	7.981	7.981	27.95				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 63
Sample ID: 242661020|936549|1
Analyst: JXL

Autosampler Location: 62
Date Collected: 12/29/2009 11:28:39
Data Type: Original

Replicate Data: 242661020|936549|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.154	0.154	0.0020	0.0100	0.0021	11:29:30	Yes
2	0.153	0.153	0.0020	0.0098	0.0021	11:30:00	Yes
Mean:	0.153	0.153	0.0020				
SD:	0.001	0.001	0.0000				
%RSD:	0.438	0.438	0.37				

Sequence No.: 64
Sample ID: 1202003915|936552|1
Analyst: JXL

Autosampler Location: 63
Date Collected: 12/29/2009 11:30:20
Data Type: Original

Replicate Data: 1202003915|936552|1

Repl	SampleConc	StndConc	BlnkCorr	Peak	Peak	Time	Peak

Replicate Data: 1202003920|936552|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.603	2.603	0.0288	0.1318	0.0289	11:39:38	Yes
2	2.604	2.604	0.0288	0.1310	0.0289	11:40:08	Yes
Mean:	2.603	2.603	0.0288				
SD:	0.001	0.001	0.0000				
%RSD:	0.038	0.038	0.04				

Sequence No.: 70 **Autosampler Location: 69**
Sample ID: 1202003919|936552|5 **Date Collected: 12/29/2009 11:40:27**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202003919|936552|5

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.061	0.061	0.0010	0.0046	0.0011	11:41:19	Yes
2	0.060	0.060	0.0010	0.0047	0.0011	11:41:49	Yes
Mean:	0.061	0.061	0.0010				
SD:	0.000	0.000	0.0000				
%RSD:	0.369	0.369	0.25				

Sequence No.: 71 **Autosampler Location: 70**
Sample ID: 243113002|936552|1 **Date Collected: 12/29/2009 11:42:09**
Analyst: JXL **Data Type: Original**

Replicate Data: 243113002|936552|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	26.73	26.73	0.2926	1.3761	0.2927	11:43:00	Yes
Sample concentration is greater than that of the highest standard.							
2	26.85	26.85	0.2939	1.3675	0.2940	11:43:29	Yes
Sample concentration is greater than that of the highest standard.							
Mean:	26.79	26.79	0.2933				
SD:	0.081	0.081	0.0009				
%RSD:	0.302	0.302	0.30				
Sample concentration is greater than that of the highest standard.							

Sequence No.: 72 **Autosampler Location: 71**
Sample ID: 243113003|936552|1 **Date Collected: 12/29/2009 11:43:49**
Analyst: JXL **Data Type: Original**

Replicate Data: 243113003|936552|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.412	0.412	0.0048	0.0217	0.0049	11:44:41	Yes
2	0.411	0.411	0.0048	0.0219	0.0049	11:45:11	Yes
Mean:	0.411	0.411	0.0048				
SD:	0.001	0.001	0.0000				
%RSD:	0.228	0.228	0.21				

Sequence No.: 73 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 12/29/2009 11:45:31**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.357	5.357	0.0589	0.2641	0.0590	11:46:21	Yes
2	5.322	5.322	0.0585	0.2624	0.0586	11:46:51	Yes
Mean:	5.339	5.339	0.0587				

SD:	0.024	0.024	0.0003
%RSD:	0.459	0.459	0.46

QC value within limits for Hg 253.7 Recovery = 106.79%
All analyte(s) passed QC.

==========

Sequence No.: 74 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 12/29/2009 11:47:10**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.018	-0.018	0.0001	0.0009	0.0002	11:48:00	Yes
2	-0.017	-0.017	0.0001	0.0008	0.0002	11:48:30	Yes
Mean:	-0.018	-0.018	0.0001				
SD:	0.001	0.001	0.0000				
%RSD:	3.721	3.721	5.73				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

==========

Sequence No.: 75 **Autosampler Location: 72**
Sample ID: 243113004|936552|1 **Date Collected: 12/29/2009 11:48:50**
Analyst: JXL **Data Type: Original**

Replicate Data: 243113004|936552|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.284	0.284	0.0034	0.0159	0.0035	11:49:41	Yes
2	0.283	0.283	0.0034	0.0159	0.0035	11:50:11	Yes
Mean:	0.284	0.284	0.0034				
SD:	0.000	0.000	0.0000				
%RSD:	0.132	0.132	0.12				

==========

Sequence No.: 76 **Autosampler Location: 73**
Sample ID: 243113005|936552|1 **Date Collected: 12/29/2009 11:50:31**
Analyst: JXL **Data Type: Original**

Replicate Data: 243113005|936552|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.350	0.350	0.0042	0.0192	0.0042	11:51:23	Yes
2	0.346	0.346	0.0041	0.0187	0.0042	11:51:53	Yes
Mean:	0.348	0.348	0.0041				
SD:	0.003	0.003	0.0000				
%RSD:	0.803	0.803	0.74				

==========

Sequence No.: 77 **Autosampler Location: 74**
Sample ID: 243113006|936552|1 **Date Collected: 12/29/2009 11:52:13**
Analyst: JXL **Data Type: Original**

Replicate Data: 243113006|936552|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.524	0.524	0.0061	0.0278	0.0062	11:53:04	Yes
2	0.525	0.525	0.0061	0.0276	0.0062	11:53:34	Yes
Mean:	0.525	0.525	0.0061				
SD:	0.000	0.000	0.0000				
%RSD:	0.019	0.019	0.02				

==========

Sequence No.: 78 **Autosampler Location: 75**
Sample ID: 243113007|936552|1 **Date Collected: 12/29/2009 11:53:54**
Analyst: JXL **Data Type: Original**

Sequence No.: 83 **Autosampler Location: 80**
Sample ID: 243113012|936552|1 **Date Collected: 12/29/2009 12:02:19**
Analyst: JXL **Data Type: Original**

Replicate Data: 243113012|936552|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	25.68	25.68	0.2812	1.3057	0.2813	12:03:11	Yes
Sample concentration is greater than that of the highest standard.							
2	25.47	25.47	0.2788	1.2926	0.2789	12:03:41	Yes
Sample concentration is greater than that of the highest standard.							
Mean:	25.58	25.58	0.2800				
SD:	0.153	0.153	0.0017				
%RSD:	0.598	0.598	0.60				
Sample concentration is greater than that of the highest standard.							

Sequence No.: 84 **Autosampler Location: 81**
Sample ID: 243113013|936552|1 **Date Collected: 12/29/2009 12:04:01**
Analyst: JXL **Data Type: Original**

Replicate Data: 243113013|936552|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	4.043	4.043	0.0445	0.2016	0.0446	12:04:52	Yes
2	4.031	4.031	0.0444	0.2008	0.0445	12:05:22	Yes
Mean:	4.037	4.037	0.0445				
SD:	0.008	0.008	0.0001				
%RSD:	0.205	0.205	0.20				

Sequence No.: 85 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 12/29/2009 12:05:42**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.296	5.296	0.0582	0.2620	0.0583	12:06:33	Yes
2	5.255	5.255	0.0578	0.2597	0.0579	12:07:03	Yes
Mean:	5.275	5.275	0.0580				
SD:	0.029	0.029	0.0003				
%RSD:	0.546	0.546	0.54				

QC value within limits for Hg 253.7 Recovery = 105.51%
All analyte(s) passed QC.

Sequence No.: 86 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 12/29/2009 12:07:22**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.018	-0.018	0.0001	0.0008	0.0002	12:08:12	Yes
2	-0.016	-0.016	0.0001	0.0012	0.0002	12:08:42	Yes
Mean:	-0.017	-0.017	0.0001				
SD:	0.001	0.001	0.0000				
%RSD:	7.797	7.797	11.08				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 87 **Autosampler Location: 82**
Sample ID: 243113014|936552|1 **Date Collected: 12/29/2009 12:09:01**
Analyst: JXL **Data Type: Original**

Replicate Data: 243113014|936552|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.858	0.858	0.0097	0.0439	0.0098	12:09:53	Yes
2	0.854	0.854	0.0097	0.0434	0.0098	12:10:22	Yes
Mean:	0.856	0.856	0.0097				
SD:	0.002	0.002	0.0000				
%RSD:	0.274	0.274	0.26				

Sequence No.: 88 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 12/29/2009 12:10:42**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.290	5.290	0.0582	0.2617	0.0583	12:11:33	Yes
2	5.258	5.258	0.0578	0.2583	0.0579	12:12:02	Yes
Mean:	5.274	5.274	0.0580				
SD:	0.023	0.023	0.0002				
%RSD:	0.432	0.432	0.43				

QC value within limits for Hg 253.7 Recovery = 105.48%
All analyte(s) passed QC.

Sequence No.: 89 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 12/29/2009 12:12:21**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.014	-0.014	0.0002	0.0011	0.0003	12:13:12	Yes
2	-0.017	-0.017	0.0001	0.0011	0.0002	12:13:42	Yes
Mean:	-0.016	-0.016	0.0002				
SD:	0.001	0.001	0.0000				
%RSD:	9.524	9.524	10.58				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Analysis Begun

Logged In Analyst: Administrator
Technique: AA FIMS-MHS
Spectrometer Model: FIMS-100, S/N B050-9550
Autosampler Model: S10

Sample Information File: C:\data-AA\Administrator\Sample Information\122909S1.SIF
Batch ID:
Results Data Set: 122909S2
Results Library: C:\data-AA\Administrator\Results\Results.mdb

Method Loaded
Method Name: SOIL
Method Last Saved: 12/29/2009 09:46:10
Method Description: 7471A, ILM04 ANALYST JXL

Sequence No.: 1
Autosampler Location: 13
Sample ID: 1202003902|936546|10
Date Collected: 12/29/2009 13:05:50
Analyst: JXL
Data Type: Original

Replicate Data: 1202003902|936546|10

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	3.972	3.972	0.0438	0.2048	0.0439	13:06:42	Yes
2	3.945	3.945	0.0435	0.2023	0.0436	13:07:12	Yes
Mean:	3.958	3.958	0.0436				
SD:	0.019	0.019	0.0002				
%RSD:	0.490	0.490	0.49				

Sequence No.: 2
Autosampler Location: 14
Sample ID: 242668001|936546|1
Date Collected: 12/29/2009 13:07:32
Analyst: JXL
Data Type: Original

Replicate Data: 242668001|936546|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.297	0.297	0.0036	0.0174	0.0037	13:08:22	Yes
2	0.294	0.294	0.0035	0.0169	0.0036	13:08:52	Yes
Mean:	0.296	0.296	0.0036				
SD:	0.002	0.002	0.0000				
%RSD:	0.638	0.638	0.58				

Sequence No.: 3
Autosampler Location: 15
Sample ID: 242668002|936546|1
Date Collected: 12/29/2009 13:09:11
Analyst: JXL
Data Type: Original

Replicate Data: 242668002|936546|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.342	0.342	0.0041	0.0195	0.0042	13:10:01	Yes
2	0.338	0.338	0.0040	0.0194	0.0041	13:10:31	Yes
Mean:	0.340	0.340	0.0040				
SD:	0.003	0.003	0.0000				
%RSD:	0.834	0.834	0.77				

Sequence No.: 4
Autosampler Location: 70
Sample ID: 243113002|936552|10
Date Collected: 12/29/2009 13:10:50
Analyst: JXL
Data Type: Original

Replicate Data: 243113002|936552|10

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored

1	3.145	3.145	0.0347	0.1614	0.0348	13:11:41	Yes
2	3.183	3.183	0.0351	0.1633	0.0352	13:12:11	Yes
Mean:	3.164	3.164	0.0349				
SD:	0.027	0.027	0.0003				
%RSD:	0.848	0.848	0.84				

==========

Sequence No.: 5 **Autosampler Location: 80**
Sample ID: 243113012|936552|10 **Date Collected: 12/29/2009 13:12:31**
Analyst: JXL **Data Type: Original**

Replicate Data: 243113012|936552|10

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	3.265	3.265	0.0360	0.1678	0.0361	13:13:23	Yes
2	3.191	3.191	0.0352	0.1640	0.0353	13:13:52	Yes
Mean:	3.228	3.228	0.0356				
SD:	0.052	0.052	0.0006				
%RSD:	1.617	1.617	1.60				

==========

Sequence No.: 6 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 12/29/2009 13:14:12**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.444	5.444	0.0599	0.2780	0.0600	13:15:03	Yes
2	5.424	5.424	0.0596	0.2768	0.0597	13:15:33	Yes
Mean:	5.434	5.434	0.0597				
SD:	0.014	0.014	0.0002				
%RSD:	0.253	0.253	0.25				

QC value within limits for Hg 253.7 Recovery = 108.68%
All analyte(s) passed QC.

==========

Sequence No.: 7 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 12/29/2009 13:15:52**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.014	-0.014	0.0002	0.0013	0.0003	13:16:42	Yes
2	-0.011	-0.011	0.0002	0.0017	0.0003	13:17:12	Yes
Mean:	-0.012	-0.012	0.0002				
SD:	0.002	0.002	0.0000				
%RSD:	15.58	15.58	11.06				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Miscellaneous

Prep LogBook

Analyst: BCD1 Verified by:_____

Batch: 932280

Lab SOP: GL-MA-E-009 REV# 19

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1201994231	UI062540-I	.521	g
MS	1201994233	UI091124-01	.25	mL
MS	1201994233	UI091124-06	.25	mL
MSD	1201994235	UI091124-01	.25	mL
MSD	1201994235	UI091124-06	.25	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1201994230		SW846 3050B	15-DEC-2009 09:46	0.544 g	50 mL	91.91176	SOIL
LCS	1201994231		SW846 3050B	15-DEC-2009 09:46	0.521 g	50 mL	95.96929	SOIL
SAMPLE	242743002		SW846 3050B	15-DEC-2009 09:46	0.514 g	50 mL	97.27626	SOIL
SAMPLE	242748001		SW846 3050B	15-DEC-2009 09:46	0.517 g	50 mL	96.7118	SOIL
SAMPLE	242748002		SW846 3050B	15-DEC-2009 09:46	0.511 g	50 mL	97.84736	SOIL
SAMPLE	242750001		SW846 3050B	15-DEC-2009 09:46	0.517 g	50 mL	96.7118	SOIL
DUP	1201994232	242750001	SW846 3050B	15-DEC-2009 09:46	0.52 g	50 mL	96.15385	SOIL
MS	1201994233	242750001	SW846 3050B	15-DEC-2009 09:46	0.513 g	50 mL	97.46589	SOIL
MSD	1201994235	242750001	SW846 3050B	15-DEC-2009 09:46	0.51 g	50 mL	98.03922	SOIL
SDILT	1201994234	242750001	SW846 3050B	15-DEC-2009 09:46	0.517 g	50 mL	96.7118	SOIL
SAMPLE	242750002		SW846 3050B	15-DEC-2009 09:46	0.513 g	50 mL	97.46589	SOIL
SAMPLE	242750003		SW846 3050B	15-DEC-2009 09:46	0.503 g	50 mL	99.40358	SOIL
SAMPLE	242750004		SW846 3050B	15-DEC-2009 09:46	0.516 g	50 mL	96.89922	SOIL
SAMPLE	242750005		SW846 3050B	15-DEC-2009 09:46	0.512 g	50 mL	97.65625	SOIL

Reagent/Solvent Lot ID	Amount	Description
1238343	10 mL	HYDROCHLORIC ACID
1238345	1.25 mL	Nitric Acid CONC.

Comments: The QC sample is a brown, clumpy soil.

Prep LogBook

Analyst: BCD1 Verified by:_____

Batch: 932319

Lab SOP: GL-MA-E-009 REV# 19

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1201994310	UI062540-MS	.502	g
MS	1201994312	UI091015-A	.5	mL
MS	1201994312	UI091015-B	.5	mL
MSD	1201994314	UI091015-A	.5	mL
MSD	1201994314	UI091015-B	.5	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1201994309		SW846 3050B	15-DEC-2009 10:08	0.506 g	50 mL	98.81423	SOIL
LCS	1201994310		SW846 3050B	15-DEC-2009 10:08	0.502 g	50 mL	99.60159	SOIL
SAMPLE	242743002		SW846 3050B	15-DEC-2009 10:08	0.52 g	50 mL	96.15385	SOIL
SAMPLE	242748001		SW846 3050B	15-DEC-2009 10:08	0.53 g	50 mL	94.33962	SOIL
SAMPLE	242748002		SW846 3050B	15-DEC-2009 10:08	0.534 g	50 mL	93.63296	SOIL
SAMPLE	242750001		SW846 3050B	15-DEC-2009 10:08	0.518 g	50 mL	96.5251	SOIL
DUP	1201994311	242750001	SW846 3050B	15-DEC-2009 10:08	0.509 g	50 mL	98.23183	SOIL
MS	1201994312	242750001	SW846 3050B	15-DEC-2009 10:08	0.503 g	50 mL	99.40358	SOIL
MSD	1201994314	242750001	SW846 3050B	15-DEC-2009 10:08	0.502 g	50 mL	99.60159	SOIL
SDILT	1201994313	242750001	SW846 3050B	15-DEC-2009 10:08	0.518 g	50 mL	96.5251	SOIL
SAMPLE	242750002		SW846 3050B	15-DEC-2009 10:08	0.512 g	50 mL	97.65625	SOIL
SAMPLE	242750003		SW846 3050B	15-DEC-2009 10:08	0.507 g	50 mL	98.61933	SOIL
SAMPLE	242750004		SW846 3050B	15-DEC-2009 10:08	0.502 g	50 mL	99.60159	SOIL
SAMPLE	242750005		SW846 3050B	15-DEC-2009 10:08	0.528 g	50 mL	94.69697	SOIL

Reagent/Solvent Lot ID	Amount	Description
1203655-02	1.5 mL	Hydrogen Peroxide 30%
1238345	5 mL	Nitric Acid CONC.

Comments: The QC sample is a clumpy brown soil.

Prep LogBook

Analyst: JXL1 Verified by:_____

Batch: 936545

Lab SOP: GL-MA-E-010 REV# 23

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1202003902	UI031809A	.209	g
MS	1202003904	WHG091223-14	.3	mL
MSD	1202003906	WHG091223-14	.3	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1202003901		SW846 7471A Prep	28-DEC-2009 08:00	0.515 g	30 mL	58.25243	SOIL
LCS	1202003902		SW846 7471A Prep	28-DEC-2009 08:00	0.209 g	30 mL	143.54067	SOIL
SAMPLE	242668001		SW846 7471A Prep	28-DEC-2009 08:00	0.514 g	30 mL	58.36576	SOIL
SAMPLE	242668002		SW846 7471A Prep	28-DEC-2009 08:00	0.544 g	30 mL	55.14706	SOIL
SAMPLE	242750001		SW846 7471A Prep	28-DEC-2009 08:00	0.553 g	30 mL	54.24955	SOIL
SAMPLE	242750002		SW846 7471A Prep	28-DEC-2009 08:00	0.525 g	30 mL	57.14286	SOIL
SAMPLE	242750003		SW846 7471A Prep	28-DEC-2009 08:00	0.523 g	30 mL	57.36138	SOIL
SAMPLE	242750004		SW846 7471A Prep	28-DEC-2009 08:00	0.586 g	30 mL	51.19454	SOIL
SAMPLE	242750005		SW846 7471A Prep	28-DEC-2009 08:00	0.518 g	30 mL	57.91506	SOIL
SAMPLE	243086001		SW846 7471A Prep	28-DEC-2009 08:00	0.569 g	30 mL	52.72408	SOIL
SAMPLE	243086002		SW846 7471A Prep	28-DEC-2009 08:00	0.571 g	30 mL	52.5394	SOIL
SAMPLE	243086003		SW846 7471A Prep	28-DEC-2009 08:00	0.564 g	30 mL	53.19149	SOIL
SAMPLE	243086004		SW846 7471A Prep	28-DEC-2009 08:00	0.582 g	30 mL	51.54639	SOIL
SAMPLE	243086005		SW846 7471A Prep	28-DEC-2009 08:00	0.517 g	30 mL	58.02708	SOIL
SAMPLE	243088003		SW846 7471A Prep	28-DEC-2009 08:00	0.592 g	30 mL	50.67568	SOIL
SAMPLE	243088004		SW846 7471A Prep	28-DEC-2009 08:00	0.574 g	30 mL	52.26481	SOIL
SAMPLE	243092001		SW846 7471A Prep	28-DEC-2009 08:00	0.582 g	30 mL	51.54639	SOIL
DUP	1202003903	243092001	SW846 7471A Prep	28-DEC-2009 08:00	0.56 g	30 mL	53.57143	SOIL
MS	1202003904	243092001	SW846 7471A Prep	28-DEC-2009 08:00	0.555 g	30 mL	54.05405	SOIL
MSD	1202003906	243092001	SW846 7471A Prep	28-DEC-2009 08:00	0.515 g	30 mL	58.25243	SOIL
SDILT	1202003905	243092001	SW846 7471A Prep	28-DEC-2009 08:00	0.582 g	30 mL	51.54639	SOIL
SAMPLE	243092002		SW846 7471A Prep	28-DEC-2009 08:00	0.595 g	30 mL	50.42017	SOIL
SAMPLE	243092003		SW846 7471A Prep	28-DEC-2009 08:00	0.511 g	30 mL	58.70841	SOIL
SAMPLE	243390001		SW846 7471A Prep	28-DEC-2009 08:00	0.594 g	30 mL	50.50505	SOIL
SAMPLE	243390002		SW846 7471A Prep	28-DEC-2009 08:00	0.571 g	30 mL	52.5394	SOIL

Reagent/Solvent Lot ID	Amount	Description
1236355-A	1.125 mL	Hydrochloric Acid Conc.
1240182-1	.375 mL	NITRIC ACID
1244904-C	7.5 mL	5% KMnO4 solution
1206350-C	2 mL	Hg reducing agent

Comments: Sample is a brown, medium soil.
Digestion Start Date: 28-DEC-09 08:00:54
Digestion End Date: 28-DEC-09 08:30:54

Prep LogBook

WHG091223-07	30 uL	Mercury Working Standard 1st Source CAL S 0.2/CRA
WHG091223-08	75 uL	Mercury Working Standard 1st Source CAL S 0.5
WHG091223-11	1.5 mL	Mercury Working 1st Source CAL S 10.0
WHG091223-09	300 uL	Mercury Working 1st Source CAL S 2.0
WHG091223-10	750 uL	Mercury Working 1st Source CAL S 5.0/CCV
WHG091223-12	750 uL	Mercury Working 2nd Source S 5.0/ICV

Prep LogBook

Analyst: TXB3 Verified by:_____

Batch: 934866

Lab SOP: GL-MA-E-010 REV# 23

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1202000175	UI031809A	.208	g
MS	1202000177	WHG091222-14	.3	mL
MSD	1202000179	WHG091222-14	.3	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1202000174		SW846 7471A Prep	22-DEC-2009 11:45	0.5 g	30 mL	60	SOIL
LCS	1202000175		SW846 7471A Prep	22-DEC-2009 11:45	0.208 g	30 mL	144.23077	SOIL
SAMPLE	242750001		SW846 7471A Prep	22-DEC-2009 11:45	0.513 g	30 mL	58.47953	SOIL
SAMPLE	242750002		SW846 7471A Prep	22-DEC-2009 11:45	0.504 g	30 mL	59.52381	SOIL
SAMPLE	242750003		SW846 7471A Prep	22-DEC-2009 11:45	0.513 g	30 mL	58.47953	SOIL
SAMPLE	242750004		SW846 7471A Prep	22-DEC-2009 11:45	0.538 g	30 mL	55.76208	SOIL
SAMPLE	242750005		SW846 7471A Prep	22-DEC-2009 11:45	0.507 g	30 mL	59.1716	SOIL
SAMPLE	243113001		SW846 7471A Prep	22-DEC-2009 11:45	0.597 g	30 mL	50.25126	SOIL
DUP	1202000176	243113001	SW846 7471A Prep	22-DEC-2009 11:45	0.578 g	30 mL	51.90311	SOIL
MS	1202000177	243113001	SW846 7471A Prep	22-DEC-2009 11:45	0.564 g	30 mL	53.19149	SOIL
MSD	1202000179	243113001	SW846 7471A Prep	22-DEC-2009 11:45	0.579 g	30 mL	51.81347	SOIL
SDILT	1202000178	243113001	SW846 7471A Prep	22-DEC-2009 11:45	0.597 g	30 mL	50.25126	SOIL
SAMPLE	243113002		SW846 7471A Prep	22-DEC-2009 11:45	0.535 g	30 mL	56.07477	SOIL
SAMPLE	243113003		SW846 7471A Prep	22-DEC-2009 11:45	0.508 g	30 mL	59.05512	SOIL
SAMPLE	243113004		SW846 7471A Prep	22-DEC-2009 11:45	0.529 g	30 mL	56.71078	SOIL
SAMPLE	243113005		SW846 7471A Prep	22-DEC-2009 11:45	0.573 g	30 mL	52.35602	SOIL
SAMPLE	243113006		SW846 7471A Prep	22-DEC-2009 11:45	0.522 g	30 mL	57.47126	SOIL
SAMPLE	243113007		SW846 7471A Prep	22-DEC-2009 11:45	0.546 g	30 mL	54.94505	SOIL
SAMPLE	243113008		SW846 7471A Prep	22-DEC-2009 11:45	0.514 g	30 mL	58.36576	SOIL
SAMPLE	243113009		SW846 7471A Prep	22-DEC-2009 11:45	0.508 g	30 mL	59.05512	SOIL
SAMPLE	243113010		SW846 7471A Prep	22-DEC-2009 11:45	0.576 g	30 mL	52.08333	SOIL
SAMPLE	243113011		SW846 7471A Prep	22-DEC-2009 11:45	0.543 g	30 mL	55.24862	SOIL
SAMPLE	243113012		SW846 7471A Prep	22-DEC-2009 11:45	0.519 g	30 mL	57.80347	SOIL
SAMPLE	243113013		SW846 7471A Prep	22-DEC-2009 11:45	0.587 g	30 mL	51.10733	SOIL
SAMPLE	243113014		SW846 7471A Prep	22-DEC-2009 11:45	0.51 g	30 mL	58.82353	SOIL

Reagent/Solvent Lot ID	Amount	Description
1236355-A	1.125 mL	Hydrochloric Acid Conc.
1240182-1	.375 mL	NITRIC ACID
1244904-C	7.5 mL	5% KMnO4 solution
1206350-C	2 mL	Hg reducing agent

Comments: Sample 243113001 is a brown clumpy soil.
Digestion Start Date: 22-DEC-09 11:45
Digestion End Date: 22-DEC-09 12:15

Prep LogBook

WHG091222-07	30 uL	Mercury Working Standard 1st Source CAL S 0.2/CRA
WHG091222-08	75 uL	Mercury Working Standard 1st Source CAL S 0.5
WHG091222-11	1.5 mL	Mercury Working 1st Source CAL S 10.0
WHG091222-09	300 uL	Mercury Working 1st Source CAL S 2.0
WHG091222-10	750 uL	Mercury Working 1st Source CAL S 5.0/CCV
WHG091222-12	750 uL	Mercury Working 2nd Source S 5.0/ICV

NCR Report No.: 772597
Revision No.:

COMPANY - WIDE NONCONFORMANCE REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
19-DEC-09	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
ICP	SW846 3050B/6010B	Solid	LANL
Batch ID:	**Sample Numbers:**		
932281	See Below		

Potentially affected work order(s)(SDG): 242743(10-883),242748(10-885),242750(10-886)

Application Issues:

Failed Recovery for MS/PS

Failed RPD for DUP

Failed Recovery for MSD/PSD

Specification and Requirements Nonconformance Description:	NRG Disposition:
1. Failed Recovery for MS/PS: QC 1201994233MS 2. Failed RPD for DUP: QC 1201994232DUP 3. Failed Recovery for MSD/PSD: QC 1201994235MSD	1. The matrix spike recovery failed outside of the control limits for calcium,magnesium and silicon due to possible matrix interferences and/or non-homogeneity. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported. 2. The sample and sample duplicate % RPD failed outside the control limits for barium and manganese due to possible sample non-homogeneity and/or matrix interference. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported. 3. The matrix spike duplicate recovery failed outside of the control limits for calcium,manganese and silicon due to possible matrix interferences and/or non-homogeneity. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported.

Originator's Name:
Helen Camello 28-DEC-09

Data Validator/Group Leader:
Louise Smith 28-DEC-09

COMPANY - WIDE NONCONFORMANCE REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
24-DEC-09	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
ICP/MS	SW846 3050B/6020	Solid	LANL
Batch ID:	**Sample Numbers:**		
932320	See Below		

Potentially affected work order(s)(SDG): 242743(10-883),242748(10-885),242750(10-886)

Application Issues:

Failed RPD for DUP

Specification and Requirements Nonconformance Description:	NRG Disposition:
1. Failed RPD for DUP: QC 1201994311DUP	The sample and sample duplicate % RPD failed outside the control limits for Be, Ni and U due to possible sample non-homogeneity and/or matrix interference. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported.

Originator's Name:

Elizabeth Janssen 27-DEC-09

Data Validator/Group Leader:

Jamie Johnson 28-DEC-09

Standard Logbook

Serial ID: UHG1167639-01 **Opened:** 13-AUG-09 **Amount :** 125 mL
Name: MHGSTOCK1 **Received:** 13-AUG-09 **Catalog Number :** PLHG4-2Y
Type: Source Material **Expires:** 13-AUG-10 **Lot Number :** 15-37HG
Employee: Bryan Davis **Solvent :** 10% HNO3
Supplier: Spex
Description: Mercury Source Standard #1 1,000 mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Mercury	1000 mg/L		

Serial ID: UHG1167641-02 **Opened:** 13-AUG-09 **Amount :** 100 mL
Name: MHGSTOCK2 **Received:** 13-AUG-09 **Catalog Number :** AHG1KN-100
Type: Source Material **Expires:** 13-AUG-10 **Lot Number :** 4905530
Employee: Bryan Davis **Solvent :** 3% HNO3
Supplier: Ricca Chemical Company
Description: Mercury Source Standard #2 1,000 mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Mercury	999.7 mg/L		

Serial ID: UI031809A **Opened:** 18-MAR-09 **Catalog Number :** 540
Name: METALSOILSRM **Received:** 18-MAR-09 **Lot Number :** D061-540
Type: Source Material **Expires:** 10-OCT-10
Employee: Jamie Johnson
Supplier: ERA
Description: Metals LCS Soil SRM
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	10600 mg/kg	Antimony	126 mg/kg
Arsenic	225 mg/kg	Barium	565 mg/kg
Beryllium	162 mg/kg	Boron	107 mg/kg
Cadmium	69.1 mg/kg	Calcium	10000 mg/kg
Chromium	124 mg/kg	Cobalt	115 mg/kg
Copper	66.7 mg/kg	Iron	17600 mg/kg
Lead	223 mg/kg	Magnesium	4260 mg/kg
Manganese	368 mg/kg	Mercury	5.15 mg/kg
Molybdenum	107 mg/kg	Nickel	172 mg/kg
Potassium	4090 mg/kg	Selenium	147 mg/kg
Silver	35.2 mg/kg	Sodium	538 mg/kg
Strontium	117 mg/kg	Thallium	173 mg/kg
Tin	164 mg/kg	Titanium	381 mg/kg
Vanadium	93.9 mg/kg	Zinc	349 mg/kg

Standard Logbook

Serial ID: UI062540-I **Opened:** 12-JUN-09 **Amount :** 80 g
Name: ICP SOIL SRM **Received:** 12-JUN-09 **Lot Number :** D062-540
Type: Source Material **Expires:** 31-JAN-12
Employee: Bryan Davis
Supplier: ERA
Description: Metals Soil LCS SRM ICP/Hg
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	10500 mg/kg	Antimony	173 mg/kg
Arsenic	104 mg/kg	Barium	198 mg/kg
Beryllium	77.6 mg/kg	Boron	141 mg/kg
Cadmium	60.7 mg/kg	Calcium	9870 mg/kg
Chromium	236 mg/kg	Cobalt	91.2 mg/kg
Copper	174 mg/kg	Iron	18000 mg/kg
Lead	86 mg/kg	Magnesium	4000 mg/kg
Manganese	558 mg/kg	Mercury	8.46 mg/kg
Molybdenum	48.6 mg/kg	Nickel	134 mg/kg
Phosphorous	736 mg/kg	Potassium	4300 mg/kg
Selenium	286 mg/kg	Silica	2591 mg/kg
Silicon	1211 mg/kg	Silver	30.1 mg/kg
Sodium	1020 mg/kg	Strontium	227 mg/kg
Sulfur	385 mg/kg	Thallium	121 mg/kg
Tin	104 mg/kg	Titanium	462 mg/kg
Vanadium	115 mg/kg	Zinc	594 mg/kg

Serial ID: UI062540-MS **Opened:** 12-JUN-09 **Lot Number :** D062-540
Name: ICPMS SOIL SRM **Received:** 12-JUN-09
Type: Source Material **Expires:** 31-JAN-12
Employee: Bryan Davis
Supplier: ERA
Description: Metals Soil LCS SRM ICPMS
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	10500 mg/kg	Antimony	67.4 mg/kg
Arsenic	104 mg/kg	Barium	198 mg/kg
Beryllium	77.6 mg/kg	Boron	141 mg/kg
Cadmium	60.6 mg/kg	Calcium	9870 mg/kg
Chromium	236 mg/kg	Cobalt	91.2 mg/kg
Copper	174 mg/kg	Iron	18000 mg/kg
Lead	86 mg/kg	Lithium	10.6 mg/kg
Magnesium	4000 mg/kg	Manganese	558 mg/kg
Mercury	8.46 mg/kg	Molybdenum	48.6 mg/kg
Nickel	134 mg/kg	Phosphorous	755 mg/kg
Potassium	4300 mg/kg	Selenium	286 mg/kg
Silver	30.1 mg/kg	Sodium	1020 mg/kg

Analyte	Concentration	Analyte	Concentration
Strontium	227 mg/kg	Thallium	121 mg/kg
Thorium	9.84 mg/kg	Tin	104 mg/kg
Titanium	462 mg/kg	Uranium	2.13 mg/kg
Uranium-235	.0153 mg/kg	Uranium-238	2.11 mg/kg
Vanadium	92.4 mg/kg	Zinc	594 mg/kg
Zirconium	10.6 mg/kg		

Serial ID: UI090422-40 **Opened:** 04-MAY-09 **Amount :** 500 mL
Name: TRACE ICP ICSA SOLN A **Received:** 22-APR-09 **Catalog Number :** 160005-01-03
Type: Source Material **Expires:** 04-MAY-10 **Lot Number :** 1013357
Employee: Helen Camello **Solvent :** 5%HNO3
Supplier: o2si
Description: TRACE ICP ICSA SOLN A mg/L+/-0.5%IN5%HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	5000 mg/L	Calcium	5000 mg/L
Iron	2000 mg/L	Magnesium	5000 mg/L

Serial ID: UI090610-03 **Opened:** 10-JUN-09 **Catalog Number :** 060074-06-01
Name: ICPMS Tungsten - 10mg/L S **Received:** 10-JUN-09 **Lot Number :** 1016338
Type: Source Material **Expires:** 10-JUN-10 **Solvent :** 2% HNO3
Employee: Paul Boyd
Supplier: O2SI
Description: ICPMS Tungsten standard SPIKE - 10mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Tungsten	10 mg/L		

Serial ID: UI090701-09 **Opened:** 01-JUL-09 **Amount :** 250 mL
Name: ICP-MS CRDL Master #1 **Received:** 01-JUL-09 **Catalog Number :** 160044-09-02
Type: Source Material **Expires:** 01-JUL-10 **Lot Number :** 1016477
Employee: Paul Boyd **Solvent :** +/- 0.5% IN 2% HNO3
Supplier: 02SI
Description: ICPMS CRDL Master Soln #1
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	15 mg/L	Arsenic	5 mg/L
Barium	2 mg/L	Beryllium	.5 mg/L
Boron	15 mg/L	Cadmium	1 mg/L
Calcium	100 mg/L	Chromium	3 mg/L
Cobalt	1 mg/L	Copper	1 mg/L

Analyte	Concentration	Analyte	Concentration
Iron	25 mg/L	Lead	2 mg/L
Lithium	10 mg/L	Magnesium	15 mg/L
Manganese	5 mg/L	Nickel	2 mg/L
Phosphorous	50 mg/L	Potassium	300 mg/L
Selenium	5 mg/L	Sodium	250 mg/L
Strontium	10 mg/L	Thallium	1 mg/L
Thorium	1 mg/L	Uranium	.2 mg/L
Vanadium	10 mg/L	Zinc	10 mg/L

Serial ID: UI090701-10 **Opened:** 01-JUL-09 **Amount :** 250 mL
Name: ICP-MS CRDL Master #2 **Received:** 01-JUL-09 **Catalog Number :** 160044-08-02
Type: Source Material **Expires:** 01-JUL-10 **Lot Number :** 1016476
Employee: Paul Boyd **Solvent :** +/- 0.5% IN 2% HNO3
Supplier: 02SI
Description: ICPMS CRDL Soln #2
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	2 mg/L	Molybdenum	.5 mg/L
Silver	1 mg/L	Tin	2 mg/L
Titanium	10 mg/L	Tungsten	5 mg/L
Zirconium	2 mg/L		

Serial ID: UI090701-40 **Opened:** 01-JUL-09 **Amount :** 500 mL
Name: TRACE ICP Stock PQL St **Received:** 30-JUN-09 **Catalog Number :** 160543-01-03
Type: Source Material **Expires:** 01-JUL-10 **Lot Number :** 1016475
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3+TrHF
Supplier: 02si
Description: TRACE ICP Stock PQL Standard
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	100 mg/L	Antimony	5 mg/L
Arsenic	15 mg/L	Barium	2.5 mg/L
Beryllium	2.5 mg/L	Boron	25 mg/L
Cadmium	2.5 mg/L	Calcium	100 mg/L
Chromium	2.5 mg/L	Cobalt	2.5 mg/L
Copper	5 mg/L	Iron	50 mg/L
Lead	5 mg/L	Magnesium	150 mg/L
Manganese	5 mg/L	Molybdenum	5 mg/L
Nickel	2.5 mg/L	Phosphorous	75 mg/L
Potassium	75 mg/L	Selenium	15 mg/L
Silicon	50 mg/L	Silver	2.5 mg/L
Sodium	150 mg/L	Strontium	2.5 mg/L
Sulfur	50 mg/L	Thallium	10 mg/L

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Tin	5 mg/L	Titanium	2.5 mg/L
Uranium	25 mg/L	Vanadium	2.5 mg/L
Zinc	5 mg/L		

Serial ID: UI090828-42 **Opened:** 16-SEP-09 **Amount :** 500 mL
Name: TRACE ICP Na-1000SOUR **Received:** 27-AUG-09 **Catalog Number :** 060011-02-03
Type: Source Material **Expires:** 16-SEP-10 **Lot Number :** 1017098
Employee: Helen Camello **Solvent :** 1%HNO3
Supplier: 02SI
Description: Sodium 1000 +/- 3 ug/mL in 1% HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Sodium	1000 ug/mL		

Serial ID: UI090925-40 **Opened:** 23-OCT-09 **Amount :** 500 mL
Name: SECOND SOURCE STD -1 **Received:** 25-SEP-09 **Catalog Number :** SGELMX38-500N
Type: Source Material **Expires:** 30-SEP-10 **Lot Number :** 4909129
Employee: Helen Camello **Solvent :** 5%HNO3
Supplier: SPECTRO PURE
Description: SECOND SOURCE STD #1A 5%HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Arsenic	100 mg/L
Barium	100 mg/L	Boron	100 mg/L
Cadmium	100 mg/L	Calcium	1000 mg/L
Chromium	100 mg/L	Cobalt	100 mg/L
Copper	100 mg/L	Iron	1000 mg/L
Lead	100 mg/L	Phosphorous	500 mg/L
Potassium	500 mg/L	Selenium	500 mg/L
Sodium	500 mg/L	Strontium	100 mg/L

Serial ID: UI090925-41 **Opened:** 23-OCT-09 **Amount :** 500 mL
Name: SECOND SOURCE STD -1 **Received:** 25-SEP-09 **Catalog Number :** SGELMX39-500B
Type: Source Material **Expires:** 30-SEP-10 **Lot Number :** 4909130
Employee: Helen Camello **Solvent :** 5%HNO3,TR.HF
Supplier: SPECTRO PURE
Description: SECOND SOURCE STD #1B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	100 mg/L	Beryllium	50 mg/L
Magnesium	1000 mg/L	Manganese	100 mg/L

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Molybdenum	100 mg/L	Nickel	100 mg/L
Silver	50 mg/L	Sulfur	500 mg/L
Thallium	100 mg/L	Tin	100 mg/L
Titanium	100 mg/L	Uranium	100 mg/L
Vanadium	100 mg/L	Zinc	100 mg/L

Serial ID: UI091015-42 **Opened:** 28-OCT-09 **Amount :** 500 mL
Name: SI 1000mg/L **Received:** 15-OCT-09 **Catalog Number :** 060014-02-03
Type: Source Material **Expires:** 28-OCT-10 **Lot Number :** 1017581
Employee: Helen Camello **Solvent :** 0.3%H2O(NH4)2SiF6
Supplier: o2si
Description: Silicon 1000mg/L+/-0.3%in H2O(NH4)2SiF6
Comments: None

Analyte	Concentration	Analyte	Concentration
Silica	2139 mg/L	Silicon	1000 mg/L

Serial ID: UI091015-A **Opened:** 15-OCT-09 **Catalog Number :** 160067-03
Name: ICP-MS DOE SOIL SPIKE **Received:** 15-OCT-09 **Lot Number :** 1017142
Type: Source Material **Expires:** 15-OCT-10
Employee: Francena Armstrong
Supplier: 02si
Description: ICP-MS Spike for soil products.
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	200 mg/L	Arsenic	8 mg/L
Barium	5 mg/L	Beryllium	5 mg/L
Boron	10 mg/L	Cadmium	1 mg/L
Calcium	200 mg/L	Chromium	5 mg/L
Cobalt	5 mg/L	Copper	5 mg/L
Iron	200 mg/L	Lead	20 mg/L
Lithium	5 mg/L	Magnesium	200 mg/L
Manganese	5 mg/L	Nickel	5 mg/L
Phosphorus, Total as P	200 mg/L	Potassium	200 mg/L
Selenium	2 mg/L	Sodium	200 mg/L
Strontium	5 mg/L	Thallium	10 mg/L
Thorium	5 mg/L	Uranium	5 mg/L
Uranium-235	.036 mg/L	Uranium-238	4.964 mg/L
Vanadium	5 mg/L	Zinc	5 mg/L

Standard Logbook

Serial ID: UI091015-B **Opened:** 15-OCT-09 **Catalog Number :** 160067-03
Name: ICP-MS DOE SOIL SPIKE **Received:** 15-OCT-09 **Lot Number :** 1017142
Type: Source Material **Expires:** 15-OCT-10
Employee: Francena Armstrong
Supplier: 02si
Description: ICP-MS Spike for Soil Products
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	20 mg/L	Molybdenum	5 mg/L
Silicon	200 mg/L	Silver	5 mg/L
Tin	5 mg/L	Zirconium	5 mg/L

Serial ID: UI091102-40 **Opened:** 16-NOV-09 **Amount :** 500 mL
Name: TRACE CALSTD#1A SOUF **Received:** 02-NOV-09 **Catalog Number :** HP2270-1-500
Type: Source Material **Expires:** 31-OCT-10 **Lot Number :** 0930215
Employee: Helen Camello **Solvent :** HNO3
Supplier: Environmental Express
Description: Trace Calibration Std #1A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	2000 mg/L	Arsenic	200 mg/L
Barium	200 mg/L	Beryllium	200 mg/L
Boron	200 mg/L	Cadmium	200 mg/L
Calcium	2000 mg/L	Chromium	200 mg/L
Cobalt	200 mg/L	Copper	200 mg/L
Iron	2000 mg/L	Lead	200 mg/L
Magnesium	2000 mg/L	Manganese	200 mg/L
Nickel	200 mg/L	Phosphorous	1000 mg/L
Potassium	2000 mg/L	Selenium	200 mg/L
Sodium	2000 mg/L	Strontium	200 mg/L
Thallium	200 mg/L	Uranium	200 mg/L
Vanadium	200 mg/L	Zinc	200 mg/L

Serial ID: UI091102-41 **Opened:** 16-NOV-09 **Amount :** 500 mL
Name: TRACE CALSTD#1B SOUF **Received:** 02-NOV-09 **Catalog Number :** HP2270-2-500
Type: Source Material **Expires:** 31-OCT-10 **Lot Number :** 0930216
Employee: Helen Camello **Solvent :** HNO3
Supplier: Environmental Express
Description: Trace Calibration Standard #1B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	200 mg/L	Molybdenum	200 mg/L
Silver	200 mg/L	Sulfur	400 mg/L

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Tin	200 mg/L	Titanium	200 mg/L

Serial ID: UI091102-42 **Opened:** 17-NOV-09 **Amount :** 200 mL
Name: SILICON **Received:** 02-NOV-09 **Catalog Number :** HP100050-4F
Type: Source Material **Expires:** 17-NOV-10 **Lot Number :** 0921924
Employee: Helen Camello **Solvent :** H20/tr HF
Supplier: ENVIRNMENTAL EXPRESS
Description: SILICON 1000mg/L H20/tr HF
Comments: None

Analyte	Concentration	Analyte	Concentration
Silica	2139 mg/L	Silicon	1000 mg/L

Serial ID: UI091124-01 **Opened:** 24-NOV-09 **Lot Number :** 1017642
Name: METALSPIKE-1 **Received:** 24-NOV-09
Type: Source Material **Expires:** 24-NOV-10
Employee: Francena Armstrong
Supplier: OS2I
Description: Metals Spike Mix I
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 ug/mL	Arsenic	100 ug/mL
Barium	100 ug/mL	Beryllium	100 ug/mL
Boron	100 ug/mL	Cadmium	100 ug/mL
Calcium	1000 ug/mL	Cobalt	100 ug/mL
Iron	1000 ug/mL	Lead	100 ug/mL
Magnesium	1000 ug/mL	Phosphorous	100 ug/mL
Potassium	1000 ug/mL	Silver	100 ug/mL
Sodium	1000 ug/mL	Strontium	100 ug/mL

Serial ID: UI091124-06 **Opened:** 24-NOV-09 **Lot Number :** 1017643
Name: METALSPIKE-2 **Received:** 24-NOV-09
Type: Source Material **Expires:** 24-NOV-10
Employee: Francena Armstrong
Supplier: OS2I
Description: Metals Spike Mix II
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	100 ug/mL	Chromium	100 ug/mL
Copper	100 ug/mL	Manganese	100 ug/mL
Molybdenum	100 ug/mL	Nickel	100 ug/mL
Selenium	100 ug/mL	Silica	2141 ug/mL

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Silicon	1000 ug/mL	Sulfur	1000 ug/mL
Thallium	100 ug/mL	Tin	100 ug/mL
Titanium	100 ug/mL	Uranium	100 ug/mL
Vanadium	100 ug/mL	Zinc	100 ug/mL

Serial ID: UI091130-48 **Opened:** 11-DEC-09 **Amount :** 1000 mL
Name: Trace ICP ICSA **Received:** 01-DEC-09 **Catalog Number :** 160005-02
Type: Source Material **Expires:** 11-DEC-10 **Lot Number :** 1018045
Employee: Helen Camello **Solvent :** 3% HCl + 1% HNO3
Supplier: o2si
Description: Trace ICP Interferent Check Standard A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 UG/L	Calcium	500000 UG/L
Iron	200000 UG/L	Magnesium	500000 UG/L

Serial ID: UI091211-40 **Opened:** 11-DEC-09 **Amount :** 500 mL
Name: ICP HIGH RANGE STD-A **Received:** 09-DEC-09 **Catalog Number :** 160211-05-03
Type: Source Material **Expires:** 11-DEC-10 **Lot Number :** 1017958
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3
Supplier: 02SI
Description: ICP HIGH RANGE STD SOLUTION A
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	10000 ug/L	Arsenic	10000 ug/L
Barium	15000 ug/L	Beryllium	3000 ug/L
Boron	5000 ug/L	Cadmium	10000 ug/L
Chromium	25000 ug/L	Cobalt	10000 ug/L
Copper	20000 ug/L	Lead	25000 ug/L
Manganese	10000 ug/L	Molybdenum	10000 ug/L
Nickel	10000 ug/L	Phosphorous	15000 ug/L
Potassium	300000 ug/L	Selenium	10000 ug/L
Silica	107000 ug/L	Silicon	50000 ug/L
Silver	1000 ug/L	Strontium	10000 ug/L
Sulfur	50000 ug/L	Thallium	10000 ug/L
Tin	10000 ug/L	Titanium	10000 ug/L
Vanadium	10000 ug/L	Zinc	15000 ug/L

Standard Logbook

Serial ID: UI091211-41 **Opened:** 11-DEC-09 **Amount :** 500 mL
Name: ICP HIGH RANGE STD B **Received:** 09-DEC-09 **Catalog Number :** 160211-05-03
Type: Source Material **Expires:** 11-DEC-10 **Lot Number :** 1017958
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3
Supplier: 02SI
Description: ICP HIGH RANGE STD SOLUTION B
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 ug/L	Calcium	500000 ug/L
Iron	500000 ug/L	Magnesium	500000 ug/L
Sodium	500000 ug/L	Uranium	15000 ug/L

Serial ID: UI091212-11 **Opened:** 12-DEC-09 **Amount :** 1000 mL
Name: ICP-MS ICSA Master A **Received:** 12-DEC-09 **Catalog Number :** 160013-01-01L
Type: Source Material **Expires:** 12-DEC-10 **Lot Number :** 1015303
Employee: Paul Boyd **Solvent :** 2% HNO3
Supplier: 02SI
Description: ICP-MS ICSA Master A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Calcium	1000 mg/L
Carbon	2000 mg/L	Chloride	10000 mg/L
Iron	1000 mg/L	Magnesium	1000 mg/L
Molybdenum	20 mg/L	Phosphorous	1000 mg/L
Potassium	1000 mg/L	Sodium	1000 mg/L
Sulfur	1000 mg/L	Titanium	20 mg/L

Serial ID: UI091212-60 **Opened:** 12-DEC-09 **Amount :** .5 mL
Name: ICPMS High Range Standa **Received:** 12-DEC-09 **Catalog Number :** 160212-02-01
Type: Source Material **Expires:** 12-DEC-10 **Lot Number :** 1018064
Employee: Paul Boyd **Solvent :** 2%HNO3 + Tr HF
Supplier: O2SI
Description: Linear Range Standard A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	5000 mg/L	Arsenic	100 mg/L
Barium	250 mg/L	Beryllium	100 mg/L
Cadmium	100 mg/L	Calcium	5000 mg/L
Chromium	100 mg/L	Cobalt	100 mg/L
Copper	100 mg/L	Iron	5000 mg/L
Lead	500 mg/L	Lithium	100 mg/L
Magnesium	5000 mg/L	Manganese	100 mg/L
Nickel	100 mg/L	Phosphorous	2500 mg/L

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Potassium	5000 mg/L	Selenium	50 mg/L
Sodium	5000 mg/L	Strontium	100 mg/L
Thallium	50 mg/L	Thorium	250 mg/L
Uranium	500 mg/L	Vanadium	100 mg/L
Zinc	250 mg/L		

Serial ID: UI091212-61 **Opened:** 12-DEC-09 **Amount :** .5 mL
Name: ICPMS High Range Standa **Received:** 12-DEC-09 **Catalog Number :** 160212-02-01
Type: Source Material **Expires:** 12-DEC-10 **Lot Number :** 1018064
Employee: Paul Boyd **Solvent :** 2%HNO3 + Tr HF
Supplier: O2SI
Description: Linear Range Standard B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	25 mg/L	Molybdenum	100 mg/L
Silver	25 mg/L	Tin	100 mg/L
Tungsten	100 mg/L	Zirconium	50 mg/L

Serial ID: UI091217-06 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master A **Received:** 17-DEC-09 **Catalog Number :** 160055-01
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018209
Employee: Paul Boyd **Solvent :** +/- 0.5% in 5% HNO3 100 cm2
Supplier: 02SI
Description: ICPMS ICV/CCV SOLN A - 10ppm
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	2020 mg/L	Calcium	2000 mg/L
Iron	2000 mg/L	Magnesium	2000 mg/L
Phosphorous	2000 mg/L	Potassium	2000 mg/L
Sodium	2000 mg/L		

Serial ID: UI091217-07 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master B **Received:** 17-DEC-09 **Catalog Number :** 160054-02
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018210
Employee: Paul Boyd **Solvent :** +/- 0.5% in 5% HNO3 100 cm2
Supplier: 02SI
Description: ICPMS ICV/CCV Soln B - 10ppm
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	20 mg/L	Barium	20 mg/L
Beryllium	20 mg/L	Boron	40 mg/L

Analyte	Concentration	Analyte	Concentration
Cadmium	20 mg/L	Chromium	20 mg/L
Cobalt	20 mg/L	Copper	20 mg/L
Lead	20 mg/L	Lithium	20 mg/L
Manganese	20 mg/L	Nickel	20 mg/L
Selenium	20 mg/L	Strontium	20 mg/L
Thallium	20 mg/L	Thorium	20 mg/L
Uranium	20 mg/L	Vanadium	20 mg/L
Zinc	20 mg/L		

Serial ID: UI091217-08 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master C **Received:** 17-DEC-09 **Catalog Number :** 160054-03
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018211
Employee: Paul Boyd **Solvent :** +/- 0.5% in 5% HNO3 100 cm2
Supplier: 02SI
Description: ICPMS ICV/CCV Soln C - 10ppm
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	20 mg/L	Molybdenum	20 mg/L
Silver	20 mg/L	Tin	20 mg/L
Titanium	20 mg/L	Tungsten	20 mg/L
Zirconium	20 mg/L		

Serial ID: UI091217-12 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICSAB Master B **Received:** 17-DEC-09 **Catalog Number :** 160033-02
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018212
Employee: Paul Boyd **Solvent :** +/- 0.5% in 2% HNO3
Supplier: 02SI
Description: ICPMS ICSAB Master B
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	2 mg/L	Barium	2 mg/L
Beryllium	2 mg/L	Boron	2 mg/L
Cadmium	2 mg/L	Chromium	2 mg/L
Cobalt	2 mg/L	Copper	2 mg/L
Lead	2 mg/L	Lithium	2 mg/L
Manganese	2 mg/L	Nickel	2 mg/L
Selenium	2 mg/L	Strontium	2 mg/L
Thallium	2 mg/L	Thorium	2 mg/L
Uranium	2 mg/L	Vanadium	2 mg/L
Zinc	2 mg/L		

Standard Logbook

Serial ID: UI091217-13 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICSAB Master C **Received:** 17-DEC-09 **Catalog Number :** 160033-03
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1016926
Employee: Paul Boyd **Solvent :** +/- 0.5% in 2% HNO3
Supplier: 02SI
Description: ICPMS ICSAB Master C
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	2 mg/L	Silver	2 mg/L
Tin	2 mg/L	Tungsten	2 mg/L
Zirconium	2 mg/L		

Serial ID: UMS090303-01 **Opened:** 03-MAR-09 **Amount :** 250 mL
Name: ICPMSCalSPIKEB **Received:** 03-MAR-09 **Catalog Number :** ZGEL-100-250
Type: Source Material **Expires:** 28-FEB-10 **Lot Number :** 14-81JB
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution B
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	10 mg/L	Barium	10 mg/L
Beryllium	10 mg/L	Boron	20 mg/L
Cadmium	10 mg/L	Chromium	10 mg/L
Cobalt	10 mg/L	Copper	10 mg/L
Lead	10 mg/L	Lithium	10 mg/L
Manganese	10 mg/L	Nickel	10 mg/L
Selenium	10 mg/L	Silver	10 mg/L
Strontium	10 mg/L	Thallium	10 mg/L
Thorium	10 mg/L	Uranium	10 mg/L
Vanadium	10 mg/L	Zinc	10 mg/L

Serial ID: UMS090303-02 **Opened:** 03-MAR-09 **Catalog Number :** ZGEL-102-250
Name: ICPMSCalSPIKEA **Received:** 03-MAR-09 **Lot Number :** 14-83JB
Type: Source Material **Expires:** 28-FEB-10
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Calcium	1000 mg/L
Iron	1000 mg/L	Magnesium	1000 mg/L
Phosphorous	1000 mg/L	Potassium	1000 mg/L
Sodium	1000 mg/L		

Standard Logbook

Serial ID: UMS090303-03 **Opened:** 03-MAR-09 **Amount :** 250 ml
Name: ICPMSCalSPIKEC **Received:** 03-MAR-09 **Catalog Number :** ZGEL-101-250
Type: Source Material **Expires:** 28-FEB-10 **Lot Number :** 15-199JB
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution C
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	10 mg/L	Molybdenum	10 mg/L
Tin	10 mg/L	Titanium	10 mg/L
Zirconium	10 mg/L		

Serial ID: IHG091222-01 **Opened:** 22-DEC-09 **Instrument Id :** Mercury
Name: MHGINTER1 **Received:** 22-DEC-09 **Pipet Id :** Minou1
Type: Intermediate **Expires:** 23-DEC-09 **Solvent :** 1mL HNO3 + Typel H2O
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Intermediate 1st Source 200 ug/L
Comments: Prepare fresh daily

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167639-01	Mercury	1000 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: IHG091222-02 **Opened:** 22-DEC-09 **Pipet Id :** Minou1
Name: MHGINTER2 **Received:** 22-DEC-09 **Solvent :** 2% HNO3-1240182
Type: Intermediate **Expires:** 23-DEC-09
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Intermediate 2nd Source 200 ug/L
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167641-02	Mercury	999.7 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: IHG091223-01 **Opened:** 23-DEC-09 **Instrument Id :** Mercury
Name: MHGINTER1 **Received:** 23-DEC-09 **Pipet Id :** Minou1
Type: Intermediate **Expires:** 24-DEC-09 **Solvent :** 1mL HNO3 + Typel H2O
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Intermediate 1st Source 200 ug/L
Comments: Prepare fresh daily

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167639-01	Mercury	1000 mg/L	.05 mL	250 mL	200 ug/L

Standard Logbook

Serial ID: IHG091223-02 **Opened:** 23-DEC-09 **Pipet Id :** Minou1
Name: MHGINTER2 **Received:** 23-DEC-09 **Solvent :** 2% HNO3-1240182
Type: Intermediate **Expires:** 24-DEC-09
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Intermediate 2nd Source 200 ug/L
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167641-02	Mercury	999.7 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: WHG091222-07 **Opened:** 22-DEC-09 **Pipet Id :** Hg1289245
Name: MHGWORKCALS0.2CRA **Received:** 22-DEC-09 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 28-DEC-09
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working Standard 1st Source CAL S 0.2/CRA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG091222-01	Mercury	200 ug/L	30 uL	30 mL	.2 ug/L

Serial ID: WHG091222-08 **Opened:** 22-DEC-09 **Pipet Id :** Hg1289245
Name: MHGWORKCALS0.5 **Received:** 22-DEC-09 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 28-DEC-09
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working Standard 1st Source CAL S 0.5
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG091222-01	Mercury	200 ug/L	75 uL	30 mL	.5 ug/L

Serial ID: WHG091222-09 **Opened:** 22-DEC-09 **Pipet Id :** Hg1289245
Name: MHGWORKCALS2.0 **Received:** 22-DEC-09 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 28-DEC-09
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL S 2.0
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG091222-01	Mercury	200 ug/L	300 uL	30 mL	2 ug/L

Standard Logbook

Serial ID: WHG091222-10 **Opened:** 22-DEC-09 **Pipet Id :** Hg1289245
Name: MHGWORKCALS5.0CCV **Received:** 22-DEC-09 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 28-DEC-09
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL S 5.0/CCV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG091222-01	Mercury	200 ug/L	750 uL	30 mL	5 ug/L

Serial ID: WHG091222-11 **Opened:** 22-DEC-09 **Pipet Id :** Hg1289245
Name: MHGWORKCALS10.0 **Received:** 22-DEC-09 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 28-DEC-09
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working 1st Source CAL S 10.0
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG091222-01	Mercury	200 ug/L	1500 uL	30 mL	10 ug/L

Serial ID: WHG091222-12 **Opened:** 22-DEC-09 **Pipet Id :** Hg1289245
Name: MHGWORKS5.0ICV **Received:** 22-DEC-09 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 28-DEC-09
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 2nd Source S 5.0/ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG091222-02	Mercury	200 ug/L	750 uL	30 mL	5 ug/L

Serial ID: WHG091222-14 **Opened:** 22-DEC-09 **Pipet Id :** Hg1289245
Name: MHGSOILMSSPIKE **Received:** 22-DEC-09 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 28-DEC-09
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury soil working intermediate standard for MS
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167639-01	Mercury	1000 mg/L	.05 mL	250 mL	200 ug/L

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Serial ID: WHG091223-07 **Opened:** 23-DEC-09 **Pipet Id :** Hg1289245
Name: MHGWORKCALS0.2CRA **Received:** 23-DEC-09 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 29-DEC-09
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working Standard 1st Source CAL S 0.2/CRA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG091223-01	Mercury	200 ug/L	30 uL	30 mL	.2 ug/L

Serial ID: WHG091223-08 **Opened:** 23-DEC-09 **Pipet Id :** Hg1289245
Name: MHGWORKCALS0.5 **Received:** 23-DEC-09 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 29-DEC-09
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working Standard 1st Source CAL S 0.5
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG091223-01	Mercury	200 ug/L	75 uL	30 mL	.5 ug/L

Serial ID: WHG091223-09 **Opened:** 23-DEC-09 **Pipet Id :** Hg1289245
Name: MHGWORKCALS2.0 **Received:** 23-DEC-09 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 29-DEC-09
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL S 2.0
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG091223-01	Mercury	200 ug/L	300 uL	30 mL	2 ug/L

Serial ID: WHG091223-10 **Opened:** 23-DEC-09 **Pipet Id :** Hg1289245
Name: MHGWORKCALS5.0CCV **Received:** 23-DEC-09 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 29-DEC-09
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL S 5.0/CCV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG091223-01	Mercury	200 ug/L	750 uL	30 mL	5 ug/L

Standard Logbook

Serial ID: WHG091223-11 **Opened:** 23-DEC-09 **Pipet Id :** Hg1289245
Name: MHGWORKCALS10.0 **Received:** 23-DEC-09 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 29-DEC-09
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working 1st Source CAL S 10.0
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG091223-01	Mercury	200 ug/L	1500 uL	30 mL	10 ug/L

Serial ID: WHG091223-12 **Opened:** 23-DEC-09 **Pipet Id :** Hg1289245
Name: MHGWORKS5.0ICV **Received:** 23-DEC-09 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 29-DEC-09
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 2nd Source S 5.0/ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG091223-02	Mercury	200 ug/L	750 uL	30 mL	5 ug/L

Serial ID: WHG091223-14 **Opened:** 23-DEC-09 **Pipet Id :** Hg1289245
Name: MHGSOILMSSPIKE **Received:** 23-DEC-09 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 29-DEC-09
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury soil working intermediate standard for MS
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167639-01	Mercury	1000 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: WI091218-42 **Opened:** 18-DEC-09 **Balance Id :** 216
Name: TRACE ICP 0.1 PPM STD. **Received:** 02-NOV-09 **Pipet Id :** 1099667
Type: Working **Expires:** 19-DEC-09 **Solvent :** 3%HCL and 1%HNO3 -1242318
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP 0.1 PPM CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WI091218-44	Aluminum	10000 ug/L	10 mL	100 mL	1000 ug/L
WI091218-44	Antimony	1000 ug/L	10 mL	100 mL	100 ug/L
WI091218-44	Arsenic	1000 ug/L	10 mL	100 mL	100 ug/L
WI091218-44	Barium	1000 ug/L	10 mL	100 mL	100 ug/L

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Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WI091218-44	Beryllium	1000 ug/L	10 mL	100 mL	100 ug/L
WI091218-44	Boron	1000 ug/L	10 mL	100 mL	100 ug/L
WI091218-44	Cadmium	1000 ug/L	10 mL	100 mL	100 ug/L
WI091218-44	Calcium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI091218-44	Chromium	1000 ug/L	10 mL	100 mL	100 ug/L
WI091218-44	Cobalt	1000 ug/L	10 mL	100 mL	100 ug/L
WI091218-44	Copper	1000 ug/L	10 mL	100 mL	100 ug/L
WI091218-44	Iron	10000 ug/L	10 mL	100 mL	1000 ug/L
WI091218-44	Lead	1000 ug/L	10 mL	100 mL	100 ug/L
WI091218-44	Magnesium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI091218-44	Manganese	1000 ug/L	10 mL	100 mL	100 ug/L
WI091218-44	Molybdenum	1000 ug/L	10 mL	100 mL	100 ug/L
WI091218-44	Nickel	1000 ug/L	10 mL	100 mL	100 ug/L
WI091218-44	Phosphorous	5000 ug/L	10 mL	100 mL	500 ug/L
WI091218-44	Potassium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI091218-44	Selenium	1000 ug/L	10 mL	100 mL	100 ug/L
WI091218-44	Silica	10698 ug/L	10 mL	100 mL	1069 ug/L
WI091218-44	Silicon	5000 ug/L	10 mL	100 mL	500 ug/L
WI091218-44	Silver	1000 ug/L	10 mL	100 mL	100 ug/L
WI091218-44	Sodium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI091218-44	Strontium	1000 ug/L	10 mL	100 mL	100 ug/L
WI091218-44	Sulfur	2000 ug/L	10 mL	100 mL	200 ug/L
WI091218-44	Thallium	1000 ug/L	10 mL	100 mL	100 ug/L
WI091218-44	Tin	1000 ug/L	10 mL	100 mL	100 ug/L
WI091218-44	Titanium	1000 ug/L	10 mL	100 mL	100 ug/L
WI091218-44	Uranium	1000 ug/L	10 mL	100 mL	100 ug/L
WI091218-44	Vanadium	1000 ug/L	10 mL	100 mL	100 ug/L
WI091218-44	Zinc	1000 ug/L	10 mL	100 mL	100 ug/L

Serial ID: WI091218-43 **Opened:** 18-DEC-09 **Balance Id :** 216
Name: TRACE ICP 0.5/CCV STD. **Received:** 02-NOV-09 **Pipet Id :** 1099667
Type: Working **Expires:** 19-DEC-09 **Solvent :** 3%HCL and 1%HNO3 -1242318
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP 0.5/CCV CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090828-42	Sodium	1000 ug/mL	5 mL	1000 mL	5000 UG/L
UI091015-42	Silica	2139 mg/L	2.5 mL	1000 mL	5348.25 UG/L
UI091015-42	Silicon	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI091102-40	Aluminum	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Arsenic	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Barium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Beryllium	200 mg/L	2.5 mL	1000 mL	500 UG/L

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Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091102-40	Boron	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Cadmium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Calcium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Chromium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Cobalt	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Copper	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Iron	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Lead	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Magnesium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Manganese	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Nickel	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Phosphorous	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI091102-40	Potassium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Selenium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Sodium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Strontium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Thallium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Uranium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Vanadium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Zinc	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Antimony	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Molybdenum	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Silver	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Sulfur	400 mg/L	2.5 mL	1000 mL	1000 UG/L
UI091102-41	Tin	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Titanium	200 mg/L	2.5 mL	1000 mL	500 UG/L

Serial ID: WI091218-44 **Opened:** 18-DEC-09 **Balance Id :** 216
Name: TRACE ICP SCAL 1.0 **Received:** 02-NOV-09 **Pipet Id :** 1099667
Type: Working **Expires:** 19-DEC-09 **Solvent :** 3%HCL and 1 %HNO3-1242318
Employee: Helen Camello
Supplier: o2si
Description: Trace ICP Calibration Standard 1.0ppm
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091015-42	Silica	2139 mg/L	2.5 mL	500 mL	10698 ug/L
UI091015-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI091102-40	Aluminum	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Arsenic	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Barium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Beryllium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Boron	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Cadmium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Calcium	2000 mg/L	2.5 mL	500 mL	10000 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091102-40	Chromium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Cobalt	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Copper	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Iron	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Lead	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Magnesium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Manganese	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Nickel	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Phosphorous	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI091102-40	Potassium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Selenium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Sodium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Strontium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Thallium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Uranium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Vanadium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Zinc	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Antimony	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Molybdenum	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Silver	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Sulfur	400 mg/L	2.5 mL	500 mL	2000 ug/L
UI091102-41	Tin	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Titanium	200 mg/L	2.5 mL	500 mL	1000 ug/L

Serial ID: WI091218-45 **Opened:** 18-DEC-09 **Balance Id :** 216
Name: TRACE ICP S-10 STD **Received:** 22-APR-09 **Pipet Id :** 1099667
Type: Working **Expires:** 19-DEC-09 **Solvent :** 3%HCL and 1%HNO3 -1242318
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP S-10 CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090422-40	Aluminum	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Calcium	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Iron	2000 mg/L	5 mL	500 mL	20000 UG/L
UI090422-40	Magnesium	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090828-42	Sodium	1000 ug/mL	10 mL	500 mL	20000 UG/L

Serial ID: WI091218-46 **Opened:** 18-DEC-09 **Balance Id :** 216
Name: ICP TRACE ICV **Received:** 25-SEP-09 **Pipet Id :** 1099667
Type: Working **Expires:** 19-DEC-09 **Solvent :** 3%HCL AND 1%HNO3-1242318
Employee: Helen Camello
Supplier: GEL
Description: Initial Calibration Verification ICP Trace Metals

Standard Logbook

Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090925-40	Aluminum	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Arsenic	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Barium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Boron	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cadmium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Calcium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Chromium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cobalt	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Copper	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Iron	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Lead	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Phosphorous	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Potassium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Selenium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Sodium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Strontium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Antimony	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Beryllium	50 mg/L	2.5 mL	500 mL	250 ug/L
UI090925-41	Magnesium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-41	Manganese	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Molybdenum	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Nickel	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Silver	50 mg/L	2.5 mL	500 mL	250 ug/L
UI090925-41	Sulfur	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-41	Thallium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Tin	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Titanium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Uranium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Vanadium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Zinc	100 mg/L	2.5 mL	500 mL	500 ug/L
UI091102-42	Silica	2139 mg/L	2.5 mL	500 mL	10695 ug/L
UI091102-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L

Serial ID: WI091218-47 **Opened:** 18-DEC-09 **Balance Id :** 216
Name: PQL Working Standard **Received:** 30-JUN-09 **Pipet Id :** 1099667
Type: Working **Expires:** 19-DEC-09 **Solvent :** 3%HCL &1%HNO3-1242318
Employee: Helen Camello
Supplier: 02si
Description: PQL Working Standard
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-40	Aluminum	100 mg/L	2 mL	1000 mL	200 ug/L
UI090701-40	Antimony	5 mg/L	2 mL	1000 mL	10 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-40	Arsenic	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Barium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Beryllium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Boron	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Cadmium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Calcium	100 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Chromium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Cobalt	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Copper	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Iron	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Lead	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Magnesium	150 mg/L	2 mL	1000 mL	300 ug/L
UI090701-40	Manganese	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Molybdenum	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Nickel	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Phosphorous	75 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Potassium	75 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Selenium	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Silicon	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Silver	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sodium	150 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Strontium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sulfur	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Thallium	10 mg/L	2 mL	1000 mL	20 ug/L
UI090701-40	Tin	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Titanium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Uranium	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Vanadium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Zinc	5 mg/L	2 mL	1000 mL	10 ug/L

Serial ID: WMS091220-04 **Opened:** 20-DEC-09 **Amount :** 50 mL
Name: ICPMS Cal Standard 100 **Received:** 20-DEC-09 **Balance Id :** 4025216
Type: Working **Expires:** 21-DEC-09 **Pipet Id :** 3541598
Employee: Elizabeth Janssen **Solvent :** 2%HNO3/1%HCl-1242296
Supplier: GEL
Description: ICPMS Calibration Standard (100 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090610-03	Tungsten	10 mg/L	.5 mL	50 mL	100 ug/L
UMS090303-01	Arsenic	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Barium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Beryllium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Boron	20 mg/L	.5 mL	50 mL	200 ug/l
UMS090303-01	Cadmium	10 mg/L	.5 mL	50 mL	100 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UMS090303-01	Chromium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Cobalt	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Copper	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Lead	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Lithium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Manganese	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Nickel	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Selenium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Silver	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Strontium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Thallium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Thorium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Uranium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Vanadium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Zinc	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-02	Aluminum	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Calcium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Iron	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Magnesium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Phosphorous	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Potassium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Sodium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-03	Antimony	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Molybdenum	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Tin	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Titanium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Zirconium	10 mg/L	.5 mL	50 mL	100 ug/l

Serial ID: WMS091220-04A **Opened:** 20-DEC-09 **Balance Id :** 4025216
Name: ICPMS Cal Standard 10 **Received:** 20-DEC-09 **Pipet Id :** 3541598
Type: Working **Expires:** 21-DEC-09 **Solvent :** 2%HNO3/1%HCl - 1242296
Employee: Elizabeth Janssen
Supplier: GEL
Description: ICPMS Calibration Standard (10 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS091220-04	Aluminum	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS091220-04	Antimony	100 ug/l	5 mL	50 mL	10 ug/l
WMS091220-04	Arsenic	100 ug/l	5 mL	50 mL	10 ug/l
WMS091220-04	Barium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091220-04	Beryllium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091220-04	Boron	200 ug/l	5 mL	50 mL	20 ug/l
WMS091220-04	Cadmium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091220-04	Calcium	10000 ug/l	5 mL	50 mL	1000 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS091220-04	Chromium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091220-04	Cobalt	100 ug/l	5 mL	50 mL	10 ug/l
WMS091220-04	Copper	100 ug/l	5 mL	50 mL	10 ug/l
WMS091220-04	Iron	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS091220-04	Lead	100 ug/l	5 mL	50 mL	10 ug/l
WMS091220-04	Lithium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091220-04	Magnesium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS091220-04	Manganese	100 ug/l	5 mL	50 mL	10 ug/l
WMS091220-04	Molybdenum	100 ug/l	5 mL	50 mL	10 ug/l
WMS091220-04	Nickel	100 ug/l	5 mL	50 mL	10 ug/l
WMS091220-04	Phosphorous	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS091220-04	Potassium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS091220-04	Selenium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091220-04	Silver	100 ug/l	5 mL	50 mL	10 ug/l
WMS091220-04	Sodium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS091220-04	Strontium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091220-04	Thallium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091220-04	Thorium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091220-04	Tin	100 ug/l	5 mL	50 mL	10 ug/l
WMS091220-04	Titanium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091220-04	Tungsten	100 ug/L	5 mL	50 mL	10 ug/L
WMS091220-04	Uranium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091220-04	Vanadium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091220-04	Zinc	100 ug/l	5 mL	50 mL	10 ug/l
WMS091220-04	Zirconium	100 ug/l	5 mL	50 mL	10 ug/l

Serial ID: WMS091220-05 **Opened:** 20-DEC-09 **Balance Id :** 40245216
Name: ICPMS ICV **Received:** 20-DEC-09 **Pipet Id :** 3541598
Type: Working **Expires:** 21-DEC-09 **Solvent :** 2%HNO3/1%HCl - 1242296
Employee: Elizabeth Janssen
Supplier: GEL
Description: ICPMS ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-06	Aluminum	2020 mg/L	.125 mL	50 mL	5050 ug/L
UI091217-06	Calcium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Iron	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Magnesium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Phosphorous	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Potassium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Sodium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-07	Arsenic	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Barium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Beryllium	20 mg/L	.125 mL	50 mL	50 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-07	Boron	40 mg/L	.125 mL	50 mL	100 ug/L
UI091217-07	Cadmium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Chromium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Cobalt	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Copper	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lead	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lithium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Manganese	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Nickel	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Selenium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Strontium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thallium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thorium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Uranium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Vanadium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Zinc	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Antimony	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Molybdenum	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Silver	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tin	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Titanium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tungsten	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Zirconium	20 mg/L	.125 mL	50 mL	50 ug/L

Serial ID: WMS091220-06 **Opened:** 20-DEC-09 **Balance Id :** 40245216
Name: ICPMS CRDL **Received:** 20-DEC-09 **Pipet Id :** 3820544
Type: Working **Expires:** 21-DEC-09 **Solvent :** 2%HNO3/1%HCl - 1242296
Employee: Elizabeth Janssen
Supplier: GEL
Description: ICPMS CRDL
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Aluminum	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Arsenic	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Barium	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Beryllium	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-09	Boron	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Cadmium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Calcium	100 mg/L	.05 mL	50 mL	100 ug/L
UI090701-09	Chromium	3 mg/L	.05 mL	50 mL	3 ug/L
UI090701-09	Cobalt	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Copper	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Iron	25 mg/L	.05 mL	50 mL	25 ug/L
UI090701-09	Lead	2 mg/L	.05 mL	50 mL	2 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Lithium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Magnesium	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Manganese	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Nickel	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Phosphorous	50 mg/L	.05 mL	50 mL	50 ug/L
UI090701-09	Potassium	300 mg/L	.05 mL	50 mL	300 ug/L
UI090701-09	Selenium	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Sodium	250 mg/L	.05 mL	50 mL	250 ug/L
UI090701-09	Strontium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Thallium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Thorium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Uranium	.2 mg/L	.05 mL	50 mL	.2 ug/L
UI090701-09	Vanadium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Zinc	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Antimony	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-10	Molybdenum	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-10	Silver	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-10	Tin	2 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Titanium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Tungsten	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Zirconium	2 mg/L	.05 mL	50 mL	2 ug/L

Serial ID: WMS091220-07 **Opened:** 20-DEC-09 **Balance Id :** 40245216
Name: ICPMS ICSA **Received:** 20-DEC-09 **Lot Number :** 1010773
Type: Working **Expires:** 21-DEC-09 **Pipet Id :** 3541598
Employee: Elizabeth Janssen **Solvent :** 2%HNO3/1%HCl - 1242296
Supplier: GEL
Description: ICPMS ICSA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI091212-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI091212-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Standard Logbook

Serial ID: WMS091220-08 **Opened:** 20-DEC-09 **Balance Id :** 40245216
Name: ICPMS ICSAB **Received:** 20-DEC-09 **Pipet Id :** 1758088
Type: Working **Expires:** 21-DEC-09 **Solvent :** 2%HNO3/1%HCl - 1242296
Employee: Elizabeth Janssen
Supplier: GEL
Description: ICPMS ICSAB
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI091212-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI091212-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L
UI091217-12	Arsenic	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Barium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Beryllium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Boron	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Cadmium	2 mg/L	.5 mL	50 mL	20.2 ug/L
UI091217-12	Chromium	2 mg/L	.5 mL	50 mL	22.2 ug/L
UI091217-12	Cobalt	2 mg/L	.5 mL	50 mL	20.4 ug/L
UI091217-12	Copper	2 mg/L	.5 mL	50 mL	23.4 ug/L
UI091217-12	Lead	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Lithium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Manganese	2 mg/L	.5 mL	50 mL	22.7 ug/L
UI091217-12	Nickel	2 mg/L	.5 mL	50 mL	22.4 ug/L
UI091217-12	Selenium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Strontium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thallium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thorium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Uranium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Vanadium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Zinc	2 mg/L	.5 mL	50 mL	27 ug/L
UI091217-13	Antimony	2 mg/L	.5 mL	50 mL	20.5 ug/L
UI091217-13	Silver	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tin	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tungsten	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Zirconium	2 mg/L	.5 mL	50 mL	20 ug/L

Standard Logbook

Serial ID: WMS091220-70 **Opened:** 20-DEC-09 **Balance Id :** 40245216
Name: ICPMS LINEAR RANGE ST **Received:** 20-DEC-09 **Pipet Id :** 1758088
Type: Working **Expires:** 21-DEC-09 **Solvent :** 2%HNO3/1%HCl - 1242296
Employee: Elizabeth Janssen
Supplier: 02SI
Description: ICPMS LINEAR RANGE STANDARD
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-60	Aluminum	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Arsenic	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Barium	250 mg/L	.5 mL	50 mL	2500 ug/L
UI091212-60	Beryllium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Cadmium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Calcium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Chromium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Cobalt	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Copper	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Iron	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Lead	500 mg/L	.5 mL	50 mL	5000 ug/L
UI091212-60	Lithium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Magnesium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Manganese	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Nickel	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Phosphorous	2500 mg/L	.5 mL	50 mL	25000 ug/L
UI091212-60	Potassium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Selenium	50 mg/L	.5 mL	50 mL	500 ug/L
UI091212-60	Sodium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Strontium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Thallium	50 mg/L	.5 mL	50 mL	500 ug/L
UI091212-60	Thorium	250 mg/L	.5 mL	50 mL	2500 ug/L
UI091212-60	Uranium	500 mg/L	.5 mL	50 mL	5000 ug/L
UI091212-60	Vanadium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Zinc	250 mg/L	.5 mL	50 mL	2500 ug/L
UI091212-61	Antimony	25 mg/L	.5 mL	50 mL	250 ug/L
UI091212-61	Molybdenum	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-61	Silver	25 mg/L	.5 mL	50 mL	250 ug/L
UI091212-61	Tin	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-61	Tungsten	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-61	Zirconium	50 mg/L	.5 mL	50 mL	500 ug/L

Serial ID: WMS091223-04 **Opened:** 23-DEC-09 **Amount :** 50 mL
Name: ICPMS Cal Standard 100 **Received:** 23-DEC-09 **Balance Id :** 4025216
Type: Working **Expires:** 24-DEC-09 **Pipet Id :** 3541598
Employee: Elizabeth Janssen **Solvent :** 2%HNO3/1%HCl-1245333
Supplier: GEL

Standard Logbook

Description: ICPMS Calibration Standard (100 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090610-03	Tungsten	10 mg/L	.5 mL	50 mL	100 ug/L
UMS090303-01	Arsenic	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Barium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Beryllium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Boron	20 mg/L	.5 mL	50 mL	200 ug/l
UMS090303-01	Cadmium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Chromium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Cobalt	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Copper	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Lead	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Lithium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Manganese	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Nickel	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Selenium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Silver	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Strontium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Thallium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Thorium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Uranium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Vanadium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Zinc	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-02	Aluminum	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Calcium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Iron	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Magnesium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Phosphorous	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Potassium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Sodium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-03	Antimony	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Molybdenum	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Tin	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Titanium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Zirconium	10 mg/L	.5 mL	50 mL	100 ug/l

Serial ID: WMS091223-04A **Opened:** 23-DEC-09 **Balance Id :** 4025216
Name: ICPMS Cal Standard 10 **Received:** 23-DEC-09 **Pipet Id :** 3541598
Type: Working **Expires:** 24-DEC-09 **Solvent :** 2%HNO3/1%HCl - 1245333
Employee: Elizabeth Janssen
Supplier: GEL
Description: ICPMS Calibration Standard (10 ppb)
Comments: None

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS091223-04	Aluminum	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS091223-04	Antimony	100 ug/l	5 mL	50 mL	10 ug/l
WMS091223-04	Arsenic	100 ug/l	5 mL	50 mL	10 ug/l
WMS091223-04	Barium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091223-04	Beryllium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091223-04	Boron	200 ug/l	5 mL	50 mL	20 ug/l
WMS091223-04	Cadmium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091223-04	Calcium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS091223-04	Chromium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091223-04	Cobalt	100 ug/l	5 mL	50 mL	10 ug/l
WMS091223-04	Copper	100 ug/l	5 mL	50 mL	10 ug/l
WMS091223-04	Iron	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS091223-04	Lead	100 ug/l	5 mL	50 mL	10 ug/l
WMS091223-04	Lithium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091223-04	Magnesium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS091223-04	Manganese	100 ug/l	5 mL	50 mL	10 ug/l
WMS091223-04	Molybdenum	100 ug/l	5 mL	50 mL	10 ug/l
WMS091223-04	Nickel	100 ug/l	5 mL	50 mL	10 ug/l
WMS091223-04	Phosphorous	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS091223-04	Potassium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS091223-04	Selenium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091223-04	Silver	100 ug/l	5 mL	50 mL	10 ug/l
WMS091223-04	Sodium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS091223-04	Strontium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091223-04	Thallium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091223-04	Thorium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091223-04	Tin	100 ug/l	5 mL	50 mL	10 ug/l
WMS091223-04	Titanium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091223-04	Tungsten	100 ug/L	5 mL	50 mL	10 ug/L
WMS091223-04	Uranium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091223-04	Vanadium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091223-04	Zinc	100 ug/l	5 mL	50 mL	10 ug/l
WMS091223-04	Zirconium	100 ug/l	5 mL	50 mL	10 ug/l

Serial ID: WMS091223-05 **Opened:** 23-DEC-09 **Balance Id :** 40245216
Name: ICPMS ICV **Received:** 23-DEC-09 **Pipet Id :** 3541598
Type: Working **Expires:** 24-DEC-09 **Solvent :** 2%HNO3/1%HCl - 1245333
Employee: Elizabeth Janssen
Supplier: GEL
Description: ICPMS ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-06	Aluminum	2020 mg/L	.125 mL	50 mL	5050 ug/L
UI091217-06	Calcium	2000 mg/L	.125 mL	50 mL	5000 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-06	Iron	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Magnesium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Phosphorous	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Potassium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Sodium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-07	Arsenic	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Barium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Beryllium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Boron	40 mg/L	.125 mL	50 mL	100 ug/L
UI091217-07	Cadmium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Chromium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Cobalt	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Copper	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lead	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lithium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Manganese	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Nickel	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Selenium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Strontium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thallium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thorium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Uranium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Vanadium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Zinc	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Antimony	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Molybdenum	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Silver	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tin	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Titanium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tungsten	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Zirconium	20 mg/L	.125 mL	50 mL	50 ug/L

Serial ID: WMS091223-06 **Opened:** 23-DEC-09 **Balance Id :** 40245216
Name: ICPMS CRDL **Received:** 23-DEC-09 **Pipet Id :** 3820544
Type: Working **Expires:** 24-DEC-09 **Solvent :** 2%HNO3/1%HCl - 1245333
Employee: Elizabeth Janssen
Supplier: GEL
Description: ICPMS CRDL
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Aluminum	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Arsenic	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Barium	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Beryllium	.5 mg/L	.05 mL	50 mL	.5 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Boron	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Cadmium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Calcium	100 mg/L	.05 mL	50 mL	100 ug/L
UI090701-09	Chromium	3 mg/L	.05 mL	50 mL	3 ug/L
UI090701-09	Cobalt	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Copper	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Iron	25 mg/L	.05 mL	50 mL	25 ug/L
UI090701-09	Lead	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Lithium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Magnesium	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Manganese	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Nickel	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Phosphorous	50 mg/L	.05 mL	50 mL	50 ug/L
UI090701-09	Potassium	300 mg/L	.05 mL	50 mL	300 ug/L
UI090701-09	Selenium	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Sodium	250 mg/L	.05 mL	50 mL	250 ug/L
UI090701-09	Strontium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Thallium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Thorium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Uranium	.2 mg/L	.05 mL	50 mL	.2 ug/L
UI090701-09	Vanadium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Zinc	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Antimony	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-10	Molybdenum	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-10	Silver	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-10	Tin	2 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Titanium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Tungsten	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Zirconium	2 mg/L	.05 mL	50 mL	2 ug/L

Serial ID: WMS091223-07 **Opened:** 23-DEC-09 **Balance Id :** 40245216
Name: ICPMS ICSA **Received:** 23-DEC-09 **Lot Number :** 1010773
Type: Working **Expires:** 24-DEC-09 **Pipet Id :** 3541598
Employee: Elizabeth Janssen **Solvent :** 2%HNO3/1%HCl - 1245333
Supplier: GEL
Description: ICPMS ICSA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI091212-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: WMS091223-08 **Opened:** 23-DEC-09 **Balance Id :** 40245216
Name: ICPMS ICSAB **Received:** 23-DEC-09 **Pipet Id :** 1758088
Type: Working **Expires:** 24-DEC-09 **Solvent :** 2%HNO3/1%HCl - 1245333
Employee: Elizabeth Janssen
Supplier: GEL
Description: ICPMS ICSAB
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI091212-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI091212-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L
UI091217-12	Arsenic	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Barium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Beryllium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Boron	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Cadmium	2 mg/L	.5 mL	50 mL	20.2 ug/L
UI091217-12	Chromium	2 mg/L	.5 mL	50 mL	22.2 ug/L
UI091217-12	Cobalt	2 mg/L	.5 mL	50 mL	20.4 ug/L
UI091217-12	Copper	2 mg/L	.5 mL	50 mL	23.4 ug/L
UI091217-12	Lead	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Lithium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Manganese	2 mg/L	.5 mL	50 mL	22.7 ug/L
UI091217-12	Nickel	2 mg/L	.5 mL	50 mL	22.4 ug/L
UI091217-12	Selenium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Strontium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thallium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thorium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Uranium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Vanadium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Zinc	2 mg/L	.5 mL	50 mL	27 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-13	Antimony	2 mg/L	.5 mL	50 mL	20.5 ug/L
UI091217-13	Silver	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tin	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tungsten	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Zirconium	2 mg/L	.5 mL	50 mL	20 ug/L

Serial ID: WMS091223-70 **Opened:** 23-DEC-09 **Balance Id :** 40245216
Name: ICPMS LINEAR RANGE ST **Received:** 23-DEC-09 **Pipet Id :** 1758088
Type: Working **Expires:** 24-DEC-09 **Solvent :** 2%HNO3/1%HCl - 1245333
Employee: Elizabeth Janssen
Supplier: 02SI
Description: ICPMS LINEAR RANGE STANDARD
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-60	Aluminum	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Arsenic	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Barium	250 mg/L	.5 mL	50 mL	2500 ug/L
UI091212-60	Beryllium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Cadmium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Calcium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Chromium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Cobalt	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Copper	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Iron	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Lead	500 mg/L	.5 mL	50 mL	5000 ug/L
UI091212-60	Lithium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Magnesium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Manganese	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Nickel	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Phosphorous	2500 mg/L	.5 mL	50 mL	25000 ug/L
UI091212-60	Potassium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Selenium	50 mg/L	.5 mL	50 mL	500 ug/L
UI091212-60	Sodium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Strontium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Thallium	50 mg/L	.5 mL	50 mL	500 ug/L
UI091212-60	Thorium	250 mg/L	.5 mL	50 mL	2500 ug/L
UI091212-60	Uranium	500 mg/L	.5 mL	50 mL	5000 ug/L
UI091212-60	Vanadium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Zinc	250 mg/L	.5 mL	50 mL	2500 ug/L
UI091212-61	Antimony	25 mg/L	.5 mL	50 mL	250 ug/L
UI091212-61	Molybdenum	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-61	Silver	25 mg/L	.5 mL	50 mL	250 ug/L
UI091212-61	Tin	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-61	Tungsten	100 mg/L	.5 mL	50 mL	1000 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-61	Zirconium	50 mg/L	.5 mL	50 mL	500 ug/L

Serial ID: 1100721TCLP **Opened:** 16-APR-09 **Lot Number :** H02026 L
Name: I-HNO3 **Received:** 02-APR-09
Type: Reagent/Solvent **Expires:** 02-APR-10
Employee: Clifford Postell
Supplier: BAKER
Description: Nitric Acid CONC.
Comments: None

Serial ID: 1156689-A **Opened:** 20-JUL-09 **Lot Number :** 41226920
Name: B-KMnO4(VWR)-MER **Received:** 20-JUL-09
Type: Reagent/Solvent **Expires:** 20-JUL-10
Employee: Tara Griffin **Verified:** 07-AUG-07
Supplier: VWR
Description: Potassium Permanganate
Comments: None

Serial ID: 1164796-A **Opened:** 06-AUG-09 **Lot Number :** 49149927
Name: B-NH2OH.HCl-MER **Received:** 06-AUG-09
Type: Reagent/Solvent **Expires:** 06-AUG-10
Employee: Tara Griffin
Supplier: Fisher Scientific
Description: Hydroxlyamine Hydrochloride
Comments: None

Serial ID: 1203655-02 **Opened:** 15-OCT-09 **Lot Number :** ZU74081198 mL
Name: B-H2O2 **Received:** 15-OCT-09
Type: Reagent/Solvent **Expires:** 15-OCT-10
Employee: Francena Armstrong
Supplier: EM SCIENCE
Description: Hydrogen Peroxide 30%
Comments: None

Serial ID: 1206350-C **Opened:** 22-OCT-09 **Balance Id :** BAL-002
Name: B-NaCl.NH2OH.HCl-MER **Received:** 22-OCT-09
Type: Reagent/Solvent **Expires:** 06-AUG-10
Employee: Tara Griffin
Supplier: GEL
Description: Hg reducing agent
Comments: None

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1164796-A	B-NH2OH.HCl-MER	N/A	120 g	1000 mL	N/A

Serial ID: 1207193 **Opened:** 23-OCT-09 **Lot Number :** H39037
Name: I-HCL **Received:** 23-OCT-09 **Preservative_Id :** 5 none
Type: Reagent/Solvent **Expires:** 23-OCT-10
Employee: Francena Armstrong
Supplier: J.T. BAKER
Description: HYDROCHLORIC ACID
Comments: None

Serial ID: 1236355-A **Opened:** 01-DEC-09 **Lot Number :** 200930201
Name: B-HCl-MER **Received:** 01-DEC-09
Type: Reagent/Solvent **Expires:** 01-DEC-10
Employee: Tara Griffin
Supplier: Aristar
Description: Hydrochloric Acid Conc.
Comments: None

Serial ID: 1238343 **Opened:** 04-DEC-09 **Lot Number :** H41032
Name: I-HCL **Received:** 04-DEC-09 **Preservative_Id :** 5 none
Type: Reagent/Solvent **Expires:** 04-DEC-10
Employee: Francena Armstrong
Supplier: J.T. BAKER
Description: HYDROCHLORIC ACID
Comments: None

Serial ID: 1238345 **Opened:** 04-DEC-09 **Lot Number :** H20053 L
Name: I-HNO3 **Received:** 04-DEC-09
Type: Reagent/Solvent **Expires:** 04-DEC-10
Employee: Francena Armstrong
Supplier: BAKER
Description: Nitric Acid CONC.
Comments: None

Serial ID: 1240182-1 **Opened:** 09-DEC-09 **Instrument Id :** MERCURY
Name: B-HNO3-MER **Received:** 09-DEC-09 **Lot Number :** H34040
Type: Reagent/Solvent **Expires:** 09-DEC-10
Employee: Tara Griffin
Supplier: Mallinckrodt Chemicals
Description: NITRIC ACID
Comments: None

Standard Logbook

Serial ID: 1242296 **Opened:** 14-DEC-09 **Solvent :** Type I Water
Name: B-2%HNO3/1%HCl-ICPMS **Received:** 14-DEC-09
Type: Reagent/Solvent **Expires:** 21-DEC-09
Employee: Paul Boyd
Supplier: GEL
Description: 2%HNO3/1%HCl Solution (Type I Water)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1100721TCLP	I-HNO3	69.0-70.0	180 mL	9 l	N/A
1207193	I-HCL	36.5-38.0	90 mL	9 l	N/A

Serial ID: 1242318 **Opened:** 14-DEC-09 **Amount :** 20 L
Name: B-ICP-RINSE SOLN **Received:** 01-DEC-09 **Lot Number :** H04040+G34050
Type: Reagent/Solvent **Expires:** 20-DEC-09 **Solvent :** 3%HCL+1%HNO3
Employee: Helen Camello
Supplier: GEL
Description: 3%HCL+1%HNO3 RINSE SOLN.
Comments: None

Serial ID: 1244904-C **Opened:** 18-DEC-09 **Balance Id :** BAL-002
Name: B-KMnO4-MER **Received:** 18-DEC-09
Type: Reagent/Solvent **Expires:** 18-JUN-10
Employee: Tara Griffin
Supplier: GEL
Description: 5% KMnO4 solution
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1156689-A	B-KMnO4(VWR)-MER	Crystals	50 g	1000 mL	3%

Serial ID: 1244970 **Opened:** 18-DEC-09 **Lot Number :** H41032
Name: I-HCL **Received:** 18-DEC-09 **Preservative_Id :** 5 none
Type: Reagent/Solvent **Expires:** 18-DEC-10
Employee: Francena Armstrong
Supplier: J.T. BAKER
Description: HYDROCHLORIC ACID
Comments: None

Standard Logbook

Serial ID: 1245333 **Opened:** 21-DEC-09 **Solvent :** Type I Water
Name: B-2%HNO3/1%HCl-ICPMS **Received:** 21-DEC-09
Type: Reagent/Solvent **Expires:** 28-DEC-09
Employee: Elizabeth Janssen
Supplier: GEL
Description: 2%HNO3/1%HCl Solution (Type I Water)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1238345	I-HNO3	69.0-70.0	180 mL	9 l	N/A
1244970	I-HCL	36.5-38.0	90 mL	9 l	N/A

Metals Analysis

Case Narrative

Metals Fractional Narrative
Los Alamos National Laboratory (LANL)
SDG 10-886-1

Sample Analysis

Sample ID	Client ID
242751001	RE03-10-2008
242751002	RE03-10-3943
1201994203	Method Blank (MB) **ICP**
1201994204	Laboratory Control Sample (LCS)
1201994207	242751001(RE03-10-2008L) Serial Dilution (SD)
1201994205	242751001(RE03-10-2008D) Sample Duplicate (DUP)
1201994206	242751001(RE03-10-2008S) Matrix Spike (MS)
1201994288	Method Blank (MB) **ICP-MS**
1201994289	Laboratory Control Sample (LCS)
1201994292	242751002(RE03-10-3943L) Serial Dilution (SD)
1201994290	242751002(RE03-10-3943D) Sample Duplicate (DUP)
1201994291	242751002(RE03-10-3943S) Matrix Spike (MS)
1202000160	Method Blank (MB) **CVAA**
1202000161	Laboratory Control Sample (LCS)
1202000164	243108001(RE16-10-225L) Serial Dilution (SD)
1202000162	243108001(RE16-10-225D) Sample Duplicate (DUP)
1202000163	243108001(RE16-10-225S) Matrix Spike (MS)

The samples in this SDG were analyzed on an "as received" basis.

Method/Analysis Information

Analytical Batch:	932268, 932310 and 934864
Prep Batch :	932267, 932309 and 934863
Standard Operating Procedures:	GL-MA-E-013 REV# 20, GL-MA-E-006 REV# 9, GL-MA-E-014 REV# 20 and GL-MA-E-010 REV# 23
Analytical Method:	SW846 3005/6010B, SW846 3005/6020 and SW846 7470A
Prep Method :	SW846 3005A and SW846 7470A Prep

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

System Configuration

The Metals analysis-ICP was performed on a P E 5300 Optima radial/axial-viewing inductively coupled plasma atomic emission spectrometer. The instrument is equipped with a Burgener nebulizer, cyclonic spray chamber, and yttrium or scandium internal standard. Operating conditions for the ICP are set at a power level of 1500 watts. The instrument has a peristaltic pump flow rate of 1.4L/min, argon gas flows of 15 L/min and 0.2 L/min for the torch and auxiliary gases, and a flow setting of 0.65L/min for the nebulizer.

The Metals analysis - ICPMS was performed on a Perkin Elmer ELAN 9000 inductively coupled plasma mass spectrometer (ICP-MS). The instrument is equipped with a cross-flow nebulizer, quadrupole mass spectrometer, and dual mode electron multiplier detector. Internal standards of scandium, germanium, indium, tantalum, and/or lutetium were utilized to cover the mass spectrum. Operating conditions are set at 1400W power and combined argon pressures of 360+/-7 kPa for the plasma and auxiliary gases, and 0.85 L/min carrier gas flow, and an initial lens voltage of 5.2.

The Metals analysis-Mercury was performed on a Perkin-Elmer Flow Injection Mercury System (FIMS-100) automated mercury analyzer. The instrument consists of a cold vapor atomic absorption spectrometer set to detect mercury at a wavelength of 253.7 nm. Sample introduction through the flow injection system is performed via a peristaltic pump at 9 mL/min and nitrogen carrier gas rate of 80 mL/min.

Calibration Information

Instrument Calibration
All initial calibration requirements have been met for this sample delivery group (SDG).

CRDL Requirements
All CRDL standard(s) met the referenced advisory control limits.

ICSA/ICSAB Statement
All interference check samples (ICSA and ICSAB) associated with this SDG met the established acceptance criteria.

Continuing Calibration Blank (CCB) Requirements
All continuing calibration blanks (CCB) bracketing this batch met the established acceptance criteria.

Continuing Calibration Verification (CCV) Requirements
All continuing calibration verifications (CCV) bracketing this SDG met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MBs analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

Quality Control (QC) Sample Statement
The following samples were selected as the quality control (QC) samples for this SDG: 242751001, 242751002 and 243108001.

Matrix Spike (MS) Recovery Statement
The percent recoveries (%R) obtained from the MS analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. All applicable elements met the acceptance criteria.

Duplicate Relative Percent Difference (RPD) Statement
The RPD obtained from the designated sample duplicate (DUP) is evaluated based on acceptance criteria of 20% when the sample is 5X the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control of +/-RL is used to evaluate the DUP results. All applicable analytes met these requirements.

Serial Dilution % Difference Statement
The serial dilution is used to assess matrix suppression or enhancement. Raw element concentrations that are 25X the IDL/MDL for CVAA, 50X the IDL/MDL for ICP, and 100X the IDL/MDL for ICP-MS analyses are applicable for serial dilution assessment. All applicable analytes met the acceptance criteria of less than 10% difference (%D).

Technical Information

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Sample Dilutions
Dilutions are performed to minimize matrix interferences resulting from elevated mineral element concentrations present in solid samples and/or to bring over range target analyte concentrations into the linear calibration range of the instrument. The samples in this SDG did not require dilutions.

Preparation Information
The samples in this SDG were prepared exactly according to the cited SOP.

Miscellaneous Information

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Nonconformance Documentation
Nonconformance reports (NCRs) are generated to document procedural anomalies that may deviate from referenced SOP or contractual documents. A nonconformance report (NCR) was not generated for this SDG.

Additional Comments
Additional comments were not required for this SDG.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Kristen Parson **Date:** 1/6/10

Sample Data Summary

METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-886-1 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 242751001 **BASIS:** As Received **DATE COLLECTED** 09-DEC-09

CLIENT ID: RE03-10-2008 **LEVEL:** Low **DATE RECEIVED** 11-DEC-09

MATRIX: WATER **%SOLIDS:** 0

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	200	ug/L	U	68	200	200	1	P	HSC	12/17/09 18:27	121709-1	932268
7440-36-0	Antimony	3	ug/L	U	1	3	3	1	MS	BAJ	12/21/09 01:15	091220-2	932310
7440-38-2	Arsenic	30	ug/L	U	5	30	30	1	P	HSC	12/17/09 18:27	121709-1	932268
7440-39-3	Barium	5	ug/L	U	1	5	5	1	P	HSC	12/17/09 18:27	121709-1	932268
7440-41-7	Beryllium	0.50	ug/L	U	0.1	0.5	0.5	1	MS	BAJ	12/22/09 03:41	091221-3	932310
7440-42-8	Boron	50	ug/L	U	15	50	50	1	P	HSC	12/17/09 18:27	121709-1	932268
7440-43-9	Cadmium	1	ug/L	U	0.11	1	1	1	MS	BAJ	12/21/09 01:15	091220-2	932310
7440-70-2	Calcium	200	ug/L	U	50	200	200	1	P	HSC	12/17/09 18:27	121709-1	932268
7440-47-3	Chromium	5	ug/L	U	1	5	5	1	P	HSC	12/17/09 18:27	121709-1	932268
7440-48-4	Cobalt	5	ug/L	U	1	5	5	1	P	HSC	12/17/09 18:27	121709-1	932268
7440-50-8	Copper	10	ug/L	U	3	10	10	1	P	HSC	12/17/09 18:27	121709-1	932268
7439-89-6	Iron	100	ug/L	U	30	100	100	1	P	HSC	12/17/09 18:27	121709-1	932268
7439-92-1	Lead	2	ug/L	U	0.5	2	2	1	MS	BAJ	12/22/09 03:41	091221-3	932310
7439-93-2	Lithium	10	ug/L	U	2	10	10	1	MS	BAJ	12/23/09 18:51	091223-5	932310
7439-95-4	Magnesium	300	ug/L	U	85	300	300	1	P	HSC	12/17/09 18:27	121709-1	932268
7439-96-5	Manganese	1.3	ug/L	J	1	5	5	1	MS	BAJ	12/22/09 03:41	091221-3	932310
7439-97-6	Mercury	0.20	ug/L	U	0.066	0.2	0.2	1	AV	ETL	12/23/09 08:42	122309W1-6	934864
7440-02-0	Nickel	5	ug/L	U	1.5	5	5	1	P	HSC	12/17/09 18:27	121709-1	932268
7440-09-7	Potassium	150	ug/L	U	50	150	150	1	P	HSC	12/17/09 18:27	121709-1	932268
7782-49-2	Selenium	30	ug/L	U	5	30	30	1	P	HSC	12/17/09 18:27	121709-1	932268
7440-21-3	Silicon	2300	ug/L		25	100	100	1	P	HSC	12/17/09 18:27	121709-1	932268
7440-22-4	Silver	5	ug/L	U	1	5	5	1	P	HSC	12/17/09 18:27	121709-1	932268
7440-23-5	Sodium	137	ug/L	J	100	300	300	1	P	HSC	12/17/09 18:27	121709-1	932268
7440-28-0	Thallium	1	ug/L	U	0.3	1	1	1	MS	BAJ	12/22/09 22:14	091222-4	932310
7440-32-6	Titanium	5	ug/L	U	1	5	5	1	P	HSC	12/17/09 18:27	121709-1	932268
7440-61-1	Uranium	0.20	ug/L	U	0.05	0.2	0.2	1	MS	BAJ	12/23/09 18:51	091223-5	932310
7440-62-2	Vanadium	5	ug/L	U	1	5	5	1	P	HSC	12/17/09 18:27	121709-1	932268
7440-66-6	Zinc	10	ug/L	U	3.3	10	10	1	P	HSC	12/17/09 18:27	121709-1	932268

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
932268	932267	SW846 3005A	50	mL	50	mL	12/15/09	BCD1
932310	932309	SW846 3005A	50	mL	50	mL	12/15/09	BCD1
934864	934863	SW846 7470A Prep	20	mL	20	mL	12/22/09	TXB3

METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-886-1 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 242751002 **BASIS:** As Received **DATE COLLECTED** 09-DEC-09

CLIENT ID: RE03-10-3943 **LEVEL:** Low **DATE RECEIVED** 11-DEC-09

MATRIX: WATER **%SOLIDS:** 0

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	200	ug/L	U	68	200	200	1	P	HSC	12/17/09 18:55	121709-1	932268
7440-36-0	Antimony	3	ug/L	U	1	3	3	1	MS	BAJ	12/21/09 01:33	091220-2	932310
7440-38-2	Arsenic	30	ug/L	U	5	30	30	1	P	HSC	12/17/09 18:55	121709-1	932268
7440-39-3	Barium	5	ug/L	U	1	5	5	1	P	HSC	12/17/09 18:55	121709-1	932268
7440-41-7	Beryllium	0.50	ug/L	U	0.1	0.5	0.5	1	MS	BAJ	12/22/09 03:56	091221-3	932310
7440-42-8	Boron	50	ug/L	U	15	50	50	1	P	HSC	12/17/09 18:55	121709-1	932268
7440-43-9	Cadmium	1	ug/L	U	0.11	1	1	1	MS	BAJ	12/21/09 01:33	091220-2	932310
7440-70-2	Calcium	200	ug/L	U	50	200	200	1	P	HSC	12/17/09 18:55	121709-1	932268
7440-47-3	Chromium	5	ug/L	U	1	5	5	1	P	HSC	12/17/09 18:55	121709-1	932268
7440-48-4	Cobalt	5	ug/L	U	1	5	5	1	P	HSC	12/17/09 18:55	121709-1	932268
7440-50-8	Copper	10	ug/L	U	3	10	10	1	P	HSC	12/17/09 18:55	121709-1	932268
7439-89-6	Iron	100	ug/L	U	30	100	100	1	P	HSC	12/17/09 18:55	121709-1	932268
7439-92-1	Lead	2	ug/L	U	0.5	2	2	1	MS	BAJ	12/22/09 03:56	091221-3	932310
7439-93-2	Lithium	10	ug/L	U	2	10	10	1	MS	BAJ	12/23/09 18:54	091223-5	932310
7439-95-4	Magnesium	300	ug/L	U	85	300	300	1	P	HSC	12/17/09 18:55	121709-1	932268
7439-96-5	Manganese	5	ug/L	U	1	5	5	1	MS	BAJ	12/22/09 03:56	091221-3	932310
7439-97-6	Mercury	0.20	ug/L	U	0.066	0.2	0.2	1	AV	ETL	12/23/09 08:44	122309W1-6	934864
7440-02-0	Nickel	5	ug/L	U	1.5	5	5	1	P	HSC	12/17/09 18:55	121709-1	932268
7440-09-7	Potassium	150	ug/L	U	50	150	150	1	P	HSC	12/17/09 18:55	121709-1	932268
7782-49-2	Selenium	30	ug/L	U	5	30	30	1	P	HSC	12/17/09 18:55	121709-1	932268
7440-21-3	Silicon	2140	ug/L		25	100	100	1	P	HSC	12/17/09 18:55	121709-1	932268
7440-22-4	Silver	5	ug/L	U	1	5	5	1	P	HSC	12/17/09 18:55	121709-1	932268
7440-23-5	Sodium	300	ug/L	U	100	300	300	1	P	HSC	12/17/09 18:55	121709-1	932268
7440-28-0	Thallium	1	ug/L	U	0.3	1	1	1	MS	BAJ	12/22/09 22:28	091222-4	932310
7440-32-6	Titanium	5	ug/L	U	1	5	5	1	P	HSC	12/17/09 18:55	121709-1	932268
7440-61-1	Uranium	0.20	ug/L	U	0.05	0.2	0.2	1	MS	BAJ	12/23/09 18:54	091223-5	932310
7440-62-2	Vanadium	5	ug/L	U	1	5	5	1	P	HSC	12/17/09 18:55	121709-1	932268
7440-66-6	Zinc	10	ug/L	U	3.3	10	10	1	P	HSC	12/17/09 18:55	121709-1	932268

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
932268	932267	SW846 3005A	50	mL	50	mL	12/15/09	BCD1
932310	932309	SW846 3005A	50	mL	50	mL	12/15/09	BCD1
934864	934863	SW846 7470A Prep	20	mL	20	mL	12/22/09	TXB3

Quality Control Summary

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-886-1

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS5,MER536,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
ICV01										
	Aluminum	4820	ug/L	5000	ug/L	96.4	90.0 – 110.0	P	17-DEC-09 09:52	121709-1
	Arsenic	466	ug/L	500	ug/L	93.2	90.0 – 110.0	P	17-DEC-09 09:52	121709-1
	Barium	493	ug/L	500	ug/L	98.7	90.0 – 110.0	P	17-DEC-09 09:52	121709-1
	Boron	497	ug/L	500	ug/L	99.5	90.0 – 110.0	P	17-DEC-09 09:52	121709-1
	Calcium	4930	ug/L	5000	ug/L	98.6	90.0 – 110.0	P	17-DEC-09 09:52	121709-1
	Chromium	471	ug/L	500	ug/L	94.2	90.0 – 110.0	P	17-DEC-09 09:52	121709-1
	Cobalt	485	ug/L	500	ug/L	97	90.0 – 110.0	P	17-DEC-09 09:52	121709-1
	Copper	492	ug/L	500	ug/L	98.3	90.0 – 110.0	P	17-DEC-09 09:52	121709-1
	Iron	5000	ug/L	5000	ug/L	100.1	90.0 – 110.0	P	17-DEC-09 09:52	121709-1
	Magnesium	5170	ug/L	5000	ug/L	103.4	90.0 – 110.0	P	17-DEC-09 09:52	121709-1
	Nickel	486	ug/L	500	ug/L	97.2	90.0 – 110.0	P	17-DEC-09 09:52	121709-1
	Potassium	2370	ug/L	2500	ug/L	94.9	90.0 – 110.0	P	17-DEC-09 09:52	121709-1
	Selenium	2540	ug/L	2500	ug/L	101.7	90.0 – 110.0	P	17-DEC-09 09:52	121709-1
	Silicon	4670	ug/L	5000	ug/L	93.3	90.0 – 110.0	P	17-DEC-09 09:52	121709-1
	Silver	253	ug/L	250	ug/L	101.1	90.0 – 110.0	P	17-DEC-09 09:52	121709-1
	Sodium	2400	ug/L	2500	ug/L	96.1	90.0 – 110.0	P	17-DEC-09 09:52	121709-1
	Titanium	490	ug/L	500	ug/L	98	90.0 – 110.0	P	17-DEC-09 09:52	121709-1
	Vanadium	500	ug/L	500	ug/L	100.1	90.0 – 110.0	P	17-DEC-09 09:52	121709-1
	Zinc	497	ug/L	500	ug/L	99.4	90.0 – 110.0	P	17-DEC-09 09:52	121709-1
	Antimony	52.2	ug/L	50	ug/L	104.4	90.0 – 110.0	MS	20-DEC-09 22:23	091220-2
	Cadmium	51.2	ug/L	50	ug/L	102.3	90.0 – 110.0	MS	20-DEC-09 22:23	091220-2
	Beryllium	51.1	ug/L	50	ug/L	102.1	90.0 – 110.0	MS	22-DEC-09 02:32	091221-3
	Lead	53.9	ug/L	50	ug/L	107.9	90.0 – 110.0	MS	22-DEC-09 02:32	091221-3
	Manganese	54.1	ug/L	50	ug/L	108.2	90.0 – 110.0	MS	22-DEC-09 02:32	091221-3
	Thallium	50.4	ug/L	50	ug/L	100.8	90.0 – 110.0	MS	22-DEC-09 21:09	091222-4
	Mercury	5	ug/L	5	ug/L	100	90.0 – 110.0	AV	23-DEC-09 08:29	122309W1-6
	Lithium	53.1	ug/L	50	ug/L	106.2	90.0 – 110.0	MS	23-DEC-09 18:22	091223-5
	Uranium	52.2	ug/L	50	ug/L	104.5	90.0 – 110.0	MS	23-DEC-09 18:22	091223-5
CCV01										
	Aluminum	4870	ug/L	5000	ug/L	97.4	90.0 – 110.0	P	17-DEC-09 10:37	121709-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-886-1

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS5,MER536,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Arsenic	509	ug/L	500	ug/L	101.8	90.0 – 110.0	P	17-DEC-09 10:37	121709-1
	Barium	489	ug/L	500	ug/L	97.8	90.0 – 110.0	P	17-DEC-09 10:37	121709-1
	Boron	512	ug/L	500	ug/L	102.4	90.0 – 110.0	P	17-DEC-09 10:37	121709-1
	Calcium	5020	ug/L	5000	ug/L	100.4	90.0 – 110.0	P	17-DEC-09 10:37	121709-1
	Chromium	487	ug/L	500	ug/L	97.3	90.0 – 110.0	P	17-DEC-09 10:37	121709-1
	Cobalt	476	ug/L	500	ug/L	95.2	90.0 – 110.0	P	17-DEC-09 10:37	121709-1
	Copper	489	ug/L	500	ug/L	97.7	90.0 – 110.0	P	17-DEC-09 10:37	121709-1
	Iron	5090	ug/L	5000	ug/L	101.7	90.0 – 110.0	P	17-DEC-09 10:37	121709-1
	Magnesium	5100	ug/L	5000	ug/L	102.1	90.0 – 110.0	P	17-DEC-09 10:37	121709-1
	Nickel	478	ug/L	500	ug/L	95.5	90.0 – 110.0	P	17-DEC-09 10:37	121709-1
	Potassium	5210	ug/L	5000	ug/L	104.2	90.0 – 110.0	P	17-DEC-09 10:37	121709-1
	Selenium	509	ug/L	500	ug/L	101.7	90.0 – 110.0	P	17-DEC-09 10:37	121709-1
	Silicon	2450	ug/L	2500	ug/L	97.9	90.0 – 110.0	P	17-DEC-09 10:37	121709-1
	Silver	487	ug/L	500	ug/L	97.5	90.0 – 110.0	P	17-DEC-09 10:37	121709-1
	Sodium	10200	ug/L	10000	ug/L	102	90.0 – 110.0	P	17-DEC-09 10:37	121709-1
	Titanium	494	ug/L	500	ug/L	98.8	90.0 – 110.0	P	17-DEC-09 10:37	121709-1
	Vanadium	490	ug/L	500	ug/L	98	90.0 – 110.0	P	17-DEC-09 10:37	121709-1
	Zinc	485	ug/L	500	ug/L	97.1	90.0 – 110.0	P	17-DEC-09 10:37	121709-1
	Antimony	49.3	ug/L	50	ug/L	98.6	90.0 – 110.0	MS	20-DEC-09 22:53	091220-2
	Cadmium	48.6	ug/L	50	ug/L	97.1	90.0 – 110.0	MS	20-DEC-09 22:53	091220-2
	Beryllium	52.8	ug/L	50	ug/L	105.5	90.0 – 110.0	MS	22-DEC-09 02:56	091221-3
	Lead	53.3	ug/L	50	ug/L	106.7	90.0 – 110.0	MS	22-DEC-09 02:56	091221-3
	Manganese	53.4	ug/L	50	ug/L	106.9	90.0 – 110.0	MS	22-DEC-09 02:56	091221-3
	Thallium	49.5	ug/L	50	ug/L	99	90.0 – 110.0	MS	22-DEC-09 21:32	091222-4
	Mercury	4.89	ug/L	5	ug/L	97.9	80.0 – 120.0	AV	23-DEC-09 08:34	122309W1-6
	Lithium	55.1	ug/L	50	ug/L	110.1	90.0 – 110.0	MS	23-DEC-09 18:33	091223-5
	Uranium	52.6	ug/L	50	ug/L	105.2	90.0 – 110.0	MS	23-DEC-09 18:33	091223-5
CCV02										
	Aluminum	4710	ug/L	5000	ug/L	94.2	90.0 – 110.0	P	17-DEC-09 11:10	121709-1
	Arsenic	483	ug/L	500	ug/L	96.7	90.0 – 110.0	P	17-DEC-09 11:10	121709-1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–886–1

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS5,MER536,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Barium	479	ug/L	500	ug/L	95.8	90.0 – 110.0	P	17–DEC–09 11:10	121709–1
	Boron	479	ug/L	500	ug/L	95.8	90.0 – 110.0	P	17–DEC–09 11:10	121709–1
	Calcium	4900	ug/L	5000	ug/L	98.1	90.0 – 110.0	P	17–DEC–09 11:10	121709–1
	Chromium	478	ug/L	500	ug/L	95.7	90.0 – 110.0	P	17–DEC–09 11:10	121709–1
	Cobalt	479	ug/L	500	ug/L	95.7	90.0 – 110.0	P	17–DEC–09 11:10	121709–1
	Copper	474	ug/L	500	ug/L	94.7	90.0 – 110.0	P	17–DEC–09 11:10	121709–1
	Iron	4910	ug/L	5000	ug/L	98.3	90.0 – 110.0	P	17–DEC–09 11:10	121709–1
	Magnesium	4980	ug/L	5000	ug/L	99.5	90.0 – 110.0	P	17–DEC–09 11:10	121709–1
	Nickel	480	ug/L	500	ug/L	95.9	90.0 – 110.0	P	17–DEC–09 11:10	121709–1
	Potassium	4810	ug/L	5000	ug/L	96.3	90.0 – 110.0	P	17–DEC–09 11:10	121709–1
	Selenium	502	ug/L	500	ug/L	100.5	90.0 – 110.0	P	17–DEC–09 11:10	121709–1
	Silicon	2390	ug/L	2500	ug/L	95.8	90.0 – 110.0	P	17–DEC–09 11:10	121709–1
	Silver	479	ug/L	500	ug/L	95.7	90.0 – 110.0	P	17–DEC–09 11:10	121709–1
	Sodium	9530	ug/L	10000	ug/L	95.3	90.0 – 110.0	P	17–DEC–09 11:10	121709–1
	Titanium	484	ug/L	500	ug/L	96.9	90.0 – 110.0	P	17–DEC–09 11:10	121709–1
	Vanadium	482	ug/L	500	ug/L	96.3	90.0 – 110.0	P	17–DEC–09 11:10	121709–1
	Zinc	476	ug/L	500	ug/L	95.1	90.0 – 110.0	P	17–DEC–09 11:10	121709–1
	Antimony	53.2	ug/L	50	ug/L	106.3	90.0 – 110.0	MS	20–DEC–09 23:11	091220–2
	Cadmium	51.9	ug/L	50	ug/L	103.9	90.0 – 110.0	MS	20–DEC–09 23:11	091220–2
	Beryllium	53.2	ug/L	50	ug/L	106.4	90.0 – 110.0	MS	22–DEC–09 03:11	091221–3
	Lead	54.4	ug/L	50	ug/L	108.8	90.0 – 110.0	MS	22–DEC–09 03:11	091221–3
	Manganese	53.4	ug/L	50	ug/L	106.7	90.0 – 110.0	MS	22–DEC–09 03:11	091221–3
	Thallium	50.4	ug/L	50	ug/L	100.7	90.0 – 110.0	MS	22–DEC–09 21:46	091222–4
	Mercury	5.01	ug/L	5	ug/L	100.2	80.0 – 120.0	AV	23–DEC–09 08:58	122309W1–6
	Lithium	51.3	ug/L	50	ug/L	102.6	90.0 – 110.0	MS	23–DEC–09 18:47	091223–5
	Uranium	52.1	ug/L	50	ug/L	104.2	90.0 – 110.0	MS	23–DEC–09 18:47	091223–5
CCV03										
	Aluminum	4870	ug/L	5000	ug/L	97.4	90.0 – 110.0	P	17–DEC–09 12:13	121709–1
	Arsenic	482	ug/L	500	ug/L	96.3	90.0 – 110.0	P	17–DEC–09 12:13	121709–1
	Barium	480	ug/L	500	ug/L	96	90.0 – 110.0	P	17–DEC–09 12:13	121709–1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-886-1

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS5,MER536,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Boron	473	ug/L	500	ug/L	94.6	90.0 – 110.0	P	17-DEC-09 12:13	121709-1
	Calcium	4980	ug/L	5000	ug/L	99.6	90.0 – 110.0	P	17-DEC-09 12:13	121709-1
	Chromium	478	ug/L	500	ug/L	95.5	90.0 – 110.0	P	17-DEC-09 12:13	121709-1
	Cobalt	472	ug/L	500	ug/L	94.4	90.0 – 110.0	P	17-DEC-09 12:13	121709-1
	Copper	477	ug/L	500	ug/L	95.4	90.0 – 110.0	P	17-DEC-09 12:13	121709-1
	Iron	5010	ug/L	5000	ug/L	100.3	90.0 – 110.0	P	17-DEC-09 12:13	121709-1
	Magnesium	5060	ug/L	5000	ug/L	101.1	90.0 – 110.0	P	17-DEC-09 12:13	121709-1
	Nickel	473	ug/L	500	ug/L	94.6	90.0 – 110.0	P	17-DEC-09 12:13	121709-1
	Potassium	4960	ug/L	5000	ug/L	99.3	90.0 – 110.0	P	17-DEC-09 12:13	121709-1
	Selenium	502	ug/L	500	ug/L	100.4	90.0 – 110.0	P	17-DEC-09 12:13	121709-1
	Silicon	2400	ug/L	2500	ug/L	95.8	90.0 – 110.0	P	17-DEC-09 12:13	121709-1
	Silver	478	ug/L	500	ug/L	95.6	90.0 – 110.0	P	17-DEC-09 12:13	121709-1
	Sodium	10100	ug/L	10000	ug/L	100.5	90.0 – 110.0	P	17-DEC-09 12:13	121709-1
	Titanium	484	ug/L	500	ug/L	96.8	90.0 – 110.0	P	17-DEC-09 12:13	121709-1
	Vanadium	480	ug/L	500	ug/L	96.1	90.0 – 110.0	P	17-DEC-09 12:13	121709-1
	Zinc	474	ug/L	500	ug/L	94.9	90.0 – 110.0	P	17-DEC-09 12:13	121709-1
	Antimony	49.7	ug/L	50	ug/L	99.3	90.0 – 110.0	MS	21-DEC-09 00:07	091220-2
	Cadmium	48.5	ug/L	50	ug/L	97	90.0 – 110.0	MS	21-DEC-09 00:07	091220-2
	Beryllium	48.2	ug/L	50	ug/L	96.5	90.0 – 110.0	MS	22-DEC-09 03:46	091221-3
	Lead	52.2	ug/L	50	ug/L	104.5	90.0 – 110.0	MS	22-DEC-09 03:46	091221-3
	Manganese	53.3	ug/L	50	ug/L	106.5	90.0 – 110.0	MS	22-DEC-09 03:46	091221-3
	Thallium	47.7	ug/L	50	ug/L	95.5	90.0 – 110.0	MS	22-DEC-09 22:19	091222-4
	Mercury	5.84	ug/L	5	ug/L	116.8	80.0 – 120.0	AV	23-DEC-09 09:22	122309W1-6
	Lithium	50.8	ug/L	50	ug/L	101.6	90.0 – 110.0	MS	23-DEC-09 19:03	091223-5
	Uranium	49.4	ug/L	50	ug/L	98.7	90.0 – 110.0	MS	23-DEC-09 19:03	091223-5
CCV04										
	Aluminum	4710	ug/L	5000	ug/L	94.2	90.0 – 110.0	P	17-DEC-09 13:14	121709-1
	Arsenic	486	ug/L	500	ug/L	97.2	90.0 – 110.0	P	17-DEC-09 13:14	121709-1
	Barium	483	ug/L	500	ug/L	96.7	90.0 – 110.0	P	17-DEC-09 13:14	121709-1
	Boron	477	ug/L	500	ug/L	95.5	90.0 – 110.0	P	17-DEC-09 13:14	121709-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-886-1

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS5,MER536,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Calcium	4860	ug/L	5000	ug/L	97.3	90.0 – 110.0	P	17-DEC-09 13:14	121709-1
	Chromium	479	ug/L	500	ug/L	95.8	90.0 – 110.0	P	17-DEC-09 13:14	121709-1
	Cobalt	477	ug/L	500	ug/L	95.4	90.0 – 110.0	P	17-DEC-09 13:14	121709-1
	Copper	481	ug/L	500	ug/L	96.2	90.0 – 110.0	P	17-DEC-09 13:14	121709-1
	Iron	4870	ug/L	5000	ug/L	97.4	90.0 – 110.0	P	17-DEC-09 13:14	121709-1
	Magnesium	4880	ug/L	5000	ug/L	97.6	90.0 – 110.0	P	17-DEC-09 13:14	121709-1
	Nickel	476	ug/L	500	ug/L	95.1	90.0 – 110.0	P	17-DEC-09 13:14	121709-1
	Potassium	4840	ug/L	5000	ug/L	96.9	90.0 – 110.0	P	17-DEC-09 13:14	121709-1
	Selenium	503	ug/L	500	ug/L	100.7	90.0 – 110.0	P	17-DEC-09 13:14	121709-1
	Silicon	2420	ug/L	2500	ug/L	96.8	90.0 – 110.0	P	17-DEC-09 13:14	121709-1
	Silver	481	ug/L	500	ug/L	96.3	90.0 – 110.0	P	17-DEC-09 13:14	121709-1
	Sodium	9520	ug/L	10000	ug/L	95.2	90.0 – 110.0	P	17-DEC-09 13:14	121709-1
	Titanium	488	ug/L	500	ug/L	97.6	90.0 – 110.0	P	17-DEC-09 13:14	121709-1
	Vanadium	483	ug/L	500	ug/L	96.5	90.0 – 110.0	P	17-DEC-09 13:14	121709-1
	Zinc	477	ug/L	500	ug/L	95.5	90.0 – 110.0	P	17-DEC-09 13:14	121709-1
	Antimony	50.2	ug/L	50	ug/L	100.3	90.0 – 110.0	MS	21-DEC-09 00:38	091220-2
	Cadmium	48.1	ug/L	50	ug/L	96.2	90.0 – 110.0	MS	21-DEC-09 00:38	091220-2
	Beryllium	50.3	ug/L	50	ug/L	100.5	90.0 – 110.0	MS	22-DEC-09 04:15	091221-3
	Lead	53	ug/L	50	ug/L	106.1	90.0 – 110.0	MS	22-DEC-09 04:15	091221-3
	Manganese	53.4	ug/L	50	ug/L	106.8	90.0 – 110.0	MS	22-DEC-09 04:15	091221-3
	Thallium	48.8	ug/L	50	ug/L	97.5	90.0 – 110.0	MS	22-DEC-09 22:47	091222-4
CCV05										
	Aluminum	4780	ug/L	5000	ug/L	95.7	90.0 – 110.0	P	17-DEC-09 14:10	121709-1
	Arsenic	478	ug/L	500	ug/L	95.7	90.0 – 110.0	P	17-DEC-09 14:10	121709-1
	Barium	481	ug/L	500	ug/L	96.3	90.0 – 110.0	P	17-DEC-09 14:10	121709-1
	Boron	472	ug/L	500	ug/L	94.5	90.0 – 110.0	P	17-DEC-09 14:10	121709-1
	Calcium	5060	ug/L	5000	ug/L	101.2	90.0 – 110.0	P	17-DEC-09 14:10	121709-1
	Chromium	478	ug/L	500	ug/L	95.7	90.0 – 110.0	P	17-DEC-09 14:10	121709-1
	Cobalt	473	ug/L	500	ug/L	94.6	90.0 – 110.0	P	17-DEC-09 14:10	121709-1
	Copper	480	ug/L	500	ug/L	96.1	90.0 – 110.0	P	17-DEC-09 14:10	121709-1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–886–1

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS5,MER536,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Iron	4960	ug/L	5000	ug/L	99.3	90.0 – 110.0	P	17–DEC–09 14:10	121709–1
	Magnesium	5000	ug/L	5000	ug/L	100	90.0 – 110.0	P	17–DEC–09 14:10	121709–1
	Nickel	472	ug/L	500	ug/L	94.4	90.0 – 110.0	P	17–DEC–09 14:10	121709–1
	Potassium	4950	ug/L	5000	ug/L	98.9	90.0 – 110.0	P	17–DEC–09 14:10	121709–1
	Selenium	499	ug/L	500	ug/L	99.9	90.0 – 110.0	P	17–DEC–09 14:10	121709–1
	Silicon	2410	ug/L	2500	ug/L	96.4	90.0 – 110.0	P	17–DEC–09 14:10	121709–1
	Silver	481	ug/L	500	ug/L	96.2	90.0 – 110.0	P	17–DEC–09 14:10	121709–1
	Sodium	9840	ug/L	10000	ug/L	98.4	90.0 – 110.0	P	17–DEC–09 14:10	121709–1
	Titanium	487	ug/L	500	ug/L	97.4	90.0 – 110.0	P	17–DEC–09 14:10	121709–1
	Vanadium	482	ug/L	500	ug/L	96.4	90.0 – 110.0	P	17–DEC–09 14:10	121709–1
	Zinc	476	ug/L	500	ug/L	95.1	90.0 – 110.0	P	17–DEC–09 14:10	121709–1
	Antimony	50.1	ug/L	50	ug/L	100.2	90.0 – 110.0	MS	21–DEC–09 01:21	091220–2
	Cadmium	48.7	ug/L	50	ug/L	97.3	90.0 – 110.0	MS	21–DEC–09 01:21	091220–2
CCV06										
	Aluminum	4780	ug/L	5000	ug/L	95.7	90.0 – 110.0	P	17–DEC–09 14:35	121709–1
	Arsenic	485	ug/L	500	ug/L	96.9	90.0 – 110.0	P	17–DEC–09 14:35	121709–1
	Barium	483	ug/L	500	ug/L	96.5	90.0 – 110.0	P	17–DEC–09 14:35	121709–1
	Boron	475	ug/L	500	ug/L	95.1	90.0 – 110.0	P	17–DEC–09 14:35	121709–1
	Calcium	5000	ug/L	5000	ug/L	100	90.0 – 110.0	P	17–DEC–09 14:35	121709–1
	Chromium	479	ug/L	500	ug/L	95.8	90.0 – 110.0	P	17–DEC–09 14:35	121709–1
	Cobalt	477	ug/L	500	ug/L	95.3	90.0 – 110.0	P	17–DEC–09 14:35	121709–1
	Copper	482	ug/L	500	ug/L	96.4	90.0 – 110.0	P	17–DEC–09 14:35	121709–1
	Iron	5090	ug/L	5000	ug/L	101.9	90.0 – 110.0	P	17–DEC–09 14:35	121709–1
	Magnesium	5070	ug/L	5000	ug/L	101.5	90.0 – 110.0	P	17–DEC–09 14:35	121709–1
	Nickel	476	ug/L	500	ug/L	95.1	90.0 – 110.0	P	17–DEC–09 14:35	121709–1
	Potassium	4940	ug/L	5000	ug/L	98.8	90.0 – 110.0	P	17–DEC–09 14:35	121709–1
	Selenium	507	ug/L	500	ug/L	101.4	90.0 – 110.0	P	17–DEC–09 14:35	121709–1
	Silicon	2410	ug/L	2500	ug/L	96.6	90.0 – 110.0	P	17–DEC–09 14:35	121709–1
	Silver	482	ug/L	500	ug/L	96.3	90.0 – 110.0	P	17–DEC–09 14:35	121709–1
	Sodium	10100	ug/L	10000	ug/L	101.5	90.0 – 110.0	P	17–DEC–09 14:35	121709–1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–886–1

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS5,MER536,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Titanium	488	ug/L	500	ug/L	97.7	90.0 – 110.0	P	17–DEC–09 14:35	121709–1
	Vanadium	483	ug/L	500	ug/L	96.5	90.0 – 110.0	P	17–DEC–09 14:35	121709–1
	Zinc	477	ug/L	500	ug/L	95.5	90.0 – 110.0	P	17–DEC–09 14:35	121709–1
	Antimony	49.9	ug/L	50	ug/L	99.7	90.0 – 110.0	MS	21–DEC–09 01:58	091220–2
	Cadmium	47.9	ug/L	50	ug/L	95.8	90.0 – 110.0	MS	21–DEC–09 01:58	091220–2
CCV07										
	Aluminum	4820	ug/L	5000	ug/L	96.4	90.0 – 110.0	P	17–DEC–09 15:35	121709–1
	Arsenic	494	ug/L	500	ug/L	98.8	90.0 – 110.0	P	17–DEC–09 15:35	121709–1
	Barium	488	ug/L	500	ug/L	97.7	90.0 – 110.0	P	17–DEC–09 15:35	121709–1
	Boron	477	ug/L	500	ug/L	95.3	90.0 – 110.0	P	17–DEC–09 15:35	121709–1
	Calcium	4990	ug/L	5000	ug/L	99.8	90.0 – 110.0	P	17–DEC–09 15:35	121709–1
	Chromium	485	ug/L	500	ug/L	97	90.0 – 110.0	P	17–DEC–09 15:35	121709–1
	Cobalt	483	ug/L	500	ug/L	96.6	90.0 – 110.0	P	17–DEC–09 15:35	121709–1
	Copper	485	ug/L	500	ug/L	97.1	90.0 – 110.0	P	17–DEC–09 15:35	121709–1
	Iron	5110	ug/L	5000	ug/L	102.1	90.0 – 110.0	P	17–DEC–09 15:35	121709–1
	Magnesium	5050	ug/L	5000	ug/L	101	90.0 – 110.0	P	17–DEC–09 15:35	121709–1
	Nickel	483	ug/L	500	ug/L	96.6	90.0 – 110.0	P	17–DEC–09 15:35	121709–1
	Potassium	5010	ug/L	5000	ug/L	100.2	90.0 – 110.0	P	17–DEC–09 15:35	121709–1
	Selenium	512	ug/L	500	ug/L	102.4	90.0 – 110.0	P	17–DEC–09 15:35	121709–1
	Silicon	2440	ug/L	2500	ug/L	97.5	90.0 – 110.0	P	17–DEC–09 15:35	121709–1
	Silver	485	ug/L	500	ug/L	97	90.0 – 110.0	P	17–DEC–09 15:35	121709–1
	Sodium	10100	ug/L	10000	ug/L	101	90.0 – 110.0	P	17–DEC–09 15:35	121709–1
	Titanium	492	ug/L	500	ug/L	98.5	90.0 – 110.0	P	17–DEC–09 15:35	121709–1
	Vanadium	488	ug/L	500	ug/L	97.6	90.0 – 110.0	P	17–DEC–09 15:35	121709–1
	Zinc	482	ug/L	500	ug/L	96.4	90.0 – 110.0	P	17–DEC–09 15:35	121709–1
CCV08										
	Aluminum	4820	ug/L	5000	ug/L	96.5	90.0 – 110.0	P	17–DEC–09 16:22	121709–1
	Arsenic	488	ug/L	500	ug/L	97.6	90.0 – 110.0	P	17–DEC–09 16:22	121709–1
	Barium	482	ug/L	500	ug/L	96.5	90.0 – 110.0	P	17–DEC–09 16:22	121709–1
	Boron	472	ug/L	500	ug/L	94.5	90.0 – 110.0	P	17–DEC–09 16:22	121709–1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–886–1

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS5,MER536,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Calcium	5090	ug/L	5000	ug/L	101.9	90.0 – 110.0	P	17–DEC–09 16:22	121709–1
	Chromium	479	ug/L	500	ug/L	95.9	90.0 – 110.0	P	17–DEC–09 16:22	121709–1
	Cobalt	479	ug/L	500	ug/L	95.8	90.0 – 110.0	P	17–DEC–09 16:22	121709–1
	Copper	480	ug/L	500	ug/L	96	90.0 – 110.0	P	17–DEC–09 16:22	121709–1
	Iron	5260	ug/L	5000	ug/L	105.2	90.0 – 110.0	P	17–DEC–09 16:22	121709–1
	Magnesium	5170	ug/L	5000	ug/L	103.5	90.0 – 110.0	P	17–DEC–09 16:22	121709–1
	Nickel	478	ug/L	500	ug/L	95.7	90.0 – 110.0	P	17–DEC–09 16:22	121709–1
	Potassium	5060	ug/L	5000	ug/L	101.2	90.0 – 110.0	P	17–DEC–09 16:22	121709–1
	Selenium	510	ug/L	500	ug/L	102	90.0 – 110.0	P	17–DEC–09 16:22	121709–1
	Silicon	2410	ug/L	2500	ug/L	96.4	90.0 – 110.0	P	17–DEC–09 16:22	121709–1
	Silver	481	ug/L	500	ug/L	96.2	90.0 – 110.0	P	17–DEC–09 16:22	121709–1
	Sodium	10500	ug/L	10000	ug/L	105.1	90.0 – 110.0	P	17–DEC–09 16:22	121709–1
	Titanium	487	ug/L	500	ug/L	97.4	90.0 – 110.0	P	17–DEC–09 16:22	121709–1
	Vanadium	483	ug/L	500	ug/L	96.6	90.0 – 110.0	P	17–DEC–09 16:22	121709–1
	Zinc	478	ug/L	500	ug/L	95.6	90.0 – 110.0	P	17–DEC–09 16:22	121709–1
CCV09										
	Aluminum	4760	ug/L	5000	ug/L	95.2	90.0 – 110.0	P	17–DEC–09 17:46	121709–1
	Arsenic	482	ug/L	500	ug/L	96.5	90.0 – 110.0	P	17–DEC–09 17:46	121709–1
	Barium	484	ug/L	500	ug/L	96.9	90.0 – 110.0	P	17–DEC–09 17:46	121709–1
	Boron	471	ug/L	500	ug/L	94.2	90.0 – 110.0	P	17–DEC–09 17:46	121709–1
	Calcium	4990	ug/L	5000	ug/L	99.7	90.0 – 110.0	P	17–DEC–09 17:46	121709–1
	Chromium	482	ug/L	500	ug/L	96.4	90.0 – 110.0	P	17–DEC–09 17:46	121709–1
	Cobalt	475	ug/L	500	ug/L	95	90.0 – 110.0	P	17–DEC–09 17:46	121709–1
	Copper	482	ug/L	500	ug/L	96.5	90.0 – 110.0	P	17–DEC–09 17:46	121709–1
	Iron	5160	ug/L	5000	ug/L	103.3	90.0 – 110.0	P	17–DEC–09 17:46	121709–1
	Magnesium	5140	ug/L	5000	ug/L	102.9	90.0 – 110.0	P	17–DEC–09 17:46	121709–1
	Nickel	475	ug/L	500	ug/L	95	90.0 – 110.0	P	17–DEC–09 17:46	121709–1
	Potassium	4970	ug/L	5000	ug/L	99.5	90.0 – 110.0	P	17–DEC–09 17:46	121709–1
	Selenium	501	ug/L	500	ug/L	100.1	90.0 – 110.0	P	17–DEC–09 17:46	121709–1
	Silicon	2420	ug/L	2500	ug/L	96.7	90.0 – 110.0	P	17–DEC–09 17:46	121709–1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–886–1

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS5,MER536,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Silver	484	ug/L	500	ug/L	96.7	90.0 – 110.0	P	17–DEC–09 17:46	121709–1
	Sodium	10400	ug/L	10000	ug/L	103.8	90.0 – 110.0	P	17–DEC–09 17:46	121709–1
	Titanium	489	ug/L	500	ug/L	97.8	90.0 – 110.0	P	17–DEC–09 17:46	121709–1
	Vanadium	485	ug/L	500	ug/L	97	90.0 – 110.0	P	17–DEC–09 17:46	121709–1
	Zinc	478	ug/L	500	ug/L	95.7	90.0 – 110.0	P	17–DEC–09 17:46	121709–1
CCV10										
	Aluminum	4590	ug/L	5000	ug/L	91.9	90.0 – 110.0	P	17–DEC–09 19:02	121709–1
	Arsenic	483	ug/L	500	ug/L	96.7	90.0 – 110.0	P	17–DEC–09 19:02	121709–1
	Barium	484	ug/L	500	ug/L	96.9	90.0 – 110.0	P	17–DEC–09 19:02	121709–1
	Boron	473	ug/L	500	ug/L	94.6	90.0 – 110.0	P	17–DEC–09 19:02	121709–1
	Calcium	4880	ug/L	5000	ug/L	97.5	90.0 – 110.0	P	17–DEC–09 19:02	121709–1
	Chromium	483	ug/L	500	ug/L	96.6	90.0 – 110.0	P	17–DEC–09 19:02	121709–1
	Cobalt	475	ug/L	500	ug/L	95.1	90.0 – 110.0	P	17–DEC–09 19:02	121709–1
	Copper	483	ug/L	500	ug/L	96.6	90.0 – 110.0	P	17–DEC–09 19:02	121709–1
	Iron	5130	ug/L	5000	ug/L	102.7	90.0 – 110.0	P	17–DEC–09 19:02	121709–1
	Magnesium	4930	ug/L	5000	ug/L	98.6	90.0 – 110.0	P	17–DEC–09 19:02	121709–1
	Nickel	475	ug/L	500	ug/L	94.9	90.0 – 110.0	P	17–DEC–09 19:02	121709–1
	Potassium	4850	ug/L	5000	ug/L	97	90.0 – 110.0	P	17–DEC–09 19:02	121709–1
	Selenium	504	ug/L	500	ug/L	100.8	90.0 – 110.0	P	17–DEC–09 19:02	121709–1
	Silicon	2420	ug/L	2500	ug/L	96.9	90.0 – 110.0	P	17–DEC–09 19:02	121709–1
	Silver	485	ug/L	500	ug/L	97.1	90.0 – 110.0	P	17–DEC–09 19:02	121709–1
	Sodium	10600	ug/L	10000	ug/L	106	90.0 – 110.0	P	17–DEC–09 19:02	121709–1
	Titanium	489	ug/L	500	ug/L	97.8	90.0 – 110.0	P	17–DEC–09 19:02	121709–1
	Vanadium	486	ug/L	500	ug/L	97.1	90.0 – 110.0	P	17–DEC–09 19:02	121709–1
	Zinc	480	ug/L	500	ug/L	96	90.0 – 110.0	P	17–DEC–09 19:02	121709–1

METALS
-2b-
CRDL Standard for AA & ICP

SDG No: 10-886-1

Contract: LANL01004 **Lab Code:** GEL

AA CRDL Standard Source: SPEX

ICP CRDL Standard Source Solutions Plus

Instrument ID: ICPMS5,MER536,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Advisory Limits (%R)	M	Analysis Date/Time	Run Number
CRDL01										
	Antimony	3.33	ug/L	3	ug/L	111	70.0 – 130.0	MS	20-DEC-09 22:35	091220-2
	Cadmium	1.07	ug/L	1	ug/L	107.1	70.0 – 130.0	MS	20-DEC-09 22:35	091220-2
	Lead	2.37	ug/L	2	ug/L	118.7	70.0 – 130.0	MS	22-DEC-09 02:41	091221-3
	Manganese	6.1	ug/L	5	ug/L	122	70.0 – 130.0	MS	22-DEC-09 02:41	091221-3
	Beryllium	.533	ug/L	.5	ug/L	106.6	70.0 – 130.0	MS	22-DEC-09 02:41	091221-3
	Thallium	1.25	ug/L	1	ug/L	125.1	70.0 – 130.0	MS	22-DEC-09 21:18	091222-4
	Mercury	.143	ug/L	.2	ug/L	71.5	70.0 – 130.0	AV	23-DEC-09 08:32	122309W1-6
	Lithium	11.1	ug/L	10	ug/L	111.4	70.0 – 130.0	MS	23-DEC-09 18:27	091223-5
	Uranium	.253	ug/L	.2	ug/L	126.5	70.0 – 130.0	MS	23-DEC-09 18:27	091223-5
PQL01										
	Aluminum	201	ug/L	200	ug/L	100.7	70.0 – 130.0	P	17-DEC-09 10:06	121709-1
	Iron	94.8	ug/L	100	ug/L	94.8	70.0 – 130.0	P	17-DEC-09 10:06	121709-1
	Magnesium	220	ug/L	300	ug/L	73.4	70.0 – 130.0	P	17-DEC-09 10:06	121709-1
	Nickel	4.9	ug/L	5	ug/L	98	70.0 – 130.0	P	17-DEC-09 10:06	121709-1
	Potassium	135	ug/L	150	ug/L	89.9	70.0 – 130.0	P	17-DEC-09 10:06	121709-1
	Silver	5.16	ug/L	5	ug/L	103.2	70.0 – 130.0	P	17-DEC-09 10:06	121709-1
	Sodium	311	ug/L	300	ug/L	103.5	70.0 – 130.0	P	17-DEC-09 10:06	121709-1
	Arsenic	29.4	ug/L	30	ug/L	98	70.0 – 130.0	P	17-DEC-09 10:06	121709-1
	Barium	5.08	ug/L	5	ug/L	101.6	70.0 – 130.0	P	17-DEC-09 10:06	121709-1
	Chromium	4.84	ug/L	5	ug/L	96.8	70.0 – 130.0	P	17-DEC-09 10:06	121709-1
	Cobalt	5.07	ug/L	5	ug/L	101.5	70.0 – 130.0	P	17-DEC-09 10:06	121709-1
	Copper	9.61	ug/L	10	ug/L	96.1	70.0 – 130.0	P	17-DEC-09 10:06	121709-1
	Vanadium	5.25	ug/L	5	ug/L	105	70.0 – 130.0	P	17-DEC-09 10:06	121709-1
	Zinc	9.48	ug/L	10	ug/L	94.8	70.0 – 130.0	P	17-DEC-09 10:06	121709-1
	Calcium	208	ug/L	200	ug/L	104	70.0 – 130.0	P	17-DEC-09 10:06	121709-1
	Selenium	34.7	ug/L	30	ug/L	115.6	70.0 – 130.0	P	17-DEC-09 10:06	121709-1
	Boron	50.9	ug/L	50	ug/L	101.8	70.0 – 130.0	P	17-DEC-09 10:06	121709-1
	Silicon	98.6	ug/L	100	ug/L	98.6	70.0 – 130.0	P	17-DEC-09 10:06	121709-1
	Titanium	5.05	ug/L	5	ug/L	101	70.0 – 130.0	P	17-DEC-09 10:06	121709-1

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-886-1

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
ICB01										
	Aluminum	68.0	+/-200	U	68.0	200	LIQ	P	17-DEC-09 09:59	121709-1
	Arsenic	5.0	+/-30	U	5.0	30.0	LIQ	P	17-DEC-09 09:59	121709-1
	Barium	1.0	+/-5	U	1.0	5.0	LIQ	P	17-DEC-09 09:59	121709-1
	Boron	15.0	+/-50	U	15.0	50.0	LIQ	P	17-DEC-09 09:59	121709-1
	Calcium	50.0	+/-200	U	50.0	200	LIQ	P	17-DEC-09 09:59	121709-1
	Chromium	1.0	+/-5	U	1.0	5.0	LIQ	P	17-DEC-09 09:59	121709-1
	Cobalt	1.0	+/-5	U	1.0	5.0	LIQ	P	17-DEC-09 09:59	121709-1
	Copper	3.0	+/-10	U	3.0	10.0	LIQ	P	17-DEC-09 09:59	121709-1
	Iron	30.0	+/-100	U	30.0	100	LIQ	P	17-DEC-09 09:59	121709-1
	Magnesium	85.0	+/-300	U	85.0	300	LIQ	P	17-DEC-09 09:59	121709-1
	Nickel	1.5	+/-5	U	1.5	5.0	LIQ	P	17-DEC-09 09:59	121709-1
	Potassium	50.0	+/-150	U	50.0	150	LIQ	P	17-DEC-09 09:59	121709-1
	Selenium	5.19	+/-30	J	5.0	30.0	LIQ	P	17-DEC-09 09:59	121709-1
	Silicon	25.0	+/-100	U	25.0	100	LIQ	P	17-DEC-09 09:59	121709-1
	Silver	1.0	+/-5	U	1.0	5.0	LIQ	P	17-DEC-09 09:59	121709-1
	Sodium	100	+/-300	U	100	300	LIQ	P	17-DEC-09 09:59	121709-1
	Titanium	1.0	+/-5	U	1.0	5.0	LIQ	P	17-DEC-09 09:59	121709-1
	Vanadium	1.0	+/-5	U	1.0	5.0	LIQ	P	17-DEC-09 09:59	121709-1
	Zinc	3.3	+/-10	U	3.3	10.0	LIQ	P	17-DEC-09 09:59	121709-1
	Antimony	1.0	+/-3	U	1.0	3.0	LIQ	MS	20-DEC-09 22:29	091220-2
	Cadmium	0.11	+/-1	U	0.11	1.0	LIQ	MS	20-DEC-09 22:29	091220-2
	Beryllium	0.1	+/-.5	U	0.1	0.5	LIQ	MS	22-DEC-09 02:37	091221-3
	Lead	0.5	+/-2	U	0.5	2.0	LIQ	MS	22-DEC-09 02:37	091221-3
	Manganese	1.0	+/-5	U	1.0	5.0	LIQ	MS	22-DEC-09 02:37	091221-3
	Thallium	0.3	+/-1	U	0.3	1.0	LIQ	MS	22-DEC-09 21:14	091222-4
	Mercury	0.066	+/-.2	U	0.066	0.2	LIQ	AV	23-DEC-09 08:30	122309W1-6
	Lithium	2.0	+/-10	U	2.0	10.0	LIQ	MS	23-DEC-09 18:24	091223-5
	Uranium	0.05	+/-.2	U	0.05	0.2	LIQ	MS	23-DEC-09 18:24	091223-5
CCB01										
	Aluminum	68.0	+/-200	U	68.0	200	LIQ	P	17-DEC-09 10:44	121709-1
	Arsenic	11.9	+/-30	J	5.0	30.0	LIQ	P	17-DEC-09 10:44	121709-1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10-886-1

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Barium	1.0	+/-5	U	1.0	5.0	LIQ	P	17-DEC-09 10:44	121709-1
	Boron	17.87	+/-50	J	15.0	50.0	LIQ	P	17-DEC-09 10:44	121709-1
	Calcium	50.0	+/-200	U	50.0	200	LIQ	P	17-DEC-09 10:44	121709-1
	Chromium	1.0	+/-5	U	1.0	5.0	LIQ	P	17-DEC-09 10:44	121709-1
	Cobalt	1.0	+/-5	U	1.0	5.0	LIQ	P	17-DEC-09 10:44	121709-1
	Copper	3.0	+/-10	U	3.0	10.0	LIQ	P	17-DEC-09 10:44	121709-1
	Iron	30.0	+/-100	U	30.0	100	LIQ	P	17-DEC-09 10:44	121709-1
	Magnesium	85.0	+/-300	U	85.0	300	LIQ	P	17-DEC-09 10:44	121709-1
	Nickel	1.5	+/-5	U	1.5	5.0	LIQ	P	17-DEC-09 10:44	121709-1
	Potassium	136.68	+/-150	J	50.0	150	LIQ	P	17-DEC-09 10:44	121709-1
	Selenium	8.85	+/-30	J	5.0	30.0	LIQ	P	17-DEC-09 10:44	121709-1
	Silicon	25.0	+/-100	U	25.0	100	LIQ	P	17-DEC-09 10:44	121709-1
	Silver	1.0	+/-5	U	1.0	5.0	LIQ	P	17-DEC-09 10:44	121709-1
	Sodium	100	+/-300	U	100	300	LIQ	P	17-DEC-09 10:44	121709-1
	Titanium	1.0	+/-5	U	1.0	5.0	LIQ	P	17-DEC-09 10:44	121709-1
	Vanadium	1.0	+/-5	U	1.0	5.0	LIQ	P	17-DEC-09 10:44	121709-1
	Zinc	3.3	+/-10	U	3.3	10.0	LIQ	P	17-DEC-09 10:44	121709-1
	Antimony	1.0	+/-3	U	1.0	3.0	LIQ	MS	20-DEC-09 22:59	091220-2
	Cadmium	0.11	+/-1	U	0.11	1.0	LIQ	MS	20-DEC-09 22:59	091220-2
	Beryllium	0.1	+/-.5	U	0.1	0.5	LIQ	MS	22-DEC-09 03:01	091221-3
	Lead	0.5	+/-2	U	0.5	2.0	LIQ	MS	22-DEC-09 03:01	091221-3
	Manganese	1.0	+/-5	U	1.0	5.0	LIQ	MS	22-DEC-09 03:01	091221-3
	Thallium	0.3	+/-1	U	0.3	1.0	LIQ	MS	22-DEC-09 21:37	091222-4
	Mercury	0.066	+/-.2	U	0.066	0.2	LIQ	AV	23-DEC-09 08:36	122309W1-6
	Lithium	2.0	+/-10	U	2.0	10.0	LIQ	MS	23-DEC-09 18:36	091223-5
	Uranium	0.05	+/-.2	U	0.05	0.2	LIQ	MS	23-DEC-09 18:36	091223-5
CCB02										
	Aluminum	68.0	+/-200	U	68.0	200	LIQ	P	17-DEC-09 11:17	121709-1
	Arsenic	5.0	+/-30	U	5.0	30.0	LIQ	P	17-DEC-09 11:17	121709-1
	Barium	1.0	+/-5	U	1.0	5.0	LIQ	P	17-DEC-09 11:17	121709-1
	Boron	15.0	+/-50	U	15.0	50.0	LIQ	P	17-DEC-09 11:17	121709-1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10–886–1

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	17–DEC–09 11:17	121709–1
	Chromium	1.0	+/–5	U	1.0	5.0	LIQ	P	17–DEC–09 11:17	121709–1
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	17–DEC–09 11:17	121709–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	17–DEC–09 11:17	121709–1
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	17–DEC–09 11:17	121709–1
	Magnesium	–89.49	+/–300	J	85.0	300	LIQ	P	17–DEC–09 11:17	121709–1
	Nickel	1.5	+/–5	U	1.5	5.0	LIQ	P	17–DEC–09 11:17	121709–1
	Potassium	50.0	+/–150	U	50.0	150	LIQ	P	17–DEC–09 11:17	121709–1
	Selenium	5.0	+/–30	U	5.0	30.0	LIQ	P	17–DEC–09 11:17	121709–1
	Silicon	25.0	+/–100	U	25.0	100	LIQ	P	17–DEC–09 11:17	121709–1
	Silver	1.0	+/–5	U	1.0	5.0	LIQ	P	17–DEC–09 11:17	121709–1
	Sodium	100	+/–300	U	100	300	LIQ	P	17–DEC–09 11:17	121709–1
	Titanium	1.0	+/–5	U	1.0	5.0	LIQ	P	17–DEC–09 11:17	121709–1
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	17–DEC–09 11:17	121709–1
	Zinc	3.3	+/–10	U	3.3	10.0	LIQ	P	17–DEC–09 11:17	121709–1
	Antimony	1.0	+/–3	U	1.0	3.0	LIQ	MS	20–DEC–09 23:18	091220–2
	Cadmium	0.11	+/–1	U	0.11	1.0	LIQ	MS	20–DEC–09 23:18	091220–2
	Beryllium	0.1	+/–.5	U	0.1	0.5	LIQ	MS	22–DEC–09 03:16	091221–3
	Lead	0.5	+/–2	U	0.5	2.0	LIQ	MS	22–DEC–09 03:16	091221–3
	Manganese	1.0	+/–5	U	1.0	5.0	LIQ	MS	22–DEC–09 03:16	091221–3
	Thallium	0.3	+/–1	U	0.3	1.0	LIQ	MS	22–DEC–09 21:51	091222–4
	Mercury	–0.097	+/–.2	J	0.066	0.2	LIQ	AV	23–DEC–09 09:00	122309W1–6
	Lithium	2.0	+/–10	U	2.0	10.0	LIQ	MS	23–DEC–09 18:49	091223–5
	Uranium	0.05	+/–.2	U	0.05	0.2	LIQ	MS	23–DEC–09 18:49	091223–5
CCB03										
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	17–DEC–09 12:20	121709–1
	Arsenic	5.0	+/–30	U	5.0	30.0	LIQ	P	17–DEC–09 12:20	121709–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	17–DEC–09 12:20	121709–1
	Boron	15.0	+/–50	U	15.0	50.0	LIQ	P	17–DEC–09 12:20	121709–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	17–DEC–09 12:20	121709–1
	Chromium	1.0	+/–5	U	1.0	5.0	LIQ	P	17–DEC–09 12:20	121709–1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10-886-1

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Cobalt	1.0	+/-5	U	1.0	5.0	LIQ	P	17-DEC-09 12:20	121709-1
	Copper	3.0	+/-10	U	3.0	10.0	LIQ	P	17-DEC-09 12:20	121709-1
	Iron	30.0	+/-100	U	30.0	100	LIQ	P	17-DEC-09 12:20	121709-1
	Magnesium	-128.96	+/-300	J	85.0	300	LIQ	P	17-DEC-09 12:20	121709-1
	Nickel	1.5	+/-5	U	1.5	5.0	LIQ	P	17-DEC-09 12:20	121709-1
	Potassium	50.0	+/-150	U	50.0	150	LIQ	P	17-DEC-09 12:20	121709-1
	Selenium	5.0	+/-30	U	5.0	30.0	LIQ	P	17-DEC-09 12:20	121709-1
	Silicon	25.0	+/-100	U	25.0	100	LIQ	P	17-DEC-09 12:20	121709-1
	Silver	1.0	+/-5	U	1.0	5.0	LIQ	P	17-DEC-09 12:20	121709-1
	Sodium	100	+/-300	U	100	300	LIQ	P	17-DEC-09 12:20	121709-1
	Titanium	1.0	+/-5	U	1.0	5.0	LIQ	P	17-DEC-09 12:20	121709-1
	Vanadium	1.0	+/-5	U	1.0	5.0	LIQ	P	17-DEC-09 12:20	121709-1
	Zinc	3.3	+/-10	U	3.3	10.0	LIQ	P	17-DEC-09 12:20	121709-1
	Antimony	1.0	+/-3	U	1.0	3.0	LIQ	MS	21-DEC-09 00:13	091220-2
	Cadmium	0.11	+/-1	U	0.11	1.0	LIQ	MS	21-DEC-09 00:13	091220-2
	Beryllium	0.161	+/-.5	J	0.1	0.5	LIQ	MS	22-DEC-09 03:51	091221-3
	Lead	0.5	+/-2	U	0.5	2.0	LIQ	MS	22-DEC-09 03:51	091221-3
	Manganese	1.0	+/-5	U	1.0	5.0	LIQ	MS	22-DEC-09 03:51	091221-3
	Thallium	0.3	+/-1	U	0.3	1.0	LIQ	MS	22-DEC-09 22:24	091222-4
	Mercury	-0.104	+/-.2	J	0.066	0.2	LIQ	AV	23-DEC-09 09:24	122309W1-6
	Lithium	2.0	+/-10	U	2.0	10.0	LIQ	MS	23-DEC-09 19:05	091223-5
	Uranium	0.05	+/-.2	U	0.05	0.2	LIQ	MS	23-DEC-09 19:05	091223-5
CCB04										
	Aluminum	68.0	+/-200	U	68.0	200	LIQ	P	17-DEC-09 13:21	121709-1
	Arsenic	5.0	+/-30	U	5.0	30.0	LIQ	P	17-DEC-09 13:21	121709-1
	Barium	1.0	+/-5	U	1.0	5.0	LIQ	P	17-DEC-09 13:21	121709-1
	Boron	15.0	+/-50	U	15.0	50.0	LIQ	P	17-DEC-09 13:21	121709-1
	Calcium	50.0	+/-200	U	50.0	200	LIQ	P	17-DEC-09 13:21	121709-1
	Chromium	1.0	+/-5	U	1.0	5.0	LIQ	P	17-DEC-09 13:21	121709-1
	Cobalt	1.0	+/-5	U	1.0	5.0	LIQ	P	17-DEC-09 13:21	121709-1
	Copper	3.0	+/-10	U	3.0	10.0	LIQ	P	17-DEC-09 13:21	121709-1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10-886-1

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Iron	30.0	+/-100	U	30.0	100	LIQ	P	17-DEC-09 13:21	121709-1
	Magnesium	-113.37	+/-300	J	85.0	300	LIQ	P	17-DEC-09 13:21	121709-1
	Nickel	1.5	+/-5	U	1.5	5.0	LIQ	P	17-DEC-09 13:21	121709-1
	Potassium	50.0	+/-150	U	50.0	150	LIQ	P	17-DEC-09 13:21	121709-1
	Selenium	5.0	+/-30	U	5.0	30.0	LIQ	P	17-DEC-09 13:21	121709-1
	Silicon	25.0	+/-100	U	25.0	100	LIQ	P	17-DEC-09 13:21	121709-1
	Silver	1.0	+/-5	U	1.0	5.0	LIQ	P	17-DEC-09 13:21	121709-1
	Sodium	100	+/-300	U	100	300	LIQ	P	17-DEC-09 13:21	121709-1
	Titanium	1.0	+/-5	U	1.0	5.0	LIQ	P	17-DEC-09 13:21	121709-1
	Vanadium	1.0	+/-5	U	1.0	5.0	LIQ	P	17-DEC-09 13:21	121709-1
	Zinc	3.3	+/-10	U	3.3	10.0	LIQ	P	17-DEC-09 13:21	121709-1
	Antimony	1.0	+/-3	U	1.0	3.0	LIQ	MS	21-DEC-09 00:44	091220-2
	Cadmium	0.11	+/-1	U	0.11	1.0	LIQ	MS	21-DEC-09 00:44	091220-2
	Beryllium	0.277	+/-.5	J	0.1	0.5	LIQ	MS	22-DEC-09 04:20	091221-3
	Lead	0.5	+/-2	U	0.5	2.0	LIQ	MS	22-DEC-09 04:20	091221-3
	Manganese	1.0	+/-5	U	1.0	5.0	LIQ	MS	22-DEC-09 04:20	091221-3
	Thallium	0.3	+/-1	U	0.3	1.0	LIQ	MS	22-DEC-09 22:52	091222-4
CCB05										
	Aluminum	68.0	+/-200	U	68.0	200	LIQ	P	17-DEC-09 14:17	121709-1
	Arsenic	5.0	+/-30	U	5.0	30.0	LIQ	P	17-DEC-09 14:17	121709-1
	Barium	1.0	+/-5	U	1.0	5.0	LIQ	P	17-DEC-09 14:17	121709-1
	Boron	15.0	+/-50	U	15.0	50.0	LIQ	P	17-DEC-09 14:17	121709-1
	Calcium	50.0	+/-200	U	50.0	200	LIQ	P	17-DEC-09 14:17	121709-1
	Chromium	1.0	+/-5	U	1.0	5.0	LIQ	P	17-DEC-09 14:17	121709-1
	Cobalt	1.0	+/-5	U	1.0	5.0	LIQ	P	17-DEC-09 14:17	121709-1
	Copper	3.0	+/-10	U	3.0	10.0	LIQ	P	17-DEC-09 14:17	121709-1
	Iron	30.0	+/-100	U	30.0	100	LIQ	P	17-DEC-09 14:17	121709-1
	Magnesium	-125.46	+/-300	J	85.0	300	LIQ	P	17-DEC-09 14:17	121709-1
	Nickel	1.5	+/-5	U	1.5	5.0	LIQ	P	17-DEC-09 14:17	121709-1
	Potassium	50.0	+/-150	U	50.0	150	LIQ	P	17-DEC-09 14:17	121709-1
	Selenium	5.0	+/-30	U	5.0	30.0	LIQ	P	17-DEC-09 14:17	121709-1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10–886–1

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Silicon	25.0	+/–100	U	25.0	100	LIQ	P	17–DEC–09 14:17	121709–1
	Silver	1.0	+/–5	U	1.0	5.0	LIQ	P	17–DEC–09 14:17	121709–1
	Sodium	100	+/–300	U	100	300	LIQ	P	17–DEC–09 14:17	121709–1
	Titanium	1.0	+/–5	U	1.0	5.0	LIQ	P	17–DEC–09 14:17	121709–1
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	17–DEC–09 14:17	121709–1
	Zinc	3.3	+/–10	U	3.3	10.0	LIQ	P	17–DEC–09 14:17	121709–1
	Antimony	1.0	+/–3	U	1.0	3.0	LIQ	MS	21–DEC–09 01:27	091220–2
	Cadmium	0.11	+/–1	U	0.11	1.0	LIQ	MS	21–DEC–09 01:27	091220–2
CCB06										
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	17–DEC–09 14:42	121709–1
	Arsenic	5.0	+/–30	U	5.0	30.0	LIQ	P	17–DEC–09 14:42	121709–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	17–DEC–09 14:42	121709–1
	Boron	15.0	+/–50	U	15.0	50.0	LIQ	P	17–DEC–09 14:42	121709–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	17–DEC–09 14:42	121709–1
	Chromium	1.0	+/–5	U	1.0	5.0	LIQ	P	17–DEC–09 14:42	121709–1
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	17–DEC–09 14:42	121709–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	17–DEC–09 14:42	121709–1
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	17–DEC–09 14:42	121709–1
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	17–DEC–09 14:42	121709–1
	Nickel	1.5	+/–5	U	1.5	5.0	LIQ	P	17–DEC–09 14:42	121709–1
	Potassium	50.0	+/–150	U	50.0	150	LIQ	P	17–DEC–09 14:42	121709–1
	Selenium	5.0	+/–30	U	5.0	30.0	LIQ	P	17–DEC–09 14:42	121709–1
	Silicon	25.0	+/–100	U	25.0	100	LIQ	P	17–DEC–09 14:42	121709–1
	Silver	1.0	+/–5	U	1.0	5.0	LIQ	P	17–DEC–09 14:42	121709–1
	Sodium	100	+/–300	U	100	300	LIQ	P	17–DEC–09 14:42	121709–1
	Titanium	1.0	+/–5	U	1.0	5.0	LIQ	P	17–DEC–09 14:42	121709–1
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	17–DEC–09 14:42	121709–1
	Zinc	3.3	+/–10	U	3.3	10.0	LIQ	P	17–DEC–09 14:42	121709–1
	Antimony	1.0	+/–3	U	1.0	3.0	LIQ	MS	21–DEC–09 02:04	091220–2
	Cadmium	0.11	+/–1	U	0.11	1.0	LIQ	MS	21–DEC–09 02:04	091220–2

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10–886–1

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
CCB07										
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	17–DEC–09 15:42	121709–1
	Arsenic	5.0	+/–30	U	5.0	30.0	LIQ	P	17–DEC–09 15:42	121709–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	17–DEC–09 15:42	121709–1
	Boron	15.0	+/–50	U	15.0	50.0	LIQ	P	17–DEC–09 15:42	121709–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	17–DEC–09 15:42	121709–1
	Chromium	1.0	+/–5	U	1.0	5.0	LIQ	P	17–DEC–09 15:42	121709–1
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	17–DEC–09 15:42	121709–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	17–DEC–09 15:42	121709–1
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	17–DEC–09 15:42	121709–1
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	17–DEC–09 15:42	121709–1
	Nickel	1.5	+/–5	U	1.5	5.0	LIQ	P	17–DEC–09 15:42	121709–1
	Potassium	50.0	+/–150	U	50.0	150	LIQ	P	17–DEC–09 15:42	121709–1
	Selenium	5.0	+/–30	U	5.0	30.0	LIQ	P	17–DEC–09 15:42	121709–1
	Silicon	25.0	+/–100	U	25.0	100	LIQ	P	17–DEC–09 15:42	121709–1
	Silver	1.0	+/–5	U	1.0	5.0	LIQ	P	17–DEC–09 15:42	121709–1
	Sodium	100	+/–300	U	100	300	LIQ	P	17–DEC–09 15:42	121709–1
	Titanium	1.0	+/–5	U	1.0	5.0	LIQ	P	17–DEC–09 15:42	121709–1
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	17–DEC–09 15:42	121709–1
	Zinc	3.3	+/–10	U	3.3	10.0	LIQ	P	17–DEC–09 15:42	121709–1
CCB08										
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	17–DEC–09 16:29	121709–1
	Arsenic	5.0	+/–30	U	5.0	30.0	LIQ	P	17–DEC–09 16:29	121709–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	17–DEC–09 16:29	121709–1
	Boron	15.0	+/–50	U	15.0	50.0	LIQ	P	17–DEC–09 16:29	121709–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	17–DEC–09 16:29	121709–1
	Chromium	1.0	+/–5	U	1.0	5.0	LIQ	P	17–DEC–09 16:29	121709–1
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	17–DEC–09 16:29	121709–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	17–DEC–09 16:29	121709–1
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	17–DEC–09 16:29	121709–1
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	17–DEC–09 16:29	121709–1
	Nickel	1.5	+/–5	U	1.5	5.0	LIQ	P	17–DEC–09 16:29	121709–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–886–1

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Potassium	50.0	+/–150	U	50.0	150	LIQ	P	17–DEC–09 16:29	121709–1
	Selenium	5.0	+/–30	U	5.0	30.0	LIQ	P	17–DEC–09 16:29	121709–1
	Silicon	25.0	+/–100	U	25.0	100	LIQ	P	17–DEC–09 16:29	121709–1
	Silver	1.0	+/–5	U	1.0	5.0	LIQ	P	17–DEC–09 16:29	121709–1
	Sodium	100	+/–300	U	100	300	LIQ	P	17–DEC–09 16:29	121709–1
	Titanium	1.0	+/–5	U	1.0	5.0	LIQ	P	17–DEC–09 16:29	121709–1
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	17–DEC–09 16:29	121709–1
	Zinc	3.3	+/–10	U	3.3	10.0	LIQ	P	17–DEC–09 16:29	121709–1
CCB09										
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	17–DEC–09 17:53	121709–1
	Arsenic	5.0	+/–30	U	5.0	30.0	LIQ	P	17–DEC–09 17:53	121709–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	17–DEC–09 17:53	121709–1
	Boron	15.0	+/–50	U	15.0	50.0	LIQ	P	17–DEC–09 17:53	121709–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	17–DEC–09 17:53	121709–1
	Chromium	1.0	+/–5	U	1.0	5.0	LIQ	P	17–DEC–09 17:53	121709–1
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	17–DEC–09 17:53	121709–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	17–DEC–09 17:53	121709–1
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	17–DEC–09 17:53	121709–1
	Magnesium	–106.83	+/–300	J	85.0	300	LIQ	P	17–DEC–09 17:53	121709–1
	Nickel	1.5	+/–5	U	1.5	5.0	LIQ	P	17–DEC–09 17:53	121709–1
	Potassium	50.0	+/–150	U	50.0	150	LIQ	P	17–DEC–09 17:53	121709–1
	Selenium	5.0	+/–30	U	5.0	30.0	LIQ	P	17–DEC–09 17:53	121709–1
	Silicon	25.0	+/–100	U	25.0	100	LIQ	P	17–DEC–09 17:53	121709–1
	Silver	1.0	+/–5	U	1.0	5.0	LIQ	P	17–DEC–09 17:53	121709–1
	Sodium	100	+/–300	U	100	300	LIQ	P	17–DEC–09 17:53	121709–1
	Titanium	1.0	+/–5	U	1.0	5.0	LIQ	P	17–DEC–09 17:53	121709–1
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	17–DEC–09 17:53	121709–1
	Zinc	3.3	+/–10	U	3.3	10.0	LIQ	P	17–DEC–09 17:53	121709–1
CCB10										
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	17–DEC–09 19:09	121709–1
	Arsenic	5.0	+/–30	U	5.0	30.0	LIQ	P	17–DEC–09 19:09	121709–1

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-886-1

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Barium	1.0	+/-5	U	1.0	5.0	LIQ	P	17-DEC-09 19:09	121709-1
	Boron	15.0	+/-50	U	15.0	50.0	LIQ	P	17-DEC-09 19:09	121709-1
	Calcium	50.0	+/-200	U	50.0	200	LIQ	P	17-DEC-09 19:09	121709-1
	Chromium	1.0	+/-5	U	1.0	5.0	LIQ	P	17-DEC-09 19:09	121709-1
	Cobalt	1.0	+/-5	U	1.0	5.0	LIQ	P	17-DEC-09 19:09	121709-1
	Copper	3.0	+/-10	U	3.0	10.0	LIQ	P	17-DEC-09 19:09	121709-1
	Iron	30.0	+/-100	U	30.0	100	LIQ	P	17-DEC-09 19:09	121709-1
	Magnesium	85.0	+/-300	U	85.0	300	LIQ	P	17-DEC-09 19:09	121709-1
	Nickel	1.5	+/-5	U	1.5	5.0	LIQ	P	17-DEC-09 19:09	121709-1
	Potassium	50.0	+/-150	U	50.0	150	LIQ	P	17-DEC-09 19:09	121709-1
	Selenium	5.0	+/-30	U	5.0	30.0	LIQ	P	17-DEC-09 19:09	121709-1
	Silicon	25.0	+/-100	U	25.0	100	LIQ	P	17-DEC-09 19:09	121709-1
	Silver	1.0	+/-5	U	1.0	5.0	LIQ	P	17-DEC-09 19:09	121709-1
	Sodium	100	+/-300	U	100	300	LIQ	P	17-DEC-09 19:09	121709-1
	Titanium	1.0	+/-5	U	1.0	5.0	LIQ	P	17-DEC-09 19:09	121709-1
	Vanadium	1.0	+/-5	U	1.0	5.0	LIQ	P	17-DEC-09 19:09	121709-1
	Zinc	3.3	+/-10	U	3.3	10.0	LIQ	P	17-DEC-09 19:09	121709-1

METALS
–3b–
PREPARATION BLANK SUMMARY

SDG NO. 10–886–1

Contract: LANL01004

Matrix: WATER

Sample ID	Analyte	Result	Units	Acceptance Window	Conc Qual	M	MDL	RDL
1201994203								
	Aluminum	68	ug/L	+/–200	U	P	68	200
	Arsenic	5	ug/L	+/–30.0	U	P	5	30
	Barium	1	ug/L	+/–5.0	U	P	1	5
	Boron	15	ug/L	+/–50.0	U	P	15	50
	Calcium	50	ug/L	+/–200	U	P	50	200
	Chromium	1	ug/L	+/–5.0	U	P	1	5
	Cobalt	1	ug/L	+/–5.0	U	P	1	5
	Copper	3	ug/L	+/–10.0	U	P	3	10
	Iron	30	ug/L	+/–100	U	P	30	100
	Magnesium	–128	ug/L	+/–300	J	P	85	300
	Nickel	1.5	ug/L	+/–5.0	U	P	1.5	5
	Potassium	50	ug/L	+/–150	U	P	50	150
	Selenium	5	ug/L	+/–30.0	U	P	5	30
	Silicon	25	ug/L	+/–100	U	P	25	100
	Silver	1	ug/L	+/–5.0	U	P	1	5
	Sodium	100	ug/L	+/–300	U	P	100	300
	Titanium	1	ug/L	+/–5.0	U	P	1	5
	Vanadium	1	ug/L	+/–5.0	U	P	1	5
	Zinc	3.3	ug/L	+/–10.0	U	P	3.3	10
1201994288								
	Antimony	1	ug/L	+/–3.0	U	MS	1	3
	Beryllium	0.1	ug/L	+/–0.5	U	MS	0.1	0.5
	Cadmium	0.11	ug/L	+/–1.0	U	MS	0.11	1
	Lead	0.5	ug/L	+/–2.0	U	MS	0.5	2
	Lithium	2	ug/L	+/–10.0	U	MS	2	10
	Manganese	1	ug/L	+/–5.0	U	MS	1	5
	Thallium	0.3	ug/L	+/–1.0	U	MS	0.3	1
	Uranium	0.05	ug/L	+/–0.2	U	MS	0.05	0.2
1202000160								
	Mercury	0.066	ug/L	+/–0.2	U	AV	0.066	0.2

METALS
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Interference Check Sample

SDG No: 10-886-1

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Aluminum	525000	ug/L	500000	ug/L	105	80.0 - 120.0	17-DEC-09 10:13	121709-1
	Arsenic	0.284	ug/L					17-DEC-09 10:13	121709-1
	Barium	1.48	ug/L					17-DEC-09 10:13	121709-1
	Boron	-9.84	ug/L					17-DEC-09 10:13	121709-1
	Calcium	490000	ug/L	500000	ug/L	97.9	80.0 - 120.0	17-DEC-09 10:13	121709-1
	Chromium	1.18	ug/L					17-DEC-09 10:13	121709-1
	Cobalt	-1.67	ug/L					17-DEC-09 10:13	121709-1
	Copper	0.4	ug/L					17-DEC-09 10:13	121709-1
	Iron	186000	ug/L	200000	ug/L	93.3	80.0 - 120.0	17-DEC-09 10:13	121709-1
	Magnesium	488000	ug/L	500000	ug/L	97.6	80.0 - 120.0	17-DEC-09 10:13	121709-1
	Nickel	3.29	ug/L					17-DEC-09 10:13	121709-1
	Potassium	-18.3	ug/L					17-DEC-09 10:13	121709-1
	Selenium	46.9	ug/L					17-DEC-09 10:13	121709-1
	Silicon	-3.79	ug/L					17-DEC-09 10:13	121709-1
	Silver	2.52	ug/L					17-DEC-09 10:13	121709-1
	Sodium	-13.4	ug/L					17-DEC-09 10:13	121709-1
	Titanium	0.785	ug/L					17-DEC-09 10:13	121709-1
	Vanadium	-2.03	ug/L					17-DEC-09 10:13	121709-1
	Zinc	-8.41	ug/L					17-DEC-09 10:13	121709-1
ICSAB01									
	Aluminum	519000	ug/L	500000	ug/L	104	80.0 - 120.0	17-DEC-09 10:19	121709-1
	Arsenic	498	ug/L	500	ug/L	99.5	80.0 - 120.0	17-DEC-09 10:19	121709-1
	Barium	482	ug/L	500	ug/L	96.4	80.0 - 120.0	17-DEC-09 10:19	121709-1
	Boron	499	ug/L	500	ug/L	99.9	80.0 - 120.0	17-DEC-09 10:19	121709-1
	Calcium	482000	ug/L	500000	ug/L	96.4	80.0 - 120.0	17-DEC-09 10:19	121709-1
	Chromium	463	ug/L	500	ug/L	92.6	80.0 - 120.0	17-DEC-09 10:19	121709-1
	Cobalt	433	ug/L	500	ug/L	86.6	80.0 - 120.0	17-DEC-09 10:19	121709-1
	Copper	536	ug/L	500	ug/L	107	80.0 - 120.0	17-DEC-09 10:19	121709-1
	Iron	186000	ug/L	200000	ug/L	92.8	80.0 - 120.0	17-DEC-09 10:19	121709-1

METALS
-4-
Interference Check Sample

SDG No: 10-886-1

Contract: LANL01004 **Lab Code:** GEL

ICS:

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
	Magnesium	488000	ug/L	500000	ug/L	97.6	80.0 – 120.0	17-DEC-09 10:19	121709-1
	Nickel	441	ug/L	500	ug/L	88.2	80.0 – 120.0	17-DEC-09 10:19	121709-1
	Potassium	5450	ug/L	5000	ug/L	109	80.0 – 120.0	17-DEC-09 10:19	121709-1
	Selenium	2590	ug/L	2500	ug/L	104	80.0 – 120.0	17-DEC-09 10:19	121709-1
	Silicon	5080	ug/L	5000	ug/L	102	80.0 – 120.0	17-DEC-09 10:19	121709-1
	Silver	269	ug/L	250	ug/L	108	80.0 – 120.0	17-DEC-09 10:19	121709-1
	Sodium	5410	ug/L	5000	ug/L	108	80.0 – 120.0	17-DEC-09 10:19	121709-1
	Titanium	500	ug/L	500	ug/L	100	80.0 – 120.0	17-DEC-09 10:19	121709-1
	Vanadium	495	ug/L	500	ug/L	98.9	80.0 – 120.0	17-DEC-09 10:19	121709-1
	Zinc	466	ug/L	500	ug/L	93.2	80.0 – 120.0	17-DEC-09 10:19	121709-1

METALS
-4-
Interference Check Sample

SDG No: 10-886-1

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: ICPMS5

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Antimony	0.063	ug/L					20-DEC-09 22:41	091220-2
	Cadmium	0.387	ug/L					20-DEC-09 22:41	091220-2
ICSAB01									
	Antimony	20.6	ug/L	20.1	ug/L	102	80.0 - 120.0	20-DEC-09 22:47	091220-2
	Cadmium	19.0	ug/L	20.4	ug/L	93	80.0 - 120.0	20-DEC-09 22:47	091220-2

METALS
–4–
Interference Check Sample

SDG No: 10–886–1

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: ICPMS5

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Beryllium	0.071	ug/L					22–DEC–09 02:46	091221–3
	Lead	0.168	ug/L					22–DEC–09 02:46	091221–3
	Manganese	6.43	ug/L					22–DEC–09 02:46	091221–3
ICSAB01									
	Beryllium	20.5	ug/L	20	ug/L	102	80.0 – 120.0	22–DEC–09 02:51	091221–3
	Lead	21.1	ug/L	20.5	ug/L	103	80.0 – 120.0	22–DEC–09 02:51	091221–3
	Manganese	28.5	ug/L	25.8	ug/L	111	80.0 – 120.0	22–DEC–09 02:51	091221–3

METALS
–4–
Interference Check Sample

SDG No: 10–886–1

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: ICPMS5

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Thallium	0.009	ug/L					22–DEC–09 21:23	091222–4
ICSAB01									
	Thallium	21.0	ug/L	20	ug/L	105	80.0 – 120.0	22–DEC–09 21:27	091222–4

METALS
-4-
Interference Check Sample

SDG No: 10-886-1

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: ICPMS5

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Lithium	0.131	ug/L					23-DEC-09 18:29	091223-5
	Uranium	-0.002	ug/L					23-DEC-09 18:29	091223-5
ICSAB01									
	Lithium	23.3	ug/L	20	ug/L	116	80.0 - 120.0	23-DEC-09 18:31	091223-5
	Uranium	21.6	ug/L	20	ug/L	108	80.0 - 120.0	23-DEC-09 18:31	091223-5

METALS
-5a-

Matrix Spike Summary

SDG NO. 10-886-1 **Client ID** RE03-10-2008S

Contract: LANL01004 **Level:** Low

Matrix: WATER **% Solids:**

Sample ID: 242751001 **Spike ID:** 1201994206

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Aluminum	ug/L	75-125	4960		68	U	5000	99		P
Arsenic	ug/L	75-125	498		5	U	500	99.5		P
Barium	ug/L	75-125	510		1	U	500	102		P
Boron	ug/L	75-125	489		15	U	500	97.2		P
Calcium	ug/L	75-125	5270		50	U	5000	105		P
Chromium	ug/L	75-125	497		1	U	500	99.2		P
Cobalt	ug/L	75-125	484		1	U	500	96.9		P
Copper	ug/L	75-125	504		3	U	500	101		P
Iron	ug/L	75-125	5590		30	U	5000	111		P
Magnesium	ug/L	75-125	5370		85	U	5000	107		P
Nickel	ug/L	75-125	491		1.5	U	500	98.3		P
Potassium	ug/L	75-125	5250		50	U	5000	105		P
Selenium	ug/L	75-125	514		5	U	500	102		P
Silicon	ug/L	75-125	7130		2300		5000	96.6		P
Silver	ug/L	75-125	497		1	U	500	99.4		P
Sodium	ug/L	75-125	5740		137	J	5000	112		P
Titanium	ug/L	75-125	507		1	U	500	101		P
Vanadium	ug/L	75-125	505		1	U	500	101		P
Zinc	ug/L	75-125	488		3.3	U	500	97.3		P

METALS
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Matrix Spike Summary

SDG NO. 10–886–1 **Client ID** RE03–10–3943S

Contract: LANL01004 **Level:** Low

Matrix: WATER **% Solids:**

Sample ID: 242751002 **Spike ID:** 1201994291

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Antimony	ug/L	75–125	202		1	U	200	101		MS
Beryllium	ug/L	75–125	57.6		0.1	U	50	115		MS
Cadmium	ug/L	75–125	10.4		0.11	U	10	104		MS
Lead	ug/L	75–125	44.9		0.5	U	40	112		MS
Lithium	ug/L	75–125	60.3		2	U	50	120		MS
Manganese	ug/L	75–125	56.2		1	U	50	112		MS
Thallium	ug/L	75–125	91.8		0.3	U	100	91.7		MS
Uranium	ug/L	75–125	56		0.05	U	50	112		MS

METALS
–5a–
Matrix Spike Summary

SDG NO. 10–886–1 **Client ID** RE16–10–225S

Contract: LANL01004 **Level:** Low

Matrix: WATER **% Solids:**

Sample ID: 243108001 **Spike ID:** 1202000163

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Mercury	ug/L	75–125	2.07		0.066	U	2	104		AV

Metals
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Duplicate Sample Summary

SDG No.: 10–886–1

Contract: LANL01004 **Lab Code:** GEL

Matrix: LIQUID **Level:** Low **Client ID:** RE03–10–2008D

Sample ID: 242751001 **Duplicate ID:** 1201994205 **Percent Solids for Dup:** N/A

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	ug/L		68	U	68	U			P
Arsenic	ug/L		5	U	5	U			P
Barium	ug/L		1	U	1	U			P
Boron	ug/L		15	U	15	U			P
Calcium	ug/L		50	U	50	U			P
Chromium	ug/L		1	U	1	U			P
Cobalt	ug/L		1	U	1	U			P
Copper	ug/L		3	U	3	U			P
Iron	ug/L		30	U	30	U			P
Magnesium	ug/L		85	U	85	U			P
Nickel	ug/L		1.5	U	1.5	U			P
Potassium	ug/L		50	U	50	U			P
Selenium	ug/L		5	U	8.05	J	200		P
Silicon	ug/L	+/–20%	2300		2160		6.56		P
Silver	ug/L		1	U	1	U			P
Sodium	ug/L	+/–300	137	J	136	J	.147		P
Titanium	ug/L		1	U	1	U			P
Vanadium	ug/L		1	U	1	U			P
Zinc	ug/L		3.3	U	3.3	U			P

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–886–1

Contract: LANL01004 **Lab Code:** GEL

Matrix: LIQUID **Level:** Low **Client ID:** RE03–10–3943D

Sample ID: 242751002 **Duplicate ID:** 1201994290 **Percent Solids for Dup:** N/A

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Antimony	ug/L		1	U	1	U			MS
Beryllium	ug/L		0.1	U	0.1	U			MS
Cadmium	ug/L		0.11	U	0.11	U			MS
Lead	ug/L		0.5	U	0.5	U			MS
Lithium	ug/L		2	U	2	U			MS
Manganese	ug/L		1	U	1	U			MS
Thallium	ug/L		0.3	U	0.3	U			MS
Uranium	ug/L		0.05	U	0.05	U			MS

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–886–1

Contract: LANL01004 **Lab Code:** GEL

Matrix: LIQUID **Level:** Low **Client ID:** RE16–10–225D

Sample ID: 243108001 **Duplicate ID:** 1202000162 **Percent Solids for Dup:** N/A

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Mercury	ug/L		0.066	U	0.066	U			AV

METALS
-7-
Laboratory Control Sample Summary

SDG NO. 10-886-1

Contract: LANL01004

Aqueous LCS Source: OS2I **Solid LCS Source:**

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1201994204								
	Aluminum	ug/L	5000	4990		99.8	80-120	P
	Arsenic	ug/L	500	504		101	80-120	P
	Barium	ug/L	500	512		102	80-120	P
	Boron	ug/L	500	489		97.8	80-120	P
	Calcium	ug/L	5000	5300		106	80-120	P
	Chromium	ug/L	500	499		99.8	80-120	P
	Cobalt	ug/L	500	491		98.2	80-120	P
	Copper	ug/L	500	506		101	80-120	P
	Iron	ug/L	5000	5470		109	80-120	P
	Magnesium	ug/L	5000	5330		107	80-120	P
	Nickel	ug/L	500	500		99.9	80-120	P
	Potassium	ug/L	5000	5240		105	80-120	P
	Selenium	ug/L	500	517		103	80-120	P
	Silicon	ug/L	5000	4920		98.4	80-120	P
	Silver	ug/L	500	498		99.6	80-120	P
	Sodium	ug/L	5000	5550		111	80-120	P
	Titanium	ug/L	500	510		102	80-120	P
	Vanadium	ug/L	500	508		102	80-120	P
	Zinc	ug/L	500	491		98.2	80-120	P

METALS
-7-
Laboratory Control Sample Summary

SDG NO. 10-886-1

Contract: LANL01004

Aqueous LCS Source: O2si **Solid LCS Source:**

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1201994289								
	Antimony	ug/L	50	51.2		102	80-120	MS
	Beryllium	ug/L	50	56.3		113	80-120	MS
	Cadmium	ug/L	50	48.8		97.6	80-120	MS
	Lead	ug/L	50	54.2		108	80-120	MS
	Lithium	ug/L	50	57.4		115	80-120	MS
	Manganese	ug/L	50	53.4		107	80-120	MS
	Thallium	ug/L	50	48.7		97.4	80-120	MS
	Uranium	ug/L	50	55.7		111	80-120	MS

METALS
-7-
Laboratory Control Sample Summary

SDG NO. 10-886-1

Contract: LANL01004

Aqueous LCS Source: GEL **Solid LCS Source:**

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202000161								
	Mercury	ug/L	2	2.02		101	80-120	AV

METALS
-9-
Serial Dilution Sample Summary

SDG NO. 10-886-1 **Client ID:** RE03-10-2008L

Contract: LANL01004

Matrix: LIQUID **Level:** Low

Sample ID: 242751001 **Serial Dilution ID:** 1201994207

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Aluminum	68	U	340	U				P
Arsenic	5	U	25	U				P
Barium	1	U	5	U				P
Boron	15	U	75	U				P
Calcium	50	U	250	U				P
Chromium	1	U	5	U				P
Cobalt	1	U	5	U				P
Copper	3	U	15	U				P
Iron	30	U	150	U				P
Magnesium	85	U	425	U				P
Nickel	1.5	U	7.5	U				P
Potassium	50	U	250	U				P
Selenium	5	U	25	U				P
Silicon	2300		2220		3.7		10	P
Silver	1	U	5	U				P
Sodium	137	J	500	U	100			P
Titanium	1	U	5	U				P
Vanadium	1	U	5	U				P
Zinc	3.3	U	16.5	U				P

METALS
-9-
Serial Dilution Sample Summary

SDG NO. 10-886-1 **Client ID** RE03-10-3943L

Contract: LANL01004

Matrix: LIQUID **Level:** Low

Sample ID: 242751002 **Serial Dilution ID:** 1201994292

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Antimony	1	U	5	U				MS
Beryllium	.1	U	.895	J				MS
Cadmium	.11	U	.55	U				MS
Lead	.5	U	2.5	U				MS
Lithium	2	U	10	U				MS
Manganese	1	U	5	U				MS
Thallium	.3	U	3.39	J				MS
Uranium	.05	U	.25	U				MS

METALS
-9-
Serial Dilution Sample Summary

SDG NO. 10-886-1 **Client ID:** RE16-10-225L

Contract: LANL01004

Matrix: LIQUID **Level:** Low

Sample ID: 243108001 **Serial Dilution ID:** 1202000164

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Mercury	.066	U	.33	U				AV

METALS
–13–
SAMPLE PREPARATION SUMMARY

SDG No: 10–886–1 **Method Type:** P

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number 932267							
1201994203	MB for batch 932267	MB	W	15–DEC–09	50mL	50mL	
1201994204	LCS for batch 932267	LCS	W	15–DEC–09	50mL	50mL	
1201994206	RE03–10–2008S	MS	W	15–DEC–09	50mL	50mL	
1201994205	RE03–10–2008D	DUP	W	15–DEC–09	50mL	50mL	
242751001	RE03–10–2008	SAMPLE	W	15–DEC–09	50mL	50mL	
242751002	RE03–10–3943	SAMPLE	W	15–DEC–09	50mL	50mL	

METALS
-13-
SAMPLE PREPARATION SUMMARY

SDG No: 10-886-1 **Method Type:** MS

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number 932309							
1201994288	MB for batch 932309	MB	W	15-DEC-09	50mL	50mL	
1201994289	LCS for batch 932309	LCS	W	15-DEC-09	50mL	50mL	
1201994291	RE03-10-3943S	MS	W	15-DEC-09	50mL	50mL	
1201994290	RE03-10-3943D	DUP	W	15-DEC-09	50mL	50mL	
242751001	RE03-10-2008	SAMPLE	W	15-DEC-09	50mL	50mL	
242751002	RE03-10-3943	SAMPLE	W	15-DEC-09	50mL	50mL	

METALS
-13-
SAMPLE PREPARATION SUMMARY

SDG No: 10-886-1 **Method Type:** AV

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number	934863						
1202000160	MB for batch 934863	MB	W	22-DEC-09	20mL	20mL	
1202000161	LCS for batch 934863	LCS	W	22-DEC-09	20mL	20mL	
1202000163	RE16-10-225S	MS	W	22-DEC-09	20mL	20mL	
1202000162	RE16-10-225D	DUP	W	22-DEC-09	20mL	20mL	
242751001	RE03-10-2008	SAMPLE	W	22-DEC-09	20mL	20mL	
242751002	RE03-10-3943	SAMPLE	W	22-DEC-09	20mL	20mL	

Metals
–14–
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: ICPMS5
Start Date: 20–DEC–09 **End Date:** 21–DEC–09

Client Sdg: 10–886–1
Method MS
Data File: 091220–2

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Li	Mg	Mn	Hg	Ni	K	Se	Si	Ag	Na	Tl	Ti	U	V	Zn
S0.0	1	22:04		X					X																					
S10	1	22:10		X					X																					
S100	1	22:16		X					X																					
ICV01	1	22:23		X					X																					
ICB01	1	22:29		X					X																					
CRDL01	1	22:35		X					X																					
ICSA01	1	22:41		X					X																					
ICSAB01	1	22:47		X					X																					
CCV01	1	22:53		X					X																					
CCB01	1	22:59		X					X																					
LR01	1	23:05		X					X																					
CCV02	1	23:11		X					X																					
CCB02	1	23:18		X					X																					
ZZZZZZ	2	23:24																												
ZZZZZZ	40	23:30																												
ZZZZZZ	2	23:36																												
ZZZZZZ	2	23:42																												
ZZZZZZ	2	23:48																												
ZZZZZZ	2	23:55																												
ZZZZZZ	10	00:01																												
CCV03	1	00:07		X					X																					
CCB03	1	00:13		X					X																					
ZZZZZZ	2	00:19																												
ZZZZZZ	2	00:25																												
ZZZZZZ	2	00:32																												
CCV04	1	00:38		X					X																					
CCB04	1	00:44		X					X																					
1201994288	1	00:50		X					X																					
1201994289	1	00:56		X					X																					
ZZZZZZ	1	01:03																												
ZZZZZZ	1	01:09																												
242751001	1	01:15		X					X																					
CCV05	1	01:21		X					X																					
CCB05	1	01:27		X					X																					
242751002	1	01:33		X					X																					
1201994290	1	01:40		X					X																					
1201994291	1	01:46		X					X																					
1201994292	5	01:52		X					X																					
CCV06	1	01:58		X					X																					
CCB06	1	02:04		X					X																					

Metals
-14-
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: ICPMS5
Start Date: 22-DEC-09 **End Date:** 22-DEC-09

Client Sdg: 10-886-1
Method MS
Data File: 091221-3

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Li	Mg	Mn	Hg	Ni	K	Se	Si	Ag	Na	Tl	Ti	U	V	Zn
S0.0	1	02:17					X								X			X												
S10	1	02:22					X								X			X												
S100	1	02:27					X								X			X												
ICV01	1	02:32					X								X			X												
ICB01	1	02:37					X								X			X												
CRDL01	1	02:41					X								X			X												
ICSA01	1	02:46					X								X			X												
ICSAB01	1	02:51					X								X			X												
CCV01	1	02:56					X								X			X												
CCB01	1	03:01					X								X			X												
LR01	1	03:06					X								X			X												
CCV02	1	03:11					X								X			X												
CCB02	1	03:16					X								X			X												
1201994288	1	03:21					X								X			X												
1201994289	1	03:26					X								X			X												
ZZZZZZ	1	03:31																												
ZZZZZZ	1	03:36																												
242751001	1	03:41					X								X			X												
CCV03	1	03:46					X								X			X												
CCB03	1	03:51					X								X			X												
242751002	1	03:56					X								X			X												
1201994290	1	04:01					X								X			X												
1201994291	1	04:06					X								X			X												
1201994292	5	04:11					X								X			X												
CCV04	1	04:15					X								X			X												
CCB04	1	04:20					X								X			X												

Metals
–14–
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: ICPMS5
Start Date: 22–DEC–09 **End Date:** 22–DEC–09

Client Sdg: 10–886–1
Method MS
Data File: 091222–4

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Li	Mg	Mn	Hg	Ni	K	Se	Si	Ag	Na	Tl	Ti	U	V	Zn
S0.0	1	20:55																								X				
S10	1	21:00																								X				
S100	1	21:04																								X				
ICV01	1	21:09																								X				
ICB01	1	21:14																								X				
CRDL01	1	21:18																								X				
ICSA01	1	21:23																								X				
ICSAB01	1	21:27																								X				
CCV01	1	21:32																								X				
CCB01	1	21:37																								X				
LR01	1	21:41																								X				
CCV02	1	21:46																								X				
CCB02	1	21:51																								X				
1201994288	1	21:55																								X				
1201994289	1	22:00																								X				
ZZZZZZ	1	22:05																												
ZZZZZZ	1	22:10																												
242751001	1	22:14																								X				
CCV03	1	22:19																								X				
CCB03	1	22:24																								X				
242751002	1	22:28																								X				
1201994290	1	22:33																								X				
1201994291	1	22:38																								X				
1201994292	5	22:43																								X				
CCV04	1	22:47																								X				
CCB04	1	22:52																								X				

Metals
–14–
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: ICPMS5
Start Date: 23–DEC–09 **End Date:** 23–DEC–09

Client Sdg: 10–886–1
Method MS
Data File: 091223–5

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Li	Mg	Mn	Hg	Ni	K	Se	Si	Ag	Na	Tl	Ti	U	V	Zn
S0.0	1	18:15														X												X		
S10	1	18:18														X												X		
S100	1	18:20														X												X		
ICV01	1	18:22														X												X		
ICB01	1	18:24														X												X		
CRDL01	1	18:27														X												X		
ICSA01	1	18:29														X												X		
ICSAB01	1	18:31														X												X		
CCV01	1	18:33														X												X		
CCB01	1	18:36														X												X		
1201994288	1	18:38														X												X		
1201994289	1	18:40														X												X		
ZZZZZZ	1	18:42																												
ZZZZZZ	1	18:45																												
CCV02	1	18:47														X												X		
CCB02	1	18:49														X												X		
242751001	1	18:51														X												X		
242751002	1	18:54														X												X		
1201994290	1	18:56														X												X		
1201994291	1	18:58														X												X		
1201994292	5	19:01														X												X		
CCV03	1	19:03														X												X		
CCB03	1	19:05														X												X		

Metals
–14–
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: OPTIMA3
Start Date: 17–DEC–09 **End Date:** 17–DEC–09

Client Sdg: 10–886–1
Method P
Data File: 121709–1

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Li	Mg	Mn	Hg	Ni	K	Se	Si	Ag	Na	Tl	Ti	U	V	Zn
S0.0	1	09:20	X		X	X		X		X	X	X	X	X			X			X	X	X	X	X	X		X		X	X
S0.1	1	09:26			X	X		X			X	X	X							X	X	X	X	X			X		X	X
S0.5	1	09:32	X		X	X		X		X	X	X	X				X			X	X	X	X	X			X		X	X
SCAL	1	09:40	X		X	X		X		X	X	X	X	X			X			X	X	X	X	X	X		X		X	X
S10	1	09:47	X							X				X			X								X					
ICV01	1	09:52	X		X	X		X		X	X	X	X	X			X			X	X	X	X	X	X		X		X	X
ICB01	1	09:59	X		X	X		X		X	X	X	X	X			X			X	X	X	X	X	X		X		X	X
PQL01	1	10:06	X		X	X		X		X	X	X	X	X			X			X	X	X	X	X	X		X		X	X
ICSA01	1	10:13	X		X	X		X		X	X	X	X	X			X			X	X	X	X	X	X		X		X	X
ICSAB01	1	10:19	X		X	X		X		X	X	X	X	X			X			X	X	X	X	X	X		X		X	X
LR01	1	10:24	X		X	X		X		X	X	X	X	X			X			X	X	X	X	X	X		X		X	X
LR02	1	10:31	X		X	X		X		X	X	X	X	X			X			X	X	X	X	X	X		X		X	X
CCV01	1	10:37	X		X	X		X		X	X	X	X	X			X			X	X	X	X	X	X		X		X	X
CCB01	1	10:44	X		X	X		X		X	X	X	X	X			X			X	X	X	X	X	X		X		X	X
LR03	1	10:56	X		X	X		X		X	X	X	X	X			X			X	X	X	X	X	X		X		X	X
LR04	1	11:03	X		X	X		X		X	X	X	X	X			X			X	X	X	X	X	X		X		X	X
CCV02	1	11:10	X		X	X		X		X	X	X	X	X			X			X	X	X	X	X	X		X		X	X
CCB02	1	11:17	X		X	X		X		X	X	X	X	X			X			X	X	X	X	X	X		X		X	X
ZZZZZZ	1	11:24																												
ZZZZZZ	1	11:31																												
ZZZZZZ	1	11:38																												
ZZZZZZ	1	11:45																												
ZZZZZZ	1	11:52																												
ZZZZZZ	1	11:59																												
ZZZZZZ	1	12:06																												
CCV03	1	12:13	X		X	X		X		X	X	X	X	X			X			X	X	X	X	X	X		X		X	X
CCB03	1	12:20	X		X	X		X		X	X	X	X	X			X			X	X	X	X	X	X		X		X	X
ZZZZZZ	1	12:27																												
ZZZZZZ	1	12:34																												
ZZZZZZ	1	12:40																												
ZZZZZZ	1	12:47																												
ZZZZZZ	1	12:55																												
ZZZZZZ	1	13:01																												
ZZZZZZ	5	13:07																												
CCV04	1	13:14	X		X	X		X		X	X	X	X	X			X			X	X	X	X	X	X		X		X	X
CCB04	1	13:21	X		X	X		X		X	X	X	X	X			X			X	X	X	X	X	X		X		X	X
ZZZZZZ	1	13:28																												
ZZZZZZ	1	13:35																												
ZZZZZZ	1	13:42																												
ZZZZZZ	1	13:49																												

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time																												
ZZZZZZ	1	13:56																												
ZZZZZZ	1	14:03																												
CCV05	1	14:10	X		X	X		X		X	X	X	X	X			X			X	X	X	X	X	X		X		X	X
CCB05	1	14:17	X		X	X		X		X	X	X	X	X			X			X	X	X	X	X	X		X		X	X
CCV06	1	14:35	X		X	X		X		X	X	X	X	X			X			X	X	X	X	X	X		X		X	X
CCB06	1	14:42	X		X	X		X		X	X	X	X	X			X			X	X	X	X	X	X		X		X	X
ZZZZZZ	20	14:49																												
ZZZZZZ	50	14:56																												
ZZZZZZ	5	15:03																												
ZZZZZZ	10	15:09																												
ZZZZZZ	1	15:16																												
ZZZZZZ	1	15:23																												
ZZZZZZ	1	15:29																												
CCV07	1	15:35	X		X	X		X		X	X	X	X	X			X			X	X	X	X	X	X		X		X	X
CCB07	1	15:42	X		X	X		X		X	X	X	X	X			X			X	X	X	X	X	X		X		X	X
ZZZZZZ	5	15:49																												
ZZZZZZ	5	15:55																												
ZZZZZZ	5	16:02																												
ZZZZZZ	25	16:09																												
ZZZZZZ	5	16:16																												
CCV08	1	16:22	X		X	X		X		X	X	X	X	X			X			X	X	X	X	X	X		X		X	X
CCB08	1	16:29	X		X	X		X		X	X	X	X	X			X			X	X	X	X	X	X		X		X	X
ZZZZZZ	1	16:36																												
ZZZZZZ	1	16:43																												
ZZZZZZ	1	16:49																												
ZZZZZZ	1	16:57																												
ZZZZZZ	1	17:04																												
ZZZZZZ	1	17:10																												
ZZZZZZ	5	17:17																												
ZZZZZZ	1	17:24																												
ZZZZZZ	1	17:32																												
ZZZZZZ	1	17:39																												
CCV09	1	17:46	X		X	X		X		X	X	X	X	X			X			X	X	X	X	X	X		X		X	X
CCB09	1	17:53	X		X	X		X		X	X	X	X	X			X			X	X	X	X	X	X		X		X	X
1201994203	1	17:59	X		X	X		X		X	X	X	X	X			X			X	X	X	X	X	X		X		X	X
1201994204	1	18:06	X		X	X		X		X	X	X	X	X			X			X	X	X	X	X	X		X		X	X
ZZZZZZ	1	18:13																												
ZZZZZZ	1	18:20																												
242751001	1	18:27	X		X	X		X		X	X	X	X	X			X			X	X	X	X	X	X		X		X	X
1201994205	1	18:34	X		X	X		X		X	X	X	X	X			X			X	X	X	X	X	X		X		X	X

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Li	Mg	Mn	Hg	Ni	K	Se	Si	Ag	Na	Tl	Ti	U	V	Zn
1201994206	1	18:41	X		X	X		X		X	X	X	X	X			X			X	X	X	X	X	X		X		X	X
1201994207	5	18:48	X		X	X		X		X	X	X	X	X			X			X	X	X	X	X	X		X		X	X
242751002	1	18:55	X		X	X		X		X	X	X	X	X			X			X	X	X	X	X	X		X		X	X
CCV10	1	19:02	X		X	X		X		X	X	X	X	X			X			X	X	X	X	X	X		X		X	X
CCB10	1	19:09	X		X	X		X		X	X	X	X	X			X			X	X	X	X	X	X		X		X	X

Metals
-14-
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: MER536
Start Date: 23-DEC-09 **End Date:** 23-DEC-09

Client Sdg: 10-886-1
Method AV
Data File: 122309W1-6

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Li	Mg	Mn	Hg	Ni	K	Se	Sl	Ag	Na	Tl	Ti	U	V	Zn
S0.0	1	08:17																	X											
S0.2	1	08:19																	X											
S0.5	1	08:20																	X											
S2.0	1	08:22																	X											
S5.0	1	08:24																	X											
S10	1	08:26																	X											
ICV01	1	08:29																	X											
ICB01	1	08:30																	X											
CRDL01	1	08:32																	X											
CCV01	1	08:34																	X											
CCB01	1	08:36																	X											
1202000160	1	08:38																	X											
1202000161	1	08:40																	X											
242751001	1	08:42																	X											
242751002	1	08:44																	X											
ZZZZZZ	1	08:47																												
ZZZZZZ	1	08:49																												
ZZZZZZ	1	08:50																												
ZZZZZZ	1	08:52																												
ZZZZZZ	1	08:54																												
ZZZZZZ	1	08:56																												
CCV02	1	08:58																	X											
CCB02	1	09:00																	X											
1202000162	1	09:02																	X											
1202000163	1	09:04																	X											
1202000164	~~1~~ 5	09:06																	X											
ZZZZZZ	1	09:08																												
ZZZZZZ	1	09:10																												
ZZZZZZ	1	09:12																												
ZZZZZZ	1	09:14																												
ZZZZZZ	1	09:16																												
ZZZZZZ	1	09:18																												
ZZZZZZ	5	09:20																												
CCV03	1	09:22																	X											
CCB03	1	09:24																	X											

Standards

METALS
–10–
Instrument Detection Limits

SDG NO. 10–886–1

Contract: LANL01004 **Lab Code: GEL** **MDL Effective Date:** 01–JUL–09

ICP/MS	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
LIQUID	Aluminum		15.0	30
	Antimony		1.0	3
	Arsenic		1.6	5
	Barium		0.6	2
	Beryllium		0.1	.5
	Boron		4.0	15
	Cadmium		0.11	1
	Calcium		65.0	200
	Chromium		2.0	10
	Cobalt		0.1	1
	Copper		0.33	1
	Iron		33.0	100
	Lead		0.5	2
	Lithium		2.0	10
	Magnesium		5.2	15
	Manganese		1.0	5
	Nickel		0.5	2
	Potassium		80.0	300
	Selenium		1.0	5
	Silver		0.2	1
	Sodium		80.0	250
	Thallium		0.3	1
	Titanium		2.0	10
	Uranium		0.05	.2
	Vanadium		3.0	10
	Zinc		3.0	10

METALS
–10–
Instrument Detection Limits

SDG NO. 10–886–1

Contract: LANL01004 **Lab Code: GEL** **MDL Effective Date:** 01–JUL–09

MERCURY	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
LIQUID	Mercury		0.066	.2

METALS
-10-
Instrument Detection Limits

SDG NO. 10-886-1

Contract: LANL01004 **Lab Code: GEL** **MDL Effective Date:** 01-JUL-09

ICP	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
LIQUID	Aluminum	396.153	68.0	200
	Antimony	206.836	3.0	10
	Arsenic	188.979	5.0	30
	Barium	233.527	1.0	5
	Beryllium	313.107	1.0	5
	Boron	249.677	15.0	50
	Cadmium	226.502	1.0	5
	Calcium	317.933	50.0	200
	Chromium	267.716	1.0	5
	Cobalt	228.616	1.0	5
	Copper	324.752	3.0	10
	Iron	238.204	30.0	100
	Lead	220.353	3.3	10
	Magnesium	279.077	85.0	300
	Manganese	257.61	2.0	10
	Nickel	231.604	1.5	5
	Potassium	766.49	50.0	150
	Selenium	196.026	5.0	30
	Silicon	251.611	25.0	100
	Silver	328.068	1.0	5
	Sodium	589.592	100	300
	Thallium	190.801	5.0	20
	Titanium	334.94	1.0	5
	Uranium	409.014	10.0	50
	Vanadium	292.402	1.0	5
	Zinc	213.857	3.3	10

METALS
-11-
Interelement Correction Factors

Lab Code: GEL | GEL Job No: 10-886-1

Contract: LANL01004

Instrument: OPTIMA3 | Effective Dates: 01-NOV-09

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Parmname	Wavelength	Aluminum	Antimony	Arsenic	Barium	Beryllium
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.02738	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	-0.44940	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	-0.22121	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	-0.33886	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	-0.13648	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	-0.05571	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.19671	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	-0.02739	0.00000	0.00000	0.00000	0.00000
Tin	189.927	-0.00058	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	0.00000

METALS
–11–
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA3
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10–886–1
Effective Dates: 01–NOV–09

Parmname	Wavelength	Boron	Cadmium	Chromium	Cobalt	Copper
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	24.5549	0.00000	0.00000
Arsenic	188.979	0.52529	0.00000	–0.67113	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	2.54031	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.38952	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	–31.5465	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	0.78023
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.63859	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	160.41
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	5.22870	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.35099	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	1.93161	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.39273	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	1.19810

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA3
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-886-1
Effective Dates: 01-NOV-09

Parmname	Wavelength	Iron	Lead	Magnesium	Manganese	Molybdenum
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	42.8126
Antimony	206.836	-0.01635	0.00000	0.00000	0.00000	-22.2146
Arsenic	188.979	-0.21271	0.00000	0.00000	0.00000	1.34645
Barium	233.527	-0.03709	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.13266	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.09998	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	-0.01788	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.01425	0.00000	0.00000	0.00000	-2.64232
Copper	324.752	-0.05101	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.09069	0.00000	0.00000	0.00000	-2.44485
Magnesium	279.077	0.85543	0.00000	0.00000	0.00000	-20.2401
Manganese	257.61	-0.09972	0.00000	0.01862	0.00000	0.00000
Molybdenum	202.031	-0.07094	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.80633	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	-0.03176	0.00000	0.01823	12.4291	-3.60863
Selenium	196.026	-3.00009	0.00000	0.00000	0.00000	-3.17982
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	17.4444
Silver	328.068	-0.31825	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	-5.85948	0.00000
Tin	189.927	-0.01337	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.12581	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.15211	0.00000	-0.02256	0.00000	-14.2921
Zinc	213.857	0.09548	0.00000	0.03423	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
GEL Job No: 10-886-1
Contract: LANL01004
Instrument: OPTIMA3
Effective Dates: 01-NOV-09
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Parmname	Wavelength	Nickel	Phosphorous	Potassium	Selenium	Silicon
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	-0.64279	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	0.44040	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.33191	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	6.38465	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA3
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-886-1
Effective Dates: 01-NOV-09

Parmname	Wavelength	Silver	Strontium	Sulfur	Thallium	Tin
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	0.00000	-17.4077
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	-13.8713
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	3.10491
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA3
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-886-1
Effective Dates: 01-NOV-09

Parmname	Wavelength	Titanium	Uranium	Vanadium	Zinc
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	2.73145	0.00000	-2.31857	0.00000
Arsenic	188.979	-8.38419	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	-2.24883	0.00000
Beryllium	313.107	-1.96555	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.32181	-1.76281	0.00000
Cobalt	228.616	2.12623	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.85359	-3.92851	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	-7.67419	0.00000	2.18873	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.44145	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	1.10141	-1.94183	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000

METALS
–12–
Linear Ranges

SDG NO. 10–886–1

Contract: LANL01004 **Lab Code: GEL**

Instrument ID ICPMS5

Analyte	Integration Time (msec)	LDR	Units	Effective Date
Aluminum	1	50000	ug/L	01–NOV–09
Antimony	1000	250	ug/L	01–NOV–09
Arsenic	1000	1000	ug/L	01–NOV–09
Barium	1000	1000	ug/L	01–NOV–09
Beryllium	1000	1000	ug/L	01–NOV–09
Boron	1000	200	ug/L	01–NOV–09
Calcium	500	50000	ug/L	01–NOV–09
Chromium	1000	1000	ug/L	01–NOV–09
Cobalt	1000	1000	ug/L	01–NOV–09
Copper	1000	1000	ug/L	01–NOV–09
Iron	500	50000	ug/L	01–NOV–09
Lead	1000	5000	ug/L	01–NOV–09
Lithium	1000	1000	ug/L	01–NOV–09
Magnesium	1	50000	ug/L	01–NOV–09
Manganese	1000	1000	ug/L	01–NOV–09
Nickel	1000	1000	ug/L	01–NOV–09
Potassium	1	50000	ug/L	01–NOV–09
Selenium	1000	500	ug/L	01–NOV–09
Silver	1000	250	ug/L	01–NOV–09
Sodium	1	50000	ug/L	01–NOV–09
Thallium	1000	500	ug/L	01–NOV–09
Titanium	1000	100	ug/L	01–NOV–09
Uranium	1000	5000	ug/L	01–NOV–09
Vanadium	1000	100	ug/L	01–NOV–09
Zinc	1000	2500	ug/L	01–NOV–09
Cadmium	1000	1000	ug/L	01–NOV–09

METALS
-12-
Linear Ranges

SDG NO. 10-886-1

Contract: LANL01004 **Lab Code: GEL**

Instrument ID OPTIMA3

Analyte	Integration Time (sec)	LDR	Units	Effective Date
Aluminum	20	500000	ug/L	01-NOV-09
Antimony	20	10000	ug/L	01-NOV-09
Arsenic	20	10000	ug/L	01-NOV-09
Barium	20	15000	ug/L	01-NOV-09
Beryllium	20	3000	ug/L	01-NOV-09
Boron	20	5000	ug/L	01-NOV-09
Cadmium	20	10000	ug/L	01-NOV-09
Calcium	20	500000	ug/L	01-NOV-09
Chromium	20	25000	ug/L	01-NOV-09
Cobalt	20	10000	ug/L	01-NOV-09
Copper	20	20000	ug/L	01-NOV-09
Iron	20	500000	ug/L	01-NOV-09
Lead	20	25000	ug/L	01-NOV-09
Magnesium	20	500000	ug/L	01-NOV-09
Manganese	20	10000	ug/L	01-NOV-09
Nickel	20	10000	ug/L	01-NOV-09
Potassium	20	300000	ug/L	01-NOV-09
Selenium	20	10000	ug/L	01-NOV-09
Silicon	20	50000	ug/L	01-NOV-09
Silver	20	1000	ug/L	01-NOV-09
Sodium	20	500000	ug/L	01-NOV-09
Thallium	20	10000	ug/L	01-NOV-09
Titanium	20	10000	ug/L	01-NOV-09
Uranium	20	15000	ug/L	01-NOV-09
Vanadium	20	10000	ug/L	01-NOV-09
Zinc	20	15000	ug/L	01-NOV-09

Raw Data

Method: Hg_ReAlign
Result: 122909

Sample ID: Hg_ReAlign

Hg 253.652

Rep: 1

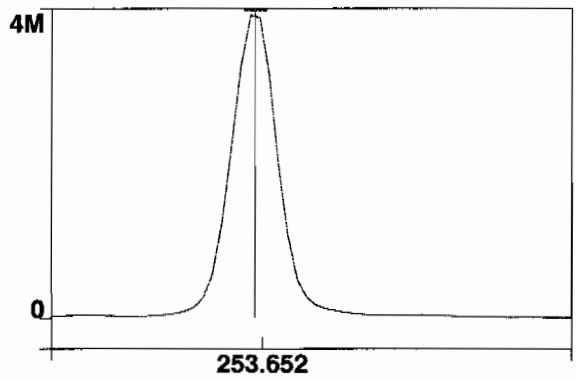

Intensity: 3478216.7 cps
Conc:

1

==========
12/17/2009 09:17:33 Hg ReAlign... Actual peak offset (nm): -0.009
Drift (nm): 0.000 Slit adjustment: -4
==========

==========
Analysis Begun

Start Time: 12/17/2009 09:20:07 **Plasma On Time: 12/14/2009 06:02:42**
Logged In Analyst: Optima3 **Technique: ICP Continuous**
Spectrometer Model: Optima 5300 DV, S/N 077C7090601Autosampler Model: S10

Sample Information File: C:\pe\Optima3\Sample Information\121709.sif
Batch ID:
Results Data Set: 121709
Results Library: C:\pe\Optima3\Results\Results.mdb

==========
Method Loaded
Method Name: General Eng.2AX **Method Last Saved: 12/16/2009 13:12:14**
IEC File: 101209.iec **MSF File:**
Method Description:

Analyte	Calibration Equation	Processing	View	Internal Standard	IEC
Ag 328.068	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Al 396.153Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
As 188.979	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
B 249.677	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ba 233.527	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Be 313.107	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ca 317.933Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	No
Cd 226.502	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Co 228.616	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cr 267.716	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cu 324.752	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Fe 238.204 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
K 766.490 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Mg 279.077 IEC	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Mn 257.610	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Mo 202.031	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Na 589.592 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	No
Ni 231.604	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
P 214.914	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Pb 220.353	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
S 181.975 Axial	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sb 206.836	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sc 361.383	Lin Thru 0	Peak Area	Axial	n/a	n/a
Sc Radial	Lin, Calc Int	Peak Area	Radial	n/a	n/a
Se 196.026	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Si 251.611	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sn 189.927	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sr 421.552	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Ti 334.940	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Tl 190.801	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
U 409.014	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
V 292.402	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y 371.029	Lin, Calc Int	Peak Area	Axial	n/a	n/a
Zn 213.857	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y RADIAL	Lin, Calc Int	Peak Area	Radial	n/a	n/a
SiO2	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes

==========
Sequence No.: 1 **Autosampler Location: 8**
Sample ID: S0 **Date Collected: 12/17/2009 09:20:08**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: S0

	Net	Corrected	Calib.	Analysis

Repl#	Analyte	Intensity	Intensity	Conc.	Units	Time
1	Sc Radial	5744.7	5744.7	96.5	%	09:22:01
1	Y RADIAL	5956.3	5956.3	96.39	%	09:22:01
1	Al 396.153Radial†	-11.1	-11.5	[0.00]	ug/L	09:22:01
1	Ca 317.933Radial†	19.7	20.4	[0.00]	ug/L	09:22:21
1	Fe 238.204 Radial†	12.5	12.9	[0.00]	ug/L	09:22:21
1	K 766.490 Radial†	3128.1	3240.5	[0.00]	ug/L	09:22:01
1	Mg 279.077 IEC†	5.8	6.0	[0.00]	ug/L	09:22:21
1	Na 589.592 Radial†	-1743.8	-1806.4	[0.00]	ug/L	09:22:01
1	Sr 421.552†	-7.2	-7.4	[0.00]	ug/L	09:22:01
1	Sc 361.383	932420.7	932420.7	100.01	%	09:23:18
1	Y 371.029	769736.5	769736.5	100.10	%	09:23:18
1	Ag 328.068†	371.0	370.9	[0.00]	ug/L	09:23:18
1	As 188.979†	-33.2	-33.2	[0.00]	ug/L	09:23:38
1	B 249.677†	-536.5	-536.5	[0.00]	ug/L	09:23:38
1	Ba 233.527†	16.7	16.7	[0.00]	ug/L	09:23:38
1	Be 313.107†	-4501.7	-4501.3	[0.00]	ug/L	09:23:18
1	Cd 226.502†	-210.6	-210.6	[0.00]	ug/L	09:23:38
1	Co 228.616†	-82.2	-82.2	[0.00]	ug/L	09:23:38
1	Cr 267.716†	96.0	96.0	[0.00]	ug/L	09:23:38
1	Cu 324.752†	6055.4	6055.0	[0.00]	ug/L	09:23:18
1	Mn 257.610†	560.8	560.8	[0.00]	ug/L	09:23:38
1	Mo 202.031†	27.6	27.6	[0.00]	ug/L	09:23:38
1	Ni 231.604†	131.6	131.6	[0.00]	ug/L	09:23:38
1	P 214.914†	242.6	242.6	[0.00]	ug/L	09:23:38
1	Pb 220.353†	-71.1	-71.1	[0.00]	ug/L	09:23:38
1	S 181.975 Axial†	47.7	47.7	[0.00]	ug/L	09:23:38
1	Sb 206.836†	39.9	39.9	[0.00]	ug/L	09:23:38
1	Se 196.026†	-36.4	-36.4	[0.00]	ug/L	09:23:38
1	Si 251.611†	652.8	652.7	[0.00]	ug/L	09:23:38
1	Sn 189.927†	3.8	3.8	[0.00]	ug/L	09:23:38
1	Ti 334.940†	-1408.2	-1408.1	[0.00]	ug/L	09:23:18
1	Tl 190.801†	-39.9	-39.9	[0.00]	ug/L	09:23:38
1	U 409.014†	-2907.3	-2907.1	[0.00]	ug/L	09:23:18
1	V 292.402†	-1526.9	-1526.8	[0.00]	ug/L	09:23:18
1	Zn 213.857†	891.0	890.9	[0.00]	ug/L	09:23:38
1	SiO2†	651.9	651.8	[0.00]	ug/L	09:24:34
2	Sc Radial	6003.9	6003.9	101	%	09:22:26
2	Y RADIAL	6212.8	6212.8	100.5	%	09:22:26
2	Al 396.153Radial†	-17.7	-17.6	[0.00]	ug/L	09:22:26
2	Ca 317.933Radial†	21.5	21.3	[0.00]	ug/L	09:22:46
2	Fe 238.204 Radial†	11.9	11.8	[0.00]	ug/L	09:22:46
2	K 766.490 Radial†	3221.2	3192.9	[0.00]	ug/L	09:22:26
2	Mg 279.077 IEC†	4.7	4.7	[0.00]	ug/L	09:22:46
2	Na 589.592 Radial†	-1661.2	-1646.6	[0.00]	ug/L	09:22:26
2	Sr 421.552†	-1.8	-1.8	[0.00]	ug/L	09:22:26
2	Sc 361.383	932154.5	932154.5	99.979	%	09:23:43
2	Y 371.029	768446.2	768446.2	99.935	%	09:23:43
2	Ag 328.068†	397.2	397.3	[0.00]	ug/L	09:23:43
2	As 188.979†	-28.0	-28.0	[0.00]	ug/L	09:24:03
2	B 249.677†	-527.1	-527.2	[0.00]	ug/L	09:24:03
2	Ba 233.527†	4.1	4.1	[0.00]	ug/L	09:24:03
2	Be 313.107†	-4542.1	-4543.1	[0.00]	ug/L	09:23:43
2	Cd 226.502†	-210.7	-210.7	[0.00]	ug/L	09:24:03
2	Co 228.616†	-89.9	-89.9	[0.00]	ug/L	09:24:03
2	Cr 267.716†	62.4	62.4	[0.00]	ug/L	09:24:03
2	Cu 324.752†	6141.0	6142.3	[0.00]	ug/L	09:23:43
2	Mn 257.610†	552.4	552.5	[0.00]	ug/L	09:24:03
2	Mo 202.031†	27.0	27.0	[0.00]	ug/L	09:24:03
2	Ni 231.604†	139.0	139.1	[0.00]	ug/L	09:24:03
2	P 214.914†	248.2	248.3	[0.00]	ug/L	09:24:03
2	Pb 220.353†	-87.1	-87.2	[0.00]	ug/L	09:24:03
2	S 181.975 Axial†	43.8	43.8	[0.00]	ug/L	09:24:03
2	Sb 206.836†	38.4	38.4	[0.00]	ug/L	09:24:03
2	Se 196.026†	-34.0	-34.0	[0.00]	ug/L	09:24:03
2	Si 251.611†	627.1	627.3	[0.00]	ug/L	09:24:03
2	Sn 189.927†	8.8	8.8	[0.00]	ug/L	09:24:03
2	Ti 334.940†	-1413.2	-1413.5	[0.00]	ug/L	09:23:43
2	Tl 190.801†	-52.2	-52.2	[0.00]	ug/L	09:24:03
2	U 409.014†	-2963.4	-2964.0	[0.00]	ug/L	09:23:43
2	V 292.402†	-1541.2	-1541.6	[0.00]	ug/L	09:23:43

2	Zn 213.857†	867.9	868.1	[0.00]	ug/L	09:24:03
2	SiO2†	705.4	705.5	[0.00]	ug/L	09:24:39
3	Sc Radial	6104.8	6104.8	103	%	09:22:51
3	Y RADIAL	6369.0	6369.0	103.1	%	09:22:51
3	Al 396.153Radial†	-20.2	-19.7	[0.00]	ug/L	09:22:51
3	Ca 317.933Radial†	20.2	19.7	[0.00]	ug/L	09:23:11
3	Fe 238.204 Radial†	14.3	13.9	[0.00]	ug/L	09:23:11
3	K 766.490 Radial†	3083.5	3005.9	[0.00]	ug/L	09:22:51
3	Mg 279.077 IEC†	5.5	5.4	[0.00]	ug/L	09:23:11
3	Na 589.592 Radial†	-1766.5	-1722.0	[0.00]	ug/L	09:22:51
3	Sr 421.552†	-34.4	-33.5	[0.00]	ug/L	09:22:51
3	Sc 361.383	932487.0	932487.0	100.01	%	09:24:09
3	Y 371.029	768660.1	768660.1	99.963	%	09:24:09
3	Ag 328.068†	457.1	457.1	[0.00]	ug/L	09:24:09
3	As 188.979†	-33.2	-33.2	[0.00]	ug/L	09:24:29
3	B 249.677†	-516.1	-516.1	[0.00]	ug/L	09:24:29
3	Ba 233.527†	13.7	13.7	[0.00]	ug/L	09:24:29
3	Be 313.107†	-4601.5	-4600.8	[0.00]	ug/L	09:24:09
3	Cd 226.502†	-220.3	-220.2	[0.00]	ug/L	09:24:29
3	Co 228.616†	-79.2	-79.2	[0.00]	ug/L	09:24:29
3	Cr 267.716†	95.8	95.8	[0.00]	ug/L	09:24:29
3	Cu 324.752†	6102.3	6101.4	[0.00]	ug/L	09:24:09
3	Mn 257.610†	565.2	565.1	[0.00]	ug/L	09:24:29
3	Mo 202.031†	20.3	20.3	[0.00]	ug/L	09:24:29
3	Ni 231.604†	118.6	118.5	[0.00]	ug/L	09:24:29
3	P 214.914†	244.3	244.2	[0.00]	ug/L	09:24:29
3	Pb 220.353†	-70.4	-70.4	[0.00]	ug/L	09:24:29
3	S 181.975 Axial†	53.7	53.7	[0.00]	ug/L	09:24:29
3	Sb 206.836†	54.9	54.9	[0.00]	ug/L	09:24:29
3	Se 196.026†	-37.4	-37.4	[0.00]	ug/L	09:24:29
3	Si 251.611†	645.2	645.1	[0.00]	ug/L	09:24:29
3	Sn 189.927†	6.0	6.0	[0.00]	ug/L	09:24:29
3	Ti 334.940†	-1543.4	-1543.2	[0.00]	ug/L	09:24:09
3	Tl 190.801†	-31.3	-31.3	[0.00]	ug/L	09:24:29
3	U 409.014†	-3035.8	-3035.4	[0.00]	ug/L	09:24:09
3	V 292.402†	-1528.2	-1528.0	[0.00]	ug/L	09:24:09
3	Zn 213.857†	879.0	878.9	[0.00]	ug/L	09:24:29
3	SiO2†	680.2	680.1	[0.00]	ug/L	09:24:44

Mean Data: S0

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	932354.1	175.98	0.02%	100.00	%
Sc Radial	5951.1	185.72	3.12%	100.0	%
Y 371.029	768947.6	691.56	0.09%	100.00	%
Y RADIAL	6179.4	208.39	3.37%	100.0	%
Ag 328.068†	408.4	44.13	10.80%	[0.00]	ug/L
Al 396.153Radial†	-16.3	4.25	26.15%	[0.00]	ug/L
As 188.979†	-31.5	2.99	9.50%	[0.00]	ug/L
B 249.677†	-526.6	10.22	1.94%	[0.00]	ug/L
Ba 233.527†	11.5	6.57	57.06%	[0.00]	ug/L
Be 313.107†	-4548.4	49.97	1.10%	[0.00]	ug/L
Ca 317.933Radial†	20.5	0.80	3.90%	[0.00]	ug/L
Cd 226.502†	-213.8	5.55	2.60%	[0.00]	ug/L
Co 228.616†	-83.8	5.53	6.60%	[0.00]	ug/L
Cr 267.716†	84.7	19.35	22.84%	[0.00]	ug/L
Cu 324.752†	6099.6	43.66	0.72%	[0.00]	ug/L
Fe 238.204 Radial†	12.9	1.07	8.26%	[0.00]	ug/L
K 766.490 Radial†	3146.4	124.01	3.94%	[0.00]	ug/L
Mg 279.077 IEC†	5.4	0.64	12.01%	[0.00]	ug/L
Mn 257.610†	559.5	6.41	1.15%	[0.00]	ug/L
Mo 202.031†	25.0	4.09	16.37%	[0.00]	ug/L
Na 589.592 Radial†	-1725.0	79.96	4.64%	[0.00]	ug/L
Ni 231.604†	129.7	10.39	8.01%	[0.00]	ug/L
P 214.914†	245.0	2.94	1.20%	[0.00]	ug/L
Pb 220.353†	-76.2	9.47	12.42%	[0.00]	ug/L
S 181.975 Axial†	48.4	4.95	10.23%	[0.00]	ug/L
Sb 206.836†	44.4	9.13	20.55%	[0.00]	ug/L
Se 196.026†	-35.9	1.71	4.77%	[0.00]	ug/L
Si 251.611†	641.7	13.08	2.04%	[0.00]	ug/L

Sn 189.927†	6.2	2.51	40.41%	[0.00]	ug/L
Sr 421.552†	-14.2	16.93	118.85%	[0.00]	ug/L
Ti 334.940†	-1454.9	76.46	5.26%	[0.00]	ug/L
Tl 190.801†	-41.1	10.55	25.64%	[0.00]	ug/L
U 409.014†	-2968.8	64.29	2.17%	[0.00]	ug/L
V 292.402†	-1532.1	8.21	0.54%	[0.00]	ug/L
Zn 213.857†	879.3	11.43	1.30%	[0.00]	ug/L
SiO2†	679.1	26.88	3.96%	[0.00]	ug/L

Sequence No.: 2
Sample ID: S0.1
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 2
Date Collected: 12/17/2009 09:26:55
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc Radial	6188.7	6188.7	104	%	09:28:53
1	Y RADIAL	6370.5	6370.5	103.1	%	09:28:53
1	K 766.490 Radial†	9149.4	5651.8	[1000]	ug/L	09:28:48
1	Sr 421.552†	18411.6	17719.2	[100]	ug/L	09:28:53
1	Sc 361.383	931384.4	931384.4	99.896	%	09:29:20
1	Y 371.029	766219.7	766219.7	99.645	%	09:29:20
1	Ag 328.068†	24626.2	24243.4	[100]	ug/L	09:29:20
1	As 188.979†	266.7	298.5	[100]	ug/L	09:29:40
1	B 249.677†	4343.0	4874.1	[100]	ug/L	09:29:20
1	Ba 233.527†	15744.6	15749.4	[100]	ug/L	09:29:20
1	Be 313.107†	304494.4	309359.9	[100]	ug/L	09:29:20
1	Cd 226.502†	10469.3	10694.0	[100]	ug/L	09:29:40
1	Co 228.616†	5983.4	6073.4	[100]	ug/L	09:29:40
1	Cr 267.716†	10658.2	10584.6	[100]	ug/L	09:29:20
1	Cu 324.752†	42984.3	36929.5	[100]	ug/L	09:29:20
1	Mn 257.610†	108901.3	108455.2	[100]	ug/L	09:29:20
1	Mo 202.031†	1783.6	1760.5	[100]	ug/L	09:29:40
1	Ni 231.604†	5013.5	4889.0	[100]	ug/L	09:29:40
1	P 214.914†	1239.9	996.1	[500]	ug/L	09:29:40
1	Pb 220.353†	958.8	1036.0	[100]	ug/L	09:29:40
1	S 181.975 Axial†	223.4	175.2	[200]	ug/L	09:29:40
1	Sb 206.836†	377.1	333.0	[100]	ug/L	09:29:40
1	Se 196.026†	164.0	200.1	[100]	ug/L	09:29:40
1	Si 251.611†	19122.6	18500.8	[500]	ug/L	09:29:20
1	Sn 189.927†	696.2	690.7	[100]	ug/L	09:29:40
1	Ti 334.940†	70264.1	71792.2	[100]	ug/L	09:29:20
1	Tl 190.801†	367.6	409.1	[100]	ug/L	09:29:40
1	U 409.014†	770.0	3739.6	[100]	ug/L	09:29:20
1	V 292.402†	14784.8	16332.3	[100]	ug/L	09:29:20
1	Zn 213.857†	13810.1	12945.1	[100]	ug/L	09:29:20
1	SiO2†	19132.6	18473.4	[1069.5]	ug/L	09:30:36
2	Sc Radial	5895.3	5895.3	99.1	%	09:29:03
2	Y RADIAL	6094.6	6094.6	98.63	%	09:29:03
2	K 766.490 Radial†	9280.4	6221.9	[1000]	ug/L	09:28:58
2	Sr 421.552†	18509.4	18698.8	[100]	ug/L	09:29:03
2	Sc 361.383	927327.3	927327.3	99.461	%	09:29:45
2	Y 371.029	762103.6	762103.6	99.110	%	09:29:45
2	Ag 328.068†	24638.0	24363.1	[100]	ug/L	09:29:45
2	As 188.979†	258.3	291.1	[100]	ug/L	09:30:05
2	B 249.677†	4355.3	4905.5	[100]	ug/L	09:29:45
2	Ba 233.527†	15783.3	15857.4	[100]	ug/L	09:29:45
2	Be 313.107†	304548.2	310747.5	[100]	ug/L	09:29:45
2	Cd 226.502†	10386.8	10657.0	[100]	ug/L	09:30:05
2	Co 228.616†	5922.1	6038.0	[100]	ug/L	09:30:05
2	Cr 267.716†	10642.2	10615.2	[100]	ug/L	09:29:45
2	Cu 324.752†	43129.7	37263.9	[100]	ug/L	09:29:45
2	Mn 257.610†	109010.6	109042.0	[100]	ug/L	09:29:45
2	Mo 202.031†	1767.5	1752.1	[100]	ug/L	09:30:05
2	Ni 231.604†	4995.4	4892.8	[100]	ug/L	09:30:05
2	P 214.914†	1250.9	1012.7	[500]	ug/L	09:30:05
2	Pb 220.353†	958.1	1039.5	[100]	ug/L	09:30:05
2	S 181.975 Axial†	212.7	165.4	[200]	ug/L	09:30:05
2	Sb 206.836†	381.3	339.0	[100]	ug/L	09:30:05
2	Se 196.026†	160.5	197.3	[100]	ug/L	09:30:05
2	Si 251.611†	19059.4	18521.0	[500]	ug/L	09:29:45
2	Sn 189.927†	705.6	703.2	[100]	ug/L	09:30:05
2	Ti 334.940†	70361.6	72197.9	[100]	ug/L	09:29:45
2	Tl 190.801†	368.3	411.4	[100]	ug/L	09:30:05
2	U 409.014†	834.8	3808.1	[100]	ug/L	09:29:45

2	V 292.402†	14780.6	16392.9	[100]	ug/L	09:29:45
2	Zn 213.857†	13807.7	13003.2	[100]	ug/L	09:29:45
2	SiO2†	19075.1	18499.4	[1069.5]	ug/L	09:30:41
3	Sc Radial	6077.1	6077.1	102	%	09:29:13
3	Y RADIAL	6296.4	6296.4	101.9	%	09:29:13
3	K 766.490 Radial†	9456.7	6114.3	[1000]	ug/L	09:29:08
3	Sr 421.552†	18645.7	18273.5	[100]	ug/L	09:29:13
3	Sc 361.383	929385.5	929385.5	99.682	%	09:30:11
3	Y 371.029	764846.7	764846.7	99.467	%	09:30:11
3	Ag 328.068†	24910.5	24581.7	[100]	ug/L	09:30:11
3	As 188.979†	264.5	296.8	[100]	ug/L	09:30:31
3	B 249.677†	4349.8	4890.3	[100]	ug/L	09:30:11
3	Ba 233.527†	15820.2	15859.3	[100]	ug/L	09:30:11
3	Be 313.107†	306180.7	311707.1	[100]	ug/L	09:30:11
3	Cd 226.502†	10371.5	10618.5	[100]	ug/L	09:30:31
3	Co 228.616†	5942.5	6045.2	[100]	ug/L	09:30:31
3	Cr 267.716†	10642.9	10592.2	[100]	ug/L	09:30:11
3	Cu 324.752†	43343.5	37382.4	[100]	ug/L	09:30:11
3	Mn 257.610†	109327.0	109116.7	[100]	ug/L	09:30:11
3	Mo 202.031†	1770.6	1751.3	[100]	ug/L	09:30:31
3	Ni 231.604†	4967.7	4853.9	[100]	ug/L	09:30:31
3	P 214.914†	1219.3	978.1	[500]	ug/L	09:30:31
3	Pb 220.353†	927.5	1006.7	[100]	ug/L	09:30:31
3	S 181.975 Axial†	215.2	167.5	[200]	ug/L	09:30:31
3	Sb 206.836†	386.3	343.1	[100]	ug/L	09:30:31
3	Se 196.026†	156.0	192.4	[100]	ug/L	09:30:31
3	Si 251.611†	19260.8	18680.6	[500]	ug/L	09:30:11
3	Sn 189.927†	705.0	701.0	[100]	ug/L	09:30:31
3	Ti 334.940†	70801.6	72482.7	[100]	ug/L	09:30:11
3	Tl 190.801†	368.3	410.6	[100]	ug/L	09:30:31
3	U 409.014†	871.4	3843.1	[100]	ug/L	09:30:11
3	V 292.402†	14932.7	16512.5	[100]	ug/L	09:30:11
3	Zn 213.857†	13899.5	13064.6	[100]	ug/L	09:30:11
3	SiO2†	19244.4	18626.8	[1069.5]	ug/L	09:30:46

Mean Data: S0.1

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	929365.7	2028.64	0.22%	99.679	%
Sc Radial	6053.7	148.06	2.45%	102	%
Y 371.029	764390.0	2095.69	0.27%	99.407	%
Y RADIAL	6253.8	142.83	2.28%	101.2	%
Ag 328.068†	24396.1	171.51	0.70%	[100]	ug/L
As 188.979†	295.5	3.85	1.30%	[100]	ug/L
B 249.677†	4890.0	15.70	0.32%	[100]	ug/L
Ba 233.527†	15822.0	62.87	0.40%	[100]	ug/L
Be 313.107†	310604.8	1180.11	0.38%	[100]	ug/L
Cd 226.502†	10656.5	37.77	0.35%	[100]	ug/L
Co 228.616†	6052.2	18.71	0.31%	[100]	ug/L
Cr 267.716†	10597.3	15.93	0.15%	[100]	ug/L
Cu 324.752†	37191.9	234.87	0.63%	[100]	ug/L
K 766.490 Radial†	5996.0	302.89	5.05%	[1000]	ug/L
Mn 257.610†	108871.3	362.32	0.33%	[100]	ug/L
Mo 202.031†	1754.6	5.08	0.29%	[100]	ug/L
Ni 231.604†	4878.6	21.46	0.44%	[100]	ug/L
P 214.914†	995.7	17.27	1.73%	[500]	ug/L
Pb 220.353†	1027.4	18.01	1.75%	[100]	ug/L
S 181.975 Axial†	169.4	5.17	3.05%	[200]	ug/L
Sb 206.836†	338.4	5.05	1.49%	[100]	ug/L
Se 196.026†	196.6	3.90	1.98%	[100]	ug/L
Si 251.611†	18567.5	98.50	0.53%	[500]	ug/L
Sn 189.927†	698.3	6.68	0.96%	[100]	ug/L
Sr 421.552†	18230.5	491.25	2.69%	[100]	ug/L
Ti 334.940†	72157.6	347.01	0.48%	[100]	ug/L
Tl 190.801†	410.4	1.15	0.28%	[100]	ug/L
U 409.014†	3796.9	52.61	1.39%	[100]	ug/L
V 292.402†	16412.5	91.69	0.56%	[100]	ug/L
Zn 213.857†	13004.3	59.75	0.46%	[100]	ug/L
SiO2†	18533.2	82.07	0.44%	[1069.5]	ug/L

Sequence No.: 3
Sample ID: S0.5
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 3
Date Collected: 12/17/2009 09:32:57
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc Radial	5858.3	5858.3	98.4	%	09:34:50
1	Y RADIAL	6034.6	6034.6	97.66	%	09:34:50
1	Al 396.153Radial†	7340.6	7473.2	[5000]	ug/L	09:34:50
1	Ca 317.933Radial†	3650.6	3688.0	[5000]	ug/L	09:35:10
1	K 766.490 Radial†	33178.6	30558.2	[5000]	ug/L	09:34:50
1	Mg 279.077 IEC†	177.5	175.0	[5000]	ug/L	09:35:10
1	Sr 421.552†	90088.3	91530.7	[500]	ug/L	09:34:50
1	Sc 361.383	971260.6	971260.6	104.17	%	09:36:07
1	Y 371.029	774695.9	774695.9	100.75	%	09:36:07
1	Ag 328.068†	119937.9	114725.0	[500]	ug/L	09:36:12
1	As 188.979†	1426.7	1401.0	[500]	ug/L	09:36:32
1	B 249.677†	24569.9	24112.3	[500]	ug/L	09:36:12
1	Ba 233.527†	77141.0	74039.4	[500]	ug/L	09:36:12
1	Be 313.107†	1548383.4	1490907.2	[500]	ug/L	09:36:07
1	Cd 226.502†	53203.8	51286.4	[500]	ug/L	09:36:12
1	Co 228.616†	29760.8	28652.4	[500]	ug/L	09:36:12
1	Cr 267.716†	51690.1	49534.8	[500]	ug/L	09:36:12
1	Cu 324.752†	188430.2	174782.5	[500]	ug/L	09:36:12
1	Mn 257.610†	531985.6	510116.0	[500]	ug/L	09:36:07
1	Mo 202.031†	8661.6	8289.6	[500]	ug/L	09:36:32
1	Ni 231.604†	24171.8	23073.8	[500]	ug/L	09:36:12
1	P 214.914†	5212.7	4758.9	[2500]	ug/L	09:36:32
1	Pb 220.353†	4900.8	4780.8	[500]	ug/L	09:36:32
1	S 181.975 Axial†	900.2	815.7	[1000]	ug/L	09:36:32
1	Sb 206.836†	1772.5	1657.1	[500]	ug/L	09:36:32
1	Se 196.026†	917.2	916.4	[500]	ug/L	09:36:32
1	Si 251.611†	93998.3	89591.2	[2500]	ug/L	09:36:12
1	Sn 189.927†	3484.9	3339.1	[500]	ug/L	09:36:32
1	Ti 334.940†	357623.2	344752.6	[500]	ug/L	09:36:07
1	Tl 190.801†	1963.4	1925.9	[500]	ug/L	09:36:32
1	U 409.014†	15269.3	17626.5	[500]	ug/L	09:36:12
1	V 292.402†	79998.9	78326.4	[500]	ug/L	09:36:12
1	Zn 213.857†	64757.8	61284.4	[500]	ug/L	09:36:12
1	SiO2†	93268.1	88852.8	[5347.5]	ug/L	09:37:40
2	Sc Radial	6038.1	6038.1	101	%	09:35:15
2	Y RADIAL	6172.5	6172.5	99.89	%	09:35:15
2	Al 396.153Radial†	7528.1	7436.0	[5000]	ug/L	09:35:15
2	Ca 317.933Radial†	3620.2	3547.6	[5000]	ug/L	09:35:35
2	K 766.490 Radial†	33998.1	30362.1	[5000]	ug/L	09:35:15
2	Mg 279.077 IEC†	173.7	165.8	[5000]	ug/L	09:35:35
2	Sr 421.552†	92157.9	90845.0	[500]	ug/L	09:35:15
2	Sc 361.383	962071.3	962071.3	103.19	%	09:36:38
2	Y 371.029	766439.0	766439.0	99.674	%	09:36:38
2	Ag 328.068†	121214.0	117061.4	[500]	ug/L	09:36:43
2	As 188.979†	1422.5	1410.0	[500]	ug/L	09:37:04
2	B 249.677†	24861.6	24620.3	[500]	ug/L	09:36:43
2	Ba 233.527†	77917.1	75498.8	[500]	ug/L	09:36:43
2	Be 313.107†	1529968.0	1487257.6	[500]	ug/L	09:36:38
2	Cd 226.502†	53824.2	52375.5	[500]	ug/L	09:36:43
2	Co 228.616†	30136.9	29289.8	[500]	ug/L	09:36:43
2	Cr 267.716†	52213.1	50515.5	[500]	ug/L	09:36:43
2	Cu 324.752†	190333.6	178354.9	[500]	ug/L	09:36:43
2	Mn 257.610†	527624.0	510766.9	[500]	ug/L	09:36:38
2	Mo 202.031†	8664.6	8372.0	[500]	ug/L	09:37:04
2	Ni 231.604†	24415.3	23531.4	[500]	ug/L	09:36:43
2	P 214.914†	5212.4	4806.3	[2500]	ug/L	09:37:04
2	Pb 220.353†	4899.4	4824.3	[500]	ug/L	09:37:04
2	S 181.975 Axial†	901.6	825.4	[1000]	ug/L	09:37:04
2	Sb 206.836†	1760.4	1661.6	[500]	ug/L	09:37:04

2	Se 196.026†	917.0	924.6	[500]	ug/L	09:37:04
2	Si 251.611†	95180.1	91598.4	[2500]	ug/L	09:36:43
2	Sn 189.927†	3479.1	3365.4	[500]	ug/L	09:37:04
2	Ti 334.940†	354091.5	344608.9	[500]	ug/L	09:36:38
2	Tl 190.801†	1973.7	1953.9	[500]	ug/L	09:37:04
2	U 409.014†	15675.7	18160.3	[500]	ug/L	09:36:43
2	V 292.402†	80787.4	79824.1	[500]	ug/L	09:36:43
2	Zn 213.857†	65326.9	62429.7	[500]	ug/L	09:36:43
2	SiO2†	94060.2	90475.6	[5347.5]	ug/L	09:37:45
3	Sc Radial	5932.7	5932.7	99.7	%	09:35:40
3	Y RADIAL	6120.2	6120.2	99.04	%	09:35:40
3	Al 396.153Radial†	7411.3	7450.6	[5000]	ug/L	09:35:40
3	Ca 317.933Radial†	3645.6	3636.5	[5000]	ug/L	09:36:00
3	K 766.490 Radial†	33362.4	30319.9	[5000]	ug/L	09:35:40
3	Mg 279.077 IEC†	177.1	172.3	[5000]	ug/L	09:36:00
3	Sr 421.552†	90891.7	91189.1	[500]	ug/L	09:35:40
3	Sc 361.383	968746.4	968746.4	103.90	%	09:37:09
3	Y 371.029	771471.0	771471.0	100.33	%	09:37:09
3	Ag 328.068†	119443.5	114548.0	[500]	ug/L	09:37:15
3	As 188.979†	1408.0	1386.6	[500]	ug/L	09:37:35
3	B 249.677†	24564.3	24168.1	[500]	ug/L	09:37:15
3	Ba 233.527†	76728.1	73834.1	[500]	ug/L	09:37:15
3	Be 313.107†	1541267.8	1487916.3	[500]	ug/L	09:37:09
3	Cd 226.502†	52942.6	51167.6	[500]	ug/L	09:37:15
3	Co 228.616†	29618.4	28589.6	[500]	ug/L	09:37:15
3	Cr 267.716†	51470.8	49452.5	[500]	ug/L	09:37:15
3	Cu 324.752†	187098.4	173970.2	[500]	ug/L	09:37:15
3	Mn 257.610†	530395.6	509911.1	[500]	ug/L	09:37:09
3	Mo 202.031†	8648.0	8298.1	[500]	ug/L	09:37:35
3	Ni 231.604†	24048.6	23015.4	[500]	ug/L	09:37:15
3	P 214.914†	5193.5	4753.4	[2500]	ug/L	09:37:35
3	Pb 220.353†	4869.9	4763.2	[500]	ug/L	09:37:35
3	S 181.975 Axial†	900.9	818.7	[1000]	ug/L	09:37:35
3	Sb 206.836†	1768.6	1657.7	[500]	ug/L	09:37:35
3	Se 196.026†	912.2	913.9	[500]	ug/L	09:37:35
3	Si 251.611†	93552.9	89396.8	[2500]	ug/L	09:37:15
3	Sn 189.927†	3465.7	3329.3	[500]	ug/L	09:37:35
3	Ti 334.940†	356507.5	344569.7	[500]	ug/L	09:37:09
3	Tl 190.801†	1977.4	1944.2	[500]	ug/L	09:37:35
3	U 409.014†	15296.3	17690.5	[500]	ug/L	09:37:15
3	V 292.402†	79638.8	78179.1	[500]	ug/L	09:37:15
3	Zn 213.857†	64331.9	61035.9	[500]	ug/L	09:37:15
3	SiO2†	94460.5	90232.8	[5347.5]	ug/L	09:37:50

Mean Data: S0.5

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	967359.4	4749.02	0.49%	103.75	%
Sc Radial	5943.0	90.36	1.52%	99.9	%
Y 371.029	770868.6	4161.25	0.54%	100.25	%
Y RADIAL	6109.1	69.62	1.14%	98.86	%
Ag 328.068†	115444.8	1402.83	1.22%	[500]	ug/L
Al 396.153Radial†	7453.3	18.75	0.25%	[5000]	ug/L
As 188.979†	1399.2	11.82	0.84%	[500]	ug/L
B 249.677†	24300.2	278.57	1.15%	[500]	ug/L
Ba 233.527†	74457.4	907.68	1.22%	[500]	ug/L
Be 313.107†	1488693.7	1945.04	0.13%	[500]	ug/L
Ca 317.933Radial†	3624.0	71.01	1.96%	[5000]	ug/L
Cd 226.502†	51609.8	665.75	1.29%	[500]	ug/L
Co 228.616†	28843.9	387.40	1.34%	[500]	ug/L
Cr 267.716†	49834.3	591.44	1.19%	[500]	ug/L
Cu 324.752†	175702.5	2332.62	1.33%	[500]	ug/L
K 766.490 Radial†	30413.4	127.16	0.42%	[5000]	ug/L
Mg 279.077 IEC†	171.0	4.69	2.74%	[5000]	ug/L
Mn 257.610†	510264.7	446.84	0.09%	[500]	ug/L
Mo 202.031†	8319.9	45.27	0.54%	[500]	ug/L
Ni 231.604†	23206.9	282.57	1.22%	[500]	ug/L
P 214.914†	4772.9	29.11	0.61%	[2500]	ug/L
Pb 220.353†	4789.4	31.44	0.66%	[500]	ug/L
S 181.975 Axial†	819.9	4.96	0.60%	[1000]	ug/L

Sb 206.836†	1658.8	2.45	0.15%	[500]	ug/L
Se 196.026†	918.3	5.62	0.61%	[500]	ug/L
Si 251.611†	90195.5	1218.86	1.35%	[2500]	ug/L
Sn 189.927†	3344.6	18.67	0.56%	[500]	ug/L
Sr 421.552†	91188.3	342.87	0.38%	[500]	ug/L
Ti 334.940†	344643.7	96.26	0.03%	[500]	ug/L
Tl 190.801†	1941.3	14.22	0.73%	[500]	ug/L
U 409.014†	17825.8	291.48	1.64%	[500]	ug/L
V 292.402†	78776.6	910.19	1.16%	[500]	ug/L
Zn 213.857†	61583.3	743.42	1.21%	[500]	ug/L
SiO2†	89853.7	875.28	0.97%	[5347.5]	ug/L

Sequence No.: 4
Sample ID: SCAL
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 4
Date Collected: 12/17/2009 09:40:01
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: SCAL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc Radial	5791.5	5791.5	97.3	%	09:42:14
1	Y RADIAL	5914.9	5914.9	95.72	%	09:42:14
1	Al 396.153Radial†	14996.1	15425.7	[10000]	ug/L	09:41:54
1	Ca 317.933Radial†	7223.1	7401.7	[10000]	ug/L	09:42:14
1	Fe 238.204 Radial†	1300.5	1323.4	[10000]	ug/L	09:42:14
1	K 766.490 Radial†	64686.1	63322.6	[10000]	ug/L	09:41:54
1	Mg 279.077 IEC†	350.3	354.6	[10000]	ug/L	09:42:14
1	Na 589.592 Radial†	36581.8	39315.1	[10000]	ug/L	09:41:54
1	Sr 421.552†	183826.4	188907.4	[1000]	ug/L	09:41:54
1	Sc 361.383	915054.2	915054.2	98.144	%	09:43:17
1	Y 371.029	743131.0	743131.0	96.643	%	09:43:17
1	Ag 328.068†	237383.8	241463.3	[1000]	ug/L	09:43:17
1	As 188.979†	2854.7	2940.1	[1000]	ug/L	09:43:37
1	B 249.677†	49610.9	51075.4	[1000]	ug/L	09:43:17
1	Ba 233.527†	152612.0	155485.8	[1000]	ug/L	09:43:17
1	Be 313.107†	3015413.3	3076970.6	[1000]	ug/L	09:43:12
1	Cd 226.502†	105243.7	107447.2	[1000]	ug/L	09:43:17
1	Co 228.616†	58806.2	60001.8	[1000]	ug/L	09:43:17
1	Cr 267.716†	102505.3	104358.6	[1000]	ug/L	09:43:17
1	Cu 324.752†	368797.6	369670.5	[1000]	ug/L	09:43:17
1	Mn 257.610†	1032451.5	1051411.4	[1000]	ug/L	09:43:12
1	Mo 202.031†	17316.8	17619.2	[1000]	ug/L	09:43:37
1	Ni 231.604†	47535.6	48304.5	[1000]	ug/L	09:43:17
1	P 214.914†	10199.1	10146.9	[5000]	ug/L	09:43:37
1	Pb 220.353†	9836.3	10098.5	[1000]	ug/L	09:43:37
1	S 181.975 Axial†	1744.1	1728.7	[2000]	ug/L	09:43:37
1	Sb 206.836†	3493.8	3515.4	[1000]	ug/L	09:43:37
1	Se 196.026†	1845.8	1916.7	[1000]	ug/L	09:43:37
1	Si 251.611†	183468.9	186295.8	[5000]	ug/L	09:43:17
1	Sn 189.927†	6977.4	7103.1	[1000]	ug/L	09:43:37
1	Ti 334.940†	690998.5	705517.3	[1000]	ug/L	09:43:17
1	Tl 190.801†	3941.0	4056.6	[1000]	ug/L	09:43:37
1	U 409.014†	33699.3	37305.3	[1000]	ug/L	09:43:17
1	V 292.402†	160640.3	165209.5	[1000]	ug/L	09:43:17
1	Zn 213.857†	126335.2	127844.4	[1000]	ug/L	09:43:17
1	SiO2†	181995.7	184757.4	[10695]	ug/L	09:44:46
2	Sc Radial	5819.6	5819.6	97.8	%	09:42:39
2	Y RADIAL	5949.9	5949.9	96.29	%	09:42:39
2	Al 396.153Radial†	14806.5	15157.4	[10000]	ug/L	09:42:19
2	Ca 317.933Radial†	7223.2	7366.0	[10000]	ug/L	09:42:39
2	Fe 238.204 Radial†	1301.7	1318.2	[10000]	ug/L	09:42:39
2	K 766.490 Radial†	63967.5	62266.6	[10000]	ug/L	09:42:19
2	Mg 279.077 IEC†	348.7	351.3	[10000]	ug/L	09:42:39
2	Na 589.592 Radial†	35964.7	38502.4	[10000]	ug/L	09:42:19
2	Sr 421.552†	181417.0	185530.9	[1000]	ug/L	09:42:19
2	Sc 361.383	912489.7	912489.7	97.869	%	09:43:49
2	Y 371.029	740718.7	740718.7	96.329	%	09:43:49
2	Ag 328.068†	236895.9	241644.6	[1000]	ug/L	09:43:49
2	As 188.979†	2825.5	2918.5	[1000]	ug/L	09:44:09
2	B 249.677†	49531.3	51136.2	[1000]	ug/L	09:43:49
2	Ba 233.527†	152009.8	155307.4	[1000]	ug/L	09:43:49
2	Be 313.107†	3036671.3	3107326.5	[1000]	ug/L	09:43:43
2	Cd 226.502†	104661.5	107153.8	[1000]	ug/L	09:43:49
2	Co 228.616†	58726.9	60089.1	[1000]	ug/L	09:43:49
2	Cr 267.716†	102138.9	104277.7	[1000]	ug/L	09:43:49
2	Cu 324.752†	367916.8	369826.6	[1000]	ug/L	09:43:49
2	Mn 257.610†	1042254.4	1064384.2	[1000]	ug/L	09:43:43
2	Mo 202.031†	17212.2	17561.9	[1000]	ug/L	09:44:09
2	Ni 231.604†	47321.6	48222.0	[1000]	ug/L	09:43:49

2	P 214.914†	10147.3	10123.2	[5000]	ug/L	09:44:09
2	Pb 220.353†	9806.7	10096.4	[1000]	ug/L	09:44:09
2	S 181.975 Axial†	1738.3	1727.8	[2000]	ug/L	09:44:09
2	Sb 206.836†	3483.7	3515.2	[1000]	ug/L	09:44:09
2	Se 196.026†	1826.2	1901.9	[1000]	ug/L	09:44:09
2	Si 251.611†	182874.1	186213.4	[5000]	ug/L	09:43:49
2	Sn 189.927†	6941.3	7086.2	[1000]	ug/L	09:44:09
2	Ti 334.940†	688977.7	705431.3	[1000]	ug/L	09:43:49
2	Tl 190.801†	3920.0	4046.4	[1000]	ug/L	09:44:09
2	U 409.014†	33818.9	37523.9	[1000]	ug/L	09:43:49
2	V 292.402†	160076.5	165093.4	[1000]	ug/L	09:43:49
2	Zn 213.857†	125850.0	127710.4	[1000]	ug/L	09:43:49
2	SiO2†	182900.9	186203.4	[10695]	ug/L	09:44:51
3	Sc Radial	5860.4	5860.4	98.5	%	09:43:04
3	Y RADIAL	5994.5	5994.5	97.01	%	09:43:04
3	Al 396.153Radial†	14698.8	14942.6	[10000]	ug/L	09:42:44
3	Ca 317.933Radial†	7270.1	7362.2	[10000]	ug/L	09:43:04
3	Fe 238.204 Radial†	1307.9	1315.2	[10000]	ug/L	09:43:04
3	K 766.490 Radial†	63376.2	61210.9	[10000]	ug/L	09:42:44
3	Mg 279.077 IEC†	353.7	353.8	[10000]	ug/L	09:43:04
3	Na 589.592 Radial†	35425.0	37698.3	[10000]	ug/L	09:42:44
3	Sr 421.552†	179083.9	181870.4	[1000]	ug/L	09:42:44
3	Sc 361.383	918746.9	918746.9	98.541	%	09:44:20
3	Y 371.029	748190.1	748190.1	97.301	%	09:44:20
3	Ag 328.068†	239123.9	242257.0	[1000]	ug/L	09:44:20
3	As 188.979†	2802.1	2875.1	[1000]	ug/L	09:44:40
3	B 249.677†	50096.4	51365.0	[1000]	ug/L	09:44:20
3	Ba 233.527†	152963.2	155217.1	[1000]	ug/L	09:44:20
3	Be 313.107†	3015619.0	3064830.7	[1000]	ug/L	09:44:15
3	Cd 226.502†	105360.6	107134.9	[1000]	ug/L	09:44:20
3	Co 228.616†	59003.2	59960.9	[1000]	ug/L	09:44:20
3	Cr 267.716†	102827.5	104265.7	[1000]	ug/L	09:44:20
3	Cu 324.752†	372460.3	371877.1	[1000]	ug/L	09:44:20
3	Mn 257.610†	1033269.5	1048013.4	[1000]	ug/L	09:44:15
3	Mo 202.031†	17135.9	17364.7	[1000]	ug/L	09:44:40
3	Ni 231.604†	47583.3	48158.3	[1000]	ug/L	09:44:20
3	P 214.914†	10047.8	9951.5	[5000]	ug/L	09:44:40
3	Pb 220.353†	9738.4	9958.9	[1000]	ug/L	09:44:40
3	S 181.975 Axial†	1722.7	1699.8	[2000]	ug/L	09:44:40
3	Sb 206.836†	3455.0	3461.7	[1000]	ug/L	09:44:40
3	Se 196.026†	1799.4	1862.0	[1000]	ug/L	09:44:40
3	Si 251.611†	184624.4	186717.1	[5000]	ug/L	09:44:20
3	Sn 189.927†	6898.0	6993.9	[1000]	ug/L	09:44:40
3	Ti 334.940†	695802.4	707562.6	[1000]	ug/L	09:44:20
3	Tl 190.801†	3891.0	3989.7	[1000]	ug/L	09:44:40
3	U 409.014†	34390.1	37868.3	[1000]	ug/L	09:44:20
3	V 292.402†	161638.1	165564.1	[1000]	ug/L	09:44:20
3	Zn 213.857†	126815.1	127814.0	[1000]	ug/L	09:44:20
3	SiO2†	180925.8	182926.3	[10695]	ug/L	09:44:56

Mean Data: SCAL

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	915430.3	3145.50	0.34%	98.185	%
Sc Radial	5823.9	34.65	0.59%	97.9	%
Y 371.029	744013.3	3813.05	0.51%	96.757	%
Y RADIAL	5953.1	39.91	0.67%	96.34	%
Ag 328.068†	241788.3	415.91	0.17%	[1000]	ug/L
Al 396.153Radial†	15175.2	242.06	1.60%	[10000]	ug/L
As 188.979†	2911.2	33.11	1.14%	[1000]	ug/L
B 249.677†	51192.2	152.69	0.30%	[1000]	ug/L
Ba 233.527†	155336.8	136.71	0.09%	[1000]	ug/L
Be 313.107†	3083042.6	21888.92	0.71%	[1000]	ug/L
Ca 317.933Radial†	7376.6	21.82	0.30%	[10000]	ug/L
Cd 226.502†	107245.3	175.14	0.16%	[1000]	ug/L
Co 228.616†	60017.3	65.52	0.11%	[1000]	ug/L
Cr 267.716†	104300.7	50.51	0.05%	[1000]	ug/L
Cu 324.752†	370458.1	1231.39	0.33%	[1000]	ug/L
Fe 238.204 Radial†	1318.9	4.15	0.31%	[10000]	ug/L
K 766.490 Radial†	62266.7	1055.87	1.70%	[10000]	ug/L

Mg 279.077 IEC†	353.2	1.75	0.49%	[10000]	ug/L
Mn 257.610†	1054603.0	8639.48	0.82%	[1000]	ug/L
Mo 202.031†	17515.3	133.52	0.76%	[1000]	ug/L
Na 589.592 Radial†	38505.3	808.40	2.10%	[10000]	ug/L
Ni 231.604†	48228.3	73.31	0.15%	[1000]	ug/L
P 214.914†	10073.9	106.60	1.06%	[5000]	ug/L
Pb 220.353†	10051.3	80.02	0.80%	[1000]	ug/L
S 181.975 Axial†	1718.7	16.43	0.96%	[2000]	ug/L
Sb 206.836†	3497.4	30.92	0.88%	[1000]	ug/L
Se 196.026†	1893.5	28.28	1.49%	[1000]	ug/L
Si 251.611†	186408.8	270.16	0.14%	[5000]	ug/L
Sn 189.927†	7061.1	58.73	0.83%	[1000]	ug/L
Sr 421.552†	185436.3	3519.46	1.90%	[1000]	ug/L
Ti 334.940†	706170.4	1206.44	0.17%	[1000]	ug/L
Tl 190.801†	4030.9	36.05	0.89%	[1000]	ug/L
U 409.014†	37565.8	283.83	0.76%	[1000]	ug/L
V 292.402†	165289.0	245.24	0.15%	[1000]	ug/L
Zn 213.857†	127789.6	70.24	0.05%	[1000]	ug/L
SiO2†	184629.0	1642.33	0.89%	[10695]	ug/L

Sequence No.: 5
Sample ID: S10
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 5
Date Collected: 12/17/2009 09:47:07
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S10

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc Radial	5674.9	5674.9	95.4	%	09:49:21
1	Y RADIAL	5814.4	5814.4	94.09	%	09:49:21
1	Al 396.153Radial†	72775.5	76334.8	[50000]	ug/L	09:49:01
1	Ca 317.933Radial†	35362.1	37063.2	[50000]	ug/L	09:49:21
1	Fe 238.204 Radial†	2544.0	2655.0	[20000]	ug/L	09:49:21
1	Mg 279.077 IEC†	1671.9	1747.9	[50000]	ug/L	09:49:21
1	Na 589.592 Radial†	72046.0	77278.5	[20000]	ug/L	09:49:01
1	Sc 361.383	933930.3	933930.3	100.17	%	09:50:18
1	Y 371.029	739330.1	739330.1	96.148	%	09:50:18
2	Sc Radial	5809.9	5809.9	97.6	%	09:49:46
2	Y RADIAL	5969.7	5969.7	96.61	%	09:49:46
2	Al 396.153Radial†	72192.1	73963.7	[50000]	ug/L	09:49:26
2	Ca 317.933Radial†	35102.6	35935.7	[50000]	ug/L	09:49:46
2	Fe 238.204 Radial†	2519.1	2567.4	[20000]	ug/L	09:49:46
2	Mg 279.077 IEC†	1648.7	1683.5	[50000]	ug/L	09:49:46
2	Na 589.592 Radial†	71382.4	74843.0	[20000]	ug/L	09:49:26
2	Sc 361.383	933116.4	933116.4	100.08	%	09:50:24
2	Y 371.029	738712.8	738712.8	96.068	%	09:50:24
3	Sc Radial	5778.7	5778.7	97.1	%	09:50:11
3	Y RADIAL	5930.5	5930.5	95.97	%	09:50:11
3	Al 396.153Radial†	72906.5	75097.7	[50000]	ug/L	09:49:51
3	Ca 317.933Radial†	35132.4	36160.0	[50000]	ug/L	09:50:11
3	Fe 238.204 Radial†	2513.7	2575.8	[20000]	ug/L	09:50:11
3	Mg 279.077 IEC†	1656.4	1700.5	[50000]	ug/L	09:50:11
3	Na 589.592 Radial†	71581.0	75441.4	[20000]	ug/L	09:49:51
3	Sc 361.383	935660.4	935660.4	100.35	%	09:50:29
3	Y 371.029	740399.5	740399.5	96.287	%	09:50:29

Mean Data: S10

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	934235.7	1299.21	0.14%	100.20	%
Sc Radial	5754.5	70.70	1.23%	96.7	%
Y 371.029	739480.8	853.41	0.12%	96.168	%
Y RADIAL	5904.9	80.79	1.37%	95.56	%
Al 396.153Radial†	75132.1	1185.94	1.58%	[50000]	ug/L
Ca 317.933Radial†	36386.3	596.88	1.64%	[50000]	ug/L
Fe 238.204 Radial†	2599.4	48.34	1.86%	[20000]	ug/L
Mg 279.077 IEC†	1710.6	33.41	1.95%	[50000]	ug/L
Na 589.592 Radial†	75854.3	1269.18	1.67%	[20000]	ug/L

Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 328.068	3	Lin Thru 0	0.0	239.6	0.00000	0.999835	
Al 396.153Radial	3	Lin Thru 0	0.0	1.503	0.00000	0.999998	
As 188.979	3	Lin Thru 0	0.0	2.889	0.00000	0.999877	
B 249.677	3	Lin Thru 0	0.0	50.66	0.00000	0.999788	
Ba 233.527	3	Lin Thru 0	0.0	154.1	0.00000	0.999859	
Be 313.107	3	Lin Thru 0	0.0	3062	0.00000	0.999905	
Ca 317.933Radial	3	Lin Thru 0	0.0	0.7281	0.00000	0.999996	
Cd 226.502	3	Lin Thru 0	0.0	106.4	0.00000	0.999886	
Co 228.616	3	Lin Thru 0	0.0	59.56	0.00000	0.999878	
Cr 267.716	3	Lin Thru 0	0.0	103.4	0.00000	0.999838	
Cu 324.752	3	Lin Thru 0	0.0	366.7	0.00000	0.999785	
Fe 238.204 Radia	2	Lin Thru 0	0.0	0.1304	0.00000	0.999983	
K 766.490 Radial	3	Lin Thru 0	0.0	6.196	0.00000	0.999953	

Mg 279.077 IEC	3	Lin Thru 0	0.0	0.0343	0.00000	0.999981
Mn 257.610	3	Lin Thru 0	0.0	1048	0.00000	0.999910
Mo 202.031	3	Lin Thru 0	0.0	17.34	0.00000	0.999797
Na 589.592 Radia	2	Lin Thru 0	0.0	3.804	0.00000	0.999982
Ni 231.604	3	Lin Thru 0	0.0	47.87	0.00000	0.999885
P 214.914	3	Lin Thru 0	0.0	1.994	0.00000	0.999777
Pb 220.353	3	Lin Thru 0	0.0	9.959	0.00000	0.999817
S 181.975 Axial	3	Lin Thru 0	0.0	0.8514	0.00000	0.999830
Sb 206.836	3	Lin Thru 0	0.0	3.461	0.00000	0.999784
Se 196.026	3	Lin Thru 0	0.0	1.883	0.00000	0.999920
Si 251.611	3	Lin Thru 0	0.0	37.04	0.00000	0.999916
Sn 189.927	3	Lin Thru 0	0.0	6.987	0.00000	0.999775
Sr 421.552	3	Lin Thru 0	0.0	184.8	0.00000	0.999978
Ti 334.940	3	Lin Thru 0	0.0	702.9	0.00000	0.999951
Tl 190.801	3	Lin Thru 0	0.0	4.002	0.00000	0.999888
U 409.014	3	Lin Thru 0	0.0	37.19	0.00000	0.999788
V 292.402	3	Lin Thru 0	0.0	163.7	0.00000	0.999823
Zn 213.857	3	Lin Thru 0	0.0	126.9	0.00000	0.999892
SiO2	3	Lin Thru 0	0.0	17.17	0.00000	0.999943

Sequence No.: 6
Sample ID: ICV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 9
Date Collected: 12/17/2009 09:52:41
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICV

Rep1#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	6311.3	6311.3	106	%			09:54:33
1	Y RADIAL	6473.4	6473.4	104.8	%			09:54:33
1	Al 396.153Radial†	7245.5	6848.4	4533.9	ug/L	4533.9	ppb	09:54:33
1	Ca 317.933Radial†	3673.8	3443.8	4729.9	ug/L	4729.9	ppb	09:54:54
1	Fe 238.204 Radial†	674.8	623.4	4797.1	ug/L	4797.1	ppb	09:54:54
1	K 766.490 Radial†	18141.4	13959.8	2247.8	ug/L	2247.8	ppb	09:54:33
1	Mg 279.077 IEC†	186.2	170.2	4975.8	ug/L	4975.8	ppb	09:54:54
1	Na 589.592 Radial†	7479.8	8778.0	2307.4	ug/L	2307.4	ppb	09:54:33
1	Sr 421.552†	92726.7	87449.7	473.16	ug/L	473.16	ppb	09:54:33
1	Sc 361.383	972779.4	972779.4	104.34	%			09:55:51
1	Y 371.029	778695.2	778695.2	101.27	%			09:55:51
1	Ag 328.068†	62184.7	59192.1	250.04	ug/L	250.04	ppb	09:55:51
1	As 188.979†	1353.0	1328.2	463.87	ug/L	463.87	ppb	09:56:11
1	B 249.677†	25449.5	24918.5	490.03	ug/L	490.03	ppb	09:55:51
1	Ba 233.527†	78228.1	74965.7	487.79	ug/L	487.79	ppb	09:55:51
1	Be 313.107†	799051.5	770394.2	252.53	ug/L	252.53	ppb	09:55:51
1	Cd 226.502†	52854.1	50871.5	477.76	ug/L	477.76	ppb	09:55:51
1	Co 228.616†	29676.0	28526.5	479.28	ug/L	479.28	ppb	09:56:11
1	Cr 267.716†	50181.9	48011.8	465.14	ug/L	465.14	ppb	09:55:51
1	Cu 324.752†	191930.6	177855.1	485.27	ug/L	485.27	ppb	09:55:51
1	Mn 257.610†	544198.5	521024.1	497.49	ug/L	497.49	ppb	09:55:51
1	Mo 202.031†	9431.2	9014.3	520.14	ug/L	520.14	ppb	09:56:11
1	Ni 231.604†	24135.0	23002.3	480.18	ug/L	480.18	ppb	09:56:11
1	P 214.914†	5268.5	4804.5	2337.0	ug/L	2337.0	ppb	09:56:11
1	Pb 220.353†	4925.8	4797.4	483.22	ug/L	483.22	ppb	09:56:11
1	S 181.975 Axial†	2194.7	2055.1	2412.8	ug/L	2412.8	ppb	09:56:11
1	Sb 206.836†	1789.4	1670.6	491.65	ug/L	491.65	ppb	09:56:11
1	Se 196.026†	4855.3	4689.5	2509.8	ug/L	2509.8	ppb	09:56:11
1	Si 251.611†	179429.8	171331.6	4613.9	ug/L	4613.9	ppb	09:55:51
1	Sn 189.927†	3787.6	3624.0	519.25	ug/L	519.25	ppb	09:56:11
1	Ti 334.940†	353550.0	340312.6	484.00	ug/L	484.00	ppb	09:55:51
1	Tl 190.801†	2111.8	2065.2	519.22	ug/L	519.22	ppb	09:56:11
1	U 409.014†	15322.1	17654.2	473.21	ug/L	473.21	ppb	09:55:51
1	V 292.402†	81558.1	79700.9	493.76	ug/L	493.76	ppb	09:55:51
1	Zn 213.857†	66605.9	62958.7	491.89	ug/L	491.89	ppb	09:55:51
1	SiO2†	179869.4	171715.6	9974.7	ug/L	9974.7	ppb	09:57:09
2	Sc Radial	5924.9	5924.9	99.6	%			09:54:59
2	Y RADIAL	6106.1	6106.1	98.82	%			09:54:59
2	Al 396.153Radial†	7442.3	7491.5	4961.4	ug/L	4961.4	ppb	09:54:59
2	Ca 317.933Radial†	3657.1	3652.9	5017.2	ug/L	5017.2	ppb	09:55:19
2	Fe 238.204 Radial†	673.7	663.7	5107.2	ug/L	5107.2	ppb	09:55:19
2	K 766.490 Radial†	18222.2	15156.5	2440.8	ug/L	2440.8	ppb	09:54:59
2	Mg 279.077 IEC†	182.3	177.8	5196.9	ug/L	5196.9	ppb	09:55:19
2	Na 589.592 Radial†	7573.3	9331.8	2453.0	ug/L	2453.0	ppb	09:54:59
2	Sr 421.552†	94733.4	95167.4	514.92	ug/L	514.92	ppb	09:54:59
2	Sc 361.383	959935.7	959935.7	102.96	%			09:56:17
2	Y 371.029	768430.2	768430.2	99.933	%			09:56:17
2	Ag 328.068†	62327.0	60127.7	254.07	ug/L	254.07	ppb	09:56:17
2	As 188.979†	1337.9	1331.0	464.93	ug/L	464.93	ppb	09:56:37
2	B 249.677†	25767.3	25553.5	502.50	ug/L	502.50	ppb	09:56:17
2	Ba 233.527†	78574.5	76305.3	496.52	ug/L	496.52	ppb	09:56:17
2	Be 313.107†	804985.8	786404.8	257.77	ug/L	257.77	ppb	09:56:17
2	Cd 226.502†	52911.2	51604.8	484.63	ug/L	484.63	ppb	09:56:17
2	Co 228.616†	29769.3	28997.7	487.19	ug/L	487.19	ppb	09:56:37
2	Cr 267.716†	50472.0	48937.1	474.11	ug/L	474.11	ppb	09:56:17
2	Cu 324.752†	192998.0	181353.1	494.83	ug/L	494.83	ppb	09:56:17
2	Mn 257.610†	546827.0	530555.7	506.61	ug/L	506.61	ppb	09:56:17
2	Mo 202.031†	9481.1	9183.7	529.93	ug/L	529.93	ppb	09:56:37
2	Ni 231.604†	24221.3	23395.6	488.39	ug/L	488.39	ppb	09:56:37

2	P 214.914†	5280.5	4883.7	2375.3	ug/L	2375.3 ppb	09:56:37
2	Pb 220.353†	4939.6	4873.9	491.00	ug/L	491.00 ppb	09:56:37
2	S 181.975 Axial†	2199.3	2087.7	2451.0	ug/L	2451.0 ppb	09:56:37
2	Sb 206.836†	1786.8	1691.1	497.75	ug/L	497.75 ppb	09:56:37
2	Se 196.026†	4854.8	4751.2	2543.8	ug/L	2543.8 ppb	09:56:37
2	Si 251.611†	180175.6	174357.0	4695.3	ug/L	4695.3 ppb	09:56:17
2	Sn 189.927†	3819.4	3703.4	530.66	ug/L	530.66 ppb	09:56:37
2	Ti 334.940†	355507.1	346747.3	493.16	ug/L	493.16 ppb	09:56:17
2	Tl 190.801†	2122.8	2103.0	528.73	ug/L	528.73 ppb	09:56:37
2	U 409.014†	15483.1	18007.1	482.65	ug/L	482.65 ppb	09:56:17
2	V 292.402†	82130.0	81302.2	503.64	ug/L	503.64 ppb	09:56:17
2	Zn 213.857†	66800.5	64001.8	500.01	ug/L	500.01 ppb	09:56:17
2	SiO2†	179224.0	173395.3	10072	ug/L	10072 ppb	09:57:14
3	Sc Radial	5873.4	5873.4	98.7	%		09:55:24
3	Y RADIAL	6066.3	6066.3	98.17	%		09:55:24
3	Al 396.153Radial†	7390.2	7504.3	4969.8	ug/L	4969.8 ppb	09:55:24
3	Ca 317.933Radial†	3638.6	3666.3	5035.5	ug/L	5035.5 ppb	09:55:44
3	Fe 238.204 Radial†	667.9	663.8	5108.0	ug/L	5108.0 ppb	09:55:44
3	K 766.490 Radial†	18012.0	15103.8	2432.3	ug/L	2432.3 ppb	09:55:24
3	Mg 279.077 IEC†	185.7	182.8	5342.2	ug/L	5342.2 ppb	09:55:44
3	Na 589.592 Radial†	7498.0	9322.2	2450.5	ug/L	2450.5 ppb	09:55:24
3	Sr 421.552†	93662.2	94915.6	513.55	ug/L	513.55 ppb	09:55:24
3	Sc 361.383	960276.2	960276.2	102.99	%		09:56:43
3	Y 371.029	769292.7	769292.7	100.04	%		09:56:43
3	Ag 328.068†	62397.3	60174.5	254.27	ug/L	254.27 ppb	09:56:43
3	As 188.979†	1353.1	1345.2	469.86	ug/L	469.86 ppb	09:57:03
3	B 249.677†	25605.8	25387.8	499.23	ug/L	499.23 ppb	09:56:43
3	Ba 233.527†	78536.5	76241.4	496.11	ug/L	496.11 ppb	09:56:43
3	Be 313.107†	805025.2	786165.8	257.70	ug/L	257.70 ppb	09:56:43
3	Cd 226.502†	52978.3	51651.7	485.07	ug/L	485.07 ppb	09:56:43
3	Co 228.616†	29869.6	29084.8	488.66	ug/L	488.66 ppb	09:57:03
3	Cr 267.716†	50498.9	48945.8	474.20	ug/L	474.20 ppb	09:56:43
3	Cu 324.752†	192942.9	181233.1	494.50	ug/L	494.50 ppb	09:56:43
3	Mn 257.610†	546270.2	529826.7	505.91	ug/L	505.91 ppb	09:56:43
3	Mo 202.031†	9517.1	9215.4	531.76	ug/L	531.76 ppb	09:57:03
3	Ni 231.604†	24309.0	23472.4	490.00	ug/L	490.00 ppb	09:57:03
3	P 214.914†	5317.5	4917.9	2392.4	ug/L	2392.4 ppb	09:57:03
3	Pb 220.353†	4975.7	4907.2	494.34	ug/L	494.34 ppb	09:57:03
3	S 181.975 Axial†	2204.3	2091.8	2455.7	ug/L	2455.7 ppb	09:57:03
3	Sb 206.836†	1794.8	1698.2	499.79	ug/L	499.79 ppb	09:57:03
3	Se 196.026†	4912.9	4805.9	2572.8	ug/L	2572.8 ppb	09:57:03
3	Si 251.611†	180082.7	174204.7	4691.2	ug/L	4691.2 ppb	09:56:43
3	Sn 189.927†	3803.1	3686.3	528.21	ug/L	528.21 ppb	09:57:03
3	Ti 334.940†	355377.1	346498.6	492.81	ug/L	492.81 ppb	09:56:43
3	Tl 190.801†	2134.1	2113.2	531.26	ug/L	531.26 ppb	09:57:03
3	U 409.014†	15551.1	18067.8	484.28	ug/L	484.28 ppb	09:56:43
3	V 292.402†	82201.7	81343.6	503.93	ug/L	503.93 ppb	09:56:43
3	Zn 213.857†	66762.6	63942.0	499.52	ug/L	499.52 ppb	09:56:43
3	SiO2†	179239.4	173348.5	10069	ug/L	10069 ppb	09:57:19

Mean Data: ICV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	964330.4	103.43	%	0.785				0.76%
Sc Radial	6036.5	101	%	4.0				3.96%
Y 371.029	772139.4	100.42	%	0.740				0.74%
Y RADIAL	6215.3	100.6	%	3.63				3.61%
Ag 328.068†	59831.5	252.79	ug/L	2.387	252.79	ppb	2.387	0.94%
QC value within limits for Ag 328.068 Recovery = 101.12%								
Al 396.153Radial†	7281.4	4821.7	ug/L	249.26	4821.7	ppb	249.26	5.17%
QC value within limits for Al 396.153Radial Recovery = 96.43%								
As 188.979†	1334.8	466.22	ug/L	3.193	466.22	ppb	3.193	0.68%
QC value within limits for As 188.979 Recovery = 93.24%								
B 249.677†	25286.6	497.25	ug/L	6.467	497.25	ppb	6.467	1.30%
QC value within limits for B 249.677 Recovery = 99.45%								
Ba 233.527†	75837.4	493.47	ug/L	4.924	493.47	ppb	4.924	1.00%
QC value within limits for Ba 233.527 Recovery = 98.69%								
Be 313.107†	780988.2	256.00	ug/L	3.007	256.00	ppb	3.007	1.17%
QC value within limits for Be 313.107 Recovery = 102.40%								
Ca 317.933Radial†	3587.6	4927.5	ug/L	171.38	4927.5	ppb	171.38	3.48%

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   QC value within limits for Ca 317.933Radial  Recovery = 98.55%
Cd 226.502†            51376.0      482.48 ug/L         4.096      482.48 ppb          4.096   0.85%
   QC value within limits for Cd 226.502  Recovery = 96.50%
Co 228.616†            28869.7      485.04 ug/L         5.046      485.04 ppb          5.046   1.04%
   QC value within limits for Co 228.616  Recovery = 97.01%
Cr 267.716†            48631.6      471.15 ug/L         5.203      471.15 ppb          5.203   1.10%
   QC value within limits for Cr 267.716  Recovery = 94.23%
Cu 324.752†           180147.1      491.53 ug/L         5.425      491.53 ppb          5.425   1.10%
   QC value within limits for Cu 324.752  Recovery = 98.31%
Fe 238.204 Radial†       650.3      5004.1 ug/L        179.29      5004.1 ppb         179.29   3.58%
   QC value within limits for Fe 238.204 Radial  Recovery = 100.08%
K 766.490 Radial†      14740.1      2373.6 ug/L        109.08      2373.6 ppb         109.08   4.60%
   QC value within limits for K 766.490 Radial  Recovery = 94.95%
Mg 279.077 IEC†          176.9      5171.6 ug/L        184.54      5171.6 ppb         184.54   3.57%
   QC value within limits for Mg 279.077 IEC  Recovery = 103.43%
Mn 257.610†           527135.5      503.34 ug/L         5.076      503.34 ppb          5.076   1.01%
   QC value within limits for Mn 257.610  Recovery = 100.67%
Mo 202.031†            9137.8       527.28 ug/L         6.247      527.28 ppb          6.247   1.18%
   QC value within limits for Mo 202.031  Recovery = 105.46%
Na 589.592 Radial†     9144.0      2403.6 ug/L         83.33      2403.6 ppb          83.33   3.47%
   QC value within limits for Na 589.592 Radial  Recovery = 96.14%
Ni 231.604†           23290.1      486.19 ug/L         5.265      486.19 ppb          5.265   1.08%
   QC value within limits for Ni 231.604  Recovery = 97.24%
P 214.914†             4868.7      2368.2 ug/L         28.36      2368.2 ppb          28.36   1.20%
   QC value within limits for P 214.914  Recovery = 94.73%
Pb 220.353†            4859.5       489.52 ug/L         5.707      489.52 ppb          5.707   1.17%
   QC value within limits for Pb 220.353  Recovery = 97.90%
S 181.975 Axial†       2078.2      2439.9 ug/L         23.57      2439.9 ppb          23.57   0.97%
   QC value within limits for S 181.975 Axial  Recovery = 97.59%
Sb 206.836†            1686.6       496.40 ug/L         4.234      496.40 ppb          4.234   0.85%
   QC value within limits for Sb 206.836  Recovery = 99.28%
Se 196.026†            4748.9      2542.1 ug/L         31.56      2542.1 ppb          31.56   1.24%
   QC value within limits for Se 196.026  Recovery = 101.69%
Si 251.611†          173297.8      4666.8 ug/L         45.85      4666.8 ppb          45.85   0.98%
   QC value within limits for Si 251.611  Recovery = 93.34%
Sn 189.927†            3671.2       526.04 ug/L         6.004      526.04 ppb          6.004   1.14%
   QC value within limits for Sn 189.927  Recovery = 105.21%
Sr 421.552†           92510.9       500.54 ug/L        23.726      500.54 ppb         23.726   4.74%
   QC value within limits for Sr 421.552  Recovery = 100.11%
Ti 334.940†          344519.5       489.99 ug/L         5.190      489.99 ppb          5.190   1.06%
   QC value within limits for Ti 334.940  Recovery = 98.00%
Tl 190.801†            2093.8       526.40 ug/L         6.351      526.40 ppb          6.351   1.21%
   QC value within limits for Tl 190.801  Recovery = 105.28%
U 409.014†            17909.7       480.05 ug/L         5.973      480.05 ppb          5.973   1.24%
   QC value within limits for U 409.014  Recovery = 96.01%
V 292.402†            80782.3       500.44 ug/L         5.789      500.44 ppb          5.789   1.16%
   QC value within limits for V 292.402  Recovery = 100.09%
Zn 213.857†           63634.2       497.14 ug/L         4.554      497.14 ppb          4.554   0.92%
   QC value within limits for Zn 213.857  Recovery = 99.43%
SiO2†                172819.8        10039 ug/L          55.4       10039 ppb           55.4   0.55%
   QC value within limits for SiO2  Recovery = 93.86%
All analyte(s) passed QC.
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Sequence No.: 7
Sample ID: ICB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 10
Date Collected: 12/17/2009 09:59:30
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICB

Rep1#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	6121.3	6121.3	103	%			10:01:23
1	Y RADIAL	6318.8	6318.8	102.3	%			10:01:23
1	Al 396.153Radial†	5.9	22.0	14.618	ug/L	14.618	ppb	10:01:23
1	Ca 317.933Radial†	19.6	-1.4	-1.9505	ug/L	-1.9505	ppb	10:01:44
1	Fe 238.204 Radial†	14.2	0.9	7.0290	ug/L	7.0290	ppb	10:01:44
1	K 766.490 Radial†	3191.6	-43.6	-7.0164	ug/L	-7.0164	ppb	10:01:23
1	Mg 279.077 IEC†	3.3	-2.1	-61.714	ug/L	-61.714	ppb	10:01:44
1	Na 589.592 Radial†	-1820.6	-45.0	-11.821	ug/L	-11.821	ppb	10:01:23
1	Sr 421.552†	-16.8	-2.1	-0.0115	ug/L	-0.0115	ppb	10:01:23
1	Sc 361.383	970240.5	970240.5	104.06	%			10:02:40
1	Y 371.029	784205.1	784205.1	101.98	%			10:02:40
1	Ag 328.068†	470.7	43.9	0.1805	ug/L	0.1805	ppb	10:02:45
1	As 188.979†	-28.4	4.2	1.4408	ug/L	1.4408	ppb	10:03:05
1	B 249.677†	-340.8	199.1	3.9278	ug/L	3.9278	ppb	10:03:05
1	Ba 233.527†	28.4	15.7	0.1035	ug/L	0.1035	ppb	10:03:05
1	Be 313.107†	-4496.0	227.9	0.0745	ug/L	0.0745	ppb	10:02:45
1	Cd 226.502†	-211.7	10.4	0.0973	ug/L	0.0973	ppb	10:03:05
1	Co 228.616†	-70.8	15.8	0.2671	ug/L	0.2671	ppb	10:03:05
1	Cr 267.716†	115.4	26.1	0.2510	ug/L	0.2510	ppb	10:03:05
1	Cu 324.752†	6119.3	-219.2	-0.5974	ug/L	-0.5974	ppb	10:02:45
1	Mn 257.610†	538.1	-42.4	-0.0386	ug/L	-0.0386	ppb	10:03:05
1	Mo 202.031†	43.3	16.6	0.9578	ug/L	0.9578	ppb	10:03:05
1	Ni 231.604†	134.2	-0.8	-0.0171	ug/L	-0.0171	ppb	10:03:05
1	P 214.914†	231.2	-22.9	-11.378	ug/L	-11.378	ppb	10:03:05
1	Pb 220.353†	-72.5	6.5	0.6618	ug/L	0.6618	ppb	10:03:05
1	S 181.975 Axial†	42.6	-7.5	-8.8085	ug/L	-8.8085	ppb	10:03:05
1	Sb 206.836†	45.2	-1.0	-0.2702	ug/L	-0.2702	ppb	10:03:05
1	Se 196.026†	-25.6	11.3	6.0579	ug/L	6.0579	ppb	10:03:05
1	Si 251.611†	739.2	68.6	1.8382	ug/L	1.8382	ppb	10:03:05
1	Sn 189.927†	5.8	-0.6	-0.0892	ug/L	-0.0892	ppb	10:03:05
1	Ti 334.940†	-1498.7	14.7	0.0173	ug/L	0.0173	ppb	10:02:45
1	Tl 190.801†	-38.1	4.5	1.1223	ug/L	1.1223	ppb	10:03:05
1	U 409.014†	-2780.8	296.6	7.9737	ug/L	7.9737	ppb	10:02:40
1	V 292.402†	-1516.3	75.0	0.4847	ug/L	0.4847	ppb	10:02:45
1	Zn 213.857†	866.2	-47.0	-0.3679	ug/L	-0.3679	ppb	10:03:05
1	SiO2†	690.5	-15.6	-0.9364	ug/L	-0.9364	ppb	10:04:11
2	Sc Radial	6088.2	6088.2	102	%			10:01:49
2	Y RADIAL	6338.5	6338.5	102.6	%			10:01:49
2	Al 396.153Radial†	-16.4	0.2	0.1297	ug/L	0.1297	ppb	10:01:49
2	Ca 317.933Radial†	22.5	1.5	2.1188	ug/L	2.1188	ppb	10:02:09
2	Fe 238.204 Radial†	12.2	-1.0	-7.8712	ug/L	-7.8712	ppb	10:02:09
2	K 766.490 Radial†	3058.5	-156.8	-25.300	ug/L	-25.300	ppb	10:01:49
2	Mg 279.077 IEC†	-0.8	-6.1	-177.74	ug/L	-177.74	ppb	10:02:09
2	Na 589.592 Radial†	-1739.1	25.0	6.5725	ug/L	6.5725	ppb	10:01:49
2	Sr 421.552†	6.6	20.6	0.1117	ug/L	0.1117	ppb	10:01:49
2	Sc 361.383	972978.0	972978.0	104.36	%			10:03:11
2	Y 371.029	787063.9	787063.9	102.36	%			10:03:11
2	Ag 328.068†	505.3	75.8	0.3113	ug/L	0.3113	ppb	10:03:16
2	As 188.979†	-33.6	-0.7	-0.2621	ug/L	-0.2621	ppb	10:03:36
2	B 249.677†	-317.1	222.7	4.3969	ug/L	4.3969	ppb	10:03:36
2	Ba 233.527†	20.4	8.0	0.0516	ug/L	0.0516	ppb	10:03:36
2	Be 313.107†	-4520.3	216.9	0.0710	ug/L	0.0710	ppb	10:03:16
2	Cd 226.502†	-205.3	17.1	0.1617	ug/L	0.1617	ppb	10:03:36
2	Co 228.616†	-72.4	14.4	0.2418	ug/L	0.2418	ppb	10:03:36
2	Cr 267.716†	107.3	18.1	0.1737	ug/L	0.1737	ppb	10:03:36
2	Cu 324.752†	6169.5	-187.7	-0.5122	ug/L	-0.5122	ppb	10:03:16
2	Mn 257.610†	582.8	-1.0	0.0015	ug/L	0.0015	ppb	10:03:36
2	Mo 202.031†	27.5	1.4	0.0782	ug/L	0.0782	ppb	10:03:36
2	Ni 231.604†	124.2	-10.7	-0.2240	ug/L	-0.2240	ppb	10:03:36

2	P 214.914†	233.8	-21.0	-10.440 ug/L	-10.440 ppb	10:03:36
2	Pb 220.353†	-75.1	4.2	0.4268 ug/L	0.4268 ppb	10:03:36
2	S 181.975 Axial†	48.0	-2.4	-2.8197 ug/L	-2.8197 ppb	10:03:36
2	Sb 206.836†	45.4	-0.9	-0.2625 ug/L	-0.2625 ppb	10:03:36
2	Se 196.026†	-27.6	9.4	4.9887 ug/L	4.9887 ppb	10:03:36
2	Si 251.611†	674.5	4.6	0.1303 ug/L	0.1303 ppb	10:03:36
2	Sn 189.927†	9.2	2.6	0.3783 ug/L	0.3783 ppb	10:03:36
2	Ti 334.940†	-1457.8	58.0	0.0816 ug/L	0.0816 ppb	10:03:16
2	Tl 190.801†	-48.1	-5.0	-1.2381 ug/L	-1.2381 ppb	10:03:36
2	U 409.014†	-3014.4	80.3	2.1594 ug/L	2.1594 ppb	10:03:11
2	V 292.402†	-1619.4	-19.6	-0.1176 ug/L	-0.1176 ppb	10:03:16
2	Zn 213.857†	845.4	-69.2	-0.5368 ug/L	-0.5368 ppb	10:03:36
2	SiO2†	638.7	-67.1	-3.8968 ug/L	-3.8968 ppb	10:04:16
3	Sc Radial	5871.5	5871.5	98.7 %		10:02:14
3	Y RADIAL	6122.4	6122.4	99.08 %		10:02:14
3	Al 396.153Radial†	-31.9	-16.1	-10.699 ug/L	-10.699 ppb	10:02:14
3	Ca 317.933Radial†	21.1	0.9	1.3028 ug/L	1.3028 ppb	10:02:34
3	Fe 238.204 Radial†	12.2	-0.6	-4.3144 ug/L	-4.3144 ppb	10:02:34
3	K 766.490 Radial†	3137.5	33.6	5.4372 ug/L	5.4372 ppb	10:02:14
3	Mg 279.077 IEC†	5.0	-0.3	-9.5978 ug/L	-9.5978 ppb	10:02:34
3	Na 589.592 Radial†	-1784.6	-83.8	-22.037 ug/L	-22.037 ppb	10:02:14
3	Sr 421.552†	-51.7	-38.2	-0.2066 ug/L	-0.2066 ppb	10:02:14
3	Sc 361.383	966746.5	966746.5	103.69 %		10:03:41
3	Y 371.029	782262.8	782262.8	101.73 %		10:03:41
3	Ag 328.068†	454.3	29.7	0.1176 ug/L	0.1176 ppb	10:03:46
3	As 188.979†	-36.2	-3.5	-1.2068 ug/L	-1.2068 ppb	10:04:06
3	B 249.677†	-350.8	188.3	3.7165 ug/L	3.7165 ppb	10:04:06
3	Ba 233.527†	11.9	-0.1	0.0004 ug/L	0.0004 ppb	10:04:06
3	Be 313.107†	-4442.5	264.0	0.0862 ug/L	0.0862 ppb	10:03:46
3	Cd 226.502†	-192.9	27.8	0.2617 ug/L	0.2617 ppb	10:04:06
3	Co 228.616†	-84.3	2.5	0.0427 ug/L	0.0427 ppb	10:04:06
3	Cr 267.716†	113.9	25.2	0.2415 ug/L	0.2415 ppb	10:04:06
3	Cu 324.752†	6169.3	-149.7	-0.4086 ug/L	-0.4086 ppb	10:03:46
3	Mn 257.610†	576.6	-3.4	-0.0035 ug/L	-0.0035 ppb	10:04:06
3	Mo 202.031†	28.9	2.9	0.1646 ug/L	0.1646 ppb	10:04:06
3	Ni 231.604†	137.7	3.1	0.0646 ug/L	0.0646 ppb	10:04:06
3	P 214.914†	233.6	-19.7	-9.8283 ug/L	-9.8283 ppb	10:04:06
3	Pb 220.353†	-65.8	12.8	1.2840 ug/L	1.2840 ppb	10:04:06
3	S 181.975 Axial†	50.4	0.2	0.1974 ug/L	0.1974 ppb	10:04:06
3	Sb 206.836†	38.2	-7.6	-2.1983 ug/L	-2.1983 ppb	10:04:06
3	Se 196.026†	-28.4	8.6	4.5272 ug/L	4.5272 ppb	10:04:06
3	Si 251.611†	649.0	-15.8	-0.4303 ug/L	-0.4303 ppb	10:04:06
3	Sn 189.927†	6.5	0.0	0.0034 ug/L	0.0034 ppb	10:04:06
3	Ti 334.940†	-1511.9	-3.2	-0.0080 ug/L	-0.0080 ppb	10:03:46
3	Tl 190.801†	-26.6	15.5	3.8760 ug/L	3.8760 ppb	10:04:06
3	U 409.014†	-2775.1	292.4	7.8637 ug/L	7.8637 ppb	10:03:41
3	V 292.402†	-1511.9	74.0	0.4696 ug/L	0.4696 ppb	10:03:46
3	Zn 213.857†	833.2	-75.8	-0.5964 ug/L	-0.5964 ppb	10:04:06
3	SiO2†	694.5	-9.4	-0.5563 ug/L	-0.5563 ppb	10:04:21

Mean Data: ICB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	969988.3	104.04	%	0.335				0.32%
Sc Radial	6027.0	101	%	2.3				2.25%
Y 371.029	784510.6	102.02	%	0.314				0.31%
Y RADIAL	6259.9	101.3	%	1.93				1.91%
Ag 328.068†	49.8	0.2031	ug/L	0.09880	0.2031	ppb	0.09880	48.64%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	2.1	1.3495	ug/L	12.70281	1.3495	ppb	12.70281	941.28%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-0.0	-0.0093	ug/L	1.34174	-0.0093	ppb	1.34174	>999.9%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	203.3	4.0137	ug/L	0.34826	4.0137	ppb	0.34826	8.68%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	7.9	0.0518	ug/L	0.05153	0.0518	ppb	0.05153	99.41%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	236.3	0.0772	ug/L	0.00797	0.0772	ppb	0.00797	10.32%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	0.4	0.4904	ug/L	2.15284	0.4904	ppb	2.15284	439.03%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              18.5      0.1736 ug/L       0.08282      0.1736 ppb        0.08282  47.72%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†              10.9      0.1839 ug/L       0.12292      0.1839 ppb        0.12292  66.86%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              23.1      0.2221 ug/L       0.04216      0.2221 ppb        0.04216  18.98%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -185.5     -0.5060 ug/L       0.09456     -0.5060 ppb        0.09456  18.69%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       -0.2     -1.7189 ug/L       7.78182     -1.7189 ppb        7.78182 452.72%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       -55.6     -8.9596 ug/L      15.46034     -8.9596 ppb       15.46034 172.56%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          -2.8     -83.019 ug/L       86.0738     -83.019 ppb        86.0738 103.68%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†             -15.6     -0.0135 ug/L       0.02186     -0.0135 ppb        0.02186 161.58%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               6.9      0.4002 ug/L       0.48487      0.4002 ppb        0.48487 121.16%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      -34.6     -9.0951 ug/L      14.49825     -9.0951 ppb       14.49825 159.41%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              -2.8     -0.0589 ug/L       0.14876     -0.0589 ppb        0.14876 252.64%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†              -21.2     -10.549 ug/L        0.7808     -10.549 ppb         0.7808   7.40%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               7.9      0.7909 ug/L       0.44296      0.7909 ppb        0.44296  56.01%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         -3.2     -3.8103 ug/L       4.58391     -3.8103 ppb        4.58391 120.30%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -3.2     -0.9104 ug/L       1.11543     -0.9104 ppb        1.11543 122.53%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               9.8      5.1913 ug/L       0.78520      5.1913 ppb        0.78520  15.13%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†              19.2      0.5127 ug/L       1.18162      0.5127 ppb        1.18162 230.46%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               0.7      0.0975 ug/L       0.24751      0.0975 ppb        0.24751 253.79%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              -6.6     -0.0355 ug/L       0.16050     -0.0355 ppb        0.16050 452.40%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              23.2      0.0303 ug/L       0.04616      0.0303 ppb        0.04616 152.45%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               5.0      1.2534 ug/L       2.55958      1.2534 ppb        2.55958 204.21%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              223.1      5.9989 ug/L       3.32561      5.9989 ppb        3.32561  55.44%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               43.1      0.2789 ug/L       0.34345      0.2789 ppb        0.34345 123.14%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†             -64.0     -0.5004 ug/L       0.11852     -0.5004 ppb        0.11852  23.69%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                   -30.7     -1.7965 ug/L       1.82883     -1.7965 ppb        1.82883 101.80%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 8
Sample ID: PQL
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 11
Date Collected: 12/17/2009 10:06:33
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: PQL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	6186.3	6186.3	104	%			10:08:26
1	Y RADIAL	6446.2	6446.2	104.3	%			10:08:26
1	Al 396.153Radial†	294.5	299.6	198.87	ug/L	198.87	ppb	10:08:26
1	Ca 317.933Radial†	176.5	149.3	205.10	ug/L	205.10	ppb	10:08:46
1	Fe 238.204 Radial†	25.8	11.9	91.455	ug/L	91.455	ppb	10:08:46
1	K 766.490 Radial†	4104.9	802.5	129.28	ug/L	129.28	ppb	10:08:26
1	Mg 279.077 IEC†	15.5	9.5	277.85	ug/L	277.85	ppb	10:08:46
1	Na 589.592 Radial†	-548.0	1197.8	314.87	ug/L	314.87	ppb	10:08:26
1	Sr 421.552†	935.9	914.6	4.9469	ug/L	4.9469	ppb	10:08:26
1	Sc 361.383	972389.1	972389.1	104.29	%			10:09:43
1	Y 371.029	785362.7	785362.7	102.13	%			10:09:43
1	Ag 328.068†	1710.7	1231.8	5.1367	ug/L	5.1367	ppb	10:09:48
1	As 188.979†	52.1	81.4	28.190	ug/L	28.190	ppb	10:10:08
1	B 249.677†	2127.9	2566.8	50.643	ug/L	50.643	ppb	10:09:48
1	Ba 233.527†	821.1	775.8	5.0490	ug/L	5.0490	ppb	10:10:08
1	Be 313.107†	11593.9	15665.0	5.1254	ug/L	5.1254	ppb	10:09:48
1	Cd 226.502†	334.5	534.5	5.0159	ug/L	5.0159	ppb	10:10:08
1	Co 228.616†	224.8	299.3	5.0396	ug/L	5.0396	ppb	10:10:08
1	Cr 267.716†	614.8	504.7	4.8727	ug/L	4.8727	ppb	10:10:08
1	Cu 324.752†	10034.9	3522.2	9.6101	ug/L	9.6101	ppb	10:09:48
1	Mn 257.610†	11992.2	10939.0	10.441	ug/L	10.441	ppb	10:09:48
1	Mo 202.031†	206.4	172.9	9.9762	ug/L	9.9762	ppb	10:10:08
1	Ni 231.604†	375.8	230.6	4.8132	ug/L	4.8132	ppb	10:10:08
1	P 214.914†	552.0	284.2	141.15	ug/L	141.15	ppb	10:10:08
1	Pb 220.353†	23.3	98.6	9.9560	ug/L	9.9560	ppb	10:10:08
1	S 181.975 Axial†	137.9	83.8	98.440	ug/L	98.440	ppb	10:10:08
1	Sb 206.836†	69.5	22.2	6.6774	ug/L	6.6774	ppb	10:10:08
1	Se 196.026†	35.6	70.0	37.595	ug/L	37.595	ppb	10:10:08
1	Si 251.611†	4529.9	3701.7	99.687	ug/L	99.687	ppb	10:09:48
1	Sn 189.927†	75.1	65.8	9.4353	ug/L	9.4353	ppb	10:10:08
1	Ti 334.940†	2188.8	3553.6	5.0387	ug/L	5.0387	ppb	10:09:48
1	Tl 190.801†	38.1	77.7	19.471	ug/L	19.471	ppb	10:10:08
1	U 409.014†	-840.6	2162.8	58.137	ug/L	58.137	ppb	10:09:43
1	V 292.402†	-785.0	779.4	5.0000	ug/L	5.0000	ppb	10:09:48
1	Zn 213.857†	2177.8	1208.8	9.4658	ug/L	9.4658	ppb	10:10:08
1	SiO2†	4443.6	3581.5	208.03	ug/L	208.03	ppb	10:11:14
2	Sc Radial	6174.5	6174.5	104	%			10:08:51
2	Y RADIAL	6406.6	6406.6	103.7	%			10:08:51
2	Al 396.153Radial†	308.9	313.9	208.43	ug/L	208.43	ppb	10:08:51
2	Ca 317.933Radial†	177.1	150.2	206.35	ug/L	206.35	ppb	10:09:11
2	Fe 238.204 Radial†	26.2	12.4	95.009	ug/L	95.009	ppb	10:09:11
2	K 766.490 Radial†	4154.0	857.3	138.14	ug/L	138.14	ppb	10:08:51
2	Mg 279.077 IEC†	11.5	5.7	166.65	ug/L	166.65	ppb	10:09:11
2	Na 589.592 Radial†	-577.0	1168.9	307.26	ug/L	307.26	ppb	10:08:51
2	Sr 421.552†	914.2	895.4	4.8431	ug/L	4.8431	ppb	10:08:51
2	Sc 361.383	974880.5	974880.5	104.56	%			10:10:13
2	Y 371.029	787853.6	787853.6	102.46	%			10:10:13
2	Ag 328.068†	1653.4	1172.8	4.8912	ug/L	4.8912	ppb	10:10:19
2	As 188.979†	57.9	86.8	30.075	ug/L	30.075	ppb	10:10:39
2	B 249.677†	2157.4	2589.9	51.098	ug/L	51.098	ppb	10:10:19
2	Ba 233.527†	826.7	779.1	5.0713	ug/L	5.0713	ppb	10:10:39
2	Be 313.107†	11462.0	15510.4	5.0749	ug/L	5.0749	ppb	10:10:19
2	Cd 226.502†	346.5	545.2	5.1156	ug/L	5.1156	ppb	10:10:39
2	Co 228.616†	226.8	300.7	5.0636	ug/L	5.0636	ppb	10:10:39
2	Cr 267.716†	614.5	502.9	4.8555	ug/L	4.8555	ppb	10:10:39
2	Cu 324.752†	10018.4	3481.8	9.5000	ug/L	9.5000	ppb	10:10:19
2	Mn 257.610†	11965.8	10884.3	10.391	ug/L	10.391	ppb	10:10:19
2	Mo 202.031†	206.4	172.4	9.9507	ug/L	9.9507	ppb	10:10:39
2	Ni 231.604†	380.4	234.0	4.8855	ug/L	4.8855	ppb	10:10:39

2	P 214.914†	561.1	291.6	144.87	ug/L	144.87 ppb	10:10:39
2	Pb 220.353†	32.8	107.6	10.856	ug/L	10.856 ppb	10:10:39
2	S 181.975 Axial†	142.0	87.4	102.63	ug/L	102.63 ppb	10:10:39
2	Sb 206.836†	79.1	31.2	9.2672	ug/L	9.2672 ppb	10:10:39
2	Se 196.026†	29.9	64.5	34.672	ug/L	34.672 ppb	10:10:39
2	Si 251.611†	4463.0	3626.6	97.659	ug/L	97.659 ppb	10:10:19
2	Sn 189.927†	71.3	62.0	8.8984	ug/L	8.8984 ppb	10:10:39
2	Ti 334.940†	2176.4	3536.3	5.0130	ug/L	5.0130 ppb	10:10:19
2	Tl 190.801†	33.2	72.9	18.288	ug/L	18.288 ppb	10:10:39
2	U 409.014†	-737.9	2263.1	60.833	ug/L	60.833 ppb	10:10:13
2	V 292.402†	-716.1	847.2	5.4163	ug/L	5.4163 ppb	10:10:19
2	Zn 213.857†	2172.9	1198.8	9.3902	ug/L	9.3902 ppb	10:10:39
2	SiO2†	4512.7	3636.7	211.24	ug/L	211.24 ppb	10:11:19
3	Sc Radial	6035.8	6035.8	101	%		10:09:17
3	Y RADIAL	6235.5	6235.5	100.9	%		10:09:17
3	Al 396.153Radial†	283.9	296.1	196.60	ug/L	196.60 ppb	10:09:17
3	Ca 317.933Radial†	177.8	154.8	212.67	ug/L	212.67 ppb	10:09:37
3	Fe 238.204 Radial†	26.0	12.8	98.017	ug/L	98.017 ppb	10:09:37
3	K 766.490 Radial†	4055.4	852.1	137.28	ug/L	137.28 ppb	10:09:17
3	Mg 279.077 IEC†	12.9	7.4	216.16	ug/L	216.16 ppb	10:09:37
3	Na 589.592 Radial†	-555.9	1176.9	309.36	ug/L	309.36 ppb	10:09:17
3	Sr 421.552†	903.3	904.8	4.8942	ug/L	4.8942 ppb	10:09:17
3	Sc 361.383	966644.7	966644.7	103.68	%		10:10:44
3	Y 371.029	781194.0	781194.0	101.59	%		10:10:44
3	Ag 328.068†	1777.3	1305.9	5.4518	ug/L	5.4518 ppb	10:10:49
3	As 188.979†	57.1	86.5	29.964	ug/L	29.964 ppb	10:11:09
3	B 249.677†	2130.8	2581.8	50.938	ug/L	50.938 ppb	10:10:49
3	Ba 233.527†	828.2	787.3	5.1246	ug/L	5.1246 ppb	10:11:09
3	Be 313.107†	11465.9	15607.5	5.1068	ug/L	5.1068 ppb	10:10:49
3	Cd 226.502†	339.3	541.1	5.0769	ug/L	5.0769 ppb	10:11:09
3	Co 228.616†	228.1	303.8	5.1142	ug/L	5.1142 ppb	10:11:09
3	Cr 267.716†	601.6	495.5	4.7851	ug/L	4.7851 ppb	10:11:09
3	Cu 324.752†	10020.7	3565.6	9.7289	ug/L	9.7289 ppb	10:10:49
3	Mn 257.610†	11991.9	11007.0	10.507	ug/L	10.507 ppb	10:10:49
3	Mo 202.031†	201.4	169.3	9.7680	ug/L	9.7680 ppb	10:11:09
3	Ni 231.604†	383.1	239.8	5.0062	ug/L	5.0062 ppb	10:11:09
3	P 214.914†	541.5	277.3	137.64	ug/L	137.64 ppb	10:11:09
3	Pb 220.353†	31.7	106.8	10.774	ug/L	10.774 ppb	10:11:09
3	S 181.975 Axial†	143.0	89.6	105.15	ug/L	105.15 ppb	10:11:09
3	Sb 206.836†	73.2	26.2	7.8243	ug/L	7.8243 ppb	10:11:09
3	Se 196.026†	24.0	59.0	31.775	ug/L	31.775 ppb	10:11:09
3	Si 251.611†	4457.1	3657.3	98.489	ug/L	98.489 ppb	10:10:49
3	Sn 189.927†	77.8	68.8	9.8774	ug/L	9.8774 ppb	10:11:09
3	Ti 334.940†	2215.9	3592.2	5.0953	ug/L	5.0953 ppb	10:10:49
3	Tl 190.801†	30.9	70.9	17.795	ug/L	17.795 ppb	10:11:09
3	U 409.014†	-953.8	2048.9	55.073	ug/L	55.073 ppb	10:10:44
3	V 292.402†	-722.9	834.9	5.3277	ug/L	5.3277 ppb	10:10:49
3	Zn 213.857†	2179.2	1222.6	9.5748	ug/L	9.5748 ppb	10:11:09
3	SiO2†	4493.1	3654.6	212.28	ug/L	212.28 ppb	10:11:24

Mean Data: PQL

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	971304.8	104.18	%	0.453				0.43%
Sc Radial	6132.2	103	%	1.4				1.36%
Y 371.029	784803.4	102.06	%	0.438				0.43%
Y RADIAL	6362.8	103.0	%	1.81				1.76%
Ag 328.068†	1236.8	5.1599	ug/L	0.28100	5.1599	ppb	0.28100	5.45%
QC value within limits for Ag 328.068 Recovery = 103.20%								
Al 396.153Radial†	303.2	201.30	ug/L	6.278	201.30	ppb	6.278	3.12%
QC value within limits for Al 396.153Radial Recovery = 100.65%								
As 188.979†	84.9	29.409	ug/L	1.0579	29.409	ppb	1.0579	3.60%
QC value within limits for As 188.979 Recovery = 98.03%								
B 249.677†	2579.5	50.893	ug/L	0.2305	50.893	ppb	0.2305	0.45%
QC value within limits for B 249.677 Recovery = 101.79%								
Ba 233.527†	780.7	5.0816	ug/L	0.03884	5.0816	ppb	0.03884	0.76%
QC value within limits for Ba 233.527 Recovery = 101.63%								
Be 313.107†	15594.3	5.1024	ug/L	0.02554	5.1024	ppb	0.02554	0.50%
QC value within limits for Be 313.107 Recovery = 102.05%								
Ca 317.933Radial†	151.5	208.04	ug/L	4.057	208.04	ppb	4.057	1.95%

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   QC value within limits for Ca 317.933Radial  Recovery = 104.02%
Cd 226.502†              540.3      5.0695 ug/L       0.05026      5.0695 ppb        0.05026   0.99%
   QC value within limits for Cd 226.502  Recovery = 101.39%
Co 228.616†              301.3      5.0725 ug/L       0.03809      5.0725 ppb        0.03809   0.75%
   QC value within limits for Co 228.616  Recovery = 101.45%
Cr 267.716†              501.0      4.8378 ug/L       0.04640      4.8378 ppb        0.04640   0.96%
   QC value within limits for Cr 267.716  Recovery = 96.76%
Cu 324.752†             3523.2      9.6130 ug/L       0.11444      9.6130 ppb        0.11444   1.19%
   QC value within limits for Cu 324.752  Recovery = 96.13%
Fe 238.204 Radial†       12.3      94.827 ug/L        3.2850      94.827 ppb         3.2850   3.46%
   QC value within limits for Fe 238.204 Radial  Recovery = 94.83%
K 766.490 Radial†        837.3      134.90 ug/L         4.886      134.90 ppb          4.886   3.62%
   QC value within limits for K 766.490 Radial  Recovery = 89.93%
Mg 279.077 IEC†           7.5      220.22 ug/L        55.712      220.22 ppb         55.712  25.30%
   QC value within limits for Mg 279.077 IEC  Recovery = 73.41%
Mn 257.610†            10943.5      10.446 ug/L        0.0584      10.446 ppb         0.0584   0.56%
   QC value within limits for Mn 257.610  Recovery = 104.46%
Mo 202.031†              171.5      9.8983 ug/L       0.11357      9.8983 ppb        0.11357   1.15%
   QC value within limits for Mo 202.031  Recovery = 98.98%
Na 589.592 Radial†      1181.2      310.50 ug/L         3.928      310.50 ppb          3.928   1.27%
   QC value within limits for Na 589.592 Radial  Recovery = 103.50%
Ni 231.604†              234.8      4.9017 ug/L       0.09752      4.9017 ppb        0.09752   1.99%
   QC value within limits for Ni 231.604  Recovery = 98.03%
P 214.914†               284.4      141.22 ug/L         3.613      141.22 ppb          3.613   2.56%
   QC value within limits for P 214.914  Recovery = 94.15%
Pb 220.353†              104.3      10.529 ug/L        0.4977      10.529 ppb         0.4977   4.73%
   QC value within limits for Pb 220.353  Recovery = 105.29%
S 181.975 Axial†          86.9      102.07 ug/L         3.389      102.07 ppb          3.389   3.32%
   QC value within limits for S 181.975 Axial  Recovery = 102.07%
Sb 206.836†               26.5      7.9230 ug/L       1.29773      7.9230 ppb        1.29773  16.38%
   QC value within limits for Sb 206.836  Recovery = 79.23%
Se 196.026†               64.5      34.680 ug/L        2.9099      34.680 ppb         2.9099   8.39%
   QC value within limits for Se 196.026  Recovery = 115.60%
Si 251.611†             3661.9      98.611 ug/L        1.0194      98.611 ppb         1.0194   1.03%
   QC value within limits for Si 251.611  Recovery = 98.61%
Sn 189.927†               65.5      9.4037 ug/L       0.49027      9.4037 ppb        0.49027   5.21%
   QC value within limits for Sn 189.927  Recovery = 94.04%
Sr 421.552†              904.9      4.8948 ug/L       0.05191      4.8948 ppb        0.05191   1.06%
   QC value within limits for Sr 421.552  Recovery = 97.90%
Ti 334.940†             3560.7      5.0490 ug/L       0.04213      5.0490 ppb        0.04213   0.83%
   QC value within limits for Ti 334.940  Recovery = 100.98%
Tl 190.801†               73.8      18.518 ug/L        0.8614      18.518 ppb         0.8614   4.65%
   QC value within limits for Tl 190.801  Recovery = 92.59%
U 409.014†              2158.3      58.014 ug/L        2.8818      58.014 ppb         2.8818   4.97%
   QC value within limits for U 409.014  Recovery = 116.03%
V 292.402†               820.5      5.2480 ug/L       0.21927      5.2480 ppb        0.21927   4.18%
   QC value within limits for V 292.402  Recovery = 104.96%
Zn 213.857†             1210.1      9.4769 ug/L       0.09279      9.4769 ppb        0.09279   0.98%
   QC value within limits for Zn 213.857  Recovery = 94.77%
SiO2†                   3624.3      210.52 ug/L         2.217      210.52 ppb          2.217   1.05%
   QC value within limits for SiO2  Recovery = 98.83%
All analyte(s) passed QC.
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Sequence No.: 9
Sample ID: ICSA
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 13
Date Collected: 12/17/2009 10:13:36
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSA

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	5326.6	5326.6	89.5	%			10:15:34
1	Y RADIAL	5533.1	5533.1	89.54	%			10:15:34
1	Al 396.153Radial†	681439.2	761354.5	506530	ug/L	506530	ppb	10:15:29
1	Ca 317.933Radial†	308829.5	345019.4	473880	ug/L	473880	ppb	10:15:29
1	Fe 238.204 Radial†	21060.9	23517.4	180410	ug/L	180410	ppb	10:15:34
1	K 766.490 Radial†	2562.8	-283.1	-30.483	ug/L	-30.483	ppb	10:15:29
1	Mg 279.077 IEC†	14476.5	16168.5	471850	ug/L	471850	ppb	10:15:34
1	Na 589.592 Radial†	-1562.6	-20.9	-5.4865	ug/L	-5.4865	ppb	10:15:34
1	Sr 421.552†	608.5	694.1	-0.6365	ug/L	-0.6365	ppb	10:15:34
1	Sc 361.383	821406.9	821406.9	88.100	%			10:16:01
1	Y 371.029	651043.1	651043.1	84.667	%			10:16:01
1	Ag 328.068†	-10649.8	-12496.7	1.2497	ug/L	1.2497	ppb	10:16:01
1	As 188.979†	-89.5	-70.1	3.4265	ug/L	3.4265	ppb	10:16:21
1	B 249.677†	161.9	710.4	-9.9123	ug/L	-9.9123	ppb	10:16:01
1	Ba 233.527†	-732.8	-843.3	1.2528	ug/L	1.2528	ppb	10:16:21
1	Be 313.107†	-4960.8	-1082.4	-0.4012	ug/L	-0.4012	ppb	10:16:01
1	Cd 226.502†	1460.6	1871.7	-0.4504	ug/L	-0.4504	ppb	10:16:21
1	Co 228.616†	-29.2	50.7	-1.7162	ug/L	-1.7162	ppb	10:16:21
1	Cr 267.716†	-113.8	-213.9	1.1771	ug/L	1.1771	ppb	10:16:21
1	Cu 324.752†	2350.4	-3431.7	-0.1555	ug/L	-0.1555	ppb	10:16:01
1	Mn 257.610†	-227.0	-817.2	8.4237	ug/L	8.4237	ppb	10:16:01
1	Mo 202.031†	-242.1	-299.7	-4.4870	ug/L	-4.4870	ppb	10:16:21
1	Ni 231.604†	252.5	156.9	3.2770	ug/L	3.2770	ppb	10:16:21
1	P 214.914†	184.2	-36.0	8.7418	ug/L	8.7418	ppb	10:16:21
1	Pb 220.353†	-1018.0	-1079.3	-9.5412	ug/L	-9.5412	ppb	10:16:21
1	S 181.975 Axial†	77.4	39.5	-53.268	ug/L	-53.268	ppb	10:16:21
1	Sb 206.836†	96.2	64.8	6.4427	ug/L	6.4427	ppb	10:16:21
1	Se 196.026†	-1235.8	-1366.8	22.237	ug/L	22.237	ppb	10:16:21
1	Si 251.611†	425.2	-159.1	-3.7793	ug/L	-3.7793	ppb	10:16:21
1	Sn 189.927†	-389.7	-448.6	-12.318	ug/L	-12.318	ppb	10:16:21
1	Ti 334.940†	-16324.5	-17074.5	0.4188	ug/L	0.4188	ppb	10:16:01
1	Tl 190.801†	-99.1	-71.4	-4.1901	ug/L	-4.1901	ppb	10:16:21
1	U 409.014†	-1849.1	870.0	0.6991	ug/L	0.6991	ppb	10:16:01
1	V 292.402†	893.1	2545.8	-1.4230	ug/L	-1.4230	ppb	10:16:21
1	Zn 213.857†	3666.7	3282.6	-7.5232	ug/L	-7.5232	ppb	10:16:21
1	SiO2†	401.1	-223.8	-11.912	ug/L	-11.912	ppb	10:17:18
2	Sc Radial	5243.9	5243.9	88.1	%			10:15:44
2	Y RADIAL	5400.0	5400.0	87.39	%			10:15:44
2	Al 396.153Radial†	703349.6	798231.0	531060	ug/L	531060	ppb	10:15:39
2	Ca 317.933Radial†	317985.1	360853.3	495630	ug/L	495630	ppb	10:15:39
2	Fe 238.204 Radial†	21664.6	24573.7	188510	ug/L	188510	ppb	10:15:44
2	K 766.490 Radial†	2635.1	-155.9	-9.0721	ug/L	-9.0721	ppb	10:15:39
2	Mg 279.077 IEC†	14889.9	16892.8	492990	ug/L	492990	ppb	10:15:44
2	Na 589.592 Radial†	-1571.4	-58.3	-15.337	ug/L	-15.337	ppb	10:15:44
2	Sr 421.552†	612.8	709.7	-0.7538	ug/L	-0.7538	ppb	10:15:44
2	Sc 361.383	819502.8	819502.8	87.896	%			10:16:27
2	Y 371.029	648520.0	648520.0	84.339	%			10:16:27
2	Ag 328.068†	-10745.1	-12633.3	3.0633	ug/L	3.0633	ppb	10:16:27
2	As 188.979†	-114.0	-98.2	-5.0651	ug/L	-5.0651	ppb	10:16:47
2	B 249.677†	272.5	836.6	-8.4967	ug/L	-8.4967	ppb	10:16:27
2	Ba 233.527†	-728.9	-840.8	1.5698	ug/L	1.5698	ppb	10:16:47
2	Be 313.107†	-4961.6	-1096.4	-0.4064	ug/L	-0.4064	ppb	10:16:27
2	Cd 226.502†	1463.6	1879.0	-1.1913	ug/L	-1.1913	ppb	10:16:47
2	Co 228.616†	-22.0	58.7	-1.6930	ug/L	-1.6930	ppb	10:16:47
2	Cr 267.716†	-139.1	-243.0	1.0382	ug/L	1.0382	ppb	10:16:47
2	Cu 324.752†	2495.3	-3260.6	0.7244	ug/L	0.7244	ppb	10:16:27
2	Mn 257.610†	-160.4	-742.0	8.9099	ug/L	8.9099	ppb	10:16:27
2	Mo 202.031†	-225.0	-281.0	-2.8293	ug/L	-2.8293	ppb	10:16:47
2	Ni 231.604†	271.9	179.6	3.7513	ug/L	3.7513	ppb	10:16:47

2	P 214.914†	198.8	-18.8	19.082	ug/L	19.082 ppb	10:16:47
2	Pb 220.353†	-1015.1	-1078.7	-4.6432	ug/L	-4.6432 ppb	10:16:47
2	S 181.975 Axial†	96.3	61.2	-32.626	ug/L	-32.626 ppb	10:16:47
2	Sb 206.836†	70.1	35.3	-2.5217	ug/L	-2.5217 ppb	10:16:47
2	Se 196.026†	-1226.3	-1359.3	60.314	ug/L	60.314 ppb	10:16:47
2	Si 251.611†	434.1	-147.8	-3.5085	ug/L	-3.5085 ppb	10:16:47
2	Sn 189.927†	-370.6	-427.9	-6.9762	ug/L	-6.9762 ppb	10:16:47
2	Ti 334.940†	-16492.9	-17309.2	1.2162	ug/L	1.2162 ppb	10:16:27
2	Tl 190.801†	-100.1	-72.7	-3.8546	ug/L	-3.8546 ppb	10:16:47
2	U 409.014†	-1609.1	1138.2	6.8918	ug/L	6.8918 ppb	10:16:27
2	V 292.402†	896.3	2551.8	-2.1120	ug/L	-2.1120 ppb	10:16:47
2	Zn 213.857†	3703.0	3333.6	-8.6222	ug/L	-8.6222 ppb	10:16:47
2	SiO2†	449.5	-167.7	-8.7196	ug/L	-8.7196 ppb	10:17:23
3	Sc Radial	5260.2	5260.2	88.4	%		10:15:55
3	Y RADIAL	5434.2	5434.2	87.94	%		10:15:55
3	Al 396.153Radial†	714755.0	808649.4	537990	ug/L	537990 ppb	10:15:50
3	Ca 317.933Radial†	321282.6	363460.4	499210	ug/L	499210 ppb	10:15:50
3	Fe 238.204 Radial†	21966.2	24838.4	190550	ug/L	190550 ppb	10:15:55
3	K 766.490 Radial†	2606.9	-197.1	-15.230	ug/L	-15.230 ppb	10:15:50
3	Mg 279.077 IEC†	15142.5	17126.0	499800	ug/L	499800 ppb	10:15:55
3	Na 589.592 Radial†	-1589.5	-73.2	-19.254	ug/L	-19.254 ppb	10:15:55
3	Sr 421.552†	616.4	711.6	-0.7763	ug/L	-0.7763 ppb	10:15:55
3	Sc 361.383	812477.0	812477.0	87.143	%		10:16:52
3	Y 371.029	642322.4	642322.4	83.533	%		10:16:52
3	Ag 328.068†	-10743.0	-12736.5	3.2607	ug/L	3.2607 ppb	10:16:52
3	As 188.979†	-94.8	-77.3	2.4916	ug/L	2.4916 ppb	10:17:12
3	B 249.677†	166.3	717.4	-11.120	ug/L	-11.120 ppb	10:16:52
3	Ba 233.527†	-724.7	-843.2	1.6294	ug/L	1.6294 ppb	10:17:12
3	Be 313.107†	-4939.0	-1119.3	-0.4152	ug/L	-0.4152 ppb	10:16:52
3	Cd 226.502†	1452.0	1880.1	-1.3846	ug/L	-1.3846 ppb	10:17:12
3	Co 228.616†	-15.8	65.7	-1.6107	ug/L	-1.6107 ppb	10:17:12
3	Cr 267.716†	-116.5	-218.4	1.3130	ug/L	1.3130 ppb	10:17:12
3	Cu 324.752†	2411.2	-3332.6	0.6317	ug/L	0.6317 ppb	10:16:52
3	Mn 257.610†	-86.9	-659.2	9.0647	ug/L	9.0647 ppb	10:16:52
3	Mo 202.031†	-261.6	-325.2	-5.2369	ug/L	-5.2369 ppb	10:17:12
3	Ni 231.604†	232.1	136.7	2.8538	ug/L	2.8538 ppb	10:17:12
3	P 214.914†	182.5	-35.6	11.306	ug/L	11.306 ppb	10:17:12
3	Pb 220.353†	-1020.2	-1094.5	-4.8489	ug/L	-4.8489 ppb	10:17:12
3	S 181.975 Axial†	82.3	46.1	-51.705	ug/L	-51.705 ppb	10:17:12
3	Sb 206.836†	79.9	47.3	0.6148	ug/L	0.6148 ppb	10:17:12
3	Se 196.026†	-1234.0	-1380.1	57.990	ug/L	57.990 ppb	10:17:12
3	Si 251.611†	409.3	-172.0	-4.0964	ug/L	-4.0964 ppb	10:17:12
3	Sn 189.927†	-403.6	-469.4	-12.507	ug/L	-12.507 ppb	10:17:12
3	Ti 334.940†	-16770.1	-17789.5	0.7212	ug/L	0.7212 ppb	10:16:52
3	Tl 190.801†	-91.7	-64.1	-1.5177	ug/L	-1.5177 ppb	10:17:12
3	U 409.014†	-1707.6	1009.3	3.1713	ug/L	3.1713 ppb	10:16:52
3	V 292.402†	853.9	2512.0	-2.5535	ug/L	-2.5535 ppb	10:17:12
3	Zn 213.857†	3667.6	3329.4	-9.0763	ug/L	-9.0763 ppb	10:17:12
3	SiO2†	377.7	-245.7	-13.122	ug/L	-13.122 ppb	10:17:28

Mean Data: ICSA

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	817795.6	87.713	%	0.5045				0.58%
Sc Radial	5276.9	88.7	%	0.74				0.83%
Y 371.029	647295.2	84.179	%	0.5836				0.69%
Y RADIAL	5455.8	88.29	%	1.119				1.27%
Ag 328.068†	-12622.1	2.5246	ug/L	1.10844	2.5246	ppb	1.10844	43.91%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	789411.6	525190	ug/L	16532.8	525190	ppb	16532.8	3.15%
QC value within limits for Al 396.153Radial Recovery = 105.04%								
As 188.979†	-81.8	0.2843	ug/L	4.65623	0.2843	ppb	4.65623	>999.9%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	754.8	-9.8428	ug/L	1.31277	-9.8428	ppb	1.31277	13.34%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-842.4	1.4840	ug/L	0.20242	1.4840	ppb	0.20242	13.64%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-1099.4	-0.4076	ug/L	0.00709	-0.4076	ppb	0.00709	1.74%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	356444.4	489570	ug/L	13707.1	489570	ppb	13707.1	2.80%

```
   QC value within limits for Ca 317.933Radial  Recovery = 97.91%
Cd 226.502†            1876.9     -1.0088 ug/L       0.49316     -1.0088 ppb        0.49316  48.89%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†              58.4     -1.6733 ug/L       0.05545     -1.6733 ppb        0.05545   3.31%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†            -225.1      1.1761 ug/L       0.13742      1.1761 ppb        0.13742  11.68%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†           -3341.6      0.4002 ug/L       0.48346      0.4002 ppb        0.48346 120.80%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†    24309.8      186490 ug/L        5361.6      186490 ppb         5361.6   2.87%
   QC value within limits for Fe 238.204 Radial  Recovery = 93.25%
K 766.490 Radial†      -212.1     -18.262 ug/L       11.0227     -18.262 ppb        11.0227  60.36%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†       16729.1      488210 ug/L       14571.2      488210 ppb        14571.2   2.98%
   QC value within limits for Mg 279.077 IEC  Recovery = 97.64%
Mn 257.610†            -739.4      8.7994 ug/L       0.33444      8.7994 ppb        0.33444   3.80%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†            -302.0     -4.1844 ug/L       1.23199     -4.1844 ppb        1.23199  29.44%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      -50.8     -13.359 ug/L        7.0935     -13.359 ppb         7.0935  53.10%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†             157.7      3.2940 ug/L       0.44898      3.2940 ppb        0.44898  13.63%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†              -30.1      13.043 ug/L        5.3846      13.043 ppb         5.3846  41.28%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†           -1084.2     -6.3444 ug/L       2.77040     -6.3444 ppb        2.77040  43.67%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         48.9     -45.866 ug/L       11.4932     -45.866 ppb        11.4932  25.06%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              49.1      1.5119 ug/L       4.54900      1.5119 ppb        4.54900 300.87%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†           -1368.7      46.847 ug/L       21.3444      46.847 ppb        21.3444  45.56%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†            -159.6     -3.7947 ug/L       0.29429     -3.7947 ppb        0.29429   7.76%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†            -448.6     -10.600 ug/L        3.1400     -10.600 ppb         3.1400  29.62%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             705.1     -0.7222 ug/L       0.07508     -0.7222 ppb        0.07508  10.40%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†          -17391.1      0.7854 ug/L       0.40257      0.7854 ppb        0.40257  51.26%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -69.4     -3.1874 ug/L       1.45574     -3.1874 ppb        1.45574  45.67%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†             1005.8      3.5874 ug/L       3.11726      3.5874 ppb        3.11726  86.89%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†             2536.5     -2.0295 ug/L       0.56972     -2.0295 ppb        0.56972  28.07%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†            3315.2     -8.4072 ug/L       0.79855     -8.4072 ppb        0.79855   9.50%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                  -212.4     -11.251 ug/L        2.2745     -11.251 ppb         2.2745  20.22%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 10
Sample ID: ICSAB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 14
Date Collected: 12/17/2009 10:19:39
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSAB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	5358.2	5358.2	90.0	%			10:21:37
1	Y RADIAL	5578.3	5578.3	90.27	%			10:21:37
1	Al 396.153Radial†	710248.9	788862.3	524810	ug/L	524810	ppb	10:21:32
1	Ca 317.933Radial†	319451.1	354781.6	487290	ug/L	487290	ppb	10:21:32
1	Fe 238.204 Radial†	21841.5	24245.7	186010	ug/L	186010	ppb	10:21:37
1	K 766.490 Radial†	33578.7	34148.1	5520.7	ug/L	5520.7	ppb	10:21:32
1	Mg 279.077 IEC†	15109.6	16776.3	489600	ug/L	489600	ppb	10:21:37
1	Na 589.592 Radial†	17004.9	20611.7	5418.0	ug/L	5418.0	ppb	10:21:37
1	Sr 421.552†	83937.9	93240.8	500.02	ug/L	500.02	ppb	10:21:32
1	Sc 361.383	835373.5	835373.5	89.598	%			10:22:04
1	Y 371.029	658351.2	658351.2	85.617	%			10:22:04
1	Ag 328.068†	46016.8	50950.6	269.19	ug/L	269.19	ppb	10:22:04
1	As 188.979†	1203.3	1374.4	507.85	ug/L	507.85	ppb	10:22:10
1	B 249.677†	23418.5	26663.8	500.55	ug/L	500.55	ppb	10:22:04
1	Ba 233.527†	65455.0	73042.4	482.07	ug/L	482.07	ppb	10:22:04
1	Be 313.107†	656175.0	736900.4	241.58	ug/L	241.58	ppb	10:22:04
1	Cd 226.502†	45090.5	50539.0	456.50	ug/L	456.50	ppb	10:22:10
1	Co 228.616†	23166.0	25939.2	433.11	ug/L	433.11	ppb	10:22:10
1	Cr 267.716†	42593.3	47453.3	463.01	ug/L	463.01	ppb	10:22:10
1	Cu 324.752†	178904.7	193574.7	537.39	ug/L	537.39	ppb	10:22:04
1	Mn 257.610†	441736.0	492458.8	479.28	ug/L	479.28	ppb	10:22:04
1	Mo 202.031†	7165.8	7972.7	472.93	ug/L	472.93	ppb	10:22:10
1	Ni 231.604†	19055.5	21138.0	441.27	ug/L	441.27	ppb	10:22:10
1	P 214.914†	4636.0	4929.1	2421.4	ug/L	2421.4	ppb	10:22:10
1	Pb 220.353†	3040.9	3470.1	451.65	ug/L	451.65	ppb	10:22:10
1	S 181.975 Axial†	2074.0	2266.3	2558.5	ug/L	2558.5	ppb	10:22:10
1	Sb 206.836†	1675.5	1825.6	522.21	ug/L	522.21	ppb	10:22:10
1	Se 196.026†	3038.4	3427.1	2593.7	ug/L	2593.7	ppb	10:22:10
1	Si 251.611†	169824.9	188898.6	5088.5	ug/L	5088.5	ppb	10:22:04
1	Sn 189.927†	2607.7	2904.2	469.04	ug/L	469.04	ppb	10:22:10
1	Ti 334.940†	298758.2	334896.7	501.46	ug/L	501.46	ppb	10:22:04
1	Tl 190.801†	1549.4	1770.4	459.77	ug/L	459.77	ppb	10:22:10
1	U 409.014†	14113.6	18720.9	479.11	ug/L	479.11	ppb	10:22:04
1	V 292.402†	72712.1	82685.5	494.56	ug/L	494.56	ppb	10:22:04
1	Zn 213.857†	58014.6	63870.3	465.38	ug/L	465.38	ppb	10:22:10
1	SiO2†	169750.2	188777.7	10969	ug/L	10969	ppb	10:22:37
2	Sc Radial	5408.6	5408.6	90.9	%			10:21:47
2	Y RADIAL	5565.4	5565.4	90.06	%			10:21:47
2	Al 396.153Radial†	703637.5	774236.9	515080	ug/L	515080	ppb	10:21:42
2	Ca 317.933Radial†	316489.5	348216.7	478270	ug/L	478270	ppb	10:21:42
2	Fe 238.204 Radial†	21995.6	24189.1	185580	ug/L	185580	ppb	10:21:47
2	K 766.490 Radial†	33188.2	33371.0	5394.9	ug/L	5394.9	ppb	10:21:42
2	Mg 279.077 IEC†	15198.7	16717.9	487900	ug/L	487900	ppb	10:21:47
2	Na 589.592 Radial†	17172.5	20620.1	5420.2	ug/L	5420.2	ppb	10:21:47
2	Sr 421.552†	83109.7	91460.8	490.47	ug/L	490.47	ppb	10:21:42
2	Sc 361.383	830420.6	830420.6	89.067	%			10:22:15
2	Y 371.029	655990.2	655990.2	85.310	%			10:22:15
2	Ag 328.068†	45717.5	50920.9	269.05	ug/L	269.05	ppb	10:22:15
2	As 188.979†	1159.4	1333.2	493.51	ug/L	493.51	ppb	10:22:20
2	B 249.677†	23073.1	26431.8	496.03	ug/L	496.03	ppb	10:22:15
2	Ba 233.527†	65039.3	73011.3	481.85	ug/L	481.85	ppb	10:22:15
2	Be 313.107†	651877.4	736443.3	241.42	ug/L	241.42	ppb	10:22:15
2	Cd 226.502†	44774.8	50484.7	456.03	ug/L	456.03	ppb	10:22:20
2	Co 228.616†	23046.7	25959.5	433.46	ug/L	433.46	ppb	10:22:20
2	Cr 267.716†	42432.9	47556.8	464.00	ug/L	464.00	ppb	10:22:20
2	Cu 324.752†	177507.6	193196.9	536.33	ug/L	536.33	ppb	10:22:15
2	Mn 257.610†	438336.3	491582.2	478.44	ug/L	478.44	ppb	10:22:15
2	Mo 202.031†	7134.0	7984.7	473.59	ug/L	473.59	ppb	10:22:20
2	Ni 231.604†	18898.4	21088.4	440.23	ug/L	440.23	ppb	10:22:20

2	P 214.914†	4594.9	4913.9	2411.0 ug/L	2411.0 ppb	10:22:20
2	Pb 220.353†	3020.3	3467.3	449.22 ug/L	449.22 ppb	10:22:20
2	S 181.975 Axial†	2039.8	2241.7	2531.6 ug/L	2531.6 ppb	10:22:20
2	Sb 206.836†	1680.8	1842.7	527.47 ug/L	527.47 ppb	10:22:20
2	Se 196.026†	3034.3	3442.7	2597.9 ug/L	2597.9 ppb	10:22:20
2	Si 251.611†	168428.7	188461.5	5076.7 ug/L	5076.7 ppb	10:22:15
2	Sn 189.927†	2610.4	2924.6	471.02 ug/L	471.02 ppb	10:22:20
2	Ti 334.940†	296305.8	334132.0	499.90 ug/L	499.90 ppb	10:22:15
2	Tl 190.801†	1502.7	1728.3	448.97 ug/L	448.97 ppb	10:22:20
2	U 409.014†	14094.1	18793.0	481.10 ug/L	481.10 ppb	10:22:15
2	V 292.402†	72266.0	82668.7	494.50 ug/L	494.50 ppb	10:22:15
2	Zn 213.857†	57895.1	64122.4	467.47 ug/L	467.47 ppb	10:22:20
2	SiO2†	169015.2	189082.6	10987 ug/L	10987 ppb	10:22:42
3	Sc Radial	5396.9	5396.9	90.7 %		10:21:57
3	Y RADIAL	5546.7	5546.7	89.76 %		10:21:57
3	Al 396.153Radial†	704218.4	776560.6	516620 ug/L	516620 ppb	10:21:52
3	Ca 317.933Radial†	317320.7	349890.3	480570 ug/L	480570 ppb	10:21:52
3	Fe 238.204 Radial†	21919.2	24157.4	185340 ug/L	185340 ppb	10:21:57
3	K 766.490 Radial†	33394.2	33677.5	5444.4 ug/L	5444.4 ppb	10:21:52
3	Mg 279.077 IEC†	15099.3	16644.7	485760 ug/L	485760 ppb	10:21:57
3	Na 589.592 Radial†	17063.9	20541.4	5399.6 ug/L	5399.6 ppb	10:21:57
3	Sr 421.552†	83160.3	91715.4	491.83 ug/L	491.83 ppb	10:21:52
3	Sc 361.383	832188.8	832188.8	89.257 %		10:22:26
3	Y 371.029	656678.8	656678.8	85.400 %		10:22:26
3	Ag 328.068†	45897.6	51013.6	269.33 ug/L	269.33 ppb	10:22:26
3	As 188.979†	1156.4	1327.1	491.35 ug/L	491.35 ppb	10:22:31
3	B 249.677†	23354.9	26692.5	501.21 ug/L	501.21 ppb	10:22:26
3	Ba 233.527†	65195.2	73030.8	481.97 ug/L	481.97 ppb	10:22:26
3	Be 313.107†	654051.5	737324.0	241.71 ug/L	241.71 ppb	10:22:26
3	Cd 226.502†	44865.0	50478.9	456.00 ug/L	456.00 ppb	10:22:31
3	Co 228.616†	22998.9	25850.9	431.62 ug/L	431.62 ppb	10:22:31
3	Cr 267.716†	42337.8	47348.9	461.99 ug/L	461.99 ppb	10:22:31
3	Cu 324.752†	177454.3	192713.8	535.00 ug/L	535.00 ppb	10:22:26
3	Mn 257.610†	439647.0	492005.0	478.85 ug/L	478.85 ppb	10:22:26
3	Mo 202.031†	7065.5	7891.0	468.17 ug/L	468.17 ppb	10:22:31
3	Ni 231.604†	18969.7	21123.3	440.96 ug/L	440.96 ppb	10:22:31
3	P 214.914†	4597.5	4905.9	2407.8 ug/L	2407.8 ppb	10:22:31
3	Pb 220.353†	3058.2	3502.5	453.11 ug/L	453.11 ppb	10:22:31
3	S 181.975 Axial†	2051.5	2250.0	2541.0 ug/L	2541.0 ppb	10:22:31
3	Sb 206.836†	1620.0	1770.6	506.32 ug/L	506.32 ppb	10:22:31
3	Se 196.026†	3027.3	3427.6	2589.5 ug/L	2589.5 ppb	10:22:31
3	Si 251.611†	168767.3	188439.1	5076.2 ug/L	5076.2 ppb	10:22:26
3	Sn 189.927†	2552.8	2853.9	461.13 ug/L	461.13 ppb	10:22:31
3	Ti 334.940†	296885.4	334074.5	499.94 ug/L	499.94 ppb	10:22:26
3	Tl 190.801†	1504.7	1726.9	448.68 ug/L	448.68 ppb	10:22:31
3	U 409.014†	13998.1	18651.8	477.34 ug/L	477.34 ppb	10:22:26
3	V 292.402†	72488.1	82745.1	494.87 ug/L	494.87 ppb	10:22:26
3	Zn 213.857†	57813.5	63892.9	465.75 ug/L	465.75 ppb	10:22:31
3	SiO2†	168689.5	188314.5	10942 ug/L	10942 ppb	10:22:47

Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	832661.0	89.307	%	0.2692				0.30%
Sc Radial	5387.9	90.5	%	0.44				0.49%
Y 371.029	657006.7	85.442	%	0.1579				0.18%
Y RADIAL	5563.5	90.03	%	0.257				0.29%
Ag 328.068†	50961.7	269.19	ug/L	0.138	269.19	ppb	0.138	0.05%
QC value within limits for Ag 328.068 Recovery = 107.68%								
Al 396.153Radial†	779886.6	518830	ug/L	5228.9	518830	ppb	5228.9	1.01%
QC value within limits for Al 396.153Radial Recovery = 103.77%								
As 188.979†	1344.9	497.57	ug/L	8.964	497.57	ppb	8.964	1.80%
QC value within limits for As 188.979 Recovery = 99.51%								
B 249.677†	26596.0	499.26	ug/L	2.821	499.26	ppb	2.821	0.57%
QC value within limits for B 249.677 Recovery = 99.85%								
Ba 233.527†	73028.2	481.97	ug/L	0.109	481.97	ppb	0.109	0.02%
QC value within limits for Ba 233.527 Recovery = 96.39%								
Be 313.107†	736889.2	241.57	ug/L	0.144	241.57	ppb	0.144	0.06%
QC value within limits for Be 313.107 Recovery = 96.63%								
Ca 317.933Radial†	350962.9	482040	ug/L	4685.4	482040	ppb	4685.4	0.97%

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   QC value within limits for Ca 317.933Radial  Recovery = 96.41%
Cd 226.502†            50500.9      456.17 ug/L         0.279      456.17 ppb          0.279   0.06%
   QC value within limits for Cd 226.502  Recovery = 91.23%
Co 228.616†            25916.5      432.73 ug/L         0.973      432.73 ppb          0.973   0.22%
   QC value within limits for Co 228.616  Recovery = 86.55%
Cr 267.716†            47453.0      463.00 ug/L         1.006      463.00 ppb          1.006   0.22%
   QC value within limits for Cr 267.716  Recovery = 92.60%
Cu 324.752†           193161.8      536.24 ug/L         1.194      536.24 ppb          1.194   0.22%
   QC value within limits for Cu 324.752  Recovery = 107.25%
Fe 238.204 Radial†     24197.4      185640 ug/L         342.9      185640 ppb          342.9   0.18%
   QC value within limits for Fe 238.204 Radial  Recovery = 92.82%
K 766.490 Radial†      33732.2      5453.3 ug/L         63.35      5453.3 ppb          63.35   1.16%
   QC value within limits for K 766.490 Radial  Recovery = 109.07%
Mg 279.077 IEC†        16713.0      487750 ug/L        1924.1      487750 ppb         1924.1   0.39%
   QC value within limits for Mg 279.077 IEC  Recovery = 97.55%
Mn 257.610†           492015.3      478.86 ug/L         0.424      478.86 ppb          0.424   0.09%
   QC value within limits for Mn 257.610  Recovery = 95.77%
Mo 202.031†             7949.5      471.57 ug/L         2.958      471.57 ppb          2.958   0.63%
   QC value within limits for Mo 202.031  Recovery = 94.31%
Na 589.592 Radial†     20591.0      5412.6 ug/L         11.35      5412.6 ppb          11.35   0.21%
   QC value within limits for Na 589.592 Radial  Recovery = 108.25%
Ni 231.604†            21116.6      440.82 ug/L         0.532      440.82 ppb          0.532   0.12%
   QC value within limits for Ni 231.604  Recovery = 88.16%
P 214.914†              4916.3      2413.4 ug/L          7.12      2413.4 ppb           7.12   0.29%
   QC value within limits for P 214.914  Recovery = 96.54%
Pb 220.353†             3480.0      451.33 ug/L         1.967      451.33 ppb          1.967   0.44%
   QC value within limits for Pb 220.353  Recovery = 90.27%
S 181.975 Axial†        2252.7      2543.7 ug/L         13.68      2543.7 ppb          13.68   0.54%
   QC value within limits for S 181.975 Axial  Recovery = 101.75%
Sb 206.836†             1813.0      518.67 ug/L        11.009      518.67 ppb         11.009   2.12%
   QC value within limits for Sb 206.836  Recovery = 103.73%
Se 196.026†             3432.5      2593.7 ug/L          4.21      2593.7 ppb           4.21   0.16%
   QC value within limits for Se 196.026  Recovery = 103.75%
Si 251.611†           188599.7      5080.5 ug/L          6.95      5080.5 ppb           6.95   0.14%
   QC value within limits for Si 251.611  Recovery = 101.61%
Sn 189.927†             2894.2      467.07 ug/L         5.233      467.07 ppb          5.233   1.12%
   QC value within limits for Sn 189.927  Recovery = 93.41%
Sr 421.552†            92139.0      494.11 ug/L         5.166      494.11 ppb          5.166   1.05%
   QC value within limits for Sr 421.552  Recovery = 98.82%
Ti 334.940†           334367.7      500.43 ug/L         0.889      500.43 ppb          0.889   0.18%
   QC value within limits for Ti 334.940  Recovery = 100.09%
Tl 190.801†             1741.9      452.47 ug/L         6.323      452.47 ppb          6.323   1.40%
   QC value within limits for Tl 190.801  Recovery = 90.49%
U 409.014†             18721.9      479.18 ug/L         1.883      479.18 ppb          1.883   0.39%
   QC value within limits for U 409.014  Recovery = 95.84%
V 292.402†             82699.8      494.65 ug/L         0.200      494.65 ppb          0.200   0.04%
   QC value within limits for V 292.402  Recovery = 98.93%
Zn 213.857†            63961.9      466.20 ug/L         1.116      466.20 ppb          1.116   0.24%
   QC value within limits for Zn 213.857  Recovery = 93.24%
SiO2†                 188724.9       10966 ug/L          22.4       10966 ppb           22.4   0.20%
   QC value within limits for SiO2  Recovery = 102.53%
All analyte(s) passed QC.
```

Sequence No.: 11
Sample ID: LR1
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 15
Date Collected: 12/17/2009 10:24:58
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5267.4	5267.4	88.5	%			10:26:56
1	Y RADIAL	5448.7	5448.7	88.18	%			10:26:56
1	Al 396.153Radial†	681378.3	769842.1	512170	ug/L	512170	ppb	10:26:51
1	Ca 317.933Radial†	308118.7	348094.1	478100	ug/L	478100	ppb	10:26:51
1	Fe 238.204 Radial†	49976.0	56450.3	433050	ug/L	433050	ppb	10:26:56
1	K 766.490 Radial†	3201.7	470.9	-127.02	ug/L	-127.02	ppb	10:26:51
1	Mg 279.077 IEC†	14434.2	16302.5	475550	ug/L	475550	ppb	10:26:56
1	Na 589.592 Radial†	1732609.4	1959238.9	515010	ug/L	515010	ppb	10:26:51
1	Sr 421.552†	858.1	983.7	0.8914	ug/L	0.8914	ppb	10:26:56
1	Sc 361.383	815360.7	815360.7	87.452	%			10:27:25
1	Y 371.029	644325.3	644325.3	83.793	%			10:27:25
1	Ag 328.068†	-25454.2	-29515.0	2.6938	ug/L	2.6938	ppb	10:27:25
1	As 188.979†	-229.1	-230.4	-12.942	ug/L	-12.942	ppb	10:27:45
1	B 249.677†	1206.0	1905.7	-19.846	ug/L	-19.846	ppb	10:27:25
1	Ba 233.527†	-1974.0	-2268.8	1.3919	ug/L	1.3919	ppb	10:27:45
1	Be 313.107†	-11735.7	-8871.2	-2.9206	ug/L	-2.9206	ppb	10:27:25
1	Cd 226.502†	3768.2	4522.7	-0.8013	ug/L	-0.8013	ppb	10:27:45
1	Co 228.616†	244.8	363.7	-0.1465	ug/L	-0.1465	ppb	10:27:45
1	Cr 267.716†	65.5	-9.9	3.1778	ug/L	3.1778	ppb	10:27:45
1	Cu 324.752†	-915.8	-7146.8	2.6008	ug/L	2.6008	ppb	10:27:25
1	Mn 257.610†	-29571.5	-34374.0	1.5287	ug/L	1.5287	ppb	10:27:25
1	Mo 202.031†	-552.1	-656.3	-7.1276	ug/L	-7.1276	ppb	10:27:25
1	Ni 231.604†	336.3	254.8	5.3187	ug/L	5.3187	ppb	10:27:45
1	P 214.914†	674.0	525.6	90.146	ug/L	90.146	ppb	10:27:45
1	Pb 220.353†	-739.2	-769.1	2.0914	ug/L	2.0914	ppb	10:27:45
1	S 181.975 Axial†	108.8	76.0	-11.454	ug/L	-11.454	ppb	10:27:45
1	Sb 206.836†	70.6	36.3	1.5311	ug/L	1.5311	ppb	10:27:45
1	Se 196.026†	-2877.1	-3254.0	-120.71	ug/L	-120.71	ppb	10:27:45
1	Si 251.611†	-662.6	-1399.4	-36.918	ug/L	-36.918	ppb	10:27:45
1	Sn 189.927†	-437.9	-507.0	-16.859	ug/L	-16.859	ppb	10:27:45
1	Ti 334.940†	-8673.7	-8463.4	6.7067	ug/L	6.7067	ppb	10:27:25
1	Tl 190.801†	-138.3	-117.0	-15.574	ug/L	-15.574	ppb	10:27:45
1	U 409.014†	453590.6	521643.6	13972	ug/L	13972	ppb	10:27:25
1	V 292.402†	2170.7	4014.3	-3.9125	ug/L	-3.9125	ppb	10:27:25
1	Zn 213.857†	6763.0	6854.1	-3.6337	ug/L	-3.6337	ppb	10:27:45
1	SiO2†	-736.8	-1521.6	-86.745	ug/L	-86.745	ppb	10:28:44
2	Sc Radial	5243.8	5243.8	88.1	%			10:27:06
2	Y RADIAL	5390.9	5390.9	87.24	%			10:27:06
2	Al 396.153Radial†	686845.8	779511.4	518610	ug/L	518610	ppb	10:27:01
2	Ca 317.933Radial†	310385.2	352232.9	483790	ug/L	483790	ppb	10:27:01
2	Fe 238.204 Radial†	50660.3	57481.0	440960	ug/L	440960	ppb	10:27:06
2	K 766.490 Radial†	3335.9	639.4	-102.45	ug/L	-102.45	ppb	10:27:01
2	Mg 279.077 IEC†	14702.9	16680.8	486590	ug/L	486590	ppb	10:27:06
2	Na 589.592 Radial†	1747423.3	1984860.1	521740	ug/L	521740	ppb	10:27:01
2	Sr 421.552†	844.9	973.2	0.7817	ug/L	0.7817	ppb	10:27:06
2	Sc 361.383	809329.1	809329.1	86.805	%			10:27:52
2	Y 371.029	639529.8	639529.8	83.169	%			10:27:52
2	Ag 328.068†	-25225.8	-29468.7	5.4515	ug/L	5.4515	ppb	10:27:52
2	As 188.979†	-234.9	-239.1	-14.741	ug/L	-14.741	ppb	10:28:12
2	B 249.677†	1192.0	1899.8	-21.009	ug/L	-21.009	ppb	10:27:52
2	Ba 233.527†	-2005.0	-2321.3	1.3409	ug/L	1.3409	ppb	10:28:12
2	Be 313.107†	-11685.8	-8913.8	-2.9366	ug/L	-2.9366	ppb	10:27:52
2	Cd 226.502†	3731.6	4512.7	-1.6854	ug/L	-1.6854	ppb	10:28:12
2	Co 228.616†	211.2	327.1	-0.8654	ug/L	-0.8654	ppb	10:28:12
2	Cr 267.716†	21.4	-60.1	2.8354	ug/L	2.8354	ppb	10:28:12
2	Cu 324.752†	-928.1	-7168.7	2.9443	ug/L	2.9443	ppb	10:27:52
2	Mn 257.610†	-29516.4	-34562.6	1.9317	ug/L	1.9317	ppb	10:27:52
2	Mo 202.031†	-511.3	-614.0	-4.1258	ug/L	-4.1258	ppb	10:27:52
2	Ni 231.604†	337.5	259.1	5.4079	ug/L	5.4079	ppb	10:28:12

2	P 214.914†	660.9	516.3	81.257	ug/L	81.257 ppb	10:28:12
2	Pb 220.353†	-731.5	-766.4	3.1546	ug/L	3.1546 ppb	10:28:12
2	S 181.975 Axial†	109.1	77.3	-11.231	ug/L	-11.231 ppb	10:28:12
2	Sb 206.836†	72.1	38.6	2.2103	ug/L	2.2103 ppb	10:28:12
2	Se 196.026†	-2883.7	-3286.1	-109.20	ug/L	-109.20 ppb	10:28:12
2	Si 251.611†	-666.0	-1409.0	-37.227	ug/L	-37.227 ppb	10:28:12
2	Sn 189.927†	-437.5	-510.2	-16.616	ug/L	-16.616 ppb	10:28:12
2	Ti 334.940†	-9255.4	-9207.4	5.9508	ug/L	5.9508 ppb	10:27:52
2	Tl 190.801†	-128.5	-106.9	-12.891	ug/L	-12.891 ppb	10:28:12
2	U 409.014†	449813.6	521158.0	13958	ug/L	13958 ppb	10:27:52
2	V 292.402†	1945.1	3772.9	-6.3291	ug/L	-6.3291 ppb	10:27:52
2	Zn 213.857†	6769.5	6919.2	-4.2541	ug/L	-4.2541 ppb	10:28:12
2	SiO2†	-631.3	-1406.4	-80.143	ug/L	-80.143 ppb	10:28:49
3	Sc Radial	5303.2	5303.2	89.1	%		10:27:17
3	Y RADIAL	5482.2	5482.2	88.72	%		10:27:17
3	Al 396.153Radial†	686416.9	770298.8	512480	ug/L	512480 ppb	10:27:12
3	Ca 317.933Radial†	310706.7	348648.1	478860	ug/L	478860 ppb	10:27:12
3	Fe 238.204 Radial†	50778.3	56969.4	437040	ug/L	437040 ppb	10:27:17
3	K 766.490 Radial†	3104.1	336.9	-148.76	ug/L	-148.76 ppb	10:27:12
3	Mg 279.077 IEC†	14693.6	16483.5	480830	ug/L	480830 ppb	10:27:17
3	Na 589.592 Radial†	1745527.7	1960519.3	515350	ug/L	515350 ppb	10:27:12
3	Sr 421.552†	875.2	996.3	0.9528	ug/L	0.9528 ppb	10:27:17
3	Sc 361.383	761512.1	761512.1	81.676	%		10:28:19
3	Y 371.029	602522.2	602522.2	78.357	%		10:28:19
3	Ag 328.068†	-25959.1	-32191.4	-8.1647	ug/L	-8.1647 ppb	10:28:19
3	As 188.979†	-239.3	-261.5	-23.082	ug/L	-23.082 ppb	10:28:39
3	B 249.677†	1267.3	2078.3	-16.967	ug/L	-16.967 ppb	10:28:19
3	Ba 233.527†	-1998.7	-2458.7	0.3096	ug/L	0.3096 ppb	10:28:39
3	Be 313.107†	-11875.5	-9991.3	-3.2898	ug/L	-3.2898 ppb	10:28:19
3	Cd 226.502†	3772.0	4832.0	1.7070	ug/L	1.7070 ppb	10:28:39
3	Co 228.616†	219.6	352.7	-0.3905	ug/L	-0.3905 ppb	10:28:39
3	Cr 267.716†	56.3	-15.8	2.8110	ug/L	2.8110 ppb	10:28:39
3	Cu 324.752†	-888.4	-7187.2	2.6936	ug/L	2.6936 ppb	10:28:19
3	Mn 257.610†	-30242.2	-37586.4	-1.2374	ug/L	-1.2374 ppb	10:28:19
3	Mo 202.031†	-542.3	-688.9	-8.7220	ug/L	-8.7220 ppb	10:28:19
3	Ni 231.604†	321.5	263.9	5.5084	ug/L	5.5084 ppb	10:28:39
3	P 214.914†	661.9	565.4	106.96	ug/L	106.96 ppb	10:28:39
3	Pb 220.353†	-767.5	-863.5	-7.6509	ug/L	-7.6509 ppb	10:28:39
3	S 181.975 Axial†	131.5	112.6	31.463	ug/L	31.463 ppb	10:28:39
3	Sb 206.836†	61.0	30.2	-0.2374	ug/L	-0.2374 ppb	10:28:39
3	Se 196.026†	-2914.0	-3531.7	-254.65	ug/L	-254.65 ppb	10:28:39
3	Si 251.611†	-692.1	-1489.0	-39.291	ug/L	-39.291 ppb	10:28:39
3	Sn 189.927†	-423.8	-525.1	-19.313	ug/L	-19.313 ppb	10:28:39
3	Ti 334.940†	-9104.9	-9692.7	4.4733	ug/L	4.4733 ppb	10:28:19
3	Tl 190.801†	-130.8	-119.1	-16.116	ug/L	-16.116 ppb	10:28:39
3	U 409.014†	459710.8	565813.9	15159	ug/L	15159 ppb	10:28:19
3	V 292.402†	2157.2	4173.3	-1.1463	ug/L	-1.1463 ppb	10:28:19
3	Zn 213.857†	6848.7	7505.8	0.9403	ug/L	0.9403 ppb	10:28:39
3	SiO2†	-675.4	-1506.0	-85.730	ug/L	-85.730 ppb	10:28:54

Mean Data: LR1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	795400.6	85.311	%	3.1643				3.71%
Sc Radial	5271.5	88.6	%	0.50				0.57%
Y 371.029	628792.4	81.773	%	2.9751				3.64%
Y RADIAL	5440.6	88.04	%	0.748				0.85%
Ag 328.068†	-30391.7	-0.0065	ug/L	7.19851	-0.0065	ppb	7.19851	>999.9%
Al 396.153Radial†	773217.4	514420	ug/L	3629.4	514420	ppb	3629.4	0.71%
QC value within limits for Al 396.153Radial Recovery = 102.88%								
As 188.979†	-243.7	-16.922	ug/L	5.4105	-16.922	ppb	5.4105	31.97%
B 249.677†	1961.2	-19.274	ug/L	2.0808	-19.274	ppb	2.0808	10.80%
Ba 233.527†	-2349.6	1.0142	ug/L	0.61066	1.0142	ppb	0.61066	60.21%
Be 313.107†	-9258.8	-3.0490	ug/L	0.20870	-3.0490	ppb	0.20870	6.84%
Ca 317.933Radial†	349658.4	480250	ug/L	3085.9	480250	ppb	3085.9	0.64%
QC value within limits for Ca 317.933Radial Recovery = 96.05%								
Cd 226.502†	4622.5	-0.2599	ug/L	1.75982	-0.2599	ppb	1.75982	677.13%
Co 228.616†	347.8	-0.4675	ug/L	0.36556	-0.4675	ppb	0.36556	78.20%
Cr 267.716†	-28.6	2.9414	ug/L	0.20509	2.9414	ppb	0.20509	6.97%
Cu 324.752†	-7167.6	2.7462	ug/L	0.17768	2.7462	ppb	0.17768	6.47%

Fe 238.204 Radial†	56966.9	437020	ug/L	3953.6	437020	ppb	3953.6	0.90%
QC value less than the lower limit for Fe 238.204 Radial Recovery = 87.40%								
K 766.490 Radial†	482.4	-126.08	ug/L	23.169	-126.08	ppb	23.169	18.38%
Mg 279.077 IEC†	16489.0	480990	ug/L	5520.2	480990	ppb	5520.2	1.15%
QC value within limits for Mg 279.077 IEC Recovery = 96.20%								
Mn 257.610†	-35507.7	0.7410	ug/L	1.72518	0.7410	ppb	1.72518	232.81%
Mo 202.031†	-653.1	-6.6585	ug/L	2.33373	-6.6585	ppb	2.33373	35.05%
Na 589.592 Radial†	1968206.1	517370	ug/L	3794.9	517370	ppb	3794.9	0.73%
QC value within limits for Na 589.592 Radial Recovery = 103.47%								
Ni 231.604†	259.2	5.4116	ug/L	0.09490	5.4116	ppb	0.09490	1.75%
P 214.914†	535.8	92.786	ug/L	13.0510	92.786	ppb	13.0510	14.07%
Pb 220.353†	-799.7	-0.8016	ug/L	5.95542	-0.8016	ppb	5.95542	742.90%
S 181.975 Axial†	88.6	2.9261	ug/L	24.71414	2.9261	ppb	24.71414	844.62%
Sb 206.836†	35.0	1.1680	ug/L	1.26361	1.1680	ppb	1.26361	108.19%
Se 196.026†	-3357.3	-161.52	ug/L	80.859	-161.52	ppb	80.859	50.06%
Si 251.611†	-1432.5	-37.812	ug/L	1.2901	-37.812	ppb	1.2901	3.41%
Sn 189.927†	-514.1	-17.596	ug/L	1.4919	-17.596	ppb	1.4919	8.48%
Sr 421.552†	984.4	0.8753	ug/L	0.08668	0.8753	ppb	0.08668	9.90%
Ti 334.940†	-9121.1	5.7103	ug/L	1.13597	5.7103	ppb	1.13597	19.89%
Tl 190.801†	-114.3	-14.860	ug/L	1.7267	-14.860	ppb	1.7267	11.62%
U 409.014†	536205.2	14363	ug/L	689.5	14363	ppb	689.5	4.80%
QC value within limits for U 409.014 Recovery = 95.76%								
V 292.402†	3986.8	-3.7959	ug/L	2.59338	-3.7959	ppb	2.59338	68.32%
Zn 213.857†	7093.0	-2.3158	ug/L	2.83689	-2.3158	ppb	2.83689	122.50%
SiO2†	-1478.0	-84.206	ug/L	3.5553	-84.206	ppb	3.5553	4.22%

QC Failed. Continue with analysis.

Sequence No.: 12
Sample ID: LR2
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 16
Date Collected: 12/17/2009 10:31:03
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR2

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	5759.4	5759.4	96.8	%			10:33:01
1	Y RADIAL	5886.8	5886.8	95.27	%			10:33:01
1	Al 396.153Radial†	659.8	698.1	65.758	ug/L	65.758	ppb	10:33:01
1	Ca 317.933Radial†	47.9	29.0	39.843	ug/L	39.843	ppb	10:33:21
1	Fe 238.204 Radial†	-24.4	-38.1	-18.884	ug/L	-18.884	ppb	10:33:21
1	K 766.490 Radial†	1719644.1	1773736.2	286180	ug/L	286180	ppb	10:32:56
1	Mg 279.077 IEC†	-4.3	-9.8	-98.582	ug/L	-98.582	ppb	10:33:21
1	Na 589.592 Radial†	-1202.6	482.3	126.79	ug/L	126.79	ppb	10:33:01
1	Sr 421.552†	1647490.3	1702341.4	9211.6	ug/L	9211.6	ppb	10:32:56
1	Sc 361.383	928308.6	928308.6	99.566	%			10:34:38
1	Y 371.029	732256.4	732256.4	95.228	%			10:34:38
1	Ag 328.068†	-7784.9	-8227.2	3.8842	ug/L	3.8842	ppb	10:34:43
1	As 188.979†	27294.2	27444.6	9580.9	ug/L	9580.9	ppb	10:34:43
1	B 249.677†	246912.3	248514.9	4883.6	ug/L	4883.6	ppb	10:34:38
1	Ba 233.527†	2112668.5	2121863.9	13793	ug/L	13793	ppb	10:34:38
1	Be 313.107†	8602845.5	8644884.5	2842.1	ug/L	2842.1	ppb	10:34:32
1	Cd 226.502†	1006796.1	1011397.5	9508.1	ug/L	9508.1	ppb	10:34:38
1	Co 228.616†	513645.7	515967.9	8664.2	ug/L	8664.2	ppb	10:34:43
1	Cr 267.716†	2402985.5	2413372.8	23359	ug/L	23359	ppb	10:34:38
1	Cu 324.752†	7192647.9	7217893.4	19684	ug/L	19684	ppb	10:34:32
1	Mn 257.610†	9576333.0	9617506.6	9176.0	ug/L	9176.0	ppb	10:34:32
1	Mo 202.031†	160803.3	161479.1	9311.5	ug/L	9311.5	ppb	10:34:43
1	Ni 231.604†	455956.8	457814.1	9557.6	ug/L	9557.6	ppb	10:34:38
1	P 214.914†	34584.8	34490.4	14282	ug/L	14282	ppb	10:34:43
1	Pb 220.353†	232202.0	233290.1	23432	ug/L	23432	ppb	10:34:43
1	S 181.975 Axial†	42270.2	42406.0	49805	ug/L	49805	ppb	10:34:43
1	Sb 206.836†	34877.5	34985.1	9912.8	ug/L	9912.8	ppb	10:34:43
1	Se 196.026†	18323.3	18439.1	9822.1	ug/L	9822.1	ppb	10:34:43
1	Si 251.611†	1714975.3	1721807.4	46194	ug/L	46194	ppb	10:34:38
1	Sn 189.927†	69615.5	69912.6	10007	ug/L	10007	ppb	10:34:43
1	Ti 334.940†	6784670.2	6815692.3	9687.7	ug/L	9687.7	ppb	10:34:32
1	Tl 190.801†	36938.6	37140.7	9341.9	ug/L	9341.9	ppb	10:34:43
1	U 409.014†	-1696.1	1265.3	-11.025	ug/L	-11.025	ppb	10:34:43
1	V 292.402†	1589704.9	1598164.8	9873.4	ug/L	9873.4	ppb	10:34:38
1	Zn 213.857†	1755627.2	1762398.8	13805	ug/L	13805	ppb	10:34:38
1	SiO2†	1727973.9	1734825.2	100390	ug/L	100390	ppb	10:35:31
2	Sc Radial	5750.1	5750.1	96.6	%			10:33:31
2	Y RADIAL	5864.4	5864.4	94.90	%			10:33:31
2	Al 396.153Radial†	674.6	714.4	70.757	ug/L	70.757	ppb	10:33:31
2	Ca 317.933Radial†	41.2	22.1	30.420	ug/L	30.420	ppb	10:33:51
2	Fe 238.204 Radial†	-24.2	-37.9	-16.131	ug/L	-16.131	ppb	10:33:51
2	K 766.490 Radial†	1745240.2	1803107.4	290920	ug/L	290920	ppb	10:33:26
2	Mg 279.077 IEC†	-5.7	-11.3	-137.42	ug/L	-137.42	ppb	10:33:51
2	Na 589.592 Radial†	-1123.6	562.2	147.77	ug/L	147.77	ppb	10:33:31
2	Sr 421.552†	1666243.3	1724509.4	9331.5	ug/L	9331.5	ppb	10:33:26
2	Sc 361.383	930157.1	930157.1	99.764	%			10:34:58
2	Y 371.029	734544.7	734544.7	95.526	%			10:34:58
2	Ag 328.068†	-7951.9	-8379.1	3.2591	ug/L	3.2591	ppb	10:35:03
2	As 188.979†	27923.0	28020.4	9779.4	ug/L	9779.4	ppb	10:35:03
2	B 249.677†	247774.2	248886.0	4890.8	ug/L	4890.8	ppb	10:34:58
2	Ba 233.527†	2113155.6	2118135.2	13768	ug/L	13768	ppb	10:34:58
2	Be 313.107†	8561754.8	8586525.4	2822.9	ug/L	2822.9	ppb	10:34:51
2	Cd 226.502†	1006426.2	1009017.2	9485.7	ug/L	9485.7	ppb	10:34:58
2	Co 228.616†	517361.9	518667.7	8710.1	ug/L	8710.1	ppb	10:35:03
2	Cr 267.716†	2404421.9	2410016.2	23326	ug/L	23326	ppb	10:34:58
2	Cu 324.752†	7150307.0	7161095.9	19529	ug/L	19529	ppb	10:34:51
2	Mn 257.610†	9532682.8	9554638.8	9116.0	ug/L	9116.0	ppb	10:34:51
2	Mo 202.031†	163496.6	163857.8	9448.7	ug/L	9448.7	ppb	10:35:03
2	Ni 231.604†	455781.6	456728.4	9534.9	ug/L	9534.9	ppb	10:34:58

2	P 214.914†	35114.2	34952.1	14540	ug/L	14540 ppb	10:35:03
2	Pb 220.353†	235931.6	236565.1	23761	ug/L	23761 ppb	10:35:03
2	S 181.975 Axial†	43175.9	43229.4	50772	ug/L	50772 ppb	10:35:03
2	Sb 206.836†	35648.8	35688.6	10122	ug/L	10122 ppb	10:35:03
2	Se 196.026†	18707.2	18787.3	10007	ug/L	10007 ppb	10:35:03
2	Si 251.611†	1719045.5	1722464.1	46208	ug/L	46208 ppb	10:34:58
2	Sn 189.927†	70693.4	70854.2	10141	ug/L	10141 ppb	10:35:03
2	Ti 334.940†	6751522.1	6768923.6	9621.2	ug/L	9621.2 ppb	10:34:51
2	Tl 190.801†	37575.9	37705.8	9481.9	ug/L	9481.9 ppb	10:35:03
2	U 409.014†	-1645.3	1319.7	-9.5009	ug/L	-9.5009 ppb	10:35:03
2	V 292.402†	1593260.8	1598556.1	9877.9	ug/L	9877.9 ppb	10:34:58
2	Zn 213.857†	1756312.4	1759581.4	13783	ug/L	13783 ppb	10:34:58
2	SiO2†	1700441.9	1703779.1	98575	ug/L	98575 ppb	10:35:38
3	Sc Radial	5564.1	5564.1	93.5	%		10:34:02
3	Y RADIAL	5695.9	5695.9	92.18	%		10:34:02
3	Al 396.153Radial†	662.4	724.7	78.440	ug/L	78.440 ppb	10:34:02
3	Ca 317.933Radial†	41.8	24.3	33.363	ug/L	33.363 ppb	10:34:22
3	Fe 238.204 Radial†	-25.1	-39.8	-28.079	ug/L	-28.079 ppb	10:34:22
3	K 766.490 Radial†	1774606.2	1894915.9	305740	ug/L	305740 ppb	10:33:57
3	Mg 279.077 IEC†	-2.8	-8.3	-52.216	ug/L	-52.216 ppb	10:34:22
3	Na 589.592 Radial†	-1157.2	487.3	128.09	ug/L	128.09 ppb	10:34:02
3	Sr 421.552†	1703811.8	1822357.1	9861.0	ug/L	9861.0 ppb	10:33:57
3	Sc 361.383	919345.7	919345.7	98.605	%		10:35:18
3	Y 371.029	724681.8	724681.8	94.243	%		10:35:18
3	Ag 328.068†	-7946.7	-8467.6	2.8350	ug/L	2.8350 ppb	10:35:23
3	As 188.979†	27492.2	27912.6	9742.7	ug/L	9742.7 ppb	10:35:23
3	B 249.677†	244775.2	248765.2	4888.3	ug/L	4888.3 ppb	10:35:18
3	Ba 233.527†	2095219.3	2124854.3	13812	ug/L	13812 ppb	10:35:18
3	Be 313.107†	8526256.1	8651447.5	2844.3	ug/L	2844.3 ppb	10:35:11
3	Cd 226.502†	996911.1	1011230.8	9506.5	ug/L	9506.5 ppb	10:35:18
3	Co 228.616†	515341.9	522717.6	8777.9	ug/L	8777.9 ppb	10:35:23
3	Cr 267.716†	2378634.1	2412206.1	23347	ug/L	23347 ppb	10:35:18
3	Cu 324.752†	7126672.0	7221412.0	19694	ug/L	19694 ppb	10:35:11
3	Mn 257.610†	9499638.7	9633495.3	9191.2	ug/L	9191.2 ppb	10:35:11
3	Mo 202.031†	161272.8	163529.8	9429.8	ug/L	9429.8 ppb	10:35:23
3	Ni 231.604†	451218.1	457472.9	9550.4	ug/L	9550.4 ppb	10:35:18
3	P 214.914†	34836.6	35084.5	14581	ug/L	14581 ppb	10:35:23
3	Pb 220.353†	232888.7	236260.2	23730	ug/L	23730 ppb	10:35:23
3	S 181.975 Axial†	42392.3	42943.7	50437	ug/L	50437 ppb	10:35:23
3	Sb 206.836†	35038.0	35489.4	10064	ug/L	10064 ppb	10:35:23
3	Se 196.026†	18395.7	18692.0	9956.7	ug/L	9956.7 ppb	10:35:23
3	Si 251.611†	1700527.2	1723947.3	46243	ug/L	46243 ppb	10:35:18
3	Sn 189.927†	69934.2	70917.5	10150	ug/L	10150 ppb	10:35:23
3	Ti 334.940†	6723685.9	6820278.2	9694.3	ug/L	9694.3 ppb	10:35:11
3	Tl 190.801†	37011.0	37575.8	9450.1	ug/L	9450.1 ppb	10:35:23
3	U 409.014†	-1625.4	1320.4	-9.5208	ug/L	-9.5208 ppb	10:35:23
3	V 292.402†	1572682.8	1596467.8	9864.8	ug/L	9864.8 ppb	10:35:18
3	Zn 213.857†	1741200.2	1764958.2	13825	ug/L	13825 ppb	10:35:18
3	SiO2†	1706554.0	1730021.9	100090	ug/L	100090 ppb	10:35:45

Mean Data: LR2

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	925937.2	99.312	%	0.6202				0.62%
Sc Radial	5691.2	95.6	%	1.85				1.94%
Y 371.029	730494.3	94.999	%	0.6713				0.71%
Y RADIAL	5815.7	94.11	%	1.688				1.79%
Ag 328.068†	-8358.0	3.3261	ug/L	0.52778	3.3261	ppb	0.52778	15.87%
Al 396.153Radial†	712.4	71.652	ug/L	6.3883	71.652	ppb	6.3883	8.92%
As 188.979†	27792.6	9701.0	ug/L	105.63	9701.0	ppb	105.63	1.09%
QC value within limits for As 188.979 Recovery = 97.01%								
B 249.677†	248722.0	4887.6	ug/L	3.66	4887.6	ppb	3.66	0.07%
QC value within limits for B 249.677 Recovery = 97.75%								
Ba 233.527†	2121617.8	13791	ug/L	21.8	13791	ppb	21.8	0.16%
QC value within limits for Ba 233.527 Recovery = 91.94%								
Be 313.107†	8627619.2	2836.4	ug/L	11.75	2836.4	ppb	11.75	0.41%
QC value within limits for Be 313.107 Recovery = 94.55%								
Ca 317.933Radial†	25.1	34.542	ug/L	4.8206	34.542	ppb	4.8206	13.96%
Cd 226.502†	1010548.5	9500.1	ug/L	12.49	9500.1	ppb	12.49	0.13%
QC value within limits for Cd 226.502 Recovery = 95.00%								

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Co 228.616†          519117.7      8717.4 ug/L        57.17      8717.4 ppb        57.17   0.66%
   QC value less than the lower limit for Co 228.616  Recovery = 87.17%
Cr 267.716†         2411865.0       23344 ug/L         16.5       23344 ppb         16.5   0.07%
   QC value within limits for Cr 267.716  Recovery = 93.38%
Cu 324.752†         7200133.8       19636 ug/L         92.3       19636 ppb         92.3   0.47%
   QC value within limits for Cu 324.752  Recovery = 98.18%
Fe 238.204 Radial†      -38.6     -21.031 ug/L       6.2567     -21.031 ppb       6.2567  29.75%
K 766.490 Radial†   1823919.8      294280 ug/L      10201.9      294280 ppb      10201.9   3.47%
   QC value within limits for K 766.490 Radial  Recovery = 98.09%
Mg 279.077 IEC†          -9.8     -96.073 ug/L      42.6588     -96.073 ppb      42.6588  44.40%
Mn 257.610†         9601880.2      9161.1 ug/L        39.77      9161.1 ppb        39.77   0.43%
   QC value within limits for Mn 257.610  Recovery = 91.61%
Mo 202.031†          162955.6      9396.7 ug/L        74.34      9396.7 ppb        74.34   0.79%
   QC value within limits for Mo 202.031  Recovery = 93.97%
Na 589.592 Radial†      510.6      134.22 ug/L       11.756      134.22 ppb       11.756   8.76%
Ni 231.604†          457338.5      9547.7 ug/L        11.60      9547.7 ppb        11.60   0.12%
   QC value within limits for Ni 231.604  Recovery = 95.48%
P 214.914†            34842.4       14468 ug/L        162.0       14468 ppb        162.0   1.12%
   QC value within limits for P 214.914  Recovery = 96.45%
Pb 220.353†          235371.8       23641 ug/L        181.9       23641 ppb        181.9   0.77%
   QC value within limits for Pb 220.353  Recovery = 94.56%
S 181.975 Axial†      42859.7       50338 ug/L        491.1       50338 ppb        491.1   0.98%
   QC value within limits for S 181.975 Axial  Recovery = 100.68%
Sb 206.836†           35387.7       10033 ug/L        108.2       10033 ppb        108.2   1.08%
   QC value within limits for Sb 206.836  Recovery = 100.33%
Se 196.026†           18639.4      9928.7 ug/L        95.81      9928.7 ppb        95.81   0.96%
   QC value within limits for Se 196.026  Recovery = 99.29%
Si 251.611†         1722739.6       46215 ug/L         25.2       46215 ppb         25.2   0.05%
   QC value within limits for Si 251.611  Recovery = 92.43%
Sn 189.927†           70561.4       10099 ug/L         80.5       10099 ppb         80.5   0.80%
   QC value within limits for Sn 189.927  Recovery = 100.99%
Sr 421.552†         1749736.0      9468.0 ug/L       345.56      9468.0 ppb       345.56   3.65%
   QC value within limits for Sr 421.552  Recovery = 94.68%
Ti 334.940†         6801631.4      9667.7 ug/L        40.42      9667.7 ppb        40.42   0.42%
   QC value within limits for Ti 334.940  Recovery = 96.68%
Tl 190.801†           37474.1      9424.6 ug/L        73.45      9424.6 ppb        73.45   0.78%
   QC value within limits for Tl 190.801  Recovery = 94.25%
U 409.014†             1301.8     -10.016 ug/L       0.8743     -10.016 ppb       0.8743   8.73%
V 292.402†          1597729.6      9872.0 ug/L         6.67      9872.0 ppb         6.67   0.07%
   QC value within limits for V 292.402  Recovery = 98.72%
Zn 213.857†         1762312.8       13804 ug/L         21.0       13804 ppb         21.0   0.15%
   QC value within limits for Zn 213.857  Recovery = 92.03%
SiO2†               1722875.4       99687 ug/L        974.4       99687 ppb        974.4   0.98%
   QC value within limits for SiO2  Recovery = 93.17%
QC Failed.  Continue with analysis.
```

Sequence No.: 13
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 12/17/2009 10:37:55
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5875.5	5875.5	98.7	%			10:39:48
1	Y RADIAL	6012.2	6012.2	97.29	%			10:39:48
1	Al 396.153Radial†	7180.6	7289.3	4828.9	ug/L	4828.9	ppb	10:39:48
1	Ca 317.933Radial†	3650.2	3676.7	5049.9	ug/L	5049.9	ppb	10:40:08
1	Fe 238.204 Radial†	670.1	665.8	5122.8	ug/L	5122.8	ppb	10:40:08
1	K 766.490 Radial†	34813.3	32115.2	5174.5	ug/L	5174.5	ppb	10:39:48
1	Mg 279.077 IEC†	180.2	177.2	5177.4	ug/L	5177.4	ppb	10:40:08
1	Na 589.592 Radial†	36218.6	38410.1	10097	ug/L	10097	ppb	10:39:48
1	Sr 421.552†	88604.1	89759.6	485.65	ug/L	485.65	ppb	10:39:48
1	Sc 361.383	964531.5	964531.5	103.45	%			10:41:07
1	Y 371.029	768616.3	768616.3	99.957	%			10:41:07
1	Ag 328.068†	118255.6	113902.1	478.40	ug/L	478.40	ppb	10:41:07
1	As 188.979†	1466.7	1449.3	505.87	ug/L	505.87	ppb	10:41:27
1	B 249.677†	25934.5	25595.9	503.38	ug/L	503.38	ppb	10:41:07
1	Ba 233.527†	76023.7	73476.0	478.11	ug/L	478.11	ppb	10:41:07
1	Be 313.107†	1513128.4	1467197.9	480.07	ug/L	480.07	ppb	10:41:07
1	Cd 226.502†	52495.1	50957.7	478.53	ug/L	478.53	ppb	10:41:07
1	Co 228.616†	28972.9	28090.2	471.84	ug/L	471.84	ppb	10:41:27
1	Cr 267.716†	50907.6	49124.6	475.89	ug/L	475.89	ppb	10:41:07
1	Cu 324.752†	187801.0	175436.3	478.69	ug/L	478.69	ppb	10:41:07
1	Mn 257.610†	520985.4	503045.6	480.37	ug/L	480.37	ppb	10:41:07
1	Mo 202.031†	8681.6	8367.0	482.84	ug/L	482.84	ppb	10:41:27
1	Ni 231.604†	23595.0	22678.1	473.42	ug/L	473.42	ppb	10:41:27
1	P 214.914†	5184.4	4766.4	2318.2	ug/L	2318.2	ppb	10:41:27
1	Pb 220.353†	4902.9	4815.6	485.00	ug/L	485.00	ppb	10:41:27
1	S 181.975 Axial†	880.9	803.1	942.33	ug/L	942.33	ppb	10:41:27
1	Sb 206.836†	1777.2	1673.5	490.63	ug/L	490.63	ppb	10:41:27
1	Se 196.026†	906.7	912.4	504.77	ug/L	504.77	ppb	10:41:27
1	Si 251.611†	92952.7	89210.1	2396.7	ug/L	2396.7	ppb	10:41:07
1	Sn 189.927†	3455.8	3334.3	477.84	ug/L	477.84	ppb	10:41:27
1	Ti 334.940†	350534.1	340295.0	483.99	ug/L	483.99	ppb	10:41:07
1	Tl 190.801†	1950.1	1926.1	484.44	ug/L	484.44	ppb	10:41:27
1	U 409.014†	14823.1	17297.5	463.56	ug/L	463.56	ppb	10:41:07
1	V 292.402†	78728.0	77633.7	480.53	ug/L	480.53	ppb	10:41:07
1	Zn 213.857†	63897.4	60886.4	475.57	ug/L	475.57	ppb	10:41:07
1	SiO2†	93604.9	89803.0	5204.2	ug/L	5204.2	ppb	10:42:27
2	Sc Radial	5951.9	5951.9	100	%			10:40:13
2	Y RADIAL	6095.0	6095.0	98.64	%			10:40:13
2	Al 396.153Radial†	7280.3	7295.6	4832.8	ug/L	4832.8	ppb	10:40:13
2	Ca 317.933Radial†	3641.6	3620.7	4972.9	ug/L	4972.9	ppb	10:40:33
2	Fe 238.204 Radial†	668.7	655.7	5045.3	ug/L	5045.3	ppb	10:40:33
2	K 766.490 Radial†	35137.5	31986.4	5153.6	ug/L	5153.6	ppb	10:40:13
2	Mg 279.077 IEC†	177.9	172.5	5042.8	ug/L	5042.8	ppb	10:40:33
2	Na 589.592 Radial†	36882.1	38602.2	10147	ug/L	10147	ppb	10:40:13
2	Sr 421.552†	89770.6	89772.7	485.73	ug/L	485.73	ppb	10:40:13
2	Sc 361.383	949867.0	949867.0	101.88	%			10:41:34
2	Y 371.029	757051.6	757051.6	98.453	%			10:41:34
2	Ag 328.068†	118058.9	115473.8	484.96	ug/L	484.96	ppb	10:41:34
2	As 188.979†	1462.2	1466.7	511.94	ug/L	511.94	ppb	10:41:54
2	B 249.677†	25893.5	25942.7	510.21	ug/L	510.21	ppb	10:41:34
2	Ba 233.527†	76289.8	74871.7	487.18	ug/L	487.18	ppb	10:41:34
2	Be 313.107†	1520024.3	1496547.7	489.67	ug/L	489.67	ppb	10:41:34
2	Cd 226.502†	52678.7	51921.3	487.60	ug/L	487.60	ppb	10:41:34
2	Co 228.616†	28957.8	28507.7	478.85	ug/L	478.85	ppb	10:41:54
2	Cr 267.716†	51159.3	50131.3	485.64	ug/L	485.64	ppb	10:41:34
2	Cu 324.752†	187617.2	178058.5	485.84	ug/L	485.84	ppb	10:41:34
2	Mn 257.610†	522470.9	512278.5	489.17	ug/L	489.17	ppb	10:41:34
2	Mo 202.031†	8655.9	8471.4	488.85	ug/L	488.85	ppb	10:41:54
2	Ni 231.604†	23617.0	23051.9	481.22	ug/L	481.22	ppb	10:41:54

2	P 214.914†	5168.9	4828.6	2348.5 ug/L	2348.5 ppb	10:41:54
2	Pb 220.353†	4916.6	4902.2	493.71 ug/L	493.71 ppb	10:41:54
2	S 181.975 Axial†	892.7	827.8	971.33 ug/L	971.33 ppb	10:41:54
2	Sb 206.836†	1771.6	1694.5	496.79 ug/L	496.79 ppb	10:41:54
2	Se 196.026†	900.5	919.8	508.48 ug/L	508.48 ppb	10:41:54
2	Si 251.611†	93078.6	90720.8	2437.4 ug/L	2437.4 ppb	10:41:34
2	Sn 189.927†	3479.4	3409.0	488.52 ug/L	488.52 ppb	10:41:54
2	Ti 334.940†	351197.4	346177.2	492.35 ug/L	492.35 ppb	10:41:34
2	Tl 190.801†	1951.7	1956.8	492.17 ug/L	492.17 ppb	10:41:54
2	U 409.014†	14536.3	17237.2	461.93 ug/L	461.93 ppb	10:41:34
2	V 292.402†	78687.8	78769.2	487.55 ug/L	487.55 ppb	10:41:34
2	Zn 213.857†	63966.9	61908.2	483.58 ug/L	483.58 ppb	10:41:34
2	SiO2†	92317.5	89936.3	5211.7 ug/L	5211.7 ppb	10:42:32
3	Sc Radial	5792.9	5792.9	97.3 %		10:40:38
3	Y RADIAL	5939.5	5939.5	96.12 %		10:40:38
3	Al 396.153Radial†	7256.5	7471.0	4949.6 ug/L	4949.6 ppb	10:40:38
3	Ca 317.933Radial†	3585.0	3662.5	5030.4 ug/L	5030.4 ppb	10:40:58
3	Fe 238.204 Radial†	656.2	661.3	5087.8 ug/L	5087.8 ppb	10:40:58
3	K 766.490 Radial†	35077.1	32888.9	5299.0 ug/L	5299.0 ppb	10:40:38
3	Mg 279.077 IEC†	174.8	174.2	5090.8 ug/L	5090.8 ppb	10:40:58
3	Na 589.592 Radial†	36688.2	39415.5	10361 ug/L	10361 ppb	10:40:38
3	Sr 421.552†	89439.0	91896.6	497.22 ug/L	497.22 ppb	10:40:38
3	Sc 361.383	937322.1	937322.1	100.53 %		10:42:02
3	Y 371.029	747412.8	747412.8	97.199 %		10:42:02
3	Ag 328.068†	119872.4	118828.7	499.01 ug/L	499.01 ppb	10:42:02
3	As 188.979†	1432.6	1456.5	508.54 ug/L	508.54 ppb	10:42:22
3	B 249.677†	26168.6	26556.5	522.33 ug/L	522.33 ppb	10:42:02
3	Ba 233.527†	77426.2	77004.3	501.05 ug/L	501.05 ppb	10:42:02
3	Be 313.107†	1542684.7	1539056.6	503.58 ug/L	503.58 ppb	10:42:02
3	Cd 226.502†	53378.1	53309.1	500.63 ug/L	500.63 ppb	10:42:02
3	Co 228.616†	28453.1	28386.1	476.77 ug/L	476.77 ppb	10:42:22
3	Cr 267.716†	51821.4	51462.0	498.53 ug/L	498.53 ppb	10:42:02
3	Cu 324.752†	190779.5	183668.8	501.14 ug/L	501.14 ppb	10:42:02
3	Mn 257.610†	530376.4	527005.8	503.23 ug/L	503.23 ppb	10:42:02
3	Mo 202.031†	8508.9	8438.8	486.98 ug/L	486.98 ppb	10:42:22
3	Ni 231.604†	23160.3	22907.8	478.21 ug/L	478.21 ppb	10:42:22
3	P 214.914†	5092.3	4820.3	2341.8 ug/L	2341.8 ppb	10:42:22
3	Pb 220.353†	4828.7	4879.4	491.43 ug/L	491.43 ppb	10:42:22
3	S 181.975 Axial†	883.3	830.2	974.13 ug/L	974.13 ppb	10:42:22
3	Sb 206.836†	1758.2	1704.5	499.20 ug/L	499.20 ppb	10:42:22
3	Se 196.026†	896.6	927.8	512.88 ug/L	512.88 ppb	10:42:22
3	Si 251.611†	94557.7	93414.8	2510.1 ug/L	2510.1 ppb	10:42:02
3	Sn 189.927†	3393.0	3368.8	482.77 ug/L	482.77 ppb	10:42:22
3	Ti 334.940†	356302.0	355868.4	506.13 ug/L	506.13 ppb	10:42:02
3	Tl 190.801†	1928.7	1959.6	493.03 ug/L	493.03 ppb	10:42:22
3	U 409.014†	14972.7	17862.2	478.71 ug/L	478.71 ppb	10:42:02
3	V 292.402†	79996.7	81104.9	501.79 ug/L	501.79 ppb	10:42:02
3	Zn 213.857†	64875.2	63652.0	497.32 ug/L	497.32 ppb	10:42:02
3	SiO2†	92818.1	91647.0	5311.3 ug/L	5311.3 ppb	10:42:38

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	950573.5	101.95	%	1.461				1.43%
Sc Radial	5873.4	98.7	%	1.34				1.35%
Y 371.029	757693.6	98.536	%	1.3806				1.40%
Y RADIAL	6015.6	97.35	%	1.259				1.29%
Ag 328.068†	116068.2	487.46	ug/L	10.533	487.46	ppb	10.533	2.16%
QC value within limits for Ag 328.068 Recovery = 97.49%								
Al 396.153Radial†	7352.0	4870.4	ug/L	68.58	4870.4	ppb	68.58	1.41%
QC value within limits for Al 396.153Radial Recovery = 97.41%								
As 188.979†	1457.5	508.78	ug/L	3.046	508.78	ppb	3.046	0.60%
QC value within limits for As 188.979 Recovery = 101.76%								
B 249.677†	26031.7	511.97	ug/L	9.599	511.97	ppb	9.599	1.87%
QC value within limits for B 249.677 Recovery = 102.39%								
Ba 233.527†	75117.3	488.78	ug/L	11.556	488.78	ppb	11.556	2.36%
QC value within limits for Ba 233.527 Recovery = 97.76%								
Be 313.107†	1500934.1	491.11	ug/L	11.820	491.11	ppb	11.820	2.41%
QC value within limits for Be 313.107 Recovery = 98.22%								
Ca 317.933Radial†	3653.3	5017.8	ug/L	40.04	5017.8	ppb	40.04	0.80%

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   QC value within limits for Ca 317.933Radial  Recovery = 100.36%
Cd 226.502†            52062.7      488.92 ug/L        11.108      488.92 ppb        11.108   2.27%
   QC value within limits for Cd 226.502  Recovery = 97.78%
Co 228.616†            28328.0      475.82 ug/L         3.601      475.82 ppb         3.601   0.76%
   QC value within limits for Co 228.616  Recovery = 95.16%
Cr 267.716†            50239.3      486.69 ug/L        11.355      486.69 ppb        11.355   2.33%
   QC value within limits for Cr 267.716  Recovery = 97.34%
Cu 324.752†           179054.5      488.56 ug/L        11.469      488.56 ppb        11.469   2.35%
   QC value within limits for Cu 324.752  Recovery = 97.71%
Fe 238.204 Radial†       660.9      5085.3 ug/L         38.80      5085.3 ppb         38.80   0.76%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.71%
K 766.490 Radial†      32330.2      5209.0 ug/L         78.61      5209.0 ppb         78.61   1.51%
   QC value within limits for K 766.490 Radial  Recovery = 104.18%
Mg 279.077 IEC†          174.6      5103.7 ug/L         68.21      5103.7 ppb         68.21   1.34%
   QC value within limits for Mg 279.077 IEC  Recovery = 102.07%
Mn 257.610†           514110.0      490.92 ug/L        11.529      490.92 ppb        11.529   2.35%
   QC value within limits for Mn 257.610  Recovery = 98.18%
Mo 202.031†             8425.7      486.22 ug/L         3.076      486.22 ppb         3.076   0.63%
   QC value within limits for Mo 202.031  Recovery = 97.24%
Na 589.592 Radial†     38809.2       10201 ug/L         140.3       10201 ppb         140.3   1.38%
   QC value within limits for Na 589.592 Radial  Recovery = 102.01%
Ni 231.604†            22879.3      477.62 ug/L         3.936      477.62 ppb         3.936   0.82%
   QC value within limits for Ni 231.604  Recovery = 95.52%
P 214.914†              4805.1      2336.2 ug/L         15.89      2336.2 ppb         15.89   0.68%
   QC value within limits for P 214.914  Recovery = 93.45%
Pb 220.353†             4865.7      490.05 ug/L         4.516      490.05 ppb         4.516   0.92%
   QC value within limits for Pb 220.353  Recovery = 98.01%
S 181.975 Axial†         820.4      962.60 ug/L        17.610      962.60 ppb        17.610   1.83%
   QC value within limits for S 181.975 Axial  Recovery = 96.26%
Sb 206.836†             1690.8      495.54 ug/L         4.420      495.54 ppb         4.420   0.89%
   QC value within limits for Sb 206.836  Recovery = 99.11%
Se 196.026†              920.0      508.71 ug/L         4.060      508.71 ppb         4.060   0.80%
   QC value within limits for Se 196.026  Recovery = 101.74%
Si 251.611†            91115.2      2448.1 ug/L         57.44      2448.1 ppb         57.44   2.35%
   QC value within limits for Si 251.611  Recovery = 97.92%
Sn 189.927†             3370.7      483.04 ug/L         5.345      483.04 ppb         5.345   1.11%
   QC value within limits for Sn 189.927  Recovery = 96.61%
Sr 421.552†            90476.3      489.53 ug/L         6.656      489.53 ppb         6.656   1.36%
   QC value within limits for Sr 421.552  Recovery = 97.91%
Ti 334.940†           347446.9      494.16 ug/L        11.179      494.16 ppb        11.179   2.26%
   QC value within limits for Ti 334.940  Recovery = 98.83%
Tl 190.801†             1947.5      489.88 ug/L         4.732      489.88 ppb         4.732   0.97%
   QC value within limits for Tl 190.801  Recovery = 97.98%
U 409.014†             17465.6      468.06 ug/L         9.251      468.06 ppb         9.251   1.98%
   QC value within limits for U 409.014  Recovery = 93.61%
V 292.402†             79169.2      489.96 ug/L        10.832      489.96 ppb        10.832   2.21%
   QC value within limits for V 292.402  Recovery = 97.99%
Zn 213.857†            62148.9      485.49 ug/L        10.997      485.49 ppb        10.997   2.27%
   QC value within limits for Zn 213.857  Recovery = 97.10%
SiO2†                  90462.1      5242.4 ug/L         59.79      5242.4 ppb         59.79   1.14%
   QC value within limits for SiO2  Recovery = 98.03%
All analyte(s) passed QC.
```

Sequence No.: 14
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 12/17/2009 10:44:47
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	6077.2	6077.2	102	%			10:46:40
1	Y RADIAL	6295.6	6295.6	101.9	%			10:46:40
1	Al 396.153Radial†	-23.5	-6.8	-4.5384	ug/L	-4.5384	ppb	10:46:40
1	Ca 317.933Radial†	31.6	10.5	14.369	ug/L	14.369	ppb	10:47:00
1	Fe 238.204 Radial†	12.1	-1.1	-8.3618	ug/L	-8.3618	ppb	10:47:00
1	K 766.490 Radial†	4050.6	820.2	132.35	ug/L	132.35	ppb	10:46:40
1	Mg 279.077 IEC†	3.6	-1.9	-54.456	ug/L	-54.456	ppb	10:47:00
1	Na 589.592 Radial†	-1629.5	129.3	33.992	ug/L	33.992	ppb	10:46:40
1	Sr 421.552†	-1.2	13.1	0.0708	ug/L	0.0708	ppb	10:46:40
1	Sc 361.383	976393.3	976393.3	104.72	%			10:47:57
1	Y 371.029	790152.5	790152.5	102.76	%			10:47:57
1	Ag 328.068†	357.0	-67.5	-0.2878	ug/L	-0.2878	ppb	10:48:02
1	As 188.979†	15.2	46.0	15.920	ug/L	15.920	ppb	10:48:22
1	B 249.677†	456.6	962.6	19.003	ug/L	19.003	ppb	10:48:02
1	Ba 233.527†	23.2	10.7	0.0693	ug/L	0.0693	ppb	10:48:22
1	Be 313.107†	-4369.0	376.5	0.1233	ug/L	0.1233	ppb	10:48:02
1	Cd 226.502†	-150.9	69.7	0.6558	ug/L	0.6558	ppb	10:48:22
1	Co 228.616†	-76.5	10.8	0.1815	ug/L	0.1815	ppb	10:48:22
1	Cr 267.716†	147.0	55.6	0.5366	ug/L	0.5366	ppb	10:48:02
1	Cu 324.752†	6091.0	-283.3	-0.7731	ug/L	-0.7731	ppb	10:48:02
1	Mn 257.610†	603.2	16.5	0.0159	ug/L	0.0159	ppb	10:48:22
1	Mo 202.031†	33.7	7.2	0.4162	ug/L	0.4162	ppb	10:48:22
1	Ni 231.604†	128.2	-7.3	-0.1528	ug/L	-0.1528	ppb	10:48:22
1	P 214.914†	239.9	-16.0	-7.8636	ug/L	-7.8636	ppb	10:48:22
1	Pb 220.353†	-91.6	-11.3	-1.1315	ug/L	-1.1315	ppb	10:48:22
1	S 181.975 Axial†	46.8	-3.7	-4.3885	ug/L	-4.3885	ppb	10:48:22
1	Sb 206.836†	48.1	1.5	0.4559	ug/L	0.4559	ppb	10:48:22
1	Se 196.026†	-15.5	21.1	11.177	ug/L	11.177	ppb	10:48:22
1	Si 251.611†	796.8	119.1	3.1593	ug/L	3.1593	ppb	10:48:22
1	Sn 189.927†	18.9	11.8	1.6965	ug/L	1.6965	ppb	10:48:22
1	Ti 334.940†	-1387.3	130.2	0.1839	ug/L	0.1839	ppb	10:48:02
1	Tl 190.801†	-39.8	3.1	0.7720	ug/L	0.7720	ppb	10:48:22
1	U 409.014†	-2944.1	157.5	4.2362	ug/L	4.2362	ppb	10:47:57
1	V 292.402†	-1580.1	23.3	0.1560	ug/L	0.1560	ppb	10:48:02
1	Zn 213.857†	973.8	50.5	0.4028	ug/L	0.4028	ppb	10:48:22
1	SiO2†	796.7	81.6	4.6265	ug/L	4.6265	ppb	10:49:28
2	Sc Radial	6041.6	6041.6	102	%			10:47:05
2	Y RADIAL	6288.0	6288.0	101.8	%			10:47:05
2	Al 396.153Radial†	-57.9	-40.8	-27.159	ug/L	-27.159	ppb	10:47:05
2	Ca 317.933Radial†	30.2	9.3	12.770	ug/L	12.770	ppb	10:47:25
2	Fe 238.204 Radial†	15.5	2.3	17.757	ug/L	17.757	ppb	10:47:25
2	K 766.490 Radial†	4051.3	844.2	136.23	ug/L	136.23	ppb	10:47:05
2	Mg 279.077 IEC†	1.9	-3.5	-101.28	ug/L	-101.28	ppb	10:47:25
2	Na 589.592 Radial†	-1654.3	95.5	25.105	ug/L	25.105	ppb	10:47:05
2	Sr 421.552†	-4.4	9.9	0.0537	ug/L	0.0537	ppb	10:47:05
2	Sc 361.383	984334.2	984334.2	105.58	%			10:48:27
2	Y 371.029	797172.3	797172.3	103.67	%			10:48:27
2	Ag 328.068†	415.2	-15.2	-0.0625	ug/L	-0.0625	ppb	10:48:32
2	As 188.979†	-5.5	26.2	9.0670	ug/L	9.0670	ppb	10:48:52
2	B 249.677†	425.8	929.9	18.353	ug/L	18.353	ppb	10:48:32
2	Ba 233.527†	30.5	17.4	0.1140	ug/L	0.1140	ppb	10:48:52
2	Be 313.107†	-4377.6	402.0	0.1314	ug/L	0.1314	ppb	10:48:32
2	Cd 226.502†	-164.0	58.5	0.5478	ug/L	0.5478	ppb	10:48:52
2	Co 228.616†	-77.7	10.2	0.1701	ug/L	0.1701	ppb	10:48:52
2	Cr 267.716†	138.1	46.1	0.4443	ug/L	0.4443	ppb	10:48:32
2	Cu 324.752†	6154.1	-270.4	-0.7365	ug/L	-0.7365	ppb	10:48:32
2	Mn 257.610†	594.3	3.4	0.0069	ug/L	0.0069	ppb	10:48:52
2	Mo 202.031†	27.5	1.0	0.0615	ug/L	0.0615	ppb	10:48:52
2	Ni 231.604†	145.5	8.1	0.1683	ug/L	0.1683	ppb	10:48:52

2	P 214.914†	242.1	-15.7	-7.7646	ug/L	-7.7646	ppb	10:48:52
2	Pb 220.353†	-60.7	18.7	1.8753	ug/L	1.8753	ppb	10:48:52
2	S 181.975 Axial†	54.3	3.1	3.6004	ug/L	3.6004	ppb	10:48:52
2	Sb 206.836†	55.2	7.9	2.2868	ug/L	2.2868	ppb	10:48:52
2	Se 196.026†	-25.9	11.4	6.1157	ug/L	6.1157	ppb	10:48:52
2	Si 251.611†	776.1	93.4	2.4729	ug/L	2.4729	ppb	10:48:52
2	Sn 189.927†	13.6	6.6	0.9506	ug/L	0.9506	ppb	10:48:52
2	Ti 334.940†	-1484.0	49.3	0.0675	ug/L	0.0675	ppb	10:48:32
2	Tl 190.801†	-47.0	-3.4	-0.8572	ug/L	-0.8572	ppb	10:48:52
2	U 409.014†	-2858.2	261.6	7.0300	ug/L	7.0300	ppb	10:48:27
2	V 292.402†	-1565.2	49.6	0.3122	ug/L	0.3122	ppb	10:48:32
2	Zn 213.857†	960.5	30.5	0.2417	ug/L	0.2417	ppb	10:48:52
2	SiO2†	800.8	79.4	4.5126	ug/L	4.5126	ppb	10:49:33
3	Sc Radial	6132.1	6132.1	103	%			10:47:30
3	Y RADIAL	6287.8	6287.8	101.8	%			10:47:30
3	Al 396.153Radial†	-4.4	12.0	7.9592	ug/L	7.9592	ppb	10:47:30
3	Ca 317.933Radial†	21.0	-0.1	-0.1005	ug/L	-0.1005	ppb	10:47:50
3	Fe 238.204 Radial†	10.6	-2.6	-20.166	ug/L	-20.166	ppb	10:47:50
3	K 766.490 Radial†	4145.3	876.5	141.44	ug/L	141.44	ppb	10:47:30
3	Mg 279.077 IEC†	3.7	-1.8	-51.485	ug/L	-51.485	ppb	10:47:50
3	Na 589.592 Radial†	-1615.3	157.4	41.361	ug/L	41.361	ppb	10:47:30
3	Sr 421.552†	-4.4	10.0	0.0542	ug/L	0.0542	ppb	10:47:30
3	Sc 361.383	985954.6	985954.6	105.75	%			10:48:57
3	Y 371.029	798445.5	798445.5	103.84	%			10:48:57
3	Ag 328.068†	468.9	34.9	0.1345	ug/L	0.1345	ppb	10:49:02
3	As 188.979†	-0.5	31.0	10.715	ug/L	10.715	ppb	10:49:22
3	B 249.677†	314.5	824.0	16.266	ug/L	16.266	ppb	10:49:02
3	Ba 233.527†	30.3	17.1	0.1119	ug/L	0.1119	ppb	10:49:22
3	Be 313.107†	-4422.6	366.3	0.1197	ug/L	0.1197	ppb	10:49:02
3	Cd 226.502†	-158.2	64.2	0.6051	ug/L	0.6051	ppb	10:49:22
3	Co 228.616†	-70.7	16.9	0.2847	ug/L	0.2847	ppb	10:49:22
3	Cr 267.716†	109.4	18.7	0.1790	ug/L	0.1790	ppb	10:49:02
3	Cu 324.752†	6226.9	-211.2	-0.5770	ug/L	-0.5770	ppb	10:49:02
3	Mn 257.610†	567.8	-22.6	-0.0226	ug/L	-0.0226	ppb	10:49:22
3	Mo 202.031†	33.8	7.0	0.4011	ug/L	0.4011	ppb	10:49:22
3	Ni 231.604†	115.3	-20.7	-0.4319	ug/L	-0.4319	ppb	10:49:22
3	P 214.914†	234.8	-23.0	-11.377	ug/L	-11.377	ppb	10:49:22
3	Pb 220.353†	-70.7	9.4	0.9499	ug/L	0.9499	ppb	10:49:22
3	S 181.975 Axial†	54.9	3.5	4.0719	ug/L	4.0719	ppb	10:49:22
3	Sb 206.836†	60.8	13.1	3.8327	ug/L	3.8327	ppb	10:49:22
3	Se 196.026†	-19.5	17.5	9.2448	ug/L	9.2448	ppb	10:49:22
3	Si 251.611†	775.6	91.7	2.4150	ug/L	2.4150	ppb	10:49:22
3	Sn 189.927†	22.7	15.3	2.1854	ug/L	2.1854	ppb	10:49:22
3	Ti 334.940†	-1520.1	17.5	0.0212	ug/L	0.0212	ppb	10:49:02
3	Tl 190.801†	-32.0	10.8	2.7071	ug/L	2.7071	ppb	10:49:22
3	U 409.014†	-2820.1	302.1	8.1250	ug/L	8.1250	ppb	10:48:57
3	V 292.402†	-1511.2	103.1	0.6528	ug/L	0.6528	ppb	10:49:02
3	Zn 213.857†	960.9	29.3	0.2382	ug/L	0.2382	ppb	10:49:22
3	SiO2†	828.6	104.4	5.9433	ug/L	5.9433	ppb	10:49:38

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	982227.4	105.35	%	0.549				0.52%
Sc Radial	6083.6	102	%	0.8				0.75%
Y 371.029	795256.8	103.42	%	0.581				0.56%
Y RADIAL	6290.5	101.8	%	0.07				0.07%
Ag 328.068†	-15.9	-0.0719	ug/L	0.21134	-0.0719	ppb	0.21134	293.79%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-11.9	-7.9126	ug/L	17.80039	-7.9126	ppb	17.80039	224.96%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	34.4	11.901	ug/L	3.5771	11.901	ppb	3.5771	30.06%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	905.5	17.874	ug/L	1.4296	17.874	ppb	1.4296	8.00%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	15.1	0.0984	ug/L	0.02523	0.0984	ppb	0.02523	25.64%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	381.6	0.1248	ug/L	0.00600	0.1248	ppb	0.00600	4.81%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	6.6	9.0126	ug/L	7.93260	9.0126	ppb	7.93260	88.02%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              64.1      0.6029 ug/L       0.05403      0.6029 ppb        0.05403   8.96%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†              12.6      0.2121 ug/L       0.06313      0.2121 ppb        0.06313  29.76%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              40.1      0.3866 ug/L       0.18563      0.3866 ppb        0.18563  48.01%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -255.0     -0.6955 ug/L       0.10424     -0.6955 ppb        0.10424  14.99%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       -0.5     -3.5904 ug/L      19.40642     -3.5904 ppb       19.40642 540.51%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       847.0      136.68 ug/L         4.563      136.68 ppb          4.563   3.34%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          -2.4     -69.074 ug/L       27.9321     -69.074 ppb        27.9321  40.44%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              -0.9      0.0001 ug/L       0.02016      0.0001 ppb        0.02016 >999.9%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               5.1      0.2930 ug/L       0.20056      0.2930 ppb        0.20056  68.46%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      127.4      33.486 ug/L        8.1397      33.486 ppb         8.1397  24.31%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              -6.6     -0.1388 ug/L       0.30033     -0.1388 ppb        0.30033 216.43%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†              -18.2     -9.0017 ug/L       2.05755     -9.0017 ppb        2.05755  22.86%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               5.6      0.5646 ug/L       1.53997      0.5646 ppb        1.53997 272.77%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          0.9      1.0946 ug/L       4.75435      1.0946 ppb        4.75435 434.35%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               7.5      2.1918 ug/L       1.69040      2.1918 ppb        1.69040  77.12%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              16.7      8.8460 ug/L       2.55429      8.8460 ppb        2.55429  28.88%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†             101.4      2.6824 ug/L       0.41401      2.6824 ppb        0.41401  15.43%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†              11.2      1.6108 ug/L       0.62185      1.6108 ppb        0.62185  38.61%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              11.0      0.0595 ug/L       0.00974      0.0595 ppb        0.00974  16.36%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              65.6      0.0909 ug/L       0.08383      0.0909 ppb        0.08383  92.26%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               3.5      0.8740 ug/L       1.78437      0.8740 ppb        1.78437 204.17%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              240.4      6.4637 ug/L       2.00529      6.4637 ppb        2.00529  31.02%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               58.7      0.3737 ug/L       0.25406      0.3737 ppb        0.25406  67.99%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              36.8      0.2942 ug/L       0.09400      0.2942 ppb        0.09400  31.94%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                    88.5      5.0275 ug/L       0.79519      5.0275 ppb        0.79519  15.82%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

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Analysis Begun

Start Time: 12/17/2009 10:56:42 **Plasma On Time: 12/14/2009 06:02:42**
Logged In Analyst: Optima3 **Technique: ICP Continuous**
Spectrometer Model: Optima 5300 DV, S/N 077C7090601Autosampler Model: S10

Sample Information File: C:\pe\Optima3\Sample Information\121709.sif
Batch ID:
Results Data Set: 121709
Results Library: C:\pe\Optima3\Results\Results.mdb

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Method Loaded
Method Name: General Eng.2AX **Method Last Saved: 12/17/2009 09:24:46**
IEC File: 101209.iec **MSF File:**
Method Description:

Analyte	Calibration Equation	Processing	View	Internal Standard	IEC
Ag 328.068	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Al 396.153Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
As 188.979	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
B 249.677	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ba 233.527	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Be 313.107	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ca 317.933Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	No
Cd 226.502	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Co 228.616	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cr 267.716	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cu 324.752	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Fe 238.204 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
K 766.490 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Mg 279.077 IEC	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Mn 257.610	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Mo 202.031	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Na 589.592 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	No
Ni 231.604	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
P 214.914	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Pb 220.353	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
S 181.975 Axial	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sb 206.836	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sc 361.383	Lin Thru 0	Peak Area	Axial	n/a	n/a
Sc Radial	Lin, Calc Int	Peak Area	Radial	n/a	n/a
Se 196.026	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Si 251.611	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sn 189.927	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sr 421.552	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Ti 334.940	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Tl 190.801	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
U 409.014	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
V 292.402	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y 371.029	Lin, Calc Int	Peak Area	Axial	n/a	n/a
Zn 213.857	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y RADIAL	Lin, Calc Int	Peak Area	Radial	n/a	n/a
SiO2	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes

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Sequence No.: 1 **Autosampler Location: 36**
Sample ID: LR1 **Date Collected: 12/17/2009 10:56:43**
Analyst: HSC **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: LR1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Units	Sample Conc.	Units	Analysis Time
1	Sc Radial	5801.3	5801.3	97.5	%			10:58:37
1	Y RADIAL	5973.8	5973.8	96.67	%			10:58:37
1	Al 396.153Radial†	-38.9	-23.6	-14.620	ug/L	-14.620	ppb	10:58:37

1	Ca 317.933Radial†	18.8	-1.2	-1.5809 ug/L	-1.5809 ppb	10:58:57
1	Fe 238.204 Radial†	47353.1	48562.9	372550 ug/L	372550 ppb	10:58:37
1	K 766.490 Radial†	3474.6	417.9	79.679 ug/L	79.679 ppb	10:58:37
1	Mg 279.077 IEC†	15.7	10.7	-6.3896 ug/L	-6.3896 ppb	10:58:57
1	Na 589.592 Radial†	-1601.9	81.7	21.487 ug/L	21.487 ppb	10:58:37
1	Sr 421.552†	64.2	80.1	0.4332 ug/L	0.4332 ppb	10:58:37
1	Sc 361.383	938520.7	938520.7	100.66 %		10:59:54
1	Y 371.029	754987.8	754987.8	98.185 %		10:59:54
1	Ag 328.068†	-28320.4	-28542.7	5.5598 ug/L	5.5598 ppb	10:59:54
1	As 188.979†	-261.8	-228.6	-21.589 ug/L	-21.589 ppb	11:00:14
1	B 249.677†	1963.0	2476.6	-0.5466 ug/L	-0.5466 ppb	10:59:54
1	Ba 233.527†	-2232.7	-2229.6	-0.5364 ug/L	-0.5364 ppb	11:00:14
1	Be 313.107†	-4306.6	270.1	0.0882 ug/L	0.0882 ppb	10:59:54
1	Cd 226.502†	3716.1	3905.5	-0.5527 ug/L	-0.5527 ppb	11:00:14
1	Co 228.616†	233.8	316.0	-0.0767 ug/L	-0.0767 ppb	11:00:14
1	Cr 267.716†	-622.4	-703.1	-0.0664 ug/L	-0.0664 ppb	11:00:14
1	Cu 324.752†	-2923.1	-9003.4	-5.5491 ug/L	-5.5491 ppb	10:59:54
1	Mn 257.610†	-43505.7	-43779.3	-4.6239 ug/L	-4.6239 ppb	10:59:54
1	Mo 202.031†	-428.9	-451.1	0.4148 ug/L	0.4148 ppb	10:59:54
1	Ni 231.604†	215.9	84.7	1.7659 ug/L	1.7659 ppb	11:00:14
1	P 214.914†	838.9	588.4	-1.4311 ug/L	-1.4311 ppb	11:00:14
1	Pb 220.353†	256.4	330.9	2.6014 ug/L	2.6014 ppb	11:00:14
1	S 181.975 Axial†	65.1	16.3	19.132 ug/L	19.132 ppb	11:00:14
1	Sb 206.836†	27.5	-17.1	0.7494 ug/L	0.7494 ppb	11:00:14
1	Se 196.026†	-2572.8	-2520.0	-73.423 ug/L	-73.423 ppb	11:00:14
1	Si 251.611†	-862.0	-1498.0	-39.989 ug/L	-39.989 ppb	11:00:14
1	Sn 189.927†	-42.1	-48.0	-1.8972 ug/L	-1.8972 ppb	11:00:14
1	Ti 334.940†	-1471.6	-7.0	-0.0348 ug/L	-0.0348 ppb	11:00:14
1	Tl 190.801†	-44.8	-3.4	-1.2422 ug/L	-1.2422 ppb	11:00:14
1	U 409.014†	-692.3	2281.1	14.481 ug/L	14.481 ppb	10:59:54
1	V 292.402†	6989.3	8475.4	-5.1513 ug/L	-5.1513 ppb	11:00:14
1	Zn 213.857†	5309.8	4395.6	-0.9219 ug/L	-0.9219 ppb	11:00:14
1	SiO2†	-807.8	-1481.7	-85.304 ug/L	-85.304 ppb	11:01:11
2	Sc Radial	5797.1	5797.1	97.4 %		10:59:02
2	Y RADIAL	6008.5	6008.5	97.23 %		10:59:02
2	Al 396.153Radial†	-50.8	-35.9	-22.693 ug/L	-22.693 ppb	10:59:02
2	Ca 317.933Radial†	14.1	-6.0	-8.2373 ug/L	-8.2373 ppb	10:59:22
2	Fe 238.204 Radial†	48170.5	49437.4	379250 ug/L	379250 ppb	10:59:02
2	K 766.490 Radial†	3381.1	324.5	64.822 ug/L	64.822 ppb	10:59:02
2	Mg 279.077 IEC†	11.2	6.2	-145.35 ug/L	-145.35 ppb	10:59:22
2	Na 589.592 Radial†	-1570.1	113.1	29.741 ug/L	29.741 ppb	10:59:02
2	Sr 421.552†	84.8	101.3	0.5484 ug/L	0.5484 ppb	10:59:02
2	Sc 361.383	936493.2	936493.2	100.44 %		11:00:20
2	Y 371.029	753800.6	753800.6	98.030 %		11:00:20
2	Ag 328.068†	-28270.2	-28553.7	7.7577 ug/L	7.7577 ppb	11:00:20
2	As 188.979†	-241.0	-208.4	-13.559 ug/L	-13.559 ppb	11:00:40
2	B 249.677†	1810.5	2329.1	-4.3489 ug/L	-4.3489 ppb	11:00:20
2	Ba 233.527†	-2177.9	-2179.8	0.0340 ug/L	0.0340 ppb	11:00:40
2	Be 313.107†	-4462.1	106.0	0.0345 ug/L	0.0345 ppb	11:00:20
2	Cd 226.502†	3667.6	3865.3	-1.6013 ug/L	-1.6013 ppb	11:00:40
2	Co 228.616†	237.4	320.1	-0.1061 ug/L	-0.1061 ppb	11:00:40
2	Cr 267.716†	-622.5	-704.5	0.0405 ug/L	0.0405 ppb	11:00:40
2	Cu 324.752†	-2889.1	-8975.8	-5.1317 ug/L	-5.1317 ppb	11:00:20
2	Mn 257.610†	-43677.4	-44043.8	-4.2049 ug/L	-4.2049 ppb	11:00:20
2	Mo 202.031†	-448.0	-471.0	-0.2573 ug/L	-0.2573 ppb	11:00:20
2	Ni 231.604†	211.2	80.5	1.6787 ug/L	1.6787 ppb	11:00:40
2	P 214.914†	845.1	596.3	-2.8779 ug/L	-2.8779 ppb	11:00:40
2	Pb 220.353†	214.7	289.9	-2.0714 ug/L	-2.0714 ppb	11:00:40
2	S 181.975 Axial†	64.3	15.6	18.287 ug/L	18.287 ppb	11:00:40
2	Sb 206.836†	10.2	-34.2	-4.1172 ug/L	-4.1172 ppb	11:00:40
2	Se 196.026†	-2580.0	-2532.7	-57.388 ug/L	-57.388 ppb	11:00:40
2	Si 251.611†	-823.7	-1461.7	-38.986 ug/L	-38.986 ppb	11:00:40
2	Sn 189.927†	-37.8	-43.8	-1.2072 ug/L	-1.2072 ppb	11:00:40
2	Ti 334.940†	-1490.1	-28.6	-0.0638 ug/L	-0.0638 ppb	11:00:40
2	Tl 190.801†	-46.6	-5.3	-1.7072 ug/L	-1.7072 ppb	11:00:40
2	U 409.014†	-866.4	2106.2	8.9343 ug/L	8.9343 ppb	11:00:20
2	V 292.402†	6869.6	8371.4	-6.8356 ug/L	-6.8356 ppb	11:00:40
2	Zn 213.857†	5313.1	4410.3	-1.4414 ug/L	-1.4414 ppb	11:00:40
2	SiO2†	-911.5	-1586.6	-91.365 ug/L	-91.365 ppb	11:01:16
3	Sc Radial	5879.7	5879.7	98.8 %		10:59:27
3	Y RADIAL	6056.6	6056.6	98.01 %		10:59:27

3	Al 396.153Radial†	-60.3	-44.8	-28.789 ug/L	-28.789 ppb	10:59:27
3	Ca 317.933Radial†	18.3	-1.9	-2.6711 ug/L	-2.6711 ppb	10:59:47
3	Fe 238.204 Radial†	48255.7	48829.3	374590 ug/L	374590 ppb	10:59:27
3	K 766.490 Radial†	3318.6	212.5	46.612 ug/L	46.612 ppb	10:59:27
3	Mg 279.077 IEC†	14.6	9.4	-45.219 ug/L	-45.219 ppb	10:59:47
3	Na 589.592 Radial†	-1638.3	66.8	17.549 ug/L	17.549 ppb	10:59:27
3	Sr 421.552†	136.2	152.1	0.8229 ug/L	0.8229 ppb	10:59:27
3	Sc 361.383	935450.3	935450.3	100.33 %		11:00:45
3	Y 371.029	753145.4	753145.4	97.945 %		11:00:45
3	Ag 328.068†	-28043.1	-28358.7	7.0048 ug/L	7.0048 ppb	11:00:45
3	As 188.979†	-258.9	-226.5	-20.544 ug/L	-20.544 ppb	11:01:06
3	B 249.677†	1988.1	2508.1	-0.1970 ug/L	-0.1970 ppb	11:00:45
3	Ba 233.527†	-2233.2	-2237.3	-0.5117 ug/L	-0.5117 ppb	11:01:06
3	Be 313.107†	-4447.9	115.2	0.0375 ug/L	0.0375 ppb	11:00:45
3	Cd 226.502†	3679.9	3881.5	-0.9817 ug/L	-0.9817 ppb	11:01:06
3	Co 228.616†	217.6	300.7	-0.3569 ug/L	-0.3569 ppb	11:01:06
3	Cr 267.716†	-646.1	-728.7	-0.2798 ug/L	-0.2798 ppb	11:01:06
3	Cu 324.752†	-2893.2	-8983.2	-5.3896 ug/L	-5.3896 ppb	11:00:45
3	Mn 257.610†	-43946.1	-44360.1	-4.9735 ug/L	-4.9735 ppb	11:00:45
3	Mo 202.031†	-385.1	-408.8	2.9999 ug/L	2.9999 ppb	11:00:45
3	Ni 231.604†	259.9	129.3	2.6985 ug/L	2.6985 ppb	11:01:06
3	P 214.914†	836.2	588.4	-3.0714 ug/L	-3.0714 ppb	11:01:06
3	Pb 220.353†	245.6	321.0	1.4419 ug/L	1.4419 ppb	11:01:06
3	S 181.975 Axial†	46.1	-2.5	-2.9222 ug/L	-2.9222 ppb	11:01:06
3	Sb 206.836†	29.5	-15.0	1.4543 ug/L	1.4543 ppb	11:01:06
3	Se 196.026†	-2592.5	-2548.0	-81.347 ug/L	-81.347 ppb	11:01:06
3	Si 251.611†	-822.7	-1461.7	-39.041 ug/L	-39.041 ppb	11:01:06
3	Sn 189.927†	-38.2	-44.3	-1.3348 ug/L	-1.3348 ppb	11:01:06
3	Ti 334.940†	-1510.3	-50.4	-0.0987 ug/L	-0.0987 ppb	11:01:06
3	Tl 190.801†	-51.7	-10.4	-2.9880 ug/L	-2.9880 ppb	11:01:06
3	U 409.014†	-492.7	2477.8	19.512 ug/L	19.512 ppb	11:00:45
3	V 292.402†	6904.3	8413.5	-5.7958 ug/L	-5.7958 ppb	11:01:06
3	Zn 213.857†	5311.0	4414.1	-0.9760 ug/L	-0.9760 ppb	11:01:06
3	SiO2†	-883.7	-1559.9	-89.933 ug/L	-89.933 ppb	11:01:21

Mean Data: LR1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	936821.4	100.48	%	0.167				0.17%
Sc Radial	5826.0	97.9	%	0.78				0.80%
Y 371.029	753977.9	98.053	%	0.1215				0.12%
Y RADIAL	6012.9	97.31	%	0.673				0.69%
Ag 328.068†	-28485.1	6.7741	ug/L	1.11700	6.7741	ppb	1.11700	16.49%
Al 396.153Radial†	-34.8	-22.034	ug/L	7.1074	-22.034	ppb	7.1074	32.26%
As 188.979†	-221.2	-18.564	ug/L	4.3656	-18.564	ppb	4.3656	23.52%
B 249.677†	2437.9	-1.6975	ug/L	2.30279	-1.6975	ppb	2.30279	135.66%
Ba 233.527†	-2215.6	-0.3380	ug/L	0.32240	-0.3380	ppb	0.32240	95.37%
Be 313.107†	163.8	0.0534	ug/L	0.03015	0.0534	ppb	0.03015	56.47%
Ca 317.933Radial†	-3.0	-4.1631	ug/L	3.57024	-4.1631	ppb	3.57024	85.76%
Cd 226.502†	3884.1	-1.0452	ug/L	0.52718	-1.0452	ppb	0.52718	50.44%
Co 228.616†	312.3	-0.1799	ug/L	0.15395	-0.1799	ppb	0.15395	85.58%
Cr 267.716†	-712.1	-0.1019	ug/L	0.16307	-0.1019	ppb	0.16307	159.99%
Cu 324.752†	-8987.5	-5.3568	ug/L	0.21061	-5.3568	ppb	0.21061	3.93%
Fe 238.204 Radial†	48943.2	375460	ug/L	3438.4	375460	ppb	3438.4	0.92%
K 766.490 Radial†	318.3	63.705	ug/L	16.5619	63.705	ppb	16.5619	26.00%
Mg 279.077 IEC†	8.8	-65.654	ug/L	71.6994	-65.654	ppb	71.6994	109.21%
Mn 257.610†	-44061.1	-4.6008	ug/L	0.38485	-4.6008	ppb	0.38485	8.36%
Mo 202.031†	-443.6	1.0525	ug/L	1.71968	1.0525	ppb	1.71968	163.39%
Na 589.592 Radial†	87.2	22.925	ug/L	6.2217	22.925	ppb	6.2217	27.14%
Ni 231.604†	98.2	2.0477	ug/L	0.56531	2.0477	ppb	0.56531	27.61%
P 214.914†	591.0	-2.4601	ug/L	0.89638	-2.4601	ppb	0.89638	36.44%
Pb 220.353†	314.0	0.6573	ug/L	2.43319	0.6573	ppb	2.43319	370.18%
S 181.975 Axial†	9.8	11.499	ug/L	12.4961	11.499	ppb	12.4961	108.67%
Sb 206.836†	-22.1	-0.6378	ug/L	3.03373	-0.6378	ppb	3.03373	475.64%
Se 196.026†	-2533.6	-70.720	ug/L	12.2060	-70.720	ppb	12.2060	17.26%
Si 251.611†	-1473.8	-39.339	ug/L	0.5638	-39.339	ppb	0.5638	1.43%
Sn 189.927†	-45.4	-1.4797	ug/L	0.36714	-1.4797	ppb	0.36714	24.81%
Sr 421.552†	111.2	0.6015	ug/L	0.20020	0.6015	ppb	0.20020	33.28%
Ti 334.940†	-28.7	-0.0658	ug/L	0.03202	-0.0658	ppb	0.03202	48.68%
Tl 190.801†	-6.4	-1.9791	ug/L	0.90409	-1.9791	ppb	0.90409	45.68%

U 409.014†	2288.4	14.309 ug/L	5.2912	14.309 ppb	5.2912	36.98%
V 292.402†	8420.1	-5.9276 ug/L	0.84985	-5.9276 ppb	0.84985	14.34%
Zn 213.857†	4406.6	-1.1131 ug/L	0.28563	-1.1131 ppb	0.28563	25.66%
SiO2†	-1542.7	-88.867 ug/L	3.1677	-88.867 ppb	3.1677	3.56%

Sequence No.: 2
Sample ID: LR2
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 37
Date Collected: 12/17/2009 11:03:33
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR2

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5944.7	5944.7	99.9	%			11:05:26
1	Y RADIAL	6194.2	6194.2	100.2	%			11:05:26
1	Al 396.153Radial†	-43.1	-26.9	-17.940	ug/L	-17.940	ppb	11:05:26
1	Ca 317.933Radial†	37.2	16.8	23.087	ug/L	23.087	ppb	11:05:46
1	Fe 238.204 Radial†	-9.4	-22.3	-14.537	ug/L	-14.537	ppb	11:05:46
1	K 766.490 Radial†	3559.7	417.1	67.306	ug/L	67.306	ppb	11:05:26
1	Mg 279.077 IEC†	3.6	-1.8	-51.260	ug/L	-51.260	ppb	11:05:46
1	Na 589.592 Radial†	-1705.0	18.2	4.7823	ug/L	4.7823	ppb	11:05:26
1	Sr 421.552†	-16.9	-2.6	-0.0144	ug/L	-0.0144	ppb	11:05:26
1	Sc 361.383	974267.5	974267.5	104.50	%			11:06:43
1	Y 371.029	790863.7	790863.7	102.85	%			11:06:43
1	Ag 328.068†	370.3	-54.1	-0.2881	ug/L	-0.2881	ppb	11:06:48
1	As 188.979†	-20.6	11.7	4.0182	ug/L	4.0182	ppb	11:07:08
1	B 249.677†	517.6	1021.9	7.6101	ug/L	7.6101	ppb	11:06:48
1	Ba 233.527†	-2.6	-14.0	-0.0980	ug/L	-0.0980	ppb	11:07:08
1	Be 313.107†	-4574.5	170.7	0.0561	ug/L	0.0561	ppb	11:06:48
1	Cd 226.502†	-245.4	-21.0	-0.1783	ug/L	-0.1783	ppb	11:07:08
1	Co 228.616†	308226.0	295049.8	4953.9	ug/L	4953.9	ppb	11:06:43
1	Cr 267.716†	79.8	-8.3	-0.0856	ug/L	-0.0856	ppb	11:06:48
1	Cu 324.752†	5308.3	-1019.6	-2.7893	ug/L	-2.7893	ppb	11:06:48
1	Mn 257.610†	509.9	-71.5	-0.0843	ug/L	-0.0843	ppb	11:07:08
1	Mo 202.031†	34.4	7.9	0.4463	ug/L	0.4463	ppb	11:07:08
1	Ni 231.604†	286.2	144.1	-0.1532	ug/L	-0.1532	ppb	11:07:08
1	P 214.914†	225.2	-29.5	-14.228	ug/L	-14.228	ppb	11:07:08
1	Pb 220.353†	-64.8	14.2	1.4403	ug/L	1.4403	ppb	11:07:08
1	S 181.975 Axial†	52.5	1.8	2.1404	ug/L	2.1404	ppb	11:07:08
1	Sb 206.836†	31.8	-14.0	-4.0204	ug/L	-4.0204	ppb	11:07:08
1	Se 196.026†	-25.2	11.8	5.7036	ug/L	5.7036	ppb	11:07:08
1	Si 251.611†	703.4	31.4	0.8163	ug/L	0.8163	ppb	11:07:08
1	Sn 189.927†	9.1	2.5	0.3509	ug/L	0.3509	ppb	11:07:08
1	Ti 334.940†	-1386.7	127.8	0.1811	ug/L	0.1811	ppb	11:06:48
1	Tl 190.801†	48.6	87.6	-4.0066	ug/L	-4.0066	ppb	11:07:08
1	U 409.014†	-2928.1	166.7	4.5043	ug/L	4.5043	ppb	11:06:43
1	V 292.402†	-1656.5	-53.1	-0.2844	ug/L	-0.2844	ppb	11:06:48
1	Zn 213.857†	878.5	-38.6	-0.3020	ug/L	-0.3020	ppb	11:07:08
1	SiO2†	710.4	0.7	-0.0279	ug/L	-0.0279	ppb	11:08:14
2	Sc Radial	6001.1	6001.1	101	%			11:05:51
2	Y RADIAL	6241.8	6241.8	101.0	%			11:05:51
2	Al 396.153Radial†	-30.2	-13.7	-9.1128	ug/L	-9.1128	ppb	11:05:51
2	Ca 317.933Radial†	24.5	3.8	5.2442	ug/L	5.2442	ppb	11:06:11
2	Fe 238.204 Radial†	-9.0	-21.8	-11.463	ug/L	-11.463	ppb	11:06:11
2	K 766.490 Radial†	3574.0	397.8	64.197	ug/L	64.197	ppb	11:05:51
2	Mg 279.077 IEC†	1.7	-3.7	-107.89	ug/L	-107.89	ppb	11:06:11
2	Na 589.592 Radial†	-1736.3	3.1	0.8188	ug/L	0.8188	ppb	11:05:51
2	Sr 421.552†	-22.0	-7.6	-0.0412	ug/L	-0.0412	ppb	11:05:51
2	Sc 361.383	970750.8	970750.8	104.12	%			11:07:13
2	Y 371.029	788710.5	788710.5	102.57	%			11:07:13
2	Ag 328.068†	429.4	4.0	-0.0431	ug/L	-0.0431	ppb	11:07:18
2	As 188.979†	-20.9	11.4	3.8964	ug/L	3.8964	ppb	11:07:38
2	B 249.677†	571.6	1075.6	8.7210	ug/L	8.7210	ppb	11:07:18
2	Ba 233.527†	32.7	19.9	0.1238	ug/L	0.1238	ppb	11:07:38
2	Be 313.107†	-4513.8	213.1	0.0699	ug/L	0.0699	ppb	11:07:18
2	Cd 226.502†	-247.1	-23.5	-0.2026	ug/L	-0.2026	ppb	11:07:38
2	Co 228.616†	305854.4	293840.5	4933.6	ug/L	4933.6	ppb	11:07:13
2	Cr 267.716†	147.2	56.7	0.5439	ug/L	0.5439	ppb	11:07:18
2	Cu 324.752†	5297.6	-1011.5	-2.7670	ug/L	-2.7670	ppb	11:07:18
2	Mn 257.610†	504.3	-75.1	-0.0863	ug/L	-0.0863	ppb	11:07:38
2	Mo 202.031†	29.4	3.3	0.1783	ug/L	0.1783	ppb	11:07:38
2	Ni 231.604†	245.8	106.4	-0.9286	ug/L	-0.9286	ppb	11:07:38

2	P 214.914†	242.0	-12.6	-5.7589 ug/L	-5.7589 ppb	11:07:38
2	Pb 220.353†	-37.4	40.3	4.0653 ug/L	4.0653 ppb	11:07:38
2	S 181.975 Axial†	41.7	-8.3	-9.7989 ug/L	-9.7989 ppb	11:07:38
2	Sb 206.836†	44.9	-1.3	-0.3699 ug/L	-0.3699 ppb	11:07:38
2	Se 196.026†	-24.5	12.4	6.0259 ug/L	6.0259 ppb	11:07:38
2	Si 251.611†	679.6	11.0	0.2713 ug/L	0.2713 ppb	11:07:38
2	Sn 189.927†	11.2	4.5	0.6445 ug/L	0.6445 ppb	11:07:38
2	Ti 334.940†	-1389.2	120.7	0.1693 ug/L	0.1693 ppb	11:07:18
2	Tl 190.801†	55.0	93.9	-2.3212 ug/L	-2.3212 ppb	11:07:38
2	U 409.014†	-2871.9	210.6	5.6821 ug/L	5.6821 ppb	11:07:13
2	V 292.402†	-1546.0	47.2	0.3247 ug/L	0.3247 ppb	11:07:18
2	Zn 213.857†	891.1	-23.5	-0.1763 ug/L	-0.1763 ppb	11:07:38
2	SiO2†	688.6	-17.7	-1.0918 ug/L	-1.0918 ppb	11:08:19
3	Sc Radial	6032.2	6032.2	101 %		11:06:16
3	Y RADIAL	6252.7	6252.7	101.2 %		11:06:16
3	Al 396.153Radial†	-16.8	-0.3	-0.1623 ug/L	-0.1623 ppb	11:06:16
3	Ca 317.933Radial†	25.1	4.4	5.9762 ug/L	5.9762 ppb	11:06:36
3	Fe 238.204 Radial†	-10.1	-22.9	-19.353 ug/L	-19.353 ppb	11:06:36
3	K 766.490 Radial†	3467.1	274.1	44.218 ug/L	44.218 ppb	11:06:16
3	Mg 279.077 IEC†	3.3	-2.1	-61.256 ug/L	-61.256 ppb	11:06:36
3	Na 589.592 Radial†	-1689.7	58.0	15.238 ug/L	15.238 ppb	11:06:16
3	Sr 421.552†	23.1	37.1	0.2005 ug/L	0.2005 ppb	11:06:16
3	Sc 361.383	974978.6	974978.6	104.57 %		11:07:44
3	Y 371.029	792355.4	792355.4	103.04 %		11:07:44
3	Ag 328.068†	466.1	37.3	0.0901 ug/L	0.0901 ppb	11:07:49
3	As 188.979†	-27.7	5.0	1.6885 ug/L	1.6885 ppb	11:08:09
3	B 249.677†	577.6	1078.9	8.7424 ug/L	8.7424 ppb	11:07:49
3	Ba 233.527†	27.1	14.4	0.0876 ug/L	0.0876 ppb	11:08:09
3	Be 313.107†	-4503.3	242.0	0.0793 ug/L	0.0793 ppb	11:07:49
3	Cd 226.502†	-238.4	-14.1	-0.1134 ug/L	-0.1134 ppb	11:08:09
3	Co 228.616†	308305.2	294910.4	4951.6 ug/L	4951.6 ppb	11:07:44
3	Cr 267.716†	117.3	27.4	0.2595 ug/L	0.2595 ppb	11:07:49
3	Cu 324.752†	5343.4	-989.8	-2.7082 ug/L	-2.7082 ppb	11:07:49
3	Mn 257.610†	536.4	-46.6	-0.0608 ug/L	-0.0608 ppb	11:08:09
3	Mo 202.031†	17.3	-8.5	-0.5001 ug/L	-0.5001 ppb	11:08:09
3	Ni 231.604†	284.9	142.7	-0.1819 ug/L	-0.1819 ppb	11:08:09
3	P 214.914†	237.4	-18.0	-8.4434 ug/L	-8.4434 ppb	11:08:09
3	Pb 220.353†	-39.7	38.3	3.8572 ug/L	3.8572 ppb	11:08:09
3	S 181.975 Axial†	59.8	8.8	10.297 ug/L	10.297 ppb	11:08:09
3	Sb 206.836†	49.6	3.1	0.8632 ug/L	0.8632 ppb	11:08:09
3	Se 196.026†	-30.6	6.7	2.9366 ug/L	2.9366 ppb	11:08:09
3	Si 251.611†	660.7	-9.9	-0.2722 ug/L	-0.2722 ppb	11:08:09
3	Sn 189.927†	5.8	-0.7	-0.1044 ug/L	-0.1044 ppb	11:08:09
3	Ti 334.940†	-1404.5	111.9	0.1551 ug/L	0.1551 ppb	11:07:49
3	Tl 190.801†	41.5	80.8	-5.7019 ug/L	-5.7019 ppb	11:08:09
3	U 409.014†	-2731.8	356.5	9.6080 ug/L	9.6080 ppb	11:07:44
3	V 292.402†	-1539.3	60.1	0.4040 ug/L	0.4040 ppb	11:07:49
3	Zn 213.857†	901.7	-17.0	-0.1311 ug/L	-0.1311 ppb	11:08:09
3	SiO2†	708.4	-1.7	-0.1149 ug/L	-0.1149 ppb	11:08:24

Mean Data: LR2

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	973332.3	104.40	%	0.243				0.23%
Sc Radial	5992.7	101	%	0.7				0.74%
Y 371.029	790643.2	102.82	%	0.238				0.23%
Y RADIAL	6229.6	100.8	%	0.50				0.50%
Ag 328.068†	-4.3	-0.0804	ug/L	0.19182	-0.0804	ppb	0.19182	238.71%
Al 396.153Radial†	-13.6	-9.0716	ug/L	8.88881	-9.0716	ppb	8.88881	97.99%
As 188.979†	9.4	3.2011	ug/L	1.31130	3.2011	ppb	1.31130	40.96%
B 249.677†	1058.8	8.3578	ug/L	0.64763	8.3578	ppb	0.64763	7.75%
Ba 233.527†	6.8	0.0378	ug/L	0.11895	0.0378	ppb	0.11895	314.68%
Be 313.107†	208.6	0.0685	ug/L	0.01168	0.0685	ppb	0.01168	17.06%
Ca 317.933Radial†	8.3	11.436	ug/L	10.0967	11.436	ppb	10.0967	88.29%
Cd 226.502†	-19.5	-0.1647	ug/L	0.04607	-0.1647	ppb	0.04607	27.97%
Co 228.616†	294600.3	4946.4	ug/L	11.11	4946.4	ppb	11.11	0.22%
Cr 267.716†	25.3	0.2393	ug/L	0.31527	0.2393	ppb	0.31527	131.77%
Cu 324.752†	-1007.0	-2.7548	ug/L	0.04188	-2.7548	ppb	0.04188	1.52%
Fe 238.204 Radial†	-22.3	-15.118	ug/L	3.9772	-15.118	ppb	3.9772	26.31%
K 766.490 Radial†	363.0	58.574	ug/L	12.5290	58.574	ppb	12.5290	21.39%

Mg 279.077 IEC†	-2.5	-73.468	ug/L	30.2249	-73.468	ppb	30.2249 41.14%
Mn 257.610†	-64.4	-0.0771	ug/L	0.01419	-0.0771	ppb	0.01419 18.39%
Mo 202.031†	0.9	0.0415	ug/L	0.48784	0.0415	ppb	0.48784 >999.9%
Na 589.592 Radial†	26.4	6.9464	ug/L	7.44934	6.9464	ppb	7.44934 107.24%
Ni 231.604†	131.1	-0.4212	ug/L	0.43963	-0.4212	ppb	0.43963 104.37%
P 214.914†	-20.0	-9.4767	ug/L	4.32786	-9.4767	ppb	4.32786 45.67%
Pb 220.353†	30.9	3.1209	ug/L	1.45921	3.1209	ppb	1.45921 46.76%
S 181.975 Axial†	0.7	0.8796	ug/L	10.10722	0.8796	ppb	10.10722 >999.9%
Sb 206.836†	-4.1	-1.1757	ug/L	2.53956	-1.1757	ppb	2.53956 216.00%
Se 196.026†	10.3	4.8887	ug/L	1.69820	4.8887	ppb	1.69820 34.74%
Si 251.611†	10.9	0.2718	ug/L	0.54423	0.2718	ppb	0.54423 200.22%
Sn 189.927†	2.1	0.2970	ug/L	0.37732	0.2970	ppb	0.37732 127.05%
Sr 421.552†	8.9	0.0483	ug/L	0.13249	0.0483	ppb	0.13249 274.32%
Ti 334.940†	120.1	0.1685	ug/L	0.01301	0.1685	ppb	0.01301 7.72%
Tl 190.801†	87.5	-4.0099	ug/L	1.69035	-4.0099	ppb	1.69035 42.15%
U 409.014†	244.6	6.5981	ug/L	2.67235	6.5981	ppb	2.67235 40.50%
V 292.402†	18.1	0.1481	ug/L	0.37663	0.1481	ppb	0.37663 254.33%
Zn 213.857†	-26.4	-0.2031	ug/L	0.08856	-0.2031	ppb	0.08856 43.60%
SiO2†	-6.3	-0.4115	ug/L	0.59073	-0.4115	ppb	0.59073 143.55%

Sequence No.: 3
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 12/17/2009 11:10:36
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5563.8	5563.8	93.5	%			11:12:28
1	Y RADIAL	5712.6	5712.6	92.45	%			11:12:28
1	Al 396.153Radial†	7174.6	7690.4	5096.2	ug/L	5096.2	ppb	11:12:28
1	Ca 317.933Radial†	3604.1	3834.6	5266.7	ug/L	5266.7	ppb	11:12:48
1	Fe 238.204 Radial†	651.1	683.5	5258.2	ug/L	5258.2	ppb	11:12:48
1	K 766.490 Radial†	33297.7	32469.5	5231.6	ug/L	5231.6	ppb	11:12:28
1	Mg 279.077 IEC†	175.2	182.0	5318.4	ug/L	5318.4	ppb	11:12:48
1	Na 589.592 Radial†	34761.0	38906.1	10227	ug/L	10227	ppb	11:12:28
1	Sr 421.552†	86611.5	92655.7	501.32	ug/L	501.32	ppb	11:12:28
1	Sc 361.383	973785.8	973785.8	104.44	%			11:13:46
1	Y 371.029	775556.4	775556.4	100.86	%			11:13:46
1	Ag 328.068†	118776.2	113314.2	475.97	ug/L	475.97	ppb	11:13:51
1	As 188.979†	1408.7	1380.3	482.02	ug/L	482.02	ppb	11:14:11
1	B 249.677†	24699.6	24175.3	475.31	ug/L	475.31	ppb	11:13:51
1	Ba 233.527†	76308.7	73050.5	475.35	ug/L	475.35	ppb	11:13:51
1	Be 313.107†	1531301.5	1470697.6	481.21	ug/L	481.21	ppb	11:13:46
1	Cd 226.502†	52934.7	50896.3	477.95	ug/L	477.95	ppb	11:13:51
1	Co 228.616†	29449.7	28280.5	475.00	ug/L	475.00	ppb	11:13:51
1	Cr 267.716†	51332.0	49063.2	475.30	ug/L	475.30	ppb	11:13:51
1	Cu 324.752†	186287.4	172261.9	470.04	ug/L	470.04	ppb	11:13:51
1	Mn 257.610†	527067.5	504082.9	481.37	ug/L	481.37	ppb	11:13:46
1	Mo 202.031†	8579.2	8189.3	472.60	ug/L	472.60	ppb	11:14:11
1	Ni 231.604†	23956.6	22807.6	476.12	ug/L	476.12	ppb	11:13:51
1	P 214.914†	5161.3	4696.6	2284.6	ug/L	2284.6	ppb	11:14:11
1	Pb 220.353†	4841.3	4711.6	474.59	ug/L	474.59	ppb	11:14:11
1	S 181.975 Axial†	890.8	804.5	943.91	ug/L	943.91	ppb	11:14:11
1	Sb 206.836†	1764.3	1644.9	482.12	ug/L	482.12	ppb	11:14:11
1	Se 196.026†	905.2	902.6	500.07	ug/L	500.07	ppb	11:14:11
1	Si 251.611†	93049.2	88448.5	2376.4	ug/L	2376.4	ppb	11:13:51
1	Sn 189.927†	3479.1	3324.8	476.51	ug/L	476.51	ppb	11:14:11
1	Ti 334.940†	353254.9	339679.9	483.12	ug/L	483.12	ppb	11:13:46
1	Tl 190.801†	1935.0	1893.8	476.36	ug/L	476.36	ppb	11:14:11
1	U 409.014†	15279.2	17598.0	471.63	ug/L	471.63	ppb	11:13:51
1	V 292.402†	79133.9	77299.1	478.34	ug/L	478.34	ppb	11:13:51
1	Zn 213.857†	64118.0	60510.7	472.59	ug/L	472.59	ppb	11:13:51
1	SiO2†	92793.8	88166.6	5109.3	ug/L	5109.3	ppb	11:15:19
2	Sc Radial	6519.8	6519.8	110	%			11:12:53
2	Y RADIAL	6686.1	6686.1	108.2	%			11:12:53
2	Al 396.153Radial†	7210.3	6597.7	4368.9	ug/L	4368.9	ppb	11:12:53
2	Ca 317.933Radial†	3627.3	3290.5	4519.4	ug/L	4519.4	ppb	11:13:13
2	Fe 238.204 Radial†	659.6	589.2	4535.0	ug/L	4535.0	ppb	11:13:13
2	K 766.490 Radial†	33544.7	27472.3	4425.7	ug/L	4425.7	ppb	11:12:53
2	Mg 279.077 IEC†	174.3	153.8	4494.7	ug/L	4494.7	ppb	11:13:13
2	Na 589.592 Radial†	35232.7	33884.6	8907.0	ug/L	8907.0	ppb	11:12:53
2	Sr 421.552†	87439.9	79827.3	431.91	ug/L	431.91	ppb	11:12:53
2	Sc 361.383	964478.8	964478.8	103.45	%			11:14:17
2	Y 371.029	769880.3	769880.3	100.12	%			11:14:17
2	Ag 328.068†	118385.6	114034.0	478.75	ug/L	478.75	ppb	11:14:22
2	As 188.979†	1404.9	1389.6	485.14	ug/L	485.14	ppb	11:14:42
2	B 249.677†	24622.7	24329.1	478.43	ug/L	478.43	ppb	11:14:22
2	Ba 233.527†	76077.7	73532.2	478.45	ug/L	478.45	ppb	11:14:22
2	Be 313.107†	1522667.1	1476498.8	483.11	ug/L	483.11	ppb	11:14:17
2	Cd 226.502†	52642.4	51102.8	479.96	ug/L	479.96	ppb	11:14:22
2	Co 228.616†	29385.7	28490.7	478.56	ug/L	478.56	ppb	11:14:22
2	Cr 267.716†	51057.4	49272.0	477.31	ug/L	477.31	ppb	11:14:22
2	Cu 324.752†	185842.1	173552.6	473.53	ug/L	473.53	ppb	11:14:22
2	Mn 257.610†	522954.3	504976.4	482.16	ug/L	482.16	ppb	11:14:17
2	Mo 202.031†	8633.5	8320.9	480.14	ug/L	480.14	ppb	11:14:42
2	Ni 231.604†	23880.1	22955.0	479.20	ug/L	479.20	ppb	11:14:22

2	P 214.914†	5195.6	4777.5	2325.0	ug/L	2325.0 ppb	11:14:42
2	Pb 220.353†	4884.6	4798.1	483.19	ug/L	483.19 ppb	11:14:42
2	S 181.975 Axial†	889.2	811.2	951.87	ug/L	951.87 ppb	11:14:42
2	Sb 206.836†	1771.9	1668.4	489.19	ug/L	489.19 ppb	11:14:42
2	Se 196.026†	911.8	917.4	505.29	ug/L	505.29 ppb	11:14:42
2	Si 251.611†	92707.3	88977.7	2390.7	ug/L	2390.7 ppb	11:14:22
2	Sn 189.927†	3502.6	3379.7	484.28	ug/L	484.28 ppb	11:14:42
2	Ti 334.940†	350778.0	340549.3	484.32	ug/L	484.32 ppb	11:14:17
2	Tl 190.801†	1958.3	1934.2	486.41	ug/L	486.41 ppb	11:14:42
2	U 409.014†	15307.8	17766.8	476.25	ug/L	476.25 ppb	11:14:22
2	V 292.402†	78913.0	77816.7	481.71	ug/L	481.71 ppb	11:14:22
2	Zn 213.857†	63790.1	60786.0	474.83	ug/L	474.83 ppb	11:14:22
2	SiO2†	92454.2	88695.7	5140.3	ug/L	5140.3 ppb	11:15:24
3	Sc Radial	5989.7	5989.7	101	%		11:13:18
3	Y RADIAL	6125.0	6125.0	99.12	%		11:13:18
3	Al 396.153Radial†	7069.2	7039.9	4663.3	ug/L	4663.3 ppb	11:13:18
3	Ca 317.933Radial†	3628.5	3584.7	4923.6	ug/L	4923.6 ppb	11:13:38
3	Fe 238.204 Radial†	659.9	642.7	4945.7	ug/L	4945.7 ppb	11:13:38
3	K 766.490 Radial†	33066.8	29707.5	4786.1	ug/L	4786.1 ppb	11:13:18
3	Mg 279.077 IEC†	181.7	175.1	5118.3	ug/L	5118.3 ppb	11:13:38
3	Na 589.592 Radial†	34517.4	36020.2	9468.3	ug/L	9468.3 ppb	11:13:18
3	Sr 421.552†	85675.6	85138.5	460.65	ug/L	460.65 ppb	11:13:18
3	Sc 361.383	975522.9	975522.9	104.63	%		11:14:48
3	Y 371.029	777134.9	777134.9	101.06	%		11:14:48
3	Ag 328.068†	120321.8	114588.9	481.21	ug/L	481.21 ppb	11:14:53
3	As 188.979†	1413.5	1382.4	482.73	ug/L	482.73 ppb	11:15:13
3	B 249.677†	25157.2	24570.5	483.13	ug/L	483.13 ppb	11:14:53
3	Ba 233.527†	77698.2	74248.4	483.12	ug/L	483.12 ppb	11:14:53
3	Be 313.107†	1543953.8	1480179.2	484.32	ug/L	484.32 ppb	11:14:48
3	Cd 226.502†	53642.2	51482.3	483.49	ug/L	483.49 ppb	11:14:53
3	Co 228.616†	29955.8	28714.0	482.29	ug/L	482.29 ppb	11:14:53
3	Cr 267.716†	52178.6	49784.9	482.28	ug/L	482.28 ppb	11:14:53
3	Cu 324.752†	189421.3	174939.5	477.33	ug/L	477.33 ppb	11:14:53
3	Mn 257.610†	530861.0	506809.9	483.94	ug/L	483.94 ppb	11:14:48
3	Mo 202.031†	8615.8	8209.6	473.75	ug/L	473.75 ppb	11:15:13
3	Ni 231.604†	24380.9	23172.3	483.73	ug/L	483.73 ppb	11:14:53
3	P 214.914†	5192.9	4718.0	2294.3	ug/L	2294.3 ppb	11:15:13
3	Pb 220.353†	4884.1	4744.2	477.79	ug/L	477.79 ppb	11:15:13
3	S 181.975 Axial†	895.0	807.0	946.84	ug/L	946.84 ppb	11:15:13
3	Sb 206.836†	1756.6	1634.5	479.00	ug/L	479.00 ppb	11:15:13
3	Se 196.026†	912.5	908.1	501.81	ug/L	501.81 ppb	11:15:13
3	Si 251.611†	94676.1	89844.8	2414.2	ug/L	2414.2 ppb	11:14:53
3	Sn 189.927†	3490.1	3329.5	477.13	ug/L	477.13 ppb	11:15:13
3	Ti 334.940†	355791.7	341502.1	485.69	ug/L	485.69 ppb	11:14:48
3	Tl 190.801†	1956.1	1910.6	480.53	ug/L	480.53 ppb	11:15:13
3	U 409.014†	15614.1	17892.0	479.56	ug/L	479.56 ppb	11:14:53
3	V 292.402†	80337.8	78314.8	484.61	ug/L	484.61 ppb	11:14:53
3	Zn 213.857†	65175.0	61411.5	479.67	ug/L	479.67 ppb	11:14:53
3	SiO2†	93591.2	88770.5	5144.7	ug/L	5144.7 ppb	11:15:29

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	971262.5	104.17	%	0.637				0.61%
Sc Radial	6024.4	101	%	8.0				7.95%
Y 371.029	774190.5	100.68	%	0.496				0.49%
Y RADIAL	6174.6	99.92	%	7.907				7.91%
Ag 328.068†	113979.0	478.64	ug/L	2.620	478.64	ppb	2.620	0.55%
QC value within limits for Ag 328.068 Recovery = 95.73%								
Al 396.153Radial†	7109.3	4709.4	ug/L	365.84	4709.4	ppb	365.84	7.77%
QC value within limits for Al 396.153Radial Recovery = 94.19%								
As 188.979†	1384.1	483.30	ug/L	1.634	483.30	ppb	1.634	0.34%
QC value within limits for As 188.979 Recovery = 96.66%								
B 249.677†	24358.3	478.96	ug/L	3.939	478.96	ppb	3.939	0.82%
QC value within limits for B 249.677 Recovery = 95.79%								
Ba 233.527†	73610.3	478.97	ug/L	3.914	478.97	ppb	3.914	0.82%
QC value within limits for Ba 233.527 Recovery = 95.79%								
Be 313.107†	1475791.9	482.88	ug/L	1.564	482.88	ppb	1.564	0.32%
QC value within limits for Be 313.107 Recovery = 96.58%								
Ca 317.933Radial†	3569.9	4903.2	ug/L	374.10	4903.2	ppb	374.10	7.63%

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   QC value within limits for Ca 317.933Radial  Recovery = 98.06%
Cd 226.502†            51160.5      480.46 ug/L         2.805      480.46 ppb          2.805   0.58%
   QC value within limits for Cd 226.502  Recovery = 96.09%
Co 228.616†            28495.1      478.62 ug/L         3.641      478.62 ppb          3.641   0.76%
   QC value within limits for Co 228.616  Recovery = 95.72%
Cr 267.716†            49373.4      478.29 ug/L         3.594      478.29 ppb          3.594   0.75%
   QC value within limits for Cr 267.716  Recovery = 95.66%
Cu 324.752†           173584.6      473.63 ug/L         3.644      473.63 ppb          3.644   0.77%
   QC value within limits for Cu 324.752  Recovery = 94.73%
Fe 238.204 Radial†       638.5      4913.0 ug/L       362.72      4913.0 ppb        362.72   7.38%
   QC value within limits for Fe 238.204 Radial  Recovery = 98.26%
K 766.490 Radial†      29883.1      4814.5 ug/L       403.70      4814.5 ppb        403.70   8.39%
   QC value within limits for K 766.490 Radial  Recovery = 96.29%
Mg 279.077 IEC†          170.3      4977.2 ug/L       429.59      4977.2 ppb        429.59   8.63%
   QC value within limits for Mg 279.077 IEC  Recovery = 99.54%
Mn 257.610†           505289.7      482.49 ug/L         1.318      482.49 ppb          1.318   0.27%
   QC value within limits for Mn 257.610  Recovery = 96.50%
Mo 202.031†            8239.9      475.49 ug/L         4.063      475.49 ppb          4.063   0.85%
   QC value within limits for Mo 202.031  Recovery = 95.10%
Na 589.592 Radial†     36270.3      9534.1 ug/L       662.43      9534.1 ppb        662.43   6.95%
   QC value within limits for Na 589.592 Radial  Recovery = 95.34%
Ni 231.604†            22978.3      479.68 ug/L         3.830      479.68 ppb          3.830   0.80%
   QC value within limits for Ni 231.604  Recovery = 95.94%
P 214.914†              4730.7      2301.3 ug/L        21.12      2301.3 ppb         21.12   0.92%
   QC value within limits for P 214.914  Recovery = 92.05%
Pb 220.353†             4751.3      478.52 ug/L         4.349      478.52 ppb          4.349   0.91%
   QC value within limits for Pb 220.353  Recovery = 95.70%
S 181.975 Axial†         807.6      947.54 ug/L         4.025      947.54 ppb          4.025   0.42%
   QC value within limits for S 181.975 Axial  Recovery = 94.75%
Sb 206.836†             1649.3      483.44 ug/L         5.224      483.44 ppb          5.224   1.08%
   QC value within limits for Sb 206.836  Recovery = 96.69%
Se 196.026†              909.4      502.39 ug/L         2.657      502.39 ppb          2.657   0.53%
   QC value within limits for Se 196.026  Recovery = 100.48%
Si 251.611†            89090.3      2393.8 ug/L        19.09      2393.8 ppb         19.09   0.80%
   QC value within limits for Si 251.611  Recovery = 95.75%
Sn 189.927†             3344.7      479.30 ug/L         4.318      479.30 ppb          4.318   0.90%
   QC value within limits for Sn 189.927  Recovery = 95.86%
Sr 421.552†            85873.8      464.63 ug/L        34.875      464.63 ppb         34.875   7.51%
   QC value within limits for Sr 421.552  Recovery = 92.93%
Ti 334.940†           340577.1      484.38 ug/L         1.285      484.38 ppb          1.285   0.27%
   QC value within limits for Ti 334.940  Recovery = 96.88%
Tl 190.801†             1912.9      481.10 ug/L         5.048      481.10 ppb          5.048   1.05%
   QC value within limits for Tl 190.801  Recovery = 96.22%
U 409.014†             17752.2      475.81 ug/L         3.984      475.81 ppb          3.984   0.84%
   QC value within limits for U 409.014  Recovery = 95.16%
V 292.402†             77810.2      481.56 ug/L         3.139      481.56 ppb          3.139   0.65%
   QC value within limits for V 292.402  Recovery = 96.31%
Zn 213.857†            60902.7      475.69 ug/L         3.618      475.69 ppb          3.618   0.76%
   QC value within limits for Zn 213.857  Recovery = 95.14%
SiO2†                  88544.2      5131.4 ug/L        19.33      5131.4 ppb         19.33   0.38%
   QC value within limits for SiO2  Recovery = 95.96%
All analyte(s) passed QC.
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Sequence No.: 4
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 12/17/2009 11:17:38
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	6200.1	6200.1	104	%			11:19:31
1	Y RADIAL	6395.3	6395.3	103.5	%			11:19:31
1	Al 396.153Radial†	-5.5	11.0	7.3470	ug/L	7.3470	ppb	11:19:31
1	Ca 317.933Radial†	26.0	4.5	6.2437	ug/L	6.2437	ppb	11:19:51
1	Fe 238.204 Radial†	9.8	-3.5	-27.156	ug/L	-27.156	ppb	11:19:51
1	K 766.490 Radial†	3411.6	128.2	20.672	ug/L	20.672	ppb	11:19:31
1	Mg 279.077 IEC†	4.8	-0.7	-21.539	ug/L	-21.539	ppb	11:19:51
1	Na 589.592 Radial†	-1700.8	92.5	24.321	ug/L	24.321	ppb	11:19:31
1	Sr 421.552†	-36.0	-20.3	-0.1099	ug/L	-0.1099	ppb	11:19:31
1	Sc 361.383	950096.5	950096.5	101.90	%			11:20:48
1	Y 371.029	768239.6	768239.6	99.908	%			11:20:48
1	Ag 328.068†	539.3	120.8	0.4939	ug/L	0.4939	ppb	11:20:53
1	As 188.979†	-36.7	-4.6	-1.5906	ug/L	-1.5906	ppb	11:21:13
1	B 249.677†	-108.0	420.6	8.3063	ug/L	8.3063	ppb	11:20:53
1	Ba 233.527†	24.5	12.5	0.0792	ug/L	0.0792	ppb	11:21:13
1	Be 313.107†	-4540.8	92.4	0.0301	ug/L	0.0301	ppb	11:20:53
1	Cd 226.502†	-201.8	15.8	0.1514	ug/L	0.1514	ppb	11:21:13
1	Co 228.616†	-77.9	7.4	0.1235	ug/L	0.1235	ppb	11:21:13
1	Cr 267.716†	65.1	-20.8	-0.2023	ug/L	-0.2023	ppb	11:20:53
1	Cu 324.752†	6132.6	-81.4	-0.2235	ug/L	-0.2235	ppb	11:20:53
1	Mn 257.610†	553.8	-16.0	-0.0175	ug/L	-0.0175	ppb	11:21:13
1	Mo 202.031†	19.9	-5.4	-0.3147	ug/L	-0.3147	ppb	11:21:13
1	Ni 231.604†	124.9	-7.2	-0.1504	ug/L	-0.1504	ppb	11:21:13
1	P 214.914†	256.9	7.1	3.6202	ug/L	3.6202	ppb	11:21:13
1	Pb 220.353†	-59.9	17.4	1.7507	ug/L	1.7507	ppb	11:21:13
1	S 181.975 Axial†	51.6	2.2	2.5640	ug/L	2.5640	ppb	11:21:13
1	Sb 206.836†	41.5	-3.7	-1.0799	ug/L	-1.0799	ppb	11:21:13
1	Se 196.026†	-35.6	1.0	0.4551	ug/L	0.4551	ppb	11:21:13
1	Si 251.611†	702.7	47.8	1.2899	ug/L	1.2899	ppb	11:21:13
1	Sn 189.927†	7.1	0.7	0.1071	ug/L	0.1071	ppb	11:21:13
1	Ti 334.940†	-1524.0	-40.6	-0.0572	ug/L	-0.0572	ppb	11:20:53
1	Tl 190.801†	-38.6	3.2	0.8012	ug/L	0.8012	ppb	11:21:13
1	U 409.014†	-3039.6	-14.0	-0.3731	ug/L	-0.3731	ppb	11:20:48
1	V 292.402†	-1623.7	-61.2	-0.3754	ug/L	-0.3754	ppb	11:20:53
1	Zn 213.857†	910.9	14.6	0.1197	ug/L	0.1197	ppb	11:21:13
1	SiO2†	668.1	-23.6	-1.3759	ug/L	-1.3759	ppb	11:22:19
2	Sc Radial	6153.4	6153.4	103	%			11:19:56
2	Y RADIAL	6351.6	6351.6	102.8	%			11:19:56
2	Al 396.153Radial†	3.4	19.6	13.019	ug/L	13.019	ppb	11:19:56
2	Ca 317.933Radial†	21.2	0.1	0.0870	ug/L	0.0870	ppb	11:20:16
2	Fe 238.204 Radial†	10.7	-2.6	-19.640	ug/L	-19.640	ppb	11:20:16
2	K 766.490 Radial†	3378.5	121.1	19.531	ug/L	19.531	ppb	11:19:56
2	Mg 279.077 IEC†	0.5	-4.9	-143.22	ug/L	-143.22	ppb	11:20:16
2	Na 589.592 Radial†	-1686.3	94.1	24.730	ug/L	24.730	ppb	11:19:56
2	Sr 421.552†	-12.6	2.0	0.0109	ug/L	0.0109	ppb	11:19:56
2	Sc 361.383	972695.0	972695.0	104.33	%			11:21:18
2	Y 371.029	787543.0	787543.0	102.42	%			11:21:18
2	Ag 328.068†	501.0	71.8	0.2871	ug/L	0.2871	ppb	11:21:23
2	As 188.979†	-28.4	4.2	1.4549	ug/L	1.4549	ppb	11:21:43
2	B 249.677†	-146.2	386.5	7.6305	ug/L	7.6305	ppb	11:21:23
2	Ba 233.527†	34.7	21.7	0.1403	ug/L	0.1403	ppb	11:21:43
2	Be 313.107†	-4480.6	253.6	0.0828	ug/L	0.0828	ppb	11:21:23
2	Cd 226.502†	-221.4	1.6	0.0169	ug/L	0.0169	ppb	11:21:43
2	Co 228.616†	-73.6	13.2	0.2224	ug/L	0.2224	ppb	11:21:43
2	Cr 267.716†	97.1	8.3	0.0782	ug/L	0.0782	ppb	11:21:23
2	Cu 324.752†	6175.9	-179.8	-0.4913	ug/L	-0.4913	ppb	11:21:23
2	Mn 257.610†	551.9	-30.4	-0.0283	ug/L	-0.0283	ppb	11:21:43
2	Mo 202.031†	25.9	-0.1	-0.0093	ug/L	-0.0093	ppb	11:21:43
2	Ni 231.604†	136.5	1.1	0.0222	ug/L	0.0222	ppb	11:21:43

2	P 214.914†	240.4	-14.6	-7.2279 ug/L	-7.2279 ppb	11:21:43
2	Pb 220.353†	-85.1	-5.4	-0.5352 ug/L	-0.5352 ppb	11:21:43
2	S 181.975 Axial†	53.5	2.9	3.4269 ug/L	3.4269 ppb	11:21:43
2	Sb 206.836†	38.0	-8.0	-2.2874 ug/L	-2.2874 ppb	11:21:43
2	Se 196.026†	-29.4	7.7	4.0433 ug/L	4.0433 ppb	11:21:43
2	Si 251.611†	675.9	6.1	0.1561 ug/L	0.1561 ppb	11:21:43
2	Sn 189.927†	13.7	6.9	0.9874 ug/L	0.9874 ppb	11:21:43
2	Ti 334.940†	-1535.1	-16.5	-0.0266 ug/L	-0.0266 ppb	11:21:23
2	Tl 190.801†	-31.2	11.3	2.8117 ug/L	2.8117 ppb	11:21:43
2	U 409.014†	-2818.6	267.2	7.1859 ug/L	7.1859 ppb	11:21:18
2	V 292.402†	-1581.1	16.6	0.1149 ug/L	0.1149 ppb	11:21:23
2	Zn 213.857†	888.1	-28.0	-0.2138 ug/L	-0.2138 ppb	11:21:43
2	SiO2†	711.5	2.8	0.1428 ug/L	0.1428 ppb	11:22:24
3	Sc Radial	6012.2	6012.2	101 %		11:20:21
3	Y RADIAL	6206.2	6206.2	100.4 %		11:20:21
3	Al 396.153Radial†	-48.0	-31.3	-20.838 ug/L	-20.838 ppb	11:20:21
3	Ca 317.933Radial†	29.1	8.3	11.455 ug/L	11.455 ppb	11:20:41
3	Fe 238.204 Radial†	9.0	-4.0	-30.455 ug/L	-30.455 ppb	11:20:41
3	K 766.490 Radial†	3473.7	292.0	47.113 ug/L	47.113 ppb	11:20:21
3	Mg 279.077 IEC†	1.8	-3.6	-103.71 ug/L	-103.71 ppb	11:20:41
3	Na 589.592 Radial†	-1723.7	18.8	4.9453 ug/L	4.9453 ppb	11:20:21
3	Sr 421.552†	-8.2	6.1	0.0330 ug/L	0.0330 ppb	11:20:21
3	Sc 361.383	965950.2	965950.2	103.60 %		11:21:48
3	Y 371.029	781873.8	781873.8	101.68 %		11:21:48
3	Ag 328.068†	428.7	5.4	0.0064 ug/L	0.0064 ppb	11:21:54
3	As 188.979†	-18.4	13.7	4.7399 ug/L	4.7399 ppb	11:22:14
3	B 249.677†	-211.6	322.3	6.3657 ug/L	6.3657 ppb	11:21:54
3	Ba 233.527†	36.5	23.7	0.1528 ug/L	0.1528 ppb	11:22:14
3	Be 313.107†	-4492.2	212.4	0.0692 ug/L	0.0692 ppb	11:21:54
3	Cd 226.502†	-212.1	9.1	0.0880 ug/L	0.0880 ppb	11:22:14
3	Co 228.616†	-80.6	5.9	0.1011 ug/L	0.1011 ppb	11:22:14
3	Cr 267.716†	117.4	28.6	0.2740 ug/L	0.2740 ppb	11:21:54
3	Cu 324.752†	6116.4	-195.9	-0.5359 ug/L	-0.5359 ppb	11:21:54
3	Mn 257.610†	560.3	-18.7	-0.0189 ug/L	-0.0189 ppb	11:22:14
3	Mo 202.031†	30.4	4.4	0.2490 ug/L	0.2490 ppb	11:22:14
3	Ni 231.604†	111.1	-22.5	-0.4706 ug/L	-0.4706 ppb	11:22:14
3	P 214.914†	248.7	-4.9	-2.3669 ug/L	-2.3669 ppb	11:22:14
3	Pb 220.353†	-83.3	-4.2	-0.4205 ug/L	-0.4205 ppb	11:22:14
3	S 181.975 Axial†	50.0	-0.1	-0.1662 ug/L	-0.1662 ppb	11:22:14
3	Sb 206.836†	51.5	5.3	1.5359 ug/L	1.5359 ppb	11:22:14
3	Se 196.026†	-29.2	7.8	4.0095 ug/L	4.0095 ppb	11:22:14
3	Si 251.611†	706.2	39.9	1.0556 ug/L	1.0556 ppb	11:22:14
3	Sn 189.927†	11.0	4.4	0.6274 ug/L	0.6274 ppb	11:22:14
3	Ti 334.940†	-1564.2	-54.9	-0.0803 ug/L	-0.0803 ppb	11:21:54
3	Tl 190.801†	-40.6	2.0	0.4921 ug/L	0.4921 ppb	11:22:14
3	U 409.014†	-2837.4	230.2	6.1919 ug/L	6.1919 ppb	11:21:48
3	V 292.402†	-1603.3	-15.5	-0.0766 ug/L	-0.0766 ppb	11:21:54
3	Zn 213.857†	890.9	-19.4	-0.1427 ug/L	-0.1427 ppb	11:22:14
3	SiO2†	696.0	-7.3	-0.4740 ug/L	-0.4740 ppb	11:22:29

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	962913.9	103.28	%	1.244				1.20%
Sc Radial	6121.9	103	%	1.6				1.60%
Y 371.029	779218.8	101.34	%	1.290				1.27%
Y RADIAL	6317.7	102.2	%	1.60				1.57%
Ag 328.068†	66.0	0.2625	ug/L	0.24464	0.2625	ppb	0.24464	93.20%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-0.2	-0.1573	ug/L	18.13349	-0.1573	ppb	18.13349	>999.9%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	4.5	1.5348	ug/L	3.16599	1.5348	ppb	3.16599	206.29%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	376.5	7.4342	ug/L	0.98508	7.4342	ppb	0.98508	13.25%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	19.3	0.1241	ug/L	0.03936	0.1241	ppb	0.03936	31.71%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	186.2	0.0607	ug/L	0.02737	0.0607	ppb	0.02737	45.10%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	4.3	5.9287	ug/L	5.69075	5.9287	ppb	5.69075	95.99%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                 8.8      0.0854 ug/L       0.06728      0.0854 ppb        0.06728  78.76%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                 8.8      0.1490 ug/L       0.06454      0.1490 ppb        0.06454  43.32%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                 5.4      0.0500 ug/L       0.23941      0.0500 ppb        0.23941 479.04%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -152.4     -0.4169 ug/L       0.16895     -0.4169 ppb        0.16895  40.53%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -3.4     -25.750 ug/L        5.5428     -25.750 ppb         5.5428  21.53%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         180.4      29.105 ug/L       15.6057      29.105 ppb        15.6057  53.62%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -3.1     -89.492 ug/L       62.0754     -89.492 ppb        62.0754  69.36%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               -21.7     -0.0216 ug/L       0.00587     -0.0216 ppb        0.00587  27.17%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                -0.4     -0.0250 ug/L       0.28219     -0.0250 ppb        0.28219 >999.9%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†         68.5      17.999 ug/L       11.3065      17.999 ppb        11.3065  62.82%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                -9.6     -0.1996 ug/L       0.25007     -0.1996 ppb        0.25007 125.27%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -4.2     -1.9916 ug/L       5.43378     -1.9916 ppb        5.43378 272.84%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                 2.6      0.2650 ug/L       1.28790      0.2650 ppb        1.28790 485.99%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            1.7      1.9416 ug/L       1.87570      1.9416 ppb        1.87570  96.61%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                -2.1     -0.6105 ug/L       1.95440     -0.6105 ppb        1.95440 320.13%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 5.5      2.8360 ug/L       2.06200      2.8360 ppb        2.06200  72.71%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                31.3      0.8339 ug/L       0.59855      0.8339 ppb        0.59855  71.78%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 4.0      0.5740 ug/L       0.44256      0.5740 ppb        0.44256  77.10%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                -4.1     -0.0220 ug/L       0.07689     -0.0220 ppb        0.07689 349.56%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               -37.3     -0.0547 ug/L       0.02692     -0.0547 ppb        0.02692  49.19%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 5.5      1.3683 ug/L       1.25949      1.3683 ppb        1.25949  92.05%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                161.1      4.3349 ug/L       4.10740      4.3349 ppb        4.10740  94.75%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                -20.0     -0.1123 ug/L       0.24712     -0.1123 ppb        0.24712 219.97%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               -10.9     -0.0789 ug/L       0.17562     -0.0789 ppb        0.17562 222.46%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                      -9.3     -0.5690 ug/L       0.76381     -0.5690 ppb        0.76381 134.23%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 12
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 12/17/2009 12:13:31
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5907.3	5907.3	99.3	%			12:15:23
1	Y RADIAL	6081.5	6081.5	98.42	%			12:15:23
1	Al 396.153Radial†	7270.2	7340.5	4863.0	ug/L	4863.0	ppb	12:15:23
1	Ca 317.933Radial†	3638.3	3644.8	5006.1	ug/L	5006.1	ppb	12:15:43
1	Fe 238.204 Radial†	666.2	658.2	5064.2	ug/L	5064.2	ppb	12:15:43
1	K 766.490 Radial†	33566.5	30669.4	4941.2	ug/L	4941.2	ppb	12:15:23
1	Mg 279.077 IEC†	180.9	176.9	5168.4	ug/L	5168.4	ppb	12:15:43
1	Na 589.592 Radial†	36098.6	38091.6	10013	ug/L	10013	ppb	12:15:23
1	Sr 421.552†	88984.0	89659.1	485.11	ug/L	485.11	ppb	12:15:23
1	Sc 361.383	963575.5	963575.5	103.35	%			12:16:42
1	Y 371.029	767955.1	767955.1	99.871	%			12:16:42
1	Ag 328.068†	117596.9	113378.1	476.19	ug/L	476.19	ppb	12:16:42
1	As 188.979†	1402.6	1388.6	484.88	ug/L	484.88	ppb	12:17:02
1	B 249.677†	24131.5	23876.2	469.43	ug/L	469.43	ppb	12:16:42
1	Ba 233.527†	75887.1	73416.7	477.72	ug/L	477.72	ppb	12:16:42
1	Be 313.107†	1508789.1	1464450.4	479.17	ug/L	479.17	ppb	12:16:42
1	Cd 226.502†	52602.5	51111.9	479.99	ug/L	479.99	ppb	12:16:42
1	Co 228.616†	29043.9	28186.7	473.46	ug/L	473.46	ppb	12:17:02
1	Cr 267.716†	50892.1	49158.4	476.22	ug/L	476.22	ppb	12:16:42
1	Cu 324.752†	186370.7	174232.4	475.41	ug/L	475.41	ppb	12:16:42
1	Mn 257.610†	520414.4	502992.7	480.31	ug/L	480.31	ppb	12:16:42
1	Mo 202.031†	8638.3	8333.5	480.90	ug/L	480.90	ppb	12:17:02
1	Ni 231.604†	23590.9	22696.8	473.81	ug/L	473.81	ppb	12:17:02
1	P 214.914†	5189.5	4776.3	2323.8	ug/L	2323.8	ppb	12:17:02
1	Pb 220.353†	4916.8	4833.7	486.83	ug/L	486.83	ppb	12:17:02
1	S 181.975 Axial†	886.0	808.9	949.06	ug/L	949.06	ppb	12:17:02
1	Sb 206.836†	1759.3	1657.9	486.10	ug/L	486.10	ppb	12:17:02
1	Se 196.026†	902.5	909.2	502.88	ug/L	502.88	ppb	12:17:02
1	Si 251.611†	92421.5	88785.2	2385.4	ug/L	2385.4	ppb	12:16:42
1	Sn 189.927†	3462.3	3343.9	479.20	ug/L	479.20	ppb	12:17:02
1	Ti 334.940†	349218.2	339357.9	482.66	ug/L	482.66	ppb	12:16:42
1	Tl 190.801†	1940.8	1919.1	482.65	ug/L	482.65	ppb	12:17:02
1	U 409.014†	14764.5	17255.0	462.42	ug/L	462.42	ppb	12:16:42
1	V 292.402†	78397.0	77388.9	479.02	ug/L	479.02	ppb	12:16:42
1	Zn 213.857†	63500.3	60563.5	473.04	ug/L	473.04	ppb	12:16:42
1	SiO2†	92191.8	88525.5	5130.1	ug/L	5130.1	ppb	12:18:02
2	Sc Radial	5898.3	5898.3	99.1	%			12:15:48
2	Y RADIAL	6006.7	6006.7	97.21	%			12:15:48
2	Al 396.153Radial†	7214.1	7295.0	4832.7	ug/L	4832.7	ppb	12:15:48
2	Ca 317.933Radial†	3577.6	3589.2	4929.7	ug/L	4929.7	ppb	12:16:08
2	Fe 238.204 Radial†	648.9	641.8	4938.4	ug/L	4938.4	ppb	12:16:08
2	K 766.490 Radial†	33539.5	30693.6	4945.1	ug/L	4945.1	ppb	12:15:48
2	Mg 279.077 IEC†	172.9	169.1	4941.6	ug/L	4941.6	ppb	12:16:08
2	Na 589.592 Radial†	36050.2	38098.3	10015	ug/L	10015	ppb	12:15:48
2	Sr 421.552†	88512.1	89319.6	483.27	ug/L	483.27	ppb	12:15:48
2	Sc 361.383	964950.0	964950.0	103.50	%			12:17:09
2	Y 371.029	769511.7	769511.7	100.07	%			12:17:09
2	Ag 328.068†	118795.5	114374.2	480.31	ug/L	480.31	ppb	12:17:09
2	As 188.979†	1392.8	1377.2	480.95	ug/L	480.95	ppb	12:17:30
2	B 249.677†	24563.4	24260.3	477.03	ug/L	477.03	ppb	12:17:09
2	Ba 233.527†	76605.3	74006.1	481.54	ug/L	481.54	ppb	12:17:09
2	Be 313.107†	1524342.4	1477398.7	483.41	ug/L	483.41	ppb	12:17:09
2	Cd 226.502†	52978.0	51402.2	482.73	ug/L	482.73	ppb	12:17:09
2	Co 228.616†	29148.0	28247.2	474.47	ug/L	474.47	ppb	12:17:30
2	Cr 267.716†	51385.8	49565.3	480.16	ug/L	480.16	ppb	12:17:09
2	Cu 324.752†	188210.6	175753.4	479.55	ug/L	479.55	ppb	12:17:09
2	Mn 257.610†	525247.2	506945.0	484.07	ug/L	484.07	ppb	12:17:09
2	Mo 202.031†	8670.8	8352.9	482.01	ug/L	482.01	ppb	12:17:30
2	Ni 231.604†	23671.7	22742.4	474.76	ug/L	474.76	ppb	12:17:30

2	P 214.914†	5218.0	4796.7	2333.4 ug/L	2333.4 ppb	12:17:30
2	Pb 220.353†	4913.7	4824.0	485.86 ug/L	485.86 ppb	12:17:30
2	S 181.975 Axial†	889.4	810.9	951.48 ug/L	951.48 ppb	12:17:30
2	Sb 206.836†	1751.3	1647.8	483.12 ug/L	483.12 ppb	12:17:30
2	Se 196.026†	908.6	913.9	504.93 ug/L	504.93 ppb	12:17:30
2	Si 251.611†	93435.6	89637.6	2408.4 ug/L	2408.4 ppb	12:17:09
2	Sn 189.927†	3479.8	3356.1	480.94 ug/L	480.94 ppb	12:17:30
2	Ti 334.940†	352122.9	341683.1	485.96 ug/L	485.96 ppb	12:17:09
2	Tl 190.801†	1950.6	1925.9	484.39 ug/L	484.39 ppb	12:17:30
2	U 409.014†	14779.1	17248.8	462.27 ug/L	462.27 ppb	12:17:09
2	V 292.402†	79022.1	77884.9	482.07 ug/L	482.07 ppb	12:17:09
2	Zn 213.857†	64054.4	61011.3	476.57 ug/L	476.57 ppb	12:17:09
2	SiO2†	93539.2	89700.3	5198.4 ug/L	5198.4 ppb	12:18:08
3	Sc Radial	5884.2	5884.2	98.9 %		12:16:13
3	Y RADIAL	6024.8	6024.8	97.50 %		12:16:13
3	Al 396.153Radial†	7305.6	7405.0	4906.1 ug/L	4906.1 ppb	12:16:13
3	Ca 317.933Radial†	3624.4	3645.2	5006.6 ug/L	5006.6 ppb	12:16:33
3	Fe 238.204 Radial†	659.7	654.3	5034.2 ug/L	5034.2 ppb	12:16:33
3	K 766.490 Radial†	33843.3	31082.1	5007.7 ug/L	5007.7 ppb	12:16:13
3	Mg 279.077 IEC†	176.5	173.1	5059.2 ug/L	5059.2 ppb	12:16:33
3	Na 589.592 Radial†	36390.9	38530.1	10128 ug/L	10128 ppb	12:16:13
3	Sr 421.552†	89699.0	90734.2	490.93 ug/L	490.93 ppb	12:16:13
3	Sc 361.383	971892.9	971892.9	104.24 %		12:17:37
3	Y 371.029	773557.4	773557.4	100.60 %		12:17:37
3	Ag 328.068†	118748.4	113509.1	476.73 ug/L	476.73 ppb	12:17:37
3	As 188.979†	1397.1	1371.7	479.04 ug/L	479.04 ppb	12:17:57
3	B 249.677†	24484.2	24014.7	472.18 ug/L	472.18 ppb	12:17:37
3	Ba 233.527†	76934.5	73793.1	480.16 ug/L	480.16 ppb	12:17:37
3	Be 313.107†	1521839.7	1464476.3	479.18 ug/L	479.18 ppb	12:17:37
3	Cd 226.502†	53156.1	51207.4	480.89 ug/L	480.89 ppb	12:17:37
3	Co 228.616†	29001.3	27905.2	468.72 ug/L	468.72 ppb	12:17:57
3	Cr 267.716†	51378.1	49203.2	476.65 ug/L	476.65 ppb	12:17:37
3	Cu 324.752†	188206.3	174450.1	476.00 ug/L	476.00 ppb	12:17:37
3	Mn 257.610†	526349.5	504376.9	481.63 ug/L	481.63 ppb	12:17:37
3	Mo 202.031†	8626.7	8250.8	476.13 ug/L	476.13 ppb	12:17:57
3	Ni 231.604†	23593.7	22504.1	469.78 ug/L	469.78 ppb	12:17:57
3	P 214.914†	5181.0	4725.2	2298.1 ug/L	2298.1 ppb	12:17:57
3	Pb 220.353†	4910.6	4787.1	482.15 ug/L	482.15 ppb	12:17:57
3	S 181.975 Axial†	883.0	798.7	937.07 ug/L	937.07 ppb	12:17:57
3	Sb 206.836†	1752.0	1636.3	479.69 ug/L	479.69 ppb	12:17:57
3	Se 196.026†	901.3	900.6	498.20 ug/L	498.20 ppb	12:17:57
3	Si 251.611†	93499.7	89054.2	2392.7 ug/L	2392.7 ppb	12:17:37
3	Sn 189.927†	3467.2	3319.9	475.77 ug/L	475.77 ppb	12:17:57
3	Ti 334.940†	352745.9	339850.3	483.36 ug/L	483.36 ppb	12:17:37
3	Tl 190.801†	1942.4	1904.5	479.06 ug/L	479.06 ppb	12:17:57
3	U 409.014†	14695.3	17066.3	457.36 ug/L	457.36 ppb	12:17:37
3	V 292.402†	79243.5	77551.8	479.94 ug/L	479.94 ppb	12:17:37
3	Zn 213.857†	64111.6	60624.1	473.54 ug/L	473.54 ppb	12:17:37
3	SiO2†	93769.4	89275.5	5173.9 ug/L	5173.9 ppb	12:18:13

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	966806.1	103.70	%	0.478				0.46%
Sc Radial	5896.6	99.1	%	0.20				0.20%
Y 371.029	770341.4	100.18	%	0.376				0.38%
Y RADIAL	6037.7	97.71	%	0.632				0.65%
Ag 328.068†	113753.8	477.74	ug/L	2.242	477.74	ppb	2.242	0.47%
QC value within limits for Ag 328.068 Recovery = 95.55%								
Al 396.153Radial†	7346.8	4867.3	ug/L	36.91	4867.3	ppb	36.91	0.76%
QC value within limits for Al 396.153Radial Recovery = 97.35%								
As 188.979†	1379.2	481.62	ug/L	2.982	481.62	ppb	2.982	0.62%
QC value within limits for As 188.979 Recovery = 96.32%								
B 249.677†	24050.4	472.88	ug/L	3.846	472.88	ppb	3.846	0.81%
QC value within limits for B 249.677 Recovery = 94.58%								
Ba 233.527†	73738.6	479.81	ug/L	1.938	479.81	ppb	1.938	0.40%
QC value within limits for Ba 233.527 Recovery = 95.96%								
Be 313.107†	1468775.1	480.59	ug/L	2.442	480.59	ppb	2.442	0.51%
QC value within limits for Be 313.107 Recovery = 96.12%								
Ca 317.933Radial†	3626.4	4980.8	ug/L	44.25	4980.8	ppb	44.25	0.89%

```
   QC value within limits for Ca 317.933Radial  Recovery = 99.62%
Cd 226.502†            51240.5      481.20 ug/L        1.397      481.20 ppb         1.397   0.29%
   QC value within limits for Cd 226.502  Recovery = 96.24%
Co 228.616†            28113.0      472.21 ug/L        3.071      472.21 ppb         3.071   0.65%
   QC value within limits for Co 228.616  Recovery = 94.44%
Cr 267.716†            49309.0      477.68 ug/L        2.159      477.68 ppb         2.159   0.45%
   QC value within limits for Cr 267.716  Recovery = 95.54%
Cu 324.752†           174811.9      476.99 ug/L        2.240      476.99 ppb         2.240   0.47%
   QC value within limits for Cu 324.752  Recovery = 95.40%
Fe 238.204 Radial†       651.4      5012.3 ug/L       65.68      5012.3 ppb        65.68   1.31%
   QC value within limits for Fe 238.204 Radial  Recovery = 100.25%
K 766.490 Radial†      30815.1      4964.7 ug/L       37.34      4964.7 ppb        37.34   0.75%
   QC value within limits for K 766.490 Radial  Recovery = 99.29%
Mg 279.077 IEC†          173.0      5056.4 ug/L      113.39      5056.4 ppb       113.39   2.24%
   QC value within limits for Mg 279.077 IEC  Recovery = 101.13%
Mn 257.610†           504771.5      482.00 ug/L        1.909      482.00 ppb         1.909   0.40%
   QC value within limits for Mn 257.610  Recovery = 96.40%
Mo 202.031†             8312.4      479.68 ug/L        3.126      479.68 ppb         3.126   0.65%
   QC value within limits for Mo 202.031  Recovery = 95.94%
Na 589.592 Radial†     38240.0       10052 ug/L         66.0       10052 ppb          66.0   0.66%
   QC value within limits for Na 589.592 Radial  Recovery = 100.52%
Ni 231.604†            22647.8      472.78 ug/L        2.640      472.78 ppb         2.640   0.56%
   QC value within limits for Ni 231.604  Recovery = 94.56%
P 214.914†              4766.1      2318.4 ug/L       18.28      2318.4 ppb        18.28   0.79%
   QC value within limits for P 214.914  Recovery = 92.74%
Pb 220.353†             4814.9      484.95 ug/L        2.470      484.95 ppb         2.470   0.51%
   QC value within limits for Pb 220.353  Recovery = 96.99%
S 181.975 Axial†         806.2      945.87 ug/L        7.715      945.87 ppb         7.715   0.82%
   QC value within limits for S 181.975 Axial  Recovery = 94.59%
Sb 206.836†             1647.3      482.97 ug/L        3.209      482.97 ppb         3.209   0.66%
   QC value within limits for Sb 206.836  Recovery = 96.59%
Se 196.026†              907.9      502.00 ug/L        3.453      502.00 ppb         3.453   0.69%
   QC value within limits for Se 196.026  Recovery = 100.40%
Si 251.611†            89159.0      2395.5 ug/L       11.74      2395.5 ppb        11.74   0.49%
   QC value within limits for Si 251.611  Recovery = 95.82%
Sn 189.927†             3340.0      478.64 ug/L        2.631      478.64 ppb         2.631   0.55%
   QC value within limits for Sn 189.927  Recovery = 95.73%
Sr 421.552†            89904.3      486.44 ug/L        3.996      486.44 ppb         3.996   0.82%
   QC value within limits for Sr 421.552  Recovery = 97.29%
Ti 334.940†           340297.1      483.99 ug/L        1.740      483.99 ppb         1.740   0.36%
   QC value within limits for Ti 334.940  Recovery = 96.80%
Tl 190.801†             1916.5      482.03 ug/L        2.716      482.03 ppb         2.716   0.56%
   QC value within limits for Tl 190.801  Recovery = 96.41%
U 409.014†             17190.0      460.68 ug/L        2.882      460.68 ppb         2.882   0.63%
   QC value within limits for U 409.014  Recovery = 92.14%
V 292.402†             77608.5      480.34 ug/L        1.567      480.34 ppb         1.567   0.33%
   QC value within limits for V 292.402  Recovery = 96.07%
Zn 213.857†            60733.0      474.38 ug/L        1.913      474.38 ppb         1.913   0.40%
   QC value within limits for Zn 213.857  Recovery = 94.88%
SiO2†                  89167.1      5167.5 ug/L       34.63      5167.5 ppb        34.63   0.67%
   QC value within limits for SiO2  Recovery = 96.63%
All analyte(s) passed QC.
```

Sequence No.: 13
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 12/17/2009 12:20:23
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	6138.5	6138.5	103	%			12:22:15
1	Y RADIAL	6296.6	6296.6	101.9	%			12:22:15
1	Al 396.153Radial†	-21.2	-4.3	-2.8040	ug/L	-2.8040	ppb	12:22:15
1	Ca 317.933Radial†	28.3	6.9	9.5306	ug/L	9.5306	ppb	12:22:35
1	Fe 238.204 Radial†	12.2	-1.1	-8.3182	ug/L	-8.3182	ppb	12:22:35
1	K 766.490 Radial†	3231.2	-13.8	-2.2425	ug/L	-2.2425	ppb	12:22:15
1	Mg 279.077 IEC†	2.3	-3.1	-91.007	ug/L	-91.007	ppb	12:22:35
1	Na 589.592 Radial†	-1687.6	88.9	23.380	ug/L	23.380	ppb	12:22:15
1	Sr 421.552†	-42.3	-26.7	-0.1447	ug/L	-0.1447	ppb	12:22:15
1	Sc 361.383	957434.4	957434.4	102.69	%			12:23:32
1	Y 371.029	774342.9	774342.9	100.70	%			12:23:32
1	Ag 328.068†	374.2	-44.0	-0.1849	ug/L	-0.1849	ppb	12:23:37
1	As 188.979†	-24.2	7.9	2.7461	ug/L	2.7461	ppb	12:23:57
1	B 249.677†	-307.8	226.8	4.4782	ug/L	4.4782	ppb	12:23:37
1	Ba 233.527†	24.7	12.5	0.0820	ug/L	0.0820	ppb	12:23:57
1	Be 313.107†	-4483.4	182.5	0.0595	ug/L	0.0595	ppb	12:23:37
1	Cd 226.502†	-233.5	-13.5	-0.1267	ug/L	-0.1267	ppb	12:23:57
1	Co 228.616†	-83.6	2.3	0.0378	ug/L	0.0378	ppb	12:23:57
1	Cr 267.716†	106.1	18.6	0.1803	ug/L	0.1803	ppb	12:23:57
1	Cu 324.752†	6175.8	-85.5	-0.2337	ug/L	-0.2337	ppb	12:23:37
1	Mn 257.610†	547.4	-26.4	-0.0243	ug/L	-0.0243	ppb	12:23:57
1	Mo 202.031†	13.4	-11.9	-0.6891	ug/L	-0.6891	ppb	12:23:57
1	Ni 231.604†	108.7	-23.9	-0.4983	ug/L	-0.4983	ppb	12:23:57
1	P 214.914†	246.9	-4.6	-2.2828	ug/L	-2.2828	ppb	12:23:57
1	Pb 220.353†	-85.6	-7.1	-0.7132	ug/L	-0.7132	ppb	12:23:57
1	S 181.975 Axial†	43.1	-6.5	-7.6085	ug/L	-7.6085	ppb	12:23:57
1	Sb 206.836†	32.8	-12.4	-3.6164	ug/L	-3.6164	ppb	12:23:57
1	Se 196.026†	-41.0	-4.0	-2.1349	ug/L	-2.1349	ppb	12:23:57
1	Si 251.611†	632.9	-25.4	-0.6712	ug/L	-0.6712	ppb	12:23:57
1	Sn 189.927†	5.1	-1.3	-0.1782	ug/L	-0.1782	ppb	12:23:57
1	Ti 334.940†	-1545.2	-49.8	-0.0703	ug/L	-0.0703	ppb	12:23:37
1	Tl 190.801†	-34.6	7.4	1.8550	ug/L	1.8550	ppb	12:23:57
1	U 409.014†	-3051.2	-2.4	-0.0643	ug/L	-0.0643	ppb	12:23:32
1	V 292.402†	-1506.2	65.4	0.3887	ug/L	0.3887	ppb	12:23:37
1	Zn 213.857†	860.7	-41.1	-0.3169	ug/L	-0.3169	ppb	12:23:57
1	SiO2†	688.5	-8.6	-0.4734	ug/L	-0.4734	ppb	12:25:03
2	Sc Radial	6248.5	6248.5	105	%			12:22:40
2	Y RADIAL	6468.3	6468.3	104.7	%			12:22:40
2	Al 396.153Radial†	-21.7	-4.4	-2.9055	ug/L	-2.9055	ppb	12:22:40
2	Ca 317.933Radial†	24.0	2.4	3.2755	ug/L	3.2755	ppb	12:23:00
2	Fe 238.204 Radial†	12.5	-1.0	-7.7566	ug/L	-7.7566	ppb	12:23:00
2	K 766.490 Radial†	3080.1	-212.9	-34.361	ug/L	-34.361	ppb	12:22:40
2	Mg 279.077 IEC†	0.2	-5.2	-150.83	ug/L	-150.83	ppb	12:23:00
2	Na 589.592 Radial†	-1753.2	55.2	14.521	ug/L	14.521	ppb	12:22:40
2	Sr 421.552†	18.2	31.6	0.1709	ug/L	0.1709	ppb	12:22:40
2	Sc 361.383	970703.8	970703.8	104.11	%			12:24:02
2	Y 371.029	785530.8	785530.8	102.16	%			12:24:02
2	Ag 328.068†	454.5	28.1	0.1077	ug/L	0.1077	ppb	12:24:07
2	As 188.979†	-25.2	7.3	2.5164	ug/L	2.5164	ppb	12:24:27
2	B 249.677†	-312.6	226.3	4.4678	ug/L	4.4678	ppb	12:24:07
2	Ba 233.527†	25.3	12.8	0.0818	ug/L	0.0818	ppb	12:24:27
2	Be 313.107†	-4418.7	304.3	0.0993	ug/L	0.0993	ppb	12:24:07
2	Cd 226.502†	-210.3	11.8	0.1116	ug/L	0.1116	ppb	12:24:27
2	Co 228.616†	-69.8	16.7	0.2807	ug/L	0.2807	ppb	12:24:27
2	Cr 267.716†	117.3	28.0	0.2675	ug/L	0.2675	ppb	12:24:27
2	Cu 324.752†	6185.0	-158.9	-0.4336	ug/L	-0.4336	ppb	12:24:07
2	Mn 257.610†	560.6	-21.0	-0.0180	ug/L	-0.0180	ppb	12:24:27
2	Mo 202.031†	22.3	-3.5	-0.2027	ug/L	-0.2027	ppb	12:24:27
2	Ni 231.604†	130.2	-4.7	-0.0988	ug/L	-0.0988	ppb	12:24:27

2	P 214.914†	250.3	-4.6	-2.2187 ug/L	-2.2187 ppb	12:24:27
2	Pb 220.353†	-79.2	0.2	0.0153 ug/L	0.0153 ppb	12:24:27
2	S 181.975 Axial†	47.9	-2.4	-2.8587 ug/L	-2.8587 ppb	12:24:27
2	Sb 206.836†	35.6	-10.3	-2.9677 ug/L	-2.9677 ppb	12:24:27
2	Se 196.026†	-36.9	0.5	0.2320 ug/L	0.2320 ppb	12:24:27
2	Si 251.611†	638.4	-28.5	-0.7563 ug/L	-0.7563 ppb	12:24:27
2	Sn 189.927†	11.1	4.4	0.6304 ug/L	0.6304 ppb	12:24:27
2	Ti 334.940†	-1531.2	-15.8	-0.0253 ug/L	-0.0253 ppb	12:24:07
2	Tl 190.801†	-30.7	11.6	2.8963 ug/L	2.8963 ppb	12:24:27
2	U 409.014†	-2843.1	238.1	6.4021 ug/L	6.4021 ppb	12:24:02
2	V 292.402†	-1658.3	-60.7	-0.3635 ug/L	-0.3635 ppb	12:24:07
2	Zn 213.857†	866.4	-47.2	-0.3646 ug/L	-0.3646 ppb	12:24:27
2	SiO2†	675.8	-30.0	-1.7180 ug/L	-1.7180 ppb	12:25:08
3	Sc Radial	6326.3	6326.3	106 %		12:23:05
3	Y RADIAL	6516.6	6516.6	105.5 %		12:23:05
3	Al 396.153Radial†	-23.6	-6.0	-3.9579 ug/L	-3.9579 ppb	12:23:05
3	Ca 317.933Radial†	22.5	0.7	0.9881 ug/L	0.9881 ppb	12:23:26
3	Fe 238.204 Radial†	12.1	-1.5	-11.769 ug/L	-11.769 ppb	12:23:26
3	K 766.490 Radial†	3248.7	-90.4	-14.595 ug/L	-14.595 ppb	12:23:05
3	Mg 279.077 IEC†	0.4	-5.0	-145.05 ug/L	-145.05 ppb	12:23:26
3	Na 589.592 Radial†	-1742.9	85.5	22.465 ug/L	22.465 ppb	12:23:05
3	Sr 421.552†	-18.2	-2.9	-0.0158 ug/L	-0.0158 ppb	12:23:05
3	Sc 361.383	1012861.2	1012861.2	108.63 %		12:24:33
3	Y 371.029	820046.0	820046.0	106.65 %		12:24:33
3	Ag 328.068†	387.6	-51.6	-0.2213 ug/L	-0.2213 ppb	12:24:38
3	As 188.979†	-26.1	7.4	2.5750 ug/L	2.5750 ppb	12:24:58
3	B 249.677†	-308.3	242.8	4.7949 ug/L	4.7949 ppb	12:24:38
3	Ba 233.527†	20.2	7.0	0.0474 ug/L	0.0474 ppb	12:24:58
3	Be 313.107†	-4519.9	387.8	0.1268 ug/L	0.1268 ppb	12:24:38
3	Cd 226.502†	-219.4	11.9	0.1127 ug/L	0.1127 ppb	12:24:58
3	Co 228.616†	-90.6	0.4	0.0061 ug/L	0.0061 ppb	12:24:58
3	Cr 267.716†	96.4	4.0	0.0384 ug/L	0.0384 ppb	12:24:58
3	Cu 324.752†	6149.3	-439.0	-1.1978 ug/L	-1.1978 ppb	12:24:38
3	Mn 257.610†	570.5	-34.3	-0.0312 ug/L	-0.0312 ppb	12:24:58
3	Mo 202.031†	26.8	-0.3	-0.0168 ug/L	-0.0168 ppb	12:24:58
3	Ni 231.604†	114.2	-24.6	-0.5140 ug/L	-0.5140 ppb	12:24:58
3	P 214.914†	253.4	-11.7	-5.6744 ug/L	-5.6744 ppb	12:24:58
3	Pb 220.353†	-63.7	17.6	1.7685 ug/L	1.7685 ppb	12:24:58
3	S 181.975 Axial†	52.6	-0.0	-0.0030 ug/L	-0.0030 ppb	12:24:58
3	Sb 206.836†	33.9	-13.2	-3.7920 ug/L	-3.7920 ppb	12:24:58
3	Se 196.026†	-30.9	7.5	3.9241 ug/L	3.9241 ppb	12:24:58
3	Si 251.611†	635.1	-57.0	-1.5392 ug/L	-1.5392 ppb	12:24:58
3	Sn 189.927†	17.1	9.5	1.3633 ug/L	1.3633 ppb	12:24:58
3	Ti 334.940†	-1497.6	76.4	0.1058 ug/L	0.1058 ppb	12:24:38
3	Tl 190.801†	-39.0	5.2	1.2974 ug/L	1.2974 ppb	12:24:58
3	U 409.014†	-2962.8	241.6	6.4968 ug/L	6.4968 ppb	12:24:33
3	V 292.402†	-1496.2	154.8	0.9561 ug/L	0.9561 ppb	12:24:38
3	Zn 213.857†	873.3	-75.4	-0.5833 ug/L	-0.5833 ppb	12:24:58
3	SiO2†	650.8	-80.1	-4.6619 ug/L	-4.6619 ppb	12:25:13

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	980333.1	105.15	%	3.104				2.95%
Sc Radial	6237.8	105	%	1.6				1.51%
Y 371.029	793306.6	103.17	%	3.098				3.00%
Y RADIAL	6427.1	104.0	%	1.87				1.80%
Ag 328.068†	-22.5	-0.0995	ug/L	0.18037	-0.0995	ppb	0.18037	181.31%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-4.9	-3.2225	ug/L	0.63893	-3.2225	ppb	0.63893	19.83%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	7.6	2.6125	ug/L	0.11938	2.6125	ppb	0.11938	4.57%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	232.0	4.5803	ug/L	0.18594	4.5803	ppb	0.18594	4.06%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	10.8	0.0704	ug/L	0.01991	0.0704	ppb	0.01991	28.30%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	291.5	0.0952	ug/L	0.03388	0.0952	ppb	0.03388	35.59%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	3.3	4.5981	ug/L	4.42215	4.5981	ppb	4.42215	96.17%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                3.4      0.0325 ug/L       0.13788      0.0325 ppb        0.13788 423.67%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                6.5      0.1082 ug/L       0.15020      0.1082 ppb        0.15020 138.82%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†               16.9      0.1620 ug/L       0.11562      0.1620 ppb        0.11562  71.35%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -227.8     -0.6217 ug/L       0.50882     -0.6217 ppb        0.50882  81.84%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        -1.2     -9.2812 ug/L       2.17245     -9.2812 ppb        2.17245  23.41%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       -105.7     -17.066 ug/L       16.2015     -17.066 ppb        16.2015  94.93%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           -4.4     -128.96 ug/L        32.997     -128.96 ppb         32.997  25.59%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              -27.2     -0.0245 ug/L       0.00660     -0.0245 ppb        0.00660  26.94%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               -5.2     -0.3029 ug/L       0.34717     -0.3029 ppb        0.34717 114.62%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        76.5      20.122 ug/L        4.8718      20.122 ppb         4.8718  24.21%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              -17.7     -0.3704 ug/L       0.23530     -0.3704 ppb        0.23530  63.53%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -7.0     -3.3920 ug/L       1.97691     -3.3920 ppb        1.97691  58.28%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                3.6      0.3569 ug/L       1.27562      0.3569 ppb        1.27562 357.45%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          -3.0     -3.4901 ug/L       3.84185     -3.4901 ppb        3.84185 110.08%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -12.0     -3.4587 ug/L       0.43422     -3.4587 ppb        0.43422  12.55%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                1.3      0.6737 ug/L       3.05354      0.6737 ppb        3.05354 453.22%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†              -37.0     -0.9889 ug/L       0.47846     -0.9889 ppb        0.47846  48.38%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                4.2      0.6052 ug/L       0.77104      0.6052 ppb        0.77104 127.41%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                0.7      0.0035 ug/L       0.15872      0.0035 ppb        0.15872 >999.9%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                3.6      0.0034 ug/L       0.09150      0.0034 ppb        0.09150 >999.9%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                8.1      2.0162 ug/L       0.81156      2.0162 ppb        0.81156  40.25%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               159.1      4.2782 ug/L       3.76102      4.2782 ppb        3.76102  87.91%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                53.2      0.3271 ug/L       0.66198      0.3271 ppb        0.66198 202.38%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              -54.6     -0.4216 ug/L       0.14205     -0.4216 ppb        0.14205  33.69%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                    -39.6     -2.2844 ug/L       2.15090     -2.2844 ppb        2.15090  94.16%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

==========

Sequence No.: 21
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 12/17/2009 13:14:50
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	6355.2	6355.2	107	%			13:16:42
1	Y RADIAL	6494.1	6494.1	105.1	%			13:16:42
1	Al 396.153Radial†	7184.5	6744.0	4466.0	ug/L	4466.0	ppb	13:16:42
1	Ca 317.933Radial†	3641.4	3389.4	4655.3	ug/L	4655.3	ppb	13:17:02
1	Fe 238.204 Radial†	658.7	603.9	4648.2	ug/L	4648.2	ppb	13:17:02
1	K 766.490 Radial†	33746.4	28454.6	4584.1	ug/L	4584.1	ppb	13:16:42
1	Mg 279.077 IEC†	176.3	159.8	4670.5	ug/L	4670.5	ppb	13:17:02
1	Na 589.592 Radial†	35012.2	34511.3	9071.7	ug/L	9071.7	ppb	13:16:42
1	Sr 421.552†	87119.8	81595.6	441.48	ug/L	441.48	ppb	13:16:42
1	Sc 361.383	961618.8	961618.8	103.14	%			13:18:01
1	Y 371.029	765053.2	765053.2	99.494	%			13:18:01
1	Ag 328.068†	119032.9	115002.0	482.85	ug/L	482.85	ppb	13:18:01
1	As 188.979†	1414.8	1403.2	489.92	ug/L	489.92	ppb	13:18:21
1	B 249.677†	24536.9	24316.7	478.17	ug/L	478.17	ppb	13:18:01
1	Ba 233.527†	76788.9	74440.5	484.36	ug/L	484.36	ppb	13:18:01
1	Be 313.107†	1523632.2	1481812.4	484.86	ug/L	484.86	ppb	13:18:01
1	Cd 226.502†	52740.5	51349.3	482.26	ug/L	482.26	ppb	13:18:01
1	Co 228.616†	29349.5	28540.1	479.39	ug/L	479.39	ppb	13:18:21
1	Cr 267.716†	51211.4	49568.2	480.18	ug/L	480.18	ppb	13:18:01
1	Cu 324.752†	189412.1	177548.3	484.43	ug/L	484.43	ppb	13:18:01
1	Mn 257.610†	525968.0	509401.9	486.39	ug/L	486.39	ppb	13:18:01
1	Mo 202.031†	8690.1	8400.7	484.75	ug/L	484.75	ppb	13:18:21
1	Ni 231.604†	23745.1	22892.7	477.89	ug/L	477.89	ppb	13:18:21
1	P 214.914†	5227.4	4823.2	2346.2	ug/L	2346.2	ppb	13:18:21
1	Pb 220.353†	4926.2	4852.5	488.66	ug/L	488.66	ppb	13:18:21
1	S 181.975 Axial†	897.5	821.7	964.25	ug/L	964.25	ppb	13:18:21
1	Sb 206.836†	1770.4	1672.1	490.29	ug/L	490.29	ppb	13:18:21
1	Se 196.026†	909.0	917.2	505.63	ug/L	505.63	ppb	13:18:21
1	Si 251.611†	93882.8	90384.0	2428.6	ug/L	2428.6	ppb	13:18:01
1	Sn 189.927†	3491.9	3379.4	484.25	ug/L	484.25	ppb	13:18:21
1	Ti 334.940†	354022.5	344703.5	490.24	ug/L	490.24	ppb	13:18:01
1	Tl 190.801†	1956.4	1938.0	487.43	ug/L	487.43	ppb	13:18:21
1	U 409.014†	14855.7	17372.4	465.63	ug/L	465.63	ppb	13:18:01
1	V 292.402†	79125.1	78249.2	484.38	ug/L	484.38	ppb	13:18:01
1	Zn 213.857†	64026.3	61198.5	478.06	ug/L	478.06	ppb	13:18:01
1	SiO2†	94532.6	90976.5	5272.9	ug/L	5272.9	ppb	13:19:22
2	Sc Radial	5974.5	5974.5	100	%			13:17:07
2	Y RADIAL	6140.4	6140.4	99.37	%			13:17:07
2	Al 396.153Radial†	7308.2	7295.9	4833.2	ug/L	4833.2	ppb	13:17:07
2	Ca 317.933Radial†	3596.2	3561.7	4891.9	ug/L	4891.9	ppb	13:17:27
2	Fe 238.204 Radial†	653.3	637.9	4908.6	ug/L	4908.6	ppb	13:17:27
2	K 766.490 Radial†	34003.3	30724.2	4950.1	ug/L	4950.1	ppb	13:17:07
2	Mg 279.077 IEC†	173.1	167.1	4882.5	ug/L	4882.5	ppb	13:17:27
2	Na 589.592 Radial†	35390.5	36977.4	9719.9	ug/L	9719.9	ppb	13:17:07
2	Sr 421.552†	88298.6	87968.4	475.96	ug/L	475.96	ppb	13:17:07
2	Sc 361.383	957129.5	957129.5	102.66	%			13:18:29
2	Y 371.029	762178.2	762178.2	99.120	%			13:18:29
2	Ag 328.068†	118027.5	114563.9	481.10	ug/L	481.10	ppb	13:18:29
2	As 188.979†	1406.9	1402.0	489.51	ug/L	489.51	ppb	13:18:49
2	B 249.677†	24378.1	24273.7	477.29	ug/L	477.29	ppb	13:18:29
2	Ba 233.527†	76399.3	74410.2	484.17	ug/L	484.17	ppb	13:18:29
2	Be 313.107†	1513320.4	1478696.3	483.84	ug/L	483.84	ppb	13:18:29
2	Cd 226.502†	52633.8	51485.2	483.51	ug/L	483.51	ppb	13:18:29
2	Co 228.616†	29151.4	28480.6	478.39	ug/L	478.39	ppb	13:18:49
2	Cr 267.716†	50964.7	49560.8	480.12	ug/L	480.12	ppb	13:18:29
2	Cu 324.752†	186999.3	176059.2	480.38	ug/L	480.38	ppb	13:18:29
2	Mn 257.610†	522795.5	508703.4	485.75	ug/L	485.75	ppb	13:18:29
2	Mo 202.031†	8628.1	8379.8	483.56	ug/L	483.56	ppb	13:18:49
2	Ni 231.604†	23597.1	22856.5	477.14	ug/L	477.14	ppb	13:18:49

2	P 214.914†	5211.3	4831.4	2350.8 ug/L	2350.8 ppb	13:18:49
2	Pb 220.353†	4913.4	4862.5	489.73 ug/L	489.73 ppb	13:18:49
2	S 181.975 Axial†	895.6	824.0	966.79 ug/L	966.79 ppb	13:18:49
2	Sb 206.836†	1753.0	1663.2	487.64 ug/L	487.64 ppb	13:18:49
2	Se 196.026†	899.4	912.0	503.85 ug/L	503.85 ppb	13:18:49
2	Si 251.611†	93014.0	89964.6	2417.2 ug/L	2417.2 ppb	13:18:29
2	Sn 189.927†	3455.5	3359.8	481.47 ug/L	481.47 ppb	13:18:49
2	Ti 334.940†	350671.9	343049.6	487.90 ug/L	487.90 ppb	13:18:29
2	Tl 190.801†	1941.1	1931.9	485.91 ug/L	485.91 ppb	13:18:49
2	U 409.014†	14490.3	17084.1	457.84 ug/L	457.84 ppb	13:18:29
2	V 292.402†	78542.6	78041.6	483.04 ug/L	483.04 ppb	13:18:29
2	Zn 213.857†	63760.1	61230.3	478.29 ug/L	478.29 ppb	13:18:29
2	SiO2†	93689.8	90585.5	5249.9 ug/L	5249.9 ppb	13:19:27
3	Sc Radial	5816.6	5816.6	97.7 %		13:17:32
3	Y RADIAL	5987.5	5987.5	96.90 %		13:17:32
3	Al 396.153Radial†	7119.0	7299.9	4836.1 ug/L	4836.1 ppb	13:17:32
3	Ca 317.933Radial†	3608.1	3671.1	5042.2 ug/L	5042.2 ppb	13:17:52
3	Fe 238.204 Radial†	653.8	656.0	5047.2 ug/L	5047.2 ppb	13:17:52
3	K 766.490 Radial†	33403.1	31029.1	4999.3 ug/L	4999.3 ppb	13:17:32
3	Mg 279.077 IEC†	175.3	174.0	5085.3 ug/L	5085.3 ppb	13:17:52
3	Na 589.592 Radial†	34608.2	37133.5	9761.0 ug/L	9761.0 ppb	13:17:32
3	Sr 421.552†	86384.5	88396.4	478.28 ug/L	478.28 ppb	13:17:32
3	Sc 361.383	967317.7	967317.7	103.75 %		13:18:56
3	Y 371.029	769335.6	769335.6	100.05 %		13:18:56
3	Ag 328.068†	118935.4	114228.1	479.73 ug/L	479.73 ppb	13:18:56
3	As 188.979†	1390.5	1371.7	479.04 ug/L	479.04 ppb	13:19:16
3	B 249.677†	24605.0	24242.3	476.66 ug/L	476.66 ppb	13:18:56
3	Ba 233.527†	76786.8	73999.9	481.50 ug/L	481.50 ppb	13:18:56
3	Be 313.107†	1521740.2	1471285.4	481.41 ug/L	481.41 ppb	13:18:56
3	Cd 226.502†	53053.4	51349.7	482.22 ug/L	482.22 ppb	13:18:56
3	Co 228.616†	29114.5	28145.9	472.76 ug/L	472.76 ppb	13:19:16
3	Cr 267.716†	51150.6	49217.1	476.79 ug/L	476.79 ppb	13:18:56
3	Cu 324.752†	188259.6	175355.4	478.47 ug/L	478.47 ppb	13:18:56
3	Mn 257.610†	526180.2	506602.0	483.75 ug/L	483.75 ppb	13:18:56
3	Mo 202.031†	8636.8	8299.6	478.95 ug/L	478.95 ppb	13:19:16
3	Ni 231.604†	23572.5	22590.7	471.59 ug/L	471.59 ppb	13:19:16
3	P 214.914†	5213.0	4779.6	2324.9 ug/L	2324.9 ppb	13:19:16
3	Pb 220.353†	4901.8	4800.8	483.52 ug/L	483.52 ppb	13:19:16
3	S 181.975 Axial†	894.0	813.3	954.23 ug/L	954.23 ppb	13:19:16
3	Sb 206.836†	1757.5	1649.5	483.56 ug/L	483.56 ppb	13:19:16
3	Se 196.026†	901.7	905.0	500.59 ug/L	500.59 ppb	13:19:16
3	Si 251.611†	93819.2	89786.4	2412.4 ug/L	2412.4 ppb	13:18:56
3	Sn 189.927†	3449.5	3318.6	475.58 ug/L	475.58 ppb	13:19:16
3	Ti 334.940†	353107.4	341799.3	486.13 ug/L	486.13 ppb	13:18:56
3	Tl 190.801†	1949.5	1920.1	482.97 ug/L	482.97 ppb	13:19:16
3	U 409.014†	15035.9	17461.2	467.97 ug/L	467.97 ppb	13:18:56
3	V 292.402†	78930.9	77610.0	480.35 ug/L	480.35 ppb	13:18:56
3	Zn 213.857†	64074.4	60879.2	475.54 ug/L	475.54 ppb	13:18:56
3	SiO2†	93973.6	89897.8	5210.0 ug/L	5210.0 ppb	13:19:32

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	962022.0	103.18	%	0.548				0.53%
Sc Radial	6048.8	102	%	4.7				4.58%
Y 371.029	765522.3	99.555	%	0.4684				0.47%
Y RADIAL	6207.4	100.5	%	4.21				4.19%
Ag 328.068†	114598.0	481.23	ug/L	1.563	481.23	ppb	1.563	0.32%
QC value within limits for Ag 328.068 Recovery = 96.25%								
Al 396.153Radial†	7113.3	4711.8	ug/L	212.84	4711.8	ppb	212.84	4.52%
QC value within limits for Al 396.153Radial Recovery = 94.24%								
As 188.979†	1392.3	486.16	ug/L	6.170	486.16	ppb	6.170	1.27%
QC value within limits for As 188.979 Recovery = 97.23%								
B 249.677†	24277.6	477.37	ug/L	0.757	477.37	ppb	0.757	0.16%
QC value within limits for B 249.677 Recovery = 95.47%								
Ba 233.527†	74283.5	483.34	ug/L	1.595	483.34	ppb	1.595	0.33%
QC value within limits for Ba 233.527 Recovery = 96.67%								
Be 313.107†	1477264.7	483.37	ug/L	1.770	483.37	ppb	1.770	0.37%
QC value within limits for Be 313.107 Recovery = 96.67%								
Ca 317.933Radial†	3540.7	4863.1	ug/L	195.07	4863.1	ppb	195.07	4.01%

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   QC value within limits for Ca 317.933Radial  Recovery = 97.26%
Cd 226.502†            51394.7      482.67 ug/L        0.734      482.67 ppb         0.734   0.15%
   QC value within limits for Cd 226.502  Recovery = 96.53%
Co 228.616†            28388.9      476.85 ug/L        3.574      476.85 ppb         3.574   0.75%
   QC value within limits for Co 228.616  Recovery = 95.37%
Cr 267.716†            49448.7      479.03 ug/L        1.942      479.03 ppb         1.942   0.41%
   QC value within limits for Cr 267.716  Recovery = 95.81%
Cu 324.752†           176321.0      481.09 ug/L        3.043      481.09 ppb         3.043   0.63%
   QC value within limits for Cu 324.752  Recovery = 96.22%
Fe 238.204 Radial†       632.6      4868.0 ug/L      202.56      4868.0 ppb       202.56   4.16%
   QC value within limits for Fe 238.204 Radial  Recovery = 97.36%
K 766.490 Radial†      30069.3      4844.5 ug/L      226.87      4844.5 ppb       226.87   4.68%
   QC value within limits for K 766.490 Radial  Recovery = 96.89%
Mg 279.077 IEC†          167.0      4879.4 ug/L      207.40      4879.4 ppb       207.40   4.25%
   QC value within limits for Mg 279.077 IEC  Recovery = 97.59%
Mn 257.610†           508235.8      485.30 ug/L        1.376      485.30 ppb         1.376   0.28%
   QC value within limits for Mn 257.610  Recovery = 97.06%
Mo 202.031†             8360.0      482.42 ug/L        3.064      482.42 ppb         3.064   0.64%
   QC value within limits for Mo 202.031  Recovery = 96.48%
Na 589.592 Radial†     36207.4      9517.5 ug/L      386.65      9517.5 ppb       386.65   4.06%
   QC value within limits for Na 589.592 Radial  Recovery = 95.18%
Ni 231.604†            22780.0      475.54 ug/L        3.442      475.54 ppb         3.442   0.72%
   QC value within limits for Ni 231.604  Recovery = 95.11%
P 214.914†              4811.4      2340.6 ug/L       13.81      2340.6 ppb        13.81   0.59%
   QC value within limits for P 214.914  Recovery = 93.62%
Pb 220.353†             4838.6      487.30 ug/L        3.320      487.30 ppb         3.320   0.68%
   QC value within limits for Pb 220.353  Recovery = 97.46%
S 181.975 Axial†         819.7      961.76 ug/L        6.641      961.76 ppb         6.641   0.69%
   QC value within limits for S 181.975 Axial  Recovery = 96.18%
Sb 206.836†             1661.6      487.16 ug/L        3.389      487.16 ppb         3.389   0.70%
   QC value within limits for Sb 206.836  Recovery = 97.43%
Se 196.026†              911.4      503.35 ug/L        2.558      503.35 ppb         2.558   0.51%
   QC value within limits for Se 196.026  Recovery = 100.67%
Si 251.611†            90045.0      2419.4 ug/L         8.30      2419.4 ppb         8.30   0.34%
   QC value within limits for Si 251.611  Recovery = 96.78%
Sn 189.927†             3352.6      480.43 ug/L        4.423      480.43 ppb         4.423   0.92%
   QC value within limits for Sn 189.927  Recovery = 96.09%
Sr 421.552†            85986.8      465.24 ug/L       20.609      465.24 ppb        20.609   4.43%
   QC value within limits for Sr 421.552  Recovery = 93.05%
Ti 334.940†           343184.1      488.09 ug/L        2.062      488.09 ppb         2.062   0.42%
   QC value within limits for Ti 334.940  Recovery = 97.62%
Tl 190.801†             1930.0      485.44 ug/L        2.264      485.44 ppb         2.264   0.47%
   QC value within limits for Tl 190.801  Recovery = 97.09%
U 409.014†             17305.9      463.81 ug/L        5.304      463.81 ppb         5.304   1.14%
   QC value within limits for U 409.014  Recovery = 92.76%
V 292.402†             77966.9      482.59 ug/L        2.052      482.59 ppb         2.052   0.43%
   QC value within limits for V 292.402  Recovery = 96.52%
Zn 213.857†            61102.6      477.30 ug/L        1.526      477.30 ppb         1.526   0.32%
   QC value within limits for Zn 213.857  Recovery = 95.46%
SiO2†                  90486.6      5244.3 ug/L       31.80      5244.3 ppb        31.80   0.61%
   QC value within limits for SiO2  Recovery = 98.07%
All analyte(s) passed QC.
```

Sequence No.: 22
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 12/17/2009 13:21:41
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5992.1	5992.1	101	%			13:23:34
1	Y RADIAL	6190.6	6190.6	100.2	%			13:23:34
1	Al 396.153Radial†	-27.3	-10.8	-7.1935	ug/L	-7.1935	ppb	13:23:34
1	Ca 317.933Radial†	22.0	1.4	1.9510	ug/L	1.9510	ppb	13:23:54
1	Fe 238.204 Radial†	11.3	-1.6	-12.638	ug/L	-12.638	ppb	13:23:54
1	K 766.490 Radial†	3261.8	93.1	15.007	ug/L	15.007	ppb	13:23:34
1	Mg 279.077 IEC†	3.5	-1.8	-53.316	ug/L	-53.316	ppb	13:23:54
1	Na 589.592 Radial†	-1559.2	176.4	46.379	ug/L	46.379	ppb	13:23:34
1	Sr 421.552†	-12.7	1.7	0.0090	ug/L	0.0090	ppb	13:23:34
1	Sc 361.383	958161.0	958161.0	102.77	%			13:24:51
1	Y 371.029	774429.9	774429.9	100.71	%			13:24:51
1	Ag 328.068†	536.8	113.9	0.4667	ug/L	0.4667	ppb	13:24:56
1	As 188.979†	-31.9	0.4	0.1444	ug/L	0.1444	ppb	13:25:16
1	B 249.677†	-227.8	304.9	6.0192	ug/L	6.0192	ppb	13:25:16
1	Ba 233.527†	19.4	7.4	0.0475	ug/L	0.0475	ppb	13:25:16
1	Be 313.107†	-4501.7	167.9	0.0551	ug/L	0.0551	ppb	13:24:56
1	Cd 226.502†	-207.0	12.4	0.1176	ug/L	0.1176	ppb	13:25:16
1	Co 228.616†	-55.7	29.6	0.4969	ug/L	0.4969	ppb	13:25:16
1	Cr 267.716†	119.3	31.4	0.3014	ug/L	0.3014	ppb	13:25:16
1	Cu 324.752†	6106.9	-157.1	-0.4291	ug/L	-0.4291	ppb	13:24:56
1	Mn 257.610†	577.5	2.5	0.0021	ug/L	0.0021	ppb	13:25:16
1	Mo 202.031†	25.2	-0.5	-0.0280	ug/L	-0.0280	ppb	13:25:16
1	Ni 231.604†	101.3	-31.2	-0.6510	ug/L	-0.6510	ppb	13:25:16
1	P 214.914†	248.1	-3.6	-1.7227	ug/L	-1.7227	ppb	13:25:16
1	Pb 220.353†	-83.1	-4.6	-0.4647	ug/L	-0.4647	ppb	13:25:16
1	S 181.975 Axial†	51.2	1.5	1.7065	ug/L	1.7065	ppb	13:25:16
1	Sb 206.836†	49.6	3.8	1.0853	ug/L	1.0853	ppb	13:25:16
1	Se 196.026†	-28.3	8.4	4.4251	ug/L	4.4251	ppb	13:25:16
1	Si 251.611†	759.4	97.3	2.6229	ug/L	2.6229	ppb	13:25:16
1	Sn 189.927†	3.7	-2.6	-0.3694	ug/L	-0.3694	ppb	13:25:16
1	Ti 334.940†	-1387.4	104.9	0.1471	ug/L	0.1471	ppb	13:24:56
1	Tl 190.801†	-43.7	-1.4	-0.3602	ug/L	-0.3602	ppb	13:25:16
1	U 409.014†	-2862.2	183.7	4.9416	ug/L	4.9416	ppb	13:24:51
1	V 292.402†	-1573.8	0.7	0.0140	ug/L	0.0140	ppb	13:24:56
1	Zn 213.857†	868.9	-33.8	-0.2587	ug/L	-0.2587	ppb	13:25:16
1	SiO2†	798.0	97.4	5.6643	ug/L	5.6643	ppb	13:26:22
2	Sc Radial	6052.8	6052.8	102	%			13:23:59
2	Y RADIAL	6223.3	6223.3	100.7	%			13:23:59
2	Al 396.153Radial†	-25.0	-8.3	-5.5354	ug/L	-5.5354	ppb	13:23:59
2	Ca 317.933Radial†	21.3	0.5	0.6334	ug/L	0.6334	ppb	13:24:19
2	Fe 238.204 Radial†	12.7	-0.5	-3.5033	ug/L	-3.5033	ppb	13:24:19
2	K 766.490 Radial†	3097.5	-100.9	-16.308	ug/L	-16.308	ppb	13:23:59
2	Mg 279.077 IEC†	1.6	-3.8	-109.63	ug/L	-109.63	ppb	13:24:19
2	Na 589.592 Radial†	-1572.8	178.6	46.959	ug/L	46.959	ppb	13:23:59
2	Sr 421.552†	6.7	20.8	0.1125	ug/L	0.1125	ppb	13:23:59
2	Sc 361.383	966404.8	966404.8	103.65	%			13:25:21
2	Y 371.029	780451.6	780451.6	101.50	%			13:25:21
2	Ag 328.068†	436.9	13.0	0.0516	ug/L	0.0516	ppb	13:25:26
2	As 188.979†	-26.1	6.3	2.1792	ug/L	2.1792	ppb	13:25:46
2	B 249.677†	-259.4	276.3	5.4538	ug/L	5.4538	ppb	13:25:46
2	Ba 233.527†	18.1	5.9	0.0393	ug/L	0.0393	ppb	13:25:46
2	Be 313.107†	-4537.0	171.3	0.0560	ug/L	0.0560	ppb	13:25:26
2	Cd 226.502†	-213.2	8.1	0.0766	ug/L	0.0766	ppb	13:25:46
2	Co 228.616†	-79.4	7.2	0.1226	ug/L	0.1226	ppb	13:25:46
2	Cr 267.716†	108.3	19.7	0.1903	ug/L	0.1903	ppb	13:25:46
2	Cu 324.752†	6061.5	-251.6	-0.6863	ug/L	-0.6863	ppb	13:25:26
2	Mn 257.610†	575.1	-4.6	-0.0027	ug/L	-0.0027	ppb	13:25:46
2	Mo 202.031†	36.4	10.2	0.5855	ug/L	0.5855	ppb	13:25:46
2	Ni 231.604†	115.5	-18.3	-0.3824	ug/L	-0.3824	ppb	13:25:46

2	P 214.914†	265.9	11.5	5.8935 ug/L	5.8935 ppb	13:25:46
2	Pb 220.353†	-72.6	6.2	0.6199 ug/L	0.6199 ppb	13:25:46
2	S 181.975 Axial†	51.1	0.9	1.0368 ug/L	1.0368 ppb	13:25:46
2	Sb 206.836†	33.3	-12.3	-3.5262 ug/L	-3.5262 ppb	13:25:46
2	Se 196.026†	-33.2	4.0	2.0872 ug/L	2.0872 ppb	13:25:46
2	Si 251.611†	756.3	88.0	2.3683 ug/L	2.3683 ppb	13:25:46
2	Sn 189.927†	9.7	3.1	0.4483 ug/L	0.4483 ppb	13:25:46
2	Ti 334.940†	-1497.3	10.4	0.0130 ug/L	0.0130 ppb	13:25:26
2	Tl 190.801†	-36.7	5.8	1.4353 ug/L	1.4353 ppb	13:25:46
2	U 409.014†	-2925.7	146.2	3.9313 ug/L	3.9313 ppb	13:25:21
2	V 292.402†	-1515.3	70.2	0.4424 ug/L	0.4424 ppb	13:25:26
2	Zn 213.857†	864.8	-45.0	-0.3469 ug/L	-0.3469 ppb	13:25:46
2	SiO2†	781.9	75.2	4.3667 ug/L	4.3667 ppb	13:26:27
3	Sc Radial	5999.5	5999.5	101 %		13:24:24
3	Y RADIAL	6181.7	6181.7	100.0 %		13:24:24
3	Al 396.153Radial†	-10.2	6.2	4.1188 ug/L	4.1188 ppb	13:24:24
3	Ca 317.933Radial†	27.4	6.8	9.2745 ug/L	9.2745 ppb	13:24:44
3	Fe 238.204 Radial†	13.6	0.6	4.5032 ug/L	4.5032 ppb	13:24:44
3	K 766.490 Radial†	3096.5	-74.9	-12.093 ug/L	-12.093 ppb	13:24:24
3	Mg 279.077 IEC†	-0.7	-6.1	-177.16 ug/L	-177.16 ppb	13:24:44
3	Na 589.592 Radial†	-1624.1	114.0	29.962 ug/L	29.962 ppb	13:24:24
3	Sr 421.552†	-17.2	-2.8	-0.0153 ug/L	-0.0153 ppb	13:24:24
3	Sc 361.383	973802.4	973802.4	104.45 %		13:25:51
3	Y 371.029	785435.7	785435.7	102.14 %		13:25:51
3	Ag 328.068†	417.4	-8.8	-0.0432 ug/L	-0.0432 ppb	13:25:56
3	As 188.979†	-21.9	10.5	3.6210 ug/L	3.6210 ppb	13:26:16
3	B 249.677†	-238.0	298.8	5.8961 ug/L	5.8961 ppb	13:26:16
3	Ba 233.527†	4.8	-7.0	-0.0441 ug/L	-0.0441 ppb	13:26:16
3	Be 313.107†	-4511.0	229.4	0.0752 ug/L	0.0752 ppb	13:25:56
3	Cd 226.502†	-213.0	9.9	0.0921 ug/L	0.0921 ppb	13:26:16
3	Co 228.616†	-72.5	14.3	0.2392 ug/L	0.2392 ppb	13:26:16
3	Cr 267.716†	94.9	6.1	0.0567 ug/L	0.0567 ppb	13:26:16
3	Cu 324.752†	6073.7	-284.4	-0.7753 ug/L	-0.7753 ppb	13:25:56
3	Mn 257.610†	632.6	46.2	0.0478 ug/L	0.0478 ppb	13:26:16
3	Mo 202.031†	18.9	-6.8	-0.3940 ug/L	-0.3940 ppb	13:26:16
3	Ni 231.604†	114.4	-20.2	-0.4218 ug/L	-0.4218 ppb	13:26:16
3	P 214.914†	244.4	-11.1	-5.4277 ug/L	-5.4277 ppb	13:26:16
3	Pb 220.353†	-73.0	6.3	0.6369 ug/L	0.6369 ppb	13:26:16
3	S 181.975 Axial†	56.0	5.2	6.1530 ug/L	6.1530 ppb	13:26:16
3	Sb 206.836†	35.5	-10.5	-3.0199 ug/L	-3.0199 ppb	13:26:16
3	Se 196.026†	-24.0	12.9	6.8724 ug/L	6.8724 ppb	13:26:16
3	Si 251.611†	766.6	92.2	2.4985 ug/L	2.4985 ppb	13:26:16
3	Sn 189.927†	11.6	4.9	0.7023 ug/L	0.7023 ppb	13:26:16
3	Ti 334.940†	-1405.9	108.8	0.1504 ug/L	0.1504 ppb	13:25:56
3	Tl 190.801†	-46.7	-3.6	-0.9070 ug/L	-0.9070 ppb	13:26:16
3	U 409.014†	-2674.3	408.3	10.979 ug/L	10.979 ppb	13:25:51
3	V 292.402†	-1537.4	60.1	0.3781 ug/L	0.3781 ppb	13:25:56
3	Zn 213.857†	866.4	-49.8	-0.3832 ug/L	-0.3832 ppb	13:26:16
3	SiO2†	853.7	138.3	8.0711 ug/L	8.0711 ppb	13:26:32

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	966122.7	103.62	%	0.839				0.81%
Sc Radial	6014.8	101	%	0.6				0.55%
Y 371.029	780105.7	101.45	%	0.717				0.71%
Y RADIAL	6198.6	100.3	%	0.35				0.35%
Ag 328.068†	39.4	0.1584	ug/L	0.27123	0.1584	ppb	0.27123	171.28%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-4.3	-2.8700	ug/L	6.10904	-2.8700	ppb	6.10904	212.86%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	5.7	1.9815	ug/L	1.74673	1.9815	ppb	1.74673	88.15%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	293.3	5.7897	ug/L	0.29736	5.7897	ppb	0.29736	5.14%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	2.1	0.0142	ug/L	0.05073	0.0142	ppb	0.05073	356.21%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	189.5	0.0621	ug/L	0.01136	0.0621	ppb	0.01136	18.30%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	2.9	3.9530	ug/L	4.65545	3.9530	ppb	4.65545	117.77%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                10.1      0.0954 ug/L       0.02071      0.0954 ppb        0.02071  21.71%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                17.1      0.2862 ug/L       0.19151      0.2862 ppb        0.19151  66.91%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                19.1      0.1828 ug/L       0.12255      0.1828 ppb        0.12255  67.04%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -231.0     -0.6302 ug/L       0.17978     -0.6302 ppb        0.17978  28.53%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -0.5     -3.8794 ug/L       8.57684     -3.8794 ppb        8.57684 221.08%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         -27.6     -4.4647 ug/L      16.99398     -4.4647 ppb       16.99398 380.63%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -3.9     -113.37 ug/L        62.007     -113.37 ppb         62.007  54.69%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                14.7      0.0157 ug/L       0.02789      0.0157 ppb        0.02789 177.23%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 0.9      0.0545 ug/L       0.49495      0.0545 ppb        0.49495 908.29%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        156.4      41.100 ug/L        9.6500      41.100 ppb         9.6500  23.48%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               -23.2     -0.4851 ug/L       0.14509     -0.4851 ppb        0.14509  29.91%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -1.0     -0.4190 ug/L       5.77213     -0.4190 ppb        5.77213 >999.9%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                 2.6      0.2641 ug/L       0.63115      0.2641 ppb        0.63115 239.02%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            2.5      2.9655 ug/L       2.78071      2.9655 ppb        2.78071  93.77%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                -6.3     -1.8202 ug/L       2.52900     -1.8202 ppb        2.52900 138.94%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 8.4      4.4616 ug/L       2.39281      4.4616 ppb        2.39281  53.63%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                92.5      2.4966 ug/L       0.12728      2.4966 ppb        0.12728   5.10%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 1.8      0.2604 ug/L       0.56004      0.2604 ppb        0.56004 215.07%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                 6.5      0.0354 ug/L       0.06789      0.0354 ppb        0.06789 191.77%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                74.7      0.1035 ug/L       0.07839      0.1035 ppb        0.07839  75.75%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 0.2      0.0560 ug/L       1.22540      0.0560 ppb        1.22540 >999.9%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                246.1      6.6174 ug/L       3.81112      6.6174 ppb        3.81112  57.59%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 43.7      0.2782 ug/L       0.23104      0.2782 ppb        0.23104  83.06%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               -42.9     -0.3296 ug/L       0.06401     -0.3296 ppb        0.06401  19.42%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                     103.6      6.0340 ug/L       1.87970      6.0340 ppb        1.87970  31.15%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 29
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 12/17/2009 14:10:24
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5964.3	5964.3	100	%			14:12:16
1	Y RADIAL	6108.4	6108.4	98.85	%			14:12:16
1	Al 396.153Radial†	7196.3	7196.8	4767.6	ug/L	4767.6	ppb	14:12:16
1	Ca 317.933Radial†	3708.5	3679.9	5054.3	ug/L	5054.3	ppb	14:12:16
1	Fe 238.204 Radial†	659.3	645.0	4962.7	ug/L	4962.7	ppb	14:12:36
1	K 766.490 Radial†	33770.8	30550.2	4922.0	ug/L	4922.0	ppb	14:12:16
1	Mg 279.077 IEC†	180.1	174.4	5096.2	ug/L	5096.2	ppb	14:12:36
1	Na 589.592 Radial†	35527.6	37174.5	9771.8	ug/L	9771.8	ppb	14:12:16
1	Sr 421.552†	87945.7	87766.6	474.87	ug/L	474.87	ppb	14:12:16
1	Sc 361.383	965469.5	965469.5	103.55	%			14:13:35
1	Y 371.029	769238.0	769238.0	100.04	%			14:13:35
1	Ag 328.068†	118955.2	114466.7	480.70	ug/L	480.70	ppb	14:13:35
1	As 188.979†	1374.3	1358.6	474.52	ug/L	474.52	ppb	14:13:55
1	B 249.677†	24295.3	23988.6	471.67	ug/L	471.67	ppb	14:13:35
1	Ba 233.527†	76365.7	73734.8	479.78	ug/L	479.78	ppb	14:13:35
1	Be 313.107†	1517768.1	1470257.4	481.08	ug/L	481.08	ppb	14:13:35
1	Cd 226.502†	52653.2	51061.0	479.52	ug/L	479.52	ppb	14:13:35
1	Co 228.616†	28922.2	28013.9	470.54	ug/L	470.54	ppb	14:13:55
1	Cr 267.716†	51093.4	49256.2	477.16	ug/L	477.16	ppb	14:13:35
1	Cu 324.752†	188689.7	176118.1	480.54	ug/L	480.54	ppb	14:13:35
1	Mn 257.610†	524318.0	505774.5	482.96	ug/L	482.96	ppb	14:13:35
1	Mo 202.031†	8593.4	8273.6	477.44	ug/L	477.44	ppb	14:13:55
1	Ni 231.604†	23436.4	22502.8	469.76	ug/L	469.76	ppb	14:13:55
1	P 214.914†	5159.3	4737.3	2303.4	ug/L	2303.4	ppb	14:13:55
1	Pb 220.353†	4866.2	4775.5	480.96	ug/L	480.96	ppb	14:13:55
1	S 181.975 Axial†	884.2	805.5	945.05	ug/L	945.05	ppb	14:13:55
1	Sb 206.836†	1735.9	1632.0	478.40	ug/L	478.40	ppb	14:13:55
1	Se 196.026†	893.3	898.6	496.84	ug/L	496.84	ppb	14:13:55
1	Si 251.611†	93441.5	89594.8	2407.3	ug/L	2407.3	ppb	14:13:35
1	Sn 189.927†	3423.1	3299.5	472.85	ug/L	472.85	ppb	14:13:55
1	Ti 334.940†	352820.6	342173.8	486.66	ug/L	486.66	ppb	14:13:35
1	Tl 190.801†	1927.0	1902.0	478.45	ug/L	478.45	ppb	14:13:55
1	U 409.014†	14843.9	17303.6	463.74	ug/L	463.74	ppb	14:13:35
1	V 292.402†	78862.7	77689.9	480.82	ug/L	480.82	ppb	14:13:35
1	Zn 213.857†	63889.8	60819.1	475.08	ug/L	475.08	ppb	14:13:35
1	SiO2†	93409.5	89526.5	5188.5	ug/L	5188.5	ppb	14:14:56
2	Sc Radial	5958.2	5958.2	100	%			14:12:41
2	Y RADIAL	6085.4	6085.4	98.48	%			14:12:41
2	Al 396.153Radial†	7213.8	7221.5	4783.8	ug/L	4783.8	ppb	14:12:41
2	Ca 317.933Radial†	3734.3	3709.5	5094.9	ug/L	5094.9	ppb	14:12:41
2	Fe 238.204 Radial†	659.5	645.8	4969.0	ug/L	4969.0	ppb	14:13:01
2	K 766.490 Radial†	34060.0	30873.4	4974.1	ug/L	4974.1	ppb	14:12:41
2	Mg 279.077 IEC†	173.7	168.1	4912.9	ug/L	4912.9	ppb	14:13:01
2	Na 589.592 Radial†	36137.9	37820.2	9941.5	ug/L	9941.5	ppb	14:12:41
2	Sr 421.552†	88738.1	88647.6	479.64	ug/L	479.64	ppb	14:12:41
2	Sc 361.383	958963.5	958963.5	102.85	%			14:14:03
2	Y 371.029	764155.8	764155.8	99.377	%			14:14:03
2	Ag 328.068†	117863.0	114184.1	479.53	ug/L	479.53	ppb	14:14:03
2	As 188.979†	1383.0	1376.1	480.56	ug/L	480.56	ppb	14:14:23
2	B 249.677†	24048.2	23907.5	470.06	ug/L	470.06	ppb	14:14:03
2	Ba 233.527†	76042.5	73920.9	480.99	ug/L	480.99	ppb	14:14:03
2	Be 313.107†	1507574.4	1470290.6	481.09	ug/L	481.09	ppb	14:14:03
2	Cd 226.502†	52443.3	51201.9	480.85	ug/L	480.85	ppb	14:14:03
2	Co 228.616†	29060.0	28337.4	475.98	ug/L	475.98	ppb	14:14:23
2	Cr 267.716†	50839.9	49344.5	478.02	ug/L	478.02	ppb	14:14:03
2	Cu 324.752†	186822.2	175538.7	478.97	ug/L	478.97	ppb	14:14:03
2	Mn 257.610†	521176.0	506154.9	483.32	ug/L	483.32	ppb	14:14:03
2	Mo 202.031†	8620.1	8355.9	482.19	ug/L	482.19	ppb	14:14:23
2	Ni 231.604†	23544.3	22761.3	475.15	ug/L	475.15	ppb	14:14:23

2	P 214.914†	5176.4	4787.8	2329.0	ug/L	2329.0 ppb	14:14:23
2	Pb 220.353†	4901.7	4842.0	487.65	ug/L	487.65 ppb	14:14:23
2	S 181.975 Axial†	885.4	812.4	953.21	ug/L	953.21 ppb	14:14:23
2	Sb 206.836†	1754.9	1661.8	487.19	ug/L	487.19 ppb	14:14:23
2	Se 196.026†	899.5	910.5	503.21	ug/L	503.21 ppb	14:14:23
2	Si 251.611†	92730.2	89515.4	2405.1	ug/L	2405.1 ppb	14:14:03
2	Sn 189.927†	3437.2	3335.6	478.02	ug/L	478.02 ppb	14:14:23
2	Ti 334.940†	350141.3	341880.5	486.25	ug/L	486.25 ppb	14:14:03
2	Tl 190.801†	1944.0	1931.2	485.71	ug/L	485.71 ppb	14:14:23
2	U 409.014†	14694.7	17255.8	462.46	ug/L	462.46 ppb	14:14:03
2	V 292.402†	78524.5	77877.7	482.03	ug/L	482.03 ppb	14:14:03
2	Zn 213.857†	63457.3	60817.1	475.04	ug/L	475.04 ppb	14:14:03
2	SiO2†	92205.7	88968.0	5155.8	ug/L	5155.8 ppb	14:15:01
3	Sc Radial	5951.6	5951.6	100	%		14:13:07
3	Y RADIAL	6070.3	6070.3	98.23	%		14:13:07
3	Al 396.153Radial†	7230.2	7245.9	4800.2	ug/L	4800.2 ppb	14:13:07
3	Ca 317.933Radial†	3685.0	3664.3	5032.8	ug/L	5032.8 ppb	14:13:07
3	Fe 238.204 Radial†	657.8	644.8	4961.6	ug/L	4961.6 ppb	14:13:27
3	K 766.490 Radial†	33819.0	30670.0	4941.3	ug/L	4941.3 ppb	14:13:07
3	Mg 279.077 IEC†	176.0	170.7	4987.4	ug/L	4987.4 ppb	14:13:27
3	Na 589.592 Radial†	35633.6	37355.9	9819.4	ug/L	9819.4 ppb	14:13:07
3	Sr 421.552†	88105.1	88112.6	476.74	ug/L	476.74 ppb	14:13:07
3	Sc 361.383	959508.2	959508.2	102.91	%		14:14:30
3	Y 371.029	763380.0	763380.0	99.276	%		14:14:30
3	Ag 328.068†	118563.6	114799.9	482.10	ug/L	482.10 ppb	14:14:30
3	As 188.979†	1383.1	1375.4	480.35	ug/L	480.35 ppb	14:14:50
3	B 249.677†	24348.5	24186.0	475.57	ug/L	475.57 ppb	14:14:30
3	Ba 233.527†	76489.9	74313.7	483.54	ug/L	483.54 ppb	14:14:30
3	Be 313.107†	1511474.3	1473248.0	482.06	ug/L	482.06 ppb	14:14:30
3	Cd 226.502†	52727.6	51449.3	483.17	ug/L	483.17 ppb	14:14:30
3	Co 228.616†	28858.1	28125.2	472.41	ug/L	472.41 ppb	14:14:50
3	Cr 267.716†	51025.6	49496.8	479.49	ug/L	479.49 ppb	14:14:30
3	Cu 324.752†	188018.9	176598.4	481.85	ug/L	481.85 ppb	14:14:30
3	Mn 257.610†	523929.9	508543.2	485.60	ug/L	485.60 ppb	14:14:30
3	Mo 202.031†	8559.7	8292.5	478.53	ug/L	478.53 ppb	14:14:50
3	Ni 231.604†	23371.1	22580.0	471.37	ug/L	471.37 ppb	14:14:50
3	P 214.914†	5152.4	4761.6	2315.4	ug/L	2315.4 ppb	14:14:50
3	Pb 220.353†	4853.3	4792.1	482.64	ug/L	482.64 ppb	14:14:50
3	S 181.975 Axial†	885.5	812.0	952.72	ug/L	952.72 ppb	14:14:50
3	Sb 206.836†	1734.7	1641.2	481.06	ug/L	481.06 ppb	14:14:50
3	Se 196.026†	889.5	900.3	497.77	ug/L	497.77 ppb	14:14:50
3	Si 251.611†	93227.5	89947.5	2416.8	ug/L	2416.8 ppb	14:14:30
3	Sn 189.927†	3420.5	3317.5	475.43	ug/L	475.43 ppb	14:14:50
3	Ti 334.940†	351972.7	343466.8	488.50	ug/L	488.50 ppb	14:14:30
3	Tl 190.801†	1924.7	1911.3	480.79	ug/L	480.79 ppb	14:14:50
3	U 409.014†	14805.2	17355.0	465.12	ug/L	465.12 ppb	14:14:30
3	V 292.402†	78715.5	78019.9	482.85	ug/L	482.85 ppb	14:14:30
3	Zn 213.857†	63745.1	61061.8	476.99	ug/L	476.99 ppb	14:14:30
3	SiO2†	92134.1	88847.6	5148.9	ug/L	5148.9 ppb	14:15:06

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	961313.7	103.11	%	0.387				0.38%
Sc Radial	5958.0	100	%	0.1				0.11%
Y 371.029	765591.3	99.564	%	0.4138				0.42%
Y RADIAL	6088.0	98.52	%	0.311				0.32%
Ag 328.068†	114483.5	480.78	ug/L	1.286	480.78	ppb	1.286	0.27%
QC value within limits for Ag 328.068 Recovery = 96.16%								
Al 396.153Radial†	7221.4	4783.8	ug/L	16.32	4783.8	ppb	16.32	0.34%
QC value within limits for Al 396.153Radial Recovery = 95.68%								
As 188.979†	1370.1	478.48	ug/L	3.431	478.48	ppb	3.431	0.72%
QC value within limits for As 188.979 Recovery = 95.70%								
B 249.677†	24027.4	472.43	ug/L	2.831	472.43	ppb	2.831	0.60%
QC value within limits for B 249.677 Recovery = 94.49%								
Ba 233.527†	73989.8	481.44	ug/L	1.920	481.44	ppb	1.920	0.40%
QC value within limits for Ba 233.527 Recovery = 96.29%								
Be 313.107†	1471265.3	481.41	ug/L	0.563	481.41	ppb	0.563	0.12%
QC value within limits for Be 313.107 Recovery = 96.28%								
Ca 317.933Radial†	3684.6	5060.7	ug/L	31.51	5060.7	ppb	31.51	0.62%

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   QC value within limits for Ca 317.933Radial  Recovery = 101.21%
Cd 226.502†            51237.4      481.18 ug/L         1.847      481.18 ppb          1.847   0.38%
   QC value within limits for Cd 226.502  Recovery = 96.24%
Co 228.616†            28158.8      472.98 ug/L         2.767      472.98 ppb          2.767   0.58%
   QC value within limits for Co 228.616  Recovery = 94.60%
Cr 267.716†            49365.8      478.23 ug/L         1.179      478.23 ppb          1.179   0.25%
   QC value within limits for Cr 267.716  Recovery = 95.65%
Cu 324.752†           176085.1      480.45 ug/L         1.447      480.45 ppb          1.447   0.30%
   QC value within limits for Cu 324.752  Recovery = 96.09%
Fe 238.204 Radial†       645.2      4964.4 ug/L          3.96      4964.4 ppb           3.96   0.08%
   QC value within limits for Fe 238.204 Radial  Recovery = 99.29%
K 766.490 Radial†      30697.9      4945.8 ug/L         26.34      4945.8 ppb          26.34   0.53%
   QC value within limits for K 766.490 Radial  Recovery = 98.92%
Mg 279.077 IEC†          171.0      4998.8 ug/L         92.14      4998.8 ppb          92.14   1.84%
   QC value within limits for Mg 279.077 IEC  Recovery = 99.98%
Mn 257.610†           506824.2      483.96 ug/L         1.432      483.96 ppb          1.432   0.30%
   QC value within limits for Mn 257.610  Recovery = 96.79%
Mo 202.031†             8307.4      479.39 ug/L         2.486      479.39 ppb          2.486   0.52%
   QC value within limits for Mo 202.031  Recovery = 95.88%
Na 589.592 Radial†     37450.2      9844.2 ug/L         87.55      9844.2 ppb          87.55   0.89%
   QC value within limits for Na 589.592 Radial  Recovery = 98.44%
Ni 231.604†            22614.7      472.09 ug/L         2.769      472.09 ppb          2.769   0.59%
   QC value within limits for Ni 231.604  Recovery = 94.42%
P 214.914†              4762.2      2315.9 ug/L         12.82      2315.9 ppb          12.82   0.55%
   QC value within limits for P 214.914  Recovery = 92.64%
Pb 220.353†             4803.2      483.75 ug/L         3.479      483.75 ppb          3.479   0.72%
   QC value within limits for Pb 220.353  Recovery = 96.75%
S 181.975 Axial†         809.9      950.32 ug/L         4.577      950.32 ppb          4.577   0.48%
   QC value within limits for S 181.975 Axial  Recovery = 95.03%
Sb 206.836†             1645.0      482.21 ug/L         4.508      482.21 ppb          4.508   0.93%
   QC value within limits for Sb 206.836  Recovery = 96.44%
Se 196.026†              903.1      499.27 ug/L         3.439      499.27 ppb          3.439   0.69%
   QC value within limits for Se 196.026  Recovery = 99.85%
Si 251.611†            89685.9      2409.7 ug/L          6.23      2409.7 ppb           6.23   0.26%
   QC value within limits for Si 251.611  Recovery = 96.39%
Sn 189.927†             3317.5      475.43 ug/L         2.588      475.43 ppb          2.588   0.54%
   QC value within limits for Sn 189.927  Recovery = 95.09%
Sr 421.552†            88175.6      477.08 ug/L         2.402      477.08 ppb          2.402   0.50%
   QC value within limits for Sr 421.552  Recovery = 95.42%
Ti 334.940†           342507.1      487.14 ug/L         1.198      487.14 ppb          1.198   0.25%
   QC value within limits for Ti 334.940  Recovery = 97.43%
Tl 190.801†             1914.8      481.65 ug/L         3.705      481.65 ppb          3.705   0.77%
   QC value within limits for Tl 190.801  Recovery = 96.33%
U 409.014†             17304.8      463.77 ug/L         1.333      463.77 ppb          1.333   0.29%
   QC value within limits for U 409.014  Recovery = 92.75%
V 292.402†             77862.5      481.90 ug/L         1.020      481.90 ppb          1.020   0.21%
   QC value within limits for V 292.402  Recovery = 96.38%
Zn 213.857†            60899.3      475.70 ug/L         1.112      475.70 ppb          1.112   0.23%
   QC value within limits for Zn 213.857  Recovery = 95.14%
SiO2†                  89114.0      5164.4 ug/L         21.17      5164.4 ppb          21.17   0.41%
   QC value within limits for SiO2  Recovery = 96.58%
All analyte(s) passed QC.
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Sequence No.: 30
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 12/17/2009 14:17:15
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5976.3	5976.3	100	%			14:19:08
1	Y RADIAL	6166.2	6166.2	99.79	%			14:19:08
1	Al 396.153Radial†	2.4	18.6	12.351	ug/L	12.351	ppb	14:19:08
1	Ca 317.933Radial†	25.9	5.3	7.3304	ug/L	7.3304	ppb	14:19:28
1	Fe 238.204 Radial†	12.8	-0.1	-1.0795	ug/L	-1.0795	ppb	14:19:28
1	K 766.490 Radial†	3147.3	-12.4	-2.0061	ug/L	-2.0061	ppb	14:19:08
1	Mg 279.077 IEC†	-0.8	-6.2	-179.82	ug/L	-179.82	ppb	14:19:28
1	Na 589.592 Radial†	-1607.6	124.2	32.639	ug/L	32.639	ppb	14:19:08
1	Sr 421.552†	5.4	19.6	0.1060	ug/L	0.1060	ppb	14:19:08
1	Sc 361.383	934837.4	934837.4	100.27	%			14:20:25
1	Y 371.029	768564.0	768564.0	99.950	%			14:20:25
1	Ag 328.068†	423.7	14.1	0.0551	ug/L	0.0551	ppb	14:20:25
1	As 188.979†	-33.7	-2.2	-0.7529	ug/L	-0.7529	ppb	14:20:45
1	B 249.677†	-379.1	148.5	2.9303	ug/L	2.9303	ppb	14:20:45
1	Ba 233.527†	17.2	5.7	0.0370	ug/L	0.0370	ppb	14:20:45
1	Be 313.107†	-4541.2	19.3	0.0065	ug/L	0.0065	ppb	14:20:25
1	Cd 226.502†	-220.7	-6.2	-0.0584	ug/L	-0.0584	ppb	14:20:45
1	Co 228.616†	-72.7	11.3	0.1907	ug/L	0.1907	ppb	14:20:45
1	Cr 267.716†	97.7	12.8	0.1222	ug/L	0.1222	ppb	14:20:45
1	Cu 324.752†	6066.2	-49.5	-0.1350	ug/L	-0.1350	ppb	14:20:25
1	Mn 257.610†	624.2	63.1	0.0634	ug/L	0.0634	ppb	14:20:25
1	Mo 202.031†	33.4	8.3	0.4797	ug/L	0.4797	ppb	14:20:45
1	Ni 231.604†	135.7	5.6	0.1174	ug/L	0.1174	ppb	14:20:45
1	P 214.914†	255.8	10.1	5.0742	ug/L	5.0742	ppb	14:20:45
1	Pb 220.353†	-82.3	-5.8	-0.5802	ug/L	-0.5802	ppb	14:20:45
1	S 181.975 Axial†	58.3	9.7	11.393	ug/L	11.393	ppb	14:20:45
1	Sb 206.836†	45.9	1.4	0.4157	ug/L	0.4157	ppb	14:20:45
1	Se 196.026†	-33.0	3.0	1.6009	ug/L	1.6009	ppb	14:20:45
1	Si 251.611†	658.1	14.7	0.3871	ug/L	0.3871	ppb	14:20:45
1	Sn 189.927†	8.7	2.5	0.3586	ug/L	0.3586	ppb	14:20:45
1	Ti 334.940†	-1381.7	76.9	0.1077	ug/L	0.1077	ppb	14:20:25
1	Tl 190.801†	-41.8	-0.5	-0.1355	ug/L	-0.1355	ppb	14:20:45
1	U 409.014†	-2809.4	166.9	4.4870	ug/L	4.4870	ppb	14:20:25
1	V 292.402†	-1511.2	24.9	0.1637	ug/L	0.1637	ppb	14:20:25
1	Zn 213.857†	887.4	5.7	0.0506	ug/L	0.0506	ppb	14:20:45
1	SiO2†	661.9	-19.0	-1.1235	ug/L	-1.1235	ppb	14:21:41
2	Sc Radial	6004.6	6004.6	101	%			14:19:33
2	Y RADIAL	6151.5	6151.5	99.55	%			14:19:33
2	Al 396.153Radial†	-19.6	-3.2	-2.1583	ug/L	-2.1583	ppb	14:19:33
2	Ca 317.933Radial†	34.3	13.5	18.538	ug/L	18.538	ppb	14:19:53
2	Fe 238.204 Radial†	11.0	-2.0	-15.539	ug/L	-15.539	ppb	14:19:53
2	K 766.490 Radial†	3124.3	-49.9	-8.0691	ug/L	-8.0691	ppb	14:19:33
2	Mg 279.077 IEC†	2.5	-2.8	-83.135	ug/L	-83.135	ppb	14:19:53
2	Na 589.592 Radial†	-1605.1	134.2	35.282	ug/L	35.282	ppb	14:19:33
2	Sr 421.552†	-34.0	-19.4	-0.1052	ug/L	-0.1052	ppb	14:19:33
2	Sc 361.383	926212.4	926212.4	99.341	%			14:20:50
2	Y 371.029	760802.3	760802.3	98.941	%			14:20:50
2	Ag 328.068†	385.3	-20.6	-0.0930	ug/L	-0.0930	ppb	14:20:50
2	As 188.979†	-32.7	-1.5	-0.5217	ug/L	-0.5217	ppb	14:21:10
2	B 249.677†	-404.5	119.4	2.3588	ug/L	2.3588	ppb	14:21:10
2	Ba 233.527†	25.6	14.3	0.0916	ug/L	0.0916	ppb	14:21:10
2	Be 313.107†	-4435.4	83.7	0.0273	ug/L	0.0273	ppb	14:20:50
2	Cd 226.502†	-227.0	-14.6	-0.1361	ug/L	-0.1361	ppb	14:21:10
2	Co 228.616†	-92.4	-9.2	-0.1516	ug/L	-0.1516	ppb	14:21:10
2	Cr 267.716†	110.8	26.8	0.2584	ug/L	0.2584	ppb	14:21:10
2	Cu 324.752†	6120.5	61.5	0.1670	ug/L	0.1670	ppb	14:20:50
2	Mn 257.610†	592.8	37.2	0.0355	ug/L	0.0355	ppb	14:20:50
2	Mo 202.031†	45.8	21.1	1.2175	ug/L	1.2175	ppb	14:21:10
2	Ni 231.604†	126.5	-2.4	-0.0493	ug/L	-0.0493	ppb	14:21:10

2	P 214.914†	244.8	1.4	0.6977 ug/L	0.6977 ppb	14:21:10
2	Pb 220.353†	-74.6	1.1	0.1151 ug/L	0.1151 ppb	14:21:10
2	S 181.975 Axial†	56.2	8.1	9.5692 ug/L	9.5692 ppb	14:21:10
2	Sb 206.836†	35.2	-8.9	-2.5453 ug/L	-2.5453 ppb	14:21:10
2	Se 196.026†	-35.8	-0.1	-0.1253 ug/L	-0.1253 ppb	14:21:10
2	Si 251.611†	662.0	24.7	0.6460 ug/L	0.6460 ppb	14:21:10
2	Sn 189.927†	12.9	6.8	0.9708 ug/L	0.9708 ppb	14:21:10
2	Ti 334.940†	-1454.7	-9.4	-0.0131 ug/L	-0.0131 ppb	14:20:50
2	Tl 190.801†	-49.6	-8.8	-2.1951 ug/L	-2.1951 ppb	14:21:10
2	U 409.014†	-2896.7	52.9	1.4250 ug/L	1.4250 ppb	14:20:50
2	V 292.402†	-1542.2	-20.3	-0.1037 ug/L	-0.1037 ppb	14:20:50
2	Zn 213.857†	884.0	10.5	0.0874 ug/L	0.0874 ppb	14:21:10
2	SiO2†	688.5	13.9	0.7640 ug/L	0.7640 ppb	14:21:46
3	Sc Radial	6235.3	6235.3	105 %		14:19:58
3	Y RADIAL	6398.7	6398.7	103.5 %		14:19:58
3	Al 396.153Radial†	-41.9	-23.7	-15.761 ug/L	-15.761 ppb	14:19:58
3	Ca 317.933Radial†	31.8	9.9	13.624 ug/L	13.624 ppb	14:20:18
3	Fe 238.204 Radial†	13.7	0.2	1.6198 ug/L	1.6198 ppb	14:20:18
3	K 766.490 Radial†	3171.7	-119.3	-19.275 ug/L	-19.275 ppb	14:19:58
3	Mg 279.077 IEC†	1.5	-3.9	-113.42 ug/L	-113.42 ppb	14:20:18
3	Na 589.592 Radial†	-1572.1	224.5	59.021 ug/L	59.021 ppb	14:19:58
3	Sr 421.552†	-21.9	-6.7	-0.0363 ug/L	-0.0363 ppb	14:19:58
3	Sc 361.383	933142.9	933142.9	100.08 %		14:21:15
3	Y 371.029	765967.2	765967.2	99.612 %		14:21:15
3	Ag 328.068†	521.2	112.3	0.4672 ug/L	0.4672 ppb	14:21:15
3	As 188.979†	-23.2	8.3	2.8557 ug/L	2.8557 ppb	14:21:35
3	B 249.677†	-411.6	115.3	2.2764 ug/L	2.2764 ppb	14:21:35
3	Ba 233.527†	17.6	6.1	0.0398 ug/L	0.0398 ppb	14:21:35
3	Be 313.107†	-4528.0	24.2	0.0079 ug/L	0.0079 ppb	14:21:15
3	Cd 226.502†	-202.8	11.2	0.1050 ug/L	0.1050 ppb	14:21:35
3	Co 228.616†	-77.5	6.3	0.1053 ug/L	0.1053 ppb	14:21:35
3	Cr 267.716†	96.4	11.6	0.1116 ug/L	0.1116 ppb	14:21:35
3	Cu 324.752†	6083.6	-21.1	-0.0574 ug/L	-0.0574 ppb	14:21:15
3	Mn 257.610†	581.4	21.5	0.0228 ug/L	0.0228 ppb	14:21:15
3	Mo 202.031†	22.7	-2.3	-0.1341 ug/L	-0.1341 ppb	14:21:35
3	Ni 231.604†	107.0	-22.9	-0.4776 ug/L	-0.4776 ppb	14:21:35
3	P 214.914†	243.1	-2.1	-1.0549 ug/L	-1.0549 ppb	14:21:35
3	Pb 220.353†	-84.6	-8.3	-0.8335 ug/L	-0.8335 ppb	14:21:35
3	S 181.975 Axial†	51.6	3.2	3.7369 ug/L	3.7369 ppb	14:21:35
3	Sb 206.836†	34.8	-9.7	-2.7888 ug/L	-2.7888 ppb	14:21:35
3	Se 196.026†	-22.7	13.2	7.0188 ug/L	7.0188 ppb	14:21:35
3	Si 251.611†	637.9	-4.4	-0.1113 ug/L	-0.1113 ppb	14:21:35
3	Sn 189.927†	9.9	3.7	0.5250 ug/L	0.5250 ppb	14:21:35
3	Ti 334.940†	-1451.5	4.7	0.0059 ug/L	0.0059 ppb	14:21:15
3	Tl 190.801†	-45.6	-4.5	-1.1188 ug/L	-1.1188 ppb	14:21:35
3	U 409.014†	-2854.4	116.9	3.1422 ug/L	3.1422 ppb	14:21:15
3	V 292.402†	-1503.8	29.6	0.1820 ug/L	0.1820 ppb	14:21:15
3	Zn 213.857†	879.2	-0.9	-0.0003 ug/L	-0.0003 ppb	14:21:35
3	SiO2†	695.8	16.1	0.9537 ug/L	0.9537 ppb	14:21:51

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	931397.6	99.897	%	0.4901				0.49%
Sc Radial	6072.1	102	%	2.4				2.34%
Y 371.029	765111.2	99.501	%	0.5138				0.52%
Y RADIAL	6238.8	101.0	%	2.24				2.22%
Ag 328.068†	35.3	0.1431	ug/L	0.29028	0.1431	ppb	0.29028	202.86%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-2.8	-1.8559	ug/L	14.05835	-1.8559	ppb	14.05835	757.51%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	1.5	0.5271	ug/L	2.01998	0.5271	ppb	2.01998	383.25%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	127.7	2.5219	ug/L	0.35614	2.5219	ppb	0.35614	14.12%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	8.7	0.0562	ug/L	0.03077	0.0562	ppb	0.03077	54.80%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	42.4	0.0139	ug/L	0.01161	0.0139	ppb	0.01161	83.49%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	9.6	13.164	ug/L	5.6178	13.164	ppb	5.6178	42.68%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                -3.2     -0.0298 ug/L       0.12306     -0.0298 ppb        0.12306 412.59%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                 2.8      0.0482 ug/L       0.17815      0.0482 ppb        0.17815 369.98%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                17.1      0.1640 ug/L       0.08186      0.1640 ppb        0.08186  49.91%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†                -3.0     -0.0084 ug/L       0.15684     -0.0084 ppb        0.15684 >999.9%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -0.7     -4.9995 ug/L       9.22658     -4.9995 ppb        9.22658 184.55%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         -60.5     -9.7833 ug/L       8.76105     -9.7833 ppb        8.76105  89.55%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -4.3     -125.46 ug/L        49.452     -125.46 ppb         49.452  39.42%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                40.6      0.0406 ug/L       0.02079      0.0406 ppb        0.02079  51.24%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 9.0      0.5210 ug/L       0.67676      0.5210 ppb        0.67676 129.89%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        161.0     42.314 ug/L       14.5291     42.314 ppb        14.5291  34.34%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                -6.5     -0.1365 ug/L       0.30693     -0.1365 ppb        0.30693 224.88%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                  3.1      1.5723 ug/L       3.15676      1.5723 ppb        3.15676 200.77%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -4.3     -0.4329 ug/L       0.49119     -0.4329 ppb        0.49119 113.48%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            7.0      8.2330 ug/L       3.99906      8.2330 ppb        3.99906  48.57%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                -5.7     -1.6395 ug/L       1.78399     -1.6395 ppb        1.78399 108.82%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 5.4      2.8315 ug/L       3.72760      2.8315 ppb        3.72760 131.65%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                11.7      0.3073 ug/L       0.38491      0.3073 ppb        0.38491 125.26%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 4.3      0.6181 ug/L       0.31650      0.6181 ppb        0.31650  51.20%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                -2.2     -0.0118 ug/L       0.10772     -0.0118 ppb        0.10772 911.48%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                24.1      0.0335 ug/L       0.06499      0.0335 ppb        0.06499 193.90%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                -4.6     -1.1498 ug/L       1.03015     -1.1498 ppb        1.03015  89.59%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                112.2      3.0181 ug/L       1.53480      3.0181 ppb        1.53480  50.85%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 11.4      0.0807 ug/L       0.15991      0.0807 ppb        0.15991 198.20%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                 5.1      0.0459 ug/L       0.04403      0.0459 ppb        0.04403  95.94%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                       3.7      0.1981 ug/L       1.14842      0.1981 ppb        1.14842 579.76%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
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Analysis Begun

Start Time: 12/17/2009 14:35:42 **Plasma On Time: 12/14/2009 06:02:42**
Logged In Analyst: Optima3 **Technique: ICP Continuous**
Spectrometer Model: Optima 5300 DV, S/N 077C7090601Autosampler Model: S10

Sample Information File: C:\pe\Optima3\Sample Information\121709.sif
Batch ID:
Results Data Set: 121709
Results Library: C:\pe\Optima3\Results\Results.mdb

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Sequence No.: 1 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 12/17/2009 14:35:43**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5863.2	5863.2	98.5	%			14:37:35
1	Y RADIAL	5980.0	5980.0	96.77	%			14:37:35
1	Al 396.153Radial†	7063.0	7185.3	4759.7	ug/L	4759.7	ppb	14:37:35
1	Ca 317.933Radial†	3652.4	3686.8	5063.7	ug/L	5063.7	ppb	14:37:55
1	Fe 238.204 Radial†	672.7	669.9	5153.8	ug/L	5153.8	ppb	14:37:55
1	K 766.490 Radial†	33275.0	30627.9	4934.4	ug/L	4934.4	ppb	14:37:35
1	Mg 279.077 IEC†	175.0	172.3	5034.2	ug/L	5034.2	ppb	14:37:55
1	Na 589.592 Radial†	36245.1	38514.0	10124	ug/L	10124	ppb	14:37:35
1	Sr 421.552†	87898.9	89232.2	482.80	ug/L	482.80	ppb	14:37:35
1	Sc 361.383	962882.1	962882.1	103.27	%			14:38:54
1	Y 371.029	765519.1	765519.1	99.554	%			14:38:54
1	Ag 328.068†	118869.0	114691.8	481.71	ug/L	481.71	ppb	14:38:54
1	As 188.979†	1394.2	1381.5	482.47	ug/L	482.47	ppb	14:39:14
1	B 249.677†	24431.4	24183.4	475.47	ug/L	475.47	ppb	14:38:54
1	Ba 233.527†	76662.6	74220.6	482.95	ug/L	482.95	ppb	14:38:54
1	Be 313.107†	1518226.1	1474639.5	482.51	ug/L	482.51	ppb	14:38:54
1	Cd 226.502†	52697.9	51241.0	481.20	ug/L	481.20	ppb	14:38:54
1	Co 228.616†	29311.3	28465.8	478.14	ug/L	478.14	ppb	14:39:14
1	Cr 267.716†	51141.0	49434.9	478.90	ug/L	478.90	ppb	14:38:54
1	Cu 324.752†	188780.3	176695.5	482.13	ug/L	482.13	ppb	14:38:54
1	Mn 257.610†	525523.0	508302.0	485.39	ug/L	485.39	ppb	14:38:54
1	Mo 202.031†	8665.2	8365.5	482.75	ug/L	482.75	ppb	14:39:14
1	Ni 231.604†	23735.4	22853.1	477.07	ug/L	477.07	ppb	14:39:14
1	P 214.914†	5223.0	4812.4	2340.7	ug/L	2340.7	ppb	14:39:14
1	Pb 220.353†	4911.0	4831.6	486.59	ug/L	486.59	ppb	14:39:14
1	S 181.975 Axial†	896.5	819.7	961.76	ug/L	961.76	ppb	14:39:14
1	Sb 206.836†	1747.0	1647.2	483.04	ug/L	483.04	ppb	14:39:14
1	Se 196.026†	912.1	919.1	508.43	ug/L	508.43	ppb	14:39:14
1	Si 251.611†	93386.4	89783.9	2412.3	ug/L	2412.3	ppb	14:38:54
1	Sn 189.927†	3478.7	3362.2	481.83	ug/L	481.83	ppb	14:39:14
1	Ti 334.940†	353057.6	343318.9	488.29	ug/L	488.29	ppb	14:38:54
1	Tl 190.801†	1954.5	1933.7	486.35	ug/L	486.35	ppb	14:39:14
1	U 409.014†	15099.0	17589.1	471.39	ug/L	471.39	ppb	14:38:54
1	V 292.402†	78976.3	78004.5	482.80	ug/L	482.80	ppb	14:38:54
1	Zn 213.857†	63982.8	61075.0	477.03	ug/L	477.03	ppb	14:38:54
1	SiO2†	94099.8	90437.2	5241.3	ug/L	5241.3	ppb	14:40:15
2	Sc Radial	5913.8	5913.8	99.4	%			14:38:00
2	Y RADIAL	6025.0	6025.0	97.50	%			14:38:00
2	Al 396.153Radial†	7195.4	7257.1	4807.4	ug/L	4807.4	ppb	14:38:00
2	Ca 317.933Radial†	3638.3	3640.8	5000.6	ug/L	5000.6	ppb	14:38:20
2	Fe 238.204 Radial†	666.9	658.2	5064.3	ug/L	5064.3	ppb	14:38:20
2	K 766.490 Radial†	33589.3	30654.9	4938.7	ug/L	4938.7	ppb	14:38:00
2	Mg 279.077 IEC†	178.4	174.2	5090.0	ug/L	5090.0	ppb	14:38:20
2	Na 589.592 Radial†	36666.8	38623.2	10153	ug/L	10153	ppb	14:38:00
2	Sr 421.552†	88988.8	89564.7	484.60	ug/L	484.60	ppb	14:38:00
2	Sc 361.383	961168.9	961168.9	103.09	%			14:39:22
2	Y 371.029	764143.0	764143.0	99.375	%			14:39:22

2	Ag 328.068†	118579.4	114616.1	481.37 ug/L	481.37 ppb	14:39:22
2	As 188.979†	1399.8	1389.3	485.15 ug/L	485.15 ppb	14:39:42
2	B 249.677†	24443.5	24237.3	476.55 ug/L	476.55 ppb	14:39:22
2	Ba 233.527†	76469.4	74165.4	482.58 ug/L	482.58 ppb	14:39:22
2	Be 313.107†	1517516.6	1476571.5	483.14 ug/L	483.14 ppb	14:39:22
2	Cd 226.502†	52858.3	51487.5	483.52 ug/L	483.52 ppb	14:39:22
2	Co 228.616†	29244.9	28452.0	477.91 ug/L	477.91 ppb	14:39:42
2	Cr 267.716†	51082.3	49466.2	479.20 ug/L	479.20 ppb	14:39:22
2	Cu 324.752†	188371.6	176624.9	481.93 ug/L	481.93 ppb	14:39:22
2	Mn 257.610†	525118.3	508816.4	485.87 ug/L	485.87 ppb	14:39:22
2	Mo 202.031†	8669.8	8384.9	483.86 ug/L	483.86 ppb	14:39:42
2	Ni 231.604†	23689.5	22849.5	476.99 ug/L	476.99 ppb	14:39:42
2	P 214.914†	5218.9	4817.4	2343.4 ug/L	2343.4 ppb	14:39:42
2	Pb 220.353†	4921.1	4849.8	488.44 ug/L	488.44 ppb	14:39:42
2	S 181.975 Axial†	903.5	828.0	971.52 ug/L	971.52 ppb	14:39:42
2	Sb 206.836†	1774.1	1676.5	491.54 ug/L	491.54 ppb	14:39:42
2	Se 196.026†	904.4	913.2	505.01 ug/L	505.01 ppb	14:39:42
2	Si 251.611†	93466.6	90022.9	2418.7 ug/L	2418.7 ppb	14:39:22
2	Sn 189.927†	3487.7	3377.0	483.94 ug/L	483.94 ppb	14:39:42
2	Ti 334.940†	352387.2	343277.9	488.23 ug/L	488.23 ppb	14:39:22
2	Tl 190.801†	1954.8	1937.3	487.25 ug/L	487.25 ppb	14:39:42
2	U 409.014†	14682.1	17210.8	461.23 ug/L	461.23 ppb	14:39:22
2	V 292.402†	78789.0	77959.0	482.53 ug/L	482.53 ppb	14:39:22
2	Zn 213.857†	63913.2	61117.9	477.38 ug/L	477.38 ppb	14:39:22
2	SiO2†	94483.3	90971.7	5272.4 ug/L	5272.4 ppb	14:40:20
3	Sc Radial	5970.7	5970.7	100 %		14:38:25
3	Y RADIAL	6117.3	6117.3	99.00 %		14:38:25
3	Al 396.153Radial†	7232.5	7225.0	4786.2 ug/L	4786.2 ppb	14:38:25
3	Ca 317.933Radial†	3625.4	3593.1	4935.0 ug/L	4935.0 ppb	14:38:45
3	Fe 238.204 Radial†	673.6	658.5	5066.3 ug/L	5066.3 ppb	14:38:45
3	K 766.490 Radial†	33942.3	30684.5	4943.5 ug/L	4943.5 ppb	14:38:25
3	Mg 279.077 IEC†	180.4	174.5	5098.7 ug/L	5098.7 ppb	14:38:45
3	Na 589.592 Radial†	37056.5	38659.9	10162 ug/L	10162 ppb	14:38:25
3	Sr 421.552†	89919.6	89638.8	485.00 ug/L	485.00 ppb	14:38:25
3	Sc 361.383	964346.7	964346.7	103.43 %		14:39:49
3	Y 371.029	767970.0	767970.0	99.873 %		14:39:49
3	Ag 328.068†	119043.0	114685.3	481.65 ug/L	481.65 ppb	14:39:49
3	As 188.979†	1408.1	1392.9	486.41 ug/L	486.41 ppb	14:40:09
3	B 249.677†	24401.8	24118.8	474.22 ug/L	474.22 ppb	14:39:49
3	Ba 233.527†	76625.0	74071.4	481.97 ug/L	481.97 ppb	14:39:49
3	Be 313.107†	1523418.6	1477426.9	483.42 ug/L	483.42 ppb	14:39:49
3	Cd 226.502†	52890.1	51349.3	482.22 ug/L	482.22 ppb	14:39:49
3	Co 228.616†	29103.7	28222.0	474.04 ug/L	474.04 ppb	14:40:09
3	Cr 267.716†	51244.2	49459.4	479.13 ug/L	479.13 ppb	14:39:49
3	Cu 324.752†	189137.7	176763.4	482.31 ug/L	482.31 ppb	14:39:49
3	Mn 257.610†	525752.3	507750.8	484.85 ug/L	484.85 ppb	14:39:49
3	Mo 202.031†	8641.5	8329.8	480.69 ug/L	480.69 ppb	14:40:09
3	Ni 231.604†	23569.8	22658.1	473.00 ug/L	473.00 ppb	14:40:09
3	P 214.914†	5210.8	4792.9	2331.0 ug/L	2331.0 ppb	14:40:09
3	Pb 220.353†	4911.6	4824.9	485.92 ug/L	485.92 ppb	14:40:09
3	S 181.975 Axial†	890.5	812.5	953.35 ug/L	953.35 ppb	14:40:09
3	Sb 206.836†	1750.8	1648.3	483.25 ug/L	483.25 ppb	14:40:09
3	Se 196.026†	912.0	917.7	507.38 ug/L	507.38 ppb	14:40:09
3	Si 251.611†	93579.0	89832.7	2413.7 ug/L	2413.7 ppb	14:39:49
3	Sn 189.927†	3464.4	3343.2	479.10 ug/L	479.10 ppb	14:40:09
3	Ti 334.940†	353510.1	343237.2	488.17 ug/L	488.17 ppb	14:39:49
3	Tl 190.801†	1946.2	1922.7	483.63 ug/L	483.63 ppb	14:40:09
3	U 409.014†	14948.3	17421.2	466.89 ug/L	466.89 ppb	14:39:49
3	V 292.402†	79078.3	77986.9	482.67 ug/L	482.67 ppb	14:39:49
3	Zn 213.857†	64147.3	61139.8	477.58 ug/L	477.58 ppb	14:39:49
3	SiO2†	92910.7	89149.2	5166.4 ug/L	5166.4 ppb	14:40:25

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	962799.2	103.27	%	0.171				0.17%
Sc Radial	5915.9	99.4	%	0.90				0.91%
Y 371.029	765877.4	99.601	%	0.2521				0.25%
Y RADIAL	6040.8	97.76	%	1.132				1.16%
Ag 328.068†	114664.4	481.58	ug/L	0.182	481.58	ppb	0.182	0.04%

```
   QC value within limits for Ag 328.068  Recovery = 96.32%
Al 396.153Radial†       7222.4      4784.4 ug/L         23.92      4784.4 ppb          23.92   0.50%
   QC value within limits for Al 396.153Radial  Recovery = 95.69%
As 188.979†             1387.9      484.68 ug/L         2.011      484.68 ppb          2.011   0.41%
   QC value within limits for As 188.979  Recovery = 96.94%
B 249.677†             24179.8      475.41 ug/L         1.165      475.41 ppb          1.165   0.25%
   QC value within limits for B 249.677  Recovery = 95.08%
Ba 233.527†            74152.5      482.50 ug/L         0.491      482.50 ppb          0.491   0.10%
   QC value within limits for Ba 233.527  Recovery = 96.50%
Be 313.107†          1476212.6      483.03 ug/L         0.466      483.03 ppb          0.466   0.10%
   QC value within limits for Be 313.107  Recovery = 96.61%
Ca 317.933Radial†       3640.2      4999.8 ug/L         64.36      4999.8 ppb          64.36   1.29%
   QC value within limits for Ca 317.933Radial  Recovery = 100.00%
Cd 226.502†            51359.3      482.31 ug/L         1.165      482.31 ppb          1.165   0.24%
   QC value within limits for Cd 226.502  Recovery = 96.46%
Co 228.616†            28379.9      476.69 ug/L         2.303      476.69 ppb          2.303   0.48%
   QC value within limits for Co 228.616  Recovery = 95.34%
Cr 267.716†            49453.5      479.08 ug/L         0.160      479.08 ppb          0.160   0.03%
   QC value within limits for Cr 267.716  Recovery = 95.82%
Cu 324.752†           176694.6      482.12 ug/L         0.189      482.12 ppb          0.189   0.04%
   QC value within limits for Cu 324.752  Recovery = 96.42%
Fe 238.204 Radial†       662.2      5094.8 ug/L         51.09      5094.8 ppb          51.09   1.00%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.90%
K 766.490 Radial†      30655.8      4938.9 ug/L          4.56      4938.9 ppb           4.56   0.09%
   QC value within limits for K 766.490 Radial  Recovery = 98.78%
Mg 279.077 IEC†          173.6      5074.3 ug/L         34.97      5074.3 ppb          34.97   0.69%
   QC value within limits for Mg 279.077 IEC  Recovery = 101.49%
Mn 257.610†           508289.7      485.37 ug/L         0.509      485.37 ppb          0.509   0.10%
   QC value within limits for Mn 257.610  Recovery = 97.07%
Mo 202.031†             8360.1      482.44 ug/L         1.610      482.44 ppb          1.610   0.33%
   QC value within limits for Mo 202.031  Recovery = 96.49%
Na 589.592 Radial†     38599.1       10146 ug/L          19.9       10146 ppb           19.9   0.20%
   QC value within limits for Na 589.592 Radial  Recovery = 101.46%
Ni 231.604†            22786.9      475.69 ug/L         2.329      475.69 ppb          2.329   0.49%
   QC value within limits for Ni 231.604  Recovery = 95.14%
P 214.914†              4807.5      2338.4 ug/L         6.54      2338.4 ppb           6.54   0.28%
   QC value within limits for P 214.914  Recovery = 93.53%
Pb 220.353†             4835.4      486.98 ug/L         1.305      486.98 ppb          1.305   0.27%
   QC value within limits for Pb 220.353  Recovery = 97.40%
S 181.975 Axial†         820.1      962.21 ug/L         9.089      962.21 ppb          9.089   0.94%
   QC value within limits for S 181.975 Axial  Recovery = 96.22%
Sb 206.836†             1657.3      485.94 ug/L         4.848      485.94 ppb          4.848   1.00%
   QC value within limits for Sb 206.836  Recovery = 97.19%
Se 196.026†              916.7      506.94 ug/L         1.751      506.94 ppb          1.751   0.35%
   QC value within limits for Se 196.026  Recovery = 101.39%
Si 251.611†            89879.8      2414.9 ug/L         3.38      2414.9 ppb           3.38   0.14%
   QC value within limits for Si 251.611  Recovery = 96.60%
Sn 189.927†             3360.8      481.62 ug/L         2.426      481.62 ppb          2.426   0.50%
   QC value within limits for Sn 189.927  Recovery = 96.32%
Sr 421.552†            89478.6      484.13 ug/L         1.172      484.13 ppb          1.172   0.24%
   QC value within limits for Sr 421.552  Recovery = 96.83%
Ti 334.940†           343278.0      488.23 ug/L         0.061      488.23 ppb          0.061   0.01%
   QC value within limits for Ti 334.940  Recovery = 97.65%
Tl 190.801†             1931.2      485.74 ug/L         1.887      485.74 ppb          1.887   0.39%
   QC value within limits for Tl 190.801  Recovery = 97.15%
U 409.014†             17407.0      466.50 ug/L         5.093      466.50 ppb          5.093   1.09%
   QC value within limits for U 409.014  Recovery = 93.30%
V 292.402†             77983.5      482.66 ug/L         0.133      482.66 ppb          0.133   0.03%
   QC value within limits for V 292.402  Recovery = 96.53%
Zn 213.857†            61110.9      477.33 ug/L         0.275      477.33 ppb          0.275   0.06%
   QC value within limits for Zn 213.857  Recovery = 95.47%
SiO2†                  90186.0      5226.7 ug/L         54.48      5226.7 ppb          54.48   1.04%
   QC value within limits for SiO2  Recovery = 97.74%
All analyte(s) passed QC.
```

Sequence No.: 2
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 12/17/2009 14:42:35
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	5940.5	5940.5	99.8	%			14:44:27
1	Y RADIAL	6109.2	6109.2	98.86	%			14:44:27
1	Al 396.153Radial†	-48.6	-32.4	-21.577	ug/L	-21.577	ppb	14:44:27
1	Ca 317.933Radial†	27.7	7.3	10.021	ug/L	10.021	ppb	14:44:47
1	Fe 238.204 Radial†	11.9	-1.0	-7.3262	ug/L	-7.3262	ppb	14:44:47
1	K 766.490 Radial†	3169.9	29.2	4.6979	ug/L	4.6979	ppb	14:44:27
1	Mg 279.077 IEC†	3.6	-1.7	-50.832	ug/L	-50.832	ppb	14:44:47
1	Na 589.592 Radial†	-1616.7	105.4	27.709	ug/L	27.709	ppb	14:44:27
1	Sr 421.552†	32.1	46.4	0.2507	ug/L	0.2507	ppb	14:44:27
1	Sc 361.383	967348.8	967348.8	103.75	%			14:45:44
1	Y 371.029	781139.9	781139.9	101.59	%			14:45:44
1	Ag 328.068†	471.8	46.3	0.1888	ug/L	0.1888	ppb	14:45:49
1	As 188.979†	-24.7	7.7	2.6654	ug/L	2.6654	ppb	14:46:09
1	B 249.677†	-394.4	146.5	2.8916	ug/L	2.8916	ppb	14:46:09
1	Ba 233.527†	21.4	9.2	0.0593	ug/L	0.0593	ppb	14:46:09
1	Be 313.107†	-4424.5	284.0	0.0927	ug/L	0.0927	ppb	14:45:49
1	Cd 226.502†	-213.8	7.8	0.0735	ug/L	0.0735	ppb	14:46:09
1	Co 228.616†	-68.6	17.7	0.2964	ug/L	0.2964	ppb	14:46:09
1	Cr 267.716†	89.7	1.8	0.0163	ug/L	0.0163	ppb	14:46:09
1	Cu 324.752†	6036.9	-281.0	-0.7667	ug/L	-0.7667	ppb	14:45:49
1	Mn 257.610†	602.4	21.2	0.0204	ug/L	0.0204	ppb	14:46:09
1	Mo 202.031†	22.8	-3.0	-0.1755	ug/L	-0.1755	ppb	14:46:09
1	Ni 231.604†	110.0	-23.7	-0.4952	ug/L	-0.4952	ppb	14:46:09
1	P 214.914†	242.5	-11.3	-5.5572	ug/L	-5.5572	ppb	14:46:09
1	Pb 220.353†	-73.1	5.7	0.5713	ug/L	0.5713	ppb	14:46:09
1	S 181.975 Axial†	58.2	7.7	9.0452	ug/L	9.0452	ppb	14:46:09
1	Sb 206.836†	50.2	3.9	1.1423	ug/L	1.1423	ppb	14:46:09
1	Se 196.026†	-21.5	15.3	8.0696	ug/L	8.0696	ppb	14:46:09
1	Si 251.611†	649.6	-15.6	-0.4211	ug/L	-0.4211	ppb	14:46:09
1	Sn 189.927†	8.9	2.3	0.3349	ug/L	0.3349	ppb	14:46:09
1	Ti 334.940†	-1540.3	-29.6	-0.0428	ug/L	-0.0428	ppb	14:45:49
1	Tl 190.801†	-41.0	1.6	0.4089	ug/L	0.4089	ppb	14:46:09
1	U 409.014†	-2974.8	101.6	2.7336	ug/L	2.7336	ppb	14:45:44
1	V 292.402†	-1572.6	16.4	0.1031	ug/L	0.1031	ppb	14:45:49
1	Zn 213.857†	886.9	-24.5	-0.1867	ug/L	-0.1867	ppb	14:46:09
1	SiO2†	702.2	-2.3	-0.1329	ug/L	-0.1329	ppb	14:47:15
2	Sc Radial	5930.4	5930.4	99.7	%			14:44:52
2	Y RADIAL	6094.0	6094.0	98.62	%			14:44:52
2	Al 396.153Radial†	5.1	21.4	14.236	ug/L	14.236	ppb	14:44:52
2	Ca 317.933Radial†	24.7	4.4	5.9769	ug/L	5.9769	ppb	14:45:12
2	Fe 238.204 Radial†	10.5	-2.4	-18.151	ug/L	-18.151	ppb	14:45:12
2	K 766.490 Radial†	3178.8	43.5	7.0124	ug/L	7.0124	ppb	14:44:52
2	Mg 279.077 IEC†	4.3	-1.1	-30.757	ug/L	-30.757	ppb	14:45:12
2	Na 589.592 Radial†	-1601.4	118.0	31.006	ug/L	31.006	ppb	14:44:52
2	Sr 421.552†	-23.7	-9.6	-0.0519	ug/L	-0.0519	ppb	14:44:52
2	Sc 361.383	969763.6	969763.6	104.01	%			14:46:14
2	Y 371.029	782257.1	782257.1	101.73	%			14:46:14
2	Ag 328.068†	475.0	48.3	0.1967	ug/L	0.1967	ppb	14:46:19
2	As 188.979†	-33.2	-0.5	-0.1727	ug/L	-0.1727	ppb	14:46:39
2	B 249.677†	-379.4	161.8	3.1968	ug/L	3.1968	ppb	14:46:39
2	Ba 233.527†	-0.5	-12.0	-0.0772	ug/L	-0.0772	ppb	14:46:39
2	Be 313.107†	-4555.2	168.9	0.0551	ug/L	0.0551	ppb	14:46:19
2	Cd 226.502†	-234.0	-11.2	-0.1031	ug/L	-0.1031	ppb	14:46:39
2	Co 228.616†	-89.7	-2.4	-0.0402	ug/L	-0.0402	ppb	14:46:39
2	Cr 267.716†	104.5	15.7	0.1525	ug/L	0.1525	ppb	14:46:39
2	Cu 324.752†	6062.9	-270.5	-0.7387	ug/L	-0.7387	ppb	14:46:19
2	Mn 257.610†	558.2	-22.8	-0.0230	ug/L	-0.0230	ppb	14:46:39
2	Mo 202.031†	27.5	1.5	0.0845	ug/L	0.0845	ppb	14:46:39
2	Ni 231.604†	122.0	-12.5	-0.2602	ug/L	-0.2602	ppb	14:46:39

2	P 214.914†	257.6	2.6	1.4685 ug/L	1.4685 ppb	14:46:39
2	Pb 220.353†	-72.9	6.1	0.6220 ug/L	0.6220 ppb	14:46:39
2	S 181.975 Axial†	55.3	4.7	5.5418 ug/L	5.5418 ppb	14:46:39
2	Sb 206.836†	37.7	-8.1	-2.3472 ug/L	-2.3472 ppb	14:46:39
2	Se 196.026†	-31.1	6.1	3.1627 ug/L	3.1627 ppb	14:46:39
2	Si 251.611†	630.0	-36.0	-0.9771 ug/L	-0.9771 ppb	14:46:39
2	Sn 189.927†	7.4	0.9	0.1323 ug/L	0.1323 ppb	14:46:39
2	Ti 334.940†	-1522.5	-8.9	-0.0130 ug/L	-0.0130 ppb	14:46:19
2	Tl 190.801†	-46.5	-3.6	-0.9005 ug/L	-0.9005 ppb	14:46:39
2	U 409.014†	-3034.0	51.9	1.3969 ug/L	1.3969 ppb	14:46:14
2	V 292.402†	-1481.3	107.9	0.6652 ug/L	0.6652 ppb	14:46:19
2	Zn 213.857†	875.0	-38.1	-0.2949 ug/L	-0.2949 ppb	14:46:39
2	SiO2†	686.0	-19.6	-1.1501 ug/L	-1.1501 ppb	14:47:20
3	Sc Radial	6089.3	6089.3	102 %		14:45:17
3	Y RADIAL	6314.0	6314.0	102.2 %		14:45:17
3	Al 396.153Radial†	12.4	28.4	18.883 ug/L	18.883 ppb	14:45:17
3	Ca 317.933Radial†	26.7	5.6	7.6981 ug/L	7.6981 ppb	14:45:37
3	Fe 238.204 Radial†	11.5	-1.7	-12.730 ug/L	-12.730 ppb	14:45:37
3	K 766.490 Radial†	3197.8	-21.2	-3.4408 ug/L	-3.4408 ppb	14:45:17
3	Mg 279.077 IEC†	3.5	-1.9	-56.849 ug/L	-56.849 ppb	14:45:37
3	Na 589.592 Radial†	-1532.1	227.7	59.847 ug/L	59.847 ppb	14:45:17
3	Sr 421.552†	7.4	21.5	0.1164 ug/L	0.1164 ppb	14:45:17
3	Sc 361.383	973594.4	973594.4	104.42 %		14:46:44
3	Y 371.029	785179.6	785179.6	102.11 %		14:46:44
3	Ag 328.068†	509.3	79.3	0.3227 ug/L	0.3227 ppb	14:46:49
3	As 188.979†	-24.9	7.6	2.6327 ug/L	2.6327 ppb	14:47:09
3	B 249.677†	-412.4	131.7	2.6002 ug/L	2.6002 ppb	14:47:09
3	Ba 233.527†	7.7	-4.1	-0.0252 ug/L	-0.0252 ppb	14:47:09
3	Be 313.107†	-4569.6	172.3	0.0563 ug/L	0.0563 ppb	14:46:49
3	Cd 226.502†	-216.6	6.4	0.0614 ug/L	0.0614 ppb	14:47:09
3	Co 228.616†	-80.5	6.7	0.1124 ug/L	0.1124 ppb	14:47:09
3	Cr 267.716†	104.1	14.9	0.1429 ug/L	0.1429 ppb	14:47:09
3	Cu 324.752†	6187.8	-173.9	-0.4748 ug/L	-0.4748 ppb	14:46:49
3	Mn 257.610†	579.9	-4.1	-0.0042 ug/L	-0.0042 ppb	14:47:09
3	Mo 202.031†	27.0	0.9	0.0501 ug/L	0.0501 ppb	14:47:09
3	Ni 231.604†	122.2	-12.7	-0.2664 ug/L	-0.2664 ppb	14:47:09
3	P 214.914†	250.1	-5.5	-2.6738 ug/L	-2.6738 ppb	14:47:09
3	Pb 220.353†	-65.8	13.2	1.3291 ug/L	1.3291 ppb	14:47:09
3	S 181.975 Axial†	48.3	-2.1	-2.5144 ug/L	-2.5144 ppb	14:47:09
3	Sb 206.836†	39.1	-7.0	-2.0226 ug/L	-2.0226 ppb	14:47:09
3	Se 196.026†	-31.8	5.5	2.8728 ug/L	2.8728 ppb	14:47:09
3	Si 251.611†	660.6	-9.1	-0.2448 ug/L	-0.2448 ppb	14:47:09
3	Sn 189.927†	5.7	-0.7	-0.1037 ug/L	-0.1037 ppb	14:47:09
3	Ti 334.940†	-1497.9	20.5	0.0258 ug/L	0.0258 ppb	14:46:49
3	Tl 190.801†	-38.7	4.0	1.0041 ug/L	1.0041 ppb	14:47:09
3	U 409.014†	-2775.7	310.7	8.3557 ug/L	8.3557 ppb	14:46:44
3	V 292.402†	-1453.0	140.6	0.8765 ug/L	0.8765 ppb	14:46:49
3	Zn 213.857†	882.9	-33.8	-0.2609 ug/L	-0.2609 ppb	14:47:09
3	SiO2†	652.8	-54.0	-3.1432 ug/L	-3.1432 ppb	14:47:25

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	970235.6	104.06	%	0.338				0.32%
Sc Radial	5986.7	101	%	1.5				1.49%
Y 371.029	782858.9	101.81	%	0.271				0.27%
Y RADIAL	6172.4	99.89	%	1.989				1.99%
Ag 328.068†	58.0	0.2361	ug/L	0.07516	0.2361	ppb	0.07516	31.84%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	5.8	3.8469	ug/L	22.14032	3.8469	ppb	22.14032	575.54%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	4.9	1.7085	ug/L	1.62923	1.7085	ppb	1.62923	95.36%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	146.7	2.8962	ug/L	0.29834	2.8962	ppb	0.29834	10.30%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-2.3	-0.0144	ug/L	0.06892	-0.0144	ppb	0.06892	479.75%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	208.4	0.0680	ug/L	0.02133	0.0680	ppb	0.02133	31.34%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	5.8	7.8987	ug/L	2.02964	7.8987	ppb	2.02964	25.70%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                1.0      0.0106 ug/L       0.09866      0.0106 ppb        0.09866 930.59%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                7.3      0.1229 ug/L       0.16854      0.1229 ppb        0.16854 137.18%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†               10.8      0.1039 ug/L       0.07603      0.1039 ppb        0.07603  73.19%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -241.8     -0.6601 ug/L       0.16105     -0.6601 ppb        0.16105  24.40%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        -1.7     -12.736 ug/L        5.4126     -12.736 ppb         5.4126  42.50%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         17.2      2.7565 ug/L       5.49036      2.7565 ppb        5.49036 199.18%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           -1.6     -46.146 ug/L       13.6622     -46.146 ppb        13.6622  29.61%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               -1.9     -0.0022 ug/L       0.02176     -0.0022 ppb        0.02176 969.50%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               -0.2     -0.0136 ug/L       0.14126     -0.0136 ppb        0.14126 >999.9%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       150.3      39.521 ug/L       17.6803      39.521 ppb        17.6803  44.74%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              -16.3     -0.3406 ug/L       0.13393     -0.3406 ppb        0.13393  39.32%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -4.7     -2.2542 ug/L       3.53157     -2.2542 ppb        3.53157 156.67%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                8.4      0.8408 ug/L       0.42367      0.8408 ppb        0.42367  50.39%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           3.4      4.0242 ug/L       5.92736      4.0242 ppb        5.92736 147.29%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               -3.7     -1.0758 ug/L       1.92778     -1.0758 ppb        1.92778 179.19%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                8.9      4.7017 ug/L       2.92028      4.7017 ppb        2.92028  62.11%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†              -20.2     -0.5477 ug/L       0.38216     -0.5477 ppb        0.38216  69.78%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                0.8      0.1211 ug/L       0.21952      0.1211 ppb        0.21952 181.21%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               19.4      0.1051 ug/L       0.15163      0.1051 ppb        0.15163 144.33%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               -6.0     -0.0100 ug/L       0.03444     -0.0100 ppb        0.03444 344.64%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                0.7      0.1708 ug/L       0.97440      0.1708 ppb        0.97440 570.42%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               154.7      4.1621 ug/L       3.69279      4.1621 ppb        3.69279  88.72%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                88.3      0.5482 ug/L       0.39973      0.5482 ppb        0.39973  72.91%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              -32.1     -0.2475 ug/L       0.05534     -0.2475 ppb        0.05534  22.36%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                    -25.3     -1.4754 ug/L       1.53129     -1.4754 ppb        1.53129 103.79%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 10
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 12/17/2009 15:35:10
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5860.1	5860.1	98.5	%			15:37:02
1	Y RADIAL	5979.3	5979.3	96.76	%			15:37:02
1	Al 396.153Radial†	7147.7	7274.9	4820.1	ug/L	4820.1	ppb	15:37:02
1	Ca 317.933Radial†	3627.0	3662.9	5030.9	ug/L	5030.9	ppb	15:37:22
1	Fe 238.204 Radial†	677.9	675.5	5196.5	ug/L	5196.5	ppb	15:37:22
1	K 766.490 Radial†	33877.9	31257.8	5036.2	ug/L	5036.2	ppb	15:37:02
1	Mg 279.077 IEC†	176.2	173.6	5073.7	ug/L	5073.7	ppb	15:37:22
1	Na 589.592 Radial†	36156.7	38443.4	10105	ug/L	10105	ppb	15:37:02
1	Sr 421.552†	88123.9	89507.1	484.29	ug/L	484.29	ppb	15:37:02
1	Sc 361.383	989797.4	989797.4	106.16	%			15:38:21
1	Y 371.029	788395.8	788395.8	102.53	%			15:38:21
1	Ag 328.068†	118414.7	111134.0	466.84	ug/L	466.84	ppb	15:38:21
1	As 188.979†	1402.4	1352.4	472.30	ug/L	472.30	ppb	15:38:41
1	B 249.677†	24197.8	23320.1	458.47	ug/L	458.47	ppb	15:38:21
1	Ba 233.527†	76285.8	71847.0	467.51	ug/L	467.51	ppb	15:38:21
1	Be 313.107†	1515269.3	1431878.4	468.52	ug/L	468.52	ppb	15:38:21
1	Cd 226.502†	52858.0	50004.2	469.56	ug/L	469.56	ppb	15:38:21
1	Co 228.616†	28973.3	27375.6	459.82	ug/L	459.82	ppb	15:38:41
1	Cr 267.716†	50956.7	47914.7	464.18	ug/L	464.18	ppb	15:38:21
1	Cu 324.752†	187296.2	170326.8	464.76	ug/L	464.76	ppb	15:38:21
1	Mn 257.610†	522832.1	491929.8	469.77	ug/L	469.77	ppb	15:38:21
1	Mo 202.031†	8573.5	8051.0	464.62	ug/L	464.62	ppb	15:38:41
1	Ni 231.604†	23480.0	21987.6	459.00	ug/L	459.00	ppb	15:38:41
1	P 214.914†	5181.2	4635.5	2254.5	ug/L	2254.5	ppb	15:38:41
1	Pb 220.353†	4909.5	4700.8	473.43	ug/L	473.43	ppb	15:38:41
1	S 181.975 Axial†	886.3	786.5	922.75	ug/L	922.75	ppb	15:38:41
1	Sb 206.836†	1746.2	1600.4	469.21	ug/L	469.21	ppb	15:38:41
1	Se 196.026†	896.7	880.6	488.09	ug/L	488.09	ppb	15:38:41
1	Si 251.611†	93081.4	87037.7	2338.5	ug/L	2338.5	ppb	15:38:21
1	Sn 189.927†	3458.3	3251.4	465.97	ug/L	465.97	ppb	15:38:41
1	Ti 334.940†	350229.8	331359.0	471.29	ug/L	471.29	ppb	15:38:21
1	Tl 190.801†	1926.6	1855.9	466.83	ug/L	466.83	ppb	15:38:41
1	U 409.014†	14438.0	16568.9	443.98	ug/L	443.98	ppb	15:38:21
1	V 292.402†	78674.1	75640.4	468.07	ug/L	468.07	ppb	15:38:21
1	Zn 213.857†	63950.6	59359.9	463.65	ug/L	463.65	ppb	15:38:21
1	SiO2†	93326.5	87231.1	5055.3	ug/L	5055.3	ppb	15:39:41
2	Sc Radial	5946.1	5946.1	99.9	%			15:37:27
2	Y RADIAL	6091.5	6091.5	98.58	%			15:37:27
2	Al 396.153Radial†	7277.5	7299.9	4834.1	ug/L	4834.1	ppb	15:37:27
2	Ca 317.933Radial†	3571.9	3554.5	4882.0	ug/L	4882.0	ppb	15:37:47
2	Fe 238.204 Radial†	657.3	645.0	4964.2	ug/L	4964.2	ppb	15:37:47
2	K 766.490 Radial†	34175.2	31057.7	5003.5	ug/L	5003.5	ppb	15:37:27
2	Mg 279.077 IEC†	174.7	169.5	4953.3	ug/L	4953.3	ppb	15:37:47
2	Na 589.592 Radial†	36863.8	38620.0	10152	ug/L	10152	ppb	15:37:27
2	Sr 421.552†	89901.5	89991.9	486.91	ug/L	486.91	ppb	15:37:27
2	Sc 361.383	890096.0	890096.0	95.468	%			15:38:48
2	Y 371.029	708538.3	708538.3	92.144	%			15:38:48
2	Ag 328.068†	115859.6	120951.7	507.87	ug/L	507.87	ppb	15:38:48
2	As 188.979†	1404.9	1503.1	524.74	ug/L	524.74	ppb	15:39:08
2	B 249.677†	23607.0	25254.3	496.54	ug/L	496.54	ppb	15:38:48
2	Ba 233.527†	75346.5	78912.2	513.45	ug/L	513.45	ppb	15:38:48
2	Be 313.107†	1482299.9	1557221.9	509.54	ug/L	509.54	ppb	15:38:48
2	Cd 226.502†	51794.8	54467.6	511.55	ug/L	511.55	ppb	15:38:48
2	Co 228.616†	29334.4	30810.9	517.56	ug/L	517.56	ppb	15:39:08
2	Cr 267.716†	50414.3	52723.0	510.74	ug/L	510.74	ppb	15:38:48
2	Cu 324.752†	184793.8	187467.5	511.50	ug/L	511.50	ppb	15:38:48
2	Mn 257.610†	515779.2	539706.9	515.33	ug/L	515.33	ppb	15:38:48
2	Mo 202.031†	8708.3	9096.8	524.91	ug/L	524.91	ppb	15:39:08
2	Ni 231.604†	23784.3	24783.7	517.37	ug/L	517.37	ppb	15:39:08

2	P 214.914†	5240.6	5244.4	2553.5 ug/L	2553.5 ppb	15:39:08
2	Pb 220.353†	4968.1	5280.2	531.74 ug/L	531.74 ppb	15:39:08
2	S 181.975 Axial†	891.1	885.0	1038.5 ug/L	1038.5 ppb	15:39:08
2	Sb 206.836†	1771.3	1811.0	531.21 ug/L	531.21 ppb	15:39:08
2	Se 196.026†	914.1	993.5	547.41 ug/L	547.41 ppb	15:39:08
2	Si 251.611†	91410.6	95108.7	2555.2 ug/L	2555.2 ppb	15:38:48
2	Sn 189.927†	3491.2	3650.7	523.11 ug/L	523.11 ppb	15:39:08
2	Ti 334.940†	346539.2	364446.4	518.32 ug/L	518.32 ppb	15:38:48
2	Tl 190.801†	1956.8	2090.8	525.74 ug/L	525.74 ppb	15:39:08
2	U 409.014†	14640.8	18304.7	490.60 ug/L	490.60 ppb	15:38:48
2	V 292.402†	77628.8	82846.4	512.99 ug/L	512.99 ppb	15:38:48
2	Zn 213.857†	62459.0	64545.0	504.11 ug/L	504.11 ppb	15:38:48
2	SiO2†	94202.2	97995.4	5679.5 ug/L	5679.5 ppb	15:39:46
3	Sc Radial	5820.5	5820.5	97.8 %		15:37:52
3	Y RADIAL	5962.7	5962.7	96.49 %		15:37:52
3	Al 396.153Radial†	7083.7	7258.9	4808.9 ug/L	4808.9 ppb	15:37:52
3	Ca 317.933Radial†	3624.6	3685.5	5061.9 ug/L	5061.9 ppb	15:38:12
3	Fe 238.204 Radial†	668.4	670.5	5158.5 ug/L	5158.5 ppb	15:38:12
3	K 766.490 Radial†	33359.1	30961.3	4988.2 ug/L	4988.2 ppb	15:37:52
3	Mg 279.077 IEC†	176.5	175.1	5117.5 ug/L	5117.5 ppb	15:38:12
3	Na 589.592 Radial†	35631.1	38155.7	10030 ug/L	10030 ppb	15:37:52
3	Sr 421.552†	87044.1	89011.6	481.61 ug/L	481.61 ppb	15:37:52
3	Sc 361.383	961319.4	961319.4	103.11 %		15:39:16
3	Y 371.029	764894.4	764894.4	99.473 %		15:39:16
3	Ag 328.068†	118474.3	114496.2	480.90 ug/L	480.90 ppb	15:39:16
3	As 188.979†	1399.7	1389.0	485.06 ug/L	485.06 ppb	15:39:36
3	B 249.677†	24372.5	24164.7	475.12 ug/L	475.12 ppb	15:39:16
3	Ba 233.527†	76660.0	74338.7	483.71 ug/L	483.71 ppb	15:39:16
3	Be 313.107†	1518647.3	1477437.8	483.42 ug/L	483.42 ppb	15:39:16
3	Cd 226.502†	53049.3	51664.7	485.17 ug/L	485.17 ppb	15:39:16
3	Co 228.616†	28837.4	28052.3	471.18 ug/L	471.18 ppb	15:39:36
3	Cr 267.716†	51134.4	49508.9	479.62 ug/L	479.62 ppb	15:39:16
3	Cu 324.752†	187733.7	175977.5	480.17 ug/L	480.17 ppb	15:39:16
3	Mn 257.610†	525530.3	509136.2	486.18 ug/L	486.18 ppb	15:39:16
3	Mo 202.031†	8554.9	8272.2	477.37 ug/L	477.37 ppb	15:39:36
3	Ni 231.604†	23452.4	22616.0	472.12 ug/L	472.12 ppb	15:39:36
3	P 214.914†	5193.0	4791.5	2330.5 ug/L	2330.5 ppb	15:39:36
3	Pb 220.353†	4873.2	4802.6	483.68 ug/L	483.68 ppb	15:39:36
3	S 181.975 Axial†	877.0	802.1	941.15 ug/L	941.15 ppb	15:39:36
3	Sb 206.836†	1748.0	1650.9	483.87 ug/L	483.87 ppb	15:39:36
3	Se 196.026†	895.7	904.7	500.77 ug/L	500.77 ppb	15:39:36
3	Si 251.611†	93469.7	90011.7	2418.5 ug/L	2418.5 ppb	15:39:16
3	Sn 189.927†	3435.1	3325.4	476.56 ug/L	476.56 ppb	15:39:36
3	Ti 334.940†	352006.7	342855.4	487.63 ug/L	487.63 ppb	15:39:16
3	Tl 190.801†	1931.2	1914.1	481.49 ug/L	481.49 ppb	15:39:36
3	U 409.014†	14805.4	17328.1	464.37 ug/L	464.37 ppb	15:39:16
3	V 292.402†	78917.4	78071.7	483.12 ug/L	483.12 ppb	15:39:16
3	Zn 213.857†	64110.7	61299.7	478.83 ug/L	478.83 ppb	15:39:16
3	SiO2†	92126.6	88671.6	5138.7 ug/L	5138.7 ppb	15:39:51

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	947070.9	101.58	%	5.508				5.42%
Sc Radial	5875.6	98.7	%	1.08				1.09%
Y 371.029	753942.8	98.049	%	5.3371				5.44%
Y RADIAL	6011.2	97.28	%	1.135				1.17%
Ag 328.068†	115527.3	485.20	ug/L	20.848	485.20	ppb	20.848	4.30%
QC value within limits for Ag 328.068 Recovery = 97.04%								
Al 396.153Radial†	7277.9	4821.0	ug/L	12.65	4821.0	ppb	12.65	0.26%
QC value within limits for Al 396.153Radial Recovery = 96.42%								
As 188.979†	1414.8	494.03	ug/L	27.345	494.03	ppb	27.345	5.54%
QC value within limits for As 188.979 Recovery = 98.81%								
B 249.677†	24246.4	476.71	ug/L	19.083	476.71	ppb	19.083	4.00%
QC value within limits for B 249.677 Recovery = 95.34%								
Ba 233.527†	75032.6	488.23	ug/L	23.301	488.23	ppb	23.301	4.77%
QC value within limits for Ba 233.527 Recovery = 97.65%								
Be 313.107†	1488846.0	487.16	ug/L	20.766	487.16	ppb	20.766	4.26%
QC value within limits for Be 313.107 Recovery = 97.43%								
Ca 317.933Radial†	3634.3	4991.6	ug/L	96.16	4991.6	ppb	96.16	1.93%

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   QC value within limits for Ca 317.933Radial  Recovery = 99.83%
Cd 226.502†            52045.5      488.76 ug/L        21.226      488.76 ppb        21.226   4.34%
   QC value within limits for Cd 226.502  Recovery = 97.75%
Co 228.616†            28746.3      482.85 ug/L        30.591      482.85 ppb        30.591   6.34%
   QC value within limits for Co 228.616  Recovery = 96.57%
Cr 267.716†            50048.9      484.85 ug/L        23.718      484.85 ppb        23.718   4.89%
   QC value within limits for Cr 267.716  Recovery = 96.97%
Cu 324.752†           177924.0      485.48 ug/L        23.814      485.48 ppb        23.814   4.91%
   QC value within limits for Cu 324.752  Recovery = 97.10%
Fe 238.204 Radial†       663.7      5106.4 ug/L        124.60      5106.4 ppb        124.60   2.44%
   QC value within limits for Fe 238.204 Radial  Recovery = 102.13%
K 766.490 Radial†      31092.2      5009.3 ug/L         24.50      5009.3 ppb         24.50   0.49%
   QC value within limits for K 766.490 Radial  Recovery = 100.19%
Mg 279.077 IEC†          172.7      5048.1 ug/L         85.04      5048.1 ppb         85.04   1.68%
   QC value within limits for Mg 279.077 IEC  Recovery = 100.96%
Mn 257.610†           513591.0      490.43 ug/L        23.076      490.43 ppb        23.076   4.71%
   QC value within limits for Mn 257.610  Recovery = 98.09%
Mo 202.031†             8473.3      488.97 ug/L        31.772      488.97 ppb        31.772   6.50%
   QC value within limits for Mo 202.031  Recovery = 97.79%
Na 589.592 Radial†     38406.4       10096 ug/L          61.6       10096 ppb          61.6   0.61%
   QC value within limits for Na 589.592 Radial  Recovery = 100.96%
Ni 231.604†            23129.1      482.83 ug/L        30.623      482.83 ppb        30.623   6.34%
   QC value within limits for Ni 231.604  Recovery = 96.57%
P 214.914†              4890.5      2379.5 ug/L        155.38      2379.5 ppb        155.38   6.53%
   QC value within limits for P 214.914  Recovery = 95.18%
Pb 220.353†             4927.9      496.28 ug/L        31.130      496.28 ppb        31.130   6.27%
   QC value within limits for Pb 220.353  Recovery = 99.26%
S 181.975 Axial†         824.5      967.46 ug/L        62.194      967.46 ppb        62.194   6.43%
   QC value within limits for S 181.975 Axial  Recovery = 96.75%
Sb 206.836†             1687.4      494.76 ug/L        32.405      494.76 ppb        32.405   6.55%
   QC value within limits for Sb 206.836  Recovery = 98.95%
Se 196.026†              926.3      512.09 ug/L        31.239      512.09 ppb        31.239   6.10%
   QC value within limits for Se 196.026  Recovery = 102.42%
Si 251.611†            90719.4      2437.4 ug/L        109.56      2437.4 ppb        109.56   4.49%
   QC value within limits for Si 251.611  Recovery = 97.50%
Sn 189.927†             3409.2      488.54 ug/L        30.398      488.54 ppb        30.398   6.22%
   QC value within limits for Sn 189.927  Recovery = 97.71%
Sr 421.552†            89503.6      484.27 ug/L         2.653      484.27 ppb         2.653   0.55%
   QC value within limits for Sr 421.552  Recovery = 96.85%
Ti 334.940†           346220.3      492.41 ug/L        23.874      492.41 ppb        23.874   4.85%
   QC value within limits for Ti 334.940  Recovery = 98.48%
Tl 190.801†             1953.6      491.35 ug/L        30.671      491.35 ppb        30.671   6.24%
   QC value within limits for Tl 190.801  Recovery = 98.27%
U 409.014†             17400.6      466.32 ug/L        23.369      466.32 ppb        23.369   5.01%
   QC value within limits for U 409.014  Recovery = 93.26%
V 292.402†             78852.8      488.06 ug/L        22.865      488.06 ppb        22.865   4.68%
   QC value within limits for V 292.402  Recovery = 97.61%
Zn 213.857†            61734.9      482.20 ug/L        20.438      482.20 ppb        20.438   4.24%
   QC value within limits for Zn 213.857  Recovery = 96.44%
SiO2†                  91299.4      5291.2 ug/L        338.89      5291.2 ppb        338.89   6.40%
   QC value within limits for SiO2  Recovery = 98.95%
All analyte(s) passed QC.
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Sequence No.: 11
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 12/17/2009 15:42:01
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5879.0	5879.0	98.8	%			15:43:54
1	Y RADIAL	6062.2	6062.2	98.10	%			15:43:54
1	Al 396.153Radial†	-24.7	-8.7	-5.8431	ug/L	-5.8431	ppb	15:43:54
1	Ca 317.933Radial†	30.9	10.8	14.862	ug/L	14.862	ppb	15:44:14
1	Fe 238.204 Radial†	11.1	-1.7	-13.145	ug/L	-13.145	ppb	15:44:14
1	K 766.490 Radial†	3235.3	128.6	20.741	ug/L	20.741	ppb	15:43:54
1	Mg 279.077 IEC†	5.8	0.5	15.550	ug/L	15.550	ppb	15:44:14
1	Na 589.592 Radial†	-1569.3	136.5	35.874	ug/L	35.874	ppb	15:43:54
1	Sr 421.552†	-18.1	-4.1	-0.0224	ug/L	-0.0224	ppb	15:43:54
1	Sc 361.383	964117.4	964117.4	103.41	%			15:45:11
1	Y 371.029	779785.4	779785.4	101.41	%			15:45:11
1	Ag 328.068†	578.0	150.5	0.6194	ug/L	0.6194	ppb	15:45:16
1	As 188.979†	-30.6	1.9	0.6588	ug/L	0.6588	ppb	15:45:36
1	B 249.677†	-470.3	71.7	1.4179	ug/L	1.4179	ppb	15:45:16
1	Ba 233.527†	6.6	-5.1	-0.0341	ug/L	-0.0341	ppb	15:45:36
1	Be 313.107†	-4450.3	244.8	0.0801	ug/L	0.0801	ppb	15:45:16
1	Cd 226.502†	-216.4	4.5	0.0439	ug/L	0.0439	ppb	15:45:36
1	Co 228.616†	-93.2	-6.3	-0.1052	ug/L	-0.1052	ppb	15:45:36
1	Cr 267.716†	153.5	63.7	0.6143	ug/L	0.6143	ppb	15:45:16
1	Cu 324.752†	6101.3	-199.3	-0.5442	ug/L	-0.5442	ppb	15:45:16
1	Mn 257.610†	573.7	-4.6	-0.0060	ug/L	-0.0060	ppb	15:45:36
1	Mo 202.031†	36.3	10.1	0.5833	ug/L	0.5833	ppb	15:45:36
1	Ni 231.604†	123.4	-10.4	-0.2173	ug/L	-0.2173	ppb	15:45:36
1	P 214.914†	260.1	6.5	3.3718	ug/L	3.3718	ppb	15:45:36
1	Pb 220.353†	-82.0	-3.1	-0.3090	ug/L	-0.3090	ppb	15:45:36
1	S 181.975 Axial†	49.7	-0.4	-0.4132	ug/L	-0.4132	ppb	15:45:36
1	Sb 206.836†	53.0	6.9	2.0003	ug/L	2.0003	ppb	15:45:36
1	Se 196.026†	-34.2	2.9	1.5018	ug/L	1.5018	ppb	15:45:36
1	Si 251.611†	649.4	-13.7	-0.3885	ug/L	-0.3885	ppb	15:45:36
1	Sn 189.927†	12.8	6.1	0.8795	ug/L	0.8795	ppb	15:45:36
1	Ti 334.940†	-1455.8	47.1	0.0658	ug/L	0.0658	ppb	15:45:16
1	Tl 190.801†	-34.5	7.8	1.9454	ug/L	1.9454	ppb	15:45:36
1	U 409.014†	-2914.5	150.3	4.0433	ug/L	4.0433	ppb	15:45:11
1	V 292.402†	-1604.1	-19.1	-0.0986	ug/L	-0.0986	ppb	15:45:16
1	Zn 213.857†	912.4	3.0	0.0263	ug/L	0.0263	ppb	15:45:36
1	SiO2†	684.0	-17.6	-1.0711	ug/L	-1.0711	ppb	15:46:42
2	Sc Radial	5905.9	5905.9	99.2	%			15:44:19
2	Y RADIAL	6036.0	6036.0	97.68	%			15:44:19
2	Al 396.153Radial†	2.7	19.0	12.644	ug/L	12.644	ppb	15:44:19
2	Ca 317.933Radial†	29.3	9.1	12.473	ug/L	12.473	ppb	15:44:39
2	Fe 238.204 Radial†	15.8	3.0	22.894	ug/L	22.894	ppb	15:44:39
2	K 766.490 Radial†	3079.9	-43.0	-6.9442	ug/L	-6.9442	ppb	15:44:19
2	Mg 279.077 IEC†	2.9	-2.5	-71.658	ug/L	-71.658	ppb	15:44:39
2	Na 589.592 Radial†	-1596.9	115.8	30.452	ug/L	30.452	ppb	15:44:19
2	Sr 421.552†	20.9	35.3	0.1907	ug/L	0.1907	ppb	15:44:19
2	Sc 361.383	967743.4	967743.4	103.80	%			15:45:41
2	Y 371.029	781408.7	781408.7	101.62	%			15:45:41
2	Ag 328.068†	502.8	76.0	0.3255	ug/L	0.3255	ppb	15:45:46
2	As 188.979†	-30.0	2.5	0.8824	ug/L	0.8824	ppb	15:46:06
2	B 249.677†	-385.0	155.6	3.0686	ug/L	3.0686	ppb	15:45:46
2	Ba 233.527†	22.0	9.6	0.0647	ug/L	0.0647	ppb	15:46:06
2	Be 313.107†	-4591.6	124.7	0.0407	ug/L	0.0407	ppb	15:45:46
2	Cd 226.502†	-221.1	0.9	0.0055	ug/L	0.0055	ppb	15:46:06
2	Co 228.616†	-71.9	14.5	0.2424	ug/L	0.2424	ppb	15:46:06
2	Cr 267.716†	98.8	10.4	0.1017	ug/L	0.1017	ppb	15:45:46
2	Cu 324.752†	6189.8	-136.1	-0.3701	ug/L	-0.3701	ppb	15:45:46
2	Mn 257.610†	544.3	-35.1	-0.0298	ug/L	-0.0298	ppb	15:46:06
2	Mo 202.031†	18.7	-7.0	-0.4007	ug/L	-0.4007	ppb	15:46:06
2	Ni 231.604†	111.3	-22.5	-0.4697	ug/L	-0.4697	ppb	15:46:06

2	P 214.914†	256.2	1.7	0.9367 ug/L	0.9367 ppb	15:46:06
2	Pb 220.353†	-73.9	5.0	0.5012 ug/L	0.5012 ppb	15:46:06
2	S 181.975 Axial†	49.1	-1.1	-1.2928 ug/L	-1.2928 ppb	15:46:06
2	Sb 206.836†	37.1	-8.7	-2.4938 ug/L	-2.4938 ppb	15:46:06
2	Se 196.026†	-25.8	11.1	5.9778 ug/L	5.9778 ppb	15:46:06
2	Si 251.611†	662.2	-3.7	-0.0931 ug/L	-0.0931 ppb	15:46:06
2	Sn 189.927†	14.1	7.4	1.0586 ug/L	1.0586 ppb	15:46:06
2	Ti 334.940†	-1504.2	5.7	0.0080 ug/L	0.0080 ppb	15:45:46
2	Tl 190.801†	-45.9	-3.1	-0.7681 ug/L	-0.7681 ppb	15:46:06
2	U 409.014†	-3013.7	65.3	1.7533 ug/L	1.7533 ppb	15:45:41
2	V 292.402†	-1488.9	97.7	0.5891 ug/L	0.5891 ppb	15:45:46
2	Zn 213.857†	904.3	-8.1	-0.0603 ug/L	-0.0603 ppb	15:46:06
2	SiO2†	667.8	-35.7	-2.0675 ug/L	-2.0675 ppb	15:46:47
3	Sc Radial	5952.5	5952.5	100 %		15:44:44
3	Y RADIAL	6116.5	6116.5	98.98 %		15:44:44
3	Al 396.153Radial†	-28.5	-12.2	-8.1183 ug/L	-8.1183 ppb	15:44:44
3	Ca 317.933Radial†	30.7	10.2	14.035 ug/L	14.035 ppb	15:45:04
3	Fe 238.204 Radial†	13.9	1.0	7.5800 ug/L	7.5800 ppb	15:45:04
3	K 766.490 Radial†	3214.6	67.5	10.873 ug/L	10.873 ppb	15:44:44
3	Mg 279.077 IEC†	3.2	-2.1	-61.565 ug/L	-61.565 ppb	15:45:04
3	Na 589.592 Radial†	-1614.8	110.6	29.067 ug/L	29.067 ppb	15:44:44
3	Sr 421.552†	19.4	33.6	0.1817 ug/L	0.1817 ppb	15:44:44
3	Sc 361.383	973208.9	973208.9	104.38 %		15:46:11
3	Y 371.029	785768.8	785768.8	102.19 %		15:46:11
3	Ag 328.068†	334.2	-88.3	-0.3717 ug/L	-0.3717 ppb	15:46:16
3	As 188.979†	-30.6	2.2	0.7640 ug/L	0.7640 ppb	15:46:36
3	B 249.677†	-400.1	143.3	2.8268 ug/L	2.8268 ppb	15:46:16
3	Ba 233.527†	-3.7	-15.1	-0.0971 ug/L	-0.0971 ppb	15:46:36
3	Be 313.107†	-4509.0	228.7	0.0751 ug/L	0.0751 ppb	15:46:16
3	Cd 226.502†	-226.6	-3.2	-0.0311 ug/L	-0.0311 ppb	15:46:36
3	Co 228.616†	-78.4	8.6	0.1436 ug/L	0.1436 ppb	15:46:36
3	Cr 267.716†	135.4	45.0	0.4331 ug/L	0.4331 ppb	15:46:16
3	Cu 324.752†	6130.3	-226.6	-0.6177 ug/L	-0.6177 ppb	15:46:16
3	Mn 257.610†	562.9	-20.2	-0.0174 ug/L	-0.0174 ppb	15:46:36
3	Mo 202.031†	22.6	-3.3	-0.1914 ug/L	-0.1914 ppb	15:46:36
3	Ni 231.604†	115.4	-19.2	-0.4014 ug/L	-0.4014 ppb	15:46:36
3	P 214.914†	248.2	-7.3	-3.5396 ug/L	-3.5396 ppb	15:46:36
3	Pb 220.353†	-78.5	1.0	0.1003 ug/L	0.1003 ppb	15:46:36
3	S 181.975 Axial†	54.1	3.4	4.0474 ug/L	4.0474 ppb	15:46:36
3	Sb 206.836†	43.6	-2.6	-0.7568 ug/L	-0.7568 ppb	15:46:36
3	Se 196.026†	-34.9	2.5	1.3682 ug/L	1.3682 ppb	15:46:36
3	Si 251.611†	634.0	-34.3	-0.9291 ug/L	-0.9291 ppb	15:46:36
3	Sn 189.927†	12.2	5.4	0.7816 ug/L	0.7816 ppb	15:46:36
3	Ti 334.940†	-1362.9	149.3	0.2095 ug/L	0.2095 ppb	15:46:16
3	Tl 190.801†	-41.4	1.4	0.3583 ug/L	0.3583 ppb	15:46:36
3	U 409.014†	-2799.3	287.1	7.7181 ug/L	7.7181 ppb	15:46:11
3	V 292.402†	-1561.2	36.4	0.2317 ug/L	0.2317 ppb	15:46:16
3	Zn 213.857†	882.4	-34.0	-0.2631 ug/L	-0.2631 ppb	15:46:36
3	SiO2†	637.4	-68.5	-3.9946 ug/L	-3.9946 ppb	15:46:52

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	968356.5	103.86	%	0.491				0.47%
Sc Radial	5912.5	99.3	%	0.62				0.63%
Y 371.029	782321.0	101.74	%	0.402				0.40%
Y RADIAL	6071.6	98.26	%	0.664				0.68%
Ag 328.068†	46.1	0.1911	ug/L	0.50905	0.1911	ppb	0.50905	266.42%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-0.7	-0.4391	ug/L	11.38731	-0.4391	ppb	11.38731	>999.9%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	2.2	0.7684	ug/L	0.11190	0.7684	ppb	0.11190	14.56%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	123.5	2.4377	ug/L	0.89146	2.4377	ppb	0.89146	36.57%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-3.5	-0.0222	ug/L	0.08156	-0.0222	ppb	0.08156	367.73%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	199.4	0.0653	ug/L	0.02141	0.0653	ppb	0.02141	32.79%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	10.0	13.790	ug/L	1.2131	13.790	ppb	1.2131	8.80%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                0.7      0.0061 ug/L       0.03753      0.0061 ppb        0.03753 618.41%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                5.6      0.0936 ug/L       0.17911      0.0936 ppb        0.17911 191.42%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†               39.7      0.3830 ug/L       0.25998      0.3830 ppb        0.25998  67.87%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -187.4     -0.5107 ug/L       0.12717     -0.5107 ppb        0.12717  24.90%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         0.8      5.7763 ug/L      18.08680      5.7763 ppb       18.08680 313.12%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         51.0      8.2230 ug/L      14.03128      8.2230 ppb       14.03128 170.63%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           -1.3    -39.224 ug/L       47.7036    -39.224 ppb        47.7036 121.62%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              -20.0     -0.0177 ug/L       0.01191     -0.0177 ppb        0.01191  67.14%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               -0.1     -0.0029 ug/L       0.51835     -0.0029 ppb        0.51835 >999.9%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       121.0      31.798 ug/L        3.5974      31.798 ppb         3.5974  11.31%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              -17.4     -0.3628 ug/L       0.13057     -0.3628 ppb        0.13057  35.99%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 0.3      0.2563 ug/L       3.50559      0.2563 ppb        3.50559 >999.9%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                1.0      0.0975 ug/L       0.40510      0.0975 ppb        0.40510 415.37%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           0.7      0.7805 ug/L       2.86326      0.7805 ppb        2.86326 366.87%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               -1.5     -0.4168 ug/L       2.26624     -0.4168 ppb        2.26624 543.75%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                5.5      2.9493 ug/L       2.62368      2.9493 ppb        2.62368  88.96%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†              -17.2     -0.4702 ug/L       0.42395     -0.4702 ppb        0.42395  90.16%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                6.3      0.9066 ug/L       0.14046      0.9066 ppb        0.14046  15.49%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               21.6      0.1167 ug/L       0.12053      0.1167 ppb        0.12053 103.31%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               67.4      0.0944 ug/L       0.10376      0.0944 ppb        0.10376 109.88%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                2.1      0.5119 ug/L       1.36328      0.5119 ppb        1.36328 266.34%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               167.6      4.5049 ug/L       3.00908      4.5049 ppb        3.00908  66.80%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                38.3      0.2408 ug/L       0.34393      0.2408 ppb        0.34393 142.84%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              -13.0     -0.0990 ug/L       0.14853     -0.0990 ppb        0.14853 149.99%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                    -40.6     -2.3777 ug/L       1.48622     -2.3777 ppb        1.48622  62.51%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 17
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 12/17/2009 16:22:58
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	5681.9	5681.9	95.5	%			16:24:51
1	Y RADIAL	5789.2	5789.2	93.69	%			16:24:51
1	Al 396.153Radial†	7039.2	7389.0	4895.2	ug/L	4895.2	ppb	16:24:51
1	Ca 317.933Radial†	3648.7	3801.1	5220.8	ug/L	5220.8	ppb	16:25:11
1	Fe 238.204 Radial†	680.2	699.5	5381.1	ug/L	5381.1	ppb	16:25:11
1	K 766.490 Radial†	33511.4	31952.9	5148.0	ug/L	5148.0	ppb	16:24:51
1	Mg 279.077 IEC†	179.8	182.9	5345.9	ug/L	5345.9	ppb	16:25:11
1	Na 589.592 Radial†	37242.3	40732.1	10707	ug/L	10707	ppb	16:24:51
1	Sr 421.552†	88627.2	92841.2	502.33	ug/L	502.33	ppb	16:24:51
1	Sc 361.383	958484.1	958484.1	102.80	%			16:26:10
1	Y 371.029	762752.3	762752.3	99.194	%			16:26:10
1	Ag 328.068†	118157.6	114528.0	481.10	ug/L	481.10	ppb	16:26:10
1	As 188.979†	1405.9	1399.1	488.57	ug/L	488.57	ppb	16:26:30
1	B 249.677†	24135.7	24004.3	471.91	ug/L	471.91	ppb	16:26:10
1	Ba 233.527†	76285.0	74193.8	482.78	ug/L	482.78	ppb	16:26:10
1	Be 313.107†	1511477.1	1474819.9	482.57	ug/L	482.57	ppb	16:26:10
1	Cd 226.502†	52848.8	51621.8	484.75	ug/L	484.75	ppb	16:26:10
1	Co 228.616†	29148.5	28437.6	477.66	ug/L	477.66	ppb	16:26:30
1	Cr 267.716†	50973.1	49498.8	479.52	ug/L	479.52	ppb	16:26:10
1	Cu 324.752†	187147.6	175946.1	480.10	ug/L	480.10	ppb	16:26:10
1	Mn 257.610†	523143.3	508322.0	485.42	ug/L	485.42	ppb	16:26:10
1	Mo 202.031†	8649.0	8388.2	484.08	ug/L	484.08	ppb	16:26:30
1	Ni 231.604†	23654.8	22880.2	477.63	ug/L	477.63	ppb	16:26:30
1	P 214.914†	5219.2	4831.9	2350.7	ug/L	2350.7	ppb	16:26:30
1	Pb 220.353†	4921.8	4863.8	489.84	ug/L	489.84	ppb	16:26:30
1	S 181.975 Axial†	901.9	828.9	972.61	ug/L	972.61	ppb	16:26:30
1	Sb 206.836†	1770.0	1677.3	491.74	ug/L	491.74	ppb	16:26:30
1	Se 196.026†	898.2	909.7	504.22	ug/L	504.22	ppb	16:26:30
1	Si 251.611†	92913.8	89739.1	2411.0	ug/L	2411.0	ppb	16:26:10
1	Sn 189.927†	3461.1	3360.5	481.60	ug/L	481.60	ppb	16:26:30
1	Ti 334.940†	350692.1	342586.6	487.26	ug/L	487.26	ppb	16:26:10
1	Tl 190.801†	1936.5	1924.8	484.12	ug/L	484.12	ppb	16:26:30
1	U 409.014†	14856.7	17420.6	466.83	ug/L	466.83	ppb	16:26:10
1	V 292.402†	78676.5	78063.7	483.14	ug/L	483.14	ppb	16:26:10
1	Zn 213.857†	63893.2	61272.1	478.55	ug/L	478.55	ppb	16:26:10
1	SiO2†	94072.8	90829.1	5263.9	ug/L	5263.9	ppb	16:27:30
2	Sc Radial	5867.5	5867.5	98.6	%			16:25:16
2	Y RADIAL	6012.6	6012.6	97.30	%			16:25:16
2	Al 396.153Radial†	7079.0	7196.1	4766.8	ug/L	4766.8	ppb	16:25:16
2	Ca 317.933Radial†	3638.9	3670.3	5041.0	ug/L	5041.0	ppb	16:25:36
2	Fe 238.204 Radial†	678.8	675.5	5197.4	ug/L	5197.4	ppb	16:25:36
2	K 766.490 Radial†	33684.9	31018.4	4997.3	ug/L	4997.3	ppb	16:25:16
2	Mg 279.077 IEC†	177.2	174.4	5096.1	ug/L	5096.1	ppb	16:25:36
2	Na 589.592 Radial†	37373.4	39630.9	10417	ug/L	10417	ppb	16:25:16
2	Sr 421.552†	88880.7	90161.3	487.83	ug/L	487.83	ppb	16:25:16
2	Sc 361.383	965435.1	965435.1	103.55	%			16:26:37
2	Y 371.029	769012.3	769012.3	100.01	%			16:26:37
2	Ag 328.068†	118782.2	114303.6	480.11	ug/L	480.11	ppb	16:26:37
2	As 188.979†	1410.8	1394.0	486.78	ug/L	486.78	ppb	16:26:57
2	B 249.677†	24355.2	24047.2	472.78	ug/L	472.78	ppb	16:26:37
2	Ba 233.527†	76609.7	73973.1	481.34	ug/L	481.34	ppb	16:26:37
2	Be 313.107†	1522888.2	1475254.3	482.71	ug/L	482.71	ppb	16:26:37
2	Cd 226.502†	53005.8	51403.4	482.72	ug/L	482.72	ppb	16:26:37
2	Co 228.616†	29399.5	28475.9	478.31	ug/L	478.31	ppb	16:26:57
2	Cr 267.716†	51245.6	49404.9	478.61	ug/L	478.61	ppb	16:26:37
2	Cu 324.752†	188236.1	175686.6	479.38	ug/L	479.38	ppb	16:26:37
2	Mn 257.610†	525655.1	507083.9	484.23	ug/L	484.23	ppb	16:26:37
2	Mo 202.031†	8711.8	8388.3	484.07	ug/L	484.07	ppb	16:26:57
2	Ni 231.604†	23834.5	22888.0	477.80	ug/L	477.80	ppb	16:26:57

2	P 214.914†	5265.5	4840.0	2355.0 ug/L	2355.0 ppb	16:26:57
2	Pb 220.353†	4943.1	4849.9	488.43 ug/L	488.43 ppb	16:26:57
2	S 181.975 Axial†	897.5	818.3	960.16 ug/L	960.16 ppb	16:26:57
2	Sb 206.836†	1775.9	1670.6	489.87 ug/L	489.87 ppb	16:26:57
2	Se 196.026†	925.6	929.9	514.29 ug/L	514.29 ppb	16:26:57
2	Si 251.611†	93586.7	89738.2	2411.0 ug/L	2411.0 ppb	16:26:37
2	Sn 189.927†	3501.5	3375.3	483.70 ug/L	483.70 ppb	16:26:57
2	Ti 334.940†	352699.7	342069.3	486.52 ug/L	486.52 ppb	16:26:37
2	Tl 190.801†	1964.4	1938.2	487.46 ug/L	487.46 ppb	16:26:57
2	U 409.014†	14775.8	17238.3	461.95 ug/L	461.95 ppb	16:26:37
2	V 292.402†	79138.8	77959.2	482.52 ug/L	482.52 ppb	16:26:37
2	Zn 213.857†	64133.2	61056.3	476.88 ug/L	476.88 ppb	16:26:37
2	SiO2†	93256.2	89381.6	5179.7 ug/L	5179.7 ppb	16:27:35
3	Sc Radial	5834.7	5834.7	98.0 %		16:25:41
3	Y RADIAL	5965.8	5965.8	96.54 %		16:25:41
3	Al 396.153Radial†	7095.4	7253.3	4804.8 ug/L	4804.8 ppb	16:25:41
3	Ca 317.933Radial†	3604.6	3656.1	5021.6 ug/L	5021.6 ppb	16:26:01
3	Fe 238.204 Radial†	675.4	675.9	5200.4 ug/L	5200.4 ppb	16:26:01
3	K 766.490 Radial†	33728.1	31254.7	5035.4 ug/L	5035.4 ppb	16:25:41
3	Mg 279.077 IEC†	175.6	173.8	5078.5 ug/L	5078.5 ppb	16:26:01
3	Na 589.592 Radial†	37107.1	39572.5	10402 ug/L	10402 ppb	16:25:41
3	Sr 421.552†	88422.0	90200.8	488.04 ug/L	488.04 ppb	16:25:41
3	Sc 361.383	959014.9	959014.9	102.86 %		16:27:05
3	Y 371.029	763943.1	763943.1	99.349 %		16:27:05
3	Ag 328.068†	118275.3	114578.8	481.26 ug/L	481.26 ppb	16:27:05
3	As 188.979†	1405.5	1397.9	488.14 ug/L	488.14 ppb	16:27:25
3	B 249.677†	24192.0	24046.0	472.75 ug/L	472.75 ppb	16:27:05
3	Ba 233.527†	76360.8	74226.4	482.99 ug/L	482.99 ppb	16:27:05
3	Be 313.107†	1514191.4	1476645.0	483.17 ug/L	483.17 ppb	16:27:05
3	Cd 226.502†	52886.9	51630.4	484.85 ug/L	484.85 ppb	16:27:05
3	Co 228.616†	29324.5	28593.1	480.28 ug/L	480.28 ppb	16:27:25
3	Cr 267.716†	51035.7	49532.2	479.84 ug/L	479.84 ppb	16:27:05
3	Cu 324.752†	187424.6	176114.6	480.55 ug/L	480.55 ppb	16:27:05
3	Mn 257.610†	523879.1	508755.7	485.82 ug/L	485.82 ppb	16:27:05
3	Mo 202.031†	8691.5	8424.9	486.18 ug/L	486.18 ppb	16:27:25
3	Ni 231.604†	23769.0	22978.5	479.68 ug/L	479.68 ppb	16:27:25
3	P 214.914†	5258.3	4867.1	2368.5 ug/L	2368.5 ppb	16:27:25
3	Pb 220.353†	4937.3	4876.3	491.09 ug/L	491.09 ppb	16:27:25
3	S 181.975 Axial†	906.8	833.1	977.57 ug/L	977.57 ppb	16:27:25
3	Sb 206.836†	1771.0	1677.3	491.90 ug/L	491.90 ppb	16:27:25
3	Se 196.026†	913.1	923.6	510.99 ug/L	510.99 ppb	16:27:25
3	Si 251.611†	92957.4	89731.5	2410.8 ug/L	2410.8 ppb	16:27:05
3	Sn 189.927†	3511.1	3407.3	488.28 ug/L	488.28 ppb	16:27:25
3	Ti 334.940†	350984.8	342682.3	487.39 ug/L	487.39 ppb	16:27:05
3	Tl 190.801†	1952.6	1939.4	487.77 ug/L	487.77 ppb	16:27:25
3	U 409.014†	14603.6	17166.4	460.02 ug/L	460.02 ppb	16:27:05
3	V 292.402†	78776.1	78118.2	483.51 ug/L	483.51 ppb	16:27:05
3	Zn 213.857†	63885.3	61230.0	478.23 ug/L	478.23 ppb	16:27:05
3	SiO2†	93178.5	89909.0	5210.3 ug/L	5210.3 ppb	16:27:41

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	960978.0	103.07	%	0.415				0.40%
Sc Radial	5794.7	97.4	%	1.66				1.71%
Y 371.029	765235.9	99.517	%	0.4323				0.43%
Y RADIAL	5922.5	95.84	%	1.907				1.99%
Ag 328.068†	114470.1	480.82	ug/L	0.625	480.82	ppb	0.625	0.13%
QC value within limits for Ag 328.068 Recovery = 96.16%								
Al 396.153Radial†	7279.5	4822.3	ug/L	65.94	4822.3	ppb	65.94	1.37%
QC value within limits for Al 396.153Radial Recovery = 96.45%								
As 188.979†	1397.0	487.83	ug/L	0.937	487.83	ppb	0.937	0.19%
QC value within limits for As 188.979 Recovery = 97.57%								
B 249.677†	24032.5	472.48	ug/L	0.494	472.48	ppb	0.494	0.10%
QC value within limits for B 249.677 Recovery = 94.50%								
Ba 233.527†	74131.1	482.37	ug/L	0.897	482.37	ppb	0.897	0.19%
QC value within limits for Ba 233.527 Recovery = 96.47%								
Be 313.107†	1475573.1	482.81	ug/L	0.312	482.81	ppb	0.312	0.06%
QC value within limits for Be 313.107 Recovery = 96.56%								
Ca 317.933Radial†	3709.2	5094.5	ug/L	109.81	5094.5	ppb	109.81	2.16%

QC value within limits for Ca 317.933Radial Recovery = 101.89%

Cd 226.502†	51551.9	484.11 ug/L	1.204	484.11 ppb	1.204	0.25%
QC value within limits for Cd 226.502 Recovery = 96.82%						
Co 228.616†	28502.2	478.75 ug/L	1.364	478.75 ppb	1.364	0.28%
QC value within limits for Co 228.616 Recovery = 95.75%						
Cr 267.716†	49478.6	479.33 ug/L	0.640	479.33 ppb	0.640	0.13%
QC value within limits for Cr 267.716 Recovery = 95.87%						
Cu 324.752†	175915.8	480.01 ug/L	0.589	480.01 ppb	0.589	0.12%
QC value within limits for Cu 324.752 Recovery = 96.00%						
Fe 238.204 Radial†	683.6	5259.6 ug/L	105.22	5259.6 ppb	105.22	2.00%
QC value within limits for Fe 238.204 Radial Recovery = 105.19%						
K 766.490 Radial†	31408.7	5060.2 ug/L	78.34	5060.2 ppb	78.34	1.55%
QC value within limits for K 766.490 Radial Recovery = 101.20%						
Mg 279.077 IEC†	177.0	5173.5 ug/L	149.56	5173.5 ppb	149.56	2.89%
QC value within limits for Mg 279.077 IEC Recovery = 103.47%						
Mn 257.610†	508053.8	485.16 ug/L	0.830	485.16 ppb	0.830	0.17%
QC value within limits for Mn 257.610 Recovery = 97.03%						
Mo 202.031†	8400.5	484.78 ug/L	1.216	484.78 ppb	1.216	0.25%
QC value within limits for Mo 202.031 Recovery = 96.96%						
Na 589.592 Radial†	39978.5	10509 ug/L	171.7	10509 ppb	171.7	1.63%
QC value within limits for Na 589.592 Radial Recovery = 105.09%						
Ni 231.604†	22915.5	478.37 ug/L	1.140	478.37 ppb	1.140	0.24%
QC value within limits for Ni 231.604 Recovery = 95.67%						
P 214.914†	4846.3	2358.1 ug/L	9.28	2358.1 ppb	9.28	0.39%
QC value within limits for P 214.914 Recovery = 94.32%						
Pb 220.353†	4863.3	489.79 ug/L	1.329	489.79 ppb	1.329	0.27%
QC value within limits for Pb 220.353 Recovery = 97.96%						
S 181.975 Axial†	826.8	970.11 ug/L	8.966	970.11 ppb	8.966	0.92%
QC value within limits for S 181.975 Axial Recovery = 97.01%						
Sb 206.836†	1675.1	491.17 ug/L	1.131	491.17 ppb	1.131	0.23%
QC value within limits for Sb 206.836 Recovery = 98.23%						
Se 196.026†	921.1	509.83 ug/L	5.131	509.83 ppb	5.131	1.01%
QC value within limits for Se 196.026 Recovery = 101.97%						
Si 251.611†	89736.3	2410.9 ug/L	0.14	2410.9 ppb	0.14	0.01%
QC value within limits for Si 251.611 Recovery = 96.44%						
Sn 189.927†	3381.0	484.53 ug/L	3.416	484.53 ppb	3.416	0.70%
QC value within limits for Sn 189.927 Recovery = 96.91%						
Sr 421.552†	91067.7	492.73 ug/L	8.310	492.73 ppb	8.310	1.69%
QC value within limits for Sr 421.552 Recovery = 98.55%						
Ti 334.940†	342446.0	487.05 ug/L	0.470	487.05 ppb	0.470	0.10%
QC value within limits for Ti 334.940 Recovery = 97.41%						
Tl 190.801†	1934.2	486.45 ug/L	2.023	486.45 ppb	2.023	0.42%
QC value within limits for Tl 190.801 Recovery = 97.29%						
U 409.014†	17275.1	462.93 ug/L	3.510	462.93 ppb	3.510	0.76%
QC value within limits for U 409.014 Recovery = 92.59%						
V 292.402†	78047.0	483.06 ug/L	0.503	483.06 ppb	0.503	0.10%
QC value within limits for V 292.402 Recovery = 96.61%						
Zn 213.857†	61186.1	477.89 ug/L	0.889	477.89 ppb	0.889	0.19%
QC value within limits for Zn 213.857 Recovery = 95.58%						
SiO2†	90039.9	5218.0 ug/L	42.62	5218.0 ppb	42.62	0.82%
QC value within limits for SiO2 Recovery = 97.58%						

All analyte(s) passed QC.

Sequence No.: 18
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 12/17/2009 16:29:50
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5944.7	5944.7	99.9	%			16:31:43
1	Y RADIAL	6126.0	6126.0	99.14	%			16:31:43
1	Al 396.153Radial†	-13.0	3.2	2.1382	ug/L	2.1382	ppb	16:31:43
1	Ca 317.933Radial†	31.1	10.7	14.722	ug/L	14.722	ppb	16:32:03
1	Fe 238.204 Radial†	12.9	0.0	0.0684	ug/L	0.0684	ppb	16:32:03
1	K 766.490 Radial†	3164.6	21.6	3.4725	ug/L	3.4725	ppb	16:31:43
1	Mg 279.077 IEC†	5.0	-0.3	-9.4233	ug/L	-9.4233	ppb	16:32:03
1	Na 589.592 Radial†	-1586.4	136.9	35.980	ug/L	35.980	ppb	16:31:43
1	Sr 421.552†	-21.0	-6.7	-0.0366	ug/L	-0.0366	ppb	16:31:43
1	Sc 361.383	934912.5	934912.5	100.27	%			16:33:00
1	Y 371.029	765661.2	765661.2	99.573	%			16:33:00
1	Ag 328.068†	420.4	10.9	0.0472	ug/L	0.0472	ppb	16:33:00
1	As 188.979†	-30.0	1.6	0.5493	ug/L	0.5493	ppb	16:33:20
1	B 249.677†	-467.5	60.4	1.1914	ug/L	1.1914	ppb	16:33:20
1	Ba 233.527†	13.2	1.6	0.0113	ug/L	0.0113	ppb	16:33:20
1	Be 313.107†	-4508.9	51.8	0.0171	ug/L	0.0171	ppb	16:33:00
1	Cd 226.502†	-227.9	-13.4	-0.1265	ug/L	-0.1265	ppb	16:33:20
1	Co 228.616†	-74.9	9.1	0.1526	ug/L	0.1526	ppb	16:33:20
1	Cr 267.716†	120.3	35.2	0.3417	ug/L	0.3417	ppb	16:33:00
1	Cu 324.752†	6116.6	0.3	0.0007	ug/L	0.0007	ppb	16:33:00
1	Mn 257.610†	590.7	29.6	0.0284	ug/L	0.0284	ppb	16:33:20
1	Mo 202.031†	28.9	3.9	0.2243	ug/L	0.2243	ppb	16:33:20
1	Ni 231.604†	109.9	-20.1	-0.4203	ug/L	-0.4203	ppb	16:33:20
1	P 214.914†	248.0	2.3	1.1254	ug/L	1.1254	ppb	16:33:20
1	Pb 220.353†	-75.8	0.7	0.0668	ug/L	0.0668	ppb	16:33:20
1	S 181.975 Axial†	49.7	1.2	1.3862	ug/L	1.3862	ppb	16:33:20
1	Sb 206.836†	41.2	-3.3	-0.9615	ug/L	-0.9615	ppb	16:33:20
1	Se 196.026†	-29.7	6.3	3.3597	ug/L	3.3597	ppb	16:33:20
1	Si 251.611†	622.7	-20.7	-0.5627	ug/L	-0.5627	ppb	16:33:20
1	Sn 189.927†	3.8	-2.4	-0.3474	ug/L	-0.3474	ppb	16:33:20
1	Ti 334.940†	-1397.9	60.9	0.0877	ug/L	0.0877	ppb	16:33:00
1	Tl 190.801†	-41.0	0.3	0.0676	ug/L	0.0676	ppb	16:33:20
1	U 409.014†	-3018.9	-41.8	-1.1239	ug/L	-1.1239	ppb	16:33:00
1	V 292.402†	-1487.1	49.1	0.3003	ug/L	0.3003	ppb	16:33:00
1	Zn 213.857†	901.1	19.4	0.1556	ug/L	0.1556	ppb	16:33:20
1	SiO2†	668.7	-12.3	-0.7223	ug/L	-0.7223	ppb	16:34:16
2	Sc Radial	5900.1	5900.1	99.1	%			16:32:08
2	Y RADIAL	6062.3	6062.3	98.10	%			16:32:08
2	Al 396.153Radial†	-2.0	14.2	9.4220	ug/L	9.4220	ppb	16:32:08
2	Ca 317.933Radial†	28.0	7.8	10.651	ug/L	10.651	ppb	16:32:28
2	Fe 238.204 Radial†	11.9	-0.9	-7.0300	ug/L	-7.0300	ppb	16:32:28
2	K 766.490 Radial†	3287.8	169.9	27.397	ug/L	27.397	ppb	16:32:08
2	Mg 279.077 IEC†	3.1	-2.2	-65.127	ug/L	-65.127	ppb	16:32:28
2	Na 589.592 Radial†	-1562.0	149.5	39.290	ug/L	39.290	ppb	16:32:08
2	Sr 421.552†	-27.8	-13.8	-0.0750	ug/L	-0.0750	ppb	16:32:08
2	Sc 361.383	926510.0	926510.0	99.373	%			16:33:25
2	Y 371.029	758962.5	758962.5	98.701	%			16:33:25
2	Ag 328.068†	433.3	27.6	0.1127	ug/L	0.1127	ppb	16:33:25
2	As 188.979†	-21.4	10.0	3.4447	ug/L	3.4447	ppb	16:33:45
2	B 249.677†	-475.6	48.0	0.9481	ug/L	0.9481	ppb	16:33:45
2	Ba 233.527†	4.0	-7.5	-0.0489	ug/L	-0.0489	ppb	16:33:45
2	Be 313.107†	-4476.6	43.6	0.0140	ug/L	0.0140	ppb	16:33:25
2	Cd 226.502†	-228.5	-16.1	-0.1512	ug/L	-0.1512	ppb	16:33:45
2	Co 228.616†	-92.3	-9.1	-0.1517	ug/L	-0.1517	ppb	16:33:45
2	Cr 267.716†	96.3	12.2	0.1182	ug/L	0.1182	ppb	16:33:25
2	Cu 324.752†	6164.3	103.6	0.2822	ug/L	0.2822	ppb	16:33:25
2	Mn 257.610†	570.6	14.7	0.0146	ug/L	0.0146	ppb	16:33:45
2	Mo 202.031†	33.5	8.7	0.5038	ug/L	0.5038	ppb	16:33:45
2	Ni 231.604†	117.0	-12.0	-0.2515	ug/L	-0.2515	ppb	16:33:45

2	P 214.914†	260.7	17.4	8.6658	ug/L	8.6658 ppb	16:33:45
2	Pb 220.353†	-82.6	-6.9	-0.6853	ug/L	-0.6853 ppb	16:33:45
2	S 181.975 Axial†	50.5	2.4	2.7971	ug/L	2.7971 ppb	16:33:45
2	Sb 206.836†	45.2	1.1	0.3197	ug/L	0.3197 ppb	16:33:45
2	Se 196.026†	-28.4	7.4	3.9136	ug/L	3.9136 ppb	16:33:45
2	Si 251.611†	617.4	-20.4	-0.5683	ug/L	-0.5683 ppb	16:33:45
2	Sn 189.927†	4.0	-2.2	-0.3187	ug/L	-0.3187 ppb	16:33:45
2	Ti 334.940†	-1532.3	-87.1	-0.1231	ug/L	-0.1231 ppb	16:33:25
2	Tl 190.801†	-35.5	5.4	1.3481	ug/L	1.3481 ppb	16:33:45
2	U 409.014†	-2972.4	-22.3	-0.5985	ug/L	-0.5985 ppb	16:33:25
2	V 292.402†	-1536.0	-13.6	-0.0772	ug/L	-0.0772 ppb	16:33:25
2	Zn 213.857†	902.8	29.2	0.2341	ug/L	0.2341 ppb	16:33:45
2	SiO2†	645.0	-30.0	-1.7862	ug/L	-1.7862 ppb	16:34:21
3	Sc Radial	5911.4	5911.4	99.3	%		16:32:33
3	Y RADIAL	6035.5	6035.5	97.67	%		16:32:33
3	Al 396.153Radial†	-25.6	-9.5	-6.3584	ug/L	-6.3584 ppb	16:32:33
3	Ca 317.933Radial†	33.2	12.9	17.765	ug/L	17.765 ppb	16:32:53
3	Fe 238.204 Radial†	12.2	-0.6	-4.9645	ug/L	-4.9645 ppb	16:32:53
3	K 766.490 Radial†	3172.0	46.9	7.5630	ug/L	7.5630 ppb	16:32:33
3	Mg 279.077 IEC†	2.6	-2.8	-80.896	ug/L	-80.896 ppb	16:32:53
3	Na 589.592 Radial†	-1604.1	110.1	28.938	ug/L	28.938 ppb	16:32:33
3	Sr 421.552†	-25.6	-11.5	-0.0624	ug/L	-0.0624 ppb	16:32:33
3	Sc 361.383	932427.7	932427.7	100.01	%		16:33:51
3	Y 371.029	765655.3	765655.3	99.572	%		16:33:51
3	Ag 328.068†	460.5	52.0	0.2144	ug/L	0.2144 ppb	16:33:51
3	As 188.979†	-25.6	5.9	2.0347	ug/L	2.0347 ppb	16:34:11
3	B 249.677†	-485.9	40.7	0.8040	ug/L	0.8040 ppb	16:34:11
3	Ba 233.527†	25.2	13.7	0.0879	ug/L	0.0879 ppb	16:34:11
3	Be 313.107†	-4440.5	108.3	0.0354	ug/L	0.0354 ppb	16:33:51
3	Cd 226.502†	-232.9	-19.0	-0.1779	ug/L	-0.1779 ppb	16:34:11
3	Co 228.616†	-67.3	16.5	0.2771	ug/L	0.2771 ppb	16:34:11
3	Cr 267.716†	76.4	-8.4	-0.0814	ug/L	-0.0814 ppb	16:33:51
3	Cu 324.752†	6161.2	61.2	0.1666	ug/L	0.1666 ppb	16:33:51
3	Mn 257.610†	554.8	-4.8	-0.0035	ug/L	-0.0035 ppb	16:34:11
3	Mo 202.031†	27.7	2.8	0.1584	ug/L	0.1584 ppb	16:34:11
3	Ni 231.604†	128.9	-0.8	-0.0176	ug/L	-0.0176 ppb	16:34:11
3	P 214.914†	252.9	7.8	3.8911	ug/L	3.8911 ppb	16:34:11
3	Pb 220.353†	-78.3	-2.1	-0.2104	ug/L	-0.2104 ppb	16:34:11
3	S 181.975 Axial†	45.3	-3.1	-3.6788	ug/L	-3.6788 ppb	16:34:11
3	Sb 206.836†	37.3	-7.1	-2.0634	ug/L	-2.0634 ppb	16:34:11
3	Se 196.026†	-27.7	8.3	4.3763	ug/L	4.3763 ppb	16:34:11
3	Si 251.611†	633.8	-8.0	-0.2182	ug/L	-0.2182 ppb	16:34:11
3	Sn 189.927†	1.1	-5.1	-0.7330	ug/L	-0.7330 ppb	16:34:11
3	Ti 334.940†	-1444.8	10.2	0.0155	ug/L	0.0155 ppb	16:33:51
3	Tl 190.801†	-48.0	-6.9	-1.7157	ug/L	-1.7157 ppb	16:34:11
3	U 409.014†	-2975.1	-6.0	-0.1611	ug/L	-0.1611 ppb	16:33:51
3	V 292.402†	-1573.2	-41.0	-0.2494	ug/L	-0.2494 ppb	16:33:51
3	Zn 213.857†	897.0	17.6	0.1421	ug/L	0.1421 ppb	16:34:11
3	SiO2†	669.0	-10.2	-0.5987	ug/L	-0.5987 ppb	16:34:26

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	931283.4	99.885	%	0.4630				0.46%
Sc Radial	5918.7	99.5	%	0.39				0.39%
Y 371.029	763426.3	99.282	%	0.5027				0.51%
Y RADIAL	6074.6	98.30	%	0.752				0.77%
Ag 328.068†	30.2	0.1248	ug/L	0.08422	0.1248	ppb	0.08422	67.50%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	2.6	1.7339	ug/L	7.89796	1.7339	ppb	7.89796	455.50%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	5.8	2.0096	ug/L	1.44789	2.0096	ppb	1.44789	72.05%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	49.7	0.9812	ug/L	0.19581	0.9812	ppb	0.19581	19.96%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	2.6	0.0168	ug/L	0.06856	0.0168	ppb	0.06856	409.13%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	67.9	0.0222	ug/L	0.01157	0.0222	ppb	0.01157	52.19%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	10.5	14.379	ug/L	3.5690	14.379	ppb	3.5690	24.82%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              -16.2     -0.1519 ug/L       0.02572     -0.1519 ppb        0.02572  16.93%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                5.5      0.0927 ug/L       0.22060      0.0927 ppb        0.22060 238.05%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†               13.0      0.1262 ug/L       0.21163      0.1262 ppb        0.21163 167.76%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               55.0      0.1498 ug/L       0.14146      0.1498 ppb        0.14146  94.41%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        -0.5     -3.9754 ug/L       3.65111     -3.9754 ppb        3.65111  91.84%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         79.5      12.811 ug/L       12.7967      12.811 ppb        12.7967  99.89%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           -1.8     -51.815 ug/L       37.5497     -51.815 ppb        37.5497  72.47%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               13.2      0.0131 ug/L       0.01601      0.0131 ppb        0.01601 121.80%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                5.1      0.2955 ug/L       0.18338      0.2955 ppb        0.18338  62.06%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       132.1      34.736 ug/L        5.2871      34.736 ppb         5.2871  15.22%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              -11.0     -0.2298 ug/L       0.20221     -0.2298 ppb        0.20221  88.00%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 9.1      4.5608 ug/L       3.81452      4.5608 ppb        3.81452  83.64%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               -2.8     -0.2763 ug/L       0.38035     -0.2763 ppb        0.38035 137.65%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           0.1      0.1682 ug/L       3.40545      0.1682 ppb        3.40545 >999.9%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               -3.1     -0.9018 ug/L       1.19268     -0.9018 ppb        1.19268 132.26%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                7.3      3.8832 ug/L       0.50902      3.8832 ppb        0.50902  13.11%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†              -16.4     -0.4497 ug/L       0.20054     -0.4497 ppb        0.20054  44.59%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               -3.3     -0.4663 ug/L       0.23136     -0.4663 ppb        0.23136  49.61%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              -10.7     -0.0580 ug/L       0.01955     -0.0580 ppb        0.01955  33.72%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               -5.3     -0.0066 ug/L       0.10713     -0.0066 ppb        0.10713 >999.9%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               -0.4     -0.1000 ug/L       1.53875     -0.1000 ppb        1.53875 >999.9%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -23.4     -0.6278 ug/L       0.48204     -0.6278 ppb        0.48204  76.78%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                -1.8     -0.0088 ug/L       0.28115     -0.0088 ppb        0.28115 >999.9%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               22.1      0.1773 ug/L       0.04970      0.1773 ppb        0.04970  28.03%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                    -17.5     -1.0357 ug/L       0.65288     -1.0357 ppb        0.65288  63.04%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 29
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 12/17/2009 17:46:10
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	5921.8	5921.8	99.5	%			17:48:03
1	Y RADIAL	6029.1	6029.1	97.57	%			17:48:03
1	Al 396.153Radial†	7129.0	7180.6	4756.4	ug/L	4756.4	ppb	17:48:03
1	Ca 317.933Radial†	3629.1	3626.6	4981.1	ug/L	4981.1	ppb	17:48:23
1	Fe 238.204 Radial†	679.8	670.3	5157.2	ug/L	5157.2	ppb	17:48:23
1	K 766.490 Radial†	33779.6	30800.7	4962.2	ug/L	4962.2	ppb	17:48:03
1	Mg 279.077 IEC†	178.4	173.9	5082.1	ug/L	5082.1	ppb	17:48:23
1	Na 589.592 Radial†	37650.9	39562.6	10399	ug/L	10399	ppb	17:48:03
1	Sr 421.552†	89688.6	90147.5	487.75	ug/L	487.75	ppb	17:48:03
1	Sc 361.383	958721.1	958721.1	102.83	%			17:49:22
1	Y 371.029	763666.4	763666.4	99.313	%			17:49:22
1	Ag 328.068†	118751.4	115077.0	483.33	ug/L	483.33	ppb	17:49:22
1	As 188.979†	1402.0	1395.0	487.13	ug/L	487.13	ppb	17:49:42
1	B 249.677†	24049.2	23914.4	470.16	ug/L	470.16	ppb	17:49:22
1	Ba 233.527†	76648.4	74528.9	484.95	ug/L	484.95	ppb	17:49:22
1	Be 313.107†	1511983.6	1474949.1	482.62	ug/L	482.62	ppb	17:49:22
1	Cd 226.502†	52805.0	51566.6	484.26	ug/L	484.26	ppb	17:49:22
1	Co 228.616†	29242.4	28522.0	479.09	ug/L	479.09	ppb	17:49:42
1	Cr 267.716†	51284.9	49789.8	482.34	ug/L	482.34	ppb	17:49:22
1	Cu 324.752†	187700.3	176438.6	481.43	ug/L	481.43	ppb	17:49:22
1	Mn 257.610†	524731.7	509740.9	486.76	ug/L	486.76	ppb	17:49:22
1	Mo 202.031†	8713.6	8448.9	487.57	ug/L	487.57	ppb	17:49:42
1	Ni 231.604†	23720.7	22938.6	478.85	ug/L	478.85	ppb	17:49:42
1	P 214.914†	5211.4	4823.0	2346.2	ug/L	2346.2	ppb	17:49:42
1	Pb 220.353†	4946.1	4886.3	492.10	ug/L	492.10	ppb	17:49:42
1	S 181.975 Axial†	886.2	813.5	954.46	ug/L	954.46	ppb	17:49:42
1	Sb 206.836†	1758.6	1665.8	488.47	ug/L	488.47	ppb	17:49:42
1	Se 196.026†	897.3	908.6	502.85	ug/L	502.85	ppb	17:49:42
1	Si 251.611†	93253.2	90046.8	2419.3	ug/L	2419.3	ppb	17:49:22
1	Sn 189.927†	3480.0	3378.1	484.09	ug/L	484.09	ppb	17:49:42
1	Ti 334.940†	352191.0	343959.9	489.20	ug/L	489.20	ppb	17:49:22
1	Tl 190.801†	1949.3	1936.8	487.13	ug/L	487.13	ppb	17:49:42
1	U 409.014†	14699.2	17263.8	462.64	ug/L	462.64	ppb	17:49:22
1	V 292.402†	79073.7	78431.1	485.45	ug/L	485.45	ppb	17:49:22
1	Zn 213.857†	63894.7	61258.1	478.46	ug/L	478.46	ppb	17:49:22
1	SiO2†	93760.4	90502.6	5244.9	ug/L	5244.9	ppb	17:50:42
2	Sc Radial	5888.6	5888.6	98.9	%			17:48:28
2	Y RADIAL	5990.1	5990.1	96.94	%			17:48:28
2	Al 396.153Radial†	7085.0	7176.5	4753.9	ug/L	4753.9	ppb	17:48:28
2	Ca 317.933Radial†	3619.5	3637.5	4996.1	ug/L	4996.1	ppb	17:48:48
2	Fe 238.204 Radial†	679.8	674.1	5186.3	ug/L	5186.3	ppb	17:48:48
2	K 766.490 Radial†	33658.4	30869.5	4973.3	ug/L	4973.3	ppb	17:48:28
2	Mg 279.077 IEC†	179.8	176.4	5154.6	ug/L	5154.6	ppb	17:48:48
2	Na 589.592 Radial†	37378.1	39500.2	10383	ug/L	10383	ppb	17:48:28
2	Sr 421.552†	88889.3	89847.8	486.13	ug/L	486.13	ppb	17:48:28
2	Sc 361.383	964994.9	964994.9	103.50	%			17:49:49
2	Y 371.029	769436.9	769436.9	100.06	%			17:49:49
2	Ag 328.068†	119569.4	115116.5	483.50	ug/L	483.50	ppb	17:49:49
2	As 188.979†	1385.3	1370.0	478.50	ug/L	478.50	ppb	17:50:09
2	B 249.677†	24164.2	23873.4	469.36	ug/L	469.36	ppb	17:49:49
2	Ba 233.527†	77127.6	74507.3	484.81	ug/L	484.81	ppb	17:49:49
2	Be 313.107†	1524416.5	1477401.7	483.42	ug/L	483.42	ppb	17:49:49
2	Cd 226.502†	53082.4	51500.8	483.63	ug/L	483.63	ppb	17:49:49
2	Co 228.616†	29091.1	28190.9	473.51	ug/L	473.51	ppb	17:50:09
2	Cr 267.716†	51596.8	49766.8	482.11	ug/L	482.11	ppb	17:49:49
2	Cu 324.752†	189255.3	176754.2	482.29	ug/L	482.29	ppb	17:49:49
2	Mn 257.610†	527973.9	509555.7	486.58	ug/L	486.58	ppb	17:49:49
2	Mo 202.031†	8657.9	8340.1	481.29	ug/L	481.29	ppb	17:50:09
2	Ni 231.604†	23627.7	22698.8	473.85	ug/L	473.85	ppb	17:50:09

2	P 214.914†	5186.5	4766.1	2317.4 ug/L	2317.4 ppb	17:50:09
2	Pb 220.353†	4911.8	4821.9	485.61 ug/L	485.61 ppb	17:50:09
2	S 181.975 Axial†	885.8	807.4	947.35 ug/L	947.35 ppb	17:50:09
2	Sb 206.836†	1756.4	1652.5	484.43 ug/L	484.43 ppb	17:50:09
2	Se 196.026†	897.1	902.7	499.79 ug/L	499.79 ppb	17:50:09
2	Si 251.611†	93888.2	90070.8	2420.1 ug/L	2420.1 ppb	17:49:49
2	Sn 189.927†	3471.6	3348.0	479.79 ug/L	479.79 ppb	17:50:09
2	Ti 334.940†	354474.8	343939.7	489.17 ug/L	489.17 ppb	17:49:49
2	Tl 190.801†	1947.4	1922.7	483.63 ug/L	483.63 ppb	17:50:09
2	U 409.014†	14890.3	17355.5	465.10 ug/L	465.10 ppb	17:49:49
2	V 292.402†	79580.9	78421.2	485.30 ug/L	485.30 ppb	17:49:49
2	Zn 213.857†	64326.2	61271.0	478.59 ug/L	478.59 ppb	17:49:49
2	SiO2†	94001.9	90143.2	5224.2 ug/L	5224.2 ppb	17:50:47
3	Sc Radial	5909.7	5909.7	99.3 %		17:48:53
3	Y RADIAL	6032.2	6032.2	97.62 %		17:48:53
3	Al 396.153Radial†	7140.6	7207.0	4774.3 ug/L	4774.3 ppb	17:48:53
3	Ca 317.933Radial†	3619.4	3624.3	4978.0 ug/L	4978.0 ppb	17:49:13
3	Fe 238.204 Radial†	677.5	669.4	5149.9 ug/L	5149.9 ppb	17:49:13
3	K 766.490 Radial†	33854.5	30945.7	4985.6 ug/L	4985.6 ppb	17:48:53
3	Mg 279.077 IEC†	181.9	177.8	5196.2 ug/L	5196.2 ppb	17:49:13
3	Na 589.592 Radial†	37381.6	39369.0	10349 ug/L	10349 ppb	17:48:53
3	Sr 421.552†	89506.3	90148.8	487.76 ug/L	487.76 ppb	17:48:53
3	Sc 361.383	968681.0	968681.0	103.90 %		17:50:17
3	Y 371.029	772736.1	772736.1	100.49 %		17:50:17
3	Ag 328.068†	120066.5	115155.4	483.65 ug/L	483.65 ppb	17:50:17
3	As 188.979†	1399.2	1378.2	481.33 ug/L	481.33 ppb	17:50:37
3	B 249.677†	24484.3	24092.7	473.70 ug/L	473.70 ppb	17:50:17
3	Ba 233.527†	77155.9	74250.9	483.15 ug/L	483.15 ppb	17:50:17
3	Be 313.107†	1530034.3	1477204.3	483.35 ug/L	483.35 ppb	17:50:17
3	Cd 226.502†	53278.5	51494.3	483.57 ug/L	483.57 ppb	17:50:17
3	Co 228.616†	29116.7	28108.5	472.13 ug/L	472.13 ppb	17:50:37
3	Cr 267.716†	51719.6	49695.3	481.42 ug/L	481.42 ppb	17:50:17
3	Cu 324.752†	190404.9	177164.9	483.41 ug/L	483.41 ppb	17:50:17
3	Mn 257.610†	529342.5	508931.9	485.99 ug/L	485.99 ppb	17:50:17
3	Mo 202.031†	8656.8	8307.2	479.39 ug/L	479.39 ppb	17:50:37
3	Ni 231.604†	23642.7	22626.3	472.33 ug/L	472.33 ppb	17:50:37
3	P 214.914†	5174.8	4735.7	2302.0 ug/L	2302.0 ppb	17:50:37
3	Pb 220.353†	4945.7	4836.4	487.07 ug/L	487.07 ppb	17:50:37
3	S 181.975 Axial†	884.9	803.3	942.53 ug/L	942.53 ppb	17:50:37
3	Sb 206.836†	1751.9	1641.8	481.26 ug/L	481.26 ppb	17:50:37
3	Se 196.026†	899.0	901.2	498.89 ug/L	498.89 ppb	17:50:37
3	Si 251.611†	94076.5	89906.8	2415.7 ug/L	2415.7 ppb	17:50:17
3	Sn 189.927†	3472.5	3336.0	478.08 ug/L	478.08 ppb	17:50:37
3	Ti 334.940†	355833.3	343944.0	489.18 ug/L	489.18 ppb	17:50:17
3	Tl 190.801†	1945.7	1913.8	481.42 ug/L	481.42 ppb	17:50:37
3	U 409.014†	14959.1	17366.9	465.41 ug/L	465.41 ppb	17:50:17
3	V 292.402†	79767.1	78307.9	484.59 ug/L	484.59 ppb	17:50:17
3	Zn 213.857†	64504.4	61206.1	478.09 ug/L	478.09 ppb	17:50:17
3	SiO2†	93601.9	89412.6	5181.7 ug/L	5181.7 ppb	17:50:52

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	964132.3	103.41	%	0.540				0.52%
Sc Radial	5906.7	99.3	%	0.28				0.28%
Y 371.029	768613.1	99.957	%	0.5970				0.60%
Y RADIAL	6017.1	97.37	%	0.379				0.39%
Ag 328.068†	115116.3	483.50	ug/L	0.160	483.50	ppb	0.160	0.03%
QC value within limits for Ag 328.068 Recovery = 96.70%								
Al 396.153Radial†	7188.1	4761.5	ug/L	11.10	4761.5	ppb	11.10	0.23%
QC value within limits for Al 396.153Radial Recovery = 95.23%								
As 188.979†	1381.0	482.32	ug/L	4.404	482.32	ppb	4.404	0.91%
QC value within limits for As 188.979 Recovery = 96.46%								
B 249.677†	23960.2	471.07	ug/L	2.308	471.07	ppb	2.308	0.49%
QC value within limits for B 249.677 Recovery = 94.21%								
Ba 233.527†	74429.0	484.30	ug/L	1.005	484.30	ppb	1.005	0.21%
QC value within limits for Ba 233.527 Recovery = 96.86%								
Be 313.107†	1476518.4	483.13	ug/L	0.445	483.13	ppb	0.445	0.09%
QC value within limits for Be 313.107 Recovery = 96.63%								
Ca 317.933Radial†	3629.5	4985.0	ug/L	9.69	4985.0	ppb	9.69	0.19%

QC value within limits for Ca 317.933Radial Recovery = 99.70%

Cd 226.502†	51520.6	483.82 ug/L	0.379	483.82 ppb	0.379	0.08%

QC value within limits for Cd 226.502 Recovery = 96.76%

Co 228.616†	28273.8	474.91 ug/L	3.686	474.91 ppb	3.686	0.78%

QC value within limits for Co 228.616 Recovery = 94.98%

Cr 267.716†	49750.6	481.96 ug/L	0.477	481.96 ppb	0.477	0.10%

QC value within limits for Cr 267.716 Recovery = 96.39%

Cu 324.752†	176785.9	482.38 ug/L	0.993	482.38 ppb	0.993	0.21%

QC value within limits for Cu 324.752 Recovery = 96.48%

Fe 238.204 Radial†	671.3	5164.5 ug/L	19.24	5164.5 ppb	19.24	0.37%

QC value within limits for Fe 238.204 Radial Recovery = 103.29%

K 766.490 Radial†	30872.0	4973.7 ug/L	11.71	4973.7 ppb	11.71	0.24%

QC value within limits for K 766.490 Radial Recovery = 99.47%

Mg 279.077 IEC†	176.0	5144.3 ug/L	57.76	5144.3 ppb	57.76	1.12%

QC value within limits for Mg 279.077 IEC Recovery = 102.89%

Mn 257.610†	509409.5	486.44 ug/L	0.406	486.44 ppb	0.406	0.08%

QC value within limits for Mn 257.610 Recovery = 97.29%

Mo 202.031†	8365.4	482.75 ug/L	4.278	482.75 ppb	4.278	0.89%

QC value within limits for Mo 202.031 Recovery = 96.55%

Na 589.592 Radial†	39477.2	10377 ug/L	26.0	10377 ppb	26.0	0.25%

QC value within limits for Na 589.592 Radial Recovery = 103.77%

Ni 231.604†	22754.6	475.01 ug/L	3.412	475.01 ppb	3.412	0.72%

QC value within limits for Ni 231.604 Recovery = 95.00%

P 214.914†	4774.9	2321.9 ug/L	22.43	2321.9 ppb	22.43	0.97%

QC value within limits for P 214.914 Recovery = 92.88%

Pb 220.353†	4848.2	488.26 ug/L	3.403	488.26 ppb	3.403	0.70%

QC value within limits for Pb 220.353 Recovery = 97.65%

S 181.975 Axial†	808.1	948.11 ug/L	6.001	948.11 ppb	6.001	0.63%

QC value within limits for S 181.975 Axial Recovery = 94.81%

Sb 206.836†	1653.4	484.72 ug/L	3.614	484.72 ppb	3.614	0.75%

QC value within limits for Sb 206.836 Recovery = 96.94%

Se 196.026†	904.1	500.51 ug/L	2.078	500.51 ppb	2.078	0.42%

QC value within limits for Se 196.026 Recovery = 100.10%

Si 251.611†	90008.1	2418.3 ug/L	2.35	2418.3 ppb	2.35	0.10%

QC value within limits for Si 251.611 Recovery = 96.73%

Sn 189.927†	3354.0	480.65 ug/L	3.098	480.65 ppb	3.098	0.64%

QC value within limits for Sn 189.927 Recovery = 96.13%

Sr 421.552†	90048.0	487.22 ug/L	0.938	487.22 ppb	0.938	0.19%

QC value within limits for Sr 421.552 Recovery = 97.44%

Ti 334.940†	343947.8	489.18 ug/L	0.015	489.18 ppb	0.015	0.00%

QC value within limits for Ti 334.940 Recovery = 97.84%

Tl 190.801†	1924.4	484.06 ug/L	2.878	484.06 ppb	2.878	0.59%

QC value within limits for Tl 190.801 Recovery = 96.81%

U 409.014†	17328.7	464.38 ug/L	1.520	464.38 ppb	1.520	0.33%

QC value within limits for U 409.014 Recovery = 92.88%

V 292.402†	78386.7	485.12 ug/L	0.460	485.12 ppb	0.460	0.09%

QC value within limits for V 292.402 Recovery = 97.02%

Zn 213.857†	61245.1	478.38 ug/L	0.261	478.38 ppb	0.261	0.05%

QC value within limits for Zn 213.857 Recovery = 95.68%

SiO2†	90019.5	5217.0 ug/L	32.19	5217.0 ppb	32.19	0.62%

QC value within limits for SiO2 Recovery = 97.56%

All analyte(s) passed QC.

Sequence No.: 30
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 12/17/2009 17:53:03
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	5901.1	5901.1	99.2	%			17:54:55
1	Y RADIAL	6121.6	6121.6	99.07	%			17:54:55
1	Al 396.153Radial†	-24.7	-8.6	-5.7241	ug/L	-5.7241	ppb	17:54:55
1	Ca 317.933Radial†	29.0	8.8	12.083	ug/L	12.083	ppb	17:55:16
1	Fe 238.204 Radial†	12.9	0.1	0.5645	ug/L	0.5645	ppb	17:55:16
1	K 766.490 Radial†	3112.5	-7.5	-1.2175	ug/L	-1.2175	ppb	17:54:55
1	Mg 279.077 IEC†	0.5	-4.8	-140.50	ug/L	-140.50	ppb	17:55:16
1	Na 589.592 Radial†	-1637.6	73.5	19.315	ug/L	19.315	ppb	17:54:55
1	Sr 421.552†	6.6	20.9	0.1131	ug/L	0.1131	ppb	17:54:55
1	Sc 361.383	931504.9	931504.9	99.909	%			17:56:12
1	Y 371.029	764079.5	764079.5	99.367	%			17:56:12
1	Ag 328.068†	435.5	27.4	0.1161	ug/L	0.1161	ppb	17:56:12
1	As 188.979†	-31.3	0.2	0.0535	ug/L	0.0535	ppb	17:56:32
1	B 249.677†	-460.3	65.9	1.3001	ug/L	1.3001	ppb	17:56:32
1	Ba 233.527†	37.4	25.9	0.1681	ug/L	0.1681	ppb	17:56:32
1	Be 313.107†	-4428.5	115.9	0.0374	ug/L	0.0374	ppb	17:56:12
1	Cd 226.502†	-216.5	-2.9	-0.0273	ug/L	-0.0273	ppb	17:56:32
1	Co 228.616†	-84.2	-0.5	-0.0084	ug/L	-0.0084	ppb	17:56:32
1	Cr 267.716†	89.4	4.7	0.0464	ug/L	0.0464	ppb	17:56:32
1	Cu 324.752†	6033.1	-61.0	-0.1663	ug/L	-0.1663	ppb	17:56:12
1	Mn 257.610†	619.7	60.7	0.0606	ug/L	0.0606	ppb	17:56:32
1	Mo 202.031†	24.8	-0.2	-0.0112	ug/L	-0.0112	ppb	17:56:32
1	Ni 231.604†	121.0	-8.6	-0.1795	ug/L	-0.1795	ppb	17:56:32
1	P 214.914†	253.8	9.0	4.5330	ug/L	4.5330	ppb	17:56:32
1	Pb 220.353†	-69.9	6.3	0.6287	ug/L	0.6287	ppb	17:56:32
1	S 181.975 Axial†	53.3	4.9	5.7646	ug/L	5.7646	ppb	17:56:32
1	Sb 206.836†	41.7	-2.7	-0.7643	ug/L	-0.7643	ppb	17:56:32
1	Se 196.026†	-32.8	3.1	1.6402	ug/L	1.6402	ppb	17:56:32
1	Si 251.611†	692.5	51.4	1.3856	ug/L	1.3856	ppb	17:56:32
1	Sn 189.927†	11.8	5.6	0.8022	ug/L	0.8022	ppb	17:56:32
1	Ti 334.940†	-1621.8	-168.4	-0.2379	ug/L	-0.2379	ppb	17:56:12
1	Tl 190.801†	-42.8	-1.7	-0.4363	ug/L	-0.4363	ppb	17:56:32
1	U 409.014†	-3053.0	-87.0	-2.3389	ug/L	-2.3389	ppb	17:56:12
1	V 292.402†	-1542.7	-12.0	-0.0810	ug/L	-0.0810	ppb	17:56:12
1	Zn 213.857†	933.5	55.0	0.4395	ug/L	0.4395	ppb	17:56:32
1	SiO2†	680.9	2.4	0.1341	ug/L	0.1341	ppb	17:57:28
2	Sc Radial	6046.4	6046.4	102	%			17:55:21
2	Y RADIAL	6189.0	6189.0	100.2	%			17:55:21
2	Al 396.153Radial†	-12.0	4.4	2.9257	ug/L	2.9257	ppb	17:55:21
2	Ca 317.933Radial†	28.5	7.6	10.418	ug/L	10.418	ppb	17:55:41
2	Fe 238.204 Radial†	14.3	1.2	8.9329	ug/L	8.9329	ppb	17:55:41
2	K 766.490 Radial†	3219.3	22.1	3.5672	ug/L	3.5672	ppb	17:55:21
2	Mg 279.077 IEC†	3.1	-2.3	-66.034	ug/L	-66.034	ppb	17:55:41
2	Na 589.592 Radial†	-1683.5	68.1	17.888	ug/L	17.888	ppb	17:55:21
2	Sr 421.552†	-3.1	11.2	0.0606	ug/L	0.0606	ppb	17:55:21
2	Sc 361.383	939025.2	939025.2	100.72	%			17:56:38
2	Y 371.029	772720.5	772720.5	100.49	%			17:56:38
2	Ag 328.068†	436.1	24.5	0.1044	ug/L	0.1044	ppb	17:56:38
2	As 188.979†	-30.9	0.8	0.2813	ug/L	0.2813	ppb	17:56:58
2	B 249.677†	-449.8	79.9	1.5765	ug/L	1.5765	ppb	17:56:58
2	Ba 233.527†	23.6	11.9	0.0777	ug/L	0.0777	ppb	17:56:58
2	Be 313.107†	-4450.3	129.7	0.0424	ug/L	0.0424	ppb	17:56:38
2	Cd 226.502†	-215.5	-0.1	-0.0022	ug/L	-0.0022	ppb	17:56:58
2	Co 228.616†	-81.2	3.2	0.0549	ug/L	0.0549	ppb	17:56:58
2	Cr 267.716†	84.6	-0.8	-0.0075	ug/L	-0.0075	ppb	17:56:58
2	Cu 324.752†	5957.0	-184.9	-0.5038	ug/L	-0.5038	ppb	17:56:38
2	Mn 257.610†	651.3	87.2	0.0853	ug/L	0.0853	ppb	17:56:58
2	Mo 202.031†	39.0	13.7	0.7924	ug/L	0.7924	ppb	17:56:58
2	Ni 231.604†	123.1	-7.5	-0.1576	ug/L	-0.1576	ppb	17:56:58

2	P 214.914†	248.8	2.0	1.1096	ug/L	1.1096 ppb	17:56:58
2	Pb 220.353†	-92.3	-15.4	-1.5409	ug/L	-1.5409 ppb	17:56:58
2	S 181.975 Axial†	43.8	-4.9	-5.7498	ug/L	-5.7498 ppb	17:56:58
2	Sb 206.836†	38.9	-5.8	-1.6437	ug/L	-1.6437 ppb	17:56:58
2	Se 196.026†	-30.0	6.2	3.3225	ug/L	3.3225 ppb	17:56:58
2	Si 251.611†	681.5	35.0	0.9270	ug/L	0.9270 ppb	17:56:58
2	Sn 189.927†	11.1	4.8	0.6831	ug/L	0.6831 ppb	17:56:58
2	Ti 334.940†	-1444.1	21.0	0.0300	ug/L	0.0300 ppb	17:56:38
2	Tl 190.801†	-44.9	-3.4	-0.8530	ug/L	-0.8530 ppb	17:56:58
2	U 409.014†	-2946.9	42.8	1.1509	ug/L	1.1509 ppb	17:56:38
2	V 292.402†	-1533.4	9.6	0.0693	ug/L	0.0693 ppb	17:56:38
2	Zn 213.857†	924.7	38.8	0.3090	ug/L	0.3090 ppb	17:56:58
2	SiO2†	676.6	-7.4	-0.4660	ug/L	-0.4660 ppb	17:57:33
3	Sc Radial	5983.9	5983.9	101	%		17:55:46
3	Y RADIAL	6159.8	6159.8	99.68	%		17:55:46
3	Al 396.153Radial†	-21.9	-5.6	-3.6970	ug/L	-3.6970 ppb	17:55:46
3	Ca 317.933Radial†	30.0	9.4	12.921	ug/L	12.921 ppb	17:56:06
3	Fe 238.204 Radial†	15.4	2.4	18.385	ug/L	18.385 ppb	17:56:06
3	K 766.490 Radial†	3189.7	25.8	4.1620	ug/L	4.1620 ppb	17:55:46
3	Mg 279.077 IEC†	1.5	-3.9	-113.95	ug/L	-113.95 ppb	17:56:06
3	Na 589.592 Radial†	-1675.2	59.0	15.509	ug/L	15.509 ppb	17:55:46
3	Sr 421.552†	28.5	42.6	0.2305	ug/L	0.2305 ppb	17:55:46
3	Sc 361.383	937312.1	937312.1	100.53	%		17:57:03
3	Y 371.029	772124.6	772124.6	100.41	%		17:57:03
3	Ag 328.068†	365.4	-44.9	-0.1837	ug/L	-0.1837 ppb	17:57:03
3	As 188.979†	-29.1	2.5	0.8726	ug/L	0.8726 ppb	17:57:23
3	B 249.677†	-493.5	35.7	0.7020	ug/L	0.7020 ppb	17:57:23
3	Ba 233.527†	26.1	14.5	0.0940	ug/L	0.0940 ppb	17:57:23
3	Be 313.107†	-4393.5	178.2	0.0582	ug/L	0.0582 ppb	17:57:03
3	Cd 226.502†	-220.9	-5.9	-0.0571	ug/L	-0.0571 ppb	17:57:23
3	Co 228.616†	-94.1	-9.9	-0.1661	ug/L	-0.1661 ppb	17:57:23
3	Cr 267.716†	97.9	12.6	0.1217	ug/L	0.1217 ppb	17:57:23
3	Cu 324.752†	6150.3	18.2	0.0507	ug/L	0.0507 ppb	17:57:03
3	Mn 257.610†	578.6	16.1	0.0193	ug/L	0.0193 ppb	17:57:23
3	Mo 202.031†	23.5	-1.6	-0.0925	ug/L	-0.0925 ppb	17:57:23
3	Ni 231.604†	121.7	-8.7	-0.1808	ug/L	-0.1808 ppb	17:57:23
3	P 214.914†	247.7	1.4	0.6733	ug/L	0.6733 ppb	17:57:23
3	Pb 220.353†	-54.1	22.4	2.2468	ug/L	2.2468 ppb	17:57:23
3	S 181.975 Axial†	45.1	-3.5	-4.1372	ug/L	-4.1372 ppb	17:57:23
3	Sb 206.836†	38.5	-6.2	-1.7814	ug/L	-1.7814 ppb	17:57:23
3	Se 196.026†	-40.1	-4.0	-2.0449	ug/L	-2.0449 ppb	17:57:23
3	Si 251.611†	677.9	32.6	0.8804	ug/L	0.8804 ppb	17:57:23
3	Sn 189.927†	7.7	1.5	0.2138	ug/L	0.2138 ppb	17:57:23
3	Ti 334.940†	-1454.0	8.7	0.0122	ug/L	0.0122 ppb	17:57:03
3	Tl 190.801†	-50.8	-9.4	-2.3392	ug/L	-2.3392 ppb	17:57:23
3	U 409.014†	-2923.7	60.6	1.6259	ug/L	1.6259 ppb	17:57:03
3	V 292.402†	-1573.7	-33.3	-0.2068	ug/L	-0.2068 ppb	17:57:03
3	Zn 213.857†	940.8	56.5	0.4484	ug/L	0.4484 ppb	17:57:23
3	SiO2†	695.9	13.1	0.7600	ug/L	0.7600 ppb	17:57:38

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	935947.4	100.39	%	0.423				0.42%
Sc Radial	5977.1	100	%	1.2				1.22%
Y 371.029	769641.5	100.09	%	0.628				0.63%
Y RADIAL	6156.8	99.64	%	0.547				0.55%
Ag 328.068†	2.3	0.0123	ug/L	0.16982	0.0123	ppb	0.16982	>999.9%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-3.2	-2.1652	ug/L	4.52382	-2.1652	ppb	4.52382	208.94%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	1.2	0.4025	ug/L	0.42281	0.4025	ppb	0.42281	105.06%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	60.5	1.1929	ug/L	0.44700	1.1929	ppb	0.44700	37.47%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	17.4	0.1133	ug/L	0.04819	0.1133	ppb	0.04819	42.55%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	141.3	0.0460	ug/L	0.01086	0.0460	ppb	0.01086	23.61%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	8.6	11.807	ug/L	1.2739	11.807	ppb	1.2739	10.79%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              -3.0     -0.0289 ug/L       0.02745     -0.0289 ppb        0.02745  95.08%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†              -2.4     -0.0398 ug/L       0.11383     -0.0398 ppb        0.11383 285.71%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†               5.5      0.0536 ug/L       0.06490      0.0536 ppb        0.06490 121.17%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -75.9     -0.2065 ug/L       0.27942     -0.2065 ppb        0.27942 135.32%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        1.2      9.2941 ug/L       8.91568      9.2941 ppb        8.91568  95.93%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        13.5      2.1706 ug/L       2.94918      2.1706 ppb        2.94918 135.87%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          -3.7    -106.83 ug/L        37.742     -106.83 ppb         37.742  35.33%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              54.7      0.0551 ug/L       0.03337      0.0551 ppb        0.03337  60.59%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               4.0      0.2296 ug/L       0.48915      0.2296 ppb        0.48915 213.06%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       66.8     17.571 ug/L        1.9231     17.571 ppb         1.9231  10.95%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              -8.3     -0.1726 ug/L       0.01304     -0.1726 ppb        0.01304   7.55%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                4.1      2.1053 ug/L       2.11375      2.1053 ppb        2.11375 100.40%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               4.4      0.4448 ug/L       1.90051      0.4448 ppb        1.90051 427.23%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         -1.2     -1.3742 ug/L       6.23468     -1.3742 ppb        6.23468 453.70%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -4.9     -1.3965 ug/L       0.55179     -1.3965 ppb        0.55179  39.51%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               1.8      0.9726 ug/L       2.74527      0.9726 ppb        2.74527 282.26%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†              39.7      1.0643 ug/L       0.27923      1.0643 ppb        0.27923  26.23%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               3.9      0.5664 ug/L       0.31110      0.5664 ppb        0.31110  54.93%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              24.9      0.1347 ug/L       0.08700      0.1347 ppb        0.08700  64.56%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             -46.2     -0.0652 ug/L       0.14980     -0.0652 ppb        0.14980 229.63%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -4.8     -1.2095 ug/L       1.00031     -1.2095 ppb        1.00031  82.70%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                5.5      0.1460 ug/L       2.16506      0.1460 ppb        2.16506 >999.9%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              -11.9     -0.0728 ug/L       0.13823     -0.0728 ppb        0.13823 189.79%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              50.1      0.3990 ug/L       0.07808      0.3990 ppb        0.07808  19.57%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                     2.7      0.1427 ug/L       0.61306      0.1427 ppb        0.61306 429.61%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
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Sequence No.: 31
Sample ID: 1201994203|932268|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 57
Date Collected: 12/17/2009 17:59:49
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1201994203|932268|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	6087.1	6087.1	102	%			18:01:41
1	Y RADIAL	6207.2	6207.2	100.5	%			18:01:41
1	Al 396.153Radial†	-1.3	15.0	9.9745	ug/L	9.9745	ppb	18:01:41
1	Ca 317.933Radial†	28.2	7.1	9.7723	ug/L	9.7723	ppb	18:02:02
1	Fe 238.204 Radial†	10.1	-3.0	-23.177	ug/L	-23.177	ppb	18:02:02
1	K 766.490 Radial†	3053.4	-161.2	-26.035	ug/L	-26.035	ppb	18:01:41
1	Mg 279.077 IEC†	2.6	-2.8	-82.194	ug/L	-82.194	ppb	18:02:02
1	Na 589.592 Radial†	-1638.3	123.3	32.402	ug/L	32.402	ppb	18:01:41
1	Sr 421.552†	-15.8	-1.2	-0.0068	ug/L	-0.0068	ppb	18:01:41
1	Sc 361.383	977502.1	977502.1	104.84	%			18:02:58
1	Y 371.029	788971.1	788971.1	102.60	%			18:02:58
1	Ag 328.068†	483.1	52.4	0.2036	ug/L	0.2036	ppb	18:03:03
1	As 188.979†	-27.6	5.2	1.7947	ug/L	1.7947	ppb	18:03:23
1	B 249.677†	-490.4	58.8	1.1636	ug/L	1.1636	ppb	18:03:23
1	Ba 233.527†	8.5	-3.4	-0.0226	ug/L	-0.0226	ppb	18:03:23
1	Be 313.107†	-4525.4	232.1	0.0763	ug/L	0.0763	ppb	18:03:03
1	Cd 226.502†	-218.8	5.1	0.0500	ug/L	0.0500	ppb	18:03:23
1	Co 228.616†	-90.4	-2.5	-0.0416	ug/L	-0.0416	ppb	18:03:23
1	Cr 267.716†	121.4	31.0	0.2971	ug/L	0.2971	ppb	18:03:23
1	Cu 324.752†	6107.0	-274.6	-0.7501	ug/L	-0.7501	ppb	18:03:03
1	Mn 257.610†	703.5	111.5	0.1056	ug/L	0.1056	ppb	18:03:23
1	Mo 202.031†	27.8	1.5	0.0849	ug/L	0.0849	ppb	18:03:23
1	Ni 231.604†	115.3	-19.7	-0.4125	ug/L	-0.4125	ppb	18:03:23
1	P 214.914†	247.6	-8.9	-4.3246	ug/L	-4.3246	ppb	18:03:23
1	Pb 220.353†	-86.7	-6.4	-0.6412	ug/L	-0.6412	ppb	18:03:23
1	S 181.975 Axial†	62.4	11.1	13.078	ug/L	13.078	ppb	18:03:23
1	Sb 206.836†	44.8	-1.7	-0.4992	ug/L	-0.4992	ppb	18:03:23
1	Se 196.026†	-32.8	4.7	2.4023	ug/L	2.4023	ppb	18:03:23
1	Si 251.611†	935.7	250.8	6.7785	ug/L	6.7785	ppb	18:03:23
1	Sn 189.927†	6.7	0.2	0.0281	ug/L	0.0281	ppb	18:03:23
1	Ti 334.940†	-1328.0	188.3	0.2642	ug/L	0.2642	ppb	18:03:03
1	Tl 190.801†	-40.8	2.2	0.5476	ug/L	0.5476	ppb	18:03:23
1	U 409.014†	-2756.4	339.8	9.1384	ug/L	9.1384	ppb	18:02:58
1	V 292.402†	-1574.4	30.5	0.2063	ug/L	0.2063	ppb	18:03:03
1	Zn 213.857†	1045.5	117.9	0.9379	ug/L	0.9379	ppb	18:03:23
1	SiO2†	980.6	256.1	14.932	ug/L	14.932	ppb	18:04:29
2	Sc Radial	5837.1	5837.1	98.1	%			18:02:07
2	Y RADIAL	5998.3	5998.3	97.07	%			18:02:07
2	Al 396.153Radial†	-24.6	-8.8	-5.8600	ug/L	-5.8600	ppb	18:02:07
2	Ca 317.933Radial†	31.1	11.2	15.401	ug/L	15.401	ppb	18:02:27
2	Fe 238.204 Radial†	12.1	-0.6	-4.3303	ug/L	-4.3303	ppb	18:02:27
2	K 766.490 Radial†	3012.9	-74.6	-12.048	ug/L	-12.048	ppb	18:02:07
2	Mg 279.077 IEC†	1.0	-4.4	-127.48	ug/L	-127.48	ppb	18:02:27
2	Na 589.592 Radial†	-1661.7	30.8	8.1073	ug/L	8.1073	ppb	18:02:07
2	Sr 421.552†	46.7	61.9	0.3348	ug/L	0.3348	ppb	18:02:07
2	Sc 361.383	972994.3	972994.3	104.36	%			18:03:29
2	Y 371.029	785949.3	785949.3	102.21	%			18:03:29
2	Ag 328.068†	379.7	-44.6	-0.1957	ug/L	-0.1957	ppb	18:03:34
2	As 188.979†	-22.2	10.2	3.5239	ug/L	3.5239	ppb	18:03:54
2	B 249.677†	-499.6	47.9	0.9458	ug/L	0.9458	ppb	18:03:54
2	Ba 233.527†	7.8	-4.0	-0.0264	ug/L	-0.0264	ppb	18:03:54
2	Be 313.107†	-4463.2	271.7	0.0893	ug/L	0.0893	ppb	18:03:34
2	Cd 226.502†	-230.9	-7.4	-0.0693	ug/L	-0.0693	ppb	18:03:54
2	Co 228.616†	-96.3	-8.5	-0.1426	ug/L	-0.1426	ppb	18:03:54
2	Cr 267.716†	109.2	19.9	0.1891	ug/L	0.1891	ppb	18:03:54
2	Cu 324.752†	6125.1	-230.3	-0.6282	ug/L	-0.6282	ppb	18:03:34
2	Mn 257.610†	700.4	111.7	0.1085	ug/L	0.1085	ppb	18:03:54
2	Mo 202.031†	31.4	5.1	0.2959	ug/L	0.2959	ppb	18:03:54
2	Ni 231.604†	115.1	-19.5	-0.4062	ug/L	-0.4062	ppb	18:03:54

2	P 214.914†	266.0	9.8	5.0313 ug/L	5.0313 ppb	18:03:54
2	Pb 220.353†	-82.8	-3.1	-0.3099 ug/L	-0.3099 ppb	18:03:54
2	S 181.975 Axial†	57.2	6.4	7.4997 ug/L	7.4997 ppb	18:03:54
2	Sb 206.836†	46.6	0.3	0.0831 ug/L	0.0831 ppb	18:03:54
2	Se 196.026†	-26.5	10.5	5.5660 ug/L	5.5660 ppb	18:03:54
2	Si 251.611†	948.7	267.4	7.2167 ug/L	7.2167 ppb	18:03:54
2	Sn 189.927†	8.9	2.3	0.3315 ug/L	0.3315 ppb	18:03:54
2	Ti 334.940†	-1305.0	204.4	0.2874 ug/L	0.2874 ppb	18:03:34
2	Tl 190.801†	-39.2	3.5	0.8828 ug/L	0.8828 ppb	18:03:54
2	U 409.014†	-2737.7	345.5	9.2894 ug/L	9.2894 ppb	18:03:29
2	V 292.402†	-1602.0	-3.0	0.0015 ug/L	0.0015 ppb	18:03:34
2	Zn 213.857†	1061.7	138.1	1.0961 ug/L	1.0961 ppb	18:03:54
2	SiO2†	974.8	254.9	14.842 ug/L	14.842 ppb	18:04:34
3	Sc Radial	6065.1	6065.1	102 %		18:02:32
3	Y RADIAL	6226.6	6226.6	100.8 %		18:02:32
3	Al 396.153Radial†	-16.8	-0.3	-0.1464 ug/L	-0.1464 ppb	18:02:32
3	Ca 317.933Radial†	25.2	4.3	5.8525 ug/L	5.8525 ppb	18:02:52
3	Fe 238.204 Radial†	12.8	-0.3	-2.4601 ug/L	-2.4601 ppb	18:02:52
3	K 766.490 Radial†	3144.6	-60.9	-9.8544 ug/L	-9.8544 ppb	18:02:32
3	Mg 279.077 IEC†	-0.6	-5.9	-172.84 ug/L	-172.84 ppb	18:02:52
3	Na 589.592 Radial†	-1591.4	163.5	42.985 ug/L	42.985 ppb	18:02:32
3	Sr 421.552†	-9.2	5.2	0.0280 ug/L	0.0280 ppb	18:02:32
3	Sc 361.383	968186.2	968186.2	103.84 %		18:03:59
3	Y 371.029	782951.2	782951.2	101.82 %		18:03:59
3	Ag 328.068†	412.7	-11.0	-0.0461 ug/L	-0.0461 ppb	18:04:04
3	As 188.979†	-32.9	-0.2	-0.0731 ug/L	-0.0731 ppb	18:04:24
3	B 249.677†	-488.5	56.2	1.1086 ug/L	1.1086 ppb	18:04:24
3	Ba 233.527†	21.4	9.1	0.0600 ug/L	0.0600 ppb	18:04:24
3	Be 313.107†	-4458.9	254.6	0.0833 ug/L	0.0833 ppb	18:04:04
3	Cd 226.502†	-237.5	-14.9	-0.1401 ug/L	-0.1401 ppb	18:04:24
3	Co 228.616†	-83.1	3.8	0.0615 ug/L	0.0615 ppb	18:04:24
3	Cr 267.716†	113.9	25.0	0.2421 ug/L	0.2421 ppb	18:04:24
3	Cu 324.752†	6131.1	-195.3	-0.5328 ug/L	-0.5328 ppb	18:04:04
3	Mn 257.610†	735.3	148.6	0.1448 ug/L	0.1448 ppb	18:04:24
3	Mo 202.031†	14.0	-11.5	-0.6631 ug/L	-0.6631 ppb	18:04:24
3	Ni 231.604†	111.6	-22.3	-0.4653 ug/L	-0.4653 ppb	18:04:24
3	P 214.914†	255.5	1.0	0.5955 ug/L	0.5955 ppb	18:04:24
3	Pb 220.353†	-89.5	-10.0	-1.0026 ug/L	-1.0026 ppb	18:04:24
3	S 181.975 Axial†	56.1	5.6	6.6125 ug/L	6.6125 ppb	18:04:24
3	Sb 206.836†	41.8	-4.2	-1.2300 ug/L	-1.2300 ppb	18:04:24
3	Se 196.026†	-32.8	4.4	2.3045 ug/L	2.3045 ppb	18:04:24
3	Si 251.611†	923.8	247.9	6.7076 ug/L	6.7076 ppb	18:04:24
3	Sn 189.927†	4.8	-1.6	-0.2270 ug/L	-0.2270 ppb	18:04:24
3	Ti 334.940†	-1448.6	59.9	0.0848 ug/L	0.0848 ppb	18:04:04
3	Tl 190.801†	-48.2	-5.3	-1.3142 ug/L	-1.3142 ppb	18:04:24
3	U 409.014†	-3020.5	60.2	1.6178 ug/L	1.6178 ppb	18:03:59
3	V 292.402†	-1497.3	90.2	0.5411 ug/L	0.5411 ppb	18:04:04
3	Zn 213.857†	1045.9	127.8	1.0173 ug/L	1.0173 ppb	18:04:24
3	SiO2†	1004.7	288.4	16.829 ug/L	16.829 ppb	18:04:39

Mean Data: 1201994203|932268|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	972894.2	104.35	%	0.500				0.48%
Sc Radial	5996.4	101	%	2.3				2.31%
Y 371.029	785957.2	102.21	%	0.391				0.38%
Y RADIAL	6144.0	99.43	%	2.048				2.06%
Ag 328.068†	-1.1	-0.0127	ug/L	0.20172	-0.0127	ppb	0.20172	>999.9%
Al 396.153Radial†	2.0	1.3227	ug/L	8.01882	1.3227	ppb	8.01882	606.24%
As 188.979†	5.1	1.7485	ug/L	1.79898	1.7485	ppb	1.79898	102.89%
B 249.677†	54.3	1.0727	ug/L	0.11326	1.0727	ppb	0.11326	10.56%
Ba 233.527†	0.5	0.0037	ug/L	0.04878	0.0037	ppb	0.04878	>999.9%
Be 313.107†	252.8	0.0830	ug/L	0.00650	0.0830	ppb	0.00650	7.83%
Ca 317.933Radial†	7.5	10.342	ug/L	4.7995	10.342	ppb	4.7995	46.41%
Cd 226.502†	-5.7	-0.0531	ug/L	0.09604	-0.0531	ppb	0.09604	180.76%
Co 228.616†	-2.4	-0.0409	ug/L	0.10205	-0.0409	ppb	0.10205	249.55%
Cr 267.716†	25.3	0.2428	ug/L	0.05403	0.2428	ppb	0.05403	22.26%
Cu 324.752†	-233.4	-0.6370	ug/L	0.10894	-0.6370	ppb	0.10894	17.10%
Fe 238.204 Radial†	-1.3	-9.9890	ug/L	11.45901	-9.9890	ppb	11.45901	114.72%
K 766.490 Radial†	-98.9	-15.979	ug/L	8.7773	-15.979	ppb	8.7773	54.93%

Mg 279.077 IEC†	-4.4	-127.50	ug/L	45.322	-127.50	ppb	45.322	35.55%
Mn 257.610†	124.0	0.1196	ug/L	0.02181	0.1196	ppb	0.02181	18.23%
Mo 202.031†	-1.6	-0.0941	ug/L	0.50393	-0.0941	ppb	0.50393	535.41%
Na 589.592 Radial†	105.9	27.831	ug/L	17.8823	27.831	ppb	17.8823	64.25%
Ni 231.604†	-20.5	-0.4280	ug/L	0.03243	-0.4280	ppb	0.03243	7.58%
P 214.914†	0.6	0.4341	ug/L	4.68005	0.4341	ppb	4.68005	>999.9%
Pb 220.353†	-6.5	-0.6512	ug/L	0.34648	-0.6512	ppb	0.34648	53.20%
S 181.975 Axial†	7.7	9.0635	ug/L	3.50521	9.0635	ppb	3.50521	38.67%
Sb 206.836†	-1.9	-0.5487	ug/L	0.65792	-0.5487	ppb	0.65792	119.91%
Se 196.026†	6.5	3.4243	ug/L	1.85541	3.4243	ppb	1.85541	54.18%
Si 251.611†	255.4	6.9009	ug/L	0.27574	6.9009	ppb	0.27574	4.00%
Sn 189.927†	0.3	0.0442	ug/L	0.27962	0.0442	ppb	0.27962	632.75%
Sr 421.552†	22.0	0.1187	ug/L	0.18799	0.1187	ppb	0.18799	158.38%
Ti 334.940†	150.9	0.2122	ug/L	0.11091	0.2122	ppb	0.11091	52.28%
Tl 190.801†	0.1	0.0387	ug/L	1.18361	0.0387	ppb	1.18361	>999.9%
U 409.014†	248.5	6.6819	ug/L	4.38626	6.6819	ppb	4.38626	65.64%
V 292.402†	39.2	0.2496	ug/L	0.27239	0.2496	ppb	0.27239	109.12%
Zn 213.857†	127.9	1.0171	ug/L	0.07911	1.0171	ppb	0.07911	7.78%
SiO2†	266.5	15.534	ug/L	1.1220	15.534	ppb	1.1220	7.22%

Sequence No.: 32
Sample ID: 1201994204|932268|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 58
Date Collected: 12/17/2009 18:06:50
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1201994204|932268|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	5949.2	5949.2	100.0	%			18:08:43
1	Y RADIAL	6028.3	6028.3	97.56	%			18:08:43
1	Al 396.153Radial†	7480.1	7498.8	4967.5	ug/L	4967.5	ppb	18:08:43
1	Ca 317.933Radial†	3882.7	3863.5	5306.4	ug/L	5306.4	ppb	18:08:43
1	Fe 238.204 Radial†	727.9	715.2	5502.4	ug/L	5502.4	ppb	18:09:03
1	K 766.490 Radial†	35619.0	32484.0	5235.7	ug/L	5235.7	ppb	18:08:43
1	Mg 279.077 IEC†	187.9	182.6	5336.9	ug/L	5336.9	ppb	18:09:03
1	Na 589.592 Radial†	19364.0	21095.2	5545.1	ug/L	5545.1	ppb	18:08:43
1	Sr 421.552†	95305.0	95350.0	515.90	ug/L	515.90	ppb	18:08:43
1	Sc 361.383	965864.5	965864.5	103.59	%			18:10:02
1	Y 371.029	770077.3	770077.3	100.15	%			18:10:02
1	Ag 328.068†	123592.2	118895.7	499.43	ug/L	499.43	ppb	18:10:02
1	As 188.979†	1475.0	1455.3	508.24	ug/L	508.24	ppb	18:10:23
1	B 249.677†	25223.5	24875.0	489.04	ug/L	489.04	ppb	18:10:02
1	Ba 233.527†	81827.8	78977.3	513.89	ug/L	513.89	ppb	18:10:02
1	Be 313.107†	1589751.8	1539144.3	503.62	ug/L	503.62	ppb	18:10:02
1	Cd 226.502†	55004.6	53310.1	500.62	ug/L	500.62	ppb	18:10:02
1	Co 228.616†	30338.3	29369.5	493.31	ug/L	493.31	ppb	18:10:23
1	Cr 267.716†	53511.5	51570.2	499.59	ug/L	499.59	ppb	18:10:02
1	Cu 324.752†	198800.9	185804.0	506.99	ug/L	506.99	ppb	18:10:02
1	Mn 257.610†	555565.0	535730.4	511.59	ug/L	511.59	ppb	18:10:02
1	Mo 202.031†	9002.2	8664.9	500.04	ug/L	500.04	ppb	18:10:23
1	Ni 231.604†	25047.3	24048.5	502.03	ug/L	502.03	ppb	18:10:23
1	P 214.914†	1460.9	1165.2	507.67	ug/L	507.67	ppb	18:10:23
1	Pb 220.353†	5210.3	5105.8	514.16	ug/L	514.16	ppb	18:10:23
1	S 181.975 Axial†	4520.8	4315.5	5067.5	ug/L	5067.5	ppb	18:10:23
1	Sb 206.836†	1898.2	1788.0	524.29	ug/L	524.29	ppb	18:10:23
1	Se 196.026†	932.6	936.2	518.80	ug/L	518.80	ppb	18:10:23
1	Si 251.611†	190482.5	183232.1	4934.6	ug/L	4934.6	ppb	18:10:02
1	Sn 189.927†	3784.7	3647.2	522.65	ug/L	522.65	ppb	18:10:23
1	Ti 334.940†	370511.3	359111.5	510.74	ug/L	510.74	ppb	18:10:02
1	Tl 190.801†	2048.6	2018.6	507.76	ug/L	507.76	ppb	18:10:23
1	U 409.014†	16599.8	18992.7	509.05	ug/L	509.05	ppb	18:10:02
1	V 292.402†	83436.8	82074.1	507.89	ug/L	507.89	ppb	18:10:02
1	Zn 213.857†	66194.0	63018.1	492.11	ug/L	492.11	ppb	18:10:02
1	SiO2†	191864.1	184528.3	10719	ug/L	10719	ppb	18:11:23
2	Sc Radial	5970.8	5970.8	100	%			18:09:09
2	Y RADIAL	6097.8	6097.8	98.68	%			18:09:09
2	Al 396.153Radial†	7580.1	7571.4	5016.1	ug/L	5016.1	ppb	18:09:09
2	Ca 317.933Radial†	3888.1	3854.9	5294.6	ug/L	5294.6	ppb	18:09:09
2	Fe 238.204 Radial†	725.2	709.9	5461.5	ug/L	5461.5	ppb	18:09:29
2	K 766.490 Radial†	35878.7	32614.2	5256.7	ug/L	5256.7	ppb	18:09:09
2	Mg 279.077 IEC†	189.8	183.8	5370.6	ug/L	5370.6	ppb	18:09:29
2	Na 589.592 Radial†	19557.8	21218.4	5577.5	ug/L	5577.5	ppb	18:09:09
2	Sr 421.552†	96271.4	95968.7	519.25	ug/L	519.25	ppb	18:09:09
2	Sc 361.383	970344.2	970344.2	104.07	%			18:10:30
2	Y 371.029	773998.2	773998.2	100.66	%			18:10:30
2	Ag 328.068†	123606.5	118358.7	497.17	ug/L	497.17	ppb	18:10:30
2	As 188.979†	1453.7	1428.2	498.86	ug/L	498.86	ppb	18:10:50
2	B 249.677†	25303.1	24839.0	488.35	ug/L	488.35	ppb	18:10:30
2	Ba 233.527†	81758.7	78546.3	511.08	ug/L	511.08	ppb	18:10:30
2	Be 313.107†	1593225.7	1535397.5	502.39	ug/L	502.39	ppb	18:10:30
2	Cd 226.502†	55023.1	53082.7	498.48	ug/L	498.48	ppb	18:10:30
2	Co 228.616†	30090.2	28995.9	487.02	ug/L	487.02	ppb	18:10:50
2	Cr 267.716†	53635.2	51450.6	498.43	ug/L	498.43	ppb	18:10:30
2	Cu 324.752†	198947.4	185058.9	504.95	ug/L	504.95	ppb	18:10:30
2	Mn 257.610†	555634.8	533321.6	509.28	ug/L	509.28	ppb	18:10:30
2	Mo 202.031†	8937.8	8562.9	494.16	ug/L	494.16	ppb	18:10:50
2	Ni 231.604†	24854.0	23751.2	495.82	ug/L	495.82	ppb	18:10:50

2	P 214.914†	1438.0	1136.7	493.70 ug/L	493.70 ppb	18:10:50
2	Pb 220.353†	5158.0	5032.2	506.78 ug/L	506.78 ppb	18:10:50
2	S 181.975 Axial†	4484.7	4260.7	5003.1 ug/L	5003.1 ppb	18:10:50
2	Sb 206.836†	1880.3	1762.3	516.68 ug/L	516.68 ppb	18:10:50
2	Se 196.026†	923.2	923.0	511.63 ug/L	511.63 ppb	18:10:50
2	Si 251.611†	190647.6	182541.8	4916.0 ug/L	4916.0 ppb	18:10:30
2	Sn 189.927†	3772.3	3618.4	518.52 ug/L	518.52 ppb	18:10:50
2	Ti 334.940†	371099.6	358025.5	509.20 ug/L	509.20 ppb	18:10:30
2	Tl 190.801†	2063.2	2023.6	509.02 ug/L	509.02 ppb	18:10:50
2	U 409.014†	16633.2	18950.8	507.93 ug/L	507.93 ppb	18:10:30
2	V 292.402†	83609.6	81868.3	506.56 ug/L	506.56 ppb	18:10:30
2	Zn 213.857†	66309.1	62833.7	490.71 ug/L	490.71 ppb	18:10:30
2	SiO2†	190459.8	182324.0	10591 ug/L	10591 ppb	18:11:28
3	Sc Radial	5928.5	5928.5	99.6 %		18:09:34
3	Y RADIAL	6009.0	6009.0	97.24 %		18:09:34
3	Al 396.153Radial†	7486.8	7531.6	4989.4 ug/L	4989.4 ppb	18:09:34
3	Ca 317.933Radial†	3862.3	3856.6	5297.0 ug/L	5297.0 ppb	18:09:34
3	Fe 238.204 Radial†	718.3	708.2	5448.2 ug/L	5448.2 ppb	18:09:54
3	K 766.490 Radial†	35467.3	32456.3	5231.3 ug/L	5231.3 ppb	18:09:34
3	Mg 279.077 IEC†	185.2	180.6	5276.8 ug/L	5276.8 ppb	18:09:54
3	Na 589.592 Radial†	19194.1	20992.4	5518.1 ug/L	5518.1 ppb	18:09:34
3	Sr 421.552†	94578.2	94953.6	513.76 ug/L	513.76 ppb	18:09:34
3	Sc 361.383	972565.9	972565.9	104.31 %		18:10:57
3	Y 371.029	776511.2	776511.2	100.98 %		18:10:57
3	Ag 328.068†	124079.5	118540.9	497.93 ug/L	497.93 ppb	18:10:57
3	As 188.979†	1475.8	1446.2	505.07 ug/L	505.07 ppb	18:11:18
3	B 249.677†	25432.1	24907.1	489.68 ug/L	489.68 ppb	18:10:57
3	Ba 233.527†	81905.0	78507.0	510.83 ug/L	510.83 ppb	18:10:57
3	Be 313.107†	1599996.7	1538391.5	503.37 ug/L	503.37 ppb	18:10:57
3	Cd 226.502†	55264.4	53193.3	499.52 ug/L	499.52 ppb	18:10:57
3	Co 228.616†	30508.0	29330.4	492.65 ug/L	492.65 ppb	18:11:18
3	Cr 267.716†	53810.8	51501.2	498.92 ug/L	498.92 ppb	18:10:57
3	Cu 324.752†	199870.0	185506.6	506.17 ug/L	506.17 ppb	18:10:57
3	Mn 257.610†	556875.7	533291.6	509.25 ug/L	509.25 ppb	18:10:57
3	Mo 202.031†	9040.2	8641.5	498.69 ug/L	498.69 ppb	18:11:18
3	Ni 231.604†	25159.8	23989.8	500.80 ug/L	500.80 ppb	18:11:18
3	P 214.914†	1452.7	1147.6	499.04 ug/L	499.04 ppb	18:11:18
3	Pb 220.353†	5225.1	5085.3	512.11 ug/L	512.11 ppb	18:11:18
3	S 181.975 Axial†	4546.7	4310.3	5061.4 ug/L	5061.4 ppb	18:11:18
3	Sb 206.836†	1916.7	1793.0	525.71 ug/L	525.71 ppb	18:11:18
3	Se 196.026†	941.9	938.9	520.06 ug/L	520.06 ppb	18:11:18
3	Si 251.611†	191050.3	182509.4	4915.1 ug/L	4915.1 ppb	18:10:57
3	Sn 189.927†	3798.3	3635.0	520.91 ug/L	520.91 ppb	18:11:18
3	Ti 334.940†	372203.6	358269.3	509.55 ug/L	509.55 ppb	18:10:57
3	Tl 190.801†	2082.0	2037.0	512.35 ug/L	512.35 ppb	18:11:18
3	U 409.014†	16655.6	18935.8	507.53 ug/L	507.53 ppb	18:10:57
3	V 292.402†	84149.5	82202.4	508.66 ug/L	508.66 ppb	18:10:57
3	Zn 213.857†	66407.6	62782.6	490.27 ug/L	490.27 ppb	18:10:57
3	SiO2†	193388.6	184713.6	10730 ug/L	10730 ppb	18:11:34

Mean Data: 1201994204|932268|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	969591.5	103.99	%	0.366				0.35%
Sc Radial	5949.5	100.0	%	0.36				0.36%
Y 371.029	773528.9	100.60	%	0.422				0.42%
Y RADIAL	6045.0	97.83	%	0.756				0.77%
Ag 328.068†	118598.4	498.18	ug/L	1.149	498.18	ppb	1.149	0.23%
Al 396.153Radial†	7533.9	4991.0	ug/L	24.34	4991.0	ppb	24.34	0.49%
As 188.979†	1443.2	504.06	ug/L	4.773	504.06	ppb	4.773	0.95%
B 249.677†	24873.7	489.03	ug/L	0.667	489.03	ppb	0.667	0.14%
Ba 233.527†	78676.9	511.93	ug/L	1.695	511.93	ppb	1.695	0.33%
Be 313.107†	1537644.5	503.13	ug/L	0.649	503.13	ppb	0.649	0.13%
Ca 317.933Radial†	3858.3	5299.4	ug/L	6.26	5299.4	ppb	6.26	0.12%
Cd 226.502†	53195.4	499.54	ug/L	1.068	499.54	ppb	1.068	0.21%
Co 228.616†	29231.9	490.99	ug/L	3.455	490.99	ppb	3.455	0.70%
Cr 267.716†	51507.3	498.98	ug/L	0.582	498.98	ppb	0.582	0.12%
Cu 324.752†	185456.5	506.04	ug/L	1.024	506.04	ppb	1.024	0.20%
Fe 238.204 Radial†	711.1	5470.7	ug/L	28.25	5470.7	ppb	28.25	0.52%
K 766.490 Radial†	32518.2	5241.2	ug/L	13.59	5241.2	ppb	13.59	0.26%

Mg 279.077 IEC†	182.3	5328.1	ug/L	47.50	5328.1	ppb	47.50	0.89%
Mn 257.610†	534114.5	510.04	ug/L	1.338	510.04	ppb	1.338	0.26%
Mo 202.031†	8623.1	497.63	ug/L	3.084	497.63	ppb	3.084	0.62%
Na 589.592 Radial†	21102.0	5546.9	ug/L	29.75	5546.9	ppb	29.75	0.54%
Ni 231.604†	23929.8	499.55	ug/L	3.287	499.55	ppb	3.287	0.66%
P 214.914†	1149.8	500.14	ug/L	7.047	500.14	ppb	7.047	1.41%
Pb 220.353†	5074.4	511.02	ug/L	3.812	511.02	ppb	3.812	0.75%
S 181.975 Axial†	4295.5	5044.0	ug/L	35.55	5044.0	ppb	35.55	0.70%
Sb 206.836†	1781.1	522.23	ug/L	4.853	522.23	ppb	4.853	0.93%
Se 196.026†	932.7	516.83	ug/L	4.546	516.83	ppb	4.546	0.88%
Si 251.611†	182761.1	4921.9	ug/L	10.98	4921.9	ppb	10.98	0.22%
Sn 189.927†	3633.5	520.69	ug/L	2.073	520.69	ppb	2.073	0.40%
Sr 421.552†	95424.1	516.30	ug/L	2.768	516.30	ppb	2.768	0.54%
Ti 334.940†	358468.8	509.83	ug/L	0.810	509.83	ppb	0.810	0.16%
Tl 190.801†	2026.4	509.71	ug/L	2.370	509.71	ppb	2.370	0.46%
U 409.014†	18959.8	508.17	ug/L	0.789	508.17	ppb	0.789	0.16%
V 292.402†	82048.3	507.70	ug/L	1.064	507.70	ppb	1.064	0.21%
Zn 213.857†	62878.1	491.03	ug/L	0.962	491.03	ppb	0.962	0.20%
SiO2†	183855.3	10680	ug/L	77.3	10680	ppb	77.3	0.72%

Sequence No.: 35
Sample ID: 242751001|932268|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 61
Date Collected: 12/17/2009 18:27:49
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 242751001|932268|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	6127.7	6127.7	103	%			18:29:42
1	Y RADIAL	6250.8	6250.8	101.2	%			18:29:42
1	Al 396.153Radial†	6.6	22.7	15.080	ug/L	15.080	ppb	18:29:42
1	Ca 317.933Radial†	37.3	15.8	21.675	ug/L	21.675	ppb	18:30:02
1	Fe 238.204 Radial†	15.7	2.4	18.225	ug/L	18.225	ppb	18:30:02
1	K 766.490 Radial†	3120.2	-116.2	-18.820	ug/L	-18.820	ppb	18:29:42
1	Mg 279.077 IEC†	5.4	-0.1	-4.2703	ug/L	-4.2703	ppb	18:30:02
1	Na 589.592 Radial†	-1251.5	509.6	133.94	ug/L	133.94	ppb	18:29:42
1	Sr 421.552†	11.6	25.5	0.1380	ug/L	0.1380	ppb	18:29:42
1	Sc 361.383	941705.5	941705.5	101.00	%			18:30:59
1	Y 371.029	772897.9	772897.9	100.51	%			18:30:59
1	Ag 328.068†	433.4	20.7	0.0924	ug/L	0.0924	ppb	18:30:59
1	As 188.979†	-37.7	-5.8	-2.0116	ug/L	-2.0116	ppb	18:31:19
1	B 249.677†	-370.9	159.4	3.1441	ug/L	3.1441	ppb	18:31:19
1	Ba 233.527†	43.1	31.1	0.2032	ug/L	0.2032	ppb	18:31:19
1	Be 313.107†	-4524.4	68.9	0.0231	ug/L	0.0231	ppb	18:30:59
1	Cd 226.502†	-233.1	-17.0	-0.1613	ug/L	-0.1613	ppb	18:31:19
1	Co 228.616†	-82.4	2.2	0.0360	ug/L	0.0360	ppb	18:31:19
1	Cr 267.716†	188.9	102.3	0.9899	ug/L	0.9899	ppb	18:31:19
1	Cu 324.752†	6202.4	41.3	0.1136	ug/L	0.1136	ppb	18:30:59
1	Mn 257.610†	1913.4	1334.9	1.2755	ug/L	1.2755	ppb	18:30:59
1	Mo 202.031†	25.5	0.3	0.0196	ug/L	0.0196	ppb	18:31:19
1	Ni 231.604†	133.5	2.5	0.0518	ug/L	0.0518	ppb	18:31:19
1	P 214.914†	252.5	4.9	2.4356	ug/L	2.4356	ppb	18:31:19
1	Pb 220.353†	-62.4	14.4	1.4501	ug/L	1.4501	ppb	18:31:19
1	S 181.975 Axial†	57.4	8.4	9.8486	ug/L	9.8486	ppb	18:31:19
1	Sb 206.836†	49.2	4.3	1.2090	ug/L	1.2090	ppb	18:31:19
1	Se 196.026†	-24.4	11.8	6.3425	ug/L	6.3425	ppb	18:31:19
1	Si 251.611†	86480.9	84980.4	2294.2	ug/L	2294.2	ppb	18:30:59
1	Sn 189.927†	5.5	-0.8	-0.1115	ug/L	-0.1115	ppb	18:31:19
1	Ti 334.940†	-1258.2	209.2	0.2980	ug/L	0.2980	ppb	18:30:59
1	Tl 190.801†	-46.6	-5.0	-1.2424	ug/L	-1.2424	ppb	18:31:19
1	U 409.014†	-2965.4	32.9	0.8795	ug/L	0.8795	ppb	18:30:59
1	V 292.402†	-1502.8	44.3	0.2686	ug/L	0.2686	ppb	18:30:59
1	Zn 213.857†	1134.7	244.1	1.9216	ug/L	1.9216	ppb	18:31:19
1	SiO2†	86031.3	84497.8	4920.6	ug/L	4920.6	ppb	18:32:15
2	Sc Radial	6148.0	6148.0	103	%			18:30:07
2	Y RADIAL	6298.3	6298.3	101.9	%			18:30:07
2	Al 396.153Radial†	-9.7	6.8	4.5473	ug/L	4.5473	ppb	18:30:07
2	Ca 317.933Radial†	41.1	19.3	26.523	ug/L	26.523	ppb	18:30:27
2	Fe 238.204 Radial†	15.2	1.8	13.734	ug/L	13.734	ppb	18:30:27
2	K 766.490 Radial†	3153.1	-94.3	-15.288	ug/L	-15.288	ppb	18:30:07
2	Mg 279.077 IEC†	3.3	-2.2	-63.430	ug/L	-63.430	ppb	18:30:27
2	Na 589.592 Radial†	-1244.6	520.3	136.76	ug/L	136.76	ppb	18:30:07
2	Sr 421.552†	31.7	44.9	0.2427	ug/L	0.2427	ppb	18:30:07
2	Sc 361.383	946752.1	946752.1	101.54	%			18:31:25
2	Y 371.029	778954.0	778954.0	101.30	%			18:31:25
2	Ag 328.068†	459.2	43.8	0.1830	ug/L	0.1830	ppb	18:31:25
2	As 188.979†	-30.4	1.5	0.5220	ug/L	0.5220	ppb	18:31:45
2	B 249.677†	-368.9	163.3	3.2211	ug/L	3.2211	ppb	18:31:45
2	Ba 233.527†	65.6	53.1	0.3454	ug/L	0.3454	ppb	18:31:45
2	Be 313.107†	-4426.0	189.7	0.0626	ug/L	0.0626	ppb	18:31:25
2	Cd 226.502†	-238.6	-21.1	-0.2002	ug/L	-0.2002	ppb	18:31:45
2	Co 228.616†	-86.4	-1.3	-0.0225	ug/L	-0.0225	ppb	18:31:45
2	Cr 267.716†	144.5	57.6	0.5560	ug/L	0.5560	ppb	18:31:45
2	Cu 324.752†	6241.9	47.4	0.1299	ug/L	0.1299	ppb	18:31:25
2	Mn 257.610†	1939.6	1350.7	1.2912	ug/L	1.2912	ppb	18:31:25
2	Mo 202.031†	28.5	3.1	0.1781	ug/L	0.1781	ppb	18:31:45
2	Ni 231.604†	104.8	-26.5	-0.5541	ug/L	-0.5541	ppb	18:31:45

2	P 214.914†	258.4	9.4	4.6838 ug/L	4.6838 ppb	18:31:45
2	Pb 220.353†	-72.0	5.3	0.5358 ug/L	0.5358 ppb	18:31:45
2	S 181.975 Axial†	59.2	9.9	11.614 ug/L	11.614 ppb	18:31:45
2	Sb 206.836†	44.2	-0.9	-0.2843 ug/L	-0.2843 ppb	18:31:45
2	Se 196.026†	-27.9	8.5	4.5438 ug/L	4.5438 ppb	18:31:45
2	Si 251.611†	87425.6	85454.4	2307.0 ug/L	2307.0 ppb	18:31:25
2	Sn 189.927†	4.2	-2.1	-0.3013 ug/L	-0.3013 ppb	18:31:45
2	Ti 334.940†	-1249.0	224.9	0.3188 ug/L	0.3188 ppb	18:31:25
2	Tl 190.801†	-35.2	6.5	1.6294 ug/L	1.6294 ppb	18:31:45
2	U 409.014†	-2814.9	196.8	5.2884 ug/L	5.2884 ppb	18:31:25
2	V 292.402†	-1524.3	31.0	0.1982 ug/L	0.1982 ppb	18:31:25
2	Zn 213.857†	1115.3	219.0	1.7302 ug/L	1.7302 ppb	18:31:45
2	SiO2†	86677.0	84679.7	4931.2 ug/L	4931.2 ppb	18:32:21
3	Sc Radial	6107.9	6107.9	103 %		18:30:32
3	Y RADIAL	6247.2	6247.2	101.1 %		18:30:32
3	Al 396.153Radial†	2.2	18.4	12.228 ug/L	12.228 ppb	18:30:32
3	Ca 317.933Radial†	40.5	19.0	26.152 ug/L	26.152 ppb	18:30:53
3	Fe 238.204 Radial†	14.1	0.8	6.1484 ug/L	6.1484 ppb	18:30:53
3	K 766.490 Radial†	3225.5	-3.7	-0.6675 ug/L	-0.6675 ppb	18:30:32
3	Mg 279.077 IEC†	4.8	-0.7	-20.133 ug/L	-20.133 ppb	18:30:53
3	Na 589.592 Radial†	-1228.2	528.3	138.86 ug/L	138.86 ppb	18:30:32
3	Sr 421.552†	35.8	49.1	0.2657 ug/L	0.2657 ppb	18:30:32
3	Sc 361.383	946592.3	946592.3	101.53 %		18:31:50
3	Y 371.029	780069.2	780069.2	101.45 %		18:31:50
3	Ag 328.068†	354.9	-58.9	-0.2447 ug/L	-0.2447 ppb	18:31:50
3	As 188.979†	-34.1	-2.1	-0.7253 ug/L	-0.7253 ppb	18:32:10
3	B 249.677†	-358.0	174.0	3.4339 ug/L	3.4339 ppb	18:32:10
3	Ba 233.527†	49.5	37.2	0.2424 ug/L	0.2424 ppb	18:32:10
3	Be 313.107†	-4479.9	136.0	0.0449 ug/L	0.0449 ppb	18:31:50
3	Cd 226.502†	-238.1	-20.7	-0.1951 ug/L	-0.1951 ppb	18:32:10
3	Co 228.616†	-83.8	1.3	0.0204 ug/L	0.0204 ppb	18:32:10
3	Cr 267.716†	175.9	88.5	0.8561 ug/L	0.8561 ppb	18:32:10
3	Cu 324.752†	6087.1	-104.0	-0.2834 ug/L	-0.2834 ppb	18:31:50
3	Mn 257.610†	1853.9	1266.6	1.2094 ug/L	1.2094 ppb	18:31:50
3	Mo 202.031†	26.2	0.9	0.0504 ug/L	0.0504 ppb	18:32:10
3	Ni 231.604†	118.3	-13.2	-0.2768 ug/L	-0.2768 ppb	18:32:10
3	P 214.914†	253.2	4.4	2.2387 ug/L	2.2387 ppb	18:32:10
3	Pb 220.353†	-63.4	13.7	1.3819 ug/L	1.3819 ppb	18:32:10
3	S 181.975 Axial†	58.9	9.6	11.321 ug/L	11.321 ppb	18:32:10
3	Sb 206.836†	31.1	-13.8	-3.9905 ug/L	-3.9905 ppb	18:32:10
3	Se 196.026†	-38.0	-1.5	-0.7860 ug/L	-0.7860 ppb	18:32:10
3	Si 251.611†	87566.2	85607.4	2311.1 ug/L	2311.1 ppb	18:31:50
3	Sn 189.927†	9.4	3.1	0.4424 ug/L	0.4424 ppb	18:32:10
3	Ti 334.940†	-1276.7	197.5	0.2812 ug/L	0.2812 ppb	18:31:50
3	Tl 190.801†	-28.3	13.2	3.3119 ug/L	3.3119 ppb	18:32:10
3	U 409.014†	-2949.7	63.5	1.7060 ug/L	1.7060 ppb	18:31:50
3	V 292.402†	-1516.7	38.2	0.2351 ug/L	0.2351 ppb	18:31:50
3	Zn 213.857†	1123.8	227.5	1.7954 ug/L	1.7954 ppb	18:32:10
3	SiO2†	87350.8	85357.8	4970.7 ug/L	4970.7 ppb	18:32:26

Mean Data: 242751001|932268|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	945016.6	101.36	%	0.308				0.30%
Sc Radial	6127.9	103	%	0.3				0.33%
Y 371.029	777307.0	101.09	%	0.502				0.50%
Y RADIAL	6265.4	101.4	%	0.46				0.46%
Ag 328.068†	1.8	0.0103	ug/L	0.22536	0.0103	ppb	0.22536	>999.9%
Al 396.153Radial†	16.0	10.618	ug/L	5.4478	10.618	ppb	5.4478	51.31%
As 188.979†	-2.1	-0.7383	ug/L	1.26684	-0.7383	ppb	1.26684	171.59%
B 249.677†	165.6	3.2663	ug/L	0.15010	3.2663	ppb	0.15010	4.60%
Ba 233.527†	40.5	0.2636	ug/L	0.07346	0.2636	ppb	0.07346	27.86%
Be 313.107†	131.5	0.0435	ug/L	0.01978	0.0435	ppb	0.01978	45.42%
Ca 317.933Radial†	18.0	24.783	ug/L	2.6982	24.783	ppb	2.6982	10.89%
Cd 226.502†	-19.6	-0.1855	ug/L	0.02115	-0.1855	ppb	0.02115	11.40%
Co 228.616†	0.7	0.0113	ug/L	0.03029	0.0113	ppb	0.03029	267.31%
Cr 267.716†	82.8	0.8007	ug/L	0.22217	0.8007	ppb	0.22217	27.75%
Cu 324.752†	-5.1	-0.0133	ug/L	0.23402	-0.0133	ppb	0.23402	>999.9%
Fe 238.204 Radial†	1.7	12.702	ug/L	6.1041	12.702	ppb	6.1041	48.05%
K 766.490 Radial†	-71.4	-11.592	ug/L	9.6243	-11.592	ppb	9.6243	83.03%

Mg 279.077 IEC†	-1.0	-29.278	ug/L	30.6215	-29.278	ppb	30.6215	104.59%
Mn 257.610†	1317.4	1.2587	ug/L	0.04341	1.2587	ppb	0.04341	3.45%
Mo 202.031†	1.4	0.0827	ug/L	0.08402	0.0827	ppb	0.08402	101.56%
Na 589.592 Radial†	519.4	136.52	ug/L	2.466	136.52	ppb	2.466	1.81%
Ni 231.604†	-12.4	-0.2597	ug/L	0.30331	-0.2597	ppb	0.30331	116.79%
P 214.914†	6.2	3.1194	ug/L	1.35843	3.1194	ppb	1.35843	43.55%
Pb 220.353†	11.2	1.1226	ug/L	0.50933	1.1226	ppb	0.50933	45.37%
S 181.975 Axial†	9.3	10.928	ug/L	0.9462	10.928	ppb	0.9462	8.66%
Sb 206.836†	-3.5	-1.0219	ug/L	2.67709	-1.0219	ppb	2.67709	261.97%
Se 196.026†	6.3	3.3668	ug/L	3.70712	3.3668	ppb	3.70712	110.11%
Si 251.611†	85347.4	2304.1	ug/L	8.82	2304.1	ppb	8.82	0.38%
Sn 189.927†	0.0	0.0099	ug/L	0.38639	0.0099	ppb	0.38639	>999.9%
Sr 421.552†	39.9	0.2155	ug/L	0.06808	0.2155	ppb	0.06808	31.60%
Ti 334.940†	210.5	0.2993	ug/L	0.01884	0.2993	ppb	0.01884	6.29%
Tl 190.801†	4.9	1.2330	ug/L	2.30284	1.2330	ppb	2.30284	186.77%
U 409.014†	97.7	2.6246	ug/L	2.34360	2.6246	ppb	2.34360	89.29%
V 292.402†	37.8	0.2340	ug/L	0.03522	0.2340	ppb	0.03522	15.05%
Zn 213.857†	230.2	1.8157	ug/L	0.09728	1.8157	ppb	0.09728	5.36%
SiO2†	84845.1	4940.8	ug/L	26.38	4940.8	ppb	26.38	0.53%

Sequence No.: 36
Sample ID: 1201994205|932268|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 62
Date Collected: 12/17/2009 18:34:37
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1201994205|932268|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	6125.7	6125.7	103	%			18:36:30
1	Y RADIAL	6241.5	6241.5	101.0	%			18:36:30
1	Al 396.153Radial†	-8.8	7.8	5.1464	ug/L	5.1464	ppb	18:36:30
1	Ca 317.933Radial†	39.0	17.4	23.907	ug/L	23.907	ppb	18:36:50
1	Fe 238.204 Radial†	15.1	1.8	13.643	ug/L	13.643	ppb	18:36:50
1	K 766.490 Radial†	3144.6	-91.4	-14.826	ug/L	-14.826	ppb	18:36:30
1	Mg 279.077 IEC†	5.9	0.4	10.726	ug/L	10.726	ppb	18:36:50
1	Na 589.592 Radial†	-1251.7	509.0	133.79	ug/L	133.79	ppb	18:36:30
1	Sr 421.552†	25.0	38.6	0.2085	ug/L	0.2085	ppb	18:36:30
1	Sc 361.383	990711.5	990711.5	106.26	%			18:37:46
1	Y 371.029	799281.0	799281.0	103.94	%			18:37:46
1	Ag 328.068†	307.3	-119.3	-0.4997	ug/L	-0.4997	ppb	18:37:52
1	As 188.979†	-23.7	9.2	3.1736	ug/L	3.1736	ppb	18:38:12
1	B 249.677†	-376.7	172.0	3.3944	ug/L	3.3944	ppb	18:38:12
1	Ba 233.527†	46.0	31.7	0.2065	ug/L	0.2065	ppb	18:38:12
1	Be 313.107†	-4565.1	252.2	0.0835	ug/L	0.0835	ppb	18:37:52
1	Cd 226.502†	-248.1	-19.7	-0.1865	ug/L	-0.1865	ppb	18:38:12
1	Co 228.616†	-99.5	-9.9	-0.1665	ug/L	-0.1665	ppb	18:38:12
1	Cr 267.716†	158.3	64.3	0.6194	ug/L	0.6194	ppb	18:38:12
1	Cu 324.752†	6230.6	-235.9	-0.6427	ug/L	-0.6427	ppb	18:37:52
1	Mn 257.610†	1920.5	1247.9	1.1918	ug/L	1.1918	ppb	18:37:52
1	Mo 202.031†	30.7	3.9	0.2274	ug/L	0.2274	ppb	18:38:12
1	Ni 231.604†	121.7	-15.2	-0.3172	ug/L	-0.3172	ppb	18:38:12
1	P 214.914†	257.4	-2.8	-1.2760	ug/L	-1.2760	ppb	18:38:12
1	Pb 220.353†	-82.3	-1.2	-0.1215	ug/L	-0.1215	ppb	18:38:12
1	S 181.975 Axial†	64.3	12.1	14.249	ug/L	14.249	ppb	18:38:12
1	Sb 206.836†	37.1	-9.5	-2.7434	ug/L	-2.7434	ppb	18:38:12
1	Se 196.026†	-26.0	11.5	6.1345	ug/L	6.1345	ppb	18:38:12
1	Si 251.611†	85680.9	79992.2	2159.5	ug/L	2159.5	ppb	18:37:52
1	Sn 189.927†	14.4	7.4	1.0585	ug/L	1.0585	ppb	18:38:12
1	Ti 334.940†	-1135.6	386.2	0.5473	ug/L	0.5473	ppb	18:37:52
1	Tl 190.801†	-40.6	2.9	0.7411	ug/L	0.7411	ppb	18:38:12
1	U 409.014†	-2873.8	264.3	7.1044	ug/L	7.1044	ppb	18:37:46
1	V 292.402†	-1631.0	-2.8	-0.0030	ug/L	-0.0030	ppb	18:37:52
1	Zn 213.857†	1138.9	192.5	1.5182	ug/L	1.5182	ppb	18:38:12
1	SiO2†	86775.4	80984.8	4716.0	ug/L	4716.0	ppb	18:39:18
2	Sc Radial	6219.9	6219.9	105	%			18:36:55
2	Y RADIAL	6383.0	6383.0	103.3	%			18:36:55
2	Al 396.153Radial†	4.3	20.4	13.569	ug/L	13.569	ppb	18:36:55
2	Ca 317.933Radial†	40.8	18.5	25.460	ug/L	25.460	ppb	18:37:15
2	Fe 238.204 Radial†	14.9	1.3	10.054	ug/L	10.054	ppb	18:37:15
2	K 766.490 Radial†	3028.3	-249.0	-40.258	ug/L	-40.258	ppb	18:36:55
2	Mg 279.077 IEC†	0.4	-4.9	-143.82	ug/L	-143.82	ppb	18:37:15
2	Na 589.592 Radial†	-1221.2	556.6	146.30	ug/L	146.30	ppb	18:36:55
2	Sr 421.552†	1.0	15.2	0.0818	ug/L	0.0818	ppb	18:36:55
2	Sc 361.383	984145.7	984145.7	105.55	%			18:38:17
2	Y 371.029	794313.2	794313.2	103.30	%			18:38:17
2	Ag 328.068†	435.2	3.9	0.0153	ug/L	0.0153	ppb	18:38:22
2	As 188.979†	-31.0	2.1	0.7300	ug/L	0.7300	ppb	18:38:42
2	B 249.677†	-392.4	154.8	3.0539	ug/L	3.0539	ppb	18:38:42
2	Ba 233.527†	73.8	58.4	0.3804	ug/L	0.3804	ppb	18:38:42
2	Be 313.107†	-4534.2	252.8	0.0834	ug/L	0.0834	ppb	18:38:22
2	Cd 226.502†	-227.8	-2.0	-0.0202	ug/L	-0.0202	ppb	18:38:42
2	Co 228.616†	-72.5	15.1	0.2528	ug/L	0.2528	ppb	18:38:42
2	Cr 267.716†	172.6	78.8	0.7607	ug/L	0.7607	ppb	18:38:42
2	Cu 324.752†	6245.2	-183.0	-0.4987	ug/L	-0.4987	ppb	18:38:22
2	Mn 257.610†	1853.4	1196.4	1.1451	ug/L	1.1451	ppb	18:38:22
2	Mo 202.031†	32.6	5.9	0.3405	ug/L	0.3405	ppb	18:38:42
2	Ni 231.604†	99.7	-35.3	-0.7376	ug/L	-0.7376	ppb	18:38:42

2	P 214.914†	278.9	19.2	9.6969 ug/L	9.6969 ppb	18:38:42
2	Pb 220.353†	-76.7	3.6	0.3658 ug/L	0.3658 ppb	18:38:42
2	S 181.975 Axial†	59.8	8.3	9.6948 ug/L	9.6948 ppb	18:38:42
2	Sb 206.836†	57.9	10.5	2.9918 ug/L	2.9918 ppb	18:38:42
2	Se 196.026†	-21.5	15.6	8.2997 ug/L	8.2997 ppb	18:38:42
2	Si 251.611†	84169.5	79098.3	2135.4 ug/L	2135.4 ppb	18:38:22
2	Sn 189.927†	-0.7	-6.9	-0.9801 ug/L	-0.9801 ppb	18:38:42
2	Ti 334.940†	-1220.3	298.9	0.4230 ug/L	0.4230 ppb	18:38:22
2	Tl 190.801†	-36.5	6.5	1.6394 ug/L	1.6394 ppb	18:38:42
2	U 409.014†	-2849.3	269.5	7.2441 ug/L	7.2441 ppb	18:38:17
2	V 292.402†	-1516.0	95.9	0.5988 ug/L	0.5988 ppb	18:38:22
2	Zn 213.857†	1144.8	205.2	1.6267 ug/L	1.6267 ppb	18:38:42
2	SiO2†	86795.5	81548.7	4748.9 ug/L	4748.9 ppb	18:39:23
3	Sc Radial	6084.1	6084.1	102 %		18:37:20
3	Y RADIAL	6213.2	6213.2	100.5 %		18:37:20
3	Al 396.153Radial†	-0.0	16.2	10.799 ug/L	10.799 ppb	18:37:20
3	Ca 317.933Radial†	38.7	17.4	23.907 ug/L	23.907 ppb	18:37:40
3	Fe 238.204 Radial†	13.6	0.4	3.2341 ug/L	3.2341 ppb	18:37:40
3	K 766.490 Radial†	3209.9	-6.7	-1.1467 ug/L	-1.1467 ppb	18:37:20
3	Mg 279.077 IEC†	2.6	-2.8	-82.526 ug/L	-82.526 ppb	18:37:40
3	Na 589.592 Radial†	-1262.3	490.3	128.87 ug/L	128.87 ppb	18:37:20
3	Sr 421.552†	10.2	24.2	0.1309 ug/L	0.1309 ppb	18:37:20
3	Sc 361.383	988798.6	988798.6	106.05 %		18:38:47
3	Y 371.029	798701.2	798701.2	103.87 %		18:38:47
3	Ag 328.068†	404.4	-27.2	-0.1190 ug/L	-0.1190 ppb	18:38:52
3	As 188.979†	-36.8	-3.3	-1.1284 ug/L	-1.1284 ppb	18:39:12
3	B 249.677†	-378.8	169.4	3.3437 ug/L	3.3437 ppb	18:39:12
3	Ba 233.527†	56.1	41.4	0.2694 ug/L	0.2694 ppb	18:39:12
3	Be 313.107†	-4539.8	267.8	0.0885 ug/L	0.0885 ppb	18:38:52
3	Cd 226.502†	-222.6	4.0	0.0365 ug/L	0.0365 ppb	18:39:12
3	Co 228.616†	-87.1	1.7	0.0266 ug/L	0.0266 ppb	18:39:12
3	Cr 267.716†	179.9	84.9	0.8190 ug/L	0.8190 ppb	18:39:12
3	Cu 324.752†	6252.1	-204.4	-0.5572 ug/L	-0.5572 ppb	18:38:52
3	Mn 257.610†	1941.4	1271.1	1.2146 ug/L	1.2146 ppb	18:38:52
3	Mo 202.031†	27.2	0.7	0.0388 ug/L	0.0388 ppb	18:39:12
3	Ni 231.604†	117.6	-18.9	-0.3943 ug/L	-0.3943 ppb	18:39:12
3	P 214.914†	241.8	-17.1	-8.4679 ug/L	-8.4679 ppb	18:39:12
3	Pb 220.353†	-76.3	4.3	0.4304 ug/L	0.4304 ppb	18:39:12
3	S 181.975 Axial†	59.1	7.3	8.5944 ug/L	8.5944 ppb	18:39:12
3	Sb 206.836†	38.4	-8.2	-2.3940 ug/L	-2.3940 ppb	18:39:12
3	Se 196.026†	-18.8	18.2	9.7050 ug/L	9.7050 ppb	18:39:12
3	Si 251.611†	86257.4	80691.8	2178.4 ug/L	2178.4 ppb	18:38:52
3	Sn 189.927†	3.6	-2.9	-0.4070 ug/L	-0.4070 ppb	18:39:12
3	Ti 334.940†	-1133.8	385.8	0.5459 ug/L	0.5459 ppb	18:38:52
3	Tl 190.801†	-48.1	-4.2	-1.0441 ug/L	-1.0441 ppb	18:39:12
3	U 409.014†	-2799.0	329.6	8.8606 ug/L	8.8606 ppb	18:38:47
3	V 292.402†	-1573.9	48.1	0.3081 ug/L	0.3081 ppb	18:38:52
3	Zn 213.857†	1150.6	205.6	1.6261 ug/L	1.6261 ppb	18:39:12
3	SiO2†	86925.9	81284.7	4733.5 ug/L	4733.5 ppb	18:39:28

Mean Data: 1201994205|932268|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	987885.3	105.96	%	0.362				0.34%
Sc Radial	6143.2	103	%	1.2				1.13%
Y 371.029	797431.8	103.70	%	0.353				0.34%
Y RADIAL	6279.2	101.6	%	1.47				1.45%
Ag 328.068†	-47.5	-0.2011	ug/L	0.26714	-0.2011	ppb	0.26714	132.82%
Al 396.153Radial†	14.8	9.8382	ug/L	4.29266	9.8382	ppb	4.29266	43.63%
As 188.979†	2.7	0.9251	ug/L	2.15762	0.9251	ppb	2.15762	233.23%
B 249.677†	165.4	3.2640	ug/L	0.18367	3.2640	ppb	0.18367	5.63%
Ba 233.527†	43.8	0.2854	ug/L	0.08806	0.2854	ppb	0.08806	30.85%
Be 313.107†	257.6	0.0851	ug/L	0.00295	0.0851	ppb	0.00295	3.46%
Ca 317.933Radial†	17.8	24.425	ug/L	0.8970	24.425	ppb	0.8970	3.67%
Cd 226.502†	-5.9	-0.0567	ug/L	0.11591	-0.0567	ppb	0.11591	204.42%
Co 228.616†	2.3	0.0376	ug/L	0.20990	0.0376	ppb	0.20990	557.81%
Cr 267.716†	76.0	0.7330	ug/L	0.10263	0.7330	ppb	0.10263	14.00%
Cu 324.752†	-207.8	-0.5662	ug/L	0.07242	-0.5662	ppb	0.07242	12.79%
Fe 238.204 Radial†	1.2	8.9772	ug/L	5.28748	8.9772	ppb	5.28748	58.90%
K 766.490 Radial†	-115.7	-18.743	ug/L	19.8478	-18.743	ppb	19.8478	105.89%

Mg 279.077 IEC†	-2.5	-71.873	ug/L	77.8212	-71.873	ppb	77.8212 108.28%
Mn 257.610†	1238.5	1.1838	ug/L	0.03542	1.1838	ppb	0.03542 2.99%
Mo 202.031†	3.5	0.2022	ug/L	0.15242	0.2022	ppb	0.15242 75.36%
Na 589.592 Radial†	518.6	136.32	ug/L	8.986	136.32	ppb	8.986 6.59%
Ni 231.604†	-23.1	-0.4830	ug/L	0.22384	-0.4830	ppb	0.22384 46.34%
P 214.914†	-0.2	-0.0157	ug/L	9.14774	-0.0157	ppb	9.14774 >999.9%
Pb 220.353†	2.2	0.2249	ug/L	0.30170	0.2249	ppb	0.30170 134.15%
S 181.975 Axial†	9.2	10.846	ug/L	2.9980	10.846	ppb	2.9980 27.64%
Sb 206.836†	-2.4	-0.7152	ug/L	3.21512	-0.7152	ppb	3.21512 449.56%
Se 196.026†	15.1	8.0464	ug/L	1.79870	8.0464	ppb	1.79870 22.35%
Si 251.611†	79927.4	2157.8	ug/L	21.56	2157.8	ppb	21.56 1.00%
Sn 189.927†	-0.8	-0.1095	ug/L	1.05131	-0.1095	ppb	1.05131 959.91%
Sr 421.552†	26.0	0.1404	ug/L	0.06390	0.1404	ppb	0.06390 45.51%
Ti 334.940†	357.0	0.5054	ug/L	0.07136	0.5054	ppb	0.07136 14.12%
Tl 190.801†	1.7	0.4455	ug/L	1.36598	0.4455	ppb	1.36598 306.64%
U 409.014†	287.8	7.7364	ug/L	0.97611	7.7364	ppb	0.97611 12.62%
V 292.402†	47.0	0.3013	ug/L	0.30094	0.3013	ppb	0.30094 99.88%
Zn 213.857†	201.1	1.5904	ug/L	0.06248	1.5904	ppb	0.06248 3.93%
SiO2†	81272.7	4732.8	ug/L	16.44	4732.8	ppb	16.44 0.35%

Sequence No.: 37
Sample ID: 1201994206|932268|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 63
Date Collected: 12/17/2009 18:41:38
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1201994206|932268|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	5853.1	5853.1	98.4	%			18:43:31
1	Y RADIAL	5999.4	5999.4	97.09	%			18:43:31
1	Al 396.153Radial†	7369.0	7508.6	4974.5	ug/L	4974.5	ppb	18:43:31
1	Ca 317.933Radial†	3787.5	3830.5	5261.2	ug/L	5261.2	ppb	18:43:51
1	Fe 238.204 Radial†	725.4	724.7	5574.8	ug/L	5574.8	ppb	18:43:51
1	K 766.490 Radial†	35231.1	32674.9	5266.4	ug/L	5266.4	ppb	18:43:31
1	Mg 279.077 IEC†	186.6	184.4	5387.4	ug/L	5387.4	ppb	18:43:51
1	Na 589.592 Radial†	19839.4	21896.7	5755.8	ug/L	5755.8	ppb	18:43:31
1	Sr 421.552†	94514.1	96111.5	520.02	ug/L	520.02	ppb	18:43:31
1	Sc 361.383	969244.5	969244.5	103.96	%			18:44:50
1	Y 371.029	772393.5	772393.5	100.45	%			18:44:50
1	Ag 328.068†	123469.7	118361.9	497.22	ug/L	497.22	ppb	18:44:50
1	As 188.979†	1445.6	1422.1	496.73	ug/L	496.73	ppb	18:45:11
1	B 249.677†	25315.6	24878.7	489.12	ug/L	489.12	ppb	18:44:50
1	Ba 233.527†	81712.9	78591.3	511.38	ug/L	511.38	ppb	18:44:50
1	Be 313.107†	1590562.5	1534572.7	502.12	ug/L	502.12	ppb	18:44:50
1	Cd 226.502†	55021.9	53141.6	499.02	ug/L	499.02	ppb	18:44:50
1	Co 228.616†	30050.7	28990.7	486.92	ug/L	486.92	ppb	18:45:11
1	Cr 267.716†	53421.0	51303.1	497.00	ug/L	497.00	ppb	18:44:50
1	Cu 324.752†	198349.2	184700.3	503.98	ug/L	503.98	ppb	18:44:50
1	Mn 257.610†	555408.1	533709.2	509.66	ug/L	509.66	ppb	18:44:50
1	Mo 202.031†	8839.9	8478.5	489.30	ug/L	489.30	ppb	18:45:11
1	Ni 231.604†	24716.9	23646.5	493.63	ug/L	493.63	ppb	18:45:11
1	P 214.914†	1448.7	1148.5	499.61	ug/L	499.61	ppb	18:45:11
1	Pb 220.353†	5148.8	5029.1	506.43	ug/L	506.43	ppb	18:45:11
1	S 181.975 Axial†	4470.5	4252.0	4992.9	ug/L	4992.9	ppb	18:45:11
1	Sb 206.836†	1877.2	1761.3	516.26	ug/L	516.26	ppb	18:45:11
1	Se 196.026†	931.5	932.0	516.77	ug/L	516.77	ppb	18:45:11
1	Si 251.611†	275927.6	264783.8	7136.4	ug/L	7136.4	ppb	18:44:50
1	Sn 189.927†	3733.8	3585.4	513.81	ug/L	513.81	ppb	18:45:11
1	Ti 334.940†	369239.4	356640.7	507.23	ug/L	507.23	ppb	18:44:50
1	Tl 190.801†	2002.9	1967.8	495.07	ug/L	495.07	ppb	18:45:11
1	U 409.014†	16530.6	18870.3	505.76	ug/L	505.76	ppb	18:44:50
1	V 292.402†	83277.4	81639.9	505.07	ug/L	505.07	ppb	18:44:50
1	Zn 213.857†	65962.0	62572.1	488.65	ug/L	488.65	ppb	18:44:50
1	SiO2†	274331.0	263210.5	15302	ug/L	15302	ppb	18:46:11
2	Sc Radial	5933.6	5933.6	99.7	%			18:43:56
2	Y RADIAL	6068.3	6068.3	98.20	%			18:43:56
2	Al 396.153Radial†	7449.1	7487.4	4960.4	ug/L	4960.4	ppb	18:43:56
2	Ca 317.933Radial†	3833.2	3824.0	5252.2	ug/L	5252.2	ppb	18:44:16
2	Fe 238.204 Radial†	732.2	721.4	5549.6	ug/L	5549.6	ppb	18:44:16
2	K 766.490 Radial†	35491.1	32449.6	5230.1	ug/L	5230.1	ppb	18:43:56
2	Mg 279.077 IEC†	187.5	182.8	5340.2	ug/L	5340.2	ppb	18:44:16
2	Na 589.592 Radial†	20059.9	21844.2	5742.0	ug/L	5742.0	ppb	18:43:56
2	Sr 421.552†	95371.9	95668.0	517.62	ug/L	517.62	ppb	18:43:56
2	Sc 361.383	974394.7	974394.7	104.51	%			18:45:18
2	Y 371.029	777954.2	777954.2	101.17	%			18:45:18
2	Ag 328.068†	124245.6	118476.5	497.69	ug/L	497.69	ppb	18:45:18
2	As 188.979†	1469.8	1437.8	502.18	ug/L	502.18	ppb	18:45:38
2	B 249.677†	25412.1	24842.2	488.41	ug/L	488.41	ppb	18:45:18
2	Ba 233.527†	81903.9	78358.6	509.87	ug/L	509.87	ppb	18:45:18
2	Be 313.107†	1599364.4	1534907.7	502.23	ug/L	502.23	ppb	18:45:18
2	Cd 226.502†	55258.2	53087.9	498.52	ug/L	498.52	ppb	18:45:18
2	Co 228.616†	30070.0	28856.4	484.67	ug/L	484.67	ppb	18:45:38
2	Cr 267.716†	53734.8	51331.7	497.28	ug/L	497.28	ppb	18:45:18
2	Cu 324.752†	199464.6	184759.1	504.14	ug/L	504.14	ppb	18:45:18
2	Mn 257.610†	557151.7	532553.7	508.56	ug/L	508.56	ppb	18:45:18
2	Mo 202.031†	8868.4	8460.8	488.28	ug/L	488.28	ppb	18:45:38
2	Ni 231.604†	24776.2	23577.5	492.20	ug/L	492.20	ppb	18:45:38

2	P 214.914†	1430.1	1123.4	487.01 ug/L	487.01 ppb	18:45:38
2	Pb 220.353†	5135.4	4990.1	502.51 ug/L	502.51 ppb	18:45:38
2	S 181.975 Axial†	4458.5	4217.7	4952.7 ug/L	4952.7 ppb	18:45:38
2	Sb 206.836†	1889.9	1763.9	517.00 ug/L	517.00 ppb	18:45:38
2	Se 196.026†	934.6	930.3	515.76 ug/L	515.76 ppb	18:45:38
2	Si 251.611†	277277.4	264672.4	7133.4 ug/L	7133.4 ppb	18:45:18
2	Sn 189.927†	3758.7	3590.3	514.51 ug/L	514.51 ppb	18:45:38
2	Ti 334.940†	370783.0	356240.4	506.66 ug/L	506.66 ppb	18:45:18
2	Tl 190.801†	1997.5	1952.4	491.22 ug/L	491.22 ppb	18:45:38
2	U 409.014†	16600.4	18853.0	505.29 ug/L	505.29 ppb	18:45:18
2	V 292.402†	83744.6	81663.5	505.21 ug/L	505.21 ppb	18:45:18
2	Zn 213.857†	66275.8	62537.0	488.38 ug/L	488.38 ppb	18:45:18
2	SiO2†	273970.7	261471.0	15200 ug/L	15200 ppb	18:46:16
3	Sc Radial	5876.3	5876.3	98.7 %		18:44:22
3	Y RADIAL	6009.8	6009.8	97.26 %		18:44:22
3	Al 396.153Radial†	7354.0	7463.8	4944.9 ug/L	4944.9 ppb	18:44:22
3	Ca 317.933Radial†	3821.6	3849.8	5287.6 ug/L	5287.6 ppb	18:44:42
3	Fe 238.204 Radial†	736.2	732.7	5635.7 ug/L	5635.7 ppb	18:44:42
3	K 766.490 Radial†	35225.3	32527.3	5242.6 ug/L	5242.6 ppb	18:44:22
3	Mg 279.077 IEC†	187.6	184.6	5394.5 ug/L	5394.5 ppb	18:44:42
3	Na 589.592 Radial†	19736.9	21713.1	5707.6 ug/L	5707.6 ppb	18:44:22
3	Sr 421.552†	94357.4	95572.6	517.11 ug/L	517.11 ppb	18:44:22
3	Sc 361.383	974964.7	974964.7	104.57 %		18:45:45
3	Y 371.029	778203.4	778203.4	101.20 %		18:45:45
3	Ag 328.068†	124051.1	118221.0	496.65 ug/L	496.65 ppb	18:45:45
3	As 188.979†	1445.3	1413.6	493.81 ug/L	493.81 ppb	18:46:05
3	B 249.677†	25503.3	24915.3	489.85 ug/L	489.85 ppb	18:45:45
3	Ba 233.527†	81815.2	78228.0	509.02 ug/L	509.02 ppb	18:45:45
3	Be 313.107†	1600218.7	1534829.9	502.20 ug/L	502.20 ppb	18:45:45
3	Cd 226.502†	55173.0	52975.5	497.45 ug/L	497.45 ppb	18:45:45
3	Co 228.616†	29886.4	28664.0	481.43 ug/L	481.43 ppb	18:46:05
3	Cr 267.716†	53599.4	51172.1	495.73 ug/L	495.73 ppb	18:45:45
3	Cu 324.752†	199750.7	184921.1	504.59 ug/L	504.59 ppb	18:45:45
3	Mn 257.610†	556482.0	531601.7	507.66 ug/L	507.66 ppb	18:45:45
3	Mo 202.031†	8814.1	8403.9	485.00 ug/L	485.00 ppb	18:46:05
3	Ni 231.604†	24583.1	23379.0	488.05 ug/L	488.05 ppb	18:46:05
3	P 214.914†	1426.9	1119.5	484.85 ug/L	484.85 ppb	18:46:05
3	Pb 220.353†	5121.5	4973.9	500.87 ug/L	500.87 ppb	18:46:05
3	S 181.975 Axial†	4435.5	4193.2	4923.9 ug/L	4923.9 ppb	18:46:05
3	Sb 206.836†	1867.7	1741.7	510.47 ug/L	510.47 ppb	18:46:05
3	Se 196.026†	924.4	919.9	510.55 ug/L	510.55 ppb	18:46:05
3	Si 251.611†	277429.6	264662.9	7133.2 ug/L	7133.2 ppb	18:45:45
3	Sn 189.927†	3730.2	3560.9	510.30 ug/L	510.30 ppb	18:46:05
3	Ti 334.940†	370603.6	355861.3	506.12 ug/L	506.12 ppb	18:45:45
3	Tl 190.801†	1982.8	1937.2	487.44 ug/L	487.44 ppb	18:46:05
3	U 409.014†	16628.8	18870.9	505.77 ug/L	505.77 ppb	18:45:45
3	V 292.402†	83696.4	81570.5	504.58 ug/L	504.58 ppb	18:45:45
3	Zn 213.857†	66249.9	62475.1	487.91 ug/L	487.91 ppb	18:45:45
3	SiO2†	275701.0	262972.4	15288 ug/L	15288 ppb	18:46:21

Mean Data: 1201994206|932268|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	972868.0	104.35	%	0.338				0.32%
Sc Radial	5887.7	98.9	%	0.70				0.70%
Y 371.029	776183.7	100.94	%	0.427				0.42%
Y RADIAL	6025.8	97.52	%	0.601				0.62%
Ag 328.068†	118353.1	497.18	ug/L	0.521	497.18	ppb	0.521	0.10%
Al 396.153Radial†	7486.6	4960.0	ug/L	14.81	4960.0	ppb	14.81	0.30%
As 188.979†	1424.5	497.58	ug/L	4.248	497.58	ppb	4.248	0.85%
B 249.677†	24878.7	489.13	ug/L	0.719	489.13	ppb	0.719	0.15%
Ba 233.527†	78392.6	510.09	ug/L	1.194	510.09	ppb	1.194	0.23%
Be 313.107†	1534770.1	502.18	ug/L	0.056	502.18	ppb	0.056	0.01%
Ca 317.933Radial†	3834.8	5267.0	ug/L	18.38	5267.0	ppb	18.38	0.35%
Cd 226.502†	53068.3	498.33	ug/L	0.802	498.33	ppb	0.802	0.16%
Co 228.616†	28837.0	484.34	ug/L	2.762	484.34	ppb	2.762	0.57%
Cr 267.716†	51268.9	496.67	ug/L	0.823	496.67	ppb	0.823	0.17%
Cu 324.752†	184793.5	504.24	ug/L	0.314	504.24	ppb	0.314	0.06%
Fe 238.204 Radial†	726.3	5586.7	ug/L	44.25	5586.7	ppb	44.25	0.79%
K 766.490 Radial†	32550.6	5246.4	ug/L	18.46	5246.4	ppb	18.46	0.35%

Mg 279.077 IEC†	183.9	5374.0 ug/L	29.53	5374.0 ppb	29.53	0.55%
Mn 257.610†	532621.5	508.63 ug/L	1.004	508.63 ppb	1.004	0.20%
Mo 202.031†	8447.7	487.53 ug/L	2.247	487.53 ppb	2.247	0.46%
Na 589.592 Radial†	21818.0	5735.1 ug/L	24.85	5735.1 ppb	24.85	0.43%
Ni 231.604†	23534.3	491.29 ug/L	2.899	491.29 ppb	2.899	0.59%
P 214.914†	1130.4	490.49 ug/L	7.969	490.49 ppb	7.969	1.62%
Pb 220.353†	4997.7	503.27 ug/L	2.858	503.27 ppb	2.858	0.57%
S 181.975 Axial†	4221.0	4956.5 ug/L	34.65	4956.5 ppb	34.65	0.70%
Sb 206.836†	1755.7	514.58 ug/L	3.575	514.58 ppb	3.575	0.69%
Se 196.026†	927.4	514.36 ug/L	3.336	514.36 ppb	3.336	0.65%
Si 251.611†	264706.4	7134.3 ug/L	1.78	7134.3 ppb	1.78	0.02%
Sn 189.927†	3578.9	512.87 ug/L	2.253	512.87 ppb	2.253	0.44%
Sr 421.552†	95784.0	518.25 ug/L	1.556	518.25 ppb	1.556	0.30%
Ti 334.940†	356247.5	506.67 ug/L	0.554	506.67 ppb	0.554	0.11%
Tl 190.801†	1952.5	491.24 ug/L	3.815	491.24 ppb	3.815	0.78%
U 409.014†	18864.7	505.60 ug/L	0.270	505.60 ppb	0.270	0.05%
V 292.402†	81624.6	504.95 ug/L	0.329	504.95 ppb	0.329	0.07%
Zn 213.857†	62528.1	488.31 ug/L	0.372	488.31 ppb	0.372	0.08%
SiO2†	262551.3	15263 ug/L	54.9	15263 ppb	54.9	0.36%

Sequence No.: 38
Sample ID: 1201994207|932268|5
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 64
Date Collected: 12/17/2009 18:48:32
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1201994207|932268|5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5984.6	5984.6	101	%			18:50:25
1	Y RADIAL	6127.7	6127.7	99.16	%			18:50:25
1	Al 396.153Radial†	-13.4	3.0	1.9701	ug/L	1.9701	ppb	18:50:25
1	Ca 317.933Radial†	39.2	18.5	25.444	ug/L	25.444	ppb	18:50:45
1	Fe 238.204 Radial†	14.1	1.2	8.8887	ug/L	8.8887	ppb	18:50:45
1	K 766.490 Radial†	3052.5	-110.9	-17.928	ug/L	-17.928	ppb	18:50:25
1	Mg 279.077 IEC†	4.5	-0.9	-25.932	ug/L	-25.932	ppb	18:50:45
1	Na 589.592 Radial†	-1581.9	151.9	39.938	ug/L	39.938	ppb	18:50:25
1	Sr 421.552†	23.2	37.3	0.2016	ug/L	0.2016	ppb	18:50:25
1	Sc 361.383	973497.8	973497.8	104.41	%			18:51:42
1	Y 371.029	786210.4	786210.4	102.24	%			18:51:42
1	Ag 328.068†	424.3	-2.0	-0.0106	ug/L	-0.0106	ppb	18:51:47
1	As 188.979†	-26.0	6.6	2.2692	ug/L	2.2692	ppb	18:52:07
1	B 249.677†	-470.2	76.2	1.5034	ug/L	1.5034	ppb	18:52:07
1	Ba 233.527†	90.3	74.9	0.4878	ug/L	0.4878	ppb	18:52:07
1	Be 313.107†	-4395.1	339.0	0.1109	ug/L	0.1109	ppb	18:51:47
1	Cd 226.502†	-228.7	-5.2	-0.0500	ug/L	-0.0500	ppb	18:52:07
1	Co 228.616†	-82.9	4.4	0.0740	ug/L	0.0740	ppb	18:52:07
1	Cr 267.716†	104.4	15.3	0.1466	ug/L	0.1466	ppb	18:52:07
1	Cu 324.752†	6066.2	-289.7	-0.7896	ug/L	-0.7896	ppb	18:51:47
1	Mn 257.610†	931.7	332.9	0.3189	ug/L	0.3189	ppb	18:52:07
1	Mo 202.031†	26.9	0.8	0.0459	ug/L	0.0459	ppb	18:52:07
1	Ni 231.604†	102.1	-31.9	-0.6672	ug/L	-0.6672	ppb	18:52:07
1	P 214.914†	252.5	-3.2	-1.5071	ug/L	-1.5071	ppb	18:52:07
1	Pb 220.353†	-76.6	2.9	0.2913	ug/L	0.2913	ppb	18:52:07
1	S 181.975 Axial†	49.9	-0.7	-0.7691	ug/L	-0.7691	ppb	18:52:07
1	Sb 206.836†	39.3	-6.8	-1.9674	ug/L	-1.9674	ppb	18:52:07
1	Se 196.026†	-37.5	0.1	0.0615	ug/L	0.0615	ppb	18:52:07
1	Si 251.611†	17669.6	16281.1	439.54	ug/L	439.54	ppb	18:51:47
1	Sn 189.927†	6.2	-0.3	-0.0349	ug/L	-0.0349	ppb	18:52:07
1	Ti 334.940†	-1435.6	80.0	0.1116	ug/L	0.1116	ppb	18:51:47
1	Tl 190.801†	-40.7	2.1	0.5291	ug/L	0.5291	ppb	18:52:07
1	U 409.014†	-2794.9	292.0	7.8515	ug/L	7.8515	ppb	18:51:42
1	V 292.402†	-1510.6	85.4	0.5353	ug/L	0.5353	ppb	18:51:47
1	Zn 213.857†	929.7	11.1	0.0926	ug/L	0.0926	ppb	18:52:07
1	SiO2†	17840.8	16407.6	955.48	ug/L	955.48	ppb	18:53:13
2	Sc Radial	6038.0	6038.0	101	%			18:50:50
2	Y RADIAL	6192.9	6192.9	100.2	%			18:50:50
2	Al 396.153Radial†	-11.6	4.8	3.1858	ug/L	3.1858	ppb	18:50:50
2	Ca 317.933Radial†	38.3	17.3	23.815	ug/L	23.815	ppb	18:51:10
2	Fe 238.204 Radial†	13.7	0.6	4.8862	ug/L	4.8862	ppb	18:51:10
2	K 766.490 Radial†	3121.8	-69.5	-11.235	ug/L	-11.235	ppb	18:50:50
2	Mg 279.077 IEC†	2.3	-3.0	-88.669	ug/L	-88.669	ppb	18:51:10
2	Na 589.592 Radial†	-1594.2	153.7	40.403	ug/L	40.403	ppb	18:50:50
2	Sr 421.552†	-29.4	-14.7	-0.0798	ug/L	-0.0798	ppb	18:50:50
2	Sc 361.383	978408.5	978408.5	104.94	%			18:52:12
2	Y 371.029	790016.3	790016.3	102.74	%			18:52:12
2	Ag 328.068†	379.0	-47.3	-0.1988	ug/L	-0.1988	ppb	18:52:17
2	As 188.979†	-27.6	5.1	1.7766	ug/L	1.7766	ppb	18:52:37
2	B 249.677†	-439.4	107.9	2.1284	ug/L	2.1284	ppb	18:52:37
2	Ba 233.527†	93.1	77.2	0.5020	ug/L	0.5020	ppb	18:52:37
2	Be 313.107†	-4477.5	281.6	0.0922	ug/L	0.0922	ppb	18:52:17
2	Cd 226.502†	-213.7	10.2	0.0953	ug/L	0.0953	ppb	18:52:37
2	Co 228.616†	-86.0	1.8	0.0323	ug/L	0.0323	ppb	18:52:37
2	Cr 267.716†	101.3	11.8	0.1134	ug/L	0.1134	ppb	18:52:37
2	Cu 324.752†	6117.0	-270.5	-0.7374	ug/L	-0.7374	ppb	18:52:17
2	Mn 257.610†	946.8	342.8	0.3292	ug/L	0.3292	ppb	18:52:37
2	Mo 202.031†	38.5	11.7	0.6776	ug/L	0.6776	ppb	18:52:37
2	Ni 231.604†	133.8	-2.2	-0.0468	ug/L	-0.0468	ppb	18:52:37

2	P 214.914†	265.8	8.2	4.2376 ug/L	4.2376 ppb	18:52:37
2	Pb 220.353†	-74.8	5.0	0.5016 ug/L	0.5016 ppb	18:52:37
2	S 181.975 Axial†	53.0	2.1	2.4628 ug/L	2.4628 ppb	18:52:37
2	Sb 206.836†	39.7	-6.6	-1.8853 ug/L	-1.8853 ppb	18:52:37
2	Se 196.026†	-31.1	6.3	3.3749 ug/L	3.3749 ppb	18:52:37
2	Si 251.611†	17784.8	16306.0	440.20 ug/L	440.20 ppb	18:52:17
2	Sn 189.927†	6.0	-0.5	-0.0754 ug/L	-0.0754 ppb	18:52:37
2	Ti 334.940†	-1428.5	93.7	0.1322 ug/L	0.1322 ppb	18:52:17
2	Tl 190.801†	-29.7	12.8	3.2012 ug/L	3.2012 ppb	18:52:37
2	U 409.014†	-2914.6	191.4	5.1463 ug/L	5.1463 ppb	18:52:12
2	V 292.402†	-1542.6	62.1	0.3958 ug/L	0.3958 ppb	18:52:17
2	Zn 213.857†	943.3	19.6	0.1580 ug/L	0.1580 ppb	18:52:37
2	SiO2†	17703.2	16190.8	942.82 ug/L	942.82 ppb	18:53:18
3	Sc Radial	6059.3	6059.3	102 %		18:51:15
3	Y RADIAL	6215.2	6215.2	100.6 %		18:51:15
3	Al 396.153Radial†	-1.3	14.9	9.9561 ug/L	9.9561 ppb	18:51:15
3	Ca 317.933Radial†	35.6	14.5	19.932 ug/L	19.932 ppb	18:51:35
3	Fe 238.204 Radial†	15.9	2.7	20.830 ug/L	20.830 ppb	18:51:35
3	K 766.490 Radial†	3014.5	-185.7	-29.983 ug/L	-29.983 ppb	18:51:15
3	Mg 279.077 IEC†	2.2	-3.2	-94.504 ug/L	-94.504 ppb	18:51:35
3	Na 589.592 Radial†	-1652.1	102.4	26.912 ug/L	26.912 ppb	18:51:15
3	Sr 421.552†	43.6	57.1	0.3087 ug/L	0.3087 ppb	18:51:15
3	Sc 361.383	959461.5	959461.5	102.91 %		18:52:43
3	Y 371.029	775503.9	775503.9	100.85 %		18:52:43
3	Ag 328.068†	359.5	-59.1	-0.2449 ug/L	-0.2449 ppb	18:52:48
3	As 188.979†	-31.2	1.1	0.3968 ug/L	0.3968 ppb	18:53:08
3	B 249.677†	-502.5	38.2	0.7515 ug/L	0.7515 ppb	18:53:08
3	Ba 233.527†	87.6	73.6	0.4797 ug/L	0.4797 ppb	18:53:08
3	Be 313.107†	-4513.4	162.5	0.0532 ug/L	0.0532 ppb	18:52:48
3	Cd 226.502†	-231.2	-10.9	-0.1042 ug/L	-0.1042 ppb	18:53:08
3	Co 228.616†	-74.7	11.2	0.1871 ug/L	0.1871 ppb	18:53:08
3	Cr 267.716†	112.2	24.3	0.2332 ug/L	0.2332 ppb	18:53:08
3	Cu 324.752†	6070.6	-200.4	-0.5455 ug/L	-0.5455 ppb	18:52:48
3	Mn 257.610†	933.4	347.6	0.3355 ug/L	0.3355 ppb	18:53:08
3	Mo 202.031†	21.2	-4.4	-0.2506 ug/L	-0.2506 ppb	18:53:08
3	Ni 231.604†	127.1	-6.2	-0.1302 ug/L	-0.1302 ppb	18:53:08
3	P 214.914†	243.0	-8.9	-4.4021 ug/L	-4.4021 ppb	18:53:08
3	Pb 220.353†	-66.6	11.5	1.1521 ug/L	1.1521 ppb	18:53:08
3	S 181.975 Axial†	49.2	-0.6	-0.6818 ug/L	-0.6818 ppb	18:53:08
3	Sb 206.836†	41.5	-4.1	-1.2069 ug/L	-1.2069 ppb	18:53:08
3	Se 196.026†	-33.5	3.4	1.8635 ug/L	1.8635 ppb	18:53:08
3	Si 251.611†	17747.4	16604.3	448.27 ug/L	448.27 ppb	18:52:48
3	Sn 189.927†	-0.4	-6.6	-0.9443 ug/L	-0.9443 ppb	18:53:08
3	Ti 334.940†	-1458.3	37.8	0.0510 ug/L	0.0510 ppb	18:52:48
3	Tl 190.801†	-17.6	24.0	6.0062 ug/L	6.0062 ppb	18:53:08
3	U 409.014†	-2729.3	316.6	8.5114 ug/L	8.5114 ppb	18:52:43
3	V 292.402†	-1482.3	91.7	0.5674 ug/L	0.5674 ppb	18:52:48
3	Zn 213.857†	925.7	20.3	0.1625 ug/L	0.1625 ppb	18:53:08
3	SiO2†	17739.2	16558.8	964.31 ug/L	964.31 ppb	18:53:23

Mean Data: 1201994207|932268|5

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	970456.0	104.09	%	1.055				1.01%
Sc Radial	6027.3	101	%	0.6				0.64%
Y 371.029	783910.2	101.95	%	0.979				0.96%
Y RADIAL	6178.6	99.99	%	0.736				0.74%
Ag 328.068†	-36.1	-0.1514	ug/L	0.12414	-0.1514	ppb	0.12414	81.98%
Al 396.153Radial†	7.6	5.0373	ug/L	4.30293	5.0373	ppb	4.30293	85.42%
As 188.979†	4.3	1.4809	ug/L	0.97056	1.4809	ppb	0.97056	65.54%
B 249.677†	74.1	1.4611	ug/L	0.68944	1.4611	ppb	0.68944	47.19%
Ba 233.527†	75.2	0.4898	ug/L	0.01128	0.4898	ppb	0.01128	2.30%
Be 313.107†	261.1	0.0855	ug/L	0.02947	0.0855	ppb	0.02947	34.48%
Ca 317.933Radial†	16.8	23.063	ug/L	2.8319	23.063	ppb	2.8319	12.28%
Cd 226.502†	-2.0	-0.0197	ug/L	0.10318	-0.0197	ppb	0.10318	524.97%
Co 228.616†	5.8	0.0978	ug/L	0.08010	0.0978	ppb	0.08010	81.90%
Cr 267.716†	17.1	0.1644	ug/L	0.06188	0.1644	ppb	0.06188	37.64%
Cu 324.752†	-253.5	-0.6908	ug/L	0.12853	-0.6908	ppb	0.12853	18.61%
Fe 238.204 Radial†	1.5	11.535	ug/L	8.2950	11.535	ppb	8.2950	71.91%
K 766.490 Radial†	-122.0	-19.716	ug/L	9.5006	-19.716	ppb	9.5006	48.19%

Mg 279.077 IEC†	-2.4	-69.702	ug/L	38.0179	-69.702	ppb	38.0179	54.54%
Mn 257.610†	341.1	0.3279	ug/L	0.00834	0.3279	ppb	0.00834	2.55%
Mo 202.031†	2.7	0.1577	ug/L	0.47409	0.1577	ppb	0.47409	300.72%
Na 589.592 Radial†	136.0	35.751	ug/L	7.6583	35.751	ppb	7.6583	21.42%
Ni 231.604†	-13.5	-0.2814	ug/L	0.33670	-0.2814	ppb	0.33670	119.65%
P 214.914†	-1.3	-0.5572	ug/L	4.39746	-0.5572	ppb	4.39746	789.19%
Pb 220.353†	6.4	0.6483	ug/L	0.44874	0.6483	ppb	0.44874	69.21%
S 181.975 Axial†	0.3	0.3373	ug/L	1.84124	0.3373	ppb	1.84124	545.85%
Sb 206.836†	-5.8	-1.6865	ug/L	0.41741	-1.6865	ppb	0.41741	24.75%
Se 196.026†	3.2	1.7666	ug/L	1.65885	1.7666	ppb	1.65885	93.90%
Si 251.611†	16397.1	442.67	ug/L	4.865	442.67	ppb	4.865	1.10%
Sn 189.927†	-2.5	-0.3515	ug/L	0.51379	-0.3515	ppb	0.51379	146.16%
Sr 421.552†	26.6	0.1435	ug/L	0.20065	0.1435	ppb	0.20065	139.82%
Ti 334.940†	70.5	0.0983	ug/L	0.04223	0.0983	ppb	0.04223	42.97%
Tl 190.801†	13.0	3.2455	ug/L	2.73881	3.2455	ppb	2.73881	84.39%
U 409.014†	266.7	7.1697	ug/L	1.78315	7.1697	ppb	1.78315	24.87%
V 292.402†	79.7	0.4995	ug/L	0.09119	0.4995	ppb	0.09119	18.26%
Zn 213.857†	17.0	0.1377	ug/L	0.03911	0.1377	ppb	0.03911	28.40%
SiO2†	16385.7	954.21	ug/L	10.801	954.21	ppb	10.801	1.13%

Sequence No.: 39
Sample ID: 242751002|932268|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 65
Date Collected: 12/17/2009 18:55:34
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 242751002|932268|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	5968.0	5968.0	100	%			18:57:27
1	Y RADIAL	6118.3	6118.3	99.01	%			18:57:27
1	Al 396.153Radial†	-31.4	-15.1	-10.014	ug/L	-10.014	ppb	18:57:27
1	Ca 317.933Radial†	24.6	4.1	5.6515	ug/L	5.6515	ppb	18:57:47
1	Fe 238.204 Radial†	11.5	-1.4	-10.791	ug/L	-10.791	ppb	18:57:47
1	K 766.490 Radial†	3097.3	-57.9	-9.3497	ug/L	-9.3497	ppb	18:57:27
1	Mg 279.077 IEC†	4.6	-0.7	-21.474	ug/L	-21.474	ppb	18:57:47
1	Na 589.592 Radial†	-1676.8	53.0	13.923	ug/L	13.923	ppb	18:57:27
1	Sr 421.552†	25.5	39.7	0.2146	ug/L	0.2146	ppb	18:57:27
1	Sc 361.383	979661.6	979661.6	105.07	%			18:58:44
1	Y 371.029	790332.0	790332.0	102.78	%			18:58:44
1	Ag 328.068†	273.1	-148.5	-0.6274	ug/L	-0.6274	ppb	18:58:49
1	As 188.979†	-29.9	3.0	1.0394	ug/L	1.0394	ppb	18:59:09
1	B 249.677†	-405.9	140.3	2.7700	ug/L	2.7700	ppb	18:59:09
1	Ba 233.527†	30.6	17.6	0.1159	ug/L	0.1159	ppb	18:59:09
1	Be 313.107†	-4418.5	343.3	0.1123	ug/L	0.1123	ppb	18:58:49
1	Cd 226.502†	-215.1	9.2	0.0870	ug/L	0.0870	ppb	18:59:09
1	Co 228.616†	-89.0	-0.9	-0.0160	ug/L	-0.0160	ppb	18:59:09
1	Cr 267.716†	100.8	11.2	0.1067	ug/L	0.1067	ppb	18:58:49
1	Cu 324.752†	6100.7	-293.5	-0.8009	ug/L	-0.8009	ppb	18:58:49
1	Mn 257.610†	690.1	97.3	0.0921	ug/L	0.0921	ppb	18:59:09
1	Mo 202.031†	24.8	-1.4	-0.0812	ug/L	-0.0812	ppb	18:59:09
1	Ni 231.604†	131.6	-4.5	-0.0936	ug/L	-0.0936	ppb	18:59:09
1	P 214.914†	260.5	2.9	1.5858	ug/L	1.5858	ppb	18:59:09
1	Pb 220.353†	-82.4	-2.1	-0.2162	ug/L	-0.2162	ppb	18:59:09
1	S 181.975 Axial†	56.5	5.4	6.3161	ug/L	6.3161	ppb	18:59:09
1	Sb 206.836†	41.6	-4.9	-1.3859	ug/L	-1.3859	ppb	18:59:09
1	Se 196.026†	-33.5	4.0	2.1059	ug/L	2.1059	ppb	18:59:09
1	Si 251.611†	84377.7	79661.4	2150.6	ug/L	2150.6	ppb	18:58:49
1	Sn 189.927†	14.5	7.6	1.0814	ug/L	1.0814	ppb	18:59:09
1	Ti 334.940†	-1463.4	62.2	0.0850	ug/L	0.0850	ppb	18:58:49
1	Tl 190.801†	-43.5	-0.3	-0.0755	ug/L	-0.0755	ppb	18:59:09
1	U 409.014†	-2789.9	313.6	8.4343	ug/L	8.4343	ppb	18:58:44
1	V 292.402†	-1465.2	137.6	0.8568	ug/L	0.8568	ppb	18:58:49
1	Zn 213.857†	1061.6	131.1	1.0362	ug/L	1.0362	ppb	18:59:09
1	SiO2†	84575.0	79811.7	4647.7	ug/L	4647.7	ppb	19:00:15
2	Sc Radial	6008.5	6008.5	101	%			18:57:52
2	Y RADIAL	6134.8	6134.8	99.28	%			18:57:52
2	Al 396.153Radial†	-7.8	8.6	5.6990	ug/L	5.6990	ppb	18:57:52
2	Ca 317.933Radial†	29.4	8.7	11.967	ug/L	11.967	ppb	18:58:12
2	Fe 238.204 Radial†	16.4	3.3	25.498	ug/L	25.498	ppb	18:58:12
2	K 766.490 Radial†	3106.1	-70.0	-11.311	ug/L	-11.311	ppb	18:57:52
2	Mg 279.077 IEC†	5.7	0.3	7.3152	ug/L	7.3152	ppb	18:58:12
2	Na 589.592 Radial†	-1666.3	74.6	19.615	ug/L	19.615	ppb	18:57:52
2	Sr 421.552†	-20.6	-6.2	-0.0336	ug/L	-0.0336	ppb	18:57:52
2	Sc 361.383	980210.6	980210.6	105.13	%			18:59:14
2	Y 371.029	791452.1	791452.1	102.93	%			18:59:14
2	Ag 328.068†	373.8	-52.9	-0.2168	ug/L	-0.2168	ppb	18:59:19
2	As 188.979†	-21.0	11.5	3.9888	ug/L	3.9888	ppb	18:59:39
2	B 249.677†	-370.9	173.8	3.4266	ug/L	3.4266	ppb	18:59:39
2	Ba 233.527†	20.5	8.0	0.0550	ug/L	0.0550	ppb	18:59:39
2	Be 313.107†	-4499.3	268.8	0.0882	ug/L	0.0882	ppb	18:59:19
2	Cd 226.502†	-230.4	-5.3	-0.0527	ug/L	-0.0527	ppb	18:59:39
2	Co 228.616†	-89.0	-0.9	-0.0156	ug/L	-0.0156	ppb	18:59:39
2	Cr 267.716†	76.9	-11.6	-0.1130	ug/L	-0.1130	ppb	18:59:19
2	Cu 324.752†	6113.8	-284.3	-0.7740	ug/L	-0.7740	ppb	18:59:19
2	Mn 257.610†	712.3	118.1	0.1150	ug/L	0.1150	ppb	18:59:39
2	Mo 202.031†	29.6	3.1	0.1831	ug/L	0.1831	ppb	18:59:39
2	Ni 231.604†	113.6	-21.7	-0.4525	ug/L	-0.4525	ppb	18:59:39

2	P 214.914†	270.8	12.6	6.4001 ug/L	6.4001 ppb	18:59:39
2	Pb 220.353†	-76.2	3.8	0.3769 ug/L	0.3769 ppb	18:59:39
2	S 181.975 Axial†	60.1	8.8	10.336 ug/L	10.336 ppb	18:59:39
2	Sb 206.836†	47.1	0.3	0.0917 ug/L	0.0917 ppb	18:59:39
2	Se 196.026†	-36.8	1.0	0.6026 ug/L	0.6026 ppb	18:59:39
2	Si 251.611†	84541.2	79772.0	2153.6 ug/L	2153.6 ppb	18:59:19
2	Sn 189.927†	-0.2	-6.4	-0.9137 ug/L	-0.9137 ppb	18:59:39
2	Ti 334.940†	-1359.3	162.0	0.2271 ug/L	0.2271 ppb	18:59:19
2	Tl 190.801†	-46.1	-2.7	-0.6802 ug/L	-0.6802 ppb	18:59:39
2	U 409.014†	-2765.9	337.9	9.0840 ug/L	9.0840 ppb	18:59:14
2	V 292.402†	-1460.5	142.9	0.8888 ug/L	0.8888 ppb	18:59:19
2	Zn 213.857†	1060.7	129.6	1.0225 ug/L	1.0225 ppb	18:59:39
2	SiO2†	85359.2	80512.6	4688.5 ug/L	4688.5 ppb	19:00:20
3	Sc Radial	6103.5	6103.5	103 %		18:58:17
3	Y RADIAL	6258.7	6258.7	101.3 %		18:58:17
3	Al 396.153Radial†	-36.7	-19.5	-12.976 ug/L	-12.976 ppb	18:58:17
3	Ca 317.933Radial†	27.9	6.7	9.2099 ug/L	9.2099 ppb	18:58:37
3	Fe 238.204 Radial†	14.7	1.5	11.255 ug/L	11.255 ppb	18:58:37
3	K 766.490 Radial†	3017.0	-204.7	-33.055 ug/L	-33.055 ppb	18:58:17
3	Mg 279.077 IEC†	-0.9	-6.2	-181.74 ug/L	-181.74 ppb	18:58:37
3	Na 589.592 Radial†	-1610.2	155.0	40.731 ug/L	40.731 ppb	18:58:17
3	Sr 421.552†	25.3	38.9	0.2103 ug/L	0.2103 ppb	18:58:17
3	Sc 361.383	987332.3	987332.3	105.90 %		18:59:44
3	Y 371.029	798192.9	798192.9	103.80 %		18:59:44
3	Ag 328.068†	379.3	-50.2	-0.2048 ug/L	-0.2048 ppb	18:59:50
3	As 188.979†	-40.1	-6.4	-2.2248 ug/L	-2.2248 ppb	19:00:10
3	B 249.677†	-380.1	167.6	3.3070 ug/L	3.3070 ppb	19:00:10
3	Ba 233.527†	16.4	4.0	0.0284 ug/L	0.0284 ppb	19:00:10
3	Be 313.107†	-4424.5	370.3	0.1215 ug/L	0.1215 ppb	18:59:50
3	Cd 226.502†	-219.8	6.3	0.0573 ug/L	0.0573 ppb	19:00:10
3	Co 228.616†	-81.0	7.3	0.1211 ug/L	0.1211 ppb	19:00:10
3	Cr 267.716†	100.0	9.7	0.0951 ug/L	0.0951 ppb	18:59:50
3	Cu 324.752†	6167.8	-275.2	-0.7500 ug/L	-0.7500 ppb	18:59:50
3	Mn 257.610†	677.6	80.4	0.0812 ug/L	0.0812 ppb	19:00:10
3	Mo 202.031†	21.8	-4.4	-0.2547 ug/L	-0.2547 ppb	19:00:10
3	Ni 231.604†	110.0	-25.8	-0.5393 ug/L	-0.5393 ppb	19:00:10
3	P 214.914†	265.2	5.4	2.8217 ug/L	2.8217 ppb	19:00:10
3	Pb 220.353†	-85.5	-4.5	-0.4558 ug/L	-0.4558 ppb	19:00:10
3	S 181.975 Axial†	53.4	2.0	2.3312 ug/L	2.3312 ppb	19:00:10
3	Sb 206.836†	39.9	-6.7	-1.9557 ug/L	-1.9557 ppb	19:00:10
3	Se 196.026†	-23.4	13.8	7.3635 ug/L	7.3635 ppb	19:00:10
3	Si 251.611†	84241.3	78908.8	2130.3 ug/L	2130.3 ppb	18:59:50
3	Sn 189.927†	6.0	-0.5	-0.0775 ug/L	-0.0775 ppb	19:00:10
3	Ti 334.940†	-1329.9	199.1	0.2823 ug/L	0.2823 ppb	18:59:50
3	Tl 190.801†	-44.2	-0.6	-0.1620 ug/L	-0.1620 ppb	19:00:10
3	U 409.014†	-3026.8	110.6	2.9714 ug/L	2.9714 ppb	18:59:44
3	V 292.402†	-1454.7	158.4	0.9632 ug/L	0.9632 ppb	18:59:50
3	Zn 213.857†	1048.2	110.5	0.8804 ug/L	0.8804 ppb	19:00:10
3	SiO2†	85369.2	79936.5	4655.0 ug/L	4655.0 ppb	19:00:25

Mean Data: 242751002|932268|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	982401.5	105.37	%	0.459				0.44%
Sc Radial	6026.7	101	%	1.2				1.15%
Y 371.029	793325.7	103.17	%	0.553				0.54%
Y RADIAL	6170.6	99.86	%	1.242				1.24%
Ag 328.068†	-83.9	-0.3497	ug/L	0.24062	-0.3497	ppb	0.24062	68.81%
Al 396.153Radial†	-8.7	-5.7637	ug/L	10.03691	-5.7637	ppb	10.03691	174.14%
As 188.979†	2.7	0.9345	ug/L	3.10810	0.9345	ppb	3.10810	332.60%
B 249.677†	160.5	3.1679	ug/L	0.34974	3.1679	ppb	0.34974	11.04%
Ba 233.527†	9.9	0.0664	ug/L	0.04487	0.0664	ppb	0.04487	67.53%
Be 313.107†	327.5	0.1073	ug/L	0.01716	0.1073	ppb	0.01716	15.99%
Ca 317.933Radial†	6.5	8.9429	ug/L	3.16637	8.9429	ppb	3.16637	35.41%
Cd 226.502†	3.4	0.0305	ug/L	0.07362	0.0305	ppb	0.07362	241.10%
Co 228.616†	1.8	0.0298	ug/L	0.07908	0.0298	ppb	0.07908	265.10%
Cr 267.716†	3.1	0.0296	ug/L	0.12364	0.0296	ppb	0.12364	417.95%
Cu 324.752†	-284.3	-0.7750	ug/L	0.02545	-0.7750	ppb	0.02545	3.28%
Fe 238.204 Radial†	1.1	8.6542	ug/L	18.28348	8.6542	ppb	18.28348	211.27%
K 766.490 Radial†	-110.9	-17.905	ug/L	13.1569	-17.905	ppb	13.1569	73.48%

Mg 279.077 IEC†	-2.2	-65.301	ug/L	101.8640	-65.301	ppb	101.8640 155.99%
Mn 257.610†	98.6	0.0961	ug/L	0.01729	0.0961	ppb	0.01729 17.98%
Mo 202.031†	-0.9	-0.0509	ug/L	0.22046	-0.0509	ppb	0.22046 432.72%
Na 589.592 Radial†	94.2	24.756	ug/L	14.1241	24.756	ppb	14.1241 57.05%
Ni 231.604†	-17.3	-0.3618	ug/L	0.23627	-0.3618	ppb	0.23627 65.30%
P 214.914†	7.0	3.6025	ug/L	2.50036	3.6025	ppb	2.50036 69.41%
Pb 220.353†	-1.0	-0.0984	ug/L	0.42867	-0.0984	ppb	0.42867 435.73%
S 181.975 Axial†	5.4	6.3279	ug/L	4.00265	6.3279	ppb	4.00265 63.25%
Sb 206.836†	-3.8	-1.0833	ug/L	1.05670	-1.0833	ppb	1.05670 97.54%
Se 196.026†	6.3	3.3573	ug/L	3.54991	3.3573	ppb	3.54991 105.74%
Si 251.611†	79447.4	2144.8	ug/L	12.67	2144.8	ppb	12.67 0.59%
Sn 189.927†	0.2	0.0301	ug/L	1.00190	0.0301	ppb	1.00190 >999.9%
Sr 421.552†	24.1	0.1305	ug/L	0.14209	0.1305	ppb	0.14209 108.92%
Ti 334.940†	141.1	0.1981	ug/L	0.10182	0.1981	ppb	0.10182 51.39%
Tl 190.801†	-1.2	-0.3059	ug/L	0.32700	-0.3059	ppb	0.32700 106.91%
U 409.014†	254.0	6.8299	ug/L	3.35731	6.8299	ppb	3.35731 49.16%
V 292.402†	146.3	0.9029	ug/L	0.05462	0.9029	ppb	0.05462 6.05%
Zn 213.857†	123.7	0.9797	ug/L	0.08630	0.9797	ppb	0.08630 8.81%
SiO2†	80086.9	4663.7	ug/L	21.77	4663.7	ppb	21.77 0.47%

Sequence No.: 40
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 12/17/2009 19:02:36
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	6307.6	6307.6	106	%			19:04:28
1	Y RADIAL	6450.7	6450.7	104.4	%			19:04:28
1	Al 396.153Radial†	6939.0	6563.1	4345.7	ug/L	4345.7	ppb	19:04:28
1	Ca 317.933Radial†	3569.8	3347.7	4597.9	ug/L	4597.9	ppb	19:04:48
1	Fe 238.204 Radial†	678.1	626.9	4824.0	ug/L	4824.0	ppb	19:04:48
1	K 766.490 Radial†	33457.2	28420.3	4578.1	ug/L	4578.1	ppb	19:04:28
1	Mg 279.077 IEC†	176.9	161.5	4721.1	ug/L	4721.1	ppb	19:04:48
1	Na 589.592 Radial†	38949.9	38474.0	10113	ug/L	10113	ppb	19:04:28
1	Sr 421.552†	89921.3	84854.6	459.12	ug/L	459.12	ppb	19:04:28
1	Sc 361.383	965898.7	965898.7	103.60	%			19:05:47
1	Y 371.029	768902.9	768902.9	99.994	%			19:05:47
1	Ag 328.068†	120175.0	115593.0	485.38	ug/L	485.38	ppb	19:05:47
1	As 188.979†	1413.7	1396.1	487.47	ug/L	487.47	ppb	19:06:07
1	B 249.677†	24415.6	24094.2	473.76	ug/L	473.76	ppb	19:05:47
1	Ba 233.527†	77235.5	74541.7	485.02	ug/L	485.02	ppb	19:05:47
1	Be 313.107†	1526946.0	1478465.3	483.76	ug/L	483.76	ppb	19:05:47
1	Cd 226.502†	53546.7	51900.9	487.43	ug/L	487.43	ppb	19:05:47
1	Co 228.616†	29254.2	28322.1	475.72	ug/L	475.72	ppb	19:06:07
1	Cr 267.716†	51701.4	49821.1	482.63	ug/L	482.63	ppb	19:05:47
1	Cu 324.752†	189702.5	177014.8	482.98	ug/L	482.98	ppb	19:05:47
1	Mn 257.610†	529059.2	510126.1	487.10	ug/L	487.10	ppb	19:05:47
1	Mo 202.031†	8700.6	8373.5	483.19	ug/L	483.19	ppb	19:06:07
1	Ni 231.604†	23705.4	22752.4	474.97	ug/L	474.97	ppb	19:06:07
1	P 214.914†	5224.3	4797.8	2333.4	ug/L	2333.4	ppb	19:06:07
1	Pb 220.353†	4938.6	4843.3	487.70	ug/L	487.70	ppb	19:06:07
1	S 181.975 Axial†	885.0	805.9	945.65	ug/L	945.65	ppb	19:06:07
1	Sb 206.836†	1785.5	1679.1	492.16	ug/L	492.16	ppb	19:06:07
1	Se 196.026†	909.9	914.2	504.59	ug/L	504.59	ppb	19:06:07
1	Si 251.611†	94196.4	90283.4	2425.9	ug/L	2425.9	ppb	19:05:47
1	Sn 189.927†	3484.9	3357.7	481.13	ug/L	481.13	ppb	19:06:07
1	Ti 334.940†	355068.1	344191.9	489.51	ug/L	489.51	ppb	19:05:47
1	Tl 190.801†	1950.9	1924.2	484.00	ug/L	484.00	ppb	19:06:07
1	U 409.014†	15002.8	17450.6	467.70	ug/L	467.70	ppb	19:05:47
1	V 292.402†	79735.6	78498.6	485.85	ug/L	485.85	ppb	19:05:47
1	Zn 213.857†	64614.9	61491.6	480.37	ug/L	480.37	ppb	19:05:47
1	SiO2†	92828.1	88925.1	5153.5	ug/L	5153.5	ppb	19:07:07
2	Sc Radial	5911.3	5911.3	99.3	%			19:04:53
2	Y RADIAL	5999.5	5999.5	97.09	%			19:04:53
2	Al 396.153Radial†	7059.2	7123.0	4718.3	ug/L	4718.3	ppb	19:04:53
2	Ca 317.933Radial†	3622.7	3626.7	4981.2	ug/L	4981.2	ppb	19:05:13
2	Fe 238.204 Radial†	683.2	674.9	5192.7	ug/L	5192.7	ppb	19:05:13
2	K 766.490 Radial†	33815.6	30896.9	4977.5	ug/L	4977.5	ppb	19:04:53
2	Mg 279.077 IEC†	177.8	173.6	5073.9	ug/L	5073.9	ppb	19:05:13
2	Na 589.592 Radial†	39131.7	41120.2	10809	ug/L	10809	ppb	19:04:53
2	Sr 421.552†	90633.5	91258.1	493.76	ug/L	493.76	ppb	19:04:53
2	Sc 361.383	961128.5	961128.5	103.09	%			19:06:15
2	Y 371.029	766779.3	766779.3	99.718	%			19:06:15
2	Ag 328.068†	119568.6	115580.5	485.44	ug/L	485.44	ppb	19:06:15
2	As 188.979†	1389.7	1379.5	481.80	ug/L	481.80	ppb	19:06:35
2	B 249.677†	24257.2	24057.5	472.99	ug/L	472.99	ppb	19:06:15
2	Ba 233.527†	76695.5	74387.9	484.04	ug/L	484.04	ppb	19:06:15
2	Be 313.107†	1518708.4	1477789.5	483.54	ug/L	483.54	ppb	19:06:15
2	Cd 226.502†	53091.3	51715.7	485.65	ug/L	485.65	ppb	19:06:15
2	Co 228.616†	29072.6	28286.0	475.11	ug/L	475.11	ppb	19:06:35
2	Cr 267.716†	51456.5	49831.3	482.74	ug/L	482.74	ppb	19:06:15
2	Cu 324.752†	188713.2	176963.9	482.86	ug/L	482.86	ppb	19:06:15
2	Mn 257.610†	525472.6	509181.5	486.23	ug/L	486.23	ppb	19:06:15
2	Mo 202.031†	8622.4	8339.3	481.24	ug/L	481.24	ppb	19:06:35
2	Ni 231.604†	23579.6	22744.0	474.79	ug/L	474.79	ppb	19:06:35

2	P 214.914†	5190.6	4790.1	2329.4 ug/L	2329.4 ppb	19:06:35
2	Pb 220.353†	4889.9	4819.8	485.38 ug/L	485.38 ppb	19:06:35
2	S 181.975 Axial†	888.6	813.6	954.64 ug/L	954.64 ppb	19:06:35
2	Sb 206.836†	1746.8	1650.1	483.70 ug/L	483.70 ppb	19:06:35
2	Se 196.026†	908.4	917.1	507.49 ug/L	507.49 ppb	19:06:35
2	Si 251.611†	93442.8	90003.6	2418.3 ug/L	2418.3 ppb	19:06:15
2	Sn 189.927†	3457.5	3347.8	479.76 ug/L	479.76 ppb	19:06:35
2	Ti 334.940†	352893.0	343783.0	488.95 ug/L	488.95 ppb	19:06:15
2	Tl 190.801†	1937.9	1921.0	483.20 ug/L	483.20 ppb	19:06:35
2	U 409.014†	14951.0	17472.3	468.24 ug/L	468.24 ppb	19:06:15
2	V 292.402†	79299.7	78457.7	485.53 ug/L	485.53 ppb	19:06:15
2	Zn 213.857†	64125.3	61326.2	479.02 ug/L	479.02 ppb	19:06:15
2	SiO2†	92896.5	89436.2	5183.0 ug/L	5183.0 ppb	19:07:13
3	Sc Radial	5818.8	5818.8	97.8 %		19:05:18
3	Y RADIAL	5928.4	5928.4	95.94 %		19:05:18
3	Al 396.153Radial†	6941.8	7115.9	4713.5 ug/L	4713.5 ppb	19:05:18
3	Ca 317.933Radial†	3613.7	3675.4	5048.1 ug/L	5048.1 ppb	19:05:38
3	Fe 238.204 Radial†	696.6	699.6	5381.7 ug/L	5381.7 ppb	19:05:38
3	K 766.490 Radial†	33347.1	30959.0	4987.5 ug/L	4987.5 ppb	19:05:18
3	Mg 279.077 IEC†	172.6	171.2	5001.8 ug/L	5001.8 ppb	19:05:38
3	Na 589.592 Radial†	38723.4	41329.0	10864 ug/L	10864 ppb	19:05:18
3	Sr 421.552†	89613.7	91665.8	495.97 ug/L	495.97 ppb	19:05:18
3	Sc 361.383	961360.2	961360.2	103.11 %		19:06:42
3	Y 371.029	766932.6	766932.6	99.738 %		19:06:42
3	Ag 328.068†	119540.7	115525.5	485.28 ug/L	485.28 ppb	19:06:42
3	As 188.979†	1388.0	1377.6	481.15 ug/L	481.15 ppb	19:07:02
3	B 249.677†	24260.5	24055.1	472.92 ug/L	472.92 ppb	19:06:42
3	Ba 233.527†	76721.4	74395.0	484.09 ug/L	484.09 ppb	19:06:42
3	Be 313.107†	1521131.8	1479784.8	484.19 ug/L	484.19 ppb	19:06:42
3	Cd 226.502†	53062.2	51675.0	485.25 ug/L	485.25 ppb	19:06:42
3	Co 228.616†	29069.7	28276.4	474.95 ug/L	474.95 ppb	19:07:02
3	Cr 267.716†	51511.3	49872.3	483.14 ug/L	483.14 ppb	19:06:42
3	Cu 324.752†	188653.5	176861.9	482.59 ug/L	482.59 ppb	19:06:42
3	Mn 257.610†	526041.4	509610.3	486.66 ug/L	486.66 ppb	19:06:42
3	Mo 202.031†	8666.7	8380.2	483.62 ug/L	483.62 ppb	19:07:02
3	Ni 231.604†	23557.1	22716.6	474.22 ug/L	474.22 ppb	19:07:02
3	P 214.914†	5184.3	4782.9	2325.7 ug/L	2325.7 ppb	19:07:02
3	Pb 220.353†	4915.6	4843.5	487.75 ug/L	487.75 ppb	19:07:02
3	S 181.975 Axial†	885.0	809.9	950.22 ug/L	950.22 ppb	19:07:02
3	Sb 206.836†	1756.0	1658.6	486.25 ug/L	486.25 ppb	19:07:02
3	Se 196.026†	891.7	900.8	499.45 ug/L	499.45 ppb	19:07:02
3	Si 251.611†	93510.6	90047.5	2419.4 ug/L	2419.4 ppb	19:06:42
3	Sn 189.927†	3470.7	3359.8	481.48 ug/L	481.48 ppb	19:07:02
3	Ti 334.940†	352865.2	343673.5	488.79 ug/L	488.79 ppb	19:06:42
3	Tl 190.801†	1933.7	1916.4	482.06 ug/L	482.06 ppb	19:07:02
3	U 409.014†	14930.3	17448.6	467.58 ug/L	467.58 ppb	19:06:42
3	V 292.402†	79349.0	78487.0	485.71 ug/L	485.71 ppb	19:06:42
3	Zn 213.857†	64312.2	61492.5	480.32 ug/L	480.32 ppb	19:06:42
3	SiO2†	93047.1	89560.6	5190.2 ug/L	5190.2 ppb	19:07:18

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	962795.8	103.27	%	0.288				0.28%
Sc Radial	6012.6	101	%	4.4				4.32%
Y 371.029	767538.3	99.817	%	0.1540				0.15%
Y RADIAL	6126.2	99.14	%	4.584				4.62%
Ag 328.068†	115566.3	485.36	ug/L	0.084	485.36	ppb	0.084	0.02%
QC value within limits for Ag 328.068 Recovery = 97.07%								
Al 396.153Radial†	6934.0	4592.5	ug/L	213.71	4592.5	ppb	213.71	4.65%
QC value within limits for Al 396.153Radial Recovery = 91.85%								
As 188.979†	1384.4	483.48	ug/L	3.477	483.48	ppb	3.477	0.72%
QC value within limits for As 188.979 Recovery = 96.70%								
B 249.677†	24069.0	473.22	ug/L	0.468	473.22	ppb	0.468	0.10%
QC value within limits for B 249.677 Recovery = 94.64%								
Ba 233.527†	74441.5	484.39	ug/L	0.554	484.39	ppb	0.554	0.11%
QC value within limits for Ba 233.527 Recovery = 96.88%								
Be 313.107†	1478679.9	483.83	ug/L	0.331	483.83	ppb	0.331	0.07%
QC value within limits for Be 313.107 Recovery = 96.77%								
Ca 317.933Radial†	3549.9	4875.8	ug/L	242.91	4875.8	ppb	242.91	4.98%

QC value within limits for Ca 317.933Radial Recovery = 97.52%

Cd 226.502†	51763.9	486.11 ug/L	1.159	486.11 ppb	1.159	0.24%
QC value within limits for Cd 226.502 Recovery = 97.22%						
Co 228.616†	28294.8	475.26 ug/L	0.408	475.26 ppb	0.408	0.09%
QC value within limits for Co 228.616 Recovery = 95.05%						
Cr 267.716†	49841.6	482.84 ug/L	0.267	482.84 ppb	0.267	0.06%
QC value within limits for Cr 267.716 Recovery = 96.57%						
Cu 324.752†	176946.9	482.81 ug/L	0.199	482.81 ppb	0.199	0.04%
QC value within limits for Cu 324.752 Recovery = 96.56%						
Fe 238.204 Radial†	667.1	5132.8 ug/L	283.62	5132.8 ppb	283.62	5.53%
QC value within limits for Fe 238.204 Radial Recovery = 102.66%						
K 766.490 Radial†	30092.1	4847.7 ug/L	233.54	4847.7 ppb	233.54	4.82%
QC value within limits for K 766.490 Radial Recovery = 96.95%						
Mg 279.077 IEC†	168.8	4932.2 ug/L	186.40	4932.2 ppb	186.40	3.78%
QC value within limits for Mg 279.077 IEC Recovery = 98.64%						
Mn 257.610†	509639.3	486.66 ug/L	0.436	486.66 ppb	0.436	0.09%
QC value within limits for Mn 257.610 Recovery = 97.33%						
Mo 202.031†	8364.3	482.68 ug/L	1.266	482.68 ppb	1.266	0.26%
QC value within limits for Mo 202.031 Recovery = 96.54%						
Na 589.592 Radial†	40307.7	10595 ug/L	418.3	10595 ppb	418.3	3.95%
QC value within limits for Na 589.592 Radial Recovery = 105.95%						
Ni 231.604†	22737.7	474.66 ug/L	0.391	474.66 ppb	0.391	0.08%
QC value within limits for Ni 231.604 Recovery = 94.93%						
P 214.914†	4790.3	2329.5 ug/L	3.89	2329.5 ppb	3.89	0.17%
QC value within limits for P 214.914 Recovery = 93.18%						
Pb 220.353†	4835.5	486.95 ug/L	1.354	486.95 ppb	1.354	0.28%
QC value within limits for Pb 220.353 Recovery = 97.39%						
S 181.975 Axial†	809.8	950.17 ug/L	4.492	950.17 ppb	4.492	0.47%
QC value within limits for S 181.975 Axial Recovery = 95.02%						
Sb 206.836†	1662.6	487.37 ug/L	4.339	487.37 ppb	4.339	0.89%
QC value within limits for Sb 206.836 Recovery = 97.47%						
Se 196.026†	910.7	503.84 ug/L	4.072	503.84 ppb	4.072	0.81%
QC value within limits for Se 196.026 Recovery = 100.77%						
Si 251.611†	90111.5	2421.2 ug/L	4.13	2421.2 ppb	4.13	0.17%
QC value within limits for Si 251.611 Recovery = 96.85%						
Sn 189.927†	3355.1	480.79 ug/L	0.909	480.79 ppb	0.909	0.19%
QC value within limits for Sn 189.927 Recovery = 96.16%						
Sr 421.552†	89259.5	482.95 ug/L	20.669	482.95 ppb	20.669	4.28%
QC value within limits for Sr 421.552 Recovery = 96.59%						
Ti 334.940†	343882.8	489.08 ug/L	0.376	489.08 ppb	0.376	0.08%
QC value within limits for Ti 334.940 Recovery = 97.82%						
Tl 190.801†	1920.6	483.09 ug/L	0.975	483.09 ppb	0.975	0.20%
QC value within limits for Tl 190.801 Recovery = 96.62%						
U 409.014†	17457.2	467.84 ug/L	0.351	467.84 ppb	0.351	0.07%
QC value within limits for U 409.014 Recovery = 93.57%						
V 292.402†	78481.1	485.70 ug/L	0.163	485.70 ppb	0.163	0.03%
QC value within limits for V 292.402 Recovery = 97.14%						
Zn 213.857†	61436.7	479.90 ug/L	0.765	479.90 ppb	0.765	0.16%
QC value within limits for Zn 213.857 Recovery = 95.98%						
SiO2†	89307.3	5175.6 ug/L	19.45	5175.6 ppb	19.45	0.38%
QC value within limits for SiO2 Recovery = 96.78%						

All analyte(s) passed QC.

Sequence No.: 41
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 12/17/2009 19:09:27
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5779.2	5779.2	97.1	%			19:11:19
1	Y RADIAL	5919.3	5919.3	95.79	%			19:11:19
1	Al 396.153Radial†	-6.9	9.2	6.1020	ug/L	6.1020	ppb	19:11:19
1	Ca 317.933Radial†	23.4	3.6	4.9489	ug/L	4.9489	ppb	19:11:39
1	Fe 238.204 Radial†	14.2	1.7	13.196	ug/L	13.196	ppb	19:11:39
1	K 766.490 Radial†	3209.4	158.5	25.588	ug/L	25.588	ppb	19:11:19
1	Mg 279.077 IEC†	1.1	-4.2	-122.65	ug/L	-122.65	ppb	19:11:39
1	Na 589.592 Radial†	-1697.4	-23.0	-6.0332	ug/L	-6.0332	ppb	19:11:19
1	Sr 421.552†	-13.0	0.8	0.0043	ug/L	0.0043	ppb	19:11:19
1	Sc 361.383	936946.1	936946.1	100.49	%			19:12:36
1	Y 371.029	769011.7	769011.7	100.01	%			19:12:36
1	Ag 328.068†	483.1	72.3	0.3079	ug/L	0.3079	ppb	19:12:36
1	As 188.979†	-26.4	5.2	1.7978	ug/L	1.7978	ppb	19:12:56
1	B 249.677†	-465.2	63.6	1.2534	ug/L	1.2534	ppb	19:12:56
1	Ba 233.527†	0.4	-11.1	-0.0713	ug/L	-0.0713	ppb	19:12:56
1	Be 313.107†	-4470.7	99.6	0.0325	ug/L	0.0325	ppb	19:12:36
1	Cd 226.502†	-224.2	-9.3	-0.0887	ug/L	-0.0887	ppb	19:12:56
1	Co 228.616†	-64.8	19.3	0.3246	ug/L	0.3246	ppb	19:12:56
1	Cr 267.716†	111.1	25.8	0.2503	ug/L	0.2503	ppb	19:12:56
1	Cu 324.752†	6121.3	-8.3	-0.0220	ug/L	-0.0220	ppb	19:12:36
1	Mn 257.610†	567.5	5.2	0.0086	ug/L	0.0086	ppb	19:12:56
1	Mo 202.031†	26.0	0.9	0.0547	ug/L	0.0547	ppb	19:12:56
1	Ni 231.604†	102.7	-27.6	-0.5759	ug/L	-0.5759	ppb	19:12:56
1	P 214.914†	244.1	-2.1	-1.0523	ug/L	-1.0523	ppb	19:12:56
1	Pb 220.353†	-77.5	-0.9	-0.0873	ug/L	-0.0873	ppb	19:12:56
1	S 181.975 Axial†	51.9	3.2	3.7458	ug/L	3.7458	ppb	19:12:56
1	Sb 206.836†	46.3	1.7	0.4888	ug/L	0.4888	ppb	19:12:56
1	Se 196.026†	-34.6	1.5	0.8515	ug/L	0.8515	ppb	19:12:56
1	Si 251.611†	626.4	-18.3	-0.5062	ug/L	-0.5062	ppb	19:12:56
1	Sn 189.927†	10.7	4.4	0.6355	ug/L	0.6355	ppb	19:12:56
1	Ti 334.940†	-1457.9	4.1	0.0069	ug/L	0.0069	ppb	19:12:36
1	Tl 190.801†	-40.7	0.6	0.1481	ug/L	0.1481	ppb	19:12:56
1	U 409.014†	-3055.3	-71.5	-1.9254	ug/L	-1.9254	ppb	19:12:36
1	V 292.402†	-1528.5	11.1	0.0598	ug/L	0.0598	ppb	19:12:36
1	Zn 213.857†	826.3	-57.1	-0.4433	ug/L	-0.4433	ppb	19:12:56
1	SiO2†	670.1	-12.3	-0.7418	ug/L	-0.7418	ppb	19:13:52
2	Sc Radial	5929.7	5929.7	99.6	%			19:11:44
2	Y RADIAL	6069.7	6069.7	98.23	%			19:11:44
2	Al 396.153Radial†	-25.6	-9.4	-6.2687	ug/L	-6.2687	ppb	19:11:44
2	Ca 317.933Radial†	26.2	5.8	7.9791	ug/L	7.9791	ppb	19:12:04
2	Fe 238.204 Radial†	12.3	-0.6	-4.4275	ug/L	-4.4275	ppb	19:12:04
2	K 766.490 Radial†	3096.9	-38.3	-6.1741	ug/L	-6.1741	ppb	19:11:44
2	Mg 279.077 IEC†	6.9	1.6	45.960	ug/L	45.960	ppb	19:12:04
2	Na 589.592 Radial†	-1765.3	-46.7	-12.286	ug/L	-12.286	ppb	19:11:44
2	Sr 421.552†	20.4	34.8	0.1880	ug/L	0.1880	ppb	19:11:44
2	Sc 361.383	933100.8	933100.8	100.08	%			19:13:01
2	Y 371.029	765742.5	765742.5	99.583	%			19:13:01
2	Ag 328.068†	317.1	-91.6	-0.3825	ug/L	-0.3825	ppb	19:13:01
2	As 188.979†	-32.0	-0.5	-0.1889	ug/L	-0.1889	ppb	19:13:21
2	B 249.677†	-509.0	18.0	0.3548	ug/L	0.3548	ppb	19:13:21
2	Ba 233.527†	25.0	13.5	0.0876	ug/L	0.0876	ppb	19:13:21
2	Be 313.107†	-4430.2	121.8	0.0395	ug/L	0.0395	ppb	19:13:01
2	Cd 226.502†	-224.0	-10.0	-0.0934	ug/L	-0.0934	ppb	19:13:21
2	Co 228.616†	-80.2	3.6	0.0617	ug/L	0.0617	ppb	19:13:21
2	Cr 267.716†	103.3	18.5	0.1792	ug/L	0.1792	ppb	19:13:21
2	Cu 324.752†	6078.3	-26.1	-0.0715	ug/L	-0.0715	ppb	19:13:01
2	Mn 257.610†	582.8	22.8	0.0205	ug/L	0.0205	ppb	19:13:21
2	Mo 202.031†	30.6	5.6	0.3222	ug/L	0.3222	ppb	19:13:21
2	Ni 231.604†	110.1	-19.8	-0.4129	ug/L	-0.4129	ppb	19:13:21

2	P 214.914†	243.5	-1.7	-0.8439 ug/L	-0.8439 ppb	19:13:21
2	Pb 220.353†	-71.5	4.8	0.4776 ug/L	0.4776 ppb	19:13:21
2	S 181.975 Axial†	41.5	-7.0	-8.1951 ug/L	-8.1951 ppb	19:13:21
2	Sb 206.836†	45.9	1.5	0.4527 ug/L	0.4527 ppb	19:13:21
2	Se 196.026†	-28.9	7.1	3.7402 ug/L	3.7402 ppb	19:13:21
2	Si 251.611†	649.4	7.1	0.1860 ug/L	0.1860 ppb	19:13:21
2	Sn 189.927†	13.6	7.4	1.0546 ug/L	1.0546 ppb	19:13:21
2	Ti 334.940†	-1549.3	-93.2	-0.1318 ug/L	-0.1318 ppb	19:13:01
2	Tl 190.801†	-46.1	-4.9	-1.2243 ug/L	-1.2243 ppb	19:13:21
2	U 409.014†	-3004.7	-33.4	-0.8986 ug/L	-0.8986 ppb	19:13:01
2	V 292.402†	-1510.8	22.5	0.1423 ug/L	0.1423 ppb	19:13:01
2	Zn 213.857†	810.9	-69.1	-0.5426 ug/L	-0.5426 ppb	19:13:21
2	SiO2†	649.3	-30.4	-1.7834 ug/L	-1.7834 ppb	19:13:57
3	Sc Radial	5881.9	5881.9	98.8 %		19:12:09
3	Y RADIAL	6027.7	6027.7	97.55 %		19:12:09
3	Al 396.153Radial†	-20.5	-4.5	-3.0215 ug/L	-3.0215 ppb	19:12:09
3	Ca 317.933Radial†	26.2	6.1	8.3714 ug/L	8.3714 ppb	19:12:29
3	Fe 238.204 Radial†	12.0	-0.8	-6.0929 ug/L	-6.0929 ppb	19:12:29
3	K 766.490 Radial†	3106.6	-3.3	-0.5258 ug/L	-0.5258 ppb	19:12:09
3	Mg 279.077 IEC†	4.5	-0.8	-22.039 ug/L	-22.039 ppb	19:12:29
3	Na 589.592 Radial†	-1719.5	-14.8	-3.8836 ug/L	-3.8836 ppb	19:12:09
3	Sr 421.552†	9.7	24.1	0.1302 ug/L	0.1302 ppb	19:12:09
3	Sc 361.383	935168.5	935168.5	100.30 %		19:13:26
3	Y 371.029	768949.1	768949.1	100.00 %		19:13:26
3	Ag 328.068†	426.0	16.2	0.0649 ug/L	0.0649 ppb	19:13:26
3	As 188.979†	-29.4	2.2	0.7416 ug/L	0.7416 ppb	19:13:46
3	B 249.677†	-489.7	38.3	0.7573 ug/L	0.7573 ppb	19:13:46
3	Ba 233.527†	17.6	6.0	0.0386 ug/L	0.0386 ppb	19:13:46
3	Be 313.107†	-4437.8	124.0	0.0403 ug/L	0.0403 ppb	19:13:26
3	Cd 226.502†	-224.2	-9.7	-0.0901 ug/L	-0.0901 ppb	19:13:46
3	Co 228.616†	-83.5	0.6	0.0130 ug/L	0.0130 ppb	19:13:46
3	Cr 267.716†	101.2	16.2	0.1559 ug/L	0.1559 ppb	19:13:46
3	Cu 324.752†	6123.4	5.4	0.0145 ug/L	0.0145 ppb	19:13:26
3	Mn 257.610†	594.0	32.8	0.0311 ug/L	0.0311 ppb	19:13:46
3	Mo 202.031†	45.8	20.6	1.1903 ug/L	1.1903 ppb	19:13:46
3	Ni 231.604†	128.9	-1.3	-0.0262 ug/L	-0.0262 ppb	19:13:46
3	P 214.914†	257.0	11.2	5.6335 ug/L	5.6335 ppb	19:13:46
3	Pb 220.353†	-72.5	3.9	0.3993 ug/L	0.3993 ppb	19:13:46
3	S 181.975 Axial†	49.8	1.2	1.4191 ug/L	1.4191 ppb	19:13:46
3	Sb 206.836†	44.6	0.1	0.0450 ug/L	0.0450 ppb	19:13:46
3	Se 196.026†	-28.1	8.0	4.2050 ug/L	4.2050 ppb	19:13:46
3	Si 251.611†	648.7	5.0	0.1146 ug/L	0.1146 ppb	19:13:46
3	Sn 189.927†	7.4	1.2	0.1703 ug/L	0.1703 ppb	19:13:46
3	Ti 334.940†	-1506.8	-47.3	-0.0669 ug/L	-0.0669 ppb	19:13:26
3	Tl 190.801†	-31.5	9.7	2.4286 ug/L	2.4286 ppb	19:13:46
3	U 409.014†	-2985.1	-7.2	-0.1937 ug/L	-0.1937 ppb	19:13:26
3	V 292.402†	-1570.6	-33.8	-0.1891 ug/L	-0.1891 ppb	19:13:26
3	Zn 213.857†	841.0	-40.8	-0.3203 ug/L	-0.3203 ppb	19:13:46
3	SiO2†	648.5	-32.5	-1.9408 ug/L	-1.9408 ppb	19:14:02

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	935071.8	100.29	%	0.206				0.21%
Sc Radial	5863.6	98.5	%	1.29				1.31%
Y 371.029	767901.1	99.864	%	0.2431				0.24%
Y RADIAL	6005.6	97.19	%	1.256				1.29%
Ag 328.068†	-1.0	-0.0032	ug/L	0.35018	-0.0032	ppb	0.35018	>999.9%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-1.6	-1.0627	ug/L	6.41377	-1.0627	ppb	6.41377	603.51%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	2.3	0.7835	ug/L	0.99401	0.7835	ppb	0.99401	126.87%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	40.0	0.7885	ug/L	0.45008	0.7885	ppb	0.45008	57.08%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	2.8	0.0183	ug/L	0.08134	0.0183	ppb	0.08134	444.90%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	115.1	0.0375	ug/L	0.00429	0.0375	ppb	0.00429	11.45%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	5.2	7.0998	ug/L	1.87302	7.0998	ppb	1.87302	26.38%

```
   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                -9.6     -0.0907 ug/L       0.00245     -0.0907 ppb        0.00245   2.70%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                 7.8      0.1331 ug/L       0.16764      0.1331 ppb        0.16764 125.96%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                20.1      0.1951 ug/L       0.04916      0.1951 ppb        0.04916  25.19%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†                -9.7     -0.0263 ug/L       0.04320     -0.0263 ppb        0.04320 164.15%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          0.1      0.8917 ug/L      10.68797      0.8917 ppb       10.68797 >999.9%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          39.0      6.2959 ug/L      16.94418      6.2959 ppb       16.94418 269.13%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -1.1    -32.910 ug/L       84.8295    -32.910 ppb        84.8295 257.76%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                20.3      0.0200 ug/L       0.01124      0.0200 ppb        0.01124  56.11%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 9.1      0.5224 ug/L       0.59367      0.5224 ppb        0.59367 113.64%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        -28.2     -7.4008 ug/L       4.36474     -7.4008 ppb        4.36474  58.98%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               -16.2     -0.3383 ug/L       0.28238     -0.3383 ppb        0.28238  83.46%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                  2.5      1.2458 ug/L       3.80133      1.2458 ppb        3.80133 305.14%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                 2.6      0.2632 ug/L       0.30607      0.2632 ppb        0.30607 116.30%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -0.9     -1.0100 ug/L       6.33028     -1.0100 ppb        6.33028 626.73%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 1.1      0.3288 ug/L       0.24647      0.3288 ppb        0.24647  74.96%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 5.5      2.9322 ug/L       1.81686      2.9322 ppb        1.81686  61.96%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                -2.1     -0.0686 ug/L       0.38071     -0.0686 ppb        0.38071 555.24%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 4.3      0.6201 ug/L       0.44234      0.6201 ppb        0.44234  71.33%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                19.9      0.1075 ug/L       0.09390      0.1075 ppb        0.09390  87.35%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               -45.5     -0.0639 ug/L       0.06938     -0.0639 ppb        0.06938 108.53%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 1.8      0.4508 ug/L       1.84518      0.4508 ppb        1.84518 409.32%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                -37.4     -1.0059 ug/L       0.87078     -1.0059 ppb        0.87078  86.57%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 -0.0      0.0043 ug/L       0.17253      0.0043 ppb        0.17253 >999.9%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               -55.7     -0.4354 ug/L       0.11139     -0.4354 ppb        0.11139  25.59%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                     -25.1     -1.4887 ug/L       0.65157     -1.4887 ppb        0.65157  43.77%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

ICPMS #5 Daily Performance Report

Sample ID: Sample
Sample Date/Time: Sunday, December 20, 2009 11:52:29
Sample Description:
Method File: c:\elandata\Method\Daily2.mth
Dataset File: c:\elandata\Dataset\default2\Sample.1572
Tuning File: c:\elandata\Tuning\default2.tun
Optimization File: c:\elandata\Optimize\default.dac
Dual Detector Mode: Pulse

Acq. Dead Time(ns): 35
Current Dead Time (ns): 35

Number of Replicates: 5

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Be	9.0	6232.8	6232.760	121.551	2.0
	Mg	24.0	57272.0	57271.978	417.606	0.7
	Co	58.9	130761.4	130761.384	1494.165	1.1
	Rh	102.9	239845.5	239845.479	1133.917	0.5
	In	114.9	311512.3	311512.270	1968.737	0.6
	Pb	208.0	299156.1	299156.147	3325.827	1.1
⌈>	Ba	137.9	296479.7	296479.705	2795.772	0.9
⌊	Ba++	69.0	6994.0	0.024	0.000	1.3
⌈>	Ce	139.9	363593.5	363593.523	1445.927	0.4
⌊	CeO	155.9	8869.6	0.024	0.000	1.8
	Bkgd	220.0	25.1	25.100	1.557	6.2

Current Optimization File Data

Current Value	Description
0.88	Nebulizer Gas Flow
8.25	Lens Voltage
1450.00	ICP RF Power
-1687.50	Analog Stage Voltage
1200.00	Pulse Stage Voltage
275.00	Discriminator Threshold
-6.00	AC Rod Offset

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	13	7.5	7027.7
Co	59	13	8.0	126550.7
In	115	13	9.0	309282.8

ICPMS #5 Instrument Tuning Report

File Name: default2.tun
File Path: c:\elandata\Tuning

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Pk. Width
He	3.0	3.0	587	2055	0.640
Be	9.0	9.0	2037	2070	0.646
Mg	24.0	24.0	5685	2070	0.663
Mg	25.0	25.0	5949	2070	0.668
Mg	26.0	26.0	6165	2070	0.670
Co	58.9	59.0	14190	2105	0.642
Rh	102.9	102.9	24879	2165	0.630
In	114.9	114.9	27793	2185	0.626
Ce	139.9	139.9	33865	2200	0.642
Pb	206.0	206.0	49936	2270	0.640
Pb	207.0	207.0	50183	2235	0.691
Pb	208.0	208.0	50427	2260	0.720
U	238.1	238.1	57732	2275	0.721

ICPMS#5 - Summary Report

Sample ID: Blank
Sample Date/Time: Sunday, December 20, 2009 22:04:44
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\091220\Blank.108

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7		ug/L		162	
	Be	9		ug/L		26	
	B	11		ug/L		573	
	Na	23		ug/L		15342	
	Mg	24		ug/L		2000	
	Al	27		ug/L		8002	
	P	31		ug/L		6394	
	K	39		ug/L		536964	
	Ca	43		ug/L		395	
>	Sc	45		ug/L		673418	
	Ti	47		ug/L		369	
	V	51		ug/L		8101	
	Cr	52		ug/L		4848	
	Cr	53		ug/L		114144	
	Mn	55		ug/L		1254	
	Fe	57		ug/L		6843	
	Co	59		ug/L		158	
	Ni	60		ug/L		100	
	Cu	63		ug/L		212	
	Cu	65		ug/L		136	
	Zn	66		ug/L		299	
	Zn	67		ug/L		13542	
	Zn	68		ug/L		991	
>	Ge	74		ug/L		548944	
	As	75		ug/L		-496	
	Se	77		ug/L		6460	
	Se	82		ug/L		-29	
	Kr	83		ug/L		148	
	Sr	88		ug/L		248	
	Y	89		ug/L		70	
	Mo	98		ug/L		96	
	Ag	107		ug/L		76	
	Cd	111		ug/L		40	
	Cd	114		ug/L		61	
>	In	115		ug/L		347001	
	Sn	120		ug/L		278	
	Sb	121		ug/L		377	
	Sb	123		ug/L		316	
	Ba	135		ug/L		47	
	Ba	137		ug/L		67	
	Ho	165		ug/L		70	
>	Lu	175		ug/L		634759	
	Tl	205		ug/L		3732	
	Pb	208		ug/L		841	
	Bi	209		ug/L		49	
	Th	232		ug/L		1003	
	U	238		ug/L		654	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	0.9999
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	0.9999
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	0.9999
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45					
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115					
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175					
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Sunday, December 20, 2009 22:10:51
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\091220\Standard 1.109

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	10.000	ug/L	2.939	23339	0.033
	Be	9	10.000	ug/L	1.267	5398	0.008
	B	11	20.000	ug/L	2.448	11733	0.016
	Na	23	1000.000	ug/L	4.555	4300752	6.188
	Mg	24	1000.000	ug/L	6.567	3246768	4.691
	Al	27	1000.000	ug/L	2.088	4463542	6.433
	P	31	1000.000	ug/L	2.200	309963	0.438
	K	39	1000.000	ug/L	3.595	7524080	10.064
	Ca	43	1000.000	ug/L	3.294	17424	0.025
>	Sc	45		ug/L		692601	692601.014
	Ti	47	10.000	ug/L	2.543	8496	0.012
	V	51	10.000	ug/L	10.432	106157	0.142
	Cr	52	10.000	ug/L	2.186	84202	0.114
	Cr	53		ug/L		132506	0.022
	Mn	55	10.000	ug/L	2.036	133572	0.191
	Fe	57	1000.000	ug/L	3.689	274300	0.386
	Co	59	10.000	ug/L	3.082	105064	0.152
	Ni	60	10.000	ug/L	3.461	22817	0.033
	Cu	63		ug/L		55369	0.080
	Cu	65	10.000	ug/L	2.096	26992	0.039
	Zn	66	10.000	ug/L	2.726	17819	0.031
	Zn	67		ug/L		16761	0.005
	Zn	68		ug/L		13695	0.022
>	Ge	74		ug/L		567449	567448.622
	As	75	10.000	ug/L	1.120	16926	0.031
	Se	77		ug/L		8439	0.003
	Se	82	10.000	ug/L	3.848	1736	0.003
	Kr	83		ug/L		124	-0.000
	Sr	88	10.000	ug/L	1.130	204298	0.574
	Y	89		ug/L		102	0.000
	Mo	98	10.000	ug/L	0.725	49237	0.138
	Ag	107	10.000	ug/L	2.881	88077	0.248
	Cd	111	10.000	ug/L	0.641	20851	0.059
	Cd	114		ug/L		49713	0.140
>	In	115		ug/L		355619	355619.053
	Sn	120	10.000	ug/L	2.215	88245	0.247
	Sb	121	10.000	ug/L	1.667	75434	0.211
	Sb	123		ug/L		58918	0.165
	Ba	135		ug/L		21746	0.034
	Ba	137	10.000	ug/L	1.521	38314	0.060
	Ho	165		ug/L		74	0.000
>	Lu	175		ug/L		636015	636014.649
	Tl	205	10.000	ug/L	2.571	331702	0.516
	Pb	208	10.000	ug/L	1.013	515407	0.809
	Bi	209		ug/L		109	0.000
	Th	232	10.000	ug/L	1.875	630130	0.989
	U	238	10.000	ug/L	0.174	658859	1.035

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈	Li	7					
|	Be	9					
|	B	11					
|	Na	23					
|	Mg	24					
|	Al	27					
|	P	31					
|	K	39					
|	Ca	43					
|>	Sc	45					
|	Ti	47					
|	V	51					
|	Cr	52					
|	Cr	53					
|	Mn	55					
|	Fe	57					
|	Co	59					
|	Ni	60					
|	Cu	63					
⌊	Cu	65					
⌈	Zn	66					
|	Zn	67					
|	Zn	68					
|>	Ge	74					
|	As	75					
|	Se	77					
|	Se	82					
⌊	Kr	83					
⌈	Sr	88					
|	Y	89					
|	Mo	98					
|	Ag	107					
|	Cd	111					
|	Cd	114					
|>	In	115					
|	Sn	120					
|	Sb	121					
⌊	Sb	123					
⌈	Ba	135					
|	Ba	137					
|	Ho	165					
|>	Lu	175					
|	Tl	205					
|	Pb	208					
|	Bi	209					
|	Th	232					
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Sunday, December 20, 2009 22:16:55
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\091220\Standard 2.110

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**100.002**	**ug/L**	0.289	231608	0.335
	Be	9	**100.000**	**ug/L**	1.003	53566	0.078
	B	11	**199.983**	**ug/L**	3.438	110758	0.160
	Na	23	**10004.539**	**ug/L**	11.090	44829182	64.849
	Mg	24	**10006.502**	**ug/L**	3.677	34660512	50.205
	Al	27	**10005.718**	**ug/L**	6.172	47171090	68.276
	P	31	**9995.511**	**ug/L**	0.495	2899996	4.192
	K	39	**10001.940**	**ug/L**	4.711	71426492	102.648
	Ca	43	**9999.575**	**ug/L**	2.011	169368	0.245
>	Sc	45		**ug/L**		690273	690273.229
	Ti	47	**100.012**	**ug/L**	1.818	82263	0.119
	V	51	**99.993**	**ug/L**	1.723	978477	1.406
	Cr	52	**99.970**	**ug/L**	0.965	771781	1.111
	Cr	53		**ug/L**		211977	0.138
	Mn	55	**99.947**	**ug/L**	0.820	1252594	1.813
	Fe	57	**9984.431**	**ug/L**	1.572	2309639	3.336
	Co	59	**99.941**	**ug/L**	0.863	987419	1.430
	Ni	60	**99.991**	**ug/L**	2.659	224471	0.325
	Cu	63		**ug/L**		532158	0.771
	Cu	65	**99.984**	**ug/L**	0.923	263559	0.382
	Zn	66	**99.956**	**ug/L**	0.996	170113	0.295
	Zn	67		**ug/L**		41050	0.047
	Zn	68		**ug/L**		125451	0.216
>	Ge	74		**ug/L**		574956	574955.862
	As	75	**99.993**	**ug/L**	0.415	174938	0.305
	Se	77		**ug/L**		20442	0.024
	Se	82	**99.973**	**ug/L**	2.069	17383	0.030
	Kr	83		**ug/L**		158	0.000
	Sr	88	**99.912**	**ug/L**	1.236	1855721	5.270
	Y	89		**ug/L**		257	0.001
	Mo	98	**100.005**	**ug/L**	1.779	489249	1.389
	Ag	107	**99.958**	**ug/L**	0.531	836024	2.374
	Cd	111	**100.007**	**ug/L**	1.033	207580	0.590
	Cd	114		**ug/L**		484074	1.375
>	In	115		**ug/L**		352060	352059.924
	Sn	120	**99.964**	**ug/L**	1.582	840815	2.387
	Sb	121	**99.964**	**ug/L**	0.871	717262	2.036
	Sb	123		**ug/L**		566541	1.608
	Ba	135		**ug/L**		218584	0.345
	Ba	137	**99.996**	**ug/L**	3.387	379137	0.599
	Ho	165		**ug/L**		83	0.000
>	Lu	175		**ug/L**		633028	633027.964
	Tl	205	**99.870**	**ug/L**	1.958	2889453	4.559
	Pb	208	**99.867**	**ug/L**	1.356	4515963	7.133
	Bi	209		**ug/L**		466	0.001
	Th	232	**99.841**	**ug/L**	3.344	5393468	8.521
	U	238	**99.876**	**ug/L**	1.853	5819083	9.192

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9999
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9999
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45					
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115					
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175					
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Sunday, December 20, 2009 22:23:00
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\091220\QC Std 1.111

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**50.972**	**ug/L**	1.855	123690	0.171
	Be	9	**51.097**	**ug/L**	1.613	28674	0.040
	B	11	**99.825**	**ug/L**	4.215	58160	0.080
	Na	23	**5453.049**	**ug/L**	11.015	25551104	35.346
	Mg	24	**4853.191**	**ug/L**	13.220	17585112	24.350
	Al	27	**5030.817**	**ug/L**	2.847	24817626	34.329
	P	31	**5072.600**	**ug/L**	3.204	1544052	2.127
	K	39	**5013.797**	**ug/L**	6.596	37792751	51.456
	Ca	43	**5120.954**	**ug/L**	0.172	91051	0.125
>	Sc	45		**ug/L**		722836	722836.251
	Ti	47	**50.716**	**ug/L**	2.344	43871	0.060
	V	51	**51.929**	**ug/L**	1.966	536315	0.730
	Cr	52	**53.012**	**ug/L**	1.927	430932	0.589
	Cr	53		**ug/L**		180612	0.080
	Mn	55	**53.881**	**ug/L**	1.513	707703	0.977
	Fe	57	**5458.820**	**ug/L**	1.314	1325607	1.824
	Co	59	**52.578**	**ug/L**	2.098	543977	0.752
	Ni	60	**53.422**	**ug/L**	1.144	125688	0.174
	Cu	63		**ug/L**		291472	0.403
	Cu	65	**52.240**	**ug/L**	1.478	144242	0.199
	Zn	66	**53.871**	**ug/L**	2.135	94719	0.159
	Zn	67		**ug/L**		30122	0.026
	Zn	68		**ug/L**		69919	0.116
>	Ge	74		**ug/L**		593041	593040.668
	As	75	**50.993**	**ug/L**	1.596	91751	0.156
	Se	77		**ug/L**		15075	0.014
	Se	82	**51.142**	**ug/L**	1.805	9159	0.015
	Kr	83		**ug/L**		154	-0.000
	Sr	88	**55.464**	**ug/L**	1.745	1062084	2.925
	Y	89		**ug/L**		134	0.000
	Mo	98	**51.012**	**ug/L**	1.597	257324	0.709
	Ag	107	**52.511**	**ug/L**	1.480	452868	1.247
	Cd	111	**51.160**	**ug/L**	1.063	109516	0.302
	Cd	114		**ug/L**		257592	0.710
>	In	115		**ug/L**		362986	362986.136
	Sn	120	**52.459**	**ug/L**	0.719	455052	1.253
	Sb	121	**52.215**	**ug/L**	0.192	386475	1.064
	Sb	123		**ug/L**		304268	0.837
	Ba	135		**ug/L**		115060	0.183
	Ba	137	**53.560**	**ug/L**	1.596	201982	0.321
	Ho	165		**ug/L**		110	0.000
>	Lu	175		**ug/L**		629446	629446.069
	Tl	205	**52.316**	**ug/L**	1.419	1506828	2.388
	Pb	208	**55.436**	**ug/L**	0.971	2493007	3.960
	Bi	209		**ug/L**		574	0.001
	Th	232	**53.189**	**ug/L**	2.543	2857584	4.539
	U	238	**54.717**	**ug/L**	1.449	3170128	5.036

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7	101.945				
	Be	9	102.194				
	B	11	99.825				
	Na	23	109.061				
	Mg	24	97.064				
	Al	27	99.620				
	P	31	101.452				
	K	39	100.276				
	Ca	43	102.419				
>	Sc	45		107.3			
	Ti	47	101.433				
	V	51	103.858				
	Cr	52	106.024				
	Cr	53					
	Mn	55	107.761				
	Fe	57	109.176				
	Co	59	105.157				
	Ni	60	106.843				
	Cu	63					
	Cu	65	104.479				
	Zn	66	107.741				
	Zn	67					
	Zn	68					
>	Ge	74		108.0			
	As	75	101.986				
	Se	77					
	Se	82	102.284				
	Kr	83					
	Sr	88	110.927				
	Y	89					
	Mo	98	102.025				
	Ag	107	105.022				
	Cd	111	102.320				
	Cd	114					
>	In	115		104.6			
	Sn	120	104.918				
	Sb	121	104.431				
	Sb	123					
	Ba	135					
	Ba	137	107.121				
	Ho	165					
>	Lu	175		99.2			
	Tl	205	104.631				
	Pb	208	110.871				
	Bi	209					
	Th	232	106.378				
	U	238	109.433				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 1	Sr	88	ICV is out of limits (+/- 10%)
QC Std 1	Pb	208	ICV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Sunday, December 20, 2009 22:29:07
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\091220\QC Std 2.112

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	0.014	ug/L	19.911	216	0.000
	Be	9	-0.002	ug/L	107.138	28	-0.000
	B	11	0.977	ug/L	13.916	1229	0.001
	Na	23	0.585	ug/L	3.424	20014	0.004
	Mg	24	0.817	ug/L	178.284	5335	0.004
	Al	27	-0.249	ug/L	47.251	7669	-0.002
	P	31	0.610	ug/L	368.455	7346	0.000
	K	39	7.185	ug/L	96.791	656130	0.074
	Ca	43	3.574	ug/L	33.045	507	0.000
>	Sc	45		ug/L		753100	753100.092
	Ti	47	-0.004	ug/L	926.191	409	-0.000
	V	51	-0.434	ug/L	77.283	4466	-0.006
	Cr	52	0.157	ug/L	74.040	6734	0.002
	Cr	53		ug/L		136508	0.012
	Mn	55	-0.002	ug/L	126.802	1371	-0.000
	Fe	57	4.905	ug/L	24.092	8887	0.002
	Co	59	0.003	ug/L	59.381	212	0.000
	Ni	60	0.003	ug/L	146.366	119	0.000
	Cu	63		ug/L		290	0.000
	Cu	65	0.005	ug/L	78.528	167	0.000
	Zn	66	0.025	ug/L	19.361	378	0.000
	Zn	67		ug/L		15165	0.000
	Zn	68		ug/L		1197	0.000
>	Ge	74		ug/L		610281	610281.460
	As	75	-0.113	ug/L	174.187	-761	-0.000
	Se	77		ug/L		8436	0.002
	Se	82	0.005	ug/L	1921.710	-31	0.000
	Kr	83		ug/L		154	-0.000
	Sr	88	0.002	ug/L	87.708	318	0.000
	Y	89		ug/L		69	-0.000
	Mo	98	0.035	ug/L	20.741	287	0.000
	Ag	107	0.005	ug/L	64.090	123	0.000
	Cd	111	0.003	ug/L	157.493	51	0.000
	Cd	114		ug/L		76	0.000
>	In	115		ug/L		376074	376074.037
	Sn	120	0.033	ug/L	23.838	596	0.001
	Sb	121	0.187	ug/L	21.695	1842	0.004
	Sb	123		ug/L		1455	0.003
	Ba	135		ug/L		65	0.000
	Ba	137	0.004	ug/L	64.268	82	0.000
	Ho	165		ug/L		71	-0.000
>	Lu	175		ug/L		646691	646690.983
	Tl	205	0.342	ug/L	19.444	13910	0.016
	Pb	208	0.004	ug/L	48.991	1039	0.000
	Bi	209		ug/L		47	-0.000
	Th	232	0.058	ug/L	19.562	4249	0.005
	U	238	0.008	ug/L	32.245	1130	0.001

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9999
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9999
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		111.8			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		111.2			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		108.4			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		101.9			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Sunday, December 20, 2009 22:35:14
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\091220\QC Std 3.113

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**10.289**	ug/L	2.039	25002	0.034
	Be	9	**0.557**	ug/L	3.642	339	0.000
	B	11	**15.749**	ug/L	4.566	9654	0.013
	Na	23	**247.578**	ug/L	5.012	1171570	1.605
	Mg	24	**12.356**	ug/L	13.055	46744	0.062
	Al	27	**33.445**	ug/L	13.236	172714	0.228
	P	31	**59.194**	ug/L	6.173	24698	0.025
	K	39	**304.788**	ug/L	5.537	2825415	3.128
	Ca	43	**219.249**	ug/L	3.752	4285	0.005
>	Sc	45		ug/L		719676	719676.107
	Ti	47	**9.322**	ug/L	0.657	8352	0.011
	V	51	**10.801**	ug/L	4.013	117916	0.152
	Cr	52	**11.440**	ug/L	2.037	96672	0.127
	Cr	53		ug/L		148919	0.037
	Mn	55	**5.866**	ug/L	1.234	77907	0.106
	Fe	57	**131.885**	ug/L	2.470	39025	0.044
	Co	59	**1.125**	ug/L	1.247	11752	0.016
	Ni	60	**2.194**	ug/L	3.205	5241	0.007
	Cu	63		ug/L		6760	0.009
	Cu	65	**1.167**	ug/L	3.793	3352	0.004
	Zn	66	**11.146**	ug/L	2.957	19877	0.033
	Zn	67		ug/L		17946	0.006
	Zn	68		ug/L		15206	0.024
>	Ge	74		ug/L		593727	593726.894
	As	75	**5.368**	ug/L	1.882	9191	0.016
	Se	77		ug/L		9493	0.004
	Se	82	**5.675**	ug/L	4.982	990	0.002
	Kr	83		ug/L		145	-0.000
	Sr	88	**12.008**	ug/L	3.120	231936	0.633
	Y	89		ug/L		83	0.000
	Mo	98	**0.558**	ug/L	2.327	2936	0.008
	Ag	107	**1.108**	ug/L	3.341	9708	0.026
	Cd	111	**1.071**	ug/L	4.578	2350	0.006
	Cd	114		ug/L		5517	0.015
>	In	115		ug/L		365972	365972.040
	Sn	120	**5.400**	ug/L	3.735	47463	0.129
	Sb	121	**3.331**	ug/L	2.081	25222	0.068
	Sb	123		ug/L		19761	0.053
	Ba	135		ug/L		4741	0.007
	Ba	137	**2.124**	ug/L	2.611	8184	0.013
	Ho	165		ug/L		75	0.000
>	Lu	175		ug/L		638082	638081.588
	Tl	205	**1.231**	ug/L	1.398	39611	0.056
	Pb	208	**2.412**	ug/L	1.579	110742	0.172
	Bi	209		ug/L		95	0.000
	Th	232	**1.284**	ug/L	1.185	70923	0.110
	U	238	**0.258**	ug/L	3.560	15825	0.024

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7	102.887				
	Be	9	111.498				
	B	11	104.994				
	Na	23	99.031				
	Mg	24	82.373				
	Al	27	111.484				
	P	31	118.389				
	K	39	101.596				
	Ca	43	109.624				
>	Sc	45		106.9			
	Ti	47	93.219				
	V	51	108.005				
	Cr	52	114.395				
	Cr	53					
	Mn	55	117.314				
	Fe	57	131.885				
	Co	59	112.458				
	Ni	60	109.690				
	Cu	63					
	Cu	65	116.742				
	Zn	66	111.460				
	Zn	67					
	Zn	68					
>	Ge	74		108.2			
	As	75	107.360				
	Se	77					
	Se	82	113.493				
	Kr	83					
	Sr	88	120.077				
	Y	89					
	Mo	98	111.551				
	Ag	107	110.805				
	Cd	111	107.075				
	Cd	114					
>	In	115		105.5			
	Sn	120	107.999				
	Sb	121	111.033				
	Sb	123					
	Ba	135					
	Ba	137	106.205				
	Ho	165					
>	Lu	175		100.5			
	Tl	205	123.104				
	Pb	208	120.578				
	Bi	209					
	Th	232	128.401				
	U	238	129.169				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 3	Fe	57	CRDL is out of limits

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Sunday, December 20, 2009 22:41:20
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\091220\QC Std 4.114

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.143**	**ug/L**	6.652	473	0.000
	Be	9	**0.048**	**ug/L**	7.463	50	0.000
	B	11	**1.215**	**ug/L**	14.270	1201	0.001
	Na	23	**93452.423**	**ug/L**	9.728	399484626	605.755
	Mg	24	**85150.401**	**ug/L**	7.166	281531704	427.222
	Al	27	**93115.981**	**ug/L**	3.546	418731427	635.394
	P	31	**91067.289**	**ug/L**	1.678	25168736	38.192
	K	39	**95944.079**	**ug/L**	3.311	649167356	984.659
	Ca	43	**91229.377**	**ug/L**	0.710	1472070	2.234
>	Sc	45		**ug/L**		658913	658913.268
	Ti	47	**1405.748**	**ug/L**	1.927	1099057	1.667
	V	51	**-0.048**	**ug/L**	413.200	7499	-0.001
	Cr	52	**2.093**	**ug/L**	3.421	20073	0.023
	Cr	53		**ug/L**		107145	-0.007
	Mn	55	**6.415**	**ug/L**	2.182	77889	0.116
	Fe	57	**98990.038**	**ug/L**	0.993	21800026	33.076
	Co	59	**0.313**	**ug/L**	3.851	3110	0.004
	Ni	60	**3.002**	**ug/L**	3.465	6531	0.010
	Cu	63		**ug/L**		10537	0.016
	Cu	65	**2.241**	**ug/L**	3.526	5767	0.009
	Zn	66	**3.252**	**ug/L**	3.568	5548	0.010
	Zn	67		**ug/L**		13823	0.001
	Zn	68		**ug/L**		2342	0.002
>	Ge	74		**ug/L**		546404	546403.710
	As	75	**-0.100**	**ug/L**	158.389	-660	-0.000
	Se	77		**ug/L**		10485	0.007
	Se	82	**-0.985**	**ug/L**	33.026	-192	-0.000
	Kr	83		**ug/L**		428	0.001
	Sr	88	**1.307**	**ug/L**	0.870	23128	0.069
	Y	89		**ug/L**		730	0.002
	Mo	98	**1901.898**	**ug/L**	1.282	8774923	26.422
	Ag	107	**0.071**	**ug/L**	0.934	631	0.002
	Cd	111	**0.387**	**ug/L**	39.740	796	0.002
	Cd	114		**ug/L**		11924	0.036
>	In	115		**ug/L**		332122	332121.836
	Sn	120	**0.102**	**ug/L**	2.312	1072	0.002
	Sb	121	**0.063**	**ug/L**	5.023	789	0.001
	Sb	123		**ug/L**		629	0.001
	Ba	135		**ug/L**		1428	0.002
	Ba	137	**0.698**	**ug/L**	1.724	2447	0.004
	Ho	165		**ug/L**		1566	0.003
>	Lu	175		**ug/L**		570796	570796.230
	Tl	205	**0.044**	**ug/L**	18.488	4503	0.002
	Pb	208	**0.201**	**ug/L**	0.481	8957	0.014
	Bi	209		**ug/L**		1690	0.003
	Th	232	**0.052**	**ug/L**	33.442	3433	0.004
	U	238	**-0.004**	**ug/L**	10.090	352	-0.000

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9999
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9999
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23	93.452				
	Mg	24	85.150				
	Al	27	93.116				
	P	31	91.067				
	K	39	95.944				
	Ca	43	91.229				
>	Sc	45		97.8			
	Ti	47	70.287				
	V	51					
	Cr	52	56.577				
	Cr	53					
	Mn	55	110.611				
	Fe	57	98.990				
	Co	59	125.335				
	Ni	60	111.190				
	Cu	63					
	Cu	65	77.277				
	Zn	66	90.343				
	Zn	67					
	Zn	68					
>	Ge	74		99.5			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88	108.894				
	Y	89					
	Mo	98	95.095				
	Ag	107					
	Cd	111	96.851				
	Cd	114					
>	In	115		95.7			
	Sn	120					
	Sb	121	63.250				
	Sb	123					
	Ba	135					
	Ba	137	104.194				
	Ho	165					
>	Lu	175		89.9			
	Tl	205					
	Pb	208	100.568				
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 4	Ti	47	ICSA is out of limits

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Sunday, December 20, 2009 22:47:27
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\091220\QC Std 5.115

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**18.779**	**ug/L**	0.847	40536	0.063
	Be	9	**17.722**	**ug/L**	2.252	8843	0.014
	B	11	**17.834**	**ug/L**	1.556	9671	0.014
	Na	23	**91769.621**	**ug/L**	3.681	381430553	594.847
	Mg	24	**85500.247**	**ug/L**	2.875	275075335	428.977
	Al	27	**88009.363**	**ug/L**	2.908	385113225	600.548
	P	31	**89559.586**	**ug/L**	2.143	24093437	37.559
	K	39	**94070.210**	**ug/L**	0.859	619692627	965.428
	Ca	43	**89525.769**	**ug/L**	1.963	1406320	2.192
>	Sc	45		**ug/L**		641402	641402.456
	Ti	47	**1412.235**	**ug/L**	1.907	1074615	1.675
	V	51	**20.793**	**ug/L**	2.510	195158	0.292
	Cr	52	**22.564**	**ug/L**	2.861	165405	0.251
	Cr	53		**ug/L**		120580	0.018
	Mn	55	**27.718**	**ug/L**	2.219	323606	0.503
	Fe	57	**101371.147**	**ug/L**	1.109	21729554	33.872
	Co	59	**20.962**	**ug/L**	1.919	192538	0.300
	Ni	60	**22.249**	**ug/L**	2.197	46490	0.072
	Cu	63		**ug/L**		103013	0.160
	Cu	65	**20.746**	**ug/L**	2.332	50905	0.079
	Zn	66	**21.961**	**ug/L**	1.302	35583	0.065
	Zn	67		**ug/L**		18344	0.009
	Zn	68		**ug/L**		24420	0.043
>	Ge	74		**ug/L**		543765	543764.586
	As	75	**19.941**	**ug/L**	1.640	32601	0.061
	Se	77		**ug/L**		12032	0.010
	Se	82	**19.009**	**ug/L**	2.384	3104	0.006
	Kr	83		**ug/L**		415	0.000
	Sr	88	**23.446**	**ug/L**	1.816	412474	1.237
	Y	89		**ug/L**		703	0.002
	Mo	98	**1898.692**	**ug/L**	1.191	8793507	26.378
	Ag	107	**19.488**	**ug/L**	1.238	154386	0.463
	Cd	111	**18.978**	**ug/L**	1.662	37333	0.112
	Cd	114		**ug/L**		98910	0.297
>	In	115		**ug/L**		333375	333375.056
	Sn	120	**20.397**	**ug/L**	0.309	162669	0.487
	Sb	121	**20.555**	**ug/L**	0.779	139941	0.419
	Sb	123		**ug/L**		109724	0.328
	Ba	135		**ug/L**		41316	0.072
	Ba	137	**21.105**	**ug/L**	1.454	72172	0.126
	Ho	165		**ug/L**		1552	0.003
>	Lu	175		**ug/L**		570490	570489.957
	Tl	205	**21.022**	**ug/L**	2.210	550762	0.960
	Pb	208	**21.543**	**ug/L**	1.226	878542	1.539
	Bi	209		**ug/L**		2442	0.004
	Th	232	**22.429**	**ug/L**	1.935	1092738	1.914
	U	238	**22.494**	**ug/L**	1.488	1181552	2.070

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9999
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9999
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7	93.893				
	Be	9	88.611				
	B	11	89.172				
	Na	23	91.770				
	Mg	24	85.500				
	Al	27	88.009				
	P	31	89.560				
	K	39	94.070				
	Ca	43	89.526				
>	Sc	45		95.2			
	Ti	47	70.612				
	V	51	103.963				
	Cr	52	95.208				
	Cr	53					
	Mn	55	107.435				
	Fe	57	101.371				
	Co	59	103.514				
	Ni	60	98.013				
	Cu	63					
	Cu	65	90.592				
	Zn	66	93.057				
	Zn	67					
	Zn	68					
>	Ge	74		99.1			
	As	75	99.704				
	Se	77					
	Se	82	95.047				
	Kr	83					
	Sr	88	110.592				
	Y	89					
	Mo	98	94.935				
	Ag	107	97.438				
	Cd	111	93.031				
	Cd	114					
>	In	115		96.1			
	Sn	120	101.987				
	Sb	121	102.263				
	Sb	123					
	Ba	135					
	Ba	137	102.107				
	Ho	165					
>	Lu	175		89.9			
	Tl	205	105.111				
	Pb	208	106.650				
	Bi	209					
	Th	232	112.145				
	U	238	112.472				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 5	Ti	47	ICSAB is out of limits

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Sunday, December 20, 2009 22:53:34
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\091220\QC Std 6.116

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**48.187**	**ug/L**	0.759	104895	0.162
	Be	9	**48.870**	**ug/L**	2.160	24599	0.038
	B	11	**94.844**	**ug/L**	2.947	49600	0.076
	Na	23	**4509.849**	**ug/L**	9.500	18972077	29.233
	Mg	24	**4422.103**	**ug/L**	2.021	14383475	22.187
	Al	27	**4709.838**	**ug/L**	7.380	20849116	32.138
	P	31	**4710.238**	**ug/L**	1.142	1286641	1.975
	K	39	**5222.321**	**ug/L**	4.029	35261180	53.596
	Ca	43	**4737.572**	**ug/L**	0.548	75573	0.116
>	Sc	45		**ug/L**		648274	648273.712
	Ti	47	**49.318**	**ug/L**	0.831	38276	0.058
	V	51	**49.809**	**ug/L**	3.390	461611	0.700
	Cr	52	**50.683**	**ug/L**	2.482	369735	0.563
	Cr	53		**ug/L**		162342	0.081
	Mn	55	**51.690**	**ug/L**	1.026	609047	0.938
	Fe	57	**5392.719**	**ug/L**	3.470	1174474	1.802
	Co	59	**50.169**	**ug/L**	1.306	465581	0.718
	Ni	60	**49.918**	**ug/L**	0.531	105325	0.162
	Cu	63		**ug/L**		248306	0.383
	Cu	65	**49.031**	**ug/L**	0.188	121444	0.187
	Zn	66	**49.447**	**ug/L**	1.254	80526	0.146
	Zn	67		**ug/L**		26332	0.023
	Zn	68		**ug/L**		60050	0.108
>	Ge	74		**ug/L**		549083	549083.138
	As	75	**47.816**	**ug/L**	1.111	79627	0.146
	Se	77		**ug/L**		14100	0.014
	Se	82	**48.791**	**ug/L**	1.487	8088	0.015
	Kr	83		**ug/L**		143	-0.000
	Sr	88	**50.298**	**ug/L**	1.575	915997	2.653
	Y	89		**ug/L**		189	0.000
	Mo	98	**47.850**	**ug/L**	2.903	229531	0.665
	Ag	107	**49.304**	**ug/L**	1.899	404304	1.171
	Cd	111	**48.552**	**ug/L**	1.532	98825	0.286
	Cd	114		**ug/L**		233310	0.676
>	In	115		**ug/L**		345174	345174.059
	Sn	120	**49.676**	**ug/L**	2.715	409770	1.186
	Sb	121	**49.317**	**ug/L**	1.096	347121	1.005
	Sb	123		**ug/L**		274153	0.793
	Ba	135		**ug/L**		103426	0.167
	Ba	137	**49.079**	**ug/L**	0.351	181789	0.294
	Ho	165		**ug/L**		114	0.000
>	Lu	175		**ug/L**		618183	618183.211
	Tl	205	**49.115**	**ug/L**	2.779	1389360	2.242
	Pb	208	**52.042**	**ug/L**	0.945	2298528	3.717
	Bi	209		**ug/L**		538	0.001
	Th	232	**50.079**	**ug/L**	3.199	2642183	4.274
	U	238	**51.184**	**ug/L**	0.468	2912909	4.711

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9999
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9999
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7	96.374				
	Be	9	97.739				
	B	11	94.844				
	Na	23	90.197				
	Mg	24	88.442				
	Al	27	93.264				
	P	31	94.205				
	K	39	104.446				
	Ca	43	94.751				
>	Sc	45		96.3			
	Ti	47	98.636				
	V	51	99.619				
	Cr	52	101.366				
	Cr	53					
	Mn	55	103.380				
	Fe	57	107.854				
	Co	59	100.338				
	Ni	60	99.837				
	Cu	63					
	Cu	65	98.061				
	Zn	66	98.894				
	Zn	67					
	Zn	68					
>	Ge	74		100.0			
	As	75	95.632				
	Se	77					
	Se	82	97.582				
	Kr	83					
	Sr	88	100.597				
	Y	89					
	Mo	98	95.701				
	Ag	107	98.608				
	Cd	111	97.104				
	Cd	114					
>	In	115		99.5			
	Sn	120	99.351				
	Sb	121	98.635				
	Sb	123					
	Ba	135					
	Ba	137	98.157				
	Ho	165					
>	Lu	175		97.4			
	Tl	205	98.231				
	Pb	208	104.085				
	Bi	209					
	Th	232	100.159				
	U	238	102.367				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 6	Mg	24	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Sunday, December 20, 2009 22:59:42
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\091220\QC Std 7.117

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	-0.008	ug/L	68.891	136	-0.000
	Be	9	0.003	ug/L	293.803	27	0.000
	B	11	0.642	ug/L	26.602	872	0.001
	Na	23	1.085	ug/L	194.590	19014	0.007
	Mg	24	1.492	ug/L	65.275	6668	0.007
	Al	27	0.932	ug/L	30.741	11671	0.006
	P	31	3.169	ug/L	76.528	6923	0.001
	K	39	3.714	ug/L	88.127	534840	0.038
	Ca	43	6.939	ug/L	60.714	483	0.000
>	Sc	45		ug/L		640130	640130.039
	Ti	47	0.039	ug/L	76.015	381	0.000
	V	51	0.001	ug/L	22802.281	7729	0.000
	Cr	52	-0.205	ug/L	7.329	3146	-0.002
	Cr	53		ug/L		124255	0.025
	Mn	55	0.002	ug/L	85.666	1219	0.000
	Fe	57	9.503	ug/L	12.564	8535	0.003
	Co	59	0.006	ug/L	44.194	201	0.000
	Ni	60	0.010	ug/L	53.419	116	0.000
	Cu	63		ug/L		233	0.000
	Cu	65	0.010	ug/L	68.333	153	0.000
	Zn	66	0.008	ug/L	185.087	310	0.000
	Zn	67		ug/L		12620	-0.002
	Zn	68		ug/L		1009	0.000
>	Ge	74		ug/L		545520	545519.883
	As	75	0.236	ug/L	140.786	-98	0.001
	Se	77		ug/L		8390	0.004
	Se	82	0.027	ug/L	185.730	-24	0.000
	Kr	83		ug/L		142	-0.000
	Sr	88	0.001	ug/L	197.914	257	0.000
	Y	89		ug/L		62	-0.000
	Mo	98	0.092	ug/L	14.058	538	0.001
	Ag	107	0.003	ug/L	13.253	97	0.000
	Cd	111	-0.007	ug/L	77.937	26	-0.000
	Cd	114		ug/L		70	0.000
>	In	115		ug/L		345092	345092.177
	Sn	120	0.027	ug/L	32.953	499	0.001
	Sb	121	0.094	ug/L	16.046	1034	0.002
	Sb	123		ug/L		794	0.001
	Ba	135		ug/L		53	0.000
	Ba	137	0.003	ug/L	76.297	75	0.000
	Ho	165		ug/L		66	-0.000
>	Lu	175		ug/L		619107	619106.633
	Tl	205	0.346	ug/L	26.201	13403	0.016
	Pb	208	0.003	ug/L	30.177	960	0.000
	Bi	209		ug/L		47	-0.000
	Th	232	0.077	ug/L	18.251	5040	0.007
	U	238	0.006	ug/L	30.063	980	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		95.1			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		99.4			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		99.4			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		97.5			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 10
Sample Date/Time: Sunday, December 20, 2009 23:05:49
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\091220\QC Std 10.118

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**945.008**	ug/L	2.121	1843015	3.169
	Be	9	**981.435**	ug/L	2.741	442709	0.761
	B	11	**1.978**	ug/L	2.929	1413	0.002
	Na	23	**51953.778**	ug/L	2.716	195840797	336.762
	Mg	24	**49620.156**	ug/L	6.110	144758607	248.957
	Al	27	**52781.676**	ug/L	4.816	209453719	360.165
	P	31	**24187.462**	ug/L	2.594	5905074	10.144
	K	39	**49714.177**	ug/L	1.522	297278867	510.209
	Ca	43	**48154.129**	ug/L	2.305	685979	1.179
>	Sc	45		ug/L		581694	581694.064
	Ti	47	**36.614**	ug/L	1.597	25577	0.043
	V	51	**922.695**	ug/L	2.542	7549888	12.970
	Cr	52	**918.884**	ug/L	1.985	5943110	10.211
	Cr	53		ug/L		859200	1.308
	Mn	55	**980.193**	ug/L	2.469	10339786	17.779
	Fe	57	**52016.024**	ug/L	3.018	10111767	17.380
	Co	59	**900.995**	ug/L	2.233	7498826	12.895
	Ni	60	**856.473**	ug/L	2.803	1619507	2.785
	Cu	63		ug/L		3897935	6.701
	Cu	65	**821.386**	ug/L	1.980	1823198	3.135
	Zn	66	**2244.923**	ug/L	2.159	3321785	6.633
	Zn	67		ug/L		529466	1.033
	Zn	68		ug/L		2263427	4.518
>	Ge	74		ug/L		500791	500790.660
	As	75	**845.402**	ug/L	1.596	1291510	2.580
	Se	77		ug/L		60954	0.110
	Se	82	**468.897**	ug/L	1.481	71120	0.142
	Kr	83		ug/L		215	0.000
	Sr	88	**1026.186**	ug/L	1.395	16803320	54.127
	Y	89		ug/L		658	0.002
	Mo	98	**981.518**	ug/L	1.750	4233695	13.636
	Ag	107	**221.350**	ug/L	2.062	1632196	5.258
	Cd	111	**863.096**	ug/L	2.271	1579365	5.088
	Cd	114		ug/L		3954122	12.737
>	In	115		ug/L		310493	310492.816
	Sn	120	**957.498**	ug/L	0.445	7100209	22.868
	Sb	121	**234.473**	ug/L	2.617	1482895	4.776
	Sb	123		ug/L		1202090	3.871
	Ba	135		ug/L		1712573	2.888
	Ba	137	**929.211**	ug/L	1.155	3301229	5.566
	Ho	165		ug/L		554	0.001
>	Lu	175		ug/L		593131	593130.638
	Tl	205	**478.185**	ug/L	1.556	12952489	21.830
	Pb	208	**4963.656**	ug/L	0.874	210285079	354.540
	Bi	209		ug/L		5799	0.010
	Th	232	**2548.860**	ug/L	1.333	129023718	217.525
	U	238	**5381.159**	ug/L	1.124	293742007	495.266

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7	94.501				
	Be	9	98.143				
	B	11					
	Na	23	103.908				
	Mg	24	99.240				
	Al	27	105.563				
	P	31	96.750				
	K	39	99.428				
	Ca	43	96.308				
>	Sc	45		86.4			
	Ti	47					
	V	51	92.269				
	Cr	52	91.888				
	Cr	53					
	Mn	55	98.019				
	Fe	57	104.032				
	Co	59	90.100				
	Ni	60	85.647				
	Cu	63					
	Cu	65	82.139				
	Zn	66	89.797				
	Zn	67					
	Zn	68					
>	Ge	74		91.2			
	As	75	84.540				
	Se	77					
	Se	82	93.779				
	Kr	83					
	Sr	88	102.619				
	Y	89					
	Mo	98	98.152				
	Ag	107	88.540				
	Cd	111	86.310				
	Cd	114					
>	In	115		89.5			
	Sn	120	95.750				
	Sb	121	93.789				
	Sb	123					
	Ba	135					
	Ba	137	92.921				
	Ho	165					
>	Lu	175		93.4			
	Tl	205	95.637				
	Pb	208	99.273				
	Bi	209					
	Th	232	101.954				
	U	238	107.623				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 10	Ni	60	LRS is out of limits (+/- 10%)
QC Std 10	Cu	65	LRS is out of limits (+/- 10%)
QC Std 10	Zn	66	LRS is out of limits (+/- 10%)
QC Std 10	As	75	LRS is out of limits (+/- 10%)
QC Std 10	Ag	107	LRS is out of limits (+/- 10%)
QC Std 10	Cd	111	LRS is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 11
Sample Date/Time: Sunday, December 20, 2009 23:11:54
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\091220\QC Std 11.119

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**52.736**	**ug/L**	1.936	115546	0.177
	Be	9	**53.188**	**ug/L**	4.057	26942	0.041
	B	11	**103.229**	**ug/L**	5.012	54281	0.082
	Na	23	**5461.583**	**ug/L**	6.567	23103094	35.402
	Mg	24	**4985.649**	**ug/L**	0.549	16329412	25.014
	Al	27	**5382.433**	**ug/L**	6.997	23959569	36.728
	P	31	**5100.672**	**ug/L**	1.884	1402279	2.139
	K	39	**5191.318**	**ug/L**	11.055	35261180	53.278
	Ca	43	**5093.621**	**ug/L**	2.436	81762	0.125
>	Sc	45		**ug/L**		652723	652723.078
	Ti	47	**51.857**	**ug/L**	2.499	40493	0.062
	V	51	**52.623**	**ug/L**	5.242	490362	0.740
	Cr	52	**53.349**	**ug/L**	2.493	391562	0.593
	Cr	53		**ug/L**		164464	0.083
	Mn	55	**54.293**	**ug/L**	3.923	643697	0.985
	Fe	57	**5593.821**	**ug/L**	3.035	1226173	1.869
	Co	59	**52.645**	**ug/L**	2.817	491764	0.753
	Ni	60	**52.936**	**ug/L**	3.036	112418	0.172
	Cu	63		**ug/L**		257589	0.394
	Cu	65	**51.620**	**ug/L**	1.054	128711	0.197
	Zn	66	**54.006**	**ug/L**	1.929	86624	0.160
	Zn	67		**ug/L**		28376	0.028
	Zn	68		**ug/L**		63614	0.116
>	Ge	74		**ug/L**		540930	540929.614
	As	75	**52.090**	**ug/L**	1.081	85503	0.159
	Se	77		**ug/L**		13808	0.014
	Se	82	**52.577**	**ug/L**	0.951	8589	0.016
	Kr	83		**ug/L**		141	-0.000
	Sr	88	**53.960**	**ug/L**	1.320	973468	2.846
	Y	89		**ug/L**		115	0.000
	Mo	98	**50.265**	**ug/L**	0.889	238872	0.698
	Ag	107	**52.236**	**ug/L**	0.475	424351	1.241
	Cd	111	**51.926**	**ug/L**	1.622	104711	0.306
	Cd	114		**ug/L**		246869	0.722
>	In	115		**ug/L**		341935	341935.008
	Sn	120	**53.093**	**ug/L**	2.099	433815	1.268
	Sb	121	**53.166**	**ug/L**	0.025	370680	1.083
	Sb	123		**ug/L**		291749	0.852
	Ba	135		**ug/L**		110026	0.179
	Ba	137	**51.954**	**ug/L**	1.282	191480	0.311
	Ho	165		**ug/L**		101	0.000
>	Lu	175		**ug/L**		615120	615120.303
	Tl	205	**53.333**	**ug/L**	1.028	1501225	2.435
	Pb	208	**55.712**	**ug/L**	0.493	2448586	3.979
	Bi	209		**ug/L**		545	0.001
	Th	232	**55.187**	**ug/L**	2.626	2897717	4.710
	U	238	**57.006**	**ug/L**	2.421	3227774	5.247

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9999
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9999
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7	105.472				
	Be	9	106.377				
	B	11	103.229				
	Na	23	109.232				
	Mg	24	99.713				
	Al	27	106.583				
	P	31	102.013				
	K	39	103.826				
	Ca	43	101.872				
>	Sc	45		96.9			
	Ti	47	103.714				
	V	51	105.245				
	Cr	52	106.698				
	Cr	53					
	Mn	55	108.586				
	Fe	57	111.876				
	Co	59	105.290				
	Ni	60	105.871				
	Cu	63					
	Cu	65	103.240				
	Zn	66	108.012				
	Zn	67					
	Zn	68					
>	Ge	74		98.5			
	As	75	104.180				
	Se	77					
	Se	82	105.154				
	Kr	83					
	Sr	88	107.919				
	Y	89					
	Mo	98	100.530				
	Ag	107	104.472				
	Cd	111	103.852				
	Cd	114					
>	In	115		98.5			
	Sn	120	106.186				
	Sb	121	106.331				
	Sb	123					
	Ba	135					
	Ba	137	103.908				
	Ho	165					
>	Lu	175		96.9			
	Tl	205	106.666				
	Pb	208	111.425				
	Bi	209					
	Th	232	110.374				
	U	238	114.013				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 11	Fe	57	CCV is out of limits (+/- 10%)
QC Std 11	Pb	208	CCV is out of limits (+/- 10%)
QC Std 11	Th	232	CCV is out of limits (+/- 10%)
QC Std 11	U	238	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 12
Sample Date/Time: Sunday, December 20, 2009 23:18:01
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\091220\QC Std 12.120

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.069**	ug/L	10.070	311	0.000
	Be	9	**0.005**	ug/L	56.190	28	0.000
	B	11	**0.695**	ug/L	20.826	925	0.001
	Na	23	**3.658**	ug/L	78.336	30703	0.024
	Mg	24	**0.623**	ug/L	85.785	4001	0.003
	Al	27	**0.926**	ug/L	103.387	12005	0.006
	P	31	**2.690**	ug/L	77.011	6991	0.001
	K	39	**3.214**	ug/L	86.064	546599	0.033
	Ca	43	**4.479**	ug/L	20.340	458	0.000
>	Sc	45		ug/L		658405	658404.620
	Ti	47	**0.018**	ug/L	137.300	375	0.000
	V	51	**0.016**	ug/L	3514.461	8025	0.000
	Cr	52	**-0.003**	ug/L	2543.020	4719	-0.000
	Cr	53		ug/L		121764	0.015
	Mn	55	**0.008**	ug/L	17.411	1318	0.000
	Fe	57	**4.292**	ug/L	29.165	7633	0.001
	Co	59	**0.012**	ug/L	27.813	266	0.000
	Ni	60	**0.016**	ug/L	8.466	132	0.000
	Cu	63		ug/L		353	0.000
	Cu	65	**0.037**	ug/L	19.547	224	0.000
	Zn	66	**0.012**	ug/L	38.446	317	0.000
	Zn	67		ug/L		13823	0.001
	Zn	68		ug/L		1230	0.000
>	Ge	74		ug/L		546444	546444.158
	As	75	**0.909**	ug/L	20.213	1024	0.003
	Se	77		ug/L		7915	0.003
	Se	82	**0.044**	ug/L	198.892	-21	0.000
	Kr	83		ug/L		143	-0.000
	Sr	88	**0.012**	ug/L	28.829	466	0.001
	Y	89		ug/L		62	-0.000
	Mo	98	**0.107**	ug/L	17.526	607	0.001
	Ag	107	**0.007**	ug/L	26.708	133	0.000
	Cd	111	**0.005**	ug/L	90.203	50	0.000
	Cd	114		ug/L		119	0.000
>	In	115		ug/L		344211	344211.276
	Sn	120	**0.138**	ug/L	7.788	1408	0.003
	Sb	121	**0.411**	ug/L	14.141	3259	0.008
	Sb	123		ug/L		2634	0.007
	Ba	135		ug/L		71	0.000
	Ba	137	**0.008**	ug/L	51.861	96	0.000
	Ho	165		ug/L		69	0.000
>	Lu	175		ug/L		622393	622393.474
	Tl	205	**0.630**	ug/L	13.685	21566	0.029
	Pb	208	**0.056**	ug/L	24.899	3333	0.004
	Bi	209		ug/L		50	0.000
	Th	232	**0.116**	ug/L	5.881	7122	0.010
	U	238	**0.081**	ug/L	6.691	5294	0.007

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9999
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9999
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		97.8			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		99.5			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		99.2			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		98.1			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 8
Sample Date/Time: Monday, December 21, 2009 00:07:27
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\091220\QC Std 8.128

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**50.742**	ug/L	0.510	101805	0.170
	Be	9	**50.896**	ug/L	3.428	23599	0.039
	B	11	**99.463**	ug/L	3.966	47892	0.079
	Na	23	**4840.118**	ug/L	11.712	18744967	31.373
	Mg	24	**4566.039**	ug/L	4.204	13682619	22.909
	Al	27	**4807.248**	ug/L	13.926	19559281	32.803
	P	31	**4738.853**	ug/L	1.435	1192966	1.987
	K	39	**4819.896**	ug/L	6.974	30017209	49.466
	Ca	43	**4818.006**	ug/L	3.066	70795	0.118
>	Sc	45		ug/L		597603	597602.804
	Ti	47	**46.818**	ug/L	2.107	33498	0.056
	V	51	**49.363**	ug/L	5.133	421385	0.694
	Cr	52	**49.968**	ug/L	2.528	335933	0.555
	Cr	53		ug/L		138319	0.062
	Mn	55	**51.112**	ug/L	2.747	554819	0.927
	Fe	57	**5344.729**	ug/L	3.926	1072348	1.786
	Co	59	**50.226**	ug/L	1.422	429615	0.719
	Ni	60	**49.298**	ug/L	2.660	95850	0.160
	Cu	63		ug/L		226226	0.378
	Cu	65	**48.133**	ug/L	1.135	109890	0.184
	Zn	66	**49.676**	ug/L	2.825	73732	0.147
	Zn	67		ug/L		22589	0.020
	Zn	68		ug/L		54147	0.106
>	Ge	74		ug/L		500730	500730.094
	As	75	**47.326**	ug/L	1.316	71850	0.144
	Se	77		ug/L		11293	0.011
	Se	82	**47.917**	ug/L	0.767	7244	0.015
	Kr	83		ug/L		127	-0.000
	Sr	88	**49.969**	ug/L	1.227	846305	2.636
	Y	89		ug/L		238	0.001
	Mo	98	**47.106**	ug/L	1.060	210170	0.654
	Ag	107	**49.132**	ug/L	1.047	374720	1.167
	Cd	111	**48.487**	ug/L	2.228	91776	0.286
	Cd	114		ug/L		217240	0.677
>	In	115		ug/L		321074	321073.948
	Sn	120	**49.036**	ug/L	1.805	376148	1.171
	Sb	121	**49.645**	ug/L	1.746	324973	1.011
	Sb	123		ug/L		259009	0.806
	Ba	135		ug/L		95641	0.158
	Ba	137	**46.539**	ug/L	1.521	168766	0.279
	Ho	165		ug/L		95	0.000
>	Lu	175		ug/L		605185	605185.369
	Tl	205	**49.335**	ug/L	0.756	1366655	2.252
	Pb	208	**51.992**	ug/L	0.978	2248086	3.714
	Bi	209		ug/L		508	0.001
	Th	232	**50.699**	ug/L	0.784	2619540	4.327
	U	238	**52.475**	ug/L	2.362	2923168	4.830

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9999
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9999
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7	101.483				
	Be	9	101.792				
	B	11	99.463				
	Na	23	96.802				
	Mg	24	91.321				
	Al	27	95.193				
	P	31	94.777				
	K	39	96.398				
	Ca	43	96.360				
>	Sc	45		88.7			
	Ti	47	93.636				
	V	51	98.727				
	Cr	52	99.936				
	Cr	53					
	Mn	55	102.225				
	Fe	57	106.895				
	Co	59	100.453				
	Ni	60	98.595				
	Cu	63					
	Cu	65	96.265				
	Zn	66	99.352				
	Zn	67					
	Zn	68					
>	Ge	74		91.2			
	As	75	94.652				
	Se	77					
	Se	82	95.833				
	Kr	83					
	Sr	88	99.937				
	Y	89					
	Mo	98	94.213				
	Ag	107	98.264				
	Cd	111	96.974				
	Cd	114					
>	In	115		92.5			
	Sn	120	98.071				
	Sb	121	99.290				
	Sb	123					
	Ba	135					
	Ba	137	93.078				
	Ho	165					
>	Lu	175		95.3			
	Tl	205	98.670				
	Pb	208	103.985				
	Bi	209					
	Th	232	101.398				
	U	238	104.950				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 9
Sample Date/Time: Monday, December 21, 2009 00:13:35
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\091220\QC Std 9.129

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	0.022	ug/L	30.240	188	0.000
	Be	9	0.007	ug/L	115.038	26	0.000
	B	11	0.727	ug/L	17.384	853	0.001
	Na	23	-0.497	ug/L	114.288	11672	-0.003
	Mg	24	0.630	ug/L	78.528	3667	0.003
	Al	27	0.396	ug/L	257.442	8670	0.003
	P	31	1.365	ug/L	62.889	6001	0.001
	K	39	-1.202	ug/L	285.481	467886	-0.012
	Ca	43	3.431	ug/L	26.277	399	0.000
>	Sc	45		ug/L		595857	595857.058
	Ti	47	-0.000	ug/L	34415.355	327	-0.000
	V	51	-0.027	ug/L	526.888	6939	-0.000
	Cr	52	-0.033	ug/L	115.904	4069	-0.000
	Cr	53		ug/L		104627	0.006
	Mn	55	0.014	ug/L	47.679	1259	0.000
	Fe	57	4.060	ug/L	18.347	6864	0.001
	Co	59	0.006	ug/L	42.476	189	0.000
	Ni	60	0.011	ug/L	21.773	110	0.000
	Cu	63		ug/L		253	0.000
	Cu	65	0.021	ug/L	61.018	168	0.000
	Zn	66	-0.001	ug/L	723.080	269	-0.000
	Zn	67		ug/L		11278	-0.002
	Zn	68		ug/L		812	-0.000
>	Ge	74		ug/L		496624	496623.890
	As	75	0.278	ug/L	86.807	-29	0.001
	Se	77		ug/L		6136	0.001
	Se	82	0.104	ug/L	206.506	-10	0.000
	Kr	83		ug/L		123	-0.000
	Sr	88	0.003	ug/L	24.772	281	0.000
	Y	89		ug/L		80	0.000
	Mo	98	0.030	ug/L	46.648	218	0.000
	Ag	107	0.003	ug/L	6.449	89	0.000
	Cd	111	0.001	ug/L	606.483	39	0.000
	Cd	114		ug/L		57	0.000
>	In	115		ug/L		316064	316063.834
	Sn	120	0.031	ug/L	13.040	486	0.001
	Sb	121	0.083	ug/L	23.061	881	0.002
	Sb	123		ug/L		670	0.001
	Ba	135		ug/L		61	0.000
	Ba	137	0.010	ug/L	17.251	98	0.000
	Ho	165		ug/L		66	0.000
>	Lu	175		ug/L		594175	594174.735
	Tl	205	0.718	ug/L	8.599	22960	0.033
	Pb	208	0.007	ug/L	10.731	1063	0.000
	Bi	209		ug/L		40	-0.000
	Th	232	0.055	ug/L	19.578	3725	0.005
	U	238	0.010	ug/L	19.405	1154	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		88.5			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		90.5			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		91.1			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		93.6			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 8
Sample Date/Time: Monday, December 21, 2009 00:38:17
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\091220\QC Std 8.133

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**51.464**	**ug/L**	2.066	97376	0.173
	Be	9	**52.101**	**ug/L**	2.490	22797	0.040
	B	11	**98.665**	**ug/L**	1.142	44863	0.079
	Na	23	**4567.184**	**ug/L**	1.364	16698584	29.604
	Mg	24	**4802.998**	**ug/L**	3.880	13584393	24.098
	Al	27	**4646.240**	**ug/L**	10.356	17862420	31.704
	P	31	**4719.193**	**ug/L**	1.124	1120928	1.979
	K	39	**4673.148**	**ug/L**	11.080	27485637	47.960
	Ca	43	**4787.244**	**ug/L**	1.310	66413	0.117
>	Sc	45		**ug/L**		563803	563802.936
	Ti	47	**47.187**	**ug/L**	2.081	31856	0.056
	V	51	**49.799**	**ug/L**	2.396	401536	0.700
	Cr	52	**49.699**	**ug/L**	2.445	315265	0.552
	Cr	53		**ug/L**		129884	0.061
	Mn	55	**51.742**	**ug/L**	1.604	530115	0.939
	Fe	57	**5426.605**	**ug/L**	1.643	1028088	1.813
	Co	59	**50.209**	**ug/L**	2.148	405084	0.719
	Ni	60	**50.370**	**ug/L**	1.776	92402	0.164
	Cu	63		**ug/L**		214337	0.380
	Cu	65	**48.794**	**ug/L**	2.717	105065	0.186
	Zn	66	**49.986**	**ug/L**	3.309	69996	0.148
	Zn	67		**ug/L**		20846	0.019
	Zn	68		**ug/L**		51369	0.107
>	Ge	74		**ug/L**		472167	472166.665
	As	75	**48.896**	**ug/L**	2.637	70048	0.149
	Se	77		**ug/L**		10677	0.011
	Se	82	**49.224**	**ug/L**	0.413	7018	0.015
	Kr	83		**ug/L**		116	-0.000
	Sr	88	**49.423**	**ug/L**	2.442	807424	2.607
	Y	89		**ug/L**		285	0.001
	Mo	98	**46.424**	**ug/L**	1.656	199774	0.645
	Ag	107	**48.725**	**ug/L**	2.598	358433	1.157
	Cd	111	**48.122**	**ug/L**	0.641	87869	0.284
	Cd	114		**ug/L**		209516	0.676
>	In	115		**ug/L**		309662	309661.961
	Sn	120	**49.414**	**ug/L**	2.465	365614	1.180
	Sb	121	**50.164**	**ug/L**	1.432	316688	1.022
	Sb	123		**ug/L**		250315	0.807
	Ba	135		**ug/L**		93058	0.154
	Ba	137	**45.524**	**ug/L**	0.162	164871	0.273
	Ho	165		**ug/L**		102	0.000
>	Lu	175		**ug/L**		604401	604400.504
	Tl	205	**48.907**	**ug/L**	0.802	1352958	2.233
	Pb	208	**51.955**	**ug/L**	2.407	2243148	3.711
	Bi	209		**ug/L**		489	0.001
	Th	232	**50.332**	**ug/L**	2.097	2596496	4.295
	U	238	**51.731**	**ug/L**	1.280	2878022	4.761

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9999
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9999
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
	Li	7	102.928				
	Be	9	104.202				
	B	11	98.665				
	Na	23	91.344				
	Mg	24	96.060				
	Al	27	92.005				
	P	31	94.384				
	K	39	93.463				
	Ca	43	95.745				
>	Sc	45		83.7			
	Ti	47	94.374				
	V	51	99.598				
	Cr	52	99.399				
	Cr	53					
	Mn	55	103.485				
	Fe	57	108.532				
	Co	59	100.418				
	Ni	60	100.740				
	Cu	63					
	Cu	65	97.589				
	Zn	66	99.971				
	Zn	67					
	Zn	68					
>	Ge	74		86.0			
	As	75	97.792				
	Se	77					
	Se	82	98.447				
	Kr	83					
	Sr	88	98.847				
	Y	89					
	Mo	98	92.849				
	Ag	107	97.451				
	Cd	111	96.243				
	Cd	114					
>	In	115		89.2			
	Sn	120	98.828				
	Sb	121	100.327				
	Sb	123					
	Ba	135					
	Ba	137	91.047				
	Ho	165					
>	Lu	175		95.2			
	Tl	205	97.814				
	Pb	208	103.910				
	Bi	209					
	Th	232	100.663				
	U	238	103.462				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 9
Sample Date/Time: Monday, December 21, 2009 00:44:26
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\091220\QC Std 9.134

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	0.019	ug/L	56.106	170	0.000
	Be	9	0.004	ug/L	125.358	24	0.000
	B	11	0.622	ug/L	30.646	752	0.000
	Na	23	0.370	ug/L	213.757	14007	0.002
	Mg	24	0.724	ug/L	60.232	3667	0.004
	Al	27	-0.437	ug/L	213.235	5001	-0.003
	P	31	1.076	ug/L	201.549	5541	0.000
	K	39	1.727	ug/L	212.856	454468	0.018
	Ca	43	3.330	ug/L	22.836	372	0.000
>	Sc	45		ug/L		557268	557268.112
	Ti	47	0.002	ug/L	1544.151	307	0.000
	V	51	-0.444	ug/L	179.761	3195	-0.006
	Cr	52	-0.175	ug/L	24.505	2925	-0.002
	Cr	53		ug/L		92636	-0.003
	Mn	55	0.010	ug/L	43.173	1138	0.000
	Fe	57	1.695	ug/L	11.728	5978	0.001
	Co	59	0.004	ug/L	28.891	165	0.000
	Ni	60	0.007	ug/L	41.821	95	0.000
	Cu	63		ug/L		220	0.000
	Cu	65	0.010	ug/L	58.754	133	0.000
	Zn	66	0.001	ug/L	770.640	255	0.000
	Zn	67		ug/L		9877	-0.003
	Zn	68		ug/L		760	-0.000
>	Ge	74		ug/L		465250	465249.925
	As	75	0.323	ug/L	54.558	39	0.001
	Se	77		ug/L		5363	-0.000
	Se	82	0.166	ug/L	56.159	-1	0.000
	Kr	83		ug/L		102	-0.000
	Sr	88	0.002	ug/L	35.627	248	0.000
	Y	89		ug/L		73	0.000
	Mo	98	0.028	ug/L	1.738	203	0.000
	Ag	107	0.006	ug/L	22.998	107	0.000
	Cd	111	0.000	ug/L	4033.881	35	0.000
	Cd	114		ug/L		66	0.000
>	In	115		ug/L		305065	305064.634
	Sn	120	0.031	ug/L	17.907	468	0.001
	Sb	121	0.058	ug/L	23.645	691	0.001
	Sb	123		ug/L		578	0.001
	Ba	135		ug/L		109	0.000
	Ba	137	0.029	ug/L	20.376	165	0.000
	Ho	165		ug/L		71	0.000
>	Lu	175		ug/L		593692	593692.042
	Tl	205	0.551	ug/L	9.173	18444	0.025
	Pb	208	0.006	ug/L	13.880	1039	0.000
	Bi	209		ug/L		45	-0.000
	Th	232	0.044	ug/L	20.540	3190	0.004
	U	238	0.009	ug/L	6.071	1119	0.001

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9999
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9999
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		82.8			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		84.8			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		87.9			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		93.5			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1201994288
Sample Date/Time: Monday, December 21, 2009 00:50:36
Sample Type:
Sample Description: LANL 6020 MB
Number of Replicates: 3
Batch ID: 932310|1|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\091220\1201994288.135

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.050**	ug/L	12.432	225	0.000
	Be	9	**0.001**	ug/L	869.347	22	0.000
	B	11	**0.537**	ug/L	10.444	707	0.000
	Na	23	**4.137**	ug/L	52.288	27361	0.027
	Mg	24	**0.134**	ug/L	277.107	2000	0.001
	Al	27	**-0.503**	ug/L	29.451	4667	-0.003
	P	31	**-2.952**	ug/L	26.271	4557	-0.001
	K	39	**3.730**	ug/L	25.887	461331	0.038
	Ca	43	**21.192**	ug/L	2.295	610	0.001
>	Sc	45		ug/L		552122	552122.080
	Ti	47	**0.212**	ug/L	15.215	441	0.000
	V	51	**-2.052**	ug/L	76.451	-9412	-0.029
	Cr	52	**0.250**	ug/L	107.519	5493	0.003
	Cr	53		ug/L		255964	0.294
	Mn	55	**0.123**	ug/L	7.863	2255	0.002
	Fe	57	**5.422**	ug/L	32.124	6608	0.002
	Co	59	**-0.001**	ug/L	96.084	123	-0.000
	Ni	60	**0.043**	ug/L	42.576	158	0.000
	Cu	63		ug/L		381	0.000
	Cu	65	**0.054**	ug/L	14.125	226	0.000
	Zn	66	**1.421**	ug/L	3.172	2056	0.004
	Zn	67		ug/L		44563	0.078
	Zn	68		ug/L		3038	0.005
>	Ge	74		ug/L		433372	433372.251
	As	75	**-0.887**	ug/L	16.199	-1564	-0.003
	Se	77		ug/L		16755	0.027
	Se	82	**0.196**	ug/L	35.223	3	0.000
	Kr	83		ug/L		107	-0.000
	Sr	88	**0.017**	ug/L	12.617	452	0.001
	Y	89		ug/L		73	0.000
	Mo	98	**0.009**	ug/L	48.738	110	0.000
	Ag	107	**-0.002**	ug/L	41.917	50	-0.000
	Cd	111	**-0.006**	ug/L	88.625	22	-0.000
	Cd	114		ug/L		32	-0.000
>	In	115		ug/L		278786	278786.111
	Sn	120	**0.116**	ug/L	9.354	996	0.003
	Sb	121	**0.182**	ug/L	7.608	1339	0.004
	Sb	123		ug/L		1051	0.003
	Ba	135		ug/L		77	0.000
	Ba	137	**0.012**	ug/L	26.099	99	0.000
	Ho	165		ug/L		61	-0.000
>	Lu	175		ug/L		556941	556941.182
	Tl	205	**0.204**	ug/L	1.925	8458	0.009
	Pb	208	**-0.003**	ug/L	17.637	605	-0.000
	Bi	209		ug/L		161	0.000
	Th	232	**0.013**	ug/L	28.694	1510	0.001
	U	238	**-0.007**	ug/L	2.640	205	-0.001

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9999
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9999
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		82.0			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		78.9			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		80.3			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		87.7			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1201994289
Sample Date/Time: Monday, December 21, 2009 00:56:48
Sample Type:
Sample Description: LANL 6020 LCS
Number of Replicates: 3
Batch ID: 932310|1|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\091220\1201994289.136

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**49.071**	**ug/L**	1.234	93764	0.165
	Be	9	**52.589**	**ug/L**	2.426	23228	0.041
	B	11	**96.691**	**ug/L**	2.392	44370	0.077
	Na	23	**1750.863**	**ug/L**	2.206	6471448	11.349
	Mg	24	**1781.713**	**ug/L**	3.711	5086515	8.939
	Al	27	**2010.461**	**ug/L**	9.229	7805011	13.719
	P	31	**2020.390**	**ug/L**	4.093	487317	0.847
	K	39	**1935.433**	**ug/L**	5.260	11759377	19.863
	Ca	43	**2004.849**	**ug/L**	1.561	28259	0.049
>	Sc	45		**ug/L**		569006	569005.653
	Ti	47	**44.598**	**ug/L**	3.887	30399	0.053
	V	51	**42.595**	**ug/L**	5.989	347335	0.599
	Cr	52	**48.152**	**ug/L**	2.965	308451	0.535
	Cr	53		**ug/L**		315231	0.385
	Mn	55	**49.986**	**ug/L**	2.232	516837	0.907
	Fe	57	**2238.292**	**ug/L**	1.621	431256	0.748
	Co	59	**50.230**	**ug/L**	4.824	408990	0.719
	Ni	60	**49.340**	**ug/L**	2.469	91351	0.160
	Cu	63		**ug/L**		214782	0.377
	Cu	65	**49.212**	**ug/L**	3.324	106948	0.188
	Zn	66	**52.672**	**ug/L**	0.688	71064	0.156
	Zn	67		**ug/L**		60860	0.109
	Zn	68		**ug/L**		52777	0.114
>	Ge	74		**ug/L**		455022	455022.018
	As	75	**47.767**	**ug/L**	3.411	65903	0.146
	Se	77		**ug/L**		23187	0.039
	Se	82	**52.824**	**ug/L**	0.392	7259	0.016
	Kr	83		**ug/L**		133	0.000
	Sr	88	**51.820**	**ug/L**	2.219	786363	2.733
	Y	89		**ug/L**		113	0.000
	Mo	98	**47.623**	**ug/L**	2.179	190386	0.662
	Ag	107	**50.706**	**ug/L**	0.534	346507	1.204
	Cd	111	**48.797**	**ug/L**	1.099	82770	0.288
	Cd	114		**ug/L**		196612	0.683
>	In	115		**ug/L**		287637	287637.405
	Sn	120	**50.577**	**ug/L**	0.934	347665	1.208
	Sb	121	**51.170**	**ug/L**	1.945	300103	1.042
	Sb	123		**ug/L**		240901	0.837
	Ba	135		**ug/L**		87397	0.154
	Ba	137	**44.758**	**ug/L**	1.838	151678	0.268
	Ho	165		**ug/L**		98	0.000
>	Lu	175		**ug/L**		565590	565590.471
	Tl	205	**47.687**	**ug/L**	3.156	1234445	2.177
	Pb	208	**52.384**	**ug/L**	0.759	2116928	3.742
	Bi	209		**ug/L**		1679147	2.969
	Th	232	**48.837**	**ug/L**	0.957	2358063	4.168
	U	238	**51.774**	**ug/L**	1.369	2695527	4.765

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9999
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9999
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		84.5			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		82.9			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		82.9			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		89.1			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 242751001
Sample Date/Time: Monday, December 21, 2009 01:15:26
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 932310|1|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\091220\242751001.139

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	0.030	ug/L	40.836	172	0.000
	Be	9	0.007	ug/L	155.490	23	0.000
	B	11	4.477	ug/L	2.624	2232	0.004
	Na	23	106.254	ug/L	7.502	359144	0.689
	Mg	24	4.412	ug/L	13.180	12672	0.022
	Al	27	8.527	ug/L	15.798	35378	0.058
	P	31	1.896	ug/L	23.920	5192	0.001
	K	39	8.314	ug/L	77.117	445538	0.085
	Ca	43	39.704	ug/L	5.077	786	0.001
>	Sc	45		ug/L		504544	504544.229
	Ti	47	0.466	ug/L	8.332	556	0.001
	V	51	-3.227	ug/L	11.680	-16807	-0.045
	Cr	52	-1.768	ug/L	1.793	-6282	-0.020
	Cr	53		ug/L		224324	0.275
	Mn	55	1.156	ug/L	1.203	11515	0.021
	Fe	57	24.059	ug/L	3.914	9182	0.008
	Co	59	0.007	ug/L	31.107	170	0.000
	Ni	60	0.083	ug/L	11.168	211	0.000
	Cu	63		ug/L		1015	0.002
	Cu	65	0.221	ug/L	3.336	528	0.001
	Zn	66	3.057	ug/L	1.784	3888	0.009
	Zn	67		ug/L		43854	0.083
	Zn	68		ug/L		4328	0.009
>	Ge	74		ug/L		405961	405961.377
	As	75	-0.192	ug/L	82.601	-605	-0.001
	Se	77		ug/L		12681	0.019
	Se	82	0.170	ug/L	43.643	-0	0.000
	Kr	83		ug/L		108	-0.000
	Sr	88	0.122	ug/L	3.791	1867	0.006
	Y	89		ug/L		281	0.001
	Mo	98	0.013	ug/L	6.908	118	0.000
	Ag	107	0.008	ug/L	40.157	110	0.000
	Cd	111	-0.002	ug/L	247.215	27	-0.000
	Cd	114		ug/L		41	-0.000
>	In	115		ug/L		261113	261113.397
	Sn	120	0.093	ug/L	8.190	788	0.002
	Sb	121	0.086	ug/L	1.367	739	0.002
	Sb	123		ug/L		547	0.001
	Ba	135		ug/L		400	0.001
	Ba	137	0.205	ug/L	4.291	726	0.001
	Ho	165		ug/L		78	0.000
>	Lu	175		ug/L		545609	545609.052
	Tl	205	0.244	ug/L	4.626	9272	0.011
	Pb	208	0.074	ug/L	3.925	3612	0.005
	Bi	209		ug/L		149	0.000
	Th	232	0.001	ug/L	56.596	931	0.000
	U	238	-0.008	ug/L	3.763	185	-0.001

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9999
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9999
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovr	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		74.9			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		74.0			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		75.2			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		86.0			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 8
Sample Date/Time: Monday, December 21, 2009 01:21:36
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\091220\QC Std 8.140

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**50.880**	ug/L	3.690	93031	0.171
	Be	9	**52.436**	ug/L	2.329	22172	0.041
	B	11	**99.097**	ug/L	1.671	43546	0.079
	Na	23	**4541.752**	ug/L	6.647	16043550	29.439
	Mg	24	**4340.395**	ug/L	3.008	11858801	21.777
	Al	27	**4478.527**	ug/L	3.459	16666092	30.560
	P	31	**4702.100**	ug/L	1.218	1079394	1.972
	K	39	**4652.140**	ug/L	7.971	26400678	47.744
	Ca	43	**4834.425**	ug/L	0.598	64809	0.118
>	Sc	45		ug/L		544880	544879.936
	Ti	47	**47.193**	ug/L	0.177	30799	0.056
	V	51	**48.532**	ug/L	1.708	378402	0.682
	Cr	52	**49.049**	ug/L	1.562	300957	0.545
	Cr	53		ug/L		142046	0.091
	Mn	55	**51.300**	ug/L	0.601	508102	0.931
	Fe	57	**5326.173**	ug/L	0.761	975359	1.780
	Co	59	**49.965**	ug/L	1.505	389909	0.715
	Ni	60	**50.055**	ug/L	0.055	88768	0.163
	Cu	63		ug/L		207359	0.380
	Cu	65	**48.722**	ug/L	2.473	101456	0.186
	Zn	66	**49.390**	ug/L	2.073	67137	0.146
	Zn	67		ug/L		23116	0.026
	Zn	68		ug/L		50038	0.107
>	Ge	74		ug/L		458568	458567.910
	As	75	**48.410**	ug/L	1.858	67296	0.148
	Se	77		ug/L		10675	0.012
	Se	82	**50.172**	ug/L	2.935	6942	0.015
	Kr	83		ug/L		110	-0.000
	Sr	88	**49.813**	ug/L	1.982	788435	2.627
	Y	89		ug/L		207	0.000
	Mo	98	**46.687**	ug/L	1.271	194717	0.649
	Ag	107	**49.237**	ug/L	2.111	350899	1.170
	Cd	111	**48.658**	ug/L	3.327	86044	0.287
	Cd	114		ug/L		205257	0.684
>	In	115		ug/L		300169	300169.229
	Sn	120	**49.525**	ug/L	2.370	355147	1.183
	Sb	121	**50.094**	ug/L	2.565	306374	1.020
	Sb	123		ug/L		241892	0.805
	Ba	135		ug/L		89890	0.154
	Ba	137	**45.373**	ug/L	2.893	158626	0.272
	Ho	165		ug/L		100	0.000
>	Lu	175		ug/L		583328	583327.788
	Tl	205	**42.581**	ug/L	5.477	1137764	1.944
	Pb	208	**53.064**	ug/L	1.047	2211571	3.790
	Bi	209		ug/L		492	0.001
	Th	232	**50.755**	ug/L	1.092	2527685	4.331
	U	238	**52.971**	ug/L	0.498	2844596	4.875

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9999
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9999
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7	101.761				
	Be	9	104.872				
	B	11	99.097				
	Na	23	90.835				
	Mg	24	86.808				
	Al	27	88.684				
	P	31	94.042				
	K	39	93.043				
	Ca	43	96.688				
>	Sc	45		80.9			
	Ti	47	94.386				
	V	51	97.064				
	Cr	52	98.097				
	Cr	53					
	Mn	55	102.601				
	Fe	57	106.523				
	Co	59	99.931				
	Ni	60	100.110				
	Cu	63					
	Cu	65	97.444				
	Zn	66	98.780				
	Zn	67					
	Zn	68					
>	Ge	74		83.5			
	As	75	96.820				
	Se	77					
	Se	82	100.343				
	Kr	83					
	Sr	88	99.627				
	Y	89					
	Mo	98	93.373				
	Ag	107	98.473				
	Cd	111	97.317				
	Cd	114					
>	In	115		86.5			
	Sn	120	99.050				
	Sb	121	100.188				
	Sb	123					
	Ba	135					
	Ba	137	90.746				
	Ho	165					
>	Lu	175		91.9			
	Tl	205	85.161				
	Pb	208	106.128				
	Bi	209					
	Th	232	101.509				
	U	238	105.942				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 8	Mg	24	CCV is out of limits (+/- 10%)
QC Std 8	Al	27	CCV is out of limits (+/- 10%)
QC Std 8	Tl	205	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 9
Sample Date/Time: Monday, December 21, 2009 01:27:44
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\091220\QC Std 9.141

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.001**	ug/L	208.315	132	0.000
	Be	9	**0.008**	ug/L	231.300	24	0.000
	B	11	**0.648**	ug/L	20.685	738	0.001
	Na	23	**0.033**	ug/L	3244.347	12339	0.000
	Mg	24	**0.884**	ug/L	38.062	4001	0.004
	Al	27	**0.347**	ug/L	201.394	7669	0.002
	P	31	**1.258**	ug/L	134.722	5392	0.001
	K	39	**-2.760**	ug/L	224.158	413933	-0.028
	Ca	43	**2.158**	ug/L	157.558	344	0.000
>	Sc	45		ug/L		538554	538553.530
	Ti	47	**0.014**	ug/L	281.321	304	0.000
	V	51	**-0.220**	ug/L	117.980	4835	-0.003
	Cr	52	**-0.248**	ug/L	8.432	2393	-0.003
	Cr	53		ug/L		99898	0.016
	Mn	55	**0.001**	ug/L	238.812	1016	0.000
	Fe	57	**3.079**	ug/L	6.590	6027	0.001
	Co	59	**0.008**	ug/L	19.921	188	0.000
	Ni	60	**0.007**	ug/L	37.090	92	0.000
	Cu	63		ug/L		230	0.000
	Cu	65	**0.012**	ug/L	51.258	132	0.000
	Zn	66	**0.002**	ug/L	1401.397	251	0.000
	Zn	67		ug/L		10947	-0.001
	Zn	68		ug/L		771	-0.000
>	Ge	74		ug/L		456104	456103.956
	As	75	**0.196**	ug/L	238.982	-140	0.001
	Se	77		ug/L		5599	0.001
	Se	82	**0.127**	ug/L	105.480	-6	0.000
	Kr	83		ug/L		117	-0.000
	Sr	88	**0.001**	ug/L	109.081	237	0.000
	Y	89		ug/L		48	-0.000
	Mo	98	**0.029**	ug/L	36.235	202	0.000
	Ag	107	**0.004**	ug/L	54.665	95	0.000
	Cd	111	**0.002**	ug/L	270.770	37	0.000
	Cd	114		ug/L		64	0.000
>	In	115		ug/L		299199	299198.678
	Sn	120	**0.026**	ug/L	13.300	427	0.001
	Sb	121	**0.053**	ug/L	25.808	647	0.001
	Sb	123		ug/L		547	0.001
	Ba	135		ug/L		53	0.000
	Ba	137	**0.003**	ug/L	74.307	73	0.000
	Ho	165		ug/L		70	0.000
>	Lu	175		ug/L		584370	584370.168
	Tl	205	**1.729**	ug/L	7.887	49623	0.079
	Pb	208	**0.004**	ug/L	12.184	948	0.000
	Bi	209		ug/L		47	0.000
	Th	232	**0.054**	ug/L	16.013	3597	0.005
	U	238	**0.009**	ug/L	16.402	1078	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		80.0			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		83.1			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		86.2			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		92.1			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Sc 45 Int Std for QC	Sc	45	
QC Std 9	Tl	205	CCB is out of limits (+/- PQL)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: 242751002
Sample Date/Time: Monday, December 21, 2009 01:33:54
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 932310|1|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\091220\242751002.142

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	0.050	ug/L	39.989	208	0.000
	Be	9	0.003	ug/L	199.101	21	0.000
	B	11	4.597	ug/L	4.974	2285	0.004
	Na	23	11.179	ug/L	18.600	48082	0.072
	Mg	24	1.285	ug/L	102.276	4668	0.006
	Al	27	0.928	ug/L	113.960	9337	0.006
	P	31	4.808	ug/L	27.509	5823	0.002
	K	39	5.922	ug/L	183.280	432827	0.061
	Ca	43	26.976	ug/L	7.769	631	0.001
>	Sc	45		ug/L		506182	506181.592
	Ti	47	0.475	ug/L	4.931	563	0.001
	V	51	-2.989	ug/L	13.075	-15123	-0.042
	Cr	52	-1.850	ug/L	12.034	-6721	-0.021
	Cr	53		ug/L		222140	0.270
	Mn	55	0.115	ug/L	6.139	1997	0.002
	Fe	57	3.442	ug/L	28.890	5720	0.001
	Co	59	-0.002	ug/L	39.135	107	-0.000
	Ni	60	0.074	ug/L	9.965	198	0.000
	Cu	63		ug/L		632	0.001
	Cu	65	0.118	ug/L	10.765	329	0.000
	Zn	66	1.734	ug/L	24.948	2305	0.005
	Zn	67		ug/L		41848	0.078
	Zn	68		ug/L		2858	0.005
>	Ge	74		ug/L		408087	408086.548
	As	75	-0.687	ug/L	89.948	-1226	-0.002
	Se	77		ug/L		13158	0.020
	Se	82	0.211	ug/L	19.169	5	0.000
	Kr	83		ug/L		94	-0.000
	Sr	88	0.029	ug/L	4.980	598	0.002
	Y	89		ug/L		65	0.000
	Mo	98	0.022	ug/L	9.037	154	0.000
	Ag	107	0.008	ug/L	18.647	108	0.000
	Cd	111	-0.005	ug/L	136.428	22	-0.000
	Cd	114		ug/L		39	-0.000
>	In	115		ug/L		265106	265106.166
	Sn	120	0.116	ug/L	2.759	946	0.003
	Sb	121	0.095	ug/L	15.913	800	0.002
	Sb	123		ug/L		614	0.001
	Ba	135		ug/L		103	0.000
	Ba	137	0.033	ug/L	15.983	162	0.000
	Ho	165		ug/L		56	-0.000
>	Lu	175		ug/L		536722	536722.106
	Tl	205	0.856	ug/L	4.055	24142	0.039
	Pb	208	0.016	ug/L	4.153	1337	0.001
	Bi	209		ug/L		180	0.000
	Th	232	0.034	ug/L	32.660	2393	0.003
	U	238	-0.006	ug/L	10.565	248	-0.001

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9999
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9999
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		75.2			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		74.3			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		76.4			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		84.6			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1201994290
Sample Date/Time: Monday, December 21, 2009 01:40:05
Sample Type:
Sample Description: LANL 6020 DUP
Number of Replicates: 3
Batch ID: 932310|1|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\091220\1201994290.143

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	-0.001	ug/L	544.815	118	-0.000
	Be	9	0.007	ug/L	83.506	22	0.000
	B	11	4.582	ug/L	3.346	2255	0.004
	Na	23	8.773	ug/L	28.564	39723	0.057
	Mg	24	0.334	ug/L	177.270	2334	0.002
	Al	27	0.310	ug/L	161.210	7002	0.002
	P	31	3.822	ug/L	48.484	5548	0.002
	K	39	-4.503	ug/L	57.748	375542	-0.046
	Ca	43	25.910	ug/L	7.187	610	0.001
>	Sc	45		ug/L		500066	500065.738
	Ti	47	0.358	ug/L	15.036	487	0.000
	V	51	-2.110	ug/L	46.638	-8877	-0.030
	Cr	52	-2.224	ug/L	2.850	-8755	-0.025
	Cr	53		ug/L		231254	0.293
	Mn	55	0.121	ug/L	5.141	2024	0.002
	Fe	57	3.292	ug/L	22.695	5630	0.001
	Co	59	-0.002	ug/L	47.198	103	-0.000
	Ni	60	0.045	ug/L	6.460	147	0.000
	Cu	63		ug/L		752	0.001
	Cu	65	0.144	ug/L	6.359	376	0.001
	Zn	66	1.317	ug/L	1.783	1787	0.004
	Zn	67		ug/L		44721	0.086
	Zn	68		ug/L		2810	0.005
>	Ge	74		ug/L		402971	402971.374
	As	75	-0.964	ug/L	32.534	-1552	-0.003
	Se	77		ug/L		13013	0.021
	Se	82	0.274	ug/L	27.059	12	0.000
	Kr	83		ug/L		100	-0.000
	Sr	88	0.024	ug/L	7.140	520	0.001
	Y	89		ug/L		55	0.000
	Mo	98	0.020	ug/L	7.144	143	0.000
	Ag	107	0.007	ug/L	46.185	100	0.000
	Cd	111	-0.006	ug/L	161.244	21	-0.000
	Cd	114		ug/L		28	-0.000
>	In	115		ug/L		261508	261508.113
	Sn	120	0.111	ug/L	0.979	902	0.003
	Sb	121	0.058	ug/L	9.520	594	0.001
	Sb	123		ug/L		502	0.001
	Ba	135		ug/L		94	0.000
	Ba	137	0.027	ug/L	18.204	144	0.000
	Ho	165		ug/L		61	0.000
>	Lu	175		ug/L		537396	537396.330
	Tl	205	0.566	ug/L	0.649	17046	0.026
	Pb	208	0.011	ug/L	9.105	1144	0.001
	Bi	209		ug/L		144	0.000
	Th	232	0.004	ug/L	69.296	1034	0.000
	U	238	-0.008	ug/L	5.906	142	-0.001

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9999
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9999
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		74.3			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		73.4			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		75.4			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		84.7			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1201994291
Sample Date/Time: Monday, December 21, 2009 01:46:17
Sample Type:
Sample Description: LANL 6020 MS
Number of Replicates: 3
Batch ID: 932310|1|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\091220\1201994291.144

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**54.734**	ug/L	1.418	89004	0.184
	Be	9	**57.582**	ug/L	2.748	21655	0.045
	B	11	**110.620**	ug/L	2.926	43153	0.088
	Na	23	**1981.550**	ug/L	10.536	6234775	12.844
	Mg	24	**1827.130**	ug/L	10.297	4441409	9.167
	Al	27	**2084.057**	ug/L	7.155	6891951	14.221
	P	31	**1974.103**	ug/L	2.336	405592	0.828
	K	39	**1943.150**	ug/L	6.548	10041525	19.942
	Ca	43	**2015.140**	ug/L	1.229	24182	0.049
>	Sc	45		ug/L		484353	484352.906
	Ti	47	**45.326**	ug/L	2.279	26309	0.054
	V	51	**45.951**	ug/L	2.251	318691	0.646
	Cr	52	**47.675**	ug/L	1.260	260078	0.530
	Cr	53		ug/L		254665	0.356
	Mn	55	**51.151**	ug/L	2.998	450348	0.928
	Fe	57	**2231.646**	ug/L	1.939	366073	0.746
	Co	59	**49.962**	ug/L	2.411	346452	0.715
	Ni	60	**49.964**	ug/L	2.402	78774	0.162
	Cu	63		ug/L		182975	0.377
	Cu	65	**48.239**	ug/L	3.299	89282	0.184
	Zn	66	**51.833**	ug/L	2.014	59920	0.153
	Zn	67		ug/L		52058	0.109
	Zn	68		ug/L		44861	0.113
>	Ge	74		ug/L		389861	389860.861
	As	75	**76.646**	ug/L	2.695	90858	0.234
	Se	77		ug/L		14358	0.025
	Se	82	**21.189**	ug/L	2.134	2482	0.006
	Kr	83		ug/L		108	0.000
	Sr	88	**52.662**	ug/L	1.492	702142	2.778
	Y	89		ug/L		94	0.000
	Mo	98	**48.745**	ug/L	2.563	171216	0.677
	Ag	107	**51.097**	ug/L	2.134	306797	1.214
	Cd	111	**10.363**	ug/L	2.527	15468	0.061
	Cd	114		ug/L		35742	0.141
>	In	115		ug/L		252693	252693.374
	Sn	120	**52.915**	ug/L	0.395	319545	1.264
	Sb	121	**201.517**	ug/L	1.427	1037599	4.105
	Sb	123		ug/L		837696	3.314
	Ba	135		ug/L		79464	0.150
	Ba	137	**44.019**	ug/L	3.418	139900	0.264
	Ho	165		ug/L		318	0.000
>	Lu	175		ug/L		530537	530536.895
	Tl	205	**86.703**	ug/L	0.492	2103133	3.958
	Pb	208	**44.258**	ug/L	2.178	1677529	3.161
	Bi	209		ug/L		681	0.001
	Th	232	**51.450**	ug/L	2.972	2329769	4.391
	U	238	**53.867**	ug/L	2.547	2630257	4.958

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9999
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9999
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		71.9			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		71.0			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		72.8			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		83.6			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1201994292
Sample Date/Time: Monday, December 21, 2009 01:52:29
Sample Type:
Sample Description: LANL 6020 SDILT
Number of Replicates: 3
Batch ID: 932310|5|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\091220\1201994292.145

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	0.002	ug/L	669.956	118	0.000
	Be	9	0.003	ug/L	18.751	20	0.000
	B	11	1.504	ug/L	9.965	981	0.001
	Na	23	2.613	ug/L	18.749	19013	0.017
	Mg	24	0.101	ug/L	232.597	1667	0.001
	Al	27	-0.104	ug/L	623.804	5334	-0.001
	P	31	3.070	ug/L	33.494	5160	0.001
	K	39	-2.294	ug/L	467.966	369776	-0.024
	Ca	43	11.855	ug/L	13.237	419	0.000
>	Sc	45		ug/L		478396	478396.407
	Ti	47	0.047	ug/L	117.044	289	0.000
	V	51	-1.280	ug/L	21.318	-2869	-0.018
	Cr	52	-1.120	ug/L	5.531	-2509	-0.012
	Cr	53		ug/L		119255	0.080
	Mn	55	0.033	ug/L	11.608	1173	0.001
	Fe	57	-0.275	ug/L	59.784	4817	-0.000
	Co	59	0.005	ug/L	15.901	147	0.000
	Ni	60	0.049	ug/L	23.853	147	0.000
	Cu	63		ug/L		396	0.001
	Cu	65	0.061	ug/L	13.652	208	0.000
	Zn	66	0.506	ug/L	6.654	815	0.001
	Zn	67		ug/L		15346	0.014
	Zn	68		ug/L		1297	0.001
>	Ge	74		ug/L		399630	399629.884
	As	75	-0.199	ug/L	184.738	-601	-0.001
	Se	77		ug/L		6417	0.004
	Se	82	0.229	ug/L	67.629	7	0.000
	Kr	83		ug/L		98	-0.000
	Sr	88	0.012	ug/L	12.774	356	0.001
	Y	89		ug/L		51	-0.000
	Mo	98	0.017	ug/L	9.014	136	0.000
	Ag	107	0.002	ug/L	95.657	70	0.000
	Cd	111	-0.000	ug/L	2169.910	30	-0.000
	Cd	114		ug/L		47	0.000
>	In	115		ug/L		266914	266913.661
	Sn	120	0.018	ug/L	22.572	326	0.000
	Sb	121	0.054	ug/L	19.894	584	0.001
	Sb	123		ug/L		473	0.001
	Ba	135		ug/L		79	0.000
	Ba	137	0.016	ug/L	13.273	112	0.000
	Ho	165		ug/L		52	-0.000
>	Lu	175		ug/L		556500	556500.292
	Tl	205	2.607	ug/L	13.756	69509	0.119
	Pb	208	0.005	ug/L	26.745	917	0.000
	Bi	209		ug/L		133	0.000
	Th	232	0.023	ug/L	36.414	1989	0.002
	U	238	-0.006	ug/L	12.230	261	-0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		71.0			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		72.8			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		76.9			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		87.7			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Monday, December 21, 2009 01:58:39
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\091220\QC Std 6.146

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**51.863**	ug/L	2.527	91838	0.174
	Be	9	**52.998**	ug/L	0.558	21709	0.041
	B	11	**101.572**	ug/L	0.528	43202	0.081
	Na	23	**4534.791**	ug/L	9.277	15512829	29.394
	Mg	24	**4625.257**	ug/L	1.083	12246396	23.206
	Al	27	**4735.871**	ug/L	4.914	17048367	32.316
	P	31	**4771.575**	ug/L	1.446	1060804	2.001
	K	39	**4697.529**	ug/L	5.875	25858198	48.210
	Ca	43	**4725.298**	ug/L	1.130	61350	0.116
>	Sc	45		ug/L		527576	527575.972
	Ti	47	**46.997**	ug/L	3.084	29711	0.056
	V	51	**49.469**	ug/L	2.690	373335	0.695
	Cr	52	**49.252**	ug/L	2.511	292633	0.547
	Cr	53		ug/L		133805	0.084
	Mn	55	**51.216**	ug/L	1.165	491143	0.929
	Fe	57	**5427.589**	ug/L	0.672	962228	1.814
	Co	59	**49.455**	ug/L	2.412	373614	0.708
	Ni	60	**49.072**	ug/L	1.439	84279	0.160
	Cu	63		ug/L		196718	0.373
	Cu	65	**47.906**	ug/L	2.956	96606	0.183
	Zn	66	**48.787**	ug/L	2.764	64633	0.144
	Zn	67		ug/L		21398	0.023
	Zn	68		ug/L		47637	0.105
>	Ge	74		ug/L		446546	446546.231
	As	75	**47.859**	ug/L	1.660	64827	0.146
	Se	77		ug/L		10476	0.012
	Se	82	**49.804**	ug/L	1.377	6716	0.015
	Kr	83		ug/L		102	-0.000
	Sr	88	**49.351**	ug/L	2.793	765419	2.603
	Y	89		ug/L		192	0.000
	Mo	98	**46.453**	ug/L	2.921	189789	0.645
	Ag	107	**48.400**	ug/L	2.524	338031	1.150
	Cd	111	**47.886**	ug/L	2.025	83011	0.282
	Cd	114		ug/L		197879	0.673
>	In	115		ug/L		293934	293933.836
	Sn	120	**49.288**	ug/L	1.667	346252	1.177
	Sb	121	**49.872**	ug/L	2.619	298948	1.016
	Sb	123		ug/L		234843	0.798
	Ba	135		ug/L		88717	0.151
	Ba	137	**44.456**	ug/L	2.378	156103	0.266
	Ho	165		ug/L		91	0.000
>	Lu	175		ug/L		586125	586124.763
	Tl	205	**47.880**	ug/L	4.376	1284114	2.186
	Pb	208	**52.062**	ug/L	2.260	2179983	3.719
	Bi	209		ug/L		490	0.001
	Th	232	**49.700**	ug/L	2.520	2486456	4.242
	U	238	**52.154**	ug/L	2.532	2813437	4.800

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7	103.725				
	Be	9	105.996				
	B	11	101.572				
	Na	23	90.696				
	Mg	24	92.505				
	Al	27	93.780				
	P	31	95.432				
	K	39	93.951				
	Ca	43	94.506				
>	Sc	45		78.3			
	Ti	47	93.995				
	V	51	98.938				
	Cr	52	98.505				
	Cr	53					
	Mn	55	102.433				
	Fe	57	108.552				
	Co	59	98.910				
	Ni	60	98.145				
	Cu	63					
	Cu	65	95.812				
	Zn	66	97.574				
	Zn	67					
	Zn	68					
>	Ge	74		81.3			
	As	75	95.719				
	Se	77					
	Se	82	99.607				
	Kr	83					
	Sr	88	98.702				
	Y	89					
	Mo	98	92.906				
	Ag	107	96.800				
	Cd	111	95.772				
	Cd	114					
>	In	115		84.7			
	Sn	120	98.576				
	Sb	121	99.744				
	Sb	123					
	Ba	135					
	Ba	137	88.911				
	Ho	165					
>	Lu	175		92.3			
	Tl	205	95.759				
	Pb	208	104.125				
	Bi	209					
	Th	232	99.401				
	U	238	104.308				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Sc 45 Int Std for QC	Sc	45	
QC Std 6	Ba	137	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Monday, December 21, 2009 02:04:47
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\091220\QC Std 7.147

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	-0.001	ug/L	99.703	121	-0.000
	Be	9	0.015	ug/L	16.134	26	0.000
	B	11	0.818	ug/L	34.227	766	0.001
	Na	23	0.025	ug/L	2625.770	11672	0.000
	Mg	24	0.975	ug/L	69.869	4001	0.005
	Al	27	-0.111	ug/L	296.643	5668	-0.001
	P	31	1.394	ug/L	124.241	5133	0.001
	K	39	0.658	ug/L	456.554	409459	0.007
	Ca	43	6.982	ug/L	33.024	385	0.000
>	Sc	45		ug/L		509120	509120.293
	Ti	47	0.018	ug/L	284.999	290	0.000
	V	51	-0.121	ug/L	154.814	5255	-0.002
	Cr	52	-0.301	ug/L	15.428	1963	-0.003
	Cr	53		ug/L		97105	0.021
	Mn	55	0.002	ug/L	48.887	971	0.000
	Fe	57	3.592	ug/L	2.111	5785	0.001
	Co	59	0.006	ug/L	38.799	161	0.000
	Ni	60	0.013	ug/L	54.828	97	0.000
	Cu	63		ug/L		189	0.000
	Cu	65	0.018	ug/L	13.874	138	0.000
	Zn	66	0.011	ug/L	169.898	250	0.000
	Zn	67		ug/L		10505	-0.000
	Zn	68		ug/L		774	-0.000
>	Ge	74		ug/L		431832	431832.309
	As	75	0.165	ug/L	338.175	-169	0.001
	Se	77		ug/L		5226	0.000
	Se	82	0.190	ug/L	11.895	2	0.000
	Kr	83		ug/L		107	-0.000
	Sr	88	0.002	ug/L	48.562	240	0.000
	Y	89		ug/L		51	-0.000
	Mo	98	0.029	ug/L	19.136	194	0.000
	Ag	107	0.003	ug/L	74.940	80	0.000
	Cd	111	-0.003	ug/L	176.359	29	-0.000
	Cd	114		ug/L		61	0.000
>	In	115		ug/L		286339	286338.962
	Sn	120	0.027	ug/L	15.678	416	0.001
	Sb	121	0.062	ug/L	26.972	675	0.001
	Sb	123		ug/L		544	0.001
	Ba	135		ug/L		41	-0.000
	Ba	137	0.002	ug/L	110.401	69	0.000
	Ho	165		ug/L		64	0.000
>	Lu	175		ug/L		575158	575158.271
	Tl	205	1.698	ug/L	17.438	47901	0.078
	Pb	208	0.004	ug/L	27.869	924	0.000
	Bi	209		ug/L		41	-0.000
	Th	232	0.067	ug/L	26.118	4191	0.006
	U	238	0.008	ug/L	24.724	1020	0.001

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9999
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9999
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		75.6			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		78.7			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		82.5			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		90.6			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Sc 45 Int Std for QC	Sc	45	
Ge 74 Int Std for QC	Ge	74	
QC Std 7	Tl	205	CCB is out of limits (+-/ PQL)

QC Action

QC Action Line: Continue

ICPMS #5 Daily Performance Report

Sample ID: Sample
Sample Date/Time: Monday, December 21, 2009 14:36:07
Sample Description:
Method File: c:\elandata\Method\Daily2.mth
Dataset File: c:\elandata\Dataset\default2\Sample.1579
Tuning File: c:\elandata\Tuning\default2.tun
Optimization File: c:\elandata\Optimize\default.dac
Dual Detector Mode: Pulse

Acq. Dead Time(ns): 35
Current Dead Time (ns): 35

Number of Replicates: 5

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Be	9.0	4801.2	4801.207	60.068	1.3
	Mg	24.0	55813.4	55813.425	512.364	0.9
	Co	58.9	134847.3	134847.289	1288.288	1.0
	Rh	102.9	245421.5	245421.499	2286.821	0.9
	In	114.9	318240.5	318240.523	1658.805	0.5
	Pb	208.0	297564.3	297564.318	2731.357	0.9
⌈>	Ba	137.9	303234.3	303234.260	2131.655	0.7
⌊	Ba++	69.0	6903.6	0.023	0.000	1.8
⌈>	Ce	139.9	368597.4	368597.368	1859.168	0.5
⌊	CeO	155.9	8405.8	0.023	0.000	1.0
	Bkgd	220.0	27.0	27.000	2.693	10.0

Current Optimization File Data

Current Value	Description
0.88	Nebulizer Gas Flow
8.25	Lens Voltage
1450.00	ICP RF Power
-1687.50	Analog Stage Voltage
1200.00	Pulse Stage Voltage
275.00	Discriminator Threshold
-6.00	AC Rod Offset

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	17	7.5	6451.8
Co	59	17	8.0	133807.4
In	115	17	9.3	314309.7

ICPMS #5 Instrument Tuning Report

File Name: default2.tun
File Path: c:\elandata\Tuning

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Pk. Width
He	3.0	3.0	592	2065	0.591
Be	9.0	9.1	2065	2070	0.643
Mg	24.0	24.0	5689	2070	0.652
Mg	25.0	25.0	5941	2070	0.677
Mg	26.0	26.0	6169	2070	0.672
Co	58.9	58.9	14182	2105	0.640
Rh	102.9	102.9	24881	2165	0.622
In	114.9	114.9	27795	2185	0.619
Ce	139.9	139.9	33867	2200	0.642
Pb	206.0	206.0	49936	2270	0.635
Pb	207.0	207.0	50183	2235	0.688
Pb	208.0	208.0	50427	2260	0.717
U	238.1	238.1	57732	2275	0.722

ICPMS#5 - Summary Report

Sample ID: Blank
Sample Date/Time: Tuesday, December 22, 2009 02:17:29
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\091221.mth
Dataset File: c:\elandata\Dataset\091221\Blank.166

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7		ug/L		87	
	Be	9		ug/L		26	
>	Sc	45		ug/L		815891	
	Mn	55		ug/L		1739	
>	Lu	175		ug/L		641514	
	Tl	205		ug/L		2156	
	Pb	208		ug/L		1799	
	U	238		ug/L		1267	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Simple Linear	
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
U	238	Simple Linear	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
>	Sc	45					
	Mn	55					
>	Lu	175					
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Tuesday, December 22, 2009 02:22:23
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\091221.mth
Dataset File: c:\elandata\Dataset\091221\Standard 1.167

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	10.000	ug/L	4.523	17907	0.022
	Be	9	10.000	ug/L	3.338	5033	0.006
>	Sc	45		ug/L		811451	811450.962
	Mn	55	10.000	ug/L	5.536	160365	0.196
>	Lu	175		ug/L		637946	637945.915
	Tl	205	10.000	ug/L	5.310	323967	0.505
	Pb	208	10.000	ug/L	3.116	482282	0.754
	U	238	10.000	ug/L	2.281	598289	0.936

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
>	Sc	45					
	Mn	55					
>	Lu	175					
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Tuesday, December 22, 2009 02:27:14
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\091221.mth
Dataset File: c:\elandata\Dataset\091221\Standard 2.168

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**100.006**	**ug/L**	4.336	180773	0.221
	Be	9	**99.977**	**ug/L**	4.189	49316	0.060
>	Sc	45		**ug/L**		817199	817198.945
	Mn	55	**99.898**	**ug/L**	3.863	1450327	1.773
>	Lu	175		**ug/L**		626328	626328.298
	Tl	205	**99.851**	**ug/L**	4.119	2750589	4.391
	Pb	208	**99.869**	**ug/L**	2.309	4167942	6.654
	U	238	**99.877**	**ug/L**	1.695	5214986	8.324

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
>	Sc	45					
	Mn	55					
>	Lu	175					
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Tuesday, December 22, 2009 02:32:06
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\091221.mth
Dataset File: c:\elandata\Dataset\091221\QC Std 1.169

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**51.887**	**ug/L**	4.010	95958	0.115
	Be	9	**51.056**	**ug/L**	3.407	25775	0.031
>	Sc	45		**ug/L**		835620	835620.295
	Mn	55	**54.110**	**ug/L**	4.499	803785	0.960
>	Lu	175		**ug/L**		640245	640245.135
	Tl	205	**50.744**	**ug/L**	4.793	1429708	2.231
	Pb	208	**53.935**	**ug/L**	2.552	2301534	3.593
	U	238	**53.069**	**ug/L**	1.436	2832688	4.423

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7	103.773				
	Be	9	102.113				
>	Sc	45		102.4			
	Mn	55	108.219				
>	Lu	175		99.8			
	Tl	205	101.489				
	Pb	208	107.870				
	U	238	106.138				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Tuesday, December 22, 2009 02:37:01
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\091221.mth
Dataset File: c:\elandata\Dataset\091221\QC Std 2.170

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	-0.010	ug/L	38.109	69	-0.000
	Be	9	0.004	ug/L	306.339	28	0.000
>	Sc	45		ug/L		828621	828620.572
	Mn	55	-0.006	ug/L	130.931	1680	-0.000
>	Lu	175		ug/L		645121	645120.978
	Tl	205	0.067	ug/L	14.931	4075	0.003
	Pb	208	-0.009	ug/L	4.294	1420	-0.001
	U	238	0.001	ug/L	44.034	1351	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
>	Sc	45		101.6			
	Mn	55					
>	Lu	175		100.6			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Tuesday, December 22, 2009 02:41:56
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\091221.mth
Dataset File: c:\elandata\Dataset\091221\QC Std 3.171

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**10.896**	**ug/L**	7.082	20063	0.024
	Be	9	**0.533**	**ug/L**	3.869	293	0.000
>	Sc	45		**ug/L**		829915	829915.250
	Mn	55	**6.101**	**ug/L**	5.128	91551	0.108
>	Lu	175		**ug/L**		647639	647639.310
	Tl	205	**1.190**	**ug/L**	5.489	36025	0.052
	Pb	208	**2.374**	**ug/L**	4.402	104092	0.158
	U	238	**0.246**	**ug/L**	2.367	14539	0.020

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7	108.958				
	Be	9	106.586				
>	Sc	45		101.7			
	Mn	55	122.011				
>	Lu	175		101.0			
	Tl	205	119.048				
	Pb	208	118.680				
	U	238	122.917				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Tuesday, December 22, 2009 02:46:49
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\091221.mth
Dataset File: c:\elandata\Dataset\091221\QC Std 4.172

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.117**	**ug/L**	15.309	274	0.000
	Be	9	**0.071**	**ug/L**	25.499	56	0.000
>	Sc	45		**ug/L**		752193	752192.701
	Mn	55	**6.430**	**ug/L**	4.905	87359	0.114
>	Lu	175		**ug/L**		569268	569268.280
	Tl	205	**-0.008**	**ug/L**	42.570	1715	-0.000
	Pb	208	**0.168**	**ug/L**	2.294	7973	0.011
	U	238	**-0.020**	**ug/L**	2.048	191	-0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
>	Sc	45		92.2			
	Mn	55	110.854				
>	Lu	175		88.7			
	Tl	205					
	Pb	208	84.103				
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Tuesday, December 22, 2009 02:51:43
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\091221.mth
Dataset File: c:\elandata\Dataset\091221\QC Std 5.173

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**24.233**	**ug/L**	7.376	39446	0.054
	Be	9	**20.478**	**ug/L**	7.061	9102	0.012
>	Sc	45		**ug/L**		735940	735940.069
	Mn	55	**28.520**	**ug/L**	2.240	373966	0.506
>	Lu	175		**ug/L**		573360	573360.345
	Tl	205	**19.868**	**ug/L**	7.214	501750	0.874
	Pb	208	**21.140**	**ug/L**	4.061	808189	1.408
	U	238	**22.931**	**ug/L**	3.106	1095938	1.911

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7	121.166				
	Be	9	102.392				
>	Sc	45		90.2			
	Mn	55	110.544				
>	Lu	175		89.4			
	Tl	205	99.339				
	Pb	208	104.654				
	U	238	114.656				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 5	Li	7	ICSAB is out of limits

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Tuesday, December 22, 2009 02:56:38
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\091221.mth
Dataset File: c:\elandata\Dataset\091221\QC Std 6.174

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**56.153**	**ug/L**	3.446	102783	0.124
	Be	9	**52.754**	**ug/L**	2.534	26366	0.032
>	Sc	45		**ug/L**		827593	827592.691
	Mn	55	**53.438**	**ug/L**	5.303	785654	0.948
>	Lu	175		**ug/L**		640207	640206.573
	Tl	205	**49.790**	**ug/L**	5.181	1402183	2.189
	Pb	208	**53.325**	**ug/L**	3.738	2274363	3.553
	U	238	**51.981**	**ug/L**	0.066	2774785	4.332

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7	112.307				
	Be	9	105.508				
>	Sc	45		101.4			
	Mn	55	106.876				
>	Lu	175		99.8			
	Tl	205	99.580				
	Pb	208	106.651				
	U	238	103.962				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 6	Li	7	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Tuesday, December 22, 2009 03:01:34
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\091221.mth
Dataset File: c:\elandata\Dataset\091221\QC Std 7.175

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	-0.005	ug/L	210.058	82	-0.000
	Be	9	0.001	ug/L	741.493	28	0.000
>	Sc	45		ug/L		852623	852623.066
	Mn	55	-0.003	ug/L	188.111	1771	-0.000
>	Lu	175		ug/L		643104	643104.214
	Tl	205	0.075	ug/L	7.342	4291	0.003
	Pb	208	-0.010	ug/L	2.097	1363	-0.001
	U	238	0.001	ug/L	108.345	1321	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
>	Sc	45		104.5			
	Mn	55					
>	Lu	175		100.2			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 10
Sample Date/Time: Tuesday, December 22, 2009 03:06:28
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\091221.mth
Dataset File: c:\elandata\Dataset\091221\QC Std 10.176

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**1127.411**	**ug/L**	5.466	1816499	2.493
	Be	9	**1050.238**	**ug/L**	4.014	461767	0.634
>	Sc	45		**ug/L**		728849	728848.930
	Mn	55	**994.640**	**ug/L**	3.806	12865757	17.650
>	Lu	175		**ug/L**		606630	606629.973
	Tl	205	**470.898**	**ug/L**	4.701	12551657	20.706
	Pb	208	**4866.311**	**ug/L**	3.602	196556367	324.208
	U	238	**5290.007**	**ug/L**	1.452	267381508	440.876

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7	112.741				
	Be	9	105.024				
>	Sc	45		89.3			
	Mn	55	99.464				
>	Lu	175		94.6			
	Tl	205	94.180				
	Pb	208	97.326				
	U	238	105.800				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 10	Li	7	LRS is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 11
Sample Date/Time: Tuesday, December 22, 2009 03:11:20
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\091221.mth
Dataset File: c:\elandata\Dataset\091221\QC Std 11.177

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**57.743**	**ug/L**	10.359	104318	0.128
	Be	9	**53.176**	**ug/L**	6.804	26251	0.032
>	Sc	45		**ug/L**		819178	819177.996
	Mn	55	**53.345**	**ug/L**	5.640	776160	0.947
>	Lu	175		**ug/L**		644918	644918.298
	Tl	205	**50.330**	**ug/L**	5.440	1428226	2.213
	Pb	208	**54.383**	**ug/L**	1.777	2337902	3.623
	U	238	**54.753**	**ug/L**	1.850	2943323	4.563

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7	115.487				
	Be	9	106.353				
>	Sc	45		100.4			
	Mn	55	106.690				
>	Lu	175		100.5			
	Tl	205	100.659				
	Pb	208	108.766				
	U	238	109.507				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 11	Li	7	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 12
Sample Date/Time: Tuesday, December 22, 2009 03:16:15
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\091221.mth
Dataset File: c:\elandata\Dataset\091221\QC Std 12.178

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.032**	**ug/L**	13.916	150	0.000
	Be	9	**0.001**	**ug/L**	1517.273	27	0.000
>	Sc	45		**ug/L**		842779	842778.725
	Mn	55	**-0.006**	**ug/L**	67.893	1701	-0.000
>	Lu	175		**ug/L**		649100	649099.894
	Tl	205	**0.114**	**ug/L**	8.743	5442	0.005
	Pb	208	**-0.006**	**ug/L**	26.318	1555	-0.000
	U	238	**0.023**	**ug/L**	9.399	2507	0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
>	Sc	45		103.3			
	Mn	55					
>	Lu	175		101.2			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1201994288
Sample Date/Time: Tuesday, December 22, 2009 03:21:12
Sample Type:
Sample Description: LANL 6020 MB
Number of Replicates: 3
Batch ID: 932310|1|baj
Method File: c:\elandata\Method\091221.mth
Dataset File: c:\elandata\Dataset\091221\1201994288.179

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.041**	**ug/L**	23.335	167	0.000
	Be	9	**-0.014**	**ug/L**	66.884	20	-0.000
>	Sc	45		**ug/L**		850848	850848.343
	Mn	55	**0.108**	**ug/L**	10.009	3444	0.002
>	Lu	175		**ug/L**		610660	610660.144
	Tl	205	**-0.005**	**ug/L**	143.841	1911	-0.000
	Pb	208	**-0.024**	**ug/L**	1.961	749	-0.002
	U	238	**-0.010**	**ug/L**	15.719	682	-0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
>	Sc	45		104.3			
	Mn	55					
>	Lu	175		95.2			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1201994289
Sample Date/Time: Tuesday, December 22, 2009 03:26:11
Sample Type:
Sample Description: LANL 6020 LCS
Number of Replicates: 3
Batch ID: 932310|1|baj
Method File: c:\elandata\Method\091221.mth
Dataset File: c:\elandata\Dataset\091221\1201994289.180

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**58.372**	**ug/L**	6.281	106976	0.129
	Be	9	**56.257**	**ug/L**	6.228	28139	0.034
>	Sc	45		**ug/L**		828687	828686.823
	Mn	55	**53.404**	**ug/L**	3.421	787060	0.948
>	Lu	175		**ug/L**		615006	615005.661
	Tl	205	**47.543**	**ug/L**	4.657	1287387	2.090
	Pb	208	**54.197**	**ug/L**	3.377	2221301	3.611
	U	238	**53.093**	**ug/L**	1.794	2722768	4.425

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
>	Sc	45		101.6			
	Mn	55					
>	Lu	175		95.9			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 242751001
Sample Date/Time: Tuesday, December 22, 2009 03:41:12
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 932310|1|baj
Method File: c:\elandata\Method\091221.mth
Dataset File: c:\elandata\Dataset\091221\242751001.183

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	0.037	ug/L	26.393	163	0.000
	Be	9	-0.021	ug/L	41.143	16	-0.000
>	Sc	45		ug/L		868721	868720.688
	Mn	55	1.298	ug/L	3.904	21853	0.023
>	Lu	175		ug/L		634996	634995.800
	Tl	205	0.034	ug/L	13.310	3083	0.001
	Pb	208	0.057	ug/L	14.840	4179	0.004
	U	238	-0.017	ug/L	5.781	337	-0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
>	Sc	45		106.5			
	Mn	55					
>	Lu	175		99.0			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 8
Sample Date/Time: Tuesday, December 22, 2009 03:46:10
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\091221.mth
Dataset File: c:\elandata\Dataset\091221\QC Std 8.184

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**55.384**	**ug/L**	6.651	108606	0.122
	Be	9	**48.240**	**ug/L**	3.642	25846	0.029
>	Sc	45		**ug/L**		887108	887107.864
	Mn	55	**53.247**	**ug/L**	4.959	839378	0.945
>	Lu	175		**ug/L**		679791	679791.079
	Tl	205	**44.452**	**ug/L**	4.346	1329344	1.955
	Pb	208	**52.243**	**ug/L**	4.766	2364880	3.481
	U	238	**51.465**	**ug/L**	1.169	2916044	4.289

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7	110.769				
	Be	9	96.480				
>	Sc	45		108.7			
	Mn	55	106.494				
>	Lu	175		106.0			
	Tl	205	88.904				
	Pb	208	104.486				
	U	238	102.929				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 8	Li	7	CCV is out of limits (+/- 10%)
QC Std 8	Tl	205	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 9
Sample Date/Time: Tuesday, December 22, 2009 03:51:06
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\091221.mth
Dataset File: c:\elandata\Dataset\091221\QC Std 9.185

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.142**	**ug/L**	106.302	359	0.000
	Be	9	**0.161**	**ug/L**	103.346	110	0.000
>	Sc	45		**ug/L**		862177	862177.496
	Mn	55	**0.172**	**ug/L**	106.066	4437	0.003
>	Lu	175		**ug/L**		683288	683288.269
	Tl	205	**1.087**	**ug/L**	17.588	35079	0.048
	Pb	208	**0.121**	**ug/L**	99.627	7589	0.008
	U	238	**0.236**	**ug/L**	82.289	15104	0.020

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
>	Sc	45		105.7			
	Mn	55					
>	Lu	175		106.5			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 9	Tl	205	CCB is out of limits (+/- PQL)
QC Std 9	U	238	CCB is out of limits (+/- PQL)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: 242751002
Sample Date/Time: Tuesday, December 22, 2009 03:56:03
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 932310|1|baj
Method File: c:\elandata\Method\091221.mth
Dataset File: c:\elandata\Dataset\091221\242751002.186

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.056**	**ug/L**	78.428	203	0.000
	Be	9	**0.033**	**ug/L**	133.276	46	0.000
>	Sc	45		**ug/L**		873255	873255.332
	Mn	55	**0.196**	**ug/L**	22.413	4907	0.003
>	Lu	175		**ug/L**		626349	626348.723
	Tl	205	**0.580**	**ug/L**	10.604	18080	0.026
	Pb	208	**0.041**	**ug/L**	117.423	3471	0.003
	U	238	**0.045**	**ug/L**	125.836	3577	0.004

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
>	Sc	45		107.0			
	Mn	55					
>	Lu	175		97.6			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1201994290
Sample Date/Time: Tuesday, December 22, 2009 04:01:02
Sample Type:
Sample Description: LANL 6020 DUP
Number of Replicates: 3
Batch ID: 932310|1|baj
Method File: c:\elandata\Method\091221.mth
Dataset File: c:\elandata\Dataset\091221\1201994290.187

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.041**	**ug/L**	92.428	178	0.000
	Be	9	**0.034**	**ug/L**	102.705	47	0.000
>	Sc	45		**ug/L**		899135	899135.123
	Mn	55	**0.192**	**ug/L**	15.512	4982	0.003
>	Lu	175		**ug/L**		645719	645719.243
	Tl	205	**0.397**	**ug/L**	17.522	13419	0.017
	Pb	208	**0.019**	**ug/L**	161.068	2591	0.001
	U	238	**0.025**	**ug/L**	155.024	2571	0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
>	Sc	45		110.2			
	Mn	55					
>	Lu	175		100.7			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1201994291
Sample Date/Time: Tuesday, December 22, 2009 04:06:00
Sample Type:
Sample Description: LANL 6020 MS
Number of Replicates: 3
Batch ID: 932310|1|ba|
Method File: c:\elandata\Method\091221.mth
Dataset File: c:\elandata\Dataset\091221\1201994291.188

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**62.765**	**ug/L**	8.498	119286	0.139
	Be	9	**57.558**	**ug/L**	1.506	29903	0.035
>	Sc	45		**ug/L**		860485	860485.062
	Mn	55	**56.179**	**ug/L**	4.604	858782	0.997
>	Lu	175		**ug/L**		646816	646816.376
	Tl	205	**80.825**	**ug/L**	2.684	2299107	3.554
	Pb	208	**44.860**	**ug/L**	5.726	1931520	2.989
	U	238	**53.990**	**ug/L**	1.275	2910707	4.500

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
>	Sc	45		105.5			
	Mn	55					
>	Lu	175		100.8			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1201994292
Sample Date/Time: Tuesday, December 22, 2009 04:11:00
Sample Type:
Sample Description: LANL 6020 SDILT
Number of Replicates: 3
Batch ID: 932310|5|baj
Method File: c:\elandata\Method\091221.mth
Dataset File: c:\elandata\Dataset\091221\1201994292.189

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.145**	**ug/L**	124.524	368	0.000
	Be	9	**0.179**	**ug/L**	102.921	121	0.000
>	Sc	45		**ug/L**		881322	881321.503
	Mn	55	**0.231**	**ug/L**	78.337	5424	0.004
>	Lu	175		**ug/L**		683787	683787.340
	Tl	205	**4.347**	**ug/L**	20.817	133238	0.191
	Pb	208	**0.094**	**ug/L**	108.138	6295	0.006
	U	238	**0.210**	**ug/L**	93.890	13524	0.017

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
>	Sc	45		108.0			
	Mn	55					
>	Lu	175		106.6			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Tuesday, December 22, 2009 04:15:57
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\091221.mth
Dataset File: c:\elandata\Dataset\091221\QC Std 6.190

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**57.442**	**ug/L**	5.925	111991	0.127
	Be	9	**50.245**	**ug/L**	6.900	26730	0.030
>	Sc	45		**ug/L**		881372	881372.268
	Mn	55	**53.414**	**ug/L**	1.914	837389	0.948
>	Lu	175		**ug/L**		682274	682273.715
	Tl	205	**48.136**	**ug/L**	6.069	1444362	2.117
	Pb	208	**53.027**	**ug/L**	3.466	2410272	3.533
	U	238	**51.384**	**ug/L**	0.679	2922744	4.282

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7	114.884				
	Be	9	100.489				
>	Sc	45		108.0			
	Mn	55	106.828				
>	Lu	175		106.4			
	Tl	205	96.272				
	Pb	208	106.055				
	U	238	102.768				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 6	Li	7	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Tuesday, December 22, 2009 04:20:53
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\091221.mth
Dataset File: c:\elandata\Dataset\091221\QC Std 7.191

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.240**	**ug/L**	110.441	545	0.001
	Be	9	**0.277**	**ug/L**	99.609	170	0.000
>	Sc	45		**ug/L**		860540	860539.645
	Mn	55	**0.273**	**ug/L**	96.370	5979	0.005
>	Lu	175		**ug/L**		687116	687115.762
	Tl	205	**2.613**	**ug/L**	18.608	81311	0.115
	Pb	208	**0.200**	**ug/L**	98.405	11185	0.013
	U	238	**0.364**	**ug/L**	84.960	22396	0.030

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
>	Sc	45			105.5		
	Mn	55					
>	Lu	175			107.1		
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 7	Tl	205	CCB is out of limits (+-/ PQL)
QC Std 7	U	238	CCB is out of limits (+-/ PQL)

QC Action

QC Action Line: Continue

ICPMS #5 Daily Performance Report

Sample ID: Sample
Sample Date/Time: Tuesday, December 22, 2009 13:03:55
Sample Description:
Method File: c:\elandata\Method\Daily2.mth
Dataset File: c:\elandata\Dataset\default2\Sample.1584
Tuning File: c:\elandata\Tuning\default2.tun
Optimization File: c:\elandata\Optimize\default.dac
Dual Detector Mode: Pulse

Acq. Dead Time(ns): 35
Current Dead Time (ns): 35

Number of Replicates: 5

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Be	9.0	5186.3	5186.341	68.904	1.3
	Mg	24.0	53272.3	53272.346	342.341	0.6
	Co	58.9	129743.5	129743.538	1097.401	0.8
	Rh	102.9	234945.0	234945.030	765.135	0.3
	In	114.9	304582.8	304582.825	1918.807	0.6
	Pb	208.0	352175.7	352175.690	2549.696	0.7
⌈>	Ba	137.9	307945.7	307945.697	2473.242	0.8
⌊	Ba++	69.0	6521.9	0.021	0.000	1.6
⌈>	Ce	139.9	375366.8	375366.800	2992.031	0.8
⌊	CeO	155.9	8333.9	0.022	0.000	2.1
	Bkgd	220.0	17.9	17.900	2.510	14.0

Current Optimization File Data

Current Value	Description
0.88	Nebulizer Gas Flow
8.25	Lens Voltage
1450.00	ICP RF Power
-1687.50	Analog Stage Voltage
1200.00	Pulse Stage Voltage
275.00	Discriminator Threshold
-6.00	AC Rod Offset

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	21	7.5	6010.3
Co	59	21	8.5	135547.7
In	115	21	9.8	293994.7

ICPMS #5 Instrument Tuning Report

File Name: default2.tun
File Path: c:\elandata\Tuning

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Pk. Width
He	3.0	3.0	594	2065	0.581
Be	9.0	9.0	2037	2070	0.627
Mg	24.0	24.0	5685	2070	0.633
Mg	25.0	24.9	5925	2070	0.633
Mg	26.0	26.0	6177	2070	0.651
Co	58.9	58.9	14190	2105	0.626
Rh	102.9	102.9	24879	2165	0.606
In	114.9	114.9	27793	2185	0.610
Ce	139.9	139.9	33865	2200	0.626
Pb	206.0	206.0	49936	2270	0.628
Pb	207.0	207.0	50183	2235	0.680
Pb	208.0	208.0	50427	2260	0.709
U	238.1	238.1	57731	2275	0.714

ICPMS#5 - Summary Report

Sample ID: Blank
Sample Date/Time: Tuesday, December 22, 2009 20:55:31
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li tl and u.mth
Dataset File: c:\elandata\Dataset\091221\Blank.457

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7		ug/L		101	
>	Sc	45		ug/L		695269	
>	Lu	175		ug/L		648948	
	Tl	205		ug/L		1439	
	U	238		ug/L		653	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Simple Linear	
Sc	45	Linear Thru Zero	
Lu	175	Simple Linear	
Tl	205	Simple Linear	
U	238	Simple Linear	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
>	Sc	45					
>	Lu	175					
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Tuesday, December 22, 2009 21:00:10
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li tl and u.mth
Dataset File: c:\elandata\Dataset\091221\Standard 1.458

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	10.000	ug/L	7.467	19533	0.028
>	Sc	45		ug/L		698353	698352.506
>	Lu	175		ug/L		640127	640126.666
	Tl	205	10.000	ug/L	5.769	334315	0.521
	U	238	10.000	ug/L	11.085	623501	0.977

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
>	Sc	45					
>	Lu	175					
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Tuesday, December 22, 2009 21:04:46
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li tl and u.mth
Dataset File: c:\elandata\Dataset\091221\Standard 2.459

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Li	7	**100.017**	**ug/L**	5.993	196669	0.284
|>	Sc	45		**ug/L**		692588	692588.258
⌈>	Lu	175		**ug/L**		624640	624639.555
|	Tl	205	**99.832**	**ug/L**	7.354	2774405	4.451
⌊	U	238	**99.862**	**ug/L**	11.495	5330649	8.575

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈	Li	7					
|>	Sc	45					
⌈>	Lu	175					
|	Tl	205					
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Tuesday, December 22, 2009 21:09:23
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li tl and u.mth
Dataset File: c:\elandata\Dataset\091221\QC Std 1.460

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**52.992**	**ug/L**	8.826	102617	0.151
>	Sc	45		**ug/L**		682964	682964.013
>	Lu	175		**ug/L**		624529	624528.605
	Tl	205	**50.403**	**ug/L**	5.262	1404524	2.247
	U	238	**51.548**	**ug/L**	10.173	2759284	4.426

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7	105.985				
>	Sc	45		98.2			
>	Lu	175		96.2			
	Tl	205	100.806				
	U	238	103.095				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Tuesday, December 22, 2009 21:14:02
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li tl and u.mth
Dataset File: c:\elandata\Dataset\091221\QC Std 2.461

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	-0.007	ug/L	46.787	85	-0.000
>	Sc	45		ug/L		672934	672933.560
>	Lu	175		ug/L		615633	615632.653
	Tl	205	0.076	ug/L	17.296	3456	0.003
	U	238	0.002	ug/L	87.947	716	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
>	Sc	45		96.8			
>	Lu	175		94.9			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Tuesday, December 22, 2009 21:18:41
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li tl and u.mth
Dataset File: c:\elandata\Dataset\091221\QC Std 3.462

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**11.863**	**ug/L**	6.204	22834	0.034
>	Sc	45		**ug/L**		674218	674217.560
>	Lu	175		**ug/L**		620076	620076.385
	Tl	205	**1.251**	**ug/L**	9.205	35846	0.056
	U	238	**0.309**	**ug/L**	13.319	16950	0.026

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7	118.631				
>	Sc	45		97.0			
>	Lu	175		95.6			
	Tl	205	125.143				
	U	238	154.256				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 3	U	238	CRDL is out of limits

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Tuesday, December 22, 2009 21:23:19
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li tl and u.mth
Dataset File: c:\elandata\Dataset\091221\QC Std 4.463

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.107**	**ug/L**	22.003	287	0.000
>	Sc	45		**ug/L**		639840	639839.667
>	Lu	175		**ug/L**		562885	562884.994
	Tl	205	**0.009**	**ug/L**	57.244	1474	0.000
	U	238	**-0.008**	**ug/L**	3.558	201	-0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
>	Sc	45		92.0			
>	Lu	175		86.7			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Tuesday, December 22, 2009 21:27:58
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li tl and u.mth
Dataset File: c:\elandata\Dataset\091221\QC Std 5.464

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**23.527**	**ug/L**	4.691	41444	0.067
>	Sc	45		**ug/L**		618455	618455.346
>	Lu	175		**ug/L**		552265	552265.458
	Tl	205	**20.994**	**ug/L**	6.870	517298	0.936
	U	238	**23.386**	**ug/L**	9.629	1106371	2.008

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7	117.635				
>	Sc	45		89.0			
>	Lu	175		85.1			
	Tl	205	104.970				
	U	238	116.932				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Tuesday, December 22, 2009 21:32:37
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li tl and u.mth
Dataset File: c:\elandata\Dataset\091221\QC Std 6.465

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**54.660**	**ug/L**	8.136	107059	0.155
>	Sc	45		**ug/L**		690077	690077.035
>	Lu	175		**ug/L**		617285	617284.573
	Tl	205	**49.493**	**ug/L**	10.096	1357855	2.207
	U	238	**51.032**	**ug/L**	12.363	2689519	4.382

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7	109.320				
>	Sc	45		99.3			
>	Lu	175		95.1			
	Tl	205	98.987				
	U	238	102.063				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Tuesday, December 22, 2009 21:37:17
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li tl and u.mth
Dataset File: c:\elandata\Dataset\091221\QC Std 7.466

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	-0.018	ug/L	42.459	65	-0.000
>	Sc	45		ug/L		694908	694907.780
>	Lu	175		ug/L		622336	622336.494
	Tl	205	0.064	ug/L	16.129	3151	0.003
	U	238	0.002	ug/L	80.216	723	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
>	Sc	45		99.9			
>	Lu	175		95.9			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 10
Sample Date/Time: Tuesday, December 22, 2009 21:41:56
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li tl and u.mth
Dataset File: c:\elandata\Dataset\091221\QC Std 10.467

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**1046.981**	**ug/L**	12.431	1873669	2.975
>	Sc	45		**ug/L**		634457	634456.932
>	Lu	175		**ug/L**		589066	589065.689
	Tl	205	**489.409**	**ug/L**	4.957	12843308	21.819
	U	238	**5423.195**	**ug/L**	9.265	273659645	465.676

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7	104.698				
>	Sc	45		91.3			
>	Lu	175		90.8			
	Tl	205	97.882				
	U	238	108.464				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 11
Sample Date/Time: Tuesday, December 22, 2009 21:46:33
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li tl and u.mth
Dataset File: c:\elandata\Dataset\091221\QC Std 11.468

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**53.741**	**ug/L**	14.060	105637	0.153
>	Sc	45		**ug/L**		695065	695064.690
>	Lu	175		**ug/L**		624840	624840.405
	Tl	205	**50.368**	**ug/L**	7.673	1402239	2.246
	U	238	**52.022**	**ug/L**	11.796	2781174	4.467

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7	107.483				
>	Sc	45		100.0			
>	Lu	175		96.3			
	Tl	205	100.737				
	U	238	104.044				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 12
Sample Date/Time: Tuesday, December 22, 2009 21:51:12
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li tl and u.mth
Dataset File: c:\elandata\Dataset\091221\QC Std 12.469

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	0.007	ug/L	148.394	116	0.000
>	Sc	45		ug/L		697158	697158.430
>	Lu	175		ug/L		624001	624000.685
	Tl	205	0.114	ug/L	11.203	4535	0.005
	U	238	0.024	ug/L	13.533	1916	0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
>	Sc	45		100.3			
>	Lu	175		96.2			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1201994288
Sample Date/Time: Tuesday, December 22, 2009 21:55:54
Sample Type:
Sample Description: LANL 6020 MB
Number of Replicates: 3
Batch ID: 932310|1|baj
Method File: c:\elandata\Method\li tl and u.mth
Dataset File: c:\elandata\Dataset\091221\1201994288.470

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	0.015	ug/L	22.513	136	0.000
>	Sc	45		ug/L		723131	723131.179
>	Lu	175		ug/L		600981	600981.376
	Tl	205	0.012	ug/L	13.391	1647	0.001
	U	238	0.002	ug/L	72.391	706	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
>	Sc	45		104.0			
>	Lu	175		92.6			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1201994289
Sample Date/Time: Tuesday, December 22, 2009 22:00:37
Sample Type:
Sample Description: LANL 6020 LCS
Number of Replicates: 3
Batch ID: 932310|1|baj
Method File: c:\elandata\Method\li tl and u.mth
Dataset File: c:\elandata\Dataset\091221\1201994289.471

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	56.310	ug/L	8.823	113634	0.160
>	Sc	45		ug/L		710856	710855.656
>	Lu	175		ug/L		599248	599247.704
	Tl	205	48.711	ug/L	9.191	1299161	2.172
	U	238	55.076	ug/L	13.839	2820015	4.729

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
>	Sc	45		102.2			
>	Lu	175		92.3			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 242751001
Sample Date/Time: Tuesday, December 22, 2009 22:14:51
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 932310|1|baj
Method File: c:\elandata\Method\li tl and u.mth
Dataset File: c:\elandata\Dataset\091221\242751001.474

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	0.019	ug/L	30.995	141	0.000
>	Sc	45		ug/L		707299	707298.501
>	Lu	175		ug/L		579498	579497.687
	Tl	205	0.008	ug/L	74.926	1493	0.000
	U	238	-0.007	ug/L	17.521	248	-0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
>	Sc	45		101.7			
>	Lu	175		89.3			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 8
Sample Date/Time: Tuesday, December 22, 2009 22:19:34
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li tl and u.mth
Dataset File: c:\elandata\Dataset\091221\QC Std 8.475

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	57.805	ug/L	10.182	107882	0.164
>	Sc	45		ug/L		657784	657784.230
>	Lu	175		ug/L		603460	603459.715
	Tl	205	47.740	ug/L	9.359	1283240	2.128
	U	238	53.093	ug/L	9.945	2743357	4.559

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7	115.610				
>	Sc	45		94.6			
>	Lu	175		93.0			
	Tl	205	95.479				
	U	238	106.185				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 8	Li	7	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 9
Sample Date/Time: Tuesday, December 22, 2009 22:24:14
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li tl and u.mth
Dataset File: c:\elandata\Dataset\091221\QC Std 9.476

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	-0.016	ug/L	24.335	67	-0.000
>	Sc	45		ug/L		670256	670256.283
>	Lu	175		ug/L		600546	600546.279
	Tl	205	0.229	ug/L	13.860	7438	0.010
	U	238	0.006	ug/L	44.719	900	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
>	Sc	45		96.4			
>	Lu	175		92.5			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 242751002
Sample Date/Time: Tuesday, December 22, 2009 22:28:56
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 932310|1|baj
Method File: c:\elandata\Method\li tl and u.mth
Dataset File: c:\elandata\Dataset\091221\242751002.477

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	-0.002	ug/L	90.250	97	-0.000
>	Sc	45		ug/L		703245	703245.123
>	Lu	175		ug/L		573382	573382.454
	Tl	205	0.075	ug/L	18.212	3183	0.003
	U	238	-0.006	ug/L	16.790	265	-0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
>	Sc	45		101.1			
>	Lu	175		88.4			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1201994290
Sample Date/Time: Tuesday, December 22, 2009 22:33:39
Sample Type:
Sample Description: LANL 6020 DUP
Number of Replicates: 3
Batch ID: 932310|1|baj
Method File: c:\elandata\Method\li tl and u.mth
Dataset File: c:\elandata\Dataset\091221\1201994290.478

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Li	7	-0.009	ug/L	104.354	83	-0.000
⌊>	Sc	45		ug/L		680657	680656.950
⌈>	Lu	175		ug/L		565524	565523.609
|	Tl	205	0.027	ug/L	29.078	1941	0.001
⌊	U	238	-0.008	ug/L	5.160	173	-0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈	Li	7					
⌊>	Sc	45		97.9			
⌈>	Lu	175		87.1			
|	Tl	205					
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1201994291
Sample Date/Time: Tuesday, December 22, 2009 22:38:22
Sample Type:
Sample Description: LANL 6020 MS
Number of Replicates: 3
Batch ID: 932310|1|baj
Method File: c:\elandata\Method\li tl and u.mth
Dataset File: c:\elandata\Dataset\091221\1201994291.479

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**60.454**	**ug/L**	10.027	116290	0.172
>	Sc	45		**ug/L**		679384	679384.238
>	Lu	175		**ug/L**		560062	560062.191
	Tl	205	**91.806**	**ug/L**	6.119	2293155	4.093
	U	238	**56.225**	**ug/L**	9.110	2696355	4.828

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
>	Sc	45		97.7			
>	Lu	175		86.3			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1201994292
Sample Date/Time: Tuesday, December 22, 2009 22:43:07
Sample Type:
Sample Description: LANL 6020 SDILT
Number of Replicates: 3
Batch ID: 932310|5|ba|
Method File: c:\elandata\Method\li tl and u.mth
Dataset File: c:\elandata\Dataset\091221\1201994292.480

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	-0.010	ug/L	36.936	79	-0.000
>	Sc	45		ug/L		669707	669706.967
>	Lu	175		ug/L		585780	585780.097
	Tl	205	0.677	ug/L	9.076	18934	0.030
	U	238	0.002	ug/L	56.669	698	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
>	Sc	45		96.3			
>	Lu	175		90.3			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Tuesday, December 22, 2009 22:47:48
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li tl and u.mth
Dataset File: c:\elandata\Dataset\091221\QC Std 6.481

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	58.585	ug/L	14.040	105594	0.166
>	Sc	45		ug/L		637006	637006.456
>	Lu	175		ug/L		600656	600656.138
	Tl	205	48.769	ug/L	9.026	1304359	2.174
	U	238	50.821	ug/L	12.152	2610760	4.364

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7	117.170				
>	Sc	45		91.6			
>	Lu	175		92.6			
	Tl	205	97.539				
	U	238	101.642				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 6	Li	7	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Tuesday, December 22, 2009 22:52:29
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li tl and u.mth
Dataset File: c:\elandata\Dataset\091221\QC Std 7.482

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**-0.019**	**ug/L**	21.478	59	-0.000
>	Sc	45		**ug/L**		651947	651947.047
>	Lu	175		**ug/L**		601151	601150.590
	Tl	205	**0.269**	**ug/L**	6.185	8540	0.012
	U	238	**0.005**	**ug/L**	18.775	884	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
>	Sc	45		93.8			
>	Lu	175		92.6			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS #5 Daily Performance Report

Sample ID: Sample
Sample Date/Time: Wednesday, December 23, 2009 12:26:02
Sample Description:
Method File: c:\elandata\Method\Daily2.mth
Dataset File: c:\elandata\Dataset\default2\Sample.1589
Tuning File: c:\elandata\Tuning\default2.tun
Optimization File: c:\elandata\Optimize\default.dac
Dual Detector Mode: Pulse

Acq. Dead Time(ns): 35
Current Dead Time (ns): 35

Number of Replicates: 5

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Be	9.0	5349.4	5349.402	135.539	2.5
	Mg	24.0	52926.7	52926.672	590.570	1.1
	Co	58.9	124214.1	124214.107	932.643	0.8
	Rh	102.9	223598.5	223598.525	1242.440	0.6
	In	114.9	288884.4	288884.362	1949.196	0.7
	Pb	208.0	333111.0	333111.027	3223.695	1.0
⌈>	Ba	137.9	283219.6	283219.638	2581.305	0.9
⌊	Ba++	69.0	6219.6	0.022	0.000	1.6
⌈>	Ce	139.9	348697.6	348697.637	5080.698	1.5
⌊	CeO	155.9	7860.7	0.023	0.001	2.7
	Bkgd	220.0	23.9	23.900	1.673	7.0

Current Optimization File Data

Current Value	Description
0.88	Nebulizer Gas Flow
8.25	Lens Voltage
1450.00	ICP RF Power
-1687.50	Analog Stage Voltage
1200.00	Pulse Stage Voltage
275.00	Discriminator Threshold
-6.00	AC Rod Offset

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	21	7.5	7193.5
Co	59	21	8.3	136217.7
In	115	21	9.5	317836.8

ICPMS #5 Instrument Tuning Report

File Name: default2.tun
File Path: c:\elandata\Tuning

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Pk. Width
He	3.0	3.0	597	2065	0.571
Be	9.0	9.0	2043	2070	0.622
Mg	24.0	24.0	5693	2070	0.645
Mg	25.0	25.0	5945	2070	0.634
Mg	26.0	26.0	6175	2070	0.639
Co	58.9	58.9	14186	2105	0.621
Rh	102.9	102.9	24877	2165	0.598
In	114.9	114.9	27791	2185	0.613
Ce	139.9	139.9	33863	2200	0.621
Pb	206.0	206.0	49936	2270	0.623
Pb	207.0	207.0	50183	2235	0.675
Pb	208.0	208.0	50427	2260	0.705
U	238.1	238.1	57730	2275	0.712

ICPMS#5 - Summary Report

Sample ID: Blank
Sample Date/Time: Wednesday, December 23, 2009 18:15:50
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li and u.mth
Dataset File: c:\elandata\Dataset\091223\Blank.049

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7		ug/L		39	
>	Sc	45		ug/L		944824	
>	Lu	175		ug/L		669740	
	U	238		ug/L		390	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Simple Linear	
Sc	45	Simple Linear	
Lu	175	Simple Linear	
U	238	Simple Linear	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
>	Sc	45					
>	Lu	175					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Wednesday, December 23, 2009 18:18:06
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li and u.mth
Dataset File: c:\elandata\Dataset\091223\Standard 1.050

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	10.000	ug/L	4.411	18386	0.020
>	Sc	45		ug/L		933342	933342.295
>	Lu	175		ug/L		647290	647289.602
	U	238	10.000	ug/L	3.322	649998	1.004

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
>	Sc	45					
>	Lu	175					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Wednesday, December 23, 2009 18:20:19
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li and u.mth
Dataset File: c:\elandata\Dataset\091223\Standard 2.051

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	100.022	ug/L	4.596	183819	0.201
>	Sc	45		ug/L		913482	913482.468
>	Lu	175		ug/L		640437	640437.147
	U	238	99.907	ug/L	1.707	5880298	9.180

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
>	Sc	45					
>	Lu	175					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Wednesday, December 23, 2009 18:22:32
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li and u.mth
Dataset File: c:\elandata\Dataset\091223\QC Std 1.052

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**53.080**	**ug/L**	5.002	92881	0.107
>	Sc	45		**ug/L**		870298	870297.917
>	Lu	175		**ug/L**		646101	646101.138
	U	238	**52.229**	**ug/L**	1.424	3100911	4.799

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7	106.159				
>	Sc	45		92.1			
>	Lu	175		96.5			
	U	238	104.457				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Wednesday, December 23, 2009 18:24:48
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li and u.mth
Dataset File: c:\elandata\Dataset\091223\QC Std 2.053

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	0.009	ug/L	65.626	54	0.000
>	Sc	45		ug/L		920675	920674.894
>	Lu	175		ug/L		640601	640600.955
	U	238	0.010	ug/L	7.432	961	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
>	Sc	45		97.4			
>	Lu	175		95.6			
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Wednesday, December 23, 2009 18:27:05
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li and u.mth
Dataset File: c:\elandata\Dataset\091223\QC Std 3.054

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	11.139	ug/L	4.923	20545	0.022
>	Sc	45		ug/L		915361	915361.228
>	Lu	175		ug/L		654031	654031.215
	U	238	0.253	ug/L	3.389	15587	0.023

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7	111.390				
>	Sc	45		96.9			
>	Lu	175		97.7			
	U	238	126.541				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Wednesday, December 23, 2009 18:29:19
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li and u.mth
Dataset File: c:\elandata\Dataset\091223\QC Std 4.055

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	0.131	ug/L	11.656	262	0.000
>	Sc	45		ug/L		857812	857812.326
>	Lu	175		ug/L		581607	581607.405
	U	238	-0.002	ug/L	16.980	209	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
>	Sc	45		90.8			
>	Lu	175		86.8			
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Wednesday, December 23, 2009 18:31:35
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li and u.mth
Dataset File: c:\elandata\Dataset\091223\QC Std 5.056

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	23.269	ug/L	3.266	41370	0.047
>	Sc	45		ug/L		883068	883068.055
>	Lu	175		ug/L		574502	574501.851
	U	238	21.622	ug/L	0.958	1141698	1.987

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7	116.346				
>	Sc	45		93.5			
>	Lu	175		85.8			
	U	238	108.112				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Wednesday, December 23, 2009 18:33:51
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li and u.mth
Dataset File: c:\elandata\Dataset\091223\QC Std 6.057

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	55.070	ug/L	1.746	101845	0.111
>	Sc	45		ug/L		918885	918884.695
>	Lu	175		ug/L		645459	645458.875
	U	238	52.575	ug/L	1.593	3118358	4.831

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7	110.139				
>	Sc	45		97.3			
>	Lu	175		96.4			
	U	238	105.151				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 6	Li	7	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Wednesday, December 23, 2009 18:36:08
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li and u.mth
Dataset File: c:\elandata\Dataset\091223\QC Std 7.058

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	0.011	ug/L	55.949	61	0.000
>	Sc	45		ug/L		956773	956773.032
>	Lu	175		ug/L		644013	644013.300
	U	238	0.008	ug/L	8.648	840	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
>	Sc	45		101.3			
>	Lu	175		96.2			
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1201994288
Sample Date/Time: Wednesday, December 23, 2009 18:38:24
Sample Type:
Sample Description: LANL 6020 MB
Number of Replicates: 3
Batch ID: 932310|1|baj
Method File: c:\elandata\Method\li and u.mth
Dataset File: c:\elandata\Dataset\091223\1201994288.059

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	0.018	ug/L	21.991	73	0.000
>	Sc	45		ug/L		946178	946177.725
>	Lu	175		ug/L		623522	623521.537
	U	238	0.004	ug/L	14.534	575	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
>	Sc	45		100.1			
>	Lu	175		93.1			
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1201994289
Sample Date/Time: Wednesday, December 23, 2009 18:40:38
Sample Type:
Sample Description: LANL 6020 LCS
Number of Replicates: 3
Batch ID: 932310|1|baj
Method File: c:\elandata\Method\li and u.mth
Dataset File: c:\elandata\Dataset\091223\1201994289.060

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	57.435	ug/L	2.452	110643	0.116
>	Sc	45		ug/L		957064	957064.019
>	Lu	175		ug/L		621333	621333.356
	U	238	55.746	ug/L	0.412	3183092	5.122

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
>	Sc	45		101.3			
>	Lu	175		92.8			
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 8
Sample Date/Time: Wednesday, December 23, 2009 18:47:25
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li and u.mth
Dataset File: c:\elandata\Dataset\091223\QC Std 8.063

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	51.298	ug/L	1.844	99903	0.103
>	Sc	45		ug/L		967742	967741.957
>	Lu	175		ug/L		644128	644128.227
	U	238	52.099	ug/L	2.182	3083534	4.787

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7	102.596				
>	Sc	45		102.4			
>	Lu	175		96.2			
	U	238	104.197				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 9
Sample Date/Time: Wednesday, December 23, 2009 18:49:42
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li and u.mth
Dataset File: c:\elandata\Dataset\091223\QC Std 9.064

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	0.009	ug/L	74.528	58	0.000
>	Sc	45		ug/L		969045	969045.071
>	Lu	175		ug/L		650547	650546.921
	U	238	0.008	ug/L	4.244	869	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
>	Sc	45		102.6			
>	Lu	175		97.1			
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 242751001
Sample Date/Time: Wednesday, December 23, 2009 18:51:59
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 932310|1|baj
Method File: c:\elandata\Method\li and u.mth
Dataset File: c:\elandata\Dataset\091223\242751001.065

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Li	7	0.041	ug/L	12.177	118	0.000
⌊>	Sc	45		ug/L		953620	953619.624
⌈>	Lu	175		ug/L		618693	618693.167
⌊	U	238	-0.001	ug/L	42.357	321	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈	Li	7					
⌊>	Sc	45		100.9			
⌈>	Lu	175		92.4			
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 242751002
Sample Date/Time: Wednesday, December 23, 2009 18:54:16
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 932310|1|baj
Method File: c:\elandata\Method\li and u.mth
Dataset File: c:\elandata\Dataset\091223\242751002.066

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	0.018	ug/L	7.178	72	0.000
>	Sc	45		ug/L		949378	949378.180
>	Lu	175		ug/L		613107	613106.727
	U	238	-0.001	ug/L	30.935	301	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
>	Sc	45		100.5			
>	Lu	175		91.5			
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1201994290
Sample Date/Time: Wednesday, December 23, 2009 18:56:31
Sample Type:
Sample Description: LANL 6020 DUP
Number of Replicates: 3
Batch ID: 932310|1|baj
Method File: c:\elandata\Method\li and u.mth
Dataset File: c:\elandata\Dataset\091223\1201994290.067

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Li	7	0.008	ug/L	26.193	55	0.000
⌊>	Sc	45		ug/L		949432	949431.949
⌈>	Lu	175		ug/L		616488	616487.837
⌊	U	238	-0.003	ug/L	4.541	211	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈	Li	7					
⌊>	Sc	45		100.5			
⌈>	Lu	175		92.0			
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1201994291
Sample Date/Time: Wednesday, December 23, 2009 18:58:45
Sample Type:
Sample Description: LANL 6020 MS
Number of Replicates: 3
Batch ID: 932310|1|baj
Method File: c:\elandata\Method\li and u.mth
Dataset File: c:\elandata\Dataset\091223\1201994291.068

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	60.254	ug/L	4.080	118040	0.121
>	Sc	45		ug/L		973856	973855.836
>	Lu	175		ug/L		627086	627085.935
	U	238	55.995	ug/L	1.103	3226459	5.145

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
>	Sc	45		103.1			
>	Lu	175		93.6			
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1201994292
Sample Date/Time: Wednesday, December 23, 2009 19:01:00
Sample Type:
Sample Description: LANL 6020 SDILT
Number of Replicates: 3
Batch ID: 932310|5|baj
Method File: c:\elandata\Method\li and u.mth
Dataset File: c:\elandata\Dataset\091223\1201994292.069

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Li	7	0.022	ug/L	6.775	81	0.000
⌊>	Sc	45		ug/L		950467	950466.647
⌈>	Lu	175		ug/L		636329	636328.843
⌊	U	238	0.014	ug/L	0.261	1204	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈	Li	7					
⌊>	Sc	45		100.6			
⌈>	Lu	175		95.0			
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Wednesday, December 23, 2009 19:03:16
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li and u.mth
Dataset File: c:\elandata\Dataset\091223\QC Std 6.070

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	50.782	ug/L	8.249	101970	0.102
>	Sc	45		ug/L		1001430	1001429.968
>	Lu	175		ug/L		670467	670467.331
	U	238	49.355	ug/L	8.837	3032311	4.535

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7	101.563				
>	Sc	45		106.0			
>	Lu	175		100.1			
	U	238	98.710				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Wednesday, December 23, 2009 19:05:33
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li and u.mth
Dataset File: c:\elandata\Dataset\091223\QC Std 7.071

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	0.012	ug/L	48.531	61	0.000
>	Sc	45		ug/L		942436	942435.622
>	Lu	175		ug/L		642126	642126.078
	U	238	0.010	ug/L	4.021	955	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
>	Sc	45		99.7			
>	Lu	175		95.9			
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

==========
Method Name: WATER
Method Description: 7470A, 245.2, ILM04 ANALYST ETL
Element: Hg

Date: 12/23/2009
Technique:FI-MHS
Calibration Type:
Hg, Calc. Intercept : Linear
Wavelength: 253.7 nm
Sample Info Name: 122309W1.SIF Results Data Set Name: 122309W1

==========
Element: Hg Seq. No.: 1 AS Loc.: 1 Date: 12/23/2009
Sample ID: Calib Blank

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1			0.0033	0.0033	08:16:29	No
2			0.0031	0.0031	08:17:04	No
Mean:			0.0032			
SD :			0.0002			
%RSD:			5.1163			

Auto-zero performed.

==========
Element: Hg Seq. No.: 2 AS Loc.: 2 Date: 12/23/2009
Sample ID: S0.2

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1			0.0023	0.0055	08:18:26	No
2			0.0021	0.0053	08:19:00	No
Mean:			0.0022			
SD :			0.0001			
%RSD:			6.5442			

[Hg] Standard number 1 applied. [0.200]
Correlation Coefficient: 1.00000 Slope: 0.01091
Intercept : 0.00000

==========
Element: Hg Seq. No.: 3 AS Loc.: 3 Date: 12/23/2009
Sample ID: S0.5

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1			0.0035	0.0067	08:20:23	No
2			0.0034	0.0066	08:20:58	No
Mean:			0.0034			
SD :			0.0000			
%RSD:			0.6613			

[Hg] Standard number 2 applied. [0.500]
Correlation Coefficient: 0.96456 Slope: 0.00669
Intercept : 0.00032

==========
Element: Hg Seq. No.: 4 AS Loc.: 4 Date: 12/23/2009
Sample ID: S2.0

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1			0.0157	0.0189	08:22:22	No
2			0.0155	0.0187	08:22:57	No
Mean:			0.0156			
SD :			0.0001			
%RSD:			0.7915			

[Hg] Standard number 3 applied. [2.000]

Correlation Coefficient: 0.99808 Slope: 0.00772
Intercept : 0.00010

==========

Element: Hg Seq. No.: 5 AS Loc.: 5 Date: 12/23/2009
Sample ID: S5.0

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1			0.0401	0.0433	08:24:22	No
2			0.0399	0.0431	08:24:57	No
Mean:			0.0400			
SD :			0.0001			
%RSD:			0.3724			

[Hg] Standard number 4 applied. [5.000]
Correlation Coefficient: 0.99966 Slope: 0.00798
Intercept : -0.00004

==========

Element: Hg Seq. No.: 6 AS Loc.: 6 Date: 12/23/2009
Sample ID: S10

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1			0.0777	0.0809	08:26:24	No
2			0.0774	0.0806	08:26:59	No
Mean:			0.0775			
SD :			0.0002			
%RSD:			0.2896			

[Hg] Standard number 5 applied. [10.00]
Correlation Coefficient: 0.99982 Slope: 0.00778
Intercept : 0.00019

Calibration data for Hg

Standard ID	Mean Signal (Pk Height)	Entered Concentration (µg/L)	Calculated Concentration (µg/L)	Standard Deviation	%RSD
Calib Blank	0.0032	---	----	----	----
S0.2	0.0022	0.200	0.256	0.0001	6.5
S0.5	0.0034	0.500	0.419	0.0000	0.7
S2.0	0.0156	2.000	1.983	0.0001	0.8
S5.0	0.0400	5.000	5.120	0.0001	0.4
S10	0.0775	10.000	9.946	0.0002	0.3

Correlation Coefficient: 0.99982 Slope: 0.00778 Intercept: 0.0002

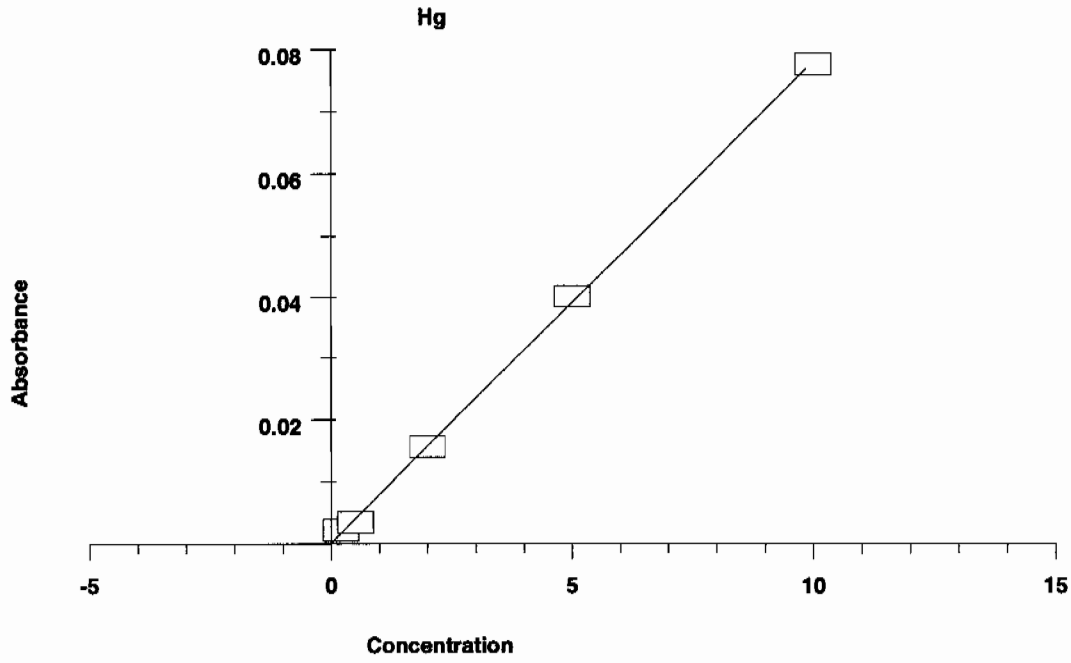

==========

Element: Hg Seq. No.: 7 AS Loc.: 9 Date: 12/23/2009
Sample ID: ICV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	5.032	5.032	0.0393	0.0425	08:28:27	No
2	4.968	4.968	0.0388	0.0420	08:29:02	No
Mean:	5.000	5.000	0.0391			
SD :	0.0455	0.0455	0.0004			
%RSD:	0.9	0.9	0.9052			

QC value within specified limits.

==========

Element: Hg Seq. No.: 8 AS Loc.: 10 Date: 12/23/2009
Sample ID: ICB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.059	-0.059	-0.0003	0.0029	08:30:24	No
2	-0.058	-0.058	-0.0003	0.0029	08:30:59	No
Mean:	-0.058	-0.058	-0.0003			
SD :	0.0009	0.0009	0.0000			
%RSD:	1.6	1.6	2.7603			

QC value within specified limits.

==========

Element: Hg Seq. No.: 9 AS Loc.: 11 Date: 12/23/2009
Sample ID: CRDL

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.144	0.144	0.0013	0.0045	08:32:22	No
2	0.142	0.142	0.0013	0.0045	08:32:57	No
Mean:	0.143	0.143	0.0013			
SD :	0.0013	0.0013	0.0000			
%RSD:	0.9	0.9	0.7879			

QC value within specified limits.

==========

Element: Hg Seq. No.: 10 AS Loc.: 7 Date: 12/23/2009
Sample ID: CCV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	4.908	4.908	0.0384	0.0416	08:34:22	No
2	4.882	4.882	0.0382	0.0414	08:34:56	No
Mean:	4.895	4.895	0.0383			
SD :	0.0183	0.0183	0.0001			
%RSD:	0.4	0.4	0.3719			

QC value within specified limits.

==========

Element: Hg Seq. No.: 11 AS Loc.: 8 Date: 12/23/2009
Sample ID: CCB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.044	-0.044	-0.0002	0.0031	08:36:24	No
2	-0.050	-0.050	-0.0002	0.0030	08:36:59	No
Mean:	-0.047	-0.047	-0.0002			
SD :	0.0044	0.0044	0.0000			
%RSD:	9.4	9.4	19.6610			

QC value within specified limits.

==========

Element: Hg Seq. No.: 12 AS Loc.: 12 Date: 12/23/2009
Sample ID: 1202000160|i||934864|MB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.047	-0.047	-0.0002	0.0030	08:38:25	No
2	-0.075	-0.075	-0.0004	0.0028	08:38:59	No
Mean:	-0.061	-0.061	-0.0003			
SD :	0.0192	0.0192	0.0001			
%RSD:	31.4	31.4	52.6281			

==========

Element: Hg Seq. No.: 13 AS Loc.: 13 Date: 12/23/2009
Sample ID: 1202000161|i|||LCS

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	2.025	2.025	0.0159	0.0191	08:40:23	No
2	2.019	2.019	0.0159	0.0191	08:40:57	No
Mean:	2.022	2.022	0.0159			
SD :	0.0038	0.0038	0.0000			
%RSD:	0.2	0.2	0.1836			

==========

Element: Hg Seq. No.: 14 AS Loc.: 14 Date: 12/23/2009
Sample ID: 242751001|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.052	-0.052	-0.0002	0.0030	08:42:23	No
2	-0.053	-0.053	-0.0002	0.0030	08:42:58	No
Mean:	-0.053	-0.053	-0.0002			
SD :	0.0009	0.0009	0.0000			
%RSD:	1.7	1.7	3.1256			

==========

Element: Hg Seq. No.: 15 AS Loc.: 15 Date: 12/23/2009
Sample ID: 242751002|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.061	-0.061	-0.0003	0.0029	08:44:24	No
2	-0.058	-0.058	-0.0003	0.0029	08:44:59	No
Mean:	-0.059	-0.059	-0.0003			
SD :	0.0017	0.0017	0.0000			
%RSD:	2.9	2.9	5.0043			

Element: Hg Seq. No.: 16 AS Loc.: 16 Date: 12/23/2009
Sample ID: 242782001|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.113	-0.113	-0.0007	0.0025	08:46:26	No
2	-0.127	-0.127	-0.0008	0.0024	08:47:01	No
Mean:	-0.120	-0.120	-0.0007			
SD :	0.0096	0.0096	0.0001			
%RSD:	8.0	8.0	10.0226			

Element: Hg Seq. No.: 17 AS Loc.: 17 Date: 12/23/2009
Sample ID: 242782002|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.095	-0.095	-0.0005	0.0027	08:48:26	No
2	-0.111	-0.111	-0.0007	0.0025	08:49:01	No
Mean:	-0.103	-0.103	-0.0006			
SD :	0.0113	0.0113	0.0001			
%RSD:	11.0	11.0	14.4762			

Element: Hg Seq. No.: 18 AS Loc.: 18 Date: 12/23/2009
Sample ID: 242940001|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.084	-0.084	-0.0005	0.0027	08:50:22	No
2	-0.102	-0.102	-0.0006	0.0026	08:50:57	No
Mean:	-0.093	-0.093	-0.0005			
SD :	0.0126	0.0126	0.0001			
%RSD:	13.5	13.5	18.3806			

Element: Hg Seq. No.: 19 AS Loc.: 19 Date: 12/23/2009
Sample ID: 242940002|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.073	-0.073	-0.0004	0.0028	08:52:18	No
2	-0.099	-0.099	-0.0006	0.0026	08:52:52	No
Mean:	-0.086	-0.086	-0.0005			
SD :	0.0177	0.0177	0.0001			
%RSD:	20.6	20.6	28.9240			

Element: Hg Seq. No.: 20 AS Loc.: 20 Date: 12/23/2009
Sample ID: 243085001|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.078	-0.078	-0.0004	0.0028	08:54:14	No
2	-0.090	-0.090	-0.0005	0.0027	08:54:49	No
Mean:	-0.084	-0.084	-0.0005			
SD :	0.0084	0.0084	0.0001			

%RSD: 10.1 10.1 14.2857

==========

Element: Hg Seq. No.: 21 AS Loc.: 21 Date: 12/23/2009
Sample ID: 243108001|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.108	-0.108	-0.0006	0.0026	08:56:11	No
2	-0.097	-0.097	-0.0006	0.0026	08:56:46	No
Mean:	-0.102	-0.102	-0.0006			
SD :	0.0078	0.0078	0.0001			
%RSD:	7.7	7.7	10.0946			

==========

Element: Hg Seq. No.: 22 AS Loc.: 7 Date: 12/23/2009
Sample ID: CCV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	5.012	5.012	0.0392	0.0424	08:58:10	No
2	5.012	5.012	0.0392	0.0424	08:58:46	No
Mean:	5.012	5.012	0.0392			
SD :	0.0004	0.0004	0.0000			
%RSD:						

QC value within specified limits.

==========

Element: Hg Seq. No.: 23 AS Loc.: 8 Date: 12/23/2009
Sample ID: CCB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.091	-0.091	-0.0005	0.0027	09:00:14	No
2	-0.103	-0.103	-0.0006	0.0026	09:00:49	No
Mean:	-0.097	-0.097	-0.0006			
SD :	0.0079	0.0079	0.0001			
%RSD:	8.2	8.2	10.9631			

QC value within specified limits.

==========

Element: Hg Seq. No.: 24 AS Loc.: 22 Date: 12/23/2009
Sample ID: 1202000162|i|||DUP

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.097	-0.097	-0.0006	0.0026	09:02:14	No
2	-0.106	-0.106	-0.0006	0.0026	09:02:49	No
Mean:	-0.102	-0.102	-0.0006			
SD :	0.0063	0.0063	0.0000			
%RSD:	6.2	6.2	8.2058			

==========

Element: Hg Seq. No.: 25 AS Loc.: 23 Date: 12/23/2009
Sample ID: 1202000163|i|||MS

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	2.075	2.075	0.0163	0.0195	09:04:13	No
2	2.071	2.071	0.0163	0.0195	09:04:48	No
Mean:	2.073	2.073	0.0163			
SD :	0.0027	0.0027	0.0000			
%RSD:	0.1	0.1	0.1303			

==========

Element: Hg Seq. No.: 26 AS Loc.: 24 Date: 12/23/2009
Sample ID: 1202000164|5||SDILT

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.157	-0.157	-0.0010	0.0022	09:06:12	No
2	-0.159	-0.159	-0.0010	0.0022	09:06:47	No
Mean:	-0.158	-0.158	-0.0010			
SD :	0.0016	0.0016	0.0000			
%RSD:	1.0	1.0	1.1798			

Element: Hg Seq. No.: 27 AS Loc.: 25 Date: 12/23/2009
Sample ID: 243108002|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.117	-0.117	-0.0007	0.0025	09:08:11	No
2	-0.128	-0.128	-0.0008	0.0024	09:08:46	No
Mean:	-0.122	-0.122	-0.0008			
SD :	0.0078	0.0078	0.0001			
%RSD:	6.4	6.4	7.9708			

Element: Hg Seq. No.: 28 AS Loc.: 26 Date: 12/23/2009
Sample ID: 1202000186|i||934874|MB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.130	-0.130	-0.0008	0.0024	09:10:10	No
2	-0.133	-0.133	-0.0008	0.0024	09:10:44	No
Mean:	-0.131	-0.131	-0.0008			
SD :	0.0019	0.0019	0.0000			
%RSD:	1.4	1.4	1.7375			

Element: Hg Seq. No.: 29 AS Loc.: 27 Date: 12/23/2009
Sample ID: 1202000187|i|||LCS

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	2.071	2.071	0.0163	0.0195	09:12:11	No
2	2.054	2.054	0.0162	0.0194	09:12:45	No
Mean:	2.063	2.063	0.0162			
SD :	0.0125	0.0125	0.0001			
%RSD:	0.6	0.6	0.6001			

Element: Hg Seq. No.: 30 AS Loc.: 28 Date: 12/23/2009
Sample ID: 242538001|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	1.931	1.931	0.0152	0.0184	09:14:11	No
2	1.724	1.724	0.0136	0.0168	09:14:46	No
Mean:	1.827	1.827	0.0144			
SD :	0.1464	0.1464	0.0011			
%RSD:	8.0	8.0	7.9026			

Element: Hg Seq. No.: 31 AS Loc.: 29 Date: 12/23/2009
Sample ID: 1202000188|i|||DUP

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	1.687	1.687	0.0133	0.0165	09:16:12	No
2	1.648	1.648	0.0130	0.0162	09:16:47	No
Mean:	1.668	1.668	0.0132			
SD :	0.0274	0.0274	0.0002			

%RSD: 1.6 1.6 1.6209

==========

Element: Hg Seq. No.: 32 AS Loc.: 30 Date: 12/23/2009
Sample ID: 1202000189|i|||MS

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	3.546	3.546	0.0278	0.0310	09:18:14	No
2	3.522	3.522	0.0276	0.0308	09:18:49	No
Mean:	3.534	3.534	0.0277			
SD :	0.0169	0.0169	0.0001			
%RSD:	0.5	0.5	0.4751			

==========

Element: Hg Seq. No.: 33 AS Loc.: 31 Date: 12/23/2009
Sample ID: 1202000190|i|5||SDILT

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.250	0.250	0.0021	0.0053	09:20:16	No
2	0.239	0.239	0.0020	0.0053	09:20:51	No
Mean:	0.245	0.245	0.0021			
SD :	0.0081	0.0081	0.0001			
%RSD:	3.3	3.3	3.0045			

==========

Element: Hg Seq. No.: 34 AS Loc.: 7 Date: 12/23/2009
Sample ID: CCV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	5.839	5.839	0.0456	0.0488	09:22:18	No
2	5.843	5.843	0.0456	0.0488	09:22:54	No
Mean:	5.841	5.841	0.0456			
SD :	0.0033	0.0033	0.0000			
%RSD:						

QC failed, value greater than upper limit for Hg.
Current analysis method being continued.

==========

Element: Hg Seq. No.: 35 AS Loc.: 8 Date: 12/23/2009
Sample ID: CCB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.101	-0.101	-0.0006	0.0026	09:24:22	No
2	-0.108	-0.108	-0.0006	0.0026	09:24:56	No
Mean:	-0.104	-0.104	-0.0006			
SD :	0.0053	0.0053	0.0000			
%RSD:	5.1	5.1	6.6100			

QC value within specified limits.

==========

Element: Hg Seq. No.: 36 AS Loc.: 32 Date: 12/23/2009
Sample ID: 242538002|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.013	-0.013	0.0001	0.0033	09:26:19	No
2	-0.042	-0.042	-0.0001	0.0031	09:26:54	No
Mean:	-0.027	-0.027	0.0000			
SD :	0.0206	0.0206	0.0002			
%RSD:	75.3	75.3	757.1831			

==========

Element: Hg Seq. No.: 37 AS Loc.: 33 Date: 12/23/2009

Miscellaneous

Prep LogBook

Analyst: TXB3 Verified by:_____

Batch: 934863

Lab SOP: GL-MA-E-010 REV# 23

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1202000161	WHG091222-13	.2	mL
MS	1202000163	WHG091222-13	.2	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Ph	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1202000160		SW846 7470A Prep	22-DEC-2009 15:05	<2	20 mL	20 mL	1	WATER
LCS	1202000161		SW846 7470A Prep	22-DEC-2009 15:05	<2	20 mL	20 mL	1	WATER
SAMPLE	242751001		SW846 7470A Prep	22-DEC-2009 15:05	<2	20 mL	20 mL	1	WATER
SAMPLE	242751002		SW846 7470A Prep	22-DEC-2009 15:05	<2	20 mL	20 mL	1	WATER
SAMPLE	242782001		SW846 7470A Prep	22-DEC-2009 15:05	<2	20 mL	20 mL	1	WATER
SAMPLE	242782002		SW846 7470A Prep	22-DEC-2009 15:05	<2	20 mL	20 mL	1	WATER
SAMPLE	242940001		SW846 7470A Prep	22-DEC-2009 15:05	<2	20 mL	20 mL	1	WATER
SAMPLE	242940002		SW846 7470A Prep	22-DEC-2009 15:05	<2	20 mL	20 mL	1	WATER
SAMPLE	243085001		SW846 7470A Prep	22-DEC-2009 15:05	<2	20 mL	20 mL	1	WATER
SAMPLE	243108001		SW846 7470A Prep	22-DEC-2009 15:05	<2	20 mL	20 mL	1	WATER
DUP	1202000162	243108001	SW846 7470A Prep	22-DEC-2009 15:05	<2	20 mL	20 mL	1	WATER
MS	1202000163	243108001	SW846 7470A Prep	22-DEC-2009 15:05	<2	20 mL	20 mL	1	WATER
SDILT	1202000164	243108001	SW846 7470A Prep	22-DEC-2009 15:05	<2	20 mL	20 mL	1	WATER
SAMPLE	243108002		SW846 7470A Prep	22-DEC-2009 15:05	<2	20 mL	20 mL	1	WATER

Reagent/Solvent Lot ID	Amount	Description
1176183	1 mL	Sulfuric Acid, Concentrated
1240182-1	.5 mL	NITRIC ACID
1234385-C	1.5 mL	5% Potassium Persulfate
1244904-C	3 mL	5% KMnO4 solution
1206350-C	1 mL	Hg reducing agent
WHG091222-06	500 uL	Mercury Working 2nd Source 5.0/ICV
WHG091222-01	20 uL	Mercury Working 1st Source CAL 0.2/CRA
WHG091222-02	50 uL	Mercury Working 1st Source CAL 0.5
WHG091222-05	1 mL	Mercury Working 1st Source CAL 10.0
WHG091222-03	200 uL	Mercury Working 1st Source CAL 2.0
WHG091222-04	500 uL	Mercury Working 1st Source CAL 5.0/CCV

Comments: Digestion Start Date: 22-DEC-09 15:05
Digestion End Date: 22-DEC-09 17:05

Prep LogBook

Analyst: BCD1 Verified by:_____

Batch: 932267

Lab SOP: GL-MA-E-006 REV# 9

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1201994204	UI091124-01	.25	mL
LCS	1201994204	UI091124-06	.25	mL
MS	1201994206	UI091124-01	.25	mL
MS	1201994206	UI091124-06	.25	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Ph	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1201994203		SW846 3005A	15-DEC-2009 09:45	<2	50 mL	50 mL	1	WATER
LCS	1201994204		SW846 3005A	15-DEC-2009 09:45	<2	50 mL	50 mL	1	WATER
SAMPLE	242745001		SW846 3005A	15-DEC-2009 09:45	<2	50 mL	50 mL	1	WATER
SAMPLE	242749001		SW846 3005A	15-DEC-2009 09:45	<2	50 mL	50 mL	1	WATER
SAMPLE	242751001		SW846 3005A	15-DEC-2009 09:45	<2	50 mL	50 mL	1	WATER
DUP	1201994205	242751001	SW846 3005A	15-DEC-2009 09:45	<2	50 mL	50 mL	1	WATER
MS	1201994206	242751001	SW846 3005A	15-DEC-2009 09:45	<2	50 mL	50 mL	1	WATER
SDILT	1201994207	242751001	SW846 3005A	15-DEC-2009 09:45	<2	50 mL	50 mL	1	WATER
SAMPLE	242751002		SW846 3005A	15-DEC-2009 09:45	<2	50 mL	50 mL	1	WATER

Reagent/Solvent Lot ID	Amount	Description
1238343	2.5 mL	HYDROCHLORIC ACID
1238345	1 mL	Nitric Acid CONC.

Comments:

Prep LogBook

Analyst: BCD1 Verified by:_____

Batch: 932309

Lab SOP: GL-MA-E-006 REV# 9

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1201994289	UI091124-A00	.5	mL
LCS	1201994289	UI091124-B	.5	mL
MS	1201994291	UI090930-A	.5	mL
MS	1201994291	UI090930-B	.5	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Ph	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1201994288		SW846 3005A	15-DEC-2009 10:02	<2	50 mL	50 mL	1	WATER
LCS	1201994289		SW846 3005A	15-DEC-2009 10:02	<2	50 mL	50 mL	1	WATER
SAMPLE	242745001		SW846 3005A	15-DEC-2009 10:02	<2	50 mL	50 mL	1	WATER
SAMPLE	242749001		SW846 3005A	15-DEC-2009 10:02	<2	50 mL	50 mL	1	WATER
SAMPLE	242751001		SW846 3005A	15-DEC-2009 10:02	<2	50 mL	50 mL	1	WATER
SAMPLE	242751002		SW846 3005A	15-DEC-2009 10:02	<2	50 mL	50 mL	1	WATER
DUP	1201994290	242751002	SW846 3005A	15-DEC-2009 10:02	<2	50 mL	50 mL	1	WATER
MS	1201994291	242751002	SW846 3005A	15-DEC-2009 10:02	<2	50 mL	50 mL	1	WATER
SDILT	1201994292	242751002	SW846 3005A	15-DEC-2009 10:02	<2	50 mL	50 mL	1	WATER

Reagent/Solvent Lot ID	Amount	Description
1238343	2.5 mL	HYDROCHLORIC ACID
1238345	1 mL	Nitric Acid CONC.

Comments:

Standard Logbook

Serial ID:	UHG1167639-01	**Opened:**	13-AUG-09	**Amount :**	125 mL
Name:	MHGSTOCK1	**Received:**	13-AUG-09	**Catalog Number :**	PLHG4-2Y
Type:	Source Material	**Expires:**	13-AUG-10	**Lot Number :**	15-37HG
Employee:	Bryan Davis			**Solvent :**	10% HNO3
Supplier:	Spex				
Description:	Mercury Source Standard #1 1,000 mg/L				
Comments:	None				

Analyte	Concentration	Analyte	Concentration
Mercury	1000 mg/L		

Serial ID:	UHG1167641-02	**Opened:**	13-AUG-09	**Amount :**	100 mL
Name:	MHGSTOCK2	**Received:**	13-AUG-09	**Catalog Number :**	AHG1KN-100
Type:	Source Material	**Expires:**	13-AUG-10	**Lot Number :**	4905530
Employee:	Bryan Davis			**Solvent :**	3% HNO3
Supplier:	Ricca Chemical Company				
Description:	Mercury Source Standard #2 1,000 mg/L				
Comments:	None				

Analyte	Concentration	Analyte	Concentration
Mercury	999.7 mg/L		

Serial ID:	UI090422-40	**Opened:**	04-MAY-09	**Amount :**	500 mL
Name:	TRACE ICP ICSA SOLN A	**Received:**	22-APR-09	**Catalog Number :**	160005-01-03
Type:	Source Material	**Expires:**	04-MAY-10	**Lot Number :**	1013357
Employee:	Helen Camello			**Solvent :**	5%HNO3
Supplier:	o2si				
Description:	TRACE ICP ICSA SOLN A mg/L+/-0.5%IN5%HNO3				
Comments:	None				

Analyte	Concentration	Analyte	Concentration
Aluminum	5000 mg/L	Calcium	5000 mg/L
Iron	2000 mg/L	Magnesium	5000 mg/L

Serial ID:	UI090610-03	**Opened:**	10-JUN-09	**Catalog Number :**	060074-06-01
Name:	ICPMS Tungsten - 10mg/L S	**Received:**	10-JUN-09	**Lot Number :**	1016338
Type:	Source Material	**Expires:**	10-JUN-10	**Solvent :**	2% HNO3
Employee:	Paul Boyd				
Supplier:	O2SI				
Description:	ICPMS Tungsten standard SPIKE - 10mg/L				
Comments:	None				

Analyte	Concentration	Analyte	Concentration
Tungsten	10 mg/L		

Standard Logbook

Serial ID: UI090701-09 **Opened:** 01-JUL-09 **Amount :** 250 mL
Name: ICP-MS CRDL Master #1 **Received:** 01-JUL-09 **Catalog Number :** 160044-09-02
Type: Source Material **Expires:** 01-JUL-10 **Lot Number :** 1016477
Employee: Paul Boyd **Solvent :** +/- 0.5% IN 2% HNO3
Supplier: 02SI
Description: ICPMS CRDL Master Soln #1
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	15 mg/L	Arsenic	5 mg/L
Barium	2 mg/L	Beryllium	.5 mg/L
Boron	15 mg/L	Cadmium	1 mg/L
Calcium	100 mg/L	Chromium	3 mg/L
Cobalt	1 mg/L	Copper	1 mg/L
Iron	25 mg/L	Lead	2 mg/L
Lithium	10 mg/L	Magnesium	15 mg/L
Manganese	5 mg/L	Nickel	2 mg/L
Phosphorous	50 mg/L	Potassium	300 mg/L
Selenium	5 mg/L	Sodium	250 mg/L
Strontium	10 mg/L	Thallium	1 mg/L
Thorium	1 mg/L	Uranium	.2 mg/L
Vanadium	10 mg/L	Zinc	10 mg/L

Serial ID: UI090701-10 **Opened:** 01-JUL-09 **Amount :** 250 mL
Name: ICP-MS CRDL Master #2 **Received:** 01-JUL-09 **Catalog Number :** 160044-08-02
Type: Source Material **Expires:** 01-JUL-10 **Lot Number :** 1016476
Employee: Paul Boyd **Solvent :** +/- 0.5% IN 2% HNO3
Supplier: 02SI
Description: ICPMS CRDL Soln #2
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	2 mg/L	Molybdenum	.5 mg/L
Silver	1 mg/L	Tin	2 mg/L
Titanium	10 mg/L	Tungsten	5 mg/L
Zirconium	2 mg/L		

Serial ID: UI090701-40 **Opened:** 01-JUL-09 **Amount :** 500 mL
Name: TRACE ICP Stock PQL St **Received:** 30-JUN-09 **Catalog Number :** 160543-01-03
Type: Source Material **Expires:** 01-JUL-10 **Lot Number :** 1016475
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3+TrHF
Supplier: 02si
Description: TRACE ICP Stock PQL Standard
Comments: None

Analyte	Concentration	Analyte	Concentration

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Aluminum	100 mg/L	Antimony	5 mg/L
Arsenic	15 mg/L	Barium	2.5 mg/L
Beryllium	2.5 mg/L	Boron	25 mg/L
Cadmium	2.5 mg/L	Calcium	100 mg/L
Chromium	2.5 mg/L	Cobalt	2.5 mg/L
Copper	5 mg/L	Iron	50 mg/L
Lead	5 mg/L	Magnesium	150 mg/L
Manganese	5 mg/L	Molybdenum	5 mg/L
Nickel	2.5 mg/L	Phosphorous	75 mg/L
Potassium	75 mg/L	Selenium	15 mg/L
Silicon	50 mg/L	Silver	2.5 mg/L
Sodium	150 mg/L	Strontium	2.5 mg/L
Sulfur	50 mg/L	Thallium	10 mg/L
Tin	5 mg/L	Titanium	2.5 mg/L
Uranium	25 mg/L	Vanadium	2.5 mg/L
Zinc	5 mg/L		

Serial ID: UI090828-42 **Opened:** 16-SEP-09 **Amount :** 500 mL
Name: TRACE ICP Na-1000SOUR **Received:** 27-AUG-09 **Catalog Number :** 060011-02-03
Type: Source Material **Expires:** 16-SEP-10 **Lot Number :** 1017098
Employee: Helen Camello **Solvent :** 1%HNO3
Supplier: 02SI
Description: Sodium 1000 +/- 3 ug/mL in 1% HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Sodium	1000 ug/mL		

Serial ID: UI090925-40 **Opened:** 23-OCT-09 **Amount :** 500 mL
Name: SECOND SOURCE STD -1 **Received:** 25-SEP-09 **Catalog Number :** SGELMX38-500N
Type: Source Material **Expires:** 30-SEP-10 **Lot Number :** 4909129
Employee: Helen Camello **Solvent :** 5%HNO3
Supplier: SPECTRO PURE
Description: SECOND SOURCE STD #1A 5%HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Arsenic	100 mg/L
Barium	100 mg/L	Boron	100 mg/L
Cadmium	100 mg/L	Calcium	1000 mg/L
Chromium	100 mg/L	Cobalt	100 mg/L
Copper	100 mg/L	Iron	1000 mg/L
Lead	100 mg/L	Phosphorous	500 mg/L
Potassium	500 mg/L	Selenium	500 mg/L
Sodium	500 mg/L	Strontium	100 mg/L

Standard Logbook

Serial ID:	UI090925-41	**Opened:**	23-OCT-09	**Amount :**	500 mL
Name:	SECOND SOURCE STD -1	**Received:**	25-SEP-09	**Catalog Number :**	SGELMX39-500B
Type:	Source Material	**Expires:**	30-SEP-10	**Lot Number :**	4909130
Employee:	Helen Camello			**Solvent :**	5%HNO3,TR.HF
Supplier:	SPECTRO PURE				
Description:	SECOND SOURCE STD #1B				
Comments:	None				

Analyte	Concentration	Analyte	Concentration
Antimony	100 mg/L	Beryllium	50 mg/L
Magnesium	1000 mg/L	Manganese	100 mg/L
Molybdenum	100 mg/L	Nickel	100 mg/L
Silver	50 mg/L	Sulfur	500 mg/L
Thallium	100 mg/L	Tin	100 mg/L
Titanium	100 mg/L	Uranium	100 mg/L
Vanadium	100 mg/L	Zinc	100 mg/L

Serial ID:	UI090930-A	**Opened:**	30-SEP-09	**Catalog Number :**	160067-02
Name:	ICP-MS DOE Liquid SPIKE	**Received:**	28-SEP-09	**Lot Number :**	1017141
Type:	Source Material	**Expires:**	30-SEP-10		
Employee:	Francena Armstrong	**Verified:**	21-NOV-08		
Supplier:	O2Si				
Description:	ICP-MS DOE liquid Spike Solution A				
Comments:	None				

Analyte	Concentration	Analyte	Concentration
Aluminum	200 mg/L	Arsenic	8 mg/L
Barium	5 mg/L	Beryllium	5 mg/L
Boron	10 mg/L	Cadmium	1 mg/L
Calcium	200 mg/L	Chromium	5 mg/L
Cobalt	5 mg/L	Copper	5 mg/L
Iron	200 mg/L	Lead	4 mg/L
Lithium	5 mg/L	Magnesium	200 mg/L
Manganese	5 mg/L	Nickel	5 mg/L
Phosphorus, Total as P	200 mg/L	Potassium	200 mg/L
Selenium	2 mg/L	Silicon	200 mg/L
Sodium	200 mg/L	Strontium	5 mg/L
Thallium	10 mg/L	Thorium	5 mg/L
Total Uranium	5 mg/L	Uranium	5 mg/L
Uranium-235	.0364 mg/L	Uranium-238	4.96 mg/L
Vanadium	5 mg/L	Zinc	5 mg/L

Standard Logbook

Serial ID: UI090930-B **Opened:** 30-SEP-09 **Catalog Number :** 160067-02
Name: ICP-MS DOE Liquid SPIKE **Received:** 28-SEP-09 **Lot Number :** 1017141
Type: Source Material **Expires:** 30-SEP-10
Employee: Francena Armstrong **Verified:** 21-NOV-08
Supplier: O2Si
Description: ICP-MS DOE Liquid Spike Solution B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	20 mg/L	Molybdenum	5 mg/L
Silver	5 mg/L	Tin	5 mg/L
Titanium	5 mg/L	Zirconium	5 mg/L

Serial ID: UI091015-42 **Opened:** 28-OCT-09 **Amount :** 500 mL
Name: SI 1000mg/L **Received:** 15-OCT-09 **Catalog Number :** 060014-02-03
Type: Source Material **Expires:** 28-OCT-10 **Lot Number :** 1017581
Employee: Helen Camello **Solvent :** 0.3%H2O(NH4)2SiF6
Supplier: o2si
Description: Silicon 1000mg/L+/-0.3%in H2O(NH4)2SiF6
Comments: None

Analyte	Concentration	Analyte	Concentration
Silica	2139 mg/L	Silicon	1000 mg/L

Serial ID: UI091102-40 **Opened:** 16-NOV-09 **Amount :** 500 mL
Name: TRACE CALSTD#1A SOUF **Received:** 02-NOV-09 **Catalog Number :** HP2270-1-500
Type: Source Material **Expires:** 31-OCT-10 **Lot Number :** 0930215
Employee: Helen Camello **Solvent :** HNO3
Supplier: Environmental Express
Description: Trace Calibration Std #1A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	2000 mg/L	Arsenic	200 mg/L
Barium	200 mg/L	Beryllium	200 mg/L
Boron	200 mg/L	Cadmium	200 mg/L
Calcium	2000 mg/L	Chromium	200 mg/L
Cobalt	200 mg/L	Copper	200 mg/L
Iron	2000 mg/L	Lead	200 mg/L
Magnesium	2000 mg/L	Manganese	200 mg/L
Nickel	200 mg/L	Phosphorous	1000 mg/L
Potassium	2000 mg/L	Selenium	200 mg/L
Sodium	2000 mg/L	Strontium	200 mg/L
Thallium	200 mg/L	Uranium	200 mg/L
Vanadium	200 mg/L	Zinc	200 mg/L

Standard Logbook

Serial ID: UI091102-41 **Opened:** 16-NOV-09 **Amount :** 500 mL
Name: TRACE CALSTD#1B SOUF **Received:** 02-NOV-09 **Catalog Number :** HP2270-2-500
Type: Source Material **Expires:** 31-OCT-10 **Lot Number :** 0930216
Employee: Helen Camello **Solvent :** HNO3
Supplier: Environmental Express
Description: Trace Calibration Standard #1B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	200 mg/L	Molybdenum	200 mg/L
Silver	200 mg/L	Sulfur	400 mg/L
Tin	200 mg/L	Titanium	200 mg/L

Serial ID: UI091102-42 **Opened:** 17-NOV-09 **Amount :** 200 mL
Name: SILICON **Received:** 02-NOV-09 **Catalog Number :** HP100050-4F
Type: Source Material **Expires:** 17-NOV-10 **Lot Number :** 0921924
Employee: Helen Camello **Solvent :** H20/tr HF
Supplier: ENVIRNMENTAL EXPRESS
Description: SILICON 1000mg/L H20/tr HF
Comments: None

Analyte	Concentration	Analyte	Concentration
Silica	2139 mg/L	Silicon	1000 mg/L

Serial ID: UI091124-01 **Opened:** 24-NOV-09 **Lot Number :** 1017642
Name: METALSPIKE-1 **Received:** 24-NOV-09
Type: Source Material **Expires:** 24-NOV-10
Employee: Francena Armstrong
Supplier: OS2I
Description: Metals Spike Mix I
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 ug/mL	Arsenic	100 ug/mL
Barium	100 ug/mL	Beryllium	100 ug/mL
Boron	100 ug/mL	Cadmium	100 ug/mL
Calcium	1000 ug/mL	Cobalt	100 ug/mL
Iron	1000 ug/mL	Lead	100 ug/mL
Magnesium	1000 ug/mL	Phosphorous	100 ug/mL
Potassium	1000 ug/mL	Silver	100 ug/mL
Sodium	1000 ug/mL	Strontium	100 ug/mL

Standard Logbook

Serial ID: UI091124-06 **Opened:** 24-NOV-09 **Lot Number :** 1017643
Name: METALSPIKE-2 **Received:** 24-NOV-09
Type: Source Material **Expires:** 24-NOV-10
Employee: Francena Armstrong
Supplier: OS2I
Description: Metals Spike Mix II
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	100 ug/mL	Chromium	100 ug/mL
Copper	100 ug/mL	Manganese	100 ug/mL
Molybdenum	100 ug/mL	Nickel	100 ug/mL
Selenium	100 ug/mL	Silica	2141 ug/mL
Silicon	1000 ug/mL	Sulfur	1000 ug/mL
Thallium	100 ug/mL	Tin	100 ug/mL
Titanium	100 ug/mL	Uranium	100 ug/mL
Vanadium	100 ug/mL	Zinc	100 ug/mL

Serial ID: UI091124-A00 **Opened:** 24-NOV-09 **Catalog Number :** 160067-05
Name: ICP-MS ALL OTHER SPIKE **Received:** 24-NOV-09 **Lot Number :** 1017644
Type: Source Material **Expires:** 24-NOV-10
Employee: Francena Armstrong
Supplier: O2si
Description: ICP-MS SPIKE FOR ALL CLIENTS EXCEPT DOE CLIENTS (Solution A).
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	200 mg/L	Arsenic	5 mg/L
Barium	5 mg/L	Beryllium	5 mg/L
Bismuth	5 mg/L	Boron	10 mg/L
Cadmium	5 mg/L	Calcium	200 mg/L
Cesium	5 mg/L	Chromium	5 mg/L
Cobalt	5 mg/L	Copper	5 mg/L
Iron	200 mg/L	Lead	5 mg/L
Lithium	5 mg/L	Magnesium	200 mg/L
Manganese	5 mg/L	Nickel	5 mg/L
Phosphorous	200 mg/L	Potassium	200 mg/L
Selenium	5 mg/L	Sodium	200 mg/L
Strontium	5 mg/L	Thallium	5 mg/L
Thorium	5 mg/L	Uranium	5 mg/L
Uranium-235	.036 mg/L	Uranium-238	4.964 mg/L
Vanadium	5 mg/L	Zinc	5 mg/L

Standard Logbook

Serial ID: UI091124-B **Opened:** 24-NOV-09 **Catalog Number :** 160067-05
Name: ICP-MS ALL OTHER SPIKE **Received:** 24-NOV-09 **Lot Number :** 1017644
Type: Source Material **Expires:** 24-NOV-10
Employee: Francena Armstrong
Supplier: O2si
Description: MS SPIKE FOR ALL CLIENTS EXCEPT DOE CLIENTS (Solution B).
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	5 mg/L	Molybdenum	5 mg/L
Silver	5 mg/L	Tin	5 mg/L
Titanium	5 mg/L	Zirconium	5 mg/L

Serial ID: UI091130-48 **Opened:** 11-DEC-09 **Amount :** 1000 mL
Name: Trace ICP ICSA **Received:** 01-DEC-09 **Catalog Number :** 160005-02
Type: Source Material **Expires:** 11-DEC-10 **Lot Number :** 1018045
Employee: Helen Camello **Solvent :** 3% HCl + 1% HNO3
Supplier: o2si
Description: Trace ICP Interferent Check Standard A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 UG/L	Calcium	500000 UG/L
Iron	200000 UG/L	Magnesium	500000 UG/L

Serial ID: UI091211-40 **Opened:** 11-DEC-09 **Amount :** 500 mL
Name: ICP HIGH RANGE STD-A **Received:** 09-DEC-09 **Catalog Number :** 160211-05-03
Type: Source Material **Expires:** 11-DEC-10 **Lot Number :** 1017958
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3
Supplier: 02SI
Description: ICP HIGH RANGE STD SOLUTION A
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	10000 ug/L	Arsenic	10000 ug/L
Barium	15000 ug/L	Beryllium	3000 ug/L
Boron	5000 ug/L	Cadmium	10000 ug/L
Chromium	25000 ug/L	Cobalt	10000 ug/L
Copper	20000 ug/L	Lead	25000 ug/L
Manganese	10000 ug/L	Molybdenum	10000 ug/L
Nickel	10000 ug/L	Phosphorous	15000 ug/L
Potassium	300000 ug/L	Selenium	10000 ug/L
Silica	107000 ug/L	Silicon	50000 ug/L
Silver	1000 ug/L	Strontium	10000 ug/L
Sulfur	50000 ug/L	Thallium	10000 ug/L
Tin	10000 ug/L	Titanium	10000 ug/L

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Vanadium	10000 ug/L	Zinc	15000 ug/L

Serial ID: UI091211-41 **Opened:** 11-DEC-09 **Amount :** 500 mL
Name: ICP HIGH RANGE STD B **Received:** 09-DEC-09 **Catalog Number :** 160211-05-03
Type: Source Material **Expires:** 11-DEC-10 **Lot Number :** 1017958
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3
Supplier: 02SI
Description: ICP HIGH RANGE STD SOLUTION B
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 ug/L	Calcium	500000 ug/L
Iron	500000 ug/L	Magnesium	500000 ug/L
Sodium	500000 ug/L	Uranium	15000 ug/L

Serial ID: UI091212-11 **Opened:** 12-DEC-09 **Amount :** 1000 mL
Name: ICP-MS ICSA Master A **Received:** 12-DEC-09 **Catalog Number :** 160013-01-01L
Type: Source Material **Expires:** 12-DEC-10 **Lot Number :** 1015303
Employee: Paul Boyd **Solvent :** 2% HNO3
Supplier: 02SI
Description: ICP-MS ICSA Master A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Calcium	1000 mg/L
Carbon	2000 mg/L	Chloride	10000 mg/L
Iron	1000 mg/L	Magnesium	1000 mg/L
Molybdenum	20 mg/L	Phosphorous	1000 mg/L
Potassium	1000 mg/L	Sodium	1000 mg/L
Sulfur	1000 mg/L	Titanium	20 mg/L

Serial ID: UI091212-60 **Opened:** 12-DEC-09 **Amount :** .5 mL
Name: ICPMS High Range Standa **Received:** 12-DEC-09 **Catalog Number :** 160212-02-01
Type: Source Material **Expires:** 12-DEC-10 **Lot Number :** 1018064
Employee: Paul Boyd **Solvent :** 2%HNO3 + Tr HF
Supplier: O2SI
Description: Linear Range Standard A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	5000 mg/L	Arsenic	100 mg/L
Barium	250 mg/L	Beryllium	100 mg/L
Cadmium	100 mg/L	Calcium	5000 mg/L
Chromium	100 mg/L	Cobalt	100 mg/L

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Copper	100 mg/L	Iron	5000 mg/L
Lead	500 mg/L	Lithium	100 mg/L
Magnesium	5000 mg/L	Manganese	100 mg/L
Nickel	100 mg/L	Phosphorous	2500 mg/L
Potassium	5000 mg/L	Selenium	50 mg/L
Sodium	5000 mg/L	Strontium	100 mg/L
Thallium	50 mg/L	Thorium	250 mg/L
Uranium	500 mg/L	Vanadium	100 mg/L
Zinc	250 mg/L		

Serial ID: UI091212-61 **Opened:** 12-DEC-09 **Amount :** .5 mL
Name: ICPMS High Range Standa **Received:** 12-DEC-09 **Catalog Number :** 160212-02-01
Type: Source Material **Expires:** 12-DEC-10 **Lot Number :** 1018064
Employee: Paul Boyd **Solvent :** 2%HNO3 + Tr HF
Supplier: O2SI
Description: Linear Range Standard B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	25 mg/L	Molybdenum	100 mg/L
Silver	25 mg/L	Tin	100 mg/L
Tungsten	100 mg/L	Zirconium	50 mg/L

Serial ID: UI091217-06 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master A **Received:** 17-DEC-09 **Catalog Number :** 160055-01
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018209
Employee: Paul Boyd **Solvent :** +/- 0.5% in 5% HNO3 100 cm2
Supplier: 02SI
Description: ICPMS ICV/CCV SOLN A - 10ppm
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	2020 mg/L	Calcium	2000 mg/L
Iron	2000 mg/L	Magnesium	2000 mg/L
Phosphorous	2000 mg/L	Potassium	2000 mg/L
Sodium	2000 mg/L		

Serial ID: UI091217-07 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master B **Received:** 17-DEC-09 **Catalog Number :** 160054-02
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018210
Employee: Paul Boyd **Solvent :** +/- 0.5% in 5% HNO3 100 cm2
Supplier: 02SI
Description: ICPMS ICV/CCV Soln B - 10ppm
Comments: None

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Arsenic	20 mg/L	Barium	20 mg/L
Beryllium	20 mg/L	Boron	40 mg/L
Cadmium	20 mg/L	Chromium	20 mg/L
Cobalt	20 mg/L	Copper	20 mg/L
Lead	20 mg/L	Lithium	20 mg/L
Manganese	20 mg/L	Nickel	20 mg/L
Selenium	20 mg/L	Strontium	20 mg/L
Thallium	20 mg/L	Thorium	20 mg/L
Uranium	20 mg/L	Vanadium	20 mg/L
Zinc	20 mg/L		

Serial ID: UI091217-08 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master C **Received:** 17-DEC-09 **Catalog Number :** 160054-03
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018211
Employee: Paul Boyd **Solvent :** +/- 0.5% in 5% HNO3 100 cm2
Supplier: 02SI
Description: ICPMS ICV/CCV Soln C - 10ppm
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	20 mg/L	Molybdenum	20 mg/L
Silver	20 mg/L	Tin	20 mg/L
Titanium	20 mg/L	Tungsten	20 mg/L
Zirconium	20 mg/L		

Serial ID: UI091217-12 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICSAB Master B **Received:** 17-DEC-09 **Catalog Number :** 160033-02
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018212
Employee: Paul Boyd **Solvent :** +/- 0.5% in 2% HNO3
Supplier: 02SI
Description: ICPMS ICSAB Master B
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	2 mg/L	Barium	2 mg/L
Beryllium	2 mg/L	Boron	2 mg/L
Cadmium	2 mg/L	Chromium	2 mg/L
Cobalt	2 mg/L	Copper	2 mg/L
Lead	2 mg/L	Lithium	2 mg/L
Manganese	2 mg/L	Nickel	2 mg/L
Selenium	2 mg/L	Strontium	2 mg/L
Thallium	2 mg/L	Thorium	2 mg/L
Uranium	2 mg/L	Vanadium	2 mg/L
Zinc	2 mg/L		

Standard Logbook

Serial ID: UI091217-13 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICSAB Master C **Received:** 17-DEC-09 **Catalog Number :** 160033-03
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1016926
Employee: Paul Boyd **Solvent :** +/- 0.5% in 2% HNO3
Supplier: 02SI
Description: ICPMS ICSAB Master C
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	2 mg/L	Silver	2 mg/L
Tin	2 mg/L	Tungsten	2 mg/L
Zirconium	2 mg/L		

Serial ID: UMS090303-01 **Opened:** 03-MAR-09 **Amount :** 250 mL
Name: ICPMSCalSPIKEB **Received:** 03-MAR-09 **Catalog Number :** ZGEL-100-250
Type: Source Material **Expires:** 28-FEB-10 **Lot Number :** 14-81JB
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution B
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	10 mg/L	Barium	10 mg/L
Beryllium	10 mg/L	Boron	20 mg/L
Cadmium	10 mg/L	Chromium	10 mg/L
Cobalt	10 mg/L	Copper	10 mg/L
Lead	10 mg/L	Lithium	10 mg/L
Manganese	10 mg/L	Nickel	10 mg/L
Selenium	10 mg/L	Silver	10 mg/L
Strontium	10 mg/L	Thallium	10 mg/L
Thorium	10 mg/L	Uranium	10 mg/L
Vanadium	10 mg/L	Zinc	10 mg/L

Serial ID: UMS090303-02 **Opened:** 03-MAR-09 **Catalog Number :** ZGEL-102-250
Name: ICPMSCalSPIKEA **Received:** 03-MAR-09 **Lot Number :** 14-83JB
Type: Source Material **Expires:** 28-FEB-10
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Calcium	1000 mg/L
Iron	1000 mg/L	Magnesium	1000 mg/L
Phosphorous	1000 mg/L	Potassium	1000 mg/L
Sodium	1000 mg/L		

Standard Logbook

Serial ID: UMS090303-03 **Opened:** 03-MAR-09 **Amount :** 250 ml
Name: ICPMSCalSPIKEC **Received:** 03-MAR-09 **Catalog Number :** ZGEL-101-250
Type: Source Material **Expires:** 28-FEB-10 **Lot Number :** 15-199JB
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution C
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	10 mg/L	Molybdenum	10 mg/L
Tin	10 mg/L	Titanium	10 mg/L
Zirconium	10 mg/L		

Serial ID: IHG091222-01 **Opened:** 22-DEC-09 **Instrument Id :** Mercury
Name: MHGINTER1 **Received:** 22-DEC-09 **Pipet Id :** Minou1
Type: Intermediate **Expires:** 23-DEC-09 **Solvent :** 1mL HNO3 + Typel H2O
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Intermediate 1st Source 200 ug/L
Comments: Prepare fresh daily

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167639-01	Mercury	1000 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: IHG091222-02 **Opened:** 22-DEC-09 **Pipet Id :** Minou1
Name: MHGINTER2 **Received:** 22-DEC-09 **Solvent :** 2% HNO3-1240182
Type: Intermediate **Expires:** 23-DEC-09
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Intermediate 2nd Source 200 ug/L
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167641-02	Mercury	999.7 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: WHG091222-01 **Opened:** 22-DEC-09 **Pipet Id :** Hg1289245
Name: MHGWORKCAL0.2CRA **Received:** 22-DEC-09 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 28-DEC-09
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working 1st Source CAL 0.2/CRA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG091222-01	Mercury	200 ug/L	20 uL	20 mL	.2 ug/L

Standard Logbook

Serial ID: WHG091222-02 **Opened:** 22-DEC-09 **Pipet Id :** Hg1289245
Name: MHGWORKCAL0.5 **Received:** 22-DEC-09 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 28-DEC-09
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working 1st Source CAL 0.5
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG091222-01	Mercury	200 ug/L	50 uL	20 mL	.5 ug/L

Serial ID: WHG091222-03 **Opened:** 22-DEC-09 **Pipet Id :** Hg1289245
Name: MHGWORKCAL2.0 **Received:** 22-DEC-09 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 28-DEC-09
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL 2.0
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG091222-01	Mercury	200 ug/L	200 uL	20 mL	2 ug/L

Serial ID: WHG091222-04 **Opened:** 22-DEC-09 **Pipet Id :** Hg1289245
Name: MHGWORKCAL5.0CCV **Received:** 22-DEC-09 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 28-DEC-09
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL 5.0/CCV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG091222-01	Mercury	200 ug/L	500 uL	20 mL	5 ug/L

Serial ID: WHG091222-05 **Opened:** 22-DEC-09 **Pipet Id :** Hg1289245
Name: MHGWORKCAL10.0 **Received:** 22-DEC-09 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 28-DEC-09
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL 10.0
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG091222-01	Mercury	200 ug/L	1 mL	20 mL	10 ug/L

Standard Logbook

Serial ID: WHG091222-06 **Opened:** 22-DEC-09 **Pipet Id :** Hg1289245
Name: MHGWORK5.0ICV **Received:** 22-DEC-09 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 28-DEC-09
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working 2nd Source 5.0/ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG091222-02	Mercury	200 ug/L	500 uL	20 mL	5 ug/L

Serial ID: WHG091222-13 **Opened:** 22-DEC-09 **Pipet Id :** Hg1289245
Name: MHGLIQLCSMSSPIKE **Received:** 22-DEC-09 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 28-DEC-09
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury working intermediate standard for LCS/MS
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167639-01	Mercury	1000 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: WI091217-42 **Opened:** 17-DEC-09 **Balance Id :** 216
Name: TRACE ICP 0.1 PPM STD. **Received:** 02-NOV-09 **Pipet Id :** 1099667
Type: Working **Expires:** 18-DEC-09 **Solvent :** 3%HCL and 1%HNO3 -1242318
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP 0.1 PPM CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WI091217-44	Aluminum	10000 ug/L	10 mL	100 mL	1000 ug/L
WI091217-44	Antimony	1000 ug/L	10 mL	100 mL	100 ug/L
WI091217-44	Arsenic	1000 ug/L	10 mL	100 mL	100 ug/L
WI091217-44	Barium	1000 ug/L	10 mL	100 mL	100 ug/L
WI091217-44	Beryllium	1000 ug/L	10 mL	100 mL	100 ug/L
WI091217-44	Boron	1000 ug/L	10 mL	100 mL	100 ug/L
WI091217-44	Cadmium	1000 ug/L	10 mL	100 mL	100 ug/L
WI091217-44	Calcium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI091217-44	Chromium	1000 ug/L	10 mL	100 mL	100 ug/L
WI091217-44	Cobalt	1000 ug/L	10 mL	100 mL	100 ug/L
WI091217-44	Copper	1000 ug/L	10 mL	100 mL	100 ug/L
WI091217-44	Iron	10000 ug/L	10 mL	100 mL	1000 ug/L
WI091217-44	Lead	1000 ug/L	10 mL	100 mL	100 ug/L
WI091217-44	Magnesium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI091217-44	Manganese	1000 ug/L	10 mL	100 mL	100 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WI091217-44	Molybdenum	1000 ug/L	10 mL	100 mL	100 ug/L
WI091217-44	Nickel	1000 ug/L	10 mL	100 mL	100 ug/L
WI091217-44	Phosphorous	5000 ug/L	10 mL	100 mL	500 ug/L
WI091217-44	Potassium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI091217-44	Selenium	1000 ug/L	10 mL	100 mL	100 ug/L
WI091217-44	Silica	10698 ug/L	10 mL	100 mL	1069 ug/L
WI091217-44	Silicon	5000 ug/L	10 mL	100 mL	500 ug/L
WI091217-44	Silver	1000 ug/L	10 mL	100 mL	100 ug/L
WI091217-44	Sodium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI091217-44	Strontium	1000 ug/L	10 mL	100 mL	100 ug/L
WI091217-44	Sulfur	2000 ug/L	10 mL	100 mL	200 ug/L
WI091217-44	Thallium	1000 ug/L	10 mL	100 mL	100 ug/L
WI091217-44	Tin	1000 ug/L	10 mL	100 mL	100 ug/L
WI091217-44	Titanium	1000 ug/L	10 mL	100 mL	100 ug/L
WI091217-44	Uranium	1000 ug/L	10 mL	100 mL	100 ug/L
WI091217-44	Vanadium	1000 ug/L	10 mL	100 mL	100 ug/L
WI091217-44	Zinc	1000 ug/L	10 mL	100 mL	100 ug/L

Serial ID: WI091217-43 **Opened:** 17-DEC-09 **Balance Id :** 216
Name: TRACE ICP 0.5/CCV STD. **Received:** 02-NOV-09 **Pipet Id :** 1099667
Type: Working **Expires:** 18-DEC-09 **Solvent :** 3%HCL and 1%HNO3 -1242318
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP 0.5/CCV CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090828-42	Sodium	1000 ug/mL	5 mL	1000 mL	5000 UG/L
UI091015-42	Silica	2139 mg/L	2.5 mL	1000 mL	5348.25 UG/L
UI091015-42	Silicon	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI091102-40	Aluminum	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Arsenic	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Barium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Beryllium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Boron	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Cadmium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Calcium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Chromium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Cobalt	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Copper	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Iron	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Lead	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Magnesium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Manganese	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Nickel	200 mg/L	2.5 mL	1000 mL	500 UG/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091102-40	Phosphorous	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI091102-40	Potassium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Selenium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Sodium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Strontium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Thallium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Uranium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Vanadium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Zinc	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Antimony	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Molybdenum	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Silver	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Sulfur	400 mg/L	2.5 mL	1000 mL	1000 UG/L
UI091102-41	Tin	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Titanium	200 mg/L	2.5 mL	1000 mL	500 UG/L

Serial ID: WI091217-44 **Opened:** 17-DEC-09 **Balance Id :** 216

Name: TRACE ICP SCAL 1.0 **Received:** 02-NOV-09 **Pipet Id :** 1099667

Type: Working **Expires:** 18-DEC-09 **Solvent :** 3%HCL and 1 %HNO3-1242318

Employee: Helen Camello

Supplier: o2si

Description: Trace ICP Calibration Standard 1.0ppm

Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091015-42	Silica	2139 mg/L	2.5 mL	500 mL	10698 ug/L
UI091015-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI091102-40	Aluminum	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Arsenic	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Barium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Beryllium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Boron	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Cadmium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Calcium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Chromium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Cobalt	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Copper	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Iron	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Lead	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Magnesium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Manganese	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Nickel	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Phosphorous	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI091102-40	Potassium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Selenium	200 mg/L	2.5 mL	500 mL	1000 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091102-40	Sodium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Strontium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Thallium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Uranium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Vanadium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Zinc	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Antimony	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Molybdenum	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Silver	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Sulfur	400 mg/L	2.5 mL	500 mL	2000 ug/L
UI091102-41	Tin	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Titanium	200 mg/L	2.5 mL	500 mL	1000 ug/L

Serial ID: WI091217-45 **Opened:** 17-DEC-09 **Balance Id :** 216
Name: TRACE ICP S-10 STD **Received:** 22-APR-09 **Pipet Id :** 1099667
Type: Working **Expires:** 18-DEC-09 **Solvent :** 3%HCL and 1%HNO3 -1242318
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP S-10 CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090422-40	Aluminum	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Calcium	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Iron	2000 mg/L	5 mL	500 mL	20000 UG/L
UI090422-40	Magnesium	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090828-42	Sodium	1000 ug/mL	10 mL	500 mL	20000 UG/L

Serial ID: WI091217-46 **Opened:** 17-DEC-09 **Balance Id :** 216
Name: ICP TRACE ICV **Received:** 25-SEP-09 **Pipet Id :** 1099667
Type: Working **Expires:** 18-DEC-09 **Solvent :** 3%HCL AND 1%HNO3-1242318
Employee: Helen Camello
Supplier: GEL
Description: Initial Calibration Verification ICP Trace Metals
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090925-40	Aluminum	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Arsenic	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Barium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Boron	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cadmium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Calcium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Chromium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cobalt	100 mg/L	2.5 mL	500 mL	500 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090925-40	Copper	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Iron	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Lead	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Phosphorous	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Potassium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Selenium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Sodium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Strontium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Antimony	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Beryllium	50 mg/L	2.5 mL	500 mL	250 ug/L
UI090925-41	Magnesium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-41	Manganese	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Molybdenum	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Nickel	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Silver	50 mg/L	2.5 mL	500 mL	250 ug/L
UI090925-41	Sulfur	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-41	Thallium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Tin	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Titanium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Uranium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Vanadium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Zinc	100 mg/L	2.5 mL	500 mL	500 ug/L
UI091102-42	Silica	2139 mg/L	2.5 mL	500 mL	10695 ug/L
UI091102-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L

Serial ID: WI091217-47 **Opened:** 17-DEC-09 **Balance Id :** 216
Name: PQL Working Standard **Received:** 30-JUN-09 **Pipet Id :** 1099667
Type: Working **Expires:** 18-DEC-09 **Solvent :** 3%HCL &1%HNO3-1242318
Employee: Helen Camello
Supplier: 02si
Description: PQL Working Standard
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-40	Aluminum	100 mg/L	2 mL	1000 mL	200 ug/L
UI090701-40	Antimony	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Arsenic	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Barium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Beryllium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Boron	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Cadmium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Calcium	100 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Chromium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Cobalt	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Copper	5 mg/L	2 mL	1000 mL	10 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-40	Iron	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Lead	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Magnesium	150 mg/L	2 mL	1000 mL	300 ug/L
UI090701-40	Manganese	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Molybdenum	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Nickel	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Phosphorous	75 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Potassium	75 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Selenium	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Silicon	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Silver	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sodium	150 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Strontium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sulfur	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Thallium	10 mg/L	2 mL	1000 mL	20 ug/L
UI090701-40	Tin	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Titanium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Uranium	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Vanadium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Zinc	5 mg/L	2 mL	1000 mL	10 ug/L

Serial ID: WMS091220-04 **Opened:** 20-DEC-09 **Amount :** 50 mL
Name: ICPMS Cal Standard 100 **Received:** 20-DEC-09 **Balance Id :** 4025216
Type: Working **Expires:** 21-DEC-09 **Pipet Id :** 3541598
Employee: Elizabeth Janssen **Solvent :** 2%HNO3/1%HCl-1242296
Supplier: GEL
Description: ICPMS Calibration Standard (100 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090610-03	Tungsten	10 mg/L	.5 mL	50 mL	100 ug/L
UMS090303-01	Arsenic	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Barium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Beryllium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Boron	20 mg/L	.5 mL	50 mL	200 ug/l
UMS090303-01	Cadmium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Chromium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Cobalt	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Copper	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Lead	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Lithium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Manganese	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Nickel	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Selenium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Silver	10 mg/L	.5 mL	50 mL	100 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UMS090303-01	Strontium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Thallium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Thorium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Uranium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Vanadium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Zinc	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-02	Aluminum	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Calcium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Iron	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Magnesium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Phosphorous	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Potassium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Sodium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-03	Antimony	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Molybdenum	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Tin	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Titanium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Zirconium	10 mg/L	.5 mL	50 mL	100 ug/l

Serial ID: WMS091220-04A **Opened:** 20-DEC-09 **Balance Id :** 4025216
Name: ICPMS Cal Standard 10 **Received:** 20-DEC-09 **Pipet Id :** 3541598
Type: Working **Expires:** 21-DEC-09 **Solvent :** 2%HNO3/1%HCl - 1242296
Employee: Elizabeth Janssen
Supplier: GEL
Description: ICPMS Calibration Standard (10 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS091220-04	Aluminum	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS091220-04	Antimony	100 ug/l	5 mL	50 mL	10 ug/l
WMS091220-04	Arsenic	100 ug/l	5 mL	50 mL	10 ug/l
WMS091220-04	Barium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091220-04	Beryllium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091220-04	Boron	200 ug/l	5 mL	50 mL	20 ug/l
WMS091220-04	Cadmium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091220-04	Calcium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS091220-04	Chromium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091220-04	Cobalt	100 ug/l	5 mL	50 mL	10 ug/l
WMS091220-04	Copper	100 ug/l	5 mL	50 mL	10 ug/l
WMS091220-04	Iron	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS091220-04	Lead	100 ug/l	5 mL	50 mL	10 ug/l
WMS091220-04	Lithium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091220-04	Magnesium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS091220-04	Manganese	100 ug/l	5 mL	50 mL	10 ug/l
WMS091220-04	Molybdenum	100 ug/l	5 mL	50 mL	10 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS091220-04	Nickel	100 ug/l	5 mL	50 mL	10 ug/l
WMS091220-04	Phosphorous	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS091220-04	Potassium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS091220-04	Selenium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091220-04	Silver	100 ug/l	5 mL	50 mL	10 ug/l
WMS091220-04	Sodium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS091220-04	Strontium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091220-04	Thallium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091220-04	Thorium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091220-04	Tin	100 ug/l	5 mL	50 mL	10 ug/l
WMS091220-04	Titanium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091220-04	Tungsten	100 ug/L	5 mL	50 mL	10 ug/L
WMS091220-04	Uranium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091220-04	Vanadium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091220-04	Zinc	100 ug/l	5 mL	50 mL	10 ug/l
WMS091220-04	Zirconium	100 ug/l	5 mL	50 mL	10 ug/l

Serial ID: WMS091220-05 **Opened:** 20-DEC-09 **Balance Id :** 40245216
Name: ICPMS ICV **Received:** 20-DEC-09 **Pipet Id :** 3541598
Type: Working **Expires:** 21-DEC-09 **Solvent :** 2%HNO3/1%HCl - 1242296
Employee: Elizabeth Janssen
Supplier: GEL
Description: ICPMS ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-06	Aluminum	2020 mg/L	.125 mL	50 mL	5050 ug/L
UI091217-06	Calcium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Iron	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Magnesium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Phosphorous	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Potassium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Sodium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-07	Arsenic	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Barium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Beryllium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Boron	40 mg/L	.125 mL	50 mL	100 ug/L
UI091217-07	Cadmium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Chromium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Cobalt	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Copper	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lead	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lithium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Manganese	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Nickel	20 mg/L	.125 mL	50 mL	50 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-07	Selenium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Strontium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thallium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thorium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Uranium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Vanadium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Zinc	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Antimony	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Molybdenum	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Silver	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tin	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Titanium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tungsten	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Zirconium	20 mg/L	.125 mL	50 mL	50 ug/L

Serial ID: WMS091220-06 **Opened:** 20-DEC-09 **Balance Id :** 40245216
Name: ICPMS CRDL **Received:** 20-DEC-09 **Pipet Id :** 3820544
Type: Working **Expires:** 21-DEC-09 **Solvent :** 2%HNO3/1%HCl - 1242296
Employee: Elizabeth Janssen
Supplier: GEL
Description: ICPMS CRDL
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Aluminum	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Arsenic	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Barium	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Beryllium	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-09	Boron	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Cadmium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Calcium	100 mg/L	.05 mL	50 mL	100 ug/L
UI090701-09	Chromium	3 mg/L	.05 mL	50 mL	3 ug/L
UI090701-09	Cobalt	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Copper	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Iron	25 mg/L	.05 mL	50 mL	25 ug/L
UI090701-09	Lead	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Lithium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Magnesium	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Manganese	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Nickel	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Phosphorous	50 mg/L	.05 mL	50 mL	50 ug/L
UI090701-09	Potassium	300 mg/L	.05 mL	50 mL	300 ug/L
UI090701-09	Selenium	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Sodium	250 mg/L	.05 mL	50 mL	250 ug/L
UI090701-09	Strontium	10 mg/L	.05 mL	50 mL	10 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Thallium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Thorium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Uranium	.2 mg/L	.05 mL	50 mL	.2 ug/L
UI090701-09	Vanadium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Zinc	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Antimony	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-10	Molybdenum	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-10	Silver	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-10	Tin	2 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Titanium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Tungsten	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Zirconium	2 mg/L	.05 mL	50 mL	2 ug/L

Serial ID: WMS091220-07 **Opened:** 20-DEC-09 **Balance Id :** 40245216
Name: ICPMS ICSA **Received:** 20-DEC-09 **Lot Number :** 1010773
Type: Working **Expires:** 21-DEC-09 **Pipet Id :** 3541598
Employee: Elizabeth Janssen **Solvent :** 2%HNO3/1%HCl - 1242296
Supplier: GEL
Description: ICPMS ICSA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI091212-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI091212-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: WMS091220-08 **Opened:** 20-DEC-09 **Balance Id :** 40245216
Name: ICPMS ICSAB **Received:** 20-DEC-09 **Pipet Id :** 1758088
Type: Working **Expires:** 21-DEC-09 **Solvent :** 2%HNO3/1%HCl - 1242296
Employee: Elizabeth Janssen
Supplier: GEL
Description: ICPMS ICSAB
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI091212-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI091212-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L
UI091217-12	Arsenic	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Barium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Beryllium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Boron	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Cadmium	2 mg/L	.5 mL	50 mL	20.2 ug/L
UI091217-12	Chromium	2 mg/L	.5 mL	50 mL	22.2 ug/L
UI091217-12	Cobalt	2 mg/L	.5 mL	50 mL	20.4 ug/L
UI091217-12	Copper	2 mg/L	.5 mL	50 mL	23.4 ug/L
UI091217-12	Lead	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Lithium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Manganese	2 mg/L	.5 mL	50 mL	22.7 ug/L
UI091217-12	Nickel	2 mg/L	.5 mL	50 mL	22.4 ug/L
UI091217-12	Selenium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Strontium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thallium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thorium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Uranium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Vanadium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Zinc	2 mg/L	.5 mL	50 mL	27 ug/L
UI091217-13	Antimony	2 mg/L	.5 mL	50 mL	20.5 ug/L
UI091217-13	Silver	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tin	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tungsten	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Zirconium	2 mg/L	.5 mL	50 mL	20 ug/L

Serial ID: WMS091220-70 **Opened:** 20-DEC-09 **Balance Id :** 40245216
Name: ICPMS LINEAR RANGE ST **Received:** 20-DEC-09 **Pipet Id :** 1758088
Type: Working **Expires:** 21-DEC-09 **Solvent :** 2%HNO3/1%HCl - 1242296
Employee: Elizabeth Janssen
Supplier: 02SI
Description: ICPMS LINEAR RANGE STANDARD
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-60	Aluminum	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Arsenic	100 mg/L	.5 mL	50 mL	1000 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-60	Barium	250 mg/L	.5 mL	50 mL	2500 ug/L
UI091212-60	Beryllium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Cadmium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Calcium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Chromium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Cobalt	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Copper	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Iron	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Lead	500 mg/L	.5 mL	50 mL	5000 ug/L
UI091212-60	Lithium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Magnesium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Manganese	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Nickel	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Phosphorous	2500 mg/L	.5 mL	50 mL	25000 ug/L
UI091212-60	Potassium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Selenium	50 mg/L	.5 mL	50 mL	500 ug/L
UI091212-60	Sodium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Strontium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Thallium	50 mg/L	.5 mL	50 mL	500 ug/L
UI091212-60	Thorium	250 mg/L	.5 mL	50 mL	2500 ug/L
UI091212-60	Uranium	500 mg/L	.5 mL	50 mL	5000 ug/L
UI091212-60	Vanadium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Zinc	250 mg/L	.5 mL	50 mL	2500 ug/L
UI091212-61	Antimony	25 mg/L	.5 mL	50 mL	250 ug/L
UI091212-61	Molybdenum	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-61	Silver	25 mg/L	.5 mL	50 mL	250 ug/L
UI091212-61	Tin	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-61	Tungsten	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-61	Zirconium	50 mg/L	.5 mL	50 mL	500 ug/L

Serial ID: WMS091221-04 **Opened:** 21-DEC-09 **Amount :** 50 mL
Name: ICPMS Cal Standard 100 **Received:** 21-DEC-09 **Balance Id :** 4025216
Type: Working **Expires:** 22-DEC-09 **Pipet Id :** 3541598
Employee: Elizabeth Janssen **Solvent :** 2%HNO3/1%HCl-1245333
Supplier: GEL
Description: ICPMS Calibration Standard (100 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090610-03	Tungsten	10 mg/L	.5 mL	50 mL	100 ug/L
UMS090303-01	Arsenic	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Barium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Beryllium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Boron	20 mg/L	.5 mL	50 mL	200 ug/l
UMS090303-01	Cadmium	10 mg/L	.5 mL	50 mL	100 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UMS090303-01	Chromium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Cobalt	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Copper	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Lead	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Lithium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Manganese	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Nickel	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Selenium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Silver	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Strontium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Thallium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Thorium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Uranium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Vanadium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Zinc	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-02	Aluminum	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Calcium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Iron	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Magnesium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Phosphorous	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Potassium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Sodium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-03	Antimony	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Molybdenum	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Tin	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Titanium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Zirconium	10 mg/L	.5 mL	50 mL	100 ug/l

Serial ID: WMS091221-04A **Opened:** 21-DEC-09 **Balance Id :** 4025216
Name: ICPMS Cal Standard 10 **Received:** 21-DEC-09 **Pipet Id :** 3541598
Type: Working **Expires:** 22-DEC-09 **Solvent :** 2%HNO3/1%HCl - 1245333
Employee: Elizabeth Janssen
Supplier: GEL
Description: ICPMS Calibration Standard (10 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS091221-04	Aluminum	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS091221-04	Antimony	100 ug/l	5 mL	50 mL	10 ug/l
WMS091221-04	Arsenic	100 ug/l	5 mL	50 mL	10 ug/l
WMS091221-04	Barium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091221-04	Beryllium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091221-04	Boron	200 ug/l	5 mL	50 mL	20 ug/l
WMS091221-04	Cadmium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091221-04	Calcium	10000 ug/l	5 mL	50 mL	1000 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS091221-04	Chromium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091221-04	Cobalt	100 ug/l	5 mL	50 mL	10 ug/l
WMS091221-04	Copper	100 ug/l	5 mL	50 mL	10 ug/l
WMS091221-04	Iron	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS091221-04	Lead	100 ug/l	5 mL	50 mL	10 ug/l
WMS091221-04	Lithium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091221-04	Magnesium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS091221-04	Manganese	100 ug/l	5 mL	50 mL	10 ug/l
WMS091221-04	Molybdenum	100 ug/l	5 mL	50 mL	10 ug/l
WMS091221-04	Nickel	100 ug/l	5 mL	50 mL	10 ug/l
WMS091221-04	Phosphorous	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS091221-04	Potassium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS091221-04	Selenium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091221-04	Silver	100 ug/l	5 mL	50 mL	10 ug/l
WMS091221-04	Sodium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS091221-04	Strontium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091221-04	Thallium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091221-04	Thorium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091221-04	Tin	100 ug/l	5 mL	50 mL	10 ug/l
WMS091221-04	Titanium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091221-04	Tungsten	100 ug/L	5 mL	50 mL	10 ug/L
WMS091221-04	Uranium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091221-04	Vanadium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091221-04	Zinc	100 ug/l	5 mL	50 mL	10 ug/l
WMS091221-04	Zirconium	100 ug/l	5 mL	50 mL	10 ug/l

Serial ID: WMS091221-05 **Opened:** 21-DEC-09 **Balance Id :** 40245216
Name: ICPMS ICV **Received:** 21-DEC-09 **Pipet Id :** 3541598
Type: Working **Expires:** 22-DEC-09 **Solvent :** 2%HNO3/1%HCl - 1245333
Employee: Elizabeth Janssen
Supplier: GEL
Description: ICPMS ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-06	Aluminum	2020 mg/L	.125 mL	50 mL	5050 ug/L
UI091217-06	Calcium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Iron	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Magnesium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Phosphorous	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Potassium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Sodium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-07	Arsenic	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Barium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Beryllium	20 mg/L	.125 mL	50 mL	50 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-07	Boron	40 mg/L	.125 mL	50 mL	100 ug/L
UI091217-07	Cadmium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Chromium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Cobalt	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Copper	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lead	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lithium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Manganese	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Nickel	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Selenium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Strontium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thallium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thorium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Uranium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Vanadium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Zinc	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Antimony	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Molybdenum	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Silver	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tin	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Titanium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tungsten	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Zirconium	20 mg/L	.125 mL	50 mL	50 ug/L

Serial ID: WMS091221-06 **Opened:** 21-DEC-09 **Balance Id :** 40245216
Name: ICPMS CRDL **Received:** 21-DEC-09 **Pipet Id :** 3820544
Type: Working **Expires:** 22-DEC-09 **Solvent :** 2%HNO3/1%HCl - 1245333
Employee: Elizabeth Janssen
Supplier: GEL
Description: ICPMS CRDL
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Aluminum	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Arsenic	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Barium	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Beryllium	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-09	Boron	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Cadmium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Calcium	100 mg/L	.05 mL	50 mL	100 ug/L
UI090701-09	Chromium	3 mg/L	.05 mL	50 mL	3 ug/L
UI090701-09	Cobalt	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Copper	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Iron	25 mg/L	.05 mL	50 mL	25 ug/L
UI090701-09	Lead	2 mg/L	.05 mL	50 mL	2 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Lithium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Magnesium	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Manganese	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Nickel	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Phosphorous	50 mg/L	.05 mL	50 mL	50 ug/L
UI090701-09	Potassium	300 mg/L	.05 mL	50 mL	300 ug/L
UI090701-09	Selenium	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Sodium	250 mg/L	.05 mL	50 mL	250 ug/L
UI090701-09	Strontium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Thallium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Thorium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Uranium	.2 mg/L	.05 mL	50 mL	.2 ug/L
UI090701-09	Vanadium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Zinc	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Antimony	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-10	Molybdenum	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-10	Silver	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-10	Tin	2 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Titanium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Tungsten	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Zirconium	2 mg/L	.05 mL	50 mL	2 ug/L

Serial ID: WMS091221-07 **Opened:** 21-DEC-09 **Balance Id :** 40245216
Name: ICPMS ICSA **Received:** 21-DEC-09 **Lot Number :** 1010773
Type: Working **Expires:** 22-DEC-09 **Pipet Id :** 3541598
Employee: Elizabeth Janssen **Solvent :** 2%HNO3/1%HCl - 1245333
Supplier: GEL
Description: ICPMS ICSA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI091212-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI091212-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Standard Logbook

Serial ID: WMS091221-08 **Opened:** 21-DEC-09 **Balance Id :** 40245216
Name: ICPMS ICSAB **Received:** 21-DEC-09 **Pipet Id :** 1758088
Type: Working **Expires:** 22-DEC-09 **Solvent :** 2%HNO3/1%HCl - 1245333
Employee: Elizabeth Janssen
Supplier: GEL
Description: ICPMS ICSAB
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI091212-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI091212-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L
UI091217-12	Arsenic	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Barium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Beryllium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Boron	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Cadmium	2 mg/L	.5 mL	50 mL	20.2 ug/L
UI091217-12	Chromium	2 mg/L	.5 mL	50 mL	22.2 ug/L
UI091217-12	Cobalt	2 mg/L	.5 mL	50 mL	20.4 ug/L
UI091217-12	Copper	2 mg/L	.5 mL	50 mL	23.4 ug/L
UI091217-12	Lead	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Lithium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Manganese	2 mg/L	.5 mL	50 mL	22.7 ug/L
UI091217-12	Nickel	2 mg/L	.5 mL	50 mL	22.4 ug/L
UI091217-12	Selenium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Strontium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thallium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thorium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Uranium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Vanadium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Zinc	2 mg/L	.5 mL	50 mL	27 ug/L
UI091217-13	Antimony	2 mg/L	.5 mL	50 mL	20.5 ug/L
UI091217-13	Silver	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tin	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tungsten	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Zirconium	2 mg/L	.5 mL	50 mL	20 ug/L

Standard Logbook

Serial ID: WMS091221-70 **Opened:** 21-DEC-09 **Balance Id :** 40245216
Name: ICPMS LINEAR RANGE ST **Received:** 21-DEC-09 **Pipet Id :** 1758088
Type: Working **Expires:** 22-DEC-09 **Solvent :** 2%HNO3/1%HCl - 1245333
Employee: Elizabeth Janssen
Supplier: 02SI
Description: ICPMS LINEAR RANGE STANDARD
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-60	Aluminum	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Arsenic	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Barium	250 mg/L	.5 mL	50 mL	2500 ug/L
UI091212-60	Beryllium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Cadmium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Calcium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Chromium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Cobalt	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Copper	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Iron	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Lead	500 mg/L	.5 mL	50 mL	5000 ug/L
UI091212-60	Lithium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Magnesium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Manganese	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Nickel	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Phosphorous	2500 mg/L	.5 mL	50 mL	25000 ug/L
UI091212-60	Potassium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Selenium	50 mg/L	.5 mL	50 mL	500 ug/L
UI091212-60	Sodium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Strontium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Thallium	50 mg/L	.5 mL	50 mL	500 ug/L
UI091212-60	Thorium	250 mg/L	.5 mL	50 mL	2500 ug/L
UI091212-60	Uranium	500 mg/L	.5 mL	50 mL	5000 ug/L
UI091212-60	Vanadium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Zinc	250 mg/L	.5 mL	50 mL	2500 ug/L
UI091212-61	Antimony	25 mg/L	.5 mL	50 mL	250 ug/L
UI091212-61	Molybdenum	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-61	Silver	25 mg/L	.5 mL	50 mL	250 ug/L
UI091212-61	Tin	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-61	Tungsten	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-61	Zirconium	50 mg/L	.5 mL	50 mL	500 ug/L

Serial ID: WMS091222-04 **Opened:** 22-DEC-09 **Amount :** 50 mL
Name: ICPMS Cal Standard 100 **Received:** 22-DEC-09 **Balance Id :** 4025216
Type: Working **Expires:** 23-DEC-09 **Pipet Id :** 3541598
Employee: Elizabeth Janssen **Solvent :** 2%HNO3/1%HCl-1245333
Supplier: GEL

Standard Logbook

Description: ICPMS Calibration Standard (100 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090610-03	Tungsten	10 mg/L	.5 mL	50 mL	100 ug/L
UMS090303-01	Arsenic	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Barium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Beryllium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Boron	20 mg/L	.5 mL	50 mL	200 ug/l
UMS090303-01	Cadmium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Chromium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Cobalt	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Copper	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Lead	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Lithium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Manganese	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Nickel	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Selenium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Silver	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Strontium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Thallium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Thorium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Uranium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Vanadium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Zinc	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-02	Aluminum	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Calcium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Iron	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Magnesium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Phosphorous	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Potassium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Sodium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-03	Antimony	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Molybdenum	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Tin	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Titanium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Zirconium	10 mg/L	.5 mL	50 mL	100 ug/l

Serial ID: WMS091222-04A **Opened:** 22-DEC-09 **Balance Id :** 4025216
Name: ICPMS Cal Standard 10 **Received:** 22-DEC-09 **Pipet Id :** 3541598
Type: Working **Expires:** 23-DEC-09 **Solvent :** 2%HNO3/1%HCl - 1245333
Employee: Elizabeth Janssen
Supplier: GEL
Description: ICPMS Calibration Standard (10 ppb)
Comments: None

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS091222-04	Aluminum	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS091222-04	Antimony	100 ug/l	5 mL	50 mL	10 ug/l
WMS091222-04	Arsenic	100 ug/l	5 mL	50 mL	10 ug/l
WMS091222-04	Barium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091222-04	Beryllium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091222-04	Boron	200 ug/l	5 mL	50 mL	20 ug/l
WMS091222-04	Cadmium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091222-04	Calcium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS091222-04	Chromium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091222-04	Cobalt	100 ug/l	5 mL	50 mL	10 ug/l
WMS091222-04	Copper	100 ug/l	5 mL	50 mL	10 ug/l
WMS091222-04	Iron	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS091222-04	Lead	100 ug/l	5 mL	50 mL	10 ug/l
WMS091222-04	Lithium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091222-04	Magnesium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS091222-04	Manganese	100 ug/l	5 mL	50 mL	10 ug/l
WMS091222-04	Molybdenum	100 ug/l	5 mL	50 mL	10 ug/l
WMS091222-04	Nickel	100 ug/l	5 mL	50 mL	10 ug/l
WMS091222-04	Phosphorous	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS091222-04	Potassium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS091222-04	Selenium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091222-04	Silver	100 ug/l	5 mL	50 mL	10 ug/l
WMS091222-04	Sodium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS091222-04	Strontium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091222-04	Thallium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091222-04	Thorium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091222-04	Tin	100 ug/l	5 mL	50 mL	10 ug/l
WMS091222-04	Titanium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091222-04	Tungsten	100 ug/L	5 mL	50 mL	10 ug/L
WMS091222-04	Uranium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091222-04	Vanadium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091222-04	Zinc	100 ug/l	5 mL	50 mL	10 ug/l
WMS091222-04	Zirconium	100 ug/l	5 mL	50 mL	10 ug/l

Serial ID: WMS091222-05 **Opened:** 22-DEC-09 **Balance Id :** 40245216
Name: ICPMS ICV **Received:** 22-DEC-09 **Pipet Id :** 3541598
Type: Working **Expires:** 23-DEC-09 **Solvent :** 2%HNO3/1%HCl - 1245333
Employee: Elizabeth Janssen
Supplier: GEL
Description: ICPMS ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-06	Aluminum	2020 mg/L	.125 mL	50 mL	5050 ug/L
UI091217-06	Calcium	2000 mg/L	.125 mL	50 mL	5000 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-06	Iron	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Magnesium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Phosphorous	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Potassium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Sodium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-07	Arsenic	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Barium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Beryllium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Boron	40 mg/L	.125 mL	50 mL	100 ug/L
UI091217-07	Cadmium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Chromium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Cobalt	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Copper	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lead	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lithium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Manganese	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Nickel	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Selenium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Strontium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thallium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thorium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Uranium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Vanadium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Zinc	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Antimony	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Molybdenum	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Silver	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tin	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Titanium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tungsten	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Zirconium	20 mg/L	.125 mL	50 mL	50 ug/L

Serial ID: WMS091222-06 **Opened:** 22-DEC-09 **Balance Id :** 40245216
Name: ICPMS CRDL **Received:** 22-DEC-09 **Pipet Id :** 3820544
Type: Working **Expires:** 23-DEC-09 **Solvent :** 2%HNO3/1%HCl - 1245333
Employee: Elizabeth Janssen
Supplier: GEL
Description: ICPMS CRDL
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Aluminum	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Arsenic	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Barium	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Beryllium	.5 mg/L	.05 mL	50 mL	.5 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Boron	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Cadmium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Calcium	100 mg/L	.05 mL	50 mL	100 ug/L
UI090701-09	Chromium	3 mg/L	.05 mL	50 mL	3 ug/L
UI090701-09	Cobalt	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Copper	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Iron	25 mg/L	.05 mL	50 mL	25 ug/L
UI090701-09	Lead	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Lithium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Magnesium	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Manganese	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Nickel	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Phosphorous	50 mg/L	.05 mL	50 mL	50 ug/L
UI090701-09	Potassium	300 mg/L	.05 mL	50 mL	300 ug/L
UI090701-09	Selenium	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Sodium	250 mg/L	.05 mL	50 mL	250 ug/L
UI090701-09	Strontium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Thallium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Thorium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Uranium	.2 mg/L	.05 mL	50 mL	.2 ug/L
UI090701-09	Vanadium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Zinc	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Antimony	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-10	Molybdenum	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-10	Silver	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-10	Tin	2 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Titanium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Tungsten	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Zirconium	2 mg/L	.05 mL	50 mL	2 ug/L

Serial ID: WMS091222-07 **Opened:** 22-DEC-09 **Balance Id :** 40245216
Name: ICPMS ICSA **Received:** 22-DEC-09 **Lot Number :** 1010773
Type: Working **Expires:** 23-DEC-09 **Pipet Id :** 3541598
Employee: Elizabeth Janssen **Solvent :** 2%HNO3/1%HCl - 1245333
Supplier: GEL
Description: ICPMS ICSA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI091212-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: WMS091222-08 **Opened:** 22-DEC-09 **Balance Id :** 40245216
Name: ICPMS ICSAB **Received:** 22-DEC-09 **Pipet Id :** 1758088
Type: Working **Expires:** 23-DEC-09 **Solvent :** 2%HNO3/1%HCl - 1245333
Employee: Elizabeth Janssen
Supplier: GEL
Description: ICPMS ICSAB
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI091212-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI091212-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L
UI091217-12	Arsenic	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Barium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Beryllium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Boron	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Cadmium	2 mg/L	.5 mL	50 mL	20.2 ug/L
UI091217-12	Chromium	2 mg/L	.5 mL	50 mL	22.2 ug/L
UI091217-12	Cobalt	2 mg/L	.5 mL	50 mL	20.4 ug/L
UI091217-12	Copper	2 mg/L	.5 mL	50 mL	23.4 ug/L
UI091217-12	Lead	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Lithium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Manganese	2 mg/L	.5 mL	50 mL	22.7 ug/L
UI091217-12	Nickel	2 mg/L	.5 mL	50 mL	22.4 ug/L
UI091217-12	Selenium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Strontium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thallium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thorium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Uranium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Vanadium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Zinc	2 mg/L	.5 mL	50 mL	27 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-13	Antimony	2 mg/L	.5 mL	50 mL	20.5 ug/L
UI091217-13	Silver	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tin	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tungsten	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Zirconium	2 mg/L	.5 mL	50 mL	20 ug/L

Serial ID: WMS091222-70 **Opened:** 22-DEC-09 **Balance Id :** 40245216
Name: ICPMS LINEAR RANGE ST **Received:** 22-DEC-09 **Pipet Id :** 1758088
Type: Working **Expires:** 23-DEC-09 **Solvent :** 2%HNO3/1%HCl - 1245333
Employee: Elizabeth Janssen
Supplier: 02SI
Description: ICPMS LINEAR RANGE STANDARD
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-60	Aluminum	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Arsenic	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Barium	250 mg/L	.5 mL	50 mL	2500 ug/L
UI091212-60	Beryllium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Cadmium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Calcium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Chromium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Cobalt	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Copper	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Iron	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Lead	500 mg/L	.5 mL	50 mL	5000 ug/L
UI091212-60	Lithium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Magnesium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Manganese	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Nickel	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Phosphorous	2500 mg/L	.5 mL	50 mL	25000 ug/L
UI091212-60	Potassium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Selenium	50 mg/L	.5 mL	50 mL	500 ug/L
UI091212-60	Sodium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Strontium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Thallium	50 mg/L	.5 mL	50 mL	500 ug/L
UI091212-60	Thorium	250 mg/L	.5 mL	50 mL	2500 ug/L
UI091212-60	Uranium	500 mg/L	.5 mL	50 mL	5000 ug/L
UI091212-60	Vanadium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Zinc	250 mg/L	.5 mL	50 mL	2500 ug/L
UI091212-61	Antimony	25 mg/L	.5 mL	50 mL	250 ug/L
UI091212-61	Molybdenum	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-61	Silver	25 mg/L	.5 mL	50 mL	250 ug/L
UI091212-61	Tin	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-61	Tungsten	100 mg/L	.5 mL	50 mL	1000 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-61	Zirconium	50 mg/L	.5 mL	50 mL	500 ug/L

Serial ID: WMS091223-04 **Opened:** 23-DEC-09 **Amount :** 50 mL
Name: ICPMS Cal Standard 100 **Received:** 23-DEC-09 **Balance Id :** 4025216
Type: Working **Expires:** 24-DEC-09 **Pipet Id :** 3541598
Employee: Elizabeth Janssen **Solvent :** 2%HNO3/1%HCl-1245333
Supplier: GEL
Description: ICPMS Calibration Standard (100 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090610-03	Tungsten	10 mg/L	.5 mL	50 mL	100 ug/L
UMS090303-01	Arsenic	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Barium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Beryllium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Boron	20 mg/L	.5 mL	50 mL	200 ug/l
UMS090303-01	Cadmium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Chromium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Cobalt	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Copper	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Lead	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Lithium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Manganese	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Nickel	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Selenium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Silver	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Strontium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Thallium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Thorium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Uranium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Vanadium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Zinc	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-02	Aluminum	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Calcium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Iron	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Magnesium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Phosphorous	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Potassium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Sodium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-03	Antimony	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Molybdenum	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Tin	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Titanium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Zirconium	10 mg/L	.5 mL	50 mL	100 ug/l

Standard Logbook

Serial ID: WMS091223-04A **Opened:** 23-DEC-09 **Balance Id :** 4025216
Name: ICPMS Cal Standard 10 **Received:** 23-DEC-09 **Pipet Id :** 3541598
Type: Working **Expires:** 24-DEC-09 **Solvent :** 2%HNO3/1%HCl - 1245333
Employee: Elizabeth Janssen
Supplier: GEL
Description: ICPMS Calibration Standard (10 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS091223-04	Aluminum	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS091223-04	Antimony	100 ug/l	5 mL	50 mL	10 ug/l
WMS091223-04	Arsenic	100 ug/l	5 mL	50 mL	10 ug/l
WMS091223-04	Barium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091223-04	Beryllium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091223-04	Boron	200 ug/l	5 mL	50 mL	20 ug/l
WMS091223-04	Cadmium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091223-04	Calcium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS091223-04	Chromium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091223-04	Cobalt	100 ug/l	5 mL	50 mL	10 ug/l
WMS091223-04	Copper	100 ug/l	5 mL	50 mL	10 ug/l
WMS091223-04	Iron	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS091223-04	Lead	100 ug/l	5 mL	50 mL	10 ug/l
WMS091223-04	Lithium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091223-04	Magnesium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS091223-04	Manganese	100 ug/l	5 mL	50 mL	10 ug/l
WMS091223-04	Molybdenum	100 ug/l	5 mL	50 mL	10 ug/l
WMS091223-04	Nickel	100 ug/l	5 mL	50 mL	10 ug/l
WMS091223-04	Phosphorous	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS091223-04	Potassium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS091223-04	Selenium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091223-04	Silver	100 ug/l	5 mL	50 mL	10 ug/l
WMS091223-04	Sodium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS091223-04	Strontium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091223-04	Thallium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091223-04	Thorium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091223-04	Tin	100 ug/l	5 mL	50 mL	10 ug/l
WMS091223-04	Titanium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091223-04	Tungsten	100 ug/L	5 mL	50 mL	10 ug/L
WMS091223-04	Uranium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091223-04	Vanadium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091223-04	Zinc	100 ug/l	5 mL	50 mL	10 ug/l
WMS091223-04	Zirconium	100 ug/l	5 mL	50 mL	10 ug/l

Standard Logbook

Serial ID: WMS091223-05 **Opened:** 23-DEC-09 **Balance Id :** 40245216
Name: ICPMS ICV **Received:** 23-DEC-09 **Pipet Id :** 3541598
Type: Working **Expires:** 24-DEC-09 **Solvent :** 2%HNO3/1%HCl - 1245333
Employee: Elizabeth Janssen
Supplier: GEL
Description: ICPMS ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-06	Aluminum	2020 mg/L	.125 mL	50 mL	5050 ug/L
UI091217-06	Calcium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Iron	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Magnesium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Phosphorous	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Potassium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Sodium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-07	Arsenic	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Barium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Beryllium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Boron	40 mg/L	.125 mL	50 mL	100 ug/L
UI091217-07	Cadmium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Chromium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Cobalt	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Copper	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lead	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lithium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Manganese	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Nickel	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Selenium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Strontium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thallium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thorium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Uranium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Vanadium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Zinc	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Antimony	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Molybdenum	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Silver	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tin	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Titanium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tungsten	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Zirconium	20 mg/L	.125 mL	50 mL	50 ug/L

Standard Logbook

Serial ID: WMS091223-06 **Opened:** 23-DEC-09 **Balance Id :** 40245216
Name: ICPMS CRDL **Received:** 23-DEC-09 **Pipet Id :** 3820544
Type: Working **Expires:** 24-DEC-09 **Solvent :** 2%HNO3/1%HCl - 1245333
Employee: Elizabeth Janssen
Supplier: GEL
Description: ICPMS CRDL
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Aluminum	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Arsenic	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Barium	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Beryllium	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-09	Boron	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Cadmium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Calcium	100 mg/L	.05 mL	50 mL	100 ug/L
UI090701-09	Chromium	3 mg/L	.05 mL	50 mL	3 ug/L
UI090701-09	Cobalt	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Copper	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Iron	25 mg/L	.05 mL	50 mL	25 ug/L
UI090701-09	Lead	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Lithium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Magnesium	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Manganese	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Nickel	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Phosphorous	50 mg/L	.05 mL	50 mL	50 ug/L
UI090701-09	Potassium	300 mg/L	.05 mL	50 mL	300 ug/L
UI090701-09	Selenium	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Sodium	250 mg/L	.05 mL	50 mL	250 ug/L
UI090701-09	Strontium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Thallium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Thorium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Uranium	.2 mg/L	.05 mL	50 mL	.2 ug/L
UI090701-09	Vanadium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Zinc	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Antimony	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-10	Molybdenum	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-10	Silver	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-10	Tin	2 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Titanium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Tungsten	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Zirconium	2 mg/L	.05 mL	50 mL	2 ug/L

Standard Logbook

Serial ID: WMS091223-07 **Opened:** 23-DEC-09 **Balance Id :** 40245216
Name: ICPMS ICSA **Received:** 23-DEC-09 **Lot Number :** 1010773
Type: Working **Expires:** 24-DEC-09 **Pipet Id :** 3541598
Employee: Elizabeth Janssen **Solvent :** 2%HNO3/1%HCl - 1245333
Supplier: GEL
Description: ICPMS ICSA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI091212-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI091212-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: WMS091223-08 **Opened:** 23-DEC-09 **Balance Id :** 40245216
Name: ICPMS ICSAB **Received:** 23-DEC-09 **Pipet Id :** 1758088
Type: Working **Expires:** 24-DEC-09 **Solvent :** 2%HNO3/1%HCl - 1245333
Employee: Elizabeth Janssen
Supplier: GEL
Description: ICPMS ICSAB
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI091212-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI091212-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L
UI091217-12	Arsenic	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Barium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Beryllium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Boron	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Cadmium	2 mg/L	.5 mL	50 mL	20.2 ug/L
UI091217-12	Chromium	2 mg/L	.5 mL	50 mL	22.2 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-12	Cobalt	2 mg/L	.5 mL	50 mL	20.4 ug/L
UI091217-12	Copper	2 mg/L	.5 mL	50 mL	23.4 ug/L
UI091217-12	Lead	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Lithium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Manganese	2 mg/L	.5 mL	50 mL	22.7 ug/L
UI091217-12	Nickel	2 mg/L	.5 mL	50 mL	22.4 ug/L
UI091217-12	Selenium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Strontium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thallium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thorium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Uranium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Vanadium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Zinc	2 mg/L	.5 mL	50 mL	27 ug/L
UI091217-13	Antimony	2 mg/L	.5 mL	50 mL	20.5 ug/L
UI091217-13	Silver	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tin	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tungsten	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Zirconium	2 mg/L	.5 mL	50 mL	20 ug/L

Serial ID: 1100721TCLP **Opened:** 16-APR-09 **Lot Number :** H02026 L
Name: I-HNO3 **Received:** 02-APR-09
Type: Reagent/Solvent **Expires:** 02-APR-10
Employee: Clifford Postell
Supplier: BAKER
Description: Nitric Acid CONC.
Comments: None

Serial ID: 1156689-A **Opened:** 20-JUL-09 **Lot Number :** 41226920
Name: B-KMnO4(VWR)-MER **Received:** 20-JUL-09
Type: Reagent/Solvent **Expires:** 20-JUL-10
Employee: Tara Griffin **Verified:** 07-AUG-07
Supplier: VWR
Description: Potassium Permanganate
Comments: None

Serial ID: 1164796-A **Opened:** 06-AUG-09 **Lot Number :** 49149927
Name: B-NH2OH.HCl-MER **Received:** 06-AUG-09
Type: Reagent/Solvent **Expires:** 06-AUG-10
Employee: Tara Griffin
Supplier: Fisher Scientific
Description: Hydroxlyamine Hydrochloride
Comments: None

Standard Logbook

Serial ID: 1176183 **Opened:** 24-AUG-09 **Lot Number :** H20001
Name: B-H2SO4-MER **Received:** 24-AUG-09
Type: Reagent/Solvent **Expires:** 24-AUG-10
Employee: Tara Griffin
Supplier: Mallinckrodt
Description: Sulfuric Acid, Concentrated
Comments: None

Serial ID: 1206350-C **Opened:** 22-OCT-09 **Balance Id :** BAL-002
Name: B-NaCl.NH2OH.HCl-MER **Received:** 22-OCT-09
Type: Reagent/Solvent **Expires:** 06-AUG-10
Employee: Tara Griffin
Supplier: GEL
Description: Hg reducing agent
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1164796-A	B-NH2OH.HCl-MER	N/A	120 g	1000 mL	N/A

Serial ID: 1207193 **Opened:** 23-OCT-09 **Lot Number :** H39037
Name: I-HCL **Received:** 23-OCT-09 **Preservative_Id :** 5 none
Type: Reagent/Solvent **Expires:** 23-OCT-10
Employee: Francena Armstrong
Supplier: J.T. BAKER
Description: HYDROCHLORIC ACID
Comments: None

Serial ID: 1215906 **Opened:** 06-NOV-09 **Lot Number :** H44465
Name: B-K2S2O8S-MER **Received:** 06-NOV-09
Type: Reagent/Solvent **Expires:** 06-NOV-10
Employee: Tara Griffin
Supplier: J.T BAKER
Description: Potassium Persulfate Concentrate.
Comments: None

Serial ID: 1234385-C **Opened:** 25-NOV-09 **Balance Id :** BAL-002
Name: B-K2S2O8-MER **Received:** 25-NOV-09
Type: Reagent/Solvent **Expires:** 25-MAY-10
Employee: Tara Griffin
Supplier: GEL
Description: 5% Potassium Persulfate
Comments: None

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1215906	B-K2S2O8S-MER	N/A	50 g	1000 mL	N/A

Serial ID: 1238343 **Opened:** 04-DEC-09 **Lot Number :** H41032
Name: I-HCL **Received:** 04-DEC-09 **Preservative_Id :** 5 none
Type: Reagent/Solvent **Expires:** 04-DEC-10
Employee: Francena Armstrong
Supplier: J.T. BAKER
Description: HYDROCHLORIC ACID
Comments: None

Serial ID: 1238345 **Opened:** 04-DEC-09 **Lot Number :** H20053 L
Name: I-HNO3 **Received:** 04-DEC-09
Type: Reagent/Solvent **Expires:** 04-DEC-10
Employee: Francena Armstrong
Supplier: BAKER
Description: Nitric Acid CONC.
Comments: None

Serial ID: 1240182-1 **Opened:** 09-DEC-09 **Instrument Id :** MERCURY
Name: B-HNO3-MER **Received:** 09-DEC-09 **Lot Number :** H34040
Type: Reagent/Solvent **Expires:** 09-DEC-10
Employee: Tara Griffin
Supplier: Mallinckrodt Chemicals
Description: NITRIC ACID
Comments: None

Serial ID: 1242296 **Opened:** 14-DEC-09 **Solvent :** Type I Water
Name: B-2%HNO3/1%HCl-ICPMS **Received:** 14-DEC-09
Type: Reagent/Solvent **Expires:** 21-DEC-09
Employee: Paul Boyd
Supplier: GEL
Description: 2%HNO3/1%HCl Solution (Type I Water)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1100721TCLP	I-HNO3	69.0-70.0	180 mL	9 l	N/A
1207193	I-HCL	36.5-38.0	90 mL	9 l	N/A

Standard Logbook

Serial ID: 1242318 **Opened:** 14-DEC-09 **Amount :** 20 L
Name: B-ICP-RINSE SOLN **Received:** 01-DEC-09 **Lot Number :** H04040+G34050
Type: Reagent/Solvent **Expires:** 20-DEC-09 **Solvent :** 3%HCL+1%HNO3
Employee: Helen Camello
Supplier: GEL
Description: 3%HCL+1%HNO3 RINSE SOLN.
Comments: None

Serial ID: 1244904-C **Opened:** 18-DEC-09 **Balance Id :** BAL-002
Name: B-KMnO4-MER **Received:** 18-DEC-09
Type: Reagent/Solvent **Expires:** 18-JUN-10
Employee: Tara Griffin
Supplier: GEL
Description: 5% KMnO4 solution
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1156689-A	B-KMnO4(VWR)-MER	Crystals	50 g	1000 mL	3%

Serial ID: 1244970 **Opened:** 18-DEC-09 **Lot Number :** H41032
Name: I-HCL **Received:** 18-DEC-09 **Preservative_Id :** 5 none
Type: Reagent/Solvent **Expires:** 18-DEC-10
Employee: Francena Armstrong
Supplier: J.T. BAKER
Description: HYDROCHLORIC ACID
Comments: None

Serial ID: 1245333 **Opened:** 21-DEC-09 **Solvent :** Type I Water
Name: B-2%HNO3/1%HCl-ICPMS **Received:** 21-DEC-09
Type: Reagent/Solvent **Expires:** 28-DEC-09
Employee: Elizabeth Janssen
Supplier: GEL
Description: 2%HNO3/1%HCl Solution (Type I Water)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1238345	I-HNO3	69.0-70.0	180 mL	9 l	N/A
1244970	I-HCL	36.5-38.0	90 mL	9 l	N/A

General Chemistry Analysis

Case Narrative

General Chemistry Narrative
Los Alamos National Laboratory (LANL)
SDG 10-886

Method/Analysis Information

Product:	**Cyanide, Total**		
Analytical Batch:	932514 and 932527	**Method:**	SW846 9012A
Prep Batch :	932513 and 932526	**Method:**	SW846 9010B Prep

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 9012A:

Sample ID	Client ID
242750001	RE03-09-13467
242750002	RE03-09-13466
242750003	RE03-09-13468
242750004	RE03-09-13465
1201994713	Method Blank (MB)
1201994714	242661012(RE03-09-14277) Sample Duplicate (DUP)
1201994715	242661013(RE03-09-14282) Sample Duplicate (DUP)
1201994716	242661012(RE03-09-14277) Matrix Spike (MS)
1201994717	242661013(RE03-09-14282) Matrix Spike (MS)
1201994718	242661012(RE03-09-14277) Matrix Spike Duplicate (MSD)
1201994719	242661013(RE03-09-14282) Matrix Spike Duplicate (MSD)
1201994720	Laboratory Control Sample (LCS)
1201994740	Method Blank (MB)
1201994741	242750002(RE03-09-13466) Sample Duplicate (DUP)
1201994742	242750003(RE03-09-13468) Sample Duplicate (DUP)
1201994743	242750002(RE03-09-13466) Matrix Spike (MS)
1201994744	242750003(RE03-09-13468) Matrix Spike (MS)
1201994745	242750002(RE03-09-13466) Matrix Spike Duplicate (MSD)
1201994746	242750003(RE03-09-13468) Matrix Spike Duplicate (MSD)
1201994747	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on a "dry weight" basis.

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-095 REV# 12.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

The Flow Injection analysis was performed on a Lachat QuickChem FIA+ 8000 Series.

Initial Calibration

All initial calibration requirements have been met for this SDG.

Continuing Calibration Blanks

All continuing calibration blanks (CCBs) associated with reported data from this batch were within acceptance limits.

Calibration Verification Information (CCV)

All continuing calibration verification standards (CCVs) associated with reported data from this batch were within acceptance limits.

Y Intercept Rule

The absolute value of the intercept is less than 3 times the MDL.

Quality Control (QC) Information

Method Blank (MB) Statement

The MBs analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery

The LCS spike recoveries met the acceptance limits.

Quality Control (QC) Designation

The following samples were selected for QC analysis: 242661012 (RE03-09-14277), 242661013 (RE03-09-14282)- Batch 932514, 242750002 (RE03-09-13466) and 242750003 (RE03-09-13468)- Batch 932527.

Matrix Spike (MS)/Post Spike (PS) Recovery Statement

The MS/PS recoveries for this sample set were within the required acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement

The MSD recoveries for this sample set were within the required acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement

The RPDs between the spike and spike duplicate met the acceptance limits.

Duplicate Relative Percent Difference (RPD) Statement

The values for the sample and duplicate are less than the Practical Quantitation Limit (PQL); therefore, the RPD is not applicable. 1201994741 (RE03-09-13466), 1201994742 (RE03-09-13468), 242750002 (RE03-09-13466) and 242750003 (RE03-09-13468)- Batch 932527.

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times
All samples in this SDG met the specified holding time.

Sample Preservation/Integrity
All the samples from this sample group met the preservation and integrity requirements of the method.

Sample Dilutions
The following samples in this sample group were diluted due to high concentration: 1201994720 (LCS)- Batch 932514 and 1201994747 (LCS)- Batch 932527.

Sample Re-analysis
The samples in this SDG did not require re-analysis.

Miscellaneous Information

Nonconformance (NCR) Documentation
An NCR was not required for this SDG.

Additional Comments
Additional comments were not required for this SDG.

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:
Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Tom Lewis, Jr. **Date:** 05Jan10

Sample Data Summary

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis Report
for

LANL010 Los Alamos National Laboratory (72733-001-09)

Client SDG: 10-886 GEL Work Order: 242750

The Qualifiers in this report are defined as follows:

* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.

** Indicates the analyte is a surrogate compound.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the detection limit.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Valerie Davis.

Reviewed by _____

GEL LABORATORIES LLC

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: January 1, 2010

Client SDG: 10-886

Client Sample ID:	RE03-09-13467	Project:	LANL01004
Sample ID:	242750001	Client ID:	LANL010
Matrix:	S		
Collect Date:	09-DEC-09 12:00		
Receive Date:	11-DEC-09		
Collector:	Client		
Moisture:	3.92%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total Federal "Dry Weight Corrected"										
Cyanide, Total	U	ND	65.5	241	ug/kg	1	AXC2 12/15/09	1022	932514	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	SXJ1	12/14/09	1200	932513

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: January 1, 2010

Client SDG: 10-886

Client Sample ID:	RE03-09-13466	Project:	LANL01004
Sample ID:	242750002	Client ID:	LANL010
Matrix:	S		
Collect Date:	09-DEC-09 12:00		
Receive Date:	11-DEC-09		
Collector:	Client		
Moisture:	8.53%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total Federal "Dry Weight Corrected"										
Cyanide, Total	U	ND	74.3	273	ug/kg	1	AXC2 12/17/09	0943	932527	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	SXJ1	12/16/09	1230	932526

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

GEL LABORATORIES LLC

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Certificate of Analysis

Company : Los Alamos National Laboratory
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TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: January 1, 2010

Client SDG: 10-886

Client Sample ID:	RE03-09-13468	Project:	LANL01004
Sample ID:	242750003	Client ID:	LANL010
Matrix:	S		
Collect Date:	09-DEC-09 12:00		
Receive Date:	11-DEC-09		
Collector:	Client		
Moisture:	9.31%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total Federal "Dry Weight Corrected"										
Cyanide, Total	U	ND	75.0	276	ug/kg	1	AXC2 12/17/09	0946	932527	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	SXJ1	12/16/09	1230	932526

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: January 1, 2010

Client SDG: 10-886

Client Sample ID:	RE03-09-13465	Project:	LANL01004
Sample ID:	242750004	Client ID:	LANL010
Matrix:	S		
Collect Date:	09-DEC-09 12:00		
Receive Date:	11-DEC-09		
Collector:	Client		
Moisture:	6.96%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total Federal "Dry Weight Corrected"										
Cyanide, Total	U	ND	73.1	269	ug/kg	1	AXC2 12/17/09	0950	932527	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	SXJ1	12/16/09	1230	932526

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

Quality Control Summary

GEL LABORATORIES LLC

2040 Savage Road Charleston, SC 29407 - (843) 556-8171 - www.gel.com

QC Summary

Report Date: January 1, 2010

Los Alamos National Laboratory
PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico

Contact: Ms. Joylene Valdez

Workorder: 242750

Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Flow Injection Analysis											
Batch 932514											
QC1201994714 242661012 DUP											
Cyanide, Total		U	ND	U	ND	ug/kg	N/A			AXC2	12/15/09 09:58
QC1201994715 242661013 DUP											
Cyanide, Total		U	ND	U	ND	ug/kg	N/A				12/15/09 10:01
QC1201994720 LCS											
Cyanide, Total	67900				80000	ug/kg		118	(46%-145%)		12/15/09 09:49
QC1201994713 MB											
Cyanide, Total				U	250	ug/kg					12/15/09 09:48
QC1201994716 242661012 MS											
Cyanide, Total	5550	U	ND		4350	ug/kg		78.3	(50%-130%)		12/15/09 09:59
QC1201994717 242661013 MS											
Cyanide, Total	5810	U	ND		5580	ug/kg		96.2	(50%-130%)		12/15/09 10:02
QC1201994718 242661012 MSD											
Cyanide, Total	5340	U	ND		4710	ug/kg	7.98	88.2	(0%-30%)		12/15/09 09:59
QC1201994719 242661013 MSD											
Cyanide, Total	5480	U	ND		5310	ug/kg	5.00	97	(0%-30%)		12/15/09 10:03
Batch 932527											
QC1201994741 242750002 DUP											
Cyanide, Total		U	ND	U	ND	ug/kg	N/A			AXC2	12/17/09 09:44
QC1201994742 242750003 DUP											
Cyanide, Total		U	ND	U	ND	ug/kg	N/A				12/17/09 09:47
QC1201994747 LCS											
Cyanide, Total	67900				79500	ug/kg		117	(46%-145%)		12/17/09 09:38
QC1201994740 MB											
Cyanide, Total				U	250	ug/kg					12/17/09 09:37
QC1201994743 242750002 MS											
Cyanide, Total	5470	U	ND		5120	ug/kg		93.6	(50%-130%)		12/17/09 09:45
QC1201994744 242750003 MS											
Cyanide, Total	5510	U	ND		5620	ug/kg		102	(50%-130%)		12/17/09 09:48
QC1201994745 242750002 MSD											
Cyanide, Total	5470	U	ND		4770	ug/kg	7.07	87.2	(0%-30%)		12/17/09 09:46
QC1201994746 242750003 MSD											
Cyanide, Total	5510	U	ND		5490	ug/kg	2.48	99.5	(0%-30%)		12/17/09 09:49

Notes:
RER is calculated at the 95% confidence level (2-sigma).
The Qualifiers in this report are defined as follows:

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product

QC Summary

Workorder: 242750

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time

B	For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD	Results are either below the MDC or tracer recovery is low
C	Analyte has been confirmed by GC/MS analysis
D	Results are reported from a diluted aliquot of the sample
E	Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
E	Organics--Concentration of the target analyte exceeds the instrument calibration range
F	Estimated Value
H	Analytical holding time was exceeded
J	Value is estimated
M	M if above MDC and less than LLD
M	Matrix Related Failure
N	Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A	RPD or %Recovery limits do not apply.
ND	Analyte concentration is not detected above the detection limit
NJ	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
P	Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%
R	Sample results are rejected
U	Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI	Gamma Spectroscopy--Uncertain identification
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
Z	Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d	5-day BOD--The 2:1 depletion requirement was not met for this sample
h	Preparation or preservation holding time was exceeded

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more.
^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.
* Indicates that a Quality Control parameter was not within specifications.
For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

Instrument QC Data Summary

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Report Run On: 01-JAN-2010 13:49

GEL Laboratories LLC
Contract: LANL01004
SDG #: 10-886

Flow Injection Analysis
Method: SW846 9012A Concentration Units:ug/L
Instrument: Lachat QuickChem FIA+ 8000 Series

Parmname: Cyanide, Total

Sample Type	Run Date	Data File	Result	Nominal	Recovery	Limits	Within Limits
ICV	**15-DEC-2009 09:12:44**	**OM_12-15-2009_09-02-12**	**138**	**150**	**92**	**(90%-110%)**	**Yes**
CCV	15-DEC-2009 09:39:27	OM_12-15-2009_09-02-12	99.1	100	99	(90%-110%)	Yes
CCV	15-DEC-2009 09:51:48	OM_12-15-2009_09-02-12	98.6	100	99	(90%-110%)	Yes
CCV	15-DEC-2009 10:04:19	OM_12-15-2009_09-02-12	99.3	100	99	(90%-110%)	Yes
CCV	15-DEC-2009 10:16:47	OM_12-15-2009_09-02-12	99.3	100	99	(90%-110%)	Yes
CCV	15-DEC-2009 10:29:15	OM_12-15-2009_09-02-12	99.5	100	100	(90%-110%)	Yes
ICV	**17-DEC-2009 09:12:57**	**OM_12-17-2009_09-04-52**	**141**	**150**	**94**	**(90%-110%)**	**Yes**
CCV	17-DEC-2009 09:27:16	OM_12-17-2009_09-04-52	96.3	100	96	(90%-110%)	Yes
CCV	17-DEC-2009 09:39:42	OM_12-17-2009_09-04-52	97.5	100	98	(90%-110%)	Yes
CCV	17-DEC-2009 09:52:05	OM_12-17-2009_09-04-52	97.4	100	97	(90%-110%)	Yes

Sample Type	Run Date	Data File	Result	Limits	Within Limits
ICB	**15-DEC-2009 09:14:34**	**OM_12-15-2009_09-02-12**	**2.48**	**5**	**Yes**
CCB	15-DEC-2009 09:41:16	OM_12-15-2009_09-02-12	-2.89	5	Yes
CCB	15-DEC-2009 09:53:38	OM_12-15-2009_09-02-12	-1.54	5	Yes
CCB	15-DEC-2009 10:06:09	OM_12-15-2009_09-02-12	-1.54	5	Yes
CCB	15-DEC-2009 10:18:38	OM_12-15-2009_09-02-12	-2.75	5	Yes
CCB	15-DEC-2009 10:31:05	OM_12-15-2009_09-02-12	-3.69	5	Yes
ICB	**17-DEC-2009 09:14:48**	**OM_12-17-2009_09-04-52**	**-0.0961**	**5**	**Yes**
CCB	17-DEC-2009 09:29:07	OM_12-17-2009_09-04-52	-0.252	5	Yes
CCB	17-DEC-2009 09:41:32	OM_12-17-2009_09-04-52	-0.749	5	Yes
CCB	17-DEC-2009 09:53:56	OM_12-17-2009_09-04-52	-0.638	5	Yes

Cyanide, Total

Prep LogBook

Analyst: SXJ1 Verified by:_____

Batch: 932513

Lab SOP: GL-GC-E-067 REV# 13

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1201994720	URF1200957-01	.25	g
MS	1201994716	URF1184831-02	.025	mL
MS	1201994717	URF1184831-02	.025	mL
MSD	1201994718	URF1184831-02	.025	mL
MSD	1201994719	URF1184831-02	.025	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Ph	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1201994713		SW846 9010B Prep	14-DEC-2009 12:00	>12	0.5 g	25 mL	50	SOIL
LCS	1201994720		SW846 9010B Prep	14-DEC-2009 12:00	>12	0.25 g	25 mL	100	SOIL
SAMPLE	242441002		SW846 9010B Prep	14-DEC-2009 12:00	>12	0.543 g	25 mL	46.04052	OIL
SAMPLE	242441003		SW846 9010B Prep	14-DEC-2009 12:00	>12	0.533 g	25 mL	46.90432	OIL
SAMPLE	242565001		SW846 9010C Distillation	14-DEC-2009 12:00	>12	0.568 g	25 mL	44.01408	SOLID
SAMPLE	242567001		SW846 9010C Distillation	14-DEC-2009 12:00	>12	0.535 g	25 mL	46.72897	SOLID
SAMPLE	242661012		SW846 9010B Prep	14-DEC-2009 12:00	>12	0.57 g	25 mL	43.85965	SOIL
DUP	1201994714	242661012	SW846 9010B Prep	14-DEC-2009 12:00	>12	0.5 g	25 mL	50	SOIL
MS	1201994716	242661012	SW846 9010B Prep	14-DEC-2009 12:00	>12	0.5 g	25 mL	50	SOIL
MSD	1201994718	242661012	SW846 9010B Prep	14-DEC-2009 12:00	>12	0.52 g	25 mL	48.07692	SOIL
SAMPLE	242661013		SW846 9010B Prep	14-DEC-2009 12:00	>12	0.56 g	25 mL	44.64286	SOIL
DUP	1201994715	242661013	SW846 9010B Prep	14-DEC-2009 12:00	>12	0.56 g	25 mL	44.64286	SOIL
MS	1201994717	242661013	SW846 9010B Prep	14-DEC-2009 12:00	>12	0.5 g	25 mL	50	SOIL
MSD	1201994719	242661013	SW846 9010B Prep	14-DEC-2009 12:00	>12	0.53 g	25 mL	47.16981	SOIL
SAMPLE	242661014		SW846 9010B Prep	14-DEC-2009 12:00	>12	0.5 g	25 mL	50	SOIL
SAMPLE	242661015		SW846 9010B Prep	14-DEC-2009 12:00	>12	0.55 g	25 mL	45.45455	SOIL
SAMPLE	242661016		SW846 9010B Prep	14-DEC-2009 12:00	>12	0.53 g	25 mL	47.16981	SOIL
SAMPLE	242661017		SW846 9010B Prep	14-DEC-2009 12:00	>12	0.55 g	25 mL	45.45455	SOIL
SAMPLE	242661018		SW846 9010B Prep	14-DEC-2009 12:00	>12	0.5 g	25 mL	50	SOIL
SAMPLE	242661019		SW846 9010B Prep	14-DEC-2009 12:00	>12	0.53 g	25 mL	47.16981	SOIL
SAMPLE	242661020		SW846 9010B Prep	14-DEC-2009 12:00	>12	0.57 g	25 mL	43.85965	SOIL
SAMPLE	242668001		SW846 9010B Prep	14-DEC-2009 12:00	>12	0.56 g	25 mL	44.64286	SOIL
SAMPLE	242668002		SW846 9010B Prep	14-DEC-2009 12:00	>12	0.51 g	25 mL	49.01961	SOIL
SAMPLE	242743002		SW846 9010B Prep	14-DEC-2009 12:00	>12	0.57 g	25 mL	43.85965	SOIL
SAMPLE	242748001		SW846 9010B Prep	14-DEC-2009 12:00	>12	0.51 g	25 mL	49.01961	SOIL
SAMPLE	242748002		SW846 9010B Prep	14-DEC-2009 12:00	>12	0.52 g	25 mL	48.07692	SOIL
SAMPLE	242750001		SW846 9010B Prep	14-DEC-2009 12:00	>12	0.54 g	25 mL	46.2963	SOIL
SAMPLE	242792001		SW846 9010B Prep	14-DEC-2009 12:00	>12	0.53 g	25 mL	47.16981	SOIL

Prep LogBook

Reagent/Solvent Lot ID	Amount	Description
091211-C	25 mL	0.25N Sodium Hydroxide Solution
1176724-C	1.25 mL	0.8N H3NO3S
1238146-C	2.5 mL	50% H2SO4 CN Prep
1176778-C	1 mL	51% MgCl2 Soln
1238142-C	1.25 mL	Bismuth Nitrate Solution

Comments:

Prep LogBook

Analyst: SXJ1 Verified by:_____

Batch: 932526

Lab SOP: GL-GC-E-067 REV# 13

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1201994747	URF1200957-01	.25	g
MS	1201994743	URF1184831-02	.025	mL
MS	1201994744	URF1184831-02	.025	mL
MSD	1201994745	URF1184831-02	.025	mL
MSD	1201994746	URF1184831-02	.025	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Ph	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1201994740		SW846 9010B Prep	16-DEC-2009 12:30	>12	0.5 g	25 mL	50	SOIL
LCS	1201994747		SW846 9010B Prep	16-DEC-2009 12:30	>12	0.25 g	25 mL	100	SOIL
SAMPLE	242750002		SW846 9010B Prep	16-DEC-2009 12:30	>12	0.5 g	25 mL	50	SOIL
DUP	1201994741	242750002	SW846 9010B Prep	16-DEC-2009 12:30	>12	0.5 g	25 mL	50	SOIL
MS	1201994743	242750002	SW846 9010B Prep	16-DEC-2009 12:30	>12	0.5 g	25 mL	50	SOIL
MSD	1201994745	242750002	SW846 9010B Prep	16-DEC-2009 12:30	>12	0.5 g	25 mL	50	SOIL
SAMPLE	242750003		SW846 9010B Prep	16-DEC-2009 12:30	>12	0.5 g	25 mL	50	SOIL
DUP	1201994742	242750003	SW846 9010B Prep	16-DEC-2009 12:30	>12	0.5 g	25 mL	50	SOIL
MS	1201994744	242750003	SW846 9010B Prep	16-DEC-2009 12:30	>12	0.5 g	25 mL	50	SOIL
MSD	1201994746	242750003	SW846 9010B Prep	16-DEC-2009 12:30	>12	0.5 g	25 mL	50	SOIL
SAMPLE	242750004		SW846 9010B Prep	16-DEC-2009 12:30	>12	0.5 g	25 mL	50	SOIL
SAMPLE	242781001		SW846 9010B Prep	16-DEC-2009 12:30	>12	0.5 g	25 mL	50	SOIL
SAMPLE	242781002		SW846 9010B Prep	16-DEC-2009 12:30	>12	0.5 g	25 mL	50	SOIL
SAMPLE	242781003		SW846 9010B Prep	16-DEC-2009 12:30	>12	0.56 g	25 mL	44.64286	SOIL
SAMPLE	242781004		SW846 9010B Prep	16-DEC-2009 12:30	>12	0.53 g	25 mL	47.16981	SOIL
SAMPLE	242781005		SW846 9010B Prep	16-DEC-2009 12:30	>12	0.5 g	25 mL	50	SOIL
SAMPLE	242781006		SW846 9010B Prep	16-DEC-2009 12:30	>12	0.51 g	25 mL	49.01961	SOIL
SAMPLE	242781007		SW846 9010B Prep	16-DEC-2009 12:30	>12	0.52 g	25 mL	48.07692	SOIL
SAMPLE	242786001		SW846 9010B Prep	16-DEC-2009 12:30	>12	0.5 g	25 mL	50	SOIL
SAMPLE	242786002		SW846 9010B Prep	16-DEC-2009 12:30	>12	0.57 g	25 mL	43.85965	SOIL
SAMPLE	242791001		SW846 9010B Prep	16-DEC-2009 12:30	>12	0.52 g	25 mL	48.07692	SOIL
SAMPLE	242791002		SW846 9010B Prep	16-DEC-2009 12:30	>12	0.56 g	25 mL	44.64286	SOIL
SAMPLE	242792002		SW846 9010B Prep	16-DEC-2009 12:30	>12	0.51 g	25 mL	49.01961	SOIL
SAMPLE	242794001		SW846 9010B Prep	16-DEC-2009 12:30	>12	0.51 g	25 mL	49.01961	SOIL
SAMPLE	242794002		SW846 9010B Prep	16-DEC-2009 12:30	>12	0.5 g	25 mL	50	SOIL
SAMPLE	242794003		SW846 9010B Prep	16-DEC-2009 12:30	>12	0.54 g	25 mL	46.2963	SOIL
SAMPLE	242794004		SW846 9010B Prep	16-DEC-2009 12:30	>12	0.5 g	25 mL	50	SOIL

Prep LogBook

Reagent/Solvent Lot ID	Amount	Description
091211-C	25 mL	0.25N Sodium Hydroxide Solution
1176724-C	1.25 mL	0.8N H3NO3S
1238146-C	2.5 mL	50% H2SO4 CN Prep
1176778-C	1 mL	51% MgCl2 Soln
1238142-C	1.25 mL	Bismuth Nitrate Solution

Comments

This is runlog Lachat1

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
200 ppb		1	axc2	12/15/2009 9:05:34	OM_12-15-2009_09-02-12
150 ppb		1	axc2	12/15/2009 9:06:27	OM_12-15-2009_09-02-12
100 ppb		1	axc2	12/15/2009 9:07:19	OM_12-15-2009_09-02-12
50 ppb		1	axc2	12/15/2009 9:08:13	OM_12-15-2009_09-02-12
10 ppb		1	axc2	12/15/2009 9:09:06	OM_12-15-2009_09-02-12
CRDL 5.0 ppb		1	axc2	12/15/2009 9:09:59	OM_12-15-2009_09-02-12
ICAL-00		1	axc2	12/15/2009 9:10:53	OM_12-15-2009_09-02-12
ICV		1	axc2	12/15/2009 9:12:44	OM_12-15-2009_09-02-12
ICB		1	axc2	12/15/2009 9:14:34	OM_12-15-2009_09-02-12
CRDL		1	axc2	12/15/2009 9:16:24	OM_12-15-2009_09-02-12
1201992122	931341	1	axc2	12/15/2009 9:18:13	OM_12-15-2009_09-02-12
1201992132	931341	1	axc2	12/15/2009 9:19:07	OM_12-15-2009_09-02-12
242436001	931341	1	axc2	12/15/2009 9:20:00	OM_12-15-2009_09-02-12
1201992123	931341	1	axc2	12/15/2009 9:20:53	OM_12-15-2009_09-02-12
1201992126	931341	1	axc2	12/15/2009 9:21:46	OM_12-15-2009_09-02-12
1201992129	931341	1	axc2	12/15/2009 9:22:38	OM_12-15-2009_09-02-12
242441001	931341	1	axc2	12/15/2009 9:23:31	OM_12-15-2009_09-02-12
242448001	931341	1	axc2	12/15/2009 9:24:24	OM_12-15-2009_09-02-12
242448002	931341	1	axc2	12/15/2009 9:25:16	OM_12-15-2009_09-02-12
242448003	931341	1	axc2	12/15/2009 9:26:08	OM_12-15-2009_09-02-12
CCV		1	axc2	12/15/2009 9:27:01	OM_12-15-2009_09-02-12
CCB		1	axc2	12/15/2009 9:28:51	OM_12-15-2009_09-02-12
242448004	931341	1	axc2	12/15/2009 9:30:39	OM_12-15-2009_09-02-12
242448005	931341	1	axc2	12/15/2009 9:31:31	OM_12-15-2009_09-02-12
242448006	931341	1	axc2	12/15/2009 9:32:23	OM_12-15-2009_09-02-12
242475001	931341	1	axc2	12/15/2009 9:33:14	OM_12-15-2009_09-02-12
1201992125	931341	1	axc2	12/15/2009 9:34:06	OM_12-15-2009_09-02-12
1201992128	931341	1	axc2	12/15/2009 9:35:00	OM_12-15-2009_09-02-12
1201992131	931341	1	axc2	12/15/2009 9:35:53	OM_12-15-2009_09-02-12
242637001	931341	1	axc2	12/15/2009 9:36:46	OM_12-15-2009_09-02-12
242669001	931341	1	axc2	12/15/2009 9:37:40	OM_12-15-2009_09-02-12
242669002	931341	1	axc2	12/15/2009 9:38:33	OM_12-15-2009_09-02-12
CCV		1	axc2	12/15/2009 9:39:27	OM_12-15-2009_09-02-12
CCB		1	axc2	12/15/2009 9:41:16	OM_12-15-2009_09-02-12
242669003	931341	1	axc2	12/15/2009 9:43:04	OM_12-15-2009_09-02-12
242669004	931341	1	axc2	12/15/2009 9:43:58	OM_12-15-2009_09-02-12
242691002	931341	1	axc2	12/15/2009 9:44:51	OM_12-15-2009_09-02-12
242749001	931341	1	axc2	12/15/2009 9:45:43	OM_12-15-2009_09-02-12
242782001	931341	1	axc2	12/15/2009 9:46:35	OM_12-15-2009_09-02-12
242782002	931341	1	axc2	12/15/2009 9:47:27	OM_12-15-2009_09-02-12
1201994713	932514	1	axc2	12/15/2009 9:48:20	OM_12-15-2009_09-02-12
1201994720	932514	25	axc2	12/15/2009 9:49:12	OM_12-15-2009_09-02-12
242441002	932514	1	axc2	12/15/2009 9:50:04	OM_12-15-2009_09-02-12
242441003	932514	1	axc2	12/15/2009 9:50:55	OM_12-15-2009_09-02-12
CCV		1	axc2	12/15/2009 9:51:48	OM_12-15-2009_09-02-12
CCB		1	axc2	12/15/2009 9:53:38	OM_12-15-2009_09-02-12
242565001	932514	1	axc2	12/15/2009 9:55:28	OM_12-15-2009_09-02-12
242567001	932514	1	axc2	12/15/2009 9:56:22	OM_12-15-2009_09-02-12
242661012	932514	1	axc2	12/15/2009 9:57:15	OM_12-15-2009_09-02-12
1201994714	932514	1	axc2	12/15/2009 9:58:09	OM_12-15-2009_09-02-12
1201994716	932514	1	axc2	12/15/2009 9:59:02	OM_12-15-2009_09-02-12
1201994718	932514	1	axc2	12/15/2009 9:59:56	OM_12-15-2009_09-02-12
242661013	932514	1	axc2	12/15/2009 10:00:48	OM_12-15-2009_09-02-12
1201994715	932514	1	axc2	12/15/2009 10:01:41	OM_12-15-2009_09-02-12
1201994717	932514	1	axc2	12/15/2009 10:02:34	OM_12-15-2009_09-02-12
1201994719	932514	1	axc2	12/15/2009 10:03:27	OM_12-15-2009_09-02-12
CCV		1	axc2	12/15/2009 10:04:19	OM_12-15-2009_09-02-12
CCB		1	axc2	12/15/2009 10:06:09	OM_12-15-2009_09-02-12

242661014	932514	1	axc2	12/15/2009	10:07:57	OM_12-15-2009_09-02-12
242661015	932514	1	axc2	12/15/2009	10:08:50	OM_12-15-2009_09-02-12
242661016	932514	1	axc2	12/15/2009	10:09:42	OM_12-15-2009_09-02-12
242661017	932514	1	axc2	12/15/2009	10:10:34	OM_12-15-2009_09-02-12
242661018	932514	1	axc2	12/15/2009	10:11:26	OM_12-15-2009_09-02-12
242661019	932514	1	axc2	12/15/2009	10:12:20	OM_12-15-2009_09-02-12
242661020	932514	1	axc2	12/15/2009	10:13:14	OM_12-15-2009_09-02-12
242668001	932514	1	axc2	12/15/2009	10:14:09	OM_12-15-2009_09-02-12
242668002	932514	1	axc2	12/15/2009	10:15:01	OM_12-15-2009_09-02-12
242743002	932514	1	axc2	12/15/2009	10:15:55	OM_12-15-2009_09-02-12
CCV		1	axc2	12/15/2009	10:16:47	OM_12-15-2009_09-02-12
CCB		1	axc2	12/15/2009	10:18:38	OM_12-15-2009_09-02-12
242748001	932514	1	axc2	12/15/2009	10:20:28	OM_12-15-2009_09-02-12
242748002	932514	1	axc2	12/15/2009	10:21:21	OM_12-15-2009_09-02-12
242750001	932514	1	axc2	12/15/2009	10:22:15	OM_12-15-2009_09-02-12
242792001	932514	1	axc2	12/15/2009	10:23:08	OM_12-15-2009_09-02-12
1201993018	931715	1	axc2	12/15/2009	10:24:00	OM_12-15-2009_09-02-12
1201993019	931715	1	axc2	12/15/2009	10:24:53	OM_12-15-2009_09-02-12
242441001*	931715	1	axc2	12/15/2009	10:25:45	OM_12-15-2009_09-02-12
242716001	931715	1	axc2	12/15/2009	10:26:38	OM_12-15-2009_09-02-12
1201994739	931715	1	axc2	12/15/2009	10:27:30	OM_12-15-2009_09-02-12
1201994736	932522	1	axc2	12/15/2009	10:28:22	OM_12-15-2009_09-02-12
CCV		1	axc2	12/15/2009	10:29:15	OM_12-15-2009_09-02-12
CCB		1	axc2	12/15/2009	10:31:05	OM_12-15-2009_09-02-12
1201994738	932522	1	axc2	12/15/2009	10:32:55	OM_12-15-2009_09-02-12
1201994753	932522	1	axc2	12/15/2009	10:33:49	OM_12-15-2009_09-02-12
242441002	932522	1	axc2	12/15/2009	10:34:44	OM_12-15-2009_09-02-12
242441003	932522	1	axc2	12/15/2009	10:35:37	OM_12-15-2009_09-02-12
242565001	932522	1	axc2	12/15/2009	10:36:31	OM_12-15-2009_09-02-12
242567001	932522	1	axc2	12/15/2009	10:37:24	OM_12-15-2009_09-02-12
242441001	931715	1	axc2	12/15/2009	10:38:17	OM_12-15-2009_09-02-12
CCV		1	axc2	12/15/2009	10:39:09	OM_12-15-2009_09-02-12
CCB		1	axc2	12/15/2009	10:41:00	OM_12-15-2009_09-02-12

Author: axc2 Date : 12/15/2009

Original Run Filename: OM_12-15-2009_09-02-12.OMN created 12/15/2009 09:02:12
Original Run Author's Signature: [axc2]
Current Run Filename: OM_12-15-2009_09-02-12.OMN last modified 12/15/2009 10:42:05
Current Run Author's Signature: [axc2]
Description: GL-GC-E-095 EPA 335.1, 335.3, 335.4, 9012A, CLP335.2-M
Liquid LCS nominal 50 ug/L

Sample	Rep.	Cup No.	Channel 1 TCYANIDE Conc. (ug/L)	Area (Vs)	Detection Time	ADF	MDF	Description
WCN091215-01	1	S1	200	8.39	12/15/2009@09:05:34			200 ppb
WCN091215-02	1	S2	150	6.34	12/15/2009@09:06:27			150 ppb
WCN091215-03	1	S3	100	4.06	12/15/2009@09:07:19			100 ppb
WCN091215-04	1	S4	50.0	2.26	12/15/2009@09:08:13			50 ppb
WCN091215-05	1	S5	10.0	0.535	12/15/2009@09:09:06			10 ppb
WCN091215-06	1	S6	5.00	0.272	12/15/2009@09:09:59			CRDL 5.0 ppb
WCN091215-08	1	S7	0.00	2.91e-4	12/15/2009@09:10:53			0.0 ppb
DQM Test: Minimum Correlation Coefficient								
		Result:	0.99962 > 0.99500					
		Message	Pass					
		Action	Continue					
WCN091215-07	1	S8	138	5.79	12/15/2009@09:12:44			ICV
		Known Conc:	150					
DQM Test: > + Percent Relative Difference								
		Result:	-8.2 < 10.0					
		Message	ICV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	-8.2 < 10.0					
		Message	ICV Passed					
		Action	Continue					
		Calibration:	Table/Fig. 1					
WCN091215-08	1	S7	2.48	0.167	12/15/2009@09:14:34			ICB/CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	2.48 < 5.01					
		Message	ICB/CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	2.48 > -5.01					
		Message	ICB/CCB Passed					
		Action	Continue					
WCN091215-06	1	S6	4.39	0.247	12/15/2009@09:16:24			CRDL
		Known Conc:	5.00					
DQM Test: > + Concentration Limit								
		Result:	4.39 < 7.50					
		Message	CRDL Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	4.39 > 2.50					
		Message	Pass					
		Action	None					
1201992122|931341|MB	1	1	-1.54	3.22e-4	12/15/2009@09:18:13			
1201992132||LCS	1	2	48.6	2.08	12/15/2009@09:19:07			
242436001	1	3	-0.571	0.0406	12/15/2009@09:20:00			
1201992123||DUP	1	4	-2.60	-0.0439	12/15/2009@09:20:53			
1201992126||MS	1	5	96.4	4.07	12/15/2009@09:21:46			
1201992129||MSD	1	6	99.4	4.20	12/15/2009@09:22:38			
242441001	1	7	0.371	0.0798	12/15/2009@09:23:31			
242448001	1	8	5.87	0.308	12/15/2009@09:24:24			
242448002	1	9	-1.29	0.0106	12/15/2009@09:25:16			
242448003	1	10	-2.76	-0.0503	12/15/2009@09:26:08			
WCN091215-03	1	S3	98.9	4.17	12/15/2009@09:27:01			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	-1.1 < 10.0					

		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Percent Relative Difference					
		Result:	-1.1 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN091215-08	1	S7	-1.54	1.91e-4	12/15/2009@09:28:51			CCB
		Known Conc:	0.00					
			DQM Test: > + Concentration Limit					
		Result:	-1.54 < 5.00					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	-1.54 > -5.00					
		Message	CCB Passed					
		Action	Continue					
242448004	1	11	-2.52	-0.0405	12/15/2009@09:30:39			
242448005	1	12	-1.27	0.0117	12/15/2009@09:31:31			
242448006	1	13	-2.41	-0.0358	12/15/2009@09:32:23			
242475001	1	14	-1.53	5.53e-4	12/15/2009@09:33:14			
1201992125||DUP	1	15	-0.467	0.0449	12/15/2009@09:34:06			
1201992128||MS	1	16	93.5	3.95	12/15/2009@09:35:00			
1201992131||MSD	1	17	93.8	3.96	12/15/2009@09:35:53			
242637001	1	18	65.0	2.77	12/15/2009@09:36:46			
242669001	1	19	-1.54	2.89e-4	12/15/2009@09:37:40			
242669002	1	20	-1.23	0.0131	12/15/2009@09:38:33			
WCN091215-03	1	S3	99.1	4.18	12/15/2009@09:39:27			CCV
		Known Conc:	100					
			DQM Test: > + Percent Relative Difference					
		Result:	-0.9 < 10.0					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Percent Relative Difference					
		Result:	-0.9 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN091215-08	1	S7	-2.89	-0.0556	12/15/2009@09:41:16			CCB
		Known Conc:	0.00					
			DQM Test: > + Concentration Limit					
		Result:	-2.89 < 5.00					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	-2.89 > -5.00					
		Message	CCB Passed					
		Action	Continue					
242669003	1	21	-2.63	-0.0448	12/15/2009@09:43:04			
242669004	1	22	-2.63	-0.0449	12/15/2009@09:43:58			
242691002	1	23	-2.86	-0.0546	12/15/2009@09:44:51			
242749001	1	24	-1.49	0.00250	12/15/2009@09:45:43			
242782001	1	25	-1.54	3.20e-4	12/15/2009@09:46:35			
242782002	1	26	-1.54	2.83e-4	12/15/2009@09:47:27			
1201994713|932514|MB	1	27	-1.54	1.81e-4	12/15/2009@09:48:20			
1201994720||LCS	1	28	32.0	1.39	12/15/2009@09:49:12		25.00	
242441002	1	29	-1.54	3.36e-4	12/15/2009@09:50:04			
242441003	1	30	-1.19	0.0148	12/15/2009@09:50:55			
WCN091215-03	1	S3	98.6	4.17	12/15/2009@09:51:48			CCV
		Known Conc:	100					
			DQM Test: > + Percent Relative Difference					
		Result:	-1.4 < 10.0					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Percent Relative Difference					
		Result:	-1.4 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN091215-08	1	S7	-1.54	3.32e-4	12/15/2009@09:53:38			CCB
		Known Conc:	0.00					

DQM Test: > + Concentration Limit								
		Result:	-1.54 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.54 > -5.00					
		Message	CCB Passed					
		Action	Continue					
242565001	1	31	21.3	0.950	12/15/2009@09:55:28			
242567001	1	32	7.54	0.378	12/15/2009@09:56:22			
242661012	1	33	-0.324	0.0509	12/15/2009@09:57:15			
1201994714||DUP	1	34	-0.230	0.0548	12/15/2009@09:58:09			
1201994716||MS	1	35	78.3	3.32	12/15/2009@09:59:02			
1201994718||MSD	1	36	88.2	3.73	12/15/2009@09:59:56			
242661013	1	37	-1.54	1.71e-4	12/15/2009@10:00:48			
1201994715||DUP	1	38	-1.48	0.00300	12/15/2009@10:01:41			
1201994717||MS	1	39	96.2	4.06	12/15/2009@10:02:34			
1201994719||MSD	1	40	97.0	4.10	12/15/2009@10:03:27			
WCN091215-03	1	S3	99.3	4.19	12/15/2009@10:04:19			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	-0.7 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	-0.7 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN091215-08	1	S7	-1.54	3.28e-4	12/15/2009@10:06:09			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.54 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.54 > -5.00					
		Message	CCB Passed					
		Action	Continue					
242661014	1	41	-0.803	0.0309	12/15/2009@10:07:57			
242661015	1	42	-0.596	0.0396	12/15/2009@10:08:50			
242661016	1	43	1.62	0.132	12/15/2009@10:09:42			
242661017	1	44	0.839	0.0992	12/15/2009@10:10:34			
242661018	1	45	-0.737	0.0337	12/15/2009@10:11:26			
242661019	1	46	-2.20	-0.0272	12/15/2009@10:12:20			
242661020	1	47	-1.03	0.0216	12/15/2009@10:13:14			
242668001	1	48	0.794	0.0974	12/15/2009@10:14:09			
242668002	1	49	1.65	0.133	12/15/2009@10:15:01			
242743002	1	50	1.26	0.117	12/15/2009@10:15:55			
WCN091215-03	1	S3	99.3	4.19	12/15/2009@10:16:47			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	-0.7 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	-0.7 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN091215-08	1	S7	-2.75	-0.0501	12/15/2009@10:18:38			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-2.75 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-2.75 > -5.00					
		Message	CCB Passed					
		Action	Continue					

242748001	1	51	31.4	1.37	12/15/2009@10:20:28			
242748002	1	52	-0.809	0.0307	12/15/2009@10:21:21			
242750001	1	53	-0.900	0.0269	12/15/2009@10:22:15			
242792001	1	54	3.65	0.216	12/15/2009@10:23:08			
1201993018|931715|MB	1	55	-1.25	0.0123	12/15/2009@10:24:00			
1201993019||LCS	1	56	2.91	0.185	12/15/2009@10:24:53			
242441001	1	57	15.2	0.696	12/15/2009@10:25:45			
242716001	1	58	-2.69	-0.0475	12/15/2009@10:26:38			
1201994739||DUP	1	59	0.0316	0.0657	12/15/2009@10:27:30			
1201994736|932522|MB	1	60	-1.54	2.92e-4	12/15/2009@10:28:22			
WCN091215-03	1	S3	99.5	4.20	12/15/2009@10:29:15			CCV
	Known Conc:		100					
DQM Test: > + Percent Relative Difference								
	Result:		-0.5 < 10.0					
	Message		CCV Passed					
	Action		Continue					
DQM Test: < - Percent Relative Difference								
	Result:		-0.5 < 10.0					
	Message		CCV Passed					
	Action		Continue					
WCN091215-08	1	S7	-3.69	-0.0893	12/15/2009@10:31:05			CCB
	Known Conc:		0.00					
DQM Test: > + Concentration Limit								
	Result:		-3.69 < 5.00					
	Message		CCB Passed					
	Action		Continue					
DQM Test: < - Concentration Limit								
	Result:		-3.69 > -5.00					
	Message		CCB Passed					
	Action		Continue					
1201994738||LCS	1	61	-2.46	-0.0381	12/15/2009@10:32:55			
1201994753||LCSD	1	62	-1.45	0.00407	12/15/2009@10:33:49			
242441002	1	63	-0.502	0.0435	12/15/2009@10:34:44			
242441003	1	64	-0.311	0.0514	12/15/2009@10:35:37			
242565001	1	65	51.2	2.19	12/15/2009@10:36:31			
242567001	1	66	5.32	0.285	12/15/2009@10:37:24			
242441001|931715	1	57	9.24	0.448	12/15/2009@10:38:17			
WCN091215-03	1	S3	98.9	4.18	12/15/2009@10:39:09			CCV
	Known Conc:		100					
DQM Test: > + Percent Relative Difference								
	Result:		-1.1 < 10.0					
	Message		CCV Passed					
	Action		Continue					
DQM Test: < - Percent Relative Difference								
	Result:		-1.1 < 10.0					
	Message		CCV Passed					
	Action		Continue					
WCN091215-08	1	S7	-1.55	0.00	12/15/2009@10:41:00			CCB
	Known Conc:		0.00					
DQM Test: > + Concentration Limit								
	Result:		-1.55 < 5.00					
	Message		CCB Passed					
	Action		Continue					
DQM Test: < - Concentration Limit								
	Result:		-1.55 > -5.00					
	Message		CCB Passed					
	Action		Continue					

Analyte Properties Table for OM_12-15-2009_09-02-12.OMN

Property	Channel 1
	TCYANIDE
Concentration Units	ug/L
Callibration Fit Type	First Order
Clear Calibration	True
Force Through Zero	False
Calibration Weighting	None
Auto Dilution Trigger	True

Author: axc2

Date : 12/15/2009

% of High Standard	100
Quik Chem Method	10-204-00-1-A
Chemistry	Direct/Bipolar
Calibration by Height	False
Inject to Peak Start	22
Peak Base Width	39

Channel 1: Current View

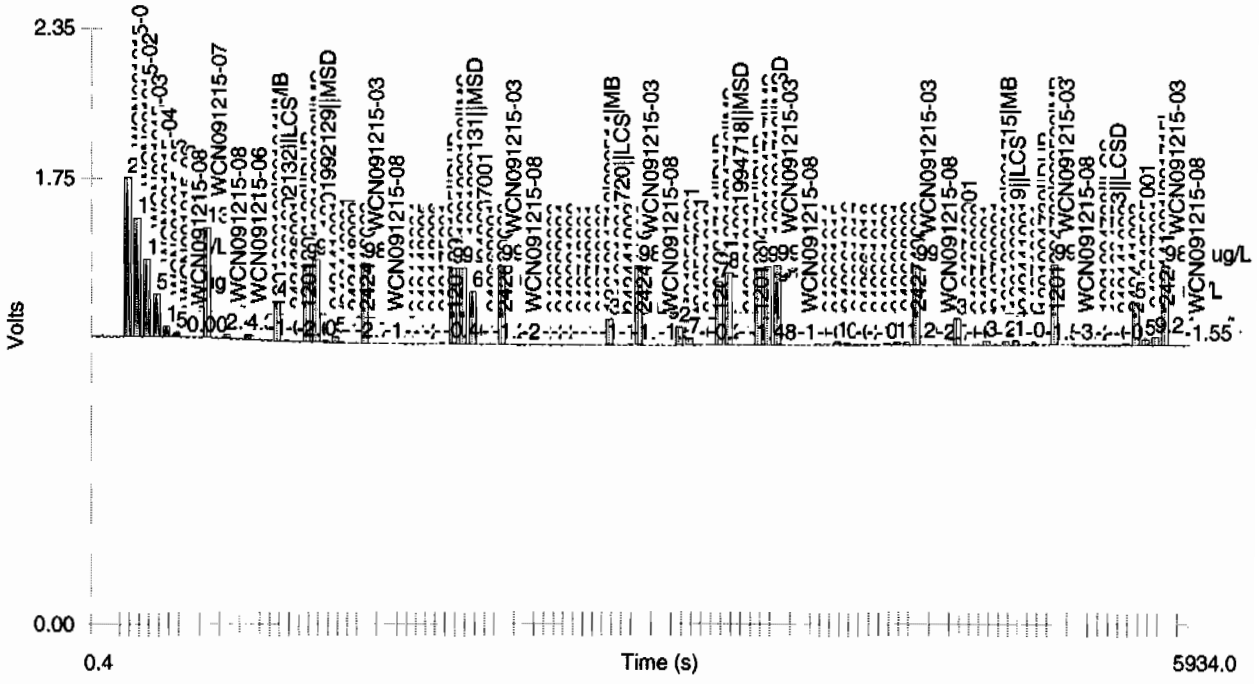

Table 1: TCYANIDE

	Conc. (ug/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	200	1	8.39	0.616	-0.2	12/15/2009	09:06:38
2	150	1	6.34	0.461	-0.7	12/15/2009	09:07:30
3	100	1	4.06	0.297	3.8	12/15/2009	09:08:22
4	50.0	1	2.26	0.164	-5.5	12/15/2009	09:09:15
5	10.0	1	0.535	0.0380	-11.1	12/15/2009	09:10:08
6	5.00	1	0.272	0.0172	1.0	12/15/2009	09:11:02
7	0.00	1	2.91e-4	0.00261		12/15/2009	09:11:56

Author: axc2

Date : 12/15/2009

Figure 1: TCYANIDE

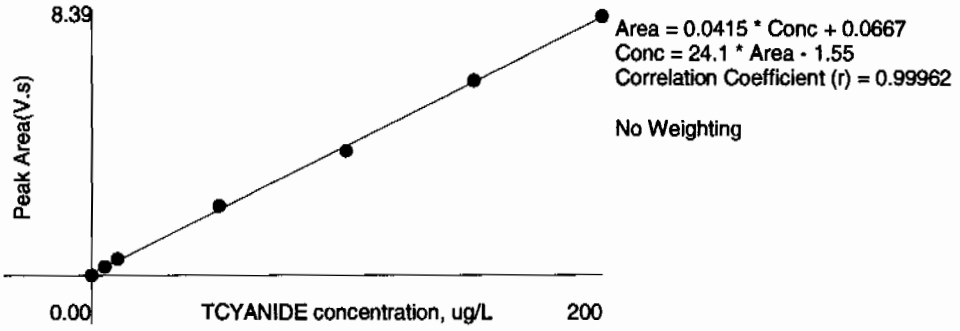

This is runlog Lachat1

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
200 ppb		1	axc2	12/17/2009 9:05:48	OM_12-17-2009_09-04-52
150 ppb		1	axc2	12/17/2009 9:06:40	OM_12-17-2009_09-04-52
100 ppb		1	axc2	12/17/2009 9:07:33	OM_12-17-2009_09-04-52
50 ppb		1	axc2	12/17/2009 9:08:26	OM_12-17-2009_09-04-52
10 ppb		1	axc2	12/17/2009 9:09:19	OM_12-17-2009_09-04-52
CRDL 5.0 ppb		1	axc2	12/17/2009 9:10:12	OM_12-17-2009_09-04-52
ICAL-00		1	axc2	12/17/2009 9:11:07	OM_12-17-2009_09-04-52
ICV		1	axc2	12/17/2009 9:12:57	OM_12-17-2009_09-04-52
ICB		1	axc2	12/17/2009 9:14:48	OM_12-17-2009_09-04-52
CRDL		1	axc2	12/17/2009 9:16:38	OM_12-17-2009_09-04-52
1201997429	933603	1	axc2	12/17/2009 9:18:29	OM_12-17-2009_09-04-52
1201997433	933603	1	axc2	12/17/2009 9:19:22	OM_12-17-2009_09-04-52
242779001	933603	1	axc2	12/17/2009 9:20:15	OM_12-17-2009_09-04-52
242927007	933603	1	axc2	12/17/2009 9:21:08	OM_12-17-2009_09-04-52
1201997430	933603	1	axc2	12/17/2009 9:22:01	OM_12-17-2009_09-04-52
1201997431	933603	1	axc2	12/17/2009 9:22:54	OM_12-17-2009_09-04-52
1201997432	933603	1	axc2	12/17/2009 9:23:46	OM_12-17-2009_09-04-52
242934001	933603	1	axc2	12/17/2009 9:24:39	OM_12-17-2009_09-04-52
1201997545	933603	1	axc2	12/17/2009 9:25:31	OM_12-17-2009_09-04-52
1201997547	933603	1	axc2	12/17/2009 9:26:24	OM_12-17-2009_09-04-52
CCV		1	axc2	12/17/2009 9:27:16	OM_12-17-2009_09-04-52
CCB		1	axc2	12/17/2009 9:29:07	OM_12-17-2009_09-04-52
1201997549	933603	1	axc2	12/17/2009 9:30:55	OM_12-17-2009_09-04-52
242936001	933603	1	axc2	12/17/2009 9:31:47	OM_12-17-2009_09-04-52
242940001	933603	1	axc2	12/17/2009 9:32:40	OM_12-17-2009_09-04-52
1201997546	933603	1	axc2	12/17/2009 9:33:31	OM_12-17-2009_09-04-52
1201997548	933603	1	axc2	12/17/2009 9:34:22	OM_12-17-2009_09-04-52
1201997550	933603	1	axc2	12/17/2009 9:35:16	OM_12-17-2009_09-04-52
242940002	933603	1	axc2	12/17/2009 9:36:10	OM_12-17-2009_09-04-52
242954002	933603	1	axc2	12/17/2009 9:37:03	OM_12-17-2009_09-04-52
1201994740	932527	1	axc2	12/17/2009 9:37:57	OM_12-17-2009_09-04-52
1201994747	932527	25	axc2	12/17/2009 9:38:50	OM_12-17-2009_09-04-52
CCV		1	axc2	12/17/2009 9:39:42	OM_12-17-2009_09-04-52
CCB		1	axc2	12/17/2009 9:41:32	OM_12-17-2009_09-04-52
242750002	932527	1	axc2	12/17/2009 9:43:21	OM_12-17-2009_09-04-52
1201994741	932527	1	axc2	12/17/2009 9:44:15	OM_12-17-2009_09-04-52
1201994743	932527	1	axc2	12/17/2009 9:45:07	OM_12-17-2009_09-04-52
1201994745	932527	1	axc2	12/17/2009 9:46:00	OM_12-17-2009_09-04-52
242750003	932527	1	axc2	12/17/2009 9:46:53	OM_12-17-2009_09-04-52
1201994742	932527	1	axc2	12/17/2009 9:47:45	OM_12-17-2009_09-04-52
1201994744	932527	1	axc2	12/17/2009 9:48:37	OM_12-17-2009_09-04-52
1201994746	932527	1	axc2	12/17/2009 9:49:29	OM_12-17-2009_09-04-52
242750004	932527	1	axc2	12/17/2009 9:50:21	OM_12-17-2009_09-04-52
242781001	932527	1	axc2	12/17/2009 9:51:13	OM_12-17-2009_09-04-52
CCV		1	axc2	12/17/2009 9:52:05	OM_12-17-2009_09-04-52
CCB		1	axc2	12/17/2009 9:53:56	OM_12-17-2009_09-04-52
242781002	932527	1	axc2	12/17/2009 9:55:46	OM_12-17-2009_09-04-52
242781003	932527	1	axc2	12/17/2009 9:56:40	OM_12-17-2009_09-04-52
242781004	932527	1	axc2	12/17/2009 9:57:34	OM_12-17-2009_09-04-52
242781005	932527	1	axc2	12/17/2009 9:58:27	OM_12-17-2009_09-04-52
242781006	932527	1	axc2	12/17/2009 9:59:20	OM_12-17-2009_09-04-52
242781007	932527	1	axc2	12/17/2009 10:00:14	OM_12-17-2009_09-04-52
242786001	932527	1	axc2	12/17/2009 10:01:07	OM_12-17-2009_09-04-52
242786002*	932527	1	axc2	12/17/2009 10:02:00	OM_12-17-2009_09-04-52
242791001	932527	1	axc2	12/17/2009 10:02:52	OM_12-17-2009_09-04-52
242791002	932527	1	axc2	12/17/2009 10:03:44	OM_12-17-2009_09-04-52
CCV		1	axc2	12/17/2009 10:04:37	OM_12-17-2009_09-04-52
CCB		1	axc2	12/17/2009 10:06:27	OM_12-17-2009_09-04-52

242792002	932527	1	axc2	12/17/2009	10:08:17	OM_12-17-2009_09-04-52
242794001*	932527	1	axc2	12/17/2009	10:09:09	OM_12-17-2009_09-04-52
242794002	932527	1	axc2	12/17/2009	10:10:02	OM_12-17-2009_09-04-52
242794003	932527	1	axc2	12/17/2009	10:10:53	OM_12-17-2009_09-04-52
242794004	932527	1	axc2	12/17/2009	10:11:45	OM_12-17-2009_09-04-52
1201996318	933146	1	axc2	12/17/2009	10:12:39	OM_12-17-2009_09-04-52
1201996322	933146	25	axc2	12/17/2009	10:13:33	OM_12-17-2009_09-04-52
242817001	933146	1	axc2	12/17/2009	10:14:28	OM_12-17-2009_09-04-52
1201996319	933146	1	axc2	12/17/2009	10:15:21	OM_12-17-2009_09-04-52
1201996320	933146	1	axc2	12/17/2009	10:16:14	OM_12-17-2009_09-04-52
CCV		1	axc2	12/17/2009	10:17:07	OM_12-17-2009_09-04-52
CCB		1	axc2	12/17/2009	10:18:57	OM_12-17-2009_09-04-52
1201996321	933146	1	axc2	12/17/2009	10:20:46	OM_12-17-2009_09-04-52
242817002	933146	1	axc2	12/17/2009	10:21:39	OM_12-17-2009_09-04-52
242817003*	933146	1	axc2	12/17/2009	10:22:33	OM_12-17-2009_09-04-52
242817004	933146	1	axc2	12/17/2009	10:23:27	OM_12-17-2009_09-04-52
242817005	933146	1	axc2	12/17/2009	10:24:19	OM_12-17-2009_09-04-52
242817006	933146	1	axc2	12/17/2009	10:25:11	OM_12-17-2009_09-04-52
242786002	932527	1	axc2	12/17/2009	10:26:05	OM_12-17-2009_09-04-52
242794001	932527	1	axc2	12/17/2009	10:26:57	OM_12-17-2009_09-04-52
242817002*	933146	10	axc2	12/17/2009	10:27:50	OM_12-17-2009_09-04-52
242817006*	933146	10	axc2	12/17/2009	10:28:44	OM_12-17-2009_09-04-52
CCV		1	axc2	12/17/2009	10:29:35	OM_12-17-2009_09-04-52
CCB		1	axc2	12/17/2009	10:31:26	OM_12-17-2009_09-04-52

Author: axc2 Date : 12/17/2009

Original Run Filename: OM_12-17-2009_09-04-52.OMN created 12/17/2009 09:04:52
Original Run Author's Signature: [axc2]
Current Run Filename: OM_12-17-2009_09-04-52.OMN last modified 12/17/2009 10:32:30
Current Run Author's Signature: [axc2]
Description: GL-GC-E-095 EPA 335.1, 335.3, 335.4, 9012A, CLP335.2-M
Liquid LCS nominal 50 ug/L

Sample	Rep.	Cup No.	Channel 1 TCYANIDE Conc. (ug/L)	Area (Vs)	Detection Time	ADF	MDF	Description
WCN091217-01	1	S1	200	8.92	12/17/2009@09:05:48			200 ppb
WCN091217-02	1	S2	150	6.63	12/17/2009@09:06:40			150 ppb
WCN091217-03	1	S3	100	4.19	12/17/2009@09:07:33			100 ppb
WCN091217-04	1	S4	50.0	2.28	12/17/2009@09:08:26			50 ppb
WCN091217-05	1	S5	10.0	0.532	12/17/2009@09:09:19			10 ppb
WCN091217-06	1	S6	5.00	0.294	12/17/2009@09:10:12			CRDL 5.0 ppb
WCN091217-08	1	S7	0.00	0.0339	12/17/2009@09:11:07			0.0 ppb
DQM Test: Minimum Correlation Coefficient								
		Result:	0.99949 > 0.99500					
		Message	Pass					
		Action	Continue					
WCN091217-07	1	S8	141	6.22	12/17/2009@09:12:57			ICV
		Known Conc:	150					
DQM Test: > + Percent Relative Difference								
		Result:	-6.2 < 10.0					
		Message	ICV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	-6.2 < 10.0					
		Message	ICV Passed					
		Action	Continue					
		Calibration:	Table/Fig. 1					
WCN091217-08	1	S7	-0.0961	0.0296	12/17/2009@09:14:48			ICB/CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-0.0961 < 5.01					
		Message	ICB/CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-0.0961 > -5.01					
		Message	ICB/CCB Passed					
		Action	Continue					
WCN091217-06	1	S6	5.68	0.284	12/17/2009@09:16:38			CRDL
		Known Conc:	5.00					
DQM Test: > + Concentration Limit								
		Result:	5.68 < 7.50					
		Message	CRDL Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	5.68 > 2.50					
		Message	Pass					
		Action	None					
1201997429|933603|MB	1	1	-0.0867	0.0300	12/17/2009@09:18:29			
1201997433||LCS	1	2	51.1	2.28	12/17/2009@09:19:22			
242779001	1	3	3.20	0.175	12/17/2009@09:20:15			
242927007	1	4	-0.763	2.59e-4	12/17/2009@09:21:08			
1201997430||DUP	1	5	0.209	0.0430	12/17/2009@09:22:01			
1201997431||MS	1	6	69.5	3.09	12/17/2009@09:22:54			
1201997432||MSD	1	7	78.7	3.49	12/17/2009@09:23:46			
242934001	1	8	-0.0322	0.0324	12/17/2009@09:24:39			
1201997545||DUP	1	9	-0.625	0.00630	12/17/2009@09:25:31			
1201997547||MS	1	10	96.7	4.29	12/17/2009@09:26:24			
WCN091217-03	1	S3	96.3	4.27	12/17/2009@09:27:16			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	-3.7 < 10.0					

		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Percent Relative Difference					
		Result:	-3.7 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN091217-08	1	S7	-0.252	0.0227	12/17/2009@09:29:07			CCB
		Known Conc:	0.00					
			DQM Test: > + Concentration Limit					
		Result:	-0.252 < 5.00					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	-0.252 > -5.00					
		Message	CCB Passed					
		Action	Continue					
1201997549||MSD	1	11	98.7	4.37	12/17/2009@09:30:55			
242936001	1	12	0.295	0.0468	12/17/2009@09:31:47			
242940001	1	13	0.160	0.0408	12/17/2009@09:32:40			
1201997546||DUP	1	14	-2.02	-0.0549	12/17/2009@09:33:31			
1201997548||MS	1	15	103	4.57	12/17/2009@09:34:22			
1201997550||MSD	1	16	101	4.47	12/17/2009@09:35:16			
242940002	1	17	-0.0515	0.0315	12/17/2009@09:36:10			
242954002	1	18	1.94	0.119	12/17/2009@09:37:03			
1201994740|932527|MB	1	19	-0.0260	0.0327	12/17/2009@09:37:57			
1201994747||LCS	1	20	31.8	1.43	12/17/2009@09:38:50		25.00	
WCN091217-03	1	S3	97.5	4.32	12/17/2009@09:39:42			CCV
		Known Conc:	100					
			DQM Test: > + Percent Relative Difference					
		Result:	-2.5 < 10.0					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Percent Relative Difference					
		Result:	-2.5 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN091217-08	1	S7	-0.749	8.61e-4	12/17/2009@09:41:32			CCB
		Known Conc:	0.00					
			DQM Test: > + Concentration Limit					
		Result:	-0.749 < 5.00					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	-0.749 > -5.00					
		Message	CCB Passed					
		Action	Continue					
242750002	1	21	0.121	0.0391	12/17/2009@09:43:21			
1201994741||DUP	1	22	-0.116	0.0287	12/17/2009@09:44:15			
1201994743||MS	1	23	93.7	4.16	12/17/2009@09:45:07			
1201994745||MSD	1	24	87.3	3.87	12/17/2009@09:46:00			
242750003	1	25	-0.120	0.0285	12/17/2009@09:46:53			
1201994742||DUP	1	26	0.0762	0.0371	12/17/2009@09:47:45			
1201994744||MS	1	27	102	4.51	12/17/2009@09:48:37			
1201994746||MSD	1	28	99.5	4.41	12/17/2009@09:49:29			
242750004	1	29	0.0863	0.0376	12/17/2009@09:50:21			
242781001	1	30	4.92	0.250	12/17/2009@09:51:13			
WCN091217-03	1	S3	97.4	4.32	12/17/2009@09:52:05			CCV
		Known Conc:	100					
			DQM Test: > + Percent Relative Difference					
		Result:	-2.6 < 10.0					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Percent Relative Difference					
		Result:	-2.6 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN091217-08	1	S7	-0.638	0.00575	12/17/2009@09:53:56			CCB
		Known Conc:	0.00					

DQM Test: > + Concentration Limit								
		Result:	-0.638 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-0.638 > -5.00					
		Message	CCB Passed					
		Action	Continue					
242781002	1	31	2.76	0.155	12/17/2009@09:55:46			
242781003	1	32	0.849	0.0711	12/17/2009@09:56:40			
242781004	1	33	0.204	0.0428	12/17/2009@09:57:34			
242781005	1	34	-0.302	0.0205	12/17/2009@09:58:27			
242781006	1	35	3.92	0.206	12/17/2009@09:59:20			
242781007	1	36	21.0	0.956	12/17/2009@10:00:14			
242786001	1	37	-0.149	0.0272	12/17/2009@10:01:07			
242786002	1	38	5.62	0.281	12/17/2009@10:02:00			
242791001	1	39	2.06	0.124	12/17/2009@10:02:52			
242791002	1	40	0.902	0.0735	12/17/2009@10:03:44			
WCN091217-03	1	S3	97.2	4.31	12/17/2009@10:04:37			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	-2.8 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	-2.8 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN091217-08	1	S7	-0.0716	0.0307	12/17/2009@10:06:27			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-0.0716 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-0.0716 > -5.00					
		Message	CCB Passed					
		Action	Continue					
242792002	1	41	5.12	0.259	12/17/2009@10:08:17			
242794001	1	42	4.47	0.230	12/17/2009@10:09:09			
242794002	1	43	0.0223	0.0348	12/17/2009@10:10:02			
242794003	1	44	-0.0868	0.0300	12/17/2009@10:10:53			
242794004	1	45	0.203	0.0427	12/17/2009@10:11:45			
1201996318|933146|MB	1	46	0.585	0.0595	12/17/2009@10:12:39			
1201996322||LCS	1	47	37.0	1.66	12/17/2009@10:13:33		25.00	
242817001	1	48	18.9	0.865	12/17/2009@10:14:28			
1201996319||DUP	1	49	13.4	0.623	12/17/2009@10:15:21			
1201996320||MS	1	50	96.0	4.26	12/17/2009@10:16:14			
WCN091217-03	1	S3	97.4	4.32	12/17/2009@10:17:07			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	-2.6 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	-2.6 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN091217-08	1	S7	-0.772	-1.56e-4	12/17/2009@10:18:57			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-0.772 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-0.772 > -5.00					
		Message	CCB Passed					
		Action	Continue					

1201996321||MSD	1	51	98.7	4.37	12/17/2009@10:20:46			
242817002	1	52	313	13.8	12/17/2009@10:21:39			
242817003	1	53	27.0	1.22	12/17/2009@10:22:33			
242817004	1	54	1.78	0.112	12/17/2009@10:23:27			
242817005	1	55	145	6.40	12/17/2009@10:24:19			
242817006	1	56	522	23.0	12/17/2009@10:25:11			
242786002|932527|	1	38	1.50	0.0998	12/17/2009@10:26:05			
242794001	1	42	-0.567	0.00887	12/17/2009@10:26:57			
242817002	1	52	493	21.7	12/17/2009@10:27:50		10.00	
242817006	1	56	526	23.2	12/17/2009@10:28:44		10.00	
WCN091217-03	1	S3	100	4.43	12/17/2009@10:29:35			CCV
	Known Conc:		100					
DQM Test: > + Percent Relative Difference								
	Result:		0.0 < 10.0					
	Message		CCV Passed					
	Action		Continue					
DQM Test: < - Percent Relative Difference								
	Result:		0.0 < 10.0					
	Message		CCV Passed					
	Action		Continue					
WCN091217-08	1	S7	0.0318	0.0352	12/17/2009@10:31:26			CCB
	Known Conc:		0.00					
DQM Test: > + Concentration Limit								
	Result:		0.0318 < 5.00					
	Message		CCB Passed					
	Action		Continue					
DQM Test: < - Concentration Limit								
	Result:		0.0318 > -5.00					
	Message		CCB Passed					
	Action		Continue					

Analyte Properties Table for OM_12-17-2009_09-04-52.OMN

Property	Channel 1
	TCYANIDE
Concentration Units	ug/L
Callibration Fit Type	First Order
Clear Calibration	True
Force Through Zero	False
Calibration Weighting	None
Auto Dilution Trigger	True
% of High Standard	100
Quik Chem Method	10-204-00-1-A
Chemistry	Direct/Bipolar
Calibration by Height	False
Inject to Peak Start	22
Peak Base Width	39

Author: axc2

Date : 12/17/2009

Channel 1: Current View

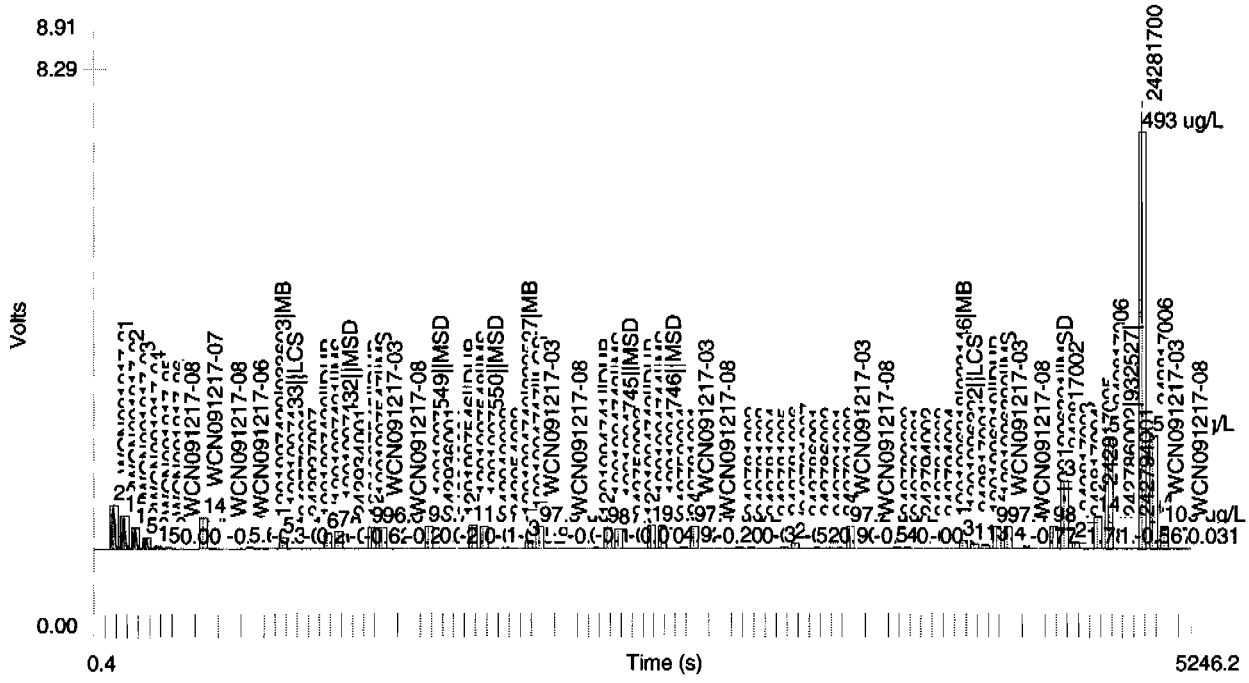

Table 1: TCYANIDE

	Conc. (ug/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	200	1	8.92	0.647	-1.2	12/17/2009	09:06:51
2	150	1	6.63	0.482	-0.1	12/17/2009	09:07:43
3	100	1	4.19	0.305	5.4	12/17/2009	09:08:36
4	50.0	1	2.28	0.164	-1.9	12/17/2009	09:09:29
5	10.0	1	0.532	0.0379	-11.6	12/17/2009	09:10:22
6	5.00	1	0.294	0.0216	-14.6	12/17/2009	09:11:16
7	0.00	1	0.0339	0.00143		12/17/2009	09:12:10

Figure 1: TCYANIDE

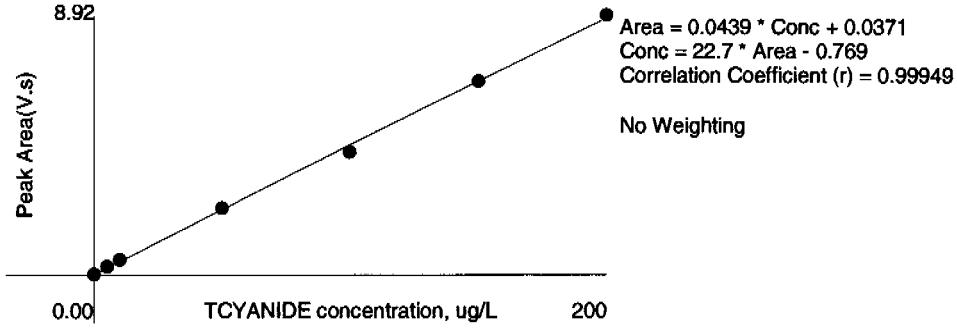

Wednesday, December 09, 2009

REQUEST NUMBER: 10-854

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

These Samples are on:

LANL Request Number:10-854

Per Agreement Number:126310011

Project Cost Code: MR2A054196D0

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 12/9/2009

TURNAROUND/REPORT DUE: 1/8/2010

TURNAROUND REQ'D: 30 Days

RAD SCREENING: Not Required

LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:

Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:6010B	1	RE03-10-2740	S	12/7/2009	
		1	RE03-10-2741	S	12/7/2009	
		1	RE03-10-2753	W	12/7/2009	
		1	RE03-10-2754	W	12/7/2009	
		1	RE03-10-2765	W	12/7/2009	
		1	RE03-10-2767	W	12/7/2009	
	SW-846:6020	1	RE03-10-2753	W	12/7/2009	
		1	RE03-10-2754	W	12/7/2009	
		1	RE03-10-2765	W	12/7/2009	

Wednesday, December 09, 2009

REQUEST NUMBER: 10-854

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:6020	1	RE03-10-2767	W	12/7/2009	
	SW-846:8015M_EXTRACTABLE	1	RE03-10-2740	S	12/7/2009	
		1	RE03-10-2741	S	12/7/2009	
	SW-846:8082	1	RE03-10-2740	S	12/7/2009	
		1	RE03-10-2741	S	12/7/2009	
	SW-846:8260B	1	RE03-10-2740	S	12/7/2009	
		1	RE03-10-2741	S	12/7/2009	
	SW-846:8270C	1	RE03-10-2740	S	12/7/2009	
		1	RE03-10-2741	S	12/7/2009	
	SW-846:9012A	1	RE03-10-2740	S	12/7/2009	
		1	RE03-10-2741	S	12/7/2009	
		1	RE03-10-2753	W	12/7/2009	
		1	RE03-10-2754	W	12/7/2009	
		1	RE03-10-2765	W	12/7/2009	
		1	RE03-10-2767	W	12/7/2009	

Final Page of REQUEST NUMBER 10-854

Wednesday, December 09, 2009

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-854

REQUEST NUMBER: 10-854

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 1/8/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS:

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE03-10-2741	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-10-2741	1	GLASS	8270C+8082+TPH-DRO	Ice	S
RE03-10-2741	1	POLY	Metals+CN - GEL	Ice	S
RE03-10-2740	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-10-2740	1	GLASS	8270C+8082+TPH-DRO	Ice	S
RE03-10-2740	1	POLY	Metals+CN - GEL	Ice	S
RE03-10-2767	1	POLY	METALS-GEL	Nitric Acid	W
RE03-10-2767	1	POLY	TCN	Sodium Hydroxide	W
RE03-10-2753	1	POLY	METALS-GEL	Nitric Acid	W
RE03-10-2753	1	POLY	TCN	Sodium Hydroxide	W
RE03-10-2765	1	POLY	METALS-GEL	Nitric Acid	W
RE03-10-2765	1	POLY	TCN	Sodium Hydroxide	W
RE03-10-2754	1	POLY	METALS-GEL	Nitric Acid	W
RE03-10-2754	1	POLY	TCN	Sodium Hydroxide	W

Relinquished By:		Date	Time	Received By:		Date	Time
[illegible]		12-9-09	1400				
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

Received for DISPOSAL By:		Date	Time	Remarks:
Printed Name	Signature			

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2276 **EVENT NAME:** Soil Sampling at TA-60

SAMPLE ID: RE03-10-2740 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12-7-09	MEDIA:	ALLH	ok
TIME COLLECTED (HH:MM)		0900	SUB-MEDIA:	SOIL	
PRS ID:	60-007(b)	ok	SAMPLE TECH CODE:	HA	
LOCATION ID:	UNK	03-608423	FIELD QC TYPE:	FD	
LOCATION TYPE:	GENERIC	ok	FIELD PREP:	NA	
TOP DEPTH:	0	0	SAMPLE USAGE:	QC	
BOTTOM DEPTH:	0	1'	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	S		EXCAVATED: YES / NO (NA)		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / (NA)

BOREHOLE: YES / NO (NA) BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+8082+TPH-DRO	500 ML GLASS	Ice	Y	
1		Metals+CN - GEL	125 ML POLY	Ice	Y	

SAMPLE DESC: QC Sample of RE03-09-14277

SAMPLE COMMENTS: NA

LOCATION DESC: NA

FIELD SCREENING/MEASUREMENT RESULTS: NA

COLLECTED BY (PRINT) M. Nauck **REVIEWED BY (PRINT)** Maurice Sherelo

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) M. Sherelo	12/7/09	(Printed Name)	12/7/09
(Signature)	1630	(Signature)	1630
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2276 **EVENT NAME:** Soil Sampling at TA-60

SAMPLE ID: RE03-10-2741 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12-7-09	MEDIA:	ALLH	ok
TIME COLLECTED (HH:MM)		1013	SUB-MEDIA:	SOIL	
PRS ID:	60-007(b)	ok	SAMPLE TECH CODE:	HA	
LOCATION ID:	UNK	03-608421	FIELD QC TYPE:	FD	
LOCATION TYPE:	GENERIC	ok	FIELD PREP:	NA	
TOP DEPTH:	0	0	SAMPLE USAGE:	QC	
BOTTOM DEPTH:	0	1'	SCREEN/PORT DESC:		NA
FIELD MATRIX:	S		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: ——— COMPOSITE TIME INTERVAL: ——— WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: ——— BOREHOLE DIRECTION: ———

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C ~~+8082+~~ TPH-DRO ma 12/7/09	500 ML GLASS	Ice	Y	
1		Metals+CN - GEL	125 ML POLY	Ice	✓	

SAMPLE DESC: QC Sample of RE03-09-14273

SAMPLE COMMENTS: ma 12/7/09 ~~ok~~ NA

LOCATION DESC: NA

FIELD SCREENING/MEASUREMENT RESULTS: PID = 8.9 ppm
α : 74
β : 1494

COLLECTED BY (PRINT) L. Horne **REVIEWED BY (PRINT)** Maurice Shendo

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) M. Shendo (Signature) [signature]	12/7/09 1630	(Printed Name) (Signature) [signature]	12/7/09 1630
RELINQUISHED BY (Printed Name) (Signature)	**Date/Time**	**RECEIVED BY** (Printed Name) (Signature)	**Date/Time**

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2276 **EVENT NAME:** Soil Sampling at TA-60

SAMPLE ID: RE03-10-2753 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12-7-09	MEDIA:	NA	OK
TIME COLLECTED (HH:MM)		0900	SUB-MEDIA:	OTHER	
PRS ID:	60-007(b)	OK	SAMPLE TECH CODE:	DC	
LOCATION ID:	UNK	03-608423	FIELD QC TYPE:	FB	
LOCATION TYPE:	GENERIC	OK	FIELD PREP:	UF	
TOP DEPTH:	0		SAMPLE USAGE:	QC	
BOTTOM DEPTH:	0		SCREEN/PORT DESC:	NA	
FIELD MATRIX:	W		EXCAVATED: YES / NO (NA)		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / (NA)

BOREHOLE: YES / NO (NA) BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		METALS-GEL	1 LITER POLY	Nitric Acid	Y	
1		TCN	500 ML POLY	Sodium Hydroxide	Y	

SAMPLE DESC: QC Sample of RE03-09-14277

SAMPLE COMMENTS: NA

LOCATION DESC: NA

FIELD SCREENING/MEASUREMENT RESULTS: NA

COLLECTED BY (PRINT) L. Horne

REVIEWED BY (PRINT) Maurice Shendo

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) M. Shendo (Signature)	12/7/09 1630	(Printed Name) (Signature)	12/7/09 1630
RELINQUISHED BY (Printed Name) (Signature)	**Date/Time**	**RECEIVED BY** (Printed Name) (Signature)	**Date/Time**

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2276 **EVENT NAME:** Soil Sampling at TA-60

SAMPLE ID: RE03-10-2754 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12-7-09	MEDIA:	NA	ok
TIME COLLECTED (HH:MM)		1013	SUB-MEDIA:	OTHER	
PRS ID:	60-007(b)	ok	SAMPLE TECH CODE:	DC	
LOCATION ID:	UNK	03-608421	FIELD QC TYPE:	FB	
LOCATION TYPE:	GENERIC	ok	FIELD PREP:	UF	
TOP DEPTH:	0		SAMPLE USAGE:	QC	
BOTTOM DEPTH:	0		SCREEN/PORT DESC:	NA	
FIELD MATRIX:	W		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		METALS-GEL	1 LITER POLY	Nitric Acid	Y	
1		TCN	500 ML POLY	Sodium Hydroxide	Y	

SAMPLE DESC: QC Sample of RE03-09-14273

SAMPLE COMMENTS: NA

LOCATION DESC: NA

FIELD SCREENING/MEASUREMENT RESULTS: NA

COLLECTED BY (PRINT) M. Nauck **REVIEWED BY (PRINT)** Maurice Shendo

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Maurice Shendo	12/7/09	(Printed Name)	12/7/09
(Signature)	1630	(Signature)	1630
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2276 **EVENT NAME:** Soil Sampling at TA-60

SAMPLE ID: RE03-10-2765 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12-7-09	MEDIA:	NA	ok
TIME COLLECTED (HH:MM)		0902	SUB-MEDIA:	OTHER	
PRS ID:	60-007(b)	ok	SAMPLE TECH CODE:	DC	
LOCATION ID:	UNK	03-608423	FIELD QC TYPE:	FR	
LOCATION TYPE:	GENERIC	ok	FIELD PREP:	UF	
TOP DEPTH:	0		SAMPLE USAGE:	QC	
BOTTOM DEPTH:	0		SCREEN/PORT DESC:		
FIELD MATRIX:	W		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		METALS-GEL	1 LITER POLY	Nitric Acid	Y	
1		TCN	500 ML POLY	Sodium Hydroxide	Y	

SAMPLE DESC: QC Sample of RE03-09-14278

SAMPLE COMMENTS: NA

LOCATION DESC: NA

FIELD SCREENING/MEASUREMENT RESULTS: NA

COLLECTED BY (PRINT) L. Horrc

REVIEWED BY (PRINT) Maurice Shende

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) M. Shende	12/7/07	(Printed Name)	12/7/09
(Signature)	1630	(Signature)	1630
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2276 **EVENT NAME:** Soil Sampling at TA-60

SAMPLE ID: RE03-10-2767 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12-7-09	MEDIA:	NA	OK
TIME COLLECTED (HH:MM)		1029	SUB-MEDIA:	OTHER	
PRS ID:	60-007(b)	OK	SAMPLE TECH CODE:	DC	
LOCATION ID:	UNK	03-608421	FIELD QC TYPE:	FR	
LOCATION TYPE:	GENERIC	OK	FIELD PREP:	UF	
TOP DEPTH:	0		SAMPLE USAGE:	QC	
BOTTOM DEPTH:	0		SCREEN/PORT DESC:	NA	
FIELD MATRIX:	W		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		METALS-GEL	1 LITER POLY	Nitric Acid	Y	
1		TCN	500 ML POLY	Sodium Hydroxide	Y	

SAMPLE DESC: QC Sample of RE03-09-14274

SAMPLE COMMENTS: NA

LOCATION DESC: NA

FIELD SCREENING/MEASUREMENT RESULTS: NA

COLLECTED BY (PRINT) M. Nauck

REVIEWED BY (PRINT) Maurice Shenda

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) M. Shenda	12/7/09	(Printed Name)	12/7/09
(Signature)	1630	(Signature)	1630
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

DATA VALIDATION COVER SHEET

5114-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY

Section I.

REQUEST NUMBER: 10-854 VALIDATION DATE: 02/02/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Susan Ball ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☒ OTHER (DESCRIBE): GC/MS VOCs

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☒	☐	☐	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☒	☐	☐	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. The ICV and/or CCV %Ds were >20% for dichlorodifluoromethane, trichlorofluoromethane, acetone, 2-butanone, carbon tetrachloride, 4-methyl-2-pentanone, 2-hexanone, and tetrachloroethylene. All associated sample results were NDs and, thus, were qualified UJ,V7c.
2. The MS and MSD %Rs for three compounds were outside the laboratory acceptance criteria. In addition, trichlorotrifluoroethane was not represented in the spiking solution. Since the analysis of an MS/MSD pair is not a client requirement, no sample results were qualified.

Reviewed by: ETM Level: 1 Date: 2/4/10

VALIDATOR'S SIGNATURE: [signature] DATE: 02/02/10

VOLATILE ORGANIC COMPOUND (VOC) ANALYTICAL DATA VALIDATION CHECKLIST

5114-2

Volatile Organic Compound (VOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, V9	J-, V9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, V9a	J-, V9a
☐	☐	☒	3. The instrument performance sample did not pass method acceptance criteria.	R, V16	R, V16
☐	☐	☒	4. Samples were analyzed outside specific method tune time criteria.	N/A	J, V16b
☐	☐	☒	5. The required instrument performance sample information is missing. Contact the SMO or external laboratory for information.	R, V16c	R, V16c
☐	☒	☐	6. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ or R, V7	J, V7
☐	☒	☐	7. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, V7a	J, V7a
☐	☒	☐	8. The affected analytes were analyzed with an RRF of <0.05 in the initial calibration and/or CCV.	R, V7b	J, V7b
☒	☐	☐	9. The Initial Calibration Verification (ICV) and/or Continuing Calibration Verification (CCV) were recovered outside the method-specific limits.	UJ, V7c	J, V7c
☐	☒	☐	10. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, V7d	J, V7d
☐	☒	☐	11. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, V7f	R, V7f

VOLATILE ORGANIC COMPOUND (VOC) ANALYTICAL DATA VALIDATION CHECKLIST

5114-2

Volatile Organic Compound (VOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below if Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	12. The sample result is ≤5X (10X for common organic laboratory contaminants) the concentration of the related analyte in the method blank.	U, V4	N/A
☐	☒	☐	13. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X (10X for common laboratory contaminants).	N/A	J, V4a
☐	☐	☒	14. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, and/or equipment blank.	U, V4d	N/A
☐	☒	☐	15. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V4e	R, V4e
☐	☒	☐	16. The IS retention time has shifted by more than 30 seconds.	UJ, V0	J, V0
☐	☐	☒	17. Analyte is positively confirmed but outside the IS retention time window; however, spectral matches must be provided.	N/A	J, V0a
☐	☒	☐	18. Required IS retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V0b	R, V0b
☐	☐	☒	19. The quantitating IS are count is <10% of the expected value, which indicates increased potential for false negative results and other possible problems with sample quantitation. Follow method-specific windows.	R, V1a	J, V1a
☐	☐	☒	20. The IS area count for the quantitating IS is <50% but >10% for organics window relation to the previous continuing calibration. Follow the method-specific windows.	UJ, V1b	J, V1b

VOLATILE ORGANIC COMPOUND (VOC) ANALYTICAL DATA VALIDATION CHECKLIST

5114-2

Volatile Organic Compound (VOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below if Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	21. The IS area count for the quantitating IS is >200% of the area count for the previous organic continuing calibration. Follow the method-specific windows.	UJ, V1c	J, V1c
☐	☐	☒	22. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V1d	R, V1d
☐	☒	☐	23. The surrogate is <10%R. Follow the external laboratory limits located within the associated data package.	R, V3	J-, V3
☐	☒	☐	24. The surrogate is < the Lower Acceptance Limit (LAL) but ≥10%R. Follow the external laboratory limits located within the associated data package.	UJ, V3a	J-, V3a
☐	☒	☐	25. The surrogate %R is > the Upper Acceptance Limit (UAL) Follow the external laboratory limits located within the associated data package.	N/A	J+, V3b
☐	☒	☐	26. At least one surrogate is > the UAL and one surrogate is < the LAL. Follow the external laboratory limits located within the associated data package.	UJ, V3c	J, V3c
☐	☒	☐	27. Required surrogate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V3d	R, V3d
☐	☒	☐	28. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, V12	J-, V12
☐	☒	☐	29. The LCS percent recovery was < the LAL but > 10%. Follow the external laboratory limits located within the associated data package.	UV, V12a	J-, V12a
☐	☒	☐	30. The LCS percent recover was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, V12b

VOLATILE ORGANIC COMPOUND (VOC) ANALYTICAL DATA VALIDATION CHECKLIST

5114-2 Volatile Organic Compound (VOC) Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below if Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	31. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V12c	R, V12c
☐	☒	☐	32. The affected analyte is considered not detected because mass spectrum did not meet specifications.	N/A	U, V8
☐	☒	☐	33. The mass spectrum column documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V8a	R, V8a
☐	☒	☐	34. Duplicate, dilution, or reanalysis.	UJ, V88	J, V88
☐	☐	☒	35. The affected analytes have elevated detection limits and may not meet project DQOs because the sample was diluted without any target analytees identified due to matrix interference. Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.	UJ, R, V15	R, V15
☒	☐	☐	36. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB, NQ, NQ
☐	☒	☐	37. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.	UJ, R, V19	J, R, V19

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-854	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242668002	**Date Received:**	12/10/2009 08:50	**%Moisture:**	11.3
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-10-2740	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	934305	**Inst:**	VOA7.I	**Dilution:**	1
Run Date:	12/18/2009 16:34	**Analyst:**	AXO1	**Purge Vol:**	5 mL
Prep Date:	12/18/2009 13:30	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	7q511.d	**Column:**	DB-624	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
75-71-8	Dichlorodifluoromethane	U	1.13	ug/kg	0.383	1.13	UJ,V7c
74-87-3	Chloromethane	U	1.13	ug/kg	0.338	1.13	
75-01-4	Vinyl chloride	U	1.13	ug/kg	0.338	1.13	
74-83-9	Bromomethane	U	1.13	ug/kg	0.338	1.13	
75-00-3	Chloroethane	U	1.13	ug/kg	0.338	1.13	
75-69-4	Trichlorofluoromethane	U	1.13	ug/kg	0.338	1.13	UJ,V7c
67-64-1	Acetone	U	5.64	ug/kg	1.87	5.64	UJ,V7c
75-35-4	1,1-Dichloroethylene	U	1.13	ug/kg	0.338	1.13	
74-88-4	Iodomethane	U	5.64	ug/kg	1.80	5.64	
75-09-2	Methylene chloride	U	5.64	ug/kg	2.25	5.64	
75-15-0	Carbon disulfide	U	5.64	ug/kg	1.41	5.64	
156-60-5	trans-1,2-Dichloroethylene	U	1.13	ug/kg	0.338	1.13	
75-34-3	1,1-Dichloroethane	U	1.13	ug/kg	0.338	1.13	
78-93-3	2-Butanone	U	5.64	ug/kg	1.69	5.64	UJ,V7c
156-59-2	cis-1,2-Dichloroethylene	U	1.13	ug/kg	0.338	1.13	
594-20-7	2,2-Dichloropropane	U	1.13	ug/kg	0.338	1.13	
67-66-3	Chloroform	U	1.13	ug/kg	0.338	1.13	
74-97-5	Bromochloromethane	U	1.13	ug/kg	0.372	1.13	
71-55-6	1,1,1-Trichloroethane	U	1.13	ug/kg	0.338	1.13	
563-58-6	1,1-Dichloropropene	U	1.13	ug/kg	0.338	1.13	
56-23-5	Carbon tetrachloride	U	1.13	ug/kg	0.338	1.13	UJ,V7c
107-06-2	1,2-Dichloroethane	U	1.13	ug/kg	0.338	1.13	
71-43-2	Benzene	U	1.13	ug/kg	0.338	1.13	
79-01-6	Trichloroethylene	U	1.13	ug/kg	0.372	1.13	
78-87-5	1,2-Dichloropropane	U	1.13	ug/kg	0.338	1.13	
75-27-4	Bromodichloromethane	U	1.13	ug/kg	0.338	1.13	
74-95-3	Dibromomethane	U	1.13	ug/kg	0.338	1.13	
108-10-1	4-Methyl-2-pentanone	U	5.64	ug/kg	1.41	5.64	UJ,V7c
10061-01-5	cis-1,3-Dichloropropylene	U	1.13	ug/kg	0.338	1.13	
108-88-3	Toluene	U	1.13	ug/kg	0.338	1.13	
10061-02-6	trans-1,3-Dichloropropylene	U	1.13	ug/kg	0.338	1.13	
79-00-5	1,1,2-Trichloroethane	U	1.13	ug/kg	0.338	1.13	
591-78-6	2-Hexanone	U	5.64	ug/kg	1.69	5.64	UJ,V7c
142-28-9	1,3-Dichloropropane	U	1.13	ug/kg	0.338	1.13	
127-18-4	Tetrachloroethylene	U	1.13	ug/kg	0.338	1.13	UJ,V7c
124-48-1	Dibromochloromethane	U	1.13	ug/kg	0.338	1.13	
106-93-4	1,2-Dibromoethane	U	1.13	ug/kg	0.338	1.13	
108-90-7	Chlorobenzene	U	1.13	ug/kg	0.338	1.13	

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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-854	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242668002	**Date Received:**	12/10/2009 08:50	**%Moisture:**	11.3
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-10-2740	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	934305	**Inst:**	VOA7.I	**Dilution:**	1
Run Date:	12/18/2009 16:34	**Analyst:**	AXO1	**Purge Vol:**	5 mL
Prep Date:	12/18/2009 13:30	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	7q511.d	**Column:**	DB-624	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.13	ug/kg	0.338	1.13
179601-23-1	m,p-Xylenes	U	2.25	ug/kg	0.338	2.25
95-47-6	o-Xylene	U	1.13	ug/kg	0.338	1.13
100-42-5	Styrene	U	1.13	ug/kg	0.338	1.13
75-25-2	Bromoform	U	1.13	ug/kg	0.338	1.13
79-34-5	1,1,2,2-Tetrachloroethane	U	1.13	ug/kg	0.338	1.13
96-18-4	1,2,3-Trichloropropane	U	1.13	ug/kg	0.338	1.13
108-86-1	Bromobenzene	U	1.13	ug/kg	0.338	1.13
103-65-1	n-Propylbenzene	U	1.13	ug/kg	0.338	1.13
95-49-8	2-Chlorotoluene	U	1.13	ug/kg	0.338	1.13
98-82-8	Isopropylbenzene	U	1.13	ug/kg	0.338	1.13
108-67-8	1,3,5-Trimethylbenzene	U	1.13	ug/kg	0.338	1.13
106-43-4	4-Chlorotoluene	U	1.13	ug/kg	0.338	1.13
98-06-6	tert-Butylbenzene	U	1.13	ug/kg	0.338	1.13
95-63-6	1,2,4-Trimethylbenzene	U	1.13	ug/kg	0.338	1.13
135-98-8	sec-Butylbenzene	U	1.13	ug/kg	0.338	1.13
99-87-6	4-Isopropyltoluene	J	0.380	ug/kg	0.338	1.13
541-73-1	1,3-Dichlorobenzene	U	1.13	ug/kg	0.338	1.13
106-46-7	1,4-Dichlorobenzene	U	1.13	ug/kg	0.338	1.13
104-51-8	n-Butylbenzene	U	1.13	ug/kg	0.338	1.13
96-12-8	1,2-Dibromo-3-chloropropane	U	1.13	ug/kg	0.338	1.13
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.64	ug/kg	1.80	5.64
630-20-6	1,1,1,2-Tetrachloroethane	U	1.13	ug/kg	0.338	1.13
95-50-1	1,2-Dichlorobenzene	U	1.13	ug/kg	0.338	1.13

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Hydrocarbon	19.65	29.4	ug/kg		J
	Unknown Hydrocarbon	20.62	16.4	ug/kg		J
	Unknown Siloxane	21.56	14.8	ug/kg		J

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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-854	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242668001	**Date Received:**	12/10/2009 08:50	**%Moisture:**	8.2
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-10-2741	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	934305	**Inst:**	VOA7.I	**Dilution:**	1
Run Date:	12/18/2009 16:02	**Analyst:**	AXO1	**Purge Vol:**	5 mL
Prep Date:	12/18/2009 13:20	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	7q510.d	**Column:**	DB-624	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
75-71-8	Dichlorodifluoromethane	U	1.09	ug/kg	0.370	1.09	UJ,V7c
74-87-3	Chloromethane	U	1.09	ug/kg	0.327	1.09	
75-01-4	Vinyl chloride	U	1.09	ug/kg	0.327	1.09	
74-83-9	Bromomethane	U	1.09	ug/kg	0.327	1.09	
75-00-3	Chloroethane	U	1.09	ug/kg	0.327	1.09	
75-69-4	Trichlorofluoromethane	U	1.09	ug/kg	0.327	1.09	UJ,V7c
67-64-1	Acetone	U	5.44	ug/kg	1.81	5.44	UJ,V7c
75-35-4	1,1-Dichloroethylene	U	1.09	ug/kg	0.327	1.09	
74-88-4	Iodomethane	U	5.44	ug/kg	1.74	5.44	
75-09-2	Methylene chloride	U	5.44	ug/kg	2.18	5.44	
75-15-0	Carbon disulfide	U	5.44	ug/kg	1.36	5.44	
156-60-5	trans-1,2-Dichloroethylene	U	1.09	ug/kg	0.327	1.09	
75-34-3	1,1-Dichloroethane	U	1.09	ug/kg	0.327	1.09	
78-93-3	2-Butanone	U	5.44	ug/kg	1.63	5.44	UJ,V7c
156-59-2	cis-1,2-Dichloroethylene	U	1.09	ug/kg	0.327	1.09	
594-20-7	2,2-Dichloropropane	U	1.09	ug/kg	0.327	1.09	
67-66-3	Chloroform	U	1.09	ug/kg	0.327	1.09	
74-97-5	Bromochloromethane	U	1.09	ug/kg	0.359	1.09	
71-55-6	1,1,1-Trichloroethane	U	1.09	ug/kg	0.327	1.09	
563-58-6	1,1-Dichloropropene	U	1.09	ug/kg	0.327	1.09	
56-23-5	Carbon tetrachloride	U	1.09	ug/kg	0.327	1.09	UJ,V7c
107-06-2	1,2-Dichloroethane	U	1.09	ug/kg	0.327	1.09	
71-43-2	Benzene	U	1.09	ug/kg	0.327	1.09	
79-01-6	Trichloroethylene	U	1.09	ug/kg	0.359	1.09	
78-87-5	1,2-Dichloropropane	U	1.09	ug/kg	0.327	1.09	
75-27-4	Bromodichloromethane	U	1.09	ug/kg	0.327	1.09	
74-95-3	Dibromomethane	U	1.09	ug/kg	0.327	1.09	
108-10-1	4-Methyl-2-pentanone	U	5.44	ug/kg	1.36	5.44	UJ,V7c
10061-01-5	cis-1,3-Dichloropropylene	U	1.09	ug/kg	0.327	1.09	
108-88-3	Toluene	U	1.09	ug/kg	0.327	1.09	
10061-02-6	trans-1,3-Dichloropropylene	U	1.09	ug/kg	0.327	1.09	
79-00-5	1,1,2-Trichloroethane	U	1.09	ug/kg	0.327	1.09	
591-78-6	2-Hexanone	U	5.44	ug/kg	1.63	5.44	UJ,V7c
142-28-9	1,3-Dichloropropane	U	1.09	ug/kg	0.327	1.09	
127-18-4	Tetrachloroethylene	U	1.09	ug/kg	0.327	1.09	UJ,V7c
124-48-1	Dibromochloromethane	U	1.09	ug/kg	0.327	1.09	
106-93-4	1,2-Dibromoethane	U	1.09	ug/kg	0.327	1.09	
108-90-7	Chlorobenzene	U	1.09	ug/kg	0.327	1.09	

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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-854**	**Date Collected:**	**12/07/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242668001**	**Date Received:**	**12/10/2009 08:50**	**%Moisture:**	**8.2**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-10-2741**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**934305**	**Inst:**	**VOA7.I**	**Dilution:**	**1**
Run Date:	**12/18/2009 16:02**	**Analyst:**	**AXO1**	**Purge Vol:**	**5 mL**
Prep Date:	**12/18/2009 13:20**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**7q510.d**	**Column:**	**DB-624**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.09	ug/kg	0.327	1.09
179601-23-1	m,p-Xylenes	U	2.18	ug/kg	0.327	2.18
95-47-6	o-Xylene	U	1.09	ug/kg	0.327	1.09
100-42-5	Styrene	U	1.09	ug/kg	0.327	1.09
75-25-2	Bromoform	U	1.09	ug/kg	0.327	1.09
79-34-5	1,1,2,2-Tetrachloroethane	U	1.09	ug/kg	0.327	1.09
96-18-4	1,2,3-Trichloropropane	U	1.09	ug/kg	0.327	1.09
108-86-1	Bromobenzene	U	1.09	ug/kg	0.327	1.09
103-65-1	n-Propylbenzene	U	1.09	ug/kg	0.327	1.09
95-49-8	2-Chlorotoluene	U	1.09	ug/kg	0.327	1.09
98-82-8	Isopropylbenzene	U	1.09	ug/kg	0.327	1.09
108-67-8	1,3,5-Trimethylbenzene	U	1.09	ug/kg	0.327	1.09
106-43-4	4-Chlorotoluene	U	1.09	ug/kg	0.327	1.09
98-06-6	tert-Butylbenzene	U	1.09	ug/kg	0.327	1.09
95-63-6	1,2,4-Trimethylbenzene	U	1.09	ug/kg	0.327	1.09
135-98-8	sec-Butylbenzene	U	1.09	ug/kg	0.327	1.09
99-87-6	4-Isopropyltoluene	U	1.09	ug/kg	0.327	1.09
541-73-1	1,3-Dichlorobenzene	U	1.09	ug/kg	0.327	1.09
106-46-7	1,4-Dichlorobenzene	U	1.09	ug/kg	0.327	1.09
104-51-8	n-Butylbenzene	U	1.09	ug/kg	0.327	1.09
96-12-8	1,2-Dibromo-3-chloropropane	U	1.09	ug/kg	0.327	1.09
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.44	ug/kg	1.74	5.44
630-20-6	1,1,1,2-Tetrachloroethane	U	1.09	ug/kg	0.327	1.09
95-50-1	1,2-Dichlorobenzene	U	1.09	ug/kg	0.327	1.09

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Siloxane	19.69	12.3	ug/kg		J
	Unknown Siloxane	21.56	7.65	ug/kg		J

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DATA VALIDATION COVER SHEET

5115-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-854 VALIDATION DATE: 02/03/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Susan Ball ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☒ OTHER (DESCRIBE): GC/MS SVOCs

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☒	☐	☐	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☒	☐	☐	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. The ICV and/or CCV %Ds were >20% for benzoic acid; hexachlorocyclopentadiene; and 2-methyl-4,6-dinitrophenol. All associated sample results were NDs and, thus, were qualified UJ,SV7c.
2. The MS %Rs for four compounds, the MSD %Rs for 13 compounds, and the MS/MSD RPDs for 18 compounds were outside the laboratory acceptance criteria. The parent QC sample was from another LANL RN, and the raw data for the parent QC sample were not included in the data package. Since the analysis of an MS/MSD pair is not a client requirement, no sample results were qualified.

Reviewed by: ETM Level: 1 Date: 2/4/10

VALIDATOR'S SIGNATURE: [signature] DATE: 02/03/10

SEMIVOLATILE ORGANIC COMPOUND (SVOC) ANALYTICAL DATA VALIDATION CHECKLIST

5115-2 **Semivolatile Organic Compound (SVOC) Analytical Data Validation Checklist**	Records Use only Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, SV9	J-, SV9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, SV9a	J-, SV9a
☐	☒	☐	3. The affected analytes are regarded as rejected because the analytical holding time was exceeded.	R, SV9b	R, SV9b
☐	☐	☒	4. The instrument performance sample did not pass method acceptance criteria.	R, SV16	R, SV16
☐	☐	☒	5. Samples were analyzed outside specific method tune time criteria.	N/A	J, SV16b
☐	☐	☒	6. The required instrument performance sample information is missing. Contact the SMO or external laboratory for information.	R, SV16c	R, SV16c
☐	☒	☐	7. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, SV7	J, SV7
☐	☒	☐	8. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, SV7a	J, SV7a
☐	☒	☐	9. The affected analytes were analyzed with an RRF of <0.05 in the initial calibration and/or Continuing Calibration Verification (CCV).	R, SV7b	J, SV7b
☒	☐	☐	10. The Initial Calibration Verification (ICV) and/or CCV were recovered outside the method-specific limits.	UJ, SV7c	J, SV7c
☐	☒	☐	11. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, SV7d	J, SV7d

SEMIVOLATILE ORGANIC COMPOUND (SVOC) ANALYTICAL DATA VALIDATION CHECKLIST

5115-2

Semivolatile Organic Compound (SVOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below if Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	12. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, SV7f	R, SV7f
☐	☒	☐	13. The sample result is ≤5X (10X for common organic laboratory contaminates) the concentration of the related analyte in the method blank.	U, SV4	J, V4a
☐	☒	☐	14. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was greater than 5X (10X for common laboratory contaminates).	N/A	J, SV4a
☐	☐	☒	15. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	UJ, SV4d	N/A
☐	☒	☐	16. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV4e	R, SV4e
☐	☒	☐	17. The IS retention time has shifted by more than 30 seconds.	UJ, SV0	J, SV0
☐	☐	☒	18. Analyte is positively confirmed but outside the IS retention time window; however, spectral matches must be provided.	N/A	J, SV0a
☐	☒	☐	19. Required IS retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV0b	R, SV0b
☐	☐	☒	20. The quantitating IS area count is <10% of the expected value, which indicates increased potential for false negative results and other possible problems with sample quantitation. Follow method-specific windows.	R, SV1a	J, SV1a

SEMIVOLATILE ORGANIC COMPOUND (SVOC) ANALYTICAL DATA VALIDATION CHECKLIST

5115-2

Semivolatile Organic Compound (SVOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below if Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	21. The IS area count for the quantitating IS is <50% but >10% for organics window relation to the previous continuing calibration. Follow method-specific windows.	UJ, SV1b	J, SV1b
☐	☐	☒	22. The IS area count for the quantitating IS is >200% of the area count for the previous continuing calibration. Follow method-specific windows.	UJ, SV1c	J, SV1c
☐	☐	☒	23. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV1d	R, SV1d
☐	☒	☐	24. The surrogate is <10%R. Follow the external laboratory limits located within the associated data package.	R, SV3	J-, SV3
☐	☒	☐	25. The surrogate is < the Lower Acceptance Level (LAL) but ≥10%R. Follow the external laboratory limits located within the associated data package.	UJ, SV3a	J-, SV3a
☐	☒	☐	26. The surrogate %R value is > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, SV3b
☐	☒	☐	27. At least one surrogate is > the Upper Acceptance Limit (UAL) and one surrogate is < the LAL. Follow the external laboratory limits located within the associated data package.	UJ, SV3c	J, SV3c
☐	☒	☐	28. Required surrogate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV3d	R, SV3d
☐	☒	☐	29. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, SV12	J-, SV12

SEMIVOLATILE ORGANIC COMPOUND (SVOC) ANALYTICAL DATA VALIDATION CHECKLIST

5115-2

Semivolatile Organic Compound (SVOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	30. The LCS percent recovery was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, SV12a	J-, SV12a
☐	☒	☐	31. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, SV12b
☐	☒	☐	32. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV12c	R, SV12c
☐	☒	☐	33. The affected analyte is considered not detected because mass spectrum did not meet specifications.	N/A	U, SV8
☐	☒	☐	34. The mass spectrum column documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV8a	R, SV8a
☐	☒	☐	35. Duplicate, dilution, or reanalysis.	UJ, SV88	J, SV88
☐	☐	☒	36. The affected analytes have elevated detection limits and may not meet project DQOs because the sample was diluted without any target analytees identified due to matrix interference. Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.	UJ, R, SV15	R, SV15
☒	☐	☐	37. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB, NQ, NQ
☐	☒	☐	38. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.	UJ, R, SV19	J, R, SV19

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-854	Date Collected:	12/07/2009 12:00	Matrix:	S
Lab Sample ID:	242668002	Date Received:	12/10/2009 08:50	%Moisture:	11.3
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-10-2740	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	932444	Inst:	MSD6.I	Dilution:	1
Run Date:	12/16/2009 17:10	Analyst:	NAG1	Inj. Vol:	.5 uL
Prep Date:	12/14/2009 09:47	Aliquot:	30.02 g	Final Volume:	1 mL
Data File:	s611617.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
62-75-9	N-Methyl-N-nitrosomethylamine	U	376	ug/kg	75.1	376	
108-95-2	Phenol	U	376	ug/kg	75.1	376	
95-57-8	2-Chlorophenol	U	376	ug/kg	75.1	376	
106-46-7	1,4-Dichlorobenzene	U	376	ug/kg	75.1	376	
621-64-7	N-Nitrosodipropylamine	U	376	ug/kg	75.1	376	
59-50-7	4-Chloro-3-methylphenol	U	376	ug/kg	75.1	376	
83-32-9	Acenaphthene		72.5	ug/kg	12.4	37.6	
121-14-2	2,4-Dinitrotoluene	U	376	ug/kg	37.6	376	
100-02-7	4-Nitrophenol	U	376	ug/kg	124	376	
87-86-5	Pentachlorophenol	U	376	ug/kg	93.9	376	
129-00-0	Pyrene		870	ug/kg	11.3	37.6	
110-86-1	Pyridine	U	376	ug/kg	75.1	376	
62-53-3	Aniline	U	376	ug/kg	113	376	
111-44-4	bis(2-Chloroethyl) ether	U	376	ug/kg	75.1	376	
541-73-1	1,3-Dichlorobenzene	U	376	ug/kg	75.1	376	
100-51-6	Benzyl alcohol	U	376	ug/kg	113	376	
95-50-1	1,2-Dichlorobenzene	U	376	ug/kg	75.1	376	
108-60-1	bis(2-Chloroisopropyl)ether	U	376	ug/kg	75.1	376	
95-48-7	o-Cresol	U	376	ug/kg	75.1	376	
65794-96-9	m,p-Cresols	U	376	ug/kg	113	376	
67-72-1	Hexachloroethane	U	376	ug/kg	75.1	376	
98-95-3	Nitrobenzene	U	376	ug/kg	75.1	376	
78-59-1	Isophorone	U	376	ug/kg	75.1	376	
88-75-5	2-Nitrophenol	U	376	ug/kg	75.1	376	
105-67-9	2,4-Dimethylphenol	U	376	ug/kg	131	376	
111-91-1	bis(2-Chloroethoxy)methane	U	376	ug/kg	75.1	376	
120-83-2	2,4-Dichlorophenol	U	376	ug/kg	75.1	376	
65-85-0	Benzoic acid	U	751	ug/kg	188	751	UJ,SV7c
91-20-3	Naphthalene	J	35.1	ug/kg	11.3	37.6	
106-47-8	4-Chloroaniline	U	376	ug/kg	75.1	376	
87-68-3	Hexachlorobutadiene	U	376	ug/kg	75.1	376	
91-57-6	2-Methylnaphthalene	J	16.5	ug/kg	7.51	37.6	
77-47-4	Hexachlorocyclopentadiene	U	376	ug/kg	75.1	376	UJ,SV7c
88-06-2	2,4,6-Trichlorophenol	U	376	ug/kg	75.1	376	
95-95-4	2,4,5-Trichlorophenol	U	376	ug/kg	75.1	376	
91-58-7	2-Chloronaphthalene	U	37.6	ug/kg	12.4	37.6	
88-74-4	2-Nitroaniline	U	376	ug/kg	75.1	376	
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	376	ug/kg	75.1	376	

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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-854**	**Date Collected:**	**12/07/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242668002**	**Date Received:**	**12/10/2009 08:50**	**%Moisture:**	**11.3**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-10-2740**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**932444**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**12/16/2009 17:10**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/14/2009 09:47**	**Aliquot:**	**30.02 g**	**Final Volume:**	**1 mL**
Data File:	**s611617.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
	m-Nitroaniline						
131-11-3	Dimethylphthalate	U	376	ug/kg	75.1	376	
606-20-2	2,6-Dinitrotoluene	U	376	ug/kg	37.6	376	
208-96-8	Acenaphthylene	U	37.6	ug/kg	11.3	37.6	
51-28-5	2,4-Dinitrophenol	U	751	ug/kg	143	751	
132-64-9	Dibenzofuran	U	376	ug/kg	75.1	376	
84-66-2	Diethylphthalate	U	376	ug/kg	75.1	376	
86-73-7	Fluorene		99.1	ug/kg	11.3	37.6	
7005-72-3	4-Chlorophenylphenylether	U	376	ug/kg	75.1	376	
534-52-1	2-Methyl-4,6-dinitrophenol	U	376	ug/kg	75.1	376	UJ,SV7c
100-01-6	4-Nitroaniline	U	376	ug/kg	113	376	
	p-Nitroaniline						
122-39-4	Diphenylamine	U	376	ug/kg	75.1	376	
122-66-7	Azobenzene	U	376	ug/kg	75.1	376	
	1,2-Diphenylhydrazine						
101-55-3	4-Bromophenylphenylether	U	376	ug/kg	75.1	376	
118-74-1	Hexachlorobenzene	U	376	ug/kg	75.1	376	
85-01-8	Phenanthrene		831	ug/kg	11.3	37.6	
120-12-7	Anthracene		155	ug/kg	7.51	37.6	
84-74-2	Di-n-butylphthalate	U	376	ug/kg	75.1	376	
206-44-0	Fluoranthene		1070	ug/kg	11.3	37.6	
85-68-7	Butylbenzylphthalate	U	376	ug/kg	75.1	376	
56-55-3	Benzo(a)anthracene		348	ug/kg	11.3	37.6	
91-94-1	3,3'-Dichlorobenzidine	U	376	ug/kg	113	376	
218-01-9	Chrysene		417	ug/kg	11.3	37.6	
117-81-7	bis(2-Ethylhexyl)phthalate	J	89.7	ug/kg	75.1	376	
117-84-0	Di-n-octylphthalate	U	376	ug/kg	75.1	376	
205-99-2	Benzo(b)fluoranthene		500	ug/kg	11.3	37.6	
207-08-9	Benzo(k)fluoranthene		203	ug/kg	11.3	37.6	
50-32-8	Benzo(a)pyrene		343	ug/kg	11.3	37.6	
193-39-5	Indeno(1,2,3-cd)pyrene		262	ug/kg	11.3	37.6	
53-70-3	Dibenzo(a,h)anthracene		129	ug/kg	11.3	37.6	
191-24-2	Benzo(ghi)perylene		168	ug/kg	11.3	37.6	
120-82-1	1,2,4-Trichlorobenzene	U	376	ug/kg	75.1	376	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Flt	Qual
	Unknown Aldol Condensate	3.46	480	ug/kg		JA
498-15-7	Bicyclo[4.1.0]hept-3-ene, 3,7,7-trimethy	4.79	613	ug/kg	97	NJ

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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-854	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242668002	**Date Received:**	12/10/2009 08:50	**%Moisture:**	11.3
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-10-2740	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	932444	**Inst:**	MSD6.I	**Dilution:**	1
Run Date:	12/16/2009 17:10	**Analyst:**	NAG1	**Inj. Vol:**	.5 uL
Prep Date:	12/14/2009 09:47	**Aliquot:**	30.02 g	**Final Volume:**	1 mL
Data File:	s611617.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	5.37	184	ug/kg		J
87-44-5	Caryophyllene	7.62	159	ug/kg	97	NJ
23986-74-5	1,6-Cyclodecadiene, 1-methyl-5-methylene	7.96	223	ug/kg	89	NJ
57-10-3	n-Hexadecanoic acid	10.16	194	ug/kg	98	NJ
	Unknown	11.55	176	ug/kg		J
	Unknown	11.95	244	ug/kg		J
	Unknown	12.25	709	ug/kg		J
1740-19-8	1-Phenanthrenecarboxylic acid, 1,2,3,4,4	12.37	1010	ug/kg	92	NJ
198-55-0	Perylene	14.78	191	ug/kg	99	NJ
	Unknown	16.39	263	ug/kg		J
	Unknown	17.09	304	ug/kg		J
70038-20-9	7-Oxabicyclo[4.1.0]heptane, 2,2,6-trimet	17.13	203	ug/kg	90	NJ

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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-854	Date Collected:	12/07/2009 12:00	Matrix:	S
Lab Sample ID:	242668001	Date Received:	12/10/2009 08:50	%Moisture:	8.2
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-10-2741	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	932444	Inst:	MSD6.I	Dilution:	1
Run Date:	12/16/2009 16:42	Analyst:	NAG1	Inj. Vol:	.5 uL
Prep Date:	12/14/2009 09:47	Aliquot:	30.07 g	Final Volume:	1 mL
Data File:	s611616.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
62-75-9	N-Methyl-N-nitrosomethylamine	U	362	ug/kg	72.4	362	
108-95-2	Phenol	U	362	ug/kg	72.4	362	
95-57-8	2-Chlorophenol	U	362	ug/kg	72.4	362	
106-46-7	1,4-Dichlorobenzene	U	362	ug/kg	72.4	362	
621-64-7	N-Nitrosodipropylamine	U	362	ug/kg	72.4	362	
59-50-7	4-Chloro-3-methylphenol	U	362	ug/kg	72.4	362	
83-32-9	Acenaphthene	U	36.2	ug/kg	12.0	36.2	
121-14-2	2,4-Dinitrotoluene	U	362	ug/kg	36.2	362	
100-02-7	4-Nitrophenol	U	362	ug/kg	120	362	
87-86-5	Pentachlorophenol	U	362	ug/kg	90.5	362	
129-00-0	Pyrene	J	12.7	ug/kg	10.9	36.2	
110-86-1	Pyridine	U	362	ug/kg	72.4	362	
62-53-3	Aniline	U	362	ug/kg	109	362	
111-44-4	bis(2-Chloroethyl) ether	U	362	ug/kg	72.4	362	
541-73-1	1,3-Dichlorobenzene	U	362	ug/kg	72.4	362	
100-51-6	Benzyl alcohol	U	362	ug/kg	109	362	
95-50-1	1,2-Dichlorobenzene	U	362	ug/kg	72.4	362	
108-60-1	bis(2-Chloroisopropyl)ether	U	362	ug/kg	72.4	362	
95-48-7	o-Cresol	U	362	ug/kg	72.4	362	
65794-96-9	m,p-Cresols	U	362	ug/kg	109	362	
67-72-1	Hexachloroethane	U	362	ug/kg	72.4	362	
98-95-3	Nitrobenzene	U	362	ug/kg	72.4	362	
78-59-1	Isophorone	U	362	ug/kg	72.4	362	
88-75-5	2-Nitrophenol	U	362	ug/kg	72.4	362	
105-67-9	2,4-Dimethylphenol	U	362	ug/kg	127	362	
111-91-1	bis(2-Chloroethoxy)methane	U	362	ug/kg	72.4	362	
120-83-2	2,4-Dichlorophenol	U	362	ug/kg	72.4	362	
65-85-0	Benzoic acid	U	724	ug/kg	181	724	UJ,SV7c
91-20-3	Naphthalene	U	36.2	ug/kg	10.9	36.2	
106-47-8	4-Chloroaniline	U	362	ug/kg	72.4	362	
87-68-3	Hexachlorobutadiene	U	362	ug/kg	72.4	362	
91-57-6	2-Methylnaphthalene	U	36.2	ug/kg	7.24	36.2	
77-47-4	Hexachlorocyclopentadiene	U	362	ug/kg	72.4	362	UJ,SV7c
88-06-2	2,4,6-Trichlorophenol	U	362	ug/kg	72.4	362	
95-95-4	2,4,5-Trichlorophenol	U	362	ug/kg	72.4	362	
91-58-7	2-Chloronaphthalene	U	36.2	ug/kg	12.0	36.2	
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	362	ug/kg	72.4	362	
99-09-2	3-Nitroaniline	U	362	ug/kg	72.4	362	

SEB
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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-854	Date Collected:	12/07/2009 12:00	Matrix:	S
Lab Sample ID:	242668001	Date Received:	12/10/2009 08:50	%Moisture:	8.2
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-10-2741	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	932444	Inst:	MSD6.I	Dilution:	1
Run Date:	12/16/2009 16:42	Analyst:	NAG1	Inj. Vol:	.5 uL
Prep Date:	12/14/2009 09:47	Aliquot:	30.07 g	Final Volume:	1 mL
Data File:	s611616.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
	m-Nitroaniline						
131-11-3	Dimethylphthalate	U	362	ug/kg	72.4	362	
606-20-2	2,6-Dinitrotoluene	U	362	ug/kg	36.2	362	
208-96-8	Acenaphthylene	U	36.2	ug/kg	10.9	36.2	
51-28-5	2,4-Dinitrophenol	U	724	ug/kg	138	724	
132-64-9	Dibenzofuran	U	362	ug/kg	72.4	362	
84-66-2	Diethylphthalate	U	362	ug/kg	72.4	362	
86-73-7	Fluorene	U	36.2	ug/kg	10.9	36.2	
7005-72-3	4-Chlorophenylphenylether	U	362	ug/kg	72.4	362	
534-52-1	2-Methyl-4,6-dinitrophenol	U	362	ug/kg	72.4	362	UJ,SV7c
100-01-6	4-Nitroaniline	U	362	ug/kg	109	362	
	p-Nitroaniline						
122-39-4	Diphenylamine	U	362	ug/kg	72.4	362	
122-66-7	Azobenzene	U	362	ug/kg	72.4	362	
	1,2-Diphenylhydrazine						
101-55-3	4-Bromophenylphenylether	U	362	ug/kg	72.4	362	
118-74-1	Hexachlorobenzene	U	362	ug/kg	72.4	362	
85-01-8	Phenanthrene	U	36.2	ug/kg	10.9	36.2	
120-12-7	Anthracene	U	36.2	ug/kg	7.24	36.2	
84-74-2	Di-n-butylphthalate	U	362	ug/kg	72.4	362	
206-44-0	Fluoranthene	J	12.0	ug/kg	10.9	36.2	
85-68-7	Butylbenzylphthalate	U	362	ug/kg	72.4	362	
56-55-3	Benzo(a)anthracene	U	36.2	ug/kg	10.9	36.2	
91-94-1	3,3'-Dichlorobenzidine	U	362	ug/kg	109	362	
218-01-9	Chrysene	U	36.2	ug/kg	10.9	36.2	
117-81-7	bis(2-Ethylhexyl)phthalate	U	362	ug/kg	72.4	362	
117-84-0	Di-n-octylphthalate	U	362	ug/kg	72.4	362	
205-99-2	Benzo(b)fluoranthene	U	36.2	ug/kg	10.9	36.2	
207-08-9	Benzo(k)fluoranthene	U	36.2	ug/kg	10.9	36.2	
50-32-8	Benzo(a)pyrene	U	36.2	ug/kg	10.9	36.2	
193-39-5	Indeno(1,2,3-cd)pyrene	U	36.2	ug/kg	10.9	36.2	
53-70-3	Dibenzo(a,h)anthracene	U	36.2	ug/kg	10.9	36.2	
191-24-2	Benzo(ghi)perylene	U	36.2	ug/kg	10.9	36.2	
120-82-1	1,2,4-Trichlorobenzene	U	362	ug/kg	72.4	362	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Flt	Qual
	Unknown	2.22	177	ug/kg		J
	Unknown Aldol Condensate	3.45	390	ug/kg		JA

SEB
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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-854**	**Date Collected:**	**12/07/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242668001**	**Date Received:**	**12/10/2009 08:50**	**%Moisture:**	**8.2**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-10-2741**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**932444**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**12/16/2009 16:42**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/14/2009 09:47**	**Aliquot:**	**30.07 g**	**Final Volume:**	**1 mL**
Data File:	**s611616.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
2437-95-8	Bicyclo[3.1.1]hept-2-ene, 2,6,6-trimethy	4.23	1630	ug/kg	97	NJ
498-15-7	Bicyclo[4.1.0]hept-3-ene, 3,7,7-trimethy	4.8	1170	ug/kg	97	NJ
475-20-7	1,4-Methanoazulene, decahydro-4,8,8-trim	7.6	956	ug/kg	99	NJ
	Unknown	11.54	166	ug/kg		J
	Unknown	11.95	461	ug/kg		J
	Unknown	12.24	1780	ug/kg		J
	Unknown	12.27	755	ug/kg		J
1740-19-8	1-Phenanthrenecarboxylic acid, 1,2,3,4,4	12.37	748	ug/kg	93	NJ
471-77-2	1-Phenanthrenecarboxylic acid, 1,2,3,4,4	12.9	343	ug/kg	94	NJ
	Unknown	17.2	922	ug/kg		J
	Unknown	17.3	165	ug/kg		J
	Unknown	17.58	169	ug/kg		J

SEB
2/3/10

DATA VALIDATION COVER SHEET

5130-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY

Section I.

REQUEST NUMBER: 10-854 VALIDATION DATE: 02/03/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Susan Ball ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☒ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE):

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. The MS and MSD %Rs were ≥10% but <70%. The sample results were detects and, thus, were qualified J,DR12e. In addition, the parent QC sample was from another LANL RN, and the raw data for the parent QC sample were not included in the data package.

Reviewed by: ETM Level: 1 Date: 2/4/10

VALIDATOR'S SIGNATURE: DATE: 02/03/10

TPH GRO AND DRO ANALYTICAL DATA VALIDATION CHECKLIST

5130-2

TPH GRO and DRO Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below if Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The retention time criteria were not met.	R, DR0 or GR0	R, DR0 or GR0
☐	☒	☐	2. Required retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, DR0b	R, GR0b
☐	☒	☐	3. The surrogate is less than 10%R. Follow external laboratory limits.	R, DR3 or GR3	J-, DR3 or GR3
☐	☒	☐	4. The surrogate is less than the Lower Acceptance Limit, but greater than or equal to 10%R. Follow external laboratory limits.	UJ, DR3a or GR3a	J-, DR3a or GR3a
☐	☒	☐	5. The surrogate %R value is greater than the Upper Acceptance Limit. Follow external laboratory limits.	N/A	J+, DR3b or GR3b
☐	☒	☐	6. Required surrogate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, DR3d or GR3d	R, DR3d or GR3d
☐	☒	☐	7. The sample result is less than or equal to 5 times the concentration of the related analyte in the method blank.	U, DR4 or GR4	N/A
☐	☒	☐	8. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank, but was greater than 5x.	N/A	J+, DR4a or GR4a
☐	☐	☒	9. The sample result is less than or equal to 5 times the concentration of the related analyte in the trip blank, rinsate blank or equipment blank.	U, DR4d or GR4d	N/A
☐	☒	☐	10. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, DR4e or GR4e	R, DR4e or GR4e
☐	☒	☐	11. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ or R, DR7 or GR7	J, DR7 or GR7

TPH GRO AND DRO ANALYTICAL DATA VALIDATION CHECKLIST	
5130-2 TPH GRO and DRO Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below if Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	12. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is less than 0.995.	UJ, DR7a or GR7a	J, DR7a or GR7a
☐	☒	☐	13. The ICV and/or CCV were recovered outside the method specific limits.	UJ, DR7c or GR7c	J, DR7c or GR7c
☐	☒	☐	14. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, DR7d or GR7d	J, DR7d or GR7d
☐	☒	☐	15. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, DR7f or GR7f	R, DR7f or GR7f
☐	☒	☐	16. The holding time was greater than 1 and less than or equal to 2 times the applicable holding time requirement.	UJ, DR9 or GR9	J-, DR9 or GR9
☐	☒	☐	17. The holding time was greater than 2 times the applicable holding time requirement.	R, DR9a or GR9a	J-, DR9a or GR9a
☐	☒	☐	18. The LCS percent recovery was less than 10%. Follow the external laboratory limits.	R, DR12 or GR12	J-, DR12 or GR12
☐	☒	☐	19. The LCS percent recovery was less than the Lower Acceptance Limit, but greater than 10%. Follow the external laboratory limits.	UJ, DR12a or GR12a	J-, DR12a or GR12a
☐	☒	☐	20. The LCS percent recovery was greater than the Upper Acceptance Limit. Follow the external laboratory limits.	N/A	J+, DR12b or GR12b
☐	☒	☐	21. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or the external laboratory for information.	R, DR12c or GR12c	R, DR12c or GR12c
☐	☒	☐	22. The MS/MSD percent recovery was less than 10%.	R, DR12d or GR12d	R, DR12d or Gr12d
☒	☐	☐	23. The MS/MSD percent recovery was greater than 10%, but less than 70%.	UJ, DR12e or GR12e	J, DR12e or GR12e

TPH GRO AND DRO ANALYTICAL DATA VALIDATION CHECKLIST	
5130-2 TPH GRO and DRO Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below if Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	24. The MS/MSD percent recovery was greater than 70%.	N/A	J+, DR12f or GR12f
☐	☒	☐	25. The MS/MSD relative percent difference was greater than 30%.	UJ, DR12g or GR12g	J, DR12g or GR12g
☐	☐	☒	26. The affected analytes have elevated detection limits and may not meet project DQOs because the sample was diluted without any target analytes identified due to matrix interference. (Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.)	UJ, R, DR15 or GR15	R, DR15 or GR15
☐	☒	☐	27. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.	UJ, R, DR19 or GR19	J, R, DR19 or GR19
☐	☒	☐	28. Duplicate, dilution, or reanalysis.	UJ, DR88 or GR88	J, DR88 or GR88

Flame Ionization Detector
Certificate of Analysis
Sample Summary

SDG Number:	10–854	Date Collected:	12/07/2009 12:00	Matrix:	S
Lab Sample ID:	242668001	Date Received:	12/10/2009 08:50	%Moisture:	8.2
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03–10–2741	Method:	SW846 8015A/B SVOC	SOP Ref:	GL–OA–E–003
Batch ID:	933001	Inst:	FID7.I	Dilution:	1
Run Date:	12/16/2009 19:52	Analyst:	KXR2	Inj. Vol:	1 uL
Prep Date:	12/15/2009 16:56	Aliquot:	30.08 g	Final Volume:	1 mL
Data File:	007f0701.d	Column:	DB–5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
DRO	Diesel Range Organics		89.8	mg/kg	2.35	7.24	J,DR12e

SEB
2/3/10

Flame Ionization Detector
Certificate of Analysis
Sample Summary

SDG Number:	10-854	Date Collected:	12/07/2009 12:00	Matrix:	S
Lab Sample ID:	242668002	Date Received:	12/10/2009 08:50	%Moisture:	11.3
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-10-2740	Method:	SW846 8015A/B SVOC	SOP Ref:	GL-OA-E-003
Batch ID:	933001	Inst:	FID7.I	Dilution:	10
Run Date:	12/16/2009 20:29	Analyst:	KXR2	Inj. Vol:	1 uL
Prep Date:	12/15/2009 16:56	Aliquot:	30 g	Final Volume:	1 mL
Data File:	008f0801.d	Column:	DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
DRO	Diesel Range Organics		85.6	mg/kg	24.4	75.2	J,DR12e

SEB
2/3/10

DATA VALIDATION COVER SHEET

5116-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY

Section I.

REQUEST NUMBER: 10-854 VALIDATION DATE: 02/03/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Susan Ball ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☒ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE): PCBs

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. It should be noted that the parent QC sample was from another LANL RN, and the raw data for the parent QC sample were not included in the data package. Since the analysis of an MS/MSD pair is not a client requirement, no sample results were qualified.

Reviewed by: ETM Level: 1 Date: 2/4/10

VALIDATOR'S SIGNATURE: [signature] DATE: 02/03/10

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2

Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below if Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, P9	J-, P9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, P9	J-, P9a
☐	☒	☐	3. The affected analytes are regarded as rejected because the analytical holding time was exceeded.	R, P9b	R, P9b
☐	☒	☐	4. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, P7	J, P7
☐	☒	☐	5. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, P7a	J, P7a
☐	☒	☐	6. The Initial Calibration Verification (ICV) and/or Continuing Calibration Verification (CCV) were recovered outside the method-specific limits.	UJ, P7c	J, P7c
☐	☒	☐	7. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, P7d	J, P7d
☐	☒	☐	8. The multicomponent standard was not analyzed within 72 hours of the initial analysis.	R, P7e	J, P7e
☐	☒	☐	9. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, P7f	R, P7f
☐	☐	☒	10. The breakdown criteria have been exceeded. This can cause low bias in reported results. If compound is detected, qualify J-. If compound is not present, but breakdown products are present, qualify R. If no compounds or breakdown products are present, qualify UJ (4,4' DDT and Endrin).	UJ, R, P13	J-, P13

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2

Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below if Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	11. The breakdown criteria have been exceeded. This can cause high bias in the reported results and potential false positive results for the breakdown products Endrin ketone, Endrin aldehyde, DDD, and DDE.	UJ, P13a	J+, P13a
☐	☐	☒	12. The breakdown documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P13b	R, P13b
☐	☒	☐	13. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, P4	N/A
☐	☒	☐	14. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was greater than 5X.	N/A	J, P4a
☐	☐	☒	15. The sample result is ≤5X the concentration of the related analyte in the instrument blank and continuing calibration blank.	UJ, P4b	N/A
☐	☐	☒	16. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	UJ, P4d	N/A
☐	☒	☐	17. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P4e	R, P4e
☐	☒	☐	18. The analyte RT shifted by more than 0.05 minutes from the mid-level standard of the initial calibration.	R, P0	J, P0
☐	☒	☐	19. Required retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P0b	R, P0b
☐	☒	☐	20. The surrogate is <10%R. Follow the external laboratory limits located within the associated data package.	R, P3	J-, P3

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2

Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	21. The surrogate is < the Lower Acceptance Level (LAL) but ≥10%R. Follow the external laboratory limits located within the associated data package.	UJ, P3a	J-, P3a
☐	☒	☐	22. The surrogate %R value is > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, P3b
☐	☒	☐	23. At least one surrogate is > the Upper Acceptance Limit (UAL) and one surrogate is < the LAL. Follow the external laboratory limits located within the associated data package.	UJ, P3c	J, P3c
☐	☒	☐	24. Required surrogate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P3d	R, P3d
☐	☒	☐	25. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, P12	J-, P12
☐	☒	☐	26. The LCS percent recovery was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, P12a	J-, P12a
☐	☒	☐	27. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, P12b
☐	☒	☐	28. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P12c	R, P12c
☐	☒	☐	29. The analyte was not confirmed on a second dissimilar column.	N/A	R, P8
☐	☒	☐	30. The second dissimilar column documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P8a	R, P8a
☐	☒	☐	31. Duplicate, Dilution, or reanalysis.	UJ, P88	J, P88

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST	
5116-2 Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below if Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	32. The affected analytes have elevated detection limits and may not meet project DQOs because the sample was diluted without any target analytees identified due to matrix interference. Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.	UJ, R, P15	R, P15
☒	☐	☐	33. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB, NQ, NQ
☐	☒	☐	34. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.	UJ, R, P19	J, R, P19

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10–854	Date Collected:	12/07/2009 12:00	Matrix:	S
Lab Sample ID:	242668002	Date Received:	12/10/2009 08:50	%Moisture:	11.3
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03–10–2740	Method:	SW846 8082	SOP Ref:	GL–OA–E–040
Batch ID:	933342	Inst:	ECD1A.I	Dilution:	5
Run Date:	12/16/2009 18:11	Analyst:	YS1	Inj. Vol:	1 uL
Prep Date:	12/15/2009 20:23	Aliquot:	30.02 g	Final Volume:	1 mL
Data File:	061f6101.d	Column:	1 CLP1	Level:	LOW
	061b6101.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	18.8	ug/kg	6.25	18.8	1
11104–28–2	Aroclor–1221	U	18.8	ug/kg	6.25	18.8	1
11141–16–5	Aroclor–1232	U	18.8	ug/kg	6.25	18.8	1
53469–21–9	Aroclor–1242	U	18.8	ug/kg	6.25	18.8	1
12672–29–6	Aroclor–1248	U	18.8	ug/kg	6.25	18.8	1
11097–69–1	Aroclor–1254	U	18.8	ug/kg	6.25	18.8	1
11096–82–5	Aroclor–1260	U	18.8	ug/kg	6.25	18.8	1

SEB
2/3/10

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10–854	Date Collected:	12/07/2009 12:00	Matrix:	S
Lab Sample ID:	242668001	Date Received:	12/10/2009 08:50	%Moisture:	8.2
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03–10–2741	Method:	SW846 8082	SOP Ref:	GL–OA–E–040
Batch ID:	933342	Inst:	ECD1A.I	Dilution:	1
Run Date:	12/16/2009 17:58	Analyst:	YS1	Inj. Vol:	1 uL
Prep Date:	12/15/2009 20:23	Aliquot:	30.03 g	Final Volume:	1 mL
Data File:	060f6001.d	Column:	1 CLP1	Level:	LOW
	060b6001.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	3.63	ug/kg	1.21	3.63	1
11104–28–2	Aroclor–1221	U	3.63	ug/kg	1.21	3.63	1
11141–16–5	Aroclor–1232	U	3.63	ug/kg	1.21	3.63	1
53469–21–9	Aroclor–1242	U	3.63	ug/kg	1.21	3.63	1
12672–29–6	Aroclor–1248	U	3.63	ug/kg	1.21	3.63	1
11097–69–1	Aroclor–1254	U	3.63	ug/kg	1.21	3.63	1
11096–82–5	Aroclor–1260	J	2.80	ug/kg	1.21	3.63	2

SEB
2/3/10

DATA VALIDATION COVER SHEET

5118-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-854 VALIDATION DATE: 02/04/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Susan Ball ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☒ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE):

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☐	☐	☒	8. QUANTITATION REPORTS
☐	☐	☒	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. In the aqueous CCBs, Sb, Tl and U were detected. The Tl results for samples RE03-10-2753 and -2767 were detects ≤5X the greatest CCB concentration and, thus, were qualified U,I4b. The remaining associated sample results were NDs and, thus, were not qualified.
2. In one or both of the FR blanks, samples -2765 and -2767, associated with all the samples, Al, Ba, Ca, Cr, Fe, K, Mn, Na, Ni, Si, Ti, and Zn were detected. The Na result for sample -2741 was a detect ≤5X the greatest FR blank concentration and, thus, was qualified U,I4d. The remaining associated sample results were detects >5X the greatest FR blank concentrations and, thus, were not qualified.
3. In sample -2753, the FB associated with soil sample -2740, Si was detected. In sample -2754, the FB associated with soil sample -2741, Hg and Si were detected. The associated Hg result was a detect ≤5X the FB concentration and, thus, was qualified U,I4d. Both associated Si sample results were detects >5X the FB concentrations and, thus, were not qualified.
4. The soil MS %R for Se was < the laboratory LAL but ≥10%. The associated sample results were NDs and, thus, were qualified UJ,I6a. The soil MS %Rs for K and Mg were > the laboratory UAL. The associated sample results were detects and, thus, were qualified J+,I6b. Also, the soil MS %Rs for Al and Ti were > the laboratory UAL and the soil MS %R for Fe was < the laboratory LAL but ≥10%. However, the parent sample concentrations were >4X the spike concentrations and, thus, the associated Al, Ti, and Fe sample results were not qualified, based on professional judgment.
5. It should be noted that the soil parent QC sample for Hg was from another LANL RN. It should also be noted that the aqueous parent QC sample for ICP and ICP-MS analyses, sample -2767, was an FR blank, and that the aqueous

DATA VALIDATION COVER SHEET

5118-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

parent QC sample for the second Hg batch was sample -2754, an FB. No sample results were qualified.

Reviewed by: ETM Level: 1 Date: 2/4/10

VALIDATOR'S SIGNATURE: DATE: 02/04/10

Form 5118-1, Revision 0.0

LOS ALAMOS
Environmental Restoration Project

METALS ANALYTICAL DATA VALIDATION CHECKLIST

5118-2

Metals Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below if Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, I9	J-, I9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, I9a	J-, I9a
☐	☐	☒	3. The instrument performance sample did not pass method acceptance criteria.	R, I16	R, I16
☐	☐	☒	4. The mass calibration is not within 0.1 amu or %RSD is >5% for any isotope (Be, Mg, Co, In, Pb).	UJ, I16a	J, I16a
☐	☐	☒	5. Samples were analyzed outside specific method tune time criteria.	N/A	J, I16b
☐	☐	☒	6. The required instrument performance sample information is missing. Contact the SMO or external laboratory for information.	R, I16c	R, I16c
☐	☒	☐	7. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, I7	J, I7
☐	☒	☐	8. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, I7a	J, I7a
☐	☒	☐	9. The initial Calibration Verification (ICV) and/or Continuing Calibration Verification (CCV) were recovered outside the method-specific limits.	UJ, I7c	J, I7c
☐	☒	☐	10. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, I7d	J, I7d
☐	☒	☐	11. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, I7f	R, I7f
☐	☒	☐	12. Metals interference check sample percent recover value is <50%.	R, I2	J-, I2

METALS ANALYTICAL DATA VALIDATION CHECKLIST

5118-2

Metals Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	13. Metals interference check sample percent recovery value is ≥50% and <80%	UJ, I2a	J-, I2a
☐	☒	☐	14. Metals interference check sample percent recovery value is >120%.	N/A	J+, I2b
☐	☒	☐	15. Metals interference check sample was not analyzed with the samples.	R, I2c	R, I2c
☐	☒	☐	16. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, I4	N/A
☐	☒	☐	17. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X.	N/A	J, I4a
☒	☐	☐	18. The sample result is ≤5X the concentration of the related analyte in the instrument blank and continuing calibration blank.	U, I4b	N/A
☐	☒	☐	19. Continuing calibration blanks were not analyzed at the appropriate method frequency.	UJ, I4c	J, I4c
☒	☐	☐	20. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	U, I4d	N/A
☐	☒	☐	21. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, I4e	R, I4e
☐	☒	☐	22. The associated matrix spike recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I6	R, I6
☒	☐	☐	23. The associated matrix spike recovery was <the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I6a	J+, I6a
☒	☐	☐	24. The associated matrix spike recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	UJ, I6b	J+, I6b

METALS ANALYTICAL DATA VALIDATION CHECKLIST

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Metals Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below if Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	25. Required matrix spike information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. If the LCS information is present, do not Reject. Qualify data based on the LCS information.	R, I6c	R, I6c
☐	☒	☐	26. The sample and the duplicate sample results were ≥5X the RL and the duplicate RPD was >20% for water samples and >35% for soil samples.	UJ, I10a	J, I10a
☐	☒	☐	27. The duplicate sample was not prepared and/or analyzed with the samples for unspecified reasons. The duplicate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	UJ, I10d	J, I10d
☐	☒	☐	28. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I12	R, I12
☐	☒	☐	29. The LCS percent recover was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I12a	J-, I12a
☐	☒	☐	30. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, I12b
☐	☒	☐	31. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. Do not Reject if MS/MSD information is present. Qualify according to MS/MSD criteria.	R, I12c	R, I12c
☐	☐	☒	32. The quantitating IS area count is <10% for metals window in relation to the initial calibration blank. Follow the method-specific windows.	R, I1a	J, I1a

METALS ANALYTICAL DATA VALIDATION CHECKLIST

5118-2

Metals Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	33. The IS area count for the quantitating IS is <60% but >10% for metals window in relation to the initial calibration blank. Follow the method-specific windows.	UJ, I1b	J, I1b
☐	☐	☒	34. The IS area count for the quantitating IS is >125% in relation to the metals initial calibration blank. Follow method-specific windows.	UJ, I1c	J, I1c
☐	☐	☒	35. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, I1d	R, I1d
☐	☐	☒	36. Serial dilution sample RPD was >10% and the sample result was >50X the MDL (>100X the MDL for ICPMS). Qualify ONLY the sample used for the serial dilution.	UJ, I18	J, I18
☐	☐	☒	37. Serial dilution sample was not analyzed with the samples.	UJ, I18a	J, I18
☐	☐	☒	38. The sample result was reported as detected between the IDL and the EDL.	N/A	J, I1
☐	☒	☐	39. Duplicate, dilution, or reanalysis.	UJ, I88	J, I88
☒	☐	☐	40. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB, NQ, NQ
☐	☒	☐	41. The LANL project chemist identified quality deficiencies in the reported data that require further qualification. This code can ONLY be used and/or under advisement by the LANL project chemist.	UJ, R, I19	J, R, I19

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-854 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 242668001 **BASIS:** Dry Weight **DATE COLLECTED** 07-DEC-09

CLIENT ID: RE03-10-2741 **LEVEL:** Low **DATE RECEIVED** 10-DEC-09

MATRIX: SOIL **%SOLIDS:** 91.8

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	3510000	ug/Kg		7320	21500	21500	1	P	HSC	12/19/09 13:56	121909-1	932278
7440-36-0	Antimony	1080	ug/Kg	U	355	1080	1080	1	P	HSC	12/19/09 13:56	121909-1	932278
7440-38-2	Arsenic	1.36	mg/kg		0.217	1.09	1.09	2	MS	BAJ	01/01/10 20:27	100101-2	932317
7440-39-3	Barium	32800	ug/Kg		108	538	538	1	P	HSC	12/19/09 13:56	121909-1	932278
7440-41-7	Beryllium	0.529	mg/kg		0.0217	0.109	0.109	2	MS	BAJ	01/01/10 20:27	100101-2	932317
7440-42-8	Boron	5380	ug/Kg	U	1080	5380	5380	1	P	HSC	12/19/09 13:56	121909-1	932278
7440-43-9	Cadmium	538	ug/Kg	U	108	538	538	1	P	HSC	12/19/09 13:56	121909-1	932278
7440-70-2	Calcium	1110000	ug/Kg		8610	26900	26900	1	P	HSC	12/19/09 13:56	121909-1	932278
7440-47-3	Chromium	4880	ug/Kg	*	161	538	538	1	P	HSC	12/19/09 13:56	121909-1	932278
7440-48-4	Cobalt	1280	ug/Kg		161	538	538	1	P	HSC	12/19/09 13:56	121909-1	932278
7440-50-8	Copper	3590	ug/Kg		323	1080	1080	1	P	HSC	12/19/09 13:56	121909-1	932278
7439-89-6	Iron	10100000	ug/Kg		8610	26900	26900	1	P	HSC	12/19/09 13:56	121909-1	932278
7439-92-1	Lead	7960	ug/Kg		269	1080	1080	1	P	HSC	12/19/09 13:56	121909-1	932278
7439-93-2	Lithium	4.33	mg/kg	N	0.435	2.17	2.17	2	MS	BAJ	01/02/10 07:46	100101-6	932317
7439-95-4	Magnesium J+,I6b	600000	ug/Kg	N	9150	32300	32300	1	P	HSC	12/19/09 13:56	121909-1	932278
7439-96-5	Manganese	160000	ug/Kg	N	215	1080	1080	1	P	HSC	12/19/09 13:56	121909-1	932278
7439-97-6	Mercury U,I4d	18.8	ug/kg		4.32	12.7	12.7	1	AV	JXL1	12/29/09 13:08	122909S2-7	936546
7440-02-0	Nickel	2.79	mg/kg		0.109	0.435	0.435	2	MS	BAJ	01/01/10 20:27	100101-2	932317
7440-09-7	Potassium J+,I6b	464000	ug/Kg	N	6890	26900	26900	1	P	HSC	12/19/09 13:56	121909-1	932278
7782-49-2	Selenium UJ,I6a	1.09	mg/kg	UN	0.543	1.09	1.09	2	MS	BAJ	01/01/10 20:27	100101-2	932317
7440-21-3	Silicon	1370000	ug/Kg		1610	10800	10800	1	P	HSC	12/19/09 13:56	121909-1	932278
7440-22-4	Silver	399	ug/Kg	J	108	538	538	1	P	HSC	12/19/09 13:56	121909-1	932278
7440-23-5	Sodium U,I4d	101000	ug/Kg		7530	26900	26900	1	P	HSC	12/19/09 13:56	121909-1	932278
7440-28-0	Thallium	0.0793	mg/kg	J	0.0652	0.217	0.217	2	MS	BAJ	01/01/10 20:27	100101-2	932317
7440-32-6	Titanium	413000	ug/Kg		108	538	538	1	P	HSC	12/19/09 13:56	121909-1	932278
7440-61-1	Uranium	0.731	mg/kg		0.0143	0.0435	0.0435	2	MS	BAJ	01/02/10 07:05	100101-5	932317
7440-62-2	Vanadium	9640	ug/Kg		108	538	538	1	P	HSC	12/19/09 13:56	121909-1	932278
7440-66-6	Zinc	41800	ug/Kg		355	1080	1080	1	P	HSC	12/19/09 13:56	121909-1	932278

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
932278	932277	SW846 3050B	0.506	g	50	mL	12/16/09	FGA
932317	932316	SW846 3050B	0.501	g	50	mL	12/16/09	FGA
934858	934857	SW846 7471A Prep	0.51	g	30	mL	12/22/09	TXB3

SEB
2/4/10

METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-854 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 242668002 **BASIS:** Dry Weight **DATE COLLECTED** 07-DEC-09

CLIENT ID: RE03-10-2740 **LEVEL:** Low **DATE RECEIVED** 10-DEC-09

MATRIX: SOIL **%SOLIDS:** 89

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	6620000	ug/Kg		7300	21500	21500	1	P	HSC	12/19/09 14:31	121909-1	932278
7440-36-0	Antimony	424	ug/Kg	J	354	1070	1070	1	P	HSC	12/19/09 14:31	121909-1	932278
7440-38-2	Arsenic	1.91	mg/kg		0.224	1.12	1.12	2	MS	BAJ	01/01/10 20:58	100101-2	932317
7440-39-3	Barium	114000	ug/Kg		107	537	537	1	P	HSC	12/19/09 14:31	121909-1	932278
7440-41-7	Beryllium	0.680	mg/kg		0.0224	0.112	0.112	2	MS	BAJ	01/01/10 20:58	100101-2	932317
7440-42-8	Boron	5370	ug/Kg	U	1070	5370	5370	1	P	HSC	12/19/09 14:31	121909-1	932278
7440-43-9	Cadmium	500	ug/Kg	J	107	537	537	1	P	HSC	12/19/09 14:31	121909-1	932278
7440-70-2	Calcium	2140000	ug/Kg		8590	26800	26800	1	P	HSC	12/19/09 14:31	121909-1	932278
7440-47-3	Chromium	8080	ug/Kg	*	161	537	537	1	P	HSC	12/19/09 14:31	121909-1	932278
7440-48-4	Cobalt	4780	ug/Kg		161	537	537	1	P	HSC	12/19/09 14:31	121909-1	932278
7440-50-8	Copper	9380	ug/Kg		322	1070	1070	1	P	HSC	12/19/09 14:31	121909-1	932278
7439-89-6	Iron	10300000	ug/Kg		8590	26800	26800	1	P	HSC	12/19/09 14:31	121909-1	932278
7439-92-1	Lead	13700	ug/Kg		268	1070	1070	1	P	HSC	12/19/09 14:31	121909-1	932278
7439-93-2	Lithium	10.1	mg/kg	N	0.448	2.24	2.24	2	MS	BAJ	01/02/10 07:55	100101-6	932317
7439-95-4	Magnesium J+,I6b	1380000	ug/Kg	N	9130	32200	32200	1	P	HSC	12/19/09 14:31	121909-1	932278
7439-96-5	Manganese	340000	ug/Kg	N	215	1070	1070	1	P	HSC	12/19/09 14:31	121909-1	932278
7439-97-6	Mercury	21.1	ug/kg		4.23	12.4	12.4	1	AV	JXL1	12/29/09 13:10	122909S2-7	936546
7440-02-0	Nickel	6.52	mg/kg		0.112	0.448	0.448	2	MS	BAJ	01/01/10 20:58	100101-2	932317
7440-09-7	Potassium J+,I6b	1040000	ug/Kg	N	6870	26800	26800	1	P	HSC	12/19/09 14:31	121909-1	932278
7782-49-2	Selenium UJ,I6a	1.12	mg/kg	UN	0.56	1.12	1.12	2	MS	BAJ	01/01/10 20:58	100101-2	932317
7440-21-3	Silicon	1470000	ug/Kg		1610	10700	10700	1	P	HSC	12/19/09 14:31	121909-1	932278
7440-22-4	Silver	530	ug/Kg	J	107	537	537	1	P	HSC	12/19/09 14:31	121909-1	932278
7440-23-5	Sodium	148000	ug/Kg		7520	26800	26800	1	P	HSC	12/19/09 14:31	121909-1	932278
7440-28-0	Thallium	0.141	mg/kg	J	0.0672	0.224	0.224	2	MS	BAJ	01/01/10 20:58	100101-2	932317
7440-32-6	Titanium	385000	ug/Kg		107	537	537	1	P	HSC	12/19/09 14:31	121909-1	932278
7440-61-1	Uranium	0.985	mg/kg		0.0148	0.0448	0.0448	2	MS	BAJ	01/02/10 07:16	100101-5	932317
7440-62-2	Vanadium	20100	ug/Kg		107	537	537	1	P	HSC	12/19/09 14:31	121909-1	932278
7440-66-6	Zinc	102000	ug/Kg		354	1070	1070	1	P	HSC	12/19/09 14:31	121909-1	932278

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
932278	932277	SW846 3050B	0.525	g	50	mL	12/16/09	FGA
932317	932316	SW846 3050B	0.503	g	50	mL	12/16/09	FGA
934858	934857	SW846 7471A Prep	0.523	g	30	mL	12/22/09	TXB3

SEB
2/4/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-854-1 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 242669001 **BASIS:** As Received **DATE COLLECTED** 07-DEC-09

CLIENT ID: RE03-10-2767 **LEVEL:** Low **DATE RECEIVED** 10-DEC-09

MATRIX: WATER **%SOLIDS:** 0

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	92.8	ug/L	J	68	200	200	1	P	HSC	12/19/09 17:58	121909-1	932262
7440-36-0	Antimony	3	ug/L	U	1	3	3	1	MS	BAJ	12/23/09 04:11	091222-2	932304
7440-38-2	Arsenic	30	ug/L	U	5	30	30	1	P	HSC	12/19/09 17:58	121909-1	932262
7440-39-3	Barium	5	ug/L	U	1	5	5	1	P	HSC	12/19/09 17:58	121909-1	932262
7440-41-7	Beryllium	0.50	ug/L	U	0.1	0.5	0.5	1	MS	BAJ	12/23/09 04:11	091222-2	932304
7440-42-8	Boron	50	ug/L	U	15	50	50	1	P	HSC	12/19/09 17:58	121909-1	932262
7440-43-9	Cadmium	1	ug/L	U	0.11	1	1	1	MS	BAJ	12/23/09 04:11	091222-2	932304
7440-70-2	Calcium	71.4	ug/L	J	50	200	200	1	P	HSC	12/19/09 17:58	121909-1	932262
7440-47-3	Chromium	3.65	ug/L	J	1	5	5	1	P	HSC	12/19/09 17:58	121909-1	932262
7440-48-4	Cobalt	5	ug/L	U	1	5	5	1	P	HSC	12/19/09 17:58	121909-1	932262
7440-50-8	Copper	10	ug/L	U	3	10	10	1	P	HSC	12/19/09 17:58	121909-1	932262
7439-89-6	Iron	91.3	ug/L	J	30	100	100	1	P	HSC	12/19/09 17:58	121909-1	932262
7439-92-1	Lead	2	ug/L	U	0.5	2	2	1	MS	BAJ	12/23/09 04:11	091222-2	932304
7439-93-2	Lithium	10	ug/L	U	2	10	10	1	MS	BAJ	12/23/09 04:11	091222-2	932304
7439-95-4	Magnesium	300	ug/L	U	85	300	300	1	P	HSC	12/19/09 17:58	121909-1	932262
7439-96-5	Manganese	2.23	ug/L	J	1	5	5	1	MS	BAJ	12/23/09 04:11	091222-2	932304
7439-97-6	Mercury	0.20	ug/L	U	0.066	0.2	0.2	1	AV	ETL	12/21/09 12:06	122109W3-3	934600
7440-02-0	Nickel	1.93	ug/L	J	1.5	5	5	1	P	HSC	12/19/09 17:58	121909-1	932262
7440-09-7	Potassium	150	ug/L	U	50	150	150	1	P	HSC	12/19/09 17:58	121909-1	932262
7782-49-2	Selenium	30	ug/L	U	5	30	30	1	P	HSC	12/19/09 17:58	121909-1	932262
7440-21-3	Silicon	1480	ug/L		25	100	100	1	P	HSC	12/19/09 17:58	121909-1	932262
7440-22-4	Silver	5	ug/L	U	1	5	5	1	P	HSC	12/19/09 17:58	121909-1	932262
7440-23-5	Sodium	245	ug/L	J	100	300	300	1	P	HSC	12/19/09 17:58	121909-1	932262
7440-28-0	Thallium U,I4b	0.432	ug/L	J	0.3	1	1	1	MS	BAJ	12/23/09 04:11	091222-2	932304
7440-32-6	Titanium	2.8	ug/L	J	1	5	5	1	P	HSC	12/19/09 17:58	121909-1	932262
7440-61-1	Uranium	0.20	ug/L	U	0.05	0.2	0.2	1	MS	BAJ	12/23/09 04:11	091222-2	932304
7440-62-2	Vanadium	5	ug/L	U	1	5	5	1	P	HSC	12/19/09 17:58	121909-1	932262
7440-66-6	Zinc	6.89	ug/L	J	3.3	10	10	1	P	HSC	12/19/09 17:58	121909-1	932262

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
932262	932261	SW846 3005A	50	mL	50	mL	12/17/09	BCD1
932304	932303	SW846 3005A	50	mL	50	mL	12/16/09	BCD1
934600	934599	SW846 7470A Prep	20	mL	20	mL	12/18/09	TXB3

SEB
2/4/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-854-1 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 242669002 **BASIS:** As Received **DATE COLLECTED** 07-DEC-09

CLIENT ID: RE03-10-2753 **LEVEL:** Low **DATE RECEIVED** 10-DEC-09

MATRIX: WATER **%SOLIDS:** 0

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	200	ug/L	U	68	200	200	1	P	HSC	12/19/09 18:26	121909-1	932262
7440-36-0	Antimony	3	ug/L	U	1	3	3	1	MS	BAJ	12/23/09 04:46	091222-2	932304
7440-38-2	Arsenic	30	ug/L	U	5	30	30	1	P	HSC	12/19/09 18:26	121909-1	932262
7440-39-3	Barium	5	ug/L	U	1	5	5	1	P	HSC	12/19/09 18:26	121909-1	932262
7440-41-7	Beryllium	0.50	ug/L	U	0.1	0.5	0.5	1	MS	BAJ	12/23/09 04:46	091222-2	932304
7440-42-8	Boron	50	ug/L	U	15	50	50	1	P	HSC	12/19/09 18:26	121909-1	932262
7440-43-9	Cadmium	1	ug/L	U	0.11	1	1	1	MS	BAJ	12/23/09 04:46	091222-2	932304
7440-70-2	Calcium	200	ug/L	U	50	200	200	1	P	HSC	12/19/09 18:26	121909-1	932262
7440-47-3	Chromium	5	ug/L	U	1	5	5	1	P	HSC	12/19/09 18:26	121909-1	932262
7440-48-4	Cobalt	5	ug/L	U	1	5	5	1	P	HSC	12/19/09 18:26	121909-1	932262
7440-50-8	Copper	10	ug/L	U	3	10	10	1	P	HSC	12/19/09 18:26	121909-1	932262
7439-89-6	Iron	100	ug/L	U	30	100	100	1	P	HSC	12/19/09 18:26	121909-1	932262
7439-92-1	Lead	2	ug/L	U	0.5	2	2	1	MS	BAJ	12/23/09 04:46	091222-2	932304
7439-93-2	Lithium	10	ug/L	U	2	10	10	1	MS	BAJ	12/23/09 04:46	091222-2	932304
7439-95-4	Magnesium	300	ug/L	U	85	300	300	1	P	HSC	12/19/09 18:26	121909-1	932262
7439-96-5	Manganese	5	ug/L	U	1	5	5	1	MS	BAJ	12/23/09 04:46	091222-2	932304
7439-97-6	Mercury	0.20	ug/L	U	0.066	0.2	0.2	1	AV	ETL	12/21/09 12:08	122109W3-3	934600
7440-02-0	Nickel	5	ug/L	U	1.5	5	5	1	P	HSC	12/19/09 18:26	121909-1	932262
7440-09-7	Potassium	150	ug/L	U	50	150	150	1	P	HSC	12/19/09 18:26	121909-1	932262
7782-49-2	Selenium	30	ug/L	U	5	30	30	1	P	HSC	12/19/09 18:26	121909-1	932262
7440-21-3	Silicon	1250	ug/L		25	100	100	1	P	HSC	12/19/09 18:26	121909-1	932262
7440-22-4	Silver	5	ug/L	U	1	5	5	1	P	HSC	12/19/09 18:26	121909-1	932262
7440-23-5	Sodium	300	ug/L	U	100	300	300	1	P	HSC	12/19/09 18:26	121909-1	932262
7440-28-0	Thallium U,I4b	0.345	ug/L	J	0.3	1	1	1	MS	BAJ	12/23/09 04:46	091222-2	932304
7440-32-6	Titanium	5	ug/L	U	1	5	5	1	P	HSC	12/19/09 18:26	121909-1	932262
7440-61-1	Uranium	0.20	ug/L	U	0.05	0.2	0.2	1	MS	BAJ	12/23/09 04:46	091222-2	932304
7440-62-2	Vanadium	5	ug/L	U	1	5	5	1	P	HSC	12/19/09 18:26	121909-1	932262
7440-66-6	Zinc	10	ug/L	U	3.3	10	10	1	P	HSC	12/19/09 18:26	121909-1	932262

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
932262	932261	SW846 3005A	50	mL	50	mL	12/17/09	BCD1
932304	932303	SW846 3005A	50	mL	50	mL	12/16/09	BCD1
934600	934599	SW846 7470A Prep	20	mL	20	mL	12/18/09	TXB3

SEB
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METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-854-1 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 242669003 **BASIS:** As Received **DATE COLLECTED** 07-DEC-09

CLIENT ID: RE03-10-2765 **LEVEL:** Low **DATE RECEIVED** 10-DEC-09

MATRIX: WATER **%SOLIDS:** 0

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	89.6	ug/L	J	68	200	200	1	P	HSC	12/19/09 18:33	121909-1	932262
7440-36-0	Antimony	3	ug/L	U	1	3	3	1	MS	BAJ	12/23/09 04:52	091222-2	932304
7440-38-2	Arsenic	30	ug/L	U	5	30	30	1	P	HSC	12/19/09 18:33	121909-1	932262
7440-39-3	Barium	1.16	ug/L	J	1	5	5	1	P	HSC	12/19/09 18:33	121909-1	932262
7440-41-7	Beryllium	0.50	ug/L	U	0.1	0.5	0.5	1	MS	BAJ	12/23/09 04:52	091222-2	932304
7440-42-8	Boron	50	ug/L	U	15	50	50	1	P	HSC	12/19/09 18:33	121909-1	932262
7440-43-9	Cadmium	1	ug/L	U	0.11	1	1	1	MS	BAJ	12/23/09 04:52	091222-2	932304
7440-70-2	Calcium	75.7	ug/L	J	50	200	200	1	P	HSC	12/19/09 18:33	121909-1	932262
7440-47-3	Chromium	2.91	ug/L	J	1	5	5	1	P	HSC	12/19/09 18:33	121909-1	932262
7440-48-4	Cobalt	5	ug/L	U	1	5	5	1	P	HSC	12/19/09 18:33	121909-1	932262
7440-50-8	Copper	10	ug/L	U	3	10	10	1	P	HSC	12/19/09 18:33	121909-1	932262
7439-89-6	Iron	49.6	ug/L	J	30	100	100	1	P	HSC	12/19/09 18:33	121909-1	932262
7439-92-1	Lead	2	ug/L	U	0.5	2	2	1	MS	BAJ	12/23/09 04:52	091222-2	932304
7439-93-2	Lithium	10	ug/L	U	2	10	10	1	MS	BAJ	12/23/09 04:52	091222-2	932304
7439-95-4	Magnesium	300	ug/L	U	85	300	300	1	P	HSC	12/19/09 18:33	121909-1	932262
7439-96-5	Manganese	2.04	ug/L	J	1	5	5	1	MS	BAJ	12/23/09 04:52	091222-2	932304
7439-97-6	Mercury	0.20	ug/L	U	0.066	0.2	0.2	1	AV	ETL	12/21/09 12:10	122109W3-3	934600
7440-02-0	Nickel	1.86	ug/L	J	1.5	5	5	1	P	HSC	12/19/09 18:33	121909-1	932262
7440-09-7	Potassium	53.5	ug/L	J	50	150	150	1	P	HSC	12/19/09 18:33	121909-1	932262
7782-49-2	Selenium	30	ug/L	U	5	30	30	1	P	HSC	12/19/09 18:33	121909-1	932262
7440-21-3	Silicon	1460	ug/L		25	100	100	1	P	HSC	12/19/09 18:33	121909-1	932262
7440-22-4	Silver	5	ug/L	U	1	5	5	1	P	HSC	12/19/09 18:33	121909-1	932262
7440-23-5	Sodium	211	ug/L	J	100	300	300	1	P	HSC	12/19/09 18:33	121909-1	932262
7440-28-0	Thallium	1	ug/L	U	0.3	1	1	1	MS	BAJ	12/23/09 04:52	091222-2	932304
7440-32-6	Titanium	2.67	ug/L	J	1	5	5	1	P	HSC	12/19/09 18:33	121909-1	932262
7440-61-1	Uranium	0.20	ug/L	U	0.05	0.2	0.2	1	MS	BAJ	12/23/09 04:52	091222-2	932304
7440-62-2	Vanadium	5	ug/L	U	1	5	5	1	P	HSC	12/19/09 18:33	121909-1	932262
7440-66-6	Zinc	10	ug/L	U	3.3	10	10	1	P	HSC	12/19/09 18:33	121909-1	932262

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
932262	932261	SW846 3005A	50	mL	50	mL	12/17/09	BCD1
932304	932303	SW846 3005A	50	mL	50	mL	12/16/09	BCD1
934600	934599	SW846 7470A Prep	20	mL	20	mL	12/18/09	TXB3

SEB
2/4/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-854-1 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 242669004 **BASIS:** As Received **DATE COLLECTED** 07-DEC-09

CLIENT ID: RE03-10-2754 **LEVEL:** Low **DATE RECEIVED** 10-DEC-09

MATRIX: WATER **%SOLIDS:** 0

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	200	ug/L	U	68	200	200	1	P	HSC	12/19/09 18:39	121909-1	932262
7440-36-0	Antimony	3	ug/L	U	1	3	3	1	MS	BAJ	12/23/09 04:57	091222-2	932304
7440-38-2	Arsenic	30	ug/L	U	5	30	30	1	P	HSC	12/19/09 18:39	121909-1	932262
7440-39-3	Barium	5	ug/L	U	1	5	5	1	P	HSC	12/19/09 18:39	121909-1	932262
7440-41-7	Beryllium	0.50	ug/L	U	0.1	0.5	0.5	1	MS	BAJ	12/23/09 04:57	091222-2	932304
7440-42-8	Boron	50	ug/L	U	15	50	50	1	P	HSC	12/19/09 18:39	121909-1	932262
7440-43-9	Cadmium	1	ug/L	U	0.11	1	1	1	MS	BAJ	12/23/09 04:57	091222-2	932304
7440-70-2	Calcium	200	ug/L	U	50	200	200	1	P	HSC	12/19/09 18:39	121909-1	932262
7440-47-3	Chromium	5	ug/L	U	1	5	5	1	P	HSC	12/19/09 18:39	121909-1	932262
7440-48-4	Cobalt	5	ug/L	U	1	5	5	1	P	HSC	12/19/09 18:39	121909-1	932262
7440-50-8	Copper	10	ug/L	U	3	10	10	1	P	HSC	12/19/09 18:39	121909-1	932262
7439-89-6	Iron	100	ug/L	U	30	100	100	1	P	HSC	12/19/09 18:39	121909-1	932262
7439-92-1	Lead	2	ug/L	U	0.5	2	2	1	MS	BAJ	12/23/09 04:57	091222-2	932304
7439-93-2	Lithium	10	ug/L	U	2	10	10	1	MS	BAJ	12/23/09 04:57	091222-2	932304
7439-95-4	Magnesium	300	ug/L	U	85	300	300	1	P	HSC	12/19/09 18:39	121909-1	932262
7439-96-5	Manganese	5	ug/L	U	1	5	5	1	MS	BAJ	12/23/09 04:57	091222-2	932304
7439-97-6	Mercury	0.0784	ug/L	J	0.066	0.2	0.2	1	AV	JXL1	12/22/09 11:02	122209W1-4	934861
7440-02-0	Nickel	5	ug/L	U	1.5	5	5	1	P	HSC	12/19/09 18:39	121909-1	932262
7440-09-7	Potassium	150	ug/L	U	50	150	150	1	P	HSC	12/19/09 18:39	121909-1	932262
7782-49-2	Selenium	30	ug/L	U	5	30	30	1	P	HSC	12/19/09 18:39	121909-1	932262
7440-21-3	Silicon	1240	ug/L		25	100	100	1	P	HSC	12/19/09 18:39	121909-1	932262
7440-22-4	Silver	5	ug/L	U	1	5	5	1	P	HSC	12/19/09 18:39	121909-1	932262
7440-23-5	Sodium	300	ug/L	U	100	300	300	1	P	HSC	12/19/09 18:39	121909-1	932262
7440-28-0	Thallium	1	ug/L	U	0.3	1	1	1	MS	BAJ	12/23/09 04:57	091222-2	932304
7440-32-6	Titanium	5	ug/L	U	1	5	5	1	P	HSC	12/19/09 18:39	121909-1	932262
7440-61-1	Uranium	0.20	ug/L	U	0.05	0.2	0.2	1	MS	BAJ	12/23/09 04:57	091222-2	932304
7440-62-2	Vanadium	5	ug/L	U	1	5	5	1	P	HSC	12/19/09 18:39	121909-1	932262
7440-66-6	Zinc	10	ug/L	U	3.3	10	10	1	P	HSC	12/19/09 18:39	121909-1	932262

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
932262	932261	SW846 3005A	50	mL	50	mL	12/17/09	BCD1
932304	932303	SW846 3005A	50	mL	50	mL	12/16/09	BCD1
934861	934860	SW846 7470A Prep	20	mL	20	mL	12/21/09	TXB3

SEB
2/4/10

DATA VALIDATION COVER SHEET

5120-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-854 VALIDATION DATE: 02/04/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Susan Ball ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☒ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE): total cyanide only

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☐	☐	☒	8. QUANTITATION REPORTS
☐	☐	☒	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. In the aqueous and soil ICB, total cyanide was detected. The total cyanide result for sample RE03-10-2740 was a detect ≤5X the ICB concentration and, thus, was qualified U,I4b. The remaining associated sample results were NDs and, thus, were not qualified.
2. It should be noted that the both aqueous and soil parent QC samples were from other LANL RNs. No sample results were qualified.

Reviewed by: ETM Level: 1 Date: 2/4/10

VALIDATOR'S SIGNATURE: DATE: 02/04/10

GENERAL CHEMISTRY ANALYTICAL DATA VALIDATION CHECKLIST

5120-2

General Chemistry Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below if Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, I9	J-, I9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, I9a	J-, I9a
☐	☐	☒	3. The affected analytes are regarded as rejected because the analytical holding time was exceeded.	R, I9b	R, I9b
☐	☒	☐	4. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, I7	J, I7
☐	☒	☐	5. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, I7a	J, I7a
☐	☒	☐	6. The ICV and/or CCV were recovered outside the method specific limits.	UJ, I7c	J, I7c
☐	☒	☐	7. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, I7d	J, I7d
☐	☒	☐	8. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, I7f	R, I7f
☐	☐	☒	9. The interference check sample percent recovery value is <50%.	R, I2	J-, I2
☐	☐	☒	10. The interference check sample percent recovery value is ≥50% and <80%.	UJ, I2a	J-, I2a
☐	☐	☒	11. The interference check sample percent recovery value is >120%.	N/A	J+, I2b
☐	☐	☒	12. The interference check sample was not analyzed with the samples.	R, I2c	R, I2c
☐	☒	☐	13. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, I4	N/A

GENERAL CHEMISTRY ANALYTICAL DATA VALIDATION CHECKLIST

5120-2

General Chemistry Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below if Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	14. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X.	N/A	J, I4a
☒	☐	☐	15. The sample result is ≤5X the concentration of the related analyte in the instrument blank and continuing calibration blank.	U, I4b	N/A
☐	☒	☐	16. Continuing calibration blanks were not analyzed at the appropriate method frequency.	UJ, I4c	J, I4c
☐	☒	☐	17. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	U, I4d	N/A
☐	☒	☐	18. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, I4e	R, I4e
☐	☒	☐	19. The associate matrix spike recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I6	R, I6
☐	☒	☐	20. The associated matrix spike recovery was below the Lower Acceptance Limit (LAL) but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I6a	J-, I6a
☐	☒	☐	21. The associated matrix spike recovery was above the Upper Acceptance Limit (UAL). Follow the external laboratory limits located within the associated data package.	UJ, I6b	J+, I6b
☐	☒	☐	22. Required matrix spike information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. If LCS information is present, do not reject. Qualify data based on LCS information.	R, I6c	R, I6c
☐	☒	☐	23. The sample and/or the duplicate sample results RPD is not within the acceptance limits. Follow the external laboratory limits located within the associated data package.	UJ, I10b	J, I10b

GENERAL CHEMISTRY ANALYTICAL DATA VALIDATION CHECKLIST	
5120-2 General Chemistry Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below if Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	24. The duplicate sample was not prepared and/or analyzed with the samples for unspecified reasons. The duplicate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	UJ, I10d	J, I10d
☐	☒	☐	25. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I12	R, I12
☐	☒	☐	26. The LCS percent recover was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I12a	J-, I12a
☐	☒	☐	27. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, I12b
☐	☒	☐	28. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. Do not Reject if MS/MSD information is present. Qualify according to MS/MSD criteria.	R, I12c	R, I12c
☐	☒	☐	29. Duplicate, dilution, or reanalysis	UJ, I88	J, I88
☐	☒	☐	30. The LANL project chemist identified quality deficiencies in the reported data that require further qualification. This code can ONLY be used and/or under advisement by the LANL project chemist.	UJ, R, I19	J, R, I19
☒	☐	☐	31. Qualification of data via data validation does not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB NQ, NQ (no qualification)

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: December 16, 2009

Client SDG: 10-854

Client Sample ID:	RE03-10-2741	Project:	LANL01004
Sample ID:	242668001	Client ID:	LANL010
Matrix:	S		
Collect Date:	07-DEC-09 12:00		
Receive Date:	10-DEC-09		
Collector:	Client		
Moisture:	8.17%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis Federal										
SW9012A Cyanide, Total Federal "Dry Weight Corrected"										
Cyanide, Total	U	ND	66.1	243	ug/kg	1	AXC2 12/15/09	1014	932514	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	SXJ1	12/14/09	1200	932513

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

SEB
2/4/10

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: December 16, 2009

Client SDG: 10-854

Client Sample ID:	RE03-10-2740	Project:	LANL01004
Sample ID:	242668002	Client ID:	LANL010
Matrix:	S		
Collect Date:	07-DEC-09 12:00		
Receive Date:	10-DEC-09		
Collector:	Client		
Moisture:	11.3%		

Parameter	Qualifier	Result		DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis Federal											
SW9012A Cyanide, Total Federal "Dry Weight Corrected"											
Cyanide, Total	J	91.2	U,l4b	75.2	276	ug/kg	1	AXC2 12/15/09	1015	932514	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	SXJ1	12/14/09	1200	932513

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

SEB
2/4/10

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: December 16, 2009

Client SDG: 10-854-1

Client Sample ID:	RE03-10-2767	Project:	LANL01004
Sample ID:	242669001	Client ID:	LANL010
Matrix:	W		
Collect Date:	07-DEC-09 12:00		
Receive Date:	10-DEC-09		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis Federal										
SW9012A Cyanide, Total "As Received"										
Cyanide, Total	U	ND	1.66	5.00	ug/L	1	AXC2 12/15/09	0937	931341	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	SXJ1	12/14/09	1400	931339

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

SEB
2/4/10

GEL LABORATORIES LLC

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: December 16, 2009

Client SDG: 10-854-1

Client Sample ID:	RE03-10-2753	Project:	LANL01004
Sample ID:	242669002	Client ID:	LANL010
Matrix:	W		
Collect Date:	07-DEC-09 12:00		
Receive Date:	10-DEC-09		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis Federal										
SW9012A Cyanide, Total "As Received"										
Cyanide, Total	U	ND	1.66	5.00	ug/L	1	AXC2 12/15/09	0938	931341	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	SXJ1	12/14/09	1400	931339

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

SEB
2/4/10

GEL LABORATORIES LLC

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: December 16, 2009

Client SDG: 10-854-1

Client Sample ID:	RE03-10-2765	Project:	LANL01004
Sample ID:	242669003	Client ID:	LANL010
Matrix:	W		
Collect Date:	07-DEC-09 12:00		
Receive Date:	10-DEC-09		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis Federal										
SW9012A Cyanide, Total "As Received"										
Cyanide, Total	U	ND	1.66	5.00	ug/L	1	AXC2 12/15/09	0943	931341	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	SXJ1	12/14/09	1400	931339

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

SEB
2/4/10

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: December 16, 2009

Client SDG: 10-854-1

Client Sample ID:	RE03-10-2754	Project:	LANL01004
Sample ID:	242669004	Client ID:	LANL010
Matrix:	W		
Collect Date:	07-DEC-09 12:00		
Receive Date:	10-DEC-09		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis Federal										
SW9012A Cyanide, Total "As Received"										
Cyanide, Total	U	ND	1.66	5.00	ug/L	1	AXC2 12/15/09	0943	931341	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	SXJ1	12/14/09	1400	931339

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

SEB
2/4/10

Wednesday, December 09, 2009

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-854

REQUEST NUMBER: 10-854

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 1/8/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS: 242668, 242669

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE03-10-2741	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-10-2741	1	GLASS	8270C+8082+TPH-DRO	Ice	S
RE03-10-2741	1	POLY	Metals+CN - GEL	Ice	S
RE03-10-2740	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-10-2740	1	GLASS	8270C+8082+TPH-DRO	Ice	S
RE03-10-2740	1	POLY	Metals+CN - GEL	Ice	S
RE03-10-2767	1	POLY	METALS-GEL	Nitric Acid	W
RE03-10-2767	1	POLY	TCN	Sodium Hydroxide	W
RE03-10-2753	1	POLY	METALS-GEL	Nitric Acid	W
RE03-10-2753	1	POLY	TCN	Sodium Hydroxide	W
RE03-10-2765	1	POLY	METALS-GEL	Nitric Acid	W
RE03-10-2765	1	POLY	TCN	Sodium Hydroxide	W
RE03-10-2754	1	POLY	METALS-GEL	Nitric Acid	W
RE03-10-2754	1	POLY	TCN	Sodium Hydroxide	W

Relinquished By:		Date	Time	Received By:		Date	Time
		12-9-09	1400	Patricia Dover-Dent	P.D. Dent	12-10-09	08:50
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

Received for DISPOSAL By: Date Time **Remarks:**

Printed Name Signature

Wednesday, December 09, 2009

REQUEST NUMBER: 10-854

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis
General Engineering Laboratories, Inc., Charleston, SC.
2040 Savage Rd
Charleston, SC 29407

These Samples are on:
LANL Request Number:10-854
Per Agreement Number:126310011
Project Cost Code: MR2A054196D0

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 12/9/2009
TURNAROUND/REPORT DUE: 1/8/2010
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Not Required
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:6010B	1	RE03-10-2740	S	12/7/2009	
		1	RE03-10-2741	S	12/7/2009	
		1	RE03-10-2753	W	12/7/2009	
		1	RE03-10-2754	W	12/7/2009	
		1	RE03-10-2765	W	12/7/2009	
		1	RE03-10-2767	W	12/7/2009	
	SW-846:6020	1	RE03-10-2753	W	12/7/2009	
		1	RE03-10-2754	W	12/7/2009	
		1	RE03-10-2765	W	12/7/2009	

Wednesday, December 09, 2009

REQUEST NUMBER: 10-854

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:6020	1	RE03-10-2767	W	12/7/2009	
	SW-846:8015M_EXTRACTABLE	1	RE03-10-2740	S	12/7/2009	
		1	RE03-10-2741	S	12/7/2009	
	SW-846:8082	1	RE03-10-2740	S	12/7/2009	
		1	RE03-10-2741	S	12/7/2009	
	SW-846:8260B	1	RE03-10-2740	S	12/7/2009	
		1	RE03-10-2741	S	12/7/2009	
	SW-846:8270C	1	RE03-10-2740	S	12/7/2009	
		1	RE03-10-2741	S	12/7/2009	
	SW-846:9012A	1	RE03-10-2740	S	12/7/2009	
		1	RE03-10-2741	S	12/7/2009	
		1	RE03-10-2753	W	12/7/2009	
		1	RE03-10-2754	W	12/7/2009	
		1	RE03-10-2765	W	12/7/2009	
		1	RE03-10-2767	W	12/7/2009	

Final Page of REQUEST NUMBER 10-854

GEL Laboratories LLC

a member of The GEL Group INC

PO Box 30712 Charleston, SC 29417
2040 Savage Road Charleston, SC 29407

P 843.556.8171 F 843.766.1178

www.gel.com

December 15, 2009

Ms. Joylene Valdez
Los Alamos National Laboratory
PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545

Re: LANL ER Project
Work Orders: 242668 242669
SDG: 10-854

Dear Ms. Valdez:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the following analytical results for the sample(s) we received on December 10, 2009, and analyzed for FID Flame Ionization Detector, GC Semivolatile PCB, GC/MS Semivolatile, GC/MS Volatile, General Chemistry and Metals. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 4485.

Sincerely,

for

Valerie Davis
Project Manager

Purchase Order: 72733-001-09
Chain of Custody: 10-854
Enclosures

Los Alamos National Laboratory (72733-001-09)
LANL ER Project
Work Order #: 242668 and 242669
SDG: 10-854

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Miscellaneous 964

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Case Narrative 1004
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Quality Control Summary 1015
Standards 1072
Raw Data 1084
Miscellaneous 1335

General Chemistry Analysis 1371
Case Narrative 1372
Sample Data Summary 1377
Quality Control Summary 1381
Instrument QC Data Summary 1384
Cyanide, Total 1386

General Chemistry Analysis 1397
Case Narrative 1398
Sample Data Summary 1403
Quality Control Summary 1409
Instrument QC Data Summary 1412
Cyanide, Total 1414

Case Narrative

Case Narrative for
Los Alamos National Laboratory (72733-001-09)
LANL ER Project
Workorder #: 242668 and 242669
SDG # : 10-854

December 15, 2009

Laboratory Identification:

GEL Laboratories LLC
2040 Savage Road
Charleston, South Carolina 29407
(843) 556-8171

Summary

Sample receipt The samples arrived at GEL Laboratories LLC, Charleston, South Carolina on December 10, 2009 for analysis. The samples were prepared/analyzed within the required holding time. Shipping container temperatures were checked, documented, and within specifications. The samples were screened according to GEL Standard Operating Procedure. The samples were delivered with proper chain of custody documentation and signatures. All sample containers arrived without any visible signs of tampering or breakage. Containers were checked for pH, where appropriate, and matched the preservative as documented on the accompanying chain of custody. Shipping container temperature was within specification (0 - 6C).

Sample Identification The laboratory received the following samples:

Laboratory ID	Client ID
242668001	RE03-10-2741
242668002	RE03-10-2740
242669001	RE03-10-2767
242669002	RE03-10-2753
242669003	RE03-10-2765
242669004	RE03-10-2754

Case Narrative

Sample analyses were conducted using methodology as outlined in GEL Laboratories, LLC (GEL) Standard Operating Procedures. Any technical or administrative problems during analysis, data review, and reduction are contained in the analytical case narratives in the enclosed data package.

Data Package The enclosed data package contains the following sections: Case Narrative, Chain of Custody, Cooler Receipt Checklist, Data Package Qualifier Definitions and data from the following fractions: FID Flame Ionization Detector, GC Semivolatile PCB, GC/MS Semivolatile, GC/MS Volatile, General Chemistry and Metals.

I certify that this data report is in compliance with the terms and conditions of the subcontract and task order, both technically and for completeness, for other than the conditions detailed in the attached case narrative.

for

Valerie Davis

Project Manager

List of current GEL Certifications as of 15 December 2009

State	Certification
Arizona	AZ0668
Arkansas	88-0651
CLIA	42D0904046
California - NELAP	01151CA
Colorado	GEL
Connecticut	PH-0169
Dept. of Navy	NFESC 413
EPA Region 5	WG-15J
Florida - NELAP	E87156
Georgia	E87156 (FL/NELAP)
Georgia DW	967
Hawaii	N/A
ISO 17025	2567.01
Idaho	SC00012
Illinois - NELAP	200029
Indiana	C-SC-01
Kansas - NELAP	E-10332
Kentucky	90129
Louisiana - NELAP	03046
Maryland	270
Massachusetts	M-SC012
Nevada	SC00012
New Jersey - NELAP	SC002
New Mexico	FL NELAP E87156
New York - NELAP	11501
North Carolina	233
North Carolina DW	45709
Oklahoma	9904
Pennsylvania - NELAP	68-00485
South Carolina	10120001/10120002
Tennessee	TN 02934
Texas - NELAP	T104704235-07B-TX
U.S. Dept. of Agriculture	S-52597
Utah - NELAP	GEL
Vermont	VT87156
Virginia	00151
Washington	C1641

Chain of Custody and Supporting Documentation

Wednesday, December 09, 2009

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-854

REQUEST NUMBER: 10-854

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Valerie Davis

TURNAROUND/REPORT DUE: 1/8/2010

TURNAROUND REQ'D: 30

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

LAB REQUEST COMMENTS: 242668, 242669

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE03-10-2741	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-10-2741	1	GLASS	8270C+8082+TPH-DRO	Ice	S
RE03-10-2741	1	POLY	Metals+CN - GEL	Ice	S
RE03-10-2740	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-10-2740	1	GLASS	8270C+8082+TPH-DRO	Ice	S
RE03-10-2740	1	POLY	Metals+CN - GEL	Ice	S
RE03-10-2767	1	POLY	METALS-GEL	Nitric Acid	W
RE03-10-2767	1	POLY	TCN	Sodium Hydroxide	W
RE03-10-2753	1	POLY	METALS-GEL	Nitric Acid	W
RE03-10-2753	1	POLY	TCN	Sodium Hydroxide	W
RE03-10-2765	1	POLY	METALS-GEL	Nitric Acid	W
RE03-10-2765	1	POLY	TCN	Sodium Hydroxide	W
RE03-10-2754	1	POLY	METALS-GEL	Nitric Acid	W
RE03-10-2754	1	POLY	TCN	Sodium Hydroxide	W

Relinquished By:	Date	Time	Received By:	Date	Time
Printed Name / Signature	12-9-09	1400	Patricia Dover-Dent / P.D. Dent	12-10-09	08:50
Printed Name / Signature			Printed Name / Signature		
Printed Name / Signature			Printed Name / Signature		

Received for DISPOSAL By: Date Time

Printed Name Signature

Remarks:

Wednesday, December 09, 2009

REQUEST NUMBER: 10-854

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

These Samples are on:

LANL Request Number:10-854

Per Agreement Number:126310011

Project Cost Code: MR2A054196D0

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 12/9/2009

TURNAROUND/REPORT DUE: 1/8/2010

TURNAROUND REQ'D: 30 Days

RAD SCREENING: Not Required

LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:

Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:6010B	1	RE03-10-2740	S	12/7/2009	
		1	RE03-10-2741	S	12/7/2009	
		1	RE03-10-2753	W	12/7/2009	
		1	RE03-10-2754	W	12/7/2009	
		1	RE03-10-2765	W	12/7/2009	
		1	RE03-10-2767	W	12/7/2009	
	SW-846:6020	1	RE03-10-2753	W	12/7/2009	
		1	RE03-10-2754	W	12/7/2009	
		1	RE03-10-2765	W	12/7/2009	

Wednesday, December 09, 2009

REQUEST NUMBER: 10-854

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:6020	1	RE03-10-2767	W	12/7/2009	
	SW-846:8015M_EXTRACTABLE	1	RE03-10-2740	S	12/7/2009	
		1	RE03-10-2741	S	12/7/2009	
	SW-846:8082	1	RE03-10-2740	S	12/7/2009	
		1	RE03-10-2741	S	12/7/2009	
	SW-846:8260B	1	RE03-10-2740	S	12/7/2009	
		1	RE03-10-2741	S	12/7/2009	
	SW-846:8270C	1	RE03-10-2740	S	12/7/2009	
		1	RE03-10-2741	S	12/7/2009	
	SW-846:9012A	1	RE03-10-2740	S	12/7/2009	
		1	RE03-10-2741	S	12/7/2009	
		1	RE03-10-2753	W	12/7/2009	
		1	RE03-10-2754	W	12/7/2009	
		1	RE03-10-2765	W	12/7/2009	
		1	RE03-10-2767	W	12/7/2009	

Final Page of REQUEST NUMBER 10-854

GEL Laboratories LLC

SAMPLE RECEIPT & REVIEW FORM

Client:LANL	**SDG/ARCOC/Work Order:10-854**
Received By:Patricia Dover-Dent	**Date Received:December 10, 2009**

Suspected Hazard Information	**Yes**	**No**	*If Counts > x2 area background on samples not marked "radioactive", contact the Radiation Safety Group of further
COC/Samples marked as radioactive?		X	Maximum Counts Observed*:40 CPM
Classified Radioactive II by RSO?		X	
COC/Samples marked containing PCBs?		X	
Shipped as a DOT Hazardous?		X	Hazard Class Shipped: UN#:
Samples identified as Foreign Soil?		X	

	Sample Receipt Criteria	**Yes**	**NA**	**No**	**Comments/Qualifiers (Required for Non-Conforming Items)**
1	Shipping containers received intact and sealed?	X			Circle Applicable: seals broken damaged container leaking container other (describe
2	Samples requiring cold preservation within (0 < 6 deg. C?	X			Preservation Method: ice bags **BLUE ICE** dry ice **NONE** other (describe) 2,3,5,13
3	Chain of custody documents included with shipment?	X			
4	Sample containers intact and sealed?	X			Circle Applicable: seals broken damaged container leaking container other (describe)
5	Samples requiring chemical preservation at proper pH?	X			Sample ID's, containers affected and observed pH. If Preservative added, Lot#:
6	VOA vials free of headspace (defined as < 6mm bubble)?		X		Sample ID's and containers affected:
7	Are Encore containers present?			X	(If yes, immediately deliver to Volatiles laboratory)
8	Samples received within holding time?	X			Id's and tests affected:
9	Sample ID's on COC match ID's on bottles?	X			Sample ID's and containers affected:
10	Date & time on COC match date & time on bottles?		X		Sample ID's affected: **No Time on Chain of Custody**
11	Number of containers received match number indicated on COC?	X			Sample ID's affected:
12	COC form is properly signed in relinquished/received sections?	X			

Comments:FED EX #'S
7209 7849 1730 2C
7209 7849 1741 3C
7209 7849 1785 3C
7209 7849 1796 5C
7209 7849 1800 5C
7209 7849 1811 5C
7209 7849 1720 13C

PM (or PMA) review: Initials [illegible] Date 12/11/09

ORIGIN ID: SAFA (505)665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 09DEC09
ACTWGT: 43.0 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843)556-8171
REF: 6B010AMR1A015AGWM0

2°

FedEx Express

1 of 2
TRK# 0201 7209 7849 1730
*** MASTER ***

THU - 10DEC A1
PRIORITY OVERNIGHT

29407
SC-US
CHS

XX CHSA

Part # 156148-434 NAIT V3 09-09

ORIGIN ID: SAFA (505)665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 09DEC09
ACTWGT: 49.0 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843)556-8171
REF: 6B010AMR1A015AGWM0

3°

FedEx Express

2 of 2
MPS# 0263 7209 7849 1741
Matr# 7209 7849 1730 0201

THU - 10DEC A1
PRIORITY OVERNIGHT

29407
SC-US
CHS

XX CHSA

Part # 156148-434 NAIT V3 09-09

ORIGIN ID: SAFA (505)665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 09DEC09
ACTWGT: 50.0 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843)556-8171
REF: 6B010AMR2A054196D0

3°

FedEx Express

1 of 2
TRK# 0201 7209 7849 1785
*** MASTER ***

THU - 10DEC A1
PRIORITY OVERNIGHT

29407
SC-US

XX CHSA

ORIGIN ID: SAFA (505)665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 09DEC09
ACTWGT: 59.0 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843)556-8171
REF: 6B010AMR2A054196D0

5°

FedEx Express

2 of 2
MPS# 0263 7209 7849 1796
Matr# 7209 7849 1785 0201

THU - 10DEC A1
PRIORITY OVERNIGHT

29407
SC-US
CHS

XX CHSA

ORIGIN ID: SAFA (505)665-9969
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 09DEC09
ACTWGT: 32.0 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843)556-0171
REF: 6B010AMR3A022DXL00

5°

FedEx Express

TRK# 0201 7209 7849 1800

THU - 10DEC A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

Part # 156148-434 NRIT V3 09-09

ORIGIN ID: SAFA (505)665-9969
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 09DEC09
ACTWGT: 52.0 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843)556-0171
REF: 6B010AWE6L11570000

5°

FedEx Express

TRK# 0201 7209 7849 1811

THU - 10DEC A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

Part # 156148-434 NRIT V3 09-09

ORIGIN ID: SAFA (505)665-9969
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 09DEC09
ACTWGT: 35.0 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843)556-0171
REF: 6B010AMR1A015AGWM0

13°

FedEx Express

3 of 3
MPS# 0263 7209 7849 1720
Mstr# 7209 7849 1708 0201

THU - 10DEC A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

Data Review Qualifier Flag Definition Sheet

Data Review Qualifier Definitions

Qualifier	Explanation
*	A quality control analyte recovery is outside of specified acceptance criteria
**	Analyte is a surrogate compound
<	Result is less than value reported
>	Result is greater than value reported
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL
A	The TIC is a suspected aldol-condensation product
B	Target analyte was detected in the associated blank
B	Metals-Either presence of analyte detected in the associated blank, or MDL/IDL < sample value < PQL
BD	Results are either below the MDC or tracer recovery is low
C	Analyte has been confirmed by GC/MS analysis
D	Results are reported from a diluted aliquot of the sample
d	5-day BOD-The 2:1 depletion requirement was not met for this sample
E	Organics-Concentration of the target analyte exceeds the instrument calibration range
E	Metals-%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
H	Analytical holding time was exceeded
h	Preparation or preservation holding time was exceeded
J	Value is estimated
N	Metals-The Matrix spike sample recovery is not within specified control limits
N	Organics-Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A	Spike recovery limits do not apply. Sample concentration exceeds spike concentration by 4X or more
ND	Analyte concentration is not detected above the reporting limit
UI	Gamma Spectroscopy-Uncertain identification
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
Z	Paint Filter Test-Particulates passed through the filter, however no free liquids were observed.

GC/MS Volatile Analysis

GC/MS Volatile Organics
Los Alamos National Laboratory (LANL)
SDG 10-854

Method/Analysis Information

Procedure:	Volatile Organic Compounds (VOC) by Gas Chromatograph/Mass Spectrometer
Analytical Method:	SW846 8260B
Prep Method:	SW846 5030
Analytical Batch Number:	934305
Prep Batch Number:	934300

Sample Analysis

The following client and quality control samples were analyzed to complete this SDG using the methods referenced in the Analysis Information section:

Sample ID	Client ID
242668001	RE03-10-2741
242668002	RE03-10-2740
1201998949	Method Blank (MB)
1201998952	Laboratory Control Sample (LCS)
1201998953	Laboratory Control Sample (LCS)
1201998950	242668001(RE03-10-2741) Post Spike (PS)
1201998951	242668001(RE03-10-2741) Post Spike Duplicate (PSD)

NOTE: For volatile organic analyses the matrix spike designations may be indicated as "PS" or "PSD". The "PS" designation (post spike) indicates that the matrix was fortified prior to analysis but after applying any prep factors, such as a dilution. The laboratory considers the MS/MSD and PS/PSD designations interchangeable.
The samples in this SDG were analyzed on a "dry weight" basis.

Preparation/Analytical Method Verification

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-038 REV# 13.

Raw data reports are processed and reviewed by the analyst using the Target software package. False positives have been removed from the Target quantitation reports per standard operating procedures (SOP) section 19.1.2.

Calibration Information

Please note that the 'Cal Date' indicated on each quantitation report reflects the date and time of the most recent calibrated analyte(s) in the Target processing method. Since the laboratory may calibrate with multiple solutions on different days using the same processing method, the Target software will update the 'Cal Date' to the last calibration file, date and time. The correct dates and times for all calibration files are located on the Calibration History report in the Standard Data section in the data package.

The surrogate compounds were calibrated using a minimum five-point calibration curve. The surrogates were added by the auto sampler at a concentration of 50 ug/L. GEL Laboratories LLC will not have surrogate recoveries reported for Dibromofluoromethane. This is due to increased regulations for this analyte and an industry shortage.

Due to software limitations, the Calibration Summary Form 6 may not indicate all the calibration files comprising the initial calibration. A complete list of the initial calibration data files are shown in the Calibration History report located in the Standard Data section of the data package.

The linear equation used in Target and indicated on the initial calibration summary form is not a conventional linear equation (slope intercept formula) and does not match the equation found in SW-846 method 8000B. The x and y axes are inversed in Target, so that the instrument response is treated as the independent variable (x) and the concentration ratio is treated as the dependent variable (y). The equation used in Target to calculate sample results is adjusted to account for the linear equation inversion and reciprocal slope. The adjusted calculation has been independently verified to produce valid results.

Initial Calibration
All initial calibration requirements have been met for this sample delivery groups (SDG). A second source initial calibration verification (ICV) was included in the standard section directly behind the initial calibration.

Continuing Calibration Verification Requirements
All associated calibration verification standard(s) (ICV or CCV) met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Surrogate Recoveries
Surrogate recoveries in all client and quality control samples were within the acceptance limits.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

QC Sample Designation
Sample 242668001 (RE03-10-2741) was designated for spike analysis in this SDG.

Matrix Spike (PS) Recovery Statement
The spike recoveries were not all within the acceptance limits. See NCR# 773328.

Matrix Spike Duplicate (PSD) Recovery Statement
The spike duplicate recoveries were not all within the acceptance limits. See NCR# 773328.

Relative Percent Difference (RPD) Statement
The RPD(s) between the matrix spike pair met the acceptance limits.

Internal Standard (ISTD) Acceptance
The internal standard responses in all client and quality control samples met the required acceptance criteria.

Technical Information

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from

sample collection or sample receipt. Those holding times expressed in hours are calculated in the ALPHALIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Sample Preservation and Integrity
All samples met the sample preservation and integrity requirements.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-extraction/Re-analysis
Re-analyses were not required for samples in this SDG.

Miscellaneous Information

Electronic Package Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. An electronic signature page inserted after the case narrative of each electronic package will indicate the analyst, reviewer, and report specialist names associated with the generation of the data and package. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Nonconformance (NCR) Documentation
The following NCR was generated for this SDG: 773328.

Manual Integrations
Data files associated with the initial calibration, continuing calibration check, and samples did not require manual integrations.

TIC Comment
Tentatively identified compounds (TIC) were required for this SDG.

Additional Comments
The samples were not in the analyst's custody in LIMS. However, the analyst did maintain custody of the samples during analysis. See NCR# 773328.

Residual Chlorine
Residual Chlorine was not detected in any of the samples in this SDG.

System Configuration
The Volatile-GC/MS analysis was performed on the following instrument configuration:

Instrument ID	Instrument	System Configuration	Column ID	Column Description	P & T Trap
VOA7.I	Gas Chromatograph/Mass Spectrometer	HP6890N/HP5973N	DB-624	J&W, 60m x 0.25mm x 1.4um	Trap 10

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis Report
for

LANL010 Los Alamos National Laboratory (72733-001-09)

Client SDG: 10-854 GEL Work Order: 242668

The Qualifiers in this report are defined as follows:

* A quality control analyte recovery is outside of specified acceptance criteria

** Analyte is a surrogate compound

J Value is estimated

U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

Review/Validation

GEL requires all analytical data to be verified by a qualified data reviewer. In addition, all CLP-like deliverables receive a third level review of the fractional data package.

The following data validator verified the information presented in this case narrative:

Signature: Stacy Calloway **Name: Stacy Calloway**

Date: 05 JAN 2010 **Title: Data Validator**

Roadmap for LANL 10-854 VOA

This roadmap was analyzed by ale01592 on 12-22-2009, 12:16.
This roadmap was reviewed by sar00518 on 12-22-2009, 13:49.

Sample

exclude	manual	datafile	smpid	clientid	injdate	injtime	sublist	dilution	batchid	comment
☐	N	/chem/VOA7.i/121809v7/7q510.d	242668001	RE03-10-2741	18-DEC-2009	16:02	10-854.sub	1	934305	
☐	N	/chem/VOA7.i/121809v7/7q511.d	242668002	RE03-10-2740	18-DEC-2009	16:34	10-854.sub	1	934305	

QC Sample

exclude	manual	datafile	smpid	clientid	sampletype	injdate	injtime	sublist	dilution	batchid	comment
☐	N	/chem/VOA7.i/121809v7/7q503LA.d	1201998952	LCS	lcs	18-DEC-2009	11:42	all.sub	1	934305	
☐	N	/chem/VOA7.i/121809v7/7q505LA.d	1201998953	SLCS	lcs	18-DEC-2009	12:47	all.sub	1	934305	
☐	N	/chem/VOA7.i/121809v7/7q507BA.d	1201998949	BLANK	mb	18-DEC-2009	13:55	all.sub	1	934305	
☐	N	/chem/VOA7.i/121809v7/7q518.d	1201998950	RE03-10-2741MS	ms	18-DEC-2009	20:29	10-854.sub	1	934305	
☐	N	/chem/VOA7.i/121809v7/7q519.d	1201998951	RE03-10-2741MSD	msd	18-DEC-2009	21:02	10-854.sub	1	934305	

Sample Data Summary

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-854	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242668002	**Date Received:**	12/10/2009 08:50	**%Moisture:**	11.3
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-10-2740	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	934305	**Inst:**	VOA7.I	**Dilution:**	1
Run Date:	12/18/2009 16:34	**Analyst:**	AXO1	**Purge Vol:**	5 mL
Prep Date:	12/18/2009 13:30	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	7q511.d	**Column:**	DB-624	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.13	ug/kg	0.383	1.13
74-87-3	Chloromethane	U	1.13	ug/kg	0.338	1.13
75-01-4	Vinyl chloride	U	1.13	ug/kg	0.338	1.13
74-83-9	Bromomethane	U	1.13	ug/kg	0.338	1.13
75-00-3	Chloroethane	U	1.13	ug/kg	0.338	1.13
75-69-4	Trichlorofluoromethane	U	1.13	ug/kg	0.338	1.13
67-64-1	Acetone	U	5.64	ug/kg	1.87	5.64
75-35-4	1,1-Dichloroethylene	U	1.13	ug/kg	0.338	1.13
74-88-4	Iodomethane	U	5.64	ug/kg	1.80	5.64
75-09-2	Methylene chloride	U	5.64	ug/kg	2.25	5.64
75-15-0	Carbon disulfide	U	5.64	ug/kg	1.41	5.64
156-60-5	trans-1,2-Dichloroethylene	U	1.13	ug/kg	0.338	1.13
75-34-3	1,1-Dichloroethane	U	1.13	ug/kg	0.338	1.13
78-93-3	2-Butanone	U	5.64	ug/kg	1.69	5.64
156-59-2	cis-1,2-Dichloroethylene	U	1.13	ug/kg	0.338	1.13
594-20-7	2,2-Dichloropropane	U	1.13	ug/kg	0.338	1.13
67-66-3	Chloroform	U	1.13	ug/kg	0.338	1.13
74-97-5	Bromochloromethane	U	1.13	ug/kg	0.372	1.13
71-55-6	1,1,1-Trichloroethane	U	1.13	ug/kg	0.338	1.13
563-58-6	1,1-Dichloropropene	U	1.13	ug/kg	0.338	1.13
56-23-5	Carbon tetrachloride	U	1.13	ug/kg	0.338	1.13
107-06-2	1,2-Dichloroethane	U	1.13	ug/kg	0.338	1.13
71-43-2	Benzene	U	1.13	ug/kg	0.338	1.13
79-01-6	Trichloroethylene	U	1.13	ug/kg	0.372	1.13
78-87-5	1,2-Dichloropropane	U	1.13	ug/kg	0.338	1.13
75-27-4	Bromodichloromethane	U	1.13	ug/kg	0.338	1.13
74-95-3	Dibromomethane	U	1.13	ug/kg	0.338	1.13
108-10-1	4-Methyl-2-pentanone	U	5.64	ug/kg	1.41	5.64
10061-01-5	cis-1,3-Dichloropropylene	U	1.13	ug/kg	0.338	1.13
108-88-3	Toluene	U	1.13	ug/kg	0.338	1.13
10061-02-6	trans-1,3-Dichloropropylene	U	1.13	ug/kg	0.338	1.13
79-00-5	1,1,2-Trichloroethane	U	1.13	ug/kg	0.338	1.13
591-78-6	2-Hexanone	U	5.64	ug/kg	1.69	5.64
142-28-9	1,3-Dichloropropane	U	1.13	ug/kg	0.338	1.13
127-18-4	Tetrachloroethylene	U	1.13	ug/kg	0.338	1.13
124-48-1	Dibromochloromethane	U	1.13	ug/kg	0.338	1.13
106-93-4	1,2-Dibromoethane	U	1.13	ug/kg	0.338	1.13
108-90-7	Chlorobenzene	U	1.13	ug/kg	0.338	1.13

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-854**	**Date Collected:**	**12/07/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**242668002**	**Date Received:**	**12/10/2009 08:50**	**%Moisture:**	**11.3**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-10-2740**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**934305**	**Inst:**	**VOA7.1**	**Dilution:**	**1**
Run Date:	**12/18/2009 16:34**	**Analyst:**	**AXO1**	**Purge Vol:**	**5 mL**
Prep Date:	**12/18/2009 13:30**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**7q511.d**	**Column:**	**DB-624**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.13	ug/kg	0.338	1.13
179601-23-1	m,p-Xylenes	U	2.25	ug/kg	0.338	2.25
95-47-6	o-Xylene	U	1.13	ug/kg	0.338	1.13
100-42-5	Styrene	U	1.13	ug/kg	0.338	1.13
75-25-2	Bromoform	U	1.13	ug/kg	0.338	1.13
79-34-5	1,1,2,2-Tetrachloroethane	U	1.13	ug/kg	0.338	1.13
96-18-4	1,2,3-Trichloropropane	U	1.13	ug/kg	0.338	1.13
108-86-1	Bromobenzene	U	1.13	ug/kg	0.338	1.13
103-65-1	n-Propylbenzene	U	1.13	ug/kg	0.338	1.13
95-49-8	2-Chlorotoluene	U	1.13	ug/kg	0.338	1.13
98-82-8	Isopropylbenzene	U	1.13	ug/kg	0.338	1.13
108-67-8	1,3,5-Trimethylbenzene	U	1.13	ug/kg	0.338	1.13
106-43-4	4-Chlorotoluene	U	1.13	ug/kg	0.338	1.13
98-06-6	tert-Butylbenzene	U	1.13	ug/kg	0.338	1.13
95-63-6	1,2,4-Trimethylbenzene	U	1.13	ug/kg	0.338	1.13
135-98-8	sec-Butylbenzene	U	1.13	ug/kg	0.338	1.13
99-87-6	4-Isopropyltoluene	J	0.380	ug/kg	0.338	1.13
541-73-1	1,3-Dichlorobenzene	U	1.13	ug/kg	0.338	1.13
106-46-7	1,4-Dichlorobenzene	U	1.13	ug/kg	0.338	1.13
104-51-8	n-Butylbenzene	U	1.13	ug/kg	0.338	1.13
96-12-8	1,2-Dibromo-3-chloropropane	U	1.13	ug/kg	0.338	1.13
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.64	ug/kg	1.80	5.64
630-20-6	1,1,1,2-Tetrachloroethane	U	1.13	ug/kg	0.338	1.13
95-50-1	1,2-Dichlorobenzene	U	1.13	ug/kg	0.338	1.13

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Hydrocarbon	19.65	29.4	ug/kg		J
	Unknown Hydrocarbon	20.62	16.4	ug/kg		J
	Unknown Siloxane	21.56	14.8	ug/kg		J

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-854	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242668001	**Date Received:**	12/10/2009 08:50	**%Moisture:**	8.2
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-10-2741	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	934305	**Inst:**	VOA7.I	**Dilution:**	1
Run Date:	12/18/2009 16:02	**Analyst:**	AXO1	**Purge Vol:**	5 mL
Prep Date:	12/18/2009 13:20	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	7q510.d	**Column:**	DB-624	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.09	ug/kg	0.370	1.09
74-87-3	Chloromethane	U	1.09	ug/kg	0.327	1.09
75-01-4	Vinyl chloride	U	1.09	ug/kg	0.327	1.09
74-83-9	Bromomethane	U	1.09	ug/kg	0.327	1.09
75-00-3	Chloroethane	U	1.09	ug/kg	0.327	1.09
75-69-4	Trichlorofluoromethane	U	1.09	ug/kg	0.327	1.09
67-64-1	Acetone	U	5.44	ug/kg	1.81	5.44
75-35-4	1,1-Dichloroethylene	U	1.09	ug/kg	0.327	1.09
74-88-4	Iodomethane	U	5.44	ug/kg	1.74	5.44
75-09-2	Methylene chloride	U	5.44	ug/kg	2.18	5.44
75-15-0	Carbon disulfide	U	5.44	ug/kg	1.36	5.44
156-60-5	trans-1,2-Dichloroethylene	U	1.09	ug/kg	0.327	1.09
75-34-3	1,1-Dichloroethane	U	1.09	ug/kg	0.327	1.09
78-93-3	2-Butanone	U	5.44	ug/kg	1.63	5.44
156-59-2	cis-1,2-Dichloroethylene	U	1.09	ug/kg	0.327	1.09
594-20-7	2,2-Dichloropropane	U	1.09	ug/kg	0.327	1.09
67-66-3	Chloroform	U	1.09	ug/kg	0.327	1.09
74-97-5	Bromochloromethane	U	1.09	ug/kg	0.359	1.09
71-55-6	1,1,1-Trichloroethane	U	1.09	ug/kg	0.327	1.09
563-58-6	1,1-Dichloropropene	U	1.09	ug/kg	0.327	1.09
56-23-5	Carbon tetrachloride	U	1.09	ug/kg	0.327	1.09
107-06-2	1,2-Dichloroethane	U	1.09	ug/kg	0.327	1.09
71-43-2	Benzene	U	1.09	ug/kg	0.327	1.09
79-01-6	Trichloroethylene	U	1.09	ug/kg	0.359	1.09
78-87-5	1,2-Dichloropropane	U	1.09	ug/kg	0.327	1.09
75-27-4	Bromodichloromethane	U	1.09	ug/kg	0.327	1.09
74-95-3	Dibromomethane	U	1.09	ug/kg	0.327	1.09
108-10-1	4-Methyl-2-pentanone	U	5.44	ug/kg	1.36	5.44
10061-01-5	cis-1,3-Dichloropropylene	U	1.09	ug/kg	0.327	1.09
108-88-3	Toluene	U	1.09	ug/kg	0.327	1.09
10061-02-6	trans-1,3-Dichloropropylene	U	1.09	ug/kg	0.327	1.09
79-00-5	1,1,2-Trichloroethane	U	1.09	ug/kg	0.327	1.09
591-78-6	2-Hexanone	U	5.44	ug/kg	1.63	5.44
142-28-9	1,3-Dichloropropane	U	1.09	ug/kg	0.327	1.09
127-18-4	Tetrachloroethylene	U	1.09	ug/kg	0.327	1.09
124-48-1	Dibromochloromethane	U	1.09	ug/kg	0.327	1.09
106-93-4	1,2-Dibromoethane	U	1.09	ug/kg	0.327	1.09
108-90-7	Chlorobenzene	U	1.09	ug/kg	0.327	1.09

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-854	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242668001	**Date Received:**	12/10/2009 08:50	**%Moisture:**	8.2
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-10-2741	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	934305	**Inst:**	VOA7.1	**Dilution:**	1
Run Date:	12/18/2009 16:02	**Analyst:**	AXO1	**Purge Vol:**	5 mL
Prep Date:	12/18/2009 13:20	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	7q510.d	**Column:**	DB-624	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.09	ug/kg	0.327	1.09
179601-23-1	m,p-Xylenes	U	2.18	ug/kg	0.327	2.18
95-47-6	o-Xylene	U	1.09	ug/kg	0.327	1.09
100-42-5	Styrene	U	1.09	ug/kg	0.327	1.09
75-25-2	Bromoform	U	1.09	ug/kg	0.327	1.09
79-34-5	1,1,2,2-Tetrachloroethane	U	1.09	ug/kg	0.327	1.09
96-18-4	1,2,3-Trichloropropane	U	1.09	ug/kg	0.327	1.09
108-86-1	Bromobenzene	U	1.09	ug/kg	0.327	1.09
103-65-1	n-Propylbenzene	U	1.09	ug/kg	0.327	1.09
95-49-8	2-Chlorotoluene	U	1.09	ug/kg	0.327	1.09
98-82-8	Isopropylbenzene	U	1.09	ug/kg	0.327	1.09
108-67-8	1,3,5-Trimethylbenzene	U	1.09	ug/kg	0.327	1.09
106-43-4	4-Chlorotoluene	U	1.09	ug/kg	0.327	1.09
98-06-6	tert-Butylbenzene	U	1.09	ug/kg	0.327	1.09
95-63-6	1,2,4-Trimethylbenzene	U	1.09	ug/kg	0.327	1.09
135-98-8	sec-Butylbenzene	U	1.09	ug/kg	0.327	1.09
99-87-6	4-Isopropyltoluene	U	1.09	ug/kg	0.327	1.09
541-73-1	1,3-Dichlorobenzene	U	1.09	ug/kg	0.327	1.09
106-46-7	1,4-Dichlorobenzene	U	1.09	ug/kg	0.327	1.09
104-51-8	n-Butylbenzene	U	1.09	ug/kg	0.327	1.09
96-12-8	1,2-Dibromo-3-chloropropane	U	1.09	ug/kg	0.327	1.09
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.44	ug/kg	1.74	5.44
630-20-6	1,1,1,2-Tetrachloroethane	U	1.09	ug/kg	0.327	1.09
95-50-1	1,2-Dichlorobenzene	U	1.09	ug/kg	0.327	1.09

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Siloxane	19.69	12.3	ug/kg		J
	Unknown Siloxane	21.56	7.65	ug/kg		J

QC Summary

Volatile

Surrogate Recovery Report

SDG Number: 10-854

Matrix Type: SOLID

CAP Column (1) : DB-624

Sample ID	Client ID	DCED4 %REC	TOL %REC	BFB %REC
1201998952	LCS for batch 934300	110	93	94
1201998953	LCS for batch 934300	110	95	91
1201998949	MB for batch 934300	111	92	93
242668001	RE03-10-2741	111	96	99
242668002	RE03-10-2740	110	99	110
1201998950	RE03-10-2741PS	111	93	98
1201998951	RE03-10-2741PSD	114	92	96

Surrogate		Acceptance Limits
DCED4	= 1,2-Dichloroethane-d4	(68%-131%)
TOL	= Toluene-d8	(75%-129%)
BFB	= Bromofluorobenzene	(68%-133%)

* Recovery outside Acceptance Limits

\# Column to be used to flag recovery values

D Sample Diluted

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-854
Client ID: RE03-10-2741PS
Lab Sample ID: 1201998950
Instrument: VOA7.I
Analyst: AXO1
Purge Vol: 5 mL

Sample Type: Post Spike
Matrix: S
%Moisture: 8.2
Analysis Date: 12/18/2009 20:29
Prep Batch ID: 934300
Batch ID: 934305

Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
75-71-8	PS	Dichlorodifluoromethane	50.0	0.00	U	48.6	97	25-149
74-87-3	PS	Chloromethane	50.0	0.00	U	38.3	77	39-140
75-01-4	PS	Vinyl chloride	50.0	0.00	U	42.2	84	47-129
74-83-9	PS	Bromomethane	50.0	0.00	U	37.1	74	31-135
75-00-3	PS	Chloroethane	50.0	0.00	U	38.8	78	53-128
75-69-4	PS	Trichlorofluoromethane	50.0	0.00	U	53.8	108	51-151
67-64-1	PS	Acetone	250	0.00	U	92.1	37	21-153
75-35-4	PS	1,1-Dichloroethylene	50.0	0.00	U	41.2	82	61-125
74-88-4	PS	Iodomethane	250	0.00	U	174	70	53-142
75-09-2	PS	Methylene chloride	50.0	0.00	U	40.2	80	59-136
75-15-0	PS	Carbon disulfide	250	0.00	U	197	79	46-129
156-60-5	PS	trans-1,2-Dichloroethylene	50.0	0.00	U	39.3	79	56-126
75-34-3	PS	1,1-Dichloroethane	50.0	0.00	U	40.7	81	62-125
78-93-3	PS	2-Butanone	250	0.00	U	93.7	37	26-152
156-59-2	PS	cis-1,2-Dichloroethylene	50.0	0.00	U	40.2	80	60-130
594-20-7	PS	2,2-Dichloropropane	50.0	0.00	U	43.4	87	55-135
67-66-3	PS	Chloroform	50.0	0.00	U	43.8	88	60-127
74-97-5	PS	Bromochloromethane	50.0	0.00	U	39.6	79	61-131
71-55-6	PS	1,1,1-Trichloroethane	50.0	0.00	U	50.2	100	59-131
563-58-6	PS	1,1-Dichloropropene	50.0	0.00	U	40.1	80	57-128
56-23-5	PS	Carbon tetrachloride	50.0	0.00	U	50.7	101	58-136
107-06-2	PS	1,2-Dichloroethane	50.0	0.00	U	44.3	89	58-126

Volatile

Quality Control Summary

Spike Recovery Report

SDG Number: 10-854

Client ID: RE03-10-2741PS

Lab Sample ID: 1201998950

Instrument: VOA7.I

Analyst: AXO1

Purge Vol: 5 mL

Sample Type: Post Spike

Matrix: S

%Moisture: 8.2

Analysis Date: 12/18/2009 20:29

Dilution: 1

Prep Batch ID: 934300

Batch ID: 934305

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
71-43-2	PS	Benzene	50.0	0.00	U	37.2	74	56-123
79-01-6	PS	Trichloroethylene	50.0	0.00	U	39.4	79	51-137
78-87-5	PS	1,2-Dichloropropane	50.0	0.00	U	35.2	70	60-126
75-27-4	PS	Bromodichloromethane	50.0	0.00	U	44.9	90	55-138
74-95-3	PS	Dibromomethane	50.0	0.00	U	40.9	82	60-132
108-10-1	PS	4-Methyl-2-pentanone	250	0.00	U	132	53 *	58-136
10061-01-5	PS	cis-1,3-Dichloropropylene	50.0	0.00	U	29.2	58	54-133
108-88-3	PS	Toluene	50.0	0.00	U	34.7	69	52-128
10061-02-6	PS	trans-1,3-Dichloropropylene	50.0	0.00	U	31.4	63	53-137
79-00-5	PS	1,1,2-Trichloroethane	50.0	0.00	U	37.2	74	59-130
591-78-6	PS	2-Hexanone	250	0.00	U	69.9	28 *	31-148
142-28-9	PS	1,3-Dichloropropane	50.0	0.00	U	36.4	73	57-127
127-18-4	PS	Tetrachloroethylene	50.0	0.00	U	45.6	91	51-128
124-48-1	PS	Dibromochloromethane	50.0	0.00	U	43.5	87	59-139
106-93-4	PS	1,2-Dibromoethane	50.0	0.00	U	37.2	74	57-133
108-90-7	PS	Chlorobenzene	50.0	0.00	U	34.3	69	53-122
100-41-4	PS	Ethylbenzene	50.0	0.00	U	34.7	69	51-125
179601-23-1	PS	m,p-Xylenes	100	0.00	U	61.0	61	50-126
95-47-6	PS	o-Xylene	50.0	0.00	U	34.2	68	52-127
100-42-5	PS	Styrene	50.0	0.00	U	29.6	59	49-135
75-25-2	PS	Bromoform	50.0	0.00	U	48.4	97	57-149
79-34-5	PS	1,1,2,2-Tetrachloroethane	50.0	0.00	U	36.8	74	63-127

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-854
Client ID: RE03-10-2741PS
Lab Sample ID: 1201998950
Instrument: VOA7.I
Analyst: AXO1
Purge Vol: 5 mL

Sample Type: Post Spike
Matrix: S
%Moisture: 8.2
Analysis Date: 12/18/2009 20:29
Prep Batch ID: 934300
Batch ID: 934305
Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
96-18-4	PS	1,2,3-Trichloropropane	50.0	0.00	U	41.2	82	57-149
108-86-1	PS	Bromobenzene	50.0	0.00	U	35.4	71	49-131
103-65-1	PS	n-Propylbenzene	50.0	0.00	U	33.1	66	40-136
95-49-8	PS	2-Chlorotoluene	50.0	0.00	U	34.7	69	44-135
98-82-8	PS	Isopropylbenzene	50.0	0.00	U	37.3	75	44-140
108-67-8	PS	1,3,5-Trimethylbenzene	50.0	0.00	U	34.2	68	42-140
106-43-4	PS	4-Chlorotoluene	50.0	0.00	U	29.2	58	44-132
98-06-6	PS	tert-Butylbenzene	50.0	0.00	U	34.2	68	42-142
95-63-6	PS	1,2,4-Trimethylbenzene	50.0	0.00	U	29.6	59	43-137
135-98-8	PS	sec-Butylbenzene	50.0	0.00	U	32.9	66	39-139
99-87-6	PS	4-Isopropyltoluene	50.0	0.00	U	13.8	28 *	38-145
541-73-1	PS	1,3-Dichlorobenzene	50.0	0.00	U	31.8	64	43-129
106-46-7	PS	1,4-Dichlorobenzene	50.0	0.00	U	31.2	62	44-125
104-51-8	PS	n-Butylbenzene	50.0	0.00	U	25.9	52	36-141
96-12-8	PS	1,2-Dibromo-3-chloropropane	50.0	0.00	U	38.8	78	47-151
630-20-6	PS	1,1,1,2-Tetrachloroethane	50.0	0.00	U	39.0	78	59-131
95-50-1	PS	1,2-Dichlorobenzene	50.0	0.00	U	31.2	62	43-129

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-854
Client ID: RE03-10-2741PSD
Lab Sample ID: 1201998951
Instrument: VOA7.I
Analyst: AXO1
Purge Vol: 5 mL

Sample Type: Post Spike Duplicate
Matrix: S
%Moisture: 8.2
Analysis Date: 12/18/2009 21:02
Dilution: 1
Prep Batch ID: 934300
Batch ID: 934305

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
75-71-8	PSD	Dichlorodifluoromethane	50.0	0.00	U	48.0	96	25-149	1	0-25
74-87-3	PSD	Chloromethane	50.0	0.00	U	37.3	75	39-140	3	0-25
75-01-4	PSD	Vinyl chloride	50.0	0.00	U	40.9	82	47-129	3	0-25
74-83-9	PSD	Bromomethane	50.0	0.00	U	35.7	71	31-135	4	0-25
75-00-3	PSD	Chloroethane	50.0	0.00	U	36.9	74	53-128	5	0-25
75-69-4	PSD	Trichlorofluoromethane	50.0	0.00	U	52.8	106	51-151	2	0-25
67-64-1	PSD	Acetone	250	0.00	U	91.3	37	21-153	1	0-25
75-35-4	PSD	1,1-Dichloroethylene	50.0	0.00	U	42.4	85	61-125	3	0-25
74-88-4	PSD	Iodomethane	250	0.00	U	170	68	53-142	3	0-25
75-09-2	PSD	Methylene chloride	50.0	0.00	U	39.5	79	59-136	2	0-25
75-15-0	PSD	Carbon disulfide	250	0.00	U	194	77	46-129	2	0-25
156-60-5	PSD	trans-1,2-Dichloroethylene	50.0	0.00	U	39.3	79	56-126	0	0-25
75-34-3	PSD	1,1-Dichloroethane	50.0	0.00	U	40.6	81	62-125	0	0-25
78-93-3	PSD	2-Butanone	250	0.00	U	98.3	39	26-152	5	0-25
156-59-2	PSD	cis-1,2-Dichloroethylene	50.0	0.00	U	39.0	78	60-130	3	0-25
594-20-7	PSD	2,2-Dichloropropane	50.0	0.00	U	41.0	82	55-135	6	0-25
67-66-3	PSD	Chloroform	50.0	0.00	U	44.3	89	60-127	1	0-25
74-97-5	PSD	Bromochloromethane	50.0	0.00	U	40.1	80	61-131	1	0-25
71-55-6	PSD	1,1,1-Trichloroethane	50.0	0.00	U	48.4	97	59-131	4	0-25
563-58-6	PSD	1,1-Dichloropropene	50.0	0.00	U	39.0	78	57-128	3	0-25
56-23-5	PSD	Carbon tetrachloride	50.0	0.00	U	48.8	98	58-136	4	0-25
107-06-2	PSD	1,2-Dichloroethane	50.0	0.00	U	45.1	90	58-126	2	0-25

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-854
Client ID: RE03-10-2741PSD
Lab Sample ID: 1201998951
Instrument: VOA7.I
Analyst: AXO1
Purge Vol: 5 mL

Sample Type: Post Spike Duplicate
Matrix: S
%Moisture: 8.2
Analysis Date: 12/18/2009 21:02
Dilution: 1
Prep Batch ID: 934300
Batch ID: 934305

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
71-43-2	PSD	Benzene	50.0	0.00	U	36.8	74	56-123	1	0-25
79-01-6	PSD	Trichloroethylene	50.0	0.00	U	38.7	77	51-137	2	0-25
78-87-5	PSD	1,2-Dichloropropane	50.0	0.00	U	35.2	70	60-126	0	0-25
75-27-4	PSD	Bromodichloromethane	50.0	0.00	U	44.1	88	55-138	2	0-25
74-95-3	PSD	Dibromomethane	50.0	0.00	U	41.8	84	60-132	2	0-25
108-10-1	PSD	4-Methyl-2-pentanone	250	0.00	U	138	55 *	58-136	4	0-25
10061-01-5	PSD	cis-1,3-Dichloropropylene	50.0	0.00	U	28.8	58	54-133	1	0-25
108-88-3	PSD	Toluene	50.0	0.00	U	34.3	69	52-128	1	0-25
10061-02-6	PSD	trans-1,3-Dichloropropylene	50.0	0.00	U	32.3	65	53-137	3	0-25
79-00-5	PSD	1,1,2-Trichloroethane	50.0	0.00	U	37.4	75	59-130	0	0-25
591-78-6	PSD	2-Hexanone	250	0.00	U	70.9	28 *	31-148	2	0-25
142-28-9	PSD	1,3-Dichloropropane	50.0	0.00	U	36.7	73	57-127	1	0-25
127-18-4	PSD	Tetrachloroethylene	50.0	0.00	U	43.2	86	51-128	6	0-25
124-48-1	PSD	Dibromochloromethane	50.0	0.00	U	42.8	86	59-139	2	0-25
106-93-4	PSD	1,2-Dibromoethane	50.0	0.00	U	37.7	75	57-133	1	0-25
108-90-7	PSD	Chlorobenzene	50.0	0.00	U	34.0	68	53-122	1	0-25
100-41-4	PSD	Ethylbenzene	50.0	0.00	U	33.6	67	51-125	3	0-25
179601-23-1	PSD	m,p-Xylenes	100	0.00	U	58.5	58	50-126	4	0-25
95-47-6	PSD	o-Xylene	50.0	0.00	U	32.6	65	52-127	5	0-25
100-42-5	PSD	Styrene	50.0	0.00	U	29.1	58	49-135	2	0-25
75-25-2	PSD	Bromoform	50.0	0.00	U	47.8	96	57-149	1	0-25
79-34-5	PSD	1,1,2,2-Tetrachloroethane	50.0	0.00	U	36.6	73	63-127	1	0-25

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-854
Client ID: RE03-10-2741PSD
Lab Sample ID: 1201998951
Instrument: VOA7.I
Analyst: AXO1
Purge Vol: 5 mL

Sample Type: Post Spike Duplicate
Matrix: S
%Moisture: 8.2
Analysis Date: 12/18/2009 21:02
Dilution: 1
Prep Batch ID: 934300
Batch ID: 934305

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
96-18-4	PSD	1,2,3-Trichloropropane	50.0	0.00	U	40.3	81	57-149	2	0-25
108-86-1	PSD	Bromobenzene	50.0	0.00	U	34.9	70	49-131	1	0-25
103-65-1	PSD	n-Propylbenzene	50.0	0.00	U	31.6	63	40-136	5	0-25
95-49-8	PSD	2-Chlorotoluene	50.0	0.00	U	32.5	65	44-135	7	0-25
98-82-8	PSD	Isopropylbenzene	50.0	0.00	U	35.5	71	44-140	5	0-25
108-67-8	PSD	1,3,5-Trimethylbenzene	50.0	0.00	U	32.2	64	42-140	6	0-25
106-43-4	PSD	4-Chlorotoluene	50.0	0.00	U	27.8	56	44-132	5	0-25
98-06-6	PSD	tert-Butylbenzene	50.0	0.00	U	32.4	65	42-142	5	0-25
95-63-6	PSD	1,2,4-Trimethylbenzene	50.0	0.00	U	28.1	56	43-137	5	0-25
135-98-8	PSD	sec-Butylbenzene	50.0	0.00	U	30.8	62	39-139	6	0-25
99-87-6	PSD	4-Isopropyltoluene	50.0	0.00	U	13.8	28 *	38-145	0	0-25
541-73-1	PSD	1,3-Dichlorobenzene	50.0	0.00	U	30.3	61	43-129	5	0-25
106-46-7	PSD	1,4-Dichlorobenzene	50.0	0.00	U	29.7	59	44-125	5	0-25
104-51-8	PSD	n-Butylbenzene	50.0	0.00	U	24.1	48	36-141	7	0-25
96-12-8	PSD	1,2-Dibromo-3-chloropropane	50.0	0.00	U	39.6	79	47-151	2	0-25
630-20-6	PSD	1,1,1,2-Tetrachloroethane	50.0	0.00	U	38.9	78	59-131	0	0-25
95-50-1	PSD	1,2-Dichlorobenzene	50.0	0.00	U	29.5	59	43-129	6	0-25

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-854
Client ID: LCS for batch 934300
Lab Sample ID: 1201998952
Instrument: VOA7.I
Analyst: AXO1
Purge Vol: 5 mL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 12/18/2009 11:42
Dilution: 1
Prep Batch ID: 934300
Batch ID: 934305

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
75-71-8	LCS	Dichlorodifluoromethane	50.0	0.0	61.7	123	33-155
74-87-3	LCS	Chloromethane	50.0	0.0	46.8	94	53-132
75-01-4	LCS	Vinyl chloride	50.0	0.0	50.2	100	61-128
74-83-9	LCS	Bromomethane	50.0	0.0	51.6	103	63-126
75-00-3	LCS	Chloroethane	50.0	0.0	45.6	91	67-124
75-69-4	LCS	Trichlorofluoromethane	50.0	0.0	68.1	136	67-151
67-64-1	LCS	Acetone	250	0.0	205	82	29-160
75-35-4	LCS	1,1-Dichloroethylene	50.0	0.0	54.3	109	70-125
74-88-4	LCS	Iodomethane	250	0.0	256	102	74-131
75-09-2	LCS	Methylene chloride	50.0	0.0	47.6	95	72-127
75-15-0	LCS	Carbon disulfide	250	0.0	264	106	64-127
156-60-5	LCS	trans-1,2-Dichloroethylene	50.0	0.0	48.3	97	71-122
75-34-3	LCS	1,1-Dichloroethane	50.0	0.0	48.3	97	75-120
78-93-3	LCS	2-Butanone	250	0.0	178	71	35-162
156-59-2	LCS	cis-1,2-Dichloroethylene	50.0	0.0	46.2	92	76-122
594-20-7	LCS	2,2-Dichloropropane	50.0	0.0	52.2	104	74-135
67-66-3	LCS	Chloroform	50.0	0.0	51.7	103	77-120
74-97-5	LCS	Bromochloromethane	50.0	0.0	44.4	89	76-122
71-55-6	LCS	1,1,1-Trichloroethane	50.0	0.0	60.9	122	75-128
563-58-6	LCS	1,1-Dichloropropene	50.0	0.0	52.7	105	77-125
56-23-5	LCS	Carbon tetrachloride	50.0	0.0	62.3	125	77-134
107-06-2	LCS	1,2-Dichloroethane	50.0	0.0	51.6	103	72-120

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-854
Client ID: LCS for batch 934300
Lab Sample ID: 1201998952
Instrument: VOA7.I
Analyst: AXO1
Purge Vol: 5 mL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 12/18/2009 11:42
Dilution: 1
Prep Batch ID: 934300
Batch ID: 934305

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
71-43-2	LCS	Benzene	50.0	0.0	45.5	91	72-120
79-01-6	LCS	Trichloroethylene	50.0	0.0	52.4	105	78-121
78-87-5	LCS	1,2-Dichloropropane	50.0	0.0	41.1	82	74-120
75-27-4	LCS	Bromodichloromethane	50.0	0.0	53.4	107	79-125
74-95-3	LCS	Dibromomethane	50.0	0.0	49.6	99	78-122
108-10-1	LCS	4-Methyl-2-pentanone	250	0.0	202	81	71-134
10061-01-5	LCS	cis-1,3-Dichloropropylene	50.0	0.0	45.2	90	80-125
108-88-3	LCS	Toluene	50.0	0.0	44.8	90	65-124
10061-02-6	LCS	trans-1,3-Dichloropropylene	50.0	0.0	47.0	94	71-134
79-00-5	LCS	1,1,2-Trichloroethane	50.0	0.0	45.2	90	76-120
591-78-6	LCS	2-Hexanone	250	0.0	161	64	42-159
142-28-9	LCS	1,3-Dichloropropane	50.0	0.0	43.0	86	72-120
127-18-4	LCS	Tetrachloroethylene	50.0	0.0	59.8	120	74-123
124-48-1	LCS	Dibromochloromethane	50.0	0.0	54.4	109	83-128
106-93-4	LCS	1,2-Dibromoethane	50.0	0.0	47.6	95	79-121
108-90-7	LCS	Chlorobenzene	50.0	0.0	46.1	92	75-120
100-41-4	LCS	Ethylbenzene	50.0	0.0	46.4	93	74-120
179601-23-1	LCS	m,p-Xylenes	100	0.0	90.6	91	74-120
95-47-6	LCS	o-Xylene	50.0	0.0	44.9	90	74-120
100-42-5	LCS	Styrene	50.0	0.0	41.8	84	76-125
75-25-2	LCS	Bromoform	50.0	0.0	58.4	117	77-138
79-34-5	LCS	1,1,2,2-Tetrachloroethane	50.0	0.0	45.0	90	72-122

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-854
Sample Type: Laboratory Control Sample
Client ID: LCS for batch 934300
Matrix: SOIL
Lab Sample ID: 1201998952
Instrument: VOA7.I
Analysis Date: 12/18/2009 11:42
Dilution: 1
Analyst: AXO1
Prep Batch ID 934300
Purge Vol: 5 mL
Batch ID: 934305

CAS No	Parmname		Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
96-18-4	LCS	1,2,3-Trichloropropane	50.0	0.0	50.7	101	75-135
108-86-1	LCS	Bromobenzene	50.0	0.0	45.1	90	73-120
103-65-1	LCS	n-Propylbenzene	50.0	0.0	45.0	90	68-121
95-49-8	LCS	2-Chlorotoluene	50.0	0.0	43.6	87	69-120
98-82-8	LCS	Isopropylbenzene	50.0	0.0	46.6	93	66-127
108-67-8	LCS	1,3,5-Trimethylbenzene	50.0	0.0	44.8	90	67-126
106-43-4	LCS	4-Chlorotoluene	50.0	0.0	45.3	91	72-120
98-06-6	LCS	tert-Butylbenzene	50.0	0.0	45.8	92	72-124
95-63-6	LCS	1,2,4-Trimethylbenzene	50.0	0.0	44.3	89	72-122
135-98-8	LCS	sec-Butylbenzene	50.0	0.0	45.7	91	71-124
99-87-6	LCS	4-Isopropyltoluene	50.0	0.0	45.8	92	72-130
541-73-1	LCS	1,3-Dichlorobenzene	50.0	0.0	45.0	90	73-120
106-46-7	LCS	1,4-Dichlorobenzene	50.0	0.0	45.3	91	73-120
104-51-8	LCS	n-Butylbenzene	50.0	0.0	45.7	91	72-128
96-12-8	LCS	1,2-Dibromo-3-chloropropane	50.0	0.0	54.0	108	68-145
630-20-6	LCS	1,1,1,2-Tetrachloroethane	50.0	0.0	50.3	101	78-121
95-50-1	LCS	1,2-Dichlorobenzene	50.0	0.0	45.0	90	74-120

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-854
Client ID: LCS for batch 934300
Lab Sample ID: 1201998953
Instrument: VOA7.I
Analyst: AXO1
Purge Vol: 5 mL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 12/18/2009 12:47
Dilution: 1
Prep Batch ID: 934300
Batch ID: 934305

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
76-13-1	LCS	1,1,2-Trichloro-1,2,2-Trifluor *Trichlorotrifluoroethane*	250	0.0	316	126	52-139

Method Blank Summary

SDG Number:	10-854	Client:	LANL010	Matrix:	SOIL
Client ID:	MB for batch 934300	Instrument ID:	VOA7.I	Data File:	7q507BA.d
Lab Sample ID:	1201998949	Prep Date:	12/18/2009 08:00	Analyzed:	12/18/09 13:55
Column:	DB-624	Heated Purge:	Yes		

This method blank applies to the following samples and quality control samples:

	Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01	LCS for batch 934300	1201998952	7q503LA.d	12/18/09	1142
02	LCS for batch 934300	1201998953	7q505LA.d	12/18/09	1247
03	RE03-10-2741	242668001	7q510.d	12/18/09	1602
04	RE03-10-2740	242668002	7q511.d	12/18/09	1634
05	RE03-10-2741PS	1201998950	7q518.d	12/18/09	2029
06	RE03-10-2741PSD	1201998951	7q519.d	12/18/09	2102

Instrument Performance Check

BFB

Lab Name GEL Laboratories LLC **Client SDG:** 10-854

Instrument ID: VOA7.I **Injection Date/Time:** 15-NOV-09 23:14

Column Description: db624 **Lab File ID** /111509v7/7I702.d

m/e	Ion Abundance Criteria	% Relative Abundance
95	Base Peak, 100% Relative Abundance	100
50	15.0 - 40.0% of mass 95	29.2
75	30.0 - 60.0% of mass 95	51.2
96	5.0 - 9.0% of mass 95	6.7
173	Less than 2.0% of mass 174	1
174	50.0 - 100.0% of mass 95	71
175	5.0 -9.0% of mass 174	7.7
176	95.0 - 101.0% of mass 174	97.8
177	5.0 - 9.0% of mass 176	6.9

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
VSTD002	W7VM0911115-02	/111509v7/7I704.d	16-NOV-09 00:20
VSTD005	W7VM0911115-03	/111509v7/7I705.d	16-NOV-09 00:55
VSTD010	W7VM0911115-04	/111509v7/7I706.d	16-NOV-09 01:29
VSTD020	W7VM0911115-05	/111509v7/7I707.d	16-NOV-09 02:03
VSTD050	W7VM0911115-06	/111509v7/7I708.d	16-NOV-09 02:36
VSTD100	W7VM0911115-07	/111509v7/7I709.d	16-NOV-09 03:10
VSTD0005	W7VM0911115-08	/111509v7/7I711.d	16-NOV-09 04:18
VSTD005S	W7VM0911115-09	/111509v7/7I712.d	16-NOV-09 04:51
VSTD010S	W7VM0911115-10	/111509v7/7I713.d	16-NOV-09 05:25
VSTD025S	W7VM0911115-11	/111509v7/7I714.d	16-NOV-09 05:58
VSTD050S	W7VM0911115-12	/111509v7/7I715.d	16-NOV-09 06:32
VSTD100S	W7VM0911115-13	/111509v7/7I716.d	16-NOV-09 07:05
VSTD500S	W7VM0911115-15	/111509v7/7I718.d	16-NOV-09 08:11
VSTD001	W7VM0911115-18	/111509v7/7I723.d	16-NOV-09 10:57

Instrument Performance Check

BFB

Lab Name GEL Laboratories LLC **Client SDG:** 10-854

Instrument ID: VOA7.I **Injection Date/Time:** 16-NOV-09 13:54

Column Description: db624 **Lab File ID** /111509v7/7m102BFB.d

m/e	Ion Abundance Criteria	% Relative Abundance
95	Base Peak, 100% Relative Abundance	100
50	15.0 - 40.0% of mass 95	31.4
75	30.0 - 60.0% of mass 95	53.7
96	5.0 - 9.0% of mass 95	6.9
173	Less than 2.0% of mass 174	1.1
174	50.0 - 100.0% of mass 95	72.9
175	5.0 -9.0% of mass 174	7.6
176	95.0 - 101.0% of mass 174	97.7
177	5.0 - 9.0% of mass 176	6.7

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
VSTD050 / LICV	W7VM0911116-01	/111509v7/7m102.d	16-NOV-09 13:54
VSTD250S / SICV	W7VM0911116-03	/111509v7/7m104.d	16-NOV-09 15:02

Instrument Performance Check

BFB

Lab Name GEL Laboratories LLC **Client SDG:** 10-854

Instrument ID: VOA7.I **Injection Date/Time:** 18-DEC-09 11:09

Column Description: db624 **Lab File ID** /121809v7/7q502BFB.d

m/e	Ion Abundance Criteria	% Relative Abundance
95	Base Peak, 100% Relative Abundance	100
50	15.0 - 40.0% of mass 95	32.8
75	30.0 - 60.0% of mass 95	55.2
96	5.0 - 9.0% of mass 95	6.5
173	Less than 2.0% of mass 174	0.8
174	50.0 - 100.0% of mass 95	74.2
175	5.0 -9.0% of mass 174	7.7
176	95.0 - 101.0% of mass 174	98.1
177	5.0 - 9.0% of mass 176	6.8

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
VSTD050	W7VM091218-01	/121809v7/7q502.d	18-DEC-09 11:09
LCS	1201998952	/121809v7/7q503LA.d	18-DEC-09 11:42
VSTD250S	W7VM091218-03	/121809v7/7q504.d	18-DEC-09 12:14
SLCS	1201998953	/121809v7/7q505LA.d	18-DEC-09 12:47
BLANK	1201998949	/121809v7/7q507BA.d	18-DEC-09 13:55
RE03-10-2741	242668001	/121809v7/7q510.d	18-DEC-09 16:02
RE03-10-2740	242668002	/121809v7/7q511.d	18-DEC-09 16:34
RE03-10-2741MS	1201998950	/121809v7/7q518.d	18-DEC-09 20:29
RE03-10-2741MSD	1201998951	/121809v7/7q519.d	18-DEC-09 21:02

Internal Standard
Area and RT Summary

Lab Name : GEL Laboratories LLC

Instrument: VOA7.I

GC Column: DB-624

Client SDG: 10-854

STD Analysis Time: 18-DEC-09 11:09

Data File: 7q502.d

	Fluorobenzene				Chlorobenzene-d5				1,4-Dichlorobenzene-d4			
	Area	#	RT	#	Area	#	RT	#	Area	#	RT	#
12 Hour STD	806161		15.3		626967		18.7		371824		21.0	
Upper Limit	1612322		15.8		1253934		19.2		743648		21.5	
Lower Limit	403081		14.8		313484		18.2		185912		20.5	
Sample ID												
BLK01LCS	843103		15.3		649765		18.7		393003		21.0	
BLK01SLCS	835705		15.3		651635		18.7		402850		21.0	
BLK01	840199		15.3		649011		18.7		376517		21.0	
RE03-10-2741	558639		15.3		419696		18.7		212290		21.0	
RE03-10-2740	735956		15.3		524380		18.7		229093		21.0	
RE03-10-2741MS	738454		15.3		569475		18.7		311195		21.0	
RE03-10-2741MSD	776480		15.3		595370		18.7		332491		21.0	

Area Upper Limit = +100% of internal standard area
Area Lower Limit = - 50% of internal standard area

RT Upper Limit = + 0.50 minutes of internal standard RT
RT Lower Limit = - 0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Value outside of QC Limits

Sample Data

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-854	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242668002	**Date Received:**	12/10/2009 08:50	**%Moisture:**	11.3
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-10-2740	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	934305	**Inst:**	VOA7.I	**Dilution:**	1
Run Date:	12/18/2009 16:34	**Analyst:**	AXO1	**Purge Vol:**	5 mL
Prep Date:	12/18/2009 13:30	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	7q511.d	**Column:**	DB-624	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.13	ug/kg	0.383	1.13
74-87-3	Chloromethane	U	1.13	ug/kg	0.338	1.13
75-01-4	Vinyl chloride	U	1.13	ug/kg	0.338	1.13
74-83-9	Bromomethane	U	1.13	ug/kg	0.338	1.13
75-00-3	Chloroethane	U	1.13	ug/kg	0.338	1.13
75-69-4	Trichlorofluoromethane	U	1.13	ug/kg	0.338	1.13
67-64-1	Acetone	U	5.64	ug/kg	1.87	5.64
75-35-4	1,1-Dichloroethylene	U	1.13	ug/kg	0.338	1.13
74-88-4	Iodomethane	U	5.64	ug/kg	1.80	5.64
75-09-2	Methylene chloride	U	5.64	ug/kg	2.25	5.64
75-15-0	Carbon disulfide	U	5.64	ug/kg	1.41	5.64
156-60-5	trans-1,2-Dichloroethylene	U	1.13	ug/kg	0.338	1.13
75-34-3	1,1-Dichloroethane	U	1.13	ug/kg	0.338	1.13
78-93-3	2-Butanone	U	5.64	ug/kg	1.69	5.64
156-59-2	cis-1,2-Dichloroethylene	U	1.13	ug/kg	0.338	1.13
594-20-7	2,2-Dichloropropane	U	1.13	ug/kg	0.338	1.13
67-66-3	Chloroform	U	1.13	ug/kg	0.338	1.13
74-97-5	Bromochloromethane	U	1.13	ug/kg	0.372	1.13
71-55-6	1,1,1-Trichloroethane	U	1.13	ug/kg	0.338	1.13
563-58-6	1,1-Dichloropropene	U	1.13	ug/kg	0.338	1.13
56-23-5	Carbon tetrachloride	U	1.13	ug/kg	0.338	1.13
107-06-2	1,2-Dichloroethane	U	1.13	ug/kg	0.338	1.13
71-43-2	Benzene	U	1.13	ug/kg	0.338	1.13
79-01-6	Trichloroethylene	U	1.13	ug/kg	0.372	1.13
78-87-5	1,2-Dichloropropane	U	1.13	ug/kg	0.338	1.13
75-27-4	Bromodichloromethane	U	1.13	ug/kg	0.338	1.13
74-95-3	Dibromomethane	U	1.13	ug/kg	0.338	1.13
108-10-1	4-Methyl-2-pentanone	U	5.64	ug/kg	1.41	5.64
10061-01-5	cis-1,3-Dichloropropylene	U	1.13	ug/kg	0.338	1.13
108-88-3	Toluene	U	1.13	ug/kg	0.338	1.13
10061-02-6	trans-1,3-Dichloropropylene	U	1.13	ug/kg	0.338	1.13
79-00-5	1,1,2-Trichloroethane	U	1.13	ug/kg	0.338	1.13
591-78-6	2-Hexanone	U	5.64	ug/kg	1.69	5.64
142-28-9	1,3-Dichloropropane	U	1.13	ug/kg	0.338	1.13
127-18-4	Tetrachloroethylene	U	1.13	ug/kg	0.338	1.13
124-48-1	Dibromochloromethane	U	1.13	ug/kg	0.338	1.13
106-93-4	1,2-Dibromoethane	U	1.13	ug/kg	0.338	1.13
108-90-7	Chlorobenzene	U	1.13	ug/kg	0.338	1.13

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-854	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242668002	**Date Received:**	12/10/2009 08:50	**%Moisture:**	11.3
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-10-2740	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	934305	**Inst:**	VOA7.I	**Dilution:**	1
Run Date:	12/18/2009 16:34	**Analyst:**	AXO1	**Purge Vol:**	5 mL
Prep Date:	12/18/2009 13:30	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	7q511.d	**Column:**	DB-624	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.13	ug/kg	0.338	1.13
179601-23-1	m,p-Xylenes	U	2.25	ug/kg	0.338	2.25
95-47-6	o-Xylene	U	1.13	ug/kg	0.338	1.13
100-42-5	Styrene	U	1.13	ug/kg	0.338	1.13
75-25-2	Bromoform	U	1.13	ug/kg	0.338	1.13
79-34-5	1,1,2,2-Tetrachloroethane	U	1.13	ug/kg	0.338	1.13
96-18-4	1,2,3-Trichloropropane	U	1.13	ug/kg	0.338	1.13
108-86-1	Bromobenzene	U	1.13	ug/kg	0.338	1.13
103-65-1	n-Propylbenzene	U	1.13	ug/kg	0.338	1.13
95-49-8	2-Chlorotoluene	U	1.13	ug/kg	0.338	1.13
98-82-8	Isopropylbenzene	U	1.13	ug/kg	0.338	1.13
108-67-8	1,3,5-Trimethylbenzene	U	1.13	ug/kg	0.338	1.13
106-43-4	4-Chlorotoluene	U	1.13	ug/kg	0.338	1.13
98-06-6	tert-Butylbenzene	U	1.13	ug/kg	0.338	1.13
95-63-6	1,2,4-Trimethylbenzene	U	1.13	ug/kg	0.338	1.13
135-98-8	sec-Butylbenzene	U	1.13	ug/kg	0.338	1.13
99-87-6	4-Isopropyltoluene	J	0.380	ug/kg	0.338	1.13
541-73-1	1,3-Dichlorobenzene	U	1.13	ug/kg	0.338	1.13
106-46-7	1,4-Dichlorobenzene	U	1.13	ug/kg	0.338	1.13
104-51-8	n-Butylbenzene	U	1.13	ug/kg	0.338	1.13
96-12-8	1,2-Dibromo-3-chloropropane	U	1.13	ug/kg	0.338	1.13
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.64	ug/kg	1.80	5.64
630-20-6	1,1,1,2-Tetrachloroethane	U	1.13	ug/kg	0.338	1.13
95-50-1	1,2-Dichlorobenzene	U	1.13	ug/kg	0.338	1.13

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Hydrocarbon	19.65	29.4	ug/kg		J
	Unknown Hydrocarbon	20.62	16.4	ug/kg		J
	Unknown Siloxane	21.56	14.8	ug/kg		J

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA7.i/121809v7/7q511.d
Lab Smp Id: 242668002 Client Smp ID: RE03-10-2740
Inj Date : 18-DEC-2009 16:34
Operator : AXO1 Inst ID: VOA7.i
Smp Info : |242668002|934305|1|VOAF|1|
Misc Info : LANL 5g N/A
Comment :
Method : /chem/VOA7.i/121809v7/VOA7-8260B-111509.m
Meth Date : 19-Dec-2009 13:12 ale01592 Quant Type: ISTD
Cal Date : 16-NOV-2009 02:36 Cal File: 71708.d
Als bottle: 11
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-854.sub
Target Version: 3.50

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	11.29960	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
* 51 Fluorobenzene	96	15.317	15.317	(1.000)	735956	50.0000	
* 75 Chlorobenzene-d5	117	18.667	18.667	(1.000)	524380	50.0000	
* 101 1,4-Dichlorobenzene-d4	152	20.991	20.991	(1.000)	229093	50.0000	
$ 46 1,2-Dichloroethane-d4	65	14.880	14.880	(0.971)	354301	55.2133	62.2
$ 64 Toluene-d8	98	17.144	17.144	(0.918)	778259	49.7163	56.0
$ 86 Bromofluorobenzene	95	19.814	19.814	(0.944)	296051	54.9072	61.9
99 4-Isopropyltoluene	119	20.859	20.870	(0.994)	3944	0.33732	0.38(aQ)

QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.

ION RATIO REPORT

VOA REPORT

Data file: 7q511.d
Report Date: 12/19/2009 13:46
Lab. ID: 242668002 SampleType: SAMPLE
Injection Date: 18-DEC-2009 16:34
Operator: AXO1 Instrument: VOA7.i
Sample Info: |242668002|934305|1|VOAF|1|
Miscellaneous Info: LANL 5g N/A
Comment:
Method used: /chem/VOA7.i/121809v7/VOA7-8260B-111509.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: CALsubL+
Sample Matrix: WATER

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
63 4-Methyl-2-pentanone			CAS#: 108-10-1			
58	9436	17.13	16.94	80-120	100	(T)
43	6590	17.13	16.94	264-324	70	(QT)
100	530178	17.14	16.94	0- 56	5619	(QT)
82 Bromoform			CAS#: 75-25-2			
173	1933	19.82	19.54	80-120	100	(T)
175	16252	19.82	19.54	19- 79	841	(QT)
83 Isopropylbenzene			CAS#: 98-82-8			
105	15612	19.66	19.63	80-120	100	( )
120	204	19.66	19.63	0- 56	1	( )
89 1,2,3-Trichloropropane			CAS#: 96-18-4			
110	1403	19.69	19.98	80-120	100	(T)
75	4986	19.69	19.98	297-357	355	(T)
77	42390	19.65	19.97	61-121	3021	(QT)
91 n-Propylbenzene			CAS#: 103-65-1			
91	61374	19.65	20.04	80-120	100	(T)
120	204	19.66	20.04	0- 52	0	(T)
92 1,3,5-Trimethylbenzene			CAS#: 108-67-8			
105	9191	20.62	20.17	80-120	100	(T)
120	448	20.24	20.18	16- 76	5	(QT)

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
96 1,2,4-Trimethylbenzene				CAS#: 95-63-6		
105	10930	20.62	20.57	80-120	100	( )
120	386	20.63	20.57	15- 75	4	(QT)
95 tert-Butylbenzene				CAS#: 98-06-6		
119	6514	20.62	20.53	80-120	100	(T)
91	45247	20.62	20.53	55-115	695	(QT)
134	936	20.63	20.53	0- 53	14	(T)
98 sec-Butylbenzene				CAS#: 135-98-8		
105	10930	20.62	20.75	80-120	100	(T)
134	936	20.63	20.75	0- 50	9	(T)
99 4-Isopropyltoluene				CAS#: 99-87-6		
119	3944	20.86	20.87	80-120	100	( )
134	1000	20.87	20.87	0- 58	25	( )
91	4241	20.84	20.87	0- 60	108	(Q)
104 n-Butylbenzene				CAS#: 104-51-8		
91	4030	20.84	21.30	80-120	100	(T)
92	1802	20.84	21.30	26- 86	45	(T)
134	1000	20.87	21.30	0- 56	25	(T)
50 Cyclohexene				CAS#: 110-83-8		
67	158605	14.88	15.12	80-120	100	(T)
54	387	14.88	15.12	70-130	0	(QT)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA7.i/121809v7/7q511.d
Lab Smp Id: 242668002 Client Smp ID: RE03-10-2740
Inj Date : 18-DEC-2009 16:34
Operator : AX01 Inst ID: VOA7.i
Smp Info : |242668002|934305|1|VOAF|1|
Misc Info : LANL 5g N/A
Comment :
Method : /chem/VOA7.i/121809v7/VOA7-8260B-111509.m
Meth Date : 19-Dec-2009 13:12 ale01592 Quant Type: ISTD
Cal Date : 16-NOV-2009 02:36 Cal File: 71708.d
Als bottle: 11
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-854.sub
Target Version: 3.50

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	11.29960	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 75 Chlorobenzene-d5	18.667	1949171	50.000
* 101 1,4-Dichlorobenzene-d4	20.991	1516201	50.000

	CONCENTRATIONS				QUANT			
	RT	AREA	ON-COL(ug/l)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown Hydrocarbon					CAS #:			
	19.651	1017770	26.1077519	29.4	0		0	75

RT	AREA	CONCENTRATIONS ON-COL(ug/l)	FINAL(ug/Kg)	QUAL	QUANT LIBRARY	LIB ENTRY	CPND #
Unknown Hydrocarbon				CAS #:			
20.616	441721	14.5667120	16.4	0		0	101
Unknown Siloxane				CAS #:			
21.560	398185	13.1310164	14.8	0		0	101

Data File: /chem/VOA7.i/121809v7/7q511.d

Date : 18-DEC-2009 16:34

Client ID: RE03-10-2740

Sample Info: |2426680021934305|1|VOAF|1|

Column phase: DB-624

Instrument: VOA7.i

Operator: AX01

Column diameter: 0.25

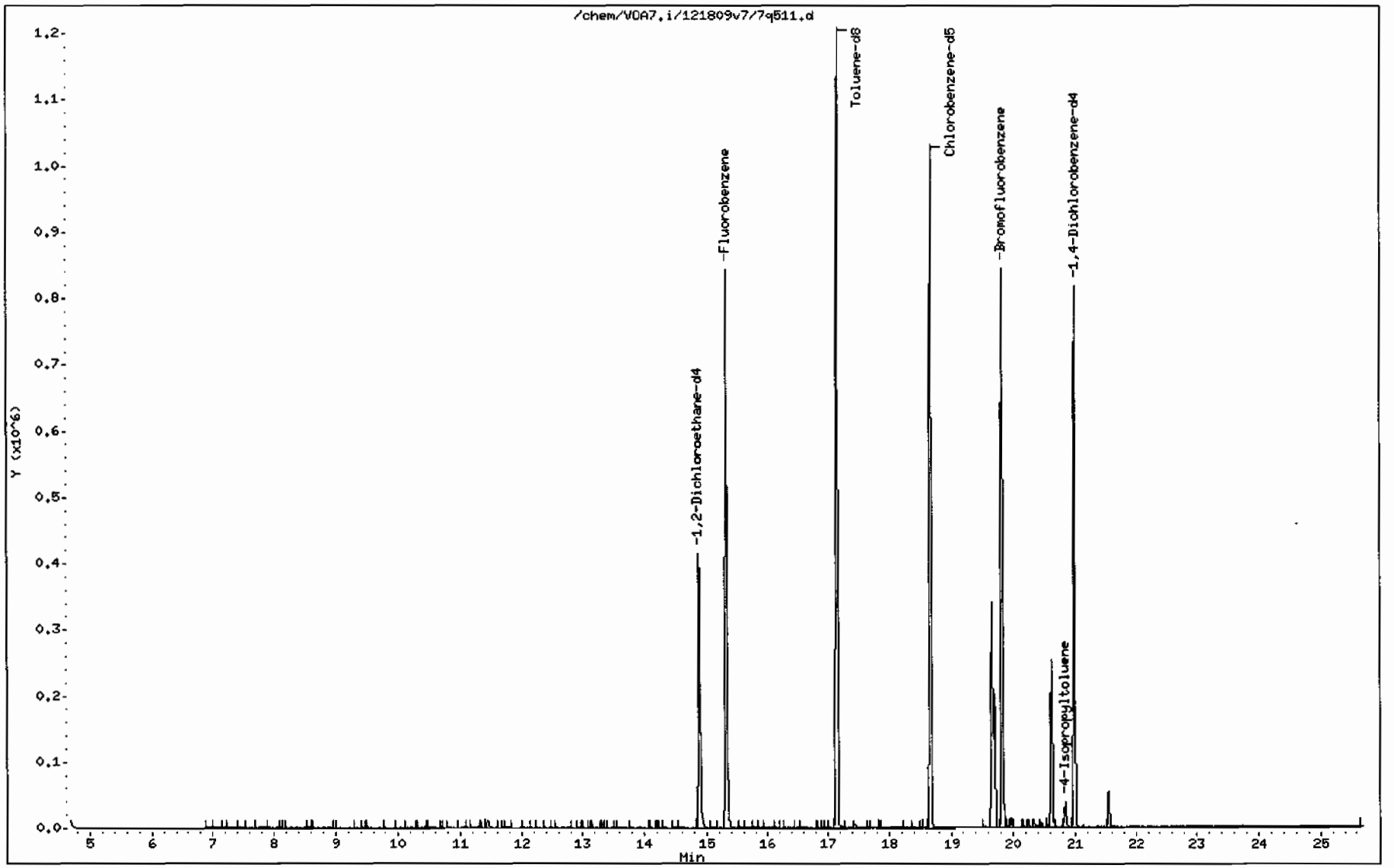

Data File: /chem/VOA7.i/121809v7/7q511.d

Date : 18-DEC-2009 16:34

Client ID: RE03-10-2740

Instrument: VOA7.i

Sample Info: |2426680021934305|1|VOAF|1|

Operator: AX01

Column phase: DB-624

Column diameter: 0.25

99 4-Isopropyltoluene

Concentration: 0.38 ug/Kg

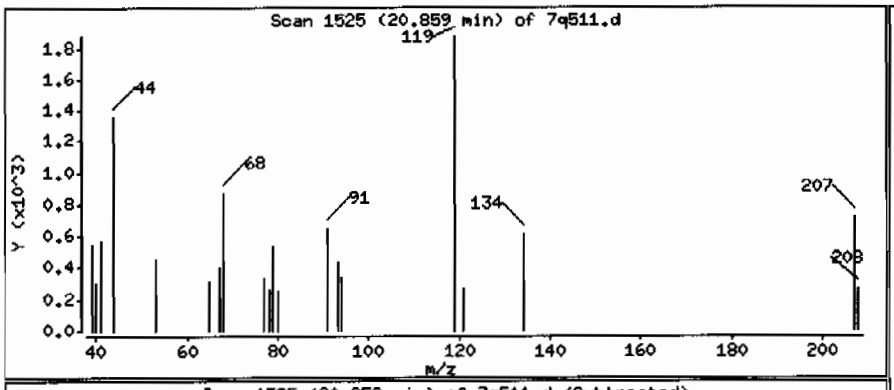

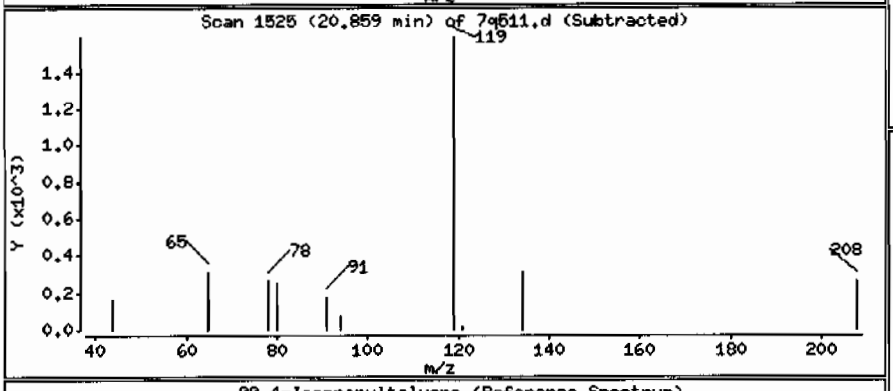

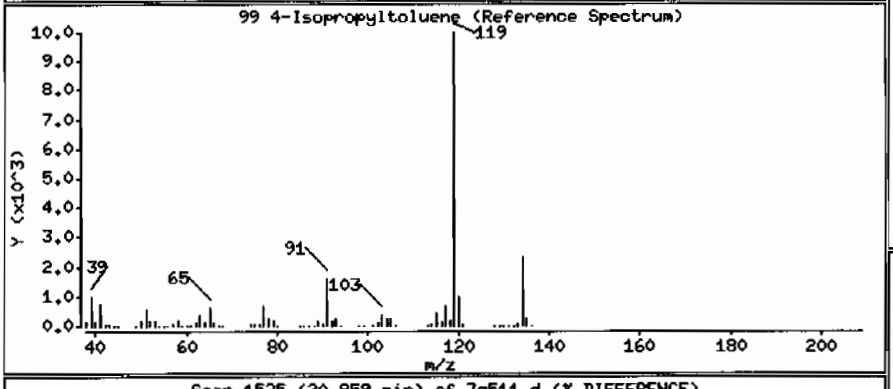

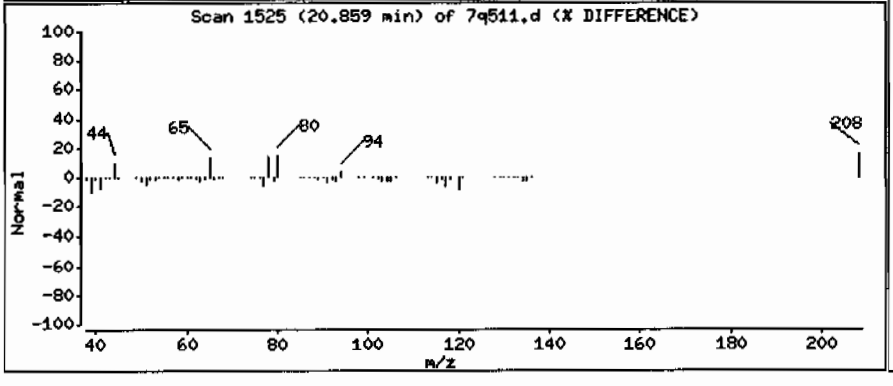

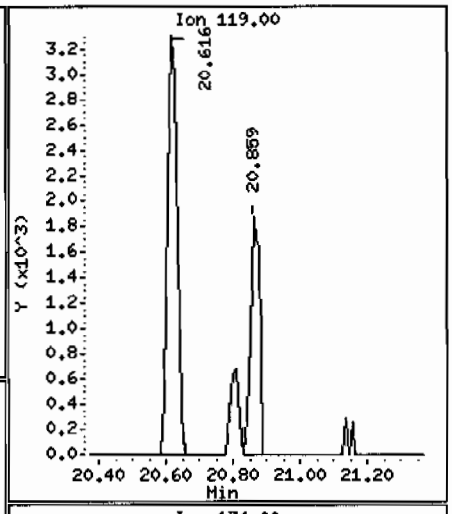

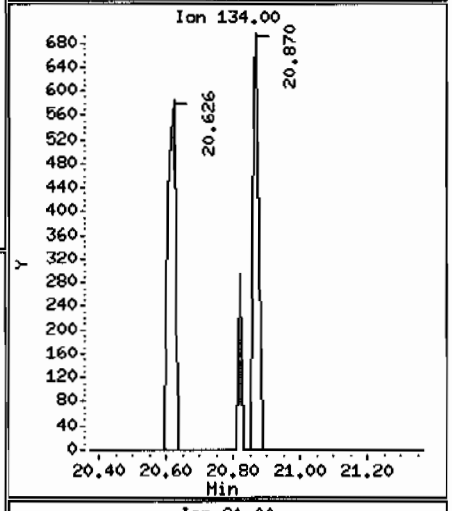

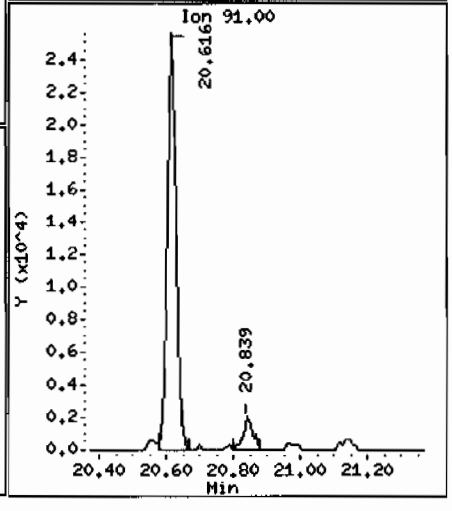

Data File: /chem/VOA7.i/121809v7/7q511.d

Date : 18-DEC-2009 16:34

Client ID: RE03-10-2740

Instrument: VOA7.i

Sample Info: |2426680021934305|1|VOAF|1|

Operator: AX01

Column phase: DB-624

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Hydrocarbon						
Bicyclo[3.1.1]hept-2-ene, 2,6,6-trimethy	2437-95-8	NIST05.L	15376	96	C10H16	136
1R-.alpha.-Pinene	7785-70-8	NIST05.L	15188	96	C10H16	136
1R-.alpha.-Pinene	7785-70-8	NIST05.L	15186	94	C10H16	136

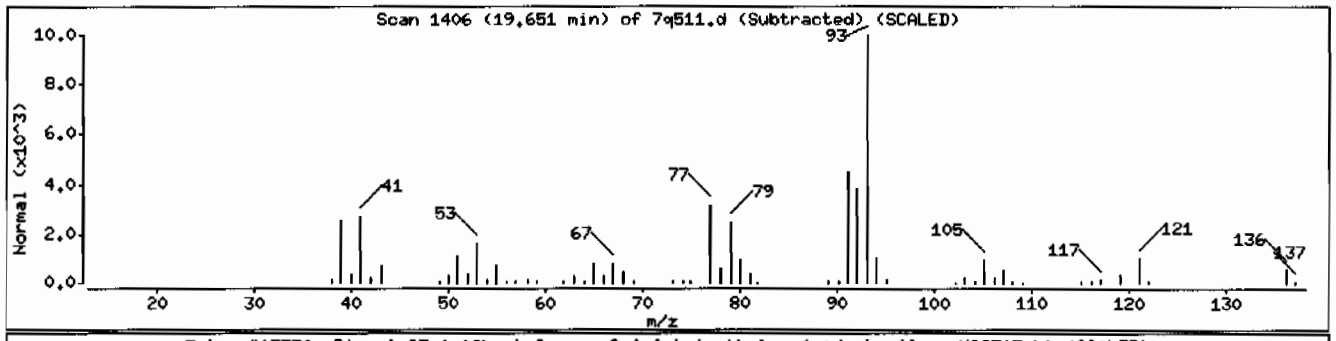

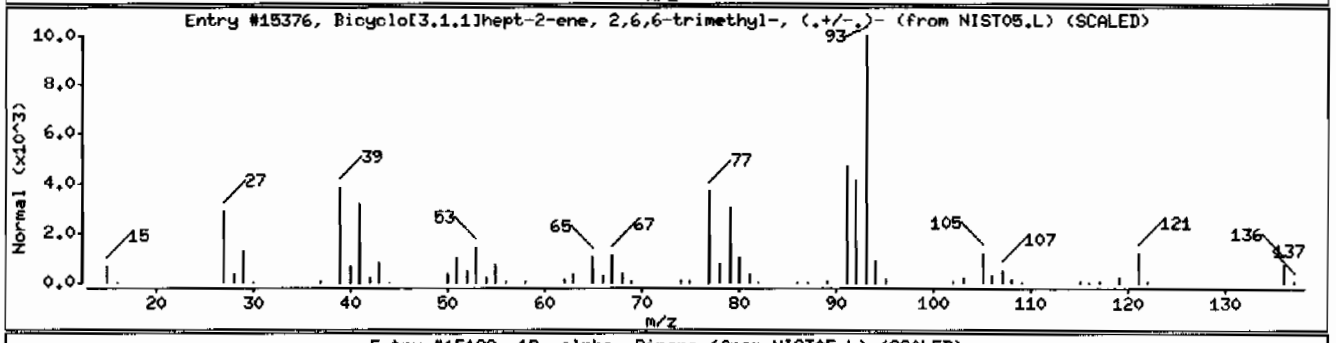

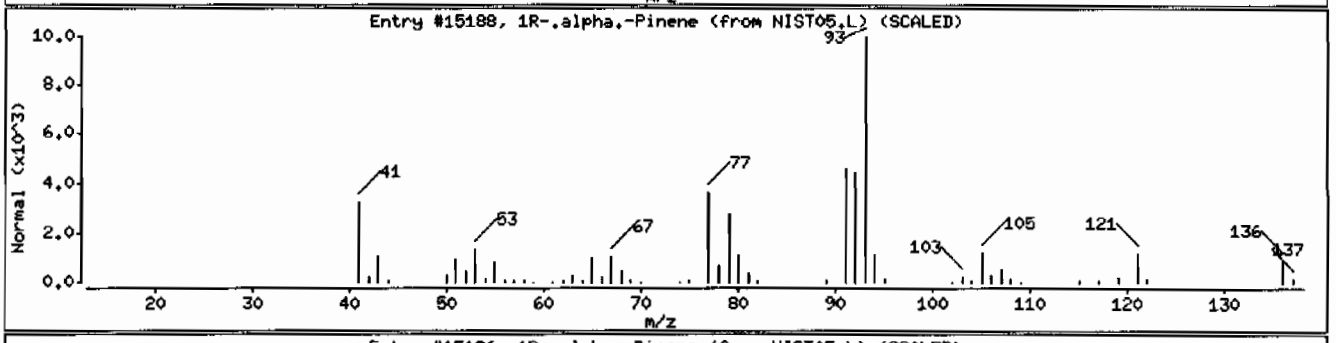

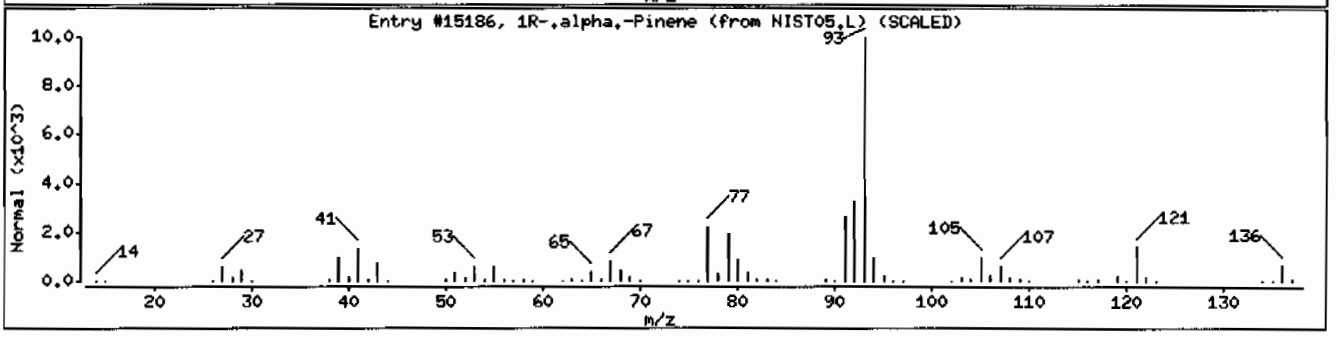

Data File: /chem/VOA7.i/121809v7/7q511.d

Date : 18-DEC-2009 16:34

Client ID: RE03-10-2740 Instrument: VOA7.i

Sample Info: |2426680021934305|1|VOAF|1|

Operator: AX01

Column phase: DB-624 Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Hydrocarbon						
3-Carene	13466-78-9	NIST05.L	15156	97	C10H16	136
Bicyclo[4.1.0]hept-3-ene, 3,7,7-trimethy	498-15-7	NIST05.L	15369	94	C10H16	136
3-Carene	13466-78-9	NIST05.L	15157	94	C10H16	136

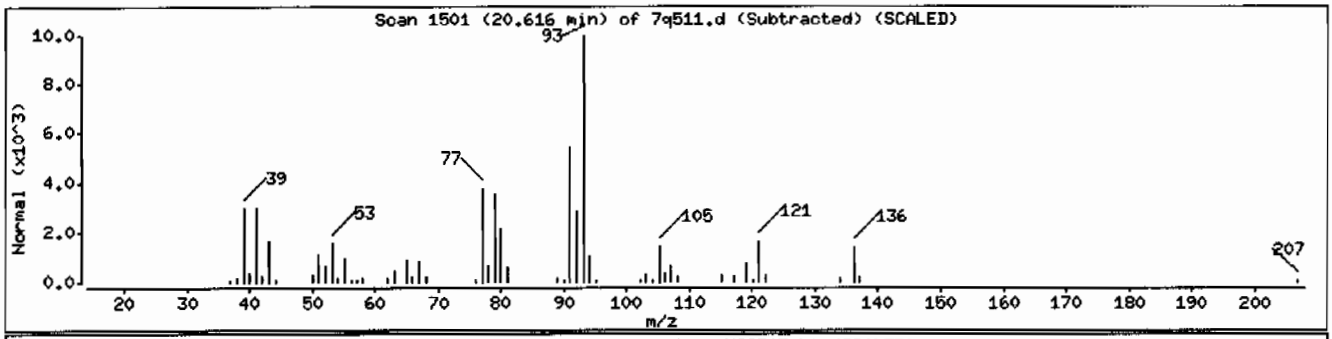

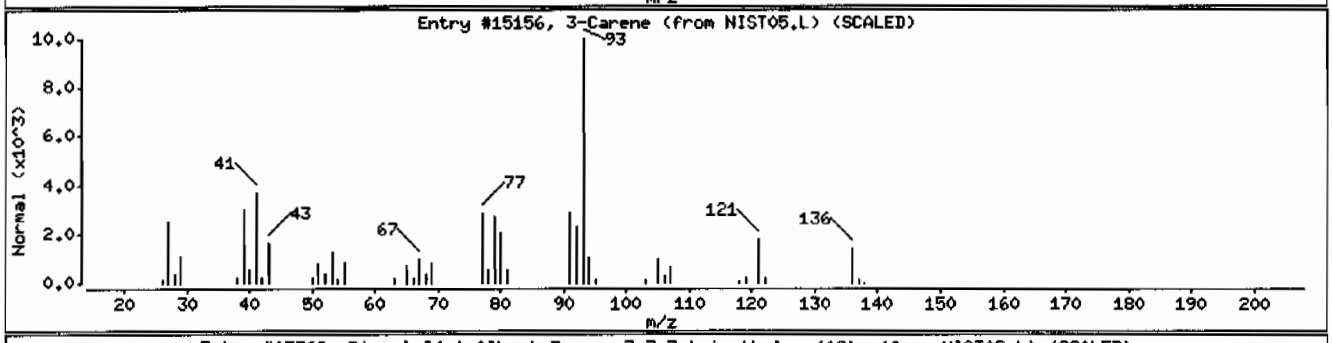

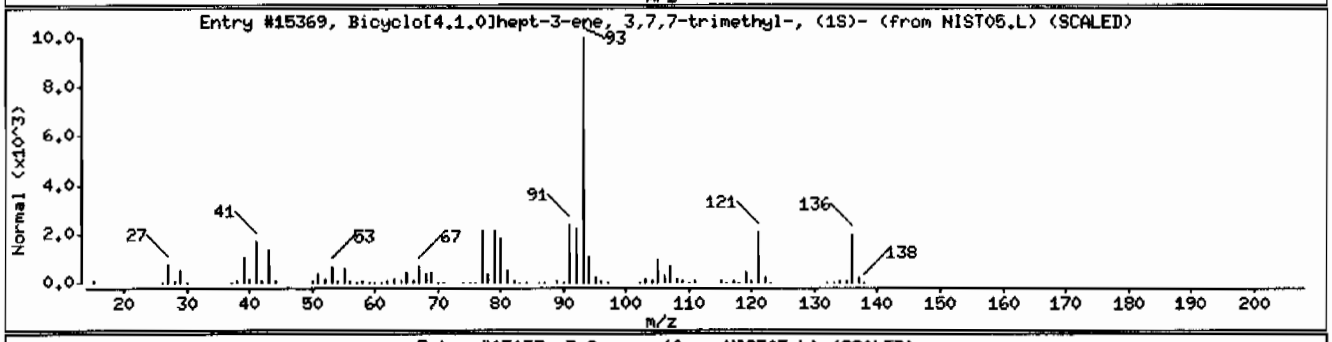

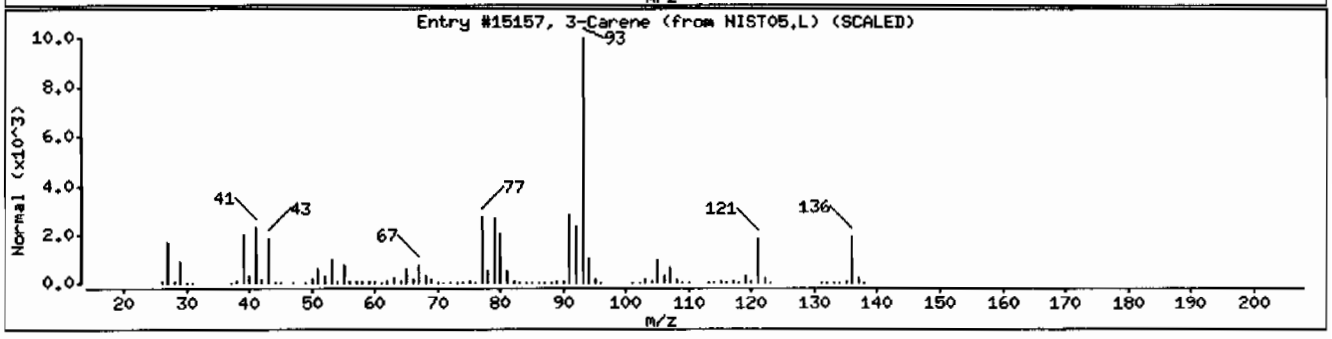

Data File: /chem/VOA7.i/121809v7/7q511.d

Date : 18-DEC-2009 16:34

Client ID: RE03-10-2740 Instrument: VOA7.i

Sample Info: |2426680021934305|1|VOAF|1|

Operator: AX01

Column phase: DB-624 Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Siloxane						
Spiro[2.4]hept-5-ene, 5-trimethylsilylme	1000153-96-9	NIST05.L	93222	47	C14H28Si2	252
Silane, (2-ethyl-3,3-dimethyl-4-methylen	95798-13-3	NIST05.L	62897	32	C13H24Si	208
1,4-Cyclohexadiene, 1,3,6-tris(trimethyl	1000150-10-8	NIST05.L	121967	25	C15H32Si3	296

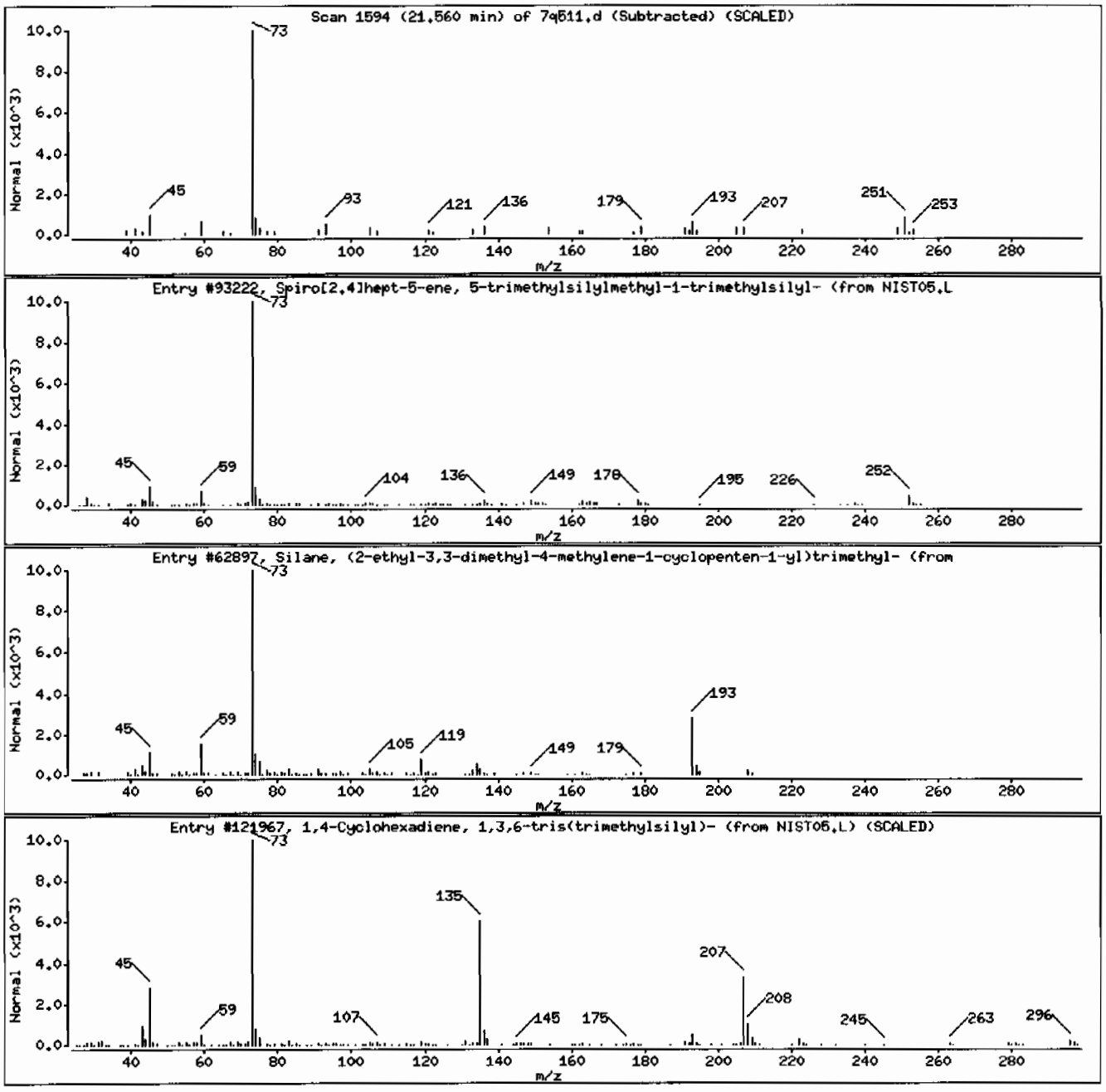

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-854	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242668001	**Date Received:**	12/10/2009 08:50	**%Moisture:**	8.2
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-10-2741	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	934305	**Inst:**	VOA7.I	**Dilution:**	1
Run Date:	12/18/2009 16:02	**Analyst:**	AXO1	**Purge Vol:**	5 mL
Prep Date:	12/18/2009 13:20	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	7q510.d	**Column:**	DB-624	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.09	ug/kg	0.370	1.09
74-87-3	Chloromethane	U	1.09	ug/kg	0.327	1.09
75-01-4	Vinyl chloride	U	1.09	ug/kg	0.327	1.09
74-83-9	Bromomethane	U	1.09	ug/kg	0.327	1.09
75-00-3	Chloroethane	U	1.09	ug/kg	0.327	1.09
75-69-4	Trichlorofluoromethane	U	1.09	ug/kg	0.327	1.09
67-64-1	Acetone	U	5.44	ug/kg	1.81	5.44
75-35-4	1,1-Dichloroethylene	U	1.09	ug/kg	0.327	1.09
74-88-4	Iodomethane	U	5.44	ug/kg	1.74	5.44
75-09-2	Methylene chloride	U	5.44	ug/kg	2.18	5.44
75-15-0	Carbon disulfide	U	5.44	ug/kg	1.36	5.44
156-60-5	trans-1,2-Dichloroethylene	U	1.09	ug/kg	0.327	1.09
75-34-3	1,1-Dichloroethane	U	1.09	ug/kg	0.327	1.09
78-93-3	2-Butanone	U	5.44	ug/kg	1.63	5.44
156-59-2	cis-1,2-Dichloroethylene	U	1.09	ug/kg	0.327	1.09
594-20-7	2,2-Dichloropropane	U	1.09	ug/kg	0.327	1.09
67-66-3	Chloroform	U	1.09	ug/kg	0.327	1.09
74-97-5	Bromochloromethane	U	1.09	ug/kg	0.359	1.09
71-55-6	1,1,1-Trichloroethane	U	1.09	ug/kg	0.327	1.09
563-58-6	1,1-Dichloropropene	U	1.09	ug/kg	0.327	1.09
56-23-5	Carbon tetrachloride	U	1.09	ug/kg	0.327	1.09
107-06-2	1,2-Dichloroethane	U	1.09	ug/kg	0.327	1.09
71-43-2	Benzene	U	1.09	ug/kg	0.327	1.09
79-01-6	Trichloroethylene	U	1.09	ug/kg	0.359	1.09
78-87-5	1,2-Dichloropropane	U	1.09	ug/kg	0.327	1.09
75-27-4	Bromodichloromethane	U	1.09	ug/kg	0.327	1.09
74-95-3	Dibromomethane	U	1.09	ug/kg	0.327	1.09
108-10-1	4-Methyl-2-pentanone	U	5.44	ug/kg	1.36	5.44
10061-01-5	cis-1,3-Dichloropropylene	U	1.09	ug/kg	0.327	1.09
108-88-3	Toluene	U	1.09	ug/kg	0.327	1.09
10061-02-6	trans-1,3-Dichloropropylene	U	1.09	ug/kg	0.327	1.09
79-00-5	1,1,2-Trichloroethane	U	1.09	ug/kg	0.327	1.09
591-78-6	2-Hexanone	U	5.44	ug/kg	1.63	5.44
142-28-9	1,3-Dichloropropane	U	1.09	ug/kg	0.327	1.09
127-18-4	Tetrachloroethylene	U	1.09	ug/kg	0.327	1.09
124-48-1	Dibromochloromethane	U	1.09	ug/kg	0.327	1.09
106-93-4	1,2-Dibromoethane	U	1.09	ug/kg	0.327	1.09
108-90-7	Chlorobenzene	U	1.09	ug/kg	0.327	1.09

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-854	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242668001	**Date Received:**	12/10/2009 08:50	**%Moisture:**	8.2
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-10-2741	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	934305	**Inst:**	VOA7.I	**Dilution:**	1
Run Date:	12/18/2009 16:02	**Analyst:**	AXO1	**Purge Vol:**	5 mL
Prep Date:	12/18/2009 13:20	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	7q510.d	**Column:**	DB-624	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.09	ug/kg	0.327	1.09
179601-23-1	m,p-Xylenes	U	2.18	ug/kg	0.327	2.18
95-47-6	o-Xylene	U	1.09	ug/kg	0.327	1.09
100-42-5	Styrene	U	1.09	ug/kg	0.327	1.09
75-25-2	Bromoform	U	1.09	ug/kg	0.327	1.09
79-34-5	1,1,2,2-Tetrachloroethane	U	1.09	ug/kg	0.327	1.09
96-18-4	1,2,3-Trichloropropane	U	1.09	ug/kg	0.327	1.09
108-86-1	Bromobenzene	U	1.09	ug/kg	0.327	1.09
103-65-1	n-Propylbenzene	U	1.09	ug/kg	0.327	1.09
95-49-8	2-Chlorotoluene	U	1.09	ug/kg	0.327	1.09
98-82-8	Isopropylbenzene	U	1.09	ug/kg	0.327	1.09
108-67-8	1,3,5-Trimethylbenzene	U	1.09	ug/kg	0.327	1.09
106-43-4	4-Chlorotoluene	U	1.09	ug/kg	0.327	1.09
98-06-6	tert-Butylbenzene	U	1.09	ug/kg	0.327	1.09
95-63-6	1,2,4-Trimethylbenzene	U	1.09	ug/kg	0.327	1.09
135-98-8	sec-Butylbenzene	U	1.09	ug/kg	0.327	1.09
99-87-6	4-Isopropyltoluene	U	1.09	ug/kg	0.327	1.09
541-73-1	1,3-Dichlorobenzene	U	1.09	ug/kg	0.327	1.09
106-46-7	1,4-Dichlorobenzene	U	1.09	ug/kg	0.327	1.09
104-51-8	n-Butylbenzene	U	1.09	ug/kg	0.327	1.09
96-12-8	1,2-Dibromo-3-chloropropane	U	1.09	ug/kg	0.327	1.09
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.44	ug/kg	1.74	5.44
630-20-6	1,1,1,2-Tetrachloroethane	U	1.09	ug/kg	0.327	1.09
95-50-1	1,2-Dichlorobenzene	U	1.09	ug/kg	0.327	1.09

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Siloxane	19.69	12.3	ug/kg		J
	Unknown Siloxane	21.56	7.65	ug/kg		J

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA7.i/121809v7/7q510.d
Lab Smp Id: 242668001 Client Smp ID: RE03-10-2741
Inj Date : 18-DEC-2009 16:02
Operator : AXO1 Inst ID: VOA7.i
Smp Info : |242668001|934305|1|VOAF|1|
Misc Info : LANL 5g N/A
Comment :
Method : /chem/VOA7.i/121809v7/VOA7-8260B-111509.m
Meth Date : 19-Dec-2009 13:12 ale01592 Quant Type: ISTD
Cal Date : 16-NOV-2009 02:36 Cal File: 71708.d
Als bottle: 10
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-854.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	8.16760	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
* 51 Fluorobenzene	96	15.316	15.317	(1.000)	558639	50.0000	
* 75 Chlorobenzene-d5	117	18.667	18.667	(1.000)	419696	50.0000	
* 101 1,4-Dichlorobenzene-d4	152	20.991	20.991	(1.000)	212290	50.0000	
$ 46 1,2-Dichloroethane-d4	65	14.880	14.880	(0.972)	269995	55.4303	60.4
$ 64 Toluene-d8	98	17.144	17.144	(0.918)	599777	47.8714	52.1
$ 86 Bromofluorobenzene	95	19.814	19.814	(0.944)	246243	49.2843	53.7

ION RATIO REPORT

VOA REPORT

Data file: 7q510.d
Report Date: 12/19/2009 13:45
Lab. ID: 242668001 SampleType: SAMPLE
Injection Date: 18-DEC-2009 16:02
Operator: AXO1 Instrument: VOA7.i
Sample Info: |242668001|934305|1|VOAF|1|
Miscellaneous Info: LANL 5g N/A
Comment:
Method used: /chem/VOA7.i/121809v7/VOA7-8260B-111509.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: CALsubL+
Sample Matrix: WATER

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
63 4-Methyl-2-pentanone				CAS#: 108-10-1		
58	7198	17.14	16.94	80-120	100	(T)
43	4097	17.13	16.94	264-324	57	(QT)
100	415522	17.14	16.94	0- 56	5772	(QT)
82 Bromoform				CAS#: 75-25-2		
173	1421	19.81	19.54	80-120	100	(T)
175	14385	19.81	19.54	19- 79	1012	(QT)
89 1,2,3-Trichloropropane				CAS#: 96-18-4		
110	1218	19.70	19.98	80-120	100	(T)
75	3477	19.69	19.98	297-357	286	(QT)
77	152	19.70	19.97	61-121	13	(QT)
91 n-Propylbenzene				CAS#: 103-65-1		
91	10737	19.65	20.04	80-120	100	(T)
120	465	19.69	20.04	0- 52	4	(T)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA7.i/121809v7/7q510.d
Lab Smp Id: 242668001 Client Smp ID: RE03-10-2741
Inj Date : 18-DEC-2009 16:02
Operator : AXO1 Inst ID: VOA7.i
Smp Info : |242668001|934305|1|VOAF|1|
Misc Info : LANL 5g N/A
Comment :
Method : /chem/VOA7.i/121809v7/VOA7-8260B-111509.m
Meth Date : 19-Dec-2009 13:12 ale01592 Quant Type: ISTD
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Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	8.16760	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 75 Chlorobenzene-d5	18.667	1535090	50.000
* 101 1,4-Dichlorobenzene-d4	20.991	1396384	50.000

	CONCENTRATIONS				QUANT		
RT	AREA	ON-COL(ug/l)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown Siloxane				CAS #:			
19.692	347545	11.3199981	12.3	0		0	75

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL (ug/l)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown Siloxane					CAS #:		
21.560	196318	7.02951002	7.6	0		0	101

Data File: /chem/VOA7.i/121809v7/7q510.d

Date : 18-DEC-2009 16:02

Client ID: RE03-10-2741

Sample Info: |2426680011934305|1|VOAF|1|

Column phase: DB-624

Instrument: VOA7.i

Operator: AX01

Column diameter: 0.25

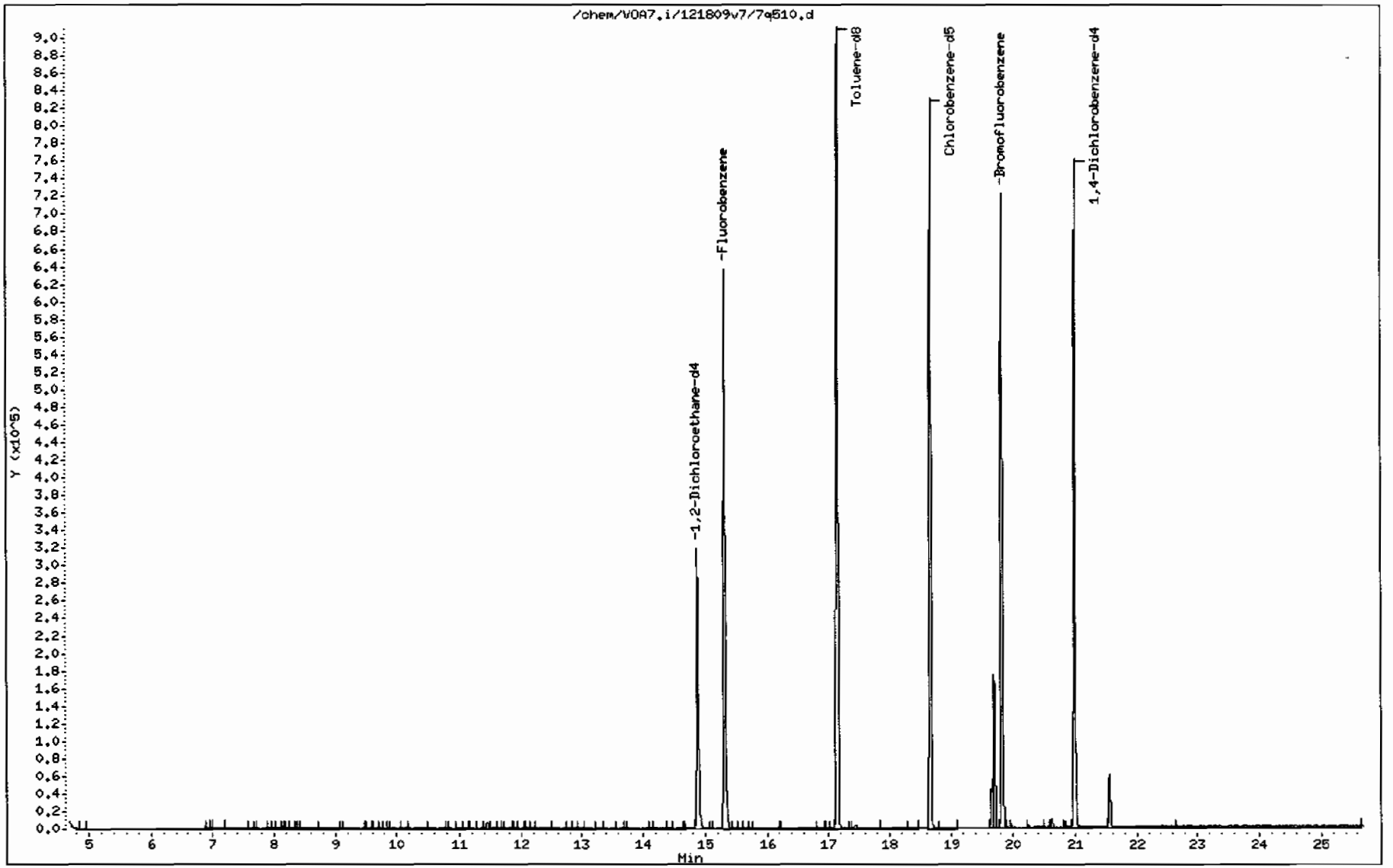

Data File: /chem/VOA7.i/121809v7/7q510.d

Date : 18-DEC-2009 16:02

Client ID: RE03-10-2741

Instrument: VOA7.i

Sample Info: |2426680011934305|1|VOAF|1|

Operator: AX01

Column phase: DB-624

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Siloxane						
Cobalt, (2-methyl-.eta.-3-propenyl)-(pen	1000157-04-3	NIST05.L	91248	41	C14H22Co	249
Trisiloxane, 1,1,3,3,5,5-hexamethyl-	1189-93-1	NIST05.L	63148	35	C6H20O2Si3	208
Anthracene, 9,10-dihydro-9,10-dimethyl-	22566-43-4	NIST05.L	63100	30	C16H16	208

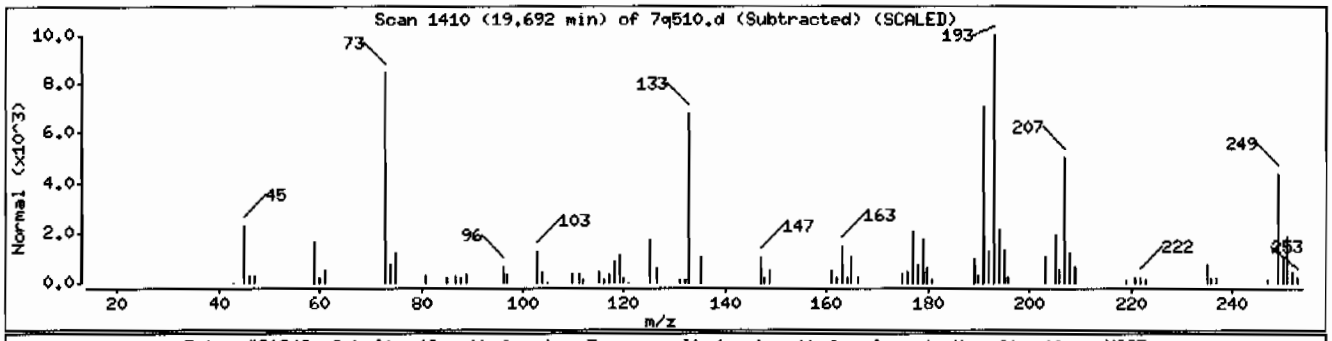

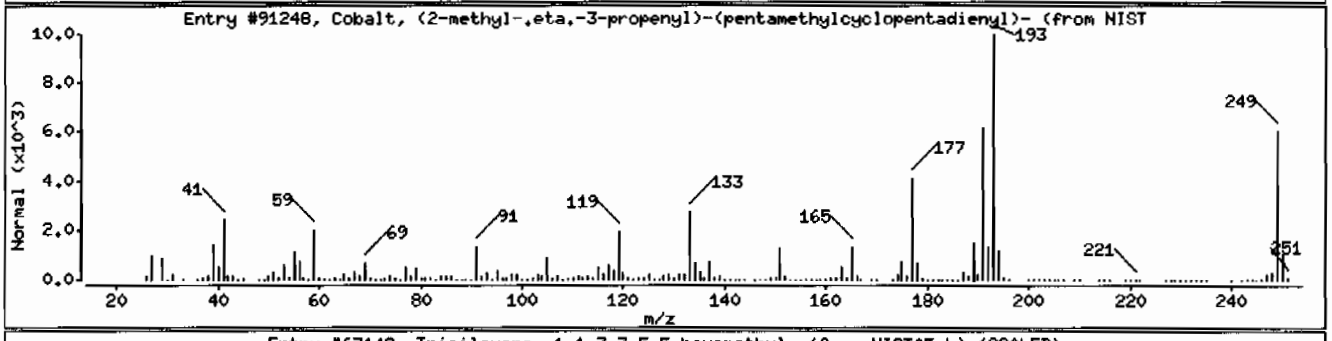

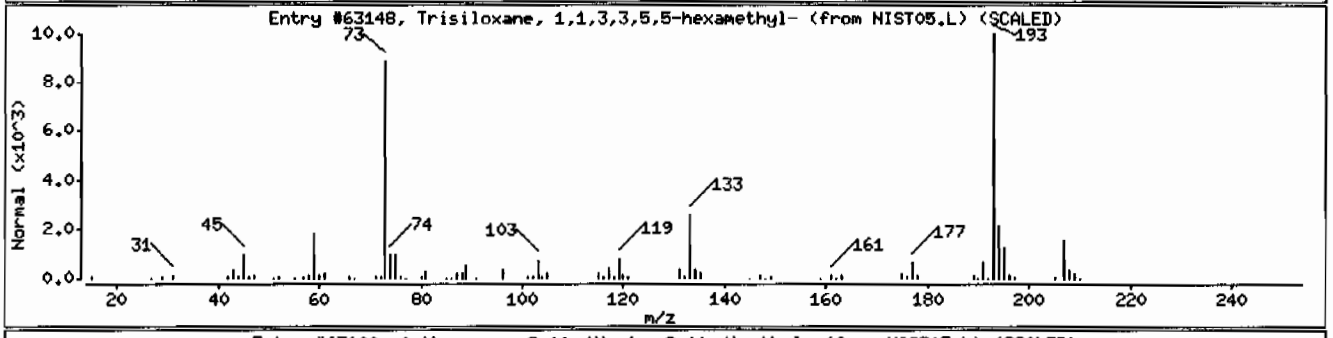

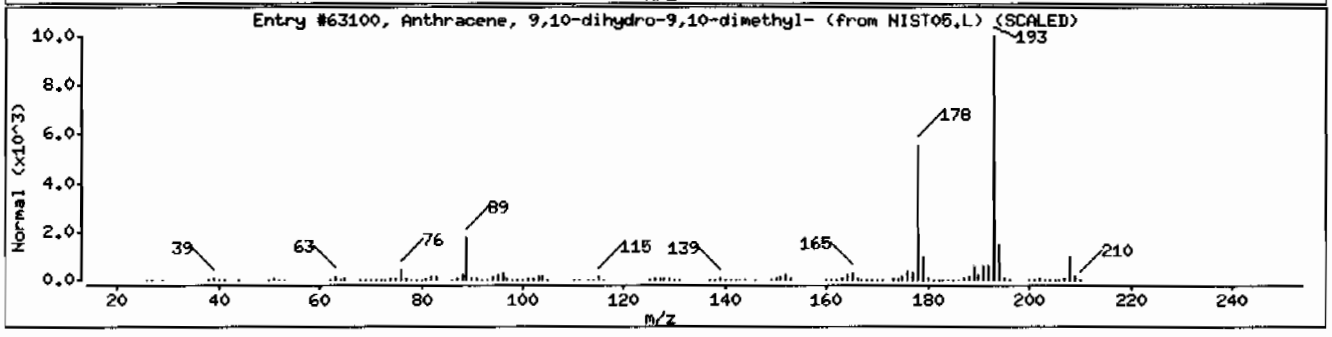

Data File: /chem/VOA7.i/121809v7/7q510.d

Date : 18-DEC-2009 16:02

Client ID: RE03-10-2741

Instrument: VOA7.i

Sample Info: |2426680011934305|1|VOAF|1|

Operator: AX01

Column phase: DB-624

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Siloxane						
Bicyclo[5.3.0]decan-2-one, 9-methylene-1	1000153-97-3	NIST05.L	82418	28	C14H24OSi	236
1-Propene-1-thiol	925-89-3	NIST05.L	811	12	C3H6S	74

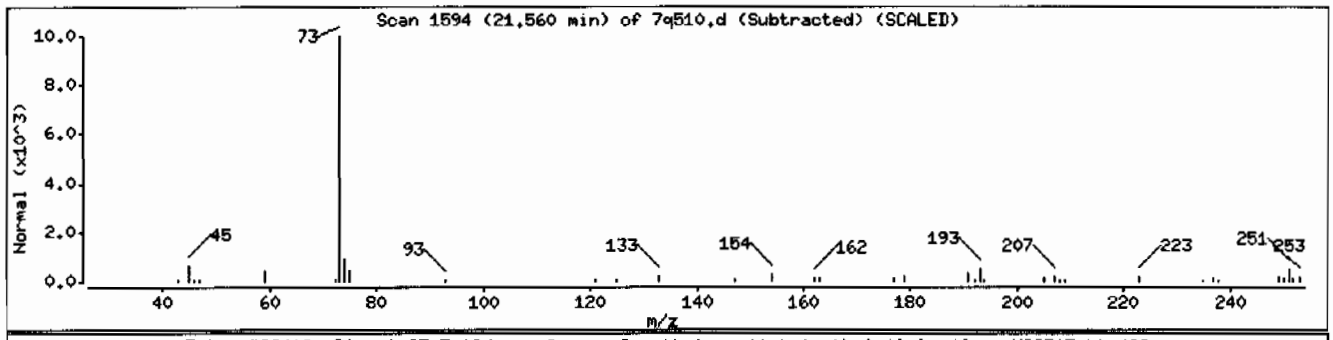

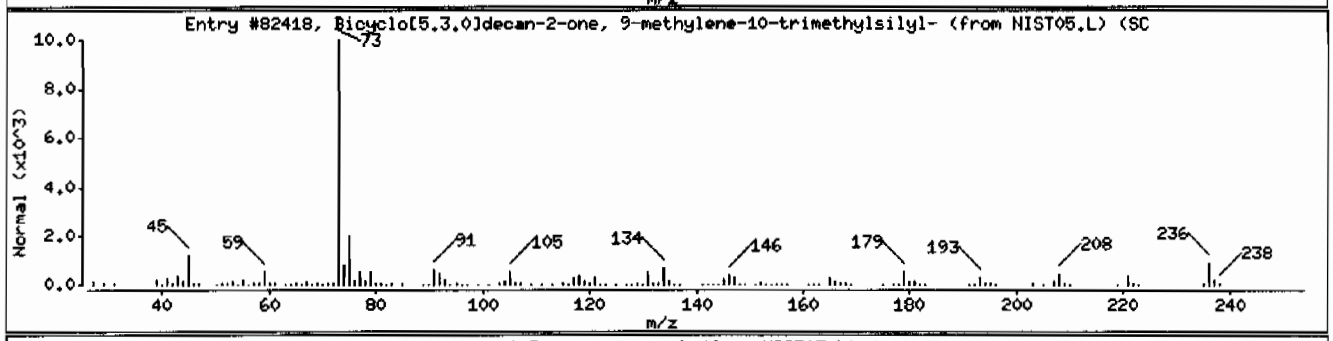

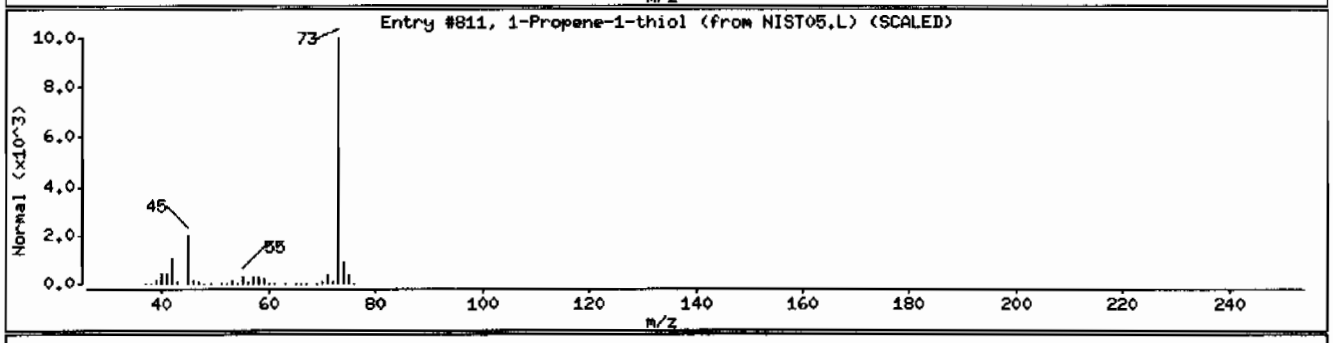

Standard Data

EPA 524.2/Low level SW846 8260B and Regular level 8260B and EPA 624
Calibration Standard Concentration Levels

	Level 1	Level 1a	Level 2	Level 3	Level 4 #	Level 5	Level 6	Level 7 !	Level 7a
Fluorobenzene (IS)									
1,2-Dichloroethane-d4(surr)		0.5	1	2	5	10	20	50	100
Dichlorodifluoromethane		0.5	1	2	5	10	20	50	100
Chloromethane		0.5	1	2	5	10	20	50	100
Vinyl chloride		0.5	1	2	5	10	20	50	100
Bromomethane		0.5	1	2	5	10	20	50	100
Chloroethane		0.5	1	2	5	10	20	50	100
Trichlorofluoromethane		0.5	1	2	5	10	20	50	100
1,1-Dichloroethene		0.5	1	2	5	10	20	50	100
Acetone	1	2.5	5	10	25	50	100	250	500
Iodomethane	1	2.5	5	10	25	50	100	250	500
Carbon disulfide	1	2.5	5	10	25	50	100	250	500
Methylene chloride		0.5	1	2	5	10	20	50	100
trans-1,2-Dichloroethene		0.5	1	2	5	10	20	50	100
1,1-Dichloroethane		0.5	1	2	5	10	20	50	100
Ethyl ether		0.5	1	2	5	10	20	50	100
Vinyl acetate	1	2.5	5	10	25	50	100	250	500
cis-1,2-Dichloroethene		0.5	1	2	5	10	20	50	100
1,2-Dichloroethene (total)		1	2	4	10	20	40	100	200
Cyclohexene		0.5	1	2	5	10	20	50	100
2-Chloroethylvinyl ether			5	10	25	50	100	250	500
2,2-Dichloropropane		0.5	1	2	5	10	20	50	100
2-Butanone	1	2.5	5	10	25	50	100	250	500
Bromochloromethane		0.5	1	2	5	10	20	50	100
Chloroform		0.5	1	2	5	10	20	50	100
1,1,1-Trichloroethane		0.5	1	2	5	10	20	50	100
1,1-Dichloropropene		0.5	1	2	5	10	20	50	100
Carbon tetrachloride		0.5	1	2	5	10	20	50	100
Benzene		0.5	1	2	5	10	20	50	100
1,2-Dichloroethane		0.5	1	2	5	10	20	50	100
Trichloroethene		0.5	1	2	5	10	20	50	100
1,2-Dichloropropane		0.5	1	2	5	10	20	50	100
Dibromomethane		0.5	1	2	5	10	20	50	100
Bromodichloromethane		0.5	1	2	5	10	20	50	100
cis-1,3-Dichloropropene		0.5	1	2	5	10	20	50	100
tert-Butylmethylether		0.5	1	2	5	10	20	50	100
Ethyl Ether			1	2	5	10	20	50	100
Acetonitrile			25	50	125	250	500	1250	2500
Methyl acetate			5	10	25	50	100	250	500
Cyclohexane			1	2	5	10	20	50	100
Methylcyclohexane			1	2	5	10	20	50	100
n-Butyl alcohol			50	100	250	500	1000	2500	5000
2-Nitropropane			5	10	25	50	100	250	500
Ethyl acetate			5	10	25	50	100	250	500
Acrolein			5	10	25	50	100	250	500
Trichlorotrifluoroethane			5	10	25	50	100	250	500
Allyl chloride			5	10	25	50	100	250	500
Acrylonitrile			5	10	25	50	100	250	500
1,4-Dioxane			50	100	250	500	1000	2500	5000
Isobutyl alcohol			50	100	250	500	1000	2500	5000
Methacrylonitrile			5	10	25	50	100	250	500
Propionitrile			5	10	25	50	100	250	500
Methyl methacrylate			5	10	25	50	100	250	500
Chlorotrifluoroethylene			5	10	25	50	100	250	500
2-Chloro-1,1,1-trifluoroethane			5	10	25	50	100	250	500

tert-Butyl alcohol			50	100	250	500	1000	2500	5000
Isopropyl ether			1	2	5	10	20	50	100
Ethyl tert-butyl ether			1	2	5	10	20	50	100
Isopropyl alcohol			50	100	250	500	1000	2500	5000
Methyl tert-amyl ether			1	2	5	10	20	50	100
1-Chlorohexane			1	2	5	10	20	50	100
2-Chloro-1,3-butadiene(chloroprene)			1	2	5	10	20	50	100
Chlorobenzene-d5 (IS)									
Toluene-d8 (surr)		0.5	1	2	5	10	20	50	100
4-Methyl-2-pentanone	1	2.5	5	10	25	50	100	250	500
Toluene		0.5	1	2	5	10	20	50	100
trans-1,3-Dichloropropene		0.5	1	2	5	10	20	50	100
1,1,2-Trichloroethane		0.5	1	2	5	10	20	50	100
Tetrachloroethene		0.5	1	2	5	10	20	50	100
1,3-Dichloropropane		0.5	1	2	5	10	20	50	100
2-Hexanone	1	2.5	5	10	25	50	20	250	500
Dibromochloromethane		0.5	1	2	5	10	20	50	100
1,2-Dibromoethane		0.5	1	2	5	10	20	50	100
Chlorobenzene		0.5	1	2	5	10	20	50	100
1,1,1,2-Tetrachloroethane		0.5	1	2	5	10	20	50	100
Ethylbenzene		0.5	1	2	5	10	20	50	100
m,p-Xylene		1	2	4	10	20	20	100	200
o-Xylene		0.5	1	2	5	10	20	50	100
Xylenes (total)		1.5	3	6	15	30	60	150	300
Stryene		0.5	1	2	5	10	20	50	100
Cyclohexanone			50	100	250	500	1000	2500	5000
Ethyl methacrylate			5	10	25	50	100	250	500
1,4-Dichlorobenzene-d4 (IS)									
Bromofluorobenzene (surr)		0.5	1	2	5	10	20	50	100
Bromoform		0.5	1	2	5	10	20	50	100
Isopropylbenzene		0.5	1	2	5	10	20	50	100
1,1,2,2-Tetrachloroethane		0.5	1	2	5	10	20	50	100
Bromobenzene		0.5	1	2	5	10	20	50	100
1,2,3-Trichloropropane		0.5	1	2	5	10	20	50	100
n-Propylbenzene		0.5	1	2	5	10	20	50	100
2-Chlorotoluene		0.5	1	2	5	10	20	50	100
1,3,5-Trimethylbenzene		0.5	1	2	5	10	20	50	100
4-Chlorotoluene		0.5	1	2	5	10	20	50	100
1,2,4-Trimethylbenzene		0.5	1	2	5	10	20	50	100
sec-Butylbenzene		0.5	1	2	5	10	20	50	100
1,3-Dichlorobenzene		0.5	1	2	5	10	20	50	100
tert-Butylbenzene		0.5	1	2	5	10	20	50	100
Isopropyltoluene		0.5	1	2	5	10	20	50	100
1,4-Dichlorobenzene		0.5	1	2	5	10	20	50	100
n-Butylbenzene		0.5	1	2	5	10	20	50	100
1,2-Dichlorobenzene		0.5	1	2	5	10	20	50	100
1,2-Dibromo-3-chloropropa		0.5	1	2	5	10	20	50	100
1,2,4-Trichlorobenzene		0.5	1	2	5	10	20	50	100
Hexachlorobutadiene		0.5	1	2	5	10	20	50	100
Naphthalene		0.5	1	2	5	10	20	50	100
1,2,3-Trichlorobenzene		0.5	1	2	5	10	20	50	100
cis-1,4-Dichloro-2-butene			5	10	25	50	100	250	500
trans-1,4-Dichloro-2-butene			5	10	25	50	100	250	500
Tetrahydrofuran			5	10	25	50	100	250	500
Pentachloroethane			5	10	25	50	100	250	500
Benzyl chloride			5	10	25	50	100	250	500
bis(2-Chloro-isopropyl)ether			5	10	25	50	100	250	500

Report Date: 19-Dec-2009 13:16

Calibration History

Method : /chem/VOA7.i/121809v7/VOA7-8260B-111509.m
Start Cal Date: 16-NOV-2009 00:20
End Cal Date : 16-NOV-2009 10:57

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 1.00000		
16-NOV-2009 10:57	ICALsubL+	/chem/VOA7.i/111509v7/71723.d
16-NOV-2009 04:51	ICALsubS	/chem/VOA7.i/111509v7/71712.d
Cal Level: 2 , Cal Amount: 2.00000		
16-NOV-2009 05:25	ICALsubS	/chem/VOA7.i/111509v7/71713.d
16-NOV-2009 00:20	ICALsubL+	/chem/VOA7.i/111509v7/71704.d
Cal Level: 3 , Cal Amount: 5.00000		
16-NOV-2009 05:58	ICALsubS	/chem/VOA7.i/111509v7/71714.d
16-NOV-2009 00:55	ICALsubL+	/chem/VOA7.i/111509v7/71705.d
Cal Level: 4 , Cal Amount: 10.00000		
16-NOV-2009 06:32	ICALsubS	/chem/VOA7.i/111509v7/71715.d
16-NOV-2009 01:29	ICALsubL+	/chem/VOA7.i/111509v7/71706.d
Cal Level: 5 , Cal Amount: 20.00000		
16-NOV-2009 07:05	ICALsubS	/chem/VOA7.i/111509v7/71716.d
16-NOV-2009 02:03	ICALsubL+	/chem/VOA7.i/111509v7/71707.d
Cal Level: 6 , Cal Amount: 50.00000		
16-NOV-2009 02:36	ICALsubL+	/chem/VOA7.i/111509v7/71708.d
Cal Level: 7 , Cal Amount: 100.00000		
16-NOV-2009 08:11	ICALsubS	/chem/VOA7.i/111509v7/71718.d
16-NOV-2009 03:10	ICALsubL+	/chem/VOA7.i/111509v7/71709.d
Cal Level: 8 , Cal Amount: 200.00000		
16-NOV-2009 04:18	BENZENE+	/chem/VOA7.i/111509v7/71711.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 6

Ccal Level: 6 , Ccal Amount: 50.0

18-DEC-2009 11:09	CALsubL+	/chem/VOA7.i/121809v7/7q502.d
Ccal Level: 6 , Ccal Amount: 50.0		
17-DEC-2009 09:05	CALsubL+	/chem/VOA7.i/121709v7/7q402.d
Ccal Level: 6 , Ccal Amount: 50.0		
17-DEC-2009 09:38	CALsubS+SS	/chem/VOA7.i/121709v7/7q403.d
Ccal Level: 6 , Ccal Amount: 50.0		
18-DEC-2009 12:14	CALsubS+SS	/chem/VOA7.i/121809v7/7q504.d

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Start Cal Date : 16-NOV-2009 00:20
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Quant Method : ISTD
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Integrator : HP RTE
Method file : /chem/VOA7.i/121809v7/VOA7-8260B-111509.m
Cal Date : 19-Dec-2009 13:12 ale01592

Calibration File Names:
Level 1: /chem/VOA7.i/111509v7/71723.d
Level 2: /chem/VOA7.i/111509v7/71713.d
Level 3: /chem/VOA7.i/111509v7/71714.d
Level 4: /chem/VOA7.i/111509v7/71715.d
Level 5: /chem/VOA7.i/111509v7/71716.d
Level 6: /chem/VOA7.i/111509v7/71708.d
Level 7: /chem/VOA7.i/111509v7/71718.d
Level 8: /chem/VOA7.i/111509v7/71711.d

Compound	1 Level 1	2 Level 2	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	100 Level 7	200 Level 8										
M 1 1,3-Dichloropropylene	0.48162	0.51141	0.48991	0.49506	0.47915	0.45634						
	0.45814	+++++					AVRG		0.48166		4.09435	
M 2 Xylenes (total)	0.70187	0.71107	0.68541	0.65468	0.62432	0.58624						
	0.54217	+++++					AVRG		0.64368		9.77778	
M 3 1,2-Dichloroethylene (total)	0.50335	0.51390	0.49246	0.48613	0.47127	0.44528						
	0.43027	+++++					AVRG		0.47752		6.39683	
147 Chlorotrifluoroethylene	+++++	0.11567	0.12629	0.13006	0.15103	+++++						
	0.12864	+++++					AVRG		0.13034		9.87423	<-
148 2-Chloro-1,1,1-trifluoroethan	+++++	0.29483	0.28977	0.28633	0.28136	+++++						
	0.26145	+++++					AVRG		0.28275		4.55528	<-

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Compound	1 Level 1	2 Level 2	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	100 Level 7	200 Level 8										
4 Dichlorodifluoromethane	9878	9249	23150	48278	92822	212089						
	442243	+++++					LINR	-0.00674	0.19647		0.99903	
5 Chloromethane	17787	25991	62744	120715	235311	545414						
	+++++	+++++					LINR	-0.01618	0.48059		0.99934	
6 Vinyl chloride	0.45101	0.32267	0.32843	0.32002	0.31485	0.31553						
	0.32064	+++++					AVRG		0.33902		14.62820	
7 Bromomethane	0.27284	0.23477	0.21739	0.23189	0.22221	0.22062						
	0.22663	+++++					AVRG		0.23234		8.13362	
8 Chloroethane	0.26449	0.29143	0.26656	0.24776	0.24161	0.22593						
	0.23650	+++++					AVRG		0.25347		8.75362	
9 Trichlorofluoromethane	0.36936	0.32081	0.34380	0.33088	0.34454	0.33922						
	0.34228	+++++					AVRG		0.34155		4.37091	
10 Ethyl Ether	0.32395	0.40505	0.37935	0.37257	0.35783	0.33864						
	0.33947	+++++					AVRG		0.35955		7.81915	
11 Acrolein	0.10338	0.08120	0.07335	0.07632	0.07973	+++++						
	0.08321	+++++					AVRG		0.08287		12.84791	<-
12 Trichlorotrifluoroethane	0.10801	0.09022	0.09121	0.09389	0.09152	+++++						
	0.08403	+++++					AVRG		0.09315		8.58517	<-

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Compound	1 Level 1 100 Level 7	2 Level 2 200 Level 8	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
13 Acetone	0.41356	0.45387	0.41433	0.43007	0.40244	0.39042						
	0.35449	+++++					AVRG		0.40846		7.65356	
14 1,1-Dichloroethylene	0.22088	0.21532	0.20364	0.20899	0.20024	0.20565						
	0.19213	+++++					AVRG		0.20669		4.61138	
15 Isopropyl Alcohol	0.03168	0.03567	0.03718	0.03843	0.04149	+++++						
	0.03561	+++++					AVRG		0.03668		8.93039	<-
16 Iodomethane	0.40955	0.39246	0.38281	0.39460	0.37262	0.36662						
	0.32402	+++++					AVRG		0.37752		7.31342	
17 Acetonitrile	0.06684	0.07498	0.06894	0.07076	0.06571	0.07505						
	0.05949	+++++					AVRG		0.06882		7.98603	
18 Methyl acetate	0.46706	0.48972	0.42740	0.44391	0.40101	0.34961						
	0.32566	+++++					AVRG		0.41491		14.50657	
19 Carbon disulfide	0.81399	0.71905	0.65613	0.72387	0.66367	0.64827						
	0.51116	+++++					AVRG		0.67659		13.71592	
20 Allyl chloride	0.73189	0.65846	0.65047	0.64089	0.62129	+++++						
	0.50912	+++++					AVRG		0.63535		11.40310	<-
21 tert-Butyl Alcohol	0.05404	0.05110	0.05011	0.05014	0.05625	+++++						
	0.04447	+++++					AVRG		0.05102		7.88694	<-

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Compound	1 Level 1	2 Level 2	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	100 Level 7	200 Level 8										
22 Methylene chloride	+++++	18349	33412	50196	94022	216889						
	400402	+++++					LINR	-0.06474	0.17592		0.99946	
23 Acrylonitrile	0.17475	0.15791	0.16794	0.16478	0.17200	+++++						
	0.15900	+++++					AVRG		0.16606		4.10463	<-
24 tert-Butyl methyl ether	0.83012	0.96761	0.88767	0.95137	0.84252	0.79052						
	0.79091	+++++					AVRG		0.86582		8.33600	
25 trans-1,2-Dichloroethylene	0.46674	0.47157	0.45561	0.44548	0.43475	0.41412						
	0.39387	+++++					AVRG		0.44031		6.43042	
26 Vinyl acetate	0.93699	1.00832	0.91797	0.90197	0.90475	0.80868						
	0.69472	+++++					AVRG		0.88192		11.49269	
27 Isopropyl ether	+++++	1.67983	1.73405	1.73947	1.73231	+++++						
	1.56232	+++++					AVRG		1.68959		4.44716	<-
28 1,1-Dichloroethane	0.55908	0.56733	0.55912	0.55824	0.54325	0.53477						
	0.52674	+++++					AVRG		0.54979		2.73004	
29 2-Chloro-1,3-butadiene	0.60061	0.54347	0.55048	0.54911	0.52692	+++++						
	0.50165	+++++					AVRG		0.54538		5.99603	<-
30 Ethyl tert-butyl ether	+++++	1.15038	1.14159	1.15815	1.16883	+++++						
	1.11754	+++++					AVRG		1.14730		1.69286	<-

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Compound	1 Level 1 100 Level 7	2 Level 2 200 Level 8	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	mi	m2	%RSD or R^2	
31 2-Butanone	0.50656	0.55953	0.46507	0.47110	0.45593	0.42908						
	0.37852	+++++					AVRG		0.46654		12.23007	
32 Ethyl acetate	0.61522	0.48944	0.49792	0.47694	0.49442	+++++						
	0.38738	+++++					AVRG		0.49355		14.71943	<-
33 cis-1,2-Dichloroethylene	0.53996	0.55622	0.52930	0.52679	0.50779	0.47645						
	0.46666	+++++					AVRG		0.51474		6.41363	
34 2,2-Dichloropropane	0.30573	0.33532	0.29995	0.28909	0.27942	0.25411						
	0.26495	+++++					AVRG		0.28980		9.37472	
35 Propionitrile	0.07599	0.06418	0.06422	0.06603	0.07037	+++++						
	0.06037	+++++					AVRG		0.06686		8.26398	<-
36 Methacrylonitrile	0.34622	0.29982	0.30977	0.29213	0.30586	+++++						
	0.25040	+++++					AVRG		0.30070		10.28807	<-
37 Bromochloromethane	0.44336	0.47430	0.45054	0.46944	0.44692	0.42910						
	0.41925	+++++					AVRG		0.44756		4.43402	
38 Chloroform	0.50752	0.53598	0.51019	0.49879	0.48385	0.47123						
	0.46937	+++++					AVRG		0.49671		4.79790	
39 Tetrahydrofuran	0.46962	0.36550	0.36733	0.34702	0.36837	++++						
	0.30065	+++++					AVRG		0.36975		14.95593	<-

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	100 Level 7	200 Level 8										
41 1,1,1-Trichloroethane	0.39389	0.39912	0.37452	0.36015	0.36051	0.35090						
	0.35034	+++++					AVRG		0.36992		5.38140	
42 Isobutyl alcohol	0.01894	0.01539	0.01791	0.01817	0.02004	+++++						
	0.01579	+++++					AVRG		0.01771		10.19142	<-
43 Cyclohexane	0.73385	0.76995	0.62800	0.60896	0.58507	0.55714						
	0.51772	+++++					AVRG		0.62867		14.62772	
44 1,1-Dichloropropene	0.36948	0.35436	0.34505	0.33268	0.32380	0.31448						
	0.30567	+++++					AVRG		0.33508		6.75846	
45 Carbon tetrachloride	0.30515	0.31489	0.29276	0.29301	0.28324	0.27677						
	0.28441	+++++					AVRG		0.29289		4.53638	
47 1,2-Dichloroethane	0.50646	0.55371	0.53797	0.54777	0.52405	0.49015						
	0.47757	+++++					AVRG		0.51967		5.62217	
48 Benzene	1.08245	1.13296	1.06418	1.03887	0.99466	0.94896						
	0.90668	+++++					AVRG		1.02411		7.70711	
49 Methyl tert-amyl ether	+++++	0.79368	0.79088	0.81205	0.81522	+++++						
	0.76488	+++++					AVRG		0.79534		2.53396	<-
50 Cyclohexene	0.53525	0.54627	0.49088	0.47223	0.46857	0.44496						
	0.42837	+++++					AVRG		0.48379		9.06743	

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Compound	1 Level 1 100 Level 7	2 Level 2 200 Level 8	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
52 n-Butyl alcohol	0.01414	0.01540	0.01465	0.01549	0.01195	0.01360					
	0.01298	0.01589					AVRG		0.01426		9.55415
53 Trichloroethylene	0.29668	0.27864	0.26410	0.26925	0.25379	0.24558					
	0.24343	+++++					AVRG		0.26450		7.19813
54 Methyl methacrylate	0.23403	0.21190	0.21903	0.20630	0.21130	+++++					
	0.17483	+++++					AVRG		0.20956		9.33602 <-
55 Methylcyclohexane	0.48623	0.45049	0.41633	0.40547	0.39190	0.36154					
	0.34719	+++++					AVRG		0.40845		11.87464
56 1,2-Dichloropropane	0.34729	0.36852	0.34844	0.34238	0.32116	0.30810					
	0.29588	+++++					AVRG		0.33311		7.68307
57 1,4-Dioxane	0.00311	0.00342	0.00301	0.00321	0.00334	+++++					
	0.00291	+++++					AVRG		0.00316		6.09053 <-
58 Dibromomethane	0.17530	0.21136	0.18851	0.19605	0.18940	0.17505					
	0.17768	+++++					AVRG		0.18762		7.04018
59 Bromodichloromethane	0.40306	0.39688	0.39882	0.39409	0.39111	0.38250					
	0.38772	+++++					AVRG		0.39346		1.77175
60 2-Nitropropane	0.14779	0.11222	0.12974	0.11925	0.13313	+++++					
	0.13745	+++++					AVRG		0.12993		9.81668 <-

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Compound	1 Level 1 / 100 Level 7	2 Level 2 / 200 Level 8	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
61 2-Chloroethylvinyl ether	0.13440	0.14994	0.14076	0.14163	0.13735	0.12335						
	0.12792	++++++					AVRG		0.13648		6.53115	
62 cis-1,3-Dichloropropylene	0.51907	0.52113	0.50923	0.50627	0.49050	0.46742						
	0.46560	++++++					AVRG		0.49703		4.65191	
63 4-Methyl-2-pentanone	0.26289	0.29681	0.26991	0.26674	0.25619	0.24532						
	0.21162	++++++					AVRG		0.25850		10.06509	
65 Toluene	1.06152	0.94181	0.92209	0.85591	0.83869	0.81855						
	0.77591	++++++					AVRG		0.88778		10.78602	
66 Ethyl methacrylate	0.60106	0.55204	0.56173	0.54685	0.53056	++++++						
	0.39826	++++++					AVRG		0.53175		13.07283	<-
67 trans-1,3-Dichloropropylene	0.59340	0.66097	0.62140	0.63870	0.61596	0.60172						
	0.59157	++++++					AVRG		0.61767		4.10553	
68 1,1,2-Trichloroethane	0.28152	0.34176	0.31919	0.31408	0.30560	0.28919						
	0.27725	++++++					AVRG		0.30409		7.59572	
69 2-Hexanone	0.87481	0.97568	0.87145	0.82622	0.78128	0.70076						
	++++++	++++++					AVRG		0.83837		11.14091	
70 1,3-Dichloropropane	0.62125	0.70580	0.63473	0.62515	0.59521	0.54769						
	0.50020	++++++					AVRG		0.60429		10.90903	

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71 Tetrachloroethylene	5992	9474	21832	39767	78891	181061					
	337900	+++++					LINR	-0.03372	0.19968		0.99822
72 Dibromochloromethane	0.36374	0.35126	0.34534	0.35045	0.34793	0.36389					
	0.36418	+++++					AVRG		0.35526		2.34746
73 1,2-Dibromoethane	0.36352	0.39368	0.36505	0.37797	0.37853	0.35728					
	0.34784	+++++					AVRG		0.36913		4.15400
74 1-Chlorohexane	0.43766	0.42600	0.40282	0.39261	0.39261	+++++					
	0.36131	+++++					AVRG		0.40217		6.74585 <-
76 Chlorobenzene	1.07372	1.00204	1.00902	0.96396	0.93337	0.90160					
	0.86204	+++++					AVRG		0.96368		7.42752
77 1,1,1,2-Tetrachloroethane	0.36216	0.35620	0.34804	0.35642	0.33854	0.33649					
	0.32622	+++++					AVRG		0.34629		3.75530
78 Ethylbenzene	1.95324	1.84797	1.75084	1.66559	1.62080	1.50242					
	1.36911	+++++					AVRG		1.67285		11.94152
79 m,p-Xylenes	0.69767	0.70455	0.67501	0.64826	0.61794	0.58065					
	0.53207	+++++					AVRG		0.63659		10.00955
80 o-Xylene	0.71025	0.72410	0.70621	0.66754	0.63709	0.59741					
	0.56236	+++++					AVRG		0.65785		9.36415

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	100 Level 7	200 Level 8										
81 Styrene	1.33560	1.30153	1.23519	1.21219	1.13822	1.07539						
	0.97845	+++++					AVRG		1.18237		10.71682	
82 Bromoform	0.44442	0.39902	0.41763	0.44297	0.44404	0.44186						
	0.46661	+++++					AVRG		0.43665		4.99810	
83 Isopropylbenzene	3.19302	3.18561	3.07411	2.86686	2.75667	2.54796						
	2.34976	+++++					AVRG		2.85343		11.36410	
84 cis-1,4-Dichloro-2-butene	0.40887	0.38461	0.41067	0.39342	0.41002	+++++						
	0.34203	+++++					AVRG		0.39160		6.76684	<-
85 Cyclohexanone	27609	47983	120128	244566	605155	+++++						
	4411964	+++++					LINR	1.47957	0.10625		0.99599	
87 1,1,2,2-Tetrachloroethane	0.96106	0.97912	0.93144	0.92496	0.89645	0.82377						
	0.80765	+++++					AVRG		0.90349		7.26714	
88 trans-1,4-Dichloro-2-butene	0.37041	0.36328	0.36660	0.35482	0.37473	+++++						
	0.31675	+++++					AVRG		0.35776		5.92605	<-
89 1,2,3-Trichloropropane	0.23019	0.25194	0.24061	0.23026	0.22741	0.20232						
	0.21092	+++++					AVRG		0.22766		7.37759	
90 Bromobenzene	0.92906	0.82900	0.85652	0.80922	0.76616	0.73191						
	0.69906	+++++					AVRG		0.80299		9.73768	

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 16-NOV-2009 00:20
End Cal Date : 16-NOV-2009 10:57
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/VOA7.i/121809v7/VOA7-8260B-111509.m
Cal Date : 19-Dec-2009 13:12 ale01592

Compound	1 Level 1 100 Level 7	2 Level 2 200 Level 8	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
91 n-Propylbenzene	4.25249	3.88792	3.79288	3.45018	3.34064	3.08225						
	2.76462	+++++					AVRG		3.51014		14.45630	
92 1,3,5-Trimethylbenzene	3.01475	2.80798	2.70222	2.54197	2.39987	2.22252						
	2.01642	+++++					AVRG		2.52939		13.66966	
93 2-Chlorotoluene	3.08010	2.87993	2.74165	2.51611	2.36428	2.20489						
	2.03238	+++++					AVRG		2.54562		14.77810	
94 4-Chlorotoluene	2.91904	2.51920	2.55214	2.40451	2.27488	2.19788						
	2.06680	+++++					AVRG		2.41921		11.59035	
95 tert-Butylbenzene	2.67976	2.70138	2.45161	2.29001	2.24015	2.11655						
	2.00828	+++++					AVRG		2.35539		11.35607	
96 1,2,4-Trimethylbenzene	3.16701	2.84657	2.89890	2.74678	2.59171	2.41019						
	2.24517	+++++					AVRG		2.70091		11.55019	
97 Pentachloroethane	0.25571	0.26641	0.25616	0.27985	0.26289	+++++						
	0.23937	+++++					AVRG		0.26007		5.16533	<-
98 sec-Butylbenzene	3.82934	3.45485	3.46206	3.15695	3.07500	2.85836						
	2.63727	+++++					AVRG		3.21055		12.58655	
99 4-Isopropyltoluene	2.98217	2.73304	2.65706	2.51190	2.48606	2.31346						
	2.17912	+++++					AVRG		2.55183		10.50000	

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 16-NOV-2009 00:20
End Cal Date : 16-NOV-2009 10:57
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/VOA7.i/121809v7/VOA7-8260B-111509.m
Cal Date : 19-Dec-2009 13:12 ale01592

Compound	1 Level 1	2 Level 2	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	100 Level 7	200 Level 8										
100 1,3-Dichlorobenzene	1.62812	1.57179	1.47014	1.45207	1.39072	1.30402						
	1.25519	+++++					AVRG		1.43886		9.36211	
102 1,4-Dichlorobenzene	1.63344	1.50373	1.46244	1.41694	1.36741	1.28628						
	1.25795	+++++					AVRG		1.41831		9.15964	
103 Benzyl chloride	1.52159	1.39923	1.36711	1.35007	1.35827	+++++						
	1.00071	+++++					AVRG		1.33283		13.10142	<-
104 n-Butylbenzene	3.30748	3.01305	2.86173	2.59921	2.52845	2.34730						
	2.22372	+++++					AVRG		2.69728		14.23037	
105 1,2-Dichlorobenzene	1.58423	1.53813	1.49742	1.43620	1.40103	1.30168						
	1.26719	+++++					AVRG		1.43227		8.25322	
106 bis(2-Chloroisopropyl)ether	0.83054	0.76699	0.77671	0.70559	0.76759	+++++						
	0.58050	+++++					AVRG		0.73799		11.75584	<-
107 1,2-Dibromo-3-chloropropane	0.12210	0.19215	0.18173	0.19639	0.18470	0.16898						
	0.18479	+++++					AVRG		0.17584		14.34396	
108 1,2,4-Trichlorobenzene	1.10365	1.08552	1.04867	1.04578	1.02857	0.91854						
	0.95721	+++++					AVRG		1.02685		6.50341	
109 Hexachlorobutadiene	0.63352	0.54241	0.57883	0.54434	0.54151	0.49744						
	0.50824	+++++					AVRG		0.54947		8.29752	

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 16-NOV-2009 00:20
End Cal Date : 16-NOV-2009 10:57
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/VOA7.i/121809v7/VOA7-8260B-111509.m
Cal Date : 19-Dec-2009 13:12 ale01592

Compound	1 Level 1	2 Level 2	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	200 Level 8									
110 Naphthalene	2.54277	2.49253	2.33228	2.33148	2.24296	1.96980					
	2.06384	+++++					AVRG		2.28224		9.18916
111 1,2,3-Trichlorobenzene	0.97923	0.94023	0.91669	0.92850	0.93014	0.82251					
	0.86694	+++++					AVRG		0.91204		5.65838
$ 46 1,2-Dichloroethane-d4	0.42117	0.44272	0.43099	0.44388	0.44038	0.43427					
	0.43830	+++++					AVRG		0.43596		1.82484
$ 64 Toluene-d8	1.44558	1.50527	1.50116	1.49559	1.48833	1.50905					
	1.50335	+++++					AVRG		1.49262		1.46212
$ 86 Bromofluorobenzene	1.15699	1.19361	1.18690	1.18005	1.16824	1.17494					
	1.17673	+++++					AVRG		1.17678		1.01982

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 16-NOV-2009 00:20
End Cal Date : 16-NOV-2009 10:57
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/VOA7.i/121809v7/VOA7-8260B-111509.m
Cal Date : 19-Dec-2009 13:12 ale01592

Curve	Formula	Units
Averaged	Amt = Rsp/ml	Response
Linear	Amt = b + Rsp/ml	Response

Data File: /chem/VOA7.i/111509v7/7m102.d
Report Date: 19-Nov-2009 09:38

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA7.i Injection Date: 16-NOV-2009 13:54
Lab File ID: 7m102.d Init. Cal. Date(s): 16-NOV-2009 16-NOV-2009
Analysis Type: WATER Init. Cal. Times: 00:20 10:57
Lab Sample ID: W7VM0911116-01 Quant Type: ISTD
Method: /chem/VOA7.i/111509v7/VOA7-8260B-111509.m

	COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
M	2 Xylenes (total)	0.64368	0.61838	0.61838	0.050	-3.93101	30.00000	Averaged	
M	3 1,2-Dichloroethylene (total	0.47752	0.48210	0.48210	0.050	0.95860	30.00000	Averaged	
M	1 1,3-Dichloropropylene	0.48166	0.47100	0.47100	0.050	-2.21429	30.00000	Averaged	
	4 Dichlorodifluoromethane	65.27028	50.00000	0.25780	0.050	30.54056	30.00000	Linear	<-
	5 Chloromethane	52.40285	50.00000	0.51146	0.100	4.80570	30.00000	Linear	spcc
	6 Vinyl chloride	0.33902	0.36244	0.36244	0.050	6.90732	20.00000	Averaged	ccc
	7 Bromomethane	0.23234	0.22930	0.22930	0.050	-1.30821	30.00000	Averaged	
	8 Chloroethane	0.25347	0.24541	0.24541	0.010	-3.17791	30.00000	Averaged	
	9 Trichlorofluoromethane	0.34155	0.41490	0.41490	0.050	21.47309	30.00000	Averaged	
	10 Ethyl Ether	0.35955	0.32619	0.32619	0.001	-9.27739	30.00000	Averaged	
	13 Acetone	0.40846	0.34477	0.34477	0.050	-15.59171	40.00000	Averaged	
	17 Acetonitrile	0.06882	0.08302	0.08302	0.010	20.62908	30.00000	Averaged	
	14 1,1-Dichloroethylene	0.20669	0.22529	0.22529	0.050	8.99624	20.00000	Averaged	ccc
	18 Methyl acetate	0.41491	0.36212	0.36212	0.010	-12.72228	40.00000	Averaged	
	16 Iodomethane	0.37752	0.36997	0.36997	0.050	-2.00102	30.00000	Averaged	
	22 Methylene chloride	50.50060	50.00000	0.18907	0.050	1.00119	30.00000	Linear	
	19 Carbon disulfide	0.67659	0.74146	0.74146	0.050	9.58807	30.00000	Averaged	
	24 tert-Butyl methyl ether	0.86582	0.81699	0.81699	0.050	-5.63917	30.00000	Averaged	
	25 trans-1,2-Dichloroethylene	0.44031	0.45584	0.45584	0.050	3.52742	30.00000	Averaged	
	26 Vinyl acetate	0.88192	0.90935	0.90935	0.010	3.11086	40.00000	Averaged	
	28 1,1-Dichloroethane	0.54979	0.56486	0.56486	0.100	2.74140	30.00000	Averaged	spcc
	31 2-Butanone	0.46654	0.36247	0.36247	0.030	-22.30657	40.00000	Averaged	
	33 cis-1,2-Dichloroethylene	0.51474	0.50836	0.50836	0.050	-1.23876	30.00000	Averaged	
	34 2,2-Dichloropropane	0.28980	0.33154	0.33154	0.050	14.40365	30.00000	Averaged	
	38 Chloroform	0.49671	0.49767	0.49767	0.010	0.19521	20.00000	Averaged	ccc
	37 Bromochloromethane	0.44756	0.43371	0.43371	0.010	-3.09319	30.00000	Averaged	
	41 1,1,1-Trichloroethane	0.36992	0.42264	0.42264	0.010	14.25119	30.00000	Averaged	
	43 Cyclohexane	0.62867	0.68433	0.68433	0.010	8.85406	30.00000	Averaged	
	44 1,1-Dichloropropene	0.33508	0.36362	0.36362	0.010	8.51916	30.00000	Averaged	
	52 n-Butyl alcohol	0.01426	0.01523	0.01523	0.001	6.79075	40.00000	Averaged	
	45 Carbon tetrachloride	0.29289	0.33705	0.33705	0.010	15.07531	30.00000	Averaged	
$	46 1,2-Dichloroethane-d4	0.43596	0.42203	0.42203	0.010	-3.19455	30.00000	Averaged	
	47 1,2-Dichloroethane	0.51967	0.49347	0.49347	0.010	-5.04145	30.00000	Averaged	
	48 Benzene	1.02411	0.99220	0.99220	0.010	-3.11562	30.00000	Averaged	
	50 Cyclohexene	0.48379	0.51528	0.51528	0.010	6.50957	30.00000	Averaged	

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA7.i
Lab File ID: 7m102.d
Analysis Type: WATER
Lab Sample ID: W7VM0911116-01 Quant Type: ISTD
Method: /chem/VOA7.i/111509v7/VOA7-8260B-111509.m

Injection Date: 16-NOV-2009 13:54
Init. Cal. Date(s): 16-NOV-2009 16-NOV-2009
Init. Cal. Times: 00:20 10:57

	COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
	53 Trichloroethylene	0.26450	0.26775	0.26775	0.010	1.23195	30.00000	Averaged	
	56 1,2-Dichloropropane	0.33311	0.30902	0.30902	0.010	-7.23364	20.00000	Averaged	ccc
	55 Methylcyclohexane	0.40845	0.44750	0.44750	0.010	9.55994	30.00000	Averaged	
	59 Bromodichloromethane	0.39346	0.39039	0.39039	0.010	-0.77802	30.00000	Averaged	
	58 Dibromomethane	0.18762	0.18134	0.18134	0.010	-3.34917	30.00000	Averaged	
	61 2-Chloroethylvinyl ether	0.13648	0.10225	0.10225	0.010	-25.07832	30.00000	Averaged	
	63 4-Methyl-2-pentanone	0.25850	0.23312	0.23312	0.010	-9.81605	40.00000	Averaged	
	62 cis-1,3-Dichloropropylene	0.49703	0.47715	0.47715	0.010	-4.00062	30.00000	Averaged	
$	64 Toluene-d8	1.49262	1.42409	1.42409	0.010	-4.59148	30.00000	Averaged	
	65 Toluene	0.88778	0.86384	0.86384	0.010	-2.69700	20.00000	Averaged	ccc
	67 trans-1,3-Dichloropropylene	0.61767	0.61917	0.61917	0.010	0.24200	30.00000	Averaged	
	68 1,1,2-Trichloroethane	0.30409	0.28713	0.28713	0.010	-5.57532	30.00000	Averaged	
	69 2-Hexanone	0.83837	0.58839	0.58839	0.010	-29.81693	40.00000	Averaged	
	70 1,3-Dichloropropane	0.60429	0.55350	0.55350	0.010	-8.40404	30.00000	Averaged	
	71 Tetrachloroethylene	61.33392	50.00000	0.25168	0.010	22.66783	30.00000	Linear	
	72 Dibromochloromethane	0.35526	0.36420	0.36420	0.010	2.51615	30.00000	Averaged	
	73 1,2-Dibromoethane	0.36913	0.36068	0.36068	0.010	-2.28673	30.00000	Averaged	
	76 Chlorobenzene	0.96368	0.93968	0.93968	0.300	-2.49061	30.00000	Averaged	spcc
	77 1,1,1,2-Tetrachloroethane	0.34629	0.33927	0.33927	0.010	-2.02963	30.00000	Averaged	
	78 Ethylbenzene	1.67285	1.61310	1.61310	0.010	-3.57170	20.00000	Averaged	ccc
	79 m,p-Xylenes	0.63659	0.61295	0.61295	0.010	-3.71431	30.00000	Averaged	
	80 o-Xylene	0.65785	0.62923	0.62923	0.010	-4.35042	30.00000	Averaged	
	81 Styrene	1.18237	1.06949	1.06949	0.010	-9.54661	30.00000	Averaged	
	82 Bromoform	0.43665	0.48550	0.48550	0.100	11.18812	30.00000	Averaged	spcc
	83 Isopropylbenzene	2.85343	2.85798	2.85798	0.010	0.15935	30.00000	Averaged	
	87 1,1,2,2-Tetrachloroethane	0.90349	0.88621	0.88621	0.300	-1.91337	30.00000	Averaged	spcc
$	86 Bromofluorobenzene	1.17678	1.15082	1.15082	0.010	-2.20576	30.00000	Averaged	
	89 1,2,3-Trichloropropane	0.22766	0.22998	0.22998	0.010	1.01599	30.00000	Averaged	
	90 Bromobenzene	0.80299	0.77041	0.77041	0.010	-4.05731	30.00000	Averaged	
	91 n-Propylbenzene	3.51014	3.45563	3.45563	0.010	-1.55306	30.00000	Averaged	
	93 2-Chlorotoluene	2.54562	2.39286	2.39286	0.010	-6.00103	30.00000	Averaged	
	92 1,3,5-Trimethylbenzene	2.52939	2.42878	2.42878	0.010	-3.97768	30.00000	Averaged	
	94 4-Chlorotoluene	2.41921	2.36505	2.36505	0.010	-2.23841	30.00000	Averaged	
	95 tert-Butylbenzene	2.35539	2.37838	2.37838	0.010	0.97575	30.00000	Averaged	
	96 1,2,4-Trimethylbenzene	2.70091	2.61045	2.61045	0.010	-3.34902	30.00000	Averaged	
	98 sec-Butylbenzene	3.21055	3.25000	3.25000	0.010	1.22884	30.00000	Averaged	

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA7.i Injection Date: 16-NOV-2009 13:54
Lab File ID: 7m102.d Init. Cal. Date(s): 16-NOV-2009 16-NOV-2009
Analysis Type: WATER Init. Cal. Times: 00:20 10:57
Lab Sample ID: W7VM0911116-01 Quant Type: ISTD
Method: /chem/VOA7.i/111509v7/VOA7-8260B-111509.m

COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
99 4-Isopropyltoluene	2.55183	2.60229	2.60229	0.010	1.97753	30.00000	Averaged
100 1,3-Dichlorobenzene	1.43886	1.40699	1.40699	0.010	-2.21503	30.00000	Averaged
102 1,4-Dichlorobenzene	1.41831	1.37830	1.37830	0.010	-2.82098	30.00000	Averaged
104 n-Butylbenzene	2.69728	2.72809	2.72809	0.010	1.14238	30.00000	Averaged
105 1,2-Dichlorobenzene	1.43227	1.37461	1.37461	0.010	-4.02547	30.00000	Averaged
107 1,2-Dibromo-3-chloropropane	0.17584	0.19973	0.19973	0.010	13.58816	30.00000	Averaged
108 1,2,4-Trichlorobenzene	1.02685	1.05297	1.05297	0.010	2.54314	30.00000	Averaged
109 Hexachlorobutadiene	0.54947	0.60933	0.60933	0.010	10.89290	30.00000	Averaged
110 Naphthalene	2.28224	2.22128	2.22128	0.010	-2.67074	30.00000	Averaged
111 1,2,3-Trichlorobenzene	0.91204	0.95052	0.95052	0.010	4.21953	30.00000	Averaged

Average %D / Drift Results.

Calculated Average %D/Drift = 6.59555
Maximun Average %D/Drift = 20.00000
* Passed Average %D/Drift Test.

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA7.i/111509v7/7m102.d
Lab Smp Id: W7VM0911116-01 Client Smp ID: VSTD050
Inj Date : 16-NOV-2009 13:54
Operator : AXO1 Inst ID: VOA7.i
Smp Info : |W7VM0911116-01|BFB/CCV/ICV/LCS|1|VOAF|1|
Misc Info : GEL 5mL N/A UVM091111-01B/IVM091111-01
Comment :
Method : /chem/VOA7.i/111509v7/VOA7-8260B-111509.m
Meth Date : 19-Nov-2009 09:38 ale01592 Quant Type: ISTD
Cal Date : 16-NOV-2009 08:11 Cal File: 71718.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: CALsubL+.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (Uf/Vo) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	sample purged

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
M 2 Xylenes (total)	106				1674996	150.000	144
M 3 1,2-Dichloroethylene (total)	96				1159591	100.000	101
M 1 1,3-Dichloropropylene	75				1132889	100.000	97.8
4 Dichlorodifluoromethane	85	5.147	5.147	(0.336)	310040	50.0000	65.3
5 Chloromethane	50	5.757	5.757	(0.376)	615104	50.0000	52.4
6 Vinyl chloride	62	6.188	6.188	(0.404)	435887	50.0000	53.4
7 Bromomethane	94	7.429	7.429	(0.485)	275765	50.0000	49.3
8 Chloroethane	64	7.835	7.835	(0.512)	295146	50.0000	48.4
9 Trichlorofluoromethane	101	8.789	8.789	(0.574)	498975	50.0000	60.7
10 Ethyl Ether	59	9.703	9.703	(0.633)	392296	50.0000	45.4
13 Acetone	43	10.423	10.423	(0.681)	2073184	250.000	211
17 Acetonitrile	41	11.073	11.073	(0.723)	1996927	1000.00	1210
14 1,1-Dichloroethylene	96	10.312	10.312	(0.673)	270942	50.0000	54.5
18 Methyl acetate	43	11.225	11.225	(0.733)	2177529	250.000	218
16 Iodomethane	142	10.667	10.667	(0.696)	2224717	250.000	245

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
	22 Methylene chloride	86	11.449	11.449	(0.747)	227387	50.0000	50.5
	19 Carbon disulfide	76	10.840	10.840	(0.708)	4458593	250.000	274
	24 tert-Butyl methyl ether	73	12.017	12.017	(0.785)	982555	50.0000	47.2
	25 trans-1,2-Dichloroethylene	61	12.027	12.027	(0.785)	548211	50.0000	51.8
	26 Vinyl acetate	43	12.860	12.860	(0.840)	5468142	250.000	258
	28 1,1-Dichloroethane	63	12.799	12.799	(0.836)	679329	50.0000	51.4
	31 2-Butanone	43	13.723	13.723	(0.896)	2179625	250.000	194
	33 cis-1,2-Dichloroethylene	61	13.733	13.733	(0.897)	611380	50.0000	49.4
	34 2,2-Dichloropropane	77	13.753	13.753	(0.898)	398722	50.0000	57.2
	38 Chloroform	83	14.190	14.190	(0.926)	598527	50.0000	50.1
	37 Bromochloromethane	49	14.088	14.088	(0.920)	521603	50.0000	48.4
	41 1,1,1-Trichloroethane	97	14.484	14.484	(0.946)	508283	50.0000	57.1
	43 Cyclohexane	56	14.586	14.586	(0.952)	823011	50.0000	54.4
	44 1,1-Dichloropropene	75	14.697	14.697	(0.960)	437308	50.0000	54.2
	52 n-Butyl alcohol	56	15.560	15.560	(1.016)	1831848	5000.00	5340
	45 Carbon tetrachloride	117	14.728	14.728	(0.962)	405347	50.0000	57.5
$	46 1,2-Dichloroethane-d4	65	14.880	14.880	(0.971)	507557	50.0000	48.4
	47 1,2-Dichloroethane	62	14.982	14.982	(0.978)	593470	50.0000	47.5
	48 Benzene	78	14.992	14.992	(0.979)	1193269	50.0000	48.4
	50 Cyclohexene	67	15.124	15.124	(0.987)	619701	50.0000	53.2
*	51 Fluorobenzene	96	15.317	15.317	(1.000)	1202647	50.0000	
	53 Trichloroethylene	95	15.773	15.773	(1.030)	322013	50.0000	50.6
	56 1,2-Dichloropropane	63	16.037	16.037	(1.047)	371636	50.0000	46.4
	55 Methylcyclohexane	83	16.037	16.037	(1.047)	538183	50.0000	54.8
	59 Bromodichloromethane	83	16.332	16.332	(1.066)	469506	50.0000	49.6
	58 Dibromomethane	93	16.190	16.190	(1.057)	218086	50.0000	48.3
	61 2-Chloroethylvinyl ether	63	16.606	16.606	(1.084)	614859	250.000	187
	63 4-Methyl-2-pentanone	58	16.941	16.941	(0.908)	1052433	250.000	225
	62 cis-1,3-Dichloropropylene	75	16.819	16.819	(1.098)	573841	50.0000	48.0
$	64 Toluene-d8	98	17.144	17.144	(0.918)	1285807	50.0000	47.7
	65 Toluene	92	17.215	17.215	(0.922)	779961	50.0000	48.6
	67 trans-1,3-Dichloropropylene	75	17.388	17.388	(0.931)	559048	50.0000	50.1
	68 1,1,2-Trichloroethane	83	17.611	17.611	(0.943)	259252	50.0000	47.2
	69 2-Hexanone	43	17.804	17.804	(0.954)	2656294	250.000	175
	70 1,3-Dichloropropane	76	17.794	17.794	(0.953)	499758	50.0000	45.8
	71 Tetrachloroethylene	164	17.824	17.824	(0.955)	227238	50.0000	61.3
	72 Dibromochloromethane	129	18.068	18.068	(0.968)	328832	50.0000	51.2
	73 1,2-Dibromoethane	107	18.220	18.220	(0.976)	325662	50.0000	48.8
*	75 Chlorobenzene-d5	117	18.667	18.667	(1.000)	902900	50.0000	
	76 Chlorobenzene	112	18.697	18.697	(1.002)	848435	50.0000	48.8
	77 1,1,1,2-Tetrachloroethane	131	18.758	18.758	(1.005)	306323	50.0000	49.0
	78 Ethylbenzene	91	18.768	18.768	(1.005)	1456471	50.0000	48.2
	79 m,p-Xylenes	106	18.870	18.870	(1.011)	1106860	100.000	96.3
	80 o-Xylene	106	19.286	19.286	(1.033)	568136	50.0000	47.8
	81 Styrene	104	19.286	19.286	(1.033)	965645	50.0000	45.2
	82 Bromoform	173	19.540	19.540	(0.931)	252479	50.0000	55.6
	83 Isopropylbenzene	105	19.631	19.631	(0.935)	1486250	50.0000	50.1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
87 1,1,2,2-Tetrachloroethane	83	19.885	19.885	(0.947)	460859	50.0000	49.0
$ 86 Bromofluorobenzene	95	19.814	19.814	(0.944)	598470	50.0000	48.9
89 1,2,3-Trichloropropane	110	19.976	19.976	(0.952)	119596	50.0000	50.5
90 Bromobenzene	156	20.017	20.017	(0.954)	400641	50.0000	48.0
91 n-Propylbenzene	91	20.037	20.037	(0.955)	1797050	50.0000	49.2
93 2-Chlorotoluene	91	20.169	20.169	(0.961)	1244371	50.0000	47.0
92 1,3,5-Trimethylbenzene	105	20.169	20.169	(0.961)	1263052	50.0000	48.0
94 4-Chlorotoluene	91	20.271	20.271	(0.966)	1229913	50.0000	48.9
95 tert-Butylbenzene	119	20.535	20.535	(0.978)	1236841	50.0000	50.5
96 1,2,4-Trimethylbenzene	105	20.565	20.565	(0.980)	1357529	50.0000	48.3
98 sec-Butylbenzene	105	20.748	20.748	(0.988)	1690117	50.0000	50.6
99 4-Isopropyltoluene	119	20.870	20.870	(0.994)	1353286	50.0000	51.0
100 1,3-Dichlorobenzene	146	20.931	20.931	(0.997)	731687	50.0000	48.9
* 101 1,4-Dichlorobenzene-d4	152	20.991	20.991	(1.000)	520036	50.0000	
102 1,4-Dichlorobenzene	146	21.022	21.022	(1.001)	716767	50.0000	48.6
104 n-Butylbenzene	91	21.296	21.296	(1.014)	1418705	50.0000	50.6
105 1,2-Dichlorobenzene	146	21.438	21.438	(1.021)	714849	50.0000	48.0
107 1,2-Dibromo-3-chloropropane	157	22.301	22.301	(1.062)	103866	50.0000	56.8
108 1,2,4-Trichlorobenzene	180	23.357	23.357	(1.113)	547580	50.0000	51.3
109 Hexachlorobutadiene	225	23.540	23.540	(1.121)	316871	50.0000	55.4
110 Naphthalene	128	23.753	23.753	(1.132)	1155148	50.0000	48.7
111 1,2,3-Trichlorobenzene	180	24.098	24.098	(1.148)	494304	50.0000	52.1

Data File: /chem/VOA7.i/111509v7/7m102.d
Date : 16-NOV-2009 13:54
Client ID: VSTD050
Sample Info: |W7VH091111116-01|BFB/CCV/ICV/LCS|1|VOAF|1|
Purge Volume: 5.0
Column phase: DB-624

Instrument: VOA7.i
Operator: AXO1
Column diameter: 0.25

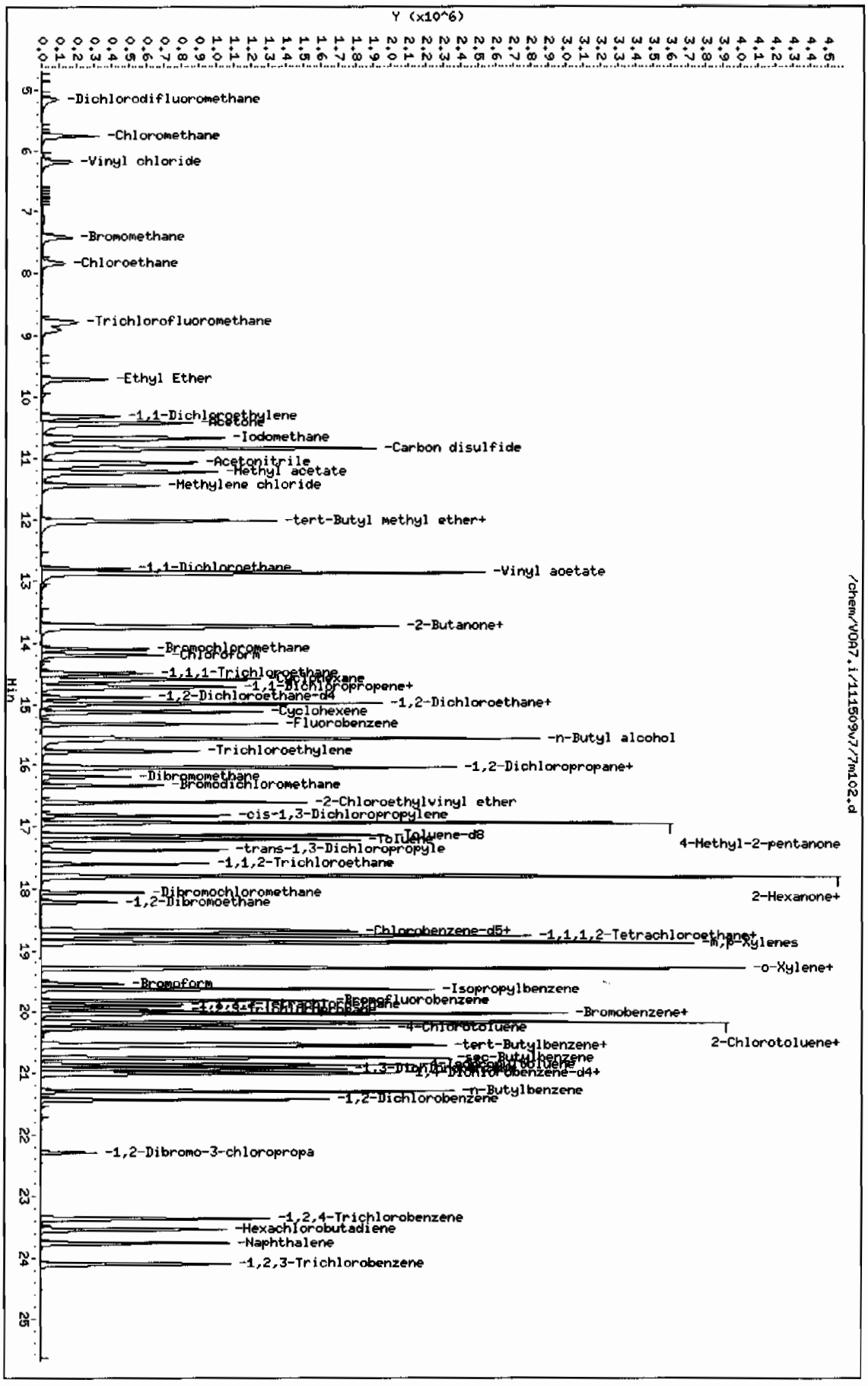

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Data File: /chem/VOA7.i/111509v7/7m104.d
Report Date: 19-Nov-2009 09:39

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA7.i Injection Date: 16-NOV-2009 15:02
Lab File ID: 7m104.d Init. Cal. Date(s): 16-NOV-2009 16-NOV-2009
Analysis Type: WATER Init. Cal. Times: 00:20 10:57
Lab Sample ID: W7VM0911116-03 Quant Type: ISTD
Method: /chem/VOA7.i/111509v7/VOA7-8260B-111509.m

COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
147 Chlorotrifluoroethylene	0.13034	0.11386	0.11386	0.010	-12.64237	30.00000	Averaged
148 2-Chloro-1,1,1-trifluoroeth	0.28275	0.28071	0.28071	0.010	-0.72093	30.00000	Averaged
11 Acrolein	0.08287	0.06941	0.06941	0.001	-16.23448	30.00000	Averaged
12 Trichlorotrifluoroethane	0.09315	0.10191	0.10191	0.010	9.40527	30.00000	Averaged
15 Isopropyl Alcohol	0.03668	0.03613	0.03613	0.010	-1.49040	40.00000	Averaged
20 Allyl chloride	0.63535	0.56685	0.56685	0.010	-10.78282	30.00000	Averaged
21 tert-Butyl Alcohol	0.05102	0.04422	0.04422	0.001	-13.33240	40.00000	Averaged
23 Acrylonitrile	0.16606	0.14706	0.14706	0.010	-11.44411	30.00000	Averaged
27 Isopropyl ether	1.68959	1.55881	1.55881	0.010	-7.74051	30.00000	Averaged
29 2-Chloro-1,3-butadiene	0.54538	0.56770	0.56770	0.010	4.09436	30.00000	Averaged
30 Ethyl tert-butyl ether	1.14730	1.05285	1.05285	0.010	-8.23203	30.00000	Averaged
35 Propionitrile	0.06686	0.05447	0.05447	0.010	-18.53670	30.00000	Averaged
32 Ethyl acetate	0.49355	0.37954	0.37954	0.010	-23.10090	40.00000	Averaged
36 Methacrylonitrile	0.30070	0.24588	0.24588	0.010	-18.22985	30.00000	Averaged
39 Tetrahydrofuran	0.36975	0.29563	0.29563	0.010	-20.04589	30.00000	Averaged
42 Isobutyl alcohol	0.01771	0.01567	0.01567	0.005	-11.47778	40.00000	Averaged
49 Methyl tert-amyl ether	0.79534	0.71876	0.71876	0.010	-9.62869	30.00000	Averaged
54 Methyl methacrylate	0.20956	0.17138	0.17138	0.010	-18.22289	30.00000	Averaged
66 Ethyl methacrylate	0.53175	0.42289	0.42289	0.010	-20.47197	30.00000	Averaged
74 1-Chlorohexane	0.40217	0.39655	0.39655	0.010	-1.39670	30.00000	Averaged
57 1,4-Dioxane	0.00316	0.00300	0.00300	0.001	-5.35019	40.00000	Averaged
60 2-Nitropropane	0.12993	0.12531	0.12531	0.010	-3.55739	30.00000	Averaged
84 cis-1,4-Dichloro-2-butene	0.39160	0.38169	0.38169	0.010	-2.53006	30.00000	Averaged
85 Cyclohexanone	447	1250	0.03173	0.010	-64.21353	40.00000	Linear <-
88 trans-1,4-Dichloro-2-butene	0.35776	0.35074	0.35074	0.010	-1.96337	30.00000	Averaged
97 Pentachloroethane	0.26007	0.33861	0.33861	0.010	30.20065	30.00000	Averaged <-
103 Benzyl chloride	1.33283	1.27530	1.27530	0.010	-4.31636	30.00000	Averaged
106 bis(2-Chloroisopropyl)ether	0.73799	0.58864	0.58864	0.010	-20.23679	30.00000	Averaged
$ 46 1,2-Dichloroethane-d4	0.43596	0.41806	0.41806	0.010	-4.10492	30.00000	Averaged
$ 64 Toluene-d8	1.49262	1.44877	1.44877	0.010	-2.93779	30.00000	Averaged
$ 86 Bromofluorobenzene	1.17678	1.13072	1.13072	0.010	-3.91437	30.00000	Averaged

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA7.i Injection Date: 16-NOV-2009 15:02
Lab File ID: 7m104.d Init. Cal. Date(s): 16-NOV-2009 16-NOV-2009
Analysis Type: WATER Init. Cal. Times: 00:20 10:57
Lab Sample ID: W7VM0911116-03 Quant Type: ISTD
Method: /chem/VOA7.i/111509v7/VOA7-8260B-111509.m

Average %D / Drift Results.	
Calculated Average %D/Drift =	12.27602
Maximun Average %D/Drift =	20.00000
* Passed Average %D/Drift Test.	

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VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA7.i/111509v7/7m104.d
Lab Smp Id: W7VM0911116-03 Client Smp ID: VSTD250S
Inj Date : 16-NOV-2009 15:02
Operator : AXO1 Inst ID: VOA7.i
Smp Info : |W7VM0911116-03|SHORT/ICV/LCS|1|VOAF|1|
Misc Info : GEL 5mL N/A UVM091023-08A/UVM091105-02A
Comment :
Method : /chem/VOA7.i/111509v7/VOA7-8260B-111509.m
Meth Date : 19-Nov-2009 09:39 ale01592 Quant Type: ISTD
Cal Date : 16-NOV-2009 08:11 Cal File: 71718.d
Als bottle: 4 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: CALsubS+SS.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (Uf/Vo) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	sample purged

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
147 Chlorotrifluoroethylene	116	5.043	5.043	(0.329)	406483	150.000	131
148 2-Chloro-1,1,1-trifluoroethane	118	6.604	6.604	(0.431)	1002157	150.000	149
11 Acrolein	56	10.027	10.027	(0.655)	413012	250.000	209
12 Trichlorotrifluoroethane	85	10.373	10.373	(0.677)	606354	250.000	274
15 Isopropyl Alcohol	45	10.789	10.789	(0.704)	2149853	2500.00	2460
20 Allyl chloride	41	11.185	11.185	(0.730)	3372788	250.000	223
21 tert-Butyl Alcohol	59	11.672	11.672	(0.762)	2630900	2500.00	2170
23 Acrylonitrile	53	11.926	11.926	(0.779)	875009	250.000	221
27 Isopropyl ether	45	12.911	12.911	(0.843)	1855017	50.0000	46.1
29 2-Chloro-1,3-butadiene	53	12.961	12.961	(0.846)	675580	50.0000	52.0
30 Ethyl tert-butyl ether	59	13.489	13.489	(0.881)	1252915	50.0000	45.9
35 Propionitrile	54	13.804	13.804	(0.901)	324075	250.000	204
32 Ethyl acetate	43	13.804	13.804	(0.901)	2258287	250.000	192
36 Methacrylonitrile	41	14.048	14.048	(0.917)	1463037	250.000	204
39 Tetrahydrofuran	42	14.159	14.159	(0.675)	787178	250.000	200

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
42 Isobutyl alcohol	41	14.748	14.748	(0.963)	932613	2500.00	2210
49 Methyl tert-amyl ether	73	15.083	15.083	(0.985)	855341	50.0000	45.2
54 Methyl methacrylate	69	16.078	16.078	(1.050)	1019700	250.000	204
66 Ethyl methacrylate	69	17.418	17.418	(0.933)	1906825	250.000	199
74 1-Chlorohexane	55	18.575	18.575	(1.213)	471906	50.0000	49.3
57 1,4-Dioxane	88	16.159	16.159	(1.055)	178240	2500.00	2370
60 2-Nitropropane	43	16.555	16.555	(1.081)	745593	250.000	241
84 cis-1,4-Dichloro-2-butene	53	19.662	19.662	(0.937)	1016347	250.000	244
85 Cyclohexanone	55	19.773	19.773	(1.059)	715444	1250.00	447
88 trans-1,4-Dichloro-2-butene	53	19.936	19.936	(0.950)	933923	250.000	245
97 Pentachloroethane	167	20.606	20.606	(0.982)	901619	250.000	326(A)
103 Benzyl chloride	91	21.123	21.123	(1.006)	3395776	250.000	239
106 bis(2-Chloroisopropyl)ether	45	21.509	21.509	(1.025)	1567396	250.000	199
* 51 Fluorobenzene	96	15.317	15.317	(1.000)	1190020	50.0000	
* 75 Chlorobenzene-d5	117	18.667	18.667	(1.000)	901807	50.0000	
* 101 1,4-Dichlorobenzene-d4	152	20.991	20.991	(1.000)	532545	50.0000	
$ 46 1,2-Dichloroethane-d4	65	14.880	14.880	(0.971)	497505	50.0000	47.9
$ 64 Toluene-d8	98	17.144	17.144	(0.918)	1306510	50.0000	48.5
$ 86 Bromofluorobenzene	95	19.814	19.814	(0.944)	602158	50.0000	48.0

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.

Data File: /chem/VOA7.i/111509v7/7m104.d
Date : 16-NOV-2009 15:02
Client ID: VSTD250S
Sample Info: IW7VK0911116-03|SHORT/ICV/LCS|1|VOAF|1|
Purge Volume: 5.0
Column phase: DB-624

Instrument: VOA7.i
Operator: AX01
Column diameter: 0.25

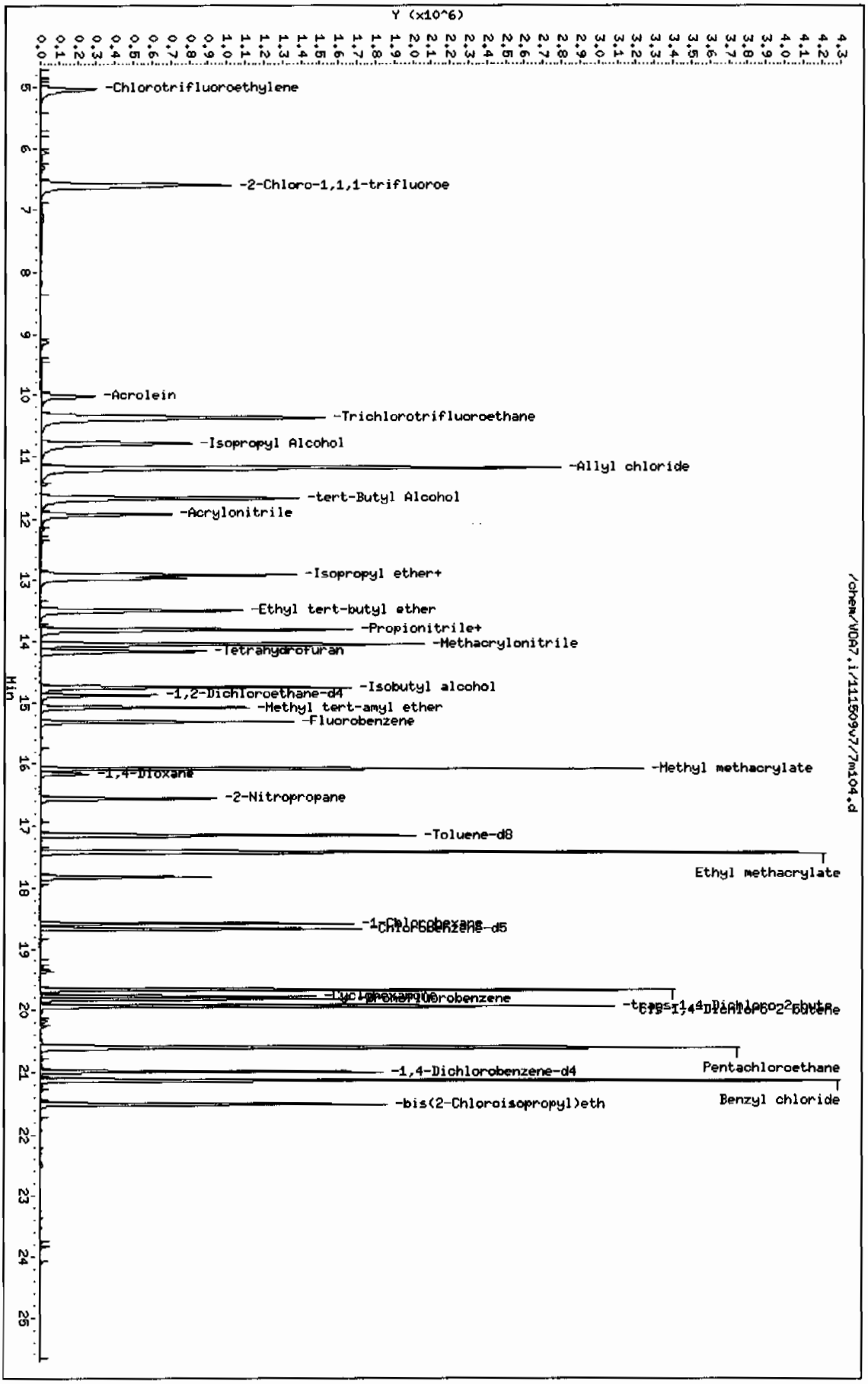

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GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA7.i Injection Date: 18-DEC-2009 11:09
Lab File ID: 7q502.d Init. Cal. Date(s): 16-NOV-2009 16-NOV-2009
Analysis Type: WATER Init. Cal. Times: 00:20 10:57
Lab Sample ID: W7VM091218-01 Quant Type: ISTD
Method: /chem/VOA7.i/121809v7/VOA7-8260B-111509.m

	COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
M	2 Xylenes (total)	0.64368	0.57797	0.57797	0.050	-10.20886	30.00000	Averaged	
M	3 1,2-Dichloroethylene (total	0.47752	0.45333	0.45333	0.050	-5.06666	30.00000	Averaged	
M	1 1,3-Dichloropropylene	0.48166	0.45800	0.45800	0.050	-4.91372	30.00000	Averaged	
	4 Dichlorodifluoromethane	60.45244	50.00000	0.23887	0.050	20.90489	30.00000	Linear	
	5 Chloromethane	45.36873	50.00000	0.44385	0.100	-9.26254	30.00000	Linear	spcc
	6 Vinyl chloride	0.33902	0.32188	0.32188	0.050	-5.05754	20.00000	Averaged	ccc
	7 Bromomethane	0.23234	0.23946	0.23946	0.050	3.06366	30.00000	Averaged	
	8 Chloroethane	0.25347	0.22653	0.22653	0.010	-10.62637	30.00000	Averaged	
	9 Trichlorofluoromethane	0.34155	0.44603	0.44603	0.050	30.58845	30.00000	Averaged	<-
	10 Ethyl Ether	0.35955	0.30157	0.30157	0.001	-16.12725	30.00000	Averaged	
	13 Acetone	0.40846	0.29968	0.29968	0.050	-26.63070	40.00000	Averaged	
	17 Acetonitrile	0.06882	0.06820	0.06820	0.010	-0.91224	30.00000	Averaged	
	14 1,1-Dichloroethylene	0.20669	0.22196	0.22196	0.050	7.38520	20.00000	Averaged	ccc
	18 Methyl acetate	0.41491	0.31389	0.31389	0.010	-24.34709	40.00000	Averaged	
	16 Iodomethane	0.37752	0.39420	0.39420	0.050	4.41707	30.00000	Averaged	
	22 Methylene chloride	49.18678	50.00000	0.18445	0.050	-1.62645	30.00000	Linear	
	19 Carbon disulfide	0.67659	0.71393	0.71393	0.050	5.51912	30.00000	Averaged	
	24 tert-Butyl methyl ether	0.86582	0.78169	0.78169	0.050	-9.71666	30.00000	Averaged	
	25 trans-1,2-Dichloroethylene	0.44031	0.42503	0.42503	0.050	-3.46977	30.00000	Averaged	
	26 Vinyl acetate	0.88192	0.85218	0.85218	0.010	-3.37186	40.00000	Averaged	
	28 1,1-Dichloroethane	0.54979	0.53088	0.53088	0.100	-3.43869	30.00000	Averaged	spcc
	31 2-Butanone	0.46654	0.29993	0.29993	0.030	-35.71256	40.00000	Averaged	
	33 cis-1,2-Dichloroethylene	0.51474	0.48163	0.48163	0.050	-6.43263	30.00000	Averaged	
	34 2,2-Dichloropropane	0.28980	0.30033	0.30033	0.050	3.63574	30.00000	Averaged	
	38 Chloroform	0.49671	0.52526	0.52526	0.010	5.74958	20.00000	Averaged	ccc
	37 Bromochloromethane	0.44756	0.41415	0.41415	0.010	-7.46320	30.00000	Averaged	
	41 1,1,1-Trichloroethane	0.36992	0.43806	0.43806	0.010	18.42089	30.00000	Averaged	
	43 Cyclohexane	0.62867	0.58387	0.58387	0.010	-7.12642	30.00000	Averaged	
	44 1,1-Dichloropropene	0.33508	0.34446	0.34446	0.010	2.79985	30.00000	Averaged	
	52 n-Butyl alcohol	0.01426	0.01207	0.01207	0.001	-15.36896	40.00000	Averaged	
	45 Carbon tetrachloride	0.29289	0.35700	0.35700	0.010	21.88755	30.00000	Averaged	
$	46 1,2-Dichloroethane-d4	0.43596	0.46804	0.46804	0.010	7.35939	30.00000	Averaged	
	47 1,2-Dichloroethane	0.51967	0.53624	0.53624	0.010	3.18864	30.00000	Averaged	
	48 Benzene	1.02411	0.93978	0.93978	0.010	-8.23431	30.00000	Averaged	
	50 Cyclohexene	0.48379	0.45328	0.45328	0.010	-6.30605	30.00000	Averaged	

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA7.i Injection Date: 18-DEC-2009 11:09
Lab File ID: 7q502.d Init. Cal. Date(s): 16-NOV-2009 16-NOV-2009
Analysis Type: WATER Init. Cal. Times: 00:20 10:57
Lab Sample ID: W7VM091218-01 Quant Type: ISTD
Method: /chem/VOA7.i/121809v7/VOA7-8260B-111509.m

	COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
	53 Trichloroethylene	0.26450	0.27109	0.27109	0.010	2.49331	30.00000	Averaged	
	56 1,2-Dichloropropane	0.33311	0.28270	0.28270	0.010	-15.13405	20.00000	Averaged	ccc
	55 Methylcyclohexane	0.40845	0.40082	0.40082	0.010	-1.86812	30.00000	Averaged	
	59 Bromodichloromethane	0.39346	0.42462	0.42462	0.010	7.91988	30.00000	Averaged	
	58 Dibromomethane	0.18762	0.19163	0.19163	0.010	2.13573	30.00000	Averaged	
	61 2-Chloroethylvinyl ether	0.13648	0.10758	0.10758	0.010	-21.17106	30.00000	Averaged	
	63 4-Methyl-2-pentanone	0.25850	0.19166	0.19166	0.010	-25.85582	40.00000	Averaged	
	62 cis-1,3-Dichloropropylene	0.49703	0.46599	0.46599	0.010	-6.24560	30.00000	Averaged	
$	64 Toluene-d8	1.49262	1.40096	1.40096	0.010	-6.14089	30.00000	Averaged	
	65 Toluene	0.88778	0.78736	0.78736	0.010	-11.31147	20.00000	Averaged	ccc
	67 trans-1,3-Dichloropropylene	0.61767	0.57862	0.57862	0.010	-6.32326	30.00000	Averaged	
	68 1,1,2-Trichloroethane	0.30409	0.27144	0.27144	0.010	-10.73480	30.00000	Averaged	
	69 2-Hexanone	0.83837	0.50025	0.50025	0.010	-40.33100	40.00000	Averaged	<-
	70 1,3-Dichloropropane	0.60429	0.51802	0.51802	0.010	-14.27632	30.00000	Averaged	
	71 Tetrachloroethylene	58.97260	50.00000	0.24225	0.010	17.94520	30.00000	Linear	
	72 Dibromochloromethane	0.35526	0.38977	0.38977	0.010	9.71465	30.00000	Averaged	
	73 1,2-Dibromoethane	0.36913	0.35708	0.35708	0.010	-3.26295	30.00000	Averaged	
	76 Chlorobenzene	0.96368	0.90036	0.90036	0.300	-6.57007	30.00000	Averaged	spcc
	77 1,1,1,2-Tetrachloroethane	0.34629	0.35261	0.35261	0.010	1.82483	30.00000	Averaged	
	78 Ethylbenzene	1.67285	1.53845	1.53845	0.010	-8.03447	20.00000	Averaged	ccc
	79 m,p-Xylenes	0.63659	0.56928	0.56928	0.010	-10.57440	30.00000	Averaged	
	80 o-Xylene	0.65785	0.59535	0.59535	0.010	-9.50140	30.00000	Averaged	
	81 Styrene	1.18237	1.02157	1.02157	0.010	-13.59995	30.00000	Averaged	
	82 Bromoform	0.43665	0.50920	0.50920	0.100	16.61527	30.00000	Averaged	spcc
	83 Isopropylbenzene	2.85343	2.63293	2.63293	0.010	-7.72754	30.00000	Averaged	
	87 1,1,2,2-Tetrachloroethane	0.90349	0.79953	0.79953	0.300	-11.50663	30.00000	Averaged	spcc
$	86 Bromofluorobenzene	1.17678	1.12030	1.12030	0.010	-4.79927	30.00000	Averaged	
	89 1,2,3-Trichloropropane	0.22766	0.21949	0.21949	0.010	-3.59087	30.00000	Averaged	
	90 Bromobenzene	0.80299	0.74861	0.74861	0.010	-6.77224	30.00000	Averaged	
	91 n-Propylbenzene	3.51014	3.19335	3.19335	0.010	-9.02503	30.00000	Averaged	
	93 2-Chlorotoluene	2.54562	2.27750	2.27750	0.010	-10.53247	30.00000	Averaged	
	92 1,3,5-Trimethylbenzene	2.52939	2.27688	2.27688	0.010	-9.98297	30.00000	Averaged	
	94 4-Chlorotoluene	2.41921	2.22614	2.22614	0.010	-7.98056	30.00000	Averaged	
	95 tert-Butylbenzene	2.35539	2.17836	2.17836	0.010	-7.51590	30.00000	Averaged	
	96 1,2,4-Trimethylbenzene	2.70091	2.45770	2.45770	0.010	-9.00449	30.00000	Averaged	
	98 sec-Butylbenzene	3.21055	3.03878	3.03878	0.010	-5.34996	30.00000	Averaged	

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA7.i Injection Date: 18-DEC-2009 11:09
Lab File ID: 7q502.d Init. Cal. Date(s): 16-NOV-2009 16-NOV-2009
Analysis Type: WATER Init. Cal. Times: 00:20 10:57
Lab Sample ID: W7VM091218-01 Quant Type: ISTD
Method: /chem/VOA7.i/121809v7/VOA7-8260B-111509.m

COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
99 4-Isopropyltoluene	2.55183	2.40342	2.40342	0.010	-5.81584	30.00000	Averaged
100 1,3-Dichlorobenzene	1.43886	1.32993	1.32993	0.010	-7.57065	30.00000	Averaged
102 1,4-Dichlorobenzene	1.41831	1.33498	1.33498	0.010	-5.87523	30.00000	Averaged
104 n-Butylbenzene	2.69728	2.53399	2.53399	0.010	-6.05360	30.00000	Averaged
105 1,2-Dichlorobenzene	1.43227	1.34172	1.34172	0.010	-6.32208	30.00000	Averaged
107 1,2-Dibromo-3-chloropropane	0.17584	0.17386	0.17386	0.010	-1.12407	30.00000	Averaged
108 1,2,4-Trichlorobenzene	1.02685	1.01628	1.01628	0.010	-1.02931	30.00000	Averaged
109 Hexachlorobutadiene	0.54947	0.59915	0.59915	0.010	9.04093	30.00000	Averaged
110 Naphthalene	2.28224	1.99590	1.99590	0.010	-12.54617	30.00000	Averaged
111 1,2,3-Trichlorobenzene	0.91204	0.92580	0.92580	0.010	1.50905	30.00000	Averaged

Average %D / Drift Results.

Calculated Average %D/Drift = 9.58765
Maximun Average %D/Drift = 20.00000
* Passed Average %D/Drift Test.

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VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA7.i/121809v7/7q502.d
Lab Smp Id: W7VM091218-01 Client Smp ID: VSTD050
Inj Date : 18-DEC-2009 11:09
Operator : AXO1 Inst ID: VOA7.i
Smp Info : |W7VM091218-01|BFB/CCV/LCS|1|VOAF|1|
Misc Info : GEL 5g N/A UVM091219-01A/IVM091217-01
Comment :
Method : /chem/VOA7.i/121809v7/VOA7-8260B-111509.m
Meth Date : 19-Dec-2009 13:12 ale01592 Quant Type: ISTD
Cal Date : 16-NOV-2009 02:36 Cal File: 71708.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: CALsubL+.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (Uf/Vo) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	sample purged

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
M 2 Xylenes (total)	106				1087099	150.000	135
M 3 1,2-Dichloroethylene (total)	96				730910	100.000	95.0
M 1 1,3-Dichloropropylene	75				738437	100.000	95.1
4 Dichlorodifluoromethane	85	5.147	5.147	(0.336)	192565	50.0000	60.4
5 Chloromethane	50	5.757	5.757	(0.376)	357813	50.0000	45.4
6 Vinyl chloride	62	6.187	6.187	(0.404)	259484	50.0000	47.5
7 Bromomethane	94	7.429	7.429	(0.485)	193040	50.0000	51.5
8 Chloroethane	64	7.855	7.855	(0.513)	182623	50.0000	44.7
9 Trichlorofluoromethane	101	8.789	8.789	(0.574)	359573	50.0000	65.3
10 Ethyl Ether	59	9.703	9.703	(0.633)	243110	50.0000	41.9
13 Acetone	43	10.413	10.413	(0.680)	1207955	250.000	183
17 Acetonitrile	41	11.073	11.073	(0.723)	1099547	1000.00	991
14 1,1-Dichloroethylene	96	10.312	10.312	(0.673)	178934	50.0000	53.7
18 Methyl acetate	43	11.225	11.225	(0.733)	1265231	250.000	189
16 Iodomethane	142	10.667	10.667	(0.696)	1588943	250.000	261

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
	22 Methylene chloride	86	11.449	11.449	(0.747)	148696	50.0000	49.2
	19 Carbon disulfide	76	10.840	10.840	(0.708)	2877725	250.000	264
	24 tert-Butyl methyl ether	73	12.017	12.017	(0.785)	630168	50.0000	45.1
	25 trans-1,2-Dichloroethylene	61	12.027	12.027	(0.785)	342641	50.0000	48.3
	26 Vinyl acetate	43	12.860	12.860	(0.840)	3434967	250.000	242
	28 1,1-Dichloroethane	63	12.799	12.799	(0.836)	427978	50.0000	48.3
	31 2-Butanone	43	13.723	13.723	(0.896)	1208947	250.000	161
	33 cis-1,2-Dichloroethylene	61	13.733	13.733	(0.897)	388269	50.0000	46.8
	34 2,2-Dichloropropane	77	13.753	13.753	(0.898)	242116	50.0000	51.8
	38 Chloroform	83	14.190	14.190	(0.926)	423447	50.0000	52.9
	37 Bromochloromethane	49	14.088	14.088	(0.920)	333875	50.0000	46.3
	41 1,1,1-Trichloroethane	97	14.484	14.484	(0.946)	353148	50.0000	59.2
	43 Cyclohexane	56	14.586	14.586	(0.952)	470692	50.0000	46.4
	44 1,1-Dichloropropene	75	14.697	14.697	(0.960)	277688	50.0000	51.4
	52 n-Butyl alcohol	56	15.560	15.560	(1.016)	973126	5000.00	4230
	45 Carbon tetrachloride	117	14.728	14.728	(0.962)	287798	50.0000	60.9
$	46 1,2-Dichloroethane-d4	65	14.880	14.880	(0.972)	377319	50.0000	53.7
	47 1,2-Dichloroethane	62	14.982	14.982	(0.978)	432295	50.0000	51.6
	48 Benzene	78	14.992	14.992	(0.979)	757615	50.0000	45.9
	50 Cyclohexene	67	15.124	15.124	(0.987)	365417	50.0000	46.8
*	51 Fluorobenzene	96	15.317	15.317	(1.000)	806161	50.0000	
	53 Trichloroethylene	95	15.773	15.773	(1.030)	218542	50.0000	51.2
	56 1,2-Dichloropropane	63	16.037	16.037	(1.047)	227900	50.0000	42.4
	55 Methylcyclohexane	83	16.027	16.027	(1.046)	323126	50.0000	49.1
	59 Bromodichloromethane	83	16.332	16.332	(1.066)	342309	50.0000	54.0
	58 Dibromomethane	93	16.179	16.179	(1.056)	154484	50.0000	51.1
	61 2-Chloroethylvinyl ether	63	16.606	16.606	(1.084)	433648	250.000	197
	63 4-Methyl-2-pentanone	58	16.941	16.941	(0.908)	600824	250.000	185
	62 cis-1,3-Dichloropropylene	75	16.819	16.819	(1.098)	375663	50.0000	46.9
$	64 Toluene-d8	98	17.144	17.144	(0.918)	878355	50.0000	46.9
	65 Toluene	92	17.215	17.215	(0.922)	493650	50.0000	44.3
	67 trans-1,3-Dichloropropylene	75	17.388	17.388	(0.931)	362774	50.0000	46.8
	68 1,1,2-Trichloroethane	83	17.611	17.611	(0.943)	170186	50.0000	44.6
	69 2-Hexanone	43	17.804	17.804	(0.954)	1568186	250.000	149
	70 1,3-Dichloropropane	76	17.794	17.794	(0.953)	324780	50.0000	42.9
	71 Tetrachloroethylene	164	17.824	17.824	(0.955)	151880	50.0000	59.0
	72 Dibromochloromethane	129	18.068	18.068	(0.968)	244372	50.0000	54.8
	73 1,2-Dibromoethane	107	18.220	18.220	(0.976)	223878	50.0000	48.4
*	75 Chlorobenzene-d5	117	18.667	18.667	(1.000)	626967	50.0000	
	76 Chlorobenzene	112	18.697	18.697	(1.002)	564499	50.0000	46.7
	77 1,1,1,2-Tetrachloroethane	131	18.758	18.758	(1.005)	221077	50.0000	50.9
	78 Ethylbenzene	91	18.768	18.768	(1.005)	964556	50.0000	46.0
	79 m,p-Xylenes	106	18.870	18.870	(1.011)	713835	100.000	89.4
	80 o-Xylene	106	19.286	19.286	(1.033)	373264	50.0000	45.2
	81 Styrene	104	19.286	19.286	(1.033)	640489	50.0000	43.2
	82 Bromoform	173	19.540	19.540	(0.931)	189333	50.0000	58.3
	83 Isopropylbenzene	105	19.631	19.631	(0.935)	978986	50.0000	46.1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
87 1,1,2,2-Tetrachloroethane	83	19.885	19.885	(0.947)	297285	50.0000	44.2
$ 86 Bromofluorobenzene	95	19.814	19.814	(0.944)	416556	50.0000	47.6
89 1,2,3-Trichloropropane	110	19.976	19.976	(0.952)	81611	50.0000	48.2
90 Bromobenzene	156	20.017	20.017	(0.954)	278351	50.0000	46.6
91 n-Propylbenzene	91	20.037	20.037	(0.955)	1187364	50.0000	45.5
93 2-Chlorotoluene	91	20.179	20.179	(0.961)	846830	50.0000	44.7
92 1,3,5-Trimethylbenzene	105	20.169	20.169	(0.961)	846599	50.0000	45.0
94 4-Chlorotoluene	91	20.271	20.271	(0.966)	827732	50.0000	46.0
95 tert-Butylbenzene	119	20.535	20.535	(0.978)	809968	50.0000	46.2
96 1,2,4-Trimethylbenzene	105	20.565	20.565	(0.980)	913833	50.0000	45.5
98 sec-Butylbenzene	105	20.748	20.748	(0.988)	1129893	50.0000	47.3
99 4-Isopropyltoluene	119	20.870	20.870	(0.994)	893649	50.0000	47.1
100 1,3-Dichlorobenzene	146	20.931	20.931	(0.997)	494501	50.0000	46.2
* 101 1,4-Dichlorobenzene-d4	152	20.991	20.991	(1.000)	371824	50.0000	
102 1,4-Dichlorobenzene	146	21.022	21.022	(1.001)	496379	50.0000	47.1
104 n-Butylbenzene	91	21.296	21.296	(1.014)	942200	50.0000	47.0
105 1,2-Dichlorobenzene	146	21.438	21.438	(1.021)	498884	50.0000	46.8
107 1,2-Dibromo-3-chloropropane	157	22.301	22.301	(1.062)	64645	50.0000	49.4
108 1,2,4-Trichlorobenzene	180	23.357	23.357	(1.113)	377878	50.0000	49.5
109 Hexachlorobutadiene	225	23.540	23.540	(1.121)	222778	50.0000	54.5
110 Naphthalene	128	23.753	23.753	(1.132)	742125	50.0000	43.7
111 1,2,3-Trichlorobenzene	180	24.098	24.098	(1.148)	344234	50.0000	50.8

Data File: /chem/VOA7.i/121809v7/7q502.d
Date : 18-DEC-2009 11:09
Client ID: VSTD050
Sample Info: IW7VH091218-01|BFB/CCV/LCS|1|VOAF|1|
Purge Volume: 5.0
Column phase: DB-624

Instrument: VOA7.i
Operator: AXD1
Column diameter: 0.25

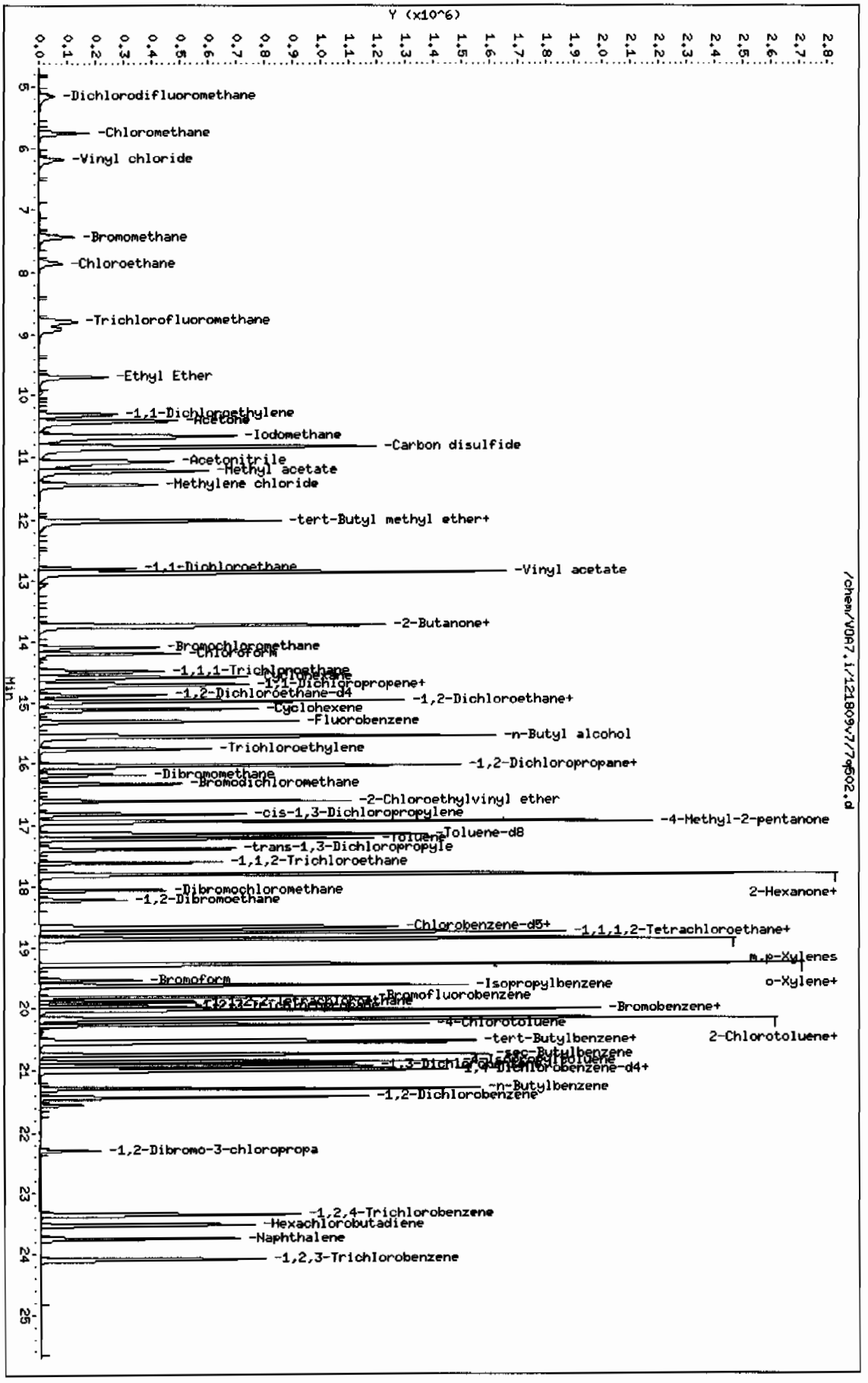

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA7.i Injection Date: 18-DEC-2009 12:14
Lab File ID: 7q504.d Init. Cal. Date(s): 16-NOV-2009 16-NOV-2009
Analysis Type: WATER Init. Cal. Times: 00:20 10:57
Lab Sample ID: W7VM091218-03 Quant Type: ISTD
Method: /chem/VOA7.i/121809v7/VOA7-8260B-111509.m

COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
147 Chlorotrifluoroethylene	0.13034	0.14354	0.14354	0.010	10.13048	30.00000	Averaged
148 2-Chloro-1,1,1-trifluoroeth	0.28275	0.30682	0.30682	0.010	8.51113	30.00000	Averaged
11 Acrolein	0.08287	0.08086	0.08086	0.001	-2.41757	30.00000	Averaged
12 Trichlorotrifluoroethane	0.09315	0.11124	0.11124	0.010	19.42787	30.00000	Averaged
15 Isopropyl Alcohol	0.03668	0.03741	0.03741	0.010	1.99022	40.00000	Averaged
20 Allyl chloride	0.63535	0.54972	0.54972	0.010	-13.47875	30.00000	Averaged
21 tert-Butyl Alcohol	0.05102	0.04941	0.04941	0.001	-3.14776	40.00000	Averaged
23 Acrylonitrile	0.16606	0.15392	0.15392	0.010	-7.30974	30.00000	Averaged
27 Isopropyl ether	1.68959	1.47590	1.47590	0.010	-12.64748	30.00000	Averaged
29 2-Chloro-1,3-butadiene	0.54538	0.59408	0.59408	0.010	8.93126	30.00000	Averaged
30 Ethyl tert-butyl ether	1.14730	1.04430	1.04430	0.010	-8.97746	30.00000	Averaged
35 Propionitrile	0.06686	0.05913	0.05913	0.010	-11.55854	30.00000	Averaged
32 Ethyl acetate	0.49355	0.40805	0.40805	0.010	-17.32361	40.00000	Averaged
36 Methacrylonitrile	0.30070	0.25736	0.25736	0.010	-14.41345	30.00000	Averaged
39 Tetrahydrofuran	0.36975	0.28956	0.28956	0.010	-21.68693	30.00000	Averaged
42 Isobutyl alcohol	0.01771	0.01731	0.01731	0.005	-2.21358	40.00000	Averaged
49 Methyl tert-amyl ether	0.79534	0.72505	0.72505	0.010	-8.83856	30.00000	Averaged
54 Methyl methacrylate	0.20956	0.17808	0.17808	0.010	-15.02468	30.00000	Averaged
66 Ethyl methacrylate	0.53175	0.42595	0.42595	0.010	-19.89624	30.00000	Averaged
74 1-Chlorohexane	0.40217	0.39647	0.39647	0.010	-1.41845	30.00000	Averaged
57 1,4-Dioxane	0.00316	0.00314	0.00314	0.001	-0.65907	40.00000	Averaged
60 2-Nitropropane	0.12993	0.16811	0.16811	0.010	29.38313	30.00000	Averaged
84 cis-1,4-Dichloro-2-butene	0.39160	0.41051	0.41051	0.010	4.82835	30.00000	Averaged
85 Cyclohexanone	579	1250	0.04295	0.010	-53.66123	40.00000	Linear <-
88 trans-1,4-Dichloro-2-butene	0.35776	0.38104	0.38104	0.010	6.50478	30.00000	Averaged
97 Pentachloroethane	0.26007	0.38151	0.38151	0.010	46.69911	30.00000	Averaged <-
103 Benzyl chloride	1.33283	1.34425	1.34425	0.010	0.85692	30.00000	Averaged
106 bis(2-Chloroisopropyl)ether	0.73799	0.58026	0.58026	0.010	-21.37277	30.00000	Averaged
$ 46 1,2-Dichloroethane-d4	0.43596	0.47729	0.47729	0.010	9.47983	30.00000	Averaged
$ 64 Toluene-d8	1.49262	1.42883	1.42883	0.010	-4.27389	30.00000	Averaged
$ 86 Bromofluorobenzene	1.17678	1.08905	1.08905	0.010	-7.45478	30.00000	Averaged

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA7.i Injection Date: 18-DEC-2009 12:14
Lab File ID: 7q504.d Init. Cal. Date(s): 16-NOV-2009 16-NOV-2009
Analysis Type: WATER Init. Cal. Times: 00:20 10:57
Lab Sample ID: W7VM091218-03 Quant Type: ISTD
Method: /chem/VOA7.i/121809v7/VOA7-8260B-111509.m

Average %D / Drift Results.
Calculated Average %D/Drift = 9.58765
Maximun Average %D/Drift = 20.00000
* Passed Average %D/Drift Test.

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA7.i/121809v7/7q504.d
Lab Smp Id: W7VM091218-03 Client Smp ID: VSTD250S
Inj Date : 18-DEC-2009 12:14
Operator : AXO1 Inst ID: VOA7.i
Smp Info : |W7VM091218-03|SHORT/SLCS|1|VOAF|1|
Misc Info : GEL 5g N/A UVM091118-08C/UVM091105-02E
Comment :
Method : /chem/VOA7.i/121809v7/VOA7-8260B-111509.m
Meth Date : 19-Dec-2009 13:12 ale01592 Quant Type: ISTD
Cal Date : 16-NOV-2009 02:36 Cal File: 71708.d
Als bottle: 4 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: CALsubS+SS.sub
Target Version: 3.50

Concentration Formula: Amt * DF * (Uf/Vo) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	sample purged

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
147 Chlorotrifluoroethylene	116	5.044	5.029	(0.329)	353880	150.000	165
148 2-Chloro-1,1,1-trifluoroethane	118	6.619	6.604	(0.432)	756415	150.000	163
11 Acrolein	56	10.028	10.017	(0.655)	332259	250.000	244
12 Trichlorotrifluoroethane	85	10.373	10.373	(0.677)	457089	250.000	298
15 Isopropyl Alcohol	45	10.779	10.779	(0.704)	1537080	2500.00	2550
20 Allyl chloride	41	11.185	11.185	(0.730)	2258765	250.000	216
21 tert-Butyl Alcohol	59	11.662	11.672	(0.761)	2030322	2500.00	2420
23 Acrylonitrile	53	11.936	11.926	(0.779)	632465	250.000	232
27 Isopropyl ether	45	12.911	12.901	(0.843)	1212886	50.0000	43.7
29 2-Chloro-1,3-butadiene	53	12.961	12.961	(0.846)	488213	50.0000	54.5
30 Ethyl tert-butyl ether	59	13.489	13.489	(0.881)	858197	50.0000	45.5
35 Propionitrile	54	13.804	13.804	(0.901)	242966	250.000	221
32 Ethyl acetate	43	13.804	13.804	(0.901)	1676668	250.000	207
36 Methacrylonitrile	41	14.048	14.048	(0.917)	1057484	250.000	214
39 Tetrahydrofuran	42	14.159	14.159	(0.675)	569733	250.000	196
42 Isobutyl alcohol	41	14.748	14.748	(0.963)	711435	2500.00	2440

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
49 Methyl tert-amyl ether	73	15.073	15.083	(0.984)	595837	50.0000	45.6
54 Methyl methacrylate	69	16.078	16.078	(1.050)	731713	250.000	212
66 Ethyl methacrylate	69	17.418	17.418	(0.933)	1363023	250.000	200
74 1-Chlorohexane	55	18.575	18.575	(1.213)	325812	50.0000	49.3
57 1,4-Dioxane	88	16.159	16.159	(1.055)	129187	2500.00	2480
60 2-Nitropropane	43	16.555	16.555	(1.081)	690745	250.000	323
84 cis-1,4-Dichloro-2-butene	53	19.662	19.662	(0.937)	807709	250.000	262
85 Cyclohexanone	55	19.773	19.773	(1.059)	687113	1250.00	579
88 trans-1,4-Dichloro-2-butene	53	19.936	19.936	(0.950)	749716	250.000	266
97 Pentachloroethane	167	20.606	20.606	(0.982)	750659	250.000	367(A)
103 Benzyl chloride	91	21.124	21.124	(1.006)	2644919	250.000	252
106 bis(2-Chloroisopropyl)ether	45	21.509	21.509	(1.025)	1141706	250.000	196
* 51 Fluorobenzene	96	15.317	15.317	(1.000)	821792	50.0000	
* 75 Chlorobenzene-d5	117	18.667	18.667	(1.000)	639990	50.0000	
* 101 1,4-Dichlorobenzene-d4	152	20.992	20.991	(1.000)	393515	50.0000	
$ 46 1,2-Dichloroethane-d4	65	14.880	14.880	(0.972)	392232	50.0000	54.7
$ 64 Toluene-d8	98	17.144	17.144	(0.918)	914435	50.0000	47.9
$ 86 Bromofluorobenzene	95	19.814	19.814	(0.944)	428559	50.0000	46.3

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.

Data File: /chem/VOA7.i/121809v7/7q504.d

Date : 18-DEC-2009 12:14

Client ID: VSTD250S

Sample Info: |W7VM091218-03|SHORT/SLCS|1|VOAF|1|

Purge Volume: 5.0

Column phase: DB-624

Instrument: VOA7.i

Operator: AXO1

Column diameter: 0.25

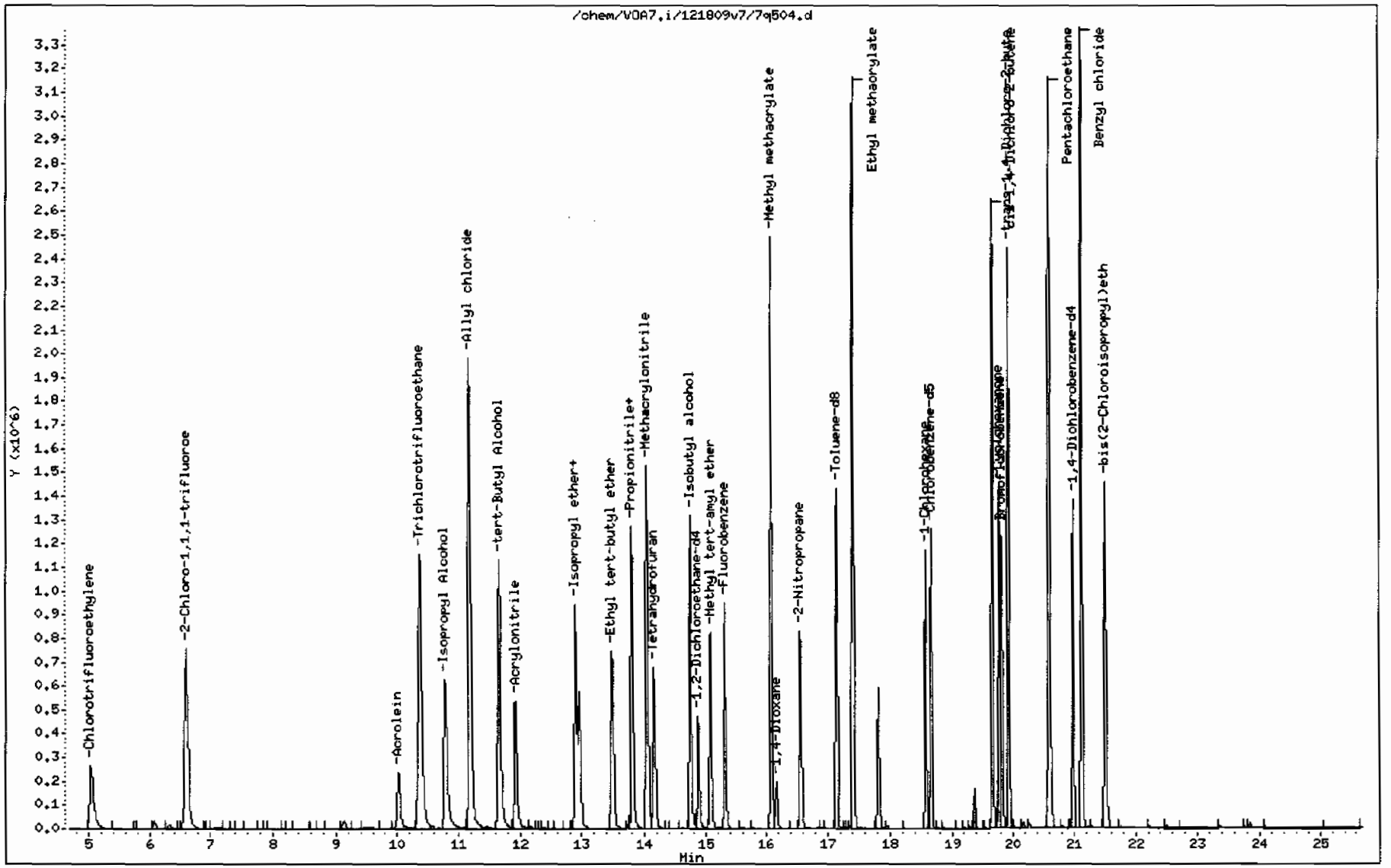

QC Data

Data File: /chem/VOA7.i/111509v7/71702.d

Page 1

Date : 15-NOV-2009 23:14

Client ID: BFB01

Instrument: VOA7.i

Sample Info: |12019-----|BFB01|1|VOAF|1|

Operator: AX01

Column phase: db624

Column diameter: 0.25

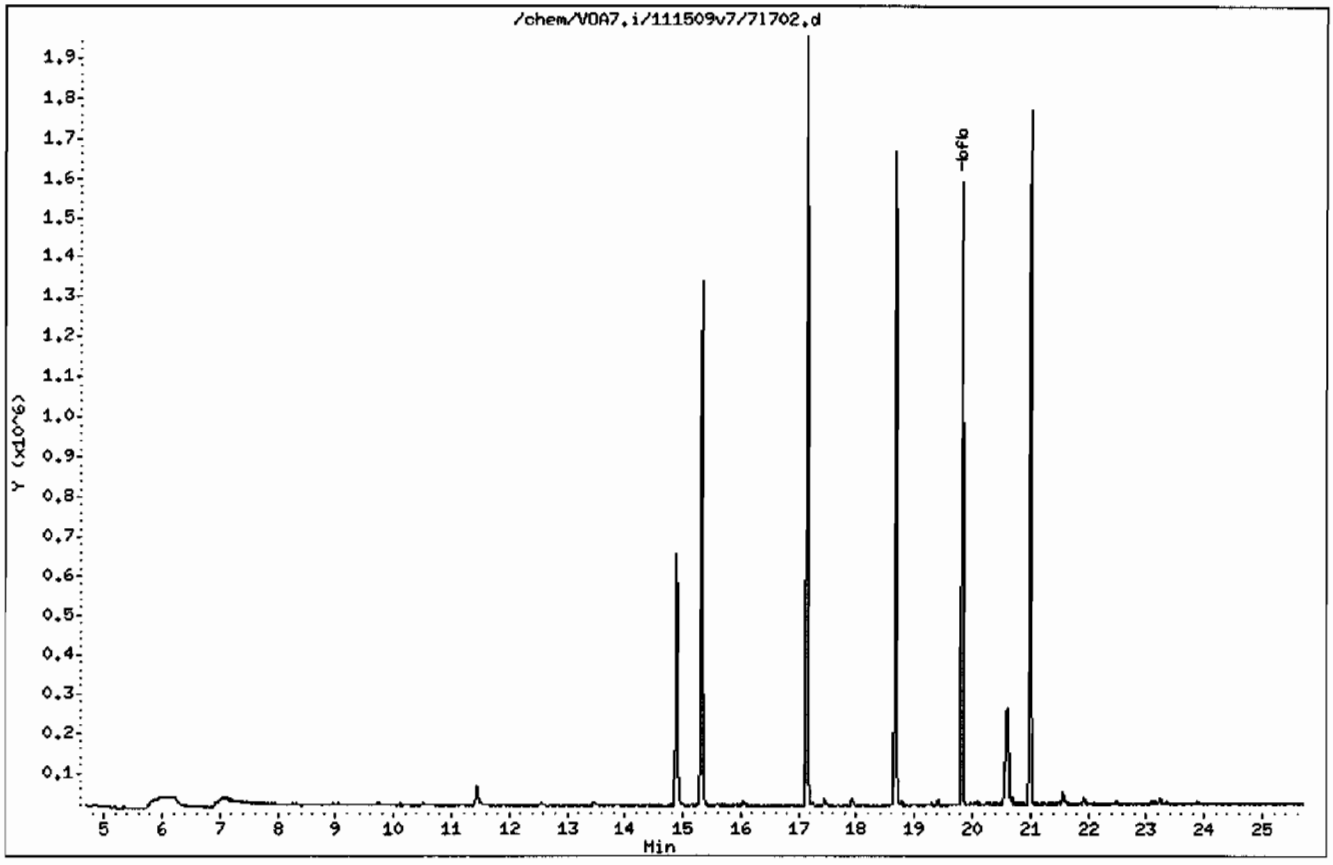

Data File: /chem/VOA7.i/111509v7/71702.d

Date : 15-NOV-2009 23:14

Client ID: BFB01 Instrument: VOA7.i

Sample Info: |12019-----|BFB01|1|VOAF|1|

Operator: AX01

Column phase: db624 Column diameter: 0.25

1 bfb

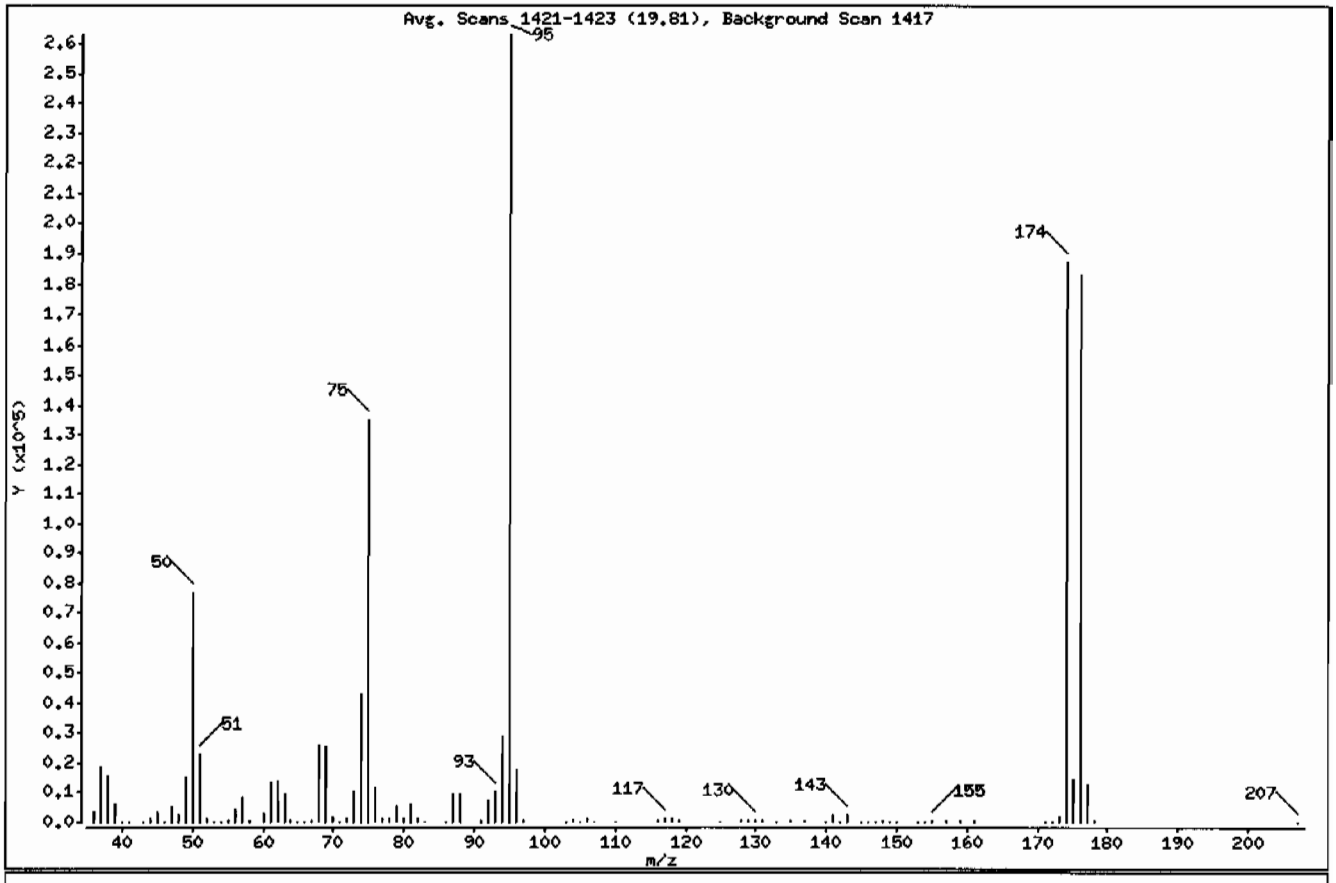

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	29.18
75	30.00 - 60.00% of mass 95	51.18
96	5.00 - 9.00% of mass 95	6.73
173	Less than 2.00% of mass 174	0.67 (0.95)
174	50.00 - 100.00% of mass 95	70.97
175	5.00 - 9.00% of mass 174	5.45 (7.68)
176	95.00 - 101.00% of mass 174	69.44 (97.84)
177	5.00 - 9.00% of mass 176	4.78 (6.88)

Data File: /chem/VOA7.i/111509v7/71702.d

Date : 15-NOV-2009 23:14

Client ID: BFB01 Instrument: VOA7.i

Sample Info: |12019-----|BFB01|1|VOAF|1|

Operator: AX01

Column phase: db624 Column diameter: 0.25

Data File: 71702.d
Spectrum: Avg. Scans 1421-1423 (19.81), Background Scan 1417
Location of Maximum: 95.00
Number of points: 99

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	3333	63.00	9564	92.00	7156	141.00	2201
37.00	18888	64.00	721	93.00	10047	142.00	209
38.00	15641	65.00	130	94.00	28776	143.00	2553
39.00	5866	66.00	83	95.00	263232	145.00	241
40.00	248	67.00	433	96.00	17712	146.00	257
41.00	54	68.00	26144	97.00	558	147.00	85
43.00	67	69.00	25688	103.00	86	148.00	460
44.00	1305	70.00	1759	104.00	779	149.00	205
45.00	3541	71.00	254	105.00	214	150.00	236
46.00	266	72.00	1385	106.00	1126	153.00	182
47.00	5342	73.00	10068	107.00	293	154.00	90
48.00	2413	74.00	42920	110.00	85	155.00	665
49.00	14979	75.00	134720	116.00	817	157.00	311
50.00	76824	76.00	11733	117.00	1329	159.00	346
51.00	22800	77.00	1457	118.00	973	161.00	315
52.00	1184	78.00	980	119.00	879	171.00	166
53.00	233	79.00	5165	125.00	91	172.00	281
54.00	87	80.00	1473	128.00	746	173.00	1775
55.00	866	81.00	6044	129.00	436	174.00	186816
56.00	4408	82.00	1176	130.00	778	175.00	14343
57.00	8581	83.00	113	131.00	464	176.00	182784
58.00	419	86.00	95	133.00	110	177.00	12570
60.00	3198	87.00	9814	135.00	565	178.00	360
61.00	13497	88.00	9439	137.00	434	207.00	200
62.00	13813	91.00	612	140.00	192		

Data File: /chem/VOA7.i/111509v7/7m102BFB.d

Date : 16-NOV-2009 13:54

Client ID: BFB01

Instrument: VOA7.i

Sample Info: |W7VM0911116-01|BFB/CCV/ICV/LCS|1|VOAF|1|

Operator: AX01

Column phase: db624

Column diameter: 0.25

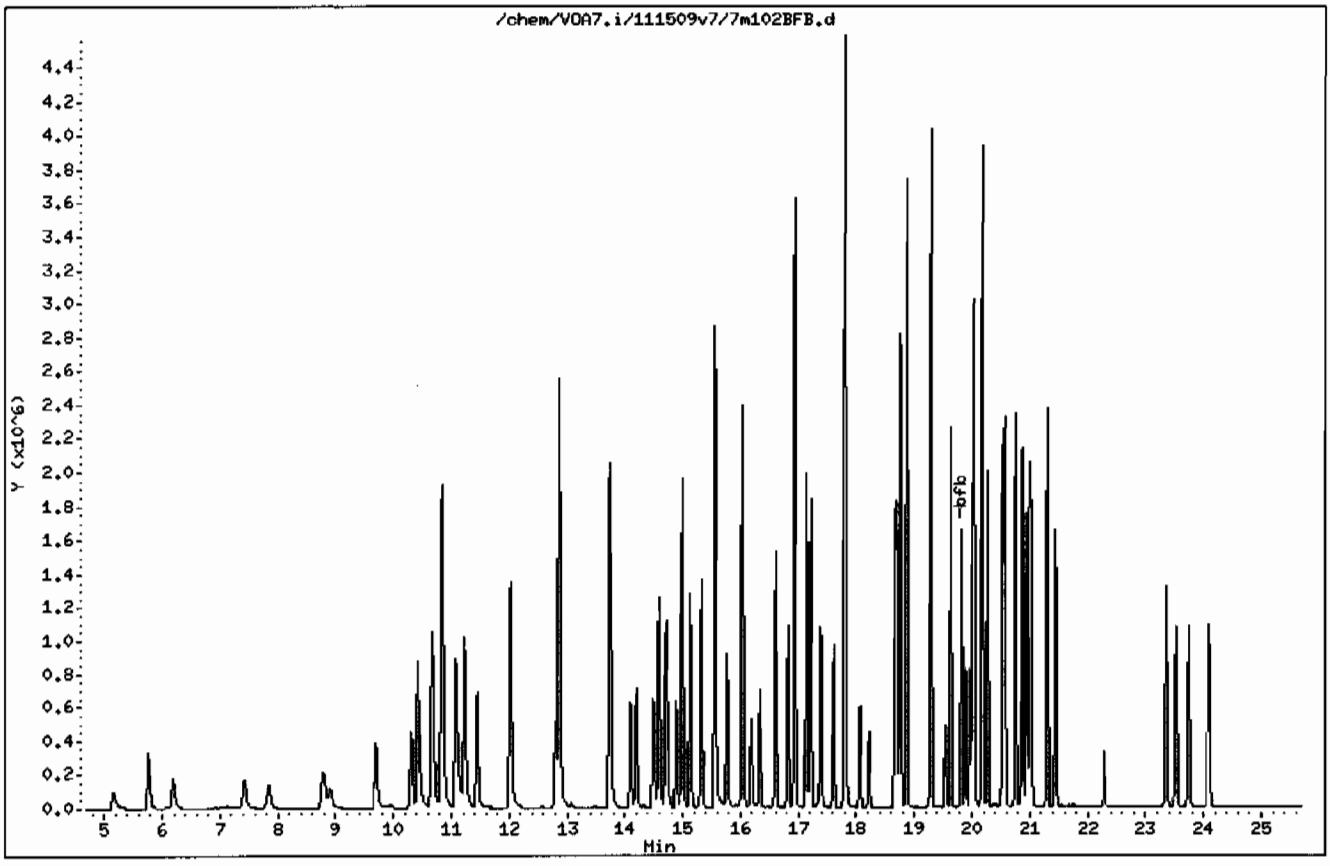

Data File: /chem/VOA7.i/111509v7/7m102BFB.d

Date : 16-NOV-2009 13:54

Client ID: BFB01

Instrument: VOA7.i

Sample Info: |W7VM0911116-01|BFB/CCV/ICV/LCS|1|VOAF|1|

Operator: AX01

Column phase: db624

Column diameter: 0.25

1 bfb

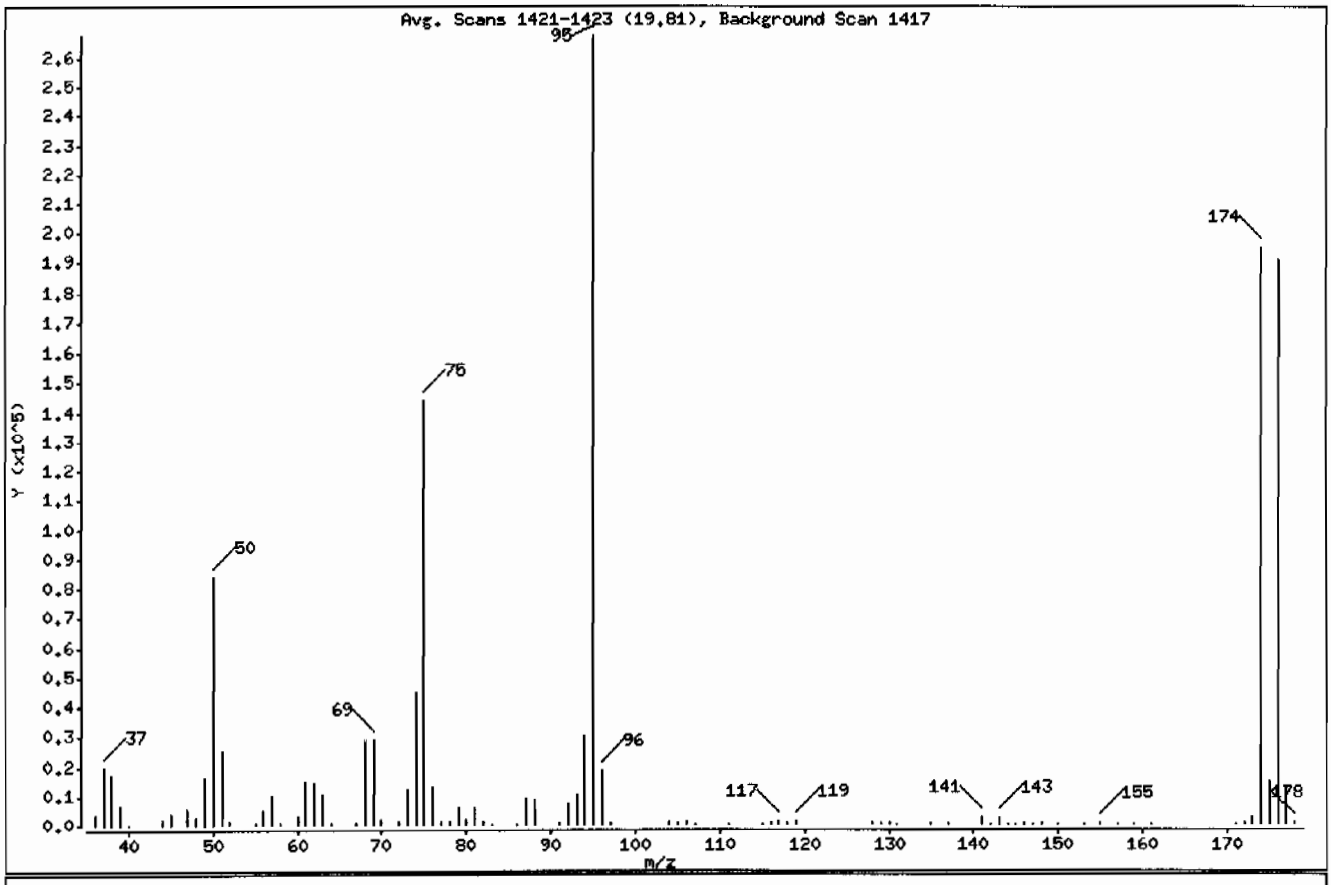

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	31.35
75	30.00 - 60.00% of mass 95	53.68
96	5.00 - 9.00% of mass 95	6.95
173	Less than 2.00% of mass 174	0.83 (1.14)
174	50.00 - 100.00% of mass 95	72.93
175	5.00 - 9.00% of mass 174	5.57 (7.63)
176	95.00 - 101.00% of mass 174	71.26 (97.71)
177	5.00 - 9.00% of mass 176	4.79 (6.72)

Data File: /chem/VOA7.i/111509v7/7m102BFB.d

Date : 16-NOV-2009 13:54

Client ID: BFB01 Instrument: VOA7.i

Sample Info: |W7VM0911116-01|BFB/CCV/ICV/LCS|1|VOAF|1|

Operator: AX01

Column phase: db624 Column diameter: 0.25

Data File: 7m102BFB.d

Spectrum: Avg. Scans 1421-1423 (19.81), Background Scan 1417

Location of Maximum: 95.00

Number of points: 86

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	3492	67.00	802	94.00	30088	143.00	2290
37.00	19896	68.00	28072	95.00	267904	144.00	182
38.00	17176	69.00	28720	96.00	18608	145.00	246
39.00	6767	70.00	2115	97.00	689	146.00	368
40.00	56	72.00	1438	104.00	940	147.00	197
44.00	1726	73.00	12133	105.00	456	148.00	524
45.00	3498	74.00	45264	106.00	1256	150.00	86
47.00	5334	75.00	143808	107.00	86	153.00	91
48.00	2508	76.00	12687	111.00	230	155.00	646
49.00	16192	77.00	1415	115.00	163	157.00	282
50.00	84000	78.00	1061	116.00	809	159.00	241
51.00	25096	79.00	6247	117.00	1378	161.00	85
52.00	1004	80.00	1703	118.00	830	171.00	107
55.00	720	81.00	6177	119.00	1140	172.00	463
56.00	5221	82.00	1168	128.00	870	173.00	2233
57.00	9634	83.00	94	129.00	344	174.00	195392
58.00	407	86.00	268	130.00	747	175.00	14910
60.00	2957	87.00	9327	131.00	236	176.00	190912
61.00	14580	88.00	8928	135.00	321	177.00	12835
62.00	14245	91.00	654	137.00	514	178.00	367
63.00	10431	92.00	7178	141.00	2289		
64.00	865	93.00	10518	142.00	239		

Data File: /chem/VOA7.i/121809v7/7q502BFB.d

Date : 18-DEC-2009 11:09

Client ID: BFB

Instrument: VOA7.i

Sample Info: IW7VM091218-01|BFB/CCV/LCS|1|VOAF|1|

Operator: AX01

Column phase: db624

Column diameter: 0.25

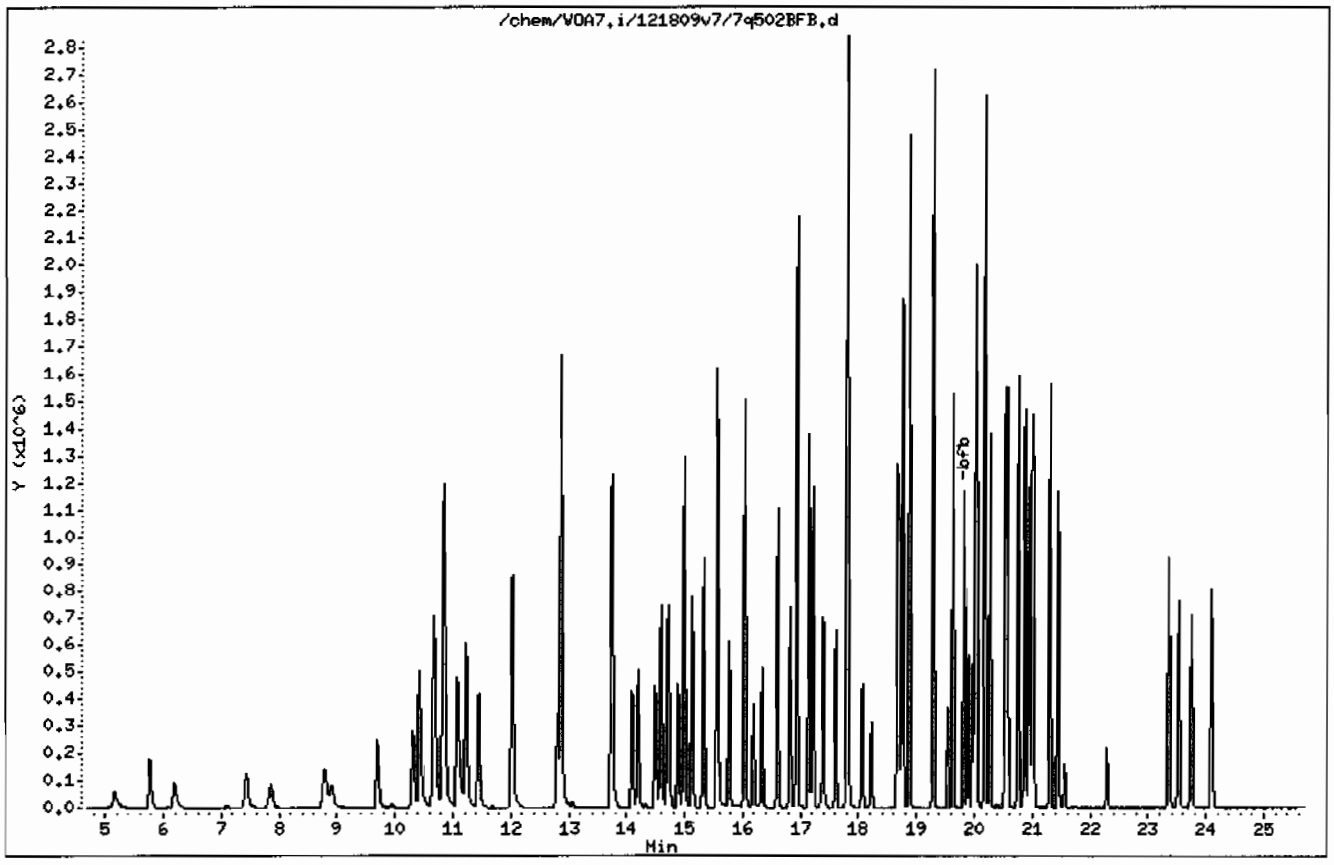

Data File: /chem/VOA7.i/121809v7/7q502BFB.d

Date : 18-DEC-2009 11:09

Client ID: BFB

Instrument: VOA7.i

Sample Info: |W7VM091218-01|BFB/CCV/LCS|1|VOAF|1|

Operator: AXO1

Column phase: db624

Column diameter: 0.25

1 bfb

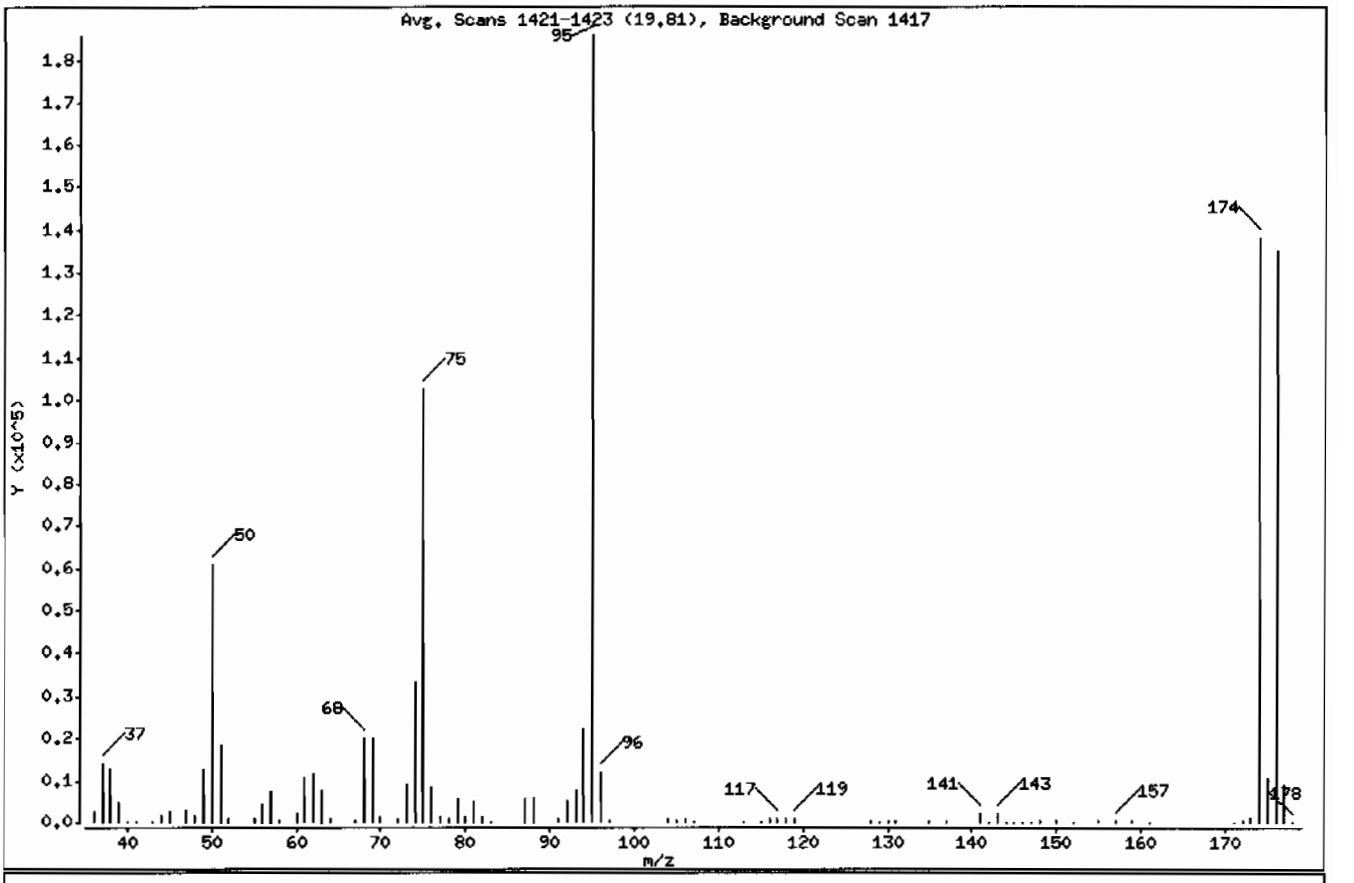

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	32.75
75	30.00 - 60.00% of mass 95	55.24
96	5.00 - 9.00% of mass 95	6.48
173	Less than 2.00% of mass 174	0.62 (0.83)
174	50.00 - 100.00% of mass 95	74.17
175	5.00 - 9.00% of mass 174	5.68 (7.66)
176	95.00 - 101.00% of mass 174	72.76 (98.10)
177	5.00 - 9.00% of mass 176	4.93 (6.78)

Data File: /chem/VOA7.i/121809v7/7q502BFB.d

Date : 18-DEC-2009 11:09

Client ID: BFB

Instrument: VOA7.i

Sample Info: IW7VM091218-01|BFB/CCV/LCS|1|VOAF|1|

Operator: AX01

Column phase: db624

Column diameter: 0.25

Data File: 7q502BFB.d

Spectrum: Avg. Scans 1421-1423 (19.81), Background Scan 1417

Location of Maximum: 95.00

Number of points: 87

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	2777	63.00	7695	93.00	7863	142.00	118
37.00	14228	64.00	733	94.00	22120	143.00	2272
38.00	12775	67.00	479	95.00	186048	144.00	109
39.00	4665	68.00	20120	96.00	12056	145.00	100
40.00	137	69.00	20056	97.00	405	146.00	110
41.00	85	70.00	1417	104.00	821	147.00	184
43.00	86	72.00	975	105.00	351	148.00	405
44.00	1508	73.00	8795	106.00	824	150.00	236
45.00	2609	74.00	33480	107.00	113	152.00	84
47.00	2986	75.00	102776	113.00	86	155.00	246
48.00	1715	76.00	8763	115.00	108	157.00	285
49.00	12643	77.00	1114	116.00	723	159.00	271
50.00	60936	78.00	782	117.00	1066	161.00	109
51.00	18424	79.00	5599	118.00	763	171.00	95
52.00	732	80.00	1376	119.00	945	172.00	226
55.00	678	81.00	4964	128.00	612	173.00	1151
56.00	4176	82.00	1276	129.00	98	174.00	137984
57.00	7240	83.00	93	130.00	600	175.00	10571
58.00	267	87.00	5702	131.00	218	176.00	135360
60.00	2222	88.00	5806	135.00	325	177.00	9172
61.00	10807	91.00	875	137.00	329	178.00	116
62.00	11667	92.00	5331	141.00	2034		

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-854**			**Matrix:**	**SOIL**
Lab Sample ID:	**1201998949**				
Client Sample:	**QC for batch 934300**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 934300**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**934305**	**Inst:**	**VOA7.I**	**Dilution:**	**1**
Run Date:	**12/18/2009 13:55**	**Analyst:**	**AXO1**	**Purge Vol:**	**5 mL**
Prep Date:	**12/18/2009 08:00**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**7q507BA.d**	**Column:**	**DB-624**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/kg	0.340	1.00
74-87-3	Chloromethane	U	1.00	ug/kg	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/kg	0.300	1.00
74-83-9	Bromomethane	U	1.00	ug/kg	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/kg	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/kg	0.300	1.00
67-64-1	Acetone	U	5.00	ug/kg	1.66	5.00
75-35-4	1,1-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/kg	1.60	5.00
75-09-2	Methylene chloride	U	5.00	ug/kg	2.00	5.00
75-15-0	Carbon disulfide	U	5.00	ug/kg	1.25	5.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/kg	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/kg	1.50	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/kg	0.300	1.00
74-97-5	Bromochloromethane	U	1.00	ug/kg	0.330	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/kg	0.300	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/kg	0.300	1.00
56-23-5	Carbon tetrachloride	U	1.00	ug/kg	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/kg	0.300	1.00
71-43-2	Benzene	U	1.00	ug/kg	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/kg	0.330	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/kg	0.300	1.00
74-95-3	Dibromomethane	U	1.00	ug/kg	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/kg	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
108-88-3	Toluene	U	1.00	ug/kg	0.300	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/kg	0.300	1.00
591-78-6	2-Hexanone	U	5.00	ug/kg	1.50	5.00
142-28-9	1,3-Dichloropropane	U	1.00	ug/kg	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/kg	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/kg	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/kg	0.300	1.00
108-90-7	Chlorobenzene	U	1.00	ug/kg	0.300	1.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-854**			**Matrix:**	**SOIL**
Lab Sample ID:	**1201998949**				
Client Sample:	**QC for batch 934300**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 934300**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**934305**	**Inst:**	**VOA7.I**	**Dilution:**	**1**
Run Date:	**12/18/2009 13:55**	**Analyst:**	**AXO1**	**Purge Vol:**	**5 mL**
Prep Date:	**12/18/2009 08:00**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**7q507BA.d**	**Column:**	**DB-624**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.00	ug/kg	0.300	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/kg	0.300	2.00
95-47-6	o-Xylene	U	1.00	ug/kg	0.300	1.00
100-42-5	Styrene	U	1.00	ug/kg	0.300	1.00
75-25-2	Bromoform	U	1.00	ug/kg	0.300	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/kg	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/kg	0.300	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/kg	0.300	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/kg	0.300	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/kg	0.300	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/kg	0.300	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/kg	0.300	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/kg	0.300	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/kg	0.300	1.00
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.00	ug/kg	1.60	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	No Tentatively Identified Compounds Found			ug/kg		

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA7.i/121809v7/7q507BA.d
Lab Smp Id: 1201998949 Client Smp ID: BLANK
Inj Date : 18-DEC-2009 13:55
Operator : AXO1 Inst ID: VOA7.i
Smp Info : |1201998949|934305|1|VOAF|1|
Misc Info : GEL 5g N/A
Comment :
Method : /chem/VOA7.i/121809v7/VOA7-8260B-111509.m
Meth Date : 19-Dec-2009 13:12 ale01592 Quant Type: ISTD
Cal Date : 16-NOV-2009 02:36 Cal File: 71708.d
Als bottle: 7 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	0.00000	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
$ 46 1,2-Dichloroethane-d4	65	14.880	14.880	(0.972)	405722	55.3821	55.4
* 51 Fluorobenzene	96	15.317	15.317	(1.000)	840199	50.0000	
$ 64 Toluene-d8	98	17.144	17.144	(0.918)	894466	46.1671	46.2
* 75 Chlorobenzene-d5	117	18.667	18.667	(1.000)	649011	50.0000	
$ 86 Bromofluorobenzene	95	19.814	19.814	(0.944)	413867	46.7036	46.7
* 101 1,4-Dichlorobenzene-d4	152	20.992	20.991	(1.000)	376517	50.0000	

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA7.i/121809v7/7q507BA.d
Lab Smp Id: 1201998949 Client Smp ID: BLANK
Inj Date : 18-DEC-2009 13:55
Operator : AXO1 Inst ID: VOA7.i
Smp Info : |1201998949|934305|1|VOAF|1|
Misc Info : GEL 5g N/A
Comment :
Method : /chem/VOA7.i/121809v7/VOA7-8260B-111509.m
Meth Date : 19-Dec-2009 13:12 ale01592 Quant Type: ISTD
Cal Date : 16-NOV-2009 02:36 Cal File: 71708.d
Als bottle: 7 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50
Processing Host: prdsvr07

- NO TENTATIVELY IDENTIFIED COMPOUNDS -

Data File: /chem/VOA7.i/121809v7/7q507BA.d

Date : 18-DEC-2009 13:55

Client ID: BLANK

Sample Info: |1201998949|934305|1|VOAF|1|

Column phase: DB-624

Instrument: VOA7.i

Operator: AX01

Column diameter: 0.25

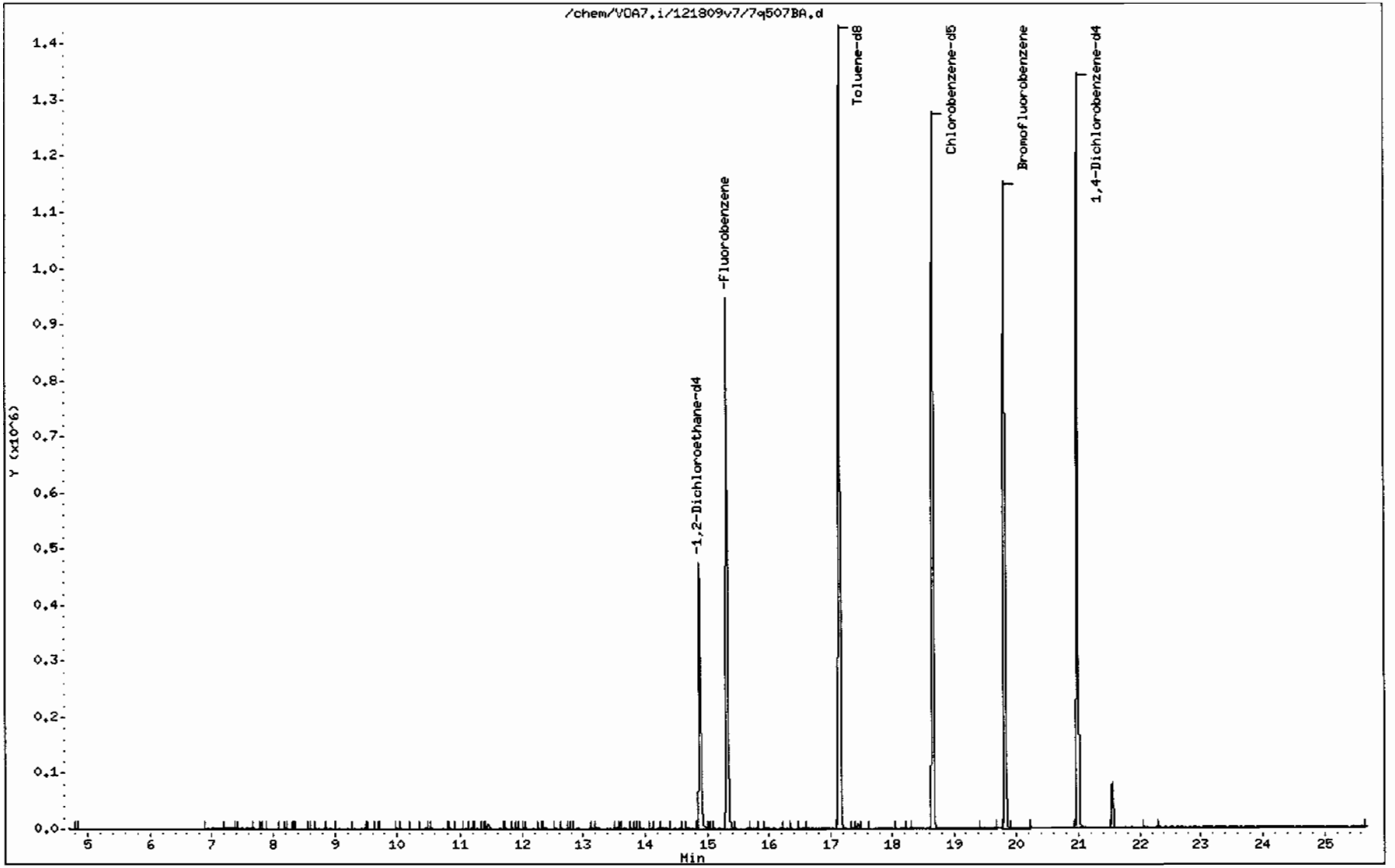

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-854**			**Matrix:**	**SOIL**
Lab Sample ID:	**1201998952**				
Client Sample:	**QC for batch 934300**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 934300**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**934305**	**Inst:**	**VOA7.1**	**Dilution:**	**1**
Run Date:	**12/18/2009 11:42**	**Analyst:**	**AXO1**	**Purge Vol:**	**5 mL**
Prep Date:	**12/18/2009 08:00**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**7q503LA.d**	**Column:**	**DB-624**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane		61.7	ug/kg	0.340	1.00
74-87-3	Chloromethane		46.8	ug/kg	0.300	1.00
75-01-4	Vinyl chloride		50.2	ug/kg	0.300	1.00
74-83-9	Bromomethane		51.6	ug/kg	0.300	1.00
75-00-3	Chloroethane		45.6	ug/kg	0.300	1.00
75-69-4	Trichlorofluoromethane		68.1	ug/kg	0.300	1.00
67-64-1	Acetone		205	ug/kg	1.66	5.00
75-35-4	1,1-Dichloroethylene		54.3	ug/kg	0.300	1.00
74-88-4	Iodomethane		256	ug/kg	1.60	5.00
75-09-2	Methylene chloride		47.6	ug/kg	2.00	5.00
75-15-0	Carbon disulfide		264	ug/kg	1.25	5.00
156-60-5	trans-1,2-Dichloroethylene		48.3	ug/kg	0.300	1.00
75-34-3	1,1-Dichloroethane		48.3	ug/kg	0.300	1.00
78-93-3	2-Butanone		178	ug/kg	1.50	5.00
156-59-2	cis-1,2-Dichloroethylene		46.2	ug/kg	0.300	1.00
594-20-7	2,2-Dichloropropane		52.2	ug/kg	0.300	1.00
67-66-3	Chloroform		51.7	ug/kg	0.300	1.00
74-97-5	Bromochloromethane		44.4	ug/kg	0.330	1.00
71-55-6	1,1,1-Trichloroethane		60.9	ug/kg	0.300	1.00
563-58-6	1,1-Dichloropropene		52.7	ug/kg	0.300	1.00
56-23-5	Carbon tetrachloride		62.3	ug/kg	0.300	1.00
107-06-2	1,2-Dichloroethane		51.6	ug/kg	0.300	1.00
71-43-2	Benzene		45.5	ug/kg	0.300	1.00
79-01-6	Trichloroethylene		52.4	ug/kg	0.330	1.00
78-87-5	1,2-Dichloropropane		41.1	ug/kg	0.300	1.00
75-27-4	Bromodichloromethane		53.4	ug/kg	0.300	1.00
74-95-3	Dibromomethane		49.6	ug/kg	0.300	1.00
108-10-1	4-Methyl-2-pentanone		202	ug/kg	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene		45.2	ug/kg	0.300	1.00
108-88-3	Toluene		44.8	ug/kg	0.300	1.00
10061-02-6	trans-1,3-Dichloropropylene		47.0	ug/kg	0.300	1.00
79-00-5	1,1,2-Trichloroethane		45.2	ug/kg	0.300	1.00
591-78-6	2-Hexanone		161	ug/kg	1.50	5.00
142-28-9	1,3-Dichloropropane		43.0	ug/kg	0.300	1.00
127-18-4	Tetrachloroethylene		59.8	ug/kg	0.300	1.00
124-48-1	Dibromochloromethane		54.4	ug/kg	0.300	1.00
106-93-4	1,2-Dibromoethane		47.6	ug/kg	0.300	1.00
108-90-7	Chlorobenzene		46.1	ug/kg	0.300	1.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-854			**Matrix:**	SOIL
Lab Sample ID:	1201998952				
Client Sample:	QC for batch 934300	**Client:**	LANL010	**Project:**	QC
Client ID:	LCS for batch 934300	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	934305	**Inst:**	VOA7.I	**Dilution:**	1
Run Date:	12/18/2009 11:42	**Analyst:**	AXO1	**Purge Vol:**	5 mL
Prep Date:	12/18/2009 08:00	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	7q503LA.d	**Column:**	DB-624	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene		46.4	ug/kg	0.300	1.00
179601-23-1	m,p-Xylenes		90.6	ug/kg	0.300	2.00
95-47-6	o-Xylene		44.9	ug/kg	0.300	1.00
100-42-5	Styrene		41.8	ug/kg	0.300	1.00
75-25-2	Bromoform		58.4	ug/kg	0.300	1.00
79-34-5	1,1,2,2-Tetrachloroethane		45.0	ug/kg	0.300	1.00
96-18-4	1,2,3-Trichloropropane		50.7	ug/kg	0.300	1.00
108-86-1	Bromobenzene		45.1	ug/kg	0.300	1.00
103-65-1	n-Propylbenzene		45.0	ug/kg	0.300	1.00
95-49-8	2-Chlorotoluene		43.6	ug/kg	0.300	1.00
98-82-8	Isopropylbenzene		46.6	ug/kg	0.300	1.00
108-67-8	1,3,5-Trimethylbenzene		44.8	ug/kg	0.300	1.00
106-43-4	4-Chlorotoluene		45.3	ug/kg	0.300	1.00
98-06-6	tert-Butylbenzene		45.8	ug/kg	0.300	1.00
95-63-6	1,2,4-Trimethylbenzene		44.3	ug/kg	0.300	1.00
135-98-8	sec-Butylbenzene		45.7	ug/kg	0.300	1.00
99-87-6	4-Isopropyltoluene		45.8	ug/kg	0.300	1.00
541-73-1	1,3-Dichlorobenzene		45.0	ug/kg	0.300	1.00
106-46-7	1,4-Dichlorobenzene		45.3	ug/kg	0.300	1.00
104-51-8	n-Butylbenzene		45.7	ug/kg	0.300	1.00
96-12-8	1,2-Dibromo-3-chloropropane		54.0	ug/kg	0.300	1.00
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.00	ug/kg	1.60	5.00
630-20-6	1,1,1,2-Tetrachloroethane		50.3	ug/kg	0.300	1.00
95-50-1	1,2-Dichlorobenzene		45.0	ug/kg	0.300	1.00

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA7.i/121809v7/7q503LA.d
Lab Smp Id: 1201998952 Client Smp ID: LCS
Inj Date : 18-DEC-2009 11:42
Operator : AXO1 Inst ID: VOA7.i
Smp Info : |1201998952|934305|1|VOAF|1|
Misc Info : GEL 5mL N/A UVM091219-01A/IVM091217-01
Comment :
Method : /chem/VOA7.i/121809v7/VOA7-8260B-111509.m
Meth Date : 19-Dec-2009 13:12 ale01592 Quant Type: ISTD
Cal Date : 16-NOV-2009 02:36 Cal File: 71708.d
Als bottle: 3 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	0.00000	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
M 1 1,3-Dichloropropylene	75				756199	93.1069	93.1
M 2 Xylenes (total)	106				1132938	135.450	135
M 3 1,2-Dichloroethylene (total)	96				759581	94.4973	94.5
4 Dichlorodifluoromethane	85	5.147	5.147	(0.336)	205436	61.6740	61.7
5 Chloromethane	50	5.771	5.757	(0.377)	385768	46.7950	46.8
6 Vinyl chloride	62	6.187	6.187	(0.404)	287122	50.2259	50.2
7 Bromomethane	94	7.428	7.429	(0.485)	202011	51.5637	51.6
8 Chloroethane	64	7.855	7.855	(0.513)	194854	45.5905	45.6
9 Trichlorofluoromethane	101	8.799	8.789	(0.574)	392323	68.1197	68.1
10 Ethyl Ether	59	9.702	9.703	(0.633)	257696	42.5047	42.5
13 Acetone	43	10.423	10.413	(0.681)	1414375	205.357	205
14 1,1-Dichloroethylene	96	10.312	10.312	(0.673)	189233	54.2950	54.3

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
	16 Iodomethane	142	10.677	10.667	(0.697)	1627281	255.627	256
	17 Acetonitrile	41	11.073	11.073	(0.723)	1269979	1094.32	1090
	18 Methyl acetate	43	11.225	11.225	(0.733)	1425582	203.765	204
	19 Carbon disulfide	76	10.839	10.840	(0.708)	3014177	264.199	264
	22 Methylene chloride	86	11.449	11.449	(0.747)	150691	47.5623	47.6
	24 tert-Butyl methyl ether	73	12.017	12.017	(0.785)	662862	45.4031	45.4
	25 trans-1,2-Dichloroethylene	61	12.027	12.027	(0.785)	358552	48.2933	48.3
	26 Vinyl acetate	43	12.860	12.860	(0.840)	3568213	239.946	240
	28 1,1-Dichloroethane	63	12.799	12.799	(0.836)	447876	48.3115	48.3
	31 2-Butanone	43	13.723	13.723	(0.896)	1396697	177.542	178
	33 cis-1,2-Dichloroethylene	61	13.733	13.733	(0.897)	401029	46.2039	46.2
	34 2,2-Dichloropropane	77	13.753	13.753	(0.898)	255122	52.2090	52.2
	37 Bromochloromethane	49	14.088	14.088	(0.920)	335244	44.4225	44.4
	38 Chloroform	83	14.190	14.190	(0.926)	433075	51.7075	51.7
	41 1,1,1-Trichloroethane	97	14.484	14.484	(0.946)	380143	60.9438	60.9
	43 Cyclohexane	56	14.586	14.586	(0.952)	501033	47.2643	47.3
	44 1,1-Dichloropropene	75	14.697	14.697	(0.960)	297554	52.6638	52.7
	45 Carbon tetrachloride	117	14.728	14.728	(0.962)	307765	62.3163	62.3
$	46 1,2-Dichloroethane-d4	65	14.880	14.880	(0.971)	405772	55.1982	55.2
	47 1,2-Dichloroethane	62	14.981	14.982	(0.978)	452372	51.6248	51.6
	48 Benzene	78	14.992	14.992	(0.979)	784992	45.4578	45.4
	50 Cyclohexene	67	15.124	15.124	(0.987)	388673	47.6451	47.6
*	51 Fluorobenzene	96	15.316	15.317	(1.000)	843103	50.0000	
	52 n-Butyl alcohol	56	15.560	15.560	(1.016)	1218684	5067.14	5070
	53 Trichloroethylene	95	15.773	15.773	(1.030)	233736	52.4080	52.4
	55 Methylcyclohexane	83	16.037	16.027	(1.047)	330181	47.9404	47.9
	56 1,2-Dichloropropane	63	16.037	16.037	(1.047)	231056	41.1356	41.1
	58 Dibromomethane	93	16.190	16.179	(1.057)	157057	49.6435	49.6
	59 Bromodichloromethane	83	16.332	16.332	(1.066)	353984	53.3553	53.4
	61 2-Chloroethylvinyl ether	63	16.606	16.606	(1.084)	480508	208.800	209
	62 cis-1,3-Dichloropropylene	75	16.819	16.819	(1.098)	378657	45.1804	45.2
	63 4-Methyl-2-pentanone	58	16.941	16.941	(0.908)	678600	202.010	202
$	64 Toluene-d8	98	17.144	17.144	(0.918)	897924	46.2918	46.3
	65 Toluene	92	17.215	17.215	(0.922)	516629	44.7801	44.8
	67 trans-1,3-Dichloropropylene	75	17.387	17.388	(0.931)	377542	47.0348	47.0
	68 1,1,2-Trichloroethane	83	17.611	17.611	(0.943)	178805	45.2477	45.2
	69 2-Hexanone	43	17.804	17.804	(0.954)	1753950	160.989	161
	70 1,3-Dichloropropane	76	17.794	17.794	(0.953)	337314	42.9541	43.0
	71 Tetrachloroethylene	164	17.824	17.824	(0.955)	159656	59.8410	59.8
	72 Dibromochloromethane	129	18.068	18.068	(0.968)	251376	54.4497	54.4
	73 1,2-Dibromoethane	107	18.220	18.220	(0.976)	228264	47.5858	47.6
*	75 Chlorobenzene-d5	117	18.667	18.667	(1.000)	649765	50.0000	
	76 Chlorobenzene	112	18.697	18.697	(1.002)	577803	46.1382	46.1
	77 1,1,1,2-Tetrachloroethane	131	18.758	18.758	(1.005)	226181	50.2602	50.3
	78 Ethylbenzene	91	18.768	18.768	(1.005)	1009178	46.4220	46.4
	79 m,p-Xylenes	106	18.870	18.870	(1.011)	749306	90.5757	90.6
	80 o-Xylene	106	19.286	19.286	(1.033)	383632	44.8744	44.9

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
81 Styrene	104	19.286	19.286	(1.033)	642618	41.8228	41.8
82 Bromoform	173	19.540	19.540	(0.931)	200274	58.3533	58.4
83 Isopropylbenzene	105	19.631	19.631	(0.935)	1044490	46.5706	46.6
$ 86 Bromofluorobenzene	95	19.814	19.814	(0.944)	434485	46.9735	47.0
87 1,1,2,2-Tetrachloroethane	83	19.895	19.885	(0.948)	319498	44.9901	45.0
89 1,2,3-Trichloropropane	110	19.976	19.976	(0.952)	90789	50.7358	50.7
90 Bromobenzene	156	20.017	20.017	(0.954)	284539	45.0823	45.1
91 n-Propylbenzene	91	20.037	20.037	(0.955)	1242193	45.0234	45.0
92 1,3,5-Trimethylbenzene	105	20.169	20.169	(0.961)	889684	44.7501	44.8
93 2-Chlorotoluene	91	20.169	20.179	(0.961)	872674	43.6147	43.6
94 4-Chlorotoluene	91	20.271	20.271	(0.966)	860775	45.2680	45.3
95 tert-Butylbenzene	119	20.535	20.535	(0.978)	847883	45.7980	45.8
96 1,2,4-Trimethylbenzene	105	20.565	20.565	(0.980)	939783	44.2682	44.3
98 sec-Butylbenzene	105	20.748	20.748	(0.988)	1154079	45.7331	45.7
99 4-Isopropyltoluene	119	20.870	20.870	(0.994)	919315	45.8339	45.8
100 1,3-Dichlorobenzene	146	20.930	20.931	(0.997)	509372	45.0391	45.0
* 101 1,4-Dichlorobenzene-d4	152	20.991	20.991	(1.000)	393003	50.0000	
102 1,4-Dichlorobenzene	146	21.022	21.022	(1.001)	504627	45.2660	45.3
104 n-Butylbenzene	91	21.296	21.296	(1.014)	969901	45.7484	45.7
105 1,2-Dichlorobenzene	146	21.438	21.438	(1.021)	506766	45.0149	45.0
107 1,2-Dibromo-3-chloropropane	157	22.301	22.301	(1.062)	74640	54.0056	54.0
108 1,2,4-Trichlorobenzene	180	23.357	23.357	(1.113)	375641	46.5414	46.5
109 Hexachlorobutadiene	225	23.539	23.540	(1.121)	196977	45.6083	45.6
110 Naphthalene	128	23.753	23.753	(1.132)	787913	43.9230	43.9
111 1,2,3-Trichlorobenzene	180	24.098	24.098	(1.148)	341133	47.5868	47.6

Data File: /chem/VOA7.i/121809v7/7q503LA.d
Date : 18-DEC-2009 11:42
Client ID: LCS
Sample Info: 1120199995219343051111VOAF111
Column phase: DB-624

Instrument: VOA7.i
Operator: AXO1
Column diameter: 0.25

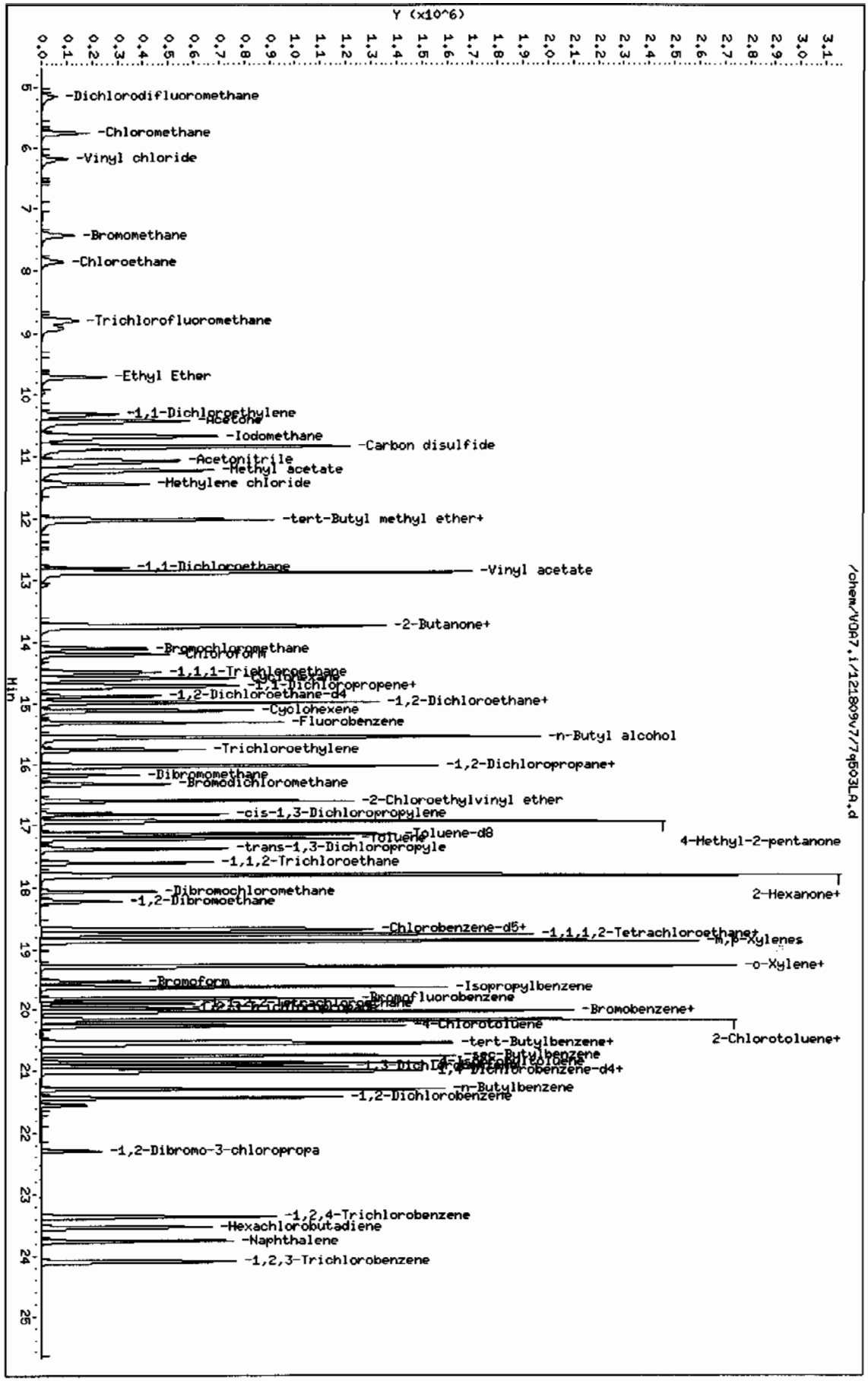

Page 1

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-854			**Matrix:**	SOIL
Lab Sample ID:	1201998953				
Client Sample:	QC for batch 934300	**Client:**	LANL010	**Project:**	QC
Client ID:	LCS for batch 934300	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	934305	**Inst:**	VOA7.I	**Dilution:**	1
Run Date:	12/18/2009 12:47	**Analyst:**	AXO1	**Purge Vol:**	5 mL
Prep Date:	12/18/2009 08:00	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	7q505LA.d	**Column:**	DB-624	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/kg	0.340	1.00
74-87-3	Chloromethane	U	1.00	ug/kg	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/kg	0.300	1.00
74-83-9	Bromomethane	U	1.00	ug/kg	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/kg	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/kg	0.300	1.00
67-64-1	Acetone	U	5.00	ug/kg	1.66	5.00
75-35-4	1,1-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/kg	1.60	5.00
75-09-2	Methylene chloride	U	5.00	ug/kg	2.00	5.00
75-15-0	Carbon disulfide	U	5.00	ug/kg	1.25	5.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/kg	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/kg	1.50	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/kg	0.300	1.00
74-97-5	Bromochloromethane	U	1.00	ug/kg	0.330	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/kg	0.300	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/kg	0.300	1.00
56-23-5	Carbon tetrachloride	U	1.00	ug/kg	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/kg	0.300	1.00
71-43-2	Benzene	U	1.00	ug/kg	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/kg	0.330	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/kg	0.300	1.00
74-95-3	Dibromomethane	U	1.00	ug/kg	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/kg	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
108-88-3	Toluene	U	1.00	ug/kg	0.300	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/kg	0.300	1.00
591-78-6	2-Hexanone	U	5.00	ug/kg	1.50	5.00
142-28-9	1,3-Dichloropropane	U	1.00	ug/kg	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/kg	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/kg	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/kg	0.300	1.00
108-90-7	Chlorobenzene	U	1.00	ug/kg	0.300	1.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-854**			**Matrix:**	**SOIL**
Lab Sample ID:	**1201998953**				
Client Sample:	**QC for batch 934300**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 934300**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**934305**	**Inst:**	**VOA7.I**	**Dilution:**	**1**
Run Date:	**12/18/2009 12:47**	**Analyst:**	**AXO1**	**Purge Vol:**	**5 mL**
Prep Date:	**12/18/2009 08:00**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**7q505LA.d**	**Column:**	**DB-624**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.00	ug/kg	0.300	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/kg	0.300	2.00
95-47-6	o-Xylene	U	1.00	ug/kg	0.300	1.00
100-42-5	Styrene	U	1.00	ug/kg	0.300	1.00
75-25-2	Bromoform	U	1.00	ug/kg	0.300	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/kg	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/kg	0.300	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/kg	0.300	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/kg	0.300	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/kg	0.300	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/kg	0.300	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/kg	0.300	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/kg	0.300	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/kg	0.300	1.00
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*		316	ug/kg	1.60	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA7.i/121809v7/7q505LA.d
Lab Smp Id: 1201998953 Client Smp ID: SLCS
Inj Date : 18-DEC-2009 12:47
Operator : AXO1 Inst ID: VOA7.i
Smp Info : |1201998953|934305|1|VOAF|1|
Misc Info : GEL 5mL N/A UVM091129-01E/IVM091214-01
Comment :
Method : /chem/VOA7.i/121809v7/VOA7-8260B-111509.m
Meth Date : 19-Dec-2009 13:12 ale01592 Quant Type: ISTD
Cal Date : 16-NOV-2009 02:36 Cal File: 71708.d
Als bottle: 5 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	0.00000	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
147 Chlorotrifluoroethylene	116	5.044	5.029	(0.329)	356480	163.639	164
148 2-Chloro-1,1,1-trifluoroethane	118	6.619	6.604	(0.432)	741037	156.803	157
11 Acrolein	56	10.028	10.017	(0.655)	330404	238.555	238
12 Trichlorotrifluoroethane	85	10.373	10.373	(0.677)	491615	315.775	316
15 Isopropyl Alcohol	45	10.789	10.779	(0.704)	1665448	2716.70	2720
20 Allyl chloride	41	11.185	11.185	(0.730)	2294500	216.067	216
21 tert-Butyl Alcohol	59	11.672	11.672	(0.762)	2182412	2559.35	2560
23 Acrylonitrile	53	11.936	11.926	(0.779)	646083	232.774	233
27 Isopropyl ether	45	12.911	12.901	(0.843)	1163889	41.2141	41.2
29 2-Chloro-1,3-butadiene	53	12.961	12.961	(0.846)	518434	56.8742	56.9
30 Ethyl tert-butyl ether	59	13.489	13.489	(0.881)	829586	43.2616	43.3
32 Ethyl acetate	43	13.804	13.804	(0.901)	1722575	208.815	209

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
	35 Propionitrile	54	13.814	13.804	(0.902)	252554	226.002	226
	36 Methacrylonitrile	41	14.048	14.048	(0.917)	1069508	212.797	213
	39 Tetrahydrofuran	42	14.159	14.159	(0.675)	588191	197.442	197
	42 Isobutyl alcohol	41	14.748	14.748	(0.963)	764688	2583.90	2580
$	46 1,2-Dichloroethane-d4	65	14.880	14.880	(0.971)	399126	54.7747	54.8
	49 Methyl tert-amyl ether	73	15.083	15.083	(0.985)	578167	43.4926	43.5
*	51 Fluorobenzene	96	15.317	15.317	(1.000)	835705	50.0000	
	54 Methyl methacrylate	69	16.078	16.078	(1.050)	745900	212.952	213
	57 1,4-Dioxane	88	16.159	16.159	(1.055)	140477	2655.59	2660
	60 2-Nitropropane	43	16.555	16.555	(1.081)	704285	324.307	324
$	64 Toluene-d8	98	17.144	17.144	(0.918)	921650	47.3786	47.4
	66 Ethyl methacrylate	69	17.418	17.418	(0.933)	1383074	199.574	200
	74 1-Chlorohexane	55	18.575	18.575	(1.213)	314762	46.8263	46.8
*	75 Chlorobenzene-d5	117	18.667	18.667	(1.000)	651635	50.0000	
	84 cis-1,4-Dichloro-2-butene	53	19.662	19.662	(0.937)	806960	255.761	256
	85 Cyclohexanone	55	19.773	19.773	(1.059)	729251	600.637	601
$	86 Bromofluorobenzene	95	19.814	19.814	(0.944)	433138	45.6833	45.7
	88 trans-1,4-Dichloro-2-butene	53	19.936	19.936	(0.950)	752964	261.219	261
	97 Pentachloroethane	167	20.606	20.606	(0.982)	569198	271.648	272
*	101 1,4-Dichlorobenzene-d4	152	20.992	20.991	(1.000)	402850	50.0000	
	103 Benzyl chloride	91	21.124	21.124	(1.006)	2616986	243.699	244
	106 bis(2-Chloroisopropyl)ether	45	21.509	21.509	(1.025)	1213940	204.162	204

Data File: /chem/VOA7.i/121809v7/7q505LA.d
Date : 18-DEC-2009 12:47
Client ID: SLCS
Sample Info: |120199895319343051|1|VOAF|1|
Column phase: DB-624

Instrument: VOA7.i
Operator: AXO1
Column diameter: 0.25

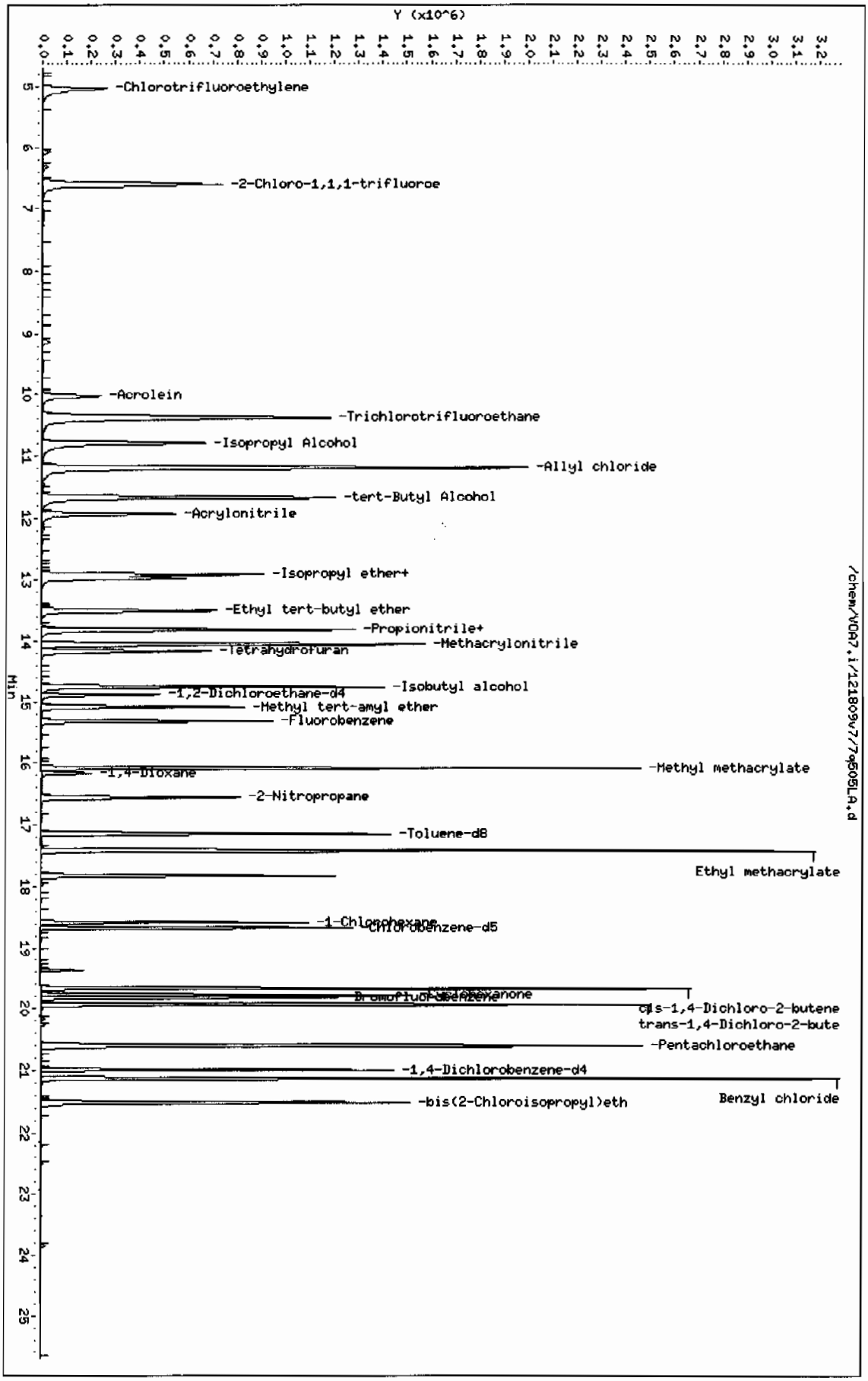

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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-854	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	1201998950	**Date Received:**	12/10/2009 08:50	**%Moisture:**	8.2
Client Sample:	QC for batch 934300	**Client:**	LANL010	**Project:**	QC
Client ID:	RE03-10-2741PS	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	934305	**Inst:**	VOA7.I	**Dilution:**	1
Run Date:	12/18/2009 20:29	**Analyst:**	AXO1	**Purge Vol:**	5 mL
Prep Date:	12/18/2009 13:22	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	7q518.d	**Column:**	DB-624	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane		53.0	ug/kg	0.370	1.09
74-87-3	Chloromethane		41.8	ug/kg	0.327	1.09
75-01-4	Vinyl chloride		45.9	ug/kg	0.327	1.09
74-83-9	Bromomethane		40.5	ug/kg	0.327	1.09
75-00-3	Chloroethane		42.3	ug/kg	0.327	1.09
75-69-4	Trichlorofluoromethane		58.6	ug/kg	0.327	1.09
67-64-1	Acetone		100	ug/kg	1.81	5.44
75-35-4	1,1-Dichloroethylene		44.9	ug/kg	0.327	1.09
74-88-4	Iodomethane		190	ug/kg	1.74	5.44
75-09-2	Methylene chloride		43.8	ug/kg	2.18	5.44
75-15-0	Carbon disulfide		215	ug/kg	1.36	5.44
156-60-5	trans-1,2-Dichloroethylene		42.8	ug/kg	0.327	1.09
75-34-3	1,1-Dichloroethane		44.3	ug/kg	0.327	1.09
78-93-3	2-Butanone		102	ug/kg	1.63	5.44
156-59-2	cis-1,2-Dichloroethylene		43.7	ug/kg	0.327	1.09
594-20-7	2,2-Dichloropropane		47.3	ug/kg	0.327	1.09
67-66-3	Chloroform		47.6	ug/kg	0.327	1.09
74-97-5	Bromochloromethane		43.1	ug/kg	0.359	1.09
71-55-6	1,1,1-Trichloroethane		54.7	ug/kg	0.327	1.09
563-58-6	1,1-Dichloropropene		43.7	ug/kg	0.327	1.09
56-23-5	Carbon tetrachloride		55.2	ug/kg	0.327	1.09
107-06-2	1,2-Dichloroethane		48.3	ug/kg	0.327	1.09
71-43-2	Benzene		40.5	ug/kg	0.327	1.09
79-01-6	Trichloroethylene		42.9	ug/kg	0.359	1.09
78-87-5	1,2-Dichloropropane		38.4	ug/kg	0.327	1.09
75-27-4	Bromodichloromethane		48.9	ug/kg	0.327	1.09
74-95-3	Dibromomethane		44.5	ug/kg	0.327	1.09
108-10-1	4-Methyl-2-pentanone		144	ug/kg	1.36	5.44
10061-01-5	cis-1,3-Dichloropropylene		31.8	ug/kg	0.327	1.09
108-88-3	Toluene		37.8	ug/kg	0.327	1.09
10061-02-6	trans-1,3-Dichloropropylene		34.2	ug/kg	0.327	1.09
79-00-5	1,1,2-Trichloroethane		40.5	ug/kg	0.327	1.09
591-78-6	2-Hexanone		76.1	ug/kg	1.63	5.44
142-28-9	1,3-Dichloropropane		39.6	ug/kg	0.327	1.09
127-18-4	Tetrachloroethylene		49.7	ug/kg	0.327	1.09
124-48-1	Dibromochloromethane		47.4	ug/kg	0.327	1.09
106-93-4	1,2-Dibromoethane		40.6	ug/kg	0.327	1.09
108-90-7	Chlorobenzene		37.3	ug/kg	0.327	1.09

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-854**	**Date Collected:**	**12/07/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**1201998950**	**Date Received:**	**12/10/2009 08:50**	**%Moisture:**	**8.2**
Client Sample:	**QC for batch 934300**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**RE03-10-2741PS**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**934305**	**Inst:**	**VOA7.I**	**Dilution:**	**1**
Run Date:	**12/18/2009 20:29**	**Analyst:**	**AXO1**	**Purge Vol:**	**5 mL**
Prep Date:	**12/18/2009 13:22**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**7q518.d**	**Column:**	**DB-624**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene		37.8	ug/kg	0.327	1.09
179601-23-1	m,p-Xylenes		66.5	ug/kg	0.327	2.18
95-47-6	o-Xylene		37.2	ug/kg	0.327	1.09
100-42-5	Styrene		32.2	ug/kg	0.327	1.09
75-25-2	Bromoform		52.7	ug/kg	0.327	1.09
79-34-5	1,1,2,2-Tetrachloroethane		40.1	ug/kg	0.327	1.09
96-18-4	1,2,3-Trichloropropane		44.9	ug/kg	0.327	1.09
108-86-1	Bromobenzene		38.5	ug/kg	0.327	1.09
103-65-1	n-Propylbenzene		36.0	ug/kg	0.327	1.09
95-49-8	2-Chlorotoluene		37.8	ug/kg	0.327	1.09
98-82-8	Isopropylbenzene		40.6	ug/kg	0.327	1.09
108-67-8	1,3,5-Trimethylbenzene		37.3	ug/kg	0.327	1.09
106-43-4	4-Chlorotoluene		31.8	ug/kg	0.327	1.09
98-06-6	tert-Butylbenzene		37.2	ug/kg	0.327	1.09
95-63-6	1,2,4-Trimethylbenzene		32.2	ug/kg	0.327	1.09
135-98-8	sec-Butylbenzene		35.8	ug/kg	0.327	1.09
99-87-6	4-Isopropyltoluene		15.1	ug/kg	0.327	1.09
541-73-1	1,3-Dichlorobenzene		34.6	ug/kg	0.327	1.09
106-46-7	1,4-Dichlorobenzene		34.0	ug/kg	0.327	1.09
104-51-8	n-Butylbenzene		28.2	ug/kg	0.327	1.09
96-12-8	1,2-Dibromo-3-chloropropane		42.3	ug/kg	0.327	1.09
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.44	ug/kg	1.74	5.44
630-20-6	1,1,1,2-Tetrachloroethane		42.5	ug/kg	0.327	1.09
95-50-1	1,2-Dichlorobenzene		34.0	ug/kg	0.327	1.09

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA7.i/121809v7/7q518.d
Lab Smp Id: 1201998950 Client Smp ID: RE03-10-2741MS
Inj Date : 18-DEC-2009 20:29
Operator : AXO1 Inst ID: VOA7.i
Smp Info : |1201998950|934305|1|VOAF|1|
Misc Info : LANL 5g N/A MS 242668001
Comment :
Method : /chem/VOA7.i/121809v7/VOA7-8260B-111509.m
Meth Date : 19-Dec-2009 13:12 ale01592 Quant Type: ISTD
Cal Date : 16-NOV-2009 02:36 Cal File: 71708.d
Als bottle: 18 QC Sample: MS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-854.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	8.16760	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
* 51 Fluorobenzene	96	15.317	15.317	(1.000)	738454	50.0000	
* 75 Chlorobenzene-d5	117	18.667	18.667	(1.000)	569475	50.0000	
* 101 1,4-Dichlorobenzene-d4	152	20.991	20.991	(1.000)	311195	50.0000	
$ 46 1,2-Dichloroethane-d4	65	14.880	14.880	(0.971)	355918	55.2777	60.2
$ 64 Toluene-d8	98	17.144	17.144	(0.918)	788035	46.3545	50.5
$ 86 Bromofluorobenzene	95	19.814	19.814	(0.944)	358964	49.0109	53.4
4 Dichlorodifluoromethane	85	5.162	5.147	(0.337)	142099	48.6342	53.0
5 Chloromethane	50	5.772	5.757	(0.377)	277879	38.3409	41.8
6 Vinyl chloride	62	6.202	6.187	(0.405)	211208	42.1821	45.9
7 Bromomethane	94	7.429	7.429	(0.485)	127465	37.1465	40.4
8 Chloroethane	64	7.855	7.855	(0.513)	145311	38.8169	42.3
9 Trichlorofluoromethane	101	8.789	8.789	(0.574)	271488	53.8191	58.6

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
13 Acetone	43	10.434	10.413	(0.681)	555807	92.1353	100
14 1,1-Dichloroethylene	96	10.312	10.312	(0.673)	125801	41.2101	44.9
102 1,4-Dichlorobenzene	146	21.022	21.022	(1.001)	275422	31.2007	34.0
16 Iodomethane	142	10.677	10.667	(0.697)	972914	174.492	190
22 Methylene chloride	86	11.449	11.449	(0.747)	112810	40.1815	43.8
19 Carbon disulfide	76	10.840	10.840	(0.708)	1969910	197.136	215
25 trans-1,2-Dichloroethylene	61	12.027	12.027	(0.785)	255747	39.3281	42.8
28 1,1-Dichloroethane	63	12.799	12.799	(0.836)	330443	40.6955	44.3
31 2-Butanone	43	13.723	13.723	(0.896)	645814	93.7270	102
33 cis-1,2-Dichloroethylene	61	13.743	13.733	(0.897)	305377	40.1695	43.7
100 1,3-Dichlorobenzene	146	20.941	20.931	(0.998)	284598	31.7797	34.6
34 2,2-Dichloropropane	77	13.753	13.753	(0.898)	185799	43.4108	47.3
38 Chloroform	83	14.190	14.190	(0.926)	321000	43.7575	47.6
105 1,2-Dichlorobenzene	146	21.438	21.438	(1.021)	278189	31.2070	34.0
37 Bromochloromethane	49	14.088	14.088	(0.920)	261471	39.5569	43.1
41 1,1,1-Trichloroethane	97	14.494	14.484	(0.946)	274302	50.2075	54.7
44 1,1-Dichloropropene	75	14.707	14.697	(0.960)	198517	40.1145	43.7
45 Carbon tetrachloride	117	14.728	14.728	(0.962)	219100	50.6503	55.2
47 1,2-Dichloroethane	62	14.982	14.982	(0.978)	340322	44.3415	48.3
48 Benzene	78	14.992	14.992	(0.979)	563012	37.2235	40.5
53 Trichloroethylene	95	15.773	15.773	(1.030)	153774	39.3651	42.9
56 1,2-Dichloropropane	63	16.037	16.037	(1.047)	173401	35.2459	38.4
59 Bromodichloromethane	83	16.332	16.332	(1.066)	260764	44.8744	48.9
58 Dibromomethane	93	16.190	16.179	(1.057)	113348	40.9050	44.5
63 4-Methyl-2-pentanone	58	16.941	16.941	(0.908)	389289	132.225	144(R)
62 cis-1,3-Dichloropropylene	75	16.819	16.819	(1.098)	214232	29.1841	31.8
65 Toluene	92	17.215	17.215	(0.922)	350922	34.7055	37.8
67 trans-1,3-Dichloropropylene	75	17.398	17.388	(0.932)	221234	31.4476	34.2
68 1,1,2-Trichloroethane	83	17.611	17.611	(0.943)	128812	37.1924	40.5
69 2-Hexanone	43	17.804	17.804	(0.954)	667202	69.8745	76.1(R)
70 1,3-Dichloropropane	76	17.794	17.794	(0.953)	250405	36.3827	39.6
71 Tetrachloroethylene	164	17.824	17.824	(0.955)	107550	45.6043	49.7
72 Dibromochloromethane	129	18.068	18.068	(0.968)	176127	43.5290	47.4
73 1,2-Dibromoethane	107	18.220	18.220	(0.976)	156569	37.2415	40.6
76 Chlorobenzene	112	18.707	18.697	(1.002)	376033	34.2601	37.3
77 1,1,1,2-Tetrachloroethane	131	18.758	18.758	(1.005)	153961	39.0356	42.5
78 Ethylbenzene	91	18.768	18.768	(1.005)	661898	34.7399	37.8
79 m,p-Xylenes	106	18.870	18.870	(1.011)	442606	61.0452	66.5
80 o-Xylene	106	19.286	19.286	(1.033)	256211	34.1951	37.2
81 Styrene	104	19.286	19.286	(1.033)	398765	29.6114	32.2
82 Bromoform	173	19.540	19.540	(0.931)	131508	48.3901	52.7
87 1,1,2,2-Tetrachloroethane	83	19.885	19.885	(0.947)	206997	36.8109	40.1
89 1,2,3-Trichloropropane	110	19.976	19.976	(0.952)	58388	41.2067	44.9
90 Bromobenzene	156	20.017	20.017	(0.954)	176736	35.3633	38.5
91 n-Propylbenzene	91	20.037	20.037	(0.955)	722543	33.0732	36.0
93 2-Chlorotoluene	91	20.169	20.179	(0.961)	549562	34.6865	37.8
83 Isopropylbenzene	105	19.631	19.631	(0.935)	661765	37.2627	40.6

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
92 1,3,5-Trimethylbenzene	105	20.179	20.169	(0.961)	538719	34.2203	37.3
94 4-Chlorotoluene	91	20.271	20.271	(0.966)	440341	29.2451	31.8
95 tert-Butylbenzene	119	20.535	20.535	(0.978)	500945	34.1715	37.2
96 1,2,4-Trimethylbenzene	105	20.565	20.565	(0.980)	497710	29.6077	32.2
98 sec-Butylbenzene	105	20.748	20.748	(0.988)	656704	32.8646	35.8
99 4-Isopropyltoluene	119	20.870	20.870	(0.994)	219561	13.8242	15.0(R)
104 n-Butylbenzene	91	21.296	21.296	(1.014)	434002	25.8526	28.2
107 1,2-Dibromo-3-chloropropane	157	22.301	22.301	(1.062)	42509	38.8429	42.3

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: /chem/VOA7.i/121809v7/7q518.d
Date : 18-DEC-2009 20:29
Client ID: RE03-10-2741MS
Sample Info: 1120199895019343065111VOAF111
Column phase: DB-624

Instrument: VOA7.i
Operator: AXO1
Column diameter: 0.25

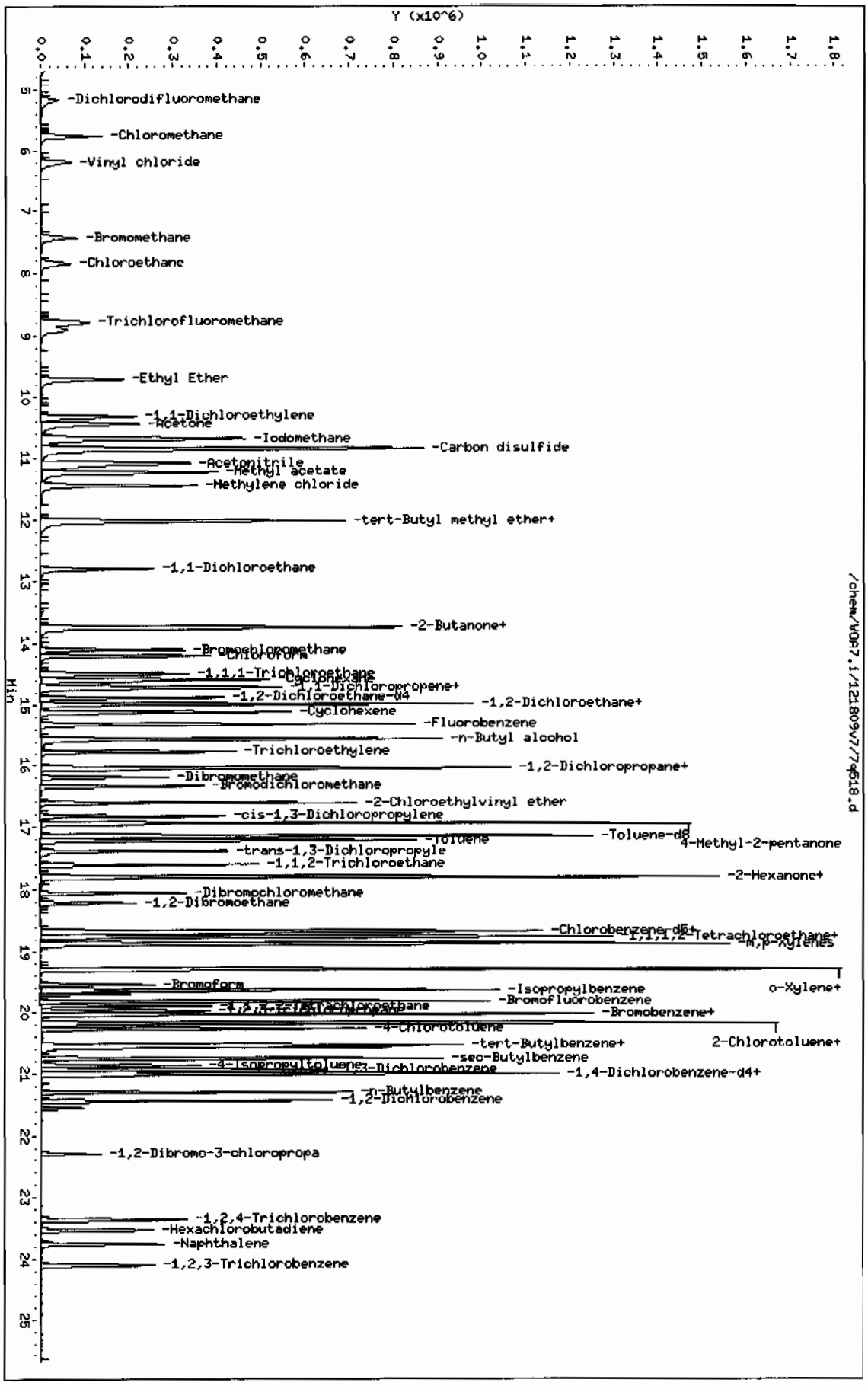

Page 1

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-854**	**Date Collected:**	**12/07/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**1201998951**	**Date Received:**	**12/10/2009 08:50**	**%Moisture:**	**8.2**
Client Sample:	**QC for batch 934300**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**RE03-10-2741PSD**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**934305**	**Inst:**	**VOA7.I**	**Dilution:**	**1**
Run Date:	**12/18/2009 21:02**	**Analyst:**	**AXO1**	**Purge Vol:**	**5 mL**
Prep Date:	**12/18/2009 13:24**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**7q519.d**	**Column:**	**DB-624**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane		52.2	ug/kg	0.370	1.09
74-87-3	Chloromethane		40.6	ug/kg	0.327	1.09
75-01-4	Vinyl chloride		44.5	ug/kg	0.327	1.09
74-83-9	Bromomethane		38.9	ug/kg	0.327	1.09
75-00-3	Chloroethane		40.2	ug/kg	0.327	1.09
75-69-4	Trichlorofluoromethane		57.5	ug/kg	0.327	1.09
67-64-1	Acetone		99.4	ug/kg	1.81	5.44
75-35-4	1,1-Dichloroethylene		46.2	ug/kg	0.327	1.09
74-88-4	Iodomethane		185	ug/kg	1.74	5.44
75-09-2	Methylene chloride		43.1	ug/kg	2.18	5.44
75-15-0	Carbon disulfide		211	ug/kg	1.36	5.44
156-60-5	trans-1,2-Dichloroethylene		42.8	ug/kg	0.327	1.09
75-34-3	1,1-Dichloroethane		44.3	ug/kg	0.327	1.09
78-93-3	2-Butanone		107	ug/kg	1.63	5.44
156-59-2	cis-1,2-Dichloroethylene		42.5	ug/kg	0.327	1.09
594-20-7	2,2-Dichloropropane		44.6	ug/kg	0.327	1.09
67-66-3	Chloroform		48.3	ug/kg	0.327	1.09
74-97-5	Bromochloromethane		43.7	ug/kg	0.359	1.09
71-55-6	1,1,1-Trichloroethane		52.7	ug/kg	0.327	1.09
563-58-6	1,1-Dichloropropene		42.5	ug/kg	0.327	1.09
56-23-5	Carbon tetrachloride		53.2	ug/kg	0.327	1.09
107-06-2	1,2-Dichloroethane		49.1	ug/kg	0.327	1.09
71-43-2	Benzene		40.1	ug/kg	0.327	1.09
79-01-6	Trichloroethylene		42.2	ug/kg	0.359	1.09
78-87-5	1,2-Dichloropropane		38.3	ug/kg	0.327	1.09
75-27-4	Bromodichloromethane		48.0	ug/kg	0.327	1.09
74-95-3	Dibromomethane		45.6	ug/kg	0.327	1.09
108-10-1	4-Methyl-2-pentanone		150	ug/kg	1.36	5.44
10061-01-5	cis-1,3-Dichloropropylene		31.3	ug/kg	0.327	1.09
108-88-3	Toluene		37.4	ug/kg	0.327	1.09
10061-02-6	trans-1,3-Dichloropropylene		35.1	ug/kg	0.327	1.09
79-00-5	1,1,2-Trichloroethane		40.7	ug/kg	0.327	1.09
591-78-6	2-Hexanone		77.3	ug/kg	1.63	5.44
142-28-9	1,3-Dichloropropane		39.9	ug/kg	0.327	1.09
127-18-4	Tetrachloroethylene		47.0	ug/kg	0.327	1.09
124-48-1	Dibromochloromethane		46.6	ug/kg	0.327	1.09
106-93-4	1,2-Dibromoethane		41.1	ug/kg	0.327	1.09
108-90-7	Chlorobenzene		37.1	ug/kg	0.327	1.09

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-854	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	1201998951	**Date Received:**	12/10/2009 08:50	**%Moisture:**	8.2
Client Sample:	QC for batch 934300	**Client:**	LANL010	**Project:**	QC
Client ID:	RE03-10-2741PSD	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	934305	**Inst:**	VOA7.I	**Dilution:**	1
Run Date:	12/18/2009 21:02	**Analyst:**	AXO1	**Purge Vol:**	5 mL
Prep Date:	12/18/2009 13:24	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	7q519.d	**Column:**	DB-624	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene		36.6	ug/kg	0.327	1.09
179601-23-1	m,p-Xylenes		63.7	ug/kg	0.327	2.18
95-47-6	o-Xylene		35.5	ug/kg	0.327	1.09
100-42-5	Styrene		31.6	ug/kg	0.327	1.09
75-25-2	Bromoform		52.0	ug/kg	0.327	1.09
79-34-5	1,1,2,2-Tetrachloroethane		39.8	ug/kg	0.327	1.09
96-18-4	1,2,3-Trichloropropane		43.9	ug/kg	0.327	1.09
108-86-1	Bromobenzene		38.0	ug/kg	0.327	1.09
103-65-1	n-Propylbenzene		34.4	ug/kg	0.327	1.09
95-49-8	2-Chlorotoluene		35.3	ug/kg	0.327	1.09
98-82-8	Isopropylbenzene		38.6	ug/kg	0.327	1.09
108-67-8	1,3,5-Trimethylbenzene		35.0	ug/kg	0.327	1.09
106-43-4	4-Chlorotoluene		30.3	ug/kg	0.327	1.09
98-06-6	tert-Butylbenzene		35.3	ug/kg	0.327	1.09
95-63-6	1,2,4-Trimethylbenzene		30.6	ug/kg	0.327	1.09
135-98-8	sec-Butylbenzene		33.5	ug/kg	0.327	1.09
99-87-6	4-Isopropyltoluene		15.0	ug/kg	0.327	1.09
541-73-1	1,3-Dichlorobenzene		33.0	ug/kg	0.327	1.09
106-46-7	1,4-Dichlorobenzene		32.3	ug/kg	0.327	1.09
104-51-8	n-Butylbenzene		26.2	ug/kg	0.327	1.09
96-12-8	1,2-Dibromo-3-chloropropane		43.1	ug/kg	0.327	1.09
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.44	ug/kg	1.74	5.44
630-20-6	1,1,1,2-Tetrachloroethane		42.3	ug/kg	0.327	1.09
95-50-1	1,2-Dichlorobenzene		32.2	ug/kg	0.327	1.09

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA7.i/121809v7/7q519.d
Lab Smp Id: 1201998951 Client Smp ID: RE03-10-2741MSD
Inj Date : 18-DEC-2009 21:02
Operator : AXO1 Inst ID: VOA7.i
Smp Info : |1201998951|934305|1|VOAF|1|
Misc Info : LANL 5g N/A MSD 242668001
Comment :
Method : /chem/VOA7.i/121809v7/VOA7-8260B-111509.m
Meth Date : 19-Dec-2009 13:12 ale01592 Quant Type: ISTD
Cal Date : 16-NOV-2009 02:36 Cal File: 71708.d
Als bottle: 19 QC Sample: MSD
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-854.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	8.16760	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
* 51 Fluorobenzene	96	15.317	15.317	(1.000)	776480	50.0000	
* 75 Chlorobenzene-d5	117	18.667	18.667	(1.000)	595370	50.0000	
* 101 1,4-Dichlorobenzene-d4	152	20.992	20.991	(1.000)	332491	50.0000	
$ 46 1,2-Dichloroethane-d4	65	14.880	14.880	(0.971)	386105	57.0293	62.1
$ 64 Toluene-d8	98	17.144	17.144	(0.918)	821076	46.1974	50.3
$ 86 Bromofluorobenzene	95	19.814	19.814	(0.944)	374753	47.8894	52.1
4 Dichlorodifluoromethane	85	5.148	5.147	(0.336)	147405	47.9750	52.2
5 Chloromethane	50	5.772	5.757	(0.377)	284385	37.2954	40.6
6 Vinyl chloride	62	6.202	6.187	(0.405)	215344	40.9020	44.5
7 Bromomethane	94	7.429	7.429	(0.485)	128752	35.6840	38.8
8 Chloroethane	64	7.855	7.855	(0.513)	145421	36.9439	40.2
9 Trichlorofluoromethane	101	8.799	8.789	(0.574)	280119	52.8107	57.5

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
13 Acetone	43	10.423	10.413	(0.681)	579113	91.2974	99.4
14 1,1-Dichloroethylene	96	10.312	10.312	(0.673)	136076	42.3930	46.2
102 1,4-Dichlorobenzene	146	21.022	21.022	(1.001)	279991	29.6867	32.3
16 Iodomethane	142	10.677	10.667	(0.697)	994396	169.611	185
22 Methylene chloride	86	11.449	11.449	(0.747)	116866	39.5399	43.0
19 Carbon disulfide	76	10.840	10.840	(0.708)	2033220	193.507	211
25 trans-1,2-Dichloroethylene	61	12.027	12.027	(0.785)	268559	39.2758	42.8
28 1,1-Dichloroethane	63	12.799	12.799	(0.836)	347027	40.6449	44.2
31 2-Butanone	43	13.723	13.723	(0.896)	712373	98.3236	107
33 cis-1,2-Dichloroethylene	61	13.733	13.733	(0.897)	311863	39.0137	42.5
100 1,3-Dichlorobenzene	146	20.941	20.931	(0.998)	289522	30.2588	33.0
34 2,2-Dichloropropane	77	13.753	13.753	(0.898)	184524	41.0016	44.6
38 Chloroform	83	14.190	14.190	(0.926)	341869	44.3201	48.3
105 1,2-Dichlorobenzene	146	21.438	21.438	(1.021)	281300	29.5349	32.2
37 Bromochloromethane	49	14.088	14.088	(0.920)	278608	40.0854	43.6
41 1,1,1-Trichloroethane	97	14.494	14.484	(0.946)	278102	48.4102	52.7
44 1,1-Dichloropropene	75	14.708	14.697	(0.960)	203074	39.0257	42.5
45 Carbon tetrachloride	117	14.728	14.728	(0.962)	222061	48.8209	53.2
47 1,2-Dichloroethane	62	14.982	14.982	(0.978)	363781	45.0768	49.1
48 Benzene	78	14.992	14.992	(0.979)	585128	36.7912	40.1
53 Trichloroethylene	95	15.773	15.773	(1.030)	158992	38.7077	42.2
56 1,2-Dichloropropane	63	16.037	16.037	(1.047)	181873	35.1576	38.3
59 Bromodichloromethane	83	16.332	16.332	(1.066)	269180	44.0542	48.0
58 Dibromomethane	93	16.190	16.179	(1.057)	121900	41.8369	45.6
63 4-Methyl-2-pentanone	58	16.941	16.941	(0.908)	424693	137.976	150(R)
62 cis-1,3-Dichloropropylene	75	16.819	16.819	(1.098)	222041	28.7666	31.3
65 Toluene	92	17.215	17.215	(0.922)	363052	34.3435	37.4
67 trans-1,3-Dichloropropylene	75	17.398	17.388	(0.932)	237273	32.2605	35.1
68 1,1,2-Trichloroethane	83	17.611	17.611	(0.943)	135296	37.3655	40.7
69 2-Hexanone	43	17.804	17.804	(0.954)	708214	70.9436	77.2(R)
70 1,3-Dichloropropane	76	17.794	17.794	(0.953)	263719	36.6506	39.9
71 Tetrachloroethylene	164	17.824	17.824	(0.955)	106610	43.1521	47.0
72 Dibromochloromethane	129	18.068	18.068	(0.968)	181061	42.8022	46.6
73 1,2-Dibromoethane	107	18.220	18.220	(0.976)	165899	37.7444	41.1
76 Chlorobenzene	112	18.707	18.697	(1.002)	390662	34.0449	37.1
77 1,1,1,2-Tetrachloroethane	131	18.758	18.758	(1.005)	160252	38.8634	42.3
78 Ethylbenzene	91	18.768	18.768	(1.005)	669283	33.5997	36.6
79 m,p-Xylenes	106	18.870	18.870	(1.011)	443301	58.4818	63.7
80 o-Xylene	106	19.286	19.286	(1.033)	255456	32.6114	35.5
81 Styrene	104	19.286	19.286	(1.033)	409172	29.0627	31.6
82 Bromoform	173	19.540	19.540	(0.931)	138664	47.7552	52.0
87 1,1,2,2-Tetrachloroethane	83	19.895	19.885	(0.948)	219727	36.5720	39.8
89 1,2,3-Trichloropropane	110	19.976	19.976	(0.952)	61080	40.3456	43.9
90 Bromobenzene	156	20.017	20.017	(0.954)	186206	34.8717	38.0
91 n-Propylbenzene	91	20.037	20.037	(0.955)	737320	31.5880	34.4
93 2-Chlorotoluene	91	20.179	20.179	(0.961)	549476	32.4598	35.3
83 Isopropylbenzene	105	19.631	19.631	(0.935)	672751	35.4550	38.6

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
92 1,3,5-Trimethylbenzene	105	20.179	20.169	(0.961)	540984	32.1632	35.0
94 4-Chlorotoluene	91	20.271	20.271	(0.966)	448011	27.8488	30.3
95 tert-Butylbenzene	119	20.535	20.535	(0.978)	507295	32.3882	35.3
96 1,2,4-Trimethylbenzene	105	20.565	20.565	(0.980)	504203	28.0728	30.6
98 sec-Butylbenzene	105	20.748	20.748	(0.988)	657747	30.8085	33.5
99 4-Isopropyltoluene	119	20.870	20.870	(0.994)	234499	13.8191	15.0(R)
104 n-Butylbenzene	91	21.296	21.296	(1.014)	431651	24.0656	26.2
107 1,2-Dibromo-3-chloropropane	157	22.301	22.301	(1.062)	46271	39.5724	43.1

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: /chem/VOA7.i/121809v7/7q519.d
Date : 18-DEC-2009 21:02
Client ID: RE03-10-2741MSD
Sample Info: 1120199895119343061111VOAF11
Column phase: DB-624

Instrument: VOA7.i
Operator: AX01
Column diameter: 0.25

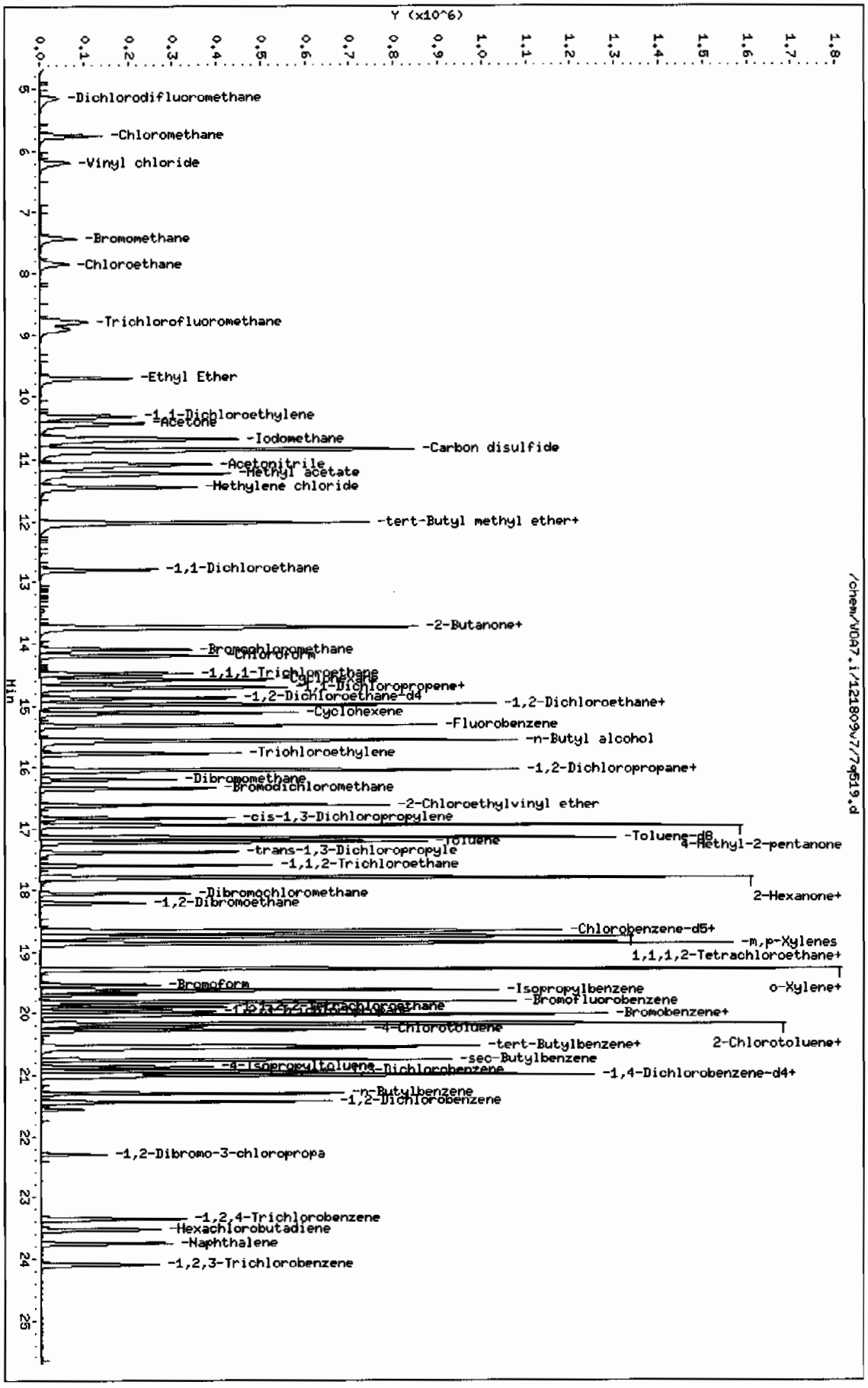

Page 1

Miscellaneous Data

Prep Logbook

Volatile Organic Compounds (VOC) by Gas Chromatograph/Mass Spectrometer

Batch ID: **934300** Verified by: _____

Analyst: Alex Olson
Method: SW846 5030
Lab SOP: GL-OA-E-038 REV# 13
Instrument: Sartorius Balance B-001

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units

Sample ID	Run Date	Matrix	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check 1
1201998949 MB	18-DEC-2009 08:00:00	Soil	5	5	1	N/A
1201998952 LCS	18-DEC-2009 08:00:00	Soil	5	5	1	N/A
1201998953 LCS	18-DEC-2009 08:00:00	Soil	5	5	1	N/A
242659001	18-DEC-2009 13:18:00	Soil	5	5	1	N/A
242668001	18-DEC-2009 13:20:00	Soil	5	5	1	N/A
1201998950 PS (242668001)	18-DEC-2009 13:22:00	Soil	5	5	1	N/A
1201998951 PSD (242668001)	18-DEC-2009 13:24:00	Soil	5	5	1	N/A
242743001	18-DEC-2009 13:26:00	Soil	5	5	1	N/A
242743002	18-DEC-2009 13:28:00	Soil	5	5	1	N/A
242668002	18-DEC-2009 13:30:00	Soil	5	5	1	N/A

Reagent/Solvent Lot ID	Description	Amount

Comments:

GEL Laboratories, LLC
Revision:11/22/04

ORGANIC RUN LOG - INSTRUMENT ID#VOA7

Date: 11/15/2009 Method 8260B/624 Operator: AXO1

REVIEWED BY: _____
DATE: _____

HARDWARE CONFIGURATION & METHOD CONDITIONS SUMMARY No# 1

Daily Instrument Readings:
Multiplier Voltage: 1918

CALIBRATION & CC INFORMATION:

Initial Calibration Date: 9/14/2009

(See pg. 217 for ICAL Std. Sci. Ids)

NaHSO4 lot # N/A

Cl test lot # N/A

Sequence Number: 111509V7

Daily Standard Solution ID#		Volume Added for Purge (ul) Blk/ Smpl	CCV	MS/ LCS	BFB
LONG ICV	W7VM091115-16/17		5+5		
IS	UVM090910-01	1	1	1	
SS	UVM090921-02	1	1	1	
BFB	UVM090921-02				1
SHORT ICV	See 111609v7 Seq		5+5	5+5	

Purge Amount	
5	Water Purge Vol:
N/A	Soil Purge Wt.
N/A	Mid level ext. MeOH Vol:
N/A	ul
N/A	Methanol Lot #
x	Heated Purge

Analysis Date Time	Data File	Lab Sample ID	Client	Batch #	Wt.(g) or Vol(ml/ul)	Dil. Factor	pH	AS Slot #	Matrix w or s	Analyst	Cl test (Y/N)	Acceptable (O/X)	Comments
11/15/2009 22:41	7L701.D	12019-----	GEL	BLANK	1uL	1	N/A	1	w	AXO1	N/A	X	BFB TEST
11/15/2009 23:14	7L702.D	UVM090921-02	GEL	BFB01	5mL	1	N/A	28	w	AXO1	N/A	O	
11/15/2009 23:47	7L703.D	W7VM091115-01	GEL	VSTD001	5mL	1	N/A	29	w	AXO1	N/A	X	UVM090911-02B/UVM091012-02D Chloromethane variance see 7L723
11/16/2009 0:20	7L704.D	W7VM091115-02	GEL	VSTD002	5mL	1	N/A	30	w	AXO1	N/A	O	UVM090911-03B/UVM091012-03D
11/16/2009 0:55	7L705.D	W7VM091115-03	GEL	VSTD005	5mL	1	N/A	31	w	AXO1	N/A	O	UVM090911-04B/UVM091012-04D
11/16/2009 1:29	7L706.D	W7VM091115-04	GEL	VSTD010	5mL	1	N/A	32	w	AXO1	N/A	O	UVM090911-05B/UVM091012-05D
11/16/2009 2:03	7L707.D	W7VM091115-05	GEL	VSTD020	5mL	1	N/A	33	w	AXO1	N/A	O	UVM090911-06B/UVM091012-06D
11/16/2009 2:36	7L708.D	W7VM091115-06	GEL	VSTD050	5mL	1	N/A	34	w	AXO1	N/A	O	UVM090911-07B/UVM091012-07D
11/16/2009 3:10	7L709.D	W7VM091115-07	GEL	VSTD100	5mL	1	N/A	35	w	AXO1	N/A	O	UVM090911-08B/UVM091012-08D
11/16/2009 3:43	7L710.D	12019-----	GEL	RINSE	5mL	1	N/A	36	w	AXO1	N/A	X	
11/16/2009 4:18	7L711.D	W7VM091115-08	GEL	VSTD0005	5mL	1	N/A	37	w	AXO1	N/A	O	UVM090911-01B/UVM091012-01D
11/16/2009 4:51	7L712.D	W7VM091115-09	GEL	VSTD005S	5mL	1	N/A	38	w	AXO1	N/A	O	UVM091023-01/UVM091110-01E
11/16/2009 5:25	7L713.D	W7VM091115-10	GEL	VSTD010S	5mL	1	N/A	39	w	AXO1	N/A	O	UVM091023-02/UVM091110-02E
11/16/2009 5:58	7L714.D	W7VM091115-11	GEL	VSTD025S	5mL	1	N/A	40	w	AXO1	N/A	O	UVM091023-03/UVM091110-03E
11/16/2009 6:32	7L715.D	W7VM091115-12	GEL	VSTD050S	5mL	1	N/A	41	w	AXO1	N/A	O	UVM091023-04/UVM091110-04E
11/16/2009 7:05	7L716.D	W7VM091115-13	GEL	VSTD100S	5mL	1	N/A	42	w	AXO1	N/A	O	UVM091023-05/UVM091110-05E
11/16/2009 7:38	7L717.D	W7VM091115-14	GEL	VSTD250S	5mL	1	N/A	43	w	AXO1	N/A	O	UVM091023-06/UVM091110-06E
11/16/2009 8:11	7L718.D	W7VM091115-15	GEL	VSTD500S	5mL	1	N/A	44	w	AXO1	N/A	O	UVM091023-07/UVM091110-07E
11/16/2009 8:45	7L719.D	12019-----	GEL	RINSE	5mL	1	N/A	45	w	AXO1	N/A	X	
11/16/2009 9:18	7L720.D	W7VM091115-16	GEL	ICV	5mL	1	N/A	46	w	AXO1	N/A	X	UVM091105-01A/IVM091111-01 See 111609v7 seq
11/16/2009 9:51	7L721.D	W7VM091115-17	GEL	ICV	5mL	1	N/A	47	w	AXO1	N/A	X	UVM091111-01A/IVM091111-01 See 111609v7 seq
11/16/2009 10:24	7L722.D	12019-----	GEL	RINSE	5mL	1	N/A	48	w	AXO1	N/A	X	
11/16/2009 10:57	7L723.D	W7VM0911115-18	GEL	VSTD001	5mL	1	N/A	49	w	AXO1	N/A	O	UVM090911-02B/UVM091012-02D

GEL Laboratories, LLC
Revision:11/22/04

ORGANIC RUN LOG - INSTRUMENT ID#VOA7

Date: 11/16/2009 Method 8260B/624 Operator: AXO1

REVIEWED BY: _____
DATE: _____

HARDWARE CONFIGURATION & METHOD CONDITIONS SUMMARY No# 1

Daily Instrument Readings:
Multiplier Voltage: 1918

CALIBRATION & CC INFORMATION:

Initial Calibration Date: 9/14/2009

(See pg. 217 for ICAL Std. Sci. Ids)

NaHSO4 lot # N/A

Cl test lot # 81710

Sequence Number: 111609V7

Daily Standard Solution ID#		Volume Added for Purge (ul) Blk/ Smpl	CCV	MS/ LCS	BFB
CCV	W7VM091116-01		5+5		
IS	UVM090910-01	1	1	1	
SS	UVM090921-02	1	1	1	
LCS/MS	W7VM091116-01/02			5+5	
BFB	UVM090921-02				1
SHORT	W7VM091116-03/04		5+5	5+5	
DHEC	N/A				

Purge Amount	
5	Water Purge Vol:
5g	Soil Purge Wt.
N/A	Mid level ext. MeOH Vol:
N/A	ul
N/A	Methanol Lot #
x	Heated Purge

Analysis Date Time	Data File	Lab Sample ID	Client	Batch #	Wt.(g) or Vol(ml/ul)	Dil. Factor	pH	AS Slot #	Matrix w or s	Analyst	Cl test (Y/N)	Acceptable (O/X)	Comments
11/16/2009 13:20	7M101.D	12019-----	GEL	BLANK	5mL	1	N/A	1	w	AXO1	N/A	X	
11/16/2009 13:54	7M102.D	W7VM091116-01	GEL	BFB/CCV/ICV/LCS	5mL	1	N/A	2	w	AXO1	N/A	O	UVM091111-01B/IVM091111-01 Dichlorodiflourmethane high
11/16/2009 14:28	7M103.D	W7VM091116-02	GEL	LCS	5g	1	N/A	3	s	AXO1	N/A	O	UVM091111-01B/IVM091111-01
11/16/2009 15:02	7M104.D	W7VM091116-03	GEL	SHORT/ICV/LCS	5mL	1	N/A	4	w	AXO1	N/A	O	UVM091023-08A/UVM091105-02A Cyclohexanone, Pentachloroethane low
11/16/2009 15:35	7M105.D	W7VM091116-04	GEL	SLCS	5g	1	N/A	5	s	AXO1	N/A	O	UVM091023-08A/UVM091105-02A
11/16/2009 16:08	7M106.D	12019-----	GEL	BLANK	5mL	1	N/A	6	w	AXO1	N/A	O	
11/16/2009 16:41	7M107.D	12019-----	GEL	BLANK	5g	1	N/A	7	s	AXO1	N/A	O	
11/16/2009 17:13	7M108.D	240587001	LANL	923260	5g	1	N/A	8	s	AXO1	N/A	O	
11/16/2009 17:46	7M109.D	240587002	LANL	923260	5g	1	N/A	9	s	AXO1	N/A	O	
11/16/2009 18:19	7M110.D	240589001	LANL	923260	5g	1	N/A	10	s	AXO1	N/A	O	
11/16/2009 18:52	7M111.D	240592001	LANL	923260	5g	1	N/A	11	s	AXO1	N/A	O	
11/16/2009 19:25	7M112.D	240579001	LANL	923260	5g	1	N/A	12	s	AXO1	N/A	O	
11/16/2009 19:59	7M113.D	240579002	LANL	923260	5g	1	N/A	13	s	AXO1	N/A	O	
11/16/2009 20:33	7M114.D	240579003	LANL	923260	5g	1	N/A	14	s	AXO1	N/A	O	
11/16/2009 21:07	7M115.D	240587003	LANL	923260	5g	1	N/A	15	s	AXO1	N/A	O	
11/16/2009 21:40	7M116.D	240587004	LANL	923260	5g	1	N/A	16	s	AXO1	N/A	O	
11/16/2009 22:13	7M117.D	240636005	LANL	923260	5g	1	N/A	17	s	AXO1	N/A	O	
11/16/2009 22:46	7M118.D	240504002	KAPL	922073	1mL	5	pH2	18	w	AXO1	N	X	Not Required
11/16/2009 23:18	7M119.D	240504002	KAPL	922073	2.5mL	2	pH2	19	w	AXO1	N	X	Not Required
11/16/2009 23:51	7M120.D	240504002	KAPL	922073	5mL	1	pH2	20	w	AXO1	N	X	Not Required
11/17/2009 0:24	7M121.D	12019-----	GEL	BLANK	5mL	1	N/A	21	w	AXO1	N	X	
11/17/2009 0:57	7M122.D	1201973553	LANL	923260	5g	1	N/A	22	s	AXO1	N/A	O	MS 240579001
11/17/2009 1:31	7M123.D	1201973554	LANL	923260	5g	1	N/A	23	s	AXO1	N/A	O	MSD 240579001

GEL Laboratories, LLC
Revision:11/22/04

ORGANIC RUN LOG - INSTRUMENT ID#VOA7

Date: 12/18/2009 Method 8260B/624 Operator: AXO1

REVIEWED BY: _____
DATE: _____

HARDWARE CONFIGURATION & METHOD CONDITIONS SUMMARY No# 1

Daily Instrument Readings:
Multiplier Voltage: 1918

CALIBRATION & CC INFORMATION:

Initial Calibration Date: 11/15/2009

(See pg. 217 for ICAL Std. Sci. Ids)

NaHSO4 lot # N/A

Cl test lot # 81710

Sequence Number: 121809V7

Daily Standard Solution ID#		Volume Added for Purge (ul) Blk/ Smpl	CCV	MS/ LCS	BFB
CCV	W7VM091218-01		5+5		
IS	UVM091203-01	1	1	1	
SS	UVM091020-02	1	1	1	
LCS/MS	W7VM091218-01/02			5+5	
BFB	UVM091020-02				1
SHORT	W7VM091218-03/04		5+5	5+5	
DHEC	N/A				

Purge Amount	
5	Water Purge Vol:
5g	Soil Purge Wt.
N/A	Mid level ext. MeOH Vol:
N/A	ul
N/A	Methanol Lot #
x	Heated Purge

Analysis Date	Time	Data File	Lab Sample ID	Client	Batch #	Wt.(g) or Vol(ml/ul)	Dil. Factor	pH	AS Slot #	Matrix w or s	Analyst	Cl test (Y/N)	Acceptable (O/X)	Comments
12/18/2009	10:36	7Q501.D	12019-----	GEL	BLANK	5mL	1	N/A	1	w	AXO1	N/A	X	
12/18/2009	11:09	7Q502.D	W7VM091218-01	GEL	BFB/CCV/LCS	5mL	1	N/A	2	w	AXO1	N/A	O	UVM091214-01A/IVM091217-01
12/18/2009	11:42	7Q503.D	W7VM091218-02	GEL	LCS	5g	1	N/A	3	s	AXO1	N/A	O	UVM091214-01A/IVM091217-01
12/18/2009	12:14	7Q504.D	W7VM091218-03	GEL	SHORT/SLCS	5mL	1	N/A	4	w	AXO1	N/A	O	UVM091118-08C/UVM091105-02E
12/18/2009	12:47	7Q505.D	W7VM091218-04	GEL	SLCS	5g	1	N/A	5	s	AXO1	N/A	O	UVM091129-01E/IVM091214-01
12/18/2009	13:20	7Q506.D	12019-----	GEL	BLANK	5mL	1	N/A	6	w	AXO1	N/A	O	
12/18/2009	13:55	7Q507.D	12019-----	GEL	BLANK	5g	1	N/A	7	s	AXO1	N/A	O	
12/18/2009	14:29	7Q508.D	242659001	LANL	934305	5g	1	N/A	8	s	AXO1	N/A	O	
12/18/2009	15:02	7Q509.D	242743001	LANL	934305	5g	1	N/A	9	s	AXO1	N/A	O	
12/18/2009	16:02	7Q510.D	242688001	LANL	934305	5g	1	N/A	10	s	AXO1	N/A	O	
12/18/2009	16:34	7Q511.D	242688002	LANL	934305	5g	1	N/A	11	s	AXO1	N/A	O	
12/18/2009	17:08	7Q512.D	242743002	LANL	934305	5g	1	N/A	12	s	AXO1	N/A	O	
12/18/2009	17:41	7Q513.D	242602003	LBNL	934788	5mL	1	pH2	13	w	AXO1	N	O	
12/18/2009	18:15	7Q514.D	242801001	BRKL	934790	5g	1	N/A	14	s	AXO1	N/A	O	
12/18/2009	18:49	7Q515.D	242602002	LBNL	934790	5uL	1E+06	pH6	15	w	AXO1	N	X	FROM 1000X RR 250,000X
12/18/2009	19:22	7Q516.D	1201998997	WASP	934296	5mL	1	pH2	16	w	AXO1	N	O	MS 242978011
12/18/2009	19:56	7Q517.D	1201998998	WASP	934296	5mL	1	pH2	17	w	AXO1	N	O	MSD 242978011
12/18/2009	20:29	7Q518.D	1201998950	LANL	934305	5g	1	N/A	18	s	AXO1	N/A	O	MS 242668001
12/18/2009	21:02	7Q519.D	1201998951	LANL	934305	5g	1	N/A	19	s	AXO1	N/A	O	MSD 242668001
12/18/2009	21:35	7Q520.D	1201999995	BRKL	934790	5g	1	N/A	20	s	AXO1	N/A	X	MS 242801001 MSD BAD PURGE
12/18/2009	22:08	7Q521.D	1201999996	BRKL	934790	5g	1	N/A	21	s	AXO1	N/A	X	MSD 242801001 BAD PURGE
12/18/2009	22:41	7Q522.D	1201999991	LBNL	934788	5mL	1E+06	pH6	22	w	AXO1	N	X	MS 242602002 FROM 1000X MSD Out of Tune, RR 250,000x
12/18/2009	23:14	7Q523.D	1201999992	LBNL	934788	5mL	1E+06	pH6	23	w	AXO1	N	X	MSD 242602002 FROM Out of Tune, RR 250,000x

COMPANY - WIDE NONCONFORMANCE REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
22-DEC-09	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
VOA GC/MS	SW846 8260B	Solid	LANL
Batch ID:	**Sample Numbers:**		
934305	See Below		

Potentially affected work order(s)(SDG): 242659(10-852-1),242668(10-854),242743(10-883)

Application Issues:

Failed Recovery for MS/PS

Container scanning event for custody missed

Failed Recovery for MSD/PSD

Specification and Requirements Nonconformance Description:	NRG Disposition:
1. Matrix Spike sample 1201998950 was outside of the spike recovery acceptance limits for the following compounds: 4-Methyl-2-pentanone 52.89% (57.70%-135.80%) 2-Hexanone 27.95% (31.40%-148.20%) 4-Isopropyltoluene 27.65% (37.90%-145.10%	1./3. Narrate and report data. The MS/MSD recovered in a similar manner. It is believed that matrix interference has been demonstrated.
2. The container scanning event for custody was missed for the following samples: 242659001 242668001,002 242743001,002	2. The analyst did not scan samples into his/her custody. The analyst had physical custody of the sample during the analysis.
3. Matrix Spike Duplicate sample 1201998951 was outside of the spike recovery acceptance limits for the following compounds: 4-Methyl-2-pentanone 55.19% (57.70%-135.80%) 2-Hexanone 28.38% (31.40%-148.20%) 4-Isopropyltoluene 27.64% (37.90%-145.10%)	

Originator's Name:

Alex Olson 22-DEC-09

Data Validator/Group Leader:

Sarah Kozlik 22-DEC-09

GC/MS Semivolatile Analysis

Semi-Volatile Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-854

Method/Analysis Information

Procedure:	**Analysis of Semivolatile Organic Compounds by Gas Chromatography/Mass Spectrometry**
Analytical Method:	SW846 8270C
Prep Method:	SW846 3550B
Analytical Batch Number:	932444
Prep Batch Number:	932443

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 8270C:

Sample ID	Client ID
242668001	RE03-10-2741
242668002	RE03-10-2740
1201994527	Method Blank (MB)
1201994528	Laboratory Control Sample (LCS)
1201994529	242791001(RE16-10-2878) Matrix Spike (MS)
1201994530	242791001(RE16-10-2878) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on a "dry weight" basis.

Preparation/Analytical Method Verification

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-009 REV# 23.

Raw data reports are processed and reviewed by the analyst using the Target software package. False positives have been removed from the Target quantitation reports per standard operating procedures (SOP) section 18.2.

Calibration Information

Please note that the 'Cal Date' indicated on each quantitation report reflects the date and time of the most recent calibrated analyte(s) in the Target processing method. Since the laboratory may calibrate with multiple solutions on different days using the same processing method, the Target software will update the 'Cal Date' to the last calibration file, date and time. The correct dates and times for all calibration files are located on the Calibration History report in the Standard Data section in the data package.

Due to software limitations, the Calibration Summary Form 6 may not indicate all the calibration files comprising the initial calibration. A complete list of the initial calibration data files are shown in the Calibration History report located in the Standard Data section of the data package. Please note that the second level of the initial calibration (5 mg/L) is only used for n-Nitrosodipropylamine. The various calibration mixes may not be calibrated using all of the calibration levels. In addition, not all of the mixes are calibrated using the same levels.

Diphenylamine has now superseded N-Nitroso-diphenylamine as a CCC on Quantitation Reports, Initial Calibration Reports, Calibration Check Standard Reports, etc. Previous versions of EPA Method 8270 (prior to 8270C) listed N-Nitroso-diphenylamine as a CCC. However, as stated in EPA Method 8270C, Revision 3, December, 1996, Section 1.4.5, "N-Nitroso-diphenylamine decomposes in the gas chromatographic inlet and cannot be separated from Diphenylamine." Studies of these two compounds at GEL, both independent of each other and together, show that they not only co-elute, but also have similar mass spectra. N-Nitroso-diphenylamine and Diphenylamine will be reported as Diphenylamine on all reports and forms.

The linear equation used in Target and indicated on the initial calibration summary form is not a conventional linear equation (slope intercept formula) and does not match the equation found in SW-846 method 8000B. The x and y axes are inversed in Target, so that the instrument response is treated as the independent variable (x) and the concentration ratio is treated as the dependent variable (y). The equation used in Target to calculate sample results is adjusted to account for the linear equation inversion and reciprocal slope. The adjusted calculation has been independently verified to produce valid results.

Initial Calibration
All initial calibration requirements have been met for this sample delivery group (SDG). A second source initial calibration verification (ICV) was included in the standard section directly behind the initial calibration.

CCV Requirements
All associated calibration verification standard(s) (ICV or CCV) met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Surrogate Recoveries
All the surrogate recoveries were within the established acceptance criteria for this SDG.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

QC Sample Designation
The non-SDG sample 242791001(RE16-10-2878) was selected for analysis as the matrix spike and matrix spike duplicate. Please see the associated raw data files located in the Miscellaneous Section of the data report.

Matrix Spike (MS) Recovery Statement
Multiple MS recoveries were not within the acceptance limits. Since the MS and MSD both displayed failures, they were attributed to matrix interference and the data have been reported. Please see the spike recovery report for the specific failures.

Matrix Spike Duplicate (MSD) Recovery Statement
Multiple MSD recoveries were not within the acceptance limits. Since the MS and MSD both displayed failures, they were attributed to matrix interference and the data have been reported. Please see the spike recovery report for the specific failures.

MS/MSD Relative Percent Difference (RPD) Statement
The relative percent differences (RPD) were not within the acceptance limits. The failures were attributed to matrix interference and the data have been reported. Please see the spike recovery report for the specific failures.

Internal Standard (ISTD) Acceptance
The internal standards for the samples reported in this SDG were acceptable.

Technical Information

Holding Time Specifications
All samples in this SDG met the specified holding time. GEL assigns holding times based on the associated methodology that assigns the date and time from sample collection or sample receipt. Those holding times expressed in hours are calculated in the ALPHALIMS system. Those holding times expressed as days expire at midnight on the day of expiration.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-extraction/Re-analysis
Re-extractions or re-analyses were not required in this SDG except for confirmations and/or dilutions.

Miscellaneous Information

Nonconformance (NCR) Documentation
A non-conformance report was not required for the samples reported in this SDG.

Manual Integrations
Some initial calibration standards, continuing calibration standards, and/or samples may require manual integrations due to software limitations. Please see the raw data in the Miscellaneous Section.

Additional Comments
Additional comments were not required for this SDG.

Electronic Package Comment
The following package was generated using an electronic data processing program referred to as "virtual packaging". In an effort to increase quality and efficiency, the laboratory is developing systems to eventually generate all data packages electronically. The following change from "traditional" packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. An electronic signature page inserted after the case narrative of each electronic package will indicate the analyst, reviewer, and report specialist names associated with the generation of the data and package. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

System Configuration

The samples reported in this SDG were analyzed on one or more of the following instrument systems. Instrument systems are referenced in the raw data and individual form headers by the Instrument ID designations listed below:

Instrument ID	Instrument	System Configuration	Column ID	Column Description
MSD6.I	HP Mass Spectrometer	HP6890/HP5973	DB-5MS	25m x 0.20mm x 0.33 um (5% Phenylmethylpolysiloxane)

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

Reviewer: Dan Benchmy **Date:** 1-6-10

Roadmap for LANL 10-854 SVOA

This roadmap was analyzed by nat00999 on 12-18-2009, 14:16.
This roadmap was reviewed by bar00895 on 12-21-2009, 07:25.

Sample

exclude	manual	datafile	smpid	injdate	injtime	sublist	clientid	dilution	batchid	comment
☐	N	/chem/MSD6.i/s121609.b/s6l1616.d	242668001	16-DEC-2009	16:42	10-854.sub	RE03-10-2741	1	932444	
☐	N	/chem/MSD6.i/s121609.b/s6l1617.d	242668002	16-DEC-2009	17:10	10-854.sub	RE03-10-2740	1	932444	

QC Sample

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	batchid	comment
☐	N	/chem/MSD6.i/s121609.b/s6l1613-1.d	1201994527	mb	16-DEC-2009	15:15	10-854.sub	SBLK01	1	932444	
☐	N	/chem/MSD6.i/s121609.b/s6l1614-1.d	1201994528	lcs	16-DEC-2009	15:45	10-854.sub	SBLK01LCS	1	932444	

Sample Data Summary

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-854	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242668002	**Date Received:**	12/10/2009 08:50	**%Moisture:**	11.3
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-10-2740	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	932444	**Inst:**	MSD6.I	**Dilution:**	1
Run Date:	12/16/2009 17:10	**Analyst:**	NAG1	**Inj. Vol:**	.5 uL
Prep Date:	12/14/2009 09:47	**Aliquot:**	30.02 g	**Final Volume:**	1 mL
Data File:	s6l1617.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	376	ug/kg	75.1	376
108-95-2	Phenol	U	376	ug/kg	75.1	376
95-57-8	2-Chlorophenol	U	376	ug/kg	75.1	376
106-46-7	1,4-Dichlorobenzene	U	376	ug/kg	75.1	376
621-64-7	N-Nitrosodipropylamine	U	376	ug/kg	75.1	376
59-50-7	4-Chloro-3-methylphenol	U	376	ug/kg	75.1	376
83-32-9	Acenaphthene		72.5	ug/kg	12.4	37.6
121-14-2	2,4-Dinitrotoluene	U	376	ug/kg	37.6	376
100-02-7	4-Nitrophenol	U	376	ug/kg	124	376
87-86-5	Pentachlorophenol	U	376	ug/kg	93.9	376
129-00-0	Pyrene		870	ug/kg	11.3	37.6
110-86-1	Pyridine	U	376	ug/kg	75.1	376
62-53-3	Aniline	U	376	ug/kg	113	376
111-44-4	bis(2-Chloroethyl) ether	U	376	ug/kg	75.1	376
541-73-1	1,3-Dichlorobenzene	U	376	ug/kg	75.1	376
100-51-6	Benzyl alcohol	U	376	ug/kg	113	376
95-50-1	1,2-Dichlorobenzene	U	376	ug/kg	75.1	376
108-60-1	bis(2-Chloroisopropyl)ether	U	376	ug/kg	75.1	376
95-48-7	o-Cresol	U	376	ug/kg	75.1	376
65794-96-9	m,p-Cresols	U	376	ug/kg	113	376
67-72-1	Hexachloroethane	U	376	ug/kg	75.1	376
98-95-3	Nitrobenzene	U	376	ug/kg	75.1	376
78-59-1	Isophorone	U	376	ug/kg	75.1	376
88-75-5	2-Nitrophenol	U	376	ug/kg	75.1	376
105-67-9	2,4-Dimethylphenol	U	376	ug/kg	131	376
111-91-1	bis(2-Chloroethoxy)methane	U	376	ug/kg	75.1	376
120-83-2	2,4-Dichlorophenol	U	376	ug/kg	75.1	376
65-85-0	Benzoic acid	U	751	ug/kg	188	751
91-20-3	Naphthalene	J	35.1	ug/kg	11.3	37.6
106-47-8	4-Chloroaniline	U	376	ug/kg	75.1	376
87-68-3	Hexachlorobutadiene	U	376	ug/kg	75.1	376
91-57-6	2-Methylnaphthalene	J	16.5	ug/kg	7.51	37.6
77-47-4	Hexachlorocyclopentadiene	U	376	ug/kg	75.1	376
88-06-2	2,4,6-Trichlorophenol	U	376	ug/kg	75.1	376
95-95-4	2,4,5-Trichlorophenol	U	376	ug/kg	75.1	376
91-58-7	2-Chloronaphthalene	U	37.6	ug/kg	12.4	37.6
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	376	ug/kg	75.1	376
99-09-2	3-Nitroaniline	U	376	ug/kg	75.1	376

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-854	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242668002	**Date Received:**	12/10/2009 08:50	**%Moisture:**	11.3
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-10-2740	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	932444	**Inst:**	MSD6.I	**Dilution:**	1
Run Date:	12/16/2009 17:10	**Analyst:**	NAG1	**Inj. Vol:**	.5 uL
Prep Date:	12/14/2009 09:47	**Aliquot:**	30.02 g	**Final Volume:**	1 mL
Data File:	s6l1617.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	376	ug/kg	75.1	376
606-20-2	2,6-Dinitrotoluene	U	376	ug/kg	37.6	376
208-96-8	Acenaphthylene	U	37.6	ug/kg	11.3	37.6
51-28-5	2,4-Dinitrophenol	U	751	ug/kg	143	751
132-64-9	Dibenzofuran	U	376	ug/kg	75.1	376
84-66-2	Diethylphthalate	U	376	ug/kg	75.1	376
86-73-7	Fluorene		99.1	ug/kg	11.3	37.6
7005-72-3	4-Chlorophenylphenylether	U	376	ug/kg	75.1	376
534-52-1	2-Methyl-4,6-dinitrophenol	U	376	ug/kg	75.1	376
100-01-6	4-Nitroaniline	U	376	ug/kg	113	376
	p-Nitroaniline					
122-39-4	Diphenylamine	U	376	ug/kg	75.1	376
122-66-7	Azobenzene	U	376	ug/kg	75.1	376
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	376	ug/kg	75.1	376
118-74-1	Hexachlorobenzene	U	376	ug/kg	75.1	376
85-01-8	Phenanthrene		831	ug/kg	11.3	37.6
120-12-7	Anthracene		155	ug/kg	7.51	37.6
84-74-2	Di-n-butylphthalate	U	376	ug/kg	75.1	376
206-44-0	Fluoranthene		1070	ug/kg	11.3	37.6
85-68-7	Butylbenzylphthalate	U	376	ug/kg	75.1	376
56-55-3	Benzo(a)anthracene		348	ug/kg	11.3	37.6
91-94-1	3,3'-Dichlorobenzidine	U	376	ug/kg	113	376
218-01-9	Chrysene		417	ug/kg	11.3	37.6
117-81-7	bis(2-Ethylhexyl)phthalate	J	89.7	ug/kg	75.1	376
117-84-0	Di-n-octylphthalate	U	376	ug/kg	75.1	376
205-99-2	Benzo(b)fluoranthene		500	ug/kg	11.3	37.6
207-08-9	Benzo(k)fluoranthene		203	ug/kg	11.3	37.6
50-32-8	Benzo(a)pyrene		343	ug/kg	11.3	37.6
193-39-5	Indeno(1,2,3-cd)pyrene		262	ug/kg	11.3	37.6
53-70-3	Dibenzo(a,h)anthracene		129	ug/kg	11.3	37.6
191-24-2	Benzo(ghi)perylene		168	ug/kg	11.3	37.6
120-82-1	1,2,4-Trichlorobenzene	U	376	ug/kg	75.1	376

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	3.46	480	ug/kg		JA
498-15-7	Bicyclo[4.1.0]hept-3-ene, 3,7,7-trimethy	4.79	613	ug/kg	97	NJ

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-854	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242668002	**Date Received:**	12/10/2009 08:50	**%Moisture:**	11.3
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-10-2740	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	932444	**Inst:**	MSD6.I	**Dilution:**	1
Run Date:	12/16/2009 17:10	**Analyst:**	NAG1	**Inj. Vol:**	.5 uL
Prep Date:	12/14/2009 09:47	**Aliquot:**	30.02 g	**Final Volume:**	1 mL
Data File:	s611617.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	5.37	184	ug/kg		J
87-44-5	Caryophyllene	7.62	159	ug/kg	97	NJ
23986-74-5	1,6-Cyclodecadiene, 1-methyl-5-methylene	7.96	223	ug/kg	89	NJ
57-10-3	n-Hexadecanoic acid	10.16	194	ug/kg	98	NJ
	Unknown	11.55	176	ug/kg		J
	Unknown	11.95	244	ug/kg		J
	Unknown	12.25	709	ug/kg		J
1740-19-8	1-Phenanthrenecarboxylic acid, 1,2,3,4,4	12.37	1010	ug/kg	92	NJ
198-55-0	Perylene	14.78	191	ug/kg	99	NJ
	Unknown	16.39	263	ug/kg		J
	Unknown	17.09	304	ug/kg		J
70038-20-9	7-Oxabicyclo[4.1.0]heptane, 2,2,6-trimet	17.13	203	ug/kg	90	NJ

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-854	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242668001	**Date Received:**	12/10/2009 08:50	**%Moisture:**	8.2
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-10-2741	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	932444	**Inst:**	MSD6.I	**Dilution:**	1
Run Date:	12/16/2009 16:42	**Analyst:**	NAG1	**Inj. Vol:**	.5 uL
Prep Date:	12/14/2009 09:47	**Aliquot:**	30.07 g	**Final Volume:**	1 mL
Data File:	s6l1616.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	362	ug/kg	72.4	362
108-95-2	Phenol	U	362	ug/kg	72.4	362
95-57-8	2-Chlorophenol	U	362	ug/kg	72.4	362
106-46-7	1,4-Dichlorobenzene	U	362	ug/kg	72.4	362
621-64-7	N-Nitrosodipropylamine	U	362	ug/kg	72.4	362
59-50-7	4-Chloro-3-methylphenol	U	362	ug/kg	72.4	362
83-32-9	Acenaphthene	U	36.2	ug/kg	12.0	36.2
121-14-2	2,4-Dinitrotoluene	U	362	ug/kg	36.2	362
100-02-7	4-Nitrophenol	U	362	ug/kg	120	362
87-86-5	Pentachlorophenol	U	362	ug/kg	90.5	362
129-00-0	Pyrene	J	12.7	ug/kg	10.9	36.2
110-86-1	Pyridine	U	362	ug/kg	72.4	362
62-53-3	Aniline	U	362	ug/kg	109	362
111-44-4	bis(2-Chloroethyl) ether	U	362	ug/kg	72.4	362
541-73-1	1,3-Dichlorobenzene	U	362	ug/kg	72.4	362
100-51-6	Benzyl alcohol	U	362	ug/kg	109	362
95-50-1	1,2-Dichlorobenzene	U	362	ug/kg	72.4	362
108-60-1	bis(2-Chloroisopropyl)ether	U	362	ug/kg	72.4	362
95-48-7	o-Cresol	U	362	ug/kg	72.4	362
65794-96-9	m,p-Cresols	U	362	ug/kg	109	362
67-72-1	Hexachloroethane	U	362	ug/kg	72.4	362
98-95-3	Nitrobenzene	U	362	ug/kg	72.4	362
78-59-1	Isophorone	U	362	ug/kg	72.4	362
88-75-5	2-Nitrophenol	U	362	ug/kg	72.4	362
105-67-9	2,4-Dimethylphenol	U	362	ug/kg	127	362
111-91-1	bis(2-Chloroethoxy)methane	U	362	ug/kg	72.4	362
120-83-2	2,4-Dichlorophenol	U	362	ug/kg	72.4	362
65-85-0	Benzoic acid	U	724	ug/kg	181	724
91-20-3	Naphthalene	U	36.2	ug/kg	10.9	36.2
106-47-8	4-Chloroaniline	U	362	ug/kg	72.4	362
87-68-3	Hexachlorobutadiene	U	362	ug/kg	72.4	362
91-57-6	2-Methylnaphthalene	U	36.2	ug/kg	7.24	36.2
77-47-4	Hexachlorocyclopentadiene	U	362	ug/kg	72.4	362
88-06-2	2,4,6-Trichlorophenol	U	362	ug/kg	72.4	362
95-95-4	2,4,5-Trichlorophenol	U	362	ug/kg	72.4	362
91-58-7	2-Chloronaphthalene	U	36.2	ug/kg	12.0	36.2
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	362	ug/kg	72.4	362
99-09-2	3-Nitroaniline	U	362	ug/kg	72.4	362

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-854	Date Collected:	12/07/2009 12:00	Matrix:	S
Lab Sample ID:	242668001	Date Received:	12/10/2009 08:50	%Moisture:	8.2
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-10-2741	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	932444	Inst:	MSD6.I	Dilution:	1
Run Date:	12/16/2009 16:42	Analyst:	NAG1	Inj. Vol:	.5 uL
Prep Date:	12/14/2009 09:47	Aliquot:	30.07 g	Final Volume:	1 mL
Data File:	s6l1616.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	362	ug/kg	72.4	362
606-20-2	2,6-Dinitrotoluene	U	362	ug/kg	36.2	362
208-96-8	Acenaphthylene	U	36.2	ug/kg	10.9	36.2
51-28-5	2,4-Dinitrophenol	U	724	ug/kg	138	724
132-64-9	Dibenzofuran	U	362	ug/kg	72.4	362
84-66-2	Diethylphthalate	U	362	ug/kg	72.4	362
86-73-7	Fluorene	U	36.2	ug/kg	10.9	36.2
7005-72-3	4-Chlorophenylphenylether	U	362	ug/kg	72.4	362
534-52-1	2-Methyl-4,6-dinitrophenol	U	362	ug/kg	72.4	362
100-01-6	4-Nitroaniline	U	362	ug/kg	109	362
	p-Nitroaniline					
122-39-4	Diphenylamine	U	362	ug/kg	72.4	362
122-66-7	Azobenzene	U	362	ug/kg	72.4	362
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	362	ug/kg	72.4	362
118-74-1	Hexachlorobenzene	U	362	ug/kg	72.4	362
85-01-8	Phenanthrene	U	36.2	ug/kg	10.9	36.2
120-12-7	Anthracene	U	36.2	ug/kg	7.24	36.2
84-74-2	Di-n-butylphthalate	U	362	ug/kg	72.4	362
206-44-0	Fluoranthene	J	12.0	ug/kg	10.9	36.2
85-68-7	Butylbenzylphthalate	U	362	ug/kg	72.4	362
56-55-3	Benzo(a)anthracene	U	36.2	ug/kg	10.9	36.2
91-94-1	3,3'-Dichlorobenzidine	U	362	ug/kg	109	362
218-01-9	Chrysene	U	36.2	ug/kg	10.9	36.2
117-81-7	bis(2-Ethylhexyl)phthalate	U	362	ug/kg	72.4	362
117-84-0	Di-n-octylphthalate	U	362	ug/kg	72.4	362
205-99-2	Benzo(b)fluoranthene	U	36.2	ug/kg	10.9	36.2
207-08-9	Benzo(k)fluoranthene	U	36.2	ug/kg	10.9	36.2
50-32-8	Benzo(a)pyrene	U	36.2	ug/kg	10.9	36.2
193-39-5	Indeno(1,2,3-cd)pyrene	U	36.2	ug/kg	10.9	36.2
53-70-3	Dibenzo(a,h)anthracene	U	36.2	ug/kg	10.9	36.2
191-24-2	Benzo(ghi)perylene	U	36.2	ug/kg	10.9	36.2
120-82-1	1,2,4-Trichlorobenzene	U	362	ug/kg	72.4	362

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	2.22	177	ug/kg		J
	Unknown Aldol Condensate	3.45	390	ug/kg		JA

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-854	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242668001	**Date Received:**	12/10/2009 08:50	**%Moisture:**	8.2
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-10-2741	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	932444	**Inst:**	MSD6.I	**Dilution:**	1
Run Date:	12/16/2009 16:42	**Analyst:**	NAG1	**Inj. Vol:**	.5 uL
Prep Date:	12/14/2009 09:47	**Aliquot:**	30.07 g	**Final Volume:**	1 mL
Data File:	s611616.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
2437-95-8	Bicyclo[3.1.1]hept-2-ene, 2,6,6-trimethy	4.23	1630	ug/kg	97	NJ
498-15-7	Bicyclo[4.1.0]hept-3-ene, 3,7,7-trimethy	4.8	1170	ug/kg	97	NJ
475-20-7	1,4-Methanoazulene, decahydro-4,8,8-trim	7.6	956	ug/kg	99	NJ
	Unknown	11.54	166	ug/kg		J
	Unknown	11.95	461	ug/kg		J
	Unknown	12.24	1780	ug/kg		J
	Unknown	12.27	755	ug/kg		J
1740-19-8	1-Phenanthrenecarboxylic acid, 1,2,3,4,4	12.37	748	ug/kg	93	NJ
471-77-2	1-Phenanthrenecarboxylic acid, 1,2,3,4,4	12.9	343	ug/kg	94	NJ
	Unknown	17.2	922	ug/kg		J
	Unknown	17.3	165	ug/kg		J
	Unknown	17.58	169	ug/kg		J

QC Summary

Semi-Volatile

Surrogate Recovery Report

SDG Number: 10-854

Matrix Type: SOLID

CAP Column (1) : J&W DB-5MS

Sample ID	Client ID	2FP %REC	PHL %REC	NBZ %REC	FBP %REC	TBP %REC	TPH %REC
1201994527	MB for batch 932443	67	68	68	69	71	86
1201994528	LCS for batch 932443	67	67	66	65	85	85
242668001	RE03-10-2741	56	59	57	63	72	88
242668002	RE03-10-2740	65	69	68	69	82	88

Surrogate			Acceptance Limits
2FP	=	2-Fluorophenol	(35%-96%)
PHL	=	Phenol-d5	(36%-96%)
NBZ	=	Nitrobenzene-d5	(34%-104%)
FBP	=	2-Fluorobiphenyl	(36%-100%)
TBP	=	2,4,6-Tribromophenol	(37%-106%)
TPH	=	p-Terphenyl-d14	(40%-124%)

* Recovery outside Acceptance Limits

\# Column to be used to flag recovery values

D Sample Diluted

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-854
Client ID: LCS for batch 932443
Lab Sample ID: 1201994528
Instrument: MSD6.I
Analyst: NAG1
Inj. Vol: .5 uL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 12/16/2009 15:45
Dilution: 1
Prep Batch ID: 932443
Batch ID: 932444

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
62-75-9	LCS	N-Methyl-N-nitrosomethylam	1670	0.0	946	57	31-95
108-95-2	LCS	Phenol	1670	0.0	1190	71	37-104
95-57-8	LCS	2-Chlorophenol	1670	0.0	1160	69	40-105
106-46-7	LCS	1,4-Dichlorobenzene	1670	0.0	964	58	34-103
621-64-7	LCS	N-Nitrosodipropylamine	1670	0.0	996	60	36-110
59-50-7	LCS	4-Chloro-3-methylphenol	1670	0.0	1200	72	46-114
83-32-9	LCS	Acenaphthene	1670	0.0	1180	71	40-105
121-14-2	LCS	2,4-Dinitrotoluene	1670	0.0	1340	81	49-107
100-02-7	LCS	4-Nitrophenol	1670	0.0	1340	81	33-110
87-86-5	LCS	Pentachlorophenol	1670	0.0	1250	75	38-116
129-00-0	LCS	Pyrene	1670	0.0	1230	74	43-108
110-86-1	LCS	Pyridine	1670	0.0	897	54	13-129
62-53-3	LCS	Aniline	1670	0.0	1120	67	30-121
111-44-4	LCS	bis(2-Chloroethyl) ether	1670	0.0	1010	61	37-106
541-73-1	LCS	1,3-Dichlorobenzene	1670	0.0	950	57	33-103
100-51-6	LCS	Benzyl alcohol	1670	0.0	1390	84	31-100
95-50-1	LCS	1,2-Dichlorobenzene	1670	0.0	1020	61	34-108
108-60-1	LCS	bis(2-Chloroisopropyl)ether	1670	0.0	1070	64	34-120
95-48-7	LCS	o-Cresol	1670	0.0	866	52	39-111
65794-96-9	LCS	m,p-Cresols	1670	0.0	1250	75	43-118
67-72-1	LCS	Hexachloroethane	1670	0.0	944	57	34-105
98-95-3	LCS	Nitrobenzene	1670	0.0	1100	66	37-110

Semi-Volatile

Quality Control Summary

Spike Recovery Report

SDG Number: 10-854

Sample Type: Laboratory Control Sample

Client ID: LCS for batch 932443

Matrix: SOIL

Lab Sample ID: 1201994528

Instrument: MSD6.I

Analysis Date: 12/16/2009 15:45

Dilution: 1

Analyst: NAG1

Prep Batch ID: 932443

Inj. Vol: .5 uL

Batch ID: 932444

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
78-59-1	LCS	Isophorone	1670	0.0	940	56	41-108
88-75-5	LCS	2-Nitrophenol	1670	0.0	1180	71	35-112
105-67-9	LCS	2,4-Dimethylphenol	1670	0.0	1030	62	35-114
111-91-1	LCS	bis(2-Chloroethoxy)methane	1670	0.0	865	52	40-109
120-83-2	LCS	2,4-Dichlorophenol	1670	0.0	1200	72	45-109
65-85-0	LCS	Benzoic acid	3330	0.0	3080	92	27-137
91-20-3	LCS	Naphthalene	1670	0.0	1020	61	35-105
106-47-8	LCS	4-Chloroaniline	1670	0.0	1140	69	30-122
87-68-3	LCS	Hexachlorobutadiene	1670	0.0	1060	63	37-111
91-57-6	LCS	2-Methylnaphthalene	1670	0.0	1060	63	40-106
77-47-4	LCS	Hexachlorocyclopentadiene	1670	0.0	1040	62	24-135
88-06-2	LCS	2,4,6-Trichlorophenol	1670	0.0	1180	71	46-107
95-95-4	LCS	2,4,5-Trichlorophenol	1670	0.0	1190	71	44-110
91-58-7	LCS	2-Chloronaphthalene	1670	0.0	1090	65	44-104
88-74-4	LCS	2-Nitroaniline *o-Nitroaniline*	1670	0.0	1100	66	44-113
99-09-2	LCS	3-Nitroaniline *m-Nitroaniline*	1670	0.0	1380	83	48-113
131-11-3	LCS	Dimethylphthalate	1670	0.0	1240	75	47-104
606-20-2	LCS	2,6-Dinitrotoluene	1670	0.0	1210	72	47-103
208-96-8	LCS	Acenaphthylene	1670	0.0	1220	73	43-104
51-28-5	LCS	2,4-Dinitrophenol	1670	0.0	1500	90	32-114
132-64-9	LCS	Dibenzofuran	1670	0.0	1500	90	47-112
84-66-2	LCS	Diethylphthalate	1670	0.0	1300	78	50-108

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-854
Client ID: LCS for batch 932443
Lab Sample ID: 1201994528
Instrument: MSD6.I
Analyst: NAG1
Inj. Vol: .5 uL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 12/16/2009 15:45
Dilution: 1
Prep Batch ID: 932443
Batch ID: 932444

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
86-73-7	LCS	Fluorene	1670	0.0	1280	77	49-102
7005-72-3	LCS	4-Chlorophenylphenylether	1670	0.0	1300	78	50-109
534-52-1	LCS	2-Methyl-4,6-dinitrophenol	1670	0.0	1250	75	35-114
100-01-6	LCS	4-Nitroaniline *p-Nitroaniline*	1670	0.0	1500	90	44-139
122-39-4	LCS	Diphenylamine	1670	0.0	1200	72	46-111
122-66-7	LCS	Azobenzene *1,2-Diphenylhydrazine*	1670	0.0	1250	75	40-119
101-55-3	LCS	4-Bromophenylphenylether	1670	0.0	1250	75	45-112
118-74-1	LCS	Hexachlorobenzene	1670	0.0	1220	73	44-115
85-01-8	LCS	Phenanthrene	1670	0.0	1190	72	45-107
120-12-7	LCS	Anthracene	1670	0.0	1220	73	46-106
84-74-2	LCS	Di-n-butylphthalate	1670	0.0	1390	84	52-115
206-44-0	LCS	Fluoranthene	1670	0.0	1360	82	50-115
85-68-7	LCS	Butylbenzylphthalate	1670	0.0	1410	85	49-115
56-55-3	LCS	Benzo(a)anthracene	1670	0.0	1390	83	48-105
91-94-1	LCS	3,3'-Dichlorobenzidine	1670	0.0	1070	64	45-98
218-01-9	LCS	Chrysene	1670	0.0	1300	78	48-105
117-81-7	LCS	bis(2-Ethylhexyl)phthalate	1670	0.0	1460	88	50-117
117-84-0	LCS	Di-n-octylphthalate	1670	0.0	1480	89	39-123
205-99-2	LCS	Benzo(b)fluoranthene	1670	0.0	1430	86	46-111
207-08-9	LCS	Benzo(k)fluoranthene	1670	0.0	1320	79	46-114
50-32-8	LCS	Benzo(a)pyrene	1670	0.0	1440	87	49-112
193-39-5	LCS	Indeno(1,2,3-cd)pyrene	1670	0.0	1430	86	45-128

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-854
Client ID: LCS for batch 932443
Lab Sample ID: 1201994528
Instrument: MSD6.I
Analyst: NAG1
Inj. Vol: .5 uL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 12/16/2009 15:45
Dilution: 1
Prep Batch ID: 932443
Batch ID: 932444

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
53-70-3	LCS	Dibenzo(a,h)anthracene	1670	0.0	1350	81	44-131
191-24-2	LCS	Benzo(ghi)perylene	1670	0.0	1490	89	42-128
120-82-1	LCS	1,2,4-Trichlorobenzene	1670	0.0	1060	63	36-109

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-854
Client ID: RE16-10-2878MS
Lab Sample ID: 1201994529
Instrument: MSD6.I
Analyst: NAG1
Inj. Vol: .5 uL

Sample Type: Matrix Spike
Matrix: S
%Moisture: 12.6
Analysis Date: 12/16/2009 22:46
Prep Batch ID: 932443
Batch ID: 932444

Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
62-75-9	MS	N-Methyl-N-nitrosomethylam	1900	0.00	U	961	51	32-90
108-95-2	MS	Phenol	1900	0.00	U	1310	69	32-105
95-57-8	MS	2-Chlorophenol	1900	0.00	U	1140	60	33-106
106-46-7	MS	1,4-Dichlorobenzene	1900	0.00	U	637	34	33-95
621-64-7	MS	N-Nitrosodipropylamine	1900	0.00	U	1110	59	31-109
59-50-7	MS	4-Chloro-3-methylphenol	1900	0.00	U	1650	87	38-119
83-32-9	MS	Acenaphthene	1900	0.00	U	1050	56	39-100
121-14-2	MS	2,4-Dinitrotoluene	1900	0.00	U	1250	66	42-107
100-02-7	MS	4-Nitrophenol	1900	0.00	U	1080	57	24-120
87-86-5	MS	Pentachlorophenol	1900	0.00	U	1160	61	26-121
129-00-0	MS	Pyrene	1900	0.00	U	1390	73	34-120
110-86-1	MS	Pyridine	1900	0.00	U	502	26 *	30-95
62-53-3	MS	Aniline	1900	0.00	U	707	37	34-111
111-44-4	MS	bis(2-Chloroethyl) ether	1900	0.00	U	882	46	34-101
541-73-1	MS	1,3-Dichlorobenzene	1900	0.00	U	828	44	31-97
100-51-6	MS	Benzyl alcohol	1900	0.00	U	212	11 *	17-120
95-50-1	MS	1,2-Dichlorobenzene	1900	0.00	U	740	39	32-102
108-60-1	MS	bis(2-Chloroisopropyl)ether	1900	0.00	U	1190	63	32-113
95-48-7	MS	o-Cresol	1900	0.00	U	1330	70	31-119
65794-96-9	MS	m,p-Cresols	1900	0.00	U	1510	79	35-125
67-72-1	MS	Hexachloroethane	1900	0.00	U	605	32	30-100
98-95-3	MS	Nitrobenzene	1900	0.00	U	920	48	33-108

Semi-Volatile

Quality Control Summary

Spike Recovery Report

SDG Number: 10-854

Client ID: RE16-10-2878MS

Lab Sample ID: 1201994529

Instrument: MSD6.I

Analyst: NAG1

Inj. Vol: .5 uL

Sample Type: Matrix Spike

Matrix: S

%Moisture: 12.6

Analysis Date: 12/16/2009 22:46

Dilution: 1

Prep Batch ID: 932443

Batch ID: 932444

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
78-59-1	MS	Isophorone	1900	0.00	U	1090	57	34-110
88-75-5	MS	2-Nitrophenol	1900	0.00	U	1020	53	32-108
105-67-9	MS	2,4-Dimethylphenol	1900	0.00	U	936	49	32-115
111-91-1	MS	bis(2-Chloroethoxy)methane	1900	0.00	U	1010	53	35-108
120-83-2	MS	2,4-Dichlorophenol	1900	0.00	U	1300	69	38-110
65-85-0	MS	Benzoic acid	3800	0.00	U	3800	100	18-134
91-20-3	MS	Naphthalene	1900	0.00	U	880	46	31-105
106-47-8	MS	4-Chloroaniline	1900	0.00	U	770	41	29-123
87-68-3	MS	Hexachlorobutadiene	1900	0.00	U	876	46	31-109
91-57-6	MS	2-Methylnaphthalene	1900	0.00	U	1190	63	32-110
77-47-4	MS	Hexachlorocyclopentadiene	1900	0.00	U	263	14 *	21-122
88-06-2	MS	2,4,6-Trichlorophenol	1900	0.00	U	1140	60	37-108
95-95-4	MS	2,4,5-Trichlorophenol	1900	0.00	U	1360	72	37-116
91-58-7	MS	2-Chloronaphthalene	1900	0.00	U	1010	53	37-103
88-74-4	MS	2-Nitroaniline *o-Nitroaniline*	1900	0.00	U	1090	57	36-115
99-09-2	MS	3-Nitroaniline *m-Nitroaniline*	1900	0.00	U	1020	53	39-117
131-11-3	MS	Dimethylphthalate	1900	0.00	U	1240	65	41-105
606-20-2	MS	2,6-Dinitrotoluene	1900	0.00	U	1200	63	41-103
208-96-8	MS	Acenaphthylene	1900	0.00	U	1120	59	41-103
51-28-5	MS	2,4-Dinitrophenol	1900	0.00	U	1080	57	25-104
132-64-9	MS	Dibenzofuran	1900	0.00	U	1440	76	40-114
84-66-2	MS	Diethylphthalate	1900	0.00	U	1340	70	43-110

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number:	10-854	Sample Type:	Matrix Spike
Client ID:	RE16-10-2878MS	Matrix:	S
Lab Sample ID:	1201994529	%Moisture:	12.6
Instrument:	MSD6.l	Analysis Date:	12/16/2009 22:46
Analyst:	NAG1	Prep Batch II	932443
Inj. Vol:	.5 uL	Batch ID:	932444

Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
86-73-7	MS	Fluorene	1900	0.00	U	1240	65	48-99
7005-72-3	MS	4-Chlorophenylphenylether	1900	0.00	U	1280	67	42-111
534-52-1	MS	2-Methyl-4,6-dinitrophenol	1900	0.00	U	877	46	19-118
100-01-6	MS	4-Nitroaniline *p-Nitroaniline*	1900	0.00	U	1320	69	35-139
122-39-4	MS	Diphenylamine	1900	0.00	U	1120	59	41-112
122-66-7	MS	Azobenzene *1,2-Diphenylhydrazine*	1900	0.00	U	1210	64	37-118
101-55-3	MS	4-Bromophenylphenylether	1900	0.00	U	1200	63	39-112
118-74-1	MS	Hexachlorobenzene	1900	0.00	U	1040	55	38-113
85-01-8	MS	Phenanthrene	1900	0.00	U	1240	65	38-110
120-12-7	MS	Anthracene	1900	0.00	U	1240	65	38-112
84-74-2	MS	Di-n-butylphthalate	1900	0.00	U	1360	72	42-119
206-44-0	MS	Fluoranthene	1900	0.00	U	1260	67	38-119
85-68-7	MS	Butylbenzylphthalate	1900	0.00	U	1610	85	39-126
56-55-3	MS	Benzo(a)anthracene	1900	0.00	U	1210	64	39-110
91-94-1	MS	3,3'-Dichlorobenzidine	1900	0.00	U	0.00	0 *	35-106
218-01-9	MS	Chrysene	1900	0.00	U	1190	62	39-109
117-81-7	MS	bis(2-Ethylhexyl)phthalate	1900	0.00	U	1530	81	40-125
117-84-0	MS	Di-n-octylphthalate	1900	0.00	U	2160	114	30-147
205-99-2	MS	Benzo(b)fluoranthene	1900	0.00	U	1380	73	38-117
207-08-9	MS	Benzo(k)fluoranthene	1900	0.00	U	1410	74	39-120
50-32-8	MS	Benzo(a)pyrene	1900	0.00	U	1270	67	40-115
193-39-5	MS	Indeno(1,2,3-cd)pyrene	1900	0.00	U	970	51	32-120

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-854
Client ID: RE16-10-2878MS
Lab Sample ID: 1201994529
Instrument: MSD6.I
Analyst: NAG1
Inj. Vol: .5 uL

Sample Type: Matrix Spike
Matrix: S
%Moisture: 12.6
Analysis Date: 12/16/2009 22:46
Prep Batch ID 932443
Batch ID: 932444

Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
53-70-3	MS	Dibenzo(a,h)anthracene	1900	0.00	U	1000	53	32-124
191-24-2	MS	Benzo(ghi)perylene	1900	0.00	U	832	44	28-119
120-82-1	MS	1,2,4-Trichlorobenzene	1900	0.00	U	875	46	31-105

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-854
Client ID: RE16-10-2878MSD
Lab Sample ID: 1201994530
Instrument: MSD6.I
Analyst: NAG1
Inj. Vol: .5 uL

Sample Type: Matrix Spike Duplicate
Matrix: S
%Moisture: 12.6
Analysis Date: 12/17/2009 17:29
Dilution: 1
Prep Batch ID: 932443
Batch ID: 932444

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
62-75-9	MSD N-Methyl-N-nitrosomethylam	1900	0.00	U	476	25 *	32-90	67 *	0-30
108-95-2	MSD Phenol	1900	0.00	U	884	46	32-105	39 *	0-30
95-57-8	MSD 2-Chlorophenol	1900	0.00	U	820	43	33-106	32 *	0-30
106-46-7	MSD 1,4-Dichlorobenzene	1900	0.00	U	498	26 *	33-95	25	0-30
621-64-7	MSD N-Nitrosodipropylamine	1900	0.00	U	861	45	31-109	26	0-30
59-50-7	MSD 4-Chloro-3-methylphenol	1900	0.00	U	1030	54	38-119	46 *	0-30
83-32-9	MSD Acenaphthene	1900	0.00	U	913	48	39-100	14	0-30
121-14-2	MSD 2,4-Dinitrotoluene	1900	0.00	U	1020	54	42-107	20	0-30
100-02-7	MSD 4-Nitrophenol	1900	0.00	U	929	49	24-120	15	0-30
87-86-5	MSD Pentachlorophenol	1900	0.00	U	1100	58	26-121	5	0-30
129-00-0	MSD Pyrene	1900	0.00	U	1180	62	34-120	16	0-30
110-86-1	MSD Pyridine	1900	0.00	U	445	23 *	30-95	12	0-30
62-53-3	MSD Aniline	1900	0.00	U	404	21 *	34-111	55 *	0-30
111-44-4	MSD bis(2-Chloroethyl) ether	1900	0.00	U	648	34	34-101	31 *	0-30
541-73-1	MSD 1,3-Dichlorobenzene	1900	0.00	U	483	25 *	31-97	53 *	0-30
100-51-6	MSD Benzyl alcohol	1900	0.00	U	0.00	0 *	17-120	200 *	0-30
95-50-1	MSD 1,2-Dichlorobenzene	1900	0.00	U	572	30 *	32-102	26	0-30
108-60-1	MSD bis(2-Chloroisopropyl)ether	1900	0.00	U	687	36	32-113	54 *	0-30
95-48-7	MSD o-Cresol	1900	0.00	U	770	40	31-119	53 *	0-30
65794-96-9	MSD m,p-Cresols	1900	0.00	U	930	49	35-125	47 *	0-30
67-72-1	MSD Hexachloroethane	1900	0.00	U	456	24 *	30-100	28	0-30
98-95-3	MSD Nitrobenzene	1900	0.00	U	773	41	33-108	17	0-30

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number:	**10-854**	**Sample Type:**	**Matrix Spike Duplicate**
Client ID:	**RE16-10-2878MSD**	**Matrix:**	**S**
Lab Sample ID:	**1201994530**	**%Moisture:**	**12.6**
Instrument:	**MSD6.I**	**Analysis Date:**	**12/17/2009 17:29**
Analyst:	**NAG1**	**Prep Batch ID:**	**932443**
Inj. Vol:	**.5 uL**	**Batch ID:**	**932444**

Dilution: 1

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
78-59-1	MSD Isophorone	1900	0.00	U	928	49	34-110	16	0-30
88-75-5	MSD 2-Nitrophenol	1900	0.00	U	824	43	32-108	21	0-30
105-67-9	MSD 2,4-Dimethylphenol	1900	0.00	U	688	36	32-115	30	0-30
111-91-1	MSD bis(2-Chloroethoxy)methane	1900	0.00	U	865	45	35-108	15	0-30
120-83-2	MSD 2,4-Dichlorophenol	1900	0.00	U	982	52	38-110	28	0-30
65-85-0	MSD Benzoic acid	3810	0.00	U	2520	66	18-134	40 *	0-30
91-20-3	MSD Naphthalene	1900	0.00	U	753	40	31-105	16	0-30
106-47-8	MSD 4-Chloroaniline	1900	0.00	U	477	25 *	29-123	47 *	0-30
87-68-3	MSD Hexachlorobutadiene	1900	0.00	U	704	37	31-109	22	0-30
91-57-6	MSD 2-Methylnaphthalene	1900	0.00	U	964	51	32-110	21	0-30
77-47-4	MSD Hexachlorocyclopentadiene	1900	0.00	U	233	12 *	21-122	12	0-30
88-06-2	MSD 2,4,6-Trichlorophenol	1900	0.00	U	985	52	37-108	15	0-30
95-95-4	MSD 2,4,5-Trichlorophenol	1900	0.00	U	918	48	37-116	39 *	0-30
91-58-7	MSD 2-Chloronaphthalene	1900	0.00	U	890	47	37-103	13	0-30
88-74-4	MSD 2-Nitroaniline *o-Nitroaniline*	1900	0.00	U	854	45	36-115	24	0-30
99-09-2	MSD 3-Nitroaniline *m-Nitroaniline*	1900	0.00	U	658	35 *	39-117	43 *	0-30
131-11-3	MSD Dimethylphthalate	1900	0.00	U	1090	57	41-105	13	0-30
606-20-2	MSD 2,6-Dinitrotoluene	1900	0.00	U	999	52	41-103	19	0-30
208-96-8	MSD Acenaphthylene	1900	0.00	U	988	52	41-103	13	0-30
51-28-5	MSD 2,4-Dinitrophenol	1900	0.00	U	889	47	25-104	19	0-30
132-64-9	MSD Dibenzofuran	1900	0.00	U	1200	63	40-114	18	0-30
84-66-2	MSD Diethylphthalate	1900	0.00	U	1130	59	43-110	17	0-30

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number:	**10-854**	**Sample Type:**	**Matrix Spike Duplicate**
Client ID:	**RE16-10-2878MSD**	**Matrix:**	**S**
Lab Sample ID:	**1201994530**	**%Moisture:**	**12.6**
Instrument:	**MSD6.I**	**Analysis Date:**	**12/17/2009 17:29**
Analyst:	**NAG1**	**Prep Batch ID:**	**932443**
Inj. Vol:	**.5 uL**	**Batch ID:**	**932444**

Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
86-73-7	MSD	Fluorene	1900	0.00	U	1030	54	48-99	19	0-30
7005-72-3	MSD	4-Chlorophenylphenylether	1900	0.00	U	1040	55	42-111	21	0-30
534-52-1	MSD	2-Methyl-4,6-dinitrophenol	1900	0.00	U	824	43	19-118	6	0-30
100-01-6	MSD	4-Nitroaniline *p-Nitroaniline*	1900	0.00	U	905	48	35-139	37 *	0-30
122-39-4	MSD	Diphenylamine	1900	0.00	U	958	50	41-112	16	0-30
122-66-7	MSD	Azobenzene *1,2-Diphenylhydrazine*	1900	0.00	U	1040	55	37-118	15	0-30
101-55-3	MSD	4-Bromophenylphenylether	1900	0.00	U	1030	54	39-112	15	0-30
118-74-1	MSD	Hexachlorobenzene	1900	0.00	U	955	50	38-113	8	0-30
85-01-8	MSD	Phenanthrene	1900	0.00	U	1050	55	38-110	17	0-30
120-12-7	MSD	Anthracene	1900	0.00	U	1050	55	38-112	16	0-30
84-74-2	MSD	Di-n-butylphthalate	1900	0.00	U	1250	65	42-119	9	0-30
206-44-0	MSD	Fluoranthene	1900	0.00	U	1080	57	38-119	16	0-30
85-68-7	MSD	Butylbenzylphthalate	1900	0.00	U	1370	72	39-126	16	0-30
56-55-3	MSD	Benzo(a)anthracene	1900	0.00	U	1020	54	39-110	17	0-30
91-94-1	MSD	3,3'-Dichlorobenzidine	1900	0.00	U	0.00	0 *	35-106	0	0-30
218-01-9	MSD	Chrysene	1900	0.00	U	1040	54	39-109	14	0-30
117-81-7	MSD	bis(2-Ethylhexyl)phthalate	1900	0.00	U	1220	64	40-125	23	0-30
117-84-0	MSD	Di-n-octylphthalate	1900	0.00	U	1380	72	30-147	44 *	0-30
205-99-2	MSD	Benzo(b)fluoranthene	1900	0.00	U	1110	58	38-117	21	0-30
207-08-9	MSD	Benzo(k)fluoranthene	1900	0.00	U	1190	62	39-120	17	0-30
50-32-8	MSD	Benzo(a)pyrene	1900	0.00	U	1110	58	40-115	14	0-30
193-39-5	MSD	Indeno(1,2,3-cd)pyrene	1900	0.00	U	995	52	32-120	3	0-30

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number:	**10-854**	**Sample Type:**	**Matrix Spike Duplicate**
Client ID:	**RE16-10-2878MSD**	**Matrix:**	**S**
Lab Sample ID:	**1201994530**	**%Moisture:**	**12.6**
Instrument:	**MSD6.I**	**Analysis Date:**	**12/17/2009 17:29**
Analyst:	**NAG1**	**Prep Batch ID:**	**932443**
Inj. Vol:	**.5 uL**	**Batch ID:**	**932444**

Dilution: 1

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
53-70-3	MSD Dibenzo(a,h)anthracene	1900	0.00	U	499	26 *	32-124	67 *	0-30
191-24-2	MSD Benzo(ghi)perylene	1900	0.00	U	914	48	28-119	9	0-30
120-82-1	MSD 1,2,4-Trichlorobenzene	1900	0.00	U	740	39	31-105	17	0-30

Method Blank Summary

SDG Number:	10-854	Client:	LANL010	Matrix:	SOIL
Client ID:	MB for batch 932443	Instrument ID:	MSD6.I	Data File:	s6l1613-1.d
Lab Sample ID:	1201994527	Prep Date:	12/14/2009 09:47	Analyzed:	12/16/09 15:15
Column:	J&W DB-5MS	Level:	LOW		

This method blank applies to the following samples and quality control samples:

Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01 LCS for batch 932443	1201994528	s6l1614-1.d	12/16/09	1545
02 RE03-10-2741	242668001	s6l1616.d	12/16/09	1642
03 RE03-10-2740	242668002	s6l1617.d	12/16/09	1710

Instrument Performance Check

DFTPP

Lab Name GEL Laboratories LLC **Client SDG:** 10-854

Instrument ID: MSD6.I **Injection Date/Time:** 09-NOV-09 18:00

Column Description: Phenomenex ZB-5MS **Lab File ID** /chem/MSD6.i/s110909.b/s6k0911.d

m/e	Ion Abundance Criteria	% Relative Abundance
198	Base Peak, 100% Relative Abundance	100
51	30 - 60% of mass 198	45.4
68	Less than 2% of mass 69	1.6
69	Mass 69 Relative Abundance	43
70	Less than 2% of mass 69	0.5
127	40 - 60% of mass 198	51.4
197	0 - 1% of mass 198	0.6
199	5 - 9% of mass 198	6.9
275	10 - 30% of mass 198	23.7
365	Greater than 1% of mass 198	2.4
441	Present, but less than mass 443	73.9
442	Greater than 40% of mass 198	77.9
443	17 - 23% of mass 442	19.2

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
MEGAICAL	WBN091106-08	/chem/MSD6.i/s110909.b/s6k091	09-NOV-09 18:53
MEGAICAL	WBN091106-07	/chem/MSD6.i/s110909.b/s6k091	09-NOV-09 19:31
MEGAICAL	WBN091106-06	/chem/MSD6.i/s110909.b/s6k091	09-NOV-09 20:09
MEGAICAL	WBN091106-05.1	/chem/MSD6.i/s110909.b/s6k091	09-NOV-09 20:46
MEGAICAL	WBN091106-04	/chem/MSD6.i/s110909.b/s6k091	09-NOV-09 21:25
MEGAICAL	WBN091106-03	/chem/MSD6.i/s110909.b/s6k091	09-NOV-09 22:01
MEGAICAL	WBN091106-02	/chem/MSD6.i/s110909.b/s6k091	09-NOV-09 22:39
MEGAICAL	WBN091106-01	/chem/MSD6.i/s110909.b/s6k092	09-NOV-09 23:16

Instrument Performance Check

DFTPP

Lab Name GEL Laboratories LLC **Client SDG:** 10-854

Instrument ID: MSD6.I **Injection Date/Time:** 10-NOV-09 11:07

Column Description: Phenomenex ZB-5MS **Lab File ID** /chem/MSD6.i/s110909.b/s6k0921.d

m/e	Ion Abundance Criteria	% Relative Abundance
198	Base Peak, 100% Relative Abundance	100
51	30 - 60% of mass 198	45.1
68	Less than 2% of mass 69	1.6
69	Mass 69 Relative Abundance	43.1
70	Less than 2% of mass 69	0.5
127	40 - 60% of mass 198	50.9
197	0 - 1% of mass 198	0.4
199	5 - 9% of mass 198	7
275	10 - 30% of mass 198	23.3
365	Greater than 1% of mass 198	2.6
441	Present, but less than mass 443	72.6
442	Greater than 40% of mass 198	76
443	17 - 23% of mass 442	19.9

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
AP12ICAL	WBN091016-01	/chem/MSD6.i/s110909.b/s6k092	10-NOV-09 11:59
AP12ICAL	WBN091016-02	/chem/MSD6.i/s110909.b/s6k092	10-NOV-09 12:36
AP12ICAL	WBN091016-03	/chem/MSD6.i/s110909.b/s6k092	10-NOV-09 13:13
AP12ICAL	WBN091016-04	/chem/MSD6.i/s110909.b/s6k092	10-NOV-09 13:51
AP12ICAL	WBN091016-05	/chem/MSD6.i/s110909.b/s6k092	10-NOV-09 14:30
AP12ICAL	WBN091016-06	/chem/MSD6.i/s110909.b/s6k092	10-NOV-09 15:06
AP12ICAL	WBN091016-07	/chem/MSD6.i/s110909.b/s6k092	10-NOV-09 15:43
MEGAICV	WBN091106-09.1	/chem/MSD6.i/s110909.b/s6k093	10-NOV-09 20:29
AP12ICV	WBN091016-08.1	/chem/MSD6.i/s110909.b/s6k093	10-NOV-09 21:07

Instrument Performance Check

DFTPP

Lab Name GEL Laboratories LLC **Client SDG:** 10-854

Instrument ID: MSD6.I **Injection Date/Time:** 16-DEC-09 14:04

Column Description: Phenomenex ZB-5MS **Lab File ID** /chem/MSD6.i/s121609.b/s611610.d

m/e	Ion Abundance Criteria	% Relative Abundance
198	Base Peak, 100% Relative Abundance	100
51	30 - 60% of mass 198	38.6
68	Less than 2% of mass 69	1.5
69	Mass 69 Relative Abundance	38.9
70	Less than 2% of mass 69	0.5
127	40 - 60% of mass 198	49.8
197	0 - 1% of mass 198	0.4
199	5 - 9% of mass 198	6.9
275	10 - 30% of mass 198	23.9
365	Greater than 1% of mass 198	2.5
441	Present, but less than mass 443	75.4
442	Greater than 40% of mass 198	84.1
443	17 - 23% of mass 442	19.3

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
MEGACVS	WBN091111-17.4	/chem/MSD6.i/s121609.b/s611611	16-DEC-09 14:18
AP12CVS	WBN091201-03.5	/chem/MSD6.i/s121609.b/s611612	16-DEC-09 14:46
SBLK01	1201994527	/chem/MSD6.i/s121609.b/s611613	16-DEC-09 15:15
SBLK01LCS	1201994528	/chem/MSD6.i/s121609.b/s611614	16-DEC-09 15:45
RE03-10-2741	242668001	/chem/MSD6.i/s121609.b/s611616	16-DEC-09 16:42
RE03-10-2740	242668002	/chem/MSD6.i/s121609.b/s611617	16-DEC-09 17:10

Internal Standard
Area and RT Summary

Lab Name : GEL Laboratories LLC

Client SDG: 10-854

Instrument: MSD6.I

STD Analysis Time: 16-DEC-09 14:18

GC Column: J&W DB-5MS

Data File: s611611.d

	1,4-Dichlorobenzene-d4				Naphthalene-d8				Acenaphthene-d10				Phenanthrene-d10				Chrysene-d12				Perylene-d12			
	Area	#	RT	#	Area	#	RT	#	Area	#	RT	#	Area	#	RT	#	Area	#	RT	#	Area	#	RT	#
12 Hour STD	209214		4.85		828674		6.13		435590		8		744475		9.61		599948		12.6		527608		15.0	
Upper Limit	418428		5.35		1657348		6.63		871180		8.5		1488950		10.1		1199896		13.1		1055216		15.5	
Lower Limit	104607		4.35		414337		5.63		217795		7.5		372238		9.11		299974		12.1		263804		14.5	
Sample ID																								
BLK01	213205		4.84		803720		6.13		443898		8		755605		9.61		628686		12.6		545942		15.0	
BLK01LCS	222177		4.84		901365		6.13		432311		8		823729		9.61		674416		12.6		578792		15.0	
RE03-10-2741	207983		4.85		790374		6.13		431005		8		728819		9.61		482207		12.6		304410		15.0	
RE03-10-2740	204770		4.85		650028		6.13		390591		8		709605		9.61		499086		12.6		321455		15.0	

Area Upper Limit = +100% of internal standard area
Area Lower Limit = - 50% of internal standard area

RT Upper Limit = + 0.50 minutes of internal standard RT
RT Lower Limit = - 0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Value outside of QC Limits

Sample Data

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-854	Date Collected:	12/07/2009 12:00	Matrix:	S
Lab Sample ID:	242668002	Date Received:	12/10/2009 08:50	%Moisture:	11.3
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-10-2740	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	932444	Inst:	MSD6.I	Dilution:	1
Run Date:	12/16/2009 17:10	Analyst:	NAG1	Inj. Vol:	.5 uL
Prep Date:	12/14/2009 09:47	Aliquot:	30.02 g	Final Volume:	1 mL
Data File:	s6l1617.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	376	ug/kg	75.1	376
108-95-2	Phenol	U	376	ug/kg	75.1	376
95-57-8	2-Chlorophenol	U	376	ug/kg	75.1	376
106-46-7	1,4-Dichlorobenzene	U	376	ug/kg	75.1	376
621-64-7	N-Nitrosodipropylamine	U	376	ug/kg	75.1	376
59-50-7	4-Chloro-3-methylphenol	U	376	ug/kg	75.1	376
83-32-9	Acenaphthene		72.5	ug/kg	12.4	37.6
121-14-2	2,4-Dinitrotoluene	U	376	ug/kg	37.6	376
100-02-7	4-Nitrophenol	U	376	ug/kg	124	376
87-86-5	Pentachlorophenol	U	376	ug/kg	93.9	376
129-00-0	Pyrene		870	ug/kg	11.3	37.6
110-86-1	Pyridine	U	376	ug/kg	75.1	376
62-53-3	Aniline	U	376	ug/kg	113	376
111-44-4	bis(2-Chloroethyl) ether	U	376	ug/kg	75.1	376
541-73-1	1,3-Dichlorobenzene	U	376	ug/kg	75.1	376
100-51-6	Benzyl alcohol	U	376	ug/kg	113	376
95-50-1	1,2-Dichlorobenzene	U	376	ug/kg	75.1	376
108-60-1	bis(2-Chloroisopropyl)ether	U	376	ug/kg	75.1	376
95-48-7	o-Cresol	U	376	ug/kg	75.1	376
65794-96-9	m,p-Cresols	U	376	ug/kg	113	376
67-72-1	Hexachloroethane	U	376	ug/kg	75.1	376
98-95-3	Nitrobenzene	U	376	ug/kg	75.1	376
78-59-1	Isophorone	U	376	ug/kg	75.1	376
88-75-5	2-Nitrophenol	U	376	ug/kg	75.1	376
105-67-9	2,4-Dimethylphenol	U	376	ug/kg	131	376
111-91-1	bis(2-Chloroethoxy)methane	U	376	ug/kg	75.1	376
120-83-2	2,4-Dichlorophenol	U	376	ug/kg	75.1	376
65-85-0	Benzoic acid	U	751	ug/kg	188	751
91-20-3	Naphthalene	J	35.1	ug/kg	11.3	37.6
106-47-8	4-Chloroaniline	U	376	ug/kg	75.1	376
87-68-3	Hexachlorobutadiene	U	376	ug/kg	75.1	376
91-57-6	2-Methylnaphthalene	J	16.5	ug/kg	7.51	37.6
77-47-4	Hexachlorocyclopentadiene	U	376	ug/kg	75.1	376
88-06-2	2,4,6-Trichlorophenol	U	376	ug/kg	75.1	376
95-95-4	2,4,5-Trichlorophenol	U	376	ug/kg	75.1	376
91-58-7	2-Chloronaphthalene	U	37.6	ug/kg	12.4	37.6
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	376	ug/kg	75.1	376
99-09-2	3-Nitroaniline	U	376	ug/kg	75.1	376

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-854	Date Collected:	12/07/2009 12:00	Matrix:	S
Lab Sample ID:	242668002	Date Received:	12/10/2009 08:50	%Moisture:	11.3
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-10-2740	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	932444	Inst:	MSD6.1	Dilution:	1
Run Date:	12/16/2009 17:10	Analyst:	NAG1	Inj. Vol:	.5 uL
Prep Date:	12/14/2009 09:47	Aliquot:	30.02 g	Final Volume:	1 mL
Data File:	s611617.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	376	ug/kg	75.1	376
606-20-2	2,6-Dinitrotoluene	U	376	ug/kg	37.6	376
208-96-8	Acenaphthylene	U	37.6	ug/kg	11.3	37.6
51-28-5	2,4-Dinitrophenol	U	751	ug/kg	143	751
132-64-9	Dibenzofuran	U	376	ug/kg	75.1	376
84-66-2	Diethylphthalate	U	376	ug/kg	75.1	376
86-73-7	Fluorene		99.1	ug/kg	11.3	37.6
7005-72-3	4-Chlorophenylphenylether	U	376	ug/kg	75.1	376
534-52-1	2-Methyl-4,6-dinitrophenol	U	376	ug/kg	75.1	376
100-01-6	4-Nitroaniline	U	376	ug/kg	113	376
	p-Nitroaniline					
122-39-4	Diphenylamine	U	376	ug/kg	75.1	376
122-66-7	Azobenzene	U	376	ug/kg	75.1	376
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	376	ug/kg	75.1	376
118-74-1	Hexachlorobenzene	U	376	ug/kg	75.1	376
85-01-8	Phenanthrene		831	ug/kg	11.3	37.6
120-12-7	Anthracene		155	ug/kg	7.51	37.6
84-74-2	Di-n-butylphthalate	U	376	ug/kg	75.1	376
206-44-0	Fluoranthene		1070	ug/kg	11.3	37.6
85-68-7	Butylbenzylphthalate	U	376	ug/kg	75.1	376
56-55-3	Benzo(a)anthracene		348	ug/kg	11.3	37.6
91-94-1	3,3'-Dichlorobenzidine	U	376	ug/kg	113	376
218-01-9	Chrysene		417	ug/kg	11.3	37.6
117-81-7	bis(2-Ethylhexyl)phthalate	J	89.7	ug/kg	75.1	376
117-84-0	Di-n-octylphthalate	U	376	ug/kg	75.1	376
205-99-2	Benzo(b)fluoranthene		500	ug/kg	11.3	37.6
207-08-9	Benzo(k)fluoranthene		203	ug/kg	11.3	37.6
50-32-8	Benzo(a)pyrene		343	ug/kg	11.3	37.6
193-39-5	Indeno(1,2,3-cd)pyrene		262	ug/kg	11.3	37.6
53-70-3	Dibenzo(a,h)anthracene		129	ug/kg	11.3	37.6
191-24-2	Benzo(ghi)perylene		168	ug/kg	11.3	37.6
120-82-1	1,2,4-Trichlorobenzene	U	376	ug/kg	75.1	376

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	3.46	480	ug/kg		JA
498-15-7	Bicyclo[4.1.0]hept-3-ene, 3,7,7-trimethy	4.79	613	ug/kg	97	NJ

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-854	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242668002	**Date Received:**	12/10/2009 08:50	**%Moisture:**	11.3
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-10-2740	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	932444	**Inst:**	MSD6.I	**Dilution:**	1
Run Date:	12/16/2009 17:10	**Analyst:**	NAG1	**Inj. Vol:**	.5 uL
Prep Date:	12/14/2009 09:47	**Aliquot:**	30.02 g	**Final Volume:**	1 mL
Data File:	s6l1617.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	5.37	184	ug/kg		J
87-44-5	Caryophyllene	7.62	159	ug/kg	97	NJ
23986-74-5	1,6-Cyclodecadiene, 1-methyl-5-methylene	7.96	223	ug/kg	89	NJ
57-10-3	n-Hexadecanoic acid	10.16	194	ug/kg	98	NJ
	Unknown	11.55	176	ug/kg		J
	Unknown	11.95	244	ug/kg		J
	Unknown	12.25	709	ug/kg		J
1740-19-8	1-Phenanthrenecarboxylic acid, 1,2,3,4,4	12.37	1010	ug/kg	92	NJ
198-55-0	Perylene	14.78	191	ug/kg	99	NJ
	Unknown	16.39	263	ug/kg		J
	Unknown	17.09	304	ug/kg		J
70038-20-9	7-Oxabicyclo[4.1.0]heptane, 2,2,6-trimet	17.13	203	ug/kg	90	NJ

GEL Laboratories LLC

Data file : /chem/MSD6.i/s121609.b/s611617.d
Lab Smp Id: 242668002 Client Smp ID: RE03-10-2740
Inj Date : 16-DEC-2009 17:10
Operator : nagl Inst ID: MSD6.i
Smp Info : |242668002|932444|1|SVMF|1|LANL
Misc Info : |MSD8270_S|WBN091208-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s121609.b/MSD6-M8270C-AQA-110909.m
Meth Date : 17-Dec-2009 08:11 nat00999 Quant Type: ISTD
Cal Date : 11-NOV-2009 04:38 Cal File: s6k0954.d
Als bottle: 8
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-854.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.02000	weight of sample
M	11.29960	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	4.849	4.849	(1.000)	204770	40.0000	
* 29 Naphthalene-d8	136	6.128	6.131	(1.000)	650028	40.0000	
* 46 Acenaphthene-d10	164	7.998	8.001	(1.000)	390591	40.0000	
* 67 Phenanthrene-d10	188	9.614	9.611	(1.000)	709605	40.0000	
* 91 Chrysene-d12	240	12.636	12.633	(1.000)	499086	40.0000	
* 98 Perylene-d12	264	14.980	14.973	(1.000)	321455	40.0000	
$ 3 2-Fluorophenol	112	3.687	3.674	(0.760)	332335	64.8092	2430
$ 5 Phenol-d5	99	4.459	4.457	(0.920)	444111	68.6192	2580
$ 20 Nitrobenzene-d5	82	5.384	5.389	(0.879)	156495	34.0335	1280
$ 39 2-Fluorobiphenyl	172	7.254	7.254	(0.907)	345104	34.2847	1290
$ 60 2,4,6-Tribromophenol	329	8.849	8.850	(1.106)	93294	81.8347	3070
$ 81 p-Terphenyl-d14	244	11.319	11.316	(0.896)	353328	43.8993	1650

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
47 Acenaphthene	154	8.031	8.037	(1.004)	16992	1.93024	72.5
79 Pyrene	202	11.176	11.176	(0.884)	317947	23.1614	870
30 Naphthalene	128	6.148	6.154	(1.003)	12120	0.93470	35.1(a)
34 2-Methylnaphthalene	142	6.872	6.875	(1.121)	3438	0.43938	16.5(a)
53 Fluorene	166	8.587	8.592	(1.074)	25729	2.63806	99.1
68 Phenanthrene	178	9.637	9.637	(1.002)	324826	22.1348	831
69 Anthracene	178	9.690	9.693	(1.008)	60392	4.11727	155(H)
76 Fluoranthene	202	10.926	10.926	(1.136)	400349	28.4792	1070
89 Benzo(a)anthracene	228	12.618	12.613	(0.999)	99644	9.25384	348
92 Chrysene	228	12.669	12.669	(1.003)	114482	11.0961	417
93 bis(2-Ethylhexyl)phthalate	149	12.580	12.575	(0.996)	17334	2.38968	89.7(a)
95 Benzo(b)fluoranthene	252	14.295	14.295	(0.954)	94752	13.3214	500
96 Benzo(k)fluoranthene	252	14.338	14.343	(0.957)	38298	5.41478	203
97 Benzo(a)pyrene	252	14.871	14.871	(0.993)	56051	9.12356	343
99 Indeno(1,2,3-cd)pyrene	276	16.963	16.963	(1.132)	24957	6.97930	262
100 Dibenzo(a,h)anthracene	278	16.993	16.993	(1.134)	3658	3.42206	128
101 Benzo(ghi)perylene	276	17.482	17.480	(1.167)	21005	4.47537	168(Q)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
H - Operator selected an alternate compound hit.

ION RATIO REPORT

SV REPORT

Data file: s611617.d
Report Date: 12/17/2009 08:23
Lab. ID: 242668002 SampleType: SAMPLE
Injection Date: 16-DEC-2009 17:10
Operator: nagl Instrument: MSD6.i
Sample Info: |242668002|932444|1|SVMF|1|LANL
Miscellaneous Info: |MSD8270_S|WBN091208-01
Comment:
Method used: /chem/MSD6.i/s121609.b/MSD6-M8270C-AQA-110909.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-854
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
1 N-Methyl-N-nitrosomethylamine				CAS#: 62-75-9		
74	11385	2.41	2.70	80-120	100	(T)
42	278	2.41	2.70	59-119	2	(QT)
43	26329	2.40	2.70	8- 68	231	(QT)
4 Aniline			CAS#: 62-53-3			
66	21459	4.46	4.54	80-120	100	(T)
93	6563	4.52	4.54	228-288	31	(Q)
6 Phenol			CAS#: 108-95-2			
94	13052	4.22	4.47	80-120	100	(T)
66	2209	4.22	4.47	11- 71	17	(T)
65	9822	4.21	4.47	0- 30	75	(QT)
17 N-Nitrosodipropylamine				CAS#: 621-64-7		
70	27027	5.38	5.23	80-120	100	(T)
42	13177	5.38	5.23	40-100	49	(T)
22 Isophorone			CAS#: 78-59-1			
82	156495	5.38	5.64	80-120	100	(T)
138	598	6.11	5.64	0- 49	0	(T)
30 Naphthalene			CAS#: 91-20-3			
128	12120	6.15	6.15	80-120	100	( )
129	1152	6.15	6.15	0- 41	10	( )
127	1637	6.15	6.15	0- 30	14	( )

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
34 2-Methylnaphthalene				CAS#: 91-57-6		
142	3438	6.87	6.87	80-120	100	( )
141	3019	6.87	6.87	55-115	88	( )
40 2-Chloronaphthalene				CAS#: 91-58-7		
162	9471	7.60	7.40	80-120	100	(T)
164	610	7.60	7.40	3- 63	6	(T)
127	809	7.60	7.40	8- 68	9	(T)
42 o-Nitroaniline				CAS#: 88-74-4		
65	13225	7.60	7.50	80-120	100	(T)
92	14606	7.60	7.50	36- 96	110	(QT)
138	889	7.60	7.50	82-142	7	(QT)
43 Dimethylphthalate				CAS#: 131-11-3		
163	69966	8.00	7.69	80-120	100	(T)
164	390591	8.00	7.69	0- 40	558	(QT)
45 Acenaphthylene				CAS#: 208-96-8		
152	8679	8.03	7.85	80-120	100	(T)
151	3362	8.03	7.85	0- 50	39	(T)
153	18392	8.03	7.85	0- 43	212	(QT)
47 Acenaphthene				CAS#: 83-32-9		
154	16992	8.03	8.04	80-120	100	( )
153	18392	8.03	8.04	72-132	108	( )
152	8679	8.03	8.04	18- 78	51	( )
50 2,4-Dinitrotoluene				CAS#: 121-14-2		
165	50852	8.00	8.19	80-120	100	(T)
89	715	8.00	8.19	40-100	1	(QT)
63	313	8.00	8.19	17- 77	1	(QT)
52 4-Nitrophenol				CAS#: 100-02-7		
139	150	8.03	8.10	80-120	100	(T)
109	439	8.02	8.10	23- 83	292	(QT)
65	1743	8.00	8.10	60-120	1160	(QT)
53 Fluorene				CAS#: 86-73-7		
166	25729	8.59	8.59	80-120	100	( )
165	22851	8.59	8.59	62-122	89	( )
167	3897	8.59	8.59	0- 44	15	( )
56 p-Nitroaniline				CAS#: 100-01-6		
138	294	8.58	8.60	80-120	100	( )
108	115	8.53	8.60	29- 89	39	(T)
92	132	8.68	8.60	12- 72	45	(T)

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
61 4-Bromophenylphenylether				CAS#: 101-55-3		
248	5874	8.85	9.11	80-120	100	(T)
141	43113	8.85	9.11	48-108	734	(QT)
250	12182	8.85	9.11	69-129	207	(QT)
65 Pentachlorophenol				CAS#: 87-86-5		
266	297	9.39	9.39	80-120	100	( )
264	116	9.40	9.39	30- 90	39	( )
268	147	9.40	9.39	33- 93	50	( )
68 Phenanthrene				CAS#: 85-01-8		
178	324826	9.64	9.64	80-120	100	( )
179	50900	9.64	9.64	0- 46	16	( )
176	61460	9.64	9.64	0- 49	19	( )
69 Anthracene				CAS#: 120-12-7		
178	60392	9.69	9.69	80-120	100	( )
179	9116	9.69	9.69	0- 46	15	( )
176	10719	9.69	9.69	0- 49	18	( )
76 Fluoranthene				CAS#: 206-44-0		
202	400349	10.93	10.93	80-120	100	( )
203	69415	10.93	10.93	0- 47	17	( )
101	51260	10.93	10.93	0- 43	13	( )
79 Pyrene				CAS#: 129-00-0		
202	317947	11.18	11.18	80-120	100	( )
200	66109	11.18	11.18	0- 51	21	( )
101	51668	11.18	11.18	0- 46	16	( )
85 Butylbenzylphthalate				CAS#: 85-68-7		
149	21616	12.21	11.85	80-120	100	(T)
91	12317	12.21	11.85	41-101	57	(T)
206	150	12.25	11.85	0- 50	1	(T)
89 Benzo(a)anthracene				CAS#: 56-55-3		
228	99644	12.62	12.61	80-120	100	( )
226	27331	12.62	12.61	0- 56	27	( )
229	22412	12.62	12.61	0- 50	22	( )
92 Chrysene				CAS#: 218-01-9		
228	114482	12.67	12.67	80-120	100	( )
229	25539	12.67	12.67	0- 49	22	( )
226	30813	12.67	12.67	0- 59	27	( )
93 bis(2-Ethylhexyl)phthalate				CAS#: 117-81-7		
149	17334	12.58	12.57	80-120	100	( )
167	5149	12.58	12.57	2- 62	30	( )

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
95 Benzo(b)fluoranthene				CAS#: 205-99-2		
252	94752	14.29	14.29	80-120	100	( )
253	20255	14.29	14.29	0- 52	21	( )
125	9045	14.29	14.29	0- 44	10	( )
96 Benzo(k)fluoranthene				CAS#: 207-08-9		
252	38298	14.34	14.34	80-120	100	( )
253	9015	14.34	14.34	0- 51	24	( )
125	3121	14.34	14.34	0- 43	8	( )
97 Benzo(a)pyrene				CAS#: 50-32-8		
252	56051	14.87	14.87	80-120	100	( )
253	12691	14.87	14.87	0- 52	23	( )
125	7702	14.87	14.87	0- 30	14	( )
99 Indeno(1,2,3-cd)pyrene				CAS#: 193-39-5		
276	24957	16.96	16.96	80-120	100	( )
138	5980	16.97	16.97	6- 66	24	( )
100 Dibenzo(a,h)anthracene				CAS#: 53-70-3		
278	3658	16.99	16.99	80-120	100	( )
139	565	16.98	16.99	0- 30	15	( )
101 Benzo(ghi)perylene				CAS#: 191-24-2		
276	21005	17.48	17.48	80-120	100	( )
138	6572	17.47	17.47	0- 30	31	(Q)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

Data file : /chem/MSD6.i/s121609.b/s611617.d
Lab Smp Id: 242668002 Client Smp ID: RE03-10-2740
Inj Date : 16-DEC-2009 17:10
Operator : nagl Inst ID: MSD6.i
Smp Info : |242668002|932444|1|SVMF|1|LANL
Misc Info : |MSD8270_S|WBN091208-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s121609.b/MSD6-M8270C-AQA-110909.m
Meth Date : 17-Dec-2009 08:11 nat00999 Quant Type: ISTD
Cal Date : 11-NOV-2009 04:38 Cal File: s6k0954.d
Als bottle: 8
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-854.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.02000	weight of sample
M	11.29960	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	4.849	1195522	40.000
* 46 Acenaphthene-d10	7.998	1665973	40.000
* 67 Phenanthrene-d10	9.614	1804231	40.000
* 91 Chrysene-d12	12.636	2446067	40.000
* 98 Perylene-d12	14.980	881381	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #

RT	AREA	CONCENTRATIONS ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	QUANT LIBRARY	LIB ENTRY	CPND #
Unknown Aldol Condensate					CAS #:		
3.458	382314	12.7915167	480	0		0	10
Bicyclo[4.1.0]hept-3-ene, 3,7,7-trimethy					CAS #: 498-15-7		
4.793	488001	16.3276337	613	97	NIST05.L	15369	10
Unknown					CAS #:		
5.369	146303	4.89502271	184	0		0	10
Caryophyllene					CAS #: 87-44-5		
7.621	175958	4.22475913	159	97	NIST05.L	59797	46
1,6-Cyclodecadiene, 1-methyl-5-methylene					CAS #: 23986-74-5		
7.963	247825	5.95027220	223	89	NIST05.L	59960	46
n-Hexadecanoic acid					CAS #: 57-10-3		
10.157	233238	5.17090632	194	98	NIST05.L	96235	67
Unknown					CAS #:		
11.545	286727	4.68878383	176	0		0	91
Unknown					CAS #:		
11.953	398011	6.50858608	244	0		0	91
Unknown					CAS #:		
12.246	1153778	18.8674713	708	0		0	91
1-Phenanthrenecarboxylic acid, 1,2,3,4,4					CAS #: 1740-19-8		
12.368	1644462	26.8915193	1010	92	NIST05.L	125034	91
Perylene					CAS #: 198-55-0		
14.776	112302	5.09664787	191	99	NIST05.L	93574	98
Unknown					CAS #:		
16.389	154060	6.99173901	262	0		0	98
Unknown					CAS #:		
17.090	178112	8.08331206	304	0		0	98
7-Oxabicyclo[4.1.0]heptane, 2,2,6-trimet					CAS #: 70038-20-9		
17.126	118992	5.40022957	203	90	NIST05.L	69982	98

Data File: /chem/MSD6.i/s121609.b/s611617.d
Date : 16-DEC-2009 17:10
Client ID: RE03-10-2740
Sample Info: |2426680021932444|1|SVMF|1|LANL
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD6.i
Operator: nag1
Column diameter: 0.20

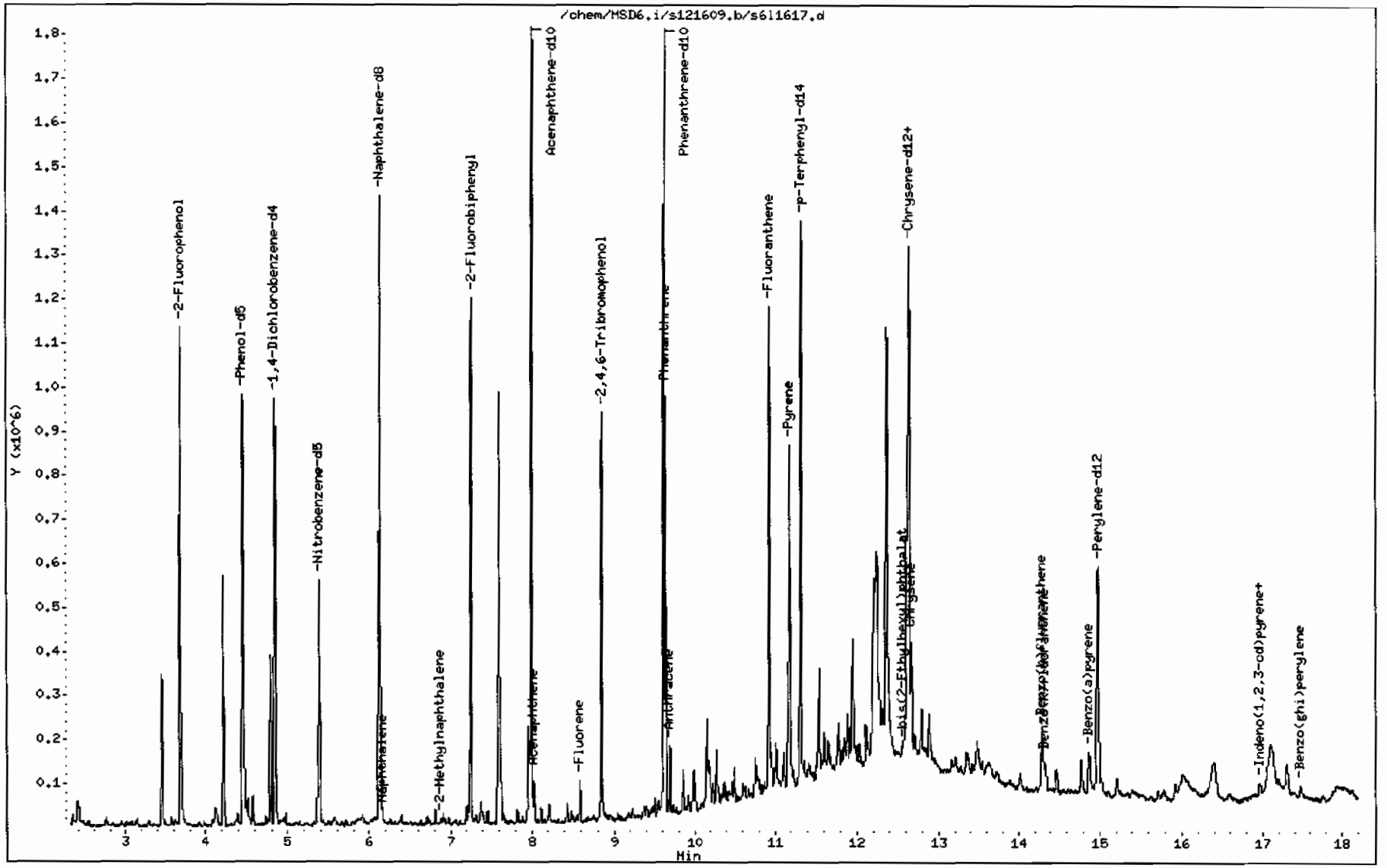

Data File: /chem/MSD6.i/s121609.b/s611617.d

Date : 16-DEC-2009 17:10

Client ID: RE03-10-2740

Instrument: MSD6.i

Sample Info: 1242668002193244411SVMF11LANL

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

47 Acenaphthene

Concentration: 72.5 ug/Kg

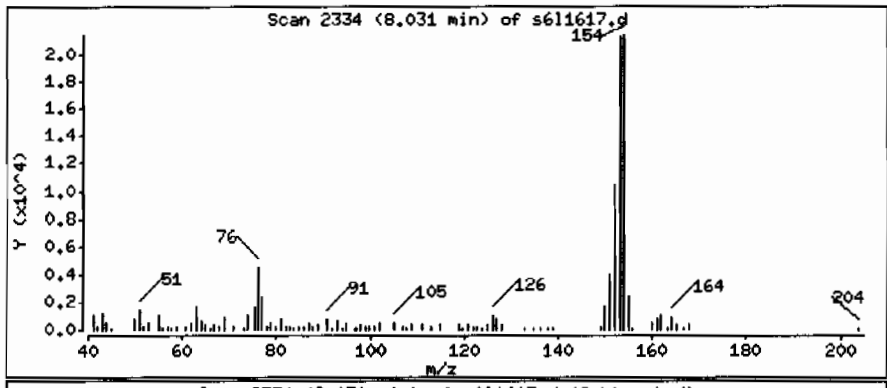

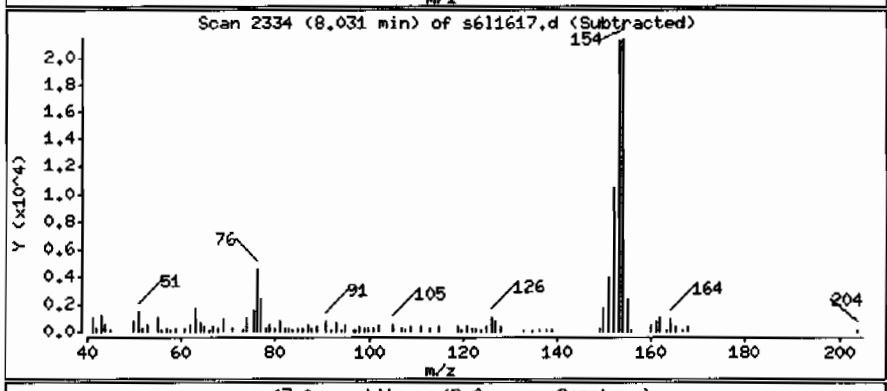

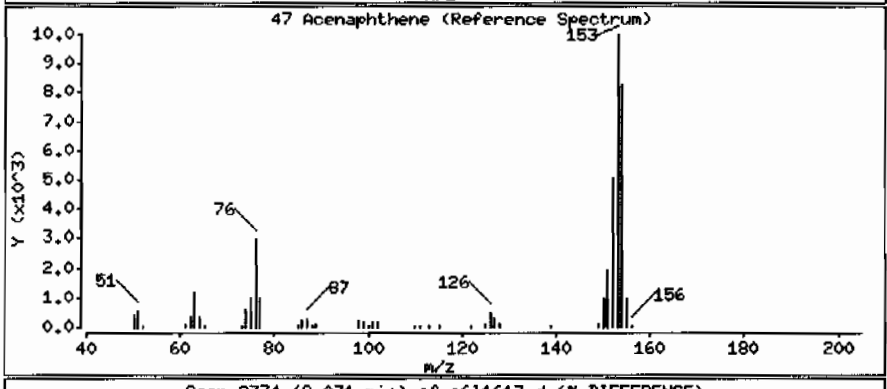

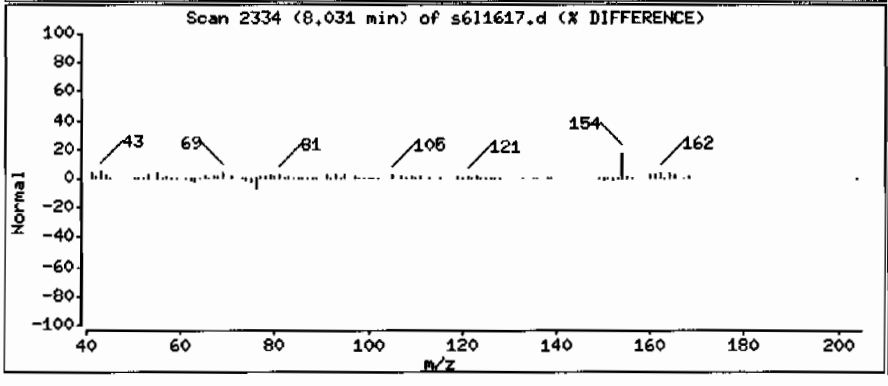

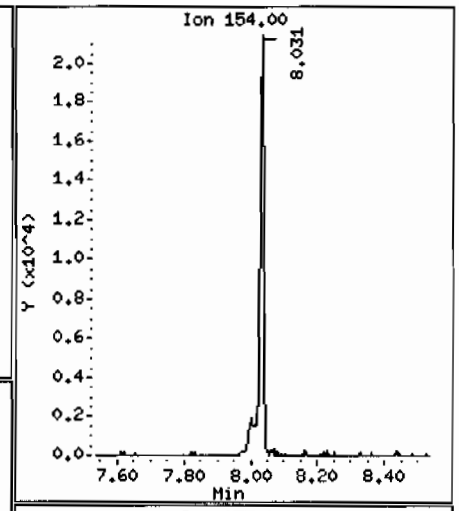

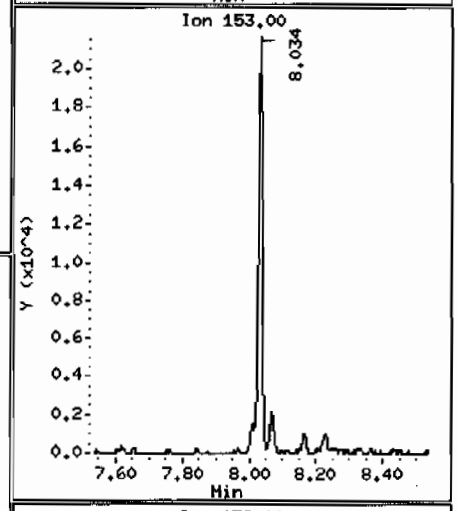

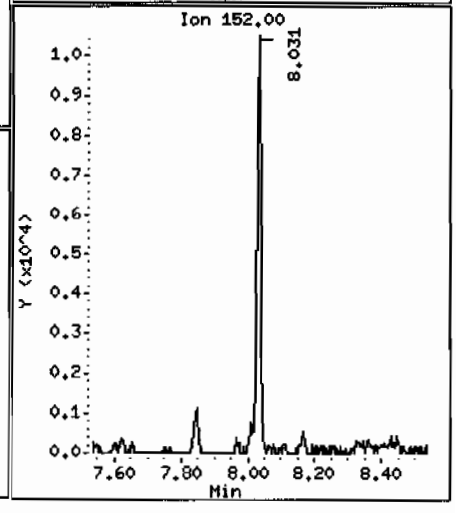

Data File: /chem/MSD6.i/s121609.b/s611617.d

Date : 16-DEC-2009 17:10

Client ID: RE03-10-2740

Instrument: MSD6.i

Sample Info: |242668002|932444|1|SVMF|1|LANL

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

79 Pyrene

Concentration: 870 ug/Kg

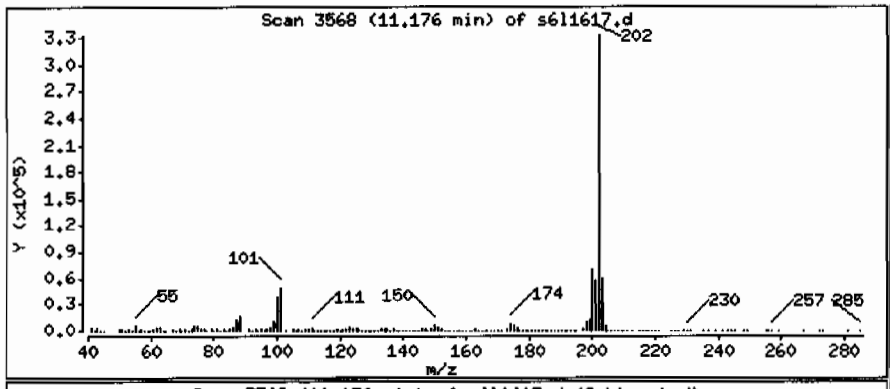

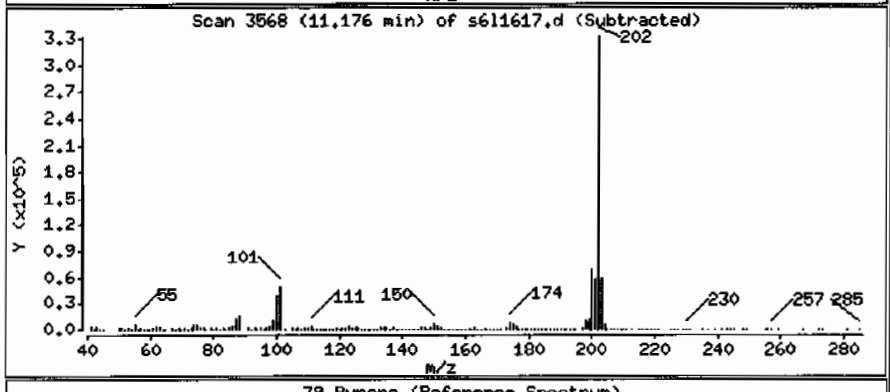

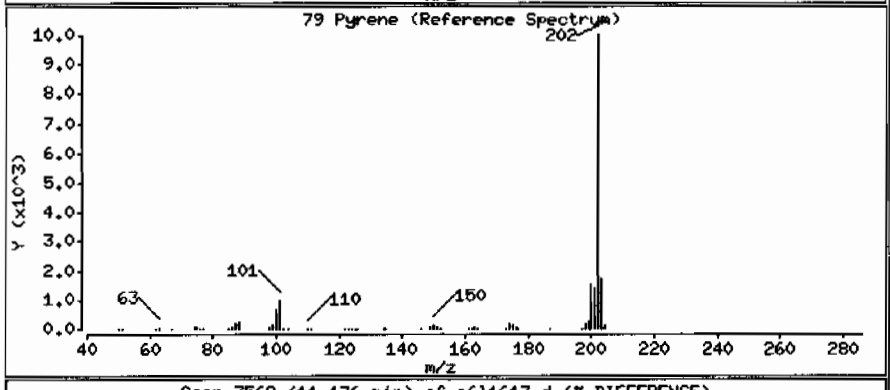

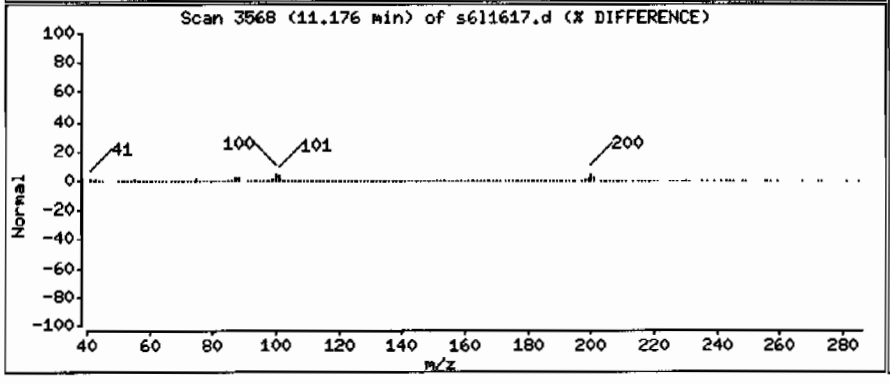

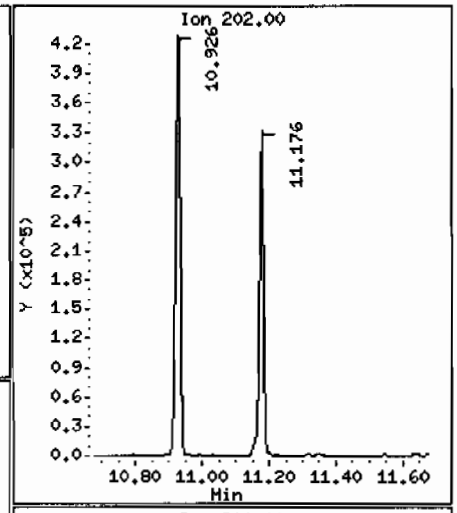

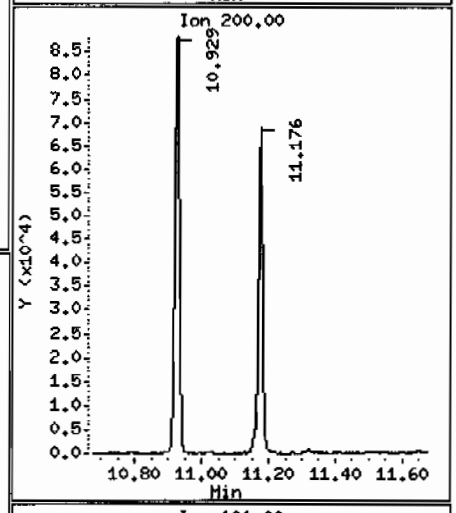

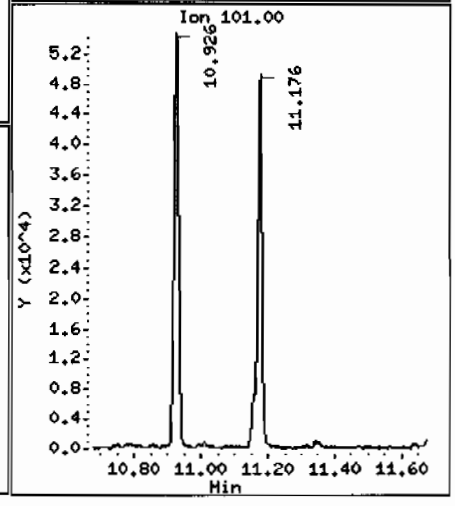

Data File: /chem/MSD6.i/s121609.b/s611617.d

Date : 16-DEC-2009 17:10

Client ID: RE03-10-2740 Instrument: MSD6.i

Sample Info: 1242668002193244411SVMF11LANL

Volume Injected (uL): 0.5 Operator: nag1

Column phase: J&W DB-5MS Column diameter: 0.20

30 Naphthalene Concentration: 35.1 ug/Kg

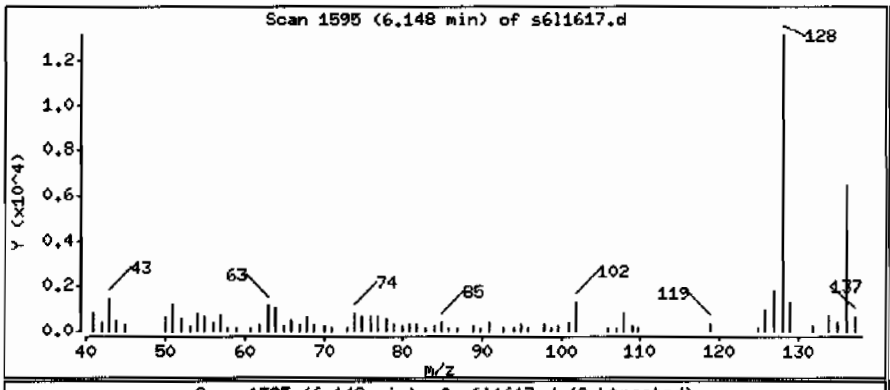

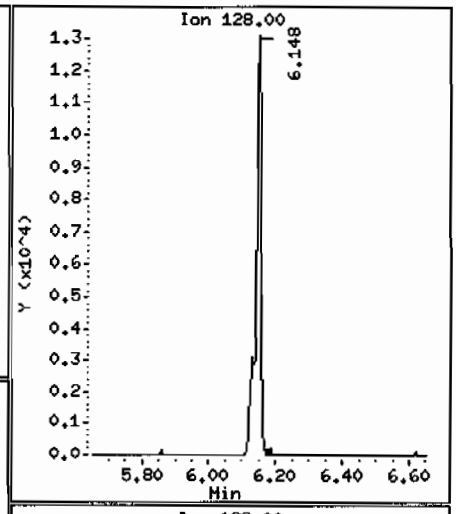

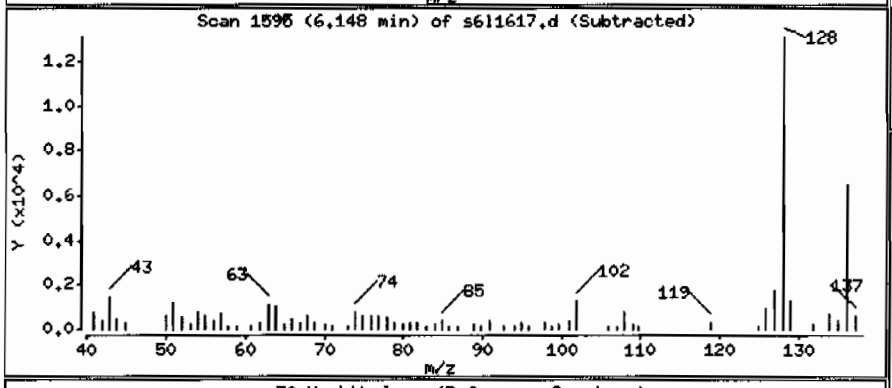

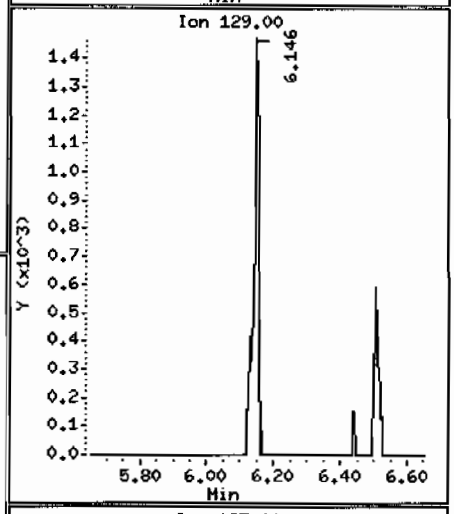

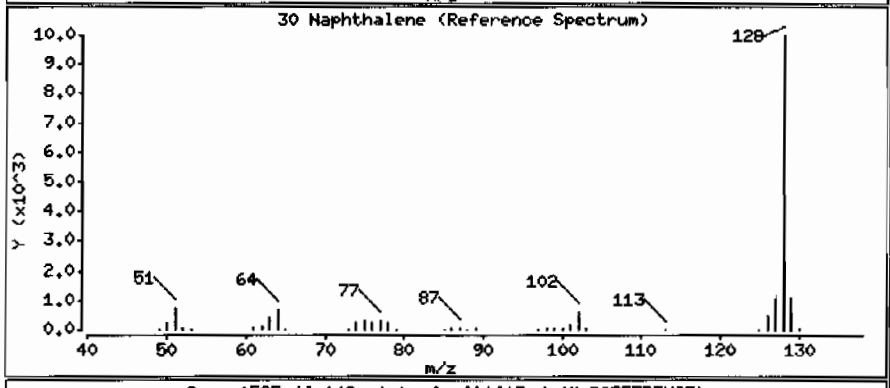

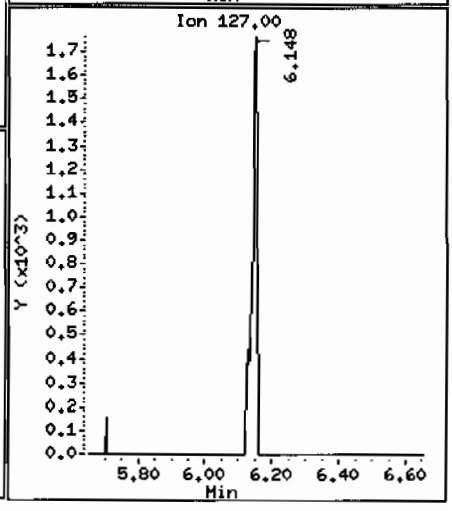

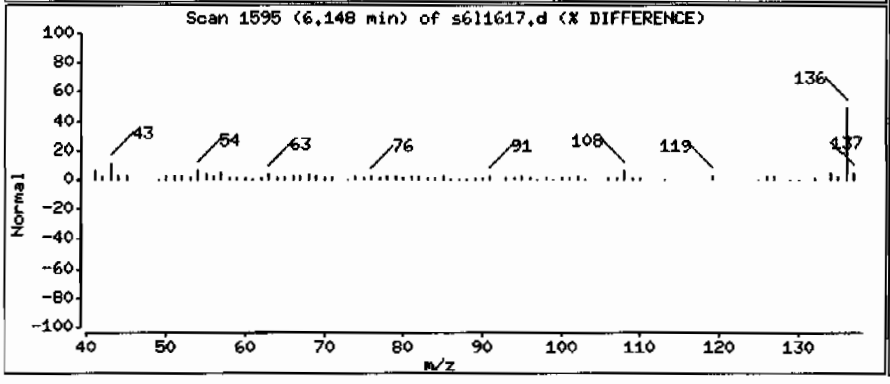

Data File: /chem/MSD6.i/s121609.b/s611617.d

Page 5

Date : 16-DEC-2009 17:10

Client ID: RE03-10-2740

Instrument: MSD6.i

Sample Info: |2426680021932444|1|SVMF|1|LANL

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

34 2-Methylnaphthalene

Concentration: 16.5 ug/Kg

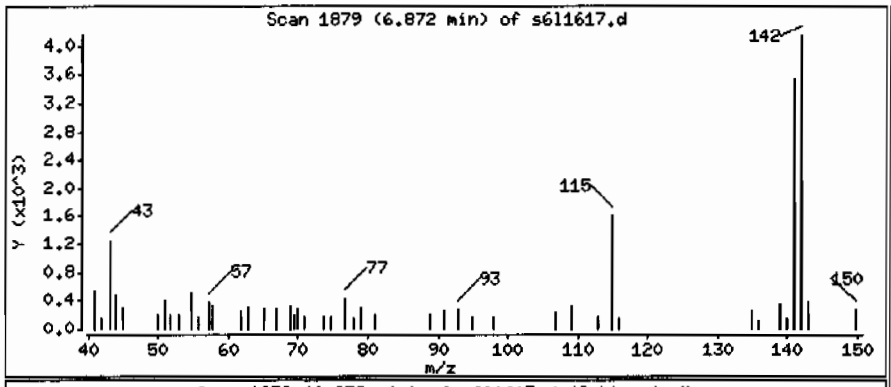

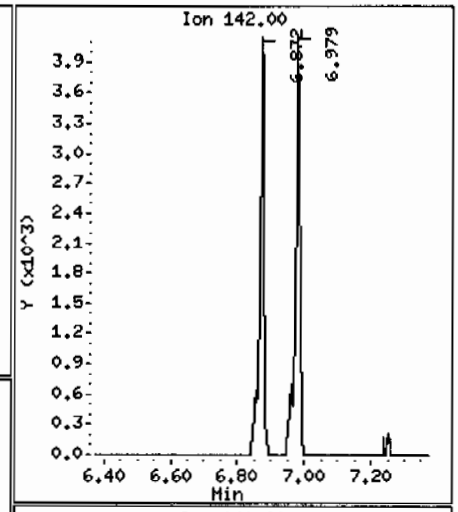

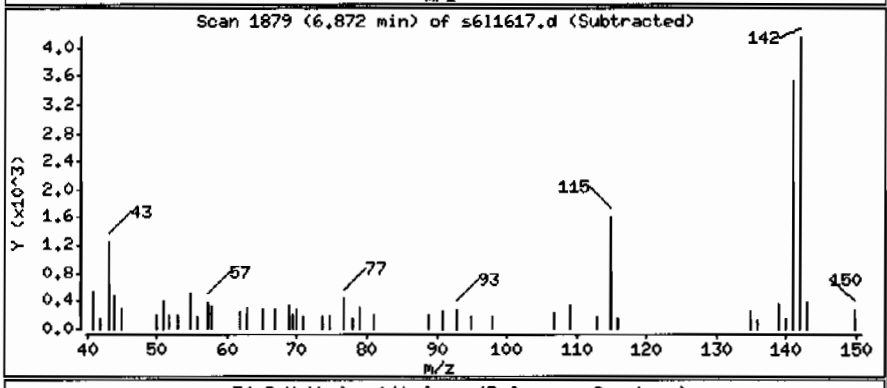

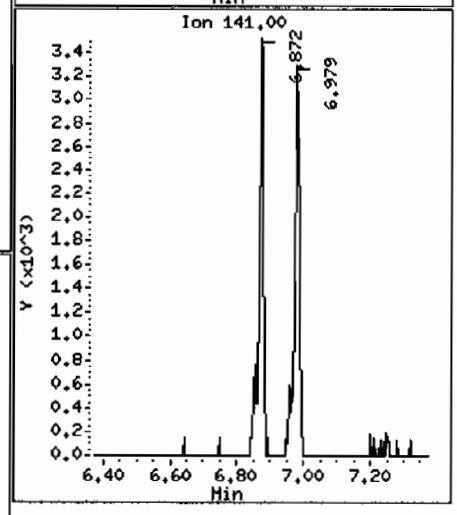

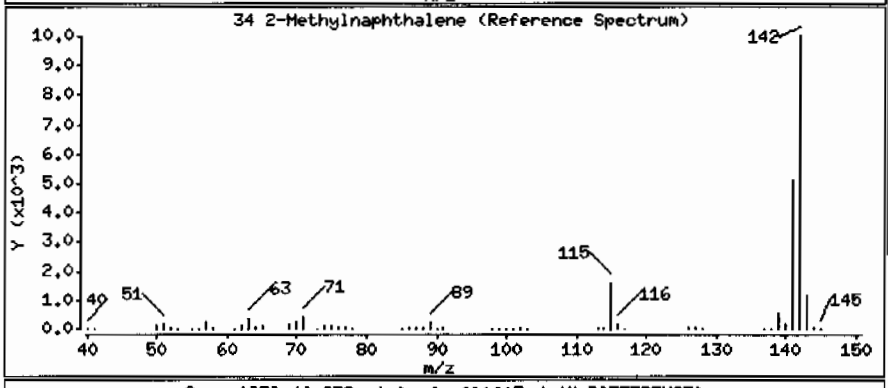

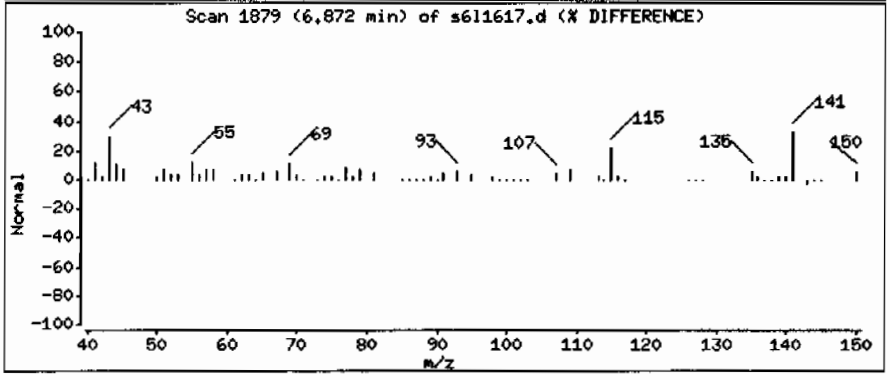

Data File: /chem/MSD6.i/s121609.b/s611617.d

Date : 16-DEC-2009 17:10

Client ID: RE03-10-2740

Instrument: MSD6.i

Sample Info: |2426680021932444|1|SVMF|1|LANL

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

53 Fluorene

Concentration: 99.1 ug/Kg

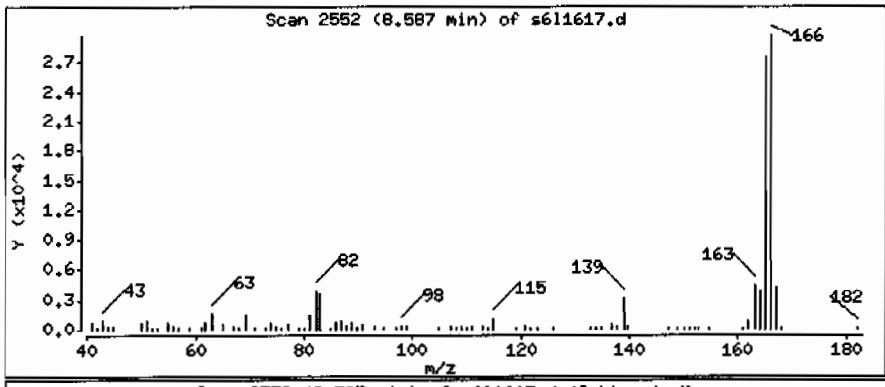

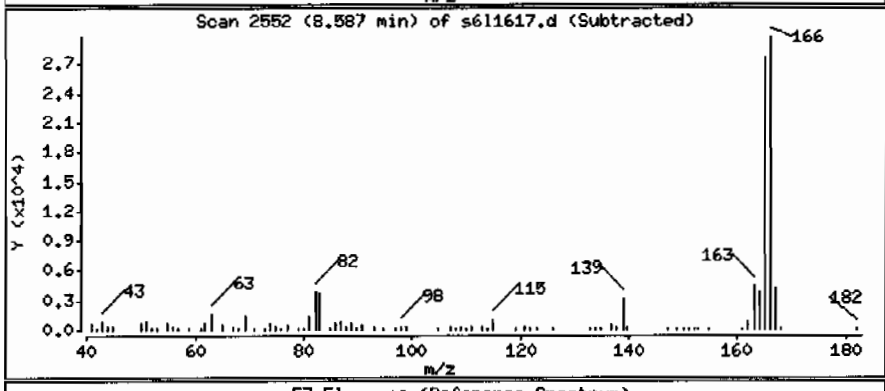

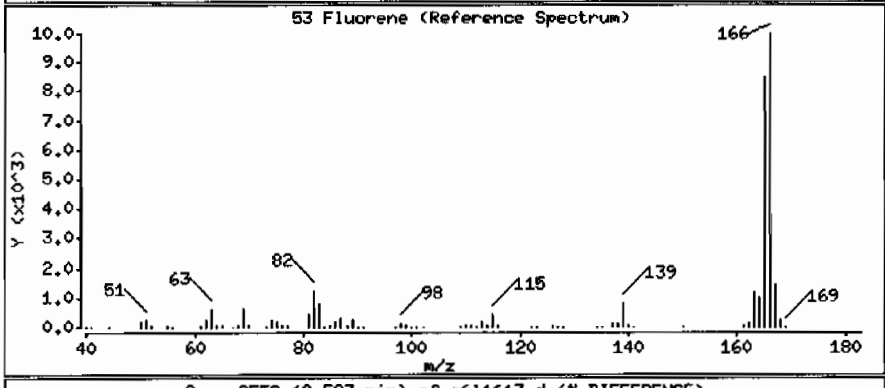

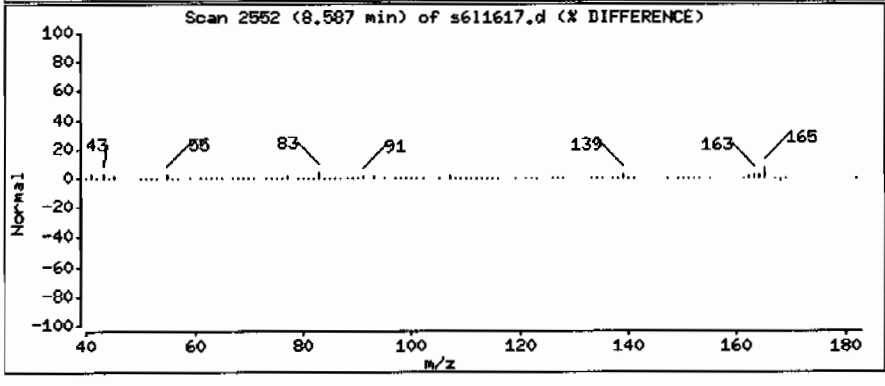

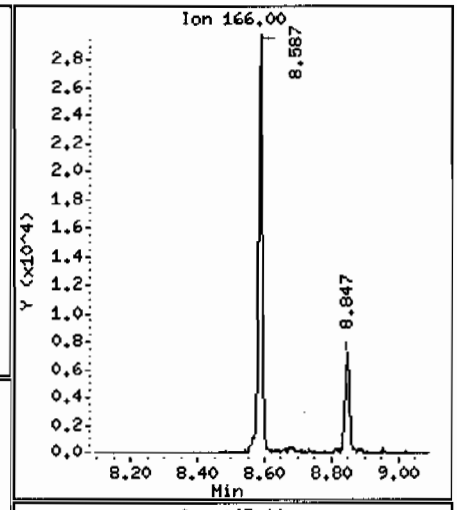

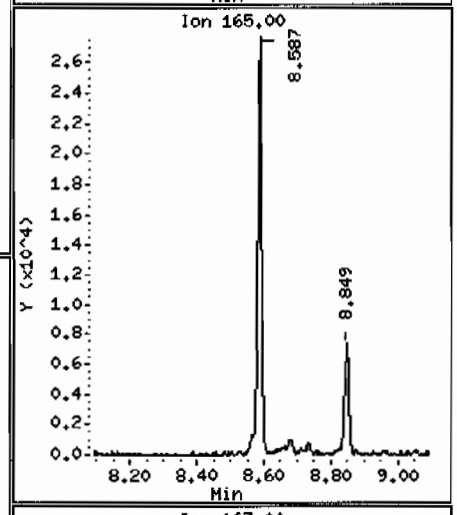

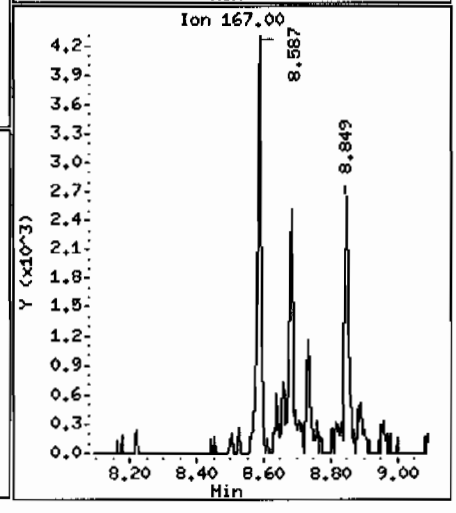

Data File: /chem/MSD6.i/s121609.b/s611617.d

Date : 16-DEC-2009 17:10

Client ID: RE03-10-2740 Instrument: MSD6.i

Sample Info: 1242668002|932444|1|SVMF|1|LANL

Volume Injected (uL): 0.5 Operator: nag1

Column phase: J&W DB-5MS Column diameter: 0.20

68 Phenanthrene Concentration: 831 ug/Kg

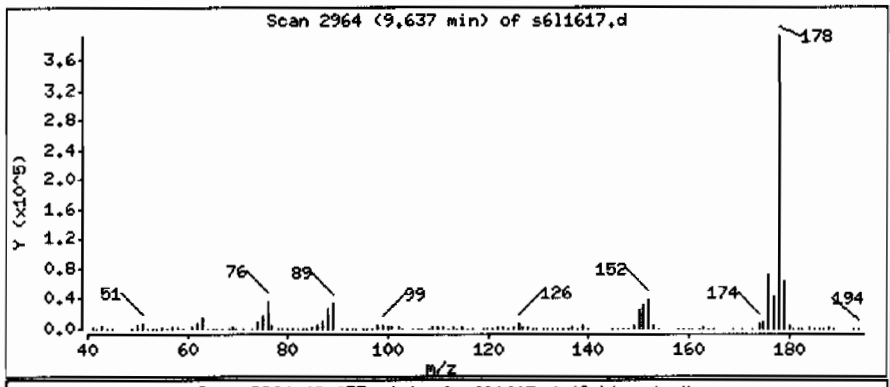

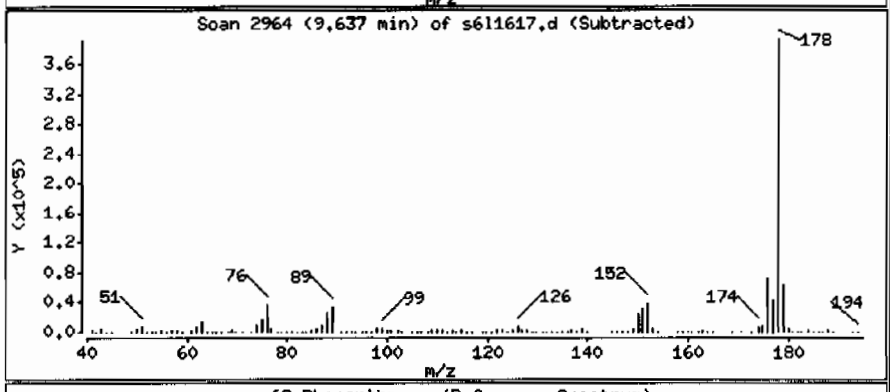

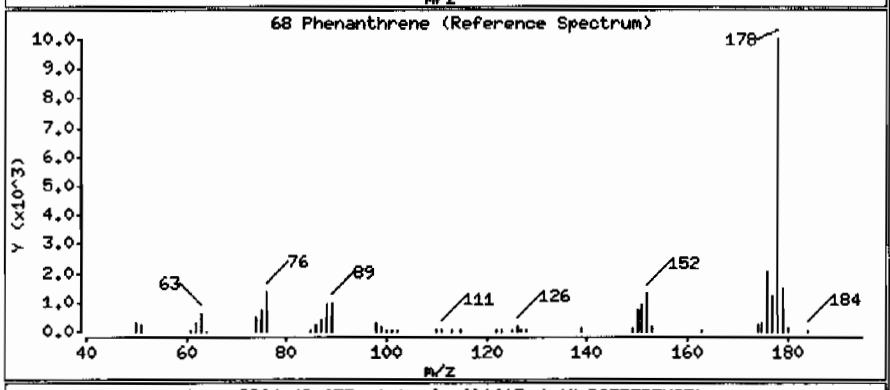

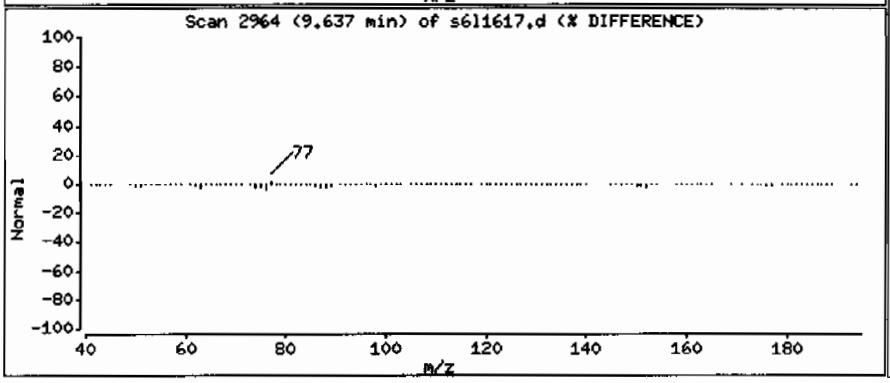

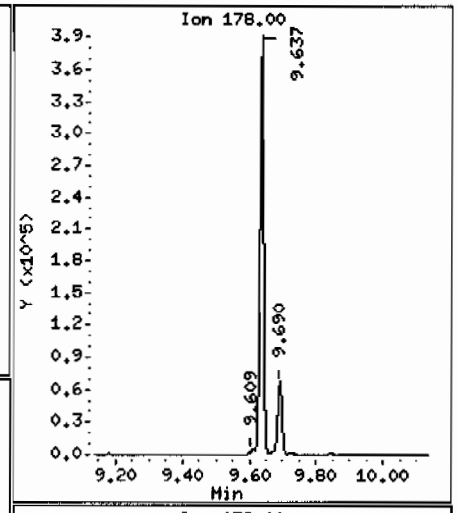

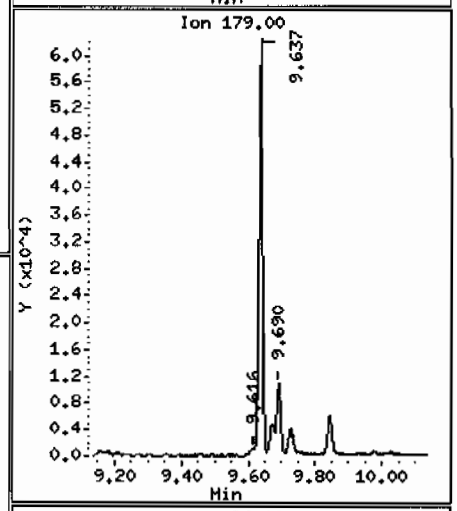

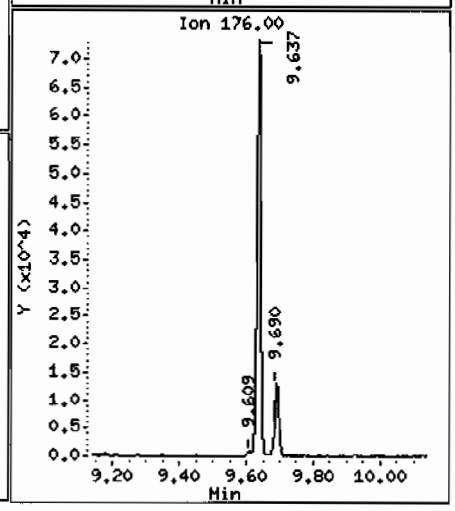

Data File: /chem/MSD6.i/s121609.b/s611617.d

Date : 16-DEC-2009 17:10

Client ID: RE03-10-2740

Instrument: MSD6.i

Sample Info: 1242668002|932444|1|SVMF|1|LANL

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

69 Anthracene

Concentration: 155 ug/Kg

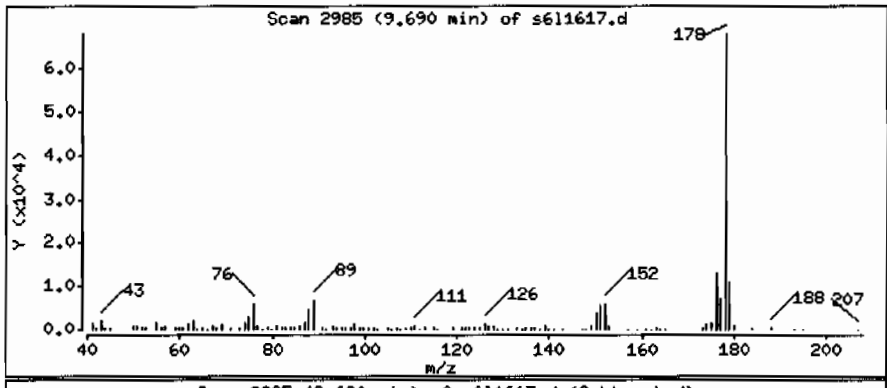

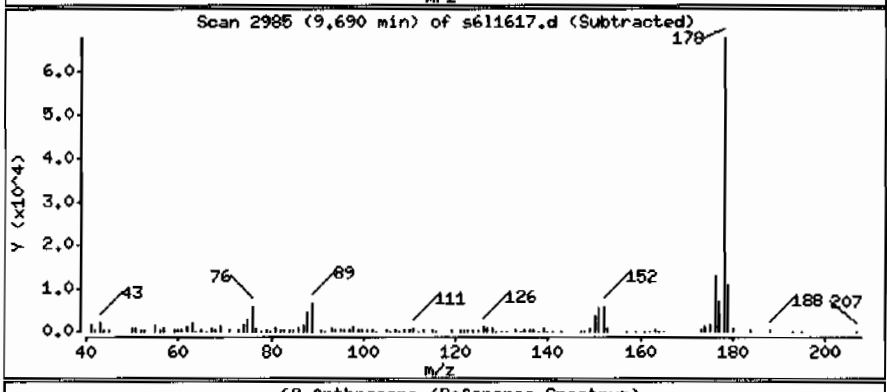

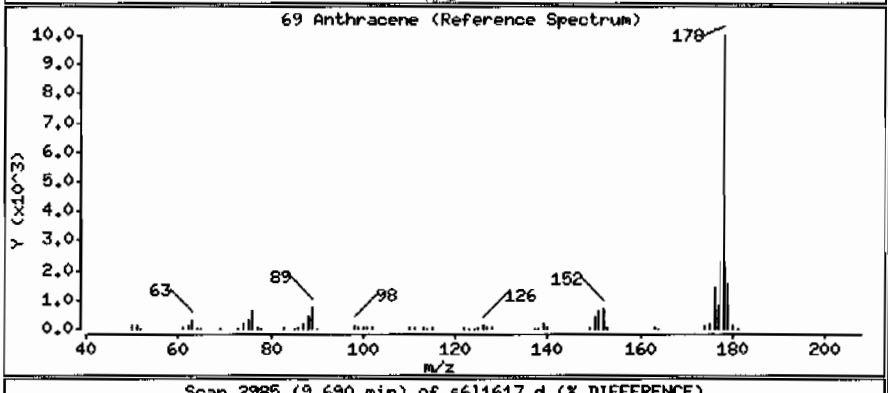

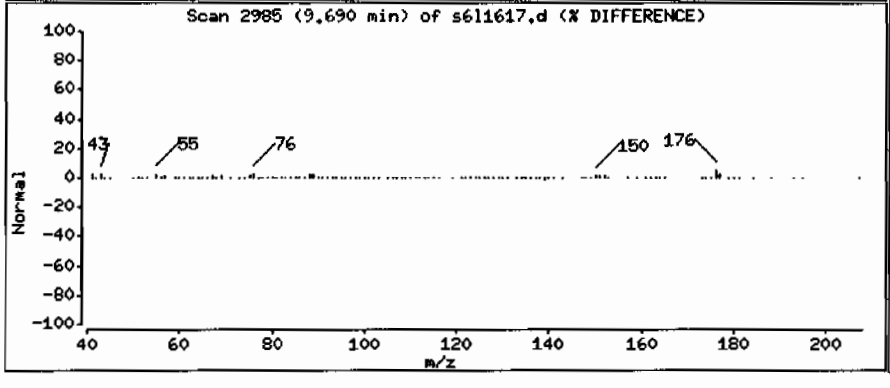

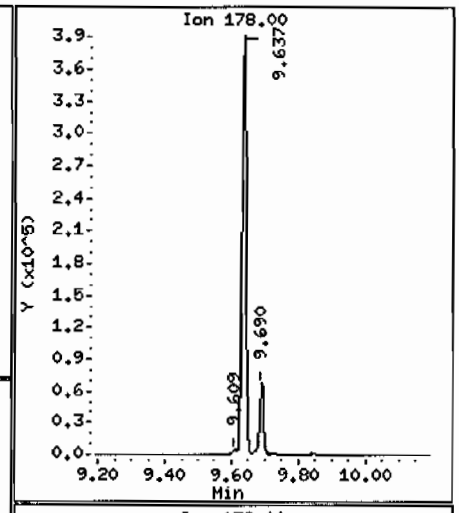

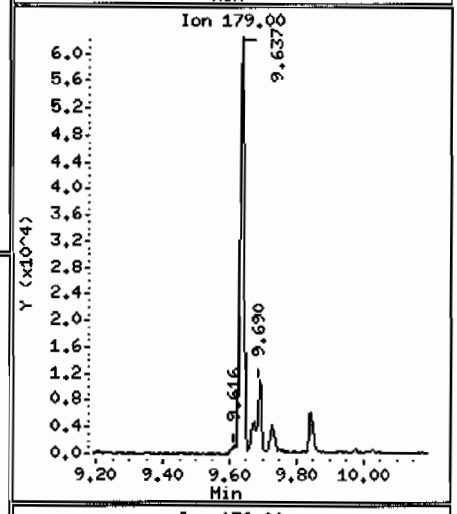

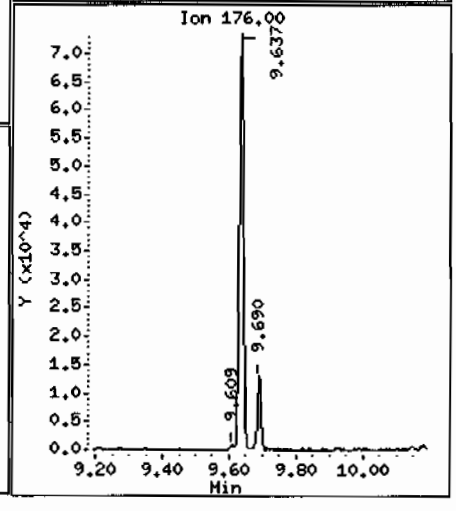

Data File: /chem/MSD6.i/s121609.b/s611617.d

Date : 16-DEC-2009 17:10

Client ID: RE03-10-2740

Instrument: MSD6.i

Sample Info: 1242668002193244411SVHF11LANL

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

76 Fluoranthene

Concentration: 1070 ug/Kg

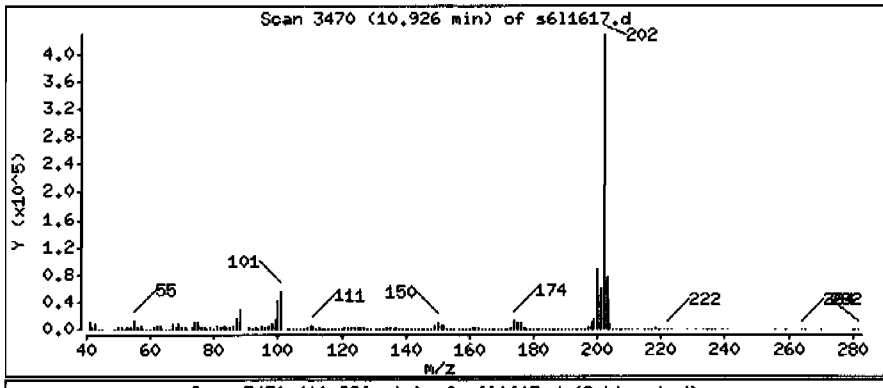

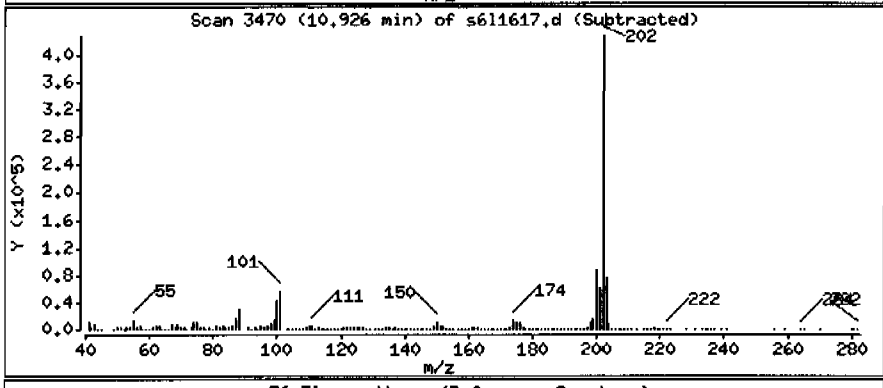

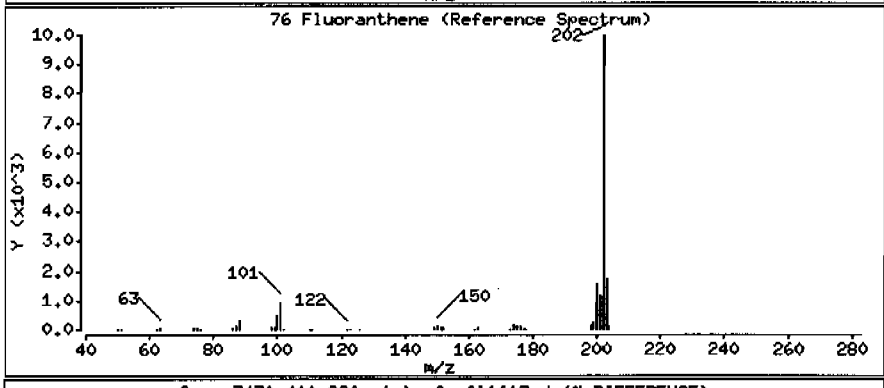

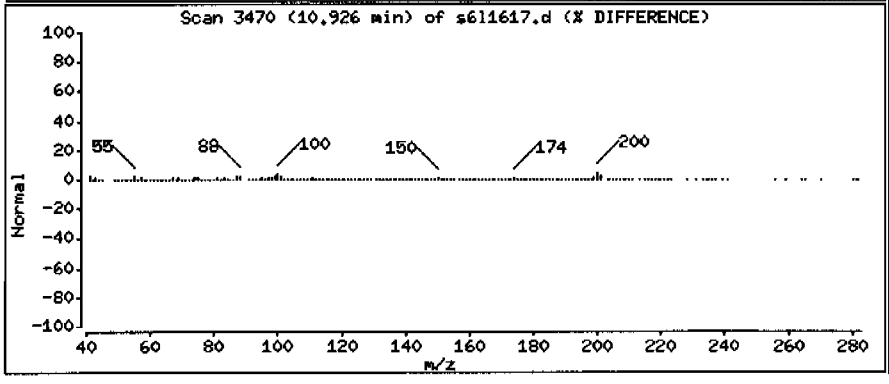

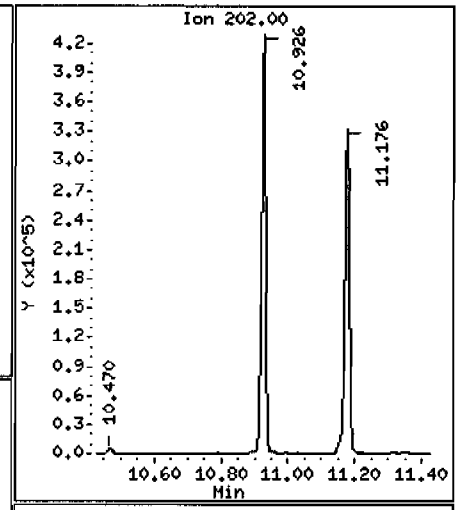

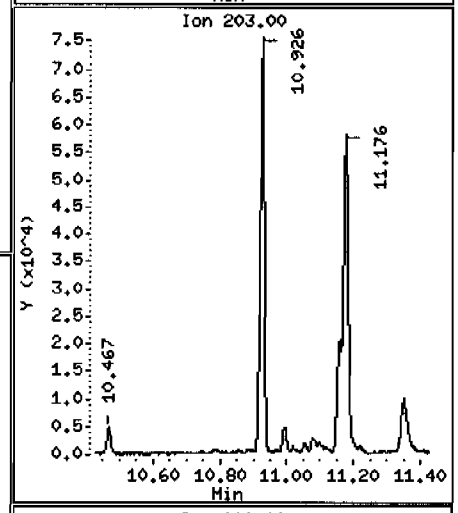

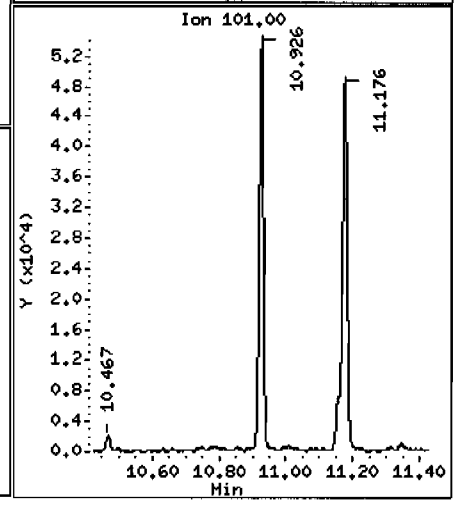

Data File: /chem/MSD6.i/s121609.b/s611617.d

Date : 16-DEC-2009 17:10

Client ID: RE03-10-2740

Instrument: MSD6.i

Sample Info: I24266B002I932444I1ISVHFI1ILANL

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

89 Benzo(a)anthracene

Concentration: 348 ug/Kg

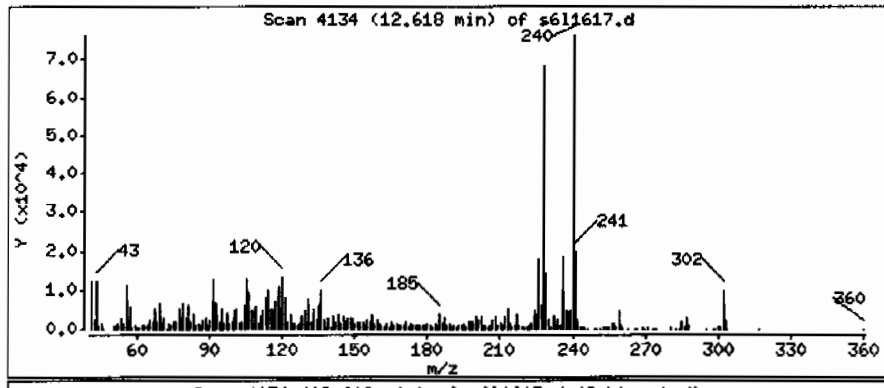

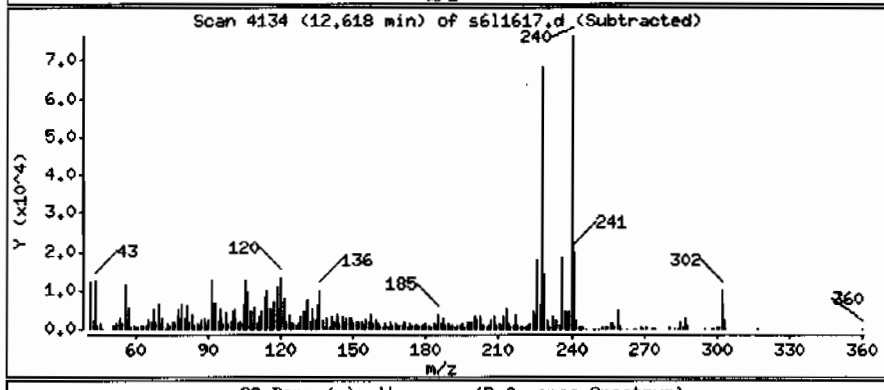

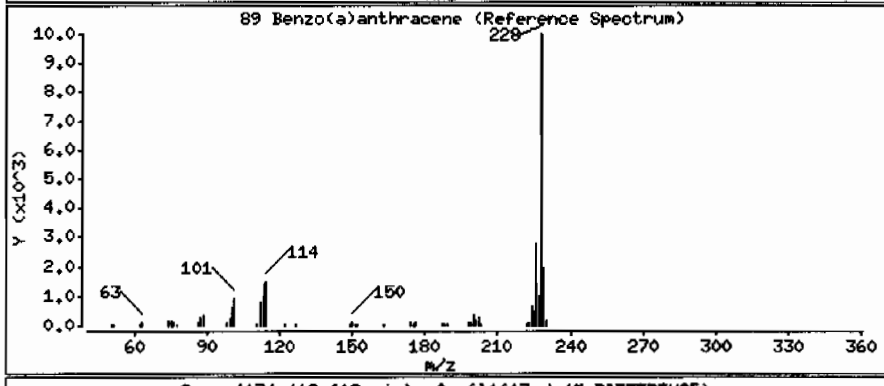

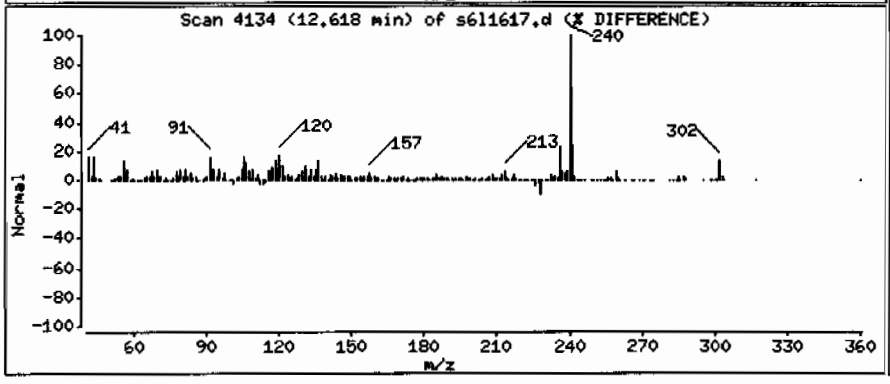

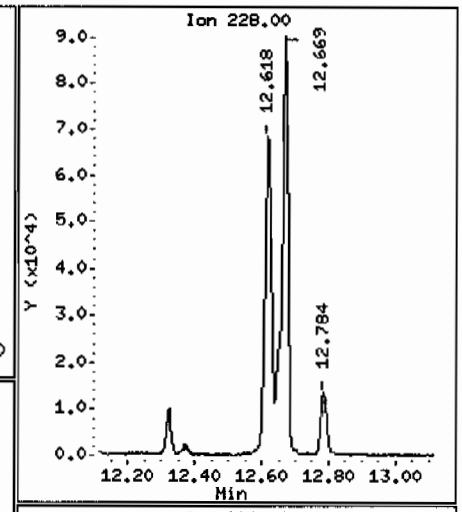

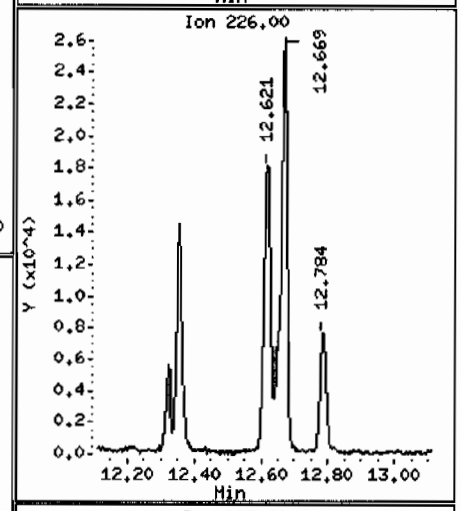

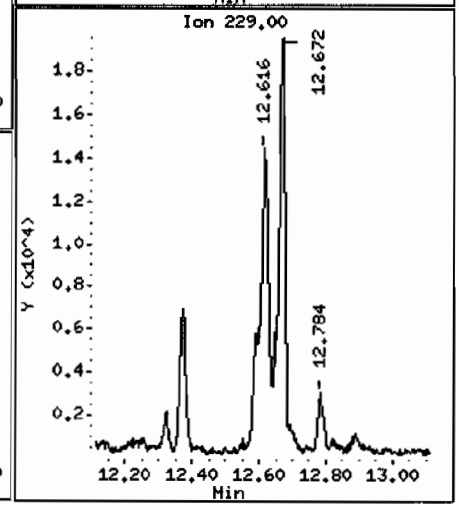

Data File: /chem/MSD6.i/s121609.b/s611617.d

Date : 16-DEC-2009 17:10

Client ID: RE03-10-2740

Instrument: MSD6.i

Sample Info: 1242668002193244411SVMF11LANL

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

92 Chrysene

Concentration: 417 ug/Kg

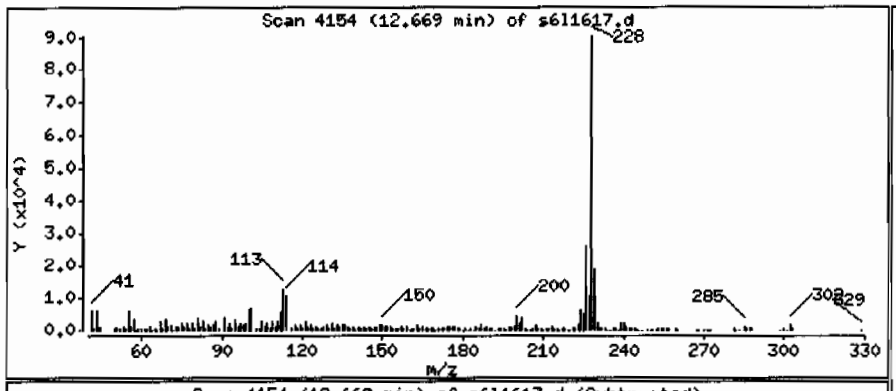

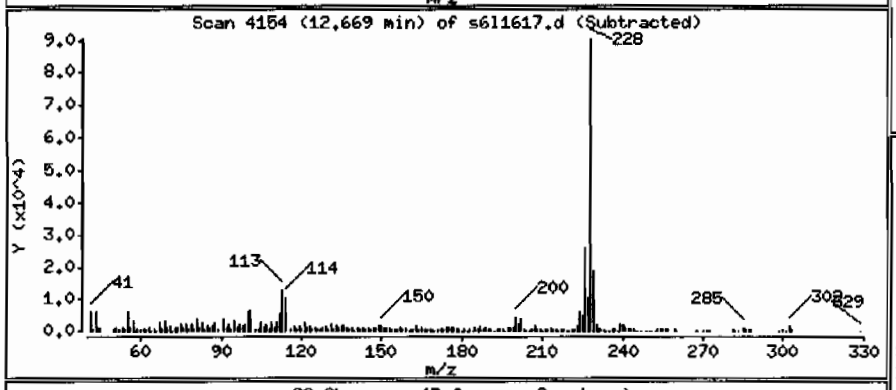

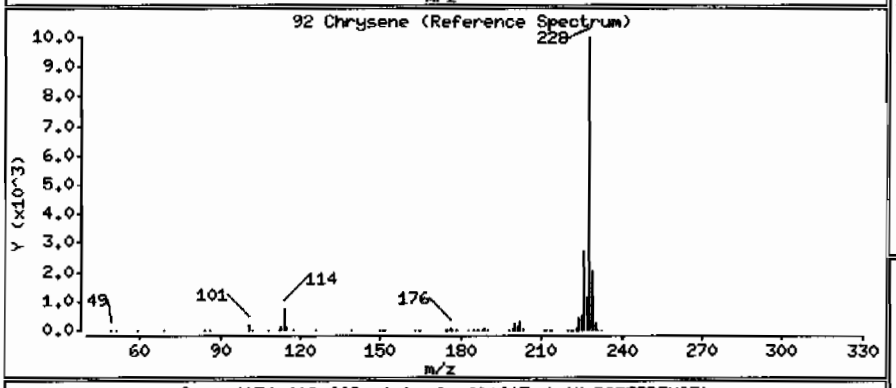

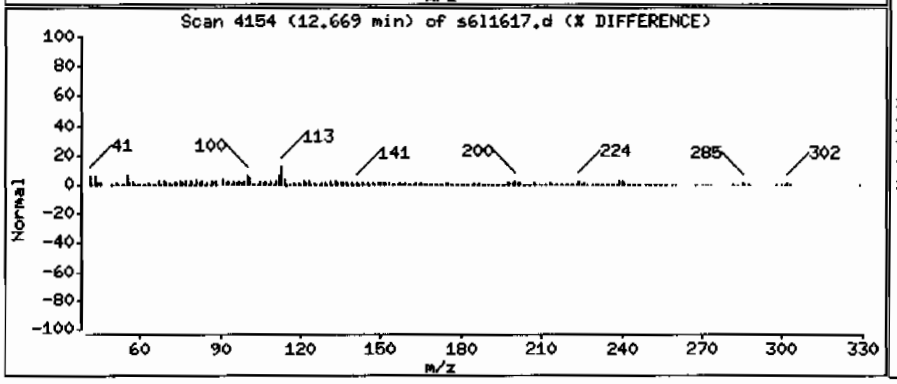

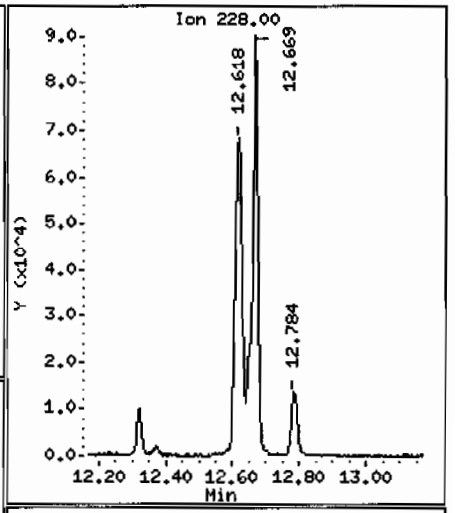

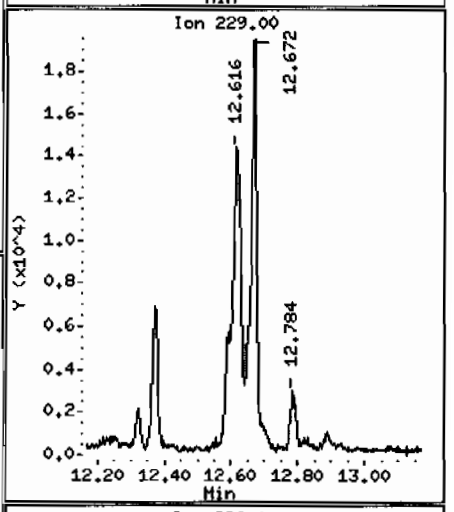

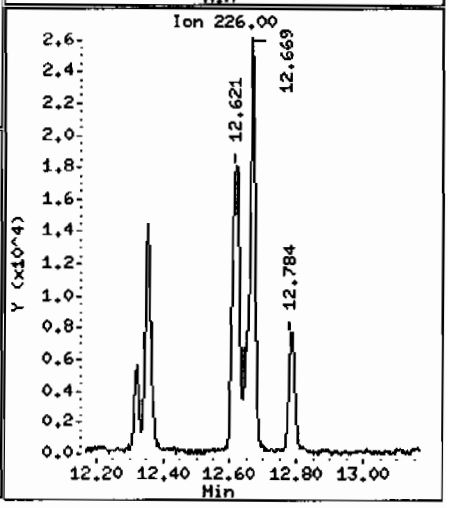

Data File: /chem/MSD6.i/s121609.b/s611617.d

Date : 16-DEC-2009 17:10

Client ID: RE03-10-2740 Instrument: MSD6.i

Sample Info: |2426680021932444|1|SVMF|1|LANL

Volume Injected (uL): 0.5 Operator: nagi

Column phase: J&W DB-5MS Column diameter: 0.20

93 bis(2-Ethylhexyl)phthalate Concentration: 89.7 ug/Kg

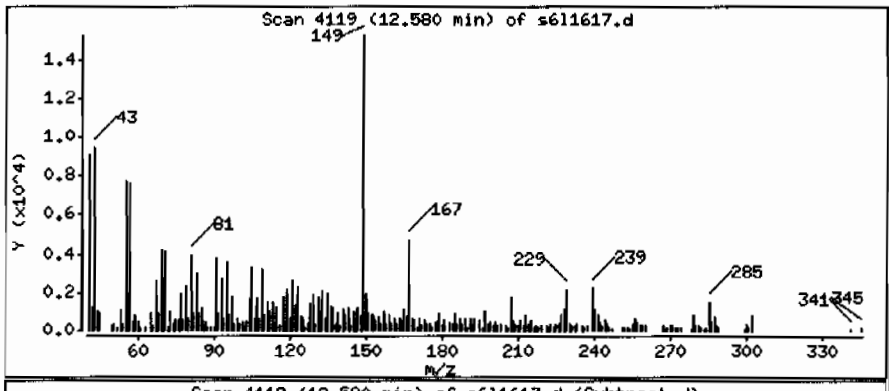

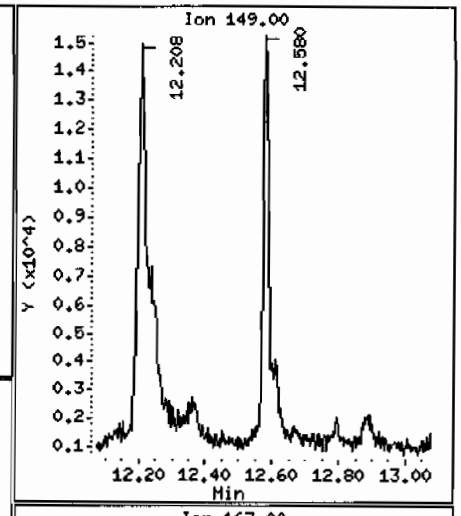

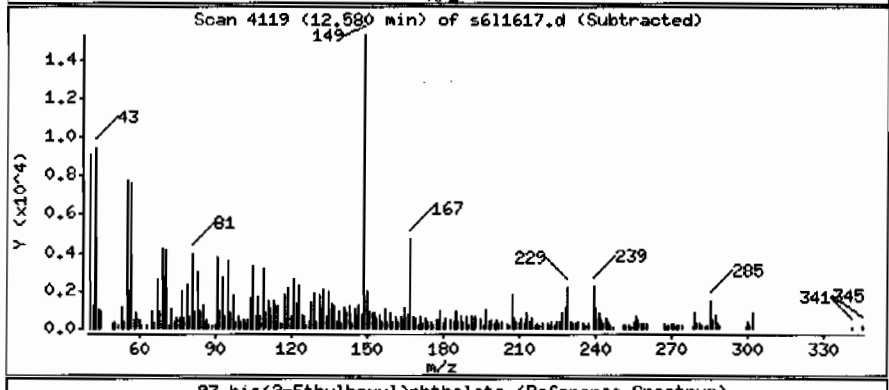

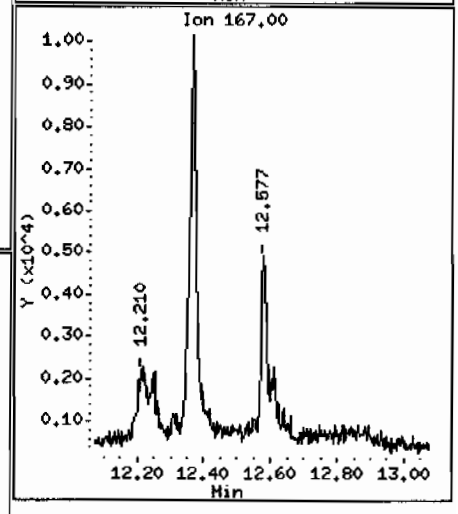

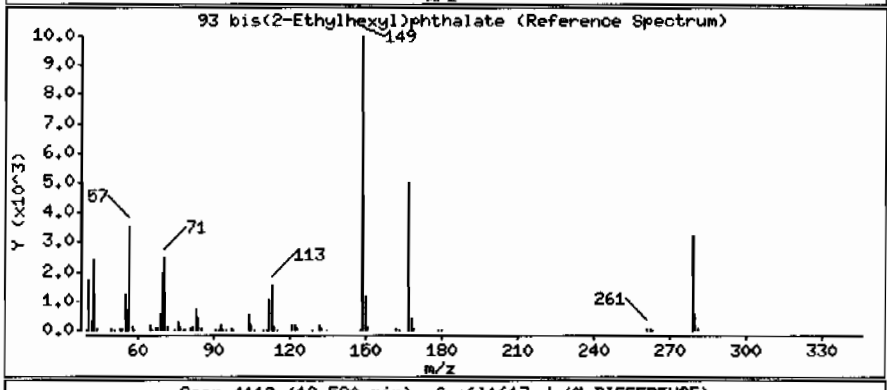

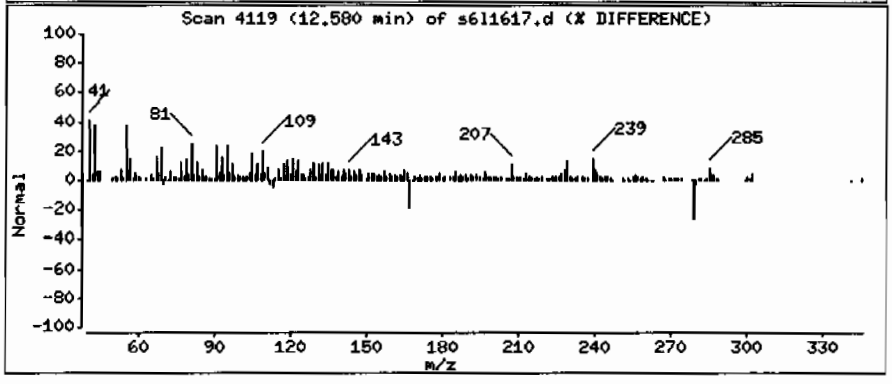

Data File: /chem/MSD6.i/s121609.b/s611617.d

Date : 16-DEC-2009 17:10

Client ID: RE03-10-2740

Instrument: MSD6.i

Sample Info: 1242668002|932444|1|SVHF|1|LANL

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

95 Benzo(b)fluoranthene

Concentration: 500 ug/Kg

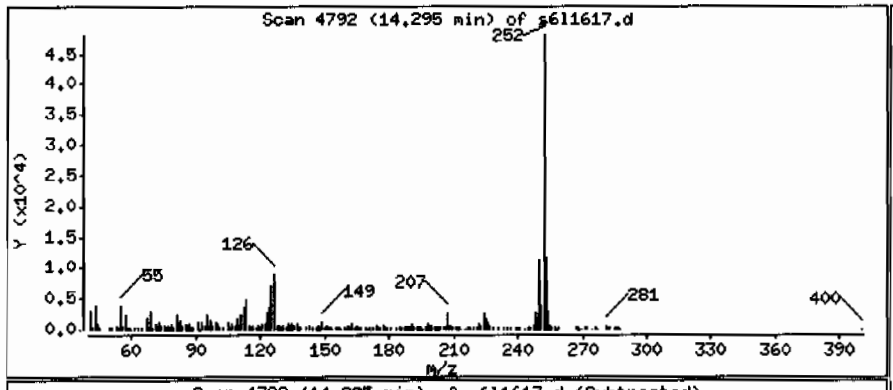

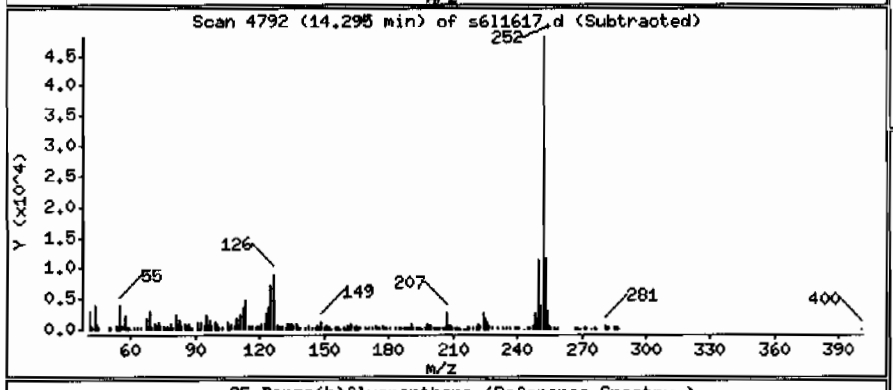

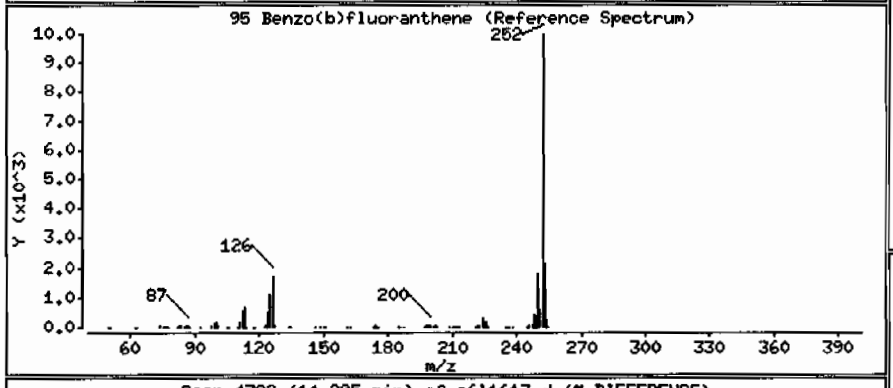

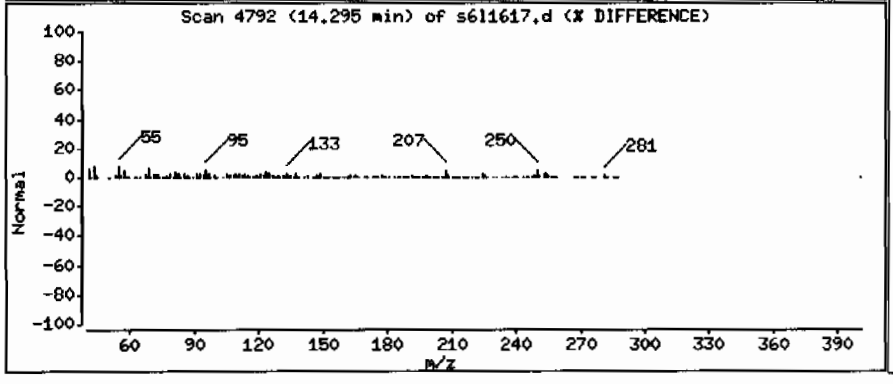

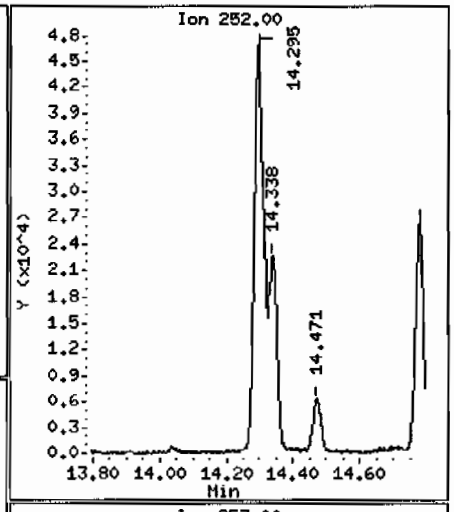

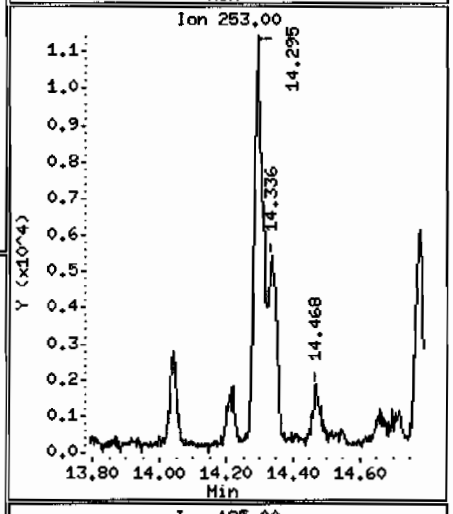

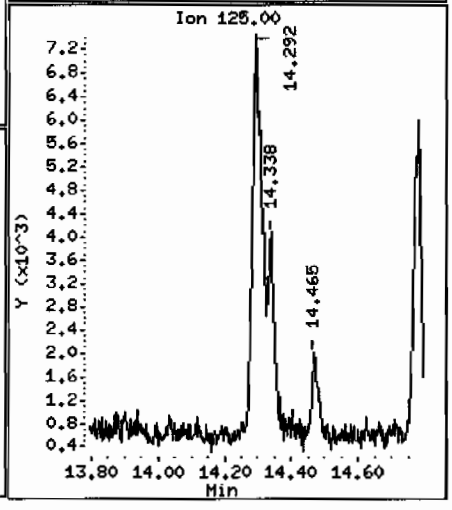

Data File: /chem/MSD6.i/s121609.b/s611617.d

Date : 16-DEC-2009 17:10

Client ID: RE03-10-2740

Instrument: MSD6.i

Sample Info: 1242668002|932444|1|SVMF|1|LANL

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

96 Benzo(k)fluoranthene

Concentration: 203 ug/Kg

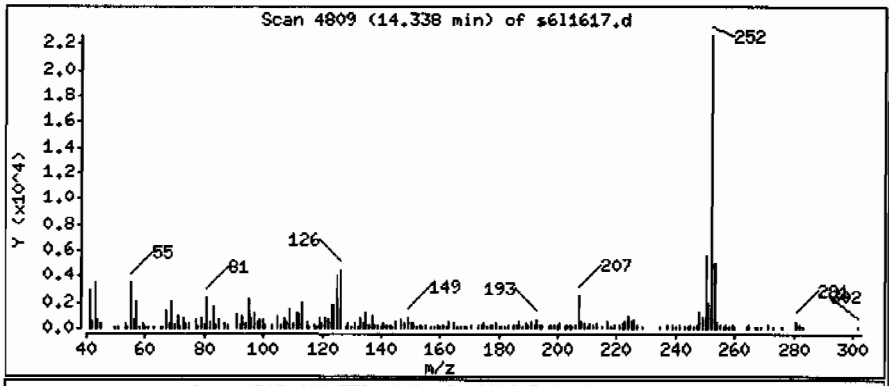

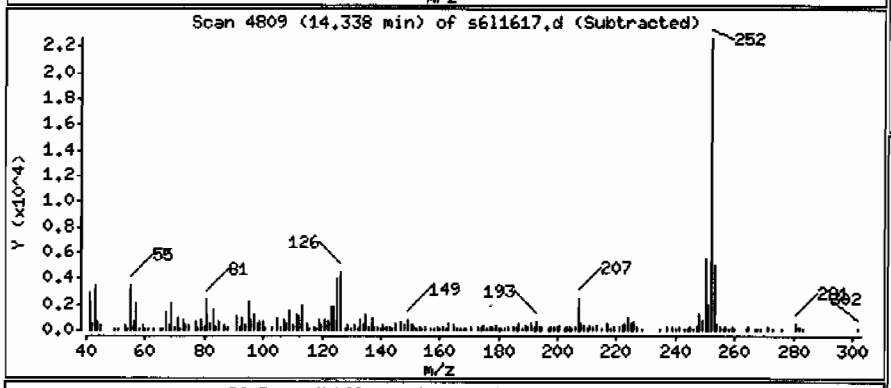

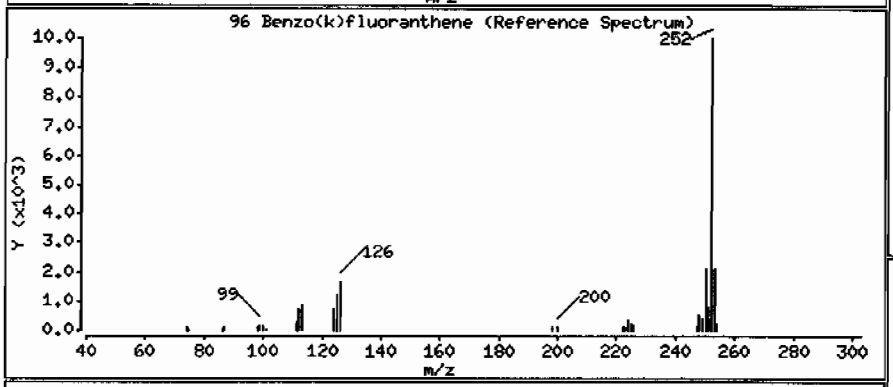

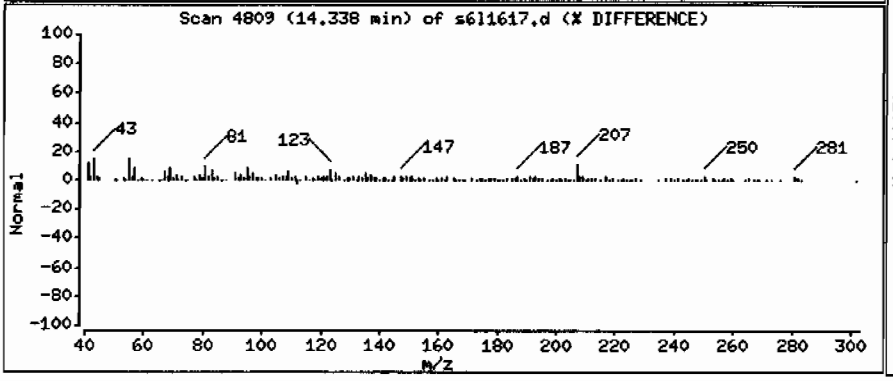

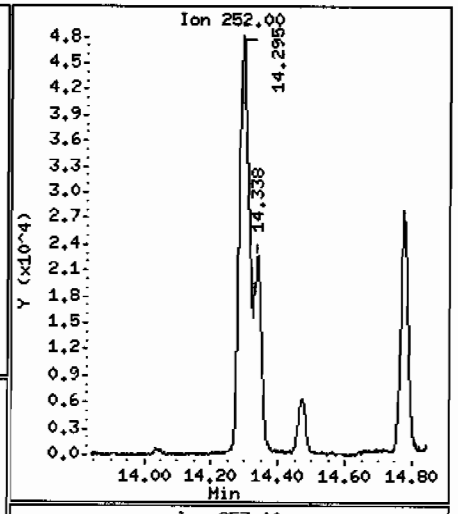

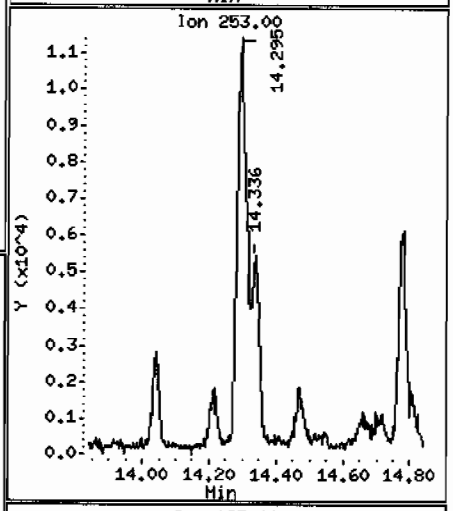

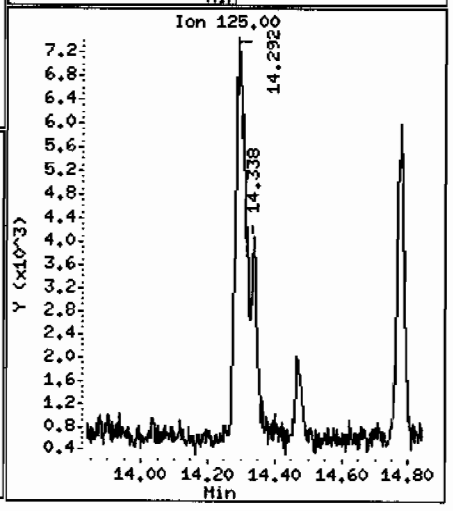

Data File: /chem/MSD6.i/s121609.b/s611617.d

Page 15

Date : 16-DEC-2009 17:10

Client ID: RE03-10-2740

Instrument: MSD6.i

Sample Info: 1242668002193244411SVHF11LANL

Volume Injected (uL): 0.5

Operator: nagl

Column phase: J&W DB-5MS

Column diameter: 0.20

97 Benzo(a)pyrene

Concentration: 343 ug/Kg

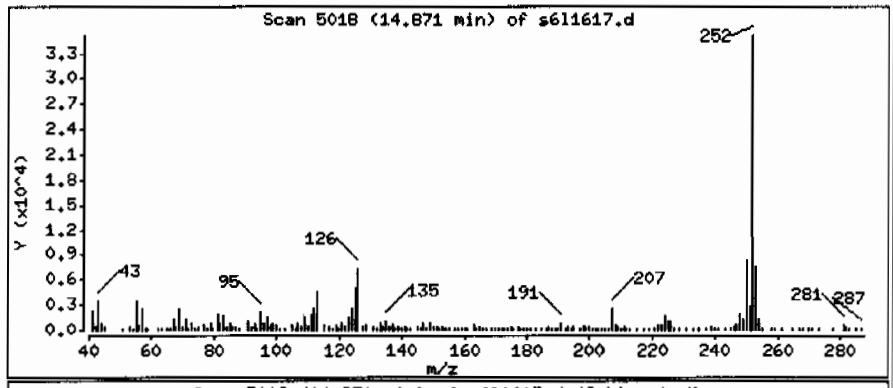

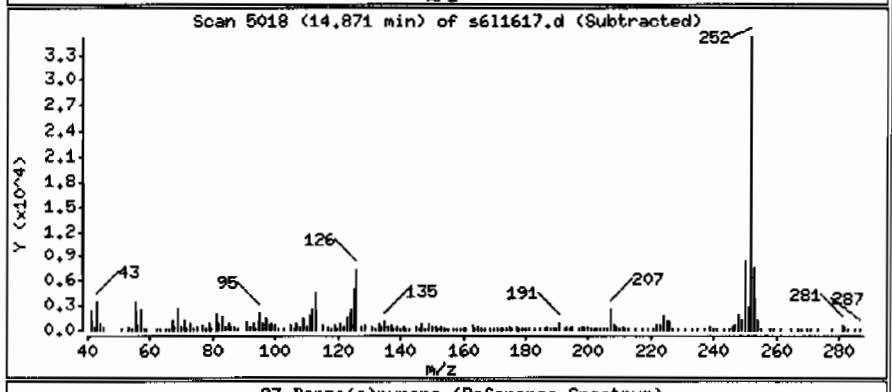

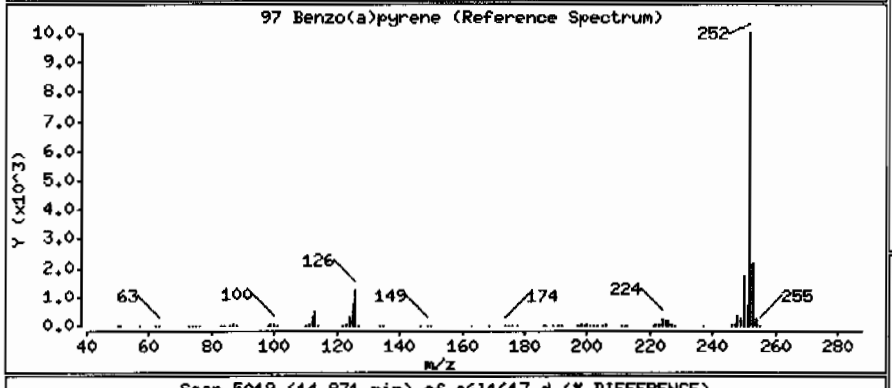

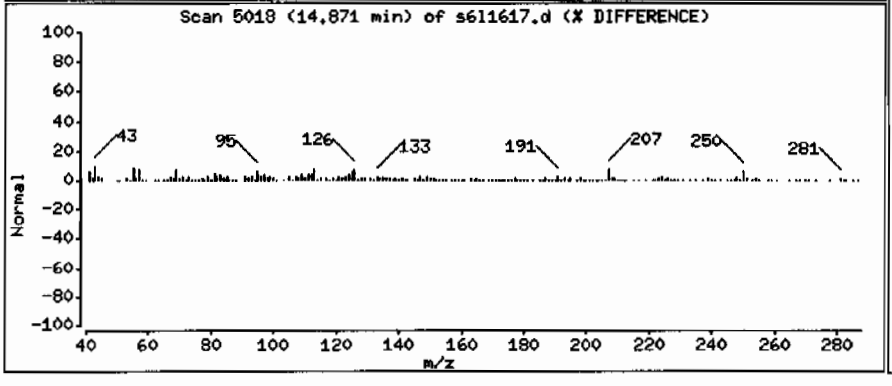

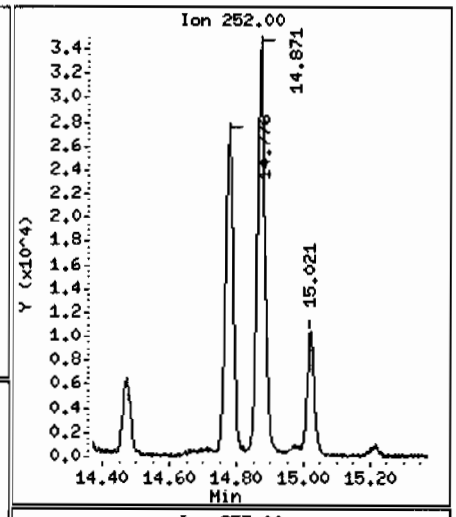

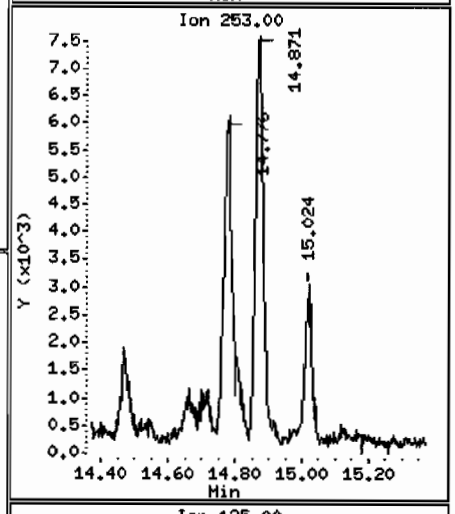

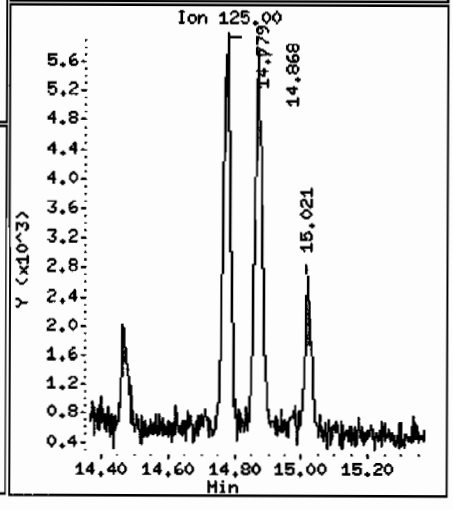

Data File: /chem/MSD6.i/s121609.b/s611617.d

Date : 16-DEC-2009 17:10

Client ID: RE03-10-2740

Instrument: MSD6.i

Sample Info: 1242668002193244411SVMF11ILANL

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

99 Indeno(1,2,3-cd)pyrene

Concentration: 262 ug/Kg

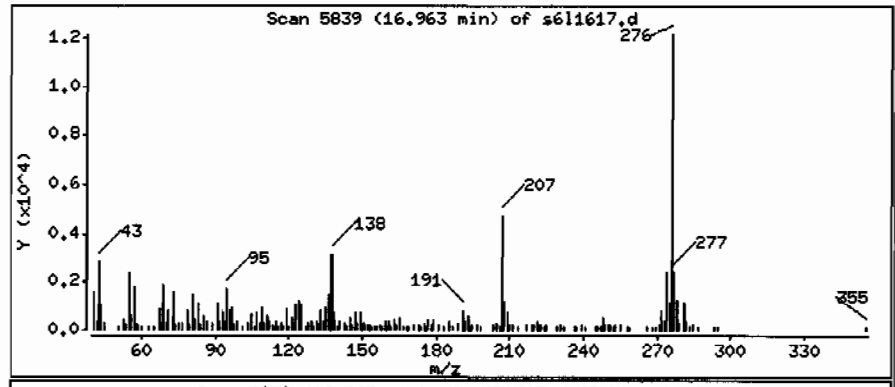

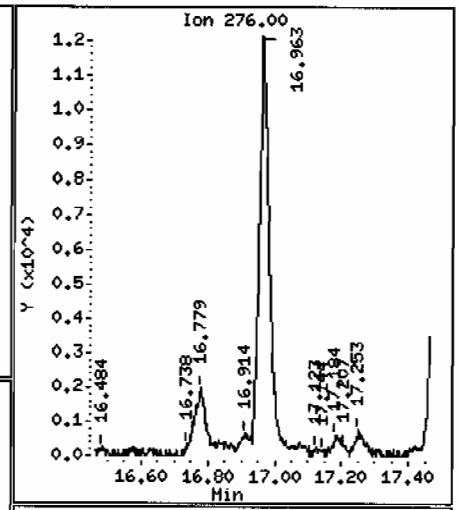

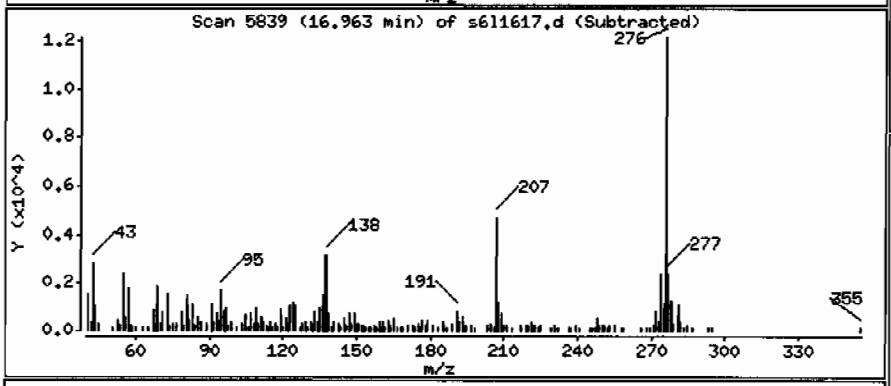

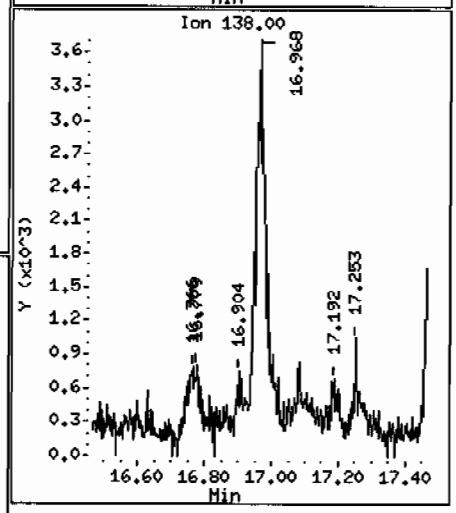

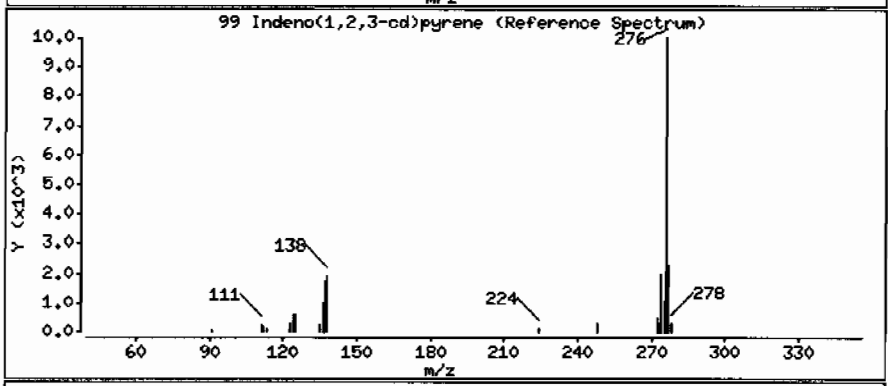

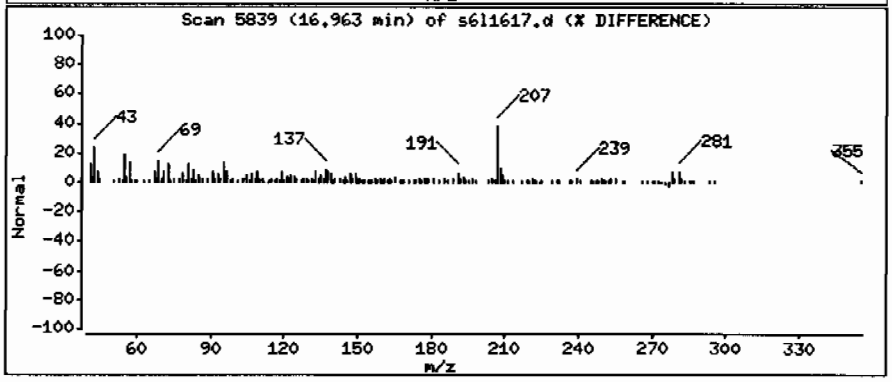

Data File: /chem/HSD6.i/s121609.b/s611617.d

Date : 16-DEC-2009 17:10

Client ID: RE03-10-2740

Instrument: HSD6.i

Sample Info: |2426680021932444|1|SVMF|1|LANL

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

100 Dibenzo(a,h)anthracene

Concentration: 128 ug/Kg

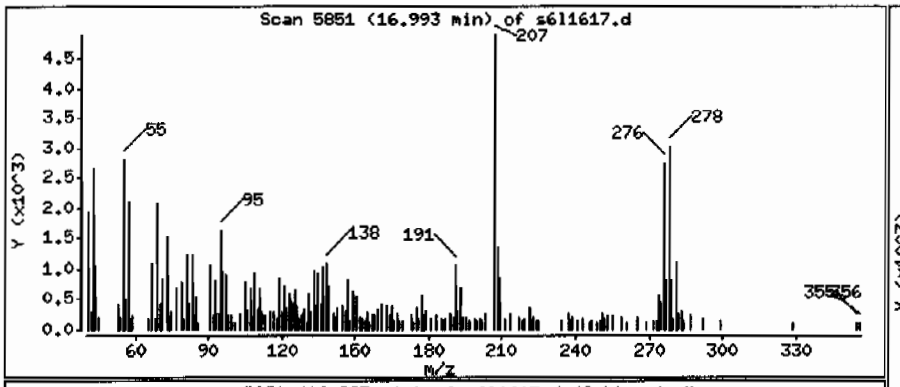

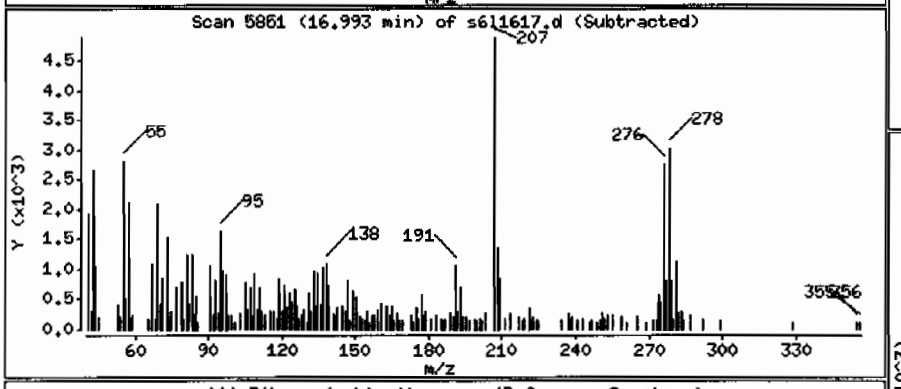

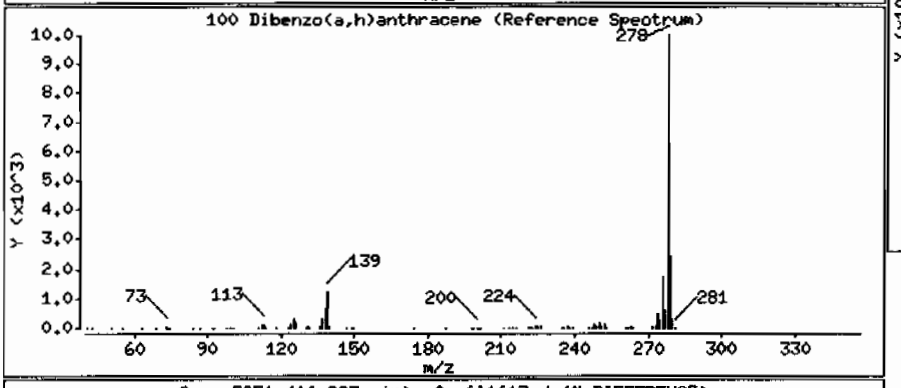

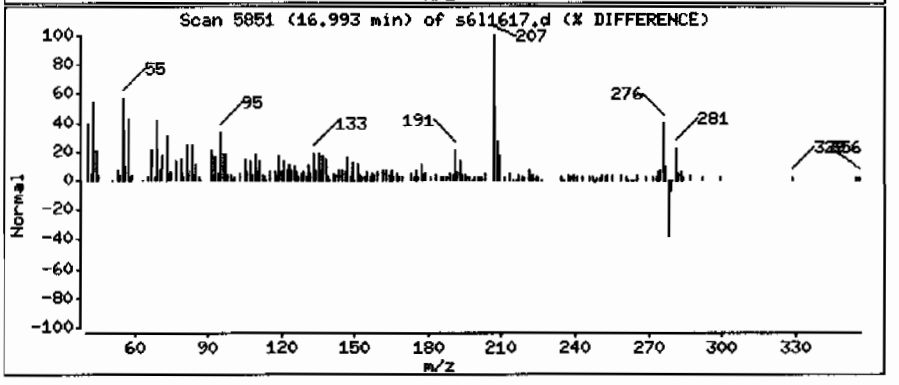

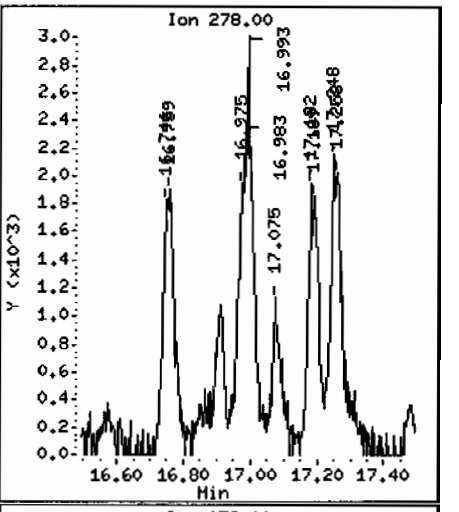

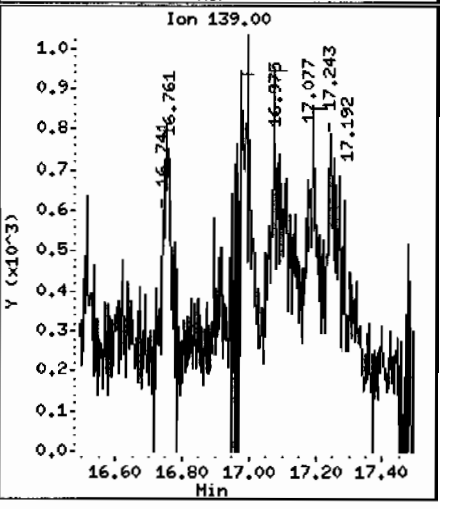

Data File: /chem/MSD6.i/s121609.b/s611617.d

Date : 16-DEC-2009 17:10

Client ID: RE03-10-2740

Instrument: MSD6.i

Sample Info: 1242668002193244411SVMF11LANL

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

101 Benzo(ghi)perylene

Concentration: 168 ug/Kg

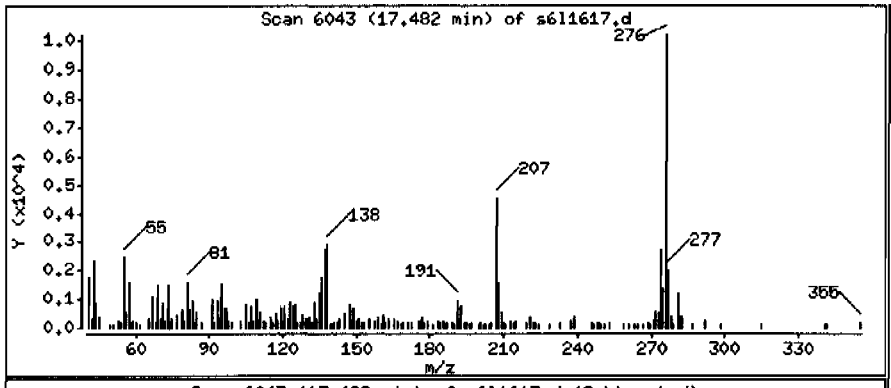

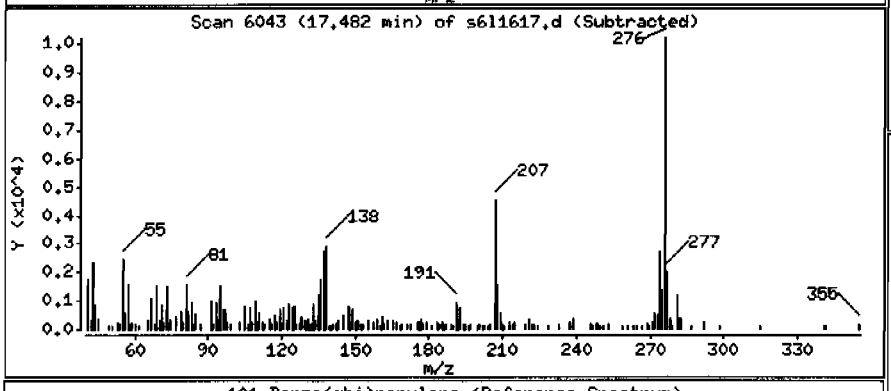

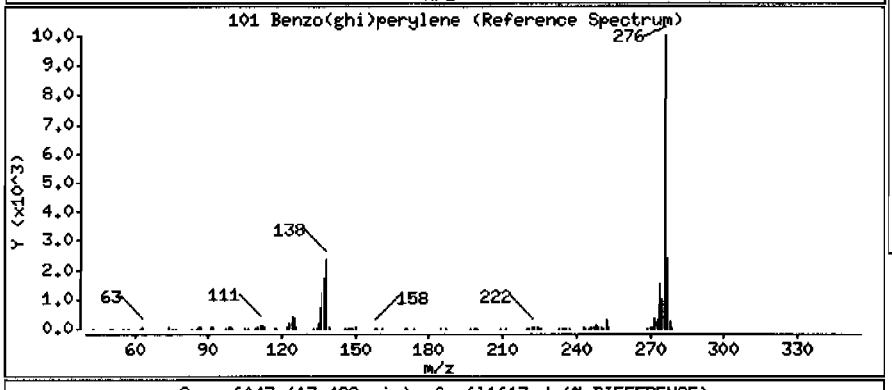

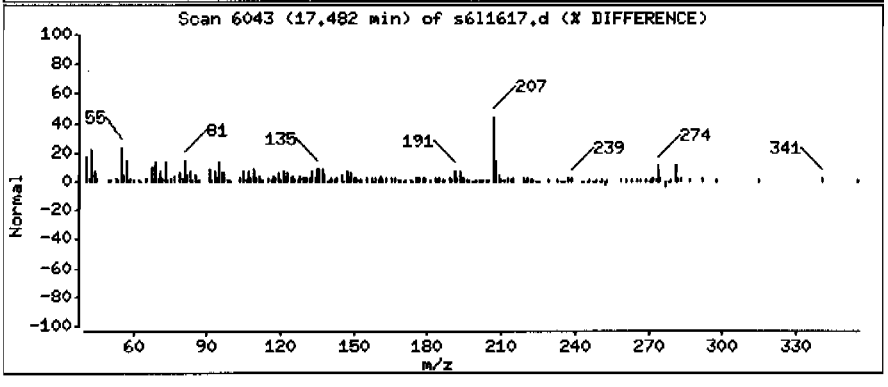

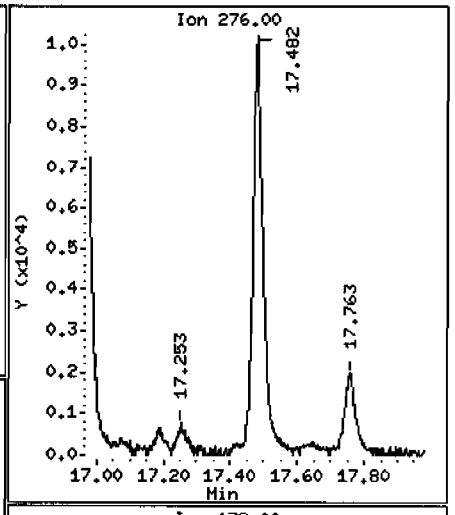

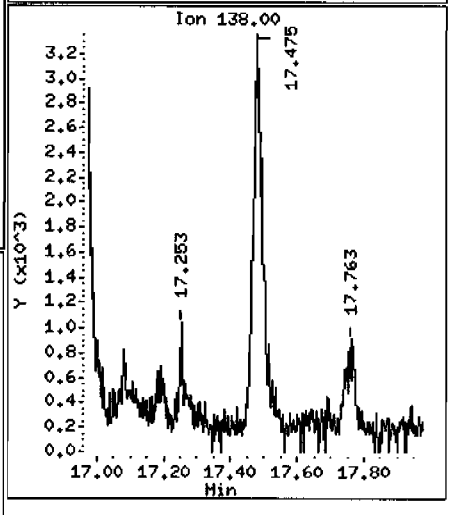

Data File: /chem/MSD6.i/s121609.b/s611617.d

Date : 16-DEC-2009 17:10

Client ID: RE03-10-2740

Instrument: MSD6.i

Sample Info: 1242668002193244411SVMF11LANL

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	59	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	38	C6H12O2	116
Acetic acid, cyano-, 1,1-dimethylethyl e	1116-98-9	NIST05.L	18291	25	C7H11NO2	141

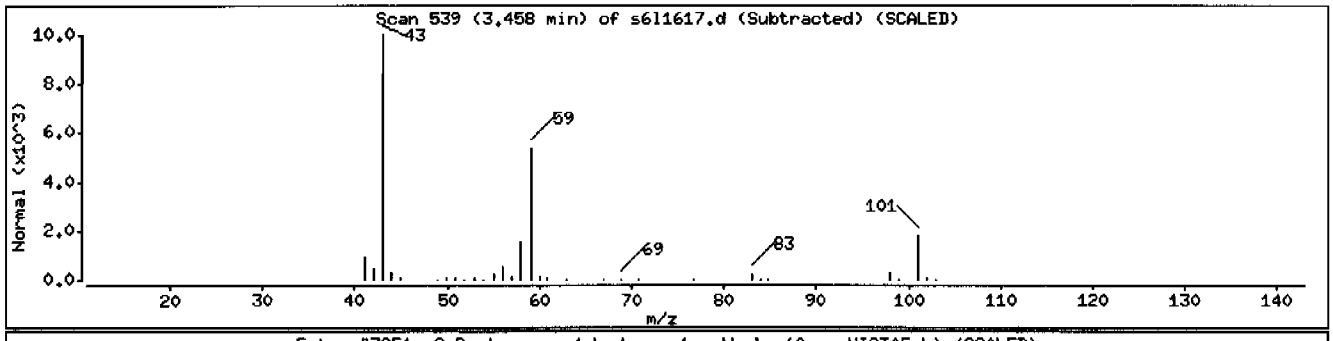

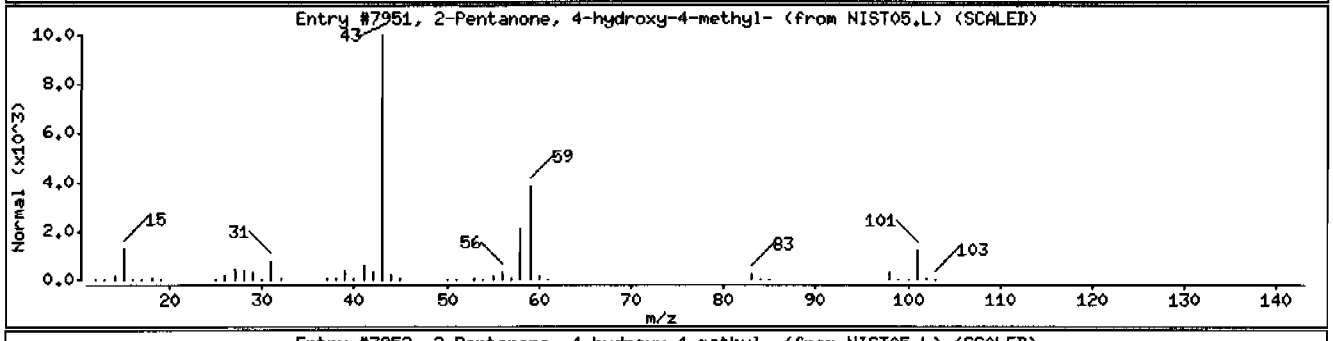

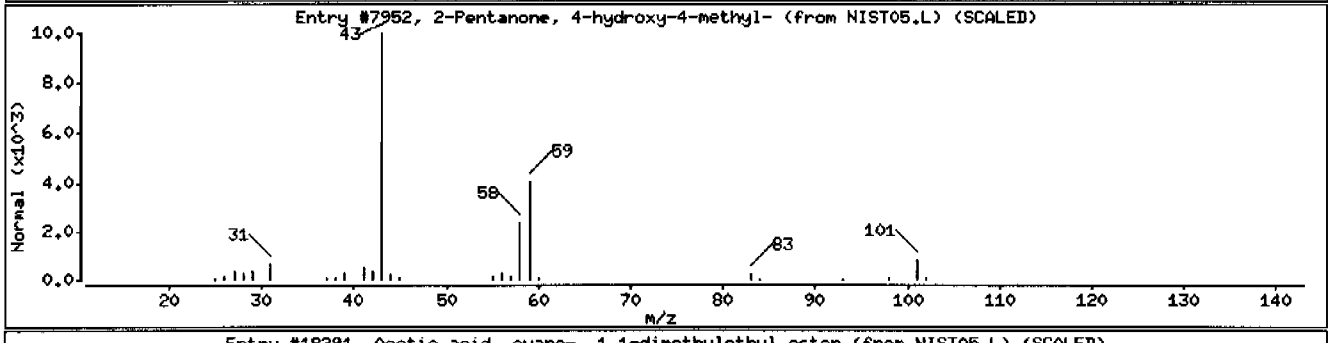

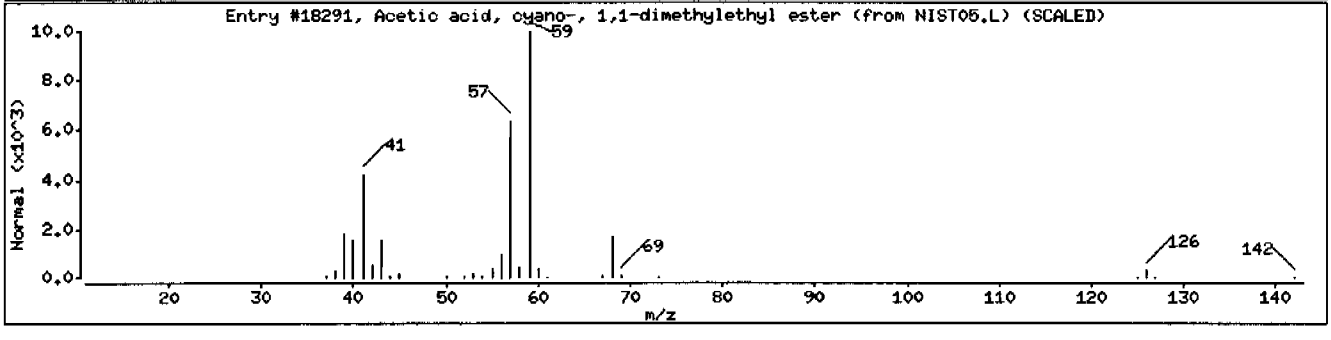

Data File: /chem/MSD6.i/s121609.b/s611617.d

Date : 16-DEC-2009 17:10

Client ID: RE03-10-2740

Instrument: MSD6.i

Sample Info: 1242668002193244411SVMF11LANL

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Bicyclo[4.1.0]hept-3-ene, 3,7,7-trimethy	498-15-7	NIST05.L	15369	97	C10H16	136
3-Carene	13466-78-9	NIST05.L	15156	96	C10H16	136
3-Carene	13466-78-9	NIST05.L	15157	95	C10H16	136

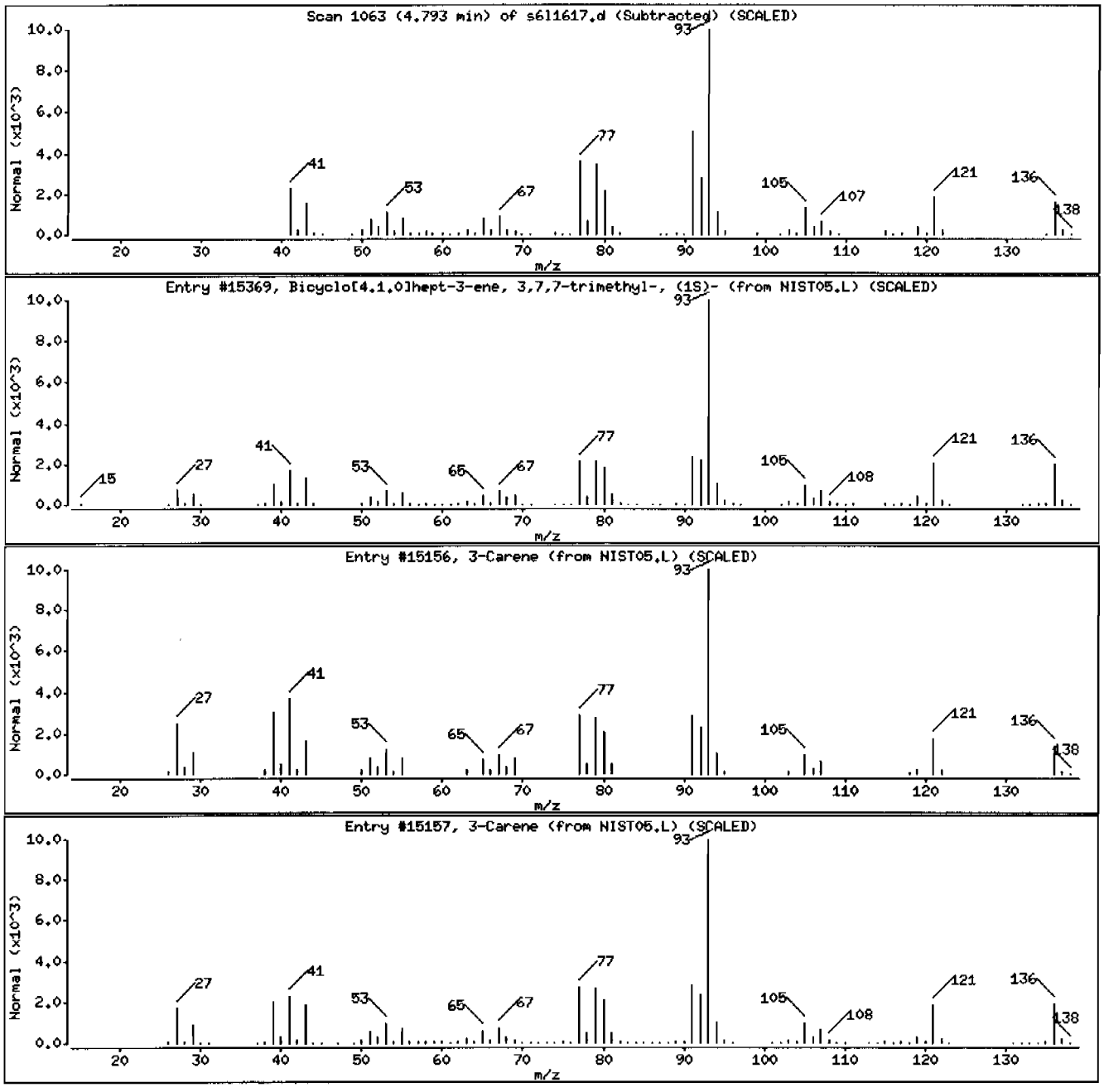

Data File: /chem/MSD6.i/s121609.b/s611617.d

Date : 16-DEC-2009 17:10

Client ID: RE03-10-2740

Instrument: MSD6.i

Sample Info: |2426680021932444|1|SVMF|1|LANL

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Nitrobenzene-D5	4165-60-0	NIST05.L	11692	72	C6D5NO2	128
Nitrobenzene-D5	4165-60-0	NIST05.L	11693	38	C6D5NO2	128
1H-Imidazole, 4-methyl-	822-36-6	NIST05.L	1131	25	C4H6N2	82

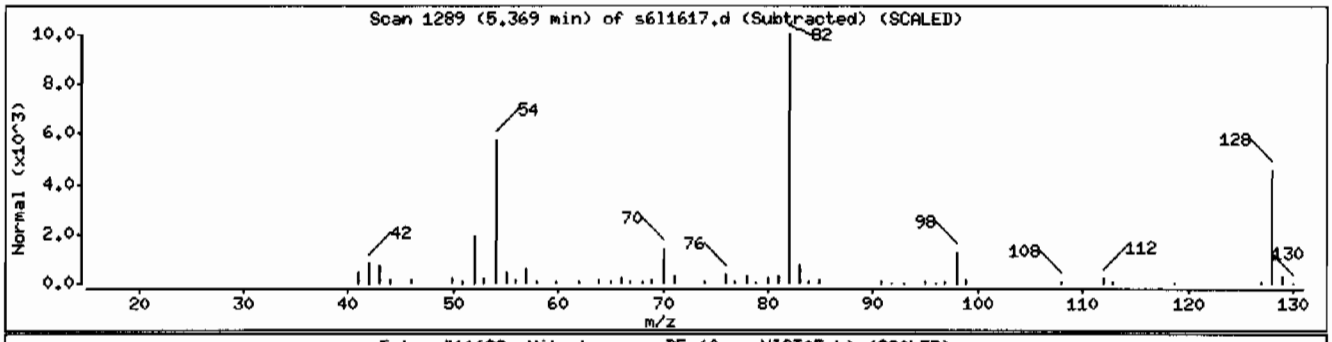

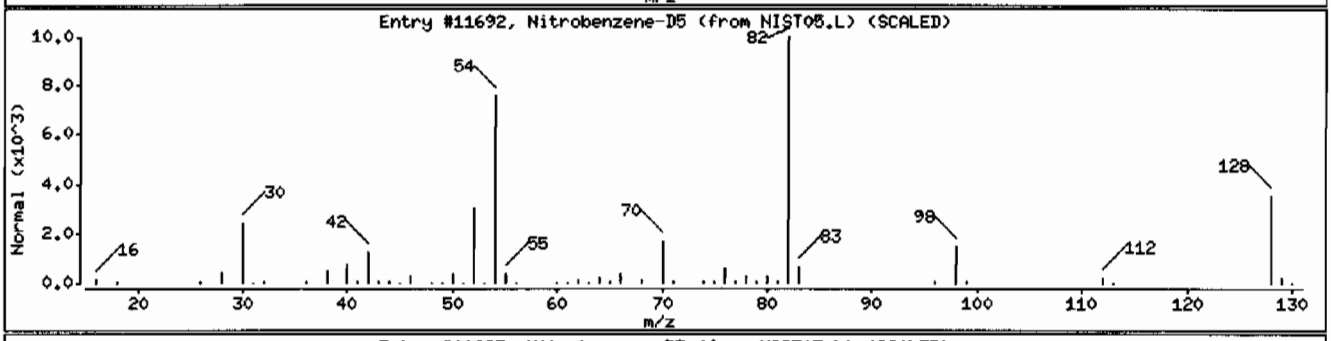

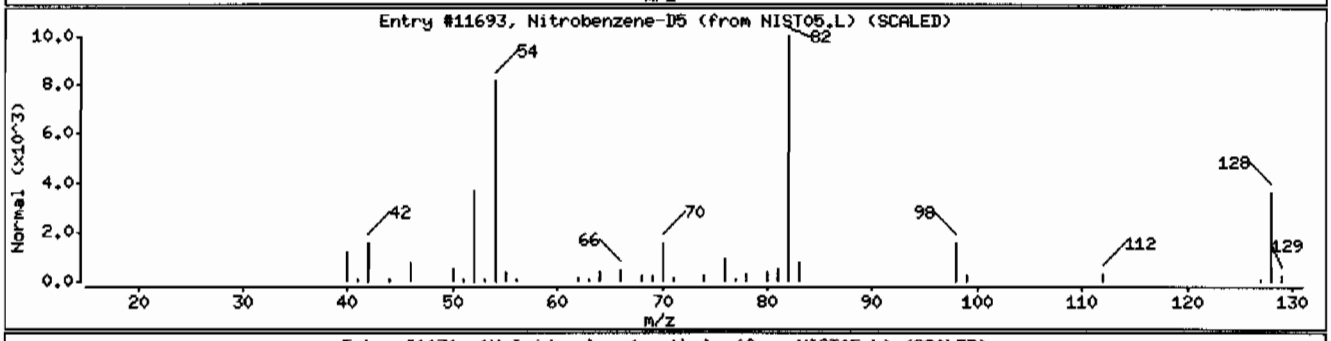

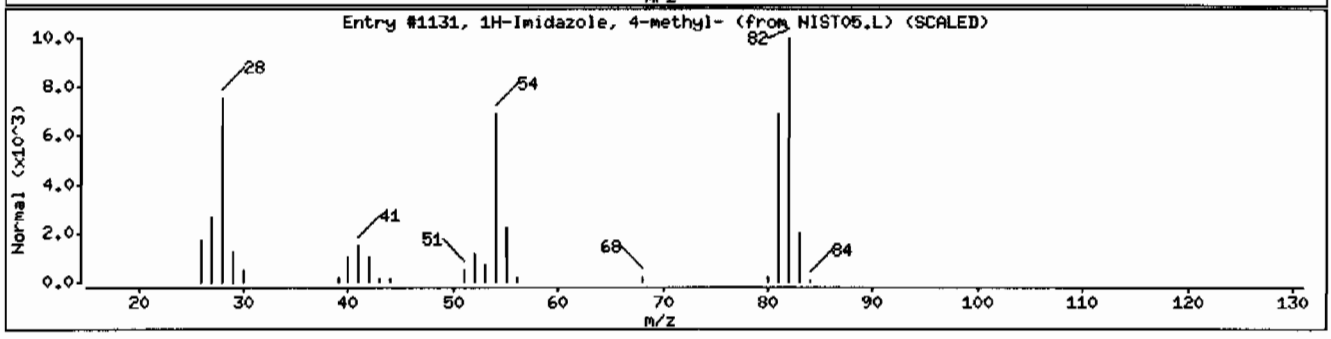

Data File: /chem/MSD6.i/s121609.b/s611617.d

Date : 16-DEC-2009 17:10

Client ID: RE03-10-2740

Instrument: MSD6.i

Sample Info: |2426680021932444|1|SVMF|1|LANL

Volume Injected (uL): 0.5

Operator: nagl

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Caryophyllene	87-44-5	NIST05.L	59797	97	C15H24	204
Caryophyllene	87-44-5	NIST05.L	59801	94	C15H24	204
Bicyclo[7.2.0]undec-4-ene, 4,11,11-trime	13877-93-5	NIST05.L	59912	93	C15H24	204

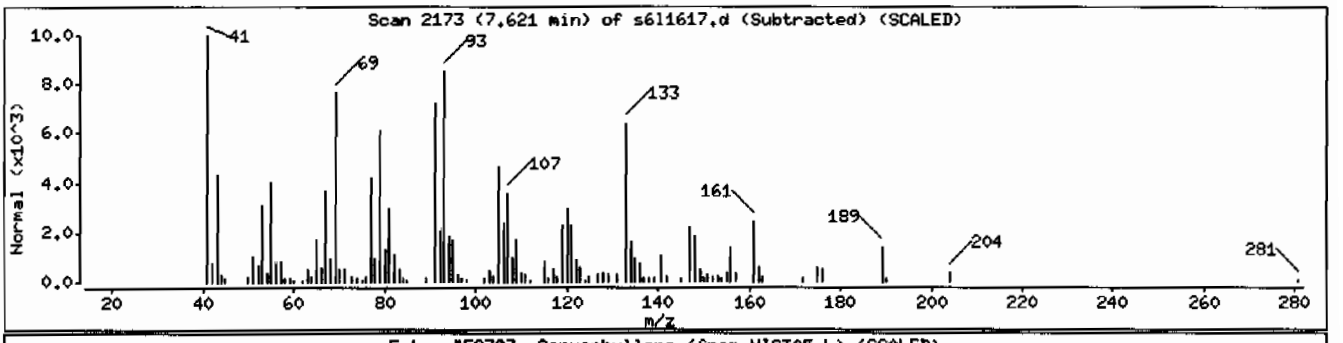

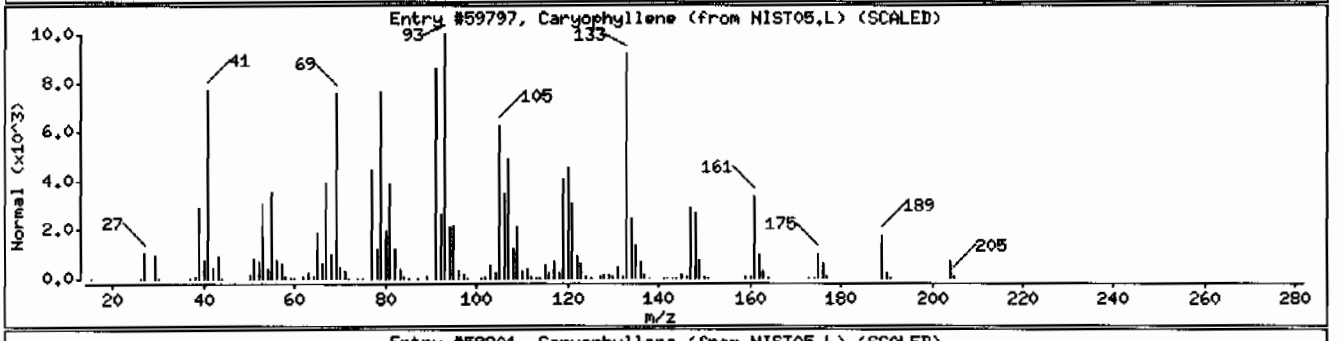

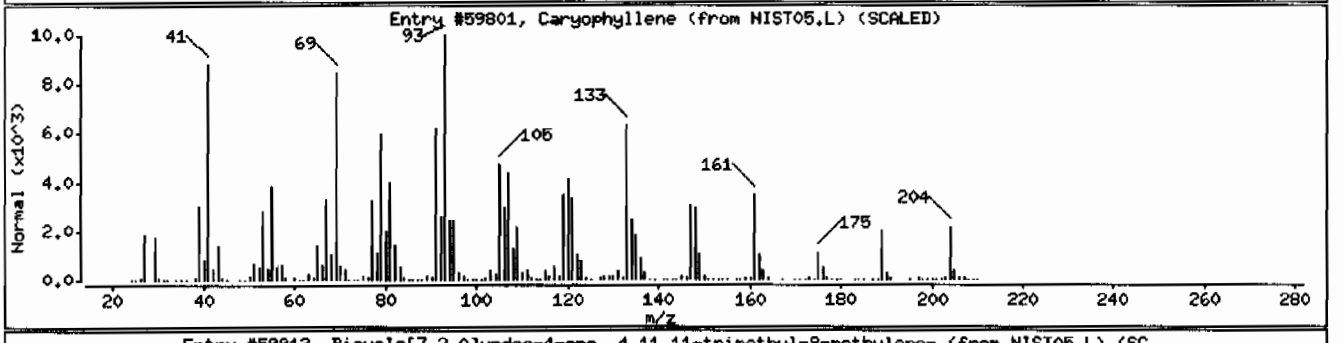

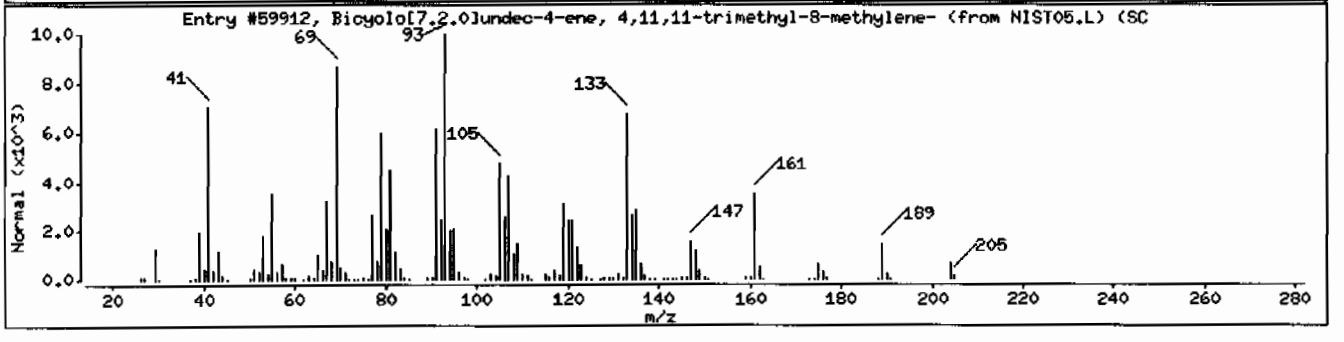

Data File: /chem/MSD6.i/s121609.b/s611617.d

Date : 16-DEC-2009 17:10

Client ID: RE03-10-2740

Instrument: MSD6.i

Sample Info: |2426680021932444|1|SVMF|1|LANL

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
1,6-Cyclodecadiene, 1-methyl-5-methylene	23986-74-5	NIST05.L	59960	89	C15H24	204
1H-Cyclopenta[1,3]cyclopropa[1,2]benzene	13744-15-5	NIST05.L	60104	86	C15H24	204
Naphthalene, 1,2,4a,5,6,8a-hexahydro-4,7	483-75-0	NIST05.L	59954	70	C15H24	204

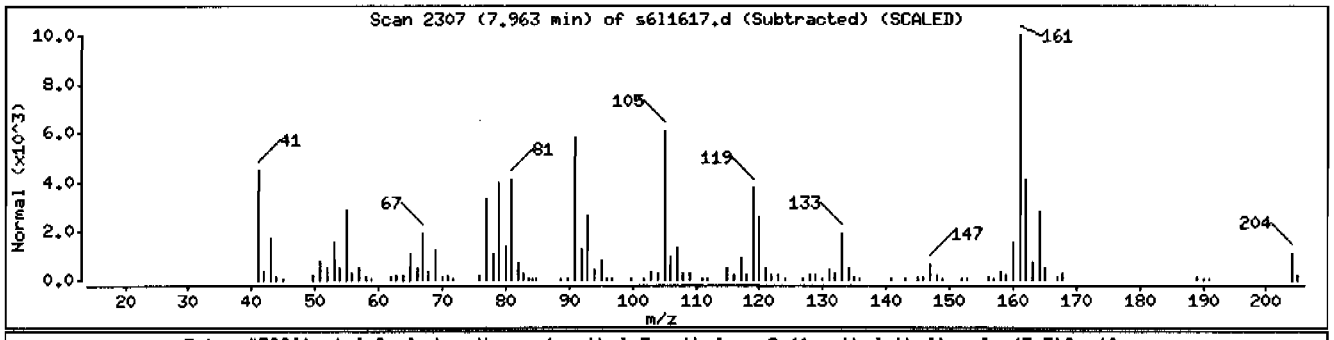

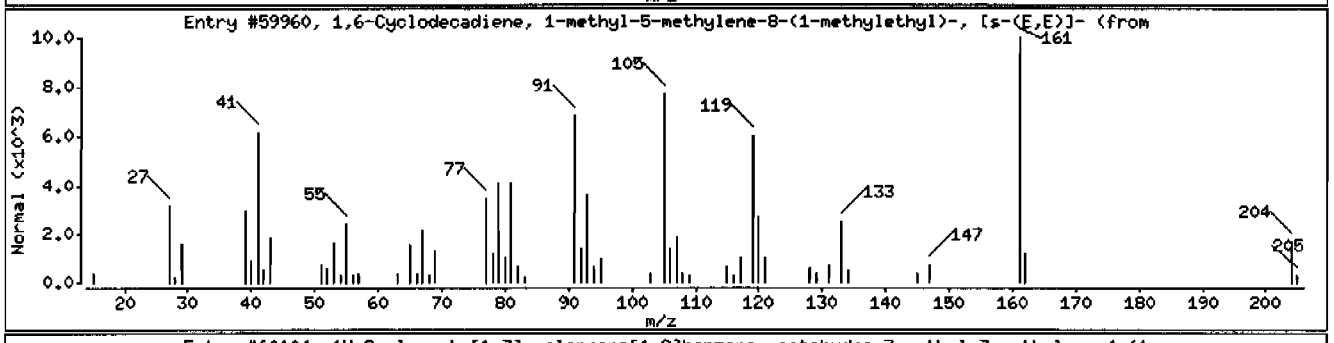

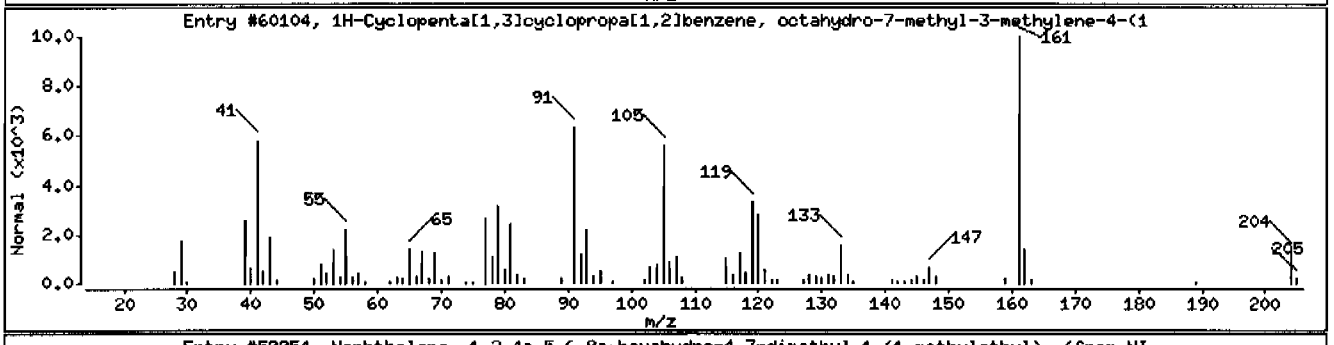

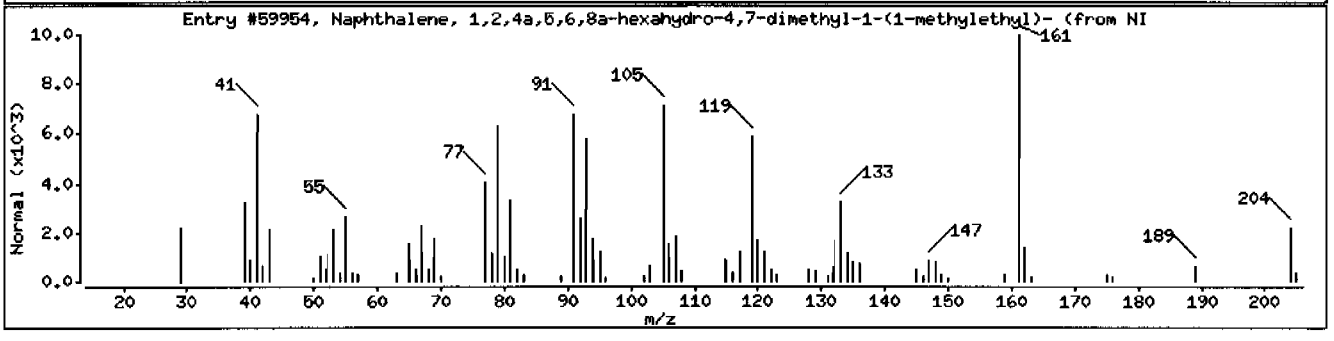

Data File: /chem/MSD6.i/s121609.b/s611617.d

Date : 16-DEC-2009 17:10

Client ID: RE03-10-2740

Instrument: MSD6.i

Sample Info: 1242668002193244411SVMF11LANL

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
n-Hexadecanoic acid	57-10-3	NIST05.L	96235	98	C16H32O2	256
n-Hexadecanoic acid	57-10-3	NIST05.L	96233	92	C16H32O2	256
Tridecanoic acid	638-53-9	NIST05.L	67136	90	C13H26O2	214

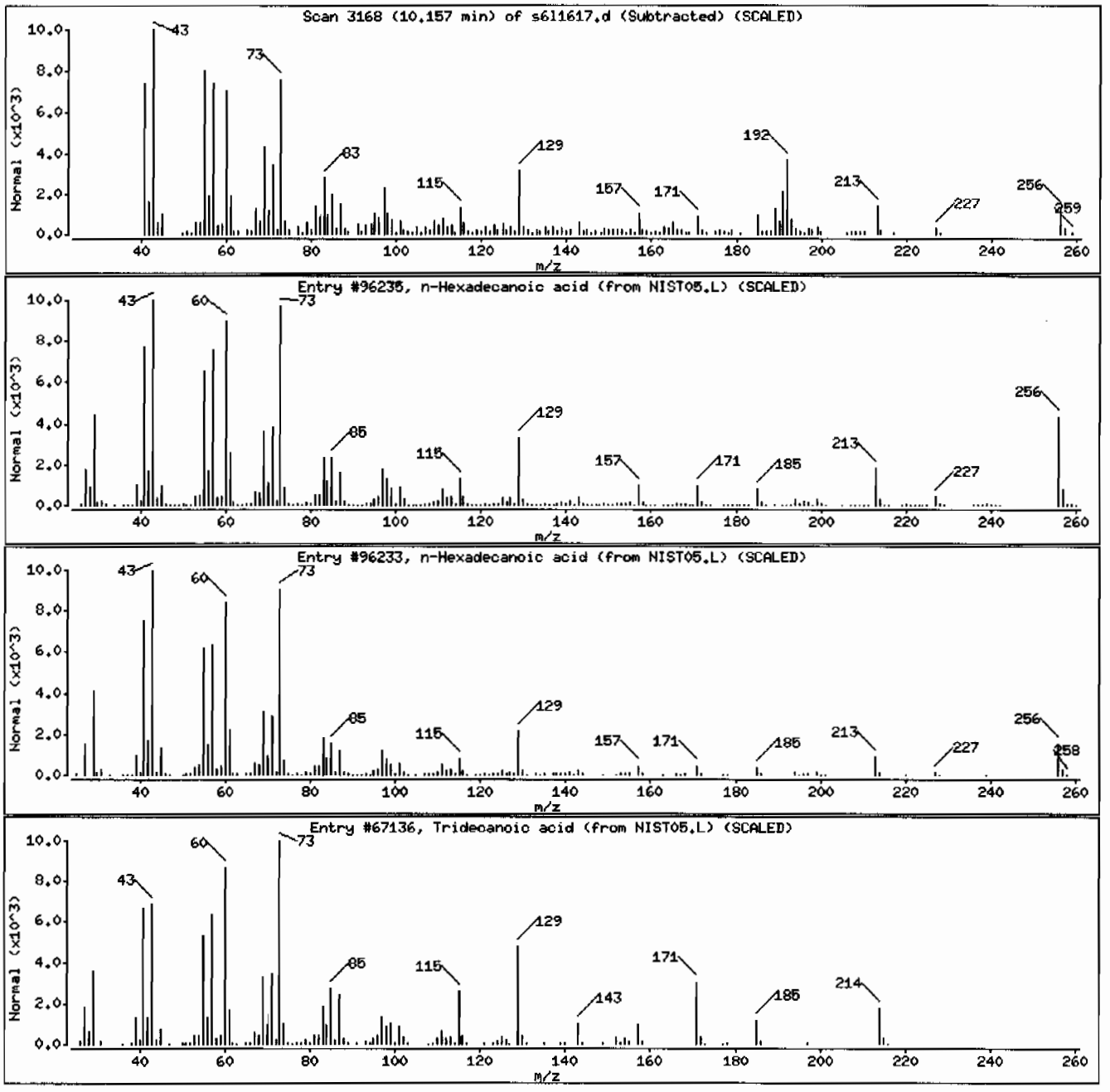

Data File: /chem/MSD6.i/s121609.b/s611617.d

Date : 16-DEC-2009 17:10

Client ID: RE03-10-2740

Instrument: MSD6.i

Sample Info: |2426680021932444|1|SVHF|1|LANL

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Indan, 2-butyl-5-hexyl-	25446-32-6	NIST05.L	97633	40	C19H30	258
3-Methyldiadamantane	28375-86-2	NIST05.L	58515	27	C15H22	202
trans-Z-.alpha.-Bisabolene epoxide	1000131-71-1	NIST05.L	71388	25	C15H240	220

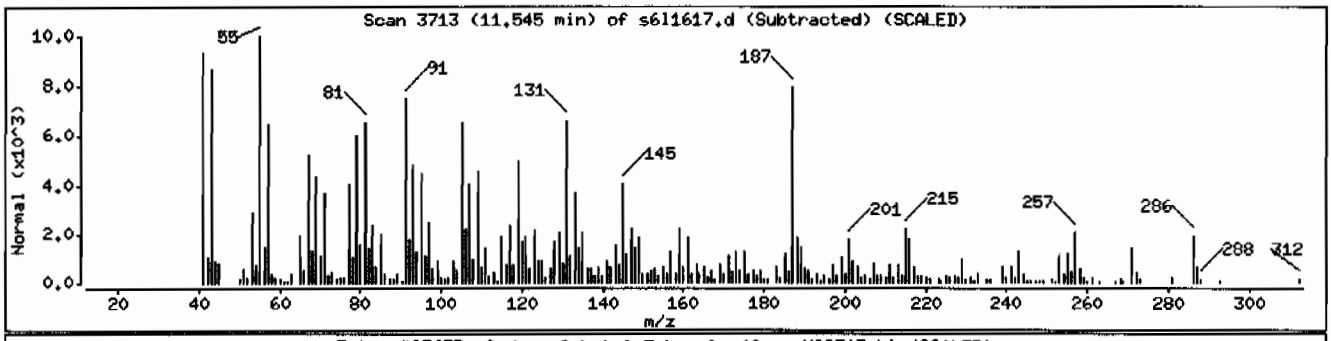

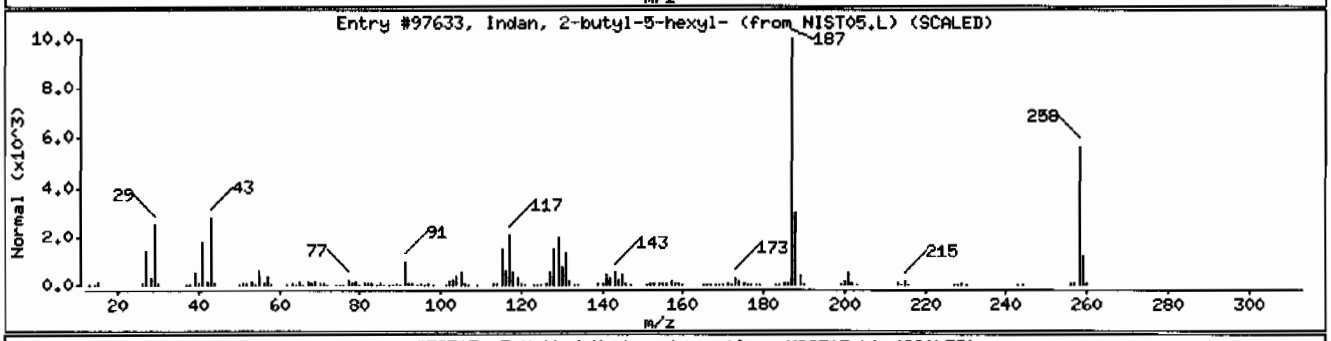

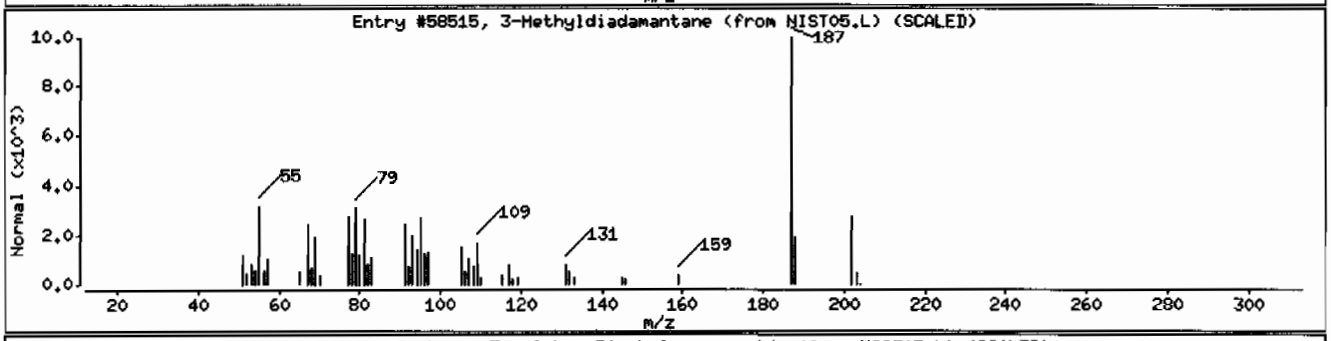

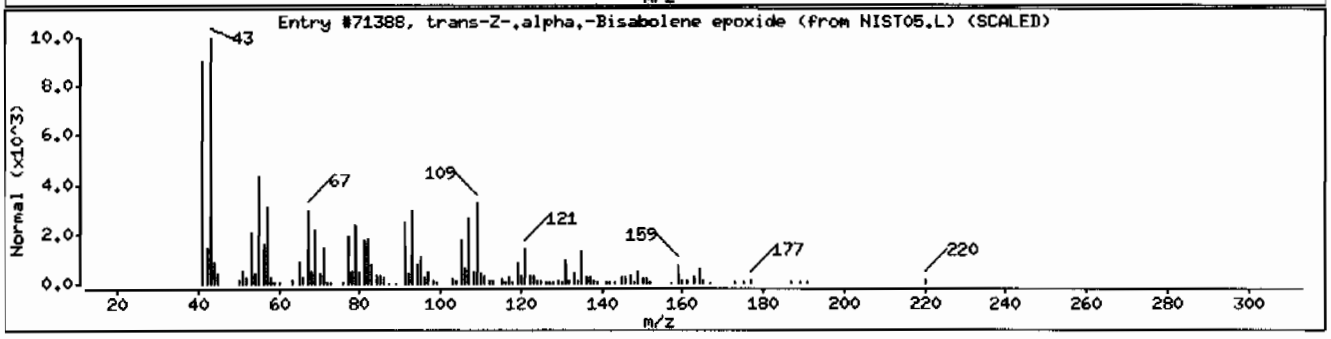

Data File: /chem/MSD6.i/s121609.b/s611617.d

Date : 16-DEC-2009 17:10

Client ID: RE03-10-2740 Instrument: MSD6.i

Sample Info: 1242668002193244411SVMF11LANL

Volume Injected (uL): 0.5 Operator: nag1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
1-Hydroxy-6-(3-isopropenyl-cycloprop-1-e	1000189-14-9	NIST05.L	72783	38	C14H2202	222
3-(5-Benzyloxy-3-methylpent-3-enyl)-2,2-	1000192-21-5	NIST05.L	98805	38	C17H2402	260
1,4-Cyclohexadiene, 3,3,6,6-tetramethyl-	2223-54-3	NIST05.L	15305	38	C10H16	136

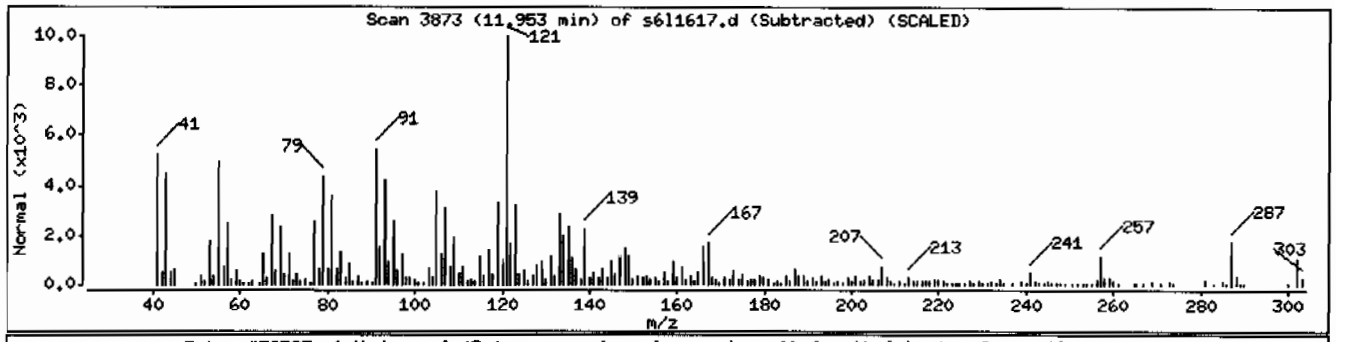

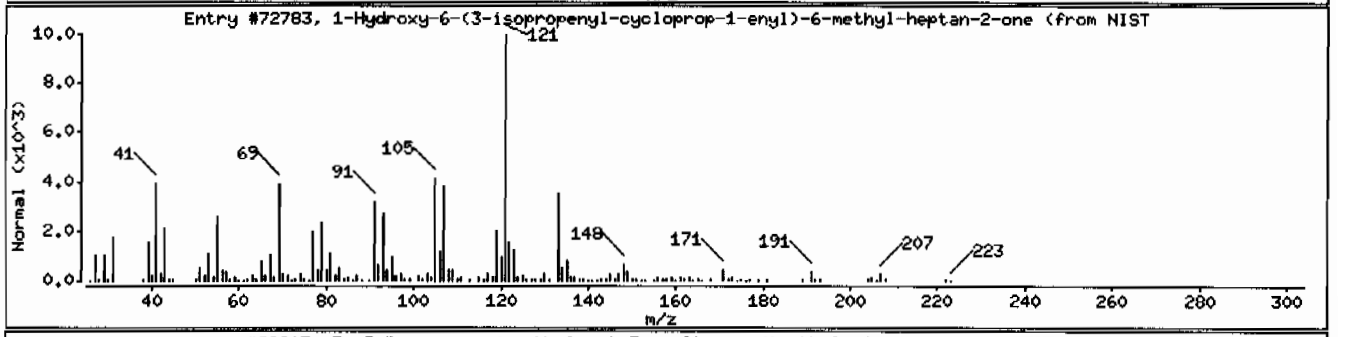

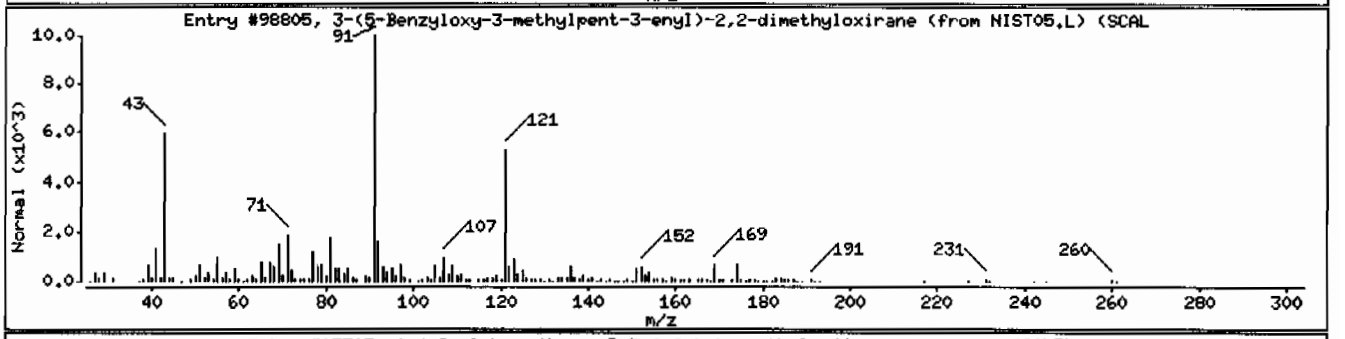

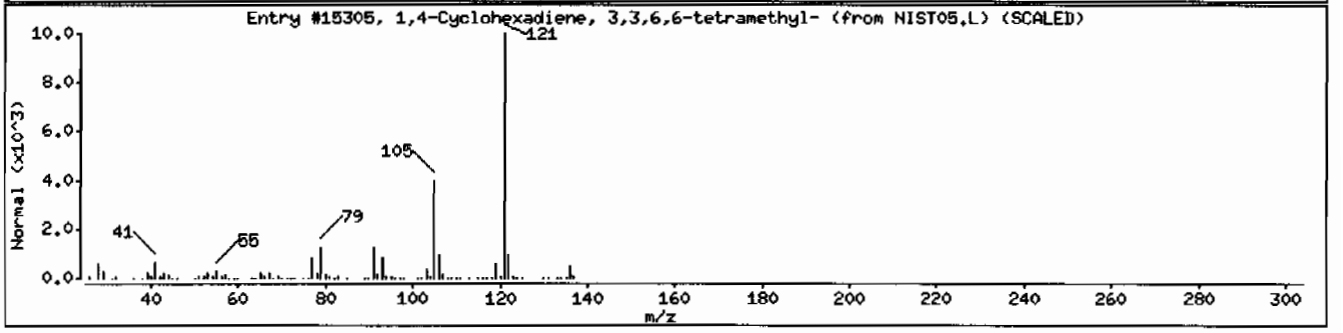

Data File: /chem/MSD6.i/s121609.b/s611617.d

Date : 16-DEC-2009 17:10

Client ID: RE03-10-2740 Instrument: MSD6.i

Sample Info: |2426680021932444|1|SVMF|1|LANL

Volume Injected (uL): 0.5 Operator: nag1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
p-Mentha-1(7),8(10)-dien-9-ol	29548-13-8	NIST05.L	24103	43	C10H160	152
Andrographolide	5508-58-7	NIST05.L	152634	25	C20H3005	350
Cycloheptane, 1,3,5-tris(methylene)-	68284-24-2	NIST05.L	14422	25	C10H14	134

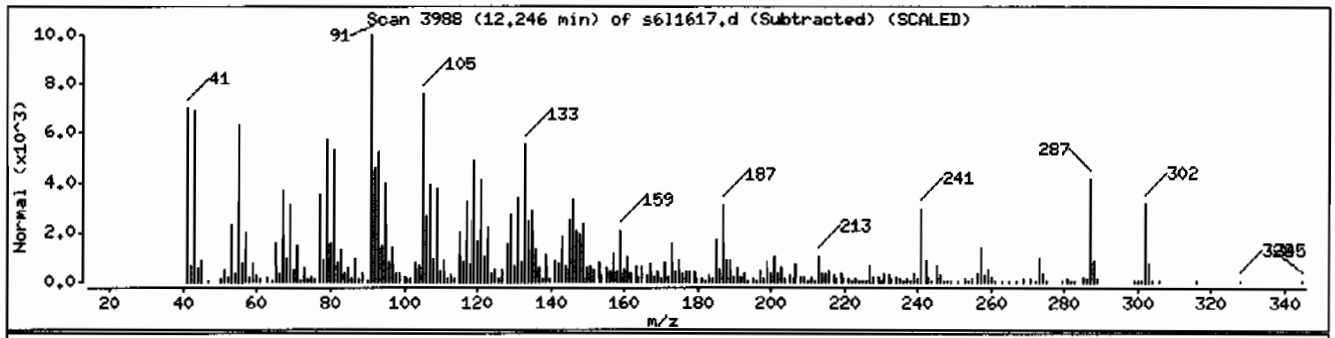

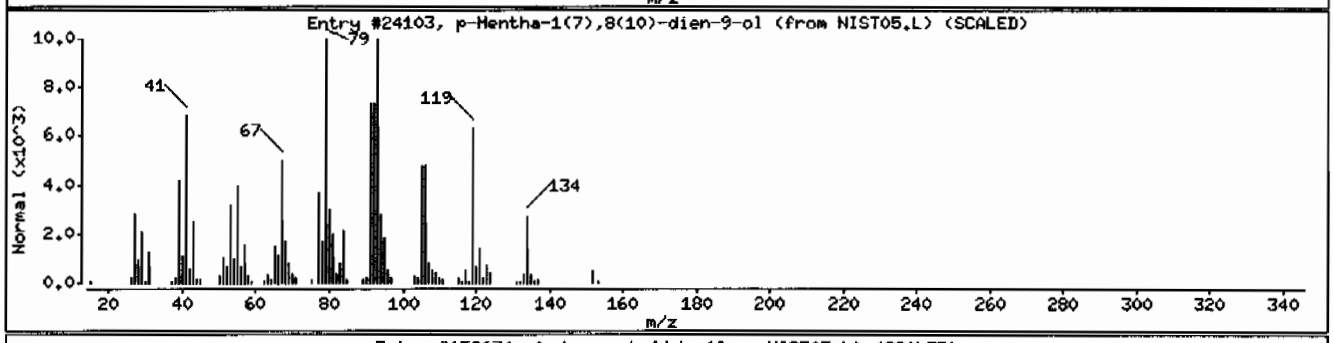

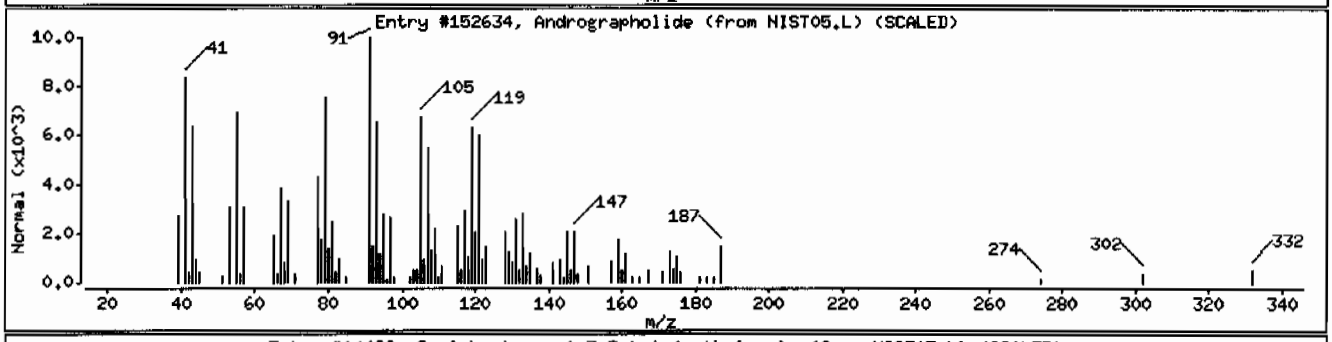

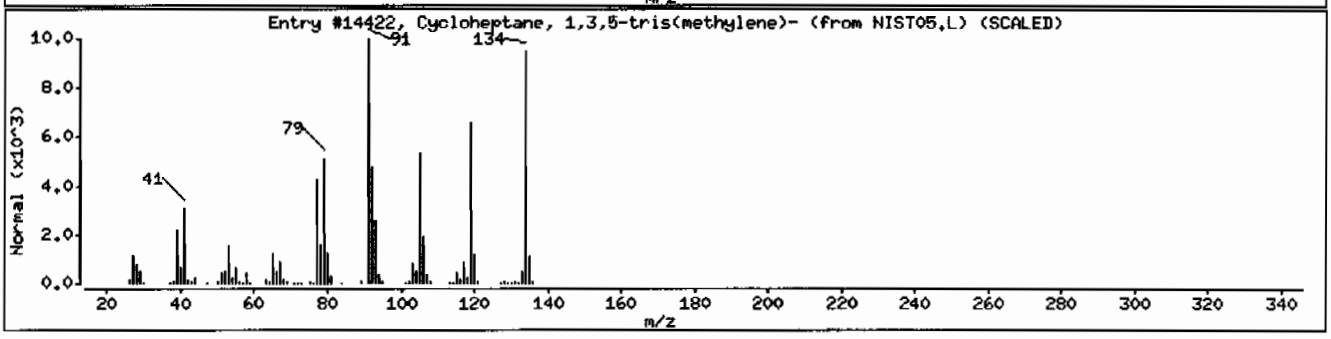

Data File: /chem/MSD6.i/s121609.b/s611617.d

Date : 16-DEC-2009 17:10

Client ID: RE03-10-2740 Instrument: MSD6.i

Sample Info: 1242668002|932444|1|SVMF|1|LANL

Volume Injected (uL): 0.5 Operator: nagl

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
1-Phenanthrenecarboxylic acid, 1,2,3,4,4	1740-19-8	NIST05.L	125034	92	C20H2802	300
1-Phenanthrenecarboxylic acid, 1,2,3,4,4	1740-19-8	NIST05.L	125036	91	C20H2802	300
1-Phenanthrenecarboxylic acid, 1,2,3,4,4	5155-70-4	NIST05.L	125035	91	C20H2802	300

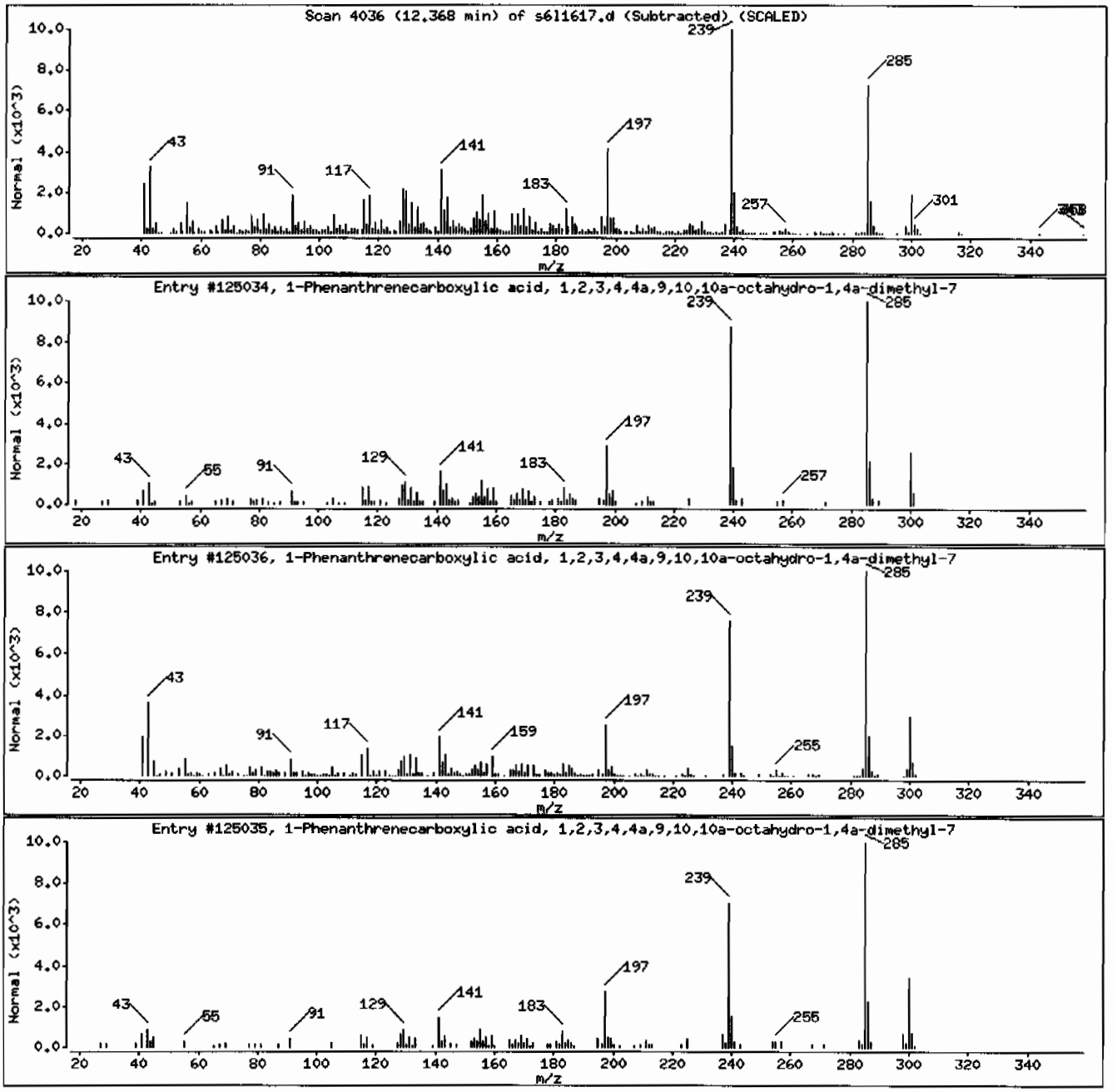

Data File: /chem/MSD6.i/s121609.b/s611617.d

Date : 16-DEC-2009 17:10

Client ID: RE03-10-2740 Instrument: MSD6.i

Sample Info: |2426680021932444|1|SVMF|1|LANL

Volume Injected (uL): 0.5 Operator: nagl

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Perylene	198-55-0	NIST05.L	93574	99	C20H12	252
Perylene	198-55-0	NIST05.L	93575	98	C20H12	252
Benzo[k]fluoranthene	207-08-9	NIST05.L	93584	98	C20H12	252

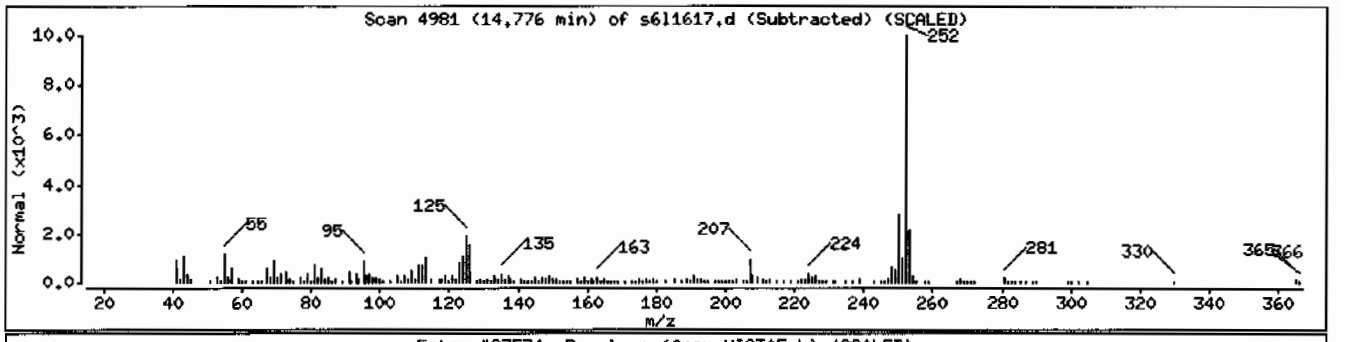

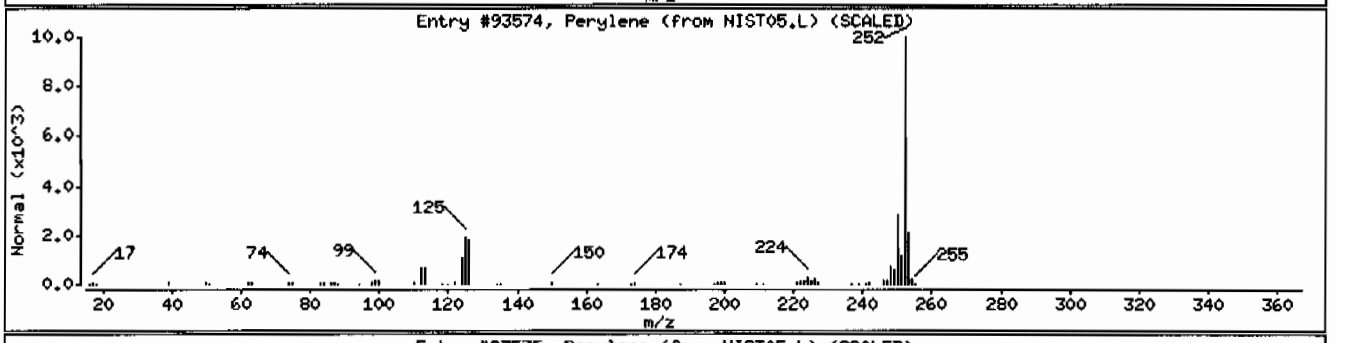

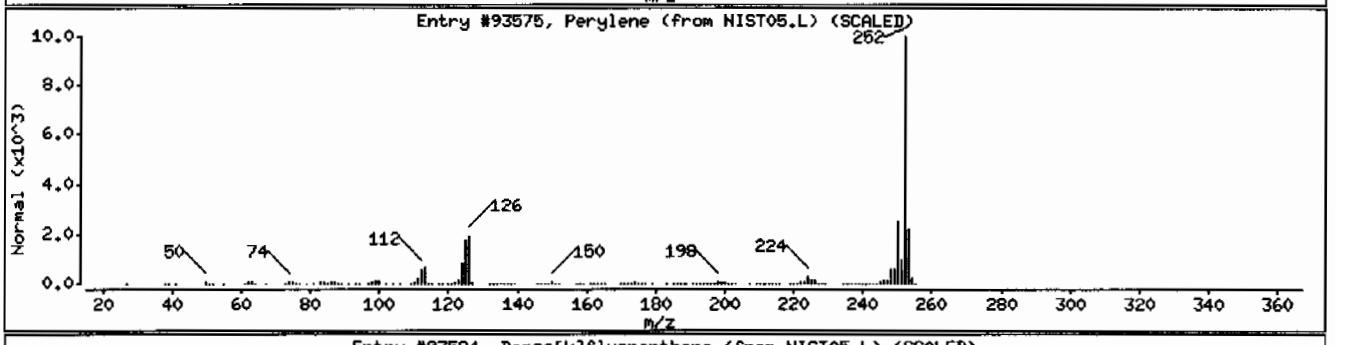

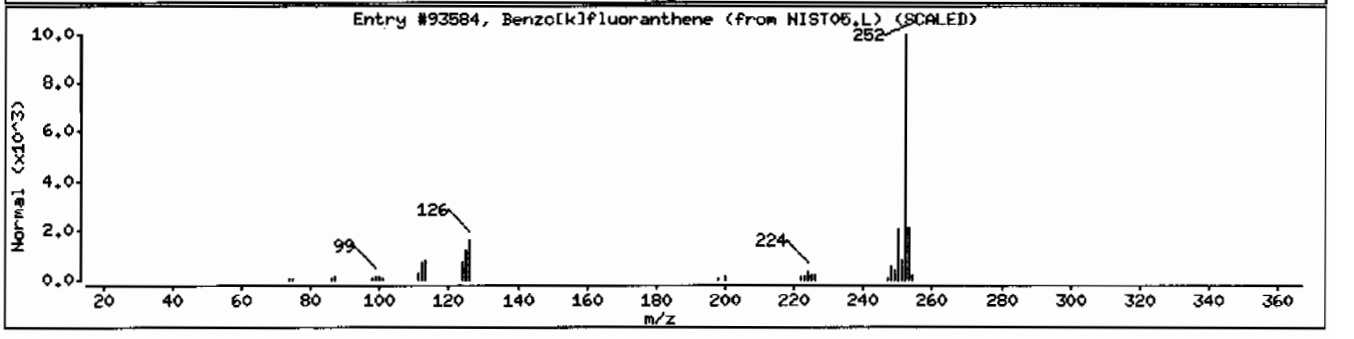

Data File: /chem/MSD6.i/s121609.b/s611617.d

Date : 16-DEC-2009 17:10

Client ID: RE03-10-2740

Instrument: MSD6.i

Sample Info: |2426680021932444|1|SVMF|1|LANL

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Humulen-(v1)	1000159-39-4	NIST05.L	59795	46	C15H24	204
Farnesyl bromide	6874-67-5	NIST05.L	114486	35	C15H25Br	284
N-Methyl-1-adamantaneacetamide	31897-93-5	NIST05.L	62175	35	C13H21NO	207

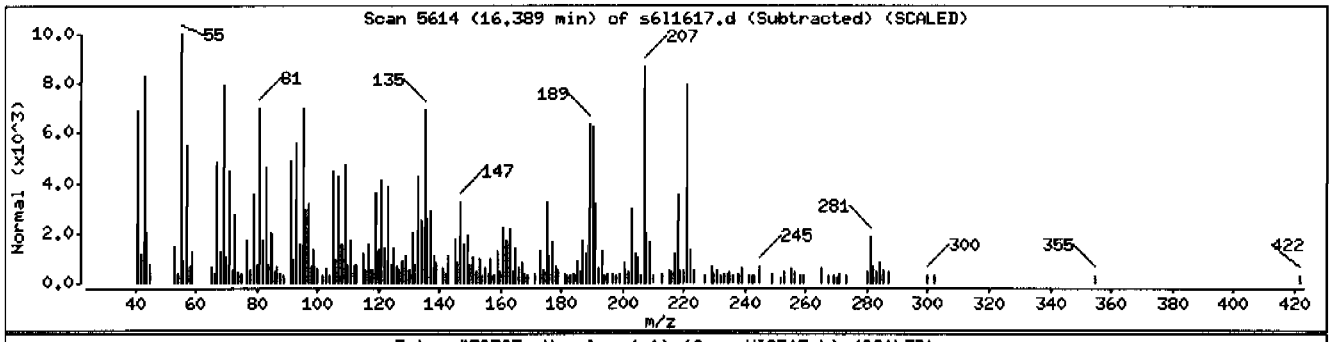

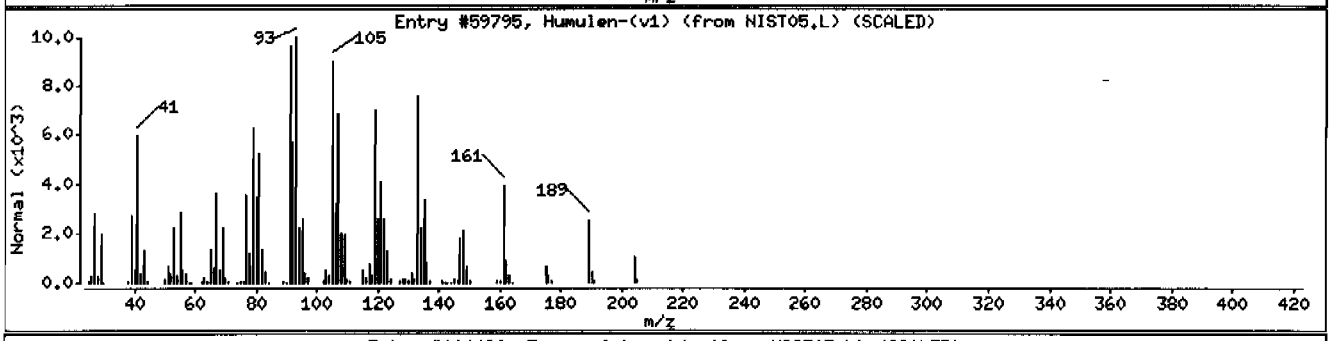

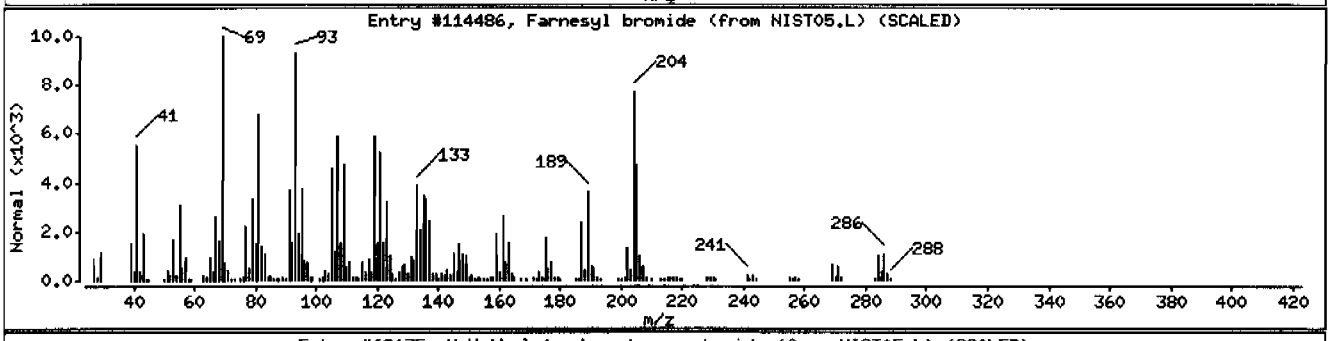

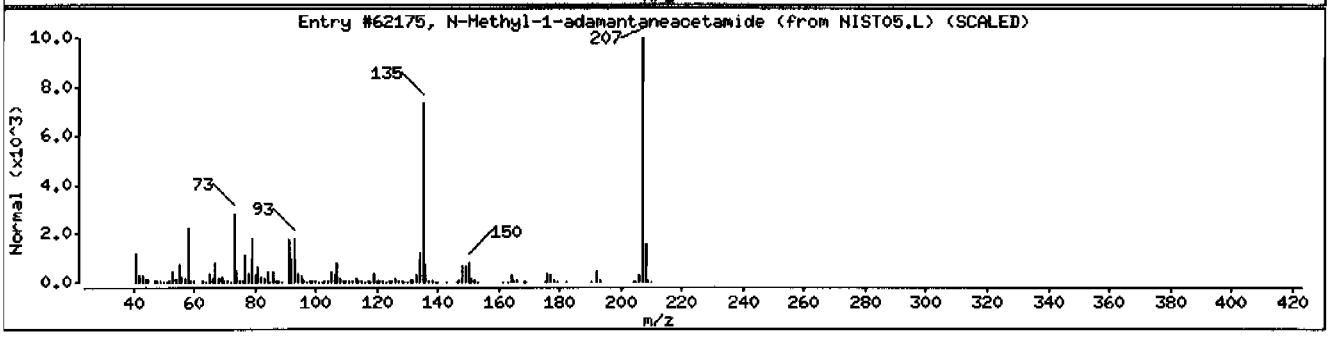

Data File: /chem/MSD6.i/s121609.b/s611617.d

Date : 16-DEC-2009 17:10

Client ID: RE03-10-2740 Instrument: MSD6.i

Sample Info: |2426680021932444|1|SVMF|1|LANL

Volume Injected (uL): 0.5 Operator: nag1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
3-Methoxymethyl-2,5,5,8a-tetramethyl-6,7	64201-73-6	NIST05,L	82517	43	C15H2402	236
N-Methyl-1-adamantaneacetamide	31897-93-5	NIST05,L	62175	35	C13H21NO	207
Butanamide, 4-hydrazino-4-oxo-N-(2,4,6-t	294873-79-3	NIST05,L	91166	25	C13H19N3O2	249

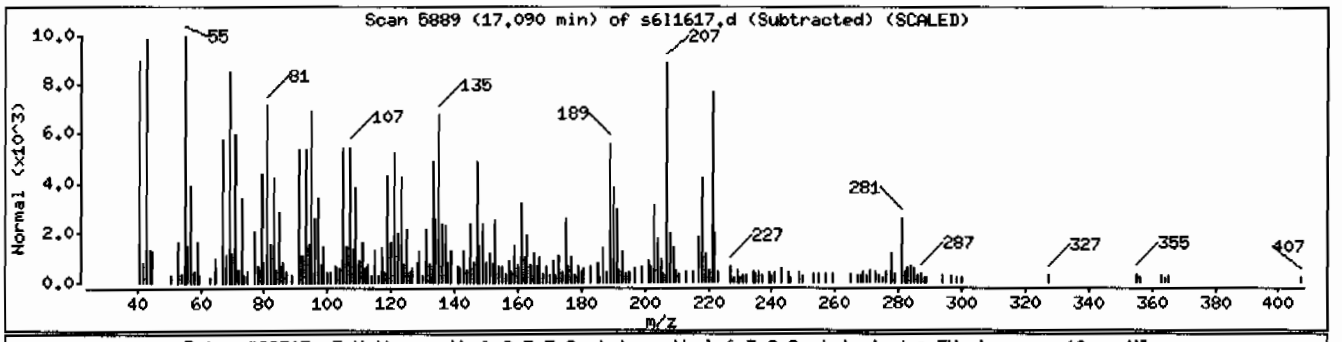

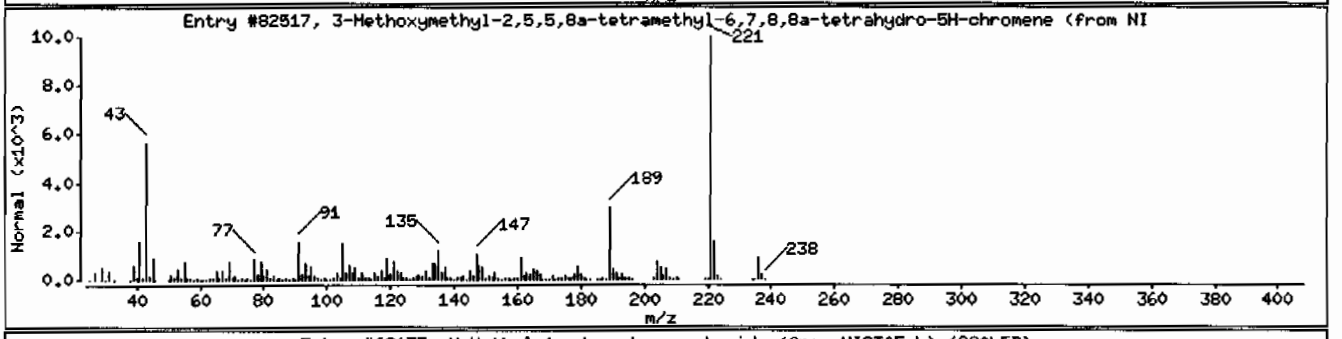

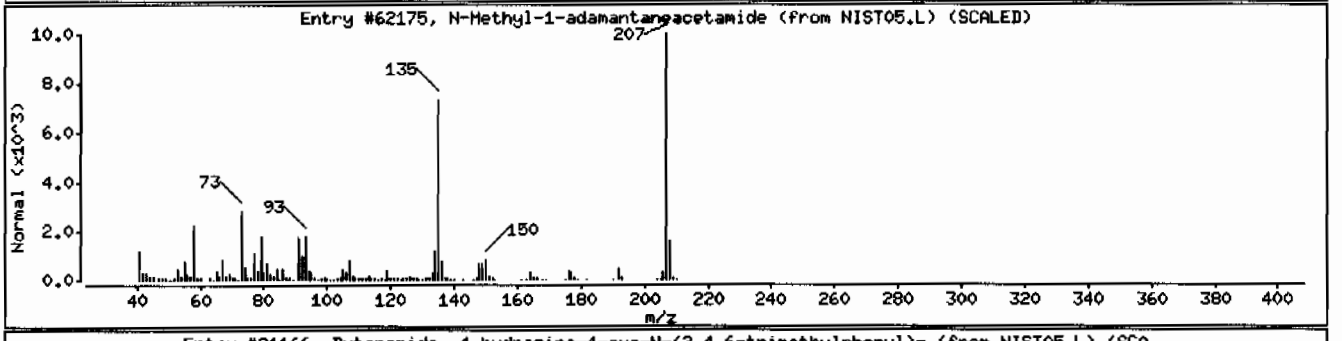

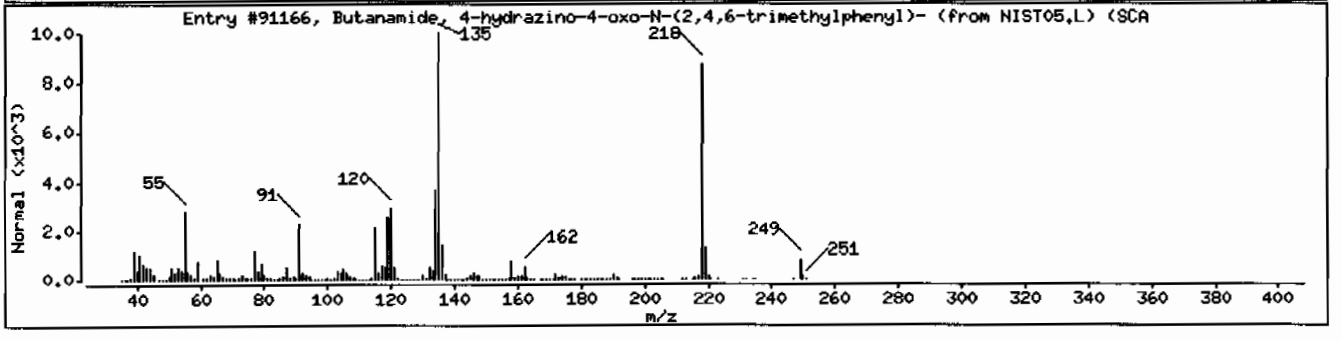

Data File: /chem/MSD6.i/s121609.b/s611617.d

Date : 16-DEC-2009 17:10

Client ID: RE03-10-2740

Instrument: MSD6.i

Sample Info: |2426680021932444|1|SVMF|1|LANL

Volume Injected (uL): 0.5

Operator: nagl

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
7-Oxabicyclo[4.1.0]heptane, 2,2,6-trimet	70038-20-9	NIST05.L	69982	90	C15H220	218
Barbituric acid, 5-allyl-5-(cyclohex-2-e	77409-34-8	NIST05.L	90413	46	C13H16N2O3	248
2,2,6-Trimethyl-1-(2-methyl-cyclobut-2-e	1000188-72-8	NIST05.L	69963	35	C15H220	218

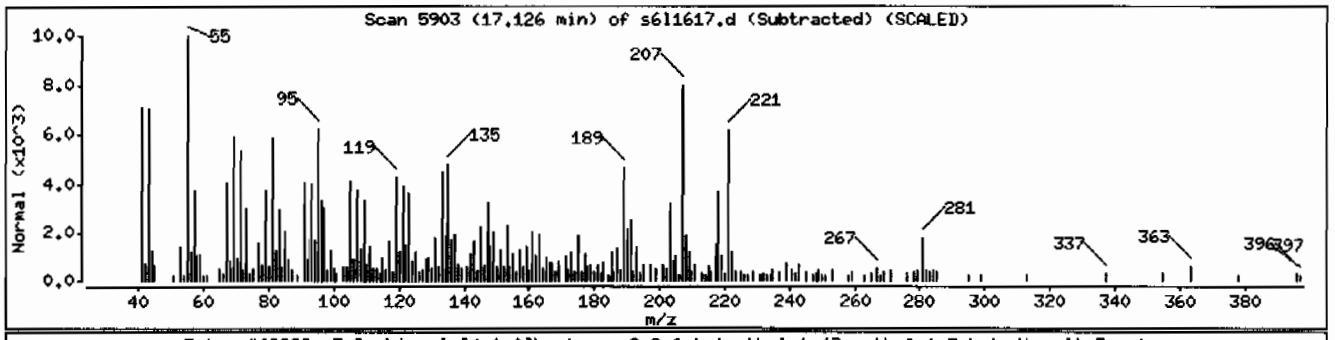

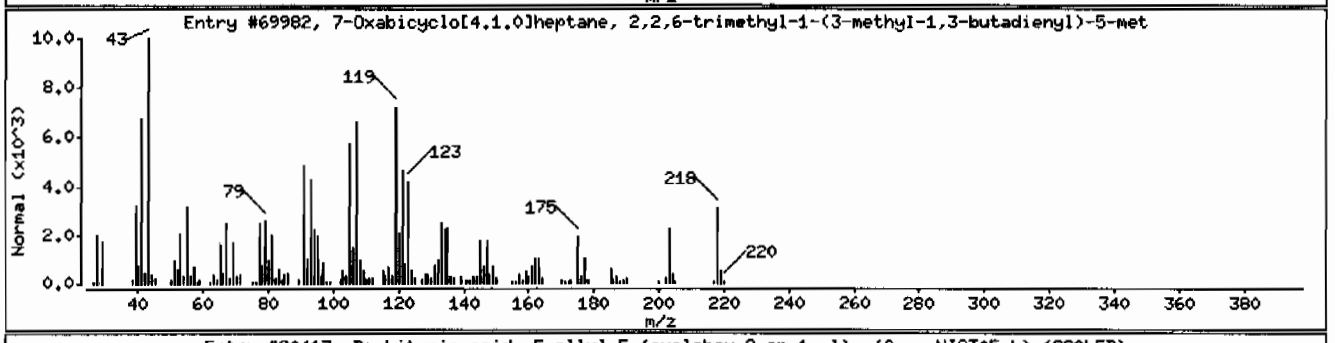

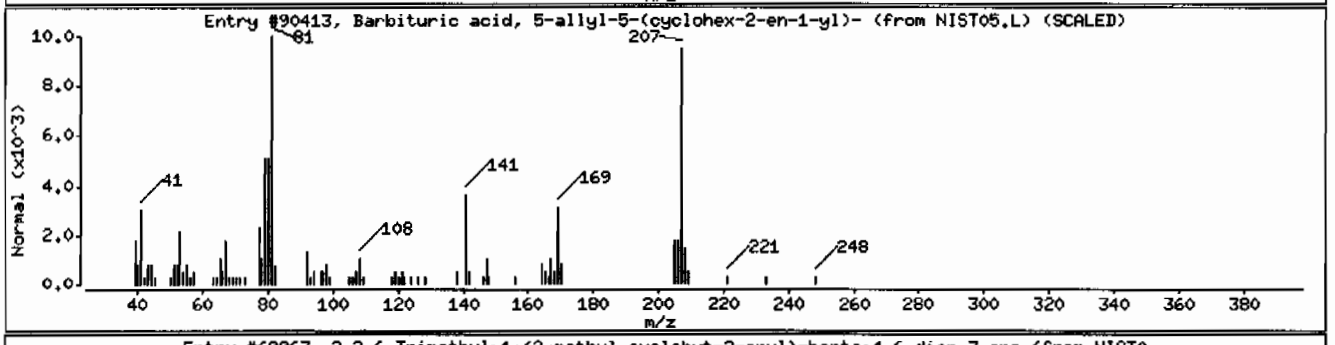

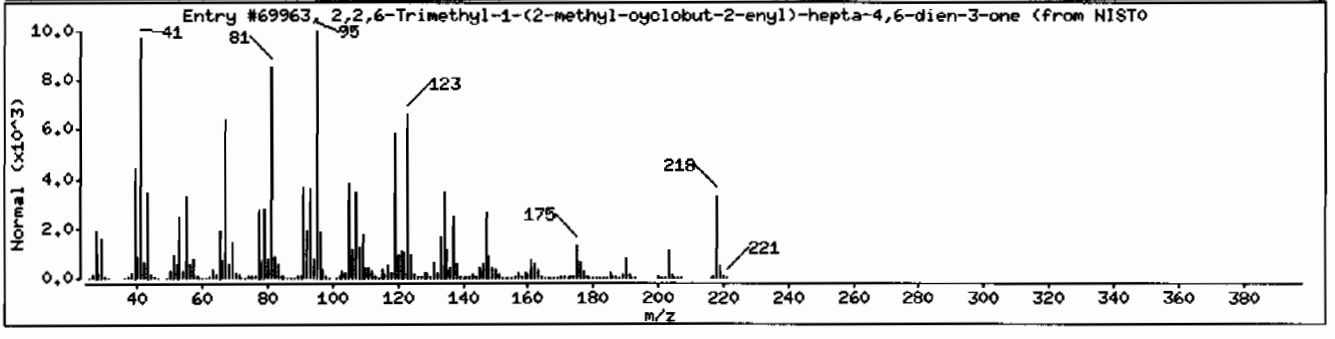

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-854	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242668001	**Date Received:**	12/10/2009 08:50	**%Moisture:**	8.2
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-10-2741	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	932444	**Inst:**	MSD6.I	**Dilution:**	1
Run Date:	12/16/2009 16:42	**Analyst:**	NAG1	**Inj. Vol:**	.5 uL
Prep Date:	12/14/2009 09:47	**Aliquot:**	30.07 g	**Final Volume:**	1 mL
Data File:	s6l1616.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	362	ug/kg	72.4	362
108-95-2	Phenol	U	362	ug/kg	72.4	362
95-57-8	2-Chlorophenol	U	362	ug/kg	72.4	362
106-46-7	1,4-Dichlorobenzene	U	362	ug/kg	72.4	362
621-64-7	N-Nitrosodipropylamine	U	362	ug/kg	72.4	362
59-50-7	4-Chloro-3-methylphenol	U	362	ug/kg	72.4	362
83-32-9	Acenaphthene	U	36.2	ug/kg	12.0	36.2
121-14-2	2,4-Dinitrotoluene	U	362	ug/kg	36.2	362
100-02-7	4-Nitrophenol	U	362	ug/kg	120	362
87-86-5	Pentachlorophenol	U	362	ug/kg	90.5	362
129-00-0	Pyrene	J	12.7	ug/kg	10.9	36.2
110-86-1	Pyridine	U	362	ug/kg	72.4	362
62-53-3	Aniline	U	362	ug/kg	109	362
111-44-4	bis(2-Chloroethyl) ether	U	362	ug/kg	72.4	362
541-73-1	1,3-Dichlorobenzene	U	362	ug/kg	72.4	362
100-51-6	Benzyl alcohol	U	362	ug/kg	109	362
95-50-1	1,2-Dichlorobenzene	U	362	ug/kg	72.4	362
108-60-1	bis(2-Chloroisopropyl)ether	U	362	ug/kg	72.4	362
95-48-7	o-Cresol	U	362	ug/kg	72.4	362
65794-96-9	m,p-Cresols	U	362	ug/kg	109	362
67-72-1	Hexachloroethane	U	362	ug/kg	72.4	362
98-95-3	Nitrobenzene	U	362	ug/kg	72.4	362
78-59-1	Isophorone	U	362	ug/kg	72.4	362
88-75-5	2-Nitrophenol	U	362	ug/kg	72.4	362
105-67-9	2,4-Dimethylphenol	U	362	ug/kg	127	362
111-91-1	bis(2-Chloroethoxy)methane	U	362	ug/kg	72.4	362
120-83-2	2,4-Dichlorophenol	U	362	ug/kg	72.4	362
65-85-0	Benzoic acid	U	724	ug/kg	181	724
91-20-3	Naphthalene	U	36.2	ug/kg	10.9	36.2
106-47-8	4-Chloroaniline	U	362	ug/kg	72.4	362
87-68-3	Hexachlorobutadiene	U	362	ug/kg	72.4	362
91-57-6	2-Methylnaphthalene	U	36.2	ug/kg	7.24	36.2
77-47-4	Hexachlorocyclopentadiene	U	362	ug/kg	72.4	362
88-06-2	2,4,6-Trichlorophenol	U	362	ug/kg	72.4	362
95-95-4	2,4,5-Trichlorophenol	U	362	ug/kg	72.4	362
91-58-7	2-Chloronaphthalene	U	36.2	ug/kg	12.0	36.2
88-74-4	2-Nitroaniline	U	362	ug/kg	72.4	362
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	362	ug/kg	72.4	362

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-854	Date Collected:	12/07/2009 12:00	Matrix:	S
Lab Sample ID:	242668001	Date Received:	12/10/2009 08:50	%Moisture:	8.2
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-10-2741	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	932444	Inst:	MSD6.I	Dilution:	1
Run Date:	12/16/2009 16:42	Analyst:	NAG1	Inj. Vol:	.5 uL
Prep Date:	12/14/2009 09:47	Aliquot:	30.07 g	Final Volume:	1 mL
Data File:	s6l1616.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	362	ug/kg	72.4	362
606-20-2	2,6-Dinitrotoluene	U	362	ug/kg	36.2	362
208-96-8	Acenaphthylene	U	36.2	ug/kg	10.9	36.2
51-28-5	2,4-Dinitrophenol	U	724	ug/kg	138	724
132-64-9	Dibenzofuran	U	362	ug/kg	72.4	362
84-66-2	Diethylphthalate	U	362	ug/kg	72.4	362
86-73-7	Fluorene	U	36.2	ug/kg	10.9	36.2
7005-72-3	4-Chlorophenylphenylether	U	362	ug/kg	72.4	362
534-52-1	2-Methyl-4,6-dinitrophenol	U	362	ug/kg	72.4	362
100-01-6	4-Nitroaniline	U	362	ug/kg	109	362
	p-Nitroaniline					
122-39-4	Diphenylamine	U	362	ug/kg	72.4	362
122-66-7	Azobenzene	U	362	ug/kg	72.4	362
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	362	ug/kg	72.4	362
118-74-1	Hexachlorobenzene	U	362	ug/kg	72.4	362
85-01-8	Phenanthrene	U	36.2	ug/kg	10.9	36.2
120-12-7	Anthracene	U	36.2	ug/kg	7.24	36.2
84-74-2	Di-n-butylphthalate	U	362	ug/kg	72.4	362
206-44-0	Fluoranthene	J	12.0	ug/kg	10.9	36.2
85-68-7	Butylbenzylphthalate	U	362	ug/kg	72.4	362
56-55-3	Benzo(a)anthracene	U	36.2	ug/kg	10.9	36.2
91-94-1	3,3'-Dichlorobenzidine	U	362	ug/kg	109	362
218-01-9	Chrysene	U	36.2	ug/kg	10.9	36.2
117-81-7	bis(2-Ethylhexyl)phthalate	U	362	ug/kg	72.4	362
117-84-0	Di-n-octylphthalate	U	362	ug/kg	72.4	362
205-99-2	Benzo(b)fluoranthene	U	36.2	ug/kg	10.9	36.2
207-08-9	Benzo(k)fluoranthene	U	36.2	ug/kg	10.9	36.2
50-32-8	Benzo(a)pyrene	U	36.2	ug/kg	10.9	36.2
193-39-5	Indeno(1,2,3-cd)pyrene	U	36.2	ug/kg	10.9	36.2
53-70-3	Dibenzo(a,h)anthracene	U	36.2	ug/kg	10.9	36.2
191-24-2	Benzo(ghi)perylene	U	36.2	ug/kg	10.9	36.2
120-82-1	1,2,4-Trichlorobenzene	U	362	ug/kg	72.4	362

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	2.22	177	ug/kg		J
	Unknown Aldol Condensate	3.45	390	ug/kg		JA

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-854	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242668001	**Date Received:**	12/10/2009 08:50	**%Moisture:**	8.2
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-10-2741	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	932444	**Inst:**	MSD6.1	**Dilution:**	1
Run Date:	12/16/2009 16:42	**Analyst:**	NAG1	**Inj. Vol:**	.5 uL
Prep Date:	12/14/2009 09:47	**Aliquot:**	30.07 g	**Final Volume:**	1 mL
Data File:	s6l1616.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
2437-95-8	Bicyclo[3.1.1]hept-2-ene, 2,6,6-trimethy	4.23	1630	ug/kg	97	NJ
498-15-7	Bicyclo[4.1.0]hept-3-ene, 3,7,7-trimethy	4.8	1170	ug/kg	97	NJ
475-20-7	1,4-Methanoazulene, decahydro-4,8,8-trim	7.6	956	ug/kg	99	NJ
	Unknown	11.54	166	ug/kg		J
	Unknown	11.95	461	ug/kg		J
	Unknown	12.24	1780	ug/kg		J
	Unknown	12.27	755	ug/kg		J
1740-19-8	1-Phenanthrenecarboxylic acid, 1,2,3,4,4	12.37	748	ug/kg	93	NJ
471-77-2	1-Phenanthrenecarboxylic acid, 1,2,3,4,4	12.9	343	ug/kg	94	NJ
	Unknown	17.2	922	ug/kg		J
	Unknown	17.3	165	ug/kg		J
	Unknown	17.58	169	ug/kg		J

GEL Laboratories LLC

Data file : /chem/MSD6.i/s121609.b/s611616.d
Lab Smp Id: 242668001 Client Smp ID: RE03-10-2741
Inj Date : 16-DEC-2009 16:42
Operator : nagl Inst ID: MSD6.i
Smp Info : |242668001|932444|1|SVMF|1|LANL
Misc Info : |MSD8270_S|WBN091208-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s121609.b/MSD6-M8270C-AQA-110909.m
Meth Date : 17-Dec-2009 08:11 nat00999 Quant Type: ISTD
Cal Date : 11-NOV-2009 04:38 Cal File: s6k0954.d
Als bottle: 7
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-854.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.07000	weight of sample
M	8.16760	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	4.849	4.849	(1.000)	207983	40.0000	
* 29 Naphthalene-d8	136	6.128	6.131	(1.000)	790374	40.0000	
* 46 Acenaphthene-d10	164	7.998	8.001	(1.000)	431005	40.0000	
* 67 Phenanthrene-d10	188	9.611	9.611	(1.000)	728819	40.0000	
* 91 Chrysene-d12	240	12.633	12.633	(1.000)	482207	40.0000	
* 98 Perylene-d12	264	14.970	14.973	(1.000)	304410	40.0000	
$ 3 2-Fluorophenol	112	3.690	3.674	(0.761)	292764	56.2104	2040
$ 5 Phenol-d5	99	4.457	4.457	(0.919)	389317	59.2237	2140
$ 20 Nitrobenzene-d5	82	5.384	5.389	(0.879)	159950	28.6081	1040
$ 39 2-Fluorobiphenyl	172	7.254	7.254	(0.907)	351742	31.6675	1150
$ 60 2,4,6-Tribromophenol	329	8.849	8.850	(1.106)	90982	72.3235	2620
$ 81 p-Terphenyl-d14	244	11.316	11.316	(0.896)	341868	43.9623	1590

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
79 Pyrene	202	11.171	11.176	(0.884)	4663	0.35157	12.7(a)
76 Fluoranthene	202	10.921	10.926	(1.136)	4784	0.33134	12.0(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

ION RATIO REPORT

SV REPORT

Data file: s611616.d
Report Date: 12/17/2009 08:22
Lab. ID: 242668001 SampleType: SAMPLE
Injection Date: 16-DEC-2009 16:42
Operator: nag1 Instrument: MSD6.i
Sample Info: |242668001|932444|1|SVMF|1|LANL
Miscellaneous Info: |MSD8270_S|WBN091208-01
Comment:
Method used: /chem/MSD6.i/s121609.b/MSD6-M8270C-AQA-110909.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-854
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
1 N-Methyl-N-nitrosomethylamine				CAS#: 62-75-9		
74	11859	2.38	2.70	80-120	100	(T)
42	1186	2.38	2.70	59-119	10	(QT)
43	6944	2.38	2.70	8- 68	59	(T)
4 Aniline				CAS#: 62-53-3		
66	18109	4.46	4.54	80-120	100	(T)
93	11371	4.52	4.54	228-288	63	(Q)
6 Phenol				CAS#: 108-95-2		
94	33571	4.23	4.47	80-120	100	(T)
66	5969	4.23	4.47	11- 71	18	(T)
65	24002	4.23	4.47	0- 30	71	(QT)
15 o-Cresol				CAS#: 95-48-7		
107	15332	4.80	5.05	80-120	100	(T)
108	3233	4.80	5.05	85-145	21	(QT)
77	74288	4.80	5.05	16- 76	485	(QT)
17 N-Nitrosodipropylamine				CAS#: 621-64-7		
70	22643	5.38	5.23	80-120	100	(T)
42	13353	5.38	5.23	40-100	59	(T)
22 Isophorone				CAS#: 78-59-1		
82	159950	5.38	5.64	80-120	100	(T)
138	3816	6.13	5.64	0- 49	2	(T)

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
40 2-Chloronaphthalene				CAS#: 91-58-7		
162	13129	7.60	7.40	80-120	100	(T)
164	788	7.60	7.40	3- 63	6	(T)
127	894	7.60	7.40	8- 68	7	(QT)
42 o-Nitroaniline				CAS#: 88-74-4		
65	15750	7.60	7.50	80-120	100	(T)
92	19450	7.60	7.50	36- 96	123	(QT)
138	966	7.60	7.50	82-142	6	(QT)
43 Dimethylphthalate				CAS#: 131-11-3		
163	77062	8.00	7.69	80-120	100	(T)
164	431005	8.00	7.69	0- 40	559	(QT)
50 2,4-Dinitrotoluene				CAS#: 121-14-2		
165	58199	8.00	8.19	80-120	100	(T)
89	681	8.00	8.19	40-100	1	(QT)
63	664	8.00	8.19	17- 77	1	(QT)
53 Fluorene				CAS#: 86-73-7		
166	5992	8.85	8.59	80-120	100	(T)
165	6151	8.85	8.59	62-122	103	(T)
167	2056	8.85	8.59	0- 44	34	(T)
61 4-Bromophenylphenylether				CAS#: 101-55-3		
248	5955	8.85	9.11	80-120	100	(T)
141	42615	8.85	9.11	48-108	716	(QT)
250	11923	8.85	9.11	69-129	200	(QT)
76 Fluoranthene				CAS#: 206-44-0		
202	4784	10.92	10.93	80-120	100	( )
203	274	10.92	10.93	0- 47	6	( )
101	929	10.92	10.93	0- 43	19	( )
79 Pyrene				CAS#: 129-00-0		
202	4663	11.17	11.18	80-120	100	( )
200	848	11.17	11.18	0- 51	18	( )
101	602	11.17	11.18	0- 46	13	( )
85 Butylbenzylphthalate				CAS#: 85-68-7		
149	17859	11.95	11.85	80-120	100	(T)
91	41711	11.95	11.85	41-101	234	(QT)
206	365	11.95	11.85	0- 50	2	(T)
93 bis(2-Ethylhexyl)phthalate				CAS#: 117-81-7		
149	131579	12.24	12.57	80-120	100	(T)
167	5627	12.23	12.57	2- 62	4	(T)

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
99 Indeno(1,2,3-cd)pyrene				CAS#: 193-39-5		
276	541	16.96	16.96	80-120	100	( )
138	142	17.18	16.97	6- 66	26	(T)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

Data file : /chem/MSD6.i/s121609.b/s611616.d
Lab Smp Id: 242668001 Client Smp ID: RE03-10-2741
Inj Date : 16-DEC-2009 16:42
Operator : nagl Inst ID: MSD6.i
Smp Info : |242668001|932444|1|SVMF|1|LANL
Misc Info : |MSD8270_S|WBN091208-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s121609.b/MSD6-M8270C-AQA-110909.m
Meth Date : 17-Dec-2009 08:11 nat00999 Quant Type: ISTD
Cal Date : 11-NOV-2009 04:38 Cal File: s6k0954.d
Als bottle: 7
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-854.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.07000	weight of sample
M	8.16760	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	4.849	1217339	40.000
* 46 Acenaphthene-d10	7.998	1867851	40.000
* 91 Chrysene-d12	12.633	3073459	40.000
* 98 Perylene-d12	14.970	843468	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #

RT	AREA	CONCENTRATIONS ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	QUANT LIBRARY	LIB ENTRY	CPND #
Unknown				CAS #:			
2.219	148983	4.89535865	177	0		0	10
Unknown Aldol Condensate				CAS #:			
3.450	327884	10.7737790	390	0		0	10
Bicyclo[3.1.1]hept-2-ene, 2,6,6-trimethy				CAS #: 2437-95-8			
4.230	1369408	44.9967321	1630	97	NIST05.L	15376	10
Bicyclo[4.1.0]hept-3-ene, 3,7,7-trimethy				CAS #: 498-15-7			
4.795	983367	32.3120049	1170	97	NIST05.L	15369	10
1,4-Methanoazulene, decahydro-4,8,8-trim				CAS #: 475-20-7			
7.601	1233298	26.4110647	956	99	NIST05.L	60018	46
Unknown				CAS #:			
11.543	352466	4.58722407	166	0		0	91
Unknown				CAS #:			
11.953	977679	12.7241534	461	0		0	91
Unknown				CAS #:			
12.236	3766503	49.0197243	1780	0		0	91
Unknown				CAS #:			
12.272	1601133	20.8381808	755	0		0	91
1-Phenanthrenecarboxylic acid, 1,2,3,4,4				CAS #: 1740-19-8			
12.373	1587397	20.6594178	748	93	NIST05.L	125037	91
1-Phenanthrenecarboxylic acid, 1,2,3,4,4				CAS #: 471-77-2			
12.896	728011	9.47481162	343	94	NIST05.L	126183	91
Unknown				CAS #:			
17.197	536607	25.4476276	922	0		0	98
Unknown				CAS #:			
17.296	95845	4.54529570	165	0		0	98
Unknown				CAS #:			
17.579	98392	4.66606873	169	0		0	98

Data File: /chem/MSD6.i/s121609.b/s611616.d
Date : 16-DEC-2009 16:42
Client ID: RE03-10-2741
Sample Info: 1242668001193244411SVMF11LANL
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD6.i

Operator: nag1
Column diameter: 0.20

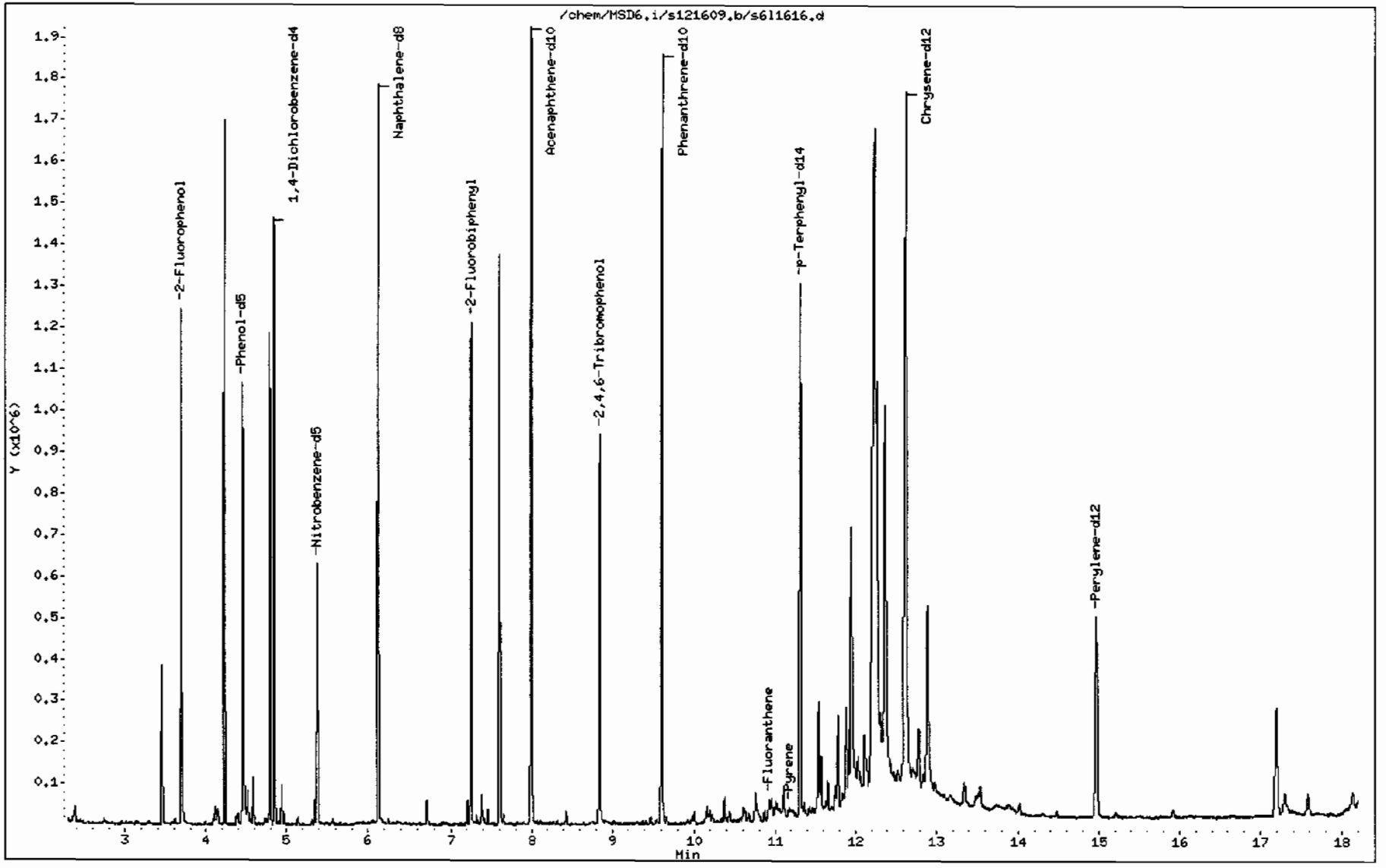

Data File: /chem/MSD6.i/s121609.b/s611616.d

Date : 16-DEC-2009 16:42

Client ID: RE03-10-2741

Instrument: MSD6.i

Sample Info: 1242668001|932444|1|SVHF|1|LANL

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

79 Pyrene

Concentration: 12.7 ug/Kg

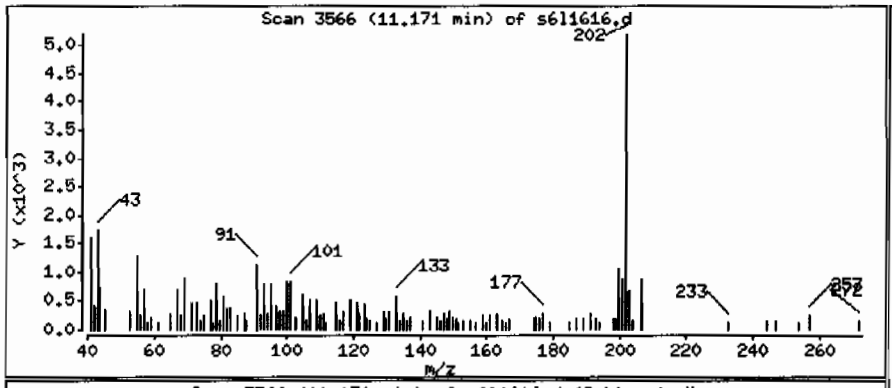

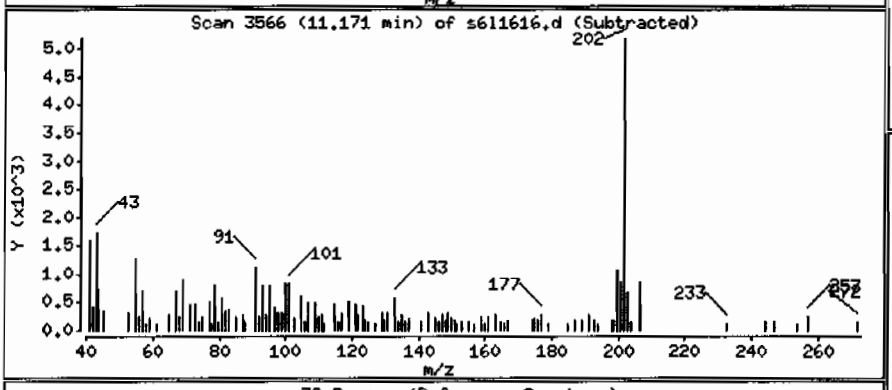

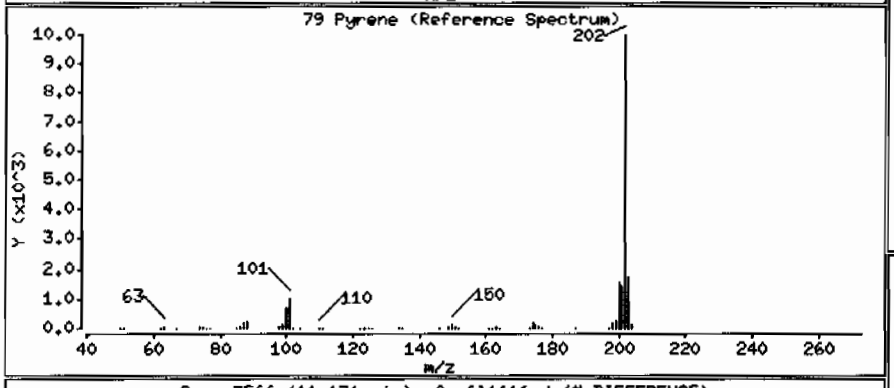

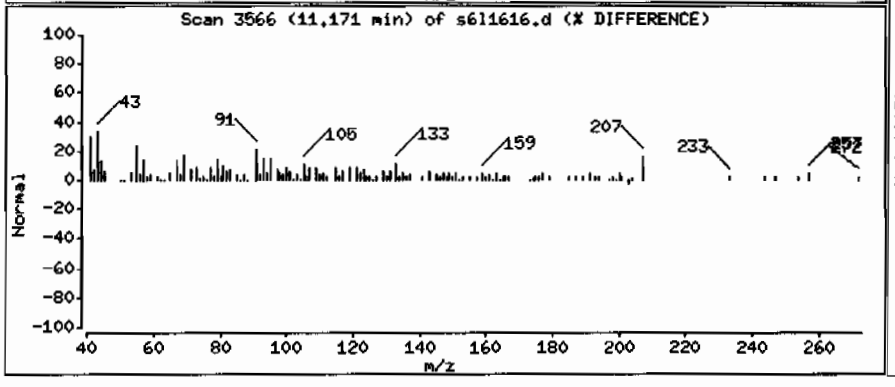

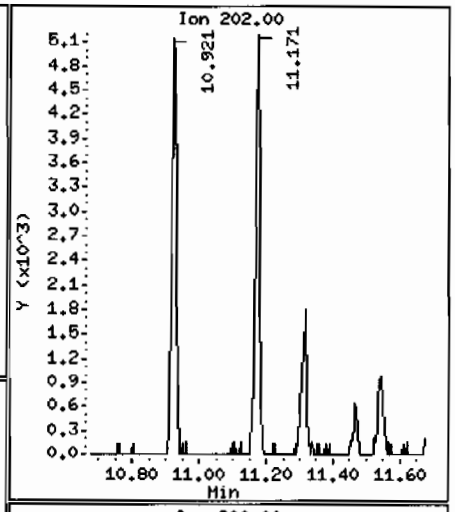

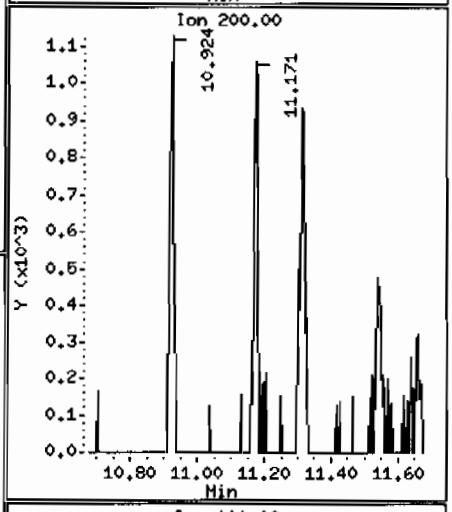

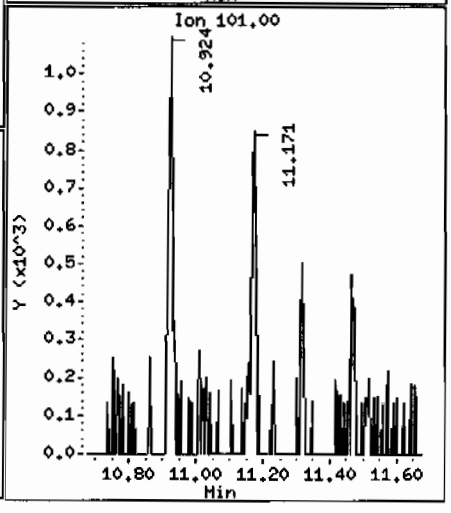

Data File: /chem/MSD6.i/s121609.b/s611616.d

Date : 16-DEC-2009 16:42

Client ID: RE03-10-2741

Instrument: MSD6.i

Sample Info: 1242668001193244411SVHF11LANL

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

76 Fluoranthene

Concentration: 12.0 ug/Kg

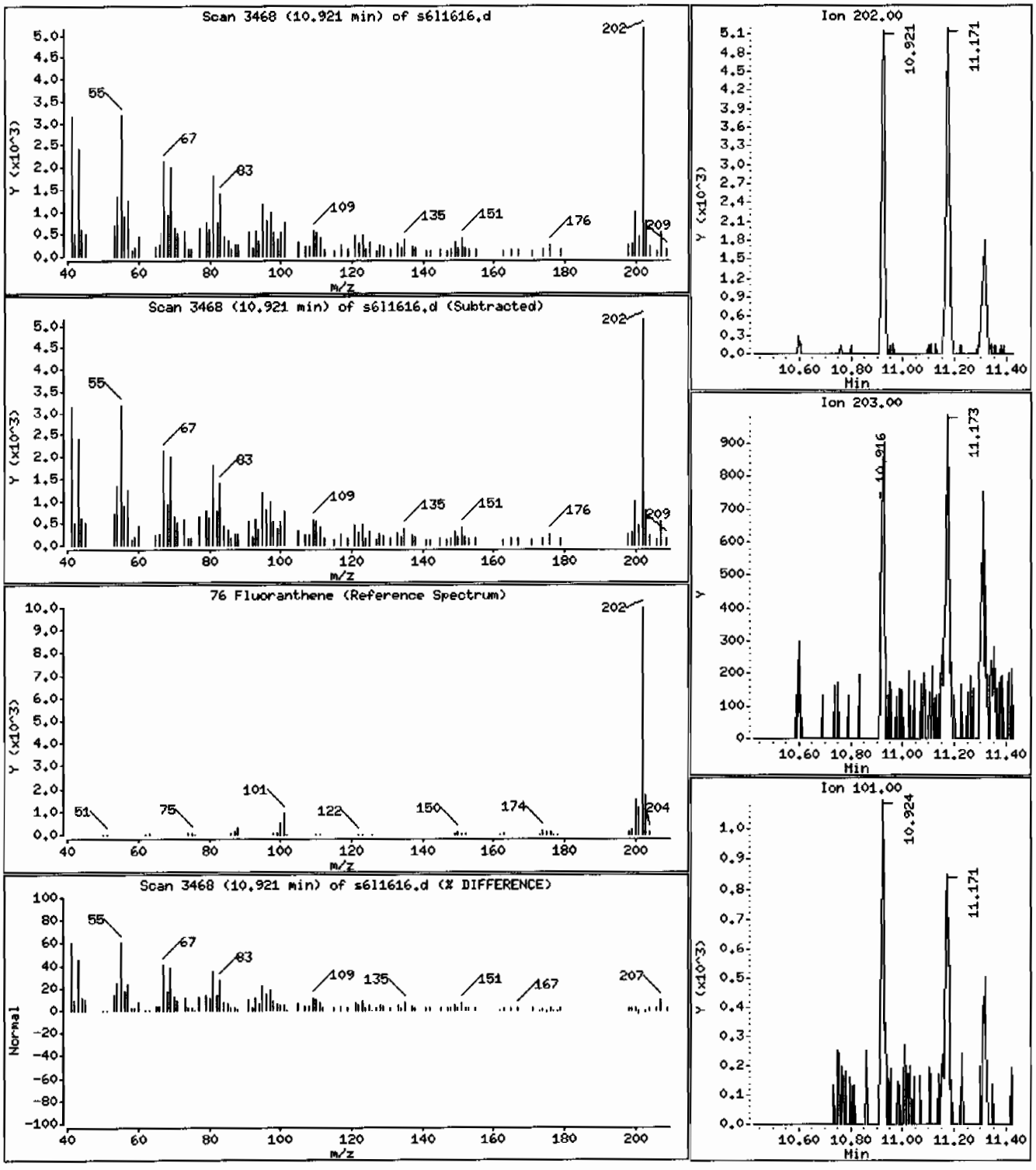

Data File: /chem/MSD6.i/s121609.b/s611616.d

Date : 16-DEC-2009 16:42

Client ID: RE03-10-2741 Instrument: MSD6.i

Sample Info: 1242668001|932444|1|SVMF|1|LANL

Volume Injected (uL): 0.5 Operator: nag1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Propane, 2,2-dimethoxy-	77-76-9	NIST05.L	4663	59	C5H12O2	104
Propane, 2,2-dimethoxy-	77-76-9	NIST05.L	4662	42	C5H12O2	104
Propane, 2,2-dimethoxy-	77-76-9	NIST05.L	4658	38	C5H12O2	104

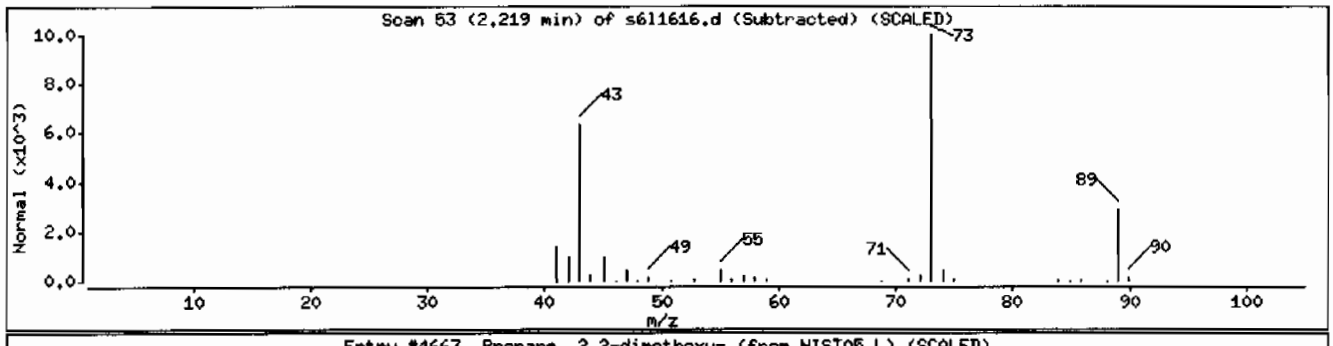

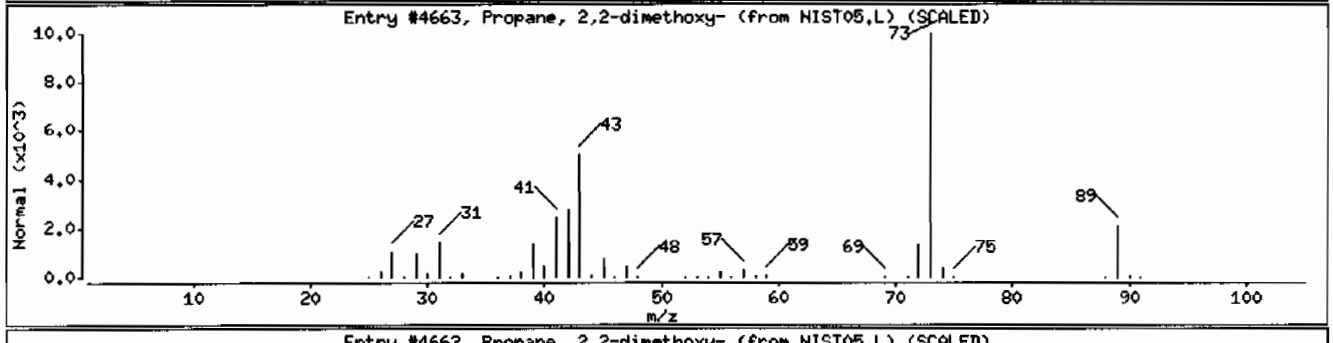

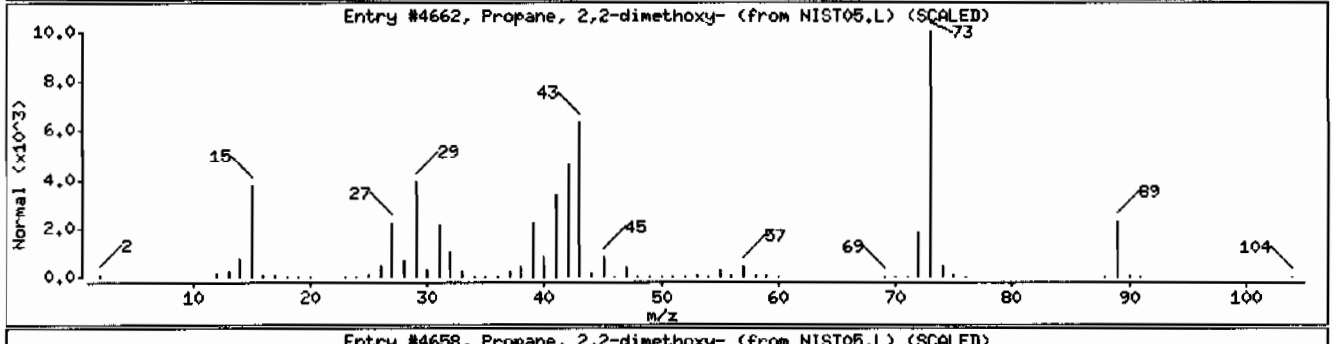

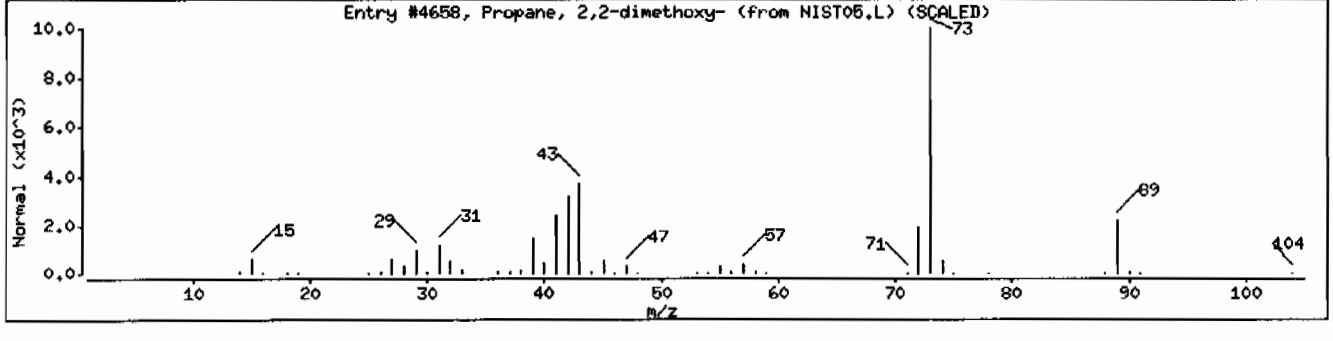

Data File: /chem/MSD6.i/s121609.b/s611616.d

Date : 16-DEC-2009 16:42

Client ID: RE03-10-2741

Instrument: MSD6.i

Sample Info: |2426680001|932444|1|SVMF|1|LANL

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	59	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7945	59	C6H12O2	116
Acetic acid, 1,1-dimethylethyl ester	540-88-5	NIST05.L	7977	38	C6H12O2	116

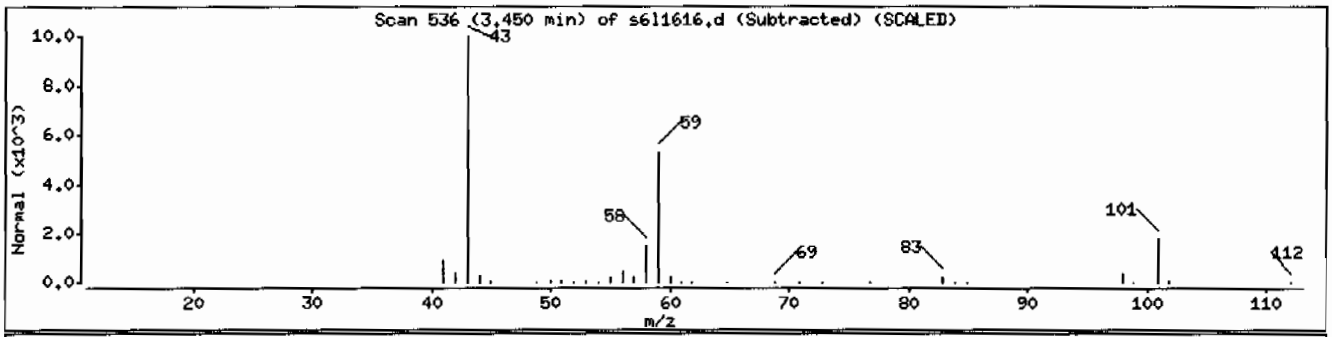

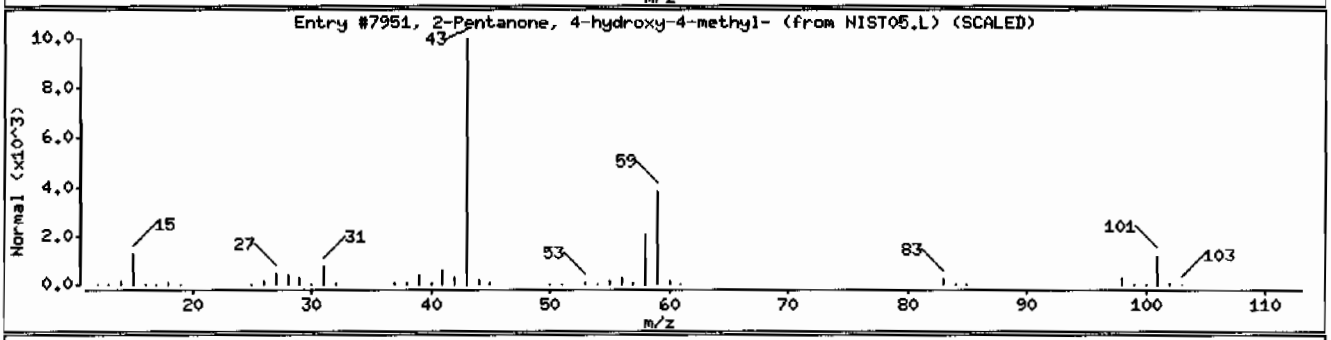

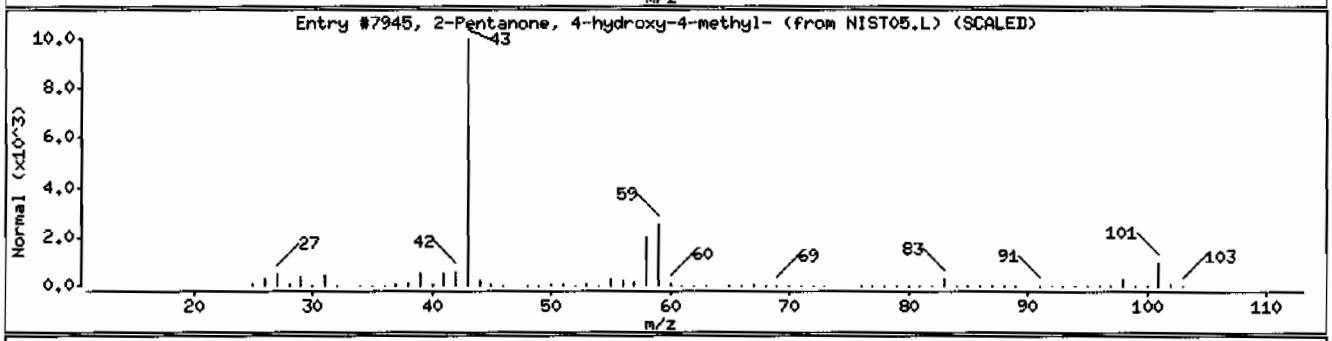

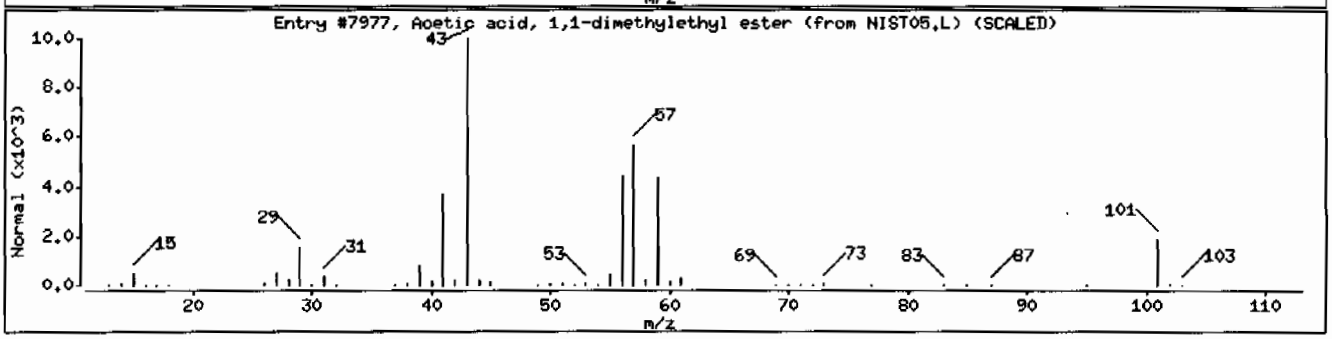

Data File: /chem/MSD6.i/s121609.b/s611616.d

Date : 16-DEC-2009 16:42

Client ID: RE03-10-2741

Instrument: MSD6.i

Sample Info: |2426680001|932444|1|SVMF|1|LANL

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Bicyclo[3.1.1]hept-2-ene, 2,6,6-trimethy	2437-95-8	NIST05.L	15376	97	C10H16	136
1R-.alpha.-Pinene	7785-70-8	NIST05.L	15186	96	C10H16	136
.alpha.-Pinene	80-56-8	NIST05.L	15178	96	C10H16	136

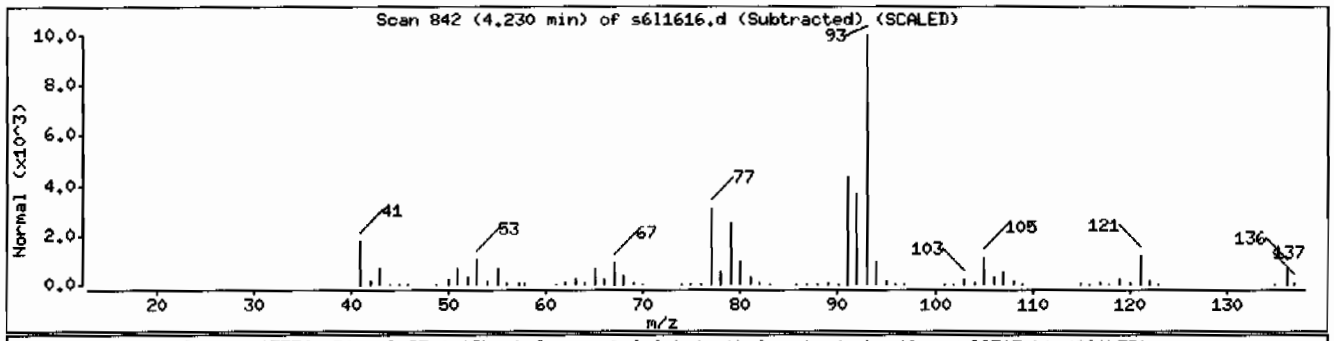

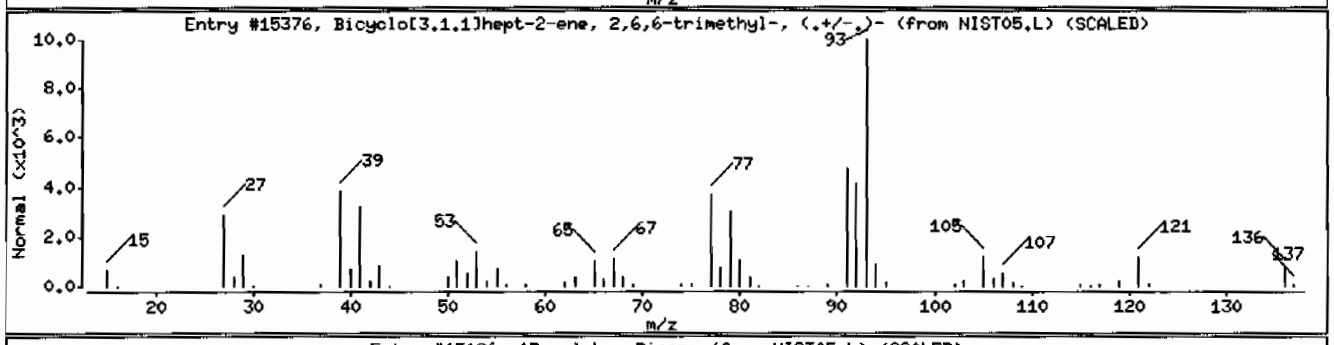

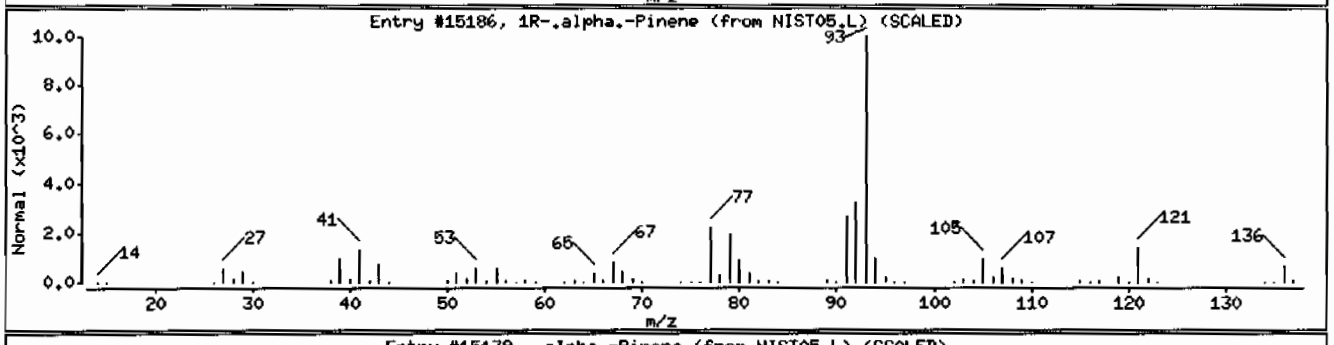

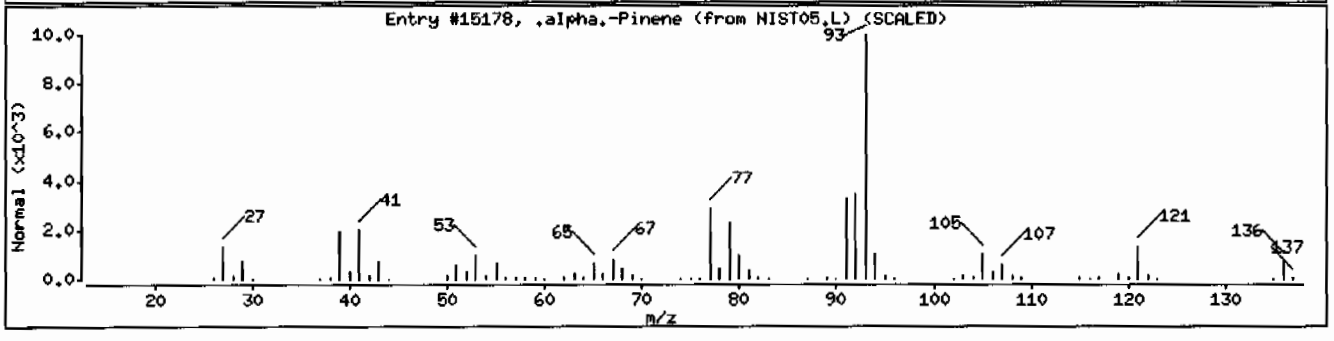

Data File: /chem/MSD6.i/s121609.b/s611616.d

Date : 16-DEC-2009 16:42

Client ID: RE03-10-2741

Instrument: MSD6.i

Sample Info: |2426680001|932444|1|SVMF|1|LANL

Volume Injected (uL): 0.5

Operator: nagl

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Bicyclo[4.1.0]hept-3-ene, 3,7,7-trimethy	498-15-7	NIST05.L	15369	97	C10H16	136
3-Carene	13466-78-9	NIST05.L	15156	96	C10H16	136
3-Carene	13466-78-9	NIST05.L	15157	95	C10H16	136

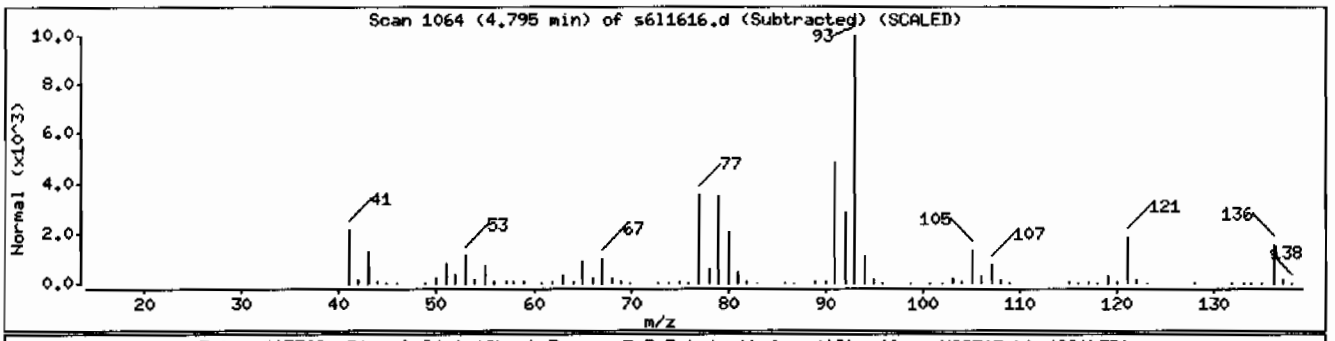

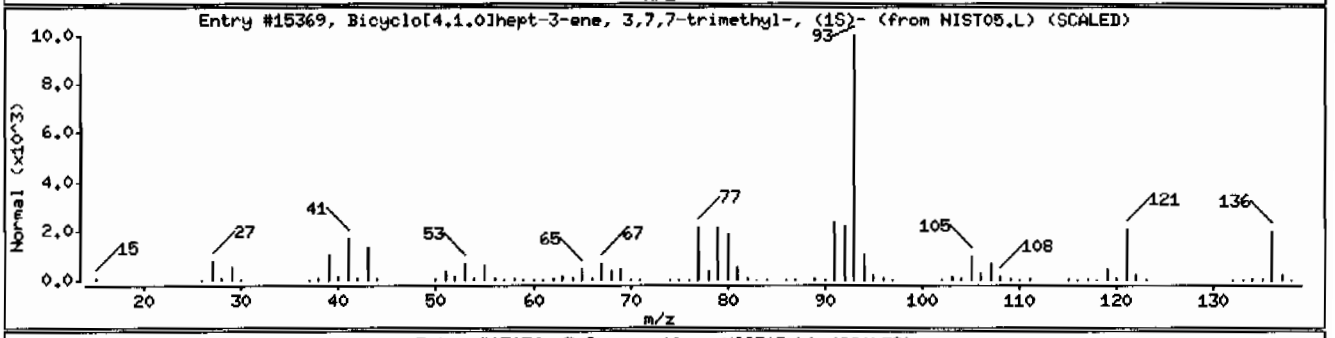

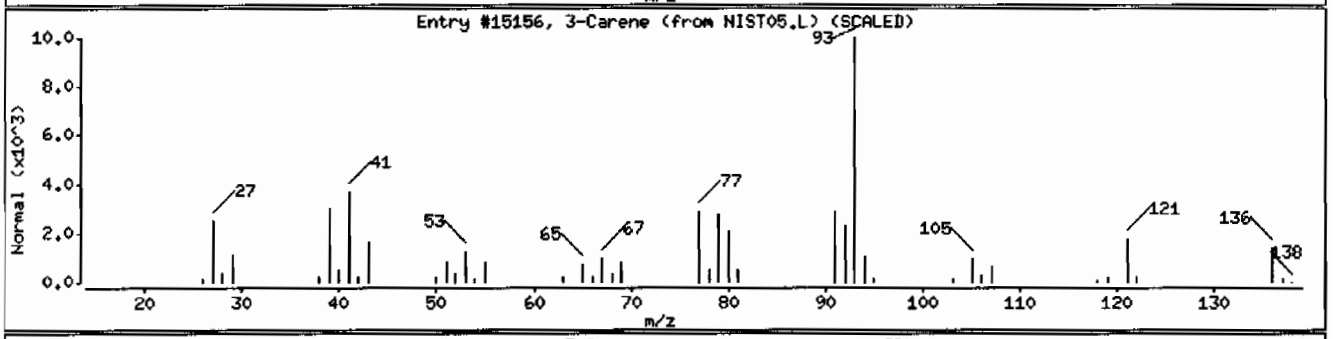

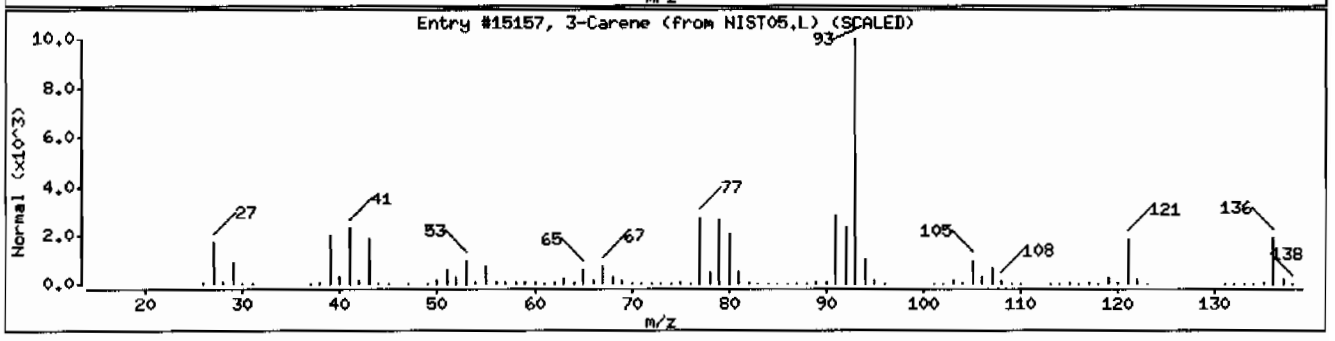

Data File: /chem/MSD6.i/s121609.b/s611616.d

Date : 16-DEC-2009 16:42

Client ID: RE03-10-2741 Instrument: MSD6.i

Sample Info: |2426680001|932444|1|SVMF|1|LANL

Volume Injected (uL): 0.5 Operator: nag1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
1,4-Methanoazulene, decahydro-4,8,8-trim	475-20-7	NIST05.L	60018	99	C15H24	204
1,4-Methanoazulene, decahydro-4,8,8-trim	475-20-7	NIST05.L	60024	99	C15H24	204
Naphthalene, 1,2,3,5,6,7,8,8a-octahydro-	4630-07-3	NIST05.L	60046	97	C15H24	204

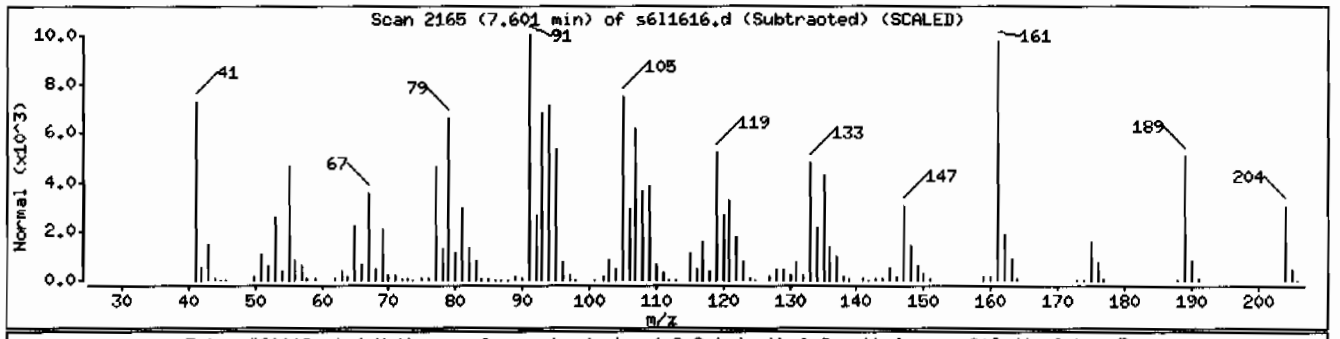

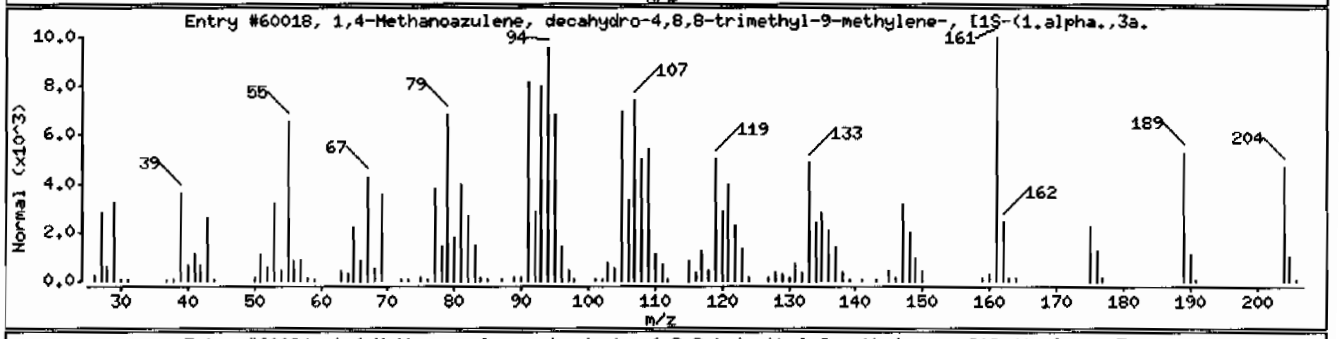

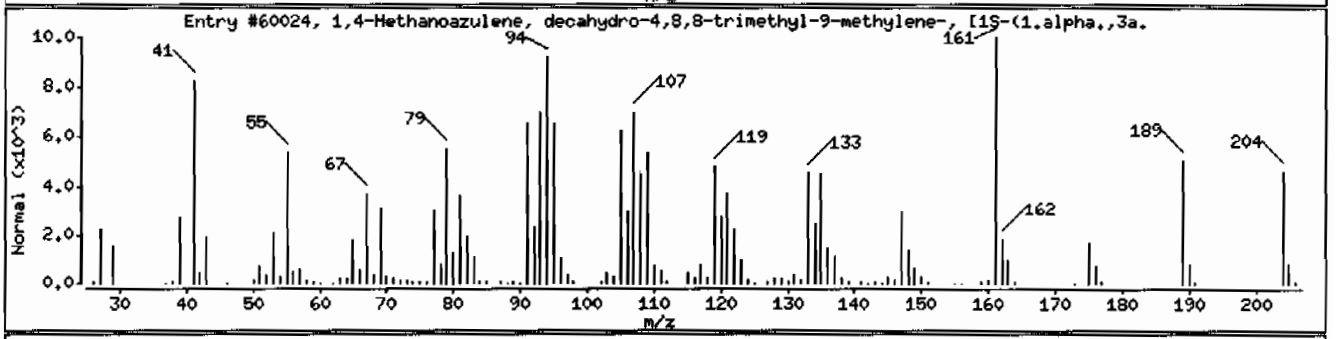

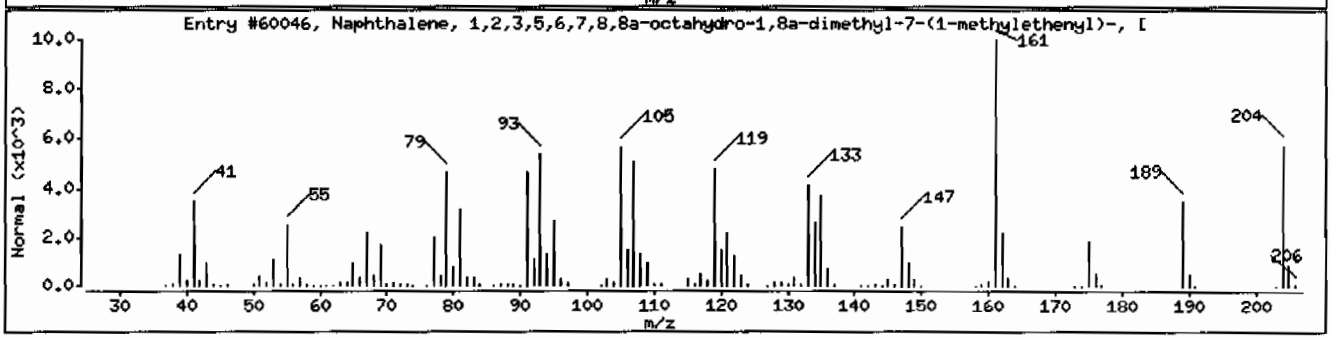

Data File: /chem/MSD6.i/s121609.b/s611616.d

Date : 16-DEC-2009 16:42

Client ID: RE03-10-2741

Instrument: MSD6.i

Sample Info: 1242668001193244411SVMF11LANL

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
(3E,5E,7E)-6-Methyl-8-(2,6,6-trimethyl-1	17974-57-1	NIST05.L	97615	22	C18H26O	258
Hydratropaldehyde, .alpha.-methyl-m-(tri	32454-18-5	NIST05.L	68155	18	C11H11F3O	216
Cinnamamide, N-(benzyloxy)-	22472-17-9	NIST05.L	94031	15	C16H15NO2	253

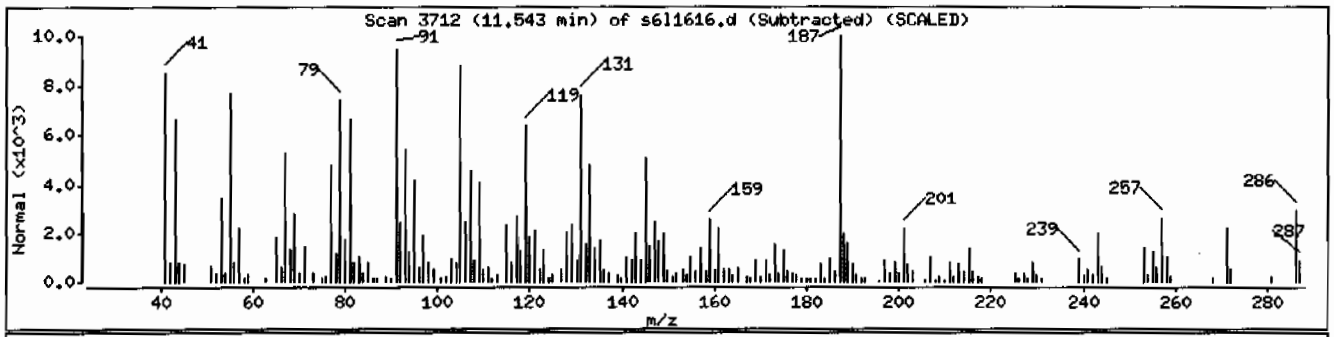

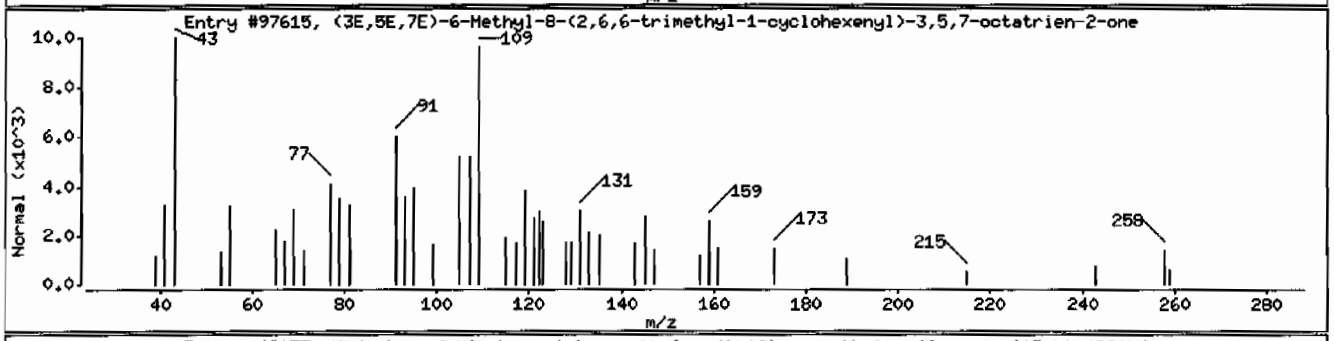

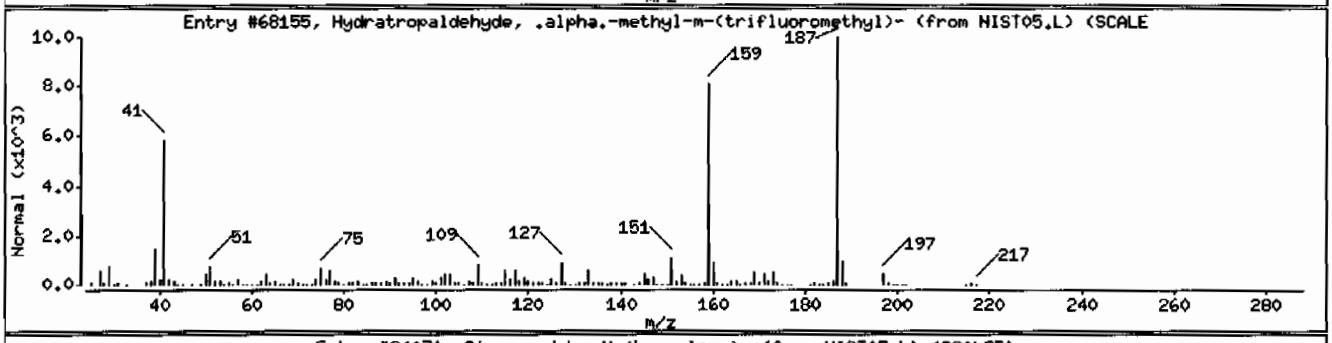

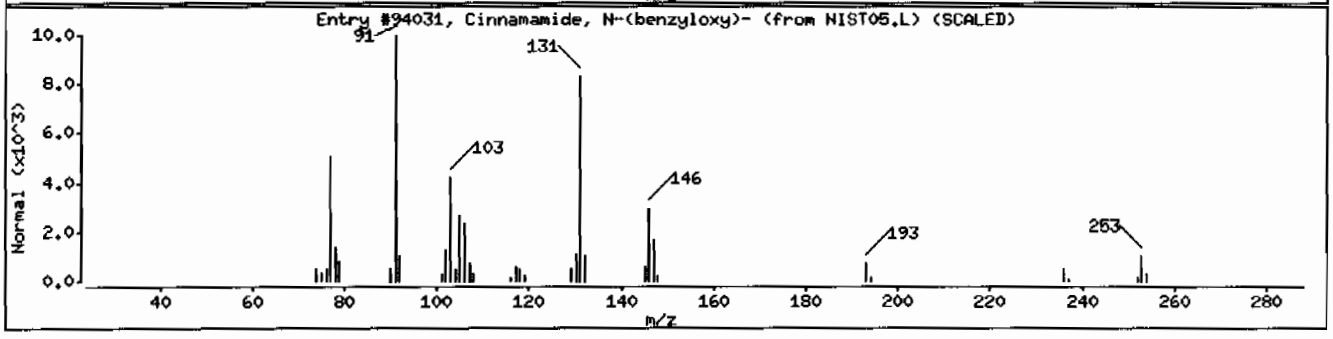

Data File: /chem/MSD6.i/s121609.b/s611616.d

Date : 16-DEC-2009 16:42

Client ID: RE03-10-2741 Instrument: MSD6.i

Sample Info: 1242668001193244411SVMF11LANL

Volume Injected (uL): 0.5 Operator: nag1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Dispiro[2.1.2.4]undecane, 8-methylene-	51567-08-9	NIST05.L	30873	35	C12H18	162
Bicyclo[3.2.1]oct-2-ene, 3-methyl-4-meth	49826-53-1	NIST05.L	14453	27	C10H14	134
Cycloheptane, 1,3,5-tris(methylene)-	68284-24-2	NIST05.L	14422	27	C10H14	134

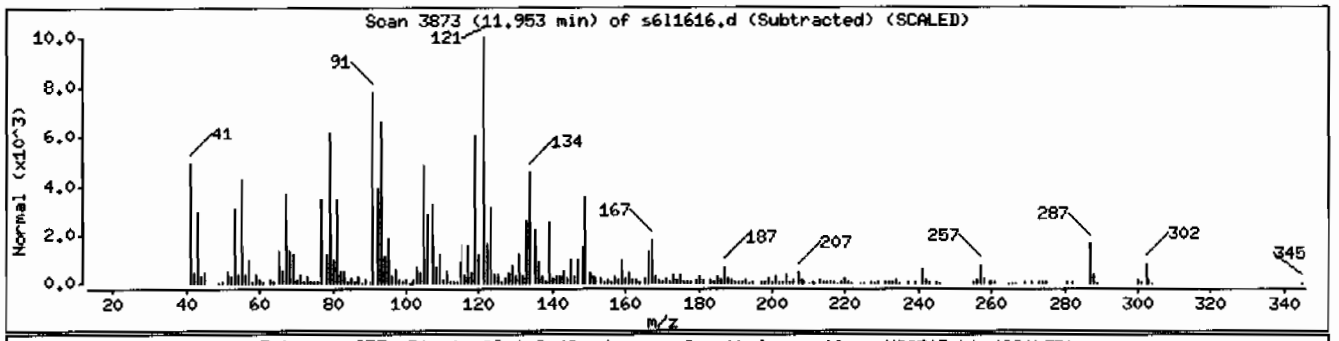

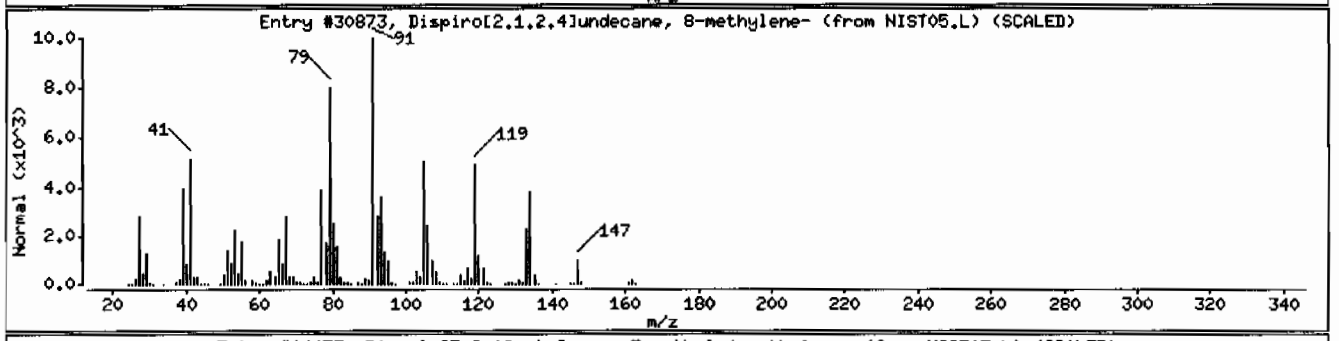

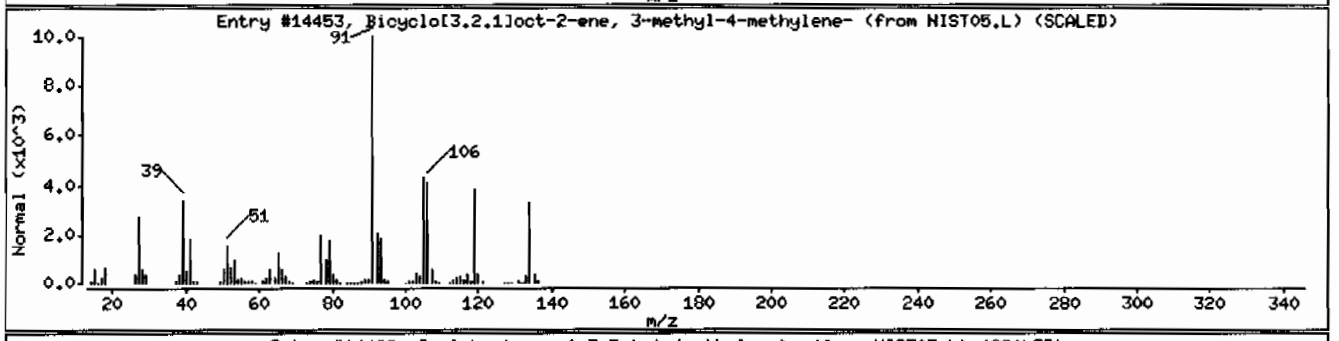

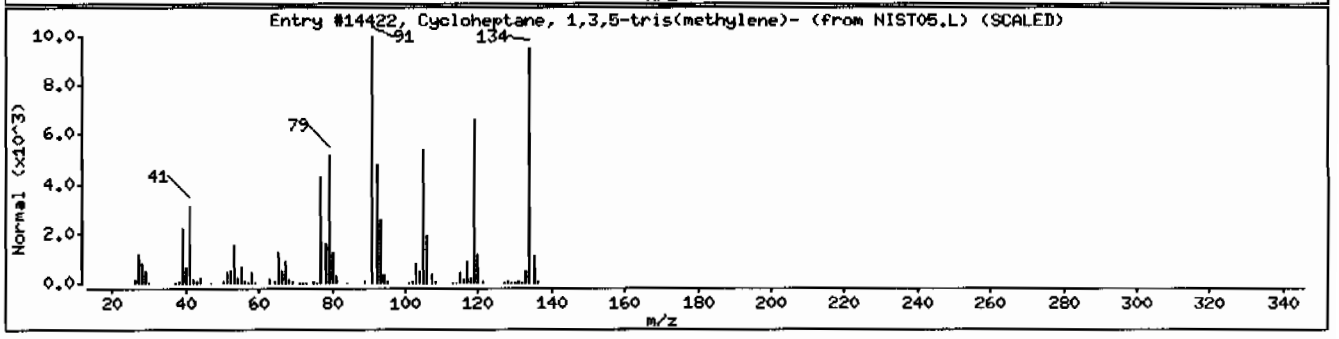

Data File: /chem/MSD6.i/s121609.b/s611616.d

Date : 16-DEC-2009 16:42

Client ID: RE03-10-2741 Instrument: MSD6.i

Sample Info: |2426680001|932444|1|SVMF|1|LANL

Volume Injected (uL): 0.5 Operator: nag1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Xanthen-9-one, 1-hydroxy-3,5,8-trimethox	49599-09-9	NIST05.L	125840	64	C16H1406	302
Phenol, 2,4-bis(1-phenylethyl)-	2769-94-0	NIST05.L	126238	38	C22H220	302
Crinan, 1-methoxy-, (1.alpha.)-	41928-92-1	NIST05.L	116641	25	C17H21N03	287

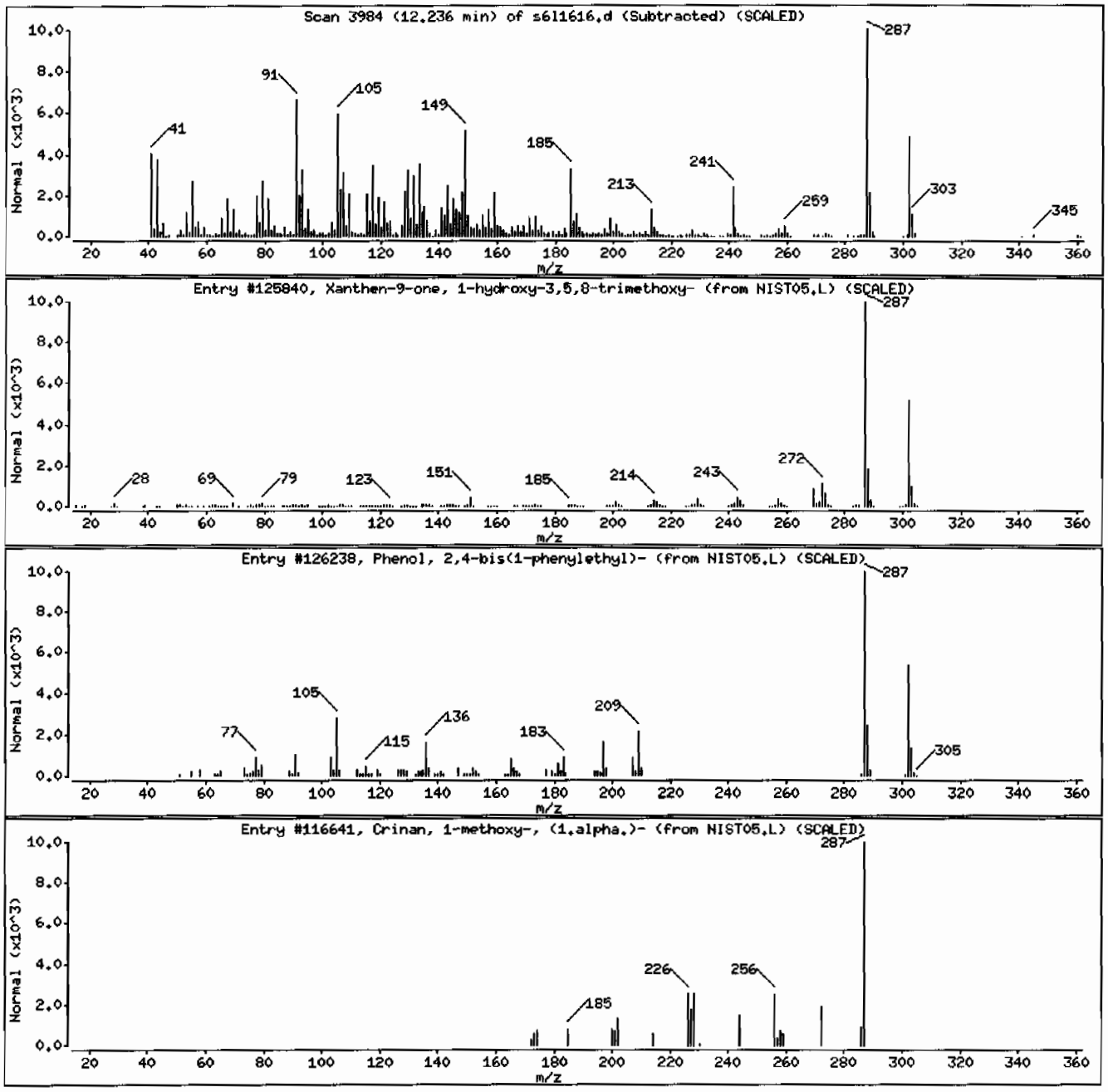

Data File: /chem/MSD6.i/s121609.b/s611616.d

Date : 16-DEC-2009 16:42

Client ID: RE03-10-2741 Instrument: MSD6.i

Sample Info: 1242668001|932444|1|SVMF|1|LANL

Volume Injected (uL): 0.5 Operator: nagl

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
7-Ethylidenebicyclo[4.2.1]nona-2,4-diene	94400-10-9	NIST05.L	20835	25	C11H14	146
cis-Pinen-3-ol	1000292-85-2	NIST05.L	24038	11	C10H160	152
trans-Pinocarveol	1000292-85-4	NIST05.L	24050	11	C10H160	152

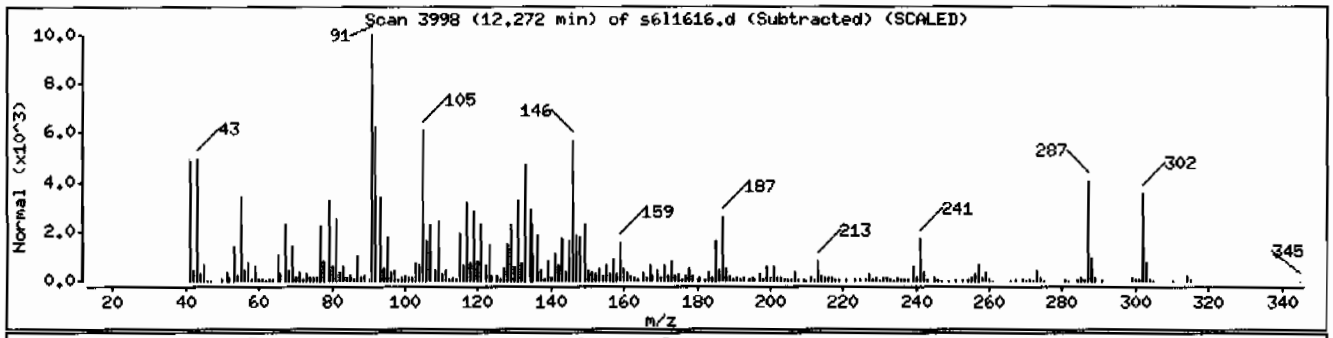

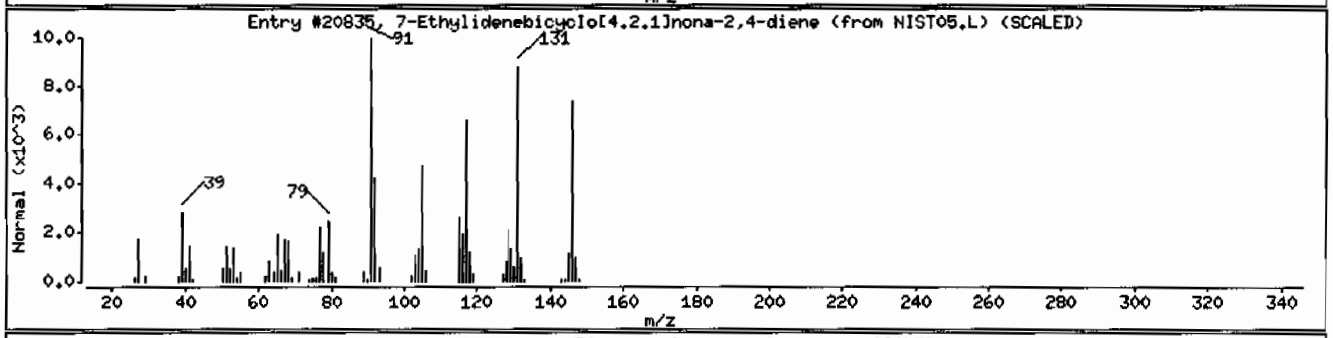

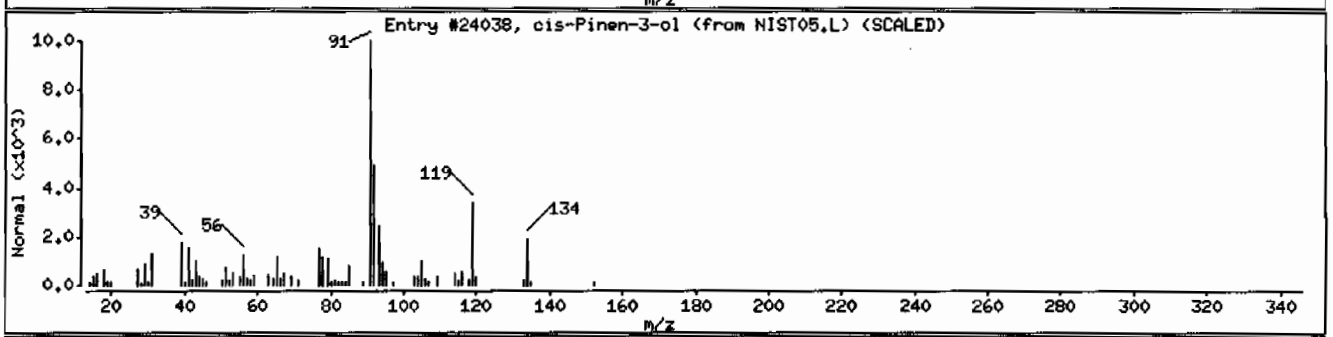

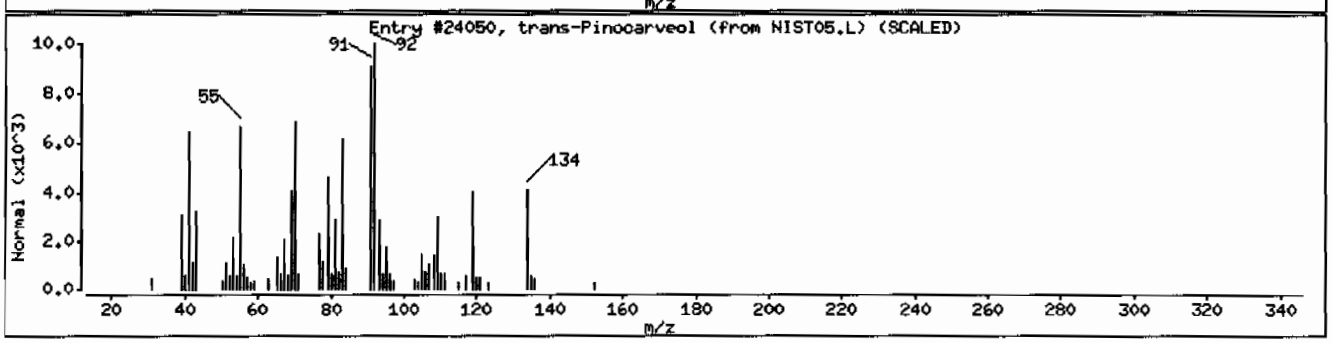

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Date : 16-DEC-2009 16:42

Client ID: RE03-10-2741 Instrument: MSD6.i

Sample Info: |242668001|932444|1|SVHF|1|LANL

Volume Injected (uL): 0.5 Operator: nag1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
1-Phenanthrenecarboxylic acid, 1,2,3,4,4	1740-19-8	NIST05.L	125037	93	C20H28O2	300
1-Phenanthrenecarboxylic acid, 1,2,3,4,4	1740-19-8	NIST05.L	125034	87	C20H28O2	300
Kaura-9(11),16-dien-18-oic acid, (4.alph	22338-67-6	NIST05.L	125012	59	C20H28O2	300

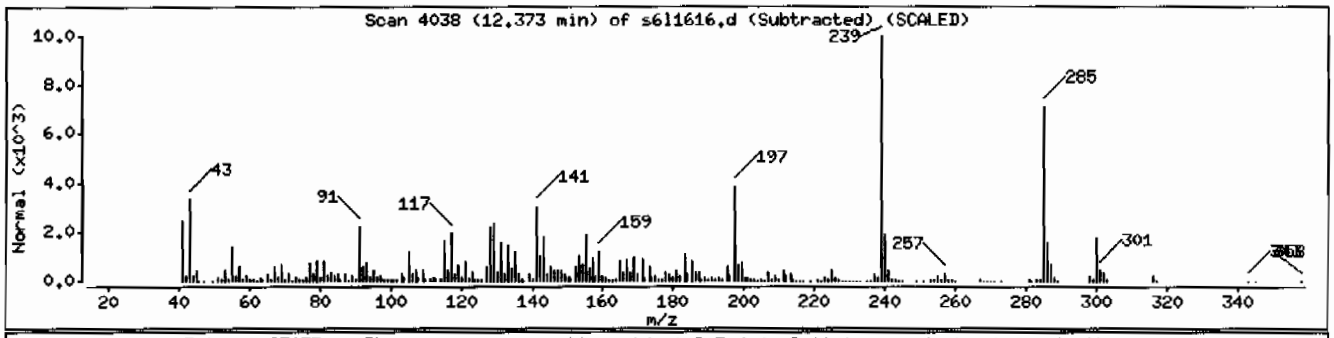

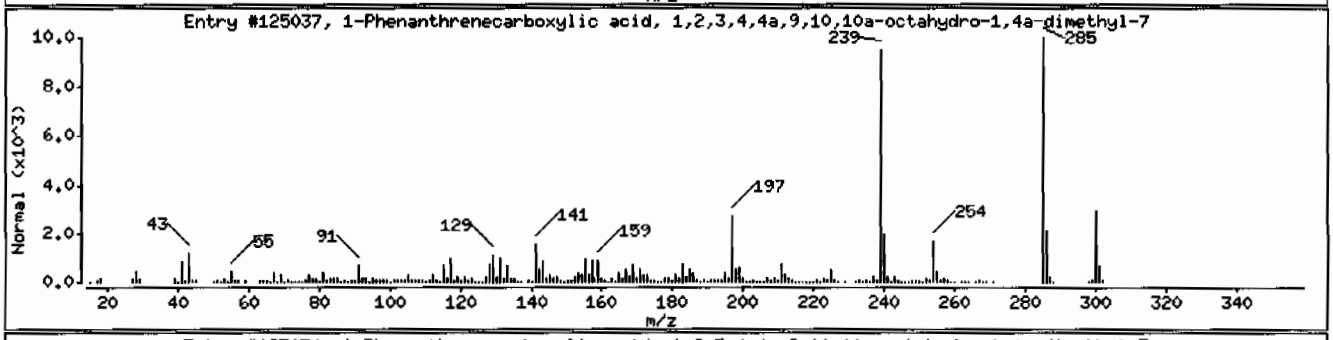

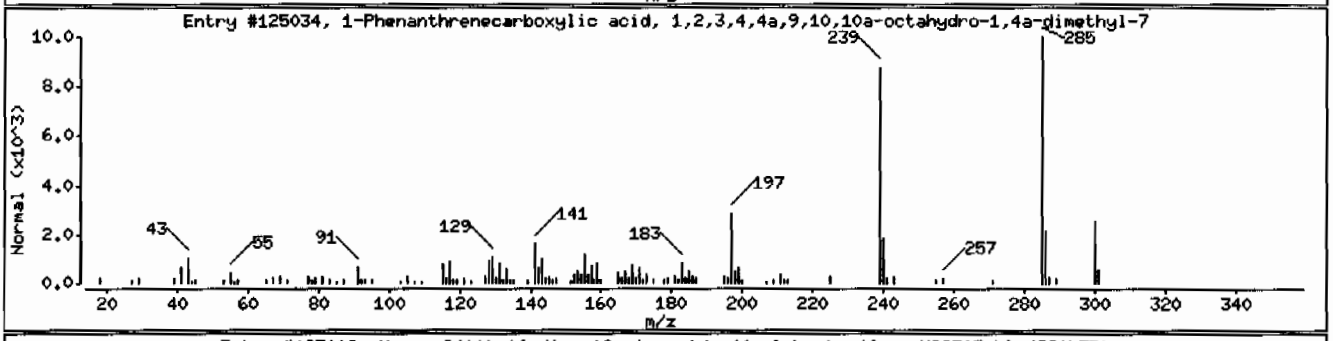

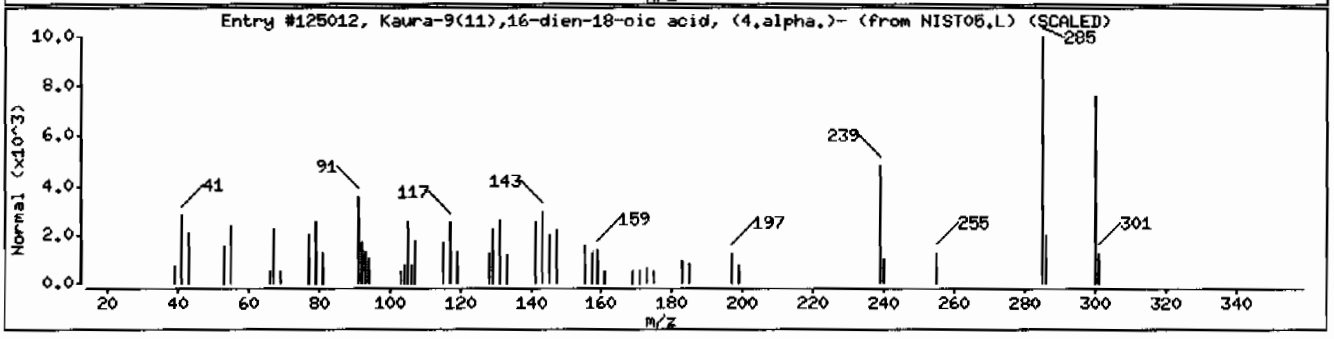

Data File: /chem/MSD6.i/s121609.b/s611616.d

Date : 16-DEC-2009 16:42

Client ID: RE03-10-2741 Instrument: MSD6.i

Sample Info: |2426680001|932444|1|SVMF|1|LANL

Volume Injected (uL): 0.5 Operator: nag1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
1-Phenanthrenecarboxylic acid, 1,2,3,4,4	471-77-2	NIST05.L	126183	94	C20H3OO2	302
Bis[3,4-methylenedioxybenzyl]sulfide	49647-48-5	NIST05.L	125830	58	C16H14O4S	302
2-Pyridinecarboxylic acid, 5-butyl-	536-69-6	NIST05.L	42260	52	C10H13NO2	179

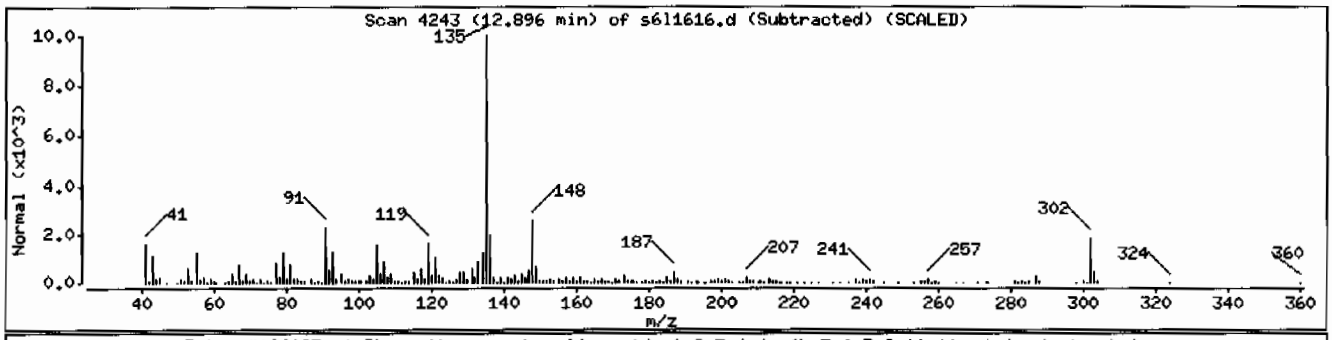

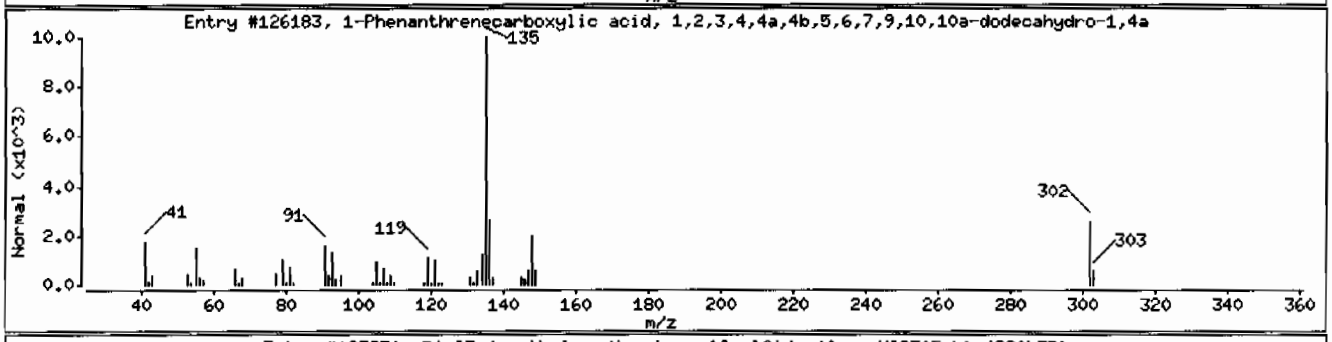

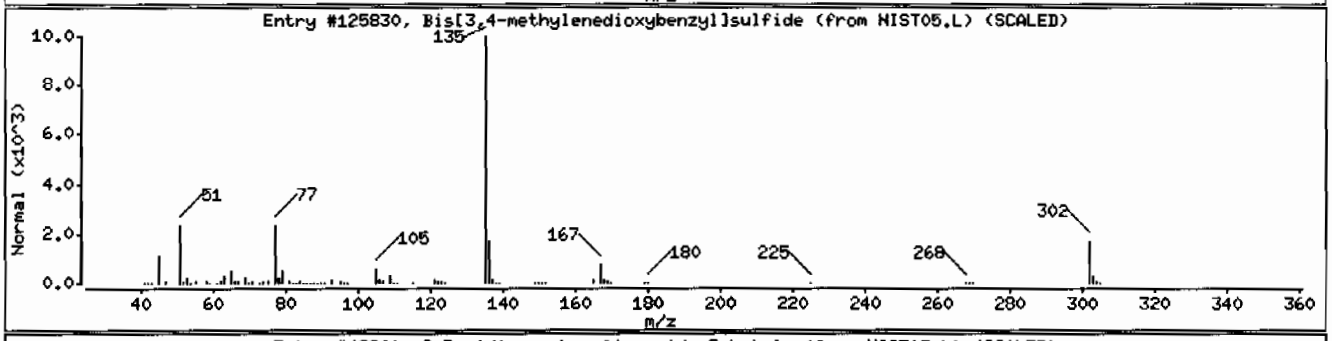

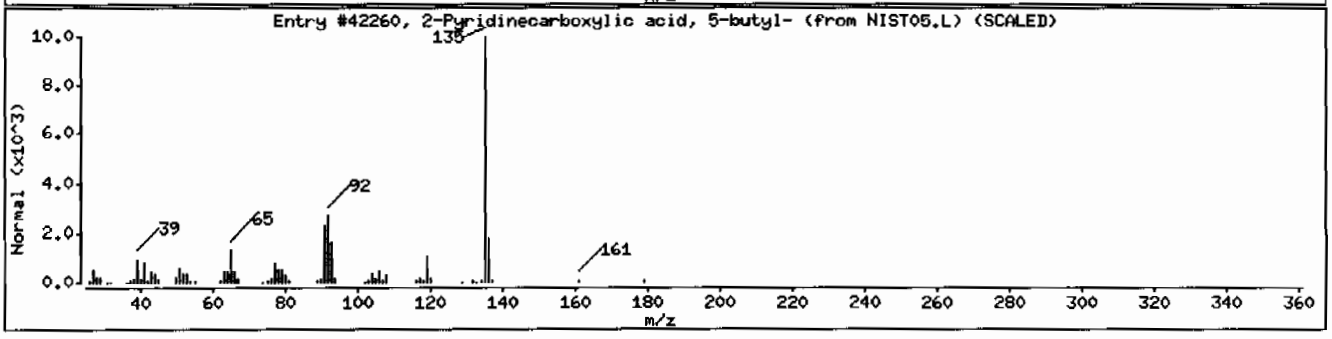

Data File: /chem/MSD6.i/s121609.b/s611616.d

Date : 16-DEC-2009 16:42

Client ID: RE03-10-2741 Instrument: MSD6.i

Sample Info: |2426680001|932444|1|SVMF|1|LANL

Volume Injected (uL): 0.5 Operator: nagl

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
1,4-Dimethyl-8-isopropylidenetricyclo[5,	1000140-07-7	NIST05.L	59920	78	C15H24	204
1,2,4,8-Tetramethylbicyclo[6.3.0]undeca-	137235-51-9	NIST05.L	59888	46	C15H24	204
1H-Cycloprop[e]azulene, 1a,2,3,4,4a,5,6,	489-40-7	NIST05.L	60089	42	C15H24	204

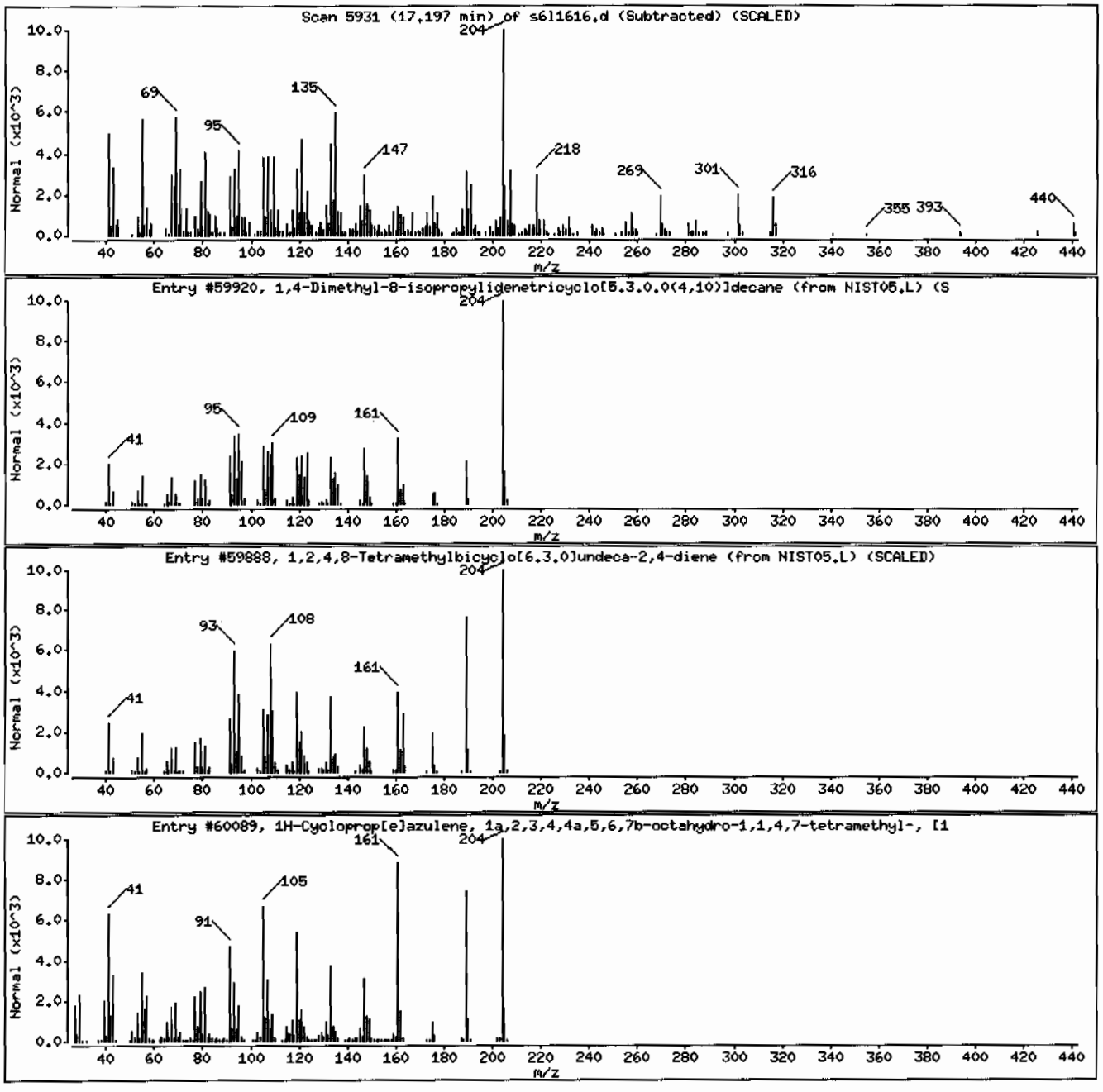

Data File: /chem/MSD6.i/s121609.b/s611616.d

Date : 16-DEC-2009 16:42

Client ID: RE03-10-2741 Instrument: MSD6.i

Sample Info: 1242668001|932444|1|SVMF|1|LANL

Volume Injected (uL): 0.5 Operator: nag1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Acetic acid, 4-methylphenyl ester	140-39-6	NIST05.L	23511	30	C9H10O2	150
3-Oxatricyclo[4.1.1.0(2,4)]octane, 2,7,7	1686-14-2	NIST05.L	24300	25	C10H16O	152
Acetic acid, phenylmethyl ester	140-11-4	NIST05.L	23495	25	C9H10O2	150

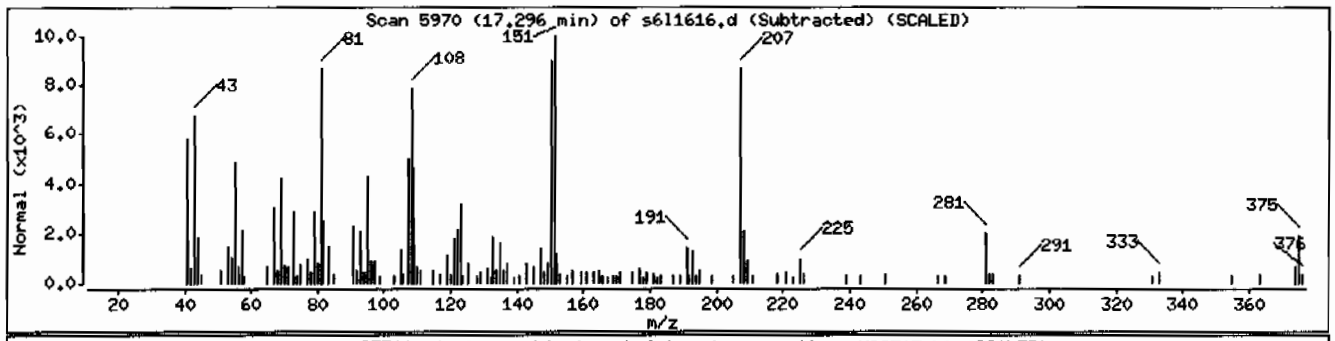

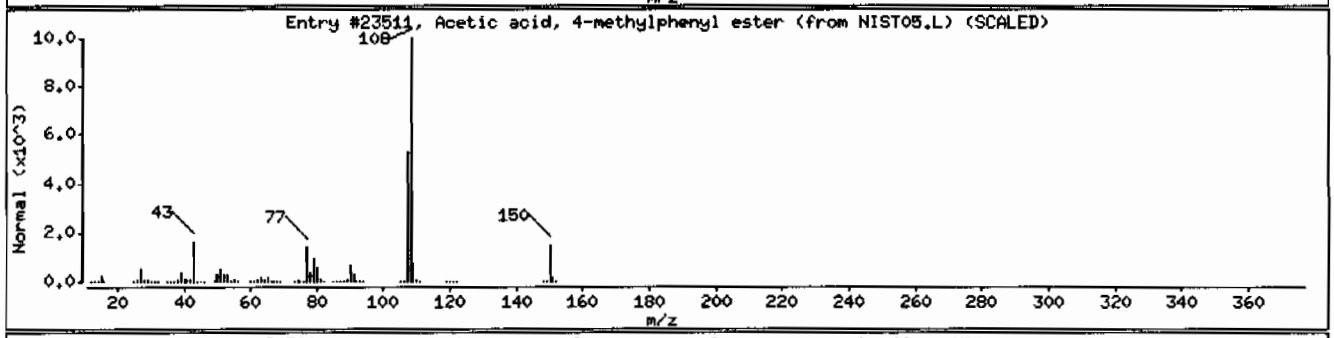

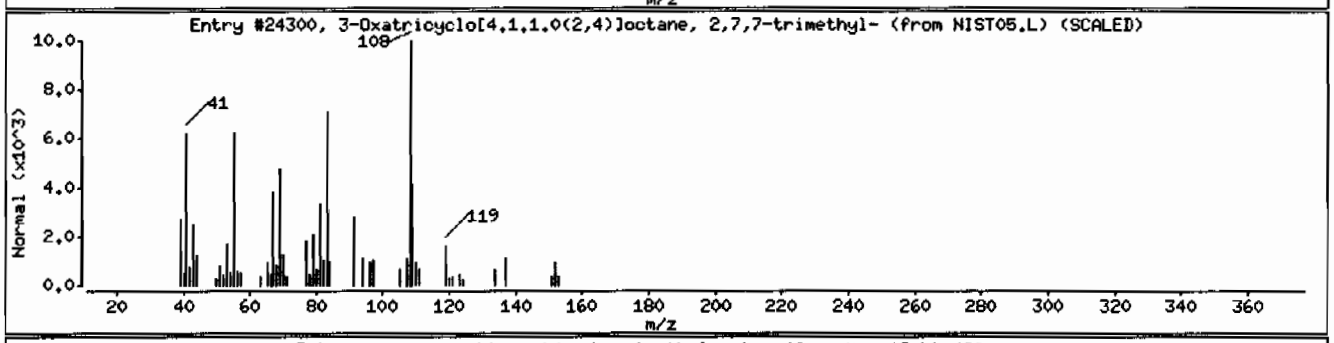

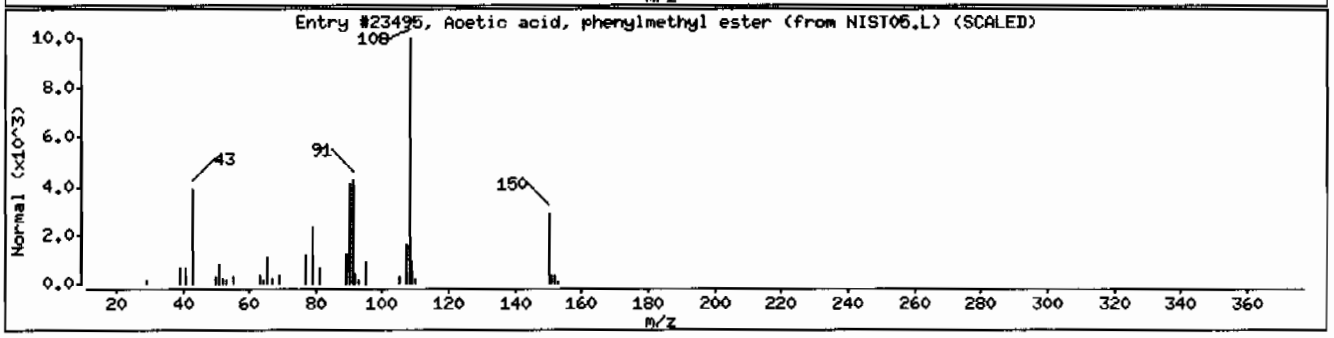

Data File: /chem/MSD6.i/s121609.b/s611616.d

Date : 16-DEC-2009 16:42

Client ID: RE03-10-2741 Instrument: MSD6.i

Sample Info: |2426680011932444|1|SVMF|1|LANL

Volume Injected (uL): 0.5 Operator: nag1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
1,2,4-Triazol-3-amine, 5-(1,3,5-trimethy	1000264-16-7	NIST05.L	62293	38	C8H13N7	207
Hexanoic acid, 2,7-dimethyloct-7-en-5-yn	1000299-35-7	NIST05.L	92131	35	C16H26O2	250
2-Ethylacridine	55751-83-2	NIST05.L	62222	30	C15H13N	207

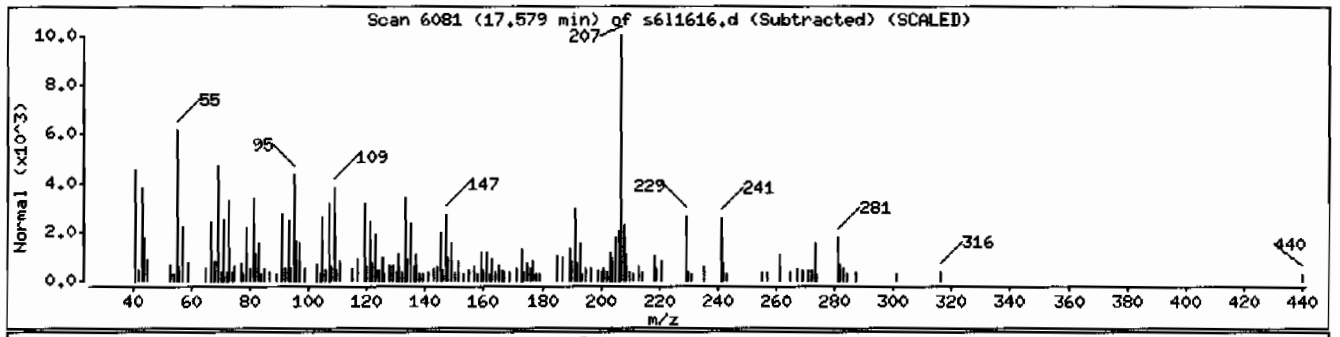

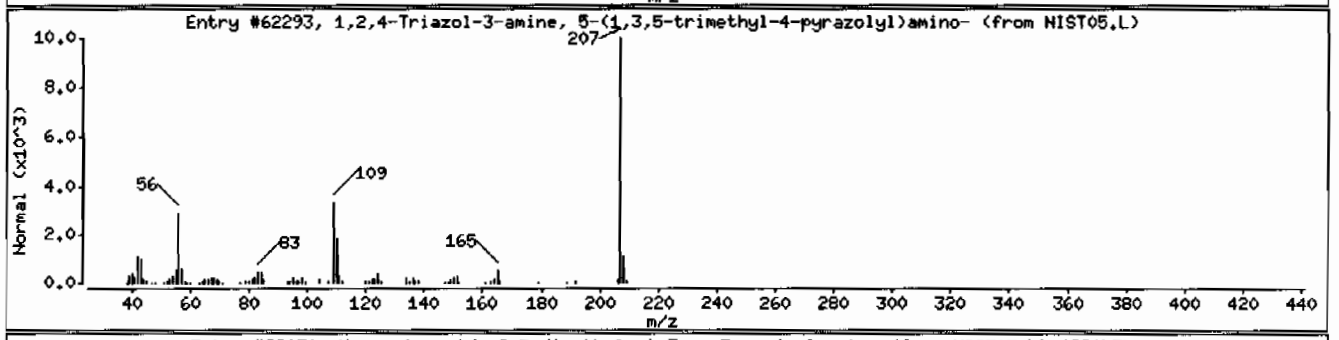

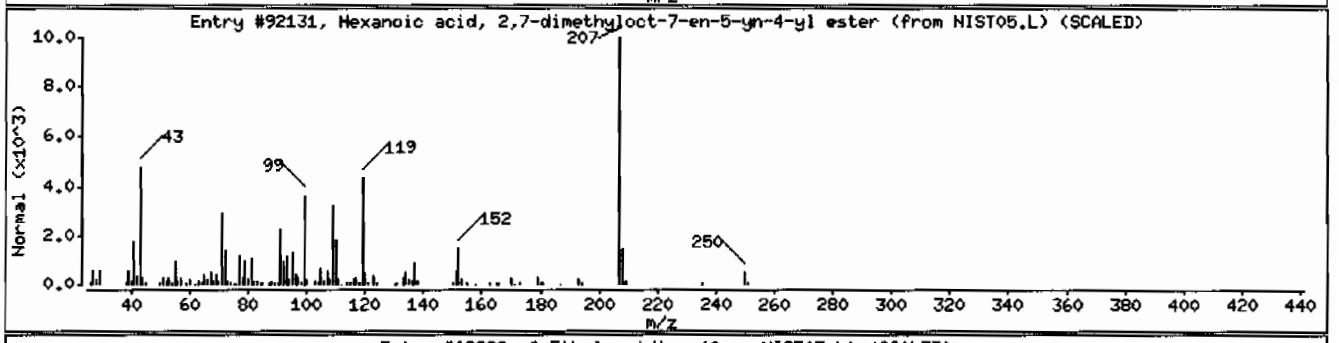

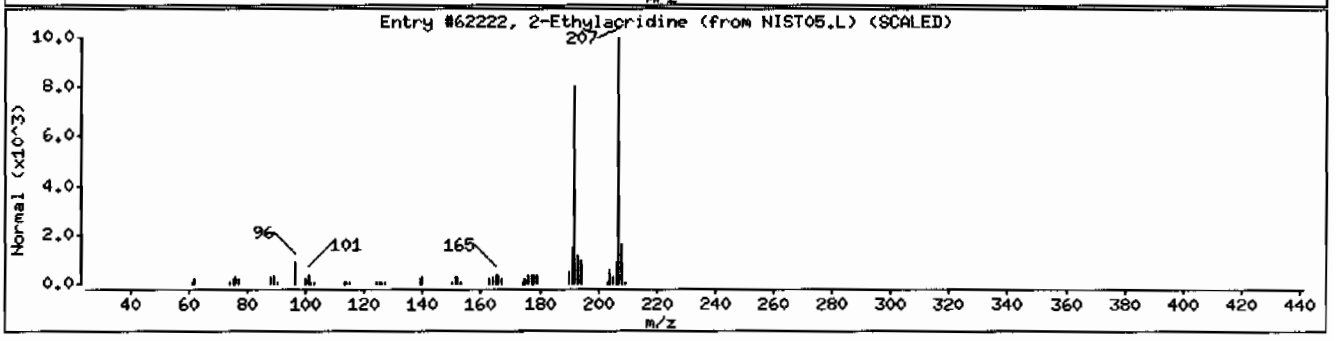

Standard Data

SW846 8270C//8270D/EPA 625								
Calibration Standard Concentration Levels*								
	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
1,4-Dichlorobenzene-d4 (INTERNAL STANDARD)								
Naphthalene-d8 (INTERNAL STANDARD)								
Acenaphthene-d10 (INTERNAL STANDARD)								
Phenanthrene-d10 (INTERNAL STANDARD)								
Chrysene-d12 (INTERNAL STANDARD)								
Perylene-d12 (INTERNAL STANDARD)								
2-Fluorophenol (SURROGATE)		10	20	40	50	80	100	120
Phenol-d5 (SURROGATE)		10	20	40	50	80	100	120
2-Chlorophenol-d4 (CLP SURROGATE)		10	20	40	50	80	100	120
1,2-Dichlorobenzene-d4 (CLP SURROGATE)		10	20	40	50	80	100	120
Nitrobenzene-d5 (SURROGATE)		10	20	40	50	80	100	120
2-Fluorobiphenyl (SURROGATE)		10	20	40	50	80	100	120
2,4,6-Tribromophenol (SURROGATE)		10	20	40	50	80	100	120
p-Terphenyl-d14 (SURROGATE)		10	20	40	50	80	100	120
N-Nitrosodimethylamine		10	20	40	50	80	100	120
Pyridine		10	20	40	50	80	100	120
Aniline		10	20	40	50	80	100	120
Benzaldehyde		10	20	40	50	80	100	120
Phenol		10	20	40	50	80	100	120
bis(2-Chloroethyl)ether	1	10	20	40	50	80	100	120
2-Chlorophenol		10	20	40	50	80	100	120
n-Decane		10	20	40	50	80	100	120
1,3-Dichlorobenzene		10	20	40	50	80	100	120
1,4-Dichlorobenzene		10	20	40	50	80	100	120
Benzyl Alcohol		10	20	40	50	80	100	120
1,2-Dichlorobenzene		10	20	40	50	80	100	120
bis(2-Chloroisopropyl)ether		10	20	40	50	80	100	120
o-Cresol (2-Methylphenol)		10	20	40	50	80	100	120
Acetophenone		10	20	40	50	80	100	120
N-Nitrosodipropylamine	1	10	20	40	50	80	100	120
m,p-Cresols (3-Methylphenol & 4-Methylphenol)		10	20	40	50	80	100	120
Hexachloroethane		10	20	40	50	80	100	120
Nitrobenzene		10	20	40	50	80	100	120
Isophorone		10	20	40	50	80	100	120
2-Nitrophenol		10	20	40	50	80	100	120
2,4-Dimethylphenol		10	20	40	50	80	100	120
bis(2-Chloroethoxy)methane		10	20	40	50	80	100	120
2,4-Dichlorophenol		10	20	40	50	80	100	120
Benzoic Acid			20	40	50	80	100	120
1,2,4-Trichlorobenzene		10	20	40	50	80	100	120
Naphthalene	1	10	20	40	50	80	100	120
alpha-Terpineol		10	20	40	50	80	100	120
4-Chloroaniline		10	20	40	50	80	100	120
Caprolactam		10	20	40	50	80	100	120

SW846 8270C//8270D/EPA 625								
Calibration Standard Concentration Levels*								
	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Hexachlorobutadiene		10	20	40	50	80	100	120
4-Chloro-3-methylphenol		10	20	40	50	80	100	120

2-Methylnaphthalene	1	10	20	40	50	80	100	120
1-Methylnaphthalene	1	10	20	40	50	80	100	120
Hexachlorocyclopentadiene		10	20	40	50	80	100	120
1,1'-Biphenyl		10	20	40	50	80	100	120
2,3-Dichloroaniline		10	20	40	50	80	100	120
2,4,6-Trichlorophenol		10	20	40	50	80	100	120
2,4,5-Trichlorophenol		10	20	40	50	80	100	120
2-Chloronaphthalene	1	10	20	40	50	80	100	120
o-Nitroaniline		10	20	40	50	80	100	120
m-Nitroaniline		10	20	40	50	80	100	120
Dimethylphthalate	1	10	20	40	50	80	100	120
2,6-Dinitrotoluene		10	20	40	50	80	100	120
Acenaphthylene	1	10	20	40	50	80	100	120
Acenaphthene	1	10	20	40	50	80	100	120
2,4-Dinitrophenol			20	40	50	80	100	120
Dibenzofuran		10	20	40	50	80	100	120
2,4-Dinitrotoluene		10	20	40	50	80	100	120
Diethylphthalate	1	10	20	40	50	80	100	120
4-Nitrophenol		10	20	40	50	80	100	120
Fluorene	1	10	20	40	50	80	100	120
4-Chlorophenyl phenyl ether		10	20	40	50	80	100	120
2-Methyl-4,6-dinitrophenol		10	20	40	50	80	100	120
p-Nitroaniline		10	20	40	50	80	100	120
Diphenylamine		10	20	40	50	80	100	120
1,2-Diphenylhydrazine		10	20	40	50	80	100	120
Tributylphosphate		10	20	40	50	80	100	120
4-Bromophenyl phenyether		10	20	40	50	80	100	120
Hexachlorobenzene		10	20	40	50	80	100	120
Atrazine		10	20	40	50	80	100	120
Pentachlorophenol		10	20	40	50	80	100	120
n-Octadecane		10	20	40	50	80	100	120
Phenanthrene	1	10	20	40	50	80	100	120
Anthracene	1	10	20	40	50	80	100	120
Di-n-butylphthalate	1	10	20	40	50	80	100	120
Fluoranthene	1	10	20	40	50	80	100	120
Benzidine		10	20	40	50	80	100	120
Pyrene	1	10	20	40	50	80	100	120
Butylbenzylphthalate	1	10	20	40	50	80	100	120
Benzo(a)anthracene	1	10	20	40	50	80	100	120
3,3'-Dichlorobenzidene		10	20	40	50	80	100	120
Chrysene	1	10	20	40	50	80	100	120
bis (2-Ethylhexyl) phthalate	1	10	20	40	50	80	100	120
Di-n-octylphthalate	1	10	20	40	50	80	100	120

SW846 8270C//8270D/EPA 625								
Calibration Standard Concentration Levels*								
	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Benzo(b)fluoranthene	1	10	20	40	50	80	100	120
Benzo(k)fluoranthene	1	10	20	40	50	80	100	120
Benzo(a)pyrene	1	10	20	40	50	80	100	120
Indeno-(1,2,3-cd)pyrene	1	10	20	40	50	80	100	120
Dibenzo(a,h)anthracene	1	10	20	40	50	80	100	120
Benzo(ghi)perylene	1	10	20	40	50	80	100	120
Carbazole	1	10	20	40	50	80	100	120

APPENDIX IX

1,4-Dioxane		10	20	40	50	80	100	120
Methyl methacrylate		10	20	40	50	80	100	120
Ethyl methacrylate		10	20	40	50	80	100	120
2-Picoline		10	20	40	50	80	100	120
N-Nitrosomethylethylamine		10	20	40	50	80	100	120
Methyl methanesulfonate		10	20	40	50	80	100	120
N-Nitrosodiethylamine		10	20	40	50	80	100	120
Ethyl methanesulfonate		10	20	40	50	80	100	120
Pentachloroethane		10	20	40	50	80	100	120
N-Nitrosopyrrolidine		10	20	40	50	80	100	120
N-Nitrosomorpholine		10	20	40	50	80	100	120
o-Toluidine		10	20	40	50	80	100	120
N-Nitrosopiperidine		10	20	40	50	80	100	120
a,a-Dimethhylphenethylamine		10	20	40	50	80	100	120
Triethylphosphorothioate		10	20	40	50	80	100	120
2,6-Dichlorophenol		10	20	40	50	80	100	120
Hexachloropropene		10	20	40	50	80	100	120
p-Phenylenediamine		10	20	40	50	80	100	120
N-Nitrosodi-n-butylamine		10	20	40	50	80	100	120
Safrole		10	20	40	50	80	100	120
1,2,4,5-Tetrachlorobenzene		10	20	40	50	80	100	120
Isosafrole		10	20	40	50	80	100	120
1,4-Naphthoquinone		10	20	40	50	80	100	120
m-Dinitrobenzene		10	20	40	50	80	100	120
Pentachlorobenzene		10	20	40	50	80	100	120
1-Naphthylamine		10	20	40	50	80	100	120
2-Naphthylamine		10	20	40	50	80	100	120
2,3,4,6-Tetrachlorophenol		10	20	40	50	80	100	120
5-Nitro-o-toluidine		10	20	40	50	80	100	120
Thionazin		10	20	40	50	80	100	120
Sulfotepp		10	20	40	50	80	100	120
Phorate		10	20	40	50	80	100	120
1,3,5-Trinitrobenzene		10	20	40	50	80	100	120
Phenacetin		10	20	40	50	80	100	120
Diallate (cis and trans)		10	20	40	50	80	100	120

SW846 8270C//8270D/EPA 625

Calibration Standard Concentration Levels*

	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Dimethoate		10	20	40	50	80	100	120
4-Aminobiphenyl		10	20	40	50	80	100	120
Pentachloronitrobenzene		10	20	40	50	80	100	120
Pronamide		10	20	40	50	80	100	120
Dinoseb		10	20	40	50	80	100	120
Disulfoton		10	20	40	50	80	100	120
Methyl parathion		10	20	40	50	80	100	120
4-Nitroquinoline oxide		10	20	40	50	80	100	120
Methapyrilene		10	20	40	50	80	100	120
Isodrin		10	20	40	50	80	100	120
Aramite		10	20	40	50	80	100	120
Kepone		10	20	40	50	80	100	120
p-(Dimethylamino)azobenzene		10	20	40	50	80	100	120

Chlorobenzilate		10	20	40	50	80	100	120
3,3'-Dimethylbenzidine		10	20	40	50	80	100	120
Famphur		10	20	40	50	80	100	120
2-Acetylaminofluorene		10	20	40	50	80	100	120
7,12-Dimethylbenz(a)anthracene		10	20	40	50	80	100	120
3-Methylcholanthrene		10	20	40	50	80	100	120
Hexachlorophene		500	1000	1250	1500	1750	2000	
p-Benzoquinone		10	20	40	50	80	100	120
Parathion		10	20	40	50	80	100	120
Methoxychlor		10	20	40	50	80	100	120
2-Ethoxyethanol		50	75	100	125	150	200	250
cis-Diallate		1.5	3	6	7.5	12	15	18
trans-Diallate		8.5	17	34	42	68	85	102
Dibenzo(a,e)pyrene		50	75	100	125	150	200	250
Phthalic anhydride		50	75	100	125	150	200	250
1,4-Dinitrobenzene		50	75	100	125	150	200	250
(2,3-Dibromopropyl)phosphate		50	75	100	125	150	200	250
Methylenebis(2-chloroaniline)		50	75	100	125	150	200	250
p-Toluidine		10	20	40	50	80	100	120
m-Toluidine		10	20	40	50	80	10	120

SW846 8270C//8270D/EPA 625								
Calibration Standard Concentration Levels*								
	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
bis(Chloromethyl)ether		10	20	40	50	80	100	120
Thiophenol		10	20	40	50	80	100	120
4-Chlorothiophenol		10	20	40	50	80	100	120
4-Chlorothio anisole		10	20	40	50	80	100	120
Phthalic acid		10	20	40	50	80	100	120
Hydroxymethyl phthalamide		10	20	40	50	80	100	120
Diphenyl sulfide		10	20	40	50	80	100	120
Diphenyl disulfide		10	20	40	50	80	100	120
Phenyl sulfone		10	20	40	50	80	100	120
Octachlorostyrene		10	20	40	50	80	100	120
2,2'-Dichlorobenzil		10	20	40	50	80	100	120
bis(p-Chlorophenyl)disulfide		10	20	40	50	80	100	120
bis(p-Chlorophenyl)sulfone		10	20	40	50	80	10	120

All values are mg/L without the prep factor.
# Indicates the calibration verification concentration level used
* Usual calibration levels using SCAN methodology
Level 1 may be included at request of client
(06/08)

Report Date: 17-Dec-2009 08:12

Calibration History

Method : /chem/MSD6.i/s121609.b/MSD6-M8270C-AQA-110909.m
Start Cal Date: 09-NOV-2009 18:53
End Cal Date : 11-NOV-2009 04:38

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 1.00000		
09-NOV-2009 18:53	MEGA	/chem/MSD6.i/s110909.b/s6k0913.d
Cal Level: 2 , Cal Amount: 10.00000		
11-NOV-2009 01:47	NEV	/chem/MSD6.i/s110909.b/s6k0948.d
10-NOV-2009 22:55	HEX	/chem/MSD6.i/s110909.b/s6k0942.d
10-NOV-2009 16:20	PEST	/chem/MSD6.i/s110909.b/s6k0930.d
10-NOV-2009 11:59	AP12	/chem/MSD6.i/s110909.b/s6k0923.d
09-NOV-2009 19:31	MEGA	/chem/MSD6.i/s110909.b/s6k0914.d
Cal Level: 3 , Cal Amount: 20.00000		
11-NOV-2009 02:16	NEV	/chem/MSD6.i/s110909.b/s6k0949.d
10-NOV-2009 23:24	HEX	/chem/MSD6.i/s110909.b/s6k0943.d
10-NOV-2009 16:56	PEST	/chem/MSD6.i/s110909.b/s6k0931.d
10-NOV-2009 12:36	AP12	/chem/MSD6.i/s110909.b/s6k0924.d
09-NOV-2009 20:09	MEGA	/chem/MSD6.i/s110909.b/s6k0915.d
Cal Level: 4 , Cal Amount: 40.00000		
11-NOV-2009 02:44	NEV	/chem/MSD6.i/s110909.b/s6k0950.d
10-NOV-2009 23:53	HEX	/chem/MSD6.i/s110909.b/s6k0944.d
10-NOV-2009 17:33	PEST	/chem/MSD6.i/s110909.b/s6k0932.d
10-NOV-2009 13:13	AP12	/chem/MSD6.i/s110909.b/s6k0925.d
09-NOV-2009 20:46	MEGA	/chem/MSD6.i/s110909.b/s6k0916.d
Cal Level: 5 , Cal Amount: 50.00000		
11-NOV-2009 03:12	NEV	/chem/MSD6.i/s110909.b/s6k0951.d
11-NOV-2009 00:21	HEX	/chem/MSD6.i/s110909.b/s6k0945.d
10-NOV-2009 18:09	PEST	/chem/MSD6.i/s110909.b/s6k0933.d
10-NOV-2009 13:51	AP12	/chem/MSD6.i/s110909.b/s6k0926.d
09-NOV-2009 21:25	MEGA	/chem/MSD6.i/s110909.b/s6k0917.d
Cal Level: 6 , Cal Amount: 80.00000		
11-NOV-2009 03:41	NEV	/chem/MSD6.i/s110909.b/s6k0952.d
11-NOV-2009 00:50	HEX	/chem/MSD6.i/s110909.b/s6k0946.d
10-NOV-2009 18:45	PEST	/chem/MSD6.i/s110909.b/s6k0934.d
10-NOV-2009 14:30	AP12	/chem/MSD6.i/s110909.b/s6k0927.d
09-NOV-2009 22:01	MEGA	/chem/MSD6.i/s110909.b/s6k0918.d
Cal Level: 7 , Cal Amount: 100.00000		

11-NOV-2009 04:10	NEV	/chem/MSD6.i/s110909.b/s6k0953.d
11-NOV-2009 01:18	HEX	/chem/MSD6.i/s110909.b/s6k0947.d
10-NOV-2009 19:21	PEST	/chem/MSD6.i/s110909.b/s6k0935.d
10-NOV-2009 15:06	AP12	/chem/MSD6.i/s110909.b/s6k0928.d
09-NOV-2009 22:39	MEGA	/chem/MSD6.i/s110909.b/s6k0919.d

Cal Level: 8 , Cal Amount: 120.00000		
11-NOV-2009 04:38	NEV	/chem/MSD6.i/s110909.b/s6k0954.d
10-NOV-2009 19:58	PEST	/chem/MSD6.i/s110909.b/s6k0936.d
10-NOV-2009 15:43	AP12	/chem/MSD6.i/s110909.b/s6k0929.d
09-NOV-2009 23:16	MEGA	/chem/MSD6.i/s110909.b/s6k0920.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 40.0		
16-DEC-2009 14:18	MEGA	/chem/MSD6.i/s121609.b/s6l1611.d
Ccal Level: 4 , Ccal Amount: 40.0		
16-DEC-2009 14:46	AP12	/chem/MSD6.i/s121609.b/s6l1612.d
Ccal Level: 4 , Ccal Amount: 40.0		
16-DEC-2009 11:57	AP12	/chem/MSD6.i/s121609.b/s6l1607.d
Ccal Level: 4 , Ccal Amount: 40.0		
16-DEC-2009 12:53	PEST	/chem/MSD6.i/s121609.b/s6l1609.d
Ccal Level: 4 , Ccal Amount: 40.0		
16-DEC-2009 12:25	MEGA	/chem/MSD6.i/s121609.b/s6l1608.d
Ccal Level: 4 , Ccal Amount: 40.0		
16-DEC-2009 11:28	MEGA	/chem/MSD6.i/s121609.b/s6l1606.d
Ccal Level: 4 , Ccal Amount: 40.0		
16-DEC-2009 09:38	MEGA	/chem/MSD6.i/s121609.b/s6l1604.d
Ccal Level: 4 , Ccal Amount: 40.0		
16-DEC-2009 08:47	MEGA	/chem/MSD6.i/s121609.b/s6l1602.d

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 09-NOV-2009 18:53
End Cal Date : 11-NOV-2009 04:38
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD6.i/s121609.b/MSD6-M8270C-AQA-110909.m
Cal Date : 17-Dec-2009 08:11 nat00999

Calibration File Names:
Level 1: /chem/MSD6.i/s110909.b/s6k0913.d
Level 2: /chem/MSD6.i/s110909.b/s6k0948.d
Level 3: /chem/MSD6.i/s110909.b/s6k0949.d
Level 4: /chem/MSD6.i/s110909.b/s6k0950.d
Level 5: /chem/MSD6.i/s110909.b/s6k0951.d
Level 6: /chem/MSD6.i/s110909.b/s6k0952.d
Level 7: /chem/MSD6.i/s110909.b/s6k0953.d
Level 8: /chem/MSD6.i/s110909.b/s6k0954.d

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
1 N-Methyl-N-nitrosomethylamine	+++++	0.62711	0.72014	0.69994	0.71294	0.67761					
	0.66245	0.66663					AVRG		0.68098		4.78734
2 Pyridine	+++++	0.78506	0.84345	0.94451	0.94132	0.77430					
	0.82190	0.82246					AVRG		0.84757		8.16958
4 Aniline	+++++	0.51792	0.56281	0.52949	0.53182	0.51964					
	0.51849	0.51247					AVRG		0.52752		3.21865
209 Benzaldehyde	+++++	0.94297	0.91161	0.92064	0.86617	0.84259					
	0.79828	0.74667					AVRG		0.86127		8.23824
6 Phenol	+++++	1.29580	1.38609	1.27955	1.27629	1.24279					
	1.20107	1.21677					AVRG		1.27120		4.82676

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INITIAL CALIBRATION DATA

Start Cal Date : 09-NOV-2009 18:53
End Cal Date : 11-NOV-2009 04:38
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD6.i/s121609.b/MSD6-M8270C-AQA-110909.m
Cal Date : 17-Dec-2009 08:11 nat00999

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
7 bis(2-Chloroethyl) ether	0.93365	0.90056	0.92748	0.85273	0.86174	0.82247					
	0.79075	0.79709					AVRG		0.86081		6.48811
8 2-Chlorophenol	+++++	1.05270	1.10343	1.04994	1.05384	0.99340					
	0.95375	0.94058					AVRG		1.02109		5.85808
203 n-Decane	+++++	1.57696	1.59018	1.40648	1.36249	1.17658					
	+++++	+++++					AVRG		1.42254		11.98709
9 1,3-Dichlorobenzene	+++++	1.22415	1.27608	1.20806	1.21136	1.14335					
	1.08668	1.07881					AVRG		1.17550		6.31837
11 1,4-Dichlorobenzene	+++++	1.27202	1.32037	1.21925	1.20743	1.15141					
	1.09639	1.07447					AVRG		1.19162		7.54222
12 Benzyl alcohol	+++++	0.60900	0.65716	0.63043	0.62465	0.64143					
	0.63021	0.64767					AVRG		0.63436		2.50657
13 1,2-Dichlorobenzene	+++++	1.16666	1.21707	1.13327	1.12016	1.08966					
	1.03460	1.02472					AVRG		1.11231		6.21300
14 bis(2-Chloroisopropyl)ether	+++++	2.07635	2.13325	1.99088	1.97675	1.86028					
	1.72252	1.69272					AVRG		1.92182		8.81925
15 o-Cresol	+++++	0.82992	0.88629	0.84024	0.85639	0.80893					
	0.80386	0.79407					AVRG		0.83139		3.92027

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
16 Acetophenone	+++++	1.20921	1.17591	1.21168	1.15285	1.16925					
	1.13524	1.12939					AVRG		1.16908		2.80572
17 N-Nitrosodipropylamine	0.65638	0.74117	0.78851	0.72893	0.73002	0.72328					
	0.70725	0.59369					AVRG		0.70865		8.34285
18 m,p-Cresols	+++++	1.03591	1.12590	1.04958	1.05532	1.04720					
	1.02399	1.03632					AVRG		1.05346		3.18987
19 Hexachloroethane	+++++	0.45806	0.49524	0.47390	0.46960	0.45628					
	0.43995	0.43396					AVRG		0.46100		4.53111
21 Nitrobenzene	+++++	0.31691	0.32516	0.29885	0.29715	0.27038					
	0.24823	0.23966					AVRG		0.28519		11.62250
22 Isophorone	+++++	0.55891	0.57824	0.53268	0.53266	0.49425					
	0.45829	0.38358					AVRG		0.50552		13.23015
23 2-Nitrophenol	+++++	0.13453	0.14214	0.13601	0.13806	0.12888					
	0.12072	0.12047					AVRG		0.13154		6.43934
24 2,4-Dimethylphenol	+++++	0.23987	0.22536	0.21067	0.20421	0.21065					
	0.21868	0.21622					AVRG		0.21795		5.40955
25 bis(2-Chloroethoxy)methane	+++++	0.33208	0.34147	0.30906	0.30442	0.28195					
	0.26036	0.25310					AVRG		0.29749		11.40063

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
26 2,4-Dichlorophenol	+++++	0.19875	0.21444	0.20921	0.20622	0.19391					
	0.18142	0.17985					AVRG		0.19769		6.80078
27 Benzoic acid	+++++	+++++	0.10585	0.12338	0.14032	0.14157					
	0.15049	0.14556					AVRG		0.13453		12.46641
28 1,2,4-Trichlorobenzene	+++++	0.27809	0.27557	0.25214	0.25046	0.22876					
	0.21050	0.20278					AVRG		0.24261		12.25857
30 Naphthalene	0.93577	0.85146	0.85267	0.76017	0.74029	0.64713					
	+++++	+++++					AVRG		0.79792		12.82401
204 alpha-Terpineol	+++++	0.23577	0.25490	0.22003	0.21987	0.20427					
	0.17723	+++++					AVRG		0.21868		12.15593
31 4-Chloroaniline	+++++	0.26389	0.28196	0.26991	0.26064	0.24995					
	0.23771	0.23114					AVRG		0.25646		7.00922
189 Caprolactam	+++++	0.06766	0.07272	0.08214	0.08102	0.07115					
	0.07075	0.07172					AVRG		0.07388		7.43636
32 Hexachlorobutadiene	+++++	0.14265	0.14557	0.13182	0.13097	0.11864					
	0.10931	0.10542					AVRG		0.12634		12.40746
33 4-Chloro-3-methylphenol	+++++	0.20824	0.22585	0.20971	0.20633	0.19424					
	0.17957	0.17303					AVRG		0.19957		9.25582

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
34 2-Methylnaphthalene	0.56779	0.53746	0.54769	0.49857	0.47476	0.43707					
	0.39981	0.38884					AVRG		0.48150		14.15789
35 1-Methylnaphthalene	0.55872	0.52838	0.53208	0.48366	0.46920	0.42612					
	0.38935	0.38051					AVRG		0.47100		14.29869
36 Hexachlorocyclopentadiene	+++++	0.13520	0.17775	0.15114	0.16219	0.15378					
	0.18308	0.16783					AVRG		0.16157		10.19735
208 1,1'-Biphenyl	+++++	1.32152	1.23439	1.25731	1.19710	1.16580					
	1.12776	1.10528					AVRG		1.20131		6.32036
205 2,3-Dichloroaniline	+++++	0.51880	0.53286	0.48272	0.49159	0.46096					
	0.42997	0.43664					AVRG		0.47908		8.16477
37 2,4,6-Trichlorophenol	+++++	0.27570	0.29634	0.28058	0.28008	0.26989					
	0.25242	0.25556					AVRG		0.27294		5.58990
38 2,4,5-Trichlorophenol	+++++	0.28031	0.30282	0.29443	0.29832	0.29160					
	0.28523	0.28197					AVRG		0.29067		2.92500
40 2-Chloronaphthalene	0.91208	0.94921	0.97975	0.90835	0.91949	0.87198					
	0.81926	0.82647					AVRG		0.89832		6.24992
42 o-Nitroaniline	+++++	0.28653	0.32807	0.30812	0.31848	0.31056					
	0.29539	0.30412					AVRG		0.30732		4.50651

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
41 m-Nitroaniline	+++++	0.19029	0.23187	0.23025	0.23197	0.23511					
	0.22216	0.23314					AVRG		0.22497		7.03906
43 Dimethylphthalate	+++++	1.10253	1.11895	1.05121	1.05401	1.01311					
	0.95493	0.88796					AVRG		1.02610		7.97599
44 2,6-Dinitrotoluene	+++++	0.24859	0.25869	0.24751	0.24771	0.24514					
	0.22903	0.23656					AVRG		0.24475		3.87474
45 Acenaphthylene	1.45077	1.53234	1.59736	1.47314	1.47686	1.41153					
	1.30118	1.31187					AVRG		1.44438		7.03164
47 Acenaphthene	0.97754	0.93463	0.97051	0.90906	0.90733	0.85875					
	0.82122	0.83304					AVRG		0.90151		6.58830
48 2,4-Dinitrophenol	+++++	+++++	15920	45695	60199	121040					
	185455	+++++					LINR	0.36255	0.13077		0.99262
49 Dibenzofuran	+++++	1.31036	1.35172	1.24091	1.23630	1.17505					
	1.09035	1.11352					AVRG		1.21689		7.96140
50 2,4-Dinitrotoluene	+++++	0.28688	0.32526	0.31392	0.31582	0.31468					
	0.30077	0.30301					AVRG		0.30862		4.09740
51 Diethylphthalate	+++++	1.08427	1.13193	1.06273	1.05585	1.00787					
	0.93441	0.95637					AVRG		1.03335		6.84784

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
52 4-Nitrophenol	+++++	12277	40572	90802	114423	208122					
	294363	379687					LINR	0.18209	0.20146		0.99664
53 Fluorene	1.06940	1.05468	1.10259	1.00777	1.00699	0.94775					
	0.89677	0.90440					AVRG		0.99879		7.65829
54 4-Chlorophenylphenylether	+++++	0.49941	0.52344	0.48539	0.48490	0.45443					
	0.43029	0.42560					AVRG		0.47192		7.71070
55 2-Methyl-4,6-dinitrophenol	+++++	9251	34357	85168	107219	199515					
	279188	346834					LINR	0.17722	0.10780		0.99957
56 p-Nitroaniline	+++++	18297	49968	114446	144020	267165					
	377942	477974					LINR	0.17663	0.25514		0.99741
133 Diphenylamine	+++++	0.51235	0.51279	0.48995	0.49110	0.46341					
	0.45142	0.45392					AVRG		0.48213		5.41113
58 1,2-Diphenylhydrazine	+++++	0.65288	0.67935	0.62730	0.62752	0.58724					
	0.56393	0.55466					AVRG		0.61327		7.55575
59 Tributylphosphate	+++++	1.19922	1.25332	1.24022	1.27997	1.24188					
	1.19433	1.14050					AVRG		1.22135		3.81011
61 4-Bromophenylphenylether	+++++	0.16321	0.16758	0.15949	0.16092	0.15366					
	0.14977	0.15022					AVRG		0.15784		4.30183

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
63 Hexachlorobenzene	+++++	0.17072	0.17525	0.16702	0.16690	0.16190					
	0.15730	0.15822					AVRG		0.16533		3.97990
207 Atrazine	+++++	0.04466	0.04316	0.04336	0.04050	0.04104					
	0.03746	0.03425					AVRG		0.04063		9.04410
65 Pentachlorophenol	+++++	12427	38945	80211	100581	192628					
	259470	326879					LINR	0.13427	0.09964		0.99838
206 n-Octadecane	+++++	0.51627	0.51598	0.45832	0.46068	0.40718					
	0.37377	0.35992					AVRG		0.44173		14.37986
68 Phenanthrene	0.95060	0.88603	0.89746	0.83221	0.81673	0.77346					
	0.73349	0.72773					AVRG		0.82721		9.72714
69 Anthracene	0.87683	0.86194	0.90534	0.83970	0.83829	0.78921					
	0.75133	0.75196					AVRG		0.82682		6.91971
72 Di-n-butylphthalate	+++++	1.00113	1.04654	0.99105	0.98676	0.92173					
	0.85606	0.84350					AVRG		0.94954		8.15043
76 Fluoranthene	0.78392	0.79487	0.87026	0.82674	0.81613	0.77420					
	0.73596	0.73727					AVRG		0.79242		5.73137
77 Benzidine	+++++	0.35813	0.40641	0.39242	0.37729	0.37701					
	0.39765	0.44234					AVRG		0.39304		6.85454

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
79 Pyrene	1.12114	1.31021	1.22539	1.10007	1.11660	1.02083					
	0.96007	0.94734					AVRG		1.10021		11.38295
85 Butylbenzylphthalate	+++++	0.52543	0.54028	0.51608	0.52406	0.49119					
	0.46906	0.45845					AVRG		0.50351		6.16544
89 Benzo(a)anthracene	0.94221	0.85505	0.89830	0.85692	0.85716	0.83423					
	0.82127	0.83891					AVRG		0.86301		4.55256
90 3,3'-Dichlorobenzidine	+++++	0.23529	0.28074	0.29290	0.29384	0.28532					
	0.28779	0.30173					AVRG		0.28252		7.74710
92 Chrysene	0.87195	0.83557	0.87346	0.82487	0.82639	0.80729					
	0.78155	0.79409					AVRG		0.82690		4.03552
93 bis(2-Ethylhexyl)phthalate	7340	107837	270739	551016	645048	1078889					
	1389660	1700943					WLINR	0.01019	0.70092		0.99014
94 Di-n-octylphthalate	+++++	1.19610	1.35485	1.31605	1.35770	1.25055					
	1.27306	1.15060					AVRG		1.27127		6.18607
95 Benzo(b)fluoranthene	0.74161	0.85750	0.94279	0.90432	0.93361	0.89239					
	0.89332	0.91506					AVRG		0.88507		7.19928
96 Benzo(k)fluoranthene	0.73172	0.86857	0.95518	0.92430	0.92244	0.89945					
	0.88010	0.85909					AVRG		0.88011		7.72381

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Compound	1 Level 1 100 Level 7	10 Level 2 120 Level 8	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
97 Benzo(a)pyrene	0.54179	0.70605	0.81133	0.81358	0.82559	0.80913					
	0.80179	0.80647					AVRG		0.76447		12.74919
99 Indeno(1,2,3-cd)pyrene	5888	60939	200863	402882	510813	1012558					
	1348903	1889688					LINR	0.07592	0.78768		0.99752
100 Dibenzo(a,h)anthracene	3385	46770	157194	361792	411532	815285					
	1094612	1529825					LINR	0.06768	0.63666		0.99908
101 Benzo(ghi)perylene	0.41694	0.53228	0.60870	0.60962	0.60436	0.63133					
	0.62968	0.63931					AVRG		0.58403		12.88683
102 1,4-Dioxane	+++++	0.37671	0.37043	0.39061	0.37803	0.36375					
	0.35237	0.33052					AVRG		0.36606		5.38827
103 Methyl methacrylate	+++++	0.19626	0.19646	0.20436	0.20625	0.18540					
	0.18964	0.17876					AVRG		0.19388		5.13081
104 Ethyl methacrylate	+++++	0.79650	0.81191	0.84398	0.82898	0.80568					
	0.79571	0.75648					AVRG		0.80561		3.45659
105 2-Picoline	+++++	1.39124	1.31746	1.36987	1.31904	1.28927					
	1.27506	1.19912					AVRG		1.30872		4.85814
106 N-Nitrosomethylethylamine	+++++	0.50512	0.48970	0.52453	0.49928	0.51969					
	0.51463	0.52429					AVRG		0.51104		2.61826

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
107 Methyl methanesulfonate	+++++	0.56429	0.53321	0.56316	0.50377	0.53102					
	0.50923	0.49498					AVRG		0.52852		5.24900
108 N-Nitrosodiethylamine	+++++	0.50310	0.47987	0.51154	0.48534	0.49862					
	0.49304	0.49722					AVRG		0.49553		2.15019
109 Ethyl Methanesulfonate	+++++	0.65808	0.64977	0.67344	0.62747	0.66045					
	0.64399	0.64860					AVRG		0.65169		2.21442
110 Pentachloroethane	+++++	0.32209	0.31386	0.33094	0.32010	0.31614					
	0.31148	0.30303					AVRG		0.31681		2.78134
111 N-Nitrosopyrrolidine	+++++	0.44182	0.46376	0.50830	0.47779	0.50143					
	0.49385	0.44600					AVRG		0.47614		5.57640
113 N-Nitrosomorpholine	+++++	0.71032	0.67134	0.71256	0.65887	0.68726					
	0.65974	0.65547					AVRG		0.67936		3.58698
114 o-Toluidine	+++++	1.74797	1.65530	1.71709	1.64005	1.64679					
	1.58070	1.58178					AVRG		1.65281		3.79762
115 N-Nitrosopiperidine	+++++	0.13834	0.13623	0.14736	0.13885	0.14290					
	0.13997	0.14373					AVRG		0.14105		2.69891
116 a,a-Dimethylphenethylamine	+++++	0.78770	0.81587	0.88476	0.87463	0.88336					
	0.86623	0.87565					AVRG		0.85546		4.44785

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 09-NOV-2009 18:53
End Cal Date : 11-NOV-2009 04:38
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD6.i/s121609.b/MSD6-M8270C-AQA-110909.m
Cal Date : 17-Dec-2009 08:11 nat00999

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
117 Triethylphosphorothioate	+++++	0.14741	0.14492	0.13783	0.14116	0.13439					
	0.12857	0.12370					AVRG		0.13685		6.28357
118 2,6-Dichlorophenol	+++++	0.19682	0.19992	0.21240	0.20960	0.21251					
	0.20568	0.21118					AVRG		0.20687		3.05257
119 Hexachloropropene	+++++	0.08644	0.09499	0.10791	0.10350	0.10830					
	0.10654	0.11112					AVRG		0.10269		8.60612
120 p-Phenylenediamine	+++++	0.19714	0.24091	0.25567	0.24421	0.23168					
	0.22043	0.21678					AVRG		0.22955		8.57933
121 N-Nitrosodi-n-butylamine	+++++	0.22447	0.22501	0.22216	0.21154	0.19839					
	0.19348	0.19524					AVRG		0.21004		6.76180
122 Safrole	+++++	0.18675	0.18585	0.19677	0.19040	0.18675					
	0.17956	0.17958					AVRG		0.18653		3.22597
123 1,2,4,5-Tetrachlorobenzene	+++++	0.45393	0.42422	0.44255	0.41650	0.41676					
	0.40609	0.40229					AVRG		0.42319		4.45863
124 Isosafrole	+++++	0.34011	0.33198	0.35164	0.33779	0.34233					
	0.33627	0.33702					AVRG		0.33959		1.83025
125 1,4-Naphthoquinone	+++++	0.30018	0.32824	0.34894	0.32634	0.29745					
	0.28366	0.26235					AVRG		0.30674		9.65282

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
126 m-Dinitrobenzene	+++++	0.15441	0.17500	0.17160	0.17355	0.17392					
	0.16754	0.16904					AVRG		0.16929		4.19006
127 Pentachlorobenzene	+++++	0.38426	0.36575	0.37736	0.36552	0.35674					
	0.35182	0.35035					AVRG		0.36454		3.50537
128 1-Naphthylamine	+++++	0.90674	0.92102	0.95184	0.91692	0.90718					
	0.86367	0.88454					AVRG		0.90742		3.07978
129 2-Naphthylamine	+++++	0.96578	1.00999	1.02440	0.99125	0.97953					
	0.93471	0.95520					AVRG		0.98012		3.19024
130 2,3,4,6-Tetrachlorophenol	+++++	0.20640	0.23481	0.21862	0.21374	0.22201					
	0.21460	0.22254					AVRG		0.21896		4.07356
131 5-Nitro-o-toluidine	+++++	0.22084	0.26615	0.28994	0.29013	0.29251					
	0.28841	0.30508					AVRG		0.27901		10.07623
132 Thionazin	+++++	0.16760	0.17396	0.17237	0.17849	0.17822					
	0.16987	0.16398					AVRG		0.17207		3.11896
134 Sulfotepp	+++++	0.08934	0.08802	0.08507	0.08886	0.08655					
	0.08265	0.08005					AVRG		0.08579		4.00843
135 Phorate	+++++	0.38230	0.38968	0.37391	0.38904	0.37359					
	0.35020	0.32660					AVRG		0.36933		6.25438

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
136 1,3,5-Trinitrobenzene	+++++	14861	45341	104071	130665	222134					
	265730	408609					LINR	0.09141	0.12978		0.99734
137 Phenacetin	+++++	0.21732	0.25812	0.27209	0.26902	0.27044					
	0.26738	0.28241					AVRG		0.26240		8.05167
138 Diallate	+++++	0.26191	0.24374	0.25182	0.23998	0.23522					
	0.22716	0.22410					AVRG		0.24056		5.55643
139 Dimethoate	+++++	0.18955	0.19806	0.21061	0.22946	0.23158					
	0.22398	0.21950					AVRG		0.21468		7.45885
140 4-Aminobiphenyl	+++++	0.50489	0.50584	0.54599	0.56556	0.56494					
	0.53276	0.52934					AVRG		0.53562		4.66298
141 Pentachloronitrobenzene	+++++	0.06195	0.06081	0.06546	0.06329	0.06151					
	0.06084	0.05959					AVRG		0.06192		3.12402
142 Pronamide	+++++	0.26962	0.26582	0.27431	0.26759	0.26151					
	0.25173	0.25174					AVRG		0.26319		3.31411
143 Dinoseb	+++++	11996	47856	123552	154632	280906					
	375481	479562					LINR	0.15482	0.14736		0.99949
144 Disulfoton	+++++	0.31933	0.32969	0.31920	0.32975	0.31125					
	0.29624	0.27823					AVRG		0.31196		6.02930

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
145 Methyl parathion	+++++	0.14493	0.15978	0.17270	0.18140	0.18775					
	0.18141	0.17864					AVRG		0.17237		8.70434
146 4-Nitroquinoline-1-oxide	+++++	0.02012	0.03296	0.02700	0.02533	0.02224					
	0.01930	0.01750					AVRG		0.02349		22.76469 <-
147 Methapyrilene	+++++	0.40623	0.42209	0.41103	0.39768	0.37937					
	0.35132	0.33430					AVRG		0.38600		8.45747
148 Isodrin	+++++	0.10136	0.09753	0.10130	0.09757	0.09481					
	0.09122	0.09037					AVRG		0.09631		4.58453
149 Aramite	+++++	0.03841	0.04251	0.04600	0.04566	0.04690					
	0.04564	0.04428					AVRG		0.04420		6.60357
150 Kepone	+++++	0.05674	0.06191	0.06311	0.06098	0.06085					
	0.06194	0.06656					AVRG		0.06173		4.75009
151 p-(Dimethylamino)azobenzene	+++++	0.31224	0.31378	0.33288	0.32474	0.31931					
	0.31446	0.30396					AVRG		0.31734		2.95033
152 Chlorobenzilate	+++++	0.30009	0.27506	0.30295	0.29512	0.29377					
	0.29203	0.28006					AVRG		0.29130		3.50189
153 3,3'-Dimethylbenzidine	+++++	0.49489	0.52397	0.53487	0.52482	0.53397					
	0.53619	0.54473					AVRG		0.52763		3.04743

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
154 Famphur	+++++	0.28850	0.33742	0.33640	0.36516	0.37704					
	0.35655	0.33317					AVRG		0.34203		8.41381
155 2-Acetylaminofluorene	+++++	23996	98558	217618	290992	478700					
	598627	953419					LINR	0.12414	0.37309		0.99874
157 7,12Dimethylbenz(a)anthracene	+++++	0.45745	0.44941	0.48919	0.48420	0.49542					
	0.49422	0.48353					AVRG		0.47906		3.80416
158 3-Methylcholanthrene	+++++	0.29343	0.35502	0.37871	0.37695	0.38953					
	0.38995	0.40328					AVRG		0.36955		9.94080
26 Phthalic anhydride	+++++	10939	40864	83487	108159	203846					
	306459	+++++					LINR	0.14938	0.39004		0.99590
173 Carbazole	0.68572	0.63216	0.65059	0.65023	0.64669	0.65901					
	0.65208	0.65947					AVRG		0.65449		2.32370
174 Hexachlorophene	+++++	0.04700	0.06194	0.06687	0.06701	0.06606					
	+++++	+++++					AVRG		0.06178		13.78238
179 Dibenzo(a,e)pyrene	+++++	21397	67635	183254	214017	467062					
	+++++	+++++					LINR	0.16800	0.36891		0.99459
185 (2,3-Dibromopropyl)phosphate	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+00		0.000e+00 <-

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Cal Date : 17-Dec-2009 08:11 nat00999

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
184 p-Benzoquinone	+++++	0.09983	0.11502	0.14598	0.13665	0.14571					
	0.12211	0.12583					AVRG		0.12730		13.25929
191 Parathion	+++++	0.05089	0.05709	0.06102	0.06360	0.06315					
	0.06253	0.06173					AVRG		0.06000		7.60183
192 Methoxychlor	+++++	0.54663	0.59527	0.57022	0.57190	0.55995					
	0.49223	0.53082					AVRG		0.55243		6.05482
210 m-Toluidine	+++++	1.07152	1.09862	1.08267	1.09477	1.19760					
	1.39731	0.92523					AVRG		1.12396		12.87193
211 p-Toluidine	+++++	0.98878	1.01175	0.93629	0.93823	0.84629					
	0.67790	+++++					AVRG		0.89987		13.64283
212 Cis Diallate	+++++	0.25680	0.24216	0.25774	0.25015	0.25647					
	0.24871	0.25860					AVRG		0.25295		2.41779
213 Trans Diallate	+++++	0.30813	0.28675	0.29626	0.28232	0.27673					
	0.26725	0.26364					AVRG		0.28301		5.55643
214 1,4-Dinitrobenzene	+++++	0.15465	0.18602	0.18671	0.19154	0.19074					
	0.18381	0.19324					AVRG		0.18382		7.23195
215 2-Ethoxyethanol	+++++	0.69474	0.75708	0.72314	0.72734	0.69576					
	0.68979	0.68463					AVRG		0.71035		3.71426

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
216 Methylenebis(2-chloroaniline)	+++++	11622	37526	94270	117296	226774					
	306702	394688					LINR	0.14094	0.14618		0.99920
229 2,2'-Dichlorobenzil	+++++	0.65548	0.70788	0.67278	+++++	0.85557					
	0.79635	+++++					AVRG		0.73761		11.58274
230 4-Chlorothioanisole	+++++	65505	120100	275307	+++++	727615					
	828249	+++++					LINR	0.13623	0.30665		0.99347
231 4-Chlorothiophenol	+++++	14955	49890	195788	+++++	593706					
	683100	+++++					LINR	0.29380	0.27176		0.99219
232 bis(p-Chlorophenyl)sulfone	+++++	0.41911	0.42098	0.38909	+++++	0.48605					
	0.44832	+++++					AVRG		0.43271		8.42306
233 bis(p-Chlorophenyl)disulfide	+++++	0.19644	0.20913	0.18244	+++++	0.22594					
	0.20806	+++++					AVRG		0.20440		7.90920
234 Diphenyl disulfide	+++++	0.20078	0.21401	0.19911	+++++	0.24759					
	0.23595	+++++					AVRG		0.21949		9.81334
235 Diphenyl sulfide	+++++	0.77537	0.76082	0.73538	+++++	0.86393					
	0.82035	+++++					AVRG		0.79117		6.45415
236 Phenyl sulfone	+++++	0.43220	0.43102	0.40994	+++++	0.50304					
	0.47114	+++++					AVRG		0.44947		8.28032

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	100 Level 7	120 Level 8										
237 Hydroxymethyl phthalimide	+++++	0.14671	0.15531	0.12673	+++++	0.19818						
	0.17963	+++++					AVRG		0.16131		17.36813	<-
238 Phthalic acid	+++++	13646	40994	115933	+++++	343308						
	402020	+++++					LINR	0.25337	0.15547		0.99358	
239 Thiophenol	+++++	41092	104698	327879	+++++	922601						
	1046955	+++++					LINR	0.23456	1.46946		0.99364	
240 bis(Chloromethyl)ether	+++++	1.01755	1.00429	0.94829	+++++	1.10480						
	1.05711	+++++					AVRG		1.02641		5.71407	
241 Octachlorostyrene	+++++	0.06097	0.06109	0.05953	+++++	0.07399						
	0.07072	+++++					AVRG		0.06526		10.12747	
M 225 Trichlorophenols	+++++	0.27800	0.29958	0.28751	0.28920	0.28074						
	0.26883	0.26877					AVRG		0.28180		3.98593	
M 226 Tetrachlorophenols	+++++	0.20640	0.23481	0.21862	0.21374	0.22201						
	0.21460	0.22254					AVRG		0.21896		4.07356	
M 227 Benzo(b,k)fluoranthene	0.73667	0.86303	0.94898	0.91431	0.92802	0.89592						
	0.88671	0.88707					AVRG		0.88259		7.33906	
M 228 TTO Sum Semivolatiles	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-

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	100 Level 7	120 Level 8									
$ 3 2-Fluorophenol	+++++	0.98202	1.07204	1.02934	1.03017	0.98830					
	0.95348	0.95648					AVRG		1.00169		4.36295
$ 5 Phenol-d5	+++++	1.23734	1.34586	1.27212	1.28456	1.26316					
	1.22407	1.22277					AVRG		1.26427		3.41674
$ 187 2-Chlorophenol-d4	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+00		0.000e+00 <-
$ 188 1,2-Dichlorobenzene-d4	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+00		0.000e+00 <-
$ 20 Nitrobenzene-d5	+++++	0.30745	0.31426	0.29453	0.29315	0.27101					
	0.25359	0.24671					AVRG		0.28296		9.27927
$ 39 2-Fluorobiphenyl	+++++	1.11512	1.14628	1.04977	1.05601	0.99136					
	0.92488	0.93239					AVRG		1.03083		8.29816
$ 60 2,4,6-Tribromophenol	+++++	0.10485	0.11685	0.11180	0.11267	0.12310					
	0.12190	0.12607					AVRG		0.11675		6.41378
$ 81 p-Terphenyl-d14	+++++	0.71309	0.69797	0.64349	0.66522	0.61764					
	0.59401	0.58404					AVRG		0.64507		7.73004

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Curve	Formula	Units
Averaged	Amt = Rsp/ml	Response
Linear	Amt = b + Rsp/ml	Response
Wt Linear	Amt = b + Rsp/ml	Response

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD6.i Injection Date: 10-NOV-2009 20:29
Lab File ID: s6k0937.d Init. Cal. Date(s): 09-NOV-2009 11-NOV-2009
Analysis Type: Init. Cal. Times: 18:53 04:38
Lab Sample ID: WBN091106-09.1 Quant Type: ISTD
Method: /chem/MSD6.i/s110909.b/MSD6-M8270C-AQA-110909.m

	COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
$	3 2-Fluorophenol	1.00169	1.03466	1.03466	0.000	3.29147	60.00000	Averaged	
$	5 Phenol-d5	1.26427	1.24245	1.24245	0.000	-1.72556	60.00000	Averaged	
$	20 Nitrobenzene-d5	0.28296	0.29902	0.29902	0.000	5.67523	60.00000	Averaged	
$	39 2-Fluorobiphenyl	1.03083	1.08174	1.08174	0.000	4.93820	60.00000	Averaged	
$	60 2,4,6-Tribromophenol	0.11675	0.12945	0.12945	0.000	10.88297	60.00000	Averaged	
$	81 p-Terphenyl-d14	0.64507	0.72359	0.72359	0.000	12.17316	60.00000	Averaged	
	1 N-Methyl-N-nitrosomethylami	0.68098	0.64081	0.64081	0.000	-5.89855	60.00000	Averaged	
	2 Pyridine	0.84757	0.77144	0.77144	0.000	-8.98267	60.00000	Averaged	
	4 Aniline	0.52752	0.51930	0.51930	0.000	-1.55765	60.00000	Averaged	
	6 Phenol	1.27120	1.23489	1.23489	0.001	-2.85632	20.00000	Averaged	ccc
	7 bis(2-Chloroethyl) ether	0.86081	0.80936	0.80936	0.000	-5.97614	60.00000	Averaged	
	8 2-Chlorophenol	1.02109	1.01772	1.01772	0.000	-0.32996	60.00000	Averaged	
	203 n-Decane	1.42254	1.44155	1.44155	0.000	1.33631	60.00000	Averaged	
	9 1,3-Dichlorobenzene	1.17550	1.19665	1.19665	0.000	1.79939	60.00000	Averaged	
	11 1,4-Dichlorobenzene	1.19162	1.18877	1.18877	0.001	-0.23932	20.00000	Averaged	ccc
	13 1,2-Dichlorobenzene	1.11231	1.12583	1.12583	0.000	1.21558	60.00000	Averaged	
	14 bis(2-Chloroisopropyl)ether	1.92182	1.94108	1.94108	0.000	1.00230	60.00000	Averaged	
	12 Benzyl alcohol	0.63436	0.65075	0.65075	0.000	2.58272	60.00000	Averaged	
	15 o-Cresol	0.83139	0.83798	0.83798	0.000	0.79318	60.00000	Averaged	
	18 m,p-Cresols	1.05346	1.05662	1.05662	0.000	0.29972	60.00000	Averaged	
	17 N-Nitrosodipropylamine	0.70865	0.69204	0.69204	0.050	-2.34415	60.00000	Averaged	spcc
	19 Hexachloroethane	0.46100	0.44650	0.44650	0.000	-3.14409	60.00000	Averaged	
	21 Nitrobenzene	0.28519	0.29957	0.29957	0.000	5.04113	60.00000	Averaged	
	22 Isophorone	0.50552	0.52435	0.52435	0.000	3.72478	60.00000	Averaged	
	23 2-Nitrophenol	0.13154	0.13639	0.13639	0.001	3.68222	20.00000	Averaged	ccc
	24 2,4-Dimethylphenol	0.21795	0.23088	0.23088	0.000	5.93159	60.00000	Averaged	
	25 bis(2-Chloroethoxy)methane	0.29749	0.30276	0.30276	0.000	1.77222	60.00000	Averaged	
	26 2,4-Dichlorophenol	0.19769	0.20590	0.20590	0.001	4.15386	20.00000	Averaged	ccc
	27 Benzoic acid	0.13453	0.14567	0.14567	0.000	8.28081	60.00000	Averaged	
	28 1,2,4-Trichlorobenzene	0.24261	0.24953	0.24953	0.000	2.85087	60.00000	Averaged	
	30 Naphthalene	0.79792	0.83170	0.83170	0.000	4.23406	60.00000	Averaged	
	204 alpha-Terpineol	0.21868	0.21801	0.21801	0.000	-0.30655	60.00000	Averaged	
	31 4-Chloroaniline	0.25646	0.26546	0.26546	0.000	3.51176	60.00000	Averaged	
	32 Hexachlorobutadiene	0.12634	0.13489	0.13489	0.001	6.77038	20.00000	Averaged	ccc
	33 4-Chloro-3-methylphenol	0.19957	0.20148	0.20148	0.001	0.96147	20.00000	Averaged	ccc
	34 2-Methylnaphthalene	0.48150	0.55976	0.55976	0.000	16.25394	60.00000	Averaged	

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD6.i Injection Date: 10-NOV-2009 20:29
Lab File ID: s6k0937.d Init. Cal. Date(s): 09-NOV-2009 11-NOV-2009
Analysis Type: Init. Cal. Times: 18:53 04:38
Lab Sample ID: WBN091106-09.1 Quant Type: ISTD
Method: /chem/MSD6.i/s110909.b/MSD6-M8270C-AQA-110909.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
35 1-Methylnaphthalene	0.47100	0.53047	0.53047	0.000	12.62514	60.00000	Averaged	
36 Hexachlorocyclopentadiene	0.16157	0.12441	0.12441	0.050	-22.99690	60.00000	Averaged	spcc
205 2,3-Dichloroaniline	0.47908	0.48878	0.48878	0.000	2.02564	60.00000	Averaged	
37 2,4,6-Trichlorophenol	0.27294	0.27425	0.27425	0.001	0.48093	20.00000	Averaged	ccc
38 2,4,5-Trichlorophenol	0.29067	0.30912	0.30912	0.000	6.34737	60.00000	Averaged	
40 2-Chloronaphthalene	0.89832	0.89821	0.89821	0.000	-0.01212	60.00000	Averaged	
42 o-Nitroaniline	0.30732	0.29883	0.29883	0.000	-2.76487	60.00000	Averaged	
41 m-Nitroaniline	0.22497	0.22544	0.22544	0.000	0.20968	60.00000	Averaged	
43 Dimethylphthalate	1.02610	1.07233	1.07233	0.000	4.50566	60.00000	Averaged	
44 2,6-Dinitrotoluene	0.24475	0.24571	0.24571	0.000	0.39287	60.00000	Averaged	
50 2,4-Dinitrotoluene	0.30862	0.32387	0.32387	0.000	4.94261	60.00000	Averaged	
45 Acenaphthylene	1.44438	1.60997	1.60997	0.000	11.46448	60.00000	Averaged	
47 Acenaphthene	0.90151	0.96315	0.96315	0.001	6.83729	20.00000	Averaged	ccc
48 2,4-Dinitrophenol	35.88405	40.00000	0.06990	0.050	-10.28987	60.00000	Linear	spcc
49 Dibenzofuran	1.21689	1.24464	1.24464	0.000	2.28092	60.00000	Averaged	
51 Diethylphthalate	1.03335	1.08103	1.08103	0.000	4.61479	60.00000	Averaged	
52 4-Nitrophenol	37.16907	40.00000	0.15052	0.050	-7.07733	60.00000	Linear	spcc
53 Fluorene	0.99879	1.09503	1.09503	0.000	9.63571	60.00000	Averaged	
54 4-Chlorophenylphenylether	0.47192	0.49481	0.49481	0.000	4.84948	60.00000	Averaged	
55 2-Methyl-4,6-dinitrophenol	44.79678	40.00000	0.10162	0.000	11.99194	60.00000	Linear	
56 p-Nitroaniline	37.18126	40.00000	0.19210	0.000	-7.04684	60.00000	Linear	
133 Diphenylamine	0.48213	0.48382	0.48382	0.001	0.34977	20.00000	Averaged	ccc
58 1,2-Diphenylhydrazine	0.61327	0.61966	0.61966	0.000	1.04277	60.00000	Averaged	
61 4-Bromophenylphenylether	0.15784	0.15705	0.15705	0.000	-0.50023	60.00000	Averaged	
63 Hexachlorobenzene	0.16533	0.16268	0.16268	0.000	-1.60406	60.00000	Averaged	
65 Pentachlorophenol	41.23337	40.00000	0.08933	0.001	3.08343	20.00000	Linear	ccc
206 n-Octadecane	0.44173	0.45929	0.45929	0.000	3.97491	60.00000	Averaged	
68 Phenanthrene	0.82721	0.88585	0.88585	0.000	7.08867	60.00000	Averaged	
69 Anthracene	0.82682	0.90991	0.90991	0.000	10.04830	60.00000	Averaged	
72 Di-n-butylphthalate	0.94954	1.02135	1.02135	0.000	7.56331	60.00000	Averaged	
76 Fluoranthene	0.79242	0.90654	0.90654	0.001	14.40110	20.00000	Averaged	ccc
79 Pyrene	1.10021	1.20816	1.20816	0.000	9.81213	60.00000	Averaged	
85 Butylbenzylphthalate	0.50351	0.54090	0.54090	0.000	7.42706	60.00000	Averaged	
89 Benzo(a)anthracene	0.86301	0.92157	0.92157	0.000	6.78546	60.00000	Averaged	
92 Chrysene	0.82690	0.90169	0.90169	0.000	9.04505	60.00000	Averaged	
93 bis(2-Ethylhexyl)phthalate	41.60196	40.00000	0.72185	0.000	4.00491	60.00000	Wt Linear	

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD6.i
Lab File ID: s6k0937.d
Analysis Type:
Lab Sample ID: WBN091106-09.1 Quant Type: ISTD
Method: /chem/MSD6.i/s110909.b/MSD6-M8270C-AQA-110909.m

Injection Date: 10-NOV-2009 20:29
Init. Cal. Date(s): 09-NOV-2009 11-NOV-2009
Init. Cal. Times: 18:53 04:38

	COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
	94 Di-n-octylphthalate	1.27127	1.35676	1.35676	0.001	6.72426	20.00000	Averaged	ccc
	95 Benzo(b)fluoranthene	0.88507	0.99154	0.99154	0.000	12.02912	60.00000	Averaged	
	96 Benzo(k)fluoranthene	0.88011	1.01364	1.01364	0.000	15.17242	60.00000	Averaged	
	97 Benzo(a)pyrene	0.76447	0.88080	0.88080	0.001	15.21790	20.00000	Averaged	ccc
	99 Indeno(1,2,3-cd)pyrene	40.05227	40.00000	0.72891	0.000	0.13069	60.00000	Linear	
	100 Dibenzo(a,h)anthracene	37.95723	40.00000	0.56106	0.000	-5.10692	60.00000	Linear	
	101 Benzo(ghi)perylene	0.58403	0.61594	0.61594	0.000	5.46367	60.00000	Averaged	
	126 m-Dinitrobenzene	0.16929	0.17081	0.17081	0.000	0.89311	60.00000	Averaged	
	130 2,3,4,6-Tetrachlorophenol	0.21896	0.23318	0.23318	0.000	6.49309	60.00000	Averaged	
	143 Dinoseb	37.88463	40.00000	0.11675	0.000	-5.28842	60.00000	Linear	
	173 Carbazole	0.65449	0.70032	0.70032	0.000	7.00193	60.00000	Averaged	
	184 p-Benzoquinone	0.12730	0.14364	0.14364	0.000	12.83157	60.00000	Averaged	
	192 Methoxychlor	0.55243	0.57593	0.57593	0.000	4.25434	60.00000	Averaged	
	211 p-Toluidine	0.89987	0.90823	0.90823	0.000	0.92871	60.00000	Averaged	
	210 m-Toluidine	1.12396	1.11262	1.11262	0.000	-1.00903	60.00000	Averaged	
	26 Phthalic anhydride	71.32284	40.00000	0.14710	0.000	78.30709	60.00000	Linear	<-
	179 Dibenzo(a,e)pyrene	23.04060	40.00000	0.15052	0.000	-42.39851	60.00000	Linear	
	214 1,4-Dinitrobenzene	0.18382	0.17485	0.17485	0.000	-4.87689	60.00000	Averaged	
	215 2-Ethoxyethanol	0.71035	0.75383	0.75383	0.000	6.12038	60.00000	Averaged	
	216 Methylenebis(2-chloroanilin	38.25405	40.00000	0.11920	0.000	-4.36487	60.00000	Linear	
M	225 Trichlorophenols	0.28180	0.29168	0.29168	0.000	3.50642	60.00000	Averaged	
M	226 Tetrachlorophenols	0.21896	0.23318	0.23318	0.000	6.49309	60.00000	Averaged	
M	227 Benzo(b,k)fluoranthene	0.88259	1.00259	1.00259	0.000	13.59635	60.00000	Averaged	

GEL Laboratories LLC

Data file : /chem/MSD6.i/s110909.b/s6k0937.d
Lab Smp Id: WBN091106-09.1 Client Smp ID: MEGAICV
Inj Date : 10-NOV-2009 20:29
Operator : JMB3 Inst ID: MSD6.i
Smp Info : |WBN091106-09.1|40 PPM|1|SVMF|1|MEGAICV
Misc Info : |MSD8270|WBN091106-10
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s110909.b/MSD6-M8270C-AQA-110909.m
Meth Date : 11-Nov-2009 10:50 nat00999 Quant Type: ISTD
Cal Date : 11-NOV-2009 02:44 Cal File: s6k0950.d
Als bottle: 17 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: MEGA.sub
Target Version: 3.50
Processing Host: hpclp1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	4.834	4.834	(1.000)	267857	40.0000	
* 29 Naphthalene-d8	136	6.116	6.116	(1.000)	1007489	40.0000	
* 46 Acenaphthene-d10	164	7.986	7.986	(1.000)	511035	40.0000	
* 67 Phenanthrene-d10	188	9.599	9.599	(1.000)	891521	40.0000	
* 91 Chrysene-d12	240	12.618	12.618	(1.000)	688764	40.0000	
* 98 Perylene-d12	264	14.955	14.955	(1.000)	524055	40.0000	
$ 3 2-Fluorophenol	112	3.646	3.646	(0.754)	277141	40.0000	41.3
$ 5 Phenol-d5	99	4.431	4.431	(0.917)	332800	40.0000	39.3
$ 20 Nitrobenzene-d5	82	5.371	5.371	(0.878)	301256	40.0000	42.3
$ 39 2-Fluorobiphenyl	172	7.242	7.242	(0.907)	552805	40.0000	42.0
$ 60 2,4,6-Tribromophenol	329	8.834	8.834	(1.106)	66156	40.0000	44.4
$ 81 p-Terphenyl-d14	244	11.306	11.306	(0.896)	498384	40.0000	44.9
1 N-Methyl-N-nitrosomethylamine	74	2.663	2.663	(0.551)	171645	40.0000	37.6
2 Pyridine	79	2.701	2.701	(0.559)	206635	40.0000	36.4
4 Aniline	66	4.518	4.518	(0.935)	139099	40.0000	39.4
6 Phenol	94	4.444	4.444	(0.919)	330773	40.0000	38.8
7 bis(2-Chloroethyl) ether	63	4.559	4.559	(0.943)	216794	40.0000	37.6
8 2-Chlorophenol	128	4.633	4.633	(0.958)	272604	40.0000	39.9
203 n-Decane	43	4.643	4.643	(0.960)	386128	40.0000	40.5
9 1,3-Dichlorobenzene	146	4.783	4.783	(0.989)	320531	40.0000	40.7
11 1,4-Dichlorobenzene	146	4.852	4.852	(1.004)	318420	40.0000	39.9
13 1,2-Dichlorobenzene	146	5.002	5.002	(1.035)	301561	40.0000	40.5
14 bis(2-Chloroisopropyl)ether	45	5.068	5.068	(1.048)	519933	40.0000	40.4
12 Benzyl alcohol	108	4.941	4.941	(1.022)	174307	40.0000	41.0
15 o-Cresol	107	5.025	5.025	(1.040)	224459	40.0000	40.3
18 m,p-Cresols	107	5.180	5.180	(1.072)	283022	40.0000	40.1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
17 N-Nitrosodipropylamine	70	5.206	5.206	(1.077)	185368	40.0000	39.1
19 Hexachloroethane	117	5.338	5.338	(1.104)	119599	40.0000	38.7
21 Nitrobenzene	77	5.392	5.392	(0.882)	301811	40.0000	42.0
22 Isophorone	82	5.626	5.626	(0.920)	528272	40.0000	41.5
23 2-Nitrophenol	139	5.708	5.708	(0.933)	137410	40.0000	41.5
24 2,4-Dimethylphenol	122	5.718	5.718	(0.935)	232609	40.0000	42.4
25 bis(2-Chloroethoxy)methane	93	5.825	5.825	(0.952)	305032	40.0000	40.7
26 2,4-Dichlorophenol	162	5.950	5.950	(0.973)	207439	40.0000	41.7
27 Benzoic acid	105	5.812	5.812	(0.950)	146760	40.0000	43.3(H)
28 1,2,4-Trichlorobenzene	180	6.047	6.047	(0.989)	251400	40.0000	41.1
30 Naphthalene	128	6.138	6.138	(1.004)	837929	40.0000	41.7
204 alpha-Terpineol	59	6.123	6.123	(1.001)	219641	40.0000	39.9
31 4-Chloroaniline	127	6.172	6.172	(1.009)	267452	40.0000	41.4
32 Hexachlorobutadiene	225	6.251	6.251	(1.022)	135904	40.0000	42.7
33 4-Chloro-3-methylphenol	107	6.653	6.653	(1.088)	202993	40.0000	40.4
34 2-Methylnaphthalene	142	6.862	6.862	(1.122)	563953	40.0000	46.5
35 1-Methylnaphthalene	142	6.969	6.969	(1.140)	534441	40.0000	45.0
36 Hexachlorocyclopentadiene	237	7.020	7.020	(0.879)	63579	40.0000	30.8
205 2,3-Dichloroaniline	161	7.155	7.155	(0.896)	249785	40.0000	40.8
37 2,4,6-Trichlorophenol	196	7.147	7.147	(0.895)	140152	40.0000	40.2
38 2,4,5-Trichlorophenol	196	7.183	7.183	(0.899)	157970	40.0000	42.5
40 2-Chloronaphthalene	162	7.384	7.384	(0.925)	459019	40.0000	40.0
42 o-Nitroaniline	65	7.479	7.479	(0.936)	152711	40.0000	38.9
41 m-Nitroaniline	138	7.922	7.922	(0.992)	115209	40.0000	40.1
43 Dimethylphthalate	163	7.670	7.670	(0.960)	548000	40.0000	41.8
44 2,6-Dinitrotoluene	165	7.739	7.739	(0.969)	125566	40.0000	40.2
50 2,4-Dinitrotoluene	165	8.172	8.172	(1.023)	165511	40.0000	42.0
45 Acenaphthylene	152	7.835	7.835	(0.981)	822752	40.0000	44.6
47 Acenaphthene	154	8.024	8.024	(1.005)	492203	40.0000	42.7
48 2,4-Dinitrophenol	184	8.029	8.029	(1.005)	35722	40.0000	35.9
49 Dibenzofuran	168	8.205	8.205	(1.027)	636057	40.0000	40.9
51 Diethylphthalate	149	8.424	8.424	(1.055)	552446	40.0000	41.8
52 4-Nitrophenol	139	8.070	8.070	(1.011)	76920	40.0000	37.2
53 Fluorene	166	8.577	8.577	(1.074)	559601	40.0000	43.8
54 4-Chlorophenylphenylether	204	8.564	8.564	(1.072)	252864	40.0000	41.9
55 2-Methyl-4,6-dinitrophenol	198	8.613	8.613	(0.897)	90597	40.0000	44.8
56 p-Nitroaniline	138	8.582	8.582	(1.075)	98168	40.0000	37.2
133 Diphenylamine	169	8.689	8.689	(0.905)	431336	40.0000	40.1
58 1,2-Diphenylhydrazine	77	8.738	8.738	(0.910)	552443	40.0000	40.4
61 4-Bromophenylphenylether	248	9.094	9.094	(0.947)	140012	40.0000	39.8
63 Hexachlorobenzene	284	9.173	9.173	(0.956)	145031	40.0000	39.4
65 Pentachlorophenol	266	9.375	9.375	(0.977)	79644	40.0000	41.2
206 n-Octadecane	57	9.431	9.431	(0.982)	409467	40.0000	41.6
68 Phenanthrene	178	9.624	9.624	(1.003)	789756	40.0000	42.8
69 Anthracene	178	9.680	9.680	(1.008)	811200	40.0000	44.0
72 Di-n-butylphthalate	149	10.190	10.190	(1.062)	910557	40.0000	43.0
76 Fluoranthene	202	10.914	10.914	(1.137)	808196	40.0000	45.8

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
79 Pyrene	202	11.166	11.166	(0.885)	832137	40.0000	43.9
85 Butylbenzylphthalate	149	11.841	11.841	(0.938)	372553	40.0000	43.0
89 Benzo(a)anthracene	228	12.598	12.598	(0.998)	634741	40.0000	42.7
92 Chrysene	228	12.654	12.654	(1.003)	621053	40.0000	43.6
93 bis(2-Ethylhexyl)phthalate	149	12.570	12.570	(0.996)	497186	40.0000	41.6
94 Di-n-octylphthalate	149	13.561	13.561	(0.907)	711015	40.0000	42.7
95 Benzo(b)fluoranthene	252	14.275	14.275	(0.954)	519622	40.0000	44.8
96 Benzo(k)fluoranthene	252	14.326	14.326	(0.958)	531203	40.0000	46.1
97 Benzo(a)pyrene	252	14.853	14.853	(0.993)	461589	40.0000	46.1
99 Indeno(1,2,3-cd)pyrene	276	16.945	16.945	(1.133)	381990	40.0000	40.0
100 Dibenzo(a,h)anthracene	278	16.978	16.978	(1.135)	294025	40.0000	38.0
101 Benzo(ghi)perylene	276	17.460	17.460	(1.167)	322785	40.0000	42.2
126 m-Dinitrobenzene	168	7.708	7.708	(0.965)	87288	40.0000	40.4
130 2,3,4,6-Tetrachlorophenol	232	8.325	8.325	(1.042)	119161	40.0000	42.6
143 Dinoseb	211	9.561	9.561	(0.996)	104085	40.0000	37.9
173 Carbazole	167	9.841	9.841	(1.025)	624352	40.0000	42.8
184 p-Benzoquinone	54	4.085	4.085	(0.845)	38475	40.0000	45.1
192 Methoxychlor	227	12.468	12.468	(0.988)	396683	40.0000	41.7
211 p-Toluidine	106	5.252	5.252	(1.086)	243276	40.0000	40.4
210 m-Toluidine	106	5.285	5.285	(1.093)	298023	40.0000	39.6
26 Phthalic anhydride	104	6.911	6.911	(1.130)	148201	40.0000	71.3
179 Dibenzo(a,e)pyrene	302	21.182	21.182	(1.416)	78881	40.0000	23.0
214 1,4-Dinitrobenzene	75	7.624	7.624	(0.955)	89355	40.0000	38.0
215 2-Ethoxyethanol	59	2.454	2.454	(0.508)	201919	40.0000	42.4
216 Methylenebis(2-chloroaniline)	231	12.539	12.539	(0.994)	82098	40.0000	38.2
M 225 Trichlorophenols	196				298122	80.0000	82.8
M 226 Tetrachlorophenols	232				119161	40.0000	42.6
M 227 Benzo(b,k)fluoranthene	252				1050825	80.0000	90.9

QC Flag Legend

H - Operator selected an alternate compound hit.

Data File: /chem/MSD6.i/s110909.b/s6k0937.d
Date : 10-NOV-2009 20:29
Client ID: MEGAICV
Sample Info: IWBN091106-09,1:40 PPM:1:SVHF:1:MEGAICV

Column phase: J&W DB-5MS

Instrument: MSD6.i
Operator: JMB3
Column diameter: 0.20

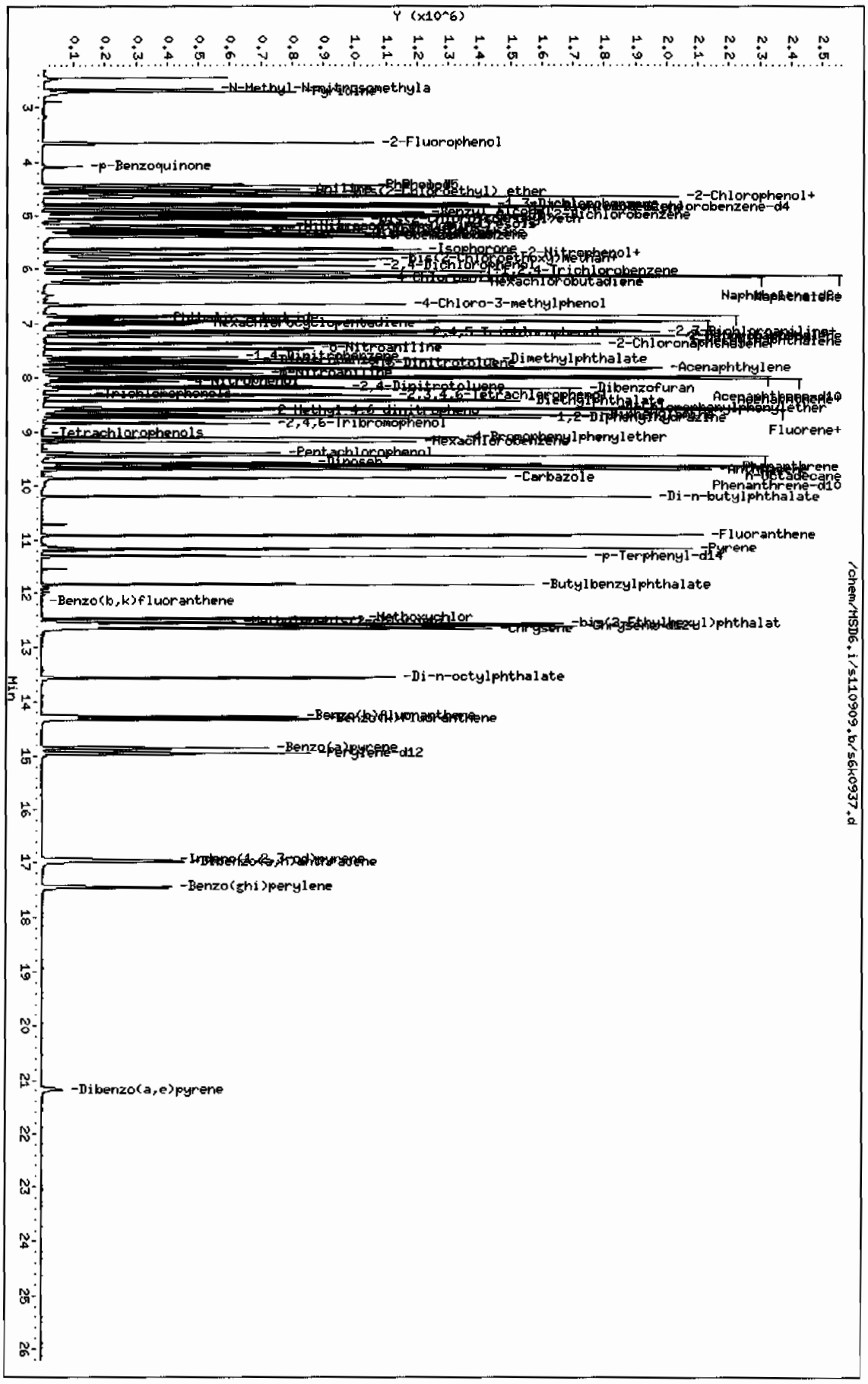

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GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD6.i Injection Date: 10-NOV-2009 21:07
Lab File ID: s6k0938.d Init. Cal. Date(s): 09-NOV-2009 11-NOV-2009
Analysis Type: Init. Cal. Times: 18:53 04:38
Lab Sample ID: WBN091016-08.1 Quant Type: ISTD
Method: /chem/MSD6.i/s110909.b/MSD6-M8270C-AQA-110909.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
209 Benzaldehyde	0.86127	0.67526	0.67526	0.000	-21.59733	60.00000	Averaged
16 Acetophenone	1.16908	1.08481	1.08481	0.000	-7.20809	60.00000	Averaged
189 Caprolactam	0.07388	0.08118	0.08118	0.000	9.87786	60.00000	Averaged
208 1,1'-Biphenyl	1.20131	1.15865	1.15865	0.000	-3.55099	60.00000	Averaged
207 Atrazine	0.04063	0.03738	0.03738	0.000	-8.01727	60.00000	Averaged
77 Benzidine	0.39304	0.35886	0.35886	0.000	-8.69608	60.00000	Averaged
90 3,3'-Dichlorobenzidine	0.28252	0.30132	0.30132	0.000	6.65684	60.00000	Averaged
102 1,4-Dioxane	0.36606	0.45837	0.45837	0.000	25.21672	60.00000	Averaged
103 Methyl methacrylate	0.19388	0.26059	0.26059	0.000	34.40927	60.00000	Averaged
104 Ethyl methacrylate	0.80561	0.97594	0.97594	0.000	21.14390	60.00000	Averaged
105 2-Picoline	1.30872	1.36092	1.36092	0.000	3.98846	60.00000	Averaged
106 N-Nitrosomethylethylamine	0.51104	0.53755	0.53755	0.000	5.18772	60.00000	Averaged
107 Methyl methanesulfonate	0.52852	0.52223	0.52223	0.000	-1.19058	60.00000	Averaged
108 N-Nitrosodiethylamine	0.49553	0.51026	0.51026	0.000	2.97098	60.00000	Averaged
109 Ethyl Methanesulfonate	0.65169	0.73760	0.73760	0.000	13.18337	60.00000	Averaged
110 Pentachloroethane	0.31681	0.42390	0.42390	0.000	33.80401	60.00000	Averaged
111 N-Nitrosopyrrolidine	0.47614	0.46325	0.46325	0.000	-2.70540	60.00000	Averaged
113 N-Nitrosomorpholine	0.67936	0.65676	0.65676	0.000	-3.32751	60.00000	Averaged
114 o-Toluidine	1.65281	1.64899	1.64899	0.000	-0.23102	60.00000	Averaged
115 N-Nitrosopiperidine	0.14105	0.14180	0.14180	0.000	0.52679	60.00000	Averaged
116 a,a-Dimethylphenethylamine	0.85546	0.87204	0.87204	0.000	1.93819	60.00000	Averaged
118 2,6-Dichlorophenol	0.20687	0.20008	0.20008	0.000	-3.28259	60.00000	Averaged
119 Hexachloropropene	0.10269	0.14537	0.14537	0.000	41.57055	60.00000	Averaged
120 p-Phenylenediamine	0.22955	0.23182	0.23182	0.000	0.99155	60.00000	Averaged
121 N-Nitrosodi-n-butylamine	0.21004	0.21749	0.21749	0.000	3.54470	60.00000	Averaged
122 Safrole	0.18653	0.20933	0.20933	0.000	12.22661	60.00000	Averaged
123 1,2,4,5-Tetrachlorobenzene	0.42319	0.42512	0.42512	0.000	0.45545	60.00000	Averaged
124 Isosafrole	0.33959	0.43257	0.43257	0.000	27.38086	60.00000	Averaged
125 1,4-Naphthoquinone	0.30674	0.30375	0.30375	0.000	-0.97466	60.00000	Averaged
127 Pentachlorobenzene	0.36454	0.36394	0.36394	0.000	-0.16566	60.00000	Averaged
128 1-Naphthylamine	0.90742	0.91190	0.91190	0.000	0.49410	60.00000	Averaged
129 2-Naphthylamine	0.98012	0.91865	0.91865	0.000	-6.27177	60.00000	Averaged
131 5-Nitro-o-toluidine	0.27901	0.28996	0.28996	0.000	3.92480	60.00000	Averaged
136 1,3,5-Trinitrobenzene	46.05690	40.00000	0.13757	0.000	15.14226	60.00000	Linear
137 Phenacetin	0.26240	0.25991	0.25991	0.000	-0.94903	60.00000	Averaged
138 Diallate	0.24056	0.23148	0.23148	0.000	-3.77545	60.00000	Averaged

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD6.i Injection Date: 10-NOV-2009 21:07
Lab File ID: s6k0938.d Init. Cal. Date(s): 09-NOV-2009 11-NOV-2009
Analysis Type: Init. Cal. Times: 18:53 04:38
Lab Sample ID: WBN091016-08.1 Quant Type: ISTD
Method: /chem/MSD6.i/s110909.b/MSD6-M8270C-AQA-110909.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
140 4-Aminobiphenyl	0.53562	0.58994	0.58994	0.000	10.14239	60.00000	Averaged
141 Pentachloronitrobenzene	0.06192	0.06213	0.06213	0.000	0.34079	60.00000	Averaged
142 Pronamide	0.26319	0.26234	0.26234	0.000	-0.32101	60.00000	Averaged
146 4-Nitroquinoline-1-oxide	0.02349	0.02580	0.02580	0.000	9.82299	60.00000	Averaged
147 Methapyrilene	0.38600	0.39422	0.39422	0.000	2.12820	60.00000	Averaged
148 Isodrin	0.09631	0.08838	0.08838	0.000	-8.22821	60.00000	Averaged
149 Aramite	0.04420	0.04155	0.04155	0.000	-5.99495	60.00000	Averaged
150 Kepone	0.06173	0.05889	0.05889	0.000	-4.59530	60.00000	Averaged
151 p-(Dimethylamino)azobenzene	0.31734	0.33079	0.33079	0.000	4.23929	60.00000	Averaged
152 Chlorobenzilate	0.29130	0.29321	0.29321	0.000	0.65640	60.00000	Averaged
153 3,3'-Dimethylbenzidine	0.52763	0.57778	0.57778	0.000	9.50435	60.00000	Averaged
155 2-Acetylaminofluorene	41.44131	40.00000	0.34022	0.000	3.60328	60.00000	Linear
157 7,12Dimethylbenz(a)anthrace	0.47906	0.41447	0.41447	0.000	-13.48259	60.00000	Averaged
158 3-Methylcholanthrene	0.36955	0.35869	0.35869	0.000	-2.93887	60.00000	Averaged
212 Cis Diallate	0.25295	0.25705	0.25705	0.000	1.62146	60.00000	Averaged
213 Trans Diallate	0.28301	0.27233	0.27233	0.000	-3.77545	60.00000	Averaged

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Data file : /chem/MSD6.i/s110909.b/s6k0938.d
Lab Smp Id: WBN091016-08.1 Client Smp ID: AP12ICV
Inj Date : 10-NOV-2009 21:07
Operator : JMB3 Inst ID: MSD6.i
Smp Info : |WBN091016-08.1|40 PPM|1|SVMF|1|AP12ICV
Misc Info : |MSD8270|WBN091106-10
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s110909.b/MSD6-M8270C-AQA-110909.m
Meth Date : 11-Nov-2009 09:25 nat00999 Quant Type: ISTD
Cal Date : 11-NOV-2009 02:44 Cal File: s6k0950.d
Als bottle: 18 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AP12.sub
Target Version: 3.50
Processing Host: hpclpl

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	4.834	4.834	(1.000)	282437	40.0000	
* 29 Naphthalene-d8	136	6.113	6.113	(1.000)	974498	40.0000	
* 46 Acenaphthene-d10	164	7.983	7.983	(1.000)	519475	40.0000	
* 67 Phenanthrene-d10	188	9.599	9.599	(1.000)	914999	40.0000	
* 91 Chrysene-d12	240	12.613	12.613	(1.000)	718441	40.0000	
* 98 Perylene-d12	264	14.950	14.950	(1.000)	524113	40.0000	
209 Benzaldehyde	77	4.428	4.428	(0.916)	190719	40.0000	31.4
16 Acetophenone	105	5.211	5.211	(1.078)	306390	40.0000	37.1
189 Caprolactam	113	6.531	6.531	(1.068)	79108	40.0000	44.0
208 1,1'-Biphenyl	154	7.354	7.354	(0.921)	601890	40.0000	38.6
207 Atrazine	173	9.249	9.249	(0.964)	34200	40.0000	36.8
77 Benzidine	184	11.038	11.038	(0.875)	257818	40.0000	36.5
90 3,3'-Dichlorobenzidine	252	12.539	12.539	(0.994)	216482	40.0000	42.7
102 1,4-Dioxane	88	2.456	2.456	(0.508)	129460	40.0000	50.1
103 Methyl methacrylate	100	2.454	2.454	(0.508)	73600	40.0000	53.8
104 Ethyl methacrylate	69	2.971	2.971	(0.615)	275642	40.0000	48.4
105 2-Picoline	93	3.228	3.228	(0.668)	384374	40.0000	41.6
106 N-Nitrosomethylethylamine	88	3.297	3.297	(0.682)	151823	40.0000	42.1
107 Methyl methanesulfonate	80	3.521	3.521	(0.728)	147497	40.0000	39.5
108 N-Nitrosodiethylamine	102	3.858	3.858	(0.798)	144115	40.0000	41.2
109 Ethyl Methanesulfonate	79	4.097	4.097	(0.848)	208326	40.0000	45.3
110 Pentachloroethane	167	4.574	4.574	(0.946)	119725	40.0000	53.5
111 N-Nitrosopyrrolidine	100	5.190	5.190	(1.074)	130840	40.0000	38.9(Q)
113 N-Nitrosomorpholine	56	5.223	5.223	(1.081)	185493	40.0000	38.7
114 o-Toluidine	106	5.249	5.249	(1.086)	465737	40.0000	39.9
115 N-Nitrosopiperidine	114	5.539	5.539	(0.906)	138180	40.0000	40.2

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
116 a,a-Dimethylphenethylamine	58	5.962	5.962	(0.975)	849798	40.0000	40.8
118 2,6-Dichlorophenol	162	6.184	6.184	(1.012)	194979	40.0000	38.7
119 Hexachloropropene	213	6.222	6.222	(1.018)	141665	40.0000	56.6
120 p-Phenylenediamine	108	6.541	6.541	(1.070)	225910	40.0000	40.4
121 N-Nitrosodi-n-butylamine	84	6.515	6.515	(1.066)	211942	40.0000	41.4(T)
122 Safrole	162	6.750	6.750	(1.104)	203993	40.0000	44.9
123 1,2,4,5-Tetrachlorobenzene	216	7.035	7.035	(0.881)	220840	40.0000	40.2
124 Isosafrole	162	7.305	7.305	(0.915)	224711	40.0000	51.0
125 1,4-Naphthoquinone	158	7.565	7.565	(0.948)	157789	40.0000	39.6
127 Pentachlorobenzene	250	8.156	8.156	(1.022)	189057	40.0000	39.9
128 1-Naphthylamine	143	8.284	8.284	(1.038)	473709	40.0000	40.2
129 2-Naphthylamine	143	8.368	8.368	(1.048)	477216	40.0000	37.5
131 5-Nitro-o-toluidine	152	8.574	8.574	(1.074)	150626	40.0000	41.6
136 1,3,5-Trinitrobenzene	75	8.946	8.946	(0.932)	125876	40.0000	46.0
137 Phenacetin	108	9.010	9.010	(0.939)	237813	40.0000	39.6(Q)
138 Diallate	86	8.990	8.990	(0.937)	211803	40.0000	38.5
140 4-Aminobiphenyl	169	9.374	9.374	(0.977)	539794	40.0000	44.0
141 Pentachloronitrobenzene	237	9.392	9.392	(0.978)	56852	40.0000	40.1(Q)
142 Pronamide	173	9.423	9.423	(0.982)	240044	40.0000	39.9
146 4-Nitroquinoline-1-oxide	101	10.445	10.445	(1.088)	23608	40.0000	43.9
147 Methapyrilene	58	10.518	10.518	(1.096)	360709	40.0000	40.8
148 Isodrin	193	10.750	10.750	(1.120)	80870	40.0000	36.7
149 Aramite	185	11.265	11.265	(1.174)	38019	40.0000	37.6
150 Kepone	272	11.933	11.933	(1.243)	53886	40.0000	38.2
151 p-(Dimethylamino)azobenzene	120	11.456	11.456	(0.908)	237654	40.0000	41.7
152 Chlorobenzilate	251	11.499	11.499	(0.912)	210653	40.0000	40.3
153 3,3'-Dimethylbenzidine	212	11.838	11.838	(0.939)	415103	40.0000	43.8
155 2-Acetylaminofluorene	181	12.154	12.154	(0.964)	244425	40.0000	41.4
157 7,12Dimethylbenz(a)anthracene	256	14.251	14.251	(0.953)	217229	40.0000	34.6
158 3-Methylcholanthrene	268	15.477	15.477	(1.035)	187994	40.0000	38.8(Q)
212 Cis Diallate	86	9.092	9.092	(0.947)	35280	6.00000	6.1
213 Trans Diallate	86	8.990	8.990	(0.937)	211803	34.0000	32.7

QC Flag Legend

T - Target compound detected outside RT window.
Q - Qualifier signal failed the ratio test.

Data File: /chem/MSD6.i/s110909.b/s6k0938.d
Date : 10-NOV-2009 21:07
Client ID: AP12ICV
Sample Info: IWBN091016-08,1140 PPM11SVHF11AP12ICV
Column phase: J&W DB-5MS

Instrument: MSD6.i
Operator: JMB3
Column diameter: 0.20

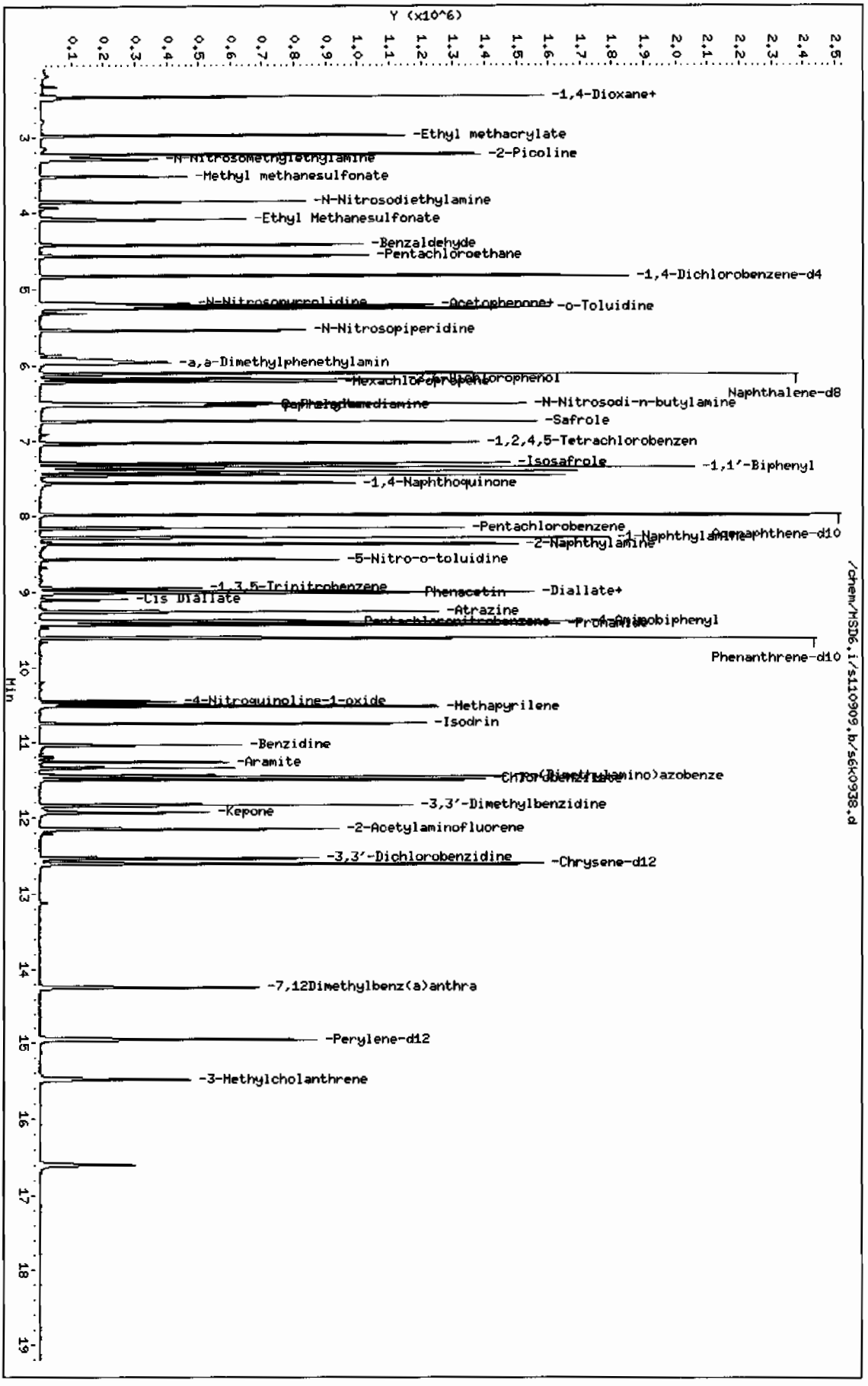

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GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD6.i Injection Date: 16-DEC-2009 14:18
Lab File ID: s611611.d Init. Cal. Date(s): 09-NOV-2009 11-NOV-2009
Analysis Type: WATER Init. Cal. Times: 18:53 04:38
Lab Sample ID: WBN091111-17.4 Quant Type: ISTD
Method: /chem/MSD6.i/s121609.b/MSD6-M8270C-AQA-110909.m

	COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
$	3 2-Fluorophenol	1.00169	0.99383	0.99383	0.000	-0.78474	60.00000	Averaged
$	5 Phenol-d5	1.26427	1.27179	1.27179	0.000	0.59511	60.00000	Averaged
$	20 Nitrobenzene-d5	0.28296	0.28440	0.28440	0.000	0.50791	60.00000	Averaged
$	39 2-Fluorobiphenyl	1.03083	1.07143	1.07143	0.000	3.93838	60.00000	Averaged
$	60 2,4,6-Tribromophenol	0.11675	0.13188	0.13188	0.000	12.96090	60.00000	Averaged
$	81 p-Terphenyl-d14	0.64507	0.70417	0.70417	0.000	9.16172	60.00000	Averaged
	1 N-Methyl-N-nitrosomethylami	0.68098	0.62678	0.62678	0.000	-7.95869	60.00000	Averaged
	2 Pyridine	0.84757	0.74535	0.74535	0.000	-12.06041	60.00000	Averaged
	4 Aniline	0.52752	0.50228	0.50228	0.000	-4.78378	60.00000	Averaged
	6 Phenol	1.27120	1.27161	1.27161	0.001	0.03272	20.00000	Averaged ccc
	7 bis(2-Chloroethyl) ether	0.86081	0.78504	0.78504	0.000	-8.80158	60.00000	Averaged
	8 2-Chlorophenol	1.02109	1.00553	1.00553	0.000	-1.52396	60.00000	Averaged
	203 n-Decane	1.42254	1.19641	1.19641	0.000	-15.89621	60.00000	Averaged
	9 1,3-Dichlorobenzene	1.17550	1.20399	1.20399	0.000	2.42360	60.00000	Averaged
	11 1,4-Dichlorobenzene	1.19162	1.20297	1.20297	0.001	0.95238	20.00000	Averaged ccc
	13 1,2-Dichlorobenzene	1.11231	1.13899	1.13899	0.000	2.39858	60.00000	Averaged
	14 bis(2-Chloroisopropyl)ether	1.92182	1.82850	1.82850	0.000	-4.85585	60.00000	Averaged
	12 Benzyl alcohol	0.63436	0.66385	0.66385	0.000	4.64855	60.00000	Averaged
	15 o-Cresol	0.83139	0.83695	0.83695	0.000	0.66940	60.00000	Averaged
	18 m,p-Cresols	1.05346	1.10132	1.10132	0.000	4.54301	60.00000	Averaged
	17 N-Nitrosodipropylamine	0.70865	0.73103	0.73103	0.050	3.15790	60.00000	Averaged spcc
	19 Hexachloroethane	0.46100	0.44040	0.44040	0.000	-4.46784	60.00000	Averaged
	21 Nitrobenzene	0.28519	0.28894	0.28894	0.000	1.31336	60.00000	Averaged
	22 Isophorone	0.50552	0.51771	0.51771	0.000	2.41251	60.00000	Averaged
	23 2-Nitrophenol	0.13154	0.14019	0.14019	0.001	6.57497	20.00000	Averaged ccc
	24 2,4-Dimethylphenol	0.21795	0.23988	0.23988	0.000	10.06300	60.00000	Averaged
	25 bis(2-Chloroethoxy)methane	0.29749	0.30035	0.30035	0.000	0.96047	60.00000	Averaged
	26 2,4-Dichlorophenol	0.19769	0.21227	0.21227	0.001	7.37910	20.00000	Averaged ccc
	27 Benzoic acid	0.13453	0.17926	0.17926	0.000	33.24910	60.00000	Averaged
	28 1,2,4-Trichlorobenzene	0.24261	0.24702	0.24702	0.000	1.81626	60.00000	Averaged
	30 Naphthalene	0.79792	0.82601	0.82601	0.000	3.52090	60.00000	Averaged
	204 alpha-Terpineol	0.21868	0.20547	0.20547	0.000	-6.03838	60.00000	Averaged
	31 4-Chloroaniline	0.25646	0.26906	0.26906	0.000	4.91254	60.00000	Averaged
	32 Hexachlorobutadiene	0.12634	0.12994	0.12994	0.001	2.85236	20.00000	Averaged ccc
	33 4-Chloro-3-methylphenol	0.19957	0.20185	0.20185	0.001	1.14311	20.00000	Averaged ccc
	34 2-Methylnaphthalene	0.48150	0.56492	0.56492	0.000	17.32452	60.00000	Averaged

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD6.i
Lab File ID: s611611.d
Analysis Type: WATER
Lab Sample ID: WBN091111-17.4 Quant Type: ISTD
Method: /chem/MSD6.i/s121609.b/MSD6-M8270C-AQA-110909.m

Injection Date: 16-DEC-2009 14:18
Init. Cal. Date(s): 09-NOV-2009 11-NOV-2009
Init. Cal. Times: 18:53 04:38

	COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
35	1-Methylnaphthalene	0.47100	0.54136	0.54136	0.000	14.93862	60.00000	Averaged	
36	Hexachlorocyclopentadiene	0.16157	0.11758	0.11758	0.050	-27.22798	60.00000	Averaged	spcc
205	2,3-Dichloroaniline	0.47908	0.48572	0.48572	0.000	1.38553	60.00000	Averaged	
37	2,4,6-Trichlorophenol	0.27294	0.27815	0.27815	0.001	1.90905	20.00000	Averaged	ccc
38	2,4,5-Trichlorophenol	0.29067	0.30694	0.30694	0.000	5.59814	60.00000	Averaged	
40	2-Chloronaphthalene	0.89832	0.90517	0.90517	0.000	0.76191	60.00000	Averaged	
42	o-Nitroaniline	0.30732	0.28055	0.28055	0.000	-8.71181	60.00000	Averaged	
41	m-Nitroaniline	0.22497	0.23011	0.23011	0.000	2.28581	60.00000	Averaged	
43	Dimethylphthalate	1.02610	1.06035	1.06035	0.000	3.33737	60.00000	Averaged	
44	2,6-Dinitrotoluene	0.24475	0.24919	0.24919	0.000	1.81632	60.00000	Averaged	
50	2,4-Dinitrotoluene	0.30862	0.31750	0.31750	0.000	2.87665	60.00000	Averaged	
45	Acenaphthylene	1.44438	1.63158	1.63158	0.000	12.96066	60.00000	Averaged	
47	Acenaphthene	0.90151	0.98114	0.98114	0.001	8.83322	20.00000	Averaged	ccc
48	2,4-Dinitrophenol	44.24466	40.00000	0.09723	0.050	10.61166	60.00000	Linear	spcc
49	Dibenzofuran	1.21689	1.24362	1.24362	0.000	2.19663	60.00000	Averaged	
51	Diethylphthalate	1.03335	1.08027	1.08027	0.000	4.54116	60.00000	Averaged	
52	4-Nitrophenol	41.90769	40.00000	0.17438	0.050	4.76924	60.00000	Linear	spcc
53	Fluorene	0.99879	1.12099	1.12099	0.000	12.23437	60.00000	Averaged	
54	4-Chlorophenylphenylether	0.47192	0.49797	0.49797	0.000	5.51874	60.00000	Averaged	
55	2-Methyl-4,6-dinitrophenol	52.18245	40.00000	0.12152	0.000	30.45612	60.00000	Linear	
56	p-Nitroaniline	38.97065	40.00000	0.20351	0.000	-2.57337	60.00000	Linear	
133	Diphenylamine	0.48213	0.49507	0.49507	0.001	2.68245	20.00000	Averaged	ccc
58	1,2-Diphenylhydrazine	0.61327	0.60577	0.60577	0.000	-1.22350	60.00000	Averaged	
61	4-Bromophenylphenylether	0.15784	0.16120	0.16120	0.000	2.13226	60.00000	Averaged	
63	Hexachlorobenzene	0.16533	0.16912	0.16912	0.000	2.29179	60.00000	Averaged	
65	Pentachlorophenol	41.01949	40.00000	0.08880	0.001	2.54873	20.00000	Linear	ccc
206	n-Octadecane	0.44173	0.43248	0.43248	0.000	-2.09463	60.00000	Averaged	
68	Phenanthrene	0.82721	0.89358	0.89358	0.000	8.02236	60.00000	Averaged	
69	Anthracene	0.82682	0.93056	0.93056	0.000	12.54639	60.00000	Averaged	
72	Di-n-butylphthalate	0.94954	1.05256	1.05256	0.000	10.85042	60.00000	Averaged	
76	Fluoranthene	0.79242	0.92392	0.92392	0.001	16.59515	20.00000	Averaged	ccc
79	Pyrene	1.10021	1.16971	1.16971	0.000	6.31716	60.00000	Averaged	
85	Butylbenzylphthalate	0.50351	0.54745	0.54745	0.000	8.72860	60.00000	Averaged	
89	Benzo(a)anthracene	0.86301	0.95056	0.95056	0.000	10.14528	60.00000	Averaged	
92	Chrysene	0.82690	0.92095	0.92095	0.000	11.37418	60.00000	Averaged	
93	bis(2-Ethylhexyl)phthalate	45.54644	40.00000	0.79097	0.000	13.86609	60.00000	Wt Linear	

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD6.i
Lab File ID: s611611.d
Analysis Type: WATER
Lab Sample ID: WBN091111-17.4 Quant Type: ISTD
Method: /chem/MSD6.i/s121609.b/MSD6-M8270C-AQA-110909.m

Injection Date: 16-DEC-2009 14:18
Init. Cal. Date(s): 09-NOV-2009 11-NOV-2009
Init. Cal. Times: 18:53 04:38

	COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
	94 Di-n-octylphthalate	1.27127	1.40099	1.40099	0.001	10.20395	20.00000	Averaged	ccc
	95 Benzo(b)fluoranthene	0.88507	0.99141	0.99141	0.000	12.01479	60.00000	Averaged	
	96 Benzo(k)fluoranthene	0.88011	1.02279	1.02279	0.000	16.21184	60.00000	Averaged	
	97 Benzo(a)pyrene	0.76447	0.90445	0.90445	0.001	18.31071	20.00000	Averaged	ccc
	99 Indeno(1,2,3-cd)pyrene	44.53953	40.00000	0.81728	0.000	11.34883	60.00000	Linear	
	100 Dibenzo(a,h)anthracene	44.22786	40.00000	0.66086	0.000	10.56964	60.00000	Linear	
	101 Benzo(ghi)perylene	0.58403	0.69184	0.69184	0.000	18.46032	60.00000	Averaged	
	126 m-Dinitrobenzene	0.16929	0.17392	0.17392	0.000	2.73258	60.00000	Averaged	
	130 2,3,4,6-Tetrachlorophenol	0.21896	0.23026	0.23026	0.000	5.16146	60.00000	Averaged	
	143 Dinoseb	42.43059	40.00000	0.13350	0.000	6.07648	60.00000	Linear	
	173 Carbazole	0.65449	0.66231	0.66231	0.000	1.19442	60.00000	Averaged	
	184 p-Benzoquinone	0.12730	0.05012	0.05012	0.000	-60.62921	60.00000	Averaged	<-
	192 Methoxychlor	0.55243	0.49272	0.49272	0.000	-10.80878	60.00000	Averaged	
	211 p-Toluidine	0.89987	0.95511	0.95511	0.000	6.13856	60.00000	Averaged	
	210 m-Toluidine	1.12396	1.14096	1.14096	0.000	1.51251	60.00000	Averaged	
	26 Phthalic anhydride	52.55150	40.00000	0.10484	0.000	31.37875	60.00000	Linear	
	214 1,4-Dinitrobenzene	0.18382	0.17843	0.17843	0.000	-2.93150	60.00000	Averaged	
	215 2-Ethoxyethanol	0.71035	0.59017	0.59017	0.000	-16.91888	60.00000	Averaged	
	216 Methylenebis(2-chloroanilin	41.77903	40.00000	0.13208	0.000	4.44758	60.00000	Linear	
M	225 Trichlorophenols	0.28180	0.29254	0.29254	0.000	3.81162	60.00000	Averaged	
M	226 Tetrachlorophenols	0.21896	0.23026	0.23026	0.000	5.16146	60.00000	Averaged	
M	227 Benzo(b,k)fluoranthene	0.88259	1.00710	1.00710	0.000	14.10741	60.00000	Averaged	

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Data file : /chem/MSD6.i/s121609.b/s611611.d
Lab Smp Id: WBN091111-17.4 Client Smp ID: MEGACVS
Inj Date : 16-DEC-2009 14:18
Operator : nagl Inst ID: MSD6.i
Smp Info : |WBN091111-17.4|CVS|1|SVMF|1|MEGACVS
Misc Info : |MSD8270|WBN091208-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s121609.b/MSD6-M8270C-AQA-110909.m
Meth Date : 17-Dec-2009 08:11 nat00999 Quant Type: ISTD
Cal Date : 11-NOV-2009 04:38 Cal File: s6k0954.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: MEGA.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vo *Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vo	1000.00000	volume of sample ext
Vi	0.50000	volume injected

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	4.849	4.849	(1.000)	209214	40.0000	
* 29 Naphthalene-d8	136	6.131	6.131	(1.000)	828674	40.0000	
* 46 Acenaphthene-d10	164	8.001	8.001	(1.000)	435590	40.0000	
* 67 Phenanthrene-d10	188	9.611	9.611	(1.000)	744475	40.0000	
* 91 Chrysene-d12	240	12.633	12.633	(1.000)	599948	40.0000	
* 98 Perylene-d12	264	14.973	14.973	(1.000)	527608	40.0000	
$ 3 2-Fluorophenol	112	3.674	3.674	(0.758)	207923	40.0000	39.7
$ 5 Phenol-d5	99	4.457	4.457	(0.919)	266077	40.0000	40.2
$ 20 Nitrobenzene-d5	82	5.389	5.389	(0.879)	235671	40.0000	40.2
$ 39 2-Fluorobiphenyl	172	7.254	7.254	(0.907)	466704	40.0000	41.6
$ 60 2,4,6-Tribromophenol	329	8.850	8.850	(1.106)	57446	40.0000	45.2
$ 81 p-Terphenyl-d14	244	11.316	11.316	(0.896)	422463	40.0000	43.7
1 N-Methyl-N-nitrosomethylamine	74	2.701	2.701	(0.557)	131131	40.0000	36.8

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
2 Pyridine	79	2.737	2.737	(0.564)	155938	40.0000	35.2
4 Aniline	66	4.538	4.538	(0.936)	105085	40.0000	38.1
6 Phenol	94	4.469	4.469	(0.922)	266039	40.0000	40.0
7 bis(2-Chloroethyl) ether	63	4.574	4.574	(0.943)	164242	40.0000	36.5
8 2-Chlorophenol	128	4.650	4.650	(0.959)	210371	40.0000	39.4
203 n-Decane	43	4.655	4.655	(0.960)	250305	40.0000	33.6
9 1,3-Dichlorobenzene	146	4.798	4.798	(0.989)	251891	40.0000	41.0
11 1,4-Dichlorobenzene	146	4.867	4.867	(1.004)	251678	40.0000	40.4
13 1,2-Dichlorobenzene	146	5.017	5.017	(1.035)	238292	40.0000	41.0
14 bis(2-Chloroisopropyl)ether	45	5.083	5.083	(1.048)	382548	40.0000	38.0
12 Benzyl alcohol	108	4.961	4.961	(1.023)	138887	40.0000	41.8
15 o-Cresol	107	5.045	5.045	(1.040)	175102	40.0000	40.3
18 m,p-Cresols	107	5.203	5.203	(1.073)	230411	40.0000	41.8
17 N-Nitrosodipropylamine	70	5.226	5.226	(1.078)	152942	40.0000	41.3
19 Hexachloroethane	117	5.348	5.348	(1.103)	92138	40.0000	38.2
21 Nitrobenzene	77	5.410	5.410	(0.882)	239434	40.0000	40.5
22 Isophorone	82	5.644	5.644	(0.921)	429014	40.0000	41.0
23 2-Nitrophenol	139	5.726	5.726	(0.934)	116175	40.0000	42.6
24 2,4-Dimethylphenol	122	5.736	5.736	(0.936)	198786	40.0000	44.0
25 bis(2-Chloroethoxy)methane	93	5.840	5.840	(0.953)	248892	40.0000	40.4
26 2,4-Dichlorophenol	162	5.968	5.968	(0.973)	175905	40.0000	43.0
27 Benzoic acid	105	5.850	5.850	(0.954)	148547	40.0000	53.3
28 1,2,4-Trichlorobenzene	180	6.062	6.062	(0.989)	204700	40.0000	40.7
30 Naphthalene	128	6.154	6.154	(1.004)	684493	40.0000	41.4
204 alpha-Terpineol	59	6.138	6.138	(1.001)	170271	40.0000	37.6
31 4-Chloroaniline	127	6.189	6.189	(1.010)	222960	40.0000	42.0
32 Hexachlorobutadiene	225	6.261	6.261	(1.021)	107681	40.0000	41.1
33 4-Chloro-3-methylphenol	107	6.676	6.676	(1.089)	167265	40.0000	40.4
34 2-Methylnaphthalene	142	6.875	6.875	(1.121)	468131	40.0000	46.9
35 1-Methylnaphthalene	142	6.984	6.984	(1.139)	448615	40.0000	46.0
36 Hexachlorocyclopentadiene	237	7.033	7.033	(0.879)	51215	40.0000	29.1
205 2,3-Dichloroaniline	161	7.170	7.170	(0.896)	211573	40.0000	40.6
37 2,4,6-Trichlorophenol	196	7.165	7.165	(0.896)	121159	40.0000	40.8
38 2,4,5-Trichlorophenol	196	7.203	7.203	(0.900)	133700	40.0000	42.2
40 2-Chloronaphthalene	162	7.400	7.400	(0.925)	394282	40.0000	40.3
42 o-Nitroaniline	65	7.499	7.499	(0.937)	122205	40.0000	36.5
41 m-Nitroaniline	138	7.942	7.942	(0.993)	100235	40.0000	40.9
43 Dimethylphthalate	163	7.685	7.685	(0.960)	461876	40.0000	41.3
44 2,6-Dinitrotoluene	165	7.756	7.756	(0.969)	108546	40.0000	40.7
50 2,4-Dinitrotoluene	165	8.192	8.192	(1.024)	138299	40.0000	41.2
45 Acenaphthylene	152	7.851	7.851	(0.981)	710701	40.0000	45.2
47 Acenaphthene	154	8.037	8.037	(1.004)	427376	40.0000	43.5
48 2,4-Dinitrophenol	184	8.052	8.052	(1.006)	42354	40.0000	44.2
49 Dibenzofuran	168	8.220	8.220	(1.027)	541708	40.0000	40.9
51 Diethylphthalate	149	8.437	8.437	(1.054)	470556	40.0000	41.8
52 4-Nitrophenol	139	8.103	8.103	(1.013)	75960	40.0000	41.9
53 Fluorene	166	8.592	8.592	(1.074)	488292	40.0000	44.9

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
54 4-Chlorophenylphenylether	204	8.574	8.574	(1.072)	216909	40.0000	42.2
55 2-Methyl-4,6-dinitrophenol	198	8.633	8.633	(0.898)	90472	40.0000	52.2
56 p-Nitroaniline	138	8.605	8.605	(1.075)	88647	40.0000	39.0
133 Diphenylamine	169	8.702	8.702	(0.905)	368565	40.0000	41.1
58 1,2-Diphenylhydrazine	77	8.750	8.750	(0.910)	450977	40.0000	39.5
61 4-Bromophenylphenylether	248	9.107	9.107	(0.948)	120012	40.0000	40.8
63 Hexachlorobenzene	284	9.183	9.183	(0.955)	125905	40.0000	40.9
65 Pentachlorophenol	266	9.390	9.390	(0.977)	66111	40.0000	41.0
206 n-Octadecane	57	9.436	9.436	(0.982)	321970	40.0000	39.2
68 Phenanthrene	178	9.637	9.637	(1.003)	665245	40.0000	43.2
69 Anthracene	178	9.693	9.693	(1.008)	692779	40.0000	45.0
72 Di-n-butylphthalate	149	10.197	10.197	(1.061)	783608	40.0000	44.3
76 Fluoranthene	202	10.926	10.926	(1.137)	687837	40.0000	46.6
79 Pyrene	202	11.176	11.176	(0.885)	701764	40.0000	42.5
85 Butylbenzylphthalate	149	11.849	11.849	(0.938)	328444	40.0000	43.5
89 Benzo(a)anthracene	228	12.613	12.613	(0.998)	570287	40.0000	44.0
92 Chrysene	228	12.669	12.669	(1.003)	552523	40.0000	44.5
93 bis(2-Ethylhexyl)phthalate	149	12.575	12.575	(0.995)	474542	40.0000	45.5
94 Di-n-octylphthalate	149	13.564	13.564	(0.906)	739175	40.0000	44.1
95 Benzo(b)fluoranthene	252	14.295	14.295	(0.955)	523078	40.0000	44.8
96 Benzo(k)fluoranthene	252	14.343	14.343	(0.958)	539631	40.0000	46.5
97 Benzo(a)pyrene	252	14.871	14.871	(0.993)	477193	40.0000	47.3
99 Indeno(1,2,3-cd)pyrene	276	16.963	16.963	(1.133)	431201	40.0000	44.5
100 Dibenzo(a,h)anthracene	278	16.993	16.993	(1.135)	348677	40.0000	44.2
101 Benzo(ghi)perylene	276	17.480	17.480	(1.167)	365021	40.0000	47.4(Q)
126 m-Dinitrobenzene	168	7.728	7.728	(0.966)	75758	40.0000	41.1
130 2,3,4,6-Tetrachlorophenol	232	8.342	8.342	(1.043)	100299	40.0000	42.1
143 Dinoseb	211	9.573	9.573	(0.996)	99385	40.0000	42.4
173 Carbazole	167	9.856	9.856	(1.025)	493075	40.0000	40.5
184 p-Benzoquinone	54	4.107	4.107	(0.847)	10486	40.0000	15.7
192 Methoxychlor	227	12.478	12.478	(0.988)	295607	40.0000	35.7
211 p-Toluidine	106	5.269	5.269	(1.087)	199823	40.0000	42.4
210 m-Toluidine	106	5.303	5.303	(1.094)	238705	40.0000	40.6
26 Phthalic anhydride	104	6.933	6.933	(1.131)	86882	40.0000	52.6
214 1,4-Dinitrobenzene	75	7.647	7.647	(0.956)	77721	40.0000	38.8
215 2-Ethoxyethanol	59	2.487	2.487	(0.513)	123472	40.0000	33.2
216 Methylenebis(2-chloroaniline)	231	12.554	12.554	(0.994)	79240	40.0000	41.8(Q)
M 225 Trichlorophenols	196				254859	80.0000	83.0
M 226 Tetrachlorophenols	232				100299	40.0000	42.1
M 227 Benzo(b,k)fluoranthene	252				1062709	80.0000	91.3

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: /chem/MSD6.i/s121609.b/s611611.d
Date : 16-DEC-2009 14:18
Client ID: MEGACVS
Sample Info: IWEN091111-17,4|CVS|1|SVMF|1|MEGACVS
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD6.i
Operator: nagl
Column diameter: 0.20

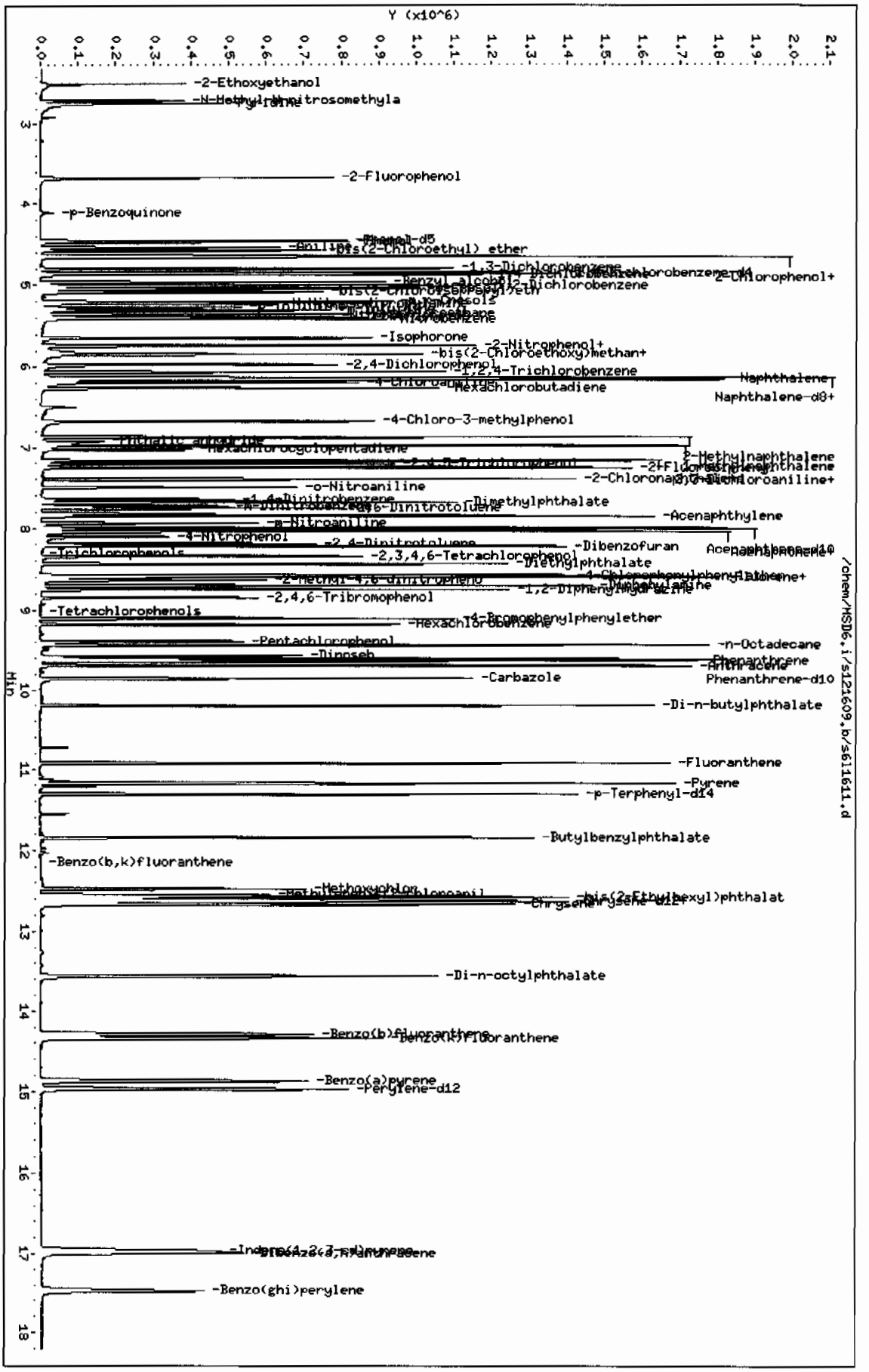

Page 1

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD6.i Injection Date: 16-DEC-2009 14:46
Lab File ID: s611612.d Init. Cal. Date(s): 09-NOV-2009 11-NOV-2009
Analysis Type: WATER Init. Cal. Times: 18:53 04:38
Lab Sample ID: WBN091201-03.5 Quant Type: ISTD
Method: /chem/MSD6.i/s121609.b/MSD6-M8270C-AQA-110909.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
209 Benzaldehyde	0.86127	0.89433	0.89433	0.000	3.83819	60.00000	Averaged
16 Acetophenone	1.16908	1.20934	1.20934	0.000	3.44420	60.00000	Averaged
189 Caprolactam	0.07388	0.08702	0.08702	0.000	17.78166	60.00000	Averaged
208 1,1'-Biphenyl	1.20131	1.18926	1.18926	0.000	-1.00269	60.00000	Averaged
207 Atrazine	0.04063	0.04262	0.04262	0.000	4.89142	60.00000	Averaged
77 Benzidine	0.39304	0.31459	0.31459	0.000	-19.95903	60.00000	Averaged
90 3,3'-Dichlorobenzidine	0.28252	0.29864	0.29864	0.000	5.70779	60.00000	Averaged
102 1,4-Dioxane	0.36606	0.30348	0.30348	0.000	-17.09632	60.00000	Averaged
103 Methyl methacrylate	0.19388	0.16111	0.16111	0.000	-16.90047	60.00000	Averaged
104 Ethyl methacrylate	0.80561	0.76511	0.76511	0.000	-5.02691	60.00000	Averaged
105 2-Picoline	1.30872	1.28600	1.28600	0.000	-1.73593	60.00000	Averaged
106 N-Nitrosomethylethylamine	0.51104	0.49714	0.49714	0.000	-2.71936	60.00000	Averaged
107 Methyl methanesulfonate	0.52852	0.50298	0.50298	0.000	-4.83357	60.00000	Averaged
108 N-Nitrosodiethylamine	0.49553	0.48965	0.48965	0.000	-1.18636	60.00000	Averaged
109 Ethyl Methanesulfonate	0.65169	0.64864	0.64864	0.000	-0.46754	60.00000	Averaged
110 Pentachloroethane	0.31681	0.32035	0.32035	0.000	1.11932	60.00000	Averaged
111 N-Nitrosopyrrolidine	0.47614	0.52670	0.52670	0.000	10.61979	60.00000	Averaged
113 N-Nitrosomorpholine	0.67936	0.65595	0.65595	0.000	-3.44649	60.00000	Averaged
114 o-Toluidine	1.65281	1.70381	1.70381	0.000	3.08559	60.00000	Averaged
115 N-Nitrosopiperidine	0.14105	0.14355	0.14355	0.000	1.77059	60.00000	Averaged
116 a,a-Dimethylphenethylamine	0.85546	0.81197	0.81197	0.000	-5.08299	60.00000	Averaged
118 2,6-Dichlorophenol	0.20687	0.22230	0.22230	0.000	7.45815	60.00000	Averaged
119 Hexachloropropene	0.10269	0.09458	0.09458	0.000	-7.89586	60.00000	Averaged
120 p-Phenylenediamine	0.22955	0.23919	0.23919	0.000	4.20076	60.00000	Averaged
121 N-Nitrosodi-n-butylamine	0.21004	0.20880	0.20880	0.000	-0.59269	60.00000	Averaged
122 Safrole	0.18653	0.19390	0.19390	0.000	3.95271	60.00000	Averaged
123 1,2,4,5-Tetrachlorobenzene	0.42319	0.41604	0.41604	0.000	-1.68968	60.00000	Averaged
124 Isosafrole	0.33959	0.34019	0.34019	0.000	0.17555	60.00000	Averaged
125 1,4-Naphthoquinone	0.30674	0.33933	0.33933	0.000	10.62648	60.00000	Averaged
127 Pentachlorobenzene	0.36454	0.37434	0.37434	0.000	2.68650	60.00000	Averaged
128 1-Naphthylamine	0.90742	0.95277	0.95277	0.000	4.99866	60.00000	Averaged
129 2-Naphthylamine	0.98012	1.04054	1.04054	0.000	6.16436	60.00000	Averaged
131 5-Nitro-o-toluidine	0.27901	0.30162	0.30162	0.000	8.10290	60.00000	Averaged
136 1,3,5-Trinitrobenzene	41.92332	40.00000	0.12416	0.000	4.80831	60.00000	Linear
137 Phenacetin	0.26240	0.27085	0.27085	0.000	3.22108	60.00000	Averaged
138 Diallate	0.24056	0.23725	0.23725	0.000	-1.37609	60.00000	Averaged

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD6.i Injection Date: 16-DEC-2009 14:46
Lab File ID: s611612.d Init. Cal. Date(s): 09-NOV-2009 11-NOV-2009
Analysis Type: WATER Init. Cal. Times: 18:53 04:38
Lab Sample ID: WBN091201-03.5 Quant Type: ISTD
Method: /chem/MSD6.i/s121609.b/MSD6-M8270C-AQA-110909.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
140 4-Aminobiphenyl	0.53562	0.52632	0.52632	0.000	-1.73602	60.00000	Averaged
141 Pentachloronitrobenzene	0.06192	0.06268	0.06268	0.000	1.21547	60.00000	Averaged
142 Pronamide	0.26319	0.26537	0.26537	0.000	0.82951	60.00000	Averaged
146 4-Nitroquinoline-1-oxide	0.02349	0.02648	0.02648	0.000	12.72728	60.00000	Averaged
147 Methapyrilene	0.38600	0.41378	0.41378	0.000	7.19639	60.00000	Averaged
148 Isodrin	0.09631	0.10285	0.10285	0.000	6.79289	60.00000	Averaged
149 Aramite	0.04420	0.04833	0.04833	0.000	9.33169	60.00000	Averaged
150 Kepone	0.06173	0.07299	0.07299	0.000	18.24238	60.00000	Averaged
151 p-(Dimethylamino)azobenzene	0.31734	0.30077	0.30077	0.000	-5.22199	60.00000	Averaged
152 Chlorobenzilate	0.29130	0.27011	0.27011	0.000	-7.27354	60.00000	Averaged
153 3,3'-Dimethylbenzidine	0.52763	0.46893	0.46893	0.000	-11.12535	60.00000	Averaged
155 2-Acetylaminofluorene	43.62004	40.00000	0.36054	0.000	9.05009	60.00000	Linear
157 7,12Dimethylbenz(a)anthrace	0.47906	0.45602	0.45602	0.000	-4.80852	60.00000	Averaged
158 3-Methylcholanthrene	0.36955	0.40849	0.40849	0.000	10.53626	60.00000	Averaged
212 Cis Diallate	0.25295	0.23891	0.23891	0.000	-5.54879	60.00000	Averaged
213 Trans Diallate	0.28301	0.27912	0.27912	0.000	-1.37609	60.00000	Averaged

GEL Laboratories LLC

Data file : /chem/MSD6.i/s121609.b/s611612.d
Lab Smp Id: WBN091201-03.5 Client Smp ID: AP12CVS
Inj Date : 16-DEC-2009 14:46
Operator : nagl Inst ID: MSD6.i
Smp Info : |WBN091201-03.5|CVS|1|SVMF|1|AP12CVS
Misc Info : |MSD8270|WBN091208-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s121609.b/MSD6-M8270C-AQA-110909.m
Meth Date : 17-Dec-2009 08:10 nat00999 Quant Type: ISTD
Cal Date : 11-NOV-2009 04:38 Cal File: s6k0954.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AP12.sub
Target Version: 3.50
Processing Host: hpclpl

Concentration Formula: Amt * DF * Uf * Vt/(Vo *Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vo	1000.00000	volume of sample ext
Vi	0.50000	volume injected

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	4.849	4.849	(1.000)	183991	40.0000	
* 29 Naphthalene-d8	136	6.128	6.128	(1.000)	690217	40.0000	
* 46 Acenaphthene-d10	164	7.999	7.999	(1.000)	389642	40.0000	
* 67 Phenanthrene-d10	188	9.612	9.612	(1.000)	696322	40.0000	
* 91 Chrysene-d12	240	12.626	12.626	(1.000)	639146	40.0000	
* 98 Perylene-d12	264	14.970	14.970	(1.000)	580165	40.0000	
209 Benzaldehyde	77	4.449	4.449	(0.918)	164549	40.0000	41.5
16 Acetophenone	105	5.229	5.229	(1.078)	222508	40.0000	41.4
189 Caprolactam	113	6.551	6.551	(1.069)	60061	40.0000	47.1
208 1,1'-Biphenyl	154	7.367	7.367	(0.921)	463387	40.0000	39.6
207 Atrazine	173	9.268	9.268	(0.964)	29679	40.0000	42.0
77 Benzidine	184	11.051	11.051	(0.875)	201069	40.0000	32.0
90 3,3'-Dichlorobenzidine	252	12.552	12.552	(0.994)	190875	40.0000	42.3

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
102 1,4-Dioxane	88	2.490	2.490	(0.513)	55837	40.0000	33.2
103 Methyl methacrylate	100	2.484	2.484	(0.512)	29643	40.0000	33.2
104 Ethyl methacrylate	69	2.994	2.994	(0.617)	140773	40.0000	38.0
105 2-Picoline	93	3.257	3.257	(0.672)	236613	40.0000	39.3
106 N-Nitrosomethylethylamine	88	3.325	3.325	(0.686)	91469	40.0000	38.9
107 Methyl methanesulfonate	80	3.552	3.552	(0.733)	92543	40.0000	38.1
108 N-Nitrosodiethylamine	102	3.883	3.883	(0.801)	90092	40.0000	39.5
109 Ethyl Methanesulfonate	79	4.120	4.120	(0.850)	119344	40.0000	39.8
110 Pentachloroethane	167	4.592	4.592	(0.947)	58942	40.0000	40.4
111 N-Nitrosopyrrolidine	100	5.211	5.211	(1.075)	96908	40.0000	44.2(Q)
113 N-Nitrosomorpholine	56	5.244	5.244	(1.081)	120689	40.0000	38.6
114 o-Toluidine	106	5.267	5.267	(1.086)	313486	40.0000	41.2
115 N-Nitrosopiperidine	114	5.557	5.557	(0.907)	99081	40.0000	40.7
116 a,a-Dimethylphenethylamine	58	5.930	5.930	(0.968)	560438	40.0000	38.0
118 2,6-Dichlorophenol	162	6.202	6.202	(1.012)	153436	40.0000	43.0
119 Hexachloropropene	213	6.235	6.235	(1.017)	65279	40.0000	36.8
120 p-Phenylenediamine	108	6.561	6.561	(1.071)	165092	40.0000	41.7
121 N-Nitrosodi-n-butylamine	84	6.528	6.528	(1.065)	144116	40.0000	39.8(T)
122 Safrole	162	6.765	6.765	(1.104)	133832	40.0000	41.6
123 1,2,4,5-Tetrachlorobenzene	216	7.051	7.051	(0.881)	162108	40.0000	39.3
124 Isosafrole	162	7.318	7.318	(0.915)	132551	40.0000	40.1
125 1,4-Naphthoquinone	158	7.583	7.583	(0.948)	132218	40.0000	44.2
127 Pentachlorobenzene	250	8.172	8.172	(1.022)	145857	40.0000	41.1
128 1-Naphthylamine	143	8.302	8.302	(1.038)	371241	40.0000	42.0
129 2-Naphthylamine	143	8.386	8.386	(1.048)	405438	40.0000	42.5
131 5-Nitro-o-toluidine	152	8.592	8.592	(1.074)	117522	40.0000	43.2
136 1,3,5-Trinitrobenzene	75	8.972	8.972	(0.933)	86454	40.0000	41.9
137 Phenacetin	108	9.028	9.028	(0.939)	188597	40.0000	41.3(Q)
138 Diallate	86	9.000	9.000	(0.936)	165203	40.0000	39.4
140 4-Aminobiphenyl	169	9.392	9.392	(0.977)	366486	40.0000	39.3
141 Pentachloronitrobenzene	237	9.405	9.405	(0.979)	43642	40.0000	40.5(Q)
142 Pronamide	173	9.433	9.433	(0.981)	184784	40.0000	40.3
146 4-Nitroquinoline-1-oxide	101	10.463	10.463	(1.089)	18441	40.0000	45.1
147 Methapyrilene	58	10.524	10.524	(1.095)	288125	40.0000	42.9
148 Isodrin	193	10.761	10.761	(1.120)	71616	40.0000	42.7
149 Aramite	185	11.273	11.273	(1.173)	33650	40.0000	43.7
150 Kepone	272	11.940	11.940	(1.242)	50824	40.0000	47.3
151 p-(Dimethylamino)azobenzene	120	11.467	11.467	(0.908)	192234	40.0000	37.9
152 Chlorobenzilate	251	11.507	11.507	(0.911)	172639	40.0000	37.1
153 3,3'-Dimethylbenzidine	212	11.851	11.851	(0.939)	299717	40.0000	35.5
155 2-Acetylaminofluorene	181	12.172	12.172	(0.964)	230436	40.0000	43.6
157 7,12Dimethylbenz(a)anthracene	256	14.267	14.267	(0.953)	264569	40.0000	38.1
158 3-Methylcholanthrene	268	15.493	15.493	(1.035)	236990	40.0000	44.2(Q)
212 Cis Diallate	86	9.102	9.102	(0.947)	24954	6.00000	5.7
213 Trans Diallate	86	9.000	9.000	(0.936)	165203	34.0000	33.5

QC Flag Legend

T - Target compound detected outside RT window.
Q - Qualifier signal failed the ratio test.

Data File: /chem/MSD6.i/s121609.b/s611612.d
Date : 16-DEC-2009 14:46
Client ID: AP12CVS
Sample Info: IWBN091201-03,5ICVSI1ISVMF11AP12CVS
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD6.i
Operator: nag1
Column diameter: 0.20

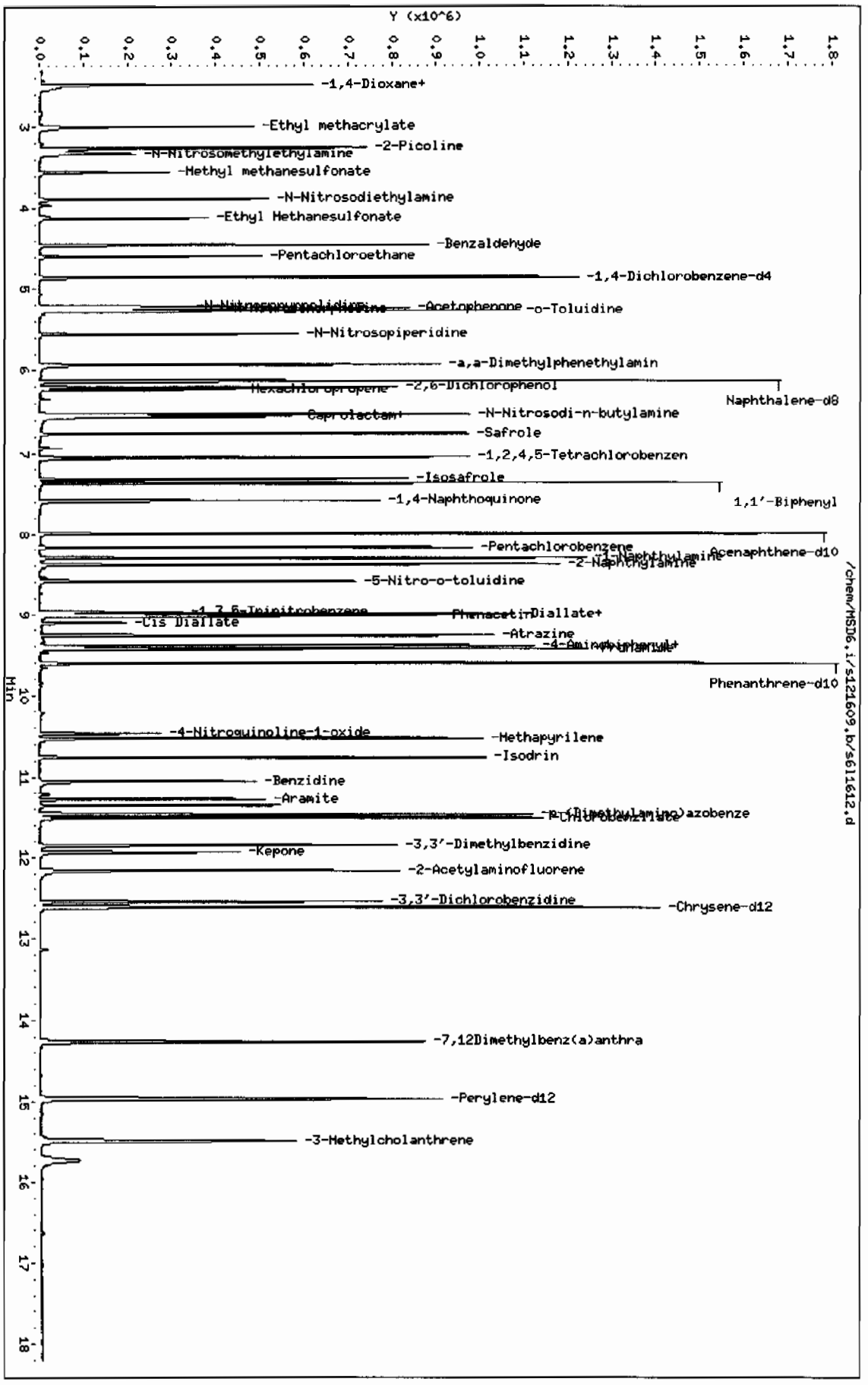

Page 1

QC Data

Data File: /chem/MSD6.i/s110909.b/s6k0911.d

Date : 09-NOV-2009 18:00

Client ID: DFTPP

Instrument: MSD6.i

Sample Info: |WBN091101-01|50 PPM|1|SVMF|1|DFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

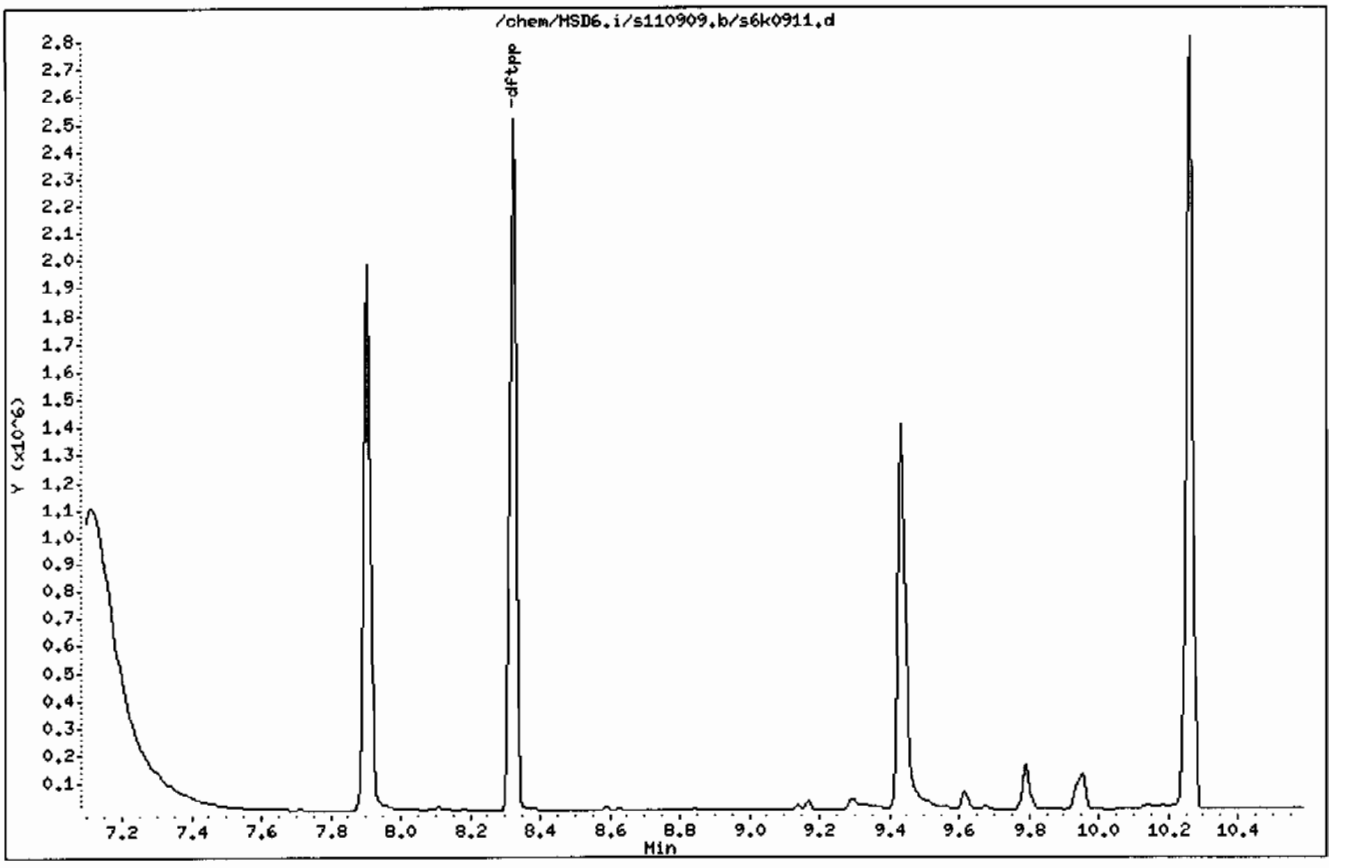

Data File: /chem/MSD6.i/s110909.b/s6k0911.d

Date : 09-NOV-2009 18:00

Client ID: DFTPP

Instrument: MSD6.i

Sample Info: |WBN091101-01|50 PPM|1|SVMF|1|DFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

1 dftpp

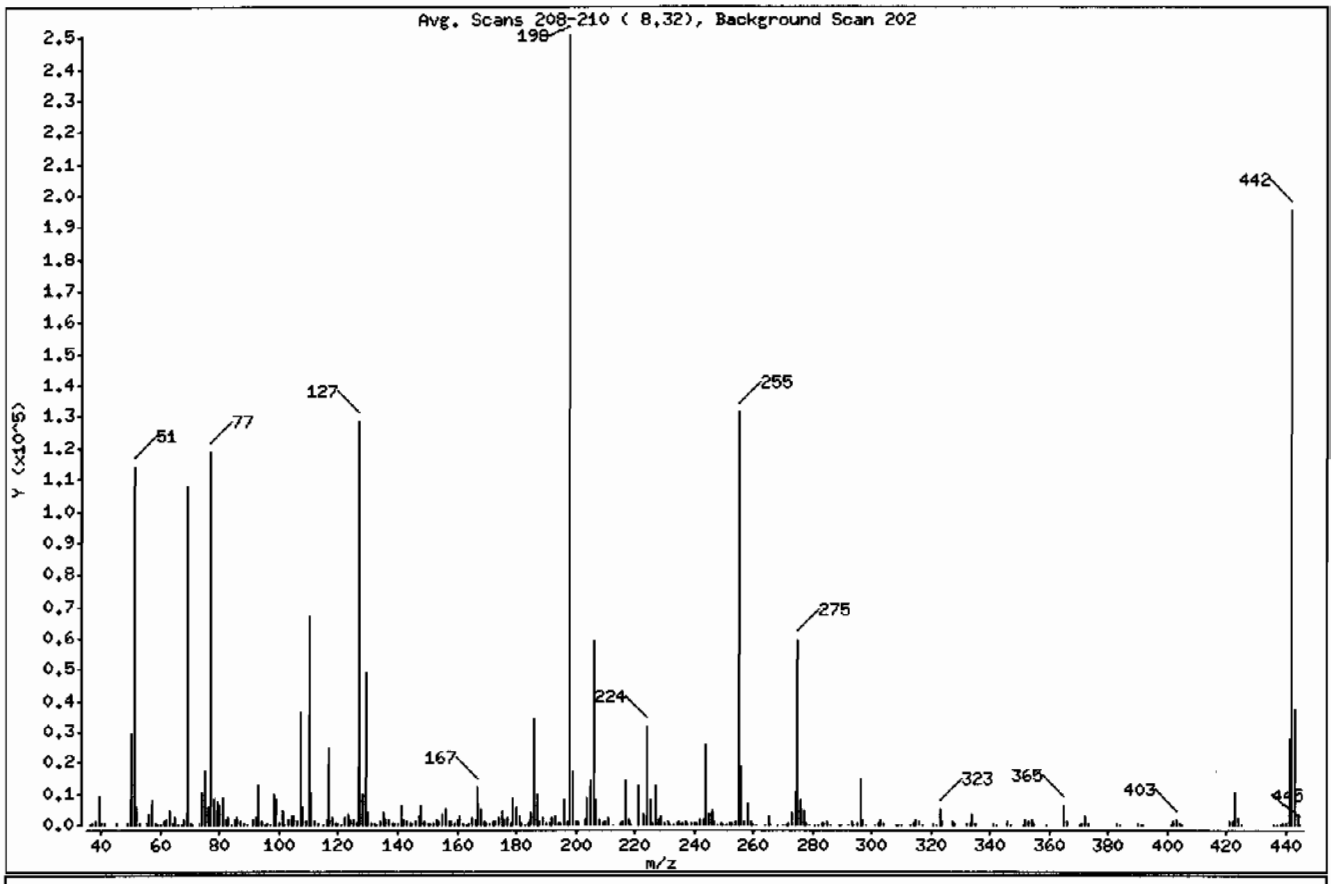

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	45.40
68	Less than 2.00% of mass 69	0.67 (1.56)
69	Mass 69 relative abundance	42.98
70	Less than 2.00% of mass 69	0.23 (0.53)
127	40.00 - 60.00% of mass 198	51.37
197	Less than 1.00% of mass 198	0.57
199	5.00 - 9.00% of mass 198	6.92
275	10.00 - 30.00% of mass 198	23.67
365	Greater than 1.00% of mass 198	2.45
441	Present, but less than mass 443	11.05
442	Greater than 40.00% of mass 198	77.94
443	17.00 - 23.00% of mass 442	14.94 (19.17)

Data File: /chem/MSD6.i/s110909.b/s6k0911.d

Date : 09-NOV-2009 18:00

Client ID: DFTPP

Instrument: MSD6.i

Sample Info: |WBN091101-01|50 PPM|1|SVMF|1|DFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

Data File: s6k0911.d
Spectrum: Avg. Scans 208-210 (8.32), Background Scan 202
Location of Maximum: 198.00
Number of points: 303

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	8	122.00	2302	198.00	250752	284.00	336
37.00	393	123.00	3695	199.00	17344	285.00	937
38.00	1200	124.00	1621	200.00	1195	286.00	170
39.00	9016	125.00	1448	201.00	1207	289.00	255
40.00	406	126.00	632	203.00	1659	290.00	159
41.00	292	127.00	128832	204.00	8363	292.00	259
45.00	305	128.00	9787	205.00	14289	293.00	1083
49.00	640	129.00	49280	206.00	59576	294.00	255
50.00	29544	130.00	4085	207.00	7878	295.00	324
51.00	113864	131.00	795	208.00	1898	296.00	14712
52.00	5719	132.00	464	209.00	609	297.00	1998
53.00	291	133.00	153	210.00	1016	298.00	48
55.00	556	134.00	1412	211.00	2089	301.00	220
56.00	3212	135.00	3908	213.00	96	302.00	374
57.00	7977	136.00	1509	215.00	674	303.00	1716
58.00	306	137.00	2002	216.00	1188	304.00	518
59.00	43	138.00	459	217.00	14324	308.00	142
60.00	144	139.00	392	218.00	1841	309.00	104
61.00	1384	140.00	751	219.00	194	310.00	127
62.00	1579	141.00	6116	221.00	12869	313.00	98
63.00	4522	142.00	1931	223.00	3368	314.00	758
64.00	592	143.00	1380	224.00	31752	315.00	1571
65.00	2251	144.00	329	225.00	7987	316.00	915
66.00	47	145.00	339	226.00	839	317.00	119
67.00	98	146.00	1032	227.00	12952	321.00	481
68.00	1681	147.00	3100	228.00	1848	322.00	229
69.00	107792	148.00	6347	229.00	2774	323.00	5178
70.00	566	149.00	1410	230.00	478	324.00	998
71.00	154	150.00	411	231.00	1257	327.00	960
73.00	818	151.00	692	232.00	280	328.00	487
74.00	10556	152.00	489	233.00	226	332.00	397
75.00	17208	153.00	1814	234.00	759	333.00	430
76.00	5735	154.00	1411	235.00	1001	334.00	3299
77.00	118792	155.00	3187	236.00	589	335.00	849
78.00	8119	156.00	5061	237.00	1093	341.00	644

Data File: /chem/MSD6.i/s110909.b/s6k0911.d

Date : 09-NOV-2009 18:00

Client ID: DFTPP

Instrument: MSD6.i

Sample Info: IWBN091101-01|50 PPM|1|SVMF|1|DFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

Data File: s6k0911.d
Spectrum: Avg. Scans 208-210 (8.32), Background Scan 202
Location of Maximum: 198.00
Number of points: 303

m/z	Y	m/z	Y	m/z	Y	m/z	Y
79.00	7616	157.00	1047	238.00	176	342.00	184
80.00	6053	158.00	1005	239.00	483	346.00	1112
81.00	8741	159.00	819	240.00	449	347.00	197
82.00	1932	160.00	1690	241.00	776	351.00	99
83.00	2188	161.00	2737	242.00	1684	352.00	1491
84.00	232	162.00	809	243.00	1819	353.00	1169
85.00	1461	163.00	190	244.00	25832	354.00	1725
86.00	2130	164.00	335	245.00	3598	355.00	318
87.00	1162	165.00	2034	246.00	4786	359.00	103
88.00	449	166.00	1979	247.00	980	365.00	6134
89.00	268	167.00	12360	248.00	210	366.00	872
91.00	1836	168.00	5121	249.00	829	370.00	96
92.00	2163	169.00	1038	250.00	174	371.00	434
93.00	12786	170.00	446	251.00	238	372.00	2651
94.00	908	171.00	470	252.00	289	373.00	754
95.00	261	172.00	1064	253.00	569	383.00	711
96.00	626	173.00	1291	254.00	1047	384.00	258
97.00	236	174.00	2515	255.00	131328	390.00	402
98.00	9808	175.00	4789	256.00	18784	391.00	259
99.00	8032	176.00	1446	257.00	1424	392.00	153
100.00	745	177.00	2269	258.00	6873	401.00	116
101.00	4358	178.00	802	259.00	1148	402.00	1140
102.00	258	179.00	8475	260.00	228	403.00	1594
103.00	1616	180.00	5994	261.00	261	404.00	514
104.00	3096	181.00	2983	264.00	141	405.00	98
105.00	2795	182.00	429	265.00	2620	421.00	1430
106.00	910	183.00	259	266.00	251	422.00	1234
107.00	36184	184.00	679	268.00	180	423.00	10131
108.00	5604	185.00	3929	270.00	163	424.00	2144
109.00	997	186.00	34256	271.00	257	425.00	193
110.00	66656	187.00	9747	272.00	290	436.00	45
111.00	10177	188.00	1146	273.00	3906	437.00	191
112.00	1133	189.00	2105	274.00	10561	438.00	232
113.00	472	190.00	292	275.00	59368	439.00	301
115.00	217	191.00	815	276.00	7957	440.00	309

Date : 09-NOV-2009 18:00

Client ID: DFTPP Instrument: MSD6.i

Sample Info: |WBN091101-01|50 PPM|1|SVMF|1|DFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5MS Column diameter: 0.20

Data File: s6k0911.d
Spectrum: Avg. Scans 208-210 (8.32), Background Scan 202
Location of Maximum: 198.00
Number of points: 303

m/z	Y	m/z	Y	m/z	Y	m/z	Y
116.00	1841	192.00	2423	277.00	4641	441.00	27712
117.00	25072	193.00	3008	278.00	676	442.00	195456
118.00	2060	194.00	699	279.00	175	443.00	37472
119.00	345	195.00	448	281.00	87	444.00	3400
120.00	476	196.00	7876	282.00	46	445.00	197
121.00	165	197.00	1433	283.00	505		

Data File: /chem/MSD6.i/s110909.b/s6k0921.d

Date : 10-NOV-2009 11:07

Client ID: DFTPP

Instrument: MSD6.i

Sample Info: |WBN091101-01|50 PPM|1|SVMF|1|DFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

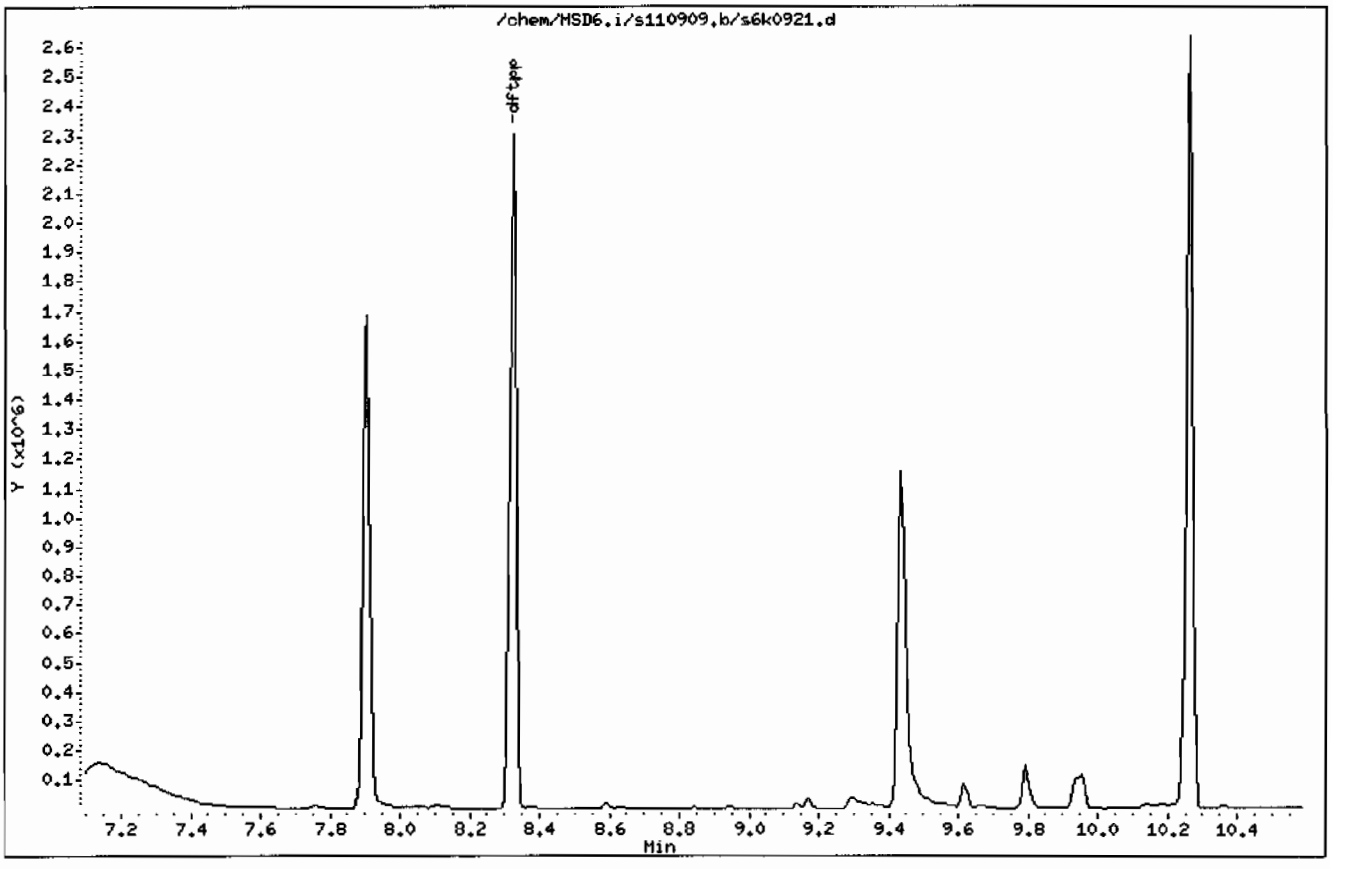

Data File: /chem/MSD6.i/s110909.b/s6k0921.d

Date : 10-NOV-2009 11:07

Client ID: DFTPP

Instrument: MSD6.i

Sample Info: |WBN091101-01|50 PPM|1|SVMF|1|DFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

1 dftpp

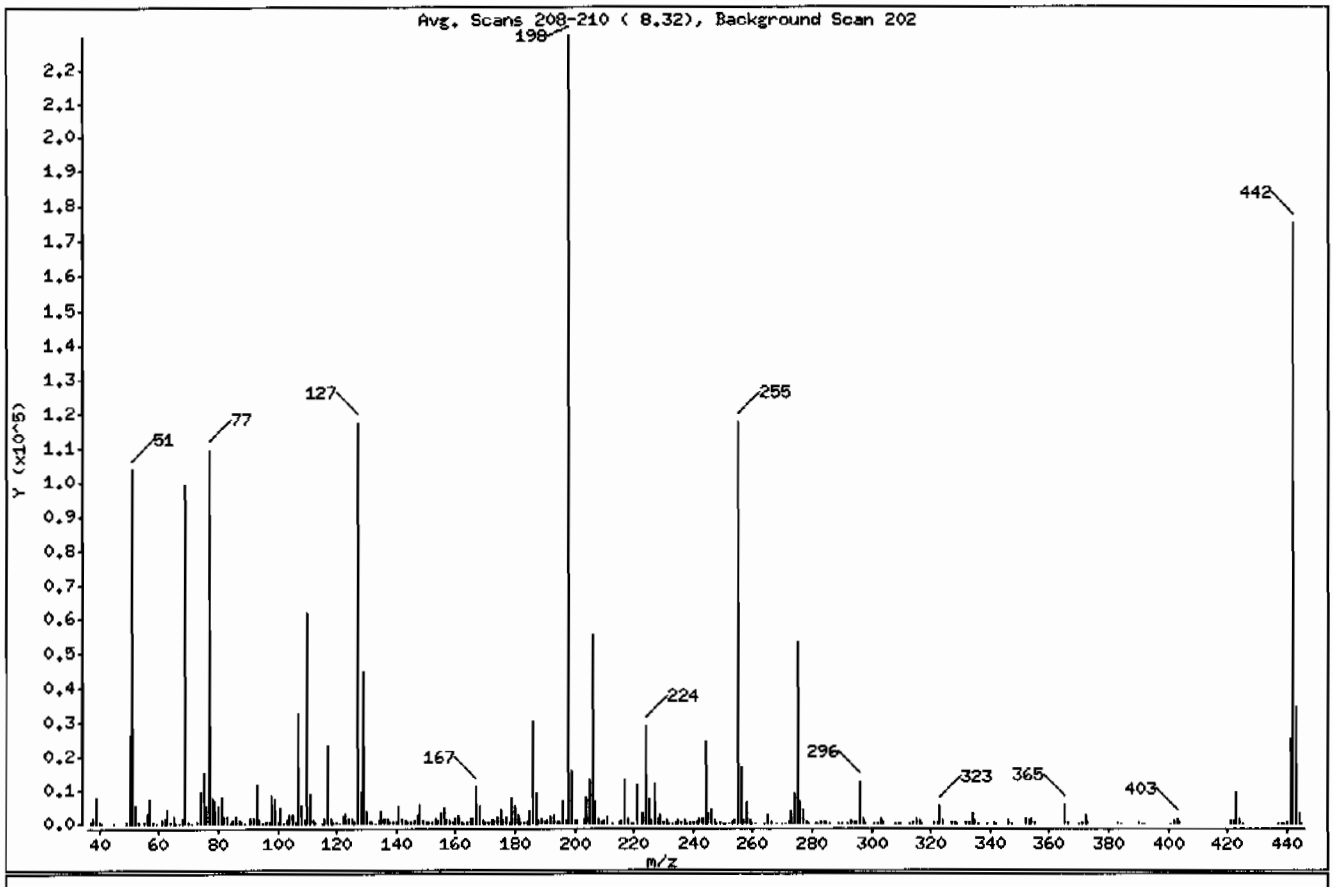

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	45.09
68	Less than 2.00% of mass 69	0.69 (1.59)
69	Mass 69 relative abundance	43.13
70	Less than 2.00% of mass 69	0.21 (0.50)
127	40.00 - 60.00% of mass 198	50.95
197	Less than 1.00% of mass 198	0.38
199	5.00 - 9.00% of mass 198	7.01
275	10.00 - 30.00% of mass 198	23.31
365	Greater than 1.00% of mass 198	2.61
441	Present, but less than mass 443	11.00
442	Greater than 40.00% of mass 198	76.04
443	17.00 - 23.00% of mass 442	15.14 (19.92)

Data File: /chem/MSD6.i/s110909.b/s6k0921.d

Date : 10-NOV-2009 11:07

Client ID: DFTPP

Instrument: MSD6.i

Sample Info: |WBN091101-01|50 PPM|1|SVMF|1|DFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

Data File: s6k0921.d

Spectrum: Avg. Scans 208-210 (8.32), Background Scan 202

Location of Maximum: 198.00

Number of points: 301

m/z	Y	m/z	Y	m/z	Y	m/z	Y
37.00	446	124.00	1597	200.00	1296	285.00	727
38.00	1364	125.00	1527	201.00	1130	286.00	93
39.00	8081	126.00	500	203.00	1398	289.00	109
40.00	429	127.00	117112	204.00	7870	290.00	48
41.00	123	128.00	9305	205.00	12990	292.00	179
45.00	232	129.00	44864	206.00	55704	293.00	996
49.00	676	130.00	3877	207.00	6919	294.00	284
50.00	26328	131.00	762	208.00	1589	295.00	295
51.00	103656	132.00	413	209.00	492	296.00	12743
52.00	5217	133.00	83	210.00	869	297.00	1758
53.00	281	134.00	1179	211.00	2059	298.00	106
55.00	508	135.00	3584	213.00	155	301.00	200
56.00	3141	136.00	1380	215.00	501	302.00	236
57.00	7300	137.00	1770	216.00	1098	303.00	1828
58.00	351	138.00	422	217.00	13179	304.00	578
59.00	89	139.00	313	218.00	1725	308.00	164
61.00	1282	140.00	577	219.00	178	309.00	120
62.00	1522	141.00	5319	220.00	48	310.00	179
63.00	4035	142.00	1826	221.00	11795	313.00	116
64.00	709	143.00	1268	223.00	3181	314.00	633
65.00	2010	144.00	322	224.00	29056	315.00	1462
66.00	201	145.00	315	225.00	7532	316.00	903
67.00	136	146.00	853	226.00	796	317.00	97
68.00	1576	147.00	2856	227.00	12169	321.00	535
69.00	99128	148.00	5895	228.00	1834	322.00	301
70.00	492	149.00	1137	229.00	2389	323.00	5031
71.00	87	150.00	371	230.00	448	324.00	932
73.00	640	151.00	713	231.00	1077	327.00	782
74.00	9704	152.00	430	232.00	217	328.00	460
75.00	15458	153.00	1634	233.00	234	329.00	92
76.00	5031	154.00	1294	234.00	764	332.00	329
77.00	109208	155.00	2977	235.00	895	333.00	541
78.00	7381	156.00	4520	236.00	588	334.00	3026
79.00	6803	157.00	931	237.00	934	335.00	912
80.00	5387	158.00	937	238.00	52	336.00	92

Data File: /chem/MSD6.i/s110909.b/s6k0921.d

Date : 10-NOV-2009 11:07

Client ID: DFTPP

Instrument: MSD6.i

Sample Info: |WBN091101-01|50 PPM|1|SVMF|1|DFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

Data File: s6k0921.d
Spectrum: Avg. Scans 208-210 (8.32), Background Scan 202
Location of Maximum: 198.00
Number of points: 301

m/z	Y	m/z	Y	m/z	Y	m/z	Y
81.00	7979	159.00	792	239.00	457	339.00	88
82.00	2000	160.00	1501	240.00	364	341.00	550
83.00	1861	161.00	2637	241.00	638	342.00	176
84.00	203	162.00	756	242.00	1412	346.00	1020
85.00	1319	163.00	204	243.00	1572	347.00	119
86.00	1985	164.00	328	244.00	24152	352.00	1335
87.00	1000	165.00	1810	245.00	3200	353.00	950
88.00	412	166.00	1695	246.00	4314	354.00	1475
89.00	260	167.00	10891	247.00	844	355.00	296
91.00	1676	168.00	5136	248.00	166	365.00	5995
92.00	1806	169.00	973	249.00	748	366.00	747
93.00	11677	170.00	306	250.00	170	370.00	103
94.00	892	171.00	442	251.00	190	371.00	323
95.00	199	172.00	897	252.00	210	372.00	2543
96.00	636	173.00	1105	253.00	472	373.00	611
97.00	286	174.00	2178	254.00	899	383.00	675
98.00	8556	175.00	4297	255.00	117320	384.00	156
99.00	7312	176.00	1290	256.00	16728	390.00	314
100.00	595	177.00	2105	257.00	1320	391.00	189
101.00	4548	178.00	636	258.00	6484	392.00	157
102.00	251	179.00	8002	259.00	1064	401.00	199
103.00	1289	180.00	5191	260.00	200	402.00	1090
104.00	2626	181.00	2701	261.00	212	403.00	1396
105.00	2533	182.00	448	264.00	192	404.00	427
106.00	724	183.00	312	265.00	2469	421.00	1265
107.00	33008	184.00	599	266.00	401	422.00	1145
108.00	5264	185.00	3797	268.00	43	423.00	9473
109.00	994	186.00	30448	270.00	167	424.00	1846
110.00	61616	187.00	8914	271.00	186	425.00	183
111.00	9026	188.00	970	272.00	329	437.00	54
112.00	1057	189.00	1726	273.00	3492	438.00	170
113.00	367	190.00	298	274.00	9124	439.00	228
115.00	227	191.00	976	275.00	53576	440.00	294
116.00	1610	192.00	2282	276.00	7126	441.00	25272
117.00	23152	193.00	2535	277.00	3970	442.00	174784

Data File: /chem/MSD6.i/s110909.b/s6k0921.d

Date : 10-NOV-2009 11:07

Client ID: DFTPP

Instrument: MSD6.i

Sample Info: |WBN091101-01|50 PPM|1|SVHF|1|DFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

Data File: s6k0921.d
Spectrum: Avg. Scans 208-210 (8.32), Background Scan 202
Location of Maximum: 198.00
Number of points: 301

m/z	Y	m/z	Y	m/z	Y	m/z	Y
118.00	1681	194.00	518	278.00	653	443.00	34808
119.00	280	195.00	333	279.00	140	444.00	3177
120.00	427	196.00	6863	281.00	140	445.00	129
121.00	176	197.00	878	282.00	42		
122.00	2199	198.00	229824	283.00	507		
123.00	3315	199.00	16104	284.00	294		

Data File: /chem/MSD6.i/s121609.b/s611610.d

Date : 16-DEC-2009 14:04

Client ID: DFTPP

Instrument: MSD6.i

Sample Info: IWBN091213-01|50 PPM|1|SVMF|1|DFTPP

Operator: nagi

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

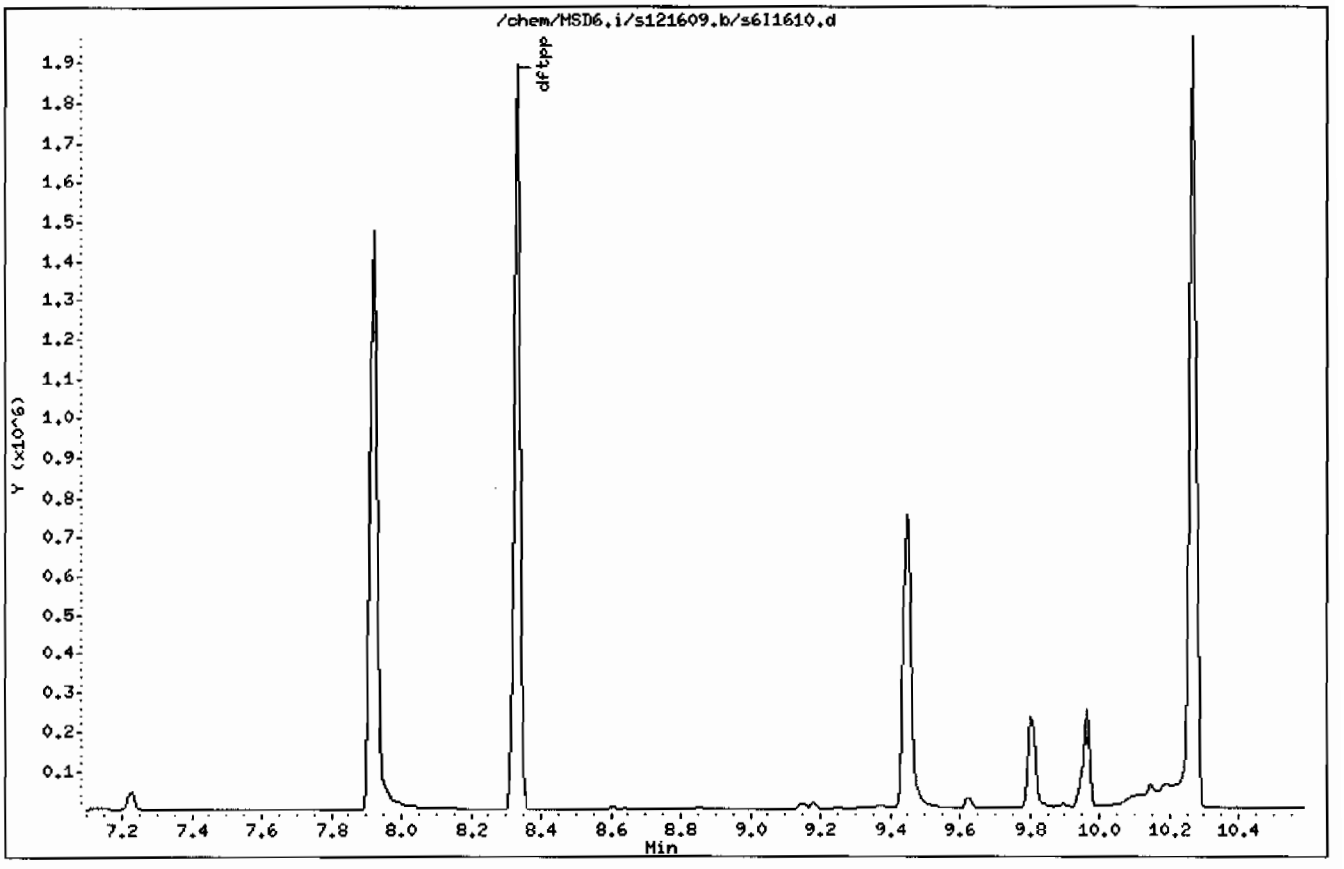

Data File: /chem/MSD6.i/s121609.b/s611610.d

Date : 16-DEC-2009 14:04

Client ID: DFTPP

Instrument: MSD6.i

Sample Info: |WBN091213-01|50 PPM|1|SVMF|1|DFTPP

Operator: nag1

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

1 dftpp

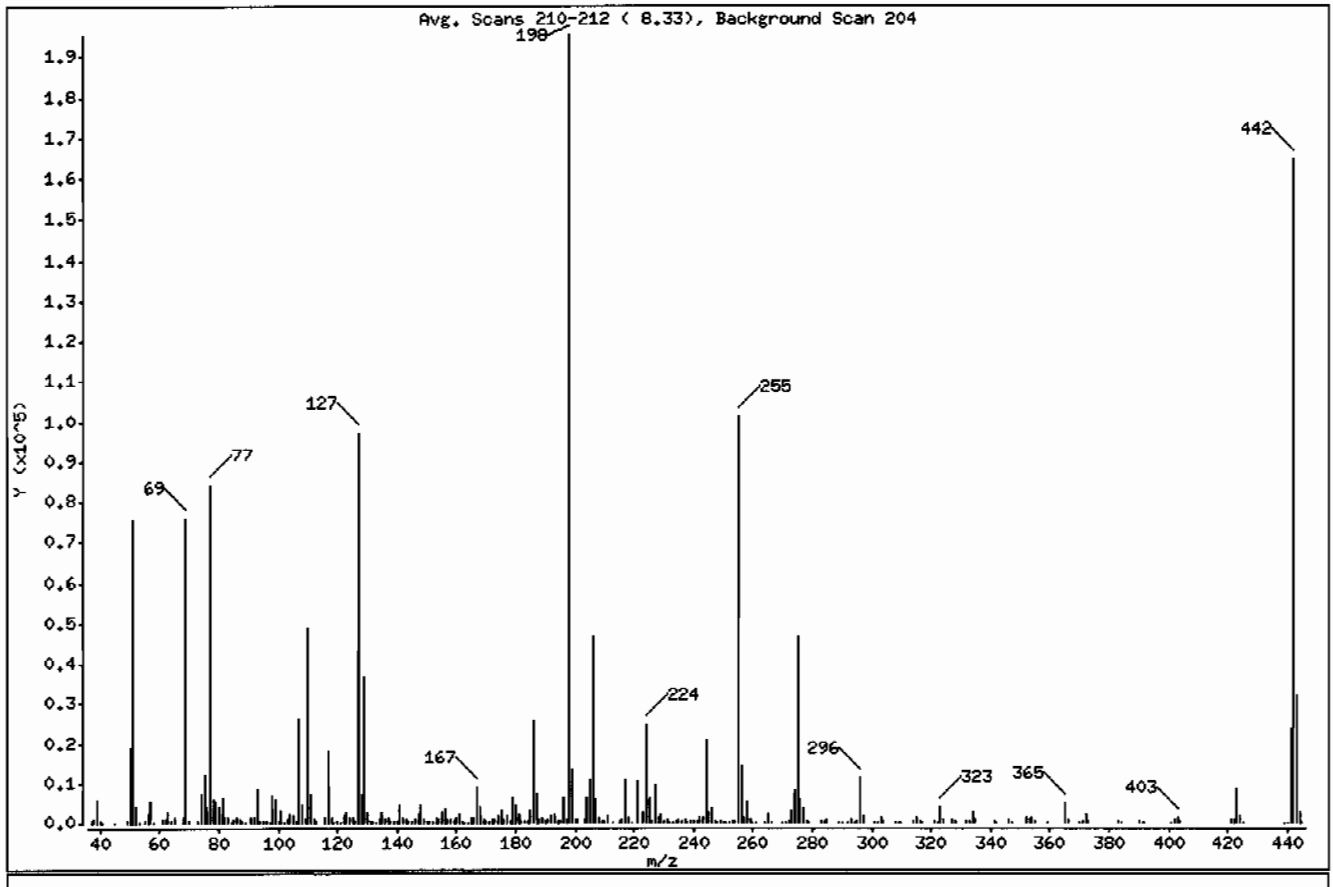

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	38.58
68	Less than 2.00% of mass 69	0.60 (1.55)
69	Mass 69 relative abundance	38.87
70	Less than 2.00% of mass 69	0.18 (0.46)
127	40.00 - 60.00% of mass 198	49.76
197	Less than 1.00% of mass 198	0.39
199	5.00 - 9.00% of mass 198	6.85
275	10.00 - 30.00% of mass 198	23.90
365	Greater than 1.00% of mass 198	2.53
441	Present, but less than mass 443	12.26
442	Greater than 40.00% of mass 198	84.12
443	17.00 - 23.00% of mass 442	16.25 (19.31)

Data File: /chem/MSD6.i/s121609.b/s611610.d

Date : 16-DEC-2009 14:04

Client ID: DFTPP

Instrument: MSD6.i

Sample Info: |WBN091213-01|50 PPM|1|SVMF|1|DFTPP

Operator: nagi

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

Data File: s611610.d
Spectrum: Avg. Scans 210-212 (8.33), Background Scan 204
Location of Maximum: 198.00
Number of points: 285

m/z	Y	m/z	Y	m/z	Y	m/z	Y
37.00	329	125.00	1239	197.00	771	279.00	48
38.00	800	126.00	464	198.00	195520	283.00	389
39.00	5756	127.00	97296	199.00	13402	284.00	282
40.00	317	128.00	7203	200.00	1053	285.00	704
41.00	192	129.00	36776	201.00	1049	289.00	102
45.00	198	130.00	2919	203.00	1095	290.00	94
49.00	521	131.00	574	204.00	6249	292.00	179
50.00	18904	132.00	372	205.00	10640	293.00	808
51.00	75424	133.00	153	206.00	46704	294.00	198
52.00	4067	134.00	944	207.00	5993	295.00	230
53.00	102	135.00	2851	208.00	1490	296.00	11069
55.00	367	136.00	1121	209.00	435	297.00	1610
56.00	2294	137.00	1343	210.00	587	301.00	151
57.00	5603	138.00	353	211.00	1701	302.00	197
58.00	220	139.00	229	213.00	87	303.00	1443
61.00	883	140.00	486	215.00	424	304.00	362
62.00	1006	141.00	4439	216.00	939	308.00	171
63.00	2855	142.00	1382	217.00	10922	309.00	141
64.00	449	143.00	977	218.00	1417	310.00	154
65.00	1519	144.00	282	219.00	189	314.00	585
68.00	1176	145.00	229	221.00	10498	315.00	1178
69.00	75992	146.00	770	223.00	2628	316.00	671
70.00	347	147.00	2140	224.00	24936	317.00	150
73.00	536	148.00	4633	225.00	6382	321.00	364
74.00	7170	149.00	927	226.00	610	322.00	202
75.00	12152	150.00	277	227.00	9574	323.00	4130
76.00	3973	151.00	611	228.00	1407	324.00	746
77.00	84224	152.00	420	229.00	2157	327.00	709
78.00	5895	153.00	1331	230.00	328	328.00	354
79.00	5312	154.00	954	231.00	907	332.00	267
80.00	4022	155.00	2506	232.00	114	333.00	384
81.00	6110	156.00	3759	233.00	187	334.00	2531
82.00	1550	157.00	765	234.00	545	335.00	677
83.00	1500	158.00	843	235.00	701	341.00	469
84.00	196	159.00	601	236.00	448	342.00	151

Data File: /chem/MSD6.i/s121609.b/s611610.d

Date : 16-DEC-2009 14:04

Client ID: DFTPP

Instrument: MSD6.i

Sample Info: |WBN091213-01|50 PPM|1|SVMF|1|DFTPP

Operator: nagl

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

Data File: s611610.d
Spectrum: Avg. Scans 210-212 (8.33), Background Scan 204
Location of Maximum: 198.00
Number of points: 285

m/z	Y	m/z	Y	m/z	Y	m/z	Y
85.00	1077	160.00	1373	237.00	890	346.00	807
86.00	1548	161.00	2161	238.00	42	347.00	106
87.00	796	162.00	584	239.00	365	352.00	1163
88.00	329	163.00	167	240.00	317	353.00	845
89.00	119	164.00	210	241.00	460	354.00	1304
91.00	1416	165.00	1422	242.00	1270	355.00	271
92.00	1386	166.00	1453	243.00	1388	359.00	42
93.00	8764	167.00	8782	244.00	20600	365.00	4950
94.00	622	168.00	3877	245.00	2574	366.00	699
95.00	244	169.00	734	246.00	3645	370.00	47
96.00	492	170.00	285	247.00	671	371.00	312
97.00	132	171.00	320	248.00	91	372.00	2209
98.00	6678	172.00	755	249.00	637	373.00	578
99.00	5704	173.00	1047	250.00	113	383.00	573
100.00	458	174.00	1675	251.00	185	384.00	196
101.00	3366	175.00	3343	252.00	178	390.00	329
102.00	203	176.00	1067	253.00	455	391.00	220
103.00	1104	177.00	1614	254.00	651	392.00	205
104.00	2175	178.00	538	255.00	101120	401.00	47
105.00	1940	179.00	6318	256.00	14592	402.00	889
106.00	607	180.00	4630	257.00	1128	403.00	1334
107.00	25984	181.00	2109	258.00	5317	404.00	418
108.00	4283	182.00	343	259.00	927	421.00	1059
109.00	688	183.00	233	260.00	162	422.00	1010
110.00	49096	184.00	494	261.00	188	423.00	8360
111.00	7198	185.00	2975	264.00	88	424.00	1746
112.00	793	186.00	25656	265.00	2138	425.00	45
113.00	291	187.00	7054	266.00	179	439.00	149
116.00	1473	188.00	750	270.00	141	440.00	195
117.00	17920	189.00	1519	271.00	166	441.00	23968
118.00	1367	190.00	249	272.00	261	442.00	164480
119.00	210	191.00	691	273.00	3040	443.00	31768
120.00	291	192.00	1920	274.00	8204	444.00	2860
121.00	95	193.00	2261	275.00	46720	445.00	104
122.00	1769	194.00	440	276.00	5923		

Date : 16-DEC-2009 14:04

Client ID: DFTPP Instrument: MSD6.i

Sample Info: |WBN091213-01|50 PPM|1|SVMF|1|DFTPP

Operator: nag1

Column phase: Phenomenex ZB-5MS Column diameter: 0.20

Data File: s611610.d
Spectrum: Avg. Scans 210-212 (8.33), Background Scan 204
Location of Maximum: 198.00
Number of points: 285

m/z	Y	m/z	Y	m/z	Y	m/z	Y
123.00	2752	195.00	266	277.00	3457		
124.00	1194	196.00	6169	278.00	487		

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-854			**Matrix:**	SOIL
Lab Sample ID:	1201994527				
Client Sample:	QC for batch 932443	**Client:**	LANL010	**Project:**	QC
Client ID:	MB for batch 932443	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	932444	**Inst:**	MSD6.I	**Dilution:**	1
Run Date:	12/16/2009 15:15	**Analyst:**	NAG1	**Inj. Vol:**	.5 uL
Prep Date:	12/14/2009 09:47	**Aliquot:**	30 g	**Final Volume:**	1 mL
Data File:	s6l1613-1.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	333	ug/kg	66.7	333
108-95-2	Phenol	U	333	ug/kg	66.7	333
95-57-8	2-Chlorophenol	U	333	ug/kg	66.7	333
106-46-7	1,4-Dichlorobenzene	U	333	ug/kg	66.7	333
621-64-7	N-Nitrosodipropylamine	U	333	ug/kg	66.7	333
59-50-7	4-Chloro-3-methylphenol	U	333	ug/kg	66.7	333
83-32-9	Acenaphthene	U	33.3	ug/kg	11.0	33.3
121-14-2	2,4-Dinitrotoluene	U	333	ug/kg	33.3	333
100-02-7	4-Nitrophenol	U	333	ug/kg	110	333
87-86-5	Pentachlorophenol	U	333	ug/kg	83.3	333
129-00-0	Pyrene	U	33.3	ug/kg	10.0	33.3
110-86-1	Pyridine	U	333	ug/kg	66.7	333
62-53-3	Aniline	U	333	ug/kg	100	333
111-44-4	bis(2-Chloroethyl) ether	U	333	ug/kg	66.7	333
541-73-1	1,3-Dichlorobenzene	U	333	ug/kg	66.7	333
100-51-6	Benzyl alcohol	U	333	ug/kg	100	333
95-50-1	1,2-Dichlorobenzene	U	333	ug/kg	66.7	333
108-60-1	bis(2-Chloroisopropyl)ether	U	333	ug/kg	66.7	333
95-48-7	o-Cresol	U	333	ug/kg	66.7	333
65794-96-9	m,p-Cresols	U	333	ug/kg	100	333
67-72-1	Hexachloroethane	U	333	ug/kg	66.7	333
98-95-3	Nitrobenzene	U	333	ug/kg	66.7	333
78-59-1	Isophorone	U	333	ug/kg	66.7	333
88-75-5	2-Nitrophenol	U	333	ug/kg	66.7	333
105-67-9	2,4-Dimethylphenol	U	333	ug/kg	117	333
111-91-1	bis(2-Chloroethoxy)methane	U	333	ug/kg	66.7	333
120-83-2	2,4-Dichlorophenol	U	333	ug/kg	66.7	333
65-85-0	Benzoic acid	U	667	ug/kg	167	667
91-20-3	Naphthalene	U	33.3	ug/kg	10.0	33.3
106-47-8	4-Chloroaniline	U	333	ug/kg	66.7	333
87-68-3	Hexachlorobutadiene	U	333	ug/kg	66.7	333
91-57-6	2-Methylnaphthalene	U	33.3	ug/kg	6.67	33.3
77-47-4	Hexachlorocyclopentadiene	U	333	ug/kg	66.7	333
88-06-2	2,4,6-Trichlorophenol	U	333	ug/kg	66.7	333
95-95-4	2,4,5-Trichlorophenol	U	333	ug/kg	66.7	333
91-58-7	2-Chloronaphthalene	U	33.3	ug/kg	11.0	33.3
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	333	ug/kg	66.7	333
99-09-2	3-Nitroaniline	U	333	ug/kg	66.7	333

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-854**			**Matrix:**	**SOIL**
Lab Sample ID:	**1201994527**				
Client Sample:	**QC for batch 932443**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 932443**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**932444**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**12/16/2009 15:15**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/14/2009 09:47**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**s6l1613-1.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	333	ug/kg	66.7	333
606-20-2	2,6-Dinitrotoluene	U	333	ug/kg	33.3	333
208-96-8	Acenaphthylene	U	33.3	ug/kg	10.0	33.3
51-28-5	2,4-Dinitrophenol	U	667	ug/kg	127	667
132-64-9	Dibenzofuran	U	333	ug/kg	66.7	333
84-66-2	Diethylphthalate	U	333	ug/kg	66.7	333
86-73-7	Fluorene	U	33.3	ug/kg	10.0	33.3
7005-72-3	4-Chlorophenylphenylether	U	333	ug/kg	66.7	333
534-52-1	2-Methyl-4,6-dinitrophenol	U	333	ug/kg	66.7	333
100-01-6	4-Nitroaniline	U	333	ug/kg	100	333
	p-Nitroaniline					
122-39-4	Diphenylamine	U	333	ug/kg	66.7	333
122-66-7	Azobenzene	U	333	ug/kg	66.7	333
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	333	ug/kg	66.7	333
118-74-1	Hexachlorobenzene	U	333	ug/kg	66.7	333
85-01-8	Phenanthrene	U	33.3	ug/kg	10.0	33.3
120-12-7	Anthracene	U	33.3	ug/kg	6.67	33.3
84-74-2	Di-n-butylphthalate	U	333	ug/kg	66.7	333
206-44-0	Fluoranthene	U	33.3	ug/kg	10.0	33.3
85-68-7	Butylbenzylphthalate	U	333	ug/kg	66.7	333
56-55-3	Benzo(a)anthracene	U	33.3	ug/kg	10.0	33.3
91-94-1	3,3'-Dichlorobenzidine	U	333	ug/kg	100	333
218-01-9	Chrysene	U	33.3	ug/kg	10.0	33.3
117-81-7	bis(2-Ethylhexyl)phthalate	U	333	ug/kg	66.7	333
117-84-0	Di-n-octylphthalate	U	333	ug/kg	66.7	333
205-99-2	Benzo(b)fluoranthene	U	33.3	ug/kg	10.0	33.3
207-08-9	Benzo(k)fluoranthene	U	33.3	ug/kg	10.0	33.3
50-32-8	Benzo(a)pyrene	U	33.3	ug/kg	10.0	33.3
193-39-5	Indeno(1,2,3-cd)pyrene	U	33.3	ug/kg	10.0	33.3
53-70-3	Dibenzo(a,h)anthracene	U	33.3	ug/kg	10.0	33.3
191-24-2	Benzo(ghi)perylene	U	33.3	ug/kg	10.0	33.3
120-82-1	1,2,4-Trichlorobenzene	U	333	ug/kg	66.7	333

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	2.22	401	ug/kg		J
	Unknown Aldol Condensate	3.45	441	ug/kg		JA

GEL Laboratories LLC

Data file : /chem/MSD6.i/s121609.b/s611613-1.d
Lab Smp Id: 1201994527 Client Smp ID: SBLK01
Inj Date : 16-DEC-2009 15:15
Operator : nagl Inst ID: MSD6.i
Smp Info : |1201994527|932444|1|SVMF|1|SBLK01
Misc Info : |MSD8270_S|WBN091208-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s121609.b/MSD6-M8270C-AQA-110909.m
Meth Date : 17-Dec-2009 08:11 nat00999 Quant Type: ISTD
Cal Date : 11-NOV-2009 04:38 Cal File: s6k0954.d
Als bottle: 4 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-854.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	0.00000	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	4.844	4.849	(1.000)	213205	40.0000	
* 29 Naphthalene-d8	136	6.126	6.131	(1.000)	803720	40.0000	
* 46 Acenaphthene-d10	164	7.996	8.001	(1.000)	443898	40.0000	
* 67 Phenanthrene-d10	188	9.606	9.611	(1.000)	755605	40.0000	
* 91 Chrysene-d12	240	12.626	12.633	(1.000)	628686	40.0000	
* 98 Perylene-d12	264	14.968	14.973	(1.000)	545942	40.0000	
$ 3 2-Fluorophenol	112	3.687	3.674	(0.761)	355317	66.5496	2220
$ 5 Phenol-d5	99	4.454	4.457	(0.920)	456839	67.7932	2260
$ 20 Nitrobenzene-d5	82	5.379	5.389	(0.878)	192951	33.9375	1130
$ 39 2-Fluorobiphenyl	172	7.252	7.254	(0.907)	394967	34.5263	1150
$ 60 2,4,6-Tribromophenol	329	8.844	8.850	(1.106)	92216	71.1753	2370
$ 81 p-Terphenyl-d14	244	11.316	11.316	(0.896)	433496	42.7569	1420

GEL Laboratories LLC

Data file : /chem/MSD6.i/s121609.b/s611613-1.d
Lab Smp Id: 1201994527 Client Smp ID: SBLK01
Inj Date : 16-DEC-2009 15:15
Operator : nag1 Inst ID: MSD6.i
Smp Info : |1201994527|932444|1|SVMF|1|SBLK01
Misc Info : |MSD8270_S|WBN091208-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s121609.b/MSD6-M8270C-AQA-110909.m
Meth Date : 17-Dec-2009 08:11 nat00999 Quant Type: ISTD
Cal Date : 11-NOV-2009 04:38 Cal File: s6k0954.d
Als bottle: 4 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-854.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	0.00000	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	4.844	1235594	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown				CAS #:			
2.224	371635	12.0309580	401	0		0	10
Unknown Aldol Condensate				CAS #:			
3.450	408534	13.2255105	441	0		0	10

Data File: /chem/MSD6.i/s121609.b/s611613-1.d

Date : 16-DEC-2009 15:15

Client ID: SBLK01

Sample Info: |1201994527|932444|1|SVMF|1|SBLK01

Volume Injected (uL): 0.5

Column phase: J&W DB-5MS

Instrument: MSD6.i

Operator: nag1

Column diameter: 0.20

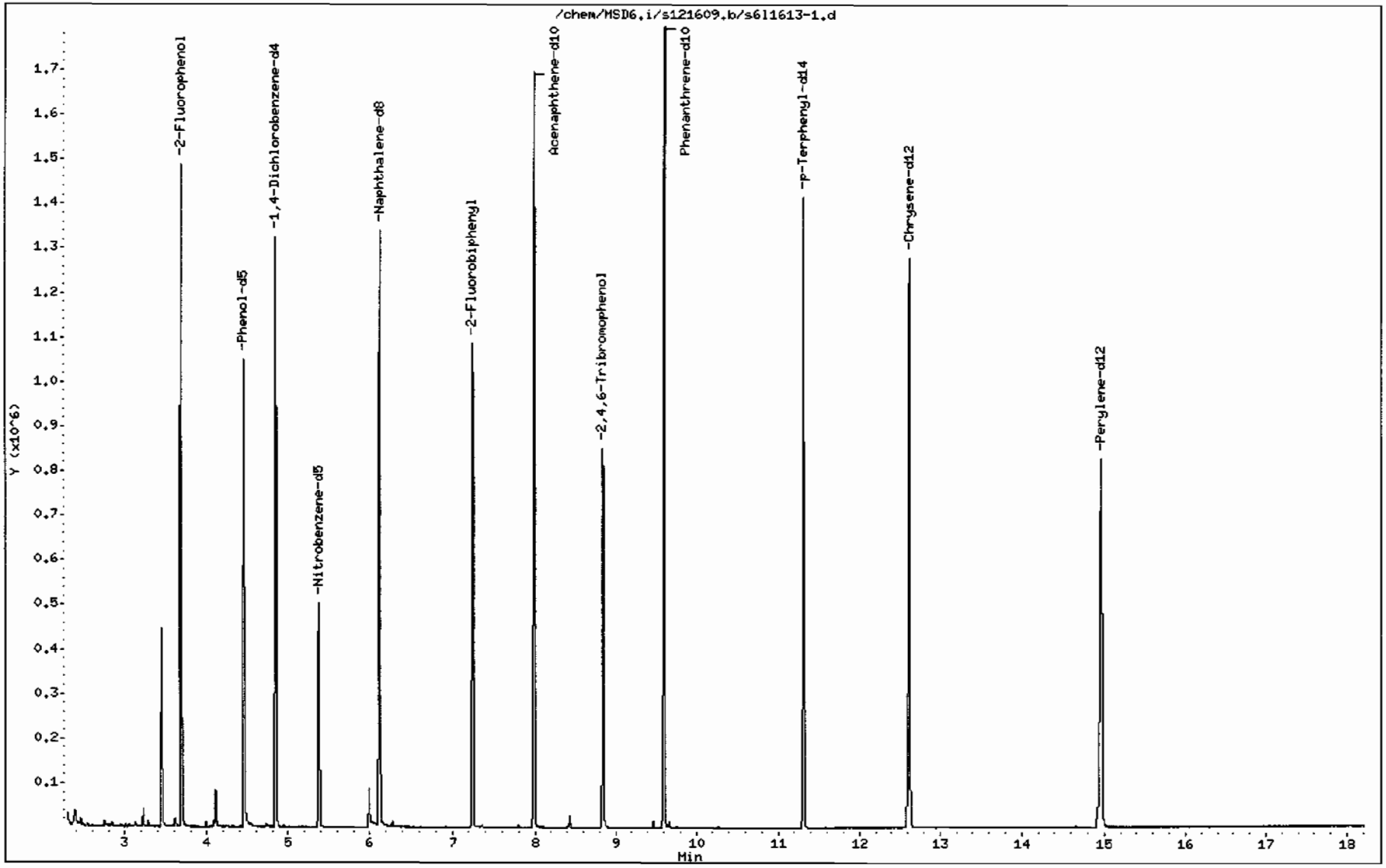

Data File: /chem/MSD6.i/s121609.b/s611613-1.d

Date : 16-DEC-2009 15:15

Client ID: SBLK01 Instrument: MSD6.i

Sample Info: |1201994527|932444|1|SVHF|1|SBLK01

Volume Injected (uL): 0.5 Operator: nagl

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Propane, 2,2-dimethoxy-	77-76-9	NIST05.L	4663	78	C5H12O2	104
Propane, 2,2-dimethoxy-	77-76-9	NIST05.L	4658	40	C5H12O2	104
Propanoic acid, 2-methyl-, propyl ester	644-49-5	NIST05.L	13119	17	C7H14O2	130

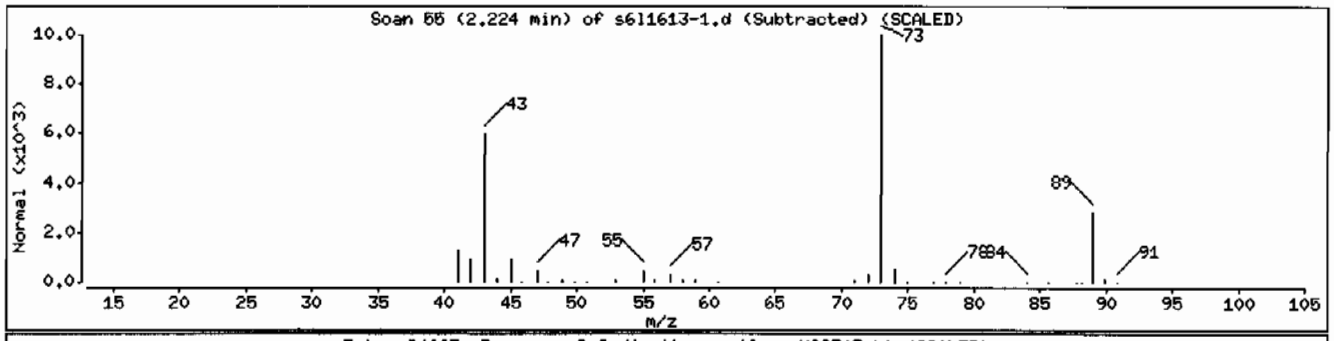

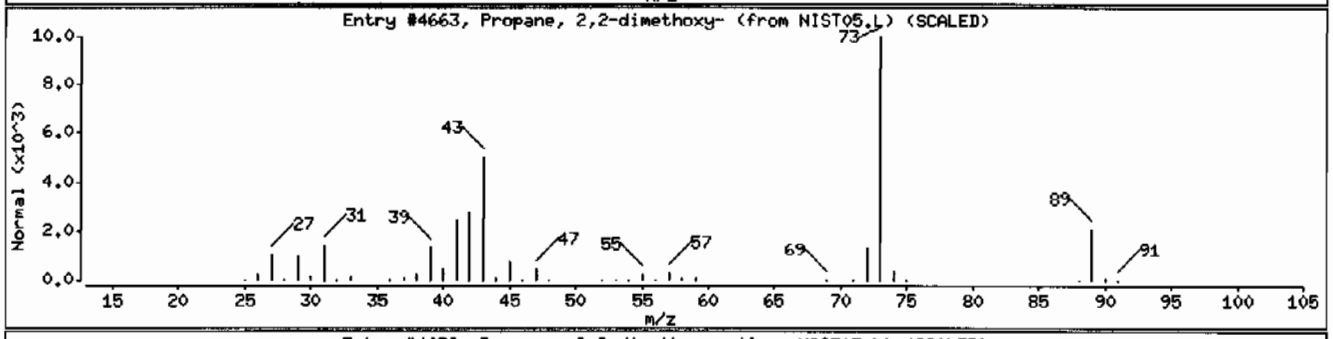

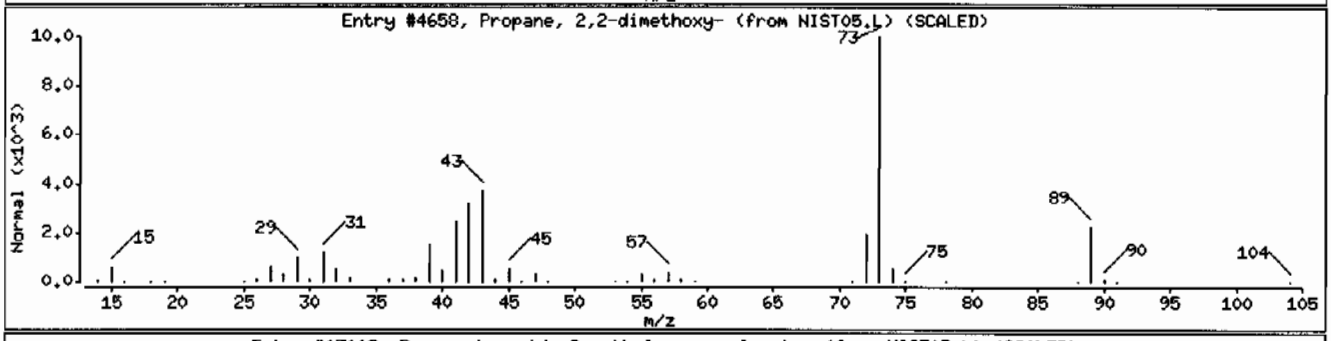

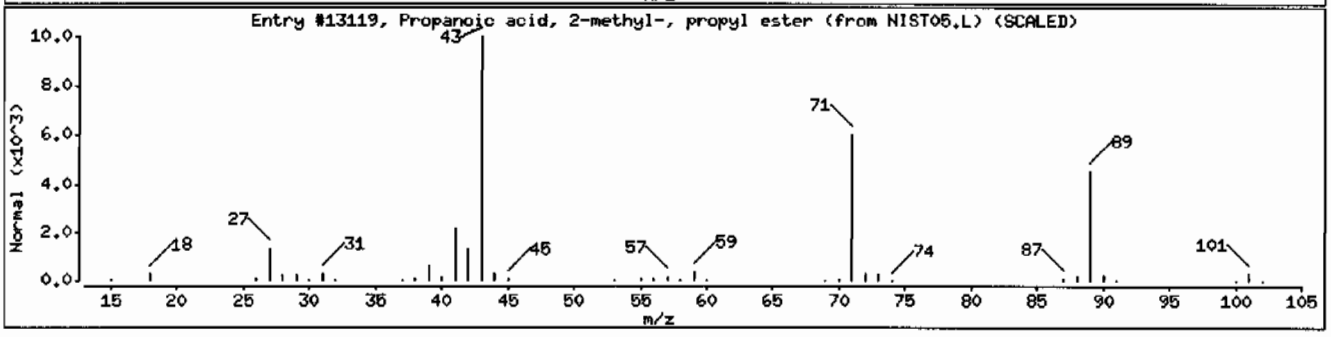

Data File: /chem/MSD6.i/s121609.b/s611613-1.d

Date : 16-DEC-2009 15:15

Client ID: SBLK01 Instrument: MSD6.i

Sample Info: |1201994527|932444|1|SVMF|1|SBLK01

Volume Injected (uL): 0.5 Operator: nag1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	59	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	38	C6H12O2	116
Acetic acid, cyano-, methyl ester	105-34-0	NIST05.L	3380	9	C4H5NO2	99

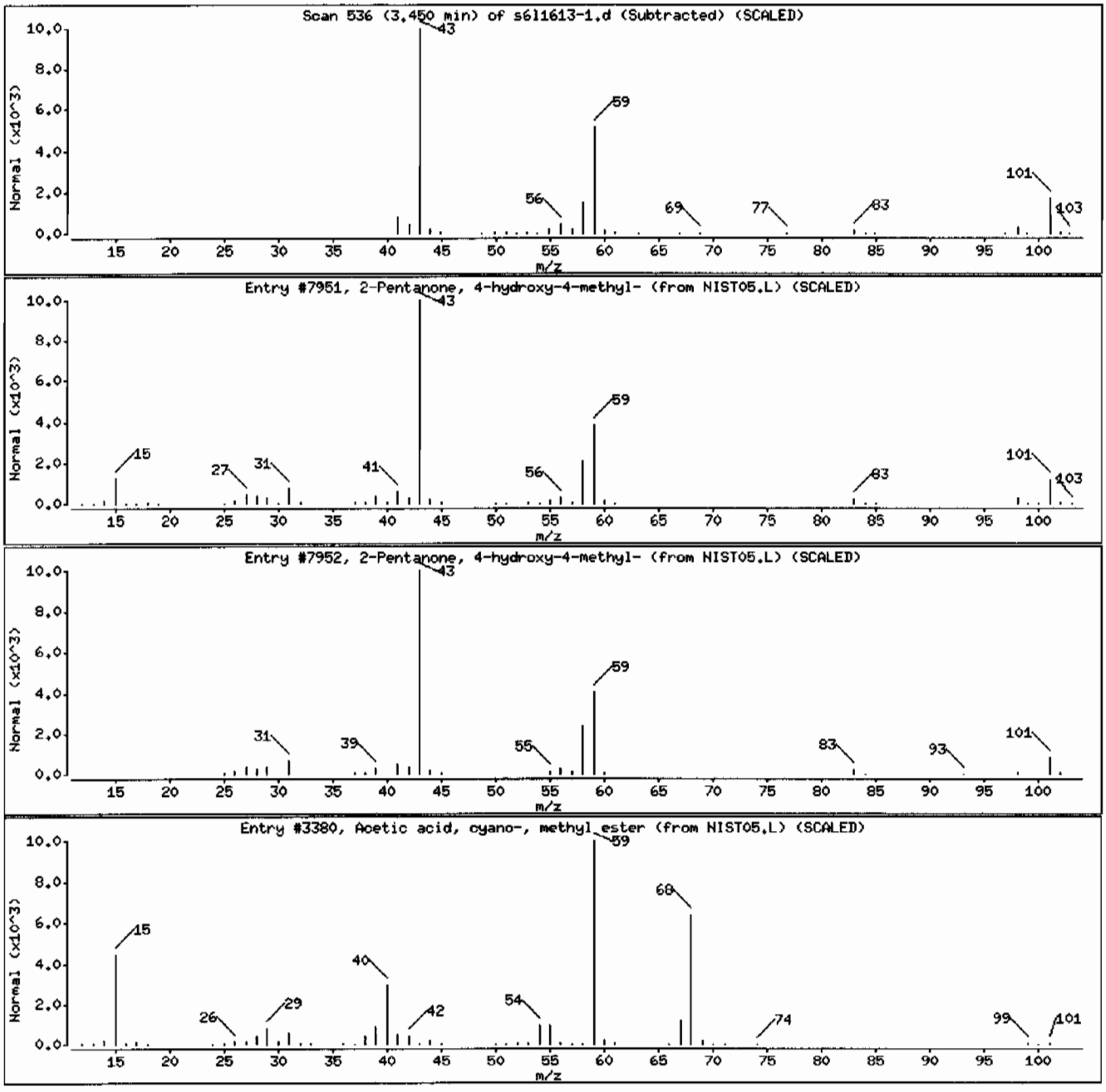

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-854			Matrix:	SOIL
Lab Sample ID:	1201994528				
Client Sample:	QC for batch 932443	Client:	LANL010	Project:	QC
Client ID:	LCS for batch 932443	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	932444	Inst:	MSD6.I	Dilution:	1
Run Date:	12/16/2009 15:45	Analyst:	NAG1	Inj. Vol:	.5 uL
Prep Date:	12/14/2009 09:47	Aliquot:	30 g	Final Volume:	1 mL
Data File:	s6l1614-1.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine		946	ug/kg	66.7	333
108-95-2	Phenol		1190	ug/kg	66.7	333
95-57-8	2-Chlorophenol		1160	ug/kg	66.7	333
106-46-7	1,4-Dichlorobenzene		964	ug/kg	66.7	333
621-64-7	N-Nitrosodipropylamine		996	ug/kg	66.7	333
59-50-7	4-Chloro-3-methylphenol		1200	ug/kg	66.7	333
83-32-9	Acenaphthene		1180	ug/kg	11.0	33.3
121-14-2	2,4-Dinitrotoluene		1340	ug/kg	33.3	333
100-02-7	4-Nitrophenol		1340	ug/kg	110	333
87-86-5	Pentachlorophenol		1250	ug/kg	83.3	333
129-00-0	Pyrene		1230	ug/kg	10.0	33.3
110-86-1	Pyridine		897	ug/kg	66.7	333
62-53-3	Aniline		1120	ug/kg	100	333
111-44-4	bis(2-Chloroethyl) ether		1010	ug/kg	66.7	333
541-73-1	1,3-Dichlorobenzene		950	ug/kg	66.7	333
100-51-6	Benzyl alcohol		1390	ug/kg	100	333
95-50-1	1,2-Dichlorobenzene		1020	ug/kg	66.7	333
108-60-1	bis(2-Chloroisopropyl)ether		1070	ug/kg	66.7	333
95-48-7	o-Cresol		866	ug/kg	66.7	333
65794-96-9	m,p-Cresols		1250	ug/kg	100	333
67-72-1	Hexachloroethane		944	ug/kg	66.7	333
98-95-3	Nitrobenzene		1100	ug/kg	66.7	333
78-59-1	Isophorone		940	ug/kg	66.7	333
88-75-5	2-Nitrophenol		1180	ug/kg	66.7	333
105-67-9	2,4-Dimethylphenol		1030	ug/kg	117	333
111-91-1	bis(2-Chloroethoxy)methane		865	ug/kg	66.7	333
120-83-2	2,4-Dichlorophenol		1200	ug/kg	66.7	333
65-85-0	Benzoic acid		3080	ug/kg	167	667
91-20-3	Naphthalene		1020	ug/kg	10.0	33.3
106-47-8	4-Chloroaniline		1140	ug/kg	66.7	333
87-68-3	Hexachlorobutadiene		1060	ug/kg	66.7	333
91-57-6	2-Methylnaphthalene		1060	ug/kg	6.67	33.3
77-47-4	Hexachlorocyclopentadiene		1040	ug/kg	66.7	333
88-06-2	2,4,6-Trichlorophenol		1180	ug/kg	66.7	333
95-95-4	2,4,5-Trichlorophenol		1190	ug/kg	66.7	333
91-58-7	2-Chloronaphthalene		1090	ug/kg	11.0	33.3
88-74-4	2-Nitroaniline		1100	ug/kg	66.7	333
	o-Nitroaniline					
99-09-2	3-Nitroaniline		1380	ug/kg	66.7	333

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-854**			**Matrix:**	**SOIL**
Lab Sample ID:	**1201994528**				
Client Sample:	**QC for batch 932443**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 932443**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**932444**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**12/16/2009 15:45**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/14/2009 09:47**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**s6l1614-1.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate		1240	ug/kg	66.7	333
606-20-2	2,6-Dinitrotoluene		1210	ug/kg	33.3	333
208-96-8	Acenaphthylene		1220	ug/kg	10.0	33.3
51-28-5	2,4-Dinitrophenol		1500	ug/kg	127	667
132-64-9	Dibenzofuran		1500	ug/kg	66.7	333
84-66-2	Diethylphthalate		1300	ug/kg	66.7	333
86-73-7	Fluorene		1280	ug/kg	10.0	33.3
7005-72-3	4-Chlorophenylphenylether		1300	ug/kg	66.7	333
534-52-1	2-Methyl-4,6-dinitrophenol		1250	ug/kg	66.7	333
100-01-6	4-Nitroaniline		1500	ug/kg	100	333
	p-Nitroaniline					
122-39-4	Diphenylamine		1200	ug/kg	66.7	333
122-66-7	Azobenzene		1250	ug/kg	66.7	333
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether		1250	ug/kg	66.7	333
118-74-1	Hexachlorobenzene		1220	ug/kg	66.7	333
85-01-8	Phenanthrene		1190	ug/kg	10.0	33.3
120-12-7	Anthracene		1220	ug/kg	6.67	33.3
84-74-2	Di-n-butylphthalate		1390	ug/kg	66.7	333
206-44-0	Fluoranthene		1360	ug/kg	10.0	33.3
85-68-7	Butylbenzylphthalate		1410	ug/kg	66.7	333
56-55-3	Benzo(a)anthracene		1390	ug/kg	10.0	33.3
91-94-1	3,3'-Dichlorobenzidine		1070	ug/kg	100	333
218-01-9	Chrysene		1300	ug/kg	10.0	33.3
117-81-7	bis(2-Ethylhexyl)phthalate		1460	ug/kg	66.7	333
117-84-0	Di-n-octylphthalate		1480	ug/kg	66.7	333
205-99-2	Benzo(b)fluoranthene		1430	ug/kg	10.0	33.3
207-08-9	Benzo(k)fluoranthene		1320	ug/kg	10.0	33.3
50-32-8	Benzo(a)pyrene		1440	ug/kg	10.0	33.3
193-39-5	Indeno(1,2,3-cd)pyrene		1430	ug/kg	10.0	33.3
53-70-3	Dibenzo(a,h)anthracene		1350	ug/kg	10.0	33.3
191-24-2	Benzo(ghi)perylene		1490	ug/kg	10.0	33.3
120-82-1	1,2,4-Trichlorobenzene		1060	ug/kg	66.7	333

GEL Laboratories LLC

Data file : /chem/MSD6.i/s121609.b/s611614-1.d
Lab Smp Id: 1201994528 Client Smp ID: SBLK01LCS
Inj Date : 16-DEC-2009 15:45
Operator : nagl Inst ID: MSD6.i
Smp Info : |1201994528|932444|1|SVMF|1|SBLK01LCS
Misc Info : |MSD8270_S|WBN091208-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s121609.b/MSD6-M8270C-AQA-110909.m
Meth Date : 17-Dec-2009 08:11 nat00999 Quant Type: ISTD
Cal Date : 11-NOV-2009 04:38 Cal File: s6k0954.d
Als bottle: 5 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-854.sub
Target Version: 3.50
Processing Host: hpclpl

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	0.00000	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	4.844	4.849	(1.000)	222177	40.0000	
* 29 Naphthalene-d8	136	6.128	6.131	(1.000)	901365	40.0000	
* 46 Acenaphthene-d10	164	8.001	8.001	(1.000)	432311	40.0000	
* 67 Phenanthrene-d10	188	9.611	9.611	(1.000)	823729	40.0000	
* 91 Chrysene-d12	240	12.636	12.633	(1.000)	674416	40.0000	
* 98 Perylene-d12	264	14.975	14.973	(1.000)	578792	40.0000	
$ 3 2-Fluorophenol	112	3.684	3.674	(0.761)	372834	67.0105	2230
$ 5 Phenol-d5	99	4.462	4.457	(0.921)	469261	66.8245	2230
$ 20 Nitrobenzene-d5	82	5.386	5.389	(0.879)	211354	33.1473	1100
$ 39 2-Fluorobiphenyl	172	7.254	7.254	(0.907)	362416	32.5299	1080
$ 60 2,4,6-Tribromophenol	329	8.852	8.850	(1.106)	107810	85.4415	2850
$ 81 p-Terphenyl-d14	244	11.316	11.316	(0.896)	463851	42.6487	1420

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
6 Phenol	94	4.474	4.469	(0.924)	252199	35.7184	1190(Q)
8 2-Chlorophenol	128	4.650	4.650	(0.960)	196801	34.6995	1160
11 1,4-Dichlorobenzene	146	4.859	4.867	(1.003)	191411	28.9194	964
17 N-Nitrosodipropylamine	70	5.216	5.226	(1.077)	117602	29.8774	996(Q)
28 1,2,4-Trichlorobenzene	180	6.059	6.062	(0.989)	173287	31.6963	1060
33 4-Chloro-3-methylphenol	107	6.683	6.676	(1.091)	162030	36.0304	1200
47 Acenaphthene	154	8.037	8.037	(1.004)	345185	35.4279	1180
50 2,4-Dinitrotoluene	165	8.189	8.192	(1.024)	134310	40.2669	1340
52 4-Nitrophenol	139	8.110	8.103	(1.014)	71925	40.3171	1340
65 Pentachlorophenol	266	9.395	9.390	(0.977)	66085	37.5769	1250
79 Pyrene	202	11.178	11.176	(0.885)	683973	36.8720	1230
2 Pyridine	79	2.785	2.737	(0.575)	126735	26.9203	897
4 Aniline	66	4.533	4.538	(0.936)	98294	33.5466	1120
7 bis(2-Chloroethyl) ether	63	4.566	4.574	(0.943)	145160	30.3600	1010
9 1,3-Dichlorobenzene	146	4.790	4.798	(0.989)	186152	28.5106	950
12 Benzyl alcohol	108	4.961	4.961	(1.024)	147171	41.7682	1390
13 1,2-Dichlorobenzene	146	5.009	5.017	(1.034)	188857	30.5682	1020
14 bis(2-Chloroisopropyl)ether	45	5.076	5.083	(1.048)	341558	31.9972	1070
15 o-Cresol	107	5.053	5.045	(1.043)	119990	25.9838	866
18 m,p-Cresols	107	5.198	5.203	(1.073)	219772	37.5592	1250
19 Hexachloroethane	117	5.346	5.348	(1.104)	72516	28.3202	944
21 Nitrobenzene	77	5.404	5.410	(0.882)	212840	33.1190	1100
22 Isophorone	82	5.639	5.644	(0.920)	321407	28.2150	940
23 2-Nitrophenol	139	5.723	5.726	(0.934)	105064	35.4437	1180
24 2,4-Dimethylphenol	122	5.738	5.736	(0.936)	152351	31.0201	1030
25 bis(2-Chloroethoxy)methane	93	5.840	5.840	(0.953)	174011	25.9573	865
26 2,4-Dichlorophenol	162	5.970	5.968	(0.974)	160733	36.0819	1200
27 Benzoic acid	105	5.868	5.850	(0.958)	280267	92.4518	3080
30 Naphthalene	128	6.151	6.154	(1.004)	552768	30.7429	1020
31 4-Chloroaniline	127	6.192	6.189	(1.010)	198075	34.2747	1140
32 Hexachlorobutadiene	225	6.261	6.261	(1.022)	90184	31.6773	1060
34 2-Methylnaphthalene	142	6.875	6.875	(1.122)	343818	31.6879	1060
36 Hexachlorocyclopentadiene	237	7.033	7.033	(0.879)	54376	31.1398	1040
37 2,4,6-Trichlorophenol	196	7.168	7.165	(0.896)	104480	35.4186	1180
38 2,4,5-Trichlorophenol	196	7.211	7.203	(0.901)	112266	35.7367	1190
40 2-Chloronaphthalene	162	7.399	7.400	(0.925)	317174	32.6685	1090
42 o-Nitroaniline	65	7.499	7.499	(0.937)	109117	32.8518	1100
41 m-Nitroaniline	138	7.940	7.942	(0.992)	100428	41.3040	1380
43 Dimethylphthalate	163	7.680	7.685	(0.960)	413335	37.2714	1240
44 2,6-Dinitrotoluene	165	7.756	7.756	(0.969)	95775	36.2074	1210
45 Acenaphthylene	152	7.851	7.851	(0.981)	572428	36.6693	1220
48 2,4-Dinitrophenol	184	8.052	8.052	(1.006)	42991	44.9210	1500(Q)
49 Dibenzofuran	168	8.220	8.220	(1.027)	591964	45.0099	1500
51 Diethylphthalate	149	8.437	8.437	(1.054)	434374	38.8939	1300
53 Fluorene	166	8.592	8.592	(1.074)	413862	38.3392	1280
54 4-Chlorophenylphenylether	204	8.574	8.574	(1.072)	199458	39.1062	1300
55 2-Methyl-4,6-dinitrophenol	198	8.635	8.633	(0.898)	67586	37.5343	1250

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
56 p-Nitroaniline	138	8.605	8.605	(1.075)	104686	45.0291	1500
133 Diphenylamine	169	8.704	8.702	(0.906)	358751	36.1327	1200
58 1,2-Diphenylhydrazine	77	8.750	8.750	(0.910)	472482	37.4119	1250
61 4-Bromophenylphenylether	248	9.107	9.107	(0.948)	121862	37.4915	1250
63 Hexachlorobenzene	284	9.186	9.183	(0.956)	124574	36.5890	1220
68 Phenanthrene	178	9.639	9.637	(1.003)	609394	35.7731	1190
69 Anthracene	178	9.693	9.693	(1.008)	624974	36.7049	1220
72 Di-n-butylphthalate	149	10.197	10.197	(1.061)	817015	41.7825	1390
76 Fluoranthene	202	10.926	10.926	(1.137)	666126	40.8204	1360
85 Butylbenzylphthalate	149	11.851	11.849	(0.938)	358880	42.2744	1410
89 Benzo(a)anthracene	228	12.613	12.613	(0.998)	606807	41.7031	1390
90 3,3'-Dichlorobenzidine	252	12.554	12.552	(0.994)	152910	32.1016	1070
92 Chrysene	228	12.669	12.669	(1.003)	544751	39.0731	1300
93 bis(2-Ethylhexyl)phthalate	149	12.575	12.575	(0.995)	514043	43.9048	1460
94 Di-n-octylphthalate	149	13.566	13.564	(0.906)	818399	44.4901	1480
95 Benzo(b)fluoranthene	252	14.292	14.295	(0.954)	551120	43.0332	1430
96 Benzo(k)fluoranthene	252	14.341	14.343	(0.958)	505143	39.6658	1320
97 Benzo(a)pyrene	252	14.873	14.871	(0.993)	478979	43.3007	1440
99 Indeno(1,2,3-cd)pyrene	276	16.965	16.963	(1.133)	453867	42.8580	1430
100 Dibenzo(a,h)anthracene	278	16.998	16.993	(1.135)	347439	40.4217	1350
101 Benzo(ghi)perylene	276	17.485	17.480	(1.168)	377799	44.7059	1490
1 N-Methyl-N-nitrosomethylamine	74	2.734	2.701	(0.564)	107401	28.3947	946

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: /chem/MSD6.i/s121609.b/s611614-1.d
Date : 16-DEC-2009 15:45
Client ID: SBLK01LCS
Sample Info: 1120199452819324441|1|SVMF14|SBLK01LCS
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD6.i
Operator: nag1
Column diameter: 0.20

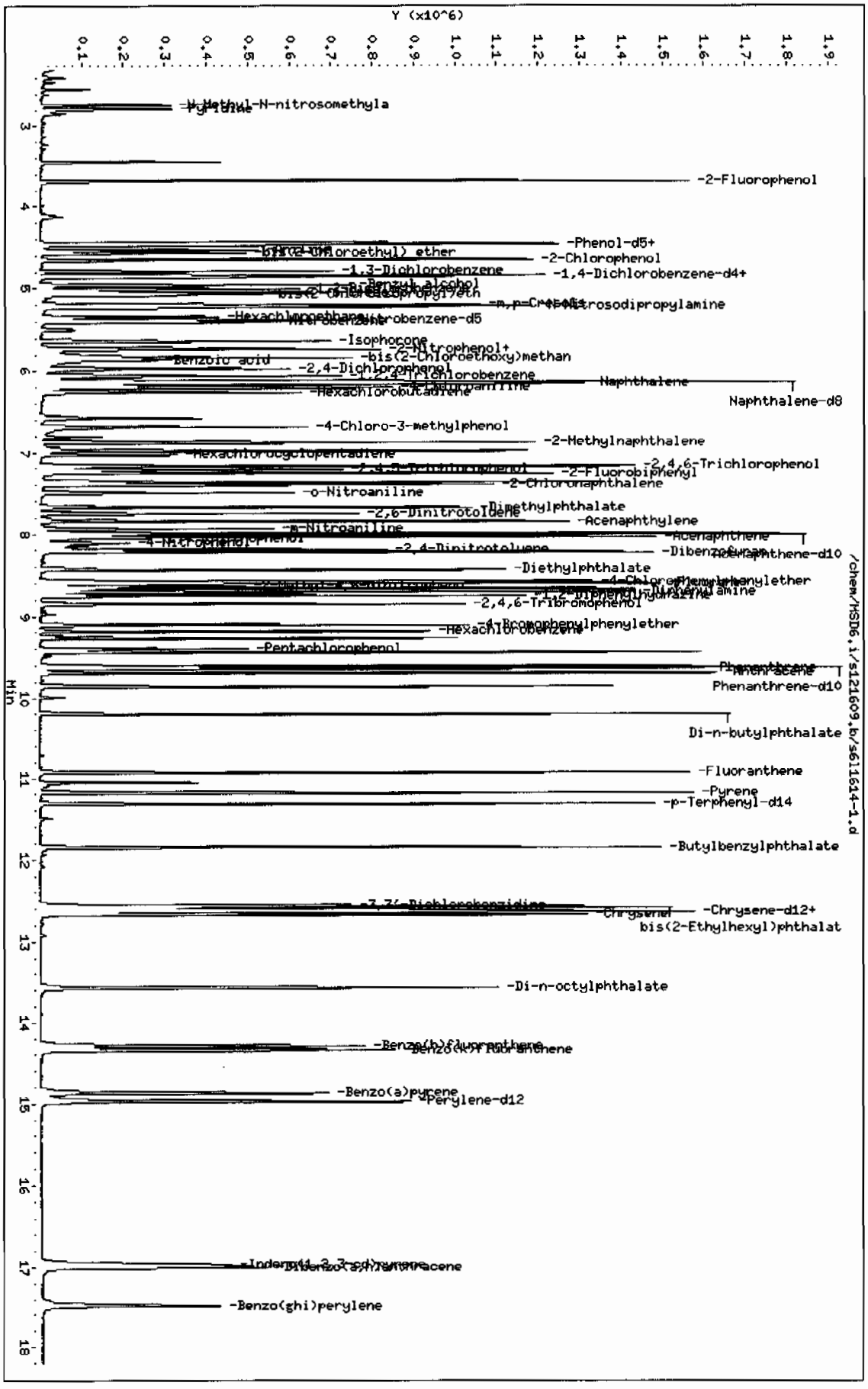

Page 1

Miscellaneous Data

Prep Logbook

Extraction of Semivolatile and Nonvolatile Organic Compounds from Soil, Sludge, and Other Miscellaneous Solid Samples

Batch ID: 932443 **Verified by:** _____

Analyst: Robin Hunt

Method: SW846 3550B

Lab SOP: GL-OA-E-010 REV# 18

Instrument: Semi-Volatiles Manual

Sample ID	Run Date	Aliquot (g)	Prepped Aliquot (mL)	Prepped Factor (mL/g)
1201994527 MB	14-DEC-2009 09:47:05	30	1	0.03333
1201994528 LCS	14-DEC-2009 09:47:05	30	1	0.03333
242298004 - 2	14-DEC-2009 09:47:05	30	1	0.03333
242668001	14-DEC-2009 09:47:05	30.07	1	0.03326
242668002	14-DEC-2009 09:47:05	30.02	1	0.03331
242743002	14-DEC-2009 09:47:05	30.05	1	0.03328
242746001	14-DEC-2009 09:47:05	30.01	1	0.03332
242746002	14-DEC-2009 09:47:05	30.02	1	0.03331
242750001	14-DEC-2009 09:47:05	30.03	1	0.0333
242750002	14-DEC-2009 09:47:05	30.01	1	0.03332
242750003	14-DEC-2009 09:47:05	30	1	0.03333
242750004	14-DEC-2009 09:47:05	30.02	1	0.03331
242750005	14-DEC-2009 09:47:05	30.04	1	0.03329
242784003	14-DEC-2009 09:47:05	30.03	1	0.0333
242784004	14-DEC-2009 09:47:05	30	1	0.03333
242791001	14-DEC-2009 09:47:05	30.03	1	0.0333
1201994529 MS (242791001)	14-DEC-2009 09:47:05	30.09	1	0.03323
1201994530 MSD (242791001)	14-DEC-2009 09:47:05	30.02	1	0.03331
242791002	14-DEC-2009 09:47:05	30.01	1	0.03332
242794001	14-DEC-2009 09:47:05	30.03	1	0.0333
242794002	14-DEC-2009 09:47:05	30.03	1	0.0333
242794003	14-DEC-2009 09:47:05	30	1	0.03333
242794004	14-DEC-2009 09:47:05	30	1	0.03333

Type	Sample Id	Description	Serial Number	Spike Amt	Units
LCS	1201994528	BENZIDINE LCS	UE091130-21	1	mL
LCS	1201994528	BNA LCS w/o Benzidine 50ppm	UE091202-11	1	mL
MS	1201994529	BENZIDINE LCS	UE091130-21	1	mL
MS	1201994529	BNA LCS w/o Benzidine 50ppm	UE091202-11	1	mL
MSD	1201994530	BENZIDINE LCS	UE091130-21	1	mL
MSD	1201994530	BNA LCS w/o Benzidine 50ppm	UE091202-11	1	mL
SURR	All	BNA for all Surrogate	UE091130-10	1	mL
REGNT	All	Acetone	1233927	150	mL
REGNT	All	Methylene Chloride	1239699-D	150	mL
SOURC	All	SODIUM SULFATE	1237409	30	g

Comments:

Verified By: JAM

Final Solvent: CH2Cl2

GEL ORGANIC RUN LOG INSTRUMENT ID: MSD6

DATE: 11/09/2009 METHOD: See raw data OPERATOR: JMB3 REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT:1198658-D
Multiplier Voltage: 1565 Emv Extr. Injection Volume: 0.5, 1.0 ul
DFTPP Solution ID: WBN091101-01 Internal Std ID: WBN091106-10
CALIBRATION & QC INFORMATION:
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.

SOP: GL-OA-E-009 Rev. 22 Sequence Number: /chem/MSD6.i/s110909.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
s6k0901.d	WBN091101-01	JMB3	09-NOV-2009 11:20	50 PPM	s110909	1.0	DFTPP	DUSE
s6k0902.d	inst blk	JMB3	09-NOV-2009 11:35	--------	s110909	1.0	INST BLK	DUSE
s6k0903.d	WBN091106-08	JMB3	09-NOV-2009 12:23	1 PPM	s110909	1.0	MEGAICAL	DUSE
s6k0904.d	WBN091106-07	JMB3	09-NOV-2009 13:00	10 PPM	s110909	1.0	MEGAICAL	DUSE
s6k0905.d	WBN091106-06	JMB3	09-NOV-2009 13:36	20 PPM	s110909	1.0	MEGAICAL	DUSE
s6k0906.d	WBN091106-05.1	JMB3	09-NOV-2009 14:14	40 PPM	s110909	1.0	MEGAICAL	DUSE
s6k0907.d	WBN091106-04	JMB3	09-NOV-2009 14:52	50 PPM	s110909	1.0	MEGAICAL	DUSE
s6k0908.d	WBN091106-03	JMB3	09-NOV-2009 15:30	80 PPM	s110909	1.0	MEGAICAL	DUSE
s6k0909.d	WBN091106-02	JMB3	09-NOV-2009 16:06	100 PPM	s110909	1.0	MEGAICAL	DUSE
s6k0910.d	WBN091106-01	JMB3	09-NOV-2009 16:43	120 PPM	s110909	1.0	MEGAICAL	DUSE
s6k0911-D.d	WBN091101-01	JMB3	09-NOV-2009 18:00	50 PPM	s110909	1.0	DFTPP	
s6k0911.d	WBN091101-01	JMB3	09-NOV-2009 18:00	50 PPM	s110909	1.0	DFTPP	
s6k0912.d	inst blk	JMB3	09-NOV-2009 18:15	--------	s110909	1.0	INST BLK	
s6k0913.d	WBN091106-08	JMB3	09-NOV-2009 18:53	1 PPM	s110909	1.0	MEGAICAL	
s6k0914.d	WBN091106-07	JMB3	09-NOV-2009 19:31	10 PPM	s110909	1.0	MEGAICAL	
s6k0915.d	WBN091106-06	JMB3	09-NOV-2009 20:09	20 PPM	s110909	1.0	MEGAICAL	
s6k0916.d	WBN091106-05.1	JMB3	09-NOV-2009 20:46	40 PPM	s110909	1.0	MEGAICAL	
s6k0917.d	WBN091106-04	JMB3	09-NOV-2009 21:25	50 PPM	s110909	1.0	MEGAICAL	
s6k0918.d	WBN091106-03	JMB3	09-NOV-2009 22:01	80 PPM	s110909	1.0	MEGAICAL	

s6k0919.d	WBN091106-02	JMB3	09-NOV-2009 22:39	100 PPM	s110909	1.0	MEGAICAL	
s6k0920.d	WBN091106-01	JMB3	09-NOV-2009 23:16	120 PPM	s110909	1.0	MEGAICAL	
s6k0921-D.d	WBN091101-01	JMB3	10-NOV-2009 11:07	50 PPM	s110909	1.0	DFTPP	
s6k0921.d	WBN091101-01	JMB3	10-NOV-2009 11:07	50 PPM	s110909	1.0	DFTPP	
s6k0922.d	inst blk	JMB3	10-NOV-2009 11:21	--------	s110909	1.0	INST BLK	
s6k0923.d	WBN091016-01	JMB3	10-NOV-2009 11:59	10 PPM	s110909	1.0	AP12ICAL	
s6k0924.d	WBN091016-02	JMB3	10-NOV-2009 12:36	20 PPM	s110909	1.0	AP12ICAL	
s6k0925.d	WBN091016-03	JMB3	10-NOV-2009 13:13	40 PPM	s110909	1.0	AP12ICAL	
s6k0926.d	WBN091016-04	JMB3	10-NOV-2009 13:51	50 PPM	s110909	1.0	AP12ICAL	
s6k0927.d	WBN091016-05	JMB3	10-NOV-2009 14:30	80 PPM	s110909	1.0	AP12ICAL	
s6k0928.d	WBN091016-06	JMB3	10-NOV-2009 15:06	100 PPM	s110909	1.0	AP12ICAL	
s6k0929.d	WBN091016-07	JMB3	10-NOV-2009 15:43	120 PPM	s110909	1.0	AP12ICAL	
s6k0930.d	WBN091029-25	JMB3	10-NOV-2009 16:20	10 PPM	s110909	1.0	PESTICAL	
s6k0931.d	WBN091029-24	JMB3	10-NOV-2009 16:56	20 PPM	s110909	1.0	PESTICAL	
s6k0932.d	WBN091029-23.1	JMB3	10-NOV-2009 17:33	40 PPM	s110909	1.0	PESTICAL	
s6k0933.d	WBN091029-22	JMB3	10-NOV-2009 18:09	50 PPM	s110909	1.0	PESTICAL	
s6k0934.d	WBN091029-21	JMB3	10-NOV-2009 18:45	80 PPM	s110909	1.0	PESTICAL	
s6k0935.d	WBN091029-20	JMB3	10-NOV-2009 19:21	100 PPM	s110909	1.0	PESTICAL	
s6k0936.d	WBN091029-19	JMB3	10-NOV-2009 19:58	120 PPM	s110909	1.0	PESTICAL	
s6k0937-D.d	WBN091106-09.1	JMB3	10-NOV-2009 20:29	40 PPM	s110909	1.0	MEGAICV	FAILED SC 8270D
s6k0937.d	WBN091106-09.1	JMB3	10-NOV-2009 20:29	40 PPM	s110909	1.0	MEGAICV	
s6k0938-D.d	WBN091016-08.1	JMB3	10-NOV-2009 21:07	40 PPM	s110909	1.0	AP12ICV	
s6k0938.d	WBN091016-08.1	JMB3	10-NOV-2009 21:07	40 PPM	s110909	1.0	AP12ICV	
s6k0939-D.d	WBN091029-26.1	JMB3	10-NOV-2009 21:35	40 PPM	s110909	1.0	PESTICV	
s6k0939.d	WBN091029-26.1	JMB3	10-NOV-2009 21:35	40 PPM	s110909	1.0	PESTICV	
s6k0940-D.d	WBN091101-01	JMB3	10-NOV-2009 22:12	50 PPM	s110909	1.0	DFTPP	
s6k0940.d	WBN091101-01	JMB3	10-NOV-2009 22:12	50 PPM	s110909	1.0	DFTPP	

s6k0941.d	inst blk	JMB3	10-NOV-2009 22:26	--------	s110909	1.0	INST BLK	
s6k0942.d	WBN091016-16	JMB3	10-NOV-2009 22:55	500 PPM	s110909	1.0	HEXICAL	
s6k0943.d	WBN091016-15	JMB3	10-NOV-2009 23:24	1000 PPM	s110909	1.0	HEXICAL	
s6k0944.d	WBN091016-14	JMB3	10-NOV-2009 23:53	1250 PPM	s110909	1.0	HEXICAL	
s6k0945.d	WBN091016-13	JMB3	11-NOV-2009 00:21	1500 PPM	s110909	1.0	HEXICAL	
s6k0946.d	WBN091016-12	JMB3	11-NOV-2009 00:50	1750 PPM	s110909	1.0	HEXICAL	
s6k0947.d	UBN090828-02.4-16	JMB3	11-NOV-2009 01:18	500 PPM	s110909	1.0	HEXICAL	
s6k0948.d	UBN090924-01	JMB3	11-NOV-2009 01:47	10 PPM	s110909	1.0	NEVICAL	
s6k0949.d	UBN090924-02	JMB3	11-NOV-2009 02:16	20 PPM	s110909	1.0	NEVICAL	
s6k0950.d	UBN090924-03	JMB3	11-NOV-2009 02:44	40 PPM	s110909	1.0	NEVICAL	
s6k0951.d	UBN090924-04	JMB3	11-NOV-2009 03:12	50 PPM	s110909	1.0	NEVICAL	DUSE - disabled
s6k0952.d	UBN090924-05	JMB3	11-NOV-2009 03:41	80 PPM	s110909	1.0	NEVICAL	
s6k0953.d	UBN090924-06	JMB3	11-NOV-2009 04:10	100 PPM	s110909	1.0	NEVICAL	
s6k0954.d	UBN090924-07	JMB3	11-NOV-2009 04:38	120 PPM	s110909	1.0	NEVICAL	DUSE - disabled
s6k0955-D.d	WBN091016-10.1	JMB3	11-NOV-2009 05:07	1250 PPM	s110909	1.0	HEXICV	DUSE - failed >70%-130%
s6k0955.d	WBN091016-10.1	JMB3	11-NOV-2009 05:07	1250 PPM	s110909	1.0	HEXICV	

GEL ORGANIC RUN LOG INSTRUMENT ID: MSD6

DATE: 12/16/2009 METHOD: See raw data OPERATOR: nagl REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT:1202440-D
Multiplier Voltage: 1588 Emv Extr. Injection Volume: 0.5, 1.0 ul
DFTPP Solution ID: WBN091213-01 Internal Std ID: WBN091208-01
CALIBRATION & QC INFORMATION:
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.

SOP: GL-OA-E-009 Rev. 23 Sequence Number: /chem/MSD6.i/s121609.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
s611601.d	WBN091213-01	nagl	16-DEC-2009 08:36	50 PPM	s121609	1.0	DFTPP	DUSE
s611602.d	WBN091106-09.1	nagl	16-DEC-2009 08:47	CVS	s121609	1.0	MEGACVS	DUSE
s611603.d	WBN091213-01	nagl	16-DEC-2009 09:25	50 PPM	s121609	1.0	DFTPP	DUSE
s611604.d	WBN091106-09.1	nagl	16-DEC-2009 09:38	CVS	s121609	1.0	MEGACVS	DUSE
s611605.d	WBN091213-01	nagl	16-DEC-2009 11:14	50 PPM	s121609	1.0	DFTPP	DUSE
s611606.d	WBN091106-09.1	nagl	16-DEC-2009 11:28	CVS	s121609	1.0	MEGACVS	DUSE
s611607.d	WBN091201-03.5	nagl	16-DEC-2009 11:57	CVS	s121609	1.0	AP12CVS	DUSE
s611608.d	WBN091106-09.1	nagl	16-DEC-2009 12:25	CVS	s121609	1.0	MEGACVS	DUSE
s611609.d	WBN091202-23.5	nagl	16-DEC-2009 12:53	CVS	s121609	1.0	PESTCVS	DUSE - MAINENTANCE
s611610.d	WBN091213-01	nagl	16-DEC-2009 14:04	50 PPM	s121609	1.0	DFTPP	
s611611.d	WBN091111-17.4	nagl	16-DEC-2009 14:18	CVS	s121609	1.0	MEGACVS	209214
s611612.d	WBN091201-03.5	nagl	16-DEC-2009 14:46	CVS	s121609	1.0	AP12CVS	
s611613-1.d	1201994527	nagl	16-DEC-2009 15:15	932444	10-854	1.0	SBLK01	
s611613-2.d	1201994527	nagl	16-DEC-2009 15:15	932444	10-883	1.0	SBLK01	
s611613-3.d	1201994527	nagl	16-DEC-2009 15:15	932444	10-884	1.0	SBLK01	
s611613-4.d	1201994527	nagl	16-DEC-2009 15:15	932444	10-886	1.0	SBLK01	
s611613-5.d	1201994527	nagl	16-DEC-2009 15:15	932444	10-899	1.0	SBLK01	
s611613-6.d	1201994527	nagl	16-DEC-2009 15:15	932444	10-903	1.0	SBLK01	
s611613-7.d	1201994527	nagl	16-DEC-2009 15:15	932444	10-901	1.0	SBLK01	

s611613.d	1201994527	nagl	16-DEC-2009 15:15	932444	10-788		1.0	SBLK01	
s611614-1.d	1201994528	nagl	16-DEC-2009 15:45	932444	10-854		1.0	SBLK01LCS	
s611614-2.d	1201994528	nagl	16-DEC-2009 15:45	932444	10-883		1.0	SBLK01LCS	
s611614-3.d	1201994528	nagl	16-DEC-2009 15:45	932444	10-884		1.0	SBLK01LCS	
s611614-4.d	1201994528	nagl	16-DEC-2009 15:45	932444	10-886		1.0	SBLK01LCS	
s611614-5.d	1201994528	nagl	16-DEC-2009 15:45	932444	10-899		1.0	SBLK01LCS	
s611614-6.d	1201994528	nagl	16-DEC-2009 15:45	932444	10-903		1.0	SBLK01LCS	
s611614-7.d	1201994528	nagl	16-DEC-2009 15:45	932444	10-901		1.0	SBLK01LCS	
s611614.d	1201994528	nagl	16-DEC-2009 15:45	932444	10-788		1.0	SBLK01LCS	
s611615.d	242298004	nagl	16-DEC-2009 16:13	932444	10-788		1.0	LANLRE	
s611616.d	242668001	nagl	16-DEC-2009 16:42	932444	10-854		1.0	LANL	
s611617.d	242668002	nagl	16-DEC-2009 17:10	932444	10-854		1.0	LANL	
s611618.d	242743002	nagl	16-DEC-2009 17:38	932444	10-883		1.0	LANL	
s611619.d	242746001	nagl	16-DEC-2009 18:07	932444	10-884		1.0	LANL	
s611620.d	242746002	nagl	16-DEC-2009 18:36	932444	10-884		1.0	LANL	
s611621.d	242750001	nagl	16-DEC-2009 19:03	932444	10-886		1.0	LANL	
s611622.d	242750002	nagl	16-DEC-2009 19:31	932444	10-886		1.0	LANL	
s611623.d	242750003	nagl	16-DEC-2009 20:00	932444	10-886		1.0	LANL	
s611624.d	242750004	nagl	16-DEC-2009 20:28	932444	10-886		1.0	LANL	
s611625.d	242750005	nagl	16-DEC-2009 20:56	932444	10-886		1.0	LANL	
s611626.d	242784003	nagl	16-DEC-2009 21:23	932444	10-899		1.0	LANL	
s611627.d	242784004	nagl	16-DEC-2009 21:51	932444	10-899		1.0	LANL	
s611628.d	242791001	nagl	16-DEC-2009 22:19	932444	10-903		1.0	LANL	
s611629.d	1201994529	nagl	16-DEC-2009 22:46	932444	10-903		1.0	LANL_MS	failed spike
s611630.d	1201994530	nagl	16-DEC-2009 23:13	932444	10-903		1.0	LANL_MSD	DUSE - failed IS/spike - RR - see s611717
s611631.d	242791002	nagl	16-DEC-2009 23:41	932444	10-903		1.0	LANL	
s611632.d	242794001	nagl	17-DEC-2009 00:08	932444	10-901		1.0	LANL	

s611633.d	242794002	nagl	17-DEC-2009 00:36	932444	10-901		1.0	LANL
s611634.d	242794003	nagl	17-DEC-2009 01:03	932444	10-901		1.0	LANL
s611635.d	242794004	nagl	17-DEC-2009 01:30	932444	10-901		1.0	LANL

Instrument Batch: /chem/MSD6.i/s121609.b

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Data file : /chem/MSD6.i/s121609.b/s611629.d
Lab Smp Id: 1201994529 Client Smp ID: RE16-10-2878MS
Inj Date : 16-DEC-2009 22:46
Operator : nagl Inst ID: MSD6.i
Smp Info : |1201994529|932444|1|SVMF|1|LANL_MS
Misc Info : |MSD8270_S|WBN091208-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s121609.b/MSD6-M8270C-AQA-110909.m
Meth Date : 17-Dec-2009 08:11 nat00999 Quant Type: ISTD
Cal Date : 11-NOV-2009 04:38 Cal File: s6k0954.d
Als bottle: 20 QC Sample: MS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-903.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.09000	weight of sample
M	12.55480	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	4.849	4.849	(1.000)	163674	40.0000	
* 29 Naphthalene-d8	136	6.131	6.131	(1.000)	738236	40.0000	
* 46 Acenaphthene-d10	164	8.003	8.001	(1.000)	448525	40.0000	
* 67 Phenanthrene-d10	188	9.616	9.611	(1.000)	817803	40.0000	
* 91 Chrysene-d12	240	12.638	12.633	(1.000)	532879	40.0000	
* 98 Perylene-d12	264	14.978	14.973	(1.000)	292729	40.0000	
$ 3 2-Fluorophenol	112	3.690	3.674	(0.761)	278264	67.8897	2580
$ 5 Phenol-d5	99	4.469	4.457	(0.922)	344249	66.5447	2530(H)
$ 20 Nitrobenzene-d5	82	5.389	5.389	(0.879)	126211	24.1679	918
$ 39 2-Fluorobiphenyl	172	7.257	7.254	(0.907)	314417	27.2014	1030
$ 60 2,4,6-Tribromophenol	329	8.855	8.850	(1.106)	93901	71.7282	2730
$ 81 p-Terphenyl-d14	244	11.319	11.316	(0.896)	361402	42.0550	1600

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
6 Phenol	94	4.479	4.469	(0.924)	179202	34.4517	1310(Q)
8 2-Chlorophenol	128	4.658	4.650	(0.961)	125001	29.9178	1140
11 1,4-Dichlorobenzene	146	4.867	4.867	(1.004)	81762	16.7685	637
17 N-Nitrosodipropylamine	70	5.218	5.226	(1.076)	84897	29.2778	1110(Q)
28 1,2,4-Trichlorobenzene	180	6.062	6.062	(0.989)	103101	23.0256	875
33 4-Chloro-3-methylphenol	107	6.696	6.676	(1.092)	160191	43.4928	1650
47 Acenaphthene	154	8.037	8.037	(1.004)	280590	27.7571	1050
50 2,4-Dinitrotoluene	165	8.195	8.192	(1.024)	114109	32.9738	1250
52 4-Nitrophenol	139	8.139	8.103	(1.017)	47752	28.4222	1080
65 Pentachlorophenol	266	9.402	9.390	(0.978)	51378	30.5911	1160
79 Pyrene	202	11.181	11.176	(0.885)	536884	36.6301	1390
2 Pyridine	79	2.772	2.737	(0.572)	45848	13.2198	502(R)
4 Aniline	66	4.538	4.538	(0.936)	40181	18.6150	707(Q)
7 bis(2-Chloroethyl) ether	63	4.574	4.574	(0.943)	81729	23.2033	882
9 1,3-Dichlorobenzene	146	4.798	4.798	(0.989)	104729	21.7734	827
12 Benzyl alcohol	108	4.969	4.961	(1.025)	14496	5.58458	212(aR)
13 1,2-Dichlorobenzene	146	5.015	5.017	(1.034)	88599	19.4663	740
14 bis(2-Chloroisopropyl)ether	45	5.083	5.083	(1.048)	246197	31.3076	1190
15 o-Cresol	107	5.058	5.045	(1.043)	118735	34.9025	1330
18 m,p-Cresols	107	5.203	5.203	(1.073)	170939	39.6556	1510
19 Hexachloroethane	117	5.348	5.348	(1.103)	30048	15.9293	605
21 Nitrobenzene	77	5.410	5.410	(0.882)	127426	24.2096	920
22 Isophorone	82	5.641	5.644	(0.920)	267366	28.6574	1090
23 2-Nitrophenol	139	5.728	5.726	(0.934)	64927	26.7434	1020
24 2,4-Dimethylphenol	122	5.748	5.736	(0.938)	99016	24.6155	936
25 bis(2-Chloroethoxy)methane	93	5.840	5.840	(0.953)	145323	26.4681	1000
26 2,4-Dichlorophenol	162	5.978	5.968	(0.975)	125218	34.3208	1300
27 Benzoic acid	105	5.876	5.850	(0.958)	248070	99.9133	3800
30 Naphthalene	128	6.154	6.154	(1.004)	340898	23.1490	880
31 4-Chloroaniline	127	6.194	6.189	(1.010)	95865	20.2539	770
32 Hexachlorobutadiene	225	6.261	6.261	(1.021)	53747	23.0504	876
34 2-Methylnaphthalene	142	6.877	6.875	(1.122)	277963	31.2793	1190
36 Hexachlorocyclopentadiene	237	7.033	7.033	(0.879)	12532	6.91734	263(aR)
37 2,4,6-Trichlorophenol	196	7.170	7.165	(0.896)	91938	30.0402	1140
38 2,4,5-Trichlorophenol	196	7.221	7.203	(0.902)	116586	35.7703	1360(H)
40 2-Chloronaphthalene	162	7.402	7.400	(0.925)	268724	26.6776	1010
42 o-Nitroaniline	65	7.504	7.499	(0.938)	98604	28.6135	1090
41 m-Nitroaniline	138	7.945	7.942	(0.993)	67440	26.7341	1020
43 Dimethylphthalate	163	7.682	7.685	(0.960)	376026	32.6814	1240
44 2,6-Dinitrotoluene	165	7.759	7.756	(0.969)	86985	31.6956	1200
45 Acenaphthylene	152	7.851	7.851	(0.981)	479000	29.5752	1120
48 2,4-Dinitrophenol	184	8.060	8.052	(1.007)	20232	28.3001	1080(Q)
49 Dibenzofuran	168	8.223	8.220	(1.027)	517904	37.9552	1440
51 Diethylphthalate	149	8.437	8.437	(1.054)	407695	35.1854	1340
53 Fluorene	166	8.592	8.592	(1.074)	366609	32.7341	1240
54 4-Chlorophenylphenylether	204	8.577	8.574	(1.072)	177882	33.6152	1280
55 2-Methyl-4,6-dinitrophenol	198	8.638	8.633	(0.898)	35208	23.0638	876

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
56 p-Nitroaniline	138	8.610	8.605	(1.076)	78839	34.6223	1320
133 Diphenylamine	169	8.704	8.702	(0.905)	290252	29.4455	1120
58 1,2-Diphenylhydrazine	77	8.753	8.750	(0.910)	398198	31.7585	1210
61 4-Bromophenylphenylether	248	9.109	9.107	(0.947)	101763	31.5348	1200
63 Hexachlorobenzene	284	9.188	9.183	(0.955)	92196	27.2754	1040
68 Phenanthrene	178	9.642	9.637	(1.003)	553469	32.7255	1240
69 Anthracene	178	9.695	9.693	(1.008)	550432	32.5613	1240
72 Di-n-butylphthalate	149	10.200	10.197	(1.061)	696557	35.8803	1360
76 Fluoranthene	202	10.929	10.926	(1.136)	538775	33.2555	1260
85 Butylbenzylphthalate	149	11.851	11.849	(0.938)	284536	42.4194	1610
89 Benzo(a)anthracene	228	12.618	12.613	(0.998)	365948	31.8300	1210
92 Chrysene	228	12.672	12.669	(1.003)	343788	31.2083	1190
93 bis(2-Ethylhexyl)phthalate	149	12.577	12.575	(0.995)	372265	40.2745	1530
94 Di-n-octylphthalate	149	13.566	13.564	(0.906)	529631	56.9284	2160
95 Benzo(b)fluoranthene	252	14.297	14.295	(0.955)	234939	36.2718	1380
96 Benzo(k)fluoranthene	252	14.343	14.343	(0.958)	239075	37.1187	1410
97 Benzo(a)pyrene	252	14.876	14.871	(0.993)	186639	33.3609	1270
99 Indeno(1,2,3-cd)pyrene	276	16.970	16.963	(1.133)	129568	25.5139	970
100 Dibenzo(a,h)anthracene	278	17.001	16.993	(1.135)	110177	26.3542	1000
101 Benzo(ghi)perylene	276	17.488	17.480	(1.168)	93592	21.8977	832
1 N-Methyl-N-nitrosomethylamine	74	2.726	2.701	(0.562)	70428	25.2752	960

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
R - Spike/Surrogate failed recovery limits.
H - Operator selected an alternate compound hit.

Data File: /chem/MSD6.i/s121609.b/s611629.d

Date : 16-DEC-2009 22:46

Client ID: RE16-10-2878MS

Sample Info: |1201994529|932444|1|SVMF1|LANL_MS

Volume Injected (uL): 0.5

Column phase: J&W DB-5MS

Instrument: MSD6.i

Operator: nag1

Column diameter: 0.20

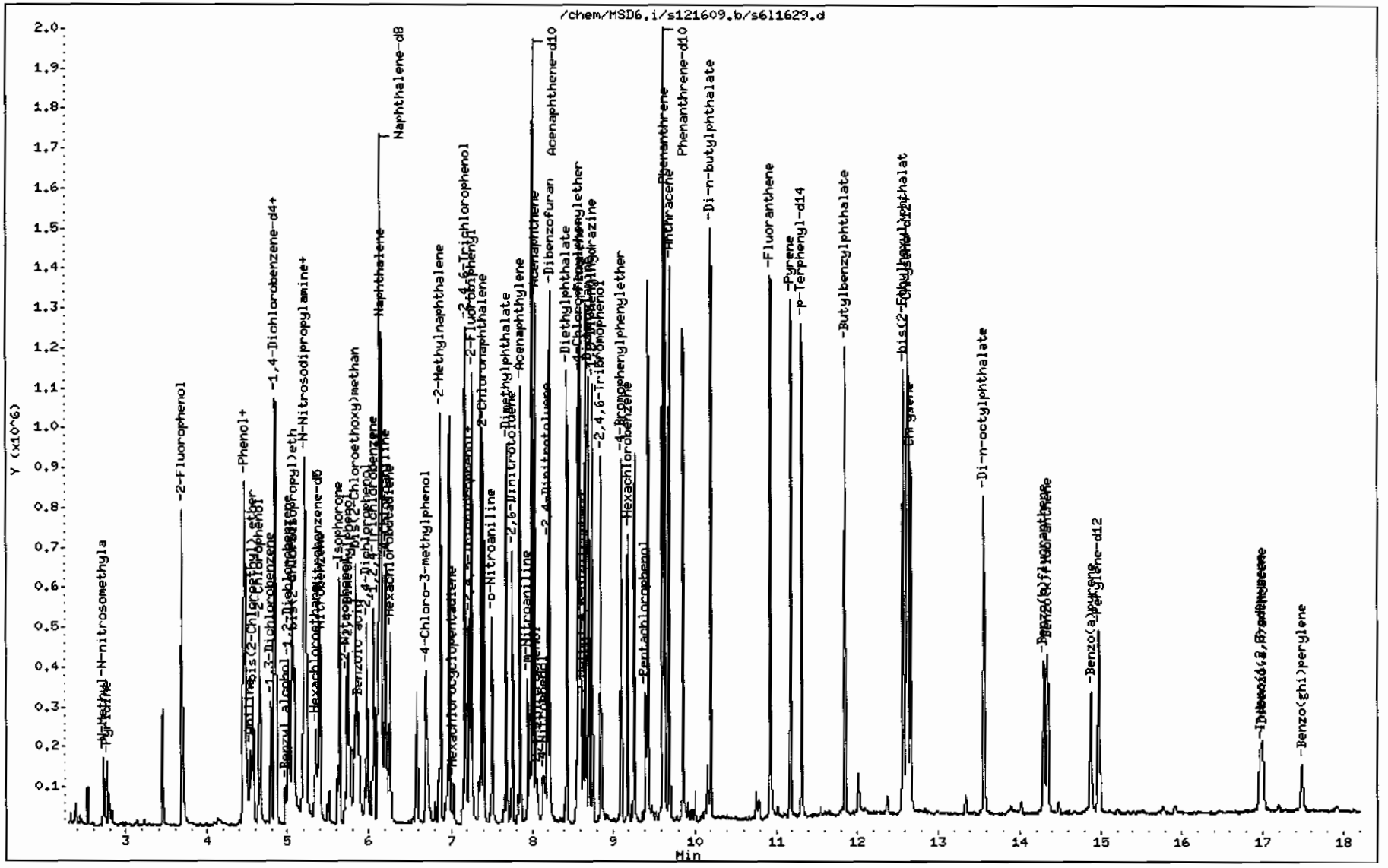

GEL Laboratories LLC

Data file : /chem/MSD6.i/s121709.b/s611717.d
Lab Smp Id: 1201994530 Client Smp ID: RE16-10-2878MSD
Inj Date : 17-DEC-2009 17:29
Operator : nag1 Inst ID: MSD6.i
Smp Info : |1201994530|932444|1|SVMF|1|LANL0001MSD
Misc Info : |MSD8270_S|WBN091208-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s121709.b/MSD6-M8270C-AQA-110909.m
Meth Date : 18-Dec-2009 07:24 nat00999 Quant Type: ISTD
Cal Date : 11-NOV-2009 04:38 Cal File: s6k0954.d
Als bottle: 17 QC Sample: MSD
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-903.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.02000	weight of sample
M	12.55480	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	4.800	4.800	(1.000)	129085	40.0000	
* 29 Naphthalene-d8	136	6.080	6.080	(1.000)	515847	40.0000	
* 46 Acenaphthene-d10	164	7.950	7.950	(1.000)	279099	40.0000	
* 67 Phenanthrene-d10	188	9.563	9.563	(1.000)	473949	40.0000	
* 91 Chrysene-d12	240	12.575	12.575	(1.000)	311788	40.0000	
* 98 Perylene-d12	264	14.893	14.893	(1.000)	210612	40.0000	
$ 3 2-Fluorophenol	112	3.639	3.626	(0.758)	142945	44.2201	1680
$ 5 Phenol-d5	99	4.416	4.410	(0.920)	199032	48.7829	1860
$ 20 Nitrobenzene-d5	82	5.336	5.338	(0.878)	81738	22.3996	853
$ 39 2-Fluorobiphenyl	172	7.206	7.206	(0.906)	186834	25.9759	990
$ 60 2,4,6-Tribromophenol	329	8.804	8.801	(1.107)	49410	60.6545	2310
$ 81 p-Terphenyl-d14	244	11.273	11.270	(0.896)	177869	35.3750	1350

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
6 Phenol	94	4.428	4.423	(0.922)	95211	23.2091	884(Q)
8 2-Chlorophenol	128	4.604	4.602	(0.959)	70953	21.5323	820
11 1,4-Dichlorobenzene	146	4.818	4.816	(1.004)	50256	13.0688	498(R)
17 N-Nitrosodipropylamine	70	5.165	5.170	(1.076)	51665	22.5916	860(Q)
28 1,2,4-Trichlorobenzene	180	6.011	6.011	(0.989)	60779	19.4257	740
33 4-Chloro-3-methylphenol	107	6.643	6.632	(1.093)	69599	27.0431	1030
47 Acenaphthene	154	7.983	7.986	(1.004)	150738	23.9637	913
50 2,4-Dinitrotoluene	165	8.141	8.143	(1.024)	57739	26.8131	1020
52 4-Nitrophenol	139	8.098	8.062	(1.019)	24033	24.3807	929
65 Pentachlorophenol	266	9.351	9.344	(0.978)	27869	28.9762	1100
79 Pyrene	202	11.130	11.130	(0.885)	266462	31.0715	1180
2 Pyridine	79	2.693	2.685	(0.561)	31930	11.6736	445(R)
4 Aniline	66	4.487	4.487	(0.935)	18044	10.5993	404(QR)
7 bis(2-Chloroethyl) ether	63	4.525	4.525	(0.943)	47236	17.0040	648(R)
9 1,3-Dichlorobenzene	146	4.750	4.749	(0.989)	48125	12.6862	483(R)
13 1,2-Dichlorobenzene	146	4.966	4.966	(1.034)	53925	15.0228	572(R)
14 bis(2-Chloroisopropyl)ether	45	5.035	5.035	(1.049)	111888	18.0408	687
15 o-Cresol	107	5.004	4.999	(1.042)	54212	20.2058	770
18 m,p-Cresols	107	5.152	5.152	(1.073)	83018	24.4196	930
19 Hexachloroethane	117	5.300	5.300	(1.104)	17796	11.9621	456(R)
21 Nitrobenzene	77	5.356	5.358	(0.881)	74606	20.2851	773
22 Isophorone	82	5.588	5.593	(0.919)	158801	24.3589	928
23 2-Nitrophenol	139	5.674	5.674	(0.933)	36689	21.6272	824
24 2,4-Dimethylphenol	122	5.690	5.690	(0.936)	50800	18.0735	688
25 bis(2-Chloroethoxy)methane	93	5.789	5.792	(0.952)	87124	22.7092	865
26 2,4-Dichlorophenol	162	5.924	5.922	(0.974)	65748	25.7897	982
27 Benzoic acid	105	5.797	5.784	(0.953)	114913	66.2357	2520
30 Naphthalene	128	6.100	6.102	(1.003)	203459	19.7724	753
31 4-Chloroaniline	127	6.143	6.141	(1.010)	41429	12.5264	477(R)
32 Hexachlorobutadiene	225	6.212	6.212	(1.022)	30125	18.4895	704
34 2-Methylnaphthalene	142	6.826	6.826	(1.123)	157127	25.3043	964
36 Hexachlorocyclopentadiene	237	6.984	6.984	(0.879)	6893	6.11442	233(aR)
37 2,4,6-Trichlorophenol	196	7.119	7.117	(0.896)	49257	25.8645	985
38 2,4,5-Trichlorophenol	196	7.168	7.157	(0.902)	48885	24.1035	918
40 2-Chloronaphthalene	162	7.349	7.348	(0.924)	146431	23.3616	890
42 o-Nitroaniline	65	7.450	7.450	(0.937)	48092	22.4274	854
41 m-Nitroaniline	138	7.891	7.894	(0.993)	27100	17.2641	658(R)
43 Dimethylphthalate	163	7.629	7.636	(0.960)	205487	28.7009	1090
44 2,6-Dinitrotoluene	165	7.705	7.708	(0.969)	44799	26.2332	999
45 Acenaphthylene	152	7.800	7.802	(0.981)	261489	25.9462	988
48 2,4-Dinitrophenol	184	8.009	8.003	(1.007)	8063	23.3390	889(Q)
49 Dibenzofuran	168	8.169	8.169	(1.028)	267522	31.5072	1200
51 Diethylphthalate	149	8.386	8.391	(1.055)	214336	29.7270	1130
53 Fluorene	166	8.541	8.544	(1.074)	187874	26.9583	1030
54 4-Chlorophenylphenylether	204	8.526	8.528	(1.072)	89752	27.2569	1040
55 2-Methyl-4,6-dinitrophenol	198	8.584	8.584	(0.898)	18588	21.6417	824
56 p-Nitroaniline	138	8.554	8.554	(1.076)	29728	23.7641	905

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
133 Diphenylamine	169	8.653	8.653	(0.905)	143667	25.1488	958
58 1,2-Diphenylhydrazine	77	8.702	8.702	(0.910)	198775	27.3552	1040
61 4-Bromophenylphenylether	248	9.058	9.058	(0.947)	50417	26.9584	1030
63 Hexachlorobenzene	284	9.135	9.137	(0.955)	49117	25.0731	955
68 Phenanthrene	178	9.588	9.588	(1.003)	269212	27.4666	1050
69 Anthracene	178	9.644	9.644	(1.009)	270118	27.5720	1050
72 Di-n-butylphthalate	149	10.154	10.151	(1.062)	368181	32.7249	1250
76 Fluoranthene	202	10.880	10.880	(1.138)	265878	28.3176	1080
85 Butylbenzylphthalate	149	11.803	11.803	(0.939)	141487	36.0507	1370
89 Benzo(a)anthracene	228	12.557	12.557	(0.999)	180956	26.9005	1020
92 Chrysene	228	12.608	12.608	(1.003)	175277	27.1940	1040
93 bis(2-Ethylhexyl)phthalate	149	12.524	12.524	(0.996)	172521	31.9847	1220
94 Di-n-octylphthalate	149	13.505	13.502	(0.907)	242115	36.1709	1380
95 Benzo(b)fluoranthene	252	14.221	14.218	(0.955)	136171	29.2201	1110
96 Benzo(k)fluoranthene	252	14.267	14.267	(0.958)	144222	31.1224	1180
97 Benzo(a)pyrene	252	14.794	14.794	(0.993)	116783	29.0134	1100
99 Indeno(1,2,3-cd)pyrene	276	16.881	16.878	(1.133)	95779	26.1306	995
100 Dibenzo(a,h)anthracene	278	16.907	16.909	(1.135)	34823	13.0952	499(R)
101 Benzo(ghi)perylene	276	17.391	17.388	(1.168)	73803	24.0003	914(Q)
1 N-Methyl-N-nitrosomethylamine	74	2.650	2.650	(0.552)	27471	12.5005	476(R)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
R - Spike/Surrogate failed recovery limits.

Data File: /chem/MSD6.i/s121709.b/s611717.d
Date : 17-DEC-2009 17:29
Client ID: RE16-10-2878MSD
Sample Info: 1120199453019324441|1|SVMF1|1|LANL0001MSD
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD6.i
Operator: nagl
Column diameter: 0.20

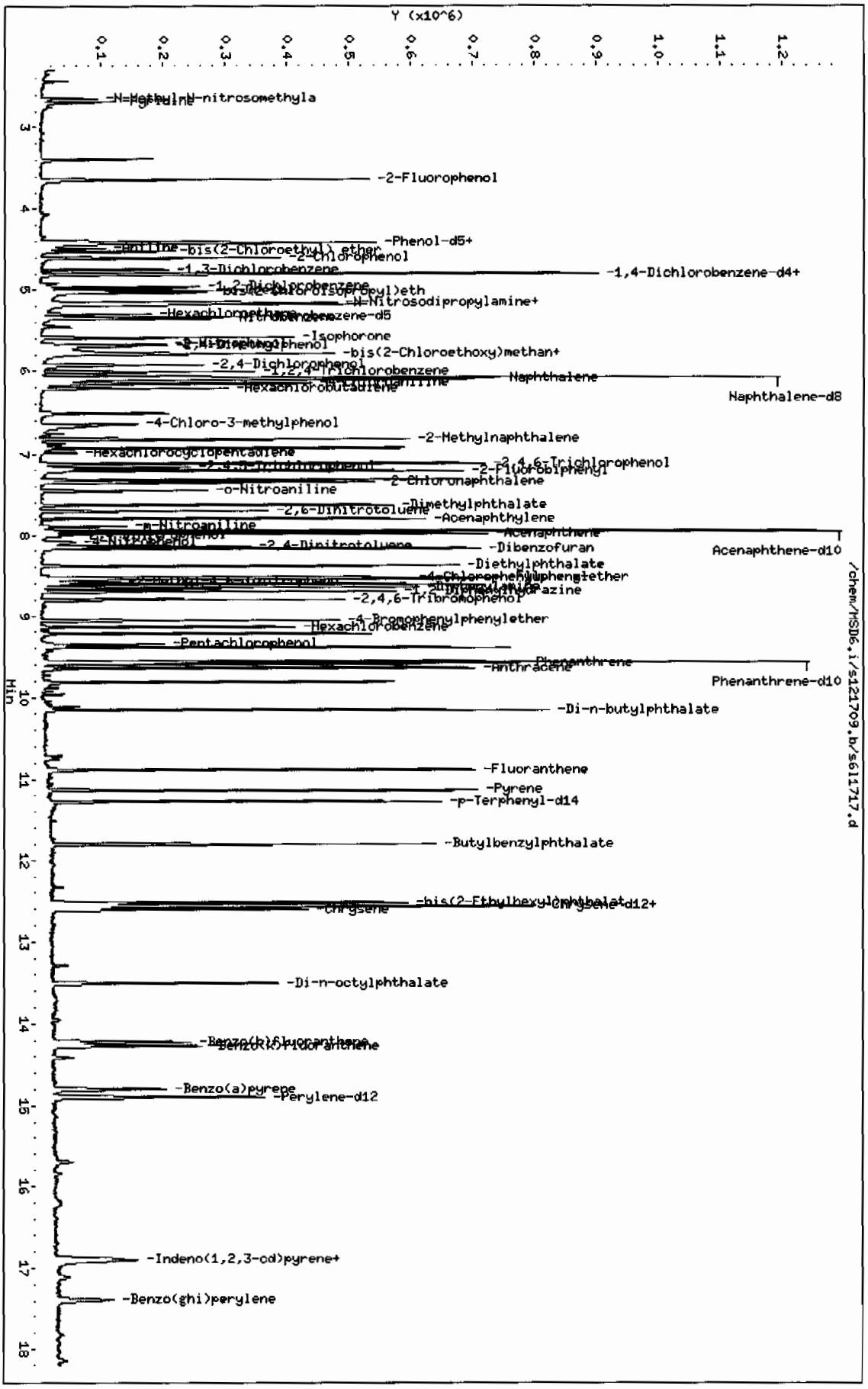

Page 1

GC SEMIVOLATILE DRO ANALYSIS

DRO Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-854

Method/Analysis Information

Procedure:	**Analysis of Diesel Range Organics by Flame Ionization Detector**
Analytical Method:	SW846 8015A/B SVOC
Prep Method:	SW846 3550B
Analytical Batch Number:	933001
Prep Batch Number:	933000

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 8015A/B SVOC:

Sample ID	Client ID
242668001	RE03-10-2741
242668002	RE03-10-2740
1201995990	Method Blank (MB)
1201995991	Laboratory Control Sample (LCS)
1201995992	242794001(RE03-09-13470) Matrix Spike (MS)
1201995993	242794001(RE03-09-13470) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on a "dry weight" basis.

Preparation/Analytical Method Verification

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-003 REV# 18.

Raw data reports are processed and reviewed by the analyst using the Target software package. False positives have been removed from the Target quantitation reports per standard operating procedures (SOP) section 23.0.

Calibration Information

Initial Calibration
All initial calibration requirements have been met for this sample delivery group (SDG).

The linear equation used in Target and indicated on the initial calibration summary form is not a conventional linear equation (slope intercept formula) and does not match the equation found in SW-846 method 8000B. The x and y axes are inversed in Target, so that the instrument response is treated as the independent variable (x) and the concentration ratio is treated as the dependent variable (y). The equation used in Target to calculate sample results is adjusted to account for the linear equation inversion and reciprocal slope. The adjusted calculation has been independently verified to produce valid results.

Continuing Calibration Verification (CCV) Requirements
All associated calibration verification standard(s) (ICV or CCV) met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Surrogate Recoveries
All surrogate recoveries were within the established acceptance criteria for this SDG.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

QC Sample Designation
A LANL sample of similar matrix associated with another SDG (#10-901) was selected for the matrix spike and matrix spike duplicate analysis. A Form III and QC raw data are included in the package summarizing the results.

Matrix Spike (MS) Recovery Statement
The MS recovery was within the established acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recovery was within the established acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD between the MS and MSD met the acceptance limits.

Technical Information

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

Sample Dilutions
Sample 242668002 (RE03-10-2740) was diluted at 1:10 due to the extract being thick and oily.

Sample Re-extraction/Re-analysis
Re-extractions or re-analyses were not required in this SDG.

Miscellaneous Information

Electronic Package Comment

The following package was generated using an electronic data processing program referred to as "virtual packaging". In an effort to increase quality and efficiency, the laboratory is developing systems to eventually generate all data packages electronically. The following change from "traditional" packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. An electronic signature page inserted after the case narrative of each electronic package will indicate the analyst, reviewer, and report specialist names associated with the generation of the data and package. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned

and inserted into the electronic package.

Nonconformance (NCR) Documentation
Nonconformance report (NCR) is for documentation of any procedural anomalies that may deviate from referenced SOP or contractual document. A NCR was not required for this SDG.

Manual Integration
Certain standards and QC samples may have required manual integration to correctly position the baseline as set in the calibration standard injections. If manual integration was performed, copies of all manual integration peak profiles are included in the raw data section of this fraction.

Additional Comments
The additional comments field is used to address special issues associated with each analysis, clarify method/contractual issues pertaining to the analysis, and to list any report documents generated as a result of sample analysis or review. The following additional comments were required:

Due to software limitation, the Form VIIs will display the results either in the % difference or % drift depending on the type of the calibration curve. If the curve of all analytes is generated using an average response factor (RF), the Form VII will display results using the difference calculation (RF). If the curve of one or more analytes is generated using a linear curve, the Form VII will display results using the % drift calculation (by concentration) for all analytes.

System Configuration

The GC-FID analysis was performed on the following instrument configuration:

Instrument ID	Instrument	System Configuration	Column ID	Column Description
FID7.I	Agilent GC FID	Agilent 6890N GC/FID	DB-5MS	30m x 0.25mm, 0.25um(J&W)

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Jimmi Cao **Date:** 1/6/10

Roadmap for LANL 10-854 DRO

This roadmap was analyzed by kev01577 on 12-17-2009, 14:37.
This roadmap was reviewed by jcb on 12-18-2009, 08:53.
This roadmap was packaged by yml on 01-05-2010, 11:30.

Sample

exclude	manual	datafile	smpid	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/fid7.i/121609dr/007f0701.d	242668001	16-DEC-2009	19:52	10-854.sub	RE03-10-2741	1.00000	933001	USE
☐	N	/chem/fid7.i/121609dr/008f0801.d	242668002	16-DEC-2009	20:29	10-854.sub	RE03-10-2740	10.00000	933001	USE

QC Sample

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/fid7.i/121609dr/005f0501.d	1201995990	mb	16-DEC-2009	18:39	10-854.sub	DBLK01	1.00000	933001	USE
☐	N	/chem/fid7.i/121609dr/006f0601.d	1201995991	lcs	16-DEC-2009	19:16	10-854.sub	DBLK01LCS	1.00000	933001	USE

SAMPLE DATA SUMMARY

Flame Ionization Detector
Certificate of Analysis
Sample Summary

SDG Number:	10-854	Date Collected:	12/07/2009 12:00	Matrix:	S
Lab Sample ID:	242668001	Date Received:	12/10/2009 08:50	%Moisture:	8.2
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-10-2741	Method:	SW846 8015A/B SVOC	SOP Ref:	GL-OA-E-003
Batch ID:	933001	Inst:	FID7.I	Dilution:	1
Run Date:	12/16/2009 19:52	Analyst:	KXR2	Inj. Vol:	1 uL
Prep Date:	12/15/2009 16:56	Aliquot:	30.08 g	Final Volume:	1 mL
Data File:	007f0701.d	Column:	DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics		89.8	mg/kg	2.35	7.24

Flame Ionization Detector
Certificate of Analysis
Sample Summary

SDG Number:	10-854	Date Collected:	12/07/2009 12:00	Matrix:	S
Lab Sample ID:	242668002	Date Received:	12/10/2009 08:50	%Moisture:	11.3
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-10-2740	Method:	SW846 8015A/B SVOC	SOP Ref:	GL-OA-E-003
Batch ID:	933001	Inst:	FID7.I	Dilution:	10
Run Date:	12/16/2009 20:29	Analyst:	KXR2	Inj. Vol:	1 uL
Prep Date:	12/15/2009 16:56	Aliquot:	30 g	Final Volume:	1 mL
Data File:	008f0801.d	Column:	DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics		85.6	mg/kg	24.4	75.2

QUALITY CONTROL SUMMARY

Flame Ionization Detector
Surrogate Recovery Report

SDG Number: 10-854
Matrix Type: SOLID
CAP Column (1) : DB-5MS

Sample ID	Client ID	OTP %REC	
1201995990	MB for batch 933000	47	
1201995991	LCS for batch 933000	80	
242668001	RE03-10-2741	46	
242668002	RE03-10-2740	65	D

Surrogate	Acceptance Limits
OTP = o-Terphenyl	(24%-124%)

* Recovery outside Acceptance Limits
\# Column to be used to flag recovery values
D Sample Diluted

Flame Ionization Detector
Quality Control Summary
Spike Recovery Report

SDG Number: 10–854
Client ID: LCS for batch 933000
Lab Sample ID: 1201995991
Instrument: FID7.I
Analyst: KXR2
Inj. Vol: 1 uL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 12/16/2009 19:16
Dilution: 1
Prep Batch ID: 933000
Batch ID: 933001

CAS No		Parmname	Amount Added mg/kg	Sample Conc. mg/kg	Spike Conc. mg/kg	Recovery %	Acceptance Limits
DRO	LCS	Diesel Range Organics	33.3	0.0	22.2	67	53–114

Flame Ionization Detector

Quality Control Summary

Spike Recovery Report

SDG Number:	**10-901**	**Sample Type:**	**Matrix Spike**
Client ID:	**RE03-09-13470MS**	**Matrix:**	**S**
Lab Sample ID:	**1201995992**	**%Moisture:**	**4.4**
Instrument:	**FID7.I**	**Analysis Date:**	**12/17/2009 03:13**
Analyst:	**KXR2**	**Prep Batch ID:**	**933000**
Inj. Vol:	**1 uL**	**Batch ID:**	**933001**

Dilution: 1

CAS No		Parmname	Amount Added mg/kg	Sample Conc. mg/kg		Spike Conc. mg/kg	Recovery %	Acceptance Limits
DRO	MS	Diesel Range Organics	34.9	2.86	J	17.3	41	21-122

Flame Ionization Detector
Quality Control Summary
Spike Recovery Report

SDG Number:	**10-901**	**Sample Type:**	**Matrix Spike Duplicate**
Client ID:	**RE03-09-13470MSD**	**Matrix:**	**S**
Lab Sample ID:	**1201995993**	**%Moisture:**	**4.4**
Instrument:	**FID7.I**	**Analysis Date:**	**12/17/2009 03:50**
Analyst:	**KXR2**	**Prep Batch ID:**	**933000**
Inj. Vol:	**1 uL**	**Batch ID:**	**933001**

Dilution: 1

CAS No	Parmname	Amount Added mg/kg	Sample Conc. mg/kg		Spike Conc. mg/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
DRO	MSD Diesel Range Organics	34.8	2.86	J	18.2	44	21-122	5	0-30

Method Blank Summary

SDG Number:	10–854	Client:	LANL010	Matrix:	SOIL
Client ID:	MB for batch 933000	Instrument ID:	FID7.I	Data File:	005f0501.d
Lab Sample ID:	1201995990	Prep Date:	12/15/2009 16:56	Analyzed:	12/16/09 18:39
Column:	DB–5MS	Level:	LOW		

This method blank applies to the following samples and quality control samples:

Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01 LCS for batch 933000	1201995991	006f0601.d	12/16/09	1916
02 RE03–10–2741	242668001	007f0701.d	12/16/09	1952
03 RE03–10–2740	242668002	008f0801.d	12/16/09	2029

SAMPLE
DATA

Flame Ionization Detector
Certificate of Analysis
Sample Summary

SDG Number:	10-854	Date Collected:	12/07/2009 12:00	Matrix:	S
Lab Sample ID:	242668001	Date Received:	12/10/2009 08:50	%Moisture:	8.2
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-10-2741	Method:	SW846 8015A/B SVOC	SOP Ref:	GL-OA-E-003
Batch ID:	933001	Inst:	FID7.I	Dilution:	1
Run Date:	12/16/2009 19:52	Analyst:	KXR2	Inj. Vol:	1 uL
Prep Date:	12/15/2009 16:56	Aliquot:	30.08 g	Final Volume:	1 mL
Data File:	007f0701.d	Column:	DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics		89.8	mg/kg	2.35	7.24

GEL Laboratories LLC

DB-5MS .25mm

Data file : /chem/fid7.i/121609dr/007f0701.d
Lab Smp Id: 242668001 Client Smp ID: RE03-10-2741
Inj Date : 16-DEC-2009 19:52
Operator : KXR2 Inst ID: fid7.i
Smp Info : |242668001|1|
Misc Info : |FIDDRO_S|933001|FIDF|LANL|
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fid7.i/121609dr/FID7a.i_b_DRO_121309.m
Meth Date : 17-Dec-2009 11:49 kev01577 Quant Type: ESTD
Cal Date : 13-DEC-2009 18:58 Cal File: 007f0701.d
Als bottle: 7
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-854.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.08000	Weigth of sample extracted (g)
M	8.16760	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (mg/L)	FINAL (mg/Kg)	
S 1 Diesel Range Organics					CAS #:	
7.480- 17.855			33276910	2480.17	89.8	
$ 2 o-Terphenyl					CAS #: 84-15-1	
13.592	13.597	-0.005	240920	9.13807	0.33	(M)

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/fid7.i/121609dr/007f0701.d
Date : 16-DEC-2009 19:52
Client ID: RE03-10-2741
Sample Info: |2426680011|1|
Volume Injected (uL): 1.0
Column phase: DB-5MS

Instrument: fid7.i

Operator: KXR2
Column diameter: 0.25

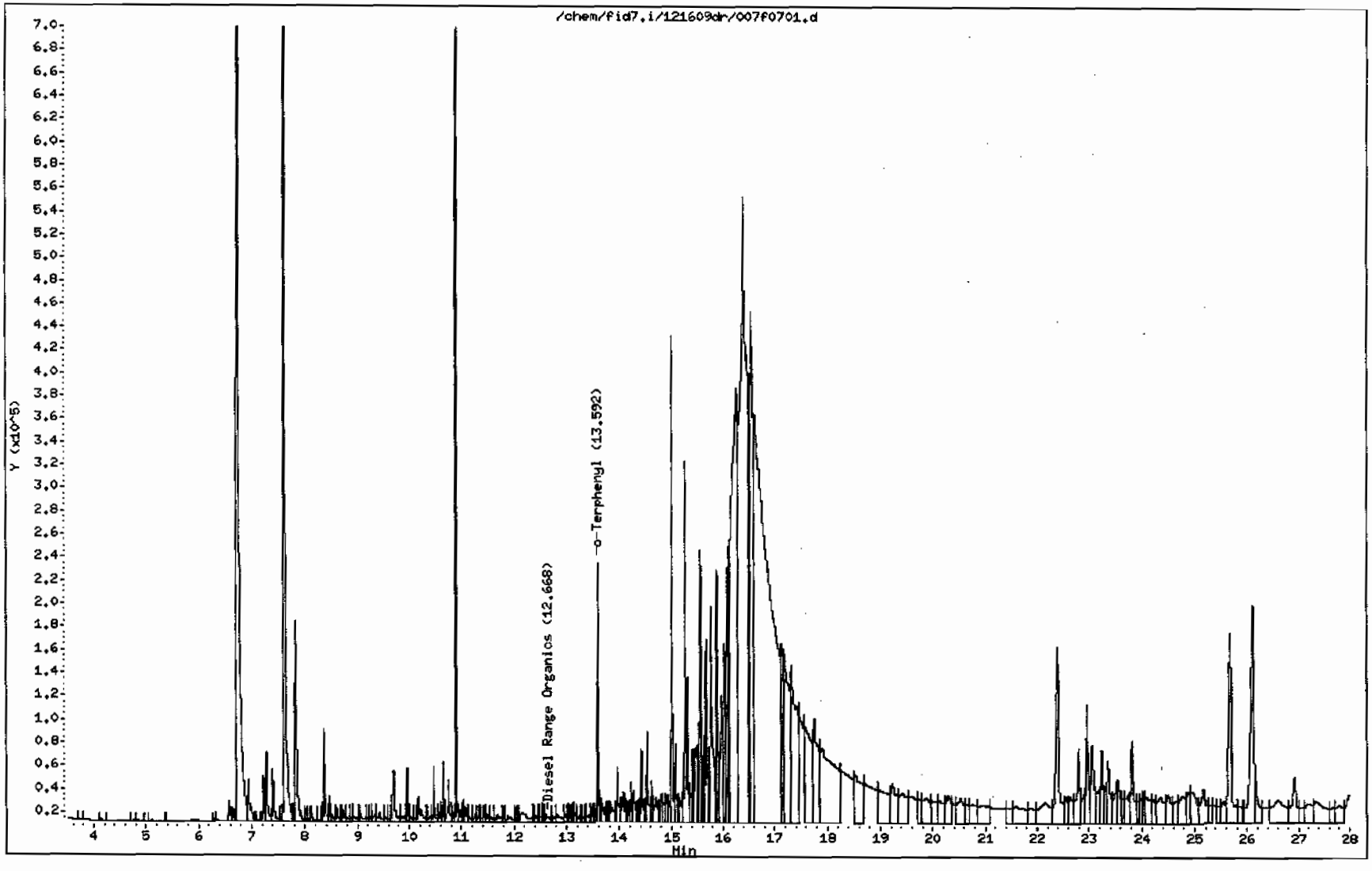

Data File: /chem/fid7.i/121609dr/007f0701.d
Injection Date: 16-DEC-2009 19:52
Instrument: fid7.i
Client Sample ID: RE03-10-2741

Below 12/17/09

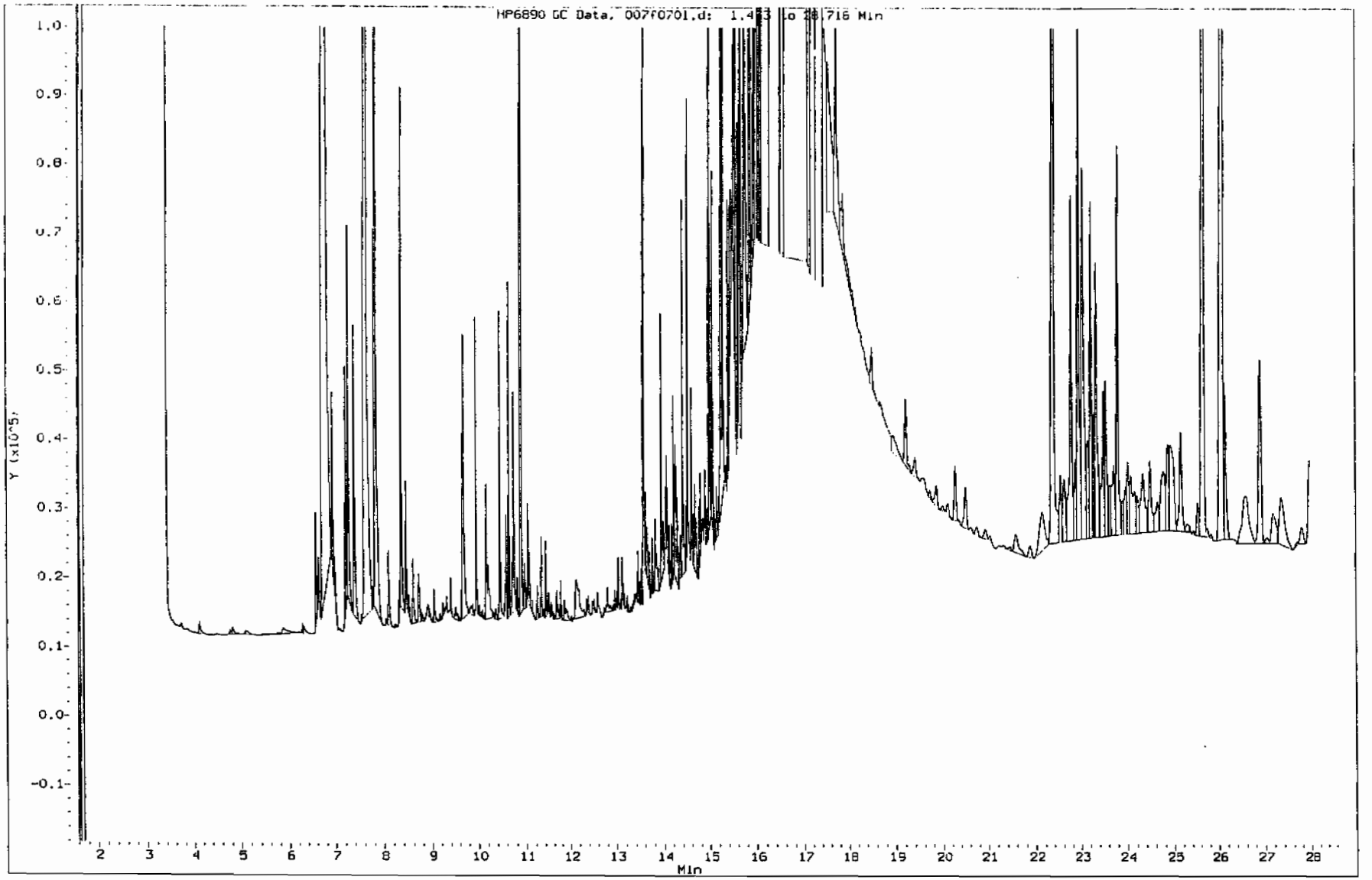

Data File: /chem/fid7.i/121609dr/007f0701.d
Injection Date: 16-DEC-2009 19:52
Instrument: fid7.i
Client Sample ID: RE03-10-2741

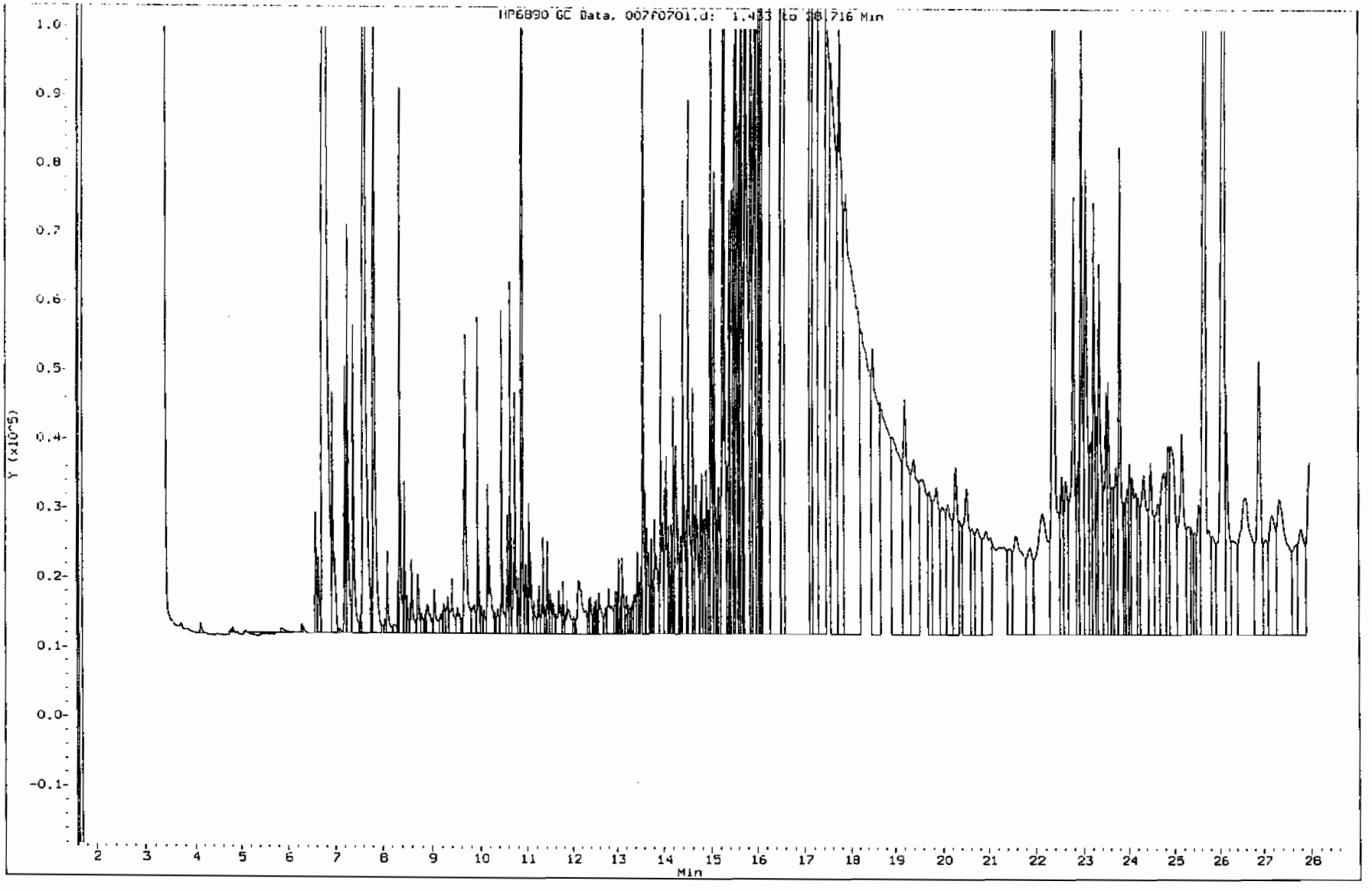

Flame Ionization Detector
Certificate of Analysis
Sample Summary

SDG Number:	10-854	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242668002	**Date Received:**	12/10/2009 08:50	**%Moisture:**	11.3
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-10-2740	**Method:**	SW846 8015A/B SVOC	**SOP Ref:**	GL-OA-E-003
Batch ID:	933001	**Inst:**	FID7.I	**Dilution:**	10
Run Date:	12/16/2009 20:29	**Analyst:**	KXR2	**Inj. Vol:**	1 uL
Prep Date:	12/15/2009 16:56	**Aliquot:**	30 g	**Final Volume:**	1 mL
Data File:	008f0801.d	**Column:**	DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics		85.6	mg/kg	24.4	75.2

GEL Laboratories LLC

DB-5MS .25mm

Data file : /chem/fid7.i/121609dr/008f0801.d
Lab Smp Id: 242668002 Client Smp ID: RE03-10-2740
Inj Date : 16-DEC-2009 20:29
Operator : KXR2 Inst ID: fid7.i
Smp Info : |242668002|10|
Misc Info : |FIDDRO_S|933001|FIDF|LANL|
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fid7.i/121609dr/FID7a.i_b_DRO_121309.m
Meth Date : 17-Dec-2009 11:49 kev01577 Quant Type: ESTD
Cal Date : 13-DEC-2009 18:58 Cal File: 007f0701.d
Als bottle: 8
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: 10-854.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	10.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weigth of sample extracted (g)
M	11.29960	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (mg/L)	FINAL (mg/Kg)	
$ 1 Diesel Range Organics					CAS #:	
7.480-	17.855		3057031	227.844	85.6	
$ 2 o-Terphenyl					CAS #: 84-15-1	
13.593	13.597	-0.004	34501	1.30863	0.49	(M)

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/fid7.i/121609dr/008f0801.d
Date : 16-DEC-2009 20:29
Client ID: RE03-10-2740
Sample Info: |2426680021|0|
Volume Injected (uL): 1.0
Column phase: DB-5MS

Instrument: fid7.i
Operator: KXR2
Column diameter: 0.25

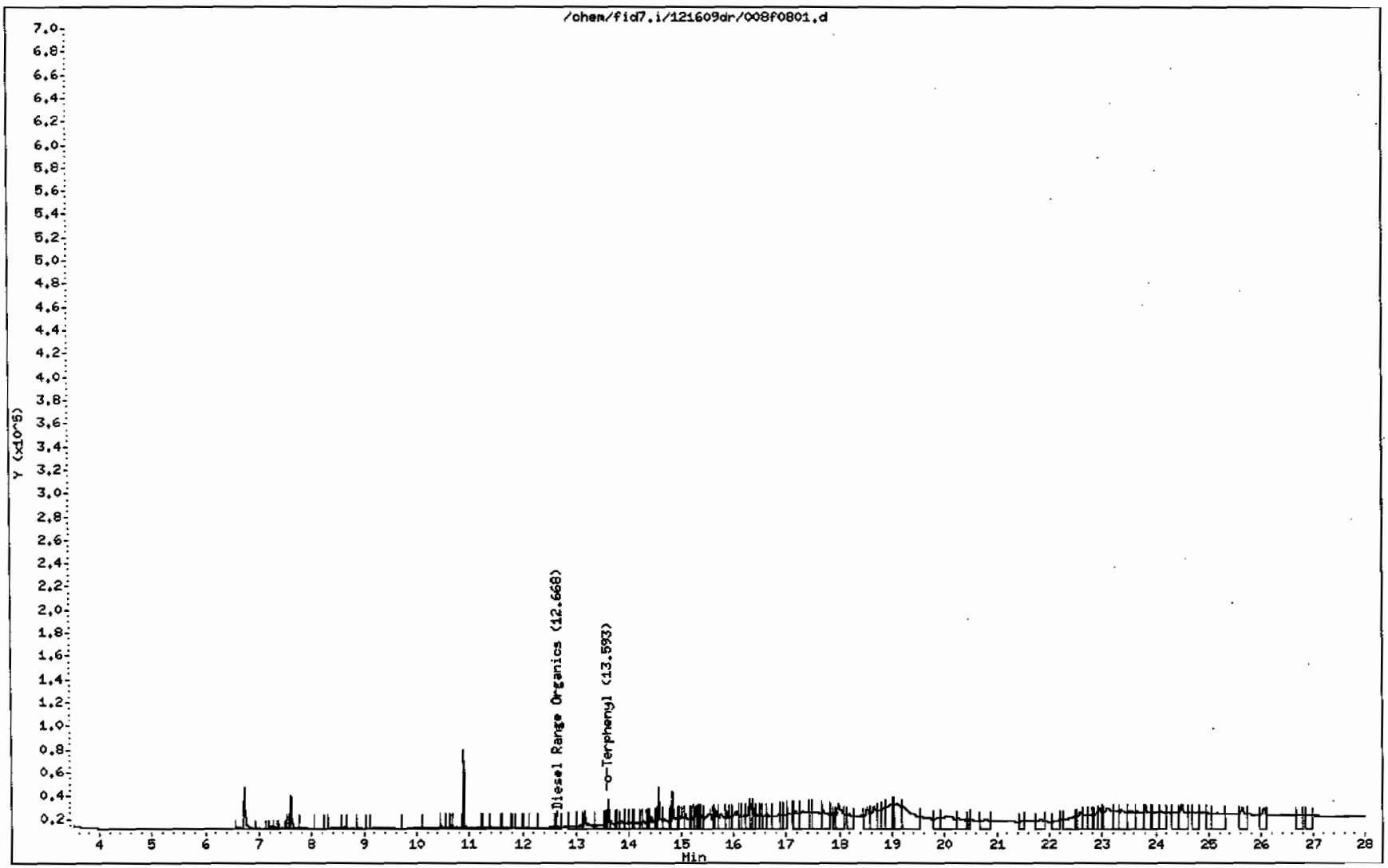

Data File: /chem/fid7.i/121609dr/008f0801.d
Injection Date: 16-DEC-2009 20:29
Instrument: fid7.i
Client Sample ID: RE03-10-2740

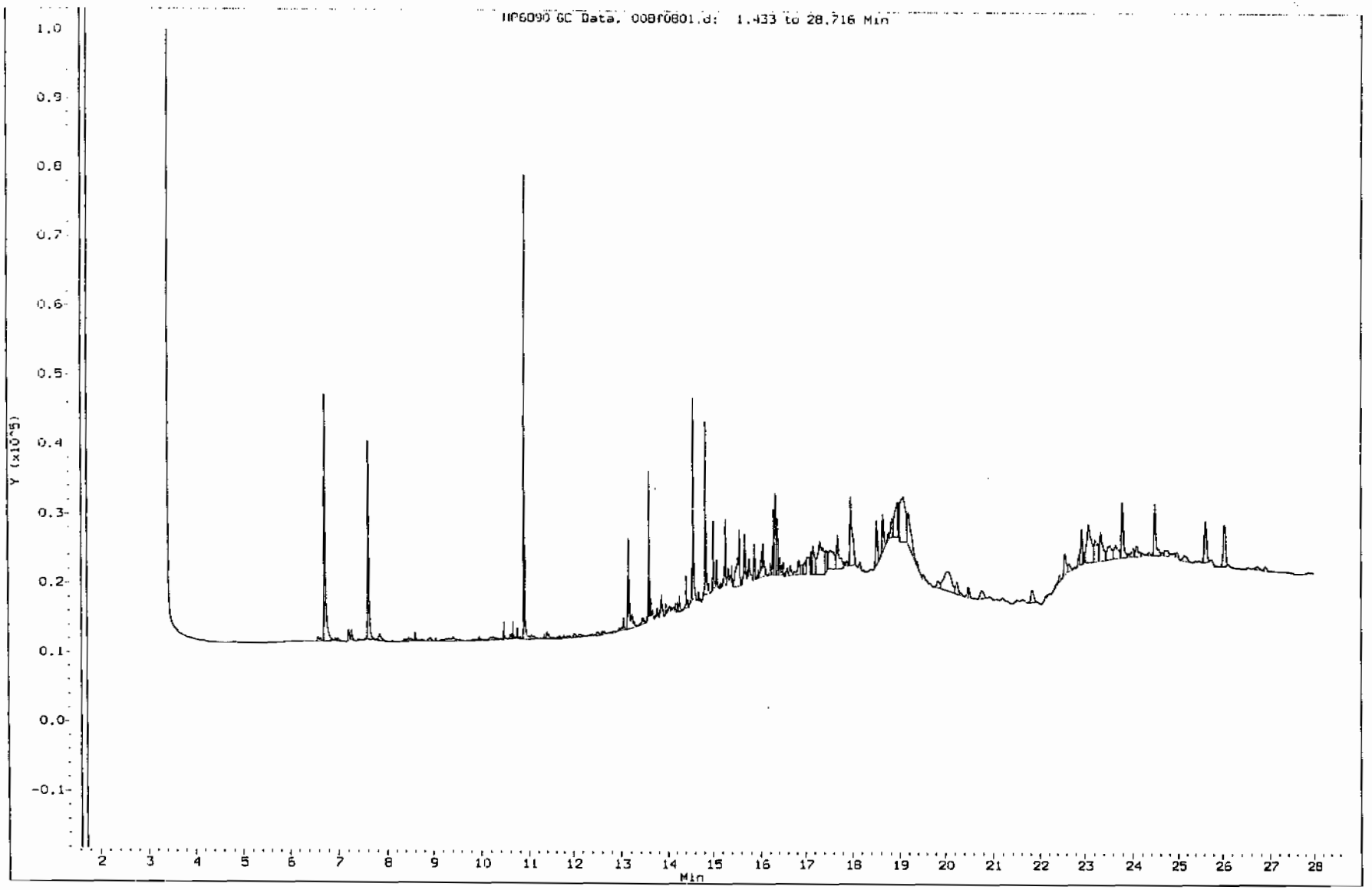

Data File: /chem/fid7.i/121609ur/008f0801.d
Injection Date: 16-DEC-2009 20:29
Instrument: fid7.i
Client Sample ID: RE03-10-2740

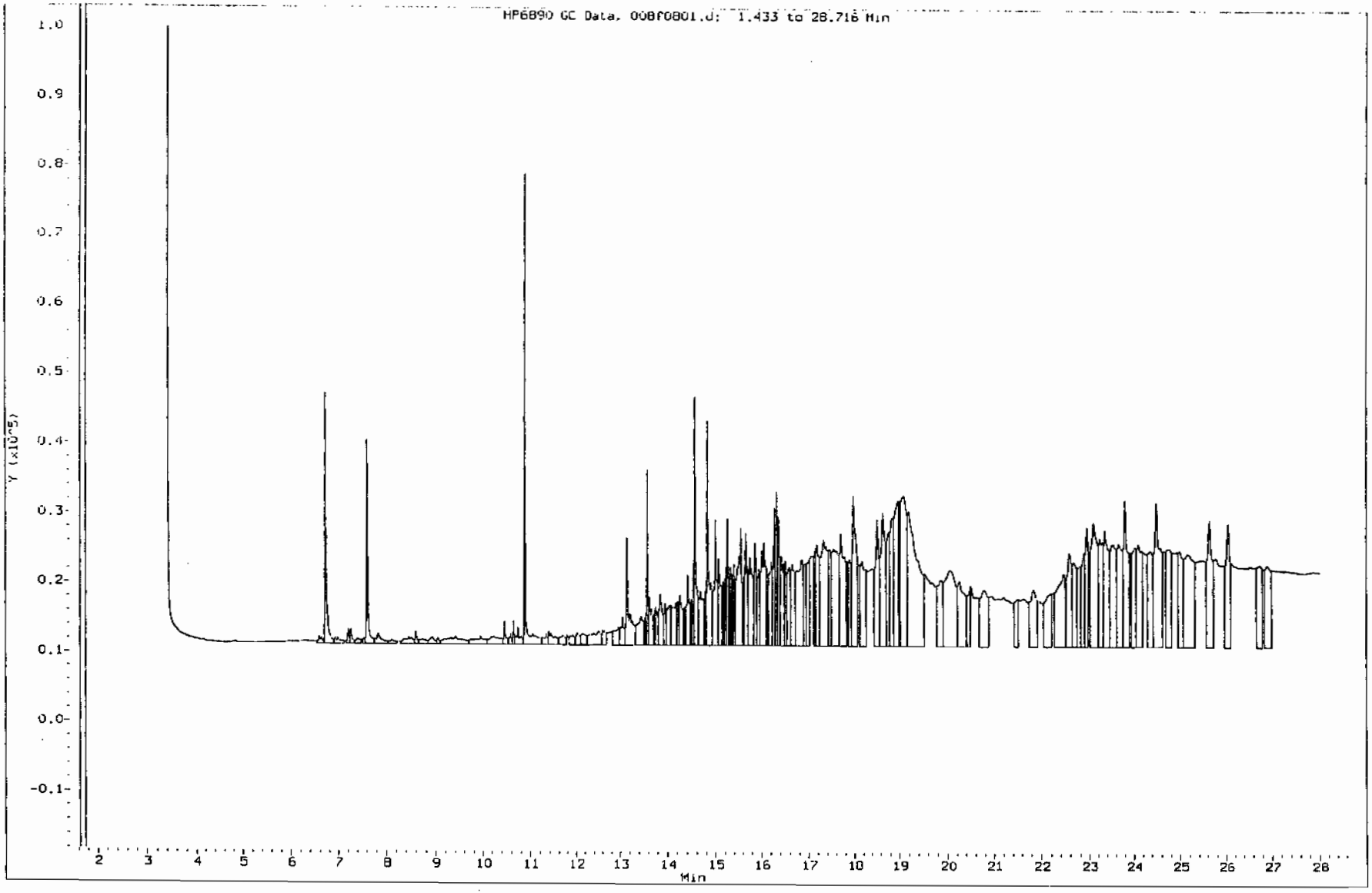

STANDARDS DATA

Report Date: 17-Dec-2009 13:09

Calibration History

Method : /chem/fid7.i/121609dr/FID7a.i_b_DRO_121309.m
Start Cal Date: 13-DEC-2009 16:31
End Cal Date : 13-DEC-2009 18:58

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 3 , Cal Amount: 200.00000		
13-DEC-2009 16:31	dro	/chem/fid7.i/121309dr/003f0301.d
Cal Level: 4 , Cal Amount: 500.00000		
13-DEC-2009 17:07	dro	/chem/fid7.i/121309dr/004f0401.d
Cal Level: 5 , Cal Amount: 1000.00000		
13-DEC-2009 17:45	dro	/chem/fid7.i/121309dr/005f0501.d
Cal Level: 6 , Cal Amount: 2000.00000		
13-DEC-2009 18:22	dro	/chem/fid7.i/121309dr/006f0601.d
Cal Level: 7 , Cal Amount: 5000.00000		
13-DEC-2009 18:58	dro	/chem/fid7.i/121309dr/007f0701.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 5

Ccal Level: 5 , Ccal Amount: 1000		
17-DEC-2009 06:16	dro	/chem/fid7.i/121609dr/024f2401.d
Ccal Level: 5 , Ccal Amount: 1000		
16-DEC-2009 17:24	dro	/chem/fid7.i/121609dr/003f0301.d

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/fid7.i/121609dr/FID7a.i_b_DRO_121309.m
Quant Method : ESTD Target Version : 3.50
Last Update : 17-Dec-2009 11:49 Number of Cpnds : 6
Data Type : GC DATA

Global Integrator : Falcon

Chromat Events	Values
Initial:Start Threshold	100.000000
Initial:End Threshold	50.000000
Initial:Area Threshold	100.000000
Initial:P-P Resolution	1.000000
Initial:Bunch Factor	11.000000
Initial:Negative Peaks	OFF
Initial:Tension	7.000000
5.000:Force Cluster ON	n/a
17.000:Force Cluster OFF	n/a
17.371:Tension	1.000000

		Compound	RT	RT Window	RF
	3	Decane (C10)	7.509	7.479-7.539	
S	1	Diesel Range Organics	12.668	7.480-17.855	1.342e+04
$	2	o-Terphenyl	13.597	13.567-13.627	2.636e+04
	4	Octacosane (C28)	17.825	17.795-17.855	
S	75	JP-4	6.750	3.500-10.000	
S	76	Motor oil	17.000	14.000-20.000	

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 13-DEC-2009 16:31
End Cal Date : 13-DEC-2009 18:58
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/fid7.i/121609dr/FID7a.i_b_DRO_121309.m
Cal Date : 17-Dec-2009 11:49 kev01577
Curve Type : Average

Calibration File Names:
Level 3: /chem/fid7.i/121309dr/003f0301.d
Level 4: /chem/fid7.i/121309dr/004f0401.d
Level 5: /chem/fid7.i/121309dr/005f0501.d
Level 6: /chem/fid7.i/121309dr/006f0601.d
Level 7: /chem/fid7.i/121309dr/007f0701.d

	Compound	200.000 Level 3	500.000 Level 4	1000.000 Level 5	2000.000 Level 6	5000.000 Level 7	RRF	% RSD
	3 Decane (C10)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
S	1 Diesel Range Organics	12370	13330	13518	14106	13763	13417	4.871
	4 Octacosane (C28)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
S	75 JP-4	+++++	+++++	+++++	+++++	+++++	+++++	+++++
S	76 Motor oil	+++++	+++++	+++++	+++++	+++++	+++++	+++++
S	2 o-Terphenyl	24795	27259	25475	26481	27813	26365	4.710

FORM 7
SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-854

Instrument ID: FID7 Calibration Date: 12/16/09 Time: 1724

Lab File ID: 003F0301 Init. Calib. Date(s): 12/13/09 12/13/09

Init. Calib. Times: 1631 1858

GC Column: DB-5MS ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Diesel Range Organics	13417.204	13736.002	0.01	2.4	15.0
o-Terphenyl	26364.536	24730.250	0.01	-6.2	15.0

FORM VII SV

FORM 7
SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-854

Instrument ID: FID7 Calibration Date: 12/17/09 Time: 0010

Lab File ID: 014F1401 Init. Calib. Date(s): 12/13/09 12/13/09

Init. Calib. Times: 1631 1858

GC Column: DB-5MS ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Diesel Range Organics	13417.204	14197.288	0.01	5.8	15.0
o-Terphenyl	26364.536	25633.658	0.01	-2.8	15.0

FORM VII SV

GEL Laboratories LLC

DB-5MS .25mm

Data file : /chem/fid7.i/121609dr/003f0301.d
Lab Smp Id: UFI091118-02 D1 Client Smp ID: DTSD01
Inj Date : 16-DEC-2009 17:24
Operator : KXR2 Inst ID: fid7.i
Smp Info : |UFI091118-02 D1
Misc Info :
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fid7.i/121609dr/FID7a.i_b_DRO_121309.m
Meth Date : 17-Dec-2009 11:49 kev01577 Quant Type: ESTD
Cal Date : 13-DEC-2009 18:58 Cal File: 007f0701.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: dro.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (mg/L)	ON-COL (mg/L)
$ 1 Diesel Range Organics					CAS #:
7.480- 17.855			13736002	1000.00	1020
$ 2 o-Terphenyl					CAS #: 84-15-1
13.597	13.597	0.000	618256	25.0000	23.4

Data File: /chem/fid7.i/121609dr/003f0301.d
Date : 16-DEC-2009 17:24
Client ID: DTSD01
Sample Info: !UFI091118-02 D1

Column phase: DB-5MS

Instrument: fid7.i

Operator: KXR2
Column diameter: 0.25

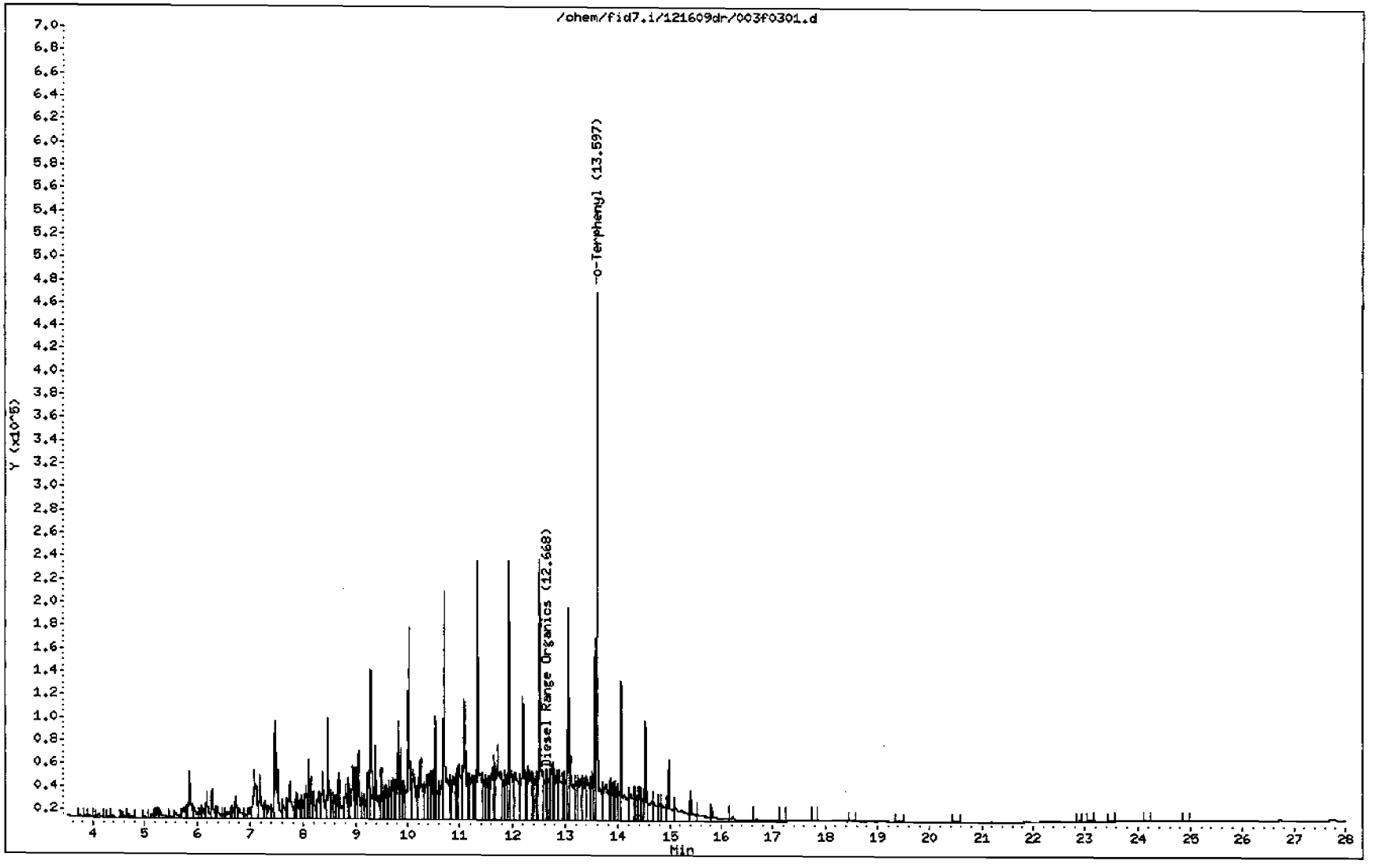

GEL Laboratories LLC

DB-5MS .25mm

Data file : /chem/fid7.i/121609dr/014f1401.d
Lab Smp Id: UFI091118-02 D2 Client Smp ID: DSTD02
Inj Date : 17-DEC-2009 00:10
Operator : KXR2 Inst ID: fid7.i
Smp Info : |UFI091118-02 D2
Misc Info :
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fid7.i/121609dr/FID7a.i_b_DRO_121309.m
Meth Date : 17-Dec-2009 14:05 kev01577 Quant Type: ESTD
Cal Date : 13-DEC-2009 18:58 Cal File: 007f0701.d
Als bottle: 14 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: dro.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (mg/L)	AMOUNTS ON-COL (mg/L)
S 1 Diesel Range Organics					CAS #:
7.480-	17.855		14197287	1000.00	1060
$ 2 o-Terphenyl					CAS #: 84-15-1
13.598	13.597	0.001	640841	25.0000	24.3

Data File: /chem/fid7.i/121609dr/014f1401.d
Date : 17-DEC-2009 00:10
Client ID: DSTD02
Sample Info: IUFI091118-02 D2

Column phase: DB-5MS

Instrument: fid7.i

Operator: KXR2
Column diameter: 0.25

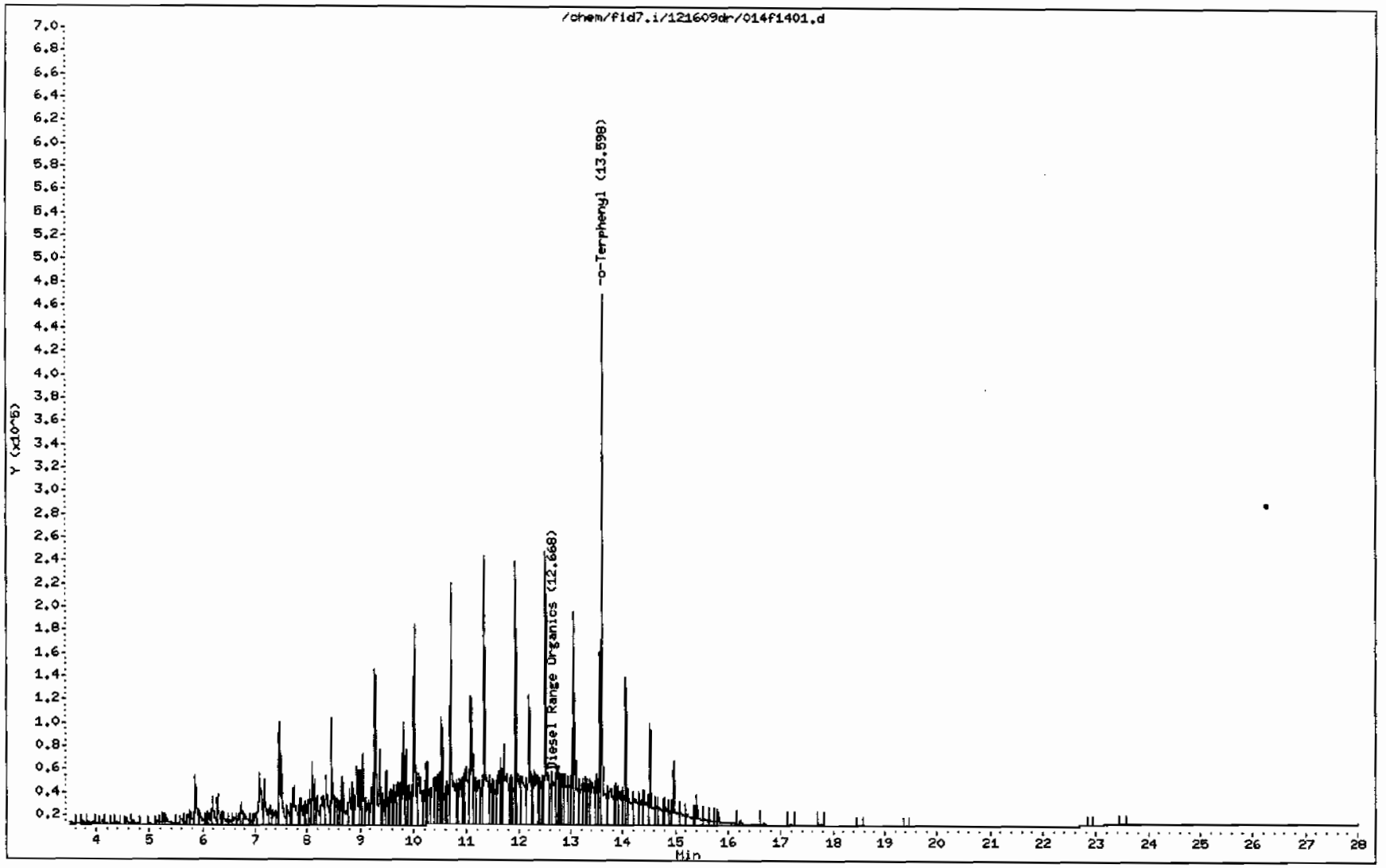

8D
DRO ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-854

GC Column: DB-5MS ID: 0.25 (mm) Init. Calib. Date(s): 12/13/09 12/13/09

Instrument ID: FID7

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 13.60

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	RT
01	DIBLK01	WFI091130-06	12/13/09	1516	13.59	
02	RTMARKER	UFI091013-03	12/13/09	1553		
03	CSTD01	UFI090827-10	12/13/09	1631	13.59	
04	CSTD02	UFI090827-11	12/13/09	1707	13.59	
05	CSTD03	UFI090827-12	12/13/09	1745	13.60	
06	CSTD04	UFI090827-13	12/13/09	1822	13.61	
07	CSTD05	UFI090827-14	12/13/09	1858	13.62	
08	DSTD01	WFI090928-01	12/13/09	1936	13.60	
09	DIBLK02	WFI091130-06	12/13/09	2012	13.59	
10	ZZZZZ	ZZZZZ	12/13/09	2049	13.59	
11	ZZZZZ	ZZZZZ	12/13/09	2126	13.59	
12	ZZZZZ	ZZZZZ	12/13/09	2203	13.59	
13	ZZZZZ	ZZZZZ	12/13/09	2240	13.59	
14	ZZZZZ	ZZZZZ	12/13/09	2318	13.60	
15	ZZZZZ	ZZZZZ	12/13/09	2354	13.59	
16	ZZZZZ	ZZZZZ	12/14/09	0032	13.59	
17	ZZZZZ	ZZZZZ	12/14/09	0109	13.59	
18	ZZZZZ	ZZZZZ	12/14/09	0146	13.59	
19	ZZZZZ	ZZZZZ	12/14/09	0223	13.59	
20	DSTD02	UFI091118-02	12/14/09	0300	13.60	
21	DIBLK03	WFI091130-06	12/14/09	0337	13.60	
22	ZZZZZ	ZZZZZ	12/14/09	0413	13.59	
23	ZZZZZ	ZZZZZ	12/14/09	0450	13.59	
24	ZZZZZ	ZZZZZ	12/14/09	0527	13.59	
25	ZZZZZ	ZZZZZ	12/14/09	0604	13.59	
26	ZZZZZ	ZZZZZ	12/14/09	0641	13.59	
27	ZZZZZ	ZZZZZ	12/14/09	0718	13.59	
28	ZZZZZ	ZZZZZ	12/14/09	0755	13.59	
29	ZZZZZ	ZZZZZ	12/14/09	0832	13.59	
30	ZZZZZ	ZZZZZ	12/14/09	0909	13.59	
31	DSTD03	UFI091118-02	12/14/09	0946	13.60	
32	DIBLK04	WFI091130-06	12/14/09	1023	13.60	

S1 = o-Terphenyl QC LIMITS (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

8D
DRO ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-854

GC Column: DB-5MS ID: 0.25 (mm) Init. Calib. Date(s): 12/13/09 12/13/09

Instrument ID: FID7

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 13.60

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	RT
01	DIBLK01	WFI091130-06	12/16/09	1610	13.59	
02	RTMARKER	UFI091013-03	12/16/09	1647		
03	DTSD01	UFI091118-02	12/16/09	1724	13.60	
04	DIBLK02	WFI091130-06	12/16/09	1801	13.59	
05	DBLK01	1201995990	12/16/09	1839	13.59	
06	DBLK01LCS	1201995991	12/16/09	1916	13.59	
07	RE03-10-2741	242668001	12/16/09	1952	13.59	
08	RE03-10-2740	242668002	12/16/09	2029	13.59	
09	ZZZZZ	ZZZZZ	12/16/09	2106	13.59	
10	ZZZZZ	ZZZZZ	12/16/09	2143	13.59	
11	ZZZZZ	ZZZZZ	12/16/09	2220	13.59	
12	ZZZZZ	ZZZZZ	12/16/09	2256	13.59	
13	ZZZZZ	ZZZZZ	12/16/09	2333	13.59	
14	DSTD02	UFI091118-02	12/17/09	0010	13.60	
15	DIBLK03	WFI091130-06	12/17/09	0047	13.59	
16	ZZZZZ	ZZZZZ	12/17/09	0123	13.59	
17	ZZZZZ	ZZZZZ	12/17/09	0200	13.59	
18	ZZZZZ	ZZZZZ	12/17/09	0236	13.59	
19	ZZZZZ	ZZZZZ	12/17/09	0313	13.59	
20	ZZZZZ	ZZZZZ	12/17/09	0350	13.59	
21	ZZZZZ	ZZZZZ	12/17/09	0427	13.59	
22	ZZZZZ	ZZZZZ	12/17/09	0503	13.59	
23	ZZZZZ	ZZZZZ	12/17/09	0540	13.59	
24	DSTD03	UFI091118-02	12/17/09	0616	13.60	
25	DIBLK04	WFI091130-06	12/17/09	0652	13.59	
26						
27						
28						
29						
30						
31						
32						

S1 = o-Terphenyl QC LIMITS (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

QUALITY CONTROL DATA

Flame Ionization Detector
Certificate of Analysis
Sample Summary

SDG Number:	10-854			**Matrix:**	SOIL
Lab Sample ID:	1201995990				
Client Sample:	QC for batch 933000	**Client:**	LANL010	**Project:**	QC
Client ID:	MB for batch 933000	**Method:**	SW846 8015A/B SVOC	**SOP Ref:**	GL-OA-E-003
Batch ID:	933001	**Inst:**	FID7.I	**Dilution:**	1
Run Date:	12/16/2009 18:39	**Analyst:**	KXR2	**Inj. Vol:**	1 uL
Prep Date:	12/15/2009 16:56	**Aliquot:**	30 g	**Final Volume:**	1 mL
Data File:	005f0501.d	**Column:**	DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics	U	6.67	mg/kg	2.17	6.67

GEL Laboratories LLC

DB-5MS .25mm

Data file : /chem/fid7.i/121609dr/005f0501.d
Lab Smp Id: 1201995990 Client Smp ID: DBLK01
Inj Date : 16-DEC-2009 18:39
Operator : KXR2 Inst ID: fid7.i
Smp Info : |1201995990|1|
Misc Info : |FIDDRO_S|933001|FIDF|MB|
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fid7.i/121609dr/FID7a.i_b_DRO_121309.m
Meth Date : 17-Dec-2009 11:49 kev01577 Quant Type: ESTD
Cal Date : 13-DEC-2009 18:58 Cal File: 007f0701.d
Als bottle: 5 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-854.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weigth of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (mg/L)	FINAL (mg/Kg)
$ 2 o-Terphenyl					CAS #: 84-15-1
13.592	13.597	-0.005	245909	9.32729	0.31

Data File: /chem/fid7.i/121609dr/005f0501.d
Date : 16-DEC-2009 18:39
Client ID: DBLK01
Sample Info: |1201995990|1|
Volume Injected (uL): 1.0
Column phase: DB-5MS

Instrument: fid7.i

Operator: KXR2
Column diameter: 0.25

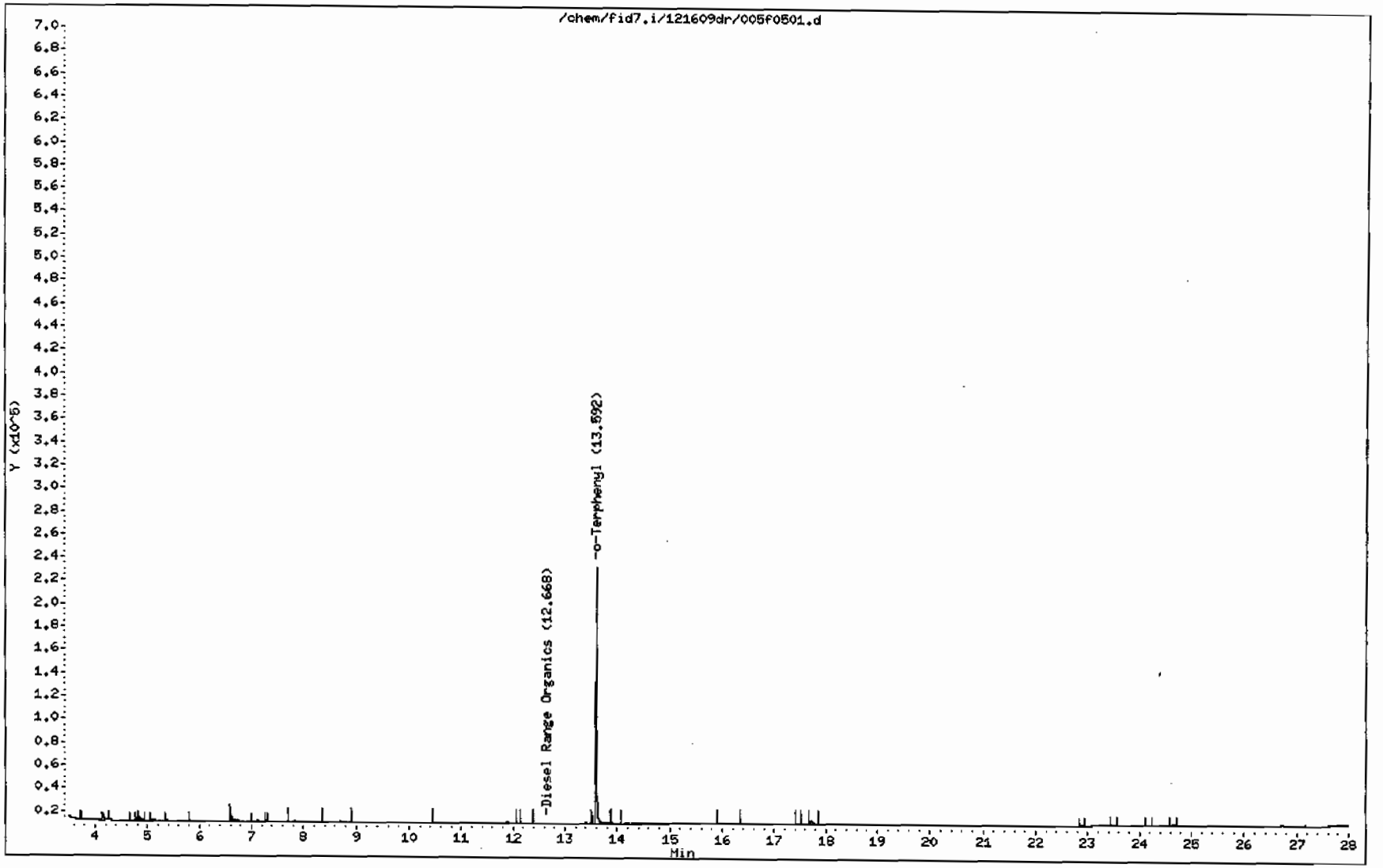

Flame Ionization Detector
Certificate of Analysis
Sample Summary

SDG Number:	10-854			Matrix:	SOIL
Lab Sample ID:	1201995991				
Client Sample:	QC for batch 933000	Client:	LANL010	Project:	QC
Client ID:	LCS for batch 933000	Method:	SW846 8015A/B SVOC	SOP Ref:	GL-OA-E-003
Batch ID:	933001	Inst:	FID7.1	Dilution:	1
Run Date:	12/16/2009 19:16	Analyst:	KXR2	Inj. Vol:	1 uL
Prep Date:	12/15/2009 16:56	Aliquot:	30 g	Final Volume:	1 mL
Data File:	006f0601.d	Column:	DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics		22.2	mg/kg	2.17	6.67

GEL Laboratories LLC

DB-5MS .25mm

Data file : /chem/fid7.i/121609dr/006f0601.d
Lab Smp Id: 1201995991 Client Smp ID: DBLK01LCS
Inj Date : 16-DEC-2009 19:16
Operator : KXR2 Inst ID: fid7.i
Smp Info : |1201995991|1|
Misc Info : |FIDDRO_S|933001|FIDF|LCS|
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fid7.i/121609dr/FID7a.i_b_DRO_121309.m
Meth Date : 17-Dec-2009 11:49 kev01577 Quant Type: ESTD
Cal Date : 13-DEC-2009 18:58 Cal File: 007f0701.d
Als bottle: 6 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-854.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weigth of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (mg/L)	FINAL (mg/Kg)
S 1 Diesel Range Organics					CAS #:
7.480	17.855		8928086	665.421	22.2
S 2 o-Terphenyl					CAS #: 84-15-1
13.594	13.597	-0.003	423124	16.0490	0.53

Data File: /chem/fid7.i/121609dr/006f0601.d
Date : 16-DEC-2009 19:16
Client ID: DBLK01LCS
Sample Info: |120199599111|
Volume Injected (uL): 1.0
Column phase: DB-5MS

Instrument: fid7.i

Operator: KXR2
Column diameter: 0.25

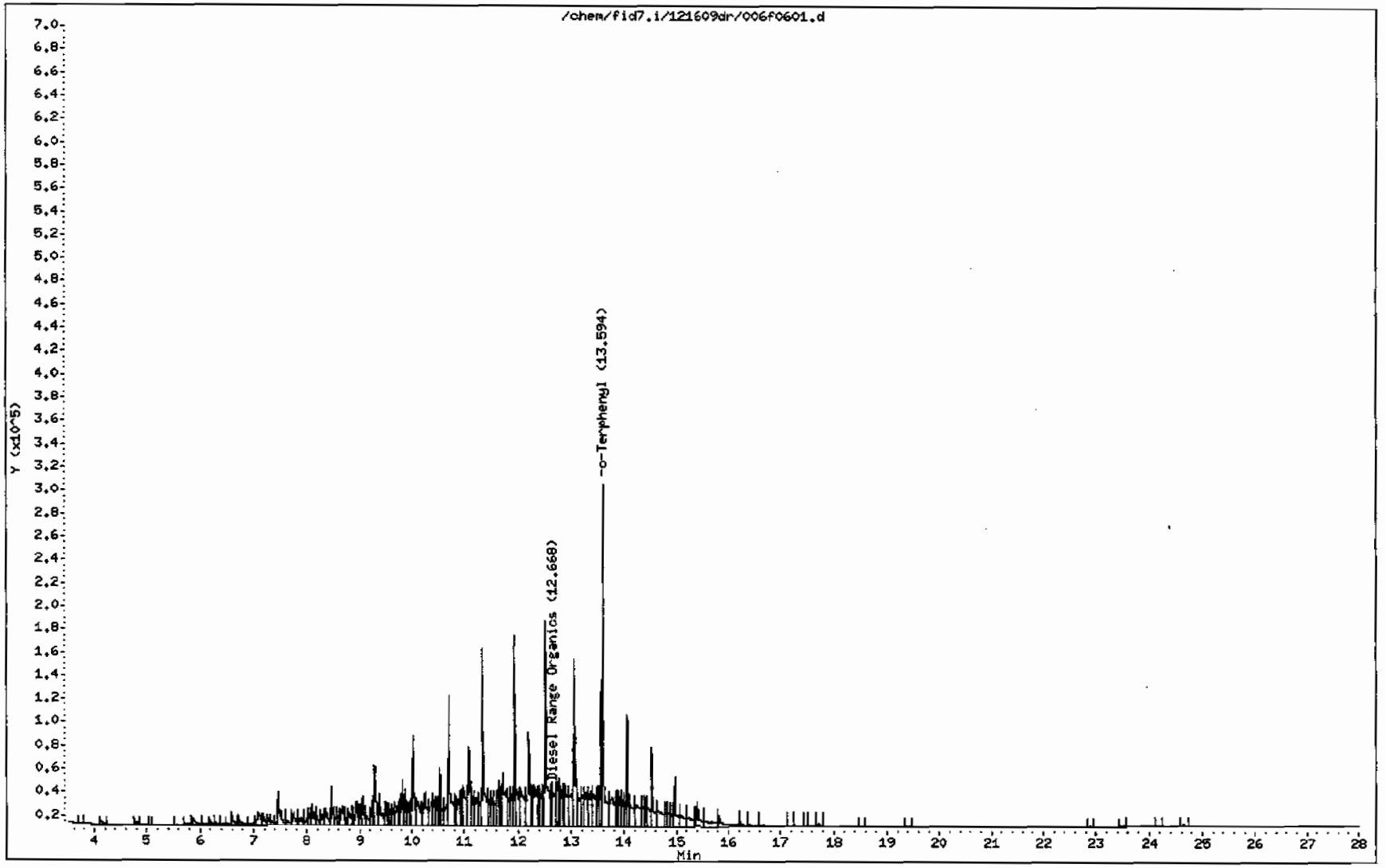

MISCELLANEOUS DATA

GEL ORGANIC RUN LOG INSTRUMENT ID: FID7.i

DATE: 12/14/2009 METHOD: FID7a.i_b_DRO_121309.m OPERATOR:KXR2 REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 16 on pg. 16 Solvent REMAT ID:CH2CL2

Calibration & QC Information
GC Column: DB-5MS 30m x 0.25mm x 0.25um
Initial Calibration Dates: See Calibration History and Standards Log
Initial Calibration Std ID's: See Calibration History and Standards Log
FID analysis of GEL SOP:GL-OA-E-003

Sequence Number:121309DR Injection Volume: 1.0 ul

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001f0101.d	WFI091130-06 B1	KXR2	13-DEC-2009 15:16		SDGa20942	1.0		CLEAN
002f0201.d	UFI091013-03 RT	KXR2	13-DEC-2009 15:53		SDGa20942	1.0		RTMARKER
003f0301.d	UFI090827-10 200	KXR2	13-DEC-2009 16:31		SDGa20942	1.0		CAL. LEVEL 1
004f0401.d	UFI090827-11 500	KXR2	13-DEC-2009 17:07		SDGa20942	1.0		CAL. LEVEL 2
005f0501.d	UFI090827-12 1000	KXR2	13-DEC-2009 17:45		SDGa20942	1.0		CAL. LEVEL 3
006f0601.d	UFI090827-13 2000	KXR2	13-DEC-2009 18:22		SDGa20942	1.0		CAL. LEVEL 4
007f0701.d	UFI090827-14 5000	KXR2	13-DEC-2009 18:58		SDGa20942	1.0		CAL. LEVEL 5
008f0801.d	WFI090928-01 D1	KXR2	13-DEC-2009 19:36		SDGa20942	1.0		PASSES
009f0901.d	WFI091130-06 B2	KXR2	13-DEC-2009 20:12		SDGa20942	1.0		CLEAN
010f1001.d	1201993826	KXR2	13-DEC-2009 20:49	932074	10-830	1.0	MB	USE
011f1101.d	1201993827	KXR2	13-DEC-2009 21:26	932074	10-830	1.0	LCS	USE
012f1201.d	242439002	KXR2	13-DEC-2009 22:03	932074	10-830	1.0	LANL	USE
013f1301.d	1201993828	KXR2	13-DEC-2009 22:40	932074	10-830	1.0	MS	USE
014f1401.d	1201993829	KXR2	13-DEC-2009 23:18	932074	10-830	1.0	MSD	USE
015f1501.d	242439003	KXR2	13-DEC-2009 23:54	932074	10-830	1.0	LANL	USE

Instrument Batch: /chem/fid7.i/121309dr Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
016f1601.d	242439004	KXR2	14-DEC-2009 00:32	932074	10-830	1.0	LANL	USE

017f1701.d	242439005	KXR2	14-DEC-2009 01:09	932074	10-830	5.0	LANL	USE
018f1801.d	242439006	KXR2	14-DEC-2009 01:46	932074	10-830	1.0	LANL	USE
019f1901.d	242439007	KXR2	14-DEC-2009 02:23	932074	10-830	1.0	LANL	USE
020f2001.d	UFI091118-02 D2	KXR2	14-DEC-2009 03:00		SDGa20942	1.0		PASSES
021f2101.d	WFI091130-06 B3	KXR2	14-DEC-2009 03:37		SDGa20942	1.0		CLEAN
022f2201.d	242439008	KXR2	14-DEC-2009 04:13	932074	10-830	1.0	LANL	USE
023f2301.d	242439009	KXR2	14-DEC-2009 04:50	932074	10-830	1.0	LANL	USE
024f2401.d	242439010	KXR2	14-DEC-2009 05:27	932074	10-830	1.0	LANL	USE
025f2501.d	242439011	KXR2	14-DEC-2009 06:04	932074	10-830	1.0	LANL	USE
026f2601.d	242439012	KXR2	14-DEC-2009 06:41	932074	10-830	1.0	LANL	USE
027f2701.d	242439013	KXR2	14-DEC-2009 07:18	932074	10-830	20.0	LANL	USE
028f2801.d	242439014	KXR2	14-DEC-2009 07:55	932074	10-830	1.0	LANL	USE
029f2901.d	242439015	KXR2	14-DEC-2009 08:32	932074	10-830	10.0	LANL	USE
030f3001.d	242439016	KXR2	14-DEC-2009 09:09	932074	10-830	1.0	LANL	USE
031f3101.d	UFI091118-02 D3	KXR2	14-DEC-2009 09:46		SDGa20942	1.0		PASSES
032f3201.d	WFI091130-06 B4	KXR2	14-DEC-2009 10:23		SDGa20942	1.0		CLEAN

GEL ORGANIC RUN LOG INSTRUMENT ID: FID7.i

DATE: 12/17/2009 METHOD: FID7a.i_b_DRO_121309.m OPERATOR:KXR2 REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 16 on pg. 16 Solvent REMAT ID:CH2CL2

Calibration & QC Information
GC Column: DB-5MS 30m x 0.25mm x 0.25um
Initial Calibration Dates: See Calibration History and Standards Log
Initial Calibration Std ID's: See Calibration History and Standards Log
FID analysis of GEL SOP:GL-OA-E-003

Sequence Number:121609DR Injection Volume: 1.0 ul

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001f0101.d	WFI091130-06 B1	KXR2	16-DEC-2009 16:10		SDGa14471	1.0		CLEAN
002f0201.d	UFI091013-03 RT	KXR2	16-DEC-2009 16:47		SDGa14471	1.0		RTMARKER
003f0301.d	UFI091118-02 D1	KXR2	16-DEC-2009 17:24		SDGa14471	1.0		PASSES
004f0401.d	WFI091130-06 B2	KXR2	16-DEC-2009 18:01		SDGa14471	1.0		CLEAN
005f0501.d	1201995990	KXR2	16-DEC-2009 18:39	933001	10-854	1.0	MB	USE
006f0601.d	1201995991	KXR2	16-DEC-2009 19:16	933001	10-854	1.0	LCS	USE
007f0701.d	242668001	KXR2	16-DEC-2009 19:52	933001	10-854	1.0	LANL	USE
008f0801.d	242668002	KXR2	16-DEC-2009 20:29	933001	10-854	10.0	LANL	USE
009f0901.d	242750001	KXR2	16-DEC-2009 21:06	933001	10-886	1.0	LANL	USE
010f1001.d	242750002	KXR2	16-DEC-2009 21:43	933001	10-886	1.0	LANL	USE
011f1101.d	242750003	KXR2	16-DEC-2009 22:20	933001	10-886	1.0	LANL	USE
012f1201.d	242750004	KXR2	16-DEC-2009 22:56	933001	10-886	1.0	LANL	USE
013f1301.d	242750005	KXR2	16-DEC-2009 23:33	933001	10-886	1.0	LANL	USE
014f1401.d	UFI091118-02 D2	KXR2	17-DEC-2009 00:10		SDGa14471	1.0		PASSES
015f1501.d	WFI091130-06 B3	KXR2	17-DEC-2009 00:47		SDGa14471	1.0		CLEAN

Instrument Batch: /chem/fid7.i/121609dr Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
016f1601.d	242784003	KXR2	17-DEC-2009 01:23	933001	10-899	1.0	LANL	USE

017f1701.d	242784004	KXR2	17-DEC-2009 02:00	933001	10-899		5.0	LANL	USE
018f1801.d	242794001	KXR2	17-DEC-2009 02:36	933001	10-901		1.0	LANL	USE
019f1901.d	1201995992	KXR2	17-DEC-2009 03:13	933001	10-901		1.0	LANL	USE
020f2001.d	1201995993	KXR2	17-DEC-2009 03:50	933001	10-901		1.0	LANL	USE
021f2101.d	242794002	KXR2	17-DEC-2009 04:27	933001	10-901		1.0	LANL	USE
022f2201.d	242794003	KXR2	17-DEC-2009 05:03	933001	10-901		1.0	LANL	USE
023f2301.d	242794004	KXR2	17-DEC-2009 05:40	933001	10-901		10.0	LANL	USE
024f2401.d	UFI091118-02 D3	KXR2	17-DEC-2009 06:16		SDGa14471		1.0		PASSES
025f2501.d	WFI091130-06 B4	KXR2	17-DEC-2009 06:52		SDGa14471		1.0		CLEAN

Prep Logbook

Extraction of Semivolatile and Nonvolatile Organic Compounds from Soil, Sludge, and Other Miscellaneous Solid Samples

Batch ID: 933000 **Verified by:** _____

Analyst: Joshua McCartney

Method: SW846 3550B

Lab SOP: GL-OA-E-010 REV# 18

Instrument: Semi-Volatiles Manual

Sample ID	Run Date	Aliquot (g)	Prepped Aliquot (mL)	Prepped Factor (mL/g)
1201995990 MB	15-DEC-2009 16:56:05	30	1	0.03333
1201995991 LCS	15-DEC-2009 16:56:05	30	1	0.03333
242668001	15-DEC-2009 16:56:05	30.08	1	0.03324
242668002	15-DEC-2009 16:56:05	30	1	0.03333
242750001	15-DEC-2009 16:56:05	30	1	0.03333
242750002	15-DEC-2009 16:56:05	30.04	1	0.03329
242750003	15-DEC-2009 16:56:05	30.02	1	0.03331
242750004	15-DEC-2009 16:56:05	30.06	1	0.03327
242750005	15-DEC-2009 16:56:05	30	1	0.03333
242784003	15-DEC-2009 16:56:05	30	1	0.03333
242784004	15-DEC-2009 16:56:05	30.01	1	0.03332
242794001	15-DEC-2009 16:56:05	30.04	1	0.03329
1201995992 MS (242794001)	15-DEC-2009 16:56:05	30	1	0.03333
1201995993 MSD (242794001)	15-DEC-2009 16:56:05	30.02	1	0.03331
242794002	15-DEC-2009 16:56:05	30	1	0.03333
242794003	15-DEC-2009 16:56:05	30	1	0.03333
242794004	15-DEC-2009 16:56:05	30.01	1	0.03332

Type	Sample Id	Description	Serial Number	Spike Amt	Units
LCS	1201995991	TPH DRO LCS	UE091030-08	1	mL
MS	1201995992	TPH DRO LCS	UE091030-08	1	mL
MSD	1201995993	TPH DRO LCS	UE091030-08	1	mL
SURR	All	20 ppm surrogate	WE091210-04	1	mL
REGNT	All	Methylene Chloride	1242565-D	300	mL
SOURC	All	SODIUM SULFATE	1242582	30	g

Comments:

Verified By: RWH

Final Solvent: CH2Cl2

GEL Laboratories LLC

DB-5MS .25mm

Data file : /chem/fid7.i/121609dr/019f1901.d
Lab Smp Id: 1201995992 Client Smp ID: RE03-09-13470MS
Inj Date : 17-DEC-2009 03:13
Operator : KXR2 Inst ID: fid7.i
Smp Info : |1201995992|1|
Misc Info : |FIDDRO_S|933001|FIDF|MS|
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fid7.i/121609dr/FID7a.i_b_DRO_121309.m
Meth Date : 17-Dec-2009 14:05 kev01577 Quant Type: ESTD
Cal Date : 13-DEC-2009 18:58 Cal File: 007f0701.d
Als bottle: 19 QC Sample: MS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-901.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weigth of sample extracted (g)
M	4.36000	% Moisture

Cpnd Variable Local Compound Variable

	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (mg/L)	FINAL (mg/Kg)
S	1 Diesel Range Organics					CAS #:
	7.480- 17.855			6649131	495.568	17.3
$	2 o-Terphenyl					CAS #: 84-15-1
	13.594	13.597	-0.003	295758	11.2180	0.39

Data File: /chem/fid7.i/121609dr/019f1901.d

Date : 17-DEC-2009 03:13

Client ID: RE03-09-13470MS

Sample Info: |120199599211|

Volume Injected (uL): 1.0

Column phase: DB-5MS

Instrument: fid7.i

Operator: KXR2

Column diameter: 0.25

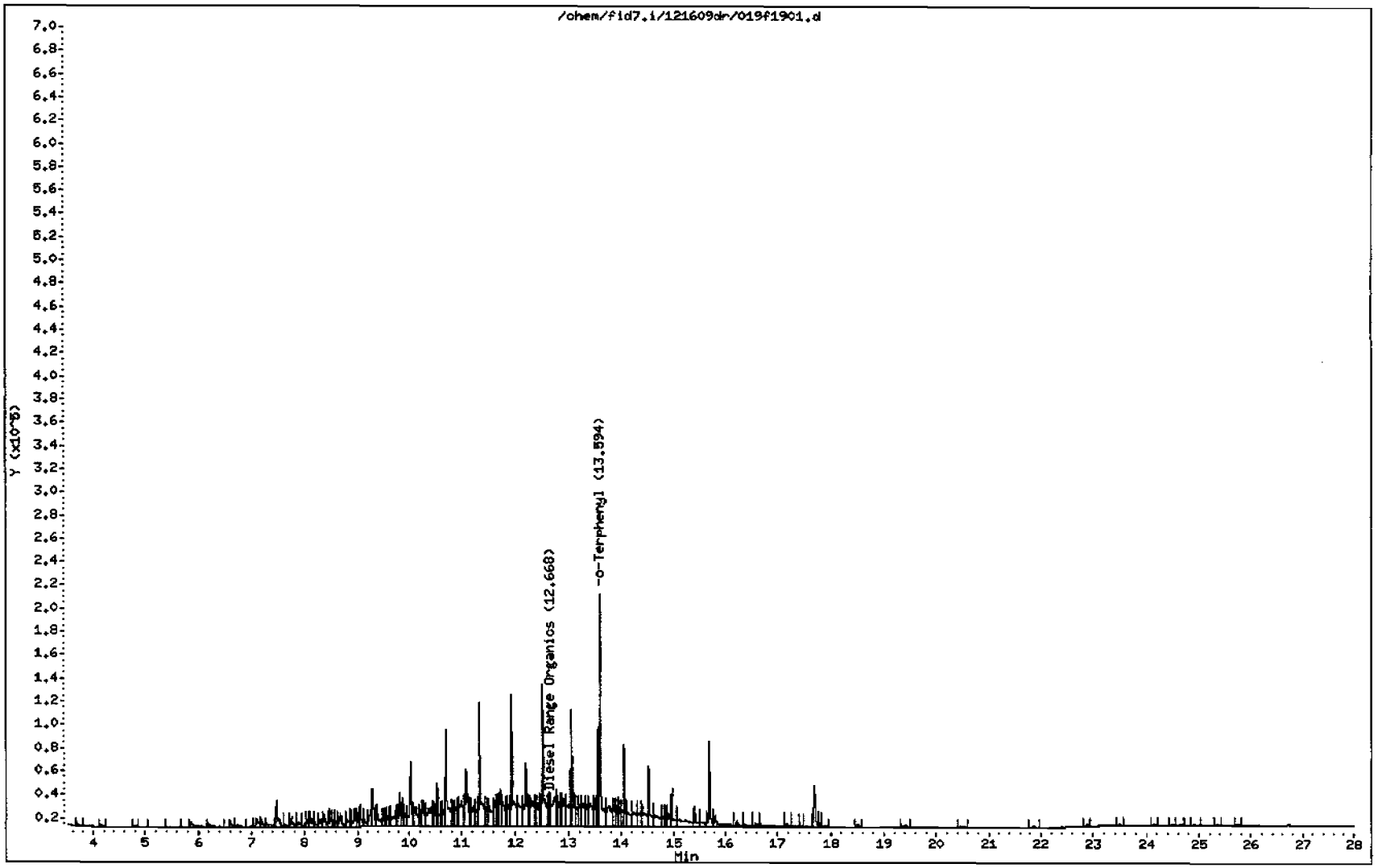

GEL Laboratories LLC

DB-5MS .25mm

Data file : /chem/fid7.i/121609dr/020f2001.d
Lab Smp Id: 1201995993 Client Smp ID: RE03-09-13470MSD
Inj Date : 17-DEC-2009 03:50
Operator : KXR2 Inst ID: fid7.i
Smp Info : |1201995993|1|
Misc Info : |FIDDRO_S|933001|FIDF|MSD|
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fid7.i/121609dr/FID7a.i_b_DRO_121309.m
Meth Date : 17-Dec-2009 14:05 kev01577 Quant Type: ESTD
Cal Date : 13-DEC-2009 18:58 Cal File: 007f0701.d
Als bottle: 20 QC Sample: MSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-901.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.02000	Weigth of sample extracted (g)
M	4.36000	% Moisture

Cpnd Variable Local Compound Variable

	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (mg/L)	FINAL (mg/Kg)
S	1 Diesel Range Organics					CAS #:
	7.480	17.855		6996089	521.427	18.2
$	2 o-Terphenyl					CAS #: 84-15-1
	13.593	13.597	-0.004	281166	10.6646	0.37

Data File: /chem/fid7.i/121609dr/020f2001.d

Date : 17-DEC-2009 03:50

Client ID: RE03-09-13470MSD

Sample Info: |1201995993|1|

Volume Injected (uL): 1.0

Column phase: DB-5MS

Instrument: fid7.i

Operator: KXR2

Column diameter: 0.25

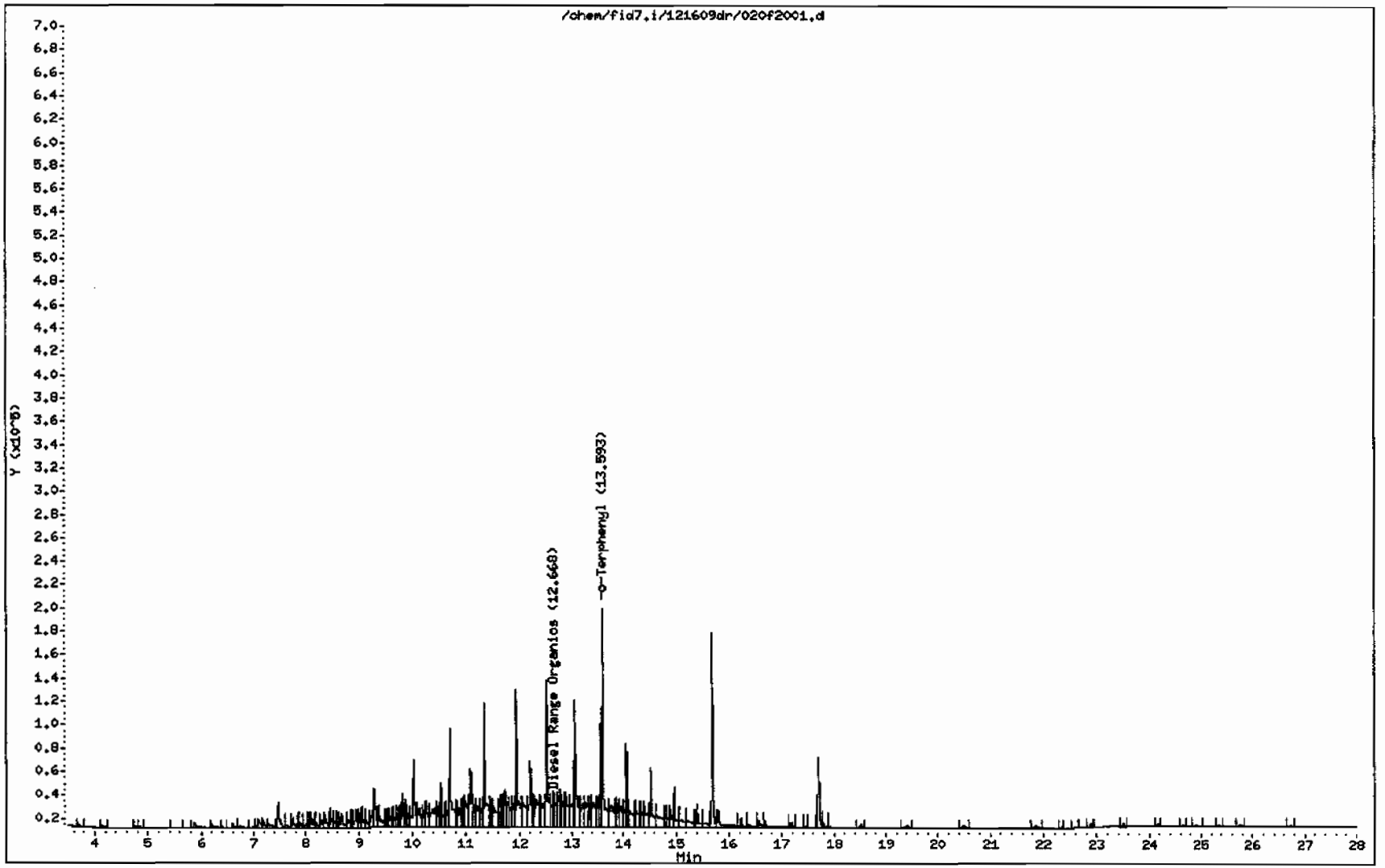

GC SEMIVOLATILE PCB ANALYSIS

PCB Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-854

Method/Analysis Information

Procedure:	**Analysis of Polychlorinated Biphenyls by ECD**
Analytical Method:	SW846 8082
Prep Method:	SW846 3550B
Analytical Batch Number:	933342
Prep Batch Number:	933337

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 8082:

Sample ID	Client ID
242668001	RE03-10-2741
242668002	RE03-10-2740
1201996856	Method Blank (MB)
1201996857	Laboratory Control Sample (LCS)
1201996858	242781001(RE03-09-13757) Matrix Spike (MS)
1201996859	242781001(RE03-09-13757) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on a "dry weight" basis.

Preparation/Analytical Method Verification

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-040 REV# 14.

Raw data reports are processed and reviewed by the analyst using the Target software package. False positives have been removed from the Target quantitation reports per standard operating procedures (SOP) section 23.0.

Calibration Information

Please note that the 'Cal Date' indicated on each quantitation report reflects the date and time of the most recent calibrated analyte(s) in the Target processing method. Since the laboratory may calibrate with multiple solutions on different days using the same processing method, the Target software will update the 'Cal Date' to the last calibration file, date and time. The correct dates and times for all calibration files are located on the Calibration History report in the Standard Data section in the data package.

Due to software limitations, the Calibration Summary Form 6 may not indicate all the calibration files comprising the initial calibration. A complete list of the initial calibration data files are shown in the Calibration History report located in the Standard Data section of the data package.

Initial Calibration
All initial calibration requirements have been met for this sample delivery group (SDG).

The linear equation used in Target and indicated on the initial calibration summary form is not a conventional linear equation (slope intercept formula) and does not match the equation found in SW-846 method 8000B. The x and y axes are inversed in Target, so that the instrument response is treated as the independent variable (x) and the concentration ratio is treated as the dependent variable (y). The equation used in Target to calculate sample results is adjusted to account for the linear equation inversion and reciprocal slope. The adjusted calculation has been independently verified to produce valid results.

Continuing Calibration Verification (CCV) Requirements
All associated calibration verification standard(s) (ICV or CCV) met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB(s) analyzed with this SDG met the acceptance criteria.

Surrogate Recoveries
All surrogate recoveries were within the established acceptance criteria for this SDG.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

QC Sample Designation
A LANL sample of similar matrix associated with another SDG (#10-887) was selected for the matrix spike and matrix spike duplicate analysis. A Form III and QC raw data are included in the package summarizing the results.

Matrix Spike (MS) Recovery Statement
The MS recoveries for this SDG were within the established acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recoveries for this SDG were within the established acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD(s) between the MS and MSD met the acceptance limits.

Technical Information

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP. All sample extracts were cleaned using alumina. Additionally, copper was added to all sample extracts to remove sulfur.

Sample Dilutions
Sample 242668002 (RE03-10-2740) was diluted at 1:5 due to the extracts being dark, thick and oily.

Sample Re-extraction/Re-analysis
Re-extractions or re-analyses were not required in this SDG.

Miscellaneous Information

Electronic Package Comment

The following package was generated using an electronic data processing program referred to as "virtual packaging". In an effort to increase quality and efficiency, the laboratory is developing systems to eventually generate all data packages electronically. The following change from "traditional" packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. An electronic signature page inserted after the case narrative of each electronic package will indicate the analyst, reviewer, and report specialist names associated with the generation of the data and package. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Nonconformance (NCR) Documentation
Nonconformance reports (NCRs) are for documentation of any procedural anomalies that may deviate from referenced SOP or contractual document. A NCR was not required for this SDG.

Manual Integrations
Certain standards and samples may have required manual integration to correctly position the baseline as set in the calibration standard injections. If manual integration was performed, copies of all manual integration peak profiles are included in the raw data section of this PCB fraction.

Additional Comments
The additional comments field is used to address special issues associated with each analysis, clarify method/contractual issues pertaining to the analysis, and to list any report documents generated as a result of sample analysis or review. The following additional comments were required:

The higher results from either column have been chosen and reported in the data package for the client samples, MB and LCS.

The data reported on the form I and III may differ slightly from the data reported on the form X. This is due to software limitations in rounding differences between the forms.

Aroclors quantitated on the raw data report by the Target data system do not necessarily represent positive Aroclor identification. In order for positive identification to be made, the Aroclor must match in pattern and retention time; as well as quantitate relatively close between the primary and confirmation columns, as specified in SW846 method 8000. When these conditions are not met, the Aroclor is reported as a non-detect on the data report. These situations will be noted on the raw data as DMP, representing does not match pattern, or DNC does not confirm.

Due to software limitation, the Form VIIs will display the results either in the % difference or % drift depending on the type of the calibration curve. If the curve of all analytes is generated using an average response factor (RF), the Form VII will display results using the %difference calculation (RF). If the curve of one or more analytes is generated using a linear curve, the Form VII will display results using the % drift calculation (by concentration) for all analytes.

System Configuration

The Semi-Volatiles-PCB analysis was performed on the following instrument configuration:

Instrument ID	Instrument	System Configuration	Column ID	Column Description
ECD1A.I_1	HP Gas Chromatograph	HP6890 Series ECD	Rtx-CLP I	30m x 0.25mm, 0.25um (Rtx-CLPesticide)
ECD1A.I_2	HP Gas Chromatograph	HP6890 Series ECD	Rtx-CLP II	30m x 0.25mm, 0.20um (Rtx-CLPesticideII)

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Andy Whitlock Date: 1-04-2010

Roadmap for LANL 10-854 PCB

This roadmap was analyzed by yip00818 on 12-17-2009, 11:02.
This roadmap was reviewed by jim01140 on 12-18-2009, 09:46.
This roadmap was packaged by yml on 01-04-2010, 16:22.

Front Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd1a.i/121609.b/060f6001.d	242668001	sample	16-DEC-2009	17:58	10-854.sub	RE03-10-2741	1.00000	933342	UPLOAD BOTH COLUMNS, USE HIGHER
☐	N	/chem/ecd1a.i/121609.b/061f6101.d	242668002	sample	16-DEC-2009	18:11	10-854.sub	RE03-10-2740	5.00000	933342	UPLOAD BOTH COLUMNS, USE HIGHER

Back Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd1a.i/121609.b/060b6001.d	242668001	sample	16-DEC-2009	17:58	10-854.sub	RE03-10-2741	1.00000	933342	UPLOAD BOTH COLUMNS, USE HIGHER
☐	N	/chem/ecd1a.i/121609.b/061b6101.d	242668002	sample	16-DEC-2009	18:11	10-854.sub	RE03-10-2740	5.00000	933342	UPLOAD BOTH COLUMNS, USE HIGHER

Front QC Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd1a.i/121609.b/052f5201-4.d	1201996856	mb	16-DEC-2009	16:21	10-854.sub	PBLK01	1.00000	933342	
☐	N	/chem/ecd1a.i/121609.b/053f5301-4.d	1201996857	lcs	16-DEC-2009	16:32	10-854.sub	PBLK01LCS	1.00000	933342	

Back QC Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd1a.i/121609.b/052b5201-4.d	1201996856	mb	16-DEC-2009	16:21	10-854.sub	PIBLK01	1.00000	933342	
☐	N	/chem/ecd1a.i/121609.b/053b5301-4.d	1201996857	lcs	16-DEC-2009	16:32	10-854.sub	PBLK01LCS	1.00000	933342	

SAMPLE DATA SUMMARY

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10-854	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242668002	**Date Received:**	12/10/2009 08:50	**%Moisture:**	11.3
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-10-2740	**Method:**	SW846 8082	**SOP Ref:**	GL-OA-E-040
Batch ID:	933342	**Inst:**	ECD1A.I	**Dilution:**	5
Run Date:	12/16/2009 18:11	**Analyst:**	YS1	**Inj. Vol:**	1 uL
Prep Date:	12/15/2009 20:23	**Aliquot:**	30.02 g	**Final Volume:**	1 mL
Data File:	061f6101.d	**Column:**	1 CLP1	**Level:**	LOW
	061b6101.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	18.8	ug/kg	6.25	18.8	1
11104-28-2	Aroclor-1221	U	18.8	ug/kg	6.25	18.8	1
11141-16-5	Aroclor-1232	U	18.8	ug/kg	6.25	18.8	1
53469-21-9	Aroclor-1242	U	18.8	ug/kg	6.25	18.8	1
12672-29-6	Aroclor-1248	U	18.8	ug/kg	6.25	18.8	1
11097-69-1	Aroclor-1254	U	18.8	ug/kg	6.25	18.8	1
11096-82-5	Aroclor-1260	U	18.8	ug/kg	6.25	18.8	1

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10–854	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242668001	**Date Received:**	12/10/2009 08:50	**%Moisture:**	8.2
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03–10–2741	**Method:**	SW846 8082	**SOP Ref:**	GL–OA–E–040
Batch ID:	933342	**Inst:**	ECD1A.I	**Dilution:**	1
Run Date:	12/16/2009 17:58	**Analyst:**	YS1	**Inj. Vol:**	1 uL
Prep Date:	12/15/2009 20:23	**Aliquot:**	30.03 g	**Final Volume:**	1 mL
Data File:	060f6001.d	**Column:**	1 CLP1	**Level:**	LOW
	060b6001.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	3.63	ug/kg	1.21	3.63	1
11104–28–2	Aroclor–1221	U	3.63	ug/kg	1.21	3.63	1
11141–16–5	Aroclor–1232	U	3.63	ug/kg	1.21	3.63	1
53469–21–9	Aroclor–1242	U	3.63	ug/kg	1.21	3.63	1
12672–29–6	Aroclor–1248	U	3.63	ug/kg	1.21	3.63	1
11097–69–1	Aroclor–1254	U	3.63	ug/kg	1.21	3.63	1
11096–82–5	Aroclor–1260	J	2.80	ug/kg	1.21	3.63	2

QUALITY CONTROL SUMMARY

PCB

Surrogate Recovery Report

SDG Number: 10-854

Matrix Type: SOLID

CAP Column (1) : CLP1 **CAP Column (2) : CLP2**

Sample ID	Client ID	4CMX 1 %REC #	4CMX 2 %REC #	DCB 1 %REC #	DCB 2 %REC #
1201996856	MB for batch 933337	82	79	87	83
1201996857	LCS for batch 933337	84	80	90	84
242668001	RE03-10-2741	56	54	60	57
242668002	RE03-10-2740	48 D	49 D	51 D	66 D

Surrogate	Acceptance Limits
4CMX = 4cmx	(34%-105%)
DCB = Decachlorobiphenyl	(33%-115%)

* Recovery outside Acceptance Limits

\# Column to be used to flag recovery values

D Sample Diluted

PCB

Quality Control Summary
Spike Recovery Report

SDG Number: 10-854
Client ID: LCS for batch 933337
Lab Sample ID: 1201996857
Instrument: ECD1A.I
Analyst: YS1
Inj. Vol: 1 uL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 12/16/2009 16:32
Dilution: 1
Prep Batch ID: 933337
Batch ID: 933342

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
12674-11-2	LCS Aroclor-1016	33.3	0.0	29.7	89	41-110
11096-82-5	LCS Aroclor-1260	33.3	0.0	36.0	108	48-110

PCB

Quality Control Summary
Spike Recovery Report

SDG Number:	**10-887**	**Sample Type:**	**Matrix Spike**
Client ID:	**RE03-09-13757MS**	**Matrix:**	**S**
Lab Sample ID:	**1201996858**	**%Moisture:**	**9.9**
Instrument:	**ECD1A.I**	**Analysis Date:**	**12/16/2009 19:58**
Analyst:	**YS1**	**Prep Batch ID**	**933337**
Inj. Vol:	**1 uL**	**Batch ID:**	**933342**

Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
12674-11-2	MS	Aroclor-1016	37.0	0.00	U	25.6	69	23-117
11096-82-5	MS	Aroclor-1260	37.0	2.50	J	32.5	81	27-116

Quality Control Summary
Spike Recovery Report

SDG Number: 10-887
Client ID: RE03-09-13757MSD
Lab Sample ID: 1201996859
Instrument: ECD1A.I
Analyst: YS1
Inj. Vol: 1 uL

Sample Type: Matrix Spike Duplicate
Matrix: S
%Moisture: 9.9
Analysis Date: 12/16/2009 20:08
Prep Batch ID: 933337
Batch ID: 933342
Dilution: 1

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
12674-11-2	MSD Aroclor-1016	36.9	0.00	U	26.6	72	23-117	4	0-30
11096-82-5	MSD Aroclor-1260	36.9	2.50	J	33.2	83	27-116	2	0-30

Method Blank Summary

SDG Number:	10-854	Client:	LANL010	Matrix:	SOIL
Client ID:	MB for batch 933337	Instrument ID:	ECD1A.I_2 ECD1A.I_1	Data File:	052b5201-1.d 052f5201-1.d
Lab Sample ID:	1201996856				
Column:	CLP2 CLP1	Prep Date:	12/15/2009 20:23	Analyzed:	12/16/09 16:21
		Level:	LOW		

This method blank applies to the following samples and quality control samples:

Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01 LCS for batch 933337	1201996857	053f5301-1.d 053b5301-1.d	12/16/09	1632
02 RE03-10-2741	242668001	060f6001.d 060b6001.d	12/16/09	1758
03 RE03-10-2740	242668002	061f6101.d 061b6101.d	12/16/09	1811

SAMPLE
DATA

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10-854	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242668002	**Date Received:**	12/10/2009 08:50	**%Moisture:**	11.3
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-10-2740	**Method:**	SW846 8082	**SOP Ref:**	GL-OA-E-040
Batch ID:	933342	**Inst:**	ECD1A.I	**Dilution:**	5
Run Date:	12/16/2009 18:11	**Analyst:**	YS1	**Inj. Vol:**	1 uL
Prep Date:	12/15/2009 20:23	**Aliquot:**	30.02 g	**Final Volume:**	1 mL
Data File:	061f6101.d	**Column:**	1 CLP1	**Level:**	LOW
	061b6101.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	18.8	ug/kg	6.25	18.8	1
11104-28-2	Aroclor-1221	U	18.8	ug/kg	6.25	18.8	1
11141-16-5	Aroclor-1232	U	18.8	ug/kg	6.25	18.8	1
53469-21-9	Aroclor-1242	U	18.8	ug/kg	6.25	18.8	1
12672-29-6	Aroclor-1248	U	18.8	ug/kg	6.25	18.8	1
11097-69-1	Aroclor-1254	U	18.8	ug/kg	6.25	18.8	1
11096-82-5	Aroclor-1260	U	18.8	ug/kg	6.25	18.8	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/121609.b/061f6101.d
Lab Smp Id: 242668002 Client Smp ID: RE03-10-2740
Inj Date : 16-DEC-2009 18:11
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |242668002|5|
Misc Info : |ECD82P_1S|933342|SVAF|LANL|SOIL|RE03-10-2740|||
Comment :
Method : /chem/ecd1a.i/121609.b/ECD1-F-8082-121409.m
Meth Date : 17-Dec-2009 07:29 yip00818 Quant Type: ESTD
Cal Date : 14-DEC-2009 11:34 Cal File: 040f4001.d
Als bottle: 61
Dil Factor: 5.00000
Integrator: Falcon Compound Sublist: 10-854.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	5.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.02000	Weight of sample extracted (g)
M	11.29960	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.972	1.972	0.000	7266233	19.3421	3.6	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.288	5.290	-0.002	6516879	20.5230	3.8	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/121609.b/061f6101.d

Date : 16-DEC-2009 18:11

Client ID: RE03-10-2740

Sample Info: 1242668002151

Volume Injected (uL): 1.0

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

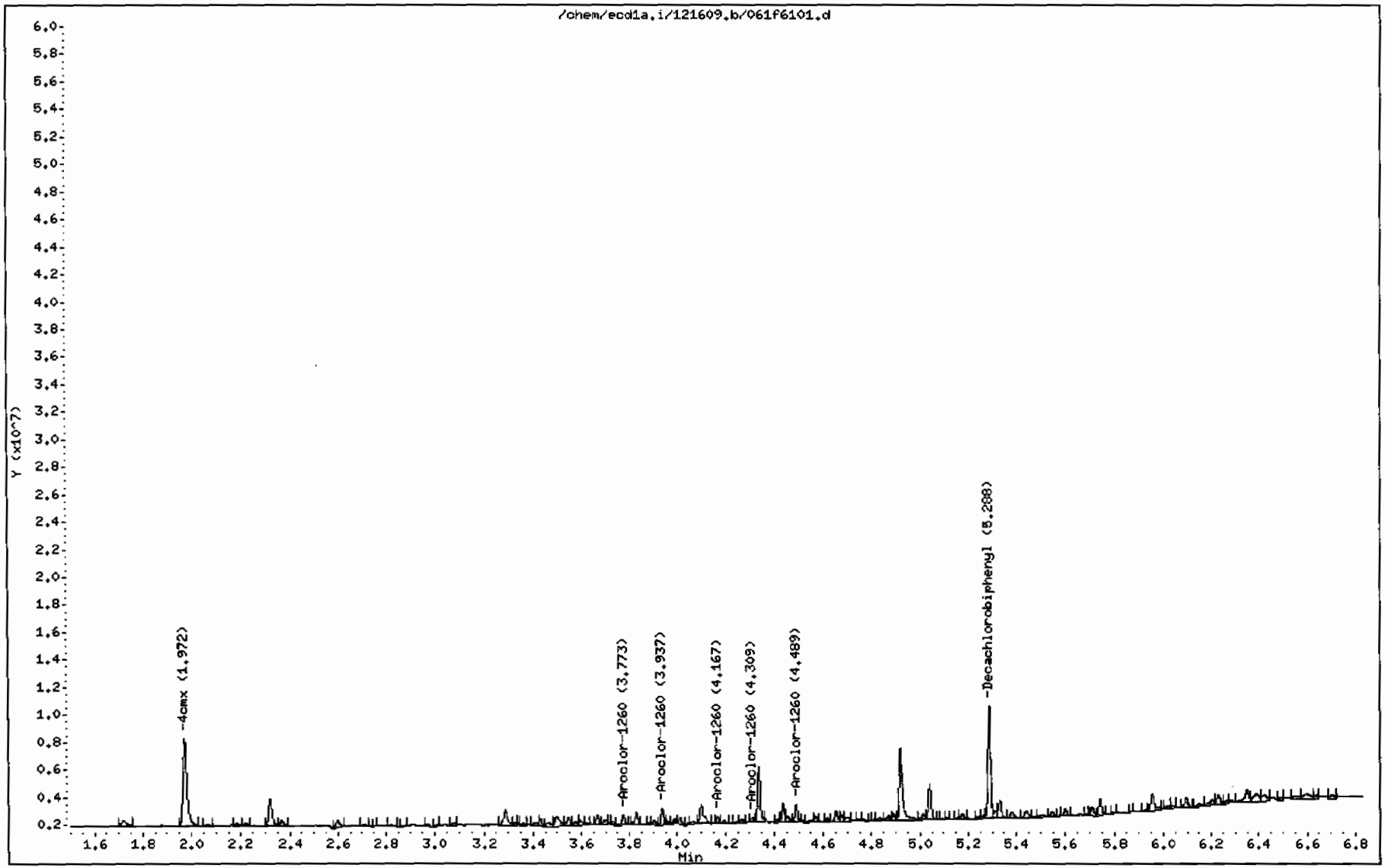

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/121609.b/061b6101.d
Lab Smp Id: 242668002 Client Smp ID: RE03-10-2740
Inj Date : 16-DEC-2009 18:11
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |242668002|5|
Misc Info : |ECD82P_1S|933342|SVAF|LANL|SOIL|RE03-10-2740|||
Comment :
Method : /chem/ecd1a.i/121609.b/ECD1-B-8082-121409.m
Meth Date : 17-Dec-2009 07:29 yip00818 Quant Type: ESTD
Cal Date : 14-DEC-2009 12:16 Cal File: 044b4401.d
Als bottle: 61
Dil Factor: 5.00000
Integrator: Falcon Compound Sublist: 10-854.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	5.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.02000	Weight of sample extracted (g)
M	11.29960	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.303	2.303	0.000	5852388	19.5063	3.7	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.949	5.950	-0.001	6141529	26.3328	4.9	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/121609.b/061b6101.d

Date : 16-DEC-2009 18:11

Client ID: RE03-10-2740

Sample Info: |242668002|5|

Volume Injected (uL): 1.0

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

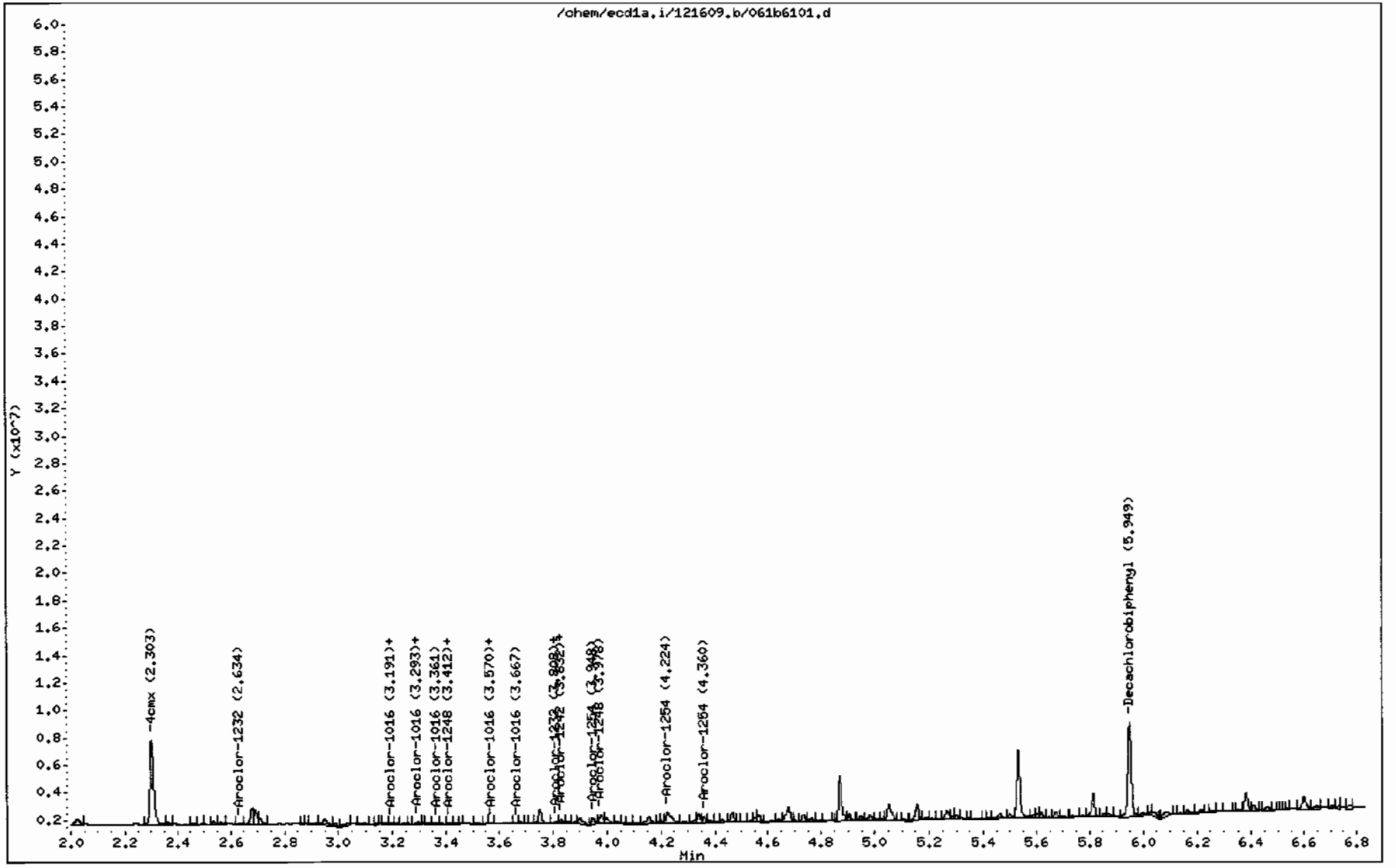

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10–854	**Date Collected:**	12/07/2009 12:00	**Matrix:**	S
Lab Sample ID:	242668001	**Date Received:**	12/10/2009 08:50	**%Moisture:**	8.2
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03–10–2741	**Method:**	SW846 8082	**SOP Ref:**	GL–OA–E–040
Batch ID:	933342	**Inst:**	ECD1A.I	**Dilution:**	1
Run Date:	12/16/2009 17:58	**Analyst:**	YS1	**Inj. Vol:**	1 uL
Prep Date:	12/15/2009 20:23	**Aliquot:**	30.03 g	**Final Volume:**	1 mL
Data File:	060f6001.d	**Column:**	1 CLP1	**Level:**	LOW
	060b6001.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	3.63	ug/kg	1.21	3.63	1
11104–28–2	Aroclor–1221	U	3.63	ug/kg	1.21	3.63	1
11141–16–5	Aroclor–1232	U	3.63	ug/kg	1.21	3.63	1
53469–21–9	Aroclor–1242	U	3.63	ug/kg	1.21	3.63	1
12672–29–6	Aroclor–1248	U	3.63	ug/kg	1.21	3.63	1
11097–69–1	Aroclor–1254	U	3.63	ug/kg	1.21	3.63	1
11096–82–5	Aroclor–1260	J	2.80	ug/kg	1.21	3.63	2

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/121609.b/060f6001.d
Lab Smp Id: 242668001 Client Smp ID: RE03-10-2741
Inj Date : 16-DEC-2009 17:58
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |242668001|1|
Misc Info : |ECD82P_1S|933342|SVAF|LANL|SOIL|RE03-10-2741|||
Comment :
Method : /chem/ecd1a.i/121609.b/ECD1-F-8082-121409.m
Meth Date : 17-Dec-2009 07:29 yip00818 Quant Type: ESTD
Cal Date : 14-DEC-2009 11:34 Cal File: 040f4001.d
Als bottle: 60
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-854.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.03000	Weight of sample extracted (g)
M	8.16760	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.973	1.972	0.001	42049677	111.933	4.0	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.287	5.290	-0.003	38026782	119.754	4.3	80.00- 120.00	100.00
7 Aroclor-1260					CAS #: 11096-82-5		
3.773	3.775	-0.002	1702684	101.640	3.7	80.00- 120.00	100.00(a)
3.935	3.938	-0.003	1722671	69.6237	2.5	134.58- 174.58	101.17
4.166	4.168	-0.002	930055	63.3236	2.3	72.46- 112.46	54.62
4.308	4.312	-0.004	989178	65.1438	2.4	76.67- 116.67	58.10

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
7 Aroclor-1260 (continued)							
4.488	4.491	-0.003	2166575	63.0727	2.3	204.79- 244.79	127.24
			Average of Peak Concentrations =		2.6		

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

Data File: /chem/ecd1a.i/121609.b/060f6001.d

Date : 16-DEC-2009 17:58

Client ID: RE03-10-2741

Sample Info: |2426680011|1|

Volume Injected (uL): 1.0

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

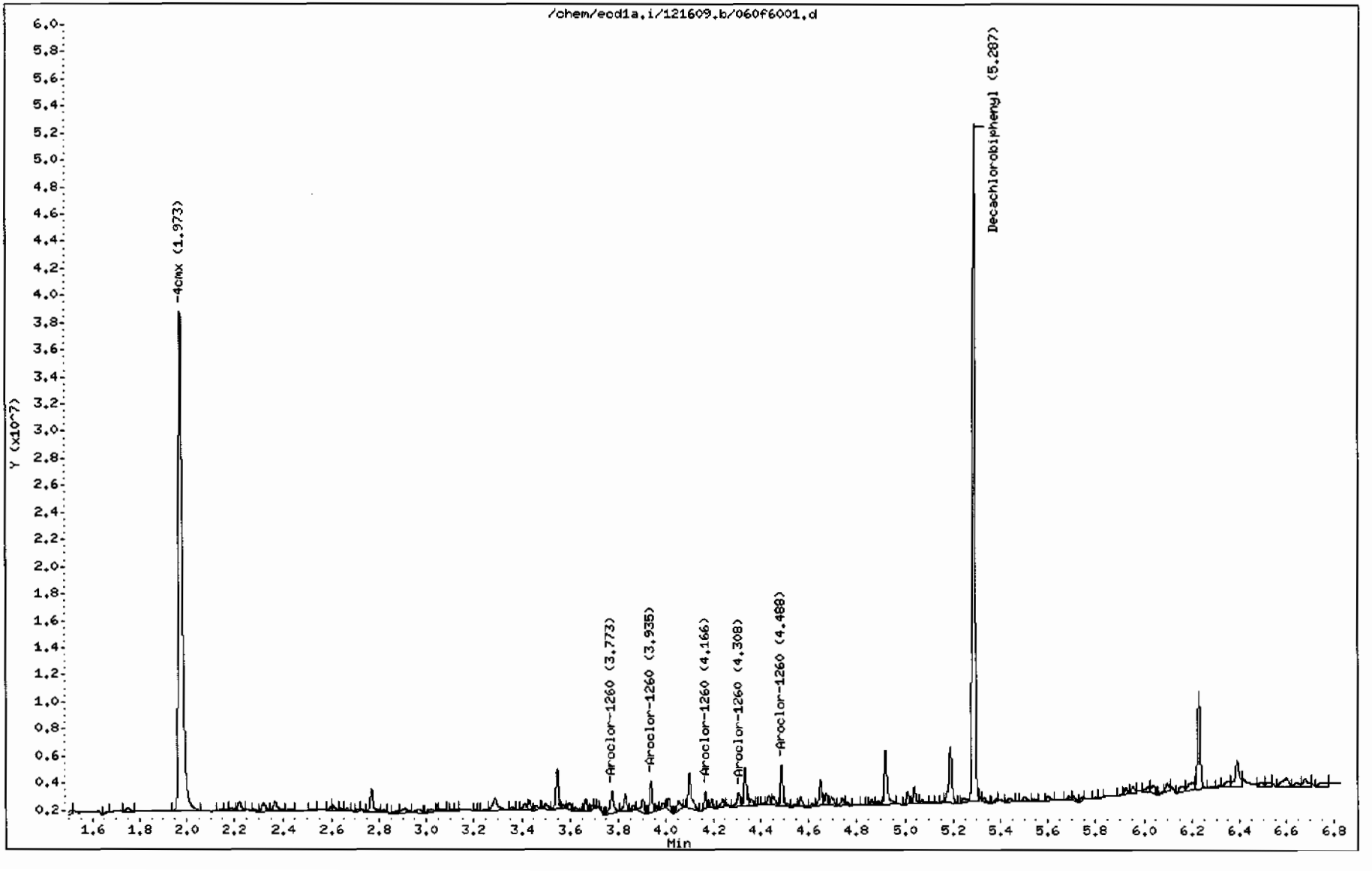

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/121609.b/060b6001.d
Lab Smp Id: 242668001 Client Smp ID: RE03-10-2741
Inj Date : 16-DEC-2009 17:58
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |242668001|1|
Misc Info : |ECD82P_1S|933342|SVAF|LANL|SOIL|RE03-10-2741|||
Comment :
Method : /chem/ecd1a.i/121609.b/ECD1-B-8082-121409.m
Meth Date : 17-Dec-2009 07:29 yip00818 Quant Type: ESTD
Cal Date : 14-DEC-2009 12:16 Cal File: 044b4401.d
Als bottle: 60
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-854.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.03000	Weight of sample extracted (g)
M	8.16760	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.303	2.303	0.000	32600632	108.659	3.9	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.949	5.950	-0.001	26681831	114.403	4.1	80.00- 120.00	100.00
7 Aroclor-1260					CAS #: 11096-82-5		
4.339	4.341	-0.002	1258797	92.0171	3.3	80.00- 120.00	100.00(a)
4.463	4.465	-0.002	1064976	66.4405	2.4	104.06- 144.06	84.60
4.731	4.731	0.000	906823	72.1767	2.6	75.41- 115.41	72.04
4.904	4.905	-0.001	870185	67.9297	2.5	77.99- 117.99	69.13

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
7 Aroclor-1260 (continued)							
5.051	5.052	-0.001	2426392	86.9747	3.2	204.52- 244.52	192.75
Average of Peak Concentrations =					2.8		

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

Data File: /chem/ecd1a.i/121609.b/060b6001.d

Date : 16-DEC-2009 17:58

Client ID: RE03-10-2741

Sample Info: 1242668001|1|

Volume Injected (uL): 1.0

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

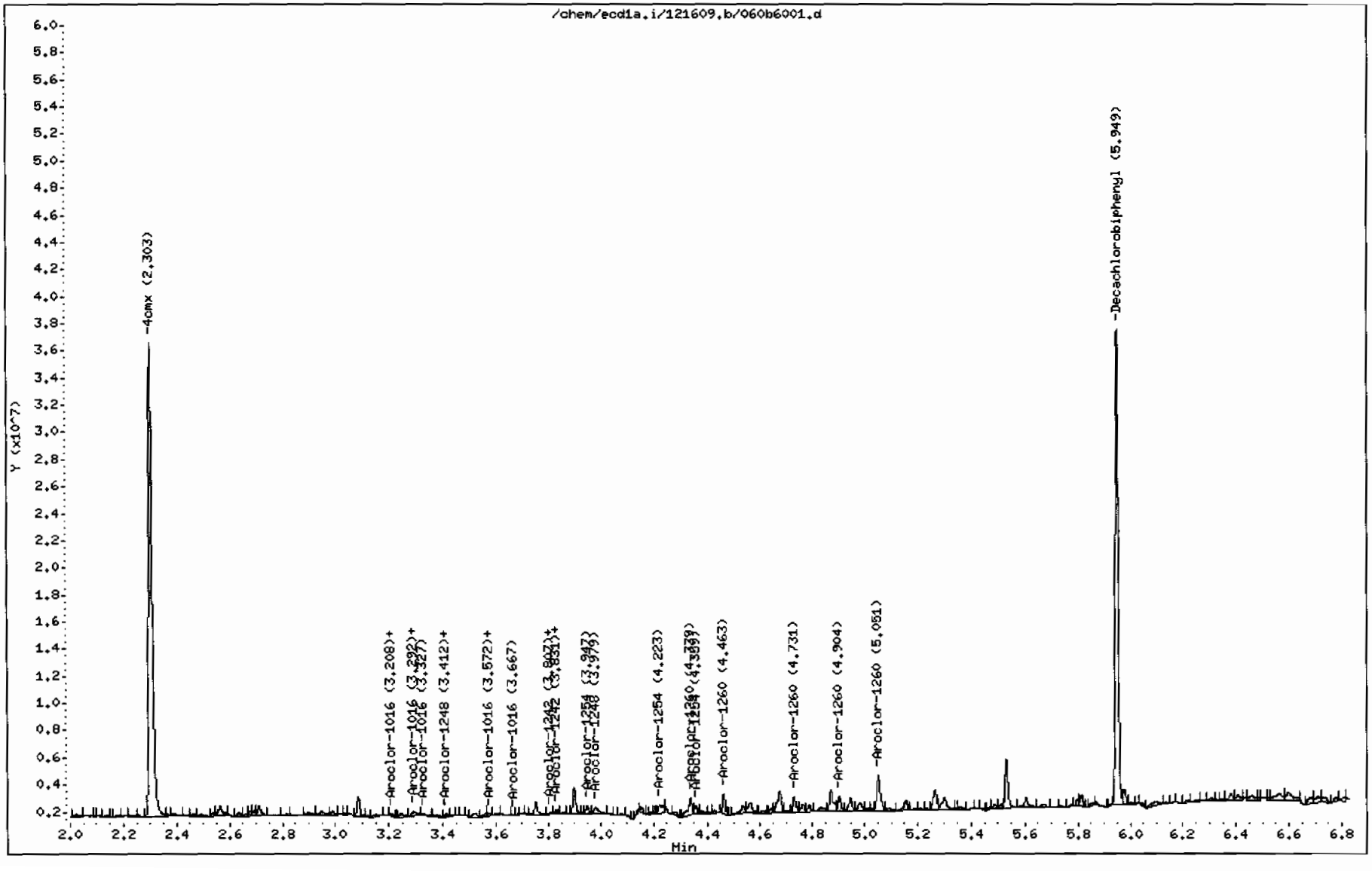

STANDARDS DATA

Report Date: 17-Dec-2009 11:42

Calibration History

Method : /chem/ecd1a.i/121609.b/ECD1-F-8082-121409.m
Start Cal Date: 14-DEC-2009 05:36
End Cal Date : 14-DEC-2009 12:37

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 100.00000		
14-DEC-2009 11:34	AR1268	/chem/ecd1a.i/121409.b/040f4001.d
14-DEC-2009 09:28	AR1248	/chem/ecd1a.i/121409.b/028f2801.d
14-DEC-2009 08:25	AR1242	/chem/ecd1a.i/121409.b/022f2201.d
14-DEC-2009 07:22	AR1254	/chem/ecd1a.i/121409.b/016f1601.d
14-DEC-2009 10:31	AR1660	/chem/ecd1a.i/121409.b/034f3401.d
Cal Level: 2 , Cal Amount: 200.00000		
14-DEC-2009 11:44	AR1268	/chem/ecd1a.i/121409.b/041f4101.d
14-DEC-2009 09:38	AR1248	/chem/ecd1a.i/121409.b/029f2901.d
14-DEC-2009 08:35	AR1242	/chem/ecd1a.i/121409.b/023f2301.d
14-DEC-2009 07:32	AR1254	/chem/ecd1a.i/121409.b/017f1701.d
14-DEC-2009 10:41	AR1660	/chem/ecd1a.i/121409.b/035f3501.d
Cal Level: 3 , Cal Amount: 500.00000		
14-DEC-2009 11:55	AR1268	/chem/ecd1a.i/121409.b/042f4201.d
14-DEC-2009 09:49	AR1248	/chem/ecd1a.i/121409.b/030f3001.d
14-DEC-2009 08:46	AR1242	/chem/ecd1a.i/121409.b/024f2401.d
14-DEC-2009 07:43	AR1254	/chem/ecd1a.i/121409.b/018f1801.d
14-DEC-2009 10:52	AR1660	/chem/ecd1a.i/121409.b/036f3601.d
Cal Level: 4 , Cal Amount: 1000.00000		
14-DEC-2009 12:37	DDTANALOGSTD	/chem/ecd1a.i/121409.b/046f4601.d
14-DEC-2009 09:59	AR1248	/chem/ecd1a.i/121409.b/031f3101.d
14-DEC-2009 08:56	AR1242	/chem/ecd1a.i/121409.b/025f2501.d
14-DEC-2009 07:53	AR1254	/chem/ecd1a.i/121409.b/019f1901.d
14-DEC-2009 11:02	AR1660	/chem/ecd1a.i/121409.b/037f3701.d
14-DEC-2009 12:06	AR1268	/chem/ecd1a.i/121409.b/043f4301.d
14-DEC-2009 05:58	AR1262	/chem/ecd1a.i/121409.b/008f0801.d
14-DEC-2009 05:47	AR1221	/chem/ecd1a.i/121409.b/007f0701.d
14-DEC-2009 05:36	AR1232	/chem/ecd1a.i/121409.b/006f0601.d
Cal Level: 5 , Cal Amount: 4000.00000		
14-DEC-2009 12:16	AR1268	/chem/ecd1a.i/121409.b/044f4401.d
14-DEC-2009 10:10	AR1248	/chem/ecd1a.i/121409.b/032f3201.d
14-DEC-2009 09:07	AR1242	/chem/ecd1a.i/121409.b/026f2601.d
14-DEC-2009 08:04	AR1254	/chem/ecd1a.i/121409.b/020f2001.d
14-DEC-2009 11:13	AR1660	/chem/ecd1a.i/121409.b/038f3801.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 1000		
16-DEC-2009 21:43	AR1660	/chem/ecd1a.i/121609.b/080f8001.d
Ccal Level: 4 , Ccal Amount: 1000		
16-DEC-2009 20:40	AR1660	/chem/ecd1a.i/121609.b/074f7401.d
Ccal Level: 4 , Ccal Amount: 1000		
16-DEC-2009 18:23	AR1660	/chem/ecd1a.i/121609.b/062f6201.d
Ccal Level: 4 , Ccal Amount: 1000		
16-DEC-2009 16:00	AR1660	/chem/ecd1a.i/121609.b/050f5001.d
Ccal Level: 4 , Ccal Amount: 1000		
16-DEC-2009 10:46	AR1660	/chem/ecd1a.i/121609.b/024f2401.d
Ccal Level: 4 , Ccal Amount: 1000		
16-DEC-2009 13:58	AR1660	/chem/ecd1a.i/121609.b/040f4001.d
Ccal Level: 4 , Ccal Amount: 1000		
16-DEC-2009 13:12	AR1660	/chem/ecd1a.i/121609.b/036f3601.d
Ccal Level: 4 , Ccal Amount: 1000		
16-DEC-2009 08:13	AR1254	/chem/ecd1a.i/121609.b/011f1101.d
Ccal Level: 4 , Ccal Amount: 1000		
16-DEC-2009 08:03	AR1268	/chem/ecd1a.i/121609.b/010f1001.d
Ccal Level: 4 , Ccal Amount: 1000		
16-DEC-2009 07:52	AR1262	/chem/ecd1a.i/121609.b/009f0901.d
Ccal Level: 4 , Ccal Amount: 1000		
16-DEC-2009 07:42	AR1221	/chem/ecd1a.i/121609.b/008f0801.d
Ccal Level: 4 , Ccal Amount: 1000		
16-DEC-2009 07:21	AR1232	/chem/ecd1a.i/121609.b/006f0601.d
Ccal Level: 4 , Ccal Amount: 1000		
16-DEC-2009 07:10	AR1248	/chem/ecd1a.i/121609.b/005f0501.d
Ccal Level: 4 , Ccal Amount: 1000		
16-DEC-2009 07:00	AR1242	/chem/ecd1a.i/121609.b/004f0401.d
Ccal Level: 4 , Ccal Amount: 1000		
16-DEC-2009 06:39	AR1660	/chem/ecd1a.i/121609.b/002f0201.d

Report Date: 17-Dec-2009 11:41

Calibration History

Method : /chem/ecd1a.i/121609.b/ECD1-B-8082-121409.m
Start Cal Date: 11-DEC-2009 10:17
End Cal Date : 14-DEC-2009 12:37

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 100.00000		
14-DEC-2009 11:34	AR1268	/chem/ecd1a.i/121409.b/040b4001.d
14-DEC-2009 09:28	AR1248	/chem/ecd1a.i/121409.b/028b2801.d
14-DEC-2009 08:25	AR1242	/chem/ecd1a.i/121409.b/022b2201.d
14-DEC-2009 07:22	AR1254	/chem/ecd1a.i/121409.b/016b1601.d
14-DEC-2009 10:31	AR1660	/chem/ecd1a.i/121409.b/034b3401.d
Cal Level: 2 , Cal Amount: 200.00000		
14-DEC-2009 11:44	AR1268	/chem/ecd1a.i/121409.b/041b4101.d
14-DEC-2009 09:38	AR1248	/chem/ecd1a.i/121409.b/029b2901.d
14-DEC-2009 08:35	AR1242	/chem/ecd1a.i/121409.b/023b2301.d
14-DEC-2009 07:32	AR1254	/chem/ecd1a.i/121409.b/017b1701.d
14-DEC-2009 10:41	AR1660	/chem/ecd1a.i/121409.b/035b3501.d
Cal Level: 3 , Cal Amount: 500.00000		
14-DEC-2009 11:55	AR1268	/chem/ecd1a.i/121409.b/042b4201.d
14-DEC-2009 09:49	AR1248	/chem/ecd1a.i/121409.b/030b3001.d
14-DEC-2009 08:46	AR1242	/chem/ecd1a.i/121409.b/024b2401.d
14-DEC-2009 07:43	AR1254	/chem/ecd1a.i/121409.b/018b1801.d
14-DEC-2009 10:52	AR1660	/chem/ecd1a.i/121409.b/036b3601.d
Cal Level: 4 , Cal Amount: 1000.00000		
14-DEC-2009 12:37	DDTANALOGSTD	/chem/ecd1a.i/121409.b/046b4601.d
14-DEC-2009 12:06	AR1268	/chem/ecd1a.i/121409.b/043b4301.d
14-DEC-2009 05:58	AR1262	/chem/ecd1a.i/121409.b/008b0801.d
14-DEC-2009 05:47	AR1221	/chem/ecd1a.i/121409.b/007b0701.d
14-DEC-2009 05:36	AR1232	/chem/ecd1a.i/121409.b/006b0601.d
14-DEC-2009 09:59	AR1248	/chem/ecd1a.i/121409.b/031b3101.d
14-DEC-2009 08:56	AR1242	/chem/ecd1a.i/121409.b/025b2501.d
14-DEC-2009 07:53	AR1254	/chem/ecd1a.i/121409.b/019b1901.d
14-DEC-2009 11:02	AR1660	/chem/ecd1a.i/121409.b/037b3701.d
Cal Level: 5 , Cal Amount: 4000.00000		
14-DEC-2009 12:16	AR1268	/chem/ecd1a.i/121409.b/044b4401.d
14-DEC-2009 10:10	AR1248	/chem/ecd1a.i/121409.b/032b3201.d
14-DEC-2009 09:07	AR1242	/chem/ecd1a.i/121409.b/026b2601.d
14-DEC-2009 08:04	AR1254	/chem/ecd1a.i/121409.b/020b2001.d
14-DEC-2009 11:13	AR1660	/chem/ecd1a.i/121409.b/038b3801.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 1000		
16-DEC-2009 20:40	AR1660	/chem/ecd1a.i/121609.b/074b7401.d
Ccal Level: 4 , Ccal Amount: 1000		
16-DEC-2009 21:43	AR1660	/chem/ecd1a.i/121609.b/080b8001.d
Ccal Level: 4 , Ccal Amount: 1000		
16-DEC-2009 18:23	AR1660	/chem/ecd1a.i/121609.b/062b6201.d
Ccal Level: 4 , Ccal Amount: 1000		
16-DEC-2009 16:00	AR1660	/chem/ecd1a.i/121609.b/050b5001.d
Ccal Level: 4 , Ccal Amount: 1000		
16-DEC-2009 10:46	AR1660	/chem/ecd1a.i/121609.b/024b2401.d
Ccal Level: 4 , Ccal Amount: 1000		
16-DEC-2009 13:58	AR1660	/chem/ecd1a.i/121609.b/040b4001.d
Ccal Level: 4 , Ccal Amount: 1000		
16-DEC-2009 06:39	AR1660	/chem/ecd1a.i/121609.b/002b0201.d
Ccal Level: 4 , Ccal Amount: 1000		
16-DEC-2009 13:12	AR1660	/chem/ecd1a.i/121609.b/036b3601.d
Ccal Level: 4 , Ccal Amount: 1000		
16-DEC-2009 08:13	AR1254	/chem/ecd1a.i/121609.b/011b1101.d
Ccal Level: 4 , Ccal Amount: 1000		
16-DEC-2009 08:03	AR1268	/chem/ecd1a.i/121609.b/010b1001.d
Ccal Level: 4 , Ccal Amount: 1000		
16-DEC-2009 07:52	AR1262	/chem/ecd1a.i/121609.b/009b0901.d
Ccal Level: 4 , Ccal Amount: 1000		
16-DEC-2009 07:42	AR1221	/chem/ecd1a.i/121609.b/008b0801.d
Ccal Level: 4 , Ccal Amount: 1000		
16-DEC-2009 07:21	AR1232	/chem/ecd1a.i/121609.b/006b0601.d
Ccal Level: 4 , Ccal Amount: 1000		
16-DEC-2009 07:10	AR1248	/chem/ecd1a.i/121609.b/005b0501.d
Ccal Level: 4 , Ccal Amount: 1000		
16-DEC-2009 07:00	AR1242	/chem/ecd1a.i/121609.b/004b0401.d

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecdla.i/121609.b/ECD1-F-8082-121409.m
Quant Method : ESTD Target Version : 3.50
Last Update : 17-Dec-2009 07:29 Number of Cpnds : 15
Data Type : GC MULTI COMP

Global Integrator : Falcon

Chromat Events	Values
Initial:Start Threshold	12031.000000
Initial:End Threshold	6015.500000
Initial:Area Threshold	15489.000000
Initial:P-P Resolution	1.000000
Initial:Bunch Factor	2.000000
Initial:Negative Peaks	OFF
Initial:Tension	0.500000

Compound	RT	RT Window	RF
1 Aroclor-1016	2.430	2.400-2.460	1.387e+04
	2.707	2.677-2.737	1.010e+04
	2.800	2.770-2.830	1.176e+04
	2.837	2.807-2.867	6.599e+03
	3.048	3.018-3.078	8.673e+03
63 4,4-DDD	3.953	3.933-3.973	3.938e+05
64 4,4-DDE	3.603	3.583-3.623	4.795e+05
62 4,4-DDT	4.118	4.098-4.138	3.238e+05
2 Aroclor-1221	2.086	2.056-2.116	4.301e+03
	2.180	2.151-2.211	2.440e+03
	2.205	2.176-2.236	1.027e+04
3 Aroclor-1232	2.430	2.400-2.460	6.717e+03
	2.719	2.689-2.749	8.157e+03
	2.800	2.770-2.830	5.751e+03
	3.049	3.019-3.079	3.954e+03
	3.303	3.273-3.333	3.533e+03
4 Aroclor-1242	2.430	2.400-2.460	1.166e+04
	2.720	2.690-2.750	1.345e+04
	2.839	2.809-2.869	5.506e+03
	3.049	3.019-3.079	7.245e+03
	3.303	3.273-3.333	6.811e+03

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd1a.i/121609.b/ECD1-F-8082-121409.m

Compound	RT	RT Window	RF
5 Aroclor-1248	3.101	3.071-3.131	7.848e+03
	3.252	3.222-3.282	6.870e+03
	3.303	3.273-3.333	1.331e+04
	3.435	3.405-3.465	1.101e+04
	3.668	3.638-3.698	7.455e+03
6 Aroclor-1254	3.277	3.247-3.307	1.249e+04
	3.433	3.403-3.463	1.672e+04
	3.667	3.637-3.697	2.071e+04
	3.830	3.800-3.860	1.569e+04
	3.939	3.909-3.969	1.517e+04
7 Aroclor-1260	3.775	3.745-3.805	1.675e+04
	3.938	3.908-3.968	2.474e+04
	4.168	4.138-4.198	1.469e+04
	4.312	4.282-4.342	1.518e+04
	4.491	4.461-4.521	3.435e+04
8 Aroclor-1262	3.776	3.746-3.806	1.402e+04
	3.938	3.908-3.968	1.841e+04
	4.169	4.139-4.199	2.251e+04
	4.312	4.282-4.342	2.033e+04
	4.491	4.461-4.521	4.317e+04
9 Aroclor-1268	4.676	4.646-4.706	5.438e+04
	4.698	4.668-4.728	5.419e+04
	4.811	4.781-4.841	4.052e+04
	5.014	4.984-5.044	1.833e+04
	5.180	5.150-5.210	1.233e+05
M 10 Aroclor-Total	1.000	0.980-1.020	
$ 11 4cmx	1.972	1.942-2.002	3.757e+05
$ 12 Decachlorobiphenyl	5.290	5.260-5.320	3.175e+05

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd1a.i/121609.b/ECD1-B-8082-121409.m
Quant Method : ESTD Target Version : 3.50
Last Update : 17-Dec-2009 07:29 Number of Cpnds : 15
Data Type : GC MULTI COMP

Global Integrator : Falcon

Chromat Events	Values
Initial:Start Threshold	7222.000000
Initial:End Threshold	3611.000000
Initial:Area Threshold	6833.000000
Initial:P-P Resolution	0.000000
Initial:Bunch Factor	2.000000
Initial:Negative Peaks	OFF
Initial:Tension	0.500000

Compound	RT	RT Window	RF
1 Aroclor-1016	3.201	3.171-3.231	1.261e+04
	3.283	3.253-3.313	9.328e+03
	3.347	3.317-3.377	5.411e+03
	3.574	3.544-3.604	7.052e+03
	3.650	3.620-3.680	6.551e+03
62 4,4-DDT	4.670	4.650-4.690	2.436e+05
63 4,4-DDE	4.139	4.119-4.159	3.580e+05
64 4,4-DDD	4.483	4.463-4.503	2.893e+05
2 Aroclor-1221	2.501	2.470-2.530	3.640e+03
	2.595	2.566-2.626	2.329e+03
	2.636	2.606-2.666	8.119e+03
3 Aroclor-1232	2.636	2.606-2.666	6.156e+03
	3.201	3.171-3.231	6.302e+03
	3.284	3.254-3.314	4.701e+03
	3.575	3.545-3.605	3.243e+03
	3.808	3.778-3.838	3.151e+03
4 Aroclor-1242	3.201	3.171-3.231	1.059e+04
	3.284	3.254-3.314	8.054e+03
	3.574	3.544-3.604	5.962e+03
	3.808	3.778-3.838	6.057e+03
	3.836	3.806-3.866	6.701e+03

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd1a.i/121609.b/ECD1-B-8082-121409.m

Compound	RT	RT Window	RF
5 Aroclor-1248	3.410	3.380-3.440	8.054e+03
	3.575	3.545-3.605	9.874e+03
	3.809	3.779-3.839	1.122e+04
	3.837	3.807-3.867	1.248e+04
	3.973	3.943-4.003	1.210e+04
6 Aroclor-1254	3.409	3.379-3.439	6.435e+03
	3.832	3.802-3.862	1.156e+04
	3.947	3.917-3.977	1.243e+04
	4.224	4.194-4.254	1.688e+04
	4.360	4.330-4.390	1.244e+04
7 Aroclor-1260	4.341	4.311-4.371	1.368e+04
	4.465	4.435-4.495	1.603e+04
	4.731	4.701-4.761	1.256e+04
	4.905	4.875-4.935	1.281e+04
	5.052	5.022-5.082	2.790e+04
8 Aroclor-1262	4.465	4.435-4.495	1.292e+04
	4.732	4.702-4.762	1.831e+04
	4.905	4.875-4.935	1.658e+04
	5.052	5.022-5.082	3.329e+04
	5.265	5.235-5.295	2.297e+04
9 Aroclor-1268	5.263	5.233-5.293	4.358e+04
	5.291	5.261-5.321	4.039e+04
	5.441	5.411-5.471	3.144e+04
	5.605	5.575-5.635	1.427e+04
	5.798	5.768-5.828	8.886e+04
M 10 Aroclor-Total	1.000	0.980-1.020	
$ 11 4cmx	2.303	2.273-2.333	3.000e+05
$ 12 Decachlorobiphenyl	5.950	5.920-5.980	2.332e+05

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 14-DEC-2009 05:36
End Cal Date : 14-DEC-2009 12:37
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd1a.i/121609.b/ECD1-F-8082-121409.m
Cal Date : 17-Dec-2009 07:29 yip00818
Curve Type : Average

Calibration File Names:
Level 1: /chem/ecd1a.i/121409.b/040f4001.d
Level 2: /chem/ecd1a.i/121409.b/041f4101.d
Level 3: /chem/ecd1a.i/121409.b/042f4201.d
Level 4: /chem/ecd1a.i/121409.b/046f4601.d
Level 5: /chem/ecd1a.i/121409.b/044f4401.d

Compound	100.000 Level 1	200.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
1 Aroclor-1016(1)	15975	14641	13829	13236	11653	13867	11.596
(2)	10801	10349	9832	9922	9584	10098	4.757
(3)	13242	12280	11732	11291	10240	11757	9.507
(4)	7178	6867	6609	6421	5920	6599	7.183
(5)	9710	9021	8649	8224	7763	8673	8.604
63 4,4-DDD	+++++	+++++	+++++	393799	+++++	393799	0.000
64 4,4-DDE	+++++	+++++	+++++	479509	+++++	479509	0.000
62 4,4-DDT	+++++	+++++	+++++	323817	+++++	323817	0.000
2 Aroclor-1221(1)	+++++	+++++	+++++	4301	+++++	4301	0.000
(2)	+++++	+++++	+++++	2440	+++++	2440	0.000
(3)	+++++	+++++	+++++	10272	+++++	10272	0.000
3 Aroclor-1232(1)	+++++	+++++	+++++	6717	+++++	6717	0.000
(2)	+++++	+++++	+++++	8157	+++++	8157	0.000
(3)	+++++	+++++	+++++	5751	+++++	5751	0.000
(4)	+++++	+++++	+++++	3954	+++++	3954	0.000
(5)	+++++	+++++	+++++	3533	+++++	3533	0.000
4 Aroclor-1242(1)	13692	12467	11522	10819	9798	11660	12.846
(2)	14782	14429	13236	12555	12263	13453	8.301
(3)	6076	5890	5423	5191	4949	5506	8.563
(4)	8395	7578	7079	6747	6426	7245	10.645
(5)	7587	7189	6604	6378	6296	6811	8.178
5 Aroclor-1248(1)	9070	8103	7743	7247	7078	7848	10.119
(2)	7785	7181	6827	6444	6114	6870	9.456
(3)	15108	13267	13037	12915	12225	13310	8.094
(4)	12682	11331	10815	10392	9852	11015	9.799
(5)	8605	7806	7405	7124	6336	7455	11.244

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 14-DEC-2009 05:36
End Cal Date : 14-DEC-2009 12:37
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd1a.i/121609.b/ECD1-F-8082-121409.m
Cal Date : 17-Dec-2009 07:29 yip00818
Curve Type : Average

Compound	100.000 Level 1	200.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
6 Aroclor-1254(1)	14281	12975	12313	11911	10947	12485	9.963
(2)	18803	17181	16666	15949	15010	16722	8.494
(3)	22492	20906	20786	20326	19059	20714	5.957
(4)	16753	15627	15809	15513	14770	15694	4.535
(5)	16595	15169	15433	15075	13591	15172	7.071
7 Aroclor-1260(1)	18145	17177	16842	16407	15189	16752	6.464
(2)	26410	24871	24973	24571	22887	24743	5.081
(3)	16099	14386	14855	14472	13625	14687	6.171
(4)	16517	14719	15311	15032	14343	15185	5.451
(5)	35425	33953	34899	34487	32987	34350	2.719
8 Aroclor-1262(1)	+++++	+++++	+++++	14019	+++++	14019	0.000
(2)	+++++	+++++	+++++	18406	+++++	18406	0.000
(3)	+++++	+++++	+++++	22511	+++++	22511	0.000
(4)	+++++	+++++	+++++	20327	+++++	20327	0.000
(5)	+++++	+++++	+++++	43170	+++++	43170	0.000
9 Aroclor-1268(1)	56914	55996	53872	52565	52528	54375	3.680
(2)	57500	55307	54092	52376	51697	54194	4.300
(3)	43006	41368	40020	38976	39247	40524	4.120
(4)	19620	18932	18085	17425	17569	18326	5.094
(5)	128350	126812	122798	118830	119599	123278	3.436
M 10 Aroclor-Total	+++++	+++++	+++++	+++++	+++++	+++++	+++++
$ 11 4cmx	367897	454677	359986	359846	335942	375669	12.182
$ 12 Decachlorobiphenyl	316645	388263	307193	296602	278999	317541	13.206

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 11-DEC-2009 10:17
End Cal Date : 14-DEC-2009 12:37
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd1a.i/121609.b/ECD1-B-8082-121409.m
Cal Date : 17-Dec-2009 07:29 yip00818
Curve Type : Average

Calibration File Names:
Level 1: /chem/ecd1a.i/121409.b/040b4001.d
Level 2: /chem/ecd1a.i/121409.b/041b4101.d
Level 3: /chem/ecd1a.i/121409.b/042b4201.d
Level 4: /chem/ecd1a.i/121409.b/046b4601.d
Level 5: /chem/ecd1a.i/121409.b/044b4401.d

Compound	100.000 Level 1	200.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
1 Aroclor-1016(1)	14281	12734	12848	12156	11039	12612	9.333
(2)	10954	9913	9256	8806	7710	9328	13.003
(3)	6310	5679	5380	5089	4598	5411	11.852
(4)	8214	7430	6981	6696	5938	7052	12.003
(5)	7754	6843	6481	6115	5561	6551	12.561
62 4,4-DDT	+++++	+++++	+++++	243613	+++++	243613	0.000
63 4,4-DDE	+++++	+++++	+++++	357996	+++++	357996	0.000
64 4,4-DDD	+++++	+++++	+++++	289343	+++++	289343	0.000
2 Aroclor-1221(1)	+++++	+++++	+++++	3640	+++++	3640	0.000
(2)	+++++	+++++	+++++	2329	+++++	2329	0.000
(3)	+++++	+++++	+++++	8119	+++++	8119	0.000
3 Aroclor-1232(1)	+++++	+++++	+++++	6156	+++++	6156	0.000
(2)	+++++	+++++	+++++	6302	+++++	6302	0.000
(3)	+++++	+++++	+++++	4701	+++++	4701	0.000
(4)	+++++	+++++	+++++	3243	+++++	3243	0.000
(5)	+++++	+++++	+++++	3151	+++++	3151	0.000
4 Aroclor-1242(1)	12348	11309	9989	9755	9542	10589	11.338
(2)	9730	8628	7875	7358	6677	8054	14.627
(3)	7163	6326	5763	5452	5107	5962	13.534
(4)	7183	6468	5900	5548	5185	6057	12.997
(5)	7820	7123	6589	6229	5746	6701	11.977
5 Aroclor-1248(1)	9914	8542	7972	7289	6553	8054	15.880
(2)	11996	10356	9798	9046	8173	9874	14.605
(3)	13306	11756	11119	10365	9555	11220	12.723
(4)	14720	13121	12480	11577	10516	12483	12.732
(5)	14361	12633	11977	11210	10342	12104	12.596

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 11-DEC-2009 10:17
End Cal Date : 14-DEC-2009 12:37
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd1a.i/121609.b/ECD1-B-8082-121409.m
Cal Date : 17-Dec-2009 07:29 yip00818
Curve Type : Average

Compound	100.000 Level 1	200.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
6 Aroclor-1254(1)	7857	6938	6317	5878	5185	6435	15.850
(2)	13759	12316	11389	10708	9625	11559	13.615
(3)	14674	13172	12243	11576	10492	12431	12.786
(4)	19102	17554	16808	16165	14771	16880	9.533
(5)	14276	12708	12612	11843	10739	12435	10.425
7 Aroclor-1260(1)	15678	14232	13583	13177	11731	13680	10.567
(2)	18142	16574	16035	15527	13867	16029	9.709
(3)	14298	13064	12524	12030	10903	12564	9.989
(4)	14593	13310	12766	12230	11150	12810	9.970
(5)	30553	28626	28257	27276	24777	27898	7.569
8 Aroclor-1262(1)	+++++	+++++	+++++	12922	+++++	12922	0.000
(2)	+++++	+++++	+++++	18311	+++++	18311	0.000
(3)	+++++	+++++	+++++	16579	+++++	16579	0.000
(4)	+++++	+++++	+++++	33287	+++++	33287	0.000
(5)	+++++	+++++	+++++	22972	+++++	22972	0.000
9 Aroclor-1268(1)	48327	45655	43354	41349	39206	43578	8.193
(2)	44968	41865	39872	38249	36983	40388	7.790
(3)	35350	32573	30975	29630	28674	31440	8.372
(4)	16410	14977	13894	13214	12876	14274	10.077
(5)	96769	92419	87897	84047	83161	88859	6.460
M 10 Aroclor-Total	+++++	+++++	+++++	+++++	+++++	+++++	+++++
$ 11 4cmx	307069	367145	286931	282899	256086	300026	13.893
$ 12 Decachlorobiphenyl	248884	286011	224119	212175	194946	233227	15.194

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-854

Instrument ID: ECD1A Calibration Date: 12/16/09 Time: 0639

Lab File ID: 002F0201 Init. Calib. Date(s): 12/14/09 12/14/09

Heated Purge: (Y/N) N Init. Calib. Times: 1031 1113

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	13866.870	12066.339	0.01	-13.0	15.0
(2)	10097.726	10100.208	0.01	0.0	15.0
(3)	11757.020	10438.521	0.01	-11.2	15.0
(4)	6599.010	6287.978	0.01	-4.7	15.0
(5)	8673.402	8115.136	0.01	-6.4	15.0
Aroclor-1260	16752.150	16400.977	0.01	-2.1	15.0
(2)	24742.603	25366.903	0.01	2.5	15.0
(3)	14687.346	15079.874	0.01	2.7	15.0
(4)	15184.529	15601.813	0.01	2.7	15.0
(5)	34350.443	35835.023	0.01	4.3	15.0
4cmx	375669.41	361320.59	0.01	-3.8	15.0
Decachlorobiphenyl	317540.53	295500.06	0.01	-6.9	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-854

Instrument ID: ECD1A Calibration Date: 12/16/09 Time: 0639

Lab File ID: 002B0201 Init. Calib. Date(s): 12/14/09 12/14/09

Heated Purge: (Y/N) N Init. Calib. Times: 1031 1113

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	12611.539	11845.265	0.01	-6.1	15.0
(2)	9327.875	8019.212	0.01	-14.0	15.0
(3)	5411.316	5005.109	0.01	-7.5	15.0
(4)	7051.879	6330.838	0.01	-10.2	15.0
(5)	6550.733	5990.341	0.01	-8.6	15.0
Aroclor-1260	13680.027	12633.049	0.01	-7.6	15.0
(2)	16029.019	15575.001	0.01	-2.8	15.0
(3)	12563.933	11771.250	0.01	-6.3	15.0
(4)	12810.076	11994.226	0.01	-6.4	15.0
(5)	27897.674	27263.087	0.01	-2.3	15.0
4cmx	300025.77	281215.27	0.01	-6.3	15.0
Decachlorobiphenyl	233227.08	214673.03	0.01	-8.0	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-854

Instrument ID: ECD1A Calibration Date: 12/16/09 Time: 1600

Lab File ID: 050F5001 Init. Calib. Date(s): 12/14/09 12/14/09

Heated Purge: (Y/N) N Init. Calib. Times: 1031 1113

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	13866.870	12501.405	0.01	-9.8	15.0
(2)	10097.726	10743.225	0.01	6.4	15.0
(3)	11757.020	10715.850	0.01	-8.8	15.0
(4)	6599.010	6502.213	0.01	-1.5	15.0
(5)	8673.402	8295.816	0.01	-4.4	15.0
Aroclor-1260	16752.150	16419.827	0.01	-2.0	15.0
(2)	24742.603	25459.040	0.01	2.9	15.0
(3)	14687.346	15089.459	0.01	2.7	15.0
(4)	15184.529	15503.850	0.01	2.1	15.0
(5)	34350.443	36107.879	0.01	5.1	15.0
4cmx	375669.41	378150.04	0.01	0.7	15.0
Decachlorobiphenyl	317540.53	307246.06	0.01	-3.2	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-854

Instrument ID: ECD1A Calibration Date: 12/16/09 Time: 1600

Lab File ID: 050B5001 Init. Calib. Date(s): 12/14/09 12/14/09

Heated Purge: (Y/N) N Init. Calib. Times: 1031 1113

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	12611.539	12399.906	0.01	-1.7	15.0
(2)	9327.875	8081.502	0.01	-13.4	15.0
(3)	5411.316	5006.397	0.01	-7.5	15.0
(4)	7051.879	6299.966	0.01	-10.7	15.0
(5)	6550.733	6004.756	0.01	-8.3	15.0
Aroclor-1260	13680.027	12350.992	0.01	-9.7	15.0
(2)	16029.019	15214.728	0.01	-5.1	15.0
(3)	12563.933	11569.713	0.01	-7.9	15.0
(4)	12810.076	11722.896	0.01	-8.5	15.0
(5)	27897.674	26851.487	0.01	-3.8	15.0
4cmx	300025.77	291174.26	0.01	-3.0	15.0
Decachlorobiphenyl	233227.08	215138.44	0.01	-7.8	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-854

Instrument ID: ECD1A Calibration Date: 12/16/09 Time: 1823

Lab File ID: 062F6201 Init. Calib. Date(s): 12/14/09 12/14/09

Heated Purge: (Y/N) N Init. Calib. Times: 1031 1113

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	13866.870	12394.036	0.01	-10.6	15.0
(2)	10097.726	10254.172	0.01	1.5	15.0
(3)	11757.020	10707.282	0.01	-8.9	15.0
(4)	6599.010	6451.325	0.01	-2.2	15.0
(5)	8673.402	8202.522	0.01	-5.4	15.0
Aroclor-1260	16752.150	16703.466	0.01	-0.3	15.0
(2)	24742.603	25828.004	0.01	4.4	15.0
(3)	14687.346	15347.449	0.01	4.5	15.0
(4)	15184.529	15947.036	0.01	5.0	15.0
(5)	34350.443	37170.253	0.01	8.2	15.0
4cmx	375669.41	373931.77	0.01	-0.5	15.0
Decachlorobiphenyl	317540.53	320009.62	0.01	0.8	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-854

Instrument ID: ECD1A Calibration Date: 12/16/09 Time: 1823

Lab File ID: 062B6201 Init. Calib. Date(s): 12/14/09 12/14/09

Heated Purge: (Y/N) N Init. Calib. Times: 1031 1113

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	12611.539	12305.260	0.01	-2.4	15.0
(2)	9327.875	8093.067	0.01	-13.2	15.0
(3)	5411.316	5040.306	0.01	-6.8	15.0
(4)	7051.879	6572.321	0.01	-6.8	15.0
(5)	6550.733	6083.776	0.01	-7.1	15.0
Aroclor-1260	13680.027	12697.285	0.01	-7.2	15.0
(2)	16029.019	15734.960	0.01	-1.8	15.0
(3)	12563.933	11992.577	0.01	-4.5	15.0
(4)	12810.076	12265.433	0.01	-4.2	15.0
(5)	27897.674	28097.085	0.01	0.7	15.0
4cmx	300025.77	286789.32	0.01	-4.4	15.0
Decachlorobiphenyl	233227.08	229781.04	0.01	-1.5	15.0

FORM VII PEST

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/121609.b/002f0201.d
Lab Smp Id: WAR091211-60 01 Client Smp ID: AR166001
Inj Date : 16-DEC-2009 06:39
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR091211-60 01
Misc Info :
Comment :
Method : /chem/ecd1a.i/121609.b/ECD1-F-8082-121409.m
Meth Date : 17-Dec-2009 07:29 yip00818 Quant Type: ESTD
Cal Date : 14-DEC-2009 11:34 Cal File: 040f4001.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.972	1.972	0.000	36132059	100.000	96.2	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.290	5.290	0.000	29550006	100.000	93.0	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.430	2.430	0.000	12066339	1000.00	870	80.00- 120.00	100.00
2.707	2.707	0.000	10100208	1000.00	1000	63.95- 103.95	83.71
2.800	2.800	0.000	10438521	1000.00	888	66.26- 106.26	86.51
2.837	2.837	0.000	6287978	1000.00	953	32.06- 72.06	52.11
3.048	3.048	0.000	8115136	1000.00	936	47.49- 87.49	67.25
Average of Peak Amounts =					929		
7 Aroclor-1260					CAS #: 11096-82-5		
3.775	3.775	0.000	16400977	1000.00	979	80.00- 120.00	100.00
3.938	3.938	0.000	25366903	1000.00	1020	134.58- 174.58	154.67
4.168	4.168	0.000	15079874	1000.00	1030	72.46- 112.46	91.94
4.312	4.312	0.000	15601813	1000.00	1030	76.67- 116.67	95.13
4.491	4.491	0.000	35835023	1000.00	1040	204.79- 244.79	218.49
Average of Peak Amounts =					1.02e+03		

Data File: /chem/ecd1a.i/121609.b/002f0201.d
Date : 16-DEC-2009 06:39
Client ID: AR166001
Sample Info: IWAR091211-60 01
Column phase: CLP1

Instrument: ecd1a.i
Operator: YS1
Column diameter: 0.25

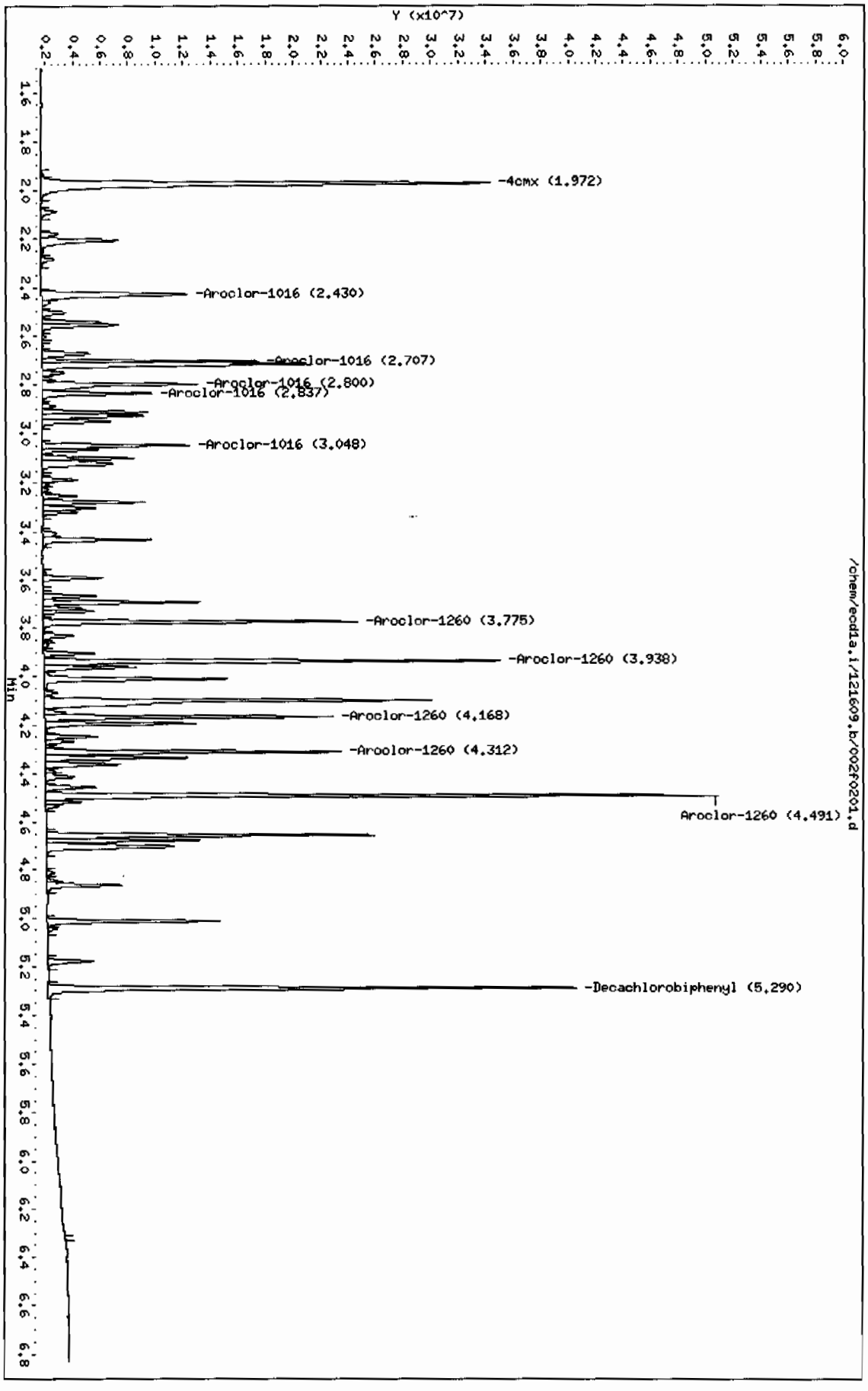

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GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/121609.b/002b0201.d
Lab Smp Id: WAR091211-60 01 Client Smp ID: AR166001
Inj Date : 16-DEC-2009 06:39
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR091211-60 01
Misc Info :
Comment :
Method : /chem/ecd1a.i/121609.b/ECD1-B-8082-121409.m
Meth Date : 17-Dec-2009 07:29 yip00818 Quant Type: ESTD
Cal Date : 14-DEC-2009 12:16 Cal File: 044b4401.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.303	2.303	0.000	28121527	100.000	93.7	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.950	5.950	0.000	21467303	100.000	92.0	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.201	3.201	0.000	11845265	1000.00	939	80.00- 120.00	100.00(M)
3.283	3.283	0.000	8019212	1000.00	860	47.27- 87.27	67.70
3.347	3.347	0.000	5005109	1000.00	925	21.95- 61.95	42.25
3.574	3.574	0.000	6330838	1000.00	898	35.11- 75.11	53.45
3.650	3.650	0.000	5990340	1000.00	914	31.28- 71.28	60.26
Average of Peak Amounts =					907		
7 Aroclor-1260					CAS #: 11096-82-5		
4.341	4.341	0.000	12633049	1000.00	923	80.00- 120.00	100.00
4.465	4.465	0.000	15575001	1000.00	972	103.29- 143.29	123.29
4.731	4.731	0.000	11771250	1000.00	937	74.88- 114.88	93.18
4.905	4.905	0.000	11994226	1000.00	936	77.49- 117.49	94.94
5.052	5.052	0.000	27263087	1000.00	977	203.67- 243.67	215.81
Average of Peak Amounts =					949		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd1a.i/121609.b/002b0201.d
Date : 16-DEC-2009 06:39
Client ID: AR166001
Sample Info: IWAR091211-60 01
Column phase: CLP2

Instrument: ecd1a.i
Operator: YSI
Column diameter: 0.25

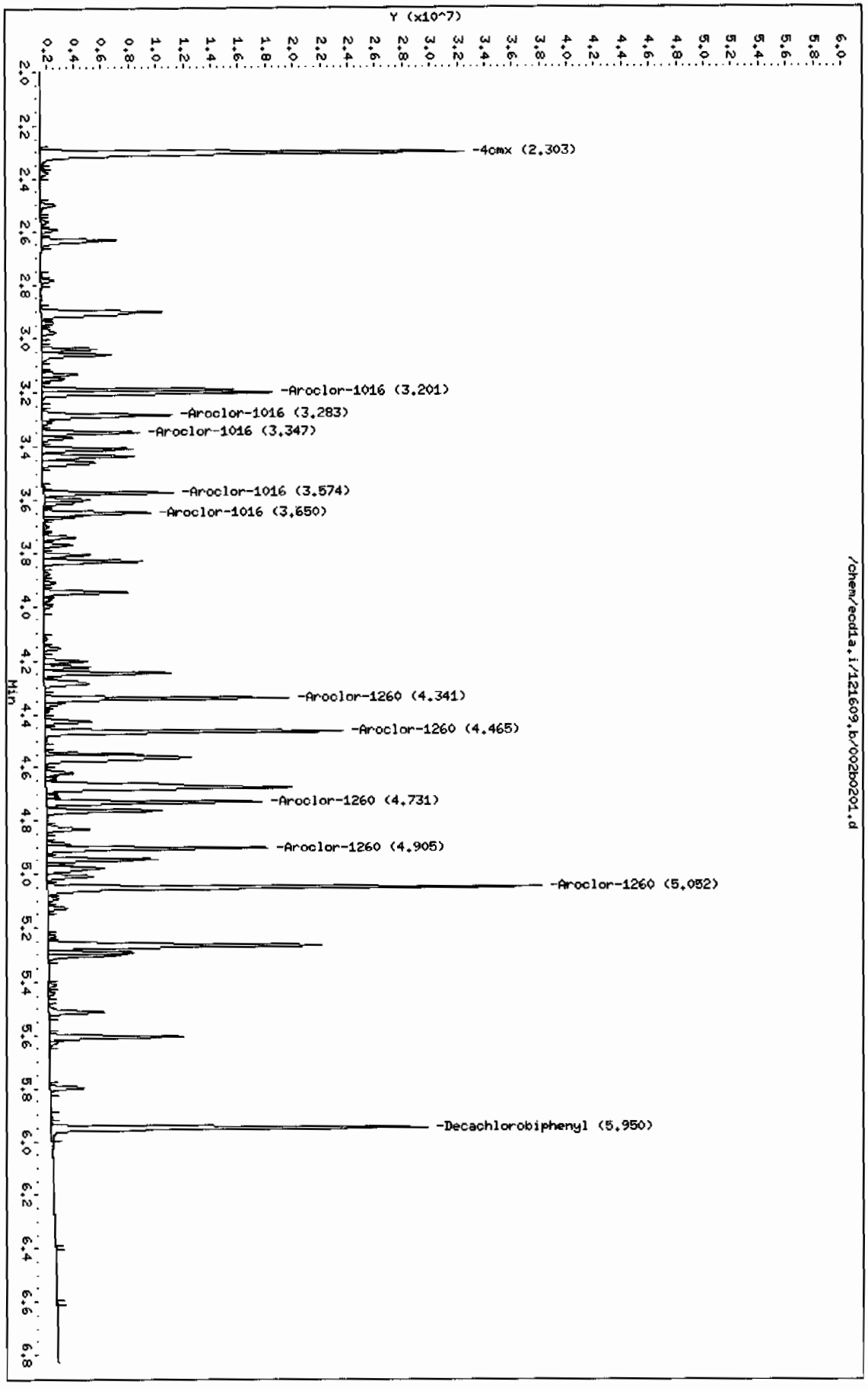

Page 1

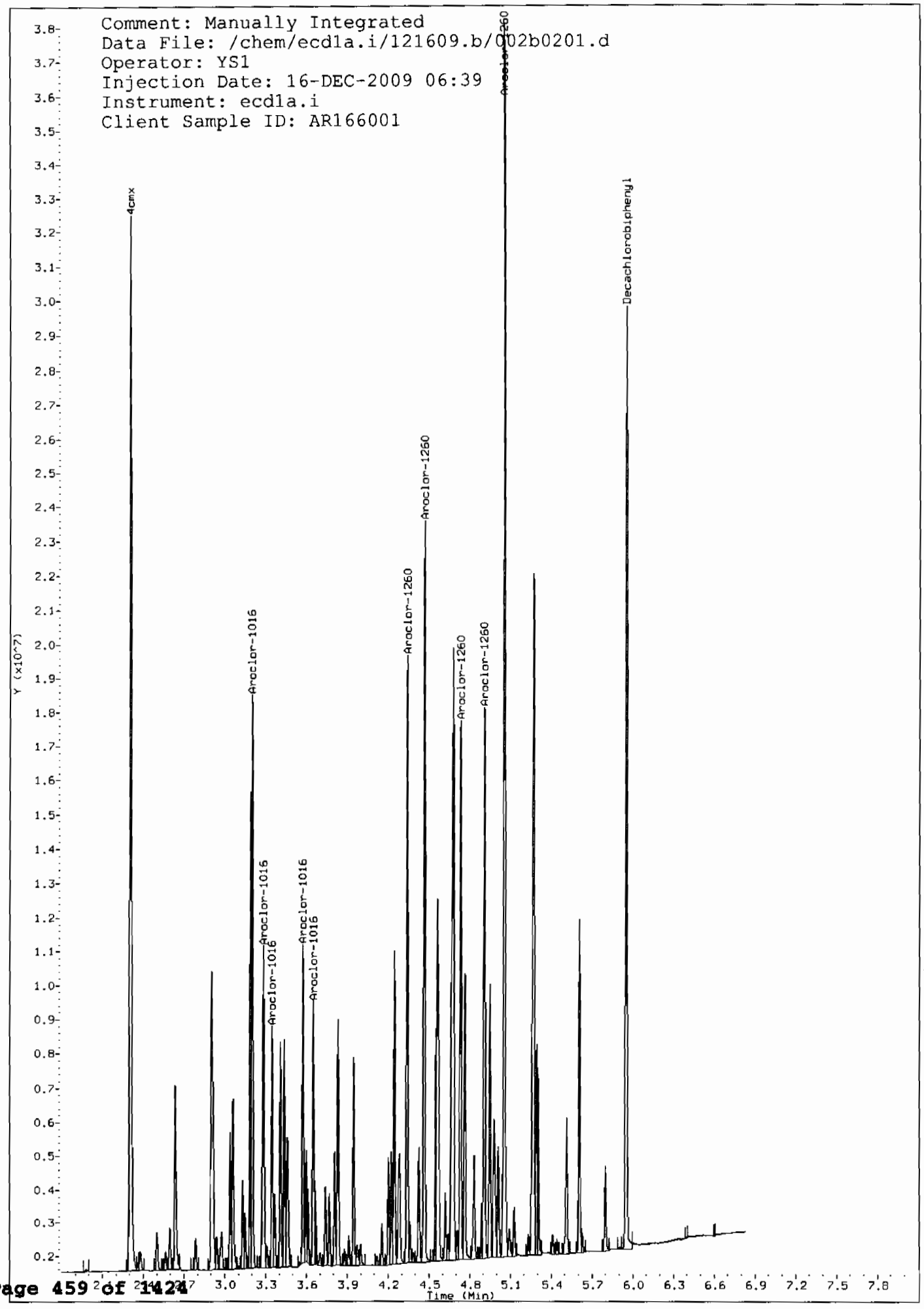
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Data File: /chem/ecd1a.i/121609.b/002b0201.d
Operator: YS1
Injection Date: 16-DEC-2009 06:39
Instrument: ecd1a.i
Client Sample ID: AR166001
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

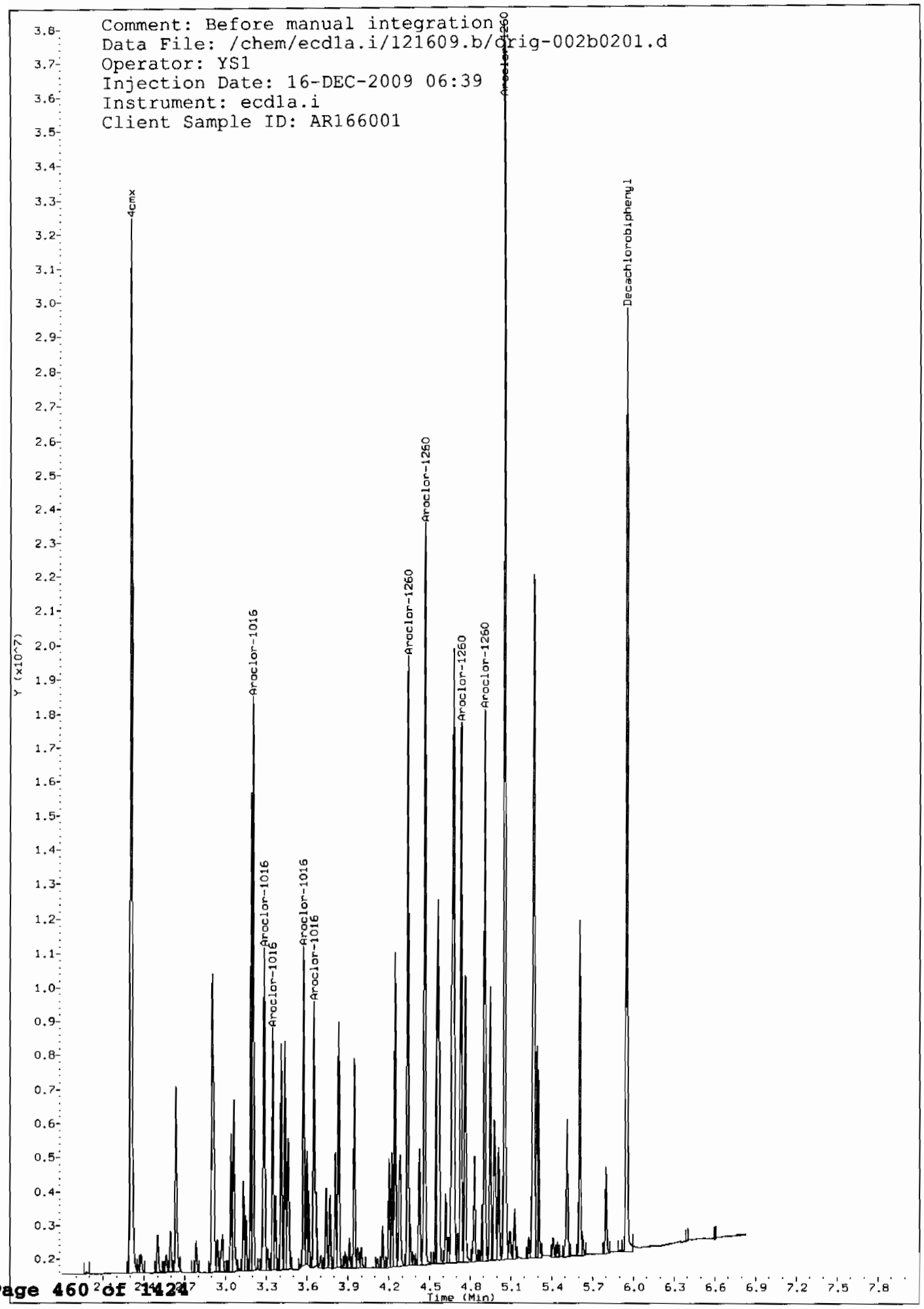
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Data File: /chem/ecd1a.i/121609.b/orig-002b0201.d
Operator: YS1
Injection Date: 16-DEC-2009 06:39
Instrument: ecd1a.i
Client Sample ID: AR166001
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/121609.b/004f0401.d
Lab Smp Id: WAR091102-42 Client Smp ID: AR124201
Inj Date : 16-DEC-2009 07:00
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR091102-42
Misc Info :
Comment :
Method : /chem/ecd1a.i/121609.b/ECD1-F-8082-121409.m
Meth Date : 17-Dec-2009 07:29 yip00818 Quant Type: ESTD
Cal Date : 14-DEC-2009 11:34 Cal File: 040f4001.d
Als bottle: 4 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1242.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.974	1.972	0.002	37840985	100.000	101	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.290	5.290	0.000	31080994	100.000	97.9	80.00- 120.00	100.00
4 Aroclor-1242					CAS #: 53469-21-9		
2.430	2.430	0.000	10697173	1000.00	917	80.00- 120.00	100.00
2.720	2.720	0.000	13676665	1000.00	1020	107.85- 147.85	127.85
2.839	2.839	0.000	5417859	1000.00	984	30.65- 70.65	50.65
3.049	3.049	0.000	7065274	1000.00	975	46.05- 86.05	66.05
3.303	3.303	0.000	7222050	1000.00	1060	47.51- 87.51	67.51
Average of Peak Amounts =					991		

Data File: /chem/ecd1a.i/121609.b/004f0401.d
Date : 16-DEC-2009 07:00
Client ID: AR124201
Sample Info: 1WAR091102-42

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1
Column diameter: 0.25

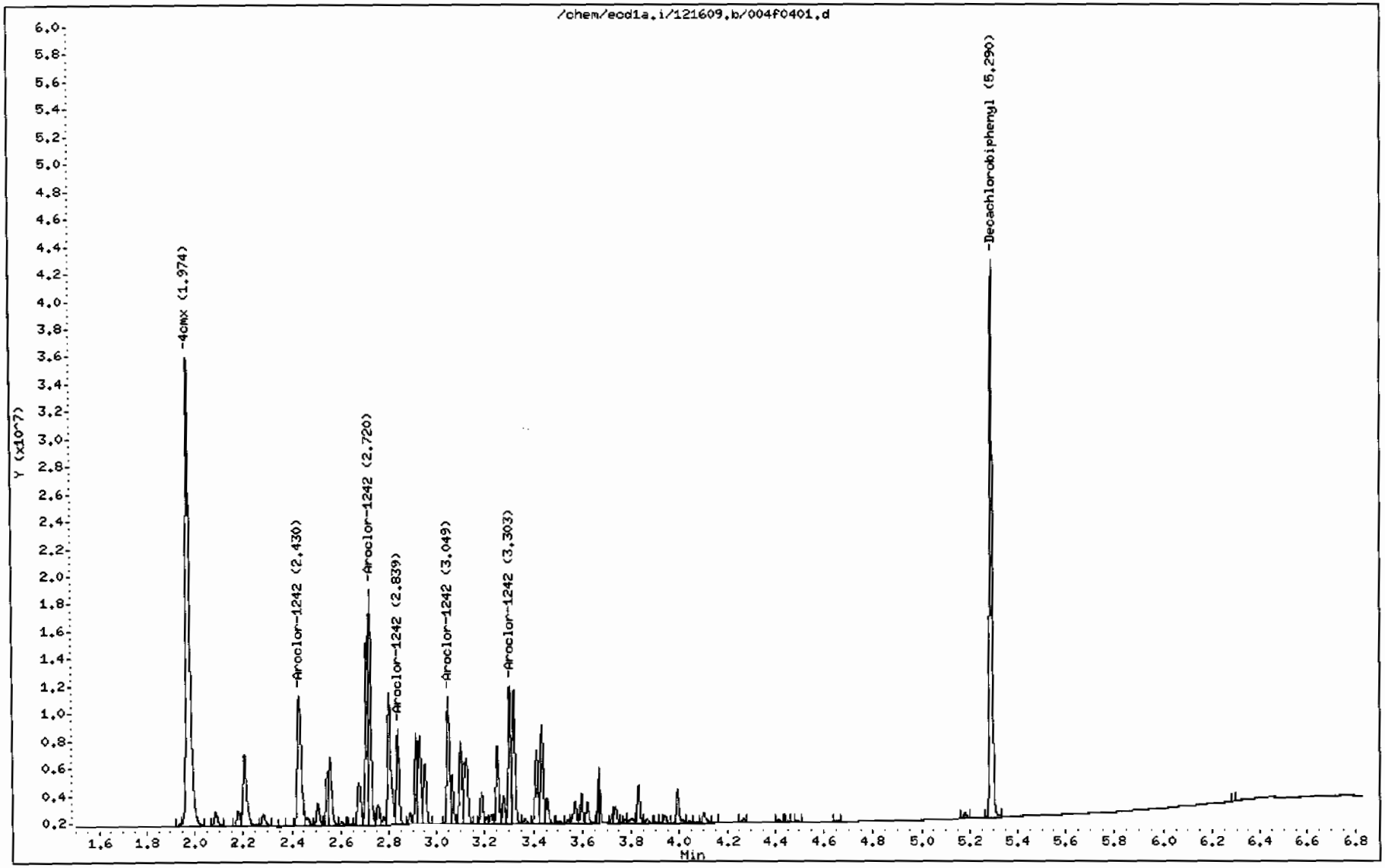

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/121609.b/004b0401.d
Lab Smp Id: WAR091102-42 Client Smp ID: AR124201
Inj Date : 16-DEC-2009 07:00
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR091102-42
Misc Info :
Comment :
Method : /chem/ecd1a.i/121609.b/ECD1-B-8082-121409.m
Meth Date : 17-Dec-2009 07:29 yip00818 Quant Type: ESTD
Cal Date : 14-DEC-2009 12:16 Cal File: 044b4401.d
Als bottle: 4 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1242.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.304	2.303	0.001	29192418	100.000	97.3	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.951	5.950	0.001	22183120	100.000	95.1	80.00- 120.00	100.00
4 Aroclor-1242					CAS #: 53469-21-9		
3.201	3.201	0.000	10432384	1000.00	985	80.00- 120.00	100.00
3.284	3.284	0.000	6908864	1000.00	858	46.23- 86.23	66.23
3.574	3.574	0.000	5524895	1000.00	927	32.96- 72.96	52.96
3.808	3.808	0.000	5851271	1000.00	966	36.09- 76.09	56.09
3.836	3.836	0.000	6475163	1000.00	966	42.07- 82.07	62.07
Average of Peak Amounts =					940		

Data File: /chem/ecd1a.i/121609.b/004b0401.d

Date : 16-DEC-2009 07:00

Client ID: AR124201

Sample Info: IWAR091102-42

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

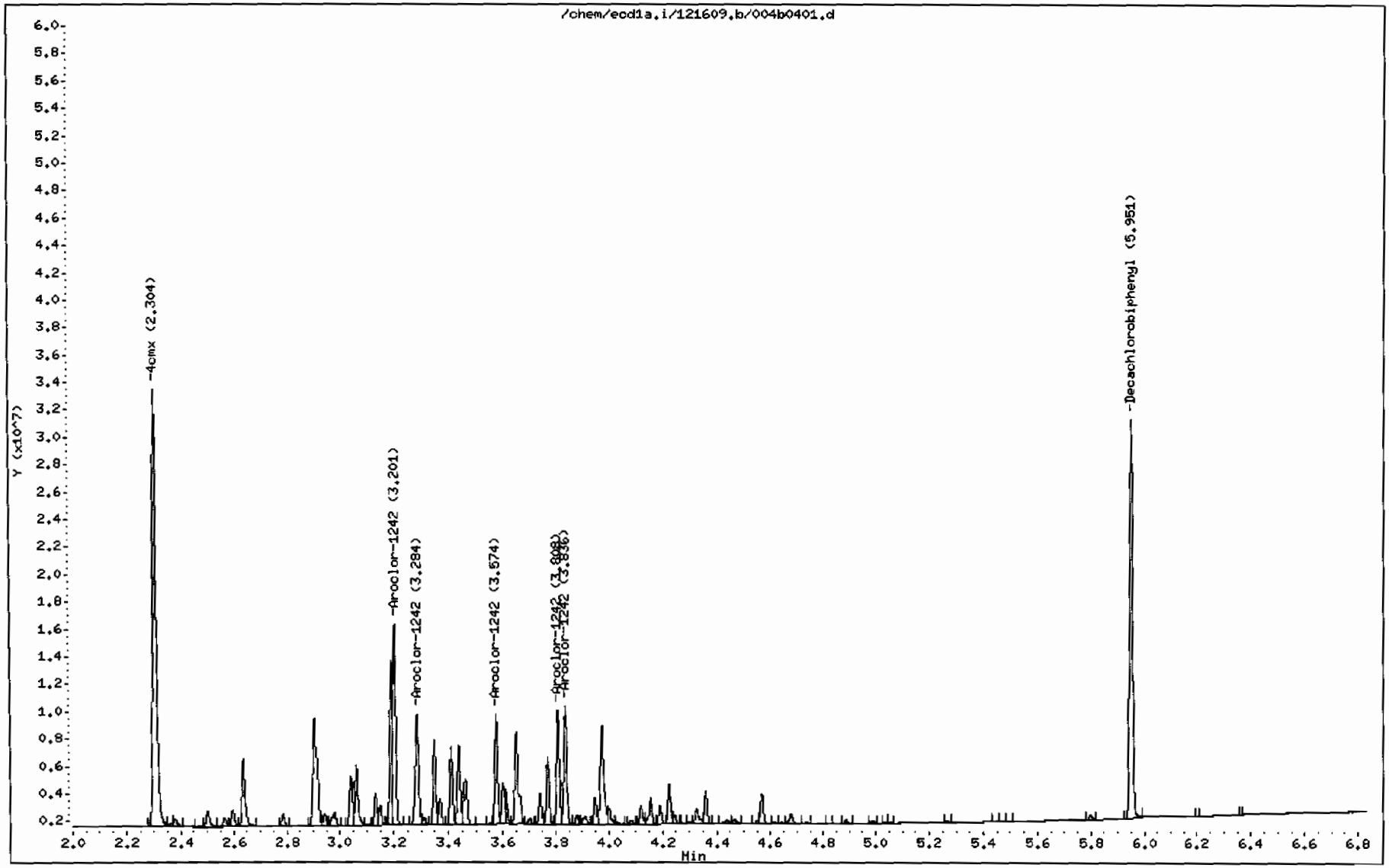

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/121609.b/005f0501.d
Lab Smp Id: WAR091027-48 Client Smp ID: AR124801
Inj Date : 16-DEC-2009 07:10
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR091027-48
Misc Info :
Comment :
Method : /chem/ecd1a.i/121609.b/ECD1-F-8082-121409.m
Meth Date : 17-Dec-2009 07:29 yip00818 Quant Type: ESTD
Cal Date : 14-DEC-2009 11:34 Cal File: 040f4001.d
Als bottle: 5 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1248.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.973	1.972	0.001	41664673	100.000	111	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.291	5.290	0.001	35464201	100.000	112	80.00- 120.00	100.00
5 Aroclor-1248					CAS #: 12672-29-6		
3.101	3.101	0.000	8278860	1000.00	1050	80.00- 120.00	100.00
3.252	3.252	0.000	7528449	1000.00	1100	70.94- 110.94	90.94
3.303	3.303	0.000	14754396	1000.00	1110	158.22- 198.22	178.22
3.435	3.435	0.000	11852525	1000.00	1080	123.17- 163.17	143.17
3.668	3.668	0.000	7661140	1000.00	1030	72.54- 112.54	92.54

Average of Peak Amounts = 1.07e+03

Data File: /chem/ecd1a.i/121609.b/005f0501.d
Date : 16-DEC-2009 07:10
Client ID: AR124801
Sample Info: IWAR091027-48

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1
Column diameter: 0.25

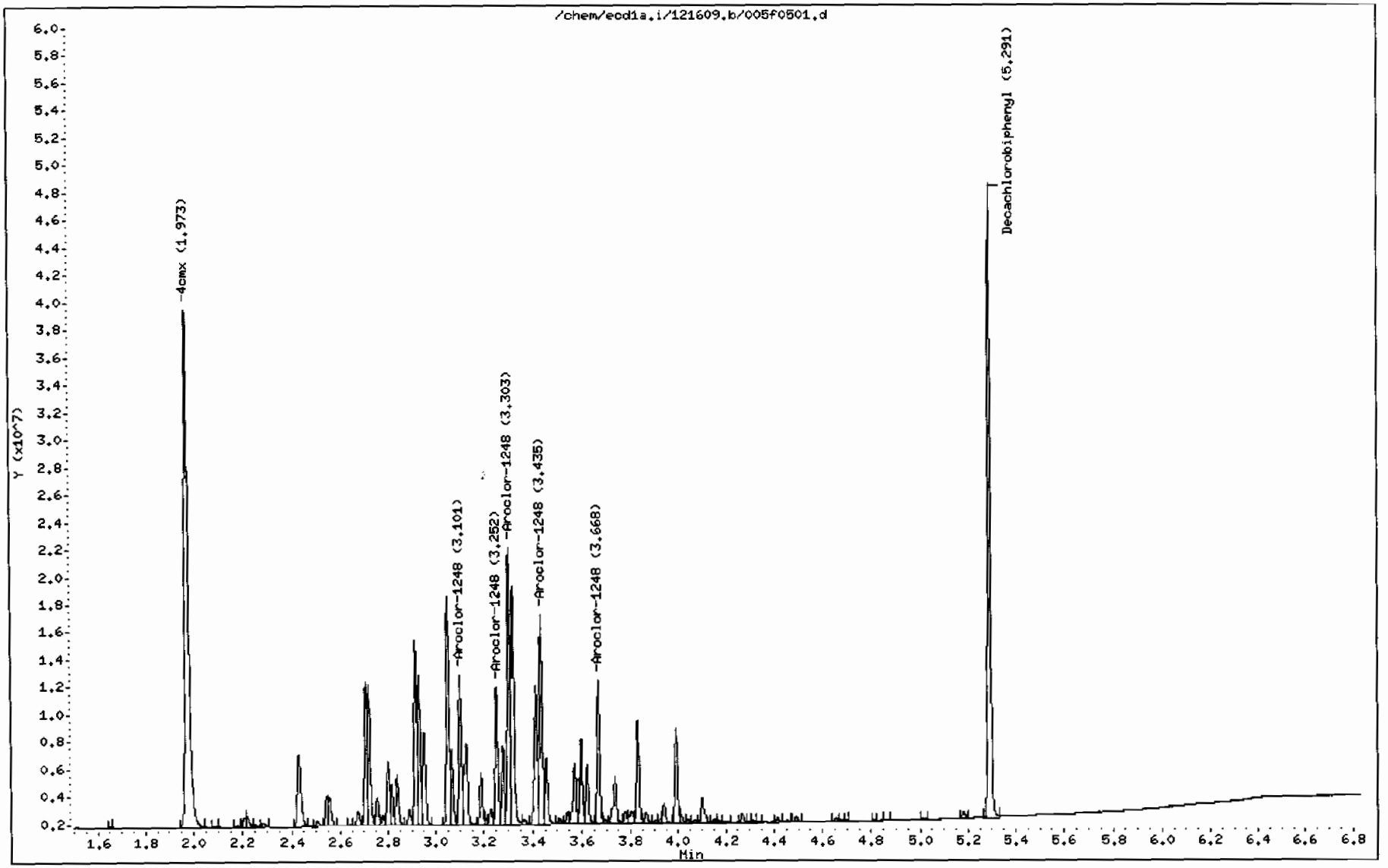

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/121609.b/005b0501.d
Lab Smp Id: WAR091027-48 Client Smp ID: AR124801
Inj Date : 16-DEC-2009 07:10
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR091027-48
Misc Info :
Comment :
Method : /chem/ecd1a.i/121609.b/ECD1-B-8082-121409.m
Meth Date : 17-Dec-2009 07:29 yip00818 Quant Type: ESTD
Cal Date : 14-DEC-2009 12:16 Cal File: 044b4401.d
Als bottle: 5 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1248.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.303	2.303	0.000	32365715	100.000	108	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.951	5.950	0.001	25096669	100.000	108	80.00- 120.00	100.00
5 Aroclor-1248					CAS #: 12672-29-6		
3.410	3.410	0.000	7874757	1000.00	978	80.00- 120.00	100.00
3.575	3.575	0.000	9899671	1000.00	1000	105.71- 145.71	125.71
3.809	3.809	0.000	11498194	1000.00	1020	126.01- 166.01	146.01
3.837	3.837	0.000	12728780	1000.00	1020	141.64- 181.64	161.64
3.973	3.973	0.000	12310878	1000.00	1020	136.33- 176.33	156.33

Average of Peak Amounts = 1.01e+03

Data File: /chem/ecd1a.i/121609.b/005b0501.d
Date : 16-DEC-2009 07:10
Client ID: AR124801
Sample Info: IWAR091027-48

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1
Column diameter: 0.25

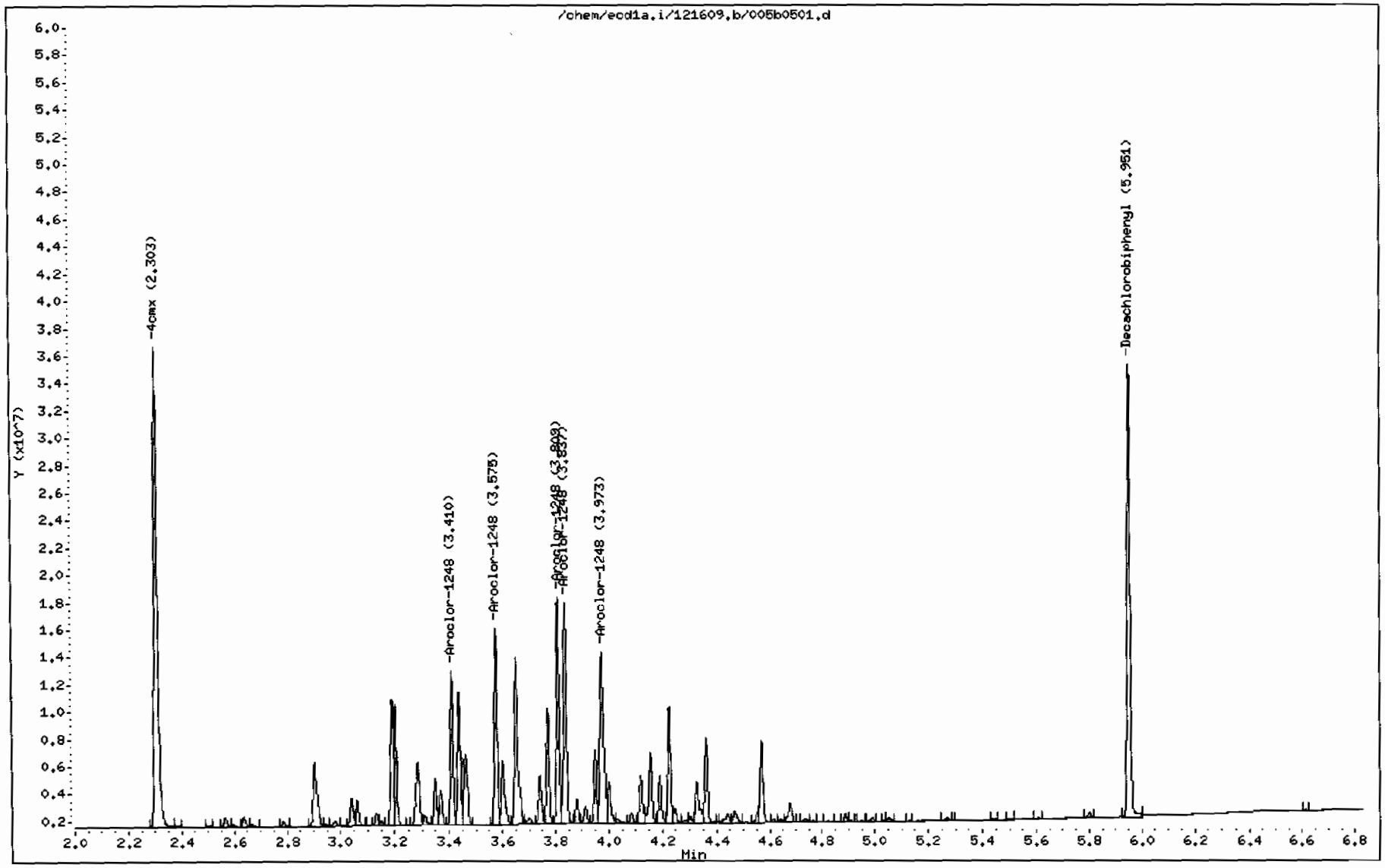

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RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/121609.b/006f0601.d
Lab Smp Id: WAR090930-32 Client Smp ID: AR123201
Inj Date : 16-DEC-2009 07:21
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR090930-32
Misc Info :
Comment :
Method : /chem/ecd1a.i/121609.b/ECD1-F-8082-121409.m
Meth Date : 17-Dec-2009 07:29 yip00818 Quant Type: ESTD
Cal Date : 14-DEC-2009 11:34 Cal File: 040f4001.d
Als bottle: 6 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1232.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.973	1.972	0.001	51235543	100.000	136	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.290	5.290	0.000	42714674	100.000	134	80.00- 120.00	100.00
3 Aroclor-1232					CAS #: 11141-16-5		
2.430	2.430	0.000	6974323	1000.00	1040	80.00- 120.00	100.00
2.719	2.719	0.000	8900204	1000.00	1090	107.61- 147.61	127.61
2.800	2.800	0.000	5974406	1000.00	1040	65.66- 105.66	85.66
3.049	3.049	0.000	4410116	1000.00	1120	43.23- 83.23	63.23
3.303	3.303	0.000	4252706	1000.00	1200	40.98- 80.98	60.98

Average of Peak Amounts = 1.1e+03

Data File: /chem/ecd1a.i/121609.b/006f0601.d

Date : 16-DEC-2009 07:21

Client ID: AR123201

Sample Info: IWAR090930-32

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

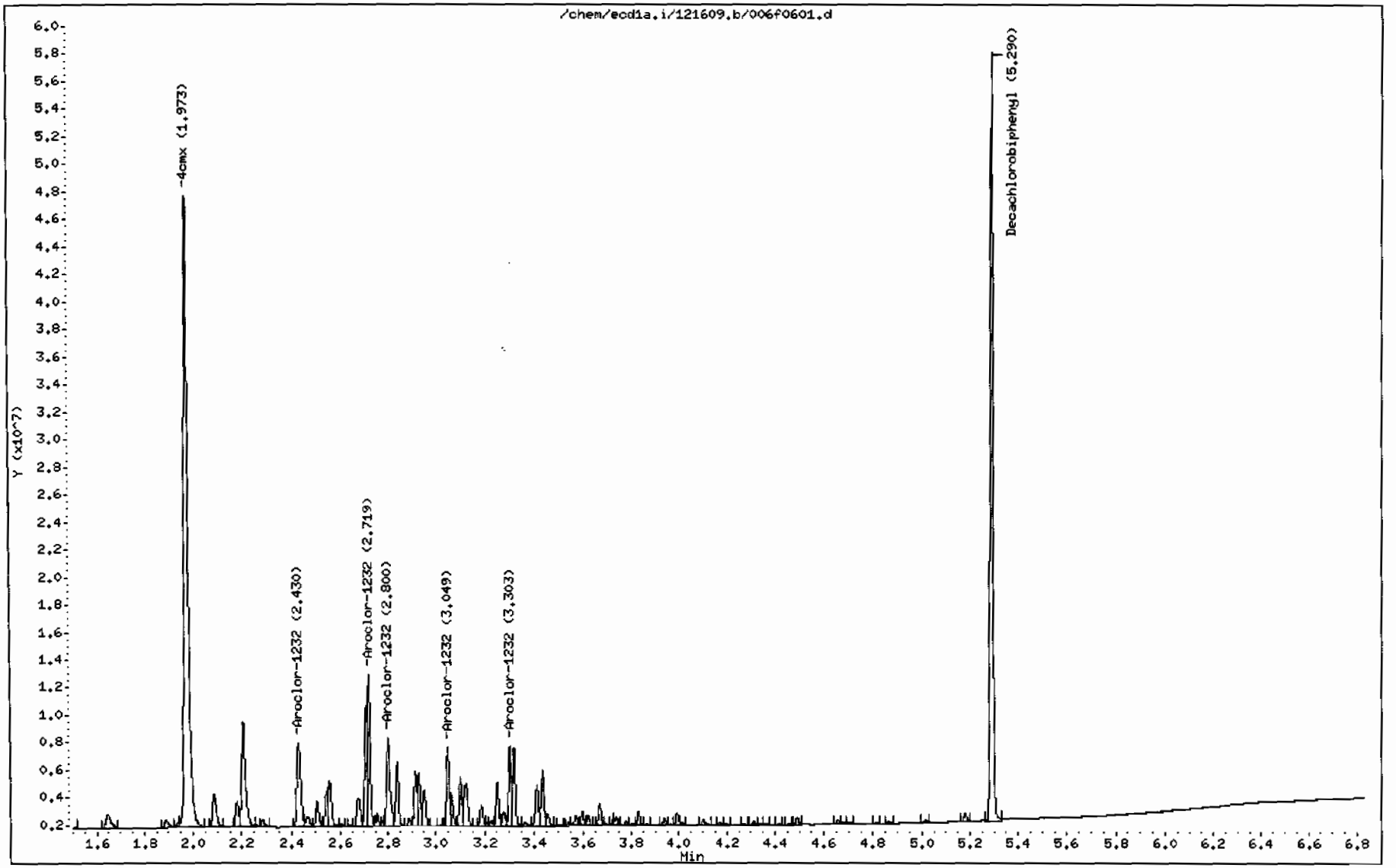

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/121609.b/006b0601.d
Lab Smp Id: WAR090930-32 Client Smp ID: AR123201
Inj Date : 16-DEC-2009 07:21
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR090930-32
Misc Info :
Comment :
Method : /chem/ecd1a.i/121609.b/ECD1-B-8082-121409.m
Meth Date : 17-Dec-2009 07:29 yip00818 Quant Type: ESTD
Cal Date : 14-DEC-2009 12:16 Cal File: 044b4401.d
Als bottle: 6 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1232.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.303	2.303	0.000	39106080	100.000	130	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.951	5.950	0.001	30315268	100.000	130	80.00- 120.00	100.00
3 Aroclor-1232					CAS #: 11141-16-5		
2.636	2.636	0.000	6130202	1000.00	996	80.00- 120.00	100.00
3.201	3.201	0.000	6920831	1000.00	1100	92.90- 132.90	112.90
3.284	3.284	0.000	4627388	1000.00	984	55.49- 95.49	75.49
3.575	3.575	0.000	3485394	1000.00	1070	36.86- 76.86	56.86
3.808	3.808	0.000	3484902	1000.00	1100	36.85- 76.85	56.85

Average of Peak Amounts = 1.05e+03

Data File: /chem/ecd1a.i/121609.b/006b0601.d

Date : 16-DEC-2009 07:21

Client ID: AR123201

Sample Info: IWAR090930-32

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

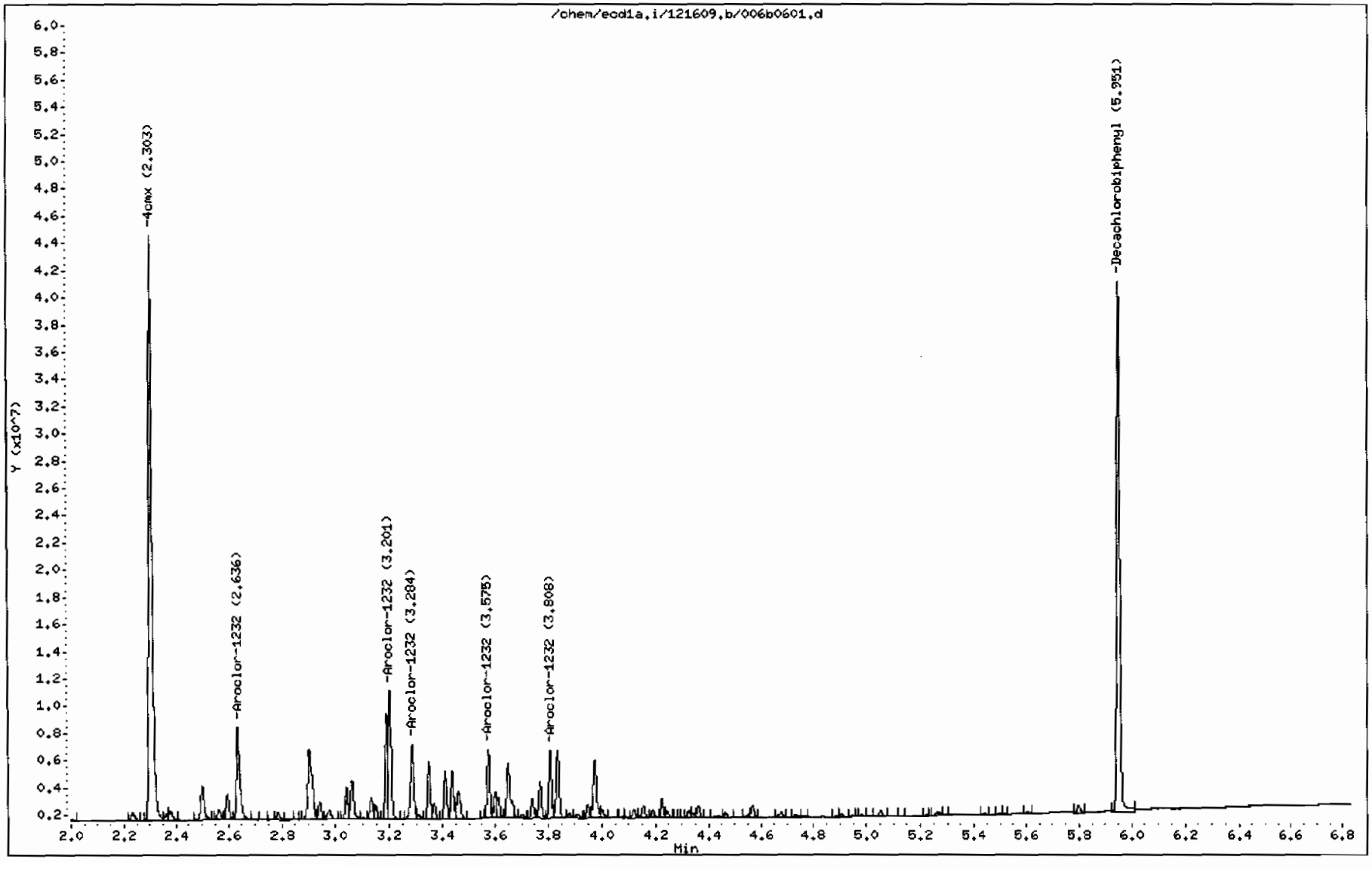

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RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/121609.b/008f0801.d
Lab Smp Id: WAR090803-21 Client Smp ID: AR122101
Inj Date : 16-DEC-2009 07:42
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR090803-21
Misc Info :
Comment :
Method : /chem/ecd1a.i/121609.b/ECD1-F-8082-121409.m
Meth Date : 17-Dec-2009 07:29 yip00818 Quant Type: ESTD
Cal Date : 14-DEC-2009 11:34 Cal File: 040f4001.d
Als bottle: 8 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1221.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.973	1.972	0.001	38649286	100.000	103	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.290	5.290	0.000	32840010	100.000	103	80.00- 120.00	100.00
2 Aroclor-1221					CAS #: 11104-28-2		
2.086	2.086	0.000	4438417	1000.00	1030	80.00- 120.00	100.00
2.180	2.180	0.000	2551623	1000.00	1040	37.49- 77.49	57.49
2.205	2.205	0.000	10731329	1000.00	1040	221.78- 261.78	241.78

Average of Peak Amounts = 1.04e+03

Data File: /chem/ecd1a.i/121609.b/008f0801.d
Date : 16-DEC-2009 07:42
Client ID: AR122101
Sample Info: IWAR090803-21

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1
Column diameter: 0.25

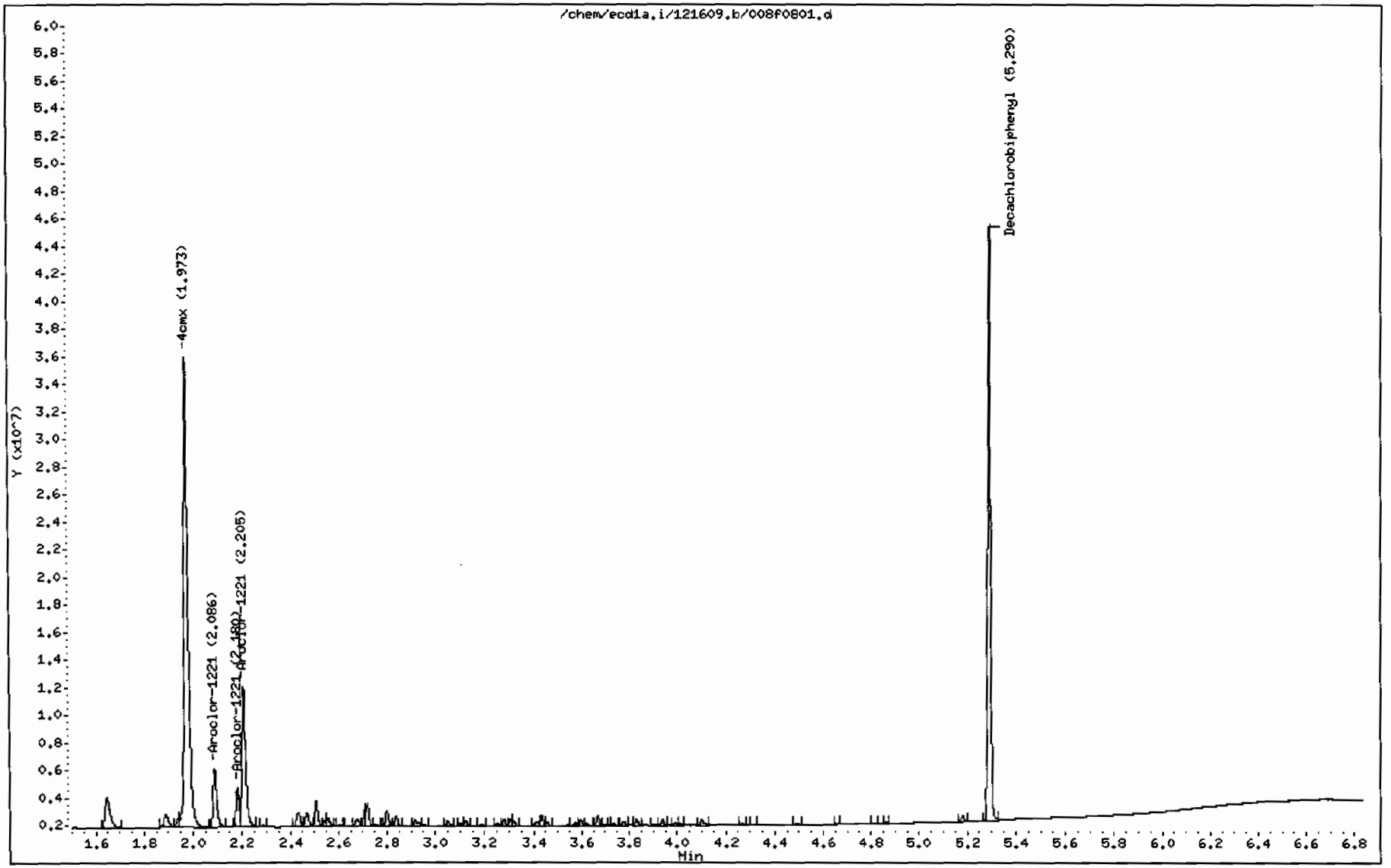

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/121609.b/008b0801.d
Lab Smp Id: WAR090803-21 Client Smp ID: AR122101
Inj Date : 16-DEC-2009 07:42
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR090803-21
Misc Info :
Comment :
Method : /chem/ecd1a.i/121609.b/ECD1-B-8082-121409.m
Meth Date : 17-Dec-2009 07:29 yip00818 Quant Type: ESTD
Cal Date : 14-DEC-2009 12:16 Cal File: 044b4401.d
Als bottle: 8 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1221.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.304	2.303	0.001	29456505	100.000	98.2	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.950	5.950	0.000	22953168	100.000	98.4	80.00- 120.00	100.00
2 Aroclor-1221					CAS #: 11104-28-2		
2.501	2.501	0.000	3643456	1000.00	1000	80.00- 120.00	100.00
2.595	2.595	0.000	2343599	1000.00	1010	44.32- 84.32	64.32
2.636	2.636	0.000	8187844	1000.00	1010	204.73- 244.73	224.73

Average of Peak Amounts = 1.01e+03

Data File: /chem/ecd1a.i/121609.b/008b0801.d

Date : 16-DEC-2009 07:42

Client ID: AR122101

Sample Info: IWAR090803-21

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

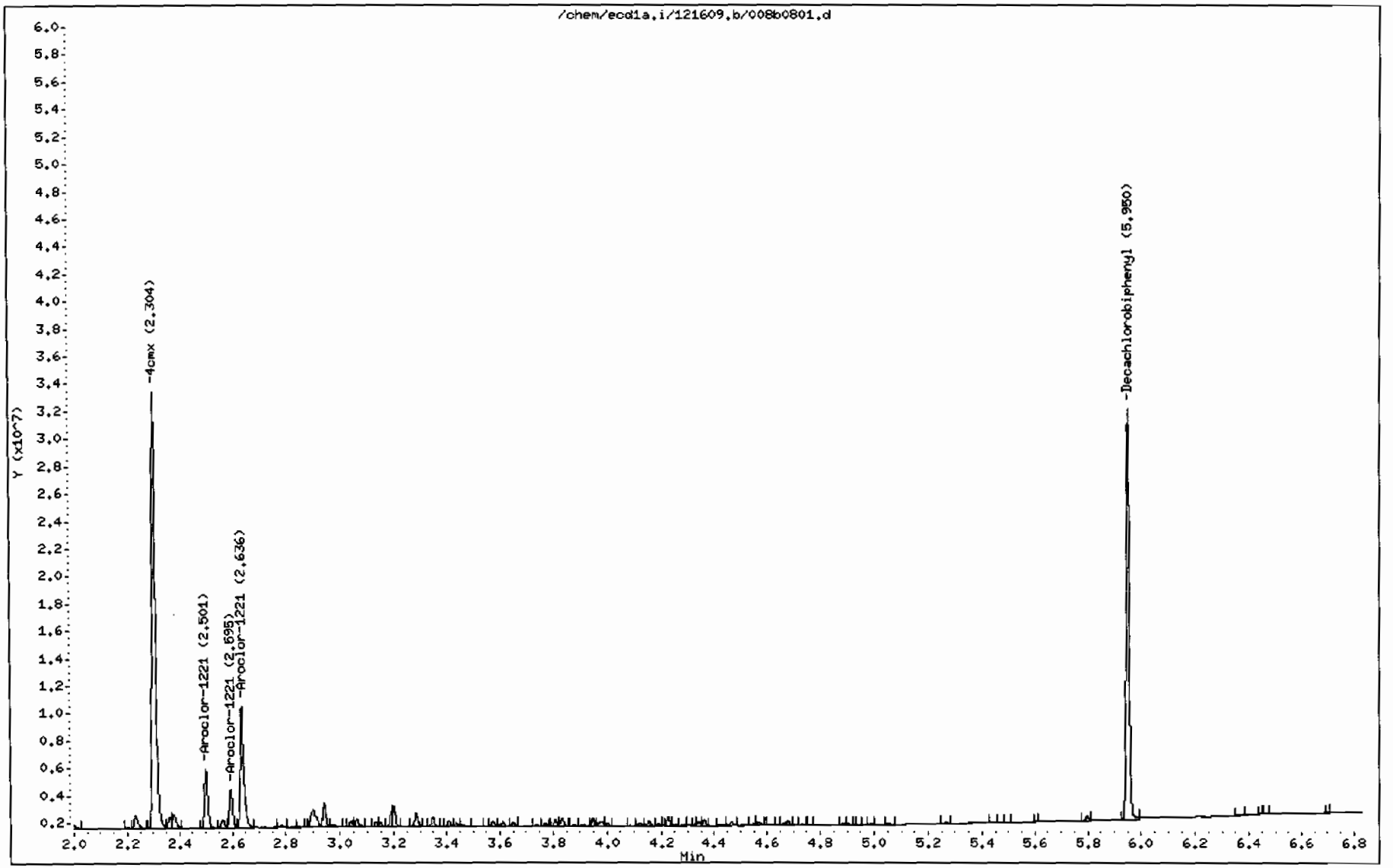

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/121609.b/011f1101.d
Lab Smp Id: WAR091216-54 Client Smp ID: AR125401
Inj Date : 16-DEC-2009 08:13
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR091216-54
Misc Info :
Comment :
Method : /chem/ecd1a.i/121609.b/ECD1-F-8082-121409.m
Meth Date : 17-Dec-2009 07:29 yip00818 Quant Type: ESTD
Cal Date : 14-DEC-2009 11:34 Cal File: 040f4001.d
Als bottle: 11 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1254.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.973	1.972	0.001	37462929	100.000	99.7	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.289	5.290	-0.001	32062309	100.000	101	80.00- 120.00	100.00
6 Aroclor-1254					CAS #: 11097-69-1		
3.277	3.277	0.000	11740439	1000.00	940	80.00- 120.00	100.00
3.433	3.433	0.000	16181025	1000.00	968	117.82- 157.82	137.82
3.667	3.667	0.000	21464495	1000.00	1040	162.83- 202.83	182.83
3.830	3.830	0.000	16587894	1000.00	1060	121.29- 161.29	141.29
3.939	3.939	0.000	15558659	1000.00	1020	112.52- 152.52	132.52

Average of Peak Amounts = 1.01e+03

Data File: /chem/ecd1a.i/121609.b/011f1101.d
Date : 16-DEC-2009 08:13
Client ID: AR125401
Sample Info: IWAR091216-54
Column phase: CLP1

Instrument: ecd1a.i
Operator: YS1
Column diameter: 0.25

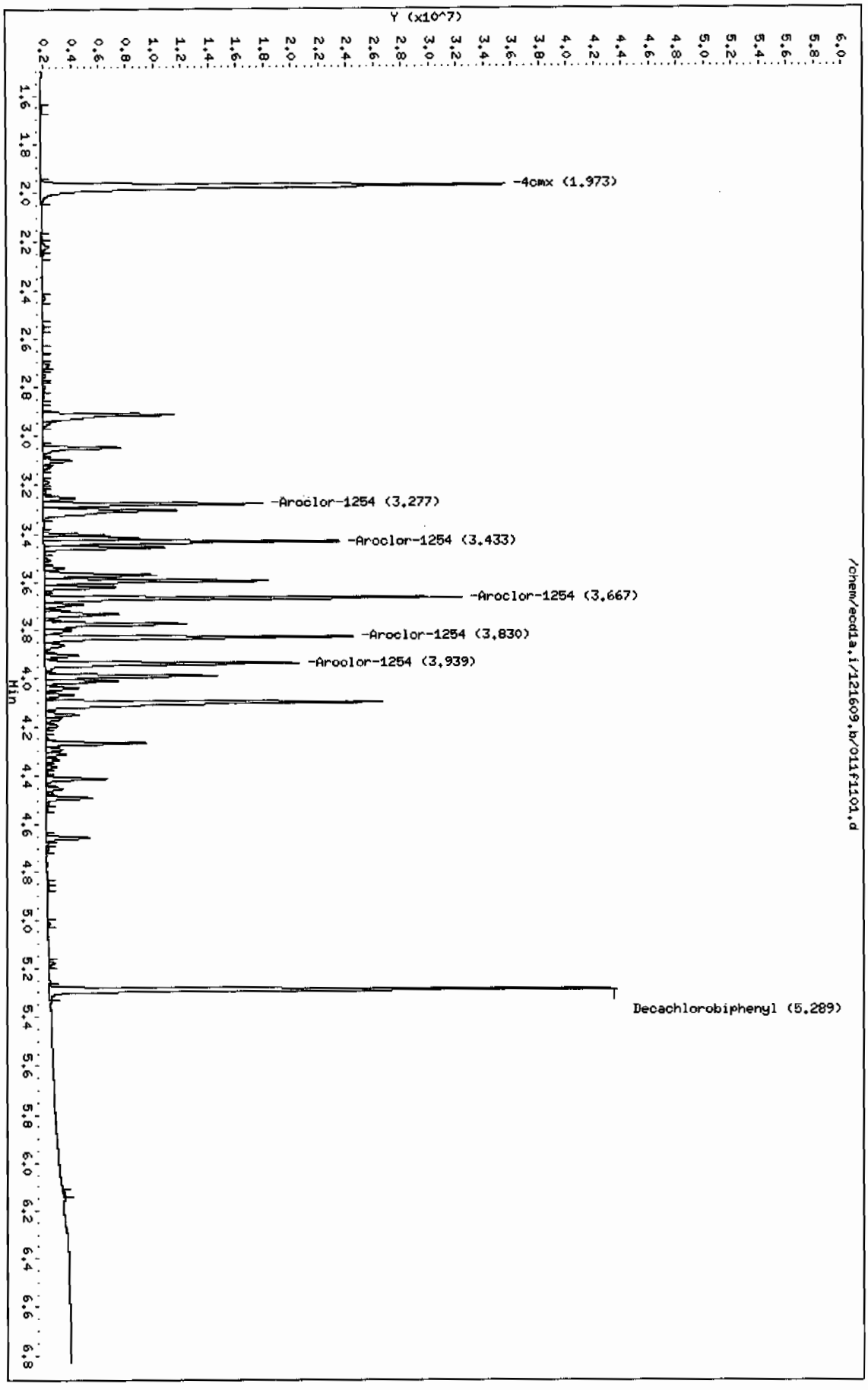

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/121609.b/011b1101.d
Lab Smp Id: WAR091216-54 Client Smp ID: AR125401
Inj Date : 16-DEC-2009 08:13
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR091216-54
Misc Info :
Comment :
Method : /chem/ecd1a.i/121609.b/ECD1-B-8082-121409.m
Meth Date : 17-Dec-2009 07:29 yip00818 Quant Type: ESTD
Cal Date : 14-DEC-2009 12:16 Cal File: 044b4401.d
Als bottle: 11 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1254.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.303	2.303	0.000	29140043	100.000	97.1	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.950	5.950	0.000	22581159	100.000	96.8	80.00- 120.00	100.00
6 Aroclor-1254					CAS #: 11097-69-1		
3.409	3.409	0.000	5764247	1000.00	896	80.00- 120.00	100.00
3.832	3.832	0.000	10391118	1000.00	899	160.27- 200.27	180.27
3.947	3.947	0.000	11639160	1000.00	936	181.92- 221.92	201.92
4.224	4.224	0.000	16398545	1000.00	971	264.49- 304.49	284.49
4.360	4.360	0.000	12242599	1000.00	984	192.39- 232.39	212.39
		Average of Peak Amounts =			937		

Data File: /chem/ecd1a.i/121609.b/011b1101.d

Date : 16-DEC-2009 08:13

Client ID: AR125401

Sample Info: IWAR091216-54

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

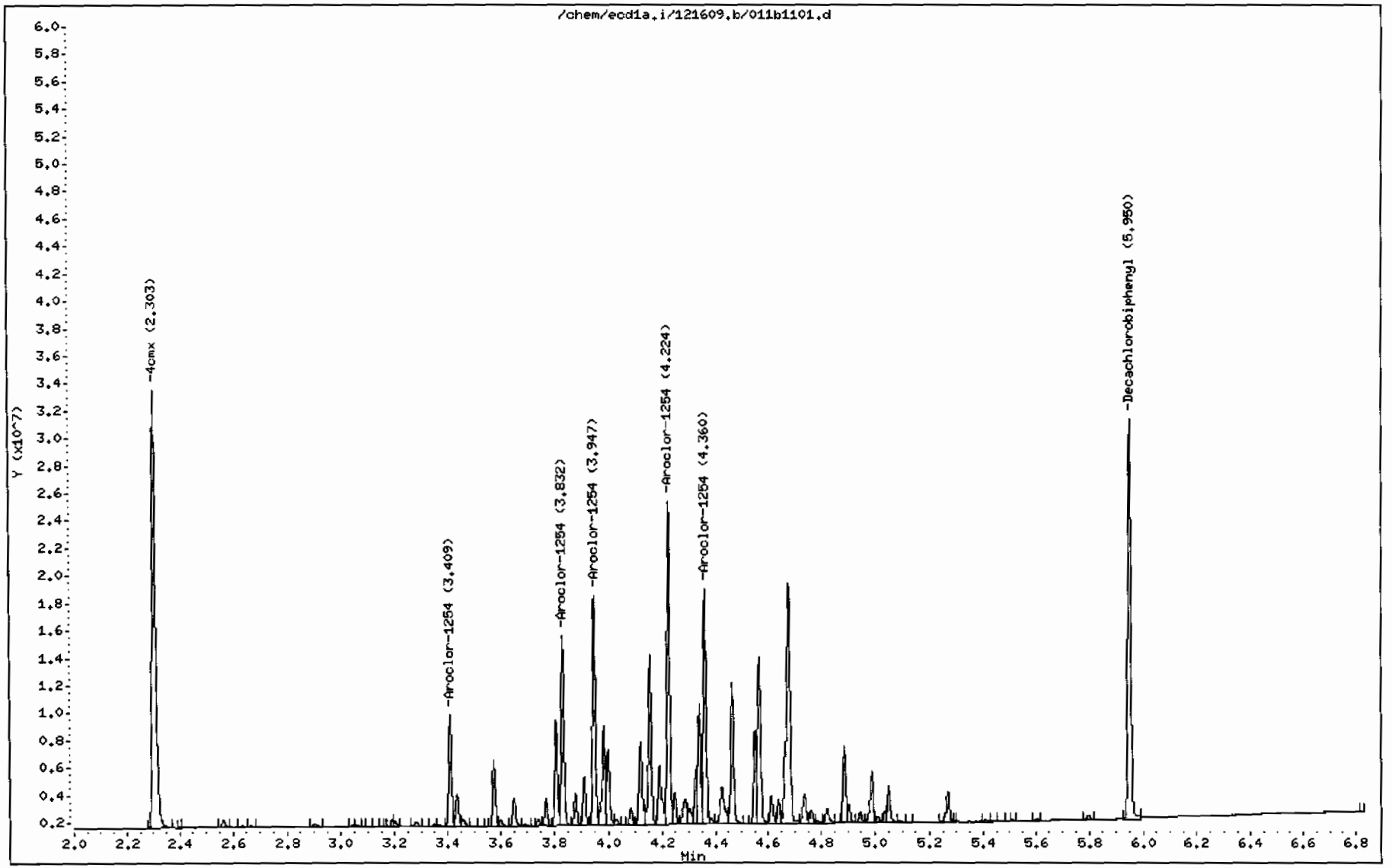

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/121609.b/050f5001.d
Lab Smp Id: WAR091211-60 05 Client Smp ID: AR166005
Inj Date : 16-DEC-2009 16:00
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR091211-60 05
Misc Info :
Comment :
Method : /chem/ecd1a.i/121609.b/ECD1-F-8082-121409.m
Meth Date : 16-Dec-2009 16:54 yip00818 Quant Type: ESTD
Cal Date : 14-DEC-2009 11:34 Cal File: 040f4001.d
Als bottle: 50 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

AMOUNTS

RT	EXP RT	DLT RT	RESPONSE	CAL-AMT (ug/L)	ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.973	1.972	0.001	37815004	100.000	101	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.287	5.290	-0.003	30724606	100.000	96.8	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.428	2.430	-0.002	12501405	1000.00	902	80.00- 120.00	100.00
2.706	2.707	-0.001	10743225	1000.00	1060	65.94- 105.94	85.94
2.798	2.800	-0.002	10715850	1000.00	911	65.72- 105.72	85.72
2.836	2.837	-0.001	6502213	1000.00	985	32.01- 72.01	52.01
3.047	3.048	-0.001	8295816	1000.00	956	46.36- 86.36	66.36
Average of Peak Amounts =					964		
7 Aroclor-1260					CAS #: 11096-82-5		
3.773	3.775	-0.002	16419827	1000.00	980	80.00- 120.00	100.00
3.936	3.938	-0.002	25459040	1000.00	1030	135.05- 175.05	155.05
4.166	4.168	-0.002	15089459	1000.00	1030	71.90- 111.90	91.90
4.309	4.312	-0.003	15503850	1000.00	1020	74.42- 114.42	94.42
4.488	4.491	-0.003	36107879	1000.00	1050	199.90- 239.90	219.90
Average of Peak Amounts =					1.02e+03		

Data File: /chem/ecd1a.i/121609.b/050f5001.d

Date : 16-DEC-2009 16:00

Client ID: AR166005

Sample Info: IWAR091211-60 05

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

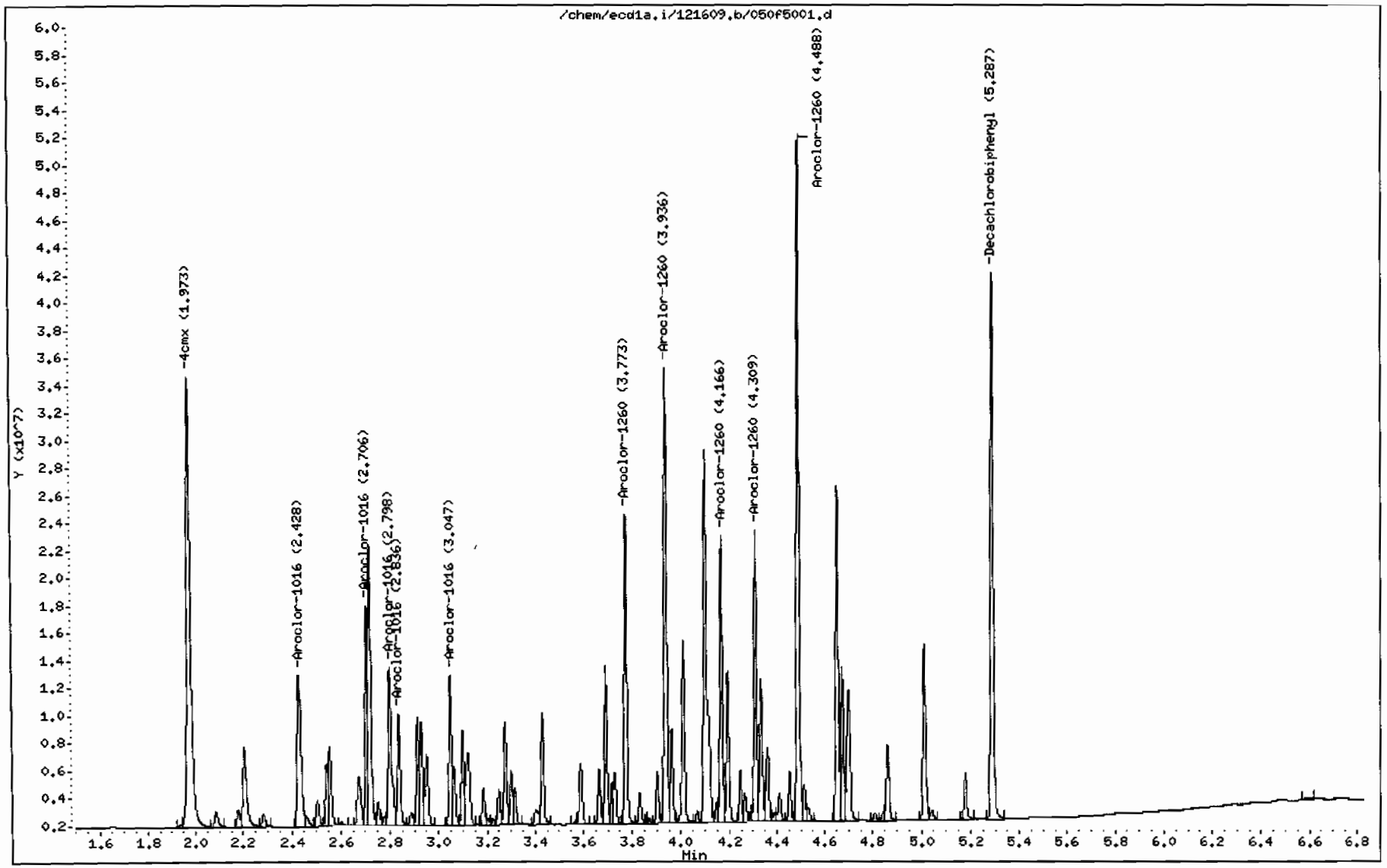

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/121609.b/050b5001.d
Lab Smp Id: WAR091211-60 05 Client Smp ID: AR166005
Inj Date : 16-DEC-2009 16:00
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR091211-60 05
Misc Info :
Comment :
Method : /chem/ecd1a.i/121609.b/ECD1-B-8082-121409.m
Meth Date : 16-Dec-2009 16:55 yip00818 Quant Type: ESTD
Cal Date : 14-DEC-2009 12:16 Cal File: 044b4401.d
Als bottle: 50 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.303	2.303	0.000	29117426	100.000	97.0	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.949	5.950	-0.001	21513844	100.000	92.2	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.199	3.201	-0.002	12399906	1000.00	983	80.00- 120.00	100.00(M)
3.283	3.283	0.000	8081502	1000.00	866	45.17- 85.17	65.17
3.346	3.347	-0.001	5006397	1000.00	925	20.37- 60.37	40.37
3.573	3.574	-0.001	6299966	1000.00	893	30.81- 70.81	50.81
3.648	3.650	-0.002	6004756	1000.00	917	28.43- 68.43	48.43
Average of Peak Amounts =					917		
7 Aroclor-1260					CAS #: 11096-82-5		
4.339	4.341	-0.002	12350992	1000.00	903	80.00- 120.00	100.00
4.463	4.465	-0.002	15214728	1000.00	949	103.19- 143.19	123.19
4.730	4.731	-0.001	11569713	1000.00	921	73.67- 113.67	93.67
4.903	4.905	-0.002	11722896	1000.00	915	74.91- 114.91	94.91
5.050	5.052	-0.002	26851487	1000.00	962	197.40- 237.40	217.40
Average of Peak Amounts =					930		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd1a.i/121609.b/050b5001.d
Date : 16-DEC-2009 16:00
Client ID: AR166005
Sample Info: IWAR091211-60 05

Instrument: ecd1a.i
Operator: YS1
Column diameter: 0.25

Column phase: CLP2

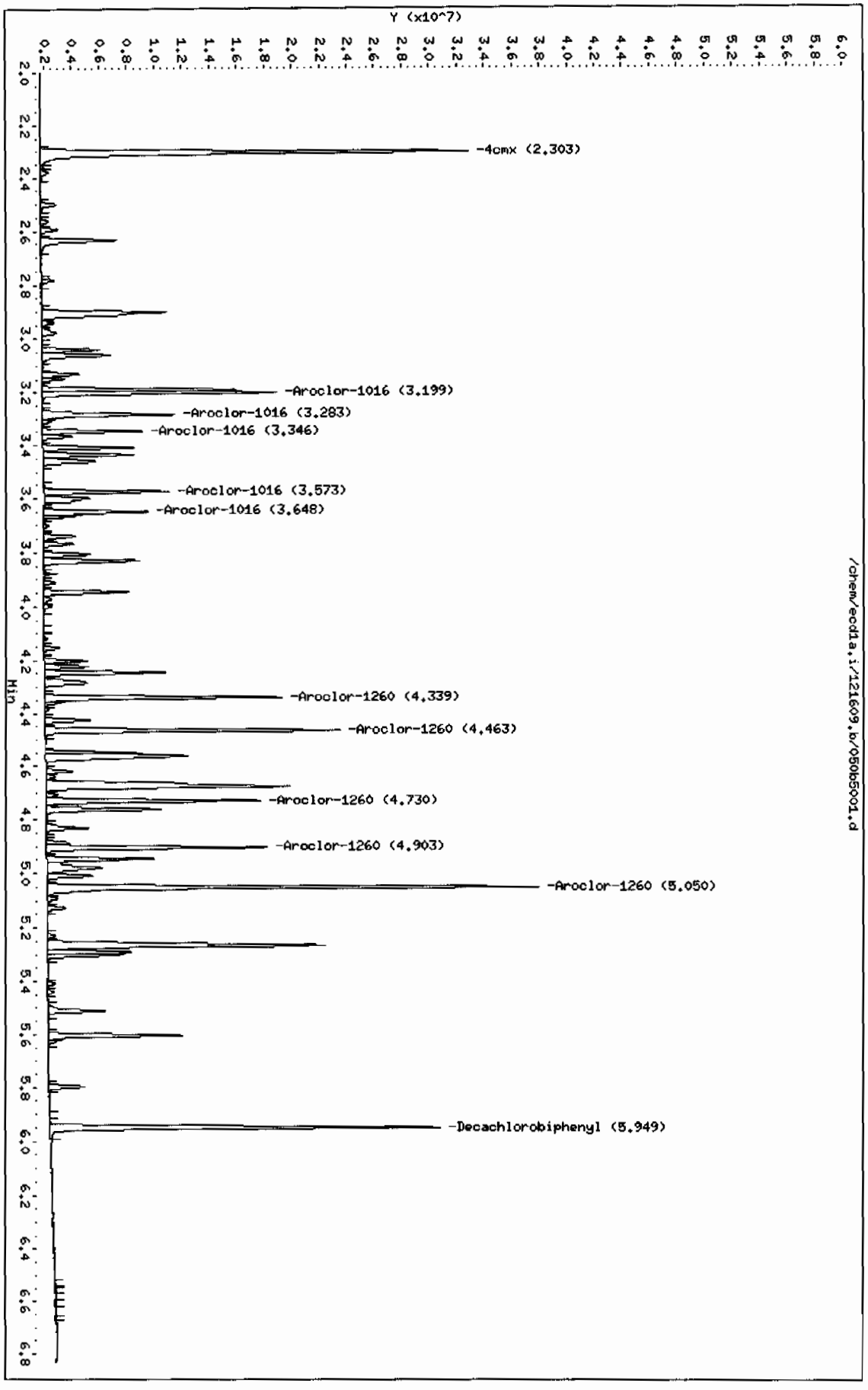

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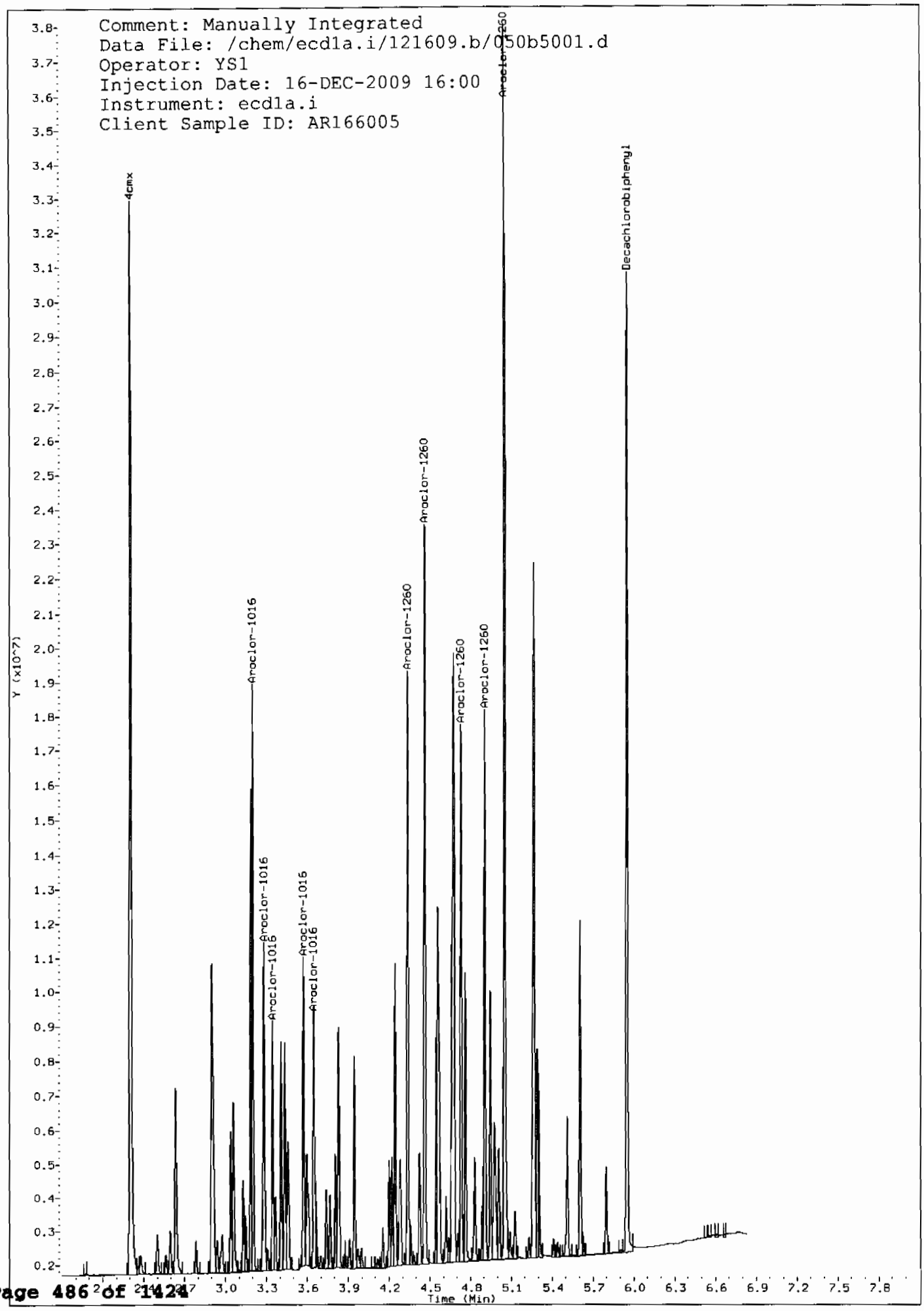
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Data File: /chem/ecd1a.i/121609.b/050b5001.d
Operator: YS1
Injection Date: 16-DEC-2009 16:00
Instrument: ecd1a.i
Client Sample ID: AR166005
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

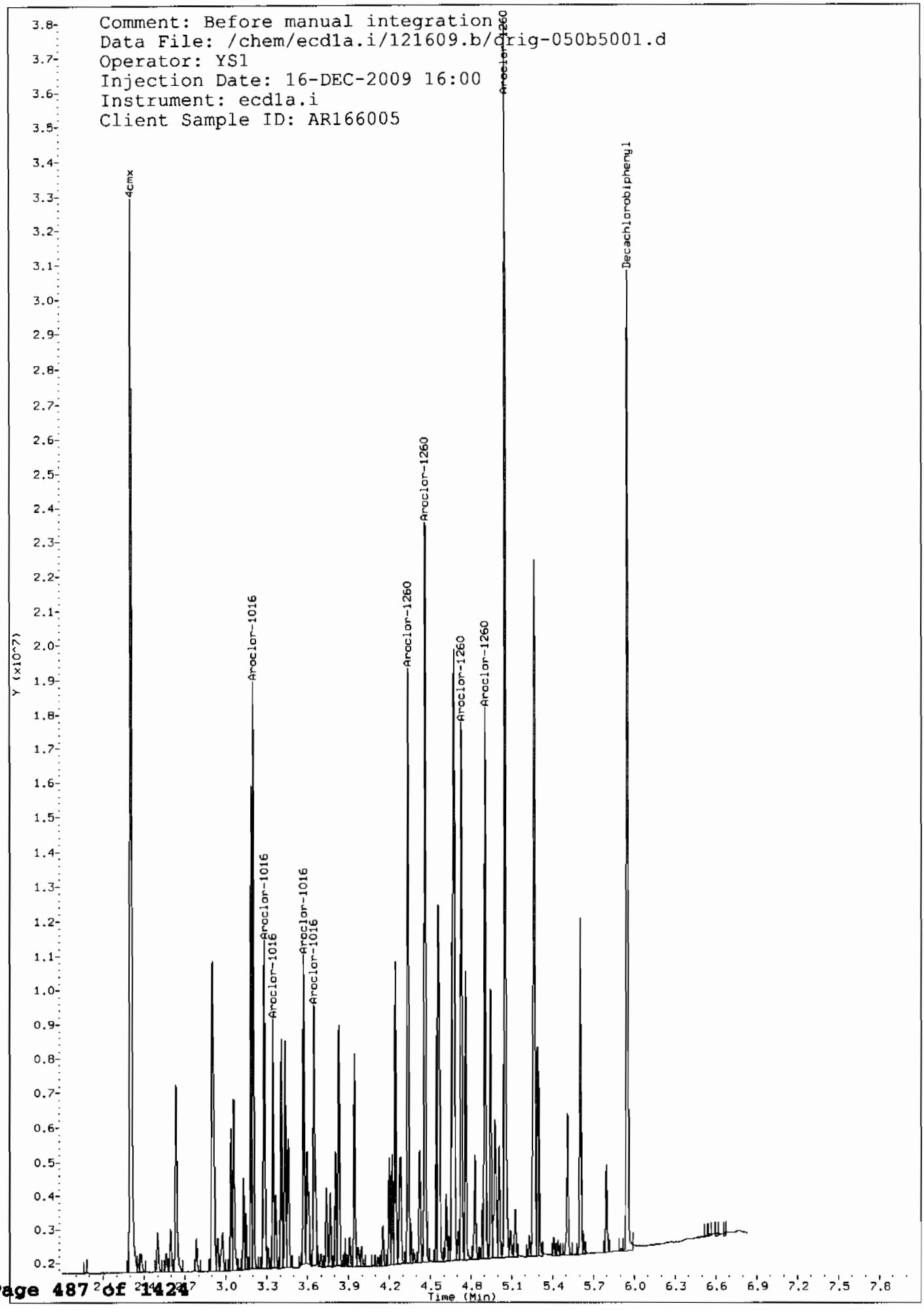
Comment: Before manual integration
Data File: /chem/ecd1a.i/121609.b/orig-050b5001.d
Operator: YS1
Injection Date: 16-DEC-2009 16:00
Instrument: ecd1a.i
Client Sample ID: AR166005
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/121609.b/062f6201.d
Lab Smp Id: WAR091211-60 06 Client Smp ID: AR166006
Inj Date : 16-DEC-2009 18:23
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR091211-60 06
Misc Info :
Comment :
Method : /chem/ecd1a.i/121609.b/ECD1-F-8082-121409.m
Meth Date : 17-Dec-2009 07:24 yip00818 Quant Type: ESTD
Cal Date : 14-DEC-2009 11:34 Cal File: 040f4001.d
Als bottle: 62 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.973	1.972	0.001	37393177	100.000	99.5	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.287	5.290	-0.003	32000962	100.000	101	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.429	2.430	-0.001	12394036	1000.00	894	80.00- 120.00	100.00
2.706	2.707	-0.001	10254172	1000.00	1020	62.73- 102.73	82.73
2.798	2.800	-0.002	10707281	1000.00	911	66.39- 106.39	86.39
2.837	2.837	0.000	6451324	1000.00	978	32.05- 72.05	52.05
3.047	3.048	-0.001	8202521	1000.00	946	46.18- 86.18	66.18
Average of Peak Amounts =					949		
7 Aroclor-1260					CAS #: 11096-82-5		
3.773	3.775	-0.002	16703466	1000.00	997	80.00- 120.00	100.00
3.937	3.938	-0.001	25828003	1000.00	1040	134.63- 174.63	154.63
4.167	4.168	-0.001	15347448	1000.00	1040	71.88- 111.88	91.88
4.310	4.312	-0.002	15947036	1000.00	1050	75.47- 115.47	95.47
4.489	4.491	-0.002	37170253	1000.00	1080	202.53- 242.53	222.53
Average of Peak Amounts =					1.04e+03		

Data File: /chem/ecd1a.i/121609.b/062f6201.d
Date : 16-DEC-2009 18:23
Client ID: AR166006
Sample Info: IWAR091211-60 06

Instrument: ecd1a.i
Operator: YS1
Column diameter: 0.25

Column phase: CLP1

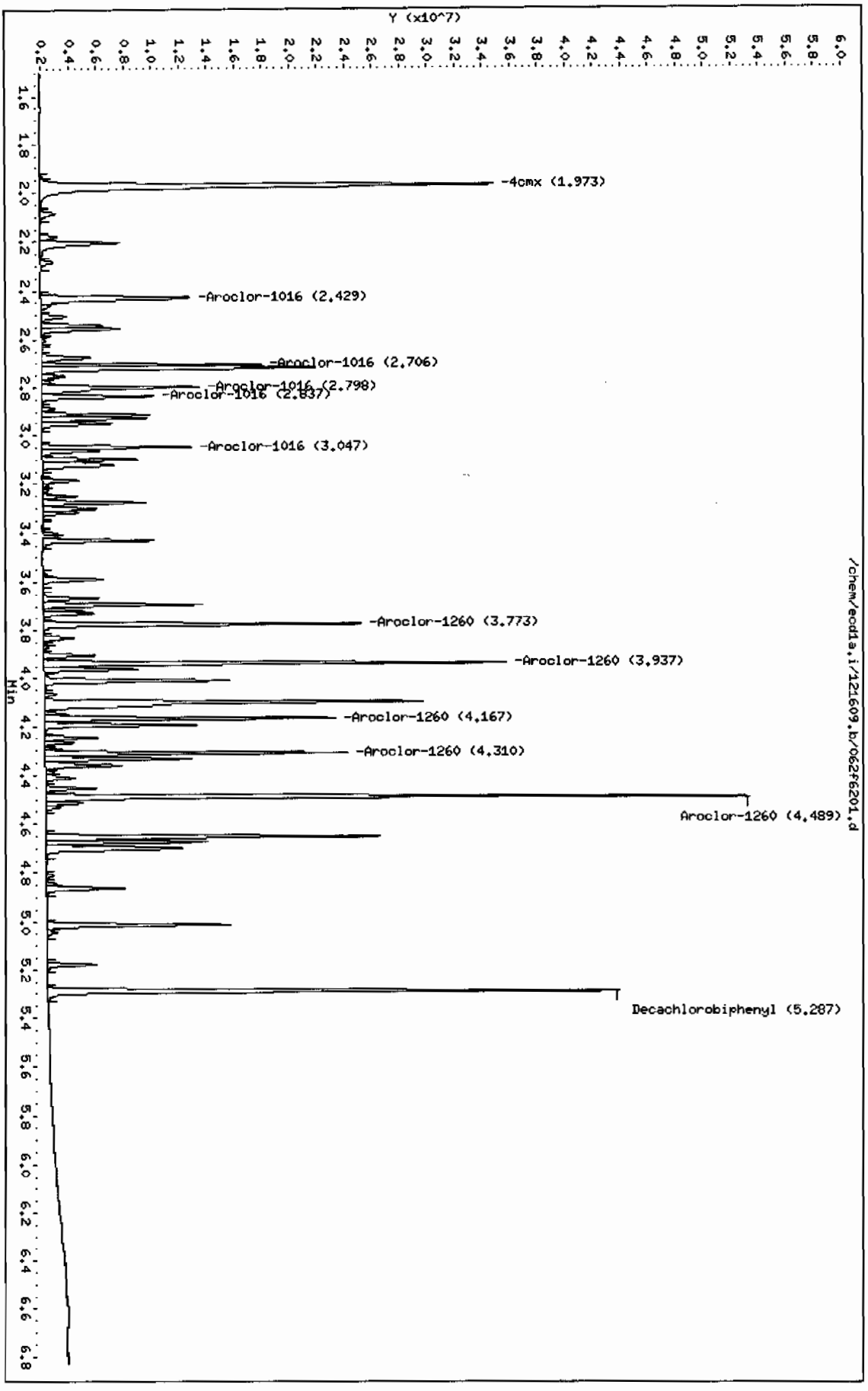

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GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/121609.b/062b6201.d
Lab Smp Id: WAR091211-60 06 Client Smp ID: AR166006
Inj Date : 16-DEC-2009 18:23
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR091211-60 06
Misc Info :
Comment :
Method : /chem/ecd1a.i/121609.b/ECD1-B-8082-121409.m
Meth Date : 17-Dec-2009 07:24 yip00818 Quant Type: ESTD
Cal Date : 14-DEC-2009 12:16 Cal File: 044b4401.d
Als bottle: 62 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.302	2.303	-0.001	28678932	100.000	95.6	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.949	5.950	-0.001	22978104	100.000	98.5	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.200	3.201	-0.001	12305259	1000.00	976	80.00- 120.00	100.00
3.282	3.283	-0.001	8093066	1000.00	868	45.77- 85.77	65.77
3.347	3.347	0.000	5040305	1000.00	931	20.96- 60.96	40.96
3.573	3.574	-0.001	6572321	1000.00	932	33.41- 73.41	53.41
3.649	3.650	-0.001	6083776	1000.00	929	29.44- 69.44	49.44
Average of Peak Amounts =					927		
7 Aroclor-1260					CAS #: 11096-82-5		
4.339	4.341	-0.002	12697285	1000.00	928	80.00- 120.00	100.00
4.464	4.465	-0.001	15734960	1000.00	982	103.92- 143.92	123.92
4.730	4.731	-0.001	11992577	1000.00	954	74.45- 114.45	94.45
4.904	4.905	-0.001	12265433	1000.00	957	76.60- 116.60	96.60
5.051	5.052	-0.001	28097085	1000.00	1010	201.28- 241.28	221.28
Average of Peak Amounts =					966		

Data File: /chem/ecd1a.i/121609.b/062b6201.d
Date : 16-DEC-2009 18:23
Client ID: AR166006
Sample Info: IWAR091211-60 06

Column phase: CLP2

Instrument: ecd1a.i
Operator: YS1
Column diameter: 0.25

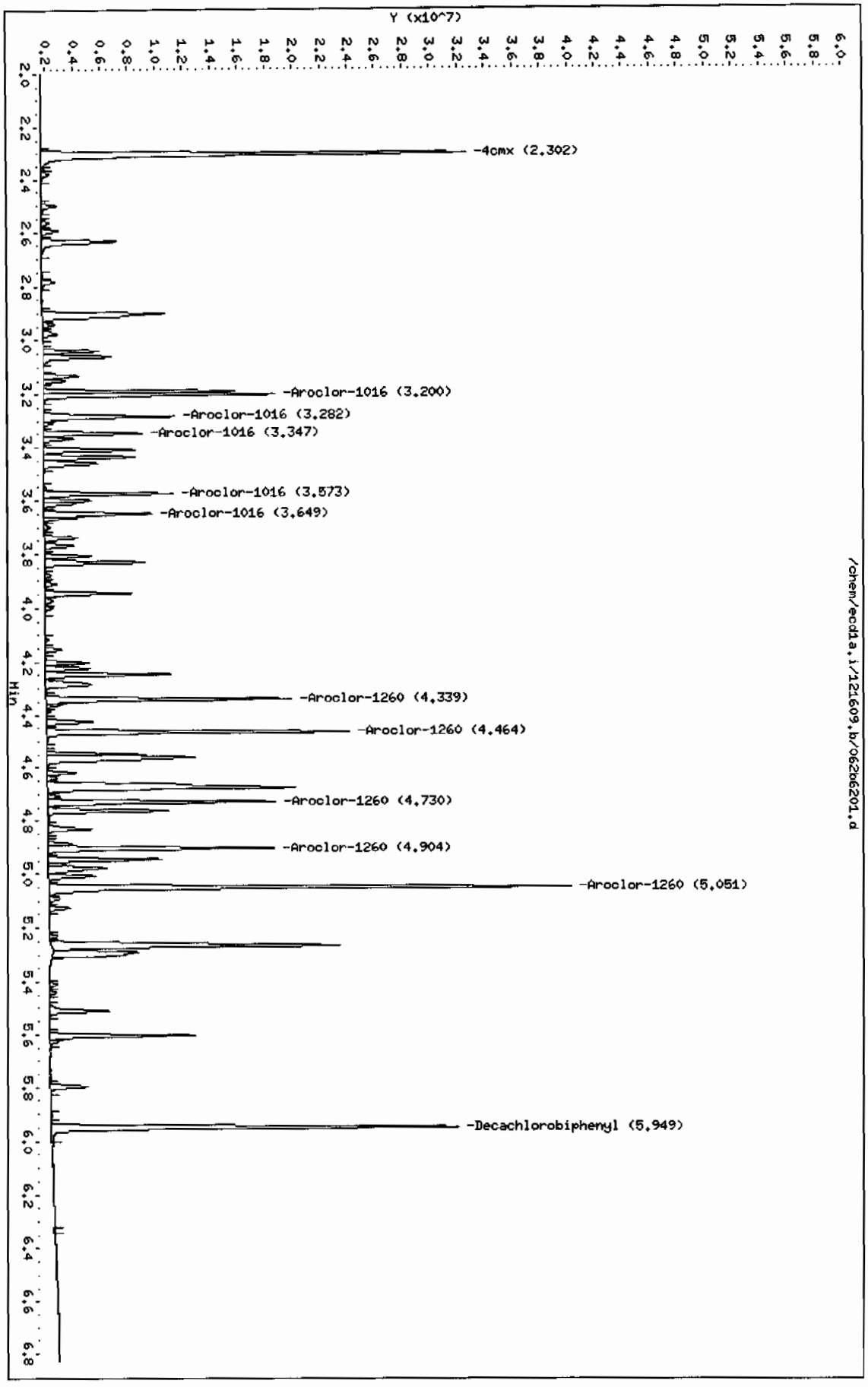

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8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-854

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 12/14/09 12/14/09

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 1.97 DCB: 5.29

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR091130-99	12/14/09	0444	1.97	5.29
02	ZZZZZ	ZZZZZ	12/14/09	0454	1.97	5.29
03	ZZZZZ	ZZZZZ	12/14/09	0505	1.97	5.29
04	ZZZZZ	ZZZZZ	12/14/09	0515	1.97	5.29
05	ZZZZZ	ZZZZZ	12/14/09	0526	1.97	5.29
06	AR123201	WAR090930-32	12/14/09	0536	1.97	5.29
07	AR122101	WAR090803-21	12/14/09	0547	1.97	5.29
08	AR126201	WAR090803-62	12/14/09	0558	1.97	5.29
09	ZZZZZ	ZZZZZ	12/14/09	0608	1.97	5.29
10	ZZZZZ	ZZZZZ	12/14/09	0619	1.97	5.29
11	ZZZZZ	ZZZZZ	12/14/09	0629	1.97	5.29
12	ZZZZZ	ZZZZZ	12/14/09	0640	1.97	5.29
13	ZZZZZ	ZZZZZ	12/14/09	0650	1.97	5.29
14	ZZZZZ	ZZZZZ	12/14/09	0701	1.97	5.29
15	ZZZZZ	ZZZZZ	12/14/09	0711	1.97	5.29
16	AR125401	WAR091214-05	12/14/09	0722	1.97	5.29
17	AR125402	WAR091214-06	12/14/09	0732	1.97	5.29
18	AR125403	WAR091214-07	12/14/09	0743	1.97	5.29
19	AR125401	WAR091214-08	12/14/09	0753	1.97	5.29
20	AR125405	IAR091027-01	12/14/09	0804	1.97	5.29
21	AR125401	WAR091102-54	12/14/09	0814	1.97	5.29
22	AR124201	WAR091214-09	12/14/09	0825	1.97	5.29
23	AR124202	WAR091214-10	12/14/09	0835	1.97	5.29
24	AR124203	WAR091214-11	12/14/09	0846	1.97	5.29
25	AR124204	WAR091214-12	12/14/09	0856	1.97	5.29
26	AR124205	IAR0911111-0	12/14/09	0907	1.97	5.29
27	AR124201	WAR091102-42	12/14/09	0917	1.97	5.29
28	AR124801	WAR091214-13	12/14/09	0928	1.97	5.29
29	AR124802	WAR091214-14	12/14/09	0938	1.97	5.29
30	AR124803	WAR091214-15	12/14/09	0949	1.97	5.29
31	AR124804	WAR091214-16	12/14/09	0959	1.97	5.29
32	AR124805	IAR091027-02	12/14/09	1010	1.97	5.29

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-854

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 12/14/09 12/14/09

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 1.97 DCB: 5.29

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	AR124801	WAR091027-48	12/14/09	1020	1.97	5.29
02	AR166001	WAR091214-01	12/14/09	1031	1.97	5.29
03	AR166002	WAR091214-02	12/14/09	1041	1.97	5.29
04	AR166003	WAR091214-03	12/14/09	1052	1.97	5.29
05	AR166004	WAR091214-04	12/14/09	1102	1.97	5.29
06	AR166005	IAR091102-01	12/14/09	1113	1.97	5.29
07	AR166001	WAR091211-60	12/14/09	1123	1.97	5.29
08	AR126801	WAR091214-17	12/14/09	1134	1.97	5.29
09	AR126802	WAR091214-18	12/14/09	1144	1.97	5.29
10	AR126803	WAR091214-19	12/14/09	1155	1.97	5.29
11	AR126804	WAR091214-20	12/14/09	1206	1.97	5.29
12	AR126805	IAR090817-02	12/14/09	1216	1.97	5.29
13	AR126801	WAR091106-68	12/14/09	1227	1.97	5.29
14	DDTANALOGSTD	WAR091020-DD	12/14/09	1237		
15	PIBLK02	WAR091130-99	12/14/09	1248	1.97	5.29
16	ZZZZZ	ZZZZZ	12/14/09	1258	1.97	5.29
17	ZZZZZ	ZZZZZ	12/14/09	1309	1.97	5.29
18	ZZZZZ	ZZZZZ	12/14/09	1319	1.97	5.29
19	ZZZZZ	ZZZZZ	12/14/09	1330	1.97	5.29
20	ZZZZZ	ZZZZZ	12/14/09	1340	1.97	5.29
21	ZZZZZ	ZZZZZ	12/14/09	1351	1.97	5.29
22	ZZZZZ	ZZZZZ	12/14/09	1403	1.97	5.29
23	ZZZZZ	ZZZZZ	12/14/09	1416	1.97	5.29
24	ZZZZZ	ZZZZZ	12/14/09	1429	1.97	5.29
25	ZZZZZ	ZZZZZ	12/14/09	1441	1.97	5.29
26	AR166002	WAR091211-60	12/14/09	1452	1.97	5.29
27	PIBLK03	WAR091130-99	12/14/09	1502	1.97	5.29
28	ZZZZZ	ZZZZZ	12/14/09	1513	1.97	5.29
29	ZZZZZ	ZZZZZ	12/14/09	1525	1.97	5.29
30	ZZZZZ	ZZZZZ	12/14/09	1538	1.97	5.29
31	ZZZZZ	ZZZZZ	12/14/09	1551	1.97	5.29
32	ZZZZZ	ZZZZZ	12/14/09	1603	1.97	5.27

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-854

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 12/14/09 12/14/09

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.30 DCB: 5.94

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR091130-99	12/14/09	0444	2.30	5.95
02	ZZZZZ	ZZZZZ	12/14/09	0454	2.30	5.94
03	ZZZZZ	ZZZZZ	12/14/09	0505	2.30	5.95
04	ZZZZZ	ZZZZZ	12/14/09	0515	2.30	5.95
05	ZZZZZ	ZZZZZ	12/14/09	0526	2.30	5.95
06	AR123201	WAR090930-32	12/14/09	0536	2.30	5.95
07	AR122101	WAR090803-21	12/14/09	0547	2.30	5.95
08	AR126201	WAR090803-62	12/14/09	0558	2.30	5.94
09	ZZZZZ	ZZZZZ	12/14/09	0608	2.30	5.94
10	ZZZZZ	ZZZZZ	12/14/09	0619	2.30	5.95
11	ZZZZZ	ZZZZZ	12/14/09	0629	2.30	5.94
12	ZZZZZ	ZZZZZ	12/14/09	0640	2.30	5.94
13	ZZZZZ	ZZZZZ	12/14/09	0650	2.30	5.95
14	ZZZZZ	ZZZZZ	12/14/09	0701	2.30	5.94
15	ZZZZZ	ZZZZZ	12/14/09	0711	2.30	5.95
16	AR125401	WAR091214-05	12/14/09	0722	2.30	5.94
17	AR125402	WAR091214-06	12/14/09	0732	2.30	5.94
18	AR125403	WAR091214-07	12/14/09	0743	2.30	5.94
19	AR125401	WAR091214-08	12/14/09	0753	2.30	5.94
20	AR125405	IAR091027-01	12/14/09	0804	2.30	5.95
21	AR125401	WAR091102-54	12/14/09	0814	2.30	5.94
22	AR124201	WAR091214-09	12/14/09	0825	2.30	5.94
23	AR124202	WAR091214-10	12/14/09	0835	2.30	5.94
24	AR124203	WAR091214-11	12/14/09	0846	2.30	5.94
25	AR124204	WAR091214-12	12/14/09	0856	2.30	5.94
26	AR124205	IAR0911111-0	12/14/09	0907	2.30	5.94
27	AR124201	WAR091102-42	12/14/09	0917	2.30	5.94
28	AR124801	WAR091214-13	12/14/09	0928	2.30	5.94
29	AR124802	WAR091214-14	12/14/09	0938	2.30	5.94
30	AR124803	WAR091214-15	12/14/09	0949	2.30	5.94
31	AR124804	WAR091214-16	12/14/09	0959	2.30	5.94
32	AR124805	IAR091027-02	12/14/09	1010	2.30	5.94

QC LIMITS
S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-854

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 12/14/09 12/14/09

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.30 DCB: 5.94

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	AR124801	WAR091027-48	12/14/09	1020	2.30	5.95
02	AR166001	WAR091214-01	12/14/09	1031	2.30	5.94
03	AR166002	WAR091214-02	12/14/09	1041	2.30	5.94
04	AR166003	WAR091214-03	12/14/09	1052	2.30	5.94
05	AR166004	WAR091214-04	12/14/09	1102	2.30	5.94
06	AR166005	IAR091102-01	12/14/09	1113	2.30	5.94
07	AR166001	WAR091211-60	12/14/09	1123	2.30	5.94
08	AR126801	WAR091214-17	12/14/09	1134	2.30	5.95
09	AR126802	WAR091214-18	12/14/09	1144	2.30	5.94
10	AR126803	WAR091214-19	12/14/09	1155	2.30	5.94
11	AR126804	WAR091214-20	12/14/09	1206	2.30	5.94
12	AR126805	IAR090817-02	12/14/09	1216	2.30	5.94
13	AR126801	WAR091106-68	12/14/09	1227	2.30	5.94
14	DDTANALOGSTD	WAR091020-DD	12/14/09	1237		
15	PIBLK02	WAR091130-99	12/14/09	1248	2.30	5.94
16	ZZZZZ	ZZZZZ	12/14/09	1258	2.30	5.94
17	ZZZZZ	ZZZZZ	12/14/09	1309	2.30	5.94
18	ZZZZZ	ZZZZZ	12/14/09	1319	2.30	5.94
19	ZZZZZ	ZZZZZ	12/14/09	1330	2.30	5.94
20	ZZZZZ	ZZZZZ	12/14/09	1340	2.30	5.94
21	ZZZZZ	ZZZZZ	12/14/09	1351	2.30	5.94
22	ZZZZZ	ZZZZZ	12/14/09	1403	2.30	5.94
23	ZZZZZ	ZZZZZ	12/14/09	1416	2.30	5.94
24	ZZZZZ	ZZZZZ	12/14/09	1429	2.30	5.94
25	ZZZZZ	ZZZZZ	12/14/09	1441	2.30	5.94
26	AR166002	WAR091211-60	12/14/09	1452	2.30	5.94
27	PIBLK03	WAR091130-99	12/14/09	1502	2.30	5.94
28	ZZZZZ	ZZZZZ	12/14/09	1513	2.30	5.94
29	ZZZZZ	ZZZZZ	12/14/09	1525	2.30	5.94
30	ZZZZZ	ZZZZZ	12/14/09	1538	2.30	5.94
31	ZZZZZ	ZZZZZ	12/14/09	1551	2.30	5.94
32	ZZZZZ	ZZZZZ	12/14/09	1603	2.30	5.94

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-854

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 12/14/09 12/14/09

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 1.97 DCB: 5.29

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR091130-99	12/16/09	0628	1.97	5.29
02	AR166001	WAR091211-60	12/16/09	0639	1.97	5.29
03	ZZZZZ	ZZZZZ	12/16/09	0649	1.97	5.29
04	AR124201	WAR091102-42	12/16/09	0700	1.97	5.29
05	AR124801	WAR091027-48	12/16/09	0710	1.97	5.29
06	AR123201	WAR090930-32	12/16/09	0721	1.97	5.29
07	ZZZZZ	ZZZZZ	12/16/09	0731	1.97	5.29
08	AR122101	WAR090803-21	12/16/09	0742	1.97	5.29
09	AR126201	WAR090803-62	12/16/09	0752	1.97	5.29
10	AR126801	WAR091106-68	12/16/09	0803	1.97	5.29
11	AR125401	WAR091216-54	12/16/09	0813	1.97	5.29
12	DDTANALOGSTD	WAR091020-DD	12/16/09	0824		
13	PIBLK02	WAR091130-99	12/16/09	0834	1.97	5.29
14	ZZZZZ	ZZZZZ	12/16/09	0846	1.97	5.29
15	ZZZZZ	ZZZZZ	12/16/09	0857	1.97	5.29
16	ZZZZZ	ZZZZZ	12/16/09	0909	1.97	5.29
17	ZZZZZ	ZZZZZ	12/16/09	0920	1.97	5.29
18	ZZZZZ	ZZZZZ	12/16/09	0930	1.97	5.29
19	ZZZZZ	ZZZZZ	12/16/09	0943	1.97	5.29
20	ZZZZZ	ZZZZZ	12/16/09	0955	1.97	5.29
21	ZZZZZ	ZZZZZ	12/16/09	1008	1.97	5.29
22	ZZZZZ	ZZZZZ	12/16/09	1021	1.97	5.29
23	ZZZZZ	ZZZZZ	12/16/09	1033	1.97	5.29
24	AR166002	WAR091211-60	12/16/09	1046	1.97	5.29
25	PIBLK03	WAR091130-99	12/16/09	1056	1.97	5.29
26	ZZZZZ	ZZZZZ	12/16/09	1107	1.97	5.29
27	ZZZZZ	ZZZZZ	12/16/09	1119	1.97	5.29
28	ZZZZZ	ZZZZZ	12/16/09	1132	1.97	5.29
29	ZZZZZ	ZZZZZ	12/16/09	1144	1.97	5.29
30	ZZZZZ	ZZZZZ	12/16/09	1157		
31	ZZZZZ	ZZZZZ	12/16/09	1209	1.97	5.29
32	ZZZZZ	ZZZZZ	12/16/09	1222	1.97	5.29

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-854

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 12/14/09 12/14/09

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 1.97 DCB: 5.29

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	ZZZZZ	ZZZZZ	12/16/09	1235	1.97	5.29
02	ZZZZZ	ZZZZZ	12/16/09	1247	1.97	5.29
03	ZZZZZ	ZZZZZ	12/16/09	1300	1.97	5.29
04	AR166003	WAR091211-60	12/16/09	1312	1.97	5.29
05	PIBLK04	WAR091130-99	12/16/09	1323	1.97	5.29
06	ZZZZZ	ZZZZZ	12/16/09	1333	1.97	5.29
07	ZZZZZ	ZZZZZ	12/16/09	1346	1.97	5.29
08	AR166004	WAR091211-60	12/16/09	1358	1.97	5.29
09	PIBLK05	WAR091130-99	12/16/09	1409	1.97	5.29
10	ZZZZZ	ZZZZZ	12/16/09	1419	1.97	5.29
11	ZZZZZ	ZZZZZ	12/16/09	1432	1.97	5.29
12	ZZZZZ	ZZZZZ	12/16/09	1444	1.97	5.29
13	ZZZZZ	ZZZZZ	12/16/09	1457	1.97	5.29
14	ZZZZZ	ZZZZZ	12/16/09	1510	1.97	5.29
15	ZZZZZ	ZZZZZ	12/16/09	1522	1.97	5.29
16	ZZZZZ	ZZZZZ	12/16/09	1535	1.97	5.29
17	ZZZZZ	ZZZZZ	12/16/09	1548	1.97	5.29
18	AR166005	WAR091211-60	12/16/09	1600	1.97	5.29
19	PIBLK06	WAR091130-99	12/16/09	1611	1.97	5.29
20	PBLK01	1201996856	12/16/09	1621	1.97	5.29
21	PBLK01LCS	1201996857	12/16/09	1632	1.97	5.29
22	ZZZZZ	ZZZZZ	12/16/09	1642	1.97	5.29
23	ZZZZZ	ZZZZZ	12/16/09	1655	1.97	5.29
24	ZZZZZ	ZZZZZ	12/16/09	1708	1.97	5.29
25	ZZZZZ	ZZZZZ	12/16/09	1720	1.97	5.29
26	ZZZZZ	ZZZZZ	12/16/09	1733	1.97	5.29
27	ZZZZZ	ZZZZZ	12/16/09	1745	1.97	5.29
28	RE03-10-2741	242668001	12/16/09	1758	1.97	5.29
29	RE03-10-2740	242668002	12/16/09	1811	1.97	5.29
30	AR166006	WAR091211-60	12/16/09	1823	1.97	5.29
31	PIBLK07	WAR091130-99	12/16/09	1834	1.97	5.29
32	ZZZZZ	ZZZZZ	12/16/09	1844	1.97	5.29

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-854

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 12/14/09 12/14/09

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.30 DCB: 5.95

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR091130-99	12/16/09	0628	2.30	5.95
02	AR166001	WAR091211-60	12/16/09	0639	2.30	5.95
03	ZZZZZ	ZZZZZ	12/16/09	0649	2.30	5.95
04	AR124201	WAR091102-42	12/16/09	0700	2.30	5.95
05	AR124801	WAR091027-48	12/16/09	0710	2.30	5.95
06	AR123201	WAR090930-32	12/16/09	0721	2.30	5.95
07	ZZZZZ	ZZZZZ	12/16/09	0731	2.30	5.95
08	AR122101	WAR090803-21	12/16/09	0742	2.30	5.95
09	AR126201	WAR090803-62	12/16/09	0752	2.30	5.95
10	AR126801	WAR091106-68	12/16/09	0803	2.30	5.95
11	AR125401	WAR091216-54	12/16/09	0813	2.30	5.95
12	DDTANALOGSTD	WAR091020-DD	12/16/09	0824		
13	PIBLK02	WAR091130-99	12/16/09	0834	2.30	5.95
14	ZZZZZ	ZZZZZ	12/16/09	0846	2.30	5.95
15	ZZZZZ	ZZZZZ	12/16/09	0857	2.30	5.95
16	ZZZZZ	ZZZZZ	12/16/09	0909	2.30	5.95
17	ZZZZZ	ZZZZZ	12/16/09	0920	2.30	5.95
18	ZZZZZ	ZZZZZ	12/16/09	0930	2.30	5.95
19	ZZZZZ	ZZZZZ	12/16/09	0943	2.30	5.95
20	ZZZZZ	ZZZZZ	12/16/09	0955	2.30	5.95
21	ZZZZZ	ZZZZZ	12/16/09	1008	2.30	5.95
22	ZZZZZ	ZZZZZ	12/16/09	1021	2.30	5.95
23	ZZZZZ	ZZZZZ	12/16/09	1033	2.30	5.95
24	AR166002	WAR091211-60	12/16/09	1046	2.30	5.95
25	PIBLK03	WAR091130-99	12/16/09	1056	2.30	5.95
26	ZZZZZ	ZZZZZ	12/16/09	1107	2.30	5.95
27	ZZZZZ	ZZZZZ	12/16/09	1119	2.30	5.95
28	ZZZZZ	ZZZZZ	12/16/09	1132	2.30	5.95
29	ZZZZZ	ZZZZZ	12/16/09	1144	2.30	5.95
30	ZZZZZ	ZZZZZ	12/16/09	1157		
31	ZZZZZ	ZZZZZ	12/16/09	1209	2.30	5.95
32	ZZZZZ	ZZZZZ	12/16/09	1222	2.30	5.95

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-854

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 12/14/09 12/14/09

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.30 DCB: 5.95

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	ZZZZZ	ZZZZZ	12/16/09	1235	2.30	5.95
02	ZZZZZ	ZZZZZ	12/16/09	1247	2.30	5.95
03	ZZZZZ	ZZZZZ	12/16/09	1300	2.30	5.95
04	AR16003	WAR091211-60	12/16/09	1312	2.30	5.95
05	PIBLK04	WAR091130-99	12/16/09	1323	2.30	5.95
06	ZZZZZ	ZZZZZ	12/16/09	1333	2.30	5.95
07	ZZZZZ	ZZZZZ	12/16/09	1346	2.30	5.95
08	AR166004	WAR091211-60	12/16/09	1358	2.30	5.95
09	PIBLK05	WAR091130-99	12/16/09	1409	2.30	5.95
10	ZZZZZ	ZZZZZ	12/16/09	1419	2.30	5.95
11	ZZZZZ	ZZZZZ	12/16/09	1432	2.30	5.95
12	ZZZZZ	ZZZZZ	12/16/09	1444	2.30	5.95
13	ZZZZZ	ZZZZZ	12/16/09	1457	2.30	5.95
14	ZZZZZ	ZZZZZ	12/16/09	1510	2.30	5.95
15	ZZZZZ	ZZZZZ	12/16/09	1522	2.30	5.95
16	ZZZZZ	ZZZZZ	12/16/09	1535	2.30	5.95
17	ZZZZZ	ZZZZZ	12/16/09	1548	2.30	5.95
18	AR166005	WAR091211-60	12/16/09	1600	2.30	5.95
19	PIBLK06	WAR091130-99	12/16/09	1611	2.30	5.95
20	PIBLK01	1201996856	12/16/09	1621	2.30	5.95
21	PBLK01LCS	1201996857	12/16/09	1632	2.30	5.95
22	ZZZZZ	ZZZZZ	12/16/09	1642	2.30	5.95
23	ZZZZZ	ZZZZZ	12/16/09	1655	2.30	5.95
24	ZZZZZ	ZZZZZ	12/16/09	1708	2.30	5.95
25	ZZZZZ	ZZZZZ	12/16/09	1720	2.30	5.95
26	ZZZZZ	ZZZZZ	12/16/09	1733	2.30	5.95
27	ZZZZZ	ZZZZZ	12/16/09	1745	2.30	5.95
28	RE03-10-2741	242668001	12/16/09	1758	2.30	5.95
29	RE03-10-2740	242668002	12/16/09	1811	2.30	5.95
30	AR166006	WAR091211-60	12/16/09	1823	2.30	5.95
31	PIBLK07	WAR091130-99	12/16/09	1834	2.30	5.95
32	ZZZZZ	ZZZZZ	12/16/09	1844	2.30	5.95

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

Identification Summary

SDG Number: 10–854 **Client ID:** RE03–10–2741

Lab Sample ID: 242668001

Data File:	060f6001.d	**Data File:**	060b6001.d
Inst:	ECD1A.I_1	**Inst:**	ECD1A.I_2
Column:	CLP1	**Column:**	CLP2
Analyzed:	16–DEC–09 17:58	**Analyzed:**	16–DEC–09 17:58

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor–1260							6.08
Column 1	1	3.77	3.74 – 3.8	3.69		ug/kg	
	2	3.93	3.91 – 3.97	2.52		ug/kg	
	3	4.17	4.14 – 4.2	2.3		ug/kg	
	4	4.31	4.28 – 4.34	2.36		ug/kg	
	5	4.49	4.46 – 4.52	2.29		ug/kg	
					2.63		
Column 2	1	4.34	4.31 – 4.37	3.34		ug/kg	
	2	4.46	4.43 – 4.49	2.41		ug/kg	
	3	4.73	4.7 – 4.76	2.62		ug/kg	
	4	4.9	4.87 – 4.93	2.46		ug/kg	
	5	5.05	5.02 – 5.08	3.15		ug/kg	
					2.8		

Identification Summary

SDG Number: 10–854 **Client ID:** LCS for batch 933337

Lab Sample ID: 1201996857

Data File:	053f5301.d	**Data File:**	053b5301.d
Inst:	ECD1A.I_1	**Inst:**	ECD1A.I_2
Column:	CLP1	**Column:**	CLP2
Analyzed:	16–DEC–09 16:32	**Analyzed:**	16–DEC–09 16:32

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor–1016							2.63
Column 1	1	2.43	2.4 – 2.46	28.2		ug/kg	
	2	2.71	2.68 – 2.74	31.3		ug/kg	
	3	2.8	2.77 – 2.83	28.2		ug/kg	
	4	2.84	2.81 – 2.87	30.6		ug/kg	
	5	3.05	3.02 – 3.08	30.1		ug/kg	
					29.7		
Column 2	1	3.2	3.17 – 3.23	30.7		ug/kg	
	2	3.28	3.25 – 3.31	27.4		ug/kg	
	3	3.35	3.32 – 3.38	28.7		ug/kg	
	4	3.57	3.54 – 3.6	28.6		ug/kg	
	5	3.65	3.62 – 3.68	29.2		ug/kg	
					28.9		
Aroclor–1260							7.2
Column 1	1	3.78	3.74 – 3.8	34.1		ug/kg	
	2	3.94	3.91 – 3.97	36		ug/kg	
	3	4.17	4.14 – 4.2	36.4		ug/kg	
	4	4.31	4.28 – 4.34	36.1		ug/kg	
	5	4.49	4.46 – 4.52	37.5		ug/kg	
					36		
Column 2	1	4.34	4.31 – 4.37	31.6		ug/kg	
	2	4.46	4.43 – 4.49	33.8		ug/kg	
	3	4.73	4.7 – 4.76	33.1		ug/kg	
	4	4.9	4.87 – 4.93	33.6		ug/kg	
	5	5.05	5.02 – 5.08	35.5		ug/kg	
					33.5		

QUALITY CONTROL DATA

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10-854			**Matrix:**	SOIL
Lab Sample ID:	1201996856				
Client Sample:	QC for batch 933337	**Client:**	LANL010	**Project:**	QC
Client ID:	MB for batch 933337	**Method:**	SW846 8082	**SOP Ref:**	GL-OA-E-040
Batch ID:	933342	**Inst:**	ECD1A.I	**Dilution:**	1
Run Date:	12/16/2009 16:21	**Analyst:**	YS1	**Inj. Vol:**	1 uL
Prep Date:	12/15/2009 20:23	**Aliquot:**	30 g	**Final Volume:**	1 mL
Data File:	052f5201-1.d	**Column:**	1 CLP1	**Level:**	LOW
	052b5201-1.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.33	ug/kg	1.11	3.33	1
11104-28-2	Aroclor-1221	U	3.33	ug/kg	1.11	3.33	1
11141-16-5	Aroclor-1232	U	3.33	ug/kg	1.11	3.33	1
53469-21-9	Aroclor-1242	U	3.33	ug/kg	1.11	3.33	1
12672-29-6	Aroclor-1248	U	3.33	ug/kg	1.11	3.33	1
11097-69-1	Aroclor-1254	U	3.33	ug/kg	1.11	3.33	1
11096-82-5	Aroclor-1260	U	3.33	ug/kg	1.11	3.33	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/121609.b/052f5201-4.d
Lab Smp Id: 1201996856 Client Smp ID: PBLK01
Inj Date : 16-DEC-2009 16:21
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1201996856|1|
Misc Info : |ECD82P_1S|933342|SVAF|QC A|SOIL|MB|||
Comment :
Method : /chem/ecd1a.i/121609.b/ECD1-F-8082-121409.m
Meth Date : 17-Dec-2009 07:29 yip00818 Quant Type: ESTD
Cal Date : 14-DEC-2009 11:34 Cal File: 040f4001.d
Als bottle: 52 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-854.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.974	1.972	0.002	61953843	164.916	5.5	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.289	5.290	-0.001	55317071	174.205	5.8	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/121609.b/052f5201-4.d

Date : 16-DEC-2009 16:21

Client ID: PBLK01

Sample Info: |120199685611|

Volume Injected (uL): 1.0

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

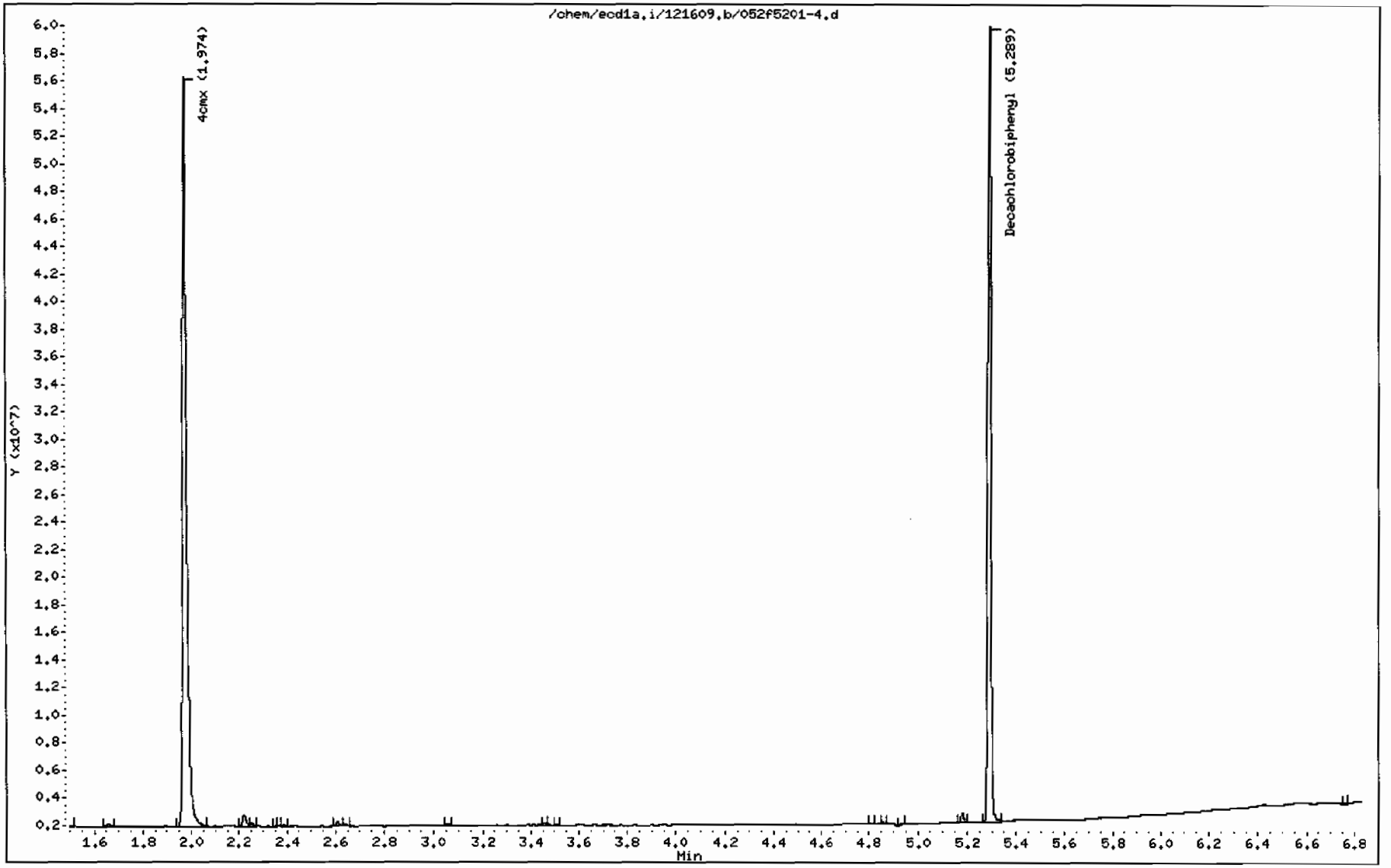

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/121609.b/052b5201-4.d
Lab Smp Id: 1201996856 Client Smp ID: PBLK01
Inj Date : 16-DEC-2009 16:21
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1201996856|1|
Misc Info : |ECD82P_1S|933342|SVAF|QC A|SOIL|MB|||
Comment :
Method : /chem/ecd1a.i/121609.b/ECD1-B-8082-121409.m
Meth Date : 17-Dec-2009 07:29 yip00818 Quant Type: ESTD
Cal Date : 14-DEC-2009 12:16 Cal File: 044b4401.d
Als bottle: 52 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-854.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.304	2.303	0.001	47696650	158.975	5.3	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.950	5.950	0.000	38829921	166.490	5.5	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/121609.b/052b5201-4.d
Date : 16-DEC-2009 16:21
Client ID: PBLK01
Sample Info: |120199685611|
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd1a.i
Operator: YS1
Column diameter: 0.25

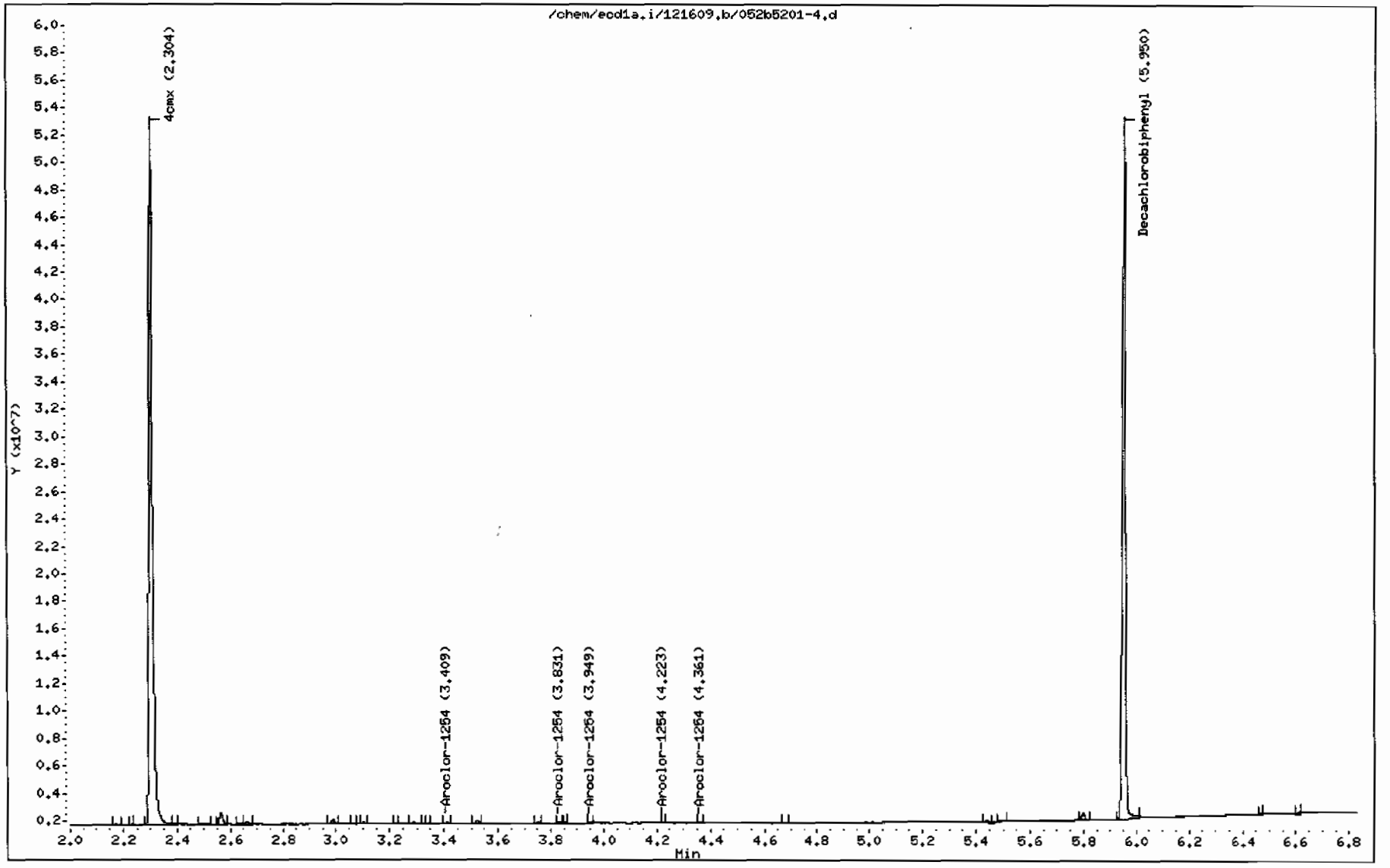

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–854**			**Matrix:**	**SOIL**
Lab Sample ID:	**1201996857**				
Client Sample:	**QC for batch 933337**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 933337**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**933342**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**12/16/2009 16:32**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**12/15/2009 20:23**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**053f5301–1.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	053b5301–1.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016		29.7	ug/kg	1.11	3.33	1
11104–28–2	Aroclor–1221	U	3.33	ug/kg	1.11	3.33	1
11141–16–5	Aroclor–1232	U	3.33	ug/kg	1.11	3.33	1
53469–21–9	Aroclor–1242	U	3.33	ug/kg	1.11	3.33	1
12672–29–6	Aroclor–1248	U	3.33	ug/kg	1.11	3.33	1
11097–69–1	Aroclor–1254	U	3.33	ug/kg	1.11	3.33	1
11096–82–5	Aroclor–1260		36.0	ug/kg	1.11	3.33	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/121609.b/053f5301-4.d
Lab Smp Id: 1201996857 Client Smp ID: PBLK01LCS
Inj Date : 16-DEC-2009 16:32
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1201996857|1|
Misc Info : |ECD82P_1S|933342|SVAF|QC A|SOIL|LCS|||
Comment :
Method : /chem/ecd1a.i/121609.b/ECD1-F-8082-121409.m
Meth Date : 17-Dec-2009 07:29 yip00818 Quant Type: ESTD
Cal Date : 14-DEC-2009 11:34 Cal File: 040f4001.d
Als bottle: 53 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-854.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.973	1.972	0.001	63302343	168.505	5.6	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.289	5.290	-0.001	57219860	180.197	6.0	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.429	2.430	-0.001	11732294	846.067	28.2	80.00- 120.00	100.00
2.708	2.707	0.001	9479712	938.797	31.3	63.95- 103.95	80.80
2.800	2.800	0.000	9943463	845.747	28.2	66.26- 106.26	84.75
2.838	2.837	0.001	6055256	917.601	30.6	32.06- 72.06	51.61

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
1 Aroclor-1016 (continued)							
3.048	3.048	0.000	7827734	902.499	30.1	47.49- 87.49	66.72
Average of Peak Concentrations =					29.7		
7 Aroclor-1260					CAS #: 11096-82-5		
3.775	3.775	0.000	17144477	1023.42	34.1	80.00- 120.00	100.00
3.938	3.938	0.000	26700172	1079.12	36.0	134.58- 174.58	155.74
4.168	4.168	0.000	16049372	1092.73	36.4	72.46- 112.46	93.61
4.311	4.312	-0.001	16457392	1083.83	36.1	76.67- 116.67	95.99
4.489	4.491	-0.002	38652968	1125.25	37.5	204.79- 244.79	225.45
Average of Peak Concentrations =					36.0		

Data File: /chem/ecdia.i/121609.b/053F5301-4.d
Date : 16-DEC-2009 16:32
Client ID: PBLK01LCS
Sample Info: 1120199685711
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecdia.i
Operator: YS1
Column diameter: 0.25

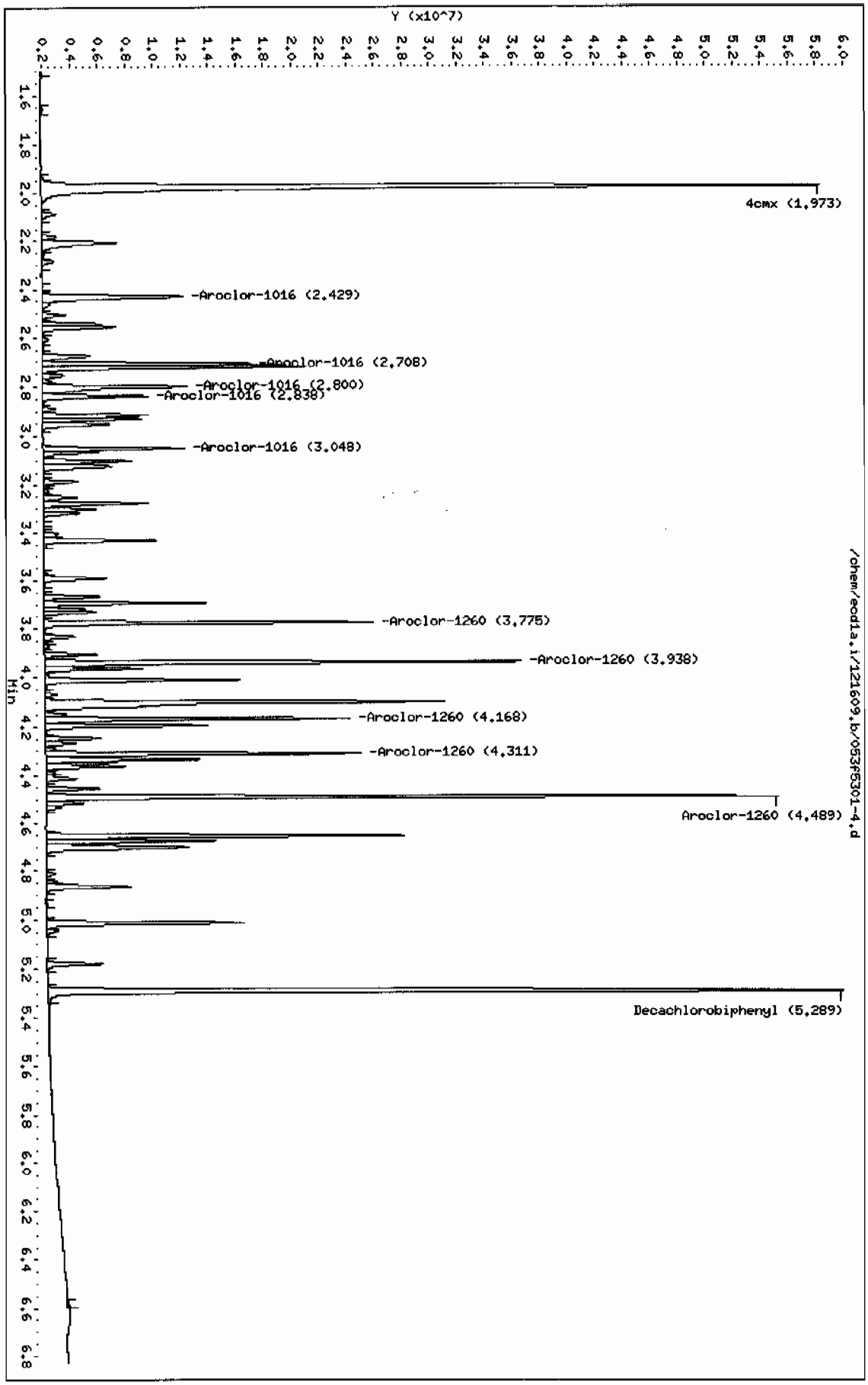

Page 1

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/121609.b/053b5301-4.d
Lab Smp Id: 1201996857 Client Smp ID: PBLK01LCS
Inj Date : 16-DEC-2009 16:32
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1201996857|1|
Misc Info : |ECD82P_1S|933342|SVAF|QC A|SOIL|LCS|||
Comment :
Method : /chem/ecd1a.i/121609.b/ECD1-B-8082-121409.m
Meth Date : 17-Dec-2009 07:29 yip00818 Quant Type: ESTD
Cal Date : 14-DEC-2009 12:16 Cal File: 044b4401.d
Als bottle: 53 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-854.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.303	2.303	0.000	48118607	160.382	5.3	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.950	5.950	0.000	39380522	168.851	5.6	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.201	3.201	0.000	11605040	920.192	30.7	80.00- 120.00	100.00(M)
3.284	3.283	0.001	7657464	820.923	27.4	47.27- 87.27	65.98
3.348	3.347	0.001	4661726	861.477	28.7	21.95- 61.95	40.17
3.574	3.574	0.000	6046017	857.363	28.6	35.11- 75.11	52.10

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
1 Aroclor-1016 (continued)							
3.650	3.650	0.000	5731967	875.012	29.2	31.28- 71.28	49.39
Average of Peak Concentrations =					28.9		
7 Aroclor-1260					CAS #: 11096-82-5		
4.340	4.341	-0.001	12967113	947.886	31.6	80.00- 120.00	100.00
4.464	4.465	-0.001	16271686	1015.14	33.8	103.29- 143.29	125.48
4.731	4.731	0.000	12459999	991.728	33.0	74.88- 114.88	96.09
4.904	4.905	-0.001	12930533	1009.40	33.6	77.49- 117.49	99.72
5.052	5.052	0.000	29704799	1064.78	35.5	203.67- 243.67	229.08
Average of Peak Concentrations =					33.5		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd1a.i/121609.b/053b5301-4.d

Date : 16-DEC-2009 16:32

Client ID: PBLK01LCS

Sample Info: |120199685711|

Volume Injected (uL): 1.0

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

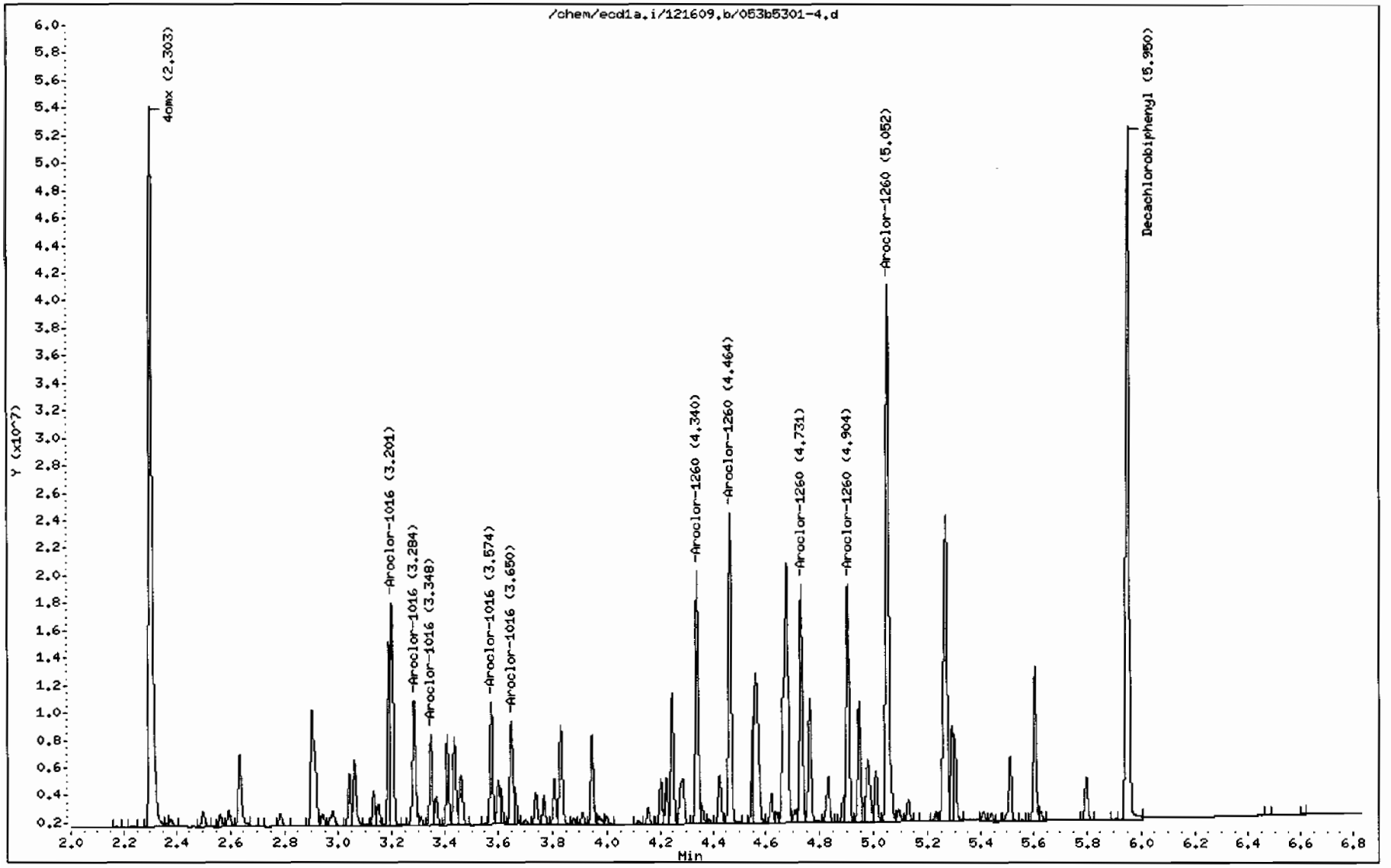

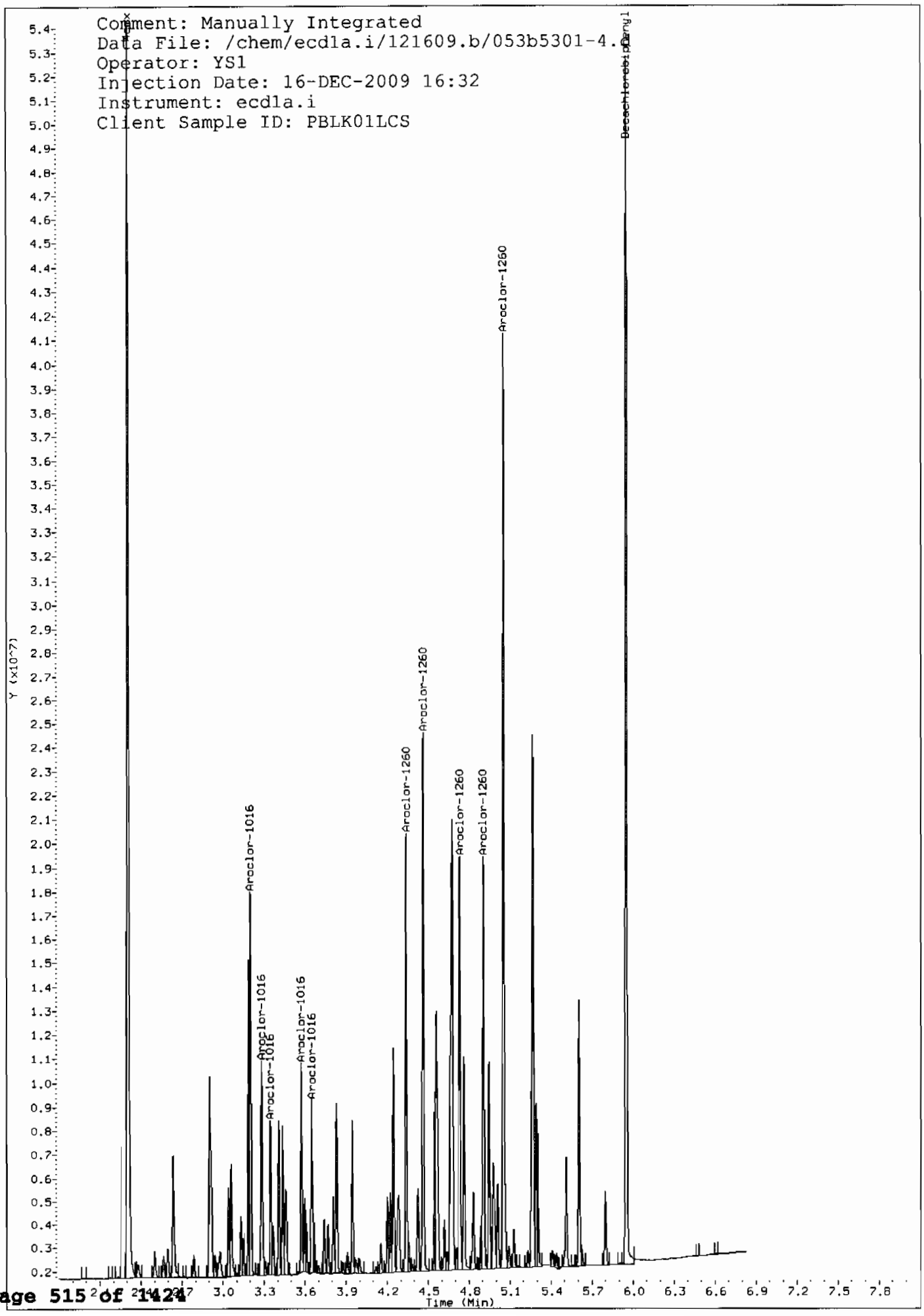
Comment: Manually Integrated
Data File: /chem/ecd1a.i/121609.b/053b5301-4.d
Operator: YS1
Injection Date: 16-DEC-2009 16:32
Instrument: ecd1a.i
Client Sample ID: PBLK01LCS
Decachlorobiphenyl
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1016
Aroclor-1016
Aroclor-1016
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Aroclor-1016
Y (x10^7)
Time (Min)

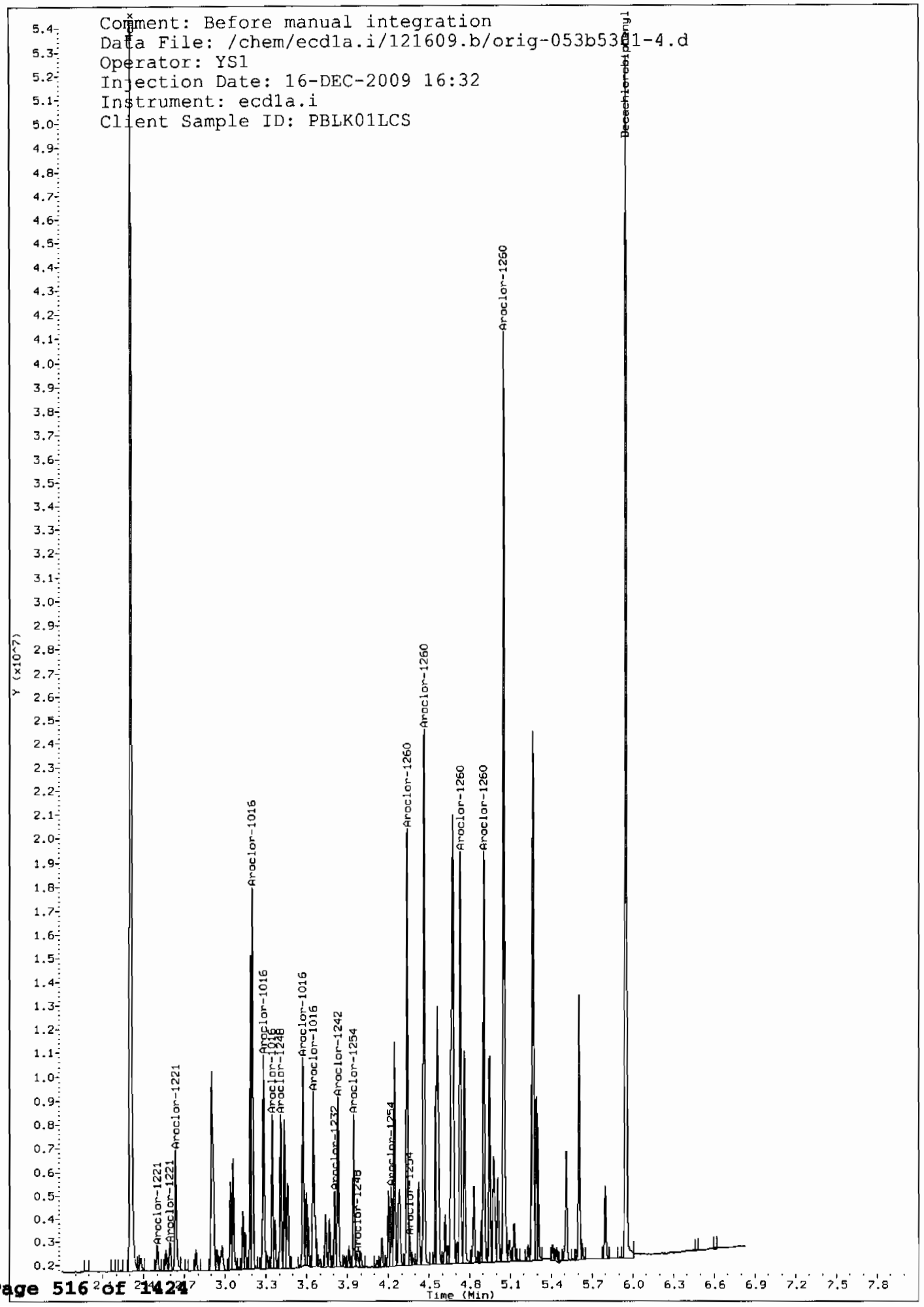
Comment: Before manual integration
Data File: /chem/ecd1a.i/121609.b/orig-053b5301-4.d
Operator: YS1
Injection Date: 16-DEC-2009 16:32
Instrument: ecd1a.i
Client Sample ID: PBLK01LCS
Decachlorobiphenyl
Aroclor-1260
Aroclor-1016
Aroclor-1221
Aroclor-1248
Aroclor-1242
Aroclor-1254
Y (x10^7)
Time (Min)

MISCELLANEOUS DATA

GEL ORGANIC RUN LOG INSTRUMENT ID: ECD1

DATE: 12/15/2009 METHOD: ECD1-F-8082-121409.m OPERATOR:YS1 REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1

SOLVENT LOT DA385
ALUMINA LOT 1230997-A
COPPER LOT 236547-A

Calibration & QC Information
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.
GEL SOP GL-OA-E-040 Polychlorinated Biphenyl: EPA 8082
Chromatogram Abbreviation Legend: AB-Assign Baseline, AP-Assign Peak, DNC-Do Not Call, DMP-Doesn't Match Pattern, NC-Not Confirmed, RT-Retention Time, BF-Before, AF-After.

Sequence Number: /chem/ecd1a.i/121409.b Injection Volume: 0.5 ul

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001f0101.d	WAR091130-99 01	YS1	14-DEC-2009 04:44		121409	1.0		CLEAN
002f0201.d	WAR091211-60 01	YS1	14-DEC-2009 04:54		121409	1.0		DUSE RE-ICAL
003f0301.d	WAR091102-54	YS1	14-DEC-2009 05:05		121409	1.0		DUSE RE-ICAL
004f0401.d	WAR091102-42	YS1	14-DEC-2009 05:15		121409	1.0		DUSE RE-ICAL
005f0501.d	WAR091027-48	YS1	14-DEC-2009 05:26		121409	1.0		DUSE RE-ICAL
006f0601.d	WAR090930-32	YS1	14-DEC-2009 05:36		121409	1.0		PATTERN ONLY
007f0701.d	WAR090803-21	YS1	14-DEC-2009 05:47		121409	1.0		PATTERN ONLY
008f0801.d	WAR090803-62	YS1	14-DEC-2009 05:58		121409	1.0		PATTERN ONLY
009f0901.d	WAR091106-68	YS1	14-DEC-2009 06:08		121409	1.0		DUSE RE-ICAL
010f1001.d	1660-1	YS1	14-DEC-2009 06:19		121409	1.0		DUSE
011f1101.d	1660-2	YS1	14-DEC-2009 06:29		121409	1.0		DUSE
012f1201.d	1660-3	YS1	14-DEC-2009 06:40		121409	1.0		DUSE
013f1301.d	1660-4	YS1	14-DEC-2009 06:50		121409	1.0		DUSE
014f1401.d	IAR091102-01	YS1	14-DEC-2009 07:01		121409	1.0		DUSE
015f1501.d	WAR091211-60 01	YS1	14-DEC-2009 07:11		121409	1.0		DUSE

Instrument Batch: /chem/ecd1a.i/121409.b Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments

016f1601.d	WAR091214-05 54	YS1	14-DEC-2009 07:22		121409	1.0	AR1254 I-CAL LEVEL 1
017f1701.d	WAR091214-06 54	YS1	14-DEC-2009 07:32		121409	1.0	AR1254 I-CAL LEVEL 2
018f1801.d	WAR091214-07 54	YS1	14-DEC-2009 07:43		121409	1.0	AR1254 I-CAL LEVEL 3
019f1901.d	WAR091214-08 54	YS1	14-DEC-2009 07:53		121409	1.0	AR1254 I-CAL LEVEL 4
020f2001.d	IAR091027-01	YS1	14-DEC-2009 08:04		121409	1.0	AR1254 I-CAL LEVEL 5
021f2101.d	WAR091102-54	YS1	14-DEC-2009 08:14		121409	1.0	PASSED ON BOTH COLUMNS
022f2201.d	WAR091214-09 42	YS1	14-DEC-2009 08:25		121409	1.0	AR1242 I-CAL LEVEL 1
023f2301.d	WAR091214-10 42	YS1	14-DEC-2009 08:35		121409	1.0	AR1242 I-CAL LEVEL 2
024f2401.d	WAR091214-11 42	YS1	14-DEC-2009 08:46		121409	1.0	AR1242 I-CAL LEVEL 3
025f2501.d	WAR091214-12 42	YS1	14-DEC-2009 08:56		121409	1.0	AR1242 I-CAL LEVEL 4
026f2601.d	IAR0911111-01	YS1	14-DEC-2009 09:07		121409	1.0	AR1242 I-CAL LEVEL 5
027f2701.d	WAR091102-42	YS1	14-DEC-2009 09:17		121409	1.0	PASSED ON BOTH COLUMNS
028f2801.d	WAR091214-13 48	YS1	14-DEC-2009 09:28		121409	1.0	AR1248 I-CAL LEVEL 1
029f2901.d	WAR091214-14 48	YS1	14-DEC-2009 09:38		121409	1.0	AR1248 I-CAL LEVEL 2
030f3001.d	WAR091214-15 48	YS1	14-DEC-2009 09:49		121409	1.0	AR1248 I-CAL LEVEL 3
031f3101.d	WAR091214-16 48	YS1	14-DEC-2009 09:59		121409	1.0	AR1248 I-CAL LEVEL 4
032f3201.d	IAR091027-02	YS1	14-DEC-2009 10:10		121409	1.0	AR1248 I-CAL LEVEL 5
033f3301.d	WAR091027-48	YS1	14-DEC-2009 10:20		121409	1.0	PASSED ON BOTH COLUMNS
034f3401.d	WAR091214-01 60	YS1	14-DEC-2009 10:31		121409	1.0	AR1660 I-CAL LEVEL 1
035f3501.d	WAR091214-02 60	YS1	14-DEC-2009 10:41		121409	1.0	AR1660 I-CAL LEVEL 2

Instrument Batch: /chem/ecd1a.i/121409.b Page: 2

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
036f3601.d	WAR091214-03 60	YS1	14-DEC-2009 10:52		121409	1.0	AR1660 I-CAL LEVEL 3	
037f3701.d	WAR091214-04 60	YS1	14-DEC-2009 11:02		121409	1.0	AR1660 I-CAL LEVEL 4	
038f3801.d	IAR091102-01	YS1	14-DEC-2009 11:13		121409	1.0	AR1660 I-CAL LEVEL 5	
039f3901.d	WAR091211-60 01	YS1	14-DEC-2009 11:23		121409	1.0	PASSED ON BOTH COLUMNS	
040f4001.d	WAR091214-17 68	YS1	14-DEC-2009 11:34		121409	1.0	AR1268 I-CAL LEVEL 1	

041f4101.d	WAR091214-18 68	YS1	14-DEC-2009 11:44		121409		1.0		AR1268 I-CAL LEVEL 2
042f4201.d	WAR091214-19 68	YS1	14-DEC-2009 11:55		121409		1.0		AR1268 I-CAL LEVEL 3
043f4301.d	WAR091214-20 68	YS1	14-DEC-2009 12:06		121409		1.0		AR1268 I-CAL LEVEL 4
044f4401.d	IAR090817-02	YS1	14-DEC-2009 12:16		121409		1.0		AR1268 I-CAL LEVEL 5
045f4501.d	WAR091106-68	YS1	14-DEC-2009 12:27		121409		1.0		PASSED ON BOTH COLUMNS
046f4601.d	WAR091020-DDT	YS1	14-DEC-2009 12:37		121409		1.0		DDT ANALOG STANDARD
047f4701.d	WAR091130-99 02	YS1	14-DEC-2009 12:48		121409		1.0		CLEAN
048f4801.d	1201991693	YS1	14-DEC-2009 12:58	931140	10-782		1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
049f4901.d	1201991694	YS1	14-DEC-2009 13:09	931140	10-782		1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
050f5001.d	242297001	YS1	14-DEC-2009 13:19	931140	10-782		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
051f5101.d	242297002	YS1	14-DEC-2009 13:30	931140	10-782		10.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
052f5201.d	242297003	YS1	14-DEC-2009 13:40	931140	10-782		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
053f5301.d	242297004	YS1	14-DEC-2009 13:51	931140	10-782		5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
054f5401.d	242297005	YS1	14-DEC-2009 14:03	931140	10-782		5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
055f5501.d	242297006	YS1	14-DEC-2009 14:16	931140	10-782		10.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
056f5601.d	242297007	YS1	14-DEC-2009 14:29	931140	10-782		5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
057f5701.d	242297008	YS1	14-DEC-2009 14:41	931140	10-782		25.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
058f5801.d	WAR091211-60 02	YS1	14-DEC-2009 14:52		121409		1.0		PASSED ON BOTH COLUMNS
059f5901.d	WAR091130-99 03	YS1	14-DEC-2009 15:02		121409		1.0		CLEAN
060f6001.d	242297009	YS1	14-DEC-2009 15:13	931140	10-782		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
061f6101.d	242297010	YS1	14-DEC-2009 15:25	931140	10-782		1.0	LANL	DCB LOW RE
062f6201.d	242297011	YS1	14-DEC-2009 15:38	931140	10-782		5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
063f6301.d	242297012	YS1	14-DEC-2009 15:51	931140	10-782		5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
064f6401.d	242297013	YS1	14-DEC-2009 16:03	931140	10-782		10.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER

065f6501.d	242305004	YS1	14-DEC-2009 16:16	931140	10-786		5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
066f6601.d	1201991695	YS1	14-DEC-2009 16:28	931140	10-786		5.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
067f6701.d	1201991696	YS1	14-DEC-2009 16:41	931140	10-786		5.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
068f6801.d	242305005	YS1	14-DEC-2009 16:53	931140	10-786		5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
069f6901.d	242305006	YS1	14-DEC-2009 17:06	931140	10-786		5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
070f7001.d	WAR091211-60 03	YS1	14-DEC-2009 17:19		121409		1.0		PASSED ON BOTH COLUMNS
071f7101.d	WAR091130-99 04	YS1	14-DEC-2009 17:31		121409		1.0		CLEAN
072f7201.d	1201992645	YS1	14-DEC-2009 17:44	931553	242521		1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
073f7301.d	1201992646	YS1	14-DEC-2009 17:57	931553	242521		1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
074f7401.d	242264001	YS1	14-DEC-2009 18:09	931553	242264		5.0	ENRG	UPLOAD BOTH COLUMNS, USE HIGHER
075f7501.d	242521001	YS1	14-DEC-2009 18:22	931553	242521		5.0	EMSC	UPLOAD BOTH COLUMNS, USE HIGHER

Instrument Batch: /chem/ecd1a.i/121409.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
076f7601.d	1201992647	YS1	14-DEC-2009 18:35	931553	242521		5.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
077f7701.d	1201992648	YS1	14-DEC-2009 18:47	931553	242521		5.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
078f7801.d	242521002	YS1	14-DEC-2009 19:00	931553	242521		5.0	EMSC	UPLOAD BOTH COLUMNS, USE HIGHER
079f7901.d	242521003	YS1	14-DEC-2009 19:12	931553	242521		5.0	EMSC	UPLOAD BOTH COLUMNS, USE HIGHER
080f8001.d	242521004	YS1	14-DEC-2009 19:25	931553	242521		5.0	EMSC	UPLOAD BOTH COLUMNS, USE HIGHER
081f8101.d	242521005	YS1	14-DEC-2009 19:38	931553	242521		5.0	EMSC	UPLOAD BOTH COLUMNS, USE HIGHER
082f8201.d	WAR091211-60 04	YS1	14-DEC-2009 19:50		121409		1.0		PASSED ON BOTH COLUMNS
083f8301.d	WAR091130-99 05	YS1	14-DEC-2009 20:03		121409		1.0		CLEAN
084f8401.d	242521006	YS1	14-DEC-2009 20:15	931553	242521		5.0	EMSC	UPLOAD BOTH COLUMNS, USE HIGHER
085f8501.d	242521007	YS1	14-DEC-2009 20:28	931553	242521		5.0	EMSC	UPLOAD BOTH COLUMNS, USE HIGHER
086f8601.d	242521008	YS1	14-DEC-2009 20:41	931553	242521		5.0	EMSC	UPLOAD BOTH COLUMNS, USE HIGHER
087f8701.d	WAR091211-60 05	YS1	14-DEC-2009 20:53		121409		1.0		PASSED ON BOTH COLUMNS
088f8801.d	WAR091130-99 06	YS1	14-DEC-2009 21:06		121409		1.0		CLEAN
089f8901.d	242297010	YS1	14-DEC-2009 21:19	931140	10-782		1.0	LANL	

090f9001.d	WAR091211-60 06	YS1	14-DEC-2009 21:31		121409	1.0	PASSED ON BOTH COLUMNS
091f9101.d	WAR091130-99 07	YS1	14-DEC-2009 21:44		121409	1.0	CLEAN
092f9201.d	1660	YS1	14-DEC-2009 21:56		121409	1.0	screen
093f9301.d	1660	YS1	14-DEC-2009 22:09		121409	1.0	screen
094f9401.d	1660	YS1	14-DEC-2009 22:22		121409	1.0	screen

GEL ORGANIC RUN LOG INSTRUMENT ID: ECD1

DATE: 12/17/2009 METHOD: ECD1-F-8082-121409.m OPERATOR:YS1 REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1

SOLVENT LOT DA385
ALUMINA LOT 1230997-A
COPPER LOT 236547-A

Calibration & QC Information
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.
GEL SOP GL-OA-E-040 Polychlorinated Biphenyl: EPA 8082
Chromatogram Abbreviation Legend: AB-Assign Baseline, AP-Assign Peak,
DNC-Do Not Call, DMP-Doesn't Match Pattern, NC-Not Confirmed, RT-Retention Time,
BF-Before, AF-After.

Sequence Number: /chem/ecd1a.i/121609.b Injection Volume: 0.5 ul

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001f0101.d	WAR091130-99 01	YS1	16-DEC-2009 06:28		121609	1.0		CLEAN
002f0201.d	WAR091211-60 01	YS1	16-DEC-2009 06:39		121609	1.0		PASSED ON BOTH COLUMNS
003f0301.d	WAR091102-54	YS1	16-DEC-2009 06:49		121609	1.0		DUSE
004f0401.d	WAR091102-42	YS1	16-DEC-2009 07:00		121609	1.0		PASSED ON BOTH COLUMNS
005f0501.d	WAR091027-48	YS1	16-DEC-2009 07:10		121609	1.0		PASSED ON BOTH COLUMNS
006f0601.d	WAR090930-32	YS1	16-DEC-2009 07:21		121609	1.0		PATTERN ONLY
007f0701.d	54SCREEN	YS1	16-DEC-2009 07:31		121609	1.0		SCREEN DUSE
008f0801.d	WAR090803-21	YS1	16-DEC-2009 07:42		121609	1.0		PATTERN ONLY
009f0901.d	WAR090803-62	YS1	16-DEC-2009 07:52		121609	1.0		PATTERN ONLY
010f1001.d	WAR091106-68	YS1	16-DEC-2009 08:03		121609	1.0		PASSED ON BOTH COLUMNS
011f1101.d	WAR091216-54	YS1	16-DEC-2009 08:13		121609	1.0		PASSED ON BOTH COLUMNS
012f1201.d	WAR091020-DDT	YS1	16-DEC-2009 08:24		121609	1.0		DDT ANALOG STANDARD
013f1301.d	WAR091130-99 02	YS1	16-DEC-2009 08:34		121609	1.0		CLEAN
014f1401.d	WE091215-16	YS1	16-DEC-2009 08:46		121609	1.0		SCRAAE FOR PREP
015f1501.d	1201996864	YS1	16-DEC-2009 08:57	933347	EUI-7412	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER

Instrument Batch: /chem/ecd1a.i/121609.b Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments

016f1601.d	1201996865	YS1	16-DEC-2009 09:09	933347	EUI-7412	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
017f1701.d	1201996871	YS1	16-DEC-2009 09:20	933347	EUI-7412	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
018f1801.d	242214001	YS1	16-DEC-2009 09:30	933347	EUI-7412	5.0	CARE	UPLOAD BOTH COLUMNS, USE HIGHER
019f1901.d	242214002	YS1	16-DEC-2009 09:43	933347	EUI-7412	5.0	CARE	UPLOAD BOTH COLUMNS, USE HIGHER
020f2001.d	1201996866	YS1	16-DEC-2009 09:55	933347	EUI-7412	5.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
021f2101.d	1201996867	YS1	16-DEC-2009 10:08	933347	EUI-7412	5.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
022f2201.d	242214003	YS1	16-DEC-2009 10:21	933347	EUI-7412	5.0	CARE	UPLOAD BOTH COLUMNS, USE HIGHER
023f2301.d	242214004	YS1	16-DEC-2009 10:33	933347	EUI-7412	200.0	CARE	DUSE RR 40X
024f2401.d	WAR091211-60 02	YS1	16-DEC-2009 10:46		121609	1.0		PASSED ON BOTH COLUMNS
025f2501.d	WAR091130-99 03	YS1	16-DEC-2009 10:56		121609	1.0		CLEAN
026f2601.d	242218001	YS1	16-DEC-2009 11:07	933347	EUI-7416	200.0	CARE	UPLOAD BOTH COLUMNS, USE HIGHER
027f2701.d	242722001	YS1	16-DEC-2009 11:19	933347	EUI-7427	10.0	CARE	UPLOAD BOTH COLUMNS, USE HIGHER
028f2801.d	242567001	YS1	16-DEC-2009 11:32	933347	EUI-7422	25.0	CARE	UPLOAD BOTH COLUMNS, USE HIGHER
029f2901.d	242565001	YS1	16-DEC-2009 11:44	933347	EUI-7420	20.0	CARE	UPLOAD BOTH COLUMNS, USE HIGHER
030f3001.d	242566001	YS1	16-DEC-2009 11:57		EUI-7421	5.0		DUS RE-DILUT RE-RUN
031f3101.d	242917001	YS1	16-DEC-2009 12:09	933347	EUI-7430	20.0	CARE	UPLOAD BOTH COLUMNS, USE HIGHER
032f3201.d	242917002	YS1	16-DEC-2009 12:22	933347	EUI-7430	100.0	CARE	UPLOAD BOTH COLUMNS, USE HIGHER
033f3301.d	242917003	YS1	16-DEC-2009 12:35	933347	EUI-7430	100.0	CARE	UPLOAD BOTH COLUMNS, USE HIGHER
034f3401.d	242917004	YS1	16-DEC-2009 12:47	933347	EUI-7430	100.0	CARE	UPLOAD BOTH COLUMNS, USE HIGHER
035f3501.d	242917005	YS1	16-DEC-2009 13:00	933347	EUI-7430	100.0	CARE	UPLOAD BOTH COLUMNS, USE HIGHER

Instrument Batch: /chem/ecd1a.i/121609.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
036f3601.d	WAR091211-60 03	YS1	16-DEC-2009 13:12		121609	1.0		PASSED ON BOTH COLUMNS
037f3701.d	WAR091130-99 04	YS1	16-DEC-2009 13:23		121609	1.0		CLEAN
038f3801.d	242214004	YS1	16-DEC-2009 13:33	933347	EUI-7412	40.0	CARE	UPLOAD BOTH COLUMNS, USE HIGHER
039f3901.d	242566001	YS1	16-DEC-2009 13:46	933347	EUI-7421	5.0	CARE	UPLOAD BOTH COLUMNS, USE HIGHER
040f4001.d	WAR091211-60 04	YS1	16-DEC-2009 13:58		121609	1.0		PASSED ON BOTH COLUMNS

041f4101.d	WAR091130-99 05	YS1	16-DEC-2009 14:09		121609		1.0		CLEAN
042f4201.d	1201995802	YS1	16-DEC-2009 14:19	932922	121609		1.0	QC A	DUSE 4CMX LOW RE THE BATCH
043f4301.d	1201995803	YS1	16-DEC-2009 14:32	932922			1.0	QC A	DUSE
044f4401.d	242701001	YS1	16-DEC-2009 14:44	932922	242701		5.0	EMSC	DUSE
045f4501.d	1201995804	YS1	16-DEC-2009 14:57	932922	51-T8)(242701001MS)		5.0	QC A	DUSE
046f4601.d	1201995805	YS1	16-DEC-2009 15:10	932922	51-T8)(242701001MSD		5.0	QC A	DUSE
047f4701.d	242701002	YS1	16-DEC-2009 15:22	932922	242701		5.0	EMSC	DUSE
048f4801.d	242701003	YS1	16-DEC-2009 15:35	932922	242701		5.0	EMSC	DUSE
049f4901.d	242701004	YS1	16-DEC-2009 15:48	932922	242701		5.0	EMSC	DUSE
050f5001.d	WAR091211-60 05	YS1	16-DEC-2009 16:00		121609		1.0		PASSED ON BOTH COLUMNS
051f5101.d	WAR091130-99 06	YS1	16-DEC-2009 16:11		121609		1.0		CLEAN
052f5201.d	1201996856	YS1	16-DEC-2009 16:21	933342	10-782		1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
053f5301.d	1201996857	YS1	16-DEC-2009 16:32	933342	10-782		1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
054f5401.d	242297010	YS1	16-DEC-2009 16:42	933342	10-782		5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
055f5501.d	242439005	YS1	16-DEC-2009 16:55	933342	10-830		5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER

Instrument Batch: /chem/ecd1a.i/121609.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
056f5601.d	242445002	YS1	16-DEC-2009 17:08	933342	10-832	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
057f5701.d	242447001	YS1	16-DEC-2009 17:20	933342	10-833	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
058f5801.d	242447002	YS1	16-DEC-2009 17:33	933342	10-833	5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
059f5901.d	242447003	YS1	16-DEC-2009 17:45	933342	10-833	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
060f6001.d	242668001	YS1	16-DEC-2009 17:58	933342	10-854	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
061f6101.d	242668002	YS1	16-DEC-2009 18:11	933342	10-854	5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
062f6201.d	WAR091211-60 06	YS1	16-DEC-2009 18:23		121609	1.0		PASSED ON BOTH COLUMNS
063f6301.d	WAR091130-99 07	YS1	16-DEC-2009 18:34		121609	1.0		CLEAN
064f6401.d	242750001	YS1	16-DEC-2009 18:44	933342	10-886	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER

065f6501.d	242750002	YS1	16-DEC-2009 18:57	933342	10-886	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
066f6601.d	242750003	YS1	16-DEC-2009 19:10	933342	10-886	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
067f6701.d	242750004	YS1	16-DEC-2009 19:22	933342	10-886	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
068f6801.d	242750005	YS1	16-DEC-2009 19:35	933342	10-886	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
069f6901.d	242781001	YS1	16-DEC-2009 19:47	933342	10-887	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
070f7001.d	1201996858	YS1	16-DEC-2009 19:58	933342	10-887	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
071f7101.d	1201996859	YS1	16-DEC-2009 20:08	933342	10-887	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
072f7201.d	242781002	YS1	16-DEC-2009 20:19	933342	10-887	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
073f7301.d	242781003	YS1	16-DEC-2009 20:30	933342	10-887	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
074f7401.d	WAR091211-60 07	YS1	16-DEC-2009 20:40		121609	1.0		PASSED ON BOTH COLUMNS
075f7501.d	WAR091130-99 08	YS1	16-DEC-2009 20:51		121609	1.0		CLEAN

Instrument Batch: /chem/ecd1a.i/121609.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
076f7601.d	242781004	YS1	16-DEC-2009 21:01	933342	10-887	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
077f7701.d	242781005	YS1	16-DEC-2009 21:12	933342	10-887	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
078f7801.d	242781006	YS1	16-DEC-2009 21:22	933342	10-887	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
079f7901.d	242781007	YS1	16-DEC-2009 21:33	933342	10-887	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
080f8001.d	WAR091211-60 08	YS1	16-DEC-2009 21:43		121609	1.0		PASSED ON BOTH COLUMNS
081f8101.d	WAR091130-99 09	YS1	16-DEC-2009 21:54		121609	1.0		CLEAN

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/121609.b/070b7001.d
Lab Smp Id: 1201996858 Client Smp ID: RE03-09-13757MS
Inj Date : 16-DEC-2009 19:58
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1201996858|1|
Misc Info : |ECD82P_1S|933342|SVAF|QC A|SOIL|MS|||
Comment :
Method : /chem/ecd1a.i/121609.b/ECD1-B-8082-121409.m
Meth Date : 17-Dec-2009 07:29 yip00818 Quant Type: ESTD
Cal Date : 14-DEC-2009 12:16 Cal File: 044b4401.d
Als bottle: 70 QC Sample: MS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-887.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.01000	Weight of sample extracted (g)
M	9.86880	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.303	2.303	0.000	36931623	123.095	4.6	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.950	5.950	0.000	31890808	136.737	5.0	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.200	3.201	-0.001	9036963	716.563	26.5	80.00- 120.00	100.00(M)
3.284	3.283	0.001	6003161	643.572	23.8	44.88- 84.88	66.43
3.347	3.347	0.000	3648098	674.161	24.9	20.66- 60.66	40.37
3.575	3.574	0.001	4736513	671.667	24.8	32.99- 72.99	52.41

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
1 Aroclor-1016 (continued)							
3.650	3.650	0.000	4449840	679.289	25.1	28.99- 68.99	58.85
Average of Peak Concentrations =					25.0		
6 Aroclor-1254					CAS #: 11097-69-1		
3.409	3.409	0.000	3646896	566.706	21.0	80.00- 120.00	100.00
3.832	3.832	0.000	4868088	421.140	15.6	160.27- 200.27	133.49
3.948	3.947	0.001	4224728	339.846	12.6	181.92- 221.92	115.84
4.224	4.224	0.000	2709256	160.500	5.9	264.49- 304.49	74.29
4.360	4.360	0.000	1275374	102.559	3.8	192.39- 232.39	34.97
Average of Peak Concentrations =					11.8		
7 Aroclor-1260					CAS #: 11096-82-5		
4.340	4.341	-0.001	11397011	833.113	30.8	80.00- 120.00	100.00
4.465	4.465	0.000	14447761	901.350	33.3	104.06- 144.06	126.77
4.730	4.731	-0.001	10998968	875.440	32.4	75.41- 115.41	96.51
4.905	4.905	0.000	11096034	866.196	32.0	77.99- 117.99	97.36
5.051	5.052	-0.001	25809164	925.137	34.2	204.52- 244.52	226.46
Average of Peak Concentrations =					32.5		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecdia.i/121609.b/070b7001.d
Date : 16-DEC-2009 19:58
Client ID: RE03-09-13757MS
Sample Info: 1120199685811
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecdia.i
Operator: YS1
Column diameter: 0.25

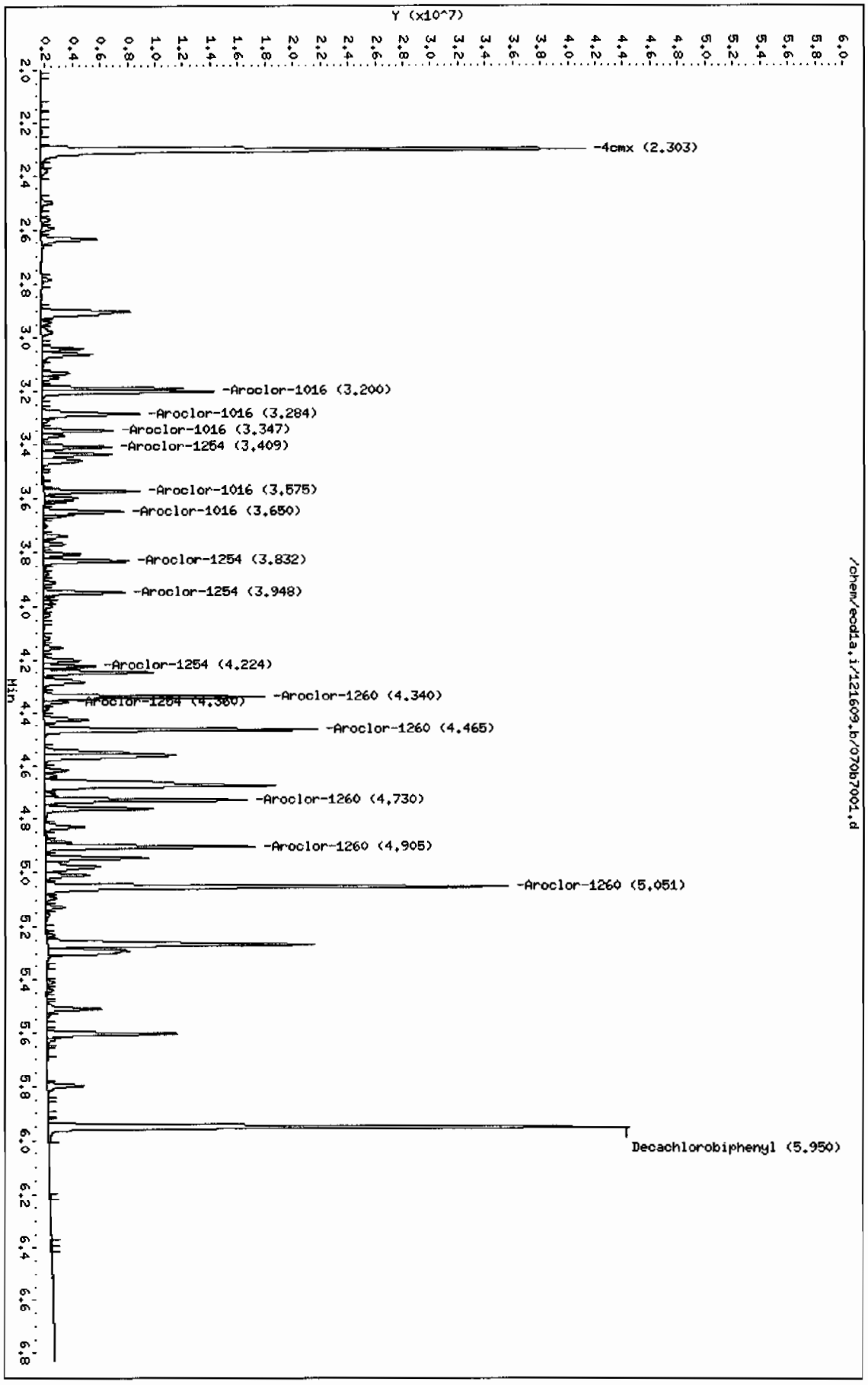

/chem/ecdia.i/121609.b/070b7001.d

Page 1

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RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/121609.b/070f7001.d
Lab Smp Id: 1201996858 Client Smp ID: RE03-09-13757MS
Inj Date : 16-DEC-2009 19:58
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1201996858|1|
Misc Info : |ECD82P_1S|933342|SVAF|QC A|SOIL|MS|||
Comment :
Method : /chem/ecd1a.i/121609.b/ECD1-F-8082-121409.m
Meth Date : 17-Dec-2009 07:29 yip00818 Quant Type: ESTD
Cal Date : 14-DEC-2009 11:34 Cal File: 040f4001.d
Als bottle: 70 QC Sample: MS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-887.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.01000	Weight of sample extracted (g)
M	9.86880	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.973	1.972	0.001	48111635	128.069	4.7	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.288	5.290	-0.002	44565620	140.346	5.2	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.430	2.430	0.000	9050960	652.704	24.1	80.00- 120.00	100.00
2.707	2.707	0.000	7651064	757.702	28.0	63.95- 103.95	84.53
2.800	2.800	0.000	7684669	653.624	24.2	66.26- 106.26	84.90
2.837	2.837	0.000	4613972	699.192	25.8	32.06- 72.06	50.98

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
1 Aroclor-1016 (continued)							
3.048	3.048	0.000	6021291	694.225	25.7	47.49- 87.49	66.53
Average of Peak Concentrations =					25.6		
6 Aroclor-1254					CAS #: 11097-69-1		
3.278	3.277	0.001	4850927	388.526	14.4	80.00- 120.00	100.00
3.432	3.433	-0.001	5576518	333.485	12.3	117.82- 157.82	114.96
3.666	3.667	-0.001	3283435	158.513	5.9	162.83- 202.83	67.69
3.830	3.830	0.000	2161452	137.723	5.1	121.29- 161.29	44.56
3.937	3.939	-0.002	23145900	1525.52	56.4	112.52- 152.52	477.14
Average of Peak Concentrations =					18.8		
7 Aroclor-1260					CAS #: 11096-82-5		
3.775	3.775	0.000	14598423	871.436	32.2	80.00- 120.00	100.00
3.937	3.938	-0.001	23145900	935.467	34.6	134.58- 174.58	158.55
4.167	4.168	-0.001	13713745	933.712	34.5	72.46- 112.46	93.94
4.310	4.312	-0.002	13261085	873.329	32.3	76.67- 116.67	90.84
4.490	4.491	-0.001	33407900	972.561	36.0	204.79- 244.79	228.85
Average of Peak Concentrations =					33.9		

Data File: /chem/ecd1a.i/121609.b/070f7001.d

Date : 16-DEC-2009 19:58

Client ID: RE03-09-13757MS

Sample Info: |120199685811|

Volume Injected (uL): 1.0

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

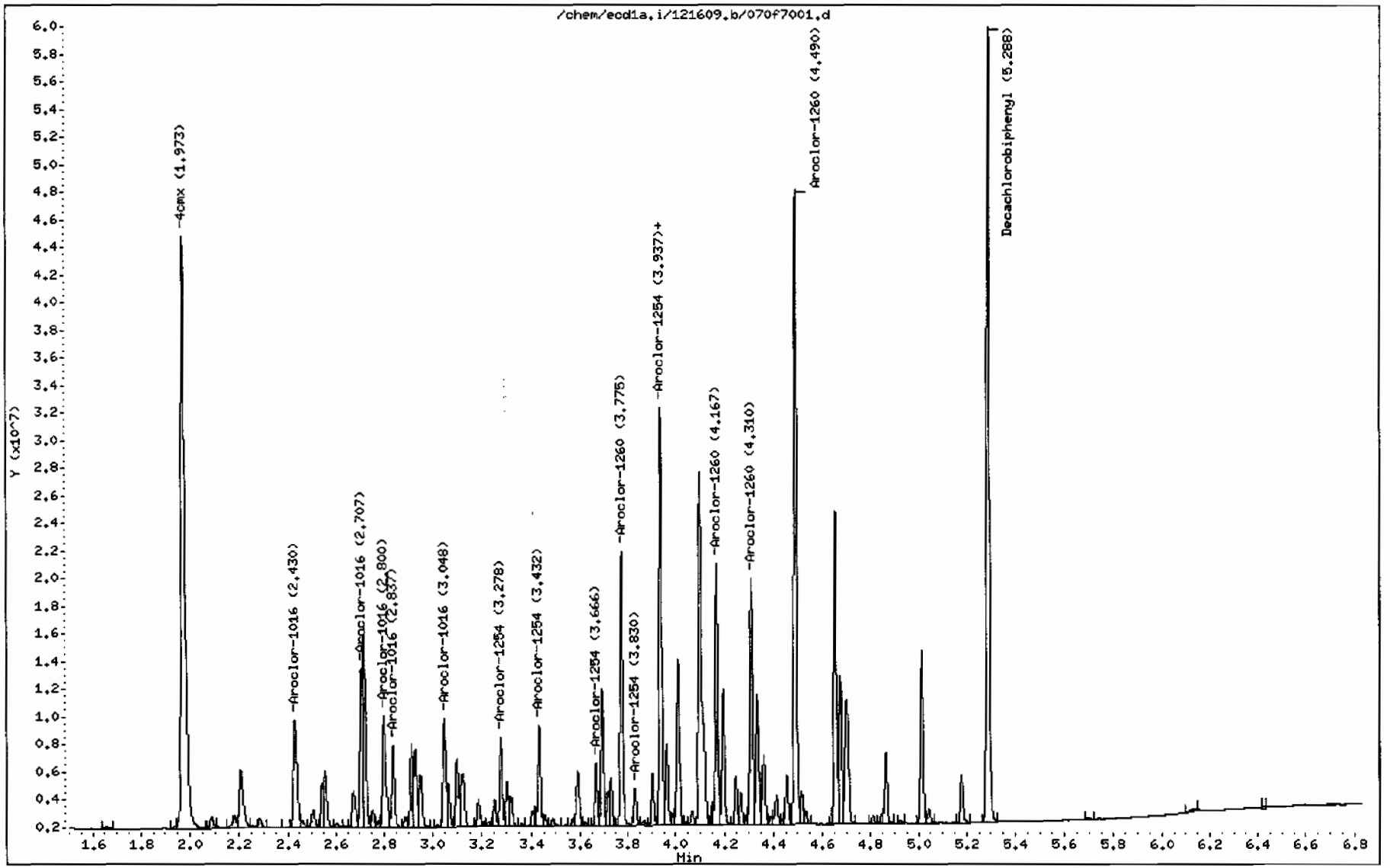

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RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/121609.b/071b7101.d
Lab Smp Id: 1201996859 Client Smp ID: RE03-09-13757MSD
Inj Date : 16-DEC-2009 20:08
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1201996859|1|
Misc Info : |ECD82P_1S|933342|SVAF|QC A|SOIL|MSD|||
Comment :
Method : /chem/ecd1a.i/121609.b/ECD1-B-8082-121409.m
Meth Date : 17-Dec-2009 07:29 yip00818 Quant Type: ESTD
Cal Date : 14-DEC-2009 12:16 Cal File: 044b4401.d
Als bottle: 71 QC Sample: MSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-887.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.04000	Weight of sample extracted (g)
M	9.86880	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.303	2.303	0.000	37551728	125.162	4.6	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.950	5.950	0.000	32753256	140.435	5.2	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.201	3.201	0.000	9256445	733.966	27.1	80.00- 120.00	100.00(M)
3.284	3.283	0.001	6245508	669.553	24.7	44.88- 84.88	67.47
3.348	3.347	0.001	3758497	694.562	25.6	20.66- 60.66	40.60
3.574	3.574	0.000	4941988	700.804	25.9	32.99- 72.99	53.39

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
1 Aroclor-1016 (continued)							
3.650	3.650	0.000	4643203	708.807	26.2	28.99- 68.99	60.02
Average of Peak Concentrations =					25.9		
6 Aroclor-1254					CAS #: 11097-69-1		
3.409	3.409	0.000	3787599	588.570	21.7	80.00- 120.00	100.00
3.832	3.832	0.000	5055066	437.315	16.2	160.27- 200.27	133.46
3.948	3.947	0.001	4255920	342.356	12.6	181.92- 221.92	112.36
4.224	4.224	0.000	2614738	154.901	5.7	264.49- 304.49	69.03
4.361	4.360	0.001	1162034	93.4451	3.4	192.39- 232.39	30.68
Average of Peak Concentrations =					11.9		
7 Aroclor-1260					CAS #: 11096-82-5		
4.341	4.341	0.000	11632595	850.334	31.4	80.00- 120.00	100.00
4.465	4.465	0.000	14648358	913.865	33.8	104.06- 144.06	125.93
4.731	4.731	0.000	11229037	893.752	33.0	75.41- 115.41	96.53
4.905	4.905	0.000	11381455	888.477	32.8	77.99- 117.99	97.84
5.052	5.052	0.000	26546748	951.576	35.1	204.52- 244.52	228.21
Average of Peak Concentrations =					33.2		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd1a.i/121609.b/071b7101.d
Date : 16-DEC-2009 20:08
Client ID: RE03-09-13757MSD
Sample Info: |120199685911|
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd1a.i
Operator: YS1
Column diameter: 0.25

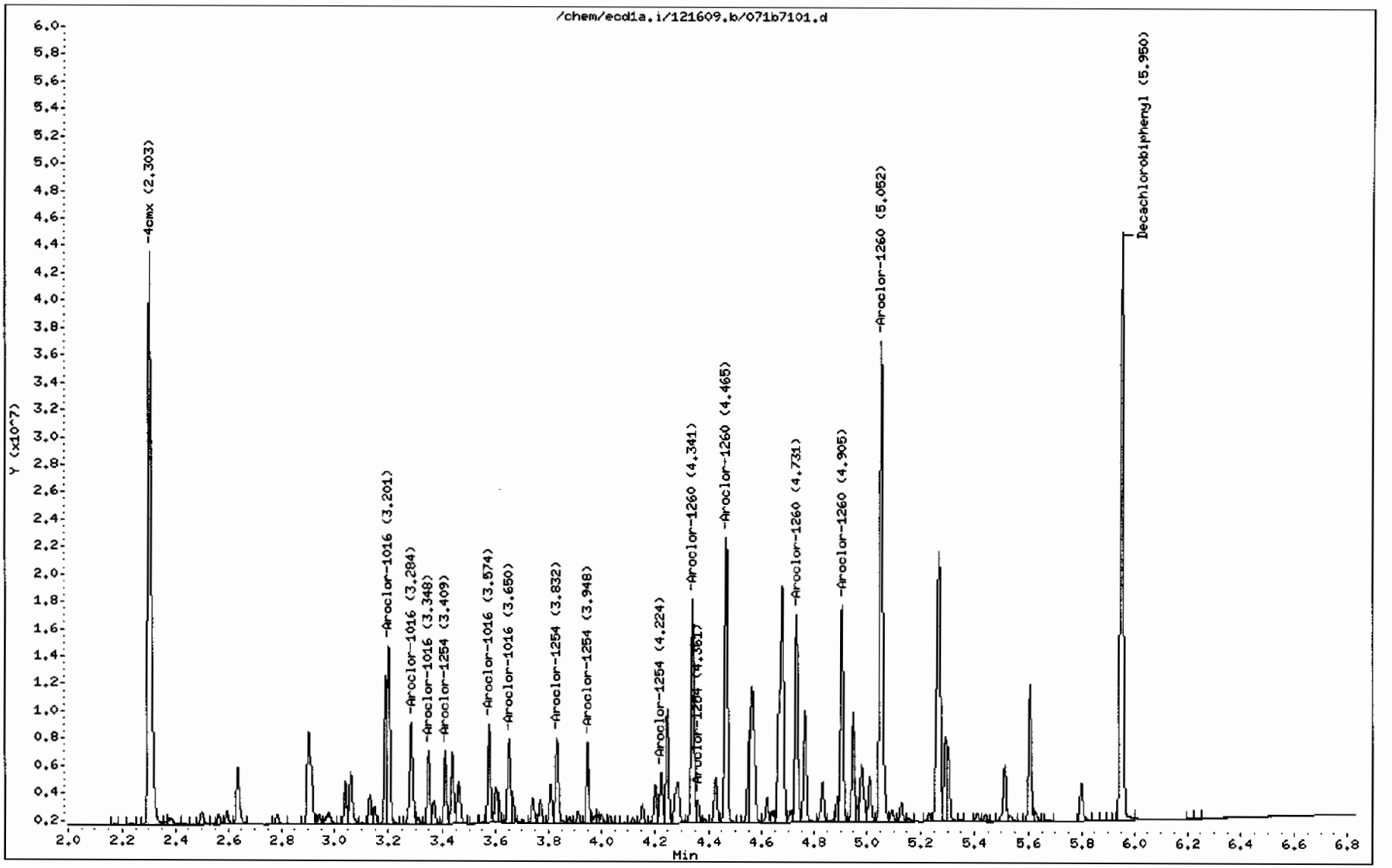

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/121609.b/071f7101.d
Lab Smp Id: 1201996859 Client Smp ID: RE03-09-13757MSD
Inj Date : 16-DEC-2009 20:08
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1201996859|1|
Misc Info : |ECD82P_1S|933342|SVAF|QC A|SOIL|MSD|||
Comment :
Method : /chem/ecd1a.i/121609.b/ECD1-F-8082-121409.m
Meth Date : 17-Dec-2009 07:29 yip00818 Quant Type: ESTD
Cal Date : 14-DEC-2009 11:34 Cal File: 040f4001.d
Als bottle: 71 QC Sample: MSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-887.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.04000	Weight of sample extracted (g)
M	9.86880	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.973	1.972	0.001	48948487	130.297	4.8	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.289	5.290	-0.001	46432928	146.227	5.4	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.429	2.430	-0.001	9402676	678.068	25.0	80.00- 120.00	100.00
2.707	2.707	0.000	7853185	777.718	28.7	63.95- 103.95	83.52
2.800	2.800	0.000	8043502	684.145	25.3	66.26- 106.26	85.54
2.838	2.837	0.001	4862526	736.857	27.2	32.06- 72.06	51.71

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
1 Aroclor-1016 (continued)							
3.048	3.048	0.000	6336986	730.623	27.0	47.49- 87.49	67.40
Average of Peak Concentrations =					26.6		
6 Aroclor-1254					CAS #: 11097-69-1		
3.278	3.277	0.001	4999563	400.430	14.8	80.00- 120.00	100.00
3.433	3.433	0.000	5662787	338.644	12.5	117.82- 157.82	113.27
3.667	3.667	0.000	3177762	153.412	5.7	162.83- 202.83	63.56
3.831	3.830	0.001	2067647	131.746	4.9	121.29- 161.29	41.36
3.938	3.939	-0.001	23700994	1562.10	57.7	112.52- 152.52	474.06
Average of Peak Concentrations =					19.1		
7 Aroclor-1260					CAS #: 11096-82-5		
3.775	3.775	0.000	15024828	896.890	33.1	80.00- 120.00	100.00
3.938	3.938	0.000	23700994	957.902	35.4	134.58- 174.58	157.75
4.168	4.168	0.000	14062127	957.431	35.4	72.46- 112.46	93.59
4.311	4.312	-0.001	13991463	921.429	34.0	76.67- 116.67	93.12
4.491	4.491	0.000	34502837	1004.44	37.1	204.79- 244.79	229.64
Average of Peak Concentrations =					35.0		

Data File: /chem/ecd1a.i/121609.b/071f7101.d

Date : 16-DEC-2009 20:08

Client ID: RE03-09-13757MSD

Sample Info: |1201996859|1|

Volume Injected (uL): 1.0

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

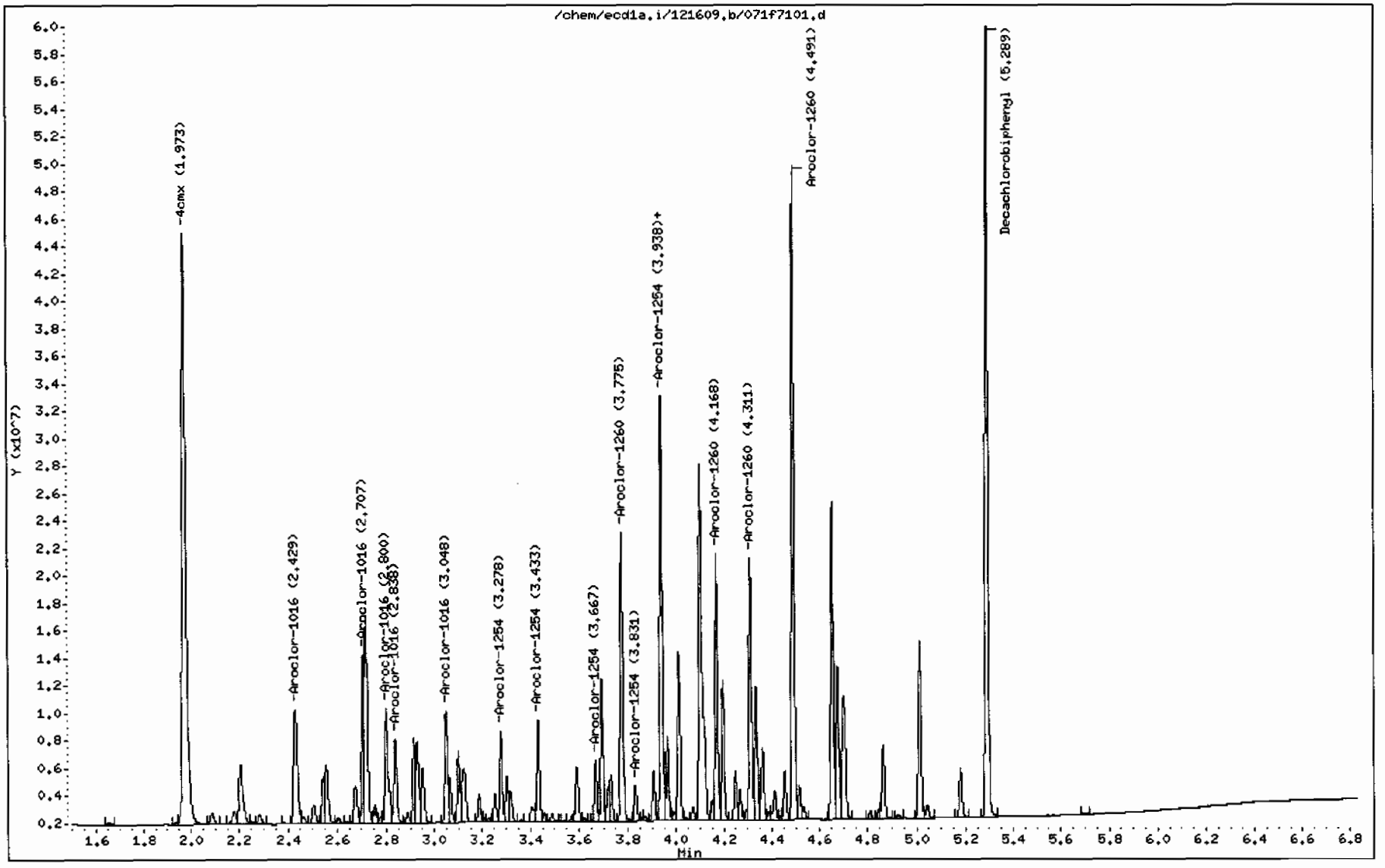

Prep Logbook

Extraction of Semivolatile and Nonvolatile Organic Compounds from Soil, Sludge, and Other Miscellaneous Solid Samples

Batch ID: 933337 **Verified by:** _____

Analyst: Andrew Schwemin

Method: SW846 3550B

Lab SOP: GL–OA–E–010 REV# 18

Instrument: Semi–Volatiles Manual

Sample ID	Run Date	Aliquot (g)	Clean Up	Prior to Clean up (mL)	Amount Cleaned (mL)	After Clean up (mL)	Prepped Aliquot (mL)	Prepped Factor (mL/g)
1201996856 MB	15–DEC–2009 20:23:57	30	H2SO4/KMl2		2	9	1	0.03333
1201996857 LCS	15–DEC–2009 20:23:57	30	H2SO4/KMl2		2	9	1	0.03333
242297010 – 2	15–DEC–2009 20:23:57	30.06	H2SO4/KMl2		2	9	1	0.03327
242439005 – 2	15–DEC–2009 20:23:57	30.15	H2SO4/KMl2		2	9	1	0.03317
242445002	15–DEC–2009 20:23:57	30.11	H2SO4/KMl2		2	9	1	0.03321
242447001	15–DEC–2009 20:23:57	30.17	H2SO4/KMl2		2	9	1	0.03315
242447002	15–DEC–2009 20:23:57	30.05	H2SO4/KMl2		2	9	1	0.03328
242447003	15–DEC–2009 20:23:57	30.01	H2SO4/KMl2		2	9	1	0.03332
242668001	15–DEC–2009 20:23:57	30.03	H2SO4/KMl2		2	9	1	0.0333
242668002	15–DEC–2009 20:23:57	30.02	H2SO4/KMl2		2	9	1	0.03331
242750001	15–DEC–2009 20:23:57	30.01	H2SO4/KMl2		2	9	1	0.03332
242750002	15–DEC–2009 20:23:57	30.05	H2SO4/KMl2		2	9	1	0.03328
242750003	15–DEC–2009 20:23:57	30.04	H2SO4/KMl2		2	9	1	0.03329
242750004	15–DEC–2009 20:23:57	30.01	H2SO4/KMl2		2	9	1	0.03332
242750005	15–DEC–2009 20:23:57	30.07	H2SO4/KMl2		2	9	1	0.03326
242781001	15–DEC–2009 20:23:57	30.02	H2SO4/KMl2		2	9	1	0.03331
1201996858 MS (242781001)	15–DEC–2009 20:23:57	30.01	H2SO4/KMl2		2	9	1	0.03332
1201996859 MSD (242781001)	15–DEC–2009 20:23:57	30.04	H2SO4/KMl2		2	9	1	0.03329
242781002	15–DEC–2009 20:23:57	30.14	H2SO4/KMl2		2	9	1	0.03318
242781003	15–DEC–2009 20:23:57	30.07	H2SO4/KMl2		2	9	1	0.03326
242781004	15–DEC–2009 20:23:57	30.03	H2SO4/KMl2		2	9	1	0.0333
242781005	15–DEC–2009 20:23:57	30.04	H2SO4/KMl2		2	9	1	0.03329
242781006	15–DEC–2009 20:23:57	30.04	H2SO4/KMl2		2	9	1	0.03329
242781007	15–DEC–2009 20:23:57	30.02	H2SO4/KMl2		2	9	1	0.03331

Type	Sample Id	Description	Serial Number	Spike Amt	Units
LCS	1201996857	PCB Laboratory Control	WE091210–07	1	mL
MS	1201996858	PCB Laboratory Control	WE091210–07	1	mL
MSD	1201996859	PCB Laboratory Control	WE091210–07	1	mL
SURR	All	PEST LOW LEVEL SURROGATE 200 UG/L	UE091130–15	1	mL
REGNT	All	1:1 sulfuric acid	1133264a	5	mL
REGNT	All	Acetone	1233927	150	mL
REGNT	All	Hexane	1241300–B2	150	mL
REGNT	All	5% Potassium Permanganate	B1202457–F	5	mL
SOURC	All	SODIUM SULFATE	1242582	30	g

Comments:

Clean up Date: 12/15/09

Clean up Initials: AJS

Verified By: AV

Final Solvent: Hexane

Clean Up SOP: GL–OA–E–037

Metals Analysis

Case Narrative

Metals Fractional Narrative
Los Alamos National Laboratory (LANL)
SDG 10-854

Sample Analysis

Sample ID	Client ID
242668001	RE03-10-2741
242668002	RE03-10-2740
1201994224	Method Blank (MB) **ICP**
1201994225	Laboratory Control Sample (LCS)
1201994228	242668001(RE03-10-2741L) Serial Dilution (SD)
1201994226	242668001(RE03-10-2741D) Sample Duplicate (DUP)
1201994227	242668001(RE03-10-2741S) Matrix Spike (MS)
1201994229	242668001(RE03-10-2741SD) Matrix Spike Duplicate (MSD)
1201994303	Method Blank (MB) **ICP-MS**
1201994304	Laboratory Control Sample (LCS)
1201994307	242668001(RE03-10-2741L) Serial Dilution (SD)
1201994305	242668001(RE03-10-2741D) Sample Duplicate (DUP)
1201994306	242668001(RE03-10-2741S) Matrix Spike (MS)
1201994308	242668001(RE03-10-2741SD) Matrix Spike Duplicate (MSD)
1202003901	Method Blank (MB) **CVAA**
1202003902	Laboratory Control Sample (LCS)
1202003905	243092001(RE16-10-2881L) Serial Dilution (SD)
1202003903	243092001(RE16-10-2881D) Sample Duplicate (DUP)
1202003904	243092001(RE16-10-2881S) Matrix Spike (MS)
1202003906	243092001(RE16-10-2881SD) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on a "dry weight" basis.

Method/Analysis Information

Analytical Batch:	932278, 932317 and 936546
Prep Batch :	932277, 932316 and 936545
Standard Operating Procedures:	GL-MA-E-013 REV# 20, GL-MA-E-009 REV# 19, GL-MA-E-014 REV# 20 and GL-MA-E-010 REV# 23
Analytical Method:	SW846 3050B/6010B, SW846 3050B/6020 and SW846 7471A
Prep Method :	SW846 3050B and SW846 7471A Prep

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

System Configuration

The Metals analysis-ICP was performed on a P E 5300 Optima radial/axial-viewing inductively coupled plasma atomic emission spectrometer. The instrument is equipped with a Burgener nebulizer, cyclonic spray chamber, and yttrium or scandium internal standard. Operating conditions for the ICP are set at a power level of 1500 watts. The instrument has a peristaltic pump flow rate of 1.4L/min, argon gas flows of 15 L/min and 0.2 L/min for the torch and auxiliary gases, and a flow setting of 0.65L/min for the nebulizer.

The Metals analysis - ICPMS was performed on a Perkin Elmer ELAN 9000 inductively coupled plasma mass spectrometer (ICP-MS). The instrument is equipped with a cross-flow nebulizer, quadrupole mass spectrometer, and dual mode electron multiplier detector. Internal standards of scandium, germanium, indium, tantalum, and/or lutetium were utilized to cover the mass spectrum. Operating conditions are set at 1400W power and combined argon pressures of 360+/-7 kPa for the plasma and auxiliary gases, and 0.85 L/min carrier gas flow, and an initial lens voltage of 5.2.

The Metals analysis-Mercury was performed on a Perkin-Elmer Flow Injection Mercury System (FIMS-100) automated mercury analyzer. The instrument consists of a cold vapor atomic absorption spectrometer set to detect mercury at a wavelength of 253.7 nm. Sample introduction through the flow injection system is performed via a peristaltic pump at 9 mL/min and nitrogen carrier gas rate of 80 mL/min.

Calibration Information

Instrument Calibration
All initial calibration requirements have been met for this sample delivery group (SDG).

CRDL Requirements
All CRDL standard(s) met the referenced advisory control limits.

ICSA/ICSAB Statement
All interference check samples (ICSA and ICSAB) associated with this SDG met the established acceptance criteria.

Continuing Calibration Blank (CCB) Requirements
All continuing calibration blanks (CCB) bracketing this batch met the established acceptance criteria.

Continuing Calibration Verification (CCV) Requirements
All continuing calibration verifications (CCV) bracketing this SDG met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MBs analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

Quality Control (QC) Sample Statement
The following samples were selected as the quality control (QC) samples for this SDG: 242668001 and 243092001.

Matrix Spike (MS) Recovery Statement
The percent recoveries (%R) obtained from the MS analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. The MS met the recommended quality control acceptance criteria for percent recoveries for all applicable analytes with the exception of magnesium, potassium and selenium, as indicated by the "N" qualifiers.

Matrix Spike Duplicate (MSD) Recovery Statement
The percent recovery (%R) obtained from the MSD analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. The MSD met the recommended quality control acceptance criteria for percent recoveries for all applicable analytes with the exception of magnesium, manganese, potassium, lithium and selenium, as indicated by the "N" qualifiers.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD(s) between the MS and MSD met the acceptance limits.

Duplicate Relative Percent Difference (RPD) Statement
The relative percent difference (RPD) obtained from the designated sample duplicate (DUP) is evaluated based on acceptance criteria of 20% when the sample is 5X the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the contract required detection limit (RL), a control of +/-RL is used to evaluate the DUP results. All applicable analytes met these requirements with the exception of chromium, as indicated by the "*" qualifier.

Serial Dilution % Difference Statement
The serial dilution is used to assess matrix suppression or enhancement. Raw element concentrations that are 25X the IDL/MDL for CVAA, 50X the IDL/MDL for ICP, and 100X the IDL/MDL for ICP-MS analyses are applicable for serial dilution assessment. All applicable analytes met the acceptance criteria of less than 10% difference (%D).

Technical Information

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Sample Dilutions
Dilutions are performed to minimize matrix interferences resulting from elevated mineral element concentrations present in solid samples and/or to bring over range target analyte concentrations into the linear calibration range of the instrument. The samples in this SDG were diluted the standard 2x for solids on the ICPMS.

Preparation Information
The samples in this SDG were prepared exactly according to the cited SOP.

Miscellaneous Information

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Nonconformance Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. The following NCRs were generated for this SDG: 774652 and 776215. A copy of each NCR is included in the Miscellaneous Data section of this package.

Additional Comments
Additional comments were not required for this SDG.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Kristen Parson **Date:** 1/6/10

Sample Data Summary

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-854 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 242668001 **BASIS:** Dry Weight **DATE COLLECTED** 07-DEC-09

CLIENT ID: RE03-10-2741 **LEVEL:** Low **DATE RECEIVED** 10-DEC-09

MATRIX: SOIL **%SOLIDS:** 91.8

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	3510000	ug/Kg		7320	21500	21500	1	P	HSC	12/19/09 13:56	121909-1	932278
7440-36-0	Antimony	1080	ug/Kg	U	355	1080	1080	1	P	HSC	12/19/09 13:56	121909-1	932278
7440-38-2	Arsenic	1.36	mg/kg		0.217	1.09	1.09	2	MS	BAJ	01/01/10 20:27	100101-2	932317
7440-39-3	Barium	32800	ug/Kg		108	538	538	1	P	HSC	12/19/09 13:56	121909-1	932278
7440-41-7	Beryllium	0.529	mg/kg		0.0217	0.109	0.109	2	MS	BAJ	01/01/10 20:27	100101-2	932317
7440-42-8	Boron	5380	ug/Kg	U	1080	5380	5380	1	P	HSC	12/19/09 13:56	121909-1	932278
7440-43-9	Cadmium	538	ug/Kg	U	108	538	538	1	P	HSC	12/19/09 13:56	121909-1	932278
7440-70-2	Calcium	1110000	ug/Kg		8610	26900	26900	1	P	HSC	12/19/09 13:56	121909-1	932278
7440-47-3	Chromium	4880	ug/Kg	*	161	538	538	1	P	HSC	12/19/09 13:56	121909-1	932278
7440-48-4	Cobalt	1280	ug/Kg		161	538	538	1	P	HSC	12/19/09 13:56	121909-1	932278
7440-50-8	Copper	3590	ug/Kg		323	1080	1080	1	P	HSC	12/19/09 13:56	121909-1	932278
7439-89-6	Iron	10100000	ug/Kg		8610	26900	26900	1	P	HSC	12/19/09 13:56	121909-1	932278
7439-92-1	Lead	7960	ug/Kg		269	1080	1080	1	P	HSC	12/19/09 13:56	121909-1	932278
7439-93-2	Lithium	4.33	mg/kg	N	0.435	2.17	2.17	2	MS	BAJ	01/02/10 07:46	100101-6	932317
7439-95-4	Magnesium	600000	ug/Kg	N	9150	32300	32300	1	P	HSC	12/19/09 13:56	121909-1	932278
7439-96-5	Manganese	160000	ug/Kg	N	215	1080	1080	1	P	HSC	12/19/09 13:56	121909-1	932278
7439-97-6	Mercury	18.8	ug/kg		4.32	12.7	12.7	1	AV	JXL1	12/29/09 13:08	122909S2-7	936546
7440-02-0	Nickel	2.79	mg/kg		0.109	0.435	0.435	2	MS	BAJ	01/01/10 20:27	100101-2	932317
7440-09-7	Potassium	464000	ug/Kg	N	6890	26900	26900	1	P	HSC	12/19/09 13:56	121909-1	932278
7782-49-2	Selenium	1.09	mg/kg	UN	0.543	1.09	1.09	2	MS	BAJ	01/01/10 20:27	100101-2	932317
7440-21-3	Silicon	1370000	ug/Kg		1610	10800	10800	1	P	HSC	12/19/09 13:56	121909-1	932278
7440-22-4	Silver	399	ug/Kg	J	108	538	538	1	P	HSC	12/19/09 13:56	121909-1	932278
7440-23-5	Sodium	101000	ug/Kg		7530	26900	26900	1	P	HSC	12/19/09 13:56	121909-1	932278
7440-28-0	Thallium	0.0793	mg/kg	J	0.0652	0.217	0.217	2	MS	BAJ	01/01/10 20:27	100101-2	932317
7440-32-6	Titanium	413000	ug/Kg		108	538	538	1	P	HSC	12/19/09 13:56	121909-1	932278
7440-61-1	Uranium	0.731	mg/kg		0.0143	0.0435	0.0435	2	MS	BAJ	01/02/10 07:05	100101-5	932317
7440-62-2	Vanadium	9640	ug/Kg		108	538	538	1	P	HSC	12/19/09 13:56	121909-1	932278
7440-66-6	Zinc	41800	ug/Kg		355	1080	1080	1	P	HSC	12/19/09 13:56	121909-1	932278

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
932278	932277	SW846 3050B	0.506	g	50	mL	12/16/09	FGA
932317	932316	SW846 3050B	0.501	g	50	mL	12/16/09	FGA
934858	934857	SW846 7471A Prep	0.51	g	30	mL	12/22/09	TXB3

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

936546	936545	SW846 7471A Prep	0.514	g	30	mL	12/28/09	JXL1

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-854 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 242668002 **BASIS:** Dry Weight **DATE COLLECTED** 07-DEC-09

CLIENT ID: RE03-10-2740 **LEVEL:** Low **DATE RECEIVED** 10-DEC-09

MATRIX: SOIL **%SOLIDS:** 89

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	6620000	ug/Kg		7300	21500	21500	1	P	HSC	12/19/09 14:31	121909-1	932278
7440-36-0	Antimony	424	ug/Kg	J	354	1070	1070	1	P	HSC	12/19/09 14:31	121909-1	932278
7440-38-2	Arsenic	1.91	mg/kg		0.224	1.12	1.12	2	MS	BAJ	01/01/10 20:58	100101-2	932317
7440-39-3	Barium	114000	ug/Kg		107	537	537	1	P	HSC	12/19/09 14:31	121909-1	932278
7440-41-7	Beryllium	0.680	mg/kg		0.0224	0.112	0.112	2	MS	BAJ	01/01/10 20:58	100101-2	932317
7440-42-8	Boron	5370	ug/Kg	U	1070	5370	5370	1	P	HSC	12/19/09 14:31	121909-1	932278
7440-43-9	Cadmium	500	ug/Kg	J	107	537	537	1	P	HSC	12/19/09 14:31	121909-1	932278
7440-70-2	Calcium	2140000	ug/Kg		8590	26800	26800	1	P	HSC	12/19/09 14:31	121909-1	932278
7440-47-3	Chromium	8080	ug/Kg	*	161	537	537	1	P	HSC	12/19/09 14:31	121909-1	932278
7440-48-4	Cobalt	4780	ug/Kg		161	537	537	1	P	HSC	12/19/09 14:31	121909-1	932278
7440-50-8	Copper	9380	ug/Kg		322	1070	1070	1	P	HSC	12/19/09 14:31	121909-1	932278
7439-89-6	Iron	10300000	ug/Kg		8590	26800	26800	1	P	HSC	12/19/09 14:31	121909-1	932278
7439-92-1	Lead	13700	ug/Kg		268	1070	1070	1	P	HSC	12/19/09 14:31	121909-1	932278
7439-93-2	Lithium	10.1	mg/kg	N	0.448	2.24	2.24	2	MS	BAJ	01/02/10 07:55	100101-6	932317
7439-95-4	Magnesium	1380000	ug/Kg	N	9130	32200	32200	1	P	HSC	12/19/09 14:31	121909-1	932278
7439-96-5	Manganese	340000	ug/Kg	N	215	1070	1070	1	P	HSC	12/19/09 14:31	121909-1	932278
7439-97-6	Mercury	21.1	ug/kg		4.23	12.4	12.4	1	AV	JXL1	12/29/09 13:10	122909S2-7	936546
7440-02-0	Nickel	6.52	mg/kg		0.112	0.448	0.448	2	MS	BAJ	01/01/10 20:58	100101-2	932317
7440-09-7	Potassium	1040000	ug/Kg	N	6870	26800	26800	1	P	HSC	12/19/09 14:31	121909-1	932278
7782-49-2	Selenium	1.12	mg/kg	UN	0.56	1.12	1.12	2	MS	BAJ	01/01/10 20:58	100101-2	932317
7440-21-3	Silicon	1470000	ug/Kg		1610	10700	10700	1	P	HSC	12/19/09 14:31	121909-1	932278
7440-22-4	Silver	530	ug/Kg	J	107	537	537	1	P	HSC	12/19/09 14:31	121909-1	932278
7440-23-5	Sodium	148000	ug/Kg		7520	26800	26800	1	P	HSC	12/19/09 14:31	121909-1	932278
7440-28-0	Thallium	0.141	mg/kg	J	0.0672	0.224	0.224	2	MS	BAJ	01/01/10 20:58	100101-2	932317
7440-32-6	Titanium	385000	ug/Kg		107	537	537	1	P	HSC	12/19/09 14:31	121909-1	932278
7440-61-1	Uranium	0.985	mg/kg		0.0148	0.0448	0.0448	2	MS	BAJ	01/02/10 07:16	100101-5	932317
7440-62-2	Vanadium	20100	ug/Kg		107	537	537	1	P	HSC	12/19/09 14:31	121909-1	932278
7440-66-6	Zinc	102000	ug/Kg		354	1070	1070	1	P	HSC	12/19/09 14:31	121909-1	932278

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
932278	932277	SW846 3050B	0.525	g	50	mL	12/16/09	FGA
932317	932316	SW846 3050B	0.503	g	50	mL	12/16/09	FGA
934858	934857	SW846 7471A Prep	0.523	g	30	mL	12/22/09	TXB3

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

936546	936545	SW846 7471A Prep	0.544	g	30	mL	12/28/09	JXL1

Quality Control Summary

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-854

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
ICV01										
	Aluminum	5050	ug/L	5000	ug/L	100.9	90.0 – 110.0	P	19-DEC-09 07:51	121909-1
	Antimony	504	ug/L	500	ug/L	100.7	90.0 – 110.0	P	19-DEC-09 07:51	121909-1
	Barium	515	ug/L	500	ug/L	103.1	90.0 – 110.0	P	19-DEC-09 07:51	121909-1
	Boron	516	ug/L	500	ug/L	103.1	90.0 – 110.0	P	19-DEC-09 07:51	121909-1
	Cadmium	503	ug/L	500	ug/L	100.6	90.0 – 110.0	P	19-DEC-09 07:51	121909-1
	Calcium	5020	ug/L	5000	ug/L	100.4	90.0 – 110.0	P	19-DEC-09 07:51	121909-1
	Chromium	492	ug/L	500	ug/L	98.4	90.0 – 110.0	P	19-DEC-09 07:51	121909-1
	Cobalt	502	ug/L	500	ug/L	100.3	90.0 – 110.0	P	19-DEC-09 07:51	121909-1
	Copper	511	ug/L	500	ug/L	102.3	90.0 – 110.0	P	19-DEC-09 07:51	121909-1
	Iron	5180	ug/L	5000	ug/L	103.6	90.0 – 110.0	P	19-DEC-09 07:51	121909-1
	Lead	504	ug/L	500	ug/L	100.8	90.0 – 110.0	P	19-DEC-09 07:51	121909-1
	Magnesium	5490	ug/L	5000	ug/L	109.8	90.0 – 110.0	P	19-DEC-09 07:51	121909-1
	Manganese	517	ug/L	500	ug/L	103.4	90.0 – 110.0	P	19-DEC-09 07:51	121909-1
	Potassium	2550	ug/L	2500	ug/L	102	90.0 – 110.0	P	19-DEC-09 07:51	121909-1
	Silicon	4830	ug/L	5000	ug/L	96.7	90.0 – 110.0	P	19-DEC-09 07:51	121909-1
	Silver	262	ug/L	250	ug/L	104.7	90.0 – 110.0	P	19-DEC-09 07:51	121909-1
	Sodium	2510	ug/L	2500	ug/L	100.5	90.0 – 110.0	P	19-DEC-09 07:51	121909-1
	Titanium	498	ug/L	500	ug/L	99.7	90.0 – 110.0	P	19-DEC-09 07:51	121909-1
	Vanadium	517	ug/L	500	ug/L	103.5	90.0 – 110.0	P	19-DEC-09 07:51	121909-1
	Zinc	511	ug/L	500	ug/L	102.2	90.0 – 110.0	P	19-DEC-09 07:51	121909-1
	Mercury	5.1	ug/L	5	ug/L	102	90.0 – 110.0	AV	29-DEC-09 09:29	122909S2-7
	Arsenic	50.1	ug/L	50	ug/L	100.1	90.0 – 110.0	MS	01-JAN-10 16:26	100101-2
	Beryllium	51.1	ug/L	50	ug/L	102.2	90.0 – 110.0	MS	01-JAN-10 16:26	100101-2
	Nickel	52.3	ug/L	50	ug/L	104.5	90.0 – 110.0	MS	01-JAN-10 16:26	100101-2
	Selenium	50.4	ug/L	50	ug/L	100.9	90.0 – 110.0	MS	01-JAN-10 16:26	100101-2
	Thallium	52.8	ug/L	50	ug/L	105.5	90.0 – 110.0	MS	01-JAN-10 16:26	100101-2
	Uranium	53.8	ug/L	50	ug/L	107.6	90.0 – 110.0	MS	02-JAN-10 06:42	100101-5
	Lithium	52.7	ug/L	50	ug/L	105.3	90.0 – 110.0	MS	02-JAN-10 07:29	100101-6
CCV01										
	Aluminum	4920	ug/L	5000	ug/L	98.4	90.0 – 110.0	P	19-DEC-09 08:36	121909-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-854

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Antimony	508	ug/L	500	ug/L	101.6	90.0 – 110.0	P	19-DEC-09 08:36	121909-1
	Barium	499	ug/L	500	ug/L	99.9	90.0 – 110.0	P	19-DEC-09 08:36	121909-1
	Boron	516	ug/L	500	ug/L	103.2	90.0 – 110.0	P	19-DEC-09 08:36	121909-1
	Cadmium	499	ug/L	500	ug/L	99.7	90.0 – 110.0	P	19-DEC-09 08:36	121909-1
	Calcium	4990	ug/L	5000	ug/L	99.8	90.0 – 110.0	P	19-DEC-09 08:36	121909-1
	Chromium	499	ug/L	500	ug/L	99.7	90.0 – 110.0	P	19-DEC-09 08:36	121909-1
	Cobalt	499	ug/L	500	ug/L	99.8	90.0 – 110.0	P	19-DEC-09 08:36	121909-1
	Copper	493	ug/L	500	ug/L	98.7	90.0 – 110.0	P	19-DEC-09 08:36	121909-1
	Iron	5120	ug/L	5000	ug/L	102.4	90.0 – 110.0	P	19-DEC-09 08:36	121909-1
	Lead	498	ug/L	500	ug/L	99.7	90.0 – 110.0	P	19-DEC-09 08:36	121909-1
	Magnesium	5200	ug/L	5000	ug/L	104.1	90.0 – 110.0	P	19-DEC-09 08:36	121909-1
	Manganese	495	ug/L	500	ug/L	99	90.0 – 110.0	P	19-DEC-09 08:36	121909-1
	Potassium	5130	ug/L	5000	ug/L	102.5	90.0 – 110.0	P	19-DEC-09 08:36	121909-1
	Silicon	2450	ug/L	2500	ug/L	98	90.0 – 110.0	P	19-DEC-09 08:36	121909-1
	Silver	495	ug/L	500	ug/L	99.1	90.0 – 110.0	P	19-DEC-09 08:36	121909-1
	Sodium	10100	ug/L	10000	ug/L	100.8	90.0 – 110.0	P	19-DEC-09 08:36	121909-1
	Titanium	489	ug/L	500	ug/L	97.8	90.0 – 110.0	P	19-DEC-09 08:36	121909-1
	Vanadium	502	ug/L	500	ug/L	100.4	90.0 – 110.0	P	19-DEC-09 08:36	121909-1
	Zinc	494	ug/L	500	ug/L	98.8	90.0 – 110.0	P	19-DEC-09 08:36	121909-1
	Mercury	5.13	ug/L	5	ug/L	102.6	80.0 – 120.0	AV	29-DEC-09 09:34	122909S2-7
	Arsenic	48.8	ug/L	50	ug/L	97.6	90.0 – 110.0	MS	01-JAN-10 16:57	100101-2
	Beryllium	50.8	ug/L	50	ug/L	101.7	90.0 – 110.0	MS	01-JAN-10 16:57	100101-2
	Nickel	53.9	ug/L	50	ug/L	107.9	90.0 – 110.0	MS	01-JAN-10 16:57	100101-2
	Selenium	49.9	ug/L	50	ug/L	99.9	90.0 – 110.0	MS	01-JAN-10 16:57	100101-2
	Thallium	52.1	ug/L	50	ug/L	104.3	90.0 – 110.0	MS	01-JAN-10 16:57	100101-2
	Uranium	50.7	ug/L	50	ug/L	101.5	90.0 – 110.0	MS	02-JAN-10 06:53	100101-5
	Lithium	50.1	ug/L	50	ug/L	100.2	90.0 – 110.0	MS	02-JAN-10 07:37	100101-6
CCV02										
	Aluminum	4930	ug/L	5000	ug/L	98.7	90.0 – 110.0	P	19-DEC-09 09:05	121909-1
	Antimony	490	ug/L	500	ug/L	98.1	90.0 – 110.0	P	19-DEC-09 09:05	121909-1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–854

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Barium	494	ug/L	500	ug/L	98.7	90.0 – 110.0	P	19–DEC–09 09:05	121909–1
	Boron	490	ug/L	500	ug/L	98	90.0 – 110.0	P	19–DEC–09 09:05	121909–1
	Cadmium	494	ug/L	500	ug/L	98.8	90.0 – 110.0	P	19–DEC–09 09:05	121909–1
	Calcium	5030	ug/L	5000	ug/L	100.6	90.0 – 110.0	P	19–DEC–09 09:05	121909–1
	Chromium	492	ug/L	500	ug/L	98.3	90.0 – 110.0	P	19–DEC–09 09:05	121909–1
	Cobalt	485	ug/L	500	ug/L	97	90.0 – 110.0	P	19–DEC–09 09:05	121909–1
	Copper	491	ug/L	500	ug/L	98.2	90.0 – 110.0	P	19–DEC–09 09:05	121909–1
	Iron	5170	ug/L	5000	ug/L	103.4	90.0 – 110.0	P	19–DEC–09 09:05	121909–1
	Lead	495	ug/L	500	ug/L	99.1	90.0 – 110.0	P	19–DEC–09 09:05	121909–1
	Magnesium	5260	ug/L	5000	ug/L	105.2	90.0 – 110.0	P	19–DEC–09 09:05	121909–1
	Manganese	492	ug/L	500	ug/L	98.4	90.0 – 110.0	P	19–DEC–09 09:05	121909–1
	Potassium	5040	ug/L	5000	ug/L	100.9	90.0 – 110.0	P	19–DEC–09 09:05	121909–1
	Silicon	2420	ug/L	2500	ug/L	96.6	90.0 – 110.0	P	19–DEC–09 09:05	121909–1
	Silver	488	ug/L	500	ug/L	97.6	90.0 – 110.0	P	19–DEC–09 09:05	121909–1
	Sodium	9990	ug/L	10000	ug/L	99.9	90.0 – 110.0	P	19–DEC–09 09:05	121909–1
	Titanium	486	ug/L	500	ug/L	97.3	90.0 – 110.0	P	19–DEC–09 09:05	121909–1
	Vanadium	494	ug/L	500	ug/L	98.9	90.0 – 110.0	P	19–DEC–09 09:05	121909–1
	Zinc	487	ug/L	500	ug/L	97.5	90.0 – 110.0	P	19–DEC–09 09:05	121909–1
	Mercury	5.23	ug/L	5	ug/L	104.5	80.0 – 120.0	AV	29–DEC–09 09:46	122909S2–7
	Arsenic	50.3	ug/L	50	ug/L	100.5	90.0 – 110.0	MS	01–JAN–10 17:15	100101–2
	Beryllium	49.1	ug/L	50	ug/L	98.2	90.0 – 110.0	MS	01–JAN–10 17:15	100101–2
	Nickel	52.1	ug/L	50	ug/L	104.2	90.0 – 110.0	MS	01–JAN–10 17:15	100101–2
	Selenium	51	ug/L	50	ug/L	102	90.0 – 110.0	MS	01–JAN–10 17:15	100101–2
	Thallium	54.2	ug/L	50	ug/L	108.5	90.0 – 110.0	MS	01–JAN–10 17:15	100101–2
	Uranium	50.3	ug/L	50	ug/L	100.6	90.0 – 110.0	MS	02–JAN–10 07:19	100101–5
	Lithium	51.8	ug/L	50	ug/L	103.7	90.0 – 110.0	MS	02–JAN–10 07:56	100101–6
CCV03										
	Aluminum	4910	ug/L	5000	ug/L	98.2	90.0 – 110.0	P	19–DEC–09 10:14	121909–1
	Antimony	486	ug/L	500	ug/L	97.3	90.0 – 110.0	P	19–DEC–09 10:14	121909–1
	Barium	484	ug/L	500	ug/L	96.8	90.0 – 110.0	P	19–DEC–09 10:14	121909–1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–854

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Boron	478	ug/L	500	ug/L	95.7	90.0 – 110.0	P	19–DEC–09 10:14	121909–1
	Cadmium	485	ug/L	500	ug/L	97.1	90.0 – 110.0	P	19–DEC–09 10:14	121909–1
	Calcium	4950	ug/L	5000	ug/L	99	90.0 – 110.0	P	19–DEC–09 10:14	121909–1
	Chromium	483	ug/L	500	ug/L	96.6	90.0 – 110.0	P	19–DEC–09 10:14	121909–1
	Cobalt	485	ug/L	500	ug/L	96.9	90.0 – 110.0	P	19–DEC–09 10:14	121909–1
	Copper	478	ug/L	500	ug/L	95.7	90.0 – 110.0	P	19–DEC–09 10:14	121909–1
	Iron	5000	ug/L	5000	ug/L	100	90.0 – 110.0	P	19–DEC–09 10:14	121909–1
	Lead	482	ug/L	500	ug/L	96.5	90.0 – 110.0	P	19–DEC–09 10:14	121909–1
	Magnesium	5160	ug/L	5000	ug/L	103.2	90.0 – 110.0	P	19–DEC–09 10:14	121909–1
	Manganese	478	ug/L	500	ug/L	95.7	90.0 – 110.0	P	19–DEC–09 10:14	121909–1
	Potassium	4990	ug/L	5000	ug/L	99.8	90.0 – 110.0	P	19–DEC–09 10:14	121909–1
	Silicon	2380	ug/L	2500	ug/L	95.2	90.0 – 110.0	P	19–DEC–09 10:14	121909–1
	Silver	481	ug/L	500	ug/L	96.2	90.0 – 110.0	P	19–DEC–09 10:14	121909–1
	Sodium	9570	ug/L	10000	ug/L	95.7	90.0 – 110.0	P	19–DEC–09 10:14	121909–1
	Titanium	473	ug/L	500	ug/L	94.5	90.0 – 110.0	P	19–DEC–09 10:14	121909–1
	Vanadium	487	ug/L	500	ug/L	97.4	90.0 – 110.0	P	19–DEC–09 10:14	121909–1
	Zinc	480	ug/L	500	ug/L	96	90.0 – 110.0	P	19–DEC–09 10:14	121909–1
	Mercury	5.44	ug/L	5	ug/L	108.9	80.0 – 120.0	AV	29–DEC–09 10:06	122909S2–7
	Arsenic	49.4	ug/L	50	ug/L	98.7	90.0 – 110.0	MS	01–JAN–10 18:18	100101–2
	Beryllium	49.2	ug/L	50	ug/L	98.4	90.0 – 110.0	MS	01–JAN–10 18:18	100101–2
	Nickel	52.5	ug/L	50	ug/L	105	90.0 – 110.0	MS	01–JAN–10 18:18	100101–2
	Selenium	50.3	ug/L	50	ug/L	100.7	90.0 – 110.0	MS	01–JAN–10 18:18	100101–2
	Thallium	52.6	ug/L	50	ug/L	105.2	90.0 – 110.0	MS	01–JAN–10 18:18	100101–2
CCV04										
	Aluminum	4920	ug/L	5000	ug/L	98.3	90.0 – 110.0	P	19–DEC–09 11:18	121909–1
	Antimony	495	ug/L	500	ug/L	99.1	90.0 – 110.0	P	19–DEC–09 11:18	121909–1
	Barium	491	ug/L	500	ug/L	98.3	90.0 – 110.0	P	19–DEC–09 11:18	121909–1
	Boron	479	ug/L	500	ug/L	95.8	90.0 – 110.0	P	19–DEC–09 11:18	121909–1
	Cadmium	491	ug/L	500	ug/L	98.2	90.0 – 110.0	P	19–DEC–09 11:18	121909–1
	Calcium	4960	ug/L	5000	ug/L	99.3	90.0 – 110.0	P	19–DEC–09 11:18	121909–1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–854

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Chromium	490	ug/L	500	ug/L	98.1	90.0 – 110.0	P	19–DEC–09 11:18	121909–1
	Cobalt	492	ug/L	500	ug/L	98.4	90.0 – 110.0	P	19–DEC–09 11:18	121909–1
	Copper	487	ug/L	500	ug/L	97.5	90.0 – 110.0	P	19–DEC–09 11:18	121909–1
	Iron	5050	ug/L	5000	ug/L	101	90.0 – 110.0	P	19–DEC–09 11:18	121909–1
	Lead	489	ug/L	500	ug/L	97.8	90.0 – 110.0	P	19–DEC–09 11:18	121909–1
	Magnesium	5170	ug/L	5000	ug/L	103.4	90.0 – 110.0	P	19–DEC–09 11:18	121909–1
	Manganese	489	ug/L	500	ug/L	97.8	90.0 – 110.0	P	19–DEC–09 11:18	121909–1
	Potassium	4970	ug/L	5000	ug/L	99.5	90.0 – 110.0	P	19–DEC–09 11:18	121909–1
	Silicon	2420	ug/L	2500	ug/L	96.8	90.0 – 110.0	P	19–DEC–09 11:18	121909–1
	Silver	489	ug/L	500	ug/L	97.8	90.0 – 110.0	P	19–DEC–09 11:18	121909–1
	Sodium	9910	ug/L	10000	ug/L	99.1	90.0 – 110.0	P	19–DEC–09 11:18	121909–1
	Titanium	484	ug/L	500	ug/L	96.7	90.0 – 110.0	P	19–DEC–09 11:18	121909–1
	Vanadium	495	ug/L	500	ug/L	99	90.0 – 110.0	P	19–DEC–09 11:18	121909–1
	Zinc	487	ug/L	500	ug/L	97.4	90.0 – 110.0	P	19–DEC–09 11:18	121909–1
	Mercury	5.45	ug/L	5	ug/L	108.9	80.0 – 120.0	AV	29–DEC–09 10:26	122909S2–7
	Arsenic	49.3	ug/L	50	ug/L	98.5	90.0 – 110.0	MS	01–JAN–10 19:20	100101–2
	Beryllium	50.8	ug/L	50	ug/L	101.5	90.0 – 110.0	MS	01–JAN–10 19:20	100101–2
	Nickel	53.5	ug/L	50	ug/L	107	90.0 – 110.0	MS	01–JAN–10 19:20	100101–2
	Selenium	50.2	ug/L	50	ug/L	100.3	90.0 – 110.0	MS	01–JAN–10 19:20	100101–2
	Thallium	53.4	ug/L	50	ug/L	106.8	90.0 – 110.0	MS	01–JAN–10 19:20	100101–2
CCV05										
	Aluminum	5120	ug/L	5000	ug/L	102.5	90.0 – 110.0	P	19–DEC–09 12:04	121909–1
	Antimony	499	ug/L	500	ug/L	99.8	90.0 – 110.0	P	19–DEC–09 12:04	121909–1
	Barium	495	ug/L	500	ug/L	98.9	90.0 – 110.0	P	19–DEC–09 12:04	121909–1
	Boron	477	ug/L	500	ug/L	95.5	90.0 – 110.0	P	19–DEC–09 12:04	121909–1
	Cadmium	494	ug/L	500	ug/L	98.8	90.0 – 110.0	P	19–DEC–09 12:04	121909–1
	Calcium	5130	ug/L	5000	ug/L	102.7	90.0 – 110.0	P	19–DEC–09 12:04	121909–1
	Chromium	493	ug/L	500	ug/L	98.5	90.0 – 110.0	P	19–DEC–09 12:04	121909–1
	Cobalt	486	ug/L	500	ug/L	97.3	90.0 – 110.0	P	19–DEC–09 12:04	121909–1
	Copper	491	ug/L	500	ug/L	98.2	90.0 – 110.0	P	19–DEC–09 12:04	121909–1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-854

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Iron	5180	ug/L	5000	ug/L	103.6	90.0 - 110.0	P	19-DEC-09 12:04	121909-1
	Lead	497	ug/L	500	ug/L	99.5	90.0 - 110.0	P	19-DEC-09 12:04	121909-1
	Magnesium	5320	ug/L	5000	ug/L	106.3	90.0 - 110.0	P	19-DEC-09 12:04	121909-1
	Manganese	493	ug/L	500	ug/L	98.6	90.0 - 110.0	P	19-DEC-09 12:04	121909-1
	Potassium	5200	ug/L	5000	ug/L	104	90.0 - 110.0	P	19-DEC-09 12:04	121909-1
	Silicon	2430	ug/L	2500	ug/L	97.1	90.0 - 110.0	P	19-DEC-09 12:04	121909-1
	Silver	489	ug/L	500	ug/L	97.9	90.0 - 110.0	P	19-DEC-09 12:04	121909-1
	Sodium	9870	ug/L	10000	ug/L	98.7	90.0 - 110.0	P	19-DEC-09 12:04	121909-1
	Titanium	488	ug/L	500	ug/L	97.5	90.0 - 110.0	P	19-DEC-09 12:04	121909-1
	Vanadium	496	ug/L	500	ug/L	99.2	90.0 - 110.0	P	19-DEC-09 12:04	121909-1
	Zinc	490	ug/L	500	ug/L	97.9	90.0 - 110.0	P	19-DEC-09 12:04	121909-1
	Mercury	5.2	ug/L	5	ug/L	104.1	80.0 - 120.0	AV	29-DEC-09 10:46	122909S2-7
	Arsenic	49.2	ug/L	50	ug/L	98.5	90.0 - 110.0	MS	01-JAN-10 19:57	100101-2
	Beryllium	51.8	ug/L	50	ug/L	103.5	90.0 - 110.0	MS	01-JAN-10 19:57	100101-2
	Nickel	54	ug/L	50	ug/L	108	90.0 - 110.0	MS	01-JAN-10 19:57	100101-2
	Selenium	51	ug/L	50	ug/L	102	90.0 - 110.0	MS	01-JAN-10 19:57	100101-2
	Thallium	53.2	ug/L	50	ug/L	106.4	90.0 - 110.0	MS	01-JAN-10 19:57	100101-2
CCV06										
	Aluminum	4960	ug/L	5000	ug/L	99.3	90.0 - 110.0	P	19-DEC-09 13:07	121909-1
	Antimony	495	ug/L	500	ug/L	99	90.0 - 110.0	P	19-DEC-09 13:07	121909-1
	Barium	492	ug/L	500	ug/L	98.5	90.0 - 110.0	P	19-DEC-09 13:07	121909-1
	Boron	477	ug/L	500	ug/L	95.4	90.0 - 110.0	P	19-DEC-09 13:07	121909-1
	Cadmium	492	ug/L	500	ug/L	98.3	90.0 - 110.0	P	19-DEC-09 13:07	121909-1
	Calcium	4990	ug/L	5000	ug/L	99.9	90.0 - 110.0	P	19-DEC-09 13:07	121909-1
	Chromium	491	ug/L	500	ug/L	98.3	90.0 - 110.0	P	19-DEC-09 13:07	121909-1
	Cobalt	492	ug/L	500	ug/L	98.4	90.0 - 110.0	P	19-DEC-09 13:07	121909-1
	Copper	488	ug/L	500	ug/L	97.5	90.0 - 110.0	P	19-DEC-09 13:07	121909-1
	Iron	4970	ug/L	5000	ug/L	99.4	90.0 - 110.0	P	19-DEC-09 13:07	121909-1
	Lead	488	ug/L	500	ug/L	97.6	90.0 - 110.0	P	19-DEC-09 13:07	121909-1
	Magnesium	5180	ug/L	5000	ug/L	103.6	90.0 - 110.0	P	19-DEC-09 13:07	121909-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-854

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Manganese	491	ug/L	500	ug/L	98.2	90.0 - 110.0	P	19-DEC-09 13:07	121909-1
	Potassium	5010	ug/L	5000	ug/L	100.2	90.0 - 110.0	P	19-DEC-09 13:07	121909-1
	Silicon	2420	ug/L	2500	ug/L	96.7	90.0 - 110.0	P	19-DEC-09 13:07	121909-1
	Silver	490	ug/L	500	ug/L	98	90.0 - 110.0	P	19-DEC-09 13:07	121909-1
	Sodium	9370	ug/L	10000	ug/L	93.7	90.0 - 110.0	P	19-DEC-09 13:07	121909-1
	Titanium	486	ug/L	500	ug/L	97.3	90.0 - 110.0	P	19-DEC-09 13:07	121909-1
	Vanadium	496	ug/L	500	ug/L	99.2	90.0 - 110.0	P	19-DEC-09 13:07	121909-1
	Zinc	487	ug/L	500	ug/L	97.4	90.0 - 110.0	P	19-DEC-09 13:07	121909-1
	Mercury	5.15	ug/L	5	ug/L	102.9	80.0 - 120.0	AV	29-DEC-09 11:06	122909S2-7
	Arsenic	49.2	ug/L	50	ug/L	98.4	90.0 - 110.0	MS	01-JAN-10 21:05	100101-2
	Beryllium	54.3	ug/L	50	ug/L	108.5	90.0 - 110.0	MS	01-JAN-10 21:05	100101-2
	Nickel	54.4	ug/L	50	ug/L	108.7	90.0 - 110.0	MS	01-JAN-10 21:05	100101-2
	Selenium	49.9	ug/L	50	ug/L	99.8	90.0 - 110.0	MS	01-JAN-10 21:05	100101-2
	Thallium	53.5	ug/L	50	ug/L	107	90.0 - 110.0	MS	01-JAN-10 21:05	100101-2
CCV07										
	Aluminum	4840	ug/L	5000	ug/L	96.7	90.0 - 110.0	P	19-DEC-09 13:29	121909-1
	Antimony	503	ug/L	500	ug/L	100.5	90.0 - 110.0	P	19-DEC-09 13:29	121909-1
	Barium	500	ug/L	500	ug/L	100.1	90.0 - 110.0	P	19-DEC-09 13:29	121909-1
	Boron	484	ug/L	500	ug/L	96.7	90.0 - 110.0	P	19-DEC-09 13:29	121909-1
	Cadmium	500	ug/L	500	ug/L	100	90.0 - 110.0	P	19-DEC-09 13:29	121909-1
	Calcium	4830	ug/L	5000	ug/L	96.6	90.0 - 110.0	P	19-DEC-09 13:29	121909-1
	Chromium	500	ug/L	500	ug/L	99.9	90.0 - 110.0	P	19-DEC-09 13:29	121909-1
	Cobalt	500	ug/L	500	ug/L	100.1	90.0 - 110.0	P	19-DEC-09 13:29	121909-1
	Copper	495	ug/L	500	ug/L	99.1	90.0 - 110.0	P	19-DEC-09 13:29	121909-1
	Iron	4910	ug/L	5000	ug/L	98.2	90.0 - 110.0	P	19-DEC-09 13:29	121909-1
	Lead	498	ug/L	500	ug/L	99.5	90.0 - 110.0	P	19-DEC-09 13:29	121909-1
	Magnesium	5070	ug/L	5000	ug/L	101.4	90.0 - 110.0	P	19-DEC-09 13:29	121909-1
	Manganese	495	ug/L	500	ug/L	99.1	90.0 - 110.0	P	19-DEC-09 13:29	121909-1
	Potassium	4900	ug/L	5000	ug/L	98	90.0 - 110.0	P	19-DEC-09 13:29	121909-1
	Silicon	2450	ug/L	2500	ug/L	98.2	90.0 - 110.0	P	19-DEC-09 13:29	121909-1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–854

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Silver	498	ug/L	500	ug/L	99.5	90.0 – 110.0	P	19–DEC–09 13:29	121909–1
	Sodium	9620	ug/L	10000	ug/L	96.2	90.0 – 110.0	P	19–DEC–09 13:29	121909–1
	Titanium	490	ug/L	500	ug/L	98.1	90.0 – 110.0	P	19–DEC–09 13:29	121909–1
	Vanadium	503	ug/L	500	ug/L	100.7	90.0 – 110.0	P	19–DEC–09 13:29	121909–1
	Zinc	494	ug/L	500	ug/L	98.9	90.0 – 110.0	P	19–DEC–09 13:29	121909–1
	Mercury	5.04	ug/L	5	ug/L	100.8	80.0 – 120.0	AV	29–DEC–09 11:26	122909S2–7
CCV08										
	Aluminum	4890	ug/L	5000	ug/L	97.8	90.0 – 110.0	P	19–DEC–09 14:38	121909–1
	Antimony	507	ug/L	500	ug/L	101.3	90.0 – 110.0	P	19–DEC–09 14:38	121909–1
	Barium	506	ug/L	500	ug/L	101.3	90.0 – 110.0	P	19–DEC–09 14:38	121909–1
	Boron	491	ug/L	500	ug/L	98.2	90.0 – 110.0	P	19–DEC–09 14:38	121909–1
	Cadmium	505	ug/L	500	ug/L	100.9	90.0 – 110.0	P	19–DEC–09 14:38	121909–1
	Calcium	4970	ug/L	5000	ug/L	99.3	90.0 – 110.0	P	19–DEC–09 14:38	121909–1
	Chromium	504	ug/L	500	ug/L	100.9	90.0 – 110.0	P	19–DEC–09 14:38	121909–1
	Cobalt	506	ug/L	500	ug/L	101.2	90.0 – 110.0	P	19–DEC–09 14:38	121909–1
	Copper	504	ug/L	500	ug/L	100.8	90.0 – 110.0	P	19–DEC–09 14:38	121909–1
	Iron	5050	ug/L	5000	ug/L	101	90.0 – 110.0	P	19–DEC–09 14:38	121909–1
	Lead	502	ug/L	500	ug/L	100.5	90.0 – 110.0	P	19–DEC–09 14:38	121909–1
	Magnesium	5180	ug/L	5000	ug/L	103.5	90.0 – 110.0	P	19–DEC–09 14:38	121909–1
	Manganese	503	ug/L	500	ug/L	100.7	90.0 – 110.0	P	19–DEC–09 14:38	121909–1
	Potassium	4950	ug/L	5000	ug/L	99.1	90.0 – 110.0	P	19–DEC–09 14:38	121909–1
	Silicon	2500	ug/L	2500	ug/L	99.8	90.0 – 110.0	P	19–DEC–09 14:38	121909–1
	Silver	505	ug/L	500	ug/L	100.9	90.0 – 110.0	P	19–DEC–09 14:38	121909–1
	Sodium	9680	ug/L	10000	ug/L	96.8	90.0 – 110.0	P	19–DEC–09 14:38	121909–1
	Titanium	499	ug/L	500	ug/L	99.8	90.0 – 110.0	P	19–DEC–09 14:38	121909–1
	Vanadium	510	ug/L	500	ug/L	101.9	90.0 – 110.0	P	19–DEC–09 14:38	121909–1
	Zinc	501	ug/L	500	ug/L	100.3	90.0 – 110.0	P	19–DEC–09 14:38	121909–1
	Mercury	5.34	ug/L	5	ug/L	106.8	80.0 – 120.0	AV	29–DEC–09 11:46	122909S2–7
CCV09										
	Mercury	5.28	ug/L	5	ug/L	105.5	80.0 – 120.0	AV	29–DEC–09 12:07	122909S2–7

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-854

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
CCV10										
	Mercury	5.27	ug/L	5	ug/L	105.5	80.0 - 120.0	AV	29-DEC-09 12:12	122909S2-7
CCV11										
	Mercury	5.43	ug/L	5	ug/L	108.7	80.0 - 120.0	AV	29-DEC-09 13:15	122909S2-7

METALS
-2b-
CRDL Standard for AA & ICP

SDG No: 10-854

Contract: LANL01004 **Lab Code:** GEL

AA CRDL Standard Source: SPEX

ICP CRDL Standard Source Solutions Plus

Instrument ID: HG3,ICPMS5,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Advisory Limits (%R)	M	Analysis Date/Time	Run Number
CRDL01										
	Mercury	.183	ug/L	.2	ug/L	91.5	70.0 - 130.0	AV	29-DEC-09 09:33	122909S2-7
	Nickel	2.16	ug/L	2	ug/L	107.8	70.0 - 130.0	MS	01-JAN-10 16:38	100101-2
	Thallium	1.24	ug/L	1	ug/L	124.1	70.0 - 130.0	MS	01-JAN-10 16:38	100101-2
	Arsenic	5.36	ug/L	5	ug/L	107.3	70.0 - 130.0	MS	01-JAN-10 16:38	100101-2
	Selenium	5.46	ug/L	5	ug/L	109.1	70.0 - 130.0	MS	01-JAN-10 16:38	100101-2
	Beryllium	.494	ug/L	.5	ug/L	98.8	70.0 - 130.0	MS	01-JAN-10 16:38	100101-2
	Uranium	.228	ug/L	.2	ug/L	114	70.0 - 130.0	MS	02-JAN-10 06:46	100101-5
	Lithium	11.1	ug/L	10	ug/L	111.1	70.0 - 130.0	MS	02-JAN-10 07:32	100101-6
PQL01										
	Aluminum	202	ug/L	200	ug/L	100.9	70.0 - 130.0	P	19-DEC-09 08:04	121909-1
	Iron	98.2	ug/L	100	ug/L	98.2	70.0 - 130.0	P	19-DEC-09 08:04	121909-1
	Lead	9.29	ug/L	10	ug/L	92.9	70.0 - 130.0	P	19-DEC-09 08:04	121909-1
	Magnesium	313	ug/L	300	ug/L	104.3	70.0 - 130.0	P	19-DEC-09 08:04	121909-1
	Manganese	10.5	ug/L	10	ug/L	104.9	70.0 - 130.0	P	19-DEC-09 08:04	121909-1
	Potassium	165	ug/L	150	ug/L	109.8	70.0 - 130.0	P	19-DEC-09 08:04	121909-1
	Silver	5.1	ug/L	5	ug/L	101.9	70.0 - 130.0	P	19-DEC-09 08:04	121909-1
	Sodium	305	ug/L	300	ug/L	101.6	70.0 - 130.0	P	19-DEC-09 08:04	121909-1
	Antimony	10.3	ug/L	10	ug/L	102.6	70.0 - 130.0	P	19-DEC-09 08:04	121909-1
	Barium	5.05	ug/L	5	ug/L	101	70.0 - 130.0	P	19-DEC-09 08:04	121909-1
	Cadmium	5.08	ug/L	5	ug/L	101.6	70.0 - 130.0	P	19-DEC-09 08:04	121909-1
	Chromium	5.05	ug/L	5	ug/L	101.1	70.0 - 130.0	P	19-DEC-09 08:04	121909-1
	Cobalt	4.93	ug/L	5	ug/L	98.5	70.0 - 130.0	P	19-DEC-09 08:04	121909-1
	Copper	10.3	ug/L	10	ug/L	102.5	70.0 - 130.0	P	19-DEC-09 08:04	121909-1
	Vanadium	4.7	ug/L	5	ug/L	94.1	70.0 - 130.0	P	19-DEC-09 08:04	121909-1
	Zinc	9.89	ug/L	10	ug/L	98.9	70.0 - 130.0	P	19-DEC-09 08:04	121909-1
	Calcium	210	ug/L	200	ug/L	104.8	70.0 - 130.0	P	19-DEC-09 08:04	121909-1
	Boron	49.5	ug/L	50	ug/L	99.1	70.0 - 130.0	P	19-DEC-09 08:04	121909-1
	Silicon	102	ug/L	100	ug/L	102.4	70.0 - 130.0	P	19-DEC-09 08:04	121909-1
	Titanium	5	ug/L	5	ug/L	99.9	70.0 - 130.0	P	19-DEC-09 08:04	121909-1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–854

Contract: LANL01004 **Lab Code: GEL**

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
ICB01										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	19–DEC–09 07:58	121909–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	19–DEC–09 07:58	121909–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	19–DEC–09 07:58	121909–1
	Boron	10.0	+/–50	U	10.0	50.0	SOL	P	19–DEC–09 07:58	121909–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	19–DEC–09 07:58	121909–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	19–DEC–09 07:58	121909–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	19–DEC–09 07:58	121909–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	19–DEC–09 07:58	121909–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	19–DEC–09 07:58	121909–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	19–DEC–09 07:58	121909–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	19–DEC–09 07:58	121909–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	19–DEC–09 07:58	121909–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	19–DEC–09 07:58	121909–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	19–DEC–09 07:58	121909–1
	Silicon	15.0	+/–100	U	15.0	100	SOL	P	19–DEC–09 07:58	121909–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	19–DEC–09 07:58	121909–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	19–DEC–09 07:58	121909–1
	Titanium	1.0	+/–5	U	1.0	5.0	SOL	P	19–DEC–09 07:58	121909–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	19–DEC–09 07:58	121909–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	19–DEC–09 07:58	121909–1
	Mercury	0.068	+/–.2	U	0.068	0.2	SOL	AV	29–DEC–09 09:31	122909S2–7
	Arsenic	1.0	+/–5	U	1.0	5.0	SOL	MS	01–JAN–10 16:32	100101–2
	Beryllium	0.1	+/–.5	U	0.1	0.5	SOL	MS	01–JAN–10 16:32	100101–2
	Nickel	0.5	+/–2	U	0.5	2.0	SOL	MS	01–JAN–10 16:32	100101–2
	Selenium	2.5	+/–5	U	2.5	5.0	SOL	MS	01–JAN–10 16:32	100101–2
	Thallium	0.3	+/–1	U	0.3	1.0	SOL	MS	01–JAN–10 16:32	100101–2
	Uranium	0.066	+/–.2	U	0.066	0.2	SOL	MS	02–JAN–10 06:44	100101–5
	Lithium	2.0	+/–10	U	2.0	10.0	SOL	MS	02–JAN–10 07:31	100101–6
CCB01										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	19–DEC–09 08:43	121909–1
	Antimony	4.79	+/–10	J	3.3	10.0	SOL	P	19–DEC–09 08:43	121909–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–854

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	19–DEC–09 08:43	121909–1
	Boron	14.3	+/–50	J	10.0	50.0	SOL	P	19–DEC–09 08:43	121909–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	19–DEC–09 08:43	121909–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	19–DEC–09 08:43	121909–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	19–DEC–09 08:43	121909–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	19–DEC–09 08:43	121909–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	19–DEC–09 08:43	121909–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	19–DEC–09 08:43	121909–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	19–DEC–09 08:43	121909–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	19–DEC–09 08:43	121909–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	19–DEC–09 08:43	121909–1
	Potassium	99.96	+/–250	J	64.0	250	SOL	P	19–DEC–09 08:43	121909–1
	Silicon	15.0	+/–100	U	15.0	100	SOL	P	19–DEC–09 08:43	121909–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	19–DEC–09 08:43	121909–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	19–DEC–09 08:43	121909–1
	Titanium	1.0	+/–5	U	1.0	5.0	SOL	P	19–DEC–09 08:43	121909–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	19–DEC–09 08:43	121909–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	19–DEC–09 08:43	121909–1
	Mercury	0.068	+/–.2	U	0.068	0.2	SOL	AV	29–DEC–09 09:36	122909S2–7
	Arsenic	1.0	+/–5	U	1.0	5.0	SOL	MS	01–JAN–10 17:03	100101–2
	Beryllium	0.1	+/–.5	U	0.1	0.5	SOL	MS	01–JAN–10 17:03	100101–2
	Nickel	0.5	+/–2	U	0.5	2.0	SOL	MS	01–JAN–10 17:03	100101–2
	Selenium	2.5	+/–5	U	2.5	5.0	SOL	MS	01–JAN–10 17:03	100101–2
	Thallium	0.3	+/–1	U	0.3	1.0	SOL	MS	01–JAN–10 17:03	100101–2
	Uranium	0.066	+/–.2	U	0.066	0.2	SOL	MS	02–JAN–10 06:55	100101–5
	Lithium	2.0	+/–10	U	2.0	10.0	SOL	MS	02–JAN–10 07:39	100101–6
CCB02										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	19–DEC–09 09:12	121909–1
	Antimony	4.36	+/–10	J	3.3	10.0	SOL	P	19–DEC–09 09:12	121909–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	19–DEC–09 09:12	121909–1
	Boron	10.0	+/–50	U	10.0	50.0	SOL	P	19–DEC–09 09:12	121909–1

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-854

Contract: LANL01004 **Lab Code: GEL**

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	19-DEC-09 09:12	121909-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	19-DEC-09 09:12	121909-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	19-DEC-09 09:12	121909-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	19-DEC-09 09:12	121909-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	19-DEC-09 09:12	121909-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	19-DEC-09 09:12	121909-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	19-DEC-09 09:12	121909-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	19-DEC-09 09:12	121909-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	19-DEC-09 09:12	121909-1
	Potassium	69.21	+/-250	J	64.0	250	SOL	P	19-DEC-09 09:12	121909-1
	Silicon	15.0	+/-100	U	15.0	100	SOL	P	19-DEC-09 09:12	121909-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	19-DEC-09 09:12	121909-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	19-DEC-09 09:12	121909-1
	Titanium	1.0	+/-5	U	1.0	5.0	SOL	P	19-DEC-09 09:12	121909-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	19-DEC-09 09:12	121909-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	19-DEC-09 09:12	121909-1
	Mercury	0.068	+/-.2	U	0.068	0.2	SOL	AV	29-DEC-09 09:47	122909S2-7
	Arsenic	1.0	+/-5	U	1.0	5.0	SOL	MS	01-JAN-10 17:21	100101-2
	Beryllium	0.1	+/-.5	U	0.1	0.5	SOL	MS	01-JAN-10 17:21	100101-2
	Nickel	0.5	+/-2	U	0.5	2.0	SOL	MS	01-JAN-10 17:21	100101-2
	Selenium	2.5	+/-5	U	2.5	5.0	SOL	MS	01-JAN-10 17:21	100101-2
	Thallium	0.3	+/-1	U	0.3	1.0	SOL	MS	01-JAN-10 17:21	100101-2
	Uranium	0.066	+/-.2	U	0.066	0.2	SOL	MS	02-JAN-10 07:21	100101-5
	Lithium	2.0	+/-10	U	2.0	10.0	SOL	MS	02-JAN-10 07:58	100101-6
CCB03										
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	19-DEC-09 10:21	121909-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	19-DEC-09 10:21	121909-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	19-DEC-09 10:21	121909-1
	Boron	10.0	+/-50	U	10.0	50.0	SOL	P	19-DEC-09 10:21	121909-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	19-DEC-09 10:21	121909-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	19-DEC-09 10:21	121909-1

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-854

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	19-DEC-09 10:21	121909-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	19-DEC-09 10:21	121909-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	19-DEC-09 10:21	121909-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	19-DEC-09 10:21	121909-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	19-DEC-09 10:21	121909-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	19-DEC-09 10:21	121909-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	19-DEC-09 10:21	121909-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	19-DEC-09 10:21	121909-1
	Silicon	15.0	+/-100	U	15.0	100	SOL	P	19-DEC-09 10:21	121909-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	19-DEC-09 10:21	121909-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	19-DEC-09 10:21	121909-1
	Titanium	1.0	+/-5	U	1.0	5.0	SOL	P	19-DEC-09 10:21	121909-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	19-DEC-09 10:21	121909-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	19-DEC-09 10:21	121909-1
	Mercury	0.068	+/-.2	U	0.068	0.2	SOL	AV	29-DEC-09 10:07	122909S2-7
	Arsenic	1.0	+/-5	U	1.0	5.0	SOL	MS	01-JAN-10 18:25	100101-2
	Beryllium	0.1	+/-.5	U	0.1	0.5	SOL	MS	01-JAN-10 18:25	100101-2
	Nickel	0.5	+/-2	U	0.5	2.0	SOL	MS	01-JAN-10 18:25	100101-2
	Selenium	2.5	+/-5	U	2.5	5.0	SOL	MS	01-JAN-10 18:25	100101-2
	Thallium	0.3	+/-1	U	0.3	1.0	SOL	MS	01-JAN-10 18:25	100101-2
CCB04										
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	19-DEC-09 11:25	121909-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	19-DEC-09 11:25	121909-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	19-DEC-09 11:25	121909-1
	Boron	10.0	+/-50	U	10.0	50.0	SOL	P	19-DEC-09 11:25	121909-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	19-DEC-09 11:25	121909-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	19-DEC-09 11:25	121909-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	19-DEC-09 11:25	121909-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	19-DEC-09 11:25	121909-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	19-DEC-09 11:25	121909-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	19-DEC-09 11:25	121909-1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10-854

Contract: LANL01004 **Lab Code: GEL**

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	19-DEC-09 11:25	121909-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	19-DEC-09 11:25	121909-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	19-DEC-09 11:25	121909-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	19-DEC-09 11:25	121909-1
	Silicon	15.0	+/-100	U	15.0	100	SOL	P	19-DEC-09 11:25	121909-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	19-DEC-09 11:25	121909-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	19-DEC-09 11:25	121909-1
	Titanium	1.0	+/-5	U	1.0	5.0	SOL	P	19-DEC-09 11:25	121909-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	19-DEC-09 11:25	121909-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	19-DEC-09 11:25	121909-1
	Mercury	0.068	+/-.2	U	0.068	0.2	SOL	AV	29-DEC-09 10:27	122909S2-7
	Arsenic	1.0	+/-5	U	1.0	5.0	SOL	MS	01-JAN-10 19:26	100101-2
	Beryllium	0.1	+/-.5	U	0.1	0.5	SOL	MS	01-JAN-10 19:26	100101-2
	Nickel	0.5	+/-2	U	0.5	2.0	SOL	MS	01-JAN-10 19:26	100101-2
	Selenium	2.5	+/-5	U	2.5	5.0	SOL	MS	01-JAN-10 19:26	100101-2
	Thallium	0.3	+/-1	U	0.3	1.0	SOL	MS	01-JAN-10 19:26	100101-2
CCB05										
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	19-DEC-09 12:11	121909-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	19-DEC-09 12:11	121909-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	19-DEC-09 12:11	121909-1
	Boron	10.0	+/-50	U	10.0	50.0	SOL	P	19-DEC-09 12:11	121909-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	19-DEC-09 12:11	121909-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	19-DEC-09 12:11	121909-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	19-DEC-09 12:11	121909-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	19-DEC-09 12:11	121909-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	19-DEC-09 12:11	121909-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	19-DEC-09 12:11	121909-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	19-DEC-09 12:11	121909-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	19-DEC-09 12:11	121909-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	19-DEC-09 12:11	121909-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	19-DEC-09 12:11	121909-1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–854

Contract: LANL01004 **Lab Code: GEL**

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Silicon	15.0	+/–100	U	15.0	100	SOL	P	19–DEC–09 12:11	121909–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	19–DEC–09 12:11	121909–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	19–DEC–09 12:11	121909–1
	Titanium	1.0	+/–5	U	1.0	5.0	SOL	P	19–DEC–09 12:11	121909–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	19–DEC–09 12:11	121909–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	19–DEC–09 12:11	121909–1
	Mercury	0.068	+/–.2	U	0.068	0.2	SOL	AV	29–DEC–09 10:48	122909S2–7
	Arsenic	1.0	+/–5	U	1.0	5.0	SOL	MS	01–JAN–10 20:03	100101–2
	Beryllium	0.1	+/–.5	U	0.1	0.5	SOL	MS	01–JAN–10 20:03	100101–2
	Nickel	0.5	+/–2	U	0.5	2.0	SOL	MS	01–JAN–10 20:03	100101–2
	Selenium	2.5	+/–5	U	2.5	5.0	SOL	MS	01–JAN–10 20:03	100101–2
	Thallium	0.3	+/–1	U	0.3	1.0	SOL	MS	01–JAN–10 20:03	100101–2
CCB06										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	19–DEC–09 13:14	121909–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	19–DEC–09 13:14	121909–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	19–DEC–09 13:14	121909–1
	Boron	10.0	+/–50	U	10.0	50.0	SOL	P	19–DEC–09 13:14	121909–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	19–DEC–09 13:14	121909–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	19–DEC–09 13:14	121909–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	19–DEC–09 13:14	121909–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	19–DEC–09 13:14	121909–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	19–DEC–09 13:14	121909–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	19–DEC–09 13:14	121909–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	19–DEC–09 13:14	121909–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	19–DEC–09 13:14	121909–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	19–DEC–09 13:14	121909–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	19–DEC–09 13:14	121909–1
	Silicon	15.0	+/–100	U	15.0	100	SOL	P	19–DEC–09 13:14	121909–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	19–DEC–09 13:14	121909–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	19–DEC–09 13:14	121909–1
	Titanium	1.0	+/–5	U	1.0	5.0	SOL	P	19–DEC–09 13:14	121909–1

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-854

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	19-DEC-09 13:14	121909-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	19-DEC-09 13:14	121909-1
	Mercury	0.068	+/-.2	U	0.068	0.2	SOL	AV	29-DEC-09 11:08	122909S2-7
	Arsenic	1.0	+/-5	U	1.0	5.0	SOL	MS	01-JAN-10 21:11	100101-2
	Beryllium	0.1	+/-.5	U	0.1	0.5	SOL	MS	01-JAN-10 21:11	100101-2
	Nickel	0.5	+/-2	U	0.5	2.0	SOL	MS	01-JAN-10 21:11	100101-2
	Selenium	2.5	+/-5	U	2.5	5.0	SOL	MS	01-JAN-10 21:11	100101-2
	Thallium	0.3	+/-1	U	0.3	1.0	SOL	MS	01-JAN-10 21:11	100101-2
CCB07										
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	19-DEC-09 13:36	121909-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	19-DEC-09 13:36	121909-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	19-DEC-09 13:36	121909-1
	Boron	10.0	+/-50	U	10.0	50.0	SOL	P	19-DEC-09 13:36	121909-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	19-DEC-09 13:36	121909-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	19-DEC-09 13:36	121909-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	19-DEC-09 13:36	121909-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	19-DEC-09 13:36	121909-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	19-DEC-09 13:36	121909-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	19-DEC-09 13:36	121909-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	19-DEC-09 13:36	121909-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	19-DEC-09 13:36	121909-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	19-DEC-09 13:36	121909-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	19-DEC-09 13:36	121909-1
	Silicon	15.0	+/-100	U	15.0	100	SOL	P	19-DEC-09 13:36	121909-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	19-DEC-09 13:36	121909-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	19-DEC-09 13:36	121909-1
	Titanium	1.0	+/-5	U	1.0	5.0	SOL	P	19-DEC-09 13:36	121909-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	19-DEC-09 13:36	121909-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	19-DEC-09 13:36	121909-1
	Mercury	0.068	+/-.2	U	0.068	0.2	SOL	AV	29-DEC-09 11:28	122909S2-7

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10–854

Contract: LANL01004 **Lab Code: GEL**

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
CCB08										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	19–DEC–09 14:45	121909–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	19–DEC–09 14:45	121909–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	19–DEC–09 14:45	121909–1
	Boron	10.0	+/–50	U	10.0	50.0	SOL	P	19–DEC–09 14:45	121909–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	19–DEC–09 14:45	121909–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	19–DEC–09 14:45	121909–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	19–DEC–09 14:45	121909–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	19–DEC–09 14:45	121909–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	19–DEC–09 14:45	121909–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	19–DEC–09 14:45	121909–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	19–DEC–09 14:45	121909–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	19–DEC–09 14:45	121909–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	19–DEC–09 14:45	121909–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	19–DEC–09 14:45	121909–1
	Silicon	15.0	+/–100	U	15.0	100	SOL	P	19–DEC–09 14:45	121909–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	19–DEC–09 14:45	121909–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	19–DEC–09 14:45	121909–1
	Titanium	1.0	+/–5	U	1.0	5.0	SOL	P	19–DEC–09 14:45	121909–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	19–DEC–09 14:45	121909–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	19–DEC–09 14:45	121909–1
	Mercury	0.068	+/–.2	U	0.068	0.2	SOL	AV	29–DEC–09 11:48	122909S2–7
CCB09										
	Mercury	0.068	+/–.2	U	0.068	0.2	SOL	AV	29–DEC–09 12:08	122909S2–7
CCB10										
	Mercury	0.068	+/–.2	U	0.068	0.2	SOL	AV	29–DEC–09 12:13	122909S2–7
CCB11										
	Mercury	0.068	+/–.2	U	0.068	0.2	SOL	AV	29–DEC–09 13:17	122909S2–7

METALS
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PREPARATION BLANK SUMMARY

SDG NO. 10–854
Contract: LANL01004
Matrix: SOIL

Sample ID	Analyte	Result	Units	Acceptance Window	Conc Qual	M	MDL	RDL
1201994224								
	Aluminum	6670	ug/Kg	+/–19600	U	P	6670	19600
	Antimony	324	ug/Kg	+/–980	U	P	324	980
	Barium	98	ug/Kg	+/–490	U	P	98	490
	Boron	980	ug/Kg	+/–4900	U	P	980	4900
	Cadmium	98	ug/Kg	+/–490	U	P	98	490
	Calcium	7840	ug/Kg	+/–24500	U	P	7840	24500
	Chromium	147	ug/Kg	+/–490	U	P	147	490
	Cobalt	147	ug/Kg	+/–490	U	P	147	490
	Copper	294	ug/Kg	+/–980	U	P	294	980
	Iron	7840	ug/Kg	+/–24500	U	P	7840	24500
	Lead	245	ug/Kg	+/–980	U	P	245	980
	Magnesium	8330	ug/Kg	+/–29400	U	P	8330	29400
	Manganese	196	ug/Kg	+/–980	U	P	196	980
	Potassium	6270	ug/Kg	+/–24500	U	P	6270	24500
	Silicon	1470	ug/Kg	+/–9800	U	P	1470	9800
	Silver	98	ug/Kg	+/–490	U	P	98	490
	Sodium	6860	ug/Kg	+/–24500	U	P	6860	24500
	Titanium	98	ug/Kg	+/–490	U	P	98	490
	Vanadium	98	ug/Kg	+/–490	U	P	98	490
	Zinc	324	ug/Kg	+/–980	U	P	324	980
1201994303								
	Arsenic	0.197	mg/kg	+/–0.986	U	MS	0.197	0.986
	Beryllium	0.0197	mg/kg	+/–0.0986	U	MS	0.0197	0.0986
	Lithium	0.394	mg/kg	+/–1.97	U	MS	0.394	1.97
	Nickel	0.0986	mg/kg	+/–0.394	U	MS	0.0986	0.394
	Selenium	0.493	mg/kg	+/–0.986	U	MS	0.493	0.986
	Thallium	0.0592	mg/kg	+/–0.197	U	MS	0.0592	0.197
	Uranium	0.013	mg/kg	+/–0.0395	U	MS	0.013	0.0395
1202003901								
	Mercury	3.96	ug/kg	+/–11.7	U	AV	3.96	11.7

METALS
-4-
Interference Check Sample

SDG No: 10-854

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Aluminum	522000	ug/L	500000	ug/L	104	80.0 - 120.0	19-DEC-09 08:11	121909-1
	Antimony	5.41	ug/L					19-DEC-09 08:11	121909-1
	Barium	2.26	ug/L					19-DEC-09 08:11	121909-1
	Boron	-5.38	ug/L					19-DEC-09 08:11	121909-1
	Cadmium	-0.766	ug/L					19-DEC-09 08:11	121909-1
	Calcium	485000	ug/L	500000	ug/L	97	80.0 - 120.0	19-DEC-09 08:11	121909-1
	Chromium	1.8	ug/L					19-DEC-09 08:11	121909-1
	Cobalt	-1.27	ug/L					19-DEC-09 08:11	121909-1
	Copper	2.3	ug/L					19-DEC-09 08:11	121909-1
	Iron	190000	ug/L	200000	ug/L	95.1	80.0 - 120.0	19-DEC-09 08:11	121909-1
	Lead	-4.14	ug/L					19-DEC-09 08:11	121909-1
	Magnesium	496000	ug/L	500000	ug/L	99.1	80.0 - 120.0	19-DEC-09 08:11	121909-1
	Manganese	10.5	ug/L					19-DEC-09 08:11	121909-1
	Potassium	7.68	ug/L					19-DEC-09 08:11	121909-1
	Silicon	-0.353	ug/L					19-DEC-09 08:11	121909-1
	Silver	0.47	ug/L					19-DEC-09 08:11	121909-1
	Sodium	20.1	ug/L					19-DEC-09 08:11	121909-1
	Titanium	0.368	ug/L					19-DEC-09 08:11	121909-1
	Vanadium	-0.645	ug/L					19-DEC-09 08:11	121909-1
	Zinc	-8.3	ug/L					19-DEC-09 08:11	121909-1
ICSAB01									
	Aluminum	522000	ug/L	500000	ug/L	104	80.0 - 120.0	19-DEC-09 08:17	121909-1
	Antimony	507	ug/L	500	ug/L	101	80.0 - 120.0	19-DEC-09 08:17	121909-1
	Barium	476	ug/L	500	ug/L	95.2	80.0 - 120.0	19-DEC-09 08:17	121909-1
	Boron	496	ug/L	500	ug/L	99.2	80.0 - 120.0	19-DEC-09 08:17	121909-1
	Cadmium	453	ug/L	500	ug/L	90.5	80.0 - 120.0	19-DEC-09 08:17	121909-1
	Calcium	483000	ug/L	500000	ug/L	96.6	80.0 - 120.0	19-DEC-09 08:17	121909-1
	Chromium	466	ug/L	500	ug/L	93.3	80.0 - 120.0	19-DEC-09 08:17	121909-1
	Cobalt	425	ug/L	500	ug/L	84.9	80.0 - 120.0	19-DEC-09 08:17	121909-1

METALS
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Interference Check Sample

SDG No: 10–854

Contract: LANL01004 **Lab Code:** GEL

ICS:

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
	Copper	531	ug/L	500	ug/L	106	80.0 – 120.0	19–DEC–09 08:17	121909–1
	Iron	189000	ug/L	200000	ug/L	94.4	80.0 – 120.0	19–DEC–09 08:17	121909–1
	Lead	446	ug/L	500	ug/L	89.1	80.0 – 120.0	19–DEC–09 08:17	121909–1
	Magnesium	492000	ug/L	500000	ug/L	98.4	80.0 – 120.0	19–DEC–09 08:17	121909–1
	Manganese	471	ug/L	500	ug/L	94.2	80.0 – 120.0	19–DEC–09 08:17	121909–1
	Potassium	5600	ug/L	5000	ug/L	112	80.0 – 120.0	19–DEC–09 08:17	121909–1
	Silicon	5000	ug/L	5000	ug/L	100	80.0 – 120.0	19–DEC–09 08:17	121909–1
	Silver	266	ug/L	250	ug/L	107	80.0 – 120.0	19–DEC–09 08:17	121909–1
	Sodium	5500	ug/L	5000	ug/L	110	80.0 – 120.0	19–DEC–09 08:17	121909–1
	Titanium	487	ug/L	500	ug/L	97.4	80.0 – 120.0	19–DEC–09 08:17	121909–1
	Vanadium	489	ug/L	500	ug/L	97.8	80.0 – 120.0	19–DEC–09 08:17	121909–1
	Zinc	464	ug/L	500	ug/L	92.7	80.0 – 120.0	19–DEC–09 08:17	121909–1

METALS
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Interference Check Sample

SDG No: 10–854

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: ICPMS5

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Arsenic	–0.031	ug/L					01–JAN–10 16:45	100101–2
	Beryllium	0.055	ug/L					01–JAN–10 16:45	100101–2
	Nickel	3.34	ug/L					01–JAN–10 16:45	100101–2
	Selenium	–1.43	ug/L					01–JAN–10 16:45	100101–2
	Thallium	–0.008	ug/L					01–JAN–10 16:45	100101–2
ICSAB01									
	Arsenic	20.7	ug/L	20	ug/L	103	80.0 – 120.0	01–JAN–10 16:51	100101–2
	Beryllium	19.1	ug/L	20	ug/L	95.3	80.0 – 120.0	01–JAN–10 16:51	100101–2
	Nickel	22.8	ug/L	22.7	ug/L	100	80.0 – 120.0	01–JAN–10 16:51	100101–2
	Selenium	19.6	ug/L	20	ug/L	98.2	80.0 – 120.0	01–JAN–10 16:51	100101–2
	Thallium	22.7	ug/L	20	ug/L	113	80.0 – 120.0	01–JAN–10 16:51	100101–2

METALS
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Interference Check Sample

SDG No: 10–854

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: ICPMS5

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Uranium	–0.039	ug/L					02–JAN–10 06:49	100101–5
ICSAB01									
	Uranium	23.4	ug/L	20	ug/L	117	80.0 – 120.0	02–JAN–10 06:51	100101–5

METALS
-4-
Interference Check Sample

SDG No: 10-854

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: ICPMS5

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Lithium	0.087	ug/L					02-JAN-10 07:34	100101-6
ICSAB01									
	Lithium	19.6	ug/L	20	ug/L	97.8	80.0 - 120.0	02-JAN-10 07:36	100101-6

METALS
–5a–
Matrix Spike Summary

SDG NO. 10–854 **Client ID** RE03–10–2741S

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 91.8

Sample ID: 242668001 **Spike ID:** 1201994227

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Aluminum	ug/Kg		6580000		3510000		532000	577	N/A	P
Antimony	ug/Kg	75–125	47100		355	U	53200	88.6		P
Barium	ug/Kg	75–125	85200		32800		53200	98.7		P
Boron	ug/Kg	75–125	49900		1080	U	53200	92.4		P
Cadmium	ug/Kg	75–125	49700		108	U	53200	93.4		P
Calcium	ug/Kg	75–125	1540000		1110000		532000	80.9		P
Chromium	ug/Kg	75–125	55300		4880		53200	94.9		P
Cobalt	ug/Kg	75–125	49500		1280		53200	90.7		P
Copper	ug/Kg	75–125	57300		3590		53200	101		P
Iron	ug/Kg		10500000		10100000		532000	68.7	N/A	P
Lead	ug/Kg	75–125	58500		7960		53200	95.1		P
Magnesium	ug/Kg	75–125	1360000		600000		532000	144	N	P
Manganese	ug/Kg	75–125	205000		160000		53200	84.5		P
Potassium	ug/Kg	75–125	1170000		464000		532000	133	N	P
Silicon	ug/Kg	75–125	1830000		1370000		532000	87		P
Silver	ug/Kg	75–125	51600		399	J	53200	96.3		P
Sodium	ug/Kg	75–125	590000		101000		532000	91.9		P
Titanium	ug/Kg		484000		413000		53200	132	N/A	P
Vanadium	ug/Kg	75–125	61000		9640		53200	96.7		P
Zinc	ug/Kg	75–125	89800		41800		53200	90.4		P

METALS
–5a–

Matrix Spike Duplicate Summary

SDG NO. 10–854 **Client ID** RE03–10–2741SD

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 91.8

Sample ID: 242668001 **Spike ID:** 1201994229

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Copper	ug/Kg	75–125	63600		3590		54400	110		P
Iron	ug/Kg		11300000		10100000		544000	227	N/A	P
Lead	ug/Kg	75–125	64700		7960		54400	104		P
Magnesium	ug/Kg	75–125	1370000		600000		544000	141	N	P
Manganese	ug/Kg	75–125	245000		160000		54400	155	N	P
Potassium	ug/Kg	75–125	1220000		464000		544000	140	N	P
Silicon	ug/Kg	75–125	1800000		1370000		544000	79.5		P
Silver	ug/Kg	75–125	57200		399	J	54400	104		P
Sodium	ug/Kg	75–125	626000		101000		544000	96.4		P
Titanium	ug/Kg		540000		413000		54400	233	N/A	P
Vanadium	ug/Kg	75–125	67800		9640		54400	107		P
Zinc	ug/Kg	75–125	99600		41800		54400	106		P
Aluminum	ug/Kg		6940000		3510000		544000	629	N/A	P
Antimony	ug/Kg	75–125	52600		355	U	54400	96.6		P
Barium	ug/Kg	75–125	97200		32800		54400	118		P
Boron	ug/Kg	75–125	55800		1080	U	54400	101		P
Cadmium	ug/Kg	75–125	54900		108	U	54400	101		P
Calcium	ug/Kg	75–125	1640000		1110000		544000	98.4		P
Chromium	ug/Kg	75–125	60700		4880		54400	103		P
Cobalt	ug/Kg	75–125	55200		1280		54400	99		P

METALS
-5a-
Matrix Spike Summary

SDG NO. 10-854 **Client ID** RE03-10-2741S

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 91.8

Sample ID: 242668001 **Spike ID:** 1201994306

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Arsenic	mg/kg	75-125	8.35		1.36		8.33	84		MS
Beryllium	mg/kg	75-125	5.88		0.529		5.21	103		MS
Lithium	mg/kg	75-125	10.7		4.33		5.21	121		MS
Nickel	mg/kg	75-125	7.95		2.79		5.21	99.2		MS
Selenium	mg/kg	75-125	1.54		0.543	U	2.08	70.7	N	MS
Thallium	mg/kg	75-125	9.7		0.0793	J	10.4	92.4		MS
Uranium	mg/kg	75-125	5.86		0.731		5.21	98.5		MS

METALS
-5a-
Matrix Spike Duplicate Summary

SDG NO. 10-854 **Client ID** RE03-10-2741SD

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 91.8

Sample ID: 242668001 **Spike ID:** 1201994308

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Arsenic	mg/kg	75-125	8.07		1.36		8.3	80.9		MS
Beryllium	mg/kg	75-125	5.42		0.529		5.19	94.4		MS
Lithium	mg/kg	75-125	10.9		4.33		5.19	127	N	MS
Nickel	mg/kg	75-125	7.84		2.79		5.19	97.4		MS
Selenium	mg/kg	75-125	1.56		0.543	U	2.07	72.3	N	MS
Thallium	mg/kg	75-125	9.4		0.0793	J	10.4	89.9		MS
Uranium	mg/kg	75-125	5.8		0.731		5.19	97.7		MS

METALS
–5a–
Matrix Spike Summary

SDG NO. 10–854 **Client ID** RE16–10–2881S

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 89

Sample ID: 243092001 **Spike ID:** 1202003904

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Mercury	ug/kg	75–125	140		3.92	U	121	113		AV

METALS
–5a–

Matrix Spike Duplicate Summary

SDG NO.	10–854	**Client ID**	RE16–10–2881SD
Contract:	LANL01004	**Level:**	Low
Matrix:	SOIL	**% Solids:**	89
Sample ID:	243092001	**Spike ID:**	1202003906

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Mercury	ug/kg	75–125	150		3.92	U	130	113		AV

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–854

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE03–10–2741D

Sample ID: 242668001 **Duplicate ID:** 1201994226 **Percent Solids for Dup:** 91.8

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	ug/Kg	+/–20%	3510000		3060000		13.7		P
Antimony	ug/Kg		355	U	350	U			P
Barium	ug/Kg	+/–20%	32800		35000		6.62		P
Boron	ug/Kg		1080	U	1060	U			P
Cadmium	ug/Kg		108	U	106	U			P
Calcium	ug/Kg	+/–20%	1110000		1080000		2.07		P
Chromium	ug/Kg	+/–20%	4880		3880		22.8	*	P
Cobalt	ug/Kg	+/–530	1280		1310		2.62		P
Copper	ug/Kg	+/–1060	3590		3410		5.17		P
Iron	ug/Kg	+/–20%	10100000		9340000		7.87		P
Lead	ug/Kg	+/–20%	7960		8110		1.81		P
Magnesium	ug/Kg	+/–20%	600000		579000		3.43		P
Manganese	ug/Kg	+/–20%	160000		159000		1.17		P
Potassium	ug/Kg	+/–20%	464000		468000		.807		P
Silicon	ug/Kg	+/–20%	1370000		1230000		10.4		P
Silver	ug/Kg	+/–530	399	J	404	J	1.35		P
Sodium	ug/Kg	+/–26500	101000		92200		9.11		P
Titanium	ug/Kg	+/–20%	413000		394000		4.84		P
Vanadium	ug/Kg	+/–20%	9640		9430		2.2		P
Zinc	ug/Kg	+/–20%	41800		37700		10.2		P

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–854

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE03–10–2741SD

Sample ID: 1201994227 **Duplicate ID:** 1201994229 **Percent Solids for Dup:** 91.8

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	ug/Kg	+/–20	6580000		6940000		5.33		P
Antimony	ug/Kg	+/–20	47100		52600		11		P
Barium	ug/Kg	+/–20	85200		97200		13.1		P
Boron	ug/Kg	+/–20	49900		55800		11.1		P
Cadmium	ug/Kg	+/–20	49700		54900		9.96		P
Calcium	ug/Kg	+/–20	1540000		1640000		6.66		P
Chromium	ug/Kg	+/–20	55300		60700		9.22		P
Cobalt	ug/Kg	+/–20	49500		55200		10.8		P
Copper	ug/Kg	+/–20	57300		63600		10.3		P
Iron	ug/Kg	+/–20	10500000		11300000		7.99		P
Lead	ug/Kg	+/–20	58500		64700		10.1		P
Magnesium	ug/Kg	+/–20	1360000		1370000		.213		P
Manganese	ug/Kg	+/–20	205000		245000		17.5		P
Potassium	ug/Kg	+/–20	1170000		1220000		4.57		P
Silicon	ug/Kg	+/–20	1830000		1800000		1.63		P
Silver	ug/Kg	+/–20	51600		57200		10.3		P
Sodium	ug/Kg	+/–20	590000		626000		5.88		P
Titanium	ug/Kg	+/–20	484000		540000		11		P
Vanadium	ug/Kg	+/–20	61000		67800		10.5		P
Zinc	ug/Kg	+/–20	89800		99600		10.3		P

Metals
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Duplicate Sample Summary

SDG No.: 10–854

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE03–10–2741D

Sample ID: 242668001 **Duplicate ID:** 1201994305 **Percent Solids for Dup:** 91.8

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Arsenic	mg/kg	+/–1.06	1.36		1.33		1.88		MS
Beryllium	mg/kg	+/–.106	0.529		0.5		5.67		MS
Lithium	mg/kg	+/–2.11	4.33		3.88		11		MS
Nickel	mg/kg	+/–20%	2.79		2.53		9.76		MS
Selenium	mg/kg		0.543	U	0.529	U			MS
Thallium	mg/kg		0.0793	J	0.0634	U	200		MS
Uranium	mg/kg	+/–20%	0.731		0.631		14.7		MS

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–854

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE03–10–2741SD

Sample ID: 1201994306 **Duplicate ID:** 1201994308 **Percent Solids for Dup:** 91.8

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Arsenic	mg/kg	+/–20	8.35		8.07		3.42		MS
Beryllium	mg/kg	+/–20	5.88		5.42		8.01		MS
Lithium	mg/kg	+/–20	10.7		10.9		2.26		MS
Nickel	mg/kg	+/–20	7.95		7.84		1.46		MS
Selenium	mg/kg	+/–20	1.54		1.56		1.79		MS
Thallium	mg/kg	+/–20	9.7		9.4		3.13		MS
Uranium	mg/kg	+/–20	5.86		5.8		1.09		MS

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–854

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE16–10–2881D

Sample ID: 243092001 **Duplicate ID:** 1202003903 **Percent Solids for Dup:** 89

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Mercury	ug/kg		3.92	U	4.07	U			AV

Metals
-6-
Duplicate Sample Summary

SDG No.: 10-854

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE16-10-2881SD

Sample ID: 1202003904 **Duplicate ID:** 1202003906 **Percent Solids for Dup:** 89

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Mercury	ug/kg	+/-20	140		150		7		AV

METALS
-7-
Laboratory Control Sample Summary

SDG NO. 10-854

Contract: LANL01004

Aqueous LCS Source: **Solid LCS Source:** ERA

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1201994225								
	Chromium	ug/Kg	236000	230000		97.3	80-120	P
	Cobalt	ug/Kg	91200	87400		95.8	81-120	P
	Copper	ug/Kg	174000	180000		103	81-118	P
	Iron	ug/Kg	18000000	17300000		96	51-149	P
	Lead	ug/Kg	86000	79100		92	79-121	P
	Magnesium	ug/Kg	4000000	3560000		89	79-122	P
	Manganese	ug/Kg	558000	514000		92	81-119	P
	Potassium	ug/Kg	4300000	3890000		90.4	74-127	P
	Silicon	ug/Kg	1210000	1840000		152	10-190	P
	Silver	ug/Kg	30100	30500		101	66-134	P
	Sodium	ug/Kg	1020000	984000		96.5	74-127	P
	Titanium	ug/Kg	462000	529000		114	39-161	P
	Vanadium	ug/Kg	115000	116000		101	79-121	P
	Zinc	ug/Kg	594000	577000		97.2	80-121	P
	Aluminum	ug/Kg	10500000	7990000		76.1	56-144	P
	Antimony	ug/Kg	173000	155000		89.6	71-130	P
	Barium	ug/Kg	198000	179000		90.4	80-120	P
	Boron	ug/Kg	141000	143000		102	75-125	P
	Cadmium	ug/Kg	60700	56300		92.7	81-120	P
	Calcium	ug/Kg	9870000	9320000		94.4	83-117	P

METALS
-7-
Laboratory Control Sample Summary

SDG NO. 10-854

Contract: LANL01004

Aqueous LCS Source: **Solid LCS Source:** ERA

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1201994304								
	Arsenic	mg/kg	104	97.6		93.9	83-120	MS
	Beryllium	mg/kg	77.6	74.4		95.9	81.2-126.8	MS
	Lithium	mg/kg	10.6	9.73	J	91.8	66.7-133.7	MS
	Nickel	mg/kg	134	134		99.7	83.3-121.4	MS
	Selenium	mg/kg	286	265		92.7	80.2-125.9	MS
	Thallium	mg/kg	121	134		111	78-123.2	MS
	Uranium	mg/kg	2.13	1.95		91.4	61.9-130.7	MS

METALS
-7-
Laboratory Control Sample Summary

SDG NO. 10-854

Contract: LANL01004

Aqueous LCS Source: **Solid LCS Source:** ERA

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202003902								
	Mercury	ug/kg	5150	5680		110	71.6-128.3	AV

METALS
-9-
Serial Dilution Sample Summary

SDG NO. 10-854 **Client ID** RE03-10-2741L

Contract: LANL01004

Matrix: SOLID **Level:** Low

Sample ID: 242668001 **Serial Dilution ID:** 1201994228

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Aluminum	32700		32300		1.22		10	P
Antimony	3.3	U	16.5	U				P
Barium	304		305		.329		10	P
Boron	10	U	50	U				P
Cadmium	1	U	5	U				P
Calcium	10300		10500		1.94		10	P
Chromium	45.3		47.6		4.97			P
Cobalt	11.9		12.4	J	3.78			P
Copper	33.4		30.3	J	9.28			P
Iron	93900		96000		2.24		10	P
Lead	74		74.5		.676			P
Magnesium	5570		5550		.359		10	P
Manganese	1490		1540		3.36		10	P
Potassium	4310		4300		.348		10	P
Silicon	12700		12600		1.18		10	P
Silver	3.71	J	5	U	100			P
Sodium	939		955	J	1.7			P
Titanium	3840		3930		2.21		10	P
Vanadium	89.5		90		.559		10	P
Zinc	388		388		0		10	P

METALS
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Serial Dilution Sample Summary

SDG NO. 10-854 **Client ID** RE03-10-2741L

Contract: LANL01004

Matrix: SOLID **Level:** Low

Sample ID: 242668001 **Serial Dilution ID:** 1201994307

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Arsenic	6.25		7.6	J	21.6			MS
Beryllium	2.44		2.55		4.3			MS
Lithium	19.9		21.7	J	9.05			MS
Nickel	12.8		12.9		.391			MS
Selenium	2.5	U	12.5	U				MS
Thallium	.365	J	1.5	U	100			MS
Uranium	3.36		3.34		.595			MS

METALS
-9-
Serial Dilution Sample Summary

SDG NO. 10-854 **Client ID** RE16-10-2881L

Contract: LANL01004

Matrix: SOLID **Level:** Low

Sample ID: 243092001 **Serial Dilution ID:** 1202003905

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Mercury	.068	U	.34	U				AV

METALS
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SAMPLE PREPARATION SUMMARY

SDG No: 10–854 **Method Type:** P

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number	932277						
1201994224	MB for batch 932277	MB	S	16–DEC–09	.51g	50mL	
1201994225	LCS for batch 932277	LCS	S	16–DEC–09	.503g	50mL	
1201994227	RE03–10–2741S	MS	S	16–DEC–09	.512g	50mL	
1201994229	RE03–10–2741SD	MSD	S	16–DEC–09	.5g	50mL	
1201994226	RE03–10–2741D	DUP	S	16–DEC–09	.514g	50mL	
242668001	RE03–10–2741	SAMPLE	S	16–DEC–09	.506g	50mL	
242668002	RE03–10–2740	SAMPLE	S	16–DEC–09	.525g	50mL	

METALS
-13-
SAMPLE PREPARATION SUMMARY

SDG No: 10-854 **Method Type:** MS

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number	932316						
1201994303	MB for batch 932316	MB	S	16-DEC-09	.507g	50mL	
1201994304	LCS for batch 932316	LCS	S	16-DEC-09	.52g	50mL	
1201994306	RE03-10-2741S	MS	S	16-DEC-09	.523g	50mL	
1201994308	RE03-10-2741SD	MSD	S	16-DEC-09	.525g	50mL	
1201994305	RE03-10-2741D	DUP	S	16-DEC-09	.515g	50mL	
242668001	RE03-10-2741	SAMPLE	S	16-DEC-09	.501g	50mL	
242668002	RE03-10-2740	SAMPLE	S	16-DEC-09	.503g	50mL	

METALS
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SAMPLE PREPARATION SUMMARY

SDG No: 10-854 **Method Type**: AV

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number	936545						
1202003901	MB for batch 936545	MB	S	28-DEC-09	.515g	30mL	
1202003902	LCS for batch 936545	LCS	S	28-DEC-09	.209g	30mL	
1202003904	RE16-10-2881S	MS	S	28-DEC-09	.555g	30mL	
1202003906	RE16-10-2881SD	MSD	S	28-DEC-09	.515g	30mL	
1202003903	RE16-10-2881D	DUP	S	28-DEC-09	.56g	30mL	
242668001	RE03-10-2741	SAMPLE	S	28-DEC-09	.514g	30mL	
242668002	RE03-10-2740	SAMPLE	S	28-DEC-09	.544g	30mL	

Metals
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Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: ICPMS5
Start Date: 01-JAN-10 **End Date:** 02-JAN-10

Client Sdg: 10-854
Method MS
Data File: 100101-2

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Li	Mg	Mn	Hg	Ni	K	Se	Si	Ag	Na	Tl	Ti	U	V	Zn
S0.0	1	16:08			X		X													X		X				X				
S10	1	16:14			X		X													X		X				X				
S100	1	16:20			X		X													X		X				X				
ICV01	1	16:26			X		X													X		X				X				
ICB01	1	16:32			X		X													X		X				X				
CRDL01	1	16:38			X		X													X		X				X				
ICSA01	1	16:45			X		X													X		X				X				
ICSAB01	1	16:51			X		X													X		X				X				
CCV01	1	16:57			X		X													X		X				X				
CCB01	1	17:03			X		X													X		X				X				
LR01	1	17:09			X		X													X		X				X				
CCV02	1	17:15			X		X													X		X				X				
CCB02	1	17:21			X		X													X		X				X				
ZZZZZZ	2	17:27																												
ZZZZZZ	40	17:33																												
ZZZZZZ	2	17:42																												
ZZZZZZ	2	17:48																												
ZZZZZZ	2	17:54																												
ZZZZZZ	2	18:00																												
ZZZZZZ	10	18:06																												
ZZZZZZ	2	18:12																												
CCV03	1	18:18			X		X													X		X				X				
CCB03	1	18:25			X		X													X		X				X				
ZZZZZZ	2	18:31																												
ZZZZZZ	2	18:37																												
ZZZZZZ	2	18:43																												
ZZZZZZ	2	18:49																												
ZZZZZZ	2	18:55																												
ZZZZZZ	2	19:01																												
ZZZZZZ	2	19:07																												
ZZZZZZ	2	19:14																												
CCV04	1	19:20			X		X													X		X				X				
CCB04	1	19:26			X		X													X		X				X				
ZZZZZZ	2	19:32																												
ZZZZZZ	2	19:38																												
ZZZZZZ	2	19:44																												
ZZZZZZ	2	19:50																												
CCV05	1	19:57			X		X													X		X				X				
CCB05	1	20:03			X		X													X		X				X				
1201994303	2	20:09			X		X													X		X				X				

Metals
--14--
Analysis Run Log

Samp No.	D/F	Run Time																											
ZZZZZZ	20	20:15																											
1201994304	40	20:21			X		X												X		X				X				
242668001	2	20:27			X		X												X		X				X				
1201994305	2	20:34			X		X												X		X				X				
1201994306	2	20:40			X		X												X		X				X				
1201994308	2	20:46			X		X												X		X				X				
1201994307	10	20:52			X		X												X		X				X				
242668002	2	20:58			X		X												X		X				X				
CCV06	1	21:05			X		X												X		X				X				
CCB06	1	21:11			X		X												X		X				X				

Metals
-14-
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: ICPMS5
Start Date: 01-JAN-10 **End Date:** 02-JAN-10

Client Sdg: 10-854
Method MS
Data File: 100101-5

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Li	Mg	Mn	Hg	Ni	K	Se	Si	Ag	Na	Tl	Ti	U	V	Zn
S0.0	1	06:35																										X		
S10	1	06:37																										X		
S100	1	06:40																										X		
ICV01	1	06:42																										X		
ICB01	1	06:44																										X		
CRDL01	1	06:46																										X		
ICSA01	1	06:49																										X		
ICSAB01	1	06:51																										X		
CCV01	1	06:53																										X		
CCB01	1	06:55																										X		
1201994303	2	06:58																										X		
ZZZZZZ	20	07:00																												
1201994304	40	07:02																										X		
242668001	2	07:05																										X		
1201994305	2	07:07																										X		
1201994306	2	07:09																										X		
1201994308	2	07:12																										X		
1201994307	10	07:14																										X		
242668002	2	07:16																										X		
CCV02	1	07:19																										X		
CCB02	1	07:21																										X		

Metals
-14-
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: ICPMS5
Start Date: 01-JAN-10 **End Date:** 02-JAN-10

Client Sdg: 10-854
Method MS
Data File: 100101-6

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Li	Mg	Mn	Hg	Ni	K	Se	Si	Ag	Na	Tl	Ti	U	V	Zn
S0.0	1	07:24														X														
S10	1	07:26														X														
S100	1	07:28														X														
ICV01	1	07:29														X														
ICB01	1	07:31														X														
CRDL01	1	07:32														X														
ICSA01	1	07:34														X														
ICSAB01	1	07:36														X														
CCV01	1	07:37														X														
CCB01	1	07:39														X														
1201994303	2	07:41														X														
1201994304	20	07:43														X														
ZZZZZZ	40	07:44																												
242668001	2	07:46														X														
1201994305	2	07:48														X														
1201994306	2	07:50														X														
1201994308	2	07:51														X														
1201994307	10	07:53														X														
242668002	2	07:55														X														
CCV02	1	07:56														X														
CCB02	1	07:58														X														

Metals
-14-
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: OPTIMA3
Start Date: 19-DEC-09 **End Date:** 19-DEC-09

Client Sdg: 10-854
Method P
Data File: 121909-1

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Li	Mg	Mn	Hg	Ni	K	Se	Si	Ag	Na	Tl	Ti	U	V	Zn
S0.0	1	07:18	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
S0.1	1	07:25		X		X		X	X		X	X	X		X			X			X		X	X			X		X	X
S0.5	1	07:31	X	X		X		X	X	X	X	X	X		X		X	X			X		X	X			X		X	X
SCAL	1	07:38	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
S10	1	07:45	X							X				X			X								X					
ICV01	1	07:51	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
ICB01	1	07:58	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
PQL01	1	08:04	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
ICSA01	1	08:11	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
ICSAB01	1	08:17	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
LR01	1	08:23	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
LR02	1	08:29	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
CCV01	1	08:36	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
CCB01	1	08:43	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
LR03	1	08:54	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
CCV02	1	09:05	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
CCB02	1	09:12	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
ZZZZZZ	1	09:19																												
ZZZZZZ	1	09:26																												
ZZZZZZ	1	09:33																												
ZZZZZZ	1	09:40																												
ZZZZZZ	1	09:46																												
ZZZZZZ	1	09:53																												
ZZZZZZ	1	10:00																												
ZZZZZZ	1	10:07																												
CCV03	1	10:14	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
CCB03	1	10:21	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
ZZZZZZ	1	10:30																												
ZZZZZZ	1	10:37																												
ZZZZZZ	1	10:44																												
ZZZZZZ	1	10:50																												
ZZZZZZ	1	10:57																												
ZZZZZZ	5	11:04																												
ZZZZZZ	1	11:11																												
CCV04	1	11:18	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
CCB04	1	11:25	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
ZZZZZZ	5	11:30																												
ZZZZZZ	5	11:37																												
ZZZZZZ	5	11:43																												
ZZZZZZ	25	11:50																												

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time																												
ZZZZZZ	5	11:57																												
CCV05	1	12:04	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
CCB05	1	12:11	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
ZZZZZZ	1	12:19																												
ZZZZZZ	1	12:26																												
ZZZZZZ	1	12:32																												
ZZZZZZ	1	12:39																												
ZZZZZZ	1	12:46																												
ZZZZZZ	5	12:53																												
ZZZZZZ	1	13:00																												
CCV06	1	13:07	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
CCB06	1	13:14	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
CCV07	1	13:29	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
CCB07	1	13:36	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
1201994224	1	13:43	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
1201994225	1	13:50	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
242668001	1	13:56	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
1201994226	1	14:03	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
1201994227	1	14:10	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
1201994229	1	14:17	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
1201994228	5	14:24	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
242668002	1	14:31	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
CCV08	1	14:38	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
CCB08	1	14:45	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X

Metals
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Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: HG3
Start Date: 29-DEC-09 **End Date:** 29-DEC-09

Client Sdg: 10-854
Method AV
Data File: 122909S2-7

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Li	Mg	Mn	Hg	Ni	K	Se	Si	Ag	Na	Tl	Ti	U	V	Zn
S0.0	1	09:19																	X											
S0.2	1	09:21																	X											
S0.5	1	09:22																	X											
S2.0	1	09:24																	X											
S5.0	1	09:26																	X											
S10.0	1	09:27																	X											
ICV01	1	09:29																	X											
ICB01	1	09:31																	X											
CRDL01	1	09:33																	X											
CCV01	1	09:34																	X											
CCB01	1	09:36																	X											
ZZZZZZ	1	09:38																												
ZZZZZZ	10	09:39																												
ZZZZZZ	1	09:41																												
ZZZZZZ	1	09:43																												
CCV02	1	09:46																	X											
CCB02	1	09:47																	X											
1202003901	1	09:49																	X											
ZZZZZZ	10	09:51																												
ZZZZZZ	1	09:52																												
ZZZZZZ	1	09:54																												
ZZZZZZ	1	09:56																												
ZZZZZZ	1	09:57																												
ZZZZZZ	1	09:59																												
ZZZZZZ	1	10:01																												
ZZZZZZ	1	10:02																												
ZZZZZZ	1	10:04																												
CCV03	1	10:06																	X											
CCB03	1	10:07																	X											
ZZZZZZ	1	10:09																												
ZZZZZZ	1	10:11																												
ZZZZZZ	1	10:12																												
ZZZZZZ	1	10:14																												
ZZZZZZ	1	10:16																												
ZZZZZZ	1	10:17																												
ZZZZZZ	1	10:19																												
1202003903	1	10:21																	X											
1202003904	1	10:22																	X											
1202003906	1	10:24																	X											
CCV04	1	10:26																	X											

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time																											
CCB04	1	10:27															X												
1202003905	5	10:29															X												
ZZZZZZ	1	10:31																											
ZZZZZZ	1	10:32																											
ZZZZZZ	1	10:34																											
ZZZZZZ	1	10:36																											
ZZZZZZ	1	10:38																											
ZZZZZZ	10	10:39																											
ZZZZZZ	1	10:41																											
ZZZZZZ	1	10:43																											
ZZZZZZ	1	10:44																											
CCV05	1	10:46															X												
CCB05	1	10:48															X												
ZZZZZZ	1	10:49																											
ZZZZZZ	5	10:51																											
ZZZZZZ	1	10:53																											
ZZZZZZ	1	10:54																											
ZZZZZZ	1	10:56																											
ZZZZZZ	1	10:58																											
ZZZZZZ	1	10:59																											
ZZZZZZ	1	11:01																											
ZZZZZZ	1	11:03																											
ZZZZZZ	1	11:04																											
CCV06	1	11:06															X												
CCB06	1	11:08															X												
ZZZZZZ	1	11:09																											
ZZZZZZ	1	11:11																											
ZZZZZZ	1	11:13																											
ZZZZZZ	1	11:14																											
ZZZZZZ	1	11:16																											
ZZZZZZ	1	11:18																											
ZZZZZZ	1	11:19																											
ZZZZZZ	1	11:21																											
ZZZZZZ	1	11:23																											
ZZZZZZ	1	11:24																											
CCV07	1	11:26															X												
CCB07	1	11:28															X												
ZZZZZZ	1	11:30																											
ZZZZZZ	1	11:31																											
ZZZZZZ	10	11:33																											

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Li	Mg	Mn	Hg	Ni	K	Se	Si	Ag	Na	Tl	Ti	U	V	Zn
ZZZZZZ	1	11:35																												
ZZZZZZ	1	11:36																												
ZZZZZZ	1	11:38																												
ZZZZZZ	1	11:40																												
ZZZZZZ	5	11:41																												
ZZZZZZ	1	11:43																												
ZZZZZZ	1	11:45																												
CCV08	1	11:46																	X											
CCB08	1	11:48																	X											
ZZZZZZ	1	11:50																												
ZZZZZZ	1	11:51																												
ZZZZZZ	1	11:53																												
ZZZZZZ	1	11:55																												
ZZZZZZ	1	11:56																												
ZZZZZZ	1	11:58																												
ZZZZZZ	1	12:00																												
ZZZZZZ	1	12:01																												
ZZZZZZ	1	12:03																												
ZZZZZZ	1	12:05																												
CCV09	1	12:07																	X											
CCB09	1	12:08																	X											
ZZZZZZ	1	12:10																												
CCV10	1	12:12																	X											
CCB10	1	12:13																	X											
1202003902	10	13:07																	X											
242668001	1	13:08																	X											
242668002	1	13:10																	X											
ZZZZZZ	10	13:12																												
ZZZZZZ	10	13:13																												
CCV11	1	13:15																	X											
CCB11	1	13:17																	X											

Standards

METALS
–10–
Instrument Detection Limits

SDG NO. 10–854

Contract: LANL01004 **Lab Code: GEL** **MDL Effective Date:** 01–JUL–09

ICP/MS	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
SOLID	Aluminum		15.0	50
	Antimony		0.5	3
	Arsenic		1.0	5
	Barium		0.5	2
	Beryllium		0.1	.5
	Boron		4.0	15
	Cadmium		0.1	1
	Calcium		33.0	100
	Chromium		1.0	3
	Cobalt		0.3	1
	Copper		0.33	1
	Iron		25.0	100
	Lead		0.5	2
	Lithium		2.0	10
	Magnesium		7.5	25
	Manganese		1.0	5
	Nickel		0.5	2
	Potassium		80.0	300
	Selenium		2.5	5
	Silver		0.2	1
	Sodium		80.0	250
	Thallium		0.3	1
	Titanium		2.0	10
	Uranium		0.066	.2
	Vanadium		2.0	10
	Zinc		2.0	10

METALS
-10-
Instrument Detection Limits

SDG NO. 10-854

Contract: LANL01004 **Lab Code: GEL** **MDL Effective Date:** 15-JUN-09

MERCURY	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
SOLID	Mercury		0.068	.2

METALS
–10–
Instrument Detection Limits

SDG NO. 10–854

Contract: LANL01004 **Lab Code: GEL** **MDL Effective Date:** 01–JUL–09

ICP	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
SOLID	Aluminum	396.153	68.0	200
	Antimony	206.836	3.3	10
	Arsenic	188.979	5.0	30
	Barium	233.527	1.0	5
	Beryllium	313.107	1.0	5
	Boron	249.677	10.0	50
	Cadmium	226.502	1.0	5
	Calcium	317.933	80.0	250
	Chromium	267.716	1.5	5
	Cobalt	228.616	1.5	5
	Copper	324.752	3.0	10
	Iron	238.204	80.0	250
	Lead	220.353	2.5	10
	Magnesium	279.077	85.0	300
	Manganese	257.61	2.0	10
	Nickel	231.604	1.5	5
	Potassium	766.49	64.0	250
	Selenium	196.026	5.0	30
	Silicon	251.611	15.0	100
	Silver	328.068	1.0	5
	Sodium	589.592	70.0	250
	Thallium	190.801	5.0	20
	Titanium	334.94	1.0	5
	Uranium	409.014	10.0	50
	Vanadium	292.402	1.0	5
	Zinc	213.857	3.3	10

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA3
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-854
Effective Dates: 01-NOV-09

Parmname	Wavelength	Aluminum	Antimony	Arsenic	Barium	Beryllium
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.02738	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	-0.44940	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	-0.22121	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	-0.33886	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	-0.13648	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	-0.05571	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.19671	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	-0.02739	0.00000	0.00000	0.00000	0.00000
Tin	189.927	-0.00058	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA3
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-854
Effective Dates: 01-NOV-09

Parmname	Wavelength	Boron	Cadmium	Chromium	Cobalt	Copper
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	24.5549	0.00000	0.00000
Arsenic	188.979	0.52529	0.00000	-0.67113	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	2.54031	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.38952	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	-31.5465	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	0.78023
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.63859	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	160.41
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	5.22870	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.35099	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	1.93161	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.39273	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	1.19810

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA3
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-854
Effective Dates: 01-NOV-09

Parmname	Wavelength	Iron	Lead	Magnesium	Manganese	Molybdenum
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	42.8126
Antimony	206.836	-0.01635	0.00000	0.00000	0.00000	-22.2146
Arsenic	188.979	-0.21271	0.00000	0.00000	0.00000	1.34645
Barium	233.527	-0.03709	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.13266	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.09998	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	-0.01788	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.01425	0.00000	0.00000	0.00000	-2.64232
Copper	324.752	-0.05101	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.09069	0.00000	0.00000	0.00000	-2.44485
Magnesium	279.077	0.85543	0.00000	0.00000	0.00000	-20.2401
Manganese	257.61	-0.09972	0.00000	0.01862	0.00000	0.00000
Molybdenum	202.031	-0.07094	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.80633	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	-0.03176	0.00000	0.01823	12.4291	-3.60863
Selenium	196.026	-3.00009	0.00000	0.00000	0.00000	-3.17982
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	17.4444
Silver	328.068	-0.31825	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	-5.85948	0.00000
Tin	189.927	-0.01337	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.12581	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.15211	0.00000	-0.02256	0.00000	-14.2921
Zinc	213.857	0.09548	0.00000	0.03423	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA3
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-854
Effective Dates: 01-NOV-09

Parmname	Wavelength	Nickel	Phosphorous	Potassium	Selenium	Silicon
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	-0.64279	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	0.44040	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.33191	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	6.38465	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA3
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-854
Effective Dates: 01-NOV-09

Parmname	Wavelength	Silver	Strontium	Sulfur	Thallium	Tin
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	0.00000	-17.4077
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	-13.8713
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	3.10491
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA3
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-854
Effective Dates: 01-NOV-09

Parmname	Wavelength	Titanium	Uranium	Vanadium	Zinc
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	2.73145	0.00000	-2.31857	0.00000
Arsenic	188.979	-8.38419	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	-2.24883	0.00000
Beryllium	313.107	-1.96555	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.32181	-1.76281	0.00000
Cobalt	228.616	2.12623	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.85359	-3.92851	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	-7.67419	0.00000	2.18873	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.44145	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	1.10141	-1.94183	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000

METALS
-12-
Linear Ranges

SDG NO. 10-854

Contract: LANL01004 **Lab Code: GEL**

Instrument ID ICPMS5

Analyte	Integration Time (msec)	LDR	Units	Effective Date
Aluminum	1	50000	ug/L	01-NOV-09
Antimony	1000	250	ug/L	01-NOV-09
Arsenic	1000	1000	ug/L	01-NOV-09
Barium	1000	1000	ug/L	01-NOV-09
Beryllium	1000	1000	ug/L	01-NOV-09
Boron	1000	200	ug/L	01-NOV-09
Cadmium	1000	1000	ug/L	01-NOV-09
Calcium	500	50000	ug/L	01-NOV-09
Chromium	1000	1000	ug/L	01-NOV-09
Cobalt	1000	1000	ug/L	01-NOV-09
Copper	1000	1000	ug/L	01-NOV-09
Iron	500	50000	ug/L	01-NOV-09
Lead	1000	5000	ug/L	01-NOV-09
Lithium	1000	1000	ug/L	01-NOV-09
Magnesium	1	50000	ug/L	01-NOV-09
Manganese	1000	1000	ug/L	01-NOV-09
Nickel	1000	1000	ug/L	01-NOV-09
Potassium	1	50000	ug/L	01-NOV-09
Selenium	1000	500	ug/L	01-NOV-09
Silver	1000	250	ug/L	01-NOV-09
Sodium	1	50000	ug/L	01-NOV-09
Thallium	1000	500	ug/L	01-NOV-09
Titanium	1000	100	ug/L	01-NOV-09
Uranium	1000	5000	ug/L	01-NOV-09
Vanadium	1000	100	ug/L	01-NOV-09
Zinc	1000	2500	ug/L	01-NOV-09

METALS
–12–
Linear Ranges

SDG NO. 10–854

Contract: LANL01004 **Lab Code: GEL**

Instrument ID OPTIMA3

Analyte	Integration Time (sec)	LDR	Units	Effective Date
Silver	20	1000	ug/L	01–NOV–09
Sodium	20	500000	ug/L	01–NOV–09
Thallium	20	10000	ug/L	01–NOV–09
Titanium	20	10000	ug/L	01–NOV–09
Uranium	20	15000	ug/L	01–NOV–09
Vanadium	20	10000	ug/L	01–NOV–09
Zinc	20	15000	ug/L	01–NOV–09
Aluminum	20	500000	ug/L	01–NOV–09
Antimony	20	10000	ug/L	01–NOV–09
Arsenic	20	10000	ug/L	01–NOV–09
Barium	20	15000	ug/L	01–NOV–09
Beryllium	20	3000	ug/L	01–NOV–09
Boron	20	5000	ug/L	01–NOV–09
Cadmium	20	10000	ug/L	01–NOV–09
Calcium	20	500000	ug/L	01–NOV–09
Chromium	20	25000	ug/L	01–NOV–09
Cobalt	20	10000	ug/L	01–NOV–09
Copper	20	20000	ug/L	01–NOV–09
Iron	20	500000	ug/L	01–NOV–09
Lead	20	25000	ug/L	01–NOV–09
Magnesium	20	500000	ug/L	01–NOV–09
Manganese	20	10000	ug/L	01–NOV–09
Nickel	20	10000	ug/L	01–NOV–09
Potassium	20	300000	ug/L	01–NOV–09
Selenium	20	10000	ug/L	01–NOV–09
Silicon	20	50000	ug/L	01–NOV–09

Raw Data

Method: Hg_ReAlign
Result: 010610

Sample ID: Hg_ReAlign

Hg 253.652

Rep: 1

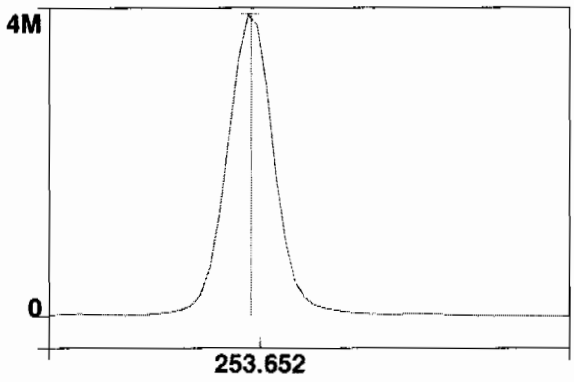

Intensity: 3442974.1 cps
Conc:

1

==========
12/19/2009 07:08:27 Hg ReAlign... Actual peak offset (nm): -0.008
Drift (nm): -0.001 Slit adjustment: -5
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==========
Analysis Begun

Start Time: 12/19/2009 07:18:32 **Plasma On Time: 12/14/2009 06:02:42**
Logged In Analyst: Optima3 **Technique: ICP Continuous**
Spectrometer Model: Optima 5300 DV, S/N 077C7090601Autosampler Model: S10

Sample Information File: C:\pe\Optima3\Sample Information\121909.sif
Batch ID:
Results Data Set: 121909
Results Library: C:\pe\Optima3\Results\Results.mdb

==========
Method Loaded
Method Name: General Eng.2AX **Method Last Saved: 12/18/2009 08:35:25**
IEC File: 101209.iec **MSF File:**
Method Description:

Analyte	Calibration Equation	Processing	View	Internal Standard	IEC
Ag 328.068	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Al 396.153Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
As 188.979	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
B 249.677	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ba 233.527	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Be 313.107	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ca 317.933Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	No
Cd 226.502	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Co 228.616	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cr 267.716	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cu 324.752	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Fe 238.204 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
K 766.490 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Mg 279.077 IEC	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Mn 257.610	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Mo 202.031	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Na 589.592 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	No
Ni 231.604	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
P 214.914	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Pb 220.353	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
S 181.975 Axial	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sb 206.836	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sc 361.383	Lin Thru 0	Peak Area	Axial	n/a	n/a
Sc Radial	Lin, Calc Int	Peak Area	Radial	n/a	n/a
Se 196.026	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Si 251.611	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sn 189.927	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sr 421.552	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Ti 334.940	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Tl 190.801	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
U 409.014	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
V 292.402	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y 371.029	Lin, Calc Int	Peak Area	Axial	n/a	n/a
Zn 213.857	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y RADIAL	Lin, Calc Int	Peak Area	Radial	n/a	n/a
SiO2	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes

==========
Sequence No.: 1 **Autosampler Location: 8**
Sample ID: S0 **Date Collected: 12/19/2009 07:18:33**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: S0

	Net	Corrected	Calib.	Analysis

Repl#	Analyte	Intensity	Intensity	Conc.	Units	Time
1	Sc Radial	5478.8	5478.8	98.4	%	07:20:26
1	Y RADIAL	5815.0	5815.0	98.37	%	07:20:26
1	Al 396.153Radial†	-24.1	-24.4	[0.00]	ug/L	07:20:26
1	Ca 317.933Radial†	16.7	16.9	[0.00]	ug/L	07:20:46
1	Fe 238.204 Radial†	10.3	10.5	[0.00]	ug/L	07:20:46
1	K 766.490 Radial†	2671.9	2715.1	[0.00]	ug/L	07:20:26
1	Mg 279.077 IEC†	1.3	1.3	[0.00]	ug/L	07:20:46
1	Na 589.592 Radial†	-738.0	-749.9	[0.00]	ug/L	07:20:26
1	Sr 421.552†	-45.6	-46.3	[0.00]	ug/L	07:20:26
1	Sc 361.383	898614.7	898614.7	99.967	%	07:21:43
1	Y 371.029	744516.0	744516.0	100.01	%	07:21:43
1	Ag 328.068†	322.6	322.7	[0.00]	ug/L	07:21:43
1	As 188.979†	-23.0	-23.0	[0.00]	ug/L	07:22:03
1	B 249.677†	-19.3	-19.3	[0.00]	ug/L	07:21:43
1	Ba 233.527†	0.5	0.5	[0.00]	ug/L	07:22:03
1	Be 313.107†	-4762.2	-4763.7	[0.00]	ug/L	07:21:43
1	Cd 226.502†	-226.8	-226.9	[0.00]	ug/L	07:22:03
1	Co 228.616†	-93.2	-93.3	[0.00]	ug/L	07:22:03
1	Cr 267.716†	64.4	64.4	[0.00]	ug/L	07:22:03
1	Cu 324.752†	6010.5	6012.5	[0.00]	ug/L	07:21:43
1	Mn 257.610†	495.5	495.7	[0.00]	ug/L	07:22:03
1	Mo 202.031†	22.9	22.9	[0.00]	ug/L	07:22:03
1	Ni 231.604†	81.1	81.1	[0.00]	ug/L	07:22:03
1	P 214.914†	252.5	252.6	[0.00]	ug/L	07:22:03
1	Pb 220.353†	-69.6	-69.6	[0.00]	ug/L	07:22:03
1	S 181.975 Axial†	49.0	49.0	[0.00]	ug/L	07:22:03
1	Sb 206.836†	41.9	41.9	[0.00]	ug/L	07:22:03
1	Se 196.026†	-26.4	-26.4	[0.00]	ug/L	07:22:03
1	Si 251.611†	572.2	572.4	[0.00]	ug/L	07:22:03
1	Sn 189.927†	-0.0	-0.0	[0.00]	ug/L	07:22:03
1	Ti 334.940†	-1412.7	-1413.1	[0.00]	ug/L	07:21:43
1	Tl 190.801†	-41.3	-41.3	[0.00]	ug/L	07:22:03
1	U 409.014†	-2387.3	-2388.1	[0.00]	ug/L	07:21:43
1	V 292.402†	-1470.6	-1471.1	[0.00]	ug/L	07:21:43
1	Zn 213.857†	805.5	805.7	[0.00]	ug/L	07:22:03
1	SiO2†	625.7	625.9	[0.00]	ug/L	07:22:59
2	Sc Radial	5605.4	5605.4	101	%	07:20:51
2	Y RADIAL	5959.0	5959.0	100.8	%	07:20:51
2	Al 396.153Radial†	-10.2	-10.1	[0.00]	ug/L	07:20:51
2	Ca 317.933Radial†	24.3	24.1	[0.00]	ug/L	07:21:11
2	Fe 238.204 Radial†	10.3	10.3	[0.00]	ug/L	07:21:11
2	K 766.490 Radial†	2688.1	2669.9	[0.00]	ug/L	07:20:51
2	Mg 279.077 IEC†	2.1	2.1	[0.00]	ug/L	07:21:11
2	Na 589.592 Radial†	-787.1	-781.7	[0.00]	ug/L	07:20:51
2	Sr 421.552†	11.8	11.7	[0.00]	ug/L	07:20:51
2	Sc 361.383	902152.2	902152.2	100.36	%	07:22:08
2	Y 371.029	745973.5	745973.5	100.20	%	07:22:08
2	Ag 328.068†	349.4	348.1	[0.00]	ug/L	07:22:08
2	As 188.979†	-34.6	-34.5	[0.00]	ug/L	07:22:28
2	B 249.677†	-53.5	-53.3	[0.00]	ug/L	07:22:08
2	Ba 233.527†	-5.5	-5.5	[0.00]	ug/L	07:22:28
2	Be 313.107†	-4719.3	-4702.4	[0.00]	ug/L	07:22:08
2	Cd 226.502†	-235.3	-234.5	[0.00]	ug/L	07:22:28
2	Co 228.616†	-75.1	-74.9	[0.00]	ug/L	07:22:28
2	Cr 267.716†	79.9	79.6	[0.00]	ug/L	07:22:28
2	Cu 324.752†	6108.5	6086.5	[0.00]	ug/L	07:22:08
2	Mn 257.610†	473.2	471.5	[0.00]	ug/L	07:22:28
2	Mo 202.031†	16.0	15.9	[0.00]	ug/L	07:22:28
2	Ni 231.604†	93.1	92.7	[0.00]	ug/L	07:22:28
2	P 214.914†	263.9	262.9	[0.00]	ug/L	07:22:28
2	Pb 220.353†	-67.5	-67.3	[0.00]	ug/L	07:22:28
2	S 181.975 Axial†	47.0	46.8	[0.00]	ug/L	07:22:28
2	Sb 206.836†	40.8	40.7	[0.00]	ug/L	07:22:28
2	Se 196.026†	-31.1	-31.0	[0.00]	ug/L	07:22:28
2	Si 251.611†	582.7	580.6	[0.00]	ug/L	07:22:28
2	Sn 189.927†	9.6	9.6	[0.00]	ug/L	07:22:28
2	Ti 334.940†	-1325.3	-1320.6	[0.00]	ug/L	07:22:08
2	Tl 190.801†	-47.5	-47.3	[0.00]	ug/L	07:22:28
2	U 409.014†	-2384.5	-2375.9	[0.00]	ug/L	07:22:08
2	V 292.402†	-1446.9	-1441.7	[0.00]	ug/L	07:22:08

2	Zn 213.857†	789.3	786.4	[0.00]	ug/L	07:22:28
2	SiO2†	594.9	592.8	[0.00]	ug/L	07:23:04
3	Sc Radial	5617.7	5617.7	101	%	07:21:16
3	Y RADIAL	5960.2	5960.2	100.8	%	07:21:16
3	Al 396.153Radial†	-14.7	-14.5	[0.00]	ug/L	07:21:16
3	Ca 317.933Radial†	17.9	17.7	[0.00]	ug/L	07:21:36
3	Fe 238.204 Radial†	12.0	11.9	[0.00]	ug/L	07:21:36
3	K 766.490 Radial†	2777.3	2752.4	[0.00]	ug/L	07:21:16
3	Mg 279.077 IEC†	0.8	0.8	[0.00]	ug/L	07:21:36
3	Na 589.592 Radial†	-760.1	-753.3	[0.00]	ug/L	07:21:16
3	Sr 421.552†	-0.8	-0.8	[0.00]	ug/L	07:21:16
3	Sc 361.383	895959.8	895959.8	99.672	%	07:22:33
3	Y 371.029	742903.0	742903.0	99.790	%	07:22:33
3	Ag 328.068†	437.5	439.0	[0.00]	ug/L	07:22:33
3	As 188.979†	-46.8	-47.0	[0.00]	ug/L	07:22:53
3	B 249.677†	-5.1	-5.1	[0.00]	ug/L	07:22:33
3	Ba 233.527†	-2.8	-2.8	[0.00]	ug/L	07:22:53
3	Be 313.107†	-4711.7	-4727.2	[0.00]	ug/L	07:22:33
3	Cd 226.502†	-225.4	-226.2	[0.00]	ug/L	07:22:53
3	Co 228.616†	-92.9	-93.2	[0.00]	ug/L	07:22:53
3	Cr 267.716†	96.1	96.4	[0.00]	ug/L	07:22:53
3	Cu 324.752†	6047.8	6067.7	[0.00]	ug/L	07:22:33
3	Mn 257.610†	505.6	507.2	[0.00]	ug/L	07:22:53
3	Mo 202.031†	20.7	20.8	[0.00]	ug/L	07:22:53
3	Ni 231.604†	106.5	106.9	[0.00]	ug/L	07:22:53
3	P 214.914†	257.9	258.7	[0.00]	ug/L	07:22:53
3	Pb 220.353†	-55.1	-55.3	[0.00]	ug/L	07:22:53
3	S 181.975 Axial†	51.0	51.2	[0.00]	ug/L	07:22:53
3	Sb 206.836†	40.9	41.0	[0.00]	ug/L	07:22:53
3	Se 196.026†	-28.1	-28.2	[0.00]	ug/L	07:22:53
3	Si 251.611†	577.5	579.4	[0.00]	ug/L	07:22:53
3	Sn 189.927†	0.9	0.9	[0.00]	ug/L	07:22:53
3	Ti 334.940†	-1424.4	-1429.1	[0.00]	ug/L	07:22:33
3	Tl 190.801†	-55.4	-55.6	[0.00]	ug/L	07:22:53
3	U 409.014†	-2345.0	-2352.7	[0.00]	ug/L	07:22:33
3	V 292.402†	-1490.6	-1495.5	[0.00]	ug/L	07:22:33
3	Zn 213.857†	785.9	788.5	[0.00]	ug/L	07:22:53
3	SiO2†	599.4	601.4	[0.00]	ug/L	07:23:09

Mean Data: S0

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	898908.9	3106.67	0.35%	100.00	%
Sc Radial	5567.3	76.90	1.38%	100	%
Y 371.029	744464.2	1535.89	0.21%	100.00	%
Y RADIAL	5911.4	83.50	1.41%	100.0	%
Ag 328.068†	369.9	61.12	16.52%	[0.00]	ug/L
Al 396.153Radial†	-16.4	7.33	44.73%	[0.00]	ug/L
As 188.979†	-34.8	12.01	34.47%	[0.00]	ug/L
B 249.677†	-25.9	24.77	95.49%	[0.00]	ug/L
Ba 233.527†	-2.6	3.03	116.57%	[0.00]	ug/L
Be 313.107†	-4731.1	30.86	0.65%	[0.00]	ug/L
Ca 317.933Radial†	19.6	3.95	20.19%	[0.00]	ug/L
Cd 226.502†	-229.2	4.60	2.01%	[0.00]	ug/L
Co 228.616†	-87.1	10.59	12.16%	[0.00]	ug/L
Cr 267.716†	80.2	16.00	19.96%	[0.00]	ug/L
Cu 324.752†	6055.6	38.46	0.64%	[0.00]	ug/L
Fe 238.204 Radial†	10.9	0.90	8.24%	[0.00]	ug/L
K 766.490 Radial†	2712.4	41.33	1.52%	[0.00]	ug/L
Mg 279.077 IEC†	1.4	0.62	44.68%	[0.00]	ug/L
Mn 257.610†	491.5	18.26	3.72%	[0.00]	ug/L
Mo 202.031†	19.9	3.60	18.10%	[0.00]	ug/L
Na 589.592 Radial†	-761.7	17.47	2.29%	[0.00]	ug/L
Ni 231.604†	93.6	12.92	13.80%	[0.00]	ug/L
P 214.914†	258.1	5.20	2.02%	[0.00]	ug/L
Pb 220.353†	-64.1	7.69	12.00%	[0.00]	ug/L
S 181.975 Axial†	49.0	2.20	4.48%	[0.00]	ug/L
Sb 206.836†	41.2	0.62	1.51%	[0.00]	ug/L
Se 196.026†	-28.5	2.32	8.14%	[0.00]	ug/L
Si 251.611†	577.5	4.43	0.77%	[0.00]	ug/L

Sn 189.927†	3.5	5.29	151.73%	[0.00]	ug/L
Sr 421.552†	-11.8	30.54	258.65%	[0.00]	ug/L
Ti 334.940†	-1387.6	58.58	4.22%	[0.00]	ug/L
Tl 190.801†	-48.1	7.20	14.99%	[0.00]	ug/L
U 409.014†	-2372.2	17.99	0.76%	[0.00]	ug/L
V 292.402†	-1469.4	26.93	1.83%	[0.00]	ug/L
Zn 213.857†	793.5	10.61	1.34%	[0.00]	ug/L
SiO2†	606.7	17.18	2.83%	[0.00]	ug/L

Sequence No.: 2
Sample ID: S0.1
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 2
Date Collected: 12/19/2009 07:25:19
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc Radial	5487.3	5487.3	98.6	%	07:27:16
1	Y RADIAL	5798.7	5798.7	98.09	%	07:27:16
1	K 766.490 Radial†	8549.2	5961.4	[1000]	ug/L	07:27:11
1	Sr 421.552†	17310.3	17574.4	[100]	ug/L	07:27:16
1	Sc 361.383	912189.9	912189.9	101.48	%	07:27:43
1	Y 371.029	750828.6	750828.6	100.85	%	07:27:43
1	Ag 328.068†	23552.4	22839.6	[100]	ug/L	07:27:48
1	As 188.979†	246.5	277.7	[100]	ug/L	07:28:08
1	B 249.677†	4718.4	4675.6	[100]	ug/L	07:27:48
1	Ba 233.527†	14914.6	14700.1	[100]	ug/L	07:27:48
1	Be 313.107†	292153.2	292630.7	[100]	ug/L	07:27:43
1	Cd 226.502†	10025.8	10109.1	[100]	ug/L	07:27:48
1	Co 228.616†	5539.2	5545.7	[100]	ug/L	07:28:08
1	Cr 267.716†	10041.0	9814.7	[100]	ug/L	07:27:48
1	Cu 324.752†	41032.1	34379.1	[100]	ug/L	07:27:48
1	Mn 257.610†	102308.9	100327.8	[100]	ug/L	07:27:48
1	Mo 202.031†	1670.1	1625.9	[100]	ug/L	07:28:08
1	Ni 231.604†	4765.5	4602.6	[100]	ug/L	07:27:48
1	P 214.914†	1178.9	903.6	[500]	ug/L	07:28:08
1	Pb 220.353†	888.6	939.8	[100]	ug/L	07:28:08
1	S 181.975 Axial†	203.7	151.7	[200]	ug/L	07:28:08
1	Sb 206.836†	368.9	322.4	[100]	ug/L	07:28:08
1	Se 196.026†	149.4	175.7	[100]	ug/L	07:28:08
1	Si 251.611†	18108.2	17267.1	[500]	ug/L	07:27:48
1	Sn 189.927†	664.5	651.3	[100]	ug/L	07:28:08
1	Ti 334.940†	66419.0	66839.5	[100]	ug/L	07:27:48
1	Tl 190.801†	342.9	385.9	[100]	ug/L	07:28:08
1	U 409.014†	1313.4	3666.5	[100]	ug/L	07:27:43
1	V 292.402†	14183.7	15446.6	[100]	ug/L	07:27:48
1	Zn 213.857†	12980.8	11998.3	[100]	ug/L	07:27:48
1	SiO2†	18208.6	17336.8	[1069.5]	ug/L	07:29:14
2	Sc Radial	5476.4	5476.4	98.4	%	07:27:26
2	Y RADIAL	5792.1	5792.1	97.98	%	07:27:26
2	K 766.490 Radial†	8519.1	5948.1	[1000]	ug/L	07:27:21
2	Sr 421.552†	17168.0	17464.8	[100]	ug/L	07:27:26
2	Sc 361.383	905291.1	905291.1	100.71	%	07:28:13
2	Y 371.029	745901.0	745901.0	100.19	%	07:28:13
2	Ag 328.068†	23672.6	23135.8	[100]	ug/L	07:28:18
2	As 188.979†	249.3	282.4	[100]	ug/L	07:28:38
2	B 249.677†	4606.6	4600.1	[100]	ug/L	07:28:18
2	Ba 233.527†	14882.8	14780.5	[100]	ug/L	07:28:18
2	Be 313.107†	290759.3	293440.5	[100]	ug/L	07:28:13
2	Cd 226.502†	10066.1	10224.3	[100]	ug/L	07:28:18
2	Co 228.616†	5553.2	5601.2	[100]	ug/L	07:28:38
2	Cr 267.716†	10006.3	9855.6	[100]	ug/L	07:28:18
2	Cu 324.752†	41287.6	34940.9	[100]	ug/L	07:28:18
2	Mn 257.610†	102396.0	101182.6	[100]	ug/L	07:28:18
2	Mo 202.031†	1662.6	1631.0	[100]	ug/L	07:28:38
2	Ni 231.604†	4773.8	4646.6	[100]	ug/L	07:28:18
2	P 214.914†	1198.1	931.6	[500]	ug/L	07:28:38
2	Pb 220.353†	883.0	940.8	[100]	ug/L	07:28:38
2	S 181.975 Axial†	209.0	158.5	[200]	ug/L	07:28:38
2	Sb 206.836†	371.5	327.6	[100]	ug/L	07:28:38
2	Se 196.026†	142.2	169.7	[100]	ug/L	07:28:38
2	Si 251.611†	18120.6	17415.4	[500]	ug/L	07:28:18
2	Sn 189.927†	664.9	656.7	[100]	ug/L	07:28:38
2	Ti 334.940†	66659.4	67577.1	[100]	ug/L	07:28:18
2	Tl 190.801†	347.9	393.6	[100]	ug/L	07:28:38
2	U 409.014†	1421.3	3783.5	[100]	ug/L	07:28:13

2	V 292.402†	14119.4	15489.3	[100]	ug/L	07:28:18
2	Zn 213.857†	13044.4	12158.8	[100]	ug/L	07:28:18
2	SiO2†	18265.7	17530.3	[1069.5]	ug/L	07:29:19
3	Sc Radial	5563.0	5563.0	99.9	%	07:27:36
3	Y RADIAL	5921.7	5921.7	100.2	%	07:27:36
3	K 766.490 Radial†	8355.7	5649.7	[1000]	ug/L	07:27:31
3	Sr 421.552†	17531.8	17557.2	[100]	ug/L	07:27:36
3	Sc 361.383	900253.6	900253.6	100.15	%	07:28:44
3	Y 371.029	741176.9	741176.9	99.558	%	07:28:44
3	Ag 328.068†	23727.7	23322.3	[100]	ug/L	07:28:49
3	As 188.979†	243.9	278.4	[100]	ug/L	07:29:09
3	B 249.677†	4711.2	4730.1	[100]	ug/L	07:28:49
3	Ba 233.527†	15022.9	15003.1	[100]	ug/L	07:28:49
3	Be 313.107†	288700.8	293000.7	[100]	ug/L	07:28:44
3	Cd 226.502†	10225.1	10439.0	[100]	ug/L	07:28:49
3	Co 228.616†	5580.3	5659.1	[100]	ug/L	07:29:09
3	Cr 267.716†	10071.5	9976.3	[100]	ug/L	07:28:49
3	Cu 324.752†	41363.7	35246.4	[100]	ug/L	07:28:49
3	Mn 257.610†	103350.9	102705.1	[100]	ug/L	07:28:49
3	Mo 202.031†	1694.4	1672.0	[100]	ug/L	07:29:09
3	Ni 231.604†	4799.4	4698.6	[100]	ug/L	07:28:49
3	P 214.914†	1204.5	944.6	[500]	ug/L	07:29:09
3	Pb 220.353†	886.9	949.6	[100]	ug/L	07:29:09
3	S 181.975 Axial†	203.8	154.5	[200]	ug/L	07:29:09
3	Sb 206.836†	379.2	337.5	[100]	ug/L	07:29:09
3	Se 196.026†	150.9	179.2	[100]	ug/L	07:29:09
3	Si 251.611†	18313.4	17708.6	[500]	ug/L	07:28:49
3	Sn 189.927†	673.8	669.3	[100]	ug/L	07:29:09
3	Ti 334.940†	67148.8	68436.1	[100]	ug/L	07:28:49
3	Tl 190.801†	334.2	381.8	[100]	ug/L	07:29:09
3	U 409.014†	1275.4	3645.7	[100]	ug/L	07:28:44
3	V 292.402†	14218.0	15666.2	[100]	ug/L	07:28:49
3	Zn 213.857†	13125.4	12312.2	[100]	ug/L	07:28:49
3	SiO2†	18184.1	17550.3	[1069.5]	ug/L	07:29:24

Mean Data: S0.1

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	905911.6	5992.28	0.66%	100.78	%
Sc Radial	5508.9	47.15	0.86%	99.0	%
Y 371.029	745968.8	4826.23	0.65%	100.20	%
Y RADIAL	5837.5	73.00	1.25%	98.75	%
Ag 328.068†	23099.2	243.44	1.05%	[100]	ug/L
As 188.979†	279.5	2.55	0.91%	[100]	ug/L
B 249.677†	4668.6	65.27	1.40%	[100]	ug/L
Ba 233.527†	14827.9	156.96	1.06%	[100]	ug/L
Be 313.107†	293024.0	405.43	0.14%	[100]	ug/L
Cd 226.502†	10257.5	167.47	1.63%	[100]	ug/L
Co 228.616†	5602.0	56.71	1.01%	[100]	ug/L
Cr 267.716†	9882.2	84.02	0.85%	[100]	ug/L
Cu 324.752†	34855.5	439.91	1.26%	[100]	ug/L
K 766.490 Radial†	5853.1	176.23	3.01%	[1000]	ug/L
Mn 257.610†	101405.2	1204.15	1.19%	[100]	ug/L
Mo 202.031†	1643.0	25.23	1.54%	[100]	ug/L
Ni 231.604†	4649.2	48.08	1.03%	[100]	ug/L
P 214.914†	926.6	20.94	2.26%	[500]	ug/L
Pb 220.353†	943.4	5.41	0.57%	[100]	ug/L
S 181.975 Axial†	154.9	3.43	2.22%	[200]	ug/L
Sb 206.836†	329.1	7.67	2.33%	[100]	ug/L
Se 196.026†	174.9	4.78	2.73%	[100]	ug/L
Si 251.611†	17463.7	224.68	1.29%	[500]	ug/L
Sn 189.927†	659.1	9.26	1.40%	[100]	ug/L
Sr 421.552†	17532.2	58.93	0.34%	[100]	ug/L
Ti 334.940†	67617.6	799.06	1.18%	[100]	ug/L
Tl 190.801†	387.1	5.99	1.55%	[100]	ug/L
U 409.014†	3698.6	74.30	2.01%	[100]	ug/L
V 292.402†	15534.0	116.43	0.75%	[100]	ug/L
Zn 213.857†	12156.5	157.00	1.29%	[100]	ug/L
SiO2†	17472.5	117.91	0.67%	[1069.5]	ug/L

Sequence No.: 3
Sample ID: S0.5
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 3
Date Collected: 12/19/2009 07:31:35
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc Radial	5698.6	5698.6	102	%	07:33:27
1	Y RADIAL	5996.3	5996.3	101.4	%	07:33:27
1	Al 396.153Radial†	6661.4	6524.4	[5000]	ug/L	07:33:27
1	Ca 317.933Radial†	3487.8	3387.9	[5000]	ug/L	07:33:47
1	K 766.490 Radial†	31038.0	27610.5	[5000]	ug/L	07:33:27
1	Mg 279.077 IEC†	168.2	163.0	[5000]	ug/L	07:33:47
1	Sr 421.552†	85392.6	83437.2	[500]	ug/L	07:33:27
1	Sc 361.383	911583.3	911583.3	101.41	%	07:34:45
1	Y 371.029	742613.9	742613.9	99.751	%	07:34:45
1	Ag 328.068†	115620.3	113642.9	[500]	ug/L	07:34:50
1	As 188.979†	1338.4	1354.6	[500]	ug/L	07:35:10
1	B 249.677†	23962.3	23655.1	[500]	ug/L	07:34:50
1	Ba 233.527†	73782.2	72758.9	[500]	ug/L	07:34:50
1	Be 313.107†	1493604.4	1477568.7	[500]	ug/L	07:34:45
1	Cd 226.502†	51230.7	50747.6	[500]	ug/L	07:34:50
1	Co 228.616†	28624.9	28314.0	[500]	ug/L	07:34:50
1	Cr 267.716†	49613.8	48843.9	[500]	ug/L	07:34:50
1	Cu 324.752†	181967.9	173382.3	[500]	ug/L	07:34:50
1	Mn 257.610†	510769.1	503176.0	[500]	ug/L	07:34:45
1	Mo 202.031†	8205.8	8071.8	[500]	ug/L	07:35:10
1	Ni 231.604†	23096.0	22681.3	[500]	ug/L	07:34:50
1	P 214.914†	5002.6	4674.9	[2500]	ug/L	07:35:10
1	Pb 220.353†	4633.9	4633.5	[500]	ug/L	07:35:10
1	S 181.975 Axial†	856.2	795.3	[1000]	ug/L	07:35:10
1	Sb 206.836†	1688.5	1623.8	[500]	ug/L	07:35:10
1	Se 196.026†	880.9	897.1	[500]	ug/L	07:35:10
1	Si 251.611†	88216.3	86412.3	[2500]	ug/L	07:34:50
1	Sn 189.927†	3297.6	3248.2	[500]	ug/L	07:35:10
1	Ti 334.940†	343434.3	340046.8	[500]	ug/L	07:34:45
1	Tl 190.801†	1867.7	1889.8	[500]	ug/L	07:35:10
1	U 409.014†	15743.9	17897.2	[500]	ug/L	07:34:50
1	V 292.402†	77149.3	77546.1	[500]	ug/L	07:34:50
1	Zn 213.857†	61946.9	60292.0	[500]	ug/L	07:34:50
1	SiO2†	87667.2	85841.6	[5347.5]	ug/L	07:36:18
2	Sc Radial	5544.1	5544.1	99.6	%	07:33:52
2	Y RADIAL	5872.3	5872.3	99.34	%	07:33:52
2	Al 396.153Radial†	6702.3	6746.7	[5000]	ug/L	07:33:52
2	Ca 317.933Radial†	3502.6	3497.7	[5000]	ug/L	07:34:12
2	K 766.490 Radial†	31160.7	28578.6	[5000]	ug/L	07:33:52
2	Mg 279.077 IEC†	167.3	166.6	[5000]	ug/L	07:34:12
2	Sr 421.552†	86131.2	86503.3	[500]	ug/L	07:33:52
2	Sc 361.383	910470.8	910470.8	101.29	%	07:35:16
2	Y 371.029	742224.9	742224.9	99.699	%	07:35:16
2	Ag 328.068†	116498.7	114649.4	[500]	ug/L	07:35:21
2	As 188.979†	1351.2	1368.8	[500]	ug/L	07:35:41
2	B 249.677†	24291.1	24008.5	[500]	ug/L	07:35:21
2	Ba 233.527†	74164.9	73225.7	[500]	ug/L	07:35:21
2	Be 313.107†	1488084.5	1473918.6	[500]	ug/L	07:35:16
2	Cd 226.502†	51465.4	51041.1	[500]	ug/L	07:35:21
2	Co 228.616†	28756.1	28478.0	[500]	ug/L	07:35:21
2	Cr 267.716†	49856.9	49143.7	[500]	ug/L	07:35:21
2	Cu 324.752†	183493.8	175108.1	[500]	ug/L	07:35:21
2	Mn 257.610†	509468.2	502507.1	[500]	ug/L	07:35:16
2	Mo 202.031†	8230.1	8105.7	[500]	ug/L	07:35:41
2	Ni 231.604†	23282.9	22893.7	[500]	ug/L	07:35:21
2	P 214.914†	5048.0	4725.9	[2500]	ug/L	07:35:41
2	Pb 220.353†	4679.5	4684.1	[500]	ug/L	07:35:41
2	S 181.975 Axial†	854.5	794.6	[1000]	ug/L	07:35:41
2	Sb 206.836†	1691.8	1629.1	[500]	ug/L	07:35:41

2	Se 196.026†	899.7	916.8	[500]	ug/L	07:35:41
2	Si 251.611†	89036.4	87328.2	[2500]	ug/L	07:35:21
2	Sn 189.927†	3300.4	3255.0	[500]	ug/L	07:35:41
2	Ti 334.940†	342481.4	339519.8	[500]	ug/L	07:35:16
2	Tl 190.801†	1889.7	1913.8	[500]	ug/L	07:35:41
2	U 409.014†	15663.2	17836.5	[500]	ug/L	07:35:21
2	V 292.402†	77677.0	78160.0	[500]	ug/L	07:35:21
2	Zn 213.857†	62437.5	60851.0	[500]	ug/L	07:35:21
2	SiO2†	87988.4	86264.4	[5347.5]	ug/L	07:36:23
3	Sc Radial	5544.8	5544.8	99.6	%	07:34:17
3	Y RADIAL	5884.0	5884.0	99.54	%	07:34:17
3	Al 396.153Radial†	6724.5	6768.1	[5000]	ug/L	07:34:17
3	Ca 317.933Radial†	3514.9	3509.6	[5000]	ug/L	07:34:37
3	K 766.490 Radial†	31310.5	28724.8	[5000]	ug/L	07:34:17
3	Mg 279.077 IEC†	164.6	163.8	[5000]	ug/L	07:34:37
3	Sr 421.552†	86504.2	86866.2	[500]	ug/L	07:34:17
3	Sc 361.383	916258.2	916258.2	101.93	%	07:35:47
3	Y 371.029	744779.1	744779.1	100.04	%	07:35:47
3	Ag 328.068†	114994.9	112447.6	[500]	ug/L	07:35:52
3	As 188.979†	1341.9	1351.3	[500]	ug/L	07:36:12
3	B 249.677†	23873.3	23447.2	[500]	ug/L	07:35:52
3	Ba 233.527†	73326.7	71940.9	[500]	ug/L	07:35:52
3	Be 313.107†	1496868.1	1473256.1	[500]	ug/L	07:35:47
3	Cd 226.502†	50806.8	50073.9	[500]	ug/L	07:35:52
3	Co 228.616†	28469.0	28017.1	[500]	ug/L	07:35:52
3	Cr 267.716†	49159.5	48148.5	[500]	ug/L	07:35:52
3	Cu 324.752†	180929.5	171448.0	[500]	ug/L	07:35:52
3	Mn 257.610†	513596.8	503380.4	[500]	ug/L	07:35:47
3	Mo 202.031†	8179.4	8004.6	[500]	ug/L	07:36:12
3	Ni 231.604†	22942.9	22414.9	[500]	ug/L	07:35:52
3	P 214.914†	4998.7	4646.0	[2500]	ug/L	07:36:12
3	Pb 220.353†	4660.7	4636.5	[500]	ug/L	07:36:12
3	S 181.975 Axial†	854.8	789.6	[1000]	ug/L	07:36:12
3	Sb 206.836†	1673.4	1600.5	[500]	ug/L	07:36:12
3	Se 196.026†	875.7	887.7	[500]	ug/L	07:36:12
3	Si 251.611†	87985.4	85741.9	[2500]	ug/L	07:35:52
3	Sn 189.927†	3294.7	3228.8	[500]	ug/L	07:36:12
3	Ti 334.940†	345096.9	339950.1	[500]	ug/L	07:35:47
3	Tl 190.801†	1880.0	1892.5	[500]	ug/L	07:36:12
3	U 409.014†	15626.7	17703.1	[500]	ug/L	07:35:52
3	V 292.402†	76454.9	76476.7	[500]	ug/L	07:35:52
3	Zn 213.857†	61666.8	59705.6	[500]	ug/L	07:35:52
3	SiO2†	88510.5	86227.9	[5347.5]	ug/L	07:36:28

Mean Data: S0.5

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	912770.8	3070.96	0.34%	101.54	%
Sc Radial	5595.8	88.97	1.59%	101	%
Y 371.029	743206.0	1376.22	0.19%	99.831	%
Y RADIAL	5917.5	68.45	1.16%	100.1	%
Ag 328.068†	113579.9	1102.25	0.97%	[500]	ug/L
Al 396.153Radial†	6679.7	134.98	2.02%	[5000]	ug/L
As 188.979†	1358.2	9.33	0.69%	[500]	ug/L
B 249.677†	23703.6	283.81	1.20%	[500]	ug/L
Ba 233.527†	72641.8	650.34	0.90%	[500]	ug/L
Be 313.107†	1474914.5	2322.40	0.16%	[500]	ug/L
Ca 317.933Radial†	3465.0	67.07	1.94%	[5000]	ug/L
Cd 226.502†	50620.9	495.86	0.98%	[500]	ug/L
Co 228.616†	28269.7	233.63	0.83%	[500]	ug/L
Cr 267.716†	48712.0	510.51	1.05%	[500]	ug/L
Cu 324.752†	173312.8	1831.02	1.06%	[500]	ug/L
K 766.490 Radial†	28304.6	605.52	2.14%	[5000]	ug/L
Mg 279.077 IEC†	164.5	1.90	1.16%	[5000]	ug/L
Mn 257.610†	503021.2	456.81	0.09%	[500]	ug/L
Mo 202.031†	8060.7	51.43	0.64%	[500]	ug/L
Ni 231.604†	22663.3	239.92	1.06%	[500]	ug/L
P 214.914†	4682.3	40.43	0.86%	[2500]	ug/L
Pb 220.353†	4651.4	28.36	0.61%	[500]	ug/L
S 181.975 Axial†	793.2	3.11	0.39%	[1000]	ug/L

Sb 206.836†	1617.8	15.24	0.94%	[500]	ug/L
Se 196.026†	900.6	14.86	1.65%	[500]	ug/L
Si 251.611†	86494.1	796.32	0.92%	[2500]	ug/L
Sn 189.927†	3244.0	13.61	0.42%	[500]	ug/L
Sr 421.552†	85602.2	1883.74	2.20%	[500]	ug/L
Ti 334.940†	339838.9	280.53	0.08%	[500]	ug/L
Tl 190.801†	1898.7	13.14	0.69%	[500]	ug/L
U 409.014†	17812.3	99.34	0.56%	[500]	ug/L
V 292.402†	77394.2	851.88	1.10%	[500]	ug/L
Zn 213.857†	60282.9	572.79	0.95%	[500]	ug/L
SiO2†	86111.3	234.29	0.27%	[5347.5]	ug/L

Sequence No.: 4
Sample ID: SCAL
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 4
Date Collected: 12/19/2009 07:38:39
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: SCAL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc Radial	5458.4	5458.4	98.0	%	07:40:52
1	Y RADIAL	5752.0	5752.0	97.30	%	07:40:52
1	Al 396.153Radial†	13231.1	13511.3	[10000]	ug/L	07:40:32
1	Ca 317.933Radial†	6909.0	7027.2	[10000]	ug/L	07:40:52
1	Fe 238.204 Radial†	1208.9	1222.1	[10000]	ug/L	07:40:52
1	K 766.490 Radial†	58416.7	56869.0	[10000]	ug/L	07:40:32
1	Mg 279.077 IEC†	328.1	333.2	[10000]	ug/L	07:40:52
1	Na 589.592 Radial†	31728.7	33123.0	[10000]	ug/L	07:40:32
1	Sr 421.552†	167103.4	170447.0	[1000]	ug/L	07:40:32
1	Sc 361.383	883286.8	883286.8	98.262	%	07:41:56
1	Y 371.029	722299.4	722299.4	97.023	%	07:41:56
1	Ag 328.068†	229508.6	233197.9	[1000]	ug/L	07:41:56
1	As 188.979†	2687.9	2770.2	[1000]	ug/L	07:42:16
1	B 249.677†	48055.0	48930.9	[1000]	ug/L	07:41:56
1	Ba 233.527†	144993.0	147560.0	[1000]	ug/L	07:41:56
1	Be 313.107†	2940610.9	2997350.5	[1000]	ug/L	07:41:50
1	Cd 226.502†	100505.1	102511.8	[1000]	ug/L	07:41:56
1	Co 228.616†	56144.1	57224.2	[1000]	ug/L	07:41:56
1	Cr 267.716†	97363.7	99005.6	[1000]	ug/L	07:41:56
1	Cu 324.752†	355274.2	355502.2	[1000]	ug/L	07:41:56
1	Mn 257.610†	999949.7	1017143.7	[1000]	ug/L	07:41:50
1	Mo 202.031†	16404.5	16674.8	[1000]	ug/L	07:42:16
1	Ni 231.604†	45154.9	45859.9	[1000]	ug/L	07:41:56
1	P 214.914†	9756.0	9670.5	[5000]	ug/L	07:42:16
1	Pb 220.353†	9330.3	9559.4	[1000]	ug/L	07:42:16
1	S 181.975 Axial†	1660.2	1640.5	[2000]	ug/L	07:42:16
1	Sb 206.836†	3356.4	3374.5	[1000]	ug/L	07:42:16
1	Se 196.026†	1787.8	1847.9	[1000]	ug/L	07:42:16
1	Si 251.611†	175705.1	178235.2	[5000]	ug/L	07:41:56
1	Sn 189.927†	6616.7	6730.2	[1000]	ug/L	07:42:16
1	Ti 334.940†	682059.7	695510.4	[1000]	ug/L	07:41:50
1	Tl 190.801†	3759.8	3874.4	[1000]	ug/L	07:42:16
1	U 409.014†	33472.3	36436.5	[1000]	ug/L	07:41:56
1	V 292.402†	153695.1	157882.8	[1000]	ug/L	07:41:56
1	Zn 213.857†	120840.9	122184.6	[1000]	ug/L	07:41:56
1	SiO2†	176496.9	179011.8	[10695]	ug/L	07:43:25
2	Sc Radial	5481.8	5481.8	98.5	%	07:41:17
2	Y RADIAL	5756.9	5756.9	97.39	%	07:41:17
2	Al 396.153Radial†	13086.7	13307.2	[10000]	ug/L	07:40:57
2	Ca 317.933Radial†	6935.3	7023.9	[10000]	ug/L	07:41:17
2	Fe 238.204 Radial†	1218.3	1226.4	[10000]	ug/L	07:41:17
2	K 766.490 Radial†	58033.5	56226.2	[10000]	ug/L	07:40:57
2	Mg 279.077 IEC†	329.5	333.2	[10000]	ug/L	07:41:17
2	Na 589.592 Radial†	31540.3	32793.8	[10000]	ug/L	07:40:57
2	Sr 421.552†	166280.3	168885.5	[1000]	ug/L	07:40:57
2	Sc 361.383	889720.3	889720.3	98.978	%	07:42:27
2	Y 371.029	726788.9	726788.9	97.626	%	07:42:27
2	Ag 328.068†	231283.9	233302.6	[1000]	ug/L	07:42:27
2	As 188.979†	2694.6	2757.3	[1000]	ug/L	07:42:48
2	B 249.677†	48707.7	49236.7	[1000]	ug/L	07:42:27
2	Ba 233.527†	146245.8	147758.7	[1000]	ug/L	07:42:27
2	Be 313.107†	2946784.0	2981948.1	[1000]	ug/L	07:42:22
2	Cd 226.502†	101381.2	102657.4	[1000]	ug/L	07:42:27
2	Co 228.616†	56748.5	57421.7	[1000]	ug/L	07:42:27
2	Cr 267.716†	98089.1	99021.9	[1000]	ug/L	07:42:27
2	Cu 324.752†	358645.1	356293.5	[1000]	ug/L	07:42:27
2	Mn 257.610†	1003368.4	1013239.3	[1000]	ug/L	07:42:22
2	Mo 202.031†	16394.9	16544.3	[1000]	ug/L	07:42:48
2	Ni 231.604†	45567.5	45944.5	[1000]	ug/L	07:42:27

2	P 214.914†	9781.5	9624.4	[5000]	ug/L	07:42:48
2	Pb 220.353†	9327.8	9488.2	[1000]	ug/L	07:42:48
2	S 181.975 Axial†	1667.8	1636.1	[2000]	ug/L	07:42:48
2	Sb 206.836†	3359.7	3353.1	[1000]	ug/L	07:42:48
2	Se 196.026†	1796.9	1843.9	[1000]	ug/L	07:42:48
2	Si 251.611†	177399.5	178654.1	[5000]	ug/L	07:42:27
2	Sn 189.927†	6623.3	6688.2	[1000]	ug/L	07:42:48
2	Ti 334.940†	684913.7	693374.7	[1000]	ug/L	07:42:22
2	Tl 190.801†	3769.1	3856.1	[1000]	ug/L	07:42:48
2	U 409.014†	33664.1	36384.0	[1000]	ug/L	07:42:27
2	V 292.402†	154988.7	158058.7	[1000]	ug/L	07:42:27
2	Zn 213.857†	122079.3	122546.6	[1000]	ug/L	07:42:27
2	SiO2†	173385.7	174569.7	[10695]	ug/L	07:43:30
3	Sc Radial	5420.9	5420.9	97.4	%	07:41:42
3	Y RADIAL	5726.3	5726.3	96.87	%	07:41:42
3	Al 396.153Radial†	13241.2	13615.2	[10000]	ug/L	07:41:22
3	Ca 317.933Radial†	6857.1	7022.7	[10000]	ug/L	07:41:42
3	Fe 238.204 Radial†	1201.5	1223.0	[10000]	ug/L	07:41:42
3	K 766.490 Radial†	58301.6	57164.1	[10000]	ug/L	07:41:22
3	Mg 279.077 IEC†	322.7	330.1	[10000]	ug/L	07:41:42
3	Na 589.592 Radial†	31620.0	33235.8	[10000]	ug/L	07:41:22
3	Sr 421.552†	167104.9	171630.6	[1000]	ug/L	07:41:22
3	Sc 361.383	881299.8	881299.8	98.041	%	07:42:59
3	Y 371.029	720248.3	720248.3	96.747	%	07:42:59
3	Ag 328.068†	229110.1	233318.0	[1000]	ug/L	07:42:59
3	As 188.979†	2675.8	2764.1	[1000]	ug/L	07:43:19
3	B 249.677†	48076.0	49062.6	[1000]	ug/L	07:42:59
3	Ba 233.527†	144549.3	147440.1	[1000]	ug/L	07:42:59
3	Be 313.107†	2928638.8	2991886.7	[1000]	ug/L	07:42:54
3	Cd 226.502†	100101.7	102331.0	[1000]	ug/L	07:42:59
3	Co 228.616†	56030.6	57237.3	[1000]	ug/L	07:42:59
3	Cr 267.716†	96920.1	98776.5	[1000]	ug/L	07:42:59
3	Cu 324.752†	354627.6	355657.8	[1000]	ug/L	07:42:59
3	Mn 257.610†	997443.7	1016882.0	[1000]	ug/L	07:42:54
3	Mo 202.031†	16337.4	16644.0	[1000]	ug/L	07:43:19
3	Ni 231.604†	45005.2	45810.8	[1000]	ug/L	07:42:59
3	P 214.914†	9701.9	9637.7	[5000]	ug/L	07:43:19
3	Pb 220.353†	9312.6	9562.7	[1000]	ug/L	07:43:19
3	S 181.975 Axial†	1665.3	1649.6	[2000]	ug/L	07:43:19
3	Sb 206.836†	3339.7	3365.2	[1000]	ug/L	07:43:19
3	Se 196.026†	1778.6	1842.6	[1000]	ug/L	07:43:19
3	Si 251.611†	175462.8	178391.2	[5000]	ug/L	07:42:59
3	Sn 189.927†	6593.5	6721.7	[1000]	ug/L	07:43:19
3	Ti 334.940†	680484.2	695468.5	[1000]	ug/L	07:42:54
3	Tl 190.801†	3751.4	3874.4	[1000]	ug/L	07:43:19
3	U 409.014†	33504.8	36546.4	[1000]	ug/L	07:42:59
3	V 292.402†	153091.7	157620.0	[1000]	ug/L	07:42:59
3	Zn 213.857†	120479.7	122093.4	[1000]	ug/L	07:42:59
3	SiO2†	176761.6	179686.8	[10695]	ug/L	07:43:35

Mean Data: SCAL

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	884768.9	4401.57	0.50%	98.427	%
Sc Radial	5453.7	30.74	0.56%	98.0	%
Y 371.029	723112.2	3345.20	0.46%	97.132	%
Y RADIAL	5745.1	16.46	0.29%	97.19	%
Ag 328.068†	233272.8	65.36	0.03%	[1000]	ug/L
Al 396.153Radial†	13477.9	156.70	1.16%	[10000]	ug/L
As 188.979†	2763.9	6.49	0.23%	[1000]	ug/L
B 249.677†	49076.7	153.41	0.31%	[1000]	ug/L
Ba 233.527†	147586.3	160.90	0.11%	[1000]	ug/L
Be 313.107†	2990395.1	7808.79	0.26%	[1000]	ug/L
Ca 317.933Radial†	7024.6	2.35	0.03%	[10000]	ug/L
Cd 226.502†	102500.1	163.51	0.16%	[1000]	ug/L
Co 228.616†	57294.4	110.43	0.19%	[1000]	ug/L
Cr 267.716†	98934.7	137.20	0.14%	[1000]	ug/L
Cu 324.752†	355817.8	419.23	0.12%	[1000]	ug/L
Fe 238.204 Radial†	1223.8	2.26	0.18%	[10000]	ug/L
K 766.490 Radial†	56753.1	479.54	0.84%	[10000]	ug/L

Mg 279.077 IEC†	332.2	1.81	0.55%	[10000]	ug/L
Mn 257.610†	1015755.0	2182.60	0.21%	[1000]	ug/L
Mo 202.031†	16621.0	68.19	0.41%	[1000]	ug/L
Na 589.592 Radial†	33050.9	229.64	0.69%	[10000]	ug/L
Ni 231.604†	45871.7	67.60	0.15%	[1000]	ug/L
P 214.914†	9644.2	23.71	0.25%	[5000]	ug/L
Pb 220.353†	9536.8	42.08	0.44%	[1000]	ug/L
S 181.975 Axial†	1642.1	6.88	0.42%	[2000]	ug/L
Sb 206.836†	3364.3	10.72	0.32%	[1000]	ug/L
Se 196.026†	1844.8	2.75	0.15%	[1000]	ug/L
Si 251.611†	178426.8	211.73	0.12%	[5000]	ug/L
Sn 189.927†	6713.4	22.19	0.33%	[1000]	ug/L
Sr 421.552†	170321.0	1376.88	0.81%	[1000]	ug/L
Ti 334.940†	694784.6	1221.12	0.18%	[1000]	ug/L
Tl 190.801†	3868.3	10.55	0.27%	[1000]	ug/L
U 409.014†	36455.7	82.89	0.23%	[1000]	ug/L
V 292.402†	157853.8	220.80	0.14%	[1000]	ug/L
Zn 213.857†	122274.9	239.67	0.20%	[1000]	ug/L
SiO2†	177756.1	2780.09	1.56%	[10695]	ug/L

Sequence No.: 5
Sample ID: S10
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 5
Date Collected: 12/19/2009 07:45:47
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S10

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc Radial	5443.9	5443.9	97.8	%	07:48:00
1	Y RADIAL	5719.5	5719.5	96.75	%	07:48:00
1	Al 396.153Radial†	66553.4	68078.1	[50000]	ug/L	07:47:40
1	Ca 317.933Radial†	34047.9	34799.9	[50000]	ug/L	07:47:40
1	Fe 238.204 Radial†	2348.4	2390.8	[20000]	ug/L	07:48:00
1	Mg 279.077 IEC†	1563.4	1597.4	[50000]	ug/L	07:48:00
1	Na 589.592 Radial†	64624.0	66850.2	[20000]	ug/L	07:47:40
1	Sc 361.383	885309.8	885309.8	98.487	%	07:48:57
1	Y 371.029	716976.9	716976.9	96.308	%	07:48:57
2	Sc Radial	5354.0	5354.0	96.2	%	07:48:25
2	Y RADIAL	5644.3	5644.3	95.48	%	07:48:25
2	Al 396.153Radial†	66773.6	69450.0	[50000]	ug/L	07:48:05
2	Ca 317.933Radial†	34121.7	35461.4	[50000]	ug/L	07:48:05
2	Fe 238.204 Radial†	2313.7	2395.0	[20000]	ug/L	07:48:25
2	Mg 279.077 IEC†	1545.8	1606.0	[50000]	ug/L	07:48:25
2	Na 589.592 Radial†	64658.1	67995.5	[20000]	ug/L	07:48:05
2	Sc 361.383	885315.1	885315.1	98.488	%	07:49:03
2	Y 371.029	716928.7	716928.7	96.301	%	07:49:03
3	Sc Radial	5394.3	5394.3	96.9	%	07:48:50
3	Y RADIAL	5697.1	5697.1	96.38	%	07:48:50
3	Al 396.153Radial†	66387.5	68533.3	[50000]	ug/L	07:48:30
3	Ca 317.933Radial†	33886.8	34954.2	[50000]	ug/L	07:48:30
3	Fe 238.204 Radial†	2336.3	2400.4	[20000]	ug/L	07:48:50
3	Mg 279.077 IEC†	1571.3	1620.3	[50000]	ug/L	07:48:50
3	Na 589.592 Radial†	64043.1	66859.0	[20000]	ug/L	07:48:30
3	Sc 361.383	884318.5	884318.5	98.377	%	07:49:08
3	Y 371.029	714960.3	714960.3	96.037	%	07:49:08

Mean Data: S10

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	884981.1	573.86	0.06%	98.451	%
Sc Radial	5397.4	45.03	0.83%	96.9	%
Y 371.029	716288.6	1150.60	0.16%	96.215	%
Y RADIAL	5687.0	38.61	0.68%	96.20	%
Al 396.153Radial†	68687.1	698.77	1.02%	[50000]	ug/L
Ca 317.933Radial†	35071.8	346.05	0.99%	[50000]	ug/L
Fe 238.204 Radial†	2395.4	4.80	0.20%	[20000]	ug/L
Mg 279.077 IEC†	1607.9	11.55	0.72%	[50000]	ug/L
Na 589.592 Radial†	67234.9	658.71	0.98%	[20000]	ug/L

Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 328.068	3	Lin Thru 0	0.0	232.0	0.00000	0.999945	
Al 396.153Radial	3	Lin Thru 0	0.0	1.372	0.00000	0.999990	
As 188.979	3	Lin Thru 0	0.0	2.755	0.00000	0.999976	
B 249.677	3	Lin Thru 0	0.0	48.73	0.00000	0.999900	
Ba 233.527	3	Lin Thru 0	0.0	147.1	0.00000	0.999980	
Be 313.107	3	Lin Thru 0	0.0	2982	0.00000	0.999984	
Ca 317.933Radial	3	Lin Thru 0	0.0	0.7014	0.00000	0.999999	
Cd 226.502	3	Lin Thru 0	0.0	102.3	0.00000	0.999988	
Co 228.616	3	Lin Thru 0	0.0	57.13	0.00000	0.999985	
Cr 267.716	3	Lin Thru 0	0.0	98.63	0.00000	0.999981	
Cu 324.752	3	Lin Thru 0	0.0	353.9	0.00000	0.999946	
Fe 238.204 Radia	2	Lin Thru 0	0.0	0.1203	0.00000	0.999962	
K 766.490 Radial	3	Lin Thru 0	0.0	5.674	0.00000	0.999995	

Mg 279.077 IEC	3	Lin Thru 0	0.0	0.0322	0.00000	0.999978
Mn 257.610	3	Lin Thru 0	0.0	1014	0.00000	0.999993
Mo 202.031	3	Lin Thru 0	0.0	16.52	0.00000	0.999927
Na 589.592 Radia	2	Lin Thru 0	0.0	3.350	0.00000	0.999977
Ni 231.604	3	Lin Thru 0	0.0	45.77	0.00000	0.999988
P 214.914	3	Lin Thru 0	0.0	1.917	0.00000	0.999928
Pb 220.353	3	Lin Thru 0	0.0	9.490	0.00000	0.999952
S 181.975 Axial	3	Lin Thru 0	0.0	0.8151	0.00000	0.999897
Sb 206.836	3	Lin Thru 0	0.0	3.338	0.00000	0.999881
Se 196.026	3	Lin Thru 0	0.0	1.835	0.00000	0.999946
Si 251.611	3	Lin Thru 0	0.0	35.46	0.00000	0.999924
Sn 189.927	3	Lin Thru 0	0.0	6.668	0.00000	0.999909
Sr 421.552	3	Lin Thru 0	0.0	170.5	0.00000	0.999995
Ti 334.940	3	Lin Thru 0	0.0	691.6	0.00000	0.999960
Tl 190.801	3	Lin Thru 0	0.0	3.854	0.00000	0.999973
U 409.014	3	Lin Thru 0	0.0	36.29	0.00000	0.999957
V 292.402	3	Lin Thru 0	0.0	157.2	0.00000	0.999969
Zn 213.857	3	Lin Thru 0	0.0	121.9	0.00000	0.999984
SiO2	3	Lin Thru 0	0.0	16.52	0.00000	0.999922

Sequence No.: 6
Sample ID: ICV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 9
Date Collected: 12/19/2009 07:51:20
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5444.4	5444.4	97.8	%			07:53:13
1	Y RADIAL	5780.0	5780.0	97.78	%			07:53:13
1	Al 396.153Radial†	6892.9	7064.9	5125.0	ug/L	5125.0	ppb	07:53:13
1	Ca 317.933Radial†	3491.7	3551.0	5062.7	ug/L	5062.7	ppb	07:53:33
1	Fe 238.204 Radial†	623.4	626.6	5224.6	ug/L	5224.6	ppb	07:53:33
1	K 766.490 Radial†	17054.5	14727.1	2590.2	ug/L	2590.2	ppb	07:53:13
1	Mg 279.077 IEC†	179.6	182.2	5664.2	ug/L	5664.2	ppb	07:53:33
1	Na 589.592 Radial†	7634.6	8568.6	2557.5	ug/L	2557.5	ppb	07:53:13
1	Sr 421.552†	91042.1	93109.2	545.93	ug/L	545.93	ppb	07:53:13
1	Sc 361.383	921038.2	921038.2	102.46	%			07:54:30
1	Y 371.029	751036.4	751036.4	100.88	%			07:54:30
1	Ag 328.068†	61913.3	60055.9	262.06	ug/L	262.06	ppb	07:54:30
1	As 188.979†	1299.5	1303.1	477.36	ug/L	477.36	ppb	07:54:50
1	B 249.677†	25924.6	25327.6	517.83	ug/L	517.83	ppb	07:54:30
1	Ba 233.527†	77370.0	75513.6	514.57	ug/L	514.57	ppb	07:54:30
1	Be 313.107†	792101.8	777801.5	261.82	ug/L	261.82	ppb	07:54:30
1	Cd 226.502†	52492.9	51460.8	503.08	ug/L	503.08	ppb	07:54:30
1	Co 228.616†	29141.1	28528.1	499.63	ug/L	499.63	ppb	07:54:50
1	Cr 267.716†	49609.9	48337.8	490.90	ug/L	490.90	ppb	07:54:30
1	Cu 324.752†	192334.8	181658.1	513.52	ug/L	513.52	ppb	07:54:30
1	Mn 257.610†	537446.4	524042.0	517.32	ug/L	517.32	ppb	07:54:30
1	Mo 202.031†	9083.7	8845.6	535.80	ug/L	535.80	ppb	07:54:50
1	Ni 231.604†	23391.3	22735.7	496.44	ug/L	496.44	ppb	07:54:50
1	P 214.914†	5165.2	4783.0	2417.5	ug/L	2417.5	ppb	07:54:50
1	Pb 220.353†	4811.1	4759.5	503.19	ug/L	503.19	ppb	07:54:50
1	S 181.975 Axial†	2127.2	2027.1	2485.8	ug/L	2485.8	ppb	07:54:50
1	Sb 206.836†	1721.3	1638.8	499.83	ug/L	499.83	ppb	07:54:50
1	Se 196.026†	4795.0	4708.3	2583.5	ug/L	2583.5	ppb	07:54:50
1	Si 251.611†	177060.6	172229.0	4844.6	ug/L	4844.6	ppb	07:54:30
1	Sn 189.927†	3651.7	3560.4	534.58	ug/L	534.58	ppb	07:54:50
1	Ti 334.940†	352297.4	345220.5	499.01	ug/L	499.01	ppb	07:54:30
1	Tl 190.801†	2053.7	2052.4	535.78	ug/L	535.78	ppb	07:54:50
1	U 409.014†	15881.3	17872.0	490.81	ug/L	490.81	ppb	07:54:30
1	V 292.402†	80574.1	80107.6	516.71	ug/L	516.71	ppb	07:54:30
1	Zn 213.857†	65324.0	62961.0	511.89	ug/L	511.89	ppb	07:54:30
1	SiO2†	175583.6	170758.3	10313	ug/L	10313	ppb	07:55:48
2	Sc Radial	5630.4	5630.4	101	%			07:53:38
2	Y RADIAL	5980.9	5980.9	101.2	%			07:53:38
2	Al 396.153Radial†	6940.6	6879.1	4989.5	ug/L	4989.5	ppb	07:53:38
2	Ca 317.933Radial†	3554.1	3494.7	4982.5	ug/L	4982.5	ppb	07:53:58
2	Fe 238.204 Radial†	635.9	617.9	5152.2	ug/L	5152.2	ppb	07:53:58
2	K 766.490 Radial†	17212.3	14306.8	2516.2	ug/L	2516.2	ppb	07:53:38
2	Mg 279.077 IEC†	175.9	172.5	5363.7	ug/L	5363.7	ppb	07:53:58
2	Na 589.592 Radial†	7648.7	8324.6	2484.7	ug/L	2484.7	ppb	07:53:38
2	Sr 421.552†	91649.9	90634.1	531.42	ug/L	531.42	ppb	07:53:38
2	Sc 361.383	912402.0	912402.0	101.50	%			07:54:56
2	Y 371.029	745300.6	745300.6	100.11	%			07:54:56
2	Ag 328.068†	61182.6	59907.8	261.40	ug/L	261.40	ppb	07:54:56
2	As 188.979†	1284.0	1299.8	476.15	ug/L	476.15	ppb	07:55:17
2	B 249.677†	25547.6	25195.7	515.13	ug/L	515.13	ppb	07:54:56
2	Ba 233.527†	76885.1	75750.7	516.17	ug/L	516.17	ppb	07:54:56
2	Be 313.107†	784684.8	777811.5	261.83	ug/L	261.83	ppb	07:54:56
2	Cd 226.502†	52050.7	51510.1	503.57	ug/L	503.57	ppb	07:54:56
2	Co 228.616†	28980.3	28638.8	501.58	ug/L	501.58	ppb	07:55:17
2	Cr 267.716†	49329.9	48520.2	492.75	ug/L	492.75	ppb	07:54:56
2	Cu 324.752†	189448.0	180590.8	510.50	ug/L	510.50	ppb	07:54:56
2	Mn 257.610†	532430.5	524065.1	517.34	ug/L	517.34	ppb	07:54:56
2	Mo 202.031†	9043.5	8889.8	538.48	ug/L	538.48	ppb	07:55:17
2	Ni 231.604†	23282.0	22844.1	498.80	ug/L	498.80	ppb	07:55:17

2	P 214.914†	5126.0	4792.1	2422.8 ug/L	2422.8 ppb		07:55:17
2	Pb 220.353†	4770.6	4764.1	503.66 ug/L	503.66 ppb		07:55:17
2	S 181.975 Axial†	2107.0	2026.8	2485.5 ug/L	2485.5 ppb		07:55:17
2	Sb 206.836†	1722.3	1655.6	504.91 ug/L	504.91 ppb		07:55:17
2	Se 196.026†	4761.3	4719.4	2589.3 ug/L	2589.3 ppb		07:55:17
2	Si 251.611†	174947.2	171782.5	4832.0 ug/L	4832.0 ppb		07:54:56
2	Sn 189.927†	3624.1	3567.0	535.55 ug/L	535.55 ppb		07:55:17
2	Ti 334.940†	348230.1	344467.9	497.92 ug/L	497.92 ppb		07:54:56
2	Tl 190.801†	2015.0	2033.3	530.79 ug/L	530.79 ppb		07:55:17
2	U 409.014†	15752.9	17892.2	491.37 ug/L	491.37 ppb		07:54:56
2	V 292.402†	79807.6	80096.8	516.68 ug/L	516.68 ppb		07:54:56
2	Zn 213.857†	64572.3	62823.9	510.77 ug/L	510.77 ppb		07:54:56
2	SiO2†	173765.9	170589.5	10303 ug/L	10303 ppb		07:55:53
3	Sc Radial	5610.4	5610.4	101 %			07:54:03
3	Y RADIAL	5950.9	5950.9	100.7 %			07:54:03
3	Al 396.153Radial†	6959.4	6922.3	5020.8 ug/L	5020.8 ppb		07:54:03
3	Ca 317.933Radial†	3558.7	3511.8	5006.8 ug/L	5006.8 ppb		07:54:23
3	Fe 238.204 Radial†	634.6	618.9	5160.6 ug/L	5160.6 ppb		07:54:23
3	K 766.490 Radial†	17312.4	14466.9	2544.4 ug/L	2544.4 ppb		07:54:03
3	Mg 279.077 IEC†	177.6	174.8	5435.5 ug/L	5435.5 ppb		07:54:23
3	Na 589.592 Radial†	7656.2	8359.1	2494.9 ug/L	2494.9 ppb		07:54:03
3	Sr 421.552†	91549.5	90857.7	532.73 ug/L	532.73 ppb		07:54:03
3	Sc 361.383	914520.1	914520.1	101.74 %			07:55:22
3	Y 371.029	748122.2	748122.2	100.49 %			07:55:22
3	Ag 328.068†	61352.7	59935.5	261.53 ug/L	261.53 ppb		07:55:22
3	As 188.979†	1301.5	1314.1	481.34 ug/L	481.34 ppb		07:55:43
3	B 249.677†	25536.8	25126.8	513.71 ug/L	513.71 ppb		07:55:22
3	Ba 233.527†	76908.9	75598.7	515.15 ug/L	515.15 ppb		07:55:22
3	Be 313.107†	787955.5	779235.9	262.30 ug/L	262.30 ppb		07:55:22
3	Cd 226.502†	51998.8	51340.4	501.91 ug/L	501.91 ppb		07:55:22
3	Co 228.616†	29162.0	28751.3	503.56 ug/L	503.56 ppb		07:55:43
3	Cr 267.716†	49364.3	48441.5	491.96 ug/L	491.96 ppb		07:55:22
3	Cu 324.752†	189845.4	180549.1	510.38 ug/L	510.38 ppb		07:55:22
3	Mn 257.610†	532871.1	523283.3	516.56 ug/L	516.56 ppb		07:55:22
3	Mo 202.031†	9106.6	8931.3	540.99 ug/L	540.99 ppb		07:55:43
3	Ni 231.604†	23413.4	22920.2	500.46 ug/L	500.46 ppb		07:55:43
3	P 214.914†	5156.1	4810.0	2432.1 ug/L	2432.1 ppb		07:55:43
3	Pb 220.353†	4797.5	4779.7	505.31 ug/L	505.31 ppb		07:55:43
3	S 181.975 Axial†	2135.9	2050.4	2514.5 ug/L	2514.5 ppb		07:55:43
3	Sb 206.836†	1729.7	1659.0	506.03 ug/L	506.03 ppb		07:55:43
3	Se 196.026†	4771.4	4718.5	2588.8 ug/L	2588.8 ppb		07:55:43
3	Si 251.611†	175040.1	171474.6	4823.3 ug/L	4823.3 ppb		07:55:22
3	Sn 189.927†	3644.0	3578.3	537.25 ug/L	537.25 ppb		07:55:43
3	Ti 334.940†	349022.1	344451.8	497.89 ug/L	497.89 ppb		07:55:22
3	Tl 190.801†	2027.2	2040.6	532.68 ug/L	532.68 ppb		07:55:43
3	U 409.014†	15749.2	17852.5	490.28 ug/L	490.28 ppb		07:55:22
3	V 292.402†	80316.8	80415.2	518.74 ug/L	518.74 ppb		07:55:22
3	Zn 213.857†	64628.8	62732.0	510.01 ug/L	510.01 ppb		07:55:22
3	SiO2†	176402.7	172784.8	10436 ug/L	10436 ppb		07:55:59

Mean Data: ICV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	915986.8	101.90	%	0.501				0.49%
Sc Radial	5561.7	99.9	%	1.83				1.84%
Y 371.029	748153.1	100.50	%	0.385				0.38%
Y RADIAL	5903.9	99.87	%	1.834				1.84%
Ag 328.068†	59966.4	261.67	ug/L	0.350	261.67	ppb	0.350	0.13%
QC value within limits for Ag 328.068 Recovery = 104.67%								
Al 396.153Radial†	6955.4	5045.1	ug/L	70.93	5045.1	ppb	70.93	1.41%
QC value within limits for Al 396.153Radial Recovery = 100.90%								
As 188.979†	1305.7	478.28	ug/L	2.714	478.28	ppb	2.714	0.57%
QC value within limits for As 188.979 Recovery = 95.66%								
B 249.677†	25216.7	515.56	ug/L	2.094	515.56	ppb	2.094	0.41%
QC value within limits for B 249.677 Recovery = 103.11%								
Ba 233.527†	75621.0	515.30	ug/L	0.815	515.30	ppb	0.815	0.16%
QC value within limits for Ba 233.527 Recovery = 103.06%								
Be 313.107†	778283.0	261.98	ug/L	0.276	261.98	ppb	0.276	0.11%
QC value within limits for Be 313.107 Recovery = 104.79%								
Ca 317.933Radial†	3519.1	5017.3	ug/L	41.14	5017.3	ppb	41.14	0.82%

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   QC value within limits for Ca 317.933Radial  Recovery = 100.35%
Cd 226.502†            51437.1      502.85 ug/L         0.853      502.85 ppb          0.853   0.17%
   QC value within limits for Cd 226.502  Recovery = 100.57%
Co 228.616†            28639.4      501.59 ug/L         1.962      501.59 ppb          1.962   0.39%
   QC value within limits for Co 228.616  Recovery = 100.32%
Cr 267.716†            48433.2      491.87 ug/L         0.927      491.87 ppb          0.927   0.19%
   QC value within limits for Cr 267.716  Recovery = 98.37%
Cu 324.752†           180932.7      511.46 ug/L         1.778      511.46 ppb          1.778   0.35%
   QC value within limits for Cu 324.752  Recovery = 102.29%
Fe 238.204 Radial†       621.1      5179.1 ug/L        39.57      5179.1 ppb         39.57   0.76%
   QC value within limits for Fe 238.204 Radial  Recovery = 103.58%
K 766.490 Radial†      14500.3      2550.3 ug/L        37.36      2550.3 ppb         37.36   1.47%
   QC value within limits for K 766.490 Radial  Recovery = 102.01%
Mg 279.077 IEC†          176.5      5487.8 ug/L       156.96      5487.8 ppb        156.96   2.86%
   QC value within limits for Mg 279.077 IEC  Recovery = 109.76%
Mn 257.610†           523796.8      517.07 ug/L         0.440      517.07 ppb          0.440   0.09%
   QC value within limits for Mn 257.610  Recovery = 103.41%
Mo 202.031†             8888.9      538.42 ug/L         2.593      538.42 ppb          2.593   0.48%
   QC value within limits for Mo 202.031  Recovery = 107.68%
Na 589.592 Radial†      8417.4      2512.4 ug/L        39.42      2512.4 ppb         39.42   1.57%
   QC value within limits for Na 589.592 Radial  Recovery = 100.49%
Ni 231.604†            22833.3      498.57 ug/L         2.025      498.57 ppb          2.025   0.41%
   QC value within limits for Ni 231.604  Recovery = 99.71%
P 214.914†              4795.0      2424.1 ug/L         7.41      2424.1 ppb          7.41   0.31%
   QC value within limits for P 214.914  Recovery = 96.96%
Pb 220.353†             4767.8      504.05 ug/L         1.114      504.05 ppb          1.114   0.22%
   QC value within limits for Pb 220.353  Recovery = 100.81%
S 181.975 Axial†        2034.8      2495.3 ug/L        16.65      2495.3 ppb         16.65   0.67%
   QC value within limits for S 181.975 Axial  Recovery = 99.81%
Sb 206.836†             1651.1      503.59 ug/L         3.303      503.59 ppb          3.303   0.66%
   QC value within limits for Sb 206.836  Recovery = 100.72%
Se 196.026†             4715.4      2587.2 ug/L         3.24      2587.2 ppb          3.24   0.13%
   QC value within limits for Se 196.026  Recovery = 103.49%
Si 251.611†           171828.7      4833.3 ug/L        10.74      4833.3 ppb         10.74   0.22%
   QC value within limits for Si 251.611  Recovery = 96.67%
Sn 189.927†             3568.6      535.79 ug/L         1.350      535.79 ppb          1.350   0.25%
   QC value within limits for Sn 189.927  Recovery = 107.16%
Sr 421.552†            91533.7      536.69 ug/L         8.027      536.69 ppb          8.027   1.50%
   QC value within limits for Sr 421.552  Recovery = 107.34%
Ti 334.940†           344713.4      498.27 ug/L         0.637      498.27 ppb          0.637   0.13%
   QC value within limits for Ti 334.940  Recovery = 99.65%
Tl 190.801†             2042.1      533.08 ug/L         2.515      533.08 ppb          2.515   0.47%
   QC value within limits for Tl 190.801  Recovery = 106.62%
U 409.014†             17872.2      490.82 ug/L         0.546      490.82 ppb          0.546   0.11%
   QC value within limits for U 409.014  Recovery = 98.16%
V 292.402†             80206.5      517.38 ug/L         1.182      517.38 ppb          1.182   0.23%
   QC value within limits for V 292.402  Recovery = 103.48%
Zn 213.857†            62838.9      510.89 ug/L         0.949      510.89 ppb          0.949   0.19%
   QC value within limits for Zn 213.857  Recovery = 102.18%
SiO2†                 171377.5       10351 ug/L          73.9       10351 ppb           73.9   0.71%
   QC value within limits for SiO2  Recovery = 96.78%
All analyte(s) passed QC.
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Sequence No.: 7
Sample ID: ICB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 10
Date Collected: 12/19/2009 07:58:10
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5633.0	5633.0	101	%			08:00:02
1	Y RADIAL	5992.9	5992.9	101.4	%			08:00:02
1	Al 396.153Radial†	-23.8	-7.1	-5.2088	ug/L	-5.2088	ppb	08:00:02
1	Ca 317.933Radial†	11.5	-8.2	-11.756	ug/L	-11.756	ppb	08:00:22
1	Fe 238.204 Radial†	9.0	-2.0	-16.794	ug/L	-16.794	ppb	08:00:22
1	K 766.490 Radial†	2846.2	100.6	17.727	ug/L	17.727	ppb	08:00:02
1	Mg 279.077 IEC†	-0.2	-1.6	-49.006	ug/L	-49.006	ppb	08:00:22
1	Na 589.592 Radial†	-746.7	23.7	7.0683	ug/L	7.0683	ppb	08:00:02
1	Sr 421.552†	14.5	26.1	0.1533	ug/L	0.1533	ppb	08:00:02
1	Sc 361.383	908352.1	908352.1	101.05	%			08:01:19
1	Y 371.029	753325.8	753325.8	101.19	%			08:01:19
1	Ag 328.068†	383.8	9.9	0.0412	ug/L	0.0412	ppb	08:01:19
1	As 188.979†	-35.3	-0.1	-0.0516	ug/L	-0.0516	ppb	08:01:39
1	B 249.677†	34.1	59.7	1.2279	ug/L	1.2279	ppb	08:01:19
1	Ba 233.527†	-2.6	0.0	-0.0011	ug/L	-0.0011	ppb	08:01:39
1	Be 313.107†	-4773.8	6.9	0.0026	ug/L	0.0026	ppb	08:01:19
1	Cd 226.502†	-211.2	20.1	0.1987	ug/L	0.1987	ppb	08:01:39
1	Co 228.616†	-85.3	2.7	0.0493	ug/L	0.0493	ppb	08:01:39
1	Cr 267.716†	100.9	19.7	0.2010	ug/L	0.2010	ppb	08:01:39
1	Cu 324.752†	6054.8	-63.8	-0.1810	ug/L	-0.1810	ppb	08:01:19
1	Mn 257.610†	529.0	32.0	0.0308	ug/L	0.0308	ppb	08:01:39
1	Mo 202.031†	31.0	10.8	0.6520	ug/L	0.6520	ppb	08:01:39
1	Ni 231.604†	105.2	10.5	0.2291	ug/L	0.2291	ppb	08:01:39
1	P 214.914†	265.3	4.5	2.4195	ug/L	2.4195	ppb	08:01:39
1	Pb 220.353†	-57.8	6.9	0.7269	ug/L	0.7269	ppb	08:01:39
1	S 181.975 Axial†	47.4	-2.1	-2.6173	ug/L	-2.6173	ppb	08:01:39
1	Sb 206.836†	45.9	4.2	1.2983	ug/L	1.2983	ppb	08:01:39
1	Se 196.026†	-30.7	-1.9	-1.0898	ug/L	-1.0898	ppb	08:01:39
1	Si 251.611†	614.6	30.7	0.8426	ug/L	0.8426	ppb	08:01:39
1	Sn 189.927†	18.1	14.4	2.1560	ug/L	2.1560	ppb	08:01:39
1	Ti 334.940†	-1316.1	85.1	0.1251	ug/L	0.1251	ppb	08:01:19
1	Tl 190.801†	-43.5	5.0	1.2953	ug/L	1.2953	ppb	08:01:39
1	U 409.014†	-2622.0	-222.6	-6.1300	ug/L	-6.1300	ppb	08:01:19
1	V 292.402†	-1532.7	-47.3	-0.3022	ug/L	-0.3022	ppb	08:01:19
1	Zn 213.857†	813.8	11.8	0.0988	ug/L	0.0988	ppb	08:01:39
1	SiO2†	610.2	-2.8	-0.2235	ug/L	-0.2235	ppb	08:02:35
2	Sc Radial	5554.2	5554.2	99.8	%			08:00:28
2	Y RADIAL	5938.0	5938.0	100.4	%			08:00:28
2	Al 396.153Radial†	-36.9	-20.6	-14.990	ug/L	-14.990	ppb	08:00:28
2	Ca 317.933Radial†	14.6	-5.0	-7.0814	ug/L	-7.0814	ppb	08:00:48
2	Fe 238.204 Radial†	11.3	0.4	3.5031	ug/L	3.5031	ppb	08:00:48
2	K 766.490 Radial†	2706.0	-0.1	-0.0125	ug/L	-0.0125	ppb	08:00:28
2	Mg 279.077 IEC†	3.1	1.7	53.599	ug/L	53.599	ppb	08:00:48
2	Na 589.592 Radial†	-821.2	-61.5	-18.352	ug/L	-18.352	ppb	08:00:28
2	Sr 421.552†	13.0	24.8	0.1455	ug/L	0.1455	ppb	08:00:28
2	Sc 361.383	901427.5	901427.5	100.28	%			08:01:45
2	Y 371.029	746836.3	746836.3	100.32	%			08:01:45
2	Ag 328.068†	267.2	-103.5	-0.4421	ug/L	-0.4421	ppb	08:01:45
2	As 188.979†	-31.4	3.5	1.2583	ug/L	1.2583	ppb	08:02:05
2	B 249.677†	105.3	131.0	2.6871	ug/L	2.6871	ppb	08:01:45
2	Ba 233.527†	-4.1	-1.5	-0.0106	ug/L	-0.0106	ppb	08:02:05
2	Be 313.107†	-4736.5	7.9	0.0027	ug/L	0.0027	ppb	08:01:45
2	Cd 226.502†	-207.9	21.8	0.2129	ug/L	0.2129	ppb	08:02:05
2	Co 228.616†	-72.8	14.5	0.2547	ug/L	0.2547	ppb	08:02:05
2	Cr 267.716†	70.8	-9.6	-0.0960	ug/L	-0.0960	ppb	08:02:05
2	Cu 324.752†	6081.3	8.7	0.0247	ug/L	0.0247	ppb	08:01:45
2	Mn 257.610†	543.0	50.1	0.0487	ug/L	0.0487	ppb	08:02:05
2	Mo 202.031†	23.1	3.2	0.1926	ug/L	0.1926	ppb	08:02:05
2	Ni 231.604†	84.9	-8.9	-0.1951	ug/L	-0.1951	ppb	08:02:05

2	P 214.914†	243.2	-15.5	-8.0992 ug/L	-8.0992 ppb		08:02:05
2	Pb 220.353†	-66.0	-1.7	-0.1865 ug/L	-0.1865 ppb		08:02:05
2	S 181.975 Axial†	45.6	-3.5	-4.3044 ug/L	-4.3044 ppb		08:02:05
2	Sb 206.836†	46.3	4.9	1.5034 ug/L	1.5034 ppb		08:02:05
2	Se 196.026†	-26.0	2.6	1.4315 ug/L	1.4315 ppb		08:02:05
2	Si 251.611†	612.6	33.4	0.9355 ug/L	0.9355 ppb		08:02:05
2	Sn 189.927†	9.9	6.4	0.9588 ug/L	0.9588 ppb		08:02:05
2	Ti 334.940†	-1379.1	12.4	0.0194 ug/L	0.0194 ppb		08:01:45
2	Tl 190.801†	-44.4	3.8	0.9919 ug/L	0.9919 ppb		08:02:05
2	U 409.014†	-2530.9	-151.6	-4.1776 ug/L	-4.1776 ppb		08:01:45
2	V 292.402†	-1515.8	-42.1	-0.2725 ug/L	-0.2725 ppb		08:01:45
2	Zn 213.857†	798.7	2.9	0.0227 ug/L	0.0227 ppb		08:02:05
2	SiO2†	618.6	10.2	0.6041 ug/L	0.6041 ppb		08:02:40
3	Sc Radial	5718.2	5718.2	103 %			08:00:53
3	Y RADIAL	6101.0	6101.0	103.2 %			08:00:53
3	Al 396.153Radial†	-20.7	-3.8	-2.7370 ug/L	-2.7370 ppb		08:00:53
3	Ca 317.933Radial†	25.2	5.0	7.1167 ug/L	7.1167 ppb		08:01:13
3	Fe 238.204 Radial†	7.2	-3.9	-32.269 ug/L	-32.269 ppb		08:01:13
3	K 766.490 Radial†	2845.8	58.3	10.269 ug/L	10.269 ppb		08:00:53
3	Mg 279.077 IEC†	2.7	1.2	37.406 ug/L	37.406 ppb		08:01:13
3	Na 589.592 Radial†	-815.4	-32.2	-9.6081 ug/L	-9.6081 ppb		08:00:53
3	Sr 421.552†	67.8	77.8	0.4562 ug/L	0.4562 ppb		08:00:53
3	Sc 361.383	903054.1	903054.1	100.46 %			08:02:10
3	Y 371.029	749009.9	749009.9	100.61 %			08:02:10
3	Ag 328.068†	350.2	-21.3	-0.1000 ug/L	-0.1000 ppb		08:02:10
3	As 188.979†	-29.2	5.7	2.0722 ug/L	2.0722 ppb		08:02:30
3	B 249.677†	24.1	49.9	1.0284 ug/L	1.0284 ppb		08:02:10
3	Ba 233.527†	-1.9	0.7	0.0032 ug/L	0.0032 ppb		08:02:30
3	Be 313.107†	-4675.3	77.2	0.0259 ug/L	0.0259 ppb		08:02:10
3	Cd 226.502†	-222.9	7.3	0.0746 ug/L	0.0746 ppb		08:02:30
3	Co 228.616†	-86.7	0.8	0.0136 ug/L	0.0136 ppb		08:02:30
3	Cr 267.716†	86.4	5.8	0.0595 ug/L	0.0595 ppb		08:02:30
3	Cu 324.752†	5898.6	-184.0	-0.5215 ug/L	-0.5215 ppb		08:02:10
3	Mn 257.610†	557.4	63.4	0.0586 ug/L	0.0586 ppb		08:02:30
3	Mo 202.031†	20.2	0.3	0.0140 ug/L	0.0140 ppb		08:02:30
3	Ni 231.604†	112.8	18.7	0.4084 ug/L	0.4084 ppb		08:02:30
3	P 214.914†	244.1	-15.1	-7.7377 ug/L	-7.7377 ppb		08:02:30
3	Pb 220.353†	-58.9	5.4	0.5758 ug/L	0.5758 ppb		08:02:30
3	S 181.975 Axial†	50.3	1.1	1.3122 ug/L	1.3122 ppb		08:02:30
3	Sb 206.836†	42.9	1.5	0.4590 ug/L	0.4590 ppb		08:02:30
3	Se 196.026†	-19.1	9.5	5.0569 ug/L	5.0569 ppb		08:02:30
3	Si 251.611†	601.0	20.7	0.5766 ug/L	0.5766 ppb		08:02:30
3	Sn 189.927†	13.4	9.8	1.4742 ug/L	1.4742 ppb		08:02:30
3	Ti 334.940†	-1382.0	11.9	0.0196 ug/L	0.0196 ppb		08:02:10
3	Tl 190.801†	-40.1	8.1	2.1112 ug/L	2.1112 ppb		08:02:30
3	U 409.014†	-2549.8	-165.8	-4.5651 ug/L	-4.5651 ppb		08:02:10
3	V 292.402†	-1524.1	-47.7	-0.3062 ug/L	-0.3062 ppb		08:02:10
3	Zn 213.857†	798.1	0.9	0.0074 ug/L	0.0074 ppb		08:02:30
3	SiO2†	631.0	21.4	1.2795 ug/L	1.2795 ppb		08:02:45

Mean Data: ICB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	904277.9	100.60	%	0.403				0.40%
Sc Radial	5635.2	101	%	1.5				1.46%
Y 371.029	749724.0	100.71	%	0.444				0.44%
Y RADIAL	6010.6	101.7	%	1.40				1.38%
Ag 328.068†	-38.3	-0.1669	ug/L	0.24852	-0.1669	ppb	0.24852	148.86%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-10.5	-7.6454	ug/L	6.47987	-7.6454	ppb	6.47987	84.76%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	3.0	1.0930	ug/L	1.07147	1.0930	ppb	1.07147	98.03%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	80.2	1.6478	ug/L	0.90558	1.6478	ppb	0.90558	54.96%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-0.2	-0.0029	ug/L	0.00706	-0.0029	ppb	0.00706	246.00%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	30.7	0.0104	ug/L	0.01346	0.0104	ppb	0.01346	129.54%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-2.7	-3.9068	ug/L	9.82850	-3.9068	ppb	9.82850	251.57%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                16.4      0.1621 ug/L       0.07613      0.1621 ppb        0.07613  46.97%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                 6.0      0.1059 ug/L       0.13012      0.1059 ppb        0.13012 122.90%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                 5.3      0.0548 ug/L       0.14854      0.0548 ppb        0.14854 270.93%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               -79.7     -0.2259 ug/L       0.27588     -0.2259 ppb        0.27588 122.12%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -1.8     -15.187 ug/L       17.9402     -15.187 ppb        17.9402 118.13%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          52.9      9.3280 ug/L       8.90725      9.3280 ppb        8.90725  95.49%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             0.5      14.000 ug/L       55.1622      14.000 ppb        55.1622 394.03%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                48.5      0.0461 ug/L       0.01409      0.0461 ppb        0.01409  30.57%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 4.7      0.2862 ug/L       0.32916      0.2862 ppb        0.32916 115.00%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        -23.3     -6.9639 ug/L      12.91480     -6.9639 ppb       12.91480 185.45%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                 6.8      0.1475 ug/L       0.30989      0.1475 ppb        0.30989 210.16%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -8.7     -4.4724 ug/L       5.97135     -4.4724 ppb        5.97135 133.51%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                 3.5      0.3721 ug/L       0.48959      0.3721 ppb        0.48959 131.59%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -1.5     -1.8698 ug/L       2.88195     -1.8698 ppb        2.88195 154.13%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 3.5      1.0869 ug/L       0.55336      1.0869 ppb        0.55336  50.91%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 3.4      1.7995 ug/L       3.08980      1.7995 ppb        3.08980 171.70%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                28.3      0.7849 ug/L       0.18630      0.7849 ppb        0.18630  23.73%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                10.2      1.5297 ug/L       0.60050      1.5297 ppb        0.60050  39.26%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                42.9      0.2517 ug/L       0.17719      0.2517 ppb        0.17719  70.40%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                36.5      0.0547 ug/L       0.06098      0.0547 ppb        0.06098 111.50%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 5.6      1.4662 ug/L       0.57885      1.4662 ppb        0.57885  39.48%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -180.0     -4.9576 ug/L       1.03368     -4.9576 ppb        1.03368  20.85%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                -45.7     -0.2937 ug/L       0.01842     -0.2937 ppb        0.01842   6.27%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                 5.2      0.0430 ug/L       0.04892      0.0430 ppb        0.04892 113.85%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                       9.6      0.5534 ug/L       0.75275      0.5534 ppb        0.75275 136.03%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 8
Sample ID: PQL
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 11
Date Collected: 12/19/2009 08:04:56
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: PQL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5582.1	5582.1	100	%			08:06:49
1	Y RADIAL	5945.3	5945.3	100.6	%			08:06:49
1	Al 396.153Radial†	275.3	290.9	211.55	ug/L	211.55	ppb	08:06:49
1	Ca 317.933Radial†	170.8	150.8	215.00	ug/L	215.00	ppb	08:07:09
1	Fe 238.204 Radial†	21.7	10.7	89.465	ug/L	89.465	ppb	08:07:09
1	K 766.490 Radial†	3673.8	951.7	167.50	ug/L	167.50	ppb	08:06:49
1	Mg 279.077 IEC†	12.9	11.5	356.66	ug/L	356.66	ppb	08:07:09
1	Na 589.592 Radial†	247.8	1008.8	301.10	ug/L	301.10	ppb	08:06:49
1	Sr 421.552†	895.5	904.9	5.3043	ug/L	5.3043	ppb	08:06:49
1	Sc 361.383	903406.6	903406.6	100.50	%			08:08:06
1	Y 371.029	747574.7	747574.7	100.42	%			08:08:06
1	Ag 328.068†	1528.9	1151.4	4.9655	ug/L	4.9655	ppb	08:08:06
1	As 188.979†	44.5	79.1	28.742	ug/L	28.742	ppb	08:08:26
1	B 249.677†	2440.1	2453.9	50.336	ug/L	50.336	ppb	08:08:06
1	Ba 233.527†	751.9	750.7	5.1167	ug/L	5.1167	ppb	08:08:26
1	Be 313.107†	10154.0	14834.6	4.9847	ug/L	4.9847	ppb	08:08:06
1	Cd 226.502†	297.2	524.9	5.1277	ug/L	5.1277	ppb	08:08:26
1	Co 228.616†	187.0	273.1	4.7958	ug/L	4.7958	ppb	08:08:26
1	Cr 267.716†	563.8	480.8	4.8687	ug/L	4.8687	ppb	08:08:26
1	Cu 324.752†	9745.0	3641.0	10.292	ug/L	10.292	ppb	08:08:06
1	Mn 257.610†	11261.3	10713.8	10.570	ug/L	10.570	ppb	08:08:06
1	Mo 202.031†	188.9	168.0	10.178	ug/L	10.178	ppb	08:08:26
1	Ni 231.604†	326.9	231.7	5.0600	ug/L	5.0600	ppb	08:08:26
1	P 214.914†	538.1	277.3	143.13	ug/L	143.13	ppb	08:08:26
1	Pb 220.353†	30.3	94.2	9.9843	ug/L	9.9843	ppb	08:08:26
1	S 181.975 Axial†	133.0	83.3	102.19	ug/L	102.19	ppb	08:08:26
1	Sb 206.836†	75.7	34.1	10.471	ug/L	10.471	ppb	08:08:26
1	Se 196.026†	28.6	57.0	31.392	ug/L	31.392	ppb	08:08:26
1	Si 251.611†	4214.8	3616.3	101.71	ug/L	101.71	ppb	08:08:06
1	Sn 189.927†	66.5	62.7	9.4233	ug/L	9.4233	ppb	08:08:26
1	Ti 334.940†	2053.2	3430.6	4.9477	ug/L	4.9477	ppb	08:08:06
1	Tl 190.801†	27.7	75.6	19.681	ug/L	19.681	ppb	08:08:26
1	U 409.014†	-576.2	1798.9	49.542	ug/L	49.542	ppb	08:08:06
1	V 292.402†	-704.2	768.7	5.1180	ug/L	5.1180	ppb	08:08:06
1	Zn 213.857†	2005.3	1201.7	9.7905	ug/L	9.7905	ppb	08:08:26
1	SiO2†	4172.2	3544.7	214.06	ug/L	214.06	ppb	08:09:22
2	Sc Radial	5594.2	5594.2	100	%			08:07:14
2	Y RADIAL	5983.8	5983.8	101.2	%			08:07:14
2	Al 396.153Radial†	243.1	258.3	187.77	ug/L	187.77	ppb	08:07:14
2	Ca 317.933Radial†	169.7	149.3	212.87	ug/L	212.87	ppb	08:07:34
2	Fe 238.204 Radial†	22.8	11.8	98.101	ug/L	98.101	ppb	08:07:34
2	K 766.490 Radial†	3672.4	942.3	165.84	ug/L	165.84	ppb	08:07:14
2	Mg 279.077 IEC†	10.5	9.1	281.54	ug/L	281.54	ppb	08:07:34
2	Na 589.592 Radial†	270.9	1031.2	307.79	ug/L	307.79	ppb	08:07:14
2	Sr 421.552†	876.1	883.7	5.1798	ug/L	5.1798	ppb	08:07:14
2	Sc 361.383	903805.3	903805.3	100.54	%			08:08:32
2	Y 371.029	749465.8	749465.8	100.67	%			08:08:32
2	Ag 328.068†	1542.8	1164.5	5.0200	ug/L	5.0200	ppb	08:08:32
2	As 188.979†	51.8	86.3	31.360	ug/L	31.360	ppb	08:08:52
2	B 249.677†	2378.3	2391.3	49.051	ug/L	49.051	ppb	08:08:32
2	Ba 233.527†	747.5	746.0	5.0837	ug/L	5.0837	ppb	08:08:52
2	Be 313.107†	10083.9	14760.4	4.9601	ug/L	4.9601	ppb	08:08:32
2	Cd 226.502†	286.9	514.5	5.0255	ug/L	5.0255	ppb	08:08:52
2	Co 228.616†	196.7	282.8	4.9628	ug/L	4.9628	ppb	08:08:52
2	Cr 267.716†	589.4	506.1	5.1230	ug/L	5.1230	ppb	08:08:52
2	Cu 324.752†	9700.9	3592.7	10.156	ug/L	10.156	ppb	08:08:32
2	Mn 257.610†	11119.5	10567.8	10.428	ug/L	10.428	ppb	08:08:32
2	Mo 202.031†	179.5	158.7	9.6114	ug/L	9.6114	ppb	08:08:52
2	Ni 231.604†	340.6	245.2	5.3538	ug/L	5.3538	ppb	08:08:52

2	P 214.914†	538.3	277.3	143.14 ug/L	143.14 ppb	08:08:52
2	Pb 220.353†	18.7	82.7	8.7637 ug/L	8.7637 ppb	08:08:52
2	S 181.975 Axial†	129.9	80.2	98.385 ug/L	98.385 ppb	08:08:52
2	Sb 206.836†	76.4	34.7	10.668 ug/L	10.668 ppb	08:08:52
2	Se 196.026†	35.1	63.5	34.937 ug/L	34.937 ppb	08:08:52
2	Si 251.611†	4220.2	3619.9	101.82 ug/L	101.82 ppb	08:08:32
2	Sn 189.927†	74.9	71.0	10.671 ug/L	10.671 ppb	08:08:52
2	Ti 334.940†	2148.1	3524.1	5.0812 ug/L	5.0812 ppb	08:08:32
2	Tl 190.801†	36.9	84.8	22.059 ug/L	22.059 ppb	08:08:52
2	U 409.014†	-451.7	1922.9	52.958 ug/L	52.958 ppb	08:08:32
2	V 292.402†	-790.0	683.7	4.5727 ug/L	4.5727 ppb	08:08:32
2	Zn 213.857†	2012.0	1207.6	9.8383 ug/L	9.8383 ppb	08:08:52
2	SiO2†	4225.9	3596.4	217.20 ug/L	217.20 ppb	08:09:27
3	Sc Radial	5694.2	5694.2	102 %		08:07:39
3	Y RADIAL	6097.6	6097.6	103.2 %		08:07:39
3	Al 396.153Radial†	273.2	283.5	206.12 ug/L	206.12 ppb	08:07:39
3	Ca 317.933Radial†	164.1	140.9	200.83 ug/L	200.83 ppb	08:07:59
3	Fe 238.204 Radial†	24.3	12.8	106.90 ug/L	106.90 ppb	08:07:59
3	K 766.490 Radial†	3707.6	912.5	160.61 ug/L	160.61 ppb	08:07:39
3	Mg 279.077 IEC†	11.3	9.7	300.85 ug/L	300.85 ppb	08:07:59
3	Na 589.592 Radial†	268.1	1023.7	305.56 ug/L	305.56 ppb	08:07:39
3	Sr 421.552†	906.5	898.1	5.2643 ug/L	5.2643 ppb	08:07:39
3	Sc 361.383	895634.3	895634.3	99.636 %		08:08:57
3	Y 371.029	742826.7	742826.7	99.780 %		08:08:57
3	Ag 328.068†	1594.7	1230.6	5.3053 ug/L	5.3053 ppb	08:08:57
3	As 188.979†	51.5	86.5	31.414 ug/L	31.414 ppb	08:09:17
3	B 249.677†	2363.8	2398.4	49.195 ug/L	49.195 ppb	08:08:57
3	Ba 233.527†	721.7	727.0	4.9541 ug/L	4.9541 ppb	08:09:17
3	Be 313.107†	9896.0	14663.3	4.9272 ug/L	4.9272 ppb	08:08:57
3	Cd 226.502†	290.5	520.7	5.0853 ug/L	5.0853 ppb	08:09:17
3	Co 228.616†	198.0	285.8	5.0168 ug/L	5.0168 ppb	08:09:17
3	Cr 267.716†	588.8	510.8	5.1707 ug/L	5.1707 ppb	08:09:17
3	Cu 324.752†	9662.9	3642.6	10.297 ug/L	10.297 ppb	08:08:57
3	Mn 257.610†	11054.0	10603.0	10.464 ug/L	10.464 ppb	08:08:57
3	Mo 202.031†	185.2	166.0	10.054 ug/L	10.054 ppb	08:09:17
3	Ni 231.604†	340.1	247.8	5.4108 ug/L	5.4108 ppb	08:09:17
3	P 214.914†	552.1	296.0	152.88 ug/L	152.88 ppb	08:09:17
3	Pb 220.353†	21.8	85.9	9.1090 ug/L	9.1090 ppb	08:09:17
3	S 181.975 Axial†	128.9	80.4	98.568 ug/L	98.568 ppb	08:09:17
3	Sb 206.836†	72.2	31.3	9.6438 ug/L	9.6438 ppb	08:09:17
3	Se 196.026†	20.2	48.8	26.964 ug/L	26.964 ppb	08:09:17
3	Si 251.611†	4247.1	3685.1	103.65 ug/L	103.65 ppb	08:08:57
3	Sn 189.927†	76.4	73.2	10.996 ug/L	10.996 ppb	08:09:17
3	Ti 334.940†	2043.7	3438.8	4.9561 ug/L	4.9561 ppb	08:08:57
3	Tl 190.801†	35.4	83.6	21.759 ug/L	21.759 ppb	08:09:17
3	U 409.014†	-361.1	2009.8	55.350 ug/L	55.350 ppb	08:08:57
3	V 292.402†	-808.3	658.2	4.4202 ug/L	4.4202 ppb	08:08:57
3	Zn 213.857†	2020.3	1234.1	10.054 ug/L	10.054 ppb	08:09:17
3	SiO2†	4132.7	3541.2	213.84 ug/L	213.84 ppb	08:09:32

Mean Data: PQL

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	900948.7	100.23	%	0.512				0.51%
Sc Radial	5623.5	101	%	1.1				1.09%
Y 371.029	746622.4	100.29	%	0.459				0.46%
Y RADIAL	6008.9	101.6	%	1.34				1.32%
Ag 328.068†	1182.2	5.0969	ug/L	0.18247	5.0969	ppb	0.18247	3.58%
QC value within limits for Ag 328.068 Recovery = 101.94%								
Al 396.153Radial†	277.6	201.81	ug/L	12.461	201.81	ppb	12.461	6.17%
QC value within limits for Al 396.153Radial Recovery = 100.91%								
As 188.979†	84.0	30.505	ug/L	1.5273	30.505	ppb	1.5273	5.01%
QC value within limits for As 188.979 Recovery = 101.68%								
B 249.677†	2414.5	49.527	ug/L	0.7040	49.527	ppb	0.7040	1.42%
QC value within limits for B 249.677 Recovery = 99.05%								
Ba 233.527†	741.2	5.0515	ug/L	0.08594	5.0515	ppb	0.08594	1.70%
QC value within limits for Ba 233.527 Recovery = 101.03%								
Be 313.107†	14752.8	4.9573	ug/L	0.02882	4.9573	ppb	0.02882	0.58%
QC value within limits for Be 313.107 Recovery = 99.15%								
Ca 317.933Radial†	147.0	209.57	ug/L	7.646	209.57	ppb	7.646	3.65%

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   QC value within limits for Ca 317.933Radial  Recovery = 104.78%
Cd 226.502†              520.0      5.0795 ug/L       0.05136      5.0795 ppb        0.05136   1.01%
   QC value within limits for Cd 226.502  Recovery = 101.59%
Co 228.616†              280.6      4.9251 ug/L       0.11520      4.9251 ppb        0.11520   2.34%
   QC value within limits for Co 228.616  Recovery = 98.50%
Cr 267.716†              499.2      5.0541 ug/L       0.16234      5.0541 ppb        0.16234   3.21%
   QC value within limits for Cr 267.716  Recovery = 101.08%
Cu 324.752†             3625.4      10.248 ug/L        0.0801      10.248 ppb         0.0801   0.78%
   QC value within limits for Cu 324.752  Recovery = 102.48%
Fe 238.204 Radial†        11.8      98.155 ug/L        8.7175      98.155 ppb         8.7175   8.88%
   QC value within limits for Fe 238.204 Radial  Recovery = 98.16%
K 766.490 Radial†        935.5      164.65 ug/L         3.598      164.65 ppb          3.598   2.19%
   QC value within limits for K 766.490 Radial  Recovery = 109.77%
Mg 279.077 IEC†           10.1      313.02 ug/L        39.010      313.02 ppb         39.010  12.46%
   QC value within limits for Mg 279.077 IEC  Recovery = 104.34%
Mn 257.610†            10628.2      10.487 ug/L        0.0738      10.487 ppb         0.0738   0.70%
   QC value within limits for Mn 257.610  Recovery = 104.87%
Mo 202.031†              164.2      9.9476 ug/L       0.29768      9.9476 ppb        0.29768   2.99%
   QC value within limits for Mo 202.031  Recovery = 99.48%
Na 589.592 Radial†      1021.3      304.81 ug/L         3.405      304.81 ppb          3.405   1.12%
   QC value within limits for Na 589.592 Radial  Recovery = 101.60%
Ni 231.604†              241.6      5.2749 ug/L       0.18821      5.2749 ppb        0.18821   3.57%
   QC value within limits for Ni 231.604  Recovery = 105.50%
P 214.914†               283.5      146.38 ug/L         5.626      146.38 ppb          5.626   3.84%
   QC value within limits for P 214.914  Recovery = 97.59%
Pb 220.353†               87.6      9.2857 ug/L       0.62922      9.2857 ppb        0.62922   6.78%
   QC value within limits for Pb 220.353  Recovery = 92.86%
S 181.975 Axial†          81.3      99.715 ug/L        2.1474      99.715 ppb         2.1474   2.15%
   QC value within limits for S 181.975 Axial  Recovery = 99.71%
Sb 206.836†               33.4      10.261 ug/L        0.5434      10.261 ppb         0.5434   5.30%
   QC value within limits for Sb 206.836  Recovery = 102.61%
Se 196.026†               56.4      31.098 ug/L        3.9950      31.098 ppb         3.9950  12.85%
   QC value within limits for Se 196.026  Recovery = 103.66%
Si 251.611†             3640.4      102.39 ug/L         1.091      102.39 ppb          1.091   1.07%
   QC value within limits for Si 251.611  Recovery = 102.39%
Sn 189.927†               68.9      10.363 ug/L        0.8302      10.363 ppb         0.8302   8.01%
   QC value within limits for Sn 189.927  Recovery = 103.63%
Sr 421.552†              895.6      5.2495 ug/L       0.06354      5.2495 ppb        0.06354   1.21%
   QC value within limits for Sr 421.552  Recovery = 104.99%
Ti 334.940†             3464.5      4.9950 ug/L       0.07476      4.9950 ppb        0.07476   1.50%
   QC value within limits for Ti 334.940  Recovery = 99.90%
Tl 190.801†               81.3      21.166 ug/L        1.2953      21.166 ppb         1.2953   6.12%
   QC value within limits for Tl 190.801  Recovery = 105.83%
U 409.014†              1910.5      52.617 ug/L        2.9189      52.617 ppb         2.9189   5.55%
   QC value within limits for U 409.014  Recovery = 105.23%
V 292.402†               703.5      4.7037 ug/L       0.36683      4.7037 ppb        0.36683   7.80%
   QC value within limits for V 292.402  Recovery = 94.07%
Zn 213.857†             1214.5      9.8944 ug/L       0.14055      9.8944 ppb        0.14055   1.42%
   QC value within limits for Zn 213.857  Recovery = 98.94%
SiO2†                   3560.8      215.03 ug/L         1.879      215.03 ppb          1.879   0.87%
   QC value within limits for SiO2  Recovery = 100.95%
All analyte(s) passed QC.
```

Sequence No.: 9
Sample ID: ICSA
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 13
Date Collected: 12/19/2009 08:11:43
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSA

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4965.4	4965.4	89.2	%			08:13:42
1	Y RADIAL	5306.3	5306.3	89.76	%			08:13:42
1	Al 396.153Radial†	638506.0	715917.4	521660	ug/L	521660	ppb	08:13:37
1	Ca 317.933Radial†	304213.5	341068.5	486270	ug/L	486270	ppb	08:13:37
1	Fe 238.204 Radial†	20544.1	23023.4	191390	ug/L	191390	ppb	08:13:42
1	K 766.490 Radial†	2335.1	-94.2	-0.8072	ug/L	-0.8072	ppb	08:13:37
1	Mg 279.077 IEC†	14271.5	16000.0	496650	ug/L	496650	ppb	08:13:42
1	Na 589.592 Radial†	-608.5	79.4	23.702	ug/L	23.702	ppb	08:13:42
1	Sr 421.552†	563.3	643.4	-0.7347	ug/L	-0.7347	ppb	08:13:42
1	Sc 361.383	778772.9	778772.9	86.635	%			08:14:09
1	Y 371.029	629428.6	629428.6	84.548	%			08:14:09
1	Ag 328.068†	-10493.1	-12481.7	3.0959	ug/L	3.0959	ppb	08:14:09
1	As 188.979†	-98.2	-78.5	0.8647	ug/L	0.8647	ppb	08:14:29
1	B 249.677†	880.6	1042.4	-4.0016	ug/L	-4.0016	ppb	08:14:09
1	Ba 233.527†	-608.4	-699.6	2.3815	ug/L	2.3815	ppb	08:14:29
1	Be 313.107†	-5164.9	-1230.5	-0.4597	ug/L	-0.4597	ppb	08:14:09
1	Cd 226.502†	1378.8	1820.7	-1.3254	ug/L	-1.3254	ppb	08:14:29
1	Co 228.616†	2.4	89.9	-1.1513	ug/L	-1.1513	ppb	08:14:29
1	Cr 267.716†	-40.4	-126.8	2.1581	ug/L	2.1581	ppb	08:14:29
1	Cu 324.752†	2906.4	-2700.9	2.1325	ug/L	2.1325	ppb	08:14:09
1	Mn 257.610†	997.1	659.4	10.487	ug/L	10.487	ppb	08:14:09
1	Mo 202.031†	-233.2	-289.1	-3.9219	ug/L	-3.9219	ppb	08:14:29
1	Ni 231.604†	276.7	225.8	4.9336	ug/L	4.9336	ppb	08:14:29
1	P 214.914†	180.9	-49.3	-2.9362	ug/L	-2.9362	ppb	08:14:29
1	Pb 220.353†	-892.7	-966.4	-0.5179	ug/L	-0.5179	ppb	08:14:29
1	S 181.975 Axial†	71.0	32.9	-62.209	ug/L	-62.209	ppb	08:14:29
1	Sb 206.836†	80.1	51.3	2.8317	ug/L	2.8317	ppb	08:14:29
1	Se 196.026†	-1063.3	-1198.8	0.9330	ug/L	0.9330	ppb	08:14:29
1	Si 251.611†	445.1	-63.7	-1.2862	ug/L	-1.2862	ppb	08:14:29
1	Sn 189.927†	-368.7	-429.0	-11.014	ug/L	-11.014	ppb	08:14:29
1	Ti 334.940†	-15524.5	-16531.7	1.4504	ug/L	1.4504	ppb	08:14:09
1	Tl 190.801†	-97.8	-64.8	-2.7545	ug/L	-2.7545	ppb	08:14:29
1	U 409.014†	-1149.3	1045.6	4.7308	ug/L	4.7308	ppb	08:14:09
1	V 292.402†	1033.1	2661.9	-1.1448	ug/L	-1.1448	ppb	08:14:29
1	Zn 213.857†	3396.8	3127.3	-9.6552	ug/L	-9.6552	ppb	08:14:29
1	SiO2†	469.8	-64.3	-2.7856	ug/L	-2.7856	ppb	08:15:26
2	Sc Radial	4901.3	4901.3	88.0	%			08:13:52
2	Y RADIAL	5232.3	5232.3	88.51	%			08:13:52
2	Al 396.153Radial†	635689.0	722076.0	526140	ug/L	526140	ppb	08:13:47
2	Ca 317.933Radial†	302103.7	343130.7	489210	ug/L	489210	ppb	08:13:47
2	Fe 238.204 Radial†	20179.1	22909.9	190450	ug/L	190450	ppb	08:13:52
2	K 766.490 Radial†	2362.7	-28.7	11.005	ug/L	11.005	ppb	08:13:47
2	Mg 279.077 IEC†	14102.8	16017.5	497190	ug/L	497190	ppb	08:13:52
2	Na 589.592 Radial†	-625.8	50.8	15.164	ug/L	15.164	ppb	08:13:52
2	Sr 421.552†	583.9	675.0	-0.5762	ug/L	-0.5762	ppb	08:13:52
2	Sc 361.383	795745.3	795745.3	88.523	%			08:14:35
2	Y 371.029	643936.1	643936.1	86.497	%			08:14:35
2	Ag 328.068†	-10312.9	-12019.8	4.7311	ug/L	4.7311	ppb	08:14:35
2	As 188.979†	-83.9	-60.0	7.4646	ug/L	7.4646	ppb	08:14:55
2	B 249.677†	671.9	785.0	-9.1583	ug/L	-9.1583	ppb	08:14:35
2	Ba 233.527†	-608.0	-684.3	2.4509	ug/L	2.4509	ppb	08:14:55
2	Be 313.107†	-5144.3	-1080.1	-0.4080	ug/L	-0.4080	ppb	08:14:35
2	Cd 226.502†	1361.4	1767.1	-1.7562	ug/L	-1.7562	ppb	08:14:55
2	Co 228.616†	-14.8	70.4	-1.4804	ug/L	-1.4804	ppb	08:14:55
2	Cr 267.716†	-95.4	-187.9	1.5222	ug/L	1.5222	ppb	08:14:55
2	Cu 324.752†	3030.9	-2631.7	2.2797	ug/L	2.2797	ppb	08:14:35
2	Mn 257.610†	1048.8	693.3	10.417	ug/L	10.417	ppb	08:14:35
2	Mo 202.031†	-240.4	-291.5	-4.1337	ug/L	-4.1337	ppb	08:14:55
2	Ni 231.604†	217.9	152.6	3.3328	ug/L	3.3328	ppb	08:14:55

2	P 214.914†	205.7	-25.7	11.586	ug/L	11.586	ppb	08:14:55
2	Pb 220.353†	-895.2	-947.2	2.5837	ug/L	2.5837	ppb	08:14:55
2	S 181.975 Axial†	85.9	48.0	-44.606	ug/L	-44.606	ppb	08:14:55
2	Sb 206.836†	88.7	59.0	5.0050	ug/L	5.0050	ppb	08:14:55
2	Se 196.026†	-1055.7	-1164.1	17.648	ug/L	17.648	ppb	08:14:55
2	Si 251.611†	453.9	-64.7	-1.3115	ug/L	-1.3115	ppb	08:14:55
2	Sn 189.927†	-384.2	-437.5	-11.990	ug/L	-11.990	ppb	08:14:55
2	Ti 334.940†	-15481.1	-16100.5	2.2289	ug/L	2.2289	ppb	08:14:35
2	Tl 190.801†	-106.0	-71.7	-4.4083	ug/L	-4.4083	ppb	08:14:55
2	U 409.014†	-1282.8	923.1	1.4750	ug/L	1.4750	ppb	08:14:35
2	V 292.402†	1054.5	2660.6	-1.0061	ug/L	-1.0061	ppb	08:14:55
2	Zn 213.857†	3381.4	3026.3	-10.402	ug/L	-10.402	ppb	08:14:55
2	SiO2†	479.1	-65.4	-2.8444	ug/L	-2.8444	ppb	08:15:31
3	Sc Radial	4971.1	4971.1	89.3	%			08:14:03
3	Y RADIAL	5311.8	5311.8	89.86	%			08:14:03
3	Al 396.153Radial†	633647.8	709660.3	517100	ug/L	517100	ppb	08:13:58
3	Ca 317.933Radial†	300431.0	336443.5	479680	ug/L	479680	ppb	08:13:58
3	Fe 238.204 Radial†	20276.7	22697.7	188690	ug/L	188690	ppb	08:14:03
3	K 766.490 Radial†	2406.6	-17.2	12.829	ug/L	12.829	ppb	08:13:58
3	Mg 279.077 IEC†	14177.2	15876.2	492800	ug/L	492800	ppb	08:14:03
3	Na 589.592 Radial†	-616.3	71.4	21.317	ug/L	21.317	ppb	08:14:03
3	Sr 421.552†	592.0	674.8	-0.4894	ug/L	-0.4894	ppb	08:14:03
3	Sc 361.383	688555.3	688555.3	76.599	%			08:15:00
3	Y 371.029	557089.3	557089.3	74.831	%			08:15:00
3	Ag 328.068†	-10825.8	-14503.0	-6.4178	ug/L	-6.4178	ppb	08:15:00
3	As 188.979†	-106.0	-103.5	-8.6520	ug/L	-8.6520	ppb	08:15:20
3	B 249.677†	803.0	1074.3	-2.9874	ug/L	-2.9874	ppb	08:15:00
3	Ba 233.527†	-575.9	-749.2	1.9467	ug/L	1.9467	ppb	08:15:20
3	Be 313.107†	-5212.8	-2074.2	-0.7498	ug/L	-0.7498	ppb	08:15:00
3	Cd 226.502†	1363.2	2008.8	0.7842	ug/L	0.7842	ppb	08:15:20
3	Co 228.616†	-1.3	85.5	-1.1883	ug/L	-1.1883	ppb	08:15:20
3	Cr 267.716†	-65.4	-165.6	1.7183	ug/L	1.7183	ppb	08:15:20
3	Cu 324.752†	2702.2	-2527.8	2.4833	ug/L	2.4833	ppb	08:15:00
3	Mn 257.610†	1011.8	829.4	10.457	ug/L	10.457	ppb	08:15:00
3	Mo 202.031†	-232.1	-322.9	-6.1608	ug/L	-6.1608	ppb	08:15:20
3	Ni 231.604†	224.5	199.6	4.3593	ug/L	4.3593	ppb	08:15:20
3	P 214.914†	183.2	-18.9	13.324	ug/L	13.324	ppb	08:15:20
3	Pb 220.353†	-884.9	-1091.2	-14.475	ug/L	-14.475	ppb	08:15:20
3	S 181.975 Axial†	84.5	61.3	-26.486	ug/L	-26.486	ppb	08:15:20
3	Sb 206.836†	85.4	70.2	8.4040	ug/L	8.4040	ppb	08:15:20
3	Se 196.026†	-1049.6	-1341.7	-85.771	ug/L	-85.771	ppb	08:15:20
3	Si 251.611†	468.7	34.4	1.5400	ug/L	1.5400	ppb	08:15:20
3	Sn 189.927†	-373.7	-491.4	-21.083	ug/L	-21.083	ppb	08:15:20
3	Ti 334.940†	-15677.1	-19078.9	-2.5757	ug/L	-2.5757	ppb	08:15:00
3	Tl 190.801†	-99.2	-81.4	-7.2071	ug/L	-7.2071	ppb	08:15:20
3	U 409.014†	-1051.8	999.1	3.7920	ug/L	3.7920	ppb	08:15:00
3	V 292.402†	1041.5	2829.1	0.2161	ug/L	0.2161	ppb	08:15:20
3	Zn 213.857†	3415.0	3664.7	-4.8544	ug/L	-4.8544	ppb	08:15:20
3	SiO2†	413.2	-67.3	-2.8308	ug/L	-2.8308	ppb	08:15:36

Mean Data: ICSA

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	754357.8	83.919	%	6.4094				7.64%
Sc Radial	4945.9	88.8	%	0.70				0.78%
Y 371.029	610151.3	81.958	%	6.2491				7.62%
Y RADIAL	5283.5	89.38	%	0.751				0.84%
Ag 328.068†	-13001.5	0.4697	ug/L	6.02056	0.4697	ppb	6.02056	>999.9%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	715884.6	521630	ug/L	4523.4	521630	ppb	4523.4	0.87%
QC value within limits for Al 396.153Radial Recovery = 104.33%								
As 188.979†	-80.7	-0.1076	ug/L	8.10215	-0.1076	ppb	8.10215	>999.9%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	967.2	-5.3824	ug/L	3.30909	-5.3824	ppb	3.30909	61.48%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-711.0	2.2597	ug/L	0.27329	2.2597	ppb	0.27329	12.09%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-1461.6	-0.5392	ug/L	0.18426	-0.5392	ppb	0.18426	34.18%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	340214.2	485050	ug/L	4882.4	485050	ppb	4882.4	1.01%

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   QC value within limits for Ca 317.933Radial  Recovery = 97.01%
Cd 226.502†            1865.5     -0.7658 ug/L       1.35952     -0.7658 ppb        1.35952 177.52%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†              81.9     -1.2734 ug/L       0.18027     -1.2734 ppb        0.18027  14.16%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†            -160.1      1.7995 ug/L       0.32565      1.7995 ppb        0.32565  18.10%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†           -2620.1      2.2985 ug/L       0.17615      2.2985 ppb        0.17615   7.66%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†    22877.0      190180 ug/L        1374.2      190180 ppb         1374.2   0.72%
   QC value within limits for Fe 238.204 Radial  Recovery = 95.09%
K 766.490 Radial†       -46.7      7.6756 ug/L       7.40261      7.6756 ppb        7.40261  96.44%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†       15964.6      495550 ug/L        2391.4      495550 ppb         2391.4   0.48%
   QC value within limits for Mg 279.077 IEC  Recovery = 99.11%
Mn 257.610†             727.4      10.454 ug/L        0.0355      10.454 ppb         0.0355   0.34%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†            -301.2     -4.7388 ug/L       1.23603     -4.7388 ppb        1.23603  26.08%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       67.2      20.061 ug/L        4.4057      20.061 ppb         4.4057  21.96%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†             192.7      4.2085 ug/L       0.81095      4.2085 ppb        0.81095  19.27%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†              -31.3      7.3245 ug/L       8.92847      7.3245 ppb        8.92847 121.90%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†           -1001.6     -4.1363 ug/L       9.08662     -4.1363 ppb        9.08662 219.68%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         47.4     -44.434 ug/L       17.8622     -44.434 ppb        17.8622  40.20%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              60.2      5.4136 ug/L       2.80850      5.4136 ppb        2.80850  51.88%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†           -1234.9     -22.397 ug/L       55.5164     -22.397 ppb        55.5164 247.88%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†              -31.4     -0.3526 ug/L       1.63904     -0.3526 ppb        1.63904 464.89%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†             -452.6     -14.696 ug/L        5.5534     -14.696 ppb         5.5534  37.79%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             664.4     -0.6001 ug/L       0.12435     -0.6001 ppb        0.12435  20.72%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†          -17237.0      0.3679 ug/L       2.57876      0.3679 ppb        2.57876 700.99%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -72.6     -4.7900 ug/L       2.25068     -4.7900 ppb        2.25068  46.99%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              989.3      3.3326 ug/L       1.67580      3.3326 ppb        1.67580  50.28%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†             2717.2     -0.6449 ug/L       0.74892     -0.6449 ppb        0.74892 116.12%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†            3272.7     -8.3039 ug/L       3.01059     -8.3039 ppb        3.01059  36.26%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                   -65.7     -2.8203 ug/L       0.03079     -2.8203 ppb        0.03079   1.09%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 10
Sample ID: ICSAB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 14
Date Collected: 12/19/2009 08:17:47
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSAB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4945.8	4945.8	88.8	%			08:19:45
1	Y RADIAL	5290.0	5290.0	89.49	%			08:19:45
1	Al 396.153Radial†	649158.0	730747.4	532440	ug/L	532440	ppb	08:19:40
1	Ca 317.933Radial†	306372.6	344851.8	491670	ug/L	491670	ppb	08:19:40
1	Fe 238.204 Radial†	20544.0	23114.7	192170	ug/L	192170	ppb	08:19:45
1	K 766.490 Radial†	31006.4	32190.2	5683.8	ug/L	5683.8	ppb	08:19:40
1	Mg 279.077 IEC†	14326.2	16125.0	500540	ug/L	500540	ppb	08:19:45
1	Na 589.592 Radial†	15924.6	18687.3	5577.6	ug/L	5577.6	ppb	08:19:45
1	Sr 421.552†	80481.3	90606.3	526.75	ug/L	526.75	ppb	08:19:40
1	Sc 361.383	846053.0	846053.0	94.120	%			08:20:13
1	Y 371.029	681027.6	681027.6	91.479	%			08:20:13
1	Ag 328.068†	43870.3	46241.1	257.76	ug/L	257.76	ppb	08:20:13
1	As 188.979†	1126.7	1232.0	480.02	ug/L	480.02	ppb	08:20:33
1	B 249.677†	22781.5	24230.6	470.74	ug/L	470.74	ppb	08:20:13
1	Ba 233.527†	61601.7	65452.8	453.04	ug/L	453.04	ppb	08:20:13
1	Be 313.107†	618819.6	662210.5	222.94	ug/L	222.94	ppb	08:20:13
1	Cd 226.502†	42944.6	45856.7	429.53	ug/L	429.53	ppb	08:20:13
1	Co 228.616†	22094.1	23561.5	409.91	ug/L	409.91	ppb	08:20:33
1	Cr 267.716†	40874.9	43348.3	443.61	ug/L	443.61	ppb	08:20:13
1	Cu 324.752†	170907.8	175529.5	505.74	ug/L	505.74	ppb	08:20:13
1	Mn 257.610†	419056.0	444744.4	448.52	ug/L	448.52	ppb	08:20:13
1	Mo 202.031†	6864.1	7273.0	453.88	ug/L	453.88	ppb	08:20:33
1	Ni 231.604†	18085.3	19121.5	417.52	ug/L	417.52	ppb	08:20:33
1	P 214.914†	4401.8	4418.7	2256.3	ug/L	2256.3	ppb	08:20:33
1	Pb 220.353†	2905.8	3151.4	436.49	ug/L	436.49	ppb	08:20:33
1	S 181.975 Axial†	1970.0	2044.0	2402.9	ug/L	2402.9	ppb	08:20:33
1	Sb 206.836†	1588.2	1646.2	487.46	ug/L	487.46	ppb	08:20:33
1	Se 196.026†	2958.8	3172.1	2387.7	ug/L	2387.7	ppb	08:20:33
1	Si 251.611†	159892.3	169303.9	4763.2	ug/L	4763.2	ppb	08:20:13
1	Sn 189.927†	2475.2	2626.4	447.80	ug/L	447.80	ppb	08:20:33
1	Ti 334.940†	284350.0	303501.9	464.10	ug/L	464.10	ppb	08:20:13
1	Tl 190.801†	1438.7	1576.7	426.40	ug/L	426.40	ppb	08:20:33
1	U 409.014†	14007.9	17255.2	450.39	ug/L	450.39	ppb	08:20:13
1	V 292.402†	68909.8	74684.2	463.64	ug/L	463.64	ppb	08:20:13
1	Zn 213.857†	55486.5	58159.4	438.24	ug/L	438.24	ppb	08:20:13
1	SiO2†	162686.8	172243.8	10406	ug/L	10406	ppb	08:21:30
2	Sc Radial	5012.9	5012.9	90.0	%			08:19:55
2	Y RADIAL	5292.6	5292.6	89.53	%			08:19:55
2	Al 396.153Radial†	634040.9	704178.7	513080	ug/L	513080	ppb	08:19:50
2	Ca 317.933Radial†	299837.9	332978.7	474740	ug/L	474740	ppb	08:19:50
2	Fe 238.204 Radial†	20307.6	22542.7	187410	ug/L	187410	ppb	08:19:55
2	K 766.490 Radial†	30485.8	31144.9	5498.6	ug/L	5498.6	ppb	08:19:50
2	Mg 279.077 IEC†	14177.9	15744.5	488730	ug/L	488730	ppb	08:19:55
2	Na 589.592 Radial†	15816.9	18327.8	5470.3	ug/L	5470.3	ppb	08:19:55
2	Sr 421.552†	78493.1	87185.8	506.85	ug/L	506.85	ppb	08:19:50
2	Sc 361.383	794837.6	794837.6	88.422	%			08:20:39
2	Y 371.029	640297.9	640297.9	86.008	%			08:20:39
2	Ag 328.068†	44144.7	49554.8	270.82	ug/L	270.82	ppb	08:20:39
2	As 188.979†	1096.9	1275.3	495.29	ug/L	495.29	ppb	08:20:59
2	B 249.677†	23009.8	26048.5	508.62	ug/L	508.62	ppb	08:20:39
2	Ba 233.527†	62311.0	70472.2	487.07	ug/L	487.07	ppb	08:20:39
2	Be 313.107†	625476.7	712104.0	239.74	ug/L	239.74	ppb	08:20:39
2	Cd 226.502†	43451.7	49370.2	464.38	ug/L	464.38	ppb	08:20:39
2	Co 228.616†	21876.1	24827.5	432.12	ug/L	432.12	ppb	08:20:59
2	Cr 267.716†	41398.8	46739.2	477.96	ug/L	477.96	ppb	08:20:39
2	Cu 324.752†	172883.1	189463.8	544.86	ug/L	544.86	ppb	08:20:39
2	Mn 257.610†	424144.0	479187.4	482.24	ug/L	482.24	ppb	08:20:39
2	Mo 202.031†	6792.1	7661.5	477.05	ug/L	477.05	ppb	08:20:59
2	Ni 231.604†	17873.4	20120.0	439.33	ug/L	439.33	ppb	08:20:59

2	P 214.914†	4374.0	4688.6	2388.3	ug/L	2388.3	ppb	08:20:59
2	Pb 220.353†	2873.4	3313.7	449.68	ug/L	449.68	ppb	08:20:59
2	S 181.975 Axial†	1954.0	2160.8	2550.0	ug/L	2550.0	ppb	08:20:59
2	Sb 206.836†	1583.3	1749.3	518.94	ug/L	518.94	ppb	08:20:59
2	Se 196.026†	2957.7	3373.4	2480.3	ug/L	2480.3	ppb	08:20:59
2	Si 251.611†	161618.2	182202.1	5126.5	ug/L	5126.5	ppb	08:20:39
2	Sn 189.927†	2485.1	2807.0	473.06	ug/L	473.06	ppb	08:20:59
2	Ti 334.940†	288683.6	327869.7	498.42	ug/L	498.42	ppb	08:20:39
2	Tl 190.801†	1439.3	1675.8	451.85	ug/L	451.85	ppb	08:20:59
2	U 409.014†	14050.3	18262.2	478.67	ug/L	478.67	ppb	08:20:39
2	V 292.402†	70005.4	80640.9	502.32	ug/L	502.32	ppb	08:20:39
2	Zn 213.857†	56214.9	62781.8	476.82	ug/L	476.82	ppb	08:20:39
2	SiO2†	160671.6	181102.4	10941	ug/L	10941	ppb	08:21:36
3	Sc Radial	5091.8	5091.8	91.5	%			08:20:05
3	Y RADIAL	5391.7	5391.7	91.21	%			08:20:05
3	Al 396.153Radial†	654310.0	715428.8	521280	ug/L	521280	ppb	08:20:00
3	Ca 317.933Radial†	309162.3	338013.7	481920	ug/L	481920	ppb	08:20:00
3	Fe 238.204 Radial†	20589.4	22501.3	187070	ug/L	187070	ppb	08:20:05
3	K 766.490 Radial†	31512.7	31743.1	5604.4	ug/L	5604.4	ppb	08:20:00
3	Mg 279.077 IEC†	14360.6	15700.3	487350	ug/L	487350	ppb	08:20:05
3	Na 589.592 Radial†	16040.8	18300.4	5462.1	ug/L	5462.1	ppb	08:20:05
3	Sr 421.552†	81447.7	89065.5	517.80	ug/L	517.80	ppb	08:20:00
3	Sc 361.383	796544.8	796544.8	88.612	%			08:21:05
3	Y 371.029	642022.6	642022.6	86.240	%			08:21:05
3	Ag 328.068†	44226.6	49540.3	270.53	ug/L	270.53	ppb	08:21:05
3	As 188.979†	1109.1	1286.4	499.27	ug/L	499.27	ppb	08:21:25
3	B 249.677†	23022.9	26007.5	507.83	ug/L	507.83	ppb	08:21:05
3	Ba 233.527†	62498.9	70533.2	487.47	ug/L	487.47	ppb	08:21:05
3	Be 313.107†	626717.7	711988.3	239.70	ug/L	239.70	ppb	08:21:05
3	Cd 226.502†	43501.3	49320.9	463.93	ug/L	463.93	ppb	08:21:05
3	Co 228.616†	21909.9	24812.6	431.87	ug/L	431.87	ppb	08:21:25
3	Cr 267.716†	41480.6	46731.2	477.87	ug/L	477.87	ppb	08:21:05
3	Cu 324.752†	172868.1	189027.8	543.61	ug/L	543.61	ppb	08:21:05
3	Mn 257.610†	424544.9	478611.7	481.67	ug/L	481.67	ppb	08:21:05
3	Mo 202.031†	6820.1	7676.7	477.95	ug/L	477.95	ppb	08:21:25
3	Ni 231.604†	17905.2	20112.6	439.16	ug/L	439.16	ppb	08:21:25
3	P 214.914†	4419.0	4728.8	2412.5	ug/L	2412.5	ppb	08:21:25
3	Pb 220.353†	2872.8	3306.1	450.74	ug/L	450.74	ppb	08:21:25
3	S 181.975 Axial†	1967.0	2170.8	2560.6	ug/L	2560.6	ppb	08:21:25
3	Sb 206.836†	1577.2	1738.7	515.45	ug/L	515.45	ppb	08:21:25
3	Se 196.026†	2951.7	3359.5	2472.8	ug/L	2472.8	ppb	08:21:25
3	Si 251.611†	161769.8	181981.4	5120.3	ug/L	5120.3	ppb	08:21:05
3	Sn 189.927†	2461.1	2773.9	468.84	ug/L	468.84	ppb	08:21:25
3	Ti 334.940†	288848.1	327355.6	498.05	ug/L	498.05	ppb	08:21:05
3	Tl 190.801†	1440.7	1673.9	451.59	ug/L	451.59	ppb	08:21:25
3	U 409.014†	14160.4	18352.4	481.20	ug/L	481.20	ppb	08:21:05
3	V 292.402†	70009.9	80476.3	501.31	ug/L	501.31	ppb	08:21:05
3	Zn 213.857†	56232.2	62665.1	475.95	ug/L	475.95	ppb	08:21:05
3	SiO2†	160728.6	180777.2	10921	ug/L	10921	ppb	08:21:41

Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	812478.5	90.385	%	3.2360				3.58%
Sc Radial	5016.8	90.1	%	1.31				1.46%
Y 371.029	654449.4	87.909	%	3.0940				3.52%
Y RADIAL	5324.8	90.08	%	0.981				1.09%
Ag 328.068†	48445.4	266.37	ug/L	7.461	266.37	ppb	7.461	2.80%
QC value within limits for Ag 328.068 Recovery = 106.55%								
Al 396.153Radial†	716785.0	522270	ug/L	9718.0	522270	ppb	9718.0	1.86%
QC value within limits for Al 396.153Radial Recovery = 104.45%								
As 188.979†	1264.6	491.53	ug/L	10.162	491.53	ppb	10.162	2.07%
QC value within limits for As 188.979 Recovery = 98.31%								
B 249.677†	25428.9	495.73	ug/L	21.645	495.73	ppb	21.645	4.37%
QC value within limits for B 249.677 Recovery = 99.15%								
Ba 233.527†	68819.4	475.86	ug/L	19.760	475.86	ppb	19.760	4.15%
QC value within limits for Ba 233.527 Recovery = 95.17%								
Be 313.107†	695434.3	234.13	ug/L	9.689	234.13	ppb	9.689	4.14%
QC value within limits for Be 313.107 Recovery = 93.65%								
Ca 317.933Radial†	338614.7	482770	ug/L	8496.4	482770	ppb	8496.4	1.76%

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   QC value within limits for Ca 317.933Radial  Recovery = 96.55%
Cd 226.502†            48182.6      452.61 ug/L        19.993      452.61 ppb        19.993   4.42%
   QC value within limits for Cd 226.502  Recovery = 90.52%
Co 228.616†            24400.5      424.63 ug/L        12.754      424.63 ppb        12.754   3.00%
   QC value within limits for Co 228.616  Recovery = 84.93%
Cr 267.716†            45606.2      466.48 ug/L        19.807      466.48 ppb        19.807   4.25%
   QC value within limits for Cr 267.716  Recovery = 93.30%
Cu 324.752†           184673.7      531.41 ug/L        22.238      531.41 ppb        22.238   4.18%
   QC value within limits for Cu 324.752  Recovery = 106.28%
Fe 238.204 Radial†     22719.6      188880 ug/L        2849.5      188880 ppb        2849.5   1.51%
   QC value within limits for Fe 238.204 Radial  Recovery = 94.44%
K 766.490 Radial†      31692.7      5595.6 ug/L         92.94      5595.6 ppb         92.94   1.66%
   QC value within limits for K 766.490 Radial  Recovery = 111.91%
Mg 279.077 IEC†        15856.6      492210 ug/L        7247.9      492210 ppb        7247.9   1.47%
   QC value within limits for Mg 279.077 IEC  Recovery = 98.44%
Mn 257.610†           467514.5      470.81 ug/L        19.304      470.81 ppb        19.304   4.10%
   QC value within limits for Mn 257.610  Recovery = 94.16%
Mo 202.031†             7537.1      469.63 ug/L        13.647      469.63 ppb        13.647   2.91%
   QC value within limits for Mo 202.031  Recovery = 93.93%
Na 589.592 Radial†     18438.5      5503.4 ug/L         64.45      5503.4 ppb         64.45   1.17%
   QC value within limits for Na 589.592 Radial  Recovery = 110.07%
Ni 231.604†            19784.7      432.01 ug/L        12.541      432.01 ppb        12.541   2.90%
   QC value within limits for Ni 231.604  Recovery = 86.40%
P 214.914†              4612.0      2352.4 ug/L         84.11      2352.4 ppb         84.11   3.58%
   QC value within limits for P 214.914  Recovery = 94.10%
Pb 220.353†             3257.1      445.64 ug/L         7.937      445.64 ppb         7.937   1.78%
   QC value within limits for Pb 220.353  Recovery = 89.13%
S 181.975 Axial†        2125.2      2504.5 ug/L         88.15      2504.5 ppb         88.15   3.52%
   QC value within limits for S 181.975 Axial  Recovery = 100.18%
Sb 206.836†             1711.4      507.28 ug/L        17.259      507.28 ppb        17.259   3.40%
   QC value within limits for Sb 206.836  Recovery = 101.46%
Se 196.026†             3301.7      2446.9 ug/L         51.44      2446.9 ppb         51.44   2.10%
   QC value within limits for Se 196.026  Recovery = 97.88%
Si 251.611†           177829.1      5003.3 ug/L        207.95      5003.3 ppb        207.95   4.16%
   QC value within limits for Si 251.611  Recovery = 100.07%
Sn 189.927†             2735.8      463.23 ug/L        13.532      463.23 ppb        13.532   2.92%
   QC value within limits for Sn 189.927  Recovery = 92.65%
Sr 421.552†            88952.5      517.13 ug/L         9.967      517.13 ppb         9.967   1.93%
   QC value within limits for Sr 421.552  Recovery = 103.43%
Ti 334.940†           319575.7      486.86 ug/L        19.711      486.86 ppb        19.711   4.05%
   QC value within limits for Ti 334.940  Recovery = 97.37%
Tl 190.801†             1642.1      443.28 ug/L        14.620      443.28 ppb        14.620   3.30%
   QC value within limits for Tl 190.801  Recovery = 88.66%
U 409.014†             17956.6      470.08 ug/L        17.102      470.08 ppb        17.102   3.64%
   QC value within limits for U 409.014  Recovery = 94.02%
V 292.402†             78600.5      489.09 ug/L        22.047      489.09 ppb        22.047   4.51%
   QC value within limits for V 292.402  Recovery = 97.82%
Zn 213.857†            61202.1      463.67 ug/L        22.027      463.67 ppb        22.027   4.75%
   QC value within limits for Zn 213.857  Recovery = 92.73%
SiO2†                 178041.1       10756 ug/L         303.6       10756 ppb         303.6   2.82%
   QC value within limits for SiO2  Recovery = 100.57%
All analyte(s) passed QC.
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Sequence No.: 11
Sample ID: LR1
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 15
Date Collected: 12/19/2009 08:23:51
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4692.3	4692.3	84.3	%			08:25:48
1	Y RADIAL	5012.9	5012.9	84.80	%			08:25:48
1	Al 396.153Radial†	614656.2	729282.0	531400	ug/L	531400	ppb	08:25:43
1	Ca 317.933Radial†	293765.5	348521.8	496900	ug/L	496900	ppb	08:25:43
1	Fe 238.204 Radial†	48062.2	57013.0	473950	ug/L	473950	ppb	08:25:48
1	K 766.490 Radial†	2819.2	632.5	-117.10	ug/L	-117.10	ppb	08:25:43
1	Mg 279.077 IEC†	13987.6	16594.3	514860	ug/L	514860	ppb	08:25:48
1	Na 589.592 Radial†	1624875.8	1928613.4	575630	ug/L	575630	ppb	08:25:43
1	Sr 421.552†	882.2	1058.5	1.6014	ug/L	1.6014	ppb	08:25:48
1	Sc 361.383	769480.6	769480.6	85.602	%			08:26:17
1	Y 371.029	622972.7	622972.7	83.681	%			08:26:17
1	Ag 328.068†	-24603.7	-29112.1	13.395	ug/L	13.395	ppb	08:26:17
1	As 188.979†	-214.3	-215.5	-5.0853	ug/L	-5.0853	ppb	08:26:37
1	B 249.677†	1848.7	2185.6	-18.034	ug/L	-18.034	ppb	08:26:17
1	Ba 233.527†	-1673.2	-1952.1	4.3798	ug/L	4.3798	ppb	08:26:37
1	Be 313.107†	-11864.9	-9129.5	-3.0844	ug/L	-3.0844	ppb	08:26:17
1	Cd 226.502†	3618.4	4456.2	-3.7990	ug/L	-3.7990	ppb	08:26:37
1	Co 228.616†	237.2	364.2	-0.4639	ug/L	-0.4639	ppb	08:26:37
1	Cr 267.716†	46.1	-26.3	3.5909	ug/L	3.5909	ppb	08:26:37
1	Cu 324.752†	-122.5	-6198.7	6.6635	ug/L	6.6635	ppb	08:26:17
1	Mn 257.610†	-25217.2	-29950.3	8.1288	ug/L	8.1288	ppb	08:26:17
1	Mo 202.031†	-528.1	-636.8	-4.9235	ug/L	-4.9235	ppb	08:26:17
1	Ni 231.604†	271.7	223.8	4.8852	ug/L	4.8852	ppb	08:26:37
1	P 214.914†	607.7	451.8	35.364	ug/L	35.364	ppb	08:26:37
1	Pb 220.353†	-643.5	-687.6	7.8042	ug/L	7.8042	ppb	08:26:37
1	S 181.975 Axial†	120.2	91.4	7.5621	ug/L	7.5621	ppb	08:26:37
1	Sb 206.836†	58.5	27.1	-0.7172	ug/L	-0.7172	ppb	08:26:37
1	Se 196.026†	-2491.1	-2881.5	-56.706	ug/L	-56.706	ppb	08:26:37
1	Si 251.611†	-565.0	-1237.5	-34.030	ug/L	-34.030	ppb	08:26:37
1	Sn 189.927†	-420.1	-494.3	-15.912	ug/L	-15.912	ppb	08:26:37
1	Ti 334.940†	-8021.9	-7983.6	7.9674	ug/L	7.9674	ppb	08:26:17
1	Tl 190.801†	-135.5	-110.3	-14.412	ug/L	-14.412	ppb	08:26:37
1	U 409.014†	449025.2	526924.4	14458	ug/L	14458	ppb	08:26:17
1	V 292.402†	2871.1	4823.4	-2.1401	ug/L	-2.1401	ppb	08:26:17
1	Zn 213.857†	6450.9	6742.4	-7.6041	ug/L	-7.6041	ppb	08:26:37
1	SiO2†	-680.3	-1401.4	-82.979	ug/L	-82.979	ppb	08:27:34
2	Sc Radial	4757.0	4757.0	85.4	%			08:25:59
2	Y RADIAL	5107.7	5107.7	86.40	%			08:25:59
2	Al 396.153Radial†	632178.8	739878.4	539120	ug/L	539120	ppb	08:25:54
2	Ca 317.933Radial†	300099.2	351197.5	500710	ug/L	500710	ppb	08:25:54
2	Fe 238.204 Radial†	47847.0	55986.2	465420	ug/L	465420	ppb	08:25:59
2	K 766.490 Radial†	2689.4	435.1	-151.46	ug/L	-151.46	ppb	08:25:54
2	Mg 279.077 IEC†	13913.0	16281.5	505150	ug/L	505150	ppb	08:25:59
2	Na 589.592 Radial†	1647947.9	1929415.4	575870	ug/L	575870	ppb	08:25:54
2	Sr 421.552†	822.6	974.6	1.0736	ug/L	1.0736	ppb	08:25:59
2	Sc 361.383	829578.9	829578.9	92.287	%			08:26:43
2	Y 371.029	670999.6	670999.6	90.132	%			08:26:43
2	Ag 328.068†	-24230.2	-26625.1	22.193	ug/L	22.193	ppb	08:26:43
2	As 188.979†	-212.6	-195.6	0.8307	ug/L	0.8307	ppb	08:27:03
2	B 249.677†	1914.5	2100.4	-18.649	ug/L	-18.649	ppb	08:26:43
2	Ba 233.527†	-1708.3	-1848.4	4.7599	ug/L	4.7599	ppb	08:27:03
2	Be 313.107†	-11729.1	-7978.2	-2.6975	ug/L	-2.6975	ppb	08:26:43
2	Cd 226.502†	3617.7	4149.2	-5.9484	ug/L	-5.9484	ppb	08:27:03
2	Co 228.616†	228.3	334.4	-0.8544	ug/L	-0.8544	ppb	08:27:03
2	Cr 267.716†	-3.7	-84.2	3.2232	ug/L	3.2232	ppb	08:27:03
2	Cu 324.752†	-70.9	-6132.4	6.4154	ug/L	6.4154	ppb	08:26:43
2	Mn 257.610†	-25124.3	-27715.5	9.6628	ug/L	9.6628	ppb	08:26:43
2	Mo 202.031†	-514.6	-577.5	-1.9424	ug/L	-1.9424	ppb	08:26:43
2	Ni 231.604†	300.2	231.7	5.0587	ug/L	5.0587	ppb	08:27:03

2	P 214.914†	636.5	431.6	34.371	ug/L	34.371 ppb	08:27:03
2	Pb 220.353†	-640.8	-630.3	16.292	ug/L	16.292 ppb	08:27:03
2	S 181.975 Axial†	140.3	103.0	20.303	ug/L	20.303 ppb	08:27:03
2	Sb 206.836†	63.8	27.9	-0.6703	ug/L	-0.6703 ppb	08:27:03
2	Se 196.026†	-2501.1	-2681.6	27.385	ug/L	27.385 ppb	08:27:03
2	Si 251.611†	-576.5	-1202.1	-33.099	ug/L	-33.099 ppb	08:27:03
2	Sn 189.927†	-423.3	-462.2	-10.812	ug/L	-10.812 ppb	08:27:03
2	Ti 334.940†	-8412.1	-7727.5	9.0551	ug/L	9.0551 ppb	08:26:43
2	Tl 190.801†	-122.0	-84.2	-7.4033	ug/L	-7.4033 ppb	08:27:03
2	U 409.014†	444768.1	484310.7	13285	ug/L	13285 ppb	08:26:43
2	V 292.402†	2601.5	4288.3	-6.6933	ug/L	-6.6933 ppb	08:26:43
2	Zn 213.857†	6480.7	6228.8	-10.670	ug/L	-10.670 ppb	08:27:03
2	SiO2†	-535.4	-1186.8	-70.127	ug/L	-70.127 ppb	08:27:39
3	Sc Radial	4910.4	4910.4	88.2	%		08:26:10
3	Y RADIAL	5233.2	5233.2	88.53	%		08:26:10
3	Al 396.153Radial†	628142.7	712191.4	518940	ug/L	518940 ppb	08:26:05
3	Ca 317.933Radial†	298967.6	338943.6	483240	ug/L	483240 ppb	08:26:05
3	Fe 238.204 Radial†	47717.5	54090.2	449660	ug/L	449660 ppb	08:26:10
3	K 766.490 Radial†	2761.1	418.0	-147.53	ug/L	-147.53 ppb	08:26:05
3	Mg 279.077 IEC†	13878.2	15733.4	488150	ug/L	488150 ppb	08:26:10
3	Na 589.592 Radial†	1647451.6	1868607.7	557720	ug/L	557720 ppb	08:26:05
3	Sr 421.552†	859.2	986.0	1.3026	ug/L	1.3026 ppb	08:26:10
3	Sc 361.383	776834.8	776834.8	86.420	%		08:27:08
3	Y 371.029	628719.7	628719.7	84.453	%		08:27:08
3	Ag 328.068†	-24650.2	-28893.7	6.4605	ug/L	6.4605 ppb	08:27:08
3	As 188.979†	-221.8	-221.9	-11.149	ug/L	-11.149 ppb	08:27:28
3	B 249.677†	1839.3	2154.2	-15.456	ug/L	-15.456 ppb	08:27:08
3	Ba 233.527†	-1717.7	-1985.0	3.2537	ug/L	3.2537 ppb	08:27:28
3	Be 313.107†	-11829.8	-8957.7	-3.0274	ug/L	-3.0274 ppb	08:27:08
3	Cd 226.502†	3550.7	4337.9	-2.5268	ug/L	-2.5268 ppb	08:27:28
3	Co 228.616†	241.7	366.8	-0.0775	ug/L	-0.0775 ppb	08:27:28
3	Cr 267.716†	10.6	-67.9	2.7514	ug/L	2.7514 ppb	08:27:28
3	Cu 324.752†	-204.6	-6292.3	5.1597	ug/L	5.1597 ppb	08:27:08
3	Mn 257.610†	-25758.5	-30297.8	5.8607	ug/L	5.8607 ppb	08:27:08
3	Mo 202.031†	-568.2	-677.4	-9.1084	ug/L	-9.1084 ppb	08:27:08
3	Ni 231.604†	306.0	260.5	5.6873	ug/L	5.6873 ppb	08:27:28
3	P 214.914†	617.6	456.6	53.301	ug/L	53.301 ppb	08:27:28
3	Pb 220.353†	-644.2	-681.4	7.6517	ug/L	7.6517 ppb	08:27:28
3	S 181.975 Axial†	132.5	104.3	25.899	ug/L	25.899 ppb	08:27:28
3	Sb 206.836†	62.4	31.0	0.4261	ug/L	0.4261 ppb	08:27:28
3	Se 196.026†	-2448.9	-2805.2	-90.632	ug/L	-90.632 ppb	08:27:28
3	Si 251.611†	-543.6	-1206.5	-33.113	ug/L	-33.113 ppb	08:27:28
3	Sn 189.927†	-399.4	-465.7	-13.371	ug/L	-13.371 ppb	08:27:28
3	Ti 334.940†	-8307.2	-8225.0	6.9306	ug/L	6.9306 ppb	08:27:08
3	Tl 190.801†	-102.1	-70.1	-4.3326	ug/L	-4.3326 ppb	08:27:28
3	U 409.014†	451578.8	524913.5	14406	ug/L	14406 ppb	08:27:08
3	V 292.402†	2840.2	4756.0	0.3816	ug/L	0.3816 ppb	08:27:08
3	Zn 213.857†	6358.9	6564.6	-5.8321	ug/L	-5.8321 ppb	08:27:28
3	SiO2†	-523.4	-1212.3	-71.434	ug/L	-71.434 ppb	08:27:44

Mean Data: LR1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	791964.8	88.103	%	3.6468				4.14%
Sc Radial	4786.6	86.0	%	2.01				2.34%
Y 371.029	640897.3	86.088	%	3.5230				4.09%
Y RADIAL	5117.9	86.58	%	1.869				2.16%
Ag 328.068†	-28210.3	14.016	ug/L	7.8845	14.016	ppb	7.8845	56.25%
Al 396.153Radial†	727117.3	529820	ug/L	10179.1	529820	ppb	10179.1	1.92%
QC value within limits for Al 396.153Radial Recovery = 105.96%								
As 188.979†	-211.0	-5.1347	ug/L	5.99020	-5.1347	ppb	5.99020	116.66%
B 249.677†	2146.8	-17.380	ug/L	1.6944	-17.380	ppb	1.6944	9.75%
Ba 233.527†	-1928.5	4.1311	ug/L	0.78333	4.1311	ppb	0.78333	18.96%
Be 313.107†	-8688.5	-2.9364	ug/L	0.20885	-2.9364	ppb	0.20885	7.11%
Ca 317.933Radial†	346220.9	493620	ug/L	9185.6	493620	ppb	9185.6	1.86%
QC value within limits for Ca 317.933Radial Recovery = 98.72%								
Cd 226.502†	4314.5	-4.0914	ug/L	1.72944	-4.0914	ppb	1.72944	42.27%
Co 228.616†	355.2	-0.4653	ug/L	0.38848	-0.4653	ppb	0.38848	83.49%
Cr 267.716†	-59.5	3.1885	ug/L	0.42084	3.1885	ppb	0.42084	13.20%
Cu 324.752†	-6207.8	6.0795	ug/L	0.80620	6.0795	ppb	0.80620	13.26%

Fe 238.204 Radial†	55696.5	463010	ug/L	12326.4	463010	ppb	12326.4	2.66%
QC value within limits for Fe 238.204 Radial Recovery = 92.60%								
K 766.490 Radial†	495.2	-138.70	ug/L	18.804	-138.70	ppb	18.804	13.56%
Mg 279.077 IEC†	16203.1	502720	ug/L	13520.9	502720	ppb	13520.9	2.69%
QC value within limits for Mg 279.077 IEC Recovery = 100.54%								
Mn 257.610†	-29321.2	7.8841	ug/L	1.91283	7.8841	ppb	1.91283	24.26%
Mo 202.031†	-630.6	-5.3248	ug/L	3.59978	-5.3248	ppb	3.59978	67.60%
Na 589.592 Radial†	1908878.8	569740	ug/L	10410.1	569740	ppb	10410.1	1.83%
QC value greater than the upper limit for Na 589.592 Radial Recovery = 113.95%								
Ni 231.604†	238.7	5.2104	ug/L	0.42201	5.2104	ppb	0.42201	8.10%
P 214.914†	446.7	41.012	ug/L	10.6542	41.012	ppb	10.6542	25.98%
Pb 220.353†	-666.4	10.582	ug/L	4.9448	10.582	ppb	4.9448	46.73%
S 181.975 Axial†	99.6	17.922	ug/L	9.3978	17.922	ppb	9.3978	52.44%
Sb 206.836†	28.7	-0.3205	ug/L	0.64693	-0.3205	ppb	0.64693	201.87%
Se 196.026†	-2789.5	-39.984	ug/L	60.7594	-39.984	ppb	60.7594	151.96%
Si 251.611†	-1215.4	-33.414	ug/L	0.5335	-33.414	ppb	0.5335	1.60%
Sn 189.927†	-474.0	-13.365	ug/L	2.5500	-13.365	ppb	2.5500	19.08%
Sr 421.552†	1006.4	1.3259	ug/L	0.26466	1.3259	ppb	0.26466	19.96%
Ti 334.940†	-7978.7	7.9844	ug/L	1.06234	7.9844	ppb	1.06234	13.31%
Tl 190.801†	-88.2	-8.7161	ug/L	5.16646	-8.7161	ppb	5.16646	59.28%
U 409.014†	512049.5	14050	ug/L	662.6	14050	ppb	662.6	4.72%
QC value within limits for U 409.014 Recovery = 93.67%								
V 292.402†	4622.6	-2.8173	ug/L	3.58574	-2.8173	ppb	3.58574	127.28%
Zn 213.857†	6511.9	-8.0354	ug/L	2.44758	-8.0354	ppb	2.44758	30.46%
SiO2†	-1266.8	-74.847	ug/L	7.0731	-74.847	ppb	7.0731	9.45%

QC Failed. Continue with analysis.

Sequence No.: 12
Sample ID: LR2
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 16
Date Collected: 12/19/2009 08:29:53
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR2

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5447.1	5447.1	97.8	%			08:31:51
1	Y RADIAL	5800.8	5800.8	98.13	%			08:31:51
1	Al 396.153Radial†	614.4	644.3	51.060	ug/L	51.060	ppb	08:31:51
1	Ca 317.933Radial†	41.7	23.1	32.879	ug/L	32.879	ppb	08:32:11
1	Fe 238.204 Radial†	-25.4	-36.9	-13.698	ug/L	-13.698	ppb	08:32:11
1	K 766.490 Radial†	1623659.6	1656783.1	291920	ug/L	291920	ppb	08:31:46
1	Mg 279.077 IEC†	-7.8	-9.4	-93.210	ug/L	-93.210	ppb	08:32:11
1	Na 589.592 Radial†	-294.4	460.8	137.53	ug/L	137.53	ppb	08:31:51
1	Sr 421.552†	1563831.3	1598358.5	9372.6	ug/L	9372.6	ppb	08:31:46
1	Sc 361.383	863865.1	863865.1	96.102	%			08:33:28
1	Y 371.029	697025.7	697025.7	93.628	%			08:33:28
1	Ag 328.068†	-8155.2	-8855.9	1.0213	ug/L	1.0213	ppb	08:33:33
1	As 188.979†	26297.6	27399.2	10029	ug/L	10029	ppb	08:33:33
1	B 249.677†	233893.2	243407.3	4971.8	ug/L	4971.8	ppb	08:33:28
1	Ba 233.527†	2028481.0	2110771.6	14368	ug/L	14368	ppb	08:33:28
1	Be 313.107†	8211275.7	8549107.9	2886.3	ug/L	2886.3	ppb	08:33:22
1	Cd 226.502†	952935.8	991822.1	9706.2	ug/L	9706.2	ppb	08:33:28
1	Co 228.616†	509788.5	530555.8	9288.1	ug/L	9288.1	ppb	08:33:33
1	Cr 267.716†	2270999.3	2363045.2	23975	ug/L	23975	ppb	08:33:28
1	Cu 324.752†	6917777.4	7192350.6	20321	ug/L	20321	ppb	08:33:22
1	Mn 257.610†	9150004.2	9520694.7	9390.9	ug/L	9390.9	ppb	08:33:22
1	Mo 202.031†	155188.8	161464.3	9773.6	ug/L	9773.6	ppb	08:33:33
1	Ni 231.604†	430929.1	448316.7	9789.4	ug/L	9789.4	ppb	08:33:28
1	P 214.914†	34551.5	35695.1	15505	ug/L	15505	ppb	08:33:33
1	Pb 220.353†	224071.9	233225.8	24585	ug/L	24585	ppb	08:33:33
1	S 181.975 Axial†	41020.8	42635.9	52306	ug/L	52306	ppb	08:33:33
1	Sb 206.836†	33975.2	35312.3	10385	ug/L	10385	ppb	08:33:33
1	Se 196.026†	17780.4	18530.2	10126	ug/L	10126	ppb	08:33:33
1	Si 251.611†	1622065.9	1687289.6	47278	ug/L	47278	ppb	08:33:28
1	Sn 189.927†	66912.6	69623.5	10442	ug/L	10442	ppb	08:33:33
1	Ti 334.940†	6528399.3	6794620.0	9815.5	ug/L	9815.5	ppb	08:33:22
1	Tl 190.801†	35746.3	37244.5	9723.1	ug/L	9723.1	ppb	08:33:33
1	U 409.014†	-1063.6	1265.5	-11.372	ug/L	-11.372	ppb	08:33:33
1	V 292.402†	1510866.6	1573626.3	10128	ug/L	10128	ppb	08:33:28
1	Zn 213.857†	1655286.5	1721641.8	14033	ug/L	14033	ppb	08:33:28
1	SiO2†	1621563.5	1686737.7	101470	ug/L	101470	ppb	08:34:21
2	Sc Radial	5508.3	5508.3	98.9	%			08:32:21
2	Y RADIAL	5846.5	5846.5	98.90	%			08:32:21
2	Al 396.153Radial†	656.0	679.4	93.074	ug/L	93.074	ppb	08:32:21
2	Ca 317.933Radial†	40.7	21.5	30.691	ug/L	30.691	ppb	08:32:41
2	Fe 238.204 Radial†	-24.5	-35.7	-13.399	ug/L	-13.399	ppb	08:32:41
2	K 766.490 Radial†	1592082.3	1606413.9	283050	ug/L	283050	ppb	08:32:16
2	Mg 279.077 IEC†	-5.6	-7.0	-28.305	ug/L	-28.305	ppb	08:32:41
2	Na 589.592 Radial†	-359.7	398.1	118.82	ug/L	118.82	ppb	08:32:21
2	Sr 421.552†	1529669.9	1546057.6	9065.9	ug/L	9065.9	ppb	08:32:16
2	Sc 361.383	885471.4	885471.4	98.505	%			08:33:48
2	Y 371.029	716006.2	716006.2	96.177	%			08:33:48
2	Ag 328.068†	-8015.3	-8506.8	1.3835	ug/L	1.3835	ppb	08:33:53
2	As 188.979†	25907.3	26335.3	9640.3	ug/L	9640.3	ppb	08:33:53
2	B 249.677†	233463.7	237032.6	4841.8	ug/L	4841.8	ppb	08:33:48
2	Ba 233.527†	2013175.5	2043729.0	13912	ug/L	13912	ppb	08:33:48
2	Be 313.107†	8172181.3	8300929.0	2802.5	ug/L	2802.5	ppb	08:33:42
2	Cd 226.502†	946780.5	961377.5	9408.3	ug/L	9408.3	ppb	08:33:48
2	Co 228.616†	505323.2	513078.8	8982.0	ug/L	8982.0	ppb	08:33:53
2	Cr 267.716†	2257842.3	2292026.0	23255	ug/L	23255	ppb	08:33:48
2	Cu 324.752†	6856868.5	6954869.1	19650	ug/L	19650	ppb	08:33:42
2	Mn 257.610†	9097309.1	9234873.5	9109.0	ug/L	9109.0	ppb	08:33:42
2	Mo 202.031†	152811.7	155110.8	9389.1	ug/L	9389.1	ppb	08:33:53
2	Ni 231.604†	428197.3	434601.8	9489.9	ug/L	9489.9	ppb	08:33:48

2	P 214.914†	33955.7	34212.9	14834	ug/L	14834	ppb	08:33:53
2	Pb 220.353†	220934.2	224351.0	23650	ug/L	23650	ppb	08:33:53
2	S 181.975 Axial†	40452.0	41016.9	50319	ug/L	50319	ppb	08:33:53
2	Sb 206.836†	33461.0	33927.5	9972.9	ug/L	9972.9	ppb	08:33:53
2	Se 196.026†	17510.9	17805.2	9730.0	ug/L	9730.0	ppb	08:33:53
2	Si 251.611†	1616483.2	1640436.6	45968	ug/L	45968	ppb	08:33:48
2	Sn 189.927†	66028.6	67027.2	10053	ug/L	10053	ppb	08:33:53
2	Ti 334.940†	6483993.3	6583778.4	9510.9	ug/L	9510.9	ppb	08:33:42
2	Tl 190.801†	35327.2	35911.4	9375.5	ug/L	9375.5	ppb	08:33:53
2	U 409.014†	-1318.4	1033.8	-16.365	ug/L	-16.365	ppb	08:33:53
2	V 292.402†	1503274.4	1527556.7	9830.4	ug/L	9830.4	ppb	08:33:48
2	Zn 213.857†	1646160.2	1670347.8	13615	ug/L	13615	ppb	08:33:48
2	SiO2†	1643194.6	1667524.2	100330	ug/L	100330	ppb	08:34:28
3	Sc Radial	5347.2	5347.2	96.0	%			08:32:52
3	Y RADIAL	5646.4	5646.4	95.52	%			08:32:52
3	Al 396.153Radial†	614.0	655.7	75.242	ug/L	75.242	ppb	08:32:52
3	Ca 317.933Radial†	35.2	17.0	24.301	ug/L	24.301	ppb	08:33:12
3	Fe 238.204 Radial†	-21.5	-33.3	6.6826	ug/L	6.6826	ppb	08:33:12
3	K 766.490 Radial†	1632133.2	1696581.5	298940	ug/L	298940	ppb	08:32:47
3	Mg 279.077 IEC†	-4.4	-6.0	4.6751	ug/L	4.6751	ppb	08:33:12
3	Na 589.592 Radial†	-368.2	378.3	112.91	ug/L	112.91	ppb	08:32:52
3	Sr 421.552†	1572114.2	1636817.0	9598.1	ug/L	9598.1	ppb	08:32:47
3	Sc 361.383	882318.6	882318.6	98.154	%			08:34:08
3	Y 371.029	712097.8	712097.8	95.652	%			08:34:08
3	Ag 328.068†	-8070.4	-8592.1	1.0600	ug/L	1.0600	ppb	08:34:13
3	As 188.979†	25636.3	26153.2	9574.1	ug/L	9574.1	ppb	08:34:13
3	B 249.677†	232894.6	237299.7	4847.2	ug/L	4847.2	ppb	08:34:08
3	Ba 233.527†	2015206.8	2053101.5	13976	ug/L	13976	ppb	08:34:08
3	Be 313.107†	8139672.2	8297454.3	2801.3	ug/L	2801.3	ppb	08:34:01
3	Cd 226.502†	947584.7	965631.4	9449.9	ug/L	9449.9	ppb	08:34:08
3	Co 228.616†	504163.3	513730.3	8993.4	ug/L	8993.4	ppb	08:34:13
3	Cr 267.716†	2255404.9	2297733.4	23313	ug/L	23313	ppb	08:34:08
3	Cu 324.752†	6828189.6	6950525.2	19638	ug/L	19638	ppb	08:34:01
3	Mn 257.610†	9053696.6	9223442.7	9097.7	ug/L	9097.7	ppb	08:34:01
3	Mo 202.031†	152470.5	155317.5	9401.6	ug/L	9401.6	ppb	08:34:13
3	Ni 231.604†	428074.6	436030.2	9521.1	ug/L	9521.1	ppb	08:34:08
3	P 214.914†	33915.4	34295.0	14879	ug/L	14879	ppb	08:34:13
3	Pb 220.353†	220344.7	224551.9	23671	ug/L	23671	ppb	08:34:13
3	S 181.975 Axial†	40057.8	40762.0	50007	ug/L	50007	ppb	08:34:13
3	Sb 206.836†	33322.6	33907.9	9966.2	ug/L	9966.2	ppb	08:34:13
3	Se 196.026†	17433.7	17790.0	9721.8	ug/L	9721.8	ppb	08:34:13
3	Si 251.611†	1615482.8	1645281.4	46099	ug/L	46099	ppb	08:34:08
3	Sn 189.927†	65867.2	67102.2	10064	ug/L	10064	ppb	08:34:13
3	Ti 334.940†	6452914.2	6575636.6	9499.1	ug/L	9499.1	ppb	08:34:01
3	Tl 190.801†	35128.8	35837.4	9356.1	ug/L	9356.1	ppb	08:34:13
3	U 409.014†	-1074.9	1277.1	-9.7754	ug/L	-9.7754	ppb	08:34:13
3	V 292.402†	1499608.5	1529275.3	9841.5	ug/L	9841.5	ppb	08:34:08
3	Zn 213.857†	1646870.4	1677043.1	13670	ug/L	13670	ppb	08:34:08
3	SiO2†	1621980.5	1651872.1	99374	ug/L	99374	ppb	08:34:35

Mean Data: LR2

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	877218.4	97.587	%	1.2984				1.33%
Sc Radial	5434.2	97.6	%	1.46				1.50%
Y 371.029	708376.6	95.153	%	1.3463				1.41%
Y RADIAL	5764.5	97.52	%	1.773				1.82%
Ag 328.068†	-8651.6	1.1549	ug/L	0.19889	1.1549	ppb	0.19889	17.22%
Al 396.153Radial†	659.8	73.125	ug/L	21.0872	73.125	ppb	21.0872	28.84%
As 188.979†	26629.2	9747.8	ug/L	245.73	9747.8	ppb	245.73	2.52%
QC value within limits for As 188.979 Recovery = 97.48%								
B 249.677†	239246.5	4886.9	ug/L	73.56	4886.9	ppb	73.56	1.51%
QC value within limits for B 249.677 Recovery = 97.74%								
Ba 233.527†	2069200.7	14085	ug/L	247.1	14085	ppb	247.1	1.75%
QC value within limits for Ba 233.527 Recovery = 93.90%								
Be 313.107†	8382497.1	2830.1	ug/L	48.75	2830.1	ppb	48.75	1.72%
QC value within limits for Be 313.107 Recovery = 94.34%								
Ca 317.933Radial†	20.5	29.290	ug/L	4.4572	29.290	ppb	4.4572	15.22%
Cd 226.502†	972943.7	9521.5	ug/L	161.35	9521.5	ppb	161.35	1.69%
QC value within limits for Cd 226.502 Recovery = 95.21%								

```
Co 228.616†          519121.6      9087.8 ug/L       173.56      9087.8 ppb        173.56   1.91%
   QC value within limits for Co 228.616  Recovery = 90.88%
Cr 267.716†         2317601.5       23514 ug/L        400.3       23514 ppb         400.3   1.70%
   QC value within limits for Cr 267.716  Recovery = 94.06%
Cu 324.752†         7032581.6       19870 ug/L        391.0       19870 ppb         391.0   1.97%
   QC value within limits for Cu 324.752  Recovery = 99.35%
Fe 238.204 Radial†      -35.3     -6.8049 ug/L     11.68145     -6.8049 ppb      11.68145 171.66%
K 766.490 Radial†    1653259.5      291300 ug/L       7964.1      291300 ppb        7964.1   2.73%
   QC value within limits for K 766.490 Radial  Recovery = 97.10%
Mg 279.077 IEC†          -7.5     -38.946 ug/L      49.8026     -38.946 ppb      49.8026 127.87%
Mn 257.610†         9326337.0      9199.2 ug/L       166.12      9199.2 ppb        166.12   1.81%
   QC value within limits for Mn 257.610  Recovery = 91.99%
Mo 202.031†          157297.6      9521.4 ug/L       218.52      9521.4 ppb        218.52   2.30%
   QC value within limits for Mo 202.031  Recovery = 95.21%
Na 589.592 Radial†      412.4      123.09 ug/L       12.850      123.09 ppb        12.850  10.44%
Ni 231.604†          439649.6      9600.1 ug/L       164.63      9600.1 ppb        164.63   1.71%
   QC value within limits for Ni 231.604  Recovery = 96.00%
P 214.914†            34734.3       15072 ug/L        375.0       15072 ppb         375.0   2.49%
   QC value within limits for P 214.914  Recovery = 100.48%
Pb 220.353†          227376.2       23969 ug/L        534.2       23969 ppb         534.2   2.23%
   QC value within limits for Pb 220.353  Recovery = 95.87%
S 181.975 Axial†      41471.6       50877 ug/L       1246.8       50877 ppb        1246.8   2.45%
   QC value within limits for S 181.975 Axial  Recovery = 101.75%
Sb 206.836†           34382.6       10108 ug/L        240.0       10108 ppb         240.0   2.37%
   QC value within limits for Sb 206.836  Recovery = 101.08%
Se 196.026†           18041.8      9859.3 ug/L       231.13      9859.3 ppb        231.13   2.34%
   QC value within limits for Se 196.026  Recovery = 98.59%
Si 251.611†         1657669.2       46448 ug/L        721.6       46448 ppb         721.6   1.55%
   QC value within limits for Si 251.611  Recovery = 92.90%
Sn 189.927†           67917.6       10186 ug/L        221.6       10186 ppb         221.6   2.18%
   QC value within limits for Sn 189.927  Recovery = 101.86%
Sr 421.552†         1593744.4      9345.5 ug/L       267.13      9345.5 ppb        267.13   2.86%
   QC value within limits for Sr 421.552  Recovery = 93.46%
Ti 334.940†         6651345.0      9608.5 ug/L       179.36      9608.5 ppb        179.36   1.87%
   QC value within limits for Ti 334.940  Recovery = 96.09%
Tl 190.801†           36331.1      9484.9 ug/L       206.54      9484.9 ppb        206.54   2.18%
   QC value within limits for Tl 190.801  Recovery = 94.85%
U 409.014†             1192.2     -12.504 ug/L       3.4375     -12.504 ppb        3.4375  27.49%
V 292.402†          1543486.1      9933.4 ug/L       168.88      9933.4 ppb        168.88   1.70%
   QC value within limits for V 292.402  Recovery = 99.33%
Zn 213.857†         1689677.6       13773 ug/L        227.2       13773 ppb         227.2   1.65%
   QC value within limits for Zn 213.857  Recovery = 91.82%
SiO2†               1668711.3      100390 ug/L       1051.1      100390 ppb        1051.1   1.05%
   QC value within limits for SiO2  Recovery = 93.83%
All analyte(s) passed QC.
```

Sequence No.: 13
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 12/19/2009 08:36:44
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5478.0	5478.0	98.4	%			08:38:36
1	Y RADIAL	5868.1	5868.1	99.27	%			08:38:36
1	Al 396.153Radial†	6604.6	6728.5	4881.5	ug/L	4881.5	ppb	08:38:36
1	Ca 317.933Radial†	3486.7	3523.9	5024.2	ug/L	5024.2	ppb	08:38:56
1	Fe 238.204 Radial†	620.1	619.3	5164.3	ug/L	5164.3	ppb	08:38:56
1	K 766.490 Radial†	31159.4	28954.6	5094.6	ug/L	5094.6	ppb	08:38:36
1	Mg 279.077 IEC†	167.6	169.0	5252.3	ug/L	5252.3	ppb	08:38:56
1	Na 589.592 Radial†	32390.5	33679.8	10052	ug/L	10052	ppb	08:38:36
1	Sr 421.552†	84442.2	85829.5	503.25	ug/L	503.25	ppb	08:38:36
1	Sc 361.383	895534.1	895534.1	99.625	%			08:39:54
1	Y 371.029	729151.2	729151.2	97.943	%			08:39:54
1	Ag 328.068†	114332.8	114393.8	496.16	ug/L	496.16	ppb	08:39:59
1	As 188.979†	1390.2	1430.3	523.52	ug/L	523.52	ppb	08:40:19
1	B 249.677†	25190.7	25311.6	517.51	ug/L	517.51	ppb	08:39:59
1	Ba 233.527†	73117.2	73395.3	500.14	ug/L	500.14	ppb	08:39:59
1	Be 313.107†	1455940.8	1466158.6	492.65	ug/L	492.65	ppb	08:39:54
1	Cd 226.502†	50630.1	51050.1	499.07	ug/L	499.07	ppb	08:39:59
1	Co 228.616†	28353.7	28547.6	499.89	ug/L	499.89	ppb	08:39:59
1	Cr 267.716†	49064.5	49169.3	499.31	ug/L	499.31	ppb	08:39:59
1	Cu 324.752†	180343.2	174967.2	494.61	ug/L	494.61	ppb	08:39:59
1	Mn 257.610†	500444.2	501838.7	495.42	ug/L	495.42	ppb	08:39:54
1	Mo 202.031†	8197.4	8208.4	497.23	ug/L	497.23	ppb	08:40:19
1	Ni 231.604†	22947.2	22940.1	500.90	ug/L	500.90	ppb	08:39:59
1	P 214.914†	4963.5	4724.1	2389.3	ug/L	2389.3	ppb	08:40:19
1	Pb 220.353†	4647.1	4728.7	499.82	ug/L	499.82	ppb	08:40:19
1	S 181.975 Axial†	861.6	815.9	999.92	ug/L	999.92	ppb	08:40:19
1	Sb 206.836†	1714.0	1679.3	510.25	ug/L	510.25	ppb	08:40:19
1	Se 196.026†	881.3	913.1	515.40	ug/L	515.40	ppb	08:40:19
1	Si 251.611†	87737.7	87490.9	2455.2	ug/L	2455.2	ppb	08:39:59
1	Sn 189.927†	3302.0	3311.0	497.16	ug/L	497.16	ppb	08:40:19
1	Ti 334.940†	335831.9	338485.0	489.27	ug/L	489.27	ppb	08:39:54
1	Tl 190.801†	1909.7	1965.0	512.91	ug/L	512.91	ppb	08:40:19
1	U 409.014†	15318.7	17748.7	487.40	ug/L	487.40	ppb	08:39:59
1	V 292.402†	76180.0	77936.4	502.35	ug/L	502.35	ppb	08:39:59
1	Zn 213.857†	61498.7	60936.9	495.31	ug/L	495.31	ppb	08:39:59
1	SiO2†	87682.4	87406.1	5266.4	ug/L	5266.4	ppb	08:41:27
2	Sc Radial	5470.7	5470.7	98.3	%			08:39:02
2	Y RADIAL	5851.8	5851.8	98.99	%			08:39:02
2	Al 396.153Radial†	6688.6	6823.0	4950.3	ug/L	4950.3	ppb	08:39:02
2	Ca 317.933Radial†	3462.2	3503.7	4995.4	ug/L	4995.4	ppb	08:39:22
2	Fe 238.204 Radial†	613.1	613.0	5112.0	ug/L	5112.0	ppb	08:39:22
2	K 766.490 Radial†	31323.5	29164.0	5131.5	ug/L	5131.5	ppb	08:39:02
2	Mg 279.077 IEC†	165.2	166.7	5181.2	ug/L	5181.2	ppb	08:39:22
2	Na 589.592 Radial†	32449.9	33784.4	10084	ug/L	10084	ppb	08:39:02
2	Sr 421.552†	84752.6	86260.4	505.77	ug/L	505.77	ppb	08:39:02
2	Sc 361.383	898202.6	898202.6	99.921	%			08:40:25
2	Y 371.029	731599.8	731599.8	98.272	%			08:40:25
2	Ag 328.068†	114436.4	114156.4	495.13	ug/L	495.13	ppb	08:40:30
2	As 188.979†	1396.5	1432.5	524.29	ug/L	524.29	ppb	08:40:50
2	B 249.677†	25180.5	25226.3	515.77	ug/L	515.77	ppb	08:40:30
2	Ba 233.527†	73300.5	73360.7	499.90	ug/L	499.90	ppb	08:40:30
2	Be 313.107†	1463841.3	1469723.4	493.85	ug/L	493.85	ppb	08:40:25
2	Cd 226.502†	50754.9	51024.0	498.82	ug/L	498.82	ppb	08:40:30
2	Co 228.616†	28381.3	28490.8	498.90	ug/L	498.90	ppb	08:40:30
2	Cr 267.716†	49228.5	49187.1	499.49	ug/L	499.49	ppb	08:40:30
2	Cu 324.752†	180319.6	174405.8	493.02	ug/L	493.02	ppb	08:40:30
2	Mn 257.610†	501757.6	501660.6	495.24	ug/L	495.24	ppb	08:40:25
2	Mo 202.031†	8258.5	8245.1	499.45	ug/L	499.45	ppb	08:40:50
2	Ni 231.604†	22915.3	22839.7	498.71	ug/L	498.71	ppb	08:40:30

2	P 214.914†	5024.0	4769.9	2413.5 ug/L	2413.5 ppb	08:40:50
2	Pb 220.353†	4668.9	4736.6	500.68 ug/L	500.68 ppb	08:40:50
2	S 181.975 Axial†	876.0	827.7	1014.4 ug/L	1014.4 ppb	08:40:50
2	Sb 206.836†	1737.3	1697.4	515.75 ug/L	515.75 ppb	08:40:50
2	Se 196.026†	889.7	918.9	518.39 ug/L	518.39 ppb	08:40:50
2	Si 251.611†	87773.8	87265.3	2448.7 ug/L	2448.7 ppb	08:40:30
2	Sn 189.927†	3318.9	3318.0	498.22 ug/L	498.22 ppb	08:40:50
2	Ti 334.940†	337085.9	338738.5	489.63 ug/L	489.63 ppb	08:40:25
2	Tl 190.801†	1909.4	1959.0	511.36 ug/L	511.36 ppb	08:40:50
2	U 409.014†	15289.2	17673.5	485.34 ug/L	485.34 ppb	08:40:30
2	V 292.402†	76392.5	77922.0	502.29 ug/L	502.29 ppb	08:40:30
2	Zn 213.857†	61499.2	60754.0	493.83 ug/L	493.83 ppb	08:40:30
2	SiO2†	86796.8	86258.4	5196.8 ug/L	5196.8 ppb	08:41:32
3	Sc Radial	5527.0	5527.0	99.3 %		08:39:27
3	Y RADIAL	5885.1	5885.1	99.56 %		08:39:27
3	Al 396.153Radial†	6729.7	6795.1	4930.3 ug/L	4930.3 ppb	08:39:27
3	Ca 317.933Radial†	3462.1	3467.7	4944.1 ug/L	4944.1 ppb	08:39:47
3	Fe 238.204 Radial†	615.5	609.1	5078.8 ug/L	5078.8 ppb	08:39:47
3	K 766.490 Radial†	31748.3	29267.2	5149.6 ug/L	5149.6 ppb	08:39:27
3	Mg 279.077 IEC†	166.7	166.6	5177.1 ug/L	5177.1 ppb	08:39:47
3	Na 589.592 Radial†	32818.5	33819.3	10094 ug/L	10094 ppb	08:39:27
3	Sr 421.552†	85542.3	86177.5	505.29 ug/L	505.29 ppb	08:39:27
3	Sc 361.383	903528.7	903528.7	100.51 %		08:40:56
3	Y 371.029	736412.2	736412.2	98.918 %		08:40:56
3	Ag 328.068†	115070.6	114112.3	494.92 ug/L	494.92 ppb	08:41:02
3	As 188.979†	1365.6	1393.4	510.12 ug/L	510.12 ppb	08:41:22
3	B 249.677†	25303.2	25199.7	515.23 ug/L	515.23 ppb	08:41:02
3	Ba 233.527†	73502.5	73129.3	498.32 ug/L	498.32 ppb	08:41:02
3	Be 313.107†	1471318.1	1468526.2	493.45 ug/L	493.45 ppb	08:40:56
3	Cd 226.502†	50979.8	50948.3	498.08 ug/L	498.08 ppb	08:41:02
3	Co 228.616†	28513.2	28454.5	498.24 ug/L	498.24 ppb	08:41:02
3	Cr 267.716†	49272.1	48940.0	496.98 ug/L	496.98 ppb	08:41:02
3	Cu 324.752†	181324.8	174342.1	492.84 ug/L	492.84 ppb	08:41:02
3	Mn 257.610†	503616.2	500549.7	494.14 ug/L	494.14 ppb	08:40:56
3	Mo 202.031†	8154.3	8092.7	490.22 ug/L	490.22 ppb	08:41:22
3	Ni 231.604†	23027.9	22816.5	498.20 ug/L	498.20 ppb	08:41:02
3	P 214.914†	4962.9	4679.4	2366.2 ug/L	2366.2 ppb	08:41:22
3	Pb 220.353†	4639.8	4680.1	494.69 ug/L	494.69 ppb	08:41:22
3	S 181.975 Axial†	861.8	808.4	990.74 ug/L	990.74 ppb	08:41:22
3	Sb 206.836†	1687.6	1637.7	497.57 ug/L	497.57 ppb	08:41:22
3	Se 196.026†	881.0	905.0	510.69 ug/L	510.69 ppb	08:41:22
3	Si 251.611†	88176.0	87147.6	2445.6 ug/L	2445.6 ppb	08:41:02
3	Sn 189.927†	3280.6	3260.4	489.56 ug/L	489.56 ppb	08:41:22
3	Ti 334.940†	338176.1	337834.6	488.32 ug/L	488.32 ppb	08:40:56
3	Tl 190.801†	1881.8	1920.3	501.31 ug/L	501.31 ppb	08:41:22
3	U 409.014†	15529.1	17821.9	489.43 ug/L	489.43 ppb	08:41:02
3	V 292.402†	76616.9	77694.6	500.73 ug/L	500.73 ppb	08:41:02
3	Zn 213.857†	61788.1	60678.6	493.22 ug/L	493.22 ppb	08:41:02
3	SiO2†	86670.9	85621.1	5158.6 ug/L	5158.6 ppb	08:41:37

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	899088.5	100.02	%	0.453				0.45%
Sc Radial	5491.9	98.6	%	0.55				0.56%
Y 371.029	732387.7	98.378	%	0.4962				0.50%
Y RADIAL	5868.3	99.27	%	0.282				0.28%
Ag 328.068†	114220.8	495.40	ug/L	0.668	495.40	ppb	0.668	0.13%
QC value within limits for Ag 328.068 Recovery = 99.08%								
Al 396.153Radial†	6782.2	4920.7	ug/L	35.38	4920.7	ppb	35.38	0.72%
QC value within limits for Al 396.153Radial Recovery = 98.41%								
As 188.979†	1418.7	519.31	ug/L	7.969	519.31	ppb	7.969	1.53%
QC value within limits for As 188.979 Recovery = 103.86%								
B 249.677†	25245.8	516.17	ug/L	1.191	516.17	ppb	1.191	0.23%
QC value within limits for B 249.677 Recovery = 103.23%								
Ba 233.527†	73295.1	499.45	ug/L	0.987	499.45	ppb	0.987	0.20%
QC value within limits for Ba 233.527 Recovery = 99.89%								
Be 313.107†	1468136.1	493.32	ug/L	0.609	493.32	ppb	0.609	0.12%
QC value within limits for Be 313.107 Recovery = 98.66%								
Ca 317.933Radial†	3498.5	4987.9	ug/L	40.58	4987.9	ppb	40.58	0.81%

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   QC value within limits for Ca 317.933Radial  Recovery = 99.76%
Cd 226.502†            51007.5      498.66 ug/L         0.514      498.66 ppb          0.514   0.10%
   QC value within limits for Cd 226.502  Recovery = 99.73%
Co 228.616†            28497.6      499.01 ug/L         0.828      499.01 ppb          0.828   0.17%
   QC value within limits for Co 228.616  Recovery = 99.80%
Cr 267.716†            49098.8      498.59 ug/L         1.400      498.59 ppb          1.400   0.28%
   QC value within limits for Cr 267.716  Recovery = 99.72%
Cu 324.752†           174571.7      493.49 ug/L         0.974      493.49 ppb          0.974   0.20%
   QC value within limits for Cu 324.752  Recovery = 98.70%
Fe 238.204 Radial†       613.8      5118.4 ug/L         43.12      5118.4 ppb          43.12   0.84%
   QC value within limits for Fe 238.204 Radial  Recovery = 102.37%
K 766.490 Radial†      29128.6      5125.2 ug/L         28.07      5125.2 ppb          28.07   0.55%
   QC value within limits for K 766.490 Radial  Recovery = 102.50%
Mg 279.077 IEC†          167.4      5203.5 ug/L         42.27      5203.5 ppb          42.27   0.81%
   QC value within limits for Mg 279.077 IEC  Recovery = 104.07%
Mn 257.610†           501349.7      494.93 ug/L         0.692      494.93 ppb          0.692   0.14%
   QC value within limits for Mn 257.610  Recovery = 98.99%
Mo 202.031†             8182.1      495.63 ug/L         4.816      495.63 ppb          4.816   0.97%
   QC value within limits for Mo 202.031  Recovery = 99.13%
Na 589.592 Radial†     33761.2       10077 ug/L          21.7       10077 ppb           21.7   0.21%
   QC value within limits for Na 589.592 Radial  Recovery = 100.77%
Ni 231.604†            22865.5      499.27 ug/L         1.434      499.27 ppb          1.434   0.29%
   QC value within limits for Ni 231.604  Recovery = 99.85%
P 214.914†              4724.5      2389.6 ug/L         23.64      2389.6 ppb          23.64   0.99%
   QC value within limits for P 214.914  Recovery = 95.59%
Pb 220.353†             4715.2      498.40 ug/L         3.234      498.40 ppb          3.234   0.65%
   QC value within limits for Pb 220.353  Recovery = 99.68%
S 181.975 Axial†         817.3      1001.7 ug/L         11.93      1001.7 ppb          11.93   1.19%
   QC value within limits for S 181.975 Axial  Recovery = 100.17%
Sb 206.836†             1671.5      507.86 ug/L         9.325      507.86 ppb          9.325   1.84%
   QC value within limits for Sb 206.836  Recovery = 101.57%
Se 196.026†              912.3      514.83 ug/L         3.881      514.83 ppb          3.881   0.75%
   QC value within limits for Se 196.026  Recovery = 102.97%
Si 251.611†            87301.3      2449.8 ug/L          4.87      2449.8 ppb           4.87   0.20%
   QC value within limits for Si 251.611  Recovery = 97.99%
Sn 189.927†             3296.5      494.98 ug/L         4.722      494.98 ppb          4.722   0.95%
   QC value within limits for Sn 189.927  Recovery = 99.00%
Sr 421.552†            86089.1      504.77 ug/L         1.341      504.77 ppb          1.341   0.27%
   QC value within limits for Sr 421.552  Recovery = 100.95%
Ti 334.940†           338352.7      489.07 ug/L         0.676      489.07 ppb          0.676   0.14%
   QC value within limits for Ti 334.940  Recovery = 97.81%
Tl 190.801†             1948.1      508.53 ug/L         6.300      508.53 ppb          6.300   1.24%
   QC value within limits for Tl 190.801  Recovery = 101.71%
U 409.014†             17748.0      487.39 ug/L         2.049      487.39 ppb          2.049   0.42%
   QC value within limits for U 409.014  Recovery = 97.48%
V 292.402†             77851.0      501.79 ug/L         0.920      501.79 ppb          0.920   0.18%
   QC value within limits for V 292.402  Recovery = 100.36%
Zn 213.857†            60789.8      494.12 ug/L         1.073      494.12 ppb          1.073   0.22%
   QC value within limits for Zn 213.857  Recovery = 98.82%
SiO2†                  86428.5      5207.3 ug/L         54.66      5207.3 ppb          54.66   1.05%
   QC value within limits for SiO2  Recovery = 97.38%
All analyte(s) passed QC.
```

Sequence No.: 14
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 12/19/2009 08:43:49
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5585.9	5585.9	100	%			08:45:41
1	Y RADIAL	5963.5	5963.5	100.9	%			08:45:41
1	Al 396.153Radial†	-19.9	-3.5	-2.6070	ug/L	-2.6070	ppb	08:45:41
1	Ca 317.933Radial†	26.0	6.4	9.0609	ug/L	9.0609	ppb	08:46:01
1	Fe 238.204 Radial†	10.9	0.0	0.1134	ug/L	0.1134	ppb	08:46:01
1	K 766.490 Radial†	3304.0	580.6	102.32	ug/L	102.32	ppb	08:45:41
1	Mg 279.077 IEC†	-0.5	-1.9	-59.420	ug/L	-59.420	ppb	08:46:01
1	Na 589.592 Radial†	-711.1	52.9	15.786	ug/L	15.786	ppb	08:45:41
1	Sr 421.552†	12.4	24.2	0.1416	ug/L	0.1416	ppb	08:45:41
1	Sc 361.383	882647.5	882647.5	98.191	%			08:46:58
1	Y 371.029	730820.2	730820.2	98.167	%			08:46:58
1	Ag 328.068†	368.9	5.8	0.0252	ug/L	0.0252	ppb	08:46:58
1	As 188.979†	6.8	41.7	15.135	ug/L	15.135	ppb	08:47:18
1	B 249.677†	764.9	805.0	16.520	ug/L	16.520	ppb	08:46:58
1	Ba 233.527†	1.7	4.4	0.0279	ug/L	0.0279	ppb	08:47:18
1	Be 313.107†	-4607.0	39.2	0.0133	ug/L	0.0133	ppb	08:46:58
1	Cd 226.502†	-179.1	46.7	0.4571	ug/L	0.4571	ppb	08:47:18
1	Co 228.616†	-92.7	-7.3	-0.1243	ug/L	-0.1243	ppb	08:47:18
1	Cr 267.716†	115.0	37.0	0.3749	ug/L	0.3749	ppb	08:47:18
1	Cu 324.752†	5983.3	38.0	0.1073	ug/L	0.1073	ppb	08:46:58
1	Mn 257.610†	524.0	42.1	0.0427	ug/L	0.0427	ppb	08:47:18
1	Mo 202.031†	41.8	22.7	1.3758	ug/L	1.3758	ppb	08:47:18
1	Ni 231.604†	95.9	4.1	0.0902	ug/L	0.0902	ppb	08:47:18
1	P 214.914†	249.6	-3.9	-2.0245	ug/L	-2.0245	ppb	08:47:18
1	Pb 220.353†	-69.9	-7.1	-0.7469	ug/L	-0.7469	ppb	08:47:18
1	S 181.975 Axial†	59.8	11.9	14.576	ug/L	14.576	ppb	08:47:18
1	Sb 206.836†	48.9	8.6	2.6407	ug/L	2.6407	ppb	08:47:18
1	Se 196.026†	-20.6	7.5	4.0908	ug/L	4.0908	ppb	08:47:18
1	Si 251.611†	705.9	141.5	3.9239	ug/L	3.9239	ppb	08:47:18
1	Sn 189.927†	18.2	15.0	2.2525	ug/L	2.2525	ppb	08:47:18
1	Ti 334.940†	-1321.0	42.2	0.0632	ug/L	0.0632	ppb	08:46:58
1	Tl 190.801†	-27.2	20.4	5.2955	ug/L	5.2955	ppb	08:47:18
1	U 409.014†	-2472.0	-145.3	-4.0038	ug/L	-4.0038	ppb	08:46:58
1	V 292.402†	-1563.0	-122.4	-0.7679	ug/L	-0.7679	ppb	08:46:58
1	Zn 213.857†	855.3	77.5	0.6371	ug/L	0.6371	ppb	08:47:18
1	SiO2†	696.7	102.9	6.0890	ug/L	6.0890	ppb	08:48:14
2	Sc Radial	5679.2	5679.2	102	%			08:46:06
2	Y RADIAL	6053.6	6053.6	102.4	%			08:46:06
2	Al 396.153Radial†	-29.6	-12.7	-9.2958	ug/L	-9.2958	ppb	08:46:06
2	Ca 317.933Radial†	23.6	3.6	5.0742	ug/L	5.0742	ppb	08:46:26
2	Fe 238.204 Radial†	13.0	1.8	15.290	ug/L	15.290	ppb	08:46:26
2	K 766.490 Radial†	3283.2	506.1	89.192	ug/L	89.192	ppb	08:46:06
2	Mg 279.077 IEC†	4.8	3.4	104.14	ug/L	104.14	ppb	08:46:26
2	Na 589.592 Radial†	-724.7	51.3	15.297	ug/L	15.297	ppb	08:46:06
2	Sr 421.552†	43.4	54.4	0.3187	ug/L	0.3187	ppb	08:46:06
2	Sc 361.383	894399.5	894399.5	99.498	%			08:47:23
2	Y 371.029	741616.7	741616.7	99.618	%			08:47:23
2	Ag 328.068†	406.8	38.9	0.1763	ug/L	0.1763	ppb	08:47:23
2	As 188.979†	-4.7	30.1	10.929	ug/L	10.929	ppb	08:47:43
2	B 249.677†	639.2	668.4	13.714	ug/L	13.714	ppb	08:47:23
2	Ba 233.527†	-9.2	-6.6	-0.0444	ug/L	-0.0444	ppb	08:47:43
2	Be 313.107†	-4636.4	71.3	0.0238	ug/L	0.0238	ppb	08:47:23
2	Cd 226.502†	-191.2	37.1	0.3612	ug/L	0.3612	ppb	08:47:43
2	Co 228.616†	-80.8	5.9	0.1069	ug/L	0.1069	ppb	08:47:43
2	Cr 267.716†	119.6	40.1	0.4079	ug/L	0.4079	ppb	08:47:43
2	Cu 324.752†	6095.9	71.1	0.2016	ug/L	0.2016	ppb	08:47:23
2	Mn 257.610†	541.0	52.3	0.0512	ug/L	0.0512	ppb	08:47:43
2	Mo 202.031†	42.7	23.1	1.3976	ug/L	1.3976	ppb	08:47:43
2	Ni 231.604†	115.3	22.3	0.4874	ug/L	0.4874	ppb	08:47:43

2	P 214.914†	251.0	-5.8	-3.0602	ug/L	-3.0602 ppb	08:47:43
2	Pb 220.353†	-84.6	-20.9	-2.2067	ug/L	-2.2067 ppb	08:47:43
2	S 181.975 Axial†	53.0	4.2	5.1837	ug/L	5.1837 ppb	08:47:43
2	Sb 206.836†	59.2	18.2	5.5244	ug/L	5.5244 ppb	08:47:43
2	Se 196.026†	-25.1	3.2	1.8153	ug/L	1.8153 ppb	08:47:43
2	Si 251.611†	690.6	116.6	3.2274	ug/L	3.2274 ppb	08:47:43
2	Sn 189.927†	18.3	14.9	2.2301	ug/L	2.2301 ppb	08:47:43
2	Ti 334.940†	-1403.2	-22.7	-0.0310	ug/L	-0.0310 ppb	08:47:23
2	Tl 190.801†	-31.6	16.3	4.2296	ug/L	4.2296 ppb	08:47:43
2	U 409.014†	-2495.3	-135.7	-3.7417	ug/L	-3.7417 ppb	08:47:23
2	V 292.402†	-1448.9	13.2	0.0967	ug/L	0.0967 ppb	08:47:23
2	Zn 213.857†	859.7	70.5	0.5696	ug/L	0.5696 ppb	08:47:43
2	SiO2†	722.0	118.9	7.0682	ug/L	7.0682 ppb	08:48:19
3	Sc Radial	5731.2	5731.2	103	%		08:46:31
3	Y RADIAL	6055.8	6055.8	102.4	%		08:46:31
3	Al 396.153Radial†	-8.8	7.8	5.6564	ug/L	5.6564 ppb	08:46:31
3	Ca 317.933Radial†	22.2	2.0	2.8825	ug/L	2.8825 ppb	08:46:51
3	Fe 238.204 Radial†	11.8	0.5	4.4524	ug/L	4.4524 ppb	08:46:51
3	K 766.490 Radial†	3425.4	615.0	108.37	ug/L	108.37 ppb	08:46:31
3	Mg 279.077 IEC†	5.5	3.9	122.32	ug/L	122.32 ppb	08:46:51
3	Na 589.592 Radial†	-631.0	148.7	44.394	ug/L	44.394 ppb	08:46:31
3	Sr 421.552†	-23.4	-11.0	-0.0643	ug/L	-0.0643 ppb	08:46:31
3	Sc 361.383	887478.8	887478.8	98.728	%		08:47:49
3	Y 371.029	736256.7	736256.7	98.898	%		08:47:49
3	Ag 328.068†	372.8	7.7	0.0347	ug/L	0.0347 ppb	08:47:49
3	As 188.979†	-3.1	31.7	11.503	ug/L	11.503 ppb	08:48:09
3	B 249.677†	583.3	616.8	12.658	ug/L	12.658 ppb	08:47:49
3	Ba 233.527†	-4.3	-1.8	-0.0131	ug/L	-0.0131 ppb	08:48:09
3	Be 313.107†	-4527.8	145.0	0.0488	ug/L	0.0488 ppb	08:47:49
3	Cd 226.502†	-183.8	43.1	0.4210	ug/L	0.4210 ppb	08:48:09
3	Co 228.616†	-89.2	-3.3	-0.0536	ug/L	-0.0536 ppb	08:48:09
3	Cr 267.716†	140.5	62.2	0.6302	ug/L	0.6302 ppb	08:48:09
3	Cu 324.752†	6093.3	116.2	0.3287	ug/L	0.3287 ppb	08:47:49
3	Mn 257.610†	541.4	56.9	0.0543	ug/L	0.0543 ppb	08:48:09
3	Mo 202.031†	43.4	24.0	1.4560	ug/L	1.4560 ppb	08:48:09
3	Ni 231.604†	119.4	27.4	0.5977	ug/L	0.5977 ppb	08:48:09
3	P 214.914†	259.2	4.4	2.2580	ug/L	2.2580 ppb	08:48:09
3	Pb 220.353†	-68.2	-5.0	-0.5269	ug/L	-0.5269 ppb	08:48:09
3	S 181.975 Axial†	54.0	5.7	7.0149	ug/L	7.0149 ppb	08:48:09
3	Sb 206.836†	61.1	20.6	6.2055	ug/L	6.2055 ppb	08:48:09
3	Se 196.026†	-22.1	6.1	3.3633	ug/L	3.3633 ppb	08:48:09
3	Si 251.611†	682.5	113.8	3.1462	ug/L	3.1462 ppb	08:48:09
3	Sn 189.927†	6.9	3.5	0.5269	ug/L	0.5269 ppb	08:48:09
3	Ti 334.940†	-1301.0	69.8	0.1020	ug/L	0.1020 ppb	08:47:49
3	Tl 190.801†	-25.5	22.3	5.7757	ug/L	5.7757 ppb	08:48:09
3	U 409.014†	-2436.5	-95.6	-2.6370	ug/L	-2.6370 ppb	08:47:49
3	V 292.402†	-1542.0	-92.5	-0.5707	ug/L	-0.5707 ppb	08:47:49
3	Zn 213.857†	869.7	87.4	0.7079	ug/L	0.7079 ppb	08:48:09
3	SiO2†	737.5	140.3	8.3564	ug/L	8.3564 ppb	08:48:24

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	888175.3	98.806	%	0.6571				0.67%
Sc Radial	5665.4	102	%	1.3				1.30%
Y 371.029	736231.2	98.894	%	0.7251				0.73%
Y RADIAL	6024.3	101.9	%	0.89				0.87%
Ag 328.068†	17.5	0.0787	ug/L	0.08467	0.0787	ppb	0.08467	107.55%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-2.8	-2.0821	ug/L	7.48988	-2.0821	ppb	7.48988	359.72%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	34.5	12.522	ug/L	2.2810	12.522	ppb	2.2810	18.22%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	696.7	14.298	ug/L	1.9963	14.298	ppb	1.9963	13.96%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-1.3	-0.0099	ug/L	0.03627	-0.0099	ppb	0.03627	368.04%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	85.2	0.0287	ug/L	0.01825	0.0287	ppb	0.01825	63.71%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	4.0	5.6726	ug/L	3.13237	5.6726	ppb	3.13237	55.22%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                42.3      0.4131 ug/L       0.04846      0.4131 ppb        0.04846  11.73%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                -1.5     -0.0237 ug/L       0.11846     -0.0237 ppb        0.11846 500.23%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                46.4      0.4710 ug/L       0.13884      0.4710 ppb        0.13884  29.48%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†                75.1      0.2125 ug/L       0.11109      0.2125 ppb        0.11109  52.27%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          0.8      6.6187 ug/L       7.81697      6.6187 ppb        7.81697 118.10%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         567.2     99.962 ug/L        9.8058     99.962 ppb         9.8058   9.81%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             1.8     55.681 ug/L      100.0932     55.681 ppb       100.0932 179.76%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                50.5      0.0494 ug/L       0.00603      0.0494 ppb        0.00603  12.20%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                23.3      1.4098 ug/L       0.04147      1.4098 ppb        0.04147   2.94%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†         84.3     25.159 ug/L      16.6597     25.159 ppb        16.6597  66.22%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                17.9      0.3918 ug/L       0.26697      0.3918 ppb        0.26697  68.14%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -1.8     -0.9422 ug/L       2.81945     -0.9422 ppb        2.81945 299.23%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               -11.0     -1.1602 ug/L       0.91297     -1.1602 ppb        0.91297  78.69%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            7.3      8.9248 ug/L       4.97886      8.9248 ppb        4.97886  55.79%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                15.8      4.7902 ug/L       1.89246      4.7902 ppb        1.89246  39.51%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 5.6      3.0898 ug/L       1.16213      3.0898 ppb        1.16213  37.61%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†               124.0      3.4325 ug/L       0.42751      3.4325 ppb        0.42751  12.45%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                11.1      1.6698 ug/L       0.98988      1.6698 ppb        0.98988  59.28%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                22.5      0.1320 ug/L       0.19170      0.1320 ppb        0.19170 145.24%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                29.8      0.0447 ug/L       0.06842      0.0447 ppb        0.06842 153.00%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                19.7      5.1003 ug/L       0.79132      5.1003 ppb        0.79132  15.52%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -125.5     -3.4608 ug/L       0.72537     -3.4608 ppb        0.72537  20.96%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                -67.2     -0.4140 ug/L       0.45308     -0.4140 ppb        0.45308 109.45%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                78.5      0.6382 ug/L       0.06919      0.6382 ppb        0.06919  10.84%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                     120.7      7.1712 ug/L       1.13717      7.1712 ppb        1.13717  15.86%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Analysis Begun

Start Time: 12/19/2009 08:54:07 **Plasma On Time: 12/14/2009 06:02:42**
Logged In Analyst: Optima3 **Technique: ICP Continuous**
Spectrometer Model: Optima 5300 DV, S/N 077C7090601Autosampler Model: S10

Sample Information File: C:\pe\Optima3\Sample Information\121909.sif
Batch ID:
Results Data Set: 121909
Results Library: C:\pe\Optima3\Results\Results.mdb

Method Loaded
Method Name: General Eng.2AX **Method Last Saved: 12/19/2009 07:23:10**
IEC File: 101209.iec **MSF File:**
Method Description:

Analyte	Calibration Equation	Processing	View	Internal Standard	IEC
Ag 328.068	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Al 396.153Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
As 188.979	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
B 249.677	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ba 233.527	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Be 313.107	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ca 317.933Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	No
Cd 226.502	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Co 228.616	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cr 267.716	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cu 324.752	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Fe 238.204 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
K 766.490 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Mg 279.077 IEC	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Mn 257.610	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Mo 202.031	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Na 589.592 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	No
Ni 231.604	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
P 214.914	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Pb 220.353	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
S 181.975 Axial	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sb 206.836	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sc 361.383	Lin Thru 0	Peak Area	Axial	n/a	n/a
Sc Radial	Lin, Calc Int	Peak Area	Radial	n/a	n/a
Se 196.026	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Si 251.611	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sn 189.927	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sr 421.552	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Ti 334.940	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Tl 190.801	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
U 409.014	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
V 292.402	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y 371.029	Lin, Calc Int	Peak Area	Axial	n/a	n/a
Zn 213.857	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y RADIAL	Lin, Calc Int	Peak Area	Radial	n/a	n/a
SiO2	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes

Sequence No.: 1 **Autosampler Location: 30**
Sample ID: LR1 **Date Collected: 12/19/2009 08:54:08**
Analyst: HSC **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: LR1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Sample Conc.	Units	Analysis Time
1	Sc Radial	5453.6	5453.6	98.0	%			08:56:06
1	Y RADIAL	5764.5	5764.5	97.52	%			08:56:06
1	Al 396.153Radial†	-42.8	-27.3	-19.920	ug/L	-19.920	ppb	08:56:06

1	Ca 317.933Radial†	24.5	5.4	7.7557 ug/L	7.7557 ppb	08:56:26
1	Fe 238.204 Radial†	7.2	-3.6	-29.566 ug/L	-29.566 ppb	08:56:26
1	K 766.490 Radial†	4057.7	1429.9	98.277 ug/L	98.277 ppb	08:56:06
1	Mg 279.077 IEC†	3.1	1.8	56.059 ug/L	56.059 ppb	08:56:26
1	Na 589.592 Radial†	1144887.8	1169525.2	349070 ug/L	349070 ppb	08:56:01
1	Sr 421.552†	-0.9	10.8	0.0635 ug/L	0.0635 ppb	08:56:06
1	Sc 361.383	854394.5	854394.5	95.048 %		08:57:34
1	Y 371.029	689985.0	689985.0	92.682 %		08:57:34
1	Ag 328.068†	308.9	-44.9	-0.2041 ug/L	-0.2041 ppb	08:57:34
1	As 188.979†	-10.8	23.4	8.4936 ug/L	8.4936 ppb	08:57:54
1	B 249.677†	263.4	303.1	6.2236 ug/L	6.2236 ppb	08:57:34
1	Ba 233.527†	16.1	19.5	0.1301 ug/L	0.1301 ppb	08:57:54
1	Be 313.107†	-4712.1	-226.5	-0.0770 ug/L	-0.0770 ppb	08:57:34
1	Cd 226.502†	-198.0	20.8	0.2067 ug/L	0.2067 ppb	08:57:54
1	Co 228.616†	-66.0	17.7	0.3113 ug/L	0.3113 ppb	08:57:54
1	Cr 267.716†	105.0	30.3	0.3061 ug/L	0.3061 ppb	08:57:54
1	Cu 324.752†	6127.1	390.8	1.1027 ug/L	1.1027 ppb	08:57:34
1	Mn 257.610†	513.5	48.7	0.0441 ug/L	0.0441 ppb	08:57:54
1	Mo 202.031†	21.7	2.9	0.1739 ug/L	0.1739 ppb	08:57:54
1	Ni 231.604†	95.6	7.0	0.1518 ug/L	0.1518 ppb	08:57:54
1	P 214.914†	254.3	9.5	4.8092 ug/L	4.8092 ppb	08:57:54
1	Pb 220.353†	-77.0	-16.9	-1.7836 ug/L	-1.7836 ppb	08:57:54
1	S 181.975 Axial†	45.0	-1.6	-1.9640 ug/L	-1.9640 ppb	08:57:54
1	Sb 206.836†	37.6	-1.7	-0.4816 ug/L	-0.4816 ppb	08:57:54
1	Se 196.026†	-24.9	2.3	1.1562 ug/L	1.1562 ppb	08:57:54
1	Si 251.611†	582.5	35.4	0.9071 ug/L	0.9071 ppb	08:57:54
1	Sn 189.927†	9.5	6.5	0.9771 ug/L	0.9771 ppb	08:57:54
1	Ti 334.940†	-1660.2	-359.1	-0.5180 ug/L	-0.5180 ppb	08:57:34
1	Tl 190.801†	-30.9	15.6	4.0441 ug/L	4.0441 ppb	08:57:54
1	U 409.014†	-2319.2	-67.8	-1.8646 ug/L	-1.8646 ppb	08:57:34
1	V 292.402†	-1481.7	-89.4	-0.5638 ug/L	-0.5638 ppb	08:57:34
1	Zn 213.857†	819.6	68.8	0.5625 ug/L	0.5625 ppb	08:57:54
1	SiO2†	652.8	80.1	4.6525 ug/L	4.6525 ppb	08:58:50
2	Sc Radial	5498.5	5498.5	98.8 %		08:56:37
2	Y RADIAL	5833.5	5833.5	98.68 %		08:56:37
2	Al 396.153Radial†	-13.3	2.9	2.0719 ug/L	2.0719 ppb	08:56:37
2	Ca 317.933Radial†	28.9	9.7	13.785 ug/L	13.785 ppb	08:56:57
2	Fe 238.204 Radial†	9.8	-1.0	-8.1758 ug/L	-8.1758 ppb	08:56:57
2	K 766.490 Radial†	3953.0	1290.0	72.436 ug/L	72.436 ppb	08:56:37
2	Mg 279.077 IEC†	2.6	1.3	39.578 ug/L	39.578 ppb	08:56:57
2	Na 589.592 Radial†	1163347.2	1178658.7	351800 ug/L	351800 ppb	08:56:32
2	Sr 421.552†	17.7	29.8	0.1744 ug/L	0.1744 ppb	08:56:37
2	Sc 361.383	856147.5	856147.5	95.243 %		08:57:59
2	Y 371.029	691778.8	691778.8	92.923 %		08:57:59
2	Ag 328.068†	371.4	20.0	0.0888 ug/L	0.0888 ppb	08:57:59
2	As 188.979†	-15.1	18.9	6.8618 ug/L	6.8618 ppb	08:58:19
2	B 249.677†	219.9	256.8	5.2702 ug/L	5.2702 ppb	08:57:59
2	Ba 233.527†	18.0	21.5	0.1448 ug/L	0.1448 ppb	08:58:19
2	Be 313.107†	-4678.9	-181.5	-0.0616 ug/L	-0.0616 ppb	08:57:59
2	Cd 226.502†	-206.5	12.3	0.1218 ug/L	0.1218 ppb	08:58:19
2	Co 228.616†	-62.7	21.3	0.3763 ug/L	0.3763 ppb	08:58:19
2	Cr 267.716†	101.2	26.1	0.2669 ug/L	0.2669 ppb	08:58:19
2	Cu 324.752†	6158.4	410.4	1.1592 ug/L	1.1592 ppb	08:57:59
2	Mn 257.610†	536.7	72.0	0.0695 ug/L	0.0695 ppb	08:58:19
2	Mo 202.031†	37.5	19.5	1.1778 ug/L	1.1778 ppb	08:58:19
2	Ni 231.604†	109.2	21.1	0.4606 ug/L	0.4606 ppb	08:58:19
2	P 214.914†	256.4	11.2	5.6694 ug/L	5.6694 ppb	08:58:19
2	Pb 220.353†	-73.6	-13.2	-1.3845 ug/L	-1.3845 ppb	08:58:19
2	S 181.975 Axial†	52.3	5.9	7.2078 ug/L	7.2078 ppb	08:58:19
2	Sb 206.836†	44.1	5.1	1.5796 ug/L	1.5796 ppb	08:58:19
2	Se 196.026†	-31.8	-4.9	-2.6664 ug/L	-2.6664 ppb	08:58:19
2	Si 251.611†	622.8	76.4	2.0510 ug/L	2.0510 ppb	08:58:19
2	Sn 189.927†	18.0	15.4	2.3087 ug/L	2.3087 ppb	08:58:19
2	Ti 334.940†	-1575.0	-266.1	-0.3803 ug/L	-0.3803 ppb	08:57:59
2	Tl 190.801†	-43.0	2.9	0.7449 ug/L	0.7449 ppb	08:58:19
2	U 409.014†	-2560.7	-316.4	-8.7173 ug/L	-8.7173 ppb	08:57:59
2	V 292.402†	-1471.3	-75.4	-0.4773 ug/L	-0.4773 ppb	08:57:59
2	Zn 213.857†	844.2	92.8	0.7563 ug/L	0.7563 ppb	08:58:19
2	SiO2†	625.0	49.6	2.7738 ug/L	2.7738 ppb	08:58:55
3	Sc Radial	5453.2	5453.2	98.0 %		08:57:07
3	Y RADIAL	5736.1	5736.1	97.03 %		08:57:07

3	Al 396.153Radial†	-19.3	-3.3	-2.4598	ug/L	-2.4598 ppb	08:57:07
3	Ca 317.933Radial†	30.3	11.4	16.232	ug/L	16.232 ppb	08:57:27
3	Fe 238.204 Radial†	12.2	1.5	12.781	ug/L	12.781 ppb	08:57:27
3	K 766.490 Radial†	4099.4	1472.8	103.07	ug/L	103.07 ppb	08:57:07
3	Mg 279.077 IEC†	3.2	1.9	58.114	ug/L	58.114 ppb	08:57:27
3	Na 589.592 Radial†	1165472.6	1190620.3	355370	ug/L	355370 ppb	08:57:02
3	Sr 421.552†	0.3	12.1	0.0709	ug/L	0.0709 ppb	08:57:07
3	Sc 361.383	857800.0	857800.0	95.427	%		08:58:24
3	Y 371.029	692234.0	692234.0	92.984	%		08:58:24
3	Ag 328.068†	412.6	62.4	0.2793	ug/L	0.2793 ppb	08:58:24
3	As 188.979†	-18.3	15.6	5.6712	ug/L	5.6712 ppb	08:58:45
3	B 249.677†	198.7	234.2	4.8027	ug/L	4.8027 ppb	08:58:24
3	Ba 233.527†	33.0	37.2	0.2525	ug/L	0.2525 ppb	08:58:45
3	Be 313.107†	-4853.4	-354.9	-0.1197	ug/L	-0.1197 ppb	08:58:24
3	Cd 226.502†	-193.5	26.4	0.2576	ug/L	0.2576 ppb	08:58:45
3	Co 228.616†	-58.3	26.0	0.4581	ug/L	0.4581 ppb	08:58:45
3	Cr 267.716†	124.1	49.9	0.5080	ug/L	0.5080 ppb	08:58:45
3	Cu 324.752†	6096.5	333.1	0.9418	ug/L	0.9418 ppb	08:58:24
3	Mn 257.610†	520.1	53.5	0.0530	ug/L	0.0530 ppb	08:58:45
3	Mo 202.031†	35.1	16.9	1.0226	ug/L	1.0226 ppb	08:58:45
3	Ni 231.604†	109.8	21.4	0.4682	ug/L	0.4682 ppb	08:58:45
3	P 214.914†	258.8	13.1	6.6958	ug/L	6.6958 ppb	08:58:45
3	Pb 220.353†	-99.9	-40.7	-4.2838	ug/L	-4.2838 ppb	08:58:45
3	S 181.975 Axial†	50.6	4.1	4.9969	ug/L	4.9969 ppb	08:58:45
3	Sb 206.836†	46.7	7.7	2.3539	ug/L	2.3539 ppb	08:58:45
3	Se 196.026†	-25.7	1.6	0.9017	ug/L	0.9017 ppb	08:58:45
3	Si 251.611†	609.1	60.8	1.6050	ug/L	1.6050 ppb	08:58:45
3	Sn 189.927†	15.0	12.2	1.8326	ug/L	1.8326 ppb	08:58:45
3	Ti 334.940†	-1565.6	-253.0	-0.3610	ug/L	-0.3610 ppb	08:58:24
3	Tl 190.801†	-46.0	-0.1	-0.0375	ug/L	-0.0375 ppb	08:58:45
3	U 409.014†	-2586.5	-338.3	-9.3227	ug/L	-9.3227 ppb	08:58:24
3	V 292.402†	-1465.2	-66.0	-0.4237	ug/L	-0.4237 ppb	08:58:24
3	Zn 213.857†	843.2	90.1	0.7314	ug/L	0.7314 ppb	08:58:45
3	SiO2†	601.9	24.0	1.2123	ug/L	1.2123 ppb	08:59:00

Mean Data: LR1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	856114.0	95.239	%	0.1895				0.20%
Sc Radial	5468.4	98.2	%	0.47				0.48%
Y 371.029	691332.6	92.863	%	0.1597				0.17%
Y RADIAL	5778.0	97.74	%	0.848				0.87%
Ag 328.068†	12.5	0.0547	ug/L	0.24352	0.0547	ppb	0.24352	445.52%
Al 396.153Radial†	-9.2	-6.7694	ug/L	11.61227	-6.7694	ppb	11.61227	171.54%
As 188.979†	19.3	7.0089	ug/L	1.41693	7.0089	ppb	1.41693	20.22%
B 249.677†	264.7	5.4321	ug/L	0.72414	5.4321	ppb	0.72414	13.33%
Ba 233.527†	26.1	0.1758	ug/L	0.06682	0.1758	ppb	0.06682	38.00%
Be 313.107†	-254.3	-0.0861	ug/L	0.03011	-0.0861	ppb	0.03011	34.97%
Ca 317.933Radial†	8.8	12.591	ug/L	4.3627	12.591	ppb	4.3627	34.65%
Cd 226.502†	19.9	0.1953	ug/L	0.06861	0.1953	ppb	0.06861	35.12%
Co 228.616†	21.6	0.3819	ug/L	0.07353	0.3819	ppb	0.07353	19.25%
Cr 267.716†	35.4	0.3603	ug/L	0.12939	0.3603	ppb	0.12939	35.91%
Cu 324.752†	378.1	1.0679	ug/L	0.11279	1.0679	ppb	0.11279	10.56%
Fe 238.204 Radial†	-1.0	-8.3201	ug/L	21.17379	-8.3201	ppb	21.17379	254.49%
K 766.490 Radial†	1397.6	91.262	ug/L	16.4784	91.262	ppb	16.4784	18.06%
Mg 279.077 IEC†	1.6	51.250	ug/L	10.1604	51.250	ppb	10.1604	19.82%
Mn 257.610†	58.1	0.0555	ug/L	0.01289	0.0555	ppb	0.01289	23.21%
Mo 202.031†	13.1	0.7914	ug/L	0.54039	0.7914	ppb	0.54039	68.28%
Na 589.592 Radial†	1179601.4	352080	ug/L	3157.5	352080	ppb	3157.5	0.90%
Ni 231.604†	16.5	0.3602	ug/L	0.18052	0.3602	ppb	0.18052	50.11%
P 214.914†	11.2	5.7248	ug/L	0.94451	5.7248	ppb	0.94451	16.50%
Pb 220.353†	-23.6	-2.4839	ug/L	1.57141	-2.4839	ppb	1.57141	63.26%
S 181.975 Axial†	2.8	3.4135	ug/L	4.78648	3.4135	ppb	4.78648	140.22%
Sb 206.836†	3.7	1.1506	ug/L	1.46556	1.1506	ppb	1.46556	127.37%
Se 196.026†	-0.3	-0.2028	ug/L	2.13729	-0.2028	ppb	2.13729	>999.9%
Si 251.611†	57.5	1.5210	ug/L	0.57658	1.5210	ppb	0.57658	37.91%
Sn 189.927†	11.4	1.7061	ug/L	0.67472	1.7061	ppb	0.67472	39.55%
Sr 421.552†	17.6	0.1029	ug/L	0.06198	0.1029	ppb	0.06198	60.21%
Ti 334.940†	-292.7	-0.4198	ug/L	0.08562	-0.4198	ppb	0.08562	20.40%
Tl 190.801†	6.1	1.5838	ug/L	2.16626	1.5838	ppb	2.16626	136.77%

U 409.014†	-240.8	-6.6348	ug/L	4.14225	-6.6348	ppb	4.14225	62.43%
V 292.402†	-77.0	-0.4883	ug/L	0.07067	-0.4883	ppb	0.07067	14.47%
Zn 213.857†	83.9	0.6834	ug/L	0.10543	0.6834	ppb	0.10543	15.43%
SiO2†	51.3	2.8795	ug/L	1.72254	2.8795	ppb	1.72254	59.82%

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Sequence No.: 2 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 12/19/2009 09:01:10**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**
User canceled analysis.

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Analysis Begun

Start Time: 12/19/2009 09:05:36 **Plasma On Time: 12/14/2009 06:02:42**
Logged In Analyst: Optima3 **Technique: ICP Continuous**
Spectrometer Model: Optima 5300 DV, S/N 077C7090601Autosampler Model: S10

Sample Information File: C:\pe\Optima3\Sample Information\121909.sif
Batch ID:
Results Data Set: 121909
Results Library: C:\pe\Optima3\Results\Results.mdb

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Sequence No.: 2 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 12/19/2009 09:05:37**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5369.0	5369.0	96.4	%			09:07:29
1	Y RADIAL	5694.7	5694.7	96.33	%			09:07:29
1	Al 396.153Radial†	6580.7	6840.1	4963.0	ug/L	4963.0	ppb	09:07:29
1	Ca 317.933Radial†	3510.2	3620.3	5161.6	ug/L	5161.6	ppb	09:07:49
1	Fe 238.204 Radial†	625.9	638.1	5320.0	ug/L	5320.0	ppb	09:07:49
1	K 766.490 Radial†	30593.9	29011.6	5104.6	ug/L	5104.6	ppb	09:07:29
1	Mg 279.077 IEC†	167.8	172.6	5363.3	ug/L	5363.3	ppb	09:07:49
1	Na 589.592 Radial†	31916.6	33857.2	10105	ug/L	10105	ppb	09:07:29
1	Sr 421.552†	83315.4	86404.8	506.62	ug/L	506.62	ppb	09:07:29
1	Sc 361.383	914636.7	914636.7	101.75	%			09:08:48
1	Y 371.029	744942.0	744942.0	100.06	%			09:08:48
1	Ag 328.068†	114886.4	112541.0	488.22	ug/L	488.22	ppb	09:08:48
1	As 188.979†	1351.8	1363.4	499.23	ug/L	499.23	ppb	09:09:08
1	B 249.677†	24376.5	23983.3	490.26	ug/L	490.26	ppb	09:08:48
1	Ba 233.527†	73633.9	72370.3	493.16	ug/L	493.16	ppb	09:08:48
1	Be 313.107†	1481352.4	1460610.7	490.79	ug/L	490.79	ppb	09:08:48
1	Cd 226.502†	51167.9	50517.2	493.84	ug/L	493.84	ppb	09:08:48
1	Co 228.616†	28217.1	27819.0	487.13	ug/L	487.13	ppb	09:09:08
1	Cr 267.716†	49303.7	48375.7	491.26	ug/L	491.26	ppb	09:08:48
1	Cu 324.752†	182806.2	173607.2	490.77	ug/L	490.77	ppb	09:08:48
1	Mn 257.610†	507226.8	498013.2	491.66	ug/L	491.66	ppb	09:08:48
1	Mo 202.031†	8300.1	8137.5	492.95	ug/L	492.95	ppb	09:09:08
1	Ni 231.604†	22900.3	22412.9	489.39	ug/L	489.39	ppb	09:09:08
1	P 214.914†	5061.9	4716.7	2385.8	ug/L	2385.8	ppb	09:09:08
1	Pb 220.353†	4720.4	4703.3	497.13	ug/L	497.13	ppb	09:09:08
1	S 181.975 Axial†	857.1	793.3	972.29	ug/L	972.29	ppb	09:09:08
1	Sb 206.836†	1703.0	1632.5	496.23	ug/L	496.23	ppb	09:09:08
1	Se 196.026†	898.1	911.2	514.84	ug/L	514.84	ppb	09:09:08
1	Si 251.611†	88010.5	85919.6	2410.9	ug/L	2410.9	ppb	09:08:48
1	Sn 189.927†	3332.3	3271.6	491.27	ug/L	491.27	ppb	09:09:08
1	Ti 334.940†	340573.8	336105.0	485.84	ug/L	485.84	ppb	09:08:48
1	Tl 190.801†	1888.2	1903.8	497.07	ug/L	497.07	ppb	09:09:08
1	U 409.014†	14905.8	17021.7	467.37	ug/L	467.37	ppb	09:08:48
1	V 292.402†	76580.5	76733.1	494.58	ug/L	494.58	ppb	09:08:48
1	Zn 213.857†	61823.8	59967.1	487.41	ug/L	487.41	ppb	09:08:48
1	SiO2†	88107.6	85985.9	5180.6	ug/L	5180.6	ppb	09:10:08
2	Sc Radial	5512.0	5512.0	99.0	%			09:07:54
2	Y RADIAL	5826.2	5826.2	98.56	%			09:07:54
2	Al 396.153Radial†	6731.0	6814.8	4944.8	ug/L	4944.8	ppb	09:07:54

2	Ca 317.933Radial†	3504.8	3520.4	5019.1 ug/L	5019.1 ppb	09:08:14
2	Fe 238.204 Radial†	620.7	616.1	5136.5 ug/L	5136.5 ppb	09:08:14
2	K 766.490 Radial†	31008.1	28606.5	5033.3 ug/L	5033.3 ppb	09:07:54
2	Mg 279.077 IEC†	166.4	166.7	5181.6 ug/L	5181.6 ppb	09:08:14
2	Na 589.592 Radial†	32296.5	33381.9	9963.5 ug/L	9963.5 ppb	09:07:54
2	Sr 421.552†	84568.2	85427.8	500.89 ug/L	500.89 ppb	09:07:54
2	Sc 361.383	924044.8	924044.8	102.80 %		09:09:15
2	Y 371.029	750584.6	750584.6	100.82 %		09:09:15
2	Ag 328.068†	115963.3	112439.0	487.71 ug/L	487.71 ppb	09:09:15
2	As 188.979†	1338.4	1336.8	489.58 ug/L	489.58 ppb	09:09:35
2	B 249.677†	24586.8	23944.0	489.49 ug/L	489.49 ppb	09:09:15
2	Ba 233.527†	74528.7	72503.9	494.06 ug/L	494.06 ppb	09:09:15
2	Be 313.107†	1495184.9	1459244.0	490.33 ug/L	490.33 ppb	09:09:15
2	Cd 226.502†	51691.9	50515.0	493.83 ug/L	493.83 ppb	09:09:15
2	Co 228.616†	28231.9	27551.0	482.42 ug/L	482.42 ppb	09:09:35
2	Cr 267.716†	49813.0	48377.8	491.28 ug/L	491.28 ppb	09:09:15
2	Cu 324.752†	184794.8	173712.5	491.06 ug/L	491.06 ppb	09:09:15
2	Mn 257.610†	513349.2	498893.6	492.51 ug/L	492.51 ppb	09:09:15
2	Mo 202.031†	8283.7	8038.5	486.94 ug/L	486.94 ppb	09:09:35
2	Ni 231.604†	22891.3	22175.0	484.20 ug/L	484.20 ppb	09:09:35
2	P 214.914†	5037.2	4642.1	2346.9 ug/L	2346.9 ppb	09:09:35
2	Pb 220.353†	4715.3	4651.1	491.63 ug/L	491.63 ppb	09:09:35
2	S 181.975 Axial†	862.1	789.6	967.74 ug/L	967.74 ppb	09:09:35
2	Sb 206.836†	1678.4	1591.5	483.70 ug/L	483.70 ppb	09:09:35
2	Se 196.026†	887.2	891.6	503.55 ug/L	503.55 ppb	09:09:35
2	Si 251.611†	89176.8	86173.5	2418.3 ug/L	2418.3 ppb	09:09:15
2	Sn 189.927†	3319.0	3225.2	484.30 ug/L	484.30 ppb	09:09:35
2	Ti 334.940†	344925.9	336930.8	487.03 ug/L	487.03 ppb	09:09:15
2	Tl 190.801†	1898.5	1894.9	494.82 ug/L	494.82 ppb	09:09:35
2	U 409.014†	15089.9	17051.7	468.22 ug/L	468.22 ppb	09:09:15
2	V 292.402†	77246.5	76614.6	493.77 ug/L	493.77 ppb	09:09:15
2	Zn 213.857†	62496.0	60002.5	487.76 ug/L	487.76 ppb	09:09:15
2	SiO2†	88167.7	85162.7	5131.1 ug/L	5131.1 ppb	09:10:13
3	Sc Radial	5599.4	5599.4	101 %		09:08:19
3	Y RADIAL	5967.2	5967.2	100.9 %		09:08:19
3	Al 396.153Radial†	6760.8	6738.4	4889.0 ug/L	4889.0 ppb	09:08:19
3	Ca 317.933Radial†	3487.3	3447.7	4915.5 ug/L	4915.5 ppb	09:08:39
3	Fe 238.204 Radial†	620.9	606.4	5056.7 ug/L	5056.7 ppb	09:08:39
3	K 766.490 Radial†	31251.0	28359.2	4989.7 ug/L	4989.7 ppb	09:08:19
3	Mg 279.077 IEC†	170.7	168.3	5231.9 ug/L	5231.9 ppb	09:08:39
3	Na 589.592 Radial†	32610.2	33184.7	9904.7 ug/L	9904.7 ppb	09:08:19
3	Sr 421.552†	85476.0	84997.4	498.37 ug/L	498.37 ppb	09:08:19
3	Sc 361.383	918700.5	918700.5	102.20 %		09:09:43
3	Y 371.029	748040.2	748040.2	100.48 %		09:09:43
3	Ag 328.068†	115324.5	112470.2	487.83 ug/L	487.83 ppb	09:09:43
3	As 188.979†	1344.1	1350.0	494.34 ug/L	494.34 ppb	09:10:03
3	B 249.677†	24449.1	23948.3	489.58 ug/L	489.58 ppb	09:09:43
3	Ba 233.527†	73997.1	72405.5	493.39 ug/L	493.39 ppb	09:09:43
3	Be 313.107†	1488761.9	1461420.5	491.06 ug/L	491.06 ppb	09:09:43
3	Cd 226.502†	51374.3	50496.7	493.66 ug/L	493.66 ppb	09:09:43
3	Co 228.616†	28250.2	27728.7	485.54 ug/L	485.54 ppb	09:10:03
3	Cr 267.716†	49599.9	48451.2	492.02 ug/L	492.02 ppb	09:09:43
3	Cu 324.752†	183769.4	173754.9	491.18 ug/L	491.18 ppb	09:09:43
3	Mn 257.610†	509669.2	498197.8	491.81 ug/L	491.81 ppb	09:09:43
3	Mo 202.031†	8281.3	8083.0	489.64 ug/L	489.64 ppb	09:10:03
3	Ni 231.604†	22910.2	22323.1	487.43 ug/L	487.43 ppb	09:10:03
3	P 214.914†	5070.0	4702.6	2378.6 ug/L	2378.6 ppb	09:10:03
3	Pb 220.353†	4743.1	4705.0	497.31 ug/L	497.31 ppb	09:10:03
3	S 181.975 Axial†	866.7	799.0	979.25 ug/L	979.25 ppb	09:10:03
3	Sb 206.836†	1694.6	1616.9	491.39 ug/L	491.39 ppb	09:10:03
3	Se 196.026†	892.7	902.0	509.00 ug/L	509.00 ppb	09:10:03
3	Si 251.611†	88656.1	86168.7	2418.1 ug/L	2418.1 ppb	09:09:43
3	Sn 189.927†	3320.7	3245.6	487.35 ug/L	487.35 ppb	09:10:03
3	Ti 334.940†	342358.9	336371.1	486.22 ug/L	486.22 ppb	09:09:43
3	Tl 190.801†	1881.3	1888.8	493.20 ug/L	493.20 ppb	09:10:03
3	U 409.014†	14957.1	17007.1	467.00 ug/L	467.00 ppb	09:09:43
3	V 292.402†	76966.2	76777.5	494.85 ug/L	494.85 ppb	09:09:43
3	Zn 213.857†	62078.6	59947.7	487.29 ug/L	487.29 ppb	09:09:43
3	SiO2†	88683.1	86165.9	5191.8 ug/L	5191.8 ppb	09:10:18

Mean Data: CCV

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	919127.3	102.25	%	0.525				0.51%
Sc Radial	5493.5	98.7	%	2.09				2.12%
Y 371.029	747855.6	100.46	%	0.380				0.38%
Y RADIAL	5829.4	98.61	%	2.305				2.34%
Ag 328.068†	112483.4	487.92	ug/L	0.263	487.92	ppb	0.263	0.05%
QC value within limits for Ag 328.068 Recovery = 97.58%								
Al 396.153Radial†	6797.8	4932.3	ug/L	38.56	4932.3	ppb	38.56	0.78%
QC value within limits for Al 396.153Radial Recovery = 98.65%								
As 188.979†	1350.1	494.38	ug/L	4.824	494.38	ppb	4.824	0.98%
QC value within limits for As 188.979 Recovery = 98.88%								
B 249.677†	23958.5	489.78	ug/L	0.421	489.78	ppb	0.421	0.09%
QC value within limits for B 249.677 Recovery = 97.96%								
Ba 233.527†	72426.6	493.53	ug/L	0.467	493.53	ppb	0.467	0.09%
QC value within limits for Ba 233.527 Recovery = 98.71%								
Be 313.107†	1460425.0	490.72	ug/L	0.368	490.72	ppb	0.368	0.07%
QC value within limits for Be 313.107 Recovery = 98.14%								
Ca 317.933Radial†	3529.5	5032.1	ug/L	123.55	5032.1	ppb	123.55	2.46%
QC value within limits for Ca 317.933Radial Recovery = 100.64%								
Cd 226.502†	50509.6	493.77	ug/L	0.099	493.77	ppb	0.099	0.02%
QC value within limits for Cd 226.502 Recovery = 98.75%								
Co 228.616†	27699.6	485.03	ug/L	2.394	485.03	ppb	2.394	0.49%
QC value within limits for Co 228.616 Recovery = 97.01%								
Cr 267.716†	48401.6	491.52	ug/L	0.435	491.52	ppb	0.435	0.09%
QC value within limits for Cr 267.716 Recovery = 98.30%								
Cu 324.752†	173691.5	491.01	ug/L	0.208	491.01	ppb	0.208	0.04%
QC value within limits for Cu 324.752 Recovery = 98.20%								
Fe 238.204 Radial†	620.2	5171.1	ug/L	134.97	5171.1	ppb	134.97	2.61%
QC value within limits for Fe 238.204 Radial Recovery = 103.42%								
K 766.490 Radial†	28659.1	5042.5	ug/L	58.00	5042.5	ppb	58.00	1.15%
QC value within limits for K 766.490 Radial Recovery = 100.85%								
Mg 279.077 IEC†	169.2	5258.9	ug/L	93.79	5258.9	ppb	93.79	1.78%
QC value within limits for Mg 279.077 IEC Recovery = 105.18%								
Mn 257.610†	498368.2	491.99	ug/L	0.454	491.99	ppb	0.454	0.09%
QC value within limits for Mn 257.610 Recovery = 98.40%								
Mo 202.031†	8086.3	489.84	ug/L	3.009	489.84	ppb	3.009	0.61%
QC value within limits for Mo 202.031 Recovery = 97.97%								
Na 589.592 Radial†	33474.6	9991.2	ug/L	103.18	9991.2	ppb	103.18	1.03%
QC value within limits for Na 589.592 Radial Recovery = 99.91%								
Ni 231.604†	22303.7	487.01	ug/L	2.623	487.01	ppb	2.623	0.54%
QC value within limits for Ni 231.604 Recovery = 97.40%								
P 214.914†	4687.2	2370.4	ug/L	20.69	2370.4	ppb	20.69	0.87%
QC value within limits for P 214.914 Recovery = 94.82%								
Pb 220.353†	4686.5	495.36	ug/L	3.226	495.36	ppb	3.226	0.65%
QC value within limits for Pb 220.353 Recovery = 99.07%								
S 181.975 Axial†	794.0	973.09	ug/L	5.802	973.09	ppb	5.802	0.60%
QC value within limits for S 181.975 Axial Recovery = 97.31%								
Sb 206.836†	1613.6	490.44	ug/L	6.317	490.44	ppb	6.317	1.29%
QC value within limits for Sb 206.836 Recovery = 98.09%								
Se 196.026†	901.6	509.13	ug/L	5.644	509.13	ppb	5.644	1.11%
QC value within limits for Se 196.026 Recovery = 101.83%								
Si 251.611†	86087.3	2415.8	ug/L	4.17	2415.8	ppb	4.17	0.17%
QC value within limits for Si 251.611 Recovery = 96.63%								
Sn 189.927†	3247.5	487.64	ug/L	3.494	487.64	ppb	3.494	0.72%
QC value within limits for Sn 189.927 Recovery = 97.53%								
Sr 421.552†	85610.0	501.96	ug/L	4.227	501.96	ppb	4.227	0.84%
QC value within limits for Sr 421.552 Recovery = 100.39%								
Ti 334.940†	336469.0	486.36	ug/L	0.607	486.36	ppb	0.607	0.12%
QC value within limits for Ti 334.940 Recovery = 97.27%								
Tl 190.801†	1895.8	495.03	ug/L	1.948	495.03	ppb	1.948	0.39%
QC value within limits for Tl 190.801 Recovery = 99.01%								
U 409.014†	17026.8	467.53	ug/L	0.625	467.53	ppb	0.625	0.13%
QC value within limits for U 409.014 Recovery = 93.51%								
V 292.402†	76708.4	494.40	ug/L	0.565	494.40	ppb	0.565	0.11%
QC value within limits for V 292.402 Recovery = 98.88%								
Zn 213.857†	59972.4	487.49	ug/L	0.241	487.49	ppb	0.241	0.05%
QC value within limits for Zn 213.857 Recovery = 97.50%								
SiO2†	85771.5	5167.8	ug/L	32.29	5167.8	ppb	32.29	0.62%
QC value within limits for SiO2 Recovery = 96.64%								

Sequence No.: 3
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 12/19/2009 09:12:28
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	5761.3	5761.3	103	%			09:14:21
1	Y RADIAL	6142.1	6142.1	103.9	%			09:14:21
1	Al 396.153Radial†	-23.3	-6.1	-4.5054	ug/L	-4.5054	ppb	09:14:21
1	Ca 317.933Radial†	26.3	5.9	8.3647	ug/L	8.3647	ppb	09:14:41
1	Fe 238.204 Radial†	9.5	-1.7	-14.303	ug/L	-14.303	ppb	09:14:41
1	K 766.490 Radial†	3231.6	410.3	72.307	ug/L	72.307	ppb	09:14:21
1	Mg 279.077 IEC†	1.8	0.4	11.580	ug/L	11.580	ppb	09:14:41
1	Na 589.592 Radial†	-707.8	77.7	23.191	ug/L	23.191	ppb	09:14:21
1	Sr 421.552†	-11.0	1.1	0.0066	ug/L	0.0066	ppb	09:14:21
1	Sc 361.383	910094.4	910094.4	101.24	%			09:15:38
1	Y 371.029	756146.9	756146.9	101.57	%			09:15:38
1	Ag 328.068†	413.8	38.8	0.1604	ug/L	0.1604	ppb	09:15:38
1	As 188.979†	-25.2	9.9	3.6044	ug/L	3.6044	ppb	09:15:58
1	B 249.677†	241.1	264.1	5.4221	ug/L	5.4221	ppb	09:15:38
1	Ba 233.527†	6.1	8.6	0.0578	ug/L	0.0578	ppb	09:15:58
1	Be 313.107†	-4569.4	217.9	0.0731	ug/L	0.0731	ppb	09:15:38
1	Cd 226.502†	-204.0	27.7	0.2720	ug/L	0.2720	ppb	09:15:58
1	Co 228.616†	-81.8	6.3	0.1135	ug/L	0.1135	ppb	09:15:58
1	Cr 267.716†	101.9	20.5	0.2069	ug/L	0.2069	ppb	09:15:58
1	Cu 324.752†	6079.6	-50.7	-0.1440	ug/L	-0.1440	ppb	09:15:38
1	Mn 257.610†	524.8	26.9	0.0249	ug/L	0.0249	ppb	09:15:58
1	Mo 202.031†	34.8	14.5	0.8785	ug/L	0.8785	ppb	09:15:58
1	Ni 231.604†	95.9	1.1	0.0241	ug/L	0.0241	ppb	09:15:58
1	P 214.914†	255.2	-6.0	-3.0803	ug/L	-3.0803	ppb	09:15:58
1	Pb 220.353†	-70.4	-5.5	-0.5755	ug/L	-0.5755	ppb	09:15:58
1	S 181.975 Axial†	55.8	6.2	7.5575	ug/L	7.5575	ppb	09:15:58
1	Sb 206.836†	52.6	10.7	3.2541	ug/L	3.2541	ppb	09:15:58
1	Se 196.026†	-27.7	1.2	0.5957	ug/L	0.5957	ppb	09:15:58
1	Si 251.611†	649.9	64.4	1.7733	ug/L	1.7733	ppb	09:15:58
1	Sn 189.927†	12.0	8.4	1.2617	ug/L	1.2617	ppb	09:15:58
1	Ti 334.940†	-1404.4	0.5	0.0002	ug/L	0.0002	ppb	09:15:38
1	Tl 190.801†	-31.3	17.2	4.4587	ug/L	4.4587	ppb	09:15:58
1	U 409.014†	-2326.2	74.6	2.0561	ug/L	2.0561	ppb	09:15:38
1	V 292.402†	-1496.3	-8.5	-0.0351	ug/L	-0.0351	ppb	09:15:38
1	Zn 213.857†	842.5	38.6	0.3174	ug/L	0.3174	ppb	09:15:58
1	SiO2†	665.9	51.0	2.9953	ug/L	2.9953	ppb	09:16:54
2	Sc Radial	5678.0	5678.0	102	%			09:14:46
2	Y RADIAL	6057.0	6057.0	102.5	%			09:14:46
2	Al 396.153Radial†	-25.8	-8.9	-6.5567	ug/L	-6.5567	ppb	09:14:46
2	Ca 317.933Radial†	27.0	6.9	9.8800	ug/L	9.8800	ppb	09:15:06
2	Fe 238.204 Radial†	13.0	1.9	15.724	ug/L	15.724	ppb	09:15:06
2	K 766.490 Radial†	3208.7	433.6	76.423	ug/L	76.423	ppb	09:14:46
2	Mg 279.077 IEC†	4.0	2.5	78.599	ug/L	78.599	ppb	09:15:06
2	Na 589.592 Radial†	-745.4	30.8	9.2021	ug/L	9.2021	ppb	09:14:46
2	Sr 421.552†	7.5	19.2	0.1124	ug/L	0.1124	ppb	09:14:46
2	Sc 361.383	900498.5	900498.5	100.18	%			09:16:03
2	Y 371.029	746282.3	746282.3	100.24	%			09:16:03
2	Ag 328.068†	413.7	43.1	0.1920	ug/L	0.1920	ppb	09:16:03
2	As 188.979†	-35.1	-0.2	-0.0627	ug/L	-0.0627	ppb	09:16:23
2	B 249.677†	224.5	250.0	5.1285	ug/L	5.1285	ppb	09:16:03
2	Ba 233.527†	3.1	5.7	0.0390	ug/L	0.0390	ppb	09:16:23
2	Be 313.107†	-4643.3	96.0	0.0324	ug/L	0.0324	ppb	09:16:03
2	Cd 226.502†	-214.2	15.4	0.1491	ug/L	0.1491	ppb	09:16:23
2	Co 228.616†	-83.7	3.6	0.0647	ug/L	0.0647	ppb	09:16:23
2	Cr 267.716†	136.1	55.7	0.5657	ug/L	0.5657	ppb	09:16:23
2	Cu 324.752†	6016.2	-50.0	-0.1406	ug/L	-0.1406	ppb	09:16:03
2	Mn 257.610†	545.6	53.2	0.0526	ug/L	0.0526	ppb	09:16:23
2	Mo 202.031†	36.3	16.3	0.9901	ug/L	0.9901	ppb	09:16:23
2	Ni 231.604†	119.8	26.0	0.5678	ug/L	0.5678	ppb	09:16:23

2	P 214.914†	261.1	2.5	1.3372 ug/L	1.3372 ppb		09:16:23
2	Pb 220.353†	-60.3	3.8	0.4037 ug/L	0.4037 ppb		09:16:23
2	S 181.975 Axial†	52.9	3.8	4.6649 ug/L	4.6649 ppb		09:16:23
2	Sb 206.836†	61.8	20.5	6.1683 ug/L	6.1683 ppb		09:16:23
2	Se 196.026†	-29.2	-0.6	-0.2803 ug/L	-0.2803 ppb		09:16:23
2	Si 251.611†	663.7	85.1	2.3532 ug/L	2.3532 ppb		09:16:23
2	Sn 189.927†	9.6	6.1	0.9222 ug/L	0.9222 ppb		09:16:23
2	Ti 334.940†	-1305.7	84.2	0.1232 ug/L	0.1232 ppb		09:16:03
2	Tl 190.801†	-40.5	7.7	1.9919 ug/L	1.9919 ppb		09:16:23
2	U 409.014†	-2477.6	-101.0	-2.7858 ug/L	-2.7858 ppb		09:16:03
2	V 292.402†	-1515.4	-43.3	-0.2679 ug/L	-0.2679 ppb		09:16:03
2	Zn 213.857†	839.5	44.5	0.3570 ug/L	0.3570 ppb		09:16:23
2	SiO2†	657.6	49.7	2.9109 ug/L	2.9109 ppb		09:16:59
3	Sc Radial	5713.4	5713.4	103 %			09:15:11
3	Y RADIAL	6132.6	6132.6	103.7 %			09:15:11
3	Al 396.153Radial†	-11.3	5.4	3.8830 ug/L	3.8830 ppb		09:15:11
3	Ca 317.933Radial†	20.4	0.3	0.3784 ug/L	0.3784 ppb		09:15:31
3	Fe 238.204 Radial†	8.0	-3.1	-25.709 ug/L	-25.709 ppb		09:15:31
3	K 766.490 Radial†	3126.7	334.3	58.904 ug/L	58.904 ppb		09:15:11
3	Mg 279.077 IEC†	1.9	0.5	14.231 ug/L	14.231 ppb		09:15:31
3	Na 589.592 Radial†	-715.9	64.1	19.122 ug/L	19.122 ppb		09:15:11
3	Sr 421.552†	18.7	30.0	0.1761 ug/L	0.1761 ppb		09:15:11
3	Sc 361.383	909049.9	909049.9	101.13 %			09:16:29
3	Y 371.029	754134.2	754134.2	101.30 %			09:16:29
3	Ag 328.068†	321.8	-51.7	-0.2304 ug/L	-0.2304 ppb		09:16:29
3	As 188.979†	-26.3	8.8	3.1931 ug/L	3.1931 ppb		09:16:49
3	B 249.677†	254.5	277.6	5.7013 ug/L	5.7013 ppb		09:16:29
3	Ba 233.527†	14.6	17.0	0.1153 ug/L	0.1153 ppb		09:16:49
3	Be 313.107†	-4685.2	98.2	0.0328 ug/L	0.0328 ppb		09:16:29
3	Cd 226.502†	-204.8	26.6	0.2634 ug/L	0.2634 ppb		09:16:49
3	Co 228.616†	-87.8	0.3	0.0065 ug/L	0.0065 ppb		09:16:49
3	Cr 267.716†	129.3	47.7	0.4835 ug/L	0.4835 ppb		09:16:49
3	Cu 324.752†	6034.4	-88.5	-0.2513 ug/L	-0.2513 ppb		09:16:29
3	Mn 257.610†	524.7	27.4	0.0242 ug/L	0.0242 ppb		09:16:49
3	Mo 202.031†	29.5	9.3	0.5624 ug/L	0.5624 ppb		09:16:49
3	Ni 231.604†	124.2	29.2	0.6388 ug/L	0.6388 ppb		09:16:49
3	P 214.914†	241.4	-19.3	-10.008 ug/L	-10.008 ppb		09:16:49
3	Pb 220.353†	-60.5	4.3	0.4557 ug/L	0.4557 ppb		09:16:49
3	S 181.975 Axial†	44.9	-4.6	-5.5974 ug/L	-5.5974 ppb		09:16:49
3	Sb 206.836†	54.0	12.1	3.6622 ug/L	3.6622 ppb		09:16:49
3	Se 196.026†	-25.9	2.9	1.4922 ug/L	1.4922 ppb		09:16:49
3	Si 251.611†	652.4	67.7	1.8737 ug/L	1.8737 ppb		09:16:49
3	Sn 189.927†	13.7	10.1	1.5097 ug/L	1.5097 ppb		09:16:49
3	Ti 334.940†	-1452.6	-48.8	-0.0708 ug/L	-0.0708 ppb		09:16:29
3	Tl 190.801†	-33.7	14.7	3.8215 ug/L	3.8215 ppb		09:16:49
3	U 409.014†	-2398.8	0.2	0.0067 ug/L	0.0067 ppb		09:16:29
3	V 292.402†	-1438.3	47.2	0.3122 ug/L	0.3122 ppb		09:16:29
3	Zn 213.857†	828.3	25.5	0.2075 ug/L	0.2075 ppb		09:16:49
3	SiO2†	678.1	63.8	3.7903 ug/L	3.7903 ppb		09:17:04

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	906547.6	100.85	%	0.586				0.58%
Sc Radial	5717.6	103	%	0.8				0.73%
Y 371.029	752187.8	101.04	%	0.700				0.69%
Y RADIAL	6110.5	103.4	%	0.79				0.76%
Ag 328.068†	10.1	0.0407	ug/L	0.23532	0.0407	ppb	0.23532	578.43%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-3.2	-2.3930	ug/L	5.53111	-2.3930	ppb	5.53111	231.13%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	6.2	2.2449	ug/L	2.00899	2.2449	ppb	2.00899	89.49%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	263.9	5.4173	ug/L	0.28645	5.4173	ppb	0.28645	5.29%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	10.5	0.0707	ug/L	0.03977	0.0707	ppb	0.03977	56.25%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	137.4	0.0461	ug/L	0.02336	0.0461	ppb	0.02336	50.67%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	4.4	6.2077	ug/L	5.10486	6.2077	ppb	5.10486	82.23%

```
   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                23.2      0.2281 ug/L       0.06861      0.2281 ppb        0.06861  30.07%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                 3.4      0.0616 ug/L       0.05358      0.0616 ppb        0.05358  86.97%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                41.3      0.4187 ug/L       0.18795      0.4187 ppb        0.18795  44.89%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               -63.1     -0.1786 ug/L       0.06296     -0.1786 ppb        0.06296  35.25%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -1.0     -8.0959 ug/L      21.40274     -8.0959 ppb       21.40274 264.37%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         392.7      69.211 ug/L        9.1602      69.211 ppb        9.1602  13.24%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             1.1      34.803 ug/L       37.9512      34.803 ppb       37.9512 109.04%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                35.8      0.0339 ug/L       0.01617      0.0339 ppb        0.01617  47.72%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                13.4      0.8104 ug/L       0.22183      0.8104 ppb        0.22183  27.37%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†         57.5      17.172 ug/L        7.1957      17.172 ppb        7.1957  41.90%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                18.8      0.4102 ug/L       0.33629      0.4102 ppb        0.33629  81.98%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -7.6     -3.9170 ug/L       5.71870     -3.9170 ppb        5.71870 146.00%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                 0.9      0.0946 ug/L       0.58096      0.0946 ppb        0.58096 614.03%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            1.8      2.2083 ug/L       6.91295      2.2083 ppb        6.91295 313.04%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                14.5      4.3615 ug/L       1.57796      4.3615 ppb        1.57796  36.18%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 1.1      0.6025 ug/L       0.88627      0.6025 ppb        0.88627 147.10%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                72.4      2.0001 ug/L       0.30994      2.0001 ppb        0.30994  15.50%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 8.2      1.2312 ug/L       0.29497      1.2312 ppb        0.29497  23.96%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                16.8      0.0984 ug/L       0.08560      0.0984 ppb        0.08560  87.03%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                11.9      0.0175 ug/L       0.09815      0.0175 ppb        0.09815 559.38%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                13.2      3.4240 ug/L       1.28055      3.4240 ppb        1.28055  37.40%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 -8.8     -0.2410 ug/L       2.43041     -0.2410 ppb        2.43041 >999.9%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 -1.6      0.0031 ug/L       0.29189      0.0031 ppb        0.29189 >999.9%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                36.2      0.2940 ug/L       0.07745      0.2940 ppb        0.07745  26.35%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                      54.9      3.2322 ug/L       0.48516      3.2322 ppb        0.48516  15.01%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

User canceled analysis.

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Analysis Begun

Start Time: 12/19/2009 10:14:09 **Plasma On Time: 12/14/2009 06:02:42**
Logged In Analyst: Optima3 **Technique: ICP Continuous**
Spectrometer Model: Optima 5300 DV, S/N 077C7090601Autosampler Model: S10

Sample Information File: C:\pe\Optima3\Sample Information\121909.sif
Batch ID:
Results Data Set: 121909
Results Library: C:\pe\Optima3\Results\Results.mdb

==========

Sequence No.: 11 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 12/19/2009 10:14:10**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5553.5	5553.5	99.8	%			10:16:02
1	Y RADIAL	5849.0	5849.0	98.94	%			10:16:02
1	Al 396.153Radial†	6715.1	6748.2	4896.3	ug/L	4896.3	ppb	10:16:02
1	Ca 317.933Radial†	3514.9	3504.0	4995.8	ug/L	4995.8	ppb	10:16:22
1	Fe 238.204 Radial†	615.1	605.8	5051.3	ug/L	5051.3	ppb	10:16:22
1	K 766.490 Radial†	31181.6	28546.7	5022.9	ug/L	5022.9	ppb	10:16:02
1	Mg 279.077 IEC†	168.2	167.2	5196.7	ug/L	5196.7	ppb	10:16:22
1	Na 589.592 Radial†	31392.4	32232.1	9620.3	ug/L	9620.3	ppb	10:16:02
1	Sr 421.552†	84136.2	84357.1	494.61	ug/L	494.61	ppb	10:16:02
1	Sc 361.383	928285.0	928285.0	103.27	%			10:17:19
1	Y 371.029	755808.8	755808.8	101.52	%			10:17:19
1	Ag 328.068†	115537.1	111510.9	483.67	ug/L	483.67	ppb	10:17:25
1	As 188.979†	1372.6	1364.0	499.44	ug/L	499.44	ppb	10:17:45
1	B 249.677†	24261.4	23519.5	480.78	ug/L	480.78	ppb	10:17:25
1	Ba 233.527†	73799.7	71466.8	487.00	ug/L	487.00	ppb	10:17:25
1	Be 313.107†	1506253.3	1463318.2	491.70	ug/L	491.70	ppb	10:17:19
1	Cd 226.502†	51430.0	50031.7	489.11	ug/L	489.11	ppb	10:17:25
1	Co 228.616†	28664.8	27844.8	487.56	ug/L	487.56	ppb	10:17:25
1	Cr 267.716†	49603.2	47953.3	486.96	ug/L	486.96	ppb	10:17:25
1	Cu 324.752†	181881.2	170069.9	480.77	ug/L	480.77	ppb	10:17:25
1	Mn 257.610†	515022.7	498233.1	491.85	ug/L	491.85	ppb	10:17:19
1	Mo 202.031†	8300.7	8018.1	485.71	ug/L	485.71	ppb	10:17:45
1	Ni 231.604†	23182.5	22355.3	488.13	ug/L	488.13	ppb	10:17:25
1	P 214.914†	5080.5	4661.6	2358.9	ug/L	2358.9	ppb	10:17:45
1	Pb 220.353†	4726.8	4641.3	490.60	ug/L	490.60	ppb	10:17:45
1	S 181.975 Axial†	864.0	787.7	965.33	ug/L	965.33	ppb	10:17:45
1	Sb 206.836†	1718.0	1622.4	493.13	ug/L	493.13	ppb	10:17:45
1	Se 196.026†	897.0	897.1	506.31	ug/L	506.31	ppb	10:17:45
1	Si 251.611†	88612.6	85230.9	2391.7	ug/L	2391.7	ppb	10:17:25
1	Sn 189.927†	3382.1	3271.6	491.25	ug/L	491.25	ppb	10:17:45
1	Ti 334.940†	346373.1	336799.5	486.84	ug/L	486.84	ppb	10:17:19
1	Tl 190.801†	1904.1	1891.9	493.99	ug/L	493.99	ppb	10:17:45
1	U 409.014†	15318.0	17205.5	472.47	ug/L	472.47	ppb	10:17:25
1	V 292.402†	77029.9	76061.6	490.25	ug/L	490.25	ppb	10:17:25
1	Zn 213.857†	62259.7	59495.9	483.60	ug/L	483.60	ppb	10:17:25
1	SiO2†	89163.1	85734.8	5165.8	ug/L	5165.8	ppb	10:18:53
2	Sc Radial	5562.3	5562.3	99.9	%			10:16:27
2	Y RADIAL	5881.8	5881.8	99.50	%			10:16:27
2	Al 396.153Radial†	6767.1	6789.5	4927.6	ug/L	4927.6	ppb	10:16:27
2	Ca 317.933Radial†	3494.2	3477.8	4958.4	ug/L	4958.4	ppb	10:16:47
2	Fe 238.204 Radial†	611.6	601.3	5013.3	ug/L	5013.3	ppb	10:16:47
2	K 766.490 Radial†	30931.5	28246.8	4970.4	ug/L	4970.4	ppb	10:16:27
2	Mg 279.077 IEC†	167.7	166.4	5172.9	ug/L	5172.9	ppb	10:16:47
2	Na 589.592 Radial†	31287.8	32077.5	9574.2	ug/L	9574.2	ppb	10:16:27
2	Sr 421.552†	83971.0	84058.2	492.86	ug/L	492.86	ppb	10:16:27
2	Sc 361.383	971392.0	971392.0	108.06	%			10:17:51

2	Y 371.029	790540.5	790540.5	106.19 %			10:17:51
2	Ag 328.068†	116551.1	107484.4	466.24 ug/L	466.24	ppb	10:17:56
2	As 188.979†	1349.7	1283.8	470.03 ug/L	470.03	ppb	10:18:16
2	B 249.677†	24539.4	22734.3	464.71 ug/L	464.71	ppb	10:17:56
2	Ba 233.527†	74366.5	68820.0	468.97 ug/L	468.97	ppb	10:17:56
2	Be 313.107†	1447628.7	1344341.0	451.72 ug/L	451.72	ppb	10:17:51
2	Cd 226.502†	51680.1	48053.1	469.75 ug/L	469.75	ppb	10:17:56
2	Co 228.616†	28909.2	26839.1	469.97 ug/L	469.97	ppb	10:17:56
2	Cr 267.716†	49854.5	46054.4	467.68 ug/L	467.68	ppb	10:17:56
2	Cu 324.752†	183761.7	163994.2	463.60 ug/L	463.60	ppb	10:17:56
2	Mn 257.610†	498086.1	460428.6	454.56 ug/L	454.56	ppb	10:17:51
2	Mo 202.031†	8202.5	7570.5	458.61 ug/L	458.61	ppb	10:18:16
2	Ni 231.604†	23319.2	21485.6	469.14 ug/L	469.14	ppb	10:17:56
2	P 214.914†	4996.0	4365.2	2206.6 ug/L	2206.6	ppb	10:18:16
2	Pb 220.353†	4669.7	4385.3	463.58 ug/L	463.58	ppb	10:18:16
2	S 181.975 Axial†	857.5	744.5	912.43 ug/L	912.43	ppb	10:18:16
2	Sb 206.836†	1704.3	1535.9	466.67 ug/L	466.67	ppb	10:18:16
2	Se 196.026†	880.6	843.4	476.83 ug/L	476.83	ppb	10:18:16
2	Si 251.611†	89486.5	82231.7	2307.7 ug/L	2307.7	ppb	10:17:56
2	Sn 189.927†	3334.6	3082.3	462.85 ug/L	462.85	ppb	10:18:16
2	Ti 334.940†	333765.0	310247.8	448.46 ug/L	448.46	ppb	10:17:51
2	Tl 190.801†	1877.1	1785.1	465.92 ug/L	465.92	ppb	10:18:16
2	U 409.014†	15600.1	16808.3	461.57 ug/L	461.57	ppb	10:17:56
2	V 292.402†	77479.0	73167.1	471.49 ug/L	471.49	ppb	10:17:56
2	Zn 213.857†	62628.5	57161.7	464.60 ug/L	464.60	ppb	10:17:56
2	SiO2†	88791.1	81559.1	4914.2 ug/L	4914.2	ppb	10:18:58
3	Sc Radial	5621.6	5621.6	101 %			10:16:52
3	Y RADIAL	5952.0	5952.0	100.7 %			10:16:52
3	Al 396.153Radial†	6807.6	6758.2	4903.5 ug/L	4903.5	ppb	10:16:52
3	Ca 317.933Radial†	3483.6	3430.4	4890.8 ug/L	4890.8	ppb	10:17:12
3	Fe 238.204 Radial†	607.9	591.2	4930.1 ug/L	4930.1	ppb	10:17:12
3	K 766.490 Radial†	31287.2	28272.5	4974.6 ug/L	4974.6	ppb	10:16:52
3	Mg 279.077 IEC†	167.2	164.2	5103.2 ug/L	5103.2	ppb	10:17:12
3	Na 589.592 Radial†	31440.9	31898.8	9520.9 ug/L	9520.9	ppb	10:16:52
3	Sr 421.552†	84737.0	83930.2	492.11 ug/L	492.11	ppb	10:16:52
3	Sc 361.383	913742.9	913742.9	101.65 %			10:18:22
3	Y 371.029	742553.7	742553.7	99.743 %			10:18:22
3	Ag 328.068†	115791.4	113541.6	492.40 ug/L	492.40	ppb	10:18:27
3	As 188.979†	1346.3	1359.3	497.67 ug/L	497.67	ppb	10:18:47
3	B 249.677†	24317.2	23948.4	489.57 ug/L	489.57	ppb	10:18:27
3	Ba 233.527†	74026.4	72827.2	496.26 ug/L	496.26	ppb	10:18:27
3	Be 313.107†	1460514.8	1441535.4	484.38 ug/L	484.38	ppb	10:18:22
3	Cd 226.502†	51426.0	50820.4	496.84 ug/L	496.84	ppb	10:18:27
3	Co 228.616†	28727.0	28347.8	496.38 ug/L	496.38	ppb	10:18:27
3	Cr 267.716†	49621.1	48735.4	494.90 ug/L	494.90	ppb	10:18:27
3	Cu 324.752†	182730.2	173708.1	491.04 ug/L	491.04	ppb	10:18:27
3	Mn 257.610†	503302.9	494640.7	488.30 ug/L	488.30	ppb	10:18:22
3	Mo 202.031†	8224.5	8071.1	488.90 ug/L	488.90	ppb	10:18:47
3	Ni 231.604†	23184.4	22714.4	495.97 ug/L	495.97	ppb	10:18:27
3	P 214.914†	5034.2	4694.4	2374.4 ug/L	2374.4	ppb	10:18:47
3	Pb 220.353†	4672.5	4660.7	492.65 ug/L	492.65	ppb	10:18:47
3	S 181.975 Axial†	870.1	807.0	989.04 ug/L	989.04	ppb	10:18:47
3	Sb 206.836†	1712.3	1643.3	499.28 ug/L	499.28	ppb	10:18:47
3	Se 196.026†	896.4	910.4	513.17 ug/L	513.17	ppb	10:18:47
3	Si 251.611†	88927.9	86906.7	2438.9 ug/L	2438.9	ppb	10:18:27
3	Sn 189.927†	3324.6	3267.2	490.58 ug/L	490.58	ppb	10:18:47
3	Ti 334.940†	337899.2	333801.2	482.49 ug/L	482.49	ppb	10:18:22
3	Tl 190.801†	1889.6	1907.0	497.80 ug/L	497.80	ppb	10:18:47
3	U 409.014†	15562.2	17681.7	485.59 ug/L	485.59	ppb	10:18:27
3	V 292.402†	77205.7	77421.7	498.99 ug/L	498.99	ppb	10:18:27
3	Zn 213.857†	62221.4	60417.7	491.11 ug/L	491.11	ppb	10:18:27
3	SiO2†	88259.5	86220.0	5195.1 ug/L	5195.1	ppb	10:19:03

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	937806.7	104.33	%	3.335				3.20%
Sc Radial	5579.1	100	%	0.7				0.66%
Y 371.029	762967.7	102.49	%	3.329				3.25%
Y RADIAL	5894.2	99.71	%	0.890				0.89%

```
Ag 328.068†            110845.7      480.77 ug/L        13.320      480.77 ppb        13.320   2.77%
   QC value within limits for Ag 328.068  Recovery = 96.15%
Al 396.153Radial†        6765.3      4909.1 ug/L         16.38      4909.1 ppb         16.38   0.33%
   QC value within limits for Al 396.153Radial  Recovery = 98.18%
As 188.979†              1335.7      489.05 ug/L        16.490      489.05 ppb        16.490   3.37%
   QC value within limits for As 188.979  Recovery = 97.81%
B 249.677†              23400.7      478.36 ug/L        12.606      478.36 ppb        12.606   2.64%
   QC value within limits for B 249.677  Recovery = 95.67%
Ba 233.527†             71038.0      484.07 ug/L        13.879      484.07 ppb        13.879   2.87%
   QC value within limits for Ba 233.527  Recovery = 96.81%
Be 313.107†           1416398.2      475.93 ug/L        21.285      475.93 ppb        21.285   4.47%
   QC value within limits for Be 313.107  Recovery = 95.19%
Ca 317.933Radial†        3470.7      4948.3 ug/L         53.19      4948.3 ppb         53.19   1.07%
   QC value within limits for Ca 317.933Radial  Recovery = 98.97%
Cd 226.502†             49635.0      485.24 ug/L        13.954      485.24 ppb        13.954   2.88%
   QC value within limits for Cd 226.502  Recovery = 97.05%
Co 228.616†             27677.2      484.64 ug/L        13.448      484.64 ppb        13.448   2.77%
   QC value within limits for Co 228.616  Recovery = 96.93%
Cr 267.716†             47581.0      483.18 ug/L        13.999      483.18 ppb        13.999   2.90%
   QC value within limits for Cr 267.716  Recovery = 96.64%
Cu 324.752†            169257.4      478.47 ug/L        13.864      478.47 ppb        13.864   2.90%
   QC value within limits for Cu 324.752  Recovery = 95.69%
Fe 238.204 Radial†       599.4      4998.2 ug/L         61.99      4998.2 ppb         61.99   1.24%
   QC value within limits for Fe 238.204 Radial  Recovery = 99.96%
K 766.490 Radial†       28355.3      4989.3 ug/L         29.14      4989.3 ppb         29.14   0.58%
   QC value within limits for K 766.490 Radial  Recovery = 99.79%
Mg 279.077 IEC†          165.9      5157.6 ug/L         48.58      5157.6 ppb         48.58   0.94%
   QC value within limits for Mg 279.077 IEC  Recovery = 103.15%
Mn 257.610†            484434.1      478.23 ug/L        20.582      478.23 ppb        20.582   4.30%
   QC value within limits for Mn 257.610  Recovery = 95.65%
Mo 202.031†              7886.6      477.74 ug/L        16.644      477.74 ppb        16.644   3.48%
   QC value within limits for Mo 202.031  Recovery = 95.55%
Na 589.592 Radial†      32069.5      9571.8 ug/L         49.78      9571.8 ppb         49.78   0.52%
   QC value within limits for Na 589.592 Radial  Recovery = 95.72%
Ni 231.604†             22185.1      484.42 ug/L        13.797      484.42 ppb        13.797   2.85%
   QC value within limits for Ni 231.604  Recovery = 96.88%
P 214.914†               4573.7      2313.3 ug/L         92.71      2313.3 ppb         92.71   4.01%
   QC value within limits for P 214.914  Recovery = 92.53%
Pb 220.353†              4562.4      482.28 ug/L        16.225      482.28 ppb        16.225   3.36%
   QC value within limits for Pb 220.353  Recovery = 96.46%
S 181.975 Axial†          779.7      955.60 ug/L        39.216      955.60 ppb        39.216   4.10%
   QC value within limits for S 181.975 Axial  Recovery = 95.56%
Sb 206.836†              1600.5      486.36 ug/L        17.325      486.36 ppb        17.325   3.56%
   QC value within limits for Sb 206.836  Recovery = 97.27%
Se 196.026†               883.6      498.77 ug/L        19.304      498.77 ppb        19.304   3.87%
   QC value within limits for Se 196.026  Recovery = 99.75%
Si 251.611†             84789.8      2379.4 ug/L         66.46      2379.4 ppb         66.46   2.79%
   QC value within limits for Si 251.611  Recovery = 95.18%
Sn 189.927†              3207.0      481.56 ug/L        16.205      481.56 ppb        16.205   3.37%
   QC value within limits for Sn 189.927  Recovery = 96.31%
Sr 421.552†             84115.2      493.19 ug/L         1.284      493.19 ppb         1.284   0.26%
   QC value within limits for Sr 421.552  Recovery = 98.64%
Ti 334.940†            326949.5      472.60 ug/L        21.016      472.60 ppb        21.016   4.45%
   QC value within limits for Ti 334.940  Recovery = 94.52%
Tl 190.801†              1861.3      485.91 ug/L        17.413      485.91 ppb        17.413   3.58%
   QC value within limits for Tl 190.801  Recovery = 97.18%
U 409.014†              17231.8      473.21 ug/L        12.029      473.21 ppb        12.029   2.54%
   QC value within limits for U 409.014  Recovery = 94.64%
V 292.402†              75550.2      486.91 ug/L        14.053      486.91 ppb        14.053   2.89%
   QC value within limits for V 292.402  Recovery = 97.38%
Zn 213.857†             59025.1      479.77 ug/L        13.663      479.77 ppb        13.663   2.85%
   QC value within limits for Zn 213.857  Recovery = 95.95%
SiO2†                   84504.6      5091.7 ug/L        154.40      5091.7 ppb        154.40   3.03%
   QC value within limits for SiO2  Recovery = 95.22%
All analyte(s) passed QC.
```

Sequence No.: 12
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 12/19/2009 10:21:12
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5616.6	5616.6	101	%			10:23:05
1	Y RADIAL	5983.2	5983.2	101.2	%			10:23:05
1	Al 396.153Radial†	-31.6	-14.9	-10.891	ug/L	-10.891	ppb	10:23:05
1	Ca 317.933Radial†	18.6	-1.1	-1.5731	ug/L	-1.5731	ppb	10:23:25
1	Fe 238.204 Radial†	8.6	-2.3	-19.368	ug/L	-19.368	ppb	10:23:25
1	K 766.490 Radial†	2944.4	206.2	36.342	ug/L	36.342	ppb	10:23:05
1	Mg 279.077 IEC†	1.1	-0.4	-10.962	ug/L	-10.962	ppb	10:23:25
1	Na 589.592 Radial†	-793.5	-24.9	-7.4390	ug/L	-7.4390	ppb	10:23:05
1	Sr 421.552†	7.1	18.8	0.1105	ug/L	0.1105	ppb	10:23:05
1	Sc 361.383	905995.4	905995.4	100.79	%			10:24:22
1	Y 371.029	752925.4	752925.4	101.14	%			10:24:22
1	Ag 328.068†	395.5	22.5	0.0934	ug/L	0.0934	ppb	10:24:22
1	As 188.979†	-34.2	0.9	0.3236	ug/L	0.3236	ppb	10:24:42
1	B 249.677†	-14.0	12.0	0.2494	ug/L	0.2494	ppb	10:24:22
1	Ba 233.527†	-7.1	-4.5	-0.0321	ug/L	-0.0321	ppb	10:24:42
1	Be 313.107†	-4641.4	126.0	0.0422	ug/L	0.0422	ppb	10:24:22
1	Cd 226.502†	-229.2	1.7	0.0192	ug/L	0.0192	ppb	10:24:42
1	Co 228.616†	-91.8	-4.0	-0.0676	ug/L	-0.0676	ppb	10:24:42
1	Cr 267.716†	103.9	22.9	0.2328	ug/L	0.2328	ppb	10:24:42
1	Cu 324.752†	5985.0	-117.4	-0.3326	ug/L	-0.3326	ppb	10:24:22
1	Mn 257.610†	516.8	21.3	0.0193	ug/L	0.0193	ppb	10:24:42
1	Mo 202.031†	31.7	11.5	0.6977	ug/L	0.6977	ppb	10:24:42
1	Ni 231.604†	115.3	20.8	0.4545	ug/L	0.4545	ppb	10:24:42
1	P 214.914†	249.1	-10.9	-5.6026	ug/L	-5.6026	ppb	10:24:42
1	Pb 220.353†	-68.4	-3.9	-0.4052	ug/L	-0.4052	ppb	10:24:42
1	S 181.975 Axial†	52.9	3.4	4.2206	ug/L	4.2206	ppb	10:24:42
1	Sb 206.836†	48.5	6.9	2.0831	ug/L	2.0831	ppb	10:24:42
1	Se 196.026†	-38.8	-9.9	-5.4699	ug/L	-5.4699	ppb	10:24:42
1	Si 251.611†	604.5	22.3	0.6016	ug/L	0.6016	ppb	10:24:42
1	Sn 189.927†	11.6	8.1	1.2076	ug/L	1.2076	ppb	10:24:42
1	Ti 334.940†	-1406.7	-8.1	-0.0095	ug/L	-0.0095	ppb	10:24:22
1	Tl 190.801†	-39.0	9.4	2.4333	ug/L	2.4333	ppb	10:24:42
1	U 409.014†	-2585.5	-193.1	-5.3183	ug/L	-5.3183	ppb	10:24:22
1	V 292.402†	-1549.5	-67.9	-0.4298	ug/L	-0.4298	ppb	10:24:22
1	Zn 213.857†	840.2	40.0	0.3281	ug/L	0.3281	ppb	10:24:42
1	SiO2†	726.8	114.4	6.8658	ug/L	6.8658	ppb	10:25:38
2	Sc Radial	5663.0	5663.0	102	%			10:23:30
2	Y RADIAL	6054.5	6054.5	102.4	%			10:23:30
2	Al 396.153Radial†	-9.8	6.7	4.8721	ug/L	4.8721	ppb	10:23:30
2	Ca 317.933Radial†	21.1	1.2	1.6955	ug/L	1.6955	ppb	10:23:50
2	Fe 238.204 Radial†	9.2	-1.8	-15.273	ug/L	-15.273	ppb	10:23:50
2	K 766.490 Radial†	2927.1	165.2	29.125	ug/L	29.125	ppb	10:23:30
2	Mg 279.077 IEC†	1.7	0.2	7.0445	ug/L	7.0445	ppb	10:23:50
2	Na 589.592 Radial†	-797.6	-22.5	-6.7162	ug/L	-6.7162	ppb	10:23:30
2	Sr 421.552†	-8.7	3.2	0.0188	ug/L	0.0188	ppb	10:23:30
2	Sc 361.383	902480.6	902480.6	100.40	%			10:24:47
2	Y 371.029	748554.3	748554.3	100.55	%			10:24:47
2	Ag 328.068†	254.7	-116.2	-0.5047	ug/L	-0.5047	ppb	10:24:47
2	As 188.979†	-24.5	10.4	3.7686	ug/L	3.7686	ppb	10:25:07
2	B 249.677†	-20.1	5.9	0.1226	ug/L	0.1226	ppb	10:24:47
2	Ba 233.527†	-14.4	-11.7	-0.0811	ug/L	-0.0811	ppb	10:25:07
2	Be 313.107†	-4597.8	151.5	0.0509	ug/L	0.0509	ppb	10:24:47
2	Cd 226.502†	-212.0	18.0	0.1779	ug/L	0.1779	ppb	10:25:07
2	Co 228.616†	-82.5	4.9	0.0883	ug/L	0.0883	ppb	10:25:07
2	Cr 267.716†	121.3	40.7	0.4129	ug/L	0.4129	ppb	10:25:07
2	Cu 324.752†	5977.6	-101.6	-0.2879	ug/L	-0.2879	ppb	10:24:47
2	Mn 257.610†	534.6	41.0	0.0388	ug/L	0.0388	ppb	10:25:07
2	Mo 202.031†	34.9	14.9	0.9029	ug/L	0.9029	ppb	10:25:07
2	Ni 231.604†	118.0	24.0	0.5238	ug/L	0.5238	ppb	10:25:07

2	P 214.914†	254.4	-4.6	-2.3516 ug/L	-2.3516 ppb	10:25:07
2	Pb 220.353†	-71.0	-6.7	-0.6995 ug/L	-0.6995 ppb	10:25:07
2	S 181.975 Axial†	49.4	0.2	0.2426 ug/L	0.2426 ppb	10:25:07
2	Sb 206.836†	41.5	0.1	0.0609 ug/L	0.0609 ppb	10:25:07
2	Se 196.026†	-23.5	5.1	2.7465 ug/L	2.7465 ppb	10:25:07
2	Si 251.611†	605.5	25.7	0.6962 ug/L	0.6962 ppb	10:25:07
2	Sn 189.927†	7.2	3.7	0.5489 ug/L	0.5489 ppb	10:25:07
2	Ti 334.940†	-1358.1	34.9	0.0518 ug/L	0.0518 ppb	10:24:47
2	Tl 190.801†	-48.4	-0.1	-0.0293 ug/L	-0.0293 ppb	10:25:07
2	U 409.014†	-2503.2	-121.1	-3.3361 ug/L	-3.3361 ppb	10:24:47
2	V 292.402†	-1533.9	-58.4	-0.3629 ug/L	-0.3629 ppb	10:24:47
2	Zn 213.857†	833.2	36.4	0.2965 ug/L	0.2965 ppb	10:25:07
2	SiO2†	624.6	15.5	0.8798 ug/L	0.8798 ppb	10:25:43
3	Sc Radial	5677.5	5677.5	102 %		10:23:55
3	Y RADIAL	6030.0	6030.0	102.0 %		10:23:55
3	Al 396.153Radial†	-26.1	-9.2	-6.7339 ug/L	-6.7339 ppb	10:23:55
3	Ca 317.933Radial†	24.5	4.5	6.3638 ug/L	6.3638 ppb	10:24:15
3	Fe 238.204 Radial†	10.2	-0.9	-7.5989 ug/L	-7.5989 ppb	10:24:15
3	K 766.490 Radial†	2927.7	158.5	27.929 ug/L	27.929 ppb	10:23:55
3	Mg 279.077 IEC†	5.1	3.6	112.34 ug/L	112.34 ppb	10:24:15
3	Na 589.592 Radial†	-810.1	-32.7	-9.7554 ug/L	-9.7554 ppb	10:23:55
3	Sr 421.552†	29.8	41.0	0.2403 ug/L	0.2403 ppb	10:23:55
3	Sc 361.383	899794.8	899794.8	100.10 %		10:25:13
3	Y 371.029	747572.3	747572.3	100.42 %		10:25:13
3	Ag 328.068†	404.1	33.8	0.1452 ug/L	0.1452 ppb	10:25:13
3	As 188.979†	-22.4	12.4	4.5017 ug/L	4.5017 ppb	10:25:33
3	B 249.677†	29.0	54.9	1.1276 ug/L	1.1276 ppb	10:25:13
3	Ba 233.527†	0.2	2.8	0.0182 ug/L	0.0182 ppb	10:25:33
3	Be 313.107†	-4622.2	113.5	0.0382 ug/L	0.0382 ppb	10:25:13
3	Cd 226.502†	-230.4	-1.0	-0.0086 ug/L	-0.0086 ppb	10:25:33
3	Co 228.616†	-86.0	1.2	0.0203 ug/L	0.0203 ppb	10:25:33
3	Cr 267.716†	102.8	22.6	0.2292 ug/L	0.2292 ppb	10:25:33
3	Cu 324.752†	6083.4	21.8	0.0613 ug/L	0.0613 ppb	10:25:13
3	Mn 257.610†	510.0	18.1	0.0150 ug/L	0.0150 ppb	10:25:33
3	Mo 202.031†	21.0	1.1	0.0683 ug/L	0.0683 ppb	10:25:33
3	Ni 231.604†	124.9	31.2	0.6826 ug/L	0.6826 ppb	10:25:33
3	P 214.914†	246.5	-11.8	-6.1636 ug/L	-6.1636 ppb	10:25:33
3	Pb 220.353†	-69.4	-5.3	-0.5598 ug/L	-0.5598 ppb	10:25:33
3	S 181.975 Axial†	52.9	3.9	4.7370 ug/L	4.7370 ppb	10:25:33
3	Sb 206.836†	45.4	4.2	1.2541 ug/L	1.2541 ppb	10:25:33
3	Se 196.026†	-30.3	-1.8	-0.9937 ug/L	-0.9937 ppb	10:25:33
3	Si 251.611†	611.1	33.1	0.9199 ug/L	0.9199 ppb	10:25:33
3	Sn 189.927†	7.6	4.1	0.6221 ug/L	0.6221 ppb	10:25:33
3	Ti 334.940†	-1352.0	36.9	0.0555 ug/L	0.0555 ppb	10:25:13
3	Tl 190.801†	-38.5	9.6	2.4997 ug/L	2.4997 ppb	10:25:33
3	U 409.014†	-2522.3	-147.6	-4.0671 ug/L	-4.0671 ppb	10:25:13
3	V 292.402†	-1523.8	-52.9	-0.3400 ug/L	-0.3400 ppb	10:25:13
3	Zn 213.857†	835.8	41.4	0.3323 ug/L	0.3323 ppb	10:25:33
3	SiO2†	597.8	-9.4	-0.5979 ug/L	-0.5979 ppb	10:25:48

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	902756.9	100.43	%	0.346				0.34%
Sc Radial	5652.3	102	%	0.6				0.56%
Y 371.029	749684.0	100.70	%	0.383				0.38%
Y RADIAL	6022.6	101.9	%	0.61				0.60%
Ag 328.068†	-20.0	-0.0887	ug/L	0.36117	-0.0887	ppb	0.36117	407.26%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-5.8	-4.2509	ug/L	8.16959	-4.2509	ppb	8.16959	192.19%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	7.9	2.8646	ug/L	2.23093	2.8646	ppb	2.23093	77.88%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	24.3	0.4998	ug/L	0.54730	0.4998	ppb	0.54730	109.49%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-4.5	-0.0316	ug/L	0.04966	-0.0316	ppb	0.04966	156.96%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	130.3	0.0438	ug/L	0.00650	0.0438	ppb	0.00650	14.86%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	1.5	2.1620	ug/L	3.98896	2.1620	ppb	3.98896	184.50%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                 6.2      0.0628 ug/L       0.10058      0.0628 ppb        0.10058 160.07%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                 0.7      0.0136 ug/L       0.07818      0.0136 ppb        0.07818 572.90%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                28.7      0.2916 ug/L       0.10500      0.2916 ppb        0.10500  36.01%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               -65.7     -0.1864 ug/L       0.21567     -0.1864 ppb        0.21567 115.69%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -1.7     -14.080 ug/L        5.9746     -14.080 ppb         5.9746  42.43%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         176.6      31.132 ug/L        4.5515      31.132 ppb         4.5515  14.62%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             1.2      36.141 ug/L       66.6022      36.141 ppb        66.6022 184.28%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                26.8      0.0244 ug/L       0.01272      0.0244 ppb        0.01272  52.20%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 9.2      0.5563 ug/L       0.43487      0.5563 ppb        0.43487  78.18%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        -26.7     -7.9702 ug/L       1.58771     -7.9702 ppb        1.58771  19.92%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                25.3      0.5536 ug/L       0.11694      0.5536 ppb        0.11694  21.12%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -9.1     -4.7059 ug/L       2.05810     -4.7059 ppb        2.05810  43.73%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -5.3     -0.5548 ug/L       0.14721     -0.5548 ppb        0.14721  26.53%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            2.5      3.0667 ug/L       2.45938      3.0667 ppb        2.45938  80.20%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 3.7      1.1327 ug/L       1.01653      1.1327 ppb        1.01653  89.74%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -2.2     -1.2391 ug/L       4.11367     -1.2391 ppb        4.11367 332.00%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                27.0      0.7392 ug/L       0.16345      0.7392 ppb        0.16345  22.11%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 5.3      0.7929 ug/L       0.36102      0.7929 ppb        0.36102  45.53%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                21.0      0.1232 ug/L       0.11130      0.1232 ppb        0.11130  90.32%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                21.2      0.0326 ug/L       0.03652      0.0326 ppb        0.03652 112.09%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 6.3      1.6346 ug/L       1.44132      1.6346 ppb        1.44132  88.18%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -154.0     -4.2405 ug/L       1.00241     -4.2405 ppb        1.00241  23.64%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                -59.8     -0.3776 ug/L       0.04666     -0.3776 ppb        0.04666  12.36%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                39.3      0.3190 ug/L       0.01959      0.3190 ppb        0.01959   6.14%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                      40.2      2.3826 ug/L       3.95230      2.3826 ppb        3.95230 165.88%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 8
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 12/19/2009 11:18:11
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5421.2	5421.2	97.4	%			11:20:04
1	Y RADIAL	5768.9	5768.9	97.59	%			11:20:04
1	Al 396.153Radial†	6592.6	6786.7	4924.3	ug/L	4924.3	ppb	11:20:04
1	Ca 317.933Radial†	3518.3	3593.6	5123.5	ug/L	5123.5	ppb	11:20:24
1	Fe 238.204 Radial†	623.1	629.0	5244.8	ug/L	5244.8	ppb	11:20:24
1	K 766.490 Radial†	30360.9	28466.7	5008.6	ug/L	5008.6	ppb	11:20:04
1	Mg 279.077 IEC†	168.0	171.1	5318.7	ug/L	5318.7	ppb	11:20:24
1	Na 589.592 Radial†	31723.4	33340.0	9951.0	ug/L	9951.0	ppb	11:20:04
1	Sr 421.552†	83800.8	86071.0	504.66	ug/L	504.66	ppb	11:20:04
1	Sc 361.383	916565.1	916565.1	101.96	%			11:21:21
1	Y 371.029	745912.1	745912.1	100.19	%			11:21:21
1	Ag 328.068†	116199.1	113590.8	492.72	ug/L	492.72	ppb	11:21:27
1	As 188.979†	1356.6	1365.3	499.90	ug/L	499.90	ppb	11:21:47
1	B 249.677†	24066.3	23628.6	482.97	ug/L	482.97	ppb	11:21:27
1	Ba 233.527†	74033.3	72609.8	494.79	ug/L	494.79	ppb	11:21:27
1	Be 313.107†	1474137.1	1450471.3	487.38	ug/L	487.38	ppb	11:21:21
1	Cd 226.502†	51380.1	50619.5	494.85	ug/L	494.85	ppb	11:21:27
1	Co 228.616†	28786.6	28319.2	495.87	ug/L	495.87	ppb	11:21:27
1	Cr 267.716†	49665.9	48629.0	493.83	ug/L	493.83	ppb	11:21:27
1	Cu 324.752†	183621.8	174029.1	491.96	ug/L	491.96	ppb	11:21:27
1	Mn 257.610†	506237.3	495994.0	489.66	ug/L	489.66	ppb	11:21:21
1	Mo 202.031†	8229.5	8051.1	487.72	ug/L	487.72	ppb	11:21:47
1	Ni 231.604†	23227.5	22686.4	495.36	ug/L	495.36	ppb	11:21:27
1	P 214.914†	5038.6	4683.5	2368.3	ug/L	2368.3	ppb	11:21:47
1	Pb 220.353†	4663.1	4637.3	490.16	ug/L	490.16	ppb	11:21:47
1	S 181.975 Axial†	867.3	801.6	982.45	ug/L	982.45	ppb	11:21:47
1	Sb 206.836†	1713.6	1639.4	498.07	ug/L	498.07	ppb	11:21:47
1	Se 196.026†	884.4	895.9	506.25	ug/L	506.25	ppb	11:21:47
1	Si 251.611†	89190.3	86894.7	2438.6	ug/L	2438.6	ppb	11:21:27
1	Sn 189.927†	3317.6	3250.2	488.05	ug/L	488.05	ppb	11:21:47
1	Ti 334.940†	340271.1	335103.9	484.38	ug/L	484.38	ppb	11:21:21
1	Tl 190.801†	1867.5	1879.6	490.72	ug/L	490.72	ppb	11:21:47
1	U 409.014†	15812.6	17880.2	491.03	ug/L	491.03	ppb	11:21:27
1	V 292.402†	77518.7	77494.9	499.41	ug/L	499.41	ppb	11:21:27
1	Zn 213.857†	62354.6	60359.9	490.60	ug/L	490.60	ppb	11:21:27
1	SiO2†	89262.1	86936.0	5238.4	ug/L	5238.4	ppb	11:22:54
2	Sc Radial	5644.1	5644.1	101	%			11:20:29
2	Y RADIAL	5989.3	5989.3	101.3	%			11:20:29
2	Al 396.153Radial†	6837.1	6760.4	4905.2	ug/L	4905.2	ppb	11:20:29
2	Ca 317.933Radial†	3485.5	3418.5	4873.8	ug/L	4873.8	ppb	11:20:49
2	Fe 238.204 Radial†	615.6	596.4	4973.1	ug/L	4973.1	ppb	11:20:49
2	K 766.490 Radial†	31316.4	28177.5	4957.7	ug/L	4957.7	ppb	11:20:29
2	Mg 279.077 IEC†	167.3	163.7	5087.5	ug/L	5087.5	ppb	11:20:49
2	Na 589.592 Radial†	32916.4	33229.8	9918.1	ug/L	9918.1	ppb	11:20:29
2	Sr 421.552†	86839.7	85668.8	502.31	ug/L	502.31	ppb	11:20:29
2	Sc 361.383	916884.0	916884.0	102.00	%			11:21:53
2	Y 371.029	746582.4	746582.4	100.28	%			11:21:53
2	Ag 328.068†	115175.8	112547.9	488.12	ug/L	488.12	ppb	11:21:58
2	As 188.979†	1339.3	1347.9	493.53	ug/L	493.53	ppb	11:22:18
2	B 249.677†	23825.7	23384.5	478.01	ug/L	478.01	ppb	11:21:58
2	Ba 233.527†	73340.0	71904.8	489.98	ug/L	489.98	ppb	11:21:58
2	Be 313.107†	1468688.7	1444626.8	485.42	ug/L	485.42	ppb	11:21:53
2	Cd 226.502†	50884.5	50116.1	489.95	ug/L	489.95	ppb	11:21:58
2	Co 228.616†	28445.9	27975.3	489.85	ug/L	489.85	ppb	11:21:58
2	Cr 267.716†	49174.9	48130.7	488.76	ug/L	488.76	ppb	11:21:58
2	Cu 324.752†	181234.0	171625.4	485.16	ug/L	485.16	ppb	11:21:58
2	Mn 257.610†	504181.1	493805.3	487.48	ug/L	487.48	ppb	11:21:53
2	Mo 202.031†	8180.2	7999.9	484.60	ug/L	484.60	ppb	11:22:18
2	Ni 231.604†	23047.1	22501.7	491.33	ug/L	491.33	ppb	11:21:58

2	P 214.914†	5013.2	4656.8	2355.7 ug/L	2355.7 ppb	11:22:18
2	Pb 220.353†	4650.9	4623.8	488.75 ug/L	488.75 ppb	11:22:18
2	S 181.975 Axial†	857.0	791.2	969.64 ug/L	969.64 ppb	11:22:18
2	Sb 206.836†	1686.7	1612.5	490.02 ug/L	490.02 ppb	11:22:18
2	Se 196.026†	882.2	893.4	504.06 ug/L	504.06 ppb	11:22:18
2	Si 251.611†	88290.5	85982.1	2412.9 ug/L	2412.9 ppb	11:21:58
2	Sn 189.927†	3307.9	3239.6	486.43 ug/L	486.43 ppb	11:22:18
2	Ti 334.940†	338885.3	333629.2	482.24 ug/L	482.24 ppb	11:21:53
2	Tl 190.801†	1886.7	1897.8	495.44 ug/L	495.44 ppb	11:22:18
2	U 409.014†	15428.5	17498.2	480.54 ug/L	480.54 ppb	11:21:58
2	V 292.402†	76544.7	76513.5	493.14 ug/L	493.14 ppb	11:21:58
2	Zn 213.857†	61731.3	59727.5	485.48 ug/L	485.48 ppb	11:21:58
2	SiO2†	88342.5	86004.0	5182.2 ug/L	5182.2 ppb	11:23:00
3	Sc Radial	5645.6	5645.6	101 %		11:20:54
3	Y RADIAL	5995.8	5995.8	101.4 %		11:20:54
3	Al 396.153Radial†	6857.5	6778.8	4918.6 ug/L	4918.6 ppb	11:20:54
3	Ca 317.933Radial†	3499.3	3431.2	4892.0 ug/L	4892.0 ppb	11:21:14
3	Fe 238.204 Radial†	611.5	592.1	4937.6 ug/L	4937.6 ppb	11:21:14
3	K 766.490 Radial†	31288.9	28142.6	4951.6 ug/L	4951.6 ppb	11:20:54
3	Mg 279.077 IEC†	167.9	164.2	5103.4 ug/L	5103.4 ppb	11:21:14
3	Na 589.592 Radial†	32746.1	33053.7	9865.6 ug/L	9865.6 ppb	11:20:54
3	Sr 421.552†	86687.7	85497.4	501.30 ug/L	501.30 ppb	11:20:54
3	Sc 361.383	917696.3	917696.3	102.09 %		11:22:24
3	Y 371.029	747878.2	747878.2	100.46 %		11:22:24
3	Ag 328.068†	114777.1	112057.5	485.99 ug/L	485.99 ppb	11:22:29
3	As 188.979†	1342.0	1349.4	494.09 ug/L	494.09 ppb	11:22:49
3	B 249.677†	23771.8	23311.1	476.51 ug/L	476.51 ppb	11:22:29
3	Ba 233.527†	73281.2	71783.6	489.15 ug/L	489.15 ppb	11:22:29
3	Be 313.107†	1477837.5	1452313.8	488.00 ug/L	488.00 ppb	11:22:24
3	Cd 226.502†	50770.3	49960.0	488.42 ug/L	488.42 ppb	11:22:29
3	Co 228.616†	28512.8	28016.2	490.57 ug/L	490.57 ppb	11:22:29
3	Cr 267.716†	49183.8	48096.7	488.42 ug/L	488.42 ppb	11:22:29
3	Cu 324.752†	181303.5	171536.2	484.90 ug/L	484.90 ppb	11:22:29
3	Mn 257.610†	506303.5	495446.8	489.09 ug/L	489.09 ppb	11:22:24
3	Mo 202.031†	8219.2	8031.0	486.48 ug/L	486.48 ppb	11:22:49
3	Ni 231.604†	22983.7	22419.6	489.54 ug/L	489.54 ppb	11:22:29
3	P 214.914†	5017.3	4656.5	2355.6 ug/L	2355.6 ppb	11:22:49
3	Pb 220.353†	4650.6	4619.4	488.31 ug/L	488.31 ppb	11:22:49
3	S 181.975 Axial†	856.1	789.5	967.64 ug/L	967.64 ppb	11:22:49
3	Sb 206.836†	1715.8	1639.4	498.17 ug/L	498.17 ppb	11:22:49
3	Se 196.026†	901.9	912.0	514.06 ug/L	514.06 ppb	11:22:49
3	Si 251.611†	88130.9	85749.1	2406.3 ug/L	2406.3 ppb	11:22:29
3	Sn 189.927†	3323.7	3252.2	488.32 ug/L	488.32 ppb	11:22:49
3	Ti 334.940†	340568.9	334984.2	484.20 ug/L	484.20 ppb	11:22:24
3	Tl 190.801†	1892.8	1902.1	496.59 ug/L	496.59 ppb	11:22:49
3	U 409.014†	15463.1	17518.8	481.12 ug/L	481.12 ppb	11:22:29
3	V 292.402†	76385.7	76291.3	491.76 ug/L	491.76 ppb	11:22:29
3	Zn 213.857†	61617.6	59562.6	484.15 ug/L	484.15 ppb	11:22:29
3	SiO2†	88704.5	86281.8	5198.9 ug/L	5198.9 ppb	11:23:05

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	917048.5	102.02	%	0.065				0.06%
Sc Radial	5570.3	100	%	2.3				2.32%
Y 371.029	746790.9	100.31	%	0.134				0.13%
Y RADIAL	5918.0	100.1	%	2.19				2.18%
Ag 328.068†	112732.1	488.94	ug/L	3.439	488.94	ppb	3.439	0.70%
QC value within limits for Ag 328.068 Recovery = 97.79%								
Al 396.153Radial†	6775.3	4916.0	ug/L	9.77	4916.0	ppb	9.77	0.20%
QC value within limits for Al 396.153Radial Recovery = 98.32%								
As 188.979†	1354.2	495.84	ug/L	3.528	495.84	ppb	3.528	0.71%
QC value within limits for As 188.979 Recovery = 99.17%								
B 249.677†	23441.4	479.16	ug/L	3.382	479.16	ppb	3.382	0.71%
QC value within limits for B 249.677 Recovery = 95.83%								
Ba 233.527†	72099.4	491.31	ug/L	3.048	491.31	ppb	3.048	0.62%
QC value within limits for Ba 233.527 Recovery = 98.26%								
Be 313.107†	1449137.3	486.93	ug/L	1.348	486.93	ppb	1.348	0.28%
QC value within limits for Be 313.107 Recovery = 97.39%								
Ca 317.933Radial†	3481.1	4963.1	ug/L	139.17	4963.1	ppb	139.17	2.80%

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   QC value within limits for Ca 317.933Radial  Recovery = 99.26%
Cd 226.502†            50231.9      491.07 ug/L         3.356      491.07 ppb          3.356   0.68%
   QC value within limits for Cd 226.502  Recovery = 98.21%
Co 228.616†            28103.6      492.10 ug/L         3.288      492.10 ppb          3.288   0.67%
   QC value within limits for Co 228.616  Recovery = 98.42%
Cr 267.716†            48285.5      490.34 ug/L         3.029      490.34 ppb          3.029   0.62%
   QC value within limits for Cr 267.716  Recovery = 98.07%
Cu 324.752†           172396.9      487.34 ug/L         4.004      487.34 ppb          4.004   0.82%
   QC value within limits for Cu 324.752  Recovery = 97.47%
Fe 238.204 Radial†       605.8      5051.9 ug/L        168.05      5051.9 ppb         168.05   3.33%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.04%
K 766.490 Radial†      28262.2      4972.7 ug/L         31.32      4972.7 ppb          31.32   0.63%
   QC value within limits for K 766.490 Radial  Recovery = 99.45%
Mg 279.077 IEC†          166.3      5169.9 ug/L        129.15      5169.9 ppb         129.15   2.50%
   QC value within limits for Mg 279.077 IEC  Recovery = 103.40%
Mn 257.610†           495082.0      488.74 ug/L         1.132      488.74 ppb          1.132   0.23%
   QC value within limits for Mn 257.610  Recovery = 97.75%
Mo 202.031†             8027.4      486.26 ug/L         1.569      486.26 ppb          1.569   0.32%
   QC value within limits for Mo 202.031  Recovery = 97.25%
Na 589.592 Radial†     33207.8      9911.6 ug/L         43.10      9911.6 ppb          43.10   0.43%
   QC value within limits for Na 589.592 Radial  Recovery = 99.12%
Ni 231.604†            22535.9      492.07 ug/L         2.984      492.07 ppb          2.984   0.61%
   QC value within limits for Ni 231.604  Recovery = 98.41%
P 214.914†              4665.6      2359.9 ug/L          7.31      2359.9 ppb           7.31   0.31%
   QC value within limits for P 214.914  Recovery = 94.39%
Pb 220.353†             4626.8      489.07 ug/L         0.969      489.07 ppb          0.969   0.20%
   QC value within limits for Pb 220.353  Recovery = 97.81%
S 181.975 Axial†         794.1      973.24 ug/L         8.036      973.24 ppb          8.036   0.83%
   QC value within limits for S 181.975 Axial  Recovery = 97.32%
Sb 206.836†             1630.4      495.42 ug/L         4.675      495.42 ppb          4.675   0.94%
   QC value within limits for Sb 206.836  Recovery = 99.08%
Se 196.026†              900.4      508.12 ug/L         5.260      508.12 ppb          5.260   1.04%
   QC value within limits for Se 196.026  Recovery = 101.62%
Si 251.611†            86208.7      2419.3 ug/L         17.04      2419.3 ppb          17.04   0.70%
   QC value within limits for Si 251.611  Recovery = 96.77%
Sn 189.927†             3247.3      487.60 ug/L         1.022      487.60 ppb          1.022   0.21%
   QC value within limits for Sn 189.927  Recovery = 97.52%
Sr 421.552†            85745.8      502.76 ug/L         1.725      502.76 ppb          1.725   0.34%
   QC value within limits for Sr 421.552  Recovery = 100.55%
Ti 334.940†           334572.4      483.61 ug/L         1.187      483.61 ppb          1.187   0.25%
   QC value within limits for Ti 334.940  Recovery = 96.72%
Tl 190.801†             1893.2      494.25 ug/L         3.114      494.25 ppb          3.114   0.63%
   QC value within limits for Tl 190.801  Recovery = 98.85%
U 409.014†             17632.4      484.23 ug/L         5.893      484.23 ppb          5.893   1.22%
   QC value within limits for U 409.014  Recovery = 96.85%
V 292.402†             76766.6      494.77 ug/L         4.075      494.77 ppb          4.075   0.82%
   QC value within limits for V 292.402  Recovery = 98.95%
Zn 213.857†            59883.3      486.74 ug/L         3.408      486.74 ppb          3.408   0.70%
   QC value within limits for Zn 213.857  Recovery = 97.35%
SiO2†                  86407.3      5206.5 ug/L         28.89      5206.5 ppb          28.89   0.55%
   QC value within limits for SiO2  Recovery = 97.36%
All analyte(s) passed QC.
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Sequence No.: 9
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 12/19/2009 11:25:14
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5786.9	5786.9	104	%			11:27:07
1	Y RADIAL	6211.1	6211.1	105.1	%			11:27:07
1	Al 396.153Radial†	-13.6	3.3	2.3976	ug/L	2.3976	ppb	11:27:07
1	Ca 317.933Radial†	20.0	-0.4	-0.5254	ug/L	-0.5254	ppb	11:27:27
1	Fe 238.204 Radial†	8.5	-2.7	-22.205	ug/L	-22.205	ppb	11:27:27
1	K 766.490 Radial†	2909.0	86.1	15.173	ug/L	15.173	ppb	11:27:07
1	Mg 279.077 IEC†	1.6	0.2	5.7970	ug/L	5.7970	ppb	11:27:27
1	Na 589.592 Radial†	-745.9	44.1	13.159	ug/L	13.159	ppb	11:27:07
1	Sr 421.552†	31.8	42.4	0.2485	ug/L	0.2485	ppb	11:27:07
1	Sc 361.383	920098.0	920098.0	102.36	%			11:28:24
1	Y 371.029	759500.4	759500.4	102.02	%			11:28:24
1	Ag 328.068†	450.4	70.1	0.2915	ug/L	0.2915	ppb	11:28:29
1	As 188.979†	-23.0	12.3	4.4752	ug/L	4.4752	ppb	11:28:49
1	B 249.677†	-165.7	-135.9	-2.7865	ug/L	-2.7865	ppb	11:28:29
1	Ba 233.527†	1.0	3.6	0.0232	ug/L	0.0232	ppb	11:28:49
1	Be 313.107†	-4674.8	164.0	0.0549	ug/L	0.0549	ppb	11:28:29
1	Cd 226.502†	-217.2	17.0	0.1688	ug/L	0.1688	ppb	11:28:49
1	Co 228.616†	-94.8	-5.5	-0.0947	ug/L	-0.0947	ppb	11:28:49
1	Cr 267.716†	99.9	17.4	0.1751	ug/L	0.1751	ppb	11:28:49
1	Cu 324.752†	6107.3	-88.9	-0.2522	ug/L	-0.2522	ppb	11:28:29
1	Mn 257.610†	509.9	6.7	0.0043	ug/L	0.0043	ppb	11:28:49
1	Mo 202.031†	24.3	3.8	0.2298	ug/L	0.2298	ppb	11:28:49
1	Ni 231.604†	110.4	14.3	0.3127	ug/L	0.3127	ppb	11:28:49
1	P 214.914†	246.3	-17.4	-9.0232	ug/L	-9.0232	ppb	11:28:49
1	Pb 220.353†	-65.7	-0.1	-0.0085	ug/L	-0.0085	ppb	11:28:49
1	S 181.975 Axial†	47.2	-2.9	-3.5365	ug/L	-3.5365	ppb	11:28:49
1	Sb 206.836†	46.1	3.8	1.1615	ug/L	1.1615	ppb	11:28:49
1	Se 196.026†	-16.5	12.4	6.7024	ug/L	6.7024	ppb	11:28:49
1	Si 251.611†	655.4	62.8	1.7600	ug/L	1.7600	ppb	11:28:49
1	Sn 189.927†	7.9	4.2	0.6307	ug/L	0.6307	ppb	11:28:49
1	Ti 334.940†	-1460.0	-38.8	-0.0577	ug/L	-0.0577	ppb	11:28:29
1	Tl 190.801†	-45.0	4.1	1.0652	ug/L	1.0652	ppb	11:28:49
1	U 409.014†	-2298.8	126.3	3.4832	ug/L	3.4832	ppb	11:28:24
1	V 292.402†	-1519.5	-15.1	-0.0825	ug/L	-0.0825	ppb	11:28:29
1	Zn 213.857†	830.6	17.9	0.1469	ug/L	0.1469	ppb	11:28:49
1	SiO2†	673.9	51.8	3.1098	ug/L	3.1098	ppb	11:29:55
2	Sc Radial	5493.8	5493.8	98.7	%			11:27:32
2	Y RADIAL	5877.2	5877.2	99.42	%			11:27:32
2	Al 396.153Radial†	-23.5	-7.5	-5.4602	ug/L	-5.4602	ppb	11:27:32
2	Ca 317.933Radial†	23.6	4.3	6.1521	ug/L	6.1521	ppb	11:27:52
2	Fe 238.204 Radial†	8.8	-2.0	-16.372	ug/L	-16.372	ppb	11:27:52
2	K 766.490 Radial†	2863.7	189.5	33.406	ug/L	33.406	ppb	11:27:32
2	Mg 279.077 IEC†	-0.1	-1.5	-46.795	ug/L	-46.795	ppb	11:27:52
2	Na 589.592 Radial†	-798.6	-47.6	-14.215	ug/L	-14.215	ppb	11:27:32
2	Sr 421.552†	-0.1	11.7	0.0687	ug/L	0.0687	ppb	11:27:32
2	Sc 361.383	932950.6	932950.6	103.79	%			11:28:54
2	Y 371.029	769916.6	769916.6	103.42	%			11:28:54
2	Ag 328.068†	331.1	-50.9	-0.2244	ug/L	-0.2244	ppb	11:28:59
2	As 188.979†	-28.2	7.7	2.7909	ug/L	2.7909	ppb	11:29:19
2	B 249.677†	-172.9	-140.6	-2.8839	ug/L	-2.8839	ppb	11:28:59
2	Ba 233.527†	14.4	16.5	0.1129	ug/L	0.1129	ppb	11:29:19
2	Be 313.107†	-4707.0	195.9	0.0662	ug/L	0.0662	ppb	11:28:59
2	Cd 226.502†	-228.8	8.8	0.0876	ug/L	0.0876	ppb	11:29:19
2	Co 228.616†	-80.1	9.9	0.1731	ug/L	0.1731	ppb	11:29:19
2	Cr 267.716†	97.1	13.4	0.1358	ug/L	0.1358	ppb	11:29:19
2	Cu 324.752†	6176.2	-104.7	-0.2966	ug/L	-0.2966	ppb	11:28:59
2	Mn 257.610†	514.9	4.7	0.0038	ug/L	0.0038	ppb	11:29:19
2	Mo 202.031†	23.7	2.9	0.1773	ug/L	0.1773	ppb	11:29:19
2	Ni 231.604†	116.5	18.6	0.4072	ug/L	0.4072	ppb	11:29:19

2	P 214.914†	255.3	-12.1	-6.2696	ug/L	-6.2696 ppb	11:29:19
2	Pb 220.353†	-85.1	-17.9	-1.8845	ug/L	-1.8845 ppb	11:29:19
2	S 181.975 Axial†	53.2	2.3	2.8069	ug/L	2.8069 ppb	11:29:19
2	Sb 206.836†	46.1	3.2	0.9731	ug/L	0.9731 ppb	11:29:19
2	Se 196.026†	-23.6	5.7	3.0783	ug/L	3.0783 ppb	11:29:19
2	Si 251.611†	674.1	72.0	2.0160	ug/L	2.0160 ppb	11:29:19
2	Sn 189.927†	3.4	-0.2	-0.0278	ug/L	-0.0278 ppb	11:29:19
2	Ti 334.940†	-1257.2	176.3	0.2541	ug/L	0.2541 ppb	11:28:59
2	Tl 190.801†	-29.7	19.5	5.0552	ug/L	5.0552 ppb	11:29:19
2	U 409.014†	-2378.3	80.7	2.2239	ug/L	2.2239 ppb	11:28:54
2	V 292.402†	-1432.4	89.3	0.5757	ug/L	0.5757 ppb	11:28:59
2	Zn 213.857†	835.7	11.7	0.0969	ug/L	0.0969 ppb	11:29:19
2	SiO2†	657.8	27.1	1.6110	ug/L	1.6110 ppb	11:30:00
3	Sc Radial	5582.7	5582.7	100	%		11:27:57
3	Y RADIAL	5973.3	5973.3	101.0	%		11:27:57
3	Al 396.153Radial†	-27.6	-11.1	-8.1077	ug/L	-8.1077 ppb	11:27:57
3	Ca 317.933Radial†	22.1	2.5	3.4951	ug/L	3.4951 ppb	11:28:17
3	Fe 238.204 Radial†	8.6	-2.3	-19.379	ug/L	-19.379 ppb	11:28:17
3	K 766.490 Radial†	2871.3	150.9	26.599	ug/L	26.599 ppb	11:27:57
3	Mg 279.077 IEC†	2.1	0.7	21.435	ug/L	21.435 ppb	11:28:17
3	Na 589.592 Radial†	-742.1	21.6	6.4454	ug/L	6.4454 ppb	11:27:57
3	Sr 421.552†	1.0	12.8	0.0751	ug/L	0.0751 ppb	11:27:57
3	Sc 361.383	924411.0	924411.0	102.84	%		11:29:24
3	Y 371.029	763846.5	763846.5	102.60	%		11:29:24
3	Ag 328.068†	443.5	61.3	0.2572	ug/L	0.2572 ppb	11:29:29
3	As 188.979†	-31.3	4.4	1.6015	ug/L	1.6015 ppb	11:29:50
3	B 249.677†	-203.8	-172.2	-3.5324	ug/L	-3.5324 ppb	11:29:29
3	Ba 233.527†	-0.3	2.3	0.0146	ug/L	0.0146 ppb	11:29:50
3	Be 313.107†	-4636.9	222.1	0.0745	ug/L	0.0745 ppb	11:29:29
3	Cd 226.502†	-209.1	25.8	0.2550	ug/L	0.2550 ppb	11:29:50
3	Co 228.616†	-79.8	9.5	0.1679	ug/L	0.1679 ppb	11:29:50
3	Cr 267.716†	91.5	8.8	0.0890	ug/L	0.0890 ppb	11:29:50
3	Cu 324.752†	6095.3	-128.4	-0.3638	ug/L	-0.3638 ppb	11:29:29
3	Mn 257.610†	496.6	-8.6	-0.0108	ug/L	-0.0108 ppb	11:29:50
3	Mo 202.031†	24.5	3.9	0.2363	ug/L	0.2363 ppb	11:29:50
3	Ni 231.604†	124.6	27.6	0.6032	ug/L	0.6032 ppb	11:29:50
3	P 214.914†	241.0	-23.7	-12.278	ug/L	-12.278 ppb	11:29:50
3	Pb 220.353†	-68.3	-2.3	-0.2446	ug/L	-0.2446 ppb	11:29:50
3	S 181.975 Axial†	49.4	-1.0	-1.1990	ug/L	-1.1990 ppb	11:29:50
3	Sb 206.836†	38.4	-3.9	-1.1428	ug/L	-1.1428 ppb	11:29:50
3	Se 196.026†	-32.8	-3.4	-1.8896	ug/L	-1.8896 ppb	11:29:50
3	Si 251.611†	645.4	50.2	1.3993	ug/L	1.3993 ppb	11:29:50
3	Sn 189.927†	8.8	5.1	0.7600	ug/L	0.7600 ppb	11:29:50
3	Ti 334.940†	-1413.8	12.8	0.0186	ug/L	0.0186 ppb	11:29:29
3	Tl 190.801†	-31.6	17.4	4.5038	ug/L	4.5038 ppb	11:29:50
3	U 409.014†	-2432.5	6.8	0.1896	ug/L	0.1896 ppb	11:29:24
3	V 292.402†	-1530.9	-19.2	-0.1153	ug/L	-0.1153 ppb	11:29:29
3	Zn 213.857†	829.7	13.3	0.1067	ug/L	0.1067 ppb	11:29:50
3	SiO2†	695.2	69.4	4.1659	ug/L	4.1659 ppb	11:30:05

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	925819.9	102.99	%	0.728				0.71%
Sc Radial	5621.1	101	%	2.7				2.67%
Y 371.029	764421.2	102.68	%	0.703				0.68%
Y RADIAL	6020.5	101.8	%	2.91				2.85%
Ag 328.068†	26.9	0.1081	ug/L	0.28846	0.1081	ppb	0.28846	266.89%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-5.1	-3.7234	ug/L	5.46373	-3.7234	ppb	5.46373	146.74%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	8.1	2.9558	ug/L	1.44394	2.9558	ppb	1.44394	48.85%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-149.6	-3.0676	ug/L	0.40543	-3.0676	ppb	0.40543	13.22%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	7.5	0.0502	ug/L	0.05441	0.0502	ppb	0.05441	108.31%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	194.0	0.0652	ug/L	0.00985	0.0652	ppb	0.00985	15.11%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	2.1	3.0406	ug/L	3.36188	3.0406	ppb	3.36188	110.57%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                17.2      0.1705 ug/L       0.08368      0.1705 ppb        0.08368  49.09%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                 4.7      0.0821 ug/L       0.15314      0.0821 ppb        0.15314 186.58%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                13.2      0.1333 ug/L       0.04310      0.1333 ppb        0.04310  32.34%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -107.3     -0.3042 ug/L       0.05618     -0.3042 ppb        0.05618  18.47%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -2.3     -19.319 ug/L        2.9168     -19.319 ppb         2.9168  15.10%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         142.2      25.060 ug/L        9.2134      25.060 ppb         9.2134  36.77%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -0.2      -6.5210 ug/L      35.74393     -6.5210 ppb       35.74393 548.14%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                 0.9      -0.0009 ug/L       0.00858     -0.0009 ppb        0.00858 966.34%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 3.6       0.2145 ug/L       0.03235      0.2145 ppb        0.03235  15.09%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†          6.0       1.7964 ug/L      14.26729      1.7964 ppb       14.26729 794.21%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                20.2       0.4410 ug/L       0.14815      0.4410 ppb        0.14815  33.59%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -17.8      -9.1903 ug/L       3.00774     -9.1903 ppb        3.00774  32.73%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -6.8      -0.7125 ug/L       1.02183     -0.7125 ppb        1.02183 143.41%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -0.5      -0.6429 ug/L       3.20807     -0.6429 ppb        3.20807 499.04%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 1.1       0.3306 ug/L       1.27945      0.3306 ppb        1.27945 387.00%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 4.9       2.6304 ug/L       4.31348      2.6304 ppb        4.31348 163.99%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                61.7       1.7251 ug/L       0.30985      1.7251 ppb        0.30985  17.96%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 3.0       0.4543 ug/L       0.42248      0.4543 ppb        0.42248  93.00%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                22.3       0.1307 ug/L       0.10201      0.1307 ppb        0.10201  78.02%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                50.1       0.0717 ug/L       0.16255      0.0717 ppb        0.16255 226.72%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                13.7       3.5414 ug/L       2.16211      3.5414 ppb        2.16211  61.05%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 71.3       1.9656 ug/L       1.66196      1.9656 ppb        1.66196  84.55%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 18.3       0.1260 ug/L       0.38983      0.1260 ppb        0.38983 309.44%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                14.3       0.1168 ug/L       0.02648      0.1168 ppb        0.02648  22.67%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                      49.4       2.9623 ug/L       1.28387      2.9623 ppb        1.28387  43.34%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 6
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 12/19/2009 12:04:19
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	5215.8	5215.8	93.7	%			12:06:11
1	Y RADIAL	5527.1	5527.1	93.50	%			12:06:11
1	Al 396.153Radial†	6909.2	7391.2	5364.7	ug/L	5364.7	ppb	12:06:11
1	Ca 317.933Radial†	3510.2	3727.1	5313.9	ug/L	5313.9	ppb	12:06:31
1	Fe 238.204 Radial†	609.7	639.9	5335.1	ug/L	5335.1	ppb	12:06:31
1	K 766.490 Radial†	31496.3	30906.3	5438.5	ug/L	5438.5	ppb	12:06:11
1	Mg 279.077 IEC†	166.6	176.4	5483.7	ug/L	5483.7	ppb	12:06:31
1	Na 589.592 Radial†	31745.8	34646.7	10341	ug/L	10341	ppb	12:06:11
1	Sr 421.552†	85549.9	91326.6	535.48	ug/L	535.48	ppb	12:06:11
1	Sc 361.383	922665.3	922665.3	102.64	%			12:07:30
1	Y 371.029	750972.1	750972.1	100.87	%			12:07:30
1	Ag 328.068†	116484.3	113115.2	490.70	ug/L	490.70	ppb	12:07:30
1	As 188.979†	1340.6	1340.9	491.12	ug/L	491.12	ppb	12:07:51
1	B 249.677†	24009.9	23417.7	478.66	ug/L	478.66	ppb	12:07:30
1	Ba 233.527†	74481.1	72566.0	494.49	ug/L	494.49	ppb	12:07:30
1	Be 313.107†	1497392.4	1463569.3	491.78	ug/L	491.78	ppb	12:07:30
1	Cd 226.502†	51605.6	50506.0	493.72	ug/L	493.72	ppb	12:07:30
1	Co 228.616†	28258.7	27618.2	483.60	ug/L	483.60	ppb	12:07:51
1	Cr 267.716†	49853.3	48489.6	492.42	ug/L	492.42	ppb	12:07:30
1	Cu 324.752†	185199.2	174375.2	492.95	ug/L	492.95	ppb	12:07:30
1	Mn 257.610†	512893.1	499195.8	492.82	ug/L	492.82	ppb	12:07:30
1	Mo 202.031†	8311.0	8077.1	489.30	ug/L	489.30	ppb	12:07:51
1	Ni 231.604†	22987.9	22302.4	486.98	ug/L	486.98	ppb	12:07:51
1	P 214.914†	5057.4	4669.1	2360.7	ug/L	2360.7	ppb	12:07:51
1	Pb 220.353†	4753.4	4695.1	496.35	ug/L	496.35	ppb	12:07:51
1	S 181.975 Axial†	861.2	790.0	968.09	ug/L	968.09	ppb	12:07:51
1	Sb 206.836†	1713.8	1628.4	494.85	ug/L	494.85	ppb	12:07:51
1	Se 196.026†	892.2	897.7	507.56	ug/L	507.56	ppb	12:07:51
1	Si 251.611†	89480.6	86599.2	2430.1	ug/L	2430.1	ppb	12:07:30
1	Sn 189.927†	3346.8	3257.1	489.12	ug/L	489.12	ppb	12:07:51
1	Ti 334.940†	345381.4	337876.2	488.41	ug/L	488.41	ppb	12:07:30
1	Tl 190.801†	1895.8	1895.1	494.87	ug/L	494.87	ppb	12:07:51
1	U 409.014†	14940.5	16928.0	464.78	ug/L	464.78	ppb	12:07:30
1	V 292.402†	77525.9	76999.2	496.21	ug/L	496.21	ppb	12:07:30
1	Zn 213.857†	62585.1	60180.2	489.17	ug/L	489.17	ppb	12:07:30
1	SiO2†	88749.6	85857.8	5172.8	ug/L	5172.8	ppb	12:08:51
2	Sc Radial	5269.7	5269.7	94.7	%			12:06:37
2	Y RADIAL	5569.7	5569.7	94.22	%			12:06:37
2	Al 396.153Radial†	6560.4	6947.3	5041.1	ug/L	5041.1	ppb	12:06:37
2	Ca 317.933Radial†	3456.5	3632.1	5178.5	ug/L	5178.5	ppb	12:06:57
2	Fe 238.204 Radial†	606.9	630.3	5254.7	ug/L	5254.7	ppb	12:06:57
2	K 766.490 Radial†	30150.8	29141.2	5127.6	ug/L	5127.6	ppb	12:06:37
2	Mg 279.077 IEC†	164.0	171.8	5340.7	ug/L	5340.7	ppb	12:06:57
2	Na 589.592 Radial†	30075.4	32535.7	9711.0	ug/L	9711.0	ppb	12:06:37
2	Sr 421.552†	81101.4	85693.8	502.45	ug/L	502.45	ppb	12:06:37
2	Sc 361.383	921073.8	921073.8	102.47	%			12:07:58
2	Y 371.029	750272.1	750272.1	100.78	%			12:07:58
2	Ag 328.068†	115776.1	112620.1	488.54	ug/L	488.54	ppb	12:07:58
2	As 188.979†	1363.7	1365.7	500.08	ug/L	500.08	ppb	12:08:18
2	B 249.677†	23799.3	23252.5	475.27	ug/L	475.27	ppb	12:07:58
2	Ba 233.527†	74377.2	72590.0	494.65	ug/L	494.65	ppb	12:07:58
2	Be 313.107†	1495290.2	1464038.3	491.94	ug/L	491.94	ppb	12:07:58
2	Cd 226.502†	51508.3	50498.0	493.65	ug/L	493.65	ppb	12:07:58
2	Co 228.616†	28382.1	27786.2	486.55	ug/L	486.55	ppb	12:08:18
2	Cr 267.716†	49814.0	48535.1	492.88	ug/L	492.88	ppb	12:07:58
2	Cu 324.752†	183902.9	173421.8	490.25	ug/L	490.25	ppb	12:07:58
2	Mn 257.610†	511766.6	498959.8	492.58	ug/L	492.58	ppb	12:07:58
2	Mo 202.031†	8348.8	8128.0	492.37	ug/L	492.37	ppb	12:08:18
2	Ni 231.604†	23046.5	22398.3	489.07	ug/L	489.07	ppb	12:08:18

2	P 214.914†	5077.3	4697.0	2375.7	ug/L	2375.7 ppb	12:08:18
2	Pb 220.353†	4747.1	4697.0	496.49	ug/L	496.49 ppb	12:08:18
2	S 181.975 Axial†	861.5	791.7	970.31	ug/L	970.31 ppb	12:08:18
2	Sb 206.836†	1724.5	1641.8	498.91	ug/L	498.91 ppb	12:08:18
2	Se 196.026†	893.9	900.9	509.02	ug/L	509.02 ppb	12:08:18
2	Si 251.611†	89040.6	86320.5	2422.3	ug/L	2422.3 ppb	12:07:58
2	Sn 189.927†	3336.3	3252.6	488.42	ug/L	488.42 ppb	12:08:18
2	Ti 334.940†	343776.3	336891.2	486.98	ug/L	486.98 ppb	12:07:58
2	Tl 190.801†	1892.2	1894.7	494.74	ug/L	494.74 ppb	12:08:18
2	U 409.014†	15005.0	17016.1	467.22	ug/L	467.22 ppb	12:07:58
2	V 292.402†	77237.3	76848.1	495.31	ug/L	495.31 ppb	12:07:58
2	Zn 213.857†	62496.6	60199.1	489.32	ug/L	489.32 ppb	12:07:58
2	SiO2†	89491.5	86731.3	5225.8	ug/L	5225.8 ppb	12:08:56
3	Sc Radial	5538.8	5538.8	99.5	%		12:07:02
3	Y RADIAL	5842.5	5842.5	98.83	%		12:07:02
3	Al 396.153Radial†	6787.9	6839.2	4962.3	ug/L	4962.3 ppb	12:07:02
3	Ca 317.933Radial†	3443.5	3441.6	4906.8	ug/L	4906.8 ppb	12:07:22
3	Fe 238.204 Radial†	600.6	592.8	4943.6	ug/L	4943.6 ppb	12:07:22
3	K 766.490 Radial†	31132.6	28580.4	5028.9	ug/L	5028.9 ppb	12:07:02
3	Mg 279.077 IEC†	165.4	164.8	5124.3	ug/L	5124.3 ppb	12:07:22
3	Na 589.592 Radial†	31114.0	32035.9	9561.8	ug/L	9561.8 ppb	12:07:02
3	Sr 421.552†	84223.2	84668.6	496.44	ug/L	496.44 ppb	12:07:02
3	Sc 361.383	916829.3	916829.3	101.99	%		12:08:25
3	Y 371.029	745650.2	745650.2	100.16	%		12:08:25
3	Ag 328.068†	115388.8	112763.5	489.06	ug/L	489.06 ppb	12:08:25
3	As 188.979†	1356.3	1364.6	499.63	ug/L	499.63 ppb	12:08:46
3	B 249.677†	23822.2	23382.6	477.98	ug/L	477.98 ppb	12:08:25
3	Ba 233.527†	74079.4	72634.0	494.94	ug/L	494.94 ppb	12:08:25
3	Be 313.107†	1484645.3	1460357.4	490.70	ug/L	490.70 ppb	12:08:25
3	Cd 226.502†	51428.0	50652.0	495.19	ug/L	495.19 ppb	12:08:25
3	Co 228.616†	28390.9	27923.1	488.95	ug/L	488.95 ppb	12:08:46
3	Cr 267.716†	49534.4	48486.1	492.38	ug/L	492.38 ppb	12:08:25
3	Cu 324.752†	183066.0	173432.2	490.26	ug/L	490.26 ppb	12:08:25
3	Mn 257.610†	510397.0	499929.3	493.51	ug/L	493.51 ppb	12:08:25
3	Mo 202.031†	8336.9	8154.1	493.93	ug/L	493.93 ppb	12:08:46
3	Ni 231.604†	23037.5	22493.6	491.15	ug/L	491.15 ppb	12:08:46
3	P 214.914†	5077.5	4720.2	2388.0	ug/L	2388.0 ppb	12:08:46
3	Pb 220.353†	4752.7	4723.8	499.33	ug/L	499.33 ppb	12:08:46
3	S 181.975 Axial†	873.3	807.2	989.28	ug/L	989.28 ppb	12:08:46
3	Sb 206.836†	1729.6	1654.5	502.85	ug/L	502.85 ppb	12:08:46
3	Se 196.026†	904.0	914.9	515.70	ug/L	515.70 ppb	12:08:46
3	Si 251.611†	88849.4	86535.3	2428.3	ug/L	2428.3 ppb	12:08:25
3	Sn 189.927†	3349.7	3280.8	492.62	ug/L	492.62 ppb	12:08:46
3	Ti 334.940†	342691.2	337380.5	487.68	ug/L	487.68 ppb	12:08:25
3	Tl 190.801†	1901.9	1912.8	499.41	ug/L	499.41 ppb	12:08:46
3	U 409.014†	14842.2	16924.3	464.73	ug/L	464.73 ppb	12:08:25
3	V 292.402†	76938.6	76904.2	495.73	ug/L	495.73 ppb	12:08:25
3	Zn 213.857†	62308.9	60297.4	490.15	ug/L	490.15 ppb	12:08:25
3	SiO2†	87638.2	85318.6	5140.2	ug/L	5140.2 ppb	12:09:01

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	920189.5	102.37	%	0.336				0.33%
Sc Radial	5341.4	95.9	%	3.11				3.24%
Y 371.029	748964.8	100.60	%	0.388				0.39%
Y RADIAL	5646.4	95.52	%	2.895				3.03%
Ag 328.068†	112832.9	489.43	ug/L	1.130	489.43	ppb	1.130	0.23%
QC value within limits for Ag 328.068 Recovery = 97.89%								
Al 396.153Radial†	7059.2	5122.7	ug/L	213.25	5122.7	ppb	213.25	4.16%
QC value within limits for Al 396.153Radial Recovery = 102.45%								
As 188.979†	1357.1	496.94	ug/L	5.048	496.94	ppb	5.048	1.02%
QC value within limits for As 188.979 Recovery = 99.39%								
B 249.677†	23350.9	477.30	ug/L	1.791	477.30	ppb	1.791	0.38%
QC value within limits for B 249.677 Recovery = 95.46%								
Ba 233.527†	72596.7	494.69	ug/L	0.226	494.69	ppb	0.226	0.05%
QC value within limits for Ba 233.527 Recovery = 98.94%								
Be 313.107†	1462655.0	491.48	ug/L	0.672	491.48	ppb	0.672	0.14%
QC value within limits for Be 313.107 Recovery = 98.30%								
Ca 317.933Radial†	3600.3	5133.0	ug/L	207.31	5133.0	ppb	207.31	4.04%

QC value within limits for Ca 317.933Radial Recovery = 102.66%

Cd 226.502†	50552.0	494.19 ug/L	0.869	494.19 ppb	0.869	0.18%

QC value within limits for Cd 226.502 Recovery = 98.84%

Co 228.616†	27775.8	486.37 ug/L	2.682	486.37 ppb	2.682	0.55%

QC value within limits for Co 228.616 Recovery = 97.27%

Cr 267.716†	48503.6	492.56 ug/L	0.278	492.56 ppb	0.278	0.06%

QC value within limits for Cr 267.716 Recovery = 98.51%

Cu 324.752†	173743.1	491.15 ug/L	1.554	491.15 ppb	1.554	0.32%

QC value within limits for Cu 324.752 Recovery = 98.23%

Fe 238.204 Radial†	621.0	5177.8 ug/L	206.78	5177.8 ppb	206.78	3.99%

QC value within limits for Fe 238.204 Radial Recovery = 103.56%

K 766.490 Radial†	29542.7	5198.3 ug/L	213.75	5198.3 ppb	213.75	4.11%

QC value within limits for K 766.490 Radial Recovery = 103.97%

Mg 279.077 IEC†	171.0	5316.2 ug/L	180.96	5316.2 ppb	180.96	3.40%

QC value within limits for Mg 279.077 IEC Recovery = 106.32%

Mn 257.610†	499361.7	492.97 ug/L	0.483	492.97 ppb	0.483	0.10%

QC value within limits for Mn 257.610 Recovery = 98.59%

Mo 202.031†	8119.7	491.87 ug/L	2.357	491.87 ppb	2.357	0.48%

QC value within limits for Mo 202.031 Recovery = 98.37%

Na 589.592 Radial†	33072.8	9871.3 ug/L	413.63	9871.3 ppb	413.63	4.19%

QC value within limits for Na 589.592 Radial Recovery = 98.71%

Ni 231.604†	22398.1	489.07 ug/L	2.087	489.07 ppb	2.087	0.43%

QC value within limits for Ni 231.604 Recovery = 97.81%

P 214.914†	4695.4	2374.8 ug/L	13.67	2374.8 ppb	13.67	0.58%

QC value within limits for P 214.914 Recovery = 94.99%

Pb 220.353†	4705.3	497.39 ug/L	1.684	497.39 ppb	1.684	0.34%

QC value within limits for Pb 220.353 Recovery = 99.48%

S 181.975 Axial†	796.3	975.89 ug/L	11.649	975.89 ppb	11.649	1.19%

QC value within limits for S 181.975 Axial Recovery = 97.59%

Sb 206.836†	1641.6	498.87 ug/L	3.996	498.87 ppb	3.996	0.80%

QC value within limits for Sb 206.836 Recovery = 99.77%

Se 196.026†	904.5	510.76 ug/L	4.338	510.76 ppb	4.338	0.85%

QC value within limits for Se 196.026 Recovery = 102.15%

Si 251.611†	86485.0	2426.9 ug/L	4.10	2426.9 ppb	4.10	0.17%

QC value within limits for Si 251.611 Recovery = 97.08%

Sn 189.927†	3263.5	490.05 ug/L	2.250	490.05 ppb	2.250	0.46%

QC value within limits for Sn 189.927 Recovery = 98.01%

Sr 421.552†	87229.7	511.46 ug/L	21.020	511.46 ppb	21.020	4.11%

QC value within limits for Sr 421.552 Recovery = 102.29%

Ti 334.940†	337382.7	487.69 ug/L	0.716	487.69 ppb	0.716	0.15%

QC value within limits for Ti 334.940 Recovery = 97.54%

Tl 190.801†	1900.9	496.34 ug/L	2.661	496.34 ppb	2.661	0.54%

QC value within limits for Tl 190.801 Recovery = 99.27%

U 409.014†	16956.2	465.58 ug/L	1.422	465.58 ppb	1.422	0.31%

QC value within limits for U 409.014 Recovery = 93.12%

V 292.402†	76917.2	495.75 ug/L	0.452	495.75 ppb	0.452	0.09%

QC value within limits for V 292.402 Recovery = 99.15%

Zn 213.857†	60225.6	489.55 ug/L	0.531	489.55 ppb	0.531	0.11%

QC value within limits for Zn 213.857 Recovery = 97.91%

SiO2†	85969.2	5179.6 ug/L	43.18	5179.6 ppb	43.18	0.83%

QC value within limits for SiO2 Recovery = 96.86%

All analyte(s) passed QC.

Sequence No.: 7
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 12/19/2009 12:11:12
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5707.4	5707.4	103	%			12:13:04
1	Y RADIAL	6104.4	6104.4	103.3	%			12:13:04
1	Al 396.153Radial†	-15.9	0.9	0.6021	ug/L	0.6021	ppb	12:13:04
1	Ca 317.933Radial†	23.9	3.8	5.3603	ug/L	5.3603	ppb	12:13:24
1	Fe 238.204 Radial†	9.6	-1.5	-12.798	ug/L	-12.798	ppb	12:13:24
1	K 766.490 Radial†	2816.2	34.7	6.1053	ug/L	6.1053	ppb	12:13:04
1	Mg 279.077 IEC†	0.2	-1.2	-37.921	ug/L	-37.921	ppb	12:13:24
1	Na 589.592 Radial†	-755.3	24.9	7.4376	ug/L	7.4376	ppb	12:13:04
1	Sr 421.552†	44.4	55.1	0.3229	ug/L	0.3229	ppb	12:13:04
1	Sc 361.383	923666.3	923666.3	102.75	%			12:14:21
1	Y 371.029	763001.3	763001.3	102.49	%			12:14:21
1	Ag 328.068†	383.6	3.4	0.0104	ug/L	0.0104	ppb	12:14:26
1	As 188.979†	-32.8	2.9	1.0526	ug/L	1.0526	ppb	12:14:46
1	B 249.677†	-280.0	-246.6	-5.0595	ug/L	-5.0595	ppb	12:14:46
1	Ba 233.527†	-11.2	-8.3	-0.0559	ug/L	-0.0559	ppb	12:14:46
1	Be 313.107†	-4565.7	287.8	0.0970	ug/L	0.0970	ppb	12:14:26
1	Cd 226.502†	-215.3	19.7	0.1938	ug/L	0.1938	ppb	12:14:46
1	Co 228.616†	-85.1	4.3	0.0756	ug/L	0.0756	ppb	12:14:46
1	Cr 267.716†	110.2	27.1	0.2750	ug/L	0.2750	ppb	12:14:46
1	Cu 324.752†	6002.7	-213.8	-0.6046	ug/L	-0.6046	ppb	12:14:26
1	Mn 257.610†	499.3	-5.6	-0.0061	ug/L	-0.0061	ppb	12:14:46
1	Mo 202.031†	27.5	6.9	0.4151	ug/L	0.4151	ppb	12:14:46
1	Ni 231.604†	111.9	15.3	0.3345	ug/L	0.3345	ppb	12:14:46
1	P 214.914†	246.0	-18.7	-9.6664	ug/L	-9.6664	ppb	12:14:46
1	Pb 220.353†	-71.1	-5.1	-0.5352	ug/L	-0.5352	ppb	12:14:46
1	S 181.975 Axial†	46.7	-3.5	-4.3068	ug/L	-4.3068	ppb	12:14:46
1	Sb 206.836†	36.0	-6.2	-1.8699	ug/L	-1.8699	ppb	12:14:46
1	Se 196.026†	-23.2	5.9	3.1725	ug/L	3.1725	ppb	12:14:46
1	Si 251.611†	639.4	44.8	1.2550	ug/L	1.2550	ppb	12:14:46
1	Sn 189.927†	-1.3	-4.8	-0.7190	ug/L	-0.7190	ppb	12:14:46
1	Ti 334.940†	-1257.8	163.5	0.2357	ug/L	0.2357	ppb	12:14:26
1	Tl 190.801†	-46.6	2.7	0.6997	ug/L	0.6997	ppb	12:14:46
1	U 409.014†	-2355.2	80.1	2.2087	ug/L	2.2087	ppb	12:14:21
1	V 292.402†	-1429.1	78.7	0.5112	ug/L	0.5112	ppb	12:14:26
1	Zn 213.857†	826.2	10.5	0.0874	ug/L	0.0874	ppb	12:14:46
1	SiO2†	640.8	17.0	1.0147	ug/L	1.0147	ppb	12:15:52
2	Sc Radial	5660.8	5660.8	102	%			12:13:29
2	Y RADIAL	6041.7	6041.7	102.2	%			12:13:29
2	Al 396.153Radial†	-18.9	-2.2	-1.5858	ug/L	-1.5858	ppb	12:13:29
2	Ca 317.933Radial†	23.3	3.4	4.8247	ug/L	4.8247	ppb	12:13:49
2	Fe 238.204 Radial†	10.6	-0.4	-3.4825	ug/L	-3.4825	ppb	12:13:49
2	K 766.490 Radial†	2916.4	155.8	27.467	ug/L	27.467	ppb	12:13:29
2	Mg 279.077 IEC†	3.3	1.9	57.791	ug/L	57.791	ppb	12:13:49
2	Na 589.592 Radial†	-805.1	-30.2	-9.0087	ug/L	-9.0087	ppb	12:13:29
2	Sr 421.552†	28.6	40.0	0.2344	ug/L	0.2344	ppb	12:13:29
2	Sc 361.383	916990.4	916990.4	102.01	%			12:14:51
2	Y 371.029	757415.2	757415.2	101.74	%			12:14:51
2	Ag 328.068†	386.8	9.3	0.0409	ug/L	0.0409	ppb	12:14:56
2	As 188.979†	-22.8	12.4	4.5224	ug/L	4.5224	ppb	12:15:16
2	B 249.677†	-254.8	-223.9	-4.5946	ug/L	-4.5946	ppb	12:15:16
2	Ba 233.527†	11.0	13.4	0.0914	ug/L	0.0914	ppb	12:15:16
2	Be 313.107†	-4671.3	152.0	0.0513	ug/L	0.0513	ppb	12:14:56
2	Cd 226.502†	-214.5	19.0	0.1858	ug/L	0.1858	ppb	12:15:16
2	Co 228.616†	-73.7	14.9	0.2606	ug/L	0.2606	ppb	12:15:16
2	Cr 267.716†	124.4	41.8	0.4246	ug/L	0.4246	ppb	12:15:16
2	Cu 324.752†	5983.0	-190.5	-0.5385	ug/L	-0.5385	ppb	12:14:56
2	Mn 257.610†	520.1	18.4	0.0167	ug/L	0.0167	ppb	12:15:16
2	Mo 202.031†	22.4	2.1	0.1268	ug/L	0.1268	ppb	12:15:16
2	Ni 231.604†	95.7	0.3	0.0054	ug/L	0.0054	ppb	12:15:16

2	P 214.914†	251.7	-11.3	-5.8317	ug/L	-5.8317	ppb	12:15:16
2	Pb 220.353†	-59.1	6.2	0.6490	ug/L	0.6490	ppb	12:15:16
2	S 181.975 Axial†	52.5	2.5	3.0218	ug/L	3.0218	ppb	12:15:16
2	Sb 206.836†	42.7	0.7	0.1874	ug/L	0.1874	ppb	12:15:16
2	Se 196.026†	-29.6	-0.5	-0.2974	ug/L	-0.2974	ppb	12:15:16
2	Si 251.611†	613.5	23.9	0.6644	ug/L	0.6644	ppb	12:15:16
2	Sn 189.927†	2.1	-1.5	-0.2206	ug/L	-0.2206	ppb	12:15:16
2	Ti 334.940†	-1300.8	112.4	0.1635	ug/L	0.1635	ppb	12:14:56
2	Tl 190.801†	-35.7	13.0	3.3841	ug/L	3.3841	ppb	12:15:16
2	U 409.014†	-2484.9	-63.7	-1.7545	ug/L	-1.7545	ppb	12:14:51
2	V 292.402†	-1475.3	23.2	0.1477	ug/L	0.1477	ppb	12:14:56
2	Zn 213.857†	812.1	2.6	0.0201	ug/L	0.0201	ppb	12:15:16
2	SiO2†	585.9	-32.4	-1.9828	ug/L	-1.9828	ppb	12:15:57
3	Sc Radial	5627.8	5627.8	101	%			12:13:54
3	Y RADIAL	6011.7	6011.7	101.7	%			12:13:54
3	Al 396.153Radial†	-18.9	-2.3	-1.6774	ug/L	-1.6774	ppb	12:13:54
3	Ca 317.933Radial†	17.7	-2.1	-3.0092	ug/L	-3.0092	ppb	12:14:14
3	Fe 238.204 Radial†	11.5	0.5	4.3539	ug/L	4.3539	ppb	12:14:14
3	K 766.490 Radial†	2879.6	136.2	24.009	ug/L	24.009	ppb	12:13:54
3	Mg 279.077 IEC†	1.6	0.2	5.1561	ug/L	5.1561	ppb	12:14:14
3	Na 589.592 Radial†	-784.5	-14.4	-4.3064	ug/L	-4.3064	ppb	12:13:54
3	Sr 421.552†	-24.3	-12.2	-0.0717	ug/L	-0.0717	ppb	12:13:54
3	Sc 361.383	912968.1	912968.1	101.56	%			12:15:22
3	Y 371.029	753654.3	753654.3	101.23	%			12:15:22
3	Ag 328.068†	368.9	-6.7	-0.0250	ug/L	-0.0250	ppb	12:15:27
3	As 188.979†	-32.7	2.7	0.9721	ug/L	0.9721	ppb	12:15:47
3	B 249.677†	-263.1	-233.1	-4.7856	ug/L	-4.7856	ppb	12:15:47
3	Ba 233.527†	1.4	4.0	0.0283	ug/L	0.0283	ppb	12:15:47
3	Be 313.107†	-4741.8	62.4	0.0209	ug/L	0.0209	ppb	12:15:27
3	Cd 226.502†	-223.1	9.5	0.0927	ug/L	0.0927	ppb	12:15:47
3	Co 228.616†	-79.0	9.3	0.1610	ug/L	0.1610	ppb	12:15:47
3	Cr 267.716†	111.0	29.2	0.2968	ug/L	0.2968	ppb	12:15:47
3	Cu 324.752†	5984.8	-162.9	-0.4602	ug/L	-0.4602	ppb	12:15:27
3	Mn 257.610†	511.9	12.5	0.0127	ug/L	0.0127	ppb	12:15:47
3	Mo 202.031†	12.6	-7.5	-0.4514	ug/L	-0.4514	ppb	12:15:47
3	Ni 231.604†	108.8	13.5	0.2950	ug/L	0.2950	ppb	12:15:47
3	P 214.914†	261.7	-0.4	-0.1510	ug/L	-0.1510	ppb	12:15:47
3	Pb 220.353†	-83.0	-17.7	-1.8661	ug/L	-1.8661	ppb	12:15:47
3	S 181.975 Axial†	49.8	0.1	0.0691	ug/L	0.0691	ppb	12:15:47
3	Sb 206.836†	48.8	6.8	2.0403	ug/L	2.0403	ppb	12:15:47
3	Se 196.026†	-32.3	-3.3	-1.7778	ug/L	-1.7778	ppb	12:15:47
3	Si 251.611†	603.8	17.1	0.4789	ug/L	0.4789	ppb	12:15:47
3	Sn 189.927†	8.0	4.4	0.6611	ug/L	0.6611	ppb	12:15:47
3	Ti 334.940†	-1422.6	-13.1	-0.0189	ug/L	-0.0189	ppb	12:15:27
3	Tl 190.801†	-29.8	18.8	4.8639	ug/L	4.8639	ppb	12:15:47
3	U 409.014†	-2437.8	-28.0	-0.7734	ug/L	-0.7734	ppb	12:15:22
3	V 292.402†	-1424.2	67.1	0.4184	ug/L	0.4184	ppb	12:15:27
3	Zn 213.857†	821.3	15.1	0.1218	ug/L	0.1218	ppb	12:15:47
3	SiO2†	641.1	24.5	1.4804	ug/L	1.4804	ppb	12:16:02

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	917875.0	102.11	%	0.601				0.59%
Sc Radial	5665.3	102	%	0.7				0.71%
Y 371.029	758023.6	101.82	%	0.632				0.62%
Y RADIAL	6052.6	102.4	%	0.80				0.78%
Ag 328.068†	2.0	0.0088	ug/L	0.03297	0.0088	ppb	0.03297	376.67%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-1.2	-0.8870	ug/L	1.29044	-0.8870	ppb	1.29044	145.48%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	6.0	2.1824	ug/L	2.02694	2.1824	ppb	2.02694	92.88%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-234.5	-4.8133	ug/L	0.23365	-4.8133	ppb	0.23365	4.85%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	3.0	0.0213	ug/L	0.07388	0.0213	ppb	0.07388	347.62%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	167.4	0.0564	ug/L	0.03831	0.0564	ppb	0.03831	67.94%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	1.7	2.3919	ug/L	4.68517	2.3919	ppb	4.68517	195.88%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                16.0      0.1574 ug/L       0.05616      0.1574 ppb        0.05616  35.67%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                 9.5      0.1658 ug/L       0.09261      0.1658 ppb        0.09261  55.87%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                32.7      0.3321 ug/L       0.08085      0.3321 ppb        0.08085  24.34%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -189.1     -0.5344 ug/L       0.07233     -0.5344 ppb        0.07233  13.53%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -0.5     -3.9756 ug/L       8.58659     -3.9756 ppb        8.58659 215.98%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         108.9      19.194 ug/L      11.4662      19.194 ppb       11.4662  59.74%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             0.3      8.3422 ug/L      47.93540      8.3422 ppb       47.93540 574.61%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                 8.4      0.0078 ug/L       0.01214      0.0078 ppb        0.01214 156.18%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 0.5      0.0302 ug/L       0.44121      0.0302 ppb        0.44121 >999.9%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†         -6.6     -1.9592 ug/L       8.47068     -1.9592 ppb        8.47068 432.36%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                 9.7      0.2116 ug/L       0.17970      0.2116 ppb        0.17970  84.91%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -10.2     -5.2164 ug/L       4.78744     -5.2164 ppb        4.78744  91.78%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -5.5     -0.5841 ug/L       1.25825     -0.5841 ppb        1.25825 215.42%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -0.3     -0.4053 ug/L       3.68726     -0.4053 ppb        3.68726 909.82%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 0.4      0.1192 ug/L       1.95598      0.1192 ppb        1.95598 >999.9%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 0.7      0.3657 ug/L       2.54094      0.3657 ppb        2.54094 694.74%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                28.6      0.7994 ug/L       0.40528      0.7994 ppb        0.40528  50.70%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                -0.6     -0.0928 ug/L       0.69888     -0.0928 ppb        0.69888 752.72%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                27.6      0.1619 ug/L       0.20707      0.1619 ppb        0.20707 127.91%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                87.6      0.1267 ug/L       0.13119      0.1267 ppb        0.13119 103.52%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                11.5      2.9826 ug/L       2.11091      2.9826 ppb        2.11091  70.77%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 -3.9     -0.1064 ug/L       2.06409     -0.1064 ppb        2.06409 >999.9%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 56.3      0.3591 ug/L       0.18887      0.3591 ppb        0.18887  52.60%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                 9.4      0.0764 ug/L       0.05170      0.0764 ppb        0.05170  67.63%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                       3.1      0.1707 ug/L       1.87951      0.1707 ppb        1.87951 >999.9%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 8
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 12/19/2009 13:07:25
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5405.0	5405.0	97.1	%			13:09:18
1	Y RADIAL	5751.1	5751.1	97.29	%			13:09:18
1	Al 396.153Radial†	6692.3	6909.7	5014.0	ug/L	5014.0	ppb	13:09:18
1	Ca 317.933Radial†	3461.8	3546.2	5056.0	ug/L	5056.0	ppb	13:09:38
1	Fe 238.204 Radial†	598.9	606.0	5053.6	ug/L	5053.6	ppb	13:09:38
1	K 766.490 Radial†	30587.8	28793.9	5066.5	ug/L	5066.5	ppb	13:09:18
1	Mg 279.077 IEC†	163.4	166.9	5188.0	ug/L	5188.0	ppb	13:09:38
1	Na 589.592 Radial†	30044.8	31708.6	9464.1	ug/L	9464.1	ppb	13:09:18
1	Sr 421.552†	82369.7	84854.9	497.53	ug/L	497.53	ppb	13:09:18
1	Sc 361.383	915252.1	915252.1	101.82	%			13:10:35
1	Y 371.029	744373.7	744373.7	99.988	%			13:10:35
1	Ag 328.068†	115927.9	113487.9	492.21	ug/L	492.21	ppb	13:10:41
1	As 188.979†	1339.8	1350.7	494.60	ug/L	494.60	ppb	13:11:01
1	B 249.677†	23779.7	23381.0	477.92	ug/L	477.92	ppb	13:10:41
1	Ba 233.527†	73912.1	72594.9	494.68	ug/L	494.68	ppb	13:10:41
1	Be 313.107†	1475043.1	1453435.1	488.38	ug/L	488.38	ppb	13:10:35
1	Cd 226.502†	51240.0	50554.3	494.23	ug/L	494.23	ppb	13:10:41
1	Co 228.616†	28624.9	28200.8	493.79	ug/L	493.79	ppb	13:10:41
1	Cr 267.716†	49513.0	48548.7	493.01	ug/L	493.01	ppb	13:10:41
1	Cu 324.752†	182768.9	173449.7	490.32	ug/L	490.32	ppb	13:10:41
1	Mn 257.610†	507618.2	498062.5	491.68	ug/L	491.68	ppb	13:10:35
1	Mo 202.031†	8182.0	8016.0	485.58	ug/L	485.58	ppb	13:11:01
1	Ni 231.604†	23108.0	22601.8	493.51	ug/L	493.51	ppb	13:10:41
1	P 214.914†	4999.9	4652.5	2352.6	ug/L	2352.6	ppb	13:11:01
1	Pb 220.353†	4644.6	4625.8	488.98	ug/L	488.98	ppb	13:11:01
1	S 181.975 Axial†	863.7	799.3	979.56	ug/L	979.56	ppb	13:11:01
1	Sb 206.836†	1696.2	1624.7	493.61	ug/L	493.61	ppb	13:11:01
1	Se 196.026†	882.9	895.7	505.55	ug/L	505.55	ppb	13:11:01
1	Si 251.611†	88813.7	86650.4	2431.7	ug/L	2431.7	ppb	13:10:41
1	Sn 189.927†	3304.7	3242.2	486.85	ug/L	486.85	ppb	13:11:01
1	Ti 334.940†	341436.0	336726.7	486.73	ug/L	486.73	ppb	13:10:35
1	Tl 190.801†	1880.0	1894.5	494.63	ug/L	494.63	ppb	13:11:01
1	U 409.014†	15682.8	17774.9	488.15	ug/L	488.15	ppb	13:10:41
1	V 292.402†	77184.9	77276.1	498.00	ug/L	498.00	ppb	13:10:41
1	Zn 213.857†	62127.1	60224.2	489.53	ug/L	489.53	ppb	13:10:41
1	SiO2†	88149.6	85968.9	5179.9	ug/L	5179.9	ppb	13:12:08
2	Sc Radial	5495.3	5495.3	98.7	%			13:09:43
2	Y RADIAL	5821.0	5821.0	98.47	%			13:09:43
2	Al 396.153Radial†	6714.1	6818.3	4947.5	ug/L	4947.5	ppb	13:09:43
2	Ca 317.933Radial†	3464.8	3490.5	4976.6	ug/L	4976.6	ppb	13:10:03
2	Fe 238.204 Radial†	595.9	592.8	4943.4	ug/L	4943.4	ppb	13:10:03
2	K 766.490 Radial†	30563.5	28251.1	4970.9	ug/L	4970.9	ppb	13:09:43
2	Mg 279.077 IEC†	168.3	169.1	5256.0	ug/L	5256.0	ppb	13:10:03
2	Na 589.592 Radial†	30065.0	31220.2	9318.3	ug/L	9318.3	ppb	13:09:43
2	Sr 421.552†	82399.8	83490.2	489.53	ug/L	489.53	ppb	13:09:43
2	Sc 361.383	918014.8	918014.8	102.13	%			13:11:07
2	Y 371.029	747425.3	747425.3	100.40	%			13:11:07
2	Ag 328.068†	115018.9	112255.2	486.84	ug/L	486.84	ppb	13:11:12
2	As 188.979†	1334.8	1341.8	491.38	ug/L	491.38	ppb	13:11:32
2	B 249.677†	23625.3	23159.6	473.40	ug/L	473.40	ppb	13:11:12
2	Ba 233.527†	73474.7	71948.1	490.27	ug/L	490.27	ppb	13:11:12
2	Be 313.107†	1478848.4	1452801.5	488.17	ug/L	488.17	ppb	13:11:07
2	Cd 226.502†	50882.3	50052.5	489.33	ug/L	489.33	ppb	13:11:12
2	Co 228.616†	28476.6	27971.1	489.77	ug/L	489.77	ppb	13:11:12
2	Cr 267.716†	49212.9	48108.5	488.54	ug/L	488.54	ppb	13:11:12
2	Cu 324.752†	181096.8	171272.2	484.16	ug/L	484.16	ppb	13:11:12
2	Mn 257.610†	508746.6	497667.0	491.28	ug/L	491.28	ppb	13:11:07
2	Mo 202.031†	8184.6	7994.4	484.26	ug/L	484.26	ppb	13:11:32
2	Ni 231.604†	22988.7	22416.7	489.47	ug/L	489.47	ppb	13:11:12

2	P 214.914†	4971.2	4609.6	2331.2 ug/L	2331.2 ppb	13:11:32
2	Pb 220.353†	4654.4	4621.6	488.54 ug/L	488.54 ppb	13:11:32
2	S 181.975 Axial†	848.0	781.4	957.62 ug/L	957.62 ppb	13:11:32
2	Sb 206.836†	1714.4	1637.5	497.46 ug/L	497.46 ppb	13:11:32
2	Se 196.026†	880.6	890.8	502.51 ug/L	502.51 ppb	13:11:32
2	Si 251.611†	88042.1	85632.3	2403.1 ug/L	2403.1 ppb	13:11:12
2	Sn 189.927†	3292.0	3220.0	483.50 ug/L	483.50 ppb	13:11:32
2	Ti 334.940†	342332.7	336595.6	486.54 ug/L	486.54 ppb	13:11:07
2	Tl 190.801†	1863.5	1872.8	489.02 ug/L	489.02 ppb	13:11:32
2	U 409.014†	15573.1	17621.2	483.94 ug/L	483.94 ppb	13:11:12
2	V 292.402†	76647.5	76521.7	493.20 ug/L	493.20 ppb	13:11:12
2	Zn 213.857†	61618.5	59542.5	483.98 ug/L	483.98 ppb	13:11:12
2	SiO2†	89228.3	86764.6	5228.3 ug/L	5228.3 ppb	13:12:14
3	Sc Radial	5482.9	5482.9	98.5 %		13:10:08
3	Y RADIAL	5806.0	5806.0	98.22 %		13:10:08
3	Al 396.153Radial†	6679.2	6798.3	4933.0 ug/L	4933.0 ppb	13:10:08
3	Ca 317.933Radial†	3438.9	3472.2	4950.4 ug/L	4950.4 ppb	13:10:28
3	Fe 238.204 Radial†	591.5	589.7	4917.7 ug/L	4917.7 ppb	13:10:28
3	K 766.490 Radial†	30602.7	28361.0	4990.3 ug/L	4990.3 ppb	13:10:08
3	Mg 279.077 IEC†	163.0	164.1	5101.9 ug/L	5101.9 ppb	13:10:28
3	Na 589.592 Radial†	30050.5	31274.5	9334.5 ug/L	9334.5 ppb	13:10:08
3	Sr 421.552†	82283.5	83561.2	489.95 ug/L	489.95 ppb	13:10:08
3	Sc 361.383	921164.5	921164.5	102.48 %		13:11:38
3	Y 371.029	751025.7	751025.7	100.88 %		13:11:38
3	Ag 328.068†	116394.1	113212.1	490.97 ug/L	490.97 ppb	13:11:43
3	As 188.979†	1338.3	1340.8	491.00 ug/L	491.00 ppb	13:12:03
3	B 249.677†	23991.1	23437.4	479.10 ug/L	479.10 ppb	13:11:43
3	Ba 233.527†	73986.3	72201.4	492.00 ug/L	492.00 ppb	13:11:43
3	Be 313.107†	1486996.7	1455801.5	489.17 ug/L	489.17 ppb	13:11:38
3	Cd 226.502†	51238.5	50229.8	491.07 ug/L	491.07 ppb	13:11:43
3	Co 228.616†	28717.2	28110.5	492.20 ug/L	492.20 ppb	13:11:43
3	Cr 267.716†	49762.3	48479.9	492.31 ug/L	492.31 ppb	13:11:43
3	Cu 324.752†	183347.5	172862.2	488.65 ug/L	488.65 ppb	13:11:43
3	Mn 257.610†	509396.6	496598.0	490.23 ug/L	490.23 ppb	13:11:38
3	Mo 202.031†	8166.4	7949.2	481.53 ug/L	481.53 ppb	13:12:03
3	Ni 231.604†	23124.8	22472.5	490.69 ug/L	490.69 ppb	13:11:43
3	P 214.914†	4984.7	4606.2	2328.8 ug/L	2328.8 ppb	13:12:03
3	Pb 220.353†	4646.5	4598.3	486.07 ug/L	486.07 ppb	13:12:03
3	S 181.975 Axial†	861.7	791.9	970.55 ug/L	970.55 ppb	13:12:03
3	Sb 206.836†	1706.0	1623.6	493.16 ug/L	493.16 ppb	13:12:03
3	Se 196.026†	875.0	882.3	497.84 ug/L	497.84 ppb	13:12:03
3	Si 251.611†	88998.9	86271.2	2421.1 ug/L	2421.1 ppb	13:11:43
3	Sn 189.927†	3311.5	3228.0	484.71 ug/L	484.71 ppb	13:12:03
3	Ti 334.940†	343273.8	336367.8	486.20 ug/L	486.20 ppb	13:11:38
3	Tl 190.801†	1863.4	1866.4	487.34 ug/L	487.34 ppb	13:12:03
3	U 409.014†	15740.8	17732.7	487.01 ug/L	487.01 ppb	13:11:43
3	V 292.402†	77474.2	77071.8	496.67 ug/L	496.67 ppb	13:11:43
3	Zn 213.857†	62245.7	59948.3	487.30 ug/L	487.30 ppb	13:11:43
3	SiO2†	88533.9	85788.2	5169.2 ug/L	5169.2 ppb	13:12:19

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	918143.8	102.14	%	0.329				0.32%
Sc Radial	5461.1	98.1	%	0.88				0.90%
Y 371.029	747608.2	100.42	%	0.447				0.45%
Y RADIAL	5792.7	97.99	%	0.622				0.63%
Ag 328.068†	112985.0	490.01	ug/L	2.808	490.01	ppb	2.808	0.57%
QC value within limits for Ag 328.068 Recovery = 98.00%								
Al 396.153Radial†	6842.1	4964.8	ug/L	43.18	4964.8	ppb	43.18	0.87%
QC value within limits for Al 396.153Radial Recovery = 99.30%								
As 188.979†	1344.4	492.33	ug/L	1.977	492.33	ppb	1.977	0.40%
QC value within limits for As 188.979 Recovery = 98.47%								
B 249.677†	23326.0	476.81	ug/L	3.008	476.81	ppb	3.008	0.63%
QC value within limits for B 249.677 Recovery = 95.36%								
Ba 233.527†	72248.1	492.32	ug/L	2.222	492.32	ppb	2.222	0.45%
QC value within limits for Ba 233.527 Recovery = 98.46%								
Be 313.107†	1454012.7	488.57	ug/L	0.530	488.57	ppb	0.530	0.11%
QC value within limits for Be 313.107 Recovery = 97.71%								
Ca 317.933Radial†	3503.0	4994.3	ug/L	54.95	4994.3	ppb	54.95	1.10%

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   QC value within limits for Ca 317.933Radial  Recovery = 99.89%
Cd 226.502†            50278.9      491.54 ug/L         2.484      491.54 ppb          2.484   0.51%
   QC value within limits for Cd 226.502  Recovery = 98.31%
Co 228.616†            28094.1      491.92 ug/L         2.026      491.92 ppb          2.026   0.41%
   QC value within limits for Co 228.616  Recovery = 98.38%
Cr 267.716†            48379.0      491.28 ug/L         2.405      491.28 ppb          2.405   0.49%
   QC value within limits for Cr 267.716  Recovery = 98.26%
Cu 324.752†           172528.1      487.71 ug/L         3.185      487.71 ppb          3.185   0.65%
   QC value within limits for Cu 324.752  Recovery = 97.54%
Fe 238.204 Radial†       596.2      4971.6 ug/L         72.19      4971.6 ppb          72.19   1.45%
   QC value within limits for Fe 238.204 Radial  Recovery = 99.43%
K 766.490 Radial†      28468.7      5009.2 ug/L         50.54      5009.2 ppb          50.54   1.01%
   QC value within limits for K 766.490 Radial  Recovery = 100.18%
Mg 279.077 IEC†          166.7      5182.0 ug/L         77.23      5182.0 ppb          77.23   1.49%
   QC value within limits for Mg 279.077 IEC  Recovery = 103.64%
Mn 257.610†           497442.5      491.06 ug/L         0.752      491.06 ppb          0.752   0.15%
   QC value within limits for Mn 257.610  Recovery = 98.21%
Mo 202.031†             7986.5      483.79 ug/L         2.067      483.79 ppb          2.067   0.43%
   QC value within limits for Mo 202.031  Recovery = 96.76%
Na 589.592 Radial†     31401.1      9372.3 ug/L         79.90      9372.3 ppb          79.90   0.85%
   QC value within limits for Na 589.592 Radial  Recovery = 93.72%
Ni 231.604†            22497.0      491.22 ug/L         2.074      491.22 ppb          2.074   0.42%
   QC value within limits for Ni 231.604  Recovery = 98.24%
P 214.914†              4622.8      2337.5 ug/L         13.10      2337.5 ppb          13.10   0.56%
   QC value within limits for P 214.914  Recovery = 93.50%
Pb 220.353†             4615.2      487.86 ug/L         1.565      487.86 ppb          1.565   0.32%
   QC value within limits for Pb 220.353  Recovery = 97.57%
S 181.975 Axial†         790.9      969.24 ug/L        11.030      969.24 ppb         11.030   1.14%
   QC value within limits for S 181.975 Axial  Recovery = 96.92%
Sb 206.836†             1628.6      494.74 ug/L         2.363      494.74 ppb          2.363   0.48%
   QC value within limits for Sb 206.836  Recovery = 98.95%
Se 196.026†              889.6      501.97 ug/L         3.886      501.97 ppb          3.886   0.77%
   QC value within limits for Se 196.026  Recovery = 100.39%
Si 251.611†            86184.6      2418.6 ug/L         14.48      2418.6 ppb          14.48   0.60%
   QC value within limits for Si 251.611  Recovery = 96.75%
Sn 189.927†             3230.1      485.02 ug/L         1.697      485.02 ppb          1.697   0.35%
   QC value within limits for Sn 189.927  Recovery = 97.00%
Sr 421.552†            83968.8      492.34 ug/L         4.504      492.34 ppb          4.504   0.91%
   QC value within limits for Sr 421.552  Recovery = 98.47%
Ti 334.940†           336563.4      486.49 ug/L         0.265      486.49 ppb          0.265   0.05%
   QC value within limits for Ti 334.940  Recovery = 97.30%
Tl 190.801†             1877.9      490.33 ug/L         3.815      490.33 ppb          3.815   0.78%
   QC value within limits for Tl 190.801  Recovery = 98.07%
U 409.014†             17709.6      486.36 ug/L         2.179      486.36 ppb          2.179   0.45%
   QC value within limits for U 409.014  Recovery = 97.27%
V 292.402†             76956.5      495.96 ug/L         2.480      495.96 ppb          2.480   0.50%
   QC value within limits for V 292.402  Recovery = 99.19%
Zn 213.857†            59905.0      486.93 ug/L         2.792      486.93 ppb          2.792   0.57%
   QC value within limits for Zn 213.857  Recovery = 97.39%
SiO2†                  86173.9      5192.5 ug/L         31.45      5192.5 ppb          31.45   0.61%
   QC value within limits for SiO2  Recovery = 97.10%
All analyte(s) passed QC.
```

Sequence No.: 9
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 12/19/2009 13:14:28
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5541.2	5541.2	99.5	%			13:16:21
1	Y RADIAL	5929.7	5929.7	100.3	%			13:16:21
1	Al 396.153Radial†	-24.1	-7.8	-5.7407	ug/L	-5.7407	ppb	13:16:21
1	Ca 317.933Radial†	21.0	1.6	2.2287	ug/L	2.2287	ppb	13:16:41
1	Fe 238.204 Radial†	8.5	-2.4	-19.757	ug/L	-19.757	ppb	13:16:41
1	K 766.490 Radial†	2892.7	193.9	34.179	ug/L	34.179	ppb	13:16:21
1	Mg 279.077 IEC†	3.6	2.2	68.116	ug/L	68.116	ppb	13:16:41
1	Na 589.592 Radial†	-785.1	-27.1	-8.0967	ug/L	-8.0967	ppb	13:16:21
1	Sr 421.552†	15.3	27.2	0.1592	ug/L	0.1592	ppb	13:16:21
1	Sc 361.383	910397.5	910397.5	101.28	%			13:17:38
1	Y 371.029	751088.9	751088.9	100.89	%			13:17:38
1	Ag 328.068†	409.6	34.5	0.1424	ug/L	0.1424	ppb	13:17:43
1	As 188.979†	-37.8	-2.5	-0.8934	ug/L	-0.8934	ppb	13:18:03
1	B 249.677†	-331.8	-301.7	-6.1898	ug/L	-6.1898	ppb	13:18:03
1	Ba 233.527†	3.7	6.3	0.0416	ug/L	0.0416	ppb	13:18:03
1	Be 313.107†	-4596.8	192.3	0.0646	ug/L	0.0646	ppb	13:17:43
1	Cd 226.502†	-227.7	4.3	0.0444	ug/L	0.0444	ppb	13:18:03
1	Co 228.616†	-67.0	20.9	0.3683	ug/L	0.3683	ppb	13:18:03
1	Cr 267.716†	124.4	42.7	0.4322	ug/L	0.4322	ppb	13:18:03
1	Cu 324.752†	6129.9	-3.0	-0.0096	ug/L	-0.0096	ppb	13:17:43
1	Mn 257.610†	527.7	29.6	0.0259	ug/L	0.0259	ppb	13:18:03
1	Mo 202.031†	35.3	15.0	0.9050	ug/L	0.9050	ppb	13:18:03
1	Ni 231.604†	98.2	3.4	0.0746	ug/L	0.0746	ppb	13:18:03
1	P 214.914†	238.9	-22.2	-11.525	ug/L	-11.525	ppb	13:18:03
1	Pb 220.353†	-67.5	-2.6	-0.2726	ug/L	-0.2726	ppb	13:18:03
1	S 181.975 Axial†	48.2	-1.4	-1.6763	ug/L	-1.6763	ppb	13:18:03
1	Sb 206.836†	46.3	4.5	1.3782	ug/L	1.3782	ppb	13:18:03
1	Se 196.026†	-33.7	-4.8	-2.6476	ug/L	-2.6476	ppb	13:18:03
1	Si 251.611†	605.6	20.5	0.5478	ug/L	0.5478	ppb	13:18:03
1	Sn 189.927†	10.0	6.4	0.9551	ug/L	0.9551	ppb	13:18:03
1	Ti 334.940†	-1352.1	52.5	0.0765	ug/L	0.0765	ppb	13:17:43
1	Tl 190.801†	-32.4	16.0	4.1604	ug/L	4.1604	ppb	13:18:03
1	U 409.014†	-2453.7	-50.5	-1.3897	ug/L	-1.3897	ppb	13:17:38
1	V 292.402†	-1518.9	-30.3	-0.1780	ug/L	-0.1780	ppb	13:17:43
1	Zn 213.857†	825.2	21.3	0.1735	ug/L	0.1735	ppb	13:18:03
1	SiO2†	657.0	42.1	2.4828	ug/L	2.4828	ppb	13:19:09
2	Sc Radial	5628.2	5628.2	101	%			13:16:46
2	Y RADIAL	6039.2	6039.2	102.2	%			13:16:46
2	Al 396.153Radial†	-11.4	5.1	3.6816	ug/L	3.6816	ppb	13:16:46
2	Ca 317.933Radial†	21.3	1.5	2.1543	ug/L	2.1543	ppb	13:17:06
2	Fe 238.204 Radial†	11.2	0.2	1.8896	ug/L	1.8896	ppb	13:17:06
2	K 766.490 Radial†	2896.8	152.9	26.961	ug/L	26.961	ppb	13:16:46
2	Mg 279.077 IEC†	1.5	0.1	4.1263	ug/L	4.1263	ppb	13:17:06
2	Na 589.592 Radial†	-798.0	-27.7	-8.2573	ug/L	-8.2573	ppb	13:16:46
2	Sr 421.552†	0.9	12.7	0.0742	ug/L	0.0742	ppb	13:16:46
2	Sc 361.383	917167.0	917167.0	102.03	%			13:18:08
2	Y 371.029	757595.2	757595.2	101.76	%			13:18:08
2	Ag 328.068†	385.8	8.2	0.0341	ug/L	0.0341	ppb	13:18:13
2	As 188.979†	-33.3	2.2	0.7923	ug/L	0.7923	ppb	13:18:33
2	B 249.677†	-313.9	-281.8	-5.7834	ug/L	-5.7834	ppb	13:18:33
2	Ba 233.527†	5.3	7.8	0.0530	ug/L	0.0530	ppb	13:18:33
2	Be 313.107†	-4475.6	344.7	0.1157	ug/L	0.1157	ppb	13:18:13
2	Cd 226.502†	-200.5	32.6	0.3195	ug/L	0.3195	ppb	13:18:33
2	Co 228.616†	-71.8	16.7	0.2938	ug/L	0.2938	ppb	13:18:33
2	Cr 267.716†	89.7	7.7	0.0777	ug/L	0.0777	ppb	13:18:33
2	Cu 324.752†	6102.8	-74.3	-0.2098	ug/L	-0.2098	ppb	13:18:13
2	Mn 257.610†	554.7	52.2	0.0516	ug/L	0.0516	ppb	13:18:33
2	Mo 202.031†	27.8	7.4	0.4462	ug/L	0.4462	ppb	13:18:33
2	Ni 231.604†	122.8	26.8	0.5858	ug/L	0.5858	ppb	13:18:33

2	P 214.914†	257.0	-6.2	-3.1711	ug/L	-3.1711 ppb	13:18:33
2	Pb 220.353†	-54.7	10.5	1.1044	ug/L	1.1044 ppb	13:18:33
2	S 181.975 Axial†	44.2	-5.7	-7.0232	ug/L	-7.0232 ppb	13:18:33
2	Sb 206.836†	45.1	2.9	0.9022	ug/L	0.9022 ppb	13:18:33
2	Se 196.026†	-30.0	-0.9	-0.4616	ug/L	-0.4616 ppb	13:18:33
2	Si 251.611†	606.9	17.3	0.4704	ug/L	0.4704 ppb	13:18:33
2	Sn 189.927†	7.9	4.3	0.6440	ug/L	0.6440 ppb	13:18:33
2	Ti 334.940†	-1366.6	48.2	0.0691	ug/L	0.0691 ppb	13:18:13
2	Tl 190.801†	-38.9	10.0	2.5909	ug/L	2.5909 ppb	13:18:33
2	U 409.014†	-2362.8	56.4	1.5538	ug/L	1.5538 ppb	13:18:08
2	V 292.402†	-1523.9	-24.1	-0.1445	ug/L	-0.1445 ppb	13:18:13
2	Zn 213.857†	826.1	16.1	0.1282	ug/L	0.1282 ppb	13:18:33
2	SiO2†	603.2	-15.4	-0.9757	ug/L	-0.9757 ppb	13:19:14
3	Sc Radial	5516.8	5516.8	99.1	%		13:17:11
3	Y RADIAL	5911.5	5911.5	100.0	%		13:17:11
3	Al 396.153Radial†	-42.3	-26.3	-19.187	ug/L	-19.187 ppb	13:17:11
3	Ca 317.933Radial†	22.9	3.5	4.9640	ug/L	4.9640 ppb	13:17:31
3	Fe 238.204 Radial†	10.6	-0.2	-1.2813	ug/L	-1.2813 ppb	13:17:31
3	K 766.490 Radial†	2849.4	163.1	28.739	ug/L	28.739 ppb	13:17:11
3	Mg 279.077 IEC†	3.4	2.0	63.360	ug/L	63.360 ppb	13:17:31
3	Na 589.592 Radial†	-775.4	-20.8	-6.2114	ug/L	-6.2114 ppb	13:17:11
3	Sr 421.552†	21.5	33.5	0.1962	ug/L	0.1962 ppb	13:17:11
3	Sc 361.383	908988.7	908988.7	101.12	%		13:18:38
3	Y 371.029	751889.6	751889.6	101.00	%		13:18:38
3	Ag 328.068†	366.0	-8.0	-0.0349	ug/L	-0.0349 ppb	13:18:43
3	As 188.979†	-28.0	7.1	2.5911	ug/L	2.5911 ppb	13:19:03
3	B 249.677†	-338.0	-308.3	-6.3284	ug/L	-6.3284 ppb	13:19:03
3	Ba 233.527†	-1.4	1.3	0.0091	ug/L	0.0091 ppb	13:19:03
3	Be 313.107†	-4550.6	231.0	0.0776	ug/L	0.0776 ppb	13:18:43
3	Cd 226.502†	-213.9	17.7	0.1732	ug/L	0.1732 ppb	13:19:03
3	Co 228.616†	-68.3	19.6	0.3438	ug/L	0.3438 ppb	13:19:03
3	Cr 267.716†	109.2	27.8	0.2820	ug/L	0.2820 ppb	13:19:03
3	Cu 324.752†	6067.8	-55.1	-0.1557	ug/L	-0.1557 ppb	13:18:43
3	Mn 257.610†	542.0	44.5	0.0426	ug/L	0.0426 ppb	13:19:03
3	Mo 202.031†	27.0	6.8	0.4125	ug/L	0.4125 ppb	13:19:03
3	Ni 231.604†	95.5	0.8	0.0183	ug/L	0.0183 ppb	13:19:03
3	P 214.914†	252.5	-8.4	-4.3580	ug/L	-4.3580 ppb	13:19:03
3	Pb 220.353†	-71.6	-6.7	-0.7099	ug/L	-0.7099 ppb	13:19:03
3	S 181.975 Axial†	50.7	1.1	1.3481	ug/L	1.3481 ppb	13:19:03
3	Sb 206.836†	40.2	-1.5	-0.4327	ug/L	-0.4327 ppb	13:19:03
3	Se 196.026†	-25.3	3.5	1.8909	ug/L	1.8909 ppb	13:19:03
3	Si 251.611†	627.1	42.6	1.1851	ug/L	1.1851 ppb	13:19:03
3	Sn 189.927†	4.6	1.1	0.1672	ug/L	0.1672 ppb	13:19:03
3	Ti 334.940†	-1351.7	50.9	0.0732	ug/L	0.0732 ppb	13:18:43
3	Tl 190.801†	-35.2	13.3	3.4402	ug/L	3.4402 ppb	13:19:03
3	U 409.014†	-2360.0	38.4	1.0579	ug/L	1.0579 ppb	13:18:38
3	V 292.402†	-1443.5	41.9	0.2757	ug/L	0.2757 ppb	13:18:43
3	Zn 213.857†	824.3	21.6	0.1751	ug/L	0.1751 ppb	13:19:03
3	SiO2†	647.3	33.5	1.9906	ug/L	1.9906 ppb	13:19:19

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	912184.4	101.48	%	0.486				0.48%
Sc Radial	5562.1	99.9	%	1.05				1.05%
Y 371.029	753524.6	101.22	%	0.477				0.47%
Y RADIAL	5960.1	100.8	%	1.17				1.16%
Ag 328.068†	11.6	0.0472	ug/L	0.08939	0.0472	ppb	0.08939	189.45%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-9.7	-7.0821	ug/L	11.49330	-7.0821	ppb	11.49330	162.29%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	2.3	0.8300	ug/L	1.74256	0.8300	ppb	1.74256	209.95%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-297.3	-6.1005	ug/L	0.28326	-6.1005	ppb	0.28326	4.64%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	5.1	0.0345	ug/L	0.02278	0.0345	ppb	0.02278	65.95%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	256.0	0.0860	ug/L	0.02655	0.0860	ppb	0.02655	30.88%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	2.2	3.1157	ug/L	1.60116	3.1157	ppb	1.60116	51.39%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                18.2      0.1790 ug/L       0.13766      0.1790 ppb        0.13766  76.90%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                19.1      0.3353 ug/L       0.03798      0.3353 ppb        0.03798  11.33%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                26.1      0.2640 ug/L       0.17791      0.2640 ppb        0.17791  67.40%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               -44.1     -0.1250 ug/L       0.10360     -0.1250 ppb        0.10360  82.86%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -0.8     -6.3828 ug/L      11.69010     -6.3828 ppb       11.69010 183.15%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         170.0      29.960 ug/L        3.7604      29.960 ppb         3.7604  12.55%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            1.5      45.201 ug/L       35.6508      45.201 ppb        35.6508  78.87%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                42.1      0.0401 ug/L       0.01304      0.0401 ppb        0.01304  32.55%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 9.7      0.5879 ug/L       0.27513      0.5879 ppb        0.27513  46.80%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        -25.2     -7.5218 ug/L       1.13765     -7.5218 ppb        1.13765  15.12%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                10.4      0.2262 ug/L       0.31264      0.2262 ppb        0.31264 138.20%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -12.2     -6.3514 ug/L       4.51977     -6.3514 ppb        4.51977  71.16%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                 0.4      0.0406 ug/L       0.94683      0.0406 ppb        0.94683 >999.9%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -2.0     -2.4505 ug/L       4.23903     -2.4505 ppb        4.23903 172.99%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 2.0      0.6159 ug/L       0.93876      0.6159 ppb        0.93876 152.41%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -0.7     -0.4061 ug/L       2.26976     -0.4061 ppb        2.26976 558.93%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                26.8      0.7344 ug/L       0.39224      0.7344 ppb        0.39224  53.41%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 3.9      0.5888 ug/L       0.39683      0.5888 ppb        0.39683  67.40%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                24.4      0.1432 ug/L       0.06255      0.1432 ppb        0.06255  43.69%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                50.5      0.0729 ug/L       0.00372      0.0729 ppb        0.00372   5.09%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                13.1      3.3972 ug/L       0.78567      3.3972 ppb        0.78567  23.13%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 14.8      0.4073 ug/L       1.57594      0.4073 ppb        1.57594 386.89%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 -4.2     -0.0156 ug/L       0.25285     -0.0156 ppb        0.25285 >999.9%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                19.7      0.1589 ug/L       0.02659      0.1589 ppb        0.02659  16.73%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                      20.1      1.1659 ug/L       1.87092      1.1659 ppb        1.87092 160.47%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
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Analysis Begun

Start Time: 12/19/2009 13:29:48 **Plasma On Time: 12/14/2009 06:02:42**
Logged In Analyst: Optima3 **Technique: ICP Continuous**
Spectrometer Model: Optima 5300 DV, S/N 077C7090601Autosampler Model: S10

Sample Information File: C:\pe\Optima3\Sample Information\121909.sif
Batch ID:
Results Data Set: 121909
Results Library: C:\pe\Optima3\Results\Results.mdb

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Sequence No.: 1 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 12/19/2009 13:29:49**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5624.2	5624.2	101	%			13:31:41
1	Y RADIAL	5944.8	5944.8	100.6	%			13:31:41
1	Al 396.153Radial†	6695.8	6644.4	4820.3	ug/L	4820.3	ppb	13:31:41
1	Ca 317.933Radial†	3427.3	3373.0	4809.0	ug/L	4809.0	ppb	13:32:01
1	Fe 238.204 Radial†	602.8	585.8	4886.1	ug/L	4886.1	ppb	13:32:01
1	K 766.490 Radial†	30806.2	27781.7	4888.0	ug/L	4888.0	ppb	13:31:41
1	Mg 279.077 IEC†	165.7	162.7	5056.5	ug/L	5056.5	ppb	13:32:01
1	Na 589.592 Radial†	31754.2	32194.2	9609.0	ug/L	9609.0	ppb	13:31:41
1	Sr 421.552†	84217.2	83376.0	488.86	ug/L	488.86	ppb	13:31:41
1	Sc 361.383	897936.1	897936.1	99.892	%			13:32:59
1	Y 371.029	731386.3	731386.3	98.243	%			13:32:59
1	Ag 328.068†	115917.0	115672.6	501.60	ug/L	501.60	ppb	13:33:04
1	As 188.979†	1336.5	1372.8	502.62	ug/L	502.62	ppb	13:33:24
1	B 249.677†	23882.3	23934.1	489.26	ug/L	489.26	ppb	13:33:04
1	Ba 233.527†	74016.2	74099.0	504.92	ug/L	504.92	ppb	13:33:04
1	Be 313.107†	1456814.5	1463123.9	491.64	ug/L	491.64	ppb	13:32:59
1	Cd 226.502†	51254.5	51539.2	503.88	ug/L	503.88	ppb	13:33:04
1	Co 228.616†	28786.2	28904.5	506.13	ug/L	506.13	ppb	13:33:04
1	Cr 267.716†	49633.1	49606.7	503.75	ug/L	503.75	ppb	13:33:04
1	Cu 324.752†	182966.7	177109.4	500.65	ug/L	500.65	ppb	13:33:04
1	Mn 257.610†	501972.7	502025.0	495.58	ug/L	495.58	ppb	13:32:59
1	Mo 202.031†	8177.8	8166.8	494.69	ug/L	494.69	ppb	13:33:24
1	Ni 231.604†	23214.1	23145.7	505.39	ug/L	505.39	ppb	13:33:04
1	P 214.914†	4995.4	4742.8	2398.2	ug/L	2398.2	ppb	13:33:24
1	Pb 220.353†	4657.1	4726.2	499.55	ug/L	499.55	ppb	13:33:24
1	S 181.975 Axial†	866.7	818.6	1003.3	ug/L	1003.3	ppb	13:33:24
1	Sb 206.836†	1694.4	1655.0	502.82	ug/L	502.82	ppb	13:33:24
1	Se 196.026†	868.4	897.8	506.21	ug/L	506.21	ppb	13:33:24
1	Si 251.611†	88806.3	88325.1	2478.8	ug/L	2478.8	ppb	13:33:04
1	Sn 189.927†	3305.6	3305.7	496.35	ug/L	496.35	ppb	13:33:24
1	Ti 334.940†	337383.1	339136.1	490.19	ug/L	490.19	ppb	13:32:59
1	Tl 190.801†	1882.0	1932.1	504.34	ug/L	504.34	ppb	13:33:24
1	U 409.014†	15563.0	17952.0	493.03	ug/L	493.03	ppb	13:33:04
1	V 292.402†	77172.0	78725.0	507.37	ug/L	507.37	ppb	13:33:04
1	Zn 213.857†	62095.1	61368.9	498.85	ug/L	498.85	ppb	13:33:04
1	SiO2†	87953.7	87442.3	5268.9	ug/L	5268.9	ppb	13:34:32
2	Sc Radial	5631.9	5631.9	101	%			13:32:06
2	Y RADIAL	5937.7	5937.7	100.4	%			13:32:06
2	Al 396.153Radial†	6612.4	6552.9	4753.6	ug/L	4753.6	ppb	13:32:06
2	Ca 317.933Radial†	3398.1	3339.5	4761.2	ug/L	4761.2	ppb	13:32:26
2	Fe 238.204 Radial†	596.7	579.0	4828.6	ug/L	4828.6	ppb	13:32:26
2	K 766.490 Radial†	30442.7	27381.0	4817.5	ug/L	4817.5	ppb	13:32:06
2	Mg 279.077 IEC†	165.3	162.0	5037.6	ug/L	5037.6	ppb	13:32:26
2	Na 589.592 Radial†	31226.6	31630.0	9440.6	ug/L	9440.6	ppb	13:32:06
2	Sr 421.552†	83043.2	82102.2	481.39	ug/L	481.39	ppb	13:32:06
2	Sc 361.383	895420.5	895420.5	99.612	%			13:33:30
2	Y 371.029	730199.6	730199.6	98.084	%			13:33:30

2	Ag 328.068†	114302.1	114377.5	495.98 ug/L	495.98 ppb	13:33:35
2	As 188.979†	1322.0	1362.0	498.70 ug/L	498.70 ppb	13:33:55
2	B 249.677†	23397.1	23514.2	480.67 ug/L	480.67 ppb	13:33:35
2	Ba 233.527†	72884.7	73171.2	498.60 ug/L	498.60 ppb	13:33:35
2	Be 313.107†	1456175.4	1466579.4	492.80 ug/L	492.80 ppb	13:33:30
2	Cd 226.502†	50528.1	50954.1	498.16 ug/L	498.16 ppb	13:33:35
2	Co 228.616†	28214.7	28411.8	497.51 ug/L	497.51 ppb	13:33:35
2	Cr 267.716†	48957.8	49068.3	498.28 ug/L	498.28 ppb	13:33:35
2	Cu 324.752†	179804.2	174449.1	493.13 ug/L	493.13 ppb	13:33:35
2	Mn 257.610†	500240.5	501697.9	495.25 ug/L	495.25 ppb	13:33:30
2	Mo 202.031†	8178.6	8190.6	496.13 ug/L	496.13 ppb	13:33:55
2	Ni 231.604†	22808.4	22803.7	497.92 ug/L	497.92 ppb	13:33:35
2	P 214.914†	4991.3	4752.7	2404.7 ug/L	2404.7 ppb	13:33:55
2	Pb 220.353†	4654.0	4736.2	500.60 ug/L	500.60 ppb	13:33:55
2	S 181.975 Axial†	869.0	823.3	1009.1 ug/L	1009.1 ppb	13:33:55
2	Sb 206.836†	1692.2	1657.6	503.78 ug/L	503.78 ppb	13:33:55
2	Se 196.026†	880.3	912.2	513.87 ug/L	513.87 ppb	13:33:55
2	Si 251.611†	87326.6	87089.4	2443.9 ug/L	2443.9 ppb	13:33:35
2	Sn 189.927†	3315.6	3325.0	499.24 ug/L	499.24 ppb	13:33:55
2	Ti 334.940†	336500.3	339198.8	490.28 ug/L	490.28 ppb	13:33:30
2	Tl 190.801†	1887.3	1942.7	507.15 ug/L	507.15 ppb	13:33:55
2	U 409.014†	15345.1	17777.1	488.23 ug/L	488.23 ppb	13:33:35
2	V 292.402†	76056.4	77822.2	501.65 ug/L	501.65 ppb	13:33:35
2	Zn 213.857†	61072.1	60516.5	491.92 ug/L	491.92 ppb	13:33:35
2	SiO2†	88187.7	87924.6	5298.1 ug/L	5298.1 ppb	13:34:37
3	Sc Radial	5559.0	5559.0	99.9 %		13:32:31
3	Y RADIAL	5849.3	5849.3	98.95 %		13:32:31
3	Al 396.153Radial†	6774.9	6801.4	4934.9 ug/L	4934.9 ppb	13:32:31
3	Ca 317.933Radial†	3464.6	3450.2	4919.0 ug/L	4919.0 ppb	13:32:51
3	Fe 238.204 Radial†	611.7	601.7	5018.0 ug/L	5018.0 ppb	13:32:51
3	K 766.490 Radial†	31051.7	28385.5	4994.4 ug/L	4994.4 ppb	13:32:31
3	Mg 279.077 IEC†	165.8	164.6	5117.9 ug/L	5117.9 ppb	13:32:51
3	Na 589.592 Radial†	32090.4	32899.8	9819.6 ug/L	9819.6 ppb	13:32:31
3	Sr 421.552†	85144.8	85283.5	500.05 ug/L	500.05 ppb	13:32:31
3	Sc 361.383	905366.9	905366.9	100.72 %		13:34:01
3	Y 371.029	737781.8	737781.8	99.102 %		13:34:01
3	Ag 328.068†	115403.6	114210.5	495.32 ug/L	495.32 ppb	13:34:06
3	As 188.979†	1331.6	1356.9	496.88 ug/L	496.88 ppb	13:34:26
3	B 249.677†	23663.6	23520.8	480.78 ug/L	480.78 ppb	13:34:06
3	Ba 233.527†	73494.6	72972.9	497.26 ug/L	497.26 ppb	13:34:06
3	Be 313.107†	1472936.0	1467160.7	492.99 ug/L	492.99 ppb	13:34:01
3	Cd 226.502†	50992.4	50857.8	497.20 ug/L	497.20 ppb	13:34:06
3	Co 228.616†	28535.0	28418.6	497.61 ug/L	497.61 ppb	13:34:06
3	Cr 267.716†	49366.9	48934.6	496.93 ug/L	496.93 ppb	13:34:06
3	Cu 324.752†	181635.9	174284.7	492.67 ug/L	492.67 ppb	13:34:06
3	Mn 257.610†	505748.8	501649.8	495.22 ug/L	495.22 ppb	13:34:01
3	Mo 202.031†	8186.5	8108.2	491.16 ug/L	491.16 ppb	13:34:26
3	Ni 231.604†	23035.4	22777.6	497.35 ug/L	497.35 ppb	13:34:06
3	P 214.914†	4987.6	4693.9	2373.9 ug/L	2373.9 ppb	13:34:26
3	Pb 220.353†	4630.0	4661.0	492.69 ug/L	492.69 ppb	13:34:26
3	S 181.975 Axial†	852.1	797.0	976.77 ug/L	976.77 ppb	13:34:26
3	Sb 206.836†	1703.3	1649.9	501.27 ug/L	501.27 ppb	13:34:26
3	Se 196.026†	880.9	903.1	509.51 ug/L	509.51 ppb	13:34:26
3	Si 251.611†	88195.3	86988.8	2441.2 ug/L	2441.2 ppb	13:34:06
3	Sn 189.927†	3293.5	3266.5	490.48 ug/L	490.48 ppb	13:34:26
3	Ti 334.940†	340409.7	339369.1	490.54 ug/L	490.54 ppb	13:34:01
3	Tl 190.801†	1869.3	1904.1	497.14 ug/L	497.14 ppb	13:34:26
3	U 409.014†	15530.8	17792.2	488.62 ug/L	488.62 ppb	13:34:06
3	V 292.402†	76799.4	77721.0	500.91 ug/L	500.91 ppb	13:34:06
3	Zn 213.857†	61782.7	60548.5	492.16 ug/L	492.16 ppb	13:34:06
3	SiO2†	87051.0	85823.4	5170.9 ug/L	5170.9 ppb	13:34:42

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	899574.5	100.07	%	0.575				0.57%
Sc Radial	5605.0	101	%	0.7				0.71%
Y 371.029	733122.5	98.477	%	0.5478				0.56%
Y RADIAL	5910.6	99.99	%	0.900				0.90%
Ag 328.068†	114753.6	497.64	ug/L	3.451	497.64	ppb	3.451	0.69%

```
   QC value within limits for Ag 328.068  Recovery = 99.53%
Al 396.153Radial†       6666.2      4836.2 ug/L        91.70      4836.2 ppb        91.70   1.90%
   QC value within limits for Al 396.153Radial  Recovery = 96.72%
As 188.979†             1363.9      499.40 ug/L        2.934      499.40 ppb        2.934   0.59%
   QC value within limits for As 188.979  Recovery = 99.88%
B 249.677†             23656.3      483.57 ug/L        4.928      483.57 ppb        4.928   1.02%
   QC value within limits for B 249.677  Recovery = 96.71%
Ba 233.527†            73414.4      500.26 ug/L        4.092      500.26 ppb        4.092   0.82%
   QC value within limits for Ba 233.527  Recovery = 100.05%
Be 313.107†          1465621.4      492.48 ug/L        0.732      492.48 ppb        0.732   0.15%
   QC value within limits for Be 313.107  Recovery = 98.50%
Ca 317.933Radial†       3387.6      4829.7 ug/L        80.90      4829.7 ppb        80.90   1.68%
   QC value within limits for Ca 317.933Radial  Recovery = 96.59%
Cd 226.502†            51117.0      499.75 ug/L        3.613      499.75 ppb        3.613   0.72%
   QC value within limits for Cd 226.502  Recovery = 99.95%
Co 228.616†            28578.3      500.41 ug/L        4.948      500.41 ppb        4.948   0.99%
   QC value within limits for Co 228.616  Recovery = 100.08%
Cr 267.716†            49203.2      499.65 ug/L        3.612      499.65 ppb        3.612   0.72%
   QC value within limits for Cr 267.716  Recovery = 99.93%
Cu 324.752†           175281.1      495.48 ug/L        4.478      495.48 ppb        4.478   0.90%
   QC value within limits for Cu 324.752  Recovery = 99.10%
Fe 238.204 Radial†       588.8      4910.9 ug/L        97.14      4910.9 ppb        97.14   1.98%
   QC value within limits for Fe 238.204 Radial  Recovery = 98.22%
K 766.490 Radial†      27849.4      4900.0 ug/L        89.04      4900.0 ppb        89.04   1.82%
   QC value within limits for K 766.490 Radial  Recovery = 98.00%
Mg 279.077 IEC†          163.1      5070.7 ug/L        42.00      5070.7 ppb        42.00   0.83%
   QC value within limits for Mg 279.077 IEC  Recovery = 101.41%
Mn 257.610†           501790.9      495.35 ug/L        0.199      495.35 ppb        0.199   0.04%
   QC value within limits for Mn 257.610  Recovery = 99.07%
Mo 202.031†             8155.2      493.99 ug/L        2.560      493.99 ppb        2.560   0.52%
   QC value within limits for Mo 202.031  Recovery = 98.80%
Na 589.592 Radial†     32241.4      9623.1 ug/L       189.89      9623.1 ppb       189.89   1.97%
   QC value within limits for Na 589.592 Radial  Recovery = 96.23%
Ni 231.604†            22909.0      500.22 ug/L        4.485      500.22 ppb        4.485   0.90%
   QC value within limits for Ni 231.604  Recovery = 100.04%
P 214.914†              4729.8      2392.2 ug/L        16.24      2392.2 ppb        16.24   0.68%
   QC value within limits for P 214.914  Recovery = 95.69%
Pb 220.353†             4707.8      497.61 ug/L        4.296      497.61 ppb        4.296   0.86%
   QC value within limits for Pb 220.353  Recovery = 99.52%
S 181.975 Axial†         813.0      996.40 ug/L       17.251      996.40 ppb       17.251   1.73%
   QC value within limits for S 181.975 Axial  Recovery = 99.64%
Sb 206.836†             1654.2      502.62 ug/L        1.270      502.62 ppb        1.270   0.25%
   QC value within limits for Sb 206.836  Recovery = 100.52%
Se 196.026†              904.4      509.86 ug/L        3.844      509.86 ppb        3.844   0.75%
   QC value within limits for Se 196.026  Recovery = 101.97%
Si 251.611†            87467.7      2454.6 ug/L        20.97      2454.6 ppb        20.97   0.85%
   QC value within limits for Si 251.611  Recovery = 98.19%
Sn 189.927†             3299.1      495.36 ug/L        4.461      495.36 ppb        4.461   0.90%
   QC value within limits for Sn 189.927  Recovery = 99.07%
Sr 421.552†            83587.2      490.10 ug/L        9.388      490.10 ppb        9.388   1.92%
   QC value within limits for Sr 421.552  Recovery = 98.02%
Ti 334.940†           339234.7      490.34 ug/L        0.180      490.34 ppb        0.180   0.04%
   QC value within limits for Ti 334.940  Recovery = 98.07%
Tl 190.801†             1926.3      502.88 ug/L        5.166      502.88 ppb        5.166   1.03%
   QC value within limits for Tl 190.801  Recovery = 100.58%
U 409.014†             17840.4      489.96 ug/L        2.666      489.96 ppb        2.666   0.54%
   QC value within limits for U 409.014  Recovery = 97.99%
V 292.402†             78089.4      503.31 ug/L        3.536      503.31 ppb        3.536   0.70%
   QC value within limits for V 292.402  Recovery = 100.66%
Zn 213.857†            60811.3      494.31 ug/L        3.931      494.31 ppb        3.931   0.80%
   QC value within limits for Zn 213.857  Recovery = 98.86%
SiO2†                  87063.4      5246.0 ug/L        66.58      5246.0 ppb        66.58   1.27%
   QC value within limits for SiO2  Recovery = 98.10%
All analyte(s) passed QC.
```

Sequence No.: 2
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 12/19/2009 13:36:52
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5523.8	5523.8	99.2	%			13:38:44
1	Y RADIAL	5914.4	5914.4	100.1	%			13:38:44
1	Al 396.153Radial†	-32.8	-16.7	-12.211	ug/L	-12.211	ppb	13:38:44
1	Ca 317.933Radial†	26.1	6.7	9.6005	ug/L	9.6005	ppb	13:39:04
1	Fe 238.204 Radial†	9.6	-1.2	-9.7705	ug/L	-9.7705	ppb	13:39:04
1	K 766.490 Radial†	2883.8	194.0	34.206	ug/L	34.206	ppb	13:38:44
1	Mg 279.077 IEC†	2.1	0.7	21.523	ug/L	21.523	ppb	13:39:04
1	Na 589.592 Radial†	-877.3	-122.5	-36.565	ug/L	-36.565	ppb	13:38:44
1	Sr 421.552†	-17.2	-5.5	-0.0325	ug/L	-0.0325	ppb	13:38:44
1	Sc 361.383	897667.6	897667.6	99.862	%			13:40:01
1	Y 371.029	743887.0	743887.0	99.922	%			13:40:01
1	Ag 328.068†	406.1	36.7	0.1567	ug/L	0.1567	ppb	13:40:01
1	As 188.979†	-27.4	7.4	2.7011	ug/L	2.7011	ppb	13:40:21
1	B 249.677†	-259.7	-234.1	-4.8038	ug/L	-4.8038	ppb	13:40:21
1	Ba 233.527†	-0.2	2.4	0.0163	ug/L	0.0163	ppb	13:40:21
1	Be 313.107†	-4643.1	81.6	0.0275	ug/L	0.0275	ppb	13:40:01
1	Cd 226.502†	-215.9	12.9	0.1278	ug/L	0.1278	ppb	13:40:21
1	Co 228.616†	-81.5	5.5	0.0979	ug/L	0.0979	ppb	13:40:21
1	Cr 267.716†	105.2	25.2	0.2560	ug/L	0.2560	ppb	13:40:21
1	Cu 324.752†	5929.9	-117.5	-0.3325	ug/L	-0.3325	ppb	13:40:01
1	Mn 257.610†	520.8	30.1	0.0283	ug/L	0.0283	ppb	13:40:21
1	Mo 202.031†	29.9	10.1	0.6110	ug/L	0.6110	ppb	13:40:21
1	Ni 231.604†	114.1	20.7	0.4526	ug/L	0.4526	ppb	13:40:21
1	P 214.914†	247.9	-9.8	-5.0607	ug/L	-5.0607	ppb	13:40:21
1	Pb 220.353†	-74.7	-10.7	-1.1315	ug/L	-1.1315	ppb	13:40:21
1	S 181.975 Axial†	40.6	-8.3	-10.196	ug/L	-10.196	ppb	13:40:21
1	Sb 206.836†	53.6	12.5	3.7579	ug/L	3.7579	ppb	13:40:21
1	Se 196.026†	-28.9	-0.4	-0.2719	ug/L	-0.2719	ppb	13:40:21
1	Si 251.611†	635.2	58.6	1.6301	ug/L	1.6301	ppb	13:40:21
1	Sn 189.927†	6.5	3.1	0.4606	ug/L	0.4606	ppb	13:40:21
1	Ti 334.940†	-1325.0	60.7	0.0886	ug/L	0.0886	ppb	13:40:01
1	Tl 190.801†	-45.3	2.7	0.6906	ug/L	0.6906	ppb	13:40:21
1	U 409.014†	-2406.7	-37.8	-1.0419	ug/L	-1.0419	ppb	13:40:01
1	V 292.402†	-1429.4	38.0	0.2505	ug/L	0.2505	ppb	13:40:01
1	Zn 213.857†	814.4	22.0	0.1783	ug/L	0.1783	ppb	13:40:21
1	SiO2†	636.6	30.8	1.8127	ug/L	1.8127	ppb	13:41:17
2	Sc Radial	5521.3	5521.3	99.2	%			13:39:09
2	Y RADIAL	5902.3	5902.3	99.85	%			13:39:09
2	Al 396.153Radial†	-30.9	-14.8	-10.795	ug/L	-10.795	ppb	13:39:09
2	Ca 317.933Radial†	27.0	7.7	10.928	ug/L	10.928	ppb	13:39:29
2	Fe 238.204 Radial†	10.3	-0.5	-4.3803	ug/L	-4.3803	ppb	13:39:29
2	K 766.490 Radial†	2985.2	297.6	52.454	ug/L	52.454	ppb	13:39:09
2	Mg 279.077 IEC†	1.7	0.3	9.8938	ug/L	9.8938	ppb	13:39:29
2	Na 589.592 Radial†	-783.1	-28.0	-8.3562	ug/L	-8.3562	ppb	13:39:09
2	Sr 421.552†	62.5	74.8	0.4387	ug/L	0.4387	ppb	13:39:09
2	Sc 361.383	902635.4	902635.4	100.41	%			13:40:26
2	Y 371.029	749033.0	749033.0	100.61	%			13:40:26
2	Ag 328.068†	405.2	33.6	0.1456	ug/L	0.1456	ppb	13:40:26
2	As 188.979†	-24.5	10.4	3.7734	ug/L	3.7734	ppb	13:40:47
2	B 249.677†	-278.7	-251.6	-5.1640	ug/L	-5.1640	ppb	13:40:47
2	Ba 233.527†	2.4	5.0	0.0338	ug/L	0.0338	ppb	13:40:47
2	Be 313.107†	-4348.0	401.0	0.1345	ug/L	0.1345	ppb	13:40:26
2	Cd 226.502†	-221.9	8.2	0.0807	ug/L	0.0807	ppb	13:40:47
2	Co 228.616†	-69.6	17.8	0.3144	ug/L	0.3144	ppb	13:40:47
2	Cr 267.716†	88.5	8.0	0.0821	ug/L	0.0821	ppb	13:40:47
2	Cu 324.752†	6087.7	7.0	0.0195	ug/L	0.0195	ppb	13:40:26
2	Mn 257.610†	544.0	50.3	0.0490	ug/L	0.0490	ppb	13:40:47
2	Mo 202.031†	36.5	16.5	0.9974	ug/L	0.9974	ppb	13:40:47
2	Ni 231.604†	91.4	-2.6	-0.0571	ug/L	-0.0571	ppb	13:40:47

2	P 214.914†	256.2	-2.9	-1.5141	ug/L	-1.5141 ppb	13:40:47
2	Pb 220.353†	-56.6	7.7	0.8116	ug/L	0.8116 ppb	13:40:47
2	S 181.975 Axial†	53.1	3.9	4.7330	ug/L	4.7330 ppb	13:40:47
2	Sb 206.836†	47.1	5.7	1.7150	ug/L	1.7150 ppb	13:40:47
2	Se 196.026†	-31.1	-2.5	-1.3759	ug/L	-1.3759 ppb	13:40:47
2	Si 251.611†	597.0	17.1	0.4473	ug/L	0.4473 ppb	13:40:47
2	Sn 189.927†	2.2	-1.3	-0.1869	ug/L	-0.1869 ppb	13:40:47
2	Ti 334.940†	-1375.5	17.7	0.0275	ug/L	0.0275 ppb	13:40:26
2	Tl 190.801†	-39.2	9.0	2.3435	ug/L	2.3435 ppb	13:40:47
2	U 409.014†	-2490.8	-108.3	-2.9834	ug/L	-2.9834 ppb	13:40:26
2	V 292.402†	-1485.9	-10.4	-0.0566	ug/L	-0.0566 ppb	13:40:26
2	Zn 213.857†	811.8	14.9	0.1227	ug/L	0.1227 ppb	13:40:47
2	SiO2†	606.8	-2.4	-0.2193	ug/L	-0.2193 ppb	13:41:22
3	Sc Radial	5561.0	5561.0	99.9	%		13:39:35
3	Y RADIAL	5950.1	5950.1	100.7	%		13:39:35
3	Al 396.153Radial†	-16.8	-0.5	-0.3708	ug/L	-0.3708 ppb	13:39:35
3	Ca 317.933Radial†	18.7	-0.8	-1.1997	ug/L	-1.1997 ppb	13:39:55
3	Fe 238.204 Radial†	10.5	-0.3	-2.7052	ug/L	-2.7052 ppb	13:39:55
3	K 766.490 Radial†	2759.5	50.2	8.8367	ug/L	8.8367 ppb	13:39:35
3	Mg 279.077 IEC†	2.8	1.4	42.177	ug/L	42.177 ppb	13:39:55
3	Na 589.592 Radial†	-740.6	20.2	6.0201	ug/L	6.0201 ppb	13:39:35
3	Sr 421.552†	-24.2	-12.4	-0.0729	ug/L	-0.0729 ppb	13:39:35
3	Sc 361.383	902513.8	902513.8	100.40	%		13:40:52
3	Y 371.029	748743.6	748743.6	100.57	%		13:40:52
3	Ag 328.068†	331.8	-39.5	-0.1681	ug/L	-0.1681 ppb	13:40:52
3	As 188.979†	-33.1	1.9	0.6888	ug/L	0.6888 ppb	13:41:12
3	B 249.677†	-247.0	-220.1	-4.5177	ug/L	-4.5177 ppb	13:41:12
3	Ba 233.527†	12.2	14.7	0.0998	ug/L	0.0998 ppb	13:41:12
3	Be 313.107†	-4653.4	96.3	0.0325	ug/L	0.0325 ppb	13:40:52
3	Cd 226.502†	-214.1	16.0	0.1569	ug/L	0.1569 ppb	13:41:12
3	Co 228.616†	-67.6	19.7	0.3464	ug/L	0.3464 ppb	13:41:12
3	Cr 267.716†	102.1	21.5	0.2193	ug/L	0.2193 ppb	13:41:12
3	Cu 324.752†	5973.6	-105.9	-0.2992	ug/L	-0.2992 ppb	13:40:52
3	Mn 257.610†	516.8	23.3	0.0219	ug/L	0.0219 ppb	13:41:12
3	Mo 202.031†	26.9	6.9	0.4179	ug/L	0.4179 ppb	13:41:12
3	Ni 231.604†	119.3	25.2	0.5502	ug/L	0.5502 ppb	13:41:12
3	P 214.914†	259.1	-0.0	0.0312	ug/L	0.0312 ppb	13:41:12
3	Pb 220.353†	-57.2	7.1	0.7493	ug/L	0.7493 ppb	13:41:12
3	S 181.975 Axial†	47.1	-2.1	-2.5824	ug/L	-2.5824 ppb	13:41:12
3	Sb 206.836†	46.9	5.5	1.6684	ug/L	1.6684 ppb	13:41:12
3	Se 196.026†	-32.3	-3.7	-2.0223	ug/L	-2.0223 ppb	13:41:12
3	Si 251.611†	623.5	43.6	1.2172	ug/L	1.2172 ppb	13:41:12
3	Sn 189.927†	6.2	2.7	0.4094	ug/L	0.4094 ppb	13:41:12
3	Ti 334.940†	-1306.7	86.1	0.1261	ug/L	0.1261 ppb	13:40:52
3	Tl 190.801†	-35.6	12.6	3.2591	ug/L	3.2591 ppb	13:41:12
3	U 409.014†	-2527.6	-145.3	-4.0027	ug/L	-4.0027 ppb	13:40:52
3	V 292.402†	-1498.4	-23.0	-0.1471	ug/L	-0.1471 ppb	13:40:52
3	Zn 213.857†	813.4	16.6	0.1316	ug/L	0.1316 ppb	13:41:12
3	SiO2†	613.6	4.4	0.2439	ug/L	0.2439 ppb	13:41:27

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	900938.9	100.23	%	0.315				0.31%
Sc Radial	5535.4	99.4	%	0.40				0.40%
Y 371.029	747221.2	100.37	%	0.388				0.39%
Y RADIAL	5922.2	100.2	%	0.42				0.42%
Ag 328.068†	10.3	0.0447	ug/L	0.18438	0.0447	ppb	0.18438	412.25%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-10.7	-7.7922	ug/L	6.46613	-7.7922	ppb	6.46613	82.98%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	6.6	2.3878	ug/L	1.56598	2.3878	ppb	1.56598	65.58%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-235.3	-4.8285	ug/L	0.32389	-4.8285	ppb	0.32389	6.71%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	7.4	0.0500	ug/L	0.04401	0.0500	ppb	0.04401	88.08%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	193.0	0.0649	ug/L	0.06038	0.0649	ppb	0.06038	93.07%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	4.5	6.4428	ug/L	6.65179	6.4428	ppb	6.65179	103.24%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                12.4      0.1218 ug/L       0.03842      0.1218 ppb        0.03842  31.54%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                14.4      0.2529 ug/L       0.13517      0.2529 ppb        0.13517  53.45%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                18.2      0.1858 ug/L       0.09167      0.1858 ppb        0.09167  49.34%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               -72.1     -0.2041 ug/L       0.19433     -0.2041 ppb        0.19433  95.23%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -0.7     -5.6186 ug/L       3.69185     -5.6186 ppb        3.69185  65.71%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         180.6      31.832 ug/L       21.9054      31.832 ppb        21.9054  68.81%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            0.8      24.531 ug/L       16.3504      24.531 ppb        16.3504  66.65%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               34.6      0.0331 ug/L       0.01414      0.0331 ppb        0.01414  42.76%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               11.2      0.6754 ug/L       0.29506      0.6754 ppb        0.29506  43.69%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       -43.4     -12.967 ug/L       21.6638     -12.967 ppb        21.6638 167.07%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               14.4      0.3153 ug/L       0.32612      0.3153 ppb        0.32612 103.44%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -4.3     -2.1812 ug/L       2.61067     -2.1812 ppb        2.61067 119.69%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                1.4      0.1431 ug/L       1.10431      0.1431 ppb        1.10431 771.59%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          -2.2     -2.6819 ug/L       7.46521     -2.6819 ppb        7.46521 278.35%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                7.9      2.3805 ug/L       1.19312      2.3805 ppb        1.19312  50.12%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               -2.2     -1.2234 ug/L       0.88514     -1.2234 ppb        0.88514  72.35%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†               39.8      1.0982 ug/L       0.60036      1.0982 ppb        0.60036  54.67%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                1.5      0.2277 ug/L       0.35999      0.2277 ppb        0.35999 158.10%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               19.0      0.1111 ug/L       0.28444      0.1111 ppb        0.28444 256.05%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               54.8      0.0807 ug/L       0.04977      0.0807 ppb        0.04977  61.63%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                8.1      2.0977 ug/L       1.30176      2.0977 ppb        1.30176  62.06%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -97.1     -2.6760 ug/L       1.50414     -2.6760 ppb        1.50414  56.21%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 1.6      0.0156 ug/L       0.20838      0.0156 ppb        0.20838 >999.9%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               17.8      0.1442 ug/L       0.02983      0.1442 ppb        0.02983  20.69%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                     11.0      0.6124 ug/L       1.06492      0.6124 ppb        1.06492 173.88%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 3
Sample ID: 1201994224|932278|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 29
Date Collected: 12/19/2009 13:43:38
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1201994224|932278|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	5583.8	5583.8	100	%			13:45:30
1	Y RADIAL	5934.9	5934.9	100.4	%			13:45:30
1	Al 396.153Radial†	-5.6	10.8	7.8195	ug/L	7.8195	ppb	13:45:30
1	Ca 317.933Radial†	34.5	14.9	21.200	ug/L	21.200	ppb	13:45:50
1	Fe 238.204 Radial†	14.3	3.4	28.033	ug/L	28.033	ppb	13:45:50
1	K 766.490 Radial†	2887.7	166.7	29.378	ug/L	29.378	ppb	13:45:30
1	Mg 279.077 IEC†	3.4	2.0	61.241	ug/L	61.241	ppb	13:45:50
1	Na 589.592 Radial†	-734.9	28.9	8.6312	ug/L	8.6312	ppb	13:45:30
1	Sr 421.552†	24.0	35.7	0.2092	ug/L	0.2092	ppb	13:45:30
1	Sc 361.383	887326.6	887326.6	98.712	%			13:46:47
1	Y 371.029	753367.7	753367.7	101.20	%			13:46:47
1	Ag 328.068†	402.1	37.5	0.1704	ug/L	0.1704	ppb	13:46:47
1	As 188.979†	-31.2	3.2	1.1817	ug/L	1.1817	ppb	13:47:07
1	B 249.677†	-314.4	-292.6	-6.0080	ug/L	-6.0080	ppb	13:47:07
1	Ba 233.527†	21.8	24.6	0.1672	ug/L	0.1672	ppb	13:47:07
1	Be 313.107†	-4162.8	514.0	0.1733	ug/L	0.1733	ppb	13:46:47
1	Cd 226.502†	-213.5	12.9	0.1238	ug/L	0.1238	ppb	13:47:07
1	Co 228.616†	-77.8	8.3	0.1466	ug/L	0.1466	ppb	13:47:07
1	Cr 267.716†	142.1	63.8	0.6470	ug/L	0.6470	ppb	13:47:07
1	Cu 324.752†	6050.5	73.9	0.2102	ug/L	0.2102	ppb	13:46:47
1	Mn 257.610†	1116.1	639.2	0.6321	ug/L	0.6321	ppb	13:47:07
1	Mo 202.031†	36.1	16.7	1.0140	ug/L	1.0140	ppb	13:47:07
1	Ni 231.604†	122.7	30.7	0.6717	ug/L	0.6717	ppb	13:47:07
1	P 214.914†	255.1	0.4	0.1479	ug/L	0.1479	ppb	13:47:07
1	Pb 220.353†	-61.8	1.5	0.1600	ug/L	0.1600	ppb	13:47:07
1	S 181.975 Axial†	59.9	11.7	14.308	ug/L	14.308	ppb	13:47:07
1	Sb 206.836†	30.8	-10.0	-2.9716	ug/L	-2.9716	ppb	13:47:07
1	Se 196.026†	-29.0	-0.8	-0.3575	ug/L	-0.3575	ppb	13:47:07
1	Si 251.611†	899.0	333.2	9.3649	ug/L	9.3649	ppb	13:47:07
1	Sn 189.927†	12.1	8.8	1.3174	ug/L	1.3174	ppb	13:47:07
1	Ti 334.940†	-1059.6	314.1	0.4561	ug/L	0.4561	ppb	13:46:47
1	Tl 190.801†	-39.4	8.2	2.1310	ug/L	2.1310	ppb	13:47:07
1	U 409.014†	-2430.0	-89.5	-2.4702	ug/L	-2.4702	ppb	13:46:47
1	V 292.402†	-1537.7	-88.3	-0.5558	ug/L	-0.5558	ppb	13:46:47
1	Zn 213.857†	1116.2	337.3	2.7568	ug/L	2.7568	ppb	13:47:07
1	SiO2†	1002.6	409.1	24.700	ug/L	24.700	ppb	13:48:03
2	Sc Radial	5690.6	5690.6	102	%			13:45:55
2	Y RADIAL	6077.5	6077.5	102.8	%			13:45:55
2	Al 396.153Radial†	-26.5	-9.6	-7.0158	ug/L	-7.0158	ppb	13:45:55
2	Ca 317.933Radial†	25.5	5.3	7.6147	ug/L	7.6147	ppb	13:46:16
2	Fe 238.204 Radial†	13.6	2.4	19.907	ug/L	19.907	ppb	13:46:16
2	K 766.490 Radial†	2863.4	89.0	15.664	ug/L	15.664	ppb	13:45:55
2	Mg 279.077 IEC†	0.9	-0.5	-17.035	ug/L	-17.035	ppb	13:46:16
2	Na 589.592 Radial†	-720.5	56.8	16.956	ug/L	16.956	ppb	13:45:55
2	Sr 421.552†	40.0	50.9	0.2986	ug/L	0.2986	ppb	13:45:55
2	Sc 361.383	884096.7	884096.7	98.352	%			13:47:13
2	Y 371.029	748994.1	748994.1	100.61	%			13:47:13
2	Ag 328.068†	394.5	31.2	0.1410	ug/L	0.1410	ppb	13:47:13
2	As 188.979†	-28.9	5.4	1.9692	ug/L	1.9692	ppb	13:47:33
2	B 249.677†	-329.3	-308.8	-6.3413	ug/L	-6.3413	ppb	13:47:33
2	Ba 233.527†	20.5	23.5	0.1602	ug/L	0.1602	ppb	13:47:33
2	Be 313.107†	-4652.7	0.4	0.0008	ug/L	0.0008	ppb	13:47:13
2	Cd 226.502†	-220.8	4.7	0.0443	ug/L	0.0443	ppb	13:47:33
2	Co 228.616†	-76.7	9.1	0.1603	ug/L	0.1603	ppb	13:47:33
2	Cr 267.716†	155.0	77.5	0.7859	ug/L	0.7859	ppb	13:47:33
2	Cu 324.752†	6037.2	82.8	0.2349	ug/L	0.2349	ppb	13:47:13
2	Mn 257.610†	1117.1	644.3	0.6379	ug/L	0.6379	ppb	13:47:33
2	Mo 202.031†	33.4	14.0	0.8512	ug/L	0.8512	ppb	13:47:33
2	Ni 231.604†	112.0	20.3	0.4436	ug/L	0.4436	ppb	13:47:33

2	P 214.914†	246.6	-7.4	-3.8872 ug/L	-3.8872 ppb	13:47:33
2	Pb 220.353†	-76.6	-13.8	-1.4602 ug/L	-1.4602 ppb	13:47:33
2	S 181.975 Axial†	59.7	11.7	14.302 ug/L	14.302 ppb	13:47:33
2	Sb 206.836†	43.9	3.4	1.0440 ug/L	1.0440 ppb	13:47:33
2	Se 196.026†	-21.7	6.5	3.5800 ug/L	3.5800 ppb	13:47:33
2	Si 251.611†	922.0	360.0	10.128 ug/L	10.128 ppb	13:47:33
2	Sn 189.927†	12.5	9.2	1.3796 ug/L	1.3796 ppb	13:47:33
2	Ti 334.940†	-1122.2	246.6	0.3568 ug/L	0.3568 ppb	13:47:13
2	Tl 190.801†	-34.7	12.8	3.3294 ug/L	3.3294 ppb	13:47:33
2	U 409.014†	-2349.5	-16.7	-0.4628 ug/L	-0.4628 ppb	13:47:13
2	V 292.402†	-1453.9	-8.8	-0.0490 ug/L	-0.0490 ppb	13:47:13
2	Zn 213.857†	1107.7	332.7	2.7240 ug/L	2.7240 ppb	13:47:33
2	SiO2†	927.1	336.0	20.291 ug/L	20.291 ppb	13:48:08
3	Sc Radial	5699.6	5699.6	102 %		13:46:21
3	Y RADIAL	6057.3	6057.3	102.5 %		13:46:21
3	Al 396.153Radial†	-23.5	-6.6	-4.8323 ug/L	-4.8323 ppb	13:46:21
3	Ca 317.933Radial†	29.4	9.2	13.079 ug/L	13.079 ppb	13:46:41
3	Fe 238.204 Radial†	13.3	2.1	17.343 ug/L	17.343 ppb	13:46:41
3	K 766.490 Radial†	2774.3	-2.5	-0.4618 ug/L	-0.4618 ppb	13:46:21
3	Mg 279.077 IEC†	1.8	0.4	12.697 ug/L	12.697 ppb	13:46:41
3	Na 589.592 Radial†	-694.0	83.8	25.018 ug/L	25.018 ppb	13:46:21
3	Sr 421.552†	15.3	26.8	0.1570 ug/L	0.1570 ppb	13:46:21
3	Sc 361.383	885178.7	885178.7	98.473 %		13:47:38
3	Y 371.029	752537.5	752537.5	101.08 %		13:47:38
3	Ag 328.068†	407.6	44.0	0.1976 ug/L	0.1976 ppb	13:47:38
3	As 188.979†	-25.3	9.1	3.3155 ug/L	3.3155 ppb	13:47:58
3	B 249.677†	-326.8	-306.0	-6.2815 ug/L	-6.2815 ppb	13:47:58
3	Ba 233.527†	15.6	18.4	0.1258 ug/L	0.1258 ppb	13:47:58
3	Be 313.107†	-4492.5	168.9	0.0572 ug/L	0.0572 ppb	13:47:38
3	Cd 226.502†	-211.0	14.9	0.1443 ug/L	0.1443 ppb	13:47:58
3	Co 228.616†	-85.5	0.2	0.0044 ug/L	0.0044 ppb	13:47:58
3	Cr 267.716†	162.3	84.6	0.8594 ug/L	0.8594 ppb	13:47:58
3	Cu 324.752†	6071.6	110.2	0.3123 ug/L	0.3123 ppb	13:47:38
3	Mn 257.610†	1119.9	645.8	0.6385 ug/L	0.6385 ppb	13:47:58
3	Mo 202.031†	28.6	9.2	0.5555 ug/L	0.5555 ppb	13:47:58
3	Ni 231.604†	100.0	7.9	0.1733 ug/L	0.1733 ppb	13:47:58
3	P 214.914†	256.7	2.6	1.2914 ug/L	1.2914 ppb	13:47:58
3	Pb 220.353†	-75.2	-12.3	-1.2939 ug/L	-1.2939 ppb	13:47:58
3	S 181.975 Axial†	53.0	4.8	5.8684 ug/L	5.8684 ppb	13:47:58
3	Sb 206.836†	32.8	-8.0	-2.3661 ug/L	-2.3661 ppb	13:47:58
3	Se 196.026†	-23.0	5.2	2.8665 ug/L	2.8665 ppb	13:47:58
3	Si 251.611†	908.8	345.5	9.7275 ug/L	9.7275 ppb	13:47:58
3	Sn 189.927†	12.8	9.5	1.4264 ug/L	1.4264 ppb	13:47:58
3	Ti 334.940†	-1171.8	197.6	0.2872 ug/L	0.2872 ppb	13:47:38
3	Tl 190.801†	-36.3	11.2	2.9141 ug/L	2.9141 ppb	13:47:58
3	U 409.014†	-2427.7	-93.1	-2.5692 ug/L	-2.5692 ppb	13:47:38
3	V 292.402†	-1446.8	0.2	0.0012 ug/L	0.0012 ppb	13:47:38
3	Zn 213.857†	1133.3	357.3	2.9270 ug/L	2.9270 ppb	13:47:58
3	SiO2†	907.8	315.2	19.057 ug/L	19.057 ppb	13:48:13

Mean Data: 1201994224|932278|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	885534.0	98.512	%	0.1829				0.19%
Sc Radial	5658.0	102	%	1.2				1.14%
Y 371.029	751633.1	100.96	%	0.312				0.31%
Y RADIAL	6023.3	101.9	%	1.31				1.28%
Ag 328.068†	37.5	0.1696	ug/L	0.02831	0.1696	ppb	0.02831	16.69%
Al 396.153Radial†	-1.8	-1.3429	ug/L	8.00959	-1.3429	ppb	8.00959	596.44%
As 188.979†	5.9	2.1554	ug/L	1.07899	2.1554	ppb	1.07899	50.06%
B 249.677†	-302.5	-6.2103	ug/L	0.17767	-6.2103	ppb	0.17767	2.86%
Ba 233.527†	22.2	0.1511	ug/L	0.02217	0.1511	ppb	0.02217	14.67%
Be 313.107†	227.8	0.0771	ug/L	0.08791	0.0771	ppb	0.08791	114.01%
Ca 317.933Radial†	9.8	13.965	ug/L	6.8356	13.965	ppb	6.8356	48.95%
Cd 226.502†	10.8	0.1041	ug/L	0.05283	0.1041	ppb	0.05283	50.75%
Co 228.616†	5.9	0.1038	ug/L	0.08632	0.1038	ppb	0.08632	83.18%
Cr 267.716†	75.3	0.7641	ug/L	0.10787	0.7641	ppb	0.10787	14.12%
Cu 324.752†	89.0	0.2525	ug/L	0.05327	0.2525	ppb	0.05327	21.10%
Fe 238.204 Radial†	2.6	21.761	ug/L	5.5807	21.761	ppb	5.5807	25.65%
K 766.490 Radial†	84.4	14.860	ug/L	14.9361	14.860	ppb	14.9361	100.51%

Mg 279.077 IEC†	0.6	18.967	ug/L	39.5127	18.967	ppb	39.5127 208.32%
Mn 257.610†	643.1	0.6362	ug/L	0.00348	0.6362	ppb	0.00348 0.55%
Mo 202.031†	13.3	0.8069	ug/L	0.23242	0.8069	ppb	0.23242 28.80%
Na 589.592 Radial†	56.5	16.868	ug/L	8.1936	16.868	ppb	8.1936 48.57%
Ni 231.604†	19.7	0.4295	ug/L	0.24951	0.4295	ppb	0.24951 58.09%
P 214.914†	-1.5	-0.8160	ug/L	2.72052	-0.8160	ppb	2.72052 333.41%
Pb 220.353†	-8.2	-0.8647	ug/L	0.89131	-0.8647	ppb	0.89131 103.07%
S 181.975 Axial†	9.4	11.493	ug/L	4.8710	11.493	ppb	4.8710 42.38%
Sb 206.836†	-4.9	-1.4312	ug/L	2.16490	-1.4312	ppb	2.16490 151.26%
Se 196.026†	3.6	2.0297	ug/L	2.09792	2.0297	ppb	2.09792 103.36%
Si 251.611†	346.2	9.7401	ug/L	0.38161	9.7401	ppb	0.38161 3.92%
Sn 189.927†	9.2	1.3745	ug/L	0.05469	1.3745	ppb	0.05469 3.98%
Sr 421.552†	37.8	0.2216	ug/L	0.07159	0.2216	ppb	0.07159 32.31%
Ti 334.940†	252.8	0.3667	ug/L	0.08488	0.3667	ppb	0.08488 23.15%
Tl 190.801†	10.7	2.7915	ug/L	0.60856	2.7915	ppb	0.60856 21.80%
U 409.014†	-66.4	-1.8341	ug/L	1.18854	-1.8341	ppb	1.18854 64.80%
V 292.402†	-32.3	-0.2012	ug/L	0.30814	-0.2012	ppb	0.30814 153.16%
Zn 213.857†	342.4	2.8026	ug/L	0.10898	2.8026	ppb	0.10898 3.89%
SiO2†	353.4	21.349	ug/L	2.9668	21.349	ppb	2.9668 13.90%

Sequence No.: 4
Sample ID: 1201994225|932278|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 30
Date Collected: 12/19/2009 13:50:24
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1201994225|932278|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	5719.6	5719.6	103	%			13:52:36
1	Y RADIAL	6668.7	6668.7	112.8	%			13:52:36
1	Al 396.153Radial†	113855.4	110839.8	80743	ug/L	80743	ppb	13:52:16
1	Ca 317.933Radial†	67920.4	66092.0	94229	ug/L	94229	ppb	13:52:16
1	Fe 238.204 Radial†	21617.9	21031.3	174860	ug/L	174860	ppb	13:52:16
1	K 766.490 Radial†	232271.1	223373.2	39308	ug/L	39308	ppb	13:52:16
1	Mg 279.077 IEC†	1189.1	1156.0	35755	ug/L	35755	ppb	13:52:36
1	Na 589.592 Radial†	33545.0	33413.3	9972.9	ug/L	9972.9	ppb	13:52:16
1	Sr 421.552†	400195.9	389550.3	2283.4	ug/L	2283.4	ppb	13:52:16
1	Sc 361.383	923960.7	923960.7	102.79	%			13:53:37
1	Y 371.029	823977.8	823977.8	110.68	%			13:53:37
1	Ag 328.068†	58745.2	56782.5	306.61	ug/L	306.61	ppb	13:53:37
1	As 188.979†	2711.6	2673.0	1042.0	ug/L	1042.0	ppb	13:53:42
1	B 249.677†	73605.9	71636.2	1444.7	ug/L	1444.7	ppb	13:53:37
1	Ba 233.527†	270951.5	263607.6	1800.8	ug/L	1800.8	ppb	13:53:37
1	Be 313.107†	2307012.4	2249192.3	764.74	ug/L	764.74	ppb	13:53:37
1	Cd 226.502†	61180.2	59750.6	567.70	ug/L	567.70	ppb	13:53:42
1	Co 228.616†	52430.5	51096.0	881.70	ug/L	881.70	ppb	13:53:42
1	Cr 267.716†	233610.8	227196.6	2308.7	ug/L	2308.7	ppb	13:53:37
1	Cu 324.752†	663143.8	639108.0	1814.6	ug/L	1814.6	ppb	13:53:37
1	Mn 257.610†	5369762.4	5223677.7	5169.3	ug/L	5169.3	ppb	13:53:37
1	Mo 202.031†	8276.1	8031.9	498.58	ug/L	498.58	ppb	13:53:42
1	Ni 231.604†	60367.7	58637.3	1280.6	ug/L	1280.6	ppb	13:53:42
1	P 214.914†	15469.8	14792.3	7326.3	ug/L	7326.3	ppb	13:53:42
1	Pb 220.353†	7704.9	7560.1	800.23	ug/L	800.23	ppb	13:53:42
1	S 181.975 Axial†	3299.9	3161.5	3862.6	ug/L	3862.6	ppb	13:53:42
1	Sb 206.836†	5543.5	5352.0	1563.6	ug/L	1563.6	ppb	13:53:42
1	Se 196.026†	4464.2	4371.7	2925.6	ug/L	2925.6	ppb	13:53:42
1	Si 251.611†	676174.1	657263.1	18509	ug/L	18509	ppb	13:53:37
1	Sn 189.927†	6787.8	6600.3	1002.0	ug/L	1002.0	ppb	13:53:42
1	Ti 334.940†	3779131.9	3678053.9	5322.1	ug/L	5322.1	ppb	13:53:37
1	Tl 190.801†	4296.4	4228.0	1162.9	ug/L	1162.9	ppb	13:53:42
1	U 409.014†	-8730.7	-6121.8	-195.11	ug/L	-195.11	ppb	13:53:37
1	V 292.402†	191978.4	188242.6	1171.4	ug/L	1171.4	ppb	13:53:37
1	Zn 213.857†	732825.1	712162.0	5812.5	ug/L	5812.5	ppb	13:53:37
1	SiO2†	675375.5	656457.1	39693	ug/L	39693	ppb	13:54:17
2	Sc Radial	5814.2	5814.2	104	%			13:53:01
2	Y RADIAL	6764.3	6764.3	114.4	%			13:53:01
2	Al 396.153Radial†	115173.3	110297.7	80348	ug/L	80348	ppb	13:52:41
2	Ca 317.933Radial†	68737.4	65798.2	93810	ug/L	93810	ppb	13:52:41
2	Fe 238.204 Radial†	21836.7	20898.3	173760	ug/L	173760	ppb	13:52:41
2	K 766.490 Radial†	234777.2	222092.6	39082	ug/L	39082	ppb	13:52:41
2	Mg 279.077 IEC†	1210.4	1157.6	35805	ug/L	35805	ppb	13:53:01
2	Na 589.592 Radial†	33776.4	33103.4	9880.4	ug/L	9880.4	ppb	13:52:41
2	Sr 421.552†	403943.8	386798.2	2267.3	ug/L	2267.3	ppb	13:52:41
2	Sc 361.383	925310.5	925310.5	102.94	%			13:53:51
2	Y 371.029	825496.4	825496.4	110.88	%			13:53:51
2	Ag 328.068†	58909.0	56858.3	306.57	ug/L	306.57	ppb	13:53:51
2	As 188.979†	2737.3	2694.0	1049.5	ug/L	1049.5	ppb	13:53:57
2	B 249.677†	73514.8	71443.1	1440.9	ug/L	1440.9	ppb	13:53:51
2	Ba 233.527†	271372.2	263631.8	1800.9	ug/L	1800.9	ppb	13:53:51
2	Be 313.107†	2311992.8	2250756.4	765.26	ug/L	765.26	ppb	13:53:51
2	Cd 226.502†	61297.8	59778.0	568.08	ug/L	568.08	ppb	13:53:57
2	Co 228.616†	52470.6	51060.5	881.11	ug/L	881.11	ppb	13:53:57
2	Cr 267.716†	234142.9	227382.0	2310.6	ug/L	2310.6	ppb	13:53:51
2	Cu 324.752†	662575.9	637615.2	1810.4	ug/L	1810.4	ppb	13:53:51
2	Mn 257.610†	5376509.4	5222611.3	5168.1	ug/L	5168.1	ppb	13:53:51
2	Mo 202.031†	8314.7	8057.6	500.06	ug/L	500.06	ppb	13:53:57
2	Ni 231.604†	60514.1	58693.9	1281.8	ug/L	1281.8	ppb	13:53:57

2	P 214.914†	15418.1	14720.1	7290.2	ug/L	7290.2 ppb	13:53:57
2	Pb 220.353†	7650.3	7496.1	793.50	ug/L	793.50 ppb	13:53:57
2	S 181.975 Axial†	3334.2	3190.1	3897.7	ug/L	3897.7 ppb	13:53:57
2	Sb 206.836†	5555.5	5355.7	1564.9	ug/L	1564.9 ppb	13:53:57
2	Se 196.026†	4446.0	4347.7	2909.0	ug/L	2909.0 ppb	13:53:57
2	Si 251.611†	675923.6	656060.2	18475	ug/L	18475 ppb	13:53:51
2	Sn 189.927†	6849.2	6650.3	1009.5	ug/L	1009.5 ppb	13:53:57
2	Ti 334.940†	3783532.8	3676965.8	5320.5	ug/L	5320.5 ppb	13:53:51
2	Tl 190.801†	4354.8	4278.7	1176.0	ug/L	1176.0 ppb	13:53:57
2	U 409.014†	-8899.4	-6273.2	-199.15	ug/L	-199.15 ppb	13:53:51
2	V 292.402†	192105.7	188093.9	1170.6	ug/L	1170.6 ppb	13:53:51
2	Zn 213.857†	733364.3	711645.9	5808.3	ug/L	5808.3 ppb	13:53:51
2	SiO2†	679161.9	659176.9	39858	ug/L	39858 ppb	13:54:22
3	Sc Radial	5802.6	5802.6	104	%		13:53:26
3	Y RADIAL	6757.4	6757.4	114.3	%		13:53:26
3	Al 396.153Radial†	114686.7	110052.2	80169	ug/L	80169 ppb	13:53:06
3	Ca 317.933Radial†	68171.3	65387.2	93224	ug/L	93224 ppb	13:53:06
3	Fe 238.204 Radial†	21676.0	20786.1	172820	ug/L	172820 ppb	13:53:06
3	K 766.490 Radial†	233675.3	221486.6	38975	ug/L	38975 ppb	13:53:06
3	Mg 279.077 IEC†	1211.6	1161.0	35913	ug/L	35913 ppb	13:53:26
3	Na 589.592 Radial†	33574.6	32974.7	9842.0	ug/L	9842.0 ppb	13:53:06
3	Sr 421.552†	401980.7	385691.0	2260.8	ug/L	2260.8 ppb	13:53:06
3	Sc 361.383	919899.6	919899.6	102.34	%		13:54:06
3	Y 371.029	820998.7	820998.7	110.28	%		13:54:06
3	Ag 328.068†	58529.3	56823.8	306.12	ug/L	306.12 ppb	13:54:06
3	As 188.979†	2699.5	2672.8	1041.6	ug/L	1041.6 ppb	13:54:11
3	B 249.677†	72980.1	71340.8	1438.9	ug/L	1438.9 ppb	13:54:06
3	Ba 233.527†	269772.1	263618.9	1800.8	ug/L	1800.8 ppb	13:54:06
3	Be 313.107†	2295449.4	2247801.7	764.26	ug/L	764.26 ppb	13:54:06
3	Cd 226.502†	60422.2	59272.6	563.22	ug/L	563.22 ppb	13:54:11
3	Co 228.616†	51766.5	50672.4	874.33	ug/L	874.33 ppb	13:54:11
3	Cr 267.716†	232443.8	227059.6	2307.3	ug/L	2307.3 ppb	13:54:06
3	Cu 324.752†	657931.9	636863.3	1808.2	ug/L	1808.2 ppb	13:54:06
3	Mn 257.610†	5340123.9	5217778.6	5163.2	ug/L	5163.2 ppb	13:54:06
3	Mo 202.031†	8182.0	7975.5	495.02	ug/L	495.02 ppb	13:54:11
3	Ni 231.604†	59743.1	58286.3	1272.9	ug/L	1272.9 ppb	13:54:11
3	P 214.914†	15231.7	14626.0	7242.0	ug/L	7242.0 ppb	13:54:11
3	Pb 220.353†	7617.1	7507.4	794.71	ug/L	794.71 ppb	13:54:11
3	S 181.975 Axial†	3211.3	3089.0	3773.8	ug/L	3773.8 ppb	13:54:11
3	Sb 206.836†	5464.4	5298.5	1547.6	ug/L	1547.6 ppb	13:54:11
3	Se 196.026†	4400.4	4328.5	2895.7	ug/L	2895.7 ppb	13:54:11
3	Si 251.611†	671685.4	655781.0	18467	ug/L	18467 ppb	13:54:06
3	Sn 189.927†	6758.9	6601.2	1002.1	ug/L	1002.1 ppb	13:54:11
3	Ti 334.940†	3757335.2	3672985.9	5314.7	ug/L	5314.7 ppb	13:54:06
3	Tl 190.801†	4261.7	4212.5	1158.8	ug/L	1158.8 ppb	13:54:11
3	U 409.014†	-8912.7	-6337.1	-200.79	ug/L	-200.79 ppb	13:54:06
3	V 292.402†	190939.4	188051.8	1170.4	ug/L	1170.4 ppb	13:54:06
3	Zn 213.857†	727945.7	710541.5	5799.4	ug/L	5799.4 ppb	13:54:06
3	SiO2†	675925.9	659895.6	39902	ug/L	39902 ppb	13:54:27

Mean Data: 1201994225|932278|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	923057.0	102.69	%	0.313				0.31%
Sc Radial	5778.8	104	%	0.9				0.89%
Y 371.029	823491.0	110.62	%	0.307				0.28%
Y RADIAL	6730.1	113.9	%	0.90				0.79%
Ag 328.068†	56821.5	306.43	ug/L	0.272	306.43	ppb	0.272	0.09%
Al 396.153Radial†	110396.6	80420	ug/L	293.6	80420	ppb	293.6	0.37%
As 188.979†	2679.9	1044.4	ug/L	4.45	1044.4	ppb	4.45	0.43%
B 249.677†	71473.3	1441.5	ug/L	2.94	1441.5	ppb	2.94	0.20%
Ba 233.527†	263619.4	1800.8	ug/L	0.07	1800.8	ppb	0.07	0.00%
Be 313.107†	2249250.1	764.76	ug/L	0.501	764.76	ppb	0.501	0.07%
Ca 317.933Radial†	65759.1	93755	ug/L	504.8	93755	ppb	504.8	0.54%
Cd 226.502†	59600.4	566.33	ug/L	2.700	566.33	ppb	2.700	0.48%
Co 228.616†	50943.0	879.05	ug/L	4.098	879.05	ppb	4.098	0.47%
Cr 267.716†	227212.7	2308.9	ug/L	1.65	2308.9	ppb	1.65	0.07%
Cu 324.752†	637862.2	1811.1	ug/L	3.28	1811.1	ppb	3.28	0.18%
Fe 238.204 Radial†	20905.2	173810	ug/L	1020.8	173810	ppb	1020.8	0.59%
K 766.490 Radial†	222317.5	39122	ug/L	169.7	39122	ppb	169.7	0.43%

Mg 279.077 IEC†	1158.2	35824	ug/L	80.9	35824	ppb	80.9	0.23%
Mn 257.610†	5221355.9	5166.9	ug/L	3.20	5166.9	ppb	3.20	0.06%
Mo 202.031†	8021.6	497.89	ug/L	2.589	497.89	ppb	2.589	0.52%
Na 589.592 Radial†	33163.8	9898.4	ug/L	67.29	9898.4	ppb	67.29	0.68%
Ni 231.604†	58539.2	1278.5	ug/L	4.82	1278.5	ppb	4.82	0.38%
P 214.914†	14712.8	7286.2	ug/L	42.26	7286.2	ppb	42.26	0.58%
Pb 220.353†	7521.2	796.14	ug/L	3.589	796.14	ppb	3.589	0.45%
S 181.975 Axial†	3146.8	3844.7	ug/L	63.89	3844.7	ppb	63.89	1.66%
Sb 206.836†	5335.4	1558.7	ug/L	9.65	1558.7	ppb	9.65	0.62%
Se 196.026†	4349.3	2910.1	ug/L	14.94	2910.1	ppb	14.94	0.51%
Si 251.611†	656368.1	18484	ug/L	22.1	18484	ppb	22.1	0.12%
Sn 189.927†	6617.2	1004.5	ug/L	4.29	1004.5	ppb	4.29	0.43%
Sr 421.552†	387346.5	2270.5	ug/L	11.65	2270.5	ppb	11.65	0.51%
Ti 334.940†	3676001.9	5319.1	ug/L	3.88	5319.1	ppb	3.88	0.07%
Tl 190.801†	4239.7	1165.9	ug/L	8.99	1165.9	ppb	8.99	0.77%
U 409.014†	-6244.0	-198.35	ug/L	2.920	-198.35	ppb	2.920	1.47%
V 292.402†	188129.4	1170.8	ug/L	0.50	1170.8	ppb	0.50	0.04%
Zn 213.857†	711449.8	5806.7	ug/L	6.67	5806.7	ppb	6.67	0.11%
SiO2†	658509.9	39818	ug/L	110.0	39818	ppb	110.0	0.28%

Sequence No.: 5
Sample ID: 242668001|932278|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 31
Date Collected: 12/19/2009 13:56:38
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 242668001|932278|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5783.2	5783.2	104	%			13:58:30
1	Y RADIAL	7352.2	7352.2	124.4	%			13:58:30
1	Al 396.153Radial†	46397.7	44682.0	32557	ug/L	32557	ppb	13:58:30
1	Ca 317.933Radial†	7522.1	7221.7	10296	ug/L	10296	ppb	13:58:30
1	Fe 238.204 Radial†	11736.8	11287.8	93837	ug/L	93837	ppb	13:58:30
1	K 766.490 Radial†	28308.3	24539.0	4312.4	ug/L	4312.4	ppb	13:58:30
1	Mg 279.077 IEC†	188.6	180.1	5512.8	ug/L	5512.8	ppb	13:58:50
1	Na 589.592 Radial†	2482.7	3151.7	940.68	ug/L	940.68	ppb	13:58:30
1	Sr 421.552†	14010.6	13499.4	79.063	ug/L	79.063	ppb	13:58:30
1	Sc 361.383	924955.7	924955.7	102.90	%			13:59:48
1	Y 371.029	911711.2	911711.2	122.47	%			13:59:48
1	Ag 328.068†	-6377.9	-6568.3	3.5241	ug/L	3.5241	ppb	13:59:53
1	As 188.979†	-74.3	-37.4	33.067	ug/L	33.067	ppb	14:00:13
1	B 249.677†	988.7	986.8	7.7500	ug/L	7.7500	ppb	13:59:53
1	Ba 233.527†	45692.2	44408.1	305.54	ug/L	305.54	ppb	13:59:53
1	Be 313.107†	-20080.1	-14783.6	2.5769	ug/L	2.5769	ppb	13:59:53
1	Cd 226.502†	818.7	1024.8	0.6610	ug/L	0.6610	ppb	14:00:13
1	Co 228.616†	1154.3	1208.9	11.816	ug/L	11.816	ppb	14:00:13
1	Cr 267.716†	4544.8	4336.6	45.909	ug/L	45.909	ppb	14:00:13
1	Cu 324.752†	16747.1	10219.9	33.662	ug/L	33.662	ppb	13:59:53
1	Mn 257.610†	1543538.7	1499581.1	1488.4	ug/L	1488.4	ppb	13:59:48
1	Mo 202.031†	199.5	174.0	17.188	ug/L	17.188	ppb	14:00:13
1	Ni 231.604†	1560.4	1422.8	31.074	ug/L	31.074	ppb	14:00:13
1	P 214.914†	1232.7	939.9	420.92	ug/L	420.92	ppb	14:00:13
1	Pb 220.353†	665.4	710.7	74.499	ug/L	74.499	ppb	14:00:13
1	S 181.975 Axial†	305.5	247.9	297.76	ug/L	297.76	ppb	14:00:13
1	Sb 206.836†	74.5	31.2	-1.2194	ug/L	-1.2194	ppb	14:00:13
1	Se 196.026†	-564.2	-519.8	6.2772	ug/L	6.2772	ppb	14:00:13
1	Si 251.611†	462843.0	449231.9	12666	ug/L	12666	ppb	13:59:48
1	Sn 189.927†	-49.1	-51.2	-5.3319	ug/L	-5.3319	ppb	14:00:13
1	Ti 334.940†	2726731.3	2651334.0	3834.0	ug/L	3834.0	ppb	13:59:48
1	Tl 190.801†	-201.4	-147.6	0.3258	ug/L	0.3258	ppb	14:00:13
1	U 409.014†	-10848.2	-8170.5	-237.00	ug/L	-237.00	ppb	13:59:48
1	V 292.402†	16066.4	17083.4	89.982	ug/L	89.982	ppb	13:59:53
1	Zn 213.857†	51002.4	48772.6	390.62	ug/L	390.62	ppb	13:59:53
1	SiO2†	468447.0	454648.9	27525	ug/L	27525	ppb	14:01:21
2	Sc Radial	5635.0	5635.0	101	%			13:58:55
2	Y RADIAL	7236.8	7236.8	122.4	%			13:58:55
2	Al 396.153Radial†	45664.9	45132.4	32885	ug/L	32885	ppb	13:58:55
2	Ca 317.933Radial†	7362.1	7254.0	10342	ug/L	10342	ppb	13:58:55
2	Fe 238.204 Radial†	11538.7	11389.1	94679	ug/L	94679	ppb	13:58:55
2	K 766.490 Radial†	27764.1	24717.9	4343.9	ug/L	4343.9	ppb	13:58:55
2	Mg 279.077 IEC†	189.5	185.8	5687.8	ug/L	5687.8	ppb	13:59:15
2	Na 589.592 Radial†	2399.4	3132.2	934.86	ug/L	934.86	ppb	13:58:55
2	Sr 421.552†	13745.0	13591.6	79.603	ug/L	79.603	ppb	13:58:55
2	Sc 361.383	940222.9	940222.9	104.60	%			14:00:19
2	Y 371.029	924694.2	924694.2	124.21	%			14:00:19
2	Ag 328.068†	-6454.6	-6540.9	3.9223	ug/L	3.9223	ppb	14:00:24
2	As 188.979†	-80.3	-41.9	31.663	ug/L	31.663	ppb	14:00:44
2	B 249.677†	981.0	963.8	7.1661	ug/L	7.1661	ppb	14:00:24
2	Ba 233.527†	45899.5	43885.2	302.02	ug/L	302.02	ppb	14:00:24
2	Be 313.107†	-20005.5	-14395.3	2.7326	ug/L	2.7326	ppb	14:00:24
2	Cd 226.502†	797.3	991.4	0.2498	ug/L	0.2498	ppb	14:00:44
2	Co 228.616†	1181.0	1216.2	11.904	ug/L	11.904	ppb	14:00:44
2	Cr 267.716†	4501.0	4223.1	44.772	ug/L	44.772	ppb	14:00:44
2	Cu 324.752†	16760.5	9968.5	32.994	ug/L	32.994	ppb	14:00:24
2	Mn 257.610†	1573966.2	1504313.7	1493.1	ug/L	1493.1	ppb	14:00:19
2	Mo 202.031†	200.7	172.0	17.127	ug/L	17.127	ppb	14:00:44
2	Ni 231.604†	1528.7	1367.9	29.874	ug/L	29.874	ppb	14:00:44

2	P 214.914†	1253.8	940.6	420.83 ug/L	420.83 ppb	14:00:44
2	Pb 220.353†	649.3	684.8	71.775 ug/L	71.775 ppb	14:00:44
2	S 181.975 Axial†	301.8	239.5	287.34 ug/L	287.34 ppb	14:00:44
2	Sb 206.836†	87.7	42.6	2.2263 ug/L	2.2263 ppb	14:00:44
2	Se 196.026†	-553.5	-500.6	19.323 ug/L	19.323 ppb	14:00:44
2	Si 251.611†	472095.5	450773.8	12709 ug/L	12709 ppb	14:00:19
2	Sn 189.927†	-40.9	-42.6	-4.0324 ug/L	-4.0324 ppb	14:00:44
2	Ti 334.940†	2781130.4	2660313.3	3847.0 ug/L	3847.0 ppb	14:00:19
2	Tl 190.801†	-205.1	-148.0	0.3688 ug/L	0.3688 ppb	14:00:44
2	U 409.014†	-11230.6	-8364.9	-242.46 ug/L	-242.46 ppb	14:00:19
2	V 292.402†	16123.7	16884.6	88.568 ug/L	88.568 ppb	14:00:24
2	Zn 213.857†	51139.2	48098.6	385.01 ug/L	385.01 ppb	14:00:24
2	SiO2†	470724.4	449433.8	27209 ug/L	27209 ppb	14:01:26
3	Sc Radial	5857.4	5857.4	105 %		13:59:20
3	Y RADIAL	7537.1	7537.1	127.5 %		13:59:20
3	Al 396.153Radial†	46979.4	44668.5	32547 ug/L	32547 ppb	13:59:20
3	Ca 317.933Radial†	7560.8	7166.7	10218 ug/L	10218 ppb	13:59:20
3	Fe 238.204 Radial†	11816.2	11220.0	93273 ug/L	93273 ppb	13:59:20
3	K 766.490 Radial†	28499.3	24375.1	4283.5 ug/L	4283.5 ppb	13:59:20
3	Mg 279.077 IEC†	191.2	180.3	5519.3 ug/L	5519.3 ppb	13:59:40
3	Na 589.592 Radial†	2512.9	3150.0	940.19 ug/L	940.19 ppb	13:59:20
3	Sr 421.552†	14206.6	13514.6	79.153 ug/L	79.153 ppb	13:59:20
3	Sc 361.383	936145.7	936145.7	104.14 %		14:00:50
3	Y 371.029	921267.6	921267.6	123.75 %		14:00:50
3	Ag 328.068†	-6374.8	-6491.2	3.6720 ug/L	3.6720 ppb	14:00:55
3	As 188.979†	-78.9	-41.0	31.735 ug/L	31.735 ppb	14:01:15
3	B 249.677†	953.7	941.7	6.8986 ug/L	6.8986 ppb	14:00:55
3	Ba 233.527†	46284.5	44446.1	305.78 ug/L	305.78 ppb	14:00:55
3	Be 313.107†	-20228.3	-14692.6	2.6212 ug/L	2.6212 ppb	14:00:55
3	Cd 226.502†	817.2	1013.9	0.6103 ug/L	0.6103 ppb	14:01:15
3	Co 228.616†	1170.4	1211.0	11.847 ug/L	11.847 ppb	14:01:15
3	Cr 267.716†	4539.3	4278.6	45.312 ug/L	45.312 ppb	14:01:15
3	Cu 324.752†	16864.3	10137.9	33.401 ug/L	33.401 ppb	14:00:55
3	Mn 257.610†	1563459.9	1500779.2	1489.5 ug/L	1489.5 ppb	14:00:50
3	Mo 202.031†	205.4	177.3	17.349 ug/L	17.349 ppb	14:01:15
3	Ni 231.604†	1559.4	1403.8	30.657 ug/L	30.657 ppb	14:01:15
3	P 214.914†	1217.7	911.2	406.38 ug/L	406.38 ppb	14:01:15
3	Pb 220.353†	684.3	721.1	75.646 ug/L	75.646 ppb	14:01:15
3	S 181.975 Axial†	321.3	259.5	311.97 ug/L	311.97 ppb	14:01:15
3	Sb 206.836†	69.6	25.6	-2.9184 ug/L	-2.9184 ppb	14:01:15
3	Se 196.026†	-571.2	-520.0	4.4790 ug/L	4.4790 ppb	14:01:15
3	Si 251.611†	469100.5	449863.7	12684 ug/L	12684 ppb	14:00:50
3	Sn 189.927†	-59.8	-60.9	-6.8034 ug/L	-6.8034 ppb	14:01:15
3	Ti 334.940†	2764769.4	2656183.5	3841.0 ug/L	3841.0 ppb	14:00:50
3	Tl 190.801†	-198.0	-142.0	1.8351 ug/L	1.8351 ppb	14:01:15
3	U 409.014†	-11101.7	-8287.9	-240.17 ug/L	-240.17 ppb	14:00:50
3	V 292.402†	16265.0	17087.5	90.083 ug/L	90.083 ppb	14:00:55
3	Zn 213.857†	51451.0	48610.9	389.35 ug/L	389.35 ppb	14:00:55
3	SiO2†	472263.1	452871.4	27417 ug/L	27417 ppb	14:01:32

Mean Data: 242668001|932278|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	933774.8	103.88	%	0.879				0.85%
Sc Radial	5758.5	103	%	2.0				1.97%
Y 371.029	919224.4	123.47	%	0.904				0.73%
Y RADIAL	7375.3	124.8	%	2.56				2.05%
Ag 328.068†	-6533.4	3.7061	ug/L	0.20127	3.7061	ppb	0.20127	5.43%
Al 396.153Radial†	44827.6	32663	ug/L	192.4	32663	ppb	192.4	0.59%
As 188.979†	-40.1	32.155	ug/L	0.7907	32.155	ppb	0.7907	2.46%
B 249.677†	964.1	7.2715	ug/L	0.43542	7.2715	ppb	0.43542	5.99%
Ba 233.527†	44246.5	304.45	ug/L	2.107	304.45	ppb	2.107	0.69%
Be 313.107†	-14623.8	2.6436	ug/L	0.08024	2.6436	ppb	0.08024	3.04%
Ca 317.933Radial†	7214.1	10285	ug/L	63.0	10285	ppb	63.0	0.61%
Cd 226.502†	1010.0	0.5071	ug/L	0.22422	0.5071	ppb	0.22422	44.22%
Co 228.616†	1212.0	11.856	ug/L	0.0444	11.856	ppb	0.0444	0.37%
Cr 267.716†	4279.4	45.331	ug/L	0.5686	45.331	ppb	0.5686	1.25%
Cu 324.752†	10108.8	33.352	ug/L	0.3364	33.352	ppb	0.3364	1.01%
Fe 238.204 Radial†	11298.9	93930	ug/L	707.5	93930	ppb	707.5	0.75%
K 766.490 Radial†	24544.0	4313.2	ug/L	30.24	4313.2	ppb	30.24	0.70%

Mg 279.077 IEC†	182.1	5573.3	ug/L	99.24	5573.3	ppb	99.24	1.78%
Mn 257.610†	1501558.0	1490.4	ug/L	2.48	1490.4	ppb	2.48	0.17%
Mo 202.031†	174.4	17.221	ug/L	0.1148	17.221	ppb	0.1148	0.67%
Na 589.592 Radial†	3144.6	938.58	ug/L	3.225	938.58	ppb	3.225	0.34%
Ni 231.604†	1398.2	30.535	ug/L	0.6093	30.535	ppb	0.6093	2.00%
P 214.914†	930.6	416.04	ug/L	8.370	416.04	ppb	8.370	2.01%
Pb 220.353†	705.5	73.973	ug/L	1.9883	73.973	ppb	1.9883	2.69%
S 181.975 Axial†	249.0	299.02	ug/L	12.364	299.02	ppb	12.364	4.13%
Sb 206.836†	33.1	-0.6371	ug/L	2.62131	-0.6371	ppb	2.62131	411.42%
Se 196.026†	-513.5	10.026	ug/L	8.1014	10.026	ppb	8.1014	80.80%
Si 251.611†	449956.5	12686	ug/L	21.9	12686	ppb	21.9	0.17%
Sn 189.927†	-51.5	-5.3892	ug/L	1.38643	-5.3892	ppb	1.38643	25.73%
Sr 421.552†	13535.2	79.273	ug/L	0.2894	79.273	ppb	0.2894	0.37%
Ti 334.940†	2655943.6	3840.7	ug/L	6.50	3840.7	ppb	6.50	0.17%
Tl 190.801†	-145.9	0.8432	ug/L	0.85927	0.8432	ppb	0.85927	101.90%
U 409.014†	-8274.4	-239.88	ug/L	2.742	-239.88	ppb	2.742	1.14%
V 292.402†	17018.5	89.544	ug/L	0.8471	89.544	ppb	0.8471	0.95%
Zn 213.857†	48494.0	388.33	ug/L	2.939	388.33	ppb	2.939	0.76%
SiO2†	452318.0	27384	ug/L	160.5	27384	ppb	160.5	0.59%

Sequence No.: 6
Sample ID: 1201994226|932278|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 32
Date Collected: 12/19/2009 14:03:42
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1201994226|932278|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5651.3	5651.3	102	%			14:05:34
1	Y RADIAL	7217.6	7217.6	122.1	%			14:05:34
1	Al 396.153Radial†	41068.6	40474.3	29491	ug/L	29491	ppb	14:05:34
1	Ca 317.933Radial†	7436.8	7306.6	10417	ug/L	10417	ppb	14:05:34
1	Fe 238.204 Radial†	11024.0	10849.2	90190	ug/L	90190	ppb	14:05:34
1	K 766.490 Radial†	28758.7	25618.7	4501.9	ug/L	4501.9	ppb	14:05:34
1	Mg 279.077 IEC†	186.3	182.1	5578.0	ug/L	5578.0	ppb	14:05:54
1	Na 589.592 Radial†	2246.9	2975.1	887.99	ug/L	887.99	ppb	14:05:34
1	Sr 421.552†	14271.2	14070.8	82.413	ug/L	82.413	ppb	14:05:34
1	Sc 361.383	942758.5	942758.5	104.88	%			14:06:52
1	Y 371.029	920302.5	920302.5	123.62	%			14:06:52
1	Ag 328.068†	-5972.8	-6064.9	4.4580	ug/L	4.4580	ppb	14:06:57
1	As 188.979†	-71.5	-33.4	33.200	ug/L	33.200	ppb	14:07:17
1	B 249.677†	597.4	595.5	0.2029	ug/L	0.2029	ppb	14:06:57
1	Ba 233.527†	50300.0	47963.1	329.56	ug/L	329.56	ppb	14:06:57
1	Be 313.107†	-19985.6	-14324.9	2.5523	ug/L	2.5523	ppb	14:06:57
1	Cd 226.502†	740.9	935.6	0.1494	ug/L	0.1494	ppb	14:07:17
1	Co 228.616†	1191.6	1223.3	12.325	ug/L	12.325	ppb	14:07:17
1	Cr 267.716†	3697.0	3444.9	36.797	ug/L	36.797	ppb	14:07:17
1	Cu 324.752†	16681.6	9850.1	32.431	ug/L	32.431	ppb	14:06:57
1	Mn 257.610†	1593119.7	1518529.0	1506.7	ug/L	1506.7	ppb	14:06:52
1	Mo 202.031†	182.8	154.5	15.747	ug/L	15.747	ppb	14:07:17
1	Ni 231.604†	1310.9	1156.3	25.251	ug/L	25.251	ppb	14:07:17
1	P 214.914†	1331.3	1011.3	460.22	ug/L	460.22	ppb	14:07:17
1	Pb 220.353†	700.1	731.6	76.309	ug/L	76.309	ppb	14:07:17
1	S 181.975 Axial†	331.6	267.2	322.00	ug/L	322.00	ppb	14:07:17
1	Sb 206.836†	66.2	21.9	-3.5391	ug/L	-3.5391	ppb	14:07:17
1	Se 196.026†	-511.7	-459.4	27.708	ug/L	27.708	ppb	14:07:17
1	Si 251.611†	435452.4	414621.2	11690	ug/L	11690	ppb	14:06:52
1	Sn 189.927†	-54.8	-55.8	-6.0618	ug/L	-6.0618	ppb	14:07:17
1	Ti 334.940†	2713352.0	2588536.1	3743.2	ug/L	3743.2	ppb	14:06:52
1	Tl 190.801†	-209.5	-151.7	-1.3948	ug/L	-1.3948	ppb	14:07:17
1	U 409.014†	-10767.5	-7894.5	-228.92	ug/L	-228.92	ppb	14:06:52
1	V 292.402†	16024.6	16748.7	88.511	ug/L	88.511	ppb	14:06:57
1	Zn 213.857†	47400.8	44402.5	355.16	ug/L	355.16	ppb	14:06:57
1	SiO2†	429713.5	409120.0	24768	ug/L	24768	ppb	14:08:25
2	Sc Radial	5649.1	5649.1	101	%			14:05:59
2	Y RADIAL	7203.6	7203.6	121.9	%			14:05:59
2	Al 396.153Radial†	40155.9	39591.0	28848	ug/L	28848	ppb	14:05:59
2	Ca 317.933Radial†	7317.0	7191.5	10253	ug/L	10253	ppb	14:05:59
2	Fe 238.204 Radial†	10760.2	10593.5	88065	ug/L	88065	ppb	14:05:59
2	K 766.490 Radial†	28333.0	25210.4	4429.9	ug/L	4429.9	ppb	14:05:59
2	Mg 279.077 IEC†	182.9	178.8	5477.6	ug/L	5477.6	ppb	14:06:19
2	Na 589.592 Radial†	2191.3	2921.3	871.91	ug/L	871.91	ppb	14:05:59
2	Sr 421.552†	13914.2	13724.6	80.384	ug/L	80.384	ppb	14:05:59
2	Sc 361.383	942668.9	942668.9	104.87	%			14:07:23
2	Y 371.029	920128.1	920128.1	123.60	%			14:07:23
2	Ag 328.068†	-5954.6	-6048.1	3.8266	ug/L	3.8266	ppb	14:07:28
2	As 188.979†	-81.5	-42.8	29.278	ug/L	29.278	ppb	14:07:48
2	B 249.677†	692.9	686.7	2.3556	ug/L	2.3556	ppb	14:07:28
2	Ba 233.527†	50321.3	47988.0	329.65	ug/L	329.65	ppb	14:07:28
2	Be 313.107†	-19816.5	-14165.5	2.5703	ug/L	2.5703	ppb	14:07:28
2	Cd 226.502†	735.0	930.1	0.3084	ug/L	0.3084	ppb	14:07:48
2	Co 228.616†	1196.2	1227.8	12.473	ug/L	12.473	ppb	14:07:48
2	Cr 267.716†	3664.7	3414.4	36.451	ug/L	36.451	ppb	14:07:48
2	Cu 324.752†	16515.6	9693.4	31.880	ug/L	31.880	ppb	14:07:28
2	Mn 257.610†	1586390.0	1512256.2	1500.3	ug/L	1500.3	ppb	14:07:23
2	Mo 202.031†	188.7	160.1	15.938	ug/L	15.938	ppb	14:07:48
2	Ni 231.604†	1322.7	1167.7	25.500	ug/L	25.500	ppb	14:07:48

2	P 214.914†	1317.4	998.2	454.91	ug/L	454.91 ppb	14:07:48
2	Pb 220.353†	706.9	738.2	77.037	ug/L	77.037 ppb	14:07:48
2	S 181.975 Axial†	333.3	268.8	324.07	ug/L	324.07 ppb	14:07:48
2	Sb 206.836†	73.7	29.0	-1.3577	ug/L	-1.3577 ppb	14:07:48
2	Se 196.026†	-522.1	-469.3	15.747	ug/L	15.747 ppb	14:07:48
2	Si 251.611†	433609.6	412903.4	11641	ug/L	11641 ppb	14:07:23
2	Sn 189.927†	-53.7	-54.7	-5.9491	ug/L	-5.9491 ppb	14:07:48
2	Ti 334.940†	2700011.2	2576060.5	3725.2	ug/L	3725.2 ppb	14:07:23
2	Tl 190.801†	-203.3	-145.7	-0.0462	ug/L	-0.0462 ppb	14:07:48
2	U 409.014†	-10992.5	-8110.0	-234.59	ug/L	-234.59 ppb	14:07:23
2	V 292.402†	15973.3	16701.2	88.543	ug/L	88.543 ppb	14:07:28
2	Zn 213.857†	47302.1	44312.7	354.63	ug/L	354.63 ppb	14:07:28
2	SiO2†	436306.6	415446.0	25151	ug/L	25151 ppb	14:08:30
3	Sc Radial	5811.1	5811.1	104	%		14:06:24
3	Y RADIAL	7399.2	7399.2	125.2	%		14:06:24
3	Al 396.153Radial†	40684.7	38994.0	28413	ug/L	28413 ppb	14:06:24
3	Ca 317.933Radial†	7364.0	7035.4	10031	ug/L	10031 ppb	14:06:24
3	Fe 238.204 Radial†	10850.6	10384.5	86327	ug/L	86327 ppb	14:06:24
3	K 766.490 Radial†	28488.5	24580.8	4319.1	ug/L	4319.1 ppb	14:06:24
3	Mg 279.077 IEC†	184.0	174.8	5355.3	ug/L	5355.3 ppb	14:06:44
3	Na 589.592 Radial†	2181.9	2852.0	851.23	ug/L	851.23 ppb	14:06:24
3	Sr 421.552†	14096.7	13517.1	79.169	ug/L	79.169 ppb	14:06:24
3	Sc 361.383	943282.5	943282.5	104.94	%		14:07:54
3	Y 371.029	920238.9	920238.9	123.61	%		14:07:54
3	Ag 328.068†	-5979.2	-6067.9	3.1628	ug/L	3.1628 ppb	14:07:59
3	As 188.979†	-92.9	-53.7	24.707	ug/L	24.707 ppb	14:08:19
3	B 249.677†	605.1	602.5	0.8598	ug/L	0.8598 ppb	14:07:59
3	Ba 233.527†	50737.7	48353.5	332.08	ug/L	332.08 ppb	14:07:59
3	Be 313.107†	-20132.2	-14454.0	2.3905	ug/L	2.3905 ppb	14:07:59
3	Cd 226.502†	728.6	923.5	0.4182	ug/L	0.4182 ppb	14:08:19
3	Co 228.616†	1178.9	1210.5	12.290	ug/L	12.290 ppb	14:08:19
3	Cr 267.716†	3683.7	3430.2	36.580	ug/L	36.580 ppb	14:08:19
3	Cu 324.752†	16679.5	9839.3	32.203	ug/L	32.203 ppb	14:07:59
3	Mn 257.610†	1568059.2	1493803.6	1482.0	ug/L	1482.0 ppb	14:07:54
3	Mo 202.031†	207.6	178.0	16.896	ug/L	16.896 ppb	14:08:19
3	Ni 231.604†	1357.2	1199.8	26.200	ug/L	26.200 ppb	14:08:19
3	P 214.914†	1316.8	996.8	455.43	ug/L	455.43 ppb	14:08:19
3	Pb 220.353†	698.6	729.8	76.198	ug/L	76.198 ppb	14:08:19
3	S 181.975 Axial†	329.0	264.5	318.88	ug/L	318.88 ppb	14:08:19
3	Sb 206.836†	88.5	43.1	3.0251	ug/L	3.0251 ppb	14:08:19
3	Se 196.026†	-532.7	-479.1	5.0528	ug/L	5.0528 ppb	14:08:19
3	Si 251.611†	428994.9	408236.8	11510	ug/L	11510 ppb	14:07:54
3	Sn 189.927†	-36.7	-38.4	-3.5525	ug/L	-3.5525 ppb	14:08:19
3	Ti 334.940†	2671112.3	2546846.3	3682.9	ug/L	3682.9 ppb	14:07:54
3	Tl 190.801†	-189.5	-132.5	2.9494	ug/L	2.9494 ppb	14:08:19
3	U 409.014†	-10786.6	-7907.0	-228.78	ug/L	-228.78 ppb	14:07:54
3	V 292.402†	16148.6	16858.4	89.877	ug/L	89.877 ppb	14:07:59
3	Zn 213.857†	47814.1	44771.3	358.56	ug/L	358.56 ppb	14:07:59
3	SiO2†	432743.2	411779.6	24929	ug/L	24929 ppb	14:08:36

Mean Data: 1201994226|932278|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	942903.3	104.89	%	0.037				0.04%
Sc Radial	5703.8	102	%	1.7				1.63%
Y 371.029	920223.2	123.61	%	0.012				0.01%
Y RADIAL	7273.5	123.0	%	1.85				1.50%
Ag 328.068†	-6060.3	3.8158	ug/L	0.64766	3.8158	ppb	0.64766	16.97%
Al 396.153Radial†	39686.4	28917	ug/L	542.7	28917	ppb	542.7	1.88%
As 188.979†	-43.3	29.062	ug/L	4.2506	29.062	ppb	4.2506	14.63%
B 249.677†	628.2	1.1394	ug/L	1.10328	1.1394	ppb	1.10328	96.83%
Ba 233.527†	48101.5	330.43	ug/L	1.425	330.43	ppb	1.425	0.43%
Be 313.107†	-14314.8	2.5044	ug/L	0.09901	2.5044	ppb	0.09901	3.95%
Ca 317.933Radial†	7177.8	10234	ug/L	194.1	10234	ppb	194.1	1.90%
Cd 226.502†	929.7	0.2920	ug/L	0.13515	0.2920	ppb	0.13515	46.28%
Co 228.616†	1220.5	12.363	ug/L	0.0971	12.363	ppb	0.0971	0.79%
Cr 267.716†	3429.8	36.609	ug/L	0.1748	36.609	ppb	0.1748	0.48%
Cu 324.752†	9794.3	32.171	ug/L	0.2770	32.171	ppb	0.2770	0.86%
Fe 238.204 Radial†	10609.1	88194	ug/L	1934.8	88194	ppb	1934.8	2.19%
K 766.490 Radial†	25136.6	4416.9	ug/L	92.10	4416.9	ppb	92.10	2.09%

Mg 279.077 IEC†	178.6	5470.3	ug/L	111.50	5470.3	ppb	111.50	2.04%
Mn 257.610†	1508196.3	1496.3	ug/L	12.86	1496.3	ppb	12.86	0.86%
Mo 202.031†	164.2	16.194	ug/L	0.6155	16.194	ppb	0.6155	3.80%
Na 589.592 Radial†	2916.1	870.38	ug/L	18.429	870.38	ppb	18.429	2.12%
Ni 231.604†	1174.6	25.650	ug/L	0.4921	25.650	ppb	0.4921	1.92%
P 214.914†	1002.1	456.85	ug/L	2.927	456.85	ppb	2.927	0.64%
Pb 220.353†	733.2	76.515	ug/L	0.4558	76.515	ppb	0.4558	0.60%
S 181.975 Axial†	266.8	321.65	ug/L	2.611	321.65	ppb	2.611	0.81%
Sb 206.836†	31.4	-0.6239	ug/L	3.34309	-0.6239	ppb	3.34309	535.85%
Se 196.026†	-469.3	16.169	ug/L	11.3335	16.169	ppb	11.3335	70.09%
Si 251.611†	411920.5	11614	ug/L	93.1	11614	ppb	93.1	0.80%
Sn 189.927†	-49.6	-5.1878	ug/L	1.41731	-5.1878	ppb	1.41731	27.32%
Sr 421.552†	13770.8	80.655	ug/L	1.6385	80.655	ppb	1.6385	2.03%
Ti 334.940†	2570481.0	3717.1	ug/L	30.95	3717.1	ppb	30.95	0.83%
Tl 190.801†	-143.3	0.5028	ug/L	2.22352	0.5028	ppb	2.22352	442.23%
U 409.014†	-7970.5	-230.77	ug/L	3.315	-230.77	ppb	3.315	1.44%
V 292.402†	16769.4	88.977	ug/L	0.7795	88.977	ppb	0.7795	0.88%
Zn 213.857†	44495.5	356.12	ug/L	2.130	356.12	ppb	2.130	0.60%
SiO2†	412115.2	24950	ug/L	192.3	24950	ppb	192.3	0.77%

Sequence No.: 7
Sample ID: 1201994227|932278|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 33
Date Collected: 12/19/2009 14:10:46
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1201994227|932278|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5714.5	5714.5	103	%			14:12:59
1	Y RADIAL	7371.2	7371.2	124.7	%			14:12:59
1	Al 396.153Radial†	86534.3	84321.3	61421	ug/L	61421	ppb	14:12:39
1	Ca 317.933Radial†	10326.6	10041.0	14316	ug/L	14316	ppb	14:12:39
1	Fe 238.204 Radial†	12072.8	11750.9	97701	ug/L	97701	ppb	14:12:39
1	K 766.490 Radial†	66302.1	61881.5	10891	ug/L	10891	ppb	14:12:39
1	Mg 279.077 IEC†	426.2	413.8	12775	ug/L	12775	ppb	14:12:59
1	Na 589.592 Radial†	18193.2	18486.2	5517.6	ug/L	5517.6	ppb	14:12:39
1	Sr 421.552†	99294.3	96748.0	567.18	ug/L	567.18	ppb	14:12:39
1	Sc 361.383	941054.1	941054.1	104.69	%			14:13:58
1	Y 371.029	936897.4	936897.4	125.85	%			14:13:58
1	Ag 328.068†	110036.1	104738.2	485.99	ug/L	485.99	ppb	14:13:58
1	As 188.979†	1259.4	1237.9	502.14	ug/L	502.14	ppb	14:14:18
1	B 249.677†	24736.6	23654.7	471.29	ug/L	471.29	ppb	14:13:58
1	Ba 233.527†	123162.5	117649.3	804.55	ug/L	804.55	ppb	14:13:58
1	Be 313.107†	1483625.6	1421912.3	485.82	ug/L	485.82	ppb	14:13:58
1	Cd 226.502†	51063.2	49005.5	469.82	ug/L	469.82	ppb	14:13:58
1	Co 228.616†	28390.0	27205.6	466.47	ug/L	466.47	ppb	14:14:18
1	Cr 267.716†	53663.2	51179.7	521.62	ug/L	521.62	ppb	14:13:58
1	Cu 324.752†	204518.5	189303.5	539.84	ug/L	539.84	ppb	14:13:58
1	Mn 257.610†	2047439.3	1955253.0	1938.1	ug/L	1938.1	ppb	14:13:58
1	Mo 202.031†	8095.8	7713.4	473.83	ug/L	473.83	ppb	14:14:18
1	Ni 231.604†	23619.8	22468.4	490.61	ug/L	490.61	ppb	14:14:18
1	P 214.914†	2623.4	2247.9	1035.3	ug/L	1035.3	ppb	14:14:18
1	Pb 220.353†	5344.9	5169.6	551.26	ug/L	551.26	ppb	14:14:18
1	S 181.975 Axial†	4427.1	4179.8	5115.7	ug/L	5115.7	ppb	14:14:18
1	Sb 206.836†	1614.5	1500.9	444.22	ug/L	444.22	ppb	14:14:18
1	Se 196.026†	333.5	347.1	495.76	ug/L	495.76	ppb	14:14:18
1	Si 251.611†	640386.8	611129.5	17219	ug/L	17219	ppb	14:13:58
1	Sn 189.927†	3267.1	3117.3	470.35	ug/L	470.35	ppb	14:14:18
1	Ti 334.940†	3300233.8	3153819.9	4560.4	ug/L	4560.4	ppb	14:13:58
1	Tl 190.801†	1625.4	1600.7	459.50	ug/L	459.50	ppb	14:14:18
1	U 409.014†	3595.0	5806.3	146.68	ug/L	146.68	ppb	14:13:58
1	V 292.402†	95337.2	92536.9	575.75	ug/L	575.75	ppb	14:13:58
1	Zn 213.857†	110871.1	105112.2	848.53	ug/L	848.53	ppb	14:13:58
1	SiO2†	640438.4	611149.6	36976	ug/L	36976	ppb	14:15:19
2	Sc Radial	5680.7	5680.7	102	%			14:13:24
2	Y RADIAL	7322.7	7322.7	123.9	%			14:13:24
2	Al 396.153Radial†	87264.6	85538.3	62308	ug/L	62308	ppb	14:13:04
2	Ca 317.933Radial†	10448.3	10220.1	14571	ug/L	14571	ppb	14:13:04
2	Fe 238.204 Radial†	12194.1	11939.7	99271	ug/L	99271	ppb	14:13:04
2	K 766.490 Radial†	67030.7	62979.6	11085	ug/L	11085	ppb	14:13:04
2	Mg 279.077 IEC†	423.2	413.4	12761	ug/L	12761	ppb	14:13:24
2	Na 589.592 Radial†	18366.4	18761.3	5599.7	ug/L	5599.7	ppb	14:13:04
2	Sr 421.552†	100136.1	98148.2	575.39	ug/L	575.39	ppb	14:13:04
2	Sc 361.383	935570.0	935570.0	104.08	%			14:14:25
2	Y 371.029	932768.8	932768.8	125.29	%			14:14:25
2	Ag 328.068†	110017.9	105336.8	489.10	ug/L	489.10	ppb	14:14:25
2	As 188.979†	1242.3	1228.5	499.17	ug/L	499.17	ppb	14:14:45
2	B 249.677†	24694.4	23752.7	473.09	ug/L	473.09	ppb	14:14:25
2	Ba 233.527†	122891.4	118078.4	807.53	ug/L	807.53	ppb	14:14:25
2	Be 313.107†	1480368.8	1427090.4	487.60	ug/L	487.60	ppb	14:14:25
2	Cd 226.502†	50899.6	49134.3	470.92	ug/L	470.92	ppb	14:14:25
2	Co 228.616†	28363.2	27338.8	468.73	ug/L	468.73	ppb	14:14:45
2	Cr 267.716†	53640.8	51458.7	524.48	ug/L	524.48	ppb	14:14:25
2	Cu 324.752†	205036.5	190946.4	544.56	ug/L	544.56	ppb	14:14:25
2	Mn 257.610†	2043202.3	1962646.2	1945.6	ug/L	1945.6	ppb	14:14:25
2	Mo 202.031†	8074.4	7738.2	475.44	ug/L	475.44	ppb	14:14:45
2	Ni 231.604†	23689.4	22667.6	494.96	ug/L	494.96	ppb	14:14:45

2	P 214.914†	2625.6	2264.7	1042.3 ug/L	1042.3 ppb	14:14:45
2	Pb 220.353†	5340.5	5195.3	554.04 ug/L	554.04 ppb	14:14:45
2	S 181.975 Axial†	4401.8	4180.3	5116.1 ug/L	5116.1 ppb	14:14:45
2	Sb 206.836†	1606.0	1501.8	444.43 ug/L	444.43 ppb	14:14:45
2	Se 196.026†	322.1	338.0	495.74 ug/L	495.74 ppb	14:14:45
2	Si 251.611†	641566.1	615848.3	17352 ug/L	17352 ppb	14:14:25
2	Sn 189.927†	3261.7	3130.4	472.36 ug/L	472.36 ppb	14:14:45
2	Ti 334.940†	3297967.7	3170121.6	4584.0 ug/L	4584.0 ppb	14:14:25
2	Tl 190.801†	1636.2	1620.1	464.77 ug/L	464.77 ppb	14:14:45
2	U 409.014†	3663.0	5891.7	148.83 ug/L	148.83 ppb	14:14:25
2	V 292.402†	95243.4	92980.6	578.33 ug/L	578.33 ppb	14:14:25
2	Zn 213.857†	110575.1	105448.6	851.10 ug/L	851.10 ppb	14:14:25
2	SiO2†	637481.8	611894.9	37020 ug/L	37020 ppb	14:15:24
3	Sc Radial	5680.7	5680.7	102 %		14:13:49
3	Y RADIAL	7312.8	7312.8	123.7 %		14:13:49
3	Al 396.153Radial†	86749.5	85033.7	61940 ug/L	61940 ppb	14:13:29
3	Ca 317.933Radial†	10374.0	10147.3	14467 ug/L	14467 ppb	14:13:29
3	Fe 238.204 Radial†	12095.1	11842.7	98464 ug/L	98464 ppb	14:13:29
3	K 766.490 Radial†	66604.7	62562.3	11012 ug/L	11012 ppb	14:13:29
3	Mg 279.077 IEC†	429.8	419.8	12960 ug/L	12960 ppb	14:13:49
3	Na 589.592 Radial†	18106.4	18506.5	5523.6 ug/L	5523.6 ppb	14:13:29
3	Sr 421.552†	99374.4	97401.9	571.02 ug/L	571.02 ppb	14:13:29
3	Sc 361.383	945510.2	945510.2	105.18 %		14:14:53
3	Y 371.029	941407.5	941407.5	126.45 %		14:14:53
3	Ag 328.068†	109065.6	103320.2	480.10 ug/L	480.10 ppb	14:14:53
3	As 188.979†	1247.4	1220.8	495.55 ug/L	495.55 ppb	14:15:13
3	B 249.677†	24495.2	23313.8	464.21 ug/L	464.21 ppb	14:14:53
3	Ba 233.527†	121905.4	115899.6	792.67 ug/L	792.67 ppb	14:14:53
3	Be 313.107†	1470840.1	1403078.0	479.38 ug/L	479.38 ppb	14:14:53
3	Cd 226.502†	50472.7	48214.2	462.00 ug/L	462.00 ppb	14:14:53
3	Co 228.616†	28237.9	26933.3	461.81 ug/L	461.81 ppb	14:15:13
3	Cr 267.716†	53236.2	50532.2	515.05 ug/L	515.05 ppb	14:14:53
3	Cu 324.752†	202993.3	186932.8	533.18 ug/L	533.18 ppb	14:14:53
3	Mn 257.610†	2025674.5	1925343.8	1908.7 ug/L	1908.7 ppb	14:14:53
3	Mo 202.031†	8055.3	7638.4	469.35 ug/L	469.35 ppb	14:15:13
3	Ni 231.604†	23555.1	22300.6	486.95 ug/L	486.95 ppb	14:15:13
3	P 214.914†	2605.5	2219.0	1020.8 ug/L	1020.8 ppb	14:15:13
3	Pb 220.353†	5311.4	5113.7	545.42 ug/L	545.42 ppb	14:15:13
3	S 181.975 Axial†	4392.4	4126.9	5050.7 ug/L	5050.7 ppb	14:15:13
3	Sb 206.836†	1605.5	1485.1	439.64 ug/L	439.64 ppb	14:15:13
3	Se 196.026†	327.7	340.1	494.34 ug/L	494.34 ppb	14:15:13
3	Si 251.611†	634788.3	602924.1	16988 ug/L	16988 ppb	14:14:53
3	Sn 189.927†	3260.1	3096.0	467.18 ug/L	467.18 ppb	14:15:13
3	Ti 334.940†	3270308.4	3110512.6	4497.8 ug/L	4497.8 ppb	14:14:53
3	Tl 190.801†	1643.7	1610.8	461.52 ug/L	461.52 ppb	14:15:13
3	U 409.014†	3766.2	5952.8	150.64 ug/L	150.64 ppb	14:14:53
3	V 292.402†	94448.0	91262.4	567.55 ug/L	567.55 ppb	14:14:53
3	Zn 213.857†	109666.1	103467.4	834.99 ug/L	834.99 ppb	14:14:53
3	SiO2†	637728.9	605690.6	36645 ug/L	36645 ppb	14:15:29

Mean Data: 1201994227|932278|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	940711.4	104.65	%	0.554				0.53%
Sc Radial	5692.0	102	%	0.4				0.34%
Y 371.029	937024.6	125.87	%	0.580				0.46%
Y RADIAL	7335.6	124.1	%	0.53				0.43%
Ag 328.068†	104465.1	485.06	ug/L	4.573	485.06	ppb	4.573	0.94%
Al 396.153Radial†	84964.4	61890	ug/L	445.5	61890	ppb	445.5	0.72%
As 188.979†	1229.0	498.95	ug/L	3.304	498.95	ppb	3.304	0.66%
B 249.677†	23573.8	469.53	ug/L	4.696	469.53	ppb	4.696	1.00%
Ba 233.527†	117209.1	801.58	ug/L	7.863	801.58	ppb	7.863	0.98%
Be 313.107†	1417360.2	484.26	ug/L	4.325	484.26	ppb	4.325	0.89%
Ca 317.933Radial†	10136.1	14451	ug/L	128.4	14451	ppb	128.4	0.89%
Cd 226.502†	48784.7	467.58	ug/L	4.864	467.58	ppb	4.864	1.04%
Co 228.616†	27159.2	465.67	ug/L	3.530	465.67	ppb	3.530	0.76%
Cr 267.716†	51056.9	520.38	ug/L	4.834	520.38	ppb	4.834	0.93%
Cu 324.752†	189060.9	539.19	ug/L	5.718	539.19	ppb	5.718	1.06%
Fe 238.204 Radial†	11844.4	98478	ug/L	785.1	98478	ppb	785.1	0.80%
K 766.490 Radial†	62474.5	10996	ug/L	97.7	10996	ppb	97.7	0.89%

Mg 279.077 IEC†	415.7	12832	ug/L	111.0	12832	ppb	111.0	0.87%
Mn 257.610†	1947747.6	1930.8	ug/L	19.50	1930.8	ppb	19.50	1.01%
Mo 202.031†	7696.7	472.87	ug/L	3.158	472.87	ppb	3.158	0.67%
Na 589.592 Radial†	18584.7	5547.0	ug/L	45.76	5547.0	ppb	45.76	0.83%
Ni 231.604†	22478.8	490.84	ug/L	4.012	490.84	ppb	4.012	0.82%
P 214.914†	2243.8	1032.8	ug/L	10.98	1032.8	ppb	10.98	1.06%
Pb 220.353†	5159.5	550.24	ug/L	4.401	550.24	ppb	4.401	0.80%
S 181.975 Axial†	4162.4	5094.2	ug/L	37.65	5094.2	ppb	37.65	0.74%
Sb 206.836†	1496.0	442.76	ug/L	2.705	442.76	ppb	2.705	0.61%
Se 196.026†	341.7	495.28	ug/L	0.812	495.28	ppb	0.812	0.16%
Si 251.611†	609967.3	17187	ug/L	184.3	17187	ppb	184.3	1.07%
Sn 189.927†	3114.6	469.96	ug/L	2.616	469.96	ppb	2.616	0.56%
Sr 421.552†	97432.7	571.20	ug/L	4.107	571.20	ppb	4.107	0.72%
Ti 334.940†	3144818.0	4547.4	ug/L	44.54	4547.4	ppb	44.54	0.98%
Tl 190.801†	1610.5	461.93	ug/L	2.659	461.93	ppb	2.659	0.58%
U 409.014†	5883.6	148.72	ug/L	1.980	148.72	ppb	1.980	1.33%
V 292.402†	92260.0	573.88	ug/L	5.632	573.88	ppb	5.632	0.98%
Zn 213.857†	104676.1	844.87	ug/L	8.656	844.87	ppb	8.656	1.02%
SiO2†	609578.3	36880	ug/L	205.0	36880	ppb	205.0	0.56%

Sequence No.: 8
Sample ID: 1201994229|932278|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 34
Date Collected: 12/19/2009 14:17:41
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1201994229|932278|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5639.2	5639.2	101	%			14:19:54
1	Y RADIAL	7216.1	7216.1	122.1	%			14:19:54
1	Al 396.153Radial†	89478.8	88354.0	64358	ug/L	64358	ppb	14:19:33
1	Ca 317.933Radial†	10822.2	10664.5	15205	ug/L	15205	ppb	14:19:33
1	Fe 238.204 Radial†	12799.8	12625.7	104970	ug/L	104970	ppb	14:19:33
1	K 766.490 Radial†	67974.1	64394.8	11331	ug/L	11331	ppb	14:19:33
1	Mg 279.077 IEC†	417.8	411.0	12683	ug/L	12683	ppb	14:19:54
1	Na 589.592 Radial†	18933.8	19454.0	5806.5	ug/L	5806.5	ppb	14:19:33
1	Sr 421.552†	103417.8	102110.6	598.62	ug/L	598.62	ppb	14:19:33
1	Sc 361.383	884877.8	884877.8	98.439	%			14:20:57
1	Y 371.029	881504.5	881504.5	118.41	%			14:20:57
1	Ag 328.068†	112228.8	113638.4	526.84	ug/L	526.84	ppb	14:20:57
1	As 188.979†	1282.2	1337.4	542.54	ug/L	542.54	ppb	14:21:17
1	B 249.677†	25392.8	25821.4	514.68	ug/L	514.68	ppb	14:20:57
1	Ba 233.527†	128952.2	130999.6	895.66	ug/L	895.66	ppb	14:20:57
1	Be 313.107†	1501957.1	1530504.1	522.98	ug/L	522.98	ppb	14:20:52
1	Cd 226.502†	51817.4	52868.2	506.89	ug/L	506.89	ppb	14:20:57
1	Co 228.616†	29072.6	29620.7	507.96	ug/L	507.96	ppb	14:21:17
1	Cr 267.716†	54097.6	54875.2	559.26	ug/L	559.26	ppb	14:20:57
1	Cu 324.752†	208166.3	205411.5	585.72	ug/L	585.72	ppb	14:20:57
1	Mn 257.610†	2227681.5	2262513.3	2241.9	ug/L	2241.9	ppb	14:20:52
1	Mo 202.031†	8256.1	8367.1	513.92	ug/L	513.92	ppb	14:21:17
1	Ni 231.604†	24182.2	24472.0	534.36	ug/L	534.36	ppb	14:21:17
1	P 214.914†	2554.3	2336.7	1070.0	ug/L	1070.0	ppb	14:21:17
1	Pb 220.353†	5434.8	5585.0	595.16	ug/L	595.16	ppb	14:21:17
1	S 181.975 Axial†	4519.7	4542.4	5559.9	ug/L	5559.9	ppb	14:21:17
1	Sb 206.836†	1650.5	1635.5	484.27	ug/L	484.27	ppb	14:21:17
1	Se 196.026†	339.6	373.5	532.78	ug/L	532.78	ppb	14:21:17
1	Si 251.611†	579745.1	588360.4	16576	ug/L	16576	ppb	14:20:57
1	Sn 189.927†	3332.2	3381.6	510.18	ug/L	510.18	ppb	14:21:17
1	Ti 334.940†	3363033.6	3417747.3	4942.0	ug/L	4942.0	ppb	14:20:52
1	Tl 190.801†	1690.5	1765.4	506.69	ug/L	506.69	ppb	14:21:17
1	U 409.014†	8472.6	10979.2	288.22	ug/L	288.22	ppb	14:20:57
1	V 292.402†	97286.9	100299.0	624.42	ug/L	624.42	ppb	14:20:57
1	Zn 213.857†	112743.3	113737.4	918.24	ug/L	918.24	ppb	14:20:57
1	SiO2†	592327.3	601113.0	36366	ug/L	36366	ppb	14:22:26
2	Sc Radial	5577.6	5577.6	100	%			14:20:19
2	Y RADIAL	7207.1	7207.1	121.9	%			14:20:19
2	Al 396.153Radial†	87941.5	87795.0	63951	ug/L	63951	ppb	14:19:59
2	Ca 317.933Radial†	10645.1	10605.8	15121	ug/L	15121	ppb	14:19:59
2	Fe 238.204 Radial†	12614.3	12580.0	104590	ug/L	104590	ppb	14:19:59
2	K 766.490 Radial†	67084.1	64247.3	11305	ug/L	11305	ppb	14:19:59
2	Mg 279.077 IEC†	418.6	416.5	12853	ug/L	12853	ppb	14:20:19
2	Na 589.592 Radial†	18550.5	19277.8	5753.8	ug/L	5753.8	ppb	14:19:59
2	Sr 421.552†	101691.6	101515.0	595.13	ug/L	595.13	ppb	14:19:59
2	Sc 361.383	884642.9	884642.9	98.413	%			14:21:29
2	Y 371.029	879989.0	879989.0	118.20	%			14:21:29
2	Ag 328.068†	111501.3	112929.5	523.65	ug/L	523.65	ppb	14:21:29
2	As 188.979†	1273.4	1328.7	539.81	ug/L	539.81	ppb	14:21:49
2	B 249.677†	25139.7	25571.1	509.60	ug/L	509.60	ppb	14:21:29
2	Ba 233.527†	127945.9	130011.8	888.93	ug/L	888.93	ppb	14:21:29
2	Be 313.107†	1516981.0	1546175.4	528.34	ug/L	528.34	ppb	14:21:23
2	Cd 226.502†	51352.1	52409.4	502.44	ug/L	502.44	ppb	14:21:29
2	Co 228.616†	28989.7	29544.3	506.51	ug/L	506.51	ppb	14:21:49
2	Cr 267.716†	53778.5	54565.6	556.11	ug/L	556.11	ppb	14:21:29
2	Cu 324.752†	206732.3	204010.6	581.74	ug/L	581.74	ppb	14:21:29
2	Mn 257.610†	2250002.0	2285794.8	2264.8	ug/L	2264.8	ppb	14:21:23
2	Mo 202.031†	8235.8	8348.8	512.78	ug/L	512.78	ppb	14:21:49
2	Ni 231.604†	24055.6	24350.0	531.69	ug/L	531.69	ppb	14:21:49

2	P 214.914†	2528.5	2311.2	1057.5 ug/L	1057.5 ppb	14:21:49
2	Pb 220.353†	5425.6	5577.2	594.27 ug/L	594.27 ppb	14:21:49
2	S 181.975 Axial†	4503.8	4527.5	5541.7 ug/L	5541.7 ppb	14:21:49
2	Sb 206.836†	1640.9	1626.1	481.39 ug/L	481.39 ppb	14:21:49
2	Se 196.026†	331.5	365.3	527.12 ug/L	527.12 ppb	14:21:49
2	Si 251.611†	575305.0	584005.0	16454 ug/L	16454 ppb	14:21:29
2	Sn 189.927†	3332.2	3382.5	510.30 ug/L	510.30 ppb	14:21:49
2	Ti 334.940†	3398852.6	3455051.1	4995.9 ug/L	4995.9 ppb	14:21:23
2	Tl 190.801†	1686.4	1761.7	506.28 ug/L	506.28 ppb	14:21:49
2	U 409.014†	8159.9	10663.7	279.58 ug/L	279.58 ppb	14:21:29
2	V 292.402†	96736.7	99766.2	621.00 ug/L	621.00 ppb	14:21:29
2	Zn 213.857†	111979.0	112991.2	912.17 ug/L	912.17 ppb	14:21:29
2	SiO2†	586401.7	595251.6	36011 ug/L	36011 ppb	14:22:32
3	Sc Radial	5716.4	5716.4	103 %		14:20:44
3	Y RADIAL	7298.0	7298.0	123.5 %		14:20:44
3	Al 396.153Radial†	88690.8	86393.9	62930 ug/L	62930 ppb	14:20:24
3	Ca 317.933Radial†	10769.1	10468.7	14925 ug/L	14925 ppb	14:20:24
3	Fe 238.204 Radial†	12724.1	12381.4	102940 ug/L	102940 ppb	14:20:24
3	K 766.490 Radial†	67476.1	63003.7	11086 ug/L	11086 ppb	14:20:24
3	Mg 279.077 IEC†	405.4	393.4	12138 ug/L	12138 ppb	14:20:44
3	Na 589.592 Radial†	18741.0	19013.8	5675.1 ug/L	5675.1 ppb	14:20:24
3	Sr 421.552†	102217.9	99563.7	583.69 ug/L	583.69 ppb	14:20:24
3	Sc 361.383	885506.7	885506.7	98.509 %		14:22:01
3	Y 371.029	881733.3	881733.3	118.44 %		14:22:01
3	Ag 328.068†	112137.2	113464.5	525.41 ug/L	525.41 ppb	14:22:01
3	As 188.979†	1274.2	1328.3	538.92 ug/L	538.92 ppb	14:22:21
3	B 249.677†	25319.5	25728.7	513.06 ug/L	513.06 ppb	14:22:01
3	Ba 233.527†	128610.2	130559.4	892.59 ug/L	892.59 ppb	14:22:01
3	Be 313.107†	1505372.6	1532887.7	523.78 ug/L	523.78 ppb	14:21:55
3	Cd 226.502†	51553.0	52562.4	504.10 ug/L	504.10 ppb	14:22:01
3	Co 228.616†	28927.5	29452.4	505.04 ug/L	505.04 ppb	14:22:21
3	Cr 267.716†	53883.9	54619.3	556.62 ug/L	556.62 ppb	14:22:01
3	Cu 324.752†	207641.6	204728.7	583.68 ug/L	583.68 ppb	14:22:01
3	Mn 257.610†	2224574.4	2257752.0	2237.0 ug/L	2237.0 ppb	14:21:55
3	Mo 202.031†	8252.3	8357.3	513.18 ug/L	513.18 ppb	14:22:21
3	Ni 231.604†	24079.3	24350.1	531.70 ug/L	531.70 ppb	14:22:21
3	P 214.914†	2525.3	2305.4	1055.1 ug/L	1055.1 ppb	14:22:21
3	Pb 220.353†	5424.4	5570.5	593.48 ug/L	593.48 ppb	14:22:21
3	S 181.975 Axial†	4489.7	4508.6	5518.8 ug/L	5518.8 ppb	14:22:21
3	Sb 206.836†	1647.8	1631.5	483.12 ug/L	483.12 ppb	14:22:21
3	Se 196.026†	321.2	354.6	516.12 ug/L	516.12 ppb	14:22:21
3	Si 251.611†	577756.6	585923.5	16508 ug/L	16508 ppb	14:22:01
3	Sn 189.927†	3320.1	3366.9	507.92 ug/L	507.92 ppb	14:22:21
3	Ti 334.940†	3363956.4	3416257.7	4939.8 ug/L	4939.8 ppb	14:21:55
3	Tl 190.801†	1693.3	1767.0	507.05 ug/L	507.05 ppb	14:22:21
3	U 409.014†	8264.9	10762.2	282.50 ug/L	282.50 ppb	14:22:01
3	V 292.402†	97091.3	100030.2	622.99 ug/L	622.99 ppb	14:22:01
3	Zn 213.857†	112290.5	113196.5	914.04 ug/L	914.04 ppb	14:22:01
3	SiO2†	581789.9	589988.7	35692 ug/L	35692 ppb	14:22:37

Mean Data: 1201994229|932278|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	885009.1	98.454	%	0.0497				0.05%
Sc Radial	5644.4	101	%	1.2				1.23%
Y 371.029	881075.6	118.35	%	0.127				0.11%
Y RADIAL	7240.4	122.5	%	0.85				0.69%
Ag 328.068†	113344.1	525.30	ug/L	1.596	525.30	ppb	1.596	0.30%
Al 396.153Radial†	87514.3	63746	ug/L	735.7	63746	ppb	735.7	1.15%
As 188.979†	1331.5	540.42	ug/L	1.886	540.42	ppb	1.886	0.35%
B 249.677†	25707.1	512.45	ug/L	2.596	512.45	ppb	2.596	0.51%
Ba 233.527†	130523.6	892.40	ug/L	3.372	892.40	ppb	3.372	0.38%
Be 313.107†	1536522.4	525.04	ug/L	2.893	525.04	ppb	2.893	0.55%
Ca 317.933Radial†	10579.7	15084	ug/L	143.3	15084	ppb	143.3	0.95%
Cd 226.502†	52613.3	504.48	ug/L	2.249	504.48	ppb	2.249	0.45%
Co 228.616†	29539.2	506.50	ug/L	1.457	506.50	ppb	1.457	0.29%
Cr 267.716†	54686.7	557.33	ug/L	1.689	557.33	ppb	1.689	0.30%
Cu 324.752†	204717.0	583.71	ug/L	1.989	583.71	ppb	1.989	0.34%
Fe 238.204 Radial†	12529.0	104170	ug/L	1079.8	104170	ppb	1079.8	1.04%
K 766.490 Radial†	63881.9	11241	ug/L	134.7	11241	ppb	134.7	1.20%

Mg 279.077 IEC†	407.0	12558	ug/L	373.4	12558	ppb	373.4	2.97%
Mn 257.610†	2268686.7	2247.9	ug/L	14.85	2247.9	ppb	14.85	0.66%
Mo 202.031†	8357.7	513.29	ug/L	0.577	513.29	ppb	0.577	0.11%
Na 589.592 Radial†	19248.5	5745.1	ug/L	66.12	5745.1	ppb	66.12	1.15%
Ni 231.604†	24390.7	532.58	ug/L	1.538	532.58	ppb	1.538	0.29%
P 214.914†	2317.8	1060.9	ug/L	8.00	1060.9	ppb	8.00	0.75%
Pb 220.353†	5577.6	594.31	ug/L	0.840	594.31	ppb	0.840	0.14%
S 181.975 Axial†	4526.2	5540.1	ug/L	20.61	5540.1	ppb	20.61	0.37%
Sb 206.836†	1631.0	482.93	ug/L	1.454	482.93	ppb	1.454	0.30%
Se 196.026†	364.5	525.34	ug/L	8.472	525.34	ppb	8.472	1.61%
Si 251.611†	586096.3	16513	ug/L	61.5	16513	ppb	61.5	0.37%
Sn 189.927†	3377.0	509.46	ug/L	1.339	509.46	ppb	1.339	0.26%
Sr 421.552†	101063.1	592.48	ug/L	7.811	592.48	ppb	7.811	1.32%
Ti 334.940†	3429685.3	4959.2	ug/L	31.78	4959.2	ppb	31.78	0.64%
Tl 190.801†	1764.7	506.67	ug/L	0.384	506.67	ppb	0.384	0.08%
U 409.014†	10801.7	283.43	ug/L	4.395	283.43	ppb	4.395	1.55%
V 292.402†	100031.8	622.80	ug/L	1.717	622.80	ppb	1.717	0.28%
Zn 213.857†	113308.4	914.82	ug/L	3.108	914.82	ppb	3.108	0.34%
SiO2†	595451.1	36023	ug/L	336.8	36023	ppb	336.8	0.94%

Sequence No.: 9
Sample ID: 1201994228|932278|5
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 35
Date Collected: 12/19/2009 14:24:49
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1201994228|932278|5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5723.6	5723.6	103	%			14:26:42
1	Y RADIAL	6360.3	6360.3	107.6	%			14:26:42
1	Al 396.153Radial†	9092.2	8860.3	6456.0	ug/L	6456.0	ppb	14:26:42
1	Ca 317.933Radial†	1523.3	1462.1	2084.6	ug/L	2084.6	ppb	14:27:02
1	Fe 238.204 Radial†	2377.7	2301.8	19135	ug/L	19135	ppb	14:27:02
1	K 766.490 Radial†	7764.7	4840.2	850.44	ug/L	850.44	ppb	14:26:42
1	Mg 279.077 IEC†	36.8	34.4	1053.1	ug/L	1053.1	ppb	14:27:02
1	Na 589.592 Radial†	-110.9	653.8	195.15	ug/L	195.15	ppb	14:26:42
1	Sr 421.552†	2741.0	2677.9	15.684	ug/L	15.684	ppb	14:26:42
1	Sc 361.383	920069.8	920069.8	102.35	%			14:27:59
1	Y 371.029	784430.7	784430.7	105.37	%			14:27:59
1	Ag 328.068†	-946.9	-1295.1	0.9025	ug/L	0.9025	ppb	14:28:04
1	As 188.979†	-42.4	-6.6	7.1363	ug/L	7.1363	ppb	14:28:24
1	B 249.677†	-140.6	-111.4	-4.8365	ug/L	-4.8365	ppb	14:28:04
1	Ba 233.527†	9119.9	8912.8	61.334	ug/L	61.334	ppb	14:28:04
1	Be 313.107†	-7747.6	-2838.3	0.5908	ug/L	0.5908	ppb	14:28:04
1	Cd 226.502†	-19.5	210.1	0.1459	ug/L	0.1459	ppb	14:28:24
1	Co 228.616†	168.4	251.6	2.4922	ug/L	2.4922	ppb	14:28:24
1	Cr 267.716†	1025.5	921.7	9.7379	ug/L	9.7379	ppb	14:28:04
1	Cu 324.752†	8054.3	1813.5	6.0999	ug/L	6.0999	ppb	14:28:04
1	Mn 257.610†	318145.4	310336.8	308.00	ug/L	308.00	ppb	14:27:59
1	Mo 202.031†	60.2	38.9	3.7120	ug/L	3.7120	ppb	14:28:24
1	Ni 231.604†	413.8	310.7	6.7866	ug/L	6.7866	ppb	14:28:24
1	P 214.914†	442.8	174.5	76.921	ug/L	76.921	ppb	14:28:24
1	Pb 220.353†	77.9	140.2	14.649	ug/L	14.649	ppb	14:28:24
1	S 181.975 Axial†	99.9	48.6	58.386	ug/L	58.386	ppb	14:28:24
1	Sb 206.836†	43.2	1.0	-1.8731	ug/L	-1.8731	ppb	14:28:24
1	Se 196.026†	-136.8	-105.1	1.7242	ug/L	1.7242	ppb	14:28:24
1	Si 251.611†	92155.9	89458.9	2522.2	ug/L	2522.2	ppb	14:28:04
1	Sn 189.927†	-15.2	-18.3	-2.2685	ug/L	-2.2685	ppb	14:28:24
1	Ti 334.940†	554187.8	542829.5	784.97	ug/L	784.97	ppb	14:27:59
1	Tl 190.801†	-74.0	-24.2	1.6486	ug/L	1.6486	ppb	14:28:24
1	U 409.014†	-3862.5	-1401.5	-41.039	ug/L	-41.039	ppb	14:27:59
1	V 292.402†	2009.5	3432.7	18.037	ug/L	18.037	ppb	14:28:04
1	Zn 213.857†	10800.8	9758.8	78.123	ug/L	78.123	ppb	14:28:04
1	SiO2†	93887.7	91121.7	5516.6	ug/L	5516.6	ppb	14:29:30
2	Sc Radial	5715.8	5715.8	103	%			14:27:07
2	Y RADIAL	6357.4	6357.4	107.5	%			14:27:07
2	Al 396.153Radial†	9071.9	8852.6	6450.4	ug/L	6450.4	ppb	14:27:07
2	Ca 317.933Radial†	1523.6	1464.5	2087.9	ug/L	2087.9	ppb	14:27:27
2	Fe 238.204 Radial†	2375.4	2302.8	19144	ug/L	19144	ppb	14:27:27
2	K 766.490 Radial†	7799.0	4884.0	858.15	ug/L	858.15	ppb	14:27:07
2	Mg 279.077 IEC†	36.4	34.0	1040.4	ug/L	1040.4	ppb	14:27:27
2	Na 589.592 Radial†	-137.8	627.5	187.28	ug/L	187.28	ppb	14:27:07
2	Sr 421.552†	2755.7	2695.9	15.789	ug/L	15.789	ppb	14:27:07
2	Sc 361.383	925663.0	925663.0	102.98	%			14:28:29
2	Y 371.029	790197.0	790197.0	106.14	%			14:28:29
2	Ag 328.068†	-930.6	-1273.6	0.9946	ug/L	0.9946	ppb	14:28:34
2	As 188.979†	-43.8	-7.7	6.7474	ug/L	6.7474	ppb	14:28:54
2	B 249.677†	-104.8	-75.8	-4.1058	ug/L	-4.1058	ppb	14:28:34
2	Ba 233.527†	9103.9	8843.4	60.862	ug/L	60.862	ppb	14:28:34
2	Be 313.107†	-7837.2	-2879.6	0.5789	ug/L	0.5789	ppb	14:28:34
2	Cd 226.502†	-9.8	219.7	0.2388	ug/L	0.2388	ppb	14:28:54
2	Co 228.616†	165.0	247.3	2.4143	ug/L	2.4143	ppb	14:28:54
2	Cr 267.716†	1033.5	923.5	9.7547	ug/L	9.7547	ppb	14:28:34
2	Cu 324.752†	8067.1	1778.4	6.0011	ug/L	6.0011	ppb	14:28:34
2	Mn 257.610†	319980.9	310241.1	307.90	ug/L	307.90	ppb	14:28:29
2	Mo 202.031†	60.1	38.5	3.6871	ug/L	3.6871	ppb	14:28:54
2	Ni 231.604†	403.2	298.0	6.5074	ug/L	6.5074	ppb	14:28:54

2	P 214.914†	453.7	182.5	81.126 ug/L	81.126 ppb	14:28:54
2	Pb 220.353†	77.1	138.9	14.514 ug/L	14.514 ppb	14:28:54
2	S 181.975 Axial†	104.9	52.9	63.625 ug/L	63.625 ppb	14:28:54
2	Sb 206.836†	38.2	-4.2	-3.4257 ug/L	-3.4257 ppb	14:28:54
2	Se 196.026†	-137.0	-104.5	2.0882 ug/L	2.0882 ppb	14:28:54
2	Si 251.611†	92189.1	88947.1	2507.8 ug/L	2507.8 ppb	14:28:34
2	Sn 189.927†	-12.3	-15.5	-1.8414 ug/L	-1.8414 ppb	14:28:54
2	Ti 334.940†	558252.1	543504.7	785.94 ug/L	785.94 ppb	14:28:29
2	Tl 190.801†	-79.1	-28.7	0.4810 ug/L	0.4810 ppb	14:28:54
2	U 409.014†	-3803.7	-1321.5	-38.838 ug/L	-38.838 ppb	14:28:29
2	V 292.402†	1967.7	3380.3	17.705 ug/L	17.705 ppb	14:28:34
2	Zn 213.857†	10775.2	9670.2	77.398 ug/L	77.398 ppb	14:28:34
2	SiO2†	93572.3	90261.1	5464.5 ug/L	5464.5 ppb	14:29:35
3	Sc Radial	5627.1	5627.1	101 %		14:27:32
3	Y RADIAL	6257.6	6257.6	105.9 %		14:27:32
3	Al 396.153Radial†	8942.6	8863.9	6458.7 ug/L	6458.7 ppb	14:27:32
3	Ca 317.933Radial†	1517.6	1481.8	2112.7 ug/L	2112.7 ppb	14:27:52
3	Fe 238.204 Radial†	2363.5	2327.5	19348 ug/L	19348 ppb	14:27:52
3	K 766.490 Radial†	7744.1	4949.4	869.68 ug/L	869.68 ppb	14:27:32
3	Mg 279.077 IEC†	42.4	40.5	1242.3 ug/L	1242.3 ppb	14:27:52
3	Na 589.592 Radial†	-123.8	639.2	190.77 ug/L	190.77 ppb	14:27:32
3	Sr 421.552†	2691.4	2674.6	15.664 ug/L	15.664 ppb	14:27:32
3	Sc 361.383	932163.6	932163.6	103.70 %		14:29:00
3	Y 371.029	795680.1	795680.1	106.88 %		14:29:00
3	Ag 328.068†	-985.2	-1320.0	0.8678 ug/L	0.8678 ppb	14:29:05
3	As 188.979†	-33.3	2.7	10.549 ug/L	10.549 ppb	14:29:25
3	B 249.677†	-83.5	-54.6	-3.6988 ug/L	-3.6988 ppb	14:29:05
3	Ba 233.527†	9152.8	8828.8	60.772 ug/L	60.772 ppb	14:29:05
3	Be 313.107†	-7754.8	-2747.0	0.6221 ug/L	0.6221 ppb	14:29:05
3	Cd 226.502†	-15.4	214.4	0.1664 ug/L	0.1664 ppb	14:29:25
3	Co 228.616†	171.5	252.5	2.5013 ug/L	2.5013 ppb	14:29:25
3	Cr 267.716†	965.8	851.1	9.0270 ug/L	9.0270 ppb	14:29:05
3	Cu 324.752†	8149.7	1803.4	6.0823 ug/L	6.0823 ppb	14:29:05
3	Mn 257.610†	321699.6	309731.6	307.42 ug/L	307.42 ppb	14:29:00
3	Mo 202.031†	48.2	26.6	2.9831 ug/L	2.9831 ppb	14:29:25
3	Ni 231.604†	403.0	295.1	6.4444 ug/L	6.4444 ppb	14:29:25
3	P 214.914†	449.7	175.6	77.314 ug/L	77.314 ppb	14:29:25
3	Pb 220.353†	89.0	149.9	15.659 ug/L	15.659 ppb	14:29:25
3	S 181.975 Axial†	101.9	49.3	59.165 ug/L	59.165 ppb	14:29:25
3	Sb 206.836†	35.2	-7.2	-4.3327 ug/L	-4.3327 ppb	14:29:25
3	Se 196.026†	-142.6	-109.0	0.2616 ug/L	0.2616 ppb	14:29:25
3	Si 251.611†	92074.2	88212.0	2487.1 ug/L	2487.1 ppb	14:29:05
3	Sn 189.927†	-11.0	-14.1	-1.6334 ug/L	-1.6334 ppb	14:29:25
3	Ti 334.940†	561732.7	543080.5	785.33 ug/L	785.33 ppb	14:29:00
3	Tl 190.801†	-62.7	-12.4	4.7126 ug/L	4.7126 ppb	14:29:25
3	U 409.014†	-3960.6	-1447.1	-42.321 ug/L	-42.321 ppb	14:29:00
3	V 292.402†	2069.5	3465.1	18.202 ug/L	18.202 ppb	14:29:05
3	Zn 213.857†	10820.1	9640.5	77.128 ug/L	77.128 ppb	14:29:05
3	SiO2†	93469.7	89528.5	5420.2 ug/L	5420.2 ppb	14:29:40

Mean Data: 1201994228|932278|5

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	925965.5	103.01	%	0.673				0.65%
Sc Radial	5688.8	102	%	1.0				0.94%
Y 371.029	790102.6	106.13	%	0.756				0.71%
Y RADIAL	6325.1	107.0	%	0.99				0.92%
Ag 328.068†	-1296.2	0.9216	ug/L	0.06553	0.9216	ppb	0.06553	7.11%
Al 396.153Radial†	8858.9	6455.0	ug/L	4.24	6455.0	ppb	4.24	0.07%
As 188.979†	-3.9	8.1442	ug/L	2.09169	8.1442	ppb	2.09169	25.68%
B 249.677†	-80.6	-4.2137	ug/L	0.57650	-4.2137	ppb	0.57650	13.68%
Ba 233.527†	8861.7	60.990	ug/L	0.3020	60.990	ppb	0.3020	0.50%
Be 313.107†	-2821.6	0.5973	ug/L	0.02234	0.5973	ppb	0.02234	3.74%
Ca 317.933Radial†	1469.5	2095.1	ug/L	15.35	2095.1	ppb	15.35	0.73%
Cd 226.502†	214.7	0.1837	ug/L	0.04883	0.1837	ppb	0.04883	26.58%
Co 228.616†	250.5	2.4693	ug/L	0.04781	2.4693	ppb	0.04781	1.94%
Cr 267.716†	898.8	9.5065	ug/L	0.41538	9.5065	ppb	0.41538	4.37%
Cu 324.752†	1798.4	6.0611	ug/L	0.05269	6.0611	ppb	0.05269	0.87%
Fe 238.204 Radial†	2310.7	19209	ug/L	120.6	19209	ppb	120.6	0.63%
K 766.490 Radial†	4891.2	859.42	ug/L	9.685	859.42	ppb	9.685	1.13%

Mg 279.077 IEC†	36.3	1111.9	ug/L	113.09	1111.9	ppb	113.09	10.17%
Mn 257.610†	310103.2	307.77	ug/L	0.311	307.77	ppb	0.311	0.10%
Mo 202.031†	34.7	3.4607	ug/L	0.41382	3.4607	ppb	0.41382	11.96%
Na 589.592 Radial†	640.1	191.07	ug/L	3.943	191.07	ppb	3.943	2.06%
Ni 231.604†	301.3	6.5795	ug/L	0.18214	6.5795	ppb	0.18214	2.77%
P 214.914†	177.5	78.454	ug/L	2.3226	78.454	ppb	2.3226	2.96%
Pb 220.353†	143.0	14.941	ug/L	0.6260	14.941	ppb	0.6260	4.19%
S 181.975 Axial†	50.3	60.392	ug/L	2.8269	60.392	ppb	2.8269	4.68%
Sb 206.836†	-3.5	-3.2105	ug/L	1.24383	-3.2105	ppb	1.24383	38.74%
Se 196.026†	-106.2	1.3580	ug/L	0.96679	1.3580	ppb	0.96679	71.19%
Si 251.611†	88872.7	2505.7	ug/L	17.67	2505.7	ppb	17.67	0.71%
Sn 189.927†	-16.0	-1.9144	ug/L	0.32379	-1.9144	ppb	0.32379	16.91%
Sr 421.552†	2682.8	15.712	ug/L	0.0674	15.712	ppb	0.0674	0.43%
Ti 334.940†	543138.2	785.41	ug/L	0.493	785.41	ppb	0.493	0.06%
Tl 190.801†	-21.8	2.2807	ug/L	2.18546	2.2807	ppb	2.18546	95.82%
U 409.014†	-1390.0	-40.733	ug/L	1.7620	-40.733	ppb	1.7620	4.33%
V 292.402†	3426.0	17.981	ug/L	0.2531	17.981	ppb	0.2531	1.41%
Zn 213.857†	9689.8	77.550	ug/L	0.5146	77.550	ppb	0.5146	0.66%
SiO2†	90303.8	5467.1	ug/L	48.28	5467.1	ppb	48.28	0.88%

Sequence No.: 10
Sample ID: 242668002|932278|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 36
Date Collected: 12/19/2009 14:31:52
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 242668002|932278|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	5687.1	5687.1	102	%			14:34:06
1	Y RADIAL	6652.4	6652.4	112.5	%			14:34:06
1	Al 396.153Radial†	86131.7	84332.7	61449	ug/L	61449	ppb	14:33:45
1	Ca 317.933Radial†	14245.1	13925.3	19854	ug/L	19854	ppb	14:33:45
1	Fe 238.204 Radial†	11802.2	11542.5	95955	ug/L	95955	ppb	14:33:45
1	K 766.490 Radial†	58674.6	54725.5	9614.4	ug/L	9614.4	ppb	14:33:45
1	Mg 279.077 IEC†	426.7	416.3	12845	ug/L	12845	ppb	14:34:06
1	Na 589.592 Radial†	3892.2	4571.9	1364.6	ug/L	1364.6	ppb	14:33:45
1	Sr 421.552†	28137.9	27556.7	161.40	ug/L	161.40	ppb	14:33:45
1	Sc 361.383	936132.2	936132.2	104.14	%			14:35:04
1	Y 371.029	846427.4	846427.4	113.70	%			14:35:04
1	Ag 328.068†	-6318.1	-6436.8	4.9766	ug/L	4.9766	ppb	14:35:04
1	As 188.979†	-70.1	-32.5	33.146	ug/L	33.146	ppb	14:35:24
1	B 249.677†	998.5	984.8	7.3462	ug/L	7.3462	ppb	14:35:04
1	Ba 233.527†	162469.1	156011.5	1064.3	ug/L	1064.3	ppb	14:35:04
1	Be 313.107†	-12235.4	-7017.8	4.7012	ug/L	4.7012	ppb	14:35:04
1	Cd 226.502†	1265.6	1444.4	4.5713	ug/L	4.5713	ppb	14:35:24
1	Co 228.616†	3064.3	3029.5	44.468	ug/L	44.468	ppb	14:35:24
1	Cr 267.716†	7541.8	7161.7	74.736	ug/L	74.736	ppb	14:35:24
1	Cu 324.752†	36652.8	29139.9	87.226	ug/L	87.226	ppb	14:35:04
1	Mn 257.610†	3330923.0	3197984.4	3163.7	ug/L	3163.7	ppb	14:35:04
1	Mo 202.031†	-17.2	-36.4	4.6014	ug/L	4.6014	ppb	14:35:24
1	Ni 231.604†	2929.5	2719.4	59.382	ug/L	59.382	ppb	14:35:24
1	P 214.914†	2290.0	1940.9	942.38	ug/L	942.38	ppb	14:35:24
1	Pb 220.353†	1110.3	1130.2	124.95	ug/L	124.95	ppb	14:35:24
1	S 181.975 Axial†	629.1	555.1	668.86	ug/L	668.86	ppb	14:35:24
1	Sb 206.836†	104.1	58.7	5.9953	ug/L	5.9953	ppb	14:35:24
1	Se 196.026†	-574.5	-523.1	14.907	ug/L	14.907	ppb	14:35:24
1	Si 251.611†	506932.3	486197.8	13707	ug/L	13707	ppb	14:35:04
1	Sn 189.927†	-127.4	-125.8	-15.491	ug/L	-15.491	ppb	14:35:24
1	Ti 334.940†	2583753.2	2482403.3	3590.2	ug/L	3590.2	ppb	14:35:04
1	Tl 190.801†	-237.3	-179.8	0.3315	ug/L	0.3315	ppb	14:35:24
1	U 409.014†	-8309.3	-5606.7	-166.69	ug/L	-166.69	ppb	14:35:04
1	V 292.402†	32033.1	32228.7	186.37	ug/L	186.37	ppb	14:35:04
1	Zn 213.857†	122794.7	117118.5	950.46	ug/L	950.46	ppb	14:35:04
1	SiO2†	506407.1	485664.2	29399	ug/L	29399	ppb	14:36:24
2	Sc Radial	5691.9	5691.9	102	%			14:34:31
2	Y RADIAL	6672.9	6672.9	112.9	%			14:34:31
2	Al 396.153Radial†	86823.7	84939.2	61891	ug/L	61891	ppb	14:34:11
2	Ca 317.933Radial†	14349.6	14015.9	19983	ug/L	19983	ppb	14:34:11
2	Fe 238.204 Radial†	11854.0	11583.6	96297	ug/L	96297	ppb	14:34:11
2	K 766.490 Radial†	59060.8	55055.3	9672.6	ug/L	9672.6	ppb	14:34:11
2	Mg 279.077 IEC†	427.9	417.1	12869	ug/L	12869	ppb	14:34:31
2	Na 589.592 Radial†	3935.2	4610.7	1376.2	ug/L	1376.2	ppb	14:34:11
2	Sr 421.552†	28325.2	27716.9	162.34	ug/L	162.34	ppb	14:34:11
2	Sc 361.383	926473.6	926473.6	103.07	%			14:35:31
2	Y 371.029	838016.6	838016.6	112.57	%			14:35:31
2	Ag 328.068†	-6374.6	-6554.8	4.5855	ug/L	4.5855	ppb	14:35:31
2	As 188.979†	-67.9	-31.1	33.726	ug/L	33.726	ppb	14:35:51
2	B 249.677†	1088.5	1082.1	9.2980	ug/L	9.2980	ppb	14:35:31
2	Ba 233.527†	160859.1	156075.8	1064.8	ug/L	1064.8	ppb	14:35:31
2	Be 313.107†	-12398.0	-7298.0	4.6069	ug/L	4.6069	ppb	14:35:31
2	Cd 226.502†	1266.7	1458.2	4.6720	ug/L	4.6720	ppb	14:35:51
2	Co 228.616†	3030.0	3027.0	44.418	ug/L	44.418	ppb	14:35:51
2	Cr 267.716†	7526.5	7222.4	75.360	ug/L	75.360	ppb	14:35:51
2	Cu 324.752†	36283.0	29147.9	87.266	ug/L	87.266	ppb	14:35:31
2	Mn 257.610†	3297729.6	3199123.1	3164.9	ug/L	3164.9	ppb	14:35:31
2	Mo 202.031†	-19.6	-38.9	4.4741	ug/L	4.4741	ppb	14:35:51
2	Ni 231.604†	2917.4	2737.0	59.767	ug/L	59.767	ppb	14:35:51

2	P 214.914†	2292.9	1966.6	955.66 ug/L	955.66 ppb	14:35:51
2	Pb 220.353†	1128.0	1158.5	128.00 ug/L	128.00 ppb	14:35:51
2	S 181.975 Axial†	629.7	561.9	677.22 ug/L	677.22 ppb	14:35:51
2	Sb 206.836†	87.6	43.8	1.5150 ug/L	1.5150 ppb	14:35:51
2	Se 196.026†	-568.7	-523.3	15.913 ug/L	15.913 ppb	14:35:51
2	Si 251.611†	501406.0	485910.5	13699 ug/L	13699 ppb	14:35:31
2	Sn 189.927†	-120.6	-120.5	-14.677 ug/L	-14.677 ppb	14:35:51
2	Ti 334.940†	2556982.4	2482293.9	3590.1 ug/L	3590.1 ppb	14:35:31
2	Tl 190.801†	-228.0	-173.1	2.0810 ug/L	2.0810 ppb	14:35:51
2	U 409.014†	-8333.0	-5712.8	-169.66 ug/L	-169.66 ppb	14:35:31
2	V 292.402†	31820.8	32343.4	187.04 ug/L	187.04 ppb	14:35:31
2	Zn 213.857†	121271.2	116869.6	948.38 ug/L	948.38 ppb	14:35:31
2	SiO2†	504836.9	489210.2	29614 ug/L	29614 ppb	14:36:30
3	Sc Radial	5638.7	5638.7	101 %		14:34:56
3	Y RADIAL	6620.9	6620.9	112.0 %		14:34:56
3	Al 396.153Radial†	85494.4	84427.2	61518 ug/L	61518 ppb	14:34:36
3	Ca 317.933Radial†	14176.8	13977.5	19928 ug/L	19928 ppb	14:34:36
3	Fe 238.204 Radial†	11718.8	11559.4	96096 ug/L	96096 ppb	14:34:36
3	K 766.490 Radial†	58342.8	54890.9	9643.6 ug/L	9643.6 ppb	14:34:36
3	Mg 279.077 IEC†	420.6	413.9	12768 ug/L	12768 ppb	14:34:56
3	Na 589.592 Radial†	3954.9	4666.4	1392.8 ug/L	1392.8 ppb	14:34:36
3	Sr 421.552†	27852.7	27511.5	161.14 ug/L	161.14 ppb	14:34:36
3	Sc 361.383	925499.6	925499.6	102.96 %		14:35:58
3	Y 371.029	837289.2	837289.2	112.47 %		14:35:58
3	Ag 328.068†	-6195.7	-6387.6	5.2375 ug/L	5.2375 ppb	14:35:58
3	As 188.979†	-64.8	-28.1	34.787 ug/L	34.787 ppb	14:36:18
3	B 249.677†	916.6	916.2	5.9195 ug/L	5.9195 ppb	14:35:58
3	Ba 233.527†	160597.0	155985.4	1064.2 ug/L	1064.2 ppb	14:35:58
3	Be 313.107†	-12398.4	-7311.1	4.6020 ug/L	4.6020 ppb	14:35:58
3	Cd 226.502†	1267.6	1460.4	4.7138 ug/L	4.7138 ppb	14:36:18
3	Co 228.616†	3046.3	3045.8	44.748 ug/L	44.748 ppb	14:36:18
3	Cr 267.716†	7542.1	7245.2	75.587 ug/L	75.587 ppb	14:36:18
3	Cu 324.752†	36323.9	29224.7	87.472 ug/L	87.472 ppb	14:35:58
3	Mn 257.610†	3294851.9	3199695.5	3165.4 ug/L	3165.4 ppb	14:35:58
3	Mo 202.031†	-41.2	-59.9	3.1906 ug/L	3.1906 ppb	14:36:18
3	Ni 231.604†	2914.4	2737.1	59.769 ug/L	59.769 ppb	14:36:18
3	P 214.914†	2282.7	1959.0	951.70 ug/L	951.70 ppb	14:36:18
3	Pb 220.353†	1138.2	1169.6	129.09 ug/L	129.09 ppb	14:36:18
3	S 181.975 Axial†	625.6	558.6	673.18 ug/L	673.18 ppb	14:36:18
3	Sb 206.836†	97.4	53.3	4.3362 ug/L	4.3362 ppb	14:36:18
3	Se 196.026†	-571.2	-526.3	13.619 ug/L	13.619 ppb	14:36:18
3	Si 251.611†	501250.2	486271.2	13709 ug/L	13709 ppb	14:35:58
3	Sn 189.927†	-123.4	-123.3	-15.107 ug/L	-15.107 ppb	14:36:18
3	Ti 334.940†	2554110.7	2482115.7	3589.8 ug/L	3589.8 ppb	14:35:58
3	Tl 190.801†	-227.7	-173.0	2.0931 ug/L	2.0931 ppb	14:36:18
3	U 409.014†	-8252.3	-5643.0	-167.71 ug/L	-167.71 ppb	14:35:58
3	V 292.402†	31757.8	32314.7	186.87 ug/L	186.87 ppb	14:35:58
3	Zn 213.857†	121199.2	116923.4	948.84 ug/L	948.84 ppb	14:35:58
3	SiO2†	508618.8	493398.9	29868 ug/L	29868 ppb	14:36:35

Mean Data: 242668002|932278|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	929368.5	103.39	%	0.654				0.63%
Sc Radial	5672.6	102	%	0.5				0.52%
Y 371.029	840577.7	112.91	%	0.682				0.60%
Y RADIAL	6648.7	112.5	%	0.44				0.39%
Ag 328.068†	-6459.7	4.9332	ug/L	0.32816	4.9332	ppb	0.32816	6.65%
Al 396.153Radial†	84566.4	61620	ug/L	237.8	61620	ppb	237.8	0.39%
As 188.979†	-30.6	33.886	ug/L	0.8321	33.886	ppb	0.8321	2.46%
B 249.677†	994.3	7.5212	ug/L	1.69600	7.5212	ppb	1.69600	22.55%
Ba 233.527†	156024.2	1064.4	ug/L	0.32	1064.4	ppb	0.32	0.03%
Be 313.107†	-7208.9	4.6367	ug/L	0.05590	4.6367	ppb	0.05590	1.21%
Ca 317.933Radial†	13972.9	19922	ug/L	64.8	19922	ppb	64.8	0.33%
Cd 226.502†	1454.3	4.6524	ug/L	0.07322	4.6524	ppb	0.07322	1.57%
Co 228.616†	3034.1	44.545	ug/L	0.1780	44.545	ppb	0.1780	0.40%
Cr 267.716†	7209.8	75.228	ug/L	0.4403	75.228	ppb	0.4403	0.59%
Cu 324.752†	29170.8	87.321	ug/L	0.1325	87.321	ppb	0.1325	0.15%
Fe 238.204 Radial†	11561.8	96116	ug/L	171.6	96116	ppb	171.6	0.18%
K 766.490 Radial†	54890.6	9643.5	ug/L	29.08	9643.5	ppb	29.08	0.30%

Mg 279.077 IEC†	415.8	12827	ug/L	52.5	12827	ppb	52.5	0.41%
Mn 257.610†	3198934.3	3164.7	ug/L	0.87	3164.7	ppb	0.87	0.03%
Mo 202.031†	-45.1	4.0887	ug/L	0.78041	4.0887	ppb	0.78041	19.09%
Na 589.592 Radial†	4616.3	1377.8	ug/L	14.18	1377.8	ppb	14.18	1.03%
Ni 231.604†	2731.2	59.639	ug/L	0.2226	59.639	ppb	0.2226	0.37%
P 214.914†	1955.5	949.91	ug/L	6.820	949.91	ppb	6.820	0.72%
Pb 220.353†	1152.8	127.35	ug/L	2.148	127.35	ppb	2.148	1.69%
S 181.975 Axial†	558.5	673.08	ug/L	4.182	673.08	ppb	4.182	0.62%
Sb 206.836†	52.0	3.9488	ug/L	2.26514	3.9488	ppb	2.26514	57.36%
Se 196.026†	-524.2	14.813	ug/L	1.1499	14.813	ppb	1.1499	7.76%
Si 251.611†	486126.5	13705	ug/L	5.4	13705	ppb	5.4	0.04%
Sn 189.927†	-123.2	-15.091	ug/L	0.4072	-15.091	ppb	0.4072	2.70%
Sr 421.552†	27595.0	161.63	ug/L	0.633	161.63	ppb	0.633	0.39%
Ti 334.940†	2482271.0	3590.0	ug/L	0.21	3590.0	ppb	0.21	0.01%
Tl 190.801†	-175.3	1.5019	ug/L	1.01361	1.5019	ppb	1.01361	67.49%
U 409.014†	-5654.2	-168.02	ug/L	1.508	-168.02	ppb	1.508	0.90%
V 292.402†	32295.6	186.76	ug/L	0.349	186.76	ppb	0.349	0.19%
Zn 213.857†	116970.5	949.23	ug/L	1.090	949.23	ppb	1.090	0.11%
SiO2†	489424.5	29627	ug/L	234.4	29627	ppb	234.4	0.79%

Sequence No.: 11
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 12/19/2009 14:38:46
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	5574.9	5574.9	100	%			14:40:38
1	Y RADIAL	5867.4	5867.4	99.26	%			14:40:38
1	Al 396.153Radial†	6763.5	6770.6	4911.6	ug/L	4911.6	ppb	14:40:38
1	Ca 317.933Radial†	3484.8	3460.5	4933.7	ug/L	4933.7	ppb	14:40:58
1	Fe 238.204 Radial†	610.1	598.3	4990.4	ug/L	4990.4	ppb	14:40:58
1	K 766.490 Radial†	30886.7	28132.0	4949.5	ug/L	4949.5	ppb	14:40:38
1	Mg 279.077 IEC†	169.1	167.5	5206.1	ug/L	5206.1	ppb	14:40:58
1	Na 589.592 Radial†	31913.2	32631.1	9739.4	ug/L	9739.4	ppb	14:40:38
1	Sr 421.552†	85031.4	84926.8	497.95	ug/L	497.95	ppb	14:40:38
1	Sc 361.383	884224.6	884224.6	98.366	%			14:41:56
1	Y 371.029	718549.9	718549.9	96.519	%			14:41:56
1	Ag 328.068†	117816.3	119402.9	517.75	ug/L	517.75	ppb	14:42:01
1	As 188.979†	1354.8	1412.1	517.09	ug/L	517.09	ppb	14:42:21
1	B 249.677†	24175.1	24602.6	502.93	ug/L	502.93	ppb	14:42:01
1	Ba 233.527†	74958.9	76206.4	519.28	ug/L	519.28	ppb	14:42:01
1	Be 313.107†	1497350.3	1526947.7	513.09	ug/L	513.09	ppb	14:41:56
1	Cd 226.502†	51932.1	53023.8	518.40	ug/L	518.40	ppb	14:42:01
1	Co 228.616†	29128.9	29699.8	520.04	ug/L	520.04	ppb	14:42:01
1	Cr 267.716†	50181.5	50934.7	517.23	ug/L	517.23	ppb	14:42:01
1	Cu 324.752†	186397.0	183436.9	518.53	ug/L	518.53	ppb	14:42:01
1	Mn 257.610†	516173.3	524253.9	517.51	ug/L	517.51	ppb	14:41:56
1	Mo 202.031†	8302.6	8420.6	510.06	ug/L	510.06	ppb	14:42:21
1	Ni 231.604†	23516.1	23813.0	519.96	ug/L	519.96	ppb	14:42:01
1	P 214.914†	5070.6	4896.7	2475.7	ug/L	2475.7	ppb	14:42:21
1	Pb 220.353†	4712.6	4854.9	513.15	ug/L	513.15	ppb	14:42:21
1	S 181.975 Axial†	861.8	827.1	1013.7	ug/L	1013.7	ppb	14:42:21
1	Sb 206.836†	1715.5	1702.7	517.29	ug/L	517.29	ppb	14:42:21
1	Se 196.026†	883.6	926.8	522.35	ug/L	522.35	ppb	14:42:21
1	Si 251.611†	90434.4	91358.8	2564.0	ug/L	2564.0	ppb	14:42:01
1	Sn 189.927†	3330.9	3382.8	507.92	ug/L	507.92	ppb	14:42:21
1	Ti 334.940†	347914.8	355080.2	513.24	ug/L	513.24	ppb	14:41:56
1	Tl 190.801†	1895.4	1974.9	515.66	ug/L	515.66	ppb	14:42:21
1	U 409.014†	16116.4	18756.2	515.15	ug/L	515.15	ppb	14:42:01
1	V 292.402†	78332.0	81102.3	522.71	ug/L	522.71	ppb	14:42:01
1	Zn 213.857†	63071.7	63325.5	514.76	ug/L	514.76	ppb	14:42:01
1	SiO2†	90362.1	91256.0	5499.1	ug/L	5499.1	ppb	14:43:29
2	Sc Radial	5511.2	5511.2	99.0	%			14:41:03
2	Y RADIAL	5851.4	5851.4	98.98	%			14:41:03
2	Al 396.153Radial†	6647.7	6731.8	4884.1	ug/L	4884.1	ppb	14:41:03
2	Ca 317.933Radial†	3493.1	3509.1	5003.0	ug/L	5003.0	ppb	14:41:23
2	Fe 238.204 Radial†	616.5	611.9	5102.4	ug/L	5102.4	ppb	14:41:23
2	K 766.490 Radial†	30416.4	28013.6	4928.9	ug/L	4928.9	ppb	14:41:03
2	Mg 279.077 IEC†	166.8	167.1	5194.1	ug/L	5194.1	ppb	14:41:23
2	Na 589.592 Radial†	31178.0	32257.0	9627.8	ug/L	9627.8	ppb	14:41:03
2	Sr 421.552†	83232.4	84091.4	493.05	ug/L	493.05	ppb	14:41:03
2	Sc 361.383	912615.4	912615.4	101.52	%			14:42:27
2	Y 371.029	743683.0	743683.0	99.895	%			14:42:27
2	Ag 328.068†	116581.6	114460.7	496.43	ug/L	496.43	ppb	14:42:32
2	As 188.979†	1343.6	1358.2	497.36	ug/L	497.36	ppb	14:42:52
2	B 249.677†	23934.7	23601.2	482.42	ug/L	482.42	ppb	14:42:32
2	Ba 233.527†	74317.1	73203.5	498.83	ug/L	498.83	ppb	14:42:32
2	Be 313.107†	1478724.2	1461246.5	491.01	ug/L	491.01	ppb	14:42:27
2	Cd 226.502†	51355.1	50813.0	496.76	ug/L	496.76	ppb	14:42:32
2	Co 228.616†	28801.3	28455.9	498.27	ug/L	498.27	ppb	14:42:32
2	Cr 267.716†	49719.9	48893.0	496.51	ug/L	496.51	ppb	14:42:32
2	Cu 324.752†	183821.0	175004.7	494.71	ug/L	494.71	ppb	14:42:32
2	Mn 257.610†	508020.7	499899.4	493.50	ug/L	493.50	ppb	14:42:27
2	Mo 202.031†	8255.4	8111.6	491.37	ug/L	491.37	ppb	14:42:52
2	Ni 231.604†	23204.9	22762.8	497.03	ug/L	497.03	ppb	14:42:32

2	P 214.914†	5033.8	4700.1	2376.6 ug/L	2376.6 ppb	14:42:52
2	Pb 220.353†	4693.9	4687.5	495.46 ug/L	495.46 ppb	14:42:52
2	S 181.975 Axial†	858.5	796.6	976.34 ug/L	976.34 ppb	14:42:52
2	Sb 206.836†	1710.0	1643.1	499.21 ug/L	499.21 ppb	14:42:52
2	Se 196.026†	893.2	908.3	512.58 ug/L	512.58 ppb	14:42:52
2	Si 251.611†	89397.5	87477.4	2455.0 ug/L	2455.0 ppb	14:42:32
2	Sn 189.927†	3307.7	3254.6	488.70 ug/L	488.70 ppb	14:42:52
2	Ti 334.940†	342155.4	338404.2	489.15 ug/L	489.15 ppb	14:42:27
2	Tl 190.801†	1875.2	1895.1	494.78 ug/L	494.78 ppb	14:42:52
2	U 409.014†	15715.8	17852.0	490.26 ug/L	490.26 ppb	14:42:32
2	V 292.402†	77485.0	77790.6	501.35 ug/L	501.35 ppb	14:42:32
2	Zn 213.857†	62328.7	60599.0	492.57 ug/L	492.57 ppb	14:42:32
2	SiO2†	89521.8	87570.6	5276.8 ug/L	5276.8 ppb	14:43:34
3	Sc Radial	5494.8	5494.8	98.7 %		14:41:28
3	Y RADIAL	5829.1	5829.1	98.61 %		14:41:28
3	Al 396.153Radial†	6608.6	6712.2	4869.7 ug/L	4869.7 ppb	14:41:28
3	Ca 317.933Radial†	3454.3	3480.3	4961.9 ug/L	4961.9 ppb	14:41:48
3	Fe 238.204 Radial†	609.2	606.4	5056.5 ug/L	5056.5 ppb	14:41:48
3	K 766.490 Radial†	30611.5	28303.1	4979.9 ug/L	4979.9 ppb	14:41:28
3	Mg 279.077 IEC†	164.2	165.0	5127.9 ug/L	5127.9 ppb	14:41:48
3	Na 589.592 Radial†	31240.1	32414.1	9674.7 ug/L	9674.7 ppb	14:41:28
3	Sr 421.552†	82965.1	84071.9	492.94 ug/L	492.94 ppb	14:41:28
3	Sc 361.383	908125.8	908125.8	101.03 %		14:42:58
3	Y 371.029	740200.1	740200.1	99.427 %		14:42:58
3	Ag 328.068†	116791.0	115235.7	499.76 ug/L	499.76 ppb	14:43:03
3	As 188.979†	1349.1	1370.2	501.75 ug/L	501.75 ppb	14:43:23
3	B 249.677†	24058.4	23840.2	487.33 ug/L	487.33 ppb	14:43:03
3	Ba 233.527†	74267.4	73516.2	500.96 ug/L	500.96 ppb	14:43:03
3	Be 313.107†	1489641.0	1479253.2	497.06 ug/L	497.06 ppb	14:42:58
3	Cd 226.502†	51301.0	51009.5	498.68 ug/L	498.68 ppb	14:43:03
3	Co 228.616†	28746.0	28541.3	499.76 ug/L	499.76 ppb	14:43:03
3	Cr 267.716†	49797.7	49212.2	499.75 ug/L	499.75 ppb	14:43:03
3	Cu 324.752†	184533.1	176604.7	499.23 ug/L	499.23 ppb	14:43:03
3	Mn 257.610†	511280.2	505599.5	499.12 ug/L	499.12 ppb	14:42:58
3	Mo 202.031†	8253.4	8149.7	493.67 ug/L	493.67 ppb	14:43:23
3	Ni 231.604†	23211.5	22882.4	499.64 ug/L	499.64 ppb	14:43:03
3	P 214.914†	5069.9	4760.4	2407.5 ug/L	2407.5 ppb	14:43:23
3	Pb 220.353†	4698.7	4715.1	498.37 ug/L	498.37 ppb	14:43:23
3	S 181.975 Axial†	862.0	804.3	985.72 ug/L	985.72 ppb	14:43:23
3	Sb 206.836†	1714.9	1656.3	503.24 ug/L	503.24 ppb	14:43:23
3	Se 196.026†	891.3	910.8	513.78 ug/L	513.78 ppb	14:43:23
3	Si 251.611†	89459.8	87974.3	2468.9 ug/L	2468.9 ppb	14:43:03
3	Sn 189.927†	3335.5	3298.2	495.24 ug/L	495.24 ppb	14:43:23
3	Ti 334.940†	344425.8	342317.7	494.80 ug/L	494.80 ppb	14:42:58
3	Tl 190.801†	1890.0	1918.9	501.01 ug/L	501.01 ppb	14:43:23
3	U 409.014†	15800.0	18011.8	494.66 ug/L	494.66 ppb	14:43:03
3	V 292.402†	77684.5	78365.5	505.05 ug/L	505.05 ppb	14:43:03
3	Zn 213.857†	62531.8	61103.6	496.69 ug/L	496.69 ppb	14:43:03
3	SiO2†	88372.4	86868.8	5234.1 ug/L	5234.1 ppb	14:43:39

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	901655.3	100.31	%	1.698				1.69%
Sc Radial	5527.0	99.3	%	0.76				0.77%
Y 371.029	734144.3	98.614	%	1.8291				1.85%
Y RADIAL	5849.3	98.95	%	0.326				0.33%
Ag 328.068†	116366.4	504.65	ug/L	11.470	504.65	ppb	11.470	2.27%
QC value within limits for Ag 328.068 Recovery = 100.93%								
Al 396.153Radial†	6738.2	4888.5	ug/L	21.27	4888.5	ppb	21.27	0.44%
QC value within limits for Al 396.153Radial Recovery = 97.77%								
As 188.979†	1380.2	505.40	ug/L	10.358	505.40	ppb	10.358	2.05%
QC value within limits for As 188.979 Recovery = 101.08%								
B 249.677†	24014.6	490.89	ug/L	10.710	490.89	ppb	10.710	2.18%
QC value within limits for B 249.677 Recovery = 98.18%								
Ba 233.527†	74308.7	506.36	ug/L	11.243	506.36	ppb	11.243	2.22%
QC value within limits for Ba 233.527 Recovery = 101.27%								
Be 313.107†	1489149.1	500.38	ug/L	11.410	500.38	ppb	11.410	2.28%
QC value within limits for Be 313.107 Recovery = 100.08%								
Ca 317.933Radial†	3483.3	4966.2	ug/L	34.82	4966.2	ppb	34.82	0.70%

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   QC value within limits for Ca 317.933Radial  Recovery = 99.32%
Cd 226.502†            51615.4      504.61 ug/L        11.980      504.61 ppb        11.980   2.37%
   QC value within limits for Cd 226.502  Recovery = 100.92%
Co 228.616†            28899.0      506.02 ug/L        12.163      506.02 ppb        12.163   2.40%
   QC value within limits for Co 228.616  Recovery = 101.20%
Cr 267.716†            49679.9      504.49 ug/L        11.150      504.49 ppb        11.150   2.21%
   QC value within limits for Cr 267.716  Recovery = 100.90%
Cu 324.752†           178348.8      504.16 ug/L        12.651      504.16 ppb        12.651   2.51%
   QC value within limits for Cu 324.752  Recovery = 100.83%
Fe 238.204 Radial†       605.5      5049.8 ug/L         56.34      5049.8 ppb         56.34   1.12%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.00%
K 766.490 Radial†      28149.6      4952.8 ug/L         25.63      4952.8 ppb         25.63   0.52%
   QC value within limits for K 766.490 Radial  Recovery = 99.06%
Mg 279.077 IEC†          166.5      5176.0 ug/L         42.13      5176.0 ppb         42.13   0.81%
   QC value within limits for Mg 279.077 IEC  Recovery = 103.52%
Mn 257.610†           509917.6      503.38 ug/L        12.559      503.38 ppb        12.559   2.49%
   QC value within limits for Mn 257.610  Recovery = 100.68%
Mo 202.031†             8227.3      498.37 ug/L        10.195      498.37 ppb        10.195   2.05%
   QC value within limits for Mo 202.031  Recovery = 99.67%
Na 589.592 Radial†     32434.1      9680.6 ug/L         56.08      9680.6 ppb         56.08   0.58%
   QC value within limits for Na 589.592 Radial  Recovery = 96.81%
Ni 231.604†            23152.7      505.54 ug/L        12.555      505.54 ppb        12.555   2.48%
   QC value within limits for Ni 231.604  Recovery = 101.11%
P 214.914†              4785.7      2420.0 ug/L         50.72      2420.0 ppb         50.72   2.10%
   QC value within limits for P 214.914  Recovery = 96.80%
Pb 220.353†             4752.5      502.33 ug/L         9.485      502.33 ppb         9.485   1.89%
   QC value within limits for Pb 220.353  Recovery = 100.47%
S 181.975 Axial†         809.3      991.94 ug/L        19.461      991.94 ppb        19.461   1.96%
   QC value within limits for S 181.975 Axial  Recovery = 99.19%
Sb 206.836†             1667.4      506.58 ug/L         9.492      506.58 ppb         9.492   1.87%
   QC value within limits for Sb 206.836  Recovery = 101.32%
Se 196.026†              915.3      516.24 ug/L         5.329      516.24 ppb         5.329   1.03%
   QC value within limits for Se 196.026  Recovery = 103.25%
Si 251.611†            88936.9      2496.0 ug/L         59.35      2496.0 ppb         59.35   2.38%
   QC value within limits for Si 251.611  Recovery = 99.84%
Sn 189.927†             3311.8      497.28 ug/L         9.772      497.28 ppb         9.772   1.97%
   QC value within limits for Sn 189.927  Recovery = 99.46%
Sr 421.552†            84363.4      494.65 ug/L         2.862      494.65 ppb         2.862   0.58%
   QC value within limits for Sr 421.552  Recovery = 98.93%
Ti 334.940†           345267.4      499.06 ug/L        12.597      499.06 ppb        12.597   2.52%
   QC value within limits for Ti 334.940  Recovery = 99.81%
Tl 190.801†             1929.6      503.82 ug/L        10.722      503.82 ppb        10.722   2.13%
   QC value within limits for Tl 190.801  Recovery = 100.76%
U 409.014†             18206.7      500.03 ug/L        13.281      500.03 ppb        13.281   2.66%
   QC value within limits for U 409.014  Recovery = 100.01%
V 292.402†             79086.1      509.71 ug/L        11.417      509.71 ppb        11.417   2.24%
   QC value within limits for V 292.402  Recovery = 101.94%
Zn 213.857†            61676.1      501.34 ug/L        11.806      501.34 ppb        11.806   2.35%
   QC value within limits for Zn 213.857  Recovery = 100.27%
SiO2†                  88565.2      5336.7 ug/L       142.27      5336.7 ppb       142.27   2.67%
   QC value within limits for SiO2  Recovery = 99.80%
All analyte(s) passed QC.
```

Sequence No.: 12
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 12/19/2009 14:45:49
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5595.1	5595.1	100	%			14:47:41
1	Y RADIAL	5917.3	5917.3	100.1	%			14:47:41
1	Al 396.153Radial†	-7.4	9.0	6.5606	ug/L	6.5606	ppb	14:47:41
1	Ca 317.933Radial†	26.3	6.6	9.4622	ug/L	9.4622	ppb	14:48:01
1	Fe 238.204 Radial†	8.8	-2.1	-17.526	ug/L	-17.526	ppb	14:48:01
1	K 766.490 Radial†	2813.7	87.3	15.384	ug/L	15.384	ppb	14:47:41
1	Mg 279.077 IEC†	2.6	1.1	35.724	ug/L	35.724	ppb	14:48:01
1	Na 589.592 Radial†	-751.6	13.8	4.1327	ug/L	4.1327	ppb	14:47:41
1	Sr 421.552†	-9.6	2.2	0.0130	ug/L	0.0130	ppb	14:47:41
1	Sc 361.383	886574.4	886574.4	98.628	%			14:48:58
1	Y 371.029	751714.0	751714.0	100.97	%			14:48:58
1	Ag 328.068†	362.7	-2.2	-0.0151	ug/L	-0.0151	ppb	14:48:58
1	As 188.979†	-26.2	8.2	2.9821	ug/L	2.9821	ppb	14:49:18
1	B 249.677†	-271.6	-249.4	-5.1168	ug/L	-5.1168	ppb	14:49:18
1	Ba 233.527†	9.6	12.3	0.0816	ug/L	0.0816	ppb	14:49:18
1	Be 313.107†	-4717.8	-52.3	-0.0174	ug/L	-0.0174	ppb	14:48:58
1	Cd 226.502†	-210.7	15.6	0.1541	ug/L	0.1541	ppb	14:49:18
1	Co 228.616†	-80.2	5.8	0.1016	ug/L	0.1016	ppb	14:49:18
1	Cr 267.716†	80.8	1.8	0.0180	ug/L	0.0180	ppb	14:49:18
1	Cu 324.752†	6110.7	140.1	0.3950	ug/L	0.3950	ppb	14:48:58
1	Mn 257.610†	534.2	50.2	0.0471	ug/L	0.0471	ppb	14:49:18
1	Mo 202.031†	24.6	5.1	0.3057	ug/L	0.3057	ppb	14:49:18
1	Ni 231.604†	88.7	-3.7	-0.0799	ug/L	-0.0799	ppb	14:49:18
1	P 214.914†	250.5	-4.1	-2.1563	ug/L	-2.1563	ppb	14:49:18
1	Pb 220.353†	-73.7	-10.6	-1.1162	ug/L	-1.1162	ppb	14:49:18
1	S 181.975 Axial†	49.7	1.4	1.6869	ug/L	1.6869	ppb	14:49:18
1	Sb 206.836†	47.5	6.9	2.0984	ug/L	2.0984	ppb	14:49:18
1	Se 196.026†	-11.3	17.1	9.2485	ug/L	9.2485	ppb	14:49:18
1	Si 251.611†	646.8	78.3	2.1933	ug/L	2.1933	ppb	14:49:18
1	Sn 189.927†	12.1	8.8	1.3154	ug/L	1.3154	ppb	14:49:18
1	Ti 334.940†	-1335.2	33.8	0.0507	ug/L	0.0507	ppb	14:48:58
1	Tl 190.801†	-43.1	4.4	1.1398	ug/L	1.1398	ppb	14:49:18
1	U 409.014†	-2445.5	-107.4	-2.9556	ug/L	-2.9556	ppb	14:48:58
1	V 292.402†	-1538.9	-90.9	-0.5759	ug/L	-0.5759	ppb	14:48:58
1	Zn 213.857†	842.9	61.0	0.5011	ug/L	0.5011	ppb	14:49:18
1	SiO2†	660.7	63.2	3.7971	ug/L	3.7971	ppb	14:50:14
2	Sc Radial	5731.1	5731.1	103	%			14:48:06
2	Y RADIAL	6107.4	6107.4	103.3	%			14:48:06
2	Al 396.153Radial†	-25.2	-8.1	-5.9045	ug/L	-5.9045	ppb	14:48:06
2	Ca 317.933Radial†	26.0	5.7	8.1533	ug/L	8.1533	ppb	14:48:26
2	Fe 238.204 Radial†	8.7	-2.5	-20.397	ug/L	-20.397	ppb	14:48:26
2	K 766.490 Radial†	2864.2	69.9	12.311	ug/L	12.311	ppb	14:48:06
2	Mg 279.077 IEC†	2.7	1.2	36.846	ug/L	36.846	ppb	14:48:26
2	Na 589.592 Radial†	-778.9	5.0	1.4887	ug/L	1.4887	ppb	14:48:06
2	Sr 421.552†	-2.0	9.9	0.0580	ug/L	0.0580	ppb	14:48:06
2	Sc 361.383	882937.6	882937.6	98.223	%			14:49:23
2	Y 371.029	748195.0	748195.0	100.50	%			14:49:23
2	Ag 328.068†	429.4	67.3	0.2867	ug/L	0.2867	ppb	14:49:23
2	As 188.979†	-29.4	4.9	1.7623	ug/L	1.7623	ppb	14:49:43
2	B 249.677†	-246.1	-224.7	-4.6085	ug/L	-4.6085	ppb	14:49:43
2	Ba 233.527†	3.3	5.9	0.0385	ug/L	0.0385	ppb	14:49:43
2	Be 313.107†	-4701.5	-55.4	-0.0186	ug/L	-0.0186	ppb	14:49:23
2	Cd 226.502†	-221.5	3.7	0.0384	ug/L	0.0384	ppb	14:49:43
2	Co 228.616†	-70.8	15.0	0.2623	ug/L	0.2623	ppb	14:49:43
2	Cr 267.716†	105.3	27.0	0.2747	ug/L	0.2747	ppb	14:49:43
2	Cu 324.752†	6018.1	71.4	0.2008	ug/L	0.2008	ppb	14:49:23
2	Mn 257.610†	563.0	81.7	0.0778	ug/L	0.0778	ppb	14:49:43
2	Mo 202.031†	18.3	-1.2	-0.0768	ug/L	-0.0768	ppb	14:49:43
2	Ni 231.604†	123.4	32.0	0.6996	ug/L	0.6996	ppb	14:49:43

2	P 214.914†	249.6	-4.0	-2.0687 ug/L	-2.0687 ppb	14:49:43
2	Pb 220.353†	-70.4	-7.7	-0.8076 ug/L	-0.8076 ppb	14:49:43
2	S 181.975 Axial†	46.5	-1.7	-2.0327 ug/L	-2.0327 ppb	14:49:43
2	Sb 206.836†	46.0	5.6	1.6770 ug/L	1.6770 ppb	14:49:43
2	Se 196.026†	-26.9	1.2	0.5728 ug/L	0.5728 ppb	14:49:43
2	Si 251.611†	633.1	67.1	1.8857 ug/L	1.8857 ppb	14:49:43
2	Sn 189.927†	8.8	5.4	0.8150 ug/L	0.8150 ppb	14:49:43
2	Ti 334.940†	-1355.2	7.8	0.0146 ug/L	0.0146 ppb	14:49:23
2	Tl 190.801†	-25.1	22.5	5.8467 ug/L	5.8467 ppb	14:49:43
2	U 409.014†	-2565.5	-239.7	-6.6024 ug/L	-6.6024 ppb	14:49:23
2	V 292.402†	-1515.0	-73.0	-0.4746 ug/L	-0.4746 ppb	14:49:23
2	Zn 213.857†	849.8	71.6	0.5834 ug/L	0.5834 ppb	14:49:43
2	SiO2†	681.5	87.2	5.2673 ug/L	5.2673 ppb	14:50:19
3	Sc Radial	5576.3	5576.3	100 %		14:48:31
3	Y RADIAL	5946.3	5946.3	100.6 %		14:48:31
3	Al 396.153Radial†	-14.7	1.7	1.2876 ug/L	1.2876 ppb	14:48:31
3	Ca 317.933Radial†	23.6	4.0	5.6632 ug/L	5.6632 ppb	14:48:51
3	Fe 238.204 Radial†	9.2	-1.7	-14.412 ug/L	-14.412 ppb	14:48:51
3	K 766.490 Radial†	2773.6	56.7	9.9821 ug/L	9.9821 ppb	14:48:31
3	Mg 279.077 IEC†	2.2	0.8	26.345 ug/L	26.345 ppb	14:48:51
3	Na 589.592 Radial†	-750.5	12.4	3.7003 ug/L	3.7003 ppb	14:48:31
3	Sr 421.552†	56.9	68.6	0.4024 ug/L	0.4024 ppb	14:48:31
3	Sc 361.383	886705.2	886705.2	98.642 %		14:49:49
3	Y 371.029	754502.0	754502.0	101.35 %		14:49:49
3	Ag 328.068†	408.3	44.0	0.1837 ug/L	0.1837 ppb	14:49:49
3	As 188.979†	-26.5	8.0	2.8879 ug/L	2.8879 ppb	14:50:09
3	B 249.677†	-283.6	-261.6	-5.3664 ug/L	-5.3664 ppb	14:50:09
3	Ba 233.527†	-0.4	2.2	0.0129 ug/L	0.0129 ppb	14:50:09
3	Be 313.107†	-4696.1	-29.6	-0.0100 ug/L	-0.0100 ppb	14:49:49
3	Cd 226.502†	-223.6	2.5	0.0266 ug/L	0.0266 ppb	14:50:09
3	Co 228.616†	-87.4	-1.5	-0.0282 ug/L	-0.0282 ppb	14:50:09
3	Cr 267.716†	92.5	13.6	0.1367 ug/L	0.1367 ppb	14:50:09
3	Cu 324.752†	6218.2	248.2	0.7005 ug/L	0.7005 ppb	14:49:49
3	Mn 257.610†	541.6	57.6	0.0549 ug/L	0.0549 ppb	14:50:09
3	Mo 202.031†	8.9	-10.9	-0.6607 ug/L	-0.6607 ppb	14:50:09
3	Ni 231.604†	112.5	20.5	0.4471 ug/L	0.4471 ppb	14:50:09
3	P 214.914†	274.2	19.9	10.299 ug/L	10.299 ppb	14:50:09
3	Pb 220.353†	-76.3	-13.3	-1.4056 ug/L	-1.4056 ppb	14:50:09
3	S 181.975 Axial†	46.8	-1.5	-1.8757 ug/L	-1.8757 ppb	14:50:09
3	Sb 206.836†	42.6	1.9	0.5707 ug/L	0.5707 ppb	14:50:09
3	Se 196.026†	-36.4	-8.4	-4.6096 ug/L	-4.6096 ppb	14:50:09
3	Si 251.611†	660.4	92.0	2.6006 ug/L	2.6006 ppb	14:50:09
3	Sn 189.927†	7.3	3.9	0.5824 ug/L	0.5824 ppb	14:50:09
3	Ti 334.940†	-1373.8	-5.1	-0.0067 ug/L	-0.0067 ppb	14:49:49
3	Tl 190.801†	-39.1	8.4	2.1936 ug/L	2.1936 ppb	14:50:09
3	U 409.014†	-2375.1	-35.6	-0.9786 ug/L	-0.9786 ppb	14:49:49
3	V 292.402†	-1529.8	-81.4	-0.5263 ug/L	-0.5263 ppb	14:49:49
3	Zn 213.857†	837.4	55.4	0.4510 ug/L	0.4510 ppb	14:50:09
3	SiO2†	654.4	56.7	3.4472 ug/L	3.4472 ppb	14:50:24

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	885405.8	98.498	%	0.2379				0.24%
Sc Radial	5634.2	101	%	1.5				1.50%
Y 371.029	751470.3	100.94	%	0.425				0.42%
Y RADIAL	5990.3	101.3	%	1.73				1.71%
Ag 328.068†	36.4	0.1518	ug/L	0.15341	0.1518	ppb	0.15341	101.08%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	0.9	0.6479	ug/L	6.25712	0.6479	ppb	6.25712	965.75%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	7.0	2.5441	ug/L	0.67868	2.5441	ppb	0.67868	26.68%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-245.2	-5.0305	ug/L	0.38624	-5.0305	ppb	0.38624	7.68%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	6.8	0.0443	ug/L	0.03471	0.0443	ppb	0.03471	78.28%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-45.8	-0.0153	ug/L	0.00468	-0.0153	ppb	0.00468	30.54%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	5.4	7.7596	ug/L	1.92987	7.7596	ppb	1.92987	24.87%

```
   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                 7.3      0.0730 ug/L       0.07047      0.0730 ppb        0.07047  96.50%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                 6.4      0.1119 ug/L       0.14552      0.1119 ppb        0.14552 130.00%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                14.1      0.1431 ug/L       0.12849      0.1431 ppb        0.12849  89.76%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               153.3      0.4321 ug/L       0.25191      0.4321 ppb        0.25191  58.30%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -2.1     -17.445 ug/L        2.9934     -17.445 ppb         2.9934  17.16%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          71.3      12.559 ug/L        2.7093      12.559 ppb         2.7093  21.57%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             1.1      32.972 ug/L        5.7661      32.972 ppb         5.7661  17.49%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                63.2       0.0600 ug/L       0.01598      0.0600 ppb        0.01598  26.65%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                -2.4      -0.1439 ug/L       0.48666     -0.1439 ppb        0.48666 338.12%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†         10.4       3.1072 ug/L       1.41829      3.1072 ppb        1.41829  45.64%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                16.3       0.3556 ug/L       0.39772      0.3556 ppb        0.39772 111.84%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                  4.0       2.0247 ug/L       7.16599      2.0247 ppb        7.16599 353.93%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               -10.5      -1.1098 ug/L       0.29904     -1.1098 ppb        0.29904  26.95%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -0.6      -0.7405 ug/L       2.10363     -0.7405 ppb        2.10363 284.08%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 4.8       1.4487 ug/L       0.78898      1.4487 ppb        0.78898  54.46%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 3.3       1.7372 ug/L       7.00209      1.7372 ppb        7.00209 403.06%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                79.1       2.2265 ug/L       0.35863      2.2265 ppb        0.35863  16.11%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 6.0       0.9043 ug/L       0.37460      0.9043 ppb        0.37460  41.43%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                26.9       0.1578 ug/L       0.21298      0.1578 ppb        0.21298 134.95%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                12.2       0.0195 ug/L       0.02900      0.0195 ppb        0.02900 148.50%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                11.8       3.0600 ug/L       2.47017      3.0600 ppb        2.47017  80.72%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -127.5      -3.5122 ug/L       2.85293     -3.5122 ppb        2.85293  81.23%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                -81.8      -0.5256 ug/L       0.05065     -0.5256 ppb        0.05065   9.64%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                62.7       0.5118 ug/L       0.06685      0.5118 ppb        0.06685  13.06%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                      69.0       4.1705 ug/L       0.96577      4.1705 ppb        0.96577  23.16%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

ICPMS #5 Daily Performance Report

Sample ID: Sample
Sample Date/Time: Friday, January 01, 2010 13:23:48
Sample Description:
Method File: c:\elandata\Method\Daily2.mth
Dataset File: c:\elandata\Dataset\default2\Sample.1630
Tuning File: c:\elandata\Tuning\default2.tun
Optimization File: c:\elandata\Optimize\default.dac
Dual Detector Mode: Pulse

Acq. Dead Time(ns): 35
Current Dead Time (ns): 35

Number of Replicates: 5

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Be	9.0	4706.6	4706.575	79.049	1.7
	Mg	24.0	62261.6	62261.594	649.500	1.0
	Co	58.9	114292.2	114292.207	1104.058	1.0
	Rh	102.9	201637.9	201637.879	999.058	0.5
	In	114.9	270829.7	270829.723	924.413	0.3
	Pb	208.0	308052.6	308052.582	2955.251	1.0
⌈>	Ba	137.9	281299.1	281299.117	1709.906	0.6
⌊	Ba++	69.0	6133.3	0.022	0.000	0.8
⌈>	Ce	139.9	346489.4	346489.405	1054.414	0.3
⌊	CeO	155.9	8616.7	0.025	0.001	3.1
	Bkgd	220.0	12.5	12.500	2.318	18.5

Current Optimization File Data

Current Value	Description
0.88	Nebulizer Gas Flow
8.25	Lens Voltage
1450.00	ICP RF Power
-1687.50	Analog Stage Voltage
1200.00	Pulse Stage Voltage
275.00	Discriminator Threshold
-6.00	AC Rod Offset

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	17	7.5	6822.3
Co	59	17	8.8	114363.3
In	115	17	10.0	260386.6

ICPMS #5 Instrument Tuning Report

File Name: default2.tun
File Path: c:\elandata\Tuning

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Pk. Width
He	3.0	3.0	589	2065	0.596
Be	9.0	9.0	2035	2070	0.635
Mg	24.0	24.0	5691	2070	0.671
Mg	25.0	25.0	5931	2070	0.648
Mg	26.0	26.0	6177	2070	0.668
Co	58.9	58.9	14184	2105	0.647
Rh	102.9	102.9	24876	2165	0.633
In	114.9	114.9	27790	2185	0.626
Ce	139.9	139.9	33874	2200	0.646
Pb	206.0	206.0	49948	2270	0.668
Pb	207.0	207.0	50171	2235	0.692
Pb	208.0	208.0	50439	2260	0.718
U	238.1	238.0	57725	2275	0.726

ICPMS#5 - Summary Report

Sample ID: Blank
Sample Date/Time: Friday, January 01, 2010 16:08:25
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100101\Blank.129

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7		ug/L		117	
	Be	9		ug/L		25	
	B	11		ug/L		3170	
	Na	23		ug/L		45071	
	Mg	24		ug/L		9003	
	Al	27		ug/L		20682	
	P	31		ug/L		11219	
	K	39		ug/L		650500	
	Ca	43		ug/L		397	
>	Sc	45		ug/L		4583436	
	Ti	47		ug/L		457	
	V	51		ug/L		13174	
	Cr	52		ug/L		6173	
	Cr	53		ug/L		139167	
	Mn	55		ug/L		1370	
	Fe	57		ug/L		6589	
	Co	59		ug/L		203	
	Ni	60		ug/L		105	
	Cu	63		ug/L		479	
	Cu	65		ug/L		263	
	Zn	66		ug/L		380	
	Zn	67		ug/L		16868	
	Zn	68		ug/L		1785	
>	Ge	74		ug/L		582142	
	As	75		ug/L		-306	
	Se	77		ug/L		8907	
	Se	82		ug/L		1	
	Kr	83		ug/L		116	
	Sr	88		ug/L		525	
	Y	89		ug/L		54	
	Mo	98		ug/L		313	
	Ag	107		ug/L		140	
	Cd	111		ug/L		49	
	Cd	114		ug/L		91	
>	In	115		ug/L		384341	
	Sn	120		ug/L		921	
	Sb	121		ug/L		2191	
	Sb	123		ug/L		1765	
	Ba	135		ug/L		54	
	Ba	137		ug/L		98	
	Ho	165		ug/L		57	
>	Lu	175		ug/L		756237	
	Tl	205		ug/L		2202	
	Pb	208		ug/L		1819	
	Bi	209		ug/L		316	
	Th	232		ug/L		3547	
	U	238		ug/L		2491	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Simple Linear	
Be	9	Simple Linear	
B	11	Simple Linear	
Na	23	Simple Linear	
Mg	24	Simple Linear	
Al	27	Simple Linear	
P	31	Simple Linear	
K	39	Simple Linear	
Ca	43	Simple Linear	
Sc	45	Linear Thru Zero	
Ti	47	Simple Linear	
V	51	Simple Linear	
Cr	52	Simple Linear	
Cr	53	Simple Linear	
Mn	55	Simple Linear	
Fe	57	Simple Linear	
Co	59	Simple Linear	
Ni	60	Simple Linear	
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	
Zn	66	Simple Linear	
Zn	67	Simple Linear	
Zn	68	Simple Linear	
Ge	74	Simple Linear	
As	75	Simple Linear	
Se	77	Simple Linear	
Se	82	Simple Linear	
Kr	83	Simple Linear	
Sr	88	Simple Linear	
Y	89	Simple Linear	
Mo	98	Simple Linear	
Ag	107	Simple Linear	
Cd	111	Simple Linear	
Cd	114	Simple Linear	
In	115	Simple Linear	
Sn	120	Simple Linear	
Sb	121	Simple Linear	
Sb	123	Simple Linear	
Ba	135	Simple Linear	
Ba	137	Simple Linear	
Ho	165	Simple Linear	
Lu	175	Linear Thru Zero	
Tl	205	Simple Linear	
Pb	208	Linear Thru Zero	
Bi	209	Simple Linear	
Th	232	Simple Linear	
U	238	Simple Linear	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45					
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115					
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175					
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Friday, January 01, 2010 16:14:31
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100101\Standard 1.130

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	10.000	ug/L	1.051	21949	0.005
	Be	9	10.000	ug/L	1.938	6209	0.001
	B	11	20.000	ug/L	4.880	17400	0.003
	Na	23	1000.000	ug/L	5.740	6163128	1.337
	Mg	24	1000.000	ug/L	4.165	4557271	0.994
	Al	27	1000.000	ug/L	9.281	6321155	1.376
	P	31	1000.000	ug/L	1.628	363767	0.077
	K	39	1000.000	ug/L	5.263	7744793	1.550
	Ca	43	1000.000	ug/L	1.536	18136	0.004
>	Sc	45		ug/L		4577128	4577128.274
	Ti	47	10.000	ug/L	1.360	9223	0.002
	V	51	10.000	ug/L	8.349	111446	0.021
	Cr	52	10.000	ug/L	3.012	82751	0.017
	Cr	53		ug/L		141129	0.000
	Mn	55	10.000	ug/L	1.147	126269	0.027
	Fe	57	1000.000	ug/L	2.060	259623	0.055
	Co	59	10.000	ug/L	2.602	96504	0.021
	Ni	60	10.000	ug/L	2.723	20974	0.005
	Cu	63		ug/L		49926	0.011
	Cu	65	10.000	ug/L	0.888	24590	0.005
	Zn	66	10.000	ug/L	1.931	16214	0.027
	Zn	67		ug/L		18643	0.003
	Zn	68		ug/L		13525	0.020
>	Ge	74		ug/L		577153	577152.700
	As	75	10.000	ug/L	0.993	15228	0.027
	Se	77		ug/L		9675	0.001
	Se	82	10.000	ug/L	2.685	1566	0.003
	Kr	83		ug/L		113	-0.000
	Sr	88	10.000	ug/L	2.426	189282	0.491
	Y	89		ug/L		78	0.000
	Mo	98	10.000	ug/L	2.599	45787	0.118
	Ag	107	10.000	ug/L	2.910	83301	0.216
	Cd	111	10.000	ug/L	2.376	20166	0.052
	Cd	114		ug/L		47604	0.124
>	In	115		ug/L		384520	384519.543
	Sn	120	10.000	ug/L	1.423	84623	0.218
	Sb	121	10.000	ug/L	3.763	63841	0.160
	Sb	123		ug/L		49850	0.125
	Ba	135		ug/L		21761	0.028
	Ba	137	10.000	ug/L	2.524	38750	0.051
	Ho	165		ug/L		71	0.000
>	Lu	175		ug/L		762100	762100.447
	Tl	205	10.000	ug/L	1.584	342119	0.446
	Pb	208	10.000	ug/L	2.193	511855	0.669
	Bi	209		ug/L		376	0.000
	Th	232	10.000	ug/L	1.000	596856	0.779
	U	238	10.000	ug/L	2.909	629532	0.823

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	1.0000
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
Pb	208Linear Thru Zero	1.0000
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45					
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115					
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175					
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Friday, January 01, 2010 16:20:36
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100101\Standard 2.131

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**100.022**	**ug/L**	4.495	216676	0.049
	Be	9	**99.972**	**ug/L**	3.445	58341	0.013
	B	11	**199.983**	**ug/L**	3.446	139977	0.031
	Na	23	**10000.573**	**ug/L**	10.270	59748946	13.443
	Mg	24	**9989.962**	**ug/L**	6.074	40036050	9.020
	Al	27	**9996.011**	**ug/L**	4.097	58806865	13.230
	P	31	**9997.759**	**ug/L**	0.210	3356126	0.753
	K	39	**9999.161**	**ug/L**	3.419	68913104	15.368
	Ca	43	**9999.037**	**ug/L**	0.506	170846	0.038
>	Sc	45		**ug/L**		4440942	4440941.638
	Ti	47	**100.009**	**ug/L**	3.778	86206	0.019
	V	51	**99.943**	**ug/L**	3.219	914354	0.203
	Cr	52	**99.946**	**ug/L**	2.410	710680	0.159
	Cr	53		**ug/L**		195880	0.014
	Mn	55	**99.918**	**ug/L**	4.251	1119765	0.252
	Fe	57	**9984.231**	**ug/L**	3.043	2123409	0.477
	Co	59	**99.934**	**ug/L**	3.388	875455	0.197
	Ni	60	**99.961**	**ug/L**	1.119	194826	0.044
	Cu	63		**ug/L**		452956	0.102
	Cu	65	**99.966**	**ug/L**	4.089	228341	0.051
	Zn	66	**99.971**	**ug/L**	0.593	149490	0.267
	Zn	67		**ug/L**		38850	0.041
	Zn	68		**ug/L**		110134	0.194
>	Ge	74		**ug/L**		559076	559076.452
	As	75	**99.995**	**ug/L**	0.922	149395	0.268
	Se	77		**ug/L**		18591	0.018
	Se	82	**100.004**	**ug/L**	2.498	15224	0.027
	Kr	83		**ug/L**		141	0.000
	Sr	88	**99.908**	**ug/L**	1.373	1631154	4.492
	Y	89		**ug/L**		217	0.000
	Mo	98	**100.006**	**ug/L**	2.058	432275	1.190
	Ag	107	**99.950**	**ug/L**	0.208	747583	2.059
	Cd	111	**99.996**	**ug/L**	1.262	189136	0.521
	Cd	114		**ug/L**		441347	1.215
>	In	115		**ug/L**		363086	363085.988
	Sn	120	**99.960**	**ug/L**	3.276	760427	2.093
	Sb	121	**100.041**	**ug/L**	4.290	609401	1.674
	Sb	123		**ug/L**		483434	1.327
	Ba	135		**ug/L**		208287	0.286
	Ba	137	**99.996**	**ug/L**	2.205	367784	0.505
	Ho	165		**ug/L**		76	0.000
>	Lu	175		**ug/L**		727512	727512.394
	Tl	205	**99.808**	**ug/L**	0.389	2720223	3.736
	Pb	208	**99.851**	**ug/L**	1.464	4234770	5.819
	Bi	209		**ug/L**		663	0.000
	Th	232	**99.887**	**ug/L**	1.810	5088126	6.990
	U	238	**99.902**	**ug/L**	2.901	5449167	7.488

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	0.9999
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45					
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115					
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175					
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Friday, January 01, 2010 16:26:40
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100101\QC Std 1.132

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**50.757**	**ug/L**	4.151	113884	0.025
	Be	9	**51.080**	**ug/L**	4.476	30854	0.007
	B	11	**103.194**	**ug/L**	4.150	76244	0.016
	Na	23	**4895.258**	**ug/L**	0.522	30279276	6.580
	Mg	24	**5265.544**	**ug/L**	2.412	21857917	4.754
	Al	27	**5396.158**	**ug/L**	7.124	32857169	7.142
	P	31	**4679.942**	**ug/L**	1.589	1630942	0.353
	K	39	**5246.300**	**ug/L**	3.735	37677703	8.063
	Ca	43	**4944.577**	**ug/L**	1.787	87588	0.019
>	Sc	45		**ug/L**		4594227	4594227.266
	Ti	47	**50.046**	**ug/L**	3.621	44866	0.010
	V	51	**51.358**	**ug/L**	3.971	492464	0.104
	Cr	52	**52.241**	**ug/L**	3.458	387235	0.083
	Cr	53		**ug/L**		156928	0.004
	Mn	55	**53.240**	**ug/L**	3.545	618044	0.134
	Fe	57	**5357.163**	**ug/L**	2.539	1181757	0.256
	Co	59	**51.639**	**ug/L**	2.960	468145	0.102
	Ni	60	**52.259**	**ug/L**	2.736	105400	0.023
	Cu	63		**ug/L**		244681	0.053
	Cu	65	**51.186**	**ug/L**	2.315	121125	0.026
	Zn	66	**53.420**	**ug/L**	3.006	81215	0.143
	Zn	67		**ug/L**		28546	0.021
	Zn	68		**ug/L**		59902	0.103
>	Ge	74		**ug/L**		567329	567329.017
	As	75	**50.072**	**ug/L**	2.474	75758	0.134
	Se	77		**ug/L**		12560	0.007
	Se	82	**50.438**	**ug/L**	1.089	7792	0.014
	Kr	83		**ug/L**		114	0.000
	Sr	88	**54.496**	**ug/L**	1.760	920289	2.450
	Y	89		**ug/L**		109	0.000
	Mo	98	**50.669**	**ug/L**	2.801	226638	0.603
	Ag	107	**51.928**	**ug/L**	3.281	401535	1.070
	Cd	111	**50.926**	**ug/L**	0.723	99640	0.265
	Cd	114		**ug/L**		234116	0.623
>	In	115		**ug/L**		375472	375471.597
	Sn	120	**52.556**	**ug/L**	1.505	413980	1.100
	Sb	121	**51.919**	**ug/L**	4.812	328173	0.869
	Sb	123		**ug/L**		259421	0.687
	Ba	135		**ug/L**		109849	0.147
	Ba	137	**52.092**	**ug/L**	1.457	196513	0.263
	Ho	165		**ug/L**		102	0.000
>	Lu	175		**ug/L**		746015	746014.570
	Tl	205	**52.767**	**ug/L**	1.198	1475552	1.975
	Pb	208	**55.557**	**ug/L**	1.835	2416731	3.238
	Bi	209		**ug/L**		748	0.001
	Th	232	**52.045**	**ug/L**	1.717	2720026	3.642
	U	238	**53.198**	**ug/L**	3.357	2976173	3.987

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	0.9999
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9999
U	238Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7	101.514				
	Be	9	102.161				
	B	11	103.194				
	Na	23	97.905				
	Mg	24	105.311				
	Al	27	106.855				
	P	31	93.599				
	K	39	104.926				
	Ca	43	98.892				
>	Sc	45		100.2			
	Ti	47	100.093				
	V	51	102.715				
	Cr	52	104.481				
	Cr	53					
	Mn	55	106.480				
	Fe	57	107.143				
	Co	59	103.278				
	Ni	60	104.518				
	Cu	63					
	Cu	65	102.372				
	Zn	66	106.839				
	Zn	67					
	Zn	68					
>	Ge	74		97.5			
	As	75	100.144				
	Se	77					
	Se	82	100.876				
	Kr	83					
	Sr	88	108.992				
	Y	89					
	Mo	98	101.339				
	Ag	107	103.857				
	Cd	111	101.852				
	Cd	114					
>	In	115		97.7			
	Sn	120	105.113				
	Sb	121	103.838				
	Sb	123					
	Ba	135					
	Ba	137	104.184				
	Ho	165					
>	Lu	175		98.6			
	Tl	205	105.534				
	Pb	208	111.113				
	Bi	209					
	Th	232	104.090				
	U	238	106.395				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 1	Pb	208	ICV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Friday, January 01, 2010 16:32:47
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100101\QC Std 2.133

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	0.006	ug/L	60.351	127	0.000
	Be	9	-0.010	ug/L	70.423	19	-0.000
	B	11	1.712	ug/L	42.893	4305	0.000
	Na	23	0.271	ug/L	675.891	46078	0.000
	Mg	24	0.632	ug/L	288.432	11339	0.001
	Al	27	0.287	ug/L	180.606	22017	0.000
	P	31	-2.628	ug/L	91.128	10122	-0.000
	K	39	-0.599	ug/L	956.372	635555	-0.001
	Ca	43	0.507	ug/L	302.025	399	0.000
>	Sc	45		ug/L		4506446	4506446.294
	Ti	47	-0.030	ug/L	162.814	422	-0.000
	V	51	0.142	ug/L	206.090	14211	0.000
	Cr	52	-0.112	ug/L	24.238	5264	-0.000
	Cr	53		ug/L		122460	-0.003
	Mn	55	-0.003	ug/L	411.623	1312	-0.000
	Fe	57	0.221	ug/L	736.321	6515	0.000
	Co	59	0.005	ug/L	100.777	240	0.000
	Ni	60	0.012	ug/L	36.962	127	0.000
	Cu	63		ug/L		460	-0.000
	Cu	65	0.008	ug/L	148.680	277	0.000
	Zn	66	-0.006	ug/L	416.123	362	-0.000
	Zn	67		ug/L		16292	-0.000
	Zn	68		ug/L		1765	0.000
>	Ge	74		ug/L		570103	570102.790
	As	75	0.204	ug/L	189.166	8	0.001
	Se	77		ug/L		6948	-0.003
	Se	82	0.065	ug/L	245.436	11	0.000
	Kr	83		ug/L		123	0.000
	Sr	88	0.003	ug/L	71.748	568	0.000
	Y	89		ug/L		66	0.000
	Mo	98	0.036	ug/L	34.975	466	0.000
	Ag	107	0.003	ug/L	17.822	163	0.000
	Cd	111	0.005	ug/L	167.998	57	0.000
	Cd	114		ug/L		109	0.000
>	In	115		ug/L		374857	374857.376
	Sn	120	0.097	ug/L	26.684	1660	0.002
	Sb	121	0.645	ug/L	22.422	6173	0.011
	Sb	123		ug/L		4825	0.008
	Ba	135		ug/L		63	0.000
	Ba	137	0.001	ug/L	73.138	100	0.000
	Ho	165		ug/L		63	0.000
>	Lu	175		ug/L		736690	736689.961
	Tl	205	0.058	ug/L	39.654	3735	0.002
	Pb	208	0.004	ug/L	26.796	1960	0.000
	Bi	209		ug/L		310	0.000
	Th	232	0.041	ug/L	33.533	5571	0.003
	U	238	0.011	ug/L	38.639	3012	0.001

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	0.9999
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9999
U	238Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		98.3			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		97.9			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		97.5			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		97.4			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Friday, January 01, 2010 16:38:55
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100101\QC Std 3.134

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**10.376**	**ug/L**	2.427	23492	0.005
	Be	9	**0.494**	**ug/L**	8.331	325	0.000
	B	11	**15.616**	**ug/L**	2.428	14309	0.002
	Na	23	**262.907**	**ug/L**	10.608	1678130	0.353
	Mg	24	**15.547**	**ug/L**	18.407	73860	0.014
	Al	27	**35.302**	**ug/L**	4.986	236614	0.047
	P	31	**48.698**	**ug/L**	2.488	28238	0.004
	K	39	**327.966**	**ug/L**	6.868	2983225	0.504
	Ca	43	**211.480**	**ug/L**	0.528	4149	0.001
>	Sc	45		**ug/L**		4616900	4616899.946
	Ti	47	**8.554**	**ug/L**	2.380	8091	0.002
	V	51	**10.942**	**ug/L**	3.369	115911	0.022
	Cr	52	**11.132**	**ug/L**	1.439	87840	0.018
	Cr	53		**ug/L**		132859	-0.002
	Mn	55	**5.949**	**ug/L**	1.484	70655	0.015
	Fe	57	**119.216**	**ug/L**	0.120	32925	0.006
	Co	59	**1.120**	**ug/L**	2.739	10403	0.002
	Ni	60	**2.156**	**ug/L**	1.731	4473	0.001
	Cu	63		**ug/L**		5875	0.001
	Cu	65	**1.142**	**ug/L**	1.835	2976	0.001
	Zn	66	**11.250**	**ug/L**	0.644	17766	0.030
	Zn	67		**ug/L**		19357	0.004
	Zn	68		**ug/L**		14208	0.021
>	Ge	74		**ug/L**		579330	579329.773
	As	75	**5.363**	**ug/L**	10.910	8020	0.014
	Se	77		**ug/L**		7853	-0.002
	Se	82	**5.456**	**ug/L**	4.345	862	0.001
	Kr	83		**ug/L**		109	-0.000
	Sr	88	**12.131**	**ug/L**	2.004	207607	0.545
	Y	89		**ug/L**		63	0.000
	Mo	98	**0.517**	**ug/L**	3.546	2646	0.006
	Ag	107	**1.079**	**ug/L**	2.182	8578	0.022
	Cd	111	**1.074**	**ug/L**	1.546	2174	0.006
	Cd	114		**ug/L**		5174	0.013
>	In	115		**ug/L**		379798	379798.077
	Sn	120	**5.499**	**ug/L**	2.403	44622	0.115
	Sb	121	**3.095**	**ug/L**	6.588	21822	0.052
	Sb	123		**ug/L**		17382	0.041
	Ba	135		**ug/L**		4671	0.006
	Ba	137	**2.178**	**ug/L**	1.606	8380	0.011
	Ho	165		**ug/L**		69	0.000
>	Lu	175		**ug/L**		752307	752306.918
	Tl	205	**1.241**	**ug/L**	2.951	37142	0.046
	Pb	208	**2.497**	**ug/L**	0.323	111286	0.146
	Bi	209		**ug/L**		339	0.000
	Th	232	**1.240**	**ug/L**	1.734	68826	0.087
	U	238	**0.230**	**ug/L**	1.008	15440	0.017

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	0.9999
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7	103.757				
	Be	9	98.706				
	B	11	104.106				
	Na	23	105.163				
	Mg	24	103.647				
	Al	27	117.674				
	P	31	97.396				
	K	39	109.322				
	Ca	43	105.740				
>	Sc	45		100.7			
	Ti	47	85.544				
	V	51	109.417				
	Cr	52	111.320				
	Cr	53					
	Mn	55	118.979				
	Fe	57	119.216				
	Co	59	111.960				
	Ni	60	107.824				
	Cu	63					
	Cu	65	114.223				
	Zn	66	112.498				
	Zn	67					
	Zn	68					
>	Ge	74		99.5			
	As	75	107.254				
	Se	77					
	Se	82	109.111				
	Kr	83					
	Sr	88	121.306				
	Y	89					
	Mo	98	103.443				
	Ag	107	107.918				
	Cd	111	107.406				
	Cd	114					
>	In	115		98.8			
	Sn	120	109.974				
	Sb	121	103.170				
	Sb	123					
	Ba	135					
	Ba	137	108.898				
	Ho	165					
>	Lu	175		99.5			
	Tl	205	124.121				
	Pb	208	124.857				
	Bi	209					
	Th	232	124.042				
	U	238	114.941				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Friday, January 01, 2010 16:45:01
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100101\QC Std 4.135

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.173**	ug/L	11.933	429	0.000
	Be	9	**0.055**	ug/L	28.069	49	0.000
	B	11	**-0.319**	ug/L	36.245	2507	-0.000
	Na	23	**92478.555**	ug/L	1.553	485116103	124.315
	Mg	24	**99023.906**	ug/L	4.782	348911458	89.412
	Al	27	**94723.751**	ug/L	3.526	489310451	125.369
	P	31	**95167.803**	ug/L	0.762	27991464	7.171
	K	39	**107006.720**	ug/L	1.558	642277936	164.459
	Ca	43	**93309.897**	ug/L	0.874	1398191	0.358
>	Sc	45		ug/L		3902500	3902500.059
	Ti	47	**1387.673**	ug/L	1.112	1046623	0.268
	V	51	**-0.417**	ug/L	132.560	7878	-0.001
	Cr	52	**2.508**	ug/L	3.041	20799	0.004
	Cr	53		ug/L		84569	-0.009
	Mn	55	**6.469**	ug/L	1.798	64833	0.016
	Fe	57	**100704.360**	ug/L	2.467	18773357	4.810
	Co	59	**0.343**	ug/L	3.132	2815	0.001
	Ni	60	**3.336**	ug/L	4.792	5798	0.001
	Cu	63		ug/L		9405	0.002
	Cu	65	**2.792**	ug/L	2.183	5825	0.001
	Zn	66	**3.987**	ug/L	1.201	5627	0.011
	Zn	67		ug/L		12366	-0.004
	Zn	68		ug/L		2372	0.002
>	Ge	74		ug/L		498454	498454.442
	As	75	**-0.031**	ug/L	285.003	-303	-0.000
	Se	77		ug/L		7466	-0.000
	Se	82	**-1.425**	ug/L	11.708	-192	-0.000
	Kr	83		ug/L		401	0.001
	Sr	88	**1.302**	ug/L	2.238	19496	0.059
	Y	89		ug/L		609	0.002
	Mo	98	**1988.785**	ug/L	2.238	7701584	23.666
	Ag	107	**0.067**	ug/L	9.386	567	0.001
	Cd	111	**0.481**	ug/L	33.595	854	0.003
	Cd	114		ug/L		12616	0.039
>	In	115		ug/L		325503	325502.805
	Sn	120	**0.134**	ug/L	15.122	1694	0.003
	Sb	121	**0.049**	ug/L	119.127	2119	0.001
	Sb	123		ug/L		1629	0.000
	Ba	135		ug/L		1365	0.002
	Ba	137	**0.702**	ug/L	4.192	2432	0.004
	Ho	165		ug/L		1509	0.002
>	Lu	175		ug/L		661781	661781.281
	Tl	205	**-0.008**	ug/L	15.492	1716	-0.000
	Pb	208	**0.189**	ug/L	2.413	8894	0.011
	Bi	209		ug/L		2557	0.003
	Th	232	**0.022**	ug/L	76.643	4111	0.002
	U	238	**-0.038**	ug/L	1.549	289	-0.003

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	0.9999
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9999
U	238Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23	92.479				
	Mg	24	99.024				
	Al	27	94.724				
	P	31	95.168				
	K	39	107.007				
	Ca	43	93.310				
>	Sc	45		85.1			
	Ti	47	69.384				
	V	51					
	Cr	52	67.790				
	Cr	53					
	Mn	55	111.531				
	Fe	57	100.704				
	Co	59	137.279				
	Ni	60	123.551				
	Cu	63					
	Cu	65	96.263				
	Zn	66	110.741				
	Zn	67					
	Zn	68					
>	Ge	74		85.6			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88	108.517				
	Y	89					
	Mo	98	99.439				
	Ag	107					
	Cd	111	120.165				
	Cd	114					
>	In	115		84.7			
	Sn	120					
	Sb	121	48.988				
	Sb	123					
	Ba	135					
	Ba	137	104.720				
	Ho	165					
>	Lu	175		87.5			
	Tl	205					
	Pb	208	94.692				
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 4	Ti	47	ICSA is out of limits

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Friday, January 01, 2010 16:51:07
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100101\QC Std 5.136

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**22.561**	**ug/L**	1.899	41330	0.011
	Be	9	**19.049**	**ug/L**	1.275	9399	0.003
	B	11	**16.643**	**ug/L**	2.181	12203	0.003
	Na	23	**90936.480**	**ug/L**	7.201	457751410	122.242
	Mg	24	**96110.684**	**ug/L**	5.418	325179681	86.781
	Al	27	**93890.100**	**ug/L**	3.475	465414329	124.266
	P	31	**93100.992**	**ug/L**	0.561	26287462	7.015
	K	39	**105382.357**	**ug/L**	6.223	607333331	161.962
	Ca	43	**91115.455**	**ug/L**	1.622	1310738	0.350
>	Sc	45		**ug/L**		3745957	3745957.480
	Ti	47	**1366.223**	**ug/L**	1.457	989187	0.264
	V	51	**21.134**	**ug/L**	2.159	171652	0.043
	Cr	52	**23.496**	**ug/L**	0.869	144830	0.037
	Cr	53		**ug/L**		92908	-0.006
	Mn	55	**28.269**	**ug/L**	1.298	268201	0.071
	Fe	57	**99777.729**	**ug/L**	1.916	17854410	4.765
	Co	59	**20.927**	**ug/L**	2.033	154825	0.041
	Ni	60	**22.746**	**ug/L**	0.609	37467	0.010
	Cu	63		**ug/L**		82491	0.022
	Cu	65	**21.300**	**ug/L**	1.590	41233	0.011
	Zn	66	**21.659**	**ug/L**	0.738	28110	0.058
	Zn	67		**ug/L**		15338	0.003
	Zn	68		**ug/L**		19123	0.037
>	Ge	74		**ug/L**		480997	480997.323
	As	75	**20.684**	**ug/L**	4.934	26383	0.055
	Se	77		**ug/L**		9153	0.004
	Se	82	**19.634**	**ug/L**	0.745	2572	0.005
	Kr	83		**ug/L**		349	0.001
	Sr	88	**24.082**	**ug/L**	0.397	338580	1.083
	Y	89		**ug/L**		603	0.002
	Mo	98	**1999.179**	**ug/L**	1.029	7430060	23.790
	Ag	107	**19.463**	**ug/L**	0.435	125305	0.401
	Cd	111	**19.146**	**ug/L**	2.375	31186	0.100
	Cd	114		**ug/L**		84348	0.270
>	In	115		**ug/L**		312319	312319.495
	Sn	120	**21.302**	**ug/L**	0.798	140035	0.446
	Sb	121	**21.661**	**ug/L**	1.728	114949	0.362
	Sb	123		**ug/L**		91683	0.289
	Ba	135		**ug/L**		37672	0.059
	Ba	137	**20.645**	**ug/L**	0.590	66403	0.104
	Ho	165		**ug/L**		1491	0.002
>	Lu	175		**ug/L**		635557	635556.501
	Tl	205	**22.694**	**ug/L**	2.743	541647	0.849
	Pb	208	**22.724**	**ug/L**	1.627	843090	1.324
	Bi	209		**ug/L**		2347	0.003
	Th	232	**22.817**	**ug/L**	1.608	1017630	1.597
	U	238	**23.250**	**ug/L**	1.465	1109536	1.743

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	0.9999
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7	112.807				
	Be	9	95.244				
	B	11	83.217				
	Na	23	90.936				
	Mg	24	96.111				
	Al	27	93.890				
	P	31	93.101				
	K	39	105.382				
	Ca	43	91.115				
>	Sc	45		81.7			
	Ti	47	68.311				
	V	51	105.671				
	Cr	52	99.141				
	Cr	53					
	Mn	55	109.570				
	Fe	57	99.778				
	Co	59	103.342				
	Ni	60	100.200				
	Cu	63					
	Cu	65	93.014				
	Zn	66	91.776				
	Zn	67					
	Zn	68					
>	Ge	74		82.6			
	As	75	103.418				
	Se	77					
	Se	82	98.170				
	Kr	83					
	Sr	88	113.592				
	Y	89					
	Mo	98	99.959				
	Ag	107	97.313				
	Cd	111	93.853				
	Cd	114					
>	In	115		81.3			
	Sn	120	106.510				
	Sb	121	107.767				
	Sb	123					
	Ba	135					
	Ba	137	99.877				
	Ho	165					
>	Lu	175		84.0			
	Tl	205	113.469				
	Pb	208	112.497				
	Bi	209					
	Th	232	114.084				
	U	238	116.250				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 5	Ti	47	ICSAB is out of limits

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Friday, January 01, 2010 16:57:14
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100101\QC Std 6.137

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**55.807**	**ug/L**	1.819	110605	0.027
	Be	9	**50.838**	**ug/L**	1.511	27138	0.007
	B	11	**94.271**	**ug/L**	4.223	61801	0.015
	Na	23	**5067.829**	**ug/L**	6.292	27688536	6.812
	Mg	24	**4673.400**	**ug/L**	4.610	17133640	4.220
	Al	27	**4584.327**	**ug/L**	2.290	24642877	6.067
	P	31	**4610.516**	**ug/L**	1.509	1419805	0.347
	K	39	**5510.175**	**ug/L**	8.792	34944605	8.469
	Ca	43	**4972.744**	**ug/L**	3.244	77830	0.019
>	Sc	45		**ug/L**		4058474	4058474.208
	Ti	47	**52.092**	**ug/L**	2.052	41252	0.010
	V	51	**52.406**	**ug/L**	3.035	443900	0.107
	Cr	52	**52.510**	**ug/L**	0.932	343935	0.083
	Cr	53		**ug/L**		135703	0.003
	Mn	55	**54.531**	**ug/L**	1.837	559411	0.138
	Fe	57	**5463.207**	**ug/L**	1.289	1064780	0.261
	Co	59	**52.846**	**ug/L**	0.650	423371	0.104
	Ni	60	**53.927**	**ug/L**	0.615	96110	0.024
	Cu	63		**ug/L**		221783	0.055
	Cu	65	**51.915**	**ug/L**	1.486	108550	0.027
	Zn	66	**51.385**	**ug/L**	1.813	72279	0.137
	Zn	67		**ug/L**		24071	0.017
	Zn	68		**ug/L**		53519	0.099
>	Ge	74		**ug/L**		524723	524723.270
	As	75	**48.789**	**ug/L**	2.747	68266	0.131
	Se	77		**ug/L**		10692	0.005
	Se	82	**49.944**	**ug/L**	3.342	7137	0.014
	Kr	83		**ug/L**		110	0.000
	Sr	88	**54.095**	**ug/L**	4.337	832504	2.432
	Y	89		**ug/L**		97	0.000
	Mo	98	**50.787**	**ug/L**	2.748	207097	0.604
	Ag	107	**51.447**	**ug/L**	3.389	362683	1.060
	Cd	111	**49.798**	**ug/L**	2.594	88821	0.259
	Cd	114		**ug/L**		209679	0.612
>	In	115		**ug/L**		342412	342411.729
	Sn	120	**51.157**	**ug/L**	2.939	367380	1.071
	Sb	121	**50.397**	**ug/L**	5.620	290344	0.843
	Sb	123		**ug/L**		228587	0.664
	Ba	135		**ug/L**		96111	0.140
	Ba	137	**49.927**	**ug/L**	2.165	173219	0.252
	Ho	165		**ug/L**		92	0.000
>	Lu	175		**ug/L**		686010	686009.626
	Tl	205	**52.140**	**ug/L**	1.839	1340717	1.952
	Pb	208	**54.172**	**ug/L**	0.910	2167292	3.157
	Bi	209		**ug/L**		708	0.001
	Th	232	**51.218**	**ug/L**	1.582	2461699	3.584
	U	238	**51.831**	**ug/L**	2.404	2666863	3.885

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	0.9999
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9999
U	238Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7	111.614				
	Be	9	101.676				
	B	11	94.271				
	Na	23	101.357				
	Mg	24	93.468				
	Al	27	90.779				
	P	31	92.210				
	K	39	110.203				
	Ca	43	99.455				
>	Sc	45		88.5			
	Ti	47	104.184				
	V	51	104.812				
	Cr	52	105.019				
	Cr	53					
	Mn	55	109.063				
	Fe	57	109.264				
	Co	59	105.691				
	Ni	60	107.854				
	Cu	63					
	Cu	65	103.829				
	Zn	66	102.771				
	Zn	67					
	Zn	68					
>	Ge	74		90.1			
	As	75	97.578				
	Se	77					
	Se	82	99.888				
	Kr	83					
	Sr	88	108.191				
	Y	89					
	Mo	98	101.574				
	Ag	107	102.893				
	Cd	111	99.596				
	Cd	114					
>	In	115		89.1			
	Sn	120	102.314				
	Sb	121	100.794				
	Sb	123					
	Ba	135					
	Ba	137	99.853				
	Ho	165					
>	Lu	175		90.7			
	Tl	205	104.280				
	Pb	208	108.343				
	Bi	209					
	Th	232	102.436				
	U	238	103.661				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 6	Li	7	CCV is out of limits (+/- 10%)
QC Std 6	K	39	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Friday, January 01, 2010 17:03:22
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100101\QC Std 7.138

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.011**	**ug/L**	51.563	128	0.000
	Be	9	**0.005**	**ug/L**	265.772	26	0.000
	B	11	**0.188**	**ug/L**	239.858	3008	0.000
	Na	23	**-0.666**	**ug/L**	138.056	37383	-0.001
	Mg	24	**0.053**	**ug/L**	2222.691	8336	0.000
	Al	27	**1.060**	**ug/L**	117.068	24689	0.001
	P	31	**-4.466**	**ug/L**	30.663	8824	-0.000
	K	39	**-5.858**	**ug/L**	72.801	555259	-0.009
	Ca	43	**1.697**	**ug/L**	62.696	389	0.000
>	Sc	45		**ug/L**		4180183	4180182.776
	Ti	47	**0.116**	**ug/L**	47.073	510	0.000
	V	51	**-0.627**	**ug/L**	109.785	6596	-0.001
	Cr	52	**-0.437**	**ug/L**	23.812	2730	-0.001
	Cr	53		**ug/L**		104292	-0.005
	Mn	55	**-0.008**	**ug/L**	80.726	1161	-0.000
	Fe	57	**0.671**	**ug/L**	141.532	6140	0.000
	Co	59	**0.005**	**ug/L**	35.168	228	0.000
	Ni	60	**0.015**	**ug/L**	16.227	124	0.000
	Cu	63		**ug/L**		475	0.000
	Cu	65	**0.014**	**ug/L**	107.883	269	0.000
	Zn	66	**-0.033**	**ug/L**	23.421	303	-0.000
	Zn	67		**ug/L**		13539	-0.004
	Zn	68		**ug/L**		1329	-0.001
>	Ge	74		**ug/L**		535798	535797.631
	As	75	**0.153**	**ug/L**	92.341	-62	0.000
	Se	77		**ug/L**		5821	-0.004
	Se	82	**-0.233**	**ug/L**	175.589	-33	-0.000
	Kr	83		**ug/L**		158	0.000
	Sr	88	**0.004**	**ug/L**	53.936	540	0.000
	Y	89		**ug/L**		48	-0.000
	Mo	98	**0.074**	**ug/L**	17.287	595	0.001
	Ag	107	**0.004**	**ug/L**	58.402	153	0.000
	Cd	111	**0.003**	**ug/L**	132.894	51	0.000
	Cd	114		**ug/L**		105	0.000
>	In	115		**ug/L**		351716	351715.862
	Sn	120	**0.060**	**ug/L**	31.249	1288	0.001
	Sb	121	**0.287**	**ug/L**	36.959	3689	0.005
	Sb	123		**ug/L**		2856	0.004
	Ba	135		**ug/L**		74	0.000
	Ba	137	**0.002**	**ug/L**	353.481	98	0.000
	Ho	165		**ug/L**		69	0.000
>	Lu	175		**ug/L**		706391	706390.554
	Tl	205	**0.092**	**ug/L**	29.362	4491	0.003
	Pb	208	**0.005**	**ug/L**	34.827	1889	0.000
	Bi	209		**ug/L**		288	-0.000
	Th	232	**0.040**	**ug/L**	34.722	5287	0.003
	U	238	**0.009**	**ug/L**	41.831	2784	0.001

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	0.9999
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9999
U	238Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		91.2			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		92.0			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		91.5			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		93.4			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 10
Sample Date/Time: Friday, January 01, 2010 17:09:29
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100101\QC Std 10.139

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**956.316**	**ug/L**	4.247	1778158	0.467
	Be	9	**942.912**	**ug/L**	3.780	472323	0.124
	B	11	**-1.058**	**ug/L**	8.057	2014	-0.000
	Na	23	**46874.765**	**ug/L**	5.368	240291154	63.012
	Mg	24	**49834.222**	**ug/L**	5.099	171557191	44.997
	Al	27	**46632.197**	**ug/L**	5.014	235227459	61.719
	P	31	**23241.304**	**ug/L**	1.950	6687646	1.751
	K	39	**50910.450**	**ug/L**	1.762	299078966	78.244
	Ca	43	**46884.389**	**ug/L**	2.403	686511	0.180
>	Sc	45		**ug/L**		3814188	3814187.529
	Ti	47	**40.635**	**ug/L**	5.562	30294	0.008
	V	51	**894.247**	**ug/L**	2.336	6940601	1.817
	Cr	52	**880.222**	**ug/L**	2.058	5336409	1.398
	Cr	53		**ug/L**		771994	0.172
	Mn	55	**925.881**	**ug/L**	2.667	8903426	2.335
	Fe	57	**48827.347**	**ug/L**	2.024	8896481	2.332
	Co	59	**848.683**	**ug/L**	1.200	6386517	1.675
	Ni	60	**849.803**	**ug/L**	2.281	1421430	0.373
	Cu	63		**ug/L**		3293032	0.863
	Cu	65	**791.687**	**ug/L**	3.274	1551572	0.407
	Zn	66	**2295.661**	**ug/L**	1.152	2913152	6.125
	Zn	67		**ug/L**		465763	0.950
	Zn	68		**ug/L**		1866589	3.922
>	Ge	74		**ug/L**		475594	475594.411
	As	75	**850.936**	**ug/L**	1.328	1083238	2.278
	Se	77		**ug/L**		52517	0.095
	Se	82	**465.626**	**ug/L**	1.311	60289	0.127
	Kr	83		**ug/L**		195	0.000
	Sr	88	**1014.442**	**ug/L**	1.185	13879025	45.610
	Y	89		**ug/L**		563	0.002
	Mo	98	**1020.573**	**ug/L**	3.478	3695542	12.145
	Ag	107	**223.948**	**ug/L**	0.756	1403695	4.612
	Cd	111	**862.610**	**ug/L**	1.471	1367320	4.493
	Cd	114		**ug/L**		3421370	11.244
>	In	115		**ug/L**		304300	304299.933
	Sn	120	**962.401**	**ug/L**	2.615	6131778	20.149
	Sb	121	**238.369**	**ug/L**	4.177	1215085	3.988
	Sb	123		**ug/L**		982927	3.226
	Ba	135		**ug/L**		1538952	2.300
	Ba	137	**875.498**	**ug/L**	2.564	2961031	4.425
	Ho	165		**ug/L**		517	0.001
>	Lu	175		**ug/L**		669074	669074.219
	Tl	205	**487.612**	**ug/L**	0.661	12214299	18.253
	Pb	208	**4932.647**	**ug/L**	2.542	192307972	287.454
	Bi	209		**ug/L**		5641	0.008
	Th	232	**2633.327**	**ug/L**	1.337	123281571	184.272
	U	238	**5440.606**	**ug/L**	0.798	272825077	407.788

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	0.9999
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7	95.632				
	Be	9	94.291				
	B	11					
	Na	23	93.750				
	Mg	24	99.668				
	Al	27	93.264				
	P	31	92.965				
	K	39	101.821				
	Ca	43	93.769				
>	Sc	45		83.2			
	Ti	47					
	V	51	89.425				
	Cr	52	88.022				
	Cr	53					
	Mn	55	92.588				
	Fe	57	97.655				
	Co	59	84.868				
	Ni	60	84.980				
	Cu	63					
	Cu	65	79.169				
	Zn	66	91.826				
	Zn	67					
	Zn	68					
>	Ge	74		81.7			
	As	75	85.094				
	Se	77					
	Se	82	93.125				
	Kr	83					
	Sr	88	101.444				
	Y	89					
	Mo	98	102.057				
	Ag	107	89.579				
	Cd	111	86.261				
	Cd	114					
>	In	115		79.2			
	Sn	120	96.240				
	Sb	121	95.348				
	Sb	123					
	Ba	135					
	Ba	137	87.550				
	Ho	165					
>	Lu	175		88.5			
	Tl	205	97.522				
	Pb	208	98.653				
	Bi	209					
	Th	232	105.333				
	U	238	108.812				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 10	V	51	LRS is out of limits (+/- 10%)
QC Std 10	Cr	52	LRS is out of limits (+/- 10%)
QC Std 10	Co	59	LRS is out of limits (+/- 10%)
QC Std 10	Ni	60	LRS is out of limits (+/- 10%)
QC Std 10	Cu	65	LRS is out of limits (+/- 10%)
QC Std 10	As	75	LRS is out of limits (+/- 10%)
QC Std 10	Ag	107	LRS is out of limits (+/- 10%)

QC Std 10	Cd	111LRS is out of limits (+/- 10%)
In 115 Int Std for QCIn		115
QC Std 10	Ba	137LRS is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 11
Sample Date/Time: Friday, January 01, 2010 17:15:34
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100101\QC Std 11.140

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**49.287**	ug/L	2.855	102808	0.024
	Be	9	**49.076**	ug/L	0.672	27570	0.006
	B	11	**92.830**	ug/L	3.401	64083	0.014
	Na	23	**4929.296**	ug/L	6.928	28336221	6.626
	Mg	24	**5062.375**	ug/L	1.309	19531161	4.571
	Al	27	**4753.608**	ug/L	8.753	26883138	6.292
	P	31	**4596.475**	ug/L	1.038	1489646	0.346
	K	39	**5410.114**	ug/L	5.212	36115933	8.315
	Ca	43	**4907.457**	ug/L	1.068	80834	0.019
>	Sc	45		ug/L		4270926	4270925.729
	Ti	47	**49.209**	ug/L	0.699	41032	0.010
	V	51	**51.634**	ug/L	3.552	460398	0.105
	Cr	52	**51.988**	ug/L	1.864	358395	0.083
	Cr	53		ug/L		140929	0.003
	Mn	55	**53.795**	ug/L	1.781	580740	0.136
	Fe	57	**5319.477**	ug/L	2.504	1091141	0.254
	Co	59	**51.579**	ug/L	2.156	434835	0.102
	Ni	60	**52.078**	ug/L	1.359	97677	0.023
	Cu	63		ug/L		226034	0.053
	Cu	65	**51.071**	ug/L	1.187	112377	0.026
	Zn	66	**53.585**	ug/L	0.787	76390	0.143
	Zn	67		ug/L		26473	0.021
	Zn	68		ug/L		56254	0.103
>	Ge	74		ug/L		531864	531863.857
	As	75	**50.259**	ug/L	0.616	71295	0.135
	Se	77		ug/L		10736	0.005
	Se	82	**50.997**	ug/L	1.646	7386	0.014
	Kr	83		ug/L		120	0.000
	Sr	88	**55.358**	ug/L	0.870	857454	2.489
	Y	89		ug/L		101	0.000
	Mo	98	**51.148**	ug/L	1.556	209860	0.609
	Ag	107	**52.158**	ug/L	0.379	370021	1.074
	Cd	111	**50.579**	ug/L	1.186	90765	0.263
	Cd	114		ug/L		214228	0.622
>	In	115		ug/L		344332	344331.628
	Sn	120	**53.939**	ug/L	1.439	389658	1.129
	Sb	121	**54.226**	ug/L	2.430	314337	0.907
	Sb	123		ug/L		247368	0.714
	Ba	135		ug/L		101405	0.148
	Ba	137	**51.333**	ug/L	2.655	178243	0.259
	Ho	165		ug/L		102	0.000
>	Lu	175		ug/L		686831	686830.990
	Tl	205	**54.234**	ug/L	2.828	1395879	2.030
	Pb	208	**56.517**	ug/L	1.429	2263373	3.294
	Bi	209		ug/L		720	0.001
	Th	232	**55.175**	ug/L	2.746	2654053	3.861
	U	238	**55.900**	ug/L	2.978	2878983	4.190

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	0.9999
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9999
U	238Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7	98.574				
	Be	9	98.153				
	B	11	92.830				
	Na	23	98.586				
	Mg	24	101.247				
	Al	27	94.131				
	P	31	91.930				
	K	39	108.202				
	Ca	43	98.149				
>	Sc	45		93.2			
	Ti	47	98.418				
	V	51	103.269				
	Cr	52	103.976				
	Cr	53					
	Mn	55	107.590				
	Fe	57	106.390				
	Co	59	103.158				
	Ni	60	104.156				
	Cu	63					
	Cu	65	102.141				
	Zn	66	107.170				
	Zn	67					
	Zn	68					
>	Ge	74		91.4			
	As	75	100.519				
	Se	77					
	Se	82	101.994				
	Kr	83					
	Sr	88	110.715				
	Y	89					
	Mo	98	102.297				
	Ag	107	104.317				
	Cd	111	101.157				
	Cd	114					
>	In	115		89.6			
	Sn	120	107.877				
	Sb	121	108.453				
	Sb	123					
	Ba	135					
	Ba	137	102.665				
	Ho	165					
>	Lu	175		90.8			
	Tl	205	108.468				
	Pb	208	113.035				
	Bi	209					
	Th	232	110.349				
	U	238	111.800				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 11	Sr	88	CCV is out of limits (+/- 10%)
QC Std 11	Pb	208	CCV is out of limits (+/- 10%)
QC Std 11	Th	232	CCV is out of limits (+/- 10%)
QC Std 11	U	238	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 12
Sample Date/Time: Friday, January 01, 2010 17:21:41
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100101\QC Std 12.141

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.042**	ug/L	15.452	201	0.000
	Be	9	**0.009**	ug/L	26.845	29	0.000
	B	11	**-0.309**	ug/L	135.316	2824	-0.000
	Na	23	**-0.296**	ug/L	109.853	41393	-0.000
	Mg	24	**0.005**	ug/L	18002.157	8670	0.000
	Al	27	**-0.590**	ug/L	54.107	16343	-0.001
	P	31	**-5.871**	ug/L	21.010	8800	-0.000
	K	39	**-3.904**	ug/L	87.214	596201	-0.006
	Ca	43	**-1.490**	ug/L	95.124	355	-0.000
>	Sc	45		ug/L		4386440	4386439.944
	Ti	47	**-0.053**	ug/L	11.253	393	-0.000
	V	51	**-0.296**	ug/L	109.276	9928	-0.001
	Cr	52	**-0.360**	ug/L	23.856	3396	-0.001
	Cr	53		ug/L		106651	-0.006
	Mn	55	**-0.012**	ug/L	40.497	1181	-0.000
	Fe	57	**-1.179**	ug/L	103.984	6055	-0.000
	Co	59	**0.004**	ug/L	94.018	227	0.000
	Ni	60	**0.006**	ug/L	73.143	111	0.000
	Cu	63		ug/L		589	0.000
	Cu	65	**0.033**	ug/L	4.870	327	0.000
	Zn	66	**-0.018**	ug/L	27.350	331	-0.000
	Zn	67		ug/L		14309	-0.003
	Zn	68		ug/L		1472	-0.000
>	Ge	74		ug/L		547459	547458.774
	As	75	**0.180**	ug/L	132.412	-25	0.000
	Se	77		ug/L		5678	-0.005
	Se	82	**0.099**	ug/L	38.566	16	0.000
	Kr	83		ug/L		113	0.000
	Sr	88	**0.004**	ug/L	65.629	549	0.000
	Y	89		ug/L		50	0.000
	Mo	98	**0.109**	ug/L	11.813	741	0.001
	Ag	107	**0.002**	ug/L	49.727	145	0.000
	Cd	111	**0.005**	ug/L	123.820	54	0.000
	Cd	114		ug/L		108	0.000
>	In	115		ug/L		351463	351463.428
	Sn	120	**0.527**	ug/L	24.814	4711	0.011
	Sb	121	**0.982**	ug/L	17.802	7769	0.016
	Sb	123		ug/L		6070	0.013
	Ba	135		ug/L		61	0.000
	Ba	137	**0.009**	ug/L	32.405	122	0.000
	Ho	165		ug/L		62	0.000
>	Lu	175		ug/L		704221	704220.628
	Tl	205	**0.128**	ug/L	23.113	5411	0.005
	Pb	208	**0.034**	ug/L	12.658	3077	0.002
	Bi	209		ug/L		278	-0.000
	Th	232	**0.109**	ug/L	16.859	8696	0.008
	U	238	**0.063**	ug/L	8.681	5627	0.005

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	0.9999
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9999
U	238Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		95.7			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		94.0			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		91.4			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		93.1			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 8
Sample Date/Time: Friday, January 01, 2010 18:18:58
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100101\QC Std 8.150

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**49.650**	**ug/L**	2.453	109863	0.024
	Be	9	**49.218**	**ug/L**	1.765	29330	0.006
	B	11	**90.775**	**ug/L**	3.359	66554	0.014
	Na	23	**5017.776**	**ug/L**	2.083	30603119	6.745
	Mg	24	**5394.933**	**ug/L**	3.088	22078704	4.871
	Al	27	**4945.576**	**ug/L**	6.254	29683465	6.546
	P	31	**4678.272**	**ug/L**	1.478	1608059	0.352
	K	39	**5235.289**	**ug/L**	4.321	37092039	8.046
	Ca	43	**4940.260**	**ug/L**	2.234	86315	0.019
>	Sc	45		**ug/L**		4530797	4530796.611
	Ti	47	**47.311**	**ug/L**	0.341	41868	0.009
	V	51	**50.488**	**ug/L**	4.080	477829	0.103
	Cr	52	**51.460**	**ug/L**	1.561	376384	0.082
	Cr	53		**ug/L**		142774	0.001
	Mn	55	**52.871**	**ug/L**	1.293	605538	0.133
	Fe	57	**5306.258**	**ug/L**	1.624	1154693	0.253
	Co	59	**51.323**	**ug/L**	1.738	459007	0.101
	Ni	60	**52.488**	**ug/L**	1.856	104426	0.023
	Cu	63		**ug/L**		241442	0.053
	Cu	65	**50.395**	**ug/L**	1.932	117641	0.026
	Zn	66	**52.500**	**ug/L**	1.779	78128	0.140
	Zn	67		**ug/L**		24975	0.016
	Zn	68		**ug/L**		57688	0.101
>	Ge	74		**ug/L**		555187	555186.662
	As	75	**49.359**	**ug/L**	2.219	73076	0.132
	Se	77		**ug/L**		11598	0.006
	Se	82	**50.336**	**ug/L**	3.069	7609	0.014
	Kr	83		**ug/L**		112	0.000
	Sr	88	**54.340**	**ug/L**	1.867	877177	2.443
	Y	89		**ug/L**		175	0.000
	Mo	98	**51.396**	**ug/L**	2.389	219746	0.612
	Ag	107	**51.867**	**ug/L**	2.047	383446	1.068
	Cd	111	**49.948**	**ug/L**	3.588	93390	0.260
	Cd	114		**ug/L**		219518	0.612
>	In	115		**ug/L**		358917	358916.927
	Sn	120	**51.508**	**ug/L**	2.449	387822	1.078
	Sb	121	**51.423**	**ug/L**	1.575	310807	0.860
	Sb	123		**ug/L**		246779	0.683
	Ba	135		**ug/L**		105351	0.148
	Ba	137	**51.811**	**ug/L**	2.430	185919	0.262
	Ho	165		**ug/L**		109	0.000
>	Lu	175		**ug/L**		709689	709688.600
	Tl	205	**52.592**	**ug/L**	0.763	1399123	1.969
	Pb	208	**55.185**	**ug/L**	1.441	2283819	3.216
	Bi	209		**ug/L**		774	0.001
	Th	232	**53.126**	**ug/L**	1.970	2641336	3.718
	U	238	**53.515**	**ug/L**	1.349	2848673	4.011

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	0.9999
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9999
U	238Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7	99.300				
	Be	9	98.436				
	B	11	90.775				
	Na	23	100.356				
	Mg	24	107.899				
	Al	27	97.932				
	P	31	93.565				
	K	39	104.706				
	Ca	43	98.805				
>	Sc	45		98.9			
	Ti	47	94.622				
	V	51	100.976				
	Cr	52	102.920				
	Cr	53					
	Mn	55	105.743				
	Fe	57	106.125				
	Co	59	102.647				
	Ni	60	104.977				
	Cu	63					
	Cu	65	100.790				
	Zn	66	105.000				
	Zn	67					
	Zn	68					
>	Ge	74		95.4			
	As	75	98.718				
	Se	77					
	Se	82	100.671				
	Kr	83					
	Sr	88	108.679				
	Y	89					
	Mo	98	102.792				
	Ag	107	103.733				
	Cd	111	99.896				
	Cd	114					
>	In	115		93.4			
	Sn	120	103.016				
	Sb	121	102.847				
	Sb	123					
	Ba	135					
	Ba	137	103.622				
	Ho	165					
>	Lu	175		93.8			
	Tl	205	105.184				
	Pb	208	110.370				
	Bi	209					
	Th	232	106.252				
	U	238	107.031				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 8	Pb	208	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 9
Sample Date/Time: Friday, January 01, 2010 18:25:06
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100101\QC Std 9.151

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.038**	**ug/L**	25.536	199	0.000
	Be	9	**0.010**	**ug/L**	95.899	31	0.000
	B	11	**-0.553**	**ug/L**	81.203	2742	-0.000
	Na	23	**-0.867**	**ug/L**	191.497	39055	-0.001
	Mg	24	**0.358**	**ug/L**	74.438	10337	0.000
	Al	27	**-0.623**	**ug/L**	48.555	16676	-0.001
	P	31	**-6.017**	**ug/L**	26.778	9003	-0.000
	K	39	**-4.696**	**ug/L**	114.587	608380	-0.007
	Ca	43	**-0.049**	**ug/L**	2726.127	391	-0.000
>	Sc	45		**ug/L**		4516819	4516819.375
	Ti	47	**-0.016**	**ug/L**	288.664	437	-0.000
	V	51	**-0.396**	**ug/L**	52.846	9368	-0.001
	Cr	52	**0.207**	**ug/L**	36.558	7563	0.000
	Cr	53		**ug/L**		105546	-0.007
	Mn	55	**0.026**	**ug/L**	15.965	1645	0.000
	Fe	57	**4.822**	**ug/L**	24.390	7531	0.000
	Co	59	**0.004**	**ug/L**	21.288	238	0.000
	Ni	60	**0.005**	**ug/L**	102.640	112	0.000
	Cu	63		**ug/L**		497	0.000
	Cu	65	**-0.001**	**ug/L**	891.421	257	-0.000
	Zn	66	**-0.015**	**ug/L**	78.296	344	-0.000
	Zn	67		**ug/L**		12794	-0.006
	Zn	68		**ug/L**		1162	-0.001
>	Ge	74		**ug/L**		560406	560406.114
	As	75	**0.310**	**ug/L**	42.471	171	0.001
	Se	77		**ug/L**		6291	-0.004
	Se	82	**0.020**	**ug/L**	281.554	4	0.000
	Kr	83		**ug/L**		115	0.000
	Sr	88	**0.004**	**ug/L**	33.439	553	0.000
	Y	89		**ug/L**		73	0.000
	Mo	98	**0.018**	**ug/L**	37.742	373	0.000
	Ag	107	**0.007**	**ug/L**	50.830	185	0.000
	Cd	111	**0.005**	**ug/L**	108.318	57	0.000
	Cd	114		**ug/L**		113	0.000
>	In	115		**ug/L**		362505	362504.596
	Sn	120	**0.070**	**ug/L**	23.632	1398	0.001
	Sb	121	**0.245**	**ug/L**	41.547	3555	0.004
	Sb	123		**ug/L**		2744	0.003
	Ba	135		**ug/L**		90	0.000
	Ba	137	**0.013**	**ug/L**	34.604	138	0.000
	Ho	165		**ug/L**		65	0.000
>	Lu	175		**ug/L**		700338	700338.302
	Tl	205	**0.173**	**ug/L**	22.699	6574	0.006
	Pb	208	**0.007**	**ug/L**	13.932	1955	0.000
	Bi	209		**ug/L**		291	-0.000
	Th	232	**0.027**	**ug/L**	30.682	4624	0.002
	U	238	**0.007**	**ug/L**	18.822	2657	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	0.9999
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		98.5			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		96.3			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		94.3			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		92.6			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 8
Sample Date/Time: Friday, January 01, 2010 19:20:11
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100101\QC Std 8.160

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**51.974**	ug/L	2.692	110328	0.025
	Be	9	**50.755**	ug/L	3.030	29014	0.007
	B	11	**90.837**	ug/L	1.172	63917	0.014
	Na	23	**5148.289**	ug/L	4.668	30117355	6.921
	Mg	24	**4817.202**	ug/L	2.734	18931073	4.350
	Al	27	**5062.660**	ug/L	6.464	29123400	6.701
	P	31	**4668.876**	ug/L	0.911	1540112	0.352
	K	39	**5253.272**	ug/L	0.843	35725490	8.074
	Ca	43	**5017.750**	ug/L	0.974	84130	0.019
>	Sc	45		ug/L		4348364	4348364.345
	Ti	47	**46.883**	ug/L	0.800	39828	0.009
	V	51	**51.018**	ug/L	1.254	463242	0.104
	Cr	52	**51.902**	ug/L	1.931	364184	0.082
	Cr	53		ug/L		136038	0.001
	Mn	55	**52.917**	ug/L	2.005	581461	0.133
	Fe	57	**5367.443**	ug/L	1.670	1120753	0.256
	Co	59	**52.252**	ug/L	1.978	448404	0.103
	Ni	60	**53.514**	ug/L	3.019	102135	0.023
	Cu	63		ug/L		235679	0.054
	Cu	65	**51.188**	ug/L	0.713	114679	0.026
	Zn	66	**51.979**	ug/L	1.411	75759	0.139
	Zn	67		ug/L		23649	0.015
	Zn	68		ug/L		56082	0.100
>	Ge	74		ug/L		543723	543723.337
	As	75	**49.264**	ug/L	1.139	71428	0.132
	Se	77		ug/L		10916	0.005
	Se	82	**50.171**	ug/L	1.815	7427	0.014
	Kr	83		ug/L		108	-0.000
	Sr	88	**54.739**	ug/L	1.431	853726	2.461
	Y	89		ug/L		194	0.000
	Mo	98	**51.428**	ug/L	1.346	212433	0.612
	Ag	107	**52.894**	ug/L	1.830	377790	1.089
	Cd	111	**50.661**	ug/L	2.103	91524	0.264
	Cd	114		ug/L		216291	0.624
>	In	115		ug/L		346702	346701.741
	Sn	120	**52.302**	ug/L	0.861	380454	1.095
	Sb	121	**51.918**	ug/L	1.093	303122	0.869
	Sb	123		ug/L		240947	0.690
	Ba	135		ug/L		101868	0.147
	Ba	137	**51.727**	ug/L	2.449	181790	0.261
	Ho	165		ug/L		97	0.000
>	Lu	175		ug/L		694932	694931.813
	Tl	205	**53.394**	ug/L	0.355	1391000	1.999
	Pb	208	**55.750**	ug/L	0.751	2259299	3.249
	Bi	209		ug/L		742	0.001
	Th	232	**53.433**	ug/L	1.475	2601811	3.739
	U	238	**53.635**	ug/L	0.569	2796039	4.020

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	0.9999
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7	103.948				
	Be	9	101.511				
	B	11	90.837				
	Na	23	102.966				
	Mg	24	96.344				
	Al	27	100.251				
	P	31	93.378				
	K	39	105.065				
	Ca	43	100.355				
>	Sc	45		94.9			
	Ti	47	93.766				
	V	51	102.035				
	Cr	52	103.804				
	Cr	53					
	Mn	55	105.833				
	Fe	57	107.349				
	Co	59	104.505				
	Ni	60	107.029				
	Cu	63					
	Cu	65	102.376				
	Zn	66	103.957				
	Zn	67					
	Zn	68					
>	Ge	74		93.4			
	As	75	98.528				
	Se	77					
	Se	82	100.342				
	Kr	83					
	Sr	88	109.478				
	Y	89					
	Mo	98	102.855				
	Ag	107	105.789				
	Cd	111	101.323				
	Cd	114					
>	In	115		90.2			
	Sn	120	104.603				
	Sb	121	103.835				
	Sb	123					
	Ba	135					
	Ba	137	103.454				
	Ho	165					
>	Lu	175		91.9			
	Tl	205	106.788				
	Pb	208	111.499				
	Bi	209					
	Th	232	106.866				
	U	238	107.269				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 8	Pb	208	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 9
Sample Date/Time: Friday, January 01, 2010 19:26:19
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100101\QC Std 9.161

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.020**	**ug/L**	69.837	153	0.000
	Be	9	**0.011**	**ug/L**	123.811	30	0.000
	B	11	**-0.883**	**ug/L**	43.311	2434	-0.000
	Na	23	**-1.805**	**ug/L**	55.433	32371	-0.002
	Mg	24	**0.020**	**ug/L**	4023.251	8670	0.000
	Al	27	**0.463**	**ug/L**	388.395	22353	0.001
	P	31	**-7.991**	**ug/L**	10.037	8071	-0.001
	K	39	**-10.400**	**ug/L**	28.365	551111	-0.016
	Ca	43	**-2.293**	**ug/L**	51.492	341	-0.000
>	Sc	45		**ug/L**		4375154	4375154.302
	Ti	47	**0.008**	**ug/L**	350.713	443	0.000
	V	51	**-0.695**	**ug/L**	64.377	6349	-0.001
	Cr	52	**0.015**	**ug/L**	910.601	5985	0.000
	Cr	53		**ug/L**		100170	-0.007
	Mn	55	**0.034**	**ug/L**	52.687	1681	0.000
	Fe	57	**5.620**	**ug/L**	36.303	7459	0.000
	Co	59	**0.008**	**ug/L**	136.801	260	0.000
	Ni	60	**0.015**	**ug/L**	56.750	128	0.000
	Cu	63		**ug/L**		479	0.000
	Cu	65	**-0.003**	**ug/L**	409.012	243	-0.000
	Zn	66	**-0.027**	**ug/L**	68.900	320	-0.000
	Zn	67		**ug/L**		12253	-0.007
	Zn	68		**ug/L**		1068	-0.001
>	Ge	74		**ug/L**		551640	551640.149
	As	75	**0.102**	**ug/L**	48.268	-140	0.000
	Se	77		**ug/L**		5753	-0.005
	Se	82	**-0.021**	**ug/L**	430.503	-2	-0.000
	Kr	83		**ug/L**		121	0.000
	Sr	88	**0.006**	**ug/L**	200.091	582	0.000
	Y	89		**ug/L**		89	0.000
	Mo	98	**0.017**	**ug/L**	69.615	362	0.000
	Ag	107	**0.007**	**ug/L**	170.394	181	0.000
	Cd	111	**0.007**	**ug/L**	101.268	58	0.000
	Cd	114		**ug/L**		126	0.000
>	In	115		**ug/L**		356617	356616.696
	Sn	120	**0.052**	**ug/L**	10.198	1240	0.001
	Sb	121	**0.232**	**ug/L**	29.654	3422	0.004
	Sb	123		**ug/L**		2699	0.003
	Ba	135		**ug/L**		83	0.000
	Ba	137	**0.012**	**ug/L**	70.694	133	0.000
	Ho	165		**ug/L**		62	0.000
>	Lu	175		**ug/L**		699421	699420.868
	Tl	205	**0.088**	**ug/L**	28.860	4343	0.003
	Pb	208	**0.008**	**ug/L**	137.337	2023	0.000
	Bi	209		**ug/L**		298	0.000
	Th	232	**0.021**	**ug/L**	28.426	4293	0.001
	U	238	**0.009**	**ug/L**	129.396	2777	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	0.9999
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		95.5			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		94.8			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		92.8			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		92.5			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 8
Sample Date/Time: Friday, January 01, 2010 19:57:01
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100101\QC Std 8.166

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**53.918**	ug/L	2.099	110320	0.026
	Be	9	**51.758**	ug/L	1.792	28522	0.007
	B	11	**91.418**	ug/L	1.339	61961	0.014
	Na	23	**4735.308**	ug/L	4.061	26717008	6.365
	Mg	24	**4973.200**	ug/L	9.767	18820680	4.490
	Al	27	**5215.739**	ug/L	7.661	28936711	6.903
	P	31	**4670.132**	ug/L	1.389	1484457	0.352
	K	39	**5303.824**	ug/L	1.357	34749384	8.151
	Ca	43	**5013.411**	ug/L	0.769	81003	0.019
>	Sc	45		ug/L		4190138	4190137.984
	Ti	47	**47.743**	ug/L	2.403	39059	0.009
	V	51	**51.618**	ug/L	0.909	451545	0.105
	Cr	52	**53.044**	ug/L	1.357	358604	0.084
	Cr	53		ug/L		133972	0.002
	Mn	55	**54.031**	ug/L	2.648	572170	0.136
	Fe	57	**5528.365**	ug/L	0.479	1112338	0.264
	Co	59	**53.004**	ug/L	0.957	438388	0.105
	Ni	60	**53.992**	ug/L	0.641	99340	0.024
	Cu	63		ug/L		227476	0.054
	Cu	65	**52.105**	ug/L	1.694	112460	0.027
	Zn	66	**52.784**	ug/L	1.775	74392	0.141
	Zn	67		ug/L		22949	0.015
	Zn	68		ug/L		54925	0.101
>	Ge	74		ug/L		525791	525791.448
	As	75	**49.235**	ug/L	1.436	69041	0.132
	Se	77		ug/L		10589	0.005
	Se	82	**51.014**	ug/L	1.541	7304	0.014
	Kr	83		ug/L		117	0.000
	Sr	88	**53.338**	ug/L	1.155	822154	2.398
	Y	89		ug/L		204	0.000
	Mo	98	**50.896**	ug/L	1.964	207723	0.606
	Ag	107	**51.613**	ug/L	2.802	364205	1.063
	Cd	111	**49.421**	ug/L	0.989	88226	0.257
	Cd	114		ug/L		211113	0.616
>	In	115		ug/L		342592	342591.810
	Sn	120	**51.749**	ug/L	1.367	371935	1.083
	Sb	121	**51.568**	ug/L	2.870	297463	0.863
	Sb	123		ug/L		233603	0.678
	Ba	135		ug/L		99363	0.147
	Ba	137	**51.334**	ug/L	2.155	175590	0.259
	Ho	165		ug/L		103	0.000
>	Lu	175		ug/L		676501	676500.953
	Tl	205	**53.216**	ug/L	1.323	1349352	1.992
	Pb	208	**56.139**	ug/L	2.294	2214149	3.272
	Bi	209		ug/L		740	0.001
	Th	232	**53.135**	ug/L	1.393	2518453	3.718
	U	238	**53.886**	ug/L	1.806	2734076	4.039

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	0.9999
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7	107.836				
	Be	9	103.515				
	B	11	91.418				
	Na	23	94.706				
	Mg	24	99.464				
	Al	27	103.282				
	P	31	93.403				
	K	39	106.076				
	Ca	43	100.268				
>	Sc	45		91.4			
	Ti	47	95.485				
	V	51	103.235				
	Cr	52	106.089				
	Cr	53					
	Mn	55	108.063				
	Fe	57	110.567				
	Co	59	106.009				
	Ni	60	107.984				
	Cu	63					
	Cu	65	104.210				
	Zn	66	105.569				
	Zn	67					
	Zn	68					
>	Ge	74		90.3			
	As	75	98.471				
	Se	77					
	Se	82	102.028				
	Kr	83					
	Sr	88	106.676				
	Y	89					
	Mo	98	101.793				
	Ag	107	103.227				
	Cd	111	98.841				
	Cd	114					
>	In	115		89.1			
	Sn	120	103.498				
	Sb	121	103.136				
	Sb	123					
	Ba	135					
	Ba	137	102.669				
	Ho	165					
>	Lu	175		89.5			
	Tl	205	106.433				
	Pb	208	112.278				
	Bi	209					
	Th	232	106.270				
	U	238	107.771				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 8	Fe	57	CCV is out of limits (+/- 10%)
QC Std 8	Pb	208	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 9
Sample Date/Time: Friday, January 01, 2010 20:03:09
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100101\QC Std 9.167

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.039**	ug/L	49.173	188	0.000
	Be	9	**0.017**	ug/L	48.630	33	0.000
	B	11	**-1.016**	ug/L	50.643	2271	-0.000
	Na	23	**-0.236**	ug/L	339.748	40391	-0.000
	Mg	24	**1.134**	ug/L	81.899	12673	0.001
	Al	27	**0.277**	ug/L	336.199	20682	0.000
	P	31	**-6.953**	ug/L	22.857	8164	-0.001
	K	39	**-10.894**	ug/L	42.674	531040	-0.017
	Ca	43	**-0.973**	ug/L	126.535	352	-0.000
>	Sc	45		ug/L		4242965	4242965.113
	Ti	47	**0.024**	ug/L	66.830	443	0.000
	V	51	**-0.950**	ug/L	58.900	4014	-0.002
	Cr	52	**0.063**	ug/L	50.204	6136	0.000
	Cr	53		ug/L		99536	-0.007
	Mn	55	**0.044**	ug/L	61.082	1736	0.000
	Fe	57	**6.905**	ug/L	30.964	7499	0.000
	Co	59	**0.009**	ug/L	99.499	264	0.000
	Ni	60	**0.016**	ug/L	49.501	126	0.000
	Cu	63		ug/L		431	-0.000
	Cu	65	**-0.012**	ug/L	65.098	217	-0.000
	Zn	66	**-0.025**	ug/L	41.848	313	-0.000
	Zn	67		ug/L		12020	-0.006
	Zn	68		ug/L		1020	-0.001
>	Ge	74		ug/L		533730	533729.814
	As	75	**0.059**	ug/L	177.073	-194	0.000
	Se	77		ug/L		5687	-0.005
	Se	82	**0.080**	ug/L	14.472	13	0.000
	Kr	83		ug/L		105	-0.000
	Sr	88	**0.008**	ug/L	134.022	590	0.000
	Y	89		ug/L		78	0.000
	Mo	98	**0.025**	ug/L	23.273	384	0.000
	Ag	107	**0.009**	ug/L	103.438	187	0.000
	Cd	111	**0.009**	ug/L	72.285	60	0.000
	Cd	114		ug/L		106	0.000
>	In	115		ug/L		343628	343628.326
	Sn	120	**0.054**	ug/L	19.161	1210	0.001
	Sb	121	**0.254**	ug/L	27.892	3418	0.004
	Sb	123		ug/L		2742	0.003
	Ba	135		ug/L		96	0.000
	Ba	137	**0.017**	ug/L	26.022	149	0.000
	Ho	165		ug/L		67	0.000
>	Lu	175		ug/L		683562	683562.309
	Tl	205	**0.081**	ug/L	20.565	4065	0.003
	Pb	208	**0.009**	ug/L	66.514	1997	0.001
	Bi	209		ug/L		284	-0.000
	Th	232	**0.027**	ug/L	12.968	4478	0.002
	U	238	**0.009**	ug/L	63.757	2715	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	0.9999
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		92.6			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		91.7			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		89.4			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		90.4			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1201994303
Sample Date/Time: Friday, January 01, 2010 20:09:20
Sample Type:
Sample Description: LANL 6020 MB
Number of Replicates: 3
Batch ID: 932317|2|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100101\1201994303.168

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.008**	**ug/L**	60.779	124	0.000
	Be	9	**-0.017**	**ug/L**	35.454	14	-0.000
	B	11	**-2.251**	**ug/L**	4.554	1460	-0.000
	Na	23	**1.476**	**ug/L**	15.637	50088	0.002
	Mg	24	**-1.034**	**ug/L**	126.688	4335	-0.001
	Al	27	**-0.970**	**ug/L**	30.806	13673	-0.001
	P	31	**15.234**	**ug/L**	6.820	15241	0.001
	K	39	**-9.776**	**ug/L**	84.488	538010	-0.015
	Ca	43	**9.106**	**ug/L**	30.364	515	0.000
>	Sc	45		**ug/L**		4239217	4239216.547
	Ti	47	**0.478**	**ug/L**	59.159	813	0.000
	V	51	**-0.319**	**ug/L**	62.726	9426	-0.001
	Cr	52	**0.466**	**ug/L**	8.309	8843	0.001
	Cr	53		**ug/L**		79325	-0.012
	Mn	55	**0.235**	**ug/L**	2.250	3777	0.001
	Fe	57	**24.917**	**ug/L**	4.735	11137	0.001
	Co	59	**-0.012**	**ug/L**	12.474	89	-0.000
	Ni	60	**0.059**	**ug/L**	11.091	206	0.000
	Cu	63		**ug/L**		631	0.000
	Cu	65	**0.040**	**ug/L**	9.587	331	0.000
	Zn	66	**1.130**	**ug/L**	4.809	1905	0.003
	Zn	67		**ug/L**		9901	-0.010
	Zn	68		**ug/L**		2070	0.001
>	Ge	74		**ug/L**		519666	519665.920
	As	75	**0.117**	**ug/L**	101.970	-110	0.000
	Se	77		**ug/L**		4183	-0.007
	Se	82	**0.127**	**ug/L**	49.288	19	0.000
	Kr	83		**ug/L**		100	-0.000
	Sr	88	**0.024**	**ug/L**	6.460	833	0.001
	Y	89		**ug/L**		67	0.000
	Mo	98	**-0.007**	**ug/L**	147.146	249	-0.000
	Ag	107	**-0.010**	**ug/L**	11.121	57	-0.000
	Cd	111	**-0.000**	**ug/L**	6363.846	44	-0.000
	Cd	114		**ug/L**		50	-0.000
>	In	115		**ug/L**		343142	343141.618
	Sn	120	**0.071**	**ug/L**	23.009	1332	0.001
	Sb	121	**-0.203**	**ug/L**	7.293	787	-0.003
	Sb	123		**ug/L**		646	-0.003
	Ba	135		**ug/L**		130	0.000
	Ba	137	**0.030**	**ug/L**	26.933	194	0.000
	Ho	165		**ug/L**		61	0.000
>	Lu	175		**ug/L**		692441	692441.117
	Tl	205	**0.017**	**ug/L**	23.039	2463	0.001
	Pb	208	**-0.014**	**ug/L**	4.986	1095	-0.001
	Bi	209		**ug/L**		553	0.000
	Th	232	**0.005**	**ug/L**	364.611	3492	0.000
	U	238	**0.002**	**ug/L**	152.336	2358	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	0.9999
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		92.5			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		89.3			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		89.3			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		91.6			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1201994304
Sample Date/Time: Friday, January 01, 2010 20:21:42
Sample Type:
Sample Description: LANL 6020 LCS
Number of Replicates: 3
Batch ID: 932317|40|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100101\1201994304.170

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**2.644**	**ug/L**	2.744	5423	0.001
	Be	9	**19.356**	**ug/L**	0.350	10511	0.003
	B	11	**32.855**	**ug/L**	2.523	23737	0.005
	Na	23	**242.233**	**ug/L**	5.744	1382963	0.326
	Mg	24	**1075.346**	**ug/L**	4.407	4010965	0.971
	Al	27	**2907.875**	**ug/L**	5.831	15883104	3.849
	P	31	**185.420**	**ug/L**	3.036	67684	0.014
	K	39	**1144.455**	**ug/L**	9.833	7836303	1.759
	Ca	43	**2405.578**	**ug/L**	0.760	38434	0.009
>	Sc	45		**ug/L**		4123005	4123004.852
	Ti	47	**116.225**	**ug/L**	0.593	92997	0.022
	V	51	**31.852**	**ug/L**	3.087	278698	0.065
	Cr	52	**59.603**	**ug/L**	2.627	395801	0.095
	Cr	53		**ug/L**		139032	0.003
	Mn	55	**131.153**	**ug/L**	0.902	1365131	0.331
	Fe	57	**4591.234**	**ug/L**	1.374	909968	0.219
	Co	59	**23.895**	**ug/L**	1.653	194565	0.047
	Ni	60	**34.729**	**ug/L**	1.960	62906	0.015
	Cu	63		**ug/L**		188706	0.046
	Cu	65	**43.954**	**ug/L**	0.972	93407	0.023
	Zn	66	**147.654**	**ug/L**	2.064	201127	0.394
	Zn	67		**ug/L**		42100	0.054
	Zn	68		**ug/L**		144646	0.281
>	Ge	74		**ug/L**		509766	509765.753
	As	75	**25.386**	**ug/L**	1.428	34385	0.068
	Se	77		**ug/L**		12743	0.010
	Se	82	**68.951**	**ug/L**	1.134	9570	0.019
	Kr	83		**ug/L**		121	0.000
	Sr	88	**59.745**	**ug/L**	1.992	886050	2.686
	Y	89		**ug/L**		47649	0.144
	Mo	98	**12.526**	**ug/L**	1.130	49425	0.149
	Ag	107	**3.972**	**ug/L**	2.315	27093	0.082
	Cd	111	**14.688**	**ug/L**	0.989	25275	0.077
	Cd	114		**ug/L**		59850	0.181
>	In	115		**ug/L**		329776	329776.079
	Sn	120	**7.106**	**ug/L**	1.027	49848	0.149
	Sb	121	**14.882**	**ug/L**	0.683	83987	0.249
	Sb	123		**ug/L**		65503	0.194
	Ba	135		**ug/L**		93260	0.139
	Ba	137	**48.852**	**ug/L**	1.321	165841	0.247
	Ho	165		**ug/L**		4028	0.006
>	Lu	175		**ug/L**		671305	671305.475
	Tl	205	**34.842**	**ug/L**	0.406	877448	1.304
	Pb	208	**24.050**	**ug/L**	1.273	942345	1.402
	Bi	209		**ug/L**		8386	0.012
	Th	232	**2.888**	**ug/L**	2.607	138796	0.202
	U	238	**0.508**	**ug/L**	3.540	27752	0.038

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	0.9999
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9999
U	238Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		90.0			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		87.6			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		85.8			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		88.8			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
	Ti	47	Sample is out of limits (over linear range)

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 242668001
Sample Date/Time: Friday, January 01, 2010 20:27:53
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 932317|2|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100101\242668001.171

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**24.419**	ug/L	1.125	44122	0.012
	Be	9	**2.435**	ug/L	3.793	1203	0.000
	B	11	**4.102**	ug/L	9.967	4892	0.001
	Na	23	**612.824**	ug/L	5.385	3081564	0.824
	Mg	24	**3384.751**	ug/L	5.562	11299767	3.056
	Al	27	**24850.901**	ug/L	4.483	121534187	32.891
	P	31	**222.402**	ug/L	2.284	70964	0.017
	K	39	**3231.238**	ug/L	6.070	18878506	4.966
	Ca	43	**4242.705**	ug/L	1.110	60509	0.016
>	Sc	45		ug/L		3695499	3695499.322
	Ti	47	**922.831**	ug/L	0.588	659260	0.178
	V	51	**33.051**	ug/L	2.469	258807	0.067
	Cr	52	**14.578**	ug/L	1.615	90541	0.023
	Cr	53		ug/L		65238	-0.013
	Mn	55	**496.001**	ug/L	0.675	4624098	1.251
	Fe	57	**33032.022**	ug/L	2.532	5834437	1.578
	Co	59	**6.560**	ug/L	2.269	47988	0.013
	Ni	60	**12.816**	ug/L	2.788	20860	0.006
	Cu	63		ug/L		66104	0.018
	Cu	65	**17.253**	ug/L	0.957	32989	0.009
	Zn	66	**130.509**	ug/L	1.591	157470	0.348
	Zn	67		ug/L		31626	0.041
	Zn	68		ug/L		114420	0.250
>	Ge	74		ug/L		451398	451398.060
	As	75	**6.245**	ug/L	2.750	7312	0.017
	Se	77		ug/L		2825	-0.009
	Se	82	**0.287**	ug/L	49.807	36	0.000
	Kr	83		ug/L		229	0.000
	Sr	88	**36.743**	ug/L	2.889	524874	1.652
	Y	89		ug/L		1051325	3.312
	Mo	98	**5.033**	ug/L	3.666	19268	0.060
	Ag	107	**0.224**	ug/L	3.798	1582	0.005
	Cd	111	**1.008**	ug/L	4.181	1709	0.005
	Cd	114		ug/L		990	0.003
>	In	115		ug/L		317626	317625.959
	Sn	120	**1.153**	ug/L	4.593	8422	0.024
	Sb	121	**0.183**	ug/L	2.563	2784	0.003
	Sb	123		ug/L		2153	0.002
	Ba	135		ug/L		236196	0.353
	Ba	137	**123.236**	ug/L	2.675	416983	0.623
	Ho	165		ug/L		89424	0.134
>	Lu	175		ug/L		669413	669413.419
	Tl	205	**0.365**	ug/L	6.579	11089	0.014
	Pb	208	**33.194**	ug/L	1.182	1296318	1.934
	Bi	209		ug/L		41869	0.062
	Th	232	**22.240**	ug/L	1.285	1044747	1.556
	U	238	**3.428**	ug/L	2.998	174129	0.257

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	0.9999
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		80.6			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		77.5			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		82.6			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		88.5			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
	Ti	47	Sample is out of limits (over linear range)

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1201994305
Sample Date/Time: Friday, January 01, 2010 20:34:05
Sample Type:
Sample Description: LANL 6020 DUP
Number of Replicates: 3
Batch ID: 932317|2|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100101\1201994305.172

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**22.350**	ug/L	0.971	38554	0.011
	Be	9	**2.365**	ug/L	4.347	1115	0.000
	B	11	**3.303**	ug/L	8.130	4234	0.001
	Na	23	**683.735**	ug/L	7.840	3273846	0.919
	Mg	24	**3097.006**	ug/L	2.823	9873144	2.796
	Al	27	**20693.827**	ug/L	8.121	96517933	27.389
	P	31	**218.423**	ug/L	3.822	66661	0.016
	K	39	**3249.998**	ug/L	7.779	18125074	4.995
	Ca	43	**4357.789**	ug/L	3.682	59300	0.017
>	Sc	45		ug/L		3527653	3527652.666
	Ti	47	**755.047**	ug/L	3.465	514691	0.146
	V	51	**30.519**	ug/L	4.568	228773	0.062
	Cr	52	**12.898**	ug/L	3.191	76981	0.020
	Cr	53		ug/L		57462	-0.014
	Mn	55	**456.319**	ug/L	4.657	4058492	1.151
	Fe	57	**28909.612**	ug/L	2.907	4873417	1.381
	Co	59	**5.647**	ug/L	2.929	39444	0.011
	Ni	60	**11.948**	ug/L	4.443	18560	0.005
	Cu	63		ug/L		58168	0.016
	Cu	65	**15.798**	ug/L	3.186	28838	0.008
	Zn	66	**112.535**	ug/L	1.900	129884	0.300
	Zn	67		ug/L		26386	0.032
	Zn	68		ug/L		94423	0.216
>	Ge	74		ug/L		431657	431657.302
	As	75	**6.300**	ug/L	4.694	7053	0.017
	Se	77		ug/L		2285	-0.010
	Se	82	**0.301**	ug/L	35.723	36	0.000
	Kr	83		ug/L		198	0.000
	Sr	88	**37.013**	ug/L	1.343	510556	1.664
	Y	89		ug/L		948803	3.095
	Mo	98	**4.109**	ug/L	1.375	15237	0.049
	Ag	107	**0.197**	ug/L	2.511	1356	0.004
	Cd	111	**0.929**	ug/L	3.310	1523	0.005
	Cd	114		ug/L		959	0.003
>	In	115		ug/L		306558	306557.958
	Sn	120	**0.647**	ug/L	3.629	4889	0.014
	Sb	121	**0.077**	ug/L	8.883	2143	0.001
	Sb	123		ug/L		1696	0.001
	Ba	135		ug/L		228035	0.357
	Ba	137	**125.610**	ug/L	1.095	405676	0.635
	Ho	165		ug/L		78636	0.123
>	Lu	175		ug/L		638742	638742.194
	Tl	205	**0.266**	ug/L	6.605	8207	0.010
	Pb	208	**32.493**	ug/L	0.675	1210978	1.894
	Bi	209		ug/L		39259	0.061
	Th	232	**20.804**	ug/L	0.566	932849	1.456
	U	238	**3.043**	ug/L	2.548	147742	0.228

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	0.9999
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		77.0			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		74.1			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		79.8			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		84.5			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
	Ti	47	Sample is out of limits (over linear range)

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1201994306
Sample Date/Time: Friday, January 01, 2010 20:40:17
Sample Type:
Sample Description: LANL 6020 MS
Number of Replicates: 3
Batch ID: 932317|2|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100101\1201994306.173

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**63.027**	**ug/L**	4.048	111090	0.031
	Be	9	**28.221**	**ug/L**	2.904	13413	0.004
	B	11	**49.360**	**ug/L**	5.307	29983	0.008
	Na	23	**1583.549**	**ug/L**	3.647	7724150	2.129
	Mg	24	**5139.648**	**ug/L**	7.963	16760001	4.641
	Al	27	**31951.529**	**ug/L**	7.295	152897848	42.289
	P	31	**1055.982**	**ug/L**	2.777	296112	0.080
	K	39	**5148.829**	**ug/L**	3.571	29087967	7.913
	Ca	43	**5960.931**	**ug/L**	1.443	82964	0.023
>	Sc	45		**ug/L**		3612386	3612385.623
	Ti	47	**1049.478**	**ug/L**	2.192	732572	0.203
	V	51	**65.044**	**ug/L**	2.317	487689	0.132
	Cr	52	**43.112**	**ug/L**	3.230	252067	0.068
	Cr	53		**ug/L**		80525	-0.008
	Mn	55	**525.382**	**ug/L**	2.482	4787068	1.325
	Fe	57	**37900.300**	**ug/L**	2.661	6540796	1.810
	Co	59	**31.174**	**ug/L**	3.724	222219	0.062
	Ni	60	**38.188**	**ug/L**	0.889	60595	0.017
	Cu	63		**ug/L**		157526	0.044
	Cu	65	**41.647**	**ug/L**	2.948	77510	0.021
	Zn	66	**149.552**	**ug/L**	1.939	176628	0.399
	Zn	67		**ug/L**		34943	0.050
	Zn	68		**ug/L**		130752	0.293
>	Ge	74		**ug/L**		441999	441999.023
	As	75	**40.122**	**ug/L**	0.402	47253	0.107
	Se	77		**ug/L**		3091	-0.008
	Se	82	**7.373**	**ug/L**	2.601	888	0.002
	Kr	83		**ug/L**		234	0.000
	Sr	88	**68.955**	**ug/L**	1.797	963678	3.100
	Y	89		**ug/L**		1091226	3.512
	Mo	98	**27.482**	**ug/L**	1.030	101865	0.327
	Ag	107	**22.533**	**ug/L**	2.455	144301	0.464
	Cd	111	**5.735**	**ug/L**	0.267	9323	0.030
	Cd	114		**ug/L**		17524	0.056
>	In	115		**ug/L**		310735	310734.538
	Sn	120	**15.566**	**ug/L**	0.591	102007	0.326
	Sb	121	**53.226**	**ug/L**	1.499	278435	0.890
	Sb	123		**ug/L**		220815	0.706
	Ba	135		**ug/L**		306303	0.461
	Ba	137	**162.799**	**ug/L**	1.768	546220	0.823
	Ho	165		**ug/L**		92708	0.140
>	Lu	175		**ug/L**		663720	663719.902
	Tl	205	**46.580**	**ug/L**	1.456	1159188	1.744
	Pb	208	**117.914**	**ug/L**	0.519	4562300	6.872
	Bi	209		**ug/L**		43308	0.065
	Th	232	**43.666**	**ug/L**	1.952	2031430	3.056
	U	238	**27.423**	**ug/L**	1.190	1366334	2.055

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	0.9999
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		78.8			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		75.9			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		80.8			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		87.8			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
	Ti	47	Sample is out of limits (over linear range)

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1201994308
Sample Date/Time: Friday, January 01, 2010 20:46:30
Sample Type:
Sample Description: LANL 6020 MSD
Number of Replicates: 3
Batch ID: 932317|2|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100101\1201994308.174

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**61.552**	ug/L	1.689	117647	0.030
	Be	9	**26.146**	ug/L	4.186	13466	0.003
	B	11	**50.078**	ug/L	3.700	32949	0.008
	Na	23	**1428.408**	ug/L	1.369	7559699	1.920
	Mg	24	**4749.248**	ug/L	6.622	16785476	4.288
	Al	27	**30415.391**	ug/L	2.912	157565060	40.255
	P	31	**1014.200**	ug/L	3.071	308604	0.076
	K	39	**4707.341**	ug/L	2.350	28892746	7.235
	Ca	43	**6152.592**	ug/L	2.883	92772	0.024
>	Sc	45		ug/L		3915986	3915985.679
	Ti	47	**1317.326**	ug/L	1.455	996898	0.255
	V	51	**65.101**	ug/L	4.159	528935	0.132
	Cr	52	**43.611**	ug/L	2.902	276320	0.069
	Cr	53		ug/L		89199	-0.008
	Mn	55	**639.512**	ug/L	2.150	6315271	1.613
	Fe	57	**40557.715**	ug/L	4.226	7584869	1.937
	Co	59	**31.135**	ug/L	2.653	240588	0.061
	Ni	60	**37.777**	ug/L	2.671	64946	0.017
	Cu	63		ug/L		164586	0.042
	Cu	65	**39.980**	ug/L	3.475	80650	0.021
	Zn	66	**171.555**	ug/L	1.306	211711	0.458
	Zn	67		ug/L		41308	0.060
	Zn	68		ug/L		155116	0.333
>	Ge	74		ug/L		461885	461885.410
	As	75	**38.921**	ug/L	1.420	47882	0.104
	Se	77		ug/L		3631	-0.007
	Se	82	**7.535**	ug/L	4.073	948	0.002
	Kr	83		ug/L		251	0.000
	Sr	88	**68.361**	ug/L	2.254	1037244	3.074
	Y	89		ug/L		1333447	3.953
	Mo	98	**28.360**	ug/L	1.438	114116	0.337
	Ag	107	**22.251**	ug/L	2.420	154722	0.458
	Cd	111	**5.456**	ug/L	1.207	9632	0.028
	Cd	114		ug/L		18245	0.054
>	In	115		ug/L		337387	337387.469
	Sn	120	**21.149**	ug/L	1.803	150201	0.443
	Sb	121	**53.986**	ug/L	0.868	306605	0.903
	Sb	123		ug/L		242987	0.716
	Ba	135		ug/L		362761	0.515
	Ba	137	**179.133**	ug/L	1.930	638188	0.905
	Ho	165		ug/L		121818	0.173
>	Lu	175		ug/L		704777	704777.435
	Tl	205	**45.315**	ug/L	0.660	1197531	1.696
	Pb	208	**117.244**	ug/L	1.588	4816889	6.832
	Bi	209		ug/L		203232	0.288
	Th	232	**45.715**	ug/L	2.809	2257735	3.199
	U	238	**27.874**	ug/L	2.999	1474574	2.089

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	0.9999
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		85.4			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		79.3			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		87.8			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		93.2			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
	Ti	47	Sample is out of limits (over linear range)

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1201994307
Sample Date/Time: Friday, January 01, 2010 20:52:43
Sample Type:
Sample Description: LANL 6020 SDILT
Number of Replicates: 3
Batch ID: 932317|10|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100101\1201994307.175

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**4.774**	**ug/L**	3.157	8819	0.002
	Be	9	**0.509**	**ug/L**	11.848	271	0.000
	B	11	**-0.676**	**ug/L**	35.136	2200	-0.000
	Na	23	**126.974**	**ug/L**	6.064	675983	0.171
	Mg	24	**679.838**	**ug/L**	4.110	2306942	0.614
	Al	27	**5133.481**	**ug/L**	11.749	25436303	6.794
	P	31	**42.843**	**ug/L**	8.492	21252	0.003
	K	39	**622.430**	**ug/L**	0.708	4114898	0.957
	Ca	43	**850.253**	**ug/L**	2.611	12548	0.003
>	Sc	45		**ug/L**		3745770	3745770.052
	Ti	47	**187.015**	**ug/L**	1.055	135707	0.036
	V	51	**5.952**	**ug/L**	3.715	56065	0.012
	Cr	52	**2.154**	**ug/L**	2.632	17856	0.003
	Cr	53		**ug/L**		67431	-0.012
	Mn	55	**106.131**	**ug/L**	2.813	1003531	0.268
	Fe	57	**7036.142**	**ug/L**	2.782	1263760	0.336
	Co	59	**1.316**	**ug/L**	2.557	9891	0.003
	Ni	60	**2.566**	**ug/L**	2.937	4300	0.001
	Cu	63		**ug/L**		13875	0.004
	Cu	65	**3.417**	**ug/L**	2.074	6794	0.002
	Zn	66	**27.785**	**ug/L**	1.952	34651	0.074
	Zn	67		**ug/L**		14085	0.001
	Zn	68		**ug/L**		25513	0.052
>	Ge	74		**ug/L**		463391	463390.618
	As	75	**1.520**	**ug/L**	17.804	1643	0.004
	Se	77		**ug/L**		3154	-0.008
	Se	82	**0.126**	**ug/L**	147.618	17	0.000
	Kr	83		**ug/L**		127	0.000
	Sr	88	**7.477**	**ug/L**	2.549	106028	0.336
	Y	89		**ug/L**		220838	0.703
	Mo	98	**0.966**	**ug/L**	2.164	3866	0.011
	Ag	107	**0.034**	**ug/L**	18.488	333	0.001
	Cd	111	**0.181**	**ug/L**	17.096	337	0.001
	Cd	114		**ug/L**		221	0.000
>	In	115		**ug/L**		314185	314185.380
	Sn	120	**0.178**	**ug/L**	2.919	1923	0.004
	Sb	121	**-0.126**	**ug/L**	14.668	1131	-0.002
	Sb	123		**ug/L**		883	-0.002
	Ba	135		**ug/L**		46788	0.073
	Ba	137	**25.719**	**ug/L**	2.067	83564	0.130
	Ho	165		**ug/L**		17502	0.027
>	Lu	175		**ug/L**		642198	642198.253
	Tl	205	**0.090**	**ug/L**	11.026	4031	0.003
	Pb	208	**7.078**	**ug/L**	0.615	266458	0.412
	Bi	209		**ug/L**		8847	0.013
	Th	232	**4.846**	**ug/L**	1.839	220754	0.339
	U	238	**0.676**	**ug/L**	1.957	34633	0.051

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	0.9999
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		81.7			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		79.6			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		81.7			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		84.9			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
	Ti	47	Sample is out of limits (over linear range)

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 242668002
Sample Date/Time: Friday, January 01, 2010 20:58:55
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 932317|2|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100101\242668002.176

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**53.938**	ug/L	1.269	100646	0.026
	Be	9	**3.034**	ug/L	3.056	1544	0.000
	B	11	**9.818**	ug/L	1.187	8427	0.002
	Na	23	**1800.695**	ug/L	6.135	9282642	2.421
	Mg	24	**9249.063**	ug/L	10.964	31883913	8.351
	Al	27	**48984.655**	ug/L	0.720	247735585	64.832
	P	31	**2516.516**	ug/L	0.496	733868	0.190
	K	39	**6890.748**	ug/L	4.048	40996464	10.590
	Ca	43	**17286.430**	ug/L	1.129	253890	0.066
>	Sc	45		ug/L		3821205	3821205.336
	Ti	47	**1116.629**	ug/L	0.460	824788	0.216
	V	51	**78.241**	ug/L	1.262	618580	0.159
	Cr	52	**31.834**	ug/L	1.836	198312	0.051
	Cr	53		ug/L		77834	-0.010
	Mn	55	**1248.838**	ug/L	1.543	12039274	3.150
	Fe	57	**46834.898**	ug/L	2.224	8553583	2.237
	Co	59	**23.025**	ug/L	0.708	173766	0.045
	Ni	60	**29.082**	ug/L	2.615	48827	0.013
	Cu	63		ug/L		154733	0.040
	Cu	65	**38.508**	ug/L	1.507	75863	0.020
	Zn	66	**429.570**	ug/L	2.536	532288	1.146
	Zn	67		ug/L		92114	0.169
	Zn	68		ug/L		395501	0.849
>	Ge	74		ug/L		464240	464239.956
	As	75	**8.520**	ug/L	3.433	10349	0.023
	Se	77		ug/L		2978	-0.009
	Se	82	**0.253**	ug/L	104.185	33	0.000
	Kr	83		ug/L		234	0.000
	Sr	88	**130.458**	ug/L	1.577	1833931	5.865
	Y	89		ug/L		947551	3.031
	Mo	98	**1.703**	ug/L	3.531	6588	0.020
	Ag	107	**0.422**	ug/L	1.010	2828	0.009
	Cd	111	**2.717**	ug/L	0.992	4466	0.014
	Cd	114		ug/L		7410	0.023
>	In	115		ug/L		312640	312640.330
	Sn	120	**0.773**	ug/L	2.696	5809	0.016
	Sb	121	**0.107**	ug/L	9.346	2342	0.002
	Sb	123		ug/L		1904	0.001
	Ba	135		ug/L		870619	1.287
	Ba	137	**429.212**	ug/L	1.817	1467771	2.170
	Ho	165		ug/L		83171	0.123
>	Lu	175		ug/L		676521	676521.471
	Tl	205	**0.627**	ug/L	3.551	17854	0.023
	Pb	208	**59.091**	ug/L	1.526	2331001	3.444
	Bi	209		ug/L		27146	0.040
	Th	232	**23.904**	ug/L	2.105	1134598	1.673
	U	238	**4.467**	ug/L	2.523	228696	0.335

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	0.9999
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		83.4			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		79.7			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		81.3			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		89.5			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
	Ti	47	Sample is out of limits (over linear range)
	Mn	55	Sample is out of limits (over linear range)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Friday, January 01, 2010 21:05:04
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100101\QC Std 6.177

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**57.771**	ug/L	3.951	113958	0.028
	Be	9	**54.254**	ug/L	2.208	28831	0.007
	B	11	**95.790**	ug/L	2.023	62472	0.015
	Na	23	**4789.670**	ug/L	5.812	26069323	6.439
	Mg	24	**5378.716**	ug/L	5.513	19621741	4.857
	Al	27	**4981.038**	ug/L	8.079	26696450	6.593
	P	31	**4653.042**	ug/L	0.712	1426781	0.351
	K	39	**5223.256**	ug/L	5.075	32992392	8.028
	Ca	43	**5057.502**	ug/L	1.693	78818	0.019
>	Sc	45		ug/L		4041566	4041565.717
	Ti	47	**48.259**	ug/L	0.980	38094	0.009
	V	51	**51.099**	ug/L	1.994	431417	0.104
	Cr	52	**52.813**	ug/L	1.434	344375	0.084
	Cr	53		ug/L		126968	0.001
	Mn	55	**54.254**	ug/L	1.377	554205	0.137
	Fe	57	**5540.668**	ug/L	2.642	1074868	0.265
	Co	59	**53.739**	ug/L	3.501	428489	0.106
	Ni	60	**54.357**	ug/L	2.677	96448	0.024
	Cu	63		ug/L		222969	0.055
	Cu	65	**52.062**	ug/L	1.851	108379	0.027
	Zn	66	**52.830**	ug/L	0.985	71723	0.141
	Zn	67		ug/L		22342	0.015
	Zn	68		ug/L		52226	0.100
>	Ge	74		ug/L		506533	506532.626
	As	75	**49.202**	ug/L	2.605	66461	0.132
	Se	77		ug/L		10219	0.005
	Se	82	**49.922**	ug/L	1.831	6886	0.014
	Kr	83		ug/L		101	0.000
	Sr	88	**54.190**	ug/L	1.287	810367	2.436
	Y	89		ug/L		195	0.000
	Mo	98	**51.447**	ug/L	2.015	203728	0.612
	Ag	107	**52.253**	ug/L	1.144	357823	1.076
	Cd	111	**50.452**	ug/L	0.661	87391	0.263
	Cd	114		ug/L		205078	0.617
>	In	115		ug/L		332391	332390.855
	Sn	120	**52.247**	ug/L	1.277	364358	1.094
	Sb	121	**51.732**	ug/L	2.718	289615	0.865
	Sb	123		ug/L		230027	0.687
	Ba	135		ug/L		96716	0.145
	Ba	137	**51.178**	ug/L	1.529	172424	0.259
	Ho	165		ug/L		102	0.000
>	Lu	175		ug/L		666228	666228.151
	Tl	205	**53.481**	ug/L	1.170	1335686	2.002
	Pb	208	**55.284**	ug/L	0.314	2147968	3.222
	Bi	209		ug/L		706	0.001
	Th	232	**52.722**	ug/L	1.259	2461190	3.689
	U	238	**53.183**	ug/L	1.774	2658010	3.986

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	0.9999
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7	115.542				
	Be	9	108.509				
	B	11	95.790				
	Na	23	95.793				
	Mg	24	107.574				
	Al	27	98.634				
	P	31	93.061				
	K	39	104.465				
	Ca	43	101.150				
>	Sc	45		88.2			
	Ti	47	96.519				
	V	51	102.199				
	Cr	52	105.627				
	Cr	53					
	Mn	55	108.509				
	Fe	57	110.813				
	Co	59	107.478				
	Ni	60	108.714				
	Cu	63					
	Cu	65	104.123				
	Zn	66	105.660				
	Zn	67					
	Zn	68					
>	Ge	74		87.0			
	As	75	98.405				
	Se	77					
	Se	82	99.844				
	Kr	83					
	Sr	88	108.380				
	Y	89					
	Mo	98	102.894				
	Ag	107	104.506				
	Cd	111	100.905				
	Cd	114					
>	In	115		86.5			
	Sn	120	104.494				
	Sb	121	103.464				
	Sb	123					
	Ba	135					
	Ba	137	102.356				
	Ho	165					
>	Lu	175		88.1			
	Tl	205	106.962				
	Pb	208	110.568				
	Bi	209					
	Th	232	105.444				
	U	238	106.365				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 6	Li	7	CCV is out of limits (+/- 10%)
QC Std 6	Fe	57	CCV is out of limits (+/- 10%)
QC Std 6	Pb	208	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Friday, January 01, 2010 21:11:12
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100101\QC Std 7.178

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	0.032	ug/L	21.790	167	0.000
	Be	9	0.021	ug/L	67.661	34	0.000
	B	11	-1.068	ug/L	39.862	2152	-0.000
	Na	23	-0.500	ug/L	83.539	37382	-0.001
	Mg	24	-0.730	ug/L	55.269	5334	-0.001
	Al	27	0.361	ug/L	137.917	20348	0.000
	P	31	-7.962	ug/L	10.326	7539	-0.001
	K	39	-10.026	ug/L	52.099	516181	-0.015
	Ca	43	-1.002	ug/L	75.651	338	-0.000
>	Sc	45		ug/L		4080689	4080689.071
	Ti	47	0.003	ug/L	704.624	410	0.000
	V	51	-1.128	ug/L	90.835	2381	-0.002
	Cr	52	0.050	ug/L	50.755	5818	0.000
	Cr	53		ug/L		93956	-0.007
	Mn	55	0.020	ug/L	83.762	1422	0.000
	Fe	57	5.714	ug/L	25.455	6978	0.000
	Co	59	0.007	ug/L	59.431	241	0.000
	Ni	60	0.012	ug/L	41.264	115	0.000
	Cu	63		ug/L		396	-0.000
	Cu	65	-0.011	ug/L	28.414	211	-0.000
	Zn	66	-0.025	ug/L	29.070	302	-0.000
	Zn	67		ug/L		11809	-0.006
	Zn	68		ug/L		955	-0.001
>	Ge	74		ug/L		515657	515657.338
	As	75	0.018	ug/L	1028.233	-246	0.000
	Se	77		ug/L		5191	-0.005
	Se	82	0.073	ug/L	49.942	11	0.000
	Kr	83		ug/L		107	0.000
	Sr	88	0.008	ug/L	80.589	578	0.000
	Y	89		ug/L		73	0.000
	Mo	98	0.023	ug/L	24.325	363	0.000
	Ag	107	0.008	ug/L	66.445	177	0.000
	Cd	111	0.007	ug/L	59.693	55	0.000
	Cd	114		ug/L		122	0.000
>	In	115		ug/L		332552	332552.361
	Sn	120	0.064	ug/L	27.407	1246	0.001
	Sb	121	0.239	ug/L	37.471	3223	0.004
	Sb	123		ug/L		2559	0.003
	Ba	135		ug/L		85	0.000
	Ba	137	0.012	ug/L	72.917	128	0.000
	Ho	165		ug/L		63	0.000
>	Lu	175		ug/L		678017	678017.469
	Tl	205	0.120	ug/L	17.299	5013	0.004
	Pb	208	0.007	ug/L	81.021	1899	0.000
	Bi	209		ug/L		279	-0.000
	Th	232	0.025	ug/L	19.926	4346	0.002
	U	238	0.007	ug/L	82.384	2566	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	0.9999
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45			89.0		
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74			88.6		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115			86.5		
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175			89.7		
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Blank
Sample Date/Time: Saturday, January 02, 2010 06:35:34
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li and u.mth
Dataset File: c:\elandata\Dataset\100101\Blank.270

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7		ug/L		115	
>	Sc	45		ug/L		3735624	
>	Lu	175		ug/L		610216	
	U	238		ug/L		2040	

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Lu	175Linear Thru Zero	
U	238Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
>	Sc	45					
>	Lu	175					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Saturday, January 02, 2010 06:37:50
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li and u.mth
Dataset File: c:\elandata\Dataset\100101\Standard 1.271

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**10.000**	**ug/L**	4.529	20986	0.006
>	Sc	45		**ug/L**		3699979	3699979.166
>	Lu	175		**ug/L**		602664	602664.452
	U	238	**10.000**	**ug/L**	2.265	524565	0.867

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
>	Sc	45					
>	Lu	175					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Saturday, January 02, 2010 06:40:03
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li and u.mth
Dataset File: c:\elandata\Dataset\100101\Standard 2.272

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	100.002	ug/L	1.274	207134	0.057
>	Sc	45		ug/L		3660816	3660815.868
>	Lu	175		ug/L		592240	592239.918
	U	238	99.845	ug/L	1.987	4442230	7.500

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
>	Sc	45					
>	Lu	175					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Saturday, January 02, 2010 06:42:16
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li and u.mth
Dataset File: c:\elandata\Dataset\100101\QC Std 1.273

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	53.321	ug/L	1.968	110094	0.030
>	Sc	45		ug/L		3648409	3648408.729
>	Lu	175		ug/L		599556	599555.786
	U	238	53.808	ug/L	1.164	2425444	4.042

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈	Li	7	106.642				
⌊>	Sc	45		97.7			
⌈>	Lu	175		98.3			
⌊	U	238	107.615				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Saturday, January 02, 2010 06:44:32
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li and u.mth
Dataset File: c:\elandata\Dataset\100101\QC Std 2.274

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	0.013	ug/L	55.495	137	0.000
>	Sc	45		ug/L		3609823	3609823.078
>	Lu	175		ug/L		598218	598217.883
	U	238	0.009	ug/L	14.178	2414	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
>	Sc	45		96.6			
>	Lu	175		98.0			
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Saturday, January 02, 2010 06:46:49
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li and u.mth
Dataset File: c:\elandata\Dataset\100101\QC Std 3.275

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**11.419**	**ug/L**	4.732	23601	0.006
>	Sc	45		**ug/L**		3642067	3642066.892
>	Lu	175		**ug/L**		597445	597444.727
	U	238	**0.228**	**ug/L**	1.662	12221	0.017

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7	114.186				
>	Sc	45		97.5			
>	Lu	175		97.9			
	U	238	113.911				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Saturday, January 02, 2010 06:49:04
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li and u.mth
Dataset File: c:\elandata\Dataset\100101\QC Std 4.276

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.101**	**ug/L**	4.685	281	0.000
>	Sc	45		**ug/L**		3190681	3190681.153
>	Lu	175		**ug/L**		558449	558448.715
	U	238	**-0.039**	**ug/L**	0.704	232	-0.003

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
>	Sc	45		85.4			
>	Lu	175		91.5			
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Saturday, January 02, 2010 06:51:19
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li and u.mth
Dataset File: c:\elandata\Dataset\100101\QC Std 5.277

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**21.926**	**ug/L**	0.934	39223	0.012
>	Sc	45		**ug/L**		3156084	3156083.731
>	Lu	175		**ug/L**		560074	560073.540
	U	238	**23.388**	**ug/L**	0.887	985803	1.757

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7	109.628				
>	Sc	45		84.5			
>	Lu	175		91.8			
	U	238	116.940				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Saturday, January 02, 2010 06:53:35
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li and u.mth
Dataset File: c:\elandata\Dataset\100101\QC Std 6.278

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**51.983**	**ug/L**	0.887	104437	0.029
>	Sc	45		**ug/L**		3549502	3549501.890
>	Lu	175		**ug/L**		599633	599633.015
	U	238	**50.738**	**ug/L**	2.741	2286545	3.811

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7	103.967				
>	Sc	45		95.0			
>	Lu	175		98.3			
	U	238	101.477				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Saturday, January 02, 2010 06:55:52
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li and u.mth
Dataset File: c:\elandata\Dataset\100101\QC Std 7.279

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	0.013	ug/L	34.231	137	0.000
>	Sc	45		ug/L		3597984	3597984.369
>	Lu	175		ug/L		607829	607828.791
	U	238	0.011	ug/L	8.354	2515	0.001

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Lu	175Linear Thru Zero	
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈	Li	7					
⌊>	Sc	45		96.3			
⌈>	Lu	175		99.6			
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1201994303
Sample Date/Time: Saturday, January 02, 2010 06:58:12
Sample Type:
Sample Description: LANL 6020 MB
Number of Replicates: 3
Batch ID: 932317|2|ba|
Method File: c:\elandata\Method\li and u.mth
Dataset File: c:\elandata\Dataset\100101\1201994303.280

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**-0.007**	**ug/L**	70.820	98	-0.000
>	Sc	45		**ug/L**		3644921	3644921.333
>	Lu	175		**ug/L**		613206	613205.857
	U	238	**0.001**	**ug/L**	64.995	2116	0.000

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Lu	175Linear Thru Zero	
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈	Li	7					
⌊>	Sc	45		97.6			
⌈>	Lu	175		100.5			
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1201994304
Sample Date/Time: Saturday, January 02, 2010 07:02:52
Sample Type:
Sample Description: LANL 6020 LCS
Number of Replicates: 3
Batch ID: 932317|40|baj
Method File: c:\elandata\Method\li and u.mth
Dataset File: c:\elandata\Dataset\100101\1201994304.282

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**2.740**	**ug/L**	0.430	5644	0.002
>	Sc	45		**ug/L**		3571170	3571169.831
>	Lu	175		**ug/L**		596037	596036.619
	U	238	**0.506**	**ug/L**	3.021	24671	0.038

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
>	Sc	45		95.6			
>	Lu	175		97.7			
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 242668001
Sample Date/Time: Saturday, January 02, 2010 07:05:12
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 932317|2|baj
Method File: c:\elandata\Method\li and u.mth
Dataset File: c:\elandata\Dataset\100101\242668001.283

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**21.751**	**ug/L**	0.833	41972	0.012
>	Sc	45		**ug/L**		3404070	3404069.815
>	Lu	175		**ug/L**		606281	606280.653
	U	238	**3.361**	**ug/L**	0.847	155065	0.252

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
>	Sc	45		91.1			
>	Lu	175		99.4			
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1201994305
Sample Date/Time: Saturday, January 02, 2010 07:07:33
Sample Type:
Sample Description: LANL 6020 DUP
Number of Replicates: 3
Batch ID: 932317|2|baj
Method File: c:\elandata\Method\li and u.mth
Dataset File: c:\elandata\Dataset\100101\1201994305.284

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**20.265**	**ug/L**	1.845	35494	0.011
>	Sc	45		**ug/L**		3089098	3089098.084
>	Lu	175		**ug/L**		570289	570289.364
	U	238	**2.983**	**ug/L**	1.268	129687	0.224

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
>	Sc	45		82.7			
>	Lu	175		93.5			
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1201994306
Sample Date/Time: Saturday, January 02, 2010 07:09:54
Sample Type:
Sample Description: LANL 6020 MS
Number of Replicates: 3
Batch ID: 932317|2|baj
Method File: c:\elandata\Method\li and u.mth
Dataset File: c:\elandata\Dataset\100101\1201994306.285

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**58.582**	**ug/L**	0.855	97915	0.033
>	Sc	45		**ug/L**		2953157	2953157.255
>	Lu	175		**ug/L**		554557	554556.529
	U	238	**28.139**	**ug/L**	2.499	1174059	2.114

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
>	Sc	45		79.1			
>	Lu	175		90.9			
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1201994308
Sample Date/Time: Saturday, January 02, 2010 07:12:15
Sample Type:
Sample Description: LANL 6020 MSD
Number of Replicates: 3
Batch ID: 932317|2|baj
Method File: c:\elandata\Method\li and u.mth
Dataset File: c:\elandata\Dataset\100101\1201994308.286

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**60.075**	**ug/L**	0.688	102836	0.034
>	Sc	45		**ug/L**		3024758	3024757.941
>	Lu	175		**ug/L**		578366	578365.786
	U	238	**27.939**	**ug/L**	1.029	1215563	2.099

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Lu	175Linear Thru Zero	
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
>	Sc	45		81.0			
>	Lu	175		94.8			
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1201994307
Sample Date/Time: Saturday, January 02, 2010 07:14:37
Sample Type:
Sample Description: LANL 6020 SDILT
Number of Replicates: 3
Batch ID: 932317|10|ba|
Method File: c:\elandata\Method\li and u.mth
Dataset File: c:\elandata\Dataset\100101\1201994307.287

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**4.685**	**ug/L**	1.174	7957	0.003
>	Sc	45		**ug/L**		2969301	2969300.670
>	Lu	175		**ug/L**		528650	528650.369
	U	238	**0.668**	**ug/L**	1.146	28313	0.050

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Lu	175Linear Thru Zero	
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
>	Sc	45		79.5			
>	Lu	175		86.6			
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 242668002
Sample Date/Time: Saturday, January 02, 2010 07:16:59
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 932317|2|baj
Method File: c:\elandata\Method\li and u.mth
Dataset File: c:\elandata\Dataset\100101\242668002.288

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**53.180**	**ug/L**	1.840	87228	0.030
>	Sc	45		**ug/L**		2898198	2898197.745
>	Lu	175		**ug/L**		553398	553397.970
	U	238	**4.395**	**ug/L**	0.919	184549	0.330

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Lu	175Linear Thru Zero	
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈	Li	7					
⌊>	Sc	45		77.6			
⌈>	Lu	175		90.7			
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Saturday, January 02, 2010 07:19:16
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li and u.mth
Dataset File: c:\elandata\Dataset\100101\QC Std 6.289

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**58.754**	**ug/L**	0.629	102431	0.033
>	Sc	45		**ug/L**		3080292	3080292.026
>	Lu	175		**ug/L**		540842	540841.814
	U	238	**50.299**	**ug/L**	0.681	2045284	3.778

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Lu	175Linear Thru Zero	
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovi	Dilution % Dil	Duplicate Rel. % Difference
⌈	Li	7	117.509				
⌊>	Sc	45		82.5			
⌈>	Lu	175		88.6			
⌊	U	238	100.597				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 6	Li	7	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Saturday, January 02, 2010 07:21:34
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li and u.mth
Dataset File: c:\elandata\Dataset\100101\QC Std 7.290

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Li	7	**0.035**	**ug/L**	35.366	160	0.000
⌊>	Sc	45		**ug/L**		3151690	3151689.920
⌈>	Lu	175		**ug/L**		555016	555015.613
⌊	U	238	**0.007**	**ug/L**	14.776	2148	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
>	Sc	45		84.4			
>	Lu	175		91.0			
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Blank
Sample Date/Time: Saturday, January 02, 2010 07:24:45
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li only.mth
Dataset File: c:\elandata\Dataset\100101\Blank.291

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7		ug/L		116	
>	Sc	45		ug/L		2774114	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	
Sc	45	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
Li	7					
Sc	45					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Saturday, January 02, 2010 07:26:24
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li only.mth
Dataset File: c:\elandata\Dataset\100101\Standard 1.292

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	10.000	ug/L	0.382	20028	0.007
>	Sc	45		ug/L		2709058	2709058.004

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
Li	7					
Sc	45					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Saturday, January 02, 2010 07:28:01
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li only.mth
Dataset File: c:\elandata\Dataset\100101\Standard 2.293

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	99.970	ug/L	0.588	204301	0.071
>	Sc	45		ug/L		2862556	2862555.641

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovi	Dilution % Dif	Duplicate Rel. % Difference
Li	7					
Sc	45					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Saturday, January 02, 2010 07:29:38
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li only.mth
Dataset File: c:\elandata\Dataset\100101\QC Std 1.294

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**52.657**	**ug/L**	2.063	110717	0.038
>	Sc	45		**ug/L**		2943955	2943954.833

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈	Li	7	105.315				
⌊>	Sc	45		106.1			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Saturday, January 02, 2010 07:31:18
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li only.mth
Dataset File: c:\elandata\Dataset\100101\QC Std 2.295

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	0.030	ug/L	16.501	191	0.000
Sc	45		ug/L		3009985	3009984.903

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈	Li	7					
⌊>	Sc	45		108.5			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Saturday, January 02, 2010 07:32:58
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li only.mth
Dataset File: c:\elandata\Dataset\100101\QC Std 3.296

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	11.106	ug/L	1.874	23464	0.008
Sc	45		ug/L		2946268	2946268.497

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
Li	7	111.060				
Sc	45		106.2			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Saturday, January 02, 2010 07:34:37
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li only.mth
Dataset File: c:\elandata\Dataset\100101\QC Std 4.297

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Li	7	0.087	ug/L	6.724	299	0.000
⌊>	Sc	45		ug/L		2881833	2881833.104

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈	Li	7					
⌊>	Sc	45		103.9			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Saturday, January 02, 2010 07:36:16
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li only.mth
Dataset File: c:\elandata\Dataset\100101\QC Std 5.298

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	19.559	ug/L	1.451	39674	0.014
>	Sc	45		ug/L		2834764	2834764.018

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈	Li	7	97.795				
⌊>	Sc	45		102.2			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Saturday, January 02, 2010 07:37:56
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li only.mth
Dataset File: c:\elandata\Dataset\100101\QC Std 6.299

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	**50.108**	**ug/L**	1.322	109605	0.036
Sc	45		**ug/L**		3062305	3062305.054

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈	Li	7	100.216				
⌊>	Sc	45		110.4			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Saturday, January 02, 2010 07:39:37
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li only.mth
Dataset File: c:\elandata\Dataset\100101\QC Std 7.300

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	0.022	ug/L	8.226	182	0.000
>	Sc	45		ug/L		3186189	3186189.019

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈	Li	7					
⌊>	Sc	45		114.9			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1201994303
Sample Date/Time: Saturday, January 02, 2010 07:41:21
Sample Type:
Sample Description: LANL 6020 MB
Number of Replicates: 3
Batch ID: 932317|2|ba|
Method File: c:\elandata\Method\li only.mth
Dataset File: c:\elandata\Dataset\100101\1201994303.301

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Li	7	-0.011	ug/L	31.074	105	-0.000
⌊>	Sc	45		ug/L		3136336	3136336.162

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
Li	7					
Sc	45		113.1			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1201994304
Sample Date/Time: Saturday, January 02, 2010 07:43:05
Sample Type:
Sample Description: LANL 6020 LCS
Number of Replicates: 3
Batch ID: 932317|20|baj
Method File: c:\elandata\Method\li only.mth
Dataset File: c:\elandata\Dataset\100101\1201994304.302

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	5.058	ug/L	2.329	11431	0.004
>	Sc	45		ug/L		3130925	3130925.322

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈	Li	7					
⌊>	Sc	45		112.9			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 242668001
Sample Date/Time: Saturday, January 02, 2010 07:46:32
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 932317|2|baj
Method File: c:\elandata\Method\li only.mth
Dataset File: c:\elandata\Dataset\100101\242668001.304

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Li	7	**19.922**	**ug/L**	1.806	41571	0.014
⌊>	Sc	45		**ug/L**		2916584	2916584.155

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈	Li	7					
⌊>	Sc	45		105.1			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1201994305
Sample Date/Time: Saturday, January 02, 2010 07:48:16
Sample Type:
Sample Description: LANL 6020 DUP
Number of Replicates: 3
Batch ID: 932317|2|baj
Method File: c:\elandata\Method\li only.mth
Dataset File: c:\elandata\Dataset\100101\1201994305.305

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Li	7	18.344	ug/L	2.357	34987	0.013
⌊>	Sc	45		ug/L		2664794	2664794.198

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
Li	7					
Sc	45		96.1			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1201994306
Sample Date/Time: Saturday, January 02, 2010 07:50:01
Sample Type:
Sample Description: LANL 6020 MS
Number of Replicates: 3
Batch ID: 932317|2|baj
Method File: c:\elandata\Method\li only.mth
Dataset File: c:\elandata\Dataset\100101\1201994306.306

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	51.163	ug/L	2.165	94919	0.037
>	Sc	45		ug/L		2597495	2597495.146

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈	Li	7					
⌊>	Sc	45		93.6			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1201994308
Sample Date/Time: Saturday, January 02, 2010 07:51:46
Sample Type:
Sample Description: LANL 6020 MSD
Number of Replicates: 3
Batch ID: 932317|2|ba|
Method File: c:\elandata\Method\li only.mth
Dataset File: c:\elandata\Dataset\100101\1201994308.307

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	52.535	ug/L	0.621	100797	0.037
>	Sc	45		ug/L		2686050	2686050.412

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
Li	7					
Sc	45		96.8			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1201994307
Sample Date/Time: Saturday, January 02, 2010 07:53:32
Sample Type:
Sample Description: LANL 6020 SDILT
Number of Replicates: 3
Batch ID: 932317|10|baj
Method File: c:\elandata\Method\li only.mth
Dataset File: c:\elandata\Dataset\100101\1201994307.308

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	4.335	ug/L	1.896	8824	0.003
>	Sc	45		ug/L		2815499	2815498.846

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
Li	7					
Sc	45		101.5			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 242668002
Sample Date/Time: Saturday, January 02, 2010 07:55:17
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 932317|2|baj
Method File: c:\elandata\Method\li only.mth
Dataset File: c:\elandata\Dataset\100101\242668002.309

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	45.110	ug/L	1.223	88849	0.032
>	Sc	45		ug/L		2756874	2756873.730

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
Li	7					
Sc	45		99.4			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Saturday, January 02, 2010 07:56:59
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li only.mth
Dataset File: c:\elandata\Dataset\100101\QC Std 6.310

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Li	7	**51.842**	**ug/L**	1.171	104902	0.037
⌊>	Sc	45		**ug/L**		2833050	2833049.510

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈	Li	7	103.684				
⌊>	Sc	45		102.1			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Saturday, January 02, 2010 07:58:40
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li only.mth
Dataset File: c:\elandata\Dataset\100101\QC Std 7.311

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Li	7	0.030	ug/L	27.370	180	0.000
⌊>	Sc	45		ug/L		2856773	2856773.017

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
Li	7					
Sc	45		103.0			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

==========

Analysis Begun

Logged In Analyst: Administrator **Technique: AA FIMS-MHS**
Spectrometer Model: FIMS-100, S/N B050-9550 **Autosampler Model: S10**

Sample Information File: C:\data-AA\Administrator\Sample Information\122909S1.SIF
Batch ID:
Results Data Set: 122909S2
Results Library: C:\data-AA\Administrator\Results\Results.mdb

==========

Sequence No.: 1 **Autosampler Location: 1**
Sample ID: Calib Blank **Date Collected: 12/29/2009 09:18:15**
Analyst: **Data Type: Original**

Replicate Data: Calib Blank

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.00]	0.0001	-0.0004	0.0001	09:19:06	Yes
2		[0.00]	0.0001	-0.0004	0.0001	09:19:35	Yes
Mean:		[0.00]	0.0001				
SD:		0.00	0.0000				
%RSD:		0.00	6.28				

Auto-zero performed.

==========

Sequence No.: 2 **Autosampler Location: 2**
Sample ID: S0.2 **Date Collected: 12/29/2009 09:19:54**
Analyst: **Data Type: Original**

Replicate Data: S0.2

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.2]	0.0022	0.0110	0.0023	09:20:45	Yes
2		[0.2]	0.0022	0.0108	0.0023	09:21:15	Yes
Mean:		[0.2]	0.0022				
SD:		0.0	0.0000				
%RSD:		0.0	0.94				

Standard number 1 applied. [0.2]
Correlation Coef.: 1.000000 Slope: 0.01101 Intercept: 0.00000

==========

Sequence No.: 3 **Autosampler Location: 3**
Sample ID: S0.5 **Date Collected: 12/29/2009 09:21:34**
Analyst: **Data Type: Original**

Replicate Data: S0.5

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.5]	0.0056	0.0286	0.0057	09:22:25	Yes
2		[0.5]	0.0056	0.0275	0.0057	09:22:55	Yes
Mean:		[0.5]	0.0056				
SD:		0.0	0.0000				
%RSD:		0.0	0.85				

Standard number 2 applied. [0.5]
Correlation Coef.: 0.999977 Slope: 0.01119 Intercept: -0.00001

==========

Sequence No.: 4 **Autosampler Location: 4**
Sample ID: S2.0 **Date Collected: 12/29/2009 09:23:15**
Analyst: **Data Type: Original**

Replicate Data: S2.0

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored

1	[2.0]	0.0227	0.1160	0.0228	09:24:06	Yes
2	[2.0]	0.0226	0.1141	0.0227	09:24:36	Yes
Mean:	[2.0]	0.0227				
SD:	0.0	0.0001				
%RSD:	0.0	0.33				

Standard number 3 applied. [2.0]
Correlation Coef.: 0.999992 Slope: 0.01136 Intercept: -0.00005

Sequence No.: 5 **Autosampler Location: 5**
Sample ID: S5.0 **Date Collected: 12/29/2009 09:24:56**
Analyst: **Data Type: Original**

Replicate Data: S5.0

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[5.0]	0.0561	0.2847	0.0562	09:25:48	Yes
2		[5.0]	0.0556	0.2796	0.0557	09:26:18	Yes
Mean:		[5.0]	0.0558				
SD:		0.0	0.0004				
%RSD:		0.0	0.69				

Standard number 4 applied. [5.0]
Correlation Coef.: 0.999977 Slope: 0.01118 Intercept: 0.00005

Sequence No.: 6 **Autosampler Location: 6**
Sample ID: S10.0 **Date Collected: 12/29/2009 09:26:38**
Analyst: **Data Type: Original**

Replicate Data: S10.0

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[10.0]	0.1095	0.5553	0.1096	09:27:28	Yes
2		[10.0]	0.1088	0.5482	0.1089	09:27:58	Yes
Mean:		[10.0]	0.1092				
SD:		0.0	0.0005				
%RSD:		0.0	0.46				

Standard number 5 applied. [10.0]
Correlation Coef.: 0.999922 Slope: 0.01094 Intercept: 0.00032

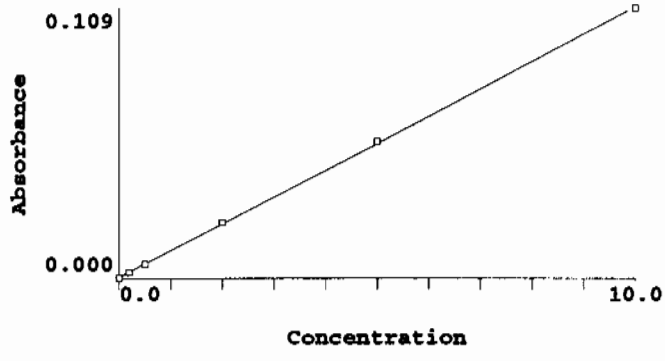

Calibration data for Hg 253.7 **Equation: Linear, Calculated Intercept**

ID	Mean Signal (Abs)	Entered Conc. ug/L	Calculated Conc. ug/L	Standard Deviation	%RSD
Calib Blank	0.0000	0	-0.030	0.00	6.3
S0.2	0.0022	0.2	0.172	0.00	0.9
S0.5	0.0056	0.5	0.482	0.00	0.8
S2.0	0.0227	2.0	2.045	0.00	0.3
S5.0	0.0558	5.0	5.077	0.00	0.7
S10.0	0.1092	10.0	9.954	0.00	0.5

Correlation Coef.: 0.999922 Slope: 0.01094 Intercept: 0.00032

Sequence No.: 7 **Autosampler Location: 9**
Sample ID: ICV **Date Collected: 12/29/2009 09:28:17**
Analyst: **Data Type: Original**

Replicate Data: ICV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.105	5.105	0.0561	0.2818	0.0562	09:29:08	Yes
2	5.094	5.094	0.0560	0.2785	0.0561	09:29:38	Yes
Mean:	5.099	5.099	0.0561				
SD:	0.008	0.008	0.0001				
%RSD:	0.148	0.148	0.15				

QC value within limits for Hg 253.7 Recovery = 101.99%
All analyte(s) passed QC.

==========

Sequence No.: 8 **Autosampler Location: 10**
Sample ID: ICB **Date Collected: 12/29/2009 09:29:58**
Analyst: **Data Type: Original**

Replicate Data: ICB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.024	-0.024	0.0001	-0.0000	0.0002	09:30:48	Yes
2	-0.025	-0.025	0.0000	0.0001	0.0001	09:31:18	Yes
Mean:	-0.024	-0.024	0.0001				
SD:	0.001	0.001	0.0000				
%RSD:	4.032	4.032	19.39				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

==========

Sequence No.: 9 **Autosampler Location: 11**
Sample ID: CRDL **Date Collected: 12/29/2009 09:31:38**
Analyst: **Data Type: Original**

Replicate Data: CRDL

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.186	0.186	0.0024	0.0118	0.0024	09:32:30	Yes
2	0.181	0.181	0.0023	0.0112	0.0024	09:33:00	Yes
Mean:	0.183	0.183	0.0023				
SD:	0.004	0.004	0.0000				
%RSD:	1.939	1.939	1.67				

QC value within limits for Hg 253.7 Recovery = 91.53%
All analyte(s) passed QC.

==========

Sequence No.: 10 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 12/29/2009 09:33:20**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.135	5.135	0.0565	0.2806	0.0566	09:34:10	Yes
2	5.125	5.125	0.0564	0.2774	0.0565	09:34:40	Yes
Mean:	5.130	5.130	0.0564				
SD:	0.007	0.007	0.0001				
%RSD:	0.140	0.140	0.14				

QC value within limits for Hg 253.7 Recovery = 102.60%
All analyte(s) passed QC.

==========

Sequence No.: 11 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 12/29/2009 09:34:59**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.023	-0.023	0.0001	0.0000	0.0002	09:35:50	Yes
2	-0.027	-0.027	0.0000	0.0000	0.0001	09:36:20	Yes
Mean:	-0.025	-0.025	0.0000				
SD:	0.003	0.003	0.0000				
%RSD:	10.99	10.99	64.91				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 12 **Autosampler Location: 12**
Sample ID: 1202003901|936546|1 **Date Collected: 12/29/2009 09:36:40**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202003901|936546|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.023	-0.023	0.0001	0.0004	0.0002	09:37:31	Yes
2	-0.024	-0.024	0.0001	0.0001	0.0002	09:38:01	Yes
Mean:	-0.023	-0.023	0.0001				
SD:	0.000	0.000	0.0000				
%RSD:	1.700	1.700	6.57				

Sequence No.: 13 **Autosampler Location: 13**
Sample ID: 1202003902|936546|10 **Date Collected: 12/29/2009 09:38:21**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202003902|936546|10

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	6.835	6.835	0.0751	0.3653	0.0752	09:39:13	Yes
2	6.814	6.814	0.0748	0.3632	0.0749	09:39:43	Yes
Mean:	6.825	6.825	0.0750				
SD:	0.015	0.015	0.0002				
%RSD:	0.221	0.221	0.22				

Sequence No.: 14 **Autosampler Location: 14**
Sample ID: 242668001|936546|1 **Date Collected: 12/29/2009 09:40:03**
Analyst: JXL **Data Type: Original**

Replicate Data: 242668001|936546|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.259	0.259	0.0032	0.0151	0.0032	09:40:54	Yes
2	0.259	0.259	0.0032	0.0156	0.0033	09:41:24	Yes
Mean:	0.259	0.259	0.0032				
SD:	0.001	0.001	0.0000				
%RSD:	0.200	0.200	0.18				

Sequence No.: 15 **Autosampler Location: 15**
Sample ID: 242668002|936546|1 **Date Collected: 12/29/2009 09:41:43**
Analyst: JXL **Data Type: Original**

Replicate Data: 242668002|936546|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.304	0.304	0.0036	0.0178	0.0037	09:42:33	Yes
2	0.303	0.303	0.0036	0.0180	0.0037	09:43:03	Yes
Mean:	0.303	0.303	0.0036				
SD:	0.000	0.000	0.0000				

==========

Analysis Begun

Logged In Analyst: Administrator **Technique: AA FIMS-MHS**
Spectrometer Model: FIMS-100, S/N B050-9550 **Autosampler Model: S10**

Sample Information File: C:\data-AA\Administrator\Sample Information\122909S1.SIF
Batch ID:
Results Data Set: 122909S2
Results Library: C:\data-AA\Administrator\Results\Results.mdb

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Method Loaded
Method Name: SOIL **Method Last Saved: 12/29/2009 09:11:27**
Method Description: 7471A, ILM04 ANALYST JXL

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Sequence No.: 1 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 12/29/2009 09:44:49**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.239	5.239	0.0576	0.2800	0.0577	09:45:39	Yes
2	5.211	5.211	0.0573	0.2748	0.0574	09:46:09	Yes
Mean:	5.225	5.225	0.0575				
SD:	0.020	0.020	0.0002				
%RSD:	0.376	0.376	0.37				

QC value within limits for Hg 253.7 Recovery = 104.50%
All analyte(s) passed QC.

==========

Sequence No.: 2 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 12/29/2009 09:46:28**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.021	-0.021	0.0001	0.0006	0.0002	09:47:19	Yes
2	-0.023	-0.023	0.0001	0.0004	0.0002	09:47:48	Yes
Mean:	-0.022	-0.022	0.0001				
SD:	0.002	0.002	0.0000				
%RSD:	7.876	7.876	23.99				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

==========

Sequence No.: 3 **Autosampler Location: 12**
Sample ID: 1202003901|936546|1 **Date Collected: 12/29/2009 09:48:08**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202003901|936546|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.022	-0.022	0.0001	0.0007	0.0002	09:49:00	Yes
2	-0.021	-0.021	0.0001	0.0009	0.0002	09:49:30	Yes
Mean:	-0.021	-0.021	0.0001				
SD:	0.001	0.001	0.0000				
%RSD:	3.335	3.335	8.52				

==========

Sequence No.: 4 **Autosampler Location: 13**
Sample ID: 1202003902|936546|10 **Date Collected: 12/29/2009 09:49:50**
Analyst: JXL **Data Type: Original**

Sequence No.: 9
Sample ID: 242750003|936546|1
Analyst: JXL
Autosampler Location: 18
Date Collected: 12/29/2009 09:58:10
Data Type: Original

Replicate Data: 242750003|936546|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.296	0.296	0.0036	0.0175	0.0037	09:59:01	Yes
2	0.297	0.297	0.0036	0.0172	0.0037	09:59:31	Yes
Mean:	0.297	0.297	0.0036				
SD:	0.001	0.001	0.0000				
%RSD:	0.402	0.402	0.37				

Sequence No.: 10
Sample ID: 242750004|936546|1
Analyst: JXL
Autosampler Location: 19
Date Collected: 12/29/2009 09:59:50
Data Type: Original

Replicate Data: 242750004|936546|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.228	0.228	0.0028	0.0134	0.0029	10:00:41	Yes
2	0.227	0.227	0.0028	0.0134	0.0029	10:01:11	Yes
Mean:	0.228	0.228	0.0028				
SD:	0.001	0.001	0.0000				
%RSD:	0.262	0.262	0.23				

Sequence No.: 11
Sample ID: 242750005|936546|1
Analyst: JXL
Autosampler Location: 20
Date Collected: 12/29/2009 10:01:30
Data Type: Original

Replicate Data: 242750005|936546|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.190	0.190	0.0024	0.0117	0.0025	10:02:21	Yes
2	0.192	0.192	0.0024	0.0115	0.0025	10:02:51	Yes
Mean:	0.191	0.191	0.0024				
SD:	0.001	0.001	0.0000				
%RSD:	0.651	0.651	0.56				

Sequence No.: 12
Sample ID: 243086001|936546|1
Analyst: JXL
Autosampler Location: 21
Date Collected: 12/29/2009 10:03:10
Data Type: Original

Replicate Data: 243086001|936546|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.035	0.035	0.0007	0.0037	0.0008	10:04:01	Yes
2	0.036	0.036	0.0007	0.0042	0.0008	10:04:31	Yes
Mean:	0.036	0.036	0.0007				
SD:	0.001	0.001	0.0000				
%RSD:	2.989	2.989	1.63				

Sequence No.: 13
Sample ID: CCV
Analyst:
Autosampler Location: 7
Date Collected: 12/29/2009 10:04:50
Data Type: Original

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.424	5.424	0.0596	0.2840	0.0597	10:05:41	Yes
2	5.465	5.465	0.0601	0.2843	0.0602	10:06:11	Yes
Mean:	5.444	5.444	0.0599				

SD:	0.029	0.029	0.0003
%RSD:	0.532	0.532	0.53

QC value within limits for Hg 253.7 Recovery = 108.88%
All analyte(s) passed QC.

Sequence No.: 14 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 12/29/2009 10:06:30**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.008	-0.008	0.0002	0.0027	0.0003	10:07:21	Yes
2	0.004	0.004	0.0004	0.0040	0.0005	10:07:51	Yes
Mean:	-0.002	-0.002	0.0003				
SD:	0.009	0.009	0.0001				
%RSD:	349.6	349.6	31.55				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 15 **Autosampler Location: 22**
Sample ID: 243086002|936546|1 **Date Collected: 12/29/2009 10:08:10**
Analyst: JXL **Data Type: Original**

Replicate Data: 243086002|936546|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.067	0.067	0.0011	0.0053	0.0011	10:09:01	Yes
2	0.063	0.063	0.0010	0.0047	0.0011	10:09:31	Yes
Mean:	0.065	0.065	0.0010				
SD:	0.002	0.002	0.0000				
%RSD:	3.776	3.776	2.60				

Sequence No.: 16 **Autosampler Location: 23**
Sample ID: 243086003|936546|1 **Date Collected: 12/29/2009 10:09:51**
Analyst: JXL **Data Type: Original**

Replicate Data: 243086003|936546|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.383	0.383	0.0045	0.0214	0.0046	10:10:42	Yes
2	0.382	0.382	0.0045	0.0210	0.0046	10:11:12	Yes
Mean:	0.383	0.383	0.0045				
SD:	0.001	0.001	0.0000				
%RSD:	0.250	0.250	0.23				

Sequence No.: 17 **Autosampler Location: 24**
Sample ID: 243086004|936546|1 **Date Collected: 12/29/2009 10:11:32**
Analyst: JXL **Data Type: Original**

Replicate Data: 243086004|936546|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.330	0.330	0.0039	0.0184	0.0040	10:12:24	Yes
2	0.325	0.325	0.0039	0.0183	0.0040	10:12:54	Yes
Mean:	0.327	0.327	0.0039				
SD:	0.004	0.004	0.0000				
%RSD:	1.079	1.079	0.99				

Sequence No.: 18 **Autosampler Location: 25**
Sample ID: 243086005|936546|1 **Date Collected: 12/29/2009 10:13:14**
Analyst: JXL **Data Type: Original**

Replicate Data: 243086005|936546|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.510	0.510	0.0059	0.0280	0.0060	10:14:06	Yes
2	0.514	0.514	0.0059	0.0278	0.0060	10:14:35	Yes
Mean:	0.512	0.512	0.0059				
SD:	0.003	0.003	0.0000				
%RSD:	0.614	0.614	0.58				

Sequence No.: 19 Autosampler Location: 26
Sample ID: 243088003|936546|1 Date Collected: 12/29/2009 10:14:56
Analyst: JXL Data Type: Original

Replicate Data: 243088003|936546|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.006	0.006	0.0004	0.0022	0.0005	10:15:47	Yes
2	0.001	0.001	0.0003	0.0016	0.0004	10:16:17	Yes
Mean:	0.003	0.003	0.0004				
SD:	0.003	0.003	0.0000				
%RSD:	96.14	96.14	9.82				

Sequence No.: 20 Autosampler Location: 27
Sample ID: 243088004|936546|1 Date Collected: 12/29/2009 10:16:36
Analyst: JXL Data Type: Original

Replicate Data: 243088004|936546|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.000	0.000	0.0003	0.0019	0.0004	10:17:26	Yes
2	0.003	0.003	0.0004	0.0021	0.0005	10:17:56	Yes
Mean:	0.002	0.002	0.0003				
SD:	0.002	0.002	0.0000				
%RSD:	103.0	103.0	5.75				

Sequence No.: 21 Autosampler Location: 28
Sample ID: 243092001|936546|1 Date Collected: 12/29/2009 10:18:15
Analyst: JXL Data Type: Original

Replicate Data: 243092001|936546|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.056	0.056	0.0009	0.0052	0.0010	10:19:06	Yes
2	0.056	0.056	0.0009	0.0049	0.0010	10:19:36	Yes
Mean:	0.056	0.056	0.0009				
SD:	0.000	0.000	0.0000				
%RSD:	0.121	0.121	0.08				

Sequence No.: 22 Autosampler Location: 29
Sample ID: 1202003903|936546|1 Date Collected: 12/29/2009 10:19:55
Analyst: JXL Data Type: Original

Replicate Data: 1202003903|936546|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.052	0.052	0.0009	0.0051	0.0010	10:20:46	Yes
2	0.052	0.052	0.0009	0.0047	0.0010	10:21:16	Yes
Mean:	0.052	0.052	0.0009				
SD:	0.000	0.000	0.0000				
%RSD:	0.858	0.858	0.55				

Sequence No.: 23 Autosampler Location: 30
Sample ID: 1202003904|936546|1 Date Collected: 12/29/2009 10:21:35
Analyst: JXL Data Type: Original

Replicate Data: 1202003904|936546|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.321	2.321	0.0257	0.1207	0.0258	10:22:26	Yes
2	2.302	2.302	0.0255	0.1193	0.0256	10:22:56	Yes
Mean:	2.311	2.311	0.0256				
SD:	0.013	0.013	0.0001				
%RSD:	0.573	0.573	0.57				

Sequence No.: 24 Autosampler Location: 31
Sample ID: 1202003906|936546|1 Date Collected: 12/29/2009 10:23:15
Analyst: JXL Data Type: Original

Replicate Data: 1202003906|936546|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.297	2.297	0.0254	0.1187	0.0255	10:24:06	Yes
2	2.302	2.302	0.0255	0.1180	0.0256	10:24:36	Yes
Mean:	2.300	2.300	0.0255				
SD:	0.003	0.003	0.0000				
%RSD:	0.149	0.149	0.15				

Sequence No.: 25 Autosampler Location: 7
Sample ID: CCV Date Collected: 12/29/2009 10:24:55
Analyst: Data Type: Original

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.412	5.412	0.0595	0.2768	0.0596	10:25:46	Yes
2	5.477	5.477	0.0602	0.2787	0.0603	10:26:15	Yes
Mean:	5.445	5.445	0.0599				
SD:	0.046	0.046	0.0005				
%RSD:	0.853	0.853	0.85				

QC value within limits for Hg 253.7 Recovery = 108.89%
All analyte(s) passed QC.

Sequence No.: 26 Autosampler Location: 8
Sample ID: CCB Date Collected: 12/29/2009 10:26:34
Analyst: Data Type: Original

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.020	-0.020	0.0001	0.0012	0.0002	10:27:25	Yes
2	-0.019	-0.019	0.0001	0.0013	0.0002	10:27:55	Yes
Mean:	-0.019	-0.019	0.0001				
SD:	0.001	0.001	0.0000				
%RSD:	3.143	3.143	5.86				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 27 Autosampler Location: 32
Sample ID: 1202003905|936546|5 Date Collected: 12/29/2009 10:28:14
Analyst: JXL Data Type: Original

Replicate Data: 1202003905|936546|5

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.005	-0.005	0.0003	0.0018	0.0004	10:29:05	Yes
2	-0.004	-0.004	0.0003	0.0022	0.0004	10:29:35	Yes
Mean:	-0.005	-0.005	0.0003				
SD:	0.001	0.001	0.0000				
%RSD:	22.17	22.17	4.06				

==========

Sequence No.: 28 **Autosampler Location: 33**
Sample ID: 243092002|936546|1 **Date Collected: 12/29/2009 10:29:54**
Analyst: JXL **Data Type: Original**

Replicate Data: 243092002|936546|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.100	0.100	0.0014	0.0072	0.0015	10:30:45	Yes
2	0.101	0.101	0.0014	0.0072	0.0015	10:31:15	Yes
Mean:	0.101	0.101	0.0014				
SD:	0.001	0.001	0.0000				
%RSD:	0.962	0.962	0.74				

==========

Sequence No.: 29 **Autosampler Location: 34**
Sample ID: 243092003|936546|1 **Date Collected: 12/29/2009 10:31:35**
Analyst: JXL **Data Type: Original**

Replicate Data: 243092003|936546|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.169	0.169	0.0022	0.0106	0.0023	10:32:26	Yes
2	0.169	0.169	0.0022	0.0108	0.0023	10:32:56	Yes
Mean:	0.169	0.169	0.0022				
SD:	0.000	0.000	0.0000				
%RSD:	0.196	0.196	0.17				

==========

Sequence No.: 30 **Autosampler Location: 35**
Sample ID: 243390001|936546|1 **Date Collected: 12/29/2009 10:33:16**
Analyst: JXL **Data Type: Original**

Replicate Data: 243390001|936546|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.235	0.235	0.0029	0.0142	0.0030	10:34:08	Yes
2	0.233	0.233	0.0029	0.0138	0.0030	10:34:38	Yes
Mean:	0.234	0.234	0.0029				
SD:	0.002	0.002	0.0000				
%RSD:	0.717	0.717	0.64				

==========

Sequence No.: 31 **Autosampler Location: 36**
Sample ID: 243390002|936546|1 **Date Collected: 12/29/2009 10:34:58**
Analyst: JXL **Data Type: Original**

Replicate Data: 243390002|936546|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.009	0.009	0.0004	0.0026	0.0005	10:35:49	Yes
2	0.009	0.009	0.0004	0.0027	0.0005	10:36:19	Yes
Mean:	0.009	0.009	0.0004				
SD:	0.000	0.000	0.0000				
%RSD:	0.447	0.447	0.10				

==========

Sequence No.: 32 **Autosampler Location: 37**
Sample ID: 1202003907|936549|1 **Date Collected: 12/29/2009 10:36:40**

Sequence No.: 37 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 12/29/2009 10:45:02**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.199	5.199	0.0572	0.2626	0.0573	10:45:53	Yes
2	5.208	5.208	0.0573	0.2625	0.0574	10:46:23	Yes
Mean:	5.203	5.203	0.0572				
SD:	0.006	0.006	0.0001				
%RSD:	0.125	0.125	0.12				

QC value within limits for Hg 253.7 Recovery = 104.07%
All analyte(s) passed QC.

Sequence No.: 38 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 12/29/2009 10:46:42**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.024	-0.024	0.0001	0.0004	0.0002	10:47:32	Yes
2	-0.025	-0.025	0.0001	0.0004	0.0002	10:48:02	Yes
Mean:	-0.024	-0.024	0.0001				
SD:	0.001	0.001	0.0000				
%RSD:	2.981	2.981	13.47				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 39 **Autosampler Location: 42**
Sample ID: 1202003914|936549|1 **Date Collected: 12/29/2009 10:48:21**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202003914|936549|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.521	2.521	0.0279	0.1277	0.0280	10:49:12	Yes
2	2.519	2.519	0.0279	0.1274	0.0280	10:49:42	Yes
Mean:	2.520	2.520	0.0279				
SD:	0.001	0.001	0.0000				
%RSD:	0.057	0.057	0.06				

Sequence No.: 40 **Autosampler Location: 43**
Sample ID: 1202003913|936549|5 **Date Collected: 12/29/2009 10:50:02**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202003913|936549|5

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.056	0.056	0.0009	0.0051	0.0010	10:50:53	Yes
2	0.048	0.048	0.0008	0.0044	0.0009	10:51:23	Yes
Mean:	0.052	0.052	0.0009				
SD:	0.006	0.006	0.0001				
%RSD:	11.82	11.82	7.54				

Sequence No.: 41 **Autosampler Location: 44**
Sample ID: 242661002|936549|1 **Date Collected: 12/29/2009 10:51:42**
Analyst: JXL **Data Type: Original**

Sample ID: 242661007|936549|1 Date Collected: 12/29/2009 11:00:08
Analyst: JXL Data Type: Original

Replicate Data: 242661007|936549|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.763	2.763	0.0305	0.1413	0.0306	11:01:00	Yes
2	2.761	2.761	0.0305	0.1407	0.0306	11:01:30	Yes
Mean:	2.762	2.762	0.0305				
SD:	0.002	0.002	0.0000				
%RSD:	0.065	0.065	0.06				

Sequence No.: 47 Autosampler Location: 50
Sample ID: 242661008|936549|1 Date Collected: 12/29/2009 11:01:50
Analyst: JXL Data Type: Original

Replicate Data: 242661008|936549|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.007	-0.007	0.0002	0.0014	0.0003	11:02:42	Yes
2	-0.008	-0.008	0.0002	0.0016	0.0003	11:03:12	Yes
Mean:	-0.008	-0.008	0.0002				
SD:	0.001	0.001	0.0000				
%RSD:	6.916	6.916	2.51				

Sequence No.: 48 Autosampler Location: 51
Sample ID: 242661009|936549|1 Date Collected: 12/29/2009 11:03:31
Analyst: JXL Data Type: Original

Replicate Data: 242661009|936549|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.047	0.047	0.0008	0.0045	0.0009	11:04:22	Yes
2	0.048	0.048	0.0008	0.0043	0.0009	11:04:52	Yes
Mean:	0.047	0.047	0.0008				
SD:	0.001	0.001	0.0000				
%RSD:	1.110	1.110	0.68				

Sequence No.: 49 Autosampler Location: 7
Sample ID: CCV Date Collected: 12/29/2009 11:05:12
Analyst: Data Type: Original

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.162	5.162	0.0568	0.2610	0.0569	11:06:02	Yes
2	5.129	5.129	0.0564	0.2585	0.0565	11:06:32	Yes
Mean:	5.145	5.145	0.0566				
SD:	0.023	0.023	0.0003				
%RSD:	0.447	0.447	0.44				

QC value within limits for Hg 253.7 Recovery = 102.91%
All analyte(s) passed QC.

Sequence No.: 50 Autosampler Location: 8
Sample ID: CCB Date Collected: 12/29/2009 11:06:51
Analyst: Data Type: Original

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.024	-0.024	0.0001	0.0002	0.0002	11:07:41	Yes
2	-0.021	-0.021	0.0001	0.0008	0.0002	11:08:11	Yes

Mean:	-0.022	-0.022	0.0001
SD:	0.002	0.002	0.0000
%RSD:	7.267	7.267	23.23

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

==========

Sequence No.: 51 **Autosampler Location: 52**
Sample ID: 242661010|936549|1 **Date Collected: 12/29/2009 11:08:31**
Analyst: JXL **Data Type: Original**

Replicate Data: 242661010|936549|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.062	0.062	0.0010	0.0050	0.0011	11:09:21	Yes
2	0.064	0.064	0.0010	0.0055	0.0011	11:09:51	Yes
Mean:	0.063	0.063	0.0010				
SD:	0.002	0.002	0.0000				
%RSD:	2.513	2.513	1.71				

==========

Sequence No.: 52 **Autosampler Location: 53**
Sample ID: 242661011|936549|1 **Date Collected: 12/29/2009 11:10:11**
Analyst: JXL **Data Type: Original**

Replicate Data: 242661011|936549|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.306	0.306	0.0037	0.0173	0.0038	11:11:02	Yes
2	0.306	0.306	0.0037	0.0171	0.0038	11:11:32	Yes
Mean:	0.306	0.306	0.0037				
SD:	0.000	0.000	0.0000				
%RSD:	0.028	0.028	0.03				

==========

Sequence No.: 53 **Autosampler Location: 54**
Sample ID: 242661012|936549|1 **Date Collected: 12/29/2009 11:11:52**
Analyst: JXL **Data Type: Original**

Replicate Data: 242661012|936549|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.330	0.330	0.0039	0.0187	0.0040	11:12:43	Yes
2	0.332	0.332	0.0040	0.0190	0.0041	11:13:13	Yes
Mean:	0.331	0.331	0.0039				
SD:	0.002	0.002	0.0000				
%RSD:	0.478	0.478	0.44				

==========

Sequence No.: 54 **Autosampler Location: 55**
Sample ID: 242661013|936549|1 **Date Collected: 12/29/2009 11:13:33**
Analyst: JXL **Data Type: Original**

Replicate Data: 242661013|936549|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.041	0.041	0.0008	0.0040	0.0009	11:14:24	Yes
2	0.043	0.043	0.0008	0.0040	0.0009	11:14:54	Yes
Mean:	0.042	0.042	0.0008				
SD:	0.001	0.001	0.0000				
%RSD:	2.810	2.810	1.65				

==========

Sequence No.: 55 **Autosampler Location: 56**
Sample ID: 242661014|936549|1 **Date Collected: 12/29/2009 11:15:13**
Analyst: JXL **Data Type: Original**

Sequence No.: 60
Sample ID: 242661019|936549|1
Analyst: JXL

Autosampler Location: 61
Date Collected: 12/29/2009 11:23:38
Data Type: Original

Replicate Data: 242661019|936549|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.071	0.071	0.0011	0.0057	0.0012	11:24:29	Yes
2	0.068	0.068	0.0011	0.0053	0.0012	11:24:59	Yes
Mean:	0.069	0.069	0.0011				
SD:	0.002	0.002	0.0000				
%RSD:	2.984	2.984	2.09				

Sequence No.: 61
Sample ID: CCV
Analyst:

Autosampler Location: 7
Date Collected: 12/29/2009 11:25:20
Data Type: Original

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.039	5.039	0.0554	0.2589	0.0555	11:26:10	Yes
2	5.039	5.039	0.0554	0.2581	0.0555	11:26:40	Yes
Mean:	5.039	5.039	0.0554				
SD:	0.000	0.000	0.0000				
%RSD:	0.007	0.007	0.01				

QC value within limits for Hg 253.7 Recovery = 100.78%
All analyte(s) passed QC.

Sequence No.: 62
Sample ID: CCB
Analyst:

Autosampler Location: 8
Date Collected: 12/29/2009 11:26:59
Data Type: Original

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.022	-0.022	0.0001	0.0008	0.0002	11:27:49	Yes
2	-0.024	-0.024	0.0001	0.0006	0.0002	11:28:19	Yes
Mean:	-0.023	-0.023	0.0001				
SD:	0.002	0.002	0.0000				
%RSD:	7.981	7.981	27.95				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 63
Sample ID: 242661020|936549|1
Analyst: JXL

Autosampler Location: 62
Date Collected: 12/29/2009 11:28:39
Data Type: Original

Replicate Data: 242661020|936549|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.154	0.154	0.0020	0.0100	0.0021	11:29:30	Yes
2	0.153	0.153	0.0020	0.0098	0.0021	11:30:00	Yes
Mean:	0.153	0.153	0.0020				
SD:	0.001	0.001	0.0000				
%RSD:	0.438	0.438	0.37				

Sequence No.: 64
Sample ID: 1202003915|936552|1
Analyst: JXL

Autosampler Location: 63
Date Collected: 12/29/2009 11:30:20
Data Type: Original

Replicate Data: 1202003915|936552|1

Repl	SampleConc	StndConc	BlnkCorr	Peak	Peak	Time	Peak

Replicate Data: 1202003920|936552|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.603	2.603	0.0288	0.1318	0.0289	11:39:38	Yes
2	2.604	2.604	0.0288	0.1310	0.0289	11:40:08	Yes
Mean:	2.603	2.603	0.0288				
SD:	0.001	0.001	0.0000				
%RSD:	0.038	0.038	0.04				

Sequence No.: 70 **Autosampler Location: 69**
Sample ID: 1202003919|936552|5 **Date Collected: 12/29/2009 11:40:27**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202003919|936552|5

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.061	0.061	0.0010	0.0046	0.0011	11:41:19	Yes
2	0.060	0.060	0.0010	0.0047	0.0011	11:41:49	Yes
Mean:	0.061	0.061	0.0010				
SD:	0.000	0.000	0.0000				
%RSD:	0.369	0.369	0.25				

Sequence No.: 71 **Autosampler Location: 70**
Sample ID: 243113002|936552|1 **Date Collected: 12/29/2009 11:42:09**
Analyst: JXL **Data Type: Original**

Replicate Data: 243113002|936552|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	26.73	26.73	0.2926	1.3761	0.2927	11:43:00	Yes
Sample concentration is greater than that of the highest standard.							
2	26.85	26.85	0.2939	1.3675	0.2940	11:43:29	Yes
Sample concentration is greater than that of the highest standard.							
Mean:	26.79	26.79	0.2933				
SD:	0.081	0.081	0.0009				
%RSD:	0.302	0.302	0.30				
Sample concentration is greater than that of the highest standard.							

Sequence No.: 72 **Autosampler Location: 71**
Sample ID: 243113003|936552|1 **Date Collected: 12/29/2009 11:43:49**
Analyst: JXL **Data Type: Original**

Replicate Data: 243113003|936552|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.412	0.412	0.0048	0.0217	0.0049	11:44:41	Yes
2	0.411	0.411	0.0048	0.0219	0.0049	11:45:11	Yes
Mean:	0.411	0.411	0.0048				
SD:	0.001	0.001	0.0000				
%RSD:	0.228	0.228	0.21				

Sequence No.: 73 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 12/29/2009 11:45:31**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.357	5.357	0.0589	0.2641	0.0590	11:46:21	Yes
2	5.322	5.322	0.0585	0.2624	0.0586	11:46:51	Yes
Mean:	5.339	5.339	0.0587				

SD:	0.024	0.024	0.0003
%RSD:	0.459	0.459	0.46

QC value within limits for Hg 253.7 Recovery = 106.79%
All analyte(s) passed QC.

Sequence No.: 74 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 12/29/2009 11:47:10**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.018	-0.018	0.0001	0.0009	0.0002	11:48:00	Yes
2	-0.017	-0.017	0.0001	0.0008	0.0002	11:48:30	Yes
Mean:	-0.018	-0.018	0.0001				
SD:	0.001	0.001	0.0000				
%RSD:	3.721	3.721	5.73				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 75 **Autosampler Location: 72**
Sample ID: 243113004|936552|1 **Date Collected: 12/29/2009 11:48:50**
Analyst: JXL **Data Type: Original**

Replicate Data: 243113004|936552|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.284	0.284	0.0034	0.0159	0.0035	11:49:41	Yes
2	0.283	0.283	0.0034	0.0159	0.0035	11:50:11	Yes
Mean:	0.284	0.284	0.0034				
SD:	0.000	0.000	0.0000				
%RSD:	0.132	0.132	0.12				

Sequence No.: 76 **Autosampler Location: 73**
Sample ID: 243113005|936552|1 **Date Collected: 12/29/2009 11:50:31**
Analyst: JXL **Data Type: Original**

Replicate Data: 243113005|936552|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.350	0.350	0.0042	0.0192	0.0042	11:51:23	Yes
2	0.346	0.346	0.0041	0.0187	0.0042	11:51:53	Yes
Mean:	0.348	0.348	0.0041				
SD:	0.003	0.003	0.0000				
%RSD:	0.803	0.803	0.74				

Sequence No.: 77 **Autosampler Location: 74**
Sample ID: 243113006|936552|1 **Date Collected: 12/29/2009 11:52:13**
Analyst: JXL **Data Type: Original**

Replicate Data: 243113006|936552|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.524	0.524	0.0061	0.0278	0.0062	11:53:04	Yes
2	0.525	0.525	0.0061	0.0276	0.0062	11:53:34	Yes
Mean:	0.525	0.525	0.0061				
SD:	0.000	0.000	0.0000				
%RSD:	0.019	0.019	0.02				

Sequence No.: 78 **Autosampler Location: 75**
Sample ID: 243113007|936552|1 **Date Collected: 12/29/2009 11:53:54**
Analyst: JXL **Data Type: Original**

Sequence No.: 83 **Autosampler Location: 80**
Sample ID: 243113012|936552|1 **Date Collected: 12/29/2009 12:02:19**
Analyst: JXL **Data Type: Original**

Replicate Data: 243113012|936552|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	25.68	25.68	0.2812	1.3057	0.2813	12:03:11	Yes
	Sample concentration is greater than that of the highest standard.						
2	25.47	25.47	0.2788	1.2926	0.2789	12:03:41	Yes
	Sample concentration is greater than that of the highest standard.						
Mean:	25.58	25.58	0.2800				
SD:	0.153	0.153	0.0017				
%RSD:	0.598	0.598	0.60				
	Sample concentration is greater than that of the highest standard.						

Sequence No.: 84 **Autosampler Location: 81**
Sample ID: 243113013|936552|1 **Date Collected: 12/29/2009 12:04:01**
Analyst: JXL **Data Type: Original**

Replicate Data: 243113013|936552|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	4.043	4.043	0.0445	0.2016	0.0446	12:04:52	Yes
2	4.031	4.031	0.0444	0.2008	0.0445	12:05:22	Yes
Mean:	4.037	4.037	0.0445				
SD:	0.008	0.008	0.0001				
%RSD:	0.205	0.205	0.20				

Sequence No.: 85 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 12/29/2009 12:05:42**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.296	5.296	0.0582	0.2620	0.0583	12:06:33	Yes
2	5.255	5.255	0.0578	0.2597	0.0579	12:07:03	Yes
Mean:	5.275	5.275	0.0580				
SD:	0.029	0.029	0.0003				
%RSD:	0.546	0.546	0.54				

QC value within limits for Hg 253.7 Recovery = 105.51%
All analyte(s) passed QC.

Sequence No.: 86 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 12/29/2009 12:07:22**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.018	-0.018	0.0001	0.0008	0.0002	12:08:12	Yes
2	-0.016	-0.016	0.0001	0.0012	0.0002	12:08:42	Yes
Mean:	-0.017	-0.017	0.0001				
SD:	0.001	0.001	0.0000				
%RSD:	7.797	7.797	11.08				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 87 **Autosampler Location: 82**
Sample ID: 243113014|936552|1 **Date Collected: 12/29/2009 12:09:01**
Analyst: JXL **Data Type: Original**

Replicate Data: 243113014|936552|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.858	0.858	0.0097	0.0439	0.0098	12:09:53	Yes
2	0.854	0.854	0.0097	0.0434	0.0098	12:10:22	Yes
Mean:	0.856	0.856	0.0097				
SD:	0.002	0.002	0.0000				
%RSD:	0.274	0.274	0.26				

Sequence No.: 88 Autosampler Location: 7
Sample ID: CCV Date Collected: 12/29/2009 12:10:42
Analyst: Data Type: Original

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.290	5.290	0.0582	0.2617	0.0583	12:11:33	Yes
2	5.258	5.258	0.0578	0.2583	0.0579	12:12:02	Yes
Mean:	5.274	5.274	0.0580				
SD:	0.023	0.023	0.0002				
%RSD:	0.432	0.432	0.43				

QC value within limits for Hg 253.7 Recovery = 105.48%
All analyte(s) passed QC.

Sequence No.: 89 Autosampler Location: 8
Sample ID: CCB Date Collected: 12/29/2009 12:12:21
Analyst: Data Type: Original

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.014	-0.014	0.0002	0.0011	0.0003	12:13:12	Yes
2	-0.017	-0.017	0.0001	0.0011	0.0002	12:13:42	Yes
Mean:	-0.016	-0.016	0.0002				
SD:	0.001	0.001	0.0000				
%RSD:	9.524	9.524	10.58				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Analysis Begun

Logged In Analyst: Administrator
Technique: AA FIMS-MHS
Spectrometer Model: FIMS-100, S/N B050-9550
Autosampler Model: S10

Sample Information File: C:\data-AA\Administrator\Sample Information\122909S1.SIF
Batch ID:
Results Data Set: 122909S2
Results Library: C:\data-AA\Administrator\Results\Results.mdb

Method Loaded
Method Name: SOIL
Method Last Saved: 12/29/2009 09:46:10
Method Description: 7471A, ILM04 ANALYST JXL

Sequence No.: 1
Autosampler Location: 13
Sample ID: 1202003902|936546|10
Date Collected: 12/29/2009 13:05:50
Analyst: JXL
Data Type: Original

Replicate Data: 1202003902|936546|10

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	3.972	3.972	0.0438	0.2048	0.0439	13:06:42	Yes
2	3.945	3.945	0.0435	0.2023	0.0436	13:07:12	Yes
Mean:	3.958	3.958	0.0436				
SD:	0.019	0.019	0.0002				
%RSD:	0.490	0.490	0.49				

Sequence No.: 2
Autosampler Location: 14
Sample ID: 242668001|936546|1
Date Collected: 12/29/2009 13:07:32
Analyst: JXL
Data Type: Original

Replicate Data: 242668001|936546|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.297	0.297	0.0036	0.0174	0.0037	13:08:22	Yes
2	0.294	0.294	0.0035	0.0169	0.0036	13:08:52	Yes
Mean:	0.296	0.296	0.0036				
SD:	0.002	0.002	0.0000				
%RSD:	0.638	0.638	0.58				

Sequence No.: 3
Autosampler Location: 15
Sample ID: 242668002|936546|1
Date Collected: 12/29/2009 13:09:11
Analyst: JXL
Data Type: Original

Replicate Data: 242668002|936546|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.342	0.342	0.0041	0.0195	0.0042	13:10:01	Yes
2	0.338	0.338	0.0040	0.0194	0.0041	13:10:31	Yes
Mean:	0.340	0.340	0.0040				
SD:	0.003	0.003	0.0000				
%RSD:	0.834	0.834	0.77				

Sequence No.: 4
Autosampler Location: 70
Sample ID: 243113002|936552|10
Date Collected: 12/29/2009 13:10:50
Analyst: JXL
Data Type: Original

Replicate Data: 243113002|936552|10

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored

1	3.145	3.145	0.0347	0.1614	0.0348	13:11:41	Yes
2	3.183	3.183	0.0351	0.1633	0.0352	13:12:11	Yes
Mean:	3.164	3.164	0.0349				
SD:	0.027	0.027	0.0003				
%RSD:	0.848	0.848	0.84				

Sequence No.: 5 **Autosampler Location: 80**
Sample ID: 243113012|936552|10 **Date Collected: 12/29/2009 13:12:31**
Analyst: JXL **Data Type: Original**

Replicate Data: 243113012|936552|10

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	3.265	3.265	0.0360	0.1678	0.0361	13:13:23	Yes
2	3.191	3.191	0.0352	0.1640	0.0353	13:13:52	Yes
Mean:	3.228	3.228	0.0356				
SD:	0.052	0.052	0.0006				
%RSD:	1.617	1.617	1.60				

Sequence No.: 6 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 12/29/2009 13:14:12**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.444	5.444	0.0599	0.2780	0.0600	13:15:03	Yes
2	5.424	5.424	0.0596	0.2768	0.0597	13:15:33	Yes
Mean:	5.434	5.434	0.0597				
SD:	0.014	0.014	0.0002				
%RSD:	0.253	0.253	0.25				

QC value within limits for Hg 253.7 Recovery = 108.68%
All analyte(s) passed QC.

Sequence No.: 7 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 12/29/2009 13:15:52**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.014	-0.014	0.0002	0.0013	0.0003	13:16:42	Yes
2	-0.011	-0.011	0.0002	0.0017	0.0003	13:17:12	Yes
Mean:	-0.012	-0.012	0.0002				
SD:	0.002	0.002	0.0000				
%RSD:	15.58	15.58	11.06				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Miscellaneous

Prep LogBook

Analyst: FGA Verified by:_____

Batch: 932277

Lab SOP: GL-MA-E-009 REV# 19

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1201994225	UI062540-I	.503	g
MS	1201994227	UI091124-01	.25	mL
MS	1201994227	UI091124-06	.25	mL
MSD	1201994229	UI091124-01	.25	mL
MSD	1201994229	UI091124-06	.25	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1201994224		SW846 3050B	16-DEC-2009 13:30	0.51 g	50 mL	98.03922	SOIL
LCS	1201994225		SW846 3050B	16-DEC-2009 13:30	0.503 g	50 mL	99.40358	SOIL
SAMPLE	242668001		SW846 3050B	16-DEC-2009 13:30	0.506 g	50 mL	98.81423	SOIL
DUP	1201994226	242668001	SW846 3050B	16-DEC-2009 13:30	0.514 g	50 mL	97.27626	SOIL
MS	1201994227	242668001	SW846 3050B	16-DEC-2009 13:30	0.512 g	50 mL	97.65625	SOIL
MSD	1201994229	242668001	SW846 3050B	16-DEC-2009 13:30	0.5 g	50 mL	100	SOIL
SDILT	1201994228	242668001	SW846 3050B	16-DEC-2009 13:30	0.506 g	50 mL	98.81423	SOIL
SAMPLE	242668002		SW846 3050B	16-DEC-2009 13:30	0.525 g	50 mL	95.2381	SOIL

Reagent/Solvent Lot ID	Amount	Description
1215803	10 mL	HYDROCHLORIC ACID
1238345	1.25 mL	Nitric Acid CONC.

Comments Brown,rocky sample.

Prep LogBook

Analyst: FGA Verified by:_____

Batch: 932316

Lab SOP: GL-MA-E-009 REV# 19

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1201994304	UI062540-MS	.52	g
MS	1201994306	UI090611-A	.5	mL
MS	1201994306	UI090611-B	.5	mL
MSD	1201994308	UI090611-A	.5	mL
MSD	1201994308	UI090611-B	.5	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1201994303		SW846 3050B	16-DEC-2009 13:30	0.507 g	50 mL	98.61933	SOIL
LCS	1201994304		SW846 3050B	16-DEC-2009 13:30	0.52 g	50 mL	96.15385	SOIL
SAMPLE	242668001		SW846 3050B	16-DEC-2009 13:30	0.501 g	50 mL	99.8004	SOIL
DUP	1201994305	242668001	SW846 3050B	16-DEC-2009 13:30	0.515 g	50 mL	97.08738	SOIL
MS	1201994306	242668001	SW846 3050B	16-DEC-2009 13:30	0.523 g	50 mL	95.60229	SOIL
MSD	1201994308	242668001	SW846 3050B	16-DEC-2009 13:30	0.525 g	50 mL	95.2381	SOIL
SDILT	1201994307	242668001	SW846 3050B	16-DEC-2009 13:30	0.501 g	50 mL	99.8004	SOIL
SAMPLE	242668002		SW846 3050B	16-DEC-2009 13:30	0.503 g	50 mL	99.40358	SOIL

Reagent/Solvent Lot ID	Amount	Description
1203033-02	1.5 mL	Hydrogen Peroxide 30%
1238345	5 mL	Nitric Acid CONC.

Comments Brown,rocky soil.

Prep LogBook

Analyst: JXL1 Verified by:_____

Batch: 936545

Lab SOP: GL-MA-E-010 REV# 23

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1202003902	UI031809A	.209	g
MS	1202003904	WHG091223-14	.3	mL
MSD	1202003906	WHG091223-14	.3	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1202003901		SW846 7471A Prep	28-DEC-2009 08:00	0.515 g	30 mL	58.25243	SOIL
LCS	1202003902		SW846 7471A Prep	28-DEC-2009 08:00	0.209 g	30 mL	143.54067	SOIL
SAMPLE	242668001		SW846 7471A Prep	28-DEC-2009 08:00	0.514 g	30 mL	58.36576	SOIL
SAMPLE	242668002		SW846 7471A Prep	28-DEC-2009 08:00	0.544 g	30 mL	55.14706	SOIL
SAMPLE	242750001		SW846 7471A Prep	28-DEC-2009 08:00	0.553 g	30 mL	54.24955	SOIL
SAMPLE	242750002		SW846 7471A Prep	28-DEC-2009 08:00	0.525 g	30 mL	57.14286	SOIL
SAMPLE	242750003		SW846 7471A Prep	28-DEC-2009 08:00	0.523 g	30 mL	57.36138	SOIL
SAMPLE	242750004		SW846 7471A Prep	28-DEC-2009 08:00	0.586 g	30 mL	51.19454	SOIL
SAMPLE	242750005		SW846 7471A Prep	28-DEC-2009 08:00	0.518 g	30 mL	57.91506	SOIL
SAMPLE	243086001		SW846 7471A Prep	28-DEC-2009 08:00	0.569 g	30 mL	52.72408	SOIL
SAMPLE	243086002		SW846 7471A Prep	28-DEC-2009 08:00	0.571 g	30 mL	52.5394	SOIL
SAMPLE	243086003		SW846 7471A Prep	28-DEC-2009 08:00	0.564 g	30 mL	53.19149	SOIL
SAMPLE	243086004		SW846 7471A Prep	28-DEC-2009 08:00	0.582 g	30 mL	51.54639	SOIL
SAMPLE	243086005		SW846 7471A Prep	28-DEC-2009 08:00	0.517 g	30 mL	58.02708	SOIL
SAMPLE	243088003		SW846 7471A Prep	28-DEC-2009 08:00	0.592 g	30 mL	50.67568	SOIL
SAMPLE	243088004		SW846 7471A Prep	28-DEC-2009 08:00	0.574 g	30 mL	52.26481	SOIL
SAMPLE	243092001		SW846 7471A Prep	28-DEC-2009 08:00	0.582 g	30 mL	51.54639	SOIL
DUP	1202003903	243092001	SW846 7471A Prep	28-DEC-2009 08:00	0.56 g	30 mL	53.57143	SOIL
MS	1202003904	243092001	SW846 7471A Prep	28-DEC-2009 08:00	0.555 g	30 mL	54.05405	SOIL
MSD	1202003906	243092001	SW846 7471A Prep	28-DEC-2009 08:00	0.515 g	30 mL	58.25243	SOIL
SDILT	1202003905	243092001	SW846 7471A Prep	28-DEC-2009 08:00	0.582 g	30 mL	51.54639	SOIL
SAMPLE	243092002		SW846 7471A Prep	28-DEC-2009 08:00	0.595 g	30 mL	50.42017	SOIL
SAMPLE	243092003		SW846 7471A Prep	28-DEC-2009 08:00	0.511 g	30 mL	58.70841	SOIL
SAMPLE	243390001		SW846 7471A Prep	28-DEC-2009 08:00	0.594 g	30 mL	50.50505	SOIL
SAMPLE	243390002		SW846 7471A Prep	28-DEC-2009 08:00	0.571 g	30 mL	52.5394	SOIL

Reagent/Solvent Lot ID	Amount	Description
1236355-A	1.125 mL	Hydrochloric Acid Conc.
1240182-1	.375 mL	NITRIC ACID
1244904-C	7.5 mL	5% KMnO4 solution
1206350-C	2 mL	Hg reducing agent

Comments Sample is a brown, medium soil.
Digestion Start Date: 28-DEC-09 08:00:54
Digestion End Date: 28-DEC-09 08:30:54

Prep LogBook

WHG091223-07	30 uL	Mercury Working Standard 1st Source CAL S 0.2/CRA
WHG091223-08	75 uL	Mercury Working Standard 1st Source CAL S 0.5
WHG091223-11	1.5 mL	Mercury Working 1st Source CAL S 10.0
WHG091223-09	300 uL	Mercury Working 1st Source CAL S 2.0
WHG091223-10	750 uL	Mercury Working 1st Source CAL S 5.0/CCV
WHG091223-12	750 uL	Mercury Working 2nd Source S 5.0/ICV

NCR Report No.: 774652
Revision No.:

COMPANY - WIDE NONCONFORMANCE REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
28-DEC-09	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
ICP	SW846 3050B/6010B	Solid	LANL
Batch ID:	**Sample Numbers:**		
932278	See Below		

Potentially affected work order(s)(SDG): 242668(10-854)

Application Issues:

Failed Recovery for MS/PS

Failed RPD for DUP

Failed Recovery for MSD/PSD

Specification and Requirements Nonconformance Description:	NRG Disposition:
1. Failed Recovery for MS/PS: QC 1201994227MS 2. Failed RPD for DUP: QC 1201994226DUP 3. Failed Recovery for MSD/PSD: QC 1201994229MSD	1. The matrix spike recovery failed outside of the control limits for magnesium and potassium due to possible matrix interferences and/or non-homogeneity. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported. 2. The sample and sample duplicate % RPD failed outside the control limits for chromium due to possible sample non-homogeneity and/or matrix interference. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported. 3. The matrix spike duplicate recovery failed outside of the control limits for magnesium,manganese and potassium due to possible matrix interferences and/or non-homogeneity. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported.

Originator's Name:

Helen Camello 04-JAN-10

Data Validator/Group Leader:

Eric Lawson 06-JAN-10

COMPANY - WIDE NONCONFORMANCE REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
02-JAN-10	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
ICP/MS	SW846 3050B/6020	Solid	LANL
Batch ID:	**Sample Numbers:**		
932317	See Below		

Potentially affected work order(s)(SDG): 242668(10-854)

Application Issues:

Failed Recovery for MS/PS

Failed Recovery for MSD/PSD

Specification and Requirements Nonconformance Description:	NRG Disposition:
1. Failed Recovery for MS/PS: QC 1201994306MS 2. Failed Recovery for MSD/PSD: QC 1201994308MSD	The matrix spike recovery failed outside of the control limits for Se due to possible matrix interferences and/or non-homogeneity. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported. The matrix spike duplicate recovery failed outside of the control limits for Li and Se due to possible matrix interferences and/or non-homogeneity. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported.

Originator's Name:

Elizabeth Janssen 05-JAN-10

Data Validator/Group Leader:

Rose Jenkins 06-JAN-10

Standard Logbook

Serial ID: UHG1167639-01 **Opened:** 13-AUG-09 **Amount :** 125 mL
Name: MHGSTOCK1 **Received:** 13-AUG-09 **Catalog Number :** PLHG4-2Y
Type: Source Material **Expires:** 13-AUG-10 **Lot Number :** 15-37HG
Employee: Bryan Davis **Solvent :** 10% HNO3
Supplier: Spex
Description: Mercury Source Standard #1 1,000 mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Mercury	1000 mg/L		

Serial ID: UHG1167641-02 **Opened:** 13-AUG-09 **Amount :** 100 mL
Name: MHGSTOCK2 **Received:** 13-AUG-09 **Catalog Number :** AHG1KN-100
Type: Source Material **Expires:** 13-AUG-10 **Lot Number :** 4905530
Employee: Bryan Davis **Solvent :** 3% HNO3
Supplier: Ricca Chemical Company
Description: Mercury Source Standard #2 1,000 mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Mercury	999.7 mg/L		

Serial ID: UI031809A **Opened:** 18-MAR-09 **Catalog Number :** 540
Name: METALSOILSRM **Received:** 18-MAR-09 **Lot Number :** D061-540
Type: Source Material **Expires:** 10-OCT-10
Employee: Jamie Johnson
Supplier: ERA
Description: Metals LCS Soil SRM
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	10600 mg/kg	Antimony	126 mg/kg
Arsenic	225 mg/kg	Barium	565 mg/kg
Beryllium	162 mg/kg	Boron	107 mg/kg
Cadmium	69.1 mg/kg	Calcium	10000 mg/kg
Chromium	124 mg/kg	Cobalt	115 mg/kg
Copper	66.7 mg/kg	Iron	17600 mg/kg
Lead	223 mg/kg	Magnesium	4260 mg/kg
Manganese	368 mg/kg	Mercury	5.15 mg/kg
Molybdenum	107 mg/kg	Nickel	172 mg/kg
Potassium	4090 mg/kg	Selenium	147 mg/kg
Silver	35.2 mg/kg	Sodium	538 mg/kg
Strontium	117 mg/kg	Thallium	173 mg/kg
Tin	164 mg/kg	Titanium	381 mg/kg
Vanadium	93.9 mg/kg	Zinc	349 mg/kg

Standard Logbook

Serial ID: UI062540-I **Opened:** 12-JUN-09 **Amount :** 80 g
Name: ICP SOIL SRM **Received:** 12-JUN-09 **Lot Number :** D062-540
Type: Source Material **Expires:** 31-JAN-12
Employee: Bryan Davis
Supplier: ERA
Description: Metals Soil LCS SRM ICP/Hg
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	10500 mg/kg	Antimony	173 mg/kg
Arsenic	104 mg/kg	Barium	198 mg/kg
Beryllium	77.6 mg/kg	Boron	141 mg/kg
Cadmium	60.7 mg/kg	Calcium	9870 mg/kg
Chromium	236 mg/kg	Cobalt	91.2 mg/kg
Copper	174 mg/kg	Iron	18000 mg/kg
Lead	86 mg/kg	Magnesium	4000 mg/kg
Manganese	558 mg/kg	Mercury	8.46 mg/kg
Molybdenum	48.6 mg/kg	Nickel	134 mg/kg
Phosphorous	736 mg/kg	Potassium	4300 mg/kg
Selenium	286 mg/kg	Silica	2591 mg/kg
Silicon	1211 mg/kg	Silver	30.1 mg/kg
Sodium	1020 mg/kg	Strontium	227 mg/kg
Sulfur	385 mg/kg	Thallium	121 mg/kg
Tin	104 mg/kg	Titanium	462 mg/kg
Vanadium	115 mg/kg	Zinc	594 mg/kg

Serial ID: UI062540-MS **Opened:** 12-JUN-09 **Lot Number :** D062-540
Name: ICPMS SOIL SRM **Received:** 12-JUN-09
Type: Source Material **Expires:** 31-JAN-12
Employee: Bryan Davis
Supplier: ERA
Description: Metals Soil LCS SRM ICPMS
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	10500 mg/kg	Antimony	67.4 mg/kg
Arsenic	104 mg/kg	Barium	198 mg/kg
Beryllium	77.6 mg/kg	Boron	141 mg/kg
Cadmium	60.6 mg/kg	Calcium	9870 mg/kg
Chromium	236 mg/kg	Cobalt	91.2 mg/kg
Copper	174 mg/kg	Iron	18000 mg/kg
Lead	86 mg/kg	Lithium	10.6 mg/kg
Magnesium	4000 mg/kg	Manganese	558 mg/kg
Mercury	8.46 mg/kg	Molybdenum	48.6 mg/kg
Nickel	134 mg/kg	Phosphorous	755 mg/kg
Potassium	4300 mg/kg	Selenium	286 mg/kg
Silver	30.1 mg/kg	Sodium	1020 mg/kg

Analyte	Concentration	Analyte	Concentration
Strontium	227 mg/kg	Thallium	121 mg/kg
Thorium	9.84 mg/kg	Tin	104 mg/kg
Titanium	462 mg/kg	Uranium	2.13 mg/kg
Uranium-235	.0153 mg/kg	Uranium-238	2.11 mg/kg
Vanadium	92.4 mg/kg	Zinc	594 mg/kg
Zirconium	10.6 mg/kg		

Serial ID: UI090422-40 **Opened:** 04-MAY-09 **Amount :** 500 mL
Name: TRACE ICP ICSA SOLN A **Received:** 22-APR-09 **Catalog Number :** 160005-01-03
Type: Source Material **Expires:** 04-MAY-10 **Lot Number :** 1013357
Employee: Helen Camello **Solvent :** 5%HNO3
Supplier: o2si
Description: TRACE ICP ICSA SOLN A mg/L+/-0.5%IN5%HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	5000 mg/L	Calcium	5000 mg/L
Iron	2000 mg/L	Magnesium	5000 mg/L

Serial ID: UI090610-03 **Opened:** 10-JUN-09 **Catalog Number :** 060074-06-01
Name: ICPMS Tungsten - 10mg/L S **Received:** 10-JUN-09 **Lot Number :** 1016338
Type: Source Material **Expires:** 10-JUN-10 **Solvent :** 2% HNO3
Employee: Paul Boyd
Supplier: O2SI
Description: ICPMS Tungsten standard SPIKE - 10mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Tungsten	10 mg/L		

Serial ID: UI090611-A **Opened:** 11-JUN-09 **Catalog Number :** 160067-03
Name: ICP-MS DOE SOIL SPIKE **Received:** 11-JUN-09 **Lot Number :** 1015749
Type: Source Material **Expires:** 11-JUN-10
Employee: Francena Armstrong
Supplier: 02si
Description: ICP-MS Spike for soil products.
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	200 mg/L	Arsenic	8 mg/L
Barium	5 mg/L	Beryllium	5 mg/L
Boron	10 mg/L	Cadmium	1 mg/L
Calcium	200 mg/L	Chromium	5 mg/L
Cobalt	5 mg/L	Copper	5 mg/L

Analyte	Concentration	Analyte	Concentration
Iron	200 mg/L	Lead	20 mg/L
Lithium	5 mg/L	Magnesium	200 mg/L
Manganese	5 mg/L	Nickel	5 mg/L
Phosphorus, Total as P	200 mg/L	Potassium	200 mg/L
Selenium	2 mg/L	Sodium	200 mg/L
Strontium	5 mg/L	Thallium	10 mg/L
Thorium	5 mg/L	Uranium	5 mg/L
Uranium-235	.036 mg/L	Uranium-238	4.964 mg/L
Vanadium	5 mg/L	Zinc	5 mg/L

Serial ID: UI090611-B **Opened:** 11-JUN-09 **Catalog Number :** 160067-03
Name: ICP-MS DOE SOIL SPIKE **Received:** 11-JUN-09 **Lot Number :** 1015749
Type: Source Material **Expires:** 11-JUN-10
Employee: Francena Armstrong
Supplier: 02si
Description: ICP-MS Spike for Soil Products
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	20 mg/L	Molybdenum	5 mg/L
Silicon	200 mg/L	Silver	5 mg/L
Tin	5 mg/L	Zirconium	5 mg/L

Serial ID: UI090701-09 **Opened:** 01-JUL-09 **Amount :** 250 mL
Name: ICP-MS CRDL Master #1 **Received:** 01-JUL-09 **Catalog Number :** 160044-09-02
Type: Source Material **Expires:** 01-JUL-10 **Lot Number :** 1016477
Employee: Paul Boyd **Solvent :** +/- 0.5% IN 2% HNO3
Supplier: 02SI
Description: ICPMS CRDL Master Soln #1
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	15 mg/L	Arsenic	5 mg/L
Barium	2 mg/L	Beryllium	.5 mg/L
Boron	15 mg/L	Cadmium	1 mg/L
Calcium	100 mg/L	Chromium	3 mg/L
Cobalt	1 mg/L	Copper	1 mg/L
Iron	25 mg/L	Lead	2 mg/L
Lithium	10 mg/L	Magnesium	15 mg/L
Manganese	5 mg/L	Nickel	2 mg/L
Phosphorous	50 mg/L	Potassium	300 mg/L
Selenium	5 mg/L	Sodium	250 mg/L
Strontium	10 mg/L	Thallium	1 mg/L
Thorium	1 mg/L	Uranium	.2 mg/L
Vanadium	10 mg/L	Zinc	10 mg/L

Standard Logbook

Serial ID:	UI090701-10	**Opened:**	01-JUL-09	**Amount :**	250 mL
Name:	ICP-MS CRDL Master #2	**Received:**	01-JUL-09	**Catalog Number :**	160044-08-02
Type:	Source Material	**Expires:**	01-JUL-10	**Lot Number :**	1016476
Employee:	Paul Boyd			**Solvent :**	+/- 0.5% IN 2% HNO3
Supplier:	02SI				
Description:	ICPMS CRDL Soln #2				
Comments:	None				

Analyte	Concentration	Analyte	Concentration
Antimony	2 mg/L	Molybdenum	.5 mg/L
Silver	1 mg/L	Tin	2 mg/L
Titanium	10 mg/L	Tungsten	5 mg/L
Zirconium	2 mg/L		

Serial ID:	UI090701-40	**Opened:**	01-JUL-09	**Amount :**	500 mL
Name:	TRACE ICP Stock PQL St	**Received:**	30-JUN-09	**Catalog Number :**	160543-01-03
Type:	Source Material	**Expires:**	01-JUL-10	**Lot Number :**	1016475
Employee:	Helen Camello			**Solvent :**	+/-0.5%in2%HNO3+TrHF
Supplier:	02si				
Description:	TRACE ICP Stock PQL Standard				
Comments:	None				

Analyte	Concentration	Analyte	Concentration
Aluminum	100 mg/L	Antimony	5 mg/L
Arsenic	15 mg/L	Barium	2.5 mg/L
Beryllium	2.5 mg/L	Boron	25 mg/L
Cadmium	2.5 mg/L	Calcium	100 mg/L
Chromium	2.5 mg/L	Cobalt	2.5 mg/L
Copper	5 mg/L	Iron	50 mg/L
Lead	5 mg/L	Magnesium	150 mg/L
Manganese	5 mg/L	Molybdenum	5 mg/L
Nickel	2.5 mg/L	Phosphorous	75 mg/L
Potassium	75 mg/L	Selenium	15 mg/L
Silicon	50 mg/L	Silver	2.5 mg/L
Sodium	150 mg/L	Strontium	2.5 mg/L
Sulfur	50 mg/L	Thallium	10 mg/L
Tin	5 mg/L	Titanium	2.5 mg/L
Uranium	25 mg/L	Vanadium	2.5 mg/L
Zinc	5 mg/L		

Serial ID:	UI090828-42	**Opened:**	16-SEP-09	**Amount :**	500 mL
Name:	TRACE ICP Na-1000SOUR	**Received:**	27-AUG-09	**Catalog Number :**	060011-02-03
Type:	Source Material	**Expires:**	16-SEP-10	**Lot Number :**	1017098
Employee:	Helen Camello			**Solvent :**	1%HNO3
Supplier:	02SI				

Standard Logbook

Description: Sodium 1000 +/- 3 ug/mL in 1% HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Sodium	1000 ug/mL		

Serial ID: UI090925-40 **Opened:** 23-OCT-09 **Amount :** 500 mL
Name: SECOND SOURCE STD -1 **Received:** 25-SEP-09 **Catalog Number :** SGELMX38-500N
Type: Source Material **Expires:** 30-SEP-10 **Lot Number :** 4909129
Employee: Helen Camello **Solvent :** 5%HNO3
Supplier: SPECTRO PURE
Description: SECOND SOURCE STD #1A 5%HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Arsenic	100 mg/L
Barium	100 mg/L	Boron	100 mg/L
Cadmium	100 mg/L	Calcium	1000 mg/L
Chromium	100 mg/L	Cobalt	100 mg/L
Copper	100 mg/L	Iron	1000 mg/L
Lead	100 mg/L	Phosphorous	500 mg/L
Potassium	500 mg/L	Selenium	500 mg/L
Sodium	500 mg/L	Strontium	100 mg/L

Serial ID: UI090925-41 **Opened:** 23-OCT-09 **Amount :** 500 mL
Name: SECOND SOURCE STD -1 **Received:** 25-SEP-09 **Catalog Number :** SGELMX39-500B
Type: Source Material **Expires:** 30-SEP-10 **Lot Number :** 4909130
Employee: Helen Camello **Solvent :** 5%HNO3,TR.HF
Supplier: SPECTRO PURE
Description: SECOND SOURCE STD #1B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	100 mg/L	Beryllium	50 mg/L
Magnesium	1000 mg/L	Manganese	100 mg/L
Molybdenum	100 mg/L	Nickel	100 mg/L
Silver	50 mg/L	Sulfur	500 mg/L
Thallium	100 mg/L	Tin	100 mg/L
Titanium	100 mg/L	Uranium	100 mg/L
Vanadium	100 mg/L	Zinc	100 mg/L

Serial ID: UI091015-42 **Opened:** 28-OCT-09 **Amount :** 500 mL
Name: SI 1000mg/L **Received:** 15-OCT-09 **Catalog Number :** 060014-02-03
Type: Source Material **Expires:** 28-OCT-10 **Lot Number :** 1017581
Employee: Helen Camello **Solvent :** 0.3%H2O(NH4)2SiF6
Supplier: o2si

Standard Logbook

Description: Silicon 1000mg/L+/-0.3%in H2O(NH4)2SiF6
Comments: None

Analyte	Concentration	Analyte	Concentration
Silica	2139 mg/L	Silicon	1000 mg/L

Serial ID: UI091102-40 **Opened:** 16-NOV-09 **Amount :** 500 mL
Name: TRACE CALSTD#1A SOUF **Received:** 02-NOV-09 **Catalog Number :** HP2270-1-500
Type: Source Material **Expires:** 31-OCT-10 **Lot Number :** 0930215
Employee: Helen Camello **Solvent :** HNO3
Supplier: Environmental Express
Description: Trace Calibration Std #1A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	2000 mg/L	Arsenic	200 mg/L
Barium	200 mg/L	Beryllium	200 mg/L
Boron	200 mg/L	Cadmium	200 mg/L
Calcium	2000 mg/L	Chromium	200 mg/L
Cobalt	200 mg/L	Copper	200 mg/L
Iron	2000 mg/L	Lead	200 mg/L
Magnesium	2000 mg/L	Manganese	200 mg/L
Nickel	200 mg/L	Phosphorous	1000 mg/L
Potassium	2000 mg/L	Selenium	200 mg/L
Sodium	2000 mg/L	Strontium	200 mg/L
Thallium	200 mg/L	Uranium	200 mg/L
Vanadium	200 mg/L	Zinc	200 mg/L

Serial ID: UI091102-41 **Opened:** 16-NOV-09 **Amount :** 500 mL
Name: TRACE CALSTD#1B SOUF **Received:** 02-NOV-09 **Catalog Number :** HP2270-2-500
Type: Source Material **Expires:** 31-OCT-10 **Lot Number :** 0930216
Employee: Helen Camello **Solvent :** HNO3
Supplier: Environmental Express
Description: Trace Calibration Standard #1B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	200 mg/L	Molybdenum	200 mg/L
Silver	200 mg/L	Sulfur	400 mg/L
Tin	200 mg/L	Titanium	200 mg/L

Serial ID: UI091102-42 **Opened:** 17-NOV-09 **Amount :** 200 mL
Name: SILICON **Received:** 02-NOV-09 **Catalog Number :** HP100050-4F
Type: Source Material **Expires:** 17-NOV-10 **Lot Number :** 0921924
Employee: Helen Camello **Solvent :** H20/tr HF
Supplier: ENVIRNMENTAL EXPRESS

Standard Logbook

Description: SILICON 1000mg/L H20/tr HF
Comments: None

Analyte	Concentration	Analyte	Concentration
Silica	2139 mg/L	Silicon	1000 mg/L

Serial ID: UI091124-01 **Opened:** 24-NOV-09 **Lot Number :** 1017642
Name: METALSPIKE-1 **Received:** 24-NOV-09
Type: Source Material **Expires:** 24-NOV-10
Employee: Francena Armstrong
Supplier: OS2I
Description: Metals Spike Mix I
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 ug/mL	Arsenic	100 ug/mL
Barium	100 ug/mL	Beryllium	100 ug/mL
Boron	100 ug/mL	Cadmium	100 ug/mL
Calcium	1000 ug/mL	Cobalt	100 ug/mL
Iron	1000 ug/mL	Lead	100 ug/mL
Magnesium	1000 ug/mL	Phosphorous	100 ug/mL
Potassium	1000 ug/mL	Silver	100 ug/mL
Sodium	1000 ug/mL	Strontium	100 ug/mL

Serial ID: UI091124-06 **Opened:** 24-NOV-09 **Lot Number :** 1017643
Name: METALSPIKE-2 **Received:** 24-NOV-09
Type: Source Material **Expires:** 24-NOV-10
Employee: Francena Armstrong
Supplier: OS2I
Description: Metals Spike Mix II
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	100 ug/mL	Chromium	100 ug/mL
Copper	100 ug/mL	Manganese	100 ug/mL
Molybdenum	100 ug/mL	Nickel	100 ug/mL
Selenium	100 ug/mL	Silica	2141 ug/mL
Silicon	1000 ug/mL	Sulfur	1000 ug/mL
Thallium	100 ug/mL	Tin	100 ug/mL
Titanium	100 ug/mL	Uranium	100 ug/mL
Vanadium	100 ug/mL	Zinc	100 ug/mL

Standard Logbook

Serial ID: UI091130-48 **Opened:** 11-DEC-09 **Amount :** 1000 mL
Name: Trace ICP ICSA **Received:** 01-DEC-09 **Catalog Number :** 160005-02
Type: Source Material **Expires:** 01-JAN-10 **Lot Number :** 1018045
Employee: Helen Camello **Solvent :** 3% HCl + 1% HNO3
Supplier: o2si
Description: Trace ICP Interferent Check Standard A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 UG/L	Calcium	500000 UG/L
Iron	200000 UG/L	Magnesium	500000 UG/L

Serial ID: UI091211-40 **Opened:** 11-DEC-09 **Amount :** 500 mL
Name: ICP HIGH RANGE STD-A **Received:** 09-DEC-09 **Catalog Number :** 160211-05-03
Type: Source Material **Expires:** 11-DEC-10 **Lot Number :** 1017958
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3
Supplier: 02SI
Description: ICP HIGH RANGE STD SOLUTION A
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	10000 ug/L	Arsenic	10000 ug/L
Barium	15000 ug/L	Beryllium	3000 ug/L
Boron	5000 ug/L	Cadmium	10000 ug/L
Chromium	25000 ug/L	Cobalt	10000 ug/L
Copper	20000 ug/L	Lead	25000 ug/L
Manganese	10000 ug/L	Molybdenum	10000 ug/L
Nickel	10000 ug/L	Phosphorous	15000 ug/L
Potassium	300000 ug/L	Selenium	10000 ug/L
Silica	107000 ug/L	Silicon	50000 ug/L
Silver	1000 ug/L	Strontium	10000 ug/L
Sulfur	50000 ug/L	Thallium	10000 ug/L
Tin	10000 ug/L	Titanium	10000 ug/L
Vanadium	10000 ug/L	Zinc	15000 ug/L

Serial ID: UI091211-41 **Opened:** 11-DEC-09 **Amount :** 500 mL
Name: ICP HIGH RANGE STD B **Received:** 09-DEC-09 **Catalog Number :** 160211-05-03
Type: Source Material **Expires:** 11-DEC-10 **Lot Number :** 1017958
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3
Supplier: 02SI
Description: ICP HIGH RANGE STD SOLUTION B
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 ug/L	Calcium	500000 ug/L
Iron	500000 ug/L	Magnesium	500000 ug/L

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Sodium	500000 ug/L	Uranium	15000 ug/L

Serial ID: UI091212-11 **Opened:** 12-DEC-09 **Amount :** 1000 mL
Name: ICP-MS ICSA Master A **Received:** 12-DEC-09 **Catalog Number :** 160013-01-01L
Type: Source Material **Expires:** 12-DEC-10 **Lot Number :** 1015303
Employee: Paul Boyd **Solvent :** 2% HNO3
Supplier: 02SI
Description: ICP-MS ICSA Master A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Calcium	1000 mg/L
Carbon	2000 mg/L	Chloride	10000 mg/L
Iron	1000 mg/L	Magnesium	1000 mg/L
Molybdenum	20 mg/L	Phosphorous	1000 mg/L
Potassium	1000 mg/L	Sodium	1000 mg/L
Sulfur	1000 mg/L	Titanium	20 mg/L

Serial ID: UI091212-60 **Opened:** 12-DEC-09 **Amount :** .5 mL
Name: ICPMS High Range Standa **Received:** 12-DEC-09 **Catalog Number :** 160212-02-01
Type: Source Material **Expires:** 12-DEC-10 **Lot Number :** 1018064
Employee: Paul Boyd **Solvent :** 2%HNO3 + Tr HF
Supplier: O2SI
Description: Linear Range Standard A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	5000 mg/L	Arsenic	100 mg/L
Barium	250 mg/L	Beryllium	100 mg/L
Cadmium	100 mg/L	Calcium	5000 mg/L
Chromium	100 mg/L	Cobalt	100 mg/L
Copper	100 mg/L	Iron	5000 mg/L
Lead	500 mg/L	Lithium	100 mg/L
Magnesium	5000 mg/L	Manganese	100 mg/L
Nickel	100 mg/L	Phosphorous	2500 mg/L
Potassium	5000 mg/L	Selenium	50 mg/L
Sodium	5000 mg/L	Strontium	100 mg/L
Thallium	50 mg/L	Thorium	250 mg/L
Uranium	500 mg/L	Vanadium	100 mg/L
Zinc	250 mg/L		

Standard Logbook

Serial ID: UI091212-61 **Opened:** 12-DEC-09 **Amount :** .5 mL
Name: ICPMS High Range Standar **Received:** 12-DEC-09 **Catalog Number :** 160212-02-01
Type: Source Material **Expires:** 12-DEC-10 **Lot Number :** 1018064
Employee: Paul Boyd **Solvent :** 2%HNO3 + Tr HF
Supplier: O2SI
Description: Linear Range Standard B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	25 mg/L	Molybdenum	100 mg/L
Silver	25 mg/L	Tin	100 mg/L
Tungsten	100 mg/L	Zirconium	50 mg/L

Serial ID: UI091217-06 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master A **Received:** 17-DEC-09 **Catalog Number :** 160055-01
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018209
Employee: Paul Boyd **Solvent :** +/- 0.5% in 5% HNO3 100 cm2
Supplier: 02SI
Description: ICPMS ICV/CCV SOLN A - 10ppm
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	2020 mg/L	Calcium	2000 mg/L
Iron	2000 mg/L	Magnesium	2000 mg/L
Phosphorous	2000 mg/L	Potassium	2000 mg/L
Sodium	2000 mg/L		

Serial ID: UI091217-07 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master B **Received:** 17-DEC-09 **Catalog Number :** 160054-02
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018210
Employee: Paul Boyd **Solvent :** +/- 0.5% in 5% HNO3 100 cm2
Supplier: 02SI
Description: ICPMS ICV/CCV Soln B - 10ppm
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	20 mg/L	Barium	20 mg/L
Beryllium	20 mg/L	Boron	40 mg/L
Cadmium	20 mg/L	Chromium	20 mg/L
Cobalt	20 mg/L	Copper	20 mg/L
Lead	20 mg/L	Lithium	20 mg/L
Manganese	20 mg/L	Nickel	20 mg/L
Selenium	20 mg/L	Strontium	20 mg/L
Thallium	20 mg/L	Thorium	20 mg/L
Uranium	20 mg/L	Vanadium	20 mg/L
Zinc	20 mg/L		

Standard Logbook

Serial ID: UI091217-08 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master C **Received:** 17-DEC-09 **Catalog Number :** 160054-03
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018211
Employee: Paul Boyd **Solvent :** +/- 0.5% in 5% HNO3 100 cm2
Supplier: 02SI
Description: ICPMS ICV/CCV Soln C - 10ppm
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	20 mg/L	Molybdenum	20 mg/L
Silver	20 mg/L	Tin	20 mg/L
Titanium	20 mg/L	Tungsten	20 mg/L
Zirconium	20 mg/L		

Serial ID: UI091217-12 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICSAB Master B **Received:** 17-DEC-09 **Catalog Number :** 160033-02
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018212
Employee: Paul Boyd **Solvent :** +/- 0.5% in 2% HNO3
Supplier: 02SI
Description: ICPMS ICSAB Master B
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	2 mg/L	Barium	2 mg/L
Beryllium	2 mg/L	Boron	2 mg/L
Cadmium	2 mg/L	Chromium	2 mg/L
Cobalt	2 mg/L	Copper	2 mg/L
Lead	2 mg/L	Lithium	2 mg/L
Manganese	2 mg/L	Nickel	2 mg/L
Selenium	2 mg/L	Strontium	2 mg/L
Thallium	2 mg/L	Thorium	2 mg/L
Uranium	2 mg/L	Vanadium	2 mg/L
Zinc	2 mg/L		

Serial ID: UI091217-13 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICSAB Master C **Received:** 17-DEC-09 **Catalog Number :** 160033-03
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1016926
Employee: Paul Boyd **Solvent :** +/- 0.5% in 2% HNO3
Supplier: 02SI
Description: ICPMS ICSAB Master C
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	2 mg/L	Silver	2 mg/L
Tin	2 mg/L	Tungsten	2 mg/L
Zirconium	2 mg/L		

Standard Logbook

Serial ID: UMS090303-01 **Opened:** 03-MAR-09 **Amount :** 250 mL
Name: ICPMSCalSPIKEB **Received:** 03-MAR-09 **Catalog Number :** ZGEL-100-250
Type: Source Material **Expires:** 28-FEB-10 **Lot Number :** 14-81JB
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution B
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	10 mg/L	Barium	10 mg/L
Beryllium	10 mg/L	Boron	20 mg/L
Cadmium	10 mg/L	Chromium	10 mg/L
Cobalt	10 mg/L	Copper	10 mg/L
Lead	10 mg/L	Lithium	10 mg/L
Manganese	10 mg/L	Nickel	10 mg/L
Selenium	10 mg/L	Silver	10 mg/L
Strontium	10 mg/L	Thallium	10 mg/L
Thorium	10 mg/L	Uranium	10 mg/L
Vanadium	10 mg/L	Zinc	10 mg/L

Serial ID: UMS090303-02 **Opened:** 03-MAR-09 **Catalog Number :** ZGEL-102-250
Name: ICPMSCalSPIKEA **Received:** 03-MAR-09 **Lot Number :** 14-83JB
Type: Source Material **Expires:** 28-FEB-10
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Calcium	1000 mg/L
Iron	1000 mg/L	Magnesium	1000 mg/L
Phosphorous	1000 mg/L	Potassium	1000 mg/L
Sodium	1000 mg/L		

Serial ID: UMS090303-03 **Opened:** 03-MAR-09 **Amount :** 250 ml
Name: ICPMSCalSPIKEC **Received:** 03-MAR-09 **Catalog Number :** ZGEL-101-250
Type: Source Material **Expires:** 28-FEB-10 **Lot Number :** 15-199JB
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution C
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	10 mg/L	Molybdenum	10 mg/L
Tin	10 mg/L	Titanium	10 mg/L
Zirconium	10 mg/L		

Standard Logbook

Serial ID: IHG091222-01 **Opened:** 22-DEC-09 **Instrument Id :** Mercury
Name: MHGINTER1 **Received:** 22-DEC-09 **Pipet Id :** Minou1
Type: Intermediate **Expires:** 23-DEC-09 **Solvent :** 1mL HNO3 + Typel H2O
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Intermediate 1st Source 200 ug/L
Comments: Prepare fresh daily

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167639-01	Mercury	1000 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: IHG091222-02 **Opened:** 22-DEC-09 **Pipet Id :** Minou1
Name: MHGINTER2 **Received:** 22-DEC-09 **Solvent :** 2% HNO3-1240182
Type: Intermediate **Expires:** 23-DEC-09
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Intermediate 2nd Source 200 ug/L
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167641-02	Mercury	999.7 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: IHG091223-01 **Opened:** 23-DEC-09 **Instrument Id :** Mercury
Name: MHGINTER1 **Received:** 23-DEC-09 **Pipet Id :** Minou1
Type: Intermediate **Expires:** 24-DEC-09 **Solvent :** 1mL HNO3 + Typel H2O
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Intermediate 1st Source 200 ug/L
Comments: Prepare fresh daily

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167639-01	Mercury	1000 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: IHG091223-02 **Opened:** 23-DEC-09 **Pipet Id :** Minou1
Name: MHGINTER2 **Received:** 23-DEC-09 **Solvent :** 2% HNO3-1240182
Type: Intermediate **Expires:** 24-DEC-09
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Intermediate 2nd Source 200 ug/L
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167641-02	Mercury	999.7 mg/L	.05 mL	250 mL	200 ug/L

Standard Logbook

Serial ID: WHG091222-07 **Opened:** 22-DEC-09 **Pipet Id :** Hg1289245
Name: MHGWORKCALS0.2CRA **Received:** 22-DEC-09 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 28-DEC-09
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working Standard 1st Source CAL S 0.2/CRA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG091222-01	Mercury	200 ug/L	30 uL	30 mL	.2 ug/L

Serial ID: WHG091222-08 **Opened:** 22-DEC-09 **Pipet Id :** Hg1289245
Name: MHGWORKCALS0.5 **Received:** 22-DEC-09 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 28-DEC-09
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working Standard 1st Source CAL S 0.5
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG091222-01	Mercury	200 ug/L	75 uL	30 mL	.5 ug/L

Serial ID: WHG091222-09 **Opened:** 22-DEC-09 **Pipet Id :** Hg1289245
Name: MHGWORKCALS2.0 **Received:** 22-DEC-09 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 28-DEC-09
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL S 2.0
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG091222-01	Mercury	200 ug/L	300 uL	30 mL	2 ug/L

Serial ID: WHG091222-10 **Opened:** 22-DEC-09 **Pipet Id :** Hg1289245
Name: MHGWORKCALS5.0CCV **Received:** 22-DEC-09 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 28-DEC-09
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL S 5.0/CCV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG091222-01	Mercury	200 ug/L	750 uL	30 mL	5 ug/L

Standard Logbook

Serial ID: WHG091222-11 **Opened:** 22-DEC-09 **Pipet Id :** Hg1289245
Name: MHGWORKCALS10.0 **Received:** 22-DEC-09 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 28-DEC-09
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working 1st Source CAL S 10.0
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG091222-01	Mercury	200 ug/L	1500 uL	30 mL	10 ug/L

Serial ID: WHG091222-12 **Opened:** 22-DEC-09 **Pipet Id :** Hg1289245
Name: MHGWORKS5.0ICV **Received:** 22-DEC-09 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 28-DEC-09
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 2nd Source S 5.0/ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG091222-02	Mercury	200 ug/L	750 uL	30 mL	5 ug/L

Serial ID: WHG091222-14 **Opened:** 22-DEC-09 **Pipet Id :** Hg1289245
Name: MHGSOILMSSPIKE **Received:** 22-DEC-09 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 28-DEC-09
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury soil working intermediate standard for MS
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167639-01	Mercury	1000 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: WHG091223-07 **Opened:** 23-DEC-09 **Pipet Id :** Hg1289245
Name: MHGWORKCALS0.2CRA **Received:** 23-DEC-09 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 29-DEC-09
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working Standard 1st Source CAL S 0.2/CRA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG091223-01	Mercury	200 ug/L	30 uL	30 mL	.2 ug/L

Standard Logbook

Serial ID: WHG091223-08 **Opened:** 23-DEC-09 **Pipet Id :** Hg1289245
Name: MHGWORKCALS0.5 **Received:** 23-DEC-09 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 29-DEC-09
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working Standard 1st Source CAL S 0.5
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG091223-01	Mercury	200 ug/L	75 uL	30 mL	.5 ug/L

Serial ID: WHG091223-09 **Opened:** 23-DEC-09 **Pipet Id :** Hg1289245
Name: MHGWORKCALS2.0 **Received:** 23-DEC-09 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 29-DEC-09
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL S 2.0
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG091223-01	Mercury	200 ug/L	300 uL	30 mL	2 ug/L

Serial ID: WHG091223-10 **Opened:** 23-DEC-09 **Pipet Id :** Hg1289245
Name: MHGWORKCALS5.0CCV **Received:** 23-DEC-09 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 29-DEC-09
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL S 5.0/CCV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG091223-01	Mercury	200 ug/L	750 uL	30 mL	5 ug/L

Serial ID: WHG091223-11 **Opened:** 23-DEC-09 **Pipet Id :** Hg1289245
Name: MHGWORKCALS10.0 **Received:** 23-DEC-09 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 29-DEC-09
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working 1st Source CAL S 10.0
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG091223-01	Mercury	200 ug/L	1500 uL	30 mL	10 ug/L

Standard Logbook

Serial ID: WHG091223-12 **Opened:** 23-DEC-09 **Pipet Id :** Hg1289245
Name: MHGWORKS5.0ICV **Received:** 23-DEC-09 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 29-DEC-09
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 2nd Source S 5.0/ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG091223-02	Mercury	200 ug/L	750 uL	30 mL	5 ug/L

Serial ID: WHG091223-14 **Opened:** 23-DEC-09 **Pipet Id :** Hg1289245
Name: MHGSOILMSSPIKE **Received:** 23-DEC-09 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 29-DEC-09
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury soil working intermediate standard for MS
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167639-01	Mercury	1000 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: WI091219-42 **Opened:** 19-DEC-09 **Balance Id :** 216
Name: TRACE ICP 0.1 PPM STD. **Received:** 02-NOV-09 **Pipet Id :** 1099667
Type: Working **Expires:** 20-DEC-09 **Solvent :** 3%HCL and 1%HNO3 -1242318
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP 0.1 PPM CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WI091219-44	Aluminum	10000 ug/L	10 mL	100 mL	1000 ug/L
WI091219-44	Antimony	1000 ug/L	10 mL	100 mL	100 ug/L
WI091219-44	Arsenic	1000 ug/L	10 mL	100 mL	100 ug/L
WI091219-44	Barium	1000 ug/L	10 mL	100 mL	100 ug/L
WI091219-44	Beryllium	1000 ug/L	10 mL	100 mL	100 ug/L
WI091219-44	Boron	1000 ug/L	10 mL	100 mL	100 ug/L
WI091219-44	Cadmium	1000 ug/L	10 mL	100 mL	100 ug/L
WI091219-44	Calcium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI091219-44	Chromium	1000 ug/L	10 mL	100 mL	100 ug/L
WI091219-44	Cobalt	1000 ug/L	10 mL	100 mL	100 ug/L
WI091219-44	Copper	1000 ug/L	10 mL	100 mL	100 ug/L
WI091219-44	Iron	10000 ug/L	10 mL	100 mL	1000 ug/L
WI091219-44	Lead	1000 ug/L	10 mL	100 mL	100 ug/L
WI091219-44	Magnesium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI091219-44	Manganese	1000 ug/L	10 mL	100 mL	100 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WI091219-44	Molybdenum	1000 ug/L	10 mL	100 mL	100 ug/L
WI091219-44	Nickel	1000 ug/L	10 mL	100 mL	100 ug/L
WI091219-44	Phosphorous	5000 ug/L	10 mL	100 mL	500 ug/L
WI091219-44	Potassium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI091219-44	Selenium	1000 ug/L	10 mL	100 mL	100 ug/L
WI091219-44	Silica	10698 ug/L	10 mL	100 mL	1069 ug/L
WI091219-44	Silicon	5000 ug/L	10 mL	100 mL	500 ug/L
WI091219-44	Silver	1000 ug/L	10 mL	100 mL	100 ug/L
WI091219-44	Sodium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI091219-44	Strontium	1000 ug/L	10 mL	100 mL	100 ug/L
WI091219-44	Sulfur	2000 ug/L	10 mL	100 mL	200 ug/L
WI091219-44	Thallium	1000 ug/L	10 mL	100 mL	100 ug/L
WI091219-44	Tin	1000 ug/L	10 mL	100 mL	100 ug/L
WI091219-44	Titanium	1000 ug/L	10 mL	100 mL	100 ug/L
WI091219-44	Uranium	1000 ug/L	10 mL	100 mL	100 ug/L
WI091219-44	Vanadium	1000 ug/L	10 mL	100 mL	100 ug/L
WI091219-44	Zinc	1000 ug/L	10 mL	100 mL	100 ug/L

Serial ID: WI091219-43 **Opened:** 19-DEC-09 **Balance Id :** 216
Name: TRACE ICP 0.5/CCV STD. **Received:** 02-NOV-09 **Pipet Id :** 1099667
Type: Working **Expires:** 20-DEC-09 **Solvent :** 3%HCL and 1%HNO3 -1242318
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP 0.5/CCV CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090828-42	Sodium	1000 ug/mL	5 mL	1000 mL	5000 UG/L
UI091015-42	Silica	2139 mg/L	2.5 mL	1000 mL	5348.25 UG/L
UI091015-42	Silicon	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI091102-40	Aluminum	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Arsenic	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Barium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Beryllium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Boron	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Cadmium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Calcium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Chromium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Cobalt	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Copper	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Iron	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Lead	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Magnesium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Manganese	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Nickel	200 mg/L	2.5 mL	1000 mL	500 UG/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091102-40	Phosphorous	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI091102-40	Potassium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Selenium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Sodium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Strontium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Thallium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Uranium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Vanadium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Zinc	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Antimony	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Molybdenum	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Silver	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Sulfur	400 mg/L	2.5 mL	1000 mL	1000 UG/L
UI091102-41	Tin	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Titanium	200 mg/L	2.5 mL	1000 mL	500 UG/L

Serial ID: WI091219-44 **Opened:** 19-DEC-09 **Balance Id :** 216
Name: TRACE ICP SCAL 1.0 **Received:** 02-NOV-09 **Pipet Id :** 1099667
Type: Working **Expires:** 20-DEC-09 **Solvent :** 3%HCL and 1 %HNO3-1242318
Employee: Helen Camello
Supplier: o2si
Description: Trace ICP Calibration Standard 1.0ppm
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091015-42	Silica	2139 mg/L	2.5 mL	500 mL	10698 ug/L
UI091015-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI091102-40	Aluminum	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Arsenic	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Barium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Beryllium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Boron	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Cadmium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Calcium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Chromium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Cobalt	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Copper	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Iron	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Lead	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Magnesium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Manganese	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Nickel	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Phosphorous	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI091102-40	Potassium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Selenium	200 mg/L	2.5 mL	500 mL	1000 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091102-40	Sodium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Strontium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Thallium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Uranium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Vanadium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Zinc	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Antimony	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Molybdenum	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Silver	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Sulfur	400 mg/L	2.5 mL	500 mL	2000 ug/L
UI091102-41	Tin	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Titanium	200 mg/L	2.5 mL	500 mL	1000 ug/L

Serial ID: WI091219-45 **Opened:** 19-DEC-09 **Balance Id :** 216
Name: TRACE ICP S-10 STD **Received:** 22-APR-09 **Pipet Id :** 1099667
Type: Working **Expires:** 20-DEC-09 **Solvent :** 3%HCL and 1%HNO3 -1242318
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP S-10 CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090422-40	Aluminum	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Calcium	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Iron	2000 mg/L	5 mL	500 mL	20000 UG/L
UI090422-40	Magnesium	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090828-42	Sodium	1000 ug/mL	10 mL	500 mL	20000 UG/L

Serial ID: WI091219-46 **Opened:** 19-DEC-09 **Balance Id :** 216
Name: ICP TRACE ICV **Received:** 25-SEP-09 **Pipet Id :** 1099667
Type: Working **Expires:** 20-DEC-09 **Solvent :** 3%HCL AND 1%HNO3-1242318
Employee: Helen Camello
Supplier: GEL
Description: Initial Calibration Verification ICP Trace Metals
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090925-40	Aluminum	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Arsenic	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Barium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Boron	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cadmium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Calcium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Chromium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cobalt	100 mg/L	2.5 mL	500 mL	500 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090925-40	Copper	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Iron	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Lead	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Phosphorous	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Potassium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Selenium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Sodium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Strontium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Antimony	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Beryllium	50 mg/L	2.5 mL	500 mL	250 ug/L
UI090925-41	Magnesium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-41	Manganese	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Molybdenum	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Nickel	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Silver	50 mg/L	2.5 mL	500 mL	250 ug/L
UI090925-41	Sulfur	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-41	Thallium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Tin	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Titanium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Uranium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Vanadium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Zinc	100 mg/L	2.5 mL	500 mL	500 ug/L
UI091102-42	Silica	2139 mg/L	2.5 mL	500 mL	10695 ug/L
UI091102-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L

Serial ID: WI091219-47 **Opened:** 19-DEC-09 **Balance Id :** 216
Name: PQL Working Standard **Received:** 30-JUN-09 **Pipet Id :** 1099667
Type: Working **Expires:** 20-DEC-09 **Solvent :** 3%HCL &1%HNO3-1242318
Employee: Helen Camello
Supplier: 02si
Description: PQL Working Standard
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-40	Aluminum	100 mg/L	2 mL	1000 mL	200 ug/L
UI090701-40	Antimony	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Arsenic	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Barium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Beryllium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Boron	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Cadmium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Calcium	100 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Chromium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Cobalt	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Copper	5 mg/L	2 mL	1000 mL	10 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-40	Iron	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Lead	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Magnesium	150 mg/L	2 mL	1000 mL	300 ug/L
UI090701-40	Manganese	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Molybdenum	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Nickel	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Phosphorous	75 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Potassium	75 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Selenium	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Silicon	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Silver	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sodium	150 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Strontium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sulfur	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Thallium	10 mg/L	2 mL	1000 mL	20 ug/L
UI090701-40	Tin	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Titanium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Uranium	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Vanadium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Zinc	5 mg/L	2 mL	1000 mL	10 ug/L

Serial ID: WMS100101-04 **Opened:** 01-JAN-10 **Amount :** 50 mL
Name: ICPMS Cal Standard 100 **Received:** 01-JAN-10 **Balance Id :** 4025216
Type: Working **Expires:** 02-JAN-10 **Pipet Id :** 3541598
Employee: Elizabeth Janssen **Solvent :** 2%HNO3/1%HCl-1247304
Supplier: GEL
Description: ICPMS Calibration Standard (100 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090610-03	Tungsten	10 mg/L	.5 mL	50 mL	100 ug/L
UMS090303-01	Arsenic	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Barium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Beryllium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Boron	20 mg/L	.5 mL	50 mL	200 ug/l
UMS090303-01	Cadmium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Chromium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Cobalt	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Copper	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Lead	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Lithium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Manganese	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Nickel	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Selenium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Silver	10 mg/L	.5 mL	50 mL	100 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UMS090303-01	Strontium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Thallium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Thorium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Uranium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Vanadium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Zinc	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-02	Aluminum	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Calcium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Iron	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Magnesium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Phosphorous	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Potassium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Sodium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-03	Antimony	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Molybdenum	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Tin	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Titanium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Zirconium	10 mg/L	.5 mL	50 mL	100 ug/l

Serial ID: WMS100101-04A **Opened:** 01-JAN-10 **Balance Id :** 4025216
Name: ICPMS Cal Standard 10 **Received:** 01-JAN-10 **Pipet Id :** 3541598
Type: Working **Expires:** 02-JAN-10 **Solvent :** 2%HNO3/1%HCl - 1247304
Employee: Elizabeth Janssen
Supplier: GEL
Description: ICPMS Calibration Standard (10 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100101-04	Aluminum	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100101-04	Antimony	100 ug/l	5 mL	50 mL	10 ug/l
WMS100101-04	Arsenic	100 ug/l	5 mL	50 mL	10 ug/l
WMS100101-04	Barium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100101-04	Beryllium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100101-04	Boron	200 ug/l	5 mL	50 mL	20 ug/l
WMS100101-04	Cadmium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100101-04	Calcium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100101-04	Chromium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100101-04	Cobalt	100 ug/l	5 mL	50 mL	10 ug/l
WMS100101-04	Copper	100 ug/l	5 mL	50 mL	10 ug/l
WMS100101-04	Iron	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100101-04	Lead	100 ug/l	5 mL	50 mL	10 ug/l
WMS100101-04	Lithium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100101-04	Magnesium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100101-04	Manganese	100 ug/l	5 mL	50 mL	10 ug/l
WMS100101-04	Molybdenum	100 ug/l	5 mL	50 mL	10 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100101-04	Nickel	100 ug/l	5 mL	50 mL	10 ug/l
WMS100101-04	Phosphorous	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100101-04	Potassium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100101-04	Selenium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100101-04	Silver	100 ug/l	5 mL	50 mL	10 ug/l
WMS100101-04	Sodium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100101-04	Strontium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100101-04	Thallium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100101-04	Thorium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100101-04	Tin	100 ug/l	5 mL	50 mL	10 ug/l
WMS100101-04	Titanium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100101-04	Tungsten	100 ug/L	5 mL	50 mL	10 ug/L
WMS100101-04	Uranium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100101-04	Vanadium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100101-04	Zinc	100 ug/l	5 mL	50 mL	10 ug/l
WMS100101-04	Zirconium	100 ug/l	5 mL	50 mL	10 ug/l

Serial ID: WMS100101-05 **Opened:** 01-JAN-10 **Balance Id :** 40245216
Name: ICPMS ICV **Received:** 01-JAN-10 **Pipet Id :** 3541598
Type: Working **Expires:** 02-JAN-10 **Solvent :** 2%HNO3/1%HCl - 1247304
Employee: Elizabeth Janssen
Supplier: GEL
Description: ICPMS ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-06	Aluminum	2020 mg/L	.125 mL	50 mL	5050 ug/L
UI091217-06	Calcium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Iron	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Magnesium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Phosphorous	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Potassium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Sodium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-07	Arsenic	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Barium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Beryllium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Boron	40 mg/L	.125 mL	50 mL	100 ug/L
UI091217-07	Cadmium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Chromium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Cobalt	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Copper	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lead	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lithium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Manganese	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Nickel	20 mg/L	.125 mL	50 mL	50 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-07	Selenium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Strontium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thallium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thorium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Uranium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Vanadium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Zinc	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Antimony	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Molybdenum	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Silver	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tin	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Titanium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tungsten	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Zirconium	20 mg/L	.125 mL	50 mL	50 ug/L

Serial ID: WMS100101-06 **Opened:** 01-JAN-10 **Balance Id :** 40245216
Name: ICPMS CRDL **Received:** 01-JAN-10 **Pipet Id :** 3820544
Type: Working **Expires:** 02-JAN-10 **Solvent :** 2%HNO3/1%HCl - 1247304
Employee: Elizabeth Janssen
Supplier: GEL
Description: ICPMS CRDL
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Aluminum	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Arsenic	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Barium	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Beryllium	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-09	Boron	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Cadmium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Calcium	100 mg/L	.05 mL	50 mL	100 ug/L
UI090701-09	Chromium	3 mg/L	.05 mL	50 mL	3 ug/L
UI090701-09	Cobalt	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Copper	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Iron	25 mg/L	.05 mL	50 mL	25 ug/L
UI090701-09	Lead	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Lithium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Magnesium	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Manganese	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Nickel	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Phosphorous	50 mg/L	.05 mL	50 mL	50 ug/L
UI090701-09	Potassium	300 mg/L	.05 mL	50 mL	300 ug/L
UI090701-09	Selenium	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Sodium	250 mg/L	.05 mL	50 mL	250 ug/L
UI090701-09	Strontium	10 mg/L	.05 mL	50 mL	10 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Thallium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Thorium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Uranium	.2 mg/L	.05 mL	50 mL	.2 ug/L
UI090701-09	Vanadium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Zinc	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Antimony	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-10	Molybdenum	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-10	Silver	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-10	Tin	2 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Titanium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Tungsten	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Zirconium	2 mg/L	.05 mL	50 mL	2 ug/L

Serial ID: WMS100101-07 **Opened:** 01-JAN-10 **Balance Id :** 40245216
Name: ICPMS ICSA **Received:** 01-JAN-10 **Lot Number :** 1010773
Type: Working **Expires:** 02-JAN-10 **Pipet Id :** 3541598
Employee: Elizabeth Janssen **Solvent :** 2%HNO3/1%HCl - 1247304
Supplier: GEL
Description: ICPMS ICSA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI091212-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI091212-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: WMS100101-08 **Opened:** 01-JAN-10 **Balance Id :** 40245216
Name: ICPMS ICSAB **Received:** 01-JAN-10 **Pipet Id :** 1758088
Type: Working **Expires:** 02-JAN-10 **Solvent :** 2%HNO3/1%HCl - 1247304
Employee: Elizabeth Janssen
Supplier: GEL
Description: ICPMS ICSAB
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI091212-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI091212-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L
UI091217-12	Arsenic	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Barium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Beryllium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Boron	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Cadmium	2 mg/L	.5 mL	50 mL	20.2 ug/L
UI091217-12	Chromium	2 mg/L	.5 mL	50 mL	22.2 ug/L
UI091217-12	Cobalt	2 mg/L	.5 mL	50 mL	20.4 ug/L
UI091217-12	Copper	2 mg/L	.5 mL	50 mL	23.4 ug/L
UI091217-12	Lead	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Lithium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Manganese	2 mg/L	.5 mL	50 mL	22.7 ug/L
UI091217-12	Nickel	2 mg/L	.5 mL	50 mL	22.4 ug/L
UI091217-12	Selenium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Strontium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thallium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thorium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Uranium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Vanadium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Zinc	2 mg/L	.5 mL	50 mL	27 ug/L
UI091217-13	Antimony	2 mg/L	.5 mL	50 mL	20.5 ug/L
UI091217-13	Silver	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tin	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tungsten	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Zirconium	2 mg/L	.5 mL	50 mL	20 ug/L

Serial ID: WMS100101-70 **Opened:** 01-JAN-10 **Balance Id :** 40245216
Name: ICPMS LINEAR RANGE ST **Received:** 01-JAN-10 **Pipet Id :** 1758088
Type: Working **Expires:** 02-JAN-10 **Solvent :** 2%HNO3/1%HCl - 1247304
Employee: Elizabeth Janssen
Supplier: 02SI
Description: ICPMS LINEAR RANGE STANDARD
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-60	Aluminum	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Arsenic	100 mg/L	.5 mL	50 mL	1000 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-60	Barium	250 mg/L	.5 mL	50 mL	2500 ug/L
UI091212-60	Beryllium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Cadmium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Calcium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Chromium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Cobalt	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Copper	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Iron	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Lead	500 mg/L	.5 mL	50 mL	5000 ug/L
UI091212-60	Lithium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Magnesium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Manganese	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Nickel	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Phosphorous	2500 mg/L	.5 mL	50 mL	25000 ug/L
UI091212-60	Potassium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Selenium	50 mg/L	.5 mL	50 mL	500 ug/L
UI091212-60	Sodium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Strontium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Thallium	50 mg/L	.5 mL	50 mL	500 ug/L
UI091212-60	Thorium	250 mg/L	.5 mL	50 mL	2500 ug/L
UI091212-60	Uranium	500 mg/L	.5 mL	50 mL	5000 ug/L
UI091212-60	Vanadium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Zinc	250 mg/L	.5 mL	50 mL	2500 ug/L
UI091212-61	Antimony	25 mg/L	.5 mL	50 mL	250 ug/L
UI091212-61	Molybdenum	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-61	Silver	25 mg/L	.5 mL	50 mL	250 ug/L
UI091212-61	Tin	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-61	Tungsten	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-61	Zirconium	50 mg/L	.5 mL	50 mL	500 ug/L

Serial ID: 1156689-A **Opened:** 20-JUL-09 **Lot Number :** 41226920
Name: B-KMnO4(VWR)-MER **Received:** 20-JUL-09
Type: Reagent/Solvent **Expires:** 20-JUL-10
Employee: Tara Griffin **Verified:** 07-AUG-07
Supplier: VWR
Description: Potassium Permanganate
Comments: None

Serial ID: 1164796-A **Opened:** 06-AUG-09 **Lot Number :** 49149927
Name: B-NH2OH.HCl-MER **Received:** 06-AUG-09
Type: Reagent/Solvent **Expires:** 06-AUG-10
Employee: Tara Griffin
Supplier: Fisher Scientific
Description: Hydroxlyamine Hydrochloride

Comments: None

Serial ID: 1203033-02 **Opened:** 14-OCT-09 **Lot Number :** ZU74081198 mL
Name: B-H2O2 **Received:** 14-OCT-09
Type: Reagent/Solvent **Expires:** 14-OCT-10
Employee: Francena Armstrong
Supplier: EM SCIENCE
Description: Hydrogen Peroxide 30%
Comments: None

Serial ID: 1206350-C **Opened:** 22-OCT-09 **Balance Id :** BAL-002
Name: B-NaCl,NH2OH.HCl-MER **Received:** 22-OCT-09
Type: Reagent/Solvent **Expires:** 06-AUG-10
Employee: Tara Griffin
Supplier: GEL
Description: Hg reducing agent
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1164796-A	B-NH2OH.HCl-MER	N/A	120 g	1000 mL	N/A

Serial ID: 1215803 **Opened:** 06-NOV-09 **Lot Number :** H39037
Name: I-HCL **Received:** 06-NOV-09 **Preservative_Id :** 5 none
Type: Reagent/Solvent **Expires:** 06-NOV-10
Employee: Anthony Green
Supplier: J.T. BAKER
Description: HYDROCHLORIC ACID
Comments: None

Serial ID: 1236355-A **Opened:** 01-DEC-09 **Lot Number :** 200930201
Name: B-HCl-MER **Received:** 01-DEC-09
Type: Reagent/Solvent **Expires:** 01-DEC-10
Employee: Tara Griffin
Supplier: Aristar
Description: Hydrochloric Acid Conc.
Comments: None

Serial ID: 1238345 **Opened:** 04-DEC-09 **Lot Number :** H20053 L
Name: I-HNO3 **Received:** 04-DEC-09
Type: Reagent/Solvent **Expires:** 04-DEC-10
Employee: Francena Armstrong
Supplier: BAKER

Standard Logbook

Description: Nitric Acid CONC.
Comments: None

Serial ID: 1240182-1 **Opened:** 09-DEC-09 **Instrument Id :** MERCURY
Name: B-HNO3-MER **Received:** 09-DEC-09 **Lot Number :** H34040
Type: Reagent/Solvent **Expires:** 09-DEC-10
Employee: Tara Griffin
Supplier: Mallinckrodt Chemicals
Description: NITRIC ACID
Comments: None

Serial ID: 1242318 **Opened:** 14-DEC-09 **Amount :** 20 L
Name: B-ICP-RINSE SOLN **Received:** 01-DEC-09 **Lot Number :** H04040+G34050
Type: Reagent/Solvent **Expires:** 20-DEC-09 **Solvent :** 3%HCL+1%HNO3
Employee: Helen Camello
Supplier: GEL
Description: 3%HCL+1%HNO3 RINSE SOLN.
Comments: None

Serial ID: 1244904-C **Opened:** 18-DEC-09 **Balance Id :** BAL-002
Name: B-KMnO4-MER **Received:** 18-DEC-09
Type: Reagent/Solvent **Expires:** 18-JUN-10
Employee: Tara Griffin
Supplier: GEL
Description: 5% KMnO4 solution
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1156689-A	B-KMnO4(VWR)-MER	Crystals	50 g	1000 mL	3%

Serial ID: 1244970 **Opened:** 18-DEC-09 **Lot Number :** H41032
Name: I-HCL **Received:** 18-DEC-09 **Preservative_Id :** 5 none
Type: Reagent/Solvent **Expires:** 18-DEC-10
Employee: Francena Armstrong
Supplier: J.T. BAKER
Description: HYDROCHLORIC ACID
Comments: None

Standard Logbook

Serial ID: 1247304 **Opened:** 28-DEC-09 **Solvent :** Type I Water
Name: B-2%HNO3/1%HCl-ICPMS **Received:** 28-DEC-09
Type: Reagent/Solvent **Expires:** 04-JAN-10
Employee: Elizabeth Janssen
Supplier: GEL
Description: 2%HNO3/1%HCl Solution (Type I Water)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1238345	I-HNO3	69.0-70.0	180 mL	9 l	N/A
1244970	I-HCL	36.5-38.0	90 mL	9 l	N/A

Metals Analysis

Case Narrative

Metals Fractional Narrative
Los Alamos National Laboratory (LANL)
SDG 10-854-1

Sample Analysis

Sample ID	Client ID
242669001	RE03-10-2767
242669002	RE03-10-2753
242669003	RE03-10-2765
242669004	RE03-10-2754
1201994186	Method Blank (MB) **ICP**
1201994187	Laboratory Control Sample (LCS)
1201994190	242669001(RE03-10-2767L) Serial Dilution (SD)
1201994188	242669001(RE03-10-2767D) Sample Duplicate (DUP)
1201994189	242669001(RE03-10-2767S) Matrix Spike (MS)
1201994273	Method Blank (MB) **ICP-MS**
1201994274	Laboratory Control Sample (LCS)
1201994277	242669001(RE03-10-2767L) Serial Dilution (SD)
1201994275	242669001(RE03-10-2767D) Sample Duplicate (DUP)
1201994276	242669001(RE03-10-2767S) Matrix Spike (MS)
1201999563	Method Blank (MB) **CVAA**
1202000155	Method Blank (MB) **CVAA**
1201999564	Laboratory Control Sample (LCS)
1202000156	Laboratory Control Sample (LCS)
1202000159	242669004(RE03-10-2754L) Serial Dilution (SD)
1201999567	243029001(RE16-10-223L) Serial Dilution (SD)

1202000157	242669004(RE03-10-2754D) Sample Duplicate (DUP)
1201999565	243029001(RE16-10-223D) Sample Duplicate (DUP)
1202000158	242669004(RE03-10-2754S) Matrix Spike (MS)
1201999566	243029001(RE16-10-223S) Matrix Spike (MS)

The samples in this SDG were analyzed on an "as received" basis.

Method/Analysis Information

Analytical Batch:	932262, 932304, 934600 and 934861
Prep Batch :	932261, 932303, 934599 and 934860
Standard Operating Procedures:	GL-MA-E-013 REV# 20, GL-MA-E-006 REV# 9, GL-MA-E-014 REV# 20 and GL-MA-E-010 REV# 23
Analytical Method:	SW846 3005/6010B, SW846 3005/6020 and SW846 7470A
Prep Method :	SW846 3005A and SW846 7470A Prep

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

System Configuration

The Metals analysis-ICP was performed on a P E 5300 Optima radial/axial-viewing inductively coupled plasma atomic emission spectrometer. The instrument is equipped with a Burgener nebulizer, cyclonic spray chamber, and yttrium or scandium internal standard. Operating conditions for the ICP are set at a power level of 1500 watts. The instrument has a peristaltic pump flow rate of 1.4L/min, argon gas flows of 15 L/min and 0.2 L/min for the torch and auxiliary gases, and a flow setting of 0.65L/min for the nebulizer.

The Metals analysis - ICPMS was performed on a Perkin Elmer ELAN 6100E inductively coupled plasma mass spectrometer (ICP-MS). The instrument is equipped with a cross-flow nebulizer, quadrupole mass spectrometer, and dual mode electron multiplier detector. Internal standards of scandium, germanium, indium, tantalum, and/or lutetium were utilized to cover the mass spectrum. Operating conditions are set at 1400W power and combined argon pressures of 360+/-7 kPa for the plasma and auxiliary gases, and 0.85 L/min carrier gas flow, and an initial lens voltage of 5.2.

The Metals analysis-Mercury was performed on a Perkin-Elmer Flow Injection Mercury System (FIMS-100) automated mercury analyzer. The instrument consists of a cold vapor atomic absorption spectrometer set to detect mercury at a wavelength of 253.7 nm. Sample introduction through the flow injection system is performed via a peristaltic pump at 9 mL/min and nitrogen carrier gas rate of 80 mL/min.

Calibration Information

Instrument Calibration
All initial calibration requirements have been met for this sample delivery group (SDG).

CRDL Requirements
All CRDL standard(s) met the referenced advisory control limits.

ICSA/ICSAB Statement
All interference check samples (ICSA and ICSAB) associated with this SDG met the established acceptance criteria.

Continuing Calibration Blank (CCB) Requirements
All continuing calibration blanks (CCB) bracketing this batch met the established acceptance criteria.

Continuing Calibration Verification (CCV) Requirements
All continuing calibration verifications (CCV) bracketing this SDG met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MBs analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

Quality Control (QC) Sample Statement
The following samples were selected as the quality control (QC) samples for this SDG: 242669001, 243029001 and 242669004.

Matrix Spike (MS) Recovery Statement
The percent recoveries (%R) obtained from the MS analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. All applicable elements met the acceptance criteria.

Duplicate Relative Percent Difference (RPD) Statement
The RPD obtained from the designated sample duplicate (DUP) is evaluated based on acceptance criteria of 20% when the sample is 5X the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control of +/-RL is used to evaluate the DUP results. All applicable analytes met these requirements.

Serial Dilution % Difference Statement
The serial dilution is used to assess matrix suppression or enhancement. Raw element concentrations that are 25X the IDL/MDL for CVAA, 50X the IDL/MDL for ICP, and 100X the IDL/MDL for ICP-MS analyses are applicable for serial dilution assessment. All applicable analytes met the acceptance criteria of less than 10% difference (%D).

Technical Information

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Sample Dilutions
Dilutions are performed to minimize matrix interferences resulting from elevated mineral element concentrations present in solid samples and/or to bring over range target analyte concentrations into the linear calibration range of the instrument. The samples in this SDG did not require dilutions.

Preparation Information
The samples in this SDG were prepared exactly according to the cited SOP.

Miscellaneous Information

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Nonconformance Documentation
Nonconformance reports (NCRs) are generated to document procedural anomalies that may deviate from referenced SOP or contractual documents. A nonconformance report (NCR) was not generated for this SDG.

Additional Comments
Additional comments were not required for this SDG.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Kristen Parson **Date:** 1/6/10

Sample Data Summary

METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-854-1 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 242669001 **BASIS:** As Received **DATE COLLECTED** 07-DEC-09

CLIENT ID: RE03-10-2767 **LEVEL:** Low **DATE RECEIVED** 10-DEC-09

MATRIX: WATER **%SOLIDS:** 0

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	92.8	ug/L	J	68	200	200	1	P	HSC	12/19/09 17:58	121909-1	932262
7440-36-0	Antimony	3	ug/L	U	1	3	3	1	MS	BAJ	12/23/09 04:11	091222-2	932304
7440-38-2	Arsenic	30	ug/L	U	5	30	30	1	P	HSC	12/19/09 17:58	121909-1	932262
7440-39-3	Barium	5	ug/L	U	1	5	5	1	P	HSC	12/19/09 17:58	121909-1	932262
7440-41-7	Beryllium	0.50	ug/L	U	0.1	0.5	0.5	1	MS	BAJ	12/23/09 04:11	091222-2	932304
7440-42-8	Boron	50	ug/L	U	15	50	50	1	P	HSC	12/19/09 17:58	121909-1	932262
7440-43-9	Cadmium	1	ug/L	U	0.11	1	1	1	MS	BAJ	12/23/09 04:11	091222-2	932304
7440-70-2	Calcium	71.4	ug/L	J	50	200	200	1	P	HSC	12/19/09 17:58	121909-1	932262
7440-47-3	Chromium	3.65	ug/L	J	1	5	5	1	P	HSC	12/19/09 17:58	121909-1	932262
7440-48-4	Cobalt	5	ug/L	U	1	5	5	1	P	HSC	12/19/09 17:58	121909-1	932262
7440-50-8	Copper	10	ug/L	U	3	10	10	1	P	HSC	12/19/09 17:58	121909-1	932262
7439-89-6	Iron	91.3	ug/L	J	30	100	100	1	P	HSC	12/19/09 17:58	121909-1	932262
7439-92-1	Lead	2	ug/L	U	0.5	2	2	1	MS	BAJ	12/23/09 04:11	091222-2	932304
7439-93-2	Lithium	10	ug/L	U	2	10	10	1	MS	BAJ	12/23/09 04:11	091222-2	932304
7439-95-4	Magnesium	300	ug/L	U	85	300	300	1	P	HSC	12/19/09 17:58	121909-1	932262
7439-96-5	Manganese	2.23	ug/L	J	1	5	5	1	MS	BAJ	12/23/09 04:11	091222-2	932304
7439-97-6	Mercury	0.20	ug/L	U	0.066	0.2	0.2	1	AV	ETL	12/21/09 12:06	122109W3-3	934600
7440-02-0	Nickel	1.93	ug/L	J	1.5	5	5	1	P	HSC	12/19/09 17:58	121909-1	932262
7440-09-7	Potassium	150	ug/L	U	50	150	150	1	P	HSC	12/19/09 17:58	121909-1	932262
7782-49-2	Selenium	30	ug/L	U	5	30	30	1	P	HSC	12/19/09 17:58	121909-1	932262
7440-21-3	Silicon	1480	ug/L		25	100	100	1	P	HSC	12/19/09 17:58	121909-1	932262
7440-22-4	Silver	5	ug/L	U	1	5	5	1	P	HSC	12/19/09 17:58	121909-1	932262
7440-23-5	Sodium	245	ug/L	J	100	300	300	1	P	HSC	12/19/09 17:58	121909-1	932262
7440-28-0	Thallium	0.432	ug/L	J	0.3	1	1	1	MS	BAJ	12/23/09 04:11	091222-2	932304
7440-32-6	Titanium	2.8	ug/L	J	1	5	5	1	P	HSC	12/19/09 17:58	121909-1	932262
7440-61-1	Uranium	0.20	ug/L	U	0.05	0.2	0.2	1	MS	BAJ	12/23/09 04:11	091222-2	932304
7440-62-2	Vanadium	5	ug/L	U	1	5	5	1	P	HSC	12/19/09 17:58	121909-1	932262
7440-66-6	Zinc	6.89	ug/L	J	3.3	10	10	1	P	HSC	12/19/09 17:58	121909-1	932262

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
932262	932261	SW846 3005A	50	mL	50	mL	12/17/09	BCD1
932304	932303	SW846 3005A	50	mL	50	mL	12/16/09	BCD1
934600	934599	SW846 7470A Prep	20	mL	20	mL	12/18/09	TXB3

METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-854-1 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 242669002 **BASIS:** As Received **DATE COLLECTED** 07-DEC-09

CLIENT ID: RE03-10-2753 **LEVEL:** Low **DATE RECEIVED** 10-DEC-09

MATRIX: WATER **%SOLIDS:** 0

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	200	ug/L	U	68	200	200	1	P	HSC	12/19/09 18:26	121909-1	932262
7440-36-0	Antimony	3	ug/L	U	1	3	3	1	MS	BAJ	12/23/09 04:46	091222-2	932304
7440-38-2	Arsenic	30	ug/L	U	5	30	30	1	P	HSC	12/19/09 18:26	121909-1	932262
7440-39-3	Barium	5	ug/L	U	1	5	5	1	P	HSC	12/19/09 18:26	121909-1	932262
7440-41-7	Beryllium	0.50	ug/L	U	0.1	0.5	0.5	1	MS	BAJ	12/23/09 04:46	091222-2	932304
7440-42-8	Boron	50	ug/L	U	15	50	50	1	P	HSC	12/19/09 18:26	121909-1	932262
7440-43-9	Cadmium	1	ug/L	U	0.11	1	1	1	MS	BAJ	12/23/09 04:46	091222-2	932304
7440-70-2	Calcium	200	ug/L	U	50	200	200	1	P	HSC	12/19/09 18:26	121909-1	932262
7440-47-3	Chromium	5	ug/L	U	1	5	5	1	P	HSC	12/19/09 18:26	121909-1	932262
7440-48-4	Cobalt	5	ug/L	U	1	5	5	1	P	HSC	12/19/09 18:26	121909-1	932262
7440-50-8	Copper	10	ug/L	U	3	10	10	1	P	HSC	12/19/09 18:26	121909-1	932262
7439-89-6	Iron	100	ug/L	U	30	100	100	1	P	HSC	12/19/09 18:26	121909-1	932262
7439-92-1	Lead	2	ug/L	U	0.5	2	2	1	MS	BAJ	12/23/09 04:46	091222-2	932304
7439-93-2	Lithium	10	ug/L	U	2	10	10	1	MS	BAJ	12/23/09 04:46	091222-2	932304
7439-95-4	Magnesium	300	ug/L	U	85	300	300	1	P	HSC	12/19/09 18:26	121909-1	932262
7439-96-5	Manganese	5	ug/L	U	1	5	5	1	MS	BAJ	12/23/09 04:46	091222-2	932304
7439-97-6	Mercury	0.20	ug/L	U	0.066	0.2	0.2	1	AV	ETL	12/21/09 12:08	122109W3-3	934600
7440-02-0	Nickel	5	ug/L	U	1.5	5	5	1	P	HSC	12/19/09 18:26	121909-1	932262
7440-09-7	Potassium	150	ug/L	U	50	150	150	1	P	HSC	12/19/09 18:26	121909-1	932262
7782-49-2	Selenium	30	ug/L	U	5	30	30	1	P	HSC	12/19/09 18:26	121909-1	932262
7440-21-3	Silicon	1250	ug/L		25	100	100	1	P	HSC	12/19/09 18:26	121909-1	932262
7440-22-4	Silver	5	ug/L	U	1	5	5	1	P	HSC	12/19/09 18:26	121909-1	932262
7440-23-5	Sodium	300	ug/L	U	100	300	300	1	P	HSC	12/19/09 18:26	121909-1	932262
7440-28-0	Thallium	0.345	ug/L	J	0.3	1	1	1	MS	BAJ	12/23/09 04:46	091222-2	932304
7440-32-6	Titanium	5	ug/L	U	1	5	5	1	P	HSC	12/19/09 18:26	121909-1	932262
7440-61-1	Uranium	0.20	ug/L	U	0.05	0.2	0.2	1	MS	BAJ	12/23/09 04:46	091222-2	932304
7440-62-2	Vanadium	5	ug/L	U	1	5	5	1	P	HSC	12/19/09 18:26	121909-1	932262
7440-66-6	Zinc	10	ug/L	U	3.3	10	10	1	P	HSC	12/19/09 18:26	121909-1	932262

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
932262	932261	SW846 3005A	50	mL	50	mL	12/17/09	BCD1
932304	932303	SW846 3005A	50	mL	50	mL	12/16/09	BCD1
934600	934599	SW846 7470A Prep	20	mL	20	mL	12/18/09	TXB3

METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-854-1 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 242669003 **BASIS:** As Received **DATE COLLECTED** 07-DEC-09

CLIENT ID: RE03-10-2765 **LEVEL:** Low **DATE RECEIVED** 10-DEC-09

MATRIX: WATER **%SOLIDS:** 0

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	89.6	ug/L	J	68	200	200	1	P	HSC	12/19/09 18:33	121909-1	932262
7440-36-0	Antimony	3	ug/L	U	1	3	3	1	MS	BAJ	12/23/09 04:52	091222-2	932304
7440-38-2	Arsenic	30	ug/L	U	5	30	30	1	P	HSC	12/19/09 18:33	121909-1	932262
7440-39-3	Barium	1.16	ug/L	J	1	5	5	1	P	HSC	12/19/09 18:33	121909-1	932262
7440-41-7	Beryllium	0.50	ug/L	U	0.1	0.5	0.5	1	MS	BAJ	12/23/09 04:52	091222-2	932304
7440-42-8	Boron	50	ug/L	U	15	50	50	1	P	HSC	12/19/09 18:33	121909-1	932262
7440-43-9	Cadmium	1	ug/L	U	0.11	1	1	1	MS	BAJ	12/23/09 04:52	091222-2	932304
7440-70-2	Calcium	75.7	ug/L	J	50	200	200	1	P	HSC	12/19/09 18:33	121909-1	932262
7440-47-3	Chromium	2.91	ug/L	J	1	5	5	1	P	HSC	12/19/09 18:33	121909-1	932262
7440-48-4	Cobalt	5	ug/L	U	1	5	5	1	P	HSC	12/19/09 18:33	121909-1	932262
7440-50-8	Copper	10	ug/L	U	3	10	10	1	P	HSC	12/19/09 18:33	121909-1	932262
7439-89-6	Iron	49.6	ug/L	J	30	100	100	1	P	HSC	12/19/09 18:33	121909-1	932262
7439-92-1	Lead	2	ug/L	U	0.5	2	2	1	MS	BAJ	12/23/09 04:52	091222-2	932304
7439-93-2	Lithium	10	ug/L	U	2	10	10	1	MS	BAJ	12/23/09 04:52	091222-2	932304
7439-95-4	Magnesium	300	ug/L	U	85	300	300	1	P	HSC	12/19/09 18:33	121909-1	932262
7439-96-5	Manganese	2.04	ug/L	J	1	5	5	1	MS	BAJ	12/23/09 04:52	091222-2	932304
7439-97-6	Mercury	0.20	ug/L	U	0.066	0.2	0.2	1	AV	ETL	12/21/09 12:10	122109W3-3	934600
7440-02-0	Nickel	1.86	ug/L	J	1.5	5	5	1	P	HSC	12/19/09 18:33	121909-1	932262
7440-09-7	Potassium	53.5	ug/L	J	50	150	150	1	P	HSC	12/19/09 18:33	121909-1	932262
7782-49-2	Selenium	30	ug/L	U	5	30	30	1	P	HSC	12/19/09 18:33	121909-1	932262
7440-21-3	Silicon	1460	ug/L		25	100	100	1	P	HSC	12/19/09 18:33	121909-1	932262
7440-22-4	Silver	5	ug/L	U	1	5	5	1	P	HSC	12/19/09 18:33	121909-1	932262
7440-23-5	Sodium	211	ug/L	J	100	300	300	1	P	HSC	12/19/09 18:33	121909-1	932262
7440-28-0	Thallium	1	ug/L	U	0.3	1	1	1	MS	BAJ	12/23/09 04:52	091222-2	932304
7440-32-6	Titanium	2.67	ug/L	J	1	5	5	1	P	HSC	12/19/09 18:33	121909-1	932262
7440-61-1	Uranium	0.20	ug/L	U	0.05	0.2	0.2	1	MS	BAJ	12/23/09 04:52	091222-2	932304
7440-62-2	Vanadium	5	ug/L	U	1	5	5	1	P	HSC	12/19/09 18:33	121909-1	932262
7440-66-6	Zinc	10	ug/L	U	3.3	10	10	1	P	HSC	12/19/09 18:33	121909-1	932262

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
932262	932261	SW846 3005A	50	mL	50	mL	12/17/09	BCD1
932304	932303	SW846 3005A	50	mL	50	mL	12/16/09	BCD1
934600	934599	SW846 7470A Prep	20	mL	20	mL	12/18/09	TXB3

METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-854-1 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 242669004 **BASIS:** As Received **DATE COLLECTED** 07-DEC-09

CLIENT ID: RE03-10-2754 **LEVEL:** Low **DATE RECEIVED** 10-DEC-09

MATRIX: WATER **%SOLIDS:** 0

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	200	ug/L	U	68	200	200	1	P	HSC	12/19/09 18:39	121909-1	932262
7440-36-0	Antimony	3	ug/L	U	1	3	3	1	MS	BAJ	12/23/09 04:57	091222-2	932304
7440-38-2	Arsenic	30	ug/L	U	5	30	30	1	P	HSC	12/19/09 18:39	121909-1	932262
7440-39-3	Barium	5	ug/L	U	1	5	5	1	P	HSC	12/19/09 18:39	121909-1	932262
7440-41-7	Beryllium	0.50	ug/L	U	0.1	0.5	0.5	1	MS	BAJ	12/23/09 04:57	091222-2	932304
7440-42-8	Boron	50	ug/L	U	15	50	50	1	P	HSC	12/19/09 18:39	121909-1	932262
7440-43-9	Cadmium	1	ug/L	U	0.11	1	1	1	MS	BAJ	12/23/09 04:57	091222-2	932304
7440-70-2	Calcium	200	ug/L	U	50	200	200	1	P	HSC	12/19/09 18:39	121909-1	932262
7440-47-3	Chromium	5	ug/L	U	1	5	5	1	P	HSC	12/19/09 18:39	121909-1	932262
7440-48-4	Cobalt	5	ug/L	U	1	5	5	1	P	HSC	12/19/09 18:39	121909-1	932262
7440-50-8	Copper	10	ug/L	U	3	10	10	1	P	HSC	12/19/09 18:39	121909-1	932262
7439-89-6	Iron	100	ug/L	U	30	100	100	1	P	HSC	12/19/09 18:39	121909-1	932262
7439-92-1	Lead	2	ug/L	U	0.5	2	2	1	MS	BAJ	12/23/09 04:57	091222-2	932304
7439-93-2	Lithium	10	ug/L	U	2	10	10	1	MS	BAJ	12/23/09 04:57	091222-2	932304
7439-95-4	Magnesium	300	ug/L	U	85	300	300	1	P	HSC	12/19/09 18:39	121909-1	932262
7439-96-5	Manganese	5	ug/L	U	1	5	5	1	MS	BAJ	12/23/09 04:57	091222-2	932304
7439-97-6	Mercury	0.0784	ug/L	J	0.066	0.2	0.2	1	AV	JXL1	12/22/09 11:02	122209W1-4	934861
7440-02-0	Nickel	5	ug/L	U	1.5	5	5	1	P	HSC	12/19/09 18:39	121909-1	932262
7440-09-7	Potassium	150	ug/L	U	50	150	150	1	P	HSC	12/19/09 18:39	121909-1	932262
7782-49-2	Selenium	30	ug/L	U	5	30	30	1	P	HSC	12/19/09 18:39	121909-1	932262
7440-21-3	Silicon	1240	ug/L		25	100	100	1	P	HSC	12/19/09 18:39	121909-1	932262
7440-22-4	Silver	5	ug/L	U	1	5	5	1	P	HSC	12/19/09 18:39	121909-1	932262
7440-23-5	Sodium	300	ug/L	U	100	300	300	1	P	HSC	12/19/09 18:39	121909-1	932262
7440-28-0	Thallium	1	ug/L	U	0.3	1	1	1	MS	BAJ	12/23/09 04:57	091222-2	932304
7440-32-6	Titanium	5	ug/L	U	1	5	5	1	P	HSC	12/19/09 18:39	121909-1	932262
7440-61-1	Uranium	0.20	ug/L	U	0.05	0.2	0.2	1	MS	BAJ	12/23/09 04:57	091222-2	932304
7440-62-2	Vanadium	5	ug/L	U	1	5	5	1	P	HSC	12/19/09 18:39	121909-1	932262
7440-66-6	Zinc	10	ug/L	U	3.3	10	10	1	P	HSC	12/19/09 18:39	121909-1	932262

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
932262	932261	SW846 3005A	50	mL	50	mL	12/17/09	BCD1
932304	932303	SW846 3005A	50	mL	50	mL	12/16/09	BCD1
934861	934860	SW846 7470A Prep	20	mL	20	mL	12/21/09	TXB3

Quality Control Summary

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-854-1

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS3,MER536,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
ICV01										
	Aluminum	5050	ug/L	5000	ug/L	100.9	90.0 – 110.0	P	19-DEC-09 07:51	121909-1
	Arsenic	478	ug/L	500	ug/L	95.7	90.0 – 110.0	P	19-DEC-09 07:51	121909-1
	Barium	515	ug/L	500	ug/L	103.1	90.0 – 110.0	P	19-DEC-09 07:51	121909-1
	Boron	516	ug/L	500	ug/L	103.1	90.0 – 110.0	P	19-DEC-09 07:51	121909-1
	Calcium	5020	ug/L	5000	ug/L	100.4	90.0 – 110.0	P	19-DEC-09 07:51	121909-1
	Chromium	492	ug/L	500	ug/L	98.4	90.0 – 110.0	P	19-DEC-09 07:51	121909-1
	Cobalt	502	ug/L	500	ug/L	100.3	90.0 – 110.0	P	19-DEC-09 07:51	121909-1
	Copper	511	ug/L	500	ug/L	102.3	90.0 – 110.0	P	19-DEC-09 07:51	121909-1
	Iron	5180	ug/L	5000	ug/L	103.6	90.0 – 110.0	P	19-DEC-09 07:51	121909-1
	Magnesium	5490	ug/L	5000	ug/L	109.8	90.0 – 110.0	P	19-DEC-09 07:51	121909-1
	Nickel	499	ug/L	500	ug/L	99.7	90.0 – 110.0	P	19-DEC-09 07:51	121909-1
	Potassium	2550	ug/L	2500	ug/L	102	90.0 – 110.0	P	19-DEC-09 07:51	121909-1
	Selenium	2590	ug/L	2500	ug/L	103.5	90.0 – 110.0	P	19-DEC-09 07:51	121909-1
	Silicon	4830	ug/L	5000	ug/L	96.7	90.0 – 110.0	P	19-DEC-09 07:51	121909-1
	Silver	262	ug/L	250	ug/L	104.7	90.0 – 110.0	P	19-DEC-09 07:51	121909-1
	Sodium	2510	ug/L	2500	ug/L	100.5	90.0 – 110.0	P	19-DEC-09 07:51	121909-1
	Titanium	498	ug/L	500	ug/L	99.7	90.0 – 110.0	P	19-DEC-09 07:51	121909-1
	Vanadium	517	ug/L	500	ug/L	103.5	90.0 – 110.0	P	19-DEC-09 07:51	121909-1
	Zinc	511	ug/L	500	ug/L	102.2	90.0 – 110.0	P	19-DEC-09 07:51	121909-1
	Mercury	5.11	ug/L	5	ug/L	102.2	90.0 – 110.0	AV	21-DEC-09 08:27	122109W3-3
	Mercury	5.12	ug/L	5	ug/L	102.5	90.0 – 110.0	AV	22-DEC-09 09:51	122209W1-4
	Antimony	50.4	ug/L	50	ug/L	100.8	90.0 – 110.0	MS	23-DEC-09 03:02	091222-2
	Beryllium	52	ug/L	50	ug/L	103.9	90.0 – 110.0	MS	23-DEC-09 03:02	091222-2
	Cadmium	51.6	ug/L	50	ug/L	103.2	90.0 – 110.0	MS	23-DEC-09 03:02	091222-2
	Lead	51.2	ug/L	50	ug/L	102.5	90.0 – 110.0	MS	23-DEC-09 03:02	091222-2
	Lithium	52	ug/L	50	ug/L	104.1	90.0 – 110.0	MS	23-DEC-09 03:02	091222-2
	Manganese	52.5	ug/L	50	ug/L	105	90.0 – 110.0	MS	23-DEC-09 03:02	091222-2
	Thallium	48.8	ug/L	50	ug/L	97.6	90.0 – 110.0	MS	23-DEC-09 03:02	091222-2
	Uranium	52.9	ug/L	50	ug/L	105.9	90.0 – 110.0	MS	23-DEC-09 03:02	091222-2

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–854–1

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS3,MER536,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
CCV01										
	Aluminum	4920	ug/L	5000	ug/L	98.4	90.0 – 110.0	P	19–DEC–09 08:36	121909–1
	Arsenic	519	ug/L	500	ug/L	103.9	90.0 – 110.0	P	19–DEC–09 08:36	121909–1
	Barium	499	ug/L	500	ug/L	99.9	90.0 – 110.0	P	19–DEC–09 08:36	121909–1
	Boron	516	ug/L	500	ug/L	103.2	90.0 – 110.0	P	19–DEC–09 08:36	121909–1
	Calcium	4990	ug/L	5000	ug/L	99.8	90.0 – 110.0	P	19–DEC–09 08:36	121909–1
	Chromium	499	ug/L	500	ug/L	99.7	90.0 – 110.0	P	19–DEC–09 08:36	121909–1
	Cobalt	499	ug/L	500	ug/L	99.8	90.0 – 110.0	P	19–DEC–09 08:36	121909–1
	Copper	493	ug/L	500	ug/L	98.7	90.0 – 110.0	P	19–DEC–09 08:36	121909–1
	Iron	5120	ug/L	5000	ug/L	102.4	90.0 – 110.0	P	19–DEC–09 08:36	121909–1
	Magnesium	5200	ug/L	5000	ug/L	104.1	90.0 – 110.0	P	19–DEC–09 08:36	121909–1
	Nickel	499	ug/L	500	ug/L	99.9	90.0 – 110.0	P	19–DEC–09 08:36	121909–1
	Potassium	5130	ug/L	5000	ug/L	102.5	90.0 – 110.0	P	19–DEC–09 08:36	121909–1
	Selenium	515	ug/L	500	ug/L	103	90.0 – 110.0	P	19–DEC–09 08:36	121909–1
	Silicon	2450	ug/L	2500	ug/L	98	90.0 – 110.0	P	19–DEC–09 08:36	121909–1
	Silver	495	ug/L	500	ug/L	99.1	90.0 – 110.0	P	19–DEC–09 08:36	121909–1
	Sodium	10100	ug/L	10000	ug/L	100.8	90.0 – 110.0	P	19–DEC–09 08:36	121909–1
	Titanium	489	ug/L	500	ug/L	97.8	90.0 – 110.0	P	19–DEC–09 08:36	121909–1
	Vanadium	502	ug/L	500	ug/L	100.4	90.0 – 110.0	P	19–DEC–09 08:36	121909–1
	Zinc	494	ug/L	500	ug/L	98.8	90.0 – 110.0	P	19–DEC–09 08:36	121909–1
	Mercury	5.36	ug/L	5	ug/L	107.2	80.0 – 120.0	AV	21–DEC–09 08:33	122109W3–3
	Mercury	5.04	ug/L	5	ug/L	100.8	80.0 – 120.0	AV	22–DEC–09 09:57	122209W1–4
	Antimony	49.7	ug/L	50	ug/L	99.3	90.0 – 110.0	MS	23–DEC–09 03:31	091222–2
	Beryllium	48.1	ug/L	50	ug/L	96.2	90.0 – 110.0	MS	23–DEC–09 03:31	091222–2
	Cadmium	51.2	ug/L	50	ug/L	102.4	90.0 – 110.0	MS	23–DEC–09 03:31	091222–2
	Lead	51.4	ug/L	50	ug/L	102.8	90.0 – 110.0	MS	23–DEC–09 03:31	091222–2
	Lithium	51.2	ug/L	50	ug/L	102.4	90.0 – 110.0	MS	23–DEC–09 03:31	091222–2
	Manganese	52.5	ug/L	50	ug/L	105	90.0 – 110.0	MS	23–DEC–09 03:31	091222–2
	Thallium	48.5	ug/L	50	ug/L	97	90.0 – 110.0	MS	23–DEC–09 03:31	091222–2
	Uranium	53.4	ug/L	50	ug/L	106.9	90.0 – 110.0	MS	23–DEC–09 03:31	091222–2

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-854-1

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS3,MER536,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
CCV02										
	Aluminum	4930	ug/L	5000	ug/L	98.7	90.0 – 110.0	P	19-DEC-09 09:05	121909-1
	Arsenic	494	ug/L	500	ug/L	98.9	90.0 – 110.0	P	19-DEC-09 09:05	121909-1
	Barium	494	ug/L	500	ug/L	98.7	90.0 – 110.0	P	19-DEC-09 09:05	121909-1
	Boron	490	ug/L	500	ug/L	98	90.0 – 110.0	P	19-DEC-09 09:05	121909-1
	Calcium	5030	ug/L	5000	ug/L	100.6	90.0 – 110.0	P	19-DEC-09 09:05	121909-1
	Chromium	492	ug/L	500	ug/L	98.3	90.0 – 110.0	P	19-DEC-09 09:05	121909-1
	Cobalt	485	ug/L	500	ug/L	97	90.0 – 110.0	P	19-DEC-09 09:05	121909-1
	Copper	491	ug/L	500	ug/L	98.2	90.0 – 110.0	P	19-DEC-09 09:05	121909-1
	Iron	5170	ug/L	5000	ug/L	103.4	90.0 – 110.0	P	19-DEC-09 09:05	121909-1
	Magnesium	5260	ug/L	5000	ug/L	105.2	90.0 – 110.0	P	19-DEC-09 09:05	121909-1
	Nickel	487	ug/L	500	ug/L	97.4	90.0 – 110.0	P	19-DEC-09 09:05	121909-1
	Potassium	5040	ug/L	5000	ug/L	100.9	90.0 – 110.0	P	19-DEC-09 09:05	121909-1
	Selenium	509	ug/L	500	ug/L	101.8	90.0 – 110.0	P	19-DEC-09 09:05	121909-1
	Silicon	2420	ug/L	2500	ug/L	96.6	90.0 – 110.0	P	19-DEC-09 09:05	121909-1
	Silver	488	ug/L	500	ug/L	97.6	90.0 – 110.0	P	19-DEC-09 09:05	121909-1
	Sodium	9990	ug/L	10000	ug/L	99.9	90.0 – 110.0	P	19-DEC-09 09:05	121909-1
	Titanium	486	ug/L	500	ug/L	97.3	90.0 – 110.0	P	19-DEC-09 09:05	121909-1
	Vanadium	494	ug/L	500	ug/L	98.9	90.0 – 110.0	P	19-DEC-09 09:05	121909-1
	Zinc	487	ug/L	500	ug/L	97.5	90.0 – 110.0	P	19-DEC-09 09:05	121909-1
	Mercury	5.49	ug/L	5	ug/L	109.7	80.0 – 120.0	AV	21-DEC-09 08:56	122109W3-3
	Mercury	5.09	ug/L	5	ug/L	101.8	80.0 – 120.0	AV	22-DEC-09 10:21	122209W1-4
	Antimony	52.1	ug/L	50	ug/L	104.1	90.0 – 110.0	MS	23-DEC-09 03:48	091222-2
	Beryllium	48.1	ug/L	50	ug/L	96.2	90.0 – 110.0	MS	23-DEC-09 03:48	091222-2
	Cadmium	51	ug/L	50	ug/L	101.9	90.0 – 110.0	MS	23-DEC-09 03:48	091222-2
	Lead	52.6	ug/L	50	ug/L	105.3	90.0 – 110.0	MS	23-DEC-09 03:48	091222-2
	Lithium	50.9	ug/L	50	ug/L	101.9	90.0 – 110.0	MS	23-DEC-09 03:48	091222-2
	Manganese	52.2	ug/L	50	ug/L	104.5	90.0 – 110.0	MS	23-DEC-09 03:48	091222-2
	Thallium	49.7	ug/L	50	ug/L	99.4	90.0 – 110.0	MS	23-DEC-09 03:48	091222-2
	Uranium	54.3	ug/L	50	ug/L	108.6	90.0 – 110.0	MS	23-DEC-09 03:48	091222-2

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–854–1

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS3,MER536,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
CCV03										
	Aluminum	4910	ug/L	5000	ug/L	98.2	90.0 – 110.0	P	19–DEC–09 10:14	121909–1
	Arsenic	489	ug/L	500	ug/L	97.8	90.0 – 110.0	P	19–DEC–09 10:14	121909–1
	Barium	484	ug/L	500	ug/L	96.8	90.0 – 110.0	P	19–DEC–09 10:14	121909–1
	Boron	478	ug/L	500	ug/L	95.7	90.0 – 110.0	P	19–DEC–09 10:14	121909–1
	Calcium	4950	ug/L	5000	ug/L	99	90.0 – 110.0	P	19–DEC–09 10:14	121909–1
	Chromium	483	ug/L	500	ug/L	96.6	90.0 – 110.0	P	19–DEC–09 10:14	121909–1
	Cobalt	485	ug/L	500	ug/L	96.9	90.0 – 110.0	P	19–DEC–09 10:14	121909–1
	Copper	478	ug/L	500	ug/L	95.7	90.0 – 110.0	P	19–DEC–09 10:14	121909–1
	Iron	5000	ug/L	5000	ug/L	100	90.0 – 110.0	P	19–DEC–09 10:14	121909–1
	Magnesium	5160	ug/L	5000	ug/L	103.2	90.0 – 110.0	P	19–DEC–09 10:14	121909–1
	Nickel	484	ug/L	500	ug/L	96.9	90.0 – 110.0	P	19–DEC–09 10:14	121909–1
	Potassium	4990	ug/L	5000	ug/L	99.8	90.0 – 110.0	P	19–DEC–09 10:14	121909–1
	Selenium	499	ug/L	500	ug/L	99.8	90.0 – 110.0	P	19–DEC–09 10:14	121909–1
	Silicon	2380	ug/L	2500	ug/L	95.2	90.0 – 110.0	P	19–DEC–09 10:14	121909–1
	Silver	481	ug/L	500	ug/L	96.2	90.0 – 110.0	P	19–DEC–09 10:14	121909–1
	Sodium	9570	ug/L	10000	ug/L	95.7	90.0 – 110.0	P	19–DEC–09 10:14	121909–1
	Titanium	473	ug/L	500	ug/L	94.5	90.0 – 110.0	P	19–DEC–09 10:14	121909–1
	Vanadium	487	ug/L	500	ug/L	97.4	90.0 – 110.0	P	19–DEC–09 10:14	121909–1
	Zinc	480	ug/L	500	ug/L	96	90.0 – 110.0	P	19–DEC–09 10:14	121909–1
	Mercury	5.54	ug/L	5	ug/L	110.8	80.0 – 120.0	AV	21–DEC–09 09:19	122109W3–3
	Mercury	5.14	ug/L	5	ug/L	102.9	80.0 – 120.0	AV	22–DEC–09 10:45	122209W1–4
	Antimony	49.3	ug/L	50	ug/L	98.6	90.0 – 110.0	MS	23–DEC–09 04:34	091222–2
	Beryllium	47.3	ug/L	50	ug/L	94.7	90.0 – 110.0	MS	23–DEC–09 04:34	091222–2
	Cadmium	50.6	ug/L	50	ug/L	101.2	90.0 – 110.0	MS	23–DEC–09 04:34	091222–2
	Lead	51.2	ug/L	50	ug/L	102.4	90.0 – 110.0	MS	23–DEC–09 04:34	091222–2
	Lithium	50.4	ug/L	50	ug/L	100.8	90.0 – 110.0	MS	23–DEC–09 04:34	091222–2
	Manganese	51.6	ug/L	50	ug/L	103.1	90.0 – 110.0	MS	23–DEC–09 04:34	091222–2
	Thallium	47.7	ug/L	50	ug/L	95.3	90.0 – 110.0	MS	23–DEC–09 04:34	091222–2
	Uranium	52.9	ug/L	50	ug/L	105.9	90.0 – 110.0	MS	23–DEC–09 04:34	091222–2

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-854-1

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS3,MER536,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
CCV04										
	Aluminum	4920	ug/L	5000	ug/L	98.3	90.0 – 110.0	P	19-DEC-09 11:18	121909-1
	Arsenic	496	ug/L	500	ug/L	99.2	90.0 – 110.0	P	19-DEC-09 11:18	121909-1
	Barium	491	ug/L	500	ug/L	98.3	90.0 – 110.0	P	19-DEC-09 11:18	121909-1
	Boron	479	ug/L	500	ug/L	95.8	90.0 – 110.0	P	19-DEC-09 11:18	121909-1
	Calcium	4960	ug/L	5000	ug/L	99.3	90.0 – 110.0	P	19-DEC-09 11:18	121909-1
	Chromium	490	ug/L	500	ug/L	98.1	90.0 – 110.0	P	19-DEC-09 11:18	121909-1
	Cobalt	492	ug/L	500	ug/L	98.4	90.0 – 110.0	P	19-DEC-09 11:18	121909-1
	Copper	487	ug/L	500	ug/L	97.5	90.0 – 110.0	P	19-DEC-09 11:18	121909-1
	Iron	5050	ug/L	5000	ug/L	101	90.0 – 110.0	P	19-DEC-09 11:18	121909-1
	Magnesium	5170	ug/L	5000	ug/L	103.4	90.0 – 110.0	P	19-DEC-09 11:18	121909-1
	Nickel	492	ug/L	500	ug/L	98.4	90.0 – 110.0	P	19-DEC-09 11:18	121909-1
	Potassium	4970	ug/L	5000	ug/L	99.5	90.0 – 110.0	P	19-DEC-09 11:18	121909-1
	Selenium	508	ug/L	500	ug/L	101.6	90.0 – 110.0	P	19-DEC-09 11:18	121909-1
	Silicon	2420	ug/L	2500	ug/L	96.8	90.0 – 110.0	P	19-DEC-09 11:18	121909-1
	Silver	489	ug/L	500	ug/L	97.8	90.0 – 110.0	P	19-DEC-09 11:18	121909-1
	Sodium	9910	ug/L	10000	ug/L	99.1	90.0 – 110.0	P	19-DEC-09 11:18	121909-1
	Titanium	484	ug/L	500	ug/L	96.7	90.0 – 110.0	P	19-DEC-09 11:18	121909-1
	Vanadium	495	ug/L	500	ug/L	99	90.0 – 110.0	P	19-DEC-09 11:18	121909-1
	Zinc	487	ug/L	500	ug/L	97.4	90.0 – 110.0	P	19-DEC-09 11:18	121909-1
	Mercury	5.06	ug/L	5	ug/L	101.1	80.0 – 120.0	AV	21-DEC-09 09:42	122109W3-3
	Mercury	5.36	ug/L	5	ug/L	107.1	80.0 – 120.0	AV	22-DEC-09 11:08	122209W1-4
	Antimony	48.9	ug/L	50	ug/L	97.8	90.0 – 110.0	MS	23-DEC-09 05:03	091222-2
	Beryllium	49.1	ug/L	50	ug/L	98.2	90.0 – 110.0	MS	23-DEC-09 05:03	091222-2
	Cadmium	51	ug/L	50	ug/L	102	90.0 – 110.0	MS	23-DEC-09 05:03	091222-2
	Lead	51.2	ug/L	50	ug/L	102.5	90.0 – 110.0	MS	23-DEC-09 05:03	091222-2
	Lithium	51.2	ug/L	50	ug/L	102.3	90.0 – 110.0	MS	23-DEC-09 05:03	091222-2
	Manganese	52.2	ug/L	50	ug/L	104.4	90.0 – 110.0	MS	23-DEC-09 05:03	091222-2
	Thallium	47	ug/L	50	ug/L	94.1	90.0 – 110.0	MS	23-DEC-09 05:03	091222-2
	Uranium	52.5	ug/L	50	ug/L	104.9	90.0 – 110.0	MS	23-DEC-09 05:03	091222-2

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-854-1

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS3,MER536,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
CCV05										
	Aluminum	5120	ug/L	5000	ug/L	102.5	90.0 – 110.0	P	19-DEC-09 12:04	121909-1
	Arsenic	497	ug/L	500	ug/L	99.4	90.0 – 110.0	P	19-DEC-09 12:04	121909-1
	Barium	495	ug/L	500	ug/L	98.9	90.0 – 110.0	P	19-DEC-09 12:04	121909-1
	Boron	477	ug/L	500	ug/L	95.5	90.0 – 110.0	P	19-DEC-09 12:04	121909-1
	Calcium	5130	ug/L	5000	ug/L	102.7	90.0 – 110.0	P	19-DEC-09 12:04	121909-1
	Chromium	493	ug/L	500	ug/L	98.5	90.0 – 110.0	P	19-DEC-09 12:04	121909-1
	Cobalt	486	ug/L	500	ug/L	97.3	90.0 – 110.0	P	19-DEC-09 12:04	121909-1
	Copper	491	ug/L	500	ug/L	98.2	90.0 – 110.0	P	19-DEC-09 12:04	121909-1
	Iron	5180	ug/L	5000	ug/L	103.6	90.0 – 110.0	P	19-DEC-09 12:04	121909-1
	Magnesium	5320	ug/L	5000	ug/L	106.3	90.0 – 110.0	P	19-DEC-09 12:04	121909-1
	Nickel	489	ug/L	500	ug/L	97.8	90.0 – 110.0	P	19-DEC-09 12:04	121909-1
	Potassium	5200	ug/L	5000	ug/L	104	90.0 – 110.0	P	19-DEC-09 12:04	121909-1
	Selenium	511	ug/L	500	ug/L	102.2	90.0 – 110.0	P	19-DEC-09 12:04	121909-1
	Silicon	2430	ug/L	2500	ug/L	97.1	90.0 – 110.0	P	19-DEC-09 12:04	121909-1
	Silver	489	ug/L	500	ug/L	97.9	90.0 – 110.0	P	19-DEC-09 12:04	121909-1
	Sodium	9870	ug/L	10000	ug/L	98.7	90.0 – 110.0	P	19-DEC-09 12:04	121909-1
	Titanium	488	ug/L	500	ug/L	97.5	90.0 – 110.0	P	19-DEC-09 12:04	121909-1
	Vanadium	496	ug/L	500	ug/L	99.2	90.0 – 110.0	P	19-DEC-09 12:04	121909-1
	Zinc	490	ug/L	500	ug/L	97.9	90.0 – 110.0	P	19-DEC-09 12:04	121909-1
	Mercury	5.06	ug/L	5	ug/L	101.3	80.0 – 120.0	AV	21-DEC-09 09:57	122109W3-3
	Mercury	5.03	ug/L	5	ug/L	100.6	80.0 – 120.0	AV	22-DEC-09 11:32	122209W1-4
CCV06										
	Aluminum	4960	ug/L	5000	ug/L	99.3	90.0 – 110.0	P	19-DEC-09 13:07	121909-1
	Arsenic	492	ug/L	500	ug/L	98.5	90.0 – 110.0	P	19-DEC-09 13:07	121909-1
	Barium	492	ug/L	500	ug/L	98.5	90.0 – 110.0	P	19-DEC-09 13:07	121909-1
	Boron	477	ug/L	500	ug/L	95.4	90.0 – 110.0	P	19-DEC-09 13:07	121909-1
	Calcium	4990	ug/L	5000	ug/L	99.9	90.0 – 110.0	P	19-DEC-09 13:07	121909-1
	Chromium	491	ug/L	500	ug/L	98.3	90.0 – 110.0	P	19-DEC-09 13:07	121909-1
	Cobalt	492	ug/L	500	ug/L	98.4	90.0 – 110.0	P	19-DEC-09 13:07	121909-1
	Copper	488	ug/L	500	ug/L	97.5	90.0 – 110.0	P	19-DEC-09 13:07	121909-1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–854–1

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS3,MER536,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Iron	4970	ug/L	5000	ug/L	99.4	90.0 – 110.0	P	19–DEC–09 13:07	121909–1
	Magnesium	5180	ug/L	5000	ug/L	103.6	90.0 – 110.0	P	19–DEC–09 13:07	121909–1
	Nickel	491	ug/L	500	ug/L	98.2	90.0 – 110.0	P	19–DEC–09 13:07	121909–1
	Potassium	5010	ug/L	5000	ug/L	100.2	90.0 – 110.0	P	19–DEC–09 13:07	121909–1
	Selenium	502	ug/L	500	ug/L	100.4	90.0 – 110.0	P	19–DEC–09 13:07	121909–1
	Silicon	2420	ug/L	2500	ug/L	96.7	90.0 – 110.0	P	19–DEC–09 13:07	121909–1
	Silver	490	ug/L	500	ug/L	98	90.0 – 110.0	P	19–DEC–09 13:07	121909–1
	Sodium	9370	ug/L	10000	ug/L	93.7	90.0 – 110.0	P	19–DEC–09 13:07	121909–1
	Titanium	486	ug/L	500	ug/L	97.3	90.0 – 110.0	P	19–DEC–09 13:07	121909–1
	Vanadium	496	ug/L	500	ug/L	99.2	90.0 – 110.0	P	19–DEC–09 13:07	121909–1
	Zinc	487	ug/L	500	ug/L	97.4	90.0 – 110.0	P	19–DEC–09 13:07	121909–1
	Mercury	5.08	ug/L	5	ug/L	101.7	80.0 – 120.0	AV	21–DEC–09 10:20	122109W3–3
CCV07										
	Aluminum	4840	ug/L	5000	ug/L	96.7	90.0 – 110.0	P	19–DEC–09 13:29	121909–1
	Arsenic	499	ug/L	500	ug/L	99.9	90.0 – 110.0	P	19–DEC–09 13:29	121909–1
	Barium	500	ug/L	500	ug/L	100.1	90.0 – 110.0	P	19–DEC–09 13:29	121909–1
	Boron	484	ug/L	500	ug/L	96.7	90.0 – 110.0	P	19–DEC–09 13:29	121909–1
	Calcium	4830	ug/L	5000	ug/L	96.6	90.0 – 110.0	P	19–DEC–09 13:29	121909–1
	Chromium	500	ug/L	500	ug/L	99.9	90.0 – 110.0	P	19–DEC–09 13:29	121909–1
	Cobalt	500	ug/L	500	ug/L	100.1	90.0 – 110.0	P	19–DEC–09 13:29	121909–1
	Copper	495	ug/L	500	ug/L	99.1	90.0 – 110.0	P	19–DEC–09 13:29	121909–1
	Iron	4910	ug/L	5000	ug/L	98.2	90.0 – 110.0	P	19–DEC–09 13:29	121909–1
	Magnesium	5070	ug/L	5000	ug/L	101.4	90.0 – 110.0	P	19–DEC–09 13:29	121909–1
	Nickel	500	ug/L	500	ug/L	100	90.0 – 110.0	P	19–DEC–09 13:29	121909–1
	Potassium	4900	ug/L	5000	ug/L	98	90.0 – 110.0	P	19–DEC–09 13:29	121909–1
	Selenium	510	ug/L	500	ug/L	102	90.0 – 110.0	P	19–DEC–09 13:29	121909–1
	Silicon	2450	ug/L	2500	ug/L	98.2	90.0 – 110.0	P	19–DEC–09 13:29	121909–1
	Silver	498	ug/L	500	ug/L	99.5	90.0 – 110.0	P	19–DEC–09 13:29	121909–1
	Sodium	9620	ug/L	10000	ug/L	96.2	90.0 – 110.0	P	19–DEC–09 13:29	121909–1
	Titanium	490	ug/L	500	ug/L	98.1	90.0 – 110.0	P	19–DEC–09 13:29	121909–1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–854–1

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,JCPMS3,MER536,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Vanadium	503	ug/L	500	ug/L	100.7	90.0 – 110.0	P	19–DEC–09 13:29	121909–1
	Zinc	494	ug/L	500	ug/L	98.9	90.0 – 110.0	P	19–DEC–09 13:29	121909–1
	Mercury	5.1	ug/L	5	ug/L	102	80.0 – 120.0	AV	21–DEC–09 10:43	122109W3–3
CCV08										
	Aluminum	4890	ug/L	5000	ug/L	97.8	90.0 – 110.0	P	19–DEC–09 14:38	121909–1
	Arsenic	505	ug/L	500	ug/L	101.1	90.0 – 110.0	P	19–DEC–09 14:38	121909–1
	Barium	506	ug/L	500	ug/L	101.3	90.0 – 110.0	P	19–DEC–09 14:38	121909–1
	Boron	491	ug/L	500	ug/L	98.2	90.0 – 110.0	P	19–DEC–09 14:38	121909–1
	Calcium	4970	ug/L	5000	ug/L	99.3	90.0 – 110.0	P	19–DEC–09 14:38	121909–1
	Chromium	504	ug/L	500	ug/L	100.9	90.0 – 110.0	P	19–DEC–09 14:38	121909–1
	Cobalt	506	ug/L	500	ug/L	101.2	90.0 – 110.0	P	19–DEC–09 14:38	121909–1
	Copper	504	ug/L	500	ug/L	100.8	90.0 – 110.0	P	19–DEC–09 14:38	121909–1
	Iron	5050	ug/L	5000	ug/L	101	90.0 – 110.0	P	19–DEC–09 14:38	121909–1
	Magnesium	5180	ug/L	5000	ug/L	103.5	90.0 – 110.0	P	19–DEC–09 14:38	121909–1
	Nickel	506	ug/L	500	ug/L	101.1	90.0 – 110.0	P	19–DEC–09 14:38	121909–1
	Potassium	4950	ug/L	5000	ug/L	99.1	90.0 – 110.0	P	19–DEC–09 14:38	121909–1
	Selenium	516	ug/L	500	ug/L	103.3	90.0 – 110.0	P	19–DEC–09 14:38	121909–1
	Silicon	2500	ug/L	2500	ug/L	99.8	90.0 – 110.0	P	19–DEC–09 14:38	121909–1
	Silver	505	ug/L	500	ug/L	100.9	90.0 – 110.0	P	19–DEC–09 14:38	121909–1
	Sodium	9680	ug/L	10000	ug/L	96.8	90.0 – 110.0	P	19–DEC–09 14:38	121909–1
	Titanium	499	ug/L	500	ug/L	99.8	90.0 – 110.0	P	19–DEC–09 14:38	121909–1
	Vanadium	510	ug/L	500	ug/L	101.9	90.0 – 110.0	P	19–DEC–09 14:38	121909–1
	Zinc	501	ug/L	500	ug/L	100.3	90.0 – 110.0	P	19–DEC–09 14:38	121909–1
	Mercury	4.99	ug/L	5	ug/L	99.7	80.0 – 120.0	AV	21–DEC–09 11:06	122109W3–3
CCV09										
	Aluminum	4940	ug/L	5000	ug/L	98.9	90.0 – 110.0	P	19–DEC–09 15:48	121909–1
	Arsenic	499	ug/L	500	ug/L	99.7	90.0 – 110.0	P	19–DEC–09 15:48	121909–1
	Barium	497	ug/L	500	ug/L	99.5	90.0 – 110.0	P	19–DEC–09 15:48	121909–1
	Boron	479	ug/L	500	ug/L	95.7	90.0 – 110.0	P	19–DEC–09 15:48	121909–1
	Calcium	4950	ug/L	5000	ug/L	99	90.0 – 110.0	P	19–DEC–09 15:48	121909–1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–854–1

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS3,MER536,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Chromium	495	ug/L	500	ug/L	99	90.0 – 110.0	P	19–DEC–09 15:48	121909–1
	Cobalt	491	ug/L	500	ug/L	98.1	90.0 – 110.0	P	19–DEC–09 15:48	121909–1
	Copper	497	ug/L	500	ug/L	99.3	90.0 – 110.0	P	19–DEC–09 15:48	121909–1
	Iron	5080	ug/L	5000	ug/L	101.7	90.0 – 110.0	P	19–DEC–09 15:48	121909–1
	Magnesium	5180	ug/L	5000	ug/L	103.7	90.0 – 110.0	P	19–DEC–09 15:48	121909–1
	Nickel	492	ug/L	500	ug/L	98.3	90.0 – 110.0	P	19–DEC–09 15:48	121909–1
	Potassium	4960	ug/L	5000	ug/L	99.2	90.0 – 110.0	P	19–DEC–09 15:48	121909–1
	Selenium	512	ug/L	500	ug/L	102.4	90.0 – 110.0	P	19–DEC–09 15:48	121909–1
	Silicon	2450	ug/L	2500	ug/L	98	90.0 – 110.0	P	19–DEC–09 15:48	121909–1
	Silver	493	ug/L	500	ug/L	98.7	90.0 – 110.0	P	19–DEC–09 15:48	121909–1
	Sodium	9810	ug/L	10000	ug/L	98.1	90.0 – 110.0	P	19–DEC–09 15:48	121909–1
	Titanium	492	ug/L	500	ug/L	98.5	90.0 – 110.0	P	19–DEC–09 15:48	121909–1
	Vanadium	498	ug/L	500	ug/L	99.7	90.0 – 110.0	P	19–DEC–09 15:48	121909–1
	Zinc	492	ug/L	500	ug/L	98.5	90.0 – 110.0	P	19–DEC–09 15:48	121909–1
	Mercury	5.09	ug/L	5	ug/L	101.8	80.0 – 120.0	AV	21–DEC–09 11:29	122109W3–3
CCV10										
	Aluminum	4880	ug/L	5000	ug/L	97.7	90.0 – 110.0	P	19–DEC–09 16:42	121909–1
	Arsenic	503	ug/L	500	ug/L	100.5	90.0 – 110.0	P	19–DEC–09 16:42	121909–1
	Barium	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	19–DEC–09 16:42	121909–1
	Boron	482	ug/L	500	ug/L	96.4	90.0 – 110.0	P	19–DEC–09 16:42	121909–1
	Calcium	4810	ug/L	5000	ug/L	96.3	90.0 – 110.0	P	19–DEC–09 16:42	121909–1
	Chromium	499	ug/L	500	ug/L	99.9	90.0 – 110.0	P	19–DEC–09 16:42	121909–1
	Cobalt	496	ug/L	500	ug/L	99.1	90.0 – 110.0	P	19–DEC–09 16:42	121909–1
	Copper	501	ug/L	500	ug/L	100.1	90.0 – 110.0	P	19–DEC–09 16:42	121909–1
	Iron	4840	ug/L	5000	ug/L	96.8	90.0 – 110.0	P	19–DEC–09 16:42	121909–1
	Magnesium	4990	ug/L	5000	ug/L	99.9	90.0 – 110.0	P	19–DEC–09 16:42	121909–1
	Nickel	497	ug/L	500	ug/L	99.4	90.0 – 110.0	P	19–DEC–09 16:42	121909–1
	Potassium	4860	ug/L	5000	ug/L	97.3	90.0 – 110.0	P	19–DEC–09 16:42	121909–1
	Selenium	517	ug/L	500	ug/L	103.3	90.0 – 110.0	P	19–DEC–09 16:42	121909–1
	Silicon	2470	ug/L	2500	ug/L	98.7	90.0 – 110.0	P	19–DEC–09 16:42	121909–1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–854–1

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS3,MER536,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Silver	497	ug/L	500	ug/L	99.4	90.0 – 110.0	P	19–DEC–09 16:42	121909–1
	Sodium	9330	ug/L	10000	ug/L	93.3	90.0 – 110.0	P	19–DEC–09 16:42	121909–1
	Titanium	496	ug/L	500	ug/L	99.1	90.0 – 110.0	P	19–DEC–09 16:42	121909–1
	Vanadium	502	ug/L	500	ug/L	100.5	90.0 – 110.0	P	19–DEC–09 16:42	121909–1
	Zinc	497	ug/L	500	ug/L	99.4	90.0 – 110.0	P	19–DEC–09 16:42	121909–1
	Mercury	5.05	ug/L	5	ug/L	101	80.0 – 120.0	AV	21–DEC–09 11:53	122109W3–3
CCV11										
	Aluminum	4850	ug/L	5000	ug/L	97	90.0 – 110.0	P	19–DEC–09 17:30	121909–1
	Arsenic	509	ug/L	500	ug/L	101.8	90.0 – 110.0	P	19–DEC–09 17:30	121909–1
	Barium	509	ug/L	500	ug/L	101.8	90.0 – 110.0	P	19–DEC–09 17:30	121909–1
	Boron	492	ug/L	500	ug/L	98.4	90.0 – 110.0	P	19–DEC–09 17:30	121909–1
	Calcium	4870	ug/L	5000	ug/L	97.3	90.0 – 110.0	P	19–DEC–09 17:30	121909–1
	Chromium	509	ug/L	500	ug/L	101.8	90.0 – 110.0	P	19–DEC–09 17:30	121909–1
	Cobalt	510	ug/L	500	ug/L	102	90.0 – 110.0	P	19–DEC–09 17:30	121909–1
	Copper	506	ug/L	500	ug/L	101.2	90.0 – 110.0	P	19–DEC–09 17:30	121909–1
	Iron	4940	ug/L	5000	ug/L	98.7	90.0 – 110.0	P	19–DEC–09 17:30	121909–1
	Magnesium	5010	ug/L	5000	ug/L	100.3	90.0 – 110.0	P	19–DEC–09 17:30	121909–1
	Nickel	510	ug/L	500	ug/L	102	90.0 – 110.0	P	19–DEC–09 17:30	121909–1
	Potassium	4820	ug/L	5000	ug/L	96.4	90.0 – 110.0	P	19–DEC–09 17:30	121909–1
	Selenium	520	ug/L	500	ug/L	103.9	90.0 – 110.0	P	19–DEC–09 17:30	121909–1
	Silicon	2510	ug/L	2500	ug/L	100.5	90.0 – 110.0	P	19–DEC–09 17:30	121909–1
	Silver	508	ug/L	500	ug/L	101.5	90.0 – 110.0	P	19–DEC–09 17:30	121909–1
	Sodium	9420	ug/L	10000	ug/L	94.2	90.0 – 110.0	P	19–DEC–09 17:30	121909–1
	Titanium	503	ug/L	500	ug/L	100.6	90.0 – 110.0	P	19–DEC–09 17:30	121909–1
	Vanadium	513	ug/L	500	ug/L	102.6	90.0 – 110.0	P	19–DEC–09 17:30	121909–1
	Zinc	506	ug/L	500	ug/L	101.2	90.0 – 110.0	P	19–DEC–09 17:30	121909–1
	Mercury	5.06	ug/L	5	ug/L	101.3	80.0 – 120.0	AV	21–DEC–09 12:16	122109W3–3
CCV12										
	Aluminum	4970	ug/L	5000	ug/L	99.4	90.0 – 110.0	P	19–DEC–09 18:46	121909–1
	Arsenic	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	19–DEC–09 18:46	121909–1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-854-1

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS3,MER536,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Barium	498	ug/L	500	ug/L	99.6	90.0 – 110.0	P	19-DEC-09 18:46	121909-1
	Boron	477	ug/L	500	ug/L	95.5	90.0 – 110.0	P	19-DEC-09 18:46	121909-1
	Calcium	4960	ug/L	5000	ug/L	99.2	90.0 – 110.0	P	19-DEC-09 18:46	121909-1
	Chromium	497	ug/L	500	ug/L	99.4	90.0 – 110.0	P	19-DEC-09 18:46	121909-1
	Cobalt	490	ug/L	500	ug/L	98	90.0 – 110.0	P	19-DEC-09 18:46	121909-1
	Copper	497	ug/L	500	ug/L	99.4	90.0 – 110.0	P	19-DEC-09 18:46	121909-1
	Iron	5030	ug/L	5000	ug/L	100.6	90.0 – 110.0	P	19-DEC-09 18:46	121909-1
	Magnesium	5110	ug/L	5000	ug/L	102.1	90.0 – 110.0	P	19-DEC-09 18:46	121909-1
	Nickel	493	ug/L	500	ug/L	98.7	90.0 – 110.0	P	19-DEC-09 18:46	121909-1
	Potassium	4910	ug/L	5000	ug/L	98.2	90.0 – 110.0	P	19-DEC-09 18:46	121909-1
	Selenium	511	ug/L	500	ug/L	102.3	90.0 – 110.0	P	19-DEC-09 18:46	121909-1
	Silicon	2450	ug/L	2500	ug/L	97.8	90.0 – 110.0	P	19-DEC-09 18:46	121909-1
	Silver	494	ug/L	500	ug/L	98.8	90.0 – 110.0	P	19-DEC-09 18:46	121909-1
	Sodium	9500	ug/L	10000	ug/L	95	90.0 – 110.0	P	19-DEC-09 18:46	121909-1
	Titanium	491	ug/L	500	ug/L	98.3	90.0 – 110.0	P	19-DEC-09 18:46	121909-1
	Vanadium	500	ug/L	500	ug/L	100.1	90.0 – 110.0	P	19-DEC-09 18:46	121909-1
	Zinc	493	ug/L	500	ug/L	98.6	90.0 – 110.0	P	19-DEC-09 18:46	121909-1
	Mercury	5.1	ug/L	5	ug/L	102	80.0 – 120.0	AV	21-DEC-09 12:39	122109W3-3

METALS
-2b-
CRDL Standard for AA & ICP

SDG No: 10-854-1

Contract: LANL01004 **Lab Code:** GEL

AA CRDL Standard Source: SPEX

ICP CRDL Standard Source Solutions Plus

Instrument ID: HG3,ICPMS3,MER536,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Advisory Limits (%R)	M	Analysis Date/Time	Run Number
CRDL01										
	Mercury	.228	ug/L	.2	ug/L	114	70.0 – 130.0	AV	21-DEC-09 08:31	122109W3-3
	Mercury	.192	ug/L	.2	ug/L	95.9	70.0 – 130.0	AV	22-DEC-09 09:55	122209W1-4
	Antimony	3.24	ug/L	3	ug/L	107.8	70.0 – 130.0	MS	23-DEC-09 03:14	091222-2
	Beryllium	.541	ug/L	.5	ug/L	108.2	70.0 – 130.0	MS	23-DEC-09 03:14	091222-2
	Cadmium	1.06	ug/L	1	ug/L	106.4	70.0 – 130.0	MS	23-DEC-09 03:14	091222-2
	Uranium	.223	ug/L	.2	ug/L	111.5	70.0 – 130.0	MS	23-DEC-09 03:14	091222-2
	Lead	2.15	ug/L	2	ug/L	107.4	70.0 – 130.0	MS	23-DEC-09 03:14	091222-2
	Thallium	1.07	ug/L	1	ug/L	106.9	70.0 – 130.0	MS	23-DEC-09 03:14	091222-2
	Manganese	5.15	ug/L	5	ug/L	103	70.0 – 130.0	MS	23-DEC-09 03:14	091222-2
	Lithium	11.3	ug/L	10	ug/L	113.4	70.0 – 130.0	MS	23-DEC-09 03:14	091222-2
PQL01										
	Selenium	31.1	ug/L	30	ug/L	103.7	70.0 – 130.0	P	19-DEC-09 08:04	121909-1
	Boron	49.5	ug/L	50	ug/L	99.1	70.0 – 130.0	P	19-DEC-09 08:04	121909-1
	Iron	98.2	ug/L	100	ug/L	98.2	70.0 – 130.0	P	19-DEC-09 08:04	121909-1
	Nickel	5.27	ug/L	5	ug/L	105.5	70.0 – 130.0	P	19-DEC-09 08:04	121909-1
	Silver	5.1	ug/L	5	ug/L	101.9	70.0 – 130.0	P	19-DEC-09 08:04	121909-1
	Arsenic	30.5	ug/L	30	ug/L	101.7	70.0 – 130.0	P	19-DEC-09 08:04	121909-1
	Chromium	5.05	ug/L	5	ug/L	101.1	70.0 – 130.0	P	19-DEC-09 08:04	121909-1
	Calcium	210	ug/L	200	ug/L	104.8	70.0 – 130.0	P	19-DEC-09 08:04	121909-1
	Zinc	9.89	ug/L	10	ug/L	98.9	70.0 – 130.0	P	19-DEC-09 08:04	121909-1
	Vanadium	4.7	ug/L	5	ug/L	94.1	70.0 – 130.0	P	19-DEC-09 08:04	121909-1
	Copper	10.3	ug/L	10	ug/L	102.5	70.0 – 130.0	P	19-DEC-09 08:04	121909-1
	Cobalt	4.93	ug/L	5	ug/L	98.5	70.0 – 130.0	P	19-DEC-09 08:04	121909-1
	Barium	5.05	ug/L	5	ug/L	101	70.0 – 130.0	P	19-DEC-09 08:04	121909-1
	Sodium	305	ug/L	300	ug/L	101.6	70.0 – 130.0	P	19-DEC-09 08:04	121909-1
	Potassium	165	ug/L	150	ug/L	109.8	70.0 – 130.0	P	19-DEC-09 08:04	121909-1
	Magnesium	313	ug/L	300	ug/L	104.3	70.0 – 130.0	P	19-DEC-09 08:04	121909-1
	Aluminum	202	ug/L	200	ug/L	100.9	70.0 – 130.0	P	19-DEC-09 08:04	121909-1
	Silicon	102	ug/L	100	ug/L	102.4	70.0 – 130.0	P	19-DEC-09 08:04	121909-1
	Titanium	5	ug/L	5	ug/L	99.9	70.0 – 130.0	P	19-DEC-09 08:04	121909-1

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-854-1

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
ICB01										
	Aluminum	68.0	+/-200	U	68.0	200	LIQ	P	19-DEC-09 07:58	121909-1
	Arsenic	5.0	+/-30	U	5.0	30.0	LIQ	P	19-DEC-09 07:58	121909-1
	Barium	1.0	+/-5	U	1.0	5.0	LIQ	P	19-DEC-09 07:58	121909-1
	Boron	15.0	+/-50	U	15.0	50.0	LIQ	P	19-DEC-09 07:58	121909-1
	Calcium	50.0	+/-200	U	50.0	200	LIQ	P	19-DEC-09 07:58	121909-1
	Chromium	1.0	+/-5	U	1.0	5.0	LIQ	P	19-DEC-09 07:58	121909-1
	Cobalt	1.0	+/-5	U	1.0	5.0	LIQ	P	19-DEC-09 07:58	121909-1
	Copper	3.0	+/-10	U	3.0	10.0	LIQ	P	19-DEC-09 07:58	121909-1
	Iron	30.0	+/-100	U	30.0	100	LIQ	P	19-DEC-09 07:58	121909-1
	Magnesium	85.0	+/-300	U	85.0	300	LIQ	P	19-DEC-09 07:58	121909-1
	Nickel	1.5	+/-5	U	1.5	5.0	LIQ	P	19-DEC-09 07:58	121909-1
	Potassium	50.0	+/-150	U	50.0	150	LIQ	P	19-DEC-09 07:58	121909-1
	Selenium	5.0	+/-30	U	5.0	30.0	LIQ	P	19-DEC-09 07:58	121909-1
	Silicon	25.0	+/-100	U	25.0	100	LIQ	P	19-DEC-09 07:58	121909-1
	Silver	1.0	+/-5	U	1.0	5.0	LIQ	P	19-DEC-09 07:58	121909-1
	Sodium	100	+/-300	U	100	300	LIQ	P	19-DEC-09 07:58	121909-1
	Titanium	1.0	+/-5	U	1.0	5.0	LIQ	P	19-DEC-09 07:58	121909-1
	Vanadium	1.0	+/-5	U	1.0	5.0	LIQ	P	19-DEC-09 07:58	121909-1
	Zinc	3.3	+/-10	U	3.3	10.0	LIQ	P	19-DEC-09 07:58	121909-1
	Mercury	0.066	+/-.2	U	0.066	0.2	LIQ	AV	21-DEC-09 08:29	122109W3-3
	Mercury	0.066	+/-.2	U	0.066	0.2	LIQ	AV	22-DEC-09 09:53	122209W1-4
	Antimony	1.0	+/-3	U	1.0	3.0	LIQ	MS	23-DEC-09 03:08	091222-2
	Beryllium	0.1	+/-.5	U	0.1	0.5	LIQ	MS	23-DEC-09 03:08	091222-2
	Cadmium	0.11	+/-1	U	0.11	1.0	LIQ	MS	23-DEC-09 03:08	091222-2
	Lead	0.5	+/-2	U	0.5	2.0	LIQ	MS	23-DEC-09 03:08	091222-2
	Lithium	2.0	+/-10	U	2.0	10.0	LIQ	MS	23-DEC-09 03:08	091222-2
	Manganese	1.0	+/-5	U	1.0	5.0	LIQ	MS	23-DEC-09 03:08	091222-2
	Thallium	0.3	+/-1	U	0.3	1.0	LIQ	MS	23-DEC-09 03:08	091222-2
	Uranium	0.05	+/-.2	U	0.05	0.2	LIQ	MS	23-DEC-09 03:08	091222-2
CCB01										
	Aluminum	68.0	+/-200	U	68.0	200	LIQ	P	19-DEC-09 08:43	121909-1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–854–1

Contract: LANL01004 **Lab Code: GEL**

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Arsenic	12.52	+/–30	J	5.0	30.0	LIQ	P	19–DEC–09 08:43	121909–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	19–DEC–09 08:43	121909–1
	Boron	15.0	+/–50	U	15.0	50.0	LIQ	P	19–DEC–09 08:43	121909–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	19–DEC–09 08:43	121909–1
	Chromium	1.0	+/–5	U	1.0	5.0	LIQ	P	19–DEC–09 08:43	121909–1
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	19–DEC–09 08:43	121909–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	19–DEC–09 08:43	121909–1
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	19–DEC–09 08:43	121909–1
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	19–DEC–09 08:43	121909–1
	Nickel	1.5	+/–5	U	1.5	5.0	LIQ	P	19–DEC–09 08:43	121909–1
	Potassium	99.96	+/–150	J	50.0	150	LIQ	P	19–DEC–09 08:43	121909–1
	Selenium	5.0	+/–30	U	5.0	30.0	LIQ	P	19–DEC–09 08:43	121909–1
	Silicon	25.0	+/–100	U	25.0	100	LIQ	P	19–DEC–09 08:43	121909–1
	Silver	1.0	+/–5	U	1.0	5.0	LIQ	P	19–DEC–09 08:43	121909–1
	Sodium	100	+/–300	U	100	300	LIQ	P	19–DEC–09 08:43	121909–1
	Titanium	1.0	+/–5	U	1.0	5.0	LIQ	P	19–DEC–09 08:43	121909–1
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	19–DEC–09 08:43	121909–1
	Zinc	3.3	+/–10	U	3.3	10.0	LIQ	P	19–DEC–09 08:43	121909–1
	Mercury	0.066	+/–.2	U	0.066	0.2	LIQ	AV	21–DEC–09 08:35	122109W3–3
	Mercury	0.066	+/–.2	U	0.066	0.2	LIQ	AV	22–DEC–09 09:59	122209W1–4
	Antimony	1.0	+/–3	U	1.0	3.0	LIQ	MS	23–DEC–09 03:36	091222–2
	Beryllium	0.1	+/–.5	U	0.1	0.5	LIQ	MS	23–DEC–09 03:36	091222–2
	Cadmium	0.11	+/–1	U	0.11	1.0	LIQ	MS	23–DEC–09 03:36	091222–2
	Lead	0.5	+/–2	U	0.5	2.0	LIQ	MS	23–DEC–09 03:36	091222–2
	Lithium	2.0	+/–10	U	2.0	10.0	LIQ	MS	23–DEC–09 03:36	091222–2
	Manganese	1.0	+/–5	U	1.0	5.0	LIQ	MS	23–DEC–09 03:36	091222–2
	Thallium	0.3	+/–1	U	0.3	1.0	LIQ	MS	23–DEC–09 03:36	091222–2
	Uranium	0.05	+/–.2	U	0.05	0.2	LIQ	MS	23–DEC–09 03:36	091222–2
CCB02										
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	19–DEC–09 09:12	121909–1
	Arsenic	5.0	+/–30	U	5.0	30.0	LIQ	P	19–DEC–09 09:12	121909–1

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-854-1

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Barium	1.0	+/-5	U	1.0	5.0	LIQ	P	19-DEC-09 09:12	121909-1
	Boron	15.0	+/-50	U	15.0	50.0	LIQ	P	19-DEC-09 09:12	121909-1
	Calcium	50.0	+/-200	U	50.0	200	LIQ	P	19-DEC-09 09:12	121909-1
	Chromium	1.0	+/-5	U	1.0	5.0	LIQ	P	19-DEC-09 09:12	121909-1
	Cobalt	1.0	+/-5	U	1.0	5.0	LIQ	P	19-DEC-09 09:12	121909-1
	Copper	3.0	+/-10	U	3.0	10.0	LIQ	P	19-DEC-09 09:12	121909-1
	Iron	30.0	+/-100	U	30.0	100	LIQ	P	19-DEC-09 09:12	121909-1
	Magnesium	85.0	+/-300	U	85.0	300	LIQ	P	19-DEC-09 09:12	121909-1
	Nickel	1.5	+/-5	U	1.5	5.0	LIQ	P	19-DEC-09 09:12	121909-1
	Potassium	69.21	+/-150	J	50.0	150	LIQ	P	19-DEC-09 09:12	121909-1
	Selenium	5.0	+/-30	U	5.0	30.0	LIQ	P	19-DEC-09 09:12	121909-1
	Silicon	25.0	+/-100	U	25.0	100	LIQ	P	19-DEC-09 09:12	121909-1
	Silver	1.0	+/-5	U	1.0	5.0	LIQ	P	19-DEC-09 09:12	121909-1
	Sodium	100	+/-300	U	100	300	LIQ	P	19-DEC-09 09:12	121909-1
	Titanium	1.0	+/-5	U	1.0	5.0	LIQ	P	19-DEC-09 09:12	121909-1
	Vanadium	1.0	+/-5	U	1.0	5.0	LIQ	P	19-DEC-09 09:12	121909-1
	Zinc	3.3	+/-10	U	3.3	10.0	LIQ	P	19-DEC-09 09:12	121909-1
	Mercury	0.066	+/-.2	U	0.066	0.2	LIQ	AV	21-DEC-09 08:58	122109W3-3
	Mercury	0.066	+/-.2	U	0.066	0.2	LIQ	AV	22-DEC-09 10:23	122209W1-4
	Antimony	1.03	+/-3	J	1.0	3.0	LIQ	MS	23-DEC-09 03:54	091222-2
	Beryllium	0.1	+/-.5	U	0.1	0.5	LIQ	MS	23-DEC-09 03:54	091222-2
	Cadmium	0.11	+/-1	U	0.11	1.0	LIQ	MS	23-DEC-09 03:54	091222-2
	Lead	0.5	+/-2	U	0.5	2.0	LIQ	MS	23-DEC-09 03:54	091222-2
	Lithium	2.0	+/-10	U	2.0	10.0	LIQ	MS	23-DEC-09 03:54	091222-2
	Manganese	1.0	+/-5	U	1.0	5.0	LIQ	MS	23-DEC-09 03:54	091222-2
	Thallium	0.368	+/-1	J	0.3	1.0	LIQ	MS	23-DEC-09 03:54	091222-2
	Uranium	0.067	+/-.2	J	0.05	0.2	LIQ	MS	23-DEC-09 03:54	091222-2
CCB03										
	Aluminum	68.0	+/-200	U	68.0	200	LIQ	P	19-DEC-09 10:21	121909-1
	Arsenic	5.0	+/-30	U	5.0	30.0	LIQ	P	19-DEC-09 10:21	121909-1
	Barium	1.0	+/-5	U	1.0	5.0	LIQ	P	19-DEC-09 10:21	121909-1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–854–1

Contract: LANL01004 **Lab Code: GEL**

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Boron	15.0	+/–50	U	15.0	50.0	LIQ	P	19–DEC–09 10:21	121909–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	19–DEC–09 10:21	121909–1
	Chromium	1.0	+/–5	U	1.0	5.0	LIQ	P	19–DEC–09 10:21	121909–1
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	19–DEC–09 10:21	121909–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	19–DEC–09 10:21	121909–1
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	19–DEC–09 10:21	121909–1
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	19–DEC–09 10:21	121909–1
	Nickel	1.5	+/–5	U	1.5	5.0	LIQ	P	19–DEC–09 10:21	121909–1
	Potassium	50.0	+/–150	U	50.0	150	LIQ	P	19–DEC–09 10:21	121909–1
	Selenium	5.0	+/–30	U	5.0	30.0	LIQ	P	19–DEC–09 10:21	121909–1
	Silicon	25.0	+/–100	U	25.0	100	LIQ	P	19–DEC–09 10:21	121909–1
	Silver	1.0	+/–5	U	1.0	5.0	LIQ	P	19–DEC–09 10:21	121909–1
	Sodium	100	+/–300	U	100	300	LIQ	P	19–DEC–09 10:21	121909–1
	Titanium	1.0	+/–5	U	1.0	5.0	LIQ	P	19–DEC–09 10:21	121909–1
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	19–DEC–09 10:21	121909–1
	Zinc	3.3	+/–10	U	3.3	10.0	LIQ	P	19–DEC–09 10:21	121909–1
	Mercury	0.066	+/–.2	U	0.066	0.2	LIQ	AV	21–DEC–09 09:21	122109W3–3
	Mercury	0.066	+/–.2	U	0.066	0.2	LIQ	AV	22–DEC–09 10:47	122209W1–4
	Antimony	1.0	+/–3	U	1.0	3.0	LIQ	MS	23–DEC–09 04:40	091222–2
	Beryllium	0.1	+/–.5	U	0.1	0.5	LIQ	MS	23–DEC–09 04:40	091222–2
	Cadmium	0.11	+/–1	U	0.11	1.0	LIQ	MS	23–DEC–09 04:40	091222–2
	Lead	0.5	+/–2	U	0.5	2.0	LIQ	MS	23–DEC–09 04:40	091222–2
	Lithium	2.0	+/–10	U	2.0	10.0	LIQ	MS	23–DEC–09 04:40	091222–2
	Manganese	1.0	+/–5	U	1.0	5.0	LIQ	MS	23–DEC–09 04:40	091222–2
	Thallium	0.702	+/–1	J	0.3	1.0	LIQ	MS	23–DEC–09 04:40	091222–2
	Uranium	0.05	+/–.2	U	0.05	0.2	LIQ	MS	23–DEC–09 04:40	091222–2
CCB04										
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	19–DEC–09 11:25	121909–1
	Arsenic	5.0	+/–30	U	5.0	30.0	LIQ	P	19–DEC–09 11:25	121909–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	19–DEC–09 11:25	121909–1
	Boron	15.0	+/–50	U	15.0	50.0	LIQ	P	19–DEC–09 11:25	121909–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–854–1

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	19–DEC–09 11:25	121909–1
	Chromium	1.0	+/–5	U	1.0	5.0	LIQ	P	19–DEC–09 11:25	121909–1
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	19–DEC–09 11:25	121909–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	19–DEC–09 11:25	121909–1
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	19–DEC–09 11:25	121909–1
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	19–DEC–09 11:25	121909–1
	Nickel	1.5	+/–5	U	1.5	5.0	LIQ	P	19–DEC–09 11:25	121909–1
	Potassium	50.0	+/–150	U	50.0	150	LIQ	P	19–DEC–09 11:25	121909–1
	Selenium	5.0	+/–30	U	5.0	30.0	LIQ	P	19–DEC–09 11:25	121909–1
	Silicon	25.0	+/–100	U	25.0	100	LIQ	P	19–DEC–09 11:25	121909–1
	Silver	1.0	+/–5	U	1.0	5.0	LIQ	P	19–DEC–09 11:25	121909–1
	Sodium	100	+/–300	U	100	300	LIQ	P	19–DEC–09 11:25	121909–1
	Titanium	1.0	+/–5	U	1.0	5.0	LIQ	P	19–DEC–09 11:25	121909–1
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	19–DEC–09 11:25	121909–1
	Zinc	3.3	+/–10	U	3.3	10.0	LIQ	P	19–DEC–09 11:25	121909–1
	Mercury	0.066	+/–.2	U	0.066	0.2	LIQ	AV	21–DEC–09 09:44	122109W3–3
	Mercury	0.066	+/–.2	U	0.066	0.2	LIQ	AV	22–DEC–09 11:10	122209W1–4
	Antimony	1.0	+/–3	U	1.0	3.0	LIQ	MS	23–DEC–09 05:09	091222–2
	Beryllium	0.1	+/–.5	U	0.1	0.5	LIQ	MS	23–DEC–09 05:09	091222–2
	Cadmium	0.11	+/–1	U	0.11	1.0	LIQ	MS	23–DEC–09 05:09	091222–2
	Lead	0.5	+/–2	U	0.5	2.0	LIQ	MS	23–DEC–09 05:09	091222–2
	Lithium	2.0	+/–10	U	2.0	10.0	LIQ	MS	23–DEC–09 05:09	091222–2
	Manganese	1.0	+/–5	U	1.0	5.0	LIQ	MS	23–DEC–09 05:09	091222–2
	Thallium	0.398	+/–1	J	0.3	1.0	LIQ	MS	23–DEC–09 05:09	091222–2
	Uranium	0.05	+/–.2	U	0.05	0.2	LIQ	MS	23–DEC–09 05:09	091222–2
CCB05										
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	19–DEC–09 12:11	121909–1
	Arsenic	5.0	+/–30	U	5.0	30.0	LIQ	P	19–DEC–09 12:11	121909–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	19–DEC–09 12:11	121909–1
	Boron	15.0	+/–50	U	15.0	50.0	LIQ	P	19–DEC–09 12:11	121909–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	19–DEC–09 12:11	121909–1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10–854–1

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Chromium	1.0	+/–5	U	1.0	5.0	LIQ	P	19–DEC–09 12:11	121909–1
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	19–DEC–09 12:11	121909–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	19–DEC–09 12:11	121909–1
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	19–DEC–09 12:11	121909–1
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	19–DEC–09 12:11	121909–1
	Nickel	1.5	+/–5	U	1.5	5.0	LIQ	P	19–DEC–09 12:11	121909–1
	Potassium	50.0	+/–150	U	50.0	150	LIQ	P	19–DEC–09 12:11	121909–1
	Selenium	5.0	+/–30	U	5.0	30.0	LIQ	P	19–DEC–09 12:11	121909–1
	Silicon	25.0	+/–100	U	25.0	100	LIQ	P	19–DEC–09 12:11	121909–1
	Silver	1.0	+/–5	U	1.0	5.0	LIQ	P	19–DEC–09 12:11	121909–1
	Sodium	100	+/–300	U	100	300	LIQ	P	19–DEC–09 12:11	121909–1
	Titanium	1.0	+/–5	U	1.0	5.0	LIQ	P	19–DEC–09 12:11	121909–1
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	19–DEC–09 12:11	121909–1
	Zinc	3.3	+/–10	U	3.3	10.0	LIQ	P	19–DEC–09 12:11	121909–1
	Mercury	0.066	+/–.2	U	0.066	0.2	LIQ	AV	21–DEC–09 09:59	122109W3–3
	Mercury	0.066	+/–.2	U	0.066	0.2	LIQ	AV	22–DEC–09 11:34	122209W1–4
CCB06										
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	19–DEC–09 13:14	121909–1
	Arsenic	5.0	+/–30	U	5.0	30.0	LIQ	P	19–DEC–09 13:14	121909–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	19–DEC–09 13:14	121909–1
	Boron	15.0	+/–50	U	15.0	50.0	LIQ	P	19–DEC–09 13:14	121909–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	19–DEC–09 13:14	121909–1
	Chromium	1.0	+/–5	U	1.0	5.0	LIQ	P	19–DEC–09 13:14	121909–1
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	19–DEC–09 13:14	121909–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	19–DEC–09 13:14	121909–1
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	19–DEC–09 13:14	121909–1
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	19–DEC–09 13:14	121909–1
	Nickel	1.5	+/–5	U	1.5	5.0	LIQ	P	19–DEC–09 13:14	121909–1
	Potassium	50.0	+/–150	U	50.0	150	LIQ	P	19–DEC–09 13:14	121909–1
	Selenium	5.0	+/–30	U	5.0	30.0	LIQ	P	19–DEC–09 13:14	121909–1
	Silicon	25.0	+/–100	U	25.0	100	LIQ	P	19–DEC–09 13:14	121909–1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10–854–1

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Silver	1.0	+/–5	U	1.0	5.0	LIQ	P	19–DEC–09 13:14	121909–1
	Sodium	100	+/–300	U	100	300	LIQ	P	19–DEC–09 13:14	121909–1
	Titanium	1.0	+/–5	U	1.0	5.0	LIQ	P	19–DEC–09 13:14	121909–1
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	19–DEC–09 13:14	121909–1
	Zinc	3.3	+/–10	U	3.3	10.0	LIQ	P	19–DEC–09 13:14	121909–1
	Mercury	0.066	+/–.2	U	0.066	0.2	LIQ	AV	21–DEC–09 10:22	122109W3–3
CCB07										
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	19–DEC–09 13:36	121909–1
	Arsenic	5.0	+/–30	U	5.0	30.0	LIQ	P	19–DEC–09 13:36	121909–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	19–DEC–09 13:36	121909–1
	Boron	15.0	+/–50	U	15.0	50.0	LIQ	P	19–DEC–09 13:36	121909–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	19–DEC–09 13:36	121909–1
	Chromium	1.0	+/–5	U	1.0	5.0	LIQ	P	19–DEC–09 13:36	121909–1
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	19–DEC–09 13:36	121909–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	19–DEC–09 13:36	121909–1
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	19–DEC–09 13:36	121909–1
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	19–DEC–09 13:36	121909–1
	Nickel	1.5	+/–5	U	1.5	5.0	LIQ	P	19–DEC–09 13:36	121909–1
	Potassium	50.0	+/–150	U	50.0	150	LIQ	P	19–DEC–09 13:36	121909–1
	Selenium	5.0	+/–30	U	5.0	30.0	LIQ	P	19–DEC–09 13:36	121909–1
	Silicon	25.0	+/–100	U	25.0	100	LIQ	P	19–DEC–09 13:36	121909–1
	Silver	1.0	+/–5	U	1.0	5.0	LIQ	P	19–DEC–09 13:36	121909–1
	Sodium	100	+/–300	U	100	300	LIQ	P	19–DEC–09 13:36	121909–1
	Titanium	1.0	+/–5	U	1.0	5.0	LIQ	P	19–DEC–09 13:36	121909–1
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	19–DEC–09 13:36	121909–1
	Zinc	3.3	+/–10	U	3.3	10.0	LIQ	P	19–DEC–09 13:36	121909–1
	Mercury	0.066	+/–.2	U	0.066	0.2	LIQ	AV	21–DEC–09 10:45	122109W3–3
CCB08										
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	19–DEC–09 14:45	121909–1
	Arsenic	5.0	+/–30	U	5.0	30.0	LIQ	P	19–DEC–09 14:45	121909–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	19–DEC–09 14:45	121909–1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10–854–1

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Boron	15.0	+/–50	U	15.0	50.0	LIQ	P	19–DEC–09 14:45	121909–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	19–DEC–09 14:45	121909–1
	Chromium	1.0	+/–5	U	1.0	5.0	LIQ	P	19–DEC–09 14:45	121909–1
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	19–DEC–09 14:45	121909–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	19–DEC–09 14:45	121909–1
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	19–DEC–09 14:45	121909–1
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	19–DEC–09 14:45	121909–1
	Nickel	1.5	+/–5	U	1.5	5.0	LIQ	P	19–DEC–09 14:45	121909–1
	Potassium	50.0	+/–150	U	50.0	150	LIQ	P	19–DEC–09 14:45	121909–1
	Selenium	5.0	+/–30	U	5.0	30.0	LIQ	P	19–DEC–09 14:45	121909–1
	Silicon	25.0	+/–100	U	25.0	100	LIQ	P	19–DEC–09 14:45	121909–1
	Silver	1.0	+/–5	U	1.0	5.0	LIQ	P	19–DEC–09 14:45	121909–1
	Sodium	100	+/–300	U	100	300	LIQ	P	19–DEC–09 14:45	121909–1
	Titanium	1.0	+/–5	U	1.0	5.0	LIQ	P	19–DEC–09 14:45	121909–1
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	19–DEC–09 14:45	121909–1
	Zinc	3.3	+/–10	U	3.3	10.0	LIQ	P	19–DEC–09 14:45	121909–1
	Mercury	0.066	+/–.2	U	0.066	0.2	LIQ	AV	21–DEC–09 11:08	122109W3–3
CCB09										
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	19–DEC–09 15:54	121909–1
	Arsenic	5.0	+/–30	U	5.0	30.0	LIQ	P	19–DEC–09 15:54	121909–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	19–DEC–09 15:54	121909–1
	Boron	15.0	+/–50	U	15.0	50.0	LIQ	P	19–DEC–09 15:54	121909–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	19–DEC–09 15:54	121909–1
	Chromium	1.0	+/–5	U	1.0	5.0	LIQ	P	19–DEC–09 15:54	121909–1
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	19–DEC–09 15:54	121909–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	19–DEC–09 15:54	121909–1
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	19–DEC–09 15:54	121909–1
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	19–DEC–09 15:54	121909–1
	Nickel	1.5	+/–5	U	1.5	5.0	LIQ	P	19–DEC–09 15:54	121909–1
	Potassium	50.0	+/–150	U	50.0	150	LIQ	P	19–DEC–09 15:54	121909–1
	Selenium	5.0	+/–30	U	5.0	30.0	LIQ	P	19–DEC–09 15:54	121909–1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10–854–1

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Silicon	25.0	+/–100	U	25.0	100	LIQ	P	19–DEC–09 15:54	121909–1
	Silver	1.0	+/–5	U	1.0	5.0	LIQ	P	19–DEC–09 15:54	121909–1
	Sodium	100	+/–300	U	100	300	LIQ	P	19–DEC–09 15:54	121909–1
	Titanium	1.0	+/–5	U	1.0	5.0	LIQ	P	19–DEC–09 15:54	121909–1
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	19–DEC–09 15:54	121909–1
	Zinc	3.3	+/–10	U	3.3	10.0	LIQ	P	19–DEC–09 15:54	121909–1
	Mercury	0.066	+/–.2	U	0.066	0.2	LIQ	AV	21–DEC–09 11:31	122109W3–3
CCB10										
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	19–DEC–09 16:49	121909–1
	Arsenic	5.0	+/–30	U	5.0	30.0	LIQ	P	19–DEC–09 16:49	121909–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	19–DEC–09 16:49	121909–1
	Boron	15.0	+/–50	U	15.0	50.0	LIQ	P	19–DEC–09 16:49	121909–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	19–DEC–09 16:49	121909–1
	Chromium	1.0	+/–5	U	1.0	5.0	LIQ	P	19–DEC–09 16:49	121909–1
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	19–DEC–09 16:49	121909–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	19–DEC–09 16:49	121909–1
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	19–DEC–09 16:49	121909–1
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	19–DEC–09 16:49	121909–1
	Nickel	1.5	+/–5	U	1.5	5.0	LIQ	P	19–DEC–09 16:49	121909–1
	Potassium	50.0	+/–150	U	50.0	150	LIQ	P	19–DEC–09 16:49	121909–1
	Selenium	5.0	+/–30	U	5.0	30.0	LIQ	P	19–DEC–09 16:49	121909–1
	Silicon	25.0	+/–100	U	25.0	100	LIQ	P	19–DEC–09 16:49	121909–1
	Silver	1.0	+/–5	U	1.0	5.0	LIQ	P	19–DEC–09 16:49	121909–1
	Sodium	100	+/–300	U	100	300	LIQ	P	19–DEC–09 16:49	121909–1
	Titanium	1.0	+/–5	U	1.0	5.0	LIQ	P	19–DEC–09 16:49	121909–1
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	19–DEC–09 16:49	121909–1
	Zinc	3.3	+/–10	U	3.3	10.0	LIQ	P	19–DEC–09 16:49	121909–1
	Mercury	0.066	+/–.2	U	0.066	0.2	LIQ	AV	21–DEC–09 11:55	122109W3–3
CCB11										
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	19–DEC–09 17:37	121909–1
	Arsenic	5.0	+/–30	U	5.0	30.0	LIQ	P	19–DEC–09 17:37	121909–1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10–854–1

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	19–DEC–09 17:37	121909–1
	Boron	15.0	+/–50	U	15.0	50.0	LIQ	P	19–DEC–09 17:37	121909–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	19–DEC–09 17:37	121909–1
	Chromium	1.0	+/–5	U	1.0	5.0	LIQ	P	19–DEC–09 17:37	121909–1
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	19–DEC–09 17:37	121909–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	19–DEC–09 17:37	121909–1
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	19–DEC–09 17:37	121909–1
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	19–DEC–09 17:37	121909–1
	Nickel	1.5	+/–5	U	1.5	5.0	LIQ	P	19–DEC–09 17:37	121909–1
	Potassium	50.0	+/–150	U	50.0	150	LIQ	P	19–DEC–09 17:37	121909–1
	Selenium	5.0	+/–30	U	5.0	30.0	LIQ	P	19–DEC–09 17:37	121909–1
	Silicon	25.0	+/–100	U	25.0	100	LIQ	P	19–DEC–09 17:37	121909–1
	Silver	1.0	+/–5	U	1.0	5.0	LIQ	P	19–DEC–09 17:37	121909–1
	Sodium	100	+/–300	U	100	300	LIQ	P	19–DEC–09 17:37	121909–1
	Titanium	1.0	+/–5	U	1.0	5.0	LIQ	P	19–DEC–09 17:37	121909–1
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	19–DEC–09 17:37	121909–1
	Zinc	3.3	+/–10	U	3.3	10.0	LIQ	P	19–DEC–09 17:37	121909–1
	Mercury	0.066	+/–.2	U	0.066	0.2	LIQ	AV	21–DEC–09 12:18	122109W3–3
CCB12										
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	19–DEC–09 18:53	121909–1
	Arsenic	5.0	+/–30	U	5.0	30.0	LIQ	P	19–DEC–09 18:53	121909–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	19–DEC–09 18:53	121909–1
	Boron	15.0	+/–50	U	15.0	50.0	LIQ	P	19–DEC–09 18:53	121909–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	19–DEC–09 18:53	121909–1
	Chromium	1.0	+/–5	U	1.0	5.0	LIQ	P	19–DEC–09 18:53	121909–1
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	19–DEC–09 18:53	121909–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	19–DEC–09 18:53	121909–1
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	19–DEC–09 18:53	121909–1
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	19–DEC–09 18:53	121909–1
	Nickel	1.5	+/–5	U	1.5	5.0	LIQ	P	19–DEC–09 18:53	121909–1
	Potassium	50.0	+/–150	U	50.0	150	LIQ	P	19–DEC–09 18:53	121909–1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10-854-1

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Selenium	5.0	+/-30	U	5.0	30.0	LIQ	P	19-DEC-09 18:53	121909-1
	Silicon	25.0	+/-100	U	25.0	100	LIQ	P	19-DEC-09 18:53	121909-1
	Silver	1.0	+/-5	U	1.0	5.0	LIQ	P	19-DEC-09 18:53	121909-1
	Sodium	100	+/-300	U	100	300	LIQ	P	19-DEC-09 18:53	121909-1
	Titanium	1.0	+/-5	U	1.0	5.0	LIQ	P	19-DEC-09 18:53	121909-1
	Vanadium	1.0	+/-5	U	1.0	5.0	LIQ	P	19-DEC-09 18:53	121909-1
	Zinc	3.3	+/-10	U	3.3	10.0	LIQ	P	19-DEC-09 18:53	121909-1
	Mercury	0.066	+/-.2	U	0.066	0.2	LIQ	AV	21-DEC-09 12:41	122109W3-3

METALS
–3b–
PREPARATION BLANK SUMMARY

SDG NO. 10–854–1

Contract: LANL01004

Matrix: WATER

Sample ID	Analyte	Result	Units	Acceptance Window	Conc Qual	M	MDL	RDL
1201994186								
	Boron	15	ug/L	+/–50	U	P	15	50
	Calcium	50	ug/L	+/–200	U	P	50	200
	Chromium	1	ug/L	+/–5	U	P	1	5
	Cobalt	1	ug/L	+/–5	U	P	1	5
	Copper	3	ug/L	+/–10	U	P	3	10
	Iron	30	ug/L	+/–100	U	P	30	100
	Magnesium	85	ug/L	+/–300	U	P	85	300
	Nickel	1.5	ug/L	+/–5	U	P	1.5	5
	Potassium	50	ug/L	+/–150	U	P	50	150
	Barium	1	ug/L	+/–5	U	P	1	5
	Arsenic	5	ug/L	+/–30	U	P	5	30
	Aluminum	68	ug/L	+/–200	U	P	68	200
	Selenium	5	ug/L	+/–30	U	P	5	30
	Silicon	25	ug/L	+/–100	U	P	25	100
	Silver	1	ug/L	+/–5	U	P	1	5
	Sodium	100	ug/L	+/–300	U	P	100	300
	Titanium	1	ug/L	+/–5	U	P	1	5
	Vanadium	1	ug/L	+/–5	U	P	1	5
	Zinc	3.3	ug/L	+/–10	U	P	3.3	10
1201994273								
	Antimony	1	ug/L	+/–3	U	MS	1	3
	Beryllium	0.1	ug/L	+/–0.5	U	MS	0.1	0.5
	Cadmium	0.11	ug/L	+/–1	U	MS	0.11	1
	Lead	0.5	ug/L	+/–2	U	MS	0.5	2
	Lithium	2	ug/L	+/–10	U	MS	2	10
	Manganese	1	ug/L	+/–5	U	MS	1	5
	Thallium	0.3	ug/L	+/–1	U	MS	0.3	1
	Uranium	0.05	ug/L	+/–0.2	U	MS	0.05	0.2
1201999563								
	Mercury	0.066	ug/L	+/–0.2	U	AV	0.066	0.2
1202000155								
	Mercury	0.066	ug/L	+/–0.2	U	AV	0.066	0.2

METALS
-4-
Interference Check Sample

SDG No: 10-854-1

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Aluminum	522000	ug/L	500000	ug/L	104	80.0 - 120.0	19-DEC-09 08:11	121909-1
	Arsenic	-0.108	ug/L					19-DEC-09 08:11	121909-1
	Barium	2.26	ug/L					19-DEC-09 08:11	121909-1
	Boron	-5.38	ug/L					19-DEC-09 08:11	121909-1
	Calcium	485000	ug/L	500000	ug/L	97	80.0 - 120.0	19-DEC-09 08:11	121909-1
	Chromium	1.8	ug/L					19-DEC-09 08:11	121909-1
	Cobalt	-1.27	ug/L					19-DEC-09 08:11	121909-1
	Copper	2.3	ug/L					19-DEC-09 08:11	121909-1
	Iron	190000	ug/L	200000	ug/L	95.1	80.0 - 120.0	19-DEC-09 08:11	121909-1
	Magnesium	496000	ug/L	500000	ug/L	99.1	80.0 - 120.0	19-DEC-09 08:11	121909-1
	Nickel	4.21	ug/L					19-DEC-09 08:11	121909-1
	Potassium	7.68	ug/L					19-DEC-09 08:11	121909-1
	Selenium	-22.4	ug/L					19-DEC-09 08:11	121909-1
	Silicon	-0.353	ug/L					19-DEC-09 08:11	121909-1
	Silver	0.47	ug/L					19-DEC-09 08:11	121909-1
	Sodium	20.1	ug/L					19-DEC-09 08:11	121909-1
	Titanium	0.368	ug/L					19-DEC-09 08:11	121909-1
	Vanadium	-0.645	ug/L					19-DEC-09 08:11	121909-1
	Zinc	-8.3	ug/L					19-DEC-09 08:11	121909-1
ICSAB01									
	Aluminum	522000	ug/L	500000	ug/L	104	80.0 - 120.0	19-DEC-09 08:17	121909-1
	Arsenic	492	ug/L	500	ug/L	98.3	80.0 - 120.0	19-DEC-09 08:17	121909-1
	Barium	476	ug/L	500	ug/L	95.2	80.0 - 120.0	19-DEC-09 08:17	121909-1
	Boron	496	ug/L	500	ug/L	99.2	80.0 - 120.0	19-DEC-09 08:17	121909-1
	Calcium	483000	ug/L	500000	ug/L	96.6	80.0 - 120.0	19-DEC-09 08:17	121909-1
	Chromium	466	ug/L	500	ug/L	93.3	80.0 - 120.0	19-DEC-09 08:17	121909-1
	Cobalt	425	ug/L	500	ug/L	84.9	80.0 - 120.0	19-DEC-09 08:17	121909-1
	Copper	531	ug/L	500	ug/L	106	80.0 - 120.0	19-DEC-09 08:17	121909-1
	Iron	189000	ug/L	200000	ug/L	94.4	80.0 - 120.0	19-DEC-09 08:17	121909-1

METALS
–4–
Interference Check Sample

SDG No: 10–854–1

Contract: LANL01004 **Lab Code:** GEL

ICS:

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
	Magnesium	492000	ug/L	500000	ug/L	98.4	80.0 – 120.0	19–DEC–09 08:17	121909–1
	Nickel	432	ug/L	500	ug/L	86.4	80.0 – 120.0	19–DEC–09 08:17	121909–1
	Potassium	5600	ug/L	5000	ug/L	112	80.0 – 120.0	19–DEC–09 08:17	121909–1
	Selenium	2450	ug/L	2500	ug/L	97.9	80.0 – 120.0	19–DEC–09 08:17	121909–1
	Silicon	5000	ug/L	5000	ug/L	100	80.0 – 120.0	19–DEC–09 08:17	121909–1
	Silver	266	ug/L	250	ug/L	107	80.0 – 120.0	19–DEC–09 08:17	121909–1
	Sodium	5500	ug/L	5000	ug/L	110	80.0 – 120.0	19–DEC–09 08:17	121909–1
	Titanium	487	ug/L	500	ug/L	97.4	80.0 – 120.0	19–DEC–09 08:17	121909–1
	Vanadium	489	ug/L	500	ug/L	97.8	80.0 – 120.0	19–DEC–09 08:17	121909–1
	Zinc	464	ug/L	500	ug/L	92.7	80.0 – 120.0	19–DEC–09 08:17	121909–1

METALS
–4–
Interference Check Sample

SDG No: 10–854–1

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: ICPMS3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Antimony	0.162	ug/L					23–DEC–09 03:19	091222–2
	Beryllium	0.11	ug/L					23–DEC–09 03:19	091222–2
	Cadmium	0.306	ug/L					23–DEC–09 03:19	091222–2
	Lead	0.176	ug/L					23–DEC–09 03:19	091222–2
	Lithium	0.028	ug/L					23–DEC–09 03:19	091222–2
	Manganese	5.51	ug/L					23–DEC–09 03:19	091222–2
	Thallium	0.023	ug/L					23–DEC–09 03:19	091222–2
	Uranium	–0.008	ug/L					23–DEC–09 03:19	091222–2
ICSAB01									
	Antimony	21.4	ug/L	20.1	ug/L	107	80.0 – 120.0	23–DEC–09 03:25	091222–2
	Beryllium	18.8	ug/L	20	ug/L	94	80.0 – 120.0	23–DEC–09 03:25	091222–2
	Cadmium	20.5	ug/L	20.4	ug/L	100	80.0 – 120.0	23–DEC–09 03:25	091222–2
	Lead	20.0	ug/L	20.5	ug/L	97.7	80.0 – 120.0	23–DEC–09 03:25	091222–2
	Lithium	19.7	ug/L	20	ug/L	98.6	80.0 – 120.0	23–DEC–09 03:25	091222–2
	Manganese	26.2	ug/L	25.8	ug/L	102	80.0 – 120.0	23–DEC–09 03:25	091222–2
	Thallium	18.9	ug/L	20	ug/L	94.4	80.0 – 120.0	23–DEC–09 03:25	091222–2
	Uranium	21.6	ug/L	20	ug/L	108	80.0 – 120.0	23–DEC–09 03:25	091222–2

METALS
–5a–
Matrix Spike Summary

SDG NO. 10–854–1 **Client ID** RE03–10–2767S

Contract: LANL01004 **Level:** Low

Matrix: WATER **% Solids:**

Sample ID: 242669001 **Spike ID:** 1201994189

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Aluminum	ug/L	75–125	5250		92.8	J	5000	103		P
Arsenic	ug/L	75–125	504		5	U	500	101		P
Barium	ug/L	75–125	517		1	U	500	103		P
Boron	ug/L	75–125	488		15	U	500	97.7		P
Calcium	ug/L	75–125	5160		71.4	J	5000	102		P
Chromium	ug/L	75–125	508		3.65	J	500	101		P
Cobalt	ug/L	75–125	490		1	U	500	97.9		P
Copper	ug/L	75–125	518		3	U	500	103		P
Iron	ug/L	75–125	5290		91.3	J	5000	104		P
Magnesium	ug/L	75–125	5350		85	U	5000	106		P
Nickel	ug/L	75–125	504		1.93	J	500	100		P
Potassium	ug/L	75–125	5140		50	U	5000	102		P
Selenium	ug/L	75–125	504		5	U	500	100		P
Silicon	ug/L	75–125	6550		1480		5000	101		P
Silver	ug/L	75–125	500		1	U	500	99.9		P
Sodium	ug/L	75–125	5190		245	J	5000	99		P
Titanium	ug/L	75–125	511		2.8	J	500	102		P
Vanadium	ug/L	75–125	517		1	U	500	103		P
Zinc	ug/L	75–125	498		6.89	J	500	98.3		P

METALS
-5a-
Matrix Spike Summary

SDG NO. 10-854-1 **Client ID** RE03-10-2767S

Contract: LANL01004 **Level:** Low

Matrix: WATER **% Solids:**

Sample ID: 242669001 **Spike ID:** 1201994276

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Antimony	ug/L	75-125	218		1	U	200	109		MS
Beryllium	ug/L	75-125	55		0.1	U	50	110		MS
Cadmium	ug/L	75-125	10.8		0.11	U	10	108		MS
Lead	ug/L	75-125	41.8		0.5	U	40	104		MS
Lithium	ug/L	75-125	51.8		2	U	50	103		MS
Manganese	ug/L	75-125	55.1		2.23	J	50	106		MS
Thallium	ug/L	75-125	90.6		0.432	J	100	90.2		MS
Uranium	ug/L	75-125	54.4		0.05	U	50	109		MS

METALS
-5a-
Matrix Spike Summary

SDG NO. 10-854-1 **Client ID** RE16-10-223S

Contract: LANL01004 **Level:** Low

Matrix: WATER **% Solids:**

Sample ID: 243029001 **Spike ID:** 1201999566

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Mercury	ug/L	75-125	1.84		0.066	U	2	91.3		AV

METALS
-5a-

Matrix Spike Summary

SDG NO. 10-854-1 **Client ID** RE03-10-2754S

Contract: LANL01004 **Level:** Low

Matrix: WATER **% Solids:**

Sample ID: 242669004 **Spike ID:** 1202000158

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Mercury	ug/L	75-125	2.12		0.0784	J	2	102		AV

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–854–1

Contract: LANL01004 **Lab Code:** GEL

Matrix: LIQUID **Level:** Low **Client ID:** RE03–10–2767D

Sample ID: 242669001 **Duplicate ID:** 1201994188 **Percent Solids for Dup:** N/A

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	ug/L	+/–200	92.8	J	99.8	J	7.27		P
Arsenic	ug/L		5	U	5	U			P
Barium	ug/L		1	U	1	U			P
Boron	ug/L		15	U	15	U			P
Calcium	ug/L	+/–200	71.4	J	71.2	J	.285		P
Chromium	ug/L	+/–5	3.65	J	3.65	J	.175		P
Cobalt	ug/L		1	U	1	U			P
Copper	ug/L		3	U	3	U			P
Iron	ug/L	+/–100	91.3	J	85.7	J	6.32		P
Magnesium	ug/L		85	U	85	U			P
Nickel	ug/L	+/–5	1.93	J	2.04	J	5.57		P
Potassium	ug/L		50	U	64.4	J	200		P
Selenium	ug/L		5	U	5	U			P
Silicon	ug/L	+/–20%	1480		1450		2.66		P
Silver	ug/L		1	U	1	U			P
Sodium	ug/L	+/–300	245	J	239	J	2.38		P
Titanium	ug/L	+/–5	2.8	J	2.68	J	4.6		P
Vanadium	ug/L		1	U	1	U			P
Zinc	ug/L	+/–10	6.89	J	6.88	J	.0668		P

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–854–1

Contract: LANL01004 **Lab Code:** GEL

Matrix: LIQUID **Level:** Low **Client ID:** RE03–10–2767D

Sample ID: 242669001 **Duplicate ID:** 1201994275 **Percent Solids for Dup:** N/A

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Antimony	ug/L		1	U	1	U			MS
Beryllium	ug/L		0.1	U	0.1	U			MS
Cadmium	ug/L		0.11	U	0.11	U			MS
Lead	ug/L		0.5	U	0.5	U			MS
Lithium	ug/L		2	U	2	U			MS
Manganese	ug/L	+/–5	2.23	J	2.29	J	2.61		MS
Thallium	ug/L		0.432	J	0.3	U	200		MS
Uranium	ug/L		0.05	U	0.05	U			MS

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–854–1

Contract: LANL01004 **Lab Code:** GEL

Matrix: LIQUID **Level:** Low **Client ID:** RE16–10–223D

Sample ID: 243029001 **Duplicate ID:** 1201999565 **Percent Solids for Dup:** N/A

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Mercury	ug/L		0.066	U	0.066	U			AV

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–854–1

Contract: LANL01004 **Lab Code:** GEL

Matrix: LIQUID **Level:** Low **Client ID:** RE03–10–2754D

Sample ID: 242669004 **Duplicate ID:** 1202000157 **Percent Solids for Dup:** N/A

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Mercury	ug/L	+/–.2	0.0784	J	0.0911	J	14.9		AV

METALS
-7-
Laboratory Control Sample Summary

SDG NO. 10-854-1

Contract: LANL01004

Aqueous LCS Source: OS2I **Solid LCS Source:**

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1201994187								
	Aluminum	ug/L	5000	5160		103	80-120	P
	Arsenic	ug/L	500	508		102	80-120	P
	Barium	ug/L	500	519		104	80-120	P
	Boron	ug/L	500	489		97.8	80-120	P
	Calcium	ug/L	5000	5060		101	80-120	P
	Chromium	ug/L	500	509		102	80-120	P
	Cobalt	ug/L	500	494		98.7	80-120	P
	Copper	ug/L	500	518		104	80-120	P
	Iron	ug/L	5000	5120		102	80-120	P
	Magnesium	ug/L	5000	5260		105	80-120	P
	Nickel	ug/L	500	508		102	80-120	P
	Potassium	ug/L	5000	5100		102	80-120	P
	Selenium	ug/L	500	508		102	80-120	P
	Silicon	ug/L	5000	5030		101	80-120	P
	Silver	ug/L	500	502		100	80-120	P
	Sodium	ug/L	5000	4900		98	80-120	P
	Titanium	ug/L	500	512		102	80-120	P
	Vanadium	ug/L	500	520		104	80-120	P
	Zinc	ug/L	500	498		99.7	80-120	P

METALS
–7–
Laboratory Control Sample Summary

SDG NO. 10–854–1

Contract: LANL01004

Aqueous LCS Source: O2si **Solid LCS Source:**

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1201994274								
	Antimony	ug/L	50	54.7		109	80–120	MS
	Beryllium	ug/L	50	56.7		113	80–120	MS
	Cadmium	ug/L	50	52.6		105	80–120	MS
	Lead	ug/L	50	52.7		105	80–120	MS
	Lithium	ug/L	50	53.8		108	80–120	MS
	Manganese	ug/L	50	54.5		109	80–120	MS
	Thallium	ug/L	50	48.8		97.6	80–120	MS
	Uranium	ug/L	50	54.6		109	80–120	MS

METALS
-7-
Laboratory Control Sample Summary

SDG NO. 10-854-1

Contract: LANL01004

Aqueous LCS Source: GEL **Solid LCS Source:**

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1201999564								
	Mercury	ug/L	2	1.93		96.6	80-120	AV

METALS
-7-
Laboratory Control Sample Summary

SDG NO. 10-854-1

Contract: LANL01004

Aqueous LCS Source: GEL **Solid LCS Source:**

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202000156								
	Mercury	ug/L	2	2.1		105	80-120	AV

METALS
-9-
Serial Dilution Sample Summary

SDG NO. 10-854-1 **Client ID** RE03-10-2767L

Contract: LANL01004

Matrix: LIQUID **Level:** Low

Sample ID: 242669001 **Serial Dilution ID:** 1201994190

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Aluminum	92.8	J	340	U	100			P
Arsenic	5	U	25	U				P
Barium	1	U	5	U				P
Boron	15	U	75	U				P
Calcium	71.4	J	250	U	100			P
Chromium	3.65	J	5	U	100			P
Cobalt	1	U	5	U				P
Copper	3	U	15	U				P
Iron	91.3	J	150	U	100			P
Magnesium	85	U	425	U				P
Nickel	1.93	J	7.5	U	100			P
Potassium	50	U	250	U				P
Selenium	5	U	25	U				P
Silicon	1480		1520		2.7		10	P
Silver	1	U	5	U				P
Sodium	245	J	500	U	100			P
Titanium	2.8	J	5	U	100			P
Vanadium	1	U	5	U				P
Zinc	6.89	J	16.5	U	100			P

METALS
-9-
Serial Dilution Sample Summary

SDG NO. 10-854-1 **Client ID** RE03-10-2767L

Contract: LANL01004

Matrix: LIQUID **Level:** Low

Sample ID: 242669001 **Serial Dilution ID:** 1201994277

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Antimony	1	U	5	U				MS
Beryllium	.1	U	.5	U				MS
Cadmium	.11	U	.55	U				MS
Lead	.5	U	2.5	U				MS
Lithium	2	U	10	U				MS
Manganese	2.23	J	5	U	100			MS
Thallium	.432	J	8		1750			MS
Uranium	.05	U	.25	U				MS

METALS
-9-
Serial Dilution Sample Summary

SDG NO. 10-854-1 **Client ID** RE16-10-223L

Contract: LANL01004

Matrix: LIQUID **Level:** Low

Sample ID: 243029001 **Serial Dilution ID:** 1201999567

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Mercury	.066	U	.33	U				AV

METALS
-9-
Serial Dilution Sample Summary

SDG NO. 10-854-1 **Client ID** RE03-10-2754L

Contract: LANL01004

Matrix: LIQUID **Level:** Low

Sample ID: 242669004 **Serial Dilution ID:** 1202000159

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Mercury	.0784	J	.33	U	100			AV

METALS
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SAMPLE PREPARATION SUMMARY

SDG No: 10-854-1 **Method Type:** P

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number	932261						
1201994186	MB for batch 932261	MB	W	17-DEC-09	50mL	50mL	
1201994187	LCS for batch 932261	LCS	W	17-DEC-09	50mL	50mL	
1201994189	RE03-10-2767S	MS	W	17-DEC-09	50mL	50mL	
1201994188	RE03-10-2767D	DUP	W	17-DEC-09	50mL	50mL	
242669001	RE03-10-2767	SAMPLE	W	17-DEC-09	50mL	50mL	
242669002	RE03-10-2753	SAMPLE	W	17-DEC-09	50mL	50mL	
242669003	RE03-10-2765	SAMPLE	W	17-DEC-09	50mL	50mL	
242669004	RE03-10-2754	SAMPLE	W	17-DEC-09	50mL	50mL	

METALS
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SAMPLE PREPARATION SUMMARY

SDG No: 10-854-1 **Method Type:** MS

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number	932303						
1201994273	MB for batch 932303	MB	W	16-DEC-09	50mL	50mL	
1201994274	LCS for batch 932303	LCS	W	16-DEC-09	50mL	50mL	
1201994276	RE03-10-2767S	MS	W	16-DEC-09	50mL	50mL	
1201994275	RE03-10-2767D	DUP	W	16-DEC-09	50mL	50mL	
242669001	RE03-10-2767	SAMPLE	W	16-DEC-09	50mL	50mL	
242669002	RE03-10-2753	SAMPLE	W	16-DEC-09	50mL	50mL	
242669003	RE03-10-2765	SAMPLE	W	16-DEC-09	50mL	50mL	
242669004	RE03-10-2754	SAMPLE	W	16-DEC-09	50mL	50mL	

METALS
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SAMPLE PREPARATION SUMMARY

SDG No: 10-854-1 **Method Type:** AV

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number 934599							
1201999563	MB for batch 934599	MB	W	18-DEC-09	20mL	20mL	
1201999564	LCS for batch 934599	LCS	W	18-DEC-09	20mL	20mL	
1201999566	RE16-10-223S	MS	W	18-DEC-09	20mL	20mL	
1201999565	RE16-10-223D	DUP	W	18-DEC-09	20mL	20mL	
242669001	RE03-10-2767	SAMPLE	W	18-DEC-09	20mL	20mL	
242669002	RE03-10-2753	SAMPLE	W	18-DEC-09	20mL	20mL	
242669003	RE03-10-2765	SAMPLE	W	18-DEC-09	20mL	20mL	
Batch Number 934860							
1202000155	MB for batch 934860	MB	W	21-DEC-09	20mL	20mL	
1202000156	LCS for batch 934860	LCS	W	21-DEC-09	20mL	20mL	
1202000158	RE03-10-2754S	MS	W	21-DEC-09	20mL	20mL	
1202000157	RE03-10-2754D	DUP	W	21-DEC-09	20mL	20mL	
242669004	RE03-10-2754	SAMPLE	W	21-DEC-09	20mL	20mL	

Metals
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Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: OPTIMA3
Start Date: 19-DEC-09
End Date: 19-DEC-09

Client Sdg: 10-854-1
Method P
Data File: 121909-1

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Li	Mg	Mn	Hg	Ni	K	Se	Si	Ag	Na	Tl	Ti	U	V	Zn
S0.0	1	07:18	X		X	X		X		X	X	X	X	X			X			X	X	X	X	X	X		X		X	X
S0.1	1	07:25			X	X		X			X	X	X							X	X	X	X	X			X		X	X
S0.5	1	07:31	X		X	X		X		X	X	X	X				X			X	X	X	X	X			X		X	X
SCAL	1	07:38	X		X	X		X		X	X	X	X	X			X			X	X	X	X	X	X		X		X	X
S10	1	07:45	X							X				X			X								X					
ICV01	1	07:51	X		X	X		X		X	X	X	X	X			X			X	X	X	X	X	X		X		X	X
ICB01	1	07:58	X		X	X		X		X	X	X	X	X			X			X	X	X	X	X	X		X		X	X
PQL01	1	08:04	X		X	X		X		X	X	X	X	X			X			X	X	X	X	X	X		X		X	X
ICSA01	1	08:11	X		X	X		X		X	X	X	X	X			X			X	X	X	X	X	X		X		X	X
ICSAB01	1	08:17	X		X	X		X		X	X	X	X	X			X			X	X	X	X	X	X		X		X	X
LR01	1	08:23	X		X	X		X		X	X	X	X	X			X			X	X	X	X	X	X		X		X	X
LR02	1	08:29	X		X	X		X		X	X	X	X	X			X			X	X	X	X	X	X		X		X	X
CCV01	1	08:36	X		X	X		X		X	X	X	X	X			X			X	X	X	X	X	X		X		X	X
CCB01	1	08:43	X		X	X		X		X	X	X	X	X			X			X	X	X	X	X	X		X		X	X
LR03	1	08:54	X		X	X		X		X	X	X	X	X			X			X	X	X	X	X	X		X		X	X
CCV02	1	09:05	X		X	X		X		X	X	X	X	X			X			X	X	X	X	X	X		X		X	X
CCB02	1	09:12	X		X	X		X		X	X	X	X	X			X			X	X	X	X	X	X		X		X	X
ZZZZZZ	1	09:19																												
ZZZZZZ	1	09:26																												
ZZZZZZ	1	09:33																												
ZZZZZZ	1	09:40																												
ZZZZZZ	1	09:46																												
ZZZZZZ	1	09:53																												
ZZZZZZ	1	10:00																												
ZZZZZZ	1	10:07																												
CCV03	1	10:14	X		X	X		X		X	X	X	X	X			X			X	X	X	X	X	X		X		X	X
CCB03	1	10:21	X		X	X		X		X	X	X	X	X			X			X	X	X	X	X	X		X		X	X
ZZZZZZ	1	10:30																												
ZZZZZZ	1	10:37																												
ZZZZZZ	1	10:44																												
ZZZZZZ	1	10:50																												
ZZZZZZ	1	10:57																												
ZZZZZZ	5	11:04																												
ZZZZZZ	1	11:11																												
CCV04	1	11:18	X		X	X		X		X	X	X	X	X			X			X	X	X	X	X	X		X		X	X
CCB04	1	11:25	X		X	X		X		X	X	X	X	X			X			X	X	X	X	X	X		X		X	X
ZZZZZZ	5	11:30																												
ZZZZZZ	5	11:37																												
ZZZZZZ	5	11:43																												
ZZZZZZ	25	11:50																												

Metals
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Analysis Run Log

Samp No.	D/F	Run Time																										
ZZZZZZ	5	11:57																										
CCV05	1	12:04	X		X	X		X		X	X	X	X	X			X			X	X	X	X	X	X		X		X	X
CCB05	1	12:11	X		X	X		X		X	X	X	X	X			X			X	X	X	X	X	X		X		X	X
ZZZZZZ	1	12:19																												
ZZZZZZ	1	12:26																												
ZZZZZZ	1	12:32																												
ZZZZZZ	1	12:39																												
ZZZZZZ	1	12:46																												
ZZZZZZ	5	12:53																												
ZZZZZZ	1	13:00																												
CCV06	1	13:07	X		X	X		X		X	X	X	X	X			X			X	X	X	X	X	X		X		X	X
CCB06	1	13:14	X		X	X		X		X	X	X	X	X			X			X	X	X	X	X	X		X		X	X
CCV07	1	13:29	X		X	X		X		X	X	X	X	X			X			X	X	X	X	X	X		X		X	X
CCB07	1	13:36	X		X	X		X		X	X	X	X	X			X			X	X	X	X	X	X		X		X	X
ZZZZZZ	1	13:43																												
ZZZZZZ	1	13:50																												
ZZZZZZ	1	13:56																												
ZZZZZZ	1	14:03																												
ZZZZZZ	1	14:10																												
ZZZZZZ	1	14:17																												
ZZZZZZ	5	14:24																												
ZZZZZZ	1	14:31																												
CCV08	1	14:38	X		X	X		X		X	X	X	X	X			X			X	X	X	X	X	X		X		X	X
CCB08	1	14:45	X		X	X		X		X	X	X	X	X			X			X	X	X	X	X	X		X		X	X
ZZZZZZ	1	14:52																												
ZZZZZZ	1	14:59																												
ZZZZZZ	1	15:06																												
ZZZZZZ	1	15:13																												
ZZZZZZ	1	15:20																												
ZZZZZZ	5	15:27																												
ZZZZZZ	1	15:34																												
ZZZZZZ	1	15:41																												
CCV09	1	15:48	X		X	X		X		X	X	X	X	X			X			X	X	X	X	X	X		X		X	X
CCB09	1	15:54	X		X	X		X		X	X	X	X	X			X			X	X	X	X	X	X		X		X	X
ZZZZZZ	1	16:01																												
ZZZZZZ	1	16:08																												
ZZZZZZ	1	16:15																												
ZZZZZZ	1	16:22																												
ZZZZZZ	1	16:29																												
ZZZZZZ	1	16:35																												

Metals
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Analysis Run Log

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Li	Mg	Mn	Hg	Ni	K	Se	Si	Ag	Na	Tl	Ti	U	V	Zn
CCV10	1	16:42	X		X	X		X		X	X	X	X	X			X			X	X	X	X	X	X		X		X	X
CCB10	1	16:49	X		X	X		X		X	X	X	X	X			X			X	X	X	X	X	X		X		X	X
ZZZZZZ	1	16:56																												
ZZZZZZ	1	17:03																												
ZZZZZZ	1	17:10																												
ZZZZZZ	5	17:17																												
ZZZZZZ	1	17:23																												
CCV11	1	17:30	X		X	X		X		X	X	X	X	X			X			X	X	X	X	X	X		X		X	X
CCB11	1	17:37	X		X	X		X		X	X	X	X	X			X			X	X	X	X	X	X		X		X	X
1201994186	1	17:44	X		X	X		X		X	X	X	X	X			X			X	X	X	X	X	X		X		X	X
1201994187	1	17:51	X		X	X		X		X	X	X	X	X			X			X	X	X	X	X	X		X		X	X
242669001	1	17:58	X		X	X		X		X	X	X	X	X			X			X	X	X	X	X	X		X		X	X
1201994188	1	18:05	X		X	X		X		X	X	X	X	X			X			X	X	X	X	X	X		X		X	X
1201994189	1	18:12	X		X	X		X		X	X	X	X	X			X			X	X	X	X	X	X		X		X	X
1201994190	5	18:19	X		X	X		X		X	X	X	X	X			X			X	X	X	X	X	X		X		X	X
242669002	1	18:26	X		X	X		X		X	X	X	X	X			X			X	X	X	X	X	X		X		X	X
242669003	1	18:33	X		X	X		X		X	X	X	X	X			X			X	X	X	X	X	X		X		X	X
242669004	1	18:39	X		X	X		X		X	X	X	X	X			X			X	X	X	X	X	X		X		X	X
CCV12	1	18:46	X		X	X		X		X	X	X	X	X			X			X	X	X	X	X	X		X		X	X
CCB12	1	18:53	X		X	X		X		X	X	X	X	X			X			X	X	X	X	X	X		X		X	X

Metals
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Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: HG3
Start Date: 21–DEC–09 **End Date:** 21–DEC–09

Client Sdg: 10–854–1
Method AV
Data File: 122109W3–3

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Li	Mg	Mn	Hg	Ni	K	Se	Si	Ag	Na	Tl	Ti	U	V	Zn
S0.0	1	08:16																	X											
S0.2	1	08:18																	X											
S0.5	1	08:20																	X											
S2.0	1	08:21																	X											
S5.0	1	08:23																	X											
S10.0	1	08:25																	X											
ICV01	1	08:27																	X											
ICB01	1	08:29																	X											
CRDL01	1	08:31																	X											
CCV01	1	08:33																	X											
CCB01	1	08:35																	X											
ZZZZZZ	1	08:37																												
ZZZZZZ	1	08:39																												
ZZZZZZ	1	08:41																												
ZZZZZZ	1	08:43																												
ZZZZZZ	1	08:45																												
ZZZZZZ	5	08:46																												
ZZZZZZ	1	08:48																												
ZZZZZZ	1	08:50																												
ZZZZZZ	1	08:52																												
ZZZZZZ	1	08:54																												
CCV02	1	08:56																	X											
CCB02	1	08:58																	X											
ZZZZZZ	1	09:00																												
ZZZZZZ	1	09:02																												
ZZZZZZ	1	09:04																												
ZZZZZZ	1	09:06																												
ZZZZZZ	1	09:08																												
ZZZZZZ	1	09:10																												
ZZZZZZ	1	09:11																												
ZZZZZZ	1	09:13																												
ZZZZZZ	1	09:15																												
ZZZZZZ	1	09:17																												
CCV03	1	09:19																	X											
CCB03	1	09:21																	X											
ZZZZZZ	5	09:23																												
ZZZZZZ	1	09:25																												
ZZZZZZ	1	09:27																												
ZZZZZZ	1	09:29																												
ZZZZZZ	1	09:31																												

Metals
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Analysis Run Log

Samp No.	D/F	Run Time																										
ZZZZZZ	1	09:33																										
CCV04	1	09:42															X											
CCB04	1	09:44															X											
ZZZZZZ	1	09:46																										
ZZZZZZ	1	09:48																										
ZZZZZZ	1	09:50																										
ZZZZZZ	1	09:52																										
CCV05	1	09:57															X											
CCB05	1	09:59															X											
ZZZZZZ	1	10:01																										
ZZZZZZ	1	10:03																										
ZZZZZZ	1	10:05																										
ZZZZZZ	1	10:07																										
ZZZZZZ	1	10:09																										
ZZZZZZ	1	10:10																										
ZZZZZZ	1	10:12																										
ZZZZZZ	1	10:14																										
ZZZZZZ	1	10:16																										
ZZZZZZ	1	10:18																										
CCV06	1	10:20															X											
CCB06	1	10:22															X											
ZZZZZZ	5	10:24																										
ZZZZZZ	1	10:26																										
ZZZZZZ	1	10:28																										
ZZZZZZ	1	10:30																										
ZZZZZZ	1	10:32																										
ZZZZZZ	1	10:33																										
ZZZZZZ	1	10:35																										
ZZZZZZ	5	10:37																										
ZZZZZZ	1	10:39																										
ZZZZZZ	1	10:41																										
CCV07	1	10:43															X											
CCB07	1	10:45															X											
ZZZZZZ	1	10:47																										
ZZZZZZ	1	10:49																										
ZZZZZZ	1	10:51																										
ZZZZZZ	1	10:53																										
ZZZZZZ	1	10:55																										
ZZZZZZ	1	10:57																										
ZZZZZZ	5	10:59																										

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Li	Mg	Mn	Hg	Ni	K	Se	Si	Ag	Na	Tl	Ti	U	V	Zn
ZZZZZZ	1	11:00																												
ZZZZZZ	1	11:02																												
ZZZZZZ	1	11:04																												
CCV08	1	11:06																	X											
CCB08	1	11:08																	X											
ZZZZZZ	1	11:10																												
ZZZZZZ	1	11:12																												
ZZZZZZ	5	11:14																												
ZZZZZZ	1	11:16																												
ZZZZZZ	1	11:18																												
ZZZZZZ	1	11:20																												
ZZZZZZ	1	11:22																												
ZZZZZZ	1	11:24																												
ZZZZZZ	1	11:26																												
ZZZZZZ	1	11:28																												
CCV09	1	11:29																	X											
CCB09	1	11:31																	X											
ZZZZZZ	1	11:33																												
ZZZZZZ	5	11:35																												
ZZZZZZ	1	11:37																												
ZZZZZZ	1	11:39																												
ZZZZZZ	1	11:41																												
ZZZZZZ	1	11:43																												
ZZZZZZ	1	11:45																												
ZZZZZZ	5	11:47																												
ZZZZZZ	1	11:49																												
ZZZZZZ	1	11:51																												
CCV10	1	11:53																	X											
CCB10	1	11:55																	X											
ZZZZZZ	1	11:56																												
ZZZZZZ	1	11:58																												
ZZZZZZ	1	12:00																												
1201999563	1	12:02																	X											
1201999564	1	12:04																	X											
242669001	1	12:06																	X											
242669002	1	12:08																	X											
242669003	1	12:10																	X											
ZZZZZZ	1	12:12																												
1201999565	1	12:14																	X											
CCV11	1	12:16																	X											

Metals
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Analysis Run Log

Samp No.	D/F	Run Time																											
CCB11	1	12:18																X											
1201999566	1	12:20																X											
1201999567	5	12:22																X											
ZZZZZZ	1	12:24																											
ZZZZZZ	1	12:26																											
ZZZZZZ	1	12:27																											
ZZZZZZ	1	12:29																											
ZZZZZZ	1	12:31																											
ZZZZZZ	1	12:33																											
ZZZZZZ	1	12:35																											
ZZZZZZ	5	12:37																											
CCV12	1	12:39																X											
CCB12	1	12:41																X											

Metals
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Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: MER536
Start Date: 22–DEC–09 **End Date:** 22–DEC–09

Client Sdg: 10–854–1
Method AV
Data File: 122209W1–4

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Li	Mg	Mn	Hg	Ni	K	Se	Si	Ag	Na	Tl	Ti	U	V	Zn
S0.0	1	09:39																	X											
S0.2	1	09:41																	X											
S0.5	1	09:43																	X											
S2.0	1	09:45																	X											
S5.0	1	09:47																	X											
S10	1	09:49																	X											
ICV01	1	09:51																	X											
ICB01	1	09:53																	X											
CRDL01	1	09:55																	X											
CCV01	1	09:57																	X											
CCB01	1	09:59																	X											
ZZZZZZ	1	10:01																												
ZZZZZZ	1	10:03																												
ZZZZZZ	1	10:05																												
ZZZZZZ	1	10:07																												
ZZZZZZ	1	10:09																												
ZZZZZZ	5	10:11																												
ZZZZZZ	1	10:13																												
ZZZZZZ	1	10:15																												
ZZZZZZ	1	10:17																												
ZZZZZZ	1	10:19																												
CCV02	1	10:21																	X											
CCB02	1	10:23																	X											
ZZZZZZ	1	10:25																												
ZZZZZZ	5	10:27																												
ZZZZZZ	1	10:29																												
ZZZZZZ	1	10:31																												
ZZZZZZ	1	10:33																												
ZZZZZZ	1	10:35																												
ZZZZZZ	1	10:37																												
ZZZZZZ	1	10:39																												
ZZZZZZ	1	10:41																												
ZZZZZZ	1	10:43																												
CCV03	1	10:45																	X											
CCB03	1	10:47																	X											
ZZZZZZ	1	10:49																												
ZZZZZZ	1	10:51																												
ZZZZZZ	1	10:53																												
ZZZZZZ	5	10:55																												
ZZZZZZ	1	10:57																												

Metals
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Analysis Run Log

Samp No.	D/F	Run Time																											
1202000155	1	10:59																X											
1202000156	1	11:00																X											
242669004	1	11:02																X											
1202000157	1	11:04																X											
1202000158	1	11:06																X											
CCV04	1	11:08																X											
CCB04	1	11:10																X											
1202000159	5	11:12																X											
ZZZZZZ	1	11:14																											
ZZZZZZ	1	11:16																											
ZZZZZZ	1	11:18																											
ZZZZZZ	1	11:20																											
ZZZZZZ	1	11:23																											
ZZZZZZ	5	11:25																											
ZZZZZZ	1	11:26																											
ZZZZZZ	1	11:28																											
ZZZZZZ	1	11:30																											
CCV05	1	11:32																X											
CCB05	1	11:34																X											

Metals
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Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: ICPMS3
Start Date: 23–DEC–09
End Date: 23–DEC–09
Client Sdg: 10–854–1
Method MS
Data File: 091222–2

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Li	Mg	Mn	Hg	Ni	K	Se	Si	Ag	Na	Tl	Ti	U	V	Zn
S0.0	1	02:45		X			X		X						X	X		X								X		X		
S10	1	02:51		X			X		X						X	X		X								X		X		
S100	1	02:56		X			X		X						X	X		X								X		X		
ICV01	1	03:02		X			X		X						X	X		X								X		X		
ICB01	1	03:08		X			X		X						X	X		X								X		X		
CRDL01	1	03:14		X			X		X						X	X		X								X		X		
ICSA01	1	03:19		X			X		X						X	X		X								X		X		
ICSAB01	1	03:25		X			X		X						X	X		X								X		X		
CCV01	1	03:31		X			X		X						X	X		X								X		X		
CCB01	1	03:36		X			X		X						X	X		X								X		X		
LR01	1	03:42		X			X		X						X	X		X								X		X		
CCV02	1	03:48		X			X		X						X	X		X								X		X		
CCB02	1	03:54		X			X		X						X	X		X								X		X		
1201994273	1	03:59		X			X		X						X	X		X								X		X		
1201994274	1	04:05		X			X		X						X	X		X								X		X		
242669001	1	04:11		X			X		X						X	X		X								X		X		
1201994275	1	04:17		X			X		X						X	X		X								X		X		
1201994276	1	04:23		X			X		X						X	X		X								X		X		
1201994277	5	04:28		X			X		X						X	X		X								X		X		
CCV03	1	04:34		X			X		X						X	X		X								X		X		
CCB03	1	04:40		X			X		X						X	X		X								X		X		
242669002	1	04:46		X			X		X						X	X		X								X		X		
242669003	1	04:52		X			X		X						X	X		X								X		X		
242669004	1	04:57		X			X		X						X	X		X								X		X		
CCV04	1	05:03		X			X		X						X	X		X								X		X		
CCB04	1	05:09		X			X		X						X	X		X								X		X		

Standards

METALS
-10-
Instrument Detection Limits

SDG NO. 10-854-1

Contract: LANL01004 **Lab Code: GEL** **MDL Effective Date:** 01-JUL-09

ICP/MS	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
LIQUID	Aluminum		15.0	30
	Antimony		1.0	3
	Arsenic		1.6	5
	Barium		0.6	2
	Beryllium		0.1	.5
	Boron		4.0	15
	Cadmium		0.11	1
	Calcium		65.0	200
	Chromium		2.0	10
	Cobalt		0.1	1
	Copper		0.33	1
	Iron		33.0	100
	Lead		0.5	2
	Lithium		2.0	10
	Magnesium		5.2	15
	Manganese		1.0	5
	Nickel		0.5	2
	Potassium		80.0	300
	Selenium		1.0	5
	Silver		0.2	1
	Sodium		80.0	250
	Thallium		0.3	1
	Titanium		2.0	10
	Uranium		0.05	.2
	Vanadium		3.0	10
	Zinc		3.0	10

METALS
-10-
Instrument Detection Limits

SDG NO. 10-854-1

Contract: LANL01004 **Lab Code: GEL** **MDL Effective Date:** 01-JUL-09

MERCURY	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
LIQUID	Mercury		0.066	.2

METALS
-10-
Instrument Detection Limits

SDG NO. 10-854-1

Contract: LANL01004 **Lab Code: GEL** **MDL Effective Date:** 01-JUL-09

ICP	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
LIQUID	Aluminum	396.153	68.0	200
	Antimony	206.836	3.0	10
	Arsenic	188.979	5.0	30
	Barium	233.527	1.0	5
	Beryllium	313.107	1.0	5
	Boron	249.677	15.0	50
	Cadmium	226.502	1.0	5
	Calcium	317.933	50.0	200
	Chromium	267.716	1.0	5
	Cobalt	228.616	1.0	5
	Copper	324.752	3.0	10
	Iron	238.204	30.0	100
	Lead	220.353	3.3	10
	Magnesium	279.077	85.0	300
	Manganese	257.61	2.0	10
	Nickel	231.604	1.5	5
	Potassium	766.49	50.0	150
	Selenium	196.026	5.0	30
	Silicon	251.611	25.0	100
	Silver	328.068	1.0	5
	Sodium	589.592	100	300
	Thallium	190.801	5.0	20
	Titanium	334.94	1.0	5
	Uranium	409.014	10.0	50
	Vanadium	292.402	1.0	5
	Zinc	213.857	3.3	10

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA3
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-854-1
Effective Dates: 01-NOV-09

Parmname	Wavelength	Aluminum	Antimony	Arsenic	Barium	Beryllium
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.02738	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	-0.44940	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	-0.22121	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	-0.33886	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	-0.13648	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	-0.05571	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.19671	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	-0.02739	0.00000	0.00000	0.00000	0.00000
Tin	189.927	-0.00058	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA3
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-854-1
Effective Dates: 01-NOV-09

Parmname	Wavelength	Boron	Cadmium	Chromium	Cobalt	Copper
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	24.5549	0.00000	0.00000
Arsenic	188.979	0.52529	0.00000	-0.67113	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	2.54031	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.38952	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	-31.5465	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	0.78023
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.63859	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	160.41
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	5.22870	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.35099	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	1.93161	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.39273	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	1.19810

METALS
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Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA3
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-854-1
Effective Dates: 01-NOV-09

Parmname	Wavelength	Iron	Lead	Magnesium	Manganese	Molybdenum
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	42.8126
Antimony	206.836	-0.01635	0.00000	0.00000	0.00000	-22.2146
Arsenic	188.979	-0.21271	0.00000	0.00000	0.00000	1.34645
Barium	233.527	-0.03709	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.13266	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.09998	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	-0.01788	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.01425	0.00000	0.00000	0.00000	-2.64232
Copper	324.752	-0.05101	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.09069	0.00000	0.00000	0.00000	-2.44485
Magnesium	279.077	0.85543	0.00000	0.00000	0.00000	-20.2401
Manganese	257.61	-0.09972	0.00000	0.01862	0.00000	0.00000
Molybdenum	202.031	-0.07094	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.80633	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	-0.03176	0.00000	0.01823	12.4291	-3.60863
Selenium	196.026	-3.00009	0.00000	0.00000	0.00000	-3.17982
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	17.4444
Silver	328.068	-0.31825	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	-5.85948	0.00000
Tin	189.927	-0.01337	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.12581	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.15211	0.00000	-0.02256	0.00000	-14.2921
Zinc	213.857	0.09548	0.00000	0.03423	0.00000	0.00000

METALS
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Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA3
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-854-1
Effective Dates: 01-NOV-09

Parmname	Wavelength	Nickel	Phosphorous	Potassium	Selenium	Silicon
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	-0.64279	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	0.44040	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.33191	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	6.38465	0.00000	0.00000	0.00000	0.00000

METALS
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Interelement Correction Factors

Lab Code: GEL | GEL Job No: 10-854-1

Contract: LANL01004

Instrument: OPTIMA3 | Effective Dates: 01-NOV-09

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Parmname	Wavelength	Silver	Strontium	Sulfur	Thallium	Tin
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	0.00000	-17.4077
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	-13.8713
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	3.10491
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
GEL Job No: 10-854-1
Contract: LANL01004
Instrument: OPTIMA3
Effective Dates: 01-NOV-09
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Parmname	Wavelength	Titanium	Uranium	Vanadium	Zinc
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	2.73145	0.00000	-2.31857	0.00000
Arsenic	188.979	-8.38419	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	-2.24883	0.00000
Beryllium	313.107	-1.96555	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.32181	-1.76281	0.00000
Cobalt	228.616	2.12623	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.85359	-3.92851	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	-7.67419	0.00000	2.18873	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.44145	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	1.10141	-1.94183	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000

METALS
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Linear Ranges

SDG NO. 10-854-1

Contract: LANL01004 **Lab Code: GEL**

Instrument ID OPTIMA3

Analyte	Integration Time (sec)	LDR	Units	Effective Date
Lead	20	25000	ug/L	01-NOV-09
Magnesium	20	500000	ug/L	01-NOV-09
Manganese	20	10000	ug/L	01-NOV-09
Nickel	20	10000	ug/L	01-NOV-09
Potassium	20	300000	ug/L	01-NOV-09
Selenium	20	10000	ug/L	01-NOV-09
Silicon	20	50000	ug/L	01-NOV-09
Silver	20	1000	ug/L	01-NOV-09
Sodium	20	500000	ug/L	01-NOV-09
Thallium	20	10000	ug/L	01-NOV-09
Titanium	20	10000	ug/L	01-NOV-09
Uranium	20	15000	ug/L	01-NOV-09
Vanadium	20	10000	ug/L	01-NOV-09
Zinc	20	15000	ug/L	01-NOV-09
Iron	20	500000	ug/L	01-NOV-09
Aluminum	20	500000	ug/L	01-NOV-09
Antimony	20	10000	ug/L	01-NOV-09
Arsenic	20	10000	ug/L	01-NOV-09
Barium	20	15000	ug/L	01-NOV-09
Beryllium	20	3000	ug/L	01-NOV-09
Boron	20	5000	ug/L	01-NOV-09
Cadmium	20	10000	ug/L	01-NOV-09
Calcium	20	500000	ug/L	01-NOV-09
Chromium	20	25000	ug/L	01-NOV-09
Cobalt	20	10000	ug/L	01-NOV-09
Copper	20	20000	ug/L	01-NOV-09

METALS
-12-
Linear Ranges

SDG NO. 10-854-1

Contract: LANL01004 **Lab Code: GEL**

Instrument ID ICPMS3

Analyte	Integration Time (msec)	LDR	Units	Effective Date
Aluminum	1	50000	ug/L	01-NOV-09
Antimony	1000	250	ug/L	01-NOV-09
Arsenic	1000	1000	ug/L	01-NOV-09
Barium	1000	1000	ug/L	01-NOV-09
Beryllium	1000	1000	ug/L	01-NOV-09
Boron	1000	200	ug/L	01-NOV-09
Cadmium	1000	1000	ug/L	01-NOV-09
Calcium	500	50000	ug/L	01-NOV-09
Chromium	1000	1000	ug/L	01-NOV-09
Cobalt	1000	1000	ug/L	01-NOV-09
Copper	1000	1000	ug/L	01-NOV-09
Iron	500	50000	ug/L	01-NOV-09
Lead	1000	5000	ug/L	01-NOV-09
Lithium	1000	1000	ug/L	01-NOV-09
Magnesium	1	50000	ug/L	01-NOV-09
Manganese	1000	1000	ug/L	01-NOV-09
Nickel	1000	1000	ug/L	01-NOV-09
Potassium	1	50000	ug/L	01-NOV-09
Selenium	1000	500	ug/L	01-NOV-09
Silver	1000	250	ug/L	01-NOV-09
Sodium	1	50000	ug/L	01-NOV-09
Thallium	1000	500	ug/L	01-NOV-09
Titanium	1000	100	ug/L	01-NOV-09
Uranium	1000	5000	ug/L	01-NOV-09
Vanadium	1000	100	ug/L	01-NOV-09
Zinc	1000	2500	ug/L	01-NOV-09

Raw Data

Method: Hg_ReAlign
Result: 010610

Sample ID: Hg_ReAlign

Hg 253.652

Rep: 1

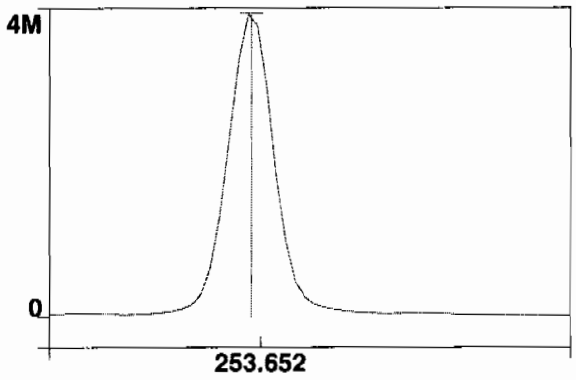

Intensity: 3442974.1 cps
Conc:

1

12/19/2009 07:08:27 Hg ReAlign... Actual peak offset (nm): -0.008
Drift (nm): -0.001 Slit adjustment: -5

Analysis Begun

Start Time: 12/19/2009 07:18:32 **Plasma On Time: 12/14/2009 06:02:42**
Logged In Analyst: Optima3 **Technique: ICP Continuous**
Spectrometer Model: Optima 5300 DV, S/N 077C7090601Autosampler Model: S10

Sample Information File: C:\pe\Optima3\Sample Information\121909.sif
Batch ID:
Results Data Set: 121909
Results Library: C:\pe\Optima3\Results\Results.mdb

Method Loaded
Method Name: General Eng.2AX **Method Last Saved: 12/18/2009 08:35:25**
IEC File: 101209.iec **MSF File:**
Method Description:

Analyte	Calibration Equation	Processing	View	Internal Standard	IEC
Ag 328.068	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Al 396.153Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
As 188.979	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
B 249.677	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ba 233.527	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Be 313.107	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ca 317.933Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	No
Cd 226.502	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Co 228.616	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cr 267.716	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cu 324.752	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Fe 238.204 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
K 766.490 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Mg 279.077 IEC	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Mn 257.610	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Mo 202.031	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Na 589.592 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	No
Ni 231.604	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
P 214.914	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Pb 220.353	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
S 181.975 Axial	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sb 206.836	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sc 361.383	Lin Thru 0	Peak Area	Axial	n/a	n/a
Sc Radial	Lin, Calc Int	Peak Area	Radial	n/a	n/a
Se 196.026	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Si 251.611	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sn 189.927	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sr 421.552	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Ti 334.940	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Tl 190.801	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
U 409.014	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
V 292.402	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y 371.029	Lin, Calc Int	Peak Area	Axial	n/a	n/a
Zn 213.857	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y RADIAL	Lin, Calc Int	Peak Area	Radial	n/a	n/a
SiO2	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes

Sequence No.: 1 **Autosampler Location: 8**
Sample ID: S0 **Date Collected: 12/19/2009 07:18:33**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: S0

	Net	Corrected	Calib.	Analysis

Repl#	Analyte	Intensity	Intensity	Conc.	Units	Time
1	Sc Radial	5478.8	5478.8	98.4	%	07:20:26
1	Y RADIAL	5815.0	5815.0	98.37	%	07:20:26
1	Al 396.153Radial†	-24.1	-24.4	[0.00]	ug/L	07:20:26
1	Ca 317.933Radial†	16.7	16.9	[0.00]	ug/L	07:20:46
1	Fe 238.204 Radial†	10.3	10.5	[0.00]	ug/L	07:20:46
1	K 766.490 Radial†	2671.9	2715.1	[0.00]	ug/L	07:20:26
1	Mg 279.077 IEC†	1.3	1.3	[0.00]	ug/L	07:20:46
1	Na 589.592 Radial†	-738.0	-749.9	[0.00]	ug/L	07:20:26
1	Sr 421.552†	-45.6	-46.3	[0.00]	ug/L	07:20:26
1	Sc 361.383	898614.7	898614.7	99.967	%	07:21:43
1	Y 371.029	744516.0	744516.0	100.01	%	07:21:43
1	Ag 328.068†	322.6	322.7	[0.00]	ug/L	07:21:43
1	As 188.979†	-23.0	-23.0	[0.00]	ug/L	07:22:03
1	B 249.677†	-19.3	-19.3	[0.00]	ug/L	07:21:43
1	Ba 233.527†	0.5	0.5	[0.00]	ug/L	07:22:03
1	Be 313.107†	-4762.2	-4763.7	[0.00]	ug/L	07:21:43
1	Cd 226.502†	-226.8	-226.9	[0.00]	ug/L	07:22:03
1	Co 228.616†	-93.2	-93.3	[0.00]	ug/L	07:22:03
1	Cr 267.716†	64.4	64.4	[0.00]	ug/L	07:22:03
1	Cu 324.752†	6010.5	6012.5	[0.00]	ug/L	07:21:43
1	Mn 257.610†	495.5	495.7	[0.00]	ug/L	07:22:03
1	Mo 202.031†	22.9	22.9	[0.00]	ug/L	07:22:03
1	Ni 231.604†	81.1	81.1	[0.00]	ug/L	07:22:03
1	P 214.914†	252.5	252.6	[0.00]	ug/L	07:22:03
1	Pb 220.353†	-69.6	-69.6	[0.00]	ug/L	07:22:03
1	S 181.975 Axial†	49.0	49.0	[0.00]	ug/L	07:22:03
1	Sb 206.836†	41.9	41.9	[0.00]	ug/L	07:22:03
1	Se 196.026†	-26.4	-26.4	[0.00]	ug/L	07:22:03
1	Si 251.611†	572.2	572.4	[0.00]	ug/L	07:22:03
1	Sn 189.927†	-0.0	-0.0	[0.00]	ug/L	07:22:03
1	Ti 334.940†	-1412.7	-1413.1	[0.00]	ug/L	07:21:43
1	Tl 190.801†	-41.3	-41.3	[0.00]	ug/L	07:22:03
1	U 409.014†	-2387.3	-2388.1	[0.00]	ug/L	07:21:43
1	V 292.402†	-1470.6	-1471.1	[0.00]	ug/L	07:21:43
1	Zn 213.857†	805.5	805.7	[0.00]	ug/L	07:22:03
1	SiO2†	625.7	625.9	[0.00]	ug/L	07:22:59
2	Sc Radial	5605.4	5605.4	101	%	07:20:51
2	Y RADIAL	5959.0	5959.0	100.8	%	07:20:51
2	Al 396.153Radial†	-10.2	-10.1	[0.00]	ug/L	07:20:51
2	Ca 317.933Radial†	24.3	24.1	[0.00]	ug/L	07:21:11
2	Fe 238.204 Radial†	10.3	10.3	[0.00]	ug/L	07:21:11
2	K 766.490 Radial†	2688.1	2669.9	[0.00]	ug/L	07:20:51
2	Mg 279.077 IEC†	2.1	2.1	[0.00]	ug/L	07:21:11
2	Na 589.592 Radial†	-787.1	-781.7	[0.00]	ug/L	07:20:51
2	Sr 421.552†	11.8	11.7	[0.00]	ug/L	07:20:51
2	Sc 361.383	902152.2	902152.2	100.36	%	07:22:08
2	Y 371.029	745973.5	745973.5	100.20	%	07:22:08
2	Ag 328.068†	349.4	348.1	[0.00]	ug/L	07:22:08
2	As 188.979†	-34.6	-34.5	[0.00]	ug/L	07:22:28
2	B 249.677†	-53.5	-53.3	[0.00]	ug/L	07:22:08
2	Ba 233.527†	-5.5	-5.5	[0.00]	ug/L	07:22:28
2	Be 313.107†	-4719.3	-4702.4	[0.00]	ug/L	07:22:08
2	Cd 226.502†	-235.3	-234.5	[0.00]	ug/L	07:22:28
2	Co 228.616†	-75.1	-74.9	[0.00]	ug/L	07:22:28
2	Cr 267.716†	79.9	79.6	[0.00]	ug/L	07:22:28
2	Cu 324.752†	6108.5	6086.5	[0.00]	ug/L	07:22:08
2	Mn 257.610†	473.2	471.5	[0.00]	ug/L	07:22:28
2	Mo 202.031†	16.0	15.9	[0.00]	ug/L	07:22:28
2	Ni 231.604†	93.1	92.7	[0.00]	ug/L	07:22:28
2	P 214.914†	263.9	262.9	[0.00]	ug/L	07:22:28
2	Pb 220.353†	-67.5	-67.3	[0.00]	ug/L	07:22:28
2	S 181.975 Axial†	47.0	46.8	[0.00]	ug/L	07:22:28
2	Sb 206.836†	40.8	40.7	[0.00]	ug/L	07:22:28
2	Se 196.026†	-31.1	-31.0	[0.00]	ug/L	07:22:28
2	Si 251.611†	582.7	580.6	[0.00]	ug/L	07:22:28
2	Sn 189.927†	9.6	9.6	[0.00]	ug/L	07:22:28
2	Ti 334.940†	-1325.3	-1320.6	[0.00]	ug/L	07:22:08
2	Tl 190.801†	-47.5	-47.3	[0.00]	ug/L	07:22:28
2	U 409.014†	-2384.5	-2375.9	[0.00]	ug/L	07:22:08
2	V 292.402†	-1446.9	-1441.7	[0.00]	ug/L	07:22:08

2	Zn 213.857†	789.3	786.4	[0.00]	ug/L	07:22:28
2	SiO2†	594.9	592.8	[0.00]	ug/L	07:23:04
3	Sc Radial	5617.7	5617.7	101	%	07:21:16
3	Y RADIAL	5960.2	5960.2	100.8	%	07:21:16
3	Al 396.153Radial†	-14.7	-14.5	[0.00]	ug/L	07:21:16
3	Ca 317.933Radial†	17.9	17.7	[0.00]	ug/L	07:21:36
3	Fe 238.204 Radial†	12.0	11.9	[0.00]	ug/L	07:21:36
3	K 766.490 Radial†	2777.3	2752.4	[0.00]	ug/L	07:21:16
3	Mg 279.077 IEC†	0.8	0.8	[0.00]	ug/L	07:21:36
3	Na 589.592 Radial†	-760.1	-753.3	[0.00]	ug/L	07:21:16
3	Sr 421.552†	-0.8	-0.8	[0.00]	ug/L	07:21:16
3	Sc 361.383	895959.8	895959.8	99.672	%	07:22:33
3	Y 371.029	742903.0	742903.0	99.790	%	07:22:33
3	Ag 328.068†	437.5	439.0	[0.00]	ug/L	07:22:33
3	As 188.979†	-46.8	-47.0	[0.00]	ug/L	07:22:53
3	B 249.677†	-5.1	-5.1	[0.00]	ug/L	07:22:33
3	Ba 233.527†	-2.8	-2.8	[0.00]	ug/L	07:22:53
3	Be 313.107†	-4711.7	-4727.2	[0.00]	ug/L	07:22:33
3	Cd 226.502†	-225.4	-226.2	[0.00]	ug/L	07:22:53
3	Co 228.616†	-92.9	-93.2	[0.00]	ug/L	07:22:53
3	Cr 267.716†	96.1	96.4	[0.00]	ug/L	07:22:53
3	Cu 324.752†	6047.8	6067.7	[0.00]	ug/L	07:22:33
3	Mn 257.610†	505.6	507.2	[0.00]	ug/L	07:22:53
3	Mo 202.031†	20.7	20.8	[0.00]	ug/L	07:22:53
3	Ni 231.604†	106.5	106.9	[0.00]	ug/L	07:22:53
3	P 214.914†	257.9	258.7	[0.00]	ug/L	07:22:53
3	Pb 220.353†	-55.1	-55.3	[0.00]	ug/L	07:22:53
3	S 181.975 Axial†	51.0	51.2	[0.00]	ug/L	07:22:53
3	Sb 206.836†	40.9	41.0	[0.00]	ug/L	07:22:53
3	Se 196.026†	-28.1	-28.2	[0.00]	ug/L	07:22:53
3	Si 251.611†	577.5	579.4	[0.00]	ug/L	07:22:53
3	Sn 189.927†	0.9	0.9	[0.00]	ug/L	07:22:53
3	Ti 334.940†	-1424.4	-1429.1	[0.00]	ug/L	07:22:33
3	Tl 190.801†	-55.4	-55.6	[0.00]	ug/L	07:22:53
3	U 409.014†	-2345.0	-2352.7	[0.00]	ug/L	07:22:33
3	V 292.402†	-1490.6	-1495.5	[0.00]	ug/L	07:22:33
3	Zn 213.857†	785.9	788.5	[0.00]	ug/L	07:22:53
3	SiO2†	599.4	601.4	[0.00]	ug/L	07:23:09

Mean Data: S0

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	898908.9	3106.67	0.35%	100.00	%
Sc Radial	5567.3	76.90	1.38%	100	%
Y 371.029	744464.2	1535.89	0.21%	100.00	%
Y RADIAL	5911.4	83.50	1.41%	100.0	%
Ag 328.068†	369.9	61.12	16.52%	[0.00]	ug/L
Al 396.153Radial†	-16.4	7.33	44.73%	[0.00]	ug/L
As 188.979†	-34.8	12.01	34.47%	[0.00]	ug/L
B 249.677†	-25.9	24.77	95.49%	[0.00]	ug/L
Ba 233.527†	-2.6	3.03	116.57%	[0.00]	ug/L
Be 313.107†	-4731.1	30.86	0.65%	[0.00]	ug/L
Ca 317.933Radial†	19.6	3.95	20.19%	[0.00]	ug/L
Cd 226.502†	-229.2	4.60	2.01%	[0.00]	ug/L
Co 228.616†	-87.1	10.59	12.16%	[0.00]	ug/L
Cr 267.716†	80.2	16.00	19.96%	[0.00]	ug/L
Cu 324.752†	6055.6	38.46	0.64%	[0.00]	ug/L
Fe 238.204 Radial†	10.9	0.90	8.24%	[0.00]	ug/L
K 766.490 Radial†	2712.4	41.33	1.52%	[0.00]	ug/L
Mg 279.077 IEC†	1.4	0.62	44.68%	[0.00]	ug/L
Mn 257.610†	491.5	18.26	3.72%	[0.00]	ug/L
Mo 202.031†	19.9	3.60	18.10%	[0.00]	ug/L
Na 589.592 Radial†	-761.7	17.47	2.29%	[0.00]	ug/L
Ni 231.604†	93.6	12.92	13.80%	[0.00]	ug/L
P 214.914†	258.1	5.20	2.02%	[0.00]	ug/L
Pb 220.353†	-64.1	7.69	12.00%	[0.00]	ug/L
S 181.975 Axial†	49.0	2.20	4.48%	[0.00]	ug/L
Sb 206.836†	41.2	0.62	1.51%	[0.00]	ug/L
Se 196.026†	-28.5	2.32	8.14%	[0.00]	ug/L
Si 251.611†	577.5	4.43	0.77%	[0.00]	ug/L

Sn 189.927†	3.5	5.29	151.73%	[0.00]	ug/L
Sr 421.552†	-11.8	30.54	258.65%	[0.00]	ug/L
Ti 334.940†	-1387.6	58.58	4.22%	[0.00]	ug/L
Tl 190.801†	-48.1	7.20	14.99%	[0.00]	ug/L
U 409.014†	-2372.2	17.99	0.76%	[0.00]	ug/L
V 292.402†	-1469.4	26.93	1.83%	[0.00]	ug/L
Zn 213.857†	793.5	10.61	1.34%	[0.00]	ug/L
SiO2†	606.7	17.18	2.83%	[0.00]	ug/L

Sequence No.: 2
Sample ID: S0.1
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 2
Date Collected: 12/19/2009 07:25:19
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc Radial	5487.3	5487.3	98.6	%	07:27:16
1	Y RADIAL	5798.7	5798.7	98.09	%	07:27:16
1	K 766.490 Radial†	8549.2	5961.4	[1000]	ug/L	07:27:11
1	Sr 421.552†	17310.3	17574.4	[100]	ug/L	07:27:16
1	Sc 361.383	912189.9	912189.9	101.48	%	07:27:43
1	Y 371.029	750828.6	750828.6	100.85	%	07:27:43
1	Ag 328.068†	23552.4	22839.6	[100]	ug/L	07:27:48
1	As 188.979†	246.5	277.7	[100]	ug/L	07:28:08
1	B 249.677†	4718.4	4675.6	[100]	ug/L	07:27:48
1	Ba 233.527†	14914.6	14700.1	[100]	ug/L	07:27:48
1	Be 313.107†	292153.2	292630.7	[100]	ug/L	07:27:43
1	Cd 226.502†	10025.8	10109.1	[100]	ug/L	07:27:48
1	Co 228.616†	5539.2	5545.7	[100]	ug/L	07:28:08
1	Cr 267.716†	10041.0	9814.7	[100]	ug/L	07:27:48
1	Cu 324.752†	41032.1	34379.1	[100]	ug/L	07:27:48
1	Mn 257.610†	102308.9	100327.8	[100]	ug/L	07:27:48
1	Mo 202.031†	1670.1	1625.9	[100]	ug/L	07:28:08
1	Ni 231.604†	4765.5	4602.6	[100]	ug/L	07:27:48
1	P 214.914†	1178.9	903.6	[500]	ug/L	07:28:08
1	Pb 220.353†	888.6	939.8	[100]	ug/L	07:28:08
1	S 181.975 Axial†	203.7	151.7	[200]	ug/L	07:28:08
1	Sb 206.836†	368.9	322.4	[100]	ug/L	07:28:08
1	Se 196.026†	149.4	175.7	[100]	ug/L	07:28:08
1	Si 251.611†	18108.2	17267.1	[500]	ug/L	07:27:48
1	Sn 189.927†	664.5	651.3	[100]	ug/L	07:28:08
1	Ti 334.940†	66419.0	66839.5	[100]	ug/L	07:27:48
1	Tl 190.801†	342.9	385.9	[100]	ug/L	07:28:08
1	U 409.014†	1313.4	3666.5	[100]	ug/L	07:27:43
1	V 292.402†	14183.7	15446.6	[100]	ug/L	07:27:48
1	Zn 213.857†	12980.8	11998.3	[100]	ug/L	07:27:48
1	SiO2†	18208.6	17336.8	[1069.5]	ug/L	07:29:14
2	Sc Radial	5476.4	5476.4	98.4	%	07:27:26
2	Y RADIAL	5792.1	5792.1	97.98	%	07:27:26
2	K 766.490 Radial†	8519.1	5948.1	[1000]	ug/L	07:27:21
2	Sr 421.552†	17168.0	17464.8	[100]	ug/L	07:27:26
2	Sc 361.383	905291.1	905291.1	100.71	%	07:28:13
2	Y 371.029	745901.0	745901.0	100.19	%	07:28:13
2	Ag 328.068†	23672.6	23135.8	[100]	ug/L	07:28:18
2	As 188.979†	249.3	282.4	[100]	ug/L	07:28:38
2	B 249.677†	4606.6	4600.1	[100]	ug/L	07:28:18
2	Ba 233.527†	14882.8	14780.5	[100]	ug/L	07:28:18
2	Be 313.107†	290759.3	293440.5	[100]	ug/L	07:28:13
2	Cd 226.502†	10066.1	10224.3	[100]	ug/L	07:28:18
2	Co 228.616†	5553.2	5601.2	[100]	ug/L	07:28:38
2	Cr 267.716†	10006.3	9855.6	[100]	ug/L	07:28:18
2	Cu 324.752†	41287.6	34940.9	[100]	ug/L	07:28:18
2	Mn 257.610†	102396.0	101182.6	[100]	ug/L	07:28:18
2	Mo 202.031†	1662.6	1631.0	[100]	ug/L	07:28:38
2	Ni 231.604†	4773.8	4646.6	[100]	ug/L	07:28:18
2	P 214.914†	1198.1	931.6	[500]	ug/L	07:28:38
2	Pb 220.353†	883.0	940.8	[100]	ug/L	07:28:38
2	S 181.975 Axial†	209.0	158.5	[200]	ug/L	07:28:38
2	Sb 206.836†	371.5	327.6	[100]	ug/L	07:28:38
2	Se 196.026†	142.2	169.7	[100]	ug/L	07:28:38
2	Si 251.611†	18120.6	17415.4	[500]	ug/L	07:28:18
2	Sn 189.927†	664.9	656.7	[100]	ug/L	07:28:38
2	Ti 334.940†	66659.4	67577.1	[100]	ug/L	07:28:18
2	Tl 190.801†	347.9	393.6	[100]	ug/L	07:28:38
2	U 409.014†	1421.3	3783.5	[100]	ug/L	07:28:13

2	V 292.402†	14119.4	15489.3	[100]	ug/L	07:28:18
2	Zn 213.857†	13044.4	12158.8	[100]	ug/L	07:28:18
2	SiO2†	18265.7	17530.3	[1069.5]	ug/L	07:29:19
3	Sc Radial	5563.0	5563.0	99.9	%	07:27:36
3	Y RADIAL	5921.7	5921.7	100.2	%	07:27:36
3	K 766.490 Radial†	8355.7	5649.7	[1000]	ug/L	07:27:31
3	Sr 421.552†	17531.8	17557.2	[100]	ug/L	07:27:36
3	Sc 361.383	900253.6	900253.6	100.15	%	07:28:44
3	Y 371.029	741176.9	741176.9	99.558	%	07:28:44
3	Ag 328.068†	23727.7	23322.3	[100]	ug/L	07:28:49
3	As 188.979†	243.9	278.4	[100]	ug/L	07:29:09
3	B 249.677†	4711.2	4730.1	[100]	ug/L	07:28:49
3	Ba 233.527†	15022.9	15003.1	[100]	ug/L	07:28:49
3	Be 313.107†	288700.8	293000.7	[100]	ug/L	07:28:44
3	Cd 226.502†	10225.1	10439.0	[100]	ug/L	07:28:49
3	Co 228.616†	5580.3	5659.1	[100]	ug/L	07:29:09
3	Cr 267.716†	10071.5	9976.3	[100]	ug/L	07:28:49
3	Cu 324.752†	41363.7	35246.4	[100]	ug/L	07:28:49
3	Mn 257.610†	103350.9	102705.1	[100]	ug/L	07:28:49
3	Mo 202.031†	1694.4	1672.0	[100]	ug/L	07:29:09
3	Ni 231.604†	4799.4	4698.6	[100]	ug/L	07:28:49
3	P 214.914†	1204.5	944.6	[500]	ug/L	07:29:09
3	Pb 220.353†	886.9	949.6	[100]	ug/L	07:29:09
3	S 181.975 Axial†	203.8	154.5	[200]	ug/L	07:29:09
3	Sb 206.836†	379.2	337.5	[100]	ug/L	07:29:09
3	Se 196.026†	150.9	179.2	[100]	ug/L	07:29:09
3	Si 251.611†	18313.4	17708.6	[500]	ug/L	07:28:49
3	Sn 189.927†	673.8	669.3	[100]	ug/L	07:29:09
3	Ti 334.940†	67148.8	68436.1	[100]	ug/L	07:28:49
3	Tl 190.801†	334.2	381.8	[100]	ug/L	07:29:09
3	U 409.014†	1275.4	3645.7	[100]	ug/L	07:28:44
3	V 292.402†	14218.0	15666.2	[100]	ug/L	07:28:49
3	Zn 213.857†	13125.4	12312.2	[100]	ug/L	07:28:49
3	SiO2†	18184.1	17550.3	[1069.5]	ug/L	07:29:24

Mean Data: S0.1

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	905911.6	5992.28	0.66%	100.78	%
Sc Radial	5508.9	47.15	0.86%	99.0	%
Y 371.029	745968.8	4826.23	0.65%	100.20	%
Y RADIAL	5837.5	73.00	1.25%	98.75	%
Ag 328.068†	23099.2	243.44	1.05%	[100]	ug/L
As 188.979†	279.5	2.55	0.91%	[100]	ug/L
B 249.677†	4668.6	65.27	1.40%	[100]	ug/L
Ba 233.527†	14827.9	156.96	1.06%	[100]	ug/L
Be 313.107†	293024.0	405.43	0.14%	[100]	ug/L
Cd 226.502†	10257.5	167.47	1.63%	[100]	ug/L
Co 228.616†	5602.0	56.71	1.01%	[100]	ug/L
Cr 267.716†	9882.2	84.02	0.85%	[100]	ug/L
Cu 324.752†	34855.5	439.91	1.26%	[100]	ug/L
K 766.490 Radial†	5853.1	176.23	3.01%	[1000]	ug/L
Mn 257.610†	101405.2	1204.15	1.19%	[100]	ug/L
Mo 202.031†	1643.0	25.23	1.54%	[100]	ug/L
Ni 231.604†	4649.2	48.08	1.03%	[100]	ug/L
P 214.914†	926.6	20.94	2.26%	[500]	ug/L
Pb 220.353†	943.4	5.41	0.57%	[100]	ug/L
S 181.975 Axial†	154.9	3.43	2.22%	[200]	ug/L
Sb 206.836†	329.1	7.67	2.33%	[100]	ug/L
Se 196.026†	174.9	4.78	2.73%	[100]	ug/L
Si 251.611†	17463.7	224.68	1.29%	[500]	ug/L
Sn 189.927†	659.1	9.26	1.40%	[100]	ug/L
Sr 421.552†	17532.2	58.93	0.34%	[100]	ug/L
Ti 334.940†	67617.6	799.06	1.18%	[100]	ug/L
Tl 190.801†	387.1	5.99	1.55%	[100]	ug/L
U 409.014†	3698.6	74.30	2.01%	[100]	ug/L
V 292.402†	15534.0	116.43	0.75%	[100]	ug/L
Zn 213.857†	12156.5	157.00	1.29%	[100]	ug/L
SiO2†	17472.5	117.91	0.67%	[1069.5]	ug/L

Sequence No.: 3
Sample ID: S0.5
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 3
Date Collected: 12/19/2009 07:31:35
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc Radial	5698.6	5698.6	102	%	07:33:27
1	Y RADIAL	5996.3	5996.3	101.4	%	07:33:27
1	Al 396.153Radial†	6661.4	6524.4	[5000]	ug/L	07:33:27
1	Ca 317.933Radial†	3487.8	3387.9	[5000]	ug/L	07:33:47
1	K 766.490 Radial†	31038.0	27610.5	[5000]	ug/L	07:33:27
1	Mg 279.077 IEC†	168.2	163.0	[5000]	ug/L	07:33:47
1	Sr 421.552†	85392.6	83437.2	[500]	ug/L	07:33:27
1	Sc 361.383	911583.3	911583.3	101.41	%	07:34:45
1	Y 371.029	742613.9	742613.9	99.751	%	07:34:45
1	Ag 328.068†	115620.3	113642.9	[500]	ug/L	07:34:50
1	As 188.979†	1338.4	1354.6	[500]	ug/L	07:35:10
1	B 249.677†	23962.3	23655.1	[500]	ug/L	07:34:50
1	Ba 233.527†	73782.2	72758.9	[500]	ug/L	07:34:50
1	Be 313.107†	1493604.4	1477568.7	[500]	ug/L	07:34:45
1	Cd 226.502†	51230.7	50747.6	[500]	ug/L	07:34:50
1	Co 228.616†	28624.9	28314.0	[500]	ug/L	07:34:50
1	Cr 267.716†	49613.8	48843.9	[500]	ug/L	07:34:50
1	Cu 324.752†	181967.9	173382.3	[500]	ug/L	07:34:50
1	Mn 257.610†	510769.1	503176.0	[500]	ug/L	07:34:45
1	Mo 202.031†	8205.8	8071.8	[500]	ug/L	07:35:10
1	Ni 231.604†	23096.0	22681.3	[500]	ug/L	07:34:50
1	P 214.914†	5002.6	4674.9	[2500]	ug/L	07:35:10
1	Pb 220.353†	4633.9	4633.5	[500]	ug/L	07:35:10
1	S 181.975 Axial†	856.2	795.3	[1000]	ug/L	07:35:10
1	Sb 206.836†	1688.5	1623.8	[500]	ug/L	07:35:10
1	Se 196.026†	880.9	897.1	[500]	ug/L	07:35:10
1	Si 251.611†	88216.3	86412.3	[2500]	ug/L	07:34:50
1	Sn 189.927†	3297.6	3248.2	[500]	ug/L	07:35:10
1	Ti 334.940†	343434.3	340046.8	[500]	ug/L	07:34:45
1	Tl 190.801†	1867.7	1889.8	[500]	ug/L	07:35:10
1	U 409.014†	15743.9	17897.2	[500]	ug/L	07:34:50
1	V 292.402†	77149.3	77546.1	[500]	ug/L	07:34:50
1	Zn 213.857†	61946.9	60292.0	[500]	ug/L	07:34:50
1	SiO2†	87667.2	85841.6	[5347.5]	ug/L	07:36:18
2	Sc Radial	5544.1	5544.1	99.6	%	07:33:52
2	Y RADIAL	5872.3	5872.3	99.34	%	07:33:52
2	Al 396.153Radial†	6702.3	6746.7	[5000]	ug/L	07:33:52
2	Ca 317.933Radial†	3502.6	3497.7	[5000]	ug/L	07:34:12
2	K 766.490 Radial†	31160.7	28578.6	[5000]	ug/L	07:33:52
2	Mg 279.077 IEC†	167.3	166.6	[5000]	ug/L	07:34:12
2	Sr 421.552†	86131.2	86503.3	[500]	ug/L	07:33:52
2	Sc 361.383	910470.8	910470.8	101.29	%	07:35:16
2	Y 371.029	742224.9	742224.9	99.699	%	07:35:16
2	Ag 328.068†	116498.7	114649.4	[500]	ug/L	07:35:21
2	As 188.979†	1351.2	1368.8	[500]	ug/L	07:35:41
2	B 249.677†	24291.1	24008.5	[500]	ug/L	07:35:21
2	Ba 233.527†	74164.9	73225.7	[500]	ug/L	07:35:21
2	Be 313.107†	1488084.5	1473918.6	[500]	ug/L	07:35:16
2	Cd 226.502†	51465.4	51041.1	[500]	ug/L	07:35:21
2	Co 228.616†	28756.1	28478.0	[500]	ug/L	07:35:21
2	Cr 267.716†	49856.9	49143.7	[500]	ug/L	07:35:21
2	Cu 324.752†	183493.8	175108.1	[500]	ug/L	07:35:21
2	Mn 257.610†	509468.2	502507.1	[500]	ug/L	07:35:16
2	Mo 202.031†	8230.1	8105.7	[500]	ug/L	07:35:41
2	Ni 231.604†	23282.9	22893.7	[500]	ug/L	07:35:21
2	P 214.914†	5048.0	4725.9	[2500]	ug/L	07:35:41
2	Pb 220.353†	4679.5	4684.1	[500]	ug/L	07:35:41
2	S 181.975 Axial†	854.5	794.6	[1000]	ug/L	07:35:41
2	Sb 206.836†	1691.8	1629.1	[500]	ug/L	07:35:41

2	Se 196.026†	899.7	916.8	[500]	ug/L	07:35:41
2	Si 251.611†	89036.4	87328.2	[2500]	ug/L	07:35:21
2	Sn 189.927†	3300.4	3255.0	[500]	ug/L	07:35:41
2	Ti 334.940†	342481.4	339519.8	[500]	ug/L	07:35:16
2	Tl 190.801†	1889.7	1913.8	[500]	ug/L	07:35:41
2	U 409.014†	15663.2	17836.5	[500]	ug/L	07:35:21
2	V 292.402†	77677.0	78160.0	[500]	ug/L	07:35:21
2	Zn 213.857†	62437.5	60851.0	[500]	ug/L	07:35:21
2	SiO2†	87988.4	86264.4	[5347.5]	ug/L	07:36:23
3	Sc Radial	5544.8	5544.8	99.6	%	07:34:17
3	Y RADIAL	5884.0	5884.0	99.54	%	07:34:17
3	Al 396.153Radial†	6724.5	6768.1	[5000]	ug/L	07:34:17
3	Ca 317.933Radial†	3514.9	3509.6	[5000]	ug/L	07:34:37
3	K 766.490 Radial†	31310.5	28724.8	[5000]	ug/L	07:34:17
3	Mg 279.077 IEC†	164.6	163.8	[5000]	ug/L	07:34:37
3	Sr 421.552†	86504.2	86866.2	[500]	ug/L	07:34:17
3	Sc 361.383	916258.2	916258.2	101.93	%	07:35:47
3	Y 371.029	744779.1	744779.1	100.04	%	07:35:47
3	Ag 328.068†	114994.9	112447.6	[500]	ug/L	07:35:52
3	As 188.979†	1341.9	1351.3	[500]	ug/L	07:36:12
3	B 249.677†	23873.3	23447.2	[500]	ug/L	07:35:52
3	Ba 233.527†	73326.7	71940.9	[500]	ug/L	07:35:52
3	Be 313.107†	1496868.1	1473256.1	[500]	ug/L	07:35:47
3	Cd 226.502†	50806.8	50073.9	[500]	ug/L	07:35:52
3	Co 228.616†	28469.0	28017.1	[500]	ug/L	07:35:52
3	Cr 267.716†	49159.5	48148.5	[500]	ug/L	07:35:52
3	Cu 324.752†	180929.5	171448.0	[500]	ug/L	07:35:52
3	Mn 257.610†	513596.8	503380.4	[500]	ug/L	07:35:47
3	Mo 202.031†	8179.4	8004.6	[500]	ug/L	07:36:12
3	Ni 231.604†	22942.9	22414.9	[500]	ug/L	07:35:52
3	P 214.914†	4998.7	4646.0	[2500]	ug/L	07:36:12
3	Pb 220.353†	4660.7	4636.5	[500]	ug/L	07:36:12
3	S 181.975 Axial†	854.8	789.6	[1000]	ug/L	07:36:12
3	Sb 206.836†	1673.4	1600.5	[500]	ug/L	07:36:12
3	Se 196.026†	875.7	887.7	[500]	ug/L	07:36:12
3	Si 251.611†	87985.4	85741.9	[2500]	ug/L	07:35:52
3	Sn 189.927†	3294.7	3228.8	[500]	ug/L	07:36:12
3	Ti 334.940†	345096.9	339950.1	[500]	ug/L	07:35:47
3	Tl 190.801†	1880.0	1892.5	[500]	ug/L	07:36:12
3	U 409.014†	15626.7	17703.1	[500]	ug/L	07:35:52
3	V 292.402†	76454.9	76476.7	[500]	ug/L	07:35:52
3	Zn 213.857†	61666.8	59705.6	[500]	ug/L	07:35:52
3	SiO2†	88510.5	86227.9	[5347.5]	ug/L	07:36:28

Mean Data: S0.5

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	912770.8	3070.96	0.34%	101.54	%
Sc Radial	5595.8	88.97	1.59%	101	%
Y 371.029	743206.0	1376.22	0.19%	99.831	%
Y RADIAL	5917.5	68.45	1.16%	100.1	%
Ag 328.068†	113579.9	1102.25	0.97%	[500]	ug/L
Al 396.153Radial†	6679.7	134.98	2.02%	[5000]	ug/L
As 188.979†	1358.2	9.33	0.69%	[500]	ug/L
B 249.677†	23703.6	283.81	1.20%	[500]	ug/L
Ba 233.527†	72641.8	650.34	0.90%	[500]	ug/L
Be 313.107†	1474914.5	2322.40	0.16%	[500]	ug/L
Ca 317.933Radial†	3465.0	67.07	1.94%	[5000]	ug/L
Cd 226.502†	50620.9	495.86	0.98%	[500]	ug/L
Co 228.616†	28269.7	233.63	0.83%	[500]	ug/L
Cr 267.716†	48712.0	510.51	1.05%	[500]	ug/L
Cu 324.752†	173312.8	1831.02	1.06%	[500]	ug/L
K 766.490 Radial†	28304.6	605.52	2.14%	[5000]	ug/L
Mg 279.077 IEC†	164.5	1.90	1.16%	[5000]	ug/L
Mn 257.610†	503021.2	456.81	0.09%	[500]	ug/L
Mo 202.031†	8060.7	51.43	0.64%	[500]	ug/L
Ni 231.604†	22663.3	239.92	1.06%	[500]	ug/L
P 214.914†	4682.3	40.43	0.86%	[2500]	ug/L
Pb 220.353†	4651.4	28.36	0.61%	[500]	ug/L
S 181.975 Axial†	793.2	3.11	0.39%	[1000]	ug/L

Sb 206.836†	1617.8	15.24	0.94%	[500]	ug/L
Se 196.026†	900.6	14.86	1.65%	[500]	ug/L
Si 251.611†	86494.1	796.32	0.92%	[2500]	ug/L
Sn 189.927†	3244.0	13.61	0.42%	[500]	ug/L
Sr 421.552†	85602.2	1883.74	2.20%	[500]	ug/L
Ti 334.940†	339838.9	280.53	0.08%	[500]	ug/L
Tl 190.801†	1898.7	13.14	0.69%	[500]	ug/L
U 409.014†	17812.3	99.34	0.56%	[500]	ug/L
V 292.402†	77394.2	851.88	1.10%	[500]	ug/L
Zn 213.857†	60282.9	572.79	0.95%	[500]	ug/L
SiO2†	86111.3	234.29	0.27%	[5347.5]	ug/L

Sequence No.: 4
Sample ID: SCAL
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 4
Date Collected: 12/19/2009 07:38:39
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: SCAL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc Radial	5458.4	5458.4	98.0	%	07:40:52
1	Y RADIAL	5752.0	5752.0	97.30	%	07:40:52
1	Al 396.153Radial†	13231.1	13511.3	[10000]	ug/L	07:40:32
1	Ca 317.933Radial†	6909.0	7027.2	[10000]	ug/L	07:40:52
1	Fe 238.204 Radial†	1208.9	1222.1	[10000]	ug/L	07:40:52
1	K 766.490 Radial†	58416.7	56869.0	[10000]	ug/L	07:40:32
1	Mg 279.077 IEC†	328.1	333.2	[10000]	ug/L	07:40:52
1	Na 589.592 Radial†	31728.7	33123.0	[10000]	ug/L	07:40:32
1	Sr 421.552†	167103.4	170447.0	[1000]	ug/L	07:40:32
1	Sc 361.383	883286.8	883286.8	98.262	%	07:41:56
1	Y 371.029	722299.4	722299.4	97.023	%	07:41:56
1	Ag 328.068†	229508.6	233197.9	[1000]	ug/L	07:41:56
1	As 188.979†	2687.9	2770.2	[1000]	ug/L	07:42:16
1	B 249.677†	48055.0	48930.9	[1000]	ug/L	07:41:56
1	Ba 233.527†	144993.0	147560.0	[1000]	ug/L	07:41:56
1	Be 313.107†	2940610.9	2997350.5	[1000]	ug/L	07:41:50
1	Cd 226.502†	100505.1	102511.8	[1000]	ug/L	07:41:56
1	Co 228.616†	56144.1	57224.2	[1000]	ug/L	07:41:56
1	Cr 267.716†	97363.7	99005.6	[1000]	ug/L	07:41:56
1	Cu 324.752†	355274.2	355502.2	[1000]	ug/L	07:41:56
1	Mn 257.610†	999949.7	1017143.7	[1000]	ug/L	07:41:50
1	Mo 202.031†	16404.5	16674.8	[1000]	ug/L	07:42:16
1	Ni 231.604†	45154.9	45859.9	[1000]	ug/L	07:41:56
1	P 214.914†	9756.0	9670.5	[5000]	ug/L	07:42:16
1	Pb 220.353†	9330.3	9559.4	[1000]	ug/L	07:42:16
1	S 181.975 Axial†	1660.2	1640.5	[2000]	ug/L	07:42:16
1	Sb 206.836†	3356.4	3374.5	[1000]	ug/L	07:42:16
1	Se 196.026†	1787.8	1847.9	[1000]	ug/L	07:42:16
1	Si 251.611†	175705.1	178235.2	[5000]	ug/L	07:41:56
1	Sn 189.927†	6616.7	6730.2	[1000]	ug/L	07:42:16
1	Ti 334.940†	682059.7	695510.4	[1000]	ug/L	07:41:50
1	Tl 190.801†	3759.8	3874.4	[1000]	ug/L	07:42:16
1	U 409.014†	33472.3	36436.5	[1000]	ug/L	07:41:56
1	V 292.402†	153695.1	157882.8	[1000]	ug/L	07:41:56
1	Zn 213.857†	120840.9	122184.6	[1000]	ug/L	07:41:56
1	SiO2†	176496.9	179011.8	[10695]	ug/L	07:43:25
2	Sc Radial	5481.8	5481.8	98.5	%	07:41:17
2	Y RADIAL	5756.9	5756.9	97.39	%	07:41:17
2	Al 396.153Radial†	13086.7	13307.2	[10000]	ug/L	07:40:57
2	Ca 317.933Radial†	6935.3	7023.9	[10000]	ug/L	07:41:17
2	Fe 238.204 Radial†	1218.3	1226.4	[10000]	ug/L	07:41:17
2	K 766.490 Radial†	58033.5	56226.2	[10000]	ug/L	07:40:57
2	Mg 279.077 IEC†	329.5	333.2	[10000]	ug/L	07:41:17
2	Na 589.592 Radial†	31540.3	32793.8	[10000]	ug/L	07:40:57
2	Sr 421.552†	166280.3	168885.5	[1000]	ug/L	07:40:57
2	Sc 361.383	889720.3	889720.3	98.978	%	07:42:27
2	Y 371.029	726788.9	726788.9	97.626	%	07:42:27
2	Ag 328.068†	231283.9	233302.6	[1000]	ug/L	07:42:27
2	As 188.979†	2694.6	2757.3	[1000]	ug/L	07:42:48
2	B 249.677†	48707.7	49236.7	[1000]	ug/L	07:42:27
2	Ba 233.527†	146245.8	147758.7	[1000]	ug/L	07:42:27
2	Be 313.107†	2946784.0	2981948.1	[1000]	ug/L	07:42:22
2	Cd 226.502†	101381.2	102657.4	[1000]	ug/L	07:42:27
2	Co 228.616†	56748.5	57421.7	[1000]	ug/L	07:42:27
2	Cr 267.716†	98089.1	99021.9	[1000]	ug/L	07:42:27
2	Cu 324.752†	358645.1	356293.5	[1000]	ug/L	07:42:27
2	Mn 257.610†	1003368.4	1013239.3	[1000]	ug/L	07:42:22
2	Mo 202.031†	16394.9	16544.3	[1000]	ug/L	07:42:48
2	Ni 231.604†	45567.5	45944.5	[1000]	ug/L	07:42:27

2	P 214.914†	9781.5	9624.4	[5000]	ug/L	07:42:48
2	Pb 220.353†	9327.8	9488.2	[1000]	ug/L	07:42:48
2	S 181.975 Axial†	1667.8	1636.1	[2000]	ug/L	07:42:48
2	Sb 206.836†	3359.7	3353.1	[1000]	ug/L	07:42:48
2	Se 196.026†	1796.9	1843.9	[1000]	ug/L	07:42:48
2	Si 251.611†	177399.5	178654.1	[5000]	ug/L	07:42:27
2	Sn 189.927†	6623.3	6688.2	[1000]	ug/L	07:42:48
2	Ti 334.940†	684913.7	693374.7	[1000]	ug/L	07:42:22
2	Tl 190.801†	3769.1	3856.1	[1000]	ug/L	07:42:48
2	U 409.014†	33664.1	36384.0	[1000]	ug/L	07:42:27
2	V 292.402†	154988.7	158058.7	[1000]	ug/L	07:42:27
2	Zn 213.857†	122079.3	122546.6	[1000]	ug/L	07:42:27
2	SiO2†	173385.7	174569.7	[10695]	ug/L	07:43:30
3	Sc Radial	5420.9	5420.9	97.4	%	07:41:42
3	Y RADIAL	5726.3	5726.3	96.87	%	07:41:42
3	Al 396.153Radial†	13241.2	13615.2	[10000]	ug/L	07:41:22
3	Ca 317.933Radial†	6857.1	7022.7	[10000]	ug/L	07:41:42
3	Fe 238.204 Radial†	1201.5	1223.0	[10000]	ug/L	07:41:42
3	K 766.490 Radial†	58301.6	57164.1	[10000]	ug/L	07:41:22
3	Mg 279.077 IEC†	322.7	330.1	[10000]	ug/L	07:41:42
3	Na 589.592 Radial†	31620.0	33235.8	[10000]	ug/L	07:41:22
3	Sr 421.552†	167104.9	171630.6	[1000]	ug/L	07:41:22
3	Sc 361.383	881299.8	881299.8	98.041	%	07:42:59
3	Y 371.029	720248.3	720248.3	96.747	%	07:42:59
3	Ag 328.068†	229110.1	233318.0	[1000]	ug/L	07:42:59
3	As 188.979†	2675.8	2764.1	[1000]	ug/L	07:43:19
3	B 249.677†	48076.0	49062.6	[1000]	ug/L	07:42:59
3	Ba 233.527†	144549.3	147440.1	[1000]	ug/L	07:42:59
3	Be 313.107†	2928638.8	2991886.7	[1000]	ug/L	07:42:54
3	Cd 226.502†	100101.7	102331.0	[1000]	ug/L	07:42:59
3	Co 228.616†	56030.6	57237.3	[1000]	ug/L	07:42:59
3	Cr 267.716†	96920.1	98776.5	[1000]	ug/L	07:42:59
3	Cu 324.752†	354627.6	355657.8	[1000]	ug/L	07:42:59
3	Mn 257.610†	997443.7	1016882.0	[1000]	ug/L	07:42:54
3	Mo 202.031†	16337.4	16644.0	[1000]	ug/L	07:43:19
3	Ni 231.604†	45005.2	45810.8	[1000]	ug/L	07:42:59
3	P 214.914†	9701.9	9637.7	[5000]	ug/L	07:43:19
3	Pb 220.353†	9312.6	9562.7	[1000]	ug/L	07:43:19
3	S 181.975 Axial†	1665.3	1649.6	[2000]	ug/L	07:43:19
3	Sb 206.836†	3339.7	3365.2	[1000]	ug/L	07:43:19
3	Se 196.026†	1778.6	1842.6	[1000]	ug/L	07:43:19
3	Si 251.611†	175462.8	178391.2	[5000]	ug/L	07:42:59
3	Sn 189.927†	6593.5	6721.7	[1000]	ug/L	07:43:19
3	Ti 334.940†	680484.2	695468.5	[1000]	ug/L	07:42:54
3	Tl 190.801†	3751.4	3874.4	[1000]	ug/L	07:43:19
3	U 409.014†	33504.8	36546.4	[1000]	ug/L	07:42:59
3	V 292.402†	153091.7	157620.0	[1000]	ug/L	07:42:59
3	Zn 213.857†	120479.7	122093.4	[1000]	ug/L	07:42:59
3	SiO2†	176761.6	179686.8	[10695]	ug/L	07:43:35

Mean Data: SCAL

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	884768.9	4401.57	0.50%	98.427	%
Sc Radial	5453.7	30.74	0.56%	98.0	%
Y 371.029	723112.2	3345.20	0.46%	97.132	%
Y RADIAL	5745.1	16.46	0.29%	97.19	%
Ag 328.068†	233272.8	65.36	0.03%	[1000]	ug/L
Al 396.153Radial†	13477.9	156.70	1.16%	[10000]	ug/L
As 188.979†	2763.9	6.49	0.23%	[1000]	ug/L
B 249.677†	49076.7	153.41	0.31%	[1000]	ug/L
Ba 233.527†	147586.3	160.90	0.11%	[1000]	ug/L
Be 313.107†	2990395.1	7808.79	0.26%	[1000]	ug/L
Ca 317.933Radial†	7024.6	2.35	0.03%	[10000]	ug/L
Cd 226.502†	102500.1	163.51	0.16%	[1000]	ug/L
Co 228.616†	57294.4	110.43	0.19%	[1000]	ug/L
Cr 267.716†	98934.7	137.20	0.14%	[1000]	ug/L
Cu 324.752†	355817.8	419.23	0.12%	[1000]	ug/L
Fe 238.204 Radial†	1223.8	2.26	0.18%	[10000]	ug/L
K 766.490 Radial†	56753.1	479.54	0.84%	[10000]	ug/L

Mg 279.077 IEC†	332.2	1.81	0.55%	[10000]	ug/L
Mn 257.610†	1015755.0	2182.60	0.21%	[1000]	ug/L
Mo 202.031†	16621.0	68.19	0.41%	[1000]	ug/L
Na 589.592 Radial†	33050.9	229.64	0.69%	[10000]	ug/L
Ni 231.604†	45871.7	67.60	0.15%	[1000]	ug/L
P 214.914†	9644.2	23.71	0.25%	[5000]	ug/L
Pb 220.353†	9536.8	42.08	0.44%	[1000]	ug/L
S 181.975 Axial†	1642.1	6.88	0.42%	[2000]	ug/L
Sb 206.836†	3364.3	10.72	0.32%	[1000]	ug/L
Se 196.026†	1844.8	2.75	0.15%	[1000]	ug/L
Si 251.611†	178426.8	211.73	0.12%	[5000]	ug/L
Sn 189.927†	6713.4	22.19	0.33%	[1000]	ug/L
Sr 421.552†	170321.0	1376.88	0.81%	[1000]	ug/L
Ti 334.940†	694784.6	1221.12	0.18%	[1000]	ug/L
Tl 190.801†	3868.3	10.55	0.27%	[1000]	ug/L
U 409.014†	36455.7	82.89	0.23%	[1000]	ug/L
V 292.402†	157853.8	220.80	0.14%	[1000]	ug/L
Zn 213.857†	122274.9	239.67	0.20%	[1000]	ug/L
SiO2†	177756.1	2780.09	1.56%	[10695]	ug/L

Sequence No.: 5
Sample ID: S10
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 5
Date Collected: 12/19/2009 07:45:47
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S10

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc Radial	5443.9	5443.9	97.8	%	07:48:00
1	Y RADIAL	5719.5	5719.5	96.75	%	07:48:00
1	Al 396.153Radial†	66553.4	68078.1	[50000]	ug/L	07:47:40
1	Ca 317.933Radial†	34047.9	34799.9	[50000]	ug/L	07:47:40
1	Fe 238.204 Radial†	2348.4	2390.8	[20000]	ug/L	07:48:00
1	Mg 279.077 IEC†	1563.4	1597.4	[50000]	ug/L	07:48:00
1	Na 589.592 Radial†	64624.0	66850.2	[20000]	ug/L	07:47:40
1	Sc 361.383	885309.8	885309.8	98.487	%	07:48:57
1	Y 371.029	716976.9	716976.9	96.308	%	07:48:57
2	Sc Radial	5354.0	5354.0	96.2	%	07:48:25
2	Y RADIAL	5644.3	5644.3	95.48	%	07:48:25
2	Al 396.153Radial†	66773.6	69450.0	[50000]	ug/L	07:48:05
2	Ca 317.933Radial†	34121.7	35461.4	[50000]	ug/L	07:48:05
2	Fe 238.204 Radial†	2313.7	2395.0	[20000]	ug/L	07:48:25
2	Mg 279.077 IEC†	1545.8	1606.0	[50000]	ug/L	07:48:25
2	Na 589.592 Radial†	64658.1	67995.5	[20000]	ug/L	07:48:05
2	Sc 361.383	885315.1	885315.1	98.488	%	07:49:03
2	Y 371.029	716928.7	716928.7	96.301	%	07:49:03
3	Sc Radial	5394.3	5394.3	96.9	%	07:48:50
3	Y RADIAL	5697.1	5697.1	96.38	%	07:48:50
3	Al 396.153Radial†	66387.5	68533.3	[50000]	ug/L	07:48:30
3	Ca 317.933Radial†	33886.8	34954.2	[50000]	ug/L	07:48:30
3	Fe 238.204 Radial†	2336.3	2400.4	[20000]	ug/L	07:48:50
3	Mg 279.077 IEC†	1571.3	1620.3	[50000]	ug/L	07:48:50
3	Na 589.592 Radial†	64043.1	66859.0	[20000]	ug/L	07:48:30
3	Sc 361.383	884318.5	884318.5	98.377	%	07:49:08
3	Y 371.029	714960.3	714960.3	96.037	%	07:49:08

Mean Data: S10

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	884981.1	573.86	0.06%	98.451	%
Sc Radial	5397.4	45.03	0.83%	96.9	%
Y 371.029	716288.6	1150.60	0.16%	96.215	%
Y RADIAL	5687.0	38.61	0.68%	96.20	%
Al 396.153Radial†	68687.1	698.77	1.02%	[50000]	ug/L
Ca 317.933Radial†	35071.8	346.05	0.99%	[50000]	ug/L
Fe 238.204 Radial†	2395.4	4.80	0.20%	[20000]	ug/L
Mg 279.077 IEC†	1607.9	11.55	0.72%	[50000]	ug/L
Na 589.592 Radial†	67234.9	658.71	0.98%	[20000]	ug/L

Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 328.068	3	Lin Thru 0	0.0	232.0	0.00000	0.999945	
Al 396.153Radial	3	Lin Thru 0	0.0	1.372	0.00000	0.999990	
As 188.979	3	Lin Thru 0	0.0	2.755	0.00000	0.999976	
B 249.677	3	Lin Thru 0	0.0	48.73	0.00000	0.999900	
Ba 233.527	3	Lin Thru 0	0.0	147.1	0.00000	0.999980	
Be 313.107	3	Lin Thru 0	0.0	2982	0.00000	0.999984	
Ca 317.933Radial	3	Lin Thru 0	0.0	0.7014	0.00000	0.999999	
Cd 226.502	3	Lin Thru 0	0.0	102.3	0.00000	0.999988	
Co 228.616	3	Lin Thru 0	0.0	57.13	0.00000	0.999985	
Cr 267.716	3	Lin Thru 0	0.0	98.63	0.00000	0.999981	
Cu 324.752	3	Lin Thru 0	0.0	353.9	0.00000	0.999946	
Fe 238.204 Radia	2	Lin Thru 0	0.0	0.1203	0.00000	0.999962	
K 766.490 Radial	3	Lin Thru 0	0.0	5.674	0.00000	0.999995	

Mg 279.077 IEC	3	Lin Thru 0	0.0	0.0322	0.00000	0.999978
Mn 257.610	3	Lin Thru 0	0.0	1014	0.00000	0.999993
Mo 202.031	3	Lin Thru 0	0.0	16.52	0.00000	0.999927
Na 589.592 Radia	2	Lin Thru 0	0.0	3.350	0.00000	0.999977
Ni 231.604	3	Lin Thru 0	0.0	45.77	0.00000	0.999988
P 214.914	3	Lin Thru 0	0.0	1.917	0.00000	0.999928
Pb 220.353	3	Lin Thru 0	0.0	9.490	0.00000	0.999952
S 181.975 Axial	3	Lin Thru 0	0.0	0.8151	0.00000	0.999897
Sb 206.836	3	Lin Thru 0	0.0	3.338	0.00000	0.999881
Se 196.026	3	Lin Thru 0	0.0	1.835	0.00000	0.999946
Si 251.611	3	Lin Thru 0	0.0	35.46	0.00000	0.999924
Sn 189.927	3	Lin Thru 0	0.0	6.668	0.00000	0.999909
Sr 421.552	3	Lin Thru 0	0.0	170.5	0.00000	0.999995
Ti 334.940	3	Lin Thru 0	0.0	691.6	0.00000	0.999960
Tl 190.801	3	Lin Thru 0	0.0	3.854	0.00000	0.999973
U 409.014	3	Lin Thru 0	0.0	36.29	0.00000	0.999957
V 292.402	3	Lin Thru 0	0.0	157.2	0.00000	0.999969
Zn 213.857	3	Lin Thru 0	0.0	121.9	0.00000	0.999984
SiO2	3	Lin Thru 0	0.0	16.52	0.00000	0.999922

Sequence No.: 6
Sample ID: ICV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 9
Date Collected: 12/19/2009 07:51:20
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5444.4	5444.4	97.8	%			07:53:13
1	Y RADIAL	5780.0	5780.0	97.78	%			07:53:13
1	Al 396.153Radial†	6892.9	7064.9	5125.0	ug/L	5125.0	ppb	07:53:13
1	Ca 317.933Radial†	3491.7	3551.0	5062.7	ug/L	5062.7	ppb	07:53:33
1	Fe 238.204 Radial†	623.4	626.6	5224.6	ug/L	5224.6	ppb	07:53:33
1	K 766.490 Radial†	17054.5	14727.1	2590.2	ug/L	2590.2	ppb	07:53:13
1	Mg 279.077 IEC†	179.6	182.2	5664.2	ug/L	5664.2	ppb	07:53:33
1	Na 589.592 Radial†	7634.6	8568.6	2557.5	ug/L	2557.5	ppb	07:53:13
1	Sr 421.552†	91042.1	93109.2	545.93	ug/L	545.93	ppb	07:53:13
1	Sc 361.383	921038.2	921038.2	102.46	%			07:54:30
1	Y 371.029	751036.4	751036.4	100.88	%			07:54:30
1	Ag 328.068†	61913.3	60055.9	262.06	ug/L	262.06	ppb	07:54:30
1	As 188.979†	1299.5	1303.1	477.36	ug/L	477.36	ppb	07:54:50
1	B 249.677†	25924.6	25327.6	517.83	ug/L	517.83	ppb	07:54:30
1	Ba 233.527†	77370.0	75513.6	514.57	ug/L	514.57	ppb	07:54:30
1	Be 313.107†	792101.8	777801.5	261.82	ug/L	261.82	ppb	07:54:30
1	Cd 226.502†	52492.9	51460.8	503.08	ug/L	503.08	ppb	07:54:30
1	Co 228.616†	29141.1	28528.1	499.63	ug/L	499.63	ppb	07:54:50
1	Cr 267.716†	49609.9	48337.8	490.90	ug/L	490.90	ppb	07:54:30
1	Cu 324.752†	192334.8	181658.1	513.52	ug/L	513.52	ppb	07:54:30
1	Mn 257.610†	537446.4	524042.0	517.32	ug/L	517.32	ppb	07:54:30
1	Mo 202.031†	9083.7	8845.6	535.80	ug/L	535.80	ppb	07:54:50
1	Ni 231.604†	23391.3	22735.7	496.44	ug/L	496.44	ppb	07:54:50
1	P 214.914†	5165.2	4783.0	2417.5	ug/L	2417.5	ppb	07:54:50
1	Pb 220.353†	4811.1	4759.5	503.19	ug/L	503.19	ppb	07:54:50
1	S 181.975 Axial†	2127.2	2027.1	2485.8	ug/L	2485.8	ppb	07:54:50
1	Sb 206.836†	1721.3	1638.8	499.83	ug/L	499.83	ppb	07:54:50
1	Se 196.026†	4795.0	4708.3	2583.5	ug/L	2583.5	ppb	07:54:50
1	Si 251.611†	177060.6	172229.0	4844.6	ug/L	4844.6	ppb	07:54:30
1	Sn 189.927†	3651.7	3560.4	534.58	ug/L	534.58	ppb	07:54:50
1	Ti 334.940†	352297.4	345220.5	499.01	ug/L	499.01	ppb	07:54:30
1	Tl 190.801†	2053.7	2052.4	535.78	ug/L	535.78	ppb	07:54:50
1	U 409.014†	15881.3	17872.0	490.81	ug/L	490.81	ppb	07:54:30
1	V 292.402†	80574.1	80107.6	516.71	ug/L	516.71	ppb	07:54:30
1	Zn 213.857†	65324.0	62961.0	511.89	ug/L	511.89	ppb	07:54:30
1	SiO2†	175583.6	170758.3	10313	ug/L	10313	ppb	07:55:48
2	Sc Radial	5630.4	5630.4	101	%			07:53:38
2	Y RADIAL	5980.9	5980.9	101.2	%			07:53:38
2	Al 396.153Radial†	6940.6	6879.1	4989.5	ug/L	4989.5	ppb	07:53:38
2	Ca 317.933Radial†	3554.1	3494.7	4982.5	ug/L	4982.5	ppb	07:53:58
2	Fe 238.204 Radial†	635.9	617.9	5152.2	ug/L	5152.2	ppb	07:53:58
2	K 766.490 Radial†	17212.3	14306.8	2516.2	ug/L	2516.2	ppb	07:53:38
2	Mg 279.077 IEC†	175.9	172.5	5363.7	ug/L	5363.7	ppb	07:53:58
2	Na 589.592 Radial†	7648.7	8324.6	2484.7	ug/L	2484.7	ppb	07:53:38
2	Sr 421.552†	91649.9	90634.1	531.42	ug/L	531.42	ppb	07:53:38
2	Sc 361.383	912402.0	912402.0	101.50	%			07:54:56
2	Y 371.029	745300.6	745300.6	100.11	%			07:54:56
2	Ag 328.068†	61182.6	59907.8	261.40	ug/L	261.40	ppb	07:54:56
2	As 188.979†	1284.0	1299.8	476.15	ug/L	476.15	ppb	07:55:17
2	B 249.677†	25547.6	25195.7	515.13	ug/L	515.13	ppb	07:54:56
2	Ba 233.527†	76885.1	75750.7	516.17	ug/L	516.17	ppb	07:54:56
2	Be 313.107†	784684.8	777811.5	261.83	ug/L	261.83	ppb	07:54:56
2	Cd 226.502†	52050.7	51510.1	503.57	ug/L	503.57	ppb	07:54:56
2	Co 228.616†	28980.3	28638.8	501.58	ug/L	501.58	ppb	07:55:17
2	Cr 267.716†	49329.9	48520.2	492.75	ug/L	492.75	ppb	07:54:56
2	Cu 324.752†	189448.0	180590.8	510.50	ug/L	510.50	ppb	07:54:56
2	Mn 257.610†	532430.5	524065.1	517.34	ug/L	517.34	ppb	07:54:56
2	Mo 202.031†	9043.5	8889.8	538.48	ug/L	538.48	ppb	07:55:17
2	Ni 231.604†	23282.0	22844.1	498.80	ug/L	498.80	ppb	07:55:17

2	P 214.914†	5126.0	4792.1	2422.8	ug/L	2422.8	ppb	07:55:17
2	Pb 220.353†	4770.6	4764.1	503.66	ug/L	503.66	ppb	07:55:17
2	S 181.975 Axial†	2107.0	2026.8	2485.5	ug/L	2485.5	ppb	07:55:17
2	Sb 206.836†	1722.3	1655.6	504.91	ug/L	504.91	ppb	07:55:17
2	Se 196.026†	4761.3	4719.4	2589.3	ug/L	2589.3	ppb	07:55:17
2	Si 251.611†	174947.2	171782.5	4832.0	ug/L	4832.0	ppb	07:54:56
2	Sn 189.927†	3624.1	3567.0	535.55	ug/L	535.55	ppb	07:55:17
2	Ti 334.940†	348230.1	344467.9	497.92	ug/L	497.92	ppb	07:54:56
2	Tl 190.801†	2015.0	2033.3	530.79	ug/L	530.79	ppb	07:55:17
2	U 409.014†	15752.9	17892.2	491.37	ug/L	491.37	ppb	07:54:56
2	V 292.402†	79807.6	80096.8	516.68	ug/L	516.68	ppb	07:54:56
2	Zn 213.857†	64572.3	62823.9	510.77	ug/L	510.77	ppb	07:54:56
2	SiO2†	173765.9	170589.5	10303	ug/L	10303	ppb	07:55:53
3	Sc Radial	5610.4	5610.4	101	%			07:54:03
3	Y RADIAL	5950.9	5950.9	100.7	%			07:54:03
3	Al 396.153Radial†	6959.4	6922.3	5020.8	ug/L	5020.8	ppb	07:54:03
3	Ca 317.933Radial†	3558.7	3511.8	5006.8	ug/L	5006.8	ppb	07:54:23
3	Fe 238.204 Radial†	634.6	618.9	5160.6	ug/L	5160.6	ppb	07:54:23
3	K 766.490 Radial†	17312.4	14466.9	2544.4	ug/L	2544.4	ppb	07:54:03
3	Mg 279.077 IEC†	177.6	174.8	5435.5	ug/L	5435.5	ppb	07:54:23
3	Na 589.592 Radial†	7656.2	8359.1	2494.9	ug/L	2494.9	ppb	07:54:03
3	Sr 421.552†	91549.5	90857.7	532.73	ug/L	532.73	ppb	07:54:03
3	Sc 361.383	914520.1	914520.1	101.74	%			07:55:22
3	Y 371.029	748122.2	748122.2	100.49	%			07:55:22
3	Ag 328.068†	61352.7	59935.5	261.53	ug/L	261.53	ppb	07:55:22
3	As 188.979†	1301.5	1314.1	481.34	ug/L	481.34	ppb	07:55:43
3	B 249.677†	25536.8	25126.8	513.71	ug/L	513.71	ppb	07:55:22
3	Ba 233.527†	76908.9	75598.7	515.15	ug/L	515.15	ppb	07:55:22
3	Be 313.107†	787955.5	779235.9	262.30	ug/L	262.30	ppb	07:55:22
3	Cd 226.502†	51998.8	51340.4	501.91	ug/L	501.91	ppb	07:55:22
3	Co 228.616†	29162.0	28751.3	503.56	ug/L	503.56	ppb	07:55:43
3	Cr 267.716†	49364.3	48441.5	491.96	ug/L	491.96	ppb	07:55:22
3	Cu 324.752†	189845.4	180549.1	510.38	ug/L	510.38	ppb	07:55:22
3	Mn 257.610†	532871.1	523283.3	516.56	ug/L	516.56	ppb	07:55:22
3	Mo 202.031†	9106.6	8931.3	540.99	ug/L	540.99	ppb	07:55:43
3	Ni 231.604†	23413.4	22920.2	500.46	ug/L	500.46	ppb	07:55:43
3	P 214.914†	5156.1	4810.0	2432.1	ug/L	2432.1	ppb	07:55:43
3	Pb 220.353†	4797.5	4779.7	505.31	ug/L	505.31	ppb	07:55:43
3	S 181.975 Axial†	2135.9	2050.4	2514.5	ug/L	2514.5	ppb	07:55:43
3	Sb 206.836†	1729.7	1659.0	506.03	ug/L	506.03	ppb	07:55:43
3	Se 196.026†	4771.4	4718.5	2588.8	ug/L	2588.8	ppb	07:55:43
3	Si 251.611†	175040.1	171474.6	4823.3	ug/L	4823.3	ppb	07:55:22
3	Sn 189.927†	3644.0	3578.3	537.25	ug/L	537.25	ppb	07:55:43
3	Ti 334.940†	349022.1	344451.8	497.89	ug/L	497.89	ppb	07:55:22
3	Tl 190.801†	2027.2	2040.6	532.68	ug/L	532.68	ppb	07:55:43
3	U 409.014†	15749.2	17852.5	490.28	ug/L	490.28	ppb	07:55:22
3	V 292.402†	80316.8	80415.2	518.74	ug/L	518.74	ppb	07:55:22
3	Zn 213.857†	64628.8	62732.0	510.01	ug/L	510.01	ppb	07:55:22
3	SiO2†	176402.7	172784.8	10436	ug/L	10436	ppb	07:55:59

Mean Data: ICV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	915986.8	101.90	%	0.501				0.49%
Sc Radial	5561.7	99.9	%	1.83				1.84%
Y 371.029	748153.1	100.50	%	0.385				0.38%
Y RADIAL	5903.9	99.87	%	1.834				1.84%
Ag 328.068†	59966.4	261.67	ug/L	0.350	261.67	ppb	0.350	0.13%
QC value within limits for Ag 328.068 Recovery = 104.67%								
Al 396.153Radial†	6955.4	5045.1	ug/L	70.93	5045.1	ppb	70.93	1.41%
QC value within limits for Al 396.153Radial Recovery = 100.90%								
As 188.979†	1305.7	478.28	ug/L	2.714	478.28	ppb	2.714	0.57%
QC value within limits for As 188.979 Recovery = 95.66%								
B 249.677†	25216.7	515.56	ug/L	2.094	515.56	ppb	2.094	0.41%
QC value within limits for B 249.677 Recovery = 103.11%								
Ba 233.527†	75621.0	515.30	ug/L	0.815	515.30	ppb	0.815	0.16%
QC value within limits for Ba 233.527 Recovery = 103.06%								
Be 313.107†	778283.0	261.98	ug/L	0.276	261.98	ppb	0.276	0.11%
QC value within limits for Be 313.107 Recovery = 104.79%								
Ca 317.933Radial†	3519.1	5017.3	ug/L	41.14	5017.3	ppb	41.14	0.82%

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   QC value within limits for Ca 317.933Radial  Recovery = 100.35%
Cd 226.502†            51437.1      502.85 ug/L         0.853      502.85 ppb          0.853   0.17%
   QC value within limits for Cd 226.502  Recovery = 100.57%
Co 228.616†            28639.4      501.59 ug/L         1.962      501.59 ppb          1.962   0.39%
   QC value within limits for Co 228.616  Recovery = 100.32%
Cr 267.716†            48433.2      491.87 ug/L         0.927      491.87 ppb          0.927   0.19%
   QC value within limits for Cr 267.716  Recovery = 98.37%
Cu 324.752†           180932.7      511.46 ug/L         1.778      511.46 ppb          1.778   0.35%
   QC value within limits for Cu 324.752  Recovery = 102.29%
Fe 238.204 Radial†       621.1      5179.1 ug/L        39.57      5179.1 ppb         39.57   0.76%
   QC value within limits for Fe 238.204 Radial  Recovery = 103.58%
K 766.490 Radial†      14500.3      2550.3 ug/L        37.36      2550.3 ppb         37.36   1.47%
   QC value within limits for K 766.490 Radial  Recovery = 102.01%
Mg 279.077 IEC†          176.5      5487.8 ug/L       156.96      5487.8 ppb        156.96   2.86%
   QC value within limits for Mg 279.077 IEC  Recovery = 109.76%
Mn 257.610†           523796.8      517.07 ug/L         0.440      517.07 ppb          0.440   0.09%
   QC value within limits for Mn 257.610  Recovery = 103.41%
Mo 202.031†             8888.9      538.42 ug/L         2.593      538.42 ppb          2.593   0.48%
   QC value within limits for Mo 202.031  Recovery = 107.68%
Na 589.592 Radial†      8417.4      2512.4 ug/L        39.42      2512.4 ppb         39.42   1.57%
   QC value within limits for Na 589.592 Radial  Recovery = 100.49%
Ni 231.604†            22833.3      498.57 ug/L         2.025      498.57 ppb          2.025   0.41%
   QC value within limits for Ni 231.604  Recovery = 99.71%
P 214.914†              4795.0      2424.1 ug/L         7.41      2424.1 ppb          7.41   0.31%
   QC value within limits for P 214.914  Recovery = 96.96%
Pb 220.353†             4767.8      504.05 ug/L         1.114      504.05 ppb          1.114   0.22%
   QC value within limits for Pb 220.353  Recovery = 100.81%
S 181.975 Axial†        2034.8      2495.3 ug/L        16.65      2495.3 ppb         16.65   0.67%
   QC value within limits for S 181.975 Axial  Recovery = 99.81%
Sb 206.836†             1651.1      503.59 ug/L         3.303      503.59 ppb          3.303   0.66%
   QC value within limits for Sb 206.836  Recovery = 100.72%
Se 196.026†             4715.4      2587.2 ug/L         3.24      2587.2 ppb          3.24   0.13%
   QC value within limits for Se 196.026  Recovery = 103.49%
Si 251.611†           171828.7      4833.3 ug/L        10.74      4833.3 ppb         10.74   0.22%
   QC value within limits for Si 251.611  Recovery = 96.67%
Sn 189.927†             3568.6      535.79 ug/L         1.350      535.79 ppb          1.350   0.25%
   QC value within limits for Sn 189.927  Recovery = 107.16%
Sr 421.552†            91533.7      536.69 ug/L         8.027      536.69 ppb          8.027   1.50%
   QC value within limits for Sr 421.552  Recovery = 107.34%
Ti 334.940†           344713.4      498.27 ug/L         0.637      498.27 ppb          0.637   0.13%
   QC value within limits for Ti 334.940  Recovery = 99.65%
Tl 190.801†             2042.1      533.08 ug/L         2.515      533.08 ppb          2.515   0.47%
   QC value within limits for Tl 190.801  Recovery = 106.62%
U 409.014†             17872.2      490.82 ug/L         0.546      490.82 ppb          0.546   0.11%
   QC value within limits for U 409.014  Recovery = 98.16%
V 292.402†             80206.5      517.38 ug/L         1.182      517.38 ppb          1.182   0.23%
   QC value within limits for V 292.402  Recovery = 103.48%
Zn 213.857†            62838.9      510.89 ug/L         0.949      510.89 ppb          0.949   0.19%
   QC value within limits for Zn 213.857  Recovery = 102.18%
SiO2†                 171377.5       10351 ug/L          73.9       10351 ppb           73.9   0.71%
   QC value within limits for SiO2  Recovery = 96.78%
All analyte(s) passed QC.
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Sequence No.: 7
Sample ID: ICB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 10
Date Collected: 12/19/2009 07:58:10
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5633.0	5633.0	101	%			08:00:02
1	Y RADIAL	5992.9	5992.9	101.4	%			08:00:02
1	Al 396.153Radial†	-23.8	-7.1	-5.2088	ug/L	-5.2088	ppb	08:00:02
1	Ca 317.933Radial†	11.5	-8.2	-11.756	ug/L	-11.756	ppb	08:00:22
1	Fe 238.204 Radial†	9.0	-2.0	-16.794	ug/L	-16.794	ppb	08:00:22
1	K 766.490 Radial†	2846.2	100.6	17.727	ug/L	17.727	ppb	08:00:02
1	Mg 279.077 IEC†	-0.2	-1.6	-49.006	ug/L	-49.006	ppb	08:00:22
1	Na 589.592 Radial†	-746.7	23.7	7.0683	ug/L	7.0683	ppb	08:00:02
1	Sr 421.552†	14.5	26.1	0.1533	ug/L	0.1533	ppb	08:00:02
1	Sc 361.383	908352.1	908352.1	101.05	%			08:01:19
1	Y 371.029	753325.8	753325.8	101.19	%			08:01:19
1	Ag 328.068†	383.8	9.9	0.0412	ug/L	0.0412	ppb	08:01:19
1	As 188.979†	-35.3	-0.1	-0.0516	ug/L	-0.0516	ppb	08:01:39
1	B 249.677†	34.1	59.7	1.2279	ug/L	1.2279	ppb	08:01:19
1	Ba 233.527†	-2.6	0.0	-0.0011	ug/L	-0.0011	ppb	08:01:39
1	Be 313.107†	-4773.8	6.9	0.0026	ug/L	0.0026	ppb	08:01:19
1	Cd 226.502†	-211.2	20.1	0.1987	ug/L	0.1987	ppb	08:01:39
1	Co 228.616†	-85.3	2.7	0.0493	ug/L	0.0493	ppb	08:01:39
1	Cr 267.716†	100.9	19.7	0.2010	ug/L	0.2010	ppb	08:01:39
1	Cu 324.752†	6054.8	-63.8	-0.1810	ug/L	-0.1810	ppb	08:01:19
1	Mn 257.610†	529.0	32.0	0.0308	ug/L	0.0308	ppb	08:01:39
1	Mo 202.031†	31.0	10.8	0.6520	ug/L	0.6520	ppb	08:01:39
1	Ni 231.604†	105.2	10.5	0.2291	ug/L	0.2291	ppb	08:01:39
1	P 214.914†	265.3	4.5	2.4195	ug/L	2.4195	ppb	08:01:39
1	Pb 220.353†	-57.8	6.9	0.7269	ug/L	0.7269	ppb	08:01:39
1	S 181.975 Axial†	47.4	-2.1	-2.6173	ug/L	-2.6173	ppb	08:01:39
1	Sb 206.836†	45.9	4.2	1.2983	ug/L	1.2983	ppb	08:01:39
1	Se 196.026†	-30.7	-1.9	-1.0898	ug/L	-1.0898	ppb	08:01:39
1	Si 251.611†	614.6	30.7	0.8426	ug/L	0.8426	ppb	08:01:39
1	Sn 189.927†	18.1	14.4	2.1560	ug/L	2.1560	ppb	08:01:39
1	Ti 334.940†	-1316.1	85.1	0.1251	ug/L	0.1251	ppb	08:01:19
1	Tl 190.801†	-43.5	5.0	1.2953	ug/L	1.2953	ppb	08:01:39
1	U 409.014†	-2622.0	-222.6	-6.1300	ug/L	-6.1300	ppb	08:01:19
1	V 292.402†	-1532.7	-47.3	-0.3022	ug/L	-0.3022	ppb	08:01:19
1	Zn 213.857†	813.8	11.8	0.0988	ug/L	0.0988	ppb	08:01:39
1	SiO2†	610.2	-2.8	-0.2235	ug/L	-0.2235	ppb	08:02:35
2	Sc Radial	5554.2	5554.2	99.8	%			08:00:28
2	Y RADIAL	5938.0	5938.0	100.4	%			08:00:28
2	Al 396.153Radial†	-36.9	-20.6	-14.990	ug/L	-14.990	ppb	08:00:28
2	Ca 317.933Radial†	14.6	-5.0	-7.0814	ug/L	-7.0814	ppb	08:00:48
2	Fe 238.204 Radial†	11.3	0.4	3.5031	ug/L	3.5031	ppb	08:00:48
2	K 766.490 Radial†	2706.0	-0.1	-0.0125	ug/L	-0.0125	ppb	08:00:28
2	Mg 279.077 IEC†	3.1	1.7	53.599	ug/L	53.599	ppb	08:00:48
2	Na 589.592 Radial†	-821.2	-61.5	-18.352	ug/L	-18.352	ppb	08:00:28
2	Sr 421.552†	13.0	24.8	0.1455	ug/L	0.1455	ppb	08:00:28
2	Sc 361.383	901427.5	901427.5	100.28	%			08:01:45
2	Y 371.029	746836.3	746836.3	100.32	%			08:01:45
2	Ag 328.068†	267.2	-103.5	-0.4421	ug/L	-0.4421	ppb	08:01:45
2	As 188.979†	-31.4	3.5	1.2583	ug/L	1.2583	ppb	08:02:05
2	B 249.677†	105.3	131.0	2.6871	ug/L	2.6871	ppb	08:01:45
2	Ba 233.527†	-4.1	-1.5	-0.0106	ug/L	-0.0106	ppb	08:02:05
2	Be 313.107†	-4736.5	7.9	0.0027	ug/L	0.0027	ppb	08:01:45
2	Cd 226.502†	-207.9	21.8	0.2129	ug/L	0.2129	ppb	08:02:05
2	Co 228.616†	-72.8	14.5	0.2547	ug/L	0.2547	ppb	08:02:05
2	Cr 267.716†	70.8	-9.6	-0.0960	ug/L	-0.0960	ppb	08:02:05
2	Cu 324.752†	6081.3	8.7	0.0247	ug/L	0.0247	ppb	08:01:45
2	Mn 257.610†	543.0	50.1	0.0487	ug/L	0.0487	ppb	08:02:05
2	Mo 202.031†	23.1	3.2	0.1926	ug/L	0.1926	ppb	08:02:05
2	Ni 231.604†	84.9	-8.9	-0.1951	ug/L	-0.1951	ppb	08:02:05

2	P 214.914†	243.2	-15.5	-8.0992	ug/L	-8.0992 ppb	08:02:05
2	Pb 220.353†	-66.0	-1.7	-0.1865	ug/L	-0.1865 ppb	08:02:05
2	S 181.975 Axial†	45.6	-3.5	-4.3044	ug/L	-4.3044 ppb	08:02:05
2	Sb 206.836†	46.3	4.9	1.5034	ug/L	1.5034 ppb	08:02:05
2	Se 196.026†	-26.0	2.6	1.4315	ug/L	1.4315 ppb	08:02:05
2	Si 251.611†	612.6	33.4	0.9355	ug/L	0.9355 ppb	08:02:05
2	Sn 189.927†	9.9	6.4	0.9588	ug/L	0.9588 ppb	08:02:05
2	Ti 334.940†	-1379.1	12.4	0.0194	ug/L	0.0194 ppb	08:01:45
2	Tl 190.801†	-44.4	3.8	0.9919	ug/L	0.9919 ppb	08:02:05
2	U 409.014†	-2530.9	-151.6	-4.1776	ug/L	-4.1776 ppb	08:01:45
2	V 292.402†	-1515.8	-42.1	-0.2725	ug/L	-0.2725 ppb	08:01:45
2	Zn 213.857†	798.7	2.9	0.0227	ug/L	0.0227 ppb	08:02:05
2	SiO2†	618.6	10.2	0.6041	ug/L	0.6041 ppb	08:02:40
3	Sc Radial	5718.2	5718.2	103	%		08:00:53
3	Y RADIAL	6101.0	6101.0	103.2	%		08:00:53
3	Al 396.153Radial†	-20.7	-3.8	-2.7370	ug/L	-2.7370 ppb	08:00:53
3	Ca 317.933Radial†	25.2	5.0	7.1167	ug/L	7.1167 ppb	08:01:13
3	Fe 238.204 Radial†	7.2	-3.9	-32.269	ug/L	-32.269 ppb	08:01:13
3	K 766.490 Radial†	2845.8	58.3	10.269	ug/L	10.269 ppb	08:00:53
3	Mg 279.077 IEC†	2.7	1.2	37.406	ug/L	37.406 ppb	08:01:13
3	Na 589.592 Radial†	-815.4	-32.2	-9.6081	ug/L	-9.6081 ppb	08:00:53
3	Sr 421.552†	67.8	77.8	0.4562	ug/L	0.4562 ppb	08:00:53
3	Sc 361.383	903054.1	903054.1	100.46	%		08:02:10
3	Y 371.029	749009.9	749009.9	100.61	%		08:02:10
3	Ag 328.068†	350.2	-21.3	-0.1000	ug/L	-0.1000 ppb	08:02:10
3	As 188.979†	-29.2	5.7	2.0722	ug/L	2.0722 ppb	08:02:30
3	B 249.677†	24.1	49.9	1.0284	ug/L	1.0284 ppb	08:02:10
3	Ba 233.527†	-1.9	0.7	0.0032	ug/L	0.0032 ppb	08:02:30
3	Be 313.107†	-4675.3	77.2	0.0259	ug/L	0.0259 ppb	08:02:10
3	Cd 226.502†	-222.9	7.3	0.0746	ug/L	0.0746 ppb	08:02:30
3	Co 228.616†	-86.7	0.8	0.0136	ug/L	0.0136 ppb	08:02:30
3	Cr 267.716†	86.4	5.8	0.0595	ug/L	0.0595 ppb	08:02:30
3	Cu 324.752†	5898.6	-184.0	-0.5215	ug/L	-0.5215 ppb	08:02:10
3	Mn 257.610†	557.4	63.4	0.0586	ug/L	0.0586 ppb	08:02:30
3	Mo 202.031†	20.2	0.3	0.0140	ug/L	0.0140 ppb	08:02:30
3	Ni 231.604†	112.8	18.7	0.4084	ug/L	0.4084 ppb	08:02:30
3	P 214.914†	244.1	-15.1	-7.7377	ug/L	-7.7377 ppb	08:02:30
3	Pb 220.353†	-58.9	5.4	0.5758	ug/L	0.5758 ppb	08:02:30
3	S 181.975 Axial†	50.3	1.1	1.3122	ug/L	1.3122 ppb	08:02:30
3	Sb 206.836†	42.9	1.5	0.4590	ug/L	0.4590 ppb	08:02:30
3	Se 196.026†	-19.1	9.5	5.0569	ug/L	5.0569 ppb	08:02:30
3	Si 251.611†	601.0	20.7	0.5766	ug/L	0.5766 ppb	08:02:30
3	Sn 189.927†	13.4	9.8	1.4742	ug/L	1.4742 ppb	08:02:30
3	Ti 334.940†	-1382.0	11.9	0.0196	ug/L	0.0196 ppb	08:02:10
3	Tl 190.801†	-40.1	8.1	2.1112	ug/L	2.1112 ppb	08:02:30
3	U 409.014†	-2549.8	-165.8	-4.5651	ug/L	-4.5651 ppb	08:02:10
3	V 292.402†	-1524.1	-47.7	-0.3062	ug/L	-0.3062 ppb	08:02:10
3	Zn 213.857†	798.1	0.9	0.0074	ug/L	0.0074 ppb	08:02:30
3	SiO2†	631.0	21.4	1.2795	ug/L	1.2795 ppb	08:02:45

Mean Data: ICB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	904277.9	100.60	%	0.403				0.40%
Sc Radial	5635.2	101	%	1.5				1.46%
Y 371.029	749724.0	100.71	%	0.444				0.44%
Y RADIAL	6010.6	101.7	%	1.40				1.38%
Ag 328.068†	-38.3	-0.1669	ug/L	0.24852	-0.1669	ppb	0.24852	148.86%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-10.5	-7.6454	ug/L	6.47987	-7.6454	ppb	6.47987	84.76%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	3.0	1.0930	ug/L	1.07147	1.0930	ppb	1.07147	98.03%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	80.2	1.6478	ug/L	0.90558	1.6478	ppb	0.90558	54.96%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-0.2	-0.0029	ug/L	0.00706	-0.0029	ppb	0.00706	246.00%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	30.7	0.0104	ug/L	0.01346	0.0104	ppb	0.01346	129.54%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-2.7	-3.9068	ug/L	9.82850	-3.9068	ppb	9.82850	251.57%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                16.4      0.1621 ug/L       0.07613      0.1621 ppb        0.07613  46.97%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                 6.0      0.1059 ug/L       0.13012      0.1059 ppb        0.13012 122.90%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                 5.3      0.0548 ug/L       0.14854      0.0548 ppb        0.14854 270.93%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               -79.7     -0.2259 ug/L       0.27588     -0.2259 ppb        0.27588 122.12%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -1.8     -15.187 ug/L       17.9402     -15.187 ppb        17.9402 118.13%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          52.9      9.3280 ug/L       8.90725      9.3280 ppb        8.90725  95.49%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             0.5      14.000 ug/L       55.1622      14.000 ppb        55.1622 394.03%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                48.5      0.0461 ug/L       0.01409      0.0461 ppb        0.01409  30.57%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 4.7      0.2862 ug/L       0.32916      0.2862 ppb        0.32916 115.00%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        -23.3     -6.9639 ug/L      12.91480     -6.9639 ppb       12.91480 185.45%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                 6.8      0.1475 ug/L       0.30989      0.1475 ppb        0.30989 210.16%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -8.7     -4.4724 ug/L       5.97135     -4.4724 ppb        5.97135 133.51%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                 3.5      0.3721 ug/L       0.48959      0.3721 ppb        0.48959 131.59%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -1.5     -1.8698 ug/L       2.88195     -1.8698 ppb        2.88195 154.13%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 3.5      1.0869 ug/L       0.55336      1.0869 ppb        0.55336  50.91%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 3.4      1.7995 ug/L       3.08980      1.7995 ppb        3.08980 171.70%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                28.3      0.7849 ug/L       0.18630      0.7849 ppb        0.18630  23.73%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                10.2      1.5297 ug/L       0.60050      1.5297 ppb        0.60050  39.26%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                42.9      0.2517 ug/L       0.17719      0.2517 ppb        0.17719  70.40%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                36.5      0.0547 ug/L       0.06098      0.0547 ppb        0.06098 111.50%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 5.6      1.4662 ug/L       0.57885      1.4662 ppb        0.57885  39.48%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -180.0     -4.9576 ug/L       1.03368     -4.9576 ppb        1.03368  20.85%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               -45.7     -0.2937 ug/L       0.01842     -0.2937 ppb        0.01842   6.27%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                 5.2      0.0430 ug/L       0.04892      0.0430 ppb        0.04892 113.85%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                       9.6      0.5534 ug/L       0.75275      0.5534 ppb        0.75275 136.03%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 8
Sample ID: PQL
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 11
Date Collected: 12/19/2009 08:04:56
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: PQL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5582.1	5582.1	100	%			08:06:49
1	Y RADIAL	5945.3	5945.3	100.6	%			08:06:49
1	Al 396.153Radial†	275.3	290.9	211.55	ug/L	211.55	ppb	08:06:49
1	Ca 317.933Radial†	170.8	150.8	215.00	ug/L	215.00	ppb	08:07:09
1	Fe 238.204 Radial†	21.7	10.7	89.465	ug/L	89.465	ppb	08:07:09
1	K 766.490 Radial†	3673.8	951.7	167.50	ug/L	167.50	ppb	08:06:49
1	Mg 279.077 IEC†	12.9	11.5	356.66	ug/L	356.66	ppb	08:07:09
1	Na 589.592 Radial†	247.8	1008.8	301.10	ug/L	301.10	ppb	08:06:49
1	Sr 421.552†	895.5	904.9	5.3043	ug/L	5.3043	ppb	08:06:49
1	Sc 361.383	903406.6	903406.6	100.50	%			08:08:06
1	Y 371.029	747574.7	747574.7	100.42	%			08:08:06
1	Ag 328.068†	1528.9	1151.4	4.9655	ug/L	4.9655	ppb	08:08:06
1	As 188.979†	44.5	79.1	28.742	ug/L	28.742	ppb	08:08:26
1	B 249.677†	2440.1	2453.9	50.336	ug/L	50.336	ppb	08:08:06
1	Ba 233.527†	751.9	750.7	5.1167	ug/L	5.1167	ppb	08:08:26
1	Be 313.107†	10154.0	14834.6	4.9847	ug/L	4.9847	ppb	08:08:06
1	Cd 226.502†	297.2	524.9	5.1277	ug/L	5.1277	ppb	08:08:26
1	Co 228.616†	187.0	273.1	4.7958	ug/L	4.7958	ppb	08:08:26
1	Cr 267.716†	563.8	480.8	4.8687	ug/L	4.8687	ppb	08:08:26
1	Cu 324.752†	9745.0	3641.0	10.292	ug/L	10.292	ppb	08:08:06
1	Mn 257.610†	11261.3	10713.8	10.570	ug/L	10.570	ppb	08:08:06
1	Mo 202.031†	188.9	168.0	10.178	ug/L	10.178	ppb	08:08:26
1	Ni 231.604†	326.9	231.7	5.0600	ug/L	5.0600	ppb	08:08:26
1	P 214.914†	538.1	277.3	143.13	ug/L	143.13	ppb	08:08:26
1	Pb 220.353†	30.3	94.2	9.9843	ug/L	9.9843	ppb	08:08:26
1	S 181.975 Axial†	133.0	83.3	102.19	ug/L	102.19	ppb	08:08:26
1	Sb 206.836†	75.7	34.1	10.471	ug/L	10.471	ppb	08:08:26
1	Se 196.026†	28.6	57.0	31.392	ug/L	31.392	ppb	08:08:26
1	Si 251.611†	4214.8	3616.3	101.71	ug/L	101.71	ppb	08:08:06
1	Sn 189.927†	66.5	62.7	9.4233	ug/L	9.4233	ppb	08:08:26
1	Ti 334.940†	2053.2	3430.6	4.9477	ug/L	4.9477	ppb	08:08:06
1	Tl 190.801†	27.7	75.6	19.681	ug/L	19.681	ppb	08:08:26
1	U 409.014†	-576.2	1798.9	49.542	ug/L	49.542	ppb	08:08:06
1	V 292.402†	-704.2	768.7	5.1180	ug/L	5.1180	ppb	08:08:06
1	Zn 213.857†	2005.3	1201.7	9.7905	ug/L	9.7905	ppb	08:08:26
1	SiO2†	4172.2	3544.7	214.06	ug/L	214.06	ppb	08:09:22
2	Sc Radial	5594.2	5594.2	100	%			08:07:14
2	Y RADIAL	5983.8	5983.8	101.2	%			08:07:14
2	Al 396.153Radial†	243.1	258.3	187.77	ug/L	187.77	ppb	08:07:14
2	Ca 317.933Radial†	169.7	149.3	212.87	ug/L	212.87	ppb	08:07:34
2	Fe 238.204 Radial†	22.8	11.8	98.101	ug/L	98.101	ppb	08:07:34
2	K 766.490 Radial†	3672.4	942.3	165.84	ug/L	165.84	ppb	08:07:14
2	Mg 279.077 IEC†	10.5	9.1	281.54	ug/L	281.54	ppb	08:07:34
2	Na 589.592 Radial†	270.9	1031.2	307.79	ug/L	307.79	ppb	08:07:14
2	Sr 421.552†	876.1	883.7	5.1798	ug/L	5.1798	ppb	08:07:14
2	Sc 361.383	903805.3	903805.3	100.54	%			08:08:32
2	Y 371.029	749465.8	749465.8	100.67	%			08:08:32
2	Ag 328.068†	1542.8	1164.5	5.0200	ug/L	5.0200	ppb	08:08:32
2	As 188.979†	51.8	86.3	31.360	ug/L	31.360	ppb	08:08:52
2	B 249.677†	2378.3	2391.3	49.051	ug/L	49.051	ppb	08:08:32
2	Ba 233.527†	747.5	746.0	5.0837	ug/L	5.0837	ppb	08:08:52
2	Be 313.107†	10083.9	14760.4	4.9601	ug/L	4.9601	ppb	08:08:32
2	Cd 226.502†	286.9	514.5	5.0255	ug/L	5.0255	ppb	08:08:52
2	Co 228.616†	196.7	282.8	4.9628	ug/L	4.9628	ppb	08:08:52
2	Cr 267.716†	589.4	506.1	5.1230	ug/L	5.1230	ppb	08:08:52
2	Cu 324.752†	9700.9	3592.7	10.156	ug/L	10.156	ppb	08:08:32
2	Mn 257.610†	11119.5	10567.8	10.428	ug/L	10.428	ppb	08:08:32
2	Mo 202.031†	179.5	158.7	9.6114	ug/L	9.6114	ppb	08:08:52
2	Ni 231.604†	340.6	245.2	5.3538	ug/L	5.3538	ppb	08:08:52

2	P 214.914†	538.3	277.3	143.14 ug/L	143.14 ppb	08:08:52
2	Pb 220.353†	18.7	82.7	8.7637 ug/L	8.7637 ppb	08:08:52
2	S 181.975 Axial†	129.9	80.2	98.385 ug/L	98.385 ppb	08:08:52
2	Sb 206.836†	76.4	34.7	10.668 ug/L	10.668 ppb	08:08:52
2	Se 196.026†	35.1	63.5	34.937 ug/L	34.937 ppb	08:08:52
2	Si 251.611†	4220.2	3619.9	101.82 ug/L	101.82 ppb	08:08:32
2	Sn 189.927†	74.9	71.0	10.671 ug/L	10.671 ppb	08:08:52
2	Ti 334.940†	2148.1	3524.1	5.0812 ug/L	5.0812 ppb	08:08:32
2	Tl 190.801†	36.9	84.8	22.059 ug/L	22.059 ppb	08:08:52
2	U 409.014†	-451.7	1922.9	52.958 ug/L	52.958 ppb	08:08:32
2	V 292.402†	-790.0	683.7	4.5727 ug/L	4.5727 ppb	08:08:32
2	Zn 213.857†	2012.0	1207.6	9.8383 ug/L	9.8383 ppb	08:08:52
2	SiO2†	4225.9	3596.4	217.20 ug/L	217.20 ppb	08:09:27
3	Sc Radial	5694.2	5694.2	102 %		08:07:39
3	Y RADIAL	6097.6	6097.6	103.2 %		08:07:39
3	Al 396.153Radial†	273.2	283.5	206.12 ug/L	206.12 ppb	08:07:39
3	Ca 317.933Radial†	164.1	140.9	200.83 ug/L	200.83 ppb	08:07:59
3	Fe 238.204 Radial†	24.3	12.8	106.90 ug/L	106.90 ppb	08:07:59
3	K 766.490 Radial†	3707.6	912.5	160.61 ug/L	160.61 ppb	08:07:39
3	Mg 279.077 IEC†	11.3	9.7	300.85 ug/L	300.85 ppb	08:07:59
3	Na 589.592 Radial†	268.1	1023.7	305.56 ug/L	305.56 ppb	08:07:39
3	Sr 421.552†	906.5	898.1	5.2643 ug/L	5.2643 ppb	08:07:39
3	Sc 361.383	895634.3	895634.3	99.636 %		08:08:57
3	Y 371.029	742826.7	742826.7	99.780 %		08:08:57
3	Ag 328.068†	1594.7	1230.6	5.3053 ug/L	5.3053 ppb	08:08:57
3	As 188.979†	51.5	86.5	31.414 ug/L	31.414 ppb	08:09:17
3	B 249.677†	2363.8	2398.4	49.195 ug/L	49.195 ppb	08:08:57
3	Ba 233.527†	721.7	727.0	4.9541 ug/L	4.9541 ppb	08:09:17
3	Be 313.107†	9896.0	14663.3	4.9272 ug/L	4.9272 ppb	08:08:57
3	Cd 226.502†	290.5	520.7	5.0853 ug/L	5.0853 ppb	08:09:17
3	Co 228.616†	198.0	285.8	5.0168 ug/L	5.0168 ppb	08:09:17
3	Cr 267.716†	588.8	510.8	5.1707 ug/L	5.1707 ppb	08:09:17
3	Cu 324.752†	9662.9	3642.6	10.297 ug/L	10.297 ppb	08:08:57
3	Mn 257.610†	11054.0	10603.0	10.464 ug/L	10.464 ppb	08:08:57
3	Mo 202.031†	185.2	166.0	10.054 ug/L	10.054 ppb	08:09:17
3	Ni 231.604†	340.1	247.8	5.4108 ug/L	5.4108 ppb	08:09:17
3	P 214.914†	552.1	296.0	152.88 ug/L	152.88 ppb	08:09:17
3	Pb 220.353†	21.8	85.9	9.1090 ug/L	9.1090 ppb	08:09:17
3	S 181.975 Axial†	128.9	80.4	98.568 ug/L	98.568 ppb	08:09:17
3	Sb 206.836†	72.2	31.3	9.6438 ug/L	9.6438 ppb	08:09:17
3	Se 196.026†	20.2	48.8	26.964 ug/L	26.964 ppb	08:09:17
3	Si 251.611†	4247.1	3685.1	103.65 ug/L	103.65 ppb	08:08:57
3	Sn 189.927†	76.4	73.2	10.996 ug/L	10.996 ppb	08:09:17
3	Ti 334.940†	2043.7	3438.8	4.9561 ug/L	4.9561 ppb	08:08:57
3	Tl 190.801†	35.4	83.6	21.759 ug/L	21.759 ppb	08:09:17
3	U 409.014†	-361.1	2009.8	55.350 ug/L	55.350 ppb	08:08:57
3	V 292.402†	-808.3	658.2	4.4202 ug/L	4.4202 ppb	08:08:57
3	Zn 213.857†	2020.3	1234.1	10.054 ug/L	10.054 ppb	08:09:17
3	SiO2†	4132.7	3541.2	213.84 ug/L	213.84 ppb	08:09:32

Mean Data: PQL

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	900948.7	100.23	%	0.512				0.51%
Sc Radial	5623.5	101	%	1.1				1.09%
Y 371.029	746622.4	100.29	%	0.459				0.46%
Y RADIAL	6008.9	101.6	%	1.34				1.32%
Ag 328.068†	1182.2	5.0969	ug/L	0.18247	5.0969	ppb	0.18247	3.58%
QC value within limits for Ag 328.068 Recovery = 101.94%								
Al 396.153Radial†	277.6	201.81	ug/L	12.461	201.81	ppb	12.461	6.17%
QC value within limits for Al 396.153Radial Recovery = 100.91%								
As 188.979†	84.0	30.505	ug/L	1.5273	30.505	ppb	1.5273	5.01%
QC value within limits for As 188.979 Recovery = 101.68%								
B 249.677†	2414.5	49.527	ug/L	0.7040	49.527	ppb	0.7040	1.42%
QC value within limits for B 249.677 Recovery = 99.05%								
Ba 233.527†	741.2	5.0515	ug/L	0.08594	5.0515	ppb	0.08594	1.70%
QC value within limits for Ba 233.527 Recovery = 101.03%								
Be 313.107†	14752.8	4.9573	ug/L	0.02882	4.9573	ppb	0.02882	0.58%
QC value within limits for Be 313.107 Recovery = 99.15%								
Ca 317.933Radial†	147.0	209.57	ug/L	7.646	209.57	ppb	7.646	3.65%

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   QC value within limits for Ca 317.933Radial  Recovery = 104.78%
Cd 226.502†              520.0      5.0795 ug/L       0.05136      5.0795 ppb        0.05136   1.01%
   QC value within limits for Cd 226.502  Recovery = 101.59%
Co 228.616†              280.6      4.9251 ug/L       0.11520      4.9251 ppb        0.11520   2.34%
   QC value within limits for Co 228.616  Recovery = 98.50%
Cr 267.716†              499.2      5.0541 ug/L       0.16234      5.0541 ppb        0.16234   3.21%
   QC value within limits for Cr 267.716  Recovery = 101.08%
Cu 324.752†             3625.4      10.248 ug/L        0.0801      10.248 ppb         0.0801   0.78%
   QC value within limits for Cu 324.752  Recovery = 102.48%
Fe 238.204 Radial†        11.8      98.155 ug/L        8.7175      98.155 ppb         8.7175   8.88%
   QC value within limits for Fe 238.204 Radial  Recovery = 98.16%
K 766.490 Radial†        935.5      164.65 ug/L         3.598      164.65 ppb          3.598   2.19%
   QC value within limits for K 766.490 Radial  Recovery = 109.77%
Mg 279.077 IEC†           10.1      313.02 ug/L        39.010      313.02 ppb         39.010  12.46%
   QC value within limits for Mg 279.077 IEC  Recovery = 104.34%
Mn 257.610†            10628.2      10.487 ug/L        0.0738      10.487 ppb         0.0738   0.70%
   QC value within limits for Mn 257.610  Recovery = 104.87%
Mo 202.031†              164.2      9.9476 ug/L       0.29768      9.9476 ppb        0.29768   2.99%
   QC value within limits for Mo 202.031  Recovery = 99.48%
Na 589.592 Radial†      1021.3      304.81 ug/L         3.405      304.81 ppb          3.405   1.12%
   QC value within limits for Na 589.592 Radial  Recovery = 101.60%
Ni 231.604†              241.6      5.2749 ug/L       0.18821      5.2749 ppb        0.18821   3.57%
   QC value within limits for Ni 231.604  Recovery = 105.50%
P 214.914†               283.5      146.38 ug/L         5.626      146.38 ppb          5.626   3.84%
   QC value within limits for P 214.914  Recovery = 97.59%
Pb 220.353†               87.6      9.2857 ug/L       0.62922      9.2857 ppb        0.62922   6.78%
   QC value within limits for Pb 220.353  Recovery = 92.86%
S 181.975 Axial†          81.3      99.715 ug/L        2.1474      99.715 ppb         2.1474   2.15%
   QC value within limits for S 181.975 Axial  Recovery = 99.71%
Sb 206.836†               33.4      10.261 ug/L        0.5434      10.261 ppb         0.5434   5.30%
   QC value within limits for Sb 206.836  Recovery = 102.61%
Se 196.026†               56.4      31.098 ug/L        3.9950      31.098 ppb         3.9950  12.85%
   QC value within limits for Se 196.026  Recovery = 103.66%
Si 251.611†             3640.4      102.39 ug/L         1.091      102.39 ppb          1.091   1.07%
   QC value within limits for Si 251.611  Recovery = 102.39%
Sn 189.927†               68.9      10.363 ug/L        0.8302      10.363 ppb         0.8302   8.01%
   QC value within limits for Sn 189.927  Recovery = 103.63%
Sr 421.552†              895.6      5.2495 ug/L       0.06354      5.2495 ppb        0.06354   1.21%
   QC value within limits for Sr 421.552  Recovery = 104.99%
Ti 334.940†             3464.5      4.9950 ug/L       0.07476      4.9950 ppb        0.07476   1.50%
   QC value within limits for Ti 334.940  Recovery = 99.90%
Tl 190.801†               81.3      21.166 ug/L        1.2953      21.166 ppb         1.2953   6.12%
   QC value within limits for Tl 190.801  Recovery = 105.83%
U 409.014†              1910.5      52.617 ug/L        2.9189      52.617 ppb         2.9189   5.55%
   QC value within limits for U 409.014  Recovery = 105.23%
V 292.402†               703.5      4.7037 ug/L       0.36683      4.7037 ppb        0.36683   7.80%
   QC value within limits for V 292.402  Recovery = 94.07%
Zn 213.857†             1214.5      9.8944 ug/L       0.14055      9.8944 ppb        0.14055   1.42%
   QC value within limits for Zn 213.857  Recovery = 98.94%
SiO2†                   3560.8      215.03 ug/L         1.879      215.03 ppb          1.879   0.87%
   QC value within limits for SiO2  Recovery = 100.95%
All analyte(s) passed QC.
```

Sequence No.: 9
Sample ID: ICSA
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 13
Date Collected: 12/19/2009 08:11:43
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSA

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4965.4	4965.4	89.2	%			08:13:42
1	Y RADIAL	5306.3	5306.3	89.76	%			08:13:42
1	Al 396.153Radial†	638506.0	715917.4	521660	ug/L	521660	ppb	08:13:37
1	Ca 317.933Radial†	304213.5	341068.5	486270	ug/L	486270	ppb	08:13:37
1	Fe 238.204 Radial†	20544.1	23023.4	191390	ug/L	191390	ppb	08:13:42
1	K 766.490 Radial†	2335.1	-94.2	-0.8072	ug/L	-0.8072	ppb	08:13:37
1	Mg 279.077 IEC†	14271.5	16000.0	496650	ug/L	496650	ppb	08:13:42
1	Na 589.592 Radial†	-608.5	79.4	23.702	ug/L	23.702	ppb	08:13:42
1	Sr 421.552†	563.3	643.4	-0.7347	ug/L	-0.7347	ppb	08:13:42
1	Sc 361.383	778772.9	778772.9	86.635	%			08:14:09
1	Y 371.029	629428.6	629428.6	84.548	%			08:14:09
1	Ag 328.068†	-10493.1	-12481.7	3.0959	ug/L	3.0959	ppb	08:14:09
1	As 188.979†	-98.2	-78.5	0.8647	ug/L	0.8647	ppb	08:14:29
1	B 249.677†	880.6	1042.4	-4.0016	ug/L	-4.0016	ppb	08:14:09
1	Ba 233.527†	-608.4	-699.6	2.3815	ug/L	2.3815	ppb	08:14:29
1	Be 313.107†	-5164.9	-1230.5	-0.4597	ug/L	-0.4597	ppb	08:14:09
1	Cd 226.502†	1378.8	1820.7	-1.3254	ug/L	-1.3254	ppb	08:14:29
1	Co 228.616†	2.4	89.9	-1.1513	ug/L	-1.1513	ppb	08:14:29
1	Cr 267.716†	-40.4	-126.8	2.1581	ug/L	2.1581	ppb	08:14:29
1	Cu 324.752†	2906.4	-2700.9	2.1325	ug/L	2.1325	ppb	08:14:09
1	Mn 257.610†	997.1	659.4	10.487	ug/L	10.487	ppb	08:14:09
1	Mo 202.031†	-233.2	-289.1	-3.9219	ug/L	-3.9219	ppb	08:14:29
1	Ni 231.604†	276.7	225.8	4.9336	ug/L	4.9336	ppb	08:14:29
1	P 214.914†	180.9	-49.3	-2.9362	ug/L	-2.9362	ppb	08:14:29
1	Pb 220.353†	-892.7	-966.4	-0.5179	ug/L	-0.5179	ppb	08:14:29
1	S 181.975 Axial†	71.0	32.9	-62.209	ug/L	-62.209	ppb	08:14:29
1	Sb 206.836†	80.1	51.3	2.8317	ug/L	2.8317	ppb	08:14:29
1	Se 196.026†	-1063.3	-1198.8	0.9330	ug/L	0.9330	ppb	08:14:29
1	Si 251.611†	445.1	-63.7	-1.2862	ug/L	-1.2862	ppb	08:14:29
1	Sn 189.927†	-368.7	-429.0	-11.014	ug/L	-11.014	ppb	08:14:29
1	Ti 334.940†	-15524.5	-16531.7	1.4504	ug/L	1.4504	ppb	08:14:09
1	Tl 190.801†	-97.8	-64.8	-2.7545	ug/L	-2.7545	ppb	08:14:29
1	U 409.014†	-1149.3	1045.6	4.7308	ug/L	4.7308	ppb	08:14:09
1	V 292.402†	1033.1	2661.9	-1.1448	ug/L	-1.1448	ppb	08:14:29
1	Zn 213.857†	3396.8	3127.3	-9.6552	ug/L	-9.6552	ppb	08:14:29
1	SiO2†	469.8	-64.3	-2.7856	ug/L	-2.7856	ppb	08:15:26
2	Sc Radial	4901.3	4901.3	88.0	%			08:13:52
2	Y RADIAL	5232.3	5232.3	88.51	%			08:13:52
2	Al 396.153Radial†	635689.0	722076.0	526140	ug/L	526140	ppb	08:13:47
2	Ca 317.933Radial†	302103.7	343130.7	489210	ug/L	489210	ppb	08:13:47
2	Fe 238.204 Radial†	20179.1	22909.9	190450	ug/L	190450	ppb	08:13:52
2	K 766.490 Radial†	2362.7	-28.7	11.005	ug/L	11.005	ppb	08:13:47
2	Mg 279.077 IEC†	14102.8	16017.5	497190	ug/L	497190	ppb	08:13:52
2	Na 589.592 Radial†	-625.8	50.8	15.164	ug/L	15.164	ppb	08:13:52
2	Sr 421.552†	583.9	675.0	-0.5762	ug/L	-0.5762	ppb	08:13:52
2	Sc 361.383	795745.3	795745.3	88.523	%			08:14:35
2	Y 371.029	643936.1	643936.1	86.497	%			08:14:35
2	Ag 328.068†	-10312.9	-12019.8	4.7311	ug/L	4.7311	ppb	08:14:35
2	As 188.979†	-83.9	-60.0	7.4646	ug/L	7.4646	ppb	08:14:55
2	B 249.677†	671.9	785.0	-9.1583	ug/L	-9.1583	ppb	08:14:35
2	Ba 233.527†	-608.0	-684.3	2.4509	ug/L	2.4509	ppb	08:14:55
2	Be 313.107†	-5144.3	-1080.1	-0.4080	ug/L	-0.4080	ppb	08:14:35
2	Cd 226.502†	1361.4	1767.1	-1.7562	ug/L	-1.7562	ppb	08:14:55
2	Co 228.616†	-14.8	70.4	-1.4804	ug/L	-1.4804	ppb	08:14:55
2	Cr 267.716†	-95.4	-187.9	1.5222	ug/L	1.5222	ppb	08:14:55
2	Cu 324.752†	3030.9	-2631.7	2.2797	ug/L	2.2797	ppb	08:14:35
2	Mn 257.610†	1048.8	693.3	10.417	ug/L	10.417	ppb	08:14:35
2	Mo 202.031†	-240.4	-291.5	-4.1337	ug/L	-4.1337	ppb	08:14:55
2	Ni 231.604†	217.9	152.6	3.3328	ug/L	3.3328	ppb	08:14:55

2	P 214.914†	205.7	-25.7	11.586	ug/L	11.586 ppb	08:14:55
2	Pb 220.353†	-895.2	-947.2	2.5837	ug/L	2.5837 ppb	08:14:55
2	S 181.975 Axial†	85.9	48.0	-44.606	ug/L	-44.606 ppb	08:14:55
2	Sb 206.836†	88.7	59.0	5.0050	ug/L	5.0050 ppb	08:14:55
2	Se 196.026†	-1055.7	-1164.1	17.648	ug/L	17.648 ppb	08:14:55
2	Si 251.611†	453.9	-64.7	-1.3115	ug/L	-1.3115 ppb	08:14:55
2	Sn 189.927†	-384.2	-437.5	-11.990	ug/L	-11.990 ppb	08:14:55
2	Ti 334.940†	-15481.1	-16100.5	2.2289	ug/L	2.2289 ppb	08:14:35
2	Tl 190.801†	-106.0	-71.7	-4.4083	ug/L	-4.4083 ppb	08:14:55
2	U 409.014†	-1282.8	923.1	1.4750	ug/L	1.4750 ppb	08:14:35
2	V 292.402†	1054.5	2660.6	-1.0061	ug/L	-1.0061 ppb	08:14:55
2	Zn 213.857†	3381.4	3026.3	-10.402	ug/L	-10.402 ppb	08:14:55
2	SiO2†	479.1	-65.4	-2.8444	ug/L	-2.8444 ppb	08:15:31
3	Sc Radial	4971.1	4971.1	89.3	%		08:14:03
3	Y RADIAL	5311.8	5311.8	89.86	%		08:14:03
3	Al 396.153Radial†	633647.8	709660.3	517100	ug/L	517100 ppb	08:13:58
3	Ca 317.933Radial†	300431.0	336443.5	479680	ug/L	479680 ppb	08:13:58
3	Fe 238.204 Radial†	20276.7	22697.7	188690	ug/L	188690 ppb	08:14:03
3	K 766.490 Radial†	2406.6	-17.2	12.829	ug/L	12.829 ppb	08:13:58
3	Mg 279.077 IEC†	14177.2	15876.2	492800	ug/L	492800 ppb	08:14:03
3	Na 589.592 Radial†	-616.3	71.4	21.317	ug/L	21.317 ppb	08:14:03
3	Sr 421.552†	592.0	674.8	-0.4894	ug/L	-0.4894 ppb	08:14:03
3	Sc 361.383	688555.3	688555.3	76.599	%		08:15:00
3	Y 371.029	557089.3	557089.3	74.831	%		08:15:00
3	Ag 328.068†	-10825.8	-14503.0	-6.4178	ug/L	-6.4178 ppb	08:15:00
3	As 188.979†	-106.0	-103.5	-8.6520	ug/L	-8.6520 ppb	08:15:20
3	B 249.677†	803.0	1074.3	-2.9874	ug/L	-2.9874 ppb	08:15:00
3	Ba 233.527†	-575.9	-749.2	1.9467	ug/L	1.9467 ppb	08:15:20
3	Be 313.107†	-5212.8	-2074.2	-0.7498	ug/L	-0.7498 ppb	08:15:00
3	Cd 226.502†	1363.2	2008.8	0.7842	ug/L	0.7842 ppb	08:15:20
3	Co 228.616†	-1.3	85.5	-1.1883	ug/L	-1.1883 ppb	08:15:20
3	Cr 267.716†	-65.4	-165.6	1.7183	ug/L	1.7183 ppb	08:15:20
3	Cu 324.752†	2702.2	-2527.8	2.4833	ug/L	2.4833 ppb	08:15:00
3	Mn 257.610†	1011.8	829.4	10.457	ug/L	10.457 ppb	08:15:00
3	Mo 202.031†	-232.1	-322.9	-6.1608	ug/L	-6.1608 ppb	08:15:20
3	Ni 231.604†	224.5	199.6	4.3593	ug/L	4.3593 ppb	08:15:20
3	P 214.914†	183.2	-18.9	13.324	ug/L	13.324 ppb	08:15:20
3	Pb 220.353†	-884.9	-1091.2	-14.475	ug/L	-14.475 ppb	08:15:20
3	S 181.975 Axial†	84.5	61.3	-26.486	ug/L	-26.486 ppb	08:15:20
3	Sb 206.836†	85.4	70.2	8.4040	ug/L	8.4040 ppb	08:15:20
3	Se 196.026†	-1049.6	-1341.7	-85.771	ug/L	-85.771 ppb	08:15:20
3	Si 251.611†	468.7	34.4	1.5400	ug/L	1.5400 ppb	08:15:20
3	Sn 189.927†	-373.7	-491.4	-21.083	ug/L	-21.083 ppb	08:15:20
3	Ti 334.940†	-15677.1	-19078.9	-2.5757	ug/L	-2.5757 ppb	08:15:00
3	Tl 190.801†	-99.2	-81.4	-7.2071	ug/L	-7.2071 ppb	08:15:20
3	U 409.014†	-1051.8	999.1	3.7920	ug/L	3.7920 ppb	08:15:00
3	V 292.402†	1041.5	2829.1	0.2161	ug/L	0.2161 ppb	08:15:20
3	Zn 213.857†	3415.0	3664.7	-4.8544	ug/L	-4.8544 ppb	08:15:20
3	SiO2†	413.2	-67.3	-2.8308	ug/L	-2.8308 ppb	08:15:36

Mean Data: ICSA

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	754357.8	83.919	%	6.4094				7.64%
Sc Radial	4945.9	88.8	%	0.70				0.78%
Y 371.029	610151.3	81.958	%	6.2491				7.62%
Y RADIAL	5283.5	89.38	%	0.751				0.84%
Ag 328.068†	-13001.5	0.4697	ug/L	6.02056	0.4697	ppb	6.02056	>999.9%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	715884.6	521630	ug/L	4523.4	521630	ppb	4523.4	0.87%
QC value within limits for Al 396.153Radial Recovery = 104.33%								
As 188.979†	-80.7	-0.1076	ug/L	8.10215	-0.1076	ppb	8.10215	>999.9%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	967.2	-5.3824	ug/L	3.30909	-5.3824	ppb	3.30909	61.48%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-711.0	2.2597	ug/L	0.27329	2.2597	ppb	0.27329	12.09%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-1461.6	-0.5392	ug/L	0.18426	-0.5392	ppb	0.18426	34.18%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	340214.2	485050	ug/L	4882.4	485050	ppb	4882.4	1.01%

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   QC value within limits for Ca 317.933Radial  Recovery = 97.01%
Cd 226.502†            1865.5     -0.7658 ug/L       1.35952     -0.7658 ppb        1.35952 177.52%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†              81.9     -1.2734 ug/L       0.18027     -1.2734 ppb        0.18027  14.16%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†            -160.1      1.7995 ug/L       0.32565      1.7995 ppb        0.32565  18.10%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†           -2620.1      2.2985 ug/L       0.17615      2.2985 ppb        0.17615   7.66%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†    22877.0      190180 ug/L        1374.2      190180 ppb         1374.2   0.72%
   QC value within limits for Fe 238.204 Radial  Recovery = 95.09%
K 766.490 Radial†       -46.7      7.6756 ug/L       7.40261      7.6756 ppb        7.40261  96.44%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†       15964.6      495550 ug/L        2391.4      495550 ppb         2391.4   0.48%
   QC value within limits for Mg 279.077 IEC  Recovery = 99.11%
Mn 257.610†             727.4      10.454 ug/L        0.0355      10.454 ppb         0.0355   0.34%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†            -301.2     -4.7388 ug/L       1.23603     -4.7388 ppb        1.23603  26.08%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       67.2      20.061 ug/L        4.4057      20.061 ppb         4.4057  21.96%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†             192.7      4.2085 ug/L       0.81095      4.2085 ppb        0.81095  19.27%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†              -31.3      7.3245 ug/L       8.92847      7.3245 ppb        8.92847 121.90%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†           -1001.6     -4.1363 ug/L       9.08662     -4.1363 ppb        9.08662 219.68%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         47.4     -44.434 ug/L       17.8622     -44.434 ppb        17.8622  40.20%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              60.2      5.4136 ug/L       2.80850      5.4136 ppb        2.80850  51.88%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†           -1234.9     -22.397 ug/L       55.5164     -22.397 ppb        55.5164 247.88%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†             -31.4     -0.3526 ug/L       1.63904     -0.3526 ppb        1.63904 464.89%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†            -452.6     -14.696 ug/L        5.5534     -14.696 ppb         5.5534  37.79%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             664.4     -0.6001 ug/L       0.12435     -0.6001 ppb        0.12435  20.72%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†          -17237.0      0.3679 ug/L       2.57876      0.3679 ppb        2.57876 700.99%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†             -72.6     -4.7900 ug/L       2.25068     -4.7900 ppb        2.25068  46.99%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              989.3      3.3326 ug/L       1.67580      3.3326 ppb        1.67580  50.28%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†             2717.2     -0.6449 ug/L       0.74892     -0.6449 ppb        0.74892 116.12%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†            3272.7     -8.3039 ug/L       3.01059     -8.3039 ppb        3.01059  36.26%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                   -65.7     -2.8203 ug/L       0.03079     -2.8203 ppb        0.03079   1.09%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 10
Sample ID: ICSAB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 14
Date Collected: 12/19/2009 08:17:47
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSAB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4945.8	4945.8	88.8	%			08:19:45
1	Y RADIAL	5290.0	5290.0	89.49	%			08:19:45
1	Al 396.153Radial†	649158.0	730747.4	532440	ug/L	532440	ppb	08:19:40
1	Ca 317.933Radial†	306372.6	344851.8	491670	ug/L	491670	ppb	08:19:40
1	Fe 238.204 Radial†	20544.0	23114.7	192170	ug/L	192170	ppb	08:19:45
1	K 766.490 Radial†	31006.4	32190.2	5683.8	ug/L	5683.8	ppb	08:19:40
1	Mg 279.077 IEC†	14326.2	16125.0	500540	ug/L	500540	ppb	08:19:45
1	Na 589.592 Radial†	15924.6	18687.3	5577.6	ug/L	5577.6	ppb	08:19:45
1	Sr 421.552†	80481.3	90606.3	526.75	ug/L	526.75	ppb	08:19:40
1	Sc 361.383	846053.0	846053.0	94.120	%			08:20:13
1	Y 371.029	681027.6	681027.6	91.479	%			08:20:13
1	Ag 328.068†	43870.3	46241.1	257.76	ug/L	257.76	ppb	08:20:13
1	As 188.979†	1126.7	1232.0	480.02	ug/L	480.02	ppb	08:20:33
1	B 249.677†	22781.5	24230.6	470.74	ug/L	470.74	ppb	08:20:13
1	Ba 233.527†	61601.7	65452.8	453.04	ug/L	453.04	ppb	08:20:13
1	Be 313.107†	618819.6	662210.5	222.94	ug/L	222.94	ppb	08:20:13
1	Cd 226.502†	42944.6	45856.7	429.53	ug/L	429.53	ppb	08:20:13
1	Co 228.616†	22094.1	23561.5	409.91	ug/L	409.91	ppb	08:20:33
1	Cr 267.716†	40874.9	43348.3	443.61	ug/L	443.61	ppb	08:20:13
1	Cu 324.752†	170907.8	175529.5	505.74	ug/L	505.74	ppb	08:20:13
1	Mn 257.610†	419056.0	444744.4	448.52	ug/L	448.52	ppb	08:20:13
1	Mo 202.031†	6864.1	7273.0	453.88	ug/L	453.88	ppb	08:20:33
1	Ni 231.604†	18085.3	19121.5	417.52	ug/L	417.52	ppb	08:20:33
1	P 214.914†	4401.8	4418.7	2256.3	ug/L	2256.3	ppb	08:20:33
1	Pb 220.353†	2905.8	3151.4	436.49	ug/L	436.49	ppb	08:20:33
1	S 181.975 Axial†	1970.0	2044.0	2402.9	ug/L	2402.9	ppb	08:20:33
1	Sb 206.836†	1588.2	1646.2	487.46	ug/L	487.46	ppb	08:20:33
1	Se 196.026†	2958.8	3172.1	2387.7	ug/L	2387.7	ppb	08:20:33
1	Si 251.611†	159892.3	169303.9	4763.2	ug/L	4763.2	ppb	08:20:13
1	Sn 189.927†	2475.2	2626.4	447.80	ug/L	447.80	ppb	08:20:33
1	Ti 334.940†	284350.0	303501.9	464.10	ug/L	464.10	ppb	08:20:13
1	Tl 190.801†	1438.7	1576.7	426.40	ug/L	426.40	ppb	08:20:33
1	U 409.014†	14007.9	17255.2	450.39	ug/L	450.39	ppb	08:20:13
1	V 292.402†	68909.8	74684.2	463.64	ug/L	463.64	ppb	08:20:13
1	Zn 213.857†	55486.5	58159.4	438.24	ug/L	438.24	ppb	08:20:13
1	SiO2†	162686.8	172243.8	10406	ug/L	10406	ppb	08:21:30
2	Sc Radial	5012.9	5012.9	90.0	%			08:19:55
2	Y RADIAL	5292.6	5292.6	89.53	%			08:19:55
2	Al 396.153Radial†	634040.9	704178.7	513080	ug/L	513080	ppb	08:19:50
2	Ca 317.933Radial†	299837.9	332978.7	474740	ug/L	474740	ppb	08:19:50
2	Fe 238.204 Radial†	20307.6	22542.7	187410	ug/L	187410	ppb	08:19:55
2	K 766.490 Radial†	30485.8	31144.9	5498.6	ug/L	5498.6	ppb	08:19:50
2	Mg 279.077 IEC†	14177.9	15744.5	488730	ug/L	488730	ppb	08:19:55
2	Na 589.592 Radial†	15816.9	18327.8	5470.3	ug/L	5470.3	ppb	08:19:55
2	Sr 421.552†	78493.1	87185.8	506.85	ug/L	506.85	ppb	08:19:50
2	Sc 361.383	794837.6	794837.6	88.422	%			08:20:39
2	Y 371.029	640297.9	640297.9	86.008	%			08:20:39
2	Ag 328.068†	44144.7	49554.8	270.82	ug/L	270.82	ppb	08:20:39
2	As 188.979†	1096.9	1275.3	495.29	ug/L	495.29	ppb	08:20:59
2	B 249.677†	23009.8	26048.5	508.62	ug/L	508.62	ppb	08:20:39
2	Ba 233.527†	62311.0	70472.2	487.07	ug/L	487.07	ppb	08:20:39
2	Be 313.107†	625476.7	712104.0	239.74	ug/L	239.74	ppb	08:20:39
2	Cd 226.502†	43451.7	49370.2	464.38	ug/L	464.38	ppb	08:20:39
2	Co 228.616†	21876.1	24827.5	432.12	ug/L	432.12	ppb	08:20:59
2	Cr 267.716†	41398.8	46739.2	477.96	ug/L	477.96	ppb	08:20:39
2	Cu 324.752†	172883.1	189463.8	544.86	ug/L	544.86	ppb	08:20:39
2	Mn 257.610†	424144.0	479187.4	482.24	ug/L	482.24	ppb	08:20:39
2	Mo 202.031†	6792.1	7661.5	477.05	ug/L	477.05	ppb	08:20:59
2	Ni 231.604†	17873.4	20120.0	439.33	ug/L	439.33	ppb	08:20:59

2	P 214.914†	4374.0	4688.6	2388.3 ug/L	2388.3 ppb	08:20:59
2	Pb 220.353†	2873.4	3313.7	449.68 ug/L	449.68 ppb	08:20:59
2	S 181.975 Axial†	1954.0	2160.8	2550.0 ug/L	2550.0 ppb	08:20:59
2	Sb 206.836†	1583.3	1749.3	518.94 ug/L	518.94 ppb	08:20:59
2	Se 196.026†	2957.7	3373.4	2480.3 ug/L	2480.3 ppb	08:20:59
2	Si 251.611†	161618.2	182202.1	5126.5 ug/L	5126.5 ppb	08:20:39
2	Sn 189.927†	2485.1	2807.0	473.06 ug/L	473.06 ppb	08:20:59
2	Ti 334.940†	288683.6	327869.7	498.42 ug/L	498.42 ppb	08:20:39
2	Tl 190.801†	1439.3	1675.8	451.85 ug/L	451.85 ppb	08:20:59
2	U 409.014†	14050.3	18262.2	478.67 ug/L	478.67 ppb	08:20:39
2	V 292.402†	70005.4	80640.9	502.32 ug/L	502.32 ppb	08:20:39
2	Zn 213.857†	56214.9	62781.8	476.82 ug/L	476.82 ppb	08:20:39
2	SiO2†	160671.6	181102.4	10941 ug/L	10941 ppb	08:21:36
3	Sc Radial	5091.8	5091.8	91.5 %		08:20:05
3	Y RADIAL	5391.7	5391.7	91.21 %		08:20:05
3	Al 396.153Radial†	654310.0	715428.8	521280 ug/L	521280 ppb	08:20:00
3	Ca 317.933Radial†	309162.3	338013.7	481920 ug/L	481920 ppb	08:20:00
3	Fe 238.204 Radial†	20589.4	22501.3	187070 ug/L	187070 ppb	08:20:05
3	K 766.490 Radial†	31512.7	31743.1	5604.4 ug/L	5604.4 ppb	08:20:00
3	Mg 279.077 IEC†	14360.6	15700.3	487350 ug/L	487350 ppb	08:20:05
3	Na 589.592 Radial†	16040.8	18300.4	5462.1 ug/L	5462.1 ppb	08:20:05
3	Sr 421.552†	81447.7	89065.5	517.80 ug/L	517.80 ppb	08:20:00
3	Sc 361.383	796544.8	796544.8	88.612 %		08:21:05
3	Y 371.029	642022.6	642022.6	86.240 %		08:21:05
3	Ag 328.068†	44226.6	49540.3	270.53 ug/L	270.53 ppb	08:21:05
3	As 188.979†	1109.1	1286.4	499.27 ug/L	499.27 ppb	08:21:25
3	B 249.677†	23022.9	26007.5	507.83 ug/L	507.83 ppb	08:21:05
3	Ba 233.527†	62498.9	70533.2	487.47 ug/L	487.47 ppb	08:21:05
3	Be 313.107†	626717.7	711988.3	239.70 ug/L	239.70 ppb	08:21:05
3	Cd 226.502†	43501.3	49320.9	463.93 ug/L	463.93 ppb	08:21:05
3	Co 228.616†	21909.9	24812.6	431.87 ug/L	431.87 ppb	08:21:25
3	Cr 267.716†	41480.6	46731.2	477.87 ug/L	477.87 ppb	08:21:05
3	Cu 324.752†	172868.1	189027.8	543.61 ug/L	543.61 ppb	08:21:05
3	Mn 257.610†	424544.9	478611.7	481.67 ug/L	481.67 ppb	08:21:05
3	Mo 202.031†	6820.1	7676.7	477.95 ug/L	477.95 ppb	08:21:25
3	Ni 231.604†	17905.2	20112.6	439.16 ug/L	439.16 ppb	08:21:25
3	P 214.914†	4419.0	4728.8	2412.5 ug/L	2412.5 ppb	08:21:25
3	Pb 220.353†	2872.8	3306.1	450.74 ug/L	450.74 ppb	08:21:25
3	S 181.975 Axial†	1967.0	2170.8	2560.6 ug/L	2560.6 ppb	08:21:25
3	Sb 206.836†	1577.2	1738.7	515.45 ug/L	515.45 ppb	08:21:25
3	Se 196.026†	2951.7	3359.5	2472.8 ug/L	2472.8 ppb	08:21:25
3	Si 251.611†	161769.8	181981.4	5120.3 ug/L	5120.3 ppb	08:21:05
3	Sn 189.927†	2461.1	2773.9	468.84 ug/L	468.84 ppb	08:21:25
3	Ti 334.940†	288848.1	327355.6	498.05 ug/L	498.05 ppb	08:21:05
3	Tl 190.801†	1440.7	1673.9	451.59 ug/L	451.59 ppb	08:21:25
3	U 409.014†	14160.4	18352.4	481.20 ug/L	481.20 ppb	08:21:05
3	V 292.402†	70009.9	80476.3	501.31 ug/L	501.31 ppb	08:21:05
3	Zn 213.857†	56232.2	62665.1	475.95 ug/L	475.95 ppb	08:21:05
3	SiO2†	160728.6	180777.2	10921 ug/L	10921 ppb	08:21:41

Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	812478.5	90.385	%	3.2360				3.58%
Sc Radial	5016.8	90.1	%	1.31				1.46%
Y 371.029	654449.4	87.909	%	3.0940				3.52%
Y RADIAL	5324.8	90.08	%	0.981				1.09%
Ag 328.068†	48445.4	266.37	ug/L	7.461	266.37	ppb	7.461	2.80%
QC value within limits for Ag 328.068 Recovery = 106.55%								
Al 396.153Radial†	716785.0	522270	ug/L	9718.0	522270	ppb	9718.0	1.86%
QC value within limits for Al 396.153Radial Recovery = 104.45%								
As 188.979†	1264.6	491.53	ug/L	10.162	491.53	ppb	10.162	2.07%
QC value within limits for As 188.979 Recovery = 98.31%								
B 249.677†	25428.9	495.73	ug/L	21.645	495.73	ppb	21.645	4.37%
QC value within limits for B 249.677 Recovery = 99.15%								
Ba 233.527†	68819.4	475.86	ug/L	19.760	475.86	ppb	19.760	4.15%
QC value within limits for Ba 233.527 Recovery = 95.17%								
Be 313.107†	695434.3	234.13	ug/L	9.689	234.13	ppb	9.689	4.14%
QC value within limits for Be 313.107 Recovery = 93.65%								
Ca 317.933Radial†	338614.7	482770	ug/L	8496.4	482770	ppb	8496.4	1.76%

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   QC value within limits for Ca 317.933Radial  Recovery = 96.55%
Cd 226.502†            48182.6      452.61 ug/L        19.993      452.61 ppb         19.993   4.42%
   QC value within limits for Cd 226.502  Recovery = 90.52%
Co 228.616†            24400.5      424.63 ug/L        12.754      424.63 ppb         12.754   3.00%
   QC value within limits for Co 228.616  Recovery = 84.93%
Cr 267.716†            45606.2      466.48 ug/L        19.807      466.48 ppb         19.807   4.25%
   QC value within limits for Cr 267.716  Recovery = 93.30%
Cu 324.752†           184673.7      531.41 ug/L        22.238      531.41 ppb         22.238   4.18%
   QC value within limits for Cu 324.752  Recovery = 106.28%
Fe 238.204 Radial†     22719.6      188880 ug/L        2849.5      188880 ppb         2849.5   1.51%
   QC value within limits for Fe 238.204 Radial  Recovery = 94.44%
K 766.490 Radial†      31692.7      5595.6 ug/L         92.94      5595.6 ppb          92.94   1.66%
   QC value within limits for K 766.490 Radial  Recovery = 111.91%
Mg 279.077 IEC†        15856.6      492210 ug/L        7247.9      492210 ppb         7247.9   1.47%
   QC value within limits for Mg 279.077 IEC  Recovery = 98.44%
Mn 257.610†           467514.5      470.81 ug/L        19.304      470.81 ppb         19.304   4.10%
   QC value within limits for Mn 257.610  Recovery = 94.16%
Mo 202.031†             7537.1      469.63 ug/L        13.647      469.63 ppb         13.647   2.91%
   QC value within limits for Mo 202.031  Recovery = 93.93%
Na 589.592 Radial†     18438.5      5503.4 ug/L         64.45      5503.4 ppb          64.45   1.17%
   QC value within limits for Na 589.592 Radial  Recovery = 110.07%
Ni 231.604†            19784.7      432.01 ug/L        12.541      432.01 ppb         12.541   2.90%
   QC value within limits for Ni 231.604  Recovery = 86.40%
P 214.914†              4612.0      2352.4 ug/L         84.11      2352.4 ppb          84.11   3.58%
   QC value within limits for P 214.914  Recovery = 94.10%
Pb 220.353†             3257.1      445.64 ug/L         7.937      445.64 ppb          7.937   1.78%
   QC value within limits for Pb 220.353  Recovery = 89.13%
S 181.975 Axial†        2125.2      2504.5 ug/L         88.15      2504.5 ppb          88.15   3.52%
   QC value within limits for S 181.975 Axial  Recovery = 100.18%
Sb 206.836†             1711.4      507.28 ug/L        17.259      507.28 ppb         17.259   3.40%
   QC value within limits for Sb 206.836  Recovery = 101.46%
Se 196.026†             3301.7      2446.9 ug/L         51.44      2446.9 ppb          51.44   2.10%
   QC value within limits for Se 196.026  Recovery = 97.88%
Si 251.611†           177829.1      5003.3 ug/L        207.95      5003.3 ppb         207.95   4.16%
   QC value within limits for Si 251.611  Recovery = 100.07%
Sn 189.927†             2735.8      463.23 ug/L        13.532      463.23 ppb         13.532   2.92%
   QC value within limits for Sn 189.927  Recovery = 92.65%
Sr 421.552†            88952.5      517.13 ug/L         9.967      517.13 ppb          9.967   1.93%
   QC value within limits for Sr 421.552  Recovery = 103.43%
Ti 334.940†           319575.7      486.86 ug/L        19.711      486.86 ppb         19.711   4.05%
   QC value within limits for Ti 334.940  Recovery = 97.37%
Tl 190.801†             1642.1      443.28 ug/L        14.620      443.28 ppb         14.620   3.30%
   QC value within limits for Tl 190.801  Recovery = 88.66%
U 409.014†             17956.6      470.08 ug/L        17.102      470.08 ppb         17.102   3.64%
   QC value within limits for U 409.014  Recovery = 94.02%
V 292.402†             78600.5      489.09 ug/L        22.047      489.09 ppb         22.047   4.51%
   QC value within limits for V 292.402  Recovery = 97.82%
Zn 213.857†            61202.1      463.67 ug/L        22.027      463.67 ppb         22.027   4.75%
   QC value within limits for Zn 213.857  Recovery = 92.73%
SiO2†                 178041.1       10756 ug/L         303.6       10756 ppb          303.6   2.82%
   QC value within limits for SiO2  Recovery = 100.57%
All analyte(s) passed QC.
```

Sequence No.: 11
Sample ID: LR1
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 15
Date Collected: 12/19/2009 08:23:51
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4692.3	4692.3	84.3	%			08:25:48
1	Y RADIAL	5012.9	5012.9	84.80	%			08:25:48
1	Al 396.153Radial†	614656.2	729282.0	531400	ug/L	531400	ppb	08:25:43
1	Ca 317.933Radial†	293765.5	348521.8	496900	ug/L	496900	ppb	08:25:43
1	Fe 238.204 Radial†	48062.2	57013.0	473950	ug/L	473950	ppb	08:25:48
1	K 766.490 Radial†	2819.2	632.5	-117.10	ug/L	-117.10	ppb	08:25:43
1	Mg 279.077 IEC†	13987.6	16594.3	514860	ug/L	514860	ppb	08:25:48
1	Na 589.592 Radial†	1624875.8	1928613.4	575630	ug/L	575630	ppb	08:25:43
1	Sr 421.552†	882.2	1058.5	1.6014	ug/L	1.6014	ppb	08:25:48
1	Sc 361.383	769480.6	769480.6	85.602	%			08:26:17
1	Y 371.029	622972.7	622972.7	83.681	%			08:26:17
1	Ag 328.068†	-24603.7	-29112.1	13.395	ug/L	13.395	ppb	08:26:17
1	As 188.979†	-214.3	-215.5	-5.0853	ug/L	-5.0853	ppb	08:26:37
1	B 249.677†	1848.7	2185.6	-18.034	ug/L	-18.034	ppb	08:26:17
1	Ba 233.527†	-1673.2	-1952.1	4.3798	ug/L	4.3798	ppb	08:26:37
1	Be 313.107†	-11864.9	-9129.5	-3.0844	ug/L	-3.0844	ppb	08:26:17
1	Cd 226.502†	3618.4	4456.2	-3.7990	ug/L	-3.7990	ppb	08:26:37
1	Co 228.616†	237.2	364.2	-0.4639	ug/L	-0.4639	ppb	08:26:37
1	Cr 267.716†	46.1	-26.3	3.5909	ug/L	3.5909	ppb	08:26:37
1	Cu 324.752†	-122.5	-6198.7	6.6635	ug/L	6.6635	ppb	08:26:17
1	Mn 257.610†	-25217.2	-29950.3	8.1288	ug/L	8.1288	ppb	08:26:17
1	Mo 202.031†	-528.1	-636.8	-4.9235	ug/L	-4.9235	ppb	08:26:17
1	Ni 231.604†	271.7	223.8	4.8852	ug/L	4.8852	ppb	08:26:37
1	P 214.914†	607.7	451.8	35.364	ug/L	35.364	ppb	08:26:37
1	Pb 220.353†	-643.5	-687.6	7.8042	ug/L	7.8042	ppb	08:26:37
1	S 181.975 Axial†	120.2	91.4	7.5621	ug/L	7.5621	ppb	08:26:37
1	Sb 206.836†	58.5	27.1	-0.7172	ug/L	-0.7172	ppb	08:26:37
1	Se 196.026†	-2491.1	-2881.5	-56.706	ug/L	-56.706	ppb	08:26:37
1	Si 251.611†	-565.0	-1237.5	-34.030	ug/L	-34.030	ppb	08:26:37
1	Sn 189.927†	-420.1	-494.3	-15.912	ug/L	-15.912	ppb	08:26:37
1	Ti 334.940†	-8021.9	-7983.6	7.9674	ug/L	7.9674	ppb	08:26:17
1	Tl 190.801†	-135.5	-110.3	-14.412	ug/L	-14.412	ppb	08:26:37
1	U 409.014†	449025.2	526924.4	14458	ug/L	14458	ppb	08:26:17
1	V 292.402†	2871.1	4823.4	-2.1401	ug/L	-2.1401	ppb	08:26:17
1	Zn 213.857†	6450.9	6742.4	-7.6041	ug/L	-7.6041	ppb	08:26:37
1	SiO2†	-680.3	-1401.4	-82.979	ug/L	-82.979	ppb	08:27:34
2	Sc Radial	4757.0	4757.0	85.4	%			08:25:59
2	Y RADIAL	5107.7	5107.7	86.40	%			08:25:59
2	Al 396.153Radial†	632178.8	739878.4	539120	ug/L	539120	ppb	08:25:54
2	Ca 317.933Radial†	300099.2	351197.5	500710	ug/L	500710	ppb	08:25:54
2	Fe 238.204 Radial†	47847.0	55986.2	465420	ug/L	465420	ppb	08:25:59
2	K 766.490 Radial†	2689.4	435.1	-151.46	ug/L	-151.46	ppb	08:25:54
2	Mg 279.077 IEC†	13913.0	16281.5	505150	ug/L	505150	ppb	08:25:59
2	Na 589.592 Radial†	1647947.9	1929415.4	575870	ug/L	575870	ppb	08:25:54
2	Sr 421.552†	822.6	974.6	1.0736	ug/L	1.0736	ppb	08:25:59
2	Sc 361.383	829578.9	829578.9	92.287	%			08:26:43
2	Y 371.029	670999.6	670999.6	90.132	%			08:26:43
2	Ag 328.068†	-24230.2	-26625.1	22.193	ug/L	22.193	ppb	08:26:43
2	As 188.979†	-212.6	-195.6	0.8307	ug/L	0.8307	ppb	08:27:03
2	B 249.677†	1914.5	2100.4	-18.649	ug/L	-18.649	ppb	08:26:43
2	Ba 233.527†	-1708.3	-1848.4	4.7599	ug/L	4.7599	ppb	08:27:03
2	Be 313.107†	-11729.1	-7978.2	-2.6975	ug/L	-2.6975	ppb	08:26:43
2	Cd 226.502†	3617.7	4149.2	-5.9484	ug/L	-5.9484	ppb	08:27:03
2	Co 228.616†	228.3	334.4	-0.8544	ug/L	-0.8544	ppb	08:27:03
2	Cr 267.716†	-3.7	-84.2	3.2232	ug/L	3.2232	ppb	08:27:03
2	Cu 324.752†	-70.9	-6132.4	6.4154	ug/L	6.4154	ppb	08:26:43
2	Mn 257.610†	-25124.3	-27715.5	9.6628	ug/L	9.6628	ppb	08:26:43
2	Mo 202.031†	-514.6	-577.5	-1.9424	ug/L	-1.9424	ppb	08:26:43
2	Ni 231.604†	300.2	231.7	5.0587	ug/L	5.0587	ppb	08:27:03

2	P 214.914†	636.5	431.6	34.371 ug/L	34.371 ppb	08:27:03
2	Pb 220.353†	-640.8	-630.3	16.292 ug/L	16.292 ppb	08:27:03
2	S 181.975 Axial†	140.3	103.0	20.303 ug/L	20.303 ppb	08:27:03
2	Sb 206.836†	63.8	27.9	-0.6703 ug/L	-0.6703 ppb	08:27:03
2	Se 196.026†	-2501.1	-2681.6	27.385 ug/L	27.385 ppb	08:27:03
2	Si 251.611†	-576.5	-1202.1	-33.099 ug/L	-33.099 ppb	08:27:03
2	Sn 189.927†	-423.3	-462.2	-10.812 ug/L	-10.812 ppb	08:27:03
2	Ti 334.940†	-8412.1	-7727.5	9.0551 ug/L	9.0551 ppb	08:26:43
2	Tl 190.801†	-122.0	-84.2	-7.4033 ug/L	-7.4033 ppb	08:27:03
2	U 409.014†	444768.1	484310.7	13285 ug/L	13285 ppb	08:26:43
2	V 292.402†	2601.5	4288.3	-6.6933 ug/L	-6.6933 ppb	08:26:43
2	Zn 213.857†	6480.7	6228.8	-10.670 ug/L	-10.670 ppb	08:27:03
2	SiO2†	-535.4	-1186.8	-70.127 ug/L	-70.127 ppb	08:27:39
3	Sc Radial	4910.4	4910.4	88.2 %		08:26:10
3	Y RADIAL	5233.2	5233.2	88.53 %		08:26:10
3	Al 396.153Radial†	628142.7	712191.4	518940 ug/L	518940 ppb	08:26:05
3	Ca 317.933Radial†	298967.6	338943.6	483240 ug/L	483240 ppb	08:26:05
3	Fe 238.204 Radial†	47717.5	54090.2	449660 ug/L	449660 ppb	08:26:10
3	K 766.490 Radial†	2761.1	418.0	-147.53 ug/L	-147.53 ppb	08:26:05
3	Mg 279.077 IEC†	13878.2	15733.4	488150 ug/L	488150 ppb	08:26:10
3	Na 589.592 Radial†	1647451.6	1868607.7	557720 ug/L	557720 ppb	08:26:05
3	Sr 421.552†	859.2	986.0	1.3026 ug/L	1.3026 ppb	08:26:10
3	Sc 361.383	776834.8	776834.8	86.420 %		08:27:08
3	Y 371.029	628719.7	628719.7	84.453 %		08:27:08
3	Ag 328.068†	-24650.2	-28893.7	6.4605 ug/L	6.4605 ppb	08:27:08
3	As 188.979†	-221.8	-221.9	-11.149 ug/L	-11.149 ppb	08:27:28
3	B 249.677†	1839.3	2154.2	-15.456 ug/L	-15.456 ppb	08:27:08
3	Ba 233.527†	-1717.7	-1985.0	3.2537 ug/L	3.2537 ppb	08:27:28
3	Be 313.107†	-11829.8	-8957.7	-3.0274 ug/L	-3.0274 ppb	08:27:08
3	Cd 226.502†	3550.7	4337.9	-2.5268 ug/L	-2.5268 ppb	08:27:28
3	Co 228.616†	241.7	366.8	-0.0775 ug/L	-0.0775 ppb	08:27:28
3	Cr 267.716†	10.6	-67.9	2.7514 ug/L	2.7514 ppb	08:27:28
3	Cu 324.752†	-204.6	-6292.3	5.1597 ug/L	5.1597 ppb	08:27:08
3	Mn 257.610†	-25758.5	-30297.8	5.8607 ug/L	5.8607 ppb	08:27:08
3	Mo 202.031†	-568.2	-677.4	-9.1084 ug/L	-9.1084 ppb	08:27:08
3	Ni 231.604†	306.0	260.5	5.6873 ug/L	5.6873 ppb	08:27:28
3	P 214.914†	617.6	456.6	53.301 ug/L	53.301 ppb	08:27:28
3	Pb 220.353†	-644.2	-681.4	7.6517 ug/L	7.6517 ppb	08:27:28
3	S 181.975 Axial†	132.5	104.3	25.899 ug/L	25.899 ppb	08:27:28
3	Sb 206.836†	62.4	31.0	0.4261 ug/L	0.4261 ppb	08:27:28
3	Se 196.026†	-2448.9	-2805.2	-90.632 ug/L	-90.632 ppb	08:27:28
3	Si 251.611†	-543.6	-1206.5	-33.113 ug/L	-33.113 ppb	08:27:28
3	Sn 189.927†	-399.4	-465.7	-13.371 ug/L	-13.371 ppb	08:27:28
3	Ti 334.940†	-8307.2	-8225.0	6.9306 ug/L	6.9306 ppb	08:27:08
3	Tl 190.801†	-102.1	-70.1	-4.3326 ug/L	-4.3326 ppb	08:27:28
3	U 409.014†	451578.8	524913.5	14406 ug/L	14406 ppb	08:27:08
3	V 292.402†	2840.2	4756.0	0.3816 ug/L	0.3816 ppb	08:27:08
3	Zn 213.857†	6358.9	6564.6	-5.8321 ug/L	-5.8321 ppb	08:27:28
3	SiO2†	-523.4	-1212.3	-71.434 ug/L	-71.434 ppb	08:27:44

Mean Data: LR1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	791964.8	88.103	%	3.6468				4.14%
Sc Radial	4786.6	86.0	%	2.01				2.34%
Y 371.029	640897.3	86.088	%	3.5230				4.09%
Y RADIAL	5117.9	86.58	%	1.869				2.16%
Ag 328.068†	-28210.3	14.016	ug/L	7.8845	14.016	ppb	7.8845	56.25%
Al 396.153Radial†	727117.3	529820	ug/L	10179.1	529820	ppb	10179.1	1.92%
QC value within limits for Al 396.153Radial Recovery = 105.96%								
As 188.979†	-211.0	-5.1347	ug/L	5.99020	-5.1347	ppb	5.99020	116.66%
B 249.677†	2146.8	-17.380	ug/L	1.6944	-17.380	ppb	1.6944	9.75%
Ba 233.527†	-1928.5	4.1311	ug/L	0.78333	4.1311	ppb	0.78333	18.96%
Be 313.107†	-8688.5	-2.9364	ug/L	0.20885	-2.9364	ppb	0.20885	7.11%
Ca 317.933Radial†	346220.9	493620	ug/L	9185.6	493620	ppb	9185.6	1.86%
QC value within limits for Ca 317.933Radial Recovery = 98.72%								
Cd 226.502†	4314.5	-4.0914	ug/L	1.72944	-4.0914	ppb	1.72944	42.27%
Co 228.616†	355.2	-0.4653	ug/L	0.38848	-0.4653	ppb	0.38848	83.49%
Cr 267.716†	-59.5	3.1885	ug/L	0.42084	3.1885	ppb	0.42084	13.20%
Cu 324.752†	-6207.8	6.0795	ug/L	0.80620	6.0795	ppb	0.80620	13.26%

Fe 238.204 Radial†	55696.5	463010	ug/L	12326.4	463010	ppb	12326.4	2.66%
QC value within limits for Fe 238.204 Radial Recovery = 92.60%								
K 766.490 Radial†	495.2	-138.70	ug/L	18.804	-138.70	ppb	18.804	13.56%
Mg 279.077 IEC†	16203.1	502720	ug/L	13520.9	502720	ppb	13520.9	2.69%
QC value within limits for Mg 279.077 IEC Recovery = 100.54%								
Mn 257.610†	-29321.2	7.8841	ug/L	1.91283	7.8841	ppb	1.91283	24.26%
Mo 202.031†	-630.6	-5.3248	ug/L	3.59978	-5.3248	ppb	3.59978	67.60%
Na 589.592 Radial†	1908878.8	569740	ug/L	10410.1	569740	ppb	10410.1	1.83%
QC value greater than the upper limit for Na 589.592 Radial Recovery = 113.95%								
Ni 231.604†	238.7	5.2104	ug/L	0.42201	5.2104	ppb	0.42201	8.10%
P 214.914†	446.7	41.012	ug/L	10.6542	41.012	ppb	10.6542	25.98%
Pb 220.353†	-666.4	10.582	ug/L	4.9448	10.582	ppb	4.9448	46.73%
S 181.975 Axial†	99.6	17.922	ug/L	9.3978	17.922	ppb	9.3978	52.44%
Sb 206.836†	28.7	-0.3205	ug/L	0.64693	-0.3205	ppb	0.64693	201.87%
Se 196.026†	-2789.5	-39.984	ug/L	60.7594	-39.984	ppb	60.7594	151.96%
Si 251.611†	-1215.4	-33.414	ug/L	0.5335	-33.414	ppb	0.5335	1.60%
Sn 189.927†	-474.0	-13.365	ug/L	2.5500	-13.365	ppb	2.5500	19.08%
Sr 421.552†	1006.4	1.3259	ug/L	0.26466	1.3259	ppb	0.26466	19.96%
Ti 334.940†	-7978.7	7.9844	ug/L	1.06234	7.9844	ppb	1.06234	13.31%
Tl 190.801†	-88.2	-8.7161	ug/L	5.16646	-8.7161	ppb	5.16646	59.28%
U 409.014†	512049.5	14050	ug/L	662.6	14050	ppb	662.6	4.72%
QC value within limits for U 409.014 Recovery = 93.67%								
V 292.402†	4622.6	-2.8173	ug/L	3.58574	-2.8173	ppb	3.58574	127.28%
Zn 213.857†	6511.9	-8.0354	ug/L	2.44758	-8.0354	ppb	2.44758	30.46%
SiO2†	-1266.8	-74.847	ug/L	7.0731	-74.847	ppb	7.0731	9.45%

QC Failed. Continue with analysis.

Sequence No.: 12
Sample ID: LR2
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 16
Date Collected: 12/19/2009 08:29:53
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR2

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5447.1	5447.1	97.8	%			08:31:51
1	Y RADIAL	5800.8	5800.8	98.13	%			08:31:51
1	Al 396.153Radial†	614.4	644.3	51.060	ug/L	51.060	ppb	08:31:51
1	Ca 317.933Radial†	41.7	23.1	32.879	ug/L	32.879	ppb	08:32:11
1	Fe 238.204 Radial†	-25.4	-36.9	-13.698	ug/L	-13.698	ppb	08:32:11
1	K 766.490 Radial†	1623659.6	1656783.1	291920	ug/L	291920	ppb	08:31:46
1	Mg 279.077 IEC†	-7.8	-9.4	-93.210	ug/L	-93.210	ppb	08:32:11
1	Na 589.592 Radial†	-294.4	460.8	137.53	ug/L	137.53	ppb	08:31:51
1	Sr 421.552†	1563831.3	1598358.5	9372.6	ug/L	9372.6	ppb	08:31:46
1	Sc 361.383	863865.1	863865.1	96.102	%			08:33:28
1	Y 371.029	697025.7	697025.7	93.628	%			08:33:28
1	Ag 328.068†	-8155.2	-8855.9	1.0213	ug/L	1.0213	ppb	08:33:33
1	As 188.979†	26297.6	27399.2	10029	ug/L	10029	ppb	08:33:33
1	B 249.677†	233893.2	243407.3	4971.8	ug/L	4971.8	ppb	08:33:28
1	Ba 233.527†	2028481.0	2110771.6	14368	ug/L	14368	ppb	08:33:28
1	Be 313.107†	8211275.7	8549107.9	2886.3	ug/L	2886.3	ppb	08:33:22
1	Cd 226.502†	952935.8	991822.1	9706.2	ug/L	9706.2	ppb	08:33:28
1	Co 228.616†	509788.5	530555.8	9288.1	ug/L	9288.1	ppb	08:33:33
1	Cr 267.716†	2270999.3	2363045.2	23975	ug/L	23975	ppb	08:33:28
1	Cu 324.752†	6917777.4	7192350.6	20321	ug/L	20321	ppb	08:33:22
1	Mn 257.610†	9150004.2	9520694.7	9390.9	ug/L	9390.9	ppb	08:33:22
1	Mo 202.031†	155188.8	161464.3	9773.6	ug/L	9773.6	ppb	08:33:33
1	Ni 231.604†	430929.1	448316.7	9789.4	ug/L	9789.4	ppb	08:33:28
1	P 214.914†	34551.5	35695.1	15505	ug/L	15505	ppb	08:33:33
1	Pb 220.353†	224071.9	233225.8	24585	ug/L	24585	ppb	08:33:33
1	S 181.975 Axial†	41020.8	42635.9	52306	ug/L	52306	ppb	08:33:33
1	Sb 206.836†	33975.2	35312.3	10385	ug/L	10385	ppb	08:33:33
1	Se 196.026†	17780.4	18530.2	10126	ug/L	10126	ppb	08:33:33
1	Si 251.611†	1622065.9	1687289.6	47278	ug/L	47278	ppb	08:33:28
1	Sn 189.927†	66912.6	69623.5	10442	ug/L	10442	ppb	08:33:33
1	Ti 334.940†	6528399.3	6794620.0	9815.5	ug/L	9815.5	ppb	08:33:22
1	Tl 190.801†	35746.3	37244.5	9723.1	ug/L	9723.1	ppb	08:33:33
1	U 409.014†	-1063.6	1265.5	-11.372	ug/L	-11.372	ppb	08:33:33
1	V 292.402†	1510866.6	1573626.3	10128	ug/L	10128	ppb	08:33:28
1	Zn 213.857†	1655286.5	1721641.8	14033	ug/L	14033	ppb	08:33:28
1	SiO2†	1621563.5	1686737.7	101470	ug/L	101470	ppb	08:34:21
2	Sc Radial	5508.3	5508.3	98.9	%			08:32:21
2	Y RADIAL	5846.5	5846.5	98.90	%			08:32:21
2	Al 396.153Radial†	656.0	679.4	93.074	ug/L	93.074	ppb	08:32:21
2	Ca 317.933Radial†	40.7	21.5	30.691	ug/L	30.691	ppb	08:32:41
2	Fe 238.204 Radial†	-24.5	-35.7	-13.399	ug/L	-13.399	ppb	08:32:41
2	K 766.490 Radial†	1592082.3	1606413.9	283050	ug/L	283050	ppb	08:32:16
2	Mg 279.077 IEC†	-5.6	-7.0	-28.305	ug/L	-28.305	ppb	08:32:41
2	Na 589.592 Radial†	-359.7	398.1	118.82	ug/L	118.82	ppb	08:32:21
2	Sr 421.552†	1529669.9	1546057.6	9065.9	ug/L	9065.9	ppb	08:32:16
2	Sc 361.383	885471.4	885471.4	98.505	%			08:33:48
2	Y 371.029	716006.2	716006.2	96.177	%			08:33:48
2	Ag 328.068†	-8015.3	-8506.8	1.3835	ug/L	1.3835	ppb	08:33:53
2	As 188.979†	25907.3	26335.3	9640.3	ug/L	9640.3	ppb	08:33:53
2	B 249.677†	233463.7	237032.6	4841.8	ug/L	4841.8	ppb	08:33:48
2	Ba 233.527†	2013175.5	2043729.0	13912	ug/L	13912	ppb	08:33:48
2	Be 313.107†	8172181.3	8300929.0	2802.5	ug/L	2802.5	ppb	08:33:42
2	Cd 226.502†	946780.5	961377.5	9408.3	ug/L	9408.3	ppb	08:33:48
2	Co 228.616†	505323.2	513078.8	8982.0	ug/L	8982.0	ppb	08:33:53
2	Cr 267.716†	2257842.3	2292026.0	23255	ug/L	23255	ppb	08:33:48
2	Cu 324.752†	6856868.5	6954869.1	19650	ug/L	19650	ppb	08:33:42
2	Mn 257.610†	9097309.1	9234873.5	9109.0	ug/L	9109.0	ppb	08:33:42
2	Mo 202.031†	152811.7	155110.8	9389.1	ug/L	9389.1	ppb	08:33:53
2	Ni 231.604†	428197.3	434601.8	9489.9	ug/L	9489.9	ppb	08:33:48

2	P 214.914†	33955.7	34212.9	14834 ug/L	14834 ppb		08:33:53
2	Pb 220.353†	220934.2	224351.0	23650 ug/L	23650 ppb		08:33:53
2	S 181.975 Axial†	40452.0	41016.9	50319 ug/L	50319 ppb		08:33:53
2	Sb 206.836†	33461.0	33927.5	9972.9 ug/L	9972.9 ppb		08:33:53
2	Se 196.026†	17510.9	17805.2	9730.0 ug/L	9730.0 ppb		08:33:53
2	Si 251.611†	1616483.2	1640436.6	45968 ug/L	45968 ppb		08:33:48
2	Sn 189.927†	66028.6	67027.2	10053 ug/L	10053 ppb		08:33:53
2	Ti 334.940†	6483993.3	6583778.4	9510.9 ug/L	9510.9 ppb		08:33:42
2	Tl 190.801†	35327.2	35911.4	9375.5 ug/L	9375.5 ppb		08:33:53
2	U 409.014†	-1318.4	1033.8	-16.365 ug/L	-16.365 ppb		08:33:53
2	V 292.402†	1503274.4	1527556.7	9830.4 ug/L	9830.4 ppb		08:33:48
2	Zn 213.857†	1646160.2	1670347.8	13615 ug/L	13615 ppb		08:33:48
2	SiO2†	1643194.6	1667524.2	100330 ug/L	100330 ppb		08:34:28
3	Sc Radial	5347.2	5347.2	96.0 %			08:32:52
3	Y RADIAL	5646.4	5646.4	95.52 %			08:32:52
3	Al 396.153Radial†	614.0	655.7	75.242 ug/L	75.242 ppb		08:32:52
3	Ca 317.933Radial†	35.2	17.0	24.301 ug/L	24.301 ppb		08:33:12
3	Fe 238.204 Radial†	-21.5	-33.3	6.6826 ug/L	6.6826 ppb		08:33:12
3	K 766.490 Radial†	1632133.2	1696581.5	298940 ug/L	298940 ppb		08:32:47
3	Mg 279.077 IEC†	-4.4	-6.0	4.6751 ug/L	4.6751 ppb		08:33:12
3	Na 589.592 Radial†	-368.2	378.3	112.91 ug/L	112.91 ppb		08:32:52
3	Sr 421.552†	1572114.2	1636817.0	9598.1 ug/L	9598.1 ppb		08:32:47
3	Sc 361.383	882318.6	882318.6	98.154 %			08:34:08
3	Y 371.029	712097.8	712097.8	95.652 %			08:34:08
3	Ag 328.068†	-8070.4	-8592.1	1.0600 ug/L	1.0600 ppb		08:34:13
3	As 188.979†	25636.3	26153.2	9574.1 ug/L	9574.1 ppb		08:34:13
3	B 249.677†	232894.6	237299.7	4847.2 ug/L	4847.2 ppb		08:34:08
3	Ba 233.527†	2015206.8	2053101.5	13976 ug/L	13976 ppb		08:34:08
3	Be 313.107†	8139672.2	8297454.3	2801.3 ug/L	2801.3 ppb		08:34:01
3	Cd 226.502†	947584.7	965631.4	9449.9 ug/L	9449.9 ppb		08:34:08
3	Co 228.616†	504163.3	513730.3	8993.4 ug/L	8993.4 ppb		08:34:13
3	Cr 267.716†	2255404.9	2297733.4	23313 ug/L	23313 ppb		08:34:08
3	Cu 324.752†	6828189.6	6950525.2	19638 ug/L	19638 ppb		08:34:01
3	Mn 257.610†	9053696.6	9223442.7	9097.7 ug/L	9097.7 ppb		08:34:01
3	Mo 202.031†	152470.5	155317.5	9401.6 ug/L	9401.6 ppb		08:34:13
3	Ni 231.604†	428074.6	436030.2	9521.1 ug/L	9521.1 ppb		08:34:08
3	P 214.914†	33915.4	34295.0	14879 ug/L	14879 ppb		08:34:13
3	Pb 220.353†	220344.7	224551.9	23671 ug/L	23671 ppb		08:34:13
3	S 181.975 Axial†	40057.8	40762.0	50007 ug/L	50007 ppb		08:34:13
3	Sb 206.836†	33322.6	33907.9	9966.2 ug/L	9966.2 ppb		08:34:13
3	Se 196.026†	17433.7	17790.0	9721.8 ug/L	9721.8 ppb		08:34:13
3	Si 251.611†	1615482.8	1645281.4	46099 ug/L	46099 ppb		08:34:08
3	Sn 189.927†	65867.2	67102.2	10064 ug/L	10064 ppb		08:34:13
3	Ti 334.940†	6452914.2	6575636.6	9499.1 ug/L	9499.1 ppb		08:34:01
3	Tl 190.801†	35128.8	35837.4	9356.1 ug/L	9356.1 ppb		08:34:13
3	U 409.014†	-1074.9	1277.1	-9.7754 ug/L	-9.7754 ppb		08:34:13
3	V 292.402†	1499608.5	1529275.3	9841.5 ug/L	9841.5 ppb		08:34:08
3	Zn 213.857†	1646870.4	1677043.1	13670 ug/L	13670 ppb		08:34:08
3	SiO2†	1621980.5	1651872.1	99374 ug/L	99374 ppb		08:34:35

Mean Data: LR2

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	877218.4	97.587	%	1.2984				1.33%
Sc Radial	5434.2	97.6	%	1.46				1.50%
Y 371.029	708376.6	95.153	%	1.3463				1.41%
Y RADIAL	5764.5	97.52	%	1.773				1.82%
Ag 328.068†	-8651.6	1.1549	ug/L	0.19889	1.1549	ppb	0.19889	17.22%
Al 396.153Radial†	659.8	73.125	ug/L	21.0872	73.125	ppb	21.0872	28.84%
As 188.979†	26629.2	9747.8	ug/L	245.73	9747.8	ppb	245.73	2.52%
QC value within limits for As 188.979 Recovery = 97.48%								
B 249.677†	239246.5	4886.9	ug/L	73.56	4886.9	ppb	73.56	1.51%
QC value within limits for B 249.677 Recovery = 97.74%								
Ba 233.527†	2069200.7	14085	ug/L	247.1	14085	ppb	247.1	1.75%
QC value within limits for Ba 233.527 Recovery = 93.90%								
Be 313.107†	8382497.1	2830.1	ug/L	48.75	2830.1	ppb	48.75	1.72%
QC value within limits for Be 313.107 Recovery = 94.34%								
Ca 317.933Radial†	20.5	29.290	ug/L	4.4572	29.290	ppb	4.4572	15.22%
Cd 226.502†	972943.7	9521.5	ug/L	161.35	9521.5	ppb	161.35	1.69%
QC value within limits for Cd 226.502 Recovery = 95.21%								

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Co 228.616†          519121.6      9087.8 ug/L        173.56      9087.8 ppb        173.56   1.91%
   QC value within limits for Co 228.616  Recovery = 90.88%
Cr 267.716†         2317601.5       23514 ug/L         400.3       23514 ppb         400.3   1.70%
   QC value within limits for Cr 267.716  Recovery = 94.06%
Cu 324.752†         7032581.6       19870 ug/L         391.0       19870 ppb         391.0   1.97%
   QC value within limits for Cu 324.752  Recovery = 99.35%
Fe 238.204 Radial†       -35.3     -6.8049 ug/L      11.68145     -6.8049 ppb      11.68145 171.66%
K 766.490 Radial†    1653259.5      291300 ug/L        7964.1      291300 ppb        7964.1   2.73%
   QC value within limits for K 766.490 Radial  Recovery = 97.10%
Mg 279.077 IEC†           -7.5    -38.946 ug/L       49.8026     -38.946 ppb       49.8026 127.87%
Mn 257.610†          9326337.0      9199.2 ug/L        166.12      9199.2 ppb        166.12   1.81%
   QC value within limits for Mn 257.610  Recovery = 91.99%
Mo 202.031†           157297.6      9521.4 ug/L        218.52      9521.4 ppb        218.52   2.30%
   QC value within limits for Mo 202.031  Recovery = 95.21%
Na 589.592 Radial†       412.4      123.09 ug/L        12.850      123.09 ppb        12.850  10.44%
Ni 231.604†           439649.6      9600.1 ug/L        164.63      9600.1 ppb        164.63   1.71%
   QC value within limits for Ni 231.604  Recovery = 96.00%
P 214.914†             34734.3       15072 ug/L         375.0       15072 ppb         375.0   2.49%
   QC value within limits for P 214.914  Recovery = 100.48%
Pb 220.353†           227376.2       23969 ug/L         534.2       23969 ppb         534.2   2.23%
   QC value within limits for Pb 220.353  Recovery = 95.87%
S 181.975 Axial†       41471.6       50877 ug/L        1246.8       50877 ppb        1246.8   2.45%
   QC value within limits for S 181.975 Axial  Recovery = 101.75%
Sb 206.836†            34382.6       10108 ug/L         240.0       10108 ppb         240.0   2.37%
   QC value within limits for Sb 206.836  Recovery = 101.08%
Se 196.026†            18041.8      9859.3 ug/L        231.13      9859.3 ppb        231.13   2.34%
   QC value within limits for Se 196.026  Recovery = 98.59%
Si 251.611†          1657669.2       46448 ug/L         721.6       46448 ppb         721.6   1.55%
   QC value within limits for Si 251.611  Recovery = 92.90%
Sn 189.927†            67917.6       10186 ug/L         221.6       10186 ppb         221.6   2.18%
   QC value within limits for Sn 189.927  Recovery = 101.86%
Sr 421.552†          1593744.4      9345.5 ug/L        267.13      9345.5 ppb        267.13   2.86%
   QC value within limits for Sr 421.552  Recovery = 93.46%
Ti 334.940†          6651345.0      9608.5 ug/L        179.36      9608.5 ppb        179.36   1.87%
   QC value within limits for Ti 334.940  Recovery = 96.09%
Tl 190.801†            36331.1      9484.9 ug/L        206.54      9484.9 ppb        206.54   2.18%
   QC value within limits for Tl 190.801  Recovery = 94.85%
U 409.014†              1192.2     -12.504 ug/L        3.4375     -12.504 ppb        3.4375  27.49%
V 292.402†           1543486.1      9933.4 ug/L        168.88      9933.4 ppb        168.88   1.70%
   QC value within limits for V 292.402  Recovery = 99.33%
Zn 213.857†          1689677.6       13773 ug/L         227.2       13773 ppb         227.2   1.65%
   QC value within limits for Zn 213.857  Recovery = 91.82%
SiO2†                1668711.3      100390 ug/L        1051.1      100390 ppb        1051.1   1.05%
   QC value within limits for SiO2  Recovery = 93.83%
All analyte(s) passed QC.
```

Sequence No.: 13
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 12/19/2009 08:36:44
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5478.0	5478.0	98.4	%			08:38:36
1	Y RADIAL	5868.1	5868.1	99.27	%			08:38:36
1	Al 396.153Radial†	6604.6	6728.5	4881.5	ug/L	4881.5	ppb	08:38:36
1	Ca 317.933Radial†	3486.7	3523.9	5024.2	ug/L	5024.2	ppb	08:38:56
1	Fe 238.204 Radial†	620.1	619.3	5164.3	ug/L	5164.3	ppb	08:38:56
1	K 766.490 Radial†	31159.4	28954.6	5094.6	ug/L	5094.6	ppb	08:38:36
1	Mg 279.077 IEC†	167.6	169.0	5252.3	ug/L	5252.3	ppb	08:38:56
1	Na 589.592 Radial†	32390.5	33679.8	10052	ug/L	10052	ppb	08:38:36
1	Sr 421.552†	84442.2	85829.5	503.25	ug/L	503.25	ppb	08:38:36
1	Sc 361.383	895534.1	895534.1	99.625	%			08:39:54
1	Y 371.029	729151.2	729151.2	97.943	%			08:39:54
1	Ag 328.068†	114332.8	114393.8	496.16	ug/L	496.16	ppb	08:39:59
1	As 188.979†	1390.2	1430.3	523.52	ug/L	523.52	ppb	08:40:19
1	B 249.677†	25190.7	25311.6	517.51	ug/L	517.51	ppb	08:39:59
1	Ba 233.527†	73117.2	73395.3	500.14	ug/L	500.14	ppb	08:39:59
1	Be 313.107†	1455940.8	1466158.6	492.65	ug/L	492.65	ppb	08:39:54
1	Cd 226.502†	50630.1	51050.1	499.07	ug/L	499.07	ppb	08:39:59
1	Co 228.616†	28353.7	28547.6	499.89	ug/L	499.89	ppb	08:39:59
1	Cr 267.716†	49064.5	49169.3	499.31	ug/L	499.31	ppb	08:39:59
1	Cu 324.752†	180343.2	174967.2	494.61	ug/L	494.61	ppb	08:39:59
1	Mn 257.610†	500444.2	501838.7	495.42	ug/L	495.42	ppb	08:39:54
1	Mo 202.031†	8197.4	8208.4	497.23	ug/L	497.23	ppb	08:40:19
1	Ni 231.604†	22947.2	22940.1	500.90	ug/L	500.90	ppb	08:39:59
1	P 214.914†	4963.5	4724.1	2389.3	ug/L	2389.3	ppb	08:40:19
1	Pb 220.353†	4647.1	4728.7	499.82	ug/L	499.82	ppb	08:40:19
1	S 181.975 Axial†	861.6	815.9	999.92	ug/L	999.92	ppb	08:40:19
1	Sb 206.836†	1714.0	1679.3	510.25	ug/L	510.25	ppb	08:40:19
1	Se 196.026†	881.3	913.1	515.40	ug/L	515.40	ppb	08:40:19
1	Si 251.611†	87737.7	87490.9	2455.2	ug/L	2455.2	ppb	08:39:59
1	Sn 189.927†	3302.0	3311.0	497.16	ug/L	497.16	ppb	08:40:19
1	Ti 334.940†	335831.9	338485.0	489.27	ug/L	489.27	ppb	08:39:54
1	Tl 190.801†	1909.7	1965.0	512.91	ug/L	512.91	ppb	08:40:19
1	U 409.014†	15318.7	17748.7	487.40	ug/L	487.40	ppb	08:39:59
1	V 292.402†	76180.0	77936.4	502.35	ug/L	502.35	ppb	08:39:59
1	Zn 213.857†	61498.7	60936.9	495.31	ug/L	495.31	ppb	08:39:59
1	SiO2†	87682.4	87406.1	5266.4	ug/L	5266.4	ppb	08:41:27
2	Sc Radial	5470.7	5470.7	98.3	%			08:39:02
2	Y RADIAL	5851.8	5851.8	98.99	%			08:39:02
2	Al 396.153Radial†	6688.6	6823.0	4950.3	ug/L	4950.3	ppb	08:39:02
2	Ca 317.933Radial†	3462.2	3503.7	4995.4	ug/L	4995.4	ppb	08:39:22
2	Fe 238.204 Radial†	613.1	613.0	5112.0	ug/L	5112.0	ppb	08:39:22
2	K 766.490 Radial†	31323.5	29164.0	5131.5	ug/L	5131.5	ppb	08:39:02
2	Mg 279.077 IEC†	165.2	166.7	5181.2	ug/L	5181.2	ppb	08:39:22
2	Na 589.592 Radial†	32449.9	33784.4	10084	ug/L	10084	ppb	08:39:02
2	Sr 421.552†	84752.6	86260.4	505.77	ug/L	505.77	ppb	08:39:02
2	Sc 361.383	898202.6	898202.6	99.921	%			08:40:25
2	Y 371.029	731599.8	731599.8	98.272	%			08:40:25
2	Ag 328.068†	114436.4	114156.4	495.13	ug/L	495.13	ppb	08:40:30
2	As 188.979†	1396.5	1432.5	524.29	ug/L	524.29	ppb	08:40:50
2	B 249.677†	25180.5	25226.3	515.77	ug/L	515.77	ppb	08:40:30
2	Ba 233.527†	73300.5	73360.7	499.90	ug/L	499.90	ppb	08:40:30
2	Be 313.107†	1463841.3	1469723.4	493.85	ug/L	493.85	ppb	08:40:25
2	Cd 226.502†	50754.9	51024.0	498.82	ug/L	498.82	ppb	08:40:30
2	Co 228.616†	28381.3	28490.8	498.90	ug/L	498.90	ppb	08:40:30
2	Cr 267.716†	49228.5	49187.1	499.49	ug/L	499.49	ppb	08:40:30
2	Cu 324.752†	180319.6	174405.8	493.02	ug/L	493.02	ppb	08:40:30
2	Mn 257.610†	501757.6	501660.6	495.24	ug/L	495.24	ppb	08:40:25
2	Mo 202.031†	8258.5	8245.1	499.45	ug/L	499.45	ppb	08:40:50
2	Ni 231.604†	22915.3	22839.7	498.71	ug/L	498.71	ppb	08:40:30

2	P 214.914†	5024.0	4769.9	2413.5	ug/L	2413.5 ppb	08:40:50
2	Pb 220.353†	4668.9	4736.6	500.68	ug/L	500.68 ppb	08:40:50
2	S 181.975 Axial†	876.0	827.7	1014.4	ug/L	1014.4 ppb	08:40:50
2	Sb 206.836†	1737.3	1697.4	515.75	ug/L	515.75 ppb	08:40:50
2	Se 196.026†	889.7	918.9	518.39	ug/L	518.39 ppb	08:40:50
2	Si 251.611†	87773.8	87265.3	2448.7	ug/L	2448.7 ppb	08:40:30
2	Sn 189.927†	3318.9	3318.0	498.22	ug/L	498.22 ppb	08:40:50
2	Ti 334.940†	337085.9	338738.5	489.63	ug/L	489.63 ppb	08:40:25
2	Tl 190.801†	1909.4	1959.0	511.36	ug/L	511.36 ppb	08:40:50
2	U 409.014†	15289.2	17673.5	485.34	ug/L	485.34 ppb	08:40:30
2	V 292.402†	76392.5	77922.0	502.29	ug/L	502.29 ppb	08:40:30
2	Zn 213.857†	61499.2	60754.0	493.83	ug/L	493.83 ppb	08:40:30
2	SiO2†	86796.8	86258.4	5196.8	ug/L	5196.8 ppb	08:41:32
3	Sc Radial	5527.0	5527.0	99.3	%		08:39:27
3	Y RADIAL	5885.1	5885.1	99.56	%		08:39:27
3	Al 396.153Radial†	6729.7	6795.1	4930.3	ug/L	4930.3 ppb	08:39:27
3	Ca 317.933Radial†	3462.1	3467.7	4944.1	ug/L	4944.1 ppb	08:39:47
3	Fe 238.204 Radial†	615.5	609.1	5078.8	ug/L	5078.8 ppb	08:39:47
3	K 766.490 Radial†	31748.3	29267.2	5149.6	ug/L	5149.6 ppb	08:39:27
3	Mg 279.077 IEC†	166.7	166.6	5177.1	ug/L	5177.1 ppb	08:39:47
3	Na 589.592 Radial†	32818.5	33819.3	10094	ug/L	10094 ppb	08:39:27
3	Sr 421.552†	85542.3	86177.5	505.29	ug/L	505.29 ppb	08:39:27
3	Sc 361.383	903528.7	903528.7	100.51	%		08:40:56
3	Y 371.029	736412.2	736412.2	98.918	%		08:40:56
3	Ag 328.068†	115070.6	114112.3	494.92	ug/L	494.92 ppb	08:41:02
3	As 188.979†	1365.6	1393.4	510.12	ug/L	510.12 ppb	08:41:22
3	B 249.677†	25303.2	25199.7	515.23	ug/L	515.23 ppb	08:41:02
3	Ba 233.527†	73502.5	73129.3	498.32	ug/L	498.32 ppb	08:41:02
3	Be 313.107†	1471318.1	1468526.2	493.45	ug/L	493.45 ppb	08:40:56
3	Cd 226.502†	50979.8	50948.3	498.08	ug/L	498.08 ppb	08:41:02
3	Co 228.616†	28513.2	28454.5	498.24	ug/L	498.24 ppb	08:41:02
3	Cr 267.716†	49272.1	48940.0	496.98	ug/L	496.98 ppb	08:41:02
3	Cu 324.752†	181324.8	174342.1	492.84	ug/L	492.84 ppb	08:41:02
3	Mn 257.610†	503616.2	500549.7	494.14	ug/L	494.14 ppb	08:40:56
3	Mo 202.031†	8154.3	8092.7	490.22	ug/L	490.22 ppb	08:41:22
3	Ni 231.604†	23027.9	22816.5	498.20	ug/L	498.20 ppb	08:41:02
3	P 214.914†	4962.9	4679.4	2366.2	ug/L	2366.2 ppb	08:41:22
3	Pb 220.353†	4639.8	4680.1	494.69	ug/L	494.69 ppb	08:41:22
3	S 181.975 Axial†	861.8	808.4	990.74	ug/L	990.74 ppb	08:41:22
3	Sb 206.836†	1687.6	1637.7	497.57	ug/L	497.57 ppb	08:41:22
3	Se 196.026†	881.0	905.0	510.69	ug/L	510.69 ppb	08:41:22
3	Si 251.611†	88176.0	87147.6	2445.6	ug/L	2445.6 ppb	08:41:02
3	Sn 189.927†	3280.6	3260.4	489.56	ug/L	489.56 ppb	08:41:22
3	Ti 334.940†	338176.1	337834.6	488.32	ug/L	488.32 ppb	08:40:56
3	Tl 190.801†	1881.8	1920.3	501.31	ug/L	501.31 ppb	08:41:22
3	U 409.014†	15529.1	17821.9	489.43	ug/L	489.43 ppb	08:41:02
3	V 292.402†	76616.9	77694.6	500.73	ug/L	500.73 ppb	08:41:02
3	Zn 213.857†	61788.1	60678.6	493.22	ug/L	493.22 ppb	08:41:02
3	SiO2†	86670.9	85621.1	5158.6	ug/L	5158.6 ppb	08:41:37

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	899088.5	100.02	%	0.453				0.45%
Sc Radial	5491.9	98.6	%	0.55				0.56%
Y 371.029	732387.7	98.378	%	0.4962				0.50%
Y RADIAL	5868.3	99.27	%	0.282				0.28%
Ag 328.068†	114220.8	495.40	ug/L	0.668	495.40	ppb	0.668	0.13%
QC value within limits for Ag 328.068 Recovery = 99.08%								
Al 396.153Radial†	6782.2	4920.7	ug/L	35.38	4920.7	ppb	35.38	0.72%
QC value within limits for Al 396.153Radial Recovery = 98.41%								
As 188.979†	1418.7	519.31	ug/L	7.969	519.31	ppb	7.969	1.53%
QC value within limits for As 188.979 Recovery = 103.86%								
B 249.677†	25245.8	516.17	ug/L	1.191	516.17	ppb	1.191	0.23%
QC value within limits for B 249.677 Recovery = 103.23%								
Ba 233.527†	73295.1	499.45	ug/L	0.987	499.45	ppb	0.987	0.20%
QC value within limits for Ba 233.527 Recovery = 99.89%								
Be 313.107†	1468136.1	493.32	ug/L	0.609	493.32	ppb	0.609	0.12%
QC value within limits for Be 313.107 Recovery = 98.66%								
Ca 317.933Radial†	3498.5	4987.9	ug/L	40.58	4987.9	ppb	40.58	0.81%

```
   QC value within limits for Ca 317.933Radial  Recovery = 99.76%
Cd 226.502†            51007.5      498.66 ug/L         0.514      498.66 ppb          0.514   0.10%
   QC value within limits for Cd 226.502  Recovery = 99.73%
Co 228.616†            28497.6      499.01 ug/L         0.828      499.01 ppb          0.828   0.17%
   QC value within limits for Co 228.616  Recovery = 99.80%
Cr 267.716†            49098.8      498.59 ug/L         1.400      498.59 ppb          1.400   0.28%
   QC value within limits for Cr 267.716  Recovery = 99.72%
Cu 324.752†           174571.7      493.49 ug/L         0.974      493.49 ppb          0.974   0.20%
   QC value within limits for Cu 324.752  Recovery = 98.70%
Fe 238.204 Radial†       613.8      5118.4 ug/L         43.12      5118.4 ppb          43.12   0.84%
   QC value within limits for Fe 238.204 Radial  Recovery = 102.37%
K 766.490 Radial†      29128.6      5125.2 ug/L         28.07      5125.2 ppb          28.07   0.55%
   QC value within limits for K 766.490 Radial  Recovery = 102.50%
Mg 279.077 IEC†          167.4      5203.5 ug/L         42.27      5203.5 ppb          42.27   0.81%
   QC value within limits for Mg 279.077 IEC  Recovery = 104.07%
Mn 257.610†           501349.7      494.93 ug/L         0.692      494.93 ppb          0.692   0.14%
   QC value within limits for Mn 257.610  Recovery = 98.99%
Mo 202.031†             8182.1      495.63 ug/L         4.816      495.63 ppb          4.816   0.97%
   QC value within limits for Mo 202.031  Recovery = 99.13%
Na 589.592 Radial†     33761.2       10077 ug/L          21.7       10077 ppb           21.7   0.21%
   QC value within limits for Na 589.592 Radial  Recovery = 100.77%
Ni 231.604†            22865.5      499.27 ug/L         1.434      499.27 ppb          1.434   0.29%
   QC value within limits for Ni 231.604  Recovery = 99.85%
P 214.914†              4724.5      2389.6 ug/L         23.64      2389.6 ppb          23.64   0.99%
   QC value within limits for P 214.914  Recovery = 95.59%
Pb 220.353†             4715.2      498.40 ug/L         3.234      498.40 ppb          3.234   0.65%
   QC value within limits for Pb 220.353  Recovery = 99.68%
S 181.975 Axial†         817.3      1001.7 ug/L         11.93      1001.7 ppb          11.93   1.19%
   QC value within limits for S 181.975 Axial  Recovery = 100.17%
Sb 206.836†             1671.5      507.86 ug/L         9.325      507.86 ppb          9.325   1.84%
   QC value within limits for Sb 206.836  Recovery = 101.57%
Se 196.026†              912.3      514.83 ug/L         3.881      514.83 ppb          3.881   0.75%
   QC value within limits for Se 196.026  Recovery = 102.97%
Si 251.611†            87301.3      2449.8 ug/L          4.87      2449.8 ppb           4.87   0.20%
   QC value within limits for Si 251.611  Recovery = 97.99%
Sn 189.927†             3296.5      494.98 ug/L         4.722      494.98 ppb          4.722   0.95%
   QC value within limits for Sn 189.927  Recovery = 99.00%
Sr 421.552†            86089.1      504.77 ug/L         1.341      504.77 ppb          1.341   0.27%
   QC value within limits for Sr 421.552  Recovery = 100.95%
Ti 334.940†           338352.7      489.07 ug/L         0.676      489.07 ppb          0.676   0.14%
   QC value within limits for Ti 334.940  Recovery = 97.81%
Tl 190.801†             1948.1      508.53 ug/L         6.300      508.53 ppb          6.300   1.24%
   QC value within limits for Tl 190.801  Recovery = 101.71%
U 409.014†             17748.0      487.39 ug/L         2.049      487.39 ppb          2.049   0.42%
   QC value within limits for U 409.014  Recovery = 97.48%
V 292.402†             77851.0      501.79 ug/L         0.920      501.79 ppb          0.920   0.18%
   QC value within limits for V 292.402  Recovery = 100.36%
Zn 213.857†            60789.8      494.12 ug/L         1.073      494.12 ppb          1.073   0.22%
   QC value within limits for Zn 213.857  Recovery = 98.82%
SiO2†                  86428.5      5207.3 ug/L         54.66      5207.3 ppb          54.66   1.05%
   QC value within limits for SiO2  Recovery = 97.38%
All analyte(s) passed QC.
```

Sequence No.: 14
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 12/19/2009 08:43:49
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5585.9	5585.9	100	%			08:45:41
1	Y RADIAL	5963.5	5963.5	100.9	%			08:45:41
1	Al 396.153Radial†	-19.9	-3.5	-2.6070	ug/L	-2.6070	ppb	08:45:41
1	Ca 317.933Radial†	26.0	6.4	9.0609	ug/L	9.0609	ppb	08:46:01
1	Fe 238.204 Radial†	10.9	0.0	0.1134	ug/L	0.1134	ppb	08:46:01
1	K 766.490 Radial†	3304.0	580.6	102.32	ug/L	102.32	ppb	08:45:41
1	Mg 279.077 IEC†	-0.5	-1.9	-59.420	ug/L	-59.420	ppb	08:46:01
1	Na 589.592 Radial†	-711.1	52.9	15.786	ug/L	15.786	ppb	08:45:41
1	Sr 421.552†	12.4	24.2	0.1416	ug/L	0.1416	ppb	08:45:41
1	Sc 361.383	882647.5	882647.5	98.191	%			08:46:58
1	Y 371.029	730820.2	730820.2	98.167	%			08:46:58
1	Ag 328.068†	368.9	5.8	0.0252	ug/L	0.0252	ppb	08:46:58
1	As 188.979†	6.8	41.7	15.135	ug/L	15.135	ppb	08:47:18
1	B 249.677†	764.9	805.0	16.520	ug/L	16.520	ppb	08:46:58
1	Ba 233.527†	1.7	4.4	0.0279	ug/L	0.0279	ppb	08:47:18
1	Be 313.107†	-4607.0	39.2	0.0133	ug/L	0.0133	ppb	08:46:58
1	Cd 226.502†	-179.1	46.7	0.4571	ug/L	0.4571	ppb	08:47:18
1	Co 228.616†	-92.7	-7.3	-0.1243	ug/L	-0.1243	ppb	08:47:18
1	Cr 267.716†	115.0	37.0	0.3749	ug/L	0.3749	ppb	08:47:18
1	Cu 324.752†	5983.3	38.0	0.1073	ug/L	0.1073	ppb	08:46:58
1	Mn 257.610†	524.0	42.1	0.0427	ug/L	0.0427	ppb	08:47:18
1	Mo 202.031†	41.8	22.7	1.3758	ug/L	1.3758	ppb	08:47:18
1	Ni 231.604†	95.9	4.1	0.0902	ug/L	0.0902	ppb	08:47:18
1	P 214.914†	249.6	-3.9	-2.0245	ug/L	-2.0245	ppb	08:47:18
1	Pb 220.353†	-69.9	-7.1	-0.7469	ug/L	-0.7469	ppb	08:47:18
1	S 181.975 Axial†	59.8	11.9	14.576	ug/L	14.576	ppb	08:47:18
1	Sb 206.836†	48.9	8.6	2.6407	ug/L	2.6407	ppb	08:47:18
1	Se 196.026†	-20.6	7.5	4.0908	ug/L	4.0908	ppb	08:47:18
1	Si 251.611†	705.9	141.5	3.9239	ug/L	3.9239	ppb	08:47:18
1	Sn 189.927†	18.2	15.0	2.2525	ug/L	2.2525	ppb	08:47:18
1	Ti 334.940†	-1321.0	42.2	0.0632	ug/L	0.0632	ppb	08:46:58
1	Tl 190.801†	-27.2	20.4	5.2955	ug/L	5.2955	ppb	08:47:18
1	U 409.014†	-2472.0	-145.3	-4.0038	ug/L	-4.0038	ppb	08:46:58
1	V 292.402†	-1563.0	-122.4	-0.7679	ug/L	-0.7679	ppb	08:46:58
1	Zn 213.857†	855.3	77.5	0.6371	ug/L	0.6371	ppb	08:47:18
1	SiO2†	696.7	102.9	6.0890	ug/L	6.0890	ppb	08:48:14
2	Sc Radial	5679.2	5679.2	102	%			08:46:06
2	Y RADIAL	6053.6	6053.6	102.4	%			08:46:06
2	Al 396.153Radial†	-29.6	-12.7	-9.2958	ug/L	-9.2958	ppb	08:46:06
2	Ca 317.933Radial†	23.6	3.6	5.0742	ug/L	5.0742	ppb	08:46:26
2	Fe 238.204 Radial†	13.0	1.8	15.290	ug/L	15.290	ppb	08:46:26
2	K 766.490 Radial†	3283.2	506.1	89.192	ug/L	89.192	ppb	08:46:06
2	Mg 279.077 IEC†	4.8	3.4	104.14	ug/L	104.14	ppb	08:46:26
2	Na 589.592 Radial†	-724.7	51.3	15.297	ug/L	15.297	ppb	08:46:06
2	Sr 421.552†	43.4	54.4	0.3187	ug/L	0.3187	ppb	08:46:06
2	Sc 361.383	894399.5	894399.5	99.498	%			08:47:23
2	Y 371.029	741616.7	741616.7	99.618	%			08:47:23
2	Ag 328.068†	406.8	38.9	0.1763	ug/L	0.1763	ppb	08:47:23
2	As 188.979†	-4.7	30.1	10.929	ug/L	10.929	ppb	08:47:43
2	B 249.677†	639.2	668.4	13.714	ug/L	13.714	ppb	08:47:23
2	Ba 233.527†	-9.2	-6.6	-0.0444	ug/L	-0.0444	ppb	08:47:43
2	Be 313.107†	-4636.4	71.3	0.0238	ug/L	0.0238	ppb	08:47:23
2	Cd 226.502†	-191.2	37.1	0.3612	ug/L	0.3612	ppb	08:47:43
2	Co 228.616†	-80.8	5.9	0.1069	ug/L	0.1069	ppb	08:47:43
2	Cr 267.716†	119.6	40.1	0.4079	ug/L	0.4079	ppb	08:47:43
2	Cu 324.752†	6095.9	71.1	0.2016	ug/L	0.2016	ppb	08:47:23
2	Mn 257.610†	541.0	52.3	0.0512	ug/L	0.0512	ppb	08:47:43
2	Mo 202.031†	42.7	23.1	1.3976	ug/L	1.3976	ppb	08:47:43
2	Ni 231.604†	115.3	22.3	0.4874	ug/L	0.4874	ppb	08:47:43

2	P 214.914†	251.0	-5.8	-3.0602	ug/L	-3.0602 ppb	08:47:43
2	Pb 220.353†	-84.6	-20.9	-2.2067	ug/L	-2.2067 ppb	08:47:43
2	S 181.975 Axial†	53.0	4.2	5.1837	ug/L	5.1837 ppb	08:47:43
2	Sb 206.836†	59.2	18.2	5.5244	ug/L	5.5244 ppb	08:47:43
2	Se 196.026†	-25.1	3.2	1.8153	ug/L	1.8153 ppb	08:47:43
2	Si 251.611†	690.6	116.6	3.2274	ug/L	3.2274 ppb	08:47:43
2	Sn 189.927†	18.3	14.9	2.2301	ug/L	2.2301 ppb	08:47:43
2	Ti 334.940†	-1403.2	-22.7	-0.0310	ug/L	-0.0310 ppb	08:47:23
2	Tl 190.801†	-31.6	16.3	4.2296	ug/L	4.2296 ppb	08:47:43
2	U 409.014†	-2495.3	-135.7	-3.7417	ug/L	-3.7417 ppb	08:47:23
2	V 292.402†	-1448.9	13.2	0.0967	ug/L	0.0967 ppb	08:47:23
2	Zn 213.857†	859.7	70.5	0.5696	ug/L	0.5696 ppb	08:47:43
2	SiO2†	722.0	118.9	7.0682	ug/L	7.0682 ppb	08:48:19
3	Sc Radial	5731.2	5731.2	103	%		08:46:31
3	Y RADIAL	6055.8	6055.8	102.4	%		08:46:31
3	Al 396.153Radial†	-8.8	7.8	5.6564	ug/L	5.6564 ppb	08:46:31
3	Ca 317.933Radial†	22.2	2.0	2.8825	ug/L	2.8825 ppb	08:46:51
3	Fe 238.204 Radial†	11.8	0.5	4.4524	ug/L	4.4524 ppb	08:46:51
3	K 766.490 Radial†	3425.4	615.0	108.37	ug/L	108.37 ppb	08:46:31
3	Mg 279.077 IEC†	5.5	3.9	122.32	ug/L	122.32 ppb	08:46:51
3	Na 589.592 Radial†	-631.0	148.7	44.394	ug/L	44.394 ppb	08:46:31
3	Sr 421.552†	-23.4	-11.0	-0.0643	ug/L	-0.0643 ppb	08:46:31
3	Sc 361.383	887478.8	887478.8	98.728	%		08:47:49
3	Y 371.029	736256.7	736256.7	98.898	%		08:47:49
3	Ag 328.068†	372.8	7.7	0.0347	ug/L	0.0347 ppb	08:47:49
3	As 188.979†	-3.1	31.7	11.503	ug/L	11.503 ppb	08:48:09
3	B 249.677†	583.3	616.8	12.658	ug/L	12.658 ppb	08:47:49
3	Ba 233.527†	-4.3	-1.8	-0.0131	ug/L	-0.0131 ppb	08:48:09
3	Be 313.107†	-4527.8	145.0	0.0488	ug/L	0.0488 ppb	08:47:49
3	Cd 226.502†	-183.8	43.1	0.4210	ug/L	0.4210 ppb	08:48:09
3	Co 228.616†	-89.2	-3.3	-0.0536	ug/L	-0.0536 ppb	08:48:09
3	Cr 267.716†	140.5	62.2	0.6302	ug/L	0.6302 ppb	08:48:09
3	Cu 324.752†	6093.3	116.2	0.3287	ug/L	0.3287 ppb	08:47:49
3	Mn 257.610†	541.4	56.9	0.0543	ug/L	0.0543 ppb	08:48:09
3	Mo 202.031†	43.4	24.0	1.4560	ug/L	1.4560 ppb	08:48:09
3	Ni 231.604†	119.4	27.4	0.5977	ug/L	0.5977 ppb	08:48:09
3	P 214.914†	259.2	4.4	2.2580	ug/L	2.2580 ppb	08:48:09
3	Pb 220.353†	-68.2	-5.0	-0.5269	ug/L	-0.5269 ppb	08:48:09
3	S 181.975 Axial†	54.0	5.7	7.0149	ug/L	7.0149 ppb	08:48:09
3	Sb 206.836†	61.1	20.6	6.2055	ug/L	6.2055 ppb	08:48:09
3	Se 196.026†	-22.1	6.1	3.3633	ug/L	3.3633 ppb	08:48:09
3	Si 251.611†	682.5	113.8	3.1462	ug/L	3.1462 ppb	08:48:09
3	Sn 189.927†	6.9	3.5	0.5269	ug/L	0.5269 ppb	08:48:09
3	Ti 334.940†	-1301.0	69.8	0.1020	ug/L	0.1020 ppb	08:47:49
3	Tl 190.801†	-25.5	22.3	5.7757	ug/L	5.7757 ppb	08:48:09
3	U 409.014†	-2436.5	-95.6	-2.6370	ug/L	-2.6370 ppb	08:47:49
3	V 292.402†	-1542.0	-92.5	-0.5707	ug/L	-0.5707 ppb	08:47:49
3	Zn 213.857†	869.7	87.4	0.7079	ug/L	0.7079 ppb	08:48:09
3	SiO2†	737.5	140.3	8.3564	ug/L	8.3564 ppb	08:48:24

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	888175.3	98.806	%	0.6571				0.67%
Sc Radial	5665.4	102	%	1.3				1.30%
Y 371.029	736231.2	98.894	%	0.7251				0.73%
Y RADIAL	6024.3	101.9	%	0.89				0.87%
Ag 328.068†	17.5	0.0787	ug/L	0.08467	0.0787	ppb	0.08467	107.55%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-2.8	-2.0821	ug/L	7.48988	-2.0821	ppb	7.48988	359.72%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	34.5	12.522	ug/L	2.2810	12.522	ppb	2.2810	18.22%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	696.7	14.298	ug/L	1.9963	14.298	ppb	1.9963	13.96%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-1.3	-0.0099	ug/L	0.03627	-0.0099	ppb	0.03627	368.04%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	85.2	0.0287	ug/L	0.01825	0.0287	ppb	0.01825	63.71%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	4.0	5.6726	ug/L	3.13237	5.6726	ppb	3.13237	55.22%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                42.3      0.4131 ug/L       0.04846      0.4131 ppb        0.04846  11.73%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                -1.5     -0.0237 ug/L       0.11846     -0.0237 ppb        0.11846 500.23%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                46.4      0.4710 ug/L       0.13884      0.4710 ppb        0.13884  29.48%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†                75.1      0.2125 ug/L       0.11109      0.2125 ppb        0.11109  52.27%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          0.8      6.6187 ug/L       7.81697      6.6187 ppb        7.81697 118.10%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         567.2     99.962 ug/L        9.8058     99.962 ppb         9.8058   9.81%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             1.8     55.681 ug/L      100.0932     55.681 ppb       100.0932 179.76%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                50.5      0.0494 ug/L       0.00603      0.0494 ppb        0.00603  12.20%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                23.3      1.4098 ug/L       0.04147      1.4098 ppb        0.04147   2.94%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†         84.3     25.159 ug/L      16.6597     25.159 ppb       16.6597  66.22%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                17.9      0.3918 ug/L       0.26697      0.3918 ppb        0.26697  68.14%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -1.8     -0.9422 ug/L       2.81945     -0.9422 ppb        2.81945 299.23%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               -11.0     -1.1602 ug/L       0.91297     -1.1602 ppb        0.91297  78.69%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            7.3      8.9248 ug/L       4.97886      8.9248 ppb        4.97886  55.79%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                15.8      4.7902 ug/L       1.89246      4.7902 ppb        1.89246  39.51%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 5.6      3.0898 ug/L       1.16213      3.0898 ppb        1.16213  37.61%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†               124.0      3.4325 ug/L       0.42751      3.4325 ppb        0.42751  12.45%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                11.1      1.6698 ug/L       0.98988      1.6698 ppb        0.98988  59.28%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                22.5      0.1320 ug/L       0.19170      0.1320 ppb        0.19170 145.24%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                29.8      0.0447 ug/L       0.06842      0.0447 ppb        0.06842 153.00%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                19.7      5.1003 ug/L       0.79132      5.1003 ppb        0.79132  15.52%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -125.5     -3.4608 ug/L       0.72537     -3.4608 ppb        0.72537  20.96%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                -67.2     -0.4140 ug/L       0.45308     -0.4140 ppb        0.45308 109.45%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                78.5      0.6382 ug/L       0.06919      0.6382 ppb        0.06919  10.84%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                     120.7      7.1712 ug/L       1.13717      7.1712 ppb        1.13717  15.86%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

==========

Analysis Begun

Start Time: 12/19/2009 08:54:07 **Plasma On Time: 12/14/2009 06:02:42**
Logged In Analyst: Optima3 **Technique: ICP Continuous**
Spectrometer Model: Optima 5300 DV, S/N 077C7090601Autosampler Model: S10

Sample Information File: C:\pe\Optima3\Sample Information\121909.sif
Batch ID:
Results Data Set: 121909
Results Library: C:\pe\Optima3\Results\Results.mdb

==========

Method Loaded
Method Name: General Eng.2AX **Method Last Saved: 12/19/2009 07:23:10**
IEC File: 101209.iec **MSF File:**
Method Description:

Analyte	Calibration Equation	Processing	View	Internal Standard	IEC
Ag 328.068	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Al 396.153Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
As 188.979	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
B 249.677	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ba 233.527	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Be 313.107	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ca 317.933Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	No
Cd 226.502	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Co 228.616	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cr 267.716	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cu 324.752	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Fe 238.204 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
K 766.490 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Mg 279.077 IEC	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Mn 257.610	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Mo 202.031	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Na 589.592 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	No
Ni 231.604	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
P 214.914	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Pb 220.353	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
S 181.975 Axial	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sb 206.836	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sc 361.383	Lin Thru 0	Peak Area	Axial	n/a	n/a
Sc Radial	Lin, Calc Int	Peak Area	Radial	n/a	n/a
Se 196.026	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Si 251.611	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sn 189.927	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sr 421.552	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Ti 334.940	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Tl 190.801	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
U 409.014	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
V 292.402	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y 371.029	Lin, Calc Int	Peak Area	Axial	n/a	n/a
Zn 213.857	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y RADIAL	Lin, Calc Int	Peak Area	Radial	n/a	n/a
SiO2	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes

==========

Sequence No.: 1 **Autosampler Location: 30**
Sample ID: LR1 **Date Collected: 12/19/2009 08:54:08**
Analyst: HSC **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: LR1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	5453.6	5453.6	98.0	%			08:56:06
1	Y RADIAL	5764.5	5764.5	97.52	%			08:56:06
1	Al 396.153Radial†	-42.8	-27.3	-19.920	ug/L	-19.920	ppb	08:56:06

1	Ca 317.933Radial†	24.5	5.4	7.7557 ug/L	7.7557 ppb	08:56:26
1	Fe 238.204 Radial†	7.2	-3.6	-29.566 ug/L	-29.566 ppb	08:56:26
1	K 766.490 Radial†	4057.7	1429.9	98.277 ug/L	98.277 ppb	08:56:06
1	Mg 279.077 IEC†	3.1	1.8	56.059 ug/L	56.059 ppb	08:56:26
1	Na 589.592 Radial†	1144887.8	1169525.2	349070 ug/L	349070 ppb	08:56:01
1	Sr 421.552†	-0.9	10.8	0.0635 ug/L	0.0635 ppb	08:56:06
1	Sc 361.383	854394.5	854394.5	95.048 %		08:57:34
1	Y 371.029	689985.0	689985.0	92.682 %		08:57:34
1	Ag 328.068†	308.9	-44.9	-0.2041 ug/L	-0.2041 ppb	08:57:34
1	As 188.979†	-10.8	23.4	8.4936 ug/L	8.4936 ppb	08:57:54
1	B 249.677†	263.4	303.1	6.2236 ug/L	6.2236 ppb	08:57:34
1	Ba 233.527†	16.1	19.5	0.1301 ug/L	0.1301 ppb	08:57:54
1	Be 313.107†	-4712.1	-226.5	-0.0770 ug/L	-0.0770 ppb	08:57:34
1	Cd 226.502†	-198.0	20.8	0.2067 ug/L	0.2067 ppb	08:57:54
1	Co 228.616†	-66.0	17.7	0.3113 ug/L	0.3113 ppb	08:57:54
1	Cr 267.716†	105.0	30.3	0.3061 ug/L	0.3061 ppb	08:57:54
1	Cu 324.752†	6127.1	390.8	1.1027 ug/L	1.1027 ppb	08:57:34
1	Mn 257.610†	513.5	48.7	0.0441 ug/L	0.0441 ppb	08:57:54
1	Mo 202.031†	21.7	2.9	0.1739 ug/L	0.1739 ppb	08:57:54
1	Ni 231.604†	95.6	7.0	0.1518 ug/L	0.1518 ppb	08:57:54
1	P 214.914†	254.3	9.5	4.8092 ug/L	4.8092 ppb	08:57:54
1	Pb 220.353†	-77.0	-16.9	-1.7836 ug/L	-1.7836 ppb	08:57:54
1	S 181.975 Axial†	45.0	-1.6	-1.9640 ug/L	-1.9640 ppb	08:57:54
1	Sb 206.836†	37.6	-1.7	-0.4816 ug/L	-0.4816 ppb	08:57:54
1	Se 196.026†	-24.9	2.3	1.1562 ug/L	1.1562 ppb	08:57:54
1	Si 251.611†	582.5	35.4	0.9071 ug/L	0.9071 ppb	08:57:54
1	Sn 189.927†	9.5	6.5	0.9771 ug/L	0.9771 ppb	08:57:54
1	Ti 334.940†	-1660.2	-359.1	-0.5180 ug/L	-0.5180 ppb	08:57:34
1	Tl 190.801†	-30.9	15.6	4.0441 ug/L	4.0441 ppb	08:57:54
1	U 409.014†	-2319.2	-67.8	-1.8646 ug/L	-1.8646 ppb	08:57:34
1	V 292.402†	-1481.7	-89.4	-0.5638 ug/L	-0.5638 ppb	08:57:34
1	Zn 213.857†	819.6	68.8	0.5625 ug/L	0.5625 ppb	08:57:54
1	SiO2†	652.8	80.1	4.6525 ug/L	4.6525 ppb	08:58:50
2	Sc Radial	5498.5	5498.5	98.8 %		08:56:37
2	Y RADIAL	5833.5	5833.5	98.68 %		08:56:37
2	Al 396.153Radial†	-13.3	2.9	2.0719 ug/L	2.0719 ppb	08:56:37
2	Ca 317.933Radial†	28.9	9.7	13.785 ug/L	13.785 ppb	08:56:57
2	Fe 238.204 Radial†	9.8	-1.0	-8.1758 ug/L	-8.1758 ppb	08:56:57
2	K 766.490 Radial†	3953.0	1290.0	72.436 ug/L	72.436 ppb	08:56:37
2	Mg 279.077 IEC†	2.6	1.3	39.578 ug/L	39.578 ppb	08:56:57
2	Na 589.592 Radial†	1163347.2	1178658.7	351800 ug/L	351800 ppb	08:56:32
2	Sr 421.552†	17.7	29.8	0.1744 ug/L	0.1744 ppb	08:56:37
2	Sc 361.383	856147.5	856147.5	95.243 %		08:57:59
2	Y 371.029	691778.8	691778.8	92.923 %		08:57:59
2	Ag 328.068†	371.4	20.0	0.0888 ug/L	0.0888 ppb	08:57:59
2	As 188.979†	-15.1	18.9	6.8618 ug/L	6.8618 ppb	08:58:19
2	B 249.677†	219.9	256.8	5.2702 ug/L	5.2702 ppb	08:57:59
2	Ba 233.527†	18.0	21.5	0.1448 ug/L	0.1448 ppb	08:58:19
2	Be 313.107†	-4678.9	-181.5	-0.0616 ug/L	-0.0616 ppb	08:57:59
2	Cd 226.502†	-206.5	12.3	0.1218 ug/L	0.1218 ppb	08:58:19
2	Co 228.616†	-62.7	21.3	0.3763 ug/L	0.3763 ppb	08:58:19
2	Cr 267.716†	101.2	26.1	0.2669 ug/L	0.2669 ppb	08:58:19
2	Cu 324.752†	6158.4	410.4	1.1592 ug/L	1.1592 ppb	08:57:59
2	Mn 257.610†	536.7	72.0	0.0695 ug/L	0.0695 ppb	08:58:19
2	Mo 202.031†	37.5	19.5	1.1778 ug/L	1.1778 ppb	08:58:19
2	Ni 231.604†	109.2	21.1	0.4606 ug/L	0.4606 ppb	08:58:19
2	P 214.914†	256.4	11.2	5.6694 ug/L	5.6694 ppb	08:58:19
2	Pb 220.353†	-73.6	-13.2	-1.3845 ug/L	-1.3845 ppb	08:58:19
2	S 181.975 Axial†	52.3	5.9	7.2078 ug/L	7.2078 ppb	08:58:19
2	Sb 206.836†	44.1	5.1	1.5796 ug/L	1.5796 ppb	08:58:19
2	Se 196.026†	-31.8	-4.9	-2.6664 ug/L	-2.6664 ppb	08:58:19
2	Si 251.611†	622.8	76.4	2.0510 ug/L	2.0510 ppb	08:58:19
2	Sn 189.927†	18.0	15.4	2.3087 ug/L	2.3087 ppb	08:58:19
2	Ti 334.940†	-1575.0	-266.1	-0.3803 ug/L	-0.3803 ppb	08:57:59
2	Tl 190.801†	-43.0	2.9	0.7449 ug/L	0.7449 ppb	08:58:19
2	U 409.014†	-2560.7	-316.4	-8.7173 ug/L	-8.7173 ppb	08:57:59
2	V 292.402†	-1471.3	-75.4	-0.4773 ug/L	-0.4773 ppb	08:57:59
2	Zn 213.857†	844.2	92.8	0.7563 ug/L	0.7563 ppb	08:58:19
2	SiO2†	625.0	49.6	2.7738 ug/L	2.7738 ppb	08:58:55
3	Sc Radial	5453.2	5453.2	98.0 %		08:57:07
3	Y RADIAL	5736.1	5736.1	97.03 %		08:57:07

3	Al 396.153Radial†	-19.3	-3.3	-2.4598	ug/L	-2.4598 ppb	08:57:07
3	Ca 317.933Radial†	30.3	11.4	16.232	ug/L	16.232 ppb	08:57:27
3	Fe 238.204 Radial†	12.2	1.5	12.781	ug/L	12.781 ppb	08:57:27
3	K 766.490 Radial†	4099.4	1472.8	103.07	ug/L	103.07 ppb	08:57:07
3	Mg 279.077 IEC†	3.2	1.9	58.114	ug/L	58.114 ppb	08:57:27
3	Na 589.592 Radial†	1165472.6	1190620.3	355370	ug/L	355370 ppb	08:57:02
3	Sr 421.552†	0.3	12.1	0.0709	ug/L	0.0709 ppb	08:57:07
3	Sc 361.383	857800.0	857800.0	95.427	%		08:58:24
3	Y 371.029	692234.0	692234.0	92.984	%		08:58:24
3	Ag 328.068†	412.6	62.4	0.2793	ug/L	0.2793 ppb	08:58:24
3	As 188.979†	-18.3	15.6	5.6712	ug/L	5.6712 ppb	08:58:45
3	B 249.677†	198.7	234.2	4.8027	ug/L	4.8027 ppb	08:58:24
3	Ba 233.527†	33.0	37.2	0.2525	ug/L	0.2525 ppb	08:58:45
3	Be 313.107†	-4853.4	-354.9	-0.1197	ug/L	-0.1197 ppb	08:58:24
3	Cd 226.502†	-193.5	26.4	0.2576	ug/L	0.2576 ppb	08:58:45
3	Co 228.616†	-58.3	26.0	0.4581	ug/L	0.4581 ppb	08:58:45
3	Cr 267.716†	124.1	49.9	0.5080	ug/L	0.5080 ppb	08:58:45
3	Cu 324.752†	6096.5	333.1	0.9418	ug/L	0.9418 ppb	08:58:24
3	Mn 257.610†	520.1	53.5	0.0530	ug/L	0.0530 ppb	08:58:45
3	Mo 202.031†	35.1	16.9	1.0226	ug/L	1.0226 ppb	08:58:45
3	Ni 231.604†	109.8	21.4	0.4682	ug/L	0.4682 ppb	08:58:45
3	P 214.914†	258.8	13.1	6.6958	ug/L	6.6958 ppb	08:58:45
3	Pb 220.353†	-99.9	-40.7	-4.2838	ug/L	-4.2838 ppb	08:58:45
3	S 181.975 Axial†	50.6	4.1	4.9969	ug/L	4.9969 ppb	08:58:45
3	Sb 206.836†	46.7	7.7	2.3539	ug/L	2.3539 ppb	08:58:45
3	Se 196.026†	-25.7	1.6	0.9017	ug/L	0.9017 ppb	08:58:45
3	Si 251.611†	609.1	60.8	1.6050	ug/L	1.6050 ppb	08:58:45
3	Sn 189.927†	15.0	12.2	1.8326	ug/L	1.8326 ppb	08:58:45
3	Ti 334.940†	-1565.6	-253.0	-0.3610	ug/L	-0.3610 ppb	08:58:24
3	Tl 190.801†	-46.0	-0.1	-0.0375	ug/L	-0.0375 ppb	08:58:45
3	U 409.014†	-2586.5	-338.3	-9.3227	ug/L	-9.3227 ppb	08:58:24
3	V 292.402†	-1465.2	-66.0	-0.4237	ug/L	-0.4237 ppb	08:58:24
3	Zn 213.857†	843.2	90.1	0.7314	ug/L	0.7314 ppb	08:58:45
3	SiO2†	601.9	24.0	1.2123	ug/L	1.2123 ppb	08:59:00

Mean Data: LR1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	856114.0	95.239	%	0.1895				0.20%
Sc Radial	5468.4	98.2	%	0.47				0.48%
Y 371.029	691332.6	92.863	%	0.1597				0.17%
Y RADIAL	5778.0	97.74	%	0.848				0.87%
Ag 328.068†	12.5	0.0547	ug/L	0.24352	0.0547	ppb	0.24352	445.52%
Al 396.153Radial†	-9.2	-6.7694	ug/L	11.61227	-6.7694	ppb	11.61227	171.54%
As 188.979†	19.3	7.0089	ug/L	1.41693	7.0089	ppb	1.41693	20.22%
B 249.677†	264.7	5.4321	ug/L	0.72414	5.4321	ppb	0.72414	13.33%
Ba 233.527†	26.1	0.1758	ug/L	0.06682	0.1758	ppb	0.06682	38.00%
Be 313.107†	-254.3	-0.0861	ug/L	0.03011	-0.0861	ppb	0.03011	34.97%
Ca 317.933Radial†	8.8	12.591	ug/L	4.3627	12.591	ppb	4.3627	34.65%
Cd 226.502†	19.9	0.1953	ug/L	0.06861	0.1953	ppb	0.06861	35.12%
Co 228.616†	21.6	0.3819	ug/L	0.07353	0.3819	ppb	0.07353	19.25%
Cr 267.716†	35.4	0.3603	ug/L	0.12939	0.3603	ppb	0.12939	35.91%
Cu 324.752†	378.1	1.0679	ug/L	0.11279	1.0679	ppb	0.11279	10.56%
Fe 238.204 Radial†	-1.0	-8.3201	ug/L	21.17379	-8.3201	ppb	21.17379	254.49%
K 766.490 Radial†	1397.6	91.262	ug/L	16.4784	91.262	ppb	16.4784	18.06%
Mg 279.077 IEC†	1.6	51.250	ug/L	10.1604	51.250	ppb	10.1604	19.82%
Mn 257.610†	58.1	0.0555	ug/L	0.01289	0.0555	ppb	0.01289	23.21%
Mo 202.031†	13.1	0.7914	ug/L	0.54039	0.7914	ppb	0.54039	68.28%
Na 589.592 Radial†	1179601.4	352080	ug/L	3157.5	352080	ppb	3157.5	0.90%
Ni 231.604†	16.5	0.3602	ug/L	0.18052	0.3602	ppb	0.18052	50.11%
P 214.914†	11.2	5.7248	ug/L	0.94451	5.7248	ppb	0.94451	16.50%
Pb 220.353†	-23.6	-2.4839	ug/L	1.57141	-2.4839	ppb	1.57141	63.26%
S 181.975 Axial†	2.8	3.4135	ug/L	4.78648	3.4135	ppb	4.78648	140.22%
Sb 206.836†	3.7	1.1506	ug/L	1.46556	1.1506	ppb	1.46556	127.37%
Se 196.026†	-0.3	-0.2028	ug/L	2.13729	-0.2028	ppb	2.13729	>999.9%
Si 251.611†	57.5	1.5210	ug/L	0.57658	1.5210	ppb	0.57658	37.91%
Sn 189.927†	11.4	1.7061	ug/L	0.67472	1.7061	ppb	0.67472	39.55%
Sr 421.552†	17.6	0.1029	ug/L	0.06198	0.1029	ppb	0.06198	60.21%
Ti 334.940†	-292.7	-0.4198	ug/L	0.08562	-0.4198	ppb	0.08562	20.40%
Tl 190.801†	6.1	1.5838	ug/L	2.16626	1.5838	ppb	2.16626	136.77%

U 409.014†	-240.8	-6.6348	ug/L	4.14225	-6.6348	ppb	4.14225	62.43%
V 292.402†	-77.0	-0.4883	ug/L	0.07067	-0.4883	ppb	0.07067	14.47%
Zn 213.857†	83.9	0.6834	ug/L	0.10543	0.6834	ppb	0.10543	15.43%
SiO2†	51.3	2.8795	ug/L	1.72254	2.8795	ppb	1.72254	59.82%

==========

Sequence No.: 2 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 12/19/2009 09:01:10**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**
User canceled analysis.

==========

Analysis Begun

Start Time: 12/19/2009 09:05:36 **Plasma On Time: 12/14/2009 06:02:42**
Logged In Analyst: Optima3 **Technique: ICP Continuous**
Spectrometer Model: Optima 5300 DV, S/N 077C7090601Autosampler Model: S10

Sample Information File: C:\pe\Optima3\Sample Information\121909.sif
Batch ID:
Results Data Set: 121909
Results Library: C:\pe\Optima3\Results\Results.mdb

==========

Sequence No.: 2 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 12/19/2009 09:05:37**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5369.0	5369.0	96.4	%			09:07:29
1	Y RADIAL	5694.7	5694.7	96.33	%			09:07:29
1	Al 396.153Radial†	6580.7	6840.1	4963.0	ug/L	4963.0	ppb	09:07:29
1	Ca 317.933Radial†	3510.2	3620.3	5161.6	ug/L	5161.6	ppb	09:07:49
1	Fe 238.204 Radial†	625.9	638.1	5320.0	ug/L	5320.0	ppb	09:07:49
1	K 766.490 Radial†	30593.9	29011.6	5104.6	ug/L	5104.6	ppb	09:07:29
1	Mg 279.077 IEC†	167.8	172.6	5363.3	ug/L	5363.3	ppb	09:07:49
1	Na 589.592 Radial†	31916.6	33857.2	10105	ug/L	10105	ppb	09:07:29
1	Sr 421.552†	83315.4	86404.8	506.62	ug/L	506.62	ppb	09:07:29
1	Sc 361.383	914636.7	914636.7	101.75	%			09:08:48
1	Y 371.029	744942.0	744942.0	100.06	%			09:08:48
1	Ag 328.068†	114886.4	112541.0	488.22	ug/L	488.22	ppb	09:08:48
1	As 188.979†	1351.8	1363.4	499.23	ug/L	499.23	ppb	09:09:08
1	B 249.677†	24376.5	23983.3	490.26	ug/L	490.26	ppb	09:08:48
1	Ba 233.527†	73633.9	72370.3	493.16	ug/L	493.16	ppb	09:08:48
1	Be 313.107†	1481352.4	1460610.7	490.79	ug/L	490.79	ppb	09:08:48
1	Cd 226.502†	51167.9	50517.2	493.84	ug/L	493.84	ppb	09:08:48
1	Co 228.616†	28217.1	27819.0	487.13	ug/L	487.13	ppb	09:09:08
1	Cr 267.716†	49303.7	48375.7	491.26	ug/L	491.26	ppb	09:08:48
1	Cu 324.752†	182806.2	173607.2	490.77	ug/L	490.77	ppb	09:08:48
1	Mn 257.610†	507226.8	498013.2	491.66	ug/L	491.66	ppb	09:08:48
1	Mo 202.031†	8300.1	8137.5	492.95	ug/L	492.95	ppb	09:09:08
1	Ni 231.604†	22900.3	22412.9	489.39	ug/L	489.39	ppb	09:09:08
1	P 214.914†	5061.9	4716.7	2385.8	ug/L	2385.8	ppb	09:09:08
1	Pb 220.353†	4720.4	4703.3	497.13	ug/L	497.13	ppb	09:09:08
1	S 181.975 Axial†	857.1	793.3	972.29	ug/L	972.29	ppb	09:09:08
1	Sb 206.836†	1703.0	1632.5	496.23	ug/L	496.23	ppb	09:09:08
1	Se 196.026†	898.1	911.2	514.84	ug/L	514.84	ppb	09:09:08
1	Si 251.611†	88010.5	85919.6	2410.9	ug/L	2410.9	ppb	09:08:48
1	Sn 189.927†	3332.3	3271.6	491.27	ug/L	491.27	ppb	09:09:08
1	Ti 334.940†	340573.8	336105.0	485.84	ug/L	485.84	ppb	09:08:48
1	Tl 190.801†	1888.2	1903.8	497.07	ug/L	497.07	ppb	09:09:08
1	U 409.014†	14905.8	17021.7	467.37	ug/L	467.37	ppb	09:08:48
1	V 292.402†	76580.5	76733.1	494.58	ug/L	494.58	ppb	09:08:48
1	Zn 213.857†	61823.8	59967.1	487.41	ug/L	487.41	ppb	09:08:48
1	SiO2†	88107.6	85985.9	5180.6	ug/L	5180.6	ppb	09:10:08
2	Sc Radial	5512.0	5512.0	99.0	%			09:07:54
2	Y RADIAL	5826.2	5826.2	98.56	%			09:07:54
2	Al 396.153Radial†	6731.0	6814.8	4944.8	ug/L	4944.8	ppb	09:07:54

2	Ca 317.933Radial†	3504.8	3520.4	5019.1 ug/L	5019.1 ppb	09:08:14
2	Fe 238.204 Radial†	620.7	616.1	5136.5 ug/L	5136.5 ppb	09:08:14
2	K 766.490 Radial†	31008.1	28606.5	5033.3 ug/L	5033.3 ppb	09:07:54
2	Mg 279.077 IEC†	166.4	166.7	5181.6 ug/L	5181.6 ppb	09:08:14
2	Na 589.592 Radial†	32296.5	33381.9	9963.5 ug/L	9963.5 ppb	09:07:54
2	Sr 421.552†	84568.2	85427.8	500.89 ug/L	500.89 ppb	09:07:54
2	Sc 361.383	924044.8	924044.8	102.80 %		09:09:15
2	Y 371.029	750584.6	750584.6	100.82 %		09:09:15
2	Ag 328.068†	115963.3	112439.0	487.71 ug/L	487.71 ppb	09:09:15
2	As 188.979†	1338.4	1336.8	489.58 ug/L	489.58 ppb	09:09:35
2	B 249.677†	24586.8	23944.0	489.49 ug/L	489.49 ppb	09:09:15
2	Ba 233.527†	74528.7	72503.9	494.06 ug/L	494.06 ppb	09:09:15
2	Be 313.107†	1495184.9	1459244.0	490.33 ug/L	490.33 ppb	09:09:15
2	Cd 226.502†	51691.9	50515.0	493.83 ug/L	493.83 ppb	09:09:15
2	Co 228.616†	28231.9	27551.0	482.42 ug/L	482.42 ppb	09:09:35
2	Cr 267.716†	49813.0	48377.8	491.28 ug/L	491.28 ppb	09:09:15
2	Cu 324.752†	184794.8	173712.5	491.06 ug/L	491.06 ppb	09:09:15
2	Mn 257.610†	513349.2	498893.6	492.51 ug/L	492.51 ppb	09:09:15
2	Mo 202.031†	8283.7	8038.5	486.94 ug/L	486.94 ppb	09:09:35
2	Ni 231.604†	22891.3	22175.0	484.20 ug/L	484.20 ppb	09:09:35
2	P 214.914†	5037.2	4642.1	2346.9 ug/L	2346.9 ppb	09:09:35
2	Pb 220.353†	4715.3	4651.1	491.63 ug/L	491.63 ppb	09:09:35
2	S 181.975 Axial†	862.1	789.6	967.74 ug/L	967.74 ppb	09:09:35
2	Sb 206.836†	1678.4	1591.5	483.70 ug/L	483.70 ppb	09:09:35
2	Se 196.026†	887.2	891.6	503.55 ug/L	503.55 ppb	09:09:35
2	Si 251.611†	89176.8	86173.5	2418.3 ug/L	2418.3 ppb	09:09:15
2	Sn 189.927†	3319.0	3225.2	484.30 ug/L	484.30 ppb	09:09:35
2	Ti 334.940†	344925.9	336930.8	487.03 ug/L	487.03 ppb	09:09:15
2	Tl 190.801†	1898.5	1894.9	494.82 ug/L	494.82 ppb	09:09:35
2	U 409.014†	15089.9	17051.7	468.22 ug/L	468.22 ppb	09:09:15
2	V 292.402†	77246.5	76614.6	493.77 ug/L	493.77 ppb	09:09:15
2	Zn 213.857†	62496.0	60002.5	487.76 ug/L	487.76 ppb	09:09:15
2	SiO2†	88167.7	85162.7	5131.1 ug/L	5131.1 ppb	09:10:13
3	Sc Radial	5599.4	5599.4	101 %		09:08:19
3	Y RADIAL	5967.2	5967.2	100.9 %		09:08:19
3	Al 396.153Radial†	6760.8	6738.4	4889.0 ug/L	4889.0 ppb	09:08:19
3	Ca 317.933Radial†	3487.3	3447.7	4915.5 ug/L	4915.5 ppb	09:08:39
3	Fe 238.204 Radial†	620.9	606.4	5056.7 ug/L	5056.7 ppb	09:08:39
3	K 766.490 Radial†	31251.0	28359.2	4989.7 ug/L	4989.7 ppb	09:08:19
3	Mg 279.077 IEC†	170.7	168.3	5231.9 ug/L	5231.9 ppb	09:08:39
3	Na 589.592 Radial†	32610.2	33184.7	9904.7 ug/L	9904.7 ppb	09:08:19
3	Sr 421.552†	85476.0	84997.4	498.37 ug/L	498.37 ppb	09:08:19
3	Sc 361.383	918700.5	918700.5	102.20 %		09:09:43
3	Y 371.029	748040.2	748040.2	100.48 %		09:09:43
3	Ag 328.068†	115324.5	112470.2	487.83 ug/L	487.83 ppb	09:09:43
3	As 188.979†	1344.1	1350.0	494.34 ug/L	494.34 ppb	09:10:03
3	B 249.677†	24449.1	23948.3	489.58 ug/L	489.58 ppb	09:09:43
3	Ba 233.527†	73997.1	72405.5	493.39 ug/L	493.39 ppb	09:09:43
3	Be 313.107†	1488761.9	1461420.5	491.06 ug/L	491.06 ppb	09:09:43
3	Cd 226.502†	51374.3	50496.7	493.66 ug/L	493.66 ppb	09:09:43
3	Co 228.616†	28250.2	27728.7	485.54 ug/L	485.54 ppb	09:10:03
3	Cr 267.716†	49599.9	48451.2	492.02 ug/L	492.02 ppb	09:09:43
3	Cu 324.752†	183769.4	173754.9	491.18 ug/L	491.18 ppb	09:09:43
3	Mn 257.610†	509669.2	498197.8	491.81 ug/L	491.81 ppb	09:09:43
3	Mo 202.031†	8281.3	8083.0	489.64 ug/L	489.64 ppb	09:10:03
3	Ni 231.604†	22910.2	22323.1	487.43 ug/L	487.43 ppb	09:10:03
3	P 214.914†	5070.0	4702.6	2378.6 ug/L	2378.6 ppb	09:10:03
3	Pb 220.353†	4743.1	4705.0	497.31 ug/L	497.31 ppb	09:10:03
3	S 181.975 Axial†	866.7	799.0	979.25 ug/L	979.25 ppb	09:10:03
3	Sb 206.836†	1694.6	1616.9	491.39 ug/L	491.39 ppb	09:10:03
3	Se 196.026†	892.7	902.0	509.00 ug/L	509.00 ppb	09:10:03
3	Si 251.611†	88656.1	86168.7	2418.1 ug/L	2418.1 ppb	09:09:43
3	Sn 189.927†	3320.7	3245.6	487.35 ug/L	487.35 ppb	09:10:03
3	Ti 334.940†	342358.9	336371.1	486.22 ug/L	486.22 ppb	09:09:43
3	Tl 190.801†	1881.3	1888.8	493.20 ug/L	493.20 ppb	09:10:03
3	U 409.014†	14957.1	17007.1	467.00 ug/L	467.00 ppb	09:09:43
3	V 292.402†	76966.2	76777.5	494.85 ug/L	494.85 ppb	09:09:43
3	Zn 213.857†	62078.6	59947.7	487.29 ug/L	487.29 ppb	09:09:43
3	SiO2†	88683.1	86165.9	5191.8 ug/L	5191.8 ppb	09:10:18

Mean Data: CCV

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	919127.3	102.25	%	0.525				0.51%
Sc Radial	5493.5	98.7	%	2.09				2.12%
Y 371.029	747855.6	100.46	%	0.380				0.38%
Y RADIAL	5829.4	98.61	%	2.305				2.34%
Ag 328.068†	112483.4	487.92	ug/L	0.263	487.92	ppb	0.263	0.05%
QC value within limits for Ag 328.068 Recovery = 97.58%								
Al 396.153Radial†	6797.8	4932.3	ug/L	38.56	4932.3	ppb	38.56	0.78%
QC value within limits for Al 396.153Radial Recovery = 98.65%								
As 188.979†	1350.1	494.38	ug/L	4.824	494.38	ppb	4.824	0.98%
QC value within limits for As 188.979 Recovery = 98.88%								
B 249.677†	23958.5	489.78	ug/L	0.421	489.78	ppb	0.421	0.09%
QC value within limits for B 249.677 Recovery = 97.96%								
Ba 233.527†	72426.6	493.53	ug/L	0.467	493.53	ppb	0.467	0.09%
QC value within limits for Ba 233.527 Recovery = 98.71%								
Be 313.107†	1460425.0	490.72	ug/L	0.368	490.72	ppb	0.368	0.07%
QC value within limits for Be 313.107 Recovery = 98.14%								
Ca 317.933Radial†	3529.5	5032.1	ug/L	123.55	5032.1	ppb	123.55	2.46%
QC value within limits for Ca 317.933Radial Recovery = 100.64%								
Cd 226.502†	50509.6	493.77	ug/L	0.099	493.77	ppb	0.099	0.02%
QC value within limits for Cd 226.502 Recovery = 98.75%								
Co 228.616†	27699.6	485.03	ug/L	2.394	485.03	ppb	2.394	0.49%
QC value within limits for Co 228.616 Recovery = 97.01%								
Cr 267.716†	48401.6	491.52	ug/L	0.435	491.52	ppb	0.435	0.09%
QC value within limits for Cr 267.716 Recovery = 98.30%								
Cu 324.752†	173691.5	491.01	ug/L	0.208	491.01	ppb	0.208	0.04%
QC value within limits for Cu 324.752 Recovery = 98.20%								
Fe 238.204 Radial†	620.2	5171.1	ug/L	134.97	5171.1	ppb	134.97	2.61%
QC value within limits for Fe 238.204 Radial Recovery = 103.42%								
K 766.490 Radial†	28659.1	5042.5	ug/L	58.00	5042.5	ppb	58.00	1.15%
QC value within limits for K 766.490 Radial Recovery = 100.85%								
Mg 279.077 IEC†	169.2	5258.9	ug/L	93.79	5258.9	ppb	93.79	1.78%
QC value within limits for Mg 279.077 IEC Recovery = 105.18%								
Mn 257.610†	498368.2	491.99	ug/L	0.454	491.99	ppb	0.454	0.09%
QC value within limits for Mn 257.610 Recovery = 98.40%								
Mo 202.031†	8086.3	489.84	ug/L	3.009	489.84	ppb	3.009	0.61%
QC value within limits for Mo 202.031 Recovery = 97.97%								
Na 589.592 Radial†	33474.6	9991.2	ug/L	103.18	9991.2	ppb	103.18	1.03%
QC value within limits for Na 589.592 Radial Recovery = 99.91%								
Ni 231.604†	22303.7	487.01	ug/L	2.623	487.01	ppb	2.623	0.54%
QC value within limits for Ni 231.604 Recovery = 97.40%								
P 214.914†	4687.2	2370.4	ug/L	20.69	2370.4	ppb	20.69	0.87%
QC value within limits for P 214.914 Recovery = 94.82%								
Pb 220.353†	4686.5	495.36	ug/L	3.226	495.36	ppb	3.226	0.65%
QC value within limits for Pb 220.353 Recovery = 99.07%								
S 181.975 Axial†	794.0	973.09	ug/L	5.802	973.09	ppb	5.802	0.60%
QC value within limits for S 181.975 Axial Recovery = 97.31%								
Sb 206.836†	1613.6	490.44	ug/L	6.317	490.44	ppb	6.317	1.29%
QC value within limits for Sb 206.836 Recovery = 98.09%								
Se 196.026†	901.6	509.13	ug/L	5.644	509.13	ppb	5.644	1.11%
QC value within limits for Se 196.026 Recovery = 101.83%								
Si 251.611†	86087.3	2415.8	ug/L	4.17	2415.8	ppb	4.17	0.17%
QC value within limits for Si 251.611 Recovery = 96.63%								
Sn 189.927†	3247.5	487.64	ug/L	3.494	487.64	ppb	3.494	0.72%
QC value within limits for Sn 189.927 Recovery = 97.53%								
Sr 421.552†	85610.0	501.96	ug/L	4.227	501.96	ppb	4.227	0.84%
QC value within limits for Sr 421.552 Recovery = 100.39%								
Ti 334.940†	336469.0	486.36	ug/L	0.607	486.36	ppb	0.607	0.12%
QC value within limits for Ti 334.940 Recovery = 97.27%								
Tl 190.801†	1895.8	495.03	ug/L	1.948	495.03	ppb	1.948	0.39%
QC value within limits for Tl 190.801 Recovery = 99.01%								
U 409.014†	17026.8	467.53	ug/L	0.625	467.53	ppb	0.625	0.13%
QC value within limits for U 409.014 Recovery = 93.51%								
V 292.402†	76708.4	494.40	ug/L	0.565	494.40	ppb	0.565	0.11%
QC value within limits for V 292.402 Recovery = 98.88%								
Zn 213.857†	59972.4	487.49	ug/L	0.241	487.49	ppb	0.241	0.05%
QC value within limits for Zn 213.857 Recovery = 97.50%								
SiO2†	85771.5	5167.8	ug/L	32.29	5167.8	ppb	32.29	0.62%
QC value within limits for SiO2 Recovery = 96.64%								

Sequence No.: 3
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 12/19/2009 09:12:28
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5761.3	5761.3	103	%			09:14:21
1	Y RADIAL	6142.1	6142.1	103.9	%			09:14:21
1	Al 396.153Radial†	-23.3	-6.1	-4.5054	ug/L	-4.5054	ppb	09:14:21
1	Ca 317.933Radial†	26.3	5.9	8.3647	ug/L	8.3647	ppb	09:14:41
1	Fe 238.204 Radial†	9.5	-1.7	-14.303	ug/L	-14.303	ppb	09:14:41
1	K 766.490 Radial†	3231.6	410.3	72.307	ug/L	72.307	ppb	09:14:21
1	Mg 279.077 IEC†	1.8	0.4	11.580	ug/L	11.580	ppb	09:14:41
1	Na 589.592 Radial†	-707.8	77.7	23.191	ug/L	23.191	ppb	09:14:21
1	Sr 421.552†	-11.0	1.1	0.0066	ug/L	0.0066	ppb	09:14:21
1	Sc 361.383	910094.4	910094.4	101.24	%			09:15:38
1	Y 371.029	756146.9	756146.9	101.57	%			09:15:38
1	Ag 328.068†	413.8	38.8	0.1604	ug/L	0.1604	ppb	09:15:38
1	As 188.979†	-25.2	9.9	3.6044	ug/L	3.6044	ppb	09:15:58
1	B 249.677†	241.1	264.1	5.4221	ug/L	5.4221	ppb	09:15:38
1	Ba 233.527†	6.1	8.6	0.0578	ug/L	0.0578	ppb	09:15:58
1	Be 313.107†	-4569.4	217.9	0.0731	ug/L	0.0731	ppb	09:15:38
1	Cd 226.502†	-204.0	27.7	0.2720	ug/L	0.2720	ppb	09:15:58
1	Co 228.616†	-81.8	6.3	0.1135	ug/L	0.1135	ppb	09:15:58
1	Cr 267.716†	101.9	20.5	0.2069	ug/L	0.2069	ppb	09:15:58
1	Cu 324.752†	6079.6	-50.7	-0.1440	ug/L	-0.1440	ppb	09:15:38
1	Mn 257.610†	524.8	26.9	0.0249	ug/L	0.0249	ppb	09:15:58
1	Mo 202.031†	34.8	14.5	0.8785	ug/L	0.8785	ppb	09:15:58
1	Ni 231.604†	95.9	1.1	0.0241	ug/L	0.0241	ppb	09:15:58
1	P 214.914†	255.2	-6.0	-3.0803	ug/L	-3.0803	ppb	09:15:58
1	Pb 220.353†	-70.4	-5.5	-0.5755	ug/L	-0.5755	ppb	09:15:58
1	S 181.975 Axial†	55.8	6.2	7.5575	ug/L	7.5575	ppb	09:15:58
1	Sb 206.836†	52.6	10.7	3.2541	ug/L	3.2541	ppb	09:15:58
1	Se 196.026†	-27.7	1.2	0.5957	ug/L	0.5957	ppb	09:15:58
1	Si 251.611†	649.9	64.4	1.7733	ug/L	1.7733	ppb	09:15:58
1	Sn 189.927†	12.0	8.4	1.2617	ug/L	1.2617	ppb	09:15:58
1	Ti 334.940†	-1404.4	0.5	0.0002	ug/L	0.0002	ppb	09:15:38
1	Tl 190.801†	-31.3	17.2	4.4587	ug/L	4.4587	ppb	09:15:58
1	U 409.014†	-2326.2	74.6	2.0561	ug/L	2.0561	ppb	09:15:38
1	V 292.402†	-1496.3	-8.5	-0.0351	ug/L	-0.0351	ppb	09:15:38
1	Zn 213.857†	842.5	38.6	0.3174	ug/L	0.3174	ppb	09:15:58
1	SiO2†	665.9	51.0	2.9953	ug/L	2.9953	ppb	09:16:54
2	Sc Radial	5678.0	5678.0	102	%			09:14:46
2	Y RADIAL	6057.0	6057.0	102.5	%			09:14:46
2	Al 396.153Radial†	-25.8	-8.9	-6.5567	ug/L	-6.5567	ppb	09:14:46
2	Ca 317.933Radial†	27.0	6.9	9.8800	ug/L	9.8800	ppb	09:15:06
2	Fe 238.204 Radial†	13.0	1.9	15.724	ug/L	15.724	ppb	09:15:06
2	K 766.490 Radial†	3208.7	433.6	76.423	ug/L	76.423	ppb	09:14:46
2	Mg 279.077 IEC†	4.0	2.5	78.599	ug/L	78.599	ppb	09:15:06
2	Na 589.592 Radial†	-745.4	30.8	9.2021	ug/L	9.2021	ppb	09:14:46
2	Sr 421.552†	7.5	19.2	0.1124	ug/L	0.1124	ppb	09:14:46
2	Sc 361.383	900498.5	900498.5	100.18	%			09:16:03
2	Y 371.029	746282.3	746282.3	100.24	%			09:16:03
2	Ag 328.068†	413.7	43.1	0.1920	ug/L	0.1920	ppb	09:16:03
2	As 188.979†	-35.1	-0.2	-0.0627	ug/L	-0.0627	ppb	09:16:23
2	B 249.677†	224.5	250.0	5.1285	ug/L	5.1285	ppb	09:16:03
2	Ba 233.527†	3.1	5.7	0.0390	ug/L	0.0390	ppb	09:16:23
2	Be 313.107†	-4643.3	96.0	0.0324	ug/L	0.0324	ppb	09:16:03
2	Cd 226.502†	-214.2	15.4	0.1491	ug/L	0.1491	ppb	09:16:23
2	Co 228.616†	-83.7	3.6	0.0647	ug/L	0.0647	ppb	09:16:23
2	Cr 267.716†	136.1	55.7	0.5657	ug/L	0.5657	ppb	09:16:23
2	Cu 324.752†	6016.2	-50.0	-0.1406	ug/L	-0.1406	ppb	09:16:03
2	Mn 257.610†	545.6	53.2	0.0526	ug/L	0.0526	ppb	09:16:23
2	Mo 202.031†	36.3	16.3	0.9901	ug/L	0.9901	ppb	09:16:23
2	Ni 231.604†	119.8	26.0	0.5678	ug/L	0.5678	ppb	09:16:23

2	P 214.914†	261.1	2.5	1.3372 ug/L	1.3372 ppb	09:16:23
2	Pb 220.353†	-60.3	3.8	0.4037 ug/L	0.4037 ppb	09:16:23
2	S 181.975 Axial†	52.9	3.8	4.6649 ug/L	4.6649 ppb	09:16:23
2	Sb 206.836†	61.8	20.5	6.1683 ug/L	6.1683 ppb	09:16:23
2	Se 196.026†	-29.2	-0.6	-0.2803 ug/L	-0.2803 ppb	09:16:23
2	Si 251.611†	663.7	85.1	2.3532 ug/L	2.3532 ppb	09:16:23
2	Sn 189.927†	9.6	6.1	0.9222 ug/L	0.9222 ppb	09:16:23
2	Ti 334.940†	-1305.7	84.2	0.1232 ug/L	0.1232 ppb	09:16:03
2	Tl 190.801†	-40.5	7.7	1.9919 ug/L	1.9919 ppb	09:16:23
2	U 409.014†	-2477.6	-101.0	-2.7858 ug/L	-2.7858 ppb	09:16:03
2	V 292.402†	-1515.4	-43.3	-0.2679 ug/L	-0.2679 ppb	09:16:03
2	Zn 213.857†	839.5	44.5	0.3570 ug/L	0.3570 ppb	09:16:23
2	SiO2†	657.6	49.7	2.9109 ug/L	2.9109 ppb	09:16:59
3	Sc Radial	5713.4	5713.4	103 %		09:15:11
3	Y RADIAL	6132.6	6132.6	103.7 %		09:15:11
3	Al 396.153Radial†	-11.3	5.4	3.8830 ug/L	3.8830 ppb	09:15:11
3	Ca 317.933Radial†	20.4	0.3	0.3784 ug/L	0.3784 ppb	09:15:31
3	Fe 238.204 Radial†	8.0	-3.1	-25.709 ug/L	-25.709 ppb	09:15:31
3	K 766.490 Radial†	3126.7	334.3	58.904 ug/L	58.904 ppb	09:15:11
3	Mg 279.077 IEC†	1.9	0.5	14.231 ug/L	14.231 ppb	09:15:31
3	Na 589.592 Radial†	-715.9	64.1	19.122 ug/L	19.122 ppb	09:15:11
3	Sr 421.552†	18.7	30.0	0.1761 ug/L	0.1761 ppb	09:15:11
3	Sc 361.383	909049.9	909049.9	101.13 %		09:16:29
3	Y 371.029	754134.2	754134.2	101.30 %		09:16:29
3	Ag 328.068†	321.8	-51.7	-0.2304 ug/L	-0.2304 ppb	09:16:29
3	As 188.979†	-26.3	8.8	3.1931 ug/L	3.1931 ppb	09:16:49
3	B 249.677†	254.5	277.6	5.7013 ug/L	5.7013 ppb	09:16:29
3	Ba 233.527†	14.6	17.0	0.1153 ug/L	0.1153 ppb	09:16:49
3	Be 313.107†	-4685.2	98.2	0.0328 ug/L	0.0328 ppb	09:16:29
3	Cd 226.502†	-204.8	26.6	0.2634 ug/L	0.2634 ppb	09:16:49
3	Co 228.616†	-87.8	0.3	0.0065 ug/L	0.0065 ppb	09:16:49
3	Cr 267.716†	129.3	47.7	0.4835 ug/L	0.4835 ppb	09:16:49
3	Cu 324.752†	6034.4	-88.5	-0.2513 ug/L	-0.2513 ppb	09:16:29
3	Mn 257.610†	524.7	27.4	0.0242 ug/L	0.0242 ppb	09:16:49
3	Mo 202.031†	29.5	9.3	0.5624 ug/L	0.5624 ppb	09:16:49
3	Ni 231.604†	124.2	29.2	0.6388 ug/L	0.6388 ppb	09:16:49
3	P 214.914†	241.4	-19.3	-10.008 ug/L	-10.008 ppb	09:16:49
3	Pb 220.353†	-60.5	4.3	0.4557 ug/L	0.4557 ppb	09:16:49
3	S 181.975 Axial†	44.9	-4.6	-5.5974 ug/L	-5.5974 ppb	09:16:49
3	Sb 206.836†	54.0	12.1	3.6622 ug/L	3.6622 ppb	09:16:49
3	Se 196.026†	-25.9	2.9	1.4922 ug/L	1.4922 ppb	09:16:49
3	Si 251.611†	652.4	67.7	1.8737 ug/L	1.8737 ppb	09:16:49
3	Sn 189.927†	13.7	10.1	1.5097 ug/L	1.5097 ppb	09:16:49
3	Ti 334.940†	-1452.6	-48.8	-0.0708 ug/L	-0.0708 ppb	09:16:29
3	Tl 190.801†	-33.7	14.7	3.8215 ug/L	3.8215 ppb	09:16:49
3	U 409.014†	-2398.8	0.2	0.0067 ug/L	0.0067 ppb	09:16:29
3	V 292.402†	-1438.3	47.2	0.3122 ug/L	0.3122 ppb	09:16:29
3	Zn 213.857†	828.3	25.5	0.2075 ug/L	0.2075 ppb	09:16:49
3	SiO2†	678.1	63.8	3.7903 ug/L	3.7903 ppb	09:17:04

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	906547.6	100.85	%	0.586				0.58%
Sc Radial	5717.6	103	%	0.8				0.73%
Y 371.029	752187.8	101.04	%	0.700				0.69%
Y RADIAL	6110.5	103.4	%	0.79				0.76%
Ag 328.068†	10.1	0.0407	ug/L	0.23532	0.0407	ppb	0.23532	578.43%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-3.2	-2.3930	ug/L	5.53111	-2.3930	ppb	5.53111	231.13%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	6.2	2.2449	ug/L	2.00899	2.2449	ppb	2.00899	89.49%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	263.9	5.4173	ug/L	0.28645	5.4173	ppb	0.28645	5.29%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	10.5	0.0707	ug/L	0.03977	0.0707	ppb	0.03977	56.25%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	137.4	0.0461	ug/L	0.02336	0.0461	ppb	0.02336	50.67%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	4.4	6.2077	ug/L	5.10486	6.2077	ppb	5.10486	82.23%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                23.2      0.2281 ug/L       0.06861      0.2281 ppb        0.06861  30.07%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                 3.4      0.0616 ug/L       0.05358      0.0616 ppb        0.05358  86.97%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                41.3      0.4187 ug/L       0.18795      0.4187 ppb        0.18795  44.89%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               -63.1     -0.1786 ug/L       0.06296     -0.1786 ppb        0.06296  35.25%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -1.0     -8.0959 ug/L      21.40274     -8.0959 ppb       21.40274 264.37%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         392.7      69.211 ug/L        9.1602      69.211 ppb        9.1602  13.24%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             1.1      34.803 ug/L       37.9512      34.803 ppb       37.9512 109.04%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                35.8      0.0339 ug/L       0.01617      0.0339 ppb        0.01617  47.72%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                13.4      0.8104 ug/L       0.22183      0.8104 ppb        0.22183  27.37%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†         57.5      17.172 ug/L        7.1957      17.172 ppb        7.1957  41.90%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                18.8      0.4102 ug/L       0.33629      0.4102 ppb        0.33629  81.98%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -7.6     -3.9170 ug/L       5.71870     -3.9170 ppb        5.71870 146.00%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                 0.9      0.0946 ug/L       0.58096      0.0946 ppb        0.58096 614.03%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            1.8      2.2083 ug/L       6.91295      2.2083 ppb        6.91295 313.04%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                14.5      4.3615 ug/L       1.57796      4.3615 ppb        1.57796  36.18%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 1.1      0.6025 ug/L       0.88627      0.6025 ppb        0.88627 147.10%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                72.4      2.0001 ug/L       0.30994      2.0001 ppb        0.30994  15.50%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 8.2      1.2312 ug/L       0.29497      1.2312 ppb        0.29497  23.96%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                16.8      0.0984 ug/L       0.08560      0.0984 ppb        0.08560  87.03%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                11.9      0.0175 ug/L       0.09815      0.0175 ppb        0.09815 559.38%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                13.2      3.4240 ug/L       1.28055      3.4240 ppb        1.28055  37.40%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 -8.8     -0.2410 ug/L       2.43041     -0.2410 ppb        2.43041 >999.9%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 -1.6      0.0031 ug/L       0.29189      0.0031 ppb        0.29189 >999.9%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                36.2      0.2940 ug/L       0.07745      0.2940 ppb        0.07745  26.35%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                      54.9      3.2322 ug/L       0.48516      3.2322 ppb        0.48516  15.01%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

User canceled analysis.

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Analysis Begun

Start Time: 12/19/2009 10:14:09 **Plasma On Time: 12/14/2009 06:02:42**
Logged In Analyst: Optima3 **Technique: ICP Continuous**
Spectrometer Model: Optima 5300 DV, S/N 077C7090601Autosampler Model: S10

Sample Information File: C:\pe\Optima3\Sample Information\121909.sif
Batch ID:
Results Data Set: 121909
Results Library: C:\pe\Optima3\Results\Results.mdb

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Sequence No.: 11 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 12/19/2009 10:14:10**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5553.5	5553.5	99.8	%			10:16:02
1	Y RADIAL	5849.0	5849.0	98.94	%			10:16:02
1	Al 396.153Radial†	6715.1	6748.2	4896.3	ug/L	4896.3	ppb	10:16:02
1	Ca 317.933Radial†	3514.9	3504.0	4995.8	ug/L	4995.8	ppb	10:16:22
1	Fe 238.204 Radial†	615.1	605.8	5051.3	ug/L	5051.3	ppb	10:16:22
1	K 766.490 Radial†	31181.6	28546.7	5022.9	ug/L	5022.9	ppb	10:16:02
1	Mg 279.077 IEC†	168.2	167.2	5196.7	ug/L	5196.7	ppb	10:16:22
1	Na 589.592 Radial†	31392.4	32232.1	9620.3	ug/L	9620.3	ppb	10:16:02
1	Sr 421.552†	84136.2	84357.1	494.61	ug/L	494.61	ppb	10:16:02
1	Sc 361.383	928285.0	928285.0	103.27	%			10:17:19
1	Y 371.029	755808.8	755808.8	101.52	%			10:17:19
1	Ag 328.068†	115537.1	111510.9	483.67	ug/L	483.67	ppb	10:17:25
1	As 188.979†	1372.6	1364.0	499.44	ug/L	499.44	ppb	10:17:45
1	B 249.677†	24261.4	23519.5	480.78	ug/L	480.78	ppb	10:17:25
1	Ba 233.527†	73799.7	71466.8	487.00	ug/L	487.00	ppb	10:17:25
1	Be 313.107†	1506253.3	1463318.2	491.70	ug/L	491.70	ppb	10:17:19
1	Cd 226.502†	51430.0	50031.7	489.11	ug/L	489.11	ppb	10:17:25
1	Co 228.616†	28664.8	27844.8	487.56	ug/L	487.56	ppb	10:17:25
1	Cr 267.716†	49603.2	47953.3	486.96	ug/L	486.96	ppb	10:17:25
1	Cu 324.752†	181881.2	170069.9	480.77	ug/L	480.77	ppb	10:17:25
1	Mn 257.610†	515022.7	498233.1	491.85	ug/L	491.85	ppb	10:17:19
1	Mo 202.031†	8300.7	8018.1	485.71	ug/L	485.71	ppb	10:17:45
1	Ni 231.604†	23182.5	22355.3	488.13	ug/L	488.13	ppb	10:17:25
1	P 214.914†	5080.5	4661.6	2358.9	ug/L	2358.9	ppb	10:17:45
1	Pb 220.353†	4726.8	4641.3	490.60	ug/L	490.60	ppb	10:17:45
1	S 181.975 Axial†	864.0	787.7	965.33	ug/L	965.33	ppb	10:17:45
1	Sb 206.836†	1718.0	1622.4	493.13	ug/L	493.13	ppb	10:17:45
1	Se 196.026†	897.0	897.1	506.31	ug/L	506.31	ppb	10:17:45
1	Si 251.611†	88612.6	85230.9	2391.7	ug/L	2391.7	ppb	10:17:25
1	Sn 189.927†	3382.1	3271.6	491.25	ug/L	491.25	ppb	10:17:45
1	Ti 334.940†	346373.1	336799.5	486.84	ug/L	486.84	ppb	10:17:19
1	Tl 190.801†	1904.1	1891.9	493.99	ug/L	493.99	ppb	10:17:45
1	U 409.014†	15318.0	17205.5	472.47	ug/L	472.47	ppb	10:17:25
1	V 292.402†	77029.9	76061.6	490.25	ug/L	490.25	ppb	10:17:25
1	Zn 213.857†	62259.7	59495.9	483.60	ug/L	483.60	ppb	10:17:25
1	SiO2†	89163.1	85734.8	5165.8	ug/L	5165.8	ppb	10:18:53
2	Sc Radial	5562.3	5562.3	99.9	%			10:16:27
2	Y RADIAL	5881.8	5881.8	99.50	%			10:16:27
2	Al 396.153Radial†	6767.1	6789.5	4927.6	ug/L	4927.6	ppb	10:16:27
2	Ca 317.933Radial†	3494.2	3477.8	4958.4	ug/L	4958.4	ppb	10:16:47
2	Fe 238.204 Radial†	611.6	601.3	5013.3	ug/L	5013.3	ppb	10:16:47
2	K 766.490 Radial†	30931.5	28246.8	4970.4	ug/L	4970.4	ppb	10:16:27
2	Mg 279.077 IEC†	167.7	166.4	5172.9	ug/L	5172.9	ppb	10:16:47
2	Na 589.592 Radial†	31287.8	32077.5	9574.2	ug/L	9574.2	ppb	10:16:27
2	Sr 421.552†	83971.0	84058.2	492.86	ug/L	492.86	ppb	10:16:27
2	Sc 361.383	971392.0	971392.0	108.06	%			10:17:51

2	Y 371.029	790540.5	790540.5	106.19 %		10:17:51
2	Ag 328.068†	116551.1	107484.4	466.24 ug/L	466.24 ppb	10:17:56
2	As 188.979†	1349.7	1283.8	470.03 ug/L	470.03 ppb	10:18:16
2	B 249.677†	24539.4	22734.3	464.71 ug/L	464.71 ppb	10:17:56
2	Ba 233.527†	74366.5	68820.0	468.97 ug/L	468.97 ppb	10:17:56
2	Be 313.107†	1447628.7	1344341.0	451.72 ug/L	451.72 ppb	10:17:51
2	Cd 226.502†	51680.1	48053.1	469.75 ug/L	469.75 ppb	10:17:56
2	Co 228.616†	28909.2	26839.1	469.97 ug/L	469.97 ppb	10:17:56
2	Cr 267.716†	49854.5	46054.4	467.68 ug/L	467.68 ppb	10:17:56
2	Cu 324.752†	183761.7	163994.2	463.60 ug/L	463.60 ppb	10:17:56
2	Mn 257.610†	498086.1	460428.6	454.56 ug/L	454.56 ppb	10:17:51
2	Mo 202.031†	8202.5	7570.5	458.61 ug/L	458.61 ppb	10:18:16
2	Ni 231.604†	23319.2	21485.6	469.14 ug/L	469.14 ppb	10:17:56
2	P 214.914†	4996.0	4365.2	2206.6 ug/L	2206.6 ppb	10:18:16
2	Pb 220.353†	4669.7	4385.3	463.58 ug/L	463.58 ppb	10:18:16
2	S 181.975 Axial†	857.5	744.5	912.43 ug/L	912.43 ppb	10:18:16
2	Sb 206.836†	1704.3	1535.9	466.67 ug/L	466.67 ppb	10:18:16
2	Se 196.026†	880.6	843.4	476.83 ug/L	476.83 ppb	10:18:16
2	Si 251.611†	89486.5	82231.7	2307.7 ug/L	2307.7 ppb	10:17:56
2	Sn 189.927†	3334.6	3082.3	462.85 ug/L	462.85 ppb	10:18:16
2	Ti 334.940†	333765.0	310247.8	448.46 ug/L	448.46 ppb	10:17:51
2	Tl 190.801†	1877.1	1785.1	465.92 ug/L	465.92 ppb	10:18:16
2	U 409.014†	15600.1	16808.3	461.57 ug/L	461.57 ppb	10:17:56
2	V 292.402†	77479.0	73167.1	471.49 ug/L	471.49 ppb	10:17:56
2	Zn 213.857†	62628.5	57161.7	464.60 ug/L	464.60 ppb	10:17:56
2	SiO2†	88791.1	81559.1	4914.2 ug/L	4914.2 ppb	10:18:58
3	Sc Radial	5621.6	5621.6	101 %		10:16:52
3	Y RADIAL	5952.0	5952.0	100.7 %		10:16:52
3	Al 396.153Radial†	6807.6	6758.2	4903.5 ug/L	4903.5 ppb	10:16:52
3	Ca 317.933Radial†	3483.6	3430.4	4890.8 ug/L	4890.8 ppb	10:17:12
3	Fe 238.204 Radial†	607.9	591.2	4930.1 ug/L	4930.1 ppb	10:17:12
3	K 766.490 Radial†	31287.2	28272.5	4974.6 ug/L	4974.6 ppb	10:16:52
3	Mg 279.077 IEC†	167.2	164.2	5103.2 ug/L	5103.2 ppb	10:17:12
3	Na 589.592 Radial†	31440.9	31898.8	9520.9 ug/L	9520.9 ppb	10:16:52
3	Sr 421.552†	84737.0	83930.2	492.11 ug/L	492.11 ppb	10:16:52
3	Sc 361.383	913742.9	913742.9	101.65 %		10:18:22
3	Y 371.029	742553.7	742553.7	99.743 %		10:18:22
3	Ag 328.068†	115791.4	113541.6	492.40 ug/L	492.40 ppb	10:18:27
3	As 188.979†	1346.3	1359.3	497.67 ug/L	497.67 ppb	10:18:47
3	B 249.677†	24317.2	23948.4	489.57 ug/L	489.57 ppb	10:18:27
3	Ba 233.527†	74026.4	72827.2	496.26 ug/L	496.26 ppb	10:18:27
3	Be 313.107†	1460514.8	1441535.4	484.38 ug/L	484.38 ppb	10:18:22
3	Cd 226.502†	51426.0	50820.4	496.84 ug/L	496.84 ppb	10:18:27
3	Co 228.616†	28727.0	28347.8	496.38 ug/L	496.38 ppb	10:18:27
3	Cr 267.716†	49621.1	48735.4	494.90 ug/L	494.90 ppb	10:18:27
3	Cu 324.752†	182730.2	173708.1	491.04 ug/L	491.04 ppb	10:18:27
3	Mn 257.610†	503302.9	494640.7	488.30 ug/L	488.30 ppb	10:18:22
3	Mo 202.031†	8224.5	8071.1	488.90 ug/L	488.90 ppb	10:18:47
3	Ni 231.604†	23184.4	22714.4	495.97 ug/L	495.97 ppb	10:18:27
3	P 214.914†	5034.2	4694.4	2374.4 ug/L	2374.4 ppb	10:18:47
3	Pb 220.353†	4672.5	4660.7	492.65 ug/L	492.65 ppb	10:18:47
3	S 181.975 Axial†	870.1	807.0	989.04 ug/L	989.04 ppb	10:18:47
3	Sb 206.836†	1712.3	1643.3	499.28 ug/L	499.28 ppb	10:18:47
3	Se 196.026†	896.4	910.4	513.17 ug/L	513.17 ppb	10:18:47
3	Si 251.611†	88927.9	86906.7	2438.9 ug/L	2438.9 ppb	10:18:27
3	Sn 189.927†	3324.6	3267.2	490.58 ug/L	490.58 ppb	10:18:47
3	Ti 334.940†	337899.2	333801.2	482.49 ug/L	482.49 ppb	10:18:22
3	Tl 190.801†	1889.6	1907.0	497.80 ug/L	497.80 ppb	10:18:47
3	U 409.014†	15562.2	17681.7	485.59 ug/L	485.59 ppb	10:18:27
3	V 292.402†	77205.7	77421.7	498.99 ug/L	498.99 ppb	10:18:27
3	Zn 213.857†	62221.4	60417.7	491.11 ug/L	491.11 ppb	10:18:27
3	SiO2†	88259.5	86220.0	5195.1 ug/L	5195.1 ppb	10:19:03

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	937806.7	104.33	%	3.335				3.20%
Sc Radial	5579.1	100	%	0.7				0.66%
Y 371.029	762967.7	102.49	%	3.329				3.25%
Y RADIAL	5894.2	99.71	%	0.890				0.89%

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Ag 328.068†            110845.7      480.77 ug/L        13.320      480.77 ppb        13.320   2.77%
   QC value within limits for Ag 328.068  Recovery = 96.15%
Al 396.153Radial†        6765.3      4909.1 ug/L         16.38      4909.1 ppb         16.38   0.33%
   QC value within limits for Al 396.153Radial  Recovery = 98.18%
As 188.979†              1335.7      489.05 ug/L        16.490      489.05 ppb        16.490   3.37%
   QC value within limits for As 188.979  Recovery = 97.81%
B 249.677†              23400.7      478.36 ug/L        12.606      478.36 ppb        12.606   2.64%
   QC value within limits for B 249.677  Recovery = 95.67%
Ba 233.527†             71038.0      484.07 ug/L        13.879      484.07 ppb        13.879   2.87%
   QC value within limits for Ba 233.527  Recovery = 96.81%
Be 313.107†           1416398.2      475.93 ug/L        21.285      475.93 ppb        21.285   4.47%
   QC value within limits for Be 313.107  Recovery = 95.19%
Ca 317.933Radial†        3470.7      4948.3 ug/L         53.19      4948.3 ppb         53.19   1.07%
   QC value within limits for Ca 317.933Radial  Recovery = 98.97%
Cd 226.502†             49635.0      485.24 ug/L        13.954      485.24 ppb        13.954   2.88%
   QC value within limits for Cd 226.502  Recovery = 97.05%
Co 228.616†             27677.2      484.64 ug/L        13.448      484.64 ppb        13.448   2.77%
   QC value within limits for Co 228.616  Recovery = 96.93%
Cr 267.716†             47581.0      483.18 ug/L        13.999      483.18 ppb        13.999   2.90%
   QC value within limits for Cr 267.716  Recovery = 96.64%
Cu 324.752†            169257.4      478.47 ug/L        13.864      478.47 ppb        13.864   2.90%
   QC value within limits for Cu 324.752  Recovery = 95.69%
Fe 238.204 Radial†       599.4      4998.2 ug/L         61.99      4998.2 ppb         61.99   1.24%
   QC value within limits for Fe 238.204 Radial  Recovery = 99.96%
K 766.490 Radial†       28355.3      4989.3 ug/L         29.14      4989.3 ppb         29.14   0.58%
   QC value within limits for K 766.490 Radial  Recovery = 99.79%
Mg 279.077 IEC†          165.9      5157.6 ug/L         48.58      5157.6 ppb         48.58   0.94%
   QC value within limits for Mg 279.077 IEC  Recovery = 103.15%
Mn 257.610†            484434.1      478.23 ug/L        20.582      478.23 ppb        20.582   4.30%
   QC value within limits for Mn 257.610  Recovery = 95.65%
Mo 202.031†              7886.6      477.74 ug/L        16.644      477.74 ppb        16.644   3.48%
   QC value within limits for Mo 202.031  Recovery = 95.55%
Na 589.592 Radial†      32069.5      9571.8 ug/L         49.78      9571.8 ppb         49.78   0.52%
   QC value within limits for Na 589.592 Radial  Recovery = 95.72%
Ni 231.604†             22185.1      484.42 ug/L        13.797      484.42 ppb        13.797   2.85%
   QC value within limits for Ni 231.604  Recovery = 96.88%
P 214.914†               4573.7      2313.3 ug/L         92.71      2313.3 ppb         92.71   4.01%
   QC value within limits for P 214.914  Recovery = 92.53%
Pb 220.353†              4562.4      482.28 ug/L        16.225      482.28 ppb        16.225   3.36%
   QC value within limits for Pb 220.353  Recovery = 96.46%
S 181.975 Axial†          779.7      955.60 ug/L        39.216      955.60 ppb        39.216   4.10%
   QC value within limits for S 181.975 Axial  Recovery = 95.56%
Sb 206.836†              1600.5      486.36 ug/L        17.325      486.36 ppb        17.325   3.56%
   QC value within limits for Sb 206.836  Recovery = 97.27%
Se 196.026†               883.6      498.77 ug/L        19.304      498.77 ppb        19.304   3.87%
   QC value within limits for Se 196.026  Recovery = 99.75%
Si 251.611†             84789.8      2379.4 ug/L         66.46      2379.4 ppb         66.46   2.79%
   QC value within limits for Si 251.611  Recovery = 95.18%
Sn 189.927†              3207.0      481.56 ug/L        16.205      481.56 ppb        16.205   3.37%
   QC value within limits for Sn 189.927  Recovery = 96.31%
Sr 421.552†             84115.2      493.19 ug/L         1.284      493.19 ppb         1.284   0.26%
   QC value within limits for Sr 421.552  Recovery = 98.64%
Ti 334.940†            326949.5      472.60 ug/L        21.016      472.60 ppb        21.016   4.45%
   QC value within limits for Ti 334.940  Recovery = 94.52%
Tl 190.801†              1861.3      485.91 ug/L        17.413      485.91 ppb        17.413   3.58%
   QC value within limits for Tl 190.801  Recovery = 97.18%
U 409.014†              17231.8      473.21 ug/L        12.029      473.21 ppb        12.029   2.54%
   QC value within limits for U 409.014  Recovery = 94.64%
V 292.402†              75550.2      486.91 ug/L        14.053      486.91 ppb        14.053   2.89%
   QC value within limits for V 292.402  Recovery = 97.38%
Zn 213.857†             59025.1      479.77 ug/L        13.663      479.77 ppb        13.663   2.85%
   QC value within limits for Zn 213.857  Recovery = 95.95%
SiO2†                   84504.6      5091.7 ug/L        154.40      5091.7 ppb        154.40   3.03%
   QC value within limits for SiO2  Recovery = 95.22%
All analyte(s) passed QC.
```

Sequence No.: 12
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 12/19/2009 10:21:12
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5616.6	5616.6	101	%			10:23:05
1	Y RADIAL	5983.2	5983.2	101.2	%			10:23:05
1	Al 396.153Radial†	-31.6	-14.9	-10.891	ug/L	-10.891	ppb	10:23:05
1	Ca 317.933Radial†	18.6	-1.1	-1.5731	ug/L	-1.5731	ppb	10:23:25
1	Fe 238.204 Radial†	8.6	-2.3	-19.368	ug/L	-19.368	ppb	10:23:25
1	K 766.490 Radial†	2944.4	206.2	36.342	ug/L	36.342	ppb	10:23:05
1	Mg 279.077 IEC†	1.1	-0.4	-10.962	ug/L	-10.962	ppb	10:23:25
1	Na 589.592 Radial†	-793.5	-24.9	-7.4390	ug/L	-7.4390	ppb	10:23:05
1	Sr 421.552†	7.1	18.8	0.1105	ug/L	0.1105	ppb	10:23:05
1	Sc 361.383	905995.4	905995.4	100.79	%			10:24:22
1	Y 371.029	752925.4	752925.4	101.14	%			10:24:22
1	Ag 328.068†	395.5	22.5	0.0934	ug/L	0.0934	ppb	10:24:22
1	As 188.979†	-34.2	0.9	0.3236	ug/L	0.3236	ppb	10:24:42
1	B 249.677†	-14.0	12.0	0.2494	ug/L	0.2494	ppb	10:24:22
1	Ba 233.527†	-7.1	-4.5	-0.0321	ug/L	-0.0321	ppb	10:24:42
1	Be 313.107†	-4641.4	126.0	0.0422	ug/L	0.0422	ppb	10:24:22
1	Cd 226.502†	-229.2	1.7	0.0192	ug/L	0.0192	ppb	10:24:42
1	Co 228.616†	-91.8	-4.0	-0.0676	ug/L	-0.0676	ppb	10:24:42
1	Cr 267.716†	103.9	22.9	0.2328	ug/L	0.2328	ppb	10:24:42
1	Cu 324.752†	5985.0	-117.4	-0.3326	ug/L	-0.3326	ppb	10:24:22
1	Mn 257.610†	516.8	21.3	0.0193	ug/L	0.0193	ppb	10:24:42
1	Mo 202.031†	31.7	11.5	0.6977	ug/L	0.6977	ppb	10:24:42
1	Ni 231.604†	115.3	20.8	0.4545	ug/L	0.4545	ppb	10:24:42
1	P 214.914†	249.1	-10.9	-5.6026	ug/L	-5.6026	ppb	10:24:42
1	Pb 220.353†	-68.4	-3.9	-0.4052	ug/L	-0.4052	ppb	10:24:42
1	S 181.975 Axial†	52.9	3.4	4.2206	ug/L	4.2206	ppb	10:24:42
1	Sb 206.836†	48.5	6.9	2.0831	ug/L	2.0831	ppb	10:24:42
1	Se 196.026†	-38.8	-9.9	-5.4699	ug/L	-5.4699	ppb	10:24:42
1	Si 251.611†	604.5	22.3	0.6016	ug/L	0.6016	ppb	10:24:42
1	Sn 189.927†	11.6	8.1	1.2076	ug/L	1.2076	ppb	10:24:42
1	Ti 334.940†	-1406.7	-8.1	-0.0095	ug/L	-0.0095	ppb	10:24:22
1	Tl 190.801†	-39.0	9.4	2.4333	ug/L	2.4333	ppb	10:24:42
1	U 409.014†	-2585.5	-193.1	-5.3183	ug/L	-5.3183	ppb	10:24:22
1	V 292.402†	-1549.5	-67.9	-0.4298	ug/L	-0.4298	ppb	10:24:22
1	Zn 213.857†	840.2	40.0	0.3281	ug/L	0.3281	ppb	10:24:42
1	SiO2†	726.8	114.4	6.8658	ug/L	6.8658	ppb	10:25:38
2	Sc Radial	5663.0	5663.0	102	%			10:23:30
2	Y RADIAL	6054.5	6054.5	102.4	%			10:23:30
2	Al 396.153Radial†	-9.8	6.7	4.8721	ug/L	4.8721	ppb	10:23:30
2	Ca 317.933Radial†	21.1	1.2	1.6955	ug/L	1.6955	ppb	10:23:50
2	Fe 238.204 Radial†	9.2	-1.8	-15.273	ug/L	-15.273	ppb	10:23:50
2	K 766.490 Radial†	2927.1	165.2	29.125	ug/L	29.125	ppb	10:23:30
2	Mg 279.077 IEC†	1.7	0.2	7.0445	ug/L	7.0445	ppb	10:23:50
2	Na 589.592 Radial†	-797.6	-22.5	-6.7162	ug/L	-6.7162	ppb	10:23:30
2	Sr 421.552†	-8.7	3.2	0.0188	ug/L	0.0188	ppb	10:23:30
2	Sc 361.383	902480.6	902480.6	100.40	%			10:24:47
2	Y 371.029	748554.3	748554.3	100.55	%			10:24:47
2	Ag 328.068†	254.7	-116.2	-0.5047	ug/L	-0.5047	ppb	10:24:47
2	As 188.979†	-24.5	10.4	3.7686	ug/L	3.7686	ppb	10:25:07
2	B 249.677†	-20.1	5.9	0.1226	ug/L	0.1226	ppb	10:24:47
2	Ba 233.527†	-14.4	-11.7	-0.0811	ug/L	-0.0811	ppb	10:25:07
2	Be 313.107†	-4597.8	151.5	0.0509	ug/L	0.0509	ppb	10:24:47
2	Cd 226.502†	-212.0	18.0	0.1779	ug/L	0.1779	ppb	10:25:07
2	Co 228.616†	-82.5	4.9	0.0883	ug/L	0.0883	ppb	10:25:07
2	Cr 267.716†	121.3	40.7	0.4129	ug/L	0.4129	ppb	10:25:07
2	Cu 324.752†	5977.6	-101.6	-0.2879	ug/L	-0.2879	ppb	10:24:47
2	Mn 257.610†	534.6	41.0	0.0388	ug/L	0.0388	ppb	10:25:07
2	Mo 202.031†	34.9	14.9	0.9029	ug/L	0.9029	ppb	10:25:07
2	Ni 231.604†	118.0	24.0	0.5238	ug/L	0.5238	ppb	10:25:07

2	P 214.914†	254.4	-4.6	-2.3516	ug/L	-2.3516 ppb	10:25:07
2	Pb 220.353†	-71.0	-6.7	-0.6995	ug/L	-0.6995 ppb	10:25:07
2	S 181.975 Axial†	49.4	0.2	0.2426	ug/L	0.2426 ppb	10:25:07
2	Sb 206.836†	41.5	0.1	0.0609	ug/L	0.0609 ppb	10:25:07
2	Se 196.026†	-23.5	5.1	2.7465	ug/L	2.7465 ppb	10:25:07
2	Si 251.611†	605.5	25.7	0.6962	ug/L	0.6962 ppb	10:25:07
2	Sn 189.927†	7.2	3.7	0.5489	ug/L	0.5489 ppb	10:25:07
2	Ti 334.940†	-1358.1	34.9	0.0518	ug/L	0.0518 ppb	10:24:47
2	Tl 190.801†	-48.4	-0.1	-0.0293	ug/L	-0.0293 ppb	10:25:07
2	U 409.014†	-2503.2	-121.1	-3.3361	ug/L	-3.3361 ppb	10:24:47
2	V 292.402†	-1533.9	-58.4	-0.3629	ug/L	-0.3629 ppb	10:24:47
2	Zn 213.857†	833.2	36.4	0.2965	ug/L	0.2965 ppb	10:25:07
2	SiO2†	624.6	15.5	0.8798	ug/L	0.8798 ppb	10:25:43
3	Sc Radial	5677.5	5677.5	102	%		10:23:55
3	Y RADIAL	6030.0	6030.0	102.0	%		10:23:55
3	Al 396.153Radial†	-26.1	-9.2	-6.7339	ug/L	-6.7339 ppb	10:23:55
3	Ca 317.933Radial†	24.5	4.5	6.3638	ug/L	6.3638 ppb	10:24:15
3	Fe 238.204 Radial†	10.2	-0.9	-7.5989	ug/L	-7.5989 ppb	10:24:15
3	K 766.490 Radial†	2927.7	158.5	27.929	ug/L	27.929 ppb	10:23:55
3	Mg 279.077 IEC†	5.1	3.6	112.34	ug/L	112.34 ppb	10:24:15
3	Na 589.592 Radial†	-810.1	-32.7	-9.7554	ug/L	-9.7554 ppb	10:23:55
3	Sr 421.552†	29.8	41.0	0.2403	ug/L	0.2403 ppb	10:23:55
3	Sc 361.383	899794.8	899794.8	100.10	%		10:25:13
3	Y 371.029	747572.3	747572.3	100.42	%		10:25:13
3	Ag 328.068†	404.1	33.8	0.1452	ug/L	0.1452 ppb	10:25:13
3	As 188.979†	-22.4	12.4	4.5017	ug/L	4.5017 ppb	10:25:33
3	B 249.677†	29.0	54.9	1.1276	ug/L	1.1276 ppb	10:25:13
3	Ba 233.527†	0.2	2.8	0.0182	ug/L	0.0182 ppb	10:25:33
3	Be 313.107†	-4622.2	113.5	0.0382	ug/L	0.0382 ppb	10:25:13
3	Cd 226.502†	-230.4	-1.0	-0.0086	ug/L	-0.0086 ppb	10:25:33
3	Co 228.616†	-86.0	1.2	0.0203	ug/L	0.0203 ppb	10:25:33
3	Cr 267.716†	102.8	22.6	0.2292	ug/L	0.2292 ppb	10:25:33
3	Cu 324.752†	6083.4	21.8	0.0613	ug/L	0.0613 ppb	10:25:13
3	Mn 257.610†	510.0	18.1	0.0150	ug/L	0.0150 ppb	10:25:33
3	Mo 202.031†	21.0	1.1	0.0683	ug/L	0.0683 ppb	10:25:33
3	Ni 231.604†	124.9	31.2	0.6826	ug/L	0.6826 ppb	10:25:33
3	P 214.914†	246.5	-11.8	-6.1636	ug/L	-6.1636 ppb	10:25:33
3	Pb 220.353†	-69.4	-5.3	-0.5598	ug/L	-0.5598 ppb	10:25:33
3	S 181.975 Axial†	52.9	3.9	4.7370	ug/L	4.7370 ppb	10:25:33
3	Sb 206.836†	45.4	4.2	1.2541	ug/L	1.2541 ppb	10:25:33
3	Se 196.026†	-30.3	-1.8	-0.9937	ug/L	-0.9937 ppb	10:25:33
3	Si 251.611†	611.1	33.1	0.9199	ug/L	0.9199 ppb	10:25:33
3	Sn 189.927†	7.6	4.1	0.6221	ug/L	0.6221 ppb	10:25:33
3	Ti 334.940†	-1352.0	36.9	0.0555	ug/L	0.0555 ppb	10:25:13
3	Tl 190.801†	-38.5	9.6	2.4997	ug/L	2.4997 ppb	10:25:33
3	U 409.014†	-2522.3	-147.6	-4.0671	ug/L	-4.0671 ppb	10:25:13
3	V 292.402†	-1523.8	-52.9	-0.3400	ug/L	-0.3400 ppb	10:25:13
3	Zn 213.857†	835.8	41.4	0.3323	ug/L	0.3323 ppb	10:25:33
3	SiO2†	597.8	-9.4	-0.5979	ug/L	-0.5979 ppb	10:25:48

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	902756.9	100.43	%	0.346				0.34%
Sc Radial	5652.3	102	%	0.6				0.56%
Y 371.029	749684.0	100.70	%	0.383				0.38%
Y RADIAL	6022.6	101.9	%	0.61				0.60%
Ag 328.068†	-20.0	-0.0887	ug/L	0.36117	-0.0887	ppb	0.36117	407.26%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-5.8	-4.2509	ug/L	8.16959	-4.2509	ppb	8.16959	192.19%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	7.9	2.8646	ug/L	2.23093	2.8646	ppb	2.23093	77.88%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	24.3	0.4998	ug/L	0.54730	0.4998	ppb	0.54730	109.49%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-4.5	-0.0316	ug/L	0.04966	-0.0316	ppb	0.04966	156.96%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	130.3	0.0438	ug/L	0.00650	0.0438	ppb	0.00650	14.86%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	1.5	2.1620	ug/L	3.98896	2.1620	ppb	3.98896	184.50%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                 6.2      0.0628 ug/L       0.10058      0.0628 ppb        0.10058 160.07%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                 0.7      0.0136 ug/L       0.07818      0.0136 ppb        0.07818 572.90%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                28.7      0.2916 ug/L       0.10500      0.2916 ppb        0.10500  36.01%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               -65.7     -0.1864 ug/L       0.21567     -0.1864 ppb        0.21567 115.69%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -1.7     -14.080 ug/L        5.9746     -14.080 ppb         5.9746  42.43%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         176.6      31.132 ug/L        4.5515      31.132 ppb         4.5515  14.62%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             1.2      36.141 ug/L       66.6022      36.141 ppb        66.6022 184.28%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                26.8      0.0244 ug/L       0.01272      0.0244 ppb        0.01272  52.20%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 9.2      0.5563 ug/L       0.43487      0.5563 ppb        0.43487  78.18%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        -26.7     -7.9702 ug/L       1.58771     -7.9702 ppb        1.58771  19.92%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                25.3      0.5536 ug/L       0.11694      0.5536 ppb        0.11694  21.12%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -9.1     -4.7059 ug/L       2.05810     -4.7059 ppb        2.05810  43.73%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -5.3     -0.5548 ug/L       0.14721     -0.5548 ppb        0.14721  26.53%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            2.5      3.0667 ug/L       2.45938      3.0667 ppb        2.45938  80.20%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 3.7      1.1327 ug/L       1.01653      1.1327 ppb        1.01653  89.74%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -2.2     -1.2391 ug/L       4.11367     -1.2391 ppb        4.11367 332.00%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                27.0      0.7392 ug/L       0.16345      0.7392 ppb        0.16345  22.11%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 5.3      0.7929 ug/L       0.36102      0.7929 ppb        0.36102  45.53%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                21.0      0.1232 ug/L       0.11130      0.1232 ppb        0.11130  90.32%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                21.2      0.0326 ug/L       0.03652      0.0326 ppb        0.03652 112.09%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 6.3      1.6346 ug/L       1.44132      1.6346 ppb        1.44132  88.18%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -154.0     -4.2405 ug/L       1.00241     -4.2405 ppb        1.00241  23.64%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               -59.8     -0.3776 ug/L       0.04666     -0.3776 ppb        0.04666  12.36%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                39.3      0.3190 ug/L       0.01959      0.3190 ppb        0.01959   6.14%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                      40.2      2.3826 ug/L       3.95230      2.3826 ppb        3.95230 165.88%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 8
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 12/19/2009 11:18:11
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5421.2	5421.2	97.4	%			11:20:04
1	Y RADIAL	5768.9	5768.9	97.59	%			11:20:04
1	Al 396.153Radial†	6592.6	6786.7	4924.3	ug/L	4924.3	ppb	11:20:04
1	Ca 317.933Radial†	3518.3	3593.6	5123.5	ug/L	5123.5	ppb	11:20:24
1	Fe 238.204 Radial†	623.1	629.0	5244.8	ug/L	5244.8	ppb	11:20:24
1	K 766.490 Radial†	30360.9	28466.7	5008.6	ug/L	5008.6	ppb	11:20:04
1	Mg 279.077 IEC†	168.0	171.1	5318.7	ug/L	5318.7	ppb	11:20:24
1	Na 589.592 Radial†	31723.4	33340.0	9951.0	ug/L	9951.0	ppb	11:20:04
1	Sr 421.552†	83800.8	86071.0	504.66	ug/L	504.66	ppb	11:20:04
1	Sc 361.383	916565.1	916565.1	101.96	%			11:21:21
1	Y 371.029	745912.1	745912.1	100.19	%			11:21:21
1	Ag 328.068†	116199.1	113590.8	492.72	ug/L	492.72	ppb	11:21:27
1	As 188.979†	1356.6	1365.3	499.90	ug/L	499.90	ppb	11:21:47
1	B 249.677†	24066.3	23628.6	482.97	ug/L	482.97	ppb	11:21:27
1	Ba 233.527†	74033.3	72609.8	494.79	ug/L	494.79	ppb	11:21:27
1	Be 313.107†	1474137.1	1450471.3	487.38	ug/L	487.38	ppb	11:21:21
1	Cd 226.502†	51380.1	50619.5	494.85	ug/L	494.85	ppb	11:21:27
1	Co 228.616†	28786.6	28319.2	495.87	ug/L	495.87	ppb	11:21:27
1	Cr 267.716†	49665.9	48629.0	493.83	ug/L	493.83	ppb	11:21:27
1	Cu 324.752†	183621.8	174029.1	491.96	ug/L	491.96	ppb	11:21:27
1	Mn 257.610†	506237.3	495994.0	489.66	ug/L	489.66	ppb	11:21:21
1	Mo 202.031†	8229.5	8051.1	487.72	ug/L	487.72	ppb	11:21:47
1	Ni 231.604†	23227.5	22686.4	495.36	ug/L	495.36	ppb	11:21:27
1	P 214.914†	5038.6	4683.5	2368.3	ug/L	2368.3	ppb	11:21:47
1	Pb 220.353†	4663.1	4637.3	490.16	ug/L	490.16	ppb	11:21:47
1	S 181.975 Axial†	867.3	801.6	982.45	ug/L	982.45	ppb	11:21:47
1	Sb 206.836†	1713.6	1639.4	498.07	ug/L	498.07	ppb	11:21:47
1	Se 196.026†	884.4	895.9	506.25	ug/L	506.25	ppb	11:21:47
1	Si 251.611†	89190.3	86894.7	2438.6	ug/L	2438.6	ppb	11:21:27
1	Sn 189.927†	3317.6	3250.2	488.05	ug/L	488.05	ppb	11:21:47
1	Ti 334.940†	340271.1	335103.9	484.38	ug/L	484.38	ppb	11:21:21
1	Tl 190.801†	1867.5	1879.6	490.72	ug/L	490.72	ppb	11:21:47
1	U 409.014†	15812.6	17880.2	491.03	ug/L	491.03	ppb	11:21:27
1	V 292.402†	77518.7	77494.9	499.41	ug/L	499.41	ppb	11:21:27
1	Zn 213.857†	62354.6	60359.9	490.60	ug/L	490.60	ppb	11:21:27
1	SiO2†	89262.1	86936.0	5238.4	ug/L	5238.4	ppb	11:22:54
2	Sc Radial	5644.1	5644.1	101	%			11:20:29
2	Y RADIAL	5989.3	5989.3	101.3	%			11:20:29
2	Al 396.153Radial†	6837.1	6760.4	4905.2	ug/L	4905.2	ppb	11:20:29
2	Ca 317.933Radial†	3485.5	3418.5	4873.8	ug/L	4873.8	ppb	11:20:49
2	Fe 238.204 Radial†	615.6	596.4	4973.1	ug/L	4973.1	ppb	11:20:49
2	K 766.490 Radial†	31316.4	28177.5	4957.7	ug/L	4957.7	ppb	11:20:29
2	Mg 279.077 IEC†	167.3	163.7	5087.5	ug/L	5087.5	ppb	11:20:49
2	Na 589.592 Radial†	32916.4	33229.8	9918.1	ug/L	9918.1	ppb	11:20:29
2	Sr 421.552†	86839.7	85668.8	502.31	ug/L	502.31	ppb	11:20:29
2	Sc 361.383	916884.0	916884.0	102.00	%			11:21:53
2	Y 371.029	746582.4	746582.4	100.28	%			11:21:53
2	Ag 328.068†	115175.8	112547.9	488.12	ug/L	488.12	ppb	11:21:58
2	As 188.979†	1339.3	1347.9	493.53	ug/L	493.53	ppb	11:22:18
2	B 249.677†	23825.7	23384.5	478.01	ug/L	478.01	ppb	11:21:58
2	Ba 233.527†	73340.0	71904.8	489.98	ug/L	489.98	ppb	11:21:58
2	Be 313.107†	1468688.7	1444626.8	485.42	ug/L	485.42	ppb	11:21:53
2	Cd 226.502†	50884.5	50116.1	489.95	ug/L	489.95	ppb	11:21:58
2	Co 228.616†	28445.9	27975.3	489.85	ug/L	489.85	ppb	11:21:58
2	Cr 267.716†	49174.9	48130.7	488.76	ug/L	488.76	ppb	11:21:58
2	Cu 324.752†	181234.0	171625.4	485.16	ug/L	485.16	ppb	11:21:58
2	Mn 257.610†	504181.1	493805.3	487.48	ug/L	487.48	ppb	11:21:53
2	Mo 202.031†	8180.2	7999.9	484.60	ug/L	484.60	ppb	11:22:18
2	Ni 231.604†	23047.1	22501.7	491.33	ug/L	491.33	ppb	11:21:58

2	P 214.914†	5013.2	4656.8	2355.7 ug/L	2355.7 ppb	11:22:18
2	Pb 220.353†	4650.9	4623.8	488.75 ug/L	488.75 ppb	11:22:18
2	S 181.975 Axial†	857.0	791.2	969.64 ug/L	969.64 ppb	11:22:18
2	Sb 206.836†	1686.7	1612.5	490.02 ug/L	490.02 ppb	11:22:18
2	Se 196.026†	882.2	893.4	504.06 ug/L	504.06 ppb	11:22:18
2	Si 251.611†	88290.5	85982.1	2412.9 ug/L	2412.9 ppb	11:21:58
2	Sn 189.927†	3307.9	3239.6	486.43 ug/L	486.43 ppb	11:22:18
2	Ti 334.940†	338885.3	333629.2	482.24 ug/L	482.24 ppb	11:21:53
2	Tl 190.801†	1886.7	1897.8	495.44 ug/L	495.44 ppb	11:22:18
2	U 409.014†	15428.5	17498.2	480.54 ug/L	480.54 ppb	11:21:58
2	V 292.402†	76544.7	76513.5	493.14 ug/L	493.14 ppb	11:21:58
2	Zn 213.857†	61731.3	59727.5	485.48 ug/L	485.48 ppb	11:21:58
2	SiO2†	88342.5	86004.0	5182.2 ug/L	5182.2 ppb	11:23:00
3	Sc Radial	5645.6	5645.6	101 %		11:20:54
3	Y RADIAL	5995.8	5995.8	101.4 %		11:20:54
3	Al 396.153Radial†	6857.5	6778.8	4918.6 ug/L	4918.6 ppb	11:20:54
3	Ca 317.933Radial†	3499.3	3431.2	4892.0 ug/L	4892.0 ppb	11:21:14
3	Fe 238.204 Radial†	611.5	592.1	4937.6 ug/L	4937.6 ppb	11:21:14
3	K 766.490 Radial†	31288.9	28142.6	4951.6 ug/L	4951.6 ppb	11:20:54
3	Mg 279.077 IEC†	167.9	164.2	5103.4 ug/L	5103.4 ppb	11:21:14
3	Na 589.592 Radial†	32746.1	33053.7	9865.6 ug/L	9865.6 ppb	11:20:54
3	Sr 421.552†	86687.7	85497.4	501.30 ug/L	501.30 ppb	11:20:54
3	Sc 361.383	917696.3	917696.3	102.09 %		11:22:24
3	Y 371.029	747878.2	747878.2	100.46 %		11:22:24
3	Ag 328.068†	114777.1	112057.5	485.99 ug/L	485.99 ppb	11:22:29
3	As 188.979†	1342.0	1349.4	494.09 ug/L	494.09 ppb	11:22:49
3	B 249.677†	23771.8	23311.1	476.51 ug/L	476.51 ppb	11:22:29
3	Ba 233.527†	73281.2	71783.6	489.15 ug/L	489.15 ppb	11:22:29
3	Be 313.107†	1477837.5	1452313.8	488.00 ug/L	488.00 ppb	11:22:24
3	Cd 226.502†	50770.3	49960.0	488.42 ug/L	488.42 ppb	11:22:29
3	Co 228.616†	28512.8	28016.2	490.57 ug/L	490.57 ppb	11:22:29
3	Cr 267.716†	49183.8	48096.7	488.42 ug/L	488.42 ppb	11:22:29
3	Cu 324.752†	181303.5	171536.2	484.90 ug/L	484.90 ppb	11:22:29
3	Mn 257.610†	506303.5	495446.8	489.09 ug/L	489.09 ppb	11:22:24
3	Mo 202.031†	8219.2	8031.0	486.48 ug/L	486.48 ppb	11:22:49
3	Ni 231.604†	22983.7	22419.6	489.54 ug/L	489.54 ppb	11:22:29
3	P 214.914†	5017.3	4656.5	2355.6 ug/L	2355.6 ppb	11:22:49
3	Pb 220.353†	4650.6	4619.4	488.31 ug/L	488.31 ppb	11:22:49
3	S 181.975 Axial†	856.1	789.5	967.64 ug/L	967.64 ppb	11:22:49
3	Sb 206.836†	1715.8	1639.4	498.17 ug/L	498.17 ppb	11:22:49
3	Se 196.026†	901.9	912.0	514.06 ug/L	514.06 ppb	11:22:49
3	Si 251.611†	88130.9	85749.1	2406.3 ug/L	2406.3 ppb	11:22:29
3	Sn 189.927†	3323.7	3252.2	488.32 ug/L	488.32 ppb	11:22:49
3	Ti 334.940†	340568.9	334984.2	484.20 ug/L	484.20 ppb	11:22:24
3	Tl 190.801†	1892.8	1902.1	496.59 ug/L	496.59 ppb	11:22:49
3	U 409.014†	15463.1	17518.8	481.12 ug/L	481.12 ppb	11:22:29
3	V 292.402†	76385.7	76291.3	491.76 ug/L	491.76 ppb	11:22:29
3	Zn 213.857†	61617.6	59562.6	484.15 ug/L	484.15 ppb	11:22:29
3	SiO2†	88704.5	86281.8	5198.9 ug/L	5198.9 ppb	11:23:05

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	917048.5	102.02	%	0.065				0.06%
Sc Radial	5570.3	100	%	2.3				2.32%
Y 371.029	746790.9	100.31	%	0.134				0.13%
Y RADIAL	5918.0	100.1	%	2.19				2.18%
Ag 328.068†	112732.1	488.94	ug/L	3.439	488.94	ppb	3.439	0.70%
QC value within limits for Ag 328.068 Recovery = 97.79%								
Al 396.153Radial†	6775.3	4916.0	ug/L	9.77	4916.0	ppb	9.77	0.20%
QC value within limits for Al 396.153Radial Recovery = 98.32%								
As 188.979†	1354.2	495.84	ug/L	3.528	495.84	ppb	3.528	0.71%
QC value within limits for As 188.979 Recovery = 99.17%								
B 249.677†	23441.4	479.16	ug/L	3.382	479.16	ppb	3.382	0.71%
QC value within limits for B 249.677 Recovery = 95.83%								
Ba 233.527†	72099.4	491.31	ug/L	3.048	491.31	ppb	3.048	0.62%
QC value within limits for Ba 233.527 Recovery = 98.26%								
Be 313.107†	1449137.3	486.93	ug/L	1.348	486.93	ppb	1.348	0.28%
QC value within limits for Be 313.107 Recovery = 97.39%								
Ca 317.933Radial†	3481.1	4963.1	ug/L	139.17	4963.1	ppb	139.17	2.80%

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   QC value within limits for Ca 317.933Radial  Recovery = 99.26%
Cd 226.502†            50231.9      491.07 ug/L        3.356      491.07 ppb        3.356   0.68%
   QC value within limits for Cd 226.502  Recovery = 98.21%
Co 228.616†            28103.6      492.10 ug/L        3.288      492.10 ppb        3.288   0.67%
   QC value within limits for Co 228.616  Recovery = 98.42%
Cr 267.716†            48285.5      490.34 ug/L        3.029      490.34 ppb        3.029   0.62%
   QC value within limits for Cr 267.716  Recovery = 98.07%
Cu 324.752†           172396.9      487.34 ug/L        4.004      487.34 ppb        4.004   0.82%
   QC value within limits for Cu 324.752  Recovery = 97.47%
Fe 238.204 Radial†       605.8      5051.9 ug/L       168.05      5051.9 ppb       168.05   3.33%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.04%
K 766.490 Radial†      28262.2      4972.7 ug/L        31.32      4972.7 ppb        31.32   0.63%
   QC value within limits for K 766.490 Radial  Recovery = 99.45%
Mg 279.077 IEC†          166.3      5169.9 ug/L       129.15      5169.9 ppb       129.15   2.50%
   QC value within limits for Mg 279.077 IEC  Recovery = 103.40%
Mn 257.610†           495082.0      488.74 ug/L        1.132      488.74 ppb        1.132   0.23%
   QC value within limits for Mn 257.610  Recovery = 97.75%
Mo 202.031†             8027.4      486.26 ug/L        1.569      486.26 ppb        1.569   0.32%
   QC value within limits for Mo 202.031  Recovery = 97.25%
Na 589.592 Radial†     33207.8      9911.6 ug/L       43.10      9911.6 ppb       43.10   0.43%
   QC value within limits for Na 589.592 Radial  Recovery = 99.12%
Ni 231.604†            22535.9      492.07 ug/L        2.984      492.07 ppb        2.984   0.61%
   QC value within limits for Ni 231.604  Recovery = 98.41%
P 214.914†              4665.6      2359.9 ug/L         7.31      2359.9 ppb         7.31   0.31%
   QC value within limits for P 214.914  Recovery = 94.39%
Pb 220.353†             4626.8      489.07 ug/L        0.969      489.07 ppb        0.969   0.20%
   QC value within limits for Pb 220.353  Recovery = 97.81%
S 181.975 Axial†         794.1      973.24 ug/L        8.036      973.24 ppb        8.036   0.83%
   QC value within limits for S 181.975 Axial  Recovery = 97.32%
Sb 206.836†            1630.4      495.42 ug/L        4.675      495.42 ppb        4.675   0.94%
   QC value within limits for Sb 206.836  Recovery = 99.08%
Se 196.026†             900.4      508.12 ug/L        5.260      508.12 ppb        5.260   1.04%
   QC value within limits for Se 196.026  Recovery = 101.62%
Si 251.611†            86208.7      2419.3 ug/L       17.04      2419.3 ppb       17.04   0.70%
   QC value within limits for Si 251.611  Recovery = 96.77%
Sn 189.927†             3247.3      487.60 ug/L        1.022      487.60 ppb        1.022   0.21%
   QC value within limits for Sn 189.927  Recovery = 97.52%
Sr 421.552†            85745.8      502.76 ug/L        1.725      502.76 ppb        1.725   0.34%
   QC value within limits for Sr 421.552  Recovery = 100.55%
Ti 334.940†           334572.4      483.61 ug/L        1.187      483.61 ppb        1.187   0.25%
   QC value within limits for Ti 334.940  Recovery = 96.72%
Tl 190.801†             1893.2      494.25 ug/L        3.114      494.25 ppb        3.114   0.63%
   QC value within limits for Tl 190.801  Recovery = 98.85%
U 409.014†             17632.4      484.23 ug/L        5.893      484.23 ppb        5.893   1.22%
   QC value within limits for U 409.014  Recovery = 96.85%
V 292.402†             76766.6      494.77 ug/L        4.075      494.77 ppb        4.075   0.82%
   QC value within limits for V 292.402  Recovery = 98.95%
Zn 213.857†            59883.3      486.74 ug/L        3.408      486.74 ppb        3.408   0.70%
   QC value within limits for Zn 213.857  Recovery = 97.35%
SiO2†                  86407.3      5206.5 ug/L       28.89      5206.5 ppb       28.89   0.55%
   QC value within limits for SiO2  Recovery = 97.36%
All analyte(s) passed QC.
```

Sequence No.: 9
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 12/19/2009 11:25:14
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5786.9	5786.9	104	%			11:27:07
1	Y RADIAL	6211.1	6211.1	105.1	%			11:27:07
1	Al 396.153Radial†	-13.6	3.3	2.3976	ug/L	2.3976	ppb	11:27:07
1	Ca 317.933Radial†	20.0	-0.4	-0.5254	ug/L	-0.5254	ppb	11:27:27
1	Fe 238.204 Radial†	8.5	-2.7	-22.205	ug/L	-22.205	ppb	11:27:27
1	K 766.490 Radial†	2909.0	86.1	15.173	ug/L	15.173	ppb	11:27:07
1	Mg 279.077 IEC†	1.6	0.2	5.7970	ug/L	5.7970	ppb	11:27:27
1	Na 589.592 Radial†	-745.9	44.1	13.159	ug/L	13.159	ppb	11:27:07
1	Sr 421.552†	31.8	42.4	0.2485	ug/L	0.2485	ppb	11:27:07
1	Sc 361.383	920098.0	920098.0	102.36	%			11:28:24
1	Y 371.029	759500.4	759500.4	102.02	%			11:28:24
1	Ag 328.068†	450.4	70.1	0.2915	ug/L	0.2915	ppb	11:28:29
1	As 188.979†	-23.0	12.3	4.4752	ug/L	4.4752	ppb	11:28:49
1	B 249.677†	-165.7	-135.9	-2.7865	ug/L	-2.7865	ppb	11:28:29
1	Ba 233.527†	1.0	3.6	0.0232	ug/L	0.0232	ppb	11:28:49
1	Be 313.107†	-4674.8	164.0	0.0549	ug/L	0.0549	ppb	11:28:29
1	Cd 226.502†	-217.2	17.0	0.1688	ug/L	0.1688	ppb	11:28:49
1	Co 228.616†	-94.8	-5.5	-0.0947	ug/L	-0.0947	ppb	11:28:49
1	Cr 267.716†	99.9	17.4	0.1751	ug/L	0.1751	ppb	11:28:49
1	Cu 324.752†	6107.3	-88.9	-0.2522	ug/L	-0.2522	ppb	11:28:29
1	Mn 257.610†	509.9	6.7	0.0043	ug/L	0.0043	ppb	11:28:49
1	Mo 202.031†	24.3	3.8	0.2298	ug/L	0.2298	ppb	11:28:49
1	Ni 231.604†	110.4	14.3	0.3127	ug/L	0.3127	ppb	11:28:49
1	P 214.914†	246.3	-17.4	-9.0232	ug/L	-9.0232	ppb	11:28:49
1	Pb 220.353†	-65.7	-0.1	-0.0085	ug/L	-0.0085	ppb	11:28:49
1	S 181.975 Axial†	47.2	-2.9	-3.5365	ug/L	-3.5365	ppb	11:28:49
1	Sb 206.836†	46.1	3.8	1.1615	ug/L	1.1615	ppb	11:28:49
1	Se 196.026†	-16.5	12.4	6.7024	ug/L	6.7024	ppb	11:28:49
1	Si 251.611†	655.4	62.8	1.7600	ug/L	1.7600	ppb	11:28:49
1	Sn 189.927†	7.9	4.2	0.6307	ug/L	0.6307	ppb	11:28:49
1	Ti 334.940†	-1460.0	-38.8	-0.0577	ug/L	-0.0577	ppb	11:28:29
1	Tl 190.801†	-45.0	4.1	1.0652	ug/L	1.0652	ppb	11:28:49
1	U 409.014†	-2298.8	126.3	3.4832	ug/L	3.4832	ppb	11:28:24
1	V 292.402†	-1519.5	-15.1	-0.0825	ug/L	-0.0825	ppb	11:28:29
1	Zn 213.857†	830.6	17.9	0.1469	ug/L	0.1469	ppb	11:28:49
1	SiO2†	673.9	51.8	3.1098	ug/L	3.1098	ppb	11:29:55
2	Sc Radial	5493.8	5493.8	98.7	%			11:27:32
2	Y RADIAL	5877.2	5877.2	99.42	%			11:27:32
2	Al 396.153Radial†	-23.5	-7.5	-5.4602	ug/L	-5.4602	ppb	11:27:32
2	Ca 317.933Radial†	23.6	4.3	6.1521	ug/L	6.1521	ppb	11:27:52
2	Fe 238.204 Radial†	8.8	-2.0	-16.372	ug/L	-16.372	ppb	11:27:52
2	K 766.490 Radial†	2863.7	189.5	33.406	ug/L	33.406	ppb	11:27:32
2	Mg 279.077 IEC†	-0.1	-1.5	-46.795	ug/L	-46.795	ppb	11:27:52
2	Na 589.592 Radial†	-798.6	-47.6	-14.215	ug/L	-14.215	ppb	11:27:32
2	Sr 421.552†	-0.1	11.7	0.0687	ug/L	0.0687	ppb	11:27:32
2	Sc 361.383	932950.6	932950.6	103.79	%			11:28:54
2	Y 371.029	769916.6	769916.6	103.42	%			11:28:54
2	Ag 328.068†	331.1	-50.9	-0.2244	ug/L	-0.2244	ppb	11:28:59
2	As 188.979†	-28.2	7.7	2.7909	ug/L	2.7909	ppb	11:29:19
2	B 249.677†	-172.9	-140.6	-2.8839	ug/L	-2.8839	ppb	11:28:59
2	Ba 233.527†	14.4	16.5	0.1129	ug/L	0.1129	ppb	11:29:19
2	Be 313.107†	-4707.0	195.9	0.0662	ug/L	0.0662	ppb	11:28:59
2	Cd 226.502†	-228.8	8.8	0.0876	ug/L	0.0876	ppb	11:29:19
2	Co 228.616†	-80.1	9.9	0.1731	ug/L	0.1731	ppb	11:29:19
2	Cr 267.716†	97.1	13.4	0.1358	ug/L	0.1358	ppb	11:29:19
2	Cu 324.752†	6176.2	-104.7	-0.2966	ug/L	-0.2966	ppb	11:28:59
2	Mn 257.610†	514.9	4.7	0.0038	ug/L	0.0038	ppb	11:29:19
2	Mo 202.031†	23.7	2.9	0.1773	ug/L	0.1773	ppb	11:29:19
2	Ni 231.604†	116.5	18.6	0.4072	ug/L	0.4072	ppb	11:29:19

2	P 214.914†	255.3	-12.1	-6.2696	ug/L	-6.2696 ppb	11:29:19
2	Pb 220.353†	-85.1	-17.9	-1.8845	ug/L	-1.8845 ppb	11:29:19
2	S 181.975 Axial†	53.2	2.3	2.8069	ug/L	2.8069 ppb	11:29:19
2	Sb 206.836†	46.1	3.2	0.9731	ug/L	0.9731 ppb	11:29:19
2	Se 196.026†	-23.6	5.7	3.0783	ug/L	3.0783 ppb	11:29:19
2	Si 251.611†	674.1	72.0	2.0160	ug/L	2.0160 ppb	11:29:19
2	Sn 189.927†	3.4	-0.2	-0.0278	ug/L	-0.0278 ppb	11:29:19
2	Ti 334.940†	-1257.2	176.3	0.2541	ug/L	0.2541 ppb	11:28:59
2	Tl 190.801†	-29.7	19.5	5.0552	ug/L	5.0552 ppb	11:29:19
2	U 409.014†	-2378.3	80.7	2.2239	ug/L	2.2239 ppb	11:28:54
2	V 292.402†	-1432.4	89.3	0.5757	ug/L	0.5757 ppb	11:28:59
2	Zn 213.857†	835.7	11.7	0.0969	ug/L	0.0969 ppb	11:29:19
2	SiO2†	657.8	27.1	1.6110	ug/L	1.6110 ppb	11:30:00
3	Sc Radial	5582.7	5582.7	100	%		11:27:57
3	Y RADIAL	5973.3	5973.3	101.0	%		11:27:57
3	Al 396.153Radial†	-27.6	-11.1	-8.1077	ug/L	-8.1077 ppb	11:27:57
3	Ca 317.933Radial†	22.1	2.5	3.4951	ug/L	3.4951 ppb	11:28:17
3	Fe 238.204 Radial†	8.6	-2.3	-19.379	ug/L	-19.379 ppb	11:28:17
3	K 766.490 Radial†	2871.3	150.9	26.599	ug/L	26.599 ppb	11:27:57
3	Mg 279.077 IEC†	2.1	0.7	21.435	ug/L	21.435 ppb	11:28:17
3	Na 589.592 Radial†	-742.1	21.6	6.4454	ug/L	6.4454 ppb	11:27:57
3	Sr 421.552†	1.0	12.8	0.0751	ug/L	0.0751 ppb	11:27:57
3	Sc 361.383	924411.0	924411.0	102.84	%		11:29:24
3	Y 371.029	763846.5	763846.5	102.60	%		11:29:24
3	Ag 328.068†	443.5	61.3	0.2572	ug/L	0.2572 ppb	11:29:29
3	As 188.979†	-31.3	4.4	1.6015	ug/L	1.6015 ppb	11:29:50
3	B 249.677†	-203.8	-172.2	-3.5324	ug/L	-3.5324 ppb	11:29:29
3	Ba 233.527†	-0.3	2.3	0.0146	ug/L	0.0146 ppb	11:29:50
3	Be 313.107†	-4636.9	222.1	0.0745	ug/L	0.0745 ppb	11:29:29
3	Cd 226.502†	-209.1	25.8	0.2550	ug/L	0.2550 ppb	11:29:50
3	Co 228.616†	-79.8	9.5	0.1679	ug/L	0.1679 ppb	11:29:50
3	Cr 267.716†	91.5	8.8	0.0890	ug/L	0.0890 ppb	11:29:50
3	Cu 324.752†	6095.3	-128.4	-0.3638	ug/L	-0.3638 ppb	11:29:29
3	Mn 257.610†	496.6	-8.6	-0.0108	ug/L	-0.0108 ppb	11:29:50
3	Mo 202.031†	24.5	3.9	0.2363	ug/L	0.2363 ppb	11:29:50
3	Ni 231.604†	124.6	27.6	0.6032	ug/L	0.6032 ppb	11:29:50
3	P 214.914†	241.0	-23.7	-12.278	ug/L	-12.278 ppb	11:29:50
3	Pb 220.353†	-68.3	-2.3	-0.2446	ug/L	-0.2446 ppb	11:29:50
3	S 181.975 Axial†	49.4	-1.0	-1.1990	ug/L	-1.1990 ppb	11:29:50
3	Sb 206.836†	38.4	-3.9	-1.1428	ug/L	-1.1428 ppb	11:29:50
3	Se 196.026†	-32.8	-3.4	-1.8896	ug/L	-1.8896 ppb	11:29:50
3	Si 251.611†	645.4	50.2	1.3993	ug/L	1.3993 ppb	11:29:50
3	Sn 189.927†	8.8	5.1	0.7600	ug/L	0.7600 ppb	11:29:50
3	Ti 334.940†	-1413.8	12.8	0.0186	ug/L	0.0186 ppb	11:29:29
3	Tl 190.801†	-31.6	17.4	4.5038	ug/L	4.5038 ppb	11:29:50
3	U 409.014†	-2432.5	6.8	0.1896	ug/L	0.1896 ppb	11:29:24
3	V 292.402†	-1530.9	-19.2	-0.1153	ug/L	-0.1153 ppb	11:29:29
3	Zn 213.857†	829.7	13.3	0.1067	ug/L	0.1067 ppb	11:29:50
3	SiO2†	695.2	69.4	4.1659	ug/L	4.1659 ppb	11:30:05

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	925819.9	102.99	%	0.728				0.71%
Sc Radial	5621.1	101	%	2.7				2.67%
Y 371.029	764421.2	102.68	%	0.703				0.68%
Y RADIAL	6020.5	101.8	%	2.91				2.85%
Ag 328.068†	26.9	0.1081	ug/L	0.28846	0.1081	ppb	0.28846	266.89%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-5.1	-3.7234	ug/L	5.46373	-3.7234	ppb	5.46373	146.74%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	8.1	2.9558	ug/L	1.44394	2.9558	ppb	1.44394	48.85%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-149.6	-3.0676	ug/L	0.40543	-3.0676	ppb	0.40543	13.22%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	7.5	0.0502	ug/L	0.05441	0.0502	ppb	0.05441	108.31%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	194.0	0.0652	ug/L	0.00985	0.0652	ppb	0.00985	15.11%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	2.1	3.0406	ug/L	3.36188	3.0406	ppb	3.36188	110.57%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                17.2      0.1705 ug/L       0.08368      0.1705 ppb        0.08368  49.09%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                 4.7      0.0821 ug/L       0.15314      0.0821 ppb        0.15314 186.58%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                13.2      0.1333 ug/L       0.04310      0.1333 ppb        0.04310  32.34%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -107.3     -0.3042 ug/L       0.05618     -0.3042 ppb        0.05618  18.47%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -2.3     -19.319 ug/L        2.9168     -19.319 ppb         2.9168  15.10%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         142.2      25.060 ug/L        9.2134      25.060 ppb         9.2134  36.77%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -0.2      -6.5210 ug/L      35.74393     -6.5210 ppb       35.74393 548.14%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                 0.9      -0.0009 ug/L       0.00858     -0.0009 ppb        0.00858 966.34%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 3.6       0.2145 ug/L       0.03235      0.2145 ppb        0.03235  15.09%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†          6.0       1.7964 ug/L      14.26729      1.7964 ppb       14.26729 794.21%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                20.2       0.4410 ug/L       0.14815      0.4410 ppb        0.14815  33.59%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -17.8      -9.1903 ug/L       3.00774     -9.1903 ppb        3.00774  32.73%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -6.8      -0.7125 ug/L       1.02183     -0.7125 ppb        1.02183 143.41%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -0.5      -0.6429 ug/L       3.20807     -0.6429 ppb        3.20807 499.04%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 1.1       0.3306 ug/L       1.27945      0.3306 ppb        1.27945 387.00%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 4.9       2.6304 ug/L       4.31348      2.6304 ppb        4.31348 163.99%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                61.7       1.7251 ug/L       0.30985      1.7251 ppb        0.30985  17.96%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 3.0       0.4543 ug/L       0.42248      0.4543 ppb        0.42248  93.00%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                22.3       0.1307 ug/L       0.10201      0.1307 ppb        0.10201  78.02%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                50.1       0.0717 ug/L       0.16255      0.0717 ppb        0.16255 226.72%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                13.7       3.5414 ug/L       2.16211      3.5414 ppb        2.16211  61.05%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 71.3       1.9656 ug/L       1.66196      1.9656 ppb        1.66196  84.55%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 18.3       0.1260 ug/L       0.38983      0.1260 ppb        0.38983 309.44%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                14.3       0.1168 ug/L       0.02648      0.1168 ppb        0.02648  22.67%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                      49.4       2.9623 ug/L       1.28387      2.9623 ppb        1.28387  43.34%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
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Sequence No.: 6
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 12/19/2009 12:04:19
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	5215.8	5215.8	93.7	%			12:06:11
1	Y RADIAL	5527.1	5527.1	93.50	%			12:06:11
1	Al 396.153Radial†	6909.2	7391.2	5364.7	ug/L	5364.7	ppb	12:06:11
1	Ca 317.933Radial†	3510.2	3727.1	5313.9	ug/L	5313.9	ppb	12:06:31
1	Fe 238.204 Radial†	609.7	639.9	5335.1	ug/L	5335.1	ppb	12:06:31
1	K 766.490 Radial†	31496.3	30906.3	5438.5	ug/L	5438.5	ppb	12:06:11
1	Mg 279.077 IEC†	166.6	176.4	5483.7	ug/L	5483.7	ppb	12:06:31
1	Na 589.592 Radial†	31745.8	34646.7	10341	ug/L	10341	ppb	12:06:11
1	Sr 421.552†	85549.9	91326.6	535.48	ug/L	535.48	ppb	12:06:11
1	Sc 361.383	922665.3	922665.3	102.64	%			12:07:30
1	Y 371.029	750972.1	750972.1	100.87	%			12:07:30
1	Ag 328.068†	116484.3	113115.2	490.70	ug/L	490.70	ppb	12:07:30
1	As 188.979†	1340.6	1340.9	491.12	ug/L	491.12	ppb	12:07:51
1	B 249.677†	24009.9	23417.7	478.66	ug/L	478.66	ppb	12:07:30
1	Ba 233.527†	74481.1	72566.0	494.49	ug/L	494.49	ppb	12:07:30
1	Be 313.107†	1497392.4	1463569.3	491.78	ug/L	491.78	ppb	12:07:30
1	Cd 226.502†	51605.6	50506.0	493.72	ug/L	493.72	ppb	12:07:30
1	Co 228.616†	28258.7	27618.2	483.60	ug/L	483.60	ppb	12:07:51
1	Cr 267.716†	49853.3	48489.6	492.42	ug/L	492.42	ppb	12:07:30
1	Cu 324.752†	185199.2	174375.2	492.95	ug/L	492.95	ppb	12:07:30
1	Mn 257.610†	512893.1	499195.8	492.82	ug/L	492.82	ppb	12:07:30
1	Mo 202.031†	8311.0	8077.1	489.30	ug/L	489.30	ppb	12:07:51
1	Ni 231.604†	22987.9	22302.4	486.98	ug/L	486.98	ppb	12:07:51
1	P 214.914†	5057.4	4669.1	2360.7	ug/L	2360.7	ppb	12:07:51
1	Pb 220.353†	4753.4	4695.1	496.35	ug/L	496.35	ppb	12:07:51
1	S 181.975 Axial†	861.2	790.0	968.09	ug/L	968.09	ppb	12:07:51
1	Sb 206.836†	1713.8	1628.4	494.85	ug/L	494.85	ppb	12:07:51
1	Se 196.026†	892.2	897.7	507.56	ug/L	507.56	ppb	12:07:51
1	Si 251.611†	89480.6	86599.2	2430.1	ug/L	2430.1	ppb	12:07:30
1	Sn 189.927†	3346.8	3257.1	489.12	ug/L	489.12	ppb	12:07:51
1	Ti 334.940†	345381.4	337876.2	488.41	ug/L	488.41	ppb	12:07:30
1	Tl 190.801†	1895.8	1895.1	494.87	ug/L	494.87	ppb	12:07:51
1	U 409.014†	14940.5	16928.0	464.78	ug/L	464.78	ppb	12:07:30
1	V 292.402†	77525.9	76999.2	496.21	ug/L	496.21	ppb	12:07:30
1	Zn 213.857†	62585.1	60180.2	489.17	ug/L	489.17	ppb	12:07:30
1	SiO2†	88749.6	85857.8	5172.8	ug/L	5172.8	ppb	12:08:51
2	Sc Radial	5269.7	5269.7	94.7	%			12:06:37
2	Y RADIAL	5569.7	5569.7	94.22	%			12:06:37
2	Al 396.153Radial†	6560.4	6947.3	5041.1	ug/L	5041.1	ppb	12:06:37
2	Ca 317.933Radial†	3456.5	3632.1	5178.5	ug/L	5178.5	ppb	12:06:57
2	Fe 238.204 Radial†	606.9	630.3	5254.7	ug/L	5254.7	ppb	12:06:57
2	K 766.490 Radial†	30150.8	29141.2	5127.6	ug/L	5127.6	ppb	12:06:37
2	Mg 279.077 IEC†	164.0	171.8	5340.7	ug/L	5340.7	ppb	12:06:57
2	Na 589.592 Radial†	30075.4	32535.7	9711.0	ug/L	9711.0	ppb	12:06:37
2	Sr 421.552†	81101.4	85693.8	502.45	ug/L	502.45	ppb	12:06:37
2	Sc 361.383	921073.8	921073.8	102.47	%			12:07:58
2	Y 371.029	750272.1	750272.1	100.78	%			12:07:58
2	Ag 328.068†	115776.1	112620.1	488.54	ug/L	488.54	ppb	12:07:58
2	As 188.979†	1363.7	1365.7	500.08	ug/L	500.08	ppb	12:08:18
2	B 249.677†	23799.3	23252.5	475.27	ug/L	475.27	ppb	12:07:58
2	Ba 233.527†	74377.2	72590.0	494.65	ug/L	494.65	ppb	12:07:58
2	Be 313.107†	1495290.2	1464038.3	491.94	ug/L	491.94	ppb	12:07:58
2	Cd 226.502†	51508.3	50498.0	493.65	ug/L	493.65	ppb	12:07:58
2	Co 228.616†	28382.1	27786.2	486.55	ug/L	486.55	ppb	12:08:18
2	Cr 267.716†	49814.0	48535.1	492.88	ug/L	492.88	ppb	12:07:58
2	Cu 324.752†	183902.9	173421.8	490.25	ug/L	490.25	ppb	12:07:58
2	Mn 257.610†	511766.6	498959.8	492.58	ug/L	492.58	ppb	12:07:58
2	Mo 202.031†	8348.8	8128.0	492.37	ug/L	492.37	ppb	12:08:18
2	Ni 231.604†	23046.5	22398.3	489.07	ug/L	489.07	ppb	12:08:18

2	P 214.914†	5077.3	4697.0	2375.7 ug/L	2375.7 ppb	12:08:18
2	Pb 220.353†	4747.1	4697.0	496.49 ug/L	496.49 ppb	12:08:18
2	S 181.975 Axial†	861.5	791.7	970.31 ug/L	970.31 ppb	12:08:18
2	Sb 206.836†	1724.5	1641.8	498.91 ug/L	498.91 ppb	12:08:18
2	Se 196.026†	893.9	900.9	509.02 ug/L	509.02 ppb	12:08:18
2	Si 251.611†	89040.6	86320.5	2422.3 ug/L	2422.3 ppb	12:07:58
2	Sn 189.927†	3336.3	3252.6	488.42 ug/L	488.42 ppb	12:08:18
2	Ti 334.940†	343776.3	336891.2	486.98 ug/L	486.98 ppb	12:07:58
2	Tl 190.801†	1892.2	1894.7	494.74 ug/L	494.74 ppb	12:08:18
2	U 409.014†	15005.0	17016.1	467.22 ug/L	467.22 ppb	12:07:58
2	V 292.402†	77237.3	76848.1	495.31 ug/L	495.31 ppb	12:07:58
2	Zn 213.857†	62496.6	60199.1	489.32 ug/L	489.32 ppb	12:07:58
2	SiO2†	89491.5	86731.3	5225.8 ug/L	5225.8 ppb	12:08:56
3	Sc Radial	5538.8	5538.8	99.5 %		12:07:02
3	Y RADIAL	5842.5	5842.5	98.83 %		12:07:02
3	Al 396.153Radial†	6787.9	6839.2	4962.3 ug/L	4962.3 ppb	12:07:02
3	Ca 317.933Radial†	3443.5	3441.6	4906.8 ug/L	4906.8 ppb	12:07:22
3	Fe 238.204 Radial†	600.6	592.8	4943.6 ug/L	4943.6 ppb	12:07:22
3	K 766.490 Radial†	31132.6	28580.4	5028.9 ug/L	5028.9 ppb	12:07:02
3	Mg 279.077 IEC†	165.4	164.8	5124.3 ug/L	5124.3 ppb	12:07:22
3	Na 589.592 Radial†	31114.0	32035.9	9561.8 ug/L	9561.8 ppb	12:07:02
3	Sr 421.552†	84223.2	84668.6	496.44 ug/L	496.44 ppb	12:07:02
3	Sc 361.383	916829.3	916829.3	101.99 %		12:08:25
3	Y 371.029	745650.2	745650.2	100.16 %		12:08:25
3	Ag 328.068†	115388.8	112763.5	489.06 ug/L	489.06 ppb	12:08:25
3	As 188.979†	1356.3	1364.6	499.63 ug/L	499.63 ppb	12:08:46
3	B 249.677†	23822.2	23382.6	477.98 ug/L	477.98 ppb	12:08:25
3	Ba 233.527†	74079.4	72634.0	494.94 ug/L	494.94 ppb	12:08:25
3	Be 313.107†	1484645.3	1460357.4	490.70 ug/L	490.70 ppb	12:08:25
3	Cd 226.502†	51428.0	50652.0	495.19 ug/L	495.19 ppb	12:08:25
3	Co 228.616†	28390.9	27923.1	488.95 ug/L	488.95 ppb	12:08:46
3	Cr 267.716†	49534.4	48486.1	492.38 ug/L	492.38 ppb	12:08:25
3	Cu 324.752†	183066.0	173432.2	490.26 ug/L	490.26 ppb	12:08:25
3	Mn 257.610†	510397.0	499929.3	493.51 ug/L	493.51 ppb	12:08:25
3	Mo 202.031†	8336.9	8154.1	493.93 ug/L	493.93 ppb	12:08:46
3	Ni 231.604†	23037.5	22493.6	491.15 ug/L	491.15 ppb	12:08:46
3	P 214.914†	5077.5	4720.2	2388.0 ug/L	2388.0 ppb	12:08:46
3	Pb 220.353†	4752.7	4723.8	499.33 ug/L	499.33 ppb	12:08:46
3	S 181.975 Axial†	873.3	807.2	989.28 ug/L	989.28 ppb	12:08:46
3	Sb 206.836†	1729.6	1654.5	502.85 ug/L	502.85 ppb	12:08:46
3	Se 196.026†	904.0	914.9	515.70 ug/L	515.70 ppb	12:08:46
3	Si 251.611†	88849.4	86535.3	2428.3 ug/L	2428.3 ppb	12:08:25
3	Sn 189.927†	3349.7	3280.8	492.62 ug/L	492.62 ppb	12:08:46
3	Ti 334.940†	342691.2	337380.5	487.68 ug/L	487.68 ppb	12:08:25
3	Tl 190.801†	1901.9	1912.8	499.41 ug/L	499.41 ppb	12:08:46
3	U 409.014†	14842.2	16924.3	464.73 ug/L	464.73 ppb	12:08:25
3	V 292.402†	76938.6	76904.2	495.73 ug/L	495.73 ppb	12:08:25
3	Zn 213.857†	62308.9	60297.4	490.15 ug/L	490.15 ppb	12:08:25
3	SiO2†	87638.2	85318.6	5140.2 ug/L	5140.2 ppb	12:09:01

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	920189.5	102.37	%	0.336				0.33%
Sc Radial	5341.4	95.9	%	3.11				3.24%
Y 371.029	748964.8	100.60	%	0.388				0.39%
Y RADIAL	5646.4	95.52	%	2.895				3.03%
Ag 328.068†	112832.9	489.43	ug/L	1.130	489.43	ppb	1.130	0.23%
QC value within limits for Ag 328.068 Recovery = 97.89%								
Al 396.153Radial†	7059.2	5122.7	ug/L	213.25	5122.7	ppb	213.25	4.16%
QC value within limits for Al 396.153Radial Recovery = 102.45%								
As 188.979†	1357.1	496.94	ug/L	5.048	496.94	ppb	5.048	1.02%
QC value within limits for As 188.979 Recovery = 99.39%								
B 249.677†	23350.9	477.30	ug/L	1.791	477.30	ppb	1.791	0.38%
QC value within limits for B 249.677 Recovery = 95.46%								
Ba 233.527†	72596.7	494.69	ug/L	0.226	494.69	ppb	0.226	0.05%
QC value within limits for Ba 233.527 Recovery = 98.94%								
Be 313.107†	1462655.0	491.48	ug/L	0.672	491.48	ppb	0.672	0.14%
QC value within limits for Be 313.107 Recovery = 98.30%								
Ca 317.933Radial†	3600.3	5133.0	ug/L	207.31	5133.0	ppb	207.31	4.04%

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   QC value within limits for Ca 317.933Radial  Recovery = 102.66%
Cd 226.502†            50552.0      494.19 ug/L        0.869      494.19 ppb        0.869   0.18%
   QC value within limits for Cd 226.502  Recovery = 98.84%
Co 228.616†            27775.8      486.37 ug/L        2.682      486.37 ppb        2.682   0.55%
   QC value within limits for Co 228.616  Recovery = 97.27%
Cr 267.716†            48503.6      492.56 ug/L        0.278      492.56 ppb        0.278   0.06%
   QC value within limits for Cr 267.716  Recovery = 98.51%
Cu 324.752†           173743.1      491.15 ug/L        1.554      491.15 ppb        1.554   0.32%
   QC value within limits for Cu 324.752  Recovery = 98.23%
Fe 238.204 Radial†       621.0      5177.8 ug/L       206.78      5177.8 ppb       206.78   3.99%
   QC value within limits for Fe 238.204 Radial  Recovery = 103.56%
K 766.490 Radial†      29542.7      5198.3 ug/L       213.75      5198.3 ppb       213.75   4.11%
   QC value within limits for K 766.490 Radial  Recovery = 103.97%
Mg 279.077 IEC†          171.0      5316.2 ug/L       180.96      5316.2 ppb       180.96   3.40%
   QC value within limits for Mg 279.077 IEC  Recovery = 106.32%
Mn 257.610†           499361.7      492.97 ug/L        0.483      492.97 ppb        0.483   0.10%
   QC value within limits for Mn 257.610  Recovery = 98.59%
Mo 202.031†             8119.7      491.87 ug/L        2.357      491.87 ppb        2.357   0.48%
   QC value within limits for Mo 202.031  Recovery = 98.37%
Na 589.592 Radial†     33072.8      9871.3 ug/L       413.63      9871.3 ppb       413.63   4.19%
   QC value within limits for Na 589.592 Radial  Recovery = 98.71%
Ni 231.604†            22398.1      489.07 ug/L        2.087      489.07 ppb        2.087   0.43%
   QC value within limits for Ni 231.604  Recovery = 97.81%
P 214.914†              4695.4      2374.8 ug/L       13.67       2374.8 ppb       13.67   0.58%
   QC value within limits for P 214.914  Recovery = 94.99%
Pb 220.353†             4705.3      497.39 ug/L        1.684      497.39 ppb        1.684   0.34%
   QC value within limits for Pb 220.353  Recovery = 99.48%
S 181.975 Axial†         796.3      975.89 ug/L       11.649      975.89 ppb       11.649   1.19%
   QC value within limits for S 181.975 Axial  Recovery = 97.59%
Sb 206.836†             1641.6      498.87 ug/L        3.996      498.87 ppb        3.996   0.80%
   QC value within limits for Sb 206.836  Recovery = 99.77%
Se 196.026†              904.5      510.76 ug/L        4.338      510.76 ppb        4.338   0.85%
   QC value within limits for Se 196.026  Recovery = 102.15%
Si 251.611†            86485.0      2426.9 ug/L         4.10      2426.9 ppb         4.10   0.17%
   QC value within limits for Si 251.611  Recovery = 97.08%
Sn 189.927†             3263.5      490.05 ug/L        2.250      490.05 ppb        2.250   0.46%
   QC value within limits for Sn 189.927  Recovery = 98.01%
Sr 421.552†            87229.7      511.46 ug/L       21.020      511.46 ppb       21.020   4.11%
   QC value within limits for Sr 421.552  Recovery = 102.29%
Ti 334.940†           337382.7      487.69 ug/L        0.716      487.69 ppb        0.716   0.15%
   QC value within limits for Ti 334.940  Recovery = 97.54%
Tl 190.801†             1900.9      496.34 ug/L        2.661      496.34 ppb        2.661   0.54%
   QC value within limits for Tl 190.801  Recovery = 99.27%
U 409.014†             16956.2      465.58 ug/L        1.422      465.58 ppb        1.422   0.31%
   QC value within limits for U 409.014  Recovery = 93.12%
V 292.402†             76917.2      495.75 ug/L        0.452      495.75 ppb        0.452   0.09%
   QC value within limits for V 292.402  Recovery = 99.15%
Zn 213.857†            60225.6      489.55 ug/L        0.531      489.55 ppb        0.531   0.11%
   QC value within limits for Zn 213.857  Recovery = 97.91%
SiO2†                  85969.2      5179.6 ug/L       43.18       5179.6 ppb       43.18   0.83%
   QC value within limits for SiO2  Recovery = 96.86%
All analyte(s) passed QC.
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Sequence No.: 7
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 12/19/2009 12:11:12
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5707.4	5707.4	103	%			12:13:04
1	Y RADIAL	6104.4	6104.4	103.3	%			12:13:04
1	Al 396.153Radial†	-15.9	0.9	0.6021	ug/L	0.6021	ppb	12:13:04
1	Ca 317.933Radial†	23.9	3.8	5.3603	ug/L	5.3603	ppb	12:13:24
1	Fe 238.204 Radial†	9.6	-1.5	-12.798	ug/L	-12.798	ppb	12:13:24
1	K 766.490 Radial†	2816.2	34.7	6.1053	ug/L	6.1053	ppb	12:13:04
1	Mg 279.077 IEC†	0.2	-1.2	-37.921	ug/L	-37.921	ppb	12:13:24
1	Na 589.592 Radial†	-755.3	24.9	7.4376	ug/L	7.4376	ppb	12:13:04
1	Sr 421.552†	44.4	55.1	0.3229	ug/L	0.3229	ppb	12:13:04
1	Sc 361.383	923666.3	923666.3	102.75	%			12:14:21
1	Y 371.029	763001.3	763001.3	102.49	%			12:14:21
1	Ag 328.068†	383.6	3.4	0.0104	ug/L	0.0104	ppb	12:14:26
1	As 188.979†	-32.8	2.9	1.0526	ug/L	1.0526	ppb	12:14:46
1	B 249.677†	-280.0	-246.6	-5.0595	ug/L	-5.0595	ppb	12:14:46
1	Ba 233.527†	-11.2	-8.3	-0.0559	ug/L	-0.0559	ppb	12:14:46
1	Be 313.107†	-4565.7	287.8	0.0970	ug/L	0.0970	ppb	12:14:26
1	Cd 226.502†	-215.3	19.7	0.1938	ug/L	0.1938	ppb	12:14:46
1	Co 228.616†	-85.1	4.3	0.0756	ug/L	0.0756	ppb	12:14:46
1	Cr 267.716†	110.2	27.1	0.2750	ug/L	0.2750	ppb	12:14:46
1	Cu 324.752†	6002.7	-213.8	-0.6046	ug/L	-0.6046	ppb	12:14:26
1	Mn 257.610†	499.3	-5.6	-0.0061	ug/L	-0.0061	ppb	12:14:46
1	Mo 202.031†	27.5	6.9	0.4151	ug/L	0.4151	ppb	12:14:46
1	Ni 231.604†	111.9	15.3	0.3345	ug/L	0.3345	ppb	12:14:46
1	P 214.914†	246.0	-18.7	-9.6664	ug/L	-9.6664	ppb	12:14:46
1	Pb 220.353†	-71.1	-5.1	-0.5352	ug/L	-0.5352	ppb	12:14:46
1	S 181.975 Axial†	46.7	-3.5	-4.3068	ug/L	-4.3068	ppb	12:14:46
1	Sb 206.836†	36.0	-6.2	-1.8699	ug/L	-1.8699	ppb	12:14:46
1	Se 196.026†	-23.2	5.9	3.1725	ug/L	3.1725	ppb	12:14:46
1	Si 251.611†	639.4	44.8	1.2550	ug/L	1.2550	ppb	12:14:46
1	Sn 189.927†	-1.3	-4.8	-0.7190	ug/L	-0.7190	ppb	12:14:46
1	Ti 334.940†	-1257.8	163.5	0.2357	ug/L	0.2357	ppb	12:14:26
1	Tl 190.801†	-46.6	2.7	0.6997	ug/L	0.6997	ppb	12:14:46
1	U 409.014†	-2355.2	80.1	2.2087	ug/L	2.2087	ppb	12:14:21
1	V 292.402†	-1429.1	78.7	0.5112	ug/L	0.5112	ppb	12:14:26
1	Zn 213.857†	826.2	10.5	0.0874	ug/L	0.0874	ppb	12:14:46
1	SiO2†	640.8	17.0	1.0147	ug/L	1.0147	ppb	12:15:52
2	Sc Radial	5660.8	5660.8	102	%			12:13:29
2	Y RADIAL	6041.7	6041.7	102.2	%			12:13:29
2	Al 396.153Radial†	-18.9	-2.2	-1.5858	ug/L	-1.5858	ppb	12:13:29
2	Ca 317.933Radial†	23.3	3.4	4.8247	ug/L	4.8247	ppb	12:13:49
2	Fe 238.204 Radial†	10.6	-0.4	-3.4825	ug/L	-3.4825	ppb	12:13:49
2	K 766.490 Radial†	2916.4	155.8	27.467	ug/L	27.467	ppb	12:13:29
2	Mg 279.077 IEC†	3.3	1.9	57.791	ug/L	57.791	ppb	12:13:49
2	Na 589.592 Radial†	-805.1	-30.2	-9.0087	ug/L	-9.0087	ppb	12:13:29
2	Sr 421.552†	28.6	40.0	0.2344	ug/L	0.2344	ppb	12:13:29
2	Sc 361.383	916990.4	916990.4	102.01	%			12:14:51
2	Y 371.029	757415.2	757415.2	101.74	%			12:14:51
2	Ag 328.068†	386.8	9.3	0.0409	ug/L	0.0409	ppb	12:14:56
2	As 188.979†	-22.8	12.4	4.5224	ug/L	4.5224	ppb	12:15:16
2	B 249.677†	-254.8	-223.9	-4.5946	ug/L	-4.5946	ppb	12:15:16
2	Ba 233.527†	11.0	13.4	0.0914	ug/L	0.0914	ppb	12:15:16
2	Be 313.107†	-4671.3	152.0	0.0513	ug/L	0.0513	ppb	12:14:56
2	Cd 226.502†	-214.5	19.0	0.1858	ug/L	0.1858	ppb	12:15:16
2	Co 228.616†	-73.7	14.9	0.2606	ug/L	0.2606	ppb	12:15:16
2	Cr 267.716†	124.4	41.8	0.4246	ug/L	0.4246	ppb	12:15:16
2	Cu 324.752†	5983.0	-190.5	-0.5385	ug/L	-0.5385	ppb	12:14:56
2	Mn 257.610†	520.1	18.4	0.0167	ug/L	0.0167	ppb	12:15:16
2	Mo 202.031†	22.4	2.1	0.1268	ug/L	0.1268	ppb	12:15:16
2	Ni 231.604†	95.7	0.3	0.0054	ug/L	0.0054	ppb	12:15:16

2	P 214.914†	251.7	-11.3	-5.8317	ug/L	-5.8317 ppb	12:15:16
2	Pb 220.353†	-59.1	6.2	0.6490	ug/L	0.6490 ppb	12:15:16
2	S 181.975 Axial†	52.5	2.5	3.0218	ug/L	3.0218 ppb	12:15:16
2	Sb 206.836†	42.7	0.7	0.1874	ug/L	0.1874 ppb	12:15:16
2	Se 196.026†	-29.6	-0.5	-0.2974	ug/L	-0.2974 ppb	12:15:16
2	Si 251.611†	613.5	23.9	0.6644	ug/L	0.6644 ppb	12:15:16
2	Sn 189.927†	2.1	-1.5	-0.2206	ug/L	-0.2206 ppb	12:15:16
2	Ti 334.940†	-1300.8	112.4	0.1635	ug/L	0.1635 ppb	12:14:56
2	Tl 190.801†	-35.7	13.0	3.3841	ug/L	3.3841 ppb	12:15:16
2	U 409.014†	-2484.9	-63.7	-1.7545	ug/L	-1.7545 ppb	12:14:51
2	V 292.402†	-1475.3	23.2	0.1477	ug/L	0.1477 ppb	12:14:56
2	Zn 213.857†	812.1	2.6	0.0201	ug/L	0.0201 ppb	12:15:16
2	SiO2†	585.9	-32.4	-1.9828	ug/L	-1.9828 ppb	12:15:57
3	Sc Radial	5627.8	5627.8	101	%		12:13:54
3	Y RADIAL	6011.7	6011.7	101.7	%		12:13:54
3	Al 396.153Radial†	-18.9	-2.3	-1.6774	ug/L	-1.6774 ppb	12:13:54
3	Ca 317.933Radial†	17.7	-2.1	-3.0092	ug/L	-3.0092 ppb	12:14:14
3	Fe 238.204 Radial†	11.5	0.5	4.3539	ug/L	4.3539 ppb	12:14:14
3	K 766.490 Radial†	2879.6	136.2	24.009	ug/L	24.009 ppb	12:13:54
3	Mg 279.077 IEC†	1.6	0.2	5.1561	ug/L	5.1561 ppb	12:14:14
3	Na 589.592 Radial†	-784.5	-14.4	-4.3064	ug/L	-4.3064 ppb	12:13:54
3	Sr 421.552†	-24.3	-12.2	-0.0717	ug/L	-0.0717 ppb	12:13:54
3	Sc 361.383	912968.1	912968.1	101.56	%		12:15:22
3	Y 371.029	753654.3	753654.3	101.23	%		12:15:22
3	Ag 328.068†	368.9	-6.7	-0.0250	ug/L	-0.0250 ppb	12:15:27
3	As 188.979†	-32.7	2.7	0.9721	ug/L	0.9721 ppb	12:15:47
3	B 249.677†	-263.1	-233.1	-4.7856	ug/L	-4.7856 ppb	12:15:47
3	Ba 233.527†	1.4	4.0	0.0283	ug/L	0.0283 ppb	12:15:47
3	Be 313.107†	-4741.8	62.4	0.0209	ug/L	0.0209 ppb	12:15:27
3	Cd 226.502†	-223.1	9.5	0.0927	ug/L	0.0927 ppb	12:15:47
3	Co 228.616†	-79.0	9.3	0.1610	ug/L	0.1610 ppb	12:15:47
3	Cr 267.716†	111.0	29.2	0.2968	ug/L	0.2968 ppb	12:15:47
3	Cu 324.752†	5984.8	-162.9	-0.4602	ug/L	-0.4602 ppb	12:15:27
3	Mn 257.610†	511.9	12.5	0.0127	ug/L	0.0127 ppb	12:15:47
3	Mo 202.031†	12.6	-7.5	-0.4514	ug/L	-0.4514 ppb	12:15:47
3	Ni 231.604†	108.8	13.5	0.2950	ug/L	0.2950 ppb	12:15:47
3	P 214.914†	261.7	-0.4	-0.1510	ug/L	-0.1510 ppb	12:15:47
3	Pb 220.353†	-83.0	-17.7	-1.8661	ug/L	-1.8661 ppb	12:15:47
3	S 181.975 Axial†	49.8	0.1	0.0691	ug/L	0.0691 ppb	12:15:47
3	Sb 206.836†	48.8	6.8	2.0403	ug/L	2.0403 ppb	12:15:47
3	Se 196.026†	-32.3	-3.3	-1.7778	ug/L	-1.7778 ppb	12:15:47
3	Si 251.611†	603.8	17.1	0.4789	ug/L	0.4789 ppb	12:15:47
3	Sn 189.927†	8.0	4.4	0.6611	ug/L	0.6611 ppb	12:15:47
3	Ti 334.940†	-1422.6	-13.1	-0.0189	ug/L	-0.0189 ppb	12:15:27
3	Tl 190.801†	-29.8	18.8	4.8639	ug/L	4.8639 ppb	12:15:47
3	U 409.014†	-2437.8	-28.0	-0.7734	ug/L	-0.7734 ppb	12:15:22
3	V 292.402†	-1424.2	67.1	0.4184	ug/L	0.4184 ppb	12:15:27
3	Zn 213.857†	821.3	15.1	0.1218	ug/L	0.1218 ppb	12:15:47
3	SiO2†	641.1	24.5	1.4804	ug/L	1.4804 ppb	12:16:02

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	917875.0	102.11	%	0.601				0.59%
Sc Radial	5665.3	102	%	0.7				0.71%
Y 371.029	758023.6	101.82	%	0.632				0.62%
Y RADIAL	6052.6	102.4	%	0.80				0.78%
Ag 328.068†	2.0	0.0088	ug/L	0.03297	0.0088	ppb	0.03297	376.67%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-1.2	-0.8870	ug/L	1.29044	-0.8870	ppb	1.29044	145.48%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	6.0	2.1824	ug/L	2.02694	2.1824	ppb	2.02694	92.88%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-234.5	-4.8133	ug/L	0.23365	-4.8133	ppb	0.23365	4.85%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	3.0	0.0213	ug/L	0.07388	0.0213	ppb	0.07388	347.62%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	167.4	0.0564	ug/L	0.03831	0.0564	ppb	0.03831	67.94%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	1.7	2.3919	ug/L	4.68517	2.3919	ppb	4.68517	195.88%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                16.0      0.1574 ug/L       0.05616      0.1574 ppb        0.05616  35.67%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                 9.5      0.1658 ug/L       0.09261      0.1658 ppb        0.09261  55.87%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                32.7      0.3321 ug/L       0.08085      0.3321 ppb        0.08085  24.34%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -189.1     -0.5344 ug/L       0.07233     -0.5344 ppb        0.07233  13.53%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -0.5     -3.9756 ug/L       8.58659     -3.9756 ppb        8.58659 215.98%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         108.9      19.194 ug/L      11.4662      19.194 ppb       11.4662  59.74%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             0.3      8.3422 ug/L      47.93540      8.3422 ppb       47.93540 574.61%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                 8.4      0.0078 ug/L       0.01214      0.0078 ppb        0.01214 156.18%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 0.5      0.0302 ug/L       0.44121      0.0302 ppb        0.44121 >999.9%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†         -6.6     -1.9592 ug/L       8.47068     -1.9592 ppb        8.47068 432.36%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                 9.7      0.2116 ug/L       0.17970      0.2116 ppb        0.17970  84.91%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -10.2     -5.2164 ug/L       4.78744     -5.2164 ppb        4.78744  91.78%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -5.5     -0.5841 ug/L       1.25825     -0.5841 ppb        1.25825 215.42%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -0.3     -0.4053 ug/L       3.68726     -0.4053 ppb        3.68726 909.82%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 0.4      0.1192 ug/L       1.95598      0.1192 ppb        1.95598 >999.9%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 0.7      0.3657 ug/L       2.54094      0.3657 ppb        2.54094 694.74%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                28.6      0.7994 ug/L       0.40528      0.7994 ppb        0.40528  50.70%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                -0.6     -0.0928 ug/L       0.69888     -0.0928 ppb        0.69888 752.72%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                27.6      0.1619 ug/L       0.20707      0.1619 ppb        0.20707 127.91%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                87.6      0.1267 ug/L       0.13119      0.1267 ppb        0.13119 103.52%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                11.5      2.9826 ug/L       2.11091      2.9826 ppb        2.11091  70.77%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 -3.9     -0.1064 ug/L       2.06409     -0.1064 ppb        2.06409 >999.9%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 56.3      0.3591 ug/L       0.18887      0.3591 ppb        0.18887  52.60%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                 9.4      0.0764 ug/L       0.05170      0.0764 ppb        0.05170  67.63%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                       3.1      0.1707 ug/L       1.87951      0.1707 ppb        1.87951 >999.9%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 8
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 12/19/2009 13:07:25
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	5405.0	5405.0	97.1	%			13:09:18
1	Y RADIAL	5751.1	5751.1	97.29	%			13:09:18
1	Al 396.153Radial†	6692.3	6909.7	5014.0	ug/L	5014.0	ppb	13:09:18
1	Ca 317.933Radial†	3461.8	3546.2	5056.0	ug/L	5056.0	ppb	13:09:38
1	Fe 238.204 Radial†	598.9	606.0	5053.6	ug/L	5053.6	ppb	13:09:38
1	K 766.490 Radial†	30587.8	28793.9	5066.5	ug/L	5066.5	ppb	13:09:18
1	Mg 279.077 IEC†	163.4	166.9	5188.0	ug/L	5188.0	ppb	13:09:38
1	Na 589.592 Radial†	30044.8	31708.6	9464.1	ug/L	9464.1	ppb	13:09:18
1	Sr 421.552†	82369.7	84854.9	497.53	ug/L	497.53	ppb	13:09:18
1	Sc 361.383	915252.1	915252.1	101.82	%			13:10:35
1	Y 371.029	744373.7	744373.7	99.988	%			13:10:35
1	Ag 328.068†	115927.9	113487.9	492.21	ug/L	492.21	ppb	13:10:41
1	As 188.979†	1339.8	1350.7	494.60	ug/L	494.60	ppb	13:11:01
1	B 249.677†	23779.7	23381.0	477.92	ug/L	477.92	ppb	13:10:41
1	Ba 233.527†	73912.1	72594.9	494.68	ug/L	494.68	ppb	13:10:41
1	Be 313.107†	1475043.1	1453435.1	488.38	ug/L	488.38	ppb	13:10:35
1	Cd 226.502†	51240.0	50554.3	494.23	ug/L	494.23	ppb	13:10:41
1	Co 228.616†	28624.9	28200.8	493.79	ug/L	493.79	ppb	13:10:41
1	Cr 267.716†	49513.0	48548.7	493.01	ug/L	493.01	ppb	13:10:41
1	Cu 324.752†	182768.9	173449.7	490.32	ug/L	490.32	ppb	13:10:41
1	Mn 257.610†	507618.2	498062.5	491.68	ug/L	491.68	ppb	13:10:35
1	Mo 202.031†	8182.0	8016.0	485.58	ug/L	485.58	ppb	13:11:01
1	Ni 231.604†	23108.0	22601.8	493.51	ug/L	493.51	ppb	13:10:41
1	P 214.914†	4999.9	4652.5	2352.6	ug/L	2352.6	ppb	13:11:01
1	Pb 220.353†	4644.6	4625.8	488.98	ug/L	488.98	ppb	13:11:01
1	S 181.975 Axial†	863.7	799.3	979.56	ug/L	979.56	ppb	13:11:01
1	Sb 206.836†	1696.2	1624.7	493.61	ug/L	493.61	ppb	13:11:01
1	Se 196.026†	882.9	895.7	505.55	ug/L	505.55	ppb	13:11:01
1	Si 251.611†	88813.7	86650.4	2431.7	ug/L	2431.7	ppb	13:10:41
1	Sn 189.927†	3304.7	3242.2	486.85	ug/L	486.85	ppb	13:11:01
1	Ti 334.940†	341436.0	336726.7	486.73	ug/L	486.73	ppb	13:10:35
1	Tl 190.801†	1880.0	1894.5	494.63	ug/L	494.63	ppb	13:11:01
1	U 409.014†	15682.8	17774.9	488.15	ug/L	488.15	ppb	13:10:41
1	V 292.402†	77184.9	77276.1	498.00	ug/L	498.00	ppb	13:10:41
1	Zn 213.857†	62127.1	60224.2	489.53	ug/L	489.53	ppb	13:10:41
1	SiO2†	88149.6	85968.9	5179.9	ug/L	5179.9	ppb	13:12:08
2	Sc Radial	5495.3	5495.3	98.7	%			13:09:43
2	Y RADIAL	5821.0	5821.0	98.47	%			13:09:43
2	Al 396.153Radial†	6714.1	6818.3	4947.5	ug/L	4947.5	ppb	13:09:43
2	Ca 317.933Radial†	3464.8	3490.5	4976.6	ug/L	4976.6	ppb	13:10:03
2	Fe 238.204 Radial†	595.9	592.8	4943.4	ug/L	4943.4	ppb	13:10:03
2	K 766.490 Radial†	30563.5	28251.1	4970.9	ug/L	4970.9	ppb	13:09:43
2	Mg 279.077 IEC†	168.3	169.1	5256.0	ug/L	5256.0	ppb	13:10:03
2	Na 589.592 Radial†	30065.0	31220.2	9318.3	ug/L	9318.3	ppb	13:09:43
2	Sr 421.552†	82399.8	83490.2	489.53	ug/L	489.53	ppb	13:09:43
2	Sc 361.383	918014.8	918014.8	102.13	%			13:11:07
2	Y 371.029	747425.3	747425.3	100.40	%			13:11:07
2	Ag 328.068†	115018.9	112255.2	486.84	ug/L	486.84	ppb	13:11:12
2	As 188.979†	1334.8	1341.8	491.38	ug/L	491.38	ppb	13:11:32
2	B 249.677†	23625.3	23159.6	473.40	ug/L	473.40	ppb	13:11:12
2	Ba 233.527†	73474.7	71948.1	490.27	ug/L	490.27	ppb	13:11:12
2	Be 313.107†	1478848.4	1452801.5	488.17	ug/L	488.17	ppb	13:11:07
2	Cd 226.502†	50882.3	50052.5	489.33	ug/L	489.33	ppb	13:11:12
2	Co 228.616†	28476.6	27971.1	489.77	ug/L	489.77	ppb	13:11:12
2	Cr 267.716†	49212.9	48108.5	488.54	ug/L	488.54	ppb	13:11:12
2	Cu 324.752†	181096.8	171272.2	484.16	ug/L	484.16	ppb	13:11:12
2	Mn 257.610†	508746.6	497667.0	491.28	ug/L	491.28	ppb	13:11:07
2	Mo 202.031†	8184.6	7994.4	484.26	ug/L	484.26	ppb	13:11:32
2	Ni 231.604†	22988.7	22416.7	489.47	ug/L	489.47	ppb	13:11:12

2	P 214.914†	4971.2	4609.6	2331.2 ug/L	2331.2 ppb	13:11:32
2	Pb 220.353†	4654.4	4621.6	488.54 ug/L	488.54 ppb	13:11:32
2	S 181.975 Axial†	848.0	781.4	957.62 ug/L	957.62 ppb	13:11:32
2	Sb 206.836†	1714.4	1637.5	497.46 ug/L	497.46 ppb	13:11:32
2	Se 196.026†	880.6	890.8	502.51 ug/L	502.51 ppb	13:11:32
2	Si 251.611†	88042.1	85632.3	2403.1 ug/L	2403.1 ppb	13:11:12
2	Sn 189.927†	3292.0	3220.0	483.50 ug/L	483.50 ppb	13:11:32
2	Ti 334.940†	342332.7	336595.6	486.54 ug/L	486.54 ppb	13:11:07
2	Tl 190.801†	1863.5	1872.8	489.02 ug/L	489.02 ppb	13:11:32
2	U 409.014†	15573.1	17621.2	483.94 ug/L	483.94 ppb	13:11:12
2	V 292.402†	76647.5	76521.7	493.20 ug/L	493.20 ppb	13:11:12
2	Zn 213.857†	61618.5	59542.5	483.98 ug/L	483.98 ppb	13:11:12
2	SiO2†	89228.3	86764.6	5228.3 ug/L	5228.3 ppb	13:12:14
3	Sc Radial	5482.9	5482.9	98.5 %		13:10:08
3	Y RADIAL	5806.0	5806.0	98.22 %		13:10:08
3	Al 396.153Radial†	6679.2	6798.3	4933.0 ug/L	4933.0 ppb	13:10:08
3	Ca 317.933Radial†	3438.9	3472.2	4950.4 ug/L	4950.4 ppb	13:10:28
3	Fe 238.204 Radial†	591.5	589.7	4917.7 ug/L	4917.7 ppb	13:10:28
3	K 766.490 Radial†	30602.7	28361.0	4990.3 ug/L	4990.3 ppb	13:10:08
3	Mg 279.077 IEC†	163.0	164.1	5101.9 ug/L	5101.9 ppb	13:10:28
3	Na 589.592 Radial†	30050.5	31274.5	9334.5 ug/L	9334.5 ppb	13:10:08
3	Sr 421.552†	82283.5	83561.2	489.95 ug/L	489.95 ppb	13:10:08
3	Sc 361.383	921164.5	921164.5	102.48 %		13:11:38
3	Y 371.029	751025.7	751025.7	100.88 %		13:11:38
3	Ag 328.068†	116394.1	113212.1	490.97 ug/L	490.97 ppb	13:11:43
3	As 188.979†	1338.3	1340.8	491.00 ug/L	491.00 ppb	13:12:03
3	B 249.677†	23991.1	23437.4	479.10 ug/L	479.10 ppb	13:11:43
3	Ba 233.527†	73986.3	72201.4	492.00 ug/L	492.00 ppb	13:11:43
3	Be 313.107†	1486996.7	1455801.5	489.17 ug/L	489.17 ppb	13:11:38
3	Cd 226.502†	51238.5	50229.8	491.07 ug/L	491.07 ppb	13:11:43
3	Co 228.616†	28717.2	28110.5	492.20 ug/L	492.20 ppb	13:11:43
3	Cr 267.716†	49762.3	48479.9	492.31 ug/L	492.31 ppb	13:11:43
3	Cu 324.752†	183347.5	172862.2	488.65 ug/L	488.65 ppb	13:11:43
3	Mn 257.610†	509396.6	496598.0	490.23 ug/L	490.23 ppb	13:11:38
3	Mo 202.031†	8166.4	7949.2	481.53 ug/L	481.53 ppb	13:12:03
3	Ni 231.604†	23124.8	22472.5	490.69 ug/L	490.69 ppb	13:11:43
3	P 214.914†	4984.7	4606.2	2328.8 ug/L	2328.8 ppb	13:12:03
3	Pb 220.353†	4646.5	4598.3	486.07 ug/L	486.07 ppb	13:12:03
3	S 181.975 Axial†	861.7	791.9	970.55 ug/L	970.55 ppb	13:12:03
3	Sb 206.836†	1706.0	1623.6	493.16 ug/L	493.16 ppb	13:12:03
3	Se 196.026†	875.0	882.3	497.84 ug/L	497.84 ppb	13:12:03
3	Si 251.611†	88998.9	86271.2	2421.1 ug/L	2421.1 ppb	13:11:43
3	Sn 189.927†	3311.5	3228.0	484.71 ug/L	484.71 ppb	13:12:03
3	Ti 334.940†	343273.8	336367.8	486.20 ug/L	486.20 ppb	13:11:38
3	Tl 190.801†	1863.4	1866.4	487.34 ug/L	487.34 ppb	13:12:03
3	U 409.014†	15740.8	17732.7	487.01 ug/L	487.01 ppb	13:11:43
3	V 292.402†	77474.2	77071.8	496.67 ug/L	496.67 ppb	13:11:43
3	Zn 213.857†	62245.7	59948.3	487.30 ug/L	487.30 ppb	13:11:43
3	SiO2†	88533.9	85788.2	5169.2 ug/L	5169.2 ppb	13:12:19

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	918143.8	102.14	%	0.329				0.32%
Sc Radial	5461.1	98.1	%	0.88				0.90%
Y 371.029	747608.2	100.42	%	0.447				0.45%
Y RADIAL	5792.7	97.99	%	0.622				0.63%
Ag 328.068†	112985.0	490.01	ug/L	2.808	490.01	ppb	2.808	0.57%
QC value within limits for Ag 328.068 Recovery = 98.00%								
Al 396.153Radial†	6842.1	4964.8	ug/L	43.18	4964.8	ppb	43.18	0.87%
QC value within limits for Al 396.153Radial Recovery = 99.30%								
As 188.979†	1344.4	492.33	ug/L	1.977	492.33	ppb	1.977	0.40%
QC value within limits for As 188.979 Recovery = 98.47%								
B 249.677†	23326.0	476.81	ug/L	3.008	476.81	ppb	3.008	0.63%
QC value within limits for B 249.677 Recovery = 95.36%								
Ba 233.527†	72248.1	492.32	ug/L	2.222	492.32	ppb	2.222	0.45%
QC value within limits for Ba 233.527 Recovery = 98.46%								
Be 313.107†	1454012.7	488.57	ug/L	0.530	488.57	ppb	0.530	0.11%
QC value within limits for Be 313.107 Recovery = 97.71%								
Ca 317.933Radial†	3503.0	4994.3	ug/L	54.95	4994.3	ppb	54.95	1.10%

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   QC value within limits for Ca 317.933Radial  Recovery = 99.89%
Cd 226.502†            50278.9      491.54 ug/L         2.484      491.54 ppb          2.484   0.51%
   QC value within limits for Cd 226.502  Recovery = 98.31%
Co 228.616†            28094.1      491.92 ug/L         2.026      491.92 ppb          2.026   0.41%
   QC value within limits for Co 228.616  Recovery = 98.38%
Cr 267.716†            48379.0      491.28 ug/L         2.405      491.28 ppb          2.405   0.49%
   QC value within limits for Cr 267.716  Recovery = 98.26%
Cu 324.752†           172528.1      487.71 ug/L         3.185      487.71 ppb          3.185   0.65%
   QC value within limits for Cu 324.752  Recovery = 97.54%
Fe 238.204 Radial†       596.2      4971.6 ug/L         72.19      4971.6 ppb          72.19   1.45%
   QC value within limits for Fe 238.204 Radial  Recovery = 99.43%
K 766.490 Radial†      28468.7      5009.2 ug/L         50.54      5009.2 ppb          50.54   1.01%
   QC value within limits for K 766.490 Radial  Recovery = 100.18%
Mg 279.077 IEC†          166.7      5182.0 ug/L         77.23      5182.0 ppb          77.23   1.49%
   QC value within limits for Mg 279.077 IEC  Recovery = 103.64%
Mn 257.610†           497442.5      491.06 ug/L         0.752      491.06 ppb          0.752   0.15%
   QC value within limits for Mn 257.610  Recovery = 98.21%
Mo 202.031†             7986.5      483.79 ug/L         2.067      483.79 ppb          2.067   0.43%
   QC value within limits for Mo 202.031  Recovery = 96.76%
Na 589.592 Radial†     31401.1      9372.3 ug/L         79.90      9372.3 ppb          79.90   0.85%
   QC value within limits for Na 589.592 Radial  Recovery = 93.72%
Ni 231.604†            22497.0      491.22 ug/L         2.074      491.22 ppb          2.074   0.42%
   QC value within limits for Ni 231.604  Recovery = 98.24%
P 214.914†              4622.8      2337.5 ug/L         13.10      2337.5 ppb          13.10   0.56%
   QC value within limits for P 214.914  Recovery = 93.50%
Pb 220.353†             4615.2      487.86 ug/L         1.565      487.86 ppb          1.565   0.32%
   QC value within limits for Pb 220.353  Recovery = 97.57%
S 181.975 Axial†         790.9      969.24 ug/L        11.030      969.24 ppb         11.030   1.14%
   QC value within limits for S 181.975 Axial  Recovery = 96.92%
Sb 206.836†             1628.6      494.74 ug/L         2.363      494.74 ppb          2.363   0.48%
   QC value within limits for Sb 206.836  Recovery = 98.95%
Se 196.026†              889.6      501.97 ug/L         3.886      501.97 ppb          3.886   0.77%
   QC value within limits for Se 196.026  Recovery = 100.39%
Si 251.611†            86184.6      2418.6 ug/L         14.48      2418.6 ppb          14.48   0.60%
   QC value within limits for Si 251.611  Recovery = 96.75%
Sn 189.927†             3230.1      485.02 ug/L         1.697      485.02 ppb          1.697   0.35%
   QC value within limits for Sn 189.927  Recovery = 97.00%
Sr 421.552†            83968.8      492.34 ug/L         4.504      492.34 ppb          4.504   0.91%
   QC value within limits for Sr 421.552  Recovery = 98.47%
Ti 334.940†           336563.4      486.49 ug/L         0.265      486.49 ppb          0.265   0.05%
   QC value within limits for Ti 334.940  Recovery = 97.30%
Tl 190.801†             1877.9      490.33 ug/L         3.815      490.33 ppb          3.815   0.78%
   QC value within limits for Tl 190.801  Recovery = 98.07%
U 409.014†             17709.6      486.36 ug/L         2.179      486.36 ppb          2.179   0.45%
   QC value within limits for U 409.014  Recovery = 97.27%
V 292.402†             76956.5      495.96 ug/L         2.480      495.96 ppb          2.480   0.50%
   QC value within limits for V 292.402  Recovery = 99.19%
Zn 213.857†            59905.0      486.93 ug/L         2.792      486.93 ppb          2.792   0.57%
   QC value within limits for Zn 213.857  Recovery = 97.39%
SiO2†                  86173.9      5192.5 ug/L         31.45      5192.5 ppb          31.45   0.61%
   QC value within limits for SiO2  Recovery = 97.10%
All analyte(s) passed QC.
```

Sequence No.: 9
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 12/19/2009 13:14:28
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5541.2	5541.2	99.5	%			13:16:21
1	Y RADIAL	5929.7	5929.7	100.3	%			13:16:21
1	Al 396.153Radial†	-24.1	-7.8	-5.7407	ug/L	-5.7407	ppb	13:16:21
1	Ca 317.933Radial†	21.0	1.6	2.2287	ug/L	2.2287	ppb	13:16:41
1	Fe 238.204 Radial†	8.5	-2.4	-19.757	ug/L	-19.757	ppb	13:16:41
1	K 766.490 Radial†	2892.7	193.9	34.179	ug/L	34.179	ppb	13:16:21
1	Mg 279.077 IEC†	3.6	2.2	68.116	ug/L	68.116	ppb	13:16:41
1	Na 589.592 Radial†	-785.1	-27.1	-8.0967	ug/L	-8.0967	ppb	13:16:21
1	Sr 421.552†	15.3	27.2	0.1592	ug/L	0.1592	ppb	13:16:21
1	Sc 361.383	910397.5	910397.5	101.28	%			13:17:38
1	Y 371.029	751088.9	751088.9	100.89	%			13:17:38
1	Ag 328.068†	409.6	34.5	0.1424	ug/L	0.1424	ppb	13:17:43
1	As 188.979†	-37.8	-2.5	-0.8934	ug/L	-0.8934	ppb	13:18:03
1	B 249.677†	-331.8	-301.7	-6.1898	ug/L	-6.1898	ppb	13:18:03
1	Ba 233.527†	3.7	6.3	0.0416	ug/L	0.0416	ppb	13:18:03
1	Be 313.107†	-4596.8	192.3	0.0646	ug/L	0.0646	ppb	13:17:43
1	Cd 226.502†	-227.7	4.3	0.0444	ug/L	0.0444	ppb	13:18:03
1	Co 228.616†	-67.0	20.9	0.3683	ug/L	0.3683	ppb	13:18:03
1	Cr 267.716†	124.4	42.7	0.4322	ug/L	0.4322	ppb	13:18:03
1	Cu 324.752†	6129.9	-3.0	-0.0096	ug/L	-0.0096	ppb	13:17:43
1	Mn 257.610†	527.7	29.6	0.0259	ug/L	0.0259	ppb	13:18:03
1	Mo 202.031†	35.3	15.0	0.9050	ug/L	0.9050	ppb	13:18:03
1	Ni 231.604†	98.2	3.4	0.0746	ug/L	0.0746	ppb	13:18:03
1	P 214.914†	238.9	-22.2	-11.525	ug/L	-11.525	ppb	13:18:03
1	Pb 220.353†	-67.5	-2.6	-0.2726	ug/L	-0.2726	ppb	13:18:03
1	S 181.975 Axial†	48.2	-1.4	-1.6763	ug/L	-1.6763	ppb	13:18:03
1	Sb 206.836†	46.3	4.5	1.3782	ug/L	1.3782	ppb	13:18:03
1	Se 196.026†	-33.7	-4.8	-2.6476	ug/L	-2.6476	ppb	13:18:03
1	Si 251.611†	605.6	20.5	0.5478	ug/L	0.5478	ppb	13:18:03
1	Sn 189.927†	10.0	6.4	0.9551	ug/L	0.9551	ppb	13:18:03
1	Ti 334.940†	-1352.1	52.5	0.0765	ug/L	0.0765	ppb	13:17:43
1	Tl 190.801†	-32.4	16.0	4.1604	ug/L	4.1604	ppb	13:18:03
1	U 409.014†	-2453.7	-50.5	-1.3897	ug/L	-1.3897	ppb	13:17:38
1	V 292.402†	-1518.9	-30.3	-0.1780	ug/L	-0.1780	ppb	13:17:43
1	Zn 213.857†	825.2	21.3	0.1735	ug/L	0.1735	ppb	13:18:03
1	SiO2†	657.0	42.1	2.4828	ug/L	2.4828	ppb	13:19:09
2	Sc Radial	5628.2	5628.2	101	%			13:16:46
2	Y RADIAL	6039.2	6039.2	102.2	%			13:16:46
2	Al 396.153Radial†	-11.4	5.1	3.6816	ug/L	3.6816	ppb	13:16:46
2	Ca 317.933Radial†	21.3	1.5	2.1543	ug/L	2.1543	ppb	13:17:06
2	Fe 238.204 Radial†	11.2	0.2	1.8896	ug/L	1.8896	ppb	13:17:06
2	K 766.490 Radial†	2896.8	152.9	26.961	ug/L	26.961	ppb	13:16:46
2	Mg 279.077 IEC†	1.5	0.1	4.1263	ug/L	4.1263	ppb	13:17:06
2	Na 589.592 Radial†	-798.0	-27.7	-8.2573	ug/L	-8.2573	ppb	13:16:46
2	Sr 421.552†	0.9	12.7	0.0742	ug/L	0.0742	ppb	13:16:46
2	Sc 361.383	917167.0	917167.0	102.03	%			13:18:08
2	Y 371.029	757595.2	757595.2	101.76	%			13:18:08
2	Ag 328.068†	385.8	8.2	0.0341	ug/L	0.0341	ppb	13:18:13
2	As 188.979†	-33.3	2.2	0.7923	ug/L	0.7923	ppb	13:18:33
2	B 249.677†	-313.9	-281.8	-5.7834	ug/L	-5.7834	ppb	13:18:33
2	Ba 233.527†	5.3	7.8	0.0530	ug/L	0.0530	ppb	13:18:33
2	Be 313.107†	-4475.6	344.7	0.1157	ug/L	0.1157	ppb	13:18:13
2	Cd 226.502†	-200.5	32.6	0.3195	ug/L	0.3195	ppb	13:18:33
2	Co 228.616†	-71.8	16.7	0.2938	ug/L	0.2938	ppb	13:18:33
2	Cr 267.716†	89.7	7.7	0.0777	ug/L	0.0777	ppb	13:18:33
2	Cu 324.752†	6102.8	-74.3	-0.2098	ug/L	-0.2098	ppb	13:18:13
2	Mn 257.610†	554.7	52.2	0.0516	ug/L	0.0516	ppb	13:18:33
2	Mo 202.031†	27.8	7.4	0.4462	ug/L	0.4462	ppb	13:18:33
2	Ni 231.604†	122.8	26.8	0.5858	ug/L	0.5858	ppb	13:18:33

2	P 214.914†	257.0	-6.2	-3.1711	ug/L	-3.1711 ppb	13:18:33
2	Pb 220.353†	-54.7	10.5	1.1044	ug/L	1.1044 ppb	13:18:33
2	S 181.975 Axial†	44.2	-5.7	-7.0232	ug/L	-7.0232 ppb	13:18:33
2	Sb 206.836†	45.1	2.9	0.9022	ug/L	0.9022 ppb	13:18:33
2	Se 196.026†	-30.0	-0.9	-0.4616	ug/L	-0.4616 ppb	13:18:33
2	Si 251.611†	606.9	17.3	0.4704	ug/L	0.4704 ppb	13:18:33
2	Sn 189.927†	7.9	4.3	0.6440	ug/L	0.6440 ppb	13:18:33
2	Ti 334.940†	-1366.6	48.2	0.0691	ug/L	0.0691 ppb	13:18:13
2	Tl 190.801†	-38.9	10.0	2.5909	ug/L	2.5909 ppb	13:18:33
2	U 409.014†	-2362.8	56.4	1.5538	ug/L	1.5538 ppb	13:18:08
2	V 292.402†	-1523.9	-24.1	-0.1445	ug/L	-0.1445 ppb	13:18:13
2	Zn 213.857†	826.1	16.1	0.1282	ug/L	0.1282 ppb	13:18:33
2	SiO2†	603.2	-15.4	-0.9757	ug/L	-0.9757 ppb	13:19:14
3	Sc Radial	5516.8	5516.8	99.1	%		13:17:11
3	Y RADIAL	5911.5	5911.5	100.0	%		13:17:11
3	Al 396.153Radial†	-42.3	-26.3	-19.187	ug/L	-19.187 ppb	13:17:11
3	Ca 317.933Radial†	22.9	3.5	4.9640	ug/L	4.9640 ppb	13:17:31
3	Fe 238.204 Radial†	10.6	-0.2	-1.2813	ug/L	-1.2813 ppb	13:17:31
3	K 766.490 Radial†	2849.4	163.1	28.739	ug/L	28.739 ppb	13:17:11
3	Mg 279.077 IEC†	3.4	2.0	63.360	ug/L	63.360 ppb	13:17:31
3	Na 589.592 Radial†	-775.4	-20.8	-6.2114	ug/L	-6.2114 ppb	13:17:11
3	Sr 421.552†	21.5	33.5	0.1962	ug/L	0.1962 ppb	13:17:11
3	Sc 361.383	908988.7	908988.7	101.12	%		13:18:38
3	Y 371.029	751889.6	751889.6	101.00	%		13:18:38
3	Ag 328.068†	366.0	-8.0	-0.0349	ug/L	-0.0349 ppb	13:18:43
3	As 188.979†	-28.0	7.1	2.5911	ug/L	2.5911 ppb	13:19:03
3	B 249.677†	-338.0	-308.3	-6.3284	ug/L	-6.3284 ppb	13:19:03
3	Ba 233.527†	-1.4	1.3	0.0091	ug/L	0.0091 ppb	13:19:03
3	Be 313.107†	-4550.6	231.0	0.0776	ug/L	0.0776 ppb	13:18:43
3	Cd 226.502†	-213.9	17.7	0.1732	ug/L	0.1732 ppb	13:19:03
3	Co 228.616†	-68.3	19.6	0.3438	ug/L	0.3438 ppb	13:19:03
3	Cr 267.716†	109.2	27.8	0.2820	ug/L	0.2820 ppb	13:19:03
3	Cu 324.752†	6067.8	-55.1	-0.1557	ug/L	-0.1557 ppb	13:18:43
3	Mn 257.610†	542.0	44.5	0.0426	ug/L	0.0426 ppb	13:19:03
3	Mo 202.031†	27.0	6.8	0.4125	ug/L	0.4125 ppb	13:19:03
3	Ni 231.604†	95.5	0.8	0.0183	ug/L	0.0183 ppb	13:19:03
3	P 214.914†	252.5	-8.4	-4.3580	ug/L	-4.3580 ppb	13:19:03
3	Pb 220.353†	-71.6	-6.7	-0.7099	ug/L	-0.7099 ppb	13:19:03
3	S 181.975 Axial†	50.7	1.1	1.3481	ug/L	1.3481 ppb	13:19:03
3	Sb 206.836†	40.2	-1.5	-0.4327	ug/L	-0.4327 ppb	13:19:03
3	Se 196.026†	-25.3	3.5	1.8909	ug/L	1.8909 ppb	13:19:03
3	Si 251.611†	627.1	42.6	1.1851	ug/L	1.1851 ppb	13:19:03
3	Sn 189.927†	4.6	1.1	0.1672	ug/L	0.1672 ppb	13:19:03
3	Ti 334.940†	-1351.7	50.9	0.0732	ug/L	0.0732 ppb	13:18:43
3	Tl 190.801†	-35.2	13.3	3.4402	ug/L	3.4402 ppb	13:19:03
3	U 409.014†	-2360.0	38.4	1.0579	ug/L	1.0579 ppb	13:18:38
3	V 292.402†	-1443.5	41.9	0.2757	ug/L	0.2757 ppb	13:18:43
3	Zn 213.857†	824.3	21.6	0.1751	ug/L	0.1751 ppb	13:19:03
3	SiO2†	647.3	33.5	1.9906	ug/L	1.9906 ppb	13:19:19

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	912184.4	101.48	%	0.486				0.48%
Sc Radial	5562.1	99.9	%	1.05				1.05%
Y 371.029	753524.6	101.22	%	0.477				0.47%
Y RADIAL	5960.1	100.8	%	1.17				1.16%
Ag 328.068†	11.6	0.0472	ug/L	0.08939	0.0472	ppb	0.08939	189.45%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-9.7	-7.0821	ug/L	11.49330	-7.0821	ppb	11.49330	162.29%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	2.3	0.8300	ug/L	1.74256	0.8300	ppb	1.74256	209.95%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-297.3	-6.1005	ug/L	0.28326	-6.1005	ppb	0.28326	4.64%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	5.1	0.0345	ug/L	0.02278	0.0345	ppb	0.02278	65.95%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	256.0	0.0860	ug/L	0.02655	0.0860	ppb	0.02655	30.88%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	2.2	3.1157	ug/L	1.60116	3.1157	ppb	1.60116	51.39%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                18.2      0.1790 ug/L       0.13766      0.1790 ppb        0.13766  76.90%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                19.1      0.3353 ug/L       0.03798      0.3353 ppb        0.03798  11.33%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                26.1      0.2640 ug/L       0.17791      0.2640 ppb        0.17791  67.40%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               -44.1     -0.1250 ug/L       0.10360     -0.1250 ppb        0.10360  82.86%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -0.8     -6.3828 ug/L      11.69010     -6.3828 ppb       11.69010 183.15%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         170.0      29.960 ug/L        3.7604      29.960 ppb         3.7604  12.55%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            1.5      45.201 ug/L       35.6508      45.201 ppb        35.6508  78.87%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                42.1      0.0401 ug/L       0.01304      0.0401 ppb        0.01304  32.55%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 9.7      0.5879 ug/L       0.27513      0.5879 ppb        0.27513  46.80%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        -25.2     -7.5218 ug/L       1.13765     -7.5218 ppb        1.13765  15.12%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                10.4      0.2262 ug/L       0.31264      0.2262 ppb        0.31264 138.20%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -12.2     -6.3514 ug/L       4.51977     -6.3514 ppb        4.51977  71.16%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                 0.4      0.0406 ug/L       0.94683      0.0406 ppb        0.94683 >999.9%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -2.0     -2.4505 ug/L       4.23903     -2.4505 ppb        4.23903 172.99%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 2.0      0.6159 ug/L       0.93876      0.6159 ppb        0.93876 152.41%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -0.7     -0.4061 ug/L       2.26976     -0.4061 ppb        2.26976 558.93%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                26.8      0.7344 ug/L       0.39224      0.7344 ppb        0.39224  53.41%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 3.9      0.5888 ug/L       0.39683      0.5888 ppb        0.39683  67.40%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                24.4      0.1432 ug/L       0.06255      0.1432 ppb        0.06255  43.69%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                50.5      0.0729 ug/L       0.00372      0.0729 ppb        0.00372   5.09%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                13.1      3.3972 ug/L       0.78567      3.3972 ppb        0.78567  23.13%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 14.8      0.4073 ug/L       1.57594      0.4073 ppb        1.57594 386.89%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 -4.2     -0.0156 ug/L       0.25285     -0.0156 ppb        0.25285 >999.9%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                19.7      0.1589 ug/L       0.02659      0.1589 ppb        0.02659  16.73%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                      20.1      1.1659 ug/L       1.87092      1.1659 ppb        1.87092 160.47%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
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Analysis Begun

Start Time: 12/19/2009 13:29:48 **Plasma On Time:** 12/14/2009 06:02:42
Logged In Analyst: Optima3 **Technique:** ICP Continuous
Spectrometer Model: Optima 5300 DV, S/N 077C7090601 **Autosampler Model:** S10

Sample Information File: C:\pe\Optima3\Sample Information\121909.sif
Batch ID:
Results Data Set: 121909
Results Library: C:\pe\Optima3\Results\Results.mdb

==========

Sequence No.: 1 **Autosampler Location:** 7
Sample ID: CCV **Date Collected:** 12/19/2009 13:29:49
Analyst: **Data Type:** Original
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	5624.2	5624.2	101	%			13:31:41
1	Y RADIAL	5944.8	5944.8	100.6	%			13:31:41
1	Al 396.153Radial†	6695.8	6644.4	4820.3	ug/L	4820.3	ppb	13:31:41
1	Ca 317.933Radial†	3427.3	3373.0	4809.0	ug/L	4809.0	ppb	13:32:01
1	Fe 238.204 Radial†	602.8	585.8	4886.1	ug/L	4886.1	ppb	13:32:01
1	K 766.490 Radial†	30806.2	27781.7	4888.0	ug/L	4888.0	ppb	13:31:41
1	Mg 279.077 IEC†	165.7	162.7	5056.5	ug/L	5056.5	ppb	13:32:01
1	Na 589.592 Radial†	31754.2	32194.2	9609.0	ug/L	9609.0	ppb	13:31:41
1	Sr 421.552†	84217.2	83376.0	488.86	ug/L	488.86	ppb	13:31:41
1	Sc 361.383	897936.1	897936.1	99.892	%			13:32:59
1	Y 371.029	731386.3	731386.3	98.243	%			13:32:59
1	Ag 328.068†	115917.0	115672.6	501.60	ug/L	501.60	ppb	13:33:04
1	As 188.979†	1336.5	1372.8	502.62	ug/L	502.62	ppb	13:33:24
1	B 249.677†	23882.3	23934.1	489.26	ug/L	489.26	ppb	13:33:04
1	Ba 233.527†	74016.2	74099.0	504.92	ug/L	504.92	ppb	13:33:04
1	Be 313.107†	1456814.5	1463123.9	491.64	ug/L	491.64	ppb	13:32:59
1	Cd 226.502†	51254.5	51539.2	503.88	ug/L	503.88	ppb	13:33:04
1	Co 228.616†	28786.2	28904.5	506.13	ug/L	506.13	ppb	13:33:04
1	Cr 267.716†	49633.1	49606.7	503.75	ug/L	503.75	ppb	13:33:04
1	Cu 324.752†	182966.7	177109.4	500.65	ug/L	500.65	ppb	13:33:04
1	Mn 257.610†	501972.7	502025.0	495.58	ug/L	495.58	ppb	13:32:59
1	Mo 202.031†	8177.8	8166.8	494.69	ug/L	494.69	ppb	13:33:24
1	Ni 231.604†	23214.1	23145.7	505.39	ug/L	505.39	ppb	13:33:04
1	P 214.914†	4995.4	4742.8	2398.2	ug/L	2398.2	ppb	13:33:24
1	Pb 220.353†	4657.1	4726.2	499.55	ug/L	499.55	ppb	13:33:24
1	S 181.975 Axial†	866.7	818.6	1003.3	ug/L	1003.3	ppb	13:33:24
1	Sb 206.836†	1694.4	1655.0	502.82	ug/L	502.82	ppb	13:33:24
1	Se 196.026†	868.4	897.8	506.21	ug/L	506.21	ppb	13:33:24
1	Si 251.611†	88806.3	88325.1	2478.8	ug/L	2478.8	ppb	13:33:04
1	Sn 189.927†	3305.6	3305.7	496.35	ug/L	496.35	ppb	13:33:24
1	Ti 334.940†	337383.1	339136.1	490.19	ug/L	490.19	ppb	13:32:59
1	Tl 190.801†	1882.0	1932.1	504.34	ug/L	504.34	ppb	13:33:24
1	U 409.014†	15563.0	17952.0	493.03	ug/L	493.03	ppb	13:33:04
1	V 292.402†	77172.0	78725.0	507.37	ug/L	507.37	ppb	13:33:04
1	Zn 213.857†	62095.1	61368.9	498.85	ug/L	498.85	ppb	13:33:04
1	SiO2†	87953.7	87442.3	5268.9	ug/L	5268.9	ppb	13:34:32
2	Sc Radial	5631.9	5631.9	101	%			13:32:06
2	Y RADIAL	5937.7	5937.7	100.4	%			13:32:06
2	Al 396.153Radial†	6612.4	6552.9	4753.6	ug/L	4753.6	ppb	13:32:06
2	Ca 317.933Radial†	3398.1	3339.5	4761.2	ug/L	4761.2	ppb	13:32:26
2	Fe 238.204 Radial†	596.7	579.0	4828.6	ug/L	4828.6	ppb	13:32:26
2	K 766.490 Radial†	30442.7	27381.0	4817.5	ug/L	4817.5	ppb	13:32:06
2	Mg 279.077 IEC†	165.3	162.0	5037.6	ug/L	5037.6	ppb	13:32:26
2	Na 589.592 Radial†	31226.6	31630.0	9440.6	ug/L	9440.6	ppb	13:32:06
2	Sr 421.552†	83043.2	82102.2	481.39	ug/L	481.39	ppb	13:32:06
2	Sc 361.383	895420.5	895420.5	99.612	%			13:33:30
2	Y 371.029	730199.6	730199.6	98.084	%			13:33:30

2	Ag 328.068†	114302.1	114377.5	495.98 ug/L	495.98 ppb	13:33:35
2	As 188.979†	1322.0	1362.0	498.70 ug/L	498.70 ppb	13:33:55
2	B 249.677†	23397.1	23514.2	480.67 ug/L	480.67 ppb	13:33:35
2	Ba 233.527†	72884.7	73171.2	498.60 ug/L	498.60 ppb	13:33:35
2	Be 313.107†	1456175.4	1466579.4	492.80 ug/L	492.80 ppb	13:33:30
2	Cd 226.502†	50528.1	50954.1	498.16 ug/L	498.16 ppb	13:33:35
2	Co 228.616†	28214.7	28411.8	497.51 ug/L	497.51 ppb	13:33:35
2	Cr 267.716†	48957.8	49068.3	498.28 ug/L	498.28 ppb	13:33:35
2	Cu 324.752†	179804.2	174449.1	493.13 ug/L	493.13 ppb	13:33:35
2	Mn 257.610†	500240.5	501697.9	495.25 ug/L	495.25 ppb	13:33:30
2	Mo 202.031†	8178.6	8190.6	496.13 ug/L	496.13 ppb	13:33:55
2	Ni 231.604†	22808.4	22803.7	497.92 ug/L	497.92 ppb	13:33:35
2	P 214.914†	4991.3	4752.7	2404.7 ug/L	2404.7 ppb	13:33:55
2	Pb 220.353†	4654.0	4736.2	500.60 ug/L	500.60 ppb	13:33:55
2	S 181.975 Axial†	869.0	823.3	1009.1 ug/L	1009.1 ppb	13:33:55
2	Sb 206.836†	1692.2	1657.6	503.78 ug/L	503.78 ppb	13:33:55
2	Se 196.026†	880.3	912.2	513.87 ug/L	513.87 ppb	13:33:55
2	Si 251.611†	87326.6	87089.4	2443.9 ug/L	2443.9 ppb	13:33:35
2	Sn 189.927†	3315.6	3325.0	499.24 ug/L	499.24 ppb	13:33:55
2	Ti 334.940†	336500.3	339198.8	490.28 ug/L	490.28 ppb	13:33:30
2	Tl 190.801†	1887.3	1942.7	507.15 ug/L	507.15 ppb	13:33:55
2	U 409.014†	15345.1	17777.1	488.23 ug/L	488.23 ppb	13:33:35
2	V 292.402†	76056.4	77822.2	501.65 ug/L	501.65 ppb	13:33:35
2	Zn 213.857†	61072.1	60516.5	491.92 ug/L	491.92 ppb	13:33:35
2	SiO2†	88187.7	87924.6	5298.1 ug/L	5298.1 ppb	13:34:37
3	Sc Radial	5559.0	5559.0	99.9 %		13:32:31
3	Y RADIAL	5849.3	5849.3	98.95 %		13:32:31
3	Al 396.153Radial†	6774.9	6801.4	4934.9 ug/L	4934.9 ppb	13:32:31
3	Ca 317.933Radial†	3464.6	3450.2	4919.0 ug/L	4919.0 ppb	13:32:51
3	Fe 238.204 Radial†	611.7	601.7	5018.0 ug/L	5018.0 ppb	13:32:51
3	K 766.490 Radial†	31051.7	28385.5	4994.4 ug/L	4994.4 ppb	13:32:31
3	Mg 279.077 IEC†	165.8	164.6	5117.9 ug/L	5117.9 ppb	13:32:51
3	Na 589.592 Radial†	32090.4	32899.8	9819.6 ug/L	9819.6 ppb	13:32:31
3	Sr 421.552†	85144.8	85283.5	500.05 ug/L	500.05 ppb	13:32:31
3	Sc 361.383	905366.9	905366.9	100.72 %		13:34:01
3	Y 371.029	737781.8	737781.8	99.102 %		13:34:01
3	Ag 328.068†	115403.6	114210.5	495.32 ug/L	495.32 ppb	13:34:06
3	As 188.979†	1331.6	1356.9	496.88 ug/L	496.88 ppb	13:34:26
3	B 249.677†	23663.6	23520.8	480.78 ug/L	480.78 ppb	13:34:06
3	Ba 233.527†	73494.6	72972.9	497.26 ug/L	497.26 ppb	13:34:06
3	Be 313.107†	1472936.0	1467160.7	492.99 ug/L	492.99 ppb	13:34:01
3	Cd 226.502†	50992.4	50857.8	497.20 ug/L	497.20 ppb	13:34:06
3	Co 228.616†	28535.0	28418.6	497.61 ug/L	497.61 ppb	13:34:06
3	Cr 267.716†	49366.9	48934.6	496.93 ug/L	496.93 ppb	13:34:06
3	Cu 324.752†	181635.9	174284.7	492.67 ug/L	492.67 ppb	13:34:06
3	Mn 257.610†	505748.8	501649.8	495.22 ug/L	495.22 ppb	13:34:01
3	Mo 202.031†	8186.5	8108.2	491.16 ug/L	491.16 ppb	13:34:26
3	Ni 231.604†	23035.4	22777.6	497.35 ug/L	497.35 ppb	13:34:06
3	P 214.914†	4987.6	4693.9	2373.9 ug/L	2373.9 ppb	13:34:26
3	Pb 220.353†	4630.0	4661.0	492.69 ug/L	492.69 ppb	13:34:26
3	S 181.975 Axial†	852.1	797.0	976.77 ug/L	976.77 ppb	13:34:26
3	Sb 206.836†	1703.3	1649.9	501.27 ug/L	501.27 ppb	13:34:26
3	Se 196.026†	880.9	903.1	509.51 ug/L	509.51 ppb	13:34:26
3	Si 251.611†	88195.3	86988.8	2441.2 ug/L	2441.2 ppb	13:34:06
3	Sn 189.927†	3293.5	3266.5	490.48 ug/L	490.48 ppb	13:34:26
3	Ti 334.940†	340409.7	339369.1	490.54 ug/L	490.54 ppb	13:34:01
3	Tl 190.801†	1869.3	1904.1	497.14 ug/L	497.14 ppb	13:34:26
3	U 409.014†	15530.8	17792.2	488.62 ug/L	488.62 ppb	13:34:06
3	V 292.402†	76799.4	77721.0	500.91 ug/L	500.91 ppb	13:34:06
3	Zn 213.857†	61782.7	60548.5	492.16 ug/L	492.16 ppb	13:34:06
3	SiO2†	87051.0	85823.4	5170.9 ug/L	5170.9 ppb	13:34:42

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	899574.5	100.07	%	0.575				0.57%
Sc Radial	5605.0	101	%	0.7				0.71%
Y 371.029	733122.5	98.477	%	0.5478				0.56%
Y RADIAL	5910.6	99.99	%	0.900				0.90%
Ag 328.068†	114753.6	497.64	ug/L	3.451	497.64	ppb	3.451	0.69%

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   QC value within limits for Ag 328.068  Recovery = 99.53%
Al 396.153Radial†       6666.2      4836.2 ug/L        91.70      4836.2 ppb        91.70   1.90%
   QC value within limits for Al 396.153Radial  Recovery = 96.72%
As 188.979†             1363.9      499.40 ug/L        2.934      499.40 ppb        2.934   0.59%
   QC value within limits for As 188.979  Recovery = 99.88%
B 249.677†             23656.3      483.57 ug/L        4.928      483.57 ppb        4.928   1.02%
   QC value within limits for B 249.677  Recovery = 96.71%
Ba 233.527†            73414.4      500.26 ug/L        4.092      500.26 ppb        4.092   0.82%
   QC value within limits for Ba 233.527  Recovery = 100.05%
Be 313.107†          1465621.4      492.48 ug/L        0.732      492.48 ppb        0.732   0.15%
   QC value within limits for Be 313.107  Recovery = 98.50%
Ca 317.933Radial†       3387.6      4829.7 ug/L        80.90      4829.7 ppb        80.90   1.68%
   QC value within limits for Ca 317.933Radial  Recovery = 96.59%
Cd 226.502†            51117.0      499.75 ug/L        3.613      499.75 ppb        3.613   0.72%
   QC value within limits for Cd 226.502  Recovery = 99.95%
Co 228.616†            28578.3      500.41 ug/L        4.948      500.41 ppb        4.948   0.99%
   QC value within limits for Co 228.616  Recovery = 100.08%
Cr 267.716†            49203.2      499.65 ug/L        3.612      499.65 ppb        3.612   0.72%
   QC value within limits for Cr 267.716  Recovery = 99.93%
Cu 324.752†           175281.1      495.48 ug/L        4.478      495.48 ppb        4.478   0.90%
   QC value within limits for Cu 324.752  Recovery = 99.10%
Fe 238.204 Radial†       588.8      4910.9 ug/L        97.14      4910.9 ppb        97.14   1.98%
   QC value within limits for Fe 238.204 Radial  Recovery = 98.22%
K 766.490 Radial†      27849.4      4900.0 ug/L        89.04      4900.0 ppb        89.04   1.82%
   QC value within limits for K 766.490 Radial  Recovery = 98.00%
Mg 279.077 IEC†          163.1      5070.7 ug/L        42.00      5070.7 ppb        42.00   0.83%
   QC value within limits for Mg 279.077 IEC  Recovery = 101.41%
Mn 257.610†           501790.9      495.35 ug/L        0.199      495.35 ppb        0.199   0.04%
   QC value within limits for Mn 257.610  Recovery = 99.07%
Mo 202.031†             8155.2      493.99 ug/L        2.560      493.99 ppb        2.560   0.52%
   QC value within limits for Mo 202.031  Recovery = 98.80%
Na 589.592 Radial†     32241.4      9623.1 ug/L       189.89      9623.1 ppb       189.89   1.97%
   QC value within limits for Na 589.592 Radial  Recovery = 96.23%
Ni 231.604†            22909.0      500.22 ug/L        4.485      500.22 ppb        4.485   0.90%
   QC value within limits for Ni 231.604  Recovery = 100.04%
P 214.914†              4729.8      2392.2 ug/L        16.24      2392.2 ppb        16.24   0.68%
   QC value within limits for P 214.914  Recovery = 95.69%
Pb 220.353†             4707.8      497.61 ug/L        4.296      497.61 ppb        4.296   0.86%
   QC value within limits for Pb 220.353  Recovery = 99.52%
S 181.975 Axial†         813.0      996.40 ug/L       17.251      996.40 ppb       17.251   1.73%
   QC value within limits for S 181.975 Axial  Recovery = 99.64%
Sb 206.836†             1654.2      502.62 ug/L        1.270      502.62 ppb        1.270   0.25%
   QC value within limits for Sb 206.836  Recovery = 100.52%
Se 196.026†              904.4      509.86 ug/L        3.844      509.86 ppb        3.844   0.75%
   QC value within limits for Se 196.026  Recovery = 101.97%
Si 251.611†            87467.7      2454.6 ug/L        20.97      2454.6 ppb        20.97   0.85%
   QC value within limits for Si 251.611  Recovery = 98.19%
Sn 189.927†             3299.1      495.36 ug/L        4.461      495.36 ppb        4.461   0.90%
   QC value within limits for Sn 189.927  Recovery = 99.07%
Sr 421.552†            83587.2      490.10 ug/L        9.388      490.10 ppb        9.388   1.92%
   QC value within limits for Sr 421.552  Recovery = 98.02%
Ti 334.940†           339234.7      490.34 ug/L        0.180      490.34 ppb        0.180   0.04%
   QC value within limits for Ti 334.940  Recovery = 98.07%
Tl 190.801†             1926.3      502.88 ug/L        5.166      502.88 ppb        5.166   1.03%
   QC value within limits for Tl 190.801  Recovery = 100.58%
U 409.014†             17840.4      489.96 ug/L        2.666      489.96 ppb        2.666   0.54%
   QC value within limits for U 409.014  Recovery = 97.99%
V 292.402†             78089.4      503.31 ug/L        3.536      503.31 ppb        3.536   0.70%
   QC value within limits for V 292.402  Recovery = 100.66%
Zn 213.857†            60811.3      494.31 ug/L        3.931      494.31 ppb        3.931   0.80%
   QC value within limits for Zn 213.857  Recovery = 98.86%
SiO2†                  87063.4      5246.0 ug/L        66.58      5246.0 ppb        66.58   1.27%
   QC value within limits for SiO2  Recovery = 98.10%
All analyte(s) passed QC.
```

Sequence No.: 2
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 12/19/2009 13:36:52
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5523.8	5523.8	99.2	%			13:38:44
1	Y RADIAL	5914.4	5914.4	100.1	%			13:38:44
1	Al 396.153Radial†	-32.8	-16.7	-12.211	ug/L	-12.211	ppb	13:38:44
1	Ca 317.933Radial†	26.1	6.7	9.6005	ug/L	9.6005	ppb	13:39:04
1	Fe 238.204 Radial†	9.6	-1.2	-9.7705	ug/L	-9.7705	ppb	13:39:04
1	K 766.490 Radial†	2883.8	194.0	34.206	ug/L	34.206	ppb	13:38:44
1	Mg 279.077 IEC†	2.1	0.7	21.523	ug/L	21.523	ppb	13:39:04
1	Na 589.592 Radial†	-877.3	-122.5	-36.565	ug/L	-36.565	ppb	13:38:44
1	Sr 421.552†	-17.2	-5.5	-0.0325	ug/L	-0.0325	ppb	13:38:44
1	Sc 361.383	897667.6	897667.6	99.862	%			13:40:01
1	Y 371.029	743887.0	743887.0	99.922	%			13:40:01
1	Ag 328.068†	406.1	36.7	0.1567	ug/L	0.1567	ppb	13:40:01
1	As 188.979†	-27.4	7.4	2.7011	ug/L	2.7011	ppb	13:40:21
1	B 249.677†	-259.7	-234.1	-4.8038	ug/L	-4.8038	ppb	13:40:21
1	Ba 233.527†	-0.2	2.4	0.0163	ug/L	0.0163	ppb	13:40:21
1	Be 313.107†	-4643.1	81.6	0.0275	ug/L	0.0275	ppb	13:40:01
1	Cd 226.502†	-215.9	12.9	0.1278	ug/L	0.1278	ppb	13:40:21
1	Co 228.616†	-81.5	5.5	0.0979	ug/L	0.0979	ppb	13:40:21
1	Cr 267.716†	105.2	25.2	0.2560	ug/L	0.2560	ppb	13:40:21
1	Cu 324.752†	5929.9	-117.5	-0.3325	ug/L	-0.3325	ppb	13:40:01
1	Mn 257.610†	520.8	30.1	0.0283	ug/L	0.0283	ppb	13:40:21
1	Mo 202.031†	29.9	10.1	0.6110	ug/L	0.6110	ppb	13:40:21
1	Ni 231.604†	114.1	20.7	0.4526	ug/L	0.4526	ppb	13:40:21
1	P 214.914†	247.9	-9.8	-5.0607	ug/L	-5.0607	ppb	13:40:21
1	Pb 220.353†	-74.7	-10.7	-1.1315	ug/L	-1.1315	ppb	13:40:21
1	S 181.975 Axial†	40.6	-8.3	-10.196	ug/L	-10.196	ppb	13:40:21
1	Sb 206.836†	53.6	12.5	3.7579	ug/L	3.7579	ppb	13:40:21
1	Se 196.026†	-28.9	-0.4	-0.2719	ug/L	-0.2719	ppb	13:40:21
1	Si 251.611†	635.2	58.6	1.6301	ug/L	1.6301	ppb	13:40:21
1	Sn 189.927†	6.5	3.1	0.4606	ug/L	0.4606	ppb	13:40:21
1	Ti 334.940†	-1325.0	60.7	0.0886	ug/L	0.0886	ppb	13:40:01
1	Tl 190.801†	-45.3	2.7	0.6906	ug/L	0.6906	ppb	13:40:21
1	U 409.014†	-2406.7	-37.8	-1.0419	ug/L	-1.0419	ppb	13:40:01
1	V 292.402†	-1429.4	38.0	0.2505	ug/L	0.2505	ppb	13:40:01
1	Zn 213.857†	814.4	22.0	0.1783	ug/L	0.1783	ppb	13:40:21
1	SiO2†	636.6	30.8	1.8127	ug/L	1.8127	ppb	13:41:17
2	Sc Radial	5521.3	5521.3	99.2	%			13:39:09
2	Y RADIAL	5902.3	5902.3	99.85	%			13:39:09
2	Al 396.153Radial†	-30.9	-14.8	-10.795	ug/L	-10.795	ppb	13:39:09
2	Ca 317.933Radial†	27.0	7.7	10.928	ug/L	10.928	ppb	13:39:29
2	Fe 238.204 Radial†	10.3	-0.5	-4.3803	ug/L	-4.3803	ppb	13:39:29
2	K 766.490 Radial†	2985.2	297.6	52.454	ug/L	52.454	ppb	13:39:09
2	Mg 279.077 IEC†	1.7	0.3	9.8938	ug/L	9.8938	ppb	13:39:29
2	Na 589.592 Radial†	-783.1	-28.0	-8.3562	ug/L	-8.3562	ppb	13:39:09
2	Sr 421.552†	62.5	74.8	0.4387	ug/L	0.4387	ppb	13:39:09
2	Sc 361.383	902635.4	902635.4	100.41	%			13:40:26
2	Y 371.029	749033.0	749033.0	100.61	%			13:40:26
2	Ag 328.068†	405.2	33.6	0.1456	ug/L	0.1456	ppb	13:40:26
2	As 188.979†	-24.5	10.4	3.7734	ug/L	3.7734	ppb	13:40:47
2	B 249.677†	-278.7	-251.6	-5.1640	ug/L	-5.1640	ppb	13:40:47
2	Ba 233.527†	2.4	5.0	0.0338	ug/L	0.0338	ppb	13:40:47
2	Be 313.107†	-4348.0	401.0	0.1345	ug/L	0.1345	ppb	13:40:26
2	Cd 226.502†	-221.9	8.2	0.0807	ug/L	0.0807	ppb	13:40:47
2	Co 228.616†	-69.6	17.8	0.3144	ug/L	0.3144	ppb	13:40:47
2	Cr 267.716†	88.5	8.0	0.0821	ug/L	0.0821	ppb	13:40:47
2	Cu 324.752†	6087.7	7.0	0.0195	ug/L	0.0195	ppb	13:40:26
2	Mn 257.610†	544.0	50.3	0.0490	ug/L	0.0490	ppb	13:40:47
2	Mo 202.031†	36.5	16.5	0.9974	ug/L	0.9974	ppb	13:40:47
2	Ni 231.604†	91.4	-2.6	-0.0571	ug/L	-0.0571	ppb	13:40:47

2	P 214.914†	256.2	-2.9	-1.5141	ug/L	-1.5141 ppb	13:40:47
2	Pb 220.353†	-56.6	7.7	0.8116	ug/L	0.8116 ppb	13:40:47
2	S 181.975 Axial†	53.1	3.9	4.7330	ug/L	4.7330 ppb	13:40:47
2	Sb 206.836†	47.1	5.7	1.7150	ug/L	1.7150 ppb	13:40:47
2	Se 196.026†	-31.1	-2.5	-1.3759	ug/L	-1.3759 ppb	13:40:47
2	Si 251.611†	597.0	17.1	0.4473	ug/L	0.4473 ppb	13:40:47
2	Sn 189.927†	2.2	-1.3	-0.1869	ug/L	-0.1869 ppb	13:40:47
2	Ti 334.940†	-1375.5	17.7	0.0275	ug/L	0.0275 ppb	13:40:26
2	Tl 190.801†	-39.2	9.0	2.3435	ug/L	2.3435 ppb	13:40:47
2	U 409.014†	-2490.8	-108.3	-2.9834	ug/L	-2.9834 ppb	13:40:26
2	V 292.402†	-1485.9	-10.4	-0.0566	ug/L	-0.0566 ppb	13:40:26
2	Zn 213.857†	811.8	14.9	0.1227	ug/L	0.1227 ppb	13:40:47
2	SiO2†	606.8	-2.4	-0.2193	ug/L	-0.2193 ppb	13:41:22
3	Sc Radial	5561.0	5561.0	99.9	%		13:39:35
3	Y RADIAL	5950.1	5950.1	100.7	%		13:39:35
3	Al 396.153Radial†	-16.8	-0.5	-0.3708	ug/L	-0.3708 ppb	13:39:35
3	Ca 317.933Radial†	18.7	-0.8	-1.1997	ug/L	-1.1997 ppb	13:39:55
3	Fe 238.204 Radial†	10.5	-0.3	-2.7052	ug/L	-2.7052 ppb	13:39:55
3	K 766.490 Radial†	2759.5	50.2	8.8367	ug/L	8.8367 ppb	13:39:35
3	Mg 279.077 IEC†	2.8	1.4	42.177	ug/L	42.177 ppb	13:39:55
3	Na 589.592 Radial†	-740.6	20.2	6.0201	ug/L	6.0201 ppb	13:39:35
3	Sr 421.552†	-24.2	-12.4	-0.0729	ug/L	-0.0729 ppb	13:39:35
3	Sc 361.383	902513.8	902513.8	100.40	%		13:40:52
3	Y 371.029	748743.6	748743.6	100.57	%		13:40:52
3	Ag 328.068†	331.8	-39.5	-0.1681	ug/L	-0.1681 ppb	13:40:52
3	As 188.979†	-33.1	1.9	0.6888	ug/L	0.6888 ppb	13:41:12
3	B 249.677†	-247.0	-220.1	-4.5177	ug/L	-4.5177 ppb	13:41:12
3	Ba 233.527†	12.2	14.7	0.0998	ug/L	0.0998 ppb	13:41:12
3	Be 313.107†	-4653.4	96.3	0.0325	ug/L	0.0325 ppb	13:40:52
3	Cd 226.502†	-214.1	16.0	0.1569	ug/L	0.1569 ppb	13:41:12
3	Co 228.616†	-67.6	19.7	0.3464	ug/L	0.3464 ppb	13:41:12
3	Cr 267.716†	102.1	21.5	0.2193	ug/L	0.2193 ppb	13:41:12
3	Cu 324.752†	5973.6	-105.9	-0.2992	ug/L	-0.2992 ppb	13:40:52
3	Mn 257.610†	516.8	23.3	0.0219	ug/L	0.0219 ppb	13:41:12
3	Mo 202.031†	26.9	6.9	0.4179	ug/L	0.4179 ppb	13:41:12
3	Ni 231.604†	119.3	25.2	0.5502	ug/L	0.5502 ppb	13:41:12
3	P 214.914†	259.1	-0.0	0.0312	ug/L	0.0312 ppb	13:41:12
3	Pb 220.353†	-57.2	7.1	0.7493	ug/L	0.7493 ppb	13:41:12
3	S 181.975 Axial†	47.1	-2.1	-2.5824	ug/L	-2.5824 ppb	13:41:12
3	Sb 206.836†	46.9	5.5	1.6684	ug/L	1.6684 ppb	13:41:12
3	Se 196.026†	-32.3	-3.7	-2.0223	ug/L	-2.0223 ppb	13:41:12
3	Si 251.611†	623.5	43.6	1.2172	ug/L	1.2172 ppb	13:41:12
3	Sn 189.927†	6.2	2.7	0.4094	ug/L	0.4094 ppb	13:41:12
3	Ti 334.940†	-1306.7	86.1	0.1261	ug/L	0.1261 ppb	13:40:52
3	Tl 190.801†	-35.6	12.6	3.2591	ug/L	3.2591 ppb	13:41:12
3	U 409.014†	-2527.6	-145.3	-4.0027	ug/L	-4.0027 ppb	13:40:52
3	V 292.402†	-1498.4	-23.0	-0.1471	ug/L	-0.1471 ppb	13:40:52
3	Zn 213.857†	813.4	16.6	0.1316	ug/L	0.1316 ppb	13:41:12
3	SiO2†	613.6	4.4	0.2439	ug/L	0.2439 ppb	13:41:27

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	900938.9	100.23	%	0.315				0.31%
Sc Radial	5535.4	99.4	%	0.40				0.40%
Y 371.029	747221.2	100.37	%	0.388				0.39%
Y RADIAL	5922.2	100.2	%	0.42				0.42%
Ag 328.068†	10.3	0.0447	ug/L	0.18438	0.0447	ppb	0.18438	412.25%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-10.7	-7.7922	ug/L	6.46613	-7.7922	ppb	6.46613	82.98%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	6.6	2.3878	ug/L	1.56598	2.3878	ppb	1.56598	65.58%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-235.3	-4.8285	ug/L	0.32389	-4.8285	ppb	0.32389	6.71%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	7.4	0.0500	ug/L	0.04401	0.0500	ppb	0.04401	88.08%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	193.0	0.0649	ug/L	0.06038	0.0649	ppb	0.06038	93.07%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	4.5	6.4428	ug/L	6.65179	6.4428	ppb	6.65179	103.24%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                12.4      0.1218 ug/L       0.03842      0.1218 ppb        0.03842  31.54%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                14.4      0.2529 ug/L       0.13517      0.2529 ppb        0.13517  53.45%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                18.2      0.1858 ug/L       0.09167      0.1858 ppb        0.09167  49.34%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               -72.1     -0.2041 ug/L       0.19433     -0.2041 ppb        0.19433  95.23%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -0.7     -5.6186 ug/L       3.69185     -5.6186 ppb        3.69185  65.71%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         180.6      31.832 ug/L       21.9054      31.832 ppb        21.9054  68.81%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            0.8      24.531 ug/L       16.3504      24.531 ppb        16.3504  66.65%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                34.6      0.0331 ug/L       0.01414      0.0331 ppb        0.01414  42.76%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                11.2      0.6754 ug/L       0.29506      0.6754 ppb        0.29506  43.69%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        -43.4     -12.967 ug/L       21.6638     -12.967 ppb        21.6638 167.07%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                14.4      0.3153 ug/L       0.32612      0.3153 ppb        0.32612 103.44%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -4.3     -2.1812 ug/L       2.61067     -2.1812 ppb        2.61067 119.69%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                 1.4      0.1431 ug/L       1.10431      0.1431 ppb        1.10431 771.59%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -2.2     -2.6819 ug/L       7.46521     -2.6819 ppb        7.46521 278.35%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 7.9      2.3805 ug/L       1.19312      2.3805 ppb        1.19312  50.12%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -2.2     -1.2234 ug/L       0.88514     -1.2234 ppb        0.88514  72.35%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                39.8      1.0982 ug/L       0.60036      1.0982 ppb        0.60036  54.67%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 1.5      0.2277 ug/L       0.35999      0.2277 ppb        0.35999 158.10%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                19.0      0.1111 ug/L       0.28444      0.1111 ppb        0.28444 256.05%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                54.8      0.0807 ug/L       0.04977      0.0807 ppb        0.04977  61.63%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 8.1      2.0977 ug/L       1.30176      2.0977 ppb        1.30176  62.06%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                -97.1     -2.6760 ug/L       1.50414     -2.6760 ppb        1.50414  56.21%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                  1.6      0.0156 ug/L       0.20838      0.0156 ppb        0.20838 >999.9%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                17.8      0.1442 ug/L       0.02983      0.1442 ppb        0.02983  20.69%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                      11.0      0.6124 ug/L       1.06492      0.6124 ppb        1.06492 173.88%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 11
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 12/19/2009 14:38:46
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5574.9	5574.9	100	%			14:40:38
1	Y RADIAL	5867.4	5867.4	99.26	%			14:40:38
1	Al 396.153Radial†	6763.5	6770.6	4911.6	ug/L	4911.6	ppb	14:40:38
1	Ca 317.933Radial†	3484.8	3460.5	4933.7	ug/L	4933.7	ppb	14:40:58
1	Fe 238.204 Radial†	610.1	598.3	4990.4	ug/L	4990.4	ppb	14:40:58
1	K 766.490 Radial†	30886.7	28132.0	4949.5	ug/L	4949.5	ppb	14:40:38
1	Mg 279.077 IEC†	169.1	167.5	5206.1	ug/L	5206.1	ppb	14:40:58
1	Na 589.592 Radial†	31913.2	32631.1	9739.4	ug/L	9739.4	ppb	14:40:38
1	Sr 421.552†	85031.4	84926.8	497.95	ug/L	497.95	ppb	14:40:38
1	Sc 361.383	884224.6	884224.6	98.366	%			14:41:56
1	Y 371.029	718549.9	718549.9	96.519	%			14:41:56
1	Ag 328.068†	117816.3	119402.9	517.75	ug/L	517.75	ppb	14:42:01
1	As 188.979†	1354.8	1412.1	517.09	ug/L	517.09	ppb	14:42:21
1	B 249.677†	24175.1	24602.6	502.93	ug/L	502.93	ppb	14:42:01
1	Ba 233.527†	74958.9	76206.4	519.28	ug/L	519.28	ppb	14:42:01
1	Be 313.107†	1497350.3	1526947.7	513.09	ug/L	513.09	ppb	14:41:56
1	Cd 226.502†	51932.1	53023.8	518.40	ug/L	518.40	ppb	14:42:01
1	Co 228.616†	29128.9	29699.8	520.04	ug/L	520.04	ppb	14:42:01
1	Cr 267.716†	50181.5	50934.7	517.23	ug/L	517.23	ppb	14:42:01
1	Cu 324.752†	186397.0	183436.9	518.53	ug/L	518.53	ppb	14:42:01
1	Mn 257.610†	516173.3	524253.9	517.51	ug/L	517.51	ppb	14:41:56
1	Mo 202.031†	8302.6	8420.6	510.06	ug/L	510.06	ppb	14:42:21
1	Ni 231.604†	23516.1	23813.0	519.96	ug/L	519.96	ppb	14:42:01
1	P 214.914†	5070.6	4896.7	2475.7	ug/L	2475.7	ppb	14:42:21
1	Pb 220.353†	4712.6	4854.9	513.15	ug/L	513.15	ppb	14:42:21
1	S 181.975 Axial†	861.8	827.1	1013.7	ug/L	1013.7	ppb	14:42:21
1	Sb 206.836†	1715.5	1702.7	517.29	ug/L	517.29	ppb	14:42:21
1	Se 196.026†	883.6	926.8	522.35	ug/L	522.35	ppb	14:42:21
1	Si 251.611†	90434.4	91358.8	2564.0	ug/L	2564.0	ppb	14:42:01
1	Sn 189.927†	3330.9	3382.8	507.92	ug/L	507.92	ppb	14:42:21
1	Ti 334.940†	347914.8	355080.2	513.24	ug/L	513.24	ppb	14:41:56
1	Tl 190.801†	1895.4	1974.9	515.66	ug/L	515.66	ppb	14:42:21
1	U 409.014†	16116.4	18756.2	515.15	ug/L	515.15	ppb	14:42:01
1	V 292.402†	78332.0	81102.3	522.71	ug/L	522.71	ppb	14:42:01
1	Zn 213.857†	63071.7	63325.5	514.76	ug/L	514.76	ppb	14:42:01
1	SiO2†	90362.1	91256.0	5499.1	ug/L	5499.1	ppb	14:43:29
2	Sc Radial	5511.2	5511.2	99.0	%			14:41:03
2	Y RADIAL	5851.4	5851.4	98.98	%			14:41:03
2	Al 396.153Radial†	6647.7	6731.8	4884.1	ug/L	4884.1	ppb	14:41:03
2	Ca 317.933Radial†	3493.1	3509.1	5003.0	ug/L	5003.0	ppb	14:41:23
2	Fe 238.204 Radial†	616.5	611.9	5102.4	ug/L	5102.4	ppb	14:41:23
2	K 766.490 Radial†	30416.4	28013.6	4928.9	ug/L	4928.9	ppb	14:41:03
2	Mg 279.077 IEC†	166.8	167.1	5194.1	ug/L	5194.1	ppb	14:41:23
2	Na 589.592 Radial†	31178.0	32257.0	9627.8	ug/L	9627.8	ppb	14:41:03
2	Sr 421.552†	83232.4	84091.4	493.05	ug/L	493.05	ppb	14:41:03
2	Sc 361.383	912615.4	912615.4	101.52	%			14:42:27
2	Y 371.029	743683.0	743683.0	99.895	%			14:42:27
2	Ag 328.068†	116581.6	114460.7	496.43	ug/L	496.43	ppb	14:42:32
2	As 188.979†	1343.6	1358.2	497.36	ug/L	497.36	ppb	14:42:52
2	B 249.677†	23934.7	23601.2	482.42	ug/L	482.42	ppb	14:42:32
2	Ba 233.527†	74317.1	73203.5	498.83	ug/L	498.83	ppb	14:42:32
2	Be 313.107†	1478724.2	1461246.5	491.01	ug/L	491.01	ppb	14:42:27
2	Cd 226.502†	51355.1	50813.0	496.76	ug/L	496.76	ppb	14:42:32
2	Co 228.616†	28801.3	28455.9	498.27	ug/L	498.27	ppb	14:42:32
2	Cr 267.716†	49719.9	48893.0	496.51	ug/L	496.51	ppb	14:42:32
2	Cu 324.752†	183821.0	175004.7	494.71	ug/L	494.71	ppb	14:42:32
2	Mn 257.610†	508020.7	499899.4	493.50	ug/L	493.50	ppb	14:42:27
2	Mo 202.031†	8255.4	8111.6	491.37	ug/L	491.37	ppb	14:42:52
2	Ni 231.604†	23204.9	22762.8	497.03	ug/L	497.03	ppb	14:42:32

2	P 214.914†	5033.8	4700.1	2376.6 ug/L	2376.6 ppb	14:42:52
2	Pb 220.353†	4693.9	4687.5	495.46 ug/L	495.46 ppb	14:42:52
2	S 181.975 Axial†	858.5	796.6	976.34 ug/L	976.34 ppb	14:42:52
2	Sb 206.836†	1710.0	1643.1	499.21 ug/L	499.21 ppb	14:42:52
2	Se 196.026†	893.2	908.3	512.58 ug/L	512.58 ppb	14:42:52
2	Si 251.611†	89397.5	87477.4	2455.0 ug/L	2455.0 ppb	14:42:32
2	Sn 189.927†	3307.7	3254.6	488.70 ug/L	488.70 ppb	14:42:52
2	Ti 334.940†	342155.4	338404.2	489.15 ug/L	489.15 ppb	14:42:27
2	Tl 190.801†	1875.2	1895.1	494.78 ug/L	494.78 ppb	14:42:52
2	U 409.014†	15715.8	17852.0	490.26 ug/L	490.26 ppb	14:42:32
2	V 292.402†	77485.0	77790.6	501.35 ug/L	501.35 ppb	14:42:32
2	Zn 213.857†	62328.7	60599.0	492.57 ug/L	492.57 ppb	14:42:32
2	SiO2†	89521.8	87570.6	5276.8 ug/L	5276.8 ppb	14:43:34
3	Sc Radial	5494.8	5494.8	98.7 %		14:41:28
3	Y RADIAL	5829.1	5829.1	98.61 %		14:41:28
3	Al 396.153Radial†	6608.6	6712.2	4869.7 ug/L	4869.7 ppb	14:41:28
3	Ca 317.933Radial†	3454.3	3480.3	4961.9 ug/L	4961.9 ppb	14:41:48
3	Fe 238.204 Radial†	609.2	606.4	5056.5 ug/L	5056.5 ppb	14:41:48
3	K 766.490 Radial†	30611.5	28303.1	4979.9 ug/L	4979.9 ppb	14:41:28
3	Mg 279.077 IEC†	164.2	165.0	5127.9 ug/L	5127.9 ppb	14:41:48
3	Na 589.592 Radial†	31240.1	32414.1	9674.7 ug/L	9674.7 ppb	14:41:28
3	Sr 421.552†	82965.1	84071.9	492.94 ug/L	492.94 ppb	14:41:28
3	Sc 361.383	908125.8	908125.8	101.03 %		14:42:58
3	Y 371.029	740200.1	740200.1	99.427 %		14:42:58
3	Ag 328.068†	116791.0	115235.7	499.76 ug/L	499.76 ppb	14:43:03
3	As 188.979†	1349.1	1370.2	501.75 ug/L	501.75 ppb	14:43:23
3	B 249.677†	24058.4	23840.2	487.33 ug/L	487.33 ppb	14:43:03
3	Ba 233.527†	74267.4	73516.2	500.96 ug/L	500.96 ppb	14:43:03
3	Be 313.107†	1489641.0	1479253.2	497.06 ug/L	497.06 ppb	14:42:58
3	Cd 226.502†	51301.0	51009.5	498.68 ug/L	498.68 ppb	14:43:03
3	Co 228.616†	28746.0	28541.3	499.76 ug/L	499.76 ppb	14:43:03
3	Cr 267.716†	49797.7	49212.2	499.75 ug/L	499.75 ppb	14:43:03
3	Cu 324.752†	184533.1	176604.7	499.23 ug/L	499.23 ppb	14:43:03
3	Mn 257.610†	511280.2	505599.5	499.12 ug/L	499.12 ppb	14:42:58
3	Mo 202.031†	8253.4	8149.7	493.67 ug/L	493.67 ppb	14:43:23
3	Ni 231.604†	23211.5	22882.4	499.64 ug/L	499.64 ppb	14:43:03
3	P 214.914†	5069.9	4760.4	2407.5 ug/L	2407.5 ppb	14:43:23
3	Pb 220.353†	4698.7	4715.1	498.37 ug/L	498.37 ppb	14:43:23
3	S 181.975 Axial†	862.0	804.3	985.72 ug/L	985.72 ppb	14:43:23
3	Sb 206.836†	1714.9	1656.3	503.24 ug/L	503.24 ppb	14:43:23
3	Se 196.026†	891.3	910.8	513.78 ug/L	513.78 ppb	14:43:23
3	Si 251.611†	89459.8	87974.3	2468.9 ug/L	2468.9 ppb	14:43:03
3	Sn 189.927†	3335.5	3298.2	495.24 ug/L	495.24 ppb	14:43:23
3	Ti 334.940†	344425.8	342317.7	494.80 ug/L	494.80 ppb	14:42:58
3	Tl 190.801†	1890.0	1918.9	501.01 ug/L	501.01 ppb	14:43:23
3	U 409.014†	15800.0	18011.8	494.66 ug/L	494.66 ppb	14:43:03
3	V 292.402†	77684.5	78365.5	505.05 ug/L	505.05 ppb	14:43:03
3	Zn 213.857†	62531.8	61103.6	496.69 ug/L	496.69 ppb	14:43:03
3	SiO2†	88372.4	86868.8	5234.1 ug/L	5234.1 ppb	14:43:39

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	901655.3	100.31	%	1.698				1.69%
Sc Radial	5527.0	99.3	%	0.76				0.77%
Y 371.029	734144.3	98.614	%	1.8291				1.85%
Y RADIAL	5849.3	98.95	%	0.326				0.33%
Ag 328.068†	116366.4	504.65	ug/L	11.470	504.65	ppb	11.470	2.27%
QC value within limits for Ag 328.068 Recovery = 100.93%								
Al 396.153Radial†	6738.2	4888.5	ug/L	21.27	4888.5	ppb	21.27	0.44%
QC value within limits for Al 396.153Radial Recovery = 97.77%								
As 188.979†	1380.2	505.40	ug/L	10.358	505.40	ppb	10.358	2.05%
QC value within limits for As 188.979 Recovery = 101.08%								
B 249.677†	24014.6	490.89	ug/L	10.710	490.89	ppb	10.710	2.18%
QC value within limits for B 249.677 Recovery = 98.18%								
Ba 233.527†	74308.7	506.36	ug/L	11.243	506.36	ppb	11.243	2.22%
QC value within limits for Ba 233.527 Recovery = 101.27%								
Be 313.107†	1489149.1	500.38	ug/L	11.410	500.38	ppb	11.410	2.28%
QC value within limits for Be 313.107 Recovery = 100.08%								
Ca 317.933Radial†	3483.3	4966.2	ug/L	34.82	4966.2	ppb	34.82	0.70%

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   QC value within limits for Ca 317.933Radial  Recovery = 99.32%
Cd 226.502†            51615.4      504.61 ug/L        11.980      504.61 ppb        11.980   2.37%
   QC value within limits for Cd 226.502  Recovery = 100.92%
Co 228.616†            28899.0      506.02 ug/L        12.163      506.02 ppb        12.163   2.40%
   QC value within limits for Co 228.616  Recovery = 101.20%
Cr 267.716†            49679.9      504.49 ug/L        11.150      504.49 ppb        11.150   2.21%
   QC value within limits for Cr 267.716  Recovery = 100.90%
Cu 324.752†           178348.8      504.16 ug/L        12.651      504.16 ppb        12.651   2.51%
   QC value within limits for Cu 324.752  Recovery = 100.83%
Fe 238.204 Radial†       605.5      5049.8 ug/L         56.34      5049.8 ppb         56.34   1.12%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.00%
K 766.490 Radial†      28149.6      4952.8 ug/L         25.63      4952.8 ppb         25.63   0.52%
   QC value within limits for K 766.490 Radial  Recovery = 99.06%
Mg 279.077 IEC†          166.5      5176.0 ug/L         42.13      5176.0 ppb         42.13   0.81%
   QC value within limits for Mg 279.077 IEC  Recovery = 103.52%
Mn 257.610†           509917.6      503.38 ug/L        12.559      503.38 ppb        12.559   2.49%
   QC value within limits for Mn 257.610  Recovery = 100.68%
Mo 202.031†             8227.3      498.37 ug/L        10.195      498.37 ppb        10.195   2.05%
   QC value within limits for Mo 202.031  Recovery = 99.67%
Na 589.592 Radial†     32434.1      9680.6 ug/L         56.08      9680.6 ppb         56.08   0.58%
   QC value within limits for Na 589.592 Radial  Recovery = 96.81%
Ni 231.604†            23152.7      505.54 ug/L        12.555      505.54 ppb        12.555   2.48%
   QC value within limits for Ni 231.604  Recovery = 101.11%
P 214.914†              4785.7      2420.0 ug/L         50.72      2420.0 ppb         50.72   2.10%
   QC value within limits for P 214.914  Recovery = 96.80%
Pb 220.353†             4752.5      502.33 ug/L         9.485      502.33 ppb         9.485   1.89%
   QC value within limits for Pb 220.353  Recovery = 100.47%
S 181.975 Axial†         809.3      991.94 ug/L        19.461      991.94 ppb        19.461   1.96%
   QC value within limits for S 181.975 Axial  Recovery = 99.19%
Sb 206.836†             1667.4      506.58 ug/L         9.492      506.58 ppb         9.492   1.87%
   QC value within limits for Sb 206.836  Recovery = 101.32%
Se 196.026†              915.3      516.24 ug/L         5.329      516.24 ppb         5.329   1.03%
   QC value within limits for Se 196.026  Recovery = 103.25%
Si 251.611†            88936.9      2496.0 ug/L         59.35      2496.0 ppb         59.35   2.38%
   QC value within limits for Si 251.611  Recovery = 99.84%
Sn 189.927†             3311.8      497.28 ug/L         9.772      497.28 ppb         9.772   1.97%
   QC value within limits for Sn 189.927  Recovery = 99.46%
Sr 421.552†            84363.4      494.65 ug/L         2.862      494.65 ppb         2.862   0.58%
   QC value within limits for Sr 421.552  Recovery = 98.93%
Ti 334.940†           345267.4      499.06 ug/L        12.597      499.06 ppb        12.597   2.52%
   QC value within limits for Ti 334.940  Recovery = 99.81%
Tl 190.801†             1929.6      503.82 ug/L        10.722      503.82 ppb        10.722   2.13%
   QC value within limits for Tl 190.801  Recovery = 100.76%
U 409.014†             18206.7      500.03 ug/L        13.281      500.03 ppb        13.281   2.66%
   QC value within limits for U 409.014  Recovery = 100.01%
V 292.402†             79086.1      509.71 ug/L        11.417      509.71 ppb        11.417   2.24%
   QC value within limits for V 292.402  Recovery = 101.94%
Zn 213.857†            61676.1      501.34 ug/L        11.806      501.34 ppb        11.806   2.35%
   QC value within limits for Zn 213.857  Recovery = 100.27%
SiO2†                  88565.2      5336.7 ug/L       142.27      5336.7 ppb       142.27   2.67%
   QC value within limits for SiO2  Recovery = 99.80%
All analyte(s) passed QC.
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Sequence No.: 12
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 12/19/2009 14:45:49
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5595.1	5595.1	100	%			14:47:41
1	Y RADIAL	5917.3	5917.3	100.1	%			14:47:41
1	Al 396.153Radial†	-7.4	9.0	6.5606	ug/L	6.5606	ppb	14:47:41
1	Ca 317.933Radial†	26.3	6.6	9.4622	ug/L	9.4622	ppb	14:48:01
1	Fe 238.204 Radial†	8.8	-2.1	-17.526	ug/L	-17.526	ppb	14:48:01
1	K 766.490 Radial†	2813.7	87.3	15.384	ug/L	15.384	ppb	14:47:41
1	Mg 279.077 IEC†	2.6	1.1	35.724	ug/L	35.724	ppb	14:48:01
1	Na 589.592 Radial†	-751.6	13.8	4.1327	ug/L	4.1327	ppb	14:47:41
1	Sr 421.552†	-9.6	2.2	0.0130	ug/L	0.0130	ppb	14:47:41
1	Sc 361.383	886574.4	886574.4	98.628	%			14:48:58
1	Y 371.029	751714.0	751714.0	100.97	%			14:48:58
1	Ag 328.068†	362.7	-2.2	-0.0151	ug/L	-0.0151	ppb	14:48:58
1	As 188.979†	-26.2	8.2	2.9821	ug/L	2.9821	ppb	14:49:18
1	B 249.677†	-271.6	-249.4	-5.1168	ug/L	-5.1168	ppb	14:49:18
1	Ba 233.527†	9.6	12.3	0.0816	ug/L	0.0816	ppb	14:49:18
1	Be 313.107†	-4717.8	-52.3	-0.0174	ug/L	-0.0174	ppb	14:48:58
1	Cd 226.502†	-210.7	15.6	0.1541	ug/L	0.1541	ppb	14:49:18
1	Co 228.616†	-80.2	5.8	0.1016	ug/L	0.1016	ppb	14:49:18
1	Cr 267.716†	80.8	1.8	0.0180	ug/L	0.0180	ppb	14:49:18
1	Cu 324.752†	6110.7	140.1	0.3950	ug/L	0.3950	ppb	14:48:58
1	Mn 257.610†	534.2	50.2	0.0471	ug/L	0.0471	ppb	14:49:18
1	Mo 202.031†	24.6	5.1	0.3057	ug/L	0.3057	ppb	14:49:18
1	Ni 231.604†	88.7	-3.7	-0.0799	ug/L	-0.0799	ppb	14:49:18
1	P 214.914†	250.5	-4.1	-2.1563	ug/L	-2.1563	ppb	14:49:18
1	Pb 220.353†	-73.7	-10.6	-1.1162	ug/L	-1.1162	ppb	14:49:18
1	S 181.975 Axial†	49.7	1.4	1.6869	ug/L	1.6869	ppb	14:49:18
1	Sb 206.836†	47.5	6.9	2.0984	ug/L	2.0984	ppb	14:49:18
1	Se 196.026†	-11.3	17.1	9.2485	ug/L	9.2485	ppb	14:49:18
1	Si 251.611†	646.8	78.3	2.1933	ug/L	2.1933	ppb	14:49:18
1	Sn 189.927†	12.1	8.8	1.3154	ug/L	1.3154	ppb	14:49:18
1	Ti 334.940†	-1335.2	33.8	0.0507	ug/L	0.0507	ppb	14:48:58
1	Tl 190.801†	-43.1	4.4	1.1398	ug/L	1.1398	ppb	14:49:18
1	U 409.014†	-2445.5	-107.4	-2.9556	ug/L	-2.9556	ppb	14:48:58
1	V 292.402†	-1538.9	-90.9	-0.5759	ug/L	-0.5759	ppb	14:48:58
1	Zn 213.857†	842.9	61.0	0.5011	ug/L	0.5011	ppb	14:49:18
1	SiO2†	660.7	63.2	3.7971	ug/L	3.7971	ppb	14:50:14
2	Sc Radial	5731.1	5731.1	103	%			14:48:06
2	Y RADIAL	6107.4	6107.4	103.3	%			14:48:06
2	Al 396.153Radial†	-25.2	-8.1	-5.9045	ug/L	-5.9045	ppb	14:48:06
2	Ca 317.933Radial†	26.0	5.7	8.1533	ug/L	8.1533	ppb	14:48:26
2	Fe 238.204 Radial†	8.7	-2.5	-20.397	ug/L	-20.397	ppb	14:48:26
2	K 766.490 Radial†	2864.2	69.9	12.311	ug/L	12.311	ppb	14:48:06
2	Mg 279.077 IEC†	2.7	1.2	36.846	ug/L	36.846	ppb	14:48:26
2	Na 589.592 Radial†	-778.9	5.0	1.4887	ug/L	1.4887	ppb	14:48:06
2	Sr 421.552†	-2.0	9.9	0.0580	ug/L	0.0580	ppb	14:48:06
2	Sc 361.383	882937.6	882937.6	98.223	%			14:49:23
2	Y 371.029	748195.0	748195.0	100.50	%			14:49:23
2	Ag 328.068†	429.4	67.3	0.2867	ug/L	0.2867	ppb	14:49:23
2	As 188.979†	-29.4	4.9	1.7623	ug/L	1.7623	ppb	14:49:43
2	B 249.677†	-246.1	-224.7	-4.6085	ug/L	-4.6085	ppb	14:49:43
2	Ba 233.527†	3.3	5.9	0.0385	ug/L	0.0385	ppb	14:49:43
2	Be 313.107†	-4701.5	-55.4	-0.0186	ug/L	-0.0186	ppb	14:49:23
2	Cd 226.502†	-221.5	3.7	0.0384	ug/L	0.0384	ppb	14:49:43
2	Co 228.616†	-70.8	15.0	0.2623	ug/L	0.2623	ppb	14:49:43
2	Cr 267.716†	105.3	27.0	0.2747	ug/L	0.2747	ppb	14:49:43
2	Cu 324.752†	6018.1	71.4	0.2008	ug/L	0.2008	ppb	14:49:23
2	Mn 257.610†	563.0	81.7	0.0778	ug/L	0.0778	ppb	14:49:43
2	Mo 202.031†	18.3	-1.2	-0.0768	ug/L	-0.0768	ppb	14:49:43
2	Ni 231.604†	123.4	32.0	0.6996	ug/L	0.6996	ppb	14:49:43

2	P 214.914†	249.6	-4.0	-2.0687 ug/L	-2.0687 ppb	14:49:43
2	Pb 220.353†	-70.4	-7.7	-0.8076 ug/L	-0.8076 ppb	14:49:43
2	S 181.975 Axial†	46.5	-1.7	-2.0327 ug/L	-2.0327 ppb	14:49:43
2	Sb 206.836†	46.0	5.6	1.6770 ug/L	1.6770 ppb	14:49:43
2	Se 196.026†	-26.9	1.2	0.5728 ug/L	0.5728 ppb	14:49:43
2	Si 251.611†	633.1	67.1	1.8857 ug/L	1.8857 ppb	14:49:43
2	Sn 189.927†	8.8	5.4	0.8150 ug/L	0.8150 ppb	14:49:43
2	Ti 334.940†	-1355.2	7.8	0.0146 ug/L	0.0146 ppb	14:49:23
2	Tl 190.801†	-25.1	22.5	5.8467 ug/L	5.8467 ppb	14:49:43
2	U 409.014†	-2565.5	-239.7	-6.6024 ug/L	-6.6024 ppb	14:49:23
2	V 292.402†	-1515.0	-73.0	-0.4746 ug/L	-0.4746 ppb	14:49:23
2	Zn 213.857†	849.8	71.6	0.5834 ug/L	0.5834 ppb	14:49:43
2	SiO2†	681.5	87.2	5.2673 ug/L	5.2673 ppb	14:50:19
3	Sc Radial	5576.3	5576.3	100 %		14:48:31
3	Y RADIAL	5946.3	5946.3	100.6 %		14:48:31
3	Al 396.153Radial†	-14.7	1.7	1.2876 ug/L	1.2876 ppb	14:48:31
3	Ca 317.933Radial†	23.6	4.0	5.6632 ug/L	5.6632 ppb	14:48:51
3	Fe 238.204 Radial†	9.2	-1.7	-14.412 ug/L	-14.412 ppb	14:48:51
3	K 766.490 Radial†	2773.6	56.7	9.9821 ug/L	9.9821 ppb	14:48:31
3	Mg 279.077 IEC†	2.2	0.8	26.345 ug/L	26.345 ppb	14:48:51
3	Na 589.592 Radial†	-750.5	12.4	3.7003 ug/L	3.7003 ppb	14:48:31
3	Sr 421.552†	56.9	68.6	0.4024 ug/L	0.4024 ppb	14:48:31
3	Sc 361.383	886705.2	886705.2	98.642 %		14:49:49
3	Y 371.029	754502.0	754502.0	101.35 %		14:49:49
3	Ag 328.068†	408.3	44.0	0.1837 ug/L	0.1837 ppb	14:49:49
3	As 188.979†	-26.5	8.0	2.8879 ug/L	2.8879 ppb	14:50:09
3	B 249.677†	-283.6	-261.6	-5.3664 ug/L	-5.3664 ppb	14:50:09
3	Ba 233.527†	-0.4	2.2	0.0129 ug/L	0.0129 ppb	14:50:09
3	Be 313.107†	-4696.1	-29.6	-0.0100 ug/L	-0.0100 ppb	14:49:49
3	Cd 226.502†	-223.6	2.5	0.0266 ug/L	0.0266 ppb	14:50:09
3	Co 228.616†	-87.4	-1.5	-0.0282 ug/L	-0.0282 ppb	14:50:09
3	Cr 267.716†	92.5	13.6	0.1367 ug/L	0.1367 ppb	14:50:09
3	Cu 324.752†	6218.2	248.2	0.7005 ug/L	0.7005 ppb	14:49:49
3	Mn 257.610†	541.6	57.6	0.0549 ug/L	0.0549 ppb	14:50:09
3	Mo 202.031†	8.9	-10.9	-0.6607 ug/L	-0.6607 ppb	14:50:09
3	Ni 231.604†	112.5	20.5	0.4471 ug/L	0.4471 ppb	14:50:09
3	P 214.914†	274.2	19.9	10.299 ug/L	10.299 ppb	14:50:09
3	Pb 220.353†	-76.3	-13.3	-1.4056 ug/L	-1.4056 ppb	14:50:09
3	S 181.975 Axial†	46.8	-1.5	-1.8757 ug/L	-1.8757 ppb	14:50:09
3	Sb 206.836†	42.6	1.9	0.5707 ug/L	0.5707 ppb	14:50:09
3	Se 196.026†	-36.4	-8.4	-4.6096 ug/L	-4.6096 ppb	14:50:09
3	Si 251.611†	660.4	92.0	2.6006 ug/L	2.6006 ppb	14:50:09
3	Sn 189.927†	7.3	3.9	0.5824 ug/L	0.5824 ppb	14:50:09
3	Ti 334.940†	-1373.8	-5.1	-0.0067 ug/L	-0.0067 ppb	14:49:49
3	Tl 190.801†	-39.1	8.4	2.1936 ug/L	2.1936 ppb	14:50:09
3	U 409.014†	-2375.1	-35.6	-0.9786 ug/L	-0.9786 ppb	14:49:49
3	V 292.402†	-1529.8	-81.4	-0.5263 ug/L	-0.5263 ppb	14:49:49
3	Zn 213.857†	837.4	55.4	0.4510 ug/L	0.4510 ppb	14:50:09
3	SiO2†	654.4	56.7	3.4472 ug/L	3.4472 ppb	14:50:24

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	885405.8	98.498	%	0.2379				0.24%
Sc Radial	5634.2	101	%	1.5				1.50%
Y 371.029	751470.3	100.94	%	0.425				0.42%
Y RADIAL	5990.3	101.3	%	1.73				1.71%
Ag 328.068†	36.4	0.1518	ug/L	0.15341	0.1518	ppb	0.15341	101.08%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	0.9	0.6479	ug/L	6.25712	0.6479	ppb	6.25712	965.75%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	7.0	2.5441	ug/L	0.67868	2.5441	ppb	0.67868	26.68%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-245.2	-5.0305	ug/L	0.38624	-5.0305	ppb	0.38624	7.68%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	6.8	0.0443	ug/L	0.03471	0.0443	ppb	0.03471	78.28%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-45.8	-0.0153	ug/L	0.00468	-0.0153	ppb	0.00468	30.54%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	5.4	7.7596	ug/L	1.92987	7.7596	ppb	1.92987	24.87%

```
   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                 7.3      0.0730 ug/L       0.07047      0.0730 ppb        0.07047  96.50%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                 6.4      0.1119 ug/L       0.14552      0.1119 ppb        0.14552 130.00%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                14.1      0.1431 ug/L       0.12849      0.1431 ppb        0.12849  89.76%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               153.3      0.4321 ug/L       0.25191      0.4321 ppb        0.25191  58.30%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -2.1     -17.445 ug/L        2.9934     -17.445 ppb         2.9934  17.16%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          71.3      12.559 ug/L        2.7093      12.559 ppb         2.7093  21.57%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             1.1      32.972 ug/L        5.7661      32.972 ppb         5.7661  17.49%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                63.2      0.0600 ug/L       0.01598      0.0600 ppb        0.01598  26.65%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                -2.4     -0.1439 ug/L       0.48666     -0.1439 ppb        0.48666 338.12%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†         10.4      3.1072 ug/L       1.41829      3.1072 ppb        1.41829  45.64%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                16.3      0.3556 ug/L       0.39772      0.3556 ppb        0.39772 111.84%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                  4.0      2.0247 ug/L       7.16599      2.0247 ppb        7.16599 353.93%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               -10.5     -1.1098 ug/L       0.29904     -1.1098 ppb        0.29904  26.95%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -0.6     -0.7405 ug/L       2.10363     -0.7405 ppb        2.10363 284.08%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 4.8      1.4487 ug/L       0.78898      1.4487 ppb        0.78898  54.46%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 3.3      1.7372 ug/L       7.00209      1.7372 ppb        7.00209 403.06%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                79.1      2.2265 ug/L       0.35863      2.2265 ppb        0.35863  16.11%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 6.0      0.9043 ug/L       0.37460      0.9043 ppb        0.37460  41.43%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                26.9      0.1578 ug/L       0.21298      0.1578 ppb        0.21298 134.95%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                12.2      0.0195 ug/L       0.02900      0.0195 ppb        0.02900 148.50%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                11.8      3.0600 ug/L       2.47017      3.0600 ppb        2.47017  80.72%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -127.5     -3.5122 ug/L       2.85293     -3.5122 ppb        2.85293  81.23%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                -81.8     -0.5256 ug/L       0.05065     -0.5256 ppb        0.05065   9.64%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                62.7      0.5118 ug/L       0.06685      0.5118 ppb        0.06685  13.06%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                      69.0      4.1705 ug/L       0.96577      4.1705 ppb        0.96577  23.16%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 21
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 12/19/2009 15:48:06
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5456.8	5456.8	98.0	%			15:49:59
1	Y RADIAL	5770.8	5770.8	97.62	%			15:49:59
1	Al 396.153Radial†	6682.6	6834.2	4958.7	ug/L	4958.7	ppb	15:49:59
1	Ca 317.933Radial†	3452.2	3502.5	4993.7	ug/L	4993.7	ppb	15:50:19
1	Fe 238.204 Radial†	611.5	613.0	5111.0	ug/L	5111.0	ppb	15:50:19
1	K 766.490 Radial†	30340.9	28242.7	4969.2	ug/L	4969.2	ppb	15:49:59
1	Mg 279.077 IEC†	167.2	169.2	5260.4	ug/L	5260.4	ppb	15:50:19
1	Na 589.592 Radial†	31459.9	32858.4	9807.3	ug/L	9807.3	ppb	15:49:59
1	Sr 421.552†	83578.5	85282.4	500.04	ug/L	500.04	ppb	15:49:59
1	Sc 361.383	909946.0	909946.0	101.23	%			15:51:18
1	Y 371.029	739529.2	739529.2	99.337	%			15:51:18
1	Ag 328.068†	115534.4	113763.1	493.43	ug/L	493.43	ppb	15:51:18
1	As 188.979†	1340.4	1358.9	497.65	ug/L	497.65	ppb	15:51:38
1	B 249.677†	23685.7	23424.4	478.81	ug/L	478.81	ppb	15:51:18
1	Ba 233.527†	73889.3	72995.6	497.41	ug/L	497.41	ppb	15:51:18
1	Be 313.107†	1481540.0	1468300.8	493.38	ug/L	493.38	ppb	15:51:18
1	Cd 226.502†	51137.3	50746.2	496.10	ug/L	496.10	ppb	15:51:18
1	Co 228.616†	28257.5	28001.9	490.32	ug/L	490.32	ppb	15:51:38
1	Cr 267.716†	49448.5	48768.6	495.25	ug/L	495.25	ppb	15:51:18
1	Cu 324.752†	184050.8	175762.8	496.85	ug/L	496.85	ppb	15:51:18
1	Mn 257.610†	510299.5	503618.4	497.17	ug/L	497.17	ppb	15:51:18
1	Mo 202.031†	8261.0	8140.9	493.14	ug/L	493.14	ppb	15:51:38
1	Ni 231.604†	22854.8	22484.0	490.94	ug/L	490.94	ppb	15:51:38
1	P 214.914†	5049.2	4729.9	2391.9	ug/L	2391.9	ppb	15:51:38
1	Pb 220.353†	4745.3	4751.8	502.26	ug/L	502.26	ppb	15:51:38
1	S 181.975 Axial†	856.1	796.8	976.47	ug/L	976.47	ppb	15:51:38
1	Sb 206.836†	1701.6	1639.7	498.30	ug/L	498.30	ppb	15:51:38
1	Se 196.026†	886.1	903.9	510.22	ug/L	510.22	ppb	15:51:38
1	Si 251.611†	88925.3	87269.2	2449.0	ug/L	2449.0	ppb	15:51:18
1	Sn 189.927†	3318.8	3275.1	491.78	ug/L	491.78	ppb	15:51:38
1	Ti 334.940†	343331.6	340554.7	492.27	ug/L	492.27	ppb	15:51:18
1	Tl 190.801†	1872.3	1897.6	495.53	ug/L	495.53	ppb	15:51:38
1	U 409.014†	14926.8	17118.0	470.04	ug/L	470.04	ppb	15:51:18
1	V 292.402†	76784.4	77322.5	498.36	ug/L	498.36	ppb	15:51:18
1	Zn 213.857†	62117.3	60570.3	492.36	ug/L	492.36	ppb	15:51:18
1	SiO2†	89425.3	87733.9	5286.6	ug/L	5286.6	ppb	15:52:38
2	Sc Radial	5540.9	5540.9	99.5	%			15:50:24
2	Y RADIAL	5835.1	5835.1	98.71	%			15:50:24
2	Al 396.153Radial†	6720.4	6768.7	4910.9	ug/L	4910.9	ppb	15:50:24
2	Ca 317.933Radial†	3424.5	3421.2	4877.7	ug/L	4877.7	ppb	15:50:44
2	Fe 238.204 Radial†	609.3	601.4	5014.5	ug/L	5014.5	ppb	15:50:44
2	K 766.490 Radial†	30680.2	28113.7	4946.5	ug/L	4946.5	ppb	15:50:24
2	Mg 279.077 IEC†	161.4	160.8	4998.1	ug/L	4998.1	ppb	15:50:44
2	Na 589.592 Radial†	31835.2	32748.3	9774.4	ug/L	9774.4	ppb	15:50:24
2	Sr 421.552†	84410.3	84823.8	497.35	ug/L	497.35	ppb	15:50:24
2	Sc 361.383	908929.3	908929.3	101.11	%			15:51:45
2	Y 371.029	739147.4	739147.4	99.286	%			15:51:45
2	Ag 328.068†	115425.3	113782.8	493.48	ug/L	493.48	ppb	15:51:45
2	As 188.979†	1336.6	1356.7	496.80	ug/L	496.80	ppb	15:52:05
2	B 249.677†	23652.4	23417.6	478.68	ug/L	478.68	ppb	15:51:45
2	Ba 233.527†	73881.5	73069.6	497.91	ug/L	497.91	ppb	15:51:45
2	Be 313.107†	1478888.2	1467315.5	493.05	ug/L	493.05	ppb	15:51:45
2	Cd 226.502†	51255.1	50919.3	497.80	ug/L	497.80	ppb	15:51:45
2	Co 228.616†	28254.0	28029.6	490.81	ug/L	490.81	ppb	15:52:05
2	Cr 267.716†	49460.2	48834.8	495.92	ug/L	495.92	ppb	15:51:45
2	Cu 324.752†	183706.5	175625.7	496.46	ug/L	496.46	ppb	15:51:45
2	Mn 257.610†	509664.9	503554.7	497.10	ug/L	497.10	ppb	15:51:45
2	Mo 202.031†	8294.5	8183.2	495.69	ug/L	495.69	ppb	15:52:05
2	Ni 231.604†	22883.7	22537.8	492.12	ug/L	492.12	ppb	15:52:05

2	P 214.914†	5034.3	4720.7	2387.2 ug/L	2387.2 ppb	15:52:05
2	Pb 220.353†	4714.4	4726.5	499.59 ug/L	499.59 ppb	15:52:05
2	S 181.975 Axial†	859.7	801.2	981.92 ug/L	981.92 ppb	15:52:05
2	Sb 206.836†	1708.6	1648.6	500.97 ug/L	500.97 ppb	15:52:05
2	Se 196.026†	884.9	903.6	509.79 ug/L	509.79 ppb	15:52:05
2	Si 251.611†	88978.5	87420.1	2453.3 ug/L	2453.3 ppb	15:51:45
2	Sn 189.927†	3309.6	3269.6	490.94 ug/L	490.94 ppb	15:52:05
2	Ti 334.940†	343069.5	340674.9	492.43 ug/L	492.43 ppb	15:51:45
2	Tl 190.801†	1883.1	1910.4	498.84 ug/L	498.84 ppb	15:52:05
2	U 409.014†	14889.8	17097.8	469.49 ug/L	469.49 ppb	15:51:45
2	V 292.402†	76718.5	77342.2	498.53 ug/L	498.53 ppb	15:51:45
2	Zn 213.857†	62132.6	60654.1	493.06 ug/L	493.06 ppb	15:51:45
2	SiO2†	89471.9	87878.9	5295.3 ug/L	5295.3 ppb	15:52:43
3	Sc Radial	5492.0	5492.0	98.6 %		15:50:49
3	Y RADIAL	5812.6	5812.6	98.33 %		15:50:49
3	Al 396.153Radial†	6726.5	6835.1	4959.2 ug/L	4959.2 ppb	15:50:49
3	Ca 317.933Radial†	3460.2	3488.0	4973.0 ug/L	4973.0 ppb	15:51:09
3	Fe 238.204 Radial†	616.9	614.5	5123.7 ug/L	5123.7 ppb	15:51:09
3	K 766.490 Radial†	30491.2	28196.4	4961.0 ug/L	4961.0 ppb	15:50:49
3	Mg 279.077 IEC†	169.2	170.1	5288.9 ug/L	5288.9 ppb	15:51:09
3	Na 589.592 Radial†	31820.4	33018.0	9854.9 ug/L	9854.9 ppb	15:50:49
3	Sr 421.552†	83963.5	85125.5	499.12 ug/L	499.12 ppb	15:50:49
3	Sc 361.383	908514.2	908514.2	101.07 %		15:52:13
3	Y 371.029	739032.0	739032.0	99.270 %		15:52:13
3	Ag 328.068†	115201.9	113614.0	492.79 ug/L	492.79 ppb	15:52:13
3	As 188.979†	1349.4	1369.9	501.63 ug/L	501.63 ppb	15:52:33
3	B 249.677†	23619.6	23395.8	478.22 ug/L	478.22 ppb	15:52:13
3	Ba 233.527†	73721.6	72944.8	497.06 ug/L	497.06 ppb	15:52:13
3	Be 313.107†	1478550.0	1467649.0	493.16 ug/L	493.16 ppb	15:52:13
3	Cd 226.502†	50902.9	50593.9	494.61 ug/L	494.61 ppb	15:52:13
3	Co 228.616†	28241.1	28029.6	490.81 ug/L	490.81 ppb	15:52:33
3	Cr 267.716†	49251.1	48650.3	494.05 ug/L	494.05 ppb	15:52:13
3	Cu 324.752†	183628.7	175631.7	496.48 ug/L	496.48 ppb	15:52:13
3	Mn 257.610†	508331.7	502465.8	496.03 ug/L	496.03 ppb	15:52:13
3	Mo 202.031†	8292.8	8185.2	495.82 ug/L	495.82 ppb	15:52:33
3	Ni 231.604†	22869.5	22534.2	492.04 ug/L	492.04 ppb	15:52:33
3	P 214.914†	5032.3	4721.1	2387.3 ug/L	2387.3 ppb	15:52:33
3	Pb 220.353†	4730.1	4744.1	501.45 ug/L	501.45 ppb	15:52:33
3	S 181.975 Axial†	869.7	811.5	994.52 ug/L	994.52 ppb	15:52:33
3	Sb 206.836†	1686.1	1627.1	494.59 ug/L	494.59 ppb	15:52:33
3	Se 196.026†	894.6	913.7	515.60 ug/L	515.60 ppb	15:52:33
3	Si 251.611†	88853.2	87336.3	2450.9 ug/L	2450.9 ppb	15:52:13
3	Sn 189.927†	3305.5	3267.1	490.57 ug/L	490.57 ppb	15:52:33
3	Ti 334.940†	342619.9	340385.1	492.02 ug/L	492.02 ppb	15:52:13
3	Tl 190.801†	1886.8	1914.9	499.99 ug/L	499.99 ppb	15:52:33
3	U 409.014†	15025.1	17238.5	473.36 ug/L	473.36 ppb	15:52:13
3	V 292.402†	76678.1	77336.9	498.49 ug/L	498.49 ppb	15:52:13
3	Zn 213.857†	61944.7	60496.3	491.75 ug/L	491.75 ppb	15:52:13
3	SiO2†	89131.2	87582.2	5277.3 ug/L	5277.3 ppb	15:52:48

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	909129.8	101.14	%	0.082				0.08%
Sc Radial	5496.6	98.7	%	0.76				0.77%
Y 371.029	739236.2	99.298	%	0.0350				0.04%
Y RADIAL	5806.2	98.22	%	0.552				0.56%
Ag 328.068†	113720.0	493.23	ug/L	0.387	493.23	ppb	0.387	0.08%
QC value within limits for Ag 328.068 Recovery = 98.65%								
Al 396.153Radial†	6812.7	4942.9	ug/L	27.76	4942.9	ppb	27.76	0.56%
QC value within limits for Al 396.153Radial Recovery = 98.86%								
As 188.979†	1361.8	498.69	ug/L	2.580	498.69	ppb	2.580	0.52%
QC value within limits for As 188.979 Recovery = 99.74%								
B 249.677†	23412.6	478.57	ug/L	0.310	478.57	ppb	0.310	0.06%
QC value within limits for B 249.677 Recovery = 95.71%								
Ba 233.527†	73003.3	497.46	ug/L	0.425	497.46	ppb	0.425	0.09%
QC value within limits for Ba 233.527 Recovery = 99.49%								
Be 313.107†	1467755.1	493.19	ug/L	0.168	493.19	ppb	0.168	0.03%
QC value within limits for Be 313.107 Recovery = 98.64%								
Ca 317.933Radial†	3470.6	4948.1	ug/L	61.86	4948.1	ppb	61.86	1.25%

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   QC value within limits for Ca 317.933Radial  Recovery = 98.96%
Cd 226.502†            50753.1      496.17 ug/L         1.598      496.17 ppb          1.598   0.32%
   QC value within limits for Cd 226.502  Recovery = 99.23%
Co 228.616†            28020.4      490.65 ug/L         0.285      490.65 ppb          0.285   0.06%
   QC value within limits for Co 228.616  Recovery = 98.13%
Cr 267.716†            48751.2      495.07 ug/L         0.948      495.07 ppb          0.948   0.19%
   QC value within limits for Cr 267.716  Recovery = 99.01%
Cu 324.752†           175673.4      496.60 ug/L         0.220      496.60 ppb          0.220   0.04%
   QC value within limits for Cu 324.752  Recovery = 99.32%
Fe 238.204 Radial†       609.6      5083.1 ug/L        59.68      5083.1 ppb         59.68   1.17%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.66%
K 766.490 Radial†      28184.3      4958.9 ug/L        11.50      4958.9 ppb         11.50   0.23%
   QC value within limits for K 766.490 Radial  Recovery = 99.18%
Mg 279.077 IEC†          166.7      5182.5 ug/L       160.31      5182.5 ppb        160.31   3.09%
   QC value within limits for Mg 279.077 IEC  Recovery = 103.65%
Mn 257.610†           503213.0      496.77 ug/L         0.637      496.77 ppb          0.637   0.13%
   QC value within limits for Mn 257.610  Recovery = 99.35%
Mo 202.031†             8169.8      494.89 ug/L         1.511      494.89 ppb          1.511   0.31%
   QC value within limits for Mo 202.031  Recovery = 98.98%
Na 589.592 Radial†     32874.9      9812.2 ug/L        40.47      9812.2 ppb         40.47   0.41%
   QC value within limits for Na 589.592 Radial  Recovery = 98.12%
Ni 231.604†            22518.7      491.70 ug/L         0.657      491.70 ppb          0.657   0.13%
   QC value within limits for Ni 231.604  Recovery = 98.34%
P 214.914†              4723.9      2388.8 ug/L         2.66      2388.8 ppb          2.66   0.11%
   QC value within limits for P 214.914  Recovery = 95.55%
Pb 220.353†             4740.8      501.10 ug/L         1.369      501.10 ppb          1.369   0.27%
   QC value within limits for Pb 220.353  Recovery = 100.22%
S 181.975 Axial†         803.1      984.31 ug/L         9.256      984.31 ppb          9.256   0.94%
   QC value within limits for S 181.975 Axial  Recovery = 98.43%
Sb 206.836†             1638.5      497.95 ug/L         3.206      497.95 ppb          3.206   0.64%
   QC value within limits for Sb 206.836  Recovery = 99.59%
Se 196.026†              907.1      511.87 ug/L         3.239      511.87 ppb          3.239   0.63%
   QC value within limits for Se 196.026  Recovery = 102.37%
Si 251.611†            87341.9      2451.1 ug/L         2.12      2451.1 ppb          2.12   0.09%
   QC value within limits for Si 251.611  Recovery = 98.04%
Sn 189.927†             3270.6      491.10 ug/L         0.616      491.10 ppb          0.616   0.13%
   QC value within limits for Sn 189.927  Recovery = 98.22%
Sr 421.552†            85077.2      498.84 ug/L         1.366      498.84 ppb          1.366   0.27%
   QC value within limits for Sr 421.552  Recovery = 99.77%
Ti 334.940†           340538.3      492.24 ug/L         0.209      492.24 ppb          0.209   0.04%
   QC value within limits for Ti 334.940  Recovery = 98.45%
Tl 190.801†             1907.6      498.12 ug/L         2.320      498.12 ppb          2.320   0.47%
   QC value within limits for Tl 190.801  Recovery = 99.62%
U 409.014†             17151.4      470.96 ug/L         2.092      470.96 ppb          2.092   0.44%
   QC value within limits for U 409.014  Recovery = 94.19%
V 292.402†             77333.8      498.46 ug/L         0.090      498.46 ppb          0.090   0.02%
   QC value within limits for V 292.402  Recovery = 99.69%
Zn 213.857†            60573.6      492.39 ug/L         0.658      492.39 ppb          0.658   0.13%
   QC value within limits for Zn 213.857  Recovery = 98.48%
SiO2†                  87731.7      5286.4 ug/L         8.99      5286.4 ppb          8.99   0.17%
   QC value within limits for SiO2  Recovery = 98.86%
All analyte(s) passed QC.
```

Sequence No.: 22
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 12/19/2009 15:54:59
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5502.9	5502.9	98.8	%			15:56:52
1	Y RADIAL	5861.7	5861.7	99.16	%			15:56:52
1	Al 396.153Radial†	3.3	19.7	14.337	ug/L	14.337	ppb	15:56:52
1	Ca 317.933Radial†	26.9	7.6	10.907	ug/L	10.907	ppb	15:57:12
1	Fe 238.204 Radial†	11.8	1.0	8.6196	ug/L	8.6196	ppb	15:57:12
1	K 766.490 Radial†	2797.3	117.5	20.727	ug/L	20.727	ppb	15:56:52
1	Mg 279.077 IEC†	0.6	-0.8	-25.151	ug/L	-25.151	ppb	15:57:12
1	Na 589.592 Radial†	-794.2	-41.8	-12.481	ug/L	-12.481	ppb	15:56:52
1	Sr 421.552†	24.9	37.0	0.2166	ug/L	0.2166	ppb	15:56:52
1	Sc 361.383	891223.9	891223.9	99.145	%			15:58:09
1	Y 371.029	736664.6	736664.6	98.952	%			15:58:09
1	Ag 328.068†	337.4	-29.6	-0.1232	ug/L	-0.1232	ppb	15:58:09
1	As 188.979†	-29.7	4.8	1.7548	ug/L	1.7548	ppb	15:58:29
1	B 249.677†	-334.9	-311.9	-6.4025	ug/L	-6.4025	ppb	15:58:29
1	Ba 233.527†	-1.9	0.7	0.0046	ug/L	0.0046	ppb	15:58:29
1	Be 313.107†	-4683.3	7.4	0.0027	ug/L	0.0027	ppb	15:58:09
1	Cd 226.502†	-224.2	3.0	0.0291	ug/L	0.0291	ppb	15:58:29
1	Co 228.616†	-77.7	8.7	0.1551	ug/L	0.1551	ppb	15:58:29
1	Cr 267.716†	110.3	31.1	0.3162	ug/L	0.3162	ppb	15:58:29
1	Cu 324.752†	6186.2	184.0	0.5203	ug/L	0.5203	ppb	15:58:09
1	Mn 257.610†	528.0	41.1	0.0418	ug/L	0.0418	ppb	15:58:29
1	Mo 202.031†	38.6	19.0	1.1528	ug/L	1.1528	ppb	15:58:29
1	Ni 231.604†	111.5	18.9	0.4124	ug/L	0.4124	ppb	15:58:29
1	P 214.914†	254.3	-1.5	-0.8904	ug/L	-0.8904	ppb	15:58:29
1	Pb 220.353†	-63.6	-0.1	-0.0042	ug/L	-0.0042	ppb	15:58:29
1	S 181.975 Axial†	46.9	-1.7	-2.1329	ug/L	-2.1329	ppb	15:58:29
1	Sb 206.836†	43.4	2.5	0.7788	ug/L	0.7788	ppb	15:58:29
1	Se 196.026†	-28.0	0.3	0.1964	ug/L	0.1964	ppb	15:58:29
1	Si 251.611†	657.6	85.8	2.3930	ug/L	2.3930	ppb	15:58:29
1	Sn 189.927†	4.3	0.9	0.1302	ug/L	0.1302	ppb	15:58:29
1	Ti 334.940†	-1313.7	62.6	0.0920	ug/L	0.0920	ppb	15:58:09
1	Tl 190.801†	-32.0	15.8	4.1049	ug/L	4.1049	ppb	15:58:29
1	U 409.014†	-2442.5	-91.3	-2.5176	ug/L	-2.5176	ppb	15:58:09
1	V 292.402†	-1470.9	-14.2	-0.0809	ug/L	-0.0809	ppb	15:58:09
1	Zn 213.857†	858.6	72.4	0.5908	ug/L	0.5908	ppb	15:58:29
1	SiO2†	663.1	62.1	3.7017	ug/L	3.7017	ppb	15:59:25
2	Sc Radial	5519.0	5519.0	99.1	%			15:57:17
2	Y RADIAL	5880.0	5880.0	99.47	%			15:57:17
2	Al 396.153Radial†	-17.5	-1.3	-0.9514	ug/L	-0.9514	ppb	15:57:17
2	Ca 317.933Radial†	28.3	8.9	12.759	ug/L	12.759	ppb	15:57:37
2	Fe 238.204 Radial†	8.6	-2.2	-18.688	ug/L	-18.688	ppb	15:57:37
2	K 766.490 Radial†	2738.6	50.1	8.8311	ug/L	8.8311	ppb	15:57:17
2	Mg 279.077 IEC†	-1.1	-2.5	-77.144	ug/L	-77.144	ppb	15:57:37
2	Na 589.592 Radial†	-793.3	-38.6	-11.517	ug/L	-11.517	ppb	15:57:17
2	Sr 421.552†	40.3	52.4	0.3074	ug/L	0.3074	ppb	15:57:17
2	Sc 361.383	893385.5	893385.5	99.386	%			15:58:34
2	Y 371.029	738756.3	738756.3	99.233	%			15:58:34
2	Ag 328.068†	358.0	-9.7	-0.0472	ug/L	-0.0472	ppb	15:58:34
2	As 188.979†	-38.4	-3.8	-1.3948	ug/L	-1.3948	ppb	15:58:54
2	B 249.677†	-322.6	-298.7	-6.1278	ug/L	-6.1278	ppb	15:58:54
2	Ba 233.527†	-8.4	-5.8	-0.0408	ug/L	-0.0408	ppb	15:58:54
2	Be 313.107†	-4669.3	32.9	0.0113	ug/L	0.0113	ppb	15:58:34
2	Cd 226.502†	-219.5	8.4	0.0838	ug/L	0.0838	ppb	15:58:54
2	Co 228.616†	-86.9	-0.4	-0.0064	ug/L	-0.0064	ppb	15:58:54
2	Cr 267.716†	108.0	28.5	0.2893	ug/L	0.2893	ppb	15:58:54
2	Cu 324.752†	6061.4	43.3	0.1213	ug/L	0.1213	ppb	15:58:34
2	Mn 257.610†	505.9	17.6	0.0169	ug/L	0.0169	ppb	15:58:54
2	Mo 202.031†	22.1	2.3	0.1387	ug/L	0.1387	ppb	15:58:54
2	Ni 231.604†	108.5	15.6	0.3417	ug/L	0.3417	ppb	15:58:54

2	P 214.914†	248.7	-7.8	-4.0793 ug/L	-4.0793 ppb	15:58:54
2	Pb 220.353†	-71.9	-8.3	-0.8703 ug/L	-0.8703 ppb	15:58:54
2	S 181.975 Axial†	49.0	0.3	0.3243 ug/L	0.3243 ppb	15:58:54
2	Sb 206.836†	42.8	1.8	0.5302 ug/L	0.5302 ppb	15:58:54
2	Se 196.026†	-32.4	-4.1	-2.3053 ug/L	-2.3053 ppb	15:58:54
2	Si 251.611†	649.1	75.6	2.1274 ug/L	2.1274 ppb	15:58:54
2	Sn 189.927†	1.5	-2.0	-0.2966 ug/L	-0.2966 ppb	15:58:54
2	Ti 334.940†	-1302.2	77.4	0.1137 ug/L	0.1137 ppb	15:58:34
2	Tl 190.801†	-36.6	11.3	2.9261 ug/L	2.9261 ppb	15:58:54
2	U 409.014†	-2456.3	-99.2	-2.7320 ug/L	-2.7320 ppb	15:58:34
2	V 292.402†	-1508.4	-48.3	-0.3096 ug/L	-0.3096 ppb	15:58:34
2	Zn 213.857†	854.6	66.3	0.5458 ug/L	0.5458 ppb	15:58:54
2	SiO2†	647.6	44.9	2.7095 ug/L	2.7095 ppb	15:59:30
3	Sc Radial	5457.3	5457.3	98.0 %		15:57:42
3	Y RADIAL	5794.9	5794.9	98.03 %		15:57:42
3	Al 396.153Radial†	-12.2	4.0	2.8721 ug/L	2.8721 ppb	15:57:42
3	Ca 317.933Radial†	25.1	6.0	8.5300 ug/L	8.5300 ppb	15:58:02
3	Fe 238.204 Radial†	8.6	-2.1	-17.457 ug/L	-17.457 ppb	15:58:02
3	K 766.490 Radial†	2776.5	120.0	21.168 ug/L	21.168 ppb	15:57:42
3	Mg 279.077 IEC†	2.5	1.2	36.307 ug/L	36.307 ppb	15:58:02
3	Na 589.592 Radial†	-826.2	-81.2	-24.241 ug/L	-24.241 ppb	15:57:42
3	Sr 421.552†	-5.3	6.4	0.0373 ug/L	0.0373 ppb	15:57:42
3	Sc 361.383	900010.8	900010.8	100.12 %		15:58:59
3	Y 371.029	745393.2	745393.2	100.12 %		15:58:59
3	Ag 328.068†	374.3	3.9	0.0073 ug/L	0.0073 ppb	15:58:59
3	As 188.979†	-32.4	2.5	0.9044 ug/L	0.9044 ppb	15:59:19
3	B 249.677†	-342.6	-316.2	-6.4877 ug/L	-6.4877 ppb	15:59:19
3	Ba 233.527†	-6.5	-3.9	-0.0277 ug/L	-0.0277 ppb	15:59:19
3	Be 313.107†	-4708.9	27.9	0.0098 ug/L	0.0098 ppb	15:58:59
3	Cd 226.502†	-221.9	7.6	0.0760 ug/L	0.0760 ppb	15:59:19
3	Co 228.616†	-74.2	13.0	0.2280 ug/L	0.2280 ppb	15:59:19
3	Cr 267.716†	104.9	24.6	0.2480 ug/L	0.2480 ppb	15:59:19
3	Cu 324.752†	5991.5	-71.4	-0.2025 ug/L	-0.2025 ppb	15:58:59
3	Mn 257.610†	520.2	28.1	0.0253 ug/L	0.0253 ppb	15:59:19
3	Mo 202.031†	26.6	6.7	0.4014 ug/L	0.4014 ppb	15:59:19
3	Ni 231.604†	109.3	15.6	0.3412 ug/L	0.3412 ppb	15:59:19
3	P 214.914†	248.9	-9.5	-4.9007 ug/L	-4.9007 ppb	15:59:19
3	Pb 220.353†	-83.5	-19.4	-2.0364 ug/L	-2.0364 ppb	15:59:19
3	S 181.975 Axial†	49.0	-0.1	-0.0900 ug/L	-0.0900 ppb	15:59:19
3	Sb 206.836†	43.7	2.4	0.7242 ug/L	0.7242 ppb	15:59:19
3	Se 196.026†	-38.9	-10.3	-5.6725 ug/L	-5.6725 ppb	15:59:19
3	Si 251.611†	652.0	73.8	2.0645 ug/L	2.0645 ppb	15:59:19
3	Sn 189.927†	6.9	3.4	0.5116 ug/L	0.5116 ppb	15:59:19
3	Ti 334.940†	-1239.3	149.8	0.2155 ug/L	0.2155 ppb	15:58:59
3	Tl 190.801†	-25.5	22.6	5.8597 ug/L	5.8597 ppb	15:59:19
3	U 409.014†	-2253.1	121.9	3.3591 ug/L	3.3591 ppb	15:58:59
3	V 292.402†	-1499.1	-27.9	-0.1619 ug/L	-0.1619 ppb	15:58:59
3	Zn 213.857†	866.5	71.8	0.5877 ug/L	0.5877 ppb	15:59:19
3	SiO2†	625.5	18.1	1.0595 ug/L	1.0595 ppb	15:59:35

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	894873.4	99.551	%	0.5093				0.51%
Sc Radial	5493.1	98.7	%	0.57				0.58%
Y 371.029	740271.4	99.437	%	0.6122				0.62%
Y RADIAL	5845.5	98.89	%	0.758				0.77%
Ag 328.068†	-11.8	-0.0544	ug/L	0.06559	-0.0544	ppb	0.06559	120.61%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	7.5	5.4193	ug/L	7.95634	5.4193	ppb	7.95634	146.81%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	1.2	0.4215	ug/L	1.62939	0.4215	ppb	1.62939	386.57%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-308.9	-6.3393	ug/L	0.18808	-6.3393	ppb	0.18808	2.97%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-3.0	-0.0213	ug/L	0.02339	-0.0213	ppb	0.02339	109.83%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	22.8	0.0079	ug/L	0.00460	0.0079	ppb	0.00460	58.18%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	7.5	10.732	ug/L	2.1197	10.732	ppb	2.1197	19.75%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                 6.3      0.0630 ug/L       0.02956      0.0630 ppb        0.02956  46.94%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                 7.1      0.1256 ug/L       0.11999      0.1256 ppb        0.11999  95.56%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                28.1      0.2845 ug/L       0.03437      0.2845 ppb        0.03437  12.08%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†                52.0      0.1463 ug/L       0.36204      0.1463 ppb        0.36204 247.39%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -1.1     -9.1751 ug/L      15.42291     -9.1751 ppb       15.42291 168.10%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          95.9      16.909 ug/L        6.9991      16.909 ppb         6.9991  41.39%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -0.7     -21.996 ug/L       56.7914     -21.996 ppb        56.7914 258.19%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                28.9      0.0280 ug/L       0.01267      0.0280 ppb        0.01267  45.24%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 9.3      0.5643 ug/L       0.52630      0.5643 ppb        0.52630  93.27%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        -53.9     -16.080 ug/L        7.0842     -16.080 ppb         7.0842  44.06%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                16.7      0.3651 ug/L       0.04097      0.3651 ppb        0.04097  11.22%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -6.3     -3.2902 ug/L       2.11844     -3.2902 ppb        2.11844  64.39%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -9.2     -0.9703 ug/L       1.01980     -0.9703 ppb        1.01980 105.10%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -0.5     -0.6329 ug/L       1.31546     -0.6329 ppb        1.31546 207.86%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 2.2      0.6777 ug/L       0.13065      0.6777 ppb        0.13065  19.28%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -4.7     -2.5938 ug/L       2.94507     -2.5938 ppb        2.94507 113.54%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                78.4      2.1950 ug/L       0.17434      2.1950 ppb        0.17434   7.94%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 0.8      0.1151 ug/L       0.40430      0.1151 ppb        0.40430 351.28%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                31.9      0.1871 ug/L       0.13745      0.1871 ppb        0.13745  73.45%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                96.6      0.1404 ug/L       0.06592      0.1404 ppb        0.06592  46.95%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                16.6      4.2969 ug/L       1.47619      4.2969 ppb        1.47619  34.35%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                -22.9     -0.6302 ug/L       3.45647     -0.6302 ppb        3.45647 548.50%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                -30.1     -0.1841 ug/L       0.11592     -0.1841 ppb        0.11592  62.95%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                70.2      0.5748 ug/L       0.02512      0.5748 ppb        0.02512   4.37%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                      41.7      2.4902 ug/L       1.33465      2.4902 ppb        1.33465  53.60%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 29
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 12/19/2009 16:42:50
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5581.6	5581.6	100	%			16:44:42
1	Y RADIAL	5900.6	5900.6	99.82	%			16:44:42
1	Al 396.153Radial†	6852.1	6850.9	4970.5	ug/L	4970.5	ppb	16:44:42
1	Ca 317.933Radial†	3449.8	3421.4	4877.9	ug/L	4877.9	ppb	16:45:02
1	Fe 238.204 Radial†	602.2	589.7	4918.2	ug/L	4918.2	ppb	16:45:02
1	K 766.490 Radial†	31002.7	28210.7	4963.6	ug/L	4963.6	ppb	16:44:42
1	Mg 279.077 IEC†	166.6	164.7	5120.9	ug/L	5120.9	ppb	16:45:02
1	Na 589.592 Radial†	31298.6	31979.9	9545.1	ug/L	9545.1	ppb	16:44:42
1	Sr 421.552†	84337.7	84133.0	493.30	ug/L	493.30	ppb	16:44:42
1	Sc 361.383	902282.5	902282.5	100.38	%			16:46:01
1	Y 371.029	733344.9	733344.9	98.506	%			16:46:01
1	Ag 328.068†	115367.1	114565.9	496.84	ug/L	496.84	ppb	16:46:01
1	As 188.979†	1340.1	1369.9	501.62	ug/L	501.62	ppb	16:46:21
1	B 249.677†	23585.9	23523.7	480.86	ug/L	480.86	ppb	16:46:01
1	Ba 233.527†	73941.7	73667.8	501.98	ug/L	501.98	ppb	16:46:01
1	Be 313.107†	1482335.9	1481524.6	497.82	ug/L	497.82	ppb	16:46:01
1	Cd 226.502†	51321.4	51358.7	502.11	ug/L	502.11	ppb	16:46:01
1	Co 228.616†	28384.4	28365.4	496.70	ug/L	496.70	ppb	16:46:21
1	Cr 267.716†	49494.7	49229.5	499.92	ug/L	499.92	ppb	16:46:01
1	Cu 324.752†	183556.8	176814.9	499.82	ug/L	499.82	ppb	16:46:01
1	Mn 257.610†	509896.9	507498.9	500.98	ug/L	500.98	ppb	16:46:01
1	Mo 202.031†	8333.5	8282.5	501.70	ug/L	501.70	ppb	16:46:21
1	Ni 231.604†	22978.2	22798.7	497.81	ug/L	497.81	ppb	16:46:21
1	P 214.914†	5065.8	4788.8	2422.4	ug/L	2422.4	ppb	16:46:21
1	Pb 220.353†	4736.3	4782.7	505.55	ug/L	505.55	ppb	16:46:21
1	S 181.975 Axial†	850.6	798.4	978.48	ug/L	978.48	ppb	16:46:21
1	Sb 206.836†	1720.3	1672.6	508.34	ug/L	508.34	ppb	16:46:21
1	Se 196.026†	901.2	926.4	521.90	ug/L	521.90	ppb	16:46:21
1	Si 251.611†	89013.0	88102.7	2472.4	ug/L	2472.4	ppb	16:46:01
1	Sn 189.927†	3332.0	3316.1	497.91	ug/L	497.91	ppb	16:46:21
1	Ti 334.940†	342769.3	342875.3	495.61	ug/L	495.61	ppb	16:46:01
1	Tl 190.801†	1894.1	1935.1	505.25	ug/L	505.25	ppb	16:46:21
1	U 409.014†	14825.1	17141.9	470.71	ug/L	470.71	ppb	16:46:01
1	V 292.402†	76764.1	77946.5	502.47	ug/L	502.47	ppb	16:46:01
1	Zn 213.857†	62252.1	61225.8	497.72	ug/L	497.72	ppb	16:46:01
1	SiO2†	89124.2	88184.3	5313.5	ug/L	5313.5	ppb	16:47:22
2	Sc Radial	5701.2	5701.2	102	%			16:45:07
2	Y RADIAL	6016.2	6016.2	101.8	%			16:45:07
2	Al 396.153Radial†	6768.8	6626.1	4806.7	ug/L	4806.7	ppb	16:45:07
2	Ca 317.933Radial†	3404.9	3305.3	4712.4	ug/L	4712.4	ppb	16:45:27
2	Fe 238.204 Radial†	591.6	566.8	4727.4	ug/L	4727.4	ppb	16:45:27
2	K 766.490 Radial†	30510.3	27081.1	4764.7	ug/L	4764.7	ppb	16:45:07
2	Mg 279.077 IEC†	162.3	157.1	4885.1	ug/L	4885.1	ppb	16:45:27
2	Na 589.592 Radial†	30684.4	30725.1	9170.6	ug/L	9170.6	ppb	16:45:07
2	Sr 421.552†	83411.7	81463.9	477.65	ug/L	477.65	ppb	16:45:07
2	Sc 361.383	901296.6	901296.6	100.27	%			16:46:29
2	Y 371.029	732977.0	732977.0	98.457	%			16:46:29
2	Ag 328.068†	115282.6	114607.2	496.95	ug/L	496.95	ppb	16:46:29
2	As 188.979†	1354.0	1385.2	507.14	ug/L	507.14	ppb	16:46:49
2	B 249.677†	23604.3	23567.7	481.79	ug/L	481.79	ppb	16:46:29
2	Ba 233.527†	73706.5	73513.8	500.93	ug/L	500.93	ppb	16:46:29
2	Be 313.107†	1480885.1	1481693.2	497.88	ug/L	497.88	ppb	16:46:29
2	Cd 226.502†	51119.2	51213.0	500.70	ug/L	500.70	ppb	16:46:29
2	Co 228.616†	28373.4	28385.3	497.05	ug/L	497.05	ppb	16:46:49
2	Cr 267.716†	49433.9	49222.8	499.85	ug/L	499.85	ppb	16:46:29
2	Cu 324.752†	183873.1	177330.4	501.26	ug/L	501.26	ppb	16:46:29
2	Mn 257.610†	508843.8	507004.3	500.47	ug/L	500.47	ppb	16:46:29
2	Mo 202.031†	8321.3	8279.4	501.49	ug/L	501.49	ppb	16:46:49
2	Ni 231.604†	22965.2	22810.8	498.08	ug/L	498.08	ppb	16:46:49

2	P 214.914†	5064.2	4792.7	2424.4 ug/L	2424.4 ppb	16:46:49
2	Pb 220.353†	4742.9	4794.4	506.76 ug/L	506.76 ppb	16:46:49
2	S 181.975 Axial†	859.4	808.1	990.43 ug/L	990.43 ppb	16:46:49
2	Sb 206.836†	1711.8	1666.1	506.46 ug/L	506.46 ppb	16:46:49
2	Se 196.026†	887.2	913.4	514.21 ug/L	514.21 ppb	16:46:49
2	Si 251.611†	88668.9	87856.5	2465.5 ug/L	2465.5 ppb	16:46:29
2	Sn 189.927†	3363.9	3351.5	503.21 ug/L	503.21 ppb	16:46:49
2	Ti 334.940†	342638.2	343118.1	495.95 ug/L	495.95 ppb	16:46:29
2	Tl 190.801†	1891.4	1934.5	505.08 ug/L	505.08 ppb	16:46:49
2	U 409.014†	14971.2	17303.8	475.20 ug/L	475.20 ppb	16:46:29
2	V 292.402†	76688.9	77955.2	502.56 ug/L	502.56 ppb	16:46:29
2	Zn 213.857†	62114.2	61156.1	497.17 ug/L	497.17 ppb	16:46:29
2	SiO2†	88702.1	87860.4	5294.0 ug/L	5294.0 ppb	16:47:27
3	Sc Radial	5661.8	5661.8	102 %		16:45:33
3	Y RADIAL	5973.2	5973.2	101.0 %		16:45:33
3	Al 396.153Radial†	6819.7	6722.2	4876.9 ug/L	4876.9 ppb	16:45:33
3	Ca 317.933Radial†	3477.2	3399.6	4846.8 ug/L	4846.8 ppb	16:45:53
3	Fe 238.204 Radial†	605.1	584.1	4871.2 ug/L	4871.2 ppb	16:45:53
3	K 766.490 Radial†	30860.2	27632.5	4861.8 ug/L	4861.8 ppb	16:45:33
3	Mg 279.077 IEC†	164.2	160.0	4974.5 ug/L	4974.5 ppb	16:45:53
3	Na 589.592 Radial†	30863.5	31109.8	9285.4 ug/L	9285.4 ppb	16:45:33
3	Sr 421.552†	84014.4	82623.2	484.45 ug/L	484.45 ppb	16:45:33
3	Sc 361.383	903722.1	903722.1	100.54 %		16:46:56
3	Y 371.029	734881.8	734881.8	98.713 %		16:46:56
3	Ag 328.068†	115519.5	114534.4	496.69 ug/L	496.69 ppb	16:46:56
3	As 188.979†	1335.5	1363.2	499.19 ug/L	499.19 ppb	16:47:16
3	B 249.677†	23705.9	23605.6	482.55 ug/L	482.55 ppb	16:46:56
3	Ba 233.527†	73823.1	73432.5	500.38 ug/L	500.38 ppb	16:46:56
3	Be 313.107†	1481402.3	1478243.4	496.72 ug/L	496.72 ppb	16:46:56
3	Cd 226.502†	51023.0	50980.4	498.41 ug/L	498.41 ppb	16:46:56
3	Co 228.616†	28222.8	28159.6	493.09 ug/L	493.09 ppb	16:47:16
3	Cr 267.716†	49381.1	49038.0	497.98 ug/L	497.98 ppb	16:46:56
3	Cu 324.752†	184303.5	177266.4	501.09 ug/L	501.09 ppb	16:46:56
3	Mn 257.610†	509275.6	506071.7	499.57 ug/L	499.57 ppb	16:46:56
3	Mo 202.031†	8279.2	8215.3	497.63 ug/L	497.63 ppb	16:47:16
3	Ni 231.604†	22896.3	22680.7	495.24 ug/L	495.24 ppb	16:47:16
3	P 214.914†	5028.0	4743.2	2398.4 ug/L	2398.4 ppb	16:47:16
3	Pb 220.353†	4713.2	4752.2	502.30 ug/L	502.30 ppb	16:47:16
3	S 181.975 Axial†	851.5	798.0	977.99 ug/L	977.99 ppb	16:47:16
3	Sb 206.836†	1710.5	1660.2	504.56 ug/L	504.56 ppb	16:47:16
3	Se 196.026†	887.7	911.5	513.62 ug/L	513.62 ppb	16:47:16
3	Si 251.611†	88817.0	87766.5	2463.0 ug/L	2463.0 ppb	16:46:56
3	Sn 189.927†	3337.5	3316.3	497.94 ug/L	497.94 ppb	16:47:16
3	Ti 334.940†	343209.3	342769.0	495.46 ug/L	495.46 ppb	16:46:56
3	Tl 190.801†	1890.5	1928.5	503.56 ug/L	503.56 ppb	16:47:16
3	U 409.014†	14851.3	17144.4	470.79 ug/L	470.79 ppb	16:46:56
3	V 292.402†	76848.9	77909.0	502.18 ug/L	502.18 ppb	16:46:56
3	Zn 213.857†	62075.9	60951.8	495.49 ug/L	495.49 ppb	16:46:56
3	SiO2†	89335.9	88253.5	5317.9 ug/L	5317.9 ppb	16:47:32

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	902433.7	100.39	%	0.136				0.14%
Sc Radial	5648.2	101	%	1.1				1.08%
Y 371.029	733734.6	98.559	%	0.1357				0.14%
Y RADIAL	5963.3	100.9	%	0.99				0.98%
Ag 328.068†	114569.2	496.83	ug/L	0.133	496.83	ppb	0.133	0.03%
QC value within limits for Ag 328.068 Recovery = 99.37%								
Al 396.153Radial†	6733.1	4884.7	ug/L	82.17	4884.7	ppb	82.17	1.68%
QC value within limits for Al 396.153Radial Recovery = 97.69%								
As 188.979†	1372.8	502.65	ug/L	4.077	502.65	ppb	4.077	0.81%
QC value within limits for As 188.979 Recovery = 100.53%								
B 249.677†	23565.6	481.73	ug/L	0.849	481.73	ppb	0.849	0.18%
QC value within limits for B 249.677 Recovery = 96.35%								
Ba 233.527†	73538.1	501.09	ug/L	0.814	501.09	ppb	0.814	0.16%
QC value within limits for Ba 233.527 Recovery = 100.22%								
Be 313.107†	1480487.1	497.47	ug/L	0.653	497.47	ppb	0.653	0.13%
QC value within limits for Be 313.107 Recovery = 99.49%								
Ca 317.933Radial†	3375.4	4812.4	ug/L	87.96	4812.4	ppb	87.96	1.83%

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   QC value within limits for Ca 317.933Radial  Recovery = 96.25%
Cd 226.502†            51184.0      500.41 ug/L         1.866      500.41 ppb          1.866   0.37%
   QC value within limits for Cd 226.502  Recovery = 100.08%
Co 228.616†            28303.4      495.61 ug/L         2.193      495.61 ppb          2.193   0.44%
   QC value within limits for Co 228.616  Recovery = 99.12%
Cr 267.716†            49163.4      499.25 ug/L         1.101      499.25 ppb          1.101   0.22%
   QC value within limits for Cr 267.716  Recovery = 99.85%
Cu 324.752†           177137.2      500.72 ug/L         0.790      500.72 ppb          0.790   0.16%
   QC value within limits for Cu 324.752  Recovery = 100.14%
Fe 238.204 Radial†       580.2      4838.9 ug/L        99.38      4838.9 ppb         99.38   2.05%
   QC value within limits for Fe 238.204 Radial  Recovery = 96.78%
K 766.490 Radial†      27641.4      4863.4 ug/L        99.47      4863.4 ppb         99.47   2.05%
   QC value within limits for K 766.490 Radial  Recovery = 97.27%
Mg 279.077 IEC†          160.6      4993.5 ug/L       119.03      4993.5 ppb        119.03   2.38%
   QC value within limits for Mg 279.077 IEC  Recovery = 99.87%
Mn 257.610†           506858.3      500.34 ug/L         0.714      500.34 ppb          0.714   0.14%
   QC value within limits for Mn 257.610  Recovery = 100.07%
Mo 202.031†             8259.0      500.27 ug/L         2.295      500.27 ppb          2.295   0.46%
   QC value within limits for Mo 202.031  Recovery = 100.05%
Na 589.592 Radial†     31271.6      9333.7 ug/L       191.86      9333.7 ppb        191.86   2.06%
   QC value within limits for Na 589.592 Radial  Recovery = 93.34%
Ni 231.604†            22763.4      497.04 ug/L         1.568      497.04 ppb          1.568   0.32%
   QC value within limits for Ni 231.604  Recovery = 99.41%
P 214.914†              4774.9      2415.0 ug/L        14.46      2415.0 ppb         14.46   0.60%
   QC value within limits for P 214.914  Recovery = 96.60%
Pb 220.353†             4776.4      504.87 ug/L         2.303      504.87 ppb          2.303   0.46%
   QC value within limits for Pb 220.353  Recovery = 100.97%
S 181.975 Axial†         801.5      982.30 ug/L         7.047      982.30 ppb          7.047   0.72%
   QC value within limits for S 181.975 Axial  Recovery = 98.23%
Sb 206.836†             1666.3      506.45 ug/L         1.892      506.45 ppb          1.892   0.37%
   QC value within limits for Sb 206.836  Recovery = 101.29%
Se 196.026†              917.1      516.58 ug/L         4.624      516.58 ppb          4.624   0.90%
   QC value within limits for Se 196.026  Recovery = 103.32%
Si 251.611†            87908.6      2467.0 ug/L          4.86      2467.0 ppb           4.86   0.20%
   QC value within limits for Si 251.611  Recovery = 98.68%
Sn 189.927†             3328.0      499.69 ug/L         3.050      499.69 ppb          3.050   0.61%
   QC value within limits for Sn 189.927  Recovery = 99.94%
Sr 421.552†            82740.0      485.13 ug/L         7.847      485.13 ppb          7.847   1.62%
   QC value within limits for Sr 421.552  Recovery = 97.03%
Ti 334.940†           342920.8      495.68 ug/L         0.253      495.68 ppb          0.253   0.05%
   QC value within limits for Ti 334.940  Recovery = 99.14%
Tl 190.801†             1932.7      504.63 ug/L         0.932      504.63 ppb          0.932   0.18%
   QC value within limits for Tl 190.801  Recovery = 100.93%
U 409.014†             17196.7      472.23 ug/L         2.567      472.23 ppb          2.567   0.54%
   QC value within limits for U 409.014  Recovery = 94.45%
V 292.402†             77936.9      502.40 ug/L         0.197      502.40 ppb          0.197   0.04%
   QC value within limits for V 292.402  Recovery = 100.48%
Zn 213.857†            61111.2      496.79 ug/L         1.158      496.79 ppb          1.158   0.23%
   QC value within limits for Zn 213.857  Recovery = 99.36%
SiO2†                  88099.4      5308.4 ug/L        12.72      5308.4 ppb         12.72   0.24%
   QC value within limits for SiO2  Recovery = 99.27%
All analyte(s) passed QC.
```

Sequence No.: 30
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 12/19/2009 16:49:41
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5356.2	5356.2	96.2	%			16:51:34
1	Y RADIAL	5696.5	5696.5	96.36	%			16:51:34
1	Al 396.153Radial†	-30.5	-15.3	-11.178	ug/L	-11.178	ppb	16:51:34
1	Ca 317.933Radial†	26.2	7.6	10.871	ug/L	10.871	ppb	16:51:54
1	Fe 238.204 Radial†	10.0	-0.5	-4.0367	ug/L	-4.0367	ppb	16:51:54
1	K 766.490 Radial†	2948.5	352.3	62.097	ug/L	62.097	ppb	16:51:34
1	Mg 279.077 IEC†	2.1	0.8	24.492	ug/L	24.492	ppb	16:51:54
1	Na 589.592 Radial†	-791.8	-61.3	-18.301	ug/L	-18.301	ppb	16:51:34
1	Sr 421.552†	21.1	33.8	0.1979	ug/L	0.1979	ppb	16:51:34
1	Sc 361.383	901341.2	901341.2	100.27	%			16:52:51
1	Y 371.029	747084.1	747084.1	100.35	%			16:52:51
1	Ag 328.068†	441.6	70.5	0.3030	ug/L	0.3030	ppb	16:52:51
1	As 188.979†	-30.5	4.4	1.5941	ug/L	1.5941	ppb	16:53:11
1	B 249.677†	-432.7	-405.6	-8.3225	ug/L	-8.3225	ppb	16:53:11
1	Ba 233.527†	-2.5	0.1	-0.0001	ug/L	-0.0001	ppb	16:53:11
1	Be 313.107†	-4667.7	76.1	0.0257	ug/L	0.0257	ppb	16:52:51
1	Cd 226.502†	-221.9	7.9	0.0774	ug/L	0.0774	ppb	16:53:11
1	Co 228.616†	-90.5	-3.1	-0.0544	ug/L	-0.0544	ppb	16:53:11
1	Cr 267.716†	81.7	1.3	0.0130	ug/L	0.0130	ppb	16:53:11
1	Cu 324.752†	6027.8	-44.1	-0.1247	ug/L	-0.1247	ppb	16:52:51
1	Mn 257.610†	523.8	30.9	0.0296	ug/L	0.0296	ppb	16:53:11
1	Mo 202.031†	25.2	5.2	0.3155	ug/L	0.3155	ppb	16:53:11
1	Ni 231.604†	105.8	11.9	0.2611	ug/L	0.2611	ppb	16:53:11
1	P 214.914†	257.3	-1.5	-0.7251	ug/L	-0.7251	ppb	16:53:11
1	Pb 220.353†	-66.0	-1.8	-0.1866	ug/L	-0.1866	ppb	16:53:11
1	S 181.975 Axial†	43.6	-5.5	-6.7828	ug/L	-6.7828	ppb	16:53:11
1	Sb 206.836†	25.8	-15.5	-4.5984	ug/L	-4.5984	ppb	16:53:11
1	Se 196.026†	-34.2	-5.6	-3.0630	ug/L	-3.0630	ppb	16:53:11
1	Si 251.611†	633.5	54.3	1.5008	ug/L	1.5008	ppb	16:53:11
1	Sn 189.927†	13.0	9.5	1.4191	ug/L	1.4191	ppb	16:53:11
1	Ti 334.940†	-1333.8	57.4	0.0846	ug/L	0.0846	ppb	16:52:51
1	Tl 190.801†	-32.5	15.7	4.0721	ug/L	4.0721	ppb	16:53:11
1	U 409.014†	-2461.3	-82.5	-2.2713	ug/L	-2.2713	ppb	16:52:51
1	V 292.402†	-1529.1	-55.5	-0.3520	ug/L	-0.3520	ppb	16:52:51
1	Zn 213.857†	846.2	50.4	0.4110	ug/L	0.4110	ppb	16:53:11
1	SiO2†	680.0	71.5	4.2611	ug/L	4.2611	ppb	16:54:07
2	Sc Radial	5592.1	5592.1	100	%			16:51:59
2	Y RADIAL	5949.9	5949.9	100.7	%			16:51:59
2	Al 396.153Radial†	-19.8	-3.3	-2.4472	ug/L	-2.4472	ppb	16:51:59
2	Ca 317.933Radial†	31.9	12.1	17.321	ug/L	17.321	ppb	16:52:19
2	Fe 238.204 Radial†	11.4	0.5	4.1575	ug/L	4.1575	ppb	16:52:19
2	K 766.490 Radial†	2781.3	56.6	9.9699	ug/L	9.9699	ppb	16:51:59
2	Mg 279.077 IEC†	4.1	2.7	82.457	ug/L	82.457	ppb	16:52:19
2	Na 589.592 Radial†	-766.5	-1.4	-0.4208	ug/L	-0.4208	ppb	16:51:59
2	Sr 421.552†	28.6	40.3	0.2359	ug/L	0.2359	ppb	16:51:59
2	Sc 361.383	904486.1	904486.1	100.62	%			16:53:16
2	Y 371.029	748570.8	748570.8	100.55	%			16:53:16
2	Ag 328.068†	408.0	35.6	0.1552	ug/L	0.1552	ppb	16:53:16
2	As 188.979†	-28.5	6.5	2.3731	ug/L	2.3731	ppb	16:53:36
2	B 249.677†	-355.2	-327.1	-6.7128	ug/L	-6.7128	ppb	16:53:36
2	Ba 233.527†	-4.2	-1.6	-0.0109	ug/L	-0.0109	ppb	16:53:36
2	Be 313.107†	-4690.6	69.5	0.0234	ug/L	0.0234	ppb	16:53:16
2	Cd 226.502†	-218.7	11.8	0.1150	ug/L	0.1150	ppb	16:53:36
2	Co 228.616†	-80.9	6.7	0.1178	ug/L	0.1178	ppb	16:53:36
2	Cr 267.716†	121.5	40.6	0.4120	ug/L	0.4120	ppb	16:53:36
2	Cu 324.752†	6129.6	36.3	0.1027	ug/L	0.1027	ppb	16:53:16
2	Mn 257.610†	517.2	22.5	0.0211	ug/L	0.0211	ppb	16:53:36
2	Mo 202.031†	29.1	9.0	0.5480	ug/L	0.5480	ppb	16:53:36
2	Ni 231.604†	104.1	9.9	0.2161	ug/L	0.2161	ppb	16:53:36

2	P 214.914†	240.5	-19.1	-9.9832	ug/L	-9.9832 ppb	16:53:36
2	Pb 220.353†	-83.2	-18.6	-1.9647	ug/L	-1.9647 ppb	16:53:36
2	S 181.975 Axial†	54.1	4.7	5.8192	ug/L	5.8192 ppb	16:53:36
2	Sb 206.836†	41.4	-0.0	-0.0181	ug/L	-0.0181 ppb	16:53:36
2	Se 196.026†	-22.2	6.4	3.5270	ug/L	3.5270 ppb	16:53:36
2	Si 251.611†	636.9	55.5	1.5531	ug/L	1.5531 ppb	16:53:36
2	Sn 189.927†	0.6	-2.9	-0.4300	ug/L	-0.4300 ppb	16:53:36
2	Ti 334.940†	-1367.0	29.0	0.0432	ug/L	0.0432 ppb	16:53:16
2	Tl 190.801†	-46.8	1.5	0.3983	ug/L	0.3983 ppb	16:53:36
2	U 409.014†	-2432.5	-45.3	-1.2501	ug/L	-1.2501 ppb	16:53:16
2	V 292.402†	-1489.0	-10.4	-0.0599	ug/L	-0.0599 ppb	16:53:16
2	Zn 213.857†	855.6	56.8	0.4613	ug/L	0.4613 ppb	16:53:36
2	SiO2†	665.1	54.4	3.2668	ug/L	3.2668 ppb	16:54:12
3	Sc Radial	5629.6	5629.6	101	%		16:52:24
3	Y RADIAL	6005.7	6005.7	101.6	%		16:52:24
3	Al 396.153Radial†	-7.1	9.4	6.8037	ug/L	6.8037 ppb	16:52:24
3	Ca 317.933Radial†	30.4	10.5	14.952	ug/L	14.952 ppb	16:52:44
3	Fe 238.204 Radial†	10.4	-0.6	-4.6195	ug/L	-4.6195 ppb	16:52:44
3	K 766.490 Radial†	2850.6	106.6	18.797	ug/L	18.797 ppb	16:52:24
3	Mg 279.077 IEC†	2.3	0.9	28.577	ug/L	28.577 ppb	16:52:44
3	Na 589.592 Radial†	-820.3	-49.5	-14.786	ug/L	-14.786 ppb	16:52:24
3	Sr 421.552†	23.9	35.4	0.2076	ug/L	0.2076 ppb	16:52:24
3	Sc 361.383	898232.8	898232.8	99.925	%		16:53:41
3	Y 371.029	744253.0	744253.0	99.972	%		16:53:41
3	Ag 328.068†	289.1	-80.6	-0.3460	ug/L	-0.3460 ppb	16:53:41
3	As 188.979†	-20.9	13.9	5.0532	ug/L	5.0532 ppb	16:54:01
3	B 249.677†	-391.6	-366.0	-7.5102	ug/L	-7.5102 ppb	16:54:01
3	Ba 233.527†	-3.5	-0.9	-0.0054	ug/L	-0.0054 ppb	16:54:01
3	Be 313.107†	-4718.3	9.2	0.0031	ug/L	0.0031 ppb	16:53:41
3	Cd 226.502†	-215.7	13.3	0.1312	ug/L	0.1312 ppb	16:54:01
3	Co 228.616†	-83.2	3.9	0.0702	ug/L	0.0702 ppb	16:54:01
3	Cr 267.716†	94.0	13.9	0.1422	ug/L	0.1422 ppb	16:54:01
3	Cu 324.752†	6171.6	120.6	0.3406	ug/L	0.3406 ppb	16:53:41
3	Mn 257.610†	535.5	44.4	0.0428	ug/L	0.0428 ppb	16:54:01
3	Mo 202.031†	35.5	15.7	0.9477	ug/L	0.9477 ppb	16:54:01
3	Ni 231.604†	118.5	25.0	0.5457	ug/L	0.5457 ppb	16:54:01
3	P 214.914†	255.8	-2.1	-1.1233	ug/L	-1.1233 ppb	16:54:01
3	Pb 220.353†	-79.6	-15.6	-1.6435	ug/L	-1.6435 ppb	16:54:01
3	S 181.975 Axial†	52.0	3.0	3.7069	ug/L	3.7069 ppb	16:54:01
3	Sb 206.836†	45.7	4.5	1.3815	ug/L	1.3815 ppb	16:54:01
3	Se 196.026†	-25.6	2.9	1.5906	ug/L	1.5906 ppb	16:54:01
3	Si 251.611†	634.5	57.5	1.5951	ug/L	1.5951 ppb	16:54:01
3	Sn 189.927†	11.0	7.5	1.1278	ug/L	1.1278 ppb	16:54:01
3	Ti 334.940†	-1383.7	2.8	0.0057	ug/L	0.0057 ppb	16:53:41
3	Tl 190.801†	-40.3	7.7	2.0025	ug/L	2.0025 ppb	16:54:01
3	U 409.014†	-2445.3	-74.9	-2.0639	ug/L	-2.0639 ppb	16:53:41
3	V 292.402†	-1423.1	45.2	0.2984	ug/L	0.2984 ppb	16:53:41
3	Zn 213.857†	852.2	59.3	0.4823	ug/L	0.4823 ppb	16:54:01
3	SiO2†	635.0	28.8	1.6888	ug/L	1.6888 ppb	16:54:17

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	901353.4	100.27	%	0.348				0.35%
Sc Radial	5526.0	99.3	%	2.66				2.68%
Y 371.029	746636.0	100.29	%	0.295				0.29%
Y RADIAL	5884.0	99.54	%	2.788				2.80%
Ag 328.068†	8.5	0.0374	ug/L	0.34017	0.0374	ppb	0.34017	909.61%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-3.1	-2.2739	ug/L	8.99212	-2.2739	ppb	8.99212	395.46%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	8.3	3.0068	ug/L	1.81450	3.0068	ppb	1.81450	60.35%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-366.2	-7.5152	ug/L	0.80485	-7.5152	ppb	0.80485	10.71%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-0.8	-0.0055	ug/L	0.00541	-0.0055	ppb	0.00541	98.56%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	51.6	0.0174	ug/L	0.01242	0.0174	ppb	0.01242	71.43%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	10.1	14.381	ug/L	3.2628	14.381	ppb	3.2628	22.69%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                11.0      0.1079 ug/L       0.02763      0.1079 ppb        0.02763  25.61%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                 2.5      0.0445 ug/L       0.08887      0.0445 ppb        0.08887 199.64%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                18.6      0.1890 ug/L       0.20357      0.1890 ppb        0.20357 107.69%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†                37.6      0.1062 ug/L       0.23269      0.1062 ppb        0.23269 219.13%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -0.2     -1.4996 ug/L       4.90783     -1.4996 ppb        4.90783 327.28%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         171.8      30.288 ug/L       27.8987      30.288 ppb        27.8987  92.11%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             1.5      45.175 ug/L       32.3515      45.175 ppb        32.3515  71.61%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                32.6      0.0312 ug/L       0.01093      0.0312 ppb        0.01093  35.04%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                10.0      0.6037 ug/L       0.31976      0.6037 ppb        0.31976  52.97%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        -37.4     -11.169 ug/L        9.4730     -11.169 ppb         9.4730  84.81%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                15.6      0.3410 ug/L       0.17875      0.3410 ppb        0.17875  52.42%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -7.5     -3.9439 ug/L       5.23400     -3.9439 ppb        5.23400 132.71%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               -12.0     -1.2649 ug/L       0.94759     -1.2649 ppb        0.94759  74.91%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            0.7      0.9144 ug/L       6.74914      0.9144 ppb        6.74914 738.06%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                -3.7     -1.0783 ug/L       3.12772     -1.0783 ppb        3.12772 290.05%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 1.3      0.6849 ug/L       3.38706      0.6849 ppb        3.38706 494.56%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                55.8      1.5497 ug/L       0.04723      1.5497 ppb        0.04723   3.05%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 4.7      0.7056 ug/L       0.99423      0.7056 ppb        0.99423 140.90%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                36.5      0.2138 ug/L       0.01977      0.2138 ppb        0.01977   9.25%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                29.7      0.0445 ug/L       0.03944      0.0445 ppb        0.03944  88.61%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 8.3      2.1577 ug/L       1.84182      2.1577 ppb        1.84182  85.36%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                -67.6     -1.8618 ug/L       0.53976     -1.8618 ppb        0.53976  28.99%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 -6.9     -0.0378 ug/L       0.32577     -0.0378 ppb        0.32577 860.84%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                55.5      0.4515 ug/L       0.03659      0.4515 ppb        0.03659   8.10%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                      51.6      3.0722 ug/L       1.29713      3.0722 ppb        1.29713  42.22%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 36
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 12/19/2009 17:30:40
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	6232.9	6232.9	112	%			17:32:32
1	Y RADIAL	6556.3	6556.3	110.9	%			17:32:32
1	Al 396.153Radial†	6769.6	6063.1	4396.7	ug/L	4396.7	ppb	17:32:32
1	Ca 317.933Radial†	3480.7	3089.4	4404.7	ug/L	4404.7	ppb	17:32:52
1	Fe 238.204 Radial†	608.0	532.2	4440.0	ug/L	4440.0	ppb	17:32:52
1	K 766.490 Radial†	30508.1	24537.8	4316.6	ug/L	4316.6	ppb	17:32:32
1	Mg 279.077 IEC†	167.8	148.5	4617.3	ug/L	4617.3	ppb	17:32:52
1	Na 589.592 Radial†	31462.1	28864.0	8615.1	ug/L	8615.1	ppb	17:32:32
1	Sr 421.552†	84122.0	75150.7	440.63	ug/L	440.63	ppb	17:32:32
1	Sc 361.383	909689.5	909689.5	101.20	%			17:33:50
1	Y 371.029	740657.6	740657.6	99.489	%			17:33:50
1	Ag 328.068†	118953.9	117174.3	507.94	ug/L	507.94	ppb	17:33:55
1	As 188.979†	1367.4	1386.0	507.44	ug/L	507.44	ppb	17:34:15
1	B 249.677†	24326.1	24063.7	491.97	ug/L	491.97	ppb	17:33:55
1	Ba 233.527†	75515.2	74622.9	508.47	ug/L	508.47	ppb	17:33:55
1	Be 313.107†	1515204.0	1501978.7	504.69	ug/L	504.69	ppb	17:33:50
1	Cd 226.502†	52397.2	52005.4	508.49	ug/L	508.49	ppb	17:33:55
1	Co 228.616†	29381.8	29120.7	509.90	ug/L	509.90	ppb	17:33:55
1	Cr 267.716†	50815.3	50133.0	509.08	ug/L	509.08	ppb	17:33:55
1	Cu 324.752†	187740.9	179460.4	507.27	ug/L	507.27	ppb	17:33:55
1	Mn 257.610†	518766.4	512127.1	505.50	ug/L	505.50	ppb	17:33:50
1	Mo 202.031†	8309.6	8191.3	496.14	ug/L	496.14	ppb	17:34:15
1	Ni 231.604†	23687.6	23313.3	509.05	ug/L	509.05	ppb	17:33:55
1	P 214.914†	5085.1	4766.8	2409.9	ug/L	2409.9	ppb	17:34:15
1	Pb 220.353†	4732.3	4740.2	500.97	ug/L	500.97	ppb	17:34:15
1	S 181.975 Axial†	862.4	803.1	984.42	ug/L	984.42	ppb	17:34:15
1	Sb 206.836†	1731.8	1670.1	507.20	ug/L	507.20	ppb	17:34:15
1	Se 196.026†	893.3	911.2	512.10	ug/L	512.10	ppb	17:34:15
1	Si 251.611†	91244.9	89586.1	2514.5	ug/L	2514.5	ppb	17:33:55
1	Sn 189.927†	3339.1	3296.1	494.86	ug/L	494.86	ppb	17:34:15
1	Ti 334.940†	349174.4	346423.9	500.70	ug/L	500.70	ppb	17:33:50
1	Tl 190.801†	1906.2	1931.7	504.34	ug/L	504.34	ppb	17:34:15
1	U 409.014†	16159.4	18340.1	503.77	ug/L	503.77	ppb	17:33:55
1	V 292.402†	78907.4	79441.7	512.02	ug/L	512.02	ppb	17:33:55
1	Zn 213.857†	63813.7	62263.9	506.21	ug/L	506.21	ppb	17:33:55
1	SiO2†	90418.4	88740.2	5347.8	ug/L	5347.8	ppb	17:35:23
2	Sc Radial	5407.4	5407.4	97.1	%			17:32:57
2	Y RADIAL	5741.6	5741.6	97.13	%			17:32:57
2	Al 396.153Radial†	6759.9	6976.1	5061.6	ug/L	5061.6	ppb	17:32:57
2	Ca 317.933Radial†	3501.1	3585.0	5111.3	ug/L	5111.3	ppb	17:33:17
2	Fe 238.204 Radial†	616.6	623.9	5202.7	ug/L	5202.7	ppb	17:33:17
2	K 766.490 Radial†	30641.6	28835.1	5073.5	ug/L	5073.5	ppb	17:32:57
2	Mg 279.077 IEC†	164.2	167.7	5211.6	ug/L	5211.6	ppb	17:33:17
2	Na 589.592 Radial†	31208.8	32893.2	9817.7	ug/L	9817.7	ppb	17:32:57
2	Sr 421.552†	83521.3	86002.6	504.26	ug/L	504.26	ppb	17:32:57
2	Sc 361.383	898709.0	898709.0	99.978	%			17:34:21
2	Y 371.029	730582.1	730582.1	98.135	%			17:34:21
2	Ag 328.068†	117566.8	117223.0	508.41	ug/L	508.41	ppb	17:34:26
2	As 188.979†	1359.3	1394.5	510.63	ug/L	510.63	ppb	17:34:46
2	B 249.677†	24106.9	24138.2	493.40	ug/L	493.40	ppb	17:34:26
2	Ba 233.527†	74940.4	74959.6	510.80	ug/L	510.80	ppb	17:34:26
2	Be 313.107†	1496213.8	1501277.6	504.45	ug/L	504.45	ppb	17:34:21
2	Cd 226.502†	52000.7	52241.4	510.72	ug/L	510.72	ppb	17:34:26
2	Co 228.616†	29075.7	29169.3	510.76	ug/L	510.76	ppb	17:34:26
2	Cr 267.716†	50251.2	50182.3	509.60	ug/L	509.60	ppb	17:34:26
2	Cu 324.752†	185305.1	179290.8	506.83	ug/L	506.83	ppb	17:34:26
2	Mn 257.610†	514173.2	513796.0	507.22	ug/L	507.22	ppb	17:34:21
2	Mo 202.031†	8347.2	8329.2	504.54	ug/L	504.54	ppb	17:34:46
2	Ni 231.604†	23521.0	23432.6	511.66	ug/L	511.66	ppb	17:34:26

2	P 214.914†	5083.2	4826.2	2440.7 ug/L	2440.7 ppb	17:34:46
2	Pb 220.353†	4749.3	4814.4	508.89 ug/L	508.89 ppb	17:34:46
2	S 181.975 Axial†	863.7	814.9	998.70 ug/L	998.70 ppb	17:34:46
2	Sb 206.836†	1746.4	1705.6	518.20 ug/L	518.20 ppb	17:34:46
2	Se 196.026†	901.3	930.0	524.78 ug/L	524.78 ppb	17:34:46
2	Si 251.611†	90267.8	89710.5	2517.6 ug/L	2517.6 ppb	17:34:26
2	Sn 189.927†	3379.8	3377.0	507.08 ug/L	507.08 ppb	17:34:46
2	Ti 334.940†	345573.9	347038.4	501.63 ug/L	501.63 ppb	17:34:21
2	Tl 190.801†	1904.8	1953.2	509.95 ug/L	509.95 ppb	17:34:46
2	U 409.014†	15728.3	18104.1	497.17 ug/L	497.17 ppb	17:34:26
2	V 292.402†	78371.1	79858.0	514.67 ug/L	514.67 ppb	17:34:26
2	Zn 213.857†	63191.7	62412.2	507.32 ug/L	507.32 ppb	17:34:26
2	SiO2†	90637.2	90050.7	5426.2 ug/L	5426.2 ppb	17:35:28
3	Sc Radial	5448.9	5448.9	97.9 %		17:33:22
3	Y RADIAL	5766.3	5766.3	97.55 %		17:33:22
3	Al 396.153Radial†	6845.2	7010.4	5086.7 ug/L	5086.7 ppb	17:33:22
3	Ca 317.933Radial†	3509.8	3566.5	5084.9 ug/L	5084.9 ppb	17:33:42
3	Fe 238.204 Radial†	617.1	619.6	5167.0 ug/L	5167.0 ppb	17:33:42
3	K 766.490 Radial†	30845.1	28803.0	5067.8 ug/L	5067.8 ppb	17:33:22
3	Mg 279.077 IEC†	165.5	167.7	5213.8 ug/L	5213.8 ppb	17:33:42
3	Na 589.592 Radial†	31499.2	32945.4	9833.2 ug/L	9833.2 ppb	17:33:22
3	Sr 421.552†	84708.7	86561.3	507.54 ug/L	507.54 ppb	17:33:22
3	Sc 361.383	900959.4	900959.4	100.23 %		17:34:52
3	Y 371.029	732906.0	732906.0	98.447 %		17:34:52
3	Ag 328.068†	117393.6	116756.5	506.37 ug/L	506.37 ppb	17:34:57
3	As 188.979†	1359.0	1390.7	509.30 ug/L	509.30 ppb	17:35:17
3	B 249.677†	24014.7	23986.0	490.28 ug/L	490.28 ppb	17:34:57
3	Ba 233.527†	74767.6	74600.0	508.35 ug/L	508.35 ppb	17:34:57
3	Be 313.107†	1516090.2	1517370.8	509.86 ug/L	509.86 ppb	17:34:52
3	Cd 226.502†	51797.3	51908.6	507.47 ug/L	507.47 ppb	17:34:57
3	Co 228.616†	29029.0	29050.0	508.65 ug/L	508.65 ppb	17:34:57
3	Cr 267.716†	50250.9	50056.4	508.32 ug/L	508.32 ppb	17:34:57
3	Cu 324.752†	184897.8	178421.4	504.37 ug/L	504.37 ppb	17:34:57
3	Mn 257.610†	520010.6	518335.6	511.69 ug/L	511.69 ppb	17:34:52
3	Mo 202.031†	8318.6	8279.7	501.55 ug/L	501.55 ppb	17:35:17
3	Ni 231.604†	23485.6	23338.5	509.60 ug/L	509.60 ppb	17:34:57
3	P 214.914†	5065.6	4796.0	2425.3 ug/L	2425.3 ppb	17:35:17
3	Pb 220.353†	4710.1	4763.4	503.52 ug/L	503.52 ppb	17:35:17
3	S 181.975 Axial†	862.0	811.0	993.95 ug/L	993.95 ppb	17:35:17
3	Sb 206.836†	1733.4	1688.2	512.87 ug/L	512.87 ppb	17:35:17
3	Se 196.026†	898.6	925.1	521.96 ug/L	521.96 ppb	17:35:17
3	Si 251.611†	90045.6	89263.2	2505.1 ug/L	2505.1 ppb	17:34:57
3	Sn 189.927†	3354.9	3343.8	502.09 ug/L	502.09 ppb	17:35:17
3	Ti 334.940†	350142.5	350733.2	506.97 ug/L	506.97 ppb	17:34:52
3	Tl 190.801†	1905.0	1948.8	508.88 ug/L	508.88 ppb	17:35:17
3	U 409.014†	16132.3	18467.8	507.20 ug/L	507.20 ppb	17:34:57
3	V 292.402†	78146.1	79437.6	511.97 ug/L	511.97 ppb	17:34:57
3	Zn 213.857†	63021.4	62084.4	504.65 ug/L	504.65 ppb	17:34:57
3	SiO2†	89945.1	89133.8	5370.9 ug/L	5370.9 ppb	17:35:33

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	903119.3	100.47	%	0.645				0.64%
Sc Radial	5696.4	102	%	8.4				8.16%
Y 371.029	734715.2	98.690	%	0.7087				0.72%
Y RADIAL	6021.4	101.9	%	7.84				7.70%
Ag 328.068†	117051.3	507.57	ug/L	1.069	507.57	ppb	1.069	0.21%
QC value within limits for Ag 328.068 Recovery = 101.51%								
Al 396.153Radial†	6683.2	4848.3	ug/L	391.33	4848.3	ppb	391.33	8.07%
QC value within limits for Al 396.153Radial Recovery = 96.97%								
As 188.979†	1390.4	509.12	ug/L	1.599	509.12	ppb	1.599	0.31%
QC value within limits for As 188.979 Recovery = 101.82%								
B 249.677†	24062.6	491.88	ug/L	1.558	491.88	ppb	1.558	0.32%
QC value within limits for B 249.677 Recovery = 98.38%								
Ba 233.527†	74727.5	509.20	ug/L	1.380	509.20	ppb	1.380	0.27%
QC value within limits for Ba 233.527 Recovery = 101.84%								
Be 313.107†	1506875.7	506.34	ug/L	3.057	506.34	ppb	3.057	0.60%
QC value within limits for Be 313.107 Recovery = 101.27%								
Ca 317.933Radial†	3413.7	4867.0	ug/L	400.56	4867.0	ppb	400.56	8.23%

```
   QC value within limits for Ca 317.933Radial  Recovery = 97.34%
Cd 226.502†            52051.8      508.90 ug/L         1.664      508.90 ppb          1.664   0.33%
   QC value within limits for Cd 226.502  Recovery = 101.78%
Co 228.616†            29113.3      509.77 ug/L         1.060      509.77 ppb          1.060   0.21%
   QC value within limits for Co 228.616  Recovery = 101.95%
Cr 267.716†            50123.9      509.00 ug/L         0.646      509.00 ppb          0.646   0.13%
   QC value within limits for Cr 267.716  Recovery = 101.80%
Cu 324.752†           179057.6      506.15 ug/L         1.562      506.15 ppb          1.562   0.31%
   QC value within limits for Cu 324.752  Recovery = 101.23%
Fe 238.204 Radial†       591.9      4936.6 ug/L        430.43      4936.6 ppb         430.43   8.72%
   QC value within limits for Fe 238.204 Radial  Recovery = 98.73%
K 766.490 Radial†      27392.0      4819.3 ug/L        435.35      4819.3 ppb         435.35   9.03%
   QC value within limits for K 766.490 Radial  Recovery = 96.39%
Mg 279.077 IEC†          161.3      5014.2 ug/L        343.77      5014.2 ppb         343.77   6.86%
   QC value within limits for Mg 279.077 IEC  Recovery = 100.28%
Mn 257.610†           514752.9      508.14 ug/L         3.194      508.14 ppb          3.194   0.63%
   QC value within limits for Mn 257.610  Recovery = 101.63%
Mo 202.031†             8266.7      500.75 ug/L         4.259      500.75 ppb          4.259   0.85%
   QC value within limits for Mo 202.031  Recovery = 100.15%
Na 589.592 Radial†     31567.5      9422.0 ug/L        698.86      9422.0 ppb         698.86   7.42%
   QC value within limits for Na 589.592 Radial  Recovery = 94.22%
Ni 231.604†            23361.5      510.10 ug/L         1.374      510.10 ppb          1.374   0.27%
   QC value within limits for Ni 231.604  Recovery = 102.02%
P 214.914†              4796.3      2425.3 ug/L        15.43       2425.3 ppb         15.43   0.64%
   QC value within limits for P 214.914  Recovery = 97.01%
Pb 220.353†             4772.7      504.46 ug/L         4.046      504.46 ppb          4.046   0.80%
   QC value within limits for Pb 220.353  Recovery = 100.89%
S 181.975 Axial†         809.7      992.36 ug/L         7.276      992.36 ppb          7.276   0.73%
   QC value within limits for S 181.975 Axial  Recovery = 99.24%
Sb 206.836†             1688.0      512.76 ug/L         5.504      512.76 ppb          5.504   1.07%
   QC value within limits for Sb 206.836  Recovery = 102.55%
Se 196.026†              922.1      519.61 ug/L         6.655      519.61 ppb          6.655   1.28%
   QC value within limits for Se 196.026  Recovery = 103.92%
Si 251.611†            89519.9      2512.4 ug/L          6.54      2512.4 ppb           6.54   0.26%
   QC value within limits for Si 251.611  Recovery = 100.50%
Sn 189.927†             3339.0      501.34 ug/L         6.145      501.34 ppb          6.145   1.23%
   QC value within limits for Sn 189.927  Recovery = 100.27%
Sr 421.552†            82571.5      484.14 ug/L        37.717      484.14 ppb         37.717   7.79%
   QC value within limits for Sr 421.552  Recovery = 96.83%
Ti 334.940†           348065.2      503.10 ug/L         3.381      503.10 ppb          3.381   0.67%
   QC value within limits for Ti 334.940  Recovery = 100.62%
Tl 190.801†             1944.6      507.72 ug/L         2.980      507.72 ppb          2.980   0.59%
   QC value within limits for Tl 190.801  Recovery = 101.54%
U 409.014†             18304.0      502.71 ug/L         5.097      502.71 ppb          5.097   1.01%
   QC value within limits for U 409.014  Recovery = 100.54%
V 292.402†             79579.1      512.89 ug/L         1.544      512.89 ppb          1.544   0.30%
   QC value within limits for V 292.402  Recovery = 102.58%
Zn 213.857†            62253.5      506.06 ug/L         1.341      506.06 ppb          1.341   0.26%
   QC value within limits for Zn 213.857  Recovery = 101.21%
SiO2†                  89308.2      5381.6 ug/L        40.29      5381.6 ppb          40.29   0.75%
   QC value within limits for SiO2  Recovery = 100.64%
All analyte(s) passed QC.
```

Sequence No.: 37
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 12/19/2009 17:37:42
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5462.8	5462.8	98.1	%			17:39:34
1	Y RADIAL	5855.1	5855.1	99.05	%			17:39:34
1	Al 396.153Radial†	-10.2	5.9	4.3101	ug/L	4.3101	ppb	17:39:34
1	Ca 317.933Radial†	18.4	-0.8	-1.1435	ug/L	-1.1435	ppb	17:39:54
1	Fe 238.204 Radial†	9.4	-1.3	-10.696	ug/L	-10.696	ppb	17:39:54
1	K 766.490 Radial†	2738.6	78.5	13.850	ug/L	13.850	ppb	17:39:34
1	Mg 279.077 IEC†	3.2	1.9	58.280	ug/L	58.280	ppb	17:39:54
1	Na 589.592 Radial†	-806.8	-60.6	-18.084	ug/L	-18.084	ppb	17:39:34
1	Sr 421.552†	-14.0	-2.4	-0.0142	ug/L	-0.0142	ppb	17:39:34
1	Sc 361.383	909741.3	909741.3	101.21	%			17:40:51
1	Y 371.029	750297.3	750297.3	100.78	%			17:40:51
1	Ag 328.068†	394.8	20.2	0.0805	ug/L	0.0805	ppb	17:40:56
1	As 188.979†	-27.6	7.6	2.7452	ug/L	2.7452	ppb	17:41:16
1	B 249.677†	-380.1	-349.6	-7.1728	ug/L	-7.1728	ppb	17:41:16
1	Ba 233.527†	1.7	4.3	0.0280	ug/L	0.0280	ppb	17:41:16
1	Be 313.107†	-4620.4	165.7	0.0558	ug/L	0.0558	ppb	17:40:56
1	Cd 226.502†	-218.5	13.3	0.1312	ug/L	0.1312	ppb	17:41:16
1	Co 228.616†	-97.0	-8.8	-0.1526	ug/L	-0.1526	ppb	17:41:16
1	Cr 267.716†	105.0	23.6	0.2378	ug/L	0.2378	ppb	17:41:16
1	Cu 324.752†	6158.0	29.1	0.0817	ug/L	0.0817	ppb	17:40:56
1	Mn 257.610†	495.6	-1.7	-0.0039	ug/L	-0.0039	ppb	17:41:16
1	Mo 202.031†	26.8	6.6	0.4015	ug/L	0.4015	ppb	17:41:16
1	Ni 231.604†	117.0	22.0	0.4814	ug/L	0.4814	ppb	17:41:16
1	P 214.914†	248.6	-12.4	-6.4657	ug/L	-6.4657	ppb	17:41:16
1	Pb 220.353†	-103.0	-37.7	-3.9679	ug/L	-3.9679	ppb	17:41:16
1	S 181.975 Axial†	50.5	0.9	1.1319	ug/L	1.1319	ppb	17:41:16
1	Sb 206.836†	35.6	-6.0	-1.7983	ug/L	-1.7983	ppb	17:41:16
1	Se 196.026†	-26.8	2.0	1.0833	ug/L	1.0833	ppb	17:41:16
1	Si 251.611†	650.8	65.6	1.8367	ug/L	1.8367	ppb	17:41:16
1	Sn 189.927†	5.1	1.6	0.2399	ug/L	0.2399	ppb	17:41:16
1	Ti 334.940†	-1321.6	81.7	0.1169	ug/L	0.1169	ppb	17:40:56
1	Tl 190.801†	-36.3	12.2	3.1668	ug/L	3.1668	ppb	17:41:16
1	U 409.014†	-2310.7	89.1	2.4545	ug/L	2.4545	ppb	17:40:51
1	V 292.402†	-1524.9	-37.3	-0.2240	ug/L	-0.2240	ppb	17:40:56
1	Zn 213.857†	770.4	-32.3	-0.2694	ug/L	-0.2694	ppb	17:41:16
1	SiO2†	638.2	23.9	1.4218	ug/L	1.4218	ppb	17:42:22
2	Sc Radial	5492.6	5492.6	98.7	%			17:39:59
2	Y RADIAL	5822.2	5822.2	98.49	%			17:39:59
2	Al 396.153Radial†	-19.6	-3.5	-2.5917	ug/L	-2.5917	ppb	17:39:59
2	Ca 317.933Radial†	17.9	-1.4	-2.0141	ug/L	-2.0141	ppb	17:40:19
2	Fe 238.204 Radial†	8.8	-2.0	-16.365	ug/L	-16.365	ppb	17:40:19
2	K 766.490 Radial†	2870.9	197.5	34.813	ug/L	34.813	ppb	17:39:59
2	Mg 279.077 IEC†	-0.1	-1.5	-45.435	ug/L	-45.435	ppb	17:40:19
2	Na 589.592 Radial†	-818.3	-67.8	-20.227	ug/L	-20.227	ppb	17:39:59
2	Sr 421.552†	-24.9	-13.4	-0.0788	ug/L	-0.0788	ppb	17:39:59
2	Sc 361.383	909449.5	909449.5	101.17	%			17:41:21
2	Y 371.029	750555.7	750555.7	100.82	%			17:41:21
2	Ag 328.068†	372.4	-1.9	-0.0141	ug/L	-0.0141	ppb	17:41:26
2	As 188.979†	-20.3	14.8	5.3630	ug/L	5.3630	ppb	17:41:46
2	B 249.677†	-385.5	-355.1	-7.2848	ug/L	-7.2848	ppb	17:41:46
2	Ba 233.527†	-0.1	2.5	0.0163	ug/L	0.0163	ppb	17:41:46
2	Be 313.107†	-4731.5	54.4	0.0183	ug/L	0.0183	ppb	17:41:26
2	Cd 226.502†	-232.1	-0.3	-0.0007	ug/L	-0.0007	ppb	17:41:46
2	Co 228.616†	-98.2	-9.9	-0.1720	ug/L	-0.1720	ppb	17:41:46
2	Cr 267.716†	93.9	12.7	0.1280	ug/L	0.1280	ppb	17:41:46
2	Cu 324.752†	6198.4	71.0	0.1997	ug/L	0.1997	ppb	17:41:26
2	Mn 257.610†	478.5	-18.5	-0.0190	ug/L	-0.0190	ppb	17:41:46
2	Mo 202.031†	30.7	10.4	0.6313	ug/L	0.6313	ppb	17:41:46
2	Ni 231.604†	119.4	24.5	0.5349	ug/L	0.5349	ppb	17:41:46

2	P 214.914†	255.5	-5.6	-2.9450	ug/L	-2.9450	ppb	17:41:46
2	Pb 220.353†	-70.1	-5.2	-0.5492	ug/L	-0.5492	ppb	17:41:46
2	S 181.975 Axial†	47.6	-1.9	-2.3506	ug/L	-2.3506	ppb	17:41:46
2	Sb 206.836†	43.1	1.3	0.3957	ug/L	0.3957	ppb	17:41:46
2	Se 196.026†	-24.0	4.8	2.5515	ug/L	2.5515	ppb	17:41:46
2	Si 251.611†	661.7	76.5	2.1381	ug/L	2.1381	ppb	17:41:46
2	Sn 189.927†	-2.7	-6.1	-0.9194	ug/L	-0.9194	ppb	17:41:46
2	Ti 334.940†	-1405.6	-1.7	-0.0030	ug/L	-0.0030	ppb	17:41:26
2	Tl 190.801†	-36.5	12.0	3.1236	ug/L	3.1236	ppb	17:41:46
2	U 409.014†	-2367.2	32.4	0.8952	ug/L	0.8952	ppb	17:41:21
2	V 292.402†	-1480.5	6.1	0.0510	ug/L	0.0510	ppb	17:41:26
2	Zn 213.857†	786.1	-16.6	-0.1363	ug/L	-0.1363	ppb	17:41:46
2	SiO2†	668.6	54.2	3.2359	ug/L	3.2359	ppb	17:42:27
3	Sc Radial	5601.8	5601.8	101	%			17:40:24
3	Y RADIAL	5948.6	5948.6	100.6	%			17:40:24
3	Al 396.153Radial†	-18.0	-1.5	-1.1391	ug/L	-1.1391	ppb	17:40:24
3	Ca 317.933Radial†	23.4	3.6	5.1883	ug/L	5.1883	ppb	17:40:44
3	Fe 238.204 Radial†	8.2	-2.8	-22.947	ug/L	-22.947	ppb	17:40:44
3	K 766.490 Radial†	2823.2	93.4	16.474	ug/L	16.474	ppb	17:40:24
3	Mg 279.077 IEC†	1.3	-0.1	-3.3732	ug/L	-3.3732	ppb	17:40:44
3	Na 589.592 Radial†	-822.2	-55.4	-16.548	ug/L	-16.548	ppb	17:40:24
3	Sr 421.552†	-24.1	-12.2	-0.0713	ug/L	-0.0713	ppb	17:40:24
3	Sc 361.383	913029.2	913029.2	101.57	%			17:41:51
3	Y 371.029	752745.2	752745.2	101.11	%			17:41:51
3	Ag 328.068†	358.0	-17.4	-0.0825	ug/L	-0.0825	ppb	17:41:56
3	As 188.979†	-27.1	8.1	2.9498	ug/L	2.9498	ppb	17:42:16
3	B 249.677†	-360.5	-329.0	-6.7489	ug/L	-6.7489	ppb	17:42:16
3	Ba 233.527†	5.0	7.5	0.0510	ug/L	0.0510	ppb	17:42:16
3	Be 313.107†	-4611.1	191.3	0.0644	ug/L	0.0644	ppb	17:41:56
3	Cd 226.502†	-219.0	13.5	0.1351	ug/L	0.1351	ppb	17:42:16
3	Co 228.616†	-75.6	12.7	0.2249	ug/L	0.2249	ppb	17:42:16
3	Cr 267.716†	112.3	30.4	0.3080	ug/L	0.3080	ppb	17:42:16
3	Cu 324.752†	6117.4	-32.8	-0.0938	ug/L	-0.0938	ppb	17:41:56
3	Mn 257.610†	476.2	-22.6	-0.0246	ug/L	-0.0246	ppb	17:42:16
3	Mo 202.031†	40.7	20.2	1.2181	ug/L	1.2181	ppb	17:42:16
3	Ni 231.604†	126.9	31.3	0.6848	ug/L	0.6848	ppb	17:42:16
3	P 214.914†	249.6	-12.4	-6.4353	ug/L	-6.4353	ppb	17:42:16
3	Pb 220.353†	-89.4	-24.0	-2.5219	ug/L	-2.5219	ppb	17:42:16
3	S 181.975 Axial†	48.6	-1.1	-1.3735	ug/L	-1.3735	ppb	17:42:16
3	Sb 206.836†	45.3	3.4	1.0137	ug/L	1.0137	ppb	17:42:16
3	Se 196.026†	-29.0	-0.0	-0.0703	ug/L	-0.0703	ppb	17:42:16
3	Si 251.611†	647.4	59.9	1.6643	ug/L	1.6643	ppb	17:42:16
3	Sn 189.927†	-1.1	-4.6	-0.6891	ug/L	-0.6891	ppb	17:42:16
3	Ti 334.940†	-1339.1	69.2	0.0999	ug/L	0.0999	ppb	17:41:56
3	Tl 190.801†	-34.6	14.0	3.6308	ug/L	3.6308	ppb	17:42:16
3	U 409.014†	-2383.4	25.7	0.7108	ug/L	0.7108	ppb	17:41:51
3	V 292.402†	-1454.9	37.0	0.2573	ug/L	0.2573	ppb	17:41:56
3	Zn 213.857†	776.3	-29.3	-0.2422	ug/L	-0.2422	ppb	17:42:16
3	SiO2†	678.4	61.3	3.6573	ug/L	3.6573	ppb	17:42:32

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	910740.0	101.32	%	0.221				0.22%
Sc Radial	5519.0	99.1	%	1.31				1.33%
Y 371.029	751199.4	100.90	%	0.181				0.18%
Y RADIAL	5875.3	99.39	%	1.110				1.12%
Ag 328.068†	0.3	-0.0054	ug/L	0.08182	-0.0054	ppb	0.08182	>999.9%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	0.3	0.1931	ug/L	3.63865	0.1931	ppb	3.63865	>999.9%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	10.2	3.6860	ug/L	1.45591	3.6860	ppb	1.45591	39.50%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-344.6	-7.0688	ug/L	0.28269	-7.0688	ppb	0.28269	4.00%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	4.8	0.0318	ug/L	0.01764	0.0318	ppb	0.01764	55.52%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	137.1	0.0461	ug/L	0.02452	0.0461	ppb	0.02452	53.16%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	0.5	0.6769	ug/L	3.93116	0.6769	ppb	3.93116	580.73%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                 8.8      0.0885 ug/L       0.07729      0.0885 ppb        0.07729  87.33%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                -2.0     -0.0332 ug/L       0.22377     -0.0332 ppb        0.22377 673.34%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                22.2      0.2246 ug/L       0.09072      0.2246 ppb        0.09072  40.39%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†                22.4      0.0625 ug/L       0.14770      0.0625 ppb        0.14770 236.22%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -2.0    -16.669 ug/L        6.1315    -16.669 ppb         6.1315  36.78%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         123.1     21.712 ug/L       11.4209     21.712 ppb        11.4209  52.60%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             0.1      3.1570 ug/L      52.16506      3.1570 ppb       52.16506 >999.9%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               -14.3     -0.0158 ug/L       0.01071     -0.0158 ppb        0.01071  67.70%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                12.4      0.7503 ug/L       0.42111      0.7503 ppb        0.42111  56.12%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        -61.3    -18.286 ug/L        1.8481    -18.286 ppb         1.8481  10.11%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                26.0      0.5670 ug/L       0.10546      0.5670 ppb        0.10546  18.60%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -10.1     -5.2820 ug/L       2.02395     -5.2820 ppb        2.02395  38.32%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               -22.3     -2.3463 ug/L       1.71609     -2.3463 ppb        1.71609  73.14%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -0.7     -0.8641 ug/L       1.79630     -0.8641 ppb        1.79630 207.89%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                -0.4     -0.1296 ug/L       1.47774     -0.1296 ppb        1.47774 >999.9%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 2.3      1.1881 ug/L       1.31404      1.1881 ppb        1.31404 110.60%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                67.3      1.8797 ug/L       0.23982      1.8797 ppb        0.23982  12.76%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                -3.0     -0.4562 ug/L       0.61375     -0.4562 ppb        0.61375 134.54%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                -9.3     -0.0548 ug/L       0.03536     -0.0548 ppb        0.03536  64.55%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                49.7      0.0713 ug/L       0.06490      0.0713 ppb        0.06490  91.06%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                12.7      3.3071 ug/L       0.28115      3.3071 ppb        0.28115   8.50%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 49.1      1.3535 ug/L       0.95795      1.3535 ppb        0.95795  70.77%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                  1.9      0.0281 ug/L       0.24146      0.0281 ppb        0.24146 858.33%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               -26.1     -0.2160 ug/L       0.07029     -0.2160 ppb        0.07029  32.54%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                      46.5      2.7717 ug/L       1.18788      2.7717 ppb        1.18788  42.86%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 38
Sample ID: 1201994186|932262|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 56
Date Collected: 12/19/2009 17:44:41
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1201994186|932262|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5440.7	5440.7	97.7	%			17:46:34
1	Y RADIAL	5773.5	5773.5	97.67	%			17:46:34
1	Al 396.153Radial†	-39.6	-24.2	-17.630	ug/L	-17.630	ppb	17:46:34
1	Ca 317.933Radial†	22.2	3.2	4.5414	ug/L	4.5414	ppb	17:46:54
1	Fe 238.204 Radial†	8.9	-1.8	-14.695	ug/L	-14.695	ppb	17:46:54
1	K 766.490 Radial†	2819.6	172.7	30.453	ug/L	30.453	ppb	17:46:34
1	Mg 279.077 IEC†	4.6	3.3	103.25	ug/L	103.25	ppb	17:46:54
1	Na 589.592 Radial†	-848.5	-106.6	-31.824	ug/L	-31.824	ppb	17:46:34
1	Sr 421.552†	9.9	22.0	0.1288	ug/L	0.1288	ppb	17:46:34
1	Sc 361.383	897087.1	897087.1	99.797	%			17:47:51
1	Y 371.029	744391.2	744391.2	99.990	%			17:47:51
1	Ag 328.068†	394.2	25.0	0.1014	ug/L	0.1014	ppb	17:47:51
1	As 188.979†	-34.2	0.5	0.1890	ug/L	0.1890	ppb	17:48:11
1	B 249.677†	-401.0	-375.9	-7.7125	ug/L	-7.7125	ppb	17:48:11
1	Ba 233.527†	1.9	4.5	0.0292	ug/L	0.0292	ppb	17:48:11
1	Be 313.107†	-4713.8	7.7	0.0031	ug/L	0.0031	ppb	17:47:51
1	Cd 226.502†	-226.7	2.0	0.0215	ug/L	0.0215	ppb	17:48:11
1	Co 228.616†	-81.3	5.6	0.0988	ug/L	0.0988	ppb	17:48:11
1	Cr 267.716†	93.9	13.9	0.1402	ug/L	0.1402	ppb	17:48:11
1	Cu 324.752†	6086.7	43.5	0.1221	ug/L	0.1221	ppb	17:47:51
1	Mn 257.610†	750.7	260.7	0.2538	ug/L	0.2538	ppb	17:48:11
1	Mo 202.031†	26.4	6.6	0.3979	ug/L	0.3979	ppb	17:48:11
1	Ni 231.604†	114.4	21.1	0.4599	ug/L	0.4599	ppb	17:48:11
1	P 214.914†	248.9	-8.7	-4.5450	ug/L	-4.5450	ppb	17:48:11
1	Pb 220.353†	-67.6	-3.7	-0.3930	ug/L	-0.3930	ppb	17:48:11
1	S 181.975 Axial†	45.0	-3.9	-4.7487	ug/L	-4.7487	ppb	17:48:11
1	Sb 206.836†	50.2	9.0	2.7052	ug/L	2.7052	ppb	17:48:11
1	Se 196.026†	-30.3	-1.9	-1.0631	ug/L	-1.0631	ppb	17:48:11
1	Si 251.611†	931.5	355.9	10.020	ug/L	10.020	ppb	17:48:11
1	Sn 189.927†	1.6	-1.8	-0.2749	ug/L	-0.2749	ppb	17:48:11
1	Ti 334.940†	-1200.3	184.8	0.2673	ug/L	0.2673	ppb	17:47:51
1	Tl 190.801†	-43.6	4.4	1.1445	ug/L	1.1445	ppb	17:48:11
1	U 409.014†	-2358.8	8.7	0.2404	ug/L	0.2404	ppb	17:47:51
1	V 292.402†	-1518.4	-52.0	-0.3206	ug/L	-0.3206	ppb	17:47:51
1	Zn 213.857†	982.8	191.2	1.5633	ug/L	1.5633	ppb	17:48:11
1	SiO2†	974.2	369.5	22.339	ug/L	22.339	ppb	17:49:07
2	Sc Radial	5749.8	5749.8	103	%			17:46:59
2	Y RADIAL	6065.2	6065.2	102.6	%			17:46:59
2	Al 396.153Radial†	-1.8	14.7	10.670	ug/L	10.670	ppb	17:46:59
2	Ca 317.933Radial†	16.4	-3.7	-5.2352	ug/L	-5.2352	ppb	17:47:19
2	Fe 238.204 Radial†	10.9	-0.3	-2.8423	ug/L	-2.8423	ppb	17:47:19
2	K 766.490 Radial†	2771.7	-28.7	-5.0589	ug/L	-5.0589	ppb	17:46:59
2	Mg 279.077 IEC†	-0.4	-1.8	-55.383	ug/L	-55.383	ppb	17:47:19
2	Na 589.592 Radial†	-813.0	-25.6	-7.6357	ug/L	-7.6357	ppb	17:46:59
2	Sr 421.552†	29.3	40.2	0.2358	ug/L	0.2358	ppb	17:46:59
2	Sc 361.383	914535.1	914535.1	101.74	%			17:48:16
2	Y 371.029	758744.0	758744.0	101.92	%			17:48:16
2	Ag 328.068†	337.2	-38.5	-0.1675	ug/L	-0.1675	ppb	17:48:16
2	As 188.979†	-30.1	5.2	1.8946	ug/L	1.8946	ppb	17:48:36
2	B 249.677†	-419.8	-386.7	-7.9369	ug/L	-7.9369	ppb	17:48:36
2	Ba 233.527†	-6.0	-3.3	-0.0221	ug/L	-0.0221	ppb	17:48:36
2	Be 313.107†	-4749.8	62.5	0.0214	ug/L	0.0214	ppb	17:48:16
2	Cd 226.502†	-226.2	6.8	0.0674	ug/L	0.0674	ppb	17:48:36
2	Co 228.616†	-72.0	16.4	0.2869	ug/L	0.2869	ppb	17:48:36
2	Cr 267.716†	79.1	-2.4	-0.0243	ug/L	-0.0243	ppb	17:48:36
2	Cu 324.752†	6209.1	47.5	0.1340	ug/L	0.1340	ppb	17:48:16
2	Mn 257.610†	747.7	243.5	0.2409	ug/L	0.2409	ppb	17:48:36
2	Mo 202.031†	27.5	7.1	0.4317	ug/L	0.4317	ppb	17:48:36
2	Ni 231.604†	124.7	29.0	0.6340	ug/L	0.6340	ppb	17:48:36

2	P 214.914†	253.9	-8.5	-4.4453	ug/L	-4.4453	ppb	17:48:36
2	Pb 220.353†	-74.4	-9.1	-0.9554	ug/L	-0.9554	ppb	17:48:36
2	S 181.975 Axial†	44.5	-5.3	-6.4553	ug/L	-6.4553	ppb	17:48:36
2	Sb 206.836†	38.9	-3.0	-0.8699	ug/L	-0.8699	ppb	17:48:36
2	Se 196.026†	-23.6	5.3	2.8951	ug/L	2.8951	ppb	17:48:36
2	Si 251.611†	960.2	366.3	10.320	ug/L	10.320	ppb	17:48:36
2	Sn 189.927†	12.2	8.5	1.2725	ug/L	1.2725	ppb	17:48:36
2	Ti 334.940†	-1246.8	162.1	0.2336	ug/L	0.2336	ppb	17:48:16
2	Tl 190.801†	-40.7	8.1	2.0936	ug/L	2.0936	ppb	17:48:36
2	U 409.014†	-2370.7	42.0	1.1589	ug/L	1.1589	ppb	17:48:16
2	V 292.402†	-1483.3	11.4	0.0801	ug/L	0.0801	ppb	17:48:16
2	Zn 213.857†	979.8	169.5	1.3882	ug/L	1.3882	ppb	17:48:36
2	SiO2†	965.4	342.2	20.700	ug/L	20.700	ppb	17:49:12
3	Sc Radial	5245.2	5245.2	94.2	%			17:47:24
3	Y RADIAL	5579.2	5579.2	94.38	%			17:47:24
3	Al 396.153Radial†	-8.3	7.6	5.5292	ug/L	5.5292	ppb	17:47:24
3	Ca 317.933Radial†	24.0	5.9	8.4628	ug/L	8.4628	ppb	17:47:44
3	Fe 238.204 Radial†	11.0	0.8	6.6785	ug/L	6.6785	ppb	17:47:44
3	K 766.490 Radial†	2713.1	167.3	29.497	ug/L	29.497	ppb	17:47:24
3	Mg 279.077 IEC†	0.1	-1.3	-41.498	ug/L	-41.498	ppb	17:47:44
3	Na 589.592 Radial†	-829.3	-118.6	-35.400	ug/L	-35.400	ppb	17:47:24
3	Sr 421.552†	2.7	14.7	0.0860	ug/L	0.0860	ppb	17:47:24
3	Sc 361.383	906704.8	906704.8	100.87	%			17:48:41
3	Y 371.029	751445.9	751445.9	100.94	%			17:48:41
3	Ag 328.068†	397.2	23.8	0.1091	ug/L	0.1091	ppb	17:48:41
3	As 188.979†	-35.7	-0.5	-0.1917	ug/L	-0.1917	ppb	17:49:02
3	B 249.677†	-451.3	-421.5	-8.6501	ug/L	-8.6501	ppb	17:49:02
3	Ba 233.527†	4.9	7.4	0.0516	ug/L	0.0516	ppb	17:49:02
3	Be 313.107†	-4696.2	75.3	0.0258	ug/L	0.0258	ppb	17:48:41
3	Cd 226.502†	-235.1	-3.9	-0.0388	ug/L	-0.0388	ppb	17:49:02
3	Co 228.616†	-92.0	-4.1	-0.0706	ug/L	-0.0706	ppb	17:49:02
3	Cr 267.716†	122.8	41.6	0.4239	ug/L	0.4239	ppb	17:49:02
3	Cu 324.752†	6006.8	-100.4	-0.2834	ug/L	-0.2834	ppb	17:48:41
3	Mn 257.610†	757.1	259.1	0.2570	ug/L	0.2570	ppb	17:49:02
3	Mo 202.031†	28.0	7.9	0.4779	ug/L	0.4779	ppb	17:49:02
3	Ni 231.604†	120.2	25.6	0.5594	ug/L	0.5594	ppb	17:49:02
3	P 214.914†	261.2	0.9	0.5096	ug/L	0.5096	ppb	17:49:02
3	Pb 220.353†	-78.0	-13.3	-1.3944	ug/L	-1.3944	ppb	17:49:02
3	S 181.975 Axial†	47.2	-2.2	-2.6959	ug/L	-2.6959	ppb	17:49:02
3	Sb 206.836†	46.0	4.3	1.3133	ug/L	1.3133	ppb	17:49:02
3	Se 196.026†	-36.9	-8.0	-4.3590	ug/L	-4.3590	ppb	17:49:02
3	Si 251.611†	948.4	362.8	10.209	ug/L	10.209	ppb	17:49:02
3	Sn 189.927†	9.0	5.4	0.8111	ug/L	0.8111	ppb	17:49:02
3	Ti 334.940†	-1217.8	180.3	0.2625	ug/L	0.2625	ppb	17:48:41
3	Tl 190.801†	-34.8	13.6	3.5284	ug/L	3.5284	ppb	17:49:02
3	U 409.014†	-2521.7	-127.8	-3.5241	ug/L	-3.5241	ppb	17:48:41
3	V 292.402†	-1432.8	49.0	0.3090	ug/L	0.3090	ppb	17:48:41
3	Zn 213.857†	978.9	176.9	1.4483	ug/L	1.4483	ppb	17:49:02
3	SiO2†	977.2	362.1	21.880	ug/L	21.880	ppb	17:49:17

Mean Data: 1201994186|932262|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	906109.0	100.80	%	0.972				0.96%
Sc Radial	5478.5	98.4	%	4.57				4.64%
Y 371.029	751527.1	100.95	%	0.964				0.95%
Y RADIAL	5806.0	98.22	%	4.138				4.21%
Ag 328.068†	3.5	0.0143	ug/L	0.15751	0.0143	ppb	0.15751	>999.9%
Al 396.153Radial†	-0.6	-0.4770	ug/L	15.07585	-0.4770	ppb	15.07585	>999.9%
As 188.979†	1.7	0.6306	ug/L	1.11109	0.6306	ppb	1.11109	176.19%
B 249.677†	-394.7	-8.0998	ug/L	0.48956	-8.0998	ppb	0.48956	6.04%
Ba 233.527†	2.9	0.0195	ug/L	0.03780	0.0195	ppb	0.03780	193.36%
Be 313.107†	48.5	0.0168	ug/L	0.01202	0.0168	ppb	0.01202	71.68%
Ca 317.933Radial†	1.8	2.5897	ug/L	7.05447	2.5897	ppb	7.05447	272.41%
Cd 226.502†	1.6	0.0167	ug/L	0.05327	0.0167	ppb	0.05327	319.53%
Co 228.616†	6.0	0.1050	ug/L	0.17886	0.1050	ppb	0.17886	170.28%
Cr 267.716†	17.7	0.1799	ug/L	0.22671	0.1799	ppb	0.22671	125.99%
Cu 324.752†	-3.2	-0.0091	ug/L	0.23765	-0.0091	ppb	0.23765	>999.9%
Fe 238.204 Radial†	-0.4	-3.6195	ug/L	10.70781	-3.6195	ppb	10.70781	295.84%
K 766.490 Radial†	103.8	18.297	ug/L	20.2323	18.297	ppb	20.2323	110.58%

Mg 279.077 IEC†	0.1	2.1235	ug/L	87.85438	2.1235	ppb	87.85438 >999.9%
Mn 257.610†	254.4	0.2506	ug/L	0.00851	0.2506	ppb	0.00851 3.40%
Mo 202.031†	7.2	0.4358	ug/L	0.04016	0.4358	ppb	0.04016 9.22%
Na 589.592 Radial†	-83.6	-24.953	ug/L	15.1034	-24.953	ppb	15.1034 60.53%
Ni 231.604†	25.2	0.5511	ug/L	0.08732	0.5511	ppb	0.08732 15.84%
P 214.914†	-5.4	-2.8269	ug/L	2.88995	-2.8269	ppb	2.88995 102.23%
Pb 220.353†	-8.7	-0.9142	ug/L	0.50196	-0.9142	ppb	0.50196 54.90%
S 181.975 Axial†	-3.8	-4.6333	ug/L	1.88237	-4.6333	ppb	1.88237 40.63%
Sb 206.836†	3.5	1.0495	ug/L	1.80207	1.0495	ppb	1.80207 171.70%
Se 196.026†	-1.5	-0.8423	ug/L	3.63206	-0.8423	ppb	3.63206 431.19%
Si 251.611†	361.7	10.183	ug/L	0.1517	10.183	ppb	0.1517 1.49%
Sn 189.927†	4.0	0.6029	ug/L	0.79442	0.6029	ppb	0.79442 131.76%
Sr 421.552†	25.6	0.1502	ug/L	0.07712	0.1502	ppb	0.07712 51.34%
Ti 334.940†	175.7	0.2544	ug/L	0.01822	0.2544	ppb	0.01822 7.16%
Tl 190.801†	8.7	2.2555	ug/L	1.20020	2.2555	ppb	1.20020 53.21%
U 409.014†	-25.7	-0.7083	ug/L	2.48144	-0.7083	ppb	2.48144 350.35%
V 292.402†	2.8	0.0228	ug/L	0.31870	0.0228	ppb	0.31870 >999.9%
Zn 213.857†	179.2	1.4666	ug/L	0.08897	1.4666	ppb	0.08897 6.07%
SiO2†	358.0	21.640	ug/L	0.8454	21.640	ppb	0.8454 3.91%

Sequence No.: 39
Sample ID: 1201994187|932262|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 57
Date Collected: 12/19/2009 17:51:27
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1201994187|932262|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5582.3	5582.3	100	%			17:53:20
1	Y RADIAL	5930.4	5930.4	100.3	%			17:53:20
1	Al 396.153Radial†	7130.0	7127.2	5171.5	ug/L	5171.5	ppb	17:53:20
1	Ca 317.933Radial†	3617.6	3588.3	5115.9	ug/L	5115.9	ppb	17:53:40
1	Fe 238.204 Radial†	631.4	618.8	5159.7	ug/L	5159.7	ppb	17:53:40
1	K 766.490 Radial†	31918.7	29120.2	5125.8	ug/L	5125.8	ppb	17:53:20
1	Mg 279.077 IEC†	174.8	173.0	5376.7	ug/L	5376.7	ppb	17:53:40
1	Na 589.592 Radial†	15717.8	16437.0	4906.0	ug/L	4906.0	ppb	17:53:20
1	Sr 421.552†	87052.9	86830.0	509.11	ug/L	509.11	ppb	17:53:20
1	Sc 361.383	921522.1	921522.1	102.52	%			17:54:39
1	Y 371.029	750603.4	750603.4	100.82	%			17:54:39
1	Ag 328.068†	119120.5	115827.5	502.39	ug/L	502.39	ppb	17:54:39
1	As 188.979†	1407.0	1407.3	515.36	ug/L	515.36	ppb	17:54:59
1	B 249.677†	24460.1	23885.8	488.26	ug/L	488.26	ppb	17:54:39
1	Ba 233.527†	78037.9	76125.6	518.73	ug/L	518.73	ppb	17:54:39
1	Be 313.107†	1542624.7	1509501.4	507.23	ug/L	507.23	ppb	17:54:39
1	Cd 226.502†	52578.9	51517.8	503.65	ug/L	503.65	ppb	17:54:39
1	Co 228.616†	28976.8	28352.9	496.47	ug/L	496.47	ppb	17:54:59
1	Cr 267.716†	51498.9	50155.0	509.33	ug/L	509.33	ppb	17:54:39
1	Cu 324.752†	193918.5	183104.3	517.60	ug/L	517.60	ppb	17:54:39
1	Mn 257.610†	536927.0	523259.9	516.54	ug/L	516.54	ppb	17:54:39
1	Mo 202.031†	8634.4	8402.6	508.99	ug/L	508.99	ppb	17:54:59
1	Ni 231.604†	24094.6	23409.7	511.16	ug/L	511.16	ppb	17:54:59
1	P 214.914†	1391.4	1099.1	495.30	ug/L	495.30	ppb	17:54:59
1	Pb 220.353†	4923.0	4866.2	514.38	ug/L	514.38	ppb	17:54:59
1	S 181.975 Axial†	4332.2	4176.9	5123.2	ug/L	5123.2	ppb	17:54:59
1	Sb 206.836†	1821.7	1735.8	527.76	ug/L	527.76	ppb	17:54:59
1	Se 196.026†	902.6	908.9	513.19	ug/L	513.19	ppb	17:54:59
1	Si 251.611†	183940.8	178849.7	5031.0	ug/L	5031.0	ppb	17:54:39
1	Sn 189.927†	3626.4	3533.9	530.60	ug/L	530.60	ppb	17:54:59
1	Ti 334.940†	361462.8	353980.5	511.66	ug/L	511.66	ppb	17:54:39
1	Tl 190.801†	1990.7	1989.9	519.66	ug/L	519.66	ppb	17:54:59
1	U 409.014†	16490.2	18457.8	506.92	ug/L	506.92	ppb	17:54:39
1	V 292.402†	81186.3	80663.5	519.87	ug/L	519.87	ppb	17:54:39
1	Zn 213.857†	63660.5	61304.8	498.23	ug/L	498.23	ppb	17:54:39
1	SiO2†	185225.6	180073.7	10877	ug/L	10877	ppb	17:55:59
2	Sc Radial	5578.5	5578.5	100	%			17:53:45
2	Y RADIAL	5889.5	5889.5	99.63	%			17:53:45
2	Al 396.153Radial†	7089.0	7091.0	5145.2	ug/L	5145.2	ppb	17:53:45
2	Ca 317.933Radial†	3584.9	3558.1	5072.8	ug/L	5072.8	ppb	17:54:05
2	Fe 238.204 Radial†	629.3	617.2	5146.1	ug/L	5146.1	ppb	17:54:05
2	K 766.490 Radial†	31624.9	28848.7	5078.0	ug/L	5078.0	ppb	17:53:45
2	Mg 279.077 IEC†	171.3	169.6	5271.6	ug/L	5271.6	ppb	17:54:05
2	Na 589.592 Radial†	15673.4	16403.5	4896.0	ug/L	4896.0	ppb	17:53:45
2	Sr 421.552†	86380.4	86218.0	505.52	ug/L	505.52	ppb	17:53:45
2	Sc 361.383	914038.4	914038.4	101.68	%			17:55:06
2	Y 371.029	744473.8	744473.8	100.00	%			17:55:06
2	Ag 328.068†	118231.3	115904.4	502.72	ug/L	502.72	ppb	17:55:06
2	As 188.979†	1377.3	1389.3	508.82	ug/L	508.82	ppb	17:55:26
2	B 249.677†	24306.6	23930.2	489.17	ug/L	489.17	ppb	17:55:06
2	Ba 233.527†	77538.6	76257.8	519.63	ug/L	519.63	ppb	17:55:06
2	Be 313.107†	1529351.1	1508767.7	506.99	ug/L	506.99	ppb	17:55:06
2	Cd 226.502†	52216.7	51581.5	504.28	ug/L	504.28	ppb	17:55:06
2	Co 228.616†	28697.9	28309.9	495.71	ug/L	495.71	ppb	17:55:26
2	Cr 267.716†	51097.3	50171.3	509.50	ug/L	509.50	ppb	17:55:06
2	Cu 324.752†	192211.9	182974.7	517.23	ug/L	517.23	ppb	17:55:06
2	Mn 257.610†	533533.2	524210.4	517.48	ug/L	517.48	ppb	17:55:06
2	Mo 202.031†	8534.3	8373.1	507.20	ug/L	507.20	ppb	17:55:26
2	Ni 231.604†	23857.3	23368.8	510.27	ug/L	510.27	ppb	17:55:26

2	P 214.914†	1403.7	1122.4	507.47 ug/L	507.47 ppb	17:55:26
2	Pb 220.353†	4883.3	4866.5	514.40 ug/L	514.40 ppb	17:55:26
2	S 181.975 Axial†	4296.4	4176.3	5122.5 ug/L	5122.5 ppb	17:55:26
2	Sb 206.836†	1813.3	1742.0	529.54 ug/L	529.54 ppb	17:55:26
2	Se 196.026†	896.1	909.8	513.59 ug/L	513.59 ppb	17:55:26
2	Si 251.611†	182686.1	179084.8	5037.7 ug/L	5037.7 ppb	17:55:06
2	Sn 189.927†	3581.4	3518.6	528.31 ug/L	528.31 ppb	17:55:26
2	Ti 334.940†	358537.0	353989.9	511.68 ug/L	511.68 ppb	17:55:06
2	Tl 190.801†	1957.2	1972.8	515.24 ug/L	515.24 ppb	17:55:26
2	U 409.014†	16255.0	18358.2	504.18 ug/L	504.18 ppb	17:55:06
2	V 292.402†	80576.1	80711.8	520.15 ug/L	520.15 ppb	17:55:06
2	Zn 213.857†	63311.9	61470.4	499.59 ug/L	499.59 ppb	17:55:06
2	SiO2†	183344.9	179703.4	10854 ug/L	10854 ppb	17:56:05
3	Sc Radial	5658.0	5658.0	102 %		17:54:10
3	Y RADIAL	5979.7	5979.7	101.2 %		17:54:10
3	Al 396.153Radial†	7221.2	7121.7	5167.9 ug/L	5167.9 ppb	17:54:10
3	Ca 317.933Radial†	3576.3	3499.3	4989.1 ug/L	4989.1 ppb	17:54:30
3	Fe 238.204 Radial†	625.9	605.0	5044.6 ug/L	5044.6 ppb	17:54:30
3	K 766.490 Radial†	32177.3	28948.8	5095.6 ug/L	5095.6 ppb	17:54:10
3	Mg 279.077 IEC†	169.7	165.5	5146.0 ug/L	5146.0 ppb	17:54:30
3	Na 589.592 Radial†	15879.2	16386.1	4890.8 ug/L	4890.8 ppb	17:54:10
3	Sr 421.552†	88035.4	86635.3	507.97 ug/L	507.97 ppb	17:54:10
3	Sc 361.383	926973.1	926973.1	103.12 %		17:55:34
3	Y 371.029	754221.3	754221.3	101.31 %		17:55:34
3	Ag 328.068†	119825.4	115827.7	502.35 ug/L	502.35 ppb	17:55:34
3	As 188.979†	1367.9	1361.3	498.66 ug/L	498.66 ppb	17:55:54
3	B 249.677†	24679.2	23958.0	489.78 ug/L	489.78 ppb	17:55:34
3	Ba 233.527†	78368.8	75998.8	517.86 ug/L	517.86 ppb	17:55:34
3	Be 313.107†	1548475.1	1506326.0	506.17 ug/L	506.17 ppb	17:55:34
3	Cd 226.502†	52850.8	51480.0	503.29 ug/L	503.29 ppb	17:55:34
3	Co 228.616†	28669.5	27888.6	488.32 ug/L	488.32 ppb	17:55:54
3	Cr 267.716†	51801.2	50152.8	509.30 ug/L	509.30 ppb	17:55:34
3	Cu 324.752†	195256.1	183289.2	518.12 ug/L	518.12 ppb	17:55:34
3	Mn 257.610†	540227.5	523380.6	516.65 ug/L	516.65 ppb	17:55:34
3	Mo 202.031†	8532.6	8254.4	500.01 ug/L	500.01 ppb	17:55:54
3	Ni 231.604†	23846.6	23031.1	502.90 ug/L	502.90 ppb	17:55:54
3	P 214.914†	1397.9	1097.5	494.34 ug/L	494.34 ppb	17:55:54
3	Pb 220.353†	4871.4	4788.0	506.12 ug/L	506.12 ppb	17:55:54
3	S 181.975 Axial†	4271.6	4093.3	5020.6 ug/L	5020.6 ppb	17:55:54
3	Sb 206.836†	1783.9	1688.7	513.27 ug/L	513.27 ppb	17:55:54
3	Se 196.026†	877.1	879.1	496.56 ug/L	496.56 ppb	17:55:54
3	Si 251.611†	185150.2	178967.3	5034.5 ug/L	5034.5 ppb	17:55:34
3	Sn 189.927†	3577.1	3465.4	520.31 ug/L	520.31 ppb	17:55:54
3	Ti 334.940†	363679.4	354056.5	511.77 ug/L	511.77 ppb	17:55:34
3	Tl 190.801†	1970.3	1958.7	511.61 ug/L	511.61 ppb	17:55:54
3	U 409.014†	16587.1	18457.1	506.92 ug/L	506.92 ppb	17:55:34
3	V 292.402†	81585.5	80584.9	519.26 ug/L	519.26 ppb	17:55:34
3	Zn 213.857†	63954.7	61225.0	497.64 ug/L	497.64 ppb	17:55:34
3	SiO2†	183188.1	177035.4	10693 ug/L	10693 ppb	17:56:10

Mean Data: 1201994187|932262|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	920844.5	102.44	%	0.722				0.71%
Sc Radial	5606.3	101	%	0.8				0.80%
Y 371.029	749766.2	100.71	%	0.662				0.66%
Y RADIAL	5933.2	100.4	%	0.76				0.76%
Ag 328.068†	115853.2	502.49	ug/L	0.203	502.49	ppb	0.203	0.04%
Al 396.153Radial†	7113.3	5161.5	ug/L	14.24	5161.5	ppb	14.24	0.28%
As 188.979†	1386.0	507.61	ug/L	8.416	507.61	ppb	8.416	1.66%
B 249.677†	23924.7	489.07	ug/L	0.764	489.07	ppb	0.764	0.16%
Ba 233.527†	76127.4	518.74	ug/L	0.883	518.74	ppb	0.883	0.17%
Be 313.107†	1508198.4	506.80	ug/L	0.557	506.80	ppb	0.557	0.11%
Ca 317.933Radial†	3548.6	5059.3	ug/L	64.49	5059.3	ppb	64.49	1.27%
Cd 226.502†	51526.4	503.74	ug/L	0.500	503.74	ppb	0.500	0.10%
Co 228.616†	28183.8	493.50	ug/L	4.502	493.50	ppb	4.502	0.91%
Cr 267.716†	50159.7	509.38	ug/L	0.105	509.38	ppb	0.105	0.02%
Cu 324.752†	183122.7	517.65	ug/L	0.444	517.65	ppb	0.444	0.09%
Fe 238.204 Radial†	613.6	5116.8	ug/L	62.93	5116.8	ppb	62.93	1.23%
K 766.490 Radial†	28972.6	5099.8	ug/L	24.20	5099.8	ppb	24.20	0.47%

Mg 279.077 IEC†	169.4	5264.8	ug/L	115.49	5264.8	ppb	115.49	2.19%
Mn 257.610†	523617.0	516.89	ug/L	0.512	516.89	ppb	0.512	0.10%
Mo 202.031†	8343.4	505.40	ug/L	4.755	505.40	ppb	4.755	0.94%
Na 589.592 Radial†	16408.9	4897.6	ug/L	7.72	4897.6	ppb	7.72	0.16%
Ni 231.604†	23269.9	508.11	ug/L	4.538	508.11	ppb	4.538	0.89%
P 214.914†	1106.4	499.04	ug/L	7.318	499.04	ppb	7.318	1.47%
Pb 220.353†	4840.2	511.64	ug/L	4.773	511.64	ppb	4.773	0.93%
S 181.975 Axial†	4148.8	5088.8	ug/L	59.05	5088.8	ppb	59.05	1.16%
Sb 206.836†	1722.2	523.52	ug/L	8.924	523.52	ppb	8.924	1.70%
Se 196.026†	899.3	507.78	ug/L	9.720	507.78	ppb	9.720	1.91%
Si 251.611†	178967.2	5034.4	ug/L	3.34	5034.4	ppb	3.34	0.07%
Sn 189.927†	3506.0	526.41	ug/L	5.402	526.41	ppb	5.402	1.03%
Sr 421.552†	86561.1	507.54	ug/L	1.833	507.54	ppb	1.833	0.36%
Ti 334.940†	354009.0	511.70	ug/L	0.056	511.70	ppb	0.056	0.01%
Tl 190.801†	1973.8	515.51	ug/L	4.032	515.51	ppb	4.032	0.78%
U 409.014†	18424.4	506.00	ug/L	1.582	506.00	ppb	1.582	0.31%
V 292.402†	80653.4	519.76	ug/L	0.457	519.76	ppb	0.457	0.09%
Zn 213.857†	61333.4	498.49	ug/L	1.002	498.49	ppb	1.002	0.20%
SiO2†	178937.5	10808	ug/L	100.1	10808	ppb	100.1	0.93%

Sequence No.: 40
Sample ID: 242669001|932262|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 58
Date Collected: 12/19/2009 17:58:20
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 242669001|932262|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5788.6	5788.6	104	%			18:00:13
1	Y RADIAL	6152.3	6152.3	104.1	%			18:00:13
1	Al 396.153Radial†	119.0	130.9	95.341	ug/L	95.341	ppb	18:00:13
1	Ca 317.933Radial†	72.9	50.5	72.068	ug/L	72.068	ppb	18:00:33
1	Fe 238.204 Radial†	22.3	10.5	87.437	ug/L	87.437	ppb	18:00:33
1	K 766.490 Radial†	3251.6	414.8	72.965	ug/L	72.965	ppb	18:00:13
1	Mg 279.077 IEC†	2.0	0.6	17.469	ug/L	17.469	ppb	18:00:33
1	Na 589.592 Radial†	37.7	797.9	238.16	ug/L	238.16	ppb	18:00:13
1	Sr 421.552†	109.6	117.2	0.6867	ug/L	0.6867	ppb	18:00:13
1	Sc 361.383	940611.6	940611.6	104.64	%			18:01:30
1	Y 371.029	774489.3	774489.3	104.03	%			18:01:30
1	Ag 328.068†	369.7	-16.6	-0.0399	ug/L	-0.0399	ppb	18:01:35
1	As 188.979†	-37.0	-0.5	-0.1405	ug/L	-0.1405	ppb	18:01:55
1	B 249.677†	-252.7	-215.6	-4.4365	ug/L	-4.4365	ppb	18:01:55
1	Ba 233.527†	123.9	121.0	0.8272	ug/L	0.8272	ppb	18:01:55
1	Be 313.107†	-4808.7	135.6	0.0508	ug/L	0.0508	ppb	18:01:35
1	Cd 226.502†	-221.0	17.9	0.1681	ug/L	0.1681	ppb	18:01:55
1	Co 228.616†	-80.1	10.6	0.1774	ug/L	0.1774	ppb	18:01:55
1	Cr 267.716†	475.3	374.1	3.7956	ug/L	3.7956	ppb	18:01:55
1	Cu 324.752†	6460.2	118.2	0.3384	ug/L	0.3384	ppb	18:01:35
1	Mn 257.610†	4431.0	3743.1	3.7004	ug/L	3.7004	ppb	18:01:35
1	Mo 202.031†	25.2	4.2	0.2634	ug/L	0.2634	ppb	18:01:55
1	Ni 231.604†	199.0	96.6	2.1096	ug/L	2.1096	ppb	18:01:55
1	P 214.914†	262.8	-6.9	-3.7219	ug/L	-3.7219	ppb	18:01:55
1	Pb 220.353†	-69.7	-2.6	-0.2567	ug/L	-0.2567	ppb	18:01:55
1	S 181.975 Axial†	65.5	13.6	16.681	ug/L	16.681	ppb	18:01:55
1	Sb 206.836†	48.1	4.7	1.3056	ug/L	1.3056	ppb	18:01:55
1	Se 196.026†	-26.4	3.3	2.0714	ug/L	2.0714	ppb	18:01:55
1	Si 251.611†	55753.3	52704.0	1486.1	ug/L	1486.1	ppb	18:01:35
1	Sn 189.927†	-1.9	-5.3	-0.7921	ug/L	-0.7921	ppb	18:01:55
1	Ti 334.940†	505.8	1871.0	2.7079	ug/L	2.7079	ppb	18:01:35
1	Tl 190.801†	-44.2	5.9	1.5615	ug/L	1.5615	ppb	18:01:55
1	U 409.014†	-2512.0	-28.4	-0.8008	ug/L	-0.8008	ppb	18:01:30
1	V 292.402†	-1414.3	117.8	0.7342	ug/L	0.7342	ppb	18:01:35
1	Zn 213.857†	1713.1	843.6	6.8958	ug/L	6.8958	ppb	18:01:55
1	SiO2†	55089.3	52040.2	3150.9	ug/L	3150.9	ppb	18:03:01
2	Sc Radial	5769.1	5769.1	104	%			18:00:38
2	Y RADIAL	6117.3	6117.3	103.5	%			18:00:38
2	Al 396.153Radial†	120.3	132.5	96.505	ug/L	96.505	ppb	18:00:38
2	Ca 317.933Radial†	72.0	49.9	71.125	ug/L	71.125	ppb	18:00:59
2	Fe 238.204 Radial†	21.7	10.1	83.672	ug/L	83.672	ppb	18:00:59
2	K 766.490 Radial†	2942.5	127.1	22.261	ug/L	22.261	ppb	18:00:38
2	Mg 279.077 IEC†	3.7	2.1	66.074	ug/L	66.074	ppb	18:00:59
2	Na 589.592 Radial†	54.0	813.7	242.87	ug/L	242.87	ppb	18:00:38
2	Sr 421.552†	87.2	95.9	0.5618	ug/L	0.5618	ppb	18:00:38
2	Sc 361.383	939174.4	939174.4	104.48	%			18:02:00
2	Y 371.029	772631.2	772631.2	103.78	%			18:02:00
2	Ag 328.068†	445.7	56.7	0.2706	ug/L	0.2706	ppb	18:02:06
2	As 188.979†	-33.6	2.6	0.9981	ug/L	0.9981	ppb	18:02:26
2	B 249.677†	-217.6	-182.4	-3.7538	ug/L	-3.7538	ppb	18:02:26
2	Ba 233.527†	135.7	132.5	0.9040	ug/L	0.9040	ppb	18:02:26
2	Be 313.107†	-4725.3	208.4	0.0754	ug/L	0.0754	ppb	18:02:06
2	Cd 226.502†	-210.7	27.5	0.2622	ug/L	0.2622	ppb	18:02:26
2	Co 228.616†	-89.8	1.1	0.0137	ug/L	0.0137	ppb	18:02:26
2	Cr 267.716†	450.9	351.4	3.5642	ug/L	3.5642	ppb	18:02:26
2	Cu 324.752†	6371.8	43.0	0.1259	ug/L	0.1259	ppb	18:02:06
2	Mn 257.610†	4494.9	3810.8	3.7659	ug/L	3.7659	ppb	18:02:06
2	Mo 202.031†	33.0	11.7	0.7122	ug/L	0.7122	ppb	18:02:26
2	Ni 231.604†	189.9	88.2	1.9271	ug/L	1.9271	ppb	18:02:26

2	P 214.914†	260.5	-8.7	-4.6075	ug/L	-4.6075 ppb	18:02:26
2	Pb 220.353†	-60.5	6.1	0.6612	ug/L	0.6612 ppb	18:02:26
2	S 181.975 Axial†	66.8	14.9	18.276	ug/L	18.276 ppb	18:02:26
2	Sb 206.836†	37.7	-5.1	-1.6154	ug/L	-1.6154 ppb	18:02:26
2	Se 196.026†	-28.8	1.0	0.7997	ug/L	0.7997 ppb	18:02:26
2	Si 251.611†	55439.6	52485.3	1480.0	ug/L	1480.0 ppb	18:02:06
2	Sn 189.927†	6.4	2.7	0.4098	ug/L	0.4098 ppb	18:02:26
2	Ti 334.940†	573.0	1936.0	2.8008	ug/L	2.8008 ppb	18:02:06
2	Tl 190.801†	-40.6	9.2	2.4339	ug/L	2.4339 ppb	18:02:26
2	U 409.014†	-2407.5	67.9	1.8535	ug/L	1.8535 ppb	18:02:00
2	V 292.402†	-1489.6	43.7	0.2758	ug/L	0.2758 ppb	18:02:06
2	Zn 213.857†	1721.8	854.5	6.9851	ug/L	6.9851 ppb	18:02:26
2	SiO2†	55436.7	52453.3	3175.9	ug/L	3175.9 ppb	18:03:06
3	Sc Radial	5710.1	5710.1	103	%		18:01:04
3	Y RADIAL	6039.9	6039.9	102.2	%		18:01:04
3	Al 396.153Radial†	105.1	118.8	86.544	ug/L	86.544 ppb	18:01:04
3	Ca 317.933Radial†	71.1	49.7	70.927	ug/L	70.927 ppb	18:01:24
3	Fe 238.204 Radial†	23.8	12.4	102.76	ug/L	102.76 ppb	18:01:24
3	K 766.490 Radial†	3073.9	284.6	50.011	ug/L	50.011 ppb	18:01:04
3	Mg 279.077 IEC†	4.0	2.5	76.282	ug/L	76.282 ppb	18:01:24
3	Na 589.592 Radial†	91.3	850.7	253.90	ug/L	253.90 ppb	18:01:04
3	Sr 421.552†	104.9	114.1	0.6686	ug/L	0.6686 ppb	18:01:04
3	Sc 361.383	942317.6	942317.6	104.83	%		18:02:31
3	Y 371.029	774189.8	774189.8	103.99	%		18:02:31
3	Ag 328.068†	393.7	5.6	0.0563	ug/L	0.0563 ppb	18:02:36
3	As 188.979†	-29.4	6.8	2.5142	ug/L	2.5142 ppb	18:02:56
3	B 249.677†	-249.8	-212.3	-4.3719	ug/L	-4.3719 ppb	18:02:56
3	Ba 233.527†	137.0	133.3	0.9117	ug/L	0.9117 ppb	18:02:56
3	Be 313.107†	-4817.8	135.3	0.0511	ug/L	0.0511 ppb	18:02:36
3	Cd 226.502†	-226.5	13.1	0.1194	ug/L	0.1194 ppb	18:02:56
3	Co 228.616†	-72.3	18.2	0.3108	ug/L	0.3108 ppb	18:02:56
3	Cr 267.716†	456.4	355.3	3.6034	ug/L	3.6034 ppb	18:02:56
3	Cu 324.752†	6464.8	111.4	0.3200	ug/L	0.3200 ppb	18:02:36
3	Mn 257.610†	4411.0	3716.4	3.6746	ug/L	3.6746 ppb	18:02:36
3	Mo 202.031†	31.6	10.3	0.6280	ug/L	0.6280 ppb	18:02:56
3	Ni 231.604†	182.3	80.4	1.7557	ug/L	1.7557 ppb	18:02:56
3	P 214.914†	255.6	-14.3	-7.5482	ug/L	-7.5482 ppb	18:02:56
3	Pb 220.353†	-57.2	9.5	1.0175	ug/L	1.0175 ppb	18:02:56
3	S 181.975 Axial†	68.3	16.2	19.799	ug/L	19.799 ppb	18:02:56
3	Sb 206.836†	39.9	-3.1	-1.0268	ug/L	-1.0268 ppb	18:02:56
3	Se 196.026†	-26.9	2.8	1.8657	ug/L	1.8657 ppb	18:02:56
3	Si 251.611†	55865.4	52714.5	1486.4	ug/L	1486.4 ppb	18:02:36
3	Sn 189.927†	2.3	-1.3	-0.1835	ug/L	-0.1835 ppb	18:02:56
3	Ti 334.940†	652.2	2009.7	2.9060	ug/L	2.9060 ppb	18:02:36
3	Tl 190.801†	-47.8	2.5	0.6823	ug/L	0.6823 ppb	18:02:56
3	U 409.014†	-2300.9	177.3	4.8659	ug/L	4.8659 ppb	18:02:31
3	V 292.402†	-1412.6	121.9	0.7752	ug/L	0.7752 ppb	18:02:36
3	Zn 213.857†	1701.3	829.4	6.7779	ug/L	6.7779 ppb	18:02:56
3	SiO2†	55358.6	52201.8	3160.7	ug/L	3160.7 ppb	18:03:11

Mean Data: 242669001|932262|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	940701.2	104.65	%	0.175				0.17%
Sc Radial	5755.9	103	%	0.7				0.71%
Y 371.029	773770.1	103.94	%	0.134				0.13%
Y RADIAL	6103.2	103.2	%	0.97				0.94%
Ag 328.068†	15.2	0.0957	ug/L	0.15892	0.0957	ppb	0.15892	166.09%
Al 396.153Radial†	127.4	92.797	ug/L	5.4461	92.797	ppb	5.4461	5.87%
As 188.979†	3.0	1.1240	ug/L	1.33183	1.1240	ppb	1.33183	118.50%
B 249.677†	-203.4	-4.1874	ug/L	0.37691	-4.1874	ppb	0.37691	9.00%
Ba 233.527†	128.9	0.8810	ug/L	0.04674	0.8810	ppb	0.04674	5.31%
Be 313.107†	159.8	0.0591	ug/L	0.01412	0.0591	ppb	0.01412	23.90%
Ca 317.933Radial†	50.1	71.373	ug/L	0.6099	71.373	ppb	0.6099	0.85%
Cd 226.502†	19.5	0.1832	ug/L	0.07259	0.1832	ppb	0.07259	39.62%
Co 228.616†	10.0	0.1673	ug/L	0.14878	0.1673	ppb	0.14878	88.93%
Cr 267.716†	360.2	3.6544	ug/L	0.12382	3.6544	ppb	0.12382	3.39%
Cu 324.752†	90.9	0.2614	ug/L	0.11775	0.2614	ppb	0.11775	45.04%
Fe 238.204 Radial†	11.0	91.291	ug/L	10.1121	91.291	ppb	10.1121	11.08%
K 766.490 Radial†	275.5	48.412	ug/L	25.3900	48.412	ppb	25.3900	52.45%

Mg 279.077 IEC†	1.7	53.275	ug/L	31.4264	53.275	ppb	31.4264	58.99%
Mn 257.610†	3756.7	3.7136	ug/L	0.04710	3.7136	ppb	0.04710	1.27%
Mo 202.031†	8.7	0.5345	ug/L	0.23855	0.5345	ppb	0.23855	44.63%
Na 589.592 Radial†	820.8	244.98	ug/L	8.080	244.98	ppb	8.080	3.30%
Ni 231.604†	88.4	1.9308	ug/L	0.17697	1.9308	ppb	0.17697	9.17%
P 214.914†	-10.0	-5.2925	ug/L	2.00303	-5.2925	ppb	2.00303	37.85%
Pb 220.353†	4.4	0.4740	ug/L	0.65739	0.4740	ppb	0.65739	138.69%
S 181.975 Axial†	14.9	18.252	ug/L	1.5589	18.252	ppb	1.5589	8.54%
Sb 206.836†	-1.2	-0.4455	ug/L	1.54480	-0.4455	ppb	1.54480	346.74%
Se 196.026†	2.4	1.5789	ug/L	0.68265	1.5789	ppb	0.68265	43.24%
Si 251.611†	52634.6	1484.2	ug/L	3.65	1484.2	ppb	3.65	0.25%
Sn 189.927†	-1.3	-0.1886	ug/L	0.60092	-0.1886	ppb	0.60092	318.62%
Sr 421.552†	109.1	0.6390	ug/L	0.06745	0.6390	ppb	0.06745	10.56%
Ti 334.940†	1938.9	2.8049	ug/L	0.09909	2.8049	ppb	0.09909	3.53%
Tl 190.801†	5.8	1.5592	ug/L	0.87579	1.5592	ppb	0.87579	56.17%
U 409.014†	72.3	1.9728	ug/L	2.83526	1.9728	ppb	2.83526	143.71%
V 292.402†	94.5	0.5951	ug/L	0.27726	0.5951	ppb	0.27726	46.59%
Zn 213.857†	842.5	6.8863	ug/L	0.10392	6.8863	ppb	0.10392	1.51%
SiO2†	52231.7	3162.5	ug/L	12.61	3162.5	ppb	12.61	0.40%

Sequence No.: 41
Sample ID: 1201994188|932262|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 59
Date Collected: 12/19/2009 18:05:22
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1201994188|932262|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5722.9	5722.9	103	%			18:07:15
1	Y RADIAL	6091.2	6091.2	103.0	%			18:07:15
1	Al 396.153Radial†	100.6	114.3	83.245	ug/L	83.245	ppb	18:07:15
1	Ca 317.933Radial†	69.8	48.3	68.834	ug/L	68.834	ppb	18:07:35
1	Fe 238.204 Radial†	22.2	10.7	89.092	ug/L	89.092	ppb	18:07:35
1	K 766.490 Radial†	3114.0	316.9	55.706	ug/L	55.706	ppb	18:07:15
1	Mg 279.077 IEC†	1.2	-0.3	-7.8767	ug/L	-7.8767	ppb	18:07:35
1	Na 589.592 Radial†	40.0	800.6	238.95	ug/L	238.95	ppb	18:07:15
1	Sr 421.552†	89.4	98.8	0.5785	ug/L	0.5785	ppb	18:07:15
1	Sc 361.383	938638.5	938638.5	104.42	%			18:08:32
1	Y 371.029	772108.1	772108.1	103.71	%			18:08:32
1	Ag 328.068†	353.3	-31.5	-0.1102	ug/L	-0.1102	ppb	18:08:37
1	As 188.979†	-31.1	5.0	1.8600	ug/L	1.8600	ppb	18:08:57
1	B 249.677†	-349.4	-308.7	-6.3472	ug/L	-6.3472	ppb	18:08:57
1	Ba 233.527†	139.9	136.6	0.9323	ug/L	0.9323	ppb	18:08:57
1	Be 313.107†	-4728.6	202.6	0.0732	ug/L	0.0732	ppb	18:08:37
1	Cd 226.502†	-222.3	16.3	0.1521	ug/L	0.1521	ppb	18:08:57
1	Co 228.616†	-83.8	6.8	0.1125	ug/L	0.1125	ppb	18:08:57
1	Cr 267.716†	472.2	372.0	3.7723	ug/L	3.7723	ppb	18:08:57
1	Cu 324.752†	6420.9	93.6	0.2689	ug/L	0.2689	ppb	18:08:37
1	Mn 257.610†	4641.0	3953.1	3.9083	ug/L	3.9083	ppb	18:08:37
1	Mo 202.031†	28.7	7.6	0.4684	ug/L	0.4684	ppb	18:08:57
1	Ni 231.604†	200.2	98.2	2.1447	ug/L	2.1447	ppb	18:08:57
1	P 214.914†	269.2	-0.3	-0.2378	ug/L	-0.2378	ppb	18:08:57
1	Pb 220.353†	-74.4	-7.2	-0.7456	ug/L	-0.7456	ppb	18:08:57
1	S 181.975 Axial†	67.8	16.0	19.551	ug/L	19.551	ppb	18:08:57
1	Sb 206.836†	34.3	-8.4	-2.6056	ug/L	-2.6056	ppb	18:08:57
1	Se 196.026†	-23.2	6.3	3.7218	ug/L	3.7218	ppb	18:08:57
1	Si 251.611†	54251.5	51377.7	1448.7	ug/L	1448.7	ppb	18:08:37
1	Sn 189.927†	1.2	-2.3	-0.3384	ug/L	-0.3384	ppb	18:08:57
1	Ti 334.940†	490.6	1857.5	2.6856	ug/L	2.6856	ppb	18:08:37
1	Tl 190.801†	-49.8	0.3	0.1349	ug/L	0.1349	ppb	18:08:57
1	U 409.014†	-2285.2	183.7	5.0433	ug/L	5.0433	ppb	18:08:32
1	V 292.402†	-1484.6	47.7	0.3013	ug/L	0.3013	ppb	18:08:37
1	Zn 213.857†	1714.0	847.9	6.9321	ug/L	6.9321	ppb	18:08:57
1	SiO2†	54392.0	51483.1	3117.2	ug/L	3117.2	ppb	18:10:03
2	Sc Radial	5658.4	5658.4	102	%			18:07:41
2	Y RADIAL	5977.0	5977.0	101.1	%			18:07:41
2	Al 396.153Radial†	138.0	152.2	110.88	ug/L	110.88	ppb	18:07:41
2	Ca 317.933Radial†	69.9	49.2	70.180	ug/L	70.180	ppb	18:08:01
2	Fe 238.204 Radial†	21.0	9.8	81.214	ug/L	81.214	ppb	18:08:01
2	K 766.490 Radial†	3092.7	330.5	58.097	ug/L	58.097	ppb	18:07:41
2	Mg 279.077 IEC†	3.6	2.2	67.408	ug/L	67.408	ppb	18:08:01
2	Na 589.592 Radial†	71.0	831.5	248.17	ug/L	248.17	ppb	18:07:41
2	Sr 421.552†	133.4	143.1	0.8385	ug/L	0.8385	ppb	18:07:41
2	Sc 361.383	949171.5	949171.5	105.59	%			18:09:03
2	Y 371.029	780776.9	780776.9	104.88	%			18:09:03
2	Ag 328.068†	384.9	-5.4	-0.0011	ug/L	-0.0011	ppb	18:09:08
2	As 188.979†	-28.6	7.7	2.8393	ug/L	2.8393	ppb	18:09:28
2	B 249.677†	-337.0	-293.2	-6.0283	ug/L	-6.0283	ppb	18:09:28
2	Ba 233.527†	138.4	133.7	0.9128	ug/L	0.9128	ppb	18:09:28
2	Be 313.107†	-4772.4	211.4	0.0762	ug/L	0.0762	ppb	18:09:08
2	Cd 226.502†	-232.1	9.4	0.0850	ug/L	0.0850	ppb	18:09:28
2	Co 228.616†	-79.5	11.8	0.2003	ug/L	0.2003	ppb	18:09:28
2	Cr 267.716†	464.3	359.5	3.6451	ug/L	3.6451	ppb	18:09:28
2	Cu 324.752†	6360.9	-31.5	-0.0848	ug/L	-0.0848	ppb	18:09:08
2	Mn 257.610†	4692.8	3952.9	3.9058	ug/L	3.9058	ppb	18:09:08
2	Mo 202.031†	26.5	5.2	0.3220	ug/L	0.3220	ppb	18:09:28
2	Ni 231.604†	195.4	91.5	1.9983	ug/L	1.9983	ppb	18:09:28

2	P 214.914†	262.7	-9.3	-4.8529 ug/L	-4.8529 ppb	18:09:28
2	Pb 220.353†	-71.7	-3.9	-0.3891 ug/L	-0.3891 ppb	18:09:28
2	S 181.975 Axial†	65.5	13.0	15.964 ug/L	15.964 ppb	18:09:28
2	Sb 206.836†	31.2	-11.7	-3.5816 ug/L	-3.5816 ppb	18:09:28
2	Se 196.026†	-19.6	9.9	5.6781 ug/L	5.6781 ppb	18:09:28
2	Si 251.611†	54408.6	50950.0	1436.7 ug/L	1436.7 ppb	18:09:08
2	Sn 189.927†	5.8	2.0	0.3029 ug/L	0.3029 ppb	18:09:28
2	Ti 334.940†	513.0	1873.4	2.7080 ug/L	2.7080 ppb	18:09:08
2	Tl 190.801†	-39.1	11.0	2.9047 ug/L	2.9047 ppb	18:09:28
2	U 409.014†	-2246.7	244.5	6.7192 ug/L	6.7192 ppb	18:09:03
2	V 292.402†	-1475.4	72.2	0.4615 ug/L	0.4615 ppb	18:09:08
2	Zn 213.857†	1716.3	831.8	6.7996 ug/L	6.7996 ppb	18:09:28
2	SiO2†	54486.2	50994.2	3087.6 ug/L	3087.6 ppb	18:10:08
3	Sc Radial	5689.4	5689.4	102 %		18:08:06
3	Y RADIAL	6071.1	6071.1	102.7 %		18:08:06
3	Al 396.153Radial†	130.9	144.5	105.27 ug/L	105.27 ppb	18:08:06
3	Ca 317.933Radial†	73.4	52.3	74.497 ug/L	74.497 ppb	18:08:26
3	Fe 238.204 Radial†	21.8	10.4	86.796 ug/L	86.796 ppb	18:08:26
3	K 766.490 Radial†	3233.8	452.0	79.517 ug/L	79.517 ppb	18:08:06
3	Mg 279.077 IEC†	3.2	1.8	54.641 ug/L	54.641 ppb	18:08:26
3	Na 589.592 Radial†	10.9	772.3	230.52 ug/L	230.52 ppb	18:08:06
3	Sr 421.552†	73.7	83.9	0.4913 ug/L	0.4913 ppb	18:08:06
3	Sc 361.383	939818.3	939818.3	104.55 %		18:09:33
3	Y 371.029	773072.3	773072.3	103.84 %		18:09:33
3	Ag 328.068†	348.1	-37.0	-0.1295 ug/L	-0.1295 ppb	18:09:38
3	As 188.979†	-33.2	3.1	1.1621 ug/L	1.1621 ppb	18:09:58
3	B 249.677†	-356.4	-315.0	-6.4759 ug/L	-6.4759 ppb	18:09:58
3	Ba 233.527†	140.2	136.7	0.9336 ug/L	0.9336 ppb	18:09:58
3	Be 313.107†	-4804.6	135.6	0.0507 ug/L	0.0507 ppb	18:09:38
3	Cd 226.502†	-227.7	11.4	0.1044 ug/L	0.1044 ppb	18:09:58
3	Co 228.616†	-76.7	13.7	0.2329 ug/L	0.2329 ppb	18:09:58
3	Cr 267.716†	447.2	347.6	3.5265 ug/L	3.5265 ppb	18:09:58
3	Cu 324.752†	6398.0	63.9	0.1850 ug/L	0.1850 ppb	18:09:38
3	Mn 257.610†	4674.5	3979.5	3.9329 ug/L	3.9329 ppb	18:09:38
3	Mo 202.031†	26.3	5.2	0.3232 ug/L	0.3232 ppb	18:09:58
3	Ni 231.604†	192.7	90.7	1.9813 ug/L	1.9813 ppb	18:09:58
3	P 214.914†	246.9	-21.9	-11.481 ug/L	-11.481 ppb	18:09:58
3	Pb 220.353†	-83.7	-16.0	-1.6709 ug/L	-1.6709 ppb	18:09:58
3	S 181.975 Axial†	69.5	17.5	21.458 ug/L	21.458 ppb	18:09:58
3	Sb 206.836†	35.3	-7.5	-2.3105 ug/L	-2.3105 ppb	18:09:58
3	Se 196.026†	-31.6	-1.7	-0.6471 ug/L	-0.6471 ppb	18:09:58
3	Si 251.611†	54388.5	51443.5	1450.6 ug/L	1450.6 ppb	18:09:38
3	Sn 189.927†	8.0	4.2	0.6397 ug/L	0.6397 ppb	18:09:58
3	Ti 334.940†	458.4	1826.1	2.6425 ug/L	2.6425 ppb	18:09:38
3	Tl 190.801†	-40.6	9.2	2.4419 ug/L	2.4419 ppb	18:09:58
3	U 409.014†	-2446.9	31.8	0.8586 ug/L	0.8586 ppb	18:09:33
3	V 292.402†	-1424.8	106.6	0.6682 ug/L	0.6682 ppb	18:09:38
3	Zn 213.857†	1713.9	845.8	6.9135 ug/L	6.9135 ppb	18:09:58
3	SiO2†	54409.8	51434.7	3114.2 ug/L	3114.2 ppb	18:10:13

Mean Data: 1201994188|932262|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	942542.8	104.85	%	0.642				0.61%
Sc Radial	5690.2	102	%	0.6				0.57%
Y 371.029	775319.1	104.14	%	0.638				0.61%
Y RADIAL	6046.4	102.3	%	1.03				1.01%
Ag 328.068†	-24.6	-0.0803	ug/L	0.06926	-0.0803	ppb	0.06926	86.29%
Al 396.153Radial†	137.0	99.798	ug/L	14.6075	99.798	ppb	14.6075	14.64%
As 188.979†	5.3	1.9538	ug/L	0.84254	1.9538	ppb	0.84254	43.12%
B 249.677†	-305.6	-6.2838	ug/L	0.23041	-6.2838	ppb	0.23041	3.67%
Ba 233.527†	135.7	0.9262	ug/L	0.01164	0.9262	ppb	0.01164	1.26%
Be 313.107†	183.2	0.0667	ug/L	0.01397	0.0667	ppb	0.01397	20.95%
Ca 317.933Radial†	49.9	71.170	ug/L	2.9586	71.170	ppb	2.9586	4.16%
Cd 226.502†	12.4	0.1138	ug/L	0.03454	0.1138	ppb	0.03454	30.34%
Co 228.616†	10.8	0.1819	ug/L	0.06231	0.1819	ppb	0.06231	34.25%
Cr 267.716†	359.7	3.6480	ug/L	0.12292	3.6480	ppb	0.12292	3.37%
Cu 324.752†	42.0	0.1230	ug/L	0.18483	0.1230	ppb	0.18483	150.26%
Fe 238.204 Radial†	10.3	85.701	ug/L	4.0518	85.701	ppb	4.0518	4.73%
K 766.490 Radial†	366.4	64.440	ug/L	13.1119	64.440	ppb	13.1119	20.35%

Mg 279.077 IEC†	1.2	38.057	ug/L	40.2890	38.057	ppb	40.2890 105.86%
Mn 257.610†	3961.8	3.9157	ug/L	0.01498	3.9157	ppb	0.01498 0.38%
Mo 202.031†	6.0	0.3712	ug/L	0.08421	0.3712	ppb	0.08421 22.69%
Na 589.592 Radial†	801.5	239.21	ug/L	8.829	239.21	ppb	8.829 3.69%
Ni 231.604†	93.4	2.0415	ug/L	0.08983	2.0415	ppb	0.08983 4.40%
P 214.914†	-10.5	-5.5238	ug/L	5.65142	-5.5238	ppb	5.65142 102.31%
Pb 220.353†	-9.0	-0.9352	ug/L	0.66159	-0.9352	ppb	0.66159 70.74%
S 181.975 Axial†	15.5	18.991	ug/L	2.7896	18.991	ppb	2.7896 14.69%
Sb 206.836†	-9.2	-2.8326	ug/L	0.66527	-2.8326	ppb	0.66527 23.49%
Se 196.026†	4.8	2.9176	ug/L	3.23835	2.9176	ppb	3.23835 110.99%
Si 251.611†	51257.1	1445.3	ug/L	7.55	1445.3	ppb	7.55 0.52%
Sn 189.927†	1.3	0.2014	ug/L	0.49689	0.2014	ppb	0.49689 246.70%
Sr 421.552†	108.6	0.6361	ug/L	0.18061	0.6361	ppb	0.18061 28.39%
Ti 334.940†	1852.3	2.6787	ug/L	0.03331	2.6787	ppb	0.03331 1.24%
Tl 190.801†	6.9	1.8272	ug/L	1.48374	1.8272	ppb	1.48374 81.20%
U 409.014†	153.3	4.2070	ug/L	3.01846	4.2070	ppb	3.01846 71.75%
V 292.402†	75.5	0.4770	ug/L	0.18390	0.4770	ppb	0.18390 38.55%
Zn 213.857†	841.9	6.8817	ug/L	0.07176	6.8817	ppb	0.07176 1.04%
SiO2†	51304.0	3106.3	ug/L	16.31	3106.3	ppb	16.31 0.52%

Sequence No.: 42
Sample ID: 1201994189|932262|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 60
Date Collected: 12/19/2009 18:12:24
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1201994189|932262|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5570.5	5570.5	100	%			18:14:18
1	Y RADIAL	5908.3	5908.3	99.95	%			18:14:18
1	Al 396.153Radial†	7268.2	7280.4	5283.5	ug/L	5283.5	ppb	18:14:18
1	Ca 317.933Radial†	3671.7	3650.0	5203.9	ug/L	5203.9	ppb	18:14:38
1	Fe 238.204 Radial†	653.9	642.6	5357.4	ug/L	5357.4	ppb	18:14:38
1	K 766.490 Radial†	32127.3	29396.1	5174.3	ug/L	5174.3	ppb	18:14:18
1	Mg 279.077 IEC†	176.2	174.7	5429.1	ug/L	5429.1	ppb	18:14:38
1	Na 589.592 Radial†	16721.3	17473.2	5215.2	ug/L	5215.2	ppb	18:14:18
1	Sr 421.552†	86866.8	86827.9	509.10	ug/L	509.10	ppb	18:14:18
1	Sc 361.383	931638.7	931638.7	103.64	%			18:15:37
1	Y 371.029	758520.1	758520.1	101.89	%			18:15:37
1	Ag 328.068†	119708.0	115132.6	499.45	ug/L	499.45	ppb	18:15:37
1	As 188.979†	1382.3	1368.6	501.35	ug/L	501.35	ppb	18:15:57
1	B 249.677†	24655.5	23815.2	486.80	ug/L	486.80	ppb	18:15:37
1	Ba 233.527†	78758.8	75994.5	517.84	ug/L	517.84	ppb	18:15:37
1	Be 313.107†	1553537.5	1503690.6	505.28	ug/L	505.28	ppb	18:15:37
1	Cd 226.502†	52670.6	51049.4	499.05	ug/L	499.05	ppb	18:15:37
1	Co 228.616†	28851.5	27925.0	488.95	ug/L	488.95	ppb	18:15:57
1	Cr 267.716†	52016.1	50108.5	508.86	ug/L	508.86	ppb	18:15:37
1	Cu 324.752†	196043.6	183100.8	517.60	ug/L	517.60	ppb	18:15:37
1	Mn 257.610†	543558.3	523970.8	517.26	ug/L	517.26	ppb	18:15:37
1	Mo 202.031†	8570.9	8249.9	499.76	ug/L	499.76	ppb	18:15:57
1	Ni 231.604†	23974.9	23039.0	503.07	ug/L	503.07	ppb	18:15:57
1	P 214.914†	1380.9	1074.3	482.09	ug/L	482.09	ppb	18:15:57
1	Pb 220.353†	4884.7	4777.1	504.98	ug/L	504.98	ppb	18:15:57
1	S 181.975 Axial†	4295.0	4095.1	5022.8	ug/L	5022.8	ppb	18:15:57
1	Sb 206.836†	1817.7	1712.6	520.42	ug/L	520.42	ppb	18:15:57
1	Se 196.026†	895.3	892.3	504.73	ug/L	504.73	ppb	18:15:57
1	Si 251.611†	241702.6	232633.8	6547.8	ug/L	6547.8	ppb	18:15:37
1	Sn 189.927†	3592.7	3463.0	519.98	ug/L	519.98	ppb	18:15:57
1	Ti 334.940†	365531.8	354077.7	511.81	ug/L	511.81	ppb	18:15:37
1	Tl 190.801†	1941.3	1921.2	501.88	ug/L	501.88	ppb	18:15:57
1	U 409.014†	16672.0	18458.5	506.92	ug/L	506.92	ppb	18:15:37
1	V 292.402†	81645.5	80246.6	517.06	ug/L	517.06	ppb	18:15:37
1	Zn 213.857†	64509.9	61450.1	499.45	ug/L	499.45	ppb	18:15:37
1	SiO2†	240705.1	231642.2	13999	ug/L	13999	ppb	18:16:57
2	Sc Radial	5652.2	5652.2	102	%			18:14:43
2	Y RADIAL	5963.2	5963.2	100.9	%			18:14:43
2	Al 396.153Radial†	7308.4	7214.9	5235.6	ug/L	5235.6	ppb	18:14:43
2	Ca 317.933Radial†	3698.2	3623.1	5165.5	ug/L	5165.5	ppb	18:15:03
2	Fe 238.204 Radial†	652.8	632.1	5270.0	ug/L	5270.0	ppb	18:15:03
2	K 766.490 Radial†	32256.7	29059.5	5115.0	ug/L	5115.0	ppb	18:14:43
2	Mg 279.077 IEC†	173.6	169.6	5271.3	ug/L	5271.3	ppb	18:15:03
2	Na 589.592 Radial†	16882.9	17390.8	5190.7	ug/L	5190.7	ppb	18:14:43
2	Sr 421.552†	87881.8	86573.0	507.60	ug/L	507.60	ppb	18:14:43
2	Sc 361.383	927089.1	927089.1	103.13	%			18:16:04
2	Y 371.029	754424.4	754424.4	101.34	%			18:16:04
2	Ag 328.068†	119211.4	115217.9	499.79	ug/L	499.79	ppb	18:16:04
2	As 188.979†	1394.0	1386.4	507.80	ug/L	507.80	ppb	18:16:24
2	B 249.677†	24632.1	23909.3	488.74	ug/L	488.74	ppb	18:16:04
2	Ba 233.527†	78192.8	75818.6	516.64	ug/L	516.64	ppb	18:16:04
2	Be 313.107†	1541803.4	1499669.2	503.93	ug/L	503.93	ppb	18:16:04
2	Cd 226.502†	52420.2	51056.0	499.12	ug/L	499.12	ppb	18:16:04
2	Co 228.616†	28943.3	28150.6	492.91	ug/L	492.91	ppb	18:16:24
2	Cr 267.716†	51756.1	50102.7	508.80	ug/L	508.80	ppb	18:16:04
2	Cu 324.752†	194982.1	182999.8	517.31	ug/L	517.31	ppb	18:16:04
2	Mn 257.610†	540570.9	523648.0	516.94	ug/L	516.94	ppb	18:16:04
2	Mo 202.031†	8594.1	8313.0	503.57	ug/L	503.57	ppb	18:16:24
2	Ni 231.604†	24013.5	23190.0	506.37	ug/L	506.37	ppb	18:16:24

2	P 214.914†	1403.4	1102.6	497.00	ug/L	497.00 ppb	18:16:24
2	Pb 220.353†	4907.1	4822.0	509.72	ug/L	509.72 ppb	18:16:24
2	S 181.975 Axial†	4295.4	4115.8	5048.2	ug/L	5048.2 ppb	18:16:24
2	Sb 206.836†	1820.7	1724.1	524.03	ug/L	524.03 ppb	18:16:24
2	Se 196.026†	884.4	886.0	501.04	ug/L	501.04 ppb	18:16:24
2	Si 251.611†	240517.4	232629.0	6547.6	ug/L	6547.6 ppb	18:16:04
2	Sn 189.927†	3602.3	3489.3	523.93	ug/L	523.93 ppb	18:16:24
2	Ti 334.940†	363364.7	353707.3	511.27	ug/L	511.27 ppb	18:16:04
2	Tl 190.801†	1948.3	1937.1	505.99	ug/L	505.99 ppb	18:16:24
2	U 409.014†	16565.9	18434.5	506.27	ug/L	506.27 ppb	18:16:04
2	V 292.402†	81188.7	80190.3	516.77	ug/L	516.77 ppb	18:16:04
2	Zn 213.857†	64007.0	61267.8	497.95	ug/L	497.95 ppb	18:16:04
2	SiO2†	241523.0	233574.9	14116	ug/L	14116 ppb	18:17:03
3	Sc Radial	5618.1	5618.1	101	%		18:15:08
3	Y RADIAL	5952.8	5952.8	100.7	%		18:15:08
3	Al 396.153Radial†	7270.3	7220.9	5240.2	ug/L	5240.2 ppb	18:15:08
3	Ca 317.933Radial†	3643.1	3590.5	5119.1	ug/L	5119.1 ppb	18:15:28
3	Fe 238.204 Radial†	644.6	627.9	5235.3	ug/L	5235.3 ppb	18:15:28
3	K 766.490 Radial†	32142.7	29139.5	5129.1	ug/L	5129.1 ppb	18:15:08
3	Mg 279.077 IEC†	174.8	171.8	5341.2	ug/L	5341.2 ppb	18:15:28
3	Na 589.592 Radial†	16732.0	17342.4	5176.2	ug/L	5176.2 ppb	18:15:08
3	Sr 421.552†	87373.4	86594.9	507.73	ug/L	507.73 ppb	18:15:08
3	Sc 361.383	932814.8	932814.8	103.77	%		18:16:32
3	Y 371.029	759231.7	759231.7	101.98	%		18:16:32
3	Ag 328.068†	120062.0	115328.1	500.25	ug/L	500.25 ppb	18:16:32
3	As 188.979†	1390.2	1374.5	503.45	ug/L	503.45 ppb	18:16:52
3	B 249.677†	24829.7	23953.1	489.65	ug/L	489.65 ppb	18:16:32
3	Ba 233.527†	78604.9	75750.3	516.18	ug/L	516.18 ppb	18:16:32
3	Be 313.107†	1551772.9	1500100.2	504.08	ug/L	504.08 ppb	18:16:32
3	Cd 226.502†	52571.3	50889.7	497.50	ug/L	497.50 ppb	18:16:32
3	Co 228.616†	28822.7	27862.1	487.85	ug/L	487.85 ppb	18:16:52
3	Cr 267.716†	51957.5	49988.8	507.64	ug/L	507.64 ppb	18:16:32
3	Cu 324.752†	196513.1	183314.7	518.20	ug/L	518.20 ppb	18:16:32
3	Mn 257.610†	543181.3	522946.3	516.24	ug/L	516.24 ppb	18:16:32
3	Mo 202.031†	8566.4	8235.2	498.86	ug/L	498.86 ppb	18:16:52
3	Ni 231.604†	23983.1	23017.8	502.61	ug/L	502.61 ppb	18:16:52
3	P 214.914†	1382.8	1074.5	482.13	ug/L	482.13 ppb	18:16:52
3	Pb 220.353†	4878.0	4764.7	503.67	ug/L	503.67 ppb	18:16:52
3	S 181.975 Axial†	4299.8	4094.5	5022.1	ug/L	5022.1 ppb	18:16:52
3	Sb 206.836†	1814.4	1707.2	518.77	ug/L	518.77 ppb	18:16:52
3	Se 196.026†	898.4	894.2	505.38	ug/L	505.38 ppb	18:16:52
3	Si 251.611†	241858.2	232489.7	6543.7	ug/L	6543.7 ppb	18:16:32
3	Sn 189.927†	3582.3	3448.6	517.82	ug/L	517.82 ppb	18:16:52
3	Ti 334.940†	365367.5	353474.7	510.93	ug/L	510.93 ppb	18:16:32
3	Tl 190.801†	1962.9	1939.6	506.65	ug/L	506.65 ppb	18:16:52
3	U 409.014†	16719.1	18483.6	507.63	ug/L	507.63 ppb	18:16:32
3	V 292.402†	81606.9	80110.0	516.20	ug/L	516.20 ppb	18:16:32
3	Zn 213.857†	64367.7	61234.5	497.70	ug/L	497.70 ppb	18:16:32
3	SiO2†	241938.3	232537.7	14054	ug/L	14054 ppb	18:17:08

Mean Data: 1201994189|932262|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	930514.2	103.52	%	0.336				0.32%
Sc Radial	5613.6	101	%	0.7				0.73%
Y 371.029	757392.1	101.74	%	0.349				0.34%
Y RADIAL	5941.4	100.5	%	0.49				0.49%
Ag 328.068†	115226.2	499.83	ug/L	0.401	499.83	ppb	0.401	0.08%
Al 396.153Radial†	7238.7	5253.1	ug/L	26.41	5253.1	ppb	26.41	0.50%
As 188.979†	1376.5	504.20	ug/L	3.289	504.20	ppb	3.289	0.65%
B 249.677†	23892.6	488.40	ug/L	1.454	488.40	ppb	1.454	0.30%
Ba 233.527†	75854.5	516.89	ug/L	0.859	516.89	ppb	0.859	0.17%
Be 313.107†	1501153.3	504.43	ug/L	0.741	504.43	ppb	0.741	0.15%
Ca 317.933Radial†	3621.2	5162.8	ug/L	42.43	5162.8	ppb	42.43	0.82%
Cd 226.502†	50998.4	498.55	ug/L	0.918	498.55	ppb	0.918	0.18%
Co 228.616†	27979.3	489.90	ug/L	2.661	489.90	ppb	2.661	0.54%
Cr 267.716†	50066.7	508.43	ug/L	0.686	508.43	ppb	0.686	0.13%
Cu 324.752†	183138.4	517.70	ug/L	0.453	517.70	ppb	0.453	0.09%
Fe 238.204 Radial†	634.2	5287.6	ug/L	62.93	5287.6	ppb	62.93	1.19%
K 766.490 Radial†	29198.4	5139.5	ug/L	30.98	5139.5	ppb	30.98	0.60%

Mg 279.077 IEC†	172.0	5347.2	ug/L	79.09	5347.2	ppb	79.09	1.48%
Mn 257.610†	523521.7	516.81	ug/L	0.522	516.81	ppb	0.522	0.10%
Mo 202.031†	8266.0	500.73	ug/L	2.501	500.73	ppb	2.501	0.50%
Na 589.592 Radial†	17402.1	5194.0	ug/L	19.75	5194.0	ppb	19.75	0.38%
Ni 231.604†	23082.3	504.01	ug/L	2.050	504.01	ppb	2.050	0.41%
P 214.914†	1083.8	487.08	ug/L	8.598	487.08	ppb	8.598	1.77%
Pb 220.353†	4787.9	506.12	ug/L	3.181	506.12	ppb	3.181	0.63%
S 181.975 Axial†	4101.8	5031.0	ug/L	14.91	5031.0	ppb	14.91	0.30%
Sb 206.836†	1714.6	521.07	ug/L	2.692	521.07	ppb	2.692	0.52%
Se 196.026†	890.9	503.72	ug/L	2.340	503.72	ppb	2.340	0.46%
Si 251.611†	232584.2	6546.4	ug/L	2.27	6546.4	ppb	2.27	0.03%
Sn 189.927†	3467.0	520.58	ug/L	3.095	520.58	ppb	3.095	0.59%
Sr 421.552†	86665.2	508.15	ug/L	0.828	508.15	ppb	0.828	0.16%
Ti 334.940†	353753.2	511.34	ug/L	0.442	511.34	ppb	0.442	0.09%
Tl 190.801†	1932.6	504.84	ug/L	2.585	504.84	ppb	2.585	0.51%
U 409.014†	18458.9	506.94	ug/L	0.680	506.94	ppb	0.680	0.13%
V 292.402†	80182.3	516.68	ug/L	0.438	516.68	ppb	0.438	0.08%
Zn 213.857†	61317.5	498.36	ug/L	0.947	498.36	ppb	0.947	0.19%
SiO2†	232584.9	14057	ug/L	58.5	14057	ppb	58.5	0.42%

Sequence No.: 43
Sample ID: 1201994190|932262|5
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 61
Date Collected: 12/19/2009 18:19:19
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1201994190|932262|5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5566.6	5566.6	100.0	%			18:21:12
1	Y RADIAL	5896.5	5896.5	99.75	%			18:21:12
1	Al 396.153Radial†	18.9	35.3	25.692	ug/L	25.692	ppb	18:21:12
1	Ca 317.933Radial†	25.6	6.1	8.6614	ug/L	8.6614	ppb	18:21:32
1	Fe 238.204 Radial†	13.3	2.4	20.359	ug/L	20.359	ppb	18:21:32
1	K 766.490 Radial†	2915.9	203.8	35.916	ug/L	35.916	ppb	18:21:12
1	Mg 279.077 IEC†	1.4	0.0	0.7364	ug/L	0.7364	ppb	18:21:32
1	Na 589.592 Radial†	-723.1	38.4	11.476	ug/L	11.476	ppb	18:21:12
1	Sr 421.552†	7.3	19.1	0.1118	ug/L	0.1118	ppb	18:21:12
1	Sc 361.383	900543.3	900543.3	100.18	%			18:22:29
1	Y 371.029	747545.6	747545.6	100.41	%			18:22:29
1	Ag 328.068†	417.9	47.3	0.2118	ug/L	0.2118	ppb	18:22:29
1	As 188.979†	-24.1	10.8	3.9234	ug/L	3.9234	ppb	18:22:49
1	B 249.677†	-345.6	-319.0	-6.5511	ug/L	-6.5511	ppb	18:22:49
1	Ba 233.527†	53.3	55.8	0.3800	ug/L	0.3800	ppb	18:22:49
1	Be 313.107†	-4631.7	107.8	0.0373	ug/L	0.0373	ppb	18:22:29
1	Cd 226.502†	-228.4	1.1	0.0100	ug/L	0.0100	ppb	18:22:49
1	Co 228.616†	-70.2	17.0	0.2977	ug/L	0.2977	ppb	18:22:49
1	Cr 267.716†	164.3	83.8	0.8505	ug/L	0.8505	ppb	18:22:49
1	Cu 324.752†	6138.9	72.2	0.2050	ug/L	0.2050	ppb	18:22:29
1	Mn 257.610†	1276.9	783.1	0.7745	ug/L	0.7745	ppb	18:22:49
1	Mo 202.031†	26.4	6.5	0.3963	ug/L	0.3963	ppb	18:22:49
1	Ni 231.604†	147.7	53.9	1.1766	ug/L	1.1766	ppb	18:22:49
1	P 214.914†	242.5	-16.0	-8.3707	ug/L	-8.3707	ppb	18:22:49
1	Pb 220.353†	-70.3	-6.1	-0.6385	ug/L	-0.6385	ppb	18:22:49
1	S 181.975 Axial†	50.2	1.1	1.3802	ug/L	1.3802	ppb	18:22:49
1	Sb 206.836†	45.0	3.7	1.1156	ug/L	1.1156	ppb	18:22:49
1	Se 196.026†	-28.0	0.6	0.3919	ug/L	0.3919	ppb	18:22:49
1	Si 251.611†	11409.0	10810.8	304.82	ug/L	304.82	ppb	18:22:29
1	Sn 189.927†	7.7	4.2	0.6356	ug/L	0.6356	ppb	18:22:49
1	Ti 334.940†	-987.6	401.8	0.5821	ug/L	0.5821	ppb	18:22:29
1	Tl 190.801†	-46.6	1.5	0.4022	ug/L	0.4022	ppb	18:22:49
1	U 409.014†	-2459.9	-83.2	-2.2971	ug/L	-2.2971	ppb	18:22:29
1	V 292.402†	-1491.9	-19.7	-0.1284	ug/L	-0.1284	ppb	18:22:29
1	Zn 213.857†	973.9	178.6	1.4548	ug/L	1.4548	ppb	18:22:49
1	SiO2†	11404.7	10777.4	652.51	ug/L	652.51	ppb	18:23:45
2	Sc Radial	5798.3	5798.3	104	%			18:21:37
2	Y RADIAL	6164.0	6164.0	104.3	%			18:21:37
2	Al 396.153Radial†	26.8	42.1	30.697	ug/L	30.697	ppb	18:21:37
2	Ca 317.933Radial†	32.1	11.3	16.093	ug/L	16.093	ppb	18:21:57
2	Fe 238.204 Radial†	13.1	1.7	13.989	ug/L	13.989	ppb	18:21:57
2	K 766.490 Radial†	2933.0	103.8	18.263	ug/L	18.263	ppb	18:21:37
2	Mg 279.077 IEC†	1.7	0.3	8.7290	ug/L	8.7290	ppb	18:21:57
2	Na 589.592 Radial†	-647.6	139.9	41.755	ug/L	41.755	ppb	18:21:37
2	Sr 421.552†	-9.9	2.3	0.0133	ug/L	0.0133	ppb	18:21:37
2	Sc 361.383	906514.4	906514.4	100.85	%			18:22:55
2	Y 371.029	752036.2	752036.2	101.02	%			18:22:55
2	Ag 328.068†	289.9	-82.4	-0.3515	ug/L	-0.3515	ppb	18:22:55
2	As 188.979†	-34.3	0.8	0.3038	ug/L	0.3038	ppb	18:23:15
2	B 249.677†	-356.2	-327.3	-6.7186	ug/L	-6.7186	ppb	18:23:15
2	Ba 233.527†	13.3	15.8	0.1067	ug/L	0.1067	ppb	18:23:15
2	Be 313.107†	-4714.2	56.4	0.0199	ug/L	0.0199	ppb	18:22:55
2	Cd 226.502†	-223.7	7.4	0.0716	ug/L	0.0716	ppb	18:23:15
2	Co 228.616†	-72.5	15.2	0.2654	ug/L	0.2654	ppb	18:23:15
2	Cr 267.716†	152.4	71.0	0.7192	ug/L	0.7192	ppb	18:23:15
2	Cu 324.752†	6166.1	58.8	0.1670	ug/L	0.1670	ppb	18:22:55
2	Mn 257.610†	1242.6	740.7	0.7318	ug/L	0.7318	ppb	18:23:15
2	Mo 202.031†	24.0	3.9	0.2390	ug/L	0.2390	ppb	18:23:15
2	Ni 231.604†	149.7	54.9	1.1992	ug/L	1.1992	ppb	18:23:15

2	P 214.914†	257.1	-3.1	-1.6465	ug/L	-1.6465 ppb	18:23:15
2	Pb 220.353†	-50.5	14.0	1.4846	ug/L	1.4846 ppb	18:23:15
2	S 181.975 Axial†	52.5	3.0	3.7078	ug/L	3.7078 ppb	18:23:15
2	Sb 206.836†	28.4	-13.1	-3.9353	ug/L	-3.9353 ppb	18:23:15
2	Se 196.026†	-30.8	-2.1	-1.0776	ug/L	-1.0776 ppb	18:23:15
2	Si 251.611†	11472.3	10798.6	304.49	ug/L	304.49 ppb	18:22:55
2	Sn 189.927†	4.8	1.2	0.1866	ug/L	0.1866 ppb	18:23:15
2	Ti 334.940†	-1039.1	357.2	0.5178	ug/L	0.5178 ppb	18:22:55
2	Tl 190.801†	-39.5	8.9	2.3278	ug/L	2.3278 ppb	18:23:15
2	U 409.014†	-2454.3	-61.5	-1.6968	ug/L	-1.6968 ppb	18:22:55
2	V 292.402†	-1567.3	-84.7	-0.5416	ug/L	-0.5416 ppb	18:22:55
2	Zn 213.857†	968.7	167.1	1.3607	ug/L	1.3607 ppb	18:23:15
2	SiO2†	11447.7	10745.0	650.58	ug/L	650.58 ppb	18:23:50
3	Sc Radial	5658.1	5658.1	102	%		18:22:03
3	Y RADIAL	6032.0	6032.0	102.0	%		18:22:03
3	Al 396.153Radial†	7.1	23.4	17.059	ug/L	17.059 ppb	18:22:03
3	Ca 317.933Radial†	26.5	6.5	9.3094	ug/L	9.3094 ppb	18:22:23
3	Fe 238.204 Radial†	10.5	-0.5	-4.2275	ug/L	-4.2275 ppb	18:22:23
3	K 766.490 Radial†	2715.5	-40.5	-7.1462	ug/L	-7.1462 ppb	18:22:03
3	Mg 279.077 IEC†	3.1	1.6	50.979	ug/L	50.979 ppb	18:22:23
3	Na 589.592 Radial†	-773.6	0.4	0.1303	ug/L	0.1303 ppb	18:22:03
3	Sr 421.552†	24.0	35.4	0.2077	ug/L	0.2077 ppb	18:22:03
3	Sc 361.383	900228.8	900228.8	100.15	%		18:23:20
3	Y 371.029	746899.2	746899.2	100.33	%		18:23:20
3	Ag 328.068†	313.3	-57.1	-0.2475	ug/L	-0.2475 ppb	18:23:20
3	As 188.979†	-32.2	2.7	0.9747	ug/L	0.9747 ppb	18:23:40
3	B 249.677†	-386.1	-359.6	-7.3805	ug/L	-7.3805 ppb	18:23:40
3	Ba 233.527†	28.2	30.8	0.2087	ug/L	0.2087 ppb	18:23:40
3	Be 313.107†	-4665.5	72.5	0.0257	ug/L	0.0257 ppb	18:23:20
3	Cd 226.502†	-226.4	3.2	0.0318	ug/L	0.0318 ppb	18:23:40
3	Co 228.616†	-75.7	11.5	0.1985	ug/L	0.1985 ppb	18:23:40
3	Cr 267.716†	147.3	66.9	0.6782	ug/L	0.6782 ppb	18:23:40
3	Cu 324.752†	6171.6	107.0	0.3020	ug/L	0.3020 ppb	18:23:20
3	Mn 257.610†	1245.3	752.0	0.7404	ug/L	0.7404 ppb	18:23:40
3	Mo 202.031†	13.3	-6.6	-0.3993	ug/L	-0.3993 ppb	18:23:40
3	Ni 231.604†	136.3	42.5	0.9287	ug/L	0.9287 ppb	18:23:40
3	P 214.914†	253.0	-5.4	-2.8857	ug/L	-2.8857 ppb	18:23:40
3	Pb 220.353†	-65.2	-1.1	-0.1096	ug/L	-0.1096 ppb	18:23:40
3	S 181.975 Axial†	44.9	-4.2	-5.1253	ug/L	-5.1253 ppb	18:23:40
3	Sb 206.836†	38.6	-2.7	-0.8551	ug/L	-0.8551 ppb	18:23:40
3	Se 196.026†	-23.0	5.5	2.9971	ug/L	2.9971 ppb	18:23:40
3	Si 251.611†	11364.4	10770.3	303.71	ug/L	303.71 ppb	18:23:20
3	Sn 189.927†	-1.6	-5.1	-0.7577	ug/L	-0.7577 ppb	18:23:40
3	Ti 334.940†	-885.9	503.0	0.7279	ug/L	0.7279 ppb	18:23:20
3	Tl 190.801†	-40.7	7.4	1.9381	ug/L	1.9381 ppb	18:23:40
3	U 409.014†	-2413.3	-37.5	-1.0341	ug/L	-1.0341 ppb	18:23:20
3	V 292.402†	-1510.5	-38.9	-0.2545	ug/L	-0.2545 ppb	18:23:20
3	Zn 213.857†	971.1	176.2	1.4371	ug/L	1.4371 ppb	18:23:40
3	SiO2†	11498.2	10874.7	658.48	ug/L	658.48 ppb	18:23:55

Mean Data: 1201994190|932262|5

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	902428.8	100.39	%	0.394				0.39%
Sc Radial	5674.3	102	%	2.1				2.06%
Y 371.029	748827.0	100.59	%	0.376				0.37%
Y RADIAL	6030.8	102.0	%	2.26				2.22%
Ag 328.068†	-30.7	-0.1291	ug/L	0.29976	-0.1291	ppb	0.29976	232.23%
Al 396.153Radial†	33.6	24.483	ug/L	6.8994	24.483	ppb	6.8994	28.18%
As 188.979†	4.7	1.7340	ug/L	1.92552	1.7340	ppb	1.92552	111.05%
B 249.677†	-335.3	-6.8834	ug/L	0.43857	-6.8834	ppb	0.43857	6.37%
Ba 233.527†	34.1	0.2318	ug/L	0.13809	0.2318	ppb	0.13809	59.58%
Be 313.107†	78.9	0.0277	ug/L	0.00883	0.0277	ppb	0.00883	31.95%
Ca 317.933Radial†	8.0	11.355	ug/L	4.1165	11.355	ppb	4.1165	36.25%
Cd 226.502†	3.9	0.0378	ug/L	0.03127	0.0378	ppb	0.03127	82.69%
Co 228.616†	14.6	0.2539	ug/L	0.05059	0.2539	ppb	0.05059	19.93%
Cr 267.716†	73.9	0.7493	ug/L	0.09002	0.7493	ppb	0.09002	12.01%
Cu 324.752†	79.3	0.2247	ug/L	0.06964	0.2247	ppb	0.06964	31.00%
Fe 238.204 Radial†	1.2	10.040	ug/L	12.7598	10.040	ppb	12.7598	127.09%
K 766.490 Radial†	89.0	15.678	ug/L	21.6471	15.678	ppb	21.6471	138.08%

Mg 279.077 IEC†	0.6	20.148	ug/L	26.9975	20.148	ppb	26.9975 134.00%
Mn 257.610†	758.6	0.7489	ug/L	0.02257	0.7489	ppb	0.02257 3.01%
Mo 202.031†	1.3	0.0787	ug/L	0.42131	0.0787	ppb	0.42131 535.58%
Na 589.592 Radial†	59.6	17.787	ug/L	21.5180	17.787	ppb	21.5180 120.98%
Ni 231.604†	50.4	1.1015	ug/L	0.15010	1.1015	ppb	0.15010 13.63%
P 214.914†	-8.2	-4.3009	ug/L	3.57856	-4.3009	ppb	3.57856 83.20%
Pb 220.353†	2.3	0.2455	ug/L	1.10520	0.2455	ppb	1.10520 450.26%
S 181.975 Axial†	-0.0	-0.0124	ug/L	4.57822	-0.0124	ppb	4.57822 >999.9%
Sb 206.836†	-4.0	-1.2249	ug/L	2.54570	-1.2249	ppb	2.54570 207.82%
Se 196.026†	1.4	0.7705	ug/L	2.06352	0.7705	ppb	2.06352 267.82%
Si 251.611†	10793.2	304.34	ug/L	0.570	304.34	ppb	0.570 0.19%
Sn 189.927†	0.1	0.0215	ug/L	0.71113	0.0215	ppb	0.71113 >999.9%
Sr 421.552†	18.9	0.1109	ug/L	0.09725	0.1109	ppb	0.09725 87.67%
Ti 334.940†	420.6	0.6093	ug/L	0.10767	0.6093	ppb	0.10767 17.67%
Tl 190.801†	6.0	1.5560	ug/L	1.01810	1.5560	ppb	1.01810 65.43%
U 409.014†	-60.7	-1.6760	ug/L	0.63177	-1.6760	ppb	0.63177 37.70%
V 292.402†	-47.8	-0.3081	ug/L	0.21179	-0.3081	ppb	0.21179 68.73%
Zn 213.857†	173.9	1.4175	ug/L	0.05003	1.4175	ppb	0.05003 3.53%
SiO2†	10799.0	653.86	ug/L	4.119	653.86	ppb	4.119 0.63%

Sequence No.: 44
Sample ID: 242669002|932262|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 62
Date Collected: 12/19/2009 18:26:07
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 242669002|932262|1

Rep1#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5663.1	5663.1	102	%			18:28:00
1	Y RADIAL	6002.1	6002.1	101.5	%			18:28:00
1	Al 396.153Radial†	-25.1	-8.3	-6.0604	ug/L	-6.0604	ppb	18:28:00
1	Ca 317.933Radial†	24.7	4.7	6.7531	ug/L	6.7531	ppb	18:28:20
1	Fe 238.204 Radial†	10.1	-1.0	-7.9385	ug/L	-7.9385	ppb	18:28:20
1	K 766.490 Radial†	2807.2	47.3	8.3382	ug/L	8.3382	ppb	18:28:00
1	Mg 279.077 IEC†	8.3	6.8	209.69	ug/L	209.69	ppb	18:28:20
1	Na 589.592 Radial†	-838.0	-62.1	-18.545	ug/L	-18.545	ppb	18:28:00
1	Sr 421.552†	6.3	18.0	0.1054	ug/L	0.1054	ppb	18:28:00
1	Sc 361.383	938192.1	938192.1	104.37	%			18:29:17
1	Y 371.029	772732.9	772732.9	103.80	%			18:29:17
1	Ag 328.068†	355.6	-29.2	-0.1297	ug/L	-0.1297	ppb	18:29:22
1	As 188.979†	-32.6	3.6	1.3071	ug/L	1.3071	ppb	18:29:42
1	B 249.677†	-378.6	-336.8	-6.9112	ug/L	-6.9112	ppb	18:29:42
1	Ba 233.527†	-6.6	-3.7	-0.0253	ug/L	-0.0253	ppb	18:29:42
1	Be 313.107†	-4632.7	292.3	0.0988	ug/L	0.0988	ppb	18:29:22
1	Cd 226.502†	-237.1	2.0	0.0209	ug/L	0.0209	ppb	18:29:42
1	Co 228.616†	-72.9	17.3	0.3029	ug/L	0.3029	ppb	18:29:42
1	Cr 267.716†	93.7	9.6	0.0971	ug/L	0.0971	ppb	18:29:42
1	Cu 324.752†	6277.0	-41.4	-0.1173	ug/L	-0.1173	ppb	18:29:22
1	Mn 257.610†	634.1	116.1	0.1098	ug/L	0.1098	ppb	18:29:42
1	Mo 202.031†	27.1	6.1	0.3691	ug/L	0.3691	ppb	18:29:42
1	Ni 231.604†	145.2	45.6	0.9953	ug/L	0.9953	ppb	18:29:42
1	P 214.914†	262.0	-7.0	-3.6409	ug/L	-3.6409	ppb	18:29:42
1	Pb 220.353†	-78.7	-11.4	-1.1992	ug/L	-1.1992	ppb	18:29:42
1	S 181.975 Axial†	51.9	0.8	0.9486	ug/L	0.9486	ppb	18:29:42
1	Sb 206.836†	30.2	-12.3	-3.6578	ug/L	-3.6578	ppb	18:29:42
1	Se 196.026†	-27.0	2.7	1.4268	ug/L	1.4268	ppb	18:29:42
1	Si 251.611†	47020.0	44473.8	1254.1	ug/L	1254.1	ppb	18:29:22
1	Sn 189.927†	10.2	6.2	0.9371	ug/L	0.9371	ppb	18:29:42
1	Ti 334.940†	-1164.3	272.0	0.3927	ug/L	0.3927	ppb	18:29:22
1	Tl 190.801†	-37.3	12.3	3.1985	ug/L	3.1985	ppb	18:29:42
1	U 409.014†	-2399.6	73.1	2.0146	ug/L	2.0146	ppb	18:29:17
1	V 292.402†	-1511.3	21.3	0.1504	ug/L	0.1504	ppb	18:29:22
1	Zn 213.857†	1037.5	200.5	1.6321	ug/L	1.6321	ppb	18:29:42
1	SiO2†	46507.4	43953.4	2661.3	ug/L	2661.3	ppb	18:30:48
2	Sc Radial	5709.8	5709.8	103	%			18:28:25
2	Y RADIAL	6056.5	6056.5	102.5	%			18:28:25
2	Al 396.153Radial†	-16.0	0.8	0.5492	ug/L	0.5492	ppb	18:28:25
2	Ca 317.933Radial†	24.8	4.6	6.6279	ug/L	6.6279	ppb	18:28:45
2	Fe 238.204 Radial†	12.1	0.9	7.2680	ug/L	7.2680	ppb	18:28:45
2	K 766.490 Radial†	2831.0	47.9	8.4503	ug/L	8.4503	ppb	18:28:25
2	Mg 279.077 IEC†	2.0	0.6	18.147	ug/L	18.147	ppb	18:28:45
2	Na 589.592 Radial†	-882.0	-98.3	-29.336	ug/L	-29.336	ppb	18:28:25
2	Sr 421.552†	34.8	45.7	0.2681	ug/L	0.2681	ppb	18:28:25
2	Sc 361.383	934234.2	934234.2	103.93	%			18:29:47
2	Y 371.029	769359.1	769359.1	103.34	%			18:29:47
2	Ag 328.068†	379.8	-4.5	-0.0158	ug/L	-0.0158	ppb	18:29:52
2	As 188.979†	-36.3	-0.1	-0.0289	ug/L	-0.0289	ppb	18:30:12
2	B 249.677†	-316.3	-278.4	-5.7134	ug/L	-5.7134	ppb	18:30:12
2	Ba 233.527†	12.9	15.0	0.1031	ug/L	0.1031	ppb	18:30:12
2	Be 313.107†	-4724.1	185.6	0.0631	ug/L	0.0631	ppb	18:29:52
2	Cd 226.502†	-230.5	7.4	0.0717	ug/L	0.0717	ppb	18:30:12
2	Co 228.616†	-95.4	-4.7	-0.0820	ug/L	-0.0820	ppb	18:30:12
2	Cr 267.716†	103.8	19.7	0.2002	ug/L	0.2002	ppb	18:30:12
2	Cu 324.752†	6400.0	102.5	0.2899	ug/L	0.2899	ppb	18:29:52
2	Mn 257.610†	669.2	152.4	0.1507	ug/L	0.1507	ppb	18:30:12
2	Mo 202.031†	29.2	8.2	0.4986	ug/L	0.4986	ppb	18:30:12
2	Ni 231.604†	113.3	15.5	0.3377	ug/L	0.3377	ppb	18:30:12

2	P 214.914†	261.2	-6.7	-3.5694	ug/L	-3.5694	ppb	18:30:12
2	Pb 220.353†	-51.2	14.8	1.5589	ug/L	1.5589	ppb	18:30:12
2	S 181.975 Axial†	50.0	-0.9	-1.0887	ug/L	-1.0887	ppb	18:30:12
2	Sb 206.836†	37.0	-5.6	-1.6811	ug/L	-1.6811	ppb	18:30:12
2	Se 196.026†	-27.1	2.4	1.3313	ug/L	1.3313	ppb	18:30:12
2	Si 251.611†	46701.0	44357.7	1250.8	ug/L	1250.8	ppb	18:29:52
2	Sn 189.927†	5.2	1.5	0.2253	ug/L	0.2253	ppb	18:30:12
2	Ti 334.940†	-1115.9	313.9	0.4541	ug/L	0.4541	ppb	18:29:52
2	Tl 190.801†	-35.7	13.7	3.5674	ug/L	3.5674	ppb	18:30:12
2	U 409.014†	-2468.9	-3.4	-0.0942	ug/L	-0.0942	ppb	18:29:47
2	V 292.402†	-1480.6	44.8	0.2906	ug/L	0.2906	ppb	18:29:52
2	Zn 213.857†	1024.2	191.9	1.5703	ug/L	1.5703	ppb	18:30:12
2	SiO2†	46514.1	44148.6	2673.1	ug/L	2673.1	ppb	18:30:53
3	Sc Radial	5704.3	5704.3	102	%			18:28:50
3	Y RADIAL	6077.9	6077.9	102.8	%			18:28:50
3	Al 396.153Radial†	-13.2	3.5	2.5562	ug/L	2.5562	ppb	18:28:50
3	Ca 317.933Radial†	23.5	3.4	4.8381	ug/L	4.8381	ppb	18:29:10
3	Fe 238.204 Radial†	10.0	-1.1	-9.2916	ug/L	-9.2916	ppb	18:29:10
3	K 766.490 Radial†	2869.6	88.2	15.561	ug/L	15.561	ppb	18:28:50
3	Mg 279.077 IEC†	2.0	0.6	17.470	ug/L	17.470	ppb	18:29:10
3	Na 589.592 Radial†	-861.5	-79.2	-23.630	ug/L	-23.630	ppb	18:28:50
3	Sr 421.552†	8.4	20.0	0.1171	ug/L	0.1171	ppb	18:28:50
3	Sc 361.383	935900.9	935900.9	104.12	%			18:30:18
3	Y 371.029	770657.1	770657.1	103.52	%			18:30:18
3	Ag 328.068†	386.6	1.4	-0.0010	ug/L	-0.0010	ppb	18:30:23
3	As 188.979†	-27.2	8.7	3.1771	ug/L	3.1771	ppb	18:30:43
3	B 249.677†	-341.8	-302.3	-6.2040	ug/L	-6.2040	ppb	18:30:43
3	Ba 233.527†	-2.1	0.6	0.0035	ug/L	0.0035	ppb	18:30:43
3	Be 313.107†	-4688.1	228.3	0.0775	ug/L	0.0775	ppb	18:30:23
3	Cd 226.502†	-229.0	9.3	0.0919	ug/L	0.0919	ppb	18:30:43
3	Co 228.616†	-81.6	8.8	0.1524	ug/L	0.1524	ppb	18:30:43
3	Cr 267.716†	122.0	37.0	0.3739	ug/L	0.3739	ppb	18:30:43
3	Cu 324.752†	6398.4	90.0	0.2537	ug/L	0.2537	ppb	18:30:23
3	Mn 257.610†	653.9	136.6	0.1335	ug/L	0.1335	ppb	18:30:43
3	Mo 202.031†	20.1	-0.5	-0.0333	ug/L	-0.0333	ppb	18:30:43
3	Ni 231.604†	121.0	22.6	0.4948	ug/L	0.4948	ppb	18:30:43
3	P 214.914†	262.5	-6.0	-3.1685	ug/L	-3.1685	ppb	18:30:43
3	Pb 220.353†	-79.7	-12.5	-1.3191	ug/L	-1.3191	ppb	18:30:43
3	S 181.975 Axial†	45.9	-4.9	-5.9727	ug/L	-5.9727	ppb	18:30:43
3	Sb 206.836†	35.4	-7.2	-2.1851	ug/L	-2.1851	ppb	18:30:43
3	Se 196.026†	-23.7	5.8	3.1171	ug/L	3.1171	ppb	18:30:43
3	Si 251.611†	46577.8	44159.3	1245.2	ug/L	1245.2	ppb	18:30:23
3	Sn 189.927†	-2.0	-5.4	-0.8036	ug/L	-0.8036	ppb	18:30:43
3	Ti 334.940†	-1087.8	342.7	0.4936	ug/L	0.4936	ppb	18:30:23
3	Tl 190.801†	-33.5	15.9	4.1364	ug/L	4.1364	ppb	18:30:43
3	U 409.014†	-2293.5	169.4	4.6665	ug/L	4.6665	ppb	18:30:18
3	V 292.402†	-1530.5	-0.6	0.0061	ug/L	0.0061	ppb	18:30:23
3	Zn 213.857†	1025.6	191.6	1.5679	ug/L	1.5679	ppb	18:30:43
3	SiO2†	46938.9	44476.9	2693.0	ug/L	2693.0	ppb	18:30:58

Mean Data: 242669002|932262|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	936109.1	104.14	%	0.221				0.21%
Sc Radial	5692.4	102	%	0.5				0.45%
Y 371.029	770916.4	103.55	%	0.229				0.22%
Y RADIAL	6045.5	102.3	%	0.66				0.65%
Ag 328.068†	-10.8	-0.0489	ug/L	0.07044	-0.0489	ppb	0.07044	144.13%
Al 396.153Radial†	-1.3	-0.9850	ug/L	4.50850	-0.9850	ppb	4.50850	457.71%
As 188.979†	4.1	1.4851	ug/L	1.61038	1.4851	ppb	1.61038	108.44%
B 249.677†	-305.8	-6.2762	ug/L	0.60214	-6.2762	ppb	0.60214	9.59%
Ba 233.527†	4.0	0.0271	ug/L	0.06737	0.0271	ppb	0.06737	248.70%
Be 313.107†	235.4	0.0798	ug/L	0.01795	0.0798	ppb	0.01795	22.49%
Ca 317.933Radial†	4.3	6.0730	ug/L	1.07133	6.0730	ppb	1.07133	17.64%
Cd 226.502†	6.2	0.0615	ug/L	0.03660	0.0615	ppb	0.03660	59.51%
Co 228.616†	7.1	0.1244	ug/L	0.19396	0.1244	ppb	0.19396	155.87%
Cr 267.716†	22.1	0.2237	ug/L	0.13989	0.2237	ppb	0.13989	62.53%
Cu 324.752†	50.4	0.1421	ug/L	0.22536	0.1421	ppb	0.22536	158.57%
Fe 238.204 Radial†	-0.4	-3.3207	ug/L	9.19499	-3.3207	ppb	9.19499	276.90%
K 766.490 Radial†	61.1	10.783	ug/L	4.1380	10.783	ppb	4.1380	38.37%

Mg 279.077 IEC†	2.6	81.771	ug/L	110.7858	81.771	ppb	110.7858	135.48%
Mn 257.610†	135.0	0.1313	ug/L	0.02054	0.1313	ppb	0.02054	15.64%
Mo 202.031†	4.6	0.2782	ug/L	0.27738	0.2782	ppb	0.27738	99.72%
Na 589.592 Radial†	-79.9	-23.837	ug/L	5.3984	-23.837	ppb	5.3984	22.65%
Ni 231.604†	27.9	0.6093	ug/L	0.34341	0.6093	ppb	0.34341	56.37%
P 214.914†	-6.6	-3.4596	ug/L	0.25461	-3.4596	ppb	0.25461	7.36%
Pb 220.353†	-3.0	-0.3198	ug/L	1.62810	-0.3198	ppb	1.62810	509.12%
S 181.975 Axial†	-1.7	-2.0376	ug/L	3.55689	-2.0376	ppb	3.55689	174.56%
Sb 206.836†	-8.4	-2.5080	ug/L	1.02716	-2.5080	ppb	1.02716	40.96%
Se 196.026†	3.6	1.9584	ug/L	1.00464	1.9584	ppb	1.00464	51.30%
Si 251.611†	44330.2	1250.0	ug/L	4.48	1250.0	ppb	4.48	0.36%
Sn 189.927†	0.8	0.1196	ug/L	0.87512	0.1196	ppb	0.87512	731.70%
Sr 421.552†	27.9	0.1636	ug/L	0.09074	0.1636	ppb	0.09074	55.48%
Ti 334.940†	309.5	0.4468	ug/L	0.05083	0.4468	ppb	0.05083	11.38%
Tl 190.801†	14.0	3.6341	ug/L	0.47251	3.6341	ppb	0.47251	13.00%
U 409.014†	79.7	2.1956	ug/L	2.38552	2.1956	ppb	2.38552	108.65%
V 292.402†	21.9	0.1491	ug/L	0.14225	0.1491	ppb	0.14225	95.42%
Zn 213.857†	194.7	1.5901	ug/L	0.03639	1.5901	ppb	0.03639	2.29%
SiO2†	44193.0	2675.8	ug/L	16.03	2675.8	ppb	16.03	0.60%

Sequence No.: 45
Sample ID: 242669003|932262|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 63
Date Collected: 12/19/2009 18:33:09
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 242669003|932262|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5668.4	5668.4	102	%			18:35:02
1	Y RADIAL	6014.8	6014.8	101.7	%			18:35:02
1	Al 396.153Radial†	110.6	125.0	91.081	ug/L	91.081	ppb	18:35:02
1	Ca 317.933Radial†	76.4	55.5	79.080	ug/L	79.080	ppb	18:35:22
1	Fe 238.204 Radial†	18.5	7.3	60.580	ug/L	60.580	ppb	18:35:22
1	K 766.490 Radial†	3111.9	343.9	60.481	ug/L	60.481	ppb	18:35:02
1	Mg 279.077 IEC†	2.3	0.9	27.996	ug/L	27.996	ppb	18:35:22
1	Na 589.592 Radial†	17.4	778.8	232.44	ug/L	232.44	ppb	18:35:02
1	Sr 421.552†	86.5	96.8	0.5667	ug/L	0.5667	ppb	18:35:02
1	Sc 361.383	907784.5	907784.5	100.99	%			18:36:19
1	Y 371.029	753657.0	753657.0	101.23	%			18:36:19
1	Ag 328.068†	372.3	-1.3	0.0119	ug/L	0.0119	ppb	18:36:19
1	As 188.979†	-23.1	11.9	4.3716	ug/L	4.3716	ppb	18:36:39
1	B 249.677†	-348.9	-319.5	-6.5664	ug/L	-6.5664	ppb	18:36:39
1	Ba 233.527†	178.7	179.6	1.2226	ug/L	1.2226	ppb	18:36:39
1	Be 313.107†	-4761.0	16.7	0.0106	ug/L	0.0106	ppb	18:36:19
1	Cd 226.502†	-222.7	8.6	0.0796	ug/L	0.0796	ppb	18:36:39
1	Co 228.616†	-75.4	12.4	0.2126	ug/L	0.2126	ppb	18:36:39
1	Cr 267.716†	370.4	286.6	2.9063	ug/L	2.9063	ppb	18:36:39
1	Cu 324.752†	6381.1	263.2	0.7466	ug/L	0.7466	ppb	18:36:19
1	Mn 257.610†	3472.3	2946.9	2.9122	ug/L	2.9122	ppb	18:36:19
1	Mo 202.031†	30.7	10.6	0.6435	ug/L	0.6435	ppb	18:36:39
1	Ni 231.604†	197.7	102.2	2.2318	ug/L	2.2318	ppb	18:36:39
1	P 214.914†	275.3	14.5	7.4287	ug/L	7.4287	ppb	18:36:39
1	Pb 220.353†	-52.8	11.7	1.2536	ug/L	1.2536	ppb	18:36:39
1	S 181.975 Axial†	68.6	18.9	23.168	ug/L	23.168	ppb	18:36:39
1	Sb 206.836†	40.9	-0.7	-0.2745	ug/L	-0.2745	ppb	18:36:39
1	Se 196.026†	-31.7	-2.8	-1.3522	ug/L	-1.3522	ppb	18:36:39
1	Si 251.611†	52925.7	51830.8	1461.5	ug/L	1461.5	ppb	18:36:19
1	Sn 189.927†	1.2	-2.3	-0.3382	ug/L	-0.3382	ppb	18:36:39
1	Ti 334.940†	367.0	1751.0	2.5340	ug/L	2.5340	ppb	18:36:19
1	Tl 190.801†	-48.2	0.3	0.1147	ug/L	0.1147	ppb	18:36:39
1	U 409.014†	-2332.4	62.7	1.7131	ug/L	1.7131	ppb	18:36:19
1	V 292.402†	-1497.3	-13.2	-0.0841	ug/L	-0.0841	ppb	18:36:19
1	Zn 213.857†	1205.4	400.1	3.2593	ug/L	3.2593	ppb	18:36:39
1	SiO2†	53200.3	52073.5	3152.9	ug/L	3152.9	ppb	18:37:35
2	Sc Radial	5757.5	5757.5	103	%			18:35:27
2	Y RADIAL	6123.1	6123.1	103.6	%			18:35:27
2	Al 396.153Radial†	107.2	120.0	87.410	ug/L	87.410	ppb	18:35:27
2	Ca 317.933Radial†	73.3	51.3	73.175	ug/L	73.175	ppb	18:35:47
2	Fe 238.204 Radial†	17.1	5.7	47.022	ug/L	47.022	ppb	18:35:47
2	K 766.490 Radial†	3064.1	250.5	44.032	ug/L	44.032	ppb	18:35:27
2	Mg 279.077 IEC†	1.1	-0.3	-10.644	ug/L	-10.644	ppb	18:35:47
2	Na 589.592 Radial†	-78.4	685.8	204.70	ug/L	204.70	ppb	18:35:27
2	Sr 421.552†	62.0	71.8	0.4203	ug/L	0.4203	ppb	18:35:27
2	Sc 361.383	912203.6	912203.6	101.48	%			18:36:45
2	Y 371.029	758438.8	758438.8	101.88	%			18:36:45
2	Ag 328.068†	367.0	-8.2	-0.0160	ug/L	-0.0160	ppb	18:36:45
2	As 188.979†	-36.0	-0.7	-0.2101	ug/L	-0.2101	ppb	18:37:05
2	B 249.677†	-377.8	-346.3	-7.1138	ug/L	-7.1138	ppb	18:37:05
2	Ba 233.527†	167.7	167.9	1.1432	ug/L	1.1432	ppb	18:37:05
2	Be 313.107†	-4709.6	90.1	0.0356	ug/L	0.0356	ppb	18:36:45
2	Cd 226.502†	-218.5	13.9	0.1319	ug/L	0.1319	ppb	18:37:05
2	Co 228.616†	-86.3	2.0	0.0320	ug/L	0.0320	ppb	18:37:05
2	Cr 267.716†	382.0	296.3	3.0069	ug/L	3.0069	ppb	18:37:05
2	Cu 324.752†	6327.1	179.3	0.5091	ug/L	0.5091	ppb	18:36:45
2	Mn 257.610†	3450.2	2908.5	2.8737	ug/L	2.8737	ppb	18:36:45
2	Mo 202.031†	44.5	24.0	1.4566	ug/L	1.4566	ppb	18:37:05
2	Ni 231.604†	164.2	68.2	1.4897	ug/L	1.4897	ppb	18:37:05

2	P 214.914†	259.7	-2.1	-1.2149	ug/L	-1.2149 ppb	18:37:05
2	Pb 220.353†	-77.1	-11.9	-1.2361	ug/L	-1.2361 ppb	18:37:05
2	S 181.975 Axial†	74.6	24.5	30.009	ug/L	30.009 ppb	18:37:05
2	Sb 206.836†	45.3	3.4	0.9477	ug/L	0.9477 ppb	18:37:05
2	Se 196.026†	-33.0	-4.0	-2.0400	ug/L	-2.0400 ppb	18:37:05
2	Si 251.611†	53344.5	51989.6	1466.0	ug/L	1466.0 ppb	18:36:45
2	Sn 189.927†	-3.3	-6.8	-1.0045	ug/L	-1.0045 ppb	18:37:05
2	Ti 334.940†	515.9	1895.9	2.7460	ug/L	2.7460 ppb	18:36:45
2	Tl 190.801†	-37.3	11.3	2.9765	ug/L	2.9765 ppb	18:37:05
2	U 409.014†	-2578.4	-168.6	-4.6577	ug/L	-4.6577 ppb	18:36:45
2	V 292.402†	-1454.1	36.5	0.2321	ug/L	0.2321 ppb	18:36:45
2	Zn 213.857†	1209.0	397.9	3.2489	ug/L	3.2489 ppb	18:37:05
2	SiO2†	53467.6	52081.6	3153.4	ug/L	3153.4 ppb	18:37:40
3	Sc Radial	5765.4	5765.4	104	%		18:35:53
3	Y RADIAL	6119.6	6119.6	103.5	%		18:35:53
3	Al 396.153Radial†	111.4	123.9	90.250	ug/L	90.250 ppb	18:35:53
3	Ca 317.933Radial†	74.6	52.5	74.827	ug/L	74.827 ppb	18:36:13
3	Fe 238.204 Radial†	16.4	5.0	41.318	ug/L	41.318 ppb	18:36:13
3	K 766.490 Radial†	3139.2	318.9	56.090	ug/L	56.090 ppb	18:35:53
3	Mg 279.077 IEC†	2.4	0.9	28.871	ug/L	28.871 ppb	18:36:13
3	Na 589.592 Radial†	-106.9	658.5	196.53	ug/L	196.53 ppb	18:35:53
3	Sr 421.552†	76.4	85.6	0.5013	ug/L	0.5013 ppb	18:35:53
3	Sc 361.383	915965.7	915965.7	101.90	%		18:37:10
3	Y 371.029	762481.6	762481.6	102.42	%		18:37:10
3	Ag 328.068†	353.6	-22.9	-0.0859	ug/L	-0.0859 ppb	18:37:10
3	As 188.979†	-24.6	10.7	3.9299	ug/L	3.9299 ppb	18:37:30
3	B 249.677†	-432.2	-398.2	-8.1779	ug/L	-8.1779 ppb	18:37:30
3	Ba 233.527†	164.2	163.8	1.1158	ug/L	1.1158 ppb	18:37:30
3	Be 313.107†	-4698.9	119.7	0.0455	ug/L	0.0455 ppb	18:37:10
3	Cd 226.502†	-209.5	23.5	0.2272	ug/L	0.2272 ppb	18:37:30
3	Co 228.616†	-67.0	21.3	0.3684	ug/L	0.3684 ppb	18:37:30
3	Cr 267.716†	364.7	277.7	2.8166	ug/L	2.8166 ppb	18:37:30
3	Cu 324.752†	6295.0	122.2	0.3474	ug/L	0.3474 ppb	18:37:10
3	Mn 257.610†	3445.0	2889.4	2.8536	ug/L	2.8536 ppb	18:37:10
3	Mo 202.031†	36.2	15.6	0.9488	ug/L	0.9488 ppb	18:37:30
3	Ni 231.604†	181.8	84.8	1.8523	ug/L	1.8523 ppb	18:37:30
3	P 214.914†	259.3	-3.6	-1.9634	ug/L	-1.9634 ppb	18:37:30
3	Pb 220.353†	-72.9	-7.5	-0.7710	ug/L	-0.7710 ppb	18:37:30
3	S 181.975 Axial†	58.4	8.3	10.136	ug/L	10.136 ppb	18:37:30
3	Sb 206.836†	29.6	-12.2	-3.7091	ug/L	-3.7091 ppb	18:37:30
3	Se 196.026†	-24.0	5.0	2.8403	ug/L	2.8403 ppb	18:37:30
3	Si 251.611†	53591.8	52016.4	1466.7	ug/L	1466.7 ppb	18:37:10
3	Sn 189.927†	-1.3	-4.7	-0.7024	ug/L	-0.7024 ppb	18:37:30
3	Ti 334.940†	513.9	1891.9	2.7372	ug/L	2.7372 ppb	18:37:10
3	Tl 190.801†	-43.9	5.0	1.3223	ug/L	1.3223 ppb	18:37:30
3	U 409.014†	-2325.7	89.8	2.4642	ug/L	2.4642 ppb	18:37:10
3	V 292.402†	-1403.6	91.9	0.5933	ug/L	0.5933 ppb	18:37:10
3	Zn 213.857†	1205.2	389.2	3.1745	ug/L	3.1745 ppb	18:37:30
3	SiO2†	53100.8	51505.3	3118.5	ug/L	3118.5 ppb	18:37:46

Mean Data: 242669003|932262|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	911984.6	101.45	%	0.456				0.45%
Sc Radial	5730.4	103	%	1.0				0.94%
Y 371.029	758192.5	101.84	%	0.593				0.58%
Y RADIAL	6085.8	103.0	%	1.04				1.01%
Ag 328.068†	-10.8	-0.0300	ug/L	0.05035	-0.0300	ppb	0.05035	167.88%
Al 396.153Radial†	123.0	89.580	ug/L	1.9249	89.580	ppb	1.9249	2.15%
As 188.979†	7.3	2.6971	ug/L	2.52741	2.6971	ppb	2.52741	93.71%
B 249.677†	-354.7	-7.2860	ug/L	0.81946	-7.2860	ppb	0.81946	11.25%
Ba 233.527†	170.4	1.1605	ug/L	0.05548	1.1605	ppb	0.05548	4.78%
Be 313.107†	75.5	0.0306	ug/L	0.01801	0.0306	ppb	0.01801	58.92%
Ca 317.933Radial†	53.1	75.694	ug/L	3.0462	75.694	ppb	3.0462	4.02%
Cd 226.502†	15.3	0.1462	ug/L	0.07486	0.1462	ppb	0.07486	51.19%
Co 228.616†	11.9	0.2043	ug/L	0.16834	0.2043	ppb	0.16834	82.38%
Cr 267.716†	286.9	2.9099	ug/L	0.09518	2.9099	ppb	0.09518	3.27%
Cu 324.752†	188.2	0.5344	ug/L	0.20079	0.5344	ppb	0.20079	37.57%
Fe 238.204 Radial†	6.0	49.640	ug/L	9.8941	49.640	ppb	9.8941	19.93%
K 766.490 Radial†	304.4	53.534	ug/L	8.5168	53.534	ppb	8.5168	15.91%

Mg 279.077 IEC†	0.5	15.408	ug/L	22.5657	15.408	ppb	22.5657 146.46%
Mn 257.610†	2914.9	2.8799	ug/L	0.02978	2.8799	ppb	0.02978 1.03%
Mo 202.031†	16.7	1.0163	ug/L	0.41071	1.0163	ppb	0.41071 40.41%
Na 589.592 Radial†	707.7	211.22	ug/L	18.820	211.22	ppb	18.820 8.91%
Ni 231.604†	85.0	1.8579	ug/L	0.37110	1.8579	ppb	0.37110 19.97%
P 214.914†	2.9	1.4168	ug/L	5.21989	1.4168	ppb	5.21989 368.42%
Pb 220.353†	-2.6	-0.2511	ug/L	1.32378	-0.2511	ppb	1.32378 527.09%
S 181.975 Axial†	17.2	21.104	ug/L	10.0962	21.104	ppb	10.0962 47.84%
Sb 206.836†	-3.1	-1.0120	ug/L	2.41441	-1.0120	ppb	2.41441 238.59%
Se 196.026†	-0.6	-0.1840	ug/L	2.64154	-0.1840	ppb	2.64154 >999.9%
Si 251.611†	51945.6	1464.7	ug/L	2.83	1464.7	ppb	2.83 0.19%
Sn 189.927†	-4.6	-0.6817	ug/L	0.33366	-0.6817	ppb	0.33366 48.95%
Sr 421.552†	84.7	0.4961	ug/L	0.07335	0.4961	ppb	0.07335 14.79%
Ti 334.940†	1846.3	2.6724	ug/L	0.11996	2.6724	ppb	0.11996 4.49%
Tl 190.801†	5.5	1.4712	ug/L	1.43672	1.4712	ppb	1.43672 97.66%
U 409.014†	-5.4	-0.1601	ug/L	3.91310	-0.1601	ppb	3.91310 >999.9%
V 292.402†	38.4	0.2471	ug/L	0.33894	0.2471	ppb	0.33894 137.16%
Zn 213.857†	395.7	3.2276	ug/L	0.04625	3.2276	ppb	0.04625 1.43%
SiO2†	51886.8	3141.6	ug/L	20.01	3141.6	ppb	20.01 0.64%

Sequence No.: 46
Sample ID: 242669004|932262|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 64
Date Collected: 12/19/2009 18:39:56
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 242669004|932262|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5635.7	5635.7	101	%			18:41:49
1	Y RADIAL	5984.3	5984.3	101.2	%			18:41:49
1	Al 396.153Radial†	-55.9	-38.9	-28.339	ug/L	-28.339	ppb	18:41:49
1	Ca 317.933Radial†	20.6	0.8	1.1711	ug/L	1.1711	ppb	18:42:09
1	Fe 238.204 Radial†	8.5	-2.5	-20.535	ug/L	-20.535	ppb	18:42:09
1	K 766.490 Radial†	2851.6	104.5	18.436	ug/L	18.436	ppb	18:41:49
1	Mg 279.077 IEC†	1.1	-0.4	-11.137	ug/L	-11.137	ppb	18:42:09
1	Na 589.592 Radial†	-875.5	-103.2	-30.807	ug/L	-30.807	ppb	18:41:49
1	Sr 421.552†	16.9	28.5	0.1669	ug/L	0.1669	ppb	18:41:49
1	Sc 361.383	934132.1	934132.1	103.92	%			18:43:06
1	Y 371.029	769425.1	769425.1	103.35	%			18:43:06
1	Ag 328.068†	325.9	-56.3	-0.2497	ug/L	-0.2497	ppb	18:43:11
1	As 188.979†	-28.1	7.8	2.8344	ug/L	2.8344	ppb	18:43:31
1	B 249.677†	-426.6	-384.6	-7.8909	ug/L	-7.8909	ppb	18:43:31
1	Ba 233.527†	4.3	6.7	0.0459	ug/L	0.0459	ppb	18:43:31
1	Be 313.107†	-4707.6	201.0	0.0680	ug/L	0.0680	ppb	18:43:11
1	Cd 226.502†	-244.0	-5.6	-0.0530	ug/L	-0.0530	ppb	18:43:31
1	Co 228.616†	-76.4	13.6	0.2393	ug/L	0.2393	ppb	18:43:31
1	Cr 267.716†	108.3	24.0	0.2434	ug/L	0.2434	ppb	18:43:31
1	Cu 324.752†	6299.8	6.7	0.0179	ug/L	0.0179	ppb	18:43:11
1	Mn 257.610†	560.0	47.4	0.0450	ug/L	0.0450	ppb	18:43:31
1	Mo 202.031†	29.0	8.0	0.4845	ug/L	0.4845	ppb	18:43:31
1	Ni 231.604†	102.6	5.1	0.1122	ug/L	0.1122	ppb	18:43:31
1	P 214.914†	267.6	-0.6	-0.3007	ug/L	-0.3007	ppb	18:43:31
1	Pb 220.353†	-67.3	-0.7	-0.0726	ug/L	-0.0726	ppb	18:43:31
1	S 181.975 Axial†	55.2	4.1	5.0556	ug/L	5.0556	ppb	18:43:31
1	Sb 206.836†	36.9	-5.7	-1.7190	ug/L	-1.7190	ppb	18:43:31
1	Se 196.026†	-24.5	4.9	2.6014	ug/L	2.6014	ppb	18:43:31
1	Si 251.611†	47263.8	44904.2	1266.2	ug/L	1266.2	ppb	18:43:11
1	Sn 189.927†	1.5	-2.1	-0.3096	ug/L	-0.3096	ppb	18:43:31
1	Ti 334.940†	-1226.7	207.1	0.2984	ug/L	0.2984	ppb	18:43:11
1	Tl 190.801†	-46.6	3.2	0.8379	ug/L	0.8379	ppb	18:43:31
1	U 409.014†	-2374.3	87.5	2.4123	ug/L	2.4123	ppb	18:43:06
1	V 292.402†	-1441.1	82.6	0.5397	ug/L	0.5397	ppb	18:43:11
1	Zn 213.857†	952.2	122.8	1.0086	ug/L	1.0086	ppb	18:43:31
1	SiO2†	46924.1	44548.1	2697.3	ug/L	2697.3	ppb	18:44:37
2	Sc Radial	5796.1	5796.1	104	%			18:42:14
2	Y RADIAL	6138.4	6138.4	103.8	%			18:42:14
2	Al 396.153Radial†	-39.5	-21.6	-15.748	ug/L	-15.748	ppb	18:42:14
2	Ca 317.933Radial†	23.8	3.3	4.7420	ug/L	4.7420	ppb	18:42:34
2	Fe 238.204 Radial†	11.8	0.5	3.7741	ug/L	3.7741	ppb	18:42:34
2	K 766.490 Radial†	2680.6	-137.6	-24.245	ug/L	-24.245	ppb	18:42:14
2	Mg 279.077 IEC†	4.3	2.8	85.861	ug/L	85.861	ppb	18:42:34
2	Na 589.592 Radial†	-896.2	-99.2	-29.610	ug/L	-29.610	ppb	18:42:14
2	Sr 421.552†	-6.8	5.3	0.0308	ug/L	0.0308	ppb	18:42:14
2	Sc 361.383	938062.2	938062.2	104.36	%			18:43:36
2	Y 371.029	771987.1	771987.1	103.70	%			18:43:36
2	Ag 328.068†	304.0	-78.6	-0.3390	ug/L	-0.3390	ppb	18:43:41
2	As 188.979†	-35.1	1.2	0.4542	ug/L	0.4542	ppb	18:44:01
2	B 249.677†	-399.0	-356.4	-7.3150	ug/L	-7.3150	ppb	18:44:01
2	Ba 233.527†	17.8	19.7	0.1346	ug/L	0.1346	ppb	18:44:01
2	Be 313.107†	-4692.4	234.5	0.0792	ug/L	0.0792	ppb	18:43:41
2	Cd 226.502†	-224.0	14.5	0.1419	ug/L	0.1419	ppb	18:44:01
2	Co 228.616†	-87.1	3.7	0.0640	ug/L	0.0640	ppb	18:44:01
2	Cr 267.716†	95.8	11.7	0.1181	ug/L	0.1181	ppb	18:44:01
2	Cu 324.752†	6121.6	-189.4	-0.5350	ug/L	-0.5350	ppb	18:43:41
2	Mn 257.610†	552.2	37.7	0.0359	ug/L	0.0359	ppb	18:44:01
2	Mo 202.031†	23.7	2.8	0.1693	ug/L	0.1693	ppb	18:44:01
2	Ni 231.604†	122.9	24.2	0.5287	ug/L	0.5287	ppb	18:44:01

2	P 214.914†	258.3	-10.6	-5.4352	ug/L	-5.4352 ppb	18:44:01
2	Pb 220.353†	-72.3	-5.2	-0.5488	ug/L	-0.5488 ppb	18:44:01
2	S 181.975 Axial†	45.3	-5.6	-6.8062	ug/L	-6.8062 ppb	18:44:01
2	Sb 206.836†	28.8	-13.6	-4.0770	ug/L	-4.0770 ppb	18:44:01
2	Se 196.026†	-18.3	11.0	5.9852	ug/L	5.9852 ppb	18:44:01
2	Si 251.611†	46168.6	43664.1	1231.2	ug/L	1231.2 ppb	18:43:41
2	Sn 189.927†	1.4	-2.1	-0.3166	ug/L	-0.3166 ppb	18:44:01
2	Ti 334.940†	-1246.1	193.5	0.2785	ug/L	0.2785 ppb	18:43:41
2	Tl 190.801†	-38.1	11.5	2.9896	ug/L	2.9896 ppb	18:44:01
2	U 409.014†	-2352.1	118.3	3.2578	ug/L	3.2578 ppb	18:43:36
2	V 292.402†	-1476.7	54.4	0.3555	ug/L	0.3555 ppb	18:43:41
2	Zn 213.857†	948.6	115.4	0.9406	ug/L	0.9406 ppb	18:44:01
2	SiO2†	47361.3	44777.9	2711.3	ug/L	2711.3 ppb	18:44:42
3	Sc Radial	5578.1	5578.1	100	%		18:42:39
3	Y RADIAL	5935.6	5935.6	100.4	%		18:42:39
3	Al 396.153Radial†	-22.7	-6.3	-4.5607	ug/L	-4.5607 ppb	18:42:39
3	Ca 317.933Radial†	25.5	5.9	8.3943	ug/L	8.3943 ppb	18:42:59
3	Fe 238.204 Radial†	10.6	-0.3	-2.6634	ug/L	-2.6634 ppb	18:42:59
3	K 766.490 Radial†	2712.1	-5.6	-0.9601	ug/L	-0.9601 ppb	18:42:39
3	Mg 279.077 IEC†	1.6	0.2	7.3822	ug/L	7.3822 ppb	18:42:59
3	Na 589.592 Radial†	-954.5	-191.0	-57.014	ug/L	-57.014 ppb	18:42:39
3	Sr 421.552†	21.7	33.5	0.1961	ug/L	0.1961 ppb	18:42:39
3	Sc 361.383	946349.0	946349.0	105.28	%		18:44:07
3	Y 371.029	780179.2	780179.2	104.80	%		18:44:07
3	Ag 328.068†	395.0	5.3	0.0180	ug/L	0.0180 ppb	18:44:12
3	As 188.979†	-36.0	0.6	0.2328	ug/L	0.2328 ppb	18:44:32
3	B 249.677†	-427.1	-379.7	-7.7943	ug/L	-7.7943 ppb	18:44:32
3	Ba 233.527†	14.5	16.4	0.1125	ug/L	0.1125 ppb	18:44:32
3	Be 313.107†	-4659.9	304.8	0.1028	ug/L	0.1028 ppb	18:44:12
3	Cd 226.502†	-233.2	7.7	0.0753	ug/L	0.0753 ppb	18:44:32
3	Co 228.616†	-61.5	28.6	0.5002	ug/L	0.5002 ppb	18:44:32
3	Cr 267.716†	92.5	7.7	0.0764	ug/L	0.0764 ppb	18:44:32
3	Cu 324.752†	6177.3	-187.9	-0.5310	ug/L	-0.5310 ppb	18:44:12
3	Mn 257.610†	533.9	15.7	0.0151	ug/L	0.0151 ppb	18:44:32
3	Mo 202.031†	18.0	-2.8	-0.1699	ug/L	-0.1699 ppb	18:44:32
3	Ni 231.604†	112.6	13.4	0.2921	ug/L	0.2921 ppb	18:44:32
3	P 214.914†	255.6	-15.3	-7.8678	ug/L	-7.8678 ppb	18:44:32
3	Pb 220.353†	-70.8	-3.2	-0.3331	ug/L	-0.3331 ppb	18:44:32
3	S 181.975 Axial†	51.6	-0.0	-0.0411	ug/L	-0.0411 ppb	18:44:32
3	Sb 206.836†	31.5	-11.3	-3.3838	ug/L	-3.3838 ppb	18:44:32
3	Se 196.026†	-20.4	9.1	4.9631	ug/L	4.9631 ppb	18:44:32
3	Si 251.611†	46773.4	43851.2	1236.5	ug/L	1236.5 ppb	18:44:12
3	Sn 189.927†	5.4	1.7	0.2526	ug/L	0.2526 ppb	18:44:32
3	Ti 334.940†	-1236.4	213.1	0.3058	ug/L	0.3058 ppb	18:44:12
3	Tl 190.801†	-40.6	9.5	2.4612	ug/L	2.4612 ppb	18:44:32
3	U 409.014†	-2255.1	230.2	6.3426	ug/L	6.3426 ppb	18:44:07
3	V 292.402†	-1470.9	72.2	0.4696	ug/L	0.4696 ppb	18:44:12
3	Zn 213.857†	943.2	102.3	0.8381	ug/L	0.8381 ppb	18:44:32
3	SiO2†	46927.6	43968.5	2662.2	ug/L	2662.2 ppb	18:44:47

Mean Data: 242669004|932262|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	939514.4	104.52	%	0.694				0.66%
Sc Radial	5669.9	102	%	2.0				1.99%
Y 371.029	773863.8	103.95	%	0.755				0.73%
Y RADIAL	6019.4	101.8	%	1.79				1.76%
Ag 328.068†	-43.2	-0.1902	ug/L	0.18578	-0.1902	ppb	0.18578	97.66%
Al 396.153Radial†	-22.2	-16.216	ug/L	11.8959	-16.216	ppb	11.8959	73.36%
As 188.979†	3.2	1.1738	ug/L	1.44239	1.1738	ppb	1.44239	122.88%
B 249.677†	-373.6	-7.6667	ug/L	0.30840	-7.6667	ppb	0.30840	4.02%
Ba 233.527†	14.3	0.0977	ug/L	0.04614	0.0977	ppb	0.04614	47.24%
Be 313.107†	246.8	0.0833	ug/L	0.01779	0.0833	ppb	0.01779	21.34%
Ca 317.933Radial†	3.3	4.7691	ug/L	3.61164	4.7691	ppb	3.61164	75.73%
Cd 226.502†	5.5	0.0547	ug/L	0.09904	0.0547	ppb	0.09904	180.91%
Co 228.616†	15.3	0.2678	ug/L	0.21952	0.2678	ppb	0.21952	81.96%
Cr 267.716†	14.5	0.1460	ug/L	0.08694	0.1460	ppb	0.08694	59.55%
Cu 324.752†	-123.5	-0.3494	ug/L	0.31807	-0.3494	ppb	0.31807	91.04%
Fe 238.204 Radial†	-0.8	-6.4746	ug/L	12.59448	-6.4746	ppb	12.59448	194.52%
K 766.490 Radial†	-12.9	-2.2563	ug/L	21.36968	-2.2563	ppb	21.36968	947.11%

Mg 279.077 IEC†	0.9	27.369	ug/L	51.4950	27.369	ppb	51.4950 188.15%
Mn 257.610†	33.6	0.0320	ug/L	0.01533	0.0320	ppb	0.01533 47.93%
Mo 202.031†	2.7	0.1613	ug/L	0.32730	0.1613	ppb	0.32730 202.92%
Na 589.592 Radial†	-131.1	-39.144	ug/L	15.4879	-39.144	ppb	15.4879 39.57%
Ni 231.604†	14.2	0.3110	ug/L	0.20890	0.3110	ppb	0.20890 67.17%
P 214.914†	-8.8	-4.5346	ug/L	3.86309	-4.5346	ppb	3.86309 85.19%
Pb 220.353†	-3.0	-0.3182	ug/L	0.23844	-0.3182	ppb	0.23844 74.94%
S 181.975 Axial†	-0.5	-0.5972	ug/L	5.95042	-0.5972	ppb	5.95042 996.31%
Sb 206.836†	-10.2	-3.0599	ug/L	1.21191	-3.0599	ppb	1.21191 39.61%
Se 196.026†	8.3	4.5166	ug/L	1.73550	4.5166	ppb	1.73550 38.43%
Si 251.611†	44139.8	1244.7	ug/L	18.84	1244.7	ppb	18.84 1.51%
Sn 189.927†	-0.8	-0.1245	ug/L	0.32660	-0.1245	ppb	0.32660 262.25%
Sr 421.552†	22.4	0.1313	ug/L	0.08823	0.1313	ppb	0.08823 67.21%
Ti 334.940†	204.6	0.2942	ug/L	0.01409	0.2942	ppb	0.01409 4.79%
Tl 190.801†	8.1	2.0962	ug/L	1.12132	2.0962	ppb	1.12132 53.49%
U 409.014†	145.3	4.0042	ug/L	2.06871	4.0042	ppb	2.06871 51.66%
V 292.402†	69.7	0.4549	ug/L	0.09298	0.4549	ppb	0.09298 20.44%
Zn 213.857†	113.5	0.9291	ug/L	0.08581	0.9291	ppb	0.08581 9.24%
SiO2†	44431.5	2690.3	ug/L	25.25	2690.3	ppb	25.25 0.94%

Sequence No.: 47
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 12/19/2009 18:46:58
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5647.2	5647.2	101	%			18:48:50
1	Y RADIAL	5941.0	5941.0	100.5	%			18:48:50
1	Al 396.153Radial†	6908.7	6827.4	4954.1	ug/L	4954.1	ppb	18:48:50
1	Ca 317.933Radial†	3508.2	3439.0	4903.1	ug/L	4903.1	ppb	18:49:10
1	Fe 238.204 Radial†	616.9	597.3	4980.2	ug/L	4980.2	ppb	18:49:10
1	K 766.490 Radial†	30947.2	27796.9	4891.0	ug/L	4891.0	ppb	18:48:50
1	Mg 279.077 IEC†	164.3	160.6	4992.1	ug/L	4992.1	ppb	18:49:10
1	Na 589.592 Radial†	31381.8	31699.4	9461.3	ug/L	9461.3	ppb	18:48:50
1	Sr 421.552†	84592.2	83407.1	489.04	ug/L	489.04	ppb	18:48:50
1	Sc 361.383	951738.4	951738.4	105.88	%			18:50:09
1	Y 371.029	774917.7	774917.7	104.09	%			18:50:09
1	Ag 328.068†	116624.5	109781.0	476.18	ug/L	476.18	ppb	18:50:09
1	As 188.979†	1371.7	1330.4	487.12	ug/L	487.12	ppb	18:50:29
1	B 249.677†	23713.9	22423.5	458.32	ug/L	458.32	ppb	18:50:09
1	Ba 233.527†	74517.9	70384.1	479.62	ug/L	479.62	ppb	18:50:09
1	Be 313.107†	1500672.8	1422103.9	477.85	ug/L	477.85	ppb	18:50:09
1	Cd 226.502†	51538.3	48906.7	478.11	ug/L	478.11	ppb	18:50:09
1	Co 228.616†	28662.9	27159.0	475.58	ug/L	475.58	ppb	18:50:29
1	Cr 267.716†	49888.1	47038.7	477.68	ug/L	477.68	ppb	18:50:09
1	Cu 324.752†	184723.4	168414.1	476.09	ug/L	476.09	ppb	18:50:09
1	Mn 257.610†	513177.4	484200.3	478.00	ug/L	478.00	ppb	18:50:09
1	Mo 202.031†	8468.3	7978.3	483.29	ug/L	483.29	ppb	18:50:29
1	Ni 231.604†	23322.7	21934.5	478.95	ug/L	478.95	ppb	18:50:29
1	P 214.914†	5122.9	4580.4	2317.2	ug/L	2317.2	ppb	18:50:29
1	Pb 220.353†	4783.2	4581.8	484.34	ug/L	484.34	ppb	18:50:29
1	S 181.975 Axial†	871.5	774.1	948.73	ug/L	948.73	ppb	18:50:29
1	Sb 206.836†	1730.9	1593.6	484.51	ug/L	484.51	ppb	18:50:29
1	Se 196.026†	904.1	882.5	498.10	ug/L	498.10	ppb	18:50:29
1	Si 251.611†	89306.6	83771.9	2350.7	ug/L	2350.7	ppb	18:50:09
1	Sn 189.927†	3388.9	3197.3	480.10	ug/L	480.10	ppb	18:50:29
1	Ti 334.940†	344357.4	326630.2	472.14	ug/L	472.14	ppb	18:50:09
1	Tl 190.801†	1920.5	1861.9	486.12	ug/L	486.12	ppb	18:50:29
1	U 409.014†	14919.0	16463.1	452.05	ug/L	452.05	ppb	18:50:09
1	V 292.402†	77528.5	74694.4	481.51	ug/L	481.51	ppb	18:50:09
1	Zn 213.857†	62642.8	58372.0	474.46	ug/L	474.46	ppb	18:50:09
1	SiO2†	89303.6	83739.9	5045.2	ug/L	5045.2	ppb	18:51:30
2	Sc Radial	5596.4	5596.4	101	%			18:49:15
2	Y RADIAL	5882.4	5882.4	99.51	%			18:49:15
2	Al 396.153Radial†	6906.2	6886.6	4996.5	ug/L	4996.5	ppb	18:49:15
2	Ca 317.933Radial†	3536.2	3498.2	4987.5	ug/L	4987.5	ppb	18:49:35
2	Fe 238.204 Radial†	619.6	605.5	5049.0	ug/L	5049.0	ppb	18:49:35
2	K 766.490 Radial†	30892.5	28019.3	4929.9	ug/L	4929.9	ppb	18:49:15
2	Mg 279.077 IEC†	169.8	167.5	5206.6	ug/L	5206.6	ppb	18:49:35
2	Na 589.592 Radial†	31355.6	31954.1	9537.4	ug/L	9537.4	ppb	18:49:15
2	Sr 421.552†	84598.6	84170.1	493.52	ug/L	493.52	ppb	18:49:15
2	Sc 361.383	910287.3	910287.3	101.27	%			18:50:37
2	Y 371.029	741723.2	741723.2	99.632	%			18:50:37
2	Ag 328.068†	117517.1	115678.3	501.69	ug/L	501.69	ppb	18:50:37
2	As 188.979†	1367.1	1384.8	507.10	ug/L	507.10	ppb	18:50:57
2	B 249.677†	24036.4	23761.9	485.74	ug/L	485.74	ppb	18:50:37
2	Ba 233.527†	75196.4	74259.1	506.02	ug/L	506.02	ppb	18:50:37
2	Be 313.107†	1519227.0	1504968.1	505.69	ug/L	505.69	ppb	18:50:37
2	Cd 226.502†	52044.7	51623.3	504.69	ug/L	504.69	ppb	18:50:37
2	Co 228.616†	28509.2	28239.9	494.49	ug/L	494.49	ppb	18:50:57
2	Cr 267.716†	50507.5	49796.0	505.68	ug/L	505.68	ppb	18:50:37
2	Cu 324.752†	187466.0	179067.1	506.19	ug/L	506.19	ppb	18:50:37
2	Mn 257.610†	518748.4	511772.7	505.20	ug/L	505.20	ppb	18:50:37
2	Mo 202.031†	8399.0	8274.1	501.20	ug/L	501.20	ppb	18:50:57
2	Ni 231.604†	23168.3	22785.2	497.52	ug/L	497.52	ppb	18:50:57

2	P 214.914†	5102.9	4781.0	2417.3 ug/L	2417.3 ppb	18:50:57
2	Pb 220.353†	4797.5	4801.6	507.53 ug/L	507.53 ppb	18:50:57
2	S 181.975 Axial†	856.8	797.1	976.90 ug/L	976.90 ppb	18:50:57
2	Sb 206.836†	1727.3	1664.5	505.80 ug/L	505.80 ppb	18:50:57
2	Se 196.026†	894.0	911.3	514.09 ug/L	514.09 ppb	18:50:57
2	Si 251.611†	90353.7	88646.9	2487.7 ug/L	2487.7 ppb	18:50:37
2	Sn 189.927†	3379.8	3334.1	500.63 ug/L	500.63 ppb	18:50:57
2	Ti 334.940†	348977.3	346002.7	500.13 ug/L	500.13 ppb	18:50:37
2	Tl 190.801†	1909.5	1933.7	504.95 ug/L	504.95 ppb	18:50:57
2	U 409.014†	15399.5	17579.2	482.73 ug/L	482.73 ppb	18:50:37
2	V 292.402†	78497.7	78985.9	509.07 ug/L	509.07 ppb	18:50:37
2	Zn 213.857†	63218.4	61634.7	501.05 ug/L	501.05 ppb	18:50:37
2	SiO2†	91532.1	89781.3	5410.2 ug/L	5410.2 ppb	18:51:35
3	Sc Radial	5570.6	5570.6	100 %		18:49:40
3	Y RADIAL	5901.8	5901.8	99.84 %		18:49:40
3	Al 396.153Radial†	6818.4	6830.8	4955.5 ug/L	4955.5 ppb	18:49:40
3	Ca 317.933Radial†	3521.3	3499.6	4989.5 ug/L	4989.5 ppb	18:50:00
3	Fe 238.204 Radial†	618.8	607.5	5066.1 ug/L	5066.1 ppb	18:50:00
3	K 766.490 Radial†	30586.2	27855.6	4901.0 ug/L	4901.0 ppb	18:49:40
3	Mg 279.077 IEC†	166.2	164.7	5120.7 ug/L	5120.7 ppb	18:50:00
3	Na 589.592 Radial†	31041.3	31784.6	9486.8 ug/L	9486.8 ppb	18:49:40
3	Sr 421.552†	83768.3	83730.5	490.94 ug/L	490.94 ppb	18:49:40
3	Sc 361.383	906644.4	906644.4	100.86 %		18:51:04
3	Y 371.029	738867.5	738867.5	99.248 %		18:51:04
3	Ag 328.068†	117640.6	116267.0	504.25 ug/L	504.25 ppb	18:51:04
3	As 188.979†	1366.0	1389.2	508.70 ug/L	508.70 ppb	18:51:24
3	B 249.677†	24055.3	23876.0	488.06 ug/L	488.06 ppb	18:51:04
3	Ba 233.527†	75136.2	74497.7	507.64 ug/L	507.64 ppb	18:51:04
3	Be 313.107†	1519713.7	1511478.5	507.88 ug/L	507.88 ppb	18:51:04
3	Cd 226.502†	51935.0	51721.1	505.64 ug/L	505.64 ppb	18:51:04
3	Co 228.616†	28735.4	28577.4	500.41 ug/L	500.41 ppb	18:51:24
3	Cr 267.716†	50488.6	49977.7	507.52 ug/L	507.52 ppb	18:51:04
3	Cu 324.752†	187392.0	179737.6	508.08 ug/L	508.08 ppb	18:51:04
3	Mn 257.610†	518492.9	513577.6	506.99 ug/L	506.99 ppb	18:51:04
3	Mo 202.031†	8482.9	8390.7	508.26 ug/L	508.26 ppb	18:51:24
3	Ni 231.604†	23362.1	23069.2	503.72 ug/L	503.72 ppb	18:51:24
3	P 214.914†	5127.8	4826.0	2440.4 ug/L	2440.4 ppb	18:51:24
3	Pb 220.353†	4830.2	4853.1	512.96 ug/L	512.96 ppb	18:51:24
3	S 181.975 Axial†	876.2	819.7	1004.7 ug/L	1004.7 ppb	18:51:24
3	Sb 206.836†	1742.7	1686.6	512.60 ug/L	512.60 ppb	18:51:24
3	Se 196.026†	904.2	925.0	521.63 ug/L	521.63 ppb	18:51:24
3	Si 251.611†	90369.0	89020.5	2498.1 ug/L	2498.1 ppb	18:51:04
3	Sn 189.927†	3393.7	3361.3	504.70 ug/L	504.70 ppb	18:51:24
3	Ti 334.940†	348827.1	347238.5	501.92 ug/L	501.92 ppb	18:51:04
3	Tl 190.801†	1912.5	1944.2	507.68 ug/L	507.68 ppb	18:51:24
3	U 409.014†	15144.2	17387.2	477.44 ug/L	477.44 ppb	18:51:04
3	V 292.402†	78427.7	79228.0	510.70 ug/L	510.70 ppb	18:51:04
3	Zn 213.857†	63192.6	61859.9	502.85 ug/L	502.85 ppb	18:51:04
3	SiO2†	90026.0	88651.3	5341.5 ug/L	5341.5 ppb	18:51:40

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	922890.0	102.67	%	2.787				2.71%
Sc Radial	5604.7	101	%	0.7				0.70%
Y 371.029	751836.1	100.99	%	2.692				2.67%
Y RADIAL	5908.4	99.95	%	0.505				0.51%
Ag 328.068†	113908.7	494.04	ug/L	15.522	494.04	ppb	15.522	3.14%
QC value within limits for Ag 328.068 Recovery = 98.81%								
Al 396.153Radial†	6848.3	4968.7	ug/L	24.09	4968.7	ppb	24.09	0.48%
QC value within limits for Al 396.153Radial Recovery = 99.37%								
As 188.979†	1368.2	500.97	ug/L	12.023	500.97	ppb	12.023	2.40%
QC value within limits for As 188.979 Recovery = 100.19%								
B 249.677†	23353.8	477.37	ug/L	16.538	477.37	ppb	16.538	3.46%
QC value within limits for B 249.677 Recovery = 95.47%								
Ba 233.527†	73047.0	497.76	ug/L	15.732	497.76	ppb	15.732	3.16%
QC value within limits for Ba 233.527 Recovery = 99.55%								
Be 313.107†	1479516.8	497.14	ug/L	16.743	497.14	ppb	16.743	3.37%
QC value within limits for Be 313.107 Recovery = 99.43%								
Ca 317.933Radial†	3479.0	4960.1	ug/L	49.32	4960.1	ppb	49.32	0.99%

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   QC value within limits for Ca 317.933Radial  Recovery = 99.20%
Cd 226.502†            50750.4      496.15 ug/L        15.626      496.15 ppb        15.626   3.15%
   QC value within limits for Cd 226.502  Recovery = 99.23%
Co 228.616†            27992.1      490.16 ug/L        12.968      490.16 ppb        12.968   2.65%
   QC value within limits for Co 228.616  Recovery = 98.03%
Cr 267.716†            48937.5      496.96 ug/L        16.721      496.96 ppb        16.721   3.36%
   QC value within limits for Cr 267.716  Recovery = 99.39%
Cu 324.752†           175739.6      496.78 ug/L        17.952      496.78 ppb        17.952   3.61%
   QC value within limits for Cu 324.752  Recovery = 99.36%
Fe 238.204 Radial†       603.4      5031.8 ug/L         45.45      5031.8 ppb         45.45   0.90%
   QC value within limits for Fe 238.204 Radial  Recovery = 100.64%
K 766.490 Radial†      27890.6      4907.3 ug/L         20.18      4907.3 ppb         20.18   0.41%
   QC value within limits for K 766.490 Radial  Recovery = 98.15%
Mg 279.077 IEC†          164.3      5106.5 ug/L        107.99      5106.5 ppb        107.99   2.11%
   QC value within limits for Mg 279.077 IEC  Recovery = 102.13%
Mn 257.610†           503183.5      496.73 ug/L        16.243      496.73 ppb        16.243   3.27%
   QC value within limits for Mn 257.610  Recovery = 99.35%
Mo 202.031†             8214.4      497.58 ug/L        12.870      497.58 ppb        12.870   2.59%
   QC value within limits for Mo 202.031  Recovery = 99.52%
Na 589.592 Radial†     31812.7      9495.2 ug/L         38.69      9495.2 ppb         38.69   0.41%
   QC value within limits for Na 589.592 Radial  Recovery = 94.95%
Ni 231.604†            22596.3      493.40 ug/L        12.892      493.40 ppb        12.892   2.61%
   QC value within limits for Ni 231.604  Recovery = 98.68%
P 214.914†              4729.1      2391.6 ug/L         65.49      2391.6 ppb         65.49   2.74%
   QC value within limits for P 214.914  Recovery = 95.67%
Pb 220.353†             4745.5      501.61 ug/L        15.198      501.61 ppb        15.198   3.03%
   QC value within limits for Pb 220.353  Recovery = 100.32%
S 181.975 Axial†         797.0      976.76 ug/L        27.968      976.76 ppb        27.968   2.86%
   QC value within limits for S 181.975 Axial  Recovery = 97.68%
Sb 206.836†             1648.2      500.97 ug/L        14.655      500.97 ppb        14.655   2.93%
   QC value within limits for Sb 206.836  Recovery = 100.19%
Se 196.026†              906.3      511.27 ug/L        12.012      511.27 ppb        12.012   2.35%
   QC value within limits for Se 196.026  Recovery = 102.25%
Si 251.611†            87146.4      2445.5 ug/L         82.31      2445.5 ppb         82.31   3.37%
   QC value within limits for Si 251.611  Recovery = 97.82%
Sn 189.927†             3297.6      495.14 ug/L        13.183      495.14 ppb        13.183   2.66%
   QC value within limits for Sn 189.927  Recovery = 99.03%
Sr 421.552†            83769.2      491.17 ug/L         2.245      491.17 ppb         2.245   0.46%
   QC value within limits for Sr 421.552  Recovery = 98.23%
Ti 334.940†           339957.1      491.40 ug/L        16.701      491.40 ppb        16.701   3.40%
   QC value within limits for Ti 334.940  Recovery = 98.28%
Tl 190.801†             1913.3      499.58 ug/L        11.740      499.58 ppb        11.740   2.35%
   QC value within limits for Tl 190.801  Recovery = 99.92%
U 409.014†             17143.2      470.74 ug/L        16.405      470.74 ppb        16.405   3.48%
   QC value within limits for U 409.014  Recovery = 94.15%
V 292.402†             77636.1      500.43 ug/L        16.402      500.43 ppb        16.402   3.28%
   QC value within limits for V 292.402  Recovery = 100.09%
Zn 213.857†            60622.2      492.79 ug/L        15.899      492.79 ppb        15.899   3.23%
   QC value within limits for Zn 213.857  Recovery = 98.56%
SiO2†                  87390.8      5265.6 ug/L        193.94      5265.6 ppb        193.94   3.68%
   QC value within limits for SiO2  Recovery = 98.47%
All analyte(s) passed QC.
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Sequence No.: 48
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 12/19/2009 18:53:49
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5655.1	5655.1	102	%			18:55:41
1	Y RADIAL	6009.0	6009.0	101.7	%			18:55:41
1	Al 396.153Radial†	-30.4	-13.5	-9.8848	ug/L	-9.8848	ppb	18:55:41
1	Ca 317.933Radial†	25.8	5.9	8.3465	ug/L	8.3465	ppb	18:56:01
1	Fe 238.204 Radial†	9.0	-2.0	-16.975	ug/L	-16.975	ppb	18:56:01
1	K 766.490 Radial†	2841.5	85.0	14.990	ug/L	14.990	ppb	18:55:41
1	Mg 279.077 IEC†	1.7	0.3	9.4391	ug/L	9.4391	ppb	18:56:01
1	Na 589.592 Radial†	-878.4	-103.1	-30.779	ug/L	-30.779	ppb	18:55:41
1	Sr 421.552†	6.8	18.5	0.1084	ug/L	0.1084	ppb	18:55:41
1	Sc 361.383	897621.4	897621.4	99.857	%			18:56:58
1	Y 371.029	746989.3	746989.3	100.34	%			18:56:58
1	Ag 328.068†	393.1	23.8	0.0945	ug/L	0.0945	ppb	18:56:58
1	As 188.979†	-30.3	4.4	1.6166	ug/L	1.6166	ppb	18:57:18
1	B 249.677†	-414.0	-388.6	-7.9740	ug/L	-7.9740	ppb	18:57:18
1	Ba 233.527†	-7.4	-4.8	-0.0342	ug/L	-0.0342	ppb	18:57:18
1	Be 313.107†	-4615.1	109.3	0.0367	ug/L	0.0367	ppb	18:56:58
1	Cd 226.502†	-207.1	21.8	0.2154	ug/L	0.2154	ppb	18:57:18
1	Co 228.616†	-84.0	3.0	0.0539	ug/L	0.0539	ppb	18:57:18
1	Cr 267.716†	116.7	36.7	0.3710	ug/L	0.3710	ppb	18:57:18
1	Cu 324.752†	6175.3	128.6	0.3625	ug/L	0.3625	ppb	18:56:58
1	Mn 257.610†	475.6	-15.2	-0.0168	ug/L	-0.0168	ppb	18:57:18
1	Mo 202.031†	27.0	7.2	0.4348	ug/L	0.4348	ppb	18:57:18
1	Ni 231.604†	128.7	35.4	0.7724	ug/L	0.7724	ppb	18:57:18
1	P 214.914†	231.2	-26.6	-13.893	ug/L	-13.893	ppb	18:57:18
1	Pb 220.353†	-73.9	-10.0	-1.0532	ug/L	-1.0532	ppb	18:57:18
1	S 181.975 Axial†	53.0	4.1	5.0514	ug/L	5.0514	ppb	18:57:18
1	Sb 206.836†	50.5	9.3	2.8209	ug/L	2.8209	ppb	18:57:18
1	Se 196.026†	-27.1	1.4	0.7208	ug/L	0.7208	ppb	18:57:18
1	Si 251.611†	637.7	61.2	1.7080	ug/L	1.7080	ppb	18:57:18
1	Sn 189.927†	14.2	10.7	1.6075	ug/L	1.6075	ppb	18:57:18
1	Ti 334.940†	-1364.6	21.0	0.0302	ug/L	0.0302	ppb	18:56:58
1	Tl 190.801†	-49.7	-1.7	-0.4416	ug/L	-0.4416	ppb	18:57:18
1	U 409.014†	-2328.4	40.4	1.1153	ug/L	1.1153	ppb	18:56:58
1	V 292.402†	-1518.9	-51.6	-0.3173	ug/L	-0.3173	ppb	18:56:58
1	Zn 213.857†	777.5	-14.9	-0.1265	ug/L	-0.1265	ppb	18:57:18
1	SiO2†	645.1	39.4	2.3477	ug/L	2.3477	ppb	18:58:14
2	Sc Radial	5605.2	5605.2	101	%			18:56:06
2	Y RADIAL	5939.8	5939.8	100.5	%			18:56:06
2	Al 396.153Radial†	-30.8	-14.2	-10.397	ug/L	-10.397	ppb	18:56:06
2	Ca 317.933Radial†	17.5	-2.1	-3.0652	ug/L	-3.0652	ppb	18:56:26
2	Fe 238.204 Radial†	8.8	-2.1	-17.737	ug/L	-17.737	ppb	18:56:26
2	K 766.490 Radial†	2805.8	74.4	13.137	ug/L	13.137	ppb	18:56:06
2	Mg 279.077 IEC†	0.3	-1.1	-34.251	ug/L	-34.251	ppb	18:56:26
2	Na 589.592 Radial†	-938.2	-170.2	-50.800	ug/L	-50.800	ppb	18:56:06
2	Sr 421.552†	43.0	54.5	0.3199	ug/L	0.3199	ppb	18:56:06
2	Sc 361.383	899343.4	899343.4	100.05	%			18:57:23
2	Y 371.029	747666.3	747666.3	100.43	%			18:57:23
2	Ag 328.068†	338.9	-31.2	-0.1337	ug/L	-0.1337	ppb	18:57:23
2	As 188.979†	-31.5	3.3	1.1974	ug/L	1.1974	ppb	18:57:43
2	B 249.677†	-390.2	-364.0	-7.4695	ug/L	-7.4695	ppb	18:57:43
2	Ba 233.527†	-0.5	2.1	0.0126	ug/L	0.0126	ppb	18:57:43
2	Be 313.107†	-4587.9	145.4	0.0490	ug/L	0.0490	ppb	18:57:23
2	Cd 226.502†	-243.8	-14.5	-0.1400	ug/L	-0.1400	ppb	18:57:43
2	Co 228.616†	-72.7	14.4	0.2560	ug/L	0.2560	ppb	18:57:43
2	Cr 267.716†	89.0	8.8	0.0911	ug/L	0.0911	ppb	18:57:43
2	Cu 324.752†	6286.7	228.1	0.6437	ug/L	0.6437	ppb	18:57:23
2	Mn 257.610†	497.0	5.3	0.0041	ug/L	0.0041	ppb	18:57:43
2	Mo 202.031†	42.8	22.9	1.3841	ug/L	1.3841	ppb	18:57:43
2	Ni 231.604†	119.0	25.4	0.5546	ug/L	0.5546	ppb	18:57:43

2	P 214.914†	241.9	-16.3	-8.5704	ug/L	-8.5704 ppb	18:57:43
2	Pb 220.353†	-73.6	-9.5	-0.9979	ug/L	-0.9979 ppb	18:57:43
2	S 181.975 Axial†	39.6	-9.4	-11.533	ug/L	-11.533 ppb	18:57:43
2	Sb 206.836†	43.0	1.8	0.5786	ug/L	0.5786 ppb	18:57:43
2	Se 196.026†	-26.0	2.5	1.3011	ug/L	1.3011 ppb	18:57:43
2	Si 251.611†	637.3	59.5	1.6480	ug/L	1.6480 ppb	18:57:43
2	Sn 189.927†	7.4	4.0	0.5922	ug/L	0.5922 ppb	18:57:43
2	Ti 334.940†	-1308.2	80.0	0.1196	ug/L	0.1196 ppb	18:57:23
2	Tl 190.801†	-35.2	12.9	3.3460	ug/L	3.3460 ppb	18:57:43
2	U 409.014†	-2713.1	-339.6	-9.3543	ug/L	-9.3543 ppb	18:57:23
2	V 292.402†	-1533.0	-62.8	-0.3962	ug/L	-0.3962 ppb	18:57:23
2	Zn 213.857†	785.2	-8.7	-0.0727	ug/L	-0.0727 ppb	18:57:43
2	SiO2†	684.6	77.6	4.6355	ug/L	4.6355 ppb	18:58:19
3	Sc Radial	5485.4	5485.4	98.5	%		18:56:31
3	Y RADIAL	5816.0	5816.0	98.39	%		18:56:31
3	Al 396.153Radial†	-31.8	-15.9	-11.590	ug/L	-11.590 ppb	18:56:31
3	Ca 317.933Radial†	15.9	-3.5	-4.9561	ug/L	-4.9561 ppb	18:56:51
3	Fe 238.204 Radial†	8.2	-2.6	-21.559	ug/L	-21.559 ppb	18:56:51
3	K 766.490 Radial†	2943.2	274.7	48.434	ug/L	48.434 ppb	18:56:31
3	Mg 279.077 IEC†	2.1	0.7	22.369	ug/L	22.369 ppb	18:56:51
3	Na 589.592 Radial†	-920.7	-172.8	-51.580	ug/L	-51.580 ppb	18:56:31
3	Sr 421.552†	5.3	17.2	0.1007	ug/L	0.1007 ppb	18:56:31
3	Sc 361.383	894804.2	894804.2	99.543	%		18:57:48
3	Y 371.029	744731.3	744731.3	100.04	%		18:57:48
3	Ag 328.068†	387.3	19.2	0.0781	ug/L	0.0781 ppb	18:57:48
3	As 188.979†	-24.4	10.3	3.7444	ug/L	3.7444 ppb	18:58:09
3	B 249.677†	-404.5	-380.4	-7.8046	ug/L	-7.8046 ppb	18:58:09
3	Ba 233.527†	3.1	5.8	0.0384	ug/L	0.0384 ppb	18:58:09
3	Be 313.107†	-4586.9	123.2	0.0417	ug/L	0.0417 ppb	18:57:48
3	Cd 226.502†	-221.9	6.2	0.0637	ug/L	0.0637 ppb	18:58:09
3	Co 228.616†	-89.1	-2.4	-0.0416	ug/L	-0.0416 ppb	18:58:09
3	Cr 267.716†	78.9	-0.9	-0.0083	ug/L	-0.0083 ppb	18:58:09
3	Cu 324.752†	6156.9	129.6	0.3650	ug/L	0.3650 ppb	18:57:48
3	Mn 257.610†	488.6	-0.7	-0.0032	ug/L	-0.0032 ppb	18:58:09
3	Mo 202.031†	27.4	7.7	0.4641	ug/L	0.4641 ppb	18:58:09
3	Ni 231.604†	120.4	27.4	0.5989	ug/L	0.5989 ppb	18:58:09
3	P 214.914†	251.0	-5.9	-3.1236	ug/L	-3.1236 ppb	18:58:09
3	Pb 220.353†	-83.9	-20.2	-2.1300	ug/L	-2.1300 ppb	18:58:09
3	S 181.975 Axial†	52.3	3.6	4.4036	ug/L	4.4036 ppb	18:58:09
3	Sb 206.836†	43.0	2.0	0.6019	ug/L	0.6019 ppb	18:58:09
3	Se 196.026†	-38.8	-10.5	-5.7608	ug/L	-5.7608 ppb	18:58:09
3	Si 251.611†	643.7	69.2	1.9282	ug/L	1.9282 ppb	18:58:09
3	Sn 189.927†	1.5	-2.0	-0.2940	ug/L	-0.2940 ppb	18:58:09
3	Ti 334.940†	-1231.0	151.0	0.2193	ug/L	0.2193 ppb	18:57:48
3	Tl 190.801†	-44.7	3.2	0.8307	ug/L	0.8307 ppb	18:58:09
3	U 409.014†	-2462.3	-101.3	-2.7891	ug/L	-2.7891 ppb	18:57:48
3	V 292.402†	-1453.2	9.6	0.0658	ug/L	0.0658 ppb	18:57:48
3	Zn 213.857†	797.5	7.6	0.0597	ug/L	0.0597 ppb	18:58:09
3	SiO2†	680.8	77.3	4.6261	ug/L	4.6261 ppb	18:58:24

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	897256.3	99.816	%	0.2549				0.26%
Sc Radial	5581.9	100	%	1.6				1.56%
Y 371.029	746462.3	100.27	%	0.206				0.21%
Y RADIAL	5921.6	100.2	%	1.65				1.65%
Ag 328.068†	3.9	0.0129	ug/L	0.12730	0.0129	ppb	0.12730	983.56%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-14.5	-10.624	ug/L	0.8750	-10.624	ppb	0.8750	8.24%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	6.0	2.1861	ug/L	1.36569	2.1861	ppb	1.36569	62.47%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-377.7	-7.7494	ug/L	0.25675	-7.7494	ppb	0.25675	3.31%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	1.0	0.0056	ug/L	0.03684	0.0056	ppb	0.03684	657.92%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	126.0	0.0425	ug/L	0.00617	0.0425	ppb	0.00617	14.51%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	0.1	0.1084	ug/L	7.19676	0.1084	ppb	7.19676	>999.9%

```
   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                4.5      0.0463 ug/L       0.17830      0.0463 ppb        0.17830 384.68%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                5.0      0.0895 ug/L       0.15192      0.0895 ppb        0.15192 169.83%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†               14.9      0.1513 ug/L       0.19667      0.1513 ppb        0.19667 129.98%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              162.1      0.4570 ug/L       0.16164      0.4570 ppb        0.16164  35.37%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        -2.3     -18.757 ug/L        2.4562     -18.757 ppb         2.4562  13.09%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        144.7      25.520 ug/L       19.8654      25.520 ppb        19.8654  77.84%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           -0.0     -0.8144 ug/L      29.66973     -0.8144 ppb       29.66973 >999.9%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               -3.5     -0.0053 ug/L       0.01061     -0.0053 ppb        0.01061 199.05%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               12.6      0.7610 ug/L       0.53982      0.7610 ppb        0.53982  70.93%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      -148.7     -44.386 ug/L       11.7911     -44.386 ppb        11.7911  26.56%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               29.4      0.6420 ug/L       0.11509      0.6420 ppb        0.11509  17.93%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -16.2     -8.5291 ug/L       5.38489     -8.5291 ppb        5.38489  63.14%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -13.2     -1.3937 ug/L       0.63827     -1.3937 ppb        0.63827  45.80%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          -0.6     -0.6927 ug/L       9.39375     -0.6927 ppb        9.39375 >999.9%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                4.4      1.3338 ug/L       1.28791      1.3338 ppb        1.28791  96.56%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               -2.2     -1.2463 ug/L       3.92044     -1.2463 ppb        3.92044 314.56%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†               63.3      1.7614 ug/L       0.14752      1.7614 ppb        0.14752   8.38%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                4.2      0.6352 ug/L       0.95150      0.6352 ppb        0.95150 149.78%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               30.1      0.1763 ug/L       0.12439      0.1763 ppb        0.12439  70.56%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               84.0      0.1230 ug/L       0.09459      0.1230 ppb        0.09459  76.90%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                4.8      1.2451 ug/L       1.92751      1.2451 ppb        1.92751 154.81%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              -133.5     -3.6760 ug/L       5.29088     -3.6760 ppb        5.29088 143.93%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               -35.0     -0.2159 ug/L       0.24711     -0.2159 ppb        0.24711 114.45%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               -5.3     -0.0465 ug/L       0.09585     -0.0465 ppb        0.09585 206.17%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                     64.8      3.8698 ug/L       1.31813      3.8698 ppb        1.31813  34.06%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

ICPMS#3 Daily Performance Report

Sample ID: Sample
Sample Date/Time: Tuesday, December 22, 2009 18:13:18
Sample Description:
Method File: c:\elandata\Method\daily2.mth
Dataset File: c:\elandata\Dataset\default\Sample.5254
Tuning File: c:\elandata\Tuning\default2.tun
Optimization File: c:\elandata\Optimize\default.dac
Dual Detector Mode: Pulse

Acq. Dead Time(ns): 35
Current Dead Time (ns): 35

Number of Replicates: 5

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Be	9.0	347.0	347.004	14.934	4.3
	Mg	24.0	2236.8	2236.775	12.014	0.5
	Co	58.9	12680.8	12680.826	71.574	0.6
	Rh	102.9	34833.0	34833.017	270.281	0.8
	In	114.9	47522.9	47522.925	645.248	1.4
	Pb	208.0	37452.4	37452.434	409.042	1.1
⌈>	Ba	137.9	42149.1	42149.109	517.583	1.2
⌊	Ba++	69.0	693.8	0.016	0.001	3.7
⌈>	Ce	139.9	52177.5	52177.515	250.879	0.5
⌊	CeO	155.9	821.5	0.016	0.000	3.1
	Bkgd	220.0	5.4	5.400	1.636	30.3

Current Optimization File Data

Current Value	Description
0.99	Nebulizer Gas Flow
7.50	Lens Voltage
1450.00	ICP RF Power
-1812.00	Analog Stage Voltage
950.00	Pulse Stage Voltage
70.00	Discriminator Threshold
-7.00	AC Rod Offset
60.00	Service DAC 1
0.00	Quadrupole Rod Offset

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	17	6.8	303.0
Co	59	17	7.8	11968.7
In	115	17	8.8	57502.8

ICPMS#3 Instrument Tuning Report

File Name: default2.tun
File Path: c:\elandata\Tuning

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas Peak W
He	3.0	3.0	578	2030	0.688
Be	9.0	9.1	2080	2010	0.736
Mg	24.0	23.9	5708	2090	0.686
Mg	25.0	25.0	5901	2010	0.706
Mg	26.0	26.0	6222	2110	0.667
Co	58.9	58.9	14204	2100	0.676
Rh	102.9	102.9	24912	2150	0.682
In	114.9	114.9	27822	2160	0.690
Ce	139.9	139.9	33913	2200	0.646
Pb	206.0	206.0	50004	2270	0.664
Pb	207.0	207.0	50270	2310	0.647
Pb	208.0	208.0	50486	2290	0.620
U	238.1	238.1	57843	2330	0.658

ICPMS#3 - Summary Report

Sample ID: Blank
Sample Date/Time: Wednesday, December 23, 2009 02:45:27
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\091220\Blank.518

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7		ug/L		8	
	Be	9		ug/L		7	
	B	11		ug/L		52	
	Na	23		ug/L		3000	
	Mg	24		ug/L		333	
	Al	27		ug/L		667	
	P	31		ug/L		881	
	K	39		ug/L		118827	
	Ca	43		ug/L		56	
>	Sc	45		ug/L		60909	
	Ti	47		ug/L		44	
	V	51		ug/L		2490	
	Cr	52		ug/L		1036	
	Cr	53		ug/L		30683	
	Mn	55		ug/L		1625	
	Fe	57		ug/L		1899	
	Co	59		ug/L		125	
	Ni	60		ug/L		85	
	Cu	63		ug/L		127	
	Cu	65		ug/L		95	
	Zn	66		ug/L		39	
	Zn	67		ug/L		1244	
	Zn	68		ug/L		236	
>	Ge	74		ug/L		81733	
	As	75		ug/L		690	
	Se	77		ug/L		1917	
	Se	82		ug/L		10	
	Kr	83		ug/L		20	
	Sr	88		ug/L		53	
	Y	89		ug/L		14	
	Zr	90		ug/L		225	
	Mo	98		ug/L		25	
	Ag	107		ug/L		9	
	Cd	111		ug/L		5	
	Cd	114		ug/L		12	
>	In	115		ug/L		59324	
	Sn	120		ug/L		90	
	Sb	121		ug/L		132	
	Sb	123		ug/L		107	
	Ba	135		ug/L		10	
	Ba	137		ug/L		15	
	Ho	165		ug/L		8	
>	Lu	175		ug/L		119002	
	Tl	205		ug/L		716	
	Pb	208		ug/L		142	
	Th	232		ug/L		351	
	U	238		ug/L		108	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	0.9997
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45					
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115					
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175					
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Wednesday, December 23, 2009 02:51:10
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\091220\Standard 1.519

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**10.000**	**ug/L**	1.986	346	0.006
	Be	9	**10.000**	**ug/L**	2.539	306	0.005
	B	11	**20.000**	**ug/L**	12.713	453	0.007
	Na	23	**1000.000**	**ug/L**	12.006	281432	4.546
	Mg	24	**1000.000**	**ug/L**	6.048	208180	3.386
	Al	27	**1000.000**	**ug/L**	6.112	421821	6.869
	P	31	**1000.000**	**ug/L**	3.285	33529	0.533
	K	39	**1000.000**	**ug/L**	7.448	717993	9.757
	Ca	43	**1000.000**	**ug/L**	4.019	1388	0.022
>	Sc	45		**ug/L**		61317	61317.342
	Ti	47	**10.000**	**ug/L**	9.365	707	0.011
	V	51	**10.000**	**ug/L**	23.057	9637	0.117
	Cr	52	**10.000**	**ug/L**	5.136	10409	0.153
	Cr	53		**ug/L**		31421	0.009
	Mn	55	**10.000**	**ug/L**	4.805	17261	0.255
	Fe	57	**1000.000**	**ug/L**	5.958	32005	0.491
	Co	59	**10.000**	**ug/L**	6.658	10265	0.166
	Ni	60	**10.000**	**ug/L**	4.854	2106	0.033
	Cu	63		**ug/L**		4646	0.074
	Cu	65	**10.000**	**ug/L**	1.956	2214	0.035
	Zn	66	**10.000**	**ug/L**	0.900	1550	0.018
	Zn	67		**ug/L**		1474	0.003
	Zn	68		**ug/L**		1512	0.016
>	Ge	74		**ug/L**		82100	82099.764
	As	75	**10.000**	**ug/L**	9.033	3111	0.029
	Se	77		**ug/L**		2048	0.001
	Se	82	**10.000**	**ug/L**	7.414	177	0.002
	Kr	83		**ug/L**		32	0.000
	Sr	88	**10.000**	**ug/L**	1.359	25023	0.417
	Y	89		**ug/L**		17	0.000
	Zr	90	**10.000**	**ug/L**	4.145	15790	0.260
	Mo	98	**10.000**	**ug/L**	0.832	6914	0.115
	Ag	107	**10.000**	**ug/L**	3.957	12055	0.201
	Cd	111	**10.000**	**ug/L**	1.387	2990	0.050
	Cd	114		**ug/L**		7092	0.118
>	In	115		**ug/L**		59889	59888.735
	Sn	120	**10.000**	**ug/L**	1.101	12929	0.214
	Sb	121	**10.000**	**ug/L**	2.627	12344	0.204
	Sb	123		**ug/L**		9458	0.156
	Ba	135		**ug/L**		3060	0.025
	Ba	137	**10.000**	**ug/L**	3.391	5454	0.045
	Ho	165		**ug/L**		14	0.000
>	Lu	175		**ug/L**		119927	119926.554
	Tl	205	**10.000**	**ug/L**	3.057	53686	0.442
	Pb	208	**10.000**	**ug/L**	1.796	63597	0.529
	Th	232	**10.000**	**ug/L**	3.272	74121	0.615
	U	238	**10.000**	**ug/L**	1.447	79582	0.663

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45					
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115					
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175					
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Wednesday, December 23, 2009 02:56:51
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\091220\Standard 2.520

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**100.002**	**ug/L**	0.398	3392	0.055
	Be	9	**100.037**	**ug/L**	3.205	3107	0.051
	B	11	**200.062**	**ug/L**	1.617	4200	0.068
	Na	23	**9999.254**	**ug/L**	1.957	2768166	45.118
	Mg	24	**9993.006**	**ug/L**	9.719	1940390	31.623
	Al	27	**9992.128**	**ug/L**	4.814	3897214	63.631
	P	31	**10000.299**	**ug/L**	1.305	328223	5.343
	K	39	**10007.316**	**ug/L**	7.813	6569538	105.352
	Ca	43	**9999.246**	**ug/L**	4.704	13265	0.216
>	Sc	45		**ug/L**		61272	61272.442
	Ti	47	**100.021**	**ug/L**	1.238	6830	0.111
	V	51	**100.149**	**ug/L**	1.553	86775	1.376
	Cr	52	**100.003**	**ug/L**	0.701	95060	1.535
	Cr	53		**ug/L**		40483	0.157
	Mn	55	**100.024**	**ug/L**	1.988	161691	2.613
	Fe	57	**10000.749**	**ug/L**	0.801	305234	4.951
	Co	59	**99.991**	**ug/L**	2.149	100611	1.640
	Ni	60	**99.998**	**ug/L**	1.016	20249	0.329
	Cu	63		**ug/L**		44679	0.727
	Cu	65	**99.994**	**ug/L**	2.360	21134	0.343
	Zn	66	**99.989**	**ug/L**	1.133	15224	0.182
	Zn	67		**ug/L**		3736	0.030
	Zn	68		**ug/L**		13075	0.154
>	Ge	74		**ug/L**		83447	83446.871
	As	75	**99.997**	**ug/L**	3.290	25182	0.293
	Se	77		**ug/L**		3378	0.017
	Se	82	**100.124**	**ug/L**	1.910	1944	0.023
	Kr	83		**ug/L**		26	0.000
	Sr	88	**100.014**	**ug/L**	0.913	252817	4.232
	Y	89		**ug/L**		33	0.000
	Zr	90	**99.900**	**ug/L**	1.600	141184	2.360
	Mo	98	**100.021**	**ug/L**	2.643	70272	1.176
	Ag	107	**100.002**	**ug/L**	2.583	120375	2.015
	Cd	111	**100.018**	**ug/L**	1.192	30335	0.508
	Cd	114		**ug/L**		70538	1.181
>	In	115		**ug/L**		59737	59737.339
	Sn	120	**100.021**	**ug/L**	1.168	130978	2.191
	Sb	121	**100.017**	**ug/L**	3.888	124047	2.074
	Sb	123		**ug/L**		95706	1.600
	Ba	135		**ug/L**		31230	0.256
	Ba	137	**99.995**	**ug/L**	0.975	55143	0.451
	Ho	165		**ug/L**		11	0.000
>	Lu	175		**ug/L**		122162	122162.322
	Tl	205	**100.020**	**ug/L**	0.690	551521	4.509
	Pb	208	**99.980**	**ug/L**	2.108	634130	5.190
	Th	232	**100.012**	**ug/L**	1.220	761092	6.227
	U	238	**99.990**	**ug/L**	0.784	801711	6.562

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	0.9999
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	0.9999
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45					
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115					
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175					
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Wednesday, December 23, 2009 03:02:33
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\091220\QC Std 1.521

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**52.031**	**ug/L**	4.887	1774	0.029
	Be	9	**51.954**	**ug/L**	4.443	1623	0.026
	B	11	**108.096**	**ug/L**	2.553	2302	0.037
	Na	23	**4737.734**	**ug/L**	5.776	1317470	21.377
	Mg	24	**5159.516**	**ug/L**	1.871	1005198	16.327
	Al	27	**4875.119**	**ug/L**	2.228	1911294	31.045
	P	31	**5059.731**	**ug/L**	2.687	167166	2.704
	K	39	**5067.326**	**ug/L**	2.006	3403249	53.346
	Ca	43	**5047.174**	**ug/L**	2.745	6752	0.109
>	Sc	45		**ug/L**		61528	61527.872
	Ti	47	**51.772**	**ug/L**	0.925	3572	0.057
	V	51	**50.327**	**ug/L**	3.836	45035	0.691
	Cr	52	**52.830**	**ug/L**	3.432	50902	0.811
	Cr	53		**ug/L**		35456	0.073
	Mn	55	**52.512**	**ug/L**	3.909	86000	1.372
	Fe	57	**5054.865**	**ug/L**	2.469	155835	2.502
	Co	59	**51.434**	**ug/L**	1.199	52032	0.844
	Ni	60	**52.265**	**ug/L**	1.993	10669	0.172
	Cu	63		**ug/L**		23481	0.380
	Cu	65	**52.328**	**ug/L**	1.562	11153	0.180
	Zn	66	**51.752**	**ug/L**	1.330	7960	0.094
	Zn	67		**ug/L**		2578	0.015
	Zn	68		**ug/L**		7129	0.082
>	Ge	74		**ug/L**		84086	84085.579
	As	75	**48.856**	**ug/L**	2.183	12764	0.143
	Se	77		**ug/L**		2672	0.008
	Se	82	**53.182**	**ug/L**	5.029	1046	0.012
	Kr	83		**ug/L**		21	0.000
	Sr	88	**52.228**	**ug/L**	0.800	132127	2.210
	Y	89		**ug/L**		16	0.000
	Zr	90	**44.719**	**ug/L**	5.440	63382	1.056
	Mo	98	**50.927**	**ug/L**	3.262	35800	0.599
	Ag	107	**51.032**	**ug/L**	1.793	61465	1.028
	Cd	111	**51.577**	**ug/L**	4.068	15645	0.262
	Cd	114		**ug/L**		36658	0.613
>	In	115		**ug/L**		59777	59776.694
	Sn	120	**51.556**	**ug/L**	2.393	67566	1.129
	Sb	121	**50.412**	**ug/L**	3.362	62624	1.045
	Sb	123		**ug/L**		48682	0.812
	Ba	135		**ug/L**		16211	0.132
	Ba	137	**51.638**	**ug/L**	2.111	28584	0.233
	Ho	165		**ug/L**		13	0.000
>	Lu	175		**ug/L**		122608	122608.193
	Tl	205	**48.784**	**ug/L**	0.465	270357	2.199
	Pb	208	**51.225**	**ug/L**	1.476	326101	2.659
	Th	232	**52.438**	**ug/L**	0.514	400699	3.265
	U	238	**52.934**	**ug/L**	1.211	425986	3.474

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	0.9999
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	1.0000
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	0.9999
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Zr	90Linear Thru Zero	1.0000
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
Pb	208Linear Thru Zero	1.0000
Th	232Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7	104.062				
	Be	9	103.909				
	B	11	108.096				
	Na	23	94.755				
	Mg	24	103.190				
	Al	27	96.537				
	P	31	101.195				
	K	39	101.347				
	Ca	43	100.943				
>	Sc	45		101.0			
	Ti	47	103.544				
	V	51	100.654				
	Cr	52	105.660				
	Cr	53					
	Mn	55	105.024				
	Fe	57	101.097				
	Co	59	102.869				
	Ni	60	104.530				
	Cu	63					
	Cu	65	104.656				
	Zn	66	103.505				
	Zn	67					
	Zn	68					
>	Ge	74		102.9			
	As	75	97.713				
	Se	77					
	Se	82	106.365				
	Kr	83					
	Sr	88	104.455				
	Y	89					
	Zr	90	89.437				
	Mo	98	101.854				
	Ag	107	102.064				
	Cd	111	103.154				
	Cd	114					
>	In	115		100.8			
	Sn	120	103.111				
	Sb	121	100.823				
	Sb	123					
	Ba	135					
	Ba	137	103.275				
	Ho	165					
>	Lu	175		103.0			
	Tl	205	97.569				
	Pb	208	102.450				
	Th	232	104.875				
	U	238	105.868				

QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
QC Std 1	Zr	90ICV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#3 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Wednesday, December 23, 2009 03:08:17
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\091220\QC Std 2.522

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**-0.070**	**ug/L**	61.375	5	-0.000
	Be	9	**-0.023**	**ug/L**	233.741	6	-0.000
	B	11	**4.334**	**ug/L**	21.227	141	0.001
	Na	23	**-4.860**	**ug/L**	44.300	1667	-0.022
	Mg	24	**-1.729**	**ug/L**		0	-0.005
	Al	27	**-0.023**	**ug/L**	12735.215	667	-0.000
	P	31	**-0.105**	**ug/L**	834.410	881	-0.000
	K	39	**9.269**	**ug/L**	106.349	125213	0.098
	Ca	43	**10.824**	**ug/L**	134.825	71	0.000
>	Sc	45		**ug/L**		61166	61166.311
	Ti	47	**-0.032**	**ug/L**	238.987	42	-0.000
	V	51	**-0.761**	**ug/L**	198.279	1844	-0.010
	Cr	52	**-0.075**	**ug/L**	157.652	971	-0.001
	Cr	53		**ug/L**		29863	-0.015
	Mn	55	**-0.458**	**ug/L**	6.443	901	-0.012
	Fe	57	**1.317**	**ug/L**	110.627	1947	0.001
	Co	59	**0.022**	**ug/L**	79.464	147	0.000
	Ni	60	**0.051**	**ug/L**	99.052	96	0.000
	Cu	63		**ug/L**		137	0.000
	Cu	65	**0.014**	**ug/L**	159.391	98	0.000
	Zn	66	**0.029**	**ug/L**	198.942	43	0.000
	Zn	67		**ug/L**		1208	-0.000
	Zn	68		**ug/L**		201	-0.000
>	Ge	74		**ug/L**		81148	81147.638
	As	75	**0.017**	**ug/L**	2728.631	689	0.000
	Se	77		**ug/L**		1845	-0.001
	Se	82	**-0.300**	**ug/L**	208.820	5	-0.000
	Kr	83		**ug/L**		25	0.000
	Sr	88	**0.002**	**ug/L**	144.153	57	0.000
	Y	89		**ug/L**		11	-0.000
	Zr	90	**0.171**	**ug/L**	5.630	458	0.004
	Mo	98	**0.084**	**ug/L**	6.762	83	0.001
	Ag	107	**0.006**	**ug/L**	38.087	16	0.000
	Cd	111	**-0.005**	**ug/L**	226.926	3	-0.000
	Cd	114		**ug/L**		13	0.000
>	In	115		**ug/L**		58499	58498.725
	Sn	120	**0.232**	**ug/L**	10.001	386	0.005
	Sb	121	**0.627**	**ug/L**	8.276	891	0.013
	Sb	123		**ug/L**		692	0.010
	Ba	135		**ug/L**		11	0.000
	Ba	137	**0.003**	**ug/L**	220.973	17	0.000
	Ho	165		**ug/L**		17	0.000
>	Lu	175		**ug/L**		121521	121520.980
	Tl	205	**0.272**	**ug/L**	20.259	2217	0.012
	Pb	208	**0.008**	**ug/L**	23.964	198	0.000
	Th	232	**0.182**	**ug/L**	9.537	1739	0.011
	U	238	**0.012**	**ug/L**	18.579	210	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	0.9999
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	0.9999
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		100.4			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		99.3			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		98.6			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		102.1			
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Wednesday, December 23, 2009 03:14:01
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\091220\QC Std 3.523

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**11.339**	**ug/L**	13.678	389	0.006
	Be	9	**0.541**	**ug/L**	31.844	23	0.000
	B	11	**17.051**	**ug/L**	3.694	404	0.006
	Na	23	**263.138**	**ug/L**	8.943	75534	1.187
	Mg	24	**12.122**	**ug/L**	26.572	2667	0.038
	Al	27	**36.086**	**ug/L**	16.154	14674	0.230
	P	31	**53.628**	**ug/L**	3.063	2631	0.029
	K	39	**291.429**	**ug/L**	3.361	306249	3.068
	Ca	43	**252.483**	**ug/L**	11.180	388	0.005
>	Sc	45		**ug/L**		61027	61026.714
	Ti	47	**9.062**	**ug/L**	8.839	656	0.010
	V	51	**10.551**	**ug/L**	5.739	11335	0.145
	Cr	52	**10.773**	**ug/L**	2.708	11124	0.165
	Cr	53		**ug/L**		31118	0.006
	Mn	55	**5.151**	**ug/L**	4.050	9835	0.135
	Fe	57	**106.918**	**ug/L**	5.050	5132	0.053
	Co	59	**1.091**	**ug/L**	3.532	1217	0.018
	Ni	60	**2.227**	**ug/L**	2.901	533	0.007
	Cu	63		**ug/L**		647	0.009
	Cu	65	**1.231**	**ug/L**	10.373	353	0.004
	Zn	66	**11.095**	**ug/L**	5.215	1692	0.020
	Zn	67		**ug/L**		1471	0.003
	Zn	68		**ug/L**		1676	0.018
>	Ge	74		**ug/L**		81887	81886.520
	As	75	**5.840**	**ug/L**	3.274	2095	0.017
	Se	77		**ug/L**		1944	0.000
	Se	82	**5.592**	**ug/L**	9.377	116	0.001
	Kr	83		**ug/L**		26	0.000
	Sr	88	**11.129**	**ug/L**	1.451	27990	0.471
	Y	89		**ug/L**		12	-0.000
	Zr	90	**2.049**	**ug/L**	4.318	3096	0.048
	Mo	98	**0.561**	**ug/L**	4.016	416	0.007
	Ag	107	**1.056**	**ug/L**	1.463	1272	0.021
	Cd	111	**1.064**	**ug/L**	6.923	325	0.005
	Cd	114		**ug/L**		758	0.013
>	In	115		**ug/L**		59341	59341.420
	Sn	120	**5.411**	**ug/L**	1.786	7123	0.119
	Sb	121	**3.235**	**ug/L**	3.920	4113	0.067
	Sb	123		**ug/L**		3208	0.052
	Ba	135		**ug/L**		676	0.006
	Ba	137	**2.098**	**ug/L**	1.636	1157	0.009
	Ho	165		**ug/L**		14	0.000
>	Lu	175		**ug/L**		120560	120559.848
	Tl	205	**1.069**	**ug/L**	1.518	6533	0.048
	Pb	208	**2.148**	**ug/L**	0.289	13586	0.112
	Th	232	**1.097**	**ug/L**	3.143	8595	0.068
	U	238	**0.223**	**ug/L**	4.090	1870	0.015

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	0.9999
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	0.9999
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7	113.391				
	Be	9	108.214				
	B	11	113.672				
	Na	23	105.255				
	Mg	24	80.811				
	Al	27	120.287				
	P	31	107.256				
	K	39	97.143				
	Ca	43	126.242				
>	Sc	45			100.2		
	Ti	47	90.618				
	V	51	105.505				
	Cr	52	107.735				
	Cr	53					
	Mn	55	103.012				
	Fe	57	106.918				
	Co	59	109.143				
	Ni	60	111.354				
	Cu	63					
	Cu	65	123.097				
	Zn	66	110.946				
	Zn	67					
	Zn	68					
>	Ge	74			100.2		
	As	75	116.796				
	Se	77					
	Se	82	111.838				
	Kr	83					
	Sr	88	111.285				
	Y	89					
	Zr	90	102.432				
	Mo	98	112.129				
	Ag	107	105.577				
	Cd	111	106.409				
	Cd	114					
>	In	115			100.0		
	Sn	120	108.229				
	Sb	121	107.845				
	Sb	123					
	Ba	135					
	Ba	137	104.921				
	Ho	165					
>	Lu	175			101.3		
	Tl	205	106.863				
	Pb	208	107.407				
	Th	232	109.731				
	U	238	111.259				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Wednesday, December 23, 2009 03:19:44
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\091220\QC Std 4.524

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.028**	**ug/L**	592.297	8	0.000
	Be	9	**0.110**	**ug/L**	48.835	9	0.000
	B	11	**1.323**	**ug/L**	26.417	73	0.000
	Na	23	**94684.035**	**ug/L**	0.647	24181531	427.229
	Mg	24	**105841.454**	**ug/L**	8.033	18954410	334.937
	Al	27	**96459.203**	**ug/L**	6.263	34763009	614.261
	P	31	**99099.278**	**ug/L**	1.909	2997462	52.951
	K	39	**99230.663**	**ug/L**	5.358	59228466	1044.648
	Ca	43	**98708.197**	**ug/L**	1.569	120542	2.129
>	Sc	45		**ug/L**		56594	56594.111
	Ti	47	**1498.943**	**ug/L**	2.273	93995	1.660
	V	51	**-1.936**	**ug/L**	40.939	808	-0.027
	Cr	52	**2.135**	**ug/L**	4.296	2817	0.033
	Cr	53		**ug/L**		23763	-0.084
	Mn	55	**5.510**	**ug/L**	0.696	9656	0.144
	Fe	57	**104090.400**	**ug/L**	3.310	2918039	51.530
	Co	59	**0.257**	**ug/L**	2.517	354	0.004
	Ni	60	**2.568**	**ug/L**	4.832	558	0.008
	Cu	63		**ug/L**		991	0.015
	Cu	65	**2.750**	**ug/L**	7.285	623	0.009
	Zn	66	**2.828**	**ug/L**	3.318	442	0.005
	Zn	67		**ug/L**		1154	-0.001
	Zn	68		**ug/L**		299	0.001
>	Ge	74		**ug/L**		78629	78628.924
	As	75	**-0.735**	**ug/L**	117.956	495	-0.002
	Se	77		**ug/L**		1688	-0.002
	Se	82	**-0.350**	**ug/L**	211.319	4	-0.000
	Kr	83		**ug/L**		40	0.000
	Sr	88	**1.197**	**ug/L**	1.304	2816	0.051
	Y	89		**ug/L**		77	0.001
	Zr	90	**7.352**	**ug/L**	62.143	9628	0.174
	Mo	98	**2004.565**	**ug/L**	3.206	1287027	23.565
	Ag	107	**0.053**	**ug/L**	21.693	67	0.001
	Cd	111	**0.306**	**ug/L**	8.883	89	0.002
	Cd	114		**ug/L**		1128	0.020
>	In	115		**ug/L**		54635	54635.459
	Sn	120	**0.201**	**ug/L**	5.458	324	0.004
	Sb	121	**0.162**	**ug/L**	8.984	305	0.003
	Sb	123		**ug/L**		235	0.002
	Ba	135		**ug/L**		220	0.002
	Ba	137	**0.662**	**ug/L**	0.322	361	0.003
	Ho	165		**ug/L**		271	0.002
>	Lu	175		**ug/L**		116007	116006.678
	Tl	205	**0.023**	**ug/L**	48.789	816	0.001
	Pb	208	**0.176**	**ug/L**	2.687	1201	0.009
	Th	232	**0.161**	**ug/L**	27.212	1500	0.010
	U	238	**-0.008**	**ug/L**	14.227	46	-0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	0.9999
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	0.9999
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23	94.684				
	Mg	24	105.841				
	Al	27	96.459				
	P	31	99.099				
	K	39	99.231				
	Ca	43	98.708				
>	Sc	45			92.9		
	Ti	47	74.947				
	V	51					
	Cr	52	57.700				
	Cr	53					
	Mn	55	94.995				
	Fe	57	104.090				
	Co	59	102.616				
	Ni	60	95.129				
	Cu	63					
	Cu	65	94.845				
	Zn	66	78.564				
	Zn	67					
	Zn	68					
>	Ge	74			96.2		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88	99.784				
	Y	89					
	Zr	90					
	Mo	98	100.228				
	Ag	107					
	Cd	111	76.584				
	Cd	114					
>	In	115			92.1		
	Sn	120					
	Sb	121	161.793				
	Sb	123					
	Ba	135					
	Ba	137	98.849				
	Ho	165					
>	Lu	175			97.5		
	Tl	205					
	Pb	208	88.209				
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
QC Std 4	Ti	47ICSA is out of limits
QC Std 4	Zr	90ICSA is out of limits

QC Action

QC Action Line: Continue

ICPMS#3 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Wednesday, December 23, 2009 03:25:27
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\091220\QC Std 5.525

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**19.716**	**ug/L**	4.068	624	0.011
	Be	9	**18.792**	**ug/L**	2.317	545	0.010
	B	11	**18.647**	**ug/L**	4.795	406	0.006
	Na	23	**96889.690**	**ug/L**	5.430	24788599	437.182
	Mg	24	**104430.906**	**ug/L**	3.387	18736544	330.474
	Al	27	**99472.633**	**ug/L**	4.866	35910303	633.451
	P	31	**98632.265**	**ug/L**	2.992	2988400	52.701
	K	39	**105483.547**	**ug/L**	5.000	63049657	1110.475
	Ca	43	**96942.474**	**ug/L**	0.691	118633	2.091
>	Sc	45		**ug/L**		56709	56708.922
	Ti	47	**1482.595**	**ug/L**	3.460	93128	1.642
	V	51	**18.189**	**ug/L**	5.538	16477	0.250
	Cr	52	**22.214**	**ug/L**	1.947	20291	0.341
	Cr	53		**ug/L**		26163	-0.042
	Mn	55	**26.202**	**ug/L**	4.068	40323	0.684
	Fe	57	**105507.246**	**ug/L**	3.646	2963108	52.231
	Co	59	**21.039**	**ug/L**	2.593	19683	0.345
	Ni	60	**23.070**	**ug/L**	1.155	4385	0.076
	Cu	63		**ug/L**		9287	0.162
	Cu	65	**22.631**	**ug/L**	2.736	4496	0.078
	Zn	66	**22.006**	**ug/L**	3.714	3229	0.040
	Zn	67		**ug/L**		1646	0.005
	Zn	68		**ug/L**		2609	0.030
>	Ge	74		**ug/L**		79701	79701.232
	As	75	**19.575**	**ug/L**	5.516	5248	0.057
	Se	77		**ug/L**		1917	0.001
	Se	82	**19.914**	**ug/L**	1.678	378	0.005
	Kr	83		**ug/L**		47	0.000
	Sr	88	**22.464**	**ug/L**	0.600	53180	0.950
	Y	89		**ug/L**		76	0.001
	Zr	90	**21.867**	**ug/L**	2.423	29085	0.517
	Mo	98	**1981.049**	**ug/L**	1.491	1301821	23.289
	Ag	107	**20.250**	**ug/L**	0.758	22820	0.408
	Cd	111	**20.477**	**ug/L**	0.972	5816	0.104
	Cd	114		**ug/L**		14596	0.261
>	In	115		**ug/L**		55899	55899.147
	Sn	120	**20.675**	**ug/L**	1.686	25397	0.453
	Sb	121	**21.411**	**ug/L**	2.454	24943	0.444
	Sb	123		**ug/L**		19132	0.340
	Ba	135		**ug/L**		6201	0.053
	Ba	137	**20.564**	**ug/L**	2.427	10812	0.093
	Ho	165		**ug/L**		265	0.002
>	Lu	175		**ug/L**		116374	116374.343
	Tl	205	**18.879**	**ug/L**	1.852	99747	0.851
	Pb	208	**20.023**	**ug/L**	0.612	121085	1.039
	Th	232	**20.922**	**ug/L**	1.556	151947	1.303
	U	238	**21.562**	**ug/L**	2.500	164749	1.415

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	0.9999
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	0.9999
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7	98.581				
	Be	9	93.959				
	B	11	93.236				
	Na	23	96.890				
	Mg	24	104.431				
	Al	27	99.473				
	P	31	98.632				
	K	39	105.484				
	Ca	43	96.942				
>	Sc	45		93.1			
	Ti	47	74.130				
	V	51	90.944				
	Cr	52	93.728				
	Cr	53					
	Mn	55	101.559				
	Fe	57	105.507				
	Co	59	103.898				
	Ni	60	101.630				
	Cu	63					
	Cu	65	98.827				
	Zn	66	93.245				
	Zn	67					
	Zn	68					
>	Ge	74		97.5			
	As	75	97.877				
	Se	77					
	Se	82	99.572				
	Kr	83					
	Sr	88	105.964				
	Y	89					
	Zr	90	109.337				
	Mo	98	99.052				
	Ag	107	101.248				
	Cd	111	100.378				
	Cd	114					
>	In	115		94.2			
	Sn	120	103.377				
	Sb	121	106.521				
	Sb	123					
	Ba	135					
	Ba	137	99.485				
	Ho	165					
>	Lu	175		97.8			
	Tl	205	94.394				
	Pb	208	99.126				
	Th	232	104.608				
	U	238	107.810				

QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
QC Std 5	Ti	47ICSAB is out of limits

QC Action

QC Action Line: Continue

ICPMS#3 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Wednesday, December 23, 2009 03:31:11
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\091220\QC Std 6.526

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**51.181**	ug/L	0.286	1758	0.028
	Be	9	**48.088**	ug/L	2.453	1514	0.024
	B	11	**98.324**	ug/L	2.097	2113	0.033
	Na	23	**4962.487**	ug/L	3.008	1389448	22.392
	Mg	24	**4847.290**	ug/L	7.561	949617	15.339
	Al	27	**4815.698**	ug/L	13.467	1897865	30.667
	P	31	**4902.086**	ug/L	3.552	163056	2.619
	K	39	**5047.177**	ug/L	9.641	3414443	53.134
	Ca	43	**4890.046**	ug/L	3.136	6588	0.105
>	Sc	45		ug/L		61934	61934.273
	Ti	47	**52.128**	ug/L	3.216	3620	0.058
	V	51	**48.946**	ug/L	2.878	44158	0.672
	Cr	52	**51.739**	ug/L	2.113	50215	0.794
	Cr	53		ug/L		33649	0.040
	Mn	55	**52.503**	ug/L	1.868	86585	1.372
	Fe	57	**5093.273**	ug/L	3.171	158069	2.521
	Co	59	**51.665**	ug/L	2.794	52618	0.848
	Ni	60	**52.655**	ug/L	1.093	10819	0.173
	Cu	63		ug/L		23748	0.381
	Cu	65	**51.984**	ug/L	1.404	11158	0.179
	Zn	66	**51.808**	ug/L	1.002	8077	0.094
	Zn	67		ug/L		2485	0.014
	Zn	68		ug/L		7073	0.080
>	Ge	74		ug/L		85230	85230.013
	As	75	**48.603**	ug/L	2.132	12876	0.143
	Se	77		ug/L		2291	0.003
	Se	82	**51.447**	ug/L	3.358	1026	0.012
	Kr	83		ug/L		25	0.000
	Sr	88	**51.351**	ug/L	0.140	132806	2.173
	Y	89		ug/L		20	0.000
	Zr	90	**38.313**	ug/L	10.850	55587	0.905
	Mo	98	**50.565**	ug/L	2.029	36341	0.594
	Ag	107	**51.411**	ug/L	0.583	63314	1.036
	Cd	111	**51.175**	ug/L	0.565	15878	0.260
	Cd	114		ug/L		36631	0.599
>	In	115		ug/L		61103	61102.840
	Sn	120	**50.650**	ug/L	2.829	67865	1.109
	Sb	121	**49.646**	ug/L	1.335	63044	1.029
	Sb	123		ug/L		48506	0.792
	Ba	135		ug/L		16365	0.133
	Ba	137	**51.200**	ug/L	2.669	28438	0.231
	Ho	165		ug/L		16	0.000
>	Lu	175		ug/L		123045	123044.664
	Tl	205	**48.509**	ug/L	1.023	269777	2.187
	Pb	208	**51.378**	ug/L	2.125	328199	2.667
	Th	232	**52.766**	ug/L	0.381	404639	3.285
	U	238	**53.438**	ug/L	2.024	431525	3.507

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	0.9999
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	0.9999
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7	102.362				
	Be	9	96.175				
	B	11	98.324				
	Na	23	99.250				
	Mg	24	96.946				
	Al	27	95.360				
	P	31	98.042				
	K	39	100.944				
	Ca	43	97.801				
>	Sc	45		101.7			
	Ti	47	104.257				
	V	51	97.892				
	Cr	52	103.478				
	Cr	53					
	Mn	55	105.006				
	Fe	57	101.865				
	Co	59	103.330				
	Ni	60	105.309				
	Cu	63					
	Cu	65	103.969				
	Zn	66	103.616				
	Zn	67					
	Zn	68					
>	Ge	74		104.3			
	As	75	97.206				
	Se	77					
	Se	82	102.895				
	Kr	83					
	Sr	88	102.701				
	Y	89					
	Zr	90	76.626				
	Mo	98	101.130				
	Ag	107	102.822				
	Cd	111	102.351				
	Cd	114					
>	In	115		103.0			
	Sn	120	101.299				
	Sb	121	99.292				
	Sb	123					
	Ba	135					
	Ba	137	102.400				
	Ho	165					
>	Lu	175		103.4			
	Tl	205	97.017				
	Pb	208	102.757				
	Th	232	105.531				
	U	238	106.877				

QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
QC Std 6	Zr	90CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#3 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Wednesday, December 23, 2009 03:36:56
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\091220\QC Std 7.527

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.092**	**ug/L**	78.412	11	0.000
	Be	9	**0.002**	**ug/L**	4904.454	7	0.000
	B	11	**2.453**	**ug/L**	28.816	102	0.001
	Na	23	**2.560**	**ug/L**	333.514	3667	0.012
	Mg	24	**3.505**	**ug/L**	258.675	1000	0.011
	Al	27	**-0.864**	**ug/L**	171.396	333	-0.006
	P	31	**-1.694**	**ug/L**	23.336	821	-0.001
	K	39	**12.116**	**ug/L**	158.940	125889	0.128
	Ca	43	**5.337**	**ug/L**	155.365	63	0.000
>	Sc	45		**ug/L**		60556	60555.686
	Ti	47	**0.477**	**ug/L**	36.406	75	0.001
	V	51	**-0.657**	**ug/L**	95.474	1928	-0.009
	Cr	52	**-0.283**	**ug/L**	20.929	768	-0.004
	Cr	53		**ug/L**		28201	-0.038
	Mn	55	**-0.687**	**ug/L**	2.831	529	-0.018
	Fe	57	**3.312**	**ug/L**	46.699	1987	0.002
	Co	59	**0.008**	**ug/L**	160.061	132	0.000
	Ni	60	**-0.036**	**ug/L**	66.251	78	-0.000
	Cu	63		**ug/L**		144	0.000
	Cu	65	**0.056**	**ug/L**	31.166	106	0.000
	Zn	66	**-0.065**	**ug/L**	30.877	30	-0.000
	Zn	67		**ug/L**		1147	-0.001
	Zn	68		**ug/L**		200	-0.000
>	Ge	74		**ug/L**		82706	82705.591
	As	75	**-0.380**	**ug/L**	63.072	606	-0.001
	Se	77		**ug/L**		1546	-0.005
	Se	82	**-0.532**	**ug/L**	28.590	0	-0.000
	Kr	83		**ug/L**		28	0.000
	Sr	88	**-0.000**	**ug/L**	1957.653	53	-0.000
	Y	89		**ug/L**		14	-0.000
	Zr	90	**0.100**	**ug/L**	16.956	366	0.002
	Mo	98	**0.145**	**ug/L**	19.053	126	0.002
	Ag	107	**0.007**	**ug/L**	41.080	18	0.000
	Cd	111	**-0.002**	**ug/L**	1355.595	4	-0.000
	Cd	114		**ug/L**		14	0.000
>	In	115		**ug/L**		59380	59380.205
	Sn	120	**0.169**	**ug/L**	18.442	310	0.004
	Sb	121	**0.454**	**ug/L**	2.651	692	0.009
	Sb	123		**ug/L**		551	0.007
	Ba	135		**ug/L**		9	-0.000
	Ba	137	**-0.009**	**ug/L**	70.277	10	-0.000
	Ho	165		**ug/L**		16	0.000
>	Lu	175		**ug/L**		118684	118683.526
	Tl	205	**0.199**	**ug/L**	11.946	1779	0.009
	Pb	208	**0.002**	**ug/L**	47.138	156	0.000
	Th	232	**0.227**	**ug/L**	6.059	2030	0.014
	U	238	**0.008**	**ug/L**	40.793	171	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	0.9999
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	0.9999
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		99.4			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		101.2			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		100.1			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		99.7			
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: QC Std 10
Sample Date/Time: Wednesday, December 23, 2009 03:42:41
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\091220\QC Std 10.528

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**987.467**	ug/L	0.844	31651	0.545
	Be	9	**936.480**	ug/L	0.751	27505	0.474
	B	11	**2.144**	ug/L	12.414	91	0.001
	Na	23	**44532.649**	ug/L	10.946	11660759	200.938
	Mg	24	**52006.507**	ug/L	4.269	9550395	164.576
	Al	27	**48117.005**	ug/L	5.805	17783058	306.414
	P	31	**24098.935**	ug/L	0.381	748000	12.877
	K	39	**49274.326**	ug/L	2.085	30211294	518.734
	Ca	43	**48143.011**	ug/L	1.554	60304	1.038
>	Sc	45		ug/L		58026	58025.523
	Ti	47	**33.992**	ug/L	3.489	2226	0.038
	V	51	**974.577**	ug/L	1.461	779159	13.387
	Cr	52	**981.145**	ug/L	0.529	874613	15.056
	Cr	53		ug/L		131934	1.770
	Mn	55	**975.419**	ug/L	1.961	1479917	25.480
	Fe	57	**48713.277**	ug/L	0.658	1401076	24.115
	Co	59	**981.985**	ug/L	1.107	934903	16.109
	Ni	60	**1011.952**	ug/L	1.832	193324	3.331
	Cu	63		ug/L		415117	7.152
	Cu	65	**980.744**	ug/L	1.396	195562	3.369
	Zn	66	**2353.873**	ug/L	1.141	347748	4.284
	Zn	67		ug/L		58134	0.701
	Zn	68		ug/L		282007	3.471
>	Ge	74		ug/L		81170	81169.767
	As	75	**953.238**	ug/L	1.313	227701	2.797
	Se	77		ug/L		9155	0.089
	Se	82	**504.010**	ug/L	1.642	9479	0.117
	Kr	83		ug/L		39	0.000
	Sr	88	**1042.190**	ug/L	2.474	2573480	44.094
	Y	89		ug/L		82	0.001
	Zr	90	**482.103**	ug/L	3.662	664881	11.389
	Mo	98	**1005.407**	ug/L	2.880	689813	11.819
	Ag	107	**252.962**	ug/L	0.605	297597	5.098
	Cd	111	**1005.120**	ug/L	4.481	297730	5.102
	Cd	114		ug/L		677011	11.599
>	In	115		ug/L		58376	58376.228
	Sn	120	**978.276**	ug/L	3.224	1250613	21.428
	Sb	121	**248.422**	ug/L	5.454	300694	5.151
	Sb	123		ug/L		232635	3.985
	Ba	135		ug/L		315072	2.579
	Ba	137	**983.254**	ug/L	1.880	542214	4.437
	Ho	165		ug/L		97	0.001
>	Lu	175		ug/L		122218	122217.915
	Tl	205	**492.287**	ug/L	2.935	2711912	22.191
	Pb	208	**5193.110**	ug/L	2.164	32935601	269.554
	Th	232	**2618.875**	ug/L	1.391	19926312	163.063
	U	238	**5483.182**	ug/L	3.569	43960411	359.831

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	0.9999
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	0.9999
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7	98.747				
	Be	9	93.648				
	B	11					
	Na	23	89.065				
	Mg	24	104.013				
	Al	27	96.234				
	P	31	96.396				
	K	39	98.549				
	Ca	43	96.286				
>	Sc	45		95.3			
	Ti	47					
	V	51	97.458				
	Cr	52	98.114				
	Cr	53					
	Mn	55	97.542				
	Fe	57	97.427				
	Co	59	98.198				
	Ni	60	101.195				
	Cu	63					
	Cu	65	98.074				
	Zn	66	94.155				
	Zn	67					
	Zn	68					
>	Ge	74		99.3			
	As	75	95.324				
	Se	77					
	Se	82	100.802				
	Kr	83					
	Sr	88	104.219				
	Y	89					
	Zr	90	96.421				
	Mo	98	100.541				
	Ag	107	101.185				
	Cd	111	100.512				
	Cd	114					
>	In	115		98.4			
	Sn	120	97.828				
	Sb	121	99.369				
	Sb	123					
	Ba	135					
	Ba	137	98.325				
	Ho	165					
>	Lu	175		102.7			
	Tl	205	98.457				
	Pb	208	103.862				
	Th	232	104.755				
	U	238	109.664				

QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
QC Std 10	Na	23LRS is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#3 - Summary Report

Sample ID: QC Std 11
Sample Date/Time: Wednesday, December 23, 2009 03:48:26
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\091220\QC Std 11.529

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**50.944**	ug/L	1.624	1764	0.028
	Be	9	**48.120**	ug/L	1.181	1527	0.024
	B	11	**97.620**	ug/L	5.213	2115	0.033
	Na	23	**4789.420**	ug/L	17.347	1352200	21.611
	Mg	24	**5545.962**	ug/L	10.441	1095715	17.550
	Al	27	**5065.104**	ug/L	13.806	2014106	32.255
	P	31	**4831.598**	ug/L	2.382	162070	2.582
	K	39	**4683.319**	ug/L	1.432	3199875	49.304
	Ca	43	**4888.150**	ug/L	3.832	6639	0.105
>	Sc	45		ug/L		62435	62434.763
	Ti	47	**49.679**	ug/L	2.692	3480	0.055
	V	51	**48.240**	ug/L	5.082	43915	0.663
	Cr	52	**51.053**	ug/L	2.096	49970	0.783
	Cr	53		ug/L		33442	0.032
	Mn	55	**52.232**	ug/L	2.284	86847	1.364
	Fe	57	**5024.491**	ug/L	2.865	157225	2.487
	Co	59	**51.214**	ug/L	1.776	52578	0.840
	Ni	60	**52.547**	ug/L	0.991	10885	0.173
	Cu	63		ug/L		23650	0.377
	Cu	65	**50.692**	ug/L	0.584	10969	0.174
	Zn	66	**52.393**	ug/L	1.502	8041	0.095
	Zn	67		ug/L		2500	0.015
	Zn	68		ug/L		6994	0.080
>	Ge	74		ug/L		83913	83912.906
	As	75	**48.718**	ug/L	2.520	12703	0.143
	Se	77		ug/L		2294	0.004
	Se	82	**52.855**	ug/L	5.765	1037	0.012
	Kr	83		ug/L		28	0.000
	Sr	88	**50.759**	ug/L	1.618	132788	2.148
	Y	89		ug/L		16	0.000
	Zr	90	**55.662**	ug/L	7.543	81499	1.315
	Mo	98	**50.143**	ug/L	2.297	36462	0.589
	Ag	107	**50.516**	ug/L	1.307	62940	1.018
	Cd	111	**50.955**	ug/L	0.950	15994	0.259
	Cd	114		ug/L		37542	0.607
>	In	115		ug/L		61814	61814.169
	Sn	120	**53.295**	ug/L	1.066	72249	1.167
	Sb	121	**52.046**	ug/L	1.932	66844	1.079
	Sb	123		ug/L		50829	0.821
	Ba	135		ug/L		16400	0.134
	Ba	137	**51.639**	ug/L	2.219	28506	0.233
	Ho	165		ug/L		16	0.000
>	Lu	175		ug/L		122280	122280.072
	Tl	205	**49.704**	ug/L	3.529	274646	2.241
	Pb	208	**52.629**	ug/L	1.543	334131	2.732
	Th	232	**54.154**	ug/L	0.604	412654	3.372
	U	238	**54.286**	ug/L	2.597	435655	3.562

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	0.9999
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	0.9999
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7	101.888				
	Be	9	96.240				
	B	11	97.620				
	Na	23	95.788				
	Mg	24	110.919				
	Al	27	100.299				
	P	31	96.632				
	K	39	93.666				
	Ca	43	97.763				
>	Sc	45		102.5			
	Ti	47	99.358				
	V	51	96.480				
	Cr	52	102.106				
	Cr	53					
	Mn	55	104.464				
	Fe	57	100.490				
	Co	59	102.427				
	Ni	60	105.094				
	Cu	63					
	Cu	65	101.383				
	Zn	66	104.787				
	Zn	67					
	Zn	68					
>	Ge	74		102.7			
	As	75	97.437				
	Se	77					
	Se	82	105.710				
	Kr	83					
	Sr	88	101.517				
	Y	89					
	Zr	90	111.323				
	Mo	98	100.285				
	Ag	107	101.032				
	Cd	111	101.911				
	Cd	114					
>	In	115		104.2			
	Sn	120	106.591				
	Sb	121	104.091				
	Sb	123					
	Ba	135					
	Ba	137	103.278				
	Ho	165					
>	Lu	175		102.8			
	Tl	205	99.408				
	Pb	208	105.257				
	Th	232	108.308				
	U	238	108.572				

QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
QC Std 11	Mg	24CCV is out of limits (+/- 10%)
QC Std 11	Zr	90CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#3 - Summary Report

Sample ID: QC Std 12
Sample Date/Time: Wednesday, December 23, 2009 03:54:11
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\091220\QC Std 12.530

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**-0.029**	**ug/L**	261.170	7	-0.000
	Be	9	**-0.086**	**ug/L**	40.512	4	-0.000
	B	11	**2.320**	**ug/L**	31.093	99	0.001
	Na	23	**0.028**	**ug/L**	22923.679	3000	0.000
	Mg	24	**1.769**	**ug/L**	171.271	667	0.006
	Al	27	**-0.002**	**ug/L**	93823.499	667	-0.000
	P	31	**-1.774**	**ug/L**	83.948	822	-0.001
	K	39	**4.288**	**ug/L**	228.457	121516	0.045
	Ca	43	**10.964**	**ug/L**	180.999	71	0.000
>	Sc	45		**ug/L**		60854	60853.975
	Ti	47	**0.089**	**ug/L**	41.430	50	0.000
	V	51	**-1.437**	**ug/L**	23.329	1283	-0.020
	Cr	52	**-0.295**	**ug/L**	22.500	759	-0.005
	Cr	53		**ug/L**		28321	-0.038
	Mn	55	**-0.686**	**ug/L**	2.051	534	-0.018
	Fe	57	**1.011**	**ug/L**	92.357	1928	0.001
	Co	59	**0.059**	**ug/L**	39.537	184	0.001
	Ni	60	**-0.066**	**ug/L**	55.687	72	-0.000
	Cu	63		**ug/L**		152	0.000
	Cu	65	**0.109**	**ug/L**	31.137	118	0.000
	Zn	66	**0.045**	**ug/L**	68.813	46	0.000
	Zn	67		**ug/L**		1140	-0.001
	Zn	68		**ug/L**		224	-0.000
>	Ge	74		**ug/L**		82832	82832.275
	As	75	**0.591**	**ug/L**	141.655	843	0.002
	Se	77		**ug/L**		1508	-0.005
	Se	82	**-0.693**	**ug/L**	70.453	-3	-0.000
	Kr	83		**ug/L**		34	0.000
	Sr	88	**0.005**	**ug/L**	31.821	66	0.000
	Y	89		**ug/L**		15	0.000
	Zr	90	**0.240**	**ug/L**	3.961	572	0.006
	Mo	98	**0.236**	**ug/L**	11.196	193	0.003
	Ag	107	**0.010**	**ug/L**	31.858	22	0.000
	Cd	111	**0.009**	**ug/L**	235.948	8	0.000
	Cd	114		**ug/L**		13	0.000
>	In	115		**ug/L**		60434	60434.172
	Sn	120	**0.974**	**ug/L**	8.097	1380	0.021
	Sb	121	**1.027**	**ug/L**	10.510	1421	0.021
	Sb	123		**ug/L**		1123	0.017
	Ba	135		**ug/L**		12	0.000
	Ba	137	**0.002**	**ug/L**	117.775	16	0.000
	Ho	165		**ug/L**		14	0.000
>	Lu	175		**ug/L**		118711	118711.110
	Tl	205	**0.368**	**ug/L**	13.856	2686	0.017
	Pb	208	**0.034**	**ug/L**	13.967	350	0.002
	Th	232	**0.327**	**ug/L**	6.959	2768	0.020
	U	238	**0.067**	**ug/L**	9.941	629	0.004

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	0.9999
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	0.9999
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45			99.9		
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74			101.3		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115			101.9		
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175			99.8		
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: 1201994273
Sample Date/Time: Wednesday, December 23, 2009 03:59:59
Sample Type:
Sample Description: LANL 6020 MB
Number of Replicates: 3
Batch ID: 932304|1|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\091220\1201994273.531

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.077**	**ug/L**	73.039	10	0.000
	Be	9	**-0.065**	**ug/L**	108.901	5	-0.000
	B	11	**0.707**	**ug/L**	44.427	67	0.000
	Na	23	**-2.528**	**ug/L**	160.572	2334	-0.011
	Mg	24	**-1.729**	**ug/L**		0	-0.005
	Al	27	**2.557**	**ug/L**	151.863	1667	0.016
	P	31	**-1.824**	**ug/L**	62.205	826	-0.001
	K	39	**28.501**	**ug/L**	44.517	137999	0.300
	Ca	43	**20.045**	**ug/L**	58.716	83	0.000
>	Sc	45		**ug/L**		61266	61266.406
	Ti	47	**0.414**	**ug/L**	20.179	72	0.000
	V	51	**-3.047**	**ug/L**	56.562	-57	-0.042
	Cr	52	**1.123**	**ug/L**	6.937	2099	0.017
	Cr	53		**ug/L**		59475	0.467
	Mn	55	**-0.515**	**ug/L**	1.938	810	-0.013
	Fe	57	**10.787**	**ug/L**	29.995	2238	0.005
	Co	59	**0.074**	**ug/L**	10.098	200	0.001
	Ni	60	**0.072**	**ug/L**	38.995	100	0.000
	Cu	63		**ug/L**		221	0.002
	Cu	65	**0.232**	**ug/L**	51.379	144	0.001
	Zn	66	**1.614**	**ug/L**	6.144	290	0.003
	Zn	67		**ug/L**		2933	0.019
	Zn	68		**ug/L**		572	0.004
>	Ge	74		**ug/L**		85047	85047.264
	As	75	**4.585**	**ug/L**	22.540	1864	0.013
	Se	77		**ug/L**		4374	0.028
	Se	82	**-0.484**	**ug/L**	79.371	1	-0.000
	Kr	83		**ug/L**		32	0.000
	Sr	88	**0.028**	**ug/L**	11.380	121	0.001
	Y	89		**ug/L**		15	0.000
	Zr	90	**1.775**	**ug/L**	7.871	2682	0.042
	Mo	98	**0.148**	**ug/L**	12.567	127	0.002
	Ag	107	**0.009**	**ug/L**	6.846	20	0.000
	Cd	111	**0.010**	**ug/L**	122.276	8	0.000
	Cd	114		**ug/L**		10	-0.000
>	In	115		**ug/L**		58692	58691.732
	Sn	120	**2.158**	**ug/L**	30.251	2858	0.047
	Sb	121	**0.652**	**ug/L**	16.988	923	0.014
	Sb	123		**ug/L**		720	0.010
	Ba	135		**ug/L**		53	0.000
	Ba	137	**0.150**	**ug/L**	12.738	95	0.001
	Ho	165		**ug/L**		17	0.000
>	Lu	175		**ug/L**		117924	117924.006
	Tl	205	**0.124**	**ug/L**	11.074	1369	0.006
	Pb	208	**0.018**	**ug/L**	3.098	249	0.001
	Th	232	**0.311**	**ug/L**	11.426	2629	0.019
	U	238	**0.020**	**ug/L**	10.395	261	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	0.9999
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	0.9999
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45			100.6		
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74			104.1		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115			98.9		
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175			99.1		
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: 1201994274
Sample Date/Time: Wednesday, December 23, 2009 04:05:48
Sample Type:
Sample Description: LANL 6020 LCS
Number of Replicates: 3
Batch ID: 932304|1|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\091220\1201994274.532

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**53.777**	**ug/L**	2.473	1853	0.030
	Be	9	**56.729**	**ug/L**	1.166	1791	0.029
	B	11	**110.750**	**ug/L**	4.219	2381	0.037
	Na	23	**2154.282**	**ug/L**	9.380	606660	9.720
	Mg	24	**2233.298**	**ug/L**	2.571	439668	7.067
	Al	27	**2153.878**	**ug/L**	2.149	853066	13.716
	P	31	**2145.374**	**ug/L**	1.717	72141	1.146
	K	39	**2007.328**	**ug/L**	9.751	1436619	21.132
	Ca	43	**2145.719**	**ug/L**	1.017	2934	0.046
>	Sc	45		**ug/L**		62164	62163.960
	Ti	47	**49.367**	**ug/L**	4.157	3443	0.055
	V	51	**52.239**	**ug/L**	7.726	47097	0.718
	Cr	52	**55.097**	**ug/L**	3.092	53592	0.845
	Cr	53		**ug/L**		71099	0.640
	Mn	55	**54.453**	**ug/L**	1.988	90069	1.422
	Fe	57	**2145.776**	**ug/L**	3.654	67944	1.062
	Co	59	**54.207**	**ug/L**	1.821	55392	0.889
	Ni	60	**55.943**	**ug/L**	1.923	11529	0.184
	Cu	63		**ug/L**		25046	0.401
	Cu	65	**53.908**	**ug/L**	2.402	11607	0.185
	Zn	66	**52.026**	**ug/L**	3.555	8254	0.095
	Zn	67		**ug/L**		4704	0.039
	Zn	68		**ug/L**		7291	0.081
>	Ge	74		**ug/L**		86736	86736.394
	As	75	**56.759**	**ug/L**	1.554	15179	0.167
	Se	77		**ug/L**		5655	0.042
	Se	82	**54.648**	**ug/L**	4.156	1108	0.013
	Kr	83		**ug/L**		29	0.000
	Sr	88	**53.544**	**ug/L**	0.285	135392	2.265
	Y	89		**ug/L**		17	0.000
	Zr	90	**56.411**	**ug/L**	4.676	79798	1.333
	Mo	98	**51.766**	**ug/L**	2.847	36372	0.609
	Ag	107	**53.662**	**ug/L**	1.293	64619	1.081
	Cd	111	**52.628**	**ug/L**	3.521	15965	0.267
	Cd	114		**ug/L**		36940	0.618
>	In	115		**ug/L**		59743	59743.217
	Sn	120	**53.149**	**ug/L**	1.725	69629	1.164
	Sb	121	**54.680**	**ug/L**	2.309	67862	1.134
	Sb	123		**ug/L**		51943	0.868
	Ba	135		**ug/L**		16364	0.134
	Ba	137	**52.163**	**ug/L**	1.757	28773	0.235
	Ho	165		**ug/L**		22	0.000
>	Lu	175		**ug/L**		122187	122187.321
	Tl	205	**48.794**	**ug/L**	3.613	269504	2.200
	Pb	208	**52.695**	**ug/L**	1.001	334340	2.735
	Th	232	**52.818**	**ug/L**	3.124	402200	3.289
	U	238	**54.625**	**ug/L**	2.930	438054	3.585

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	0.9999
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	0.9999
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45			102.1		
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74			106.1		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115			100.7		
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175			102.7		
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: 242669001
Sample Date/Time: Wednesday, December 23, 2009 04:11:35
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 932304|1|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\091220\242669001.533

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.097**	ug/L	91.783	11	0.000
	Be	9	**0.004**	ug/L	2046.094	7	0.000
	B	11	**5.382**	ug/L	11.751	168	0.002
	Na	23	**286.794**	ug/L	15.795	84587	1.294
	Mg	24	**4.990**	ug/L	116.657	1333	0.016
	Al	27	**54.839**	ug/L	15.977	22685	0.349
	P	31	**1.917**	ug/L	103.228	975	0.001
	K	39	**65.909**	ug/L	2.828	166633	0.694
	Ca	43	**90.865**	ug/L	5.399	181	0.002
>	Sc	45		ug/L		63000	63000.267
	Ti	47	**1.431**	ug/L	2.278	145	0.002
	V	51	**-1.757**	ug/L	58.111	1064	-0.024
	Cr	52	**2.725**	ug/L	6.388	3708	0.042
	Cr	53		ug/L		67379	0.566
	Mn	55	**2.227**	ug/L	0.962	5346	0.058
	Fe	57	**65.976**	ug/L	5.429	4022	0.033
	Co	59	**0.139**	ug/L	12.166	273	0.002
	Ni	60	**0.997**	ug/L	4.295	295	0.003
	Cu	63		ug/L		473	0.005
	Cu	65	**0.784**	ug/L	6.950	268	0.003
	Zn	66	**7.615**	ug/L	1.708	1227	0.014
	Zn	67		ug/L		3624	0.027
	Zn	68		ug/L		1385	0.013
>	Ge	74		ug/L		85562	85562.331
	As	75	**4.437**	ug/L	21.766	1838	0.013
	Se	77		ug/L		4853	0.033
	Se	82	**-0.316**	ug/L	27.330	5	-0.000
	Kr	83		ug/L		30	0.000
	Sr	88	**0.532**	ug/L	2.735	1370	0.022
	Y	89		ug/L		183	0.003
	Zr	90	**0.937**	ug/L	3.230	1519	0.022
	Mo	98	**0.215**	ug/L	4.252	173	0.003
	Ag	107	**0.019**	ug/L	27.788	31	0.000
	Cd	111	**0.010**	ug/L	163.334	8	0.000
	Cd	114		ug/L		25	0.000
>	In	115		ug/L		58562	58562.205
	Sn	120	**0.353**	ug/L	3.255	541	0.008
	Sb	121	**0.332**	ug/L	6.073	534	0.007
	Sb	123		ug/L		413	0.005
	Ba	135		ug/L		239	0.002
	Ba	137	**0.674**	ug/L	3.312	376	0.003
	Ho	165		ug/L		31	0.000
>	Lu	175		ug/L		118796	118796.011
	Tl	205	**0.432**	ug/L	18.507	3019	0.019
	Pb	208	**0.170**	ug/L	4.882	1187	0.009
	Th	232	**0.237**	ug/L	29.709	2094	0.015
	U	238	**0.009**	ug/L	29.803	182	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	0.9999
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	0.9999
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		103.4			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		104.7			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		98.7			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		99.8			
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: 1201994275
Sample Date/Time: Wednesday, December 23, 2009 04:17:22
Sample Type:
Sample Description: LANL 6020 DUP
Number of Replicates: 3
Batch ID: 932304|1|ba|
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\091220\1201994275.534

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.064**	**ug/L**	157.758	10	0.000
	Be	9	**-0.057**	**ug/L**	106.321	5	-0.000
	B	11	**3.207**	**ug/L**	19.361	120	0.001
	Na	23	**314.278**	**ug/L**	9.100	90957	1.418
	Mg	24	**13.715**	**ug/L**	100.682	3000	0.043
	Al	27	**45.644**	**ug/L**	9.174	18679	0.291
	P	31	**0.611**	**ug/L**	438.638	915	0.000
	K	39	**55.738**	**ug/L**	29.109	157196	0.587
	Ca	43	**108.621**	**ug/L**	7.990	202	0.002
>	Sc	45		**ug/L**		61957	61957.039
	Ti	47	**1.541**	**ug/L**	12.768	150	0.002
	V	51	**-3.630**	**ug/L**	84.982	-571	-0.050
	Cr	52	**3.276**	**ug/L**	4.498	4168	0.050
	Cr	53		**ug/L**		70157	0.629
	Mn	55	**2.286**	**ug/L**	2.493	5353	0.060
	Fe	57	**74.215**	**ug/L**	2.271	4208	0.037
	Co	59	**0.152**	**ug/L**	11.412	281	0.002
	Ni	60	**1.471**	**ug/L**	1.352	387	0.005
	Cu	63		**ug/L**		500	0.006
	Cu	65	**0.821**	**ug/L**	7.997	271	0.003
	Zn	66	**7.710**	**ug/L**	1.932	1250	0.014
	Zn	67		**ug/L**		3771	0.029
	Zn	68		**ug/L**		1427	0.014
>	Ge	74		**ug/L**		86161	86160.606
	As	75	**4.596**	**ug/L**	36.973	1892	0.013
	Se	77		**ug/L**		5259	0.038
	Se	82	**0.169**	**ug/L**	371.058	14	0.000
	Kr	83		**ug/L**		21	-0.000
	Sr	88	**0.531**	**ug/L**	2.652	1364	0.022
	Y	89		**ug/L**		198	0.003
	Zr	90	**0.617**	**ug/L**	4.161	1071	0.015
	Mo	98	**0.167**	**ug/L**	10.127	139	0.002
	Ag	107	**0.016**	**ug/L**	19.234	28	0.000
	Cd	111	**0.013**	**ug/L**	36.542	9	0.000
	Cd	114		**ug/L**		11	-0.000
>	In	115		**ug/L**		58305	58304.883
	Sn	120	**0.245**	**ug/L**	4.541	401	0.005
	Sb	121	**0.148**	**ug/L**	1.991	309	0.003
	Sb	123		**ug/L**		251	0.003
	Ba	135		**ug/L**		231	0.002
	Ba	137	**0.710**	**ug/L**	5.263	400	0.003
	Ho	165		**ug/L**		26	0.000
>	Lu	175		**ug/L**		120039	120038.762
	Tl	205	**0.112**	**ug/L**	13.795	1331	0.005
	Pb	208	**0.158**	**ug/L**	6.179	1128	0.008
	Th	232	**0.078**	**ug/L**	4.250	937	0.005
	U	238	**0.002**	**ug/L**	158.085	122	0.000

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	0.9999
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	1.0000
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	0.9999
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Zr	90Linear Thru Zero	1.0000
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
Pb	208Linear Thru Zero	1.0000
Th	232Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45			101.7		
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74			105.4		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115			98.3		
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175			100.9		
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: 1201994276
Sample Date/Time: Wednesday, December 23, 2009 04:23:10
Sample Type:
Sample Description: LANL 6020 MS
Number of Replicates: 3
Batch ID: 932304|1|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\091220\1201994276.535

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**51.776**	ug/L	1.674	1839	0.029
	Be	9	**55.022**	ug/L	2.161	1790	0.028
	B	11	**111.613**	ug/L	3.424	2473	0.038
	Na	23	**2282.176**	ug/L	8.498	662040	10.298
	Mg	24	**2289.201**	ug/L	6.776	464103	7.244
	Al	27	**2231.124**	ug/L	8.697	910595	14.208
	P	31	**2071.878**	ug/L	2.873	71811	1.107
	K	39	**2128.535**	ug/L	8.711	1560110	22.408
	Ca	43	**2121.537**	ug/L	1.552	2989	0.046
>	Sc	45		ug/L		64043	64042.904
	Ti	47	**48.866**	ug/L	3.645	3510	0.054
	V	51	**49.962**	ug/L	5.613	46541	0.686
	Cr	52	**55.282**	ug/L	3.910	55395	0.848
	Cr	53		ug/L		74565	0.661
	Mn	55	**55.095**	ug/L	2.507	93853	1.439
	Fe	57	**2176.594**	ug/L	3.246	70979	1.078
	Co	59	**52.648**	ug/L	2.919	55428	0.864
	Ni	60	**54.713**	ug/L	0.210	11622	0.180
	Cu	63		ug/L		25289	0.393
	Cu	65	**53.140**	ug/L	2.154	11788	0.183
	Zn	66	**59.269**	ug/L	0.242	9416	0.108
	Zn	67		ug/L		5051	0.043
	Zn	68		ug/L		8268	0.092
>	Ge	74		ug/L		86900	86899.758
	As	75	**86.518**	ug/L	1.737	22790	0.254
	Se	77		ug/L		5366	0.038
	Se	82	**21.963**	ug/L	4.213	453	0.005
	Kr	83		ug/L		33	0.000
	Sr	88	**53.917**	ug/L	1.020	135267	2.281
	Y	89		ug/L		214	0.003
	Zr	90	**57.314**	ug/L	3.268	80486	1.354
	Mo	98	**52.807**	ug/L	1.709	36820	0.621
	Ag	107	**53.745**	ug/L	3.026	64196	1.083
	Cd	111	**10.772**	ug/L	1.717	3247	0.055
	Cd	114		ug/L		7405	0.125
>	In	115		ug/L		59277	59277.130
	Sn	120	**52.794**	ug/L	1.540	68632	1.156
	Sb	121	**217.685**	ug/L	2.993	267685	4.514
	Sb	123		ug/L		207216	3.494
	Ba	135		ug/L		16504	0.134
	Ba	137	**52.089**	ug/L	2.220	29041	0.235
	Ho	165		ug/L		103	0.001
>	Lu	175		ug/L		123504	123503.576
	Tl	205	**90.605**	ug/L	3.352	505062	4.084
	Pb	208	**41.848**	ug/L	1.968	268373	2.172
	Th	232	**52.968**	ug/L	1.064	407653	3.298
	U	238	**54.393**	ug/L	1.618	440899	3.570

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	0.9999
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	0.9999
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		105.1			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		106.3			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		99.9			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		103.8			
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: 1201994277
Sample Date/Time: Wednesday, December 23, 2009 04:28:58
Sample Type:
Sample Description: LANL 6020 SDILT
Number of Replicates: 3
Batch ID: 932304|5|ba|
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\091220\1201994277.536

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**-0.090**	**ug/L**	51.833	5	-0.000
	Be	9	**-0.044**	**ug/L**	173.434	5	-0.000
	B	11	**3.356**	**ug/L**	33.757	122	0.001
	Na	23	**52.778**	**ug/L**	47.310	17679	0.238
	Mg	24	**5.139**	**ug/L**	60.039	1333	0.016
	Al	27	**12.698**	**ug/L**	29.607	5668	0.081
	P	31	**-0.899**	**ug/L**	203.414	861	-0.000
	K	39	**38.474**	**ug/L**	50.499	145069	0.405
	Ca	43	**29.009**	**ug/L**	52.981	95	0.001
>	Sc	45		**ug/L**		61613	61612.881
	Ti	47	**0.515**	**ug/L**	2.437	79	0.001
	V	51	**-1.852**	**ug/L**	43.864	946	-0.025
	Cr	52	**0.623**	**ug/L**	31.286	1638	0.010
	Cr	53		**ug/L**		42514	0.187
	Mn	55	**-0.131**	**ug/L**	49.869	1433	-0.003
	Fe	57	**12.537**	**ug/L**	14.966	2304	0.006
	Co	59	**0.062**	**ug/L**	18.229	189	0.001
	Ni	60	**0.226**	**ug/L**	13.722	132	0.001
	Cu	63		**ug/L**		224	0.002
	Cu	65	**0.239**	**ug/L**	17.175	147	0.001
	Zn	66	**1.941**	**ug/L**	15.401	335	0.004
	Zn	67		**ug/L**		1880	0.007
	Zn	68		**ug/L**		523	0.003
>	Ge	74		**ug/L**		83672	83672.248
	As	75	**0.125**	**ug/L**	841.548	734	0.000
	Se	77		**ug/L**		2660	0.008
	Se	82	**-0.281**	**ug/L**	233.874	5	-0.000
	Kr	83		**ug/L**		31	0.000
	Sr	88	**0.101**	**ug/L**	2.221	307	0.004
	Y	89		**ug/L**		53	0.001
	Zr	90	**-0.069**	**ug/L**	9.619	128	-0.002
	Mo	98	**0.063**	**ug/L**	12.809	69	0.001
	Ag	107	**0.004**	**ug/L**	94.946	14	0.000
	Cd	111	**-0.003**	**ug/L**	500.095	4	-0.000
	Cd	114		**ug/L**		13	0.000
>	In	115		**ug/L**		59631	59631.390
	Sn	120	**0.060**	**ug/L**	5.859	169	0.001
	Sb	121	**0.381**	**ug/L**	11.109	604	0.008
	Sb	123		**ug/L**		462	0.006
	Ba	135		**ug/L**		57	0.000
	Ba	137	**0.154**	**ug/L**	2.970	99	0.001
	Ho	165		**ug/L**		14	0.000
>	Lu	175		**ug/L**		119852	119851.533
	Tl	205	**1.597**	**ug/L**	15.149	9350	0.072
	Pb	208	**0.028**	**ug/L**	6.789	317	0.001
	Th	232	**0.089**	**ug/L**	15.589	1018	0.006
	U	238	**-0.004**	**ug/L**	34.319	80	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	0.9999
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	0.9999
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45			101.2		
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74			102.4		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115			100.5		
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175			100.7		
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Wednesday, December 23, 2009 04:34:44
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\091220\QC Std 6.537

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**50.394**	ug/L	2.902	1752	0.028
	Be	9	**47.341**	ug/L	1.892	1508	0.024
	B	11	**97.402**	ug/L	5.960	2119	0.033
	Na	23	**4846.335**	ug/L	9.342	1373316	21.867
	Mg	24	**5227.361**	ug/L	2.970	1037019	16.542
	Al	27	**5011.476**	ug/L	7.830	1999852	31.914
	P	31	**4843.308**	ug/L	2.193	163040	2.588
	K	39	**4992.693**	ug/L	14.231	3412578	52.560
	Ca	43	**4775.944**	ug/L	3.413	6511	0.103
>	Sc	45		ug/L		62661	62661.428
	Ti	47	**49.398**	ug/L	2.064	3473	0.055
	V	51	**48.890**	ug/L	4.149	44637	0.672
	Cr	52	**50.500**	ug/L	2.607	49621	0.775
	Cr	53		ug/L		37350	0.093
	Mn	55	**51.565**	ug/L	1.285	86086	1.347
	Fe	57	**4990.642**	ug/L	0.988	156764	2.471
	Co	59	**50.418**	ug/L	1.402	51957	0.827
	Ni	60	**51.510**	ug/L	1.537	10710	0.170
	Cu	63		ug/L		23358	0.371
	Cu	65	**50.458**	ug/L	0.188	10959	0.173
	Zn	66	**51.799**	ug/L	1.207	8093	0.094
	Zn	67		ug/L		2650	0.016
	Zn	68		ug/L		7029	0.079
>	Ge	74		ug/L		85421	85420.510
	As	75	**46.959**	ug/L	1.668	12490	0.138
	Se	77		ug/L		2476	0.006
	Se	82	**50.308**	ug/L	3.203	1005	0.012
	Kr	83		ug/L		25	0.000
	Sr	88	**51.878**	ug/L	1.464	133342	2.195
	Y	89		ug/L		21	0.000
	Zr	90	**40.443**	ug/L	10.322	58313	0.955
	Mo	98	**50.063**	ug/L	1.882	35761	0.589
	Ag	107	**50.956**	ug/L	0.409	62371	1.027
	Cd	111	**50.599**	ug/L	1.761	15603	0.257
	Cd	114		ug/L		36656	0.603
>	In	115		ug/L		60733	60733.198
	Sn	120	**50.482**	ug/L	2.285	67229	1.106
	Sb	121	**49.280**	ug/L	1.265	62199	1.022
	Sb	123		ug/L		47740	0.784
	Ba	135		ug/L		16185	0.132
	Ba	137	**51.072**	ug/L	1.369	28276	0.230
	Ho	165		ug/L		19	0.000
>	Lu	175		ug/L		122624	122623.958
	Tl	205	**47.657**	ug/L	2.983	264214	2.148
	Pb	208	**51.202**	ug/L	0.796	326044	2.658
	Th	232	**51.610**	ug/L	2.304	394472	3.213
	U	238	**52.941**	ug/L	0.664	426151	3.474

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	0.9999
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	0.9999
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7	100.789				
	Be	9	94.682				
	B	11	97.402				
	Na	23	96.927				
	Mg	24	104.547				
	Al	27	99.237				
	P	31	96.866				
	K	39	99.854				
	Ca	43	95.519				
>	Sc	45			102.9		
	Ti	47	98.796				
	V	51	97.780				
	Cr	52	101.000				
	Cr	53					
	Mn	55	103.131				
	Fe	57	99.813				
	Co	59	100.836				
	Ni	60	103.021				
	Cu	63					
	Cu	65	100.917				
	Zn	66	103.599				
	Zn	67					
	Zn	68					
>	Ge	74			104.5		
	As	75	93.918				
	Se	77					
	Se	82	100.615				
	Kr	83					
	Sr	88	103.756				
	Y	89					
	Zr	90	80.886				
	Mo	98	100.126				
	Ag	107	101.913				
	Cd	111	101.199				
	Cd	114					
>	In	115			102.4		
	Sn	120	100.964				
	Sb	121	98.560				
	Sb	123					
	Ba	135					
	Ba	137	102.144				
	Ho	165					
>	Lu	175			103.0		
	Tl	205	95.314				
	Pb	208	102.405				
	Th	232	103.220				
	U	238	105.883				

QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
QC Std 6	Zr	90CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#3 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Wednesday, December 23, 2009 04:40:29
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\091220\QC Std 7.538

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.028**	**ug/L**	529.142	9	0.000
	Be	9	**0.010**	**ug/L**	920.390	7	0.000
	B	11	**2.782**	**ug/L**	55.986	110	0.001
	Na	23	**-3.689**	**ug/L**	99.338	2000	-0.017
	Mg	24	**1.723**	**ug/L**	173.529	667	0.005
	Al	27	**-0.857**	**ug/L**	174.049	333	-0.005
	P	31	**-1.914**	**ug/L**	80.827	825	-0.001
	K	39	**5.395**	**ug/L**	573.980	123204	0.057
	Ca	43	**-0.859**	**ug/L**	868.516	55	-0.000
>	Sc	45		**ug/L**		61422	61422.387
	Ti	47	**0.190**	**ug/L**	27.717	57	0.000
	V	51	**-1.340**	**ug/L**	86.168	1386	-0.018
	Cr	52	**-0.321**	**ug/L**	15.638	743	-0.005
	Cr	53		**ug/L**		29939	-0.016
	Mn	55	**-0.742**	**ug/L**	1.279	448	-0.019
	Fe	57	**-1.601**	**ug/L**	197.393	1866	-0.001
	Co	59	**0.029**	**ug/L**	19.973	155	0.000
	Ni	60	**-0.039**	**ug/L**	116.798	78	-0.000
	Cu	63		**ug/L**		153	0.000
	Cu	65	**0.042**	**ug/L**	101.979	105	0.000
	Zn	66	**-0.030**	**ug/L**	102.568	35	-0.000
	Zn	67		**ug/L**		1262	0.000
	Zn	68		**ug/L**		215	-0.000
>	Ge	74		**ug/L**		82813	82813.171
	As	75	**0.458**	**ug/L**	59.802	811	0.001
	Se	77		**ug/L**		1604	-0.004
	Se	82	**-0.236**	**ug/L**	191.405	6	-0.000
	Kr	83		**ug/L**		28	0.000
	Sr	88	**0.002**	**ug/L**	78.127	57	0.000
	Y	89		**ug/L**		12	-0.000
	Zr	90	**0.129**	**ug/L**	6.643	405	0.003
	Mo	98	**0.079**	**ug/L**	12.438	80	0.001
	Ag	107	**0.003**	**ug/L**	132.804	13	0.000
	Cd	111	**-0.006**	**ug/L**	137.373	3	-0.000
	Cd	114		**ug/L**		15	0.000
>	In	115		**ug/L**		59166	59166.359
	Sn	120	**0.166**	**ug/L**	18.664	304	0.004
	Sb	121	**0.514**	**ug/L**	13.986	761	0.011
	Sb	123		**ug/L**		581	0.008
	Ba	135		**ug/L**		11	0.000
	Ba	137	**0.000**	**ug/L**	3550.195	15	0.000
	Ho	165		**ug/L**		12	0.000
>	Lu	175		**ug/L**		118109	118108.558
	Tl	205	**0.702**	**ug/L**	9.195	4444	0.032
	Pb	208	**0.012**	**ug/L**	15.491	217	0.001
	Th	232	**0.205**	**ug/L**	11.755	1857	0.013
	U	238	**0.013**	**ug/L**	23.356	210	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	0.9999
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	0.9999
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		100.8			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		101.3			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		99.7			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		99.2			
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: 242669002
Sample Date/Time: Wednesday, December 23, 2009 04:46:16
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 932304|1|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\091220\242669002.539

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.004**	**ug/L**	2013.524	8	0.000
	Be	9	**-0.059**	**ug/L**	102.372	5	-0.000
	B	11	**3.424**	**ug/L**	17.534	125	0.001
	Na	23	**10.418**	**ug/L**	91.538	6001	0.047
	Mg	24	**-1.729**	**ug/L**		0	-0.005
	Al	27	**1.593**	**ug/L**	235.249	1333	0.010
	P	31	**0.882**	**ug/L**	156.971	932	0.000
	K	39	**15.827**	**ug/L**	94.667	132280	0.167
	Ca	43	**32.230**	**ug/L**	18.698	101	0.001
>	Sc	45		**ug/L**		62407	62407.008
	Ti	47	**0.805**	**ug/L**	16.205	100	0.001
	V	51	**-0.808**	**ug/L**	139.433	1846	-0.011
	Cr	52	**1.323**	**ug/L**	6.651	2329	0.020
	Cr	53		**ug/L**		63719	0.517
	Mn	55	**-0.542**	**ug/L**	3.745	782	-0.014
	Fe	57	**10.178**	**ug/L**	28.099	2260	0.005
	Co	59	**0.040**	**ug/L**	21.227	169	0.001
	Ni	60	**0.141**	**ug/L**	57.792	116	0.000
	Cu	63		**ug/L**		421	0.005
	Cu	65	**0.509**	**ug/L**	8.823	207	0.002
	Zn	66	**3.362**	**ug/L**	4.115	561	0.006
	Zn	67		**ug/L**		3187	0.022
	Zn	68		**ug/L**		823	0.007
>	Ge	74		**ug/L**		85054	85054.300
	As	75	**3.581**	**ug/L**	16.746	1613	0.011
	Se	77		**ug/L**		4891	0.034
	Se	82	**-0.246**	**ug/L**	72.703	6	-0.000
	Kr	83		**ug/L**		29	0.000
	Sr	88	**0.051**	**ug/L**	2.805	177	0.002
	Y	89		**ug/L**		19	0.000
	Zr	90	**1.762**	**ug/L**	10.571	2630	0.042
	Mo	98	**0.026**	**ug/L**	56.130	42	0.000
	Ag	107	**0.031**	**ug/L**	9.218	45	0.001
	Cd	111	**-0.020**	**ug/L**	51.972	-1	-0.000
	Cd	114		**ug/L**		10	-0.000
>	In	115		**ug/L**		57939	57938.972
	Sn	120	**0.740**	**ug/L**	11.378	1027	0.016
	Sb	121	**0.253**	**ug/L**	11.813	433	0.005
	Sb	123		**ug/L**		343	0.004
	Ba	135		**ug/L**		60	0.000
	Ba	137	**0.156**	**ug/L**	18.965	98	0.001
	Ho	165		**ug/L**		15	0.000
>	Lu	175		**ug/L**		117990	117990.213
	Tl	205	**0.345**	**ug/L**	5.310	2546	0.016
	Pb	208	**0.044**	**ug/L**	14.203	409	0.002
	Th	232	**0.186**	**ug/L**	21.426	1709	0.012
	U	238	**-0.009**	**ug/L**	22.121	39	-0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	0.9999
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	0.9999
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		102.5			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		104.1			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		97.7			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		99.1			
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: 242669003
Sample Date/Time: Wednesday, December 23, 2009 04:52:05
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 932304|1|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\091220\242669003.540

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.240**	ug/L	80.934	16	0.000
	Be	9	**-0.036**	ug/L	99.235	6	-0.000
	B	11	**2.892**	ug/L	11.928	113	0.001
	Na	23	**279.303**	ug/L	13.754	81233	1.260
	Mg	24	**11.801**	ug/L	123.582	2667	0.037
	Al	27	**67.564**	ug/L	35.594	27362	0.430
	P	31	**0.770**	ug/L	183.744	923	0.000
	K	39	**71.947**	ug/L	19.501	167983	0.757
	Ca	43	**108.810**	ug/L	8.441	203	0.002
>	Sc	45		ug/L		62040	62039.710
	Ti	47	**2.471**	ug/L	8.050	214	0.003
	V	51	**-4.201**	ug/L	44.931	-1050	-0.058
	Cr	52	**3.655**	ug/L	4.728	4535	0.056
	Cr	53		ug/L		70217	0.628
	Mn	55	**2.044**	ug/L	1.650	4968	0.053
	Fe	57	**75.730**	ug/L	3.718	4261	0.037
	Co	59	**0.118**	ug/L	14.096	247	0.002
	Ni	60	**1.290**	ug/L	5.041	350	0.004
	Cu	63		ug/L		566	0.007
	Cu	65	**0.900**	ug/L	7.656	289	0.003
	Zn	66	**3.954**	ug/L	4.318	658	0.007
	Zn	67		ug/L		3653	0.027
	Zn	68		ug/L		896	0.008
>	Ge	74		ug/L		85765	85765.414
	As	75	**5.239**	ug/L	14.992	2043	0.015
	Se	77		ug/L		5406	0.040
	Se	82	**-0.094**	ug/L	459.524	9	-0.000
	Kr	83		ug/L		26	0.000
	Sr	88	**0.559**	ug/L	1.833	1415	0.024
	Y	89		ug/L		160	0.003
	Zr	90	**1.079**	ug/L	8.627	1687	0.025
	Mo	98	**0.122**	ug/L	1.825	107	0.001
	Ag	107	**0.029**	ug/L	19.862	43	0.001
	Cd	111	**0.019**	ug/L	129.347	10	0.000
	Cd	114		ug/L		18	0.000
>	In	115		ug/L		57633	57632.814
	Sn	120	**0.238**	ug/L	9.208	387	0.005
	Sb	121	**0.118**	ug/L	11.459	269	0.002
	Sb	123		ug/L		225	0.002
	Ba	135		ug/L		376	0.003
	Ba	137	**1.157**	ug/L	1.502	632	0.005
	Ho	165		ug/L		26	0.000
>	Lu	175		ug/L		118180	118180.044
	Tl	205	**0.185**	ug/L	4.120	1696	0.008
	Pb	208	**0.209**	ug/L	3.580	1422	0.011
	Th	232	**0.068**	ug/L	6.334	846	0.004
	U	238	**-0.005**	ug/L	39.981	69	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	0.9999
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	0.9999
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		101.9			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		104.9			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		97.2			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		99.3			
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: 242669004
Sample Date/Time: Wednesday, December 23, 2009 04:57:55
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 932304|1|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\091220\242669004.541

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.072**	**ug/L**	66.581	10	0.000
	Be	9	**-0.100**	**ug/L**	48.083	4	-0.000
	B	11	**2.903**	**ug/L**	18.633	114	0.001
	Na	23	**3.273**	**ug/L**	7.331	4001	0.015
	Mg	24	**-0.029**	**ug/L**	10159.117	333	-0.000
	Al	27	**1.667**	**ug/L**	232.855	1333	0.011
	P	31	**-0.315**	**ug/L**	616.167	892	-0.000
	K	39	**9.392**	**ug/L**	263.866	127908	0.099
	Ca	43	**26.727**	**ug/L**	36.501	93	0.001
>	Sc	45		**ug/L**		62492	62492.036
	Ti	47	**0.657**	**ug/L**	7.166	90	0.001
	V	51	**-2.179**	**ug/L**	70.708	671	-0.030
	Cr	52	**1.529**	**ug/L**	8.166	2529	0.023
	Cr	53		**ug/L**		70856	0.630
	Mn	55	**-0.620**	**ug/L**	3.930	655	-0.016
	Fe	57	**7.390**	**ug/L**	24.479	2177	0.004
	Co	59	**0.039**	**ug/L**	14.632	168	0.001
	Ni	60	**0.074**	**ug/L**	124.394	103	0.000
	Cu	63		**ug/L**		331	0.003
	Cu	65	**0.416**	**ug/L**	15.797	187	0.001
	Zn	66	**1.277**	**ug/L**	2.314	238	0.002
	Zn	67		**ug/L**		3508	0.026
	Zn	68		**ug/L**		574	0.004
>	Ge	74		**ug/L**		84865	84864.846
	As	75	**4.685**	**ug/L**	5.621	1883	0.014
	Se	77		**ug/L**		5398	0.040
	Se	82	**-0.157**	**ug/L**	565.587	8	-0.000
	Kr	83		**ug/L**		28	0.000
	Sr	88	**0.033**	**ug/L**	25.627	132	0.001
	Y	89		**ug/L**		16	0.000
	Zr	90	**0.592**	**ug/L**	12.704	1026	0.014
	Mo	98	**0.002**	**ug/L**	116.326	26	0.000
	Ag	107	**0.026**	**ug/L**	19.030	40	0.001
	Cd	111	**-0.009**	**ug/L**	384.060	2	-0.000
	Cd	114		**ug/L**		13	0.000
>	In	115		**ug/L**		57629	57629.497
	Sn	120	**0.125**	**ug/L**	12.146	246	0.003
	Sb	121	**0.044**	**ug/L**	51.866	182	0.001
	Sb	123		**ug/L**		154	0.001
	Ba	135		**ug/L**		25	0.000
	Ba	137	**0.058**	**ug/L**	10.208	46	0.000
	Ho	165		**ug/L**		12	0.000
>	Lu	175		**ug/L**		118833	118832.949
	Tl	205	**0.121**	**ug/L**	14.831	1361	0.005
	Pb	208	**0.032**	**ug/L**	13.830	336	0.002
	Th	232	**0.007**	**ug/L**	48.757	404	0.000
	U	238	**-0.011**	**ug/L**	4.124	24	-0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	0.9999
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	0.9999
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45			102.6		
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74			103.8		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115			97.1		
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175			99.9		
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Wednesday, December 23, 2009 05:03:42
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\091220\QC Std 6.542

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**51.162**	**ug/L**	2.584	1760	0.028
	Be	9	**49.118**	**ug/L**	2.457	1548	0.025
	B	11	**96.441**	**ug/L**	2.550	2076	0.033
	Na	23	**5089.676**	**ug/L**	4.821	1427349	22.965
	Mg	24	**5351.190**	**ug/L**	3.946	1050643	16.934
	Al	27	**4920.182**	**ug/L**	3.609	1943954	31.332
	P	31	**4893.272**	**ug/L**	2.009	163034	2.615
	K	39	**4889.196**	**ug/L**	10.729	3311824	51.471
	Ca	43	**4922.215**	**ug/L**	2.203	6641	0.106
>	Sc	45		**ug/L**		62017	62016.611
	Ti	47	**49.709**	**ug/L**	2.610	3459	0.055
	V	51	**50.159**	**ug/L**	3.047	45257	0.689
	Cr	52	**51.354**	**ug/L**	2.040	49922	0.788
	Cr	53		**ug/L**		39220	0.129
	Mn	55	**52.221**	**ug/L**	1.136	86253	1.364
	Fe	57	**4973.856**	**ug/L**	0.653	154634	2.462
	Co	59	**51.597**	**ug/L**	2.066	52616	0.846
	Ni	60	**52.407**	**ug/L**	3.266	10782	0.172
	Cu	63		**ug/L**		23284	0.373
	Cu	65	**51.364**	**ug/L**	1.014	11039	0.176
	Zn	66	**51.522**	**ug/L**	1.447	8125	0.094
	Zn	67		**ug/L**		2876	0.018
	Zn	68		**ug/L**		7283	0.082
>	Ge	74		**ug/L**		86216	86215.592
	As	75	**47.749**	**ug/L**	2.601	12807	0.140
	Se	77		**ug/L**		2616	0.007
	Se	82	**51.494**	**ug/L**	1.212	1038	0.012
	Kr	83		**ug/L**		28	0.000
	Sr	88	**51.707**	**ug/L**	0.303	132057	2.188
	Y	89		**ug/L**		20	0.000
	Zr	90	**44.794**	**ug/L**	8.332	64076	1.058
	Mo	98	**50.008**	**ug/L**	2.127	35498	0.588
	Ag	107	**50.925**	**ug/L**	1.453	61931	1.026
	Cd	111	**50.985**	**ug/L**	1.524	15622	0.259
	Cd	114		**ug/L**		36300	0.601
>	In	115		**ug/L**		60340	60339.864
	Sn	120	**50.843**	**ug/L**	2.840	67286	1.114
	Sb	121	**48.879**	**ug/L**	5.182	61290	1.014
	Sb	123		**ug/L**		46966	0.777
	Ba	135		**ug/L**		16071	0.131
	Ba	137	**51.491**	**ug/L**	1.054	28506	0.232
	Ho	165		**ug/L**		14	0.000
>	Lu	175		**ug/L**		122603	122602.770
	Tl	205	**47.038**	**ug/L**	0.511	260690	2.120
	Pb	208	**51.231**	**ug/L**	0.473	326179	2.659
	Th	232	**51.325**	**ug/L**	1.180	392193	3.196
	U	238	**52.471**	**ug/L**	0.970	422251	3.443

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	0.9999
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	0.9999
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7	102.324				
	Be	9	98.236				
	B	11	96.441				
	Na	23	101.794				
	Mg	24	107.024				
	Al	27	97.429				
	P	31	97.865				
	K	39	97.784				
	Ca	43	98.444				
>	Sc	45		101.8			
	Ti	47	99.417				
	V	51	100.319				
	Cr	52	102.708				
	Cr	53					
	Mn	55	104.443				
	Fe	57	99.477				
	Co	59	103.194				
	Ni	60	104.813				
	Cu	63					
	Cu	65	102.728				
	Zn	66	103.043				
	Zn	67					
	Zn	68					
>	Ge	74		105.5			
	As	75	95.498				
	Se	77					
	Se	82	102.988				
	Kr	83					
	Sr	88	103.413				
	Y	89					
	Zr	90	89.588				
	Mo	98	100.016				
	Ag	107	101.851				
	Cd	111	101.969				
	Cd	114					
>	In	115		101.7			
	Sn	120	101.687				
	Sb	121	97.757				
	Sb	123					
	Ba	135					
	Ba	137	102.983				
	Ho	165					
>	Lu	175		103.0			
	Tl	205	94.075				
	Pb	208	102.462				
	Th	232	102.650				
	U	238	104.941				

QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
QC Std 6	Zr	90CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#3 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Wednesday, December 23, 2009 05:09:28
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\091220\QC Std 7.543

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.040**	**ug/L**	212.391	9	0.000
	Be	9	**-0.001**	**ug/L**	4530.102	7	-0.000
	B	11	**2.231**	**ug/L**	62.206	97	0.001
	Na	23	**-4.913**	**ug/L**	82.227	1667	-0.022
	Mg	24	**-1.729**	**ug/L**		0	-0.005
	Al	27	**0.004**	**ug/L**	38302.981	667	0.000
	P	31	**-2.806**	**ug/L**	53.706	790	-0.001
	K	39	**-7.915**	**ug/L**	270.486	114126	-0.083
	Ca	43	**10.577**	**ug/L**	38.991	70	0.000
>	Sc	45		**ug/L**		61023	61022.720
	Ti	47	**0.231**	**ug/L**	26.462	59	0.000
	V	51	**-0.682**	**ug/L**	73.818	1930	-0.009
	Cr	52	**-0.281**	**ug/L**	23.769	775	-0.004
	Cr	53		**ug/L**		30099	-0.010
	Mn	55	**-0.752**	**ug/L**	1.064	430	-0.020
	Fe	57	**-2.314**	**ug/L**	95.008	1832	-0.001
	Co	59	**0.033**	**ug/L**	21.300	158	0.001
	Ni	60	**0.017**	**ug/L**	216.705	89	0.000
	Cu	63		**ug/L**		159	0.001
	Cu	65	**0.056**	**ug/L**	78.857	107	0.000
	Zn	66	**-0.019**	**ug/L**	189.755	37	-0.000
	Zn	67		**ug/L**		1317	0.001
	Zn	68		**ug/L**		209	-0.000
>	Ge	74		**ug/L**		82934	82933.561
	As	75	**0.060**	**ug/L**	800.952	714	0.000
	Se	77		**ug/L**		1597	-0.004
	Se	82	**0.184**	**ug/L**	164.009	14	0.000
	Kr	83		**ug/L**		23	0.000
	Sr	88	**0.002**	**ug/L**	160.412	57	0.000
	Y	89		**ug/L**		12	-0.000
	Zr	90	**0.150**	**ug/L**	10.030	432	0.004
	Mo	98	**0.080**	**ug/L**	33.722	81	0.001
	Ag	107	**0.011**	**ug/L**	35.521	23	0.000
	Cd	111	**-0.005**	**ug/L**	514.259	3	-0.000
	Cd	114		**ug/L**		12	-0.000
>	In	115		**ug/L**		58936	58935.836
	Sn	120	**0.154**	**ug/L**	14.394	288	0.003
	Sb	121	**0.468**	**ug/L**	11.149	703	0.010
	Sb	123		**ug/L**		524	0.007
	Ba	135		**ug/L**		11	0.000
	Ba	137	**-0.000**	**ug/L**	918.686	15	-0.000
	Ho	165		**ug/L**		11	0.000
>	Lu	175		**ug/L**		119831	119831.011
	Tl	205	**0.398**	**ug/L**	13.889	2869	0.018
	Pb	208	**0.011**	**ug/L**	16.539	214	0.001
	Th	232	**0.169**	**ug/L**	11.642	1612	0.011
	U	238	**0.012**	**ug/L**	17.166	206	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	0.9999
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	0.9999
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		100.2			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		101.5			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		99.3			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		100.7			
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

==========

Analysis Begun

Logged In Analyst: Administrator **Technique: AA FIMS-MHS**
Spectrometer Model: FIMS-100, S/N B050-9550 **Autosampler Model: S10**

Sample Information File: C:\data-AA\Administrator\Sample Information\122109W1.sif
Batch ID:
Results Data Set: 122109W3
Results Library: C:\data-AA\Administrator\Results\Results.mdb

==========

Sequence No.: 1 **Autosampler Location: 1**
Sample ID: Calib Blank **Date Collected: 12/21/2009 08:14:35**
Analyst: **Data Type: Original**

Replicate Data: Calib Blank

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.00]	0.0001	-0.0002	0.0001	08:15:36	Yes
2		[0.00]	0.0001	-0.0003	0.0001	08:16:10	Yes
Mean:		[0.00]	0.0001				
SD:		0.00	0.0000				
%RSD:		0.00	16.06				

Auto-zero performed.

==========

Sequence No.: 2 **Autosampler Location: 2**
Sample ID: S0.2 **Date Collected: 12/21/2009 08:16:29**
Analyst: **Data Type: Original**

Replicate Data: S0.2

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.2]	0.0002	0.0007	0.0003	08:17:30	Yes
2		[0.2]	-0.0001	-0.0007	0.0000	08:18:04	Yes
Mean:		[0.2]	0.0001				
SD:		0.0	0.0002				
%RSD:		0.0	246.62				

Standard number 1 applied. [0.2]
Correlation Coef.: 1.000000 Slope: 0.00045 Intercept: 0.00000

==========

Sequence No.: 3 **Autosampler Location: 3**
Sample ID: S0.5 **Date Collected: 12/21/2009 08:18:23**
Analyst: **Data Type: Original**

Replicate Data: S0.5

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.5]	0.0060	0.0257	0.0061	08:19:24	Yes
2		[0.5]	0.0060	0.0253	0.0060	08:20:00	Yes
Mean:		[0.5]	0.0060				
SD:		0.0	0.0000				
%RSD:		0.0	0.46				

Standard number 2 applied. [0.5]
Correlation Coef.: 0.922839 Slope: 0.01256 Intercept: -0.00091

==========

Sequence No.: 4 **Autosampler Location: 4**
Sample ID: S2.0 **Date Collected: 12/21/2009 08:20:19**
Analyst: **Data Type: Original**

Replicate Data: S2.0

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored

1	[2.0]	0.0227	0.0981	0.0228	08:21:21	Yes
2	[2.0]	0.0228	0.0975	0.0228	08:21:56	Yes
Mean:	[2.0]	0.0227				
SD:	0.0	0.0001				
%RSD:	0.0	0.28				

Standard number 3 applied. [2.0]
Correlation Coef.: 0.994811 Slope: 0.01176 Intercept: -0.00074

Sequence No.: 5 **Autosampler Location: 5**
Sample ID: S5.0 **Date Collected: 12/21/2009 08:22:15**
Analyst: **Data Type: Original**

Replicate Data: S5.0

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[5.0]	0.0546	0.2362	0.0547	08:23:17	Yes
2		[5.0]	0.0546	0.2353	0.0547	08:23:52	Yes
Mean:		[5.0]	0.0546				
SD:		0.0	0.0000				
%RSD:		0.0	0.03				

Standard number 4 applied. [5.0]
Correlation Coef.: 0.998847 Slope: 0.01107 Intercept: -0.00037

Sequence No.: 6 **Autosampler Location: 6**
Sample ID: S10.0 **Date Collected: 12/21/2009 08:24:12**
Analyst: **Data Type: Original**

Replicate Data: S10.0

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[10.0]	0.1073	0.4660	0.1074	08:25:12	Yes
2		[10.0]	0.1065	0.4626	0.1066	08:25:47	Yes
Mean:		[10.0]	0.1069				
SD:		0.0	0.0006				
%RSD:		0.0	0.57				

Standard number 5 applied. [10.0]
Correlation Coef.: 0.999599 Slope: 0.01076 Intercept: -0.00002

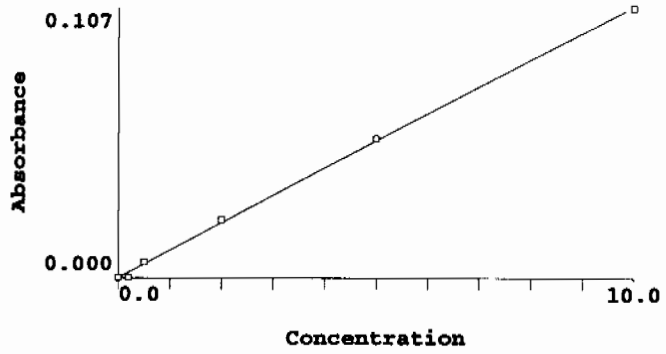

Calibration data for Hg 253.7 **Equation: Linear, Calculated Intercept**

ID	Mean Signal (Abs)	Entered Conc. ug/L	Calculated Conc. ug/L	Standard Deviation	%RSD
Calib Blank	0.0000	0	0.002	0.00	16.1
S0.2	0.0001	0.2	0.010	0.00	246.6
S0.5	0.0060	0.5	0.558	0.00	0.5
S2.0	0.0227	2.0	2.114	0.00	0.3
S5.0	0.0546	5.0	5.077	0.00	0.0
S10.0	0.1069	10.0	9.940	0.00	0.6

Correlation Coef.: 0.999599 Slope: 0.01076 Intercept: -0.00002

Sequence No.: 7 **Autosampler Location: 9**
Sample ID: ICV **Date Collected: 12/21/2009 08:26:06**
Analyst: **Data Type: Original**

Replicate Data: ICV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.126	5.126	0.0551	0.2385	0.0552	08:27:07	Yes
2	5.095	5.095	0.0548	0.2368	0.0549	08:27:42	Yes
Mean:	5.110	5.110	0.0550				
SD:	0.022	0.022	0.0002				
%RSD:	0.428	0.428	0.43				

QC value within limits for Hg 253.7 Recovery = 102.20%
All analyte(s) passed QC.

Sequence No.: 8 **Autosampler Location: 10**
Sample ID: ICB **Date Collected: 12/21/2009 08:28:02**
Analyst: **Data Type: Original**

Replicate Data: ICB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.020	0.020	0.0002	0.0009	0.0003	08:29:03	Yes
2	0.021	0.021	0.0002	0.0009	0.0003	08:29:38	Yes
Mean:	0.020	0.020	0.0002				
SD:	0.001	0.001	0.0000				
%RSD:	3.847	3.847	4.21				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 9 **Autosampler Location: 11**
Sample ID: CRDL **Date Collected: 12/21/2009 08:29:57**
Analyst: **Data Type: Original**

Replicate Data: CRDL

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.227	0.227	0.0024	0.0106	0.0025	08:30:59	Yes
2	0.229	0.229	0.0024	0.0108	0.0025	08:31:34	Yes
Mean:	0.228	0.228	0.0024				
SD:	0.001	0.001	0.0000				
%RSD:	0.499	0.499	0.50				

QC value within limits for Hg 253.7 Recovery = 113.91%
All analyte(s) passed QC.

Sequence No.: 10 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 12/21/2009 08:31:54**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.357	5.357	0.0576	0.2484	0.0577	08:32:54	Yes
2	5.365	5.365	0.0577	0.2474	0.0578	08:33:29	Yes
Mean:	5.361	5.361	0.0577				
SD:	0.006	0.006	0.0001				
%RSD:	0.107	0.107	0.11				

QC value within limits for Hg 253.7 Recovery = 107.22%
All analyte(s) passed QC.

Sequence No.: 11 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 12/21/2009 08:33:48**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.025	0.025	0.0003	0.0018	0.0003	08:34:49	Yes
2	0.026	0.026	0.0003	0.0021	0.0003	08:35:24	Yes
Mean:	0.026	0.026	0.0003				
SD:	0.000	0.000	0.0000				
%RSD:	1.802	1.802	1.93				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 12 **Autosampler Location: 12**
Sample ID: 1201990750|930776|1 **Date Collected: 12/21/2009 08:35:43**
Analyst: JXL1 **Data Type: Original**

Replicate Data: 1201990750|930776|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.048	0.048	0.0005	0.0036	0.0006	08:36:45	Yes
2	0.049	0.049	0.0005	0.0039	0.0006	08:37:20	Yes
Mean:	0.048	0.048	0.0005				
SD:	0.001	0.001	0.0000				
%RSD:	1.102	1.102	1.14				

Sequence No.: 13 **Autosampler Location: 13**
Sample ID: 1201990751|930776|1 **Date Collected: 12/21/2009 08:37:40**
Analyst: JXL1 **Data Type: Original**

Replicate Data: 1201990751|930776|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.052	2.052	0.0221	0.0966	0.0221	08:38:42	Yes
2	2.072	2.072	0.0223	0.0976	0.0224	08:39:17	Yes
Mean:	2.062	2.062	0.0222				
SD:	0.014	0.014	0.0002				
%RSD:	0.691	0.691	0.69				

Sequence No.: 14 **Autosampler Location: 14**
Sample ID: 242324001|930776|1 **Date Collected: 12/21/2009 08:39:37**
Analyst: JXL1 **Data Type: Original**

Replicate Data: 242324001|930776|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.023	0.023	0.0002	0.0013	0.0003	08:40:37	Yes
2	0.021	0.021	0.0002	0.0010	0.0003	08:41:12	Yes
Mean:	0.022	0.022	0.0002				
SD:	0.001	0.001	0.0000				
%RSD:	4.322	4.322	4.69				

Sequence No.: 15 **Autosampler Location: 15**
Sample ID: 1201990752|930776|1 **Date Collected: 12/21/2009 08:41:31**
Analyst: JXL1 **Data Type: Original**

Replicate Data: 1201990752|930776|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.028	0.028	0.0003	0.0016	0.0004	08:42:32	Yes
2	0.029	0.029	0.0003	0.0014	0.0004	08:43:07	Yes
Mean:	0.029	0.029	0.0003				
SD:	0.001	0.001	0.0000				

1	0.036	0.036	0.0004	0.0020	0.0004	08:52:05	Yes
2	0.035	0.035	0.0004	0.0019	0.0004	08:52:40	Yes
Mean:	0.036	0.036	0.0004				
SD:	0.001	0.001	0.0000				
%RSD:	2.968	2.968	3.12				

==========

Sequence No.: 21 **Autosampler Location: 21**
Sample ID: 1201999593|934614|1 **Date Collected: 12/21/2009 08:52:59**
Analyst: JXL1 **Data Type: Original**

Replicate Data: 1201999593|934614|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.017	0.017	0.0002	0.0010	0.0002	08:54:01	Yes
2	0.016	0.016	0.0002	0.0009	0.0002	08:54:35	Yes
Mean:	0.016	0.016	0.0002				
SD:	0.000	0.000	0.0000				
%RSD:	1.024	1.024	1.15				

==========

Sequence No.: 22 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 12/21/2009 08:54:55**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.480	5.480	0.0589	0.2555	0.0590	08:55:55	Yes
2	5.493	5.493	0.0591	0.2539	0.0592	08:56:31	Yes
Mean:	5.487	5.487	0.0590				
SD:	0.009	0.009	0.0001				
%RSD:	0.171	0.171	0.17				

QC value within limits for Hg 253.7 Recovery = 109.74%
All analyte(s) passed QC.

==========

Sequence No.: 23 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 12/21/2009 08:56:50**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.018	0.018	0.0002	0.0010	0.0003	08:57:51	Yes
2	0.018	0.018	0.0002	0.0013	0.0003	08:58:25	Yes
Mean:	0.018	0.018	0.0002				
SD:	0.000	0.000	0.0000				
%RSD:	1.982	1.982	2.19				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

==========

Sequence No.: 24 **Autosampler Location: 22**
Sample ID: 1201999594|934614|1 **Date Collected: 12/21/2009 08:58:45**
Analyst: JXL1 **Data Type: Original**

Replicate Data: 1201999594|934614|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.119	2.119	0.0228	0.0996	0.0228	08:59:46	Yes
2	2.121	2.121	0.0228	0.0996	0.0229	09:00:21	Yes
Mean:	2.120	2.120	0.0228				
SD:	0.001	0.001	0.0000				
%RSD:	0.065	0.065	0.07				

==========

SD:	0.001	0.001	0.0000
%RSD:	4.571	4.571	4.97

==========

Sequence No.: 30 **Autosampler Location: 28**
Sample ID: 242428003|934614|1 **Date Collected: 12/21/2009 09:10:20**
Analyst: JXL1 **Data Type: Original**

Replicate Data: 242428003|934614|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.033	0.033	0.0003	0.0018	0.0004	09:11:20	Yes
2	0.034	0.034	0.0003	0.0018	0.0004	09:11:55	Yes
Mean:	0.033	0.033	0.0003				
SD:	0.001	0.001	0.0000				
%RSD:	1.981	1.981	2.09				

==========

Sequence No.: 31 **Autosampler Location: 29**
Sample ID: 242437002|934614|1 **Date Collected: 12/21/2009 09:12:14**
Analyst: JXL1 **Data Type: Original**

Replicate Data: 242437002|934614|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.020	0.020	0.0002	0.0010	0.0003	09:13:15	Yes
2	0.021	0.021	0.0002	0.0012	0.0003	09:13:50	Yes
Mean:	0.020	0.020	0.0002				
SD:	0.001	0.001	0.0000				
%RSD:	5.066	5.066	5.54				

==========

Sequence No.: 32 **Autosampler Location: 30**
Sample ID: 1201999595|934614|1 **Date Collected: 12/21/2009 09:14:09**
Analyst: JXL1 **Data Type: Original**

Replicate Data: 1201999595|934614|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.021	0.021	0.0002	0.0012	0.0003	09:15:09	Yes
2	0.022	0.022	0.0002	0.0012	0.0003	09:15:44	Yes
Mean:	0.021	0.021	0.0002				
SD:	0.000	0.000	0.0000				
%RSD:	0.759	0.759	0.83				

==========

Sequence No.: 33 **Autosampler Location: 31**
Sample ID: 1201999596|934614|1 **Date Collected: 12/21/2009 09:16:03**
Analyst: JXL1 **Data Type: Original**

Replicate Data: 1201999596|934614|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.080	2.080	0.0224	0.0984	0.0224	09:17:04	Yes
2	2.092	2.092	0.0225	0.0986	0.0226	09:17:39	Yes
Mean:	2.086	2.086	0.0224				
SD:	0.008	0.008	0.0001				
%RSD:	0.387	0.387	0.39				

==========

Sequence No.: 34 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 12/21/2009 09:17:58**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl	SampleConc	StndConc	BlnkCorr	Peak	Peak	Time	Peak

#	ug/L	ug/L	Signal	Area	Height		Stored
1	5.534	5.534	0.0595	0.2577	0.0596	09:18:59	Yes
2	5.550	5.550	0.0597	0.2581	0.0598	09:19:34	Yes
Mean:	5.542	5.542	0.0596				
SD:	0.011	0.011	0.0001				
%RSD:	0.207	0.207	0.21				

QC value greater than the upper limit for Hg 253.7 Recovery = 110.83%
QC Failed. Continue with analysis.

==========

Sequence No.: 35 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 12/21/2009 09:19:53**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.017	0.017	0.0002	0.0005	0.0002	09:20:54	Yes
2	0.019	0.019	0.0002	0.0010	0.0003	09:21:28	Yes
Mean:	0.018	0.018	0.0002				
SD:	0.001	0.001	0.0000				
%RSD:	8.012	8.012	8.89				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

==========

Sequence No.: 36 **Autosampler Location: 32**
Sample ID: 1201999597|934614|5 **Date Collected: 12/21/2009 09:21:48**
Analyst: JXL1 **Data Type: Original**

Replicate Data: 1201999597|934614|5

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.025	0.025	0.0002	0.0011	0.0003	09:22:48	Yes
2	0.006	0.006	0.0000	0.0006	0.0001	09:23:23	Yes
Mean:	0.015	0.015	0.0001				
SD:	0.013	0.013	0.0001				
%RSD:	85.62	85.62	96.60				

==========

Sequence No.: 37 **Autosampler Location: 33**
Sample ID: 242437003|934614|1 **Date Collected: 12/21/2009 09:23:43**
Analyst: JXL1 **Data Type: Original**

Replicate Data: 242437003|934614|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.027	0.027	0.0003	0.0012	0.0003	09:24:44	Yes
2	0.023	0.023	0.0002	0.0010	0.0003	09:25:18	Yes
Mean:	0.025	0.025	0.0002				
SD:	0.002	0.002	0.0000				
%RSD:	9.387	9.387	10.09				

==========

Sequence No.: 38 **Autosampler Location: 34**
Sample ID: 1201999637|934635|1 **Date Collected: 12/21/2009 09:25:38**
Analyst: JXL1 **Data Type: Original**

Replicate Data: 1201999637|934635|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.015	0.015	0.0001	0.0003	0.0002	09:26:39	Yes
2	0.020	0.020	0.0002	0.0009	0.0003	09:27:15	Yes
Mean:	0.018	0.018	0.0002				
SD:	0.003	0.003	0.0000				
%RSD:	18.22	18.22	20.21				

==========

Analysis Begun

Logged In Analyst: Administrator **Technique: AA FIMS-MHS**
Spectrometer Model: FIMS-100, S/N B050-9550 **Autosampler Model: S10**

Sample Information File: C:\data-AA\Administrator\Sample Information\122109W1.sif
Batch ID:
Results Data Set: 122109W3
Results Library: C:\data-AA\Administrator\Results\Results.mdb

==========

Sequence No.: 1 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 12/21/2009 09:41:13**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.043	5.043	0.0542	0.2352	0.0543	09:42:13	Yes
2	5.070	5.070	0.0545	0.2346	0.0546	09:42:48	Yes
Mean:	5.056	5.056	0.0544				
SD:	0.019	0.019	0.0002				
%RSD:	0.370	0.370	0.37				

QC value within limits for Hg 253.7 Recovery = 101.13%
All analyte(s) passed QC.

==========

Sequence No.: 2 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 12/21/2009 09:43:07**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.024	0.024	0.0002	0.0015	0.0003	09:44:08	Yes
2	0.018	0.018	0.0002	0.0007	0.0003	09:44:43	Yes
Mean:	0.021	0.021	0.0002				
SD:	0.004	0.004	0.0000				
%RSD:	18.77	18.77	20.48				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

==========

Sequence No.: 3 **Autosampler Location: 22**
Sample ID: 1201999594|934614|1 **Date Collected: 12/21/2009 09:45:02**
Analyst: JXL1 **Data Type: Original**

Replicate Data: 1201999594|934614|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	1.224	1.224	0.0132	0.0480	0.0132	09:46:04	Yes
2	0.018	0.018	0.0002	0.0008	0.0003	09:46:38	Yes
Mean:	0.621	0.621	0.0067				
SD:	0.853	0.853	0.0092				
%RSD:	137.3	137.3	137.71				

==========

Sequence No.: 4 **Autosampler Location: 23**
Sample ID: 242427001|934614|1 **Date Collected: 12/21/2009 09:46:58**
Analyst: JXL1 **Data Type: Original**

Replicate Data: 242427001|934614|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.002	0.002	0.0000	0.0003	0.0001	09:48:00	Yes

==========

Analysis Begun

Logged In Analyst: Administrator **Technique: AA FIMS-MHS**
Spectrometer Model: FIMS-100, S/N B050-9550 **Autosampler Model: S10**

Sample Information File: C:\data-AA\Administrator\Sample Information\122109W1.sif
Batch ID:
Results Data Set: 122109W3
Results Library: C:\data-AA\Administrator\Results\Results.mdb

==========

Sequence No.: 1 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 12/21/2009 09:55:49**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.068	5.068	0.0545	0.2355	0.0546	09:56:49	Yes
2	5.058	5.058	0.0544	0.2372	0.0545	09:57:25	Yes
Mean:	5.063	5.063	0.0544				
SD:	0.007	0.007	0.0001				
%RSD:	0.144	0.144	0.14				

QC value within limits for Hg 253.7 Recovery = 101.26%
All analyte(s) passed QC.

==========

Sequence No.: 2 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 12/21/2009 09:57:44**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.024	0.024	0.0002	0.0015	0.0003	09:58:45	Yes
2	0.024	0.024	0.0002	0.0011	0.0003	09:59:19	Yes
Mean:	0.024	0.024	0.0002				
SD:	0.000	0.000	0.0000				
%RSD:	1.170	1.170	1.26				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

==========

Sequence No.: 3 **Autosampler Location: 22**
Sample ID: 1201999594|934614|1 **Date Collected: 12/21/2009 09:59:39**
Analyst: JXL1 **Data Type: Original**

Replicate Data: 1201999594|934614|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.139	2.139	0.0230	0.1010	0.0231	10:00:40	Yes
2	2.129	2.129	0.0229	0.1003	0.0230	10:01:15	Yes
Mean:	2.134	2.134	0.0229				
SD:	0.007	0.007	0.0001				
%RSD:	0.315	0.315	0.32				

==========

Sequence No.: 4 **Autosampler Location: 23**
Sample ID: 242427001|934614|1 **Date Collected: 12/21/2009 10:01:34**
Analyst: JXL1 **Data Type: Original**

Replicate Data: 242427001|934614|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.028	0.028	0.0003	0.0016	0.0004	10:02:36	Yes

Replicate Data: 242428003|934614|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.006	0.006	0.0000	0.0002	0.0001	10:12:15	Yes
2	0.004	0.004	0.0000	0.0003	0.0001	10:12:50	Yes
Mean:	0.005	0.005	0.0000				
SD:	0.001	0.001	0.0000				
%RSD:	21.95	21.95	33.42				

==========

Sequence No.: 10 Autosampler Location: 29
Sample ID: 242437002|934614|1 Date Collected: 12/21/2009 10:13:09
Analyst: JXL1 Data Type: Original

Replicate Data: 242437002|934614|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.005	0.005	0.0000	0.0003	0.0001	10:14:09	Yes
2	0.002	0.002	0.0000	0.0000	0.0001	10:14:44	Yes
Mean:	0.003	0.003	0.0000				
SD:	0.002	0.002	0.0000				
%RSD:	54.64	54.64	111.87				

==========

Sequence No.: 11 Autosampler Location: 30
Sample ID: 1201999595|934614|1 Date Collected: 12/21/2009 10:15:03
Analyst: JXL1 Data Type: Original

Replicate Data: 1201999595|934614|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.009	0.009	0.0001	0.0009	0.0002	10:16:04	Yes
2	0.002	0.002	-0.0000	0.0001	0.0001	10:16:39	Yes
Mean:	0.005	0.005	0.0000				
SD:	0.005	0.005	0.0001				
%RSD:	99.17	99.17	145.53				

==========

Sequence No.: 12 Autosampler Location: 31
Sample ID: 1201999596|934614|1 Date Collected: 12/21/2009 10:16:59
Analyst: JXL1 Data Type: Original

Replicate Data: 1201999596|934614|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.227	0.227	0.0024	0.0070	0.0025	10:17:59	Yes
2	0.016	0.016	0.0002	0.0005	0.0002	10:18:34	Yes
Mean:	0.121	0.121	0.0013				
SD:	0.149	0.149	0.0016				
%RSD:	122.9	122.9	124.74				

==========

Sequence No.: 13 Autosampler Location: 7
Sample ID: CCV Date Collected: 12/21/2009 10:18:53
Analyst: Data Type: Original

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.087	5.087	0.0547	0.2395	0.0548	10:19:54	Yes
2	5.080	5.080	0.0546	0.2387	0.0547	10:20:29	Yes
Mean:	5.084	5.084	0.0547				
SD:	0.005	0.005	0.0001				
%RSD:	0.106	0.106	0.11				

QC value within limits for Hg 253.7 Recovery = 101.67%
All analyte(s) passed QC.

Sequence No.: 14
Sample ID: CCB
Analyst:
Autosampler Location: 8
Date Collected: 12/21/2009 10:20:48
Data Type: Original

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.021	0.021	0.0002	0.0011	0.0003	10:21:49	Yes
2	0.020	0.020	0.0002	0.0012	0.0003	10:22:23	Yes
Mean:	0.020	0.020	0.0002				
SD:	0.001	0.001	0.0000				
%RSD:	5.233	5.233	5.72				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 15
Sample ID: 1201999597|934614|5
Analyst: JXL1
Autosampler Location: 32
Date Collected: 12/21/2009 10:22:43
Data Type: Original

Replicate Data: 1201999597|934614|5

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.024	0.024	0.0002	0.0020	0.0003	10:23:44	Yes
2	0.015	0.015	0.0001	0.0012	0.0002	10:24:18	Yes
Mean:	0.020	0.020	0.0002				
SD:	0.006	0.006	0.0001				
%RSD:	31.34	31.34	34.35				

Sequence No.: 16
Sample ID: 242437003|934614|1
Analyst: JXL1
Autosampler Location: 33
Date Collected: 12/21/2009 10:24:38
Data Type: Original

Replicate Data: 242437003|934614|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.008	0.008	0.0001	0.0006	0.0001	10:25:39	Yes
2	0.001	0.001	-0.0000	0.0001	0.0001	10:26:14	Yes
Mean:	0.004	0.004	0.0000				
SD:	0.005	0.005	0.0001				
%RSD:	112.4	112.4	191.77				

Sequence No.: 17
Sample ID: 1201999637|934635|1
Analyst: JXL1
Autosampler Location: 34
Date Collected: 12/21/2009 10:26:33
Data Type: Original

Replicate Data: 1201999637|934635|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.019	0.019	0.0002	0.0012	0.0003	10:27:35	Yes
2	-0.001	-0.001	-0.0000	-0.0001	0.0000	10:28:09	Yes
Mean:	0.009	0.009	0.0001				
SD:	0.015	0.015	0.0002				
%RSD:	163.9	163.9	203.80				

Sequence No.: 18
Sample ID: 1201999638|934635|1
Analyst: JXL1
Autosampler Location: 35
Date Collected: 12/21/2009 10:28:29
Data Type: Original

Replicate Data: 1201999638|934635|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored

---

Replicate Data: 243067002|934635|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.021	0.021	0.0002	0.0011	0.0003	10:39:11	Yes
2	0.024	0.024	0.0002	0.0014	0.0003	10:39:46	Yes
Mean:	0.022	0.022	0.0002				
SD:	0.002	0.002	0.0000				
%RSD:	9.119	9.119	9.89				

==========

Sequence No.: 24 **Autosampler Location: 41**
Sample ID: 243067003|934635|1 **Date Collected: 12/21/2009 10:40:06**
Analyst: JXL1 **Data Type: Original**

Replicate Data: 243067003|934635|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.033	0.033	0.0003	0.0015	0.0004	10:41:07	Yes
2	0.035	0.035	0.0004	0.0023	0.0004	10:41:41	Yes
Mean:	0.034	0.034	0.0003				
SD:	0.001	0.001	0.0000				
%RSD:	3.622	3.622	3.82				

==========

Sequence No.: 25 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 12/21/2009 10:42:01**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.095	5.095	0.0548	0.2429	0.0549	10:43:01	Yes
2	5.107	5.107	0.0549	0.2432	0.0550	10:43:36	Yes
Mean:	5.101	5.101	0.0549				
SD:	0.008	0.008	0.0001				
%RSD:	0.158	0.158	0.16				

QC value within limits for Hg 253.7 Recovery = 102.02%
All analyte(s) passed QC.

==========

Sequence No.: 26 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 12/21/2009 10:43:55**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.021	0.021	0.0002	0.0012	0.0003	10:44:56	Yes
2	0.022	0.022	0.0002	0.0012	0.0003	10:45:31	Yes
Mean:	0.022	0.022	0.0002				
SD:	0.001	0.001	0.0000				
%RSD:	4.734	4.734	5.15				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

==========

Sequence No.: 27 **Autosampler Location: 42**
Sample ID: 243067004|934635|1 **Date Collected: 12/21/2009 10:45:50**
Analyst: JXL1 **Data Type: Original**

Replicate Data: 243067004|934635|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.019	0.019	0.0002	0.0011	0.0003	10:46:51	Yes
2	0.018	0.018	0.0002	0.0008	0.0003	10:47:26	Yes
Mean:	0.019	0.019	0.0002				

#	ug/L	ug/L	Signal	Area	Height		Stored
1	1.893	1.893	0.0203	0.0938	0.0204	10:56:30	Yes
2	1.884	1.884	0.0202	0.0937	0.0203	10:57:05	Yes
Mean:	1.888	1.888	0.0203				
SD:	0.006	0.006	0.0001				
%RSD:	0.343	0.343	0.34				

==========

Sequence No.: 33 **Autosampler Location: 48**
Sample ID: 1201999068|934354|5 **Date Collected: 12/21/2009 10:57:25**
Analyst: JXL1 **Data Type: Original**

Replicate Data: 1201999068|934354|5

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.019	0.019	0.0002	0.0009	0.0003	10:58:27	Yes
2	0.026	0.026	0.0003	0.0017	0.0003	10:59:02	Yes
Mean:	0.022	0.022	0.0002				
SD:	0.005	0.005	0.0001				
%RSD:	22.27	22.27	24.18				

==========

Sequence No.: 34 **Autosampler Location: 49**
Sample ID: 1201999574|934607|1 **Date Collected: 12/21/2009 10:59:22**
Analyst: JXL1 **Data Type: Original**

Replicate Data: 1201999574|934607|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.019	0.019	0.0002	0.0010	0.0003	11:00:24	Yes
2	0.027	0.027	0.0003	0.0013	0.0003	11:00:59	Yes
Mean:	0.023	0.023	0.0002				
SD:	0.006	0.006	0.0001				
%RSD:	24.27	24.27	26.28				

==========

Sequence No.: 35 **Autosampler Location: 50**
Sample ID: 1201999575|934607|1 **Date Collected: 12/21/2009 11:01:19**
Analyst: JXL1 **Data Type: Original**

Replicate Data: 1201999575|934607|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.015	2.015	0.0217	0.0994	0.0217	11:02:21	Yes
2	2.010	2.010	0.0216	0.0993	0.0217	11:02:56	Yes
Mean:	2.012	2.012	0.0216				
SD:	0.004	0.004	0.0000				
%RSD:	0.176	0.176	0.18				

==========

Sequence No.: 36 **Autosampler Location: 51**
Sample ID: 242984001|934607|1 **Date Collected: 12/21/2009 11:03:15**
Analyst: JXL1 **Data Type: Original**

Replicate Data: 242984001|934607|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.031	0.031	0.0003	0.0016	0.0004	11:04:16	Yes
2	0.035	0.035	0.0004	0.0020	0.0004	11:04:51	Yes
Mean:	0.033	0.033	0.0003				
SD:	0.003	0.003	0.0000				
%RSD:	7.569	7.569	7.99				

==========

Sequence No.: 37 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 12/21/2009 11:05:11**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	4.979	4.979	0.0535	0.2393	0.0536	11:06:11	Yes
2	4.991	4.991	0.0537	0.2394	0.0538	11:06:46	Yes
Mean:	4.985	4.985	0.0536				
SD:	0.009	0.009	0.0001				
%RSD:	0.181	0.181	0.18				

QC value within limits for Hg 253.7 Recovery = 99.70%
All analyte(s) passed QC.

Sequence No.: 38 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 12/21/2009 11:07:05**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.027	0.027	0.0003	0.0018	0.0003	11:08:06	Yes
2	0.025	0.025	0.0002	0.0015	0.0003	11:08:41	Yes
Mean:	0.026	0.026	0.0003				
SD:	0.002	0.002	0.0000				
%RSD:	5.890	5.890	6.31				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 39 **Autosampler Location: 52**
Sample ID: 1201999576|934607|1 **Date Collected: 12/21/2009 11:09:00**
Analyst: JXL1 **Data Type: Original**

Replicate Data: 1201999576|934607|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.023	0.023	0.0002	0.0011	0.0003	11:10:01	Yes
2	0.024	0.024	0.0002	0.0016	0.0003	11:10:36	Yes
Mean:	0.024	0.024	0.0002				
SD:	0.001	0.001	0.0000				
%RSD:	3.370	3.370	3.64				

Sequence No.: 40 **Autosampler Location: 53**
Sample ID: 1201999577|934607|1 **Date Collected: 12/21/2009 11:10:56**
Analyst: JXL1 **Data Type: Original**

Replicate Data: 1201999577|934607|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.052	2.052	0.0221	0.1007	0.0221	11:11:57	Yes
2	2.041	2.041	0.0219	0.0998	0.0220	11:12:32	Yes
Mean:	2.046	2.046	0.0220				
SD:	0.008	0.008	0.0001				
%RSD:	0.395	0.395	0.40				

Sequence No.: 41 **Autosampler Location: 54**
Sample ID: 1201999578|934607|5 **Date Collected: 12/21/2009 11:12:51**
Analyst: JXL1 **Data Type: Original**

Replicate Data: 1201999578|934607|5

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.022	0.022	0.0002	0.0013	0.0003	11:13:52	Yes
2	0.025	0.025	0.0002	0.0015	0.0003	11:14:27	Yes

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.024	0.024	0.0002	0.0018	0.0003	11:23:32	Yes
2	0.020	0.020	0.0002	0.0015	0.0003	11:24:07	Yes
Mean:	0.022	0.022	0.0002				
SD:	0.003	0.003	0.0000				
%RSD:	13.42	13.42	14.55				

Sequence No.: 47 **Autosampler Location: 60**
Sample ID: 242749001|934386|1 **Date Collected: 12/21/2009 11:24:27**
Analyst: JXL1 **Data Type: Original**

Replicate Data: 242749001|934386|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.024	0.024	0.0002	0.0021	0.0003	11:25:29	Yes
2	0.018	0.018	0.0002	0.0011	0.0003	11:26:04	Yes
Mean:	0.021	0.021	0.0002				
SD:	0.004	0.004	0.0000				
%RSD:	20.16	20.16	21.95				

Sequence No.: 48 **Autosampler Location: 61**
Sample ID: 1201999137|934386|1 **Date Collected: 12/21/2009 11:26:24**
Analyst: JXL1 **Data Type: Original**

Replicate Data: 1201999137|934386|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.024	0.024	0.0002	0.0021	0.0003	11:27:26	Yes
2	0.020	0.020	0.0002	0.0015	0.0003	11:28:01	Yes
Mean:	0.022	0.022	0.0002				
SD:	0.003	0.003	0.0000				
%RSD:	12.34	12.34	13.41				

Sequence No.: 49 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 12/21/2009 11:28:21**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.068	5.068	0.0545	0.2428	0.0546	11:29:22	Yes
2	5.110	5.110	0.0549	0.2451	0.0550	11:29:57	Yes
Mean:	5.089	5.089	0.0547				
SD:	0.030	0.030	0.0003				
%RSD:	0.583	0.583	0.58				

QC value within limits for Hg 253.7 Recovery = 101.77%
All analyte(s) passed QC.

Sequence No.: 50 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 12/21/2009 11:30:16**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.024	0.024	0.0002	0.0017	0.0003	11:31:17	Yes
2	0.019	0.019	0.0002	0.0011	0.0003	11:31:51	Yes
Mean:	0.021	0.021	0.0002				
SD:	0.003	0.003	0.0000				
%RSD:	13.90	13.90	15.12				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Replicate Data: 242448003|932234|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.019	0.019	0.0002	0.0014	0.0003	11:50:35	Yes
2	0.015	0.015	0.0001	0.0009	0.0002	11:51:10	Yes
Mean:	0.017	0.017	0.0002				
SD:	0.003	0.003	0.0000				
%RSD:	19.85	19.85	22.12				

==========

Sequence No.: 61 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 12/21/2009 11:51:30**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.060	5.060	0.0544	0.2427	0.0545	11:52:31	Yes
2	5.043	5.043	0.0542	0.2426	0.0543	11:53:06	Yes
Mean:	5.052	5.052	0.0543				
SD:	0.012	0.012	0.0001				
%RSD:	0.238	0.238	0.24				

QC value within limits for Hg 253.7 Recovery = 101.04%
All analyte(s) passed QC.

==========

Sequence No.: 62 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 12/21/2009 11:53:24**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.021	0.021	0.0002	0.0011	0.0003	11:54:25	Yes
2	0.019	0.019	0.0002	0.0012	0.0003	11:55:00	Yes
Mean:	0.020	0.020	0.0002				
SD:	0.001	0.001	0.0000				
%RSD:	6.341	6.341	6.94				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

==========

Sequence No.: 63 **Autosampler Location: 72**
Sample ID: 242448004|932234|1 **Date Collected: 12/21/2009 11:55:20**
Analyst: JXL1 **Data Type: Original**

Replicate Data: 242448004|932234|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.022	0.022	0.0002	0.0012	0.0003	11:56:21	Yes
2	0.023	0.023	0.0002	0.0013	0.0003	11:56:56	Yes
Mean:	0.022	0.022	0.0002				
SD:	0.001	0.001	0.0000				
%RSD:	3.044	3.044	3.30				

==========

Sequence No.: 64 **Autosampler Location: 73**
Sample ID: 242448005|932234|1 **Date Collected: 12/21/2009 11:57:16**
Analyst: JXL1 **Data Type: Original**

Replicate Data: 242448005|932234|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.019	0.019	0.0002	0.0011	0.0003	11:58:18	Yes
2	0.018	0.018	0.0002	0.0010	0.0003	11:58:53	Yes
Mean:	0.019	0.019	0.0002				
SD:	0.001	0.001	0.0000				

%RSD:	3.769	3.769	4.16

Sequence No.: 65
Sample ID: 242448006|932234|1
Analyst: JXL1
Autosampler Location: 74
Date Collected: 12/21/2009 11:59:13
Data Type: Original

Replicate Data: 242448006|932234|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.018	0.018	0.0002	0.0008	0.0002	12:00:15	Yes
2	0.017	0.017	0.0002	0.0009	0.0002	12:00:50	Yes
Mean:	0.018	0.018	0.0002				
SD:	0.000	0.000	0.0000				
%RSD:	1.643	1.643	1.82				

Sequence No.: 66
Sample ID: 1201999563|934600|1
Analyst: JXL1
Autosampler Location: 75
Date Collected: 12/21/2009 12:01:10
Data Type: Original

Replicate Data: 1201999563|934600|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.017	0.017	0.0002	0.0009	0.0002	12:02:12	Yes
2	0.017	0.017	0.0002	0.0009	0.0002	12:02:46	Yes
Mean:	0.017	0.017	0.0002				
SD:	0.000	0.000	0.0000				
%RSD:	0.086	0.086	0.10				

Sequence No.: 67
Sample ID: 1201999564|934600|1
Analyst: JXL1
Autosampler Location: 76
Date Collected: 12/21/2009 12:03:06
Data Type: Original

Replicate Data: 1201999564|934600|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	1.936	1.936	0.0208	0.0958	0.0209	12:04:08	Yes
2	1.926	1.926	0.0207	0.0955	0.0208	12:04:43	Yes
Mean:	1.931	1.931	0.0208				
SD:	0.007	0.007	0.0001				
%RSD:	0.368	0.368	0.37				

Sequence No.: 68
Sample ID: 242669001|934600|1
Analyst: JXL1
Autosampler Location: 77
Date Collected: 12/21/2009 12:05:03
Data Type: Original

Replicate Data: 242669001|934600|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.023	0.023	0.0002	0.0013	0.0003	12:06:04	Yes
2	0.021	0.021	0.0002	0.0010	0.0003	12:06:39	Yes
Mean:	0.022	0.022	0.0002				
SD:	0.001	0.001	0.0000				
%RSD:	5.991	5.991	6.50				

Sequence No.: 69
Sample ID: 242669002|934600|1
Analyst: JXL1
Autosampler Location: 78
Date Collected: 12/21/2009 12:06:59
Data Type: Original

Replicate Data: 242669002|934600|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored

1	0.023	0.023	0.0002	0.0012	0.0003	12:08:00	Yes
2	0.023	0.023	0.0002	0.0014	0.0003	12:08:35	Yes
Mean:	0.023	0.023	0.0002				
SD:	0.000	0.000	0.0000				
%RSD:	1.128	1.128	1.22				

==========

Sequence No.: 70 **Autosampler Location: 79**
Sample ID: 242669003|934600|1 **Date Collected: 12/21/2009 12:08:55**
Analyst: JXL1 **Data Type: Original**

Replicate Data: 242669003|934600|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.020	0.020	0.0002	0.0011	0.0003	12:09:56	Yes
2	0.016	0.016	0.0002	0.0010	0.0002	12:10:32	Yes
Mean:	0.018	0.018	0.0002				
SD:	0.003	0.003	0.0000				
%RSD:	13.85	13.85	15.32				

==========

Sequence No.: 71 **Autosampler Location: 80**
Sample ID: 243029001|934600|1 **Date Collected: 12/21/2009 12:10:52**
Analyst: JXL1 **Data Type: Original**

Replicate Data: 243029001|934600|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.021	0.021	0.0002	0.0015	0.0003	12:11:53	Yes
2	0.017	0.017	0.0002	0.0010	0.0002	12:12:28	Yes
Mean:	0.019	0.019	0.0002				
SD:	0.003	0.003	0.0000				
%RSD:	15.67	15.67	17.29				

==========

Sequence No.: 72 **Autosampler Location: 81**
Sample ID: 1201999565|934600|1 **Date Collected: 12/21/2009 12:12:48**
Analyst: JXL1 **Data Type: Original**

Replicate Data: 1201999565|934600|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.016	0.016	0.0001	0.0009	0.0002	12:13:50	Yes
2	0.018	0.018	0.0002	0.0012	0.0003	12:14:24	Yes
Mean:	0.017	0.017	0.0002				
SD:	0.002	0.002	0.0000				
%RSD:	10.79	10.79	12.03				

==========

Sequence No.: 73 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 12/21/2009 12:14:44**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.078	5.078	0.0546	0.2468	0.0547	12:15:45	Yes
2	5.049	5.049	0.0543	0.2458	0.0544	12:16:20	Yes
Mean:	5.063	5.063	0.0545				
SD:	0.020	0.020	0.0002				
%RSD:	0.404	0.404	0.40				

QC value within limits for Hg 253.7 Recovery = 101.27%
All analyte(s) passed QC.

==========

Sequence No.: 74 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 12/21/2009 12:16:39**

Analyst: Data Type: Original

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.020	0.020	0.0002	0.0010	0.0003	12:17:40	Yes
2	0.020	0.020	0.0002	0.0013	0.0003	12:18:14	Yes
Mean:	0.020	0.020	0.0002				
SD:	0.000	0.000	0.0000				
%RSD:	1.942	1.942	2.13				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 75 Autosampler Location: 82
Sample ID: 1201999566|934600|1 Date Collected: 12/21/2009 12:18:34
Analyst: JXL1 Data Type: Original

Replicate Data: 1201999566|934600|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	1.854	1.854	0.0199	0.0935	0.0200	12:19:35	Yes
2	1.834	1.834	0.0197	0.0925	0.0198	12:20:10	Yes
Mean:	1.844	1.844	0.0198				
SD:	0.014	0.014	0.0001				
%RSD:	0.746	0.746	0.75				

Sequence No.: 76 Autosampler Location: 83
Sample ID: 1201999567|934600|5 Date Collected: 12/21/2009 12:20:30
Analyst: JXL1 Data Type: Original

Replicate Data: 1201999567|934600|5

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.020	0.020	0.0002	0.0013	0.0003	12:21:31	Yes
2	0.020	0.020	0.0002	0.0013	0.0003	12:22:06	Yes
Mean:	0.020	0.020	0.0002				
SD:	0.000	0.000	0.0000				
%RSD:	0.314	0.314	0.34				

Sequence No.: 77 Autosampler Location: 84
Sample ID: 243029002|934600|1 Date Collected: 12/21/2009 12:22:26
Analyst: JXL1 Data Type: Original

Replicate Data: 243029002|934600|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.017	0.017	0.0002	0.0010	0.0002	12:23:28	Yes
2	0.016	0.016	0.0001	0.0006	0.0002	12:24:03	Yes
Mean:	0.016	0.016	0.0002				
SD:	0.001	0.001	0.0000				
%RSD:	5.780	5.780	6.47				

Sequence No.: 78 Autosampler Location: 85
Sample ID: 1201996824|934360|1 Date Collected: 12/21/2009 12:24:23
Analyst: JXL1 Data Type: Original

Replicate Data: 1201996824|934360|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.017	0.017	0.0002	0.0009	0.0002	12:25:25	Yes
2	0.017	0.017	0.0002	0.0010	0.0002	12:26:00	Yes
Mean:	0.017	0.017	0.0002				

#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.019	0.019	0.0002	0.0010	0.0003	12:35:09	Yes
2	0.017	0.017	0.0002	0.0007	0.0002	12:35:43	Yes
Mean:	0.018	0.018	0.0002				
SD:	0.001	0.001	0.0000				
%RSD:	7.062	7.062	7.82				

==========

Sequence No.: 84 **Autosampler Location: 91**
Sample ID: 1201999086|934360|5 **Date Collected: 12/21/2009 12:36:04**
Analyst: JXL1 **Data Type: Original**

Replicate Data: 1201999086|934360|5

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.044	0.044	0.0005	0.0023	0.0005	12:37:05	Yes
2	0.047	0.047	0.0005	0.0027	0.0006	12:37:40	Yes
Mean:	0.046	0.046	0.0005				
SD:	0.002	0.002	0.0000				
%RSD:	4.277	4.277	4.45				

==========

Sequence No.: 85 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 12/21/2009 12:38:00**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.109	5.109	0.0549	0.2473	0.0550	12:39:01	Yes
2	5.093	5.093	0.0548	0.2447	0.0548	12:39:36	Yes
Mean:	5.101	5.101	0.0549				
SD:	0.011	0.011	0.0001				
%RSD:	0.224	0.224	0.22				

QC value within limits for Hg 253.7 Recovery = 102.02%
All analyte(s) passed QC.

==========

Sequence No.: 86 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 12/21/2009 12:39:54**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.020	0.020	0.0002	0.0011	0.0003	12:40:55	Yes
2	0.018	0.018	0.0002	0.0010	0.0003	12:41:30	Yes
Mean:	0.019	0.019	0.0002				
SD:	0.001	0.001	0.0000				
%RSD:	6.726	6.726	7.39				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

==========

Sequence No.: 87 **Autosampler Location: 92**
Sample ID: 242704002|934360|1 **Date Collected: 12/21/2009 12:41:49**
Analyst: JXL1 **Data Type: Original**

Replicate Data: 242704002|934360|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.022	0.022	0.0002	0.0012	0.0003	12:42:51	Yes
2	0.021	0.021	0.0002	0.0011	0.0003	12:43:26	Yes
Mean:	0.022	0.022	0.0002				
SD:	0.001	0.001	0.0000				
%RSD:	4.515	4.515	4.91				

==========
Method Name: WATER
Method Description: 7470A, 245.2, ILM04 ANALYST JXL1
Element: Hg

Date: 12/22/2009
Technique:FI-MHS
Calibration Type:
Hg, Calc. Intercept : Linear
Wavelength: 253.7 nm
Sample Info Name: 122209W1.SIF Results Data Set Name: 122209W1

==========
Element: Hg Seq. No.: 1 AS Loc.: 1 Date: 12/22/2009
Sample ID: Calib Blank

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1			0.0019	0.0019	09:38:49	No
2			0.0020	0.0020	09:39:23	No
Mean:			0.0019			
SD :			0.0000			
%RSD:			0.5798			

Auto-zero performed.

==========
Element: Hg Seq. No.: 2 AS Loc.: 2 Date: 12/22/2009
Sample ID: S0.2

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1			0.0016	0.0035	09:40:47	No
2			0.0015	0.0034	09:41:22	No
Mean:			0.0015			
SD :			0.0001			
%RSD:			3.3099			

[Hg] Standard number 1 applied. [0.200]
Correlation Coefficient: 1.00000 Slope: 0.00766
Intercept : 0.00000

==========
Element: Hg Seq. No.: 3 AS Loc.: 3 Date: 12/22/2009
Sample ID: S0.5

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1			0.0036	0.0056	09:42:46	No
2			0.0037	0.0057	09:43:21	No
Mean:			0.0037			
SD :			0.0001			
%RSD:			1.5504			

[Hg] Standard number 2 applied. [0.500]
Correlation Coefficient: 0.99984 Slope: 0.00736
Intercept : 0.00002

==========
Element: Hg Seq. No.: 4 AS Loc.: 4 Date: 12/22/2009
Sample ID: S2.0

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1			0.0151	0.0170	09:44:46	No
2			0.0148	0.0168	09:45:21	No
Mean:			0.0150			
SD :			0.0002			
%RSD:			1.1621			

[Hg] Standard number 3 applied. [2.000]

Correlation Coefficient: 0.99999 Slope: 0.00748
Intercept : 0.00000

==========

Element: Hg Seq. No.: 5 AS Loc.: 5 Date: 12/22/2009
Sample ID: S5.0

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1			0.0370	0.0389	09:46:47	No
2			0.0367	0.0386	09:47:22	No
Mean:			0.0368			
SD :			0.0002			
%RSD:			0.6289			

[Hg] Standard number 4 applied. [5.000]
Correlation Coefficient: 0.99998 Slope: 0.00736
Intercept : 0.00006

==========

Element: Hg Seq. No.: 6 AS Loc.: 6 Date: 12/22/2009
Sample ID: S10

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1			0.0742	0.0761	09:48:49	No
2			0.0745	0.0765	09:49:23	No
Mean:			0.0744			
SD :			0.0003			
%RSD:			0.3649			

[Hg] Standard number 5 applied. [10.00]
Correlation Coefficient: 0.99999 Slope: 0.00742
Intercept : -0.00001

Calibration data for Hg

Standard ID	Mean Signal (Pk Height)	Entered Concentration (µg/L)	Calculated Concentration (µg/L)	Standard Deviation	%RSD
Calib Blank	0.0019	---	----	----	----
S0.2	0.0015	0.200	0.208	0.0001	3.3
S0.5	0.0037	0.500	0.498	0.0001	1.6
S2.0	0.0150	2.000	2.016	0.0002	1.2
S5.0	0.0368	5.000	4.960	0.0002	0.6
S10	0.0744	10.000	10.02	0.0003	0.4

Correlation Coefficient: 0.99999 Slope: 0.00742 Intercept: 0.0000

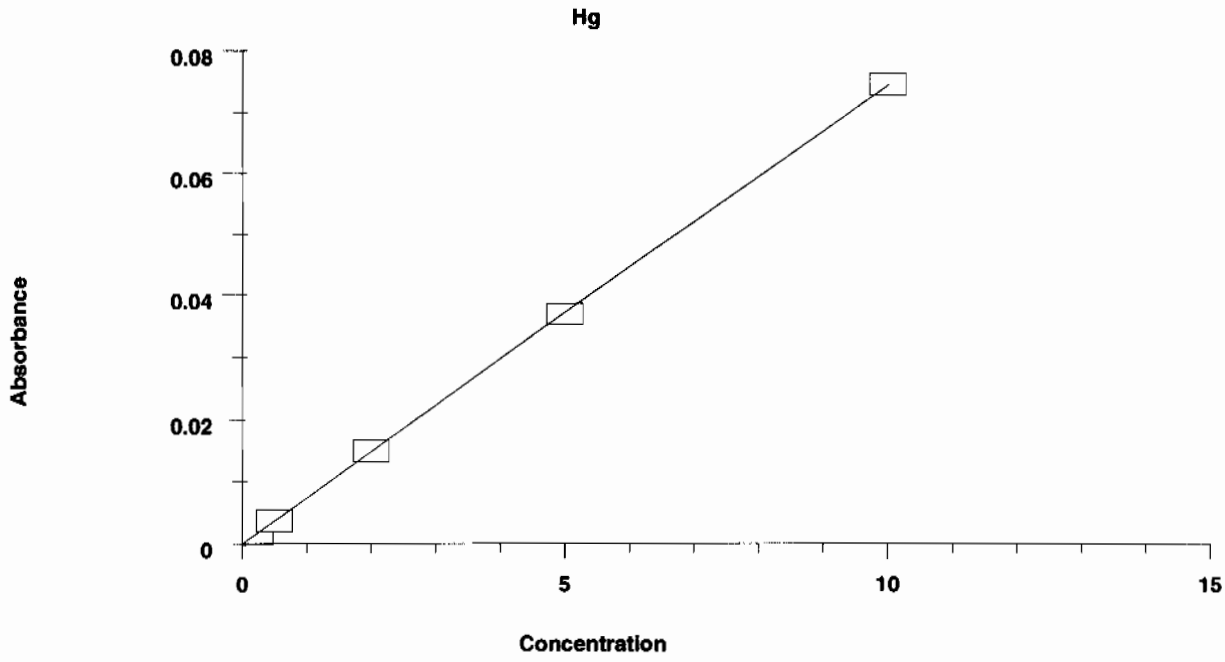

==========

Element: Hg Seq. No.: 7 AS Loc.: 9 Date: 12/22/2009

Sample ID: ICV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	5.131	5.131	0.0381	0.0400	09:50:51	No
2	5.115	5.115	0.0380	0.0399	09:51:25	No
Mean:	5.123	5.123	0.0380			
SD :	0.0117	0.0117	0.0001			
%RSD:	0.2	0.2	0.2291			

QC value within specified limits.

==========

Element: Hg Seq. No.: 8 AS Loc.: 10 Date: 12/22/2009

Sample ID: ICB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.006	-0.006	-0.0001	0.0019	09:52:47	No
2	0.000	0.000	0.0000	0.0019	09:53:23	No
Mean:	-0.003	-0.003	0.0000			
SD :	0.0047	0.0047	0.0000			
%RSD:	164.7	164.7	112.4015			

QC value within specified limits.

==========

Element: Hg Seq. No.: 9 AS Loc.: 11 Date: 12/22/2009

Sample ID: CRDL

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.205	0.205	0.0015	0.0035	09:54:45	No
2	0.178	0.178	0.0013	0.0033	09:55:20	No
Mean:	0.192	0.192	0.0014			
SD :	0.0190	0.0190	0.0001			
%RSD:	9.9	9.9	9.9864			

QC value within specified limits.

==========
Element: Hg Seq. No.: 10 AS Loc.: 7 Date: 12/22/2009
Sample ID: CCV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	5.064	5.064	0.0376	0.0395	09:56:45	No
2	5.018	5.018	0.0372	0.0392	09:57:20	No
Mean:	5.041	5.041	0.0374			
SD :	0.0324	0.0324	0.0002			
%RSD:	0.6	0.6	0.6432			

QC value within specified limits.

==========
Element: Hg Seq. No.: 11 AS Loc.: 8 Date: 12/22/2009
Sample ID: CCB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.017	0.017	0.0001	0.0021	09:58:48	No
2	0.025	0.025	0.0002	0.0021	09:59:22	No
Mean:	0.021	0.021	0.0001			
SD :	0.0061	0.0061	0.0000			
%RSD:	29.3	29.3	31.2454			

QC value within specified limits.

==========
Element: Hg Seq. No.: 12 AS Loc.: 12 Date: 12/22/2009
Sample ID: 1202000077|i||934827|MB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.008	-0.008	-0.0001	0.0019	10:00:48	No
2	-0.006	-0.006	-0.0001	0.0019	10:01:23	No
Mean:	-0.007	-0.007	-0.0001			
SD :	0.0011	0.0011	0.0000			
%RSD:	15.5	15.5	13.1032			

==========
Element: Hg Seq. No.: 13 AS Loc.: 13 Date: 12/22/2009
Sample ID: 1202000078|i|||LCS

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	2.008	2.008	0.0149	0.0168	10:02:48	No
2	2.027	2.027	0.0150	0.0170	10:03:22	No
Mean:	2.018	2.018	0.0150			
SD :	0.0137	0.0137	0.0001			
%RSD:	0.7	0.7	0.6774			

==========
Element: Hg Seq. No.: 14 AS Loc.: 14 Date: 12/22/2009
Sample ID: 243223004|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.307	0.307	0.0023	0.0042	10:04:49	No
2	0.296	0.296	0.0022	0.0041	10:05:23	No
Mean:	0.302	0.302	0.0022			
SD :	0.0077	0.0077	0.0001			
%RSD:	2.6	2.6	2.5658			

==========
Element: Hg Seq. No.: 15 AS Loc.: 15 Date: 12/22/2009
Sample ID: 1202000079|i|||DUP

%RSD: 10.6 10.6 10.8511

==========

Element: Hg Seq. No.: 21 AS Loc.: 21 Date: 12/22/2009
Sample ID: 1201987764|i|||DUP

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.082	0.082	0.0006	0.0025	10:18:37	No
2	0.054	0.054	0.0004	0.0023	10:19:12	No
Mean:	0.068	0.068	0.0005			
SD :	0.0194	0.0194	0.0001			
%RSD:	28.5	28.5	29.0324			

==========

Element: Hg Seq. No.: 22 AS Loc.: 7 Date: 12/22/2009
Sample ID: CCV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	5.096	5.096	0.0378	0.0398	10:20:38	No
2	5.085	5.085	0.0377	0.0397	10:21:12	No
Mean:	5.091	5.091	0.0378			
SD :	0.0077	0.0077	0.0001			
%RSD:	0.2	0.2	0.1519			

QC value within specified limits.

==========

Element: Hg Seq. No.: 23 AS Loc.: 8 Date: 12/22/2009
Sample ID: CCB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.023	0.023	0.0002	0.0021	10:22:40	No
2	0.002	0.002	0.0000	0.0019	10:23:15	No
Mean:	0.013	0.013	0.0001			
SD :	0.0149	0.0149	0.0001			
%RSD:	115.5	115.5	128.6544			

QC value within specified limits.

==========

Element: Hg Seq. No.: 24 AS Loc.: 22 Date: 12/22/2009
Sample ID: 1201987765|i|||MS

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	2.054	2.054	0.0152	0.0172	10:24:40	No
2	2.081	2.081	0.0154	0.0174	10:25:15	No
Mean:	2.068	2.068	0.0153			
SD :	0.0194	0.0194	0.0001			
%RSD:	0.9	0.9	0.9401			

==========

Element: Hg Seq. No.: 25 AS Loc.: 23 Date: 12/22/2009
Sample ID: 1201987766|i|||SDILT

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.020	-0.020	-0.0002	0.0018	10:26:40	No
2	-0.004	-0.004	0.0000	0.0019	10:27:15	No
Mean:	-0.012	-0.012	-0.0001			
SD :	0.0115	0.0115	0.0001			
%RSD:	94.4	94.4	85.1993			

==========

Element: Hg Seq. No.: 26 AS Loc.: 24 Date: 12/22/2009
Sample ID: 1201987725|i||929452|MB

```
%RSD:      60.8       60.8   54.4209

==========================================================================================
Element: Hg    Seq. No.: 32       AS Loc.: 30   Date: 12/22/2009
Sample ID: 242166003|i|||
------------------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time    Peak
 #     µg/L        µg/L       Signal     Height            Stored
 1       -0.008    -0.008   -0.0001     0.0019   10:40:41  No
 2       -0.028    -0.028   -0.0002     0.0017   10:41:15  No
Mean:    -0.018    -0.018   -0.0001
SD  :    0.0144    0.0144    0.0001
%RSD:      79.9       79.9   74.4051

==========================================================================================
Element: Hg    Seq. No.: 33       AS Loc.: 31   Date: 12/22/2009
Sample ID: 242166004|i|||
------------------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time    Peak
 #     µg/L        µg/L       Signal     Height            Stored
 1       -0.039    -0.039   -0.0003     0.0016   10:42:42  No
 2       -0.038    -0.038   -0.0003     0.0016   10:43:16  No
Mean:    -0.038    -0.038   -0.0003
SD  :    0.0003    0.0003    0.0000
%RSD:       0.8       0.8    0.7414

==========================================================================================
Element: Hg    Seq. No.: 34       AS Loc.: 7    Date: 12/22/2009
Sample ID: CCV
------------------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time    Peak
 #     µg/L        µg/L       Signal     Height            Stored
 1       5.126     5.126    0.0380     0.0400   10:44:43  No
 2       5.159     5.159    0.0383     0.0402   10:45:17  No
Mean:    5.143     5.143    0.0382
SD  :   0.0235    0.0235    0.0002
%RSD:      0.5       0.5    0.4565
QC value within specified limits.

==========================================================================================
Element: Hg    Seq. No.: 35       AS Loc.: 8    Date: 12/22/2009
Sample ID: CCB
------------------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time    Peak
 #     µg/L        µg/L       Signal     Height            Stored
 1       0.008     0.008    0.0001     0.0020   10:46:45  No
 2      -0.008    -0.008   -0.0001     0.0019   10:47:20  No
Mean:    0.000     0.000    0.0000
SD  :   0.0112    0.0112    0.0001
%RSD:     2943      2943 1193.1708
QC value within specified limits.

==========================================================================================
Element: Hg    Seq. No.: 36       AS Loc.: 32   Date: 12/22/2009
Sample ID: 242171001|i|||
------------------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time    Peak
 #     µg/L        µg/L       Signal     Height            Stored
 1       -0.024    -0.024   -0.0002     0.0018   10:48:45  No
 2       -0.015    -0.015   -0.0001     0.0018   10:49:20  No
Mean:    -0.020    -0.020   -0.0002
SD  :    0.0059    0.0059    0.0000
%RSD:      29.9      29.9   28.0047

==========================================================================================
Element: Hg    Seq. No.: 37       AS Loc.: 33   Date: 12/22/2009
Sample ID: 1201987727|i|||DUP
```

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.041	-0.041	-0.0003	0.0016	10:50:40	No
2	-0.027	-0.027	-0.0002	0.0017	10:51:15	No
Mean:	-0.034	-0.034	-0.0003			
SD :	0.0095	0.0095	0.0001			
%RSD:	28.0	28.0	26.9218			

Element: Hg Seq. No.: 38 AS Loc.: 34 Date: 12/22/2009
Sample ID: 1201987728|i|||MS

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	2.168	2.168	0.0161	0.0180	10:52:36	No
2	2.207	2.207	0.0164	0.0183	10:53:11	No
Mean:	2.187	2.187	0.0162			
SD :	0.0277	0.0277	0.0002			
%RSD:	1.3	1.3	1.2679			

Element: Hg Seq. No.: 39 AS Loc.: 35 Date: 12/22/2009
Sample ID: 1201987729|i|||SDILT

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.043	-0.043	-0.0003	0.0016	10:54:33	No
2	-0.064	-0.064	-0.0005	0.0015	10:55:08	No
Mean:	-0.054	-0.054	-0.0004			
SD :	0.0152	0.0152	0.0001			
%RSD:	28.4	28.4	27.6785			

Element: Hg Seq. No.: 40 AS Loc.: 36 Date: 12/22/2009
Sample ID: 242171002|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.065	-0.065	-0.0005	0.0014	10:56:30	No
2	-0.046	-0.046	-0.0004	0.0016	10:57:05	No
Mean:	-0.056	-0.056	-0.0004			
SD :	0.0132	0.0132	0.0001			
%RSD:	23.7	23.7	23.1745			

Element: Hg Seq. No.: 41 AS Loc.: 37 Date: 12/22/2009
Sample ID: 1202000155|i||934861|MB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.010	-0.010	-0.0001	0.0019	10:58:27	No
2	-0.024	-0.024	-0.0002	0.0018	10:59:01	No
Mean:	-0.017	-0.017	-0.0001			
SD :	0.0103	0.0103	0.0001			
%RSD:	60.7	60.7	56.3210			

Element: Hg Seq. No.: 42 AS Loc.: 38 Date: 12/22/2009
Sample ID: 1202000156|i|||LCS

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	2.103	2.103	0.0156	0.0175	11:00:24	No
2	2.088	2.088	0.0155	0.0174	11:00:59	No
Mean:	2.095	2.095	0.0155			
SD :	0.0111	0.0111	0.0001			

%RSD: 0.5 0.5 0.5288

Element: Hg Seq. No.: 43 AS Loc.: 39 Date: 12/22/2009
Sample ID: 242669004|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.088	0.088	0.0006	0.0026	11:02:22	No
2	0.068	0.068	0.0005	0.0024	11:02:57	No
Mean:	0.078	0.078	0.0006			
SD :	0.0141	0.0141	0.0001			
%RSD:	18.0	18.0	18.3447			

Element: Hg Seq. No.: 44 AS Loc.: 40 Date: 12/22/2009
Sample ID: 1202000157|i|||DUP

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.089	0.089	0.0006	0.0026	11:04:20	No
2	0.093	0.093	0.0007	0.0026	11:04:55	No
Mean:	0.091	0.091	0.0007			
SD :	0.0033	0.0033	0.0000			
%RSD:	3.7	3.7	3.7208			

Element: Hg Seq. No.: 45 AS Loc.: 41 Date: 12/22/2009
Sample ID: 1202000158|i|||MS

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	2.097	2.097	0.0156	0.0175	11:06:19	No
2	2.135	2.135	0.0158	0.0178	11:06:54	No
Mean:	2.116	2.116	0.0157			
SD :	0.0272	0.0272	0.0002			
%RSD:	1.3	1.3	1.2872			

Element: Hg Seq. No.: 46 AS Loc.: 7 Date: 12/22/2009
Sample ID: CCV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	5.350	5.350	0.0397	0.0417	11:08:19	No
2	5.360	5.360	0.0398	0.0417	11:08:54	No
Mean:	5.355	5.355	0.0397			
SD :	0.0066	0.0066	0.0000			
%RSD:	0.1	0.1	0.1226			

QC value within specified limits.

Element: Hg Seq. No.: 47 AS Loc.: 8 Date: 12/22/2009
Sample ID: CCB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.028	-0.028	-0.0002	0.0017	11:10:22	No
2	-0.011	-0.011	-0.0001	0.0019	11:10:56	No
Mean:	-0.019	-0.019	-0.0002			
SD :	0.0121	0.0121	0.0001			
%RSD:	62.2	62.2	58.2665			

QC value within specified limits.

Element: Hg Seq. No.: 48 AS Loc.: 42 Date: 12/22/2009
Sample ID: 1202000159|i|||SDILT

3

TMO 12/22/09

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.019	-0.019	-0.0001	0.0018	11:12:22	No
2	-0.019	-0.019	-0.0001	0.0018	11:12:58	No
Mean:	-0.019	-0.019	-0.0001			
SD :	0.0001	0.0001	0.0000			
%RSD:	0.6	0.6	0.5354			

Element: Hg Seq. No.: 49 AS Loc.: 43 Date: 12/22/2009
Sample ID: 1202000110|i||934839|MB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.110	0.110	0.0008	0.0027	11:14:23	No
2	0.119	0.119	0.0009	0.0028	11:14:57	No
Mean:	0.114	0.114	0.0008			
SD :	0.0066	0.0066	0.0000			
%RSD:	5.8	5.8	5.8447			

Element: Hg Seq. No.: 50 AS Loc.: 44 Date: 12/22/2009
Sample ID: 1202000111|i|||LCS

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	2.226	2.226	0.0165	0.0185	11:16:22	No
2	2.190	2.190	0.0162	0.0182	11:16:57	No
Mean:	2.208	2.208	0.0164			
SD :	0.0254	0.0254	0.0002			
%RSD:	1.1	1.1	1.1499			

Element: Hg Seq. No.: 51 AS Loc.: 45 Date: 12/22/2009
Sample ID: 243207001|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.168	0.168	0.0012	0.0032	11:18:23	No
2	0.189	0.189	0.0014	0.0033	11:18:58	No
Mean:	0.178	0.178	0.0013			
SD :	0.0148	0.0148	0.0001			
%RSD:	8.3	8.3	8.3408			

Element: Hg Seq. No.: 52 AS Loc.: 46 Date: 12/22/2009
Sample ID: 1202000112|i|||DUP

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.188	0.188	0.0014	0.0033	11:20:24	No
2	0.187	0.187	0.0014	0.0033	11:20:59	No
Mean:	0.187	0.187	0.0014			
SD :	0.0007	0.0007	0.0000			
%RSD:	0.4	0.4	0.3725			

Element: Hg Seq. No.: 53 AS Loc.: 47 Date: 12/22/2009
Sample ID: 1202000113|i|||MS

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	2.119	2.119	0.0157	0.0177	11:22:25	No
2	2.111	2.111	0.0157	0.0176	11:23:00	No
Mean:	2.115	2.115	0.0157			
SD :	0.0053	0.0053	0.0000			

%RSD: 0.2 0.2 0.2486

==========

Element: Hg Seq. No.: 54 AS Loc.: 48 Date: 12/22/2009
Sample ID: 1202000114|i|||SDILT

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.036	-0.036	-0.0003	0.0017	11:24:24	No
2	-0.051	-0.051	-0.0004	0.0016	11:25:00	No
Mean:	-0.043	-0.043	-0.0003			
SD :	0.0104	0.0104	0.0001			
%RSD:	23.9	23.9	23.2321			

==========

Element: Hg Seq. No.: 55 AS Loc.: 49 Date: 12/22/2009
Sample ID: 1201999913|i||935282|TB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.039	0.039	0.0003	0.0022	11:26:20	No
2	0.046	0.046	0.0003	0.0023	11:26:55	No
Mean:	0.043	0.043	0.0003			
SD :	0.0048	0.0048	0.0000			
%RSD:	11.1	11.1	11.4532			

==========

Element: Hg Seq. No.: 56 AS Loc.: 50 Date: 12/22/2009
Sample ID: 1201999928|i|||TB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.025	0.025	0.0002	0.0021	11:28:16	No
2	0.062	0.062	0.0005	0.0024	11:28:51	No
Mean:	0.044	0.044	0.0003			
SD :	0.0266	0.0266	0.0002			
%RSD:	61.1	61.1	63.0083			

==========

Element: Hg Seq. No.: 57 AS Loc.: 51 Date: 12/22/2009
Sample ID: 1202001139|i|||MB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.074	0.074	0.0005	0.0025	11:30:12	No
2	0.016	0.016	0.0001	0.0020	11:30:47	No
Mean:	0.045	0.045	0.0003			
SD :	0.0413	0.0413	0.0003			
%RSD:	92.3	92.3	95.1158			

==========

Element: Hg Seq. No.: 58 AS Loc.: 7 Date: 12/22/2009
Sample ID: CCV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	5.022	5.022	0.0373	0.0392	11:32:11	No
2	5.039	5.039	0.0374	0.0393	11:32:45	No
Mean:	5.030	5.030	0.0373			
SD :	0.0122	0.0122	0.0001			
%RSD:	0.2	0.2	0.2434			

QC value within specified limits.

==========

Element: Hg Seq. No.: 59 AS Loc.: 8 Date: 12/22/2009
Sample ID: CCB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.012	0.012	0.0001	0.0020	11:34:13	No
2	0.010	0.010	0.0001	0.0020	11:34:48	No
Mean:	0.011	0.011	0.0001			
SD :	0.0015	0.0015	0.0000			
%RSD:	13.8	13.8	15.7501			

QC value within specified limits.

==========

Element: Hg Seq. No.: 60 AS Loc.: 52 Date: 12/22/2009
Sample ID: 1202001140|i|||LCS

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	2.217	2.217	0.0164	0.0184	11:36:14	No
2	2.210	2.210	0.0164	0.0183	11:36:49	No
Mean:	2.214	2.214	0.0164			
SD :	0.0043	0.0043	0.0000			
%RSD:	0.2	0.2	0.1938			

==========

Element: Hg Seq. No.: 61 AS Loc.: 53 Date: 12/22/2009
Sample ID: 243010001|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.092	0.092	0.0007	0.0026	11:38:11	No
2	0.070	0.070	0.0005	0.0025	11:38:46	No
Mean:	0.081	0.081	0.0006			
SD :	0.0156	0.0156	0.0001			
%RSD:	19.3	19.3	19.6583			

==========

Element: Hg Seq. No.: 62 AS Loc.: 54 Date: 12/22/2009
Sample ID: 1201999911|i|||MS

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	1.751	1.751	0.0130	0.0149	11:40:09	No
2	1.753	1.753	0.0130	0.0149	11:40:44	No
Mean:	1.752	1.752	0.0130			
SD :	0.0015	0.0015	0.0000			
%RSD:						

==========

Element: Hg Seq. No.: 63 AS Loc.: 55 Date: 12/22/2009
Sample ID: 1202001141|i|||DUP

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.041	0.041	0.0003	0.0022	11:42:07	No
2	0.021	0.021	0.0001	0.0021	11:42:42	No
Mean:	0.031	0.031	0.0002			
SD :	0.0143	0.0143	0.0001			
%RSD:	46.3	46.3	48.3454			

==========

Element: Hg Seq. No.: 64 AS Loc.: 56 Date: 12/22/2009
Sample ID: 1202001144|i|||SDILT

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.033	-0.033	-0.0003	0.0017	11:44:06	No
2	-0.054	-0.054	-0.0004	0.0015	11:44:40	No
Mean:	-0.043	-0.043	-0.0003			
SD :	0.0153	0.0153	0.0001			

Miscellaneous

Prep LogBook

Analyst: TXB3 Verified by:_____

Batch: 934599

Lab SOP: GL-MA-E-010 REV# 23

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1201999564	WHG091218-13	.2	mL
MS	1201999566	WHG091218-13	.2	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Ph	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1201999563		SW846 7470A Prep	18-DEC-2009 14:00	<2	20 mL	20 mL	1	WATER
LCS	1201999564		SW846 7470A Prep	18-DEC-2009 14:00	<2	20 mL	20 mL	1	WATER
SAMPLE	242669001		SW846 7470A Prep	18-DEC-2009 14:00	<2	20 mL	20 mL	1	WATER
SAMPLE	242669002		SW846 7470A Prep	18-DEC-2009 14:00	<2	20 mL	20 mL	1	WATER
SAMPLE	242669003		SW846 7470A Prep	18-DEC-2009 14:00	<2	20 mL	20 mL	1	WATER
SAMPLE	243029001		SW846 7470A Prep	18-DEC-2009 14:00	<2	20 mL	20 mL	1	WATER
DUP	1201999565	243029001	SW846 7470A Prep	18-DEC-2009 14:00	<2	20 mL	20 mL	1	WATER
MS	1201999566	243029001	SW846 7470A Prep	18-DEC-2009 14:00	<2	20 mL	20 mL	1	WATER
SDILT	1201999567	243029001	SW846 7470A Prep	18-DEC-2009 14:00	<2	20 mL	20 mL	1	WATER
SAMPLE	243029002		SW846 7470A Prep	18-DEC-2009 14:00	<2	20 mL	20 mL	1	WATER

Reagent/Solvent Lot ID	Amount	Description
1176183	1 mL	Sulfuric Acid, Concentrated
1240182-1	.5 mL	NITRIC ACID
1234385-C	1.5 mL	5% Potassium Persulfate
1244904-C	3 mL	5% KMnO4 solution
1206350-C	1 mL	Hg reducing agent
WHG091218-06	500 uL	Mercury Working 2nd Source 5.0/ICV
WHG091218-01	20 uL	Mercury Working 1st Source CAL 0.2/CRA
WHG091218-02	50 uL	Mercury Working 1st Source CAL 0.5
WHG091218-05	1 mL	Mercury Working 1st Source CAL 10.0
WHG091218-03	200 uL	Mercury Working 1st Source CAL 2.0
WHG091218-04	500 uL	Mercury Working 1st Source CAL 5.0/CCV

Comments Digestion Start Date: 18-DEC-09 14:00
Digestion End Date: 18-DEC-09 16:00

Prep LogBook

Analyst: TXB3 Verified by:_____

Batch: 934860

Lab SOP: GL-MA-E-010 REV# 23

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1202000156	WHG091221-13	.2	mL
MS	1202000158	WHG091221-13	.2	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Ph	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1202000155		SW846 7470A Prep	21-DEC-2009 12:05	<2	20 mL	20 mL	1	WATER
LCS	1202000156		SW846 7470A Prep	21-DEC-2009 12:05	<2	20 mL	20 mL	1	WATER
SAMPLE	242669004		SW846 7470A Prep	21-DEC-2009 12:05	<2	20 mL	20 mL	1	WATER
DUP	1202000157	242669004	SW846 7470A Prep	21-DEC-2009 12:05	<2	20 mL	20 mL	1	WATER
MS	1202000158	242669004	SW846 7470A Prep	21-DEC-2009 12:05	<2	20 mL	20 mL	1	WATER
SDILT	1202000159	242669004	SW846 7470A Prep	21-DEC-2009 12:05	<2	20 mL	20 mL	1	WATER

Reagent/Solvent Lot ID	Amount	Description
1176183	1 mL	Sulfuric Acid, Concentrated
1240182-1	.5 mL	NITRIC ACID
1234385-C	1.5 mL	5% Potassium Persulfate
1244904-C	3 mL	5% KMnO4 solution
1206350-C	1 mL	Hg reducing agent
WHG091221-06	500 uL	Mercury Working 2nd Source 5.0/ICV
WHG091221-01	20 uL	Mercury Working 1st Source CAL 0.2/CRA
WHG091221-02	50 uL	Mercury Working 1st Source CAL 0.5
WHG091221-05	1 mL	Mercury Working 1st Source CAL 10.0
WHG091221-03	200 uL	Mercury Working 1st Source CAL 2.0
WHG091221-04	500 uL	Mercury Working 1st Source CAL 5.0/CCV

Comments: Digestion Start Date: 21-DEC-09 12:05
Digestion End Date: 21-DEC-09 14:05

Prep LogBook

Analyst: BCD1 Verified by:_____

Batch: 932303

Lab SOP: GL-MA-E-006 REV# 9

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1201994274	UI091124-A00	.5	mL
LCS	1201994274	UI091124-B	.5	mL
MS	1201994276	UI090930-A	.5	mL
MS	1201994276	UI090930-B	.5	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Ph	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1201994273		SW846 3005A	16-DEC-2009 13:42	<2	50 mL	50 mL	1	WATER
LCS	1201994274		SW846 3005A	16-DEC-2009 13:42	<2	50 mL	50 mL	1	WATER
SAMPLE	242669001		SW846 3005A	16-DEC-2009 13:42	<2	50 mL	50 mL	1	WATER
DUP	1201994275	242669001	SW846 3005A	16-DEC-2009 13:42	<2	50 mL	50 mL	1	WATER
MS	1201994276	242669001	SW846 3005A	16-DEC-2009 13:42	<2	50 mL	50 mL	1	WATER
SDILT	1201994277	242669001	SW846 3005A	16-DEC-2009 13:42	<2	50 mL	50 mL	1	WATER
SAMPLE	242669002		SW846 3005A	16-DEC-2009 13:42	<2	50 mL	50 mL	1	WATER
SAMPLE	242669003		SW846 3005A	16-DEC-2009 13:42	<2	50 mL	50 mL	1	WATER
SAMPLE	242669004		SW846 3005A	16-DEC-2009 13:42	<2	50 mL	50 mL	1	WATER

Reagent/Solvent Lot ID	Amount	Description
1238343	2.5 mL	HYDROCHLORIC ACID
1238345	1 mL	Nitric Acid CONC.

Comments

Prep LogBook

Analyst: BCD1 Verified by:_____

Batch: 932261

Lab SOP: GL-MA-E-006 REV# 9

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1201994187	UI091216-01	.25	mL
LCS	1201994187	UI091216-06	.25	mL
MS	1201994189	UI091216-01	.25	mL
MS	1201994189	UI091216-06	.25	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Ph	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1201994186		SW846 3005A	17-DEC-2009 09:28	<2	50 mL	50 mL	1	WATER
LCS	1201994187		SW846 3005A	17-DEC-2009 09:28	<2	50 mL	50 mL	1	WATER
SAMPLE	242669001		SW846 3005A	17-DEC-2009 09:28	<2	50 mL	50 mL	1	WATER
DUP	1201994188	242669001	SW846 3005A	17-DEC-2009 09:28	<2	50 mL	50 mL	1	WATER
MS	1201994189	242669001	SW846 3005A	17-DEC-2009 09:28	<2	50 mL	50 mL	1	WATER
SDILT	1201994190	242669001	SW846 3005A	17-DEC-2009 09:28	<2	50 mL	50 mL	1	WATER
SAMPLE	242669002		SW846 3005A	17-DEC-2009 09:28	<2	50 mL	50 mL	1	WATER
SAMPLE	242669003		SW846 3005A	17-DEC-2009 09:28	<2	50 mL	50 mL	1	WATER
SAMPLE	242669004		SW846 3005A	17-DEC-2009 09:28	<2	50 mL	50 mL	1	WATER

Reagent/Solvent Lot ID	Amount	Description
1238343	2.5 mL	HYDROCHLORIC ACID
1238345	1 mL	Nitric Acid CONC.

Comments

Standard Logbook

Serial ID: UHG1167639-01 **Opened:** 13-AUG-09 **Amount :** 125 mL
Name: MHGSTOCK1 **Received:** 13-AUG-09 **Catalog Number :** PLHG4-2Y
Type: Source Material **Expires:** 13-AUG-10 **Lot Number :** 15-37HG
Employee: Bryan Davis **Solvent :** 10% HNO3
Supplier: Spex
Description: Mercury Source Standard #1 1,000 mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Mercury	1000 mg/L		

Serial ID: UHG1167641-02 **Opened:** 13-AUG-09 **Amount :** 100 mL
Name: MHGSTOCK2 **Received:** 13-AUG-09 **Catalog Number :** AHG1KN-100
Type: Source Material **Expires:** 13-AUG-10 **Lot Number :** 4905530
Employee: Bryan Davis **Solvent :** 3% HNO3
Supplier: Ricca Chemical Company
Description: Mercury Source Standard #2 1,000 mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Mercury	999.7 mg/L		

Serial ID: UI090422-40 **Opened:** 04-MAY-09 **Amount :** 500 mL
Name: TRACE ICP ICSA SOLN A **Received:** 22-APR-09 **Catalog Number :** 160005-01-03
Type: Source Material **Expires:** 04-MAY-10 **Lot Number :** 1013357
Employee: Helen Camello **Solvent :** 5%HNO3
Supplier: o2si
Description: TRACE ICP ICSA SOLN A mg/L+/-0.5%IN5%HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	5000 mg/L	Calcium	5000 mg/L
Iron	2000 mg/L	Magnesium	5000 mg/L

Serial ID: UI090610-03 **Opened:** 10-JUN-09 **Catalog Number :** 060074-06-01
Name: ICPMS Tungsten - 10mg/L S **Received:** 10-JUN-09 **Lot Number :** 1016338
Type: Source Material **Expires:** 10-JUN-10 **Solvent :** 2% HNO3
Employee: Paul Boyd
Supplier: O2SI
Description: ICPMS Tungsten standard SPIKE - 10mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Tungsten	10 mg/L		

Standard Logbook

Serial ID:	UI090701-09	**Opened:**	01-JUL-09	**Amount :**	250 mL
Name:	ICP-MS CRDL Master #1	**Received:**	01-JUL-09	**Catalog Number :**	160044-09-02
Type:	Source Material	**Expires:**	01-JUL-10	**Lot Number :**	1016477
Employee:	Paul Boyd			**Solvent :**	+/- 0.5% IN 2% HNO3
Supplier:	02SI				

Description: ICPMS CRDL Master Soln #1

Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	15 mg/L	Arsenic	5 mg/L
Barium	2 mg/L	Beryllium	.5 mg/L
Boron	15 mg/L	Cadmium	1 mg/L
Calcium	100 mg/L	Chromium	3 mg/L
Cobalt	1 mg/L	Copper	1 mg/L
Iron	25 mg/L	Lead	2 mg/L
Lithium	10 mg/L	Magnesium	15 mg/L
Manganese	5 mg/L	Nickel	2 mg/L
Phosphorous	50 mg/L	Potassium	300 mg/L
Selenium	5 mg/L	Sodium	250 mg/L
Strontium	10 mg/L	Thallium	1 mg/L
Thorium	1 mg/L	Uranium	.2 mg/L
Vanadium	10 mg/L	Zinc	10 mg/L

Serial ID:	UI090701-10	**Opened:**	01-JUL-09	**Amount :**	250 mL
Name:	ICP-MS CRDL Master #2	**Received:**	01-JUL-09	**Catalog Number :**	160044-08-02
Type:	Source Material	**Expires:**	01-JUL-10	**Lot Number :**	1016476
Employee:	Paul Boyd			**Solvent :**	+/- 0.5% IN 2% HNO3
Supplier:	02SI				

Description: ICPMS CRDL Soln #2

Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	2 mg/L	Molybdenum	.5 mg/L
Silver	1 mg/L	Tin	2 mg/L
Titanium	10 mg/L	Tungsten	5 mg/L
Zirconium	2 mg/L		

Serial ID:	UI090701-40	**Opened:**	01-JUL-09	**Amount :**	500 mL
Name:	TRACE ICP Stock PQL St	**Received:**	30-JUN-09	**Catalog Number :**	160543-01-03
Type:	Source Material	**Expires:**	01-JUL-10	**Lot Number :**	1016475
Employee:	Helen Camello			**Solvent :**	+/-0.5%in2%HNO3+TrHF
Supplier:	02si				

Description: TRACE ICP Stock PQL Standard

Comments: None

Analyte	Concentration	Analyte	Concentration

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Aluminum	100 mg/L	Antimony	5 mg/L
Arsenic	15 mg/L	Barium	2.5 mg/L
Beryllium	2.5 mg/L	Boron	25 mg/L
Cadmium	2.5 mg/L	Calcium	100 mg/L
Chromium	2.5 mg/L	Cobalt	2.5 mg/L
Copper	5 mg/L	Iron	50 mg/L
Lead	5 mg/L	Magnesium	150 mg/L
Manganese	5 mg/L	Molybdenum	5 mg/L
Nickel	2.5 mg/L	Phosphorous	75 mg/L
Potassium	75 mg/L	Selenium	15 mg/L
Silicon	50 mg/L	Silver	2.5 mg/L
Sodium	150 mg/L	Strontium	2.5 mg/L
Sulfur	50 mg/L	Thallium	10 mg/L
Tin	5 mg/L	Titanium	2.5 mg/L
Uranium	25 mg/L	Vanadium	2.5 mg/L
Zinc	5 mg/L		

Serial ID: UI090828-42 **Opened:** 16-SEP-09 **Amount :** 500 mL
Name: TRACE ICP Na-1000SOUR **Received:** 27-AUG-09 **Catalog Number :** 060011-02-03
Type: Source Material **Expires:** 16-SEP-10 **Lot Number :** 1017098
Employee: Helen Carnello **Solvent :** 1%HNO3
Supplier: 02SI
Description: Sodium 1000 +/- 3 ug/mL in 1% HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Sodium	1000 ug/mL		

Serial ID: UI090925-40 **Opened:** 23-OCT-09 **Amount :** 500 mL
Name: SECOND SOURCE STD -1 **Received:** 25-SEP-09 **Catalog Number :** SGELMX38-500N
Type: Source Material **Expires:** 30-SEP-10 **Lot Number :** 4909129
Employee: Helen Carnello **Solvent :** 5%HNO3
Supplier: SPECTRO PURE
Description: SECOND SOURCE STD #1A 5%HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Arsenic	100 mg/L
Barium	100 mg/L	Boron	100 mg/L
Cadmium	100 mg/L	Calcium	1000 mg/L
Chromium	100 mg/L	Cobalt	100 mg/L
Copper	100 mg/L	Iron	1000 mg/L
Lead	100 mg/L	Phosphorous	500 mg/L
Potassium	500 mg/L	Selenium	500 mg/L
Sodium	500 mg/L	Strontium	100 mg/L

Standard Logbook

Serial ID:	UI090925-41	**Opened:**	23-OCT-09	**Amount :**	500 mL
Name:	SECOND SOURCE STD -1	**Received:**	25-SEP-09	**Catalog Number :**	SGELMX39-500B
Type:	Source Material	**Expires:**	30-SEP-10	**Lot Number :**	4909130
Employee:	Helen Camello			**Solvent :**	5%HNO3,TR.HF
Supplier:	SPECTRO PURE				
Description:	SECOND SOURCE STD #1B				
Comments:	None				

Analyte	Concentration	Analyte	Concentration
Antimony	100 mg/L	Beryllium	50 mg/L
Magnesium	1000 mg/L	Manganese	100 mg/L
Molybdenum	100 mg/L	Nickel	100 mg/L
Silver	50 mg/L	Sulfur	500 mg/L
Thallium	100 mg/L	Tin	100 mg/L
Titanium	100 mg/L	Uranium	100 mg/L
Vanadium	100 mg/L	Zinc	100 mg/L

Serial ID:	UI090930-A	**Opened:**	30-SEP-09	**Catalog Number :**	160067-02
Name:	ICP-MS DOE Liquid SPIKE	**Received:**	28-SEP-09	**Lot Number :**	1017141
Type:	Source Material	**Expires:**	30-SEP-10		
Employee:	Francena Armstrong	**Verified:**	21-NOV-08		
Supplier:	O2Si				
Description:	ICP-MS DOE liquid Spike Solution A				
Comments:	None				

Analyte	Concentration	Analyte	Concentration
Aluminum	200 mg/L	Arsenic	8 mg/L
Barium	5 mg/L	Beryllium	5 mg/L
Boron	10 mg/L	Cadmium	1 mg/L
Calcium	200 mg/L	Chromium	5 mg/L
Cobalt	5 mg/L	Copper	5 mg/L
Iron	200 mg/L	Lead	4 mg/L
Lithium	5 mg/L	Magnesium	200 mg/L
Manganese	5 mg/L	Nickel	5 mg/L
Phosphorus, Total as P	200 mg/L	Potassium	200 mg/L
Selenium	2 mg/L	Silicon	200 mg/L
Sodium	200 mg/L	Strontium	5 mg/L
Thallium	10 mg/L	Thorium	5 mg/L
Total Uranium	5 mg/L	Uranium	5 mg/L
Uranium-235	.0364 mg/L	Uranium-238	4.96 mg/L
Vanadium	5 mg/L	Zinc	5 mg/L

Standard Logbook

Serial ID: UI090930-B **Opened:** 30-SEP-09 **Catalog Number :** 160067-02
Name: ICP-MS DOE Liquid SPIKE **Received:** 28-SEP-09 **Lot Number :** 1017141
Type: Source Material **Expires:** 30-SEP-10
Employee: Francena Armstrong **Verified:** 21-NOV-08
Supplier: O2Si
Description: ICP-MS DOE Liquid Spike Solution B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	20 mg/L	Molybdenum	5 mg/L
Silver	5 mg/L	Tin	5 mg/L
Titanium	5 mg/L	Zirconium	5 mg/L

Serial ID: UI091015-42 **Opened:** 28-OCT-09 **Amount :** 500 mL
Name: SI 1000mg/L **Received:** 15-OCT-09 **Catalog Number :** 060014-02-03
Type: Source Material **Expires:** 28-OCT-10 **Lot Number :** 1017581
Employee: Helen Camello **Solvent :** 0.3%H2O(NH4)2SiF6
Supplier: o2si
Description: Silicon 1000mg/L+/-0.3%in H2O(NH4)2SiF6
Comments: None

Analyte	Concentration	Analyte	Concentration
Silica	2139 mg/L	Silicon	1000 mg/L

Serial ID: UI091102-40 **Opened:** 16-NOV-09 **Amount :** 500 mL
Name: TRACE CALSTD#1A SOUF **Received:** 02-NOV-09 **Catalog Number :** HP2270-1-500
Type: Source Material **Expires:** 31-OCT-10 **Lot Number :** 0930215
Employee: Helen Camello **Solvent :** HNO3
Supplier: Environmental Express
Description: Trace Calibration Std #1A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	2000 mg/L	Arsenic	200 mg/L
Barium	200 mg/L	Beryllium	200 mg/L
Boron	200 mg/L	Cadmium	200 mg/L
Calcium	2000 mg/L	Chromium	200 mg/L
Cobalt	200 mg/L	Copper	200 mg/L
Iron	2000 mg/L	Lead	200 mg/L
Magnesium	2000 mg/L	Manganese	200 mg/L
Nickel	200 mg/L	Phosphorous	1000 mg/L
Potassium	2000 mg/L	Selenium	200 mg/L
Sodium	2000 mg/L	Strontium	200 mg/L
Thallium	200 mg/L	Uranium	200 mg/L
Vanadium	200 mg/L	Zinc	200 mg/L

Standard Logbook

Serial ID: UI091102-41 **Opened:** 16-NOV-09 **Amount :** 500 mL
Name: TRACE CALSTD#1B SOUF **Received:** 02-NOV-09 **Catalog Number :** HP2270-2-500
Type: Source Material **Expires:** 31-OCT-10 **Lot Number :** 0930216
Employee: Helen Camello **Solvent :** HNO3
Supplier: Environmental Express
Description: Trace Calibration Standard #1B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	200 mg/L	Molybdenum	200 mg/L
Silver	200 mg/L	Sulfur	400 mg/L
Tin	200 mg/L	Titanium	200 mg/L

Serial ID: UI091102-42 **Opened:** 17-NOV-09 **Amount :** 200 mL
Name: SILICON **Received:** 02-NOV-09 **Catalog Number :** HP100050-4F
Type: Source Material **Expires:** 17-NOV-10 **Lot Number :** 0921924
Employee: Helen Camello **Solvent :** H20/tr HF
Supplier: ENVIRNMENTAL EXPRESS
Description: SILICON 1000mg/L H20/tr HF
Comments: None

Analyte	Concentration	Analyte	Concentration
Silica	2139 mg/L	Silicon	1000 mg/L

Serial ID: UI091124-A00 **Opened:** 24-NOV-09 **Catalog Number :** 160067-05
Name: ICP-MS ALL OTHER SPIKE **Received:** 24-NOV-09 **Lot Number :** 1017644
Type: Source Material **Expires:** 24-NOV-10
Employee: Francena Armstrong
Supplier: O2si
Description: ICP-MS SPIKE FOR ALL CLIENTS EXCEPT DOE CLIENTS (Solution A).
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	200 mg/L	Arsenic	5 mg/L
Barium	5 mg/L	Beryllium	5 mg/L
Bismuth	5 mg/L	Boron	10 mg/L
Cadmium	5 mg/L	Calcium	200 mg/L
Cesium	5 mg/L	Chromium	5 mg/L
Cobalt	5 mg/L	Copper	5 mg/L
Iron	200 mg/L	Lead	5 mg/L
Lithium	5 mg/L	Magnesium	200 mg/L
Manganese	5 mg/L	Nickel	5 mg/L
Phosphorous	200 mg/L	Potassium	200 mg/L
Selenium	5 mg/L	Sodium	200 mg/L
Strontium	5 mg/L	Thallium	5 mg/L
Thorium	5 mg/L	Uranium	5 mg/L

Analyte	Concentration	Analyte	Concentration
Uranium-235	.036 mg/L	Uranium-238	4.964 mg/L
Vanadium	5 mg/L	Zinc	5 mg/L

Serial ID: UI091124-B **Opened:** 24-NOV-09 **Catalog Number :** 160067-05
Name: ICP-MS ALL OTHER SPIKE **Received:** 24-NOV-09 **Lot Number :** 1017644
Type: Source Material **Expires:** 24-NOV-10
Employee: Francena Armstrong
Supplier: O2si
Description: MS SPIKE FOR ALL CLIENTS EXCEPT DOE CLIENTS (Solution B).
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	5 mg/L	Molybdenum	5 mg/L
Silver	5 mg/L	Tin	5 mg/L
Titanium	5 mg/L	Zirconium	5 mg/L

Serial ID: UI091130-48 **Opened:** 11-DEC-09 **Amount :** 1000 mL
Name: Trace ICP ICSA **Received:** 01-DEC-09 **Catalog Number :** 160005-02
Type: Source Material **Expires:** 01-JAN-10 **Lot Number :** 1018045
Employee: Helen Camello **Solvent :** 3% HCl + 1% HNO3
Supplier: o2si
Description: Trace ICP Interferent Check Standard A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 UG/L	Calcium	500000 UG/L
Iron	200000 UG/L	Magnesium	500000 UG/L

Serial ID: UI091211-40 **Opened:** 11-DEC-09 **Amount :** 500 mL
Name: ICP HIGH RANGE STD-A **Received:** 09-DEC-09 **Catalog Number :** 160211-05-03
Type: Source Material **Expires:** 11-DEC-10 **Lot Number :** 1017958
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3
Supplier: 02SI
Description: ICP HIGH RANGE STD SOLUTION A
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	10000 ug/L	Arsenic	10000 ug/L
Barium	15000 ug/L	Beryllium	3000 ug/L
Boron	5000 ug/L	Cadmium	10000 ug/L
Chromium	25000 ug/L	Cobalt	10000 ug/L
Copper	20000 ug/L	Lead	25000 ug/L
Manganese	10000 ug/L	Molybdenum	10000 ug/L
Nickel	10000 ug/L	Phosphorous	15000 ug/L

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Potassium	300000 ug/L	Selenium	10000 ug/L
Silica	107000 ug/L	Silicon	50000 ug/L
Silver	1000 ug/L	Strontium	10000 ug/L
Sulfur	50000 ug/L	Thallium	10000 ug/L
Tin	10000 ug/L	Titanium	10000 ug/L
Vanadium	10000 ug/L	Zinc	15000 ug/L

Serial ID: UI091211-41 **Opened:** 11-DEC-09 **Amount :** 500 mL
Name: ICP HIGH RANGE STD B **Received:** 09-DEC-09 **Catalog Number :** 160211-05-03
Type: Source Material **Expires:** 11-DEC-10 **Lot Number :** 1017958
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3
Supplier: 02SI
Description: ICP HIGH RANGE STD SOLUTION B
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 ug/L	Calcium	500000 ug/L
Iron	500000 ug/L	Magnesium	500000 ug/L
Sodium	500000 ug/L	Uranium	15000 ug/L

Serial ID: UI091212-11 **Opened:** 12-DEC-09 **Amount :** 1000 mL
Name: ICP-MS ICSA Master A **Received:** 12-DEC-09 **Catalog Number :** 160013-01-01L
Type: Source Material **Expires:** 12-DEC-10 **Lot Number :** 1015303
Employee: Paul Boyd **Solvent :** 2% HNO3
Supplier: 02SI
Description: ICP-MS ICSA Master A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Calcium	1000 mg/L
Carbon	2000 mg/L	Chloride	10000 mg/L
Iron	1000 mg/L	Magnesium	1000 mg/L
Molybdenum	20 mg/L	Phosphorous	1000 mg/L
Potassium	1000 mg/L	Sodium	1000 mg/L
Sulfur	1000 mg/L	Titanium	20 mg/L

Serial ID: UI091212-60 **Opened:** 12-DEC-09 **Amount :** .5 mL
Name: ICPMS High Range Standa **Received:** 12-DEC-09 **Catalog Number :** 160212-02-01
Type: Source Material **Expires:** 12-DEC-10 **Lot Number :** 1018064
Employee: Paul Boyd **Solvent :** 2%HNO3 + Tr HF
Supplier: O2SI
Description: Linear Range Standard A
Comments: None

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Aluminum	5000 mg/L	Arsenic	100 mg/L
Barium	250 mg/L	Beryllium	100 mg/L
Cadmium	100 mg/L	Calcium	5000 mg/L
Chromium	100 mg/L	Cobalt	100 mg/L
Copper	100 mg/L	Iron	5000 mg/L
Lead	500 mg/L	Lithium	100 mg/L
Magnesium	5000 mg/L	Manganese	100 mg/L
Nickel	100 mg/L	Phosphorous	2500 mg/L
Potassium	5000 mg/L	Selenium	50 mg/L
Sodium	5000 mg/L	Strontium	100 mg/L
Thallium	50 mg/L	Thorium	250 mg/L
Uranium	500 mg/L	Vanadium	100 mg/L
Zinc	250 mg/L		

Serial ID: UI091212-61 **Opened:** 12-DEC-09 **Amount :** .5 mL
Name: ICPMS High Range Standar **Received:** 12-DEC-09 **Catalog Number :** 160212-02-01
Type: Source Material **Expires:** 12-DEC-10 **Lot Number :** 1018064
Employee: Paul Boyd **Solvent :** 2%HNO3 + Tr HF
Supplier: O2SI
Description: Linear Range Standard B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	25 mg/L	Molybdenum	100 mg/L
Silver	25 mg/L	Tin	100 mg/L
Tungsten	100 mg/L	Zirconium	50 mg/L

Serial ID: UI091216-01 **Opened:** 16-DEC-09 **Lot Number :** 1018095
Name: METALSPIKE-1 **Received:** 16-DEC-09
Type: Source Material **Expires:** 16-DEC-10
Employee: Francena Armstrong
Supplier: OS2I
Description: Metals Spike Mix I
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 ug/mL	Arsenic	100 ug/mL
Barium	100 ug/mL	Beryllium	100 ug/mL
Boron	100 ug/mL	Cadmium	100 ug/mL
Calcium	1000 ug/mL	Cobalt	100 ug/mL
Iron	1000 ug/mL	Lead	100 ug/mL
Magnesium	1000 ug/mL	Phosphorous	100 ug/mL
Potassium	1000 ug/mL	Silver	100 ug/mL
Sodium	1000 ug/mL	Strontium	100 ug/mL

Standard Logbook

Serial ID: UI091216-06 **Opened:** 16-DEC-09 **Lot Number :** 1018096
Name: METALSPIKE-2 **Received:** 16-DEC-09
Type: Source Material **Expires:** 16-DEC-10
Employee: Francena Armstrong
Supplier: OS2I
Description: Metals Spike Mix II
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	100 ug/mL	Chromium	100 ug/mL
Copper	100 ug/mL	Manganese	100 ug/mL
Molybdenum	100 ug/mL	Nickel	100 ug/mL
Selenium	100 ug/mL	Silica	2141 ug/mL
Silicon	1000 ug/mL	Sulfur	1000 ug/mL
Thallium	100 ug/mL	Tin	100 ug/mL
Titanium	100 ug/mL	Uranium	100 ug/mL
Vanadium	100 ug/mL	Zinc	100 ug/mL

Serial ID: UI091217-06 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master A **Received:** 17-DEC-09 **Catalog Number :** 160055-01
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018209
Employee: Paul Boyd **Solvent :** +/- 0.5% in 5% HNO3 100 cm2
Supplier: 02SI
Description: ICPMS ICV/CCV SOLN A - 10ppm
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	2020 mg/L	Calcium	2000 mg/L
Iron	2000 mg/L	Magnesium	2000 mg/L
Phosphorous	2000 mg/L	Potassium	2000 mg/L
Sodium	2000 mg/L		

Serial ID: UI091217-07 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master B **Received:** 17-DEC-09 **Catalog Number :** 160054-02
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018210
Employee: Paul Boyd **Solvent :** +/- 0.5% in 5% HNO3 100 cm2
Supplier: 02SI
Description: ICPMS ICV/CCV Soln B - 10ppm
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	20 mg/L	Barium	20 mg/L
Beryllium	20 mg/L	Boron	40 mg/L
Cadmium	20 mg/L	Chromium	20 mg/L
Cobalt	20 mg/L	Copper	20 mg/L
Lead	20 mg/L	Lithium	20 mg/L

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Manganese	20 mg/L	Nickel	20 mg/L
Selenium	20 mg/L	Strontium	20 mg/L
Thallium	20 mg/L	Thorium	20 mg/L
Uranium	20 mg/L	Vanadium	20 mg/L
Zinc	20 mg/L		

Serial ID: UI091217-08 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master C **Received:** 17-DEC-09 **Catalog Number :** 160054-03
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018211
Employee: Paul Boyd **Solvent :** +/- 0.5% in 5% HNO3 100 cm2
Supplier: 02SI
Description: ICPMS ICV/CCV Soln C - 10ppm
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	20 mg/L	Molybdenum	20 mg/L
Silver	20 mg/L	Tin	20 mg/L
Titanium	20 mg/L	Tungsten	20 mg/L
Zirconium	20 mg/L		

Serial ID: UI091217-12 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICSAB Master B **Received:** 17-DEC-09 **Catalog Number :** 160033-02
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018212
Employee: Paul Boyd **Solvent :** +/- 0.5% in 2% HNO3
Supplier: 02SI
Description: ICPMS ICSAB Master B
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	2 mg/L	Barium	2 mg/L
Beryllium	2 mg/L	Boron	2 mg/L
Cadmium	2 mg/L	Chromium	2 mg/L
Cobalt	2 mg/L	Copper	2 mg/L
Lead	2 mg/L	Lithium	2 mg/L
Manganese	2 mg/L	Nickel	2 mg/L
Selenium	2 mg/L	Strontium	2 mg/L
Thallium	2 mg/L	Thorium	2 mg/L
Uranium	2 mg/L	Vanadium	2 mg/L
Zinc	2 mg/L		

Standard Logbook

Serial ID: UI091217-13 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICSAB Master C **Received:** 17-DEC-09 **Catalog Number :** 160033-03
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1016926
Employee: Paul Boyd **Solvent :** +/- 0.5% in 2% HNO3
Supplier: 02SI
Description: ICPMS ICSAB Master C
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	2 mg/L	Silver	2 mg/L
Tin	2 mg/L	Tungsten	2 mg/L
Zirconium	2 mg/L		

Serial ID: UMS090303-01 **Opened:** 03-MAR-09 **Amount :** 250 mL
Name: ICPMSCalSPIKEB **Received:** 03-MAR-09 **Catalog Number :** ZGEL-100-250
Type: Source Material **Expires:** 28-FEB-10 **Lot Number :** 14-81JB
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution B
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	10 mg/L	Barium	10 mg/L
Beryllium	10 mg/L	Boron	20 mg/L
Cadmium	10 mg/L	Chromium	10 mg/L
Cobalt	10 mg/L	Copper	10 mg/L
Lead	10 mg/L	Lithium	10 mg/L
Manganese	10 mg/L	Nickel	10 mg/L
Selenium	10 mg/L	Silver	10 mg/L
Strontium	10 mg/L	Thallium	10 mg/L
Thorium	10 mg/L	Uranium	10 mg/L
Vanadium	10 mg/L	Zinc	10 mg/L

Serial ID: UMS090303-02 **Opened:** 03-MAR-09 **Catalog Number :** ZGEL-102-250
Name: ICPMSCalSPIKEA **Received:** 03-MAR-09 **Lot Number :** 14-83JB
Type: Source Material **Expires:** 28-FEB-10
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Calcium	1000 mg/L
Iron	1000 mg/L	Magnesium	1000 mg/L
Phosphorous	1000 mg/L	Potassium	1000 mg/L
Sodium	1000 mg/L		

Standard Logbook

Serial ID: UMS090303-03 **Opened:** 03-MAR-09 **Amount :** 250 ml
Name: ICPMSCalSPIKEC **Received:** 03-MAR-09 **Catalog Number :** ZGEL-101-250
Type: Source Material **Expires:** 28-FEB-10 **Lot Number :** 15-199JB
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution C
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	10 mg/L	Molybdenum	10 mg/L
Tin	10 mg/L	Titanium	10 mg/L
Zirconium	10 mg/L		

Serial ID: IHG091218-01 **Opened:** 18-DEC-09 **Instrument Id :** Mercury
Name: MHGINTER1 **Received:** 18-DEC-09 **Pipet Id :** Minou1
Type: Intermediate **Expires:** 19-DEC-09 **Solvent :** 1mL HNO3 + Typel H2O
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Intermediate 1st Source 200 ug/L
Comments: Prepare fresh daily

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167639-01	Mercury	1000 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: IHG091218-02 **Opened:** 18-DEC-09 **Pipet Id :** Minou1
Name: MHGINTER2 **Received:** 18-DEC-09 **Solvent :** 2% HNO3-1240182
Type: Intermediate **Expires:** 19-DEC-09
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Intermediate 2nd Source 200 ug/L
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167641-02	Mercury	999.7 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: IHG091221-01 **Opened:** 21-DEC-09 **Instrument Id :** Mercury
Name: MHGINTER1 **Received:** 21-DEC-09 **Pipet Id :** Minou1
Type: Intermediate **Expires:** 22-DEC-09 **Solvent :** 1mL HNO3 + Typel H2O
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Intermediate 1st Source 200 ug/L
Comments: Prepare fresh daily

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167639-01	Mercury	1000 mg/L	.05 mL	250 mL	200 ug/L

Standard Logbook

Serial ID: IHG091221-02 **Opened:** 21-DEC-09 **Pipet Id :** Minou1
Name: MHGINTER2 **Received:** 21-DEC-09 **Solvent :** 2% HNO3-1240182
Type: Intermediate **Expires:** 22-DEC-09
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Intermediate 2nd Source 200 ug/L
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167641-02	Mercury	999.7 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: WHG091218-01 **Opened:** 18-DEC-09 **Pipet Id :** Hg1289245
Name: MHGWORKCAL0.2CRA **Received:** 18-DEC-09 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 24-DEC-09
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working 1st Source CAL 0.2/CRA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG091218-01	Mercury	200 ug/L	20 uL	20 mL	.2 ug/L

Serial ID: WHG091218-02 **Opened:** 18-DEC-09 **Pipet Id :** Hg1289245
Name: MHGWORKCAL0.5 **Received:** 18-DEC-09 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 24-DEC-09
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working 1st Source CAL 0.5
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG091218-01	Mercury	200 ug/L	50 uL	20 mL	.5 ug/L

Serial ID: WHG091218-03 **Opened:** 18-DEC-09 **Pipet Id :** Hg1289245
Name: MHGWORKCAL2.0 **Received:** 18-DEC-09 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 24-DEC-09
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL 2.0
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG091218-01	Mercury	200 ug/L	200 uL	20 mL	2 ug/L

Standard Logbook

Serial ID: WHG091218-04 **Opened:** 18-DEC-09 **Pipet Id :** Hg1289245
Name: MHGWORKCAL5.0CCV **Received:** 18-DEC-09 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 24-DEC-09
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL 5.0/CCV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG091218-01	Mercury	200 ug/L	500 uL	20 mL	5 ug/L

Serial ID: WHG091218-05 **Opened:** 18-DEC-09 **Pipet Id :** Hg1289245
Name: MHGWORKCAL10.0 **Received:** 18-DEC-09 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 24-DEC-09
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL 10.0
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG091218-01	Mercury	200 ug/L	1 mL	20 mL	10 ug/L

Serial ID: WHG091218-06 **Opened:** 18-DEC-09 **Pipet Id :** Hg1289245
Name: MHGWORK5.0ICV **Received:** 18-DEC-09 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 24-DEC-09
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working 2nd Source 5.0/ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG091218-02	Mercury	200 ug/L	500 uL	20 mL	5 ug/L

Serial ID: WHG091218-13 **Opened:** 18-DEC-09 **Pipet Id :** Hg1289245
Name: MHGLIQLCSMSSPIKE **Received:** 18-DEC-09 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 24-DEC-09
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury working intermediate standard for LCS/MS
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167639-01	Mercury	1000 mg/L	.05 mL	250 mL	200 ug/L

Standard Logbook

Serial ID: WHG091221-01 **Opened:** 21-DEC-09 **Pipet Id :** Hg1289245
Name: MHGWORKCAL0.2CRA **Received:** 21-DEC-09 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 27-DEC-09
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working 1st Source CAL 0.2/CRA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG091221-01	Mercury	200 ug/L	20 uL	20 mL	.2 ug/L

Serial ID: WHG091221-02 **Opened:** 21-DEC-09 **Pipet Id :** Hg1289245
Name: MHGWORKCAL0.5 **Received:** 21-DEC-09 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 27-DEC-09
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working 1st Source CAL 0.5
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG091221-01	Mercury	200 ug/L	50 uL	20 mL	.5 ug/L

Serial ID: WHG091221-03 **Opened:** 21-DEC-09 **Pipet Id :** Hg1289245
Name: MHGWORKCAL2.0 **Received:** 21-DEC-09 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 27-DEC-09
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL 2.0
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG091221-01	Mercury	200 ug/L	200 uL	20 mL	2 ug/L

Serial ID: WHG091221-04 **Opened:** 21-DEC-09 **Pipet Id :** Hg1289245
Name: MHGWORKCAL5.0CCV **Received:** 21-DEC-09 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 27-DEC-09
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL 5.0/CCV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG091221-01	Mercury	200 ug/L	500 uL	20 mL	5 ug/L

Standard Logbook

Serial ID: WHG091221-05 **Opened:** 21-DEC-09 **Pipet Id :** Hg1289245
Name: MHGWORKCAL10.0 **Received:** 21-DEC-09 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 27-DEC-09
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL 10.0
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG091221-01	Mercury	200 ug/L	1 mL	20 mL	10 ug/L

Serial ID: WHG091221-06 **Opened:** 21-DEC-09 **Pipet Id :** Hg1289245
Name: MHGWORK5.0ICV **Received:** 21-DEC-09 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 27-DEC-09
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working 2nd Source 5.0/ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG091221-02	Mercury	200 ug/L	500 uL	20 mL	5 ug/L

Serial ID: WHG091221-13 **Opened:** 21-DEC-09 **Pipet Id :** Hg1289245
Name: MHGLIQLCSMSSPIKE **Received:** 21-DEC-09 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 27-DEC-09
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury working intermediate standard for LCS/MS
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167639-01	Mercury	1000 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: WI091219-42 **Opened:** 19-DEC-09 **Balance Id :** 216
Name: TRACE ICP 0.1 PPM STD. **Received:** 02-NOV-09 **Pipet Id :** 1099667
Type: Working **Expires:** 20-DEC-09 **Solvent :** 3%HCL and 1%HNO3 -1242318
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP 0.1 PPM CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WI091219-44	Aluminum	10000 ug/L	10 mL	100 mL	1000 ug/L
WI091219-44	Antimony	1000 ug/L	10 mL	100 mL	100 ug/L
WI091219-44	Arsenic	1000 ug/L	10 mL	100 mL	100 ug/L
WI091219-44	Barium	1000 ug/L	10 mL	100 mL	100 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WI091219-44	Beryllium	1000 ug/L	10 mL	100 mL	100 ug/L
WI091219-44	Boron	1000 ug/L	10 mL	100 mL	100 ug/L
WI091219-44	Cadmium	1000 ug/L	10 mL	100 mL	100 ug/L
WI091219-44	Calcium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI091219-44	Chromium	1000 ug/L	10 mL	100 mL	100 ug/L
WI091219-44	Cobalt	1000 ug/L	10 mL	100 mL	100 ug/L
WI091219-44	Copper	1000 ug/L	10 mL	100 mL	100 ug/L
WI091219-44	Iron	10000 ug/L	10 mL	100 mL	1000 ug/L
WI091219-44	Lead	1000 ug/L	10 mL	100 mL	100 ug/L
WI091219-44	Magnesium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI091219-44	Manganese	1000 ug/L	10 mL	100 mL	100 ug/L
WI091219-44	Molybdenum	1000 ug/L	10 mL	100 mL	100 ug/L
WI091219-44	Nickel	1000 ug/L	10 mL	100 mL	100 ug/L
WI091219-44	Phosphorous	5000 ug/L	10 mL	100 mL	500 ug/L
WI091219-44	Potassium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI091219-44	Selenium	1000 ug/L	10 mL	100 mL	100 ug/L
WI091219-44	Silica	10698 ug/L	10 mL	100 mL	1069 ug/L
WI091219-44	Silicon	5000 ug/L	10 mL	100 mL	500 ug/L
WI091219-44	Silver	1000 ug/L	10 mL	100 mL	100 ug/L
WI091219-44	Sodium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI091219-44	Strontium	1000 ug/L	10 mL	100 mL	100 ug/L
WI091219-44	Sulfur	2000 ug/L	10 mL	100 mL	200 ug/L
WI091219-44	Thallium	1000 ug/L	10 mL	100 mL	100 ug/L
WI091219-44	Tin	1000 ug/L	10 mL	100 mL	100 ug/L
WI091219-44	Titanium	1000 ug/L	10 mL	100 mL	100 ug/L
WI091219-44	Uranium	1000 ug/L	10 mL	100 mL	100 ug/L
WI091219-44	Vanadium	1000 ug/L	10 mL	100 mL	100 ug/L
WI091219-44	Zinc	1000 ug/L	10 mL	100 mL	100 ug/L

Serial ID: WI091219-43 **Opened:** 19-DEC-09 **Balance Id :** 216
Name: TRACE ICP 0.5/CCV STD. **Received:** 02-NOV-09 **Pipet Id :** 1099667
Type: Working **Expires:** 20-DEC-09 **Solvent :** 3%HCL and 1%HNO3 -1242318
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP O.5/CCV CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090828-42	Sodium	1000 ug/mL	5 mL	1000 mL	5000 UG/L
UI091015-42	Silica	2139 mg/L	2.5 mL	1000 mL	5348.25 UG/L
UI091015-42	Silicon	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI091102-40	Aluminum	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Arsenic	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Barium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Beryllium	200 mg/L	2.5 mL	1000 mL	500 UG/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091102-40	Boron	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Cadmium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Calcium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Chromium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Cobalt	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Copper	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Iron	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Lead	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Magnesium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Manganese	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Nickel	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Phosphorous	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI091102-40	Potassium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Selenium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Sodium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Strontium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Thallium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Uranium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Vanadium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Zinc	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Antimony	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Molybdenum	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Silver	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Sulfur	400 mg/L	2.5 mL	1000 mL	1000 UG/L
UI091102-41	Tin	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Titanium	200 mg/L	2.5 mL	1000 mL	500 UG/L

Serial ID: WI091219-44 **Opened:** 19-DEC-09 **Balance Id :** 216
Name: TRACE ICP SCAL 1.0 **Received:** 02-NOV-09 **Pipet Id :** 1099667
Type: Working **Expires:** 20-DEC-09 **Solvent :** 3%HCL and 1 %HNO3-1242318
Employee: Helen Camello
Supplier: o2si
Description: Trace ICP Calibration Standard 1.0ppm
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091015-42	Silica	2139 mg/L	2.5 mL	500 mL	10698 ug/L
UI091015-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI091102-40	Aluminum	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Arsenic	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Barium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Beryllium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Boron	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Cadmium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Calcium	2000 mg/L	2.5 mL	500 mL	10000 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091102-40	Chromium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Cobalt	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Copper	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Iron	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Lead	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Magnesium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Manganese	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Nickel	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Phosphorous	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI091102-40	Potassium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Selenium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Sodium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Strontium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Thallium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Uranium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Vanadium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Zinc	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Antimony	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Molybdenum	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Silver	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Sulfur	400 mg/L	2.5 mL	500 mL	2000 ug/L
UI091102-41	Tin	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Titanium	200 mg/L	2.5 mL	500 mL	1000 ug/L

Serial ID: WI091219-45 **Opened:** 19-DEC-09 **Balance Id :** 216
Name: TRACE ICP S-10 STD **Received:** 22-APR-09 **Pipet Id :** 1099667
Type: Working **Expires:** 20-DEC-09 **Solvent :** 3%HCL and 1%HNO3 -1242318
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP S-10 CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090422-40	Aluminum	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Calcium	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Iron	2000 mg/L	5 mL	500 mL	20000 UG/L
UI090422-40	Magnesium	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090828-42	Sodium	1000 ug/mL	10 mL	500 mL	20000 UG/L

Serial ID: WI091219-46 **Opened:** 19-DEC-09 **Balance Id :** 216
Name: ICP TRACE ICV **Received:** 25-SEP-09 **Pipet Id :** 1099667
Type: Working **Expires:** 20-DEC-09 **Solvent :** 3%HCL AND 1%HNO3-1242318
Employee: Helen Camello
Supplier: GEL
Description: Initial Calibration Verification ICP Trace Metals

Standard Logbook

Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090925-40	Aluminum	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Arsenic	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Barium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Boron	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cadmium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Calcium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Chromium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cobalt	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Copper	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Iron	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Lead	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Phosphorous	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Potassium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Selenium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Sodium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Strontium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Antimony	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Beryllium	50 mg/L	2.5 mL	500 mL	250 ug/L
UI090925-41	Magnesium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-41	Manganese	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Molybdenum	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Nickel	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Silver	50 mg/L	2.5 mL	500 mL	250 ug/L
UI090925-41	Sulfur	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-41	Thallium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Tin	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Titanium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Uranium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Vanadium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Zinc	100 mg/L	2.5 mL	500 mL	500 ug/L
UI091102-42	Silica	2139 mg/L	2.5 mL	500 mL	10695 ug/L
UI091102-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L

Serial ID: WI091219-47 **Opened:** 19-DEC-09 **Balance Id :** 216
Name: PQL Working Standard **Received:** 30-JUN-09 **Pipet Id :** 1099667
Type: Working **Expires:** 20-DEC-09 **Solvent :** 3%HCL &1%HNO3-1242318
Employee: Helen Camello
Supplier: 02si
Description: PQL Working Standard
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-40	Aluminum	100 mg/L	2 mL	1000 mL	200 ug/L
UI090701-40	Antimony	5 mg/L	2 mL	1000 mL	10 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-40	Arsenic	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Barium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Beryllium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Boron	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Cadmium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Calcium	100 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Chromium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Cobalt	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Copper	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Iron	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Lead	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Magnesium	150 mg/L	2 mL	1000 mL	300 ug/L
UI090701-40	Manganese	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Molybdenum	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Nickel	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Phosphorous	75 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Potassium	75 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Selenium	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Silicon	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Silver	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sodium	150 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Strontium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sulfur	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Thallium	10 mg/L	2 mL	1000 mL	20 ug/L
UI090701-40	Tin	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Titanium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Uranium	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Vanadium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Zinc	5 mg/L	2 mL	1000 mL	10 ug/L

Serial ID: WMS091222-04 **Opened:** 22-DEC-09 **Amount :** 50 mL
Name: ICPMS Cal Standard 100 **Received:** 22-DEC-09 **Balance Id :** 4025216
Type: Working **Expires:** 23-DEC-09 **Pipet Id :** 3541598
Employee: Elizabeth Janssen **Solvent :** 2%HNO3/1%HCl-1245333
Supplier: GEL
Description: ICPMS Calibration Standard (100 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090610-03	Tungsten	10 mg/L	.5 mL	50 mL	100 ug/L
UMS090303-01	Arsenic	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Barium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Beryllium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Boron	20 mg/L	.5 mL	50 mL	200 ug/l
UMS090303-01	Cadmium	10 mg/L	.5 mL	50 mL	100 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UMS090303-01	Chromium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Cobalt	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Copper	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Lead	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Lithium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Manganese	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Nickel	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Selenium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Silver	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Strontium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Thallium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Thorium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Uranium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Vanadium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Zinc	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-02	Aluminum	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Calcium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Iron	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Magnesium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Phosphorous	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Potassium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Sodium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-03	Antimony	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Molybdenum	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Tin	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Titanium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Zirconium	10 mg/L	.5 mL	50 mL	100 ug/l

Serial ID: WMS091222-04A **Opened:** 22-DEC-09 **Balance Id :** 4025216
Name: ICPMS Cal Standard 10 **Received:** 22-DEC-09 **Pipet Id :** 3541598
Type: Working **Expires:** 23-DEC-09 **Solvent :** 2%HNO3/1%HCl - 1245333
Employee: Elizabeth Janssen
Supplier: GEL
Description: ICPMS Calibration Standard (10 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS091222-04	Aluminum	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS091222-04	Antimony	100 ug/l	5 mL	50 mL	10 ug/l
WMS091222-04	Arsenic	100 ug/l	5 mL	50 mL	10 ug/l
WMS091222-04	Barium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091222-04	Beryllium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091222-04	Boron	200 ug/l	5 mL	50 mL	20 ug/l
WMS091222-04	Cadmium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091222-04	Calcium	10000 ug/l	5 mL	50 mL	1000 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS091222-04	Chromium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091222-04	Cobalt	100 ug/l	5 mL	50 mL	10 ug/l
WMS091222-04	Copper	100 ug/l	5 mL	50 mL	10 ug/l
WMS091222-04	Iron	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS091222-04	Lead	100 ug/l	5 mL	50 mL	10 ug/l
WMS091222-04	Lithium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091222-04	Magnesium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS091222-04	Manganese	100 ug/l	5 mL	50 mL	10 ug/l
WMS091222-04	Molybdenum	100 ug/l	5 mL	50 mL	10 ug/l
WMS091222-04	Nickel	100 ug/l	5 mL	50 mL	10 ug/l
WMS091222-04	Phosphorous	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS091222-04	Potassium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS091222-04	Selenium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091222-04	Silver	100 ug/l	5 mL	50 mL	10 ug/l
WMS091222-04	Sodium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS091222-04	Strontium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091222-04	Thallium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091222-04	Thorium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091222-04	Tin	100 ug/l	5 mL	50 mL	10 ug/l
WMS091222-04	Titanium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091222-04	Tungsten	100 ug/L	5 mL	50 mL	10 ug/L
WMS091222-04	Uranium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091222-04	Vanadium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091222-04	Zinc	100 ug/l	5 mL	50 mL	10 ug/l
WMS091222-04	Zirconium	100 ug/l	5 mL	50 mL	10 ug/l

Serial ID: WMS091222-05 **Opened:** 22-DEC-09 **Balance Id :** 40245216
Name: ICPMS ICV **Received:** 22-DEC-09 **Pipet Id :** 3541598
Type: Working **Expires:** 23-DEC-09 **Solvent :** 2%HNO3/1%HCl - 1245333
Employee: Elizabeth Janssen
Supplier: GEL
Description: ICPMS ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-06	Aluminum	2020 mg/L	.125 mL	50 mL	5050 ug/L
UI091217-06	Calcium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Iron	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Magnesium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Phosphorous	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Potassium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Sodium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-07	Arsenic	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Barium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Beryllium	20 mg/L	.125 mL	50 mL	50 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-07	Boron	40 mg/L	.125 mL	50 mL	100 ug/L
UI091217-07	Cadmium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Chromium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Cobalt	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Copper	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lead	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lithium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Manganese	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Nickel	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Selenium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Strontium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thallium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thorium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Uranium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Vanadium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Zinc	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Antimony	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Molybdenum	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Silver	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tin	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Titanium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tungsten	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Zirconium	20 mg/L	.125 mL	50 mL	50 ug/L

Serial ID: WMS091222-06 **Opened:** 22-DEC-09 **Balance Id :** 40245216
Name: ICPMS CRDL **Received:** 22-DEC-09 **Pipet Id :** 3820544
Type: Working **Expires:** 23-DEC-09 **Solvent :** 2%HNO3/1%HCl - 1245333
Employee: Elizabeth Janssen
Supplier: GEL
Description: ICPMS CRDL
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Aluminum	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Arsenic	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Barium	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Beryllium	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-09	Boron	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Cadmium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Calcium	100 mg/L	.05 mL	50 mL	100 ug/L
UI090701-09	Chromium	3 mg/L	.05 mL	50 mL	3 ug/L
UI090701-09	Cobalt	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Copper	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Iron	25 mg/L	.05 mL	50 mL	25 ug/L
UI090701-09	Lead	2 mg/L	.05 mL	50 mL	2 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Lithium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Magnesium	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Manganese	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Nickel	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Phosphorous	50 mg/L	.05 mL	50 mL	50 ug/L
UI090701-09	Potassium	300 mg/L	.05 mL	50 mL	300 ug/L
UI090701-09	Selenium	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Sodium	250 mg/L	.05 mL	50 mL	250 ug/L
UI090701-09	Strontium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Thallium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Thorium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Uranium	.2 mg/L	.05 mL	50 mL	.2 ug/L
UI090701-09	Vanadium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Zinc	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Antimony	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-10	Molybdenum	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-10	Silver	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-10	Tin	2 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Titanium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Tungsten	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Zirconium	2 mg/L	.05 mL	50 mL	2 ug/L

Serial ID: WMS091222-07 **Opened:** 22-DEC-09 **Balance Id :** 40245216
Name: ICPMS ICSA **Received:** 22-DEC-09 **Lot Number :** 1010773
Type: Working **Expires:** 23-DEC-09 **Pipet Id :** 3541598
Employee: Elizabeth Janssen **Solvent :** 2%HNO3/1%HCl - 1245333
Supplier: GEL
Description: ICPMS ICSA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI091212-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI091212-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Standard Logbook

Serial ID: WMS091222-08 **Opened:** 22-DEC-09 **Balance Id :** 40245216
Name: ICPMS ICSAB **Received:** 22-DEC-09 **Pipet Id :** 1758088
Type: Working **Expires:** 23-DEC-09 **Solvent :** 2%HNO3/1%HCl - 1245333
Employee: Elizabeth Janssen
Supplier: GEL
Description: ICPMS ICSAB
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI091212-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI091212-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L
UI091217-12	Arsenic	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Barium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Beryllium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Boron	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Cadmium	2 mg/L	.5 mL	50 mL	20.2 ug/L
UI091217-12	Chromium	2 mg/L	.5 mL	50 mL	22.2 ug/L
UI091217-12	Cobalt	2 mg/L	.5 mL	50 mL	20.4 ug/L
UI091217-12	Copper	2 mg/L	.5 mL	50 mL	23.4 ug/L
UI091217-12	Lead	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Lithium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Manganese	2 mg/L	.5 mL	50 mL	22.7 ug/L
UI091217-12	Nickel	2 mg/L	.5 mL	50 mL	22.4 ug/L
UI091217-12	Selenium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Strontium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thallium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thorium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Uranium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Vanadium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Zinc	2 mg/L	.5 mL	50 mL	27 ug/L
UI091217-13	Antimony	2 mg/L	.5 mL	50 mL	20.5 ug/L
UI091217-13	Silver	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tin	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tungsten	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Zirconium	2 mg/L	.5 mL	50 mL	20 ug/L

Standard Logbook

Serial ID: WMS091222-70 **Opened:** 22-DEC-09 **Balance Id :** 40245216
Name: ICPMS LINEAR RANGE ST **Received:** 22-DEC-09 **Pipet Id :** 1758088
Type: Working **Expires:** 23-DEC-09 **Solvent :** 2%HNO3/1%HCl - 1245333
Employee: Elizabeth Janssen
Supplier: 02SI
Description: ICPMS LINEAR RANGE STANDARD
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-60	Aluminum	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Arsenic	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Barium	250 mg/L	.5 mL	50 mL	2500 ug/L
UI091212-60	Beryllium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Cadmium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Calcium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Chromium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Cobalt	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Copper	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Iron	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Lead	500 mg/L	.5 mL	50 mL	5000 ug/L
UI091212-60	Lithium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Magnesium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Manganese	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Nickel	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Phosphorous	2500 mg/L	.5 mL	50 mL	25000 ug/L
UI091212-60	Potassium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Selenium	50 mg/L	.5 mL	50 mL	500 ug/L
UI091212-60	Sodium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Strontium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Thallium	50 mg/L	.5 mL	50 mL	500 ug/L
UI091212-60	Thorium	250 mg/L	.5 mL	50 mL	2500 ug/L
UI091212-60	Uranium	500 mg/L	.5 mL	50 mL	5000 ug/L
UI091212-60	Vanadium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Zinc	250 mg/L	.5 mL	50 mL	2500 ug/L
UI091212-61	Antimony	25 mg/L	.5 mL	50 mL	250 ug/L
UI091212-61	Molybdenum	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-61	Silver	25 mg/L	.5 mL	50 mL	250 ug/L
UI091212-61	Tin	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-61	Tungsten	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-61	Zirconium	50 mg/L	.5 mL	50 mL	500 ug/L

Serial ID: 1156689-A **Opened:** 20-JUL-09 **Lot Number :** 41226920
Name: B-KMnO4(VWR)-MER **Received:** 20-JUL-09
Type: Reagent/Solvent **Expires:** 20-JUL-10
Employee: Tara Griffin **Verified:** 07-AUG-07
Supplier: VWR

Standard Logbook

Description: Potassium Permanganate
Comments: None

Serial ID: 1164796-A **Opened:** 06-AUG-09 **Lot Number :** 49149927
Name: B-NH2OH.HCl-MER **Received:** 06-AUG-09
Type: Reagent/Solvent **Expires:** 06-AUG-10
Employee: Tara Griffin
Supplier: Fisher Scientific
Description: Hydroxlyamine Hydrochloride
Comments: None

Serial ID: 1176183 **Opened:** 24-AUG-09 **Lot Number :** H20001
Name: B-H2SO4-MER **Received:** 24-AUG-09
Type: Reagent/Solvent **Expires:** 24-AUG-10
Employee: Tara Griffin
Supplier: Mallinckrodt
Description: Sulfuric Acid, Concentrated
Comments: None

Serial ID: 1206350-C **Opened:** 22-OCT-09 **Balance Id :** BAL-002
Name: B-NaCl.NH2OH.HCl-MER **Received:** 22-OCT-09
Type: Reagent/Solvent **Expires:** 06-AUG-10
Employee: Tara Griffin
Supplier: GEL
Description: Hg reducing agent
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1164796-A	B-NH2OH.HCl-MER	N/A	120 g	1000 mL	N/A

Serial ID: 1215906 **Opened:** 06-NOV-09 **Lot Number :** H44465
Name: B-K2S2O8S-MER **Received:** 06-NOV-09
Type: Reagent/Solvent **Expires:** 06-NOV-10
Employee: Tara Griffin
Supplier: J.T BAKER
Description: Potassium Persulfate Concentrate.
Comments: None

Standard Logbook

Serial ID: 1234385-C **Opened:** 25-NOV-09 **Balance Id :** BAL-002
Name: B-K2S2O8-MER **Received:** 25-NOV-09
Type: Reagent/Solvent **Expires:** 25-MAY-10
Employee: Tara Griffin
Supplier: GEL
Description: 5% Potassium Persulfate
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1215906	B-K2S2O8S-MER	N/A	50 g	1000 mL	N/A

Serial ID: 1238343 **Opened:** 04-DEC-09 **Lot Number :** H41032
Name: I-HCL **Received:** 04-DEC-09 **Preservative_Id :** 5 none
Type: Reagent/Solvent **Expires:** 04-DEC-10
Employee: Francena Armstrong
Supplier: J.T. BAKER
Description: HYDROCHLORIC ACID
Comments: None

Serial ID: 1238345 **Opened:** 04-DEC-09 **Lot Number :** H20053 L
Name: I-HNO3 **Received:** 04-DEC-09
Type: Reagent/Solvent **Expires:** 04-DEC-10
Employee: Francena Armstrong
Supplier: BAKER
Description: Nitric Acid CONC.
Comments: None

Serial ID: 1240182-1 **Opened:** 09-DEC-09 **Instrument Id :** MERCURY
Name: B-HNO3-MER **Received:** 09-DEC-09 **Lot Number :** H34040
Type: Reagent/Solvent **Expires:** 09-DEC-10
Employee: Tara Griffin
Supplier: Mallinckrodt Chemicals
Description: NITRIC ACID
Comments: None

Serial ID: 1242318 **Opened:** 14-DEC-09 **Amount :** 20 L
Name: B-ICP-RINSE SOLN **Received:** 01-DEC-09 **Lot Number :** H04040+G34050
Type: Reagent/Solvent **Expires:** 20-DEC-09 **Solvent :** 3%HCL+1%HNO3
Employee: Helen Camello
Supplier: GEL
Description: 3%HCL+1%HNO3 RINSE SOLN.
Comments: None

Standard Logbook

Serial ID: 1244904-C **Opened:** 18-DEC-09 **Balance Id :** BAL-002
Name: B-KMnO4-MER **Received:** 18-DEC-09
Type: Reagent/Solvent **Expires:** 18-JUN-10
Employee: Tara Griffin
Supplier: GEL
Description: 5% KMnO4 solution
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1156689-A	B-KMnO4(VWR)-MER	Crystals	50 g	1000 mL	3%

Serial ID: 1244970 **Opened:** 18-DEC-09 **Lot Number :** H41032
Name: I-HCL **Received:** 18-DEC-09 **Preservative_Id :** 5 none
Type: Reagent/Solvent **Expires:** 18-DEC-10
Employee: Francena Armstrong
Supplier: J.T. BAKER
Description: HYDROCHLORIC ACID
Comments: None

Serial ID: 1245333 **Opened:** 21-DEC-09 **Solvent :** Type I Water
Name: B-2%HNO3/1%HCl-ICPMS **Received:** 21-DEC-09
Type: Reagent/Solvent **Expires:** 28-DEC-09
Employee: Elizabeth Janssen
Supplier: GEL
Description: 2%HNO3/1%HCl Solution (Type I Water)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1238345	I-HNO3	69.0-70.0	180 mL	9 l	N/A
1244970	I-HCL	36.5-38.0	90 mL	9 l	N/A

General Chemistry Analysis

Case Narrative

General Chemistry Narrative
Los Alamos National Laboratory (LANL)
SDG 10-854

Method/Analysis Information

Product:	**Cyanide, Total**		
Analytical Batch:	932514	**Method:**	SW846 9012A
Prep Batch :	932513	**Method:**	SW846 9010B Prep

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 9012A:

Sample ID	Client ID
242668001	RE03-10-2741
242668002	RE03-10-2740
1201994713	Method Blank (MB)
1201994714	242661012(RE03-09-14277) Sample Duplicate (DUP)
1201994715	242661013(RE03-09-14282) Sample Duplicate (DUP)
1201994716	242661012(RE03-09-14277) Matrix Spike (MS)
1201994717	242661013(RE03-09-14282) Matrix Spike (MS)
1201994718	242661012(RE03-09-14277) Matrix Spike Duplicate (MSD)
1201994719	242661013(RE03-09-14282) Matrix Spike Duplicate (MSD)
1201994720	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on a "dry weight" basis.

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-095 REV# 12.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

The Flow Injection analysis was performed on a Lachat QuickChem FIA+ 8000 Series.

Initial Calibration

All initial calibration requirements have been met for this SDG.

Continuing Calibration Blanks

All continuing calibration blanks (CCBs) associated with reported data from this batch were within acceptance limits.

Calibration Verification Information (CCV)
All continuing calibration verification standards (CCVs) associated with reported data from this batch were within acceptance limits.

Y Intercept Rule
The absolute value of the intercept is less than 3 times the MDL.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recovery met the acceptance limits.

Quality Control (QC) Designation
The following samples were selected for QC analysis: 242661012 (RE03-09-14277) and 242661013 (RE03-09-14282).

Matrix Spike (MS)/Post Spike (PS) Recovery Statement
The MS/PS recoveries for this sample set were within the required acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recoveries for this sample set were within the required acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPDs between the spike and spike duplicate met the acceptance limits.

Duplicate Relative Percent Difference (RPD) Statement
The RPD between the sample and its duplicate met the acceptance limits.

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times
All samples in this SDG met the specified holding time.

Sample Preservation/Integrity
All the samples from this sample group met the preservation and integrity requirements of the method.

Sample Dilutions
The following sample in this sample group was diluted due to high concentration: 1201994720 (LCS).

Sample Re-analysis
The samples in this SDG did not require re-analysis.

Miscellaneous Information

Nonconformance (NCR) Documentation
An NCR was not required for this SDG.

Additional Comments
Additional comments were not required for this SDG.

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:
Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Tom Lewis, Jr. **Date:** 05Jan10

Sample Data Summary

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis Report
for

LANL010 Los Alamos National Laboratory (72733-001-09)

Client SDG: 10-854 GEL Work Order: 242668

The Qualifiers in this report are defined as follows:

* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.

** Indicates the analyte is a surrogate compound.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the detection limit.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Valerie Davis.

Reviewed by _____

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: December 16, 2009

Client SDG: 10-854

Client Sample ID:	RE03-10-2741	Project:	LANL01004
Sample ID:	242668001	Client ID:	LANL010
Matrix:	S		
Collect Date:	07-DEC-09 12:00		
Receive Date:	10-DEC-09		
Collector:	Client		
Moisture:	8.17%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis Federal										
SW9012A Cyanide, Total Federal "Dry Weight Corrected"										
Cyanide, Total	U	ND	66.1	243	ug/kg	1	AXC2 12/15/09	1014	932514	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	SXJ1	12/14/09	1200	932513

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

GEL LABORATORIES LLC

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: December 16, 2009

Client SDG: 10-854

Client Sample ID: RE03-10-2740
Sample ID: 242668002
Matrix: S
Collect Date: 07-DEC-09 12:00
Receive Date: 10-DEC-09
Collector: Client
Moisture: 11.3%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis Federal										
SW9012A Cyanide, Total Federal "Dry Weight Corrected"										
Cyanide, Total	J	91.2	75.2	276	ug/kg	1	AXC2 12/15/09	1015	932514	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	SXJ1	12/14/09	1200	932513

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

Quality Control Summary

GEL LABORATORIES LLC

2040 Savage Road Charleston, SC 29407 - (843) 556-8171 - www.gel.com

QC Summary

Report Date: December 16, 2009

Los Alamos National Laboratory
PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico

Contact: Ms. Joylene Valdez

Workorder: 242668

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Flow Injection Analysis										
Batch 932514										
QC1201994714 242661012 DUP										
Cyanide, Total	U	ND	U	ND	ug/kg	N/A			AXC2	12/15/09 09:58
QC1201994715 242661013 DUP										
Cyanide, Total	U	ND	U	ND	ug/kg	N/A				12/15/09 10:01
QC1201994720 LCS										
Cyanide, Total	67900			80000	ug/kg		118	(46%-145%)		12/15/09 09:49
QC1201994713 MB										
Cyanide, Total			U	250	ug/kg					12/15/09 09:48
QC1201994716 242661012 MS										
Cyanide, Total	5550 U	ND		4350	ug/kg		78.3	(50%-130%)		12/15/09 09:59
QC1201994717 242661013 MS										
Cyanide, Total	5810 U	ND		5580	ug/kg		96.2	(50%-130%)		12/15/09 10:02
QC1201994718 242661012 MSD										
Cyanide, Total	5340 U	ND		4710	ug/kg	7.98	88.2	(0%-30%)		12/15/09 09:59
QC1201994719 242661013 MSD										
Cyanide, Total	5480 U	ND		5310	ug/kg	5.00	97	(0%-30%)		12/15/09 10:03

Notes:
RER is calculated at the 95% confidence level (2-sigma).
The Qualifiers in this report are defined as follows:

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
- E Organics--Concentration of the target analyte exceeds the instrument calibration range
- F Estimated Value
- H Analytical holding time was exceeded
- J Value is estimated
- M M if above MDC and less than LLD
- M Matrix Related Failure
- N Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor

QC Summary

Workorder: 242668

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time

N/A	RPD or %Recovery limits do not apply.
ND	Analyte concentration is not detected above the detection limit
NJ	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
P	Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%
R	Sample results are rejected
U	Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI	Gamma Spectroscopy--Uncertain identification
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
Z	Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d	5-day BOD--The 2:1 depletion requirement was not met for this sample
h	Preparation or preservation holding time was exceeded

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more.
^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.
* Indicates that a Quality Control parameter was not within specifications.
For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

Instrument QC Data Summary

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Report Run On: 16-DEC-2009 10:35

GEL Laboratories LLC

Contract: **LANL01004**

SDG #: **10-854**

Flow Injection Analysis

Method: SW846 9012A Concentration Units:ug/L

Instrument: Lachat QuickChem FIA+ 8000 Series

Parmname: Cyanide, Total

Sample Type	Run Date	Data File	Result	Nominal	Recovery	Limits	Within Limits
ICV	**15-DEC-2009 09:12:44**	**OM_12-15-2009_09-02-12**	**138**	**150**	**92**	**(90%-110%)**	**Yes**
CCV	15-DEC-2009 09:39:27	OM_12-15-2009_09-02-12	99.1	100	99	(90%-110%)	Yes
CCV	15-DEC-2009 09:51:48	OM_12-15-2009_09-02-12	98.6	100	99	(90%-110%)	Yes
CCV	15-DEC-2009 10:04:19	OM_12-15-2009_09-02-12	99.3	100	99	(90%-110%)	Yes
CCV	15-DEC-2009 10:16:47	OM_12-15-2009_09-02-12	99.3	100	99	(90%-110%)	Yes

Sample Type	Run Date	Data File	Result	Limits	Within Limits
ICB	**15-DEC-2009 09:14:34**	**OM_12-15-2009_09-02-12**	**2.48**	**5**	**Yes**
CCB	15-DEC-2009 09:41:16	OM_12-15-2009_09-02-12	-2.89	5	Yes
CCB	15-DEC-2009 09:53:38	OM_12-15-2009_09-02-12	-1.54	5	Yes
CCB	15-DEC-2009 10:06:09	OM_12-15-2009_09-02-12	-1.54	5	Yes
CCB	15-DEC-2009 10:18:38	OM_12-15-2009_09-02-12	-2.75	5	Yes

Cyanide, Total

Prep LogBook

Analyst: SXJ1 Verified by:_____

Batch: 932513

Lab SOP: GL-GC-E-067 REV# 13

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1201994720	URF1200957-01	.25	g
MS	1201994716	URF1184831-02	.025	mL
MS	1201994717	URF1184831-02	.025	mL
MSD	1201994718	URF1184831-02	.025	mL
MSD	1201994719	URF1184831-02	.025	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Ph	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1201994713		SW846 9010B Prep	14-DEC-2009 12:00	>12	0.5 g	25 mL	50	SOIL
LCS	1201994720		SW846 9010B Prep	14-DEC-2009 12:00	>12	0.25 g	25 mL	100	SOIL
SAMPLE	242441002		SW846 9010B Prep	14-DEC-2009 12:00	>12	0.543 g	25 mL	46.04052	OIL
SAMPLE	242441003		SW846 9010B Prep	14-DEC-2009 12:00	>12	0.533 g	25 mL	46.90432	OIL
SAMPLE	242565001		SW846 9010C Distillation	14-DEC-2009 12:00	>12	0.568 g	25 mL	44.01408	SOLID
SAMPLE	242567001		SW846 9010C Distillation	14-DEC-2009 12:00	>12	0.535 g	25 mL	46.72897	SOLID
SAMPLE	242661012		SW846 9010B Prep	14-DEC-2009 12:00	>12	0.57 g	25 mL	43.85965	SOIL
DUP	1201994714	242661012	SW846 9010B Prep	14-DEC-2009 12:00	>12	0.5 g	25 mL	50	SOIL
MS	1201994716	242661012	SW846 9010B Prep	14-DEC-2009 12:00	>12	0.5 g	25 mL	50	SOIL
MSD	1201994718	242661012	SW846 9010B Prep	14-DEC-2009 12:00	>12	0.52 g	25 mL	48.07692	SOIL
SAMPLE	242661013		SW846 9010B Prep	14-DEC-2009 12:00	>12	0.56 g	25 mL	44.64286	SOIL
DUP	1201994715	242661013	SW846 9010B Prep	14-DEC-2009 12:00	>12	0.56 g	25 mL	44.64286	SOIL
MS	1201994717	242661013	SW846 9010B Prep	14-DEC-2009 12:00	>12	0.5 g	25 mL	50	SOIL
MSD	1201994719	242661013	SW846 9010B Prep	14-DEC-2009 12:00	>12	0.53 g	25 mL	47.16981	SOIL
SAMPLE	242661014		SW846 9010B Prep	14-DEC-2009 12:00	>12	0.5 g	25 mL	50	SOIL
SAMPLE	242661015		SW846 9010B Prep	14-DEC-2009 12:00	>12	0.55 g	25 mL	45.45455	SOIL
SAMPLE	242661016		SW846 9010B Prep	14-DEC-2009 12:00	>12	0.53 g	25 mL	47.16981	SOIL
SAMPLE	242661017		SW846 9010B Prep	14-DEC-2009 12:00	>12	0.55 g	25 mL	45.45455	SOIL
SAMPLE	242661018		SW846 9010B Prep	14-DEC-2009 12:00	>12	0.5 g	25 mL	50	SOIL
SAMPLE	242661019		SW846 9010B Prep	14-DEC-2009 12:00	>12	0.53 g	25 mL	47.16981	SOIL
SAMPLE	242661020		SW846 9010B Prep	14-DEC-2009 12:00	>12	0.57 g	25 mL	43.85965	SOIL
SAMPLE	242668001		SW846 9010B Prep	14-DEC-2009 12:00	>12	0.56 g	25 mL	44.64286	SOIL
SAMPLE	242668002		SW846 9010B Prep	14-DEC-2009 12:00	>12	0.51 g	25 mL	49.01961	SOIL
SAMPLE	242743002		SW846 9010B Prep	14-DEC-2009 12:00	>12	0.57 g	25 mL	43.85965	SOIL
SAMPLE	242748001		SW846 9010B Prep	14-DEC-2009 12:00	>12	0.51 g	25 mL	49.01961	SOIL
SAMPLE	242748002		SW846 9010B Prep	14-DEC-2009 12:00	>12	0.52 g	25 mL	48.07692	SOIL
SAMPLE	242750001		SW846 9010B Prep	14-DEC-2009 12:00	>12	0.54 g	25 mL	46.2963	SOIL
SAMPLE	242792001		SW846 9010B Prep	14-DEC-2009 12:00	>12	0.53 g	25 mL	47.16981	SOIL

Prep LogBook

Reagent/Solvent Lot ID	Amount	Description
091211-C	25 mL	0.25N Sodium Hydroxide Solution
1176724-C	1.25 mL	0.8N H3NO3S
1238146-C	2.5 mL	50% H2SO4 CN Prep
1176778-C	1 mL	51% MgCl2 Soln
1238142-C	1.25 mL	Bismuth Nitrate Solution

Comments

This is runlog Lachat1

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
200 ppb		1	axc2	12/15/2009 9:05:34	OM_12-15-2009_09-02-12
150 ppb		1	axc2	12/15/2009 9:06:27	OM_12-15-2009_09-02-12
100 ppb		1	axc2	12/15/2009 9:07:19	OM_12-15-2009_09-02-12
50 ppb		1	axc2	12/15/2009 9:08:13	OM_12-15-2009_09-02-12
10 ppb		1	axc2	12/15/2009 9:09:06	OM_12-15-2009_09-02-12
CRDL 5.0 ppb		1	axc2	12/15/2009 9:09:59	OM_12-15-2009_09-02-12
ICAL-00		1	axc2	12/15/2009 9:10:53	OM_12-15-2009_09-02-12
ICV		1	axc2	12/15/2009 9:12:44	OM_12-15-2009_09-02-12
ICB		1	axc2	12/15/2009 9:14:34	OM_12-15-2009_09-02-12
CRDL		1	axc2	12/15/2009 9:16:24	OM_12-15-2009_09-02-12
1201992122	931341	1	axc2	12/15/2009 9:18:13	OM_12-15-2009_09-02-12
1201992132	931341	1	axc2	12/15/2009 9:19:07	OM_12-15-2009_09-02-12
242436001	931341	1	axc2	12/15/2009 9:20:00	OM_12-15-2009_09-02-12
1201992123	931341	1	axc2	12/15/2009 9:20:53	OM_12-15-2009_09-02-12
1201992126	931341	1	axc2	12/15/2009 9:21:46	OM_12-15-2009_09-02-12
1201992129	931341	1	axc2	12/15/2009 9:22:38	OM_12-15-2009_09-02-12
242441001	931341	1	axc2	12/15/2009 9:23:31	OM_12-15-2009_09-02-12
242448001	931341	1	axc2	12/15/2009 9:24:24	OM_12-15-2009_09-02-12
242448002	931341	1	axc2	12/15/2009 9:25:16	OM_12-15-2009_09-02-12
242448003	931341	1	axc2	12/15/2009 9:26:08	OM_12-15-2009_09-02-12
CCV		1	axc2	12/15/2009 9:27:01	OM_12-15-2009_09-02-12
CCB		1	axc2	12/15/2009 9:28:51	OM_12-15-2009_09-02-12
242448004	931341	1	axc2	12/15/2009 9:30:39	OM_12-15-2009_09-02-12
242448005	931341	1	axc2	12/15/2009 9:31:31	OM_12-15-2009_09-02-12
242448006	931341	1	axc2	12/15/2009 9:32:23	OM_12-15-2009_09-02-12
242475001	931341	1	axc2	12/15/2009 9:33:14	OM_12-15-2009_09-02-12
1201992125	931341	1	axc2	12/15/2009 9:34:06	OM_12-15-2009_09-02-12
1201992128	931341	1	axc2	12/15/2009 9:35:00	OM_12-15-2009_09-02-12
1201992131	931341	1	axc2	12/15/2009 9:35:53	OM_12-15-2009_09-02-12
242637001	931341	1	axc2	12/15/2009 9:36:46	OM_12-15-2009_09-02-12
242669001	931341	1	axc2	12/15/2009 9:37:40	OM_12-15-2009_09-02-12
242669002	931341	1	axc2	12/15/2009 9:38:33	OM_12-15-2009_09-02-12
CCV		1	axc2	12/15/2009 9:39:27	OM_12-15-2009_09-02-12
CCB		1	axc2	12/15/2009 9:41:16	OM_12-15-2009_09-02-12
242669003	931341	1	axc2	12/15/2009 9:43:04	OM_12-15-2009_09-02-12
242669004	931341	1	axc2	12/15/2009 9:43:58	OM_12-15-2009_09-02-12
242691002	931341	1	axc2	12/15/2009 9:44:51	OM_12-15-2009_09-02-12
242749001	931341	1	axc2	12/15/2009 9:45:43	OM_12-15-2009_09-02-12
242782001	931341	1	axc2	12/15/2009 9:46:35	OM_12-15-2009_09-02-12
242782002	931341	1	axc2	12/15/2009 9:47:27	OM_12-15-2009_09-02-12
1201994713	932514	1	axc2	12/15/2009 9:48:20	OM_12-15-2009_09-02-12
1201994720	932514	25	axc2	12/15/2009 9:49:12	OM_12-15-2009_09-02-12
242441002	932514	1	axc2	12/15/2009 9:50:04	OM_12-15-2009_09-02-12
242441003	932514	1	axc2	12/15/2009 9:50:55	OM_12-15-2009_09-02-12
CCV		1	axc2	12/15/2009 9:51:48	OM_12-15-2009_09-02-12
CCB		1	axc2	12/15/2009 9:53:38	OM_12-15-2009_09-02-12
242565001	932514	1	axc2	12/15/2009 9:55:28	OM_12-15-2009_09-02-12
242567001	932514	1	axc2	12/15/2009 9:56:22	OM_12-15-2009_09-02-12
242661012	932514	1	axc2	12/15/2009 9:57:15	OM_12-15-2009_09-02-12
1201994714	932514	1	axc2	12/15/2009 9:58:09	OM_12-15-2009_09-02-12
1201994716	932514	1	axc2	12/15/2009 9:59:02	OM_12-15-2009_09-02-12
1201994718	932514	1	axc2	12/15/2009 9:59:56	OM_12-15-2009_09-02-12
242661013	932514	1	axc2	12/15/2009 10:00:48	OM_12-15-2009_09-02-12
1201994715	932514	1	axc2	12/15/2009 10:01:41	OM_12-15-2009_09-02-12
1201994717	932514	1	axc2	12/15/2009 10:02:34	OM_12-15-2009_09-02-12
1201994719	932514	1	axc2	12/15/2009 10:03:27	OM_12-15-2009_09-02-12
CCV		1	axc2	12/15/2009 10:04:19	OM_12-15-2009_09-02-12
CCB		1	axc2	12/15/2009 10:06:09	OM_12-15-2009_09-02-12

242661014	932514	1	axc2	12/15/2009	10:07:57	OM_12-15-2009_09-02-12
242661015	932514	1	axc2	12/15/2009	10:08:50	OM_12-15-2009_09-02-12
242661016	932514	1	axc2	12/15/2009	10:09:42	OM_12-15-2009_09-02-12
242661017	932514	1	axc2	12/15/2009	10:10:34	OM_12-15-2009_09-02-12
242661018	932514	1	axc2	12/15/2009	10:11:26	OM_12-15-2009_09-02-12
242661019	932514	1	axc2	12/15/2009	10:12:20	OM_12-15-2009_09-02-12
242661020	932514	1	axc2	12/15/2009	10:13:14	OM_12-15-2009_09-02-12
242668001	932514	1	axc2	12/15/2009	10:14:09	OM_12-15-2009_09-02-12
242668002	932514	1	axc2	12/15/2009	10:15:01	OM_12-15-2009_09-02-12
242743002	932514	1	axc2	12/15/2009	10:15:55	OM_12-15-2009_09-02-12
CCV		1	axc2	12/15/2009	10:16:47	OM_12-15-2009_09-02-12
CCB		1	axc2	12/15/2009	10:18:38	OM_12-15-2009_09-02-12
242748001	932514	1	axc2	12/15/2009	10:20:28	OM_12-15-2009_09-02-12
242748002	932514	1	axc2	12/15/2009	10:21:21	OM_12-15-2009_09-02-12
242750001	932514	1	axc2	12/15/2009	10:22:15	OM_12-15-2009_09-02-12
242792001	932514	1	axc2	12/15/2009	10:23:08	OM_12-15-2009_09-02-12
1201993018	931715	1	axc2	12/15/2009	10:24:00	OM_12-15-2009_09-02-12
1201993019	931715	1	axc2	12/15/2009	10:24:53	OM_12-15-2009_09-02-12
242441001*	931715	1	axc2	12/15/2009	10:25:45	OM_12-15-2009_09-02-12
242716001	931715	1	axc2	12/15/2009	10:26:38	OM_12-15-2009_09-02-12
1201994739	931715	1	axc2	12/15/2009	10:27:30	OM_12-15-2009_09-02-12
1201994736	932522	1	axc2	12/15/2009	10:28:22	OM_12-15-2009_09-02-12
CCV		1	axc2	12/15/2009	10:29:15	OM_12-15-2009_09-02-12
CCB		1	axc2	12/15/2009	10:31:05	OM_12-15-2009_09-02-12
1201994738	932522	1	axc2	12/15/2009	10:32:55	OM_12-15-2009_09-02-12
1201994753	932522	1	axc2	12/15/2009	10:33:49	OM_12-15-2009_09-02-12
242441002	932522	1	axc2	12/15/2009	10:34:44	OM_12-15-2009_09-02-12
242441003	932522	1	axc2	12/15/2009	10:35:37	OM_12-15-2009_09-02-12
242565001	932522	1	axc2	12/15/2009	10:36:31	OM_12-15-2009_09-02-12
242567001	932522	1	axc2	12/15/2009	10:37:24	OM_12-15-2009_09-02-12
242441001	931715	1	axc2	12/15/2009	10:38:17	OM_12-15-2009_09-02-12
CCV		1	axc2	12/15/2009	10:39:09	OM_12-15-2009_09-02-12
CCB		1	axc2	12/15/2009	10:41:00	OM_12-15-2009_09-02-12

Author: axc2 Date : 12/15/2009

Original Run Filename: OM_12-15-2009_09-02-12.OMN created 12/15/2009 09:02:12
Original Run Author's Signature: [axc2]
Current Run Filename: OM_12-15-2009_09-02-12.OMN last modified 12/15/2009 10:42:05
Current Run Author's Signature: [axc2]
Description: GL-GC-E-095 EPA 335.1, 335.3, 335.4, 9012A, CLP335.2-M
Liquid LCS nominal 50 ug/L

Sample	Rep.	Cup No.	Channel 1 TCYANIDE Conc. (ug/L)	Area (Vs)	Detection Time	ADF	MDF	Description
WCN091215-01	1	S1	200	8.39	12/15/2009@09:05:34			200 ppb
WCN091215-02	1	S2	150	6.34	12/15/2009@09:06:27			150 ppb
WCN091215-03	1	S3	100	4.06	12/15/2009@09:07:19			100 ppb
WCN091215-04	1	S4	50.0	2.26	12/15/2009@09:08:13			50 ppb
WCN091215-05	1	S5	10.0	0.535	12/15/2009@09:09:06			10 ppb
WCN091215-06	1	S6	5.00	0.272	12/15/2009@09:09:59			CRDL 5.0 ppb
WCN091215-08	1	S7	0.00	2.91e-4	12/15/2009@09:10:53			0.0 ppb
DQM Test: Minimum Correlation Coefficient								
		Result:	0.99962 > 0.99500					
		Message	Pass					
		Action	Continue					
WCN091215-07	1	S8	138	5.79	12/15/2009@09:12:44			ICV
		Known Conc:	150					
DQM Test: > + Percent Relative Difference								
		Result:	-8.2 < 10.0					
		Message	ICV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	-8.2 < 10.0					
		Message	ICV Passed					
		Action	Continue					
		Calibration:	Table/Fig. 1					
WCN091215-08	1	S7	2.48	0.167	12/15/2009@09:14:34			ICB/CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	2.48 < 5.01					
		Message	ICB/CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	2.48 > -5.01					
		Message	ICB/CCB Passed					
		Action	Continue					
WCN091215-06	1	S6	4.39	0.247	12/15/2009@09:16:24			CRDL
		Known Conc:	5.00					
DQM Test: > + Concentration Limit								
		Result:	4.39 < 7.50					
		Message	CRDL Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	4.39 > 2.50					
		Message	Pass					
		Action	None					
1201992122|931341|MB	1	1	-1.54	3.22e-4	12/15/2009@09:18:13			
1201992132||LCS	1	2	48.6	2.08	12/15/2009@09:19:07			
242436001	1	3	-0.571	0.0406	12/15/2009@09:20:00			
1201992123||DUP	1	4	-2.60	-0.0439	12/15/2009@09:20:53			
1201992126||MS	1	5	96.4	4.07	12/15/2009@09:21:46			
1201992129||MSD	1	6	99.4	4.20	12/15/2009@09:22:38			
242441001	1	7	0.371	0.0798	12/15/2009@09:23:31			
242448001	1	8	5.87	0.308	12/15/2009@09:24:24			
242448002	1	9	-1.29	0.0106	12/15/2009@09:25:16			
242448003	1	10	-2.76	-0.0503	12/15/2009@09:26:08			
WCN091215-03	1	S3	98.9	4.17	12/15/2009@09:27:01			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	-1.1 < 10.0					

		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	-1.1 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN091215-08	1	S7	-1.54	1.91e-4	12/15/2009@09:28:51			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.54 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.54 > -5.00					
		Message	CCB Passed					
		Action	Continue					
242448004	1	11	-2.52	-0.0405	12/15/2009@09:30:39			
242448005	1	12	-1.27	0.0117	12/15/2009@09:31:31			
242448006	1	13	-2.41	-0.0358	12/15/2009@09:32:23			
242475001	1	14	-1.53	5.53e-4	12/15/2009@09:33:14			
1201992125||DUP	1	15	-0.467	0.0449	12/15/2009@09:34:06			
1201992128||MS	1	16	93.5	3.95	12/15/2009@09:35:00			
1201992131||MSD	1	17	93.8	3.96	12/15/2009@09:35:53			
242637001	1	18	65.0	2.77	12/15/2009@09:36:46			
242669001	1	19	-1.54	2.89e-4	12/15/2009@09:37:40			
242669002	1	20	-1.23	0.0131	12/15/2009@09:38:33			
WCN091215-03	1	S3	99.1	4.18	12/15/2009@09:39:27			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	-0.9 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	-0.9 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN091215-08	1	S7	-2.89	-0.0556	12/15/2009@09:41:16			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-2.89 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-2.89 > -5.00					
		Message	CCB Passed					
		Action	Continue					
242669003	1	21	-2.63	-0.0448	12/15/2009@09:43:04			
242669004	1	22	-2.63	-0.0449	12/15/2009@09:43:58			
242691002	1	23	-2.86	-0.0546	12/15/2009@09:44:51			
242749001	1	24	-1.49	0.00250	12/15/2009@09:45:43			
242782001	1	25	-1.54	3.20e-4	12/15/2009@09:46:35			
242782002	1	26	-1.54	2.83e-4	12/15/2009@09:47:27			
1201994713|932514|MB	1	27	-1.54	1.81e-4	12/15/2009@09:48:20			
1201994720||LCS	1	28	32.0	1.39	12/15/2009@09:49:12		25.00	
242441002	1	29	-1.54	3.36e-4	12/15/2009@09:50:04			
242441003	1	30	-1.19	0.0148	12/15/2009@09:50:55			
WCN091215-03	1	S3	98.6	4.17	12/15/2009@09:51:48			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	-1.4 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	-1.4 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN091215-08	1	S7	-1.54	3.32e-4	12/15/2009@09:53:38			CCB
		Known Conc:	0.00					

DQM Test: > + Concentration Limit								
		Result:	-1.54 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.54 > -5.00					
		Message	CCB Passed					
		Action	Continue					
242565001	1	31	21.3	0.950	12/15/2009@09:55:28			
242567001	1	32	7.54	0.378	12/15/2009@09:56:22			
242661012	1	33	-0.324	0.0509	12/15/2009@09:57:15			
1201994714||DUP	1	34	-0.230	0.0548	12/15/2009@09:58:09			
1201994716||MS	1	35	78.3	3.32	12/15/2009@09:59:02			
1201994718||MSD	1	36	88.2	3.73	12/15/2009@09:59:56			
242661013	1	37	-1.54	1.71e-4	12/15/2009@10:00:48			
1201994715||DUP	1	38	-1.48	0.00300	12/15/2009@10:01:41			
1201994717||MS	1	39	96.2	4.06	12/15/2009@10:02:34			
1201994719||MSD	1	40	97.0	4.10	12/15/2009@10:03:27			
WCN091215-03	1	S3	99.3	4.19	12/15/2009@10:04:19			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	-0.7 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	-0.7 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN091215-08	1	S7	-1.54	3.28e-4	12/15/2009@10:06:09			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.54 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.54 > -5.00					
		Message	CCB Passed					
		Action	Continue					
242661014	1	41	-0.803	0.0309	12/15/2009@10:07:57			
242661015	1	42	-0.596	0.0396	12/15/2009@10:08:50			
242661016	1	43	1.62	0.132	12/15/2009@10:09:42			
242661017	1	44	0.839	0.0992	12/15/2009@10:10:34			
242661018	1	45	-0.737	0.0337	12/15/2009@10:11:26			
242661019	1	46	-2.20	-0.0272	12/15/2009@10:12:20			
242661020	1	47	-1.03	0.0216	12/15/2009@10:13:14			
242668001	1	48	0.794	0.0974	12/15/2009@10:14:09			
242668002	1	49	1.65	0.133	12/15/2009@10:15:01			
242743002	1	50	1.26	0.117	12/15/2009@10:15:55			
WCN091215-03	1	S3	99.3	4.19	12/15/2009@10:16:47			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	-0.7 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	-0.7 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN091215-08	1	S7	-2.75	-0.0501	12/15/2009@10:18:38			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-2.75 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-2.75 > -5.00					
		Message	CCB Passed					
		Action	Continue					

242748001	1	51	31.4	1.37	12/15/2009@10:20:28			
242748002	1	52	-0.809	0.0307	12/15/2009@10:21:21			
242750001	1	53	-0.900	0.0269	12/15/2009@10:22:15			
242792001	1	54	3.65	0.216	12/15/2009@10:23:08			
1201993018|931715|MB	1	55	-1.25	0.0123	12/15/2009@10:24:00			
1201993019||LCS	1	56	2.91	0.185	12/15/2009@10:24:53			
242441001	1	57	15.2	0.696	12/15/2009@10:25:45			
242716001	1	58	-2.69	-0.0475	12/15/2009@10:26:38			
1201994739||DUP	1	59	0.0316	0.0657	12/15/2009@10:27:30			
1201994736|932522|MB	1	60	-1.54	2.92e-4	12/15/2009@10:28:22			
WCN091215-03	1	S3	99.5	4.20	12/15/2009@10:29:15			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	-0.5 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	-0.5 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN091215-08	1	S7	-3.69	-0.0893	12/15/2009@10:31:05			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-3.69 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-3.69 > -5.00					
		Message	CCB Passed					
		Action	Continue					
1201994738||LCS	1	61	-2.46	-0.0381	12/15/2009@10:32:55			
1201994753||LCSD	1	62	-1.45	0.00407	12/15/2009@10:33:49			
242441002	1	63	-0.502	0.0435	12/15/2009@10:34:44			
242441003	1	64	-0.311	0.0514	12/15/2009@10:35:37			
242565001	1	65	51.2	2.19	12/15/2009@10:36:31			
242567001	1	66	5.32	0.285	12/15/2009@10:37:24			
242441001|931715|	1	57	9.24	0.448	12/15/2009@10:38:17			
WCN091215-03	1	S3	98.9	4.18	12/15/2009@10:39:09			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	-1.1 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	-1.1 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN091215-08	1	S7	-1.55	0.00	12/15/2009@10:41:00			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.55 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.55 > -5.00					
		Message	CCB Passed					
		Action	Continue					

Analyte Properties Table for OM_12-15-2009_09-02-12.OMN

Property	Channel 1
	TCYANIDE
Concentration Units	ug/L
Callibration Fit Type	First Order
Clear Calibration	True
Force Through Zero	False
Calibration Weighting	None
Auto Dilution Trigger	True

Author: axc2

Date : 12/15/2009

% of High Standard	100
Quik Chem Method	10-204-00-1-A
Chemistry	Direct/Bipolar
Calibration by Height	False
Inject to Peak Start	22
Peak Base Width	39

Channel 1: Current View

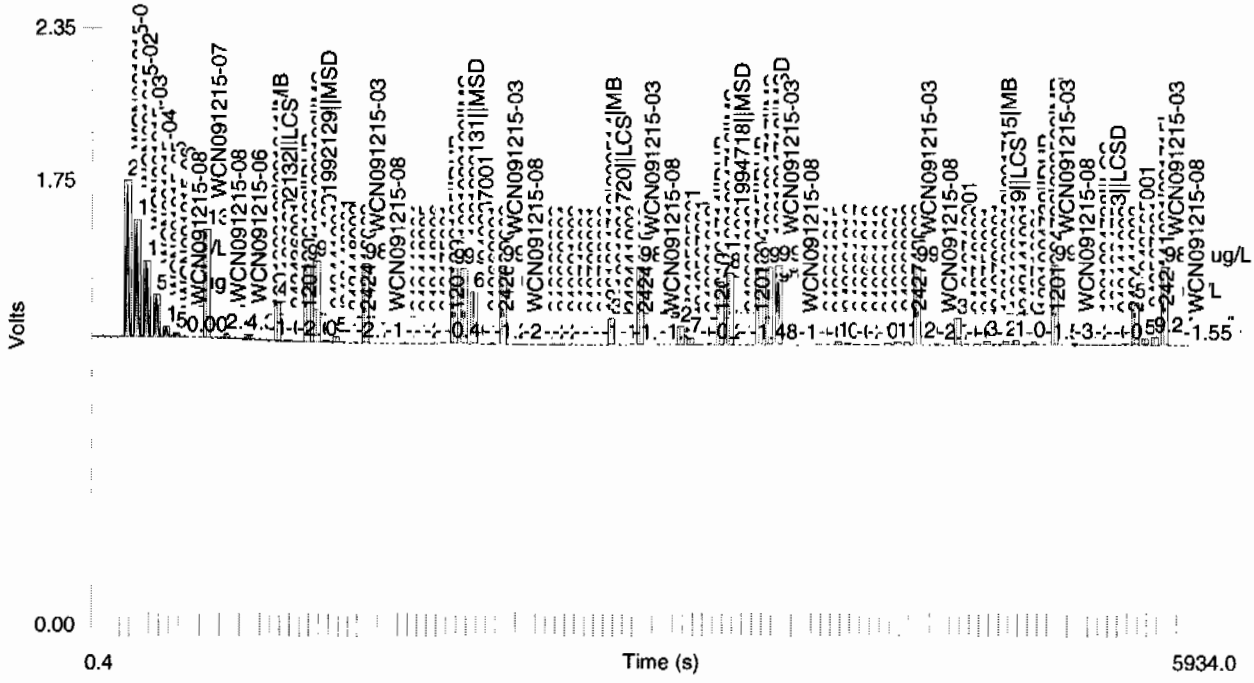

Table 1: TCYANIDE

	Conc. (ug/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	200	1	8.39	0.616	-0.2	12/15/2009	09:06:38
2	150	1	6.34	0.461	-0.7	12/15/2009	09:07:30
3	100	1	4.06	0.297	3.8	12/15/2009	09:08:22
4	50.0	1	2.26	0.164	-5.5	12/15/2009	09:09:15
5	10.0	1	0.535	0.0380	-11.1	12/15/2009	09:10:08
6	5.00	1	0.272	0.0172	1.0	12/15/2009	09:11:02
7	0.00	1	2.91e-4	0.00261		12/15/2009	09:11:56

Author: axc2 Date : 12/15/2009

Figure 1: TCYANIDE

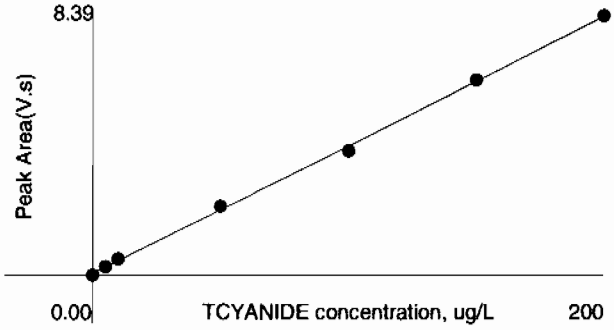

Area = 0.0415 * Conc + 0.0667
Conc = 24.1 * Area - 1.55
Correlation Coefficient (r) = 0.99962

No Weighting

General Chemistry Analysis

Case Narrative

General Chemistry Narrative
Los Alamos National Laboratory (LANL)
SDG 10-854-1

Method/Analysis Information

Product:	**Cyanide, Total**		
Analytical Batch:	931341	**Method:**	SW846 9012A
Prep Batch :	931339	**Method:**	SW846 9010B Prep

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 9012A:

Sample ID	Client ID
242669001	RE03-10-2767
242669002	RE03-10-2753
242669003	RE03-10-2765
242669004	RE03-10-2754
1201992122	Method Blank (MB)
1201992123	242436001(RE16-10-302) Sample Duplicate (DUP)
1201992126	242436001(RE16-10-302) Matrix Spike (MS)
1201992129	242436001(RE16-10-302) Matrix Spike Duplicate (MSD)
1201992132	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-095 REV# 12.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

The Flow Injection analysis was performed on a Lachat QuickChem FIA+ 8000 Series.

Initial Calibration

All initial calibration requirements have been met for this SDG.

Continuing Calibration Blanks

All continuing calibration blanks (CCBs) associated with reported data from this batch were within

acceptance limits.

Calibration Verification Information (CCV)
All continuing calibration verification standards (CCVs) associated with reported data from this batch were within acceptance limits.

Y Intercept Rule
The absolute value of the intercept is less than 3 times the MDL.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recovery met the acceptance limits.

Quality Control (QC) Designation
The following sample was selected for QC analysis: 242436001 (RE16-10-302).

Matrix Spike (MS)/Post Spike (PS) Recovery Statement
The MS/PS recovery for this sample set was within the required acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recovery for this sample set was within the required acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD between the spike and spike duplicate met the acceptance limits.

Duplicate Relative Percent Difference (RPD) Statement
The values for the sample and duplicate are less than the Practical Quantitation Limit (PQL); therefore, the RPD is not applicable. 1201992123 (RE16-10-302).

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times
All samples in this SDG met the specified holding time.

Sample Preservation/Integrity
All the samples from this sample group met the preservation and integrity requirements of the method.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-analysis
The samples in this SDG did not require re-analysis.

Miscellaneous Information

Nonconformance (NCR) Documentation
An NCR was not required for this SDG.

Additional Comments
Additional comments were not required for this SDG.

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:
Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Tom Lewis, Jr. **Date:** 05Jan10

Sample Data Summary

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis Report
for

LANL010 Los Alamos National Laboratory (72733-001-09)

Client SDG: 10-854-1 GEL Work Order: 242669

The Qualifiers in this report are defined as follows:

* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.

** Indicates the analyte is a surrogate compound.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the detection limit.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Valerie Davis.

Reviewed by _____

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: December 16, 2009

Client SDG: 10-854-1

Client Sample ID: RE03-10-2767
Sample ID: 242669001
Matrix: W
Collect Date: 07-DEC-09 12:00
Receive Date: 10-DEC-09
Collector: Client

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis Federal										
SW9012A Cyanide, Total "As Received"										
Cyanide, Total	U	ND	1.66	5.00	ug/L	1	AXC2 12/15/09	0937	931341	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	SXJ1	12/14/09	1400	931339

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Project: **LANL ER Project**

Report Date: December 16, 2009

Client SDG: 10-854-1

Client Sample ID: RE03-10-2753
Sample ID: 242669002
Matrix: W
Collect Date: 07-DEC-09 12:00
Receive Date: 10-DEC-09
Collector: Client

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis Federal										
SW9012A Cyanide, Total "As Received"										
Cyanide, Total	U	ND	1.66	5.00	ug/L	1	AXC2 12/15/09	0938	931341	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	SXJ1	12/14/09	1400	931339

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Project: **LANL ER Project**

Report Date: December 16, 2009

Client SDG: 10-854-1

Client Sample ID: RE03-10-2765
Sample ID: 242669003
Matrix: W
Collect Date: 07-DEC-09 12:00
Receive Date: 10-DEC-09
Collector: Client

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis Federal										
SW9012A Cyanide, Total "As Received"										
Cyanide, Total	U	ND	1.66	5.00	ug/L	1	AXC2 12/15/09	0943	931341	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	SXJ1	12/14/09	1400	931339

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: December 16, 2009

Client SDG: 10-854-1

Client Sample ID:	RE03-10-2754	Project:	LANL01004
Sample ID:	242669004	Client ID:	LANL010
Matrix:	W		
Collect Date:	07-DEC-09 12:00		
Receive Date:	10-DEC-09		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis Federal										
SW9012A Cyanide, Total "As Received"										
Cyanide, Total	U	ND	1.66	5.00	ug/L	1	AXC2 12/15/09	0943	931341	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	SXJ1	12/14/09	1400	931339

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

Quality Control Summary

GEL LABORATORIES LLC

2040 Savage Road Charleston, SC 29407 - (843) 556-8171 - www.gel.com

QC Summary

Report Date: December 16, 2009

Los Alamos National Laboratory
PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico

Contact: Ms. Joylene Valdez

Workorder: 242669

Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Flow Injection Analysis											
Batch 931341											
QC1201992123 242436001 DUP											
Cyanide, Total		U	ND	U	ND	ug/L	N/A			AXC2	12/15/09 09:20
QC1201992132 LCS											
Cyanide, Total	50.0				48.6	ug/L		97.2	(90%-110%)		12/15/09 09:19
QC1201992122 MB											
Cyanide, Total				U	5.00	ug/L					12/15/09 09:18
QC1201992126 242436001 MS											
Cyanide, Total	100	U	ND		96.4	ug/L		96.4	(60%-127%)		12/15/09 09:21
QC1201992129 242436001 MSD											
Cyanide, Total	100	U	ND		99.4	ug/L	3.06	99.4	(0%-20%)		12/15/09 09:22

Notes:
RER is calculated at the 95% confidence level (2-sigma).
The Qualifiers in this report are defined as follows:

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
- F Estimated Value
- H Analytical holding time was exceeded
- J Value is estimated
- M Matrix Related Failure
- N/A RPD or %Recovery limits do not apply.
- ND Analyte concentration is not detected above the detection limit
- NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- R Sample results are rejected
- U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
- X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- Y QC Samples were not spiked with this compound
- Z Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
- ^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.

QC Summary

Workorder: 242669

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time

d 5-day BOD--The 2:1 depletion requirement was not met for this sample

h Preparation or preservation holding time was exceeded

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more.
^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.
* Indicates that a Quality Control parameter was not within specifications.
For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

Instrument QC Data Summary

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Report Run On: 16-DEC-2009 14:21

GEL Laboratories LLC

Contract: **LANL01004**

SDG #: **10-854-1**

Flow Injection Analysis

Method: SW846 9012A Concentration Units:ug/L

Instrument: Lachat QuickChem FIA+ 8000 Series

Parmname: Cyanide, Total

Sample Type	Run Date	Data File	Result	Nominal	Recovery	Limits	Within Limits
ICV	**15-DEC-2009 09:12:44**	**OM_12-15-2009_09-02-12**	**138**	**150**	**92**	**(90%-110%)**	**Yes**
CCV	15-DEC-2009 09:27:01	OM_12-15-2009_09-02-12	98.9	100	99	(90%-110%)	Yes
CCV	15-DEC-2009 09:39:27	OM_12-15-2009_09-02-12	99.1	100	99	(90%-110%)	Yes
CCV	15-DEC-2009 09:51:48	OM_12-15-2009_09-02-12	98.6	100	99	(90%-110%)	Yes

Sample Type	Run Date	Data File	Result	Limits	Within Limits
ICB	**15-DEC-2009 09:14:34**	**OM_12-15-2009_09-02-12**	**2.48**	**5**	**Yes**
CCB	15-DEC-2009 09:28:51	OM_12-15-2009_09-02-12	-1.54	5	Yes
CCB	15-DEC-2009 09:41:16	OM_12-15-2009_09-02-12	-2.89	5	Yes
CCB	15-DEC-2009 09:53:38	OM_12-15-2009_09-02-12	-1.54	5	Yes

Cyanide, Total

Prep LogBook

Analyst: SXJ1 Verified by:_____

Batch: 931339

Lab SOP: GL-GC-E-067 REV# 13

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1201992132	URF1184831-02	.0125	mL
MS	1201992126	URF1184831-02	.025	mL
MS	1201992128	URF1184831-02	.025	mL
MSD	1201992129	URF1184831-02	.025	mL
MSD	1201992131	URF1184831-02	.025	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Ph	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1201992122		SW846 9010B Prep	14-DEC-2009 14:00	> 12	25 mL	25 mL	1	WATER
LCS	1201992132		SW846 9010B Prep	14-DEC-2009 14:00	> 12	25 mL	25 mL	1	WATER
SAMPLE	242436001		SW846 9010B Prep	14-DEC-2009 14:00	> 12	25 mL	25 mL	1	WATER
DUP	1201992123	242436001	SW846 9010B Prep	14-DEC-2009 14:00	> 12	25 mL	25 mL	1	WATER
MS	1201992126	242436001	SW846 9010B Prep	14-DEC-2009 14:00	> 12	25 mL	25 mL	1	WATER
MSD	1201992129	242436001	SW846 9010B Prep	14-DEC-2009 14:00	> 12	25 mL	25 mL	1	WATER
SAMPLE	242441001		SW846 9010B Prep	14-DEC-2009 14:00	> 12	1 mL	25 mL	25	OIL
SAMPLE	242448001		SW846 9010B Prep	14-DEC-2009 14:00	> 12	25 mL	25 mL	1	WATER
SAMPLE	242448002		SW846 9010B Prep	14-DEC-2009 14:00	> 12	25 mL	25 mL	1	WATER
SAMPLE	242448003		SW846 9010B Prep	14-DEC-2009 14:00	> 12	25 mL	25 mL	1	WATER
SAMPLE	242448004		SW846 9010B Prep	14-DEC-2009 14:00	> 12	25 mL	25 mL	1	WATER
SAMPLE	242448005		SW846 9010B Prep	14-DEC-2009 14:00	> 12	25 mL	25 mL	1	WATER
SAMPLE	242448006		SW846 9010B Prep	14-DEC-2009 14:00	> 12	25 mL	25 mL	1	WATER
SAMPLE	242475001		SW846 9010B Prep	14-DEC-2009 14:00	> 12	25 mL	25 mL	1	GROUND WATER
DUP	1201992125	242475001	SW846 9010B Prep	14-DEC-2009 14:00	> 12	25 mL	25 mL	1	GROUND WATER
MS	1201992128	242475001	SW846 9010B Prep	14-DEC-2009 14:00	> 12	25 mL	25 mL	1	GROUND WATER
MSD	1201992131	242475001	SW846 9010B Prep	14-DEC-2009 14:00	> 12	25 mL	25 mL	1	GROUND WATER
SAMPLE	242637001		EPA 335.4	14-DEC-2009 14:00	> 12	25 mL	25 mL	1	WASTE WATER
SAMPLE	242669001		SW846 9010B Prep	14-DEC-2009 14:00	> 12	25 mL	25 mL	1	WATER
SAMPLE	242669002		SW846 9010B Prep	14-DEC-2009 14:00	> 12	25 mL	25 mL	1	WATER
SAMPLE	242669003		SW846 9010B Prep	14-DEC-2009 14:00	> 12	25 mL	25 mL	1	WATER
SAMPLE	242669004		SW846 9010B Prep	14-DEC-2009 14:00	> 12	25 mL	25 mL	1	WATER
SAMPLE	242691002		EPA 335.4	14-DEC-2009 14:00	> 12	25 mL	25 mL	1	GROUND WATER
SAMPLE	242749001		SW846 9010B Prep	14-DEC-2009 14:00	> 12	25 mL	25 mL	1	WATER
SAMPLE	242782001		SW846 9010B Prep	14-DEC-2009 14:00	> 12	25 mL	25 mL	1	WATER
SAMPLE	242782002		SW846 9010B Prep	14-DEC-2009 14:00	> 12	25 mL	25 mL	1	WATER

Reagent/Solvent Lot ID	Amount	Description

Prep LogBook

091211-C	25 mL	0.25N Sodium Hydroxide Solution
1176724-C	1.25 mL	0.8N H3NO3S
1238146-C	2.5 mL	50% H2SO4 CN Prep
1176778-C	1 mL	51% MgCl2 Soln
1238142-C	1.25 mL	Bismuth Nitrate Solution

Comments sample 242441001 prepped @1mL due to violent reaction w/ heat... sample 242637001 was preserved with 50% NaOH> The reference # is 1184204-C. Expiration date is 3/3/10.

This is runlog Lachat1

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
200 ppb		1	axc2	12/15/2009 9:05:34	OM_12-15-2009_09-02-12
150 ppb		1	axc2	12/15/2009 9:06:27	OM_12-15-2009_09-02-12
100 ppb		1	axc2	12/15/2009 9:07:19	OM_12-15-2009_09-02-12
50 ppb		1	axc2	12/15/2009 9:08:13	OM_12-15-2009_09-02-12
10 ppb		1	axc2	12/15/2009 9:09:06	OM_12-15-2009_09-02-12
CRDL 5.0 ppb		1	axc2	12/15/2009 9:09:59	OM_12-15-2009_09-02-12
ICAL-00		1	axc2	12/15/2009 9:10:53	OM_12-15-2009_09-02-12
ICV		1	axc2	12/15/2009 9:12:44	OM_12-15-2009_09-02-12
ICB		1	axc2	12/15/2009 9:14:34	OM_12-15-2009_09-02-12
CRDL		1	axc2	12/15/2009 9:16:24	OM_12-15-2009_09-02-12
1201992122	931341	1	axc2	12/15/2009 9:18:13	OM_12-15-2009_09-02-12
1201992132	931341	1	axc2	12/15/2009 9:19:07	OM_12-15-2009_09-02-12
242436001	931341	1	axc2	12/15/2009 9:20:00	OM_12-15-2009_09-02-12
1201992123	931341	1	axc2	12/15/2009 9:20:53	OM_12-15-2009_09-02-12
1201992126	931341	1	axc2	12/15/2009 9:21:46	OM_12-15-2009_09-02-12
1201992129	931341	1	axc2	12/15/2009 9:22:38	OM_12-15-2009_09-02-12
242441001	931341	1	axc2	12/15/2009 9:23:31	OM_12-15-2009_09-02-12
242448001	931341	1	axc2	12/15/2009 9:24:24	OM_12-15-2009_09-02-12
242448002	931341	1	axc2	12/15/2009 9:25:16	OM_12-15-2009_09-02-12
242448003	931341	1	axc2	12/15/2009 9:26:08	OM_12-15-2009_09-02-12
CCV		1	axc2	12/15/2009 9:27:01	OM_12-15-2009_09-02-12
CCB		1	axc2	12/15/2009 9:28:51	OM_12-15-2009_09-02-12
242448004	931341	1	axc2	12/15/2009 9:30:39	OM_12-15-2009_09-02-12
242448005	931341	1	axc2	12/15/2009 9:31:31	OM_12-15-2009_09-02-12
242448006	931341	1	axc2	12/15/2009 9:32:23	OM_12-15-2009_09-02-12
242475001	931341	1	axc2	12/15/2009 9:33:14	OM_12-15-2009_09-02-12
1201992125	931341	1	axc2	12/15/2009 9:34:06	OM_12-15-2009_09-02-12
1201992128	931341	1	axc2	12/15/2009 9:35:00	OM_12-15-2009_09-02-12
1201992131	931341	1	axc2	12/15/2009 9:35:53	OM_12-15-2009_09-02-12
242637001	931341	1	axc2	12/15/2009 9:36:46	OM_12-15-2009_09-02-12
242669001	931341	1	axc2	12/15/2009 9:37:40	OM_12-15-2009_09-02-12
242669002	931341	1	axc2	12/15/2009 9:38:33	OM_12-15-2009_09-02-12
CCV		1	axc2	12/15/2009 9:39:27	OM_12-15-2009_09-02-12
CCB		1	axc2	12/15/2009 9:41:16	OM_12-15-2009_09-02-12
242669003	931341	1	axc2	12/15/2009 9:43:04	OM_12-15-2009_09-02-12
242669004	931341	1	axc2	12/15/2009 9:43:58	OM_12-15-2009_09-02-12
242691002	931341	1	axc2	12/15/2009 9:44:51	OM_12-15-2009_09-02-12
242749001	931341	1	axc2	12/15/2009 9:45:43	OM_12-15-2009_09-02-12
242782001	931341	1	axc2	12/15/2009 9:46:35	OM_12-15-2009_09-02-12
242782002	931341	1	axc2	12/15/2009 9:47:27	OM_12-15-2009_09-02-12
1201994713	932514	1	axc2	12/15/2009 9:48:20	OM_12-15-2009_09-02-12
1201994720	932514	25	axc2	12/15/2009 9:49:12	OM_12-15-2009_09-02-12
242441002	932514	1	axc2	12/15/2009 9:50:04	OM_12-15-2009_09-02-12
242441003	932514	1	axc2	12/15/2009 9:50:55	OM_12-15-2009_09-02-12
CCV		1	axc2	12/15/2009 9:51:48	OM_12-15-2009_09-02-12
CCB		1	axc2	12/15/2009 9:53:38	OM_12-15-2009_09-02-12
242565001	932514	1	axc2	12/15/2009 9:55:28	OM_12-15-2009_09-02-12
242567001	932514	1	axc2	12/15/2009 9:56:22	OM_12-15-2009_09-02-12
242661012	932514	1	axc2	12/15/2009 9:57:15	OM_12-15-2009_09-02-12
1201994714	932514	1	axc2	12/15/2009 9:58:09	OM_12-15-2009_09-02-12
1201994716	932514	1	axc2	12/15/2009 9:59:02	OM_12-15-2009_09-02-12
1201994718	932514	1	axc2	12/15/2009 9:59:56	OM_12-15-2009_09-02-12
242661013	932514	1	axc2	12/15/2009 10:00:48	OM_12-15-2009_09-02-12
1201994715	932514	1	axc2	12/15/2009 10:01:41	OM_12-15-2009_09-02-12
1201994717	932514	1	axc2	12/15/2009 10:02:34	OM_12-15-2009_09-02-12
1201994719	932514	1	axc2	12/15/2009 10:03:27	OM_12-15-2009_09-02-12
CCV		1	axc2	12/15/2009 10:04:19	OM_12-15-2009_09-02-12
CCB		1	axc2	12/15/2009 10:06:09	OM_12-15-2009_09-02-12

242661014	932514	1	axc2	12/15/2009	10:07:57	OM_12-15-2009_09-02-12
242661015	932514	1	axc2	12/15/2009	10:08:50	OM_12-15-2009_09-02-12
242661016	932514	1	axc2	12/15/2009	10:09:42	OM_12-15-2009_09-02-12
242661017	932514	1	axc2	12/15/2009	10:10:34	OM_12-15-2009_09-02-12
242661018	932514	1	axc2	12/15/2009	10:11:26	OM_12-15-2009_09-02-12
242661019	932514	1	axc2	12/15/2009	10:12:20	OM_12-15-2009_09-02-12
242661020	932514	1	axc2	12/15/2009	10:13:14	OM_12-15-2009_09-02-12
242668001	932514	1	axc2	12/15/2009	10:14:09	OM_12-15-2009_09-02-12
242668002	932514	1	axc2	12/15/2009	10:15:01	OM_12-15-2009_09-02-12
242743002	932514	1	axc2	12/15/2009	10:15:55	OM_12-15-2009_09-02-12
CCV		1	axc2	12/15/2009	10:16:47	OM_12-15-2009_09-02-12
CCB		1	axc2	12/15/2009	10:18:38	OM_12-15-2009_09-02-12
242748001	932514	1	axc2	12/15/2009	10:20:28	OM_12-15-2009_09-02-12
242748002	932514	1	axc2	12/15/2009	10:21:21	OM_12-15-2009_09-02-12
242750001	932514	1	axc2	12/15/2009	10:22:15	OM_12-15-2009_09-02-12
242792001	932514	1	axc2	12/15/2009	10:23:08	OM_12-15-2009_09-02-12
1201993018	931715	1	axc2	12/15/2009	10:24:00	OM_12-15-2009_09-02-12
1201993019	931715	1	axc2	12/15/2009	10:24:53	OM_12-15-2009_09-02-12
242441001*	931715	1	axc2	12/15/2009	10:25:45	OM_12-15-2009_09-02-12
242716001	931715	1	axc2	12/15/2009	10:26:38	OM_12-15-2009_09-02-12
1201994739	931715	1	axc2	12/15/2009	10:27:30	OM_12-15-2009_09-02-12
1201994736	932522	1	axc2	12/15/2009	10:28:22	OM_12-15-2009_09-02-12
CCV		1	axc2	12/15/2009	10:29:15	OM_12-15-2009_09-02-12
CCB		1	axc2	12/15/2009	10:31:05	OM_12-15-2009_09-02-12
1201994738	932522	1	axc2	12/15/2009	10:32:55	OM_12-15-2009_09-02-12
1201994753	932522	1	axc2	12/15/2009	10:33:49	OM_12-15-2009_09-02-12
242441002	932522	1	axc2	12/15/2009	10:34:44	OM_12-15-2009_09-02-12
242441003	932522	1	axc2	12/15/2009	10:35:37	OM_12-15-2009_09-02-12
242565001	932522	1	axc2	12/15/2009	10:36:31	OM_12-15-2009_09-02-12
242567001	932522	1	axc2	12/15/2009	10:37:24	OM_12-15-2009_09-02-12
242441001	931715	1	axc2	12/15/2009	10:38:17	OM_12-15-2009_09-02-12
CCV		1	axc2	12/15/2009	10:39:09	OM_12-15-2009_09-02-12
CCB		1	axc2	12/15/2009	10:41:00	OM_12-15-2009_09-02-12

Author: axc2 Date : 12/15/2009

Original Run Filename: OM_12-15-2009_09-02-12.OMN created 12/15/2009 09:02:12
Original Run Author's Signature: [axc2]
Current Run Filename: OM_12-15-2009_09-02-12.OMN last modified 12/15/2009 10:42:05
Current Run Author's Signature: [axc2]
Description: GL-GC-E-095 EPA 335.1, 335.3, 335.4, 9012A, CLP335.2-M
Liquid LCS nominal 50 ug/L

Sample	Rep.	Cup No.	Channel 1 TCYANIDE Conc. (ug/L)	Area (Vs)	Detection Time	ADF	MDF	Description
WCN091215-01	1	S1	200	8.39	12/15/2009@09:05:34			200 ppb
WCN091215-02	1	S2	150	6.34	12/15/2009@09:06:27			150 ppb
WCN091215-03	1	S3	100	4.06	12/15/2009@09:07:19			100 ppb
WCN091215-04	1	S4	50.0	2.26	12/15/2009@09:08:13			50 ppb
WCN091215-05	1	S5	10.0	0.535	12/15/2009@09:09:06			10 ppb
WCN091215-06	1	S6	5.00	0.272	12/15/2009@09:09:59			CRDL 5.0 ppb
WCN091215-08	1	S7	0.00	2.91e-4	12/15/2009@09:10:53			0.0 ppb
DQM Test: Minimum Correlation Coefficient								
		Result:	0.99962 > 0.99500					
		Message	Pass					
		Action	Continue					
WCN091215-07	1	S8	138	5.79	12/15/2009@09:12:44			ICV
		Known Conc:	150					
DQM Test: > + Percent Relative Difference								
		Result:	-8.2 < 10.0					
		Message	ICV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	-8.2 < 10.0					
		Message	ICV Passed					
		Action	Continue					
		Calibration:	Table/Fig. 1					
WCN091215-08	1	S7	2.48	0.167	12/15/2009@09:14:34			ICB/CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	2.48 < 5.01					
		Message	ICB/CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	2.48 > -5.01					
		Message	ICB/CCB Passed					
		Action	Continue					
WCN091215-06	1	S6	4.39	0.247	12/15/2009@09:16:24			CRDL
		Known Conc:	5.00					
DQM Test: > + Concentration Limit								
		Result:	4.39 < 7.50					
		Message	CRDL Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	4.39 > 2.50					
		Message	Pass					
		Action	None					
1201992122|931341|MB	1	1	-1.54	3.22e-4	12/15/2009@09:18:13			
1201992132||LCS	1	2	48.6	2.08	12/15/2009@09:19:07			
242436001	1	3	-0.571	0.0406	12/15/2009@09:20:00			
1201992123||DUP	1	4	-2.60	-0.0439	12/15/2009@09:20:53			
1201992126||MS	1	5	96.4	4.07	12/15/2009@09:21:46			
1201992129||MSD	1	6	99.4	4.20	12/15/2009@09:22:38			
242441001	1	7	0.371	0.0798	12/15/2009@09:23:31			
242448001	1	8	5.87	0.308	12/15/2009@09:24:24			
242448002	1	9	-1.29	0.0106	12/15/2009@09:25:16			
242448003	1	10	-2.76	-0.0503	12/15/2009@09:26:08			
WCN091215-03	1	S3	98.9	4.17	12/15/2009@09:27:01			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	-1.1 < 10.0					

		Message	CCV Passed					
		Action	Continue					
		DQM Test: < - Percent Relative Difference						
		Result:	-1.1 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN091215-08	1	S7	-1.54	1.91e-4	12/15/2009@09:28:51			CCB
		Known Conc:	0.00					
		DQM Test: > + Concentration Limit						
		Result:	-1.54 < 5.00					
		Message	CCB Passed					
		Action	Continue					
		DQM Test: < - Concentration Limit						
		Result:	-1.54 > -5.00					
		Message	CCB Passed					
		Action	Continue					
242448004	1	11	-2.52	-0.0405	12/15/2009@09:30:39			
242448005	1	12	-1.27	0.0117	12/15/2009@09:31:31			
242448006	1	13	-2.41	-0.0358	12/15/2009@09:32:23			
242475001	1	14	-1.53	5.53e-4	12/15/2009@09:33:14			
1201992125||DUP	1	15	-0.467	0.0449	12/15/2009@09:34:06			
1201992128||MS	1	16	93.5	3.95	12/15/2009@09:35:00			
1201992131||MSD	1	17	93.8	3.96	12/15/2009@09:35:53			
242637001	1	18	65.0	2.77	12/15/2009@09:36:46			
242669001	1	19	-1.54	2.89e-4	12/15/2009@09:37:40			
242669002	1	20	-1.23	0.0131	12/15/2009@09:38:33			
WCN091215-03	1	S3	99.1	4.18	12/15/2009@09:39:27			CCV
		Known Conc:	100					
		DQM Test: > + Percent Relative Difference						
		Result:	-0.9 < 10.0					
		Message	CCV Passed					
		Action	Continue					
		DQM Test: < - Percent Relative Difference						
		Result:	-0.9 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN091215-08	1	S7	-2.89	-0.0556	12/15/2009@09:41:16			CCB
		Known Conc:	0.00					
		DQM Test: > + Concentration Limit						
		Result:	-2.89 < 5.00					
		Message	CCB Passed					
		Action	Continue					
		DQM Test: < - Concentration Limit						
		Result:	-2.89 > -5.00					
		Message	CCB Passed					
		Action	Continue					
242669003	1	21	-2.63	-0.0448	12/15/2009@09:43:04			
242669004	1	22	-2.63	-0.0449	12/15/2009@09:43:58			
242691002	1	23	-2.86	-0.0546	12/15/2009@09:44:51			
242749001	1	24	-1.49	0.00250	12/15/2009@09:45:43			
242782001	1	25	-1.54	3.20e-4	12/15/2009@09:46:35			
242782002	1	26	-1.54	2.83e-4	12/15/2009@09:47:27			
1201994713|932514|MB	1	27	-1.54	1.81e-4	12/15/2009@09:48:20			
1201994720||LCS	1	28	32.0	1.39	12/15/2009@09:49:12		25.00	
242441002	1	29	-1.54	3.36e-4	12/15/2009@09:50:04			
242441003	1	30	-1.19	0.0148	12/15/2009@09:50:55			
WCN091215-03	1	S3	98.6	4.17	12/15/2009@09:51:48			CCV
		Known Conc:	100					
		DQM Test: > + Percent Relative Difference						
		Result:	-1.4 < 10.0					
		Message	CCV Passed					
		Action	Continue					
		DQM Test: < - Percent Relative Difference						
		Result:	-1.4 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN091215-08	1	S7	-1.54	3.32e-4	12/15/2009@09:53:38			CCB
		Known Conc:	0.00					

DQM Test: > + Concentration Limit								
		Result:	-1.54 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.54 > -5.00					
		Message	CCB Passed					
		Action	Continue					
242565001	1	31	21.3	0.950	12/15/2009@09:55:28			
242567001	1	32	7.54	0.378	12/15/2009@09:56:22			
242661012	1	33	-0.324	0.0509	12/15/2009@09:57:15			
1201994714||DUP	1	34	-0.230	0.0548	12/15/2009@09:58:09			
1201994716||MS	1	35	78.3	3.32	12/15/2009@09:59:02			
1201994718||MSD	1	36	88.2	3.73	12/15/2009@09:59:56			
242661013	1	37	-1.54	1.71e-4	12/15/2009@10:00:48			
1201994715||DUP	1	38	-1.48	0.00300	12/15/2009@10:01:41			
1201994717||MS	1	39	96.2	4.06	12/15/2009@10:02:34			
1201994719||MSD	1	40	97.0	4.10	12/15/2009@10:03:27			
WCN091215-03	1	S3	99.3	4.19	12/15/2009@10:04:19			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	-0.7 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	-0.7 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN091215-08	1	S7	-1.54	3.28e-4	12/15/2009@10:06:09			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.54 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.54 > -5.00					
		Message	CCB Passed					
		Action	Continue					
242661014	1	41	-0.803	0.0309	12/15/2009@10:07:57			
242661015	1	42	-0.596	0.0396	12/15/2009@10:08:50			
242661016	1	43	1.62	0.132	12/15/2009@10:09:42			
242661017	1	44	0.839	0.0992	12/15/2009@10:10:34			
242661018	1	45	-0.737	0.0337	12/15/2009@10:11:26			
242661019	1	46	-2.20	-0.0272	12/15/2009@10:12:20			
242661020	1	47	-1.03	0.0216	12/15/2009@10:13:14			
242668001	1	48	0.794	0.0974	12/15/2009@10:14:09			
242668002	1	49	1.65	0.133	12/15/2009@10:15:01			
242743002	1	50	1.26	0.117	12/15/2009@10:15:55			
WCN091215-03	1	S3	99.3	4.19	12/15/2009@10:16:47			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	-0.7 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	-0.7 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN091215-08	1	S7	-2.75	-0.0501	12/15/2009@10:18:38			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-2.75 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-2.75 > -5.00					
		Message	CCB Passed					
		Action	Continue					

242748001	1	51	31.4	1.37	12/15/2009@10:20:28			
242748002	1	52	-0.809	0.0307	12/15/2009@10:21:21			
242750001	1	53	-0.900	0.0269	12/15/2009@10:22:15			
242792001	1	54	3.65	0.216	12/15/2009@10:23:08			
1201993018|931715|MB	1	55	-1.25	0.0123	12/15/2009@10:24:00			
1201993019||LCS	1	56	2.91	0.185	12/15/2009@10:24:53			
242441001	1	57	15.2	0.696	12/15/2009@10:25:45			
242716001	1	58	-2.69	-0.0475	12/15/2009@10:26:38			
1201994739||DUP	1	59	0.0316	0.0657	12/15/2009@10:27:30			
1201994736|932522|MB	1	60	-1.54	2.92e-4	12/15/2009@10:28:22			
WCN091215-03	1	S3	99.5	4.20	12/15/2009@10:29:15			CCV
		Known Conc:	100					
			DQM Test: > + Percent Relative Difference					
		Result:	-0.5 < 10.0					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Percent Relative Difference					
		Result:	-0.5 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN091215-08	1	S7	-3.69	-0.0893	12/15/2009@10:31:05			CCB
		Known Conc:	0.00					
			DQM Test: > + Concentration Limit					
		Result:	-3.69 < 5.00					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	-3.69 > -5.00					
		Message	CCB Passed					
		Action	Continue					
1201994738||LCS	1	61	-2.46	-0.0381	12/15/2009@10:32:55			
1201994753||LCSD	1	62	-1.45	0.00407	12/15/2009@10:33:49			
242441002	1	63	-0.502	0.0435	12/15/2009@10:34:44			
242441003	1	64	-0.311	0.0514	12/15/2009@10:35:37			
242565001	1	65	51.2	2.19	12/15/2009@10:36:31			
242567001	1	66	5.32	0.285	12/15/2009@10:37:24			
242441001|931715|	1	57	9.24	0.448	12/15/2009@10:38:17			
WCN091215-03	1	S3	98.9	4.18	12/15/2009@10:39:09			CCV
		Known Conc:	100					
			DQM Test: > + Percent Relative Difference					
		Result:	-1.1 < 10.0					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Percent Relative Difference					
		Result:	-1.1 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN091215-08	1	S7	-1.55	0.00	12/15/2009@10:41:00			CCB
		Known Conc:	0.00					
			DQM Test: > + Concentration Limit					
		Result:	-1.55 < 5.00					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	-1.55 > -5.00					
		Message	CCB Passed					
		Action	Continue					

Analyte Properties Table for OM_12-15-2009_09-02-12.OMN

Property	Channel 1
	TCYANIDE
Concentration Units	ug/L
Callibration Fit Type	First Order
Clear Calibration	True
Force Through Zero	False
Calibration Weighting	None
Auto Dilution Trigger	True

Author: axc2

Date : 12/15/2009

% of High Standard	100
Quik Chem Method	10-204-00-1-A
Chemistry	Direct/Bipolar
Calibration by Height	False
Inject to Peak Start	22
Peak Base Width	39

Channel 1: Current View

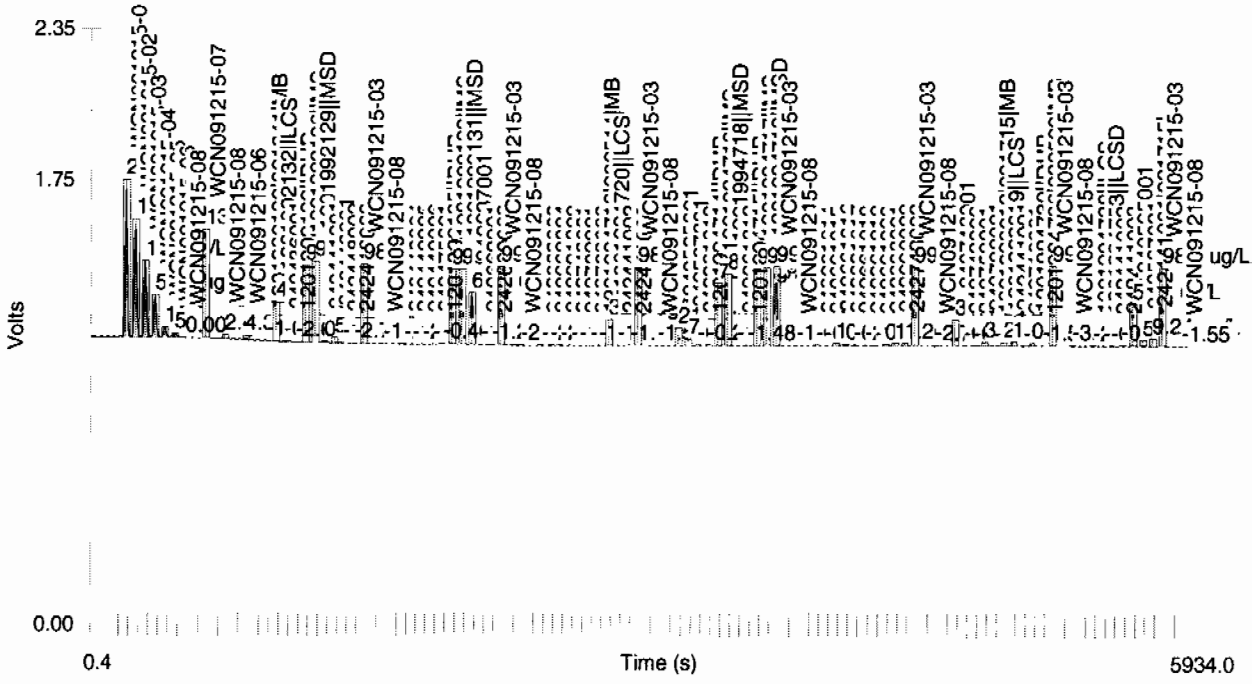

Table 1: TCYANIDE

	Conc. (ug/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	200	1	8.39	0.616	-0.2	12/15/2009	09:06:38
2	150	1	6.34	0.461	-0.7	12/15/2009	09:07:30
3	100	1	4.06	0.297	3.8	12/15/2009	09:08:22
4	50.0	1	2.26	0.164	-5.5	12/15/2009	09:09:15
5	10.0	1	0.535	0.0380	-11.1	12/15/2009	09:10:08
6	5.00	1	0.272	0.0172	1.0	12/15/2009	09:11:02
7	0.00	1	2.91e-4	0.00261		12/15/2009	09:11:56

Author: axc2 Date : 12/15/2009

Figure 1: TCYANIDE

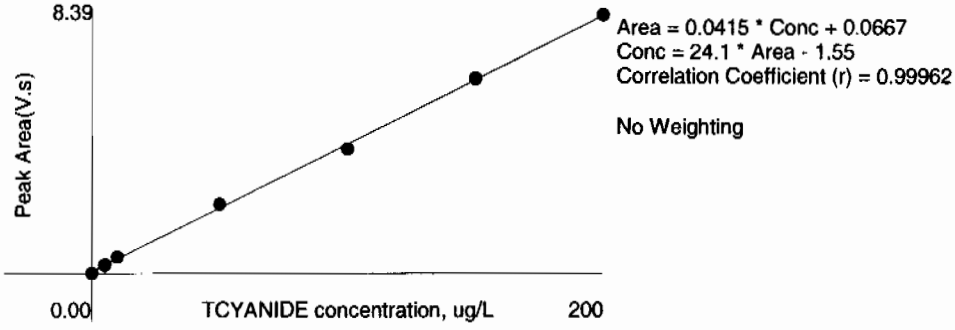

Wednesday, December 09, 2009

REQUEST NUMBER: 10-853

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

These Samples are on:

LANL Request Number:10-853

Per Agreement Number:126310011

Project Cost Code: MR2A054196D0

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 12/9/2009

TURNAROUND/REPORT DUE: 1/8/2010

TURNAROUND REQ'D: 30 Days

RAD SCREENING: Not Required

LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:

Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:906.0	1	RE03-09-14224	S	12/7/2009	
		1	RE03-09-14225	S	12/7/2009	
		1	RE03-09-14226	S	12/7/2009	
		1	RE03-09-14227	S	12/7/2009	
	SW-846:6010B	1	RE03-09-14224	S	12/7/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14225	S	12/7/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14226	S	12/7/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14227	S	12/7/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14265	S	12/7/2009	Plus, B, Li, Si, Ti, U

Wednesday, December 09, 2009

REQUEST NUMBER: 10-853

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:6010B	1	RE03-09-14267	S	12/7/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14269	S	12/7/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14271	S	12/7/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14273	S	12/7/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14274	S	12/7/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14277	S	12/7/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14278	S	12/7/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14281	S	12/7/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14282	S	12/7/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14283	S	12/7/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14284	S	12/7/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14285	S	12/7/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14286	S	12/7/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14287	S	12/7/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14288	S	12/7/2009	Plus, B, Li, Si, Ti, U
	SW-846:9012A	1	RE03-09-14224	S	12/7/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14225	S	12/7/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14226	S	12/7/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14227	S	12/7/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14265	S	12/7/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14267	S	12/7/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14269	S	12/7/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14271	S	12/7/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14273	S	12/7/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14274	S	12/7/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14277	S	12/7/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14278	S	12/7/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14281	S	12/7/2009	Plus, B, Li, Si, Ti, U

Wednesday, December 09, 2009

REQUEST NUMBER: 10-853

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:9012A	1	RE03-09-14282	S	12/7/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14283	S	12/7/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14284	S	12/7/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14285	S	12/7/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14286	S	12/7/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14287	S	12/7/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14288	S	12/7/2009	Plus, B, Li, Si, Ti, U

Final Page of REQUEST NUMBER 10-853

Wednesday, December 09, 2009

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-853

REQUEST NUMBER: 10-853

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 1/8/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS:

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE03-09-14224	1	POLY	H3	Ice	S
RE03-09-14224	1	POLY	Metals+CN - GEL	Ice	S
RE03-09-14227	1	POLY	H3	Ice	S
RE03-09-14227	1	POLY	Metals+CN - GEL	Ice	S
RE03-09-14225	1	POLY	H3	Ice	S
RE03-09-14225	1	POLY	Metals+CN - GEL	Ice	S
RE03-09-14226	1	POLY	H3	Ice	S
RE03-09-14226	1	POLY	Metals+CN - GEL	Ice	S
RE03-09-14288	1	POLY	Metals+CN - GEL	Ice	S
RE03-09-14287	1	POLY	Metals+CN - GEL	Ice	S
RE03-09-14267	1	POLY	Metals+CN - GEL	Ice	S
RE03-09-14265	1	POLY	Metals+CN - GEL	Ice	S
RE03-09-14281	1	POLY	Metals+CN - GEL	Ice	S
RE03-09-14284	1	POLY	Metals+CN - GEL	Ice	S
RE03-09-14274	1	POLY	Metals+CN - GEL	Ice	S
RE03-09-14277	1	POLY	Metals+CN - GEL	Ice	S
RE03-09-14282	1	POLY	Metals+CN - GEL	Ice	S
RE03-09-14269	1	POLY	Metals+CN - GEL	Ice	S
RE03-09-14273	1	POLY	Metals+CN - GEL	Ice	S
RE03-09-14271	1	POLY	Metals+CN - GEL	Ice	S
RE03-09-14278	1	POLY	Metals+CN - GEL	Ice	S
RE03-09-14285	1	POLY	Metals+CN - GEL	Ice	S
RE03-09-14286	1	POLY	Metals+CN - GEL	Ice	S
RE03-09-14283	1	POLY	Metals+CN - GEL	Ice	S

Relinquished By:		Date	Time	Received By:		Date	Time
		12-9-09	1400				
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2276 **EVENT NAME:** Soil Sampling at TA-60

SAMPLE ID: RE03-09-14224 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12-7-09	MEDIA:	NA	all H
TIME COLLECTED (HH:MM)		1447	SUB-MEDIA:	OTHER	NA
PRS ID:	60-004(f)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	03-608408	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	BH	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	1'	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	2'	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	S		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B re 12/7/09	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+~~8082~~+TPH-DRO	500 ML GLASS	Ice	Y	
1		H3	500 ML POLY	Ice	Y	
1		Metals+CN - GEL	125 ML POLY	Ice	Y	

SAMPLE DESC: Clay, Reddish brown 5YR 5/3

SAMPLE COMMENTS: NA

LOCATION DESC: 4 (f)-5

FIELD SCREENING/MEASUREMENT RESULTS: PID = 2.9 ppm BACKGROUND samples: < MDA
α: 74 dpm
β: 1494

COLLECTED BY (PRINT) L. Horne REVIEWED BY (PRINT) M. Nait

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) M. Nait	12-7-09	(Printed Name)	12-7-09
(Signature)	1630	(Signature)	1638
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2276 **EVENT NAME:** Soil Sampling at TA-60

SAMPLE ID: RE03-09-14225 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12-7-09	MEDIA:	NA	AIH
TIME COLLECTED (HH:MM)		1457	SUB-MEDIA:	OTHER	NA
PRS ID:	60-004(f)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	03-608408	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	BH	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	2'	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	3'	SCREEN/PORT DESC:		
FIELD MATRIX:	S		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B me 12/1/09	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+~~8082~~+TPH-DRO	500 ML GLASS	Ice	Y	
1		H3	500 ML POLY	Ice	Y	
1		Metals+CN - GEL	125 ML POLY	Ice	Y	

SAMPLE DESC: Clay. Reddish brown 5YR5/4

SAMPLE COMMENTS: NA

LOCATION DESC: 4 (f) - 5

FIELD SCREENING/MEASUREMENT RESULTS: PID = 46.9 ppm samples: MDA
BACKGROUND
α: 74 dpm
β: 1494

COLLECTED BY (PRINT) L. Horne REVIEWED BY (PRINT) M. Nauck

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) M. Nauck (Signature)	12-7-09 1636	(Printed Name) (Signature)	12-7-09 1636
RELINQUISHED BY (Printed Name) (Signature)	Date/Time	RECEIVED BY (Printed Name) (Signature)	Date/Time

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2276 **EVENT NAME:** Soil Sampling at TA-60

SAMPLE ID: RE03-09-14226 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12-7-09	MEDIA:	NA	all H
TIME COLLECTED (HH:MM)		1507	SUB-MEDIA:	OTHER	NA
PRS ID:	60-004(f)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	03-608408	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	BH	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	4'	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	5'	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	S		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B mr 12/7/09	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+~~8082~~+TPH-DRO	500 ML GLASS	Ice	Y	
1		H3	500 ML POLY	Ice	Y	
1		Metals+CN - GEL	125 ML POLY	Ice	Y	

SAMPLE DESC: clay: reddish brown (5 YR 5/4)

SAMPLE COMMENTS: NA

LOCATION DESC: 4 (f) -5

FIELD SCREENING/MEASUREMENT RESULTS: PID= NA
BACKGROUND
α: 74 dpm
β: 1494
samples: <MDA

COLLECTED BY (PRINT) L. Home REVIEWED BY (PRINT) M. Nauck

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) M. Nauck (Signature)	12-7-09 1630	(Printed Name) (Signature)	12/7/09 4:30
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name) (Signature)		(Printed Name) (Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2276 **EVENT NAME:** Soil Sampling at TA-60

SAMPLE ID: RE03-09-14227 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12-7-09	MEDIA:	NA	all H
TIME COLLECTED (HH:MM)		1530	SUB-MEDIA:	OTHER	NA
PRS ID:	60-004(f)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	03-608408	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	BH		FIELD PREP:	NA	
TOP DEPTH:	0	9'	SAMPLE USAGE:	INV	
BOTTOM DEPTH:	0	10'	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	S		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B MR 12/7/09	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C~~+8082~~+TP H-DRO	500 ML GLASS	Ice	Y	
1		H3	500 ML POLY	Ice	Y	
1		Metals+CN - GEL	125 ML POLY	Ice	Y	

SAMPLE DESC: sandy clay. reddish brown (5 YR 5/4)

SAMPLE COMMENTS: NA

LOCATION DESC: 4(f)-5

FIELD SCREENING/MEASUREMENT RESULTS: PID = 76.1 ppm samples: <MDA
BACKGROUND
α: 74 dpM
β: 1494

COLLECTED BY (PRINT) D. Thomas REVIEWED BY (PRINT) M. Ward

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) M. Ward	12-7-09	(Printed Name) K. Grace	12-7-09
(Signature)	1630	(Signature)	1630
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2276 **EVENT NAME:** Soil Sampling at TA-60

SAMPLE ID: RE03-09-14265 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12-7-09	MEDIA:	NA	alluvium
TIME COLLECTED (HH:MM)		1420	SUB-MEDIA:	OTHER	NA
PRS ID:	60-007(b)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	03-608417	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	1'	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	S		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B MR 12/7/09	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C ~~+8082+~~TP H-DRO	500 ML GLASS	Ice	Y	
1		Metals+CN - GEL	125 ML POLY	Ice	Y	Plus, B, Li, Si, Ti, U

SAMPLE DESC: dk brown alluvium (7.5 YR 3/2)

SAMPLE COMMENTS: moved location 10' south

LOCATION DESC: 7(b)-1

FIELD SCREENING/MEASUREMENT RESULTS: PID = 1.7 ppm samples: < MDA
BACKGROUND
α: 74 dpm
β: 1494

COLLECTED BY (PRINT) D. Thomas **REVIEWED BY (PRINT)** M. Nault

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) M. Nault	12-7-09	(Printed Name)	12-7-09
(Signature)	1630	(Signature)	1630
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2276 **EVENT NAME:** Soil Sampling at TA-60

SAMPLE ID: RE03-09-14267 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12-7-09	MEDIA:	NA	alluvium
TIME COLLECTED (HH:MM)		1405	SUB-MEDIA:	OTHER	NA
PRS ID:	60-007(b)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	03-608418	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	mA 0-0.5' 12/7	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	S		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — **COMPOSITE TIME INTERVAL:** — **WATER FLOWING:** YES / NO / NA

BOREHOLE: YES / NO / NA **BOREHOLE DECLINATION:** — **BOREHOLE DIRECTION:** —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+8082+TPH-DRO	500 ML GLASS	Ice	Y	
1		Metals+CN - GEL	125 ML POLY	Ice	Y	Plus, B, Li, Si, Ti, U

SAMPLE DESC: dk brown alluvium (7.5 YR 3/2)

SAMPLE COMMENTS: moved location 10' west

LOCATION DESC: 7(b)-2

FIELD SCREENING/MEASUREMENT RESULTS: PID= 0.3 ppm samples : < mDA
BACKGROUND
α : 74 dpm
β : 1474

COLLECTED BY (PRINT) D. Thomas **REVIEWED BY (PRINT)** M Nauck

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) M. Nauck (Signature)	12-7-09 1630	(Printed Name) (Signature)	12-7-09 1630
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name) (Signature)		(Printed Name) (Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2276 **EVENT NAME:** Soil Sampling at TA-60

SAMPLE ID: RE03-09-14269 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12-7-09	MEDIA:	NA	alluvium
TIME COLLECTED (HH:MM)		1350	SUB-MEDIA:	OTHER	NA
PRS ID:	60-007(b)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	03-608419	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	+0.4'	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	S		EXCAVATED: YES / NO (NA)		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO (NA)

BOREHOLE: YES / NO (NA) BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B MR 12/7/09	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+~~8082~~+TPH-DRO	500 ML GLASS	Ice	Y	
1		Metals+CN - GEL	125 ML POLY	Ice	Y	Plus, B, Li, Si, Ti, U

SAMPLE DESC: DK. Brown alluvium (7.5 YR 3/2)

SAMPLE COMMENTS: moved location 15' to the east

LOCATION DESC: 7(b)-3

FIELD SCREENING/MEASUREMENT RESULTS: PID= 0.8 ppm
BACKGROUND samples: <MDA
α: 74
β: 1494 dpm

COLLECTED BY (PRINT) M. Shendo **REVIEWED BY (PRINT)** M. Nauck

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) M. Nauck (Signature)	12-7-09 1630	(Printed Name) (Signature)	12-7-09 1630
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name) (Signature)		(Printed Name) (Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2276 **EVENT NAME:** Soil Sampling at TA-60

SAMPLE ID: RE03-09-14271 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12-7-09	MEDIA:	NA	alluvium
TIME COLLECTED (HH:MM)		1345	SUB-MEDIA:	OTHER	NA
PRS ID:	60-007(b)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	03-608420	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	MR 12/7/09 0.5'	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	S		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B MR 12/7/09	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+~~8082+~~TPH-DRO	500 ML GLASS	Ice	Y	
1		Metals+CN - GEL	125 ML POLY	Ice	Y	Plus, B, Li, Si, Ti, U

SAMPLE DESC: DK BROWN alluvium (7.5 YR 3/2)

SAMPLE COMMENTS: ~~0-.5'~~ MR 12/7/09 location moved 3' east; 0.5' of sediment before bedrock

LOCATION DESC: 7(b)-4

FIELD SCREENING/MEASUREMENT RESULTS: PID = 0.9 ppm BACKGROUND samples: <MDA
α: 74 dpm
β: 1494

COLLECTED BY (PRINT) D. Thomas REVIEWED BY (PRINT) M. Mack

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) M. Mack (Signature)	12-7-09 1630	(Printed Name) K. Greene (Signature)	12-7-09 1630
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name) (Signature)		(Printed Name) (Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2276 **EVENT NAME:** Soil Sampling at TA-60

SAMPLE ID: RE03-09-14273 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12-7-09	MEDIA:	NA	OK
TIME COLLECTED (HH:MM)		1013	SUB-MEDIA:	OTHER	
PRS ID:	60-007(b)	OK	SAMPLE TECH CODE:	HA	
LOCATION ID:	03-608421		FIELD QC TYPE:	NA	
LOCATION TYPE:	GENERIC		FIELD PREP:	NA	
TOP DEPTH:	0	0	SAMPLE USAGE:	INV	
BOTTOM DEPTH:	0	1'	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	S		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B me 12/7/09	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C~~+8082~~+TPH-DRO	500 ML GLASS	Ice	Y	
1		Metals+CN - GEL	125 ML POLY	Ice	Y	Plus, B, Li, Si, Ti, U

SAMPLE DESC: SILTY SAND w/ plant roots. Brown (7.5 YR 5/4)

SAMPLE COMMENTS: Hit tuff @ 10"

LOCATION DESC: 7(b)-5

FIELD SCREENING/MEASUREMENT RESULTS: PID = 8.9 ppm
BACKGROUND
α: 74 dpm
β: 1494

samples: < MDA

COLLECTED BY (PRINT) M. Shendo **REVIEWED BY (PRINT)** M. Nauck

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) M. Nauck	12-7-09	(Printed Name)	12-7-09
(Signature)	1630	(Signature)	1630
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2276 **EVENT NAME:** Soil Sampling at TA-60

SAMPLE ID: RE03-09-14274 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12-7-09	MEDIA:	NA	ma 12/7/09 ~~OK~~ all H
TIME COLLECTED (HH:MM)		1029	SUB-MEDIA:	OTHER	
PRS ID:	60-007(b)	OK	SAMPLE TECH CODE:	HA	
LOCATION ID:	03-608421		FIELD QC TYPE:	NA	
LOCATION TYPE:	GENERIC		FIELD PREP:	NA	
TOP DEPTH:	0	1'	SAMPLE USAGE:	INV	
BOTTOM DEPTH:	0	2'	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	S		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B ma 12/7/09	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+~~8082~~+TP H-DRO	500 ML GLASS	Ice	Y	
1		Metals+CN - GEL	125 ML POLY	Ice	Y	Plus, B, Li, Si, Ti, U

SAMPLE DESC: Brown tuff (7.5 YR 5/4)

SAMPLE COMMENTS: NA

LOCATION DESC: 7(b)-5

FIELD SCREENING/MEASUREMENT RESULTS: PID = 9.8 ppm samples: LMDA
BACKGROUND
α: 74
β: 1494

COLLECTED BY (PRINT) D. Thomas **REVIEWED BY (PRINT)** Maurice Shendo

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) M. Shendo	12/7/09	(Printed Name)	12/7/09
(Signature)	1630	(Signature)	1630
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2276 **EVENT NAME:** Soil Sampling at TA-60

SAMPLE ID: RE03-09-14277 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12-7-09	MEDIA:	NA	all H
TIME COLLECTED (HH:MM)		0900	SUB-MEDIA:	OTHER	NA
PRS ID:	60-007(b)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	03-608423	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC		FIELD PREP:	NA	
TOP DEPTH:	0	0	SAMPLE USAGE:	INV	
BOTTOM DEPTH:	0	1'	SCREEN/PORT DESC:		
FIELD MATRIX:	S		EXCAVATED: YES / NO (NA)		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / (NA)

BOREHOLE: YES / NO (NA) BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+8082+TPH-DRO	500 ML GLASS	Ice	Y	
1		Metals+CN - GEL	125 ML POLY	Ice	Y	Plus, B, Li, Si, Ti, U

SAMPLE DESC: sand & gravel fill. dk yellowish brown (10 YR 4/4)

SAMPLE COMMENTS: plant roots

LOCATION DESC: 7(b)-7

FIELD SCREENING/MEASUREMENT RESULTS: PID = 930 ppm samples: LMDA
BACKGROUND
α: 74 dpm
β: 1494

COLLECTED BY (PRINT) M. Shendo **REVIEWED BY (PRINT)** M. Nauck

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) M. Nauck (Signature)	12-7-09 1630	(Printed Name) (Signature)	12-7-09 1630
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name) (Signature)		(Printed Name) (Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2276 **EVENT NAME:** Soil Sampling at TA-60

SAMPLE ID: RE03-09-14278 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12-7-09	MEDIA:	NA	all H
TIME COLLECTED (HH:MM)		0902	SUB-MEDIA:	OTHER	NA
PRS ID:	60-007(b)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	03-608423	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	1'	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	2'	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	S		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+8082+TPH-DRO	500 ML GLASS	Ice	Y	
1		Metals+CN - GEL	125 ML POLY	Ice	Y	Plus, B, Li, Si, Ti, U

SAMPLE DESC: SILTY SAND. DK YELLOWISH BROWN (10 YR 4/4)

SAMPLE COMMENTS: plant roots

LOCATION DESC: 7(b)-7

FIELD SCREENING/MEASUREMENT RESULTS: PID- ~~930~~ 107 ppm ml 12/7/09
BACKGROUND
α: 74
β: 1794

Samples: LMDA

COLLECTED BY (PRINT) L. Horne

REVIEWED BY (PRINT) Maurice Shendo

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) M. Shendo (Signature) [signature]	12/7/09 1630	(Printed Name) (Signature) [signature]	12/7/09 1630
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name) (Signature)		(Printed Name) (Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2276 **EVENT NAME:** Soil Sampling at TA-60

SAMPLE ID: RE03-09-14281 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12-7-09	MEDIA:	NA	ma 12/7/09 ~~AHH~~ QTB3
TIME COLLECTED (HH:MM)		0937	SUB-MEDIA:	OTHER	NA
PRS ID:	60-007(b)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	03-608425		FIELD QC TYPE:	NA	
LOCATION TYPE:	GENERIC		FIELD PREP:	NA	
TOP DEPTH:	0	0	SAMPLE USAGE:	INV	
BOTTOM DEPTH:	0	1'	SCREEN/PORT DESC:		NA
FIELD MATRIX:	ma 12/7/09 ~~S~~ R		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B ma 12/7/09	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+~~8082~~+TPH-DRO	500 ML GLASS	Ice	Y	
1		Metals+CN - GEL	125 ML POLY	Ice	Y	Plus, B, Li, Si, Ti, U

SAMPLE DESC: Brown tuff (7.5YR 4/3)

SAMPLE COMMENTS: Hit tuff @ surface

LOCATION DESC: 7(b) - 9

FIELD SCREENING/MEASUREMENT RESULTS: PID: 1.0 ppm Background α 17 74 β 144 dpm Samples: < MDA

COLLECTED BY (PRINT) M. Sherdo REVIEWED BY (PRINT) M. Nauck

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) M. Nauck (Signature)	12-7-09 1630	(Printed Name) (Signature)	12-7-09 1630
RELINQUISHED BY (Printed Name) (Signature)	Date/Time	RECEIVED BY (Printed Name) (Signature)	Date/Time

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2276 **EVENT NAME:** Soil Sampling at TA-60

SAMPLE ID: RE03-09-14282 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12-7-09	MEDIA:	NA	QTB3
TIME COLLECTED (HH:MM)		1000	SUB-MEDIA:	OTHER	NA
PRS ID:	60-007(b)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	03-608425		FIELD QC TYPE:	NA	
LOCATION TYPE:	GENERIC		FIELD PREP:	NA	
TOP DEPTH:	0	1'	SAMPLE USAGE:	INV	
BOTTOM DEPTH:	0	2'	SCREEN/PORT DESC:		—
FIELD MATRIX:	MR 12/7/09 & R		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B MR 12/7/09	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+~~8082~~+TPH-DRO	500 ML GLASS	Ice	Y	
1		Metals+CN - GEL	125 ML POLY	Ice	Y	Plus, B, Li, Si, Ti, U

SAMPLE DESC: Tuff. Brown 7.5YR 4/3

SAMPLE COMMENTS: NA

LOCATION DESC: 7(b)-9

FIELD SCREENING/MEASUREMENT RESULTS: PID: 4.3ppm Background α 74 β 1494 dpm Samples: LMDA

COLLECTED BY (PRINT) M. Sherdo **REVIEWED BY (PRINT)** M. Vauck

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) M. Vauck (Signature)	12-7-09 1630	(Printed Name) (Signature)	12-7-09 1630
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name) (Signature)		(Printed Name) (Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2276 **EVENT NAME:** Soil Sampling at TA-60

SAMPLE ID: RE03-09-14283 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12-7-09	MEDIA:	NA	QTBg
TIME COLLECTED (HH:MM)		1310	SUB-MEDIA:	OTHER	NA
PRS ID:	60-007(b)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	03-608426	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	1'	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	me 12/7/09 S R		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B me 12/7/09	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+~~8082~~+TPH-DRO	500 ML GLASS	Ice	Y	
1		Metals+CN - GEL	125 ML POLY	Ice	Y	Plus, B, Li, Si, Ti, U

SAMPLE DESC: Reddish brown tuff. (5YR 4/3)

SAMPLE COMMENTS: NA

LOCATION DESC: 7(b)-10

FIELD SCREENING/MEASUREMENT RESULTS: PID = 1.6ppm background α: 74 β: 1494 samples: LMOA

COLLECTED BY (PRINT) D. Thomas **REVIEWED BY (PRINT)** Maurice Shendo

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) M. Shendo (Signature) [signature]	12/7/09 1630	(Printed Name) (Signature) [signature]	12/7/09 1630
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name) (Signature)		(Printed Name) (Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2276 **EVENT NAME:** Soil Sampling at TA-60

SAMPLE ID: RE03-09-14284 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12-7-09	MEDIA:	NA	QTB3
TIME COLLECTED (HH:MM)		1320	SUB-MEDIA:	OTHER	NA
PRS ID:	60-007(b)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	03-608426	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	1'	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	2'	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	mr 12/7/09 ~~S~~ R		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B mr 12/7/09	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+~~8082~~+TPH-DRO	500 ML GLASS	Ice	Y	
1		Metals+CN - GEL	125 ML POLY	Ice	Y	Plus, B, Li, Si, Ti, U

SAMPLE DESC: DARK REDDISH GRAY TUFF (5 YR 4/2)

SAMPLE COMMENTS: NA

LOCATION DESC: 7(b)-10

FIELD SCREENING/MEASUREMENT RESULTS: PID = 0.0ppm Samples: LMDA
Background
α: 74
β: 1494

COLLECTED BY (PRINT) L. Horne REVIEWED BY (PRINT) [signature]

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) M. Sheridan (Signature) [signature]	12/7/09 1630	(Printed Name) (Signature) [signature]	12/7/09 1630
RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) (Signature)		(Printed Name) (Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2276 **EVENT NAME:** Soil Sampling at TA-60

SAMPLE ID: RE03-09-14285 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12-7-09	MEDIA:	NA	ME 12/7/09 ~~all H~~ ~~CB~~
TIME COLLECTED (HH:MM)		1134	SUB-MEDIA:	OTHER	NA
PRS ID:	60-007(b)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	03-608427	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	1'	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	ME 12/7/09 SR		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+8082+TPH-DRO	500 ML GLASS	Ice	Y	
1		Metals+CN - GEL	125 ML POLY	Ice	Y	Plus, B, Li, Si, Ti, U

SAMPLE DESC: reddish brown tuff (2.5 YR 4/4)

SAMPLE COMMENTS: Hit tuff @ surface

LOCATION DESC: 7(b)-11

FIELD SCREENING/MEASUREMENT RESULTS: PID = 2.6 ppm BACKGROUND α: 74 β: 1494 samples: LMDA

COLLECTED BY (PRINT) L. Horne **REVIEWED BY (PRINT)** Maurice Shende

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) M. Shende	12/7/09	(Printed Name)	12/7/09
(Signature)	1630	(Signature)	1630
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2276 **EVENT NAME:** Soil Sampling at TA-60

SAMPLE ID: RE03-09-14286 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12-7-09	MEDIA:	NA	mR 12/7/09 ~~all H~~ QTB3
TIME COLLECTED (HH:MM)		1140	SUB-MEDIA:	OTHER	NA
PRS ID:	60-007(b)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	03-608427	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	1'	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	2'	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	mR 12/7/09 ~~S~~ R		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+8082+TPH-DRO	500 ML GLASS	Ice	Y	
1		Metals+CN - GEL	125 ML POLY	Ice	Y	Plus, B, Li, Si, Ti, U

SAMPLE DESC: reddish brown tuff (2.5 YR 4/4)

SAMPLE COMMENTS: NA

LOCATION DESC: 7(b) - 11

FIELD SCREENING/MEASUREMENT RESULTS: PID = 4.1 ppm BACKGROUND α: 74 β: 1494 dpm samples: < MDA

COLLECTED BY (PRINT) D. Thomas **REVIEWED BY (PRINT)** M. Vanek

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) M. Vanek (Signature)	12-7-09 1630	(Printed Name) (Signature)	12-7-09 1630
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name) (Signature)		(Printed Name) (Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2276 **EVENT NAME:** Soil Sampling at TA-60

SAMPLE ID: RE03-09-14287 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12-7-09	MEDIA:	NA	all H
TIME COLLECTED (HH:MM)		1100	SUB-MEDIA:	OTHER	NA
PRS ID:	60-007(b)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	03-608428	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	1'	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	S		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B ME 12/7/09	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+~~8082~~+TPH-DRO	500 ML GLASS	Ice	Y	
1		Metals+CN - GEL	125 ML POLY	Ice	Y	Plus, B, Li, Si, Ti, U

SAMPLE DESC: SILTY SAND (Brown 7.5 YR 4/2)

SAMPLE COMMENTS: plant roots

LOCATION DESC: 7(b)-12

FIELD SCREENING/MEASUREMENT RESULTS: PID = 6.9 ppm Background α: 74 dpm β: 1494 samples: LMDA

COLLECTED BY (PRINT) M. Shendo REVIEWED BY (PRINT) M. Yarch

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) M. Yarch (Signature)	12-7-09 1630	(Printed Name) (Signature)	12-7-09 1630
RELINQUISHED BY (Printed Name) (Signature)	Date/Time	RECEIVED BY (Printed Name) (Signature)	Date/Time

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2276 **EVENT NAME:** Soil Sampling at TA-60

SAMPLE ID: RE03-09-14288 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12-7-09	MEDIA:	NA	all H
TIME COLLECTED (HH:MM)		1105	SUB-MEDIA:	OTHER	NA
PRS ID:	60-007(b)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	03-608428	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC		FIELD PREP:	NA	
TOP DEPTH:	0	1'	SAMPLE USAGE:	INV	
BOTTOM DEPTH:	0	2'	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	S		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B ME 12/7/09	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C ~~+8082~~+TP H-DRO	500 ML GLASS	Ice	Y	
1		Metals+CN - GEL	125 ML POLY	Ice	Y	Plus, B, Li, Si, Ti, U

SAMPLE DESC: SILTY SAND. Brown (7.5 YR 4/2)

SAMPLE COMMENTS: plant roots

LOCATION DESC: 7(b)-12

FIELD SCREENING/MEASUREMENT RESULTS: PID = 26.6 ppm Background samples: LMDA
α: 74 dpm
β: 1494

COLLECTED BY (PRINT) D. Thomas **REVIEWED BY (PRINT)** M. Vaick

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) M. Vaick	12-7-09	(Printed Name)	12-7-09
(Signature)	1630	(Signature)	1630
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2276 **EVENT NAME:** Soil Sampling at TA-60

SAMPLE ID: RE03-09-14294 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12-7-09	MEDIA:	NA	ok
TIME COLLECTED (HH:MM)		0902	SUB-MEDIA:	OTHER	
PRS ID:	~~G-09-007~~ MN 12-7-09	60-007(b)	SAMPLE TECH CODE:	SS	
LOCATION ID:	~~UNK~~	03-608423	FIELD QC TYPE:	FTB	
LOCATION TYPE:	GENERIC	ok	FIELD PREP:	NA	
TOP DEPTH:	0		SAMPLE USAGE:	QC	
BOTTOM DEPTH:	0		SCREEN/PORT DESC:		NA
FIELD MATRIX:	S		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1~~2~~	MN 12-7-09	8260B Trip Blank	40 ML SEPTUM AMBER GLASS	Ice	Y	

SAMPLE DESC: QC Sample of RE03-09-14278

SAMPLE COMMENTS: NA

LOCATION DESC: 76-7

FIELD SCREENING/MEASUREMENT RESULTS: NA

COLLECTED BY (PRINT) M. Sanchez

REVIEWED BY (PRINT) Maurice Sandoval

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) M. Sandoval	12/7/09	(Printed Name) K. Greene	12/7/09
(Signature)	1630	(Signature)	1630
RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

DATA VALIDATION COVER SHEET

5118-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-853 VALIDATION DATE: 03/25/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Kevin A. Lambert ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☒ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE):

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☐	☐	☒	8. QUANTITATION REPORTS
☐	☐	☒	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. In the FB, sample RE03-10-2754 from RN 10-854, associated with samples -09-14274 and 09-14273, Hg and Si were detected. The Hg results were detects ≤5X the FB concentration and, thus, were qualified U,I4d. The Si results were detects >5X the FB concentration and, thus, were not qualified.

   In the FR blank, sample -10-2767 from RN 10-854, associated with all field samples, Al, Ca, Cr, Fe, Mn, Ni, Si, Na, Ti, and Zn were detected. The Ni results for samples -09-14285 and -09-14286; the Si results for -09-14265, -09-14281, -09-14284, -09-14282, -09-14269, and -09-14286; and the Na results for samples -09-14288, -09-14287, -09-14281, -09-14274, -09-14282, and -09-14273 were detects ≤5X the FR blank concentrations and, thus, were qualified U,I4d. All other associated sample results were detects >5X the FR blank concentrations and, thus, were not qualified.

2. The MS %Rs for Al, Ba, Fe, Li, Mg, Mn, and Ti were > the laboratory UAL. However, the associated parent sample concentrations for Al, Fe, Mn, and Ti were >4X the spike concentrations. Thus, no sample data were qualified as result, based on professional judgment. All associated Ba, Li, and Mg results were detects and, thus, were qualified J+,I6b.

Reviewed by: Mary Donivan Level: I Date: 03/25/10

DATA VALIDATION COVER SHEET

5118-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY

VALIDATOR'S SIGNATURE: Kevin A Lambert DATE: 03/25/10

Form 5118-1, Revision 0.0

LOS ALAMOS
Environmental Restoration Project

METALS ANALYTICAL DATA VALIDATION CHECKLIST

5118-2

Metals Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, I9	J-, I9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, I9a	J-, I9a
☐	☐	☒	3. The instrument performance sample did not pass method acceptance criteria.	R, I16	R, I16
☐	☐	☒	4. The mass calibration is not within 0.1 amu or %RSD is >5% for any isotope (Be, Mg, Co, In, Pb).	UJ, I16a	J, I16a
☐	☐	☒	5. Samples were analyzed outside specific method tune time criteria.	N/A	J, I16b
☐	☐	☒	6. The required instrument performance sample information is missing. Contact the SMO or external laboratory for information.	R, I16c	R, I16c
☐	☒	☐	7. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, I7	J, I7
☐	☒	☐	8. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, I7a	J, I7a
☐	☒	☐	9. The initial Calibration Verification (ICV) and/or Continuing Calibration Verification (CCV) were recovered outside the method-specific limits.	UJ, I7c	J, I7c
☐	☒	☐	10. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, I7d	J, I7d
☐	☒	☐	11. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, I7f	R, I7f
☐	☒	☐	12. Metals interference check sample percent recover value is <50%.	R, I2	J-, I2

METALS ANALYTICAL DATA VALIDATION CHECKLIST

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Metals Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	13. Metals interference check sample percent recovery value is ≥50% and <80%	UJ, I2a	J-, I2a
☐	☒	☐	14. Metals interference check sample percent recovery value is >120%.	N/A	J+, I2b
☐	☒	☐	15. Metals interference check sample was not analyzed with the samples.	R, I2c	R, I2c
☐	☒	☐	16. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, I4	N/A
☐	☒	☐	17. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X.	N/A	J, I4a
☐	☒	☐	18. The sample result is ≤5X the concentration of the related analyte in the instrument blank and continuing calibration blank.	U, I4b	N/A
☐	☒	☐	19. Continuing calibration blanks were not analyzed at the appropriate method frequency.	UJ, I4c	J, I4c
☒	☐	☐	20. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	U, I4d	N/A
☐	☒	☐	21. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, I4e	R, I4e
☐	☒	☐	22. The associated matrix spike recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I6	R, I6
☐	☒	☐	23. The associated matrix spike recovery was <the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I6a	J+, I6a
☒	☐	☐	24. The associated matrix spike recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	UJ, I6b	J+, I6b

METALS ANALYTICAL DATA VALIDATION CHECKLIST

5118-2 Metals Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	25. Required matrix spike information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. If the LCS information is present, do not Reject. Qualify data based on the LCS information.	R, I6c	R, I6c
☐	☒	☐	26. The sample and the duplicate sample results were ≥5X the RL and the duplicate RPD was >20% for water samples and >35% for soil samples.	UJ, I10a	J, I10a
☐	☒	☐	27. The duplicate sample was not prepared and/or analyzed with the samples for unspecified reasons. The duplicate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	UJ, I10d	J, I10d
☐	☒	☐	28. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I12	R, I12
☐	☒	☐	29. The LCS percent recover was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I12a	J-, I12a
☐	☒	☐	30. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, I12b
☐	☒	☐	31. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. Do not Reject if MS/MSD information is present. Qualify according to MS/MSD criteria.	R, I12c	R, I12c
☐	☐	☒	32. The quantitating IS area count is <10% for metals window in relation to the initial calibration blank. Follow the method-specific windows.	R, I1a	J, I1a

METALS ANALYTICAL DATA VALIDATION CHECKLIST

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Metals Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	33. The IS area count for the quantitating IS is <60% but >10% for metals window in relation to the initial calibration blank. Follow the method-specific windows.	UJ, I1b	J, I1b
☐	☐	☒	34. The IS area count for the quantitating IS is >125% in relation to the metals initial calibration blank. Follow method-specific windows.	UJ, I1c	J, I1c
☐	☐	☒	35. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, I1d	R, I1d
☐	☐	☒	36. Serial dilution sample RPD was >10% and the sample result was >50X the MDL (>100X the MDL for ICPMS). Qualify ONLY the sample used for the serial dilution.	UJ, I18	J, I18
☐	☐	☒	37. Serial dilution sample was not analyzed with the samples.	UJ, I18a	J, I18
☐	☐	☒	38. The sample result was reported as detected between the IDL and the EDL.	N/A	J, I1
☐	☒	☐	39. Duplicate, dilution, or reanalysis.	UJ, I88	J, I88
☒	☐	☐	40. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB, NQ, NQ
☐	☒	☐	41. The LANL project chemist identified quality deficiencies in the reported data that require further qualification. This code can ONLY be used and/or under advisement by the LANL project chemist.	UJ, R, I19	J, R, I19

METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-853 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 242661001 **BASIS:** Dry Weight **DATE COLLECTED** 07-DEC-09

CLIENT ID: RE03-09-14224 **LEVEL:** Low **DATE RECEIVED** 10-DEC-09

MATRIX: SOIL **%SOLIDS:** 87

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	9390000	ug/Kg		7520	22100	22100	1	P	HSC	12/19/09 19:13	121909-1	932275
7440-36-0	Antimony	1110	ug/Kg	U	365	1110	1110	1	P	HSC	12/19/09 19:13	121909-1	932275
7440-38-2	Arsenic	2.02	mg/kg		0.221	1.1	1.1	2	MS	SKJ	12/31/09 21:41	091231-3	932315
7440-39-3	Barium J+,I6b	156000	ug/Kg	N	111	553	553	1	P	HSC	12/19/09 19:13	121909-1	932275
7440-41-7	Beryllium	0.898	mg/kg		0.0221	0.11	0.11	2	MS	SKJ	12/31/09 21:41	091231-3	932315
7440-42-8	Boron	1830	ug/Kg	J	1110	5530	5530	1	P	HSC	12/19/09 19:13	121909-1	932275
7440-43-9	Cadmium	553	ug/Kg	U	111	553	553	1	P	HSC	12/19/09 19:13	121909-1	932275
7440-70-2	Calcium	1830000	ug/Kg		8850	27700	27700	1	P	HSC	12/19/09 19:13	121909-1	932275
7440-47-3	Chromium	10000	ug/Kg		166	553	553	1	P	HSC	12/19/09 19:13	121909-1	932275
7440-48-4	Cobalt	6160	ug/Kg		166	553	553	1	P	HSC	12/19/09 19:13	121909-1	932275
7440-50-8	Copper	7450	ug/Kg		332	1110	1110	1	P	HSC	12/19/09 19:13	121909-1	932275
7439-89-6	Iron	13900000	ug/Kg		8850	27700	27700	1	P	HSC	12/19/09 19:13	121909-1	932275
7439-92-1	Lead	13400	ug/Kg		277	1110	1110	1	P	HSC	12/19/09 19:13	121909-1	932275
7439-93-2	Lithium J+,I6b	14.2	mg/kg	N	0.442	2.21	2.21	2	MS	SKJ	01/01/10 05:48	091231-5	932315
7439-95-4	Magnesium J+,I6b	1900000	ug/Kg	N	9400	33200	33200	1	P	HSC	12/19/09 19:13	121909-1	932275
7439-96-5	Manganese	449000	ug/Kg	*	221	1110	1110	1	P	HSC	12/19/09 19:13	121909-1	932275
7439-97-6	Mercury	19.4	ug/kg		4.28	12.6	12.6	1	AV	JXL1	01/04/10 09:24	010410S1-7	936549
7440-02-0	Nickel	8.17	mg/kg		0.11	0.442	0.442	2	MS	SKJ	12/31/09 21:41	091231-3	932315
7440-09-7	Potassium	1490000	ug/Kg	N	7080	27700	27700	1	P	HSC	12/19/09 19:13	121909-1	932275
7782-49-2	Selenium	1.1	mg/kg	U	0.552	1.1	1.1	2	MS	SKJ	12/31/09 21:41	091231-3	932315
7440-21-3	Silicon	1770000	ug/Kg	N	1660	11100	11100	1	P	HSC	12/19/09 19:13	121909-1	932275
7440-22-4	Silver	584	ug/Kg		111	553	553	1	P	HSC	12/19/09 19:13	121909-1	932275
7440-23-5	Sodium	416000	ug/Kg	E	7740	27700	27700	1	P	HSC	12/19/09 19:13	121909-1	932275
7440-28-0	Thallium	0.227	mg/kg		0.0663	0.221	0.221	2	MS	SKJ	12/31/09 21:41	091231-3	932315
7440-32-6	Titanium	470000	ug/Kg		111	553	553	1	P	HSC	12/19/09 19:13	121909-1	932275
7440-61-1	Uranium	1.14	mg/kg		0.0146	0.0442	0.0442	2	MS	SKJ	01/01/10 05:48	091231-5	932315
7440-62-2	Vanadium	27000	ug/Kg		111	553	553	1	P	HSC	12/19/09 19:13	121909-1	932275
7440-66-6	Zinc	33500	ug/Kg		365	1110	1110	1	P	HSC	12/19/09 19:13	121909-1	932275

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
932275	932274	SW846 3050B	0.52	g	50	mL	12/17/09	BCD1
932315	932314	SW846 3050B	0.521	g	50	mL	12/17/09	BCD1
934855	934854	SW846 7471A Prep	0.578	g	30	mL	12/22/09	TXB3

KAL
03/25/10

METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10 853 CONTRACT: LANL01004 METHOD TYPE: SW846

SAMPLE ID: 242661002 BASIS: Dry Weight DATE COLLECTED 07 DEC 09

CLIENT ID: RE03 09 14227 LEVEL: Low DATE RECEIVED 10 DEC 09

MATRIX: SOIL %SOLIDS: 90.3

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429 90 5	Aluminum	4760000	ug/Kg		7460	21900	21900	1	P	HSC	12/19/09 19:49	121909 1	932275
7440 36 0	Antimony	1100	ug/Kg	U	362	1100	1100	1	P	HSC	12/19/09 19:49	121909 1	932275
7440 38 2	Arsenic	1.69	mg/kg		0.219	1.09	1.09	2	MS	SKJ	12/31/09 22:24	091231 3	932315
7440 39 3	Barium J+,I6b	31800	ug/Kg	N	110	548	548	1	P	HSC	12/19/09 19:49	121909 1	932275
7440 41 7	Beryllium	0.971	mg/kg		0.0219	0.109	0.109	2	MS	SKJ	12/31/09 22:24	091231 3	932315
7440 42 8	Boron	5480	ug/Kg	U	1100	5480	5480	1	P	HSC	12/19/09 19:49	121909 1	932275
7440 43 9	Cadmium	548	ug/Kg	U	110	548	548	1	P	HSC	12/19/09 19:49	121909 1	932275
7440 70 2	Calcium	908000	ug/Kg		8770	27400	27400	1	P	HSC	12/19/09 19:49	121909 1	932275
7440 47 3	Chromium	4440	ug/Kg		164	548	548	1	P	HSC	12/19/09 19:49	121909 1	932275
7440 48 4	Cobalt	686	ug/Kg		164	548	548	1	P	HSC	12/19/09 19:49	121909 1	932275
7440 50 8	Copper	2560	ug/Kg		329	1100	1100	1	P	HSC	12/19/09 19:49	121909 1	932275
7439 89 6	Iron	9640000	ug/Kg		8770	27400	27400	1	P	HSC	12/19/09 19:49	121909 1	932275
7439 92 1	Lead	4500	ug/Kg		274	1100	1100	1	P	HSC	12/19/09 19:49	121909 1	932275
7439 93 2	Lithium J+,I6b	10.8	mg/kg	N	0.438	2.19	2.19	2	MS	SKJ	01/01/10 06:05	091231 5	932315
7439 95 4	Magnesium J+,I6b	776000	ug/Kg	N	9320	32900	32900	1	P	HSC	12/19/09 19:49	121909 1	932275
7439 96 5	Manganese	156000	ug/Kg	*	219	1100	1100	1	P	HSC	12/19/09 19:49	121909 1	932275
7439 97 6	Mercury	7.77	ug/kg	J	4.26	12.5	12.5	1	AV	JXL1	01/04/10 09:32	010410S1 7	936549
7440 02 0	Nickel	7.2	mg/kg		0.109	0.438	0.438	2	MS	SKJ	12/31/09 22:24	091231 3	932315
7440 09 7	Potassium	449000	ug/Kg	N	7020	27400	27400	1	P	HSC	12/19/09 19:49	121909 1	932275
7782 49 2	Selenium	1.09	mg/kg	U	0.547	1.09	1.09	2	MS	SKJ	12/31/09 22:24	091231 3	932315
7440 21 3	Silicon	1410000	ug/Kg	N	1640	11000	11000	1	P	HSC	12/19/09 19:49	121909 1	932275
7440 22 4	Silver	441	ug/Kg	J	110	548	548	1	P	HSC	12/19/09 19:49	121909 1	932275
7440 23 5	Sodium	194000	ug/Kg	E	7670	27400	27400	1	P	HSC	12/19/09 19:49	121909 1	932275
7440 28 0	Thallium	0.117	mg/kg	J	0.0656	0.219	0.219	2	MS	SKJ	12/31/09 22:24	091231 3	932315
7440 32 6	Titanium	205000	ug/Kg		110	548	548	1	P	HSC	12/19/09 19:49	121909 1	932275
7440 61 1	Uranium	0.729	mg/kg		0.0144	0.0438	0.0438	2	MS	SKJ	01/01/10 06:05	091231 5	932315
7440 62 2	Vanadium	5790	ug/Kg		110	548	548	1	P	HSC	12/19/09 19:49	121909 1	932275
7440 66 6	Zinc	43000	ug/Kg		362	1100	1100	1	P	HSC	12/19/09 19:49	121909 1	932275

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
932275	932274	SW846 3050B	0.505	g	50	mL	12/17/09	BCD1
932315	932314	SW846 3050B	0.506	g	50	mL	12/17/09	BCD1
934855	934854	SW846 7471A Prep	0.533	g	30	mL	12/22/09	TXB3

KAL
03/25/10

METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10 853 CONTRACT: LANL01004 METHOD TYPE: SW846

SAMPLE ID: 242661003 **BASIS:** Dry Weight **DATE COLLECTED** 07-DEC-09

CLIENT ID: RE03-09-14225 LEVEL: Low DATE RECEIVED 10-DEC-09

MATRIX: SOIL %SOLIDS: 89

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	11300000	ug/Kg		7250	21300	21300	1	P	HSC	12/19/09 19:56	121909-1	932275
7440-36-0	Antimony	1070	ug/Kg	U	352	1070	1070	1	P	HSC	12/19/09 19:56	121909-1	932275
7440-38-2	Arsenic	2.47	mg/kg		0.214	1.07	1.07	2	MS	SKJ	12/31/09 22:31	091231-3	932315
7440-39-3	Barium J+,I6b	156000	ug/Kg	N	107	533	533	1	P	HSC	12/19/09 19:56	121909-1	932275
7440-41-7	Beryllium	1.19	mg/kg		0.0214	0.107	0.107	2	MS	SKJ	12/31/09 22:31	091231-3	932315
7440-42-8	Boron	5330	ug/Kg	U	1070	5330	5330	1	P	HSC	12/19/09 19:56	121909-1	932275
7440-43-9	Cadmium	533	ug/Kg	U	107	533	533	1	P	HSC	12/19/09 19:56	121909-1	932275
7440-70-2	Calcium	1670000	ug/Kg		8530	26600	26600	1	P	HSC	12/19/09 19:56	121909-1	932275
7440-47-3	Chromium	9290	ug/Kg		160	533	533	1	P	HSC	12/19/09 19:56	121909-1	932275
7440-48-4	Cobalt	4840	ug/Kg		160	533	533	1	P	HSC	12/19/09 19:56	121909-1	932275
7440-50-8	Copper	6610	ug/Kg		320	1070	1070	1	P	HSC	12/19/09 19:56	121909-1	932275
7439-89-6	Iron	13900000	ug/Kg		8530	26600	26600	1	P	HSC	12/19/09 19:56	121909-1	932275
7439-92-1	Lead	12700	ug/Kg		266	1070	1070	1	P	HSC	12/19/09 19:56	121909-1	932275
7439-93-2	Lithium J+,I6b	17.1	mg/kg	N	0.427	2.14	2.14	2	MS	SKJ	01/01/10 06:07	091231-5	932315
7439-95-4	Magnesium J+,I6b	2040000	ug/Kg	N	9060	32000	32000	1	P	HSC	12/19/09 19:56	121909-1	932275
7439-96-5	Manganese	344000	ug/Kg	*	213	1070	1070	1	P	HSC	12/19/09 19:56	121909-1	932275
7439-97-6	Mercury	12.8	ug/kg		4.27	12.6	12.6	1	AV	JXL1	01/04/10 09:34	010410S1-7	936549
7440-02-0	Nickel	12.2	mg/kg		0.107	0.427	0.427	2	MS	SKJ	12/31/09 22:31	091231-3	932315
7440-09-7	Potassium	975000	ug/Kg	N	6820	26600	26600	1	P	HSC	12/19/09 19:56	121909-1	932275
7782-49-2	Selenium	1.07	mg/kg	U	0.534	1.07	1.07	2	MS	SKJ	12/31/09 22:31	091231-3	932315
7440-21-3	Silicon	1670000	ug/Kg	N	1600	10700	10700	1	P	HSC	12/19/09 19:56	121909-1	932275
7440-22-4	Silver	560	ug/Kg		107	533	533	1	P	HSC	12/19/09 19:56	121909-1	932275
7440-23-5	Sodium	372000	ug/Kg	E	7460	26600	26600	1	P	HSC	12/19/09 19:56	121909-1	932275
7440-28-0	Thallium	0.937	mg/kg		0.0641	0.214	0.214	2	MS	SKJ	12/31/09 22:31	091231-3	932315
7440-32-6	Titanium	484000	ug/Kg		107	533	533	1	P	HSC	12/19/09 19:56	121909-1	932275
7440-61-1	Uranium	0.805	mg/kg		0.0141	0.0427	0.0427	2	MS	SKJ	01/01/10 06:07	091231-5	932315
7440-62-2	Vanadium	23800	ug/Kg		107	533	533	1	P	HSC	12/19/09 19:56	121909-1	932275
7440-66-6	Zinc	35800	ug/Kg		352	1070	1070	1	P	HSC	12/19/09 19:56	121909-1	932275

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
932275	932274	SW846 3050B	0.525	g	50	mL	12/17/09	BCD1
932315	932314	SW846 3050B	0.524	g	50	mL	12/17/09	BCD1
934855	934854	SW846 7471A Prep	0.587	g	30	mL	12/22/09	TXB3

KAL
03/25/10

METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10 853 CONTRACT: LANL01004 METHOD TYPE: SW846

SAMPLE ID: 242661004 BASIS: Dry Weight DATE COLLECTED 07 DEC 09

CLIENT ID: RE03 09 14226 LEVEL: Low DATE RECEIVED 10 DEC 09

MATRIX: SOIL %SOLIDS: 89

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429 90 5	Aluminum	10600000	ug/Kg		7430	21900	21900	1	P	HSC	12/19/09 20:17	121909 1	932275
7440 36 0	Antimony	1090	ug/Kg	U	361	1090	1090	1	P	HSC	12/19/09 20:17	121909 1	932275
7440 38 2	Arsenic	1.8	mg/kg		0.22	1.1	1.1	2	MS	SKJ	12/31/09 22:37	091231 3	932315
7440 39 3	Barium J+,I6b	81500	ug/Kg	N	109	546	546	1	P	HSC	12/19/09 20:17	121909 1	932275
7440 41 7	Beryllium	0.90	mg/kg		0.022	0.11	0.11	2	MS	SKJ	12/31/09 22:37	091231 3	932315
7440 42 8	Boron	5460	ug/Kg	U	1090	5460	5460	1	P	HSC	12/19/09 20:17	121909 1	932275
7440 43 9	Cadmium	546	ug/Kg	U	109	546	546	1	P	HSC	12/19/09 20:17	121909 1	932275
7440 70 2	Calcium	2060000	ug/Kg		8740	27300	27300	1	P	HSC	12/19/09 20:17	121909 1	932275
7440 47 3	Chromium	7390	ug/Kg		164	546	546	1	P	HSC	12/19/09 20:17	121909 1	932275
7440 48 4	Cobalt	1700	ug/Kg		164	546	546	1	P	HSC	12/19/09 20:17	121909 1	932275
7440 50 8	Copper	5070	ug/Kg		328	1090	1090	1	P	HSC	12/19/09 20:17	121909 1	932275
7439 89 6	Iron	14300000	ug/Kg		8740	27300	27300	1	P	HSC	12/19/09 20:17	121909 1	932275
7439 92 1	Lead	8910	ug/Kg		273	1090	1090	1	P	HSC	12/19/09 20:17	121909 1	932275
7439 93 2	Lithium J+,I6b	25.1	mg/kg	N	0.44	2.2	2.2	2	MS	SKJ	01/06/10 13:34	100106 6	932315
7439 95 4	Magnesium J+,I6b	2020000	ug/Kg	N	9290	32800	32800	1	P	HSC	12/19/09 20:17	121909 1	932275
7439 96 5	Manganese	143000	ug/Kg	*	219	1090	1090	1	P	HSC	12/19/09 20:17	121909 1	932275
7439 97 6	Mercury	20.4	ug/kg		4.34	12.8	12.8	1	AV	JXL1	01/04/10 09:35	010410S1 7	936549
7440 02 0	Nickel	7.94	mg/kg		0.11	0.44	0.44	2	MS	SKJ	12/31/09 22:37	091231 3	932315
7440 09 7	Potassium	1050000	ug/Kg	N	6990	27300	27300	1	P	HSC	12/19/09 20:17	121909 1	932275
7782 49 2	Selenium	1.1	mg/kg	U	0.55	1.1	1.1	2	MS	SKJ	12/31/09 22:37	091231 3	932315
7440 21 3	Silicon	1900000	ug/Kg	N	1640	10900	10900	1	P	HSC	12/19/09 20:17	121909 1	932275
7440 22 4	Silver	743	ug/Kg		109	546	546	1	P	HSC	12/19/09 20:17	121909 1	932275
7440 23 5	Sodium	421000	ug/Kg	E	7650	27300	27300	1	P	HSC	12/19/09 20:17	121909 1	932275
7440 28 0	Thallium	0.142	mg/kg	J	0.066	0.22	0.22	2	MS	SKJ	12/31/09 22:37	091231 3	932315
7440 32 6	Titanium	290000	ug/Kg		109	546	546	1	P	HSC	12/19/09 20:17	121909 1	932275
7440 61 1	Uranium	0.451	mg/kg		0.0145	0.044	0.044	2	MS	SKJ	01/01/10 06:10	091231 5	932315
7440 62 2	Vanadium	13400	ug/Kg		109	546	546	1	P	HSC	12/19/09 20:17	121909 1	932275
7440 66 6	Zinc	54200	ug/Kg		361	1090	1090	1	P	HSC	12/19/09 20:17	121909 1	932275

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
932275	932274	SW846 3050B	0.512	g	50	mL	12/17/09	BCD1
932315	932314	SW846 3050B	0.509	g	50	mL	12/17/09	BCD1
934855	934854	SW846 7471A Prep	0.575	g	30	mL	12/22/09	TXB3

KAL
03/25/10

METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10 853 CONTRACT: LANL01004 METHOD TYPE: SW846

SAMPLE ID: 242661005 **BASIS:** Dry Weight **DATE COLLECTED** 07-DEC-09

CLIENT ID: RE03-09-14288 LEVEL: Low DATE RECEIVED 10 DEC-09

MATRIX: SOIL %SOLIDS: 95.1

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	4710000	ug/Kg		7050	20700	20700	1	P	HSC	12/19/09 20:24	121909-1	932275
7440-36-0	Antimony	1040	ug/Kg	U	342	1040	1040	1	P	HSC	12/19/09 20:24	121909-1	932275
7440-38-2	Arsenic	1.67	mg/kg		0.21	1.05	1.05	2	MS	SKJ	12/31/09 22:43	091231-3	932315
7440-39-3	Barium J+,I6b	67100	ug/Kg	N	104	518	518	1	P	HSC	12/19/09 20:24	121909-1	932275
7440-41-7	Beryllium	0.708	mg/kg		0.021	0.105	0.105	2	MS	SKJ	12/31/09 22:43	091231-3	932315
7440-42-8	Boron	5180	ug/Kg	U	1040	5180	5180	1	P	HSC	12/19/09 20:24	121909-1	932275
7440-43-9	Cadmium	518	ug/Kg	U	104	518	518	1	P	HSC	12/19/09 20:24	121909-1	932275
7440-70-2	Calcium	1140000	ug/Kg		8290	25900	25900	1	P	HSC	12/19/09 20:24	121909-1	932275
7440-47-3	Chromium	6490	ug/Kg		156	518	518	1	P	HSC	12/19/09 20:24	121909-1	932275
7440-48-4	Cobalt	4000	ug/Kg		156	518	518	1	P	HSC	12/19/09 20:24	121909-1	932275
7440-50-8	Copper	3490	ug/Kg		311	1040	1040	1	P	HSC	12/19/09 20:24	121909-1	932275
7439-89-6	Iron	9090000	ug/Kg		8290	25900	25900	1	P	HSC	12/19/09 20:24	121909-1	932275
7439-92-1	Lead	8070	ug/Kg		259	1040	1040	1	P	HSC	12/19/09 20:24	121909-1	932275
7439-93-2	Lithium J+,I6b	8.69	mg/kg	N	0.421	2.1	2.1	2	MS	SKJ	01/01/10 06:12	091231-5	932315
7439-95-4	Magnesium J+,I6b	943000	ug/Kg	N	8810	31100	31100	1	P	HSC	12/19/09 20:24	121909-1	932275
7439-96-5	Manganese	310000	ug/Kg	*	207	1040	1040	1	P	HSC	12/19/09 20:24	121909-1	932275
7439-97-6	Mercury	6.84	ug/kg	J	3.88	11.4	11.4	1	AV	JXL1	01/04/10 09:40	010410S1-7	936549
7440-02-0	Nickel	4.75	mg/kg		0.105	0.421	0.421	2	MS	SKJ	12/31/09 22:43	091231-3	932315
7440-09-7	Potassium	642000	ug/Kg	N	6640	25900	25900	1	P	HSC	12/19/09 20:24	121909-1	932275
7782-49-2	Selenium	1.05	mg/kg	U	0.526	1.05	1.05	2	MS	SKJ	12/31/09 22:43	091231-3	932315
7440-21-3	Silicon	1280000	ug/Kg	N	1560	10400	10400	1	P	HSC	12/19/09 20:24	121909-1	932275
7440-22-4	Silver	450	ug/Kg	J	104	518	518	1	P	HSC	12/19/09 20:24	121909-1	932275
7440-23-5	Sodium U,I4d	67200	ug/Kg	E	7260	25900	25900	1	P	HSC	12/19/09 20:24	121909-1	932275
7440-28-0	Thallium	0.108	mg/kg	J	0.0631	0.21	0.21	2	MS	SKJ	12/31/09 22:43	091231-3	932315
7440-32-6	Titanium	308000	ug/Kg		104	518	518	1	P	HSC	12/19/09 20:24	121909-1	932275
7440-61-1	Uranium	0.665	mg/kg		0.0139	0.0421	0.0421	2	MS	SKJ	01/01/10 06:12	091231-5	932315
7440-62-2	Vanadium	13600	ug/Kg		104	518	518	1	P	HSC	12/19/09 20:24	121909-1	932275
7440-66-6	Zinc	24700	ug/Kg		342	1040	1040	1	P	HSC	12/19/09 20:24	121909-1	932275

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
932275	932274	SW846 3050B	0.507	g	50	mL	12/17/09	BCD1
932315	932314	SW846 3050B	0.5	g	50	mL	12/17/09	BCD1
934855	934854	SW846 7471A Prep	0.557	g	30	mL	12/22/09	TXB3

KAL
03/25/10

METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10 853 CONTRACT: LANL01004 METHOD TYPE: SW846

SAMPLE ID: 242661006 BASIS: Dry Weight DATE COLLECTED 07 DEC 09

CLIENT ID: RE03 09 14287 LEVEL: Low DATE RECEIVED 10 DEC 09

MATRIX: SOIL %SOLIDS: 91

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429 90 5	Aluminum	5150000	ug/Kg		7380	21700	21700	1	P	HSC	12/19/09 20:31	121909 1	932275
7440 36 0	Antimony	1090	ug/Kg	U	358	1090	1090	1	P	HSC	12/19/09 20:31	121909 1	932275
7440 38 2	Arsenic	2.42	mg/kg		0.219	1.09	1.09	2	MS	SKJ	12/31/09 22:49	091231 3	932315
7440 39 3	Barium J+,I6b	78300	ug/Kg	N	109	543	543	1	P	HSC	12/19/09 20:31	121909 1	932275
7440 41 7	Beryllium	0.943	mg/kg		0.0219	0.109	0.109	2	MS	SKJ	12/31/09 22:49	091231 3	932315
7440 42 8	Boron	5430	ug/Kg	U	1090	5430	5430	1	P	HSC	12/19/09 20:31	121909 1	932275
7440 43 9	Cadmium	543	ug/Kg	U	109	543	543	1	P	HSC	12/19/09 20:31	121909 1	932275
7440 70 2	Calcium	1460000	ug/Kg		8680	27100	27100	1	P	HSC	12/19/09 20:31	121909 1	932275
7440 47 3	Chromium	4840	ug/Kg		163	543	543	1	P	HSC	12/19/09 20:31	121909 1	932275
7440 48 4	Cobalt	2710	ug/Kg		163	543	543	1	P	HSC	12/19/09 20:31	121909 1	932275
7440 50 8	Copper	4540	ug/Kg		326	1090	1090	1	P	HSC	12/19/09 20:31	121909 1	932275
7439 89 6	Iron	9000000	ug/Kg		8680	27100	27100	1	P	HSC	12/19/09 20:31	121909 1	932275
7439 92 1	Lead	8990	ug/Kg		271	1090	1090	1	P	HSC	12/19/09 20:31	121909 1	932275
7439 93 2	Lithium J+,I6b	10.5	mg/kg	N	0.438	2.19	2.19	2	MS	SKJ	01/01/10 06:15	091231 5	932315
7439 95 4	Magnesium J+,I6b	1010000	ug/Kg	N	9230	32600	32600	1	P	HSC	12/19/09 20:31	121909 1	932275
7439 96 5	Manganese	256000	ug/Kg	*	217	1090	1090	1	P	HSC	12/19/09 20:31	121909 1	932275
7439 97 6	Mercury	10.4	ug/kg	J	4.06	11.9	11.9	1	AV	JXL1	01/04/10 09:42	010410S1 7	936549
7440 02 0	Nickel	5.57	mg/kg		0.109	0.438	0.438	2	MS	SKJ	12/31/09 22:49	091231 3	932315
7440 09 7	Potassium	779000	ug/Kg	N	6950	27100	27100	1	P	HSC	12/19/09 20:31	121909 1	932275
7782 49 2	Selenium	1.09	mg/kg	U	0.547	1.09	1.09	2	MS	SKJ	12/31/09 22:49	091231 3	932315
7440 21 3	Silicon	1460000	ug/Kg	N	1630	10900	10900	1	P	HSC	12/19/09 20:31	121909 1	932275
7440 22 4	Silver	414	ug/Kg	J	109	543	543	1	P	HSC	12/19/09 20:31	121909 1	932275
7440 23 5	Sodium U,I4d	56300	ug/Kg	E	7600	27100	27100	1	P	HSC	12/19/09 20:31	121909 1	932275
7440 28 0	Thallium	0.126	mg/kg	J	0.0656	0.219	0.219	2	MS	SKJ	12/31/09 22:49	091231 3	932315
7440 32 6	Titanium	308000	ug/Kg		109	543	543	1	P	HSC	12/19/09 20:31	121909 1	932275
7440 61 1	Uranium	1.69	mg/kg		0.0144	0.0438	0.0438	2	MS	SKJ	01/01/10 06:15	091231 5	932315
7440 62 2	Vanadium	12600	ug/Kg		109	543	543	1	P	HSC	12/19/09 20:31	121909 1	932275
7440 66 6	Zinc	31700	ug/Kg		358	1090	1090	1	P	HSC	12/19/09 20:31	121909 1	932275

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
932275	932274	SW846 3050B	0.506	g	50	mL	12/17/09	BCD1
932315	932314	SW846 3050B	0.502	g	50	mL	12/17/09	BCD1
934855	934854	SW846 7471A Prep	0.511	g	30	mL	12/22/09	TXB3

KAL
03/25/10

METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10 853 CONTRACT: LANL01004 METHOD TYPE: SW846

SAMPLE ID: 242661007 **BASIS:** Dry Weight **DATE COLLECTED** 07-DEC-09

CLIENT ID: RE03-09-14267 LEVEL: Low DATE RECEIVED 10-DEC-09

MATRIX: SOIL %SOLIDS: 87

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	2420000	ug/Kg		7450	21900	21900	1	P	HSC	12/19/09 20:38	121909-1	932275
7440-36-0	Antimony	1100	ug/Kg	U	361	1100	1100	1	P	HSC	12/19/09 20:38	121909-1	932275
7440-38-2	Arsenic	0.721	mg/kg	J	0.227	1.13	1.13	2	MS	SKJ	12/31/09 22:56	091231-3	932315
7440-39-3	Barium J+,I6b	29500	ug/Kg	N	110	548	548	1	P	HSC	12/19/09 20:38	121909-1	932275
7440-41-7	Beryllium	0.229	mg/kg		0.0227	0.113	0.113	2	MS	SKJ	12/31/09 22:56	091231-3	932315
7440-42-8	Boron	5480	ug/Kg	U	1100	5480	5480	1	P	HSC	12/19/09 20:38	121909-1	932275
7440-43-9	Cadmium	548	ug/Kg	U	110	548	548	1	P	HSC	12/19/09 20:38	121909-1	932275
7440-70-2	Calcium	3150000	ug/Kg		8760	27400	27400	1	P	HSC	12/19/09 20:38	121909-1	932275
7440-47-3	Chromium	9740	ug/Kg		164	548	548	1	P	HSC	12/19/09 20:38	121909-1	932275
7440-48-4	Cobalt	2990	ug/Kg		164	548	548	1	P	HSC	12/19/09 20:38	121909-1	932275
7440-50-8	Copper	38900	ug/Kg		329	1100	1100	1	P	HSC	12/19/09 20:38	121909-1	932275
7439-89-6	Iron	12300000	ug/Kg		8760	27400	27400	1	P	HSC	12/19/09 20:38	121909-1	932275
7439-92-1	Lead	10100	ug/Kg		274	1100	1100	1	P	HSC	12/19/09 20:38	121909-1	932275
7439-93-2	Lithium J+,I6b	4.79	mg/kg	N	0.454	2.27	2.27	2	MS	SKJ	01/01/10 06:17	091231-5	932315
7439-95-4	Magnesium J+,I6b	1210000	ug/Kg	N	9310	32900	32900	1	P	HSC	12/19/09 20:38	121909-1	932275
7439-96-5	Manganese	211000	ug/Kg	*	219	1100	1100	1	P	HSC	12/19/09 20:38	121909-1	932275
7439-97-6	Mercury	51.1	ug/kg		3.91	11.5	11.5	1	AV	JXL1	01/04/10 09:44	010410S1-7	936549
7440-02-0	Nickel	5.51	mg/kg		0.113	0.454	0.454	2	MS	SKJ	12/31/09 22:56	091231-3	932315
7440-09-7	Potassium	2420000	ug/Kg	N	35000	137000	137000	5	P	HSC	12/20/09 10:41	122009A-2	932275
7782-49-2	Selenium	1.13	mg/kg	U	0.567	1.13	1.13	2	MS	SKJ	12/31/09 22:56	091231-3	932315
7440-21-3	Silicon	1050000	ug/Kg	N	1640	11000	11000	1	P	HSC	12/19/09 20:38	121909-1	932275
7440-22-4	Silver	502	ug/Kg	J	110	548	548	1	P	HSC	12/19/09 20:38	121909-1	932275
7440-23-5	Sodium	4270000	ug/Kg	E	38300	137000	137000	5	P	HSC	12/20/09 10:41	122009A-2	932275
7440-28-0	Thallium	0.227	mg/kg	U	0.068	0.227	0.227	2	MS	SKJ	12/31/09 22:56	091231-3	932315
7440-32-6	Titanium	345000	ug/Kg		110	548	548	1	P	HSC	12/19/09 20:38	121909-1	932275
7440-61-1	Uranium	0.449	mg/kg		0.015	0.0454	0.0454	2	MS	SKJ	01/01/10 06:17	091231-5	932315
7440-62-2	Vanadium	23400	ug/Kg		110	548	548	1	P	HSC	12/19/09 20:38	121909-1	932275
7440-66-6	Zinc	130000	ug/Kg		361	1100	1100	1	P	HSC	12/19/09 20:38	121909-1	932275

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
932275	932274	SW846 3050B	0.525	g	50	mL	12/17/09	BCD1
932315	932314	SW846 3050B	0.507	g	50	mL	12/17/09	BCD1
934855	934854	SW846 7471A Prep	0.517	g	30	mL	12/22/09	TXB3

KAL
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METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10 853 CONTRACT: LANL01004 METHOD TYPE: SW846

SAMPLE ID: 242661008 BASIS: Dry Weight DATE COLLECTED 07 DEC 09

CLIENT ID: RE03 09 14265 LEVEL: Low DATE RECEIVED 10 DEC 09

MATRIX: SOIL %SOLIDS: 85

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429 90 5	Aluminum	1340000	ug/Kg		7750	22800	22800	1	P	HSC	12/19/09 20:45	121909 1	932275
7440 36 0	Antimony	1140	ug/Kg	U	376	1140	1140	1	P	HSC	12/19/09 20:45	121909 1	932275
7440 38 2	Arsenic	0.847	mg/kg	J	0.224	1.12	1.12	2	MS	SKJ	12/31/09 23:14	091231 3	932315
7440 39 3	Barium J+,I6b	22400	ug/Kg	N	114	570	570	1	P	HSC	12/19/09 20:45	121909 1	932275
7440 41 7	Beryllium	0.159	mg/kg		0.0224	0.112	0.112	2	MS	SKJ	12/31/09 23:14	091231 3	932315
7440 42 8	Boron	5700	ug/Kg	U	1140	5700	5700	1	P	HSC	12/19/09 20:45	121909 1	932275
7440 43 9	Cadmium	570	ug/Kg	U	114	570	570	1	P	HSC	12/19/09 20:45	121909 1	932275
7440 70 2	Calcium	2620000	ug/Kg		9120	28500	28500	1	P	HSC	12/19/09 20:45	121909 1	932275
7440 47 3	Chromium	3190	ug/Kg		171	570	570	1	P	HSC	12/19/09 20:45	121909 1	932275
7440 48 4	Cobalt	1450	ug/Kg		171	570	570	1	P	HSC	12/19/09 20:45	121909 1	932275
7440 50 8	Copper	6290	ug/Kg		342	1140	1140	1	P	HSC	12/19/09 20:45	121909 1	932275
7439 89 6	Iron	4510000	ug/Kg		9120	28500	28500	1	P	HSC	12/19/09 20:45	121909 1	932275
7439 92 1	Lead	3540	ug/Kg		285	1140	1140	1	P	HSC	12/19/09 20:45	121909 1	932275
7439 93 2	Lithium J+,I6b	3.12	mg/kg	N	0.448	2.24	2.24	2	MS	SKJ	01/01/10 06:25	091231 5	932315
7439 95 4	Magnesium J+,I6b	755000	ug/Kg	N	9690	34200	34200	1	P	HSC	12/19/09 20:45	121909 1	932275
7439 96 5	Manganese	88100	ug/Kg	*	228	1140	1140	1	P	HSC	12/19/09 20:45	121909 1	932275
7439 97 6	Mercury	11.7	ug/kg	U	3.98	11.7	11.7	1	AV	JXL1	01/04/10 09:45	010410S1 7	936549
7440 02 0	Nickel	4.37	mg/kg		0.112	0.448	0.448	2	MS	SKJ	12/31/09 23:14	091231 3	932315
7440 09 7	Potassium	1470000	ug/Kg	N	7290	28500	28500	1	P	HSC	12/19/09 20:45	121909 1	932275
7782 49 2	Selenium	1.12	mg/kg	U	0.56	1.12	1.12	2	MS	SKJ	12/31/09 23:14	091231 3	932315
7440 21 3	Silicon U,I4d	626000	ug/Kg	N	1710	11400	11400	1	P	HSC	12/19/09 20:45	121909 1	932275
7440 22 4	Silver	174	ug/Kg	J	114	570	570	1	P	HSC	12/19/09 20:45	121909 1	932275
7440 23 5	Sodium	2240000	ug/Kg	E	7980	28500	28500	1	P	HSC	12/19/09 20:45	121909 1	932275
7440 28 0	Thallium	0.224	mg/kg	U	0.0672	0.224	0.224	2	MS	SKJ	12/31/09 23:14	091231 3	932315
7440 32 6	Titanium	125000	ug/Kg		114	570	570	1	P	HSC	12/19/09 20:45	121909 1	932275
7440 61 1	Uranium	0.491	mg/kg		0.0148	0.0448	0.0448	2	MS	SKJ	01/01/10 06:25	091231 5	932315
7440 62 2	Vanadium	8150	ug/Kg		114	570	570	1	P	HSC	12/19/09 20:45	121909 1	932275
7440 66 6	Zinc	30600	ug/Kg		376	1140	1140	1	P	HSC	12/19/09 20:45	121909 1	932275

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
932275	932274	SW846 3050B	0.514	g	50	mL	12/17/09	BCD1
932315	932314	SW846 3050B	0.523	g	50	mL	12/17/09	BCD1
934855	934854	SW846 7471A Prep	0.517	g	30	mL	12/22/09	TXB3

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METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10 853 CONTRACT: LANL01004 METHOD TYPE: SW846

SAMPLE ID: 242661009 **BASIS:** Dry Weight **DATE COLLECTED** 07-DEC-09

CLIENT ID: RE03-09-14281 LEVEL: Low DATE RECEIVED 10-DEC-09

MATRIX: SOIL %SOLIDS: 86

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	912000	ug/Kg		7610	22400	22400	1	P	HSC	12/19/09 20:52	121909-1	932275
7440-36-0	Antimony	1120	ug/Kg	U	369	1120	1120	1	P	HSC	12/19/09 20:52	121909-1	932275
7440-38-2	Arsenic	0.796	mg/kg	J	0.231	1.15	1.15	2	MS	SKJ	12/31/09 23:21	091231-3	932315
7440-39-3	Barium J+,I6b	18400	ug/Kg	N	112	560	560	1	P	HSC	12/19/09 20:52	121909-1	932275
7440-41-7	Beryllium	0.278	mg/kg		0.0231	0.115	0.115	2	MS	SKJ	12/31/09 23:21	091231-3	932315
7440-42-8	Boron	5600	ug/Kg	U	1120	5600	5600	1	P	HSC	12/19/09 20:52	121909-1	932275
7440-43-9	Cadmium	560	ug/Kg	U	112	560	560	1	P	HSC	12/19/09 20:52	121909-1	932275
7440-70-2	Calcium	448000	ug/Kg		8950	28000	28000	1	P	HSC	12/19/09 20:52	121909-1	932275
7440-47-3	Chromium	2280	ug/Kg		168	560	560	1	P	HSC	12/19/09 20:52	121909-1	932275
7440-48-4	Cobalt	882	ug/Kg		168	560	560	1	P	HSC	12/19/09 20:52	121909-1	932275
7440-50-8	Copper	2530	ug/Kg		336	1120	1120	1	P	HSC	12/19/09 20:52	121909-1	932275
7439-89-6	Iron	7430000	ug/Kg		8950	28000	28000	1	P	HSC	12/19/09 20:52	121909-1	932275
7439-92-1	Lead	5260	ug/Kg		280	1120	1120	1	P	HSC	12/19/09 20:52	121909-1	932275
7439-93-2	Lithium J+,I6b	3.03	mg/kg	N	0.462	2.31	2.31	2	MS	SKJ	01/01/10 06:27	091231-5	932315
7439-95-4	Magnesium J+,I6b	227000	ug/Kg	N	9510	33600	33600	1	P	HSC	12/19/09 20:52	121909-1	932275
7439-96-5	Manganese	293000	ug/Kg	*	224	1120	1120	1	P	HSC	12/19/09 20:52	121909-1	932275
7439-97-6	Mercury	13.7	ug/kg	U	4.65	13.7	13.7	1	AV	JXL1	01/04/10 09:47	010410S1-7	936549
7440-02-0	Nickel	2.17	mg/kg		0.115	0.462	0.462	2	MS	SKJ	12/31/09 23:21	091231-3	932315
7440-09-7	Potassium	258000	ug/Kg	N	7160	28000	28000	1	P	HSC	12/19/09 20:52	121909-1	932275
7782-49-2	Selenium	1.15	mg/kg	U	0.577	1.15	1.15	2	MS	SKJ	12/31/09 23:21	091231-3	932315
7440-21-3	Silicon U,I4d	615000	ug/Kg	N	1680	11200	11200	1	P	HSC	12/19/09 20:52	121909-1	932275
7440-22-4	Silver	337	ug/Kg	J	112	560	560	1	P	HSC	12/19/09 20:52	121909-1	932275
7440-23-5	Sodium U,I4d	94100	ug/Kg	E	7830	28000	28000	1	P	HSC	12/19/09 20:52	121909-1	932275
7440-28-0	Thallium	0.231	mg/kg	U	0.0693	0.231	0.231	2	MS	SKJ	12/31/09 23:21	091231-3	932315
7440-32-6	Titanium	401000	ug/Kg		112	560	560	1	P	HSC	12/19/09 20:52	121909-1	932275
7440-61-1	Uranium	0.395	mg/kg		0.0152	0.0462	0.0462	2	MS	SKJ	01/01/10 06:27	091231-5	932315
7440-62-2	Vanadium	5280	ug/Kg		112	560	560	1	P	HSC	12/19/09 20:52	121909-1	932275
7440-66-6	Zinc	64400	ug/Kg		369	1120	1120	1	P	HSC	12/19/09 20:52	121909-1	932275

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
932275	932274	SW846 3050B	0.519	g	50	mL	12/17/09	BCD1
932315	932314	SW846 3050B	0.503	g	50	mL	12/17/09	BCD1
934855	934854	SW846 7471A Prep	0.534	g	30	mL	12/22/09	TXB3

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GEL Laboratories LLC

METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10 853 CONTRACT: LANL01004 METHOD TYPE: SW846

SAMPLE ID: 242661010 BASIS: Dry Weight DATE COLLECTED 07 DEC 09

CLIENT ID: RE03 09 14284 LEVEL: Low DATE RECEIVED 10 DEC 09

MATRIX: SOIL %SOLIDS: 88

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429 90 5	Aluminum	1210000	ug/Kg		7500	22000	22000	1	P	HSC	12/19/09 20:59	121909 1	932275
7440 36 0	Antimony	1100	ug/Kg	U	364	1100	1100	1	P	HSC	12/19/09 20:59	121909 1	932275
7440 38 2	Arsenic	0.444	mg/kg	J	0.228	1.14	1.14	2	MS	SKJ	12/31/09 23:27	091231 3	932315
7440 39 3	Barium J+,I6b	12900	ug/Kg	N	110	551	551	1	P	HSC	12/19/09 20:59	121909 1	932275
7440 41 7	Beryllium	0.295	mg/kg		0.0228	0.114	0.114	2	MS	SKJ	12/31/09 23:27	091231 3	932315
7440 42 8	Boron	5510	ug/Kg	U	1100	5510	5510	1	P	HSC	12/19/09 20:59	121909 1	932275
7440 43 9	Cadmium	551	ug/Kg	U	110	551	551	1	P	HSC	12/19/09 20:59	121909 1	932275
7440 70 2	Calcium	220000	ug/Kg		8820	27600	27600	1	P	HSC	12/19/09 20:59	121909 1	932275
7440 47 3	Chromium	5920	ug/Kg		165	551	551	1	P	HSC	12/19/09 20:59	121909 1	932275
7440 48 4	Cobalt	251	ug/Kg	J	165	551	551	1	P	HSC	12/19/09 20:59	121909 1	932275
7440 50 8	Copper	1010	ug/Kg	J	331	1100	1100	1	P	HSC	12/19/09 20:59	121909 1	932275
7439 89 6	Iron	9300000	ug/Kg		8820	27600	27600	1	P	HSC	12/19/09 20:59	121909 1	932275
7439 92 1	Lead	6150	ug/Kg		276	1100	1100	1	P	HSC	12/19/09 20:59	121909 1	932275
7439 93 2	Lithium J+,I6b	2.95	mg/kg	N	0.455	2.28	2.28	2	MS	SKJ	01/01/10 06:30	091231 5	932315
7439 95 4	Magnesium J+,I6b	187000	ug/Kg	N	9370	33100	33100	1	P	HSC	12/19/09 20:59	121909 1	932275
7439 96 5	Manganese	99500	ug/Kg	*	220	1100	1100	1	P	HSC	12/19/09 20:59	121909 1	932275
7439 97 6	Mercury	11.4	ug/kg	U	3.87	11.4	11.4	1	AV	JXL1	01/04/10 09:49	010410S1 7	936549
7440 02 0	Nickel	2.17	mg/kg		0.114	0.455	0.455	2	MS	SKJ	12/31/09 23:27	091231 3	932315
7440 09 7	Potassium	243000	ug/Kg	N	7050	27600	27600	1	P	HSC	12/19/09 20:59	121909 1	932275
7782 49 2	Selenium	1.14	mg/kg	U	0.569	1.14	1.14	2	MS	SKJ	12/31/09 23:27	091231 3	932315
7440 21 3	Silicon U,I4d	725000	ug/Kg	N	1650	11000	11000	1	P	HSC	12/19/09 20:59	121909 1	932275
7440 22 4	Silver	241	ug/Kg	J	110	551	551	1	P	HSC	12/19/09 20:59	121909 1	932275
7440 23 5	Sodium	175000	ug/Kg	E	7720	27600	27600	1	P	HSC	12/19/09 20:59	121909 1	932275
7440 28 0	Thallium	0.228	mg/kg	U	0.0683	0.228	0.228	2	MS	SKJ	12/31/09 23:27	091231 3	932315
7440 32 6	Titanium	413000	ug/Kg		110	551	551	1	P	HSC	12/19/09 20:59	121909 1	932275
7440 61 1	Uranium	0.481	mg/kg		0.015	0.0455	0.0455	2	MS	SKJ	01/01/10 06:30	091231 5	932315
7440 62 2	Vanadium	2660	ug/Kg		110	551	551	1	P	HSC	12/19/09 20:59	121909 1	932275
7440 66 6	Zinc	28900	ug/Kg		364	1100	1100	1	P	HSC	12/19/09 20:59	121909 1	932275

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
932275	932274	SW846 3050B	0.516	g	50	mL	12/17/09	BCD1
932315	932314	SW846 3050B	0.5	g	50	mL	12/17/09	BCD1
934855	934854	SW846 7471A Prep	0.563	g	30	mL	12/22/09	TXB3

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METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10 853 CONTRACT: LANL01004 METHOD TYPE: SW846

SAMPLE ID: 242661011 **BASIS:** Dry Weight **DATE COLLECTED** 07-DEC-09

CLIENT ID: RE03-09-14274 LEVEL: Low DATE RECEIVED 10-DEC-09

MATRIX: SOIL %SOLIDS: 96.4

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	2530000	ug/Kg		7020	20700	20700	1	P	HSC	12/19/09 21:06	121909-1	932275
7440-36-0	Antimony	1030	ug/Kg	U	341	1030	1030	1	P	HSC	12/19/09 21:06	121909-1	932275
7440-38-2	Arsenic	1.16	mg/kg		0.205	1.02	1.02	2	MS	SKJ	12/31/09 23:33	091231-3	932315
7440-39-3	Barium J+,I6b	16600	ug/Kg	N	103	516	516	1	P	HSC	12/19/09 21:06	121909-1	932275
7440-41-7	Beryllium	0.528	mg/kg		0.0205	0.102	0.102	2	MS	SKJ	12/31/09 23:33	091231-3	932315
7440-42-8	Boron	5160	ug/Kg	U	1030	5160	5160	1	P	HSC	12/19/09 21:06	121909-1	932275
7440-43-9	Cadmium	516	ug/Kg	U	103	516	516	1	P	HSC	12/19/09 21:06	121909-1	932275
7440-70-2	Calcium	515000	ug/Kg		8260	25800	25800	1	P	HSC	12/19/09 21:06	121909-1	932275
7440-47-3	Chromium	4240	ug/Kg		155	516	516	1	P	HSC	12/19/09 21:06	121909-1	932275
7440-48-4	Cobalt	754	ug/Kg		155	516	516	1	P	HSC	12/19/09 21:06	121909-1	932275
7440-50-8	Copper	2280	ug/Kg		310	1030	1030	1	P	HSC	12/19/09 21:06	121909-1	932275
7439-89-6	Iron	8700000	ug/Kg		8260	25800	25800	1	P	HSC	12/19/09 21:06	121909-1	932275
7439-92-1	Lead	5570	ug/Kg		258	1030	1030	1	P	HSC	12/19/09 21:06	121909-1	932275
7439-93-2	Lithium J+,I6b	5.81	mg/kg	N	0.41	2.05	2.05	2	MS	SKJ	01/01/10 06:32	091231-5	932315
7439-95-4	Magnesium J+,I6b	399000	ug/Kg	N	8780	31000	31000	1	P	HSC	12/19/09 21:06	121909-1	932275
7439-96-5	Manganese	174000	ug/Kg	*	207	1030	1030	1	P	HSC	12/19/09 21:06	121909-1	932275
7439-97-6	Mercury U,I4d	15.5	ug/kg		3.6	10.6	10.6	1	AV	JXL1	01/04/10 09:50	010410S1-7	936549
7440-02-0	Nickel	2.61	mg/kg		0.102	0.41	0.41	2	MS	SKJ	12/31/09 23:33	091231-3	932315
7440-09-7	Potassium	250000	ug/Kg	N	6610	25800	25800	1	P	HSC	12/19/09 21:06	121909-1	932275
7782-49-2	Selenium	1.02	mg/kg	U	0.512	1.02	1.02	2	MS	SKJ	12/31/09 23:33	091231-3	932315
7440-21-3	Silicon	969000	ug/Kg	N	1550	10300	10300	1	P	HSC	12/19/09 21:06	121909-1	932275
7440-22-4	Silver	361	ug/Kg	J	103	516	516	1	P	HSC	12/19/09 21:06	121909-1	932275
7440-23-5	Sodium U,I4d	87800	ug/Kg	E	7230	25800	25800	1	P	HSC	12/19/09 21:06	121909-1	932275
7440-28-0	Thallium	0.205	mg/kg	U	0.0615	0.205	0.205	2	MS	SKJ	12/31/09 23:33	091231-3	932315
7440-32-6	Titanium	368000	ug/Kg		103	516	516	1	P	HSC	12/19/09 21:06	121909-1	932275
7440-61-1	Uranium	0.635	mg/kg		0.0135	0.041	0.041	2	MS	SKJ	01/01/10 06:32	091231-5	932315
7440-62-2	Vanadium	6120	ug/Kg		103	516	516	1	P	HSC	12/19/09 21:06	121909-1	932275
7440-66-6	Zinc	36700	ug/Kg		341	1030	1030	1	P	HSC	12/19/09 21:06	121909-1	932275

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
932275	932274	SW846 3050B	0.502	g	50	mL	12/17/09	BCD1
932315	932314	SW846 3050B	0.506	g	50	mL	12/17/09	BCD1
934855	934854	SW846 7471A Prep	0.526	g	30	mL	12/22/09	TXB3

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METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10 853 CONTRACT: LANL01004 METHOD TYPE: SW846

SAMPLE ID: 242661012 BASIS: Dry Weight DATE COLLECTED 07 DEC 09

CLIENT ID: RE03 09 14277 LEVEL: Low DATE RECEIVED 10 DEC 09

MATRIX: SOIL %SOLIDS: 90

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429 90 5	Aluminum	7470000	ug/Kg		7520	22100	22100	1	P	HSC	12/19/09 21:13	121909 1	932275
7440 36 0	Antimony	1110	ug/Kg	U	365	1110	1110	1	P	HSC	12/19/09 21:13	121909 1	932275
7440 38 2	Arsenic	1.73	mg/kg		0.212	1.06	1.06	2	MS	SKJ	12/31/09 23:39	091231 3	932315
7440 39 3	Barium J+,I6b	125000	ug/Kg	N	111	553	553	1	P	HSC	12/19/09 21:13	121909 1	932275
7440 41 7	Beryllium	0.785	mg/kg		0.0212	0.106	0.106	2	MS	SKJ	12/31/09 23:39	091231 3	932315
7440 42 8	Boron	5530	ug/Kg	U	1110	5530	5530	1	P	HSC	12/19/09 21:13	121909 1	932275
7440 43 9	Cadmium	420	ug/Kg	J	111	553	553	1	P	HSC	12/19/09 21:13	121909 1	932275
7440 70 2	Calcium	7330000	ug/Kg		8850	27700	27700	1	P	HSC	12/19/09 21:13	121909 1	932275
7440 47 3	Chromium	8460	ug/Kg		166	553	553	1	P	HSC	12/19/09 21:13	121909 1	932275
7440 48 4	Cobalt	5030	ug/Kg		166	553	553	1	P	HSC	12/19/09 21:13	121909 1	932275
7440 50 8	Copper	9580	ug/Kg		332	1110	1110	1	P	HSC	12/19/09 21:13	121909 1	932275
7439 89 6	Iron	10900000	ug/Kg		8850	27700	27700	1	P	HSC	12/19/09 21:13	121909 1	932275
7439 92 1	Lead	13700	ug/Kg		277	1110	1110	1	P	HSC	12/19/09 21:13	121909 1	932275
7439 93 2	Lithium J+,I6b	13.1	mg/kg	N	0.425	2.12	2.12	2	MS	SKJ	01/01/10 06:35	091231 5	932315
7439 95 4	Magnesium J+,I6b	1440000	ug/Kg	N	9400	33200	33200	1	P	HSC	12/19/09 21:13	121909 1	932275
7439 96 5	Manganese	360000	ug/Kg	*	221	1110	1110	1	P	HSC	12/19/09 21:13	121909 1	932275
7439 97 6	Mercury	15.3	ug/kg		4.25	12.5	12.5	1	AV	JXL1	01/04/10 09:52	010410S1 7	936549
7440 02 0	Nickel	7.35	mg/kg		0.106	0.425	0.425	2	MS	SKJ	12/31/09 23:39	091231 3	932315
7440 09 7	Potassium	1100000	ug/Kg	N	7080	27700	27700	1	P	HSC	12/19/09 21:13	121909 1	932275
7782 49 2	Selenium	1.06	mg/kg	U	0.531	1.06	1.06	2	MS	SKJ	12/31/09 23:39	091231 3	932315
7440 21 3	Silicon	1620000	ug/Kg	N	1660	11100	11100	1	P	HSC	12/19/09 21:13	121909 1	932275
7440 22 4	Silver	562	ug/Kg		111	553	553	1	P	HSC	12/19/09 21:13	121909 1	932275
7440 23 5	Sodium	149000	ug/Kg	E	7740	27700	27700	1	P	HSC	12/19/09 21:13	121909 1	932275
7440 28 0	Thallium	0.136	mg/kg	J	0.0637	0.212	0.212	2	MS	SKJ	12/31/09 23:39	091231 3	932315
7440 32 6	Titanium	419000	ug/Kg		111	553	553	1	P	HSC	12/19/09 21:13	121909 1	932275
7440 61 1	Uranium	1.1	mg/kg		0.014	0.0425	0.0425	2	MS	SKJ	01/01/10 06:35	091231 5	932315
7440 62 2	Vanadium	20500	ug/Kg		111	553	553	1	P	HSC	12/19/09 21:13	121909 1	932275
7440 66 6	Zinc	89900	ug/Kg		365	1110	1110	1	P	HSC	12/19/09 21:13	121909 1	932275

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
932275	932274	SW846 3050B	0.502	g	50	mL	12/17/09	BCD1
932315	932314	SW846 3050B	0.523	g	50	mL	12/17/09	BCD1
934855	934854	SW846 7471A Prep	0.528	g	30	mL	12/22/09	TXB3

KAL
03/25/10

METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10 853 CONTRACT: LANL01004 METHOD TYPE: SW846

SAMPLE ID: 242661013 **BASIS:** Dry Weight **DATE COLLECTED** 07-DEC-09

CLIENT ID: RE03-09-14282 LEVEL: Low DATE RECEIVED 10-DEC-09

MATRIX: SOIL %SOLIDS: 86

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	438000	ug/Kg		7620	22400	22400	1	P	HSC	12/19/09 21:34	121909-1	932275
7440-36-0	Antimony	1120	ug/Kg	U	370	1120	1120	1	P	HSC	12/19/09 21:34	121909-1	932275
7440-38-2	Arsenic	0.664	mg/kg	J	0.229	1.14	1.14	2	MS	SKJ	12/31/09 23:46	091231-3	932315
7440-39-3	Barium J+,I6b	9200	ug/Kg	N	112	560	560	1	P	HSC	12/19/09 21:34	121909-1	932275
7440-41-7	Beryllium	0.306	mg/kg		0.0229	0.114	0.114	2	MS	SKJ	12/31/09 23:46	091231-3	932315
7440-42-8	Boron	5600	ug/Kg	U	1120	5600	5600	1	P	HSC	12/19/09 21:34	121909-1	932275
7440-43-9	Cadmium	560	ug/Kg	U	112	560	560	1	P	HSC	12/19/09 21:34	121909-1	932275
7440-70-2	Calcium	164000	ug/Kg		8970	28000	28000	1	P	HSC	12/19/09 21:34	121909-1	932275
7440-47-3	Chromium	23500	ug/Kg		168	560	560	1	P	HSC	12/19/09 21:34	121909-1	932275
7440-48-4	Cobalt	567	ug/Kg		168	560	560	1	P	HSC	12/19/09 21:34	121909-1	932275
7440-50-8	Copper	1910	ug/Kg		336	1120	1120	1	P	HSC	12/19/09 21:34	121909-1	932275
7439-89-6	Iron	7040000	ug/Kg		8970	28000	28000	1	P	HSC	12/19/09 21:34	121909-1	932275
7439-92-1	Lead	3710	ug/Kg		280	1120	1120	1	P	HSC	12/19/09 21:34	121909-1	932275
7439-93-2	Lithium J+,I6b	2.4	mg/kg	N	0.457	2.29	2.29	2	MS	SKJ	01/01/10 06:37	091231-5	932315
7439-95-4	Magnesium J+,I6b	57200	ug/Kg	N	9530	33600	33600	1	P	HSC	12/19/09 21:34	121909-1	932275
7439-96-5	Manganese	267000	ug/Kg	*	224	1120	1120	1	P	HSC	12/19/09 21:34	121909-1	932275
7439-97-6	Mercury	12.1	ug/kg	U	4.11	12.1	12.1	1	AV	JXL1	01/04/10 09:54	010410S1-7	936549
7440-02-0	Nickel	3.79	mg/kg		0.114	0.457	0.457	2	MS	SKJ	12/31/09 23:46	091231-3	932315
7440-09-7	Potassium	210000	ug/Kg	N	7170	28000	28000	1	P	HSC	12/19/09 21:34	121909-1	932275
7782-49-2	Selenium	1.14	mg/kg	U	0.571	1.14	1.14	2	MS	SKJ	12/31/09 23:46	091231-3	932315
7440-21-3	Silicon U,I4d	489000	ug/Kg	N	1680	11200	11200	1	P	HSC	12/19/09 21:34	121909-1	932275
7440-22-4	Silver	301	ug/Kg	J	112	560	560	1	P	HSC	12/19/09 21:34	121909-1	932275
7440-23-5	Sodium U,I4d	102000	ug/Kg	E	7840	28000	28000	1	P	HSC	12/19/09 21:34	121909-1	932275
7440-28-0	Thallium	0.229	mg/kg	U	0.0686	0.229	0.229	2	MS	SKJ	12/31/09 23:46	091231-3	932315
7440-32-6	Titanium	405000	ug/Kg		112	560	560	1	P	HSC	12/19/09 21:34	121909-1	932275
7440-61-1	Uranium	0.439	mg/kg		0.0151	0.0457	0.0457	2	MS	SKJ	01/01/10 06:37	091231-5	932315
7440-62-2	Vanadium	3270	ug/Kg		112	560	560	1	P	HSC	12/19/09 21:34	121909-1	932275
7440-66-6	Zinc	39400	ug/Kg		370	1120	1120	1	P	HSC	12/19/09 21:34	121909-1	932275

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
932275	932274	SW846 3050B	0.518	g	50	mL	12/17/09	BCD1
932315	932314	SW846 3050B	0.508	g	50	mL	12/17/09	BCD1
934855	934854	SW846 7471A Prep	0.572	g	30	mL	12/22/09	TXB3

KAL
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METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10 853 CONTRACT: LANL01004 METHOD TYPE: SW846

SAMPLE ID: 242661014 BASIS: Dry Weight DATE COLLECTED 07 DEC 09

CLIENT ID: RE03 09 14269 LEVEL: Low DATE RECEIVED 10 DEC 09

MATRIX: SOIL %SOLIDS: 87

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429 90 5	Aluminum	1340000	ug/Kg		7780	22900	22900	1	P	HSC	12/19/09 21:41	121909 1	932275
7440 36 0	Antimony	1140	ug/Kg	U	377	1140	1140	1	P	HSC	12/19/09 21:41	121909 1	932275
7440 38 2	Arsenic	0.90	mg/kg	J	0.226	1.13	1.13	2	MS	SKJ	12/31/09 23:52	091231 3	932315
7440 39 3	Barium J+,I6b	15400	ug/Kg	N	114	572	572	1	P	HSC	12/19/09 21:41	121909 1	932275
7440 41 7	Beryllium	0.247	mg/kg		0.0226	0.113	0.113	2	MS	SKJ	12/31/09 23:52	091231 3	932315
7440 42 8	Boron	5720	ug/Kg	U	1140	5720	5720	1	P	HSC	12/19/09 21:41	121909 1	932275
7440 43 9	Cadmium	572	ug/Kg	U	114	572	572	1	P	HSC	12/19/09 21:41	121909 1	932275
7440 70 2	Calcium	1860000	ug/Kg		9150	28600	28600	1	P	HSC	12/19/09 21:41	121909 1	932275
7440 47 3	Chromium	8130	ug/Kg		172	572	572	1	P	HSC	12/19/09 21:41	121909 1	932275
7440 48 4	Cobalt	1420	ug/Kg		172	572	572	1	P	HSC	12/19/09 21:41	121909 1	932275
7440 50 8	Copper	4630	ug/Kg		343	1140	1140	1	P	HSC	12/19/09 21:41	121909 1	932275
7439 89 6	Iron	7020000	ug/Kg		9150	28600	28600	1	P	HSC	12/19/09 21:41	121909 1	932275
7439 92 1	Lead	4080	ug/Kg		286	1140	1140	1	P	HSC	12/19/09 21:41	121909 1	932275
7439 93 2	Lithium J+,I6b	4.76	mg/kg	N	0.451	2.26	2.26	2	MS	SKJ	01/01/10 06:40	091231 5	932315
7439 95 4	Magnesium J+,I6b	1030000	ug/Kg	N	9720	34300	34300	1	P	HSC	12/19/09 21:41	121909 1	932275
7439 96 5	Manganese	104000	ug/Kg	*	229	1140	1140	1	P	HSC	12/19/09 21:41	121909 1	932275
7439 97 6	Mercury	10.1	ug/kg	J	4.45	13.1	13.1	1	AV	JXL1	01/04/10 09:55	010410S1 7	936549
7440 02 0	Nickel	6.23	mg/kg		0.113	0.451	0.451	2	MS	SKJ	12/31/09 23:52	091231 3	932315
7440 09 7	Potassium	2490000	ug/Kg	N	36600	143000	143000	5	P	HSC	12/20/09 10:48	122009A 2	932275
7782 49 2	Selenium	1.13	mg/kg	U	0.564	1.13	1.13	2	MS	SKJ	12/31/09 23:52	091231 3	932315
7440 21 3	Silicon U,I4d	492000	ug/Kg	N	1720	11400	11400	1	P	HSC	12/19/09 21:41	121909 1	932275
7440 22 4	Silver	204	ug/Kg	J	114	572	572	1	P	HSC	12/19/09 21:41	121909 1	932275
7440 23 5	Sodium	5710000	ug/Kg	E	40000	143000	143000	5	P	HSC	12/20/09 10:48	122009A 2	932275
7440 28 0	Thallium	0.226	mg/kg	U	0.0677	0.226	0.226	2	MS	SKJ	12/31/09 23:52	091231 3	932315
7440 32 6	Titanium	160000	ug/Kg		114	572	572	1	P	HSC	12/19/09 21:41	121909 1	932275
7440 61 1	Uranium	0.397	mg/kg		0.0149	0.0451	0.0451	2	MS	SKJ	01/01/10 06:40	091231 5	932315
7440 62 2	Vanadium	11200	ug/Kg		114	572	572	1	P	HSC	12/19/09 21:41	121909 1	932275
7440 66 6	Zinc	28700	ug/Kg		377	1140	1140	1	P	HSC	12/19/09 21:41	121909 1	932275

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
932275	932274	SW846 3050B	0.505	g	50	mL	12/17/09	BCD1
932315	932314	SW846 3050B	0.512	g	50	mL	12/17/09	BCD1
934855	934854	SW846 7471A Prep	0.522	g	30	mL	12/22/09	TXB3

KAL
03/25/10

METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10 853 CONTRACT: LANL01004 METHOD TYPE: SW846

SAMPLE ID: 242661015 **BASIS:** Dry Weight **DATE COLLECTED** 07-DEC-09

CLIENT ID: RE03-09-14273 LEVEL: Low DATE RECEIVED 10-DEC-09

MATRIX: SOIL %SOLIDS: 90.2

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	3200000	ug/Kg		7330	21600	21600	1	P	HSC	12/19/09 21:48	121909-1	932275
7440-36-0	Antimony	1080	ug/Kg	U	356	1080	1080	1	P	HSC	12/19/09 21:48	121909-1	932275
7440-38-2	Arsenic	1.6	mg/kg		0.22	1.1	1.1	2	MS	SKJ	01/01/10 00:10	091231-3	932315
7440-39-3	Barium J+,I6b	34900	ug/Kg	N	108	539	539	1	P	HSC	12/19/09 21:48	121909-1	932275
7440-41-7	Beryllium	0.546	mg/kg		0.022	0.11	0.11	2	MS	SKJ	01/01/10 00:10	091231-3	932315
7440-42-8	Boron	5390	ug/Kg	U	1080	5390	5390	1	P	HSC	12/19/09 21:48	121909-1	932275
7440-43-9	Cadmium	539	ug/Kg	U	108	539	539	1	P	HSC	12/19/09 21:48	121909-1	932275
7440-70-2	Calcium	1120000	ug/Kg		8630	27000	27000	1	P	HSC	12/19/09 21:48	121909-1	932275
7440-47-3	Chromium	3850	ug/Kg		162	539	539	1	P	HSC	12/19/09 21:48	121909-1	932275
7440-48-4	Cobalt	1310	ug/Kg		162	539	539	1	P	HSC	12/19/09 21:48	121909-1	932275
7440-50-8	Copper	3880	ug/Kg		323	1080	1080	1	P	HSC	12/19/09 21:48	121909-1	932275
7439-89-6	Iron	9450000	ug/Kg		8630	27000	27000	1	P	HSC	12/19/09 21:48	121909-1	932275
7439-92-1	Lead	8720	ug/Kg		270	1080	1080	1	P	HSC	12/19/09 21:48	121909-1	932275
7439-93-2	Lithium J+,I6b	5.65	mg/kg	N	0.44	2.2	2.2	2	MS	SKJ	01/01/10 06:47	091231-5	932315
7439-95-4	Magnesium J+,I6b	593000	ug/Kg	N	9170	32300	32300	1	P	HSC	12/19/09 21:48	121909-1	932275
7439-96-5	Manganese	170000	ug/Kg	*	216	1080	1080	1	P	HSC	12/19/09 21:48	121909-1	932275
7439-97-6	Mercury U,I4d	15.1	ug/kg		3.89	11.4	11.4	1	AV	JXL1	01/04/10 10:00	010410S1-7	936549
7440-02-0	Nickel	3.05	mg/kg		0.11	0.44	0.44	2	MS	SKJ	01/01/10 00:10	091231-3	932315
7440-09-7	Potassium	477000	ug/Kg	N	6900	27000	27000	1	P	HSC	12/19/09 21:48	121909-1	932275
7782-49-2	Selenium	1.1	mg/kg	U	0.55	1.1	1.1	2	MS	SKJ	01/01/10 00:10	091231-3	932315
7440-21-3	Silicon	1270000	ug/Kg	N	1620	10800	10800	1	P	HSC	12/19/09 21:48	121909-1	932275
7440-22-4	Silver	304	ug/Kg	J	108	539	539	1	P	HSC	12/19/09 21:48	121909-1	932275
7440-23-5	Sodium U,I4d	78200	ug/Kg	E	7550	27000	27000	1	P	HSC	12/19/09 21:48	121909-1	932275
7440-28-0	Thallium	0.220	mg/kg	U	0.066	0.22	0.22	2	MS	SKJ	01/01/10 00:10	091231-3	932315
7440-32-6	Titanium	383000	ug/Kg		108	539	539	1	P	HSC	12/19/09 21:48	121909-1	932275
7440-61-1	Uranium	0.676	mg/kg		0.0145	0.044	0.044	2	MS	SKJ	01/01/10 06:47	091231-5	932315
7440-62-2	Vanadium	8870	ug/Kg		108	539	539	1	P	HSC	12/19/09 21:48	121909-1	932275
7440-66-6	Zinc	41000	ug/Kg		356	1080	1080	1	P	HSC	12/19/09 21:48	121909-1	932275

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
932275	932274	SW846 3050B	0.514	g	50	mL	12/17/09	BCD1
932315	932314	SW846 3050B	0.504	g	50	mL	12/17/09	BCD1
934855	934854	SW846 7471A Prep	0.536	g	30	mL	12/22/09	TXB3

KAL
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METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10 853 CONTRACT: LANL01004 METHOD TYPE: SW846

SAMPLE ID: 242661016 BASIS: Dry Weight DATE COLLECTED 07 DEC 09

CLIENT ID: RE03 09 14271 LEVEL: Low DATE RECEIVED 10 DEC 09

MATRIX: SOIL %SOLIDS: 86

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429 90 5	Aluminum	1910000	ug/Kg		7770	22900	22900	1	P	HSC	12/19/09 21:55	121909 1	932275
7440 36 0	Antimony	1140	ug/Kg	U	377	1140	1140	1	P	HSC	12/19/09 21:55	121909 1	932275
7440 38 2	Arsenic	0.632	mg/kg	J	0.229	1.15	1.15	2	MS	SKJ	01/01/10 00:17	091231 3	932315
7440 39 3	Barium J+,I6b	24100	ug/Kg	N	114	572	572	1	P	HSC	12/19/09 21:55	121909 1	932275
7440 41 7	Beryllium	0.195	mg/kg		0.0229	0.115	0.115	2	MS	SKJ	01/01/10 00:17	091231 3	932315
7440 42 8	Boron	5720	ug/Kg	U	1140	5720	5720	1	P	HSC	12/19/09 21:55	121909 1	932275
7440 43 9	Cadmium	572	ug/Kg	U	114	572	572	1	P	HSC	12/19/09 21:55	121909 1	932275
7440 70 2	Calcium	1350000	ug/Kg		9150	28600	28600	1	P	HSC	12/19/09 21:55	121909 1	932275
7440 47 3	Chromium	4240	ug/Kg		171	572	572	1	P	HSC	12/19/09 21:55	121909 1	932275
7440 48 4	Cobalt	2120	ug/Kg		171	572	572	1	P	HSC	12/19/09 21:55	121909 1	932275
7440 50 8	Copper	7420	ug/Kg		343	1140	1140	1	P	HSC	12/19/09 21:55	121909 1	932275
7439 89 6	Iron	7640000	ug/Kg		9150	28600	28600	1	P	HSC	12/19/09 21:55	121909 1	932275
7439 92 1	Lead	6590	ug/Kg		286	1140	1140	1	P	HSC	12/19/09 21:55	121909 1	932275
7439 93 2	Lithium J+,I6b	4.35	mg/kg	N	0.458	2.29	2.29	2	MS	SKJ	01/01/10 06:50	091231 5	932315
7439 95 4	Magnesium J+,I6b	955000	ug/Kg	N	9720	34300	34300	1	P	HSC	12/19/09 21:55	121909 1	932275
7439 96 5	Manganese	158000	ug/Kg	*	229	1140	1140	1	P	HSC	12/19/09 21:55	121909 1	932275
7439 97 6	Mercury	26	ug/kg		4.46	13.1	13.1	1	AV	JXL1	01/04/10 10:02	010410S1 7	936549
7440 02 0	Nickel	3.36	mg/kg		0.115	0.458	0.458	2	MS	SKJ	01/01/10 00:17	091231 3	932315
7440 09 7	Potassium	3630000	ug/Kg	N	36600	143000	143000	5	P	HSC	12/20/09 10:55	122009A 2	932275
7782 49 2	Selenium	1.15	mg/kg	U	0.573	1.15	1.15	2	MS	SKJ	01/01/10 00:17	091231 3	932315
7440 21 3	Silicon	915000	ug/Kg	N	1710	11400	11400	1	P	HSC	12/19/09 21:55	121909 1	932275
7440 22 4	Silver	360	ug/Kg	J	114	572	572	1	P	HSC	12/19/09 21:55	121909 1	932275
7440 23 5	Sodium	9420000	ug/Kg	E	40000	143000	143000	5	P	HSC	12/20/09 10:55	122009A 2	932275
7440 28 0	Thallium	0.229	mg/kg	U	0.0687	0.229	0.229	2	MS	SKJ	01/01/10 00:17	091231 3	932315
7440 32 6	Titanium	255000	ug/Kg		114	572	572	1	P	HSC	12/19/09 21:55	121909 1	932275
7440 61 1	Uranium	0.446	mg/kg		0.0151	0.0458	0.0458	2	MS	SKJ	01/01/10 06:50	091231 5	932315
7440 62 2	Vanadium	11600	ug/Kg		114	572	572	1	P	HSC	12/19/09 21:55	121909 1	932275
7440 66 6	Zinc	55800	ug/Kg		377	1140	1140	1	P	HSC	12/19/09 21:55	121909 1	932275

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
932275	932274	SW846 3050B	0.511	g	50	mL	12/17/09	BCD1
932315	932314	SW846 3050B	0.51	g	50	mL	12/17/09	BCD1
934855	934854	SW846 7471A Prep	0.544	g	30	mL	12/22/09	TXB3

KAL
03/25/10

METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10 853 CONTRACT: LANL01004 METHOD TYPE: SW846

SAMPLE ID: 242661017 **BASIS:** Dry Weight **DATE COLLECTED** 07 DEC-09

CLIENT ID: RE03-09-14278 LEVEL: Low DATE RECEIVED 10-DEC-09

MATRIX: SOIL %SOLIDS: 92.5

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	8960000	ug/Kg		7080	20800	20800	1	P	HSC	12/19/09 22:02	121909-1	932275
7440-36-0	Antimony	1040	ug/Kg	U	344	1040	1040	1	P	HSC	12/19/09 22:02	121909-1	932275
7440-38-2	Arsenic	1.58	mg/kg		0.207	1.04	1.04	2	MS	SKJ	01/01/10 00:23	091231-3	932315
7440-39-3	Barium J+,I6b	118000	ug/Kg	N	104	521	521	1	P	HSC	12/19/09 22:02	121909-1	932275
7440-41-7	Beryllium	0.808	mg/kg		0.0207	0.104	0.104	2	MS	SKJ	01/01/10 00:23	091231-3	932315
7440-42-8	Boron	5210	ug/Kg	U	1040	5210	5210	1	P	HSC	12/19/09 22:02	121909-1	932275
7440-43-9	Cadmium	124	ug/Kg	J	104	521	521	1	P	HSC	12/19/09 22:02	121909-1	932275
7440-70-2	Calcium	1620000	ug/Kg		8340	26000	26000	1	P	HSC	12/19/09 22:02	121909-1	932275
7440-47-3	Chromium	8260	ug/Kg		156	521	521	1	P	HSC	12/19/09 22:02	121909-1	932275
7440-48-4	Cobalt	4600	ug/Kg		156	521	521	1	P	HSC	12/19/09 22:02	121909-1	932275
7440-50-8	Copper	6340	ug/Kg		313	1040	1040	1	P	HSC	12/19/09 22:02	121909-1	932275
7439-89-6	Iron	10100000	ug/Kg		8340	26000	26000	1	P	HSC	12/19/09 22:02	121909-1	932275
7439-92-1	Lead	12200	ug/Kg		260	1040	1040	1	P	HSC	12/19/09 22:02	121909-1	932275
7439-93-2	Lithium J+,I6b	12.8	mg/kg	N	0.414	2.07	2.07	2	MS	SKJ	01/01/10 06:52	091231-5	932315
7439-95-4	Magnesium J+,I6b	1290000	ug/Kg	N	8860	31300	31300	1	P	HSC	12/19/09 22:02	121909-1	932275
7439-96-5	Manganese	289000	ug/Kg	*	208	1040	1040	1	P	HSC	12/19/09 22:02	121909-1	932275
7439-97-6	Mercury	17.1	ug/kg		3.88	11.4	11.4	1	AV	JXL1	01/04/10 10:04	010410S1-7	936549
7440-02-0	Nickel	7.63	mg/kg		0.104	0.414	0.414	2	MS	SKJ	01/01/10 00:23	091231-3	932315
7440-09-7	Potassium	1010000	ug/Kg	N	6670	26000	26000	1	P	HSC	12/19/09 22:02	121909-1	932275
7782-49-2	Selenium	1.04	mg/kg	U	0.518	1.04	1.04	2	MS	SKJ	01/01/10 00:23	091231-3	932315
7440-21-3	Silicon	1520000	ug/Kg	N	1560	10400	10400	1	P	HSC	12/19/09 22:02	121909-1	932275
7440-22-4	Silver	355	ug/Kg	J	104	521	521	1	P	HSC	12/19/09 22:02	121909-1	932275
7440-23-5	Sodium	247000	ug/Kg	E	7290	26000	26000	1	P	HSC	12/19/09 22:02	121909-1	932275
7440-28-0	Thallium	0.144	mg/kg	J	0.0622	0.207	0.207	2	MS	SKJ	01/01/10 00:23	091231-3	932315
7440-32-6	Titanium	418000	ug/Kg		104	521	521	1	P	HSC	12/19/09 22:02	121909-1	932275
7440-61-1	Uranium	0.684	mg/kg		0.0137	0.0414	0.0414	2	MS	SKJ	01/01/10 06:52	091231-5	932315
7440-62-2	Vanadium	19300	ug/Kg		104	521	521	1	P	HSC	12/19/09 22:02	121909-1	932275
7440-66-6	Zinc	55300	ug/Kg		344	1040	1040	1	P	HSC	12/19/09 22:02	121909-1	932275

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
932275	932274	SW846 3050B	0.519	g	50	mL	12/17/09	BCD1
932315	932314	SW846 3050B	0.522	g	50	mL	12/17/09	BCD1
934855	934854	SW846 7471A Prep	0.501	g	30	mL	12/22/09	TXB3

KAL
03/25/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10 853 CONTRACT: LANL01004 METHOD TYPE: SW846

SAMPLE ID: 242661018 BASIS: Dry Weight DATE COLLECTED 07 DEC 09

CLIENT ID: RE03 09 14285 LEVEL: Low DATE RECEIVED 10 DEC 09

MATRIX: SOIL %SOLIDS: 86

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429 90 5	Aluminum	2280000	ug/Kg		7530	22200	22200	1	P	HSC	12/19/09 22:09	121909 1	932275
7440 36 0	Antimony	1110	ug/Kg	U	366	1110	1110	1	P	HSC	12/19/09 22:09	121909 1	932275
7440 38 2	Arsenic	0.999	mg/kg	J	0.227	1.14	1.14	2	MS	SKJ	01/01/10 00:29	091231 3	932315
7440 39 3	Barium J+,I6b	12100	ug/Kg	N	111	554	554	1	P	HSC	12/19/09 22:09	121909 1	932275
7440 41 7	Beryllium	0.540	mg/kg		0.0227	0.114	0.114	2	MS	SKJ	01/01/10 00:29	091231 3	932315
7440 42 8	Boron	5540	ug/Kg	U	1110	5540	5540	1	P	HSC	12/19/09 22:09	121909 1	932275
7440 43 9	Cadmium	554	ug/Kg	U	111	554	554	1	P	HSC	12/19/09 22:09	121909 1	932275
7440 70 2	Calcium	323000	ug/Kg		8860	27700	27700	1	P	HSC	12/19/09 22:09	121909 1	932275
7440 47 3	Chromium	3310	ug/Kg		166	554	554	1	P	HSC	12/19/09 22:09	121909 1	932275
7440 48 4	Cobalt	359	ug/Kg	J	166	554	554	1	P	HSC	12/19/09 22:09	121909 1	932275
7440 50 8	Copper	1420	ug/Kg		332	1110	1110	1	P	HSC	12/19/09 22:09	121909 1	932275
7439 89 6	Iron	11400000	ug/Kg		8860	27700	27700	1	P	HSC	12/19/09 22:09	121909 1	932275
7439 92 1	Lead	4160	ug/Kg		277	1110	1110	1	P	HSC	12/19/09 22:09	121909 1	932275
7439 93 2	Lithium J+,I6b	4.1	mg/kg	N	0.454	2.27	2.27	2	MS	SKJ	01/01/10 06:55	091231 5	932315
7439 95 4	Magnesium J+,I6b	191000	ug/Kg	N	9420	33200	33200	1	P	HSC	12/19/09 22:09	121909 1	932275
7439 96 5	Manganese	155000	ug/Kg	*	222	1110	1110	1	P	HSC	12/19/09 22:09	121909 1	932275
7439 97 6	Mercury	9.98	ug/kg	J	4.68	13.8	13.8	1	AV	JXL1	01/04/10 10:05	010410S1 7	936549
7440 02 0	Nickel U,I4d	1.82	mg/kg		0.114	0.454	0.454	2	MS	SKJ	01/01/10 00:29	091231 3	932315
7440 09 7	Potassium	275000	ug/Kg	N	7090	27700	27700	1	P	HSC	12/19/09 22:09	121909 1	932275
7782 49 2	Selenium	1.14	mg/kg	U	0.568	1.14	1.14	2	MS	SKJ	01/01/10 00:29	091231 3	932315
7440 21 3	Silicon	912000	ug/Kg	N	1660	11100	11100	1	P	HSC	12/19/09 22:09	121909 1	932275
7440 22 4	Silver	391	ug/Kg	J	111	554	554	1	P	HSC	12/19/09 22:09	121909 1	932275
7440 23 5	Sodium	219000	ug/Kg	E	7760	27700	27700	1	P	HSC	12/19/09 22:09	121909 1	932275
7440 28 0	Thallium	0.227	mg/kg	U	0.0682	0.227	0.227	2	MS	SKJ	01/01/10 00:29	091231 3	932315
7440 32 6	Titanium	534000	ug/Kg		111	554	554	1	P	HSC	12/19/09 22:09	121909 1	932275
7440 61 1	Uranium	0.513	mg/kg		0.015	0.0454	0.0454	2	MS	SKJ	01/01/10 06:55	091231 5	932315
7440 62 2	Vanadium	5020	ug/Kg		111	554	554	1	P	HSC	12/19/09 22:09	121909 1	932275
7440 66 6	Zinc	41200	ug/Kg		366	1110	1110	1	P	HSC	12/19/09 22:09	121909 1	932275

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
932275	932274	SW846 3050B	0.525	g	50	mL	12/17/09	BCD1
932315	932314	SW846 3050B	0.512	g	50	mL	12/17/09	BCD1
934855	934854	SW846 7471A Prep	0.56	g	30	mL	12/22/09	TXB3

KAL
03/25/10

METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10 853 CONTRACT: LANL01004 METHOD TYPE: SW846

SAMPLE ID: 242661019 **BASIS:** Dry Weight **DATE COLLECTED** 07-DEC-09

CLIENT ID: RE03-09-14286 LEVEL: Low DATE RECEIVED 10-DEC-09

MATRIX: SOIL %SOLIDS: 87

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	1630000	ug/Kg		7760	22800	22800	1	P	HSC	12/19/09 22:17	121909-1	932275
7440-36-0	Antimony	1140	ug/Kg	U	376	1140	1140	1	P	HSC	12/19/09 22:17	121909-1	932275
7440-38-2	Arsenic	0.476	mg/kg	J	0.228	1.14	1.14	2	MS	SKJ	01/01/10 00:35	091231-3	932315
7440-39-3	Barium J+,I6b	9870	ug/Kg	N	114	570	570	1	P	HSC	12/19/09 22:17	121909-1	932275
7440-41-7	Beryllium	0.499	mg/kg		0.0228	0.114	0.114	2	MS	SKJ	01/01/10 00:35	091231-3	932315
7440-42-8	Boron	5700	ug/Kg	U	1140	5700	5700	1	P	HSC	12/19/09 22:17	121909-1	932275
7440-43-9	Cadmium	570	ug/Kg	U	114	570	570	1	P	HSC	12/19/09 22:17	121909-1	932275
7440-70-2	Calcium	177000	ug/Kg		9120	28500	28500	1	P	HSC	12/19/09 22:17	121909-1	932275
7440-47-3	Chromium	2260	ug/Kg		171	570	570	1	P	HSC	12/19/09 22:17	121909-1	932275
7440-48-4	Cobalt	255	ug/Kg	J	171	570	570	1	P	HSC	12/19/09 22:17	121909-1	932275
7440-50-8	Copper	1100	ug/Kg	J	342	1140	1140	1	P	HSC	12/19/09 22:17	121909-1	932275
7439-89-6	Iron	9550000	ug/Kg		9120	28500	28500	1	P	HSC	12/19/09 22:17	121909-1	932275
7439-92-1	Lead	3270	ug/Kg		285	1140	1140	1	P	HSC	12/19/09 22:17	121909-1	932275
7439-93-2	Lithium J+,I6b	5.02	mg/kg	N	0.455	2.28	2.28	2	MS	SKJ	01/01/10 06:57	091231-5	932315
7439-95-4	Magnesium J+,I6b	155000	ug/Kg	N	9690	34200	34200	1	P	HSC	12/19/09 22:17	121909-1	932275
7439-96-5	Manganese	161000	ug/Kg	*	228	1140	1140	1	P	HSC	12/19/09 22:17	121909-1	932275
7439-97-6	Mercury	13.6	ug/kg	U	4.63	13.6	13.6	1	AV	JXL1	01/04/10 10:07	010410S1-7	936549
7440-02-0	Nickel U,I4d	1.09	mg/kg		0.114	0.455	0.455	2	MS	SKJ	01/01/10 00:35	091231-3	932315
7440-09-7	Potassium	191000	ug/Kg	N	7300	28500	28500	1	P	HSC	12/19/09 22:17	121909-1	932275
7782-49-2	Selenium	1.14	mg/kg	U	0.569	1.14	1.14	2	MS	SKJ	01/01/10 00:35	091231-3	932315
7440-21-3	Silicon U,I4d	705000	ug/Kg	N	1710	11400	11400	1	P	HSC	12/19/09 22:17	121909-1	932275
7440-22-4	Silver	440	ug/Kg	J	114	570	570	1	P	HSC	12/19/09 22:17	121909-1	932275
7440-23-5	Sodium	153000	ug/Kg	E	7980	28500	28500	1	P	HSC	12/19/09 22:17	121909-1	932275
7440-28-0	Thallium	0.228	mg/kg	U	0.0683	0.228	0.228	2	MS	SKJ	01/01/10 00:35	091231-3	932315
7440-32-6	Titanium	437000	ug/Kg		114	570	570	1	P	HSC	12/19/09 22:17	121909-1	932275
7440-61-1	Uranium	0.505	mg/kg		0.015	0.0455	0.0455	2	MS	SKJ	01/01/10 06:57	091231-5	932315
7440-62-2	Vanadium	2690	ug/Kg		114	570	570	1	P	HSC	12/19/09 22:17	121909-1	932275
7440-66-6	Zinc	32500	ug/Kg		376	1140	1140	1	P	HSC	12/19/09 22:17	121909-1	932275

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
932275	932274	SW846 3050B	0.504	g	50	mL	12/17/09	BCD1
932315	932314	SW846 3050B	0.505	g	50	mL	12/17/09	BCD1
934855	934854	SW846 7471A Prep	0.522	g	30	mL	12/22/09	TXB3

KAL
03/25/10

METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10 853 CONTRACT: LANL01004 METHOD TYPE: SW846

SAMPLE ID: 242661020 BASIS: Dry Weight DATE COLLECTED 07 DEC 09

CLIENT ID: RE03 09 14283 LEVEL: Low DATE RECEIVED 10 DEC 09

MATRIX: SOIL %SOLIDS: 82

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429 90 5	Aluminum	3020000	ug/Kg		8260	24300	24300	1	P	HSC	12/19/09 22:24	121909 1	932275
7440 36 0	Antimony	1210	ug/Kg	U	401	1210	1210	1	P	HSC	12/19/09 22:24	121909 1	932275
7440 38 2	Arsenic	0.347	mg/kg	J	0.233	1.16	1.16	2	MS	SKJ	01/01/10 00:42	091231 3	932315
7440 39 3	Barium J+,I6b	23600	ug/Kg	N	121	607	607	1	P	HSC	12/19/09 22:24	121909 1	932275
7440 41 7	Beryllium	0.459	mg/kg		0.0233	0.116	0.116	2	MS	SKJ	01/01/10 00:42	091231 3	932315
7440 42 8	Boron	6070	ug/Kg	U	1210	6070	6070	1	P	HSC	12/19/09 22:24	121909 1	932275
7440 43 9	Cadmium	607	ug/Kg	U	121	607	607	1	P	HSC	12/19/09 22:24	121909 1	932275
7440 70 2	Calcium	555000	ug/Kg		9720	30400	30400	1	P	HSC	12/19/09 22:24	121909 1	932275
7440 47 3	Chromium	3930	ug/Kg		182	607	607	1	P	HSC	12/19/09 22:24	121909 1	932275
7440 48 4	Cobalt	1070	ug/Kg		182	607	607	1	P	HSC	12/19/09 22:24	121909 1	932275
7440 50 8	Copper	2100	ug/Kg		364	1210	1210	1	P	HSC	12/19/09 22:24	121909 1	932275
7439 89 6	Iron	11800000	ug/Kg		9720	30400	30400	1	P	HSC	12/19/09 22:24	121909 1	932275
7439 92 1	Lead	5500	ug/Kg		304	1210	1210	1	P	HSC	12/19/09 22:24	121909 1	932275
7439 93 2	Lithium J+,I6b	6.03	mg/kg	N	0.465	2.33	2.33	2	MS	SKJ	01/01/10 07:00	091231 5	932315
7439 95 4	Magnesium J+,I6b	513000	ug/Kg	N	10300	36400	36400	1	P	HSC	12/19/09 22:24	121909 1	932275
7439 96 5	Manganese	144000	ug/Kg	*	243	1210	1210	1	P	HSC	12/19/09 22:24	121909 1	932275
7439 97 6	Mercury	9.81	ug/kg	J	4.3	12.7	12.7	1	AV	JXL1	01/04/10 10:09	010410S1 7	936549
7440 02 0	Nickel	2.8	mg/kg		0.116	0.465	0.465	2	MS	SKJ	01/01/10 00:42	091231 3	932315
7440 09 7	Potassium	534000	ug/Kg	N	7780	30400	30400	1	P	HSC	12/19/09 22:24	121909 1	932275
7782 49 2	Selenium	1.16	mg/kg	U	0.582	1.16	1.16	2	MS	SKJ	01/01/10 00:42	091231 3	932315
7440 21 3	Silicon	1270000	ug/Kg	N	1820	12100	12100	1	P	HSC	12/19/09 22:24	121909 1	932275
7440 22 4	Silver	515	ug/Kg	J	121	607	607	1	P	HSC	12/19/09 22:24	121909 1	932275
7440 23 5	Sodium	242000	ug/Kg	E	8500	30400	30400	1	P	HSC	12/19/09 22:24	121909 1	932275
7440 28 0	Thallium	0.0752	mg/kg	J	0.0698	0.233	0.233	2	MS	SKJ	01/01/10 00:42	091231 3	932315
7440 32 6	Titanium	461000	ug/Kg		121	607	607	1	P	HSC	12/19/09 22:24	121909 1	932275
7440 61 1	Uranium	0.523	mg/kg		0.0154	0.0465	0.0465	2	MS	SKJ	01/01/10 07:00	091231 5	932315
7440 62 2	Vanadium	4910	ug/Kg		121	607	607	1	P	HSC	12/19/09 22:24	121909 1	932275
7440 66 6	Zinc	35700	ug/Kg		401	1210	1210	1	P	HSC	12/19/09 22:24	121909 1	932275

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
932275	932274	SW846 3050B	0.501	g	50	mL	12/17/09	BCD1
932315	932314	SW846 3050B	0.523	g	50	mL	12/17/09	BCD1
934855	934854	SW846 7471A Prep	0.59	g	30	mL	12/22/09	TXB3

KAL
03/25/10

DATA VALIDATION COVER SHEET

5120-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY

Section I.

REQUEST NUMBER: 10-853 VALIDATION DATE: 03/24/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Kevin A. Lambert ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☒ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE): total cyanide only

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☐	☐	☒	8. QUANTITATION REPORTS
☐	☐	☒	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. In the ICB associated with samples RE03-09-14277, -14282, -14269, -14273, -14271, -14278, -14285, -14286, and -14283, total cyanide was detected. The total cyanide result for sample -14271 was a detect ≤5X the ICB concentration and, thus, was qualified U,I4b. All other associated sample results were NDs and, thus, were not qualified.

Reviewed by: Mary Donivan Level: I Date: 03/25/10

VALIDATOR'S SIGNATURE: Kevin A Lambert DATE: 03/24/10

GENERAL CHEMISTRY ANALYTICAL DATA VALIDATION CHECKLIST

5120-2

General Chemistry Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, I9	J-, I9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, I9a	J-, I9a
☐	☐	☒	3. The affected analytes are regarded as rejected because the analytical holding time was exceeded.	R, I9b	R, I9b
☐	☒	☐	4. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, I7	J, I7
☐	☒	☐	5. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, I7a	J, I7a
☐	☒	☐	6. The ICV and/or CCV were recovered outside the method specific limits.	UJ, I7c	J, I7c
☐	☒	☐	7. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, I7d	J, I7d
☐	☒	☐	8. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, I7f	R, I7f
☐	☐	☒	9. The interference check sample percent recovery value is <50%.	R, I2	J-, I2
☐	☐	☒	10. The interference check sample percent recovery value is ≥50% and <80%.	UJ, I2a	J-, I2a
☐	☐	☒	11. The interference check sample percent recovery value is >120%.	N/A	J+, I2b
☐	☐	☒	12. The interference check sample was not analyzed with the samples.	R, I2c	R, I2c
☐	☒	☐	13. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, I4	N/A

GENERAL CHEMISTRY ANALYTICAL DATA VALIDATION CHECKLIST

5120-2 General Chemistry Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	14. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X.	N/A	J, I4a
☒	☐	☐	15. The sample result is ≤5X the concentration of the related analyte in the instrument blank and continuing calibration blank.	U, I4b	N/A
☐	☒	☐	16. Continuing calibration blanks were not analyzed at the appropriate method frequency.	UJ, I4c	J, I4c
☐	☒	☐	17. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	U, I4d	N/A
☐	☒	☐	18. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, I4e	R, I4e
☐	☒	☐	19. The associate matrix spike recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I6	R, I6
☐	☒	☐	20. The associated matrix spike recovery was below the Lower Acceptance Limit (LAL) but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I6a	J-, I6a
☐	☒	☐	21. The associated matrix spike recovery was above the Upper Acceptance Limit (UAL). Follow the external laboratory limits located within the associated data package.	UJ, I6b	J+, I6b
☐	☒	☐	22. Required matrix spike information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. If LCS information is present, do not reject. Qualify data based on LCS information.	R, I6c	R, I6c
☐	☒	☐	23. The sample and/or the duplicate sample results RPD is not within the acceptance limits. Follow the external laboratory limits located within the associated data package.	UJ, I10b	J, I10b

GENERAL CHEMISTRY ANALYTICAL DATA VALIDATION CHECKLIST

5120-2

General Chemistry Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	24. The duplicate sample was not prepared and/or analyzed with the samples for unspecified reasons. The duplicate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	UJ, I10d	J, I10d
☐	☒	☐	25. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I12	R, I12
☐	☒	☐	26. The LCS percent recover was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I12a	J-, I12a
☐	☒	☐	27. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, I12b
☐	☒	☐	28. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. Do not Reject if MS/MSD information is present. Qualify according to MS/MSD criteria.	R, I12c	R, I12c
☐	☒	☐	29. Duplicate, dilution, or reanalysis	UJ, I88	J, I88
☐	☒	☐	30. The LANL project chemist identified quality deficiencies in the reported data that require further qualification. This code can ONLY be used and/or under advisement by the LANL project chemist.	UJ, R, I19	J, R, I19
☒	☐	☐	31. Qualification of data via data validation does not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB NQ, NQ (no qualification)

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: December 22, 2009

Client SDG: 10-853

Client Sample ID:	RE03-09-14285	Project:	LANL01004
Sample ID:	242661018	Client ID:	LANL010
Matrix:	S		
Collect Date:	07-DEC-09 12:00		
Receive Date:	10-DEC-09		
Collector:	Client		
Moisture:	14%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total Federal "Dry Weight Corrected"										
Cyanide, Total	U	ND	79.1	291	ug/kg	1	AXC2 12/15/09	1011	932514	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	SXJ1	12/14/09	1200	932513

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: December 22, 2009

Client SDG: 10-853

Client Sample ID:	RE03-09-14286	Project:	LANL01004
Sample ID:	242661019	Client ID:	LANL010
Matrix:	S		
Collect Date:	07-DEC-09 12:00		
Receive Date:	10-DEC-09		
Collector:	Client		
Moisture:	13%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total Federal "Dry Weight Corrected"										
Cyanide, Total	U	ND	73.8	271	ug/kg	1	AXC2 12/15/09	1012	932514	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	SXJ1	12/14/09	1200	932513

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Project: **LANL ER Project**

Report Date: December 22, 2009

Client SDG: 10-853

Client Sample ID:	RE03-09-14283	Project:	LANL01004
Sample ID:	242661020	Client ID:	LANL010
Matrix:	S		
Collect Date:	07-DEC-09 12:00		
Receive Date:	10-DEC-09		
Collector:	Client		
Moisture:	17.8%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total Federal "Dry Weight Corrected"										
Cyanide, Total	U	ND	72.6	267	ug/kg	1	AXC2 12/15/09	1013	932514	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	SXJ1	12/14/09	1200	932513

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Project: **LANL ER Project**

Report Date: December 22, 2009

Client SDG: 10-853

Client Sample ID:	RE03-09-14224	Project:	LANL01004
Sample ID:	242661001	Client ID:	LANL010
Matrix:	S		
Collect Date:	07-DEC-09 12:00		
Receive Date:	10-DEC-09		
Collector:	Client		
Moisture:	13.1%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total Federal "Dry Weight Corrected"										
Cyanide, Total	J	156	78.2	288	ug/kg	1	AXC2 12/16/09	1342	931336	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	EXF1	12/16/09	1244	931334

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Project: **LANL ER Project**

Report Date: December 22, 2009

Client SDG: 10-853

Client Sample ID:	RE03-09-14227	Project:	LANL01004
Sample ID:	242661002	Client ID:	LANL010
Matrix:	S		
Collect Date:	07-DEC-09 12:00		
Receive Date:	10-DEC-09		
Collector:	Client		
Moisture:	9.69%		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Flow Injection Analysis											
SW9012A Cyanide, Total Federal "Dry Weight Corrected"											
Cyanide, Total	U	ND	75.3	277	ug/kg	1	AXC2	12/16/09	1345	931336	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	EXF1	12/16/09	1244	931334

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Project: **LANL ER Project**

Report Date: December 22, 2009

Client SDG: 10-853

Client Sample ID:	RE03-09-14225	Project:	LANL01004
Sample ID:	242661003	Client ID:	LANL010
Matrix:	S		
Collect Date:	07-DEC-09 12:00		
Receive Date:	10-DEC-09		
Collector:	Client		
Moisture:	10.6%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total Federal "Dry Weight Corrected"										
Cyanide, Total	U	ND	76.1	280	ug/kg	1	AXC2 12/16/09	1346	931336	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	EXF1	12/16/09	1244	931334

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Project: **LANL ER Project**

Report Date: December 22, 2009

Client SDG: 10-853

Client Sample ID:	RE03-09-14226	Project:	LANL01004
Sample ID:	242661004	Client ID:	LANL010
Matrix:	S		
Collect Date:	07-DEC-09 12:00		
Receive Date:	10-DEC-09		
Collector:	Client		
Moisture:	10.6%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total Federal "Dry Weight Corrected"										
Cyanide, Total	U	ND	76.1	280	ug/kg	1	AXC2 12/16/09	1351	931336	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	EXFl	12/16/09	1244	931334

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Project: **LANL ER Project**

Report Date: December 22, 2009

Client SDG: 10-853

Client Sample ID:	RE03-09-14288	Project:	LANL01004
Sample ID:	242661005	Client ID:	LANL010
Matrix:	S		
Collect Date:	07-DEC-09 12:00		
Receive Date:	10-DEC-09		
Collector:	Client		
Moisture:	4.88%		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Flow Injection Analysis											
SW9012A Cyanide, Total Federal "Dry Weight Corrected"											
Cyanide, Total	U	ND	71.5	263	ug/kg	1	AXC2	12/16/09	1352	931336	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	EXF1	12/16/09	1244	931334

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Project: **LANL ER Project**

Report Date: December 22, 2009

Client SDG: 10-853

Client Sample ID:	RE03-09-14287	Project:	LANL01004
Sample ID:	242661006	Client ID:	LANL010
Matrix:	S		
Collect Date:	07-DEC-09 12:00		
Receive Date:	10-DEC-09		
Collector:	Client		
Moisture:	8.95%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total Federal "Dry Weight Corrected"										
Cyanide, Total	J	165	74.7	275	ug/kg	1	AXC2 12/16/09	1352	931336	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	EXF1	12/16/09	1244	931334

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Project: **LANL ER Project**

Report Date: December 22, 2009

Client SDG: 10-853

Client Sample ID:	RE03-09-14267	Project:	LANL01004
Sample ID:	242661007	Client ID:	LANL010
Matrix:	S		
Collect Date:	07-DEC-09 12:00		
Receive Date:	10-DEC-09		
Collector:	Client		
Moisture:	13%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total Federal "Dry Weight Corrected"										
Cyanide, Total	J	98.3	78.2	287	ug/kg	1	AXC2 12/16/09	1353	931336	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	EXF1	12/16/09	1244	931334

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Project: **LANL ER Project**

Report Date: December 22, 2009

Client SDG: 10-853

Client Sample ID:	RE03-09-14265	Project:	LANL01004
Sample ID:	242661008	Client ID:	LANL010
Matrix:	S		
Collect Date:	07-DEC-09 12:00		
Receive Date:	10-DEC-09		
Collector:	Client		
Moisture:	14.6%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total Federal "Dry Weight Corrected"										
Cyanide, Total	U	ND	79.7	293	ug/kg	1	AXC2 12/16/09	1354	931336	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	EXF1	12/16/09	1244	931334

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: December 22, 2009

Client SDG: 10-853

Client Sample ID:	RE03-09-14281	Project:	LANL01004
Sample ID:	242661009	Client ID:	LANL010
Matrix:	S		
Collect Date:	07-DEC-09 12:00		
Receive Date:	10-DEC-09		
Collector:	Client		
Moisture:	13.9%		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Flow Injection Analysis											
SW9012A Cyanide, Total Federal "Dry Weight Corrected"											
Cyanide, Total	U	ND	79.0	290	ug/kg	1	AXC2	12/16/09	1355	931336	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	EXF1	12/16/09	1244	931334

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Project: **LANL ER Project**

Report Date: December 22, 2009

Client SDG: 10-853

Client Sample ID:	RE03-09-14284	Project:	LANL01004
Sample ID:	242661010	Client ID:	LANL010
Matrix:	S		
Collect Date:	07-DEC-09 12:00		
Receive Date:	10-DEC-09		
Collector:	Client		
Moisture:	12.1%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total Federal "Dry Weight Corrected"										
Cyanide, Total	U	ND	77.4	284	ug/kg	1	AXC2 12/16/09	1356	931336	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	EXF1	12/16/09	1244	931334

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Project: **LANL ER Project**

Report Date: December 22, 2009

Client SDG: 10-853

Client Sample ID:	RE03-09-14274	Project:	LANL01004
Sample ID:	242661011	Client ID:	LANL010
Matrix:	S		
Collect Date:	07-DEC-09 12:00		
Receive Date:	10-DEC-09		
Collector:	Client		
Moisture:	3.58%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total Federal "Dry Weight Corrected"										
Cyanide, Total	U	ND	70.5	259	ug/kg	1	AXC2 12/16/09	1357	931336	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	EXF1	12/16/09	1244	931334

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: December 22, 2009

Client SDG: 10-853

Client Sample ID:	RE03-09-14277	Project:	LANL01004
Sample ID:	242661012	Client ID:	LANL010
Matrix:	S		
Collect Date:	07-DEC-09 12:00		
Receive Date:	10-DEC-09		
Collector:	Client		
Moisture:	9.96%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total Federal "Dry Weight Corrected"										
Cyanide, Total	U	ND	66.2	244	ug/kg	1	AXC2 12/15/09	0957	932514	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	SXJ1	12/14/09	1200	932513

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: December 22, 2009

Client SDG: 10-853

Client Sample ID:	RE03-09-14282	Project:	LANL01004
Sample ID:	242661013	Client ID:	LANL010
Matrix:	S		
Collect Date:	07-DEC-09 12:00		
Receive Date:	10-DEC-09		
Collector:	Client		
Moisture:	13.9%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total Federal "Dry Weight Corrected"										
Cyanide, Total	U	ND	70.5	259	ug/kg	1	AXC2 12/15/09	1000	932514	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	SXJ1	12/14/09	1200	932513

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: December 22, 2009

Client SDG: 10-853

Client Sample ID:	RE03-09-14269	Project:	LANL01004
Sample ID:	242661014	Client ID:	LANL010
Matrix:	S		
Collect Date:	07-DEC-09 12:00		
Receive Date:	10-DEC-09		
Collector:	Client		
Moisture:	13.4%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total Federal "Dry Weight Corrected"										
Cyanide, Total	U	ND	78.6	289	ug/kg	1	AXC2 12/15/09	1007	932514	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	SXJ1	12/14/09	1200	932513

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

KAL
03/24/10

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: December 22, 2009

Client SDG: 10-853

Client Sample ID:	RE03-09-14273	Project:	LANL01004
Sample ID:	242661015	Client ID:	LANL010
Matrix:	S		
Collect Date:	07-DEC-09 12:00		
Receive Date:	10-DEC-09		
Collector:	Client		
Moisture:	9.79%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total Federal "Dry Weight Corrected"										
Cyanide, Total	U	ND	68.5	252	ug/kg	1	AXC2 12/15/09	1008	932514	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	SXJ1	12/14/09	1200	932513

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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03/24/10

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TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: December 22, 2009

Client SDG: 10-853

Client Sample ID:	RE03-09-14271	Project:	LANL01004
Sample ID:	242661016	Client ID:	LANL010
Matrix:	S		
Collect Date:	07-DEC-09 12:00		
Receive Date:	10-DEC-09		
Collector:	Client		
Moisture:	14.4%		

Parameter	Qualifier	Result		DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis											
SW9012A Cyanide, Total Federal "Dry Weight Corrected"											
Cyanide, Total	J	89.3	U,I4b	75.0	276	ug/kg	1	AXC2 12/15/09	1009	932514	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	SXJ1	12/14/09	1200	932513

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: December 22, 2009

Client SDG: 10-853

Client Sample ID:	RE03-09-14278	Project:	LANL01004
Sample ID:	242661017	Client ID:	LANL010
Matrix:	S		
Collect Date:	07-DEC-09 12:00		
Receive Date:	10-DEC-09		
Collector:	Client		
Moisture:	7.54%		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Flow Injection Analysis											
SW9012A Cyanide, Total Federal "Dry Weight Corrected"											
Cyanide, Total	U	ND	66.9	246	ug/kg	1	AXC2	12/15/09	1010	932514	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	SXJ1	12/14/09	1200	932513

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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03/24/10

DATA VALIDATION COVER SHEET

5119-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY

Section I.

REQUEST NUMBER: 10-853 VALIDATION DATE: 03/23/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Kevin A. Lambert ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☒ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE): tritium analysis only

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☐	☐	☒	8. QUANTITATION REPORTS
☐	☐	☒	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. It should be noted that an MS was not analyzed. However, an LCS was analyzed and passed acceptance criteria. Thus, no sample data were qualified.

Reviewed by: Mary Donivan Level: I Date: 03/25/10

VALIDATOR'S SIGNATURE: Kevin A Lambert DATE: 03/23/10

RAD ANALYTICAL DATA VALIDATION CHECKLIST

5119-2

Rad Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, R9	J-, R9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, R9a	J-, R9a
☐	☐	☒	3. The results for the affected analytes are considered not detected (U) because the associated sample concentration was less than or equal to the MDC.	U, R5	N/A
☐	☐	☒	4. The analyte should be regarded as rejected because spectral interferences prevent positive identification of the analytes.	R, R5a	R, R5a
☐	☒	☐	5. The MDC and/or TPU documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, R5b	J-, R5b
☐	☐	☒	6. The results for the affected analytes should be regarded as not detected (U) because the associated sample concentration was less than 3X the 1 sigma TPU.	U, R11	N/A
☐	☒	☐	7. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, R4	N/A
☐	☒	☐	8. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X.	N/A	J, R4a
☐	☐	☒	9. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	U, R4d	N/A
☐	☒	☐	10. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, R4e	R, R4e
☐	☐	☒	11. The tracer is <10%R. Follow the external laboratory limits located within the associated data package. Tracer%R is not applicable for Gamma Spectroscopy.	R, R3	R, R3

RAD ANALYTICAL DATA VALIDATION CHECKLIST	
5119-2 Rad Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	12. The tracer is < the Lower Acceptance Level (LAL) but ≥10%R. Follow the external laboratory limits located within the associated data package. Tracer%R is not applicable for Gamma Spectroscopy.	UJ, R3a	J-, R3a
☐	☐	☒	13. The Tracer%R value is > the Upper Acceptance Limit (UAL). Follow the external laboratory limits located within the associated data package. Tracer%R is not applicable for Gamma Spectroscopy.	N/A	J+, R3b
☐	☐	☒	14. Required tracer information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. Tracer%R is not applicable for Gamma Spectroscopy.	R, R3d	R, R3d
☐	☒	☐	15. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, R12	R, R12
☐	☒	☐	16. The LCS percent recovery was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, R12a	J-, R12a
☐	☒	☐	17. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, R12b
☐	☒	☐	18. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, R12c	R, R12c
☐	☒	☐	19. Associated duplicate sample has DER or RER > the analytical laboratory's acceptance limits.	R, R10	J, J10
☐	☒	☐	20. The duplicate sample was not prepared and/or analyzed with the samples for unspecified reasons. The duplicate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, R6	R, R6

RAD ANALYTICAL DATA VALIDATION CHECKLIST

5119-2 Rad Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	21. The associated matrix spike recovery was <10%. Follow the external laboratory limits. MS/MSD is not applicable to Gamma Spectroscopy.	R, R6	R, R6
☐	☐	☒	22. The associated matrix spike recovery was <10%. Follow the external laboratory limits. MS/MSD is not applicable to Gamma Spectroscopy.	UJ, R6a	J-, R6a
☐	☐	☒	23. The associated matrix spike recovery was above the UAL. Follow the external laboratory limits. MS/MSD is not applicable to Gamma Spectroscopy.	UJ, R6b	J+, R6b
☒	☐	☐	24. Required matrix spike information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. If LCS information is present, do not Reject. Qualify data based on LCS information. MS/MSD is not applicable to Gamma Spectroscopy.	R, R6c	R, R6c
☐	☒	☐	25. Duplicate, dilution, or reanalysis.	UJ, R88	J, R88
☐	☒	☐	26. The LANL project chemist identified quality deficiencies in the reported data that require further qualification. This code can ONLY be used and/or under advisement by the LANL project chemist.	UJ, R, R19	J, R, R19
☒	☐	☐	27. Quantification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB NQ, NQ

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: December 30, 2009

Client Sample ID:	RE03-09-14224	Project:	LANL01004
Sample ID:	242661001	Client ID:	LANL010
Matrix:	S		
Collect Date:	07-DEC-09		
Receive Date:	10-DEC-09		
Collector:	Client		
Moisture:	13.1%		

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids												
"As Received"												
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium	U	-25	181	+/-52.7	250	pCi/L		KXK2	12/29/09	1011	933025	2

The following Analytical Methods were performed

Method	Description
1	ASTM D 2216 (Modified)
2	GL-RAD-A-002

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
- F Estimated Value
- H Analytical holding time was exceeded
- J Value is estimated
- M M if above MDC and less than LLD
- M Matrix Related Failure
- N/A RPD or %Recovery limits do not apply.
- ND Analyte concentration is not detected above the detection limit
- NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- R Sample results are rejected
- U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

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03/23/10

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2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: December 30, 2009

Client Sample ID:	RE03-09-14227	Project:	LANL01004
Sample ID:	242661002	Client ID:	LANL010
Matrix:	S		
Collect Date:	07-DEC-09		
Receive Date:	10-DEC-09		
Collector:	Client		
Moisture:	9.69%		

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids												
"As Received"												
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium	U	30.0	181	+/-53.8	250	pCi/L		KXK2	12/29/09	1214	933025	2

The following Analytical Methods were performed

Method	Description
1	ASTM D 2216 (Modified)
2	GL-RAD-A-002

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
- F Estimated Value
- H Analytical holding time was exceeded
- J Value is estimated
- M M if above MDC and less than LLD
- M Matrix Related Failure
- N/A RPD or %Recovery limits do not apply.
- ND Analyte concentration is not detected above the detection limit
- NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- R Sample results are rejected
- U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
- Ul Gamma Spectroscopy--Uncertain identification

KAL
03/23/10

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: December 30, 2009

Client Sample ID:	RE03-09-14225	Project:	LANL01004
Sample ID:	242661003	Client ID:	LANL010
Matrix:	S		
Collect Date:	07-DEC-09		
Receive Date:	10-DEC-09		
Collector:	Client		
Moisture:	10.6%		

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids												
"As Received"												
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium	U	55.0	181	+/-54.4	250	pCi/L		KXK2	12/29/09	1418	933025	2

The following Analytical Methods were performed

Method	Description
1	ASTM D 2216 (Modified)
2	GL-RAD-A-002

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
- F Estimated Value
- H Analytical holding time was exceeded
- J Value is estimated
- M M if above MDC and less than LLD
- M Matrix Related Failure
- N/A RPD or %Recovery limits do not apply.
- ND Analyte concentration is not detected above the detection limit
- NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- R Sample results are rejected
- U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
- UI Gamma Spectroscopy--Uncertain identification

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03/23/10

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: December 30, 2009

Client Sample ID:	RE03-09-14226	Project:	LANL01004
Sample ID:	242661004	Client ID:	LANL010
Matrix:	S		
Collect Date:	07-DEC-09		
Receive Date:	10-DEC-09		
Collector:	Client		
Moisture:	10.6%		

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids												
"As Received"												
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium	U	20.0	181	+/-53.6	250	pCi/L		KXK2	12/29/09	1621	933025	2

The following Analytical Methods were performed

Method	Description
1	ASTM D 2216 (Modified)
2	GL-RAD-A-002

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
- F Estimated Value
- H Analytical holding time was exceeded
- J Value is estimated
- M M if above MDC and less than LLD
- M Matrix Related Failure
- N/A RPD or %Recovery limits do not apply.
- ND Analyte concentration is not detected above the detection limit
- NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- R Sample results are rejected
- U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
- UI Gamma Spectroscopy--Uncertain identification

KAL
03/23/10

Wednesday, December 09, 2009

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-853

REQUEST NUMBER: 10-853

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 1/8/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS: 242661

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE03-09-14224	1	POLY	H3	Ice	S
RE03-09-14224	1	POLY	Metals+CN - GEL	Ice	S
RE03-09-14227	1	POLY	H3	Ice	S
RE03-09-14227	1	POLY	Metals+CN - GEL	Ice	S
RE03-09-14225	1	POLY	H3	Ice	S
RE03-09-14225	1	POLY	Metals+CN - GEL	Ice	S
RE03-09-14226	1	POLY	H3	Ice	S
RE03-09-14226	1	POLY	Metals+CN - GEL	Ice	S
RE03-09-14288	1	POLY	Metals+CN - GEL	Ice	S
RE03-09-14287	1	POLY	Metals+CN - GEL	Ice	S
RE03-09-14267	1	POLY	Metals+CN - GEL	Ice	S
RE03-09-14265	1	POLY	Metals+CN - GEL	Ice	S
RE03-09-14281	1	POLY	Metals+CN - GEL	Ice	S
RE03-09-14284	1	POLY	Metals+CN - GEL	Ice	S
RE03-09-14274	1	POLY	Metals+CN - GEL	Ice	S
RE03-09-14277	1	POLY	Metals+CN - GEL	Ice	S
RE03-09-14282	1	POLY	Metals+CN - GEL	Ice	S
RE03-09-14269	1	POLY	Metals+CN - GEL	Ice	S
RE03-09-14273	1	POLY	Metals+CN - GEL	Ice	S
RE03-09-14271	1	POLY	Metals+CN - GEL	Ice	S
RE03-09-14278	1	POLY	Metals+CN - GEL	Ice	S
RE03-09-14285	1	POLY	Metals+CN - GEL	Ice	S
RE03-09-14286	1	POLY	Metals+CN - GEL	Ice	S
RE03-09-14283	1	POLY	Metals+CN - GEL	Ice	S

Relinquished By:		Date	Time	Received By:		Date	Time
[illegible]	[illegible]	12-9-09	1400	Patricia Dover-Dent	[illegible]	12-10-09	08:50
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

Wednesday, December 09, 2009

REQUEST NUMBER: 10-853

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis
General Engineering Laboratories, Inc., Charleston, SC.
2040 Savage Rd
Charleston, SC 29407

These Samples are on:
LANL Request Number:10-853
Per Agreement Number:126310011
Project Cost Code: MR2A054196D0

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 12/9/2009
TURNAROUND/REPORT DUE: 1/8/2010
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Not Required
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:906.0	1	RE03-09-14224	S	12/7/2009	
		1	RE03-09-14225	S	12/7/2009	
		1	RE03-09-14226	S	12/7/2009	
		1	RE03-09-14227	S	12/7/2009	
	SW-846:6010B	1	RE03-09-14224	S	12/7/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14225	S	12/7/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14226	S	12/7/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14227	S	12/7/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14265	S	12/7/2009	Plus, B, Li, Si, Ti, U

Wednesday, December 09, 2009

REQUEST NUMBER: 10-853

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:6010B	1	RE03-09-14267	S	12/7/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14269	S	12/7/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14271	S	12/7/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14273	S	12/7/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14274	S	12/7/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14277	S	12/7/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14278	S	12/7/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14281	S	12/7/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14282	S	12/7/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14283	S	12/7/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14284	S	12/7/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14285	S	12/7/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14286	S	12/7/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14287	S	12/7/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14288	S	12/7/2009	Plus, B, Li, Si, Ti, U
	SW-846:9012A	1	RE03-09-14224	S	12/7/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14225	S	12/7/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14226	S	12/7/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14227	S	12/7/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14265	S	12/7/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14267	S	12/7/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14269	S	12/7/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14271	S	12/7/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14273	S	12/7/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14274	S	12/7/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14277	S	12/7/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14278	S	12/7/2009	Plus, B, Li, Si, Ti, U
		1	[illegible]	S	[illegible]	[illegible]

Wednesday, December 09, 2009

REQUEST NUMBER: 10-853

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:9012A	1	RE03-09-14282	S	12/7/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14283	S	12/7/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14284	S	12/7/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14285	S	12/7/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14286	S	12/7/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14287	S	12/7/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14288	S	12/7/2009	Plus, B, Li, Si, Ti, U

Final Page of REQUEST NUMBER 10-853

GEL Laboratories LLC

a member of The GEL Group INC

PO Box 30712 Charleston, SC 29417
2040 Savage Road Charleston, SC 29407
P 843.556.8171 F 843.766.1178

www.gel.com

December 15, 2009

Ms. Joylene Valdez
Los Alamos National Laboratory
PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545

Re: LANL ER Project
Work Order: 242661
SDG: 10-853

Dear Ms. Valdez:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the following analytical results for the sample(s) we received on December 10, 2009, and analyzed for General Chemistry, Metals and Radiochemistry. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 4485.

Sincerely,

for

Valerie Davis
Project Manager

Purchase Order: 72733-001-09
Chain of Custody: 10-853
Enclosures

Los Alamos National Laboratory (72733-001-09)
LANL ER Project
Work Order #: 242661
SDG: 10-853

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Case Narrative

Case Narrative for
Los Alamos National Laboratory (72733-001-09)
LANL ER Project
Workorder #: 242661
SDG # : 10-853

December 15, 2009

Laboratory Identification:

GEL Laboratories LLC
2040 Savage Road
Charleston, South Carolina 29407
(843) 556-8171

Summary

Sample receipt The samples arrived at GEL Laboratories LLC, Charleston, South Carolina on December 10, 2009 for analysis. The samples were prepared/analyzed within the required holding time. Shipping container temperatures were checked, documented, and within specifications. The samples were screened according to GEL Standard Operating Procedure. The samples were delivered with proper chain of custody documentation and signatures. All sample containers arrived without any visible signs of tampering or breakage. Containers were checked for pH, where appropriate, and matched the preservative as documented on the accompanying chain of custody. The containers for radiochemistry were received at 13C temperature. Shipping container temperature was within specification (0 - 6C).

Sample Identification The laboratory received the following samples:

Laboratory ID	Client ID
242661001	RE03-09-14224
242661002	RE03-09-14227
242661003	RE03-09-14225
242661004	RE03-09-14226
242661005	RE03-09-14288
242661006	RE03-09-14287
242661007	RE03-09-14267
242661008	RE03-09-14265
242661009	RE03-09-14281
242661010	RE03-09-14284
242661011	RE03-09-14274
242661012	RE03-09-14277
242661013	RE03-09-14282
242661014	RE03-09-14269
242661015	RE03-09-14273
242661016	RE03-09-14271
242661017	RE03-09-14278
242661018	RE03-09-14285
242661019	RE03-09-14286
242661020	RE03-09-14283

Case Narrative

Sample analyses were conducted using methodology as outlined in GEL Laboratories, LLC (GEL) Standard Operating Procedures. Any technical or administrative problems during analysis, data review, and reduction are contained in the analytical case narratives in the enclosed data package.

Data Package The enclosed data package contains the following sections: Case Narrative, Chain of Custody, Cooler Receipt Checklist, Data Package Qualifier Definitions and data from the following fractions: General Chemistry, Metals and Radiochemistry.

I certify that this data report is in compliance with the terms and conditions of the subcontract and task order, both technically and for completeness, for other than the conditions detailed in the attached case narrative.

for

Valerie Davis

Project Manager

GEL Laboratories LLC PO Box 30712 Charleston, SC 29417 2040 Savage Road Charleston, SC 29407 P 843.556.8171 F 843.766.1178 www.gel.com

List of current GEL Certifications as of 15 December 2009

State	Certification
Arizona	AZ0668
Arkansas	88–0651
CLIA	42D0904046
California – NELAP	01151CA
Colorado	GEL
Connecticut	PH–0169
Dept. of Navy	NFESC 413
EPA Region 5	WG–15J
Florida – NELAP	E87156
Georgia	E87156 (FL/NELAP)
Georgia DW	967
Hawaii	N/A
ISO 17025	2567.01
Idaho	SC00012
Illinois – NELAP	200029
Indiana	C–SC–01
Kansas – NELAP	E–10332
Kentucky	90129
Louisiana – NELAP	03046
Maryland	270
Massachusetts	M–SC012
Nevada	SC00012
New Jersey – NELAP	SC002
New Mexico	FL NELAP E87156
New York – NELAP	11501
North Carolina	233
North Carolina DW	45709
Oklahoma	9904
Pennsylvania – NELAP	68–00485
South Carolina	10120001/10120002
Tennessee	TN 02934
Texas – NELAP	T104704235–07B–TX
U.S. Dept. of Agriculture	S–52597
Utah – NELAP	GEL
Vermont	VT87156
Virginia	00151
Washington	C1641

Chain of Custody and Supporting Documentation

Wednesday, December 09, 2009

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-853

REQUEST NUMBER: 10-853

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 1/8/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS: 242661

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE03-09-14224	1	POLY	H3	Ice	S
RE03-09-14224	1	POLY	Metals+CN - GEL	Ice	S
RE03-09-14227	1	POLY	H3	Ice	S
RE03-09-14227	1	POLY	Metals+CN - GEL	Ice	S
RE03-09-14225	1	POLY	H3	Ice	S
RE03-09-14225	1	POLY	Metals+CN - GEL	Ice	S
RE03-09-14226	1	POLY	H3	Ice	S
RE03-09-14226	1	POLY	Metals+CN - GEL	Ice	S
RE03-09-14288	1	POLY	Metals+CN - GEL	Ice	S
RE03-09-14287	1	POLY	Metals+CN - GEL	Ice	S
RE03-09-14267	1	POLY	Metals+CN - GEL	Ice	S
RE03-09-14265	1	POLY	Metals+CN - GEL	Ice	S
RE03-09-14281	1	POLY	Metals+CN - GEL	Ice	S
RE03-09-14284	1	POLY	Metals+CN - GEL	Ice	S
RE03-09-14274	1	POLY	Metals+CN - GEL	Ice	S
RE03-09-14277	1	POLY	Metals+CN - GEL	Ice	S
RE03-09-14282	1	POLY	Metals+CN - GEL	Ice	S
RE03-09-14269	1	POLY	Metals+CN - GEL	Ice	S
RE03-09-14273	1	POLY	Metals+CN - GEL	Ice	S
RE03-09-14271	1	POLY	Metals+CN - GEL	Ice	S
RE03-09-14278	1	POLY	Metals+CN - GEL	Ice	S
RE03-09-14285	1	POLY	Metals+CN - GEL	Ice	S
RE03-09-14286	1	POLY	Metals+CN - GEL	Ice	S
RE03-09-14283	1	POLY	Metals+CN - GEL	Ice	S

Relinquished By:		Date	Time	Received By:		Date	Time
		12-9-09	1400	Patricia Dover-Dent		12-10-09	08:50
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

Wednesday, December 09, 2009

REQUEST NUMBER: 10-853

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

These Samples are on:

LANL Request Number:10-853

Per Agreement Number:126310011

Project Cost Code: MR2A054196D0

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 12/9/2009

TURNAROUND/REPORT DUE: 1/8/2010

TURNAROUND REQ'D: 30 Days

RAD SCREENING: Not Required

LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:

Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:906.0	1	RE03-09-14224	S	12/7/2009	
		1	RE03-09-14225	S	12/7/2009	
		1	RE03-09-14226	S	12/7/2009	
		1	RE03-09-14227	S	12/7/2009	
	SW-846:6010B	1	RE03-09-14224	S	12/7/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14225	S	12/7/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14226	S	12/7/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14227	S	12/7/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14265	S	12/7/2009	Plus, B, Li, Si, Ti, U

Wednesday, December 09, 2009

REQUEST NUMBER: 10-853

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:6010B	1	RE03-09-14267	S	12/7/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14269	S	12/7/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14271	S	12/7/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14273	S	12/7/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14274	S	12/7/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14277	S	12/7/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14278	S	12/7/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14281	S	12/7/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14282	S	12/7/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14283	S	12/7/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14284	S	12/7/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14285	S	12/7/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14286	S	12/7/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14287	S	12/7/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14288	S	12/7/2009	Plus, B, Li, Si, Ti, U
	SW-846:9012A	1	RE03-09-14224	S	12/7/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14225	S	12/7/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14226	S	12/7/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14227	S	12/7/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14265	S	12/7/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14267	S	12/7/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14269	S	12/7/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14271	S	12/7/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14273	S	12/7/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14274	S	12/7/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14277	S	12/7/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14278	S	12/7/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14281	S	12/7/2009	Plus, B, Li, Si, Ti, U

Wednesday, December 09, 2009

REQUEST NUMBER: 10-853

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:9012A	1	RE03-09-14282	S	12/7/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14283	S	12/7/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14284	S	12/7/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14285	S	12/7/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14286	S	12/7/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14287	S	12/7/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14288	S	12/7/2009	Plus, B, Li, Si, Ti, U

Final Page of REQUEST NUMBER 10-853

GEL Laboratories LLC

SAMPLE RECEIPT & REVIEW FORM

Client:LANL	**SDG/ARCOC/Work Order:10-853**
Received By:Patricia Dover-Dent	**Date Received:December 10, 2009**

Suspected Hazard Information	**Yes**	**No**	*If Counts > x2 area background on samples not marked "radioactive", contact the Radiation Safety Group of further
COC/Samples marked as radioactive?		X	Maximum Counts Observed*:**40 CPM**
Classified Radioactive II by RSO?		X	
COC/Samples marked containing PCBs?		X	
Shipped as a DOT Hazardous?		X	Hazard Class Shipped: UN#:
Samples identified as Foreign Soil?		X	

	Sample Receipt Criteria	**Yes**	**NA**	**No**	**Comments/Qualifiers (Required for Non-Conforming Items)**
1	Shipping containers received intact and sealed?	X			Circle Applicable: seals broken damaged container leaking container other (describe
2	Samples requiring cold preservation within (0 < 6 deg. C?	X			Preservation Method: ice bags **BLUE ICE** dry ice **NONE** other (describe) **2,3,5,13**
3	Chain of custody documents included with shipment?	X			
4	Sample containers intact and sealed?	X			Circle Applicable: seals broken damaged container leaking container other (describe)
5	Samples requiring chemical preservation at proper pH?		X		Sample ID's, containers affected and observed pH. If Preservative added, Lot#:
6	VOA vials free of headspace (defined as < 6mm bubble)?		X		Sample ID's and containers affected:
7	Are Encore containers present?			X	(If yes, immediately deliver to Volatiles laboratory)
8	Samples received within holding time?	X			Id's and tests affected:
9	Sample ID's on COC match ID's on bottles?	X			Sample ID's and containers affected:
10	Date & time on COC match date & time on bottles?		X		Sample ID's affected: **No Time on Chain of Custody**
11	Number of containers received match number indicated on COC?	X			Sample ID's affected:
12	COC form is properly signed in relinquished/received sections?	X			

Comments:FED EX #'S
7209 7849 1730 2C
7209 7849 1741 3C
7209 7849 1785 3C
7209 7849 1796 5C
7209 7849 1800 5C
7209 7849 1811 5C
7209 7849 1720 13C

PM review: Initials _____ Date 12/11/09

ORIGIN ID: SAFA (505)665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 09DEC09
ACTWGT: 43.0 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843)556-8171
REF: 6B010AMR1A015AGWM0

2°

FedEx Express

1 of 2
TRK# 0201 7209 7849 1730
MASTER

THU - 10DEC A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

Part # 156148-434 NRT V3 08-09

ORIGIN ID: SAFA (505)665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 09DEC09
ACTWGT: 40.0 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843)556-8171
REF: 6B010AMR1A015AGWM0

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2 of 2
MPS# 0263 7209 7849 1741
Mstr# 7209 7849 1730 0201

THU - 10DEC A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

Part # 156148-434 NRT V3 08-09

ORIGIN ID: SAFA (505)665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 09DEC09
ACTWGT: 50.0 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843)556-8171
REF: 6B010AMR2A054196D0

3°

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1 of 2
TRK# 0201 7209 7849 1785
MASTER

THU - 10DEC A1
PRIORITY OVERNIGHT

29407
SC-US

XX CHSA

ORIGIN ID: SAFA (505)665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 09DEC09
ACTWGT: 59.0 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843)556-8171
REF: 6B010AMR2A054196D0

5°

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2 of 2
MPS# 0263 7209 7849 1796
Mstr# 7209 7849 1785 0201

THU - 10DEC A1
PRIORITY OVERNIGHT

29407
SC-US

XX CHSA

ORIGIN ID: SAFA (505)665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 09DEC09
ACTWGT: 32.0 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843)556-8171
REF: 6B010AMR3A022DXL00

5°

FedEx Express

THU - 10DEC A1
PRIORITY OVERNIGHT

TRK# 0201 7209 7849 1800

XX CHSA

29407
SC-US
CHS

Part # 156148-434 NRIT V3 09-09

ORIGIN ID: SAFA (505)665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 09DEC09
ACTWGT: 52.0 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843)556-8171
REF: 6B010AWE6L11570000

5°

FedEx Express

THU - 10DEC A1
PRIORITY OVERNIGHT

TRK# 0201 7209 7849 1811

XX CHSA

29407
SC-US
CHS

Part # 156148-434 NRIT V3 09-09

ORIGIN ID: SAFA (505)665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 09DEC09
ACTWGT: 36.0 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843)556-8171
REF: 6B010AMR1A015AGNM0

13°

FedEx Express

3 of 3
MPS# 0263 7209 7849 1720
Mstr# 7209 7849 1708 0201

THU - 10DEC A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

Data Review Qualifier Flag Definition Sheet

Data Review Qualifier Definitions

Qualifier	Explanation
*	A quality control analyte recovery is outside of specified acceptance criteria
**	Analyte is a surrogate compound
<	Result is less than value reported
>	Result is greater than value reported
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL
A	The TIC is a suspected aldol-condensation product
B	Target analyte was detected in the associated blank
B	Metals-Either presence of analyte detected in the associated blank, or MDL/IDL < sample value < PQL
BD	Results are either below the MDC or tracer recovery is low
C	Analyte has been confirmed by GC/MS analysis
D	Results are reported from a diluted aliquot of the sample
d	5-day BOD-The 2:1 depletion requirement was not met for this sample
E	Organics-Concentration of the target analyte exceeds the instrument calibration range
E	Metals-%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
H	Analytical holding time was exceeded
h	Preparation or preservation holding time was exceeded
J	Value is estimated
N	Metals-The Matrix spike sample recovery is not within specified control limits
N	Organics-Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A	Spike recovery limits do not apply. Sample concentration exceeds spike concentration by 4X or more
ND	Analyte concentration is not detected above the reporting limit
UI	Gamma Spectroscopy-Uncertain identification
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
Z	Paint Filter Test-Particulates passed through the filter, however no free liquids were observed.

Metals Analysis

Case Narrative

Metals Fractional Narrative
Los Alamos National Laboratory (LANL)
SDG 10-853

Sample Analysis

Sample ID	Client ID
242661001	RE03-09-14224
242661002	RE03-09-14227
242661003	RE03-09-14225
242661004	RE03-09-14226
242661005	RE03-09-14288
242661006	RE03-09-14287
242661007	RE03-09-14267
242661008	RE03-09-14265
242661009	RE03-09-14281
242661010	RE03-09-14284
242661011	RE03-09-14274
242661012	RE03-09-14277
242661013	RE03-09-14282
242661014	RE03-09-14269
242661015	RE03-09-14273
242661016	RE03-09-14271
242661017	RE03-09-14278
242661018	RE03-09-14285
242661019	RE03-09-14286
242661020	RE03-09-14283

1201994218	Method Blank (MB) **ICP**
1201994219	Laboratory Control Sample (LCS)
1201994222	242661001(RE03-09-14224L) Serial Dilution (SD)
1201994220	242661001(RE03-09-14224D) Sample Duplicate (DUP)
1201994221	242661001(RE03-09-14224S) Matrix Spike (MS)
1201994223	242661001(RE03-09-14224SD) Matrix Spike Duplicate (MSD)
1201994298	Method Blank (MB) **ICP-MS**
1201994299	Laboratory Control Sample (LCS)
1201994302	242661001(RE03-09-14224L) Serial Dilution (SD)
1201994300	242661001(RE03-09-14224D) Sample Duplicate (DUP)
1201994301	242661001(RE03-09-14224S) Matrix Spike (MS)
1201998121	242661001(RE03-09-14224SD) Matrix Spike Duplicate (MSD)
1202003907	Method Blank (MB) **CVAA**
1202003908	Laboratory Control Sample (LCS)
1202003913	242661001(RE03-09-14224L) Serial Dilution (SD)
1202003909	242661001(RE03-09-14224D) Sample Duplicate (DUP)
1202003910	242661001(RE03-09-14224S) Matrix Spike (MS)
1202003914	242661001(RE03-09-14224SD) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on a "dry weight" basis.

Method/Analysis Information

Analytical Batch:	932275, 932315 and 936549
Prep Batch :	932274, 932314 and 936548
Standard Operating Procedures:	GL-MA-E-013 REV# 20, GL-MA-E-009 REV# 19, GL-MA-E-014 REV# 20 and GL-MA-E-010 REV# 23
Analytical Method:	SW846 3050B/6010B, SW846 3050B/6020 and SW846 7471A
Prep Method :	SW846 3050B and SW846 7471A Prep

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

System Configuration

The Metals analysis-ICP was performed on a P E 5300 Optima radial/axial-viewing inductively coupled plasma atomic emission spectrometer. The instrument is equipped with a Burgener nebulizer, cyclonic spray chamber, and yttrium or scandium internal standard. Operating conditions for the ICP are set at a power level of 1500 watts. The instrument has a peristaltic pump flow rate of 1.4L/min, argon gas flows of 15 L/min and 0.2 L/min for the torch and auxiliary gases, and a flow setting of 0.65L/min for the nebulizer.

The Metals analysis - ICPMS was performed on a Perkin Elmer ELAN 6100E inductively coupled plasma mass spectrometer (ICP-MS). The instrument is equipped with a cross-flow nebulizer, quadrupole mass spectrometer, and dual mode electron multiplier detector. Internal standards of scandium, germanium, indium, tantalum, and/or lutetium were utilized to cover the mass spectrum. Operating conditions are set at 1400W power and combined argon pressures of 360+/-7 kPa for the plasma and auxiliary gases, and 0.85 L/min carrier gas flow, and an initial lens voltage of 5.2.

The Metals analysis-Mercury was performed on a Perkin-Elmer Flow Injection Mercury System (FIMS-100) automated mercury analyzer. The instrument consists of a cold vapor atomic absorption spectrometer set to detect mercury at a wavelength of 253.7 nm. Sample introduction through the flow injection system is performed via a peristaltic pump at 9 mL/min and nitrogen carrier gas rate of 80 mL/min.

Calibration Information

Instrument Calibration
All initial calibration requirements have been met for this sample delivery group (SDG).

CRDL Requirements
All CRDL standard(s) met the referenced advisory control limits.

ICSA/ICSAB Statement
All interference check samples (ICSA and ICSAB) associated with this SDG met the established acceptance criteria.

Continuing Calibration Blank (CCB) Requirements
All continuing calibration blanks (CCB) bracketing this batch met the established acceptance criteria.

Continuing Calibration Verification (CCV) Requirements
All continuing calibration verifications (CCV) bracketing this SDG met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MBs analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

Quality Control (QC) Sample Statement
The following sample was selected as the quality control (QC) sample for this SDG: 242661001.

Matrix Spike (MS) Recovery Statement
The percent recoveries (%R) obtained from the MS analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. The MS met the recommended quality control acceptance criteria for percent recoveries for all applicable analytes with the exception of barium, magnesium, potassium and lithium, as indicated by the "N" qualifiers.

Matrix Spike Duplicate (MSD) Recovery Statement
The percent recovery (%R) obtained from the MSD analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. The MSD met the recommended quality control acceptance criteria for percent recoveries for all applicable analytes with the exception of magnesium, potassium, silicon and lithium, as indicated by the "N" qualifiers.

MS/MSD Relative Percent Difference (RPD) Statement
The relative percent difference (RPD) obtained from the designated matrix spike duplicate (MSD) is evaluated based on acceptance criteria of 20%. The RPD between qualifying elements results in the MS and MSD were within the acceptance limits of 20% with the exception of manganese, as indicated by the "*" qualifier.

Duplicate Relative Percent Difference (RPD) Statement
The RPD obtained from the designated sample duplicate (DUP) is evaluated based on acceptance criteria of 20% when the sample is 5X the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control of +/-RL is used to evaluate the DUP results. All applicable analytes met these requirements.

Serial Dilution % Difference Statement
The serial dilution is used to assess matrix suppression or enhancement. Raw element concentrations that are 25X the IDL/MDL for CVAA, 50X the IDL/MDL for ICP, and 100X the IDL/MDL for ICP-MS analyses are applicable for serial dilution assessment. All applicable analytes met the acceptance criteria of less than 10% difference (%D) with the exception of sodium, as indicated by the "E" qualifier.

Technical Information

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Sample Dilutions
Dilutions are performed to minimize matrix interferences resulting from elevated mineral element concentrations present in solid samples and/or to bring over range target analyte concentrations into the linear calibration range of the instrument. The samples 242661007, 242661014 and 242661016 required dilutions for potassium and sodium because sodium was over the linear range of the instrument, which affects potassium. The samples in this SDG were diluted the standard 2x for solids on the ICPMS.

Preparation Information
The samples in this SDG were prepared exactly according to the cited SOP.

Miscellaneous Information

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Nonconformance Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. The following NCRs were generated for this SDG: 774648 and 776469. A copy of each NCR is included in the Miscellaneous Data section of this package.

Additional Comments
Additional comments were not required for this SDG.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Kristen Parson **Date:** 1/6/10

Sample Data Summary

METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-853 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 242661001 **BASIS:** Dry Weight **DATE COLLECTED** 07-DEC-09

CLIENT ID: RE03-09-14224 **LEVEL:** Low **DATE RECEIVED** 10-DEC-09

MATRIX: SOIL **%SOLIDS:** 87

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	9390000	ug/Kg		7520	22100	22100	1	P	HSC	12/19/09 19:13	121909-1	932275
7440-36-0	Antimony	1110	ug/Kg	U	365	1110	1110	1	P	HSC	12/19/09 19:13	121909-1	932275
7440-38-2	Arsenic	2.02	mg/kg		0.221	1.1	1.1	2	MS	SKJ	12/31/09 21:41	091231-3	932315
7440-39-3	Barium	156000	ug/Kg	N	111	553	553	1	P	HSC	12/19/09 19:13	121909-1	932275
7440-41-7	Beryllium	0.898	mg/kg		0.0221	0.11	0.11	2	MS	SKJ	12/31/09 21:41	091231-3	932315
7440-42-8	Boron	1830	ug/Kg	J	1110	5530	5530	1	P	HSC	12/19/09 19:13	121909-1	932275
7440-43-9	Cadmium	553	ug/Kg	U	111	553	553	1	P	HSC	12/19/09 19:13	121909-1	932275
7440-70-2	Calcium	1830000	ug/Kg		8850	27700	27700	1	P	HSC	12/19/09 19:13	121909-1	932275
7440-47-3	Chromium	10000	ug/Kg		166	553	553	1	P	HSC	12/19/09 19:13	121909-1	932275
7440-48-4	Cobalt	6160	ug/Kg		166	553	553	1	P	HSC	12/19/09 19:13	121909-1	932275
7440-50-8	Copper	7450	ug/Kg		332	1110	1110	1	P	HSC	12/19/09 19:13	121909-1	932275
7439-89-6	Iron	13900000	ug/Kg		8850	27700	27700	1	P	HSC	12/19/09 19:13	121909-1	932275
7439-92-1	Lead	13400	ug/Kg		277	1110	1110	1	P	HSC	12/19/09 19:13	121909-1	932275
7439-93-2	Lithium	14.2	mg/kg	N	0.442	2.21	2.21	2	MS	SKJ	01/01/10 05:48	091231-5	932315
7439-95-4	Magnesium	1900000	ug/Kg	N	9400	33200	33200	1	P	HSC	12/19/09 19:13	121909-1	932275
7439-96-5	Manganese	449000	ug/Kg	*	221	1110	1110	1	P	HSC	12/19/09 19:13	121909-1	932275
7439-97-6	Mercury	19.4	ug/kg		4.28	12.6	12.6	1	AV	JXL1	01/04/10 09:24	010410S1-7	936549
7440-02-0	Nickel	8.17	mg/kg		0.11	0.442	0.442	2	MS	SKJ	12/31/09 21:41	091231-3	932315
7440-09-7	Potassium	1490000	ug/Kg	N	7080	27700	27700	1	P	HSC	12/19/09 19:13	121909-1	932275
7782-49-2	Selenium	1.1	mg/kg	U	0.552	1.1	1.1	2	MS	SKJ	12/31/09 21:41	091231-3	932315
7440-21-3	Silicon	1770000	ug/Kg	N	1660	11100	11100	1	P	HSC	12/19/09 19:13	121909-1	932275
7440-22-4	Silver	584	ug/Kg		111	553	553	1	P	HSC	12/19/09 19:13	121909-1	932275
7440-23-5	Sodium	416000	ug/Kg	E	7740	27700	27700	1	P	HSC	12/19/09 19:13	121909-1	932275
7440-28-0	Thallium	0.227	mg/kg		0.0663	0.221	0.221	2	MS	SKJ	12/31/09 21:41	091231-3	932315
7440-32-6	Titanium	470000	ug/Kg		111	553	553	1	P	HSC	12/19/09 19:13	121909-1	932275
7440-61-1	Uranium	1.14	mg/kg		0.0146	0.0442	0.0442	2	MS	SKJ	01/01/10 05:48	091231-5	932315
7440-62-2	Vanadium	27000	ug/Kg		111	553	553	1	P	HSC	12/19/09 19:13	121909-1	932275
7440-66-6	Zinc	33500	ug/Kg		365	1110	1110	1	P	HSC	12/19/09 19:13	121909-1	932275

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
932275	932274	SW846 3050B	0.52	g	50	mL	12/17/09	BCD1
932315	932314	SW846 3050B	0.521	g	50	mL	12/17/09	BCD1
934855	934854	SW846 7471A Prep	0.578	g	30	mL	12/22/09	TXB3

METALS
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INORGANICS ANALYSIS DATA PACKAGE

936549	936548	SW846 7471A Prep	0.548	g	30	mL	12/31/09	JXL1

METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-853 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 242661002 **BASIS:** Dry Weight **DATE COLLECTED** 07-DEC-09

CLIENT ID: RE03-09-14227 **LEVEL:** Low **DATE RECEIVED** 10-DEC-09

MATRIX: SOIL **%SOLIDS:** 90.3

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	4760000	ug/Kg		7460	21900	21900	1	P	HSC	12/19/09 19:49	121909-1	932275
7440-36-0	Antimony	1100	ug/Kg	U	362	1100	1100	1	P	HSC	12/19/09 19:49	121909-1	932275
7440-38-2	Arsenic	1.69	mg/kg		0.219	1.09	1.09	2	MS	SKJ	12/31/09 22:24	091231-3	932315
7440-39-3	Barium	31800	ug/Kg	N	110	548	548	1	P	HSC	12/19/09 19:49	121909-1	932275
7440-41-7	Beryllium	0.971	mg/kg		0.0219	0.109	0.109	2	MS	SKJ	12/31/09 22:24	091231-3	932315
7440-42-8	Boron	5480	ug/Kg	U	1100	5480	5480	1	P	HSC	12/19/09 19:49	121909-1	932275
7440-43-9	Cadmium	548	ug/Kg	U	110	548	548	1	P	HSC	12/19/09 19:49	121909-1	932275
7440-70-2	Calcium	908000	ug/Kg		8770	27400	27400	1	P	HSC	12/19/09 19:49	121909-1	932275
7440-47-3	Chromium	4440	ug/Kg		164	548	548	1	P	HSC	12/19/09 19:49	121909-1	932275
7440-48-4	Cobalt	686	ug/Kg		164	548	548	1	P	HSC	12/19/09 19:49	121909-1	932275
7440-50-8	Copper	2560	ug/Kg		329	1100	1100	1	P	HSC	12/19/09 19:49	121909-1	932275
7439-89-6	Iron	9640000	ug/Kg		8770	27400	27400	1	P	HSC	12/19/09 19:49	121909-1	932275
7439-92-1	Lead	4500	ug/Kg		274	1100	1100	1	P	HSC	12/19/09 19:49	121909-1	932275
7439-93-2	Lithium	10.8	mg/kg	N	0.438	2.19	2.19	2	MS	SKJ	01/01/10 06:05	091231-5	932315
7439-95-4	Magnesium	776000	ug/Kg	N	9320	32900	32900	1	P	HSC	12/19/09 19:49	121909-1	932275
7439-96-5	Manganese	156000	ug/Kg	*	219	1100	1100	1	P	HSC	12/19/09 19:49	121909-1	932275
7439-97-6	Mercury	7.77	ug/kg	J	4.26	12.5	12.5	1	AV	JXL1	01/04/10 09:32	010410S1-7	936549
7440-02-0	Nickel	7.2	mg/kg		0.109	0.438	0.438	2	MS	SKJ	12/31/09 22:24	091231-3	932315
7440-09-7	Potassium	449000	ug/Kg	N	7020	27400	27400	1	P	HSC	12/19/09 19:49	121909-1	932275
7782-49-2	Selenium	1.09	mg/kg	U	0.547	1.09	1.09	2	MS	SKJ	12/31/09 22:24	091231-3	932315
7440-21-3	Silicon	1410000	ug/Kg	N	1640	11000	11000	1	P	HSC	12/19/09 19:49	121909-1	932275
7440-22-4	Silver	441	ug/Kg	J	110	548	548	1	P	HSC	12/19/09 19:49	121909-1	932275
7440-23-5	Sodium	194000	ug/Kg	E	7670	27400	27400	1	P	HSC	12/19/09 19:49	121909-1	932275
7440-28-0	Thallium	0.117	mg/kg	J	0.0656	0.219	0.219	2	MS	SKJ	12/31/09 22:24	091231-3	932315
7440-32-6	Titanium	205000	ug/Kg		110	548	548	1	P	HSC	12/19/09 19:49	121909-1	932275
7440-61-1	Uranium	0.729	mg/kg		0.0144	0.0438	0.0438	2	MS	SKJ	01/01/10 06:05	091231-5	932315
7440-62-2	Vanadium	5790	ug/Kg		110	548	548	1	P	HSC	12/19/09 19:49	121909-1	932275
7440-66-6	Zinc	43000	ug/Kg		362	1100	1100	1	P	HSC	12/19/09 19:49	121909-1	932275

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
932275	932274	SW846 3050B	0.505	g	50	mL	12/17/09	BCD1
932315	932314	SW846 3050B	0.506	g	50	mL	12/17/09	BCD1
934855	934854	SW846 7471A Prep	0.533	g	30	mL	12/22/09	TXB3

METALS
–1–
INORGANICS ANALYSIS DATA PACKAGE

936549	936548	SW846 7471A Prep	0.53	g	30	mL	12/31/09	JXL1

METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-853 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 242661003 **BASIS:** Dry Weight **DATE COLLECTED** 07-DEC-09

CLIENT ID: RE03-09-14225 **LEVEL:** Low **DATE RECEIVED** 10-DEC-09

MATRIX: SOIL **%SOLIDS:** 89

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	11300000	ug/Kg		7250	21300	21300	1	P	HSC	12/19/09 19:56	121909-1	932275
7440-36-0	Antimony	1070	ug/Kg	U	352	1070	1070	1	P	HSC	12/19/09 19:56	121909-1	932275
7440-38-2	Arsenic	2.47	mg/kg		0.214	1.07	1.07	2	MS	SKJ	12/31/09 22:31	091231-3	932315
7440-39-3	Barium	156000	ug/Kg	N	107	533	533	1	P	HSC	12/19/09 19:56	121909-1	932275
7440-41-7	Beryllium	1.19	mg/kg		0.0214	0.107	0.107	2	MS	SKJ	12/31/09 22:31	091231-3	932315
7440-42-8	Boron	5330	ug/Kg	U	1070	5330	5330	1	P	HSC	12/19/09 19:56	121909-1	932275
7440-43-9	Cadmium	533	ug/Kg	U	107	533	533	1	P	HSC	12/19/09 19:56	121909-1	932275
7440-70-2	Calcium	1670000	ug/Kg		8530	26600	26600	1	P	HSC	12/19/09 19:56	121909-1	932275
7440-47-3	Chromium	9290	ug/Kg		160	533	533	1	P	HSC	12/19/09 19:56	121909-1	932275
7440-48-4	Cobalt	4840	ug/Kg		160	533	533	1	P	HSC	12/19/09 19:56	121909-1	932275
7440-50-8	Copper	6610	ug/Kg		320	1070	1070	1	P	HSC	12/19/09 19:56	121909-1	932275
7439-89-6	Iron	13900000	ug/Kg		8530	26600	26600	1	P	HSC	12/19/09 19:56	121909-1	932275
7439-92-1	Lead	12700	ug/Kg		266	1070	1070	1	P	HSC	12/19/09 19:56	121909-1	932275
7439-93-2	Lithium	17.1	mg/kg	N	0.427	2.14	2.14	2	MS	SKJ	01/01/10 06:07	091231-5	932315
7439-95-4	Magnesium	2040000	ug/Kg	N	9060	32000	32000	1	P	HSC	12/19/09 19:56	121909-1	932275
7439-96-5	Manganese	344000	ug/Kg	*	213	1070	1070	1	P	HSC	12/19/09 19:56	121909-1	932275
7439-97-6	Mercury	12.8	ug/kg		4.27	12.6	12.6	1	AV	JXL1	01/04/10 09:34	010410S1-7	936549
7440-02-0	Nickel	12.2	mg/kg		0.107	0.427	0.427	2	MS	SKJ	12/31/09 22:31	091231-3	932315
7440-09-7	Potassium	975000	ug/Kg	N	6820	26600	26600	1	P	HSC	12/19/09 19:56	121909-1	932275
7782-49-2	Selenium	1.07	mg/kg	U	0.534	1.07	1.07	2	MS	SKJ	12/31/09 22:31	091231-3	932315
7440-21-3	Silicon	1670000	ug/Kg	N	1600	10700	10700	1	P	HSC	12/19/09 19:56	121909-1	932275
7440-22-4	Silver	560	ug/Kg		107	533	533	1	P	HSC	12/19/09 19:56	121909-1	932275
7440-23-5	Sodium	372000	ug/Kg	E	7460	26600	26600	1	P	HSC	12/19/09 19:56	121909-1	932275
7440-28-0	Thallium	0.937	mg/kg		0.0641	0.214	0.214	2	MS	SKJ	12/31/09 22:31	091231-3	932315
7440-32-6	Titanium	484000	ug/Kg		107	533	533	1	P	HSC	12/19/09 19:56	121909-1	932275
7440-61-1	Uranium	0.805	mg/kg		0.0141	0.0427	0.0427	2	MS	SKJ	01/01/10 06:07	091231-5	932315
7440-62-2	Vanadium	23800	ug/Kg		107	533	533	1	P	HSC	12/19/09 19:56	121909-1	932275
7440-66-6	Zinc	35800	ug/Kg		352	1070	1070	1	P	HSC	12/19/09 19:56	121909-1	932275

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
932275	932274	SW846 3050B	0.525	g	50	mL	12/17/09	BCD1
932315	932314	SW846 3050B	0.524	g	50	mL	12/17/09	BCD1
934855	934854	SW846 7471A Prep	0.587	g	30	mL	12/22/09	TXB3

METALS
–1–
INORGANICS ANALYSIS DATA PACKAGE

936549	936548	SW846 7471A Prep	0.535	g	30	mL	12/31/09	JXL1

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-853 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 242661004 **BASIS:** Dry Weight **DATE COLLECTED** 07-DEC-09

CLIENT ID: RE03-09-14226 **LEVEL:** Low **DATE RECEIVED** 10-DEC-09

MATRIX: SOIL **%SOLIDS:** 89

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	10600000	ug/Kg		7430	21900	21900	1	P	HSC	12/19/09 20:17	121909-1	932275
7440-36-0	Antimony	1090	ug/Kg	U	361	1090	1090	1	P	HSC	12/19/09 20:17	121909-1	932275
7440-38-2	Arsenic	1.8	mg/kg		0.22	1.1	1.1	2	MS	SKJ	12/31/09 22:37	091231-3	932315
7440-39-3	Barium	81500	ug/Kg	N	109	546	546	1	P	HSC	12/19/09 20:17	121909-1	932275
7440-41-7	Beryllium	0.90	mg/kg		0.022	0.11	0.11	2	MS	SKJ	12/31/09 22:37	091231-3	932315
7440-42-8	Boron	5460	ug/Kg	U	1090	5460	5460	1	P	HSC	12/19/09 20:17	121909-1	932275
7440-43-9	Cadmium	546	ug/Kg	U	109	546	546	1	P	HSC	12/19/09 20:17	121909-1	932275
7440-70-2	Calcium	2060000	ug/Kg		8740	27300	27300	1	P	HSC	12/19/09 20:17	121909-1	932275
7440-47-3	Chromium	7390	ug/Kg		164	546	546	1	P	HSC	12/19/09 20:17	121909-1	932275
7440-48-4	Cobalt	1700	ug/Kg		164	546	546	1	P	HSC	12/19/09 20:17	121909-1	932275
7440-50-8	Copper	5070	ug/Kg		328	1090	1090	1	P	HSC	12/19/09 20:17	121909-1	932275
7439-89-6	Iron	14300000	ug/Kg		8740	27300	27300	1	P	HSC	12/19/09 20:17	121909-1	932275
7439-92-1	Lead	8910	ug/Kg		273	1090	1090	1	P	HSC	12/19/09 20:17	121909-1	932275
7439-93-2	Lithium	25.1	mg/kg	N	0.44	2.2	2.2	2	MS	SKJ	01/06/10 13:34	100106-6	932315
7439-95-4	Magnesium	2020000	ug/Kg	N	9290	32800	32800	1	P	HSC	12/19/09 20:17	121909-1	932275
7439-96-5	Manganese	143000	ug/Kg	*	219	1090	1090	1	P	HSC	12/19/09 20:17	121909-1	932275
7439-97-6	Mercury	20.4	ug/kg		4.34	12.8	12.8	1	AV	JXL1	01/04/10 09:35	010410S1-7	936549
7440-02-0	Nickel	7.94	mg/kg		0.11	0.44	0.44	2	MS	SKJ	12/31/09 22:37	091231-3	932315
7440-09-7	Potassium	1050000	ug/Kg	N	6990	27300	27300	1	P	HSC	12/19/09 20:17	121909-1	932275
7782-49-2	Selenium	1.1	mg/kg	U	0.55	1.1	1.1	2	MS	SKJ	12/31/09 22:37	091231-3	932315
7440-21-3	Silicon	1900000	ug/Kg	N	1640	10900	10900	1	P	HSC	12/19/09 20:17	121909-1	932275
7440-22-4	Silver	743	ug/Kg		109	546	546	1	P	HSC	12/19/09 20:17	121909-1	932275
7440-23-5	Sodium	421000	ug/Kg	E	7650	27300	27300	1	P	HSC	12/19/09 20:17	121909-1	932275
7440-28-0	Thallium	0.142	mg/kg	J	0.066	0.22	0.22	2	MS	SKJ	12/31/09 22:37	091231-3	932315
7440-32-6	Titanium	290000	ug/Kg		109	546	546	1	P	HSC	12/19/09 20:17	121909-1	932275
7440-61-1	Uranium	0.451	mg/kg		0.0145	0.044	0.044	2	MS	SKJ	01/01/10 06:10	091231-5	932315
7440-62-2	Vanadium	13400	ug/Kg		109	546	546	1	P	HSC	12/19/09 20:17	121909-1	932275
7440-66-6	Zinc	54200	ug/Kg		361	1090	1090	1	P	HSC	12/19/09 20:17	121909-1	932275

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
932275	932274	SW846 3050B	0.512	g	50	mL	12/17/09	BCD1
932315	932314	SW846 3050B	0.509	g	50	mL	12/17/09	BCD1
934855	934854	SW846 7471A Prep	0.575	g	30	mL	12/22/09	TXB3

METALS
–1–
INORGANICS ANALYSIS DATA PACKAGE

936549	936548	SW846 7471A Prep	0.526	g	30	mL	12/31/09	JXL1

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-853 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 242661005 **BASIS:** Dry Weight **DATE COLLECTED** 07-DEC-09

CLIENT ID: RE03-09-14288 **LEVEL:** Low **DATE RECEIVED** 10-DEC-09

MATRIX: SOIL **%SOLIDS:** 95.1

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	4710000	ug/Kg		7050	20700	20700	1	P	HSC	12/19/09 20:24	121909-1	932275
7440-36-0	Antimony	1040	ug/Kg	U	342	1040	1040	1	P	HSC	12/19/09 20:24	121909-1	932275
7440-38-2	Arsenic	1.67	mg/kg		0.21	1.05	1.05	2	MS	SKJ	12/31/09 22:43	091231-3	932315
7440-39-3	Barium	67100	ug/Kg	N	104	518	518	1	P	HSC	12/19/09 20:24	121909-1	932275
7440-41-7	Beryllium	0.708	mg/kg		0.021	0.105	0.105	2	MS	SKJ	12/31/09 22:43	091231-3	932315
7440-42-8	Boron	5180	ug/Kg	U	1040	5180	5180	1	P	HSC	12/19/09 20:24	121909-1	932275
7440-43-9	Cadmium	518	ug/Kg	U	104	518	518	1	P	HSC	12/19/09 20:24	121909-1	932275
7440-70-2	Calcium	1140000	ug/Kg		8290	25900	25900	1	P	HSC	12/19/09 20:24	121909-1	932275
7440-47-3	Chromium	6490	ug/Kg		156	518	518	1	P	HSC	12/19/09 20:24	121909-1	932275
7440-48-4	Cobalt	4000	ug/Kg		156	518	518	1	P	HSC	12/19/09 20:24	121909-1	932275
7440-50-8	Copper	3490	ug/Kg		311	1040	1040	1	P	HSC	12/19/09 20:24	121909-1	932275
7439-89-6	Iron	9090000	ug/Kg		8290	25900	25900	1	P	HSC	12/19/09 20:24	121909-1	932275
7439-92-1	Lead	8070	ug/Kg		259	1040	1040	1	P	HSC	12/19/09 20:24	121909-1	932275
7439-93-2	Lithium	8.69	mg/kg	N	0.421	2.1	2.1	2	MS	SKJ	01/01/10 06:12	091231-5	932315
7439-95-4	Magnesium	943000	ug/Kg	N	8810	31100	31100	1	P	HSC	12/19/09 20:24	121909-1	932275
7439-96-5	Manganese	310000	ug/Kg	*	207	1040	1040	1	P	HSC	12/19/09 20:24	121909-1	932275
7439-97-6	Mercury	6.84	ug/kg	J	3.88	11.4	11.4	1	AV	JXL1	01/04/10 09:40	010410S1-7	936549
7440-02-0	Nickel	4.75	mg/kg		0.105	0.421	0.421	2	MS	SKJ	12/31/09 22:43	091231-3	932315
7440-09-7	Potassium	642000	ug/Kg	N	6640	25900	25900	1	P	HSC	12/19/09 20:24	121909-1	932275
7782-49-2	Selenium	1.05	mg/kg	U	0.526	1.05	1.05	2	MS	SKJ	12/31/09 22:43	091231-3	932315
7440-21-3	Silicon	1280000	ug/Kg	N	1560	10400	10400	1	P	HSC	12/19/09 20:24	121909-1	932275
7440-22-4	Silver	450	ug/Kg	J	104	518	518	1	P	HSC	12/19/09 20:24	121909-1	932275
7440-23-5	Sodium	67200	ug/Kg	E	7260	25900	25900	1	P	HSC	12/19/09 20:24	121909-1	932275
7440-28-0	Thallium	0.108	mg/kg	J	0.0631	0.21	0.21	2	MS	SKJ	12/31/09 22:43	091231-3	932315
7440-32-6	Titanium	308000	ug/Kg		104	518	518	1	P	HSC	12/19/09 20:24	121909-1	932275
7440-61-1	Uranium	0.665	mg/kg		0.0139	0.0421	0.0421	2	MS	SKJ	01/01/10 06:12	091231-5	932315
7440-62-2	Vanadium	13600	ug/Kg		104	518	518	1	P	HSC	12/19/09 20:24	121909-1	932275
7440-66-6	Zinc	24700	ug/Kg		342	1040	1040	1	P	HSC	12/19/09 20:24	121909-1	932275

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
932275	932274	SW846 3050B	0.507	g	50	mL	12/17/09	BCD1
932315	932314	SW846 3050B	0.5	g	50	mL	12/17/09	BCD1
934855	934854	SW846 7471A Prep	0.557	g	30	mL	12/22/09	TXB3

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

936549	936548	SW846 7471A Prep	0.553	g	30	mL	12/31/09	JXL1

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-853 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 242661006 **BASIS:** Dry Weight **DATE COLLECTED** 07-DEC-09

CLIENT ID: RE03-09-14287 **LEVEL:** Low **DATE RECEIVED** 10-DEC-09

MATRIX: SOIL **%SOLIDS:** 91

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	5150000	ug/Kg		7380	21700	21700	1	P	HSC	12/19/09 20:31	121909-1	932275
7440-36-0	Antimony	1090	ug/Kg	U	358	1090	1090	1	P	HSC	12/19/09 20:31	121909-1	932275
7440-38-2	Arsenic	2.42	mg/kg		0.219	1.09	1.09	2	MS	SKJ	12/31/09 22:49	091231-3	932315
7440-39-3	Barium	78300	ug/Kg	N	109	543	543	1	P	HSC	12/19/09 20:31	121909-1	932275
7440-41-7	Beryllium	0.943	mg/kg		0.0219	0.109	0.109	2	MS	SKJ	12/31/09 22:49	091231-3	932315
7440-42-8	Boron	5430	ug/Kg	U	1090	5430	5430	1	P	HSC	12/19/09 20:31	121909-1	932275
7440-43-9	Cadmium	543	ug/Kg	U	109	543	543	1	P	HSC	12/19/09 20:31	121909-1	932275
7440-70-2	Calcium	1460000	ug/Kg		8680	27100	27100	1	P	HSC	12/19/09 20:31	121909-1	932275
7440-47-3	Chromium	4840	ug/Kg		163	543	543	1	P	HSC	12/19/09 20:31	121909-1	932275
7440-48-4	Cobalt	2710	ug/Kg		163	543	543	1	P	HSC	12/19/09 20:31	121909-1	932275
7440-50-8	Copper	4540	ug/Kg		326	1090	1090	1	P	HSC	12/19/09 20:31	121909-1	932275
7439-89-6	Iron	9000000	ug/Kg		8680	27100	27100	1	P	HSC	12/19/09 20:31	121909-1	932275
7439-92-1	Lead	8990	ug/Kg		271	1090	1090	1	P	HSC	12/19/09 20:31	121909-1	932275
7439-93-2	Lithium	10.5	mg/kg	N	0.438	2.19	2.19	2	MS	SKJ	01/01/10 06:15	091231-5	932315
7439-95-4	Magnesium	1010000	ug/Kg	N	9230	32600	32600	1	P	HSC	12/19/09 20:31	121909-1	932275
7439-96-5	Manganese	256000	ug/Kg	*	217	1090	1090	1	P	HSC	12/19/09 20:31	121909-1	932275
7439-97-6	Mercury	10.4	ug/kg	J	4.06	11.9	11.9	1	AV	JXL1	01/04/10 09:42	010410S1-7	936549
7440-02-0	Nickel	5.57	mg/kg		0.109	0.438	0.438	2	MS	SKJ	12/31/09 22:49	091231-3	932315
7440-09-7	Potassium	779000	ug/Kg	N	6950	27100	27100	1	P	HSC	12/19/09 20:31	121909-1	932275
7782-49-2	Selenium	1.09	mg/kg	U	0.547	1.09	1.09	2	MS	SKJ	12/31/09 22:49	091231-3	932315
7440-21-3	Silicon	1460000	ug/Kg	N	1630	10900	10900	1	P	HSC	12/19/09 20:31	121909-1	932275
7440-22-4	Silver	414	ug/Kg	J	109	543	543	1	P	HSC	12/19/09 20:31	121909-1	932275
7440-23-5	Sodium	56300	ug/Kg	E	7600	27100	27100	1	P	HSC	12/19/09 20:31	121909-1	932275
7440-28-0	Thallium	0.126	mg/kg	J	0.0656	0.219	0.219	2	MS	SKJ	12/31/09 22:49	091231-3	932315
7440-32-6	Titanium	308000	ug/Kg		109	543	543	1	P	HSC	12/19/09 20:31	121909-1	932275
7440-61-1	Uranium	1.69	mg/kg		0.0144	0.0438	0.0438	2	MS	SKJ	01/01/10 06:15	091231-5	932315
7440-62-2	Vanadium	12600	ug/Kg		109	543	543	1	P	HSC	12/19/09 20:31	121909-1	932275
7440-66-6	Zinc	31700	ug/Kg		358	1090	1090	1	P	HSC	12/19/09 20:31	121909-1	932275

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
932275	932274	SW846 3050B	0.506	g	50	mL	12/17/09	BCD1
932315	932314	SW846 3050B	0.502	g	50	mL	12/17/09	BCD1
934855	934854	SW846 7471A Prep	0.511	g	30	mL	12/22/09	TXB3

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

936549	936548	SW846 7471A Prep	0.552	g	30	mL	12/31/09	JXL1

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-853 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 242661007 **BASIS:** Dry Weight **DATE COLLECTED** 07-DEC-09

CLIENT ID: RE03-09-14267 **LEVEL:** Low **DATE RECEIVED** 10-DEC-09

MATRIX: SOIL **%SOLIDS:** 87

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	2420000	ug/Kg		7450	21900	21900	1	P	HSC	12/19/09 20:38	121909-1	932275
7440-36-0	Antimony	1100	ug/Kg	U	361	1100	1100	1	P	HSC	12/19/09 20:38	121909-1	932275
7440-38-2	Arsenic	0.721	mg/kg	J	0.227	1.13	1.13	2	MS	SKJ	12/31/09 22:56	091231-3	932315
7440-39-3	Barium	29500	ug/Kg	N	110	548	548	1	P	HSC	12/19/09 20:38	121909-1	932275
7440-41-7	Beryllium	0.229	mg/kg		0.0227	0.113	0.113	2	MS	SKJ	12/31/09 22:56	091231-3	932315
7440-42-8	Boron	5480	ug/Kg	U	1100	5480	5480	1	P	HSC	12/19/09 20:38	121909-1	932275
7440-43-9	Cadmium	548	ug/Kg	U	110	548	548	1	P	HSC	12/19/09 20:38	121909-1	932275
7440-70-2	Calcium	3150000	ug/Kg		8760	27400	27400	1	P	HSC	12/19/09 20:38	121909-1	932275
7440-47-3	Chromium	9740	ug/Kg		164	548	548	1	P	HSC	12/19/09 20:38	121909-1	932275
7440-48-4	Cobalt	2990	ug/Kg		164	548	548	1	P	HSC	12/19/09 20:38	121909-1	932275
7440-50-8	Copper	38900	ug/Kg		329	1100	1100	1	P	HSC	12/19/09 20:38	121909-1	932275
7439-89-6	Iron	12300000	ug/Kg		8760	27400	27400	1	P	HSC	12/19/09 20:38	121909-1	932275
7439-92-1	Lead	10100	ug/Kg		274	1100	1100	1	P	HSC	12/19/09 20:38	121909-1	932275
7439-93-2	Lithium	4.79	mg/kg	N	0.454	2.27	2.27	2	MS	SKJ	01/01/10 06:17	091231-5	932315
7439-95-4	Magnesium	1210000	ug/Kg	N	9310	32900	32900	1	P	HSC	12/19/09 20:38	121909-1	932275
7439-96-5	Manganese	211000	ug/Kg	*	219	1100	1100	1	P	HSC	12/19/09 20:38	121909-1	932275
7439-97-6	Mercury	51.1	ug/kg		3.91	11.5	11.5	1	AV	JXL1	01/04/10 09:44	010410S1-7	936549
7440-02-0	Nickel	5.51	mg/kg		0.113	0.454	0.454	2	MS	SKJ	12/31/09 22:56	091231-3	932315
7440-09-7	Potassium	2420000	ug/Kg	N	35000	137000	137000	5	P	HSC	12/20/09 10:41	122009A-2	932275
7782-49-2	Selenium	1.13	mg/kg	U	0.567	1.13	1.13	2	MS	SKJ	12/31/09 22:56	091231-3	932315
7440-21-3	Silicon	1050000	ug/Kg	N	1640	11000	11000	1	P	HSC	12/19/09 20:38	121909-1	932275
7440-22-4	Silver	502	ug/Kg	J	110	548	548	1	P	HSC	12/19/09 20:38	121909-1	932275
7440-23-5	Sodium	4270000	ug/Kg	E	38300	137000	137000	5	P	HSC	12/20/09 10:41	122009A-2	932275
7440-28-0	Thallium	0.227	mg/kg	U	0.068	0.227	0.227	2	MS	SKJ	12/31/09 22:56	091231-3	932315
7440-32-6	Titanium	345000	ug/Kg		110	548	548	1	P	HSC	12/19/09 20:38	121909-1	932275
7440-61-1	Uranium	0.449	mg/kg		0.015	0.0454	0.0454	2	MS	SKJ	01/01/10 06:17	091231-5	932315
7440-62-2	Vanadium	23400	ug/Kg		110	548	548	1	P	HSC	12/19/09 20:38	121909-1	932275
7440-66-6	Zinc	130000	ug/Kg		361	1100	1100	1	P	HSC	12/19/09 20:38	121909-1	932275

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
932275	932274	SW846 3050B	0.525	g	50	mL	12/17/09	BCD1
932315	932314	SW846 3050B	0.507	g	50	mL	12/17/09	BCD1
934855	934854	SW846 7471A Prep	0.517	g	30	mL	12/22/09	TXB3

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

936549	936548	SW846 7471A Prep	0.6	g	30	mL	12/31/09	JXL1

METALS
–1–
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10–853 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 242661008 **BASIS:** Dry Weight **DATE COLLECTED** 07–DEC–09

CLIENT ID: RE03–09–14265 **LEVEL:** Low **DATE RECEIVED** 10–DEC–09

MATRIX: SOIL **%SOLIDS:** 85

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429–90–5	Aluminum	1340000	ug/Kg		7750	22800	22800	1	P	HSC	12/19/09 20:45	121909–1	932275
7440–36–0	Antimony	1140	ug/Kg	U	376	1140	1140	1	P	HSC	12/19/09 20:45	121909–1	932275
7440–38–2	Arsenic	0.847	mg/kg	J	0.224	1.12	1.12	2	MS	SKJ	12/31/09 23:14	091231–3	932315
7440–39–3	Barium	22400	ug/Kg	N	114	570	570	1	P	HSC	12/19/09 20:45	121909–1	932275
7440–41–7	Beryllium	0.159	mg/kg		0.0224	0.112	0.112	2	MS	SKJ	12/31/09 23:14	091231–3	932315
7440–42–8	Boron	5700	ug/Kg	U	1140	5700	5700	1	P	HSC	12/19/09 20:45	121909–1	932275
7440–43–9	Cadmium	570	ug/Kg	U	114	570	570	1	P	HSC	12/19/09 20:45	121909–1	932275
7440–70–2	Calcium	2620000	ug/Kg		9120	28500	28500	1	P	HSC	12/19/09 20:45	121909–1	932275
7440–47–3	Chromium	3190	ug/Kg		171	570	570	1	P	HSC	12/19/09 20:45	121909–1	932275
7440–48–4	Cobalt	1450	ug/Kg		171	570	570	1	P	HSC	12/19/09 20:45	121909–1	932275
7440–50–8	Copper	6290	ug/Kg		342	1140	1140	1	P	HSC	12/19/09 20:45	121909–1	932275
7439–89–6	Iron	4510000	ug/Kg		9120	28500	28500	1	P	HSC	12/19/09 20:45	121909–1	932275
7439–92–1	Lead	3540	ug/Kg		285	1140	1140	1	P	HSC	12/19/09 20:45	121909–1	932275
7439–93–2	Lithium	3.12	mg/kg	N	0.448	2.24	2.24	2	MS	SKJ	01/01/10 06:25	091231–5	932315
7439–95–4	Magnesium	755000	ug/Kg	N	9690	34200	34200	1	P	HSC	12/19/09 20:45	121909–1	932275
7439–96–5	Manganese	88100	ug/Kg	*	228	1140	1140	1	P	HSC	12/19/09 20:45	121909–1	932275
7439–97–6	Mercury	11.7	ug/kg	U	3.98	11.7	11.7	1	AV	JXL1	01/04/10 09:45	010410S1–7	936549
7440–02–0	Nickel	4.37	mg/kg		0.112	0.448	0.448	2	MS	SKJ	12/31/09 23:14	091231–3	932315
7440–09–7	Potassium	1470000	ug/Kg	N	7290	28500	28500	1	P	HSC	12/19/09 20:45	121909–1	932275
7782–49–2	Selenium	1.12	mg/kg	U	0.56	1.12	1.12	2	MS	SKJ	12/31/09 23:14	091231–3	932315
7440–21–3	Silicon	626000	ug/Kg	N	1710	11400	11400	1	P	HSC	12/19/09 20:45	121909–1	932275
7440–22–4	Silver	174	ug/Kg	J	114	570	570	1	P	HSC	12/19/09 20:45	121909–1	932275
7440–23–5	Sodium	2240000	ug/Kg	E	7980	28500	28500	1	P	HSC	12/19/09 20:45	121909–1	932275
7440–28–0	Thallium	0.224	mg/kg	U	0.0672	0.224	0.224	2	MS	SKJ	12/31/09 23:14	091231–3	932315
7440–32–6	Titanium	125000	ug/Kg		114	570	570	1	P	HSC	12/19/09 20:45	121909–1	932275
7440–61–1	Uranium	0.491	mg/kg		0.0148	0.0448	0.0448	2	MS	SKJ	01/01/10 06:25	091231–5	932315
7440–62–2	Vanadium	8150	ug/Kg		114	570	570	1	P	HSC	12/19/09 20:45	121909–1	932275
7440–66–6	Zinc	30600	ug/Kg		376	1140	1140	1	P	HSC	12/19/09 20:45	121909–1	932275

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
932275	932274	SW846 3050B	0.514	g	50	mL	12/17/09	BCD1
932315	932314	SW846 3050B	0.523	g	50	mL	12/17/09	BCD1
934855	934854	SW846 7471A Prep	0.517	g	30	mL	12/22/09	TXB3

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

936549	936548	SW846 7471A Prep	0.6	g	30	mL	12/31/09	JXL1

METALS
–1–
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10–853 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 242661009 **BASIS:** Dry Weight **DATE COLLECTED** 07–DEC–09

CLIENT ID: RE03–09–14281 **LEVEL:** Low **DATE RECEIVED** 10–DEC–09

MATRIX: SOIL **%SOLIDS:** 86

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429–90–5	Aluminum	912000	ug/Kg		7610	22400	22400	1	P	HSC	12/19/09 20:52	121909–1	932275
7440–36–0	Antimony	1120	ug/Kg	U	369	1120	1120	1	P	HSC	12/19/09 20:52	121909–1	932275
7440–38–2	Arsenic	0.796	mg/kg	J	0.231	1.15	1.15	2	MS	SKJ	12/31/09 23:21	091231–3	932315
7440–39–3	Barium	18400	ug/Kg	N	112	560	560	1	P	HSC	12/19/09 20:52	121909–1	932275
7440–41–7	Beryllium	0.278	mg/kg		0.0231	0.115	0.115	2	MS	SKJ	12/31/09 23:21	091231–3	932315
7440–42–8	Boron	5600	ug/Kg	U	1120	5600	5600	1	P	HSC	12/19/09 20:52	121909–1	932275
7440–43–9	Cadmium	560	ug/Kg	U	112	560	560	1	P	HSC	12/19/09 20:52	121909–1	932275
7440–70–2	Calcium	448000	ug/Kg		8950	28000	28000	1	P	HSC	12/19/09 20:52	121909–1	932275
7440–47–3	Chromium	2280	ug/Kg		168	560	560	1	P	HSC	12/19/09 20:52	121909–1	932275
7440–48–4	Cobalt	882	ug/Kg		168	560	560	1	P	HSC	12/19/09 20:52	121909–1	932275
7440–50–8	Copper	2530	ug/Kg		336	1120	1120	1	P	HSC	12/19/09 20:52	121909–1	932275
7439–89–6	Iron	7430000	ug/Kg		8950	28000	28000	1	P	HSC	12/19/09 20:52	121909–1	932275
7439–92–1	Lead	5260	ug/Kg		280	1120	1120	1	P	HSC	12/19/09 20:52	121909–1	932275
7439–93–2	Lithium	3.03	mg/kg	N	0.462	2.31	2.31	2	MS	SKJ	01/01/10 06:27	091231–5	932315
7439–95–4	Magnesium	227000	ug/Kg	N	9510	33600	33600	1	P	HSC	12/19/09 20:52	121909–1	932275
7439–96–5	Manganese	293000	ug/Kg	*	224	1120	1120	1	P	HSC	12/19/09 20:52	121909–1	932275
7439–97–6	Mercury	13.7	ug/kg	U	4.65	13.7	13.7	1	AV	JXL1	010410S1–7	010410S1–7	936549
7440–02–0	Nickel	2.17	mg/kg		0.115	0.462	0.462	2	MS	SKJ	12/31/09 23:21	091231–3	932315
7440–09–7	Potassium	258000	ug/Kg	N	7160	28000	28000	1	P	HSC	12/19/09 20:52	121909–1	932275
7782–49–2	Selenium	1.15	mg/kg	U	0.577	1.15	1.15	2	MS	SKJ	12/31/09 23:21	091231–3	932315
7440–21–3	Silicon	615000	ug/Kg	N	1680	11200	11200	1	P	HSC	12/19/09 20:52	121909–1	932275
7440–22–4	Silver	337	ug/Kg	J	112	560	560	1	P	HSC	12/19/09 20:52	121909–1	932275
7440–23–5	Sodium	94100	ug/Kg	E	7830	28000	28000	1	P	HSC	12/19/09 20:52	121909–1	932275
7440–28–0	Thallium	0.231	mg/kg	U	0.0693	0.231	0.231	2	MS	SKJ	12/31/09 23:21	091231–3	932315
7440–32–6	Titanium	401000	ug/Kg		112	560	560	1	P	HSC	12/19/09 20:52	121909–1	932275
7440–61–1	Uranium	0.395	mg/kg		0.0152	0.0462	0.0462	2	MS	SKJ	01/01/10 06:27	091231–5	932315
7440–62–2	Vanadium	5280	ug/Kg		112	560	560	1	P	HSC	12/19/09 20:52	121909–1	932275
7440–66–6	Zinc	64400	ug/Kg		369	1120	1120	1	P	HSC	12/19/09 20:52	121909–1	932275

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
932275	932274	SW846 3050B	0.519	g	50	mL	12/17/09	BCD1
932315	932314	SW846 3050B	0.503	g	50	mL	12/17/09	BCD1
934855	934854	SW846 7471A Prep	0.534	g	30	mL	12/22/09	TXB3

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

936549	936548	SW846 7471A Prep	0.51	g	30	mL	12/31/09	JXL1

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-853 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 242661010 **BASIS:** Dry Weight **DATE COLLECTED** 07-DEC-09

CLIENT ID: RE03-09-14284 **LEVEL:** Low **DATE RECEIVED** 10-DEC-09

MATRIX: SOIL **%SOLIDS:** 88

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	1210000	ug/Kg		7500	22000	22000	1	P	HSC	12/19/09 20:59	121909-1	932275
7440-36-0	Antimony	1100	ug/Kg	U	364	1100	1100	1	P	HSC	12/19/09 20:59	121909-1	932275
7440-38-2	Arsenic	0.444	mg/kg	J	0.228	1.14	1.14	2	MS	SKJ	12/31/09 23:27	091231-3	932315
7440-39-3	Barium	12900	ug/Kg	N	110	551	551	1	P	HSC	12/19/09 20:59	121909-1	932275
7440-41-7	Beryllium	0.295	mg/kg		0.0228	0.114	0.114	2	MS	SKJ	12/31/09 23:27	091231-3	932315
7440-42-8	Boron	5510	ug/Kg	U	1100	5510	5510	1	P	HSC	12/19/09 20:59	121909-1	932275
7440-43-9	Cadmium	551	ug/Kg	U	110	551	551	1	P	HSC	12/19/09 20:59	121909-1	932275
7440-70-2	Calcium	220000	ug/Kg		8820	27600	27600	1	P	HSC	12/19/09 20:59	121909-1	932275
7440-47-3	Chromium	5920	ug/Kg		165	551	551	1	P	HSC	12/19/09 20:59	121909-1	932275
7440-48-4	Cobalt	251	ug/Kg	J	165	551	551	1	P	HSC	12/19/09 20:59	121909-1	932275
7440-50-8	Copper	1010	ug/Kg	J	331	1100	1100	1	P	HSC	12/19/09 20:59	121909-1	932275
7439-89-6	Iron	9300000	ug/Kg		8820	27600	27600	1	P	HSC	12/19/09 20:59	121909-1	932275
7439-92-1	Lead	6150	ug/Kg		276	1100	1100	1	P	HSC	12/19/09 20:59	121909-1	932275
7439-93-2	Lithium	2.95	mg/kg	N	0.455	2.28	2.28	2	MS	SKJ	01/01/10 06:30	091231-5	932315
7439-95-4	Magnesium	187000	ug/Kg	N	9370	33100	33100	1	P	HSC	12/19/09 20:59	121909-1	932275
7439-96-5	Manganese	99500	ug/Kg	*	220	1100	1100	1	P	HSC	12/19/09 20:59	121909-1	932275
7439-97-6	Mercury	11.4	ug/kg	U	3.87	11.4	11.4	1	AV	JXL1	01/04/10 09:49	010410S1-7	936549
7440-02-0	Nickel	2.17	mg/kg		0.114	0.455	0.455	2	MS	SKJ	12/31/09 23:27	091231-3	932315
7440-09-7	Potassium	243000	ug/Kg	N	7050	27600	27600	1	P	HSC	12/19/09 20:59	121909-1	932275
7782-49-2	Selenium	1.14	mg/kg	U	0.569	1.14	1.14	2	MS	SKJ	12/31/09 23:27	091231-3	932315
7440-21-3	Silicon	725000	ug/Kg	N	1650	11000	11000	1	P	HSC	12/19/09 20:59	121909-1	932275
7440-22-4	Silver	241	ug/Kg	J	110	551	551	1	P	HSC	12/19/09 20:59	121909-1	932275
7440-23-5	Sodium	175000	ug/Kg	E	7720	27600	27600	1	P	HSC	12/19/09 20:59	121909-1	932275
7440-28-0	Thallium	0.228	mg/kg	U	0.0683	0.228	0.228	2	MS	SKJ	12/31/09 23:27	091231-3	932315
7440-32-6	Titanium	413000	ug/Kg		110	551	551	1	P	HSC	12/19/09 20:59	121909-1	932275
7440-61-1	Uranium	0.481	mg/kg		0.015	0.0455	0.0455	2	MS	SKJ	01/01/10 06:30	091231-5	932315
7440-62-2	Vanadium	2660	ug/Kg		110	551	551	1	P	HSC	12/19/09 20:59	121909-1	932275
7440-66-6	Zinc	28900	ug/Kg		364	1100	1100	1	P	HSC	12/19/09 20:59	121909-1	932275

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
932275	932274	SW846 3050B	0.516	g	50	mL	12/17/09	BCD1
932315	932314	SW846 3050B	0.5	g	50	mL	12/17/09	BCD1
934855	934854	SW846 7471A Prep	0.563	g	30	mL	12/22/09	TXB3

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

936549	936548	SW846 7471A Prep	0.6	g	30	mL	12/31/09	JXL1

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-853 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 242661011 **BASIS:** Dry Weight **DATE COLLECTED** 07-DEC-09

CLIENT ID: RE03-09-14274 **LEVEL:** Low **DATE RECEIVED** 10-DEC-09

MATRIX: SOIL **%SOLIDS:** 96.4

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	2530000	ug/Kg		7020	20700	20700	1	P	HSC	12/19/09 21:06	121909-1	932275
7440-36-0	Antimony	1030	ug/Kg	U	341	1030	1030	1	P	HSC	12/19/09 21:06	121909-1	932275
7440-38-2	Arsenic	1.16	mg/kg		0.205	1.02	1.02	2	MS	SKJ	12/31/09 23:33	091231-3	932315
7440-39-3	Barium	16600	ug/Kg	N	103	516	516	1	P	HSC	12/19/09 21:06	121909-1	932275
7440-41-7	Beryllium	0.528	mg/kg		0.0205	0.102	0.102	2	MS	SKJ	12/31/09 23:33	091231-3	932315
7440-42-8	Boron	5160	ug/Kg	U	1030	5160	5160	1	P	HSC	12/19/09 21:06	121909-1	932275
7440-43-9	Cadmium	516	ug/Kg	U	103	516	516	1	P	HSC	12/19/09 21:06	121909-1	932275
7440-70-2	Calcium	515000	ug/Kg		8260	25800	25800	1	P	HSC	12/19/09 21:06	121909-1	932275
7440-47-3	Chromium	4240	ug/Kg		155	516	516	1	P	HSC	12/19/09 21:06	121909-1	932275
7440-48-4	Cobalt	754	ug/Kg		155	516	516	1	P	HSC	12/19/09 21:06	121909-1	932275
7440-50-8	Copper	2280	ug/Kg		310	1030	1030	1	P	HSC	12/19/09 21:06	121909-1	932275
7439-89-6	Iron	8700000	ug/Kg		8260	25800	25800	1	P	HSC	12/19/09 21:06	121909-1	932275
7439-92-1	Lead	5570	ug/Kg		258	1030	1030	1	P	HSC	12/19/09 21:06	121909-1	932275
7439-93-2	Lithium	5.81	mg/kg	N	0.41	2.05	2.05	2	MS	SKJ	01/01/10 06:32	091231-5	932315
7439-95-4	Magnesium	399000	ug/Kg	N	8780	31000	31000	1	P	HSC	12/19/09 21:06	121909-1	932275
7439-96-5	Manganese	174000	ug/Kg	*	207	1030	1030	1	P	HSC	12/19/09 21:06	121909-1	932275
7439-97-6	Mercury	15.5	ug/kg		3.6	10.6	10.6	1	AV	JXL1	01/04/10 09:50	010410S1-7	936549
7440-02-0	Nickel	2.61	mg/kg		0.102	0.41	0.41	2	MS	SKJ	12/31/09 23:33	091231-3	932315
7440-09-7	Potassium	250000	ug/Kg	N	6610	25800	25800	1	P	HSC	12/19/09 21:06	121909-1	932275
7782-49-2	Selenium	1.02	mg/kg	U	0.512	1.02	1.02	2	MS	SKJ	12/31/09 23:33	091231-3	932315
7440-21-3	Silicon	969000	ug/Kg	N	1550	10300	10300	1	P	HSC	12/19/09 21:06	121909-1	932275
7440-22-4	Silver	361	ug/Kg	J	103	516	516	1	P	HSC	12/19/09 21:06	121909-1	932275
7440-23-5	Sodium	87800	ug/Kg	E	7230	25800	25800	1	P	HSC	12/19/09 21:06	121909-1	932275
7440-28-0	Thallium	0.205	mg/kg	U	0.0615	0.205	0.205	2	MS	SKJ	12/31/09 23:33	091231-3	932315
7440-32-6	Titanium	368000	ug/Kg		103	516	516	1	P	HSC	12/19/09 21:06	121909-1	932275
7440-61-1	Uranium	0.635	mg/kg		0.0135	0.041	0.041	2	MS	SKJ	01/01/10 06:32	091231-5	932315
7440-62-2	Vanadium	6120	ug/Kg		103	516	516	1	P	HSC	12/19/09 21:06	121909-1	932275
7440-66-6	Zinc	36700	ug/Kg		341	1030	1030	1	P	HSC	12/19/09 21:06	121909-1	932275

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
932275	932274	SW846 3050B	0.502	g	50	mL	12/17/09	BCD1
932315	932314	SW846 3050B	0.506	g	50	mL	12/17/09	BCD1
934855	934854	SW846 7471A Prep	0.526	g	30	mL	12/22/09	TXB3

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

936549	936548	SW846 7471A Prep	0.588	g	30	mL	12/31/09	JXL1

METALS
–1–
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10–853 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 242661012 **BASIS:** Dry Weight **DATE COLLECTED** 07–DEC–09

CLIENT ID: RE03–09–14277 **LEVEL:** Low **DATE RECEIVED** 10–DEC–09

MATRIX: SOIL **%SOLIDS:** 90

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429–90–5	Aluminum	7470000	ug/Kg		7520	22100	22100	1	P	HSC	12/19/09 21:13	121909–1	932275
7440–36–0	Antimony	1110	ug/Kg	U	365	1110	1110	1	P	HSC	12/19/09 21:13	121909–1	932275
7440–38–2	Arsenic	1.73	mg/kg		0.212	1.06	1.06	2	MS	SKJ	12/31/09 23:39	091231–3	932315
7440–39–3	Barium	125000	ug/Kg	N	111	553	553	1	P	HSC	12/19/09 21:13	121909–1	932275
7440–41–7	Beryllium	0.785	mg/kg		0.0212	0.106	0.106	2	MS	SKJ	12/31/09 23:39	091231–3	932315
7440–42–8	Boron	5530	ug/Kg	U	1110	5530	5530	1	P	HSC	12/19/09 21:13	121909–1	932275
7440–43–9	Cadmium	420	ug/Kg	J	111	553	553	1	P	HSC	12/19/09 21:13	121909–1	932275
7440–70–2	Calcium	7330000	ug/Kg		8850	27700	27700	1	P	HSC	12/19/09 21:13	121909–1	932275
7440–47–3	Chromium	8460	ug/Kg		166	553	553	1	P	HSC	12/19/09 21:13	121909–1	932275
7440–48–4	Cobalt	5030	ug/Kg		166	553	553	1	P	HSC	12/19/09 21:13	121909–1	932275
7440–50–8	Copper	9580	ug/Kg		332	1110	1110	1	P	HSC	12/19/09 21:13	121909–1	932275
7439–89–6	Iron	10900000	ug/Kg		8850	27700	27700	1	P	HSC	12/19/09 21:13	121909–1	932275
7439–92–1	Lead	13700	ug/Kg		277	1110	1110	1	P	HSC	12/19/09 21:13	121909–1	932275
7439–93–2	Lithium	13.1	mg/kg	N	0.425	2.12	2.12	2	MS	SKJ	01/01/10 06:35	091231–5	932315
7439–95–4	Magnesium	1440000	ug/Kg	N	9400	33200	33200	1	P	HSC	12/19/09 21:13	121909–1	932275
7439–96–5	Manganese	360000	ug/Kg	*	221	1110	1110	1	P	HSC	12/19/09 21:13	121909–1	932275
7439–97–6	Mercury	15.3	ug/kg		4.25	12.5	12.5	1	AV	JXL1	01/04/10 09:52	010410S1–7	936549
7440–02–0	Nickel	7.35	mg/kg		0.106	0.425	0.425	2	MS	SKJ	12/31/09 23:39	091231–3	932315
7440–09–7	Potassium	1100000	ug/Kg	N	7080	27700	27700	1	P	HSC	12/19/09 21:13	121909–1	932275
7782–49–2	Selenium	1.06	mg/kg	U	0.531	1.06	1.06	2	MS	SKJ	12/31/09 23:39	091231–3	932315
7440–21–3	Silicon	1620000	ug/Kg	N	1660	11100	11100	1	P	HSC	12/19/09 21:13	121909–1	932275
7440–22–4	Silver	562	ug/Kg		111	553	553	1	P	HSC	12/19/09 21:13	121909–1	932275
7440–23–5	Sodium	149000	ug/Kg	E	7740	27700	27700	1	P	HSC	12/19/09 21:13	121909–1	932275
7440–28–0	Thallium	0.136	mg/kg	J	0.0637	0.212	0.212	2	MS	SKJ	12/31/09 23:39	091231–3	932315
7440–32–6	Titanium	419000	ug/Kg		111	553	553	1	P	HSC	12/19/09 21:13	121909–1	932275
7440–61–1	Uranium	1.1	mg/kg		0.014	0.0425	0.0425	2	MS	SKJ	01/01/10 06:35	091231–5	932315
7440–62–2	Vanadium	20500	ug/Kg		111	553	553	1	P	HSC	12/19/09 21:13	121909–1	932275
7440–66–6	Zinc	89900	ug/Kg		365	1110	1110	1	P	HSC	12/19/09 21:13	121909–1	932275

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
932275	932274	SW846 3050B	0.502	g	50	mL	12/17/09	BCD1
932315	932314	SW846 3050B	0.523	g	50	mL	12/17/09	BCD1
934855	934854	SW846 7471A Prep	0.528	g	30	mL	12/22/09	TXB3

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

936549	936548	SW846 7471A Prep	0.533	g	30	mL	12/31/09	JXL1

METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-853 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 242661013 **BASIS:** Dry Weight **DATE COLLECTED** 07-DEC-09

CLIENT ID: RE03-09-14282 **LEVEL:** Low **DATE RECEIVED** 10-DEC-09

MATRIX: SOIL **%SOLIDS:** 86

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	438000	ug/Kg		7620	22400	22400	1	P	HSC	12/19/09 21:34	121909-1	932275
7440-36-0	Antimony	1120	ug/Kg	U	370	1120	1120	1	P	HSC	12/19/09 21:34	121909-1	932275
7440-38-2	Arsenic	0.664	mg/kg	J	0.229	1.14	1.14	2	MS	SKJ	12/31/09 23:46	091231-3	932315
7440-39-3	Barium	9200	ug/Kg	N	112	560	560	1	P	HSC	12/19/09 21:34	121909-1	932275
7440-41-7	Beryllium	0.306	mg/kg		0.0229	0.114	0.114	2	MS	SKJ	12/31/09 23:46	091231-3	932315
7440-42-8	Boron	5600	ug/Kg	U	1120	5600	5600	1	P	HSC	12/19/09 21:34	121909-1	932275
7440-43-9	Cadmium	560	ug/Kg	U	112	560	560	1	P	HSC	12/19/09 21:34	121909-1	932275
7440-70-2	Calcium	164000	ug/Kg		8970	28000	28000	1	P	HSC	12/19/09 21:34	121909-1	932275
7440-47-3	Chromium	23500	ug/Kg		168	560	560	1	P	HSC	12/19/09 21:34	121909-1	932275
7440-48-4	Cobalt	567	ug/Kg		168	560	560	1	P	HSC	12/19/09 21:34	121909-1	932275
7440-50-8	Copper	1910	ug/Kg		336	1120	1120	1	P	HSC	12/19/09 21:34	121909-1	932275
7439-89-6	Iron	7040000	ug/Kg		8970	28000	28000	1	P	HSC	12/19/09 21:34	121909-1	932275
7439-92-1	Lead	3710	ug/Kg		280	1120	1120	1	P	HSC	12/19/09 21:34	121909-1	932275
7439-93-2	Lithium	2.4	mg/kg	N	0.457	2.29	2.29	2	MS	SKJ	01/01/10 06:37	091231-5	932315
7439-95-4	Magnesium	57200	ug/Kg	N	9530	33600	33600	1	P	HSC	12/19/09 21:34	121909-1	932275
7439-96-5	Manganese	267000	ug/Kg	*	224	1120	1120	1	P	HSC	12/19/09 21:34	121909-1	932275
7439-97-6	Mercury	12.1	ug/kg	U	4.11	12.1	12.1	1	AV	JXL1	01/04/10 09:54	010410S1-7	936549
7440-02-0	Nickel	3.79	mg/kg		0.114	0.457	0.457	2	MS	SKJ	12/31/09 23:46	091231-3	932315
7440-09-7	Potassium	210000	ug/Kg	N	7170	28000	28000	1	P	HSC	12/19/09 21:34	121909-1	932275
7782-49-2	Selenium	1.14	mg/kg	U	0.571	1.14	1.14	2	MS	SKJ	12/31/09 23:46	091231-3	932315
7440-21-3	Silicon	489000	ug/Kg	N	1680	11200	11200	1	P	HSC	12/19/09 21:34	121909-1	932275
7440-22-4	Silver	301	ug/Kg	J	112	560	560	1	P	HSC	12/19/09 21:34	121909-1	932275
7440-23-5	Sodium	102000	ug/Kg	E	7840	28000	28000	1	P	HSC	12/19/09 21:34	121909-1	932275
7440-28-0	Thallium	0.229	mg/kg	U	0.0686	0.229	0.229	2	MS	SKJ	12/31/09 23:46	091231-3	932315
7440-32-6	Titanium	405000	ug/Kg		112	560	560	1	P	HSC	12/19/09 21:34	121909-1	932275
7440-61-1	Uranium	0.439	mg/kg		0.0151	0.0457	0.0457	2	MS	SKJ	01/01/10 06:37	091231-5	932315
7440-62-2	Vanadium	3270	ug/Kg		112	560	560	1	P	HSC	12/19/09 21:34	121909-1	932275
7440-66-6	Zinc	39400	ug/Kg		370	1120	1120	1	P	HSC	12/19/09 21:34	121909-1	932275

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
932275	932274	SW846 3050B	0.518	g	50	mL	12/17/09	BCD1
932315	932314	SW846 3050B	0.508	g	50	mL	12/17/09	BCD1
934855	934854	SW846 7471A Prep	0.572	g	30	mL	12/22/09	TXB3

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

936549	936548	SW846 7471A Prep	0.576	g	30	mL	12/31/09	JXL1

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-853 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 242661014 **BASIS:** Dry Weight **DATE COLLECTED** 07-DEC-09

CLIENT ID: RE03-09-14269 **LEVEL:** Low **DATE RECEIVED** 10-DEC-09

MATRIX: SOIL **%SOLIDS:** 87

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	1340000	ug/Kg		7780	22900	22900	1	P	HSC	12/19/09 21:41	121909-1	932275
7440-36-0	Antimony	1140	ug/Kg	U	377	1140	1140	1	P	HSC	12/19/09 21:41	121909-1	932275
7440-38-2	Arsenic	0.90	mg/kg	J	0.226	1.13	1.13	2	MS	SKJ	12/31/09 23:52	091231-3	932315
7440-39-3	Barium	15400	ug/Kg	N	114	572	572	1	P	HSC	12/19/09 21:41	121909-1	932275
7440-41-7	Beryllium	0.247	mg/kg		0.0226	0.113	0.113	2	MS	SKJ	12/31/09 23:52	091231-3	932315
7440-42-8	Boron	5720	ug/Kg	U	1140	5720	5720	1	P	HSC	12/19/09 21:41	121909-1	932275
7440-43-9	Cadmium	572	ug/Kg	U	114	572	572	1	P	HSC	12/19/09 21:41	121909-1	932275
7440-70-2	Calcium	1860000	ug/Kg		9150	28600	28600	1	P	HSC	12/19/09 21:41	121909-1	932275
7440-47-3	Chromium	8130	ug/Kg		172	572	572	1	P	HSC	12/19/09 21:41	121909-1	932275
7440-48-4	Cobalt	1420	ug/Kg		172	572	572	1	P	HSC	12/19/09 21:41	121909-1	932275
7440-50-8	Copper	4630	ug/Kg		343	1140	1140	1	P	HSC	12/19/09 21:41	121909-1	932275
7439-89-6	Iron	7020000	ug/Kg		9150	28600	28600	1	P	HSC	12/19/09 21:41	121909-1	932275
7439-92-1	Lead	4080	ug/Kg		286	1140	1140	1	P	HSC	12/19/09 21:41	121909-1	932275
7439-93-2	Lithium	4.76	mg/kg	N	0.451	2.26	2.26	2	MS	SKJ	01/01/10 06:40	091231-5	932315
7439-95-4	Magnesium	1030000	ug/Kg	N	9720	34300	34300	1	P	HSC	12/19/09 21:41	121909-1	932275
7439-96-5	Manganese	104000	ug/Kg	*	229	1140	1140	1	P	HSC	12/19/09 21:41	121909-1	932275
7439-97-6	Mercury	10.1	ug/kg	J	4.45	13.1	13.1	1	AV	JXL1	01/04/10 09:55	010410S1-7	936549
7440-02-0	Nickel	6.23	mg/kg		0.113	0.451	0.451	2	MS	SKJ	12/31/09 23:52	091231-3	932315
7440-09-7	Potassium	2490000	ug/Kg	N	36600	143000	143000	5	P	HSC	12/20/09 10:48	122009A-2	932275
7782-49-2	Selenium	1.13	mg/kg	U	0.564	1.13	1.13	2	MS	SKJ	12/31/09 23:52	091231-3	932315
7440-21-3	Silicon	492000	ug/Kg	N	1720	11400	11400	1	P	HSC	12/19/09 21:41	121909-1	932275
7440-22-4	Silver	204	ug/Kg	J	114	572	572	1	P	HSC	12/19/09 21:41	121909-1	932275
7440-23-5	Sodium	5710000	ug/Kg	E	40000	143000	143000	5	P	HSC	12/20/09 10:48	122009A-2	932275
7440-28-0	Thallium	0.226	mg/kg	U	0.0677	0.226	0.226	2	MS	SKJ	12/31/09 23:52	091231-3	932315
7440-32-6	Titanium	160000	ug/Kg		114	572	572	1	P	HSC	12/19/09 21:41	121909-1	932275
7440-61-1	Uranium	0.397	mg/kg		0.0149	0.0451	0.0451	2	MS	SKJ	01/01/10 06:40	091231-5	932315
7440-62-2	Vanadium	11200	ug/Kg		114	572	572	1	P	HSC	12/19/09 21:41	121909-1	932275
7440-66-6	Zinc	28700	ug/Kg		377	1140	1140	1	P	HSC	12/19/09 21:41	121909-1	932275

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
932275	932274	SW846 3050B	0.505	g	50	mL	12/17/09	BCD1
932315	932314	SW846 3050B	0.512	g	50	mL	12/17/09	BCD1
934855	934854	SW846 7471A Prep	0.522	g	30	mL	12/22/09	TXB3

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

936549	936548	SW846 7471A Prep	0.53	g	30	mL	12/31/09	JXL1

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-853 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 242661015 **BASIS:** Dry Weight **DATE COLLECTED** 07-DEC-09

CLIENT ID: RE03-09-14273 **LEVEL:** Low **DATE RECEIVED** 10-DEC-09

MATRIX: SOIL **%SOLIDS:** 90.2

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	3200000	ug/Kg		7330	21600	21600	1	P	HSC	12/19/09 21:48	121909-1	932275
7440-36-0	Antimony	1080	ug/Kg	U	356	1080	1080	1	P	HSC	12/19/09 21:48	121909-1	932275
7440-38-2	Arsenic	1.6	mg/kg		0.22	1.1	1.1	2	MS	SKJ	01/01/10 00:10	091231-3	932315
7440-39-3	Barium	34900	ug/Kg	N	108	539	539	1	P	HSC	12/19/09 21:48	121909-1	932275
7440-41-7	Beryllium	0.546	mg/kg		0.022	0.11	0.11	2	MS	SKJ	01/01/10 00:10	091231-3	932315
7440-42-8	Boron	5390	ug/Kg	U	1080	5390	5390	1	P	HSC	12/19/09 21:48	121909-1	932275
7440-43-9	Cadmium	539	ug/Kg	U	108	539	539	1	P	HSC	12/19/09 21:48	121909-1	932275
7440-70-2	Calcium	1120000	ug/Kg		8630	27000	27000	1	P	HSC	12/19/09 21:48	121909-1	932275
7440-47-3	Chromium	3850	ug/Kg		162	539	539	1	P	HSC	12/19/09 21:48	121909-1	932275
7440-48-4	Cobalt	1310	ug/Kg		162	539	539	1	P	HSC	12/19/09 21:48	121909-1	932275
7440-50-8	Copper	3880	ug/Kg		323	1080	1080	1	P	HSC	12/19/09 21:48	121909-1	932275
7439-89-6	Iron	9450000	ug/Kg		8630	27000	27000	1	P	HSC	12/19/09 21:48	121909-1	932275
7439-92-1	Lead	8720	ug/Kg		270	1080	1080	1	P	HSC	12/19/09 21:48	121909-1	932275
7439-93-2	Lithium	5.65	mg/kg	N	0.44	2.2	2.2	2	MS	SKJ	01/01/10 06:47	091231-5	932315
7439-95-4	Magnesium	593000	ug/Kg	N	9170	32300	32300	1	P	HSC	12/19/09 21:48	121909-1	932275
7439-96-5	Manganese	170000	ug/Kg	*	216	1080	1080	1	P	HSC	12/19/09 21:48	121909-1	932275
7439-97-6	Mercury	15.1	ug/kg		3.89	11.4	11.4	1	AV	JXL1	01/04/10 10:00	010410S1-7	936549
7440-02-0	Nickel	3.05	mg/kg		0.11	0.44	0.44	2	MS	SKJ	01/01/10 00:10	091231-3	932315
7440-09-7	Potassium	477000	ug/Kg	N	6900	27000	27000	1	P	HSC	12/19/09 21:48	121909-1	932275
7782-49-2	Selenium	1.1	mg/kg	U	0.55	1.1	1.1	2	MS	SKJ	01/01/10 00:10	091231-3	932315
7440-21-3	Silicon	1270000	ug/Kg	N	1620	10800	10800	1	P	HSC	12/19/09 21:48	121909-1	932275
7440-22-4	Silver	304	ug/Kg	J	108	539	539	1	P	HSC	12/19/09 21:48	121909-1	932275
7440-23-5	Sodium	78200	ug/Kg	E	7550	27000	27000	1	P	HSC	12/19/09 21:48	121909-1	932275
7440-28-0	Thallium	0.220	mg/kg	U	0.066	0.22	0.22	2	MS	SKJ	01/01/10 00:10	091231-3	932315
7440-32-6	Titanium	383000	ug/Kg		108	539	539	1	P	HSC	12/19/09 21:48	121909-1	932275
7440-61-1	Uranium	0.676	mg/kg		0.0145	0.044	0.044	2	MS	SKJ	01/01/10 06:47	091231-5	932315
7440-62-2	Vanadium	8870	ug/Kg		108	539	539	1	P	HSC	12/19/09 21:48	121909-1	932275
7440-66-6	Zinc	41000	ug/Kg		356	1080	1080	1	P	HSC	12/19/09 21:48	121909-1	932275

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
932275	932274	SW846 3050B	0.514	g	50	mL	12/17/09	BCD1
932315	932314	SW846 3050B	0.504	g	50	mL	12/17/09	BCD1
934855	934854	SW846 7471A Prep	0.536	g	30	mL	12/22/09	TXB3

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

936549	936548	SW846 7471A Prep	0.582	g	30	mL	12/31/09	JXL1

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-853 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 242661016 **BASIS:** Dry Weight **DATE COLLECTED** 07-DEC-09

CLIENT ID: RE03-09-14271 **LEVEL:** Low **DATE RECEIVED** 10-DEC-09

MATRIX: SOIL **%SOLIDS:** 86

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	1910000	ug/Kg		7770	22900	22900	1	P	HSC	12/19/09 21:55	121909-1	932275
7440-36-0	Antimony	1140	ug/Kg	U	377	1140	1140	1	P	HSC	12/19/09 21:55	121909-1	932275
7440-38-2	Arsenic	0.632	mg/kg	J	0.229	1.15	1.15	2	MS	SKJ	01/01/10 00:17	091231-3	932315
7440-39-3	Barium	24100	ug/Kg	N	114	572	572	1	P	HSC	12/19/09 21:55	121909-1	932275
7440-41-7	Beryllium	0.195	mg/kg		0.0229	0.115	0.115	2	MS	SKJ	01/01/10 00:17	091231-3	932315
7440-42-8	Boron	5720	ug/Kg	U	1140	5720	5720	1	P	HSC	12/19/09 21:55	121909-1	932275
7440-43-9	Cadmium	572	ug/Kg	U	114	572	572	1	P	HSC	12/19/09 21:55	121909-1	932275
7440-70-2	Calcium	1350000	ug/Kg		9150	28600	28600	1	P	HSC	12/19/09 21:55	121909-1	932275
7440-47-3	Chromium	4240	ug/Kg		171	572	572	1	P	HSC	12/19/09 21:55	121909-1	932275
7440-48-4	Cobalt	2120	ug/Kg		171	572	572	1	P	HSC	12/19/09 21:55	121909-1	932275
7440-50-8	Copper	7420	ug/Kg		343	1140	1140	1	P	HSC	12/19/09 21:55	121909-1	932275
7439-89-6	Iron	7640000	ug/Kg		9150	28600	28600	1	P	HSC	12/19/09 21:55	121909-1	932275
7439-92-1	Lead	6590	ug/Kg		286	1140	1140	1	P	HSC	12/19/09 21:55	121909-1	932275
7439-93-2	Lithium	4.35	mg/kg	N	0.458	2.29	2.29	2	MS	SKJ	01/01/10 06:50	091231-5	932315
7439-95-4	Magnesium	955000	ug/Kg	N	9720	34300	34300	1	P	HSC	12/19/09 21:55	121909-1	932275
7439-96-5	Manganese	158000	ug/Kg	*	229	1140	1140	1	P	HSC	12/19/09 21:55	121909-1	932275
7439-97-6	Mercury	26	ug/kg		4.46	13.1	13.1	1	AV	JXL1	01/04/10 10:02	010410S1-7	936549
7440-02-0	Nickel	3.36	mg/kg		0.115	0.458	0.458	2	MS	SKJ	01/01/10 00:17	091231-3	932315
7440-09-7	Potassium	3630000	ug/Kg	N	36600	143000	143000	5	P	HSC	12/20/09 10:55	122009A-2	932275
7782-49-2	Selenium	1.15	mg/kg	U	0.573	1.15	1.15	2	MS	SKJ	01/01/10 00:17	091231-3	932315
7440-21-3	Silicon	915000	ug/Kg	N	1710	11400	11400	1	P	HSC	12/19/09 21:55	121909-1	932275
7440-22-4	Silver	360	ug/Kg	J	114	572	572	1	P	HSC	12/19/09 21:55	121909-1	932275
7440-23-5	Sodium	9420000	ug/Kg	E	40000	143000	143000	5	P	HSC	12/20/09 10:55	122009A-2	932275
7440-28-0	Thallium	0.229	mg/kg	U	0.0687	0.229	0.229	2	MS	SKJ	01/01/10 00:17	091231-3	932315
7440-32-6	Titanium	255000	ug/Kg		114	572	572	1	P	HSC	12/19/09 21:55	121909-1	932275
7440-61-1	Uranium	0.446	mg/kg		0.0151	0.0458	0.0458	2	MS	SKJ	01/01/10 06:50	091231-5	932315
7440-62-2	Vanadium	11600	ug/Kg		114	572	572	1	P	HSC	12/19/09 21:55	121909-1	932275
7440-66-6	Zinc	55800	ug/Kg		377	1140	1140	1	P	HSC	12/19/09 21:55	121909-1	932275

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
932275	932274	SW846 3050B	0.511	g	50	mL	12/17/09	BCD1
932315	932314	SW846 3050B	0.51	g	50	mL	12/17/09	BCD1
934855	934854	SW846 7471A Prep	0.544	g	30	mL	12/22/09	TXB3

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

936549	936548	SW846 7471A Prep	0.534	g	30	mL	12/31/09	JXL1

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-853 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 242661017 **BASIS:** Dry Weight **DATE COLLECTED** 07-DEC-09

CLIENT ID: RE03-09-14278 **LEVEL:** Low **DATE RECEIVED** 10-DEC-09

MATRIX: SOIL **%SOLIDS:** 92.5

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	8960000	ug/Kg		7080	20800	20800	1	P	HSC	12/19/09 22:02	121909-1	932275
7440-36-0	Antimony	1040	ug/Kg	U	344	1040	1040	1	P	HSC	12/19/09 22:02	121909-1	932275
7440-38-2	Arsenic	1.58	mg/kg		0.207	1.04	1.04	2	MS	SKJ	01/01/10 00:23	091231-3	932315
7440-39-3	Barium	118000	ug/Kg	N	104	521	521	1	P	HSC	12/19/09 22:02	121909-1	932275
7440-41-7	Beryllium	0.808	mg/kg		0.0207	0.104	0.104	2	MS	SKJ	01/01/10 00:23	091231-3	932315
7440-42-8	Boron	5210	ug/Kg	U	1040	5210	5210	1	P	HSC	12/19/09 22:02	121909-1	932275
7440-43-9	Cadmium	124	ug/Kg	J	104	521	521	1	P	HSC	12/19/09 22:02	121909-1	932275
7440-70-2	Calcium	1620000	ug/Kg		8340	26000	26000	1	P	HSC	12/19/09 22:02	121909-1	932275
7440-47-3	Chromium	8260	ug/Kg		156	521	521	1	P	HSC	12/19/09 22:02	121909-1	932275
7440-48-4	Cobalt	4600	ug/Kg		156	521	521	1	P	HSC	12/19/09 22:02	121909-1	932275
7440-50-8	Copper	6340	ug/Kg		313	1040	1040	1	P	HSC	12/19/09 22:02	121909-1	932275
7439-89-6	Iron	10100000	ug/Kg		8340	26000	26000	1	P	HSC	12/19/09 22:02	121909-1	932275
7439-92-1	Lead	12200	ug/Kg		260	1040	1040	1	P	HSC	12/19/09 22:02	121909-1	932275
7439-93-2	Lithium	12.8	mg/kg	N	0.414	2.07	2.07	2	MS	SKJ	01/01/10 06:52	091231-5	932315
7439-95-4	Magnesium	1290000	ug/Kg	N	8860	31300	31300	1	P	HSC	12/19/09 22:02	121909-1	932275
7439-96-5	Manganese	289000	ug/Kg	*	208	1040	1040	1	P	HSC	12/19/09 22:02	121909-1	932275
7439-97-6	Mercury	17.1	ug/kg		3.88	11.4	11.4	1	AV	JXL1	01/04/10 10:04	010410S1-7	936549
7440-02-0	Nickel	7.63	mg/kg		0.104	0.414	0.414	2	MS	SKJ	01/01/10 00:23	091231-3	932315
7440-09-7	Potassium	1010000	ug/Kg	N	6670	26000	26000	1	P	HSC	12/19/09 22:02	121909-1	932275
7782-49-2	Selenium	1.04	mg/kg	U	0.518	1.04	1.04	2	MS	SKJ	01/01/10 00:23	091231-3	932315
7440-21-3	Silicon	1520000	ug/Kg	N	1560	10400	10400	1	P	HSC	12/19/09 22:02	121909-1	932275
7440-22-4	Silver	355	ug/Kg	J	104	521	521	1	P	HSC	12/19/09 22:02	121909-1	932275
7440-23-5	Sodium	247000	ug/Kg	E	7290	26000	26000	1	P	HSC	12/19/09 22:02	121909-1	932275
7440-28-0	Thallium	0.144	mg/kg	J	0.0622	0.207	0.207	2	MS	SKJ	01/01/10 00:23	091231-3	932315
7440-32-6	Titanium	418000	ug/Kg		104	521	521	1	P	HSC	12/19/09 22:02	121909-1	932275
7440-61-1	Uranium	0.684	mg/kg		0.0137	0.0414	0.0414	2	MS	SKJ	01/01/10 06:52	091231-5	932315
7440-62-2	Vanadium	19300	ug/Kg		104	521	521	1	P	HSC	12/19/09 22:02	121909-1	932275
7440-66-6	Zinc	55300	ug/Kg		344	1040	1040	1	P	HSC	12/19/09 22:02	121909-1	932275

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
932275	932274	SW846 3050B	0.519	g	50	mL	12/17/09	BCD1
932315	932314	SW846 3050B	0.522	g	50	mL	12/17/09	BCD1
934855	934854	SW846 7471A Prep	0.501	g	30	mL	12/22/09	TXB3

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

936549	936548	SW846 7471A Prep	0.568	g	30	mL	12/31/09	JXL1

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-853 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 242661018 **BASIS:** Dry Weight **DATE COLLECTED** 07-DEC-09

CLIENT ID: RE03-09-14285 **LEVEL:** Low **DATE RECEIVED** 10-DEC-09

MATRIX: SOIL **%SOLIDS:** 86

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	2280000	ug/Kg		7530	22200	22200	1	P	HSC	12/19/09 22:09	121909-1	932275
7440-36-0	Antimony	1110	ug/Kg	U	366	1110	1110	1	P	HSC	12/19/09 22:09	121909-1	932275
7440-38-2	Arsenic	0.999	mg/kg	J	0.227	1.14	1.14	2	MS	SKJ	01/01/10 00:29	091231-3	932315
7440-39-3	Barium	12100	ug/Kg	N	111	554	554	1	P	HSC	12/19/09 22:09	121909-1	932275
7440-41-7	Beryllium	0.540	mg/kg		0.0227	0.114	0.114	2	MS	SKJ	01/01/10 00:29	091231-3	932315
7440-42-8	Boron	5540	ug/Kg	U	1110	5540	5540	1	P	HSC	12/19/09 22:09	121909-1	932275
7440-43-9	Cadmium	554	ug/Kg	U	111	554	554	1	P	HSC	12/19/09 22:09	121909-1	932275
7440-70-2	Calcium	323000	ug/Kg		8860	27700	27700	1	P	HSC	12/19/09 22:09	121909-1	932275
7440-47-3	Chromium	3310	ug/Kg		166	554	554	1	P	HSC	12/19/09 22:09	121909-1	932275
7440-48-4	Cobalt	359	ug/Kg	J	166	554	554	1	P	HSC	12/19/09 22:09	121909-1	932275
7440-50-8	Copper	1420	ug/Kg		332	1110	1110	1	P	HSC	12/19/09 22:09	121909-1	932275
7439-89-6	Iron	11400000	ug/Kg		8860	27700	27700	1	P	HSC	12/19/09 22:09	121909-1	932275
7439-92-1	Lead	4160	ug/Kg		277	1110	1110	1	P	HSC	12/19/09 22:09	121909-1	932275
7439-93-2	Lithium	4.1	mg/kg	N	0.454	2.27	2.27	2	MS	SKJ	01/01/10 06:55	091231-5	932315
7439-95-4	Magnesium	191000	ug/Kg	N	9420	33200	33200	1	P	HSC	12/19/09 22:09	121909-1	932275
7439-96-5	Manganese	155000	ug/Kg	*	222	1110	1110	1	P	HSC	12/19/09 22:09	121909-1	932275
7439-97-6	Mercury	9.98	ug/kg	J	4.68	13.8	13.8	1	AV	JXL1	01/04/10 10:05	010410S1-7	936549
7440-02-0	Nickel	1.82	mg/kg		0.114	0.454	0.454	2	MS	SKJ	01/01/10 00:29	091231-3	932315
7440-09-7	Potassium	275000	ug/Kg	N	7090	27700	27700	1	P	HSC	12/19/09 22:09	121909-1	932275
7782-49-2	Selenium	1.14	mg/kg	U	0.568	1.14	1.14	2	MS	SKJ	01/01/10 00:29	091231-3	932315
7440-21-3	Silicon	912000	ug/Kg	N	1660	11100	11100	1	P	HSC	12/19/09 22:09	121909-1	932275
7440-22-4	Silver	391	ug/Kg	J	111	554	554	1	P	HSC	12/19/09 22:09	121909-1	932275
7440-23-5	Sodium	219000	ug/Kg	E	7760	27700	27700	1	P	HSC	12/19/09 22:09	121909-1	932275
7440-28-0	Thallium	0.227	mg/kg	U	0.0682	0.227	0.227	2	MS	SKJ	01/01/10 00:29	091231-3	932315
7440-32-6	Titanium	534000	ug/Kg		111	554	554	1	P	HSC	12/19/09 22:09	121909-1	932275
7440-61-1	Uranium	0.513	mg/kg		0.015	0.0454	0.0454	2	MS	SKJ	01/01/10 06:55	091231-5	932315
7440-62-2	Vanadium	5020	ug/Kg		111	554	554	1	P	HSC	12/19/09 22:09	121909-1	932275
7440-66-6	Zinc	41200	ug/Kg		366	1110	1110	1	P	HSC	12/19/09 22:09	121909-1	932275

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
932275	932274	SW846 3050B	0.525	g	50	mL	12/17/09	BCD1
932315	932314	SW846 3050B	0.512	g	50	mL	12/17/09	BCD1
934855	934854	SW846 7471A Prep	0.56	g	30	mL	12/22/09	TXB3

METALS
–1–
INORGANICS ANALYSIS DATA PACKAGE

936549	936548	SW846 7471A Prep	0.507	g	30	mL	12/31/09	JXL1

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-853 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 242661019 **BASIS:** Dry Weight **DATE COLLECTED** 07-DEC-09

CLIENT ID: RE03-09-14286 **LEVEL:** Low **DATE RECEIVED** 10-DEC-09

MATRIX: SOIL **%SOLIDS:** 87

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	1630000	ug/Kg		7760	22800	22800	1	P	HSC	12/19/09 22:17	121909-1	932275
7440-36-0	Antimony	1140	ug/Kg	U	376	1140	1140	1	P	HSC	12/19/09 22:17	121909-1	932275
7440-38-2	Arsenic	0.476	mg/kg	J	0.228	1.14	1.14	2	MS	SKJ	01/01/10 00:35	091231-3	932315
7440-39-3	Barium	9870	ug/Kg	N	114	570	570	1	P	HSC	12/19/09 22:17	121909-1	932275
7440-41-7	Beryllium	0.499	mg/kg		0.0228	0.114	0.114	2	MS	SKJ	01/01/10 00:35	091231-3	932315
7440-42-8	Boron	5700	ug/Kg	U	1140	5700	5700	1	P	HSC	12/19/09 22:17	121909-1	932275
7440-43-9	Cadmium	570	ug/Kg	U	114	570	570	1	P	HSC	12/19/09 22:17	121909-1	932275
7440-70-2	Calcium	177000	ug/Kg		9120	28500	28500	1	P	HSC	12/19/09 22:17	121909-1	932275
7440-47-3	Chromium	2260	ug/Kg		171	570	570	1	P	HSC	12/19/09 22:17	121909-1	932275
7440-48-4	Cobalt	255	ug/Kg	J	171	570	570	1	P	HSC	12/19/09 22:17	121909-1	932275
7440-50-8	Copper	1100	ug/Kg	J	342	1140	1140	1	P	HSC	12/19/09 22:17	121909-1	932275
7439-89-6	Iron	9550000	ug/Kg		9120	28500	28500	1	P	HSC	12/19/09 22:17	121909-1	932275
7439-92-1	Lead	3270	ug/Kg		285	1140	1140	1	P	HSC	12/19/09 22:17	121909-1	932275
7439-93-2	Lithium	5.02	mg/kg	N	0.455	2.28	2.28	2	MS	SKJ	01/01/10 06:57	091231-5	932315
7439-95-4	Magnesium	155000	ug/Kg	N	9690	34200	34200	1	P	HSC	12/19/09 22:17	121909-1	932275
7439-96-5	Manganese	161000	ug/Kg	*	228	1140	1140	1	P	HSC	12/19/09 22:17	121909-1	932275
7439-97-6	Mercury	13.6	ug/kg	U	4.63	13.6	13.6	1	AV	JXL1	01/04/10 10:07	010410S1-7	936549
7440-02-0	Nickel	1.09	mg/kg		0.114	0.455	0.455	2	MS	SKJ	01/01/10 00:35	091231-3	932315
7440-09-7	Potassium	191000	ug/Kg	N	7300	28500	28500	1	P	HSC	12/19/09 22:17	121909-1	932275
7782-49-2	Selenium	1.14	mg/kg	U	0.569	1.14	1.14	2	MS	SKJ	01/01/10 00:35	091231-3	932315
7440-21-3	Silicon	705000	ug/Kg	N	1710	11400	11400	1	P	HSC	12/19/09 22:17	121909-1	932275
7440-22-4	Silver	440	ug/Kg	J	114	570	570	1	P	HSC	12/19/09 22:17	121909-1	932275
7440-23-5	Sodium	153000	ug/Kg	E	7980	28500	28500	1	P	HSC	12/19/09 22:17	121909-1	932275
7440-28-0	Thallium	0.228	mg/kg	U	0.0683	0.228	0.228	2	MS	SKJ	01/01/10 00:35	091231-3	932315
7440-32-6	Titanium	437000	ug/Kg		114	570	570	1	P	HSC	12/19/09 22:17	121909-1	932275
7440-61-1	Uranium	0.505	mg/kg		0.015	0.0455	0.0455	2	MS	SKJ	01/01/10 06:57	091231-5	932315
7440-62-2	Vanadium	2690	ug/Kg		114	570	570	1	P	HSC	12/19/09 22:17	121909-1	932275
7440-66-6	Zinc	32500	ug/Kg		376	1140	1140	1	P	HSC	12/19/09 22:17	121909-1	932275

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
932275	932274	SW846 3050B	0.504	g	50	mL	12/17/09	BCD1
932315	932314	SW846 3050B	0.505	g	50	mL	12/17/09	BCD1
934855	934854	SW846 7471A Prep	0.522	g	30	mL	12/22/09	TXB3

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

936549	936548	SW846 7471A Prep	0.507	g	30	mL	12/31/09	JXL1

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-853 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 242661020 **BASIS:** Dry Weight **DATE COLLECTED** 07-DEC-09

CLIENT ID: RE03-09-14283 **LEVEL:** Low **DATE RECEIVED** 10-DEC-09

MATRIX: SOIL **%SOLIDS:** 82

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	3020000	ug/Kg		8260	24300	24300	1	P	HSC	12/19/09 22:24	121909-1	932275
7440-36-0	Antimony	1210	ug/Kg	U	401	1210	1210	1	P	HSC	12/19/09 22:24	121909-1	932275
7440-38-2	Arsenic	0.347	mg/kg	J	0.233	1.16	1.16	2	MS	SKJ	01/01/10 00:42	091231-3	932315
7440-39-3	Barium	23600	ug/Kg	N	121	607	607	1	P	HSC	12/19/09 22:24	121909-1	932275
7440-41-7	Beryllium	0.459	mg/kg		0.0233	0.116	0.116	2	MS	SKJ	01/01/10 00:42	091231-3	932315
7440-42-8	Boron	6070	ug/Kg	U	1210	6070	6070	1	P	HSC	12/19/09 22:24	121909-1	932275
7440-43-9	Cadmium	607	ug/Kg	U	121	607	607	1	P	HSC	12/19/09 22:24	121909-1	932275
7440-70-2	Calcium	555000	ug/Kg		9720	30400	30400	1	P	HSC	12/19/09 22:24	121909-1	932275
7440-47-3	Chromium	3930	ug/Kg		182	607	607	1	P	HSC	12/19/09 22:24	121909-1	932275
7440-48-4	Cobalt	1070	ug/Kg		182	607	607	1	P	HSC	12/19/09 22:24	121909-1	932275
7440-50-8	Copper	2100	ug/Kg		364	1210	1210	1	P	HSC	12/19/09 22:24	121909-1	932275
7439-89-6	Iron	11800000	ug/Kg		9720	30400	30400	1	P	HSC	12/19/09 22:24	121909-1	932275
7439-92-1	Lead	5500	ug/Kg		304	1210	1210	1	P	HSC	12/19/09 22:24	121909-1	932275
7439-93-2	Lithium	6.03	mg/kg	N	0.465	2.33	2.33	2	MS	SKJ	01/01/10 07:00	091231-5	932315
7439-95-4	Magnesium	513000	ug/Kg	N	10300	36400	36400	1	P	HSC	12/19/09 22:24	121909-1	932275
7439-96-5	Manganese	144000	ug/Kg	*	243	1210	1210	1	P	HSC	12/19/09 22:24	121909-1	932275
7439-97-6	Mercury	9.81	ug/kg	J	4.3	12.7	12.7	1	AV	JXL1	01/04/10 10:09	010410S1-7	936549
7440-02-0	Nickel	2.8	mg/kg		0.116	0.465	0.465	2	MS	SKJ	01/01/10 00:42	091231-3	932315
7440-09-7	Potassium	534000	ug/Kg	N	7780	30400	30400	1	P	HSC	12/19/09 22:24	121909-1	932275
7782-49-2	Selenium	1.16	mg/kg	U	0.582	1.16	1.16	2	MS	SKJ	01/01/10 00:42	091231-3	932315
7440-21-3	Silicon	1270000	ug/Kg	N	1820	12100	12100	1	P	HSC	12/19/09 22:24	121909-1	932275
7440-22-4	Silver	515	ug/Kg	J	121	607	607	1	P	HSC	12/19/09 22:24	121909-1	932275
7440-23-5	Sodium	242000	ug/Kg	E	8500	30400	30400	1	P	HSC	12/19/09 22:24	121909-1	932275
7440-28-0	Thallium	0.0752	mg/kg	J	0.0698	0.233	0.233	2	MS	SKJ	01/01/10 00:42	091231-3	932315
7440-32-6	Titanium	461000	ug/Kg		121	607	607	1	P	HSC	12/19/09 22:24	121909-1	932275
7440-61-1	Uranium	0.523	mg/kg		0.0154	0.0465	0.0465	2	MS	SKJ	01/01/10 07:00	091231-5	932315
7440-62-2	Vanadium	4910	ug/Kg		121	607	607	1	P	HSC	12/19/09 22:24	121909-1	932275
7440-66-6	Zinc	35700	ug/Kg		401	1210	1210	1	P	HSC	12/19/09 22:24	121909-1	932275

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
932275	932274	SW846 3050B	0.501	g	50	mL	12/17/09	BCD1
932315	932314	SW846 3050B	0.523	g	50	mL	12/17/09	BCD1
934855	934854	SW846 7471A Prep	0.59	g	30	mL	12/22/09	TXB3

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

936549	936548	SW846 7471A Prep	0.577	g	30	mL	12/31/09	JXL1

Quality Control Summary

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-853

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
ICV01										
	Aluminum	5050	ug/L	5000	ug/L	100.9	90.0 – 110.0	P	19-DEC-09 07:51	121909-1
	Antimony	504	ug/L	500	ug/L	100.7	90.0 – 110.0	P	19-DEC-09 07:51	121909-1
	Barium	515	ug/L	500	ug/L	103.1	90.0 – 110.0	P	19-DEC-09 07:51	121909-1
	Boron	516	ug/L	500	ug/L	103.1	90.0 – 110.0	P	19-DEC-09 07:51	121909-1
	Cadmium	503	ug/L	500	ug/L	100.6	90.0 – 110.0	P	19-DEC-09 07:51	121909-1
	Calcium	5020	ug/L	5000	ug/L	100.4	90.0 – 110.0	P	19-DEC-09 07:51	121909-1
	Chromium	492	ug/L	500	ug/L	98.4	90.0 – 110.0	P	19-DEC-09 07:51	121909-1
	Cobalt	502	ug/L	500	ug/L	100.3	90.0 – 110.0	P	19-DEC-09 07:51	121909-1
	Copper	511	ug/L	500	ug/L	102.3	90.0 – 110.0	P	19-DEC-09 07:51	121909-1
	Iron	5180	ug/L	5000	ug/L	103.6	90.0 – 110.0	P	19-DEC-09 07:51	121909-1
	Lead	504	ug/L	500	ug/L	100.8	90.0 – 110.0	P	19-DEC-09 07:51	121909-1
	Magnesium	5490	ug/L	5000	ug/L	109.8	90.0 – 110.0	P	19-DEC-09 07:51	121909-1
	Manganese	517	ug/L	500	ug/L	103.4	90.0 – 110.0	P	19-DEC-09 07:51	121909-1
	Potassium	2550	ug/L	2500	ug/L	102	90.0 – 110.0	P	19-DEC-09 07:51	121909-1
	Silicon	4830	ug/L	5000	ug/L	96.7	90.0 – 110.0	P	19-DEC-09 07:51	121909-1
	Silver	262	ug/L	250	ug/L	104.7	90.0 – 110.0	P	19-DEC-09 07:51	121909-1
	Sodium	2510	ug/L	2500	ug/L	100.5	90.0 – 110.0	P	19-DEC-09 07:51	121909-1
	Titanium	498	ug/L	500	ug/L	99.7	90.0 – 110.0	P	19-DEC-09 07:51	121909-1
	Vanadium	517	ug/L	500	ug/L	103.5	90.0 – 110.0	P	19-DEC-09 07:51	121909-1
	Zinc	511	ug/L	500	ug/L	102.2	90.0 – 110.0	P	19-DEC-09 07:51	121909-1
	Potassium	2490	ug/L	2500	ug/L	99.8	90.0 – 110.0	P	20-DEC-09 08:59	122009A-2
	Sodium	2440	ug/L	2500	ug/L	97.7	90.0 – 110.0	P	20-DEC-09 08:59	122009A-2
	Arsenic	48.6	ug/L	50	ug/L	97.3	90.0 – 110.0	MS	31-DEC-09 16:49	091231-3
	Beryllium	50.9	ug/L	50	ug/L	101.8	90.0 – 110.0	MS	31-DEC-09 16:49	091231-3
	Nickel	51.6	ug/L	50	ug/L	103.1	90.0 – 110.0	MS	31-DEC-09 16:49	091231-3
	Selenium	50	ug/L	50	ug/L	100	90.0 – 110.0	MS	31-DEC-09 16:49	091231-3
	Thallium	49.1	ug/L	50	ug/L	98.1	90.0 – 110.0	MS	31-DEC-09 16:49	091231-3
	Lithium	52.3	ug/L	50	ug/L	104.6	90.0 – 110.0	MS	01-JAN-10 05:23	091231-5
	Uranium	53.3	ug/L	50	ug/L	106.7	90.0 – 110.0	MS	01-JAN-10 05:23	091231-5
	Mercury	5.14	ug/L	5	ug/L	102.8	90.0 – 110.0	AV	04-JAN-10 09:12	010410S1-7

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-853

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Lithium	50.2	ug/L	50	ug/L	100.4	90.0 – 110.0	MS	06-JAN-10 12:00	100106-6
CCV01										
	Aluminum	4920	ug/L	5000	ug/L	98.4	90.0 – 110.0	P	19-DEC-09 08:36	121909-1
	Antimony	508	ug/L	500	ug/L	101.6	90.0 – 110.0	P	19-DEC-09 08:36	121909-1
	Barium	499	ug/L	500	ug/L	99.9	90.0 – 110.0	P	19-DEC-09 08:36	121909-1
	Boron	516	ug/L	500	ug/L	103.2	90.0 – 110.0	P	19-DEC-09 08:36	121909-1
	Cadmium	499	ug/L	500	ug/L	99.7	90.0 – 110.0	P	19-DEC-09 08:36	121909-1
	Calcium	4990	ug/L	5000	ug/L	99.8	90.0 – 110.0	P	19-DEC-09 08:36	121909-1
	Chromium	499	ug/L	500	ug/L	99.7	90.0 – 110.0	P	19-DEC-09 08:36	121909-1
	Cobalt	499	ug/L	500	ug/L	99.8	90.0 – 110.0	P	19-DEC-09 08:36	121909-1
	Copper	493	ug/L	500	ug/L	98.7	90.0 – 110.0	P	19-DEC-09 08:36	121909-1
	Iron	5120	ug/L	5000	ug/L	102.4	90.0 – 110.0	P	19-DEC-09 08:36	121909-1
	Lead	498	ug/L	500	ug/L	99.7	90.0 – 110.0	P	19-DEC-09 08:36	121909-1
	Magnesium	5200	ug/L	5000	ug/L	104.1	90.0 – 110.0	P	19-DEC-09 08:36	121909-1
	Manganese	495	ug/L	500	ug/L	99	90.0 – 110.0	P	19-DEC-09 08:36	121909-1
	Potassium	5130	ug/L	5000	ug/L	102.5	90.0 – 110.0	P	19-DEC-09 08:36	121909-1
	Silicon	2450	ug/L	2500	ug/L	98	90.0 – 110.0	P	19-DEC-09 08:36	121909-1
	Silver	495	ug/L	500	ug/L	99.1	90.0 – 110.0	P	19-DEC-09 08:36	121909-1
	Sodium	10100	ug/L	10000	ug/L	100.8	90.0 – 110.0	P	19-DEC-09 08:36	121909-1
	Titanium	489	ug/L	500	ug/L	97.8	90.0 – 110.0	P	19-DEC-09 08:36	121909-1
	Vanadium	502	ug/L	500	ug/L	100.4	90.0 – 110.0	P	19-DEC-09 08:36	121909-1
	Zinc	494	ug/L	500	ug/L	98.8	90.0 – 110.0	P	19-DEC-09 08:36	121909-1
	Potassium	5020	ug/L	5000	ug/L	100.5	90.0 – 110.0	P	20-DEC-09 09:44	122009A-2
	Sodium	9800	ug/L	10000	ug/L	98	90.0 – 110.0	P	20-DEC-09 09:44	122009A-2
	Arsenic	48.5	ug/L	50	ug/L	97	90.0 – 110.0	MS	31-DEC-09 17:20	091231-3
	Beryllium	47	ug/L	50	ug/L	93.9	90.0 – 110.0	MS	31-DEC-09 17:20	091231-3
	Nickel	50.9	ug/L	50	ug/L	101.8	90.0 – 110.0	MS	31-DEC-09 17:20	091231-3
	Selenium	48.1	ug/L	50	ug/L	96.1	90.0 – 110.0	MS	31-DEC-09 17:20	091231-3
	Thallium	48.5	ug/L	50	ug/L	97	90.0 – 110.0	MS	31-DEC-09 17:20	091231-3
	Lithium	48.4	ug/L	50	ug/L	96.8	90.0 – 110.0	MS	01-JAN-10 05:35	091231-5

METALS
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Initial and Continuing Calibration Verification

SDG No: 10–853

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Uranium	52.5	ug/L	50	ug/L	105	90.0 – 110.0	MS	01–JAN–10 05:35	091231–5
	Mercury	5.13	ug/L	5	ug/L	102.7	80.0 – 120.0	AV	04–JAN–10 09:17	010410S1–7
	Lithium	54.4	ug/L	50	ug/L	108.8	90.0 – 110.0	MS	06–JAN–10 12:31	100106–6
CCV02										
	Aluminum	4930	ug/L	5000	ug/L	98.7	90.0 – 110.0	P	19–DEC–09 09:05	121909–1
	Antimony	490	ug/L	500	ug/L	98.1	90.0 – 110.0	P	19–DEC–09 09:05	121909–1
	Barium	494	ug/L	500	ug/L	98.7	90.0 – 110.0	P	19–DEC–09 09:05	121909–1
	Boron	490	ug/L	500	ug/L	98	90.0 – 110.0	P	19–DEC–09 09:05	121909–1
	Cadmium	494	ug/L	500	ug/L	98.8	90.0 – 110.0	P	19–DEC–09 09:05	121909–1
	Calcium	5030	ug/L	5000	ug/L	100.6	90.0 – 110.0	P	19–DEC–09 09:05	121909–1
	Chromium	492	ug/L	500	ug/L	98.3	90.0 – 110.0	P	19–DEC–09 09:05	121909–1
	Cobalt	485	ug/L	500	ug/L	97	90.0 – 110.0	P	19–DEC–09 09:05	121909–1
	Copper	491	ug/L	500	ug/L	98.2	90.0 – 110.0	P	19–DEC–09 09:05	121909–1
	Iron	5170	ug/L	5000	ug/L	103.4	90.0 – 110.0	P	19–DEC–09 09:05	121909–1
	Lead	495	ug/L	500	ug/L	99.1	90.0 – 110.0	P	19–DEC–09 09:05	121909–1
	Magnesium	5260	ug/L	5000	ug/L	105.2	90.0 – 110.0	P	19–DEC–09 09:05	121909–1
	Manganese	492	ug/L	500	ug/L	98.4	90.0 – 110.0	P	19–DEC–09 09:05	121909–1
	Potassium	5040	ug/L	5000	ug/L	100.9	90.0 – 110.0	P	19–DEC–09 09:05	121909–1
	Silicon	2420	ug/L	2500	ug/L	96.6	90.0 – 110.0	P	19–DEC–09 09:05	121909–1
	Silver	488	ug/L	500	ug/L	97.6	90.0 – 110.0	P	19–DEC–09 09:05	121909–1
	Sodium	9990	ug/L	10000	ug/L	99.9	90.0 – 110.0	P	19–DEC–09 09:05	121909–1
	Titanium	486	ug/L	500	ug/L	97.3	90.0 – 110.0	P	19–DEC–09 09:05	121909–1
	Vanadium	494	ug/L	500	ug/L	98.9	90.0 – 110.0	P	19–DEC–09 09:05	121909–1
	Zinc	487	ug/L	500	ug/L	97.5	90.0 – 110.0	P	19–DEC–09 09:05	121909–1
	Potassium	5000	ug/L	5000	ug/L	100	90.0 – 110.0	P	20–DEC–09 10:04	122009A–2
	Sodium	9800	ug/L	10000	ug/L	98	90.0 – 110.0	P	20–DEC–09 10:04	122009A–2
	Arsenic	49.7	ug/L	50	ug/L	99.4	90.0 – 110.0	MS	31–DEC–09 17:39	091231–3
	Beryllium	47.1	ug/L	50	ug/L	94.2	90.0 – 110.0	MS	31–DEC–09 17:39	091231–3
	Nickel	50.9	ug/L	50	ug/L	101.9	90.0 – 110.0	MS	31–DEC–09 17:39	091231–3
	Selenium	51.1	ug/L	50	ug/L	102.2	90.0 – 110.0	MS	31–DEC–09 17:39	091231–3

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–853

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Thallium	49.6	ug/L	50	ug/L	99.1	90.0 – 110.0	MS	31–DEC–09 17:39	091231–3
	Lithium	49.8	ug/L	50	ug/L	99.6	90.0 – 110.0	MS	01–JAN–10 05:57	091231–5
	Uranium	53.5	ug/L	50	ug/L	107	90.0 – 110.0	MS	01–JAN–10 05:57	091231–5
	Mercury	5.12	ug/L	5	ug/L	102.4	80.0 – 120.0	AV	04–JAN–10 09:37	010410S1–7
	Lithium	51.3	ug/L	50	ug/L	102.5	90.0 – 110.0	MS	06–JAN–10 12:50	100106–6
CCV03										
	Aluminum	4910	ug/L	5000	ug/L	98.2	90.0 – 110.0	P	19–DEC–09 10:14	121909–1
	Antimony	486	ug/L	500	ug/L	97.3	90.0 – 110.0	P	19–DEC–09 10:14	121909–1
	Barium	484	ug/L	500	ug/L	96.8	90.0 – 110.0	P	19–DEC–09 10:14	121909–1
	Boron	478	ug/L	500	ug/L	95.7	90.0 – 110.0	P	19–DEC–09 10:14	121909–1
	Cadmium	485	ug/L	500	ug/L	97.1	90.0 – 110.0	P	19–DEC–09 10:14	121909–1
	Calcium	4950	ug/L	5000	ug/L	99	90.0 – 110.0	P	19–DEC–09 10:14	121909–1
	Chromium	483	ug/L	500	ug/L	96.6	90.0 – 110.0	P	19–DEC–09 10:14	121909–1
	Cobalt	485	ug/L	500	ug/L	96.9	90.0 – 110.0	P	19–DEC–09 10:14	121909–1
	Copper	478	ug/L	500	ug/L	95.7	90.0 – 110.0	P	19–DEC–09 10:14	121909–1
	Iron	5000	ug/L	5000	ug/L	100	90.0 – 110.0	P	19–DEC–09 10:14	121909–1
	Lead	482	ug/L	500	ug/L	96.5	90.0 – 110.0	P	19–DEC–09 10:14	121909–1
	Magnesium	5160	ug/L	5000	ug/L	103.2	90.0 – 110.0	P	19–DEC–09 10:14	121909–1
	Manganese	478	ug/L	500	ug/L	95.7	90.0 – 110.0	P	19–DEC–09 10:14	121909–1
	Potassium	4990	ug/L	5000	ug/L	99.8	90.0 – 110.0	P	19–DEC–09 10:14	121909–1
	Silicon	2380	ug/L	2500	ug/L	95.2	90.0 – 110.0	P	19–DEC–09 10:14	121909–1
	Silver	481	ug/L	500	ug/L	96.2	90.0 – 110.0	P	19–DEC–09 10:14	121909–1
	Sodium	9570	ug/L	10000	ug/L	95.7	90.0 – 110.0	P	19–DEC–09 10:14	121909–1
	Titanium	473	ug/L	500	ug/L	94.5	90.0 – 110.0	P	19–DEC–09 10:14	121909–1
	Vanadium	487	ug/L	500	ug/L	97.4	90.0 – 110.0	P	19–DEC–09 10:14	121909–1
	Zinc	480	ug/L	500	ug/L	96	90.0 – 110.0	P	19–DEC–09 10:14	121909–1
	Potassium	4960	ug/L	5000	ug/L	99.1	90.0 – 110.0	P	20–DEC–09 11:15	122009A–2
	Sodium	9970	ug/L	10000	ug/L	99.7	90.0 – 110.0	P	20–DEC–09 11:15	122009A–2
	Arsenic	48.8	ug/L	50	ug/L	97.6	90.0 – 110.0	MS	31–DEC–09 18:22	091231–3
	Beryllium	49.5	ug/L	50	ug/L	99	90.0 – 110.0	MS	31–DEC–09 18:22	091231–3

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–853

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Nickel	51.2	ug/L	50	ug/L	102.4	90.0 – 110.0	MS	31–DEC–09 18:22	091231–3
	Selenium	50.1	ug/L	50	ug/L	100.1	90.0 – 110.0	MS	31–DEC–09 18:22	091231–3
	Thallium	48.2	ug/L	50	ug/L	96.4	90.0 – 110.0	MS	31–DEC–09 18:22	091231–3
	Lithium	47.2	ug/L	50	ug/L	94.4	90.0 – 110.0	MS	01–JAN–10 06:20	091231–5
	Uranium	53	ug/L	50	ug/L	105.9	90.0 – 110.0	MS	01–JAN–10 06:20	091231–5
	Mercury	5.09	ug/L	5	ug/L	101.8	80.0 – 120.0	AV	04–JAN–10 09:57	010410S1–7
	Lithium	50	ug/L	50	ug/L	99.9	90.0 – 110.0	MS	06–JAN–10 13:21	100106–6
CCV04										
	Aluminum	4920	ug/L	5000	ug/L	98.3	90.0 – 110.0	P	19–DEC–09 11:18	121909–1
	Antimony	495	ug/L	500	ug/L	99.1	90.0 – 110.0	P	19–DEC–09 11:18	121909–1
	Barium	491	ug/L	500	ug/L	98.3	90.0 – 110.0	P	19–DEC–09 11:18	121909–1
	Boron	479	ug/L	500	ug/L	95.8	90.0 – 110.0	P	19–DEC–09 11:18	121909–1
	Cadmium	491	ug/L	500	ug/L	98.2	90.0 – 110.0	P	19–DEC–09 11:18	121909–1
	Calcium	4960	ug/L	5000	ug/L	99.3	90.0 – 110.0	P	19–DEC–09 11:18	121909–1
	Chromium	490	ug/L	500	ug/L	98.1	90.0 – 110.0	P	19–DEC–09 11:18	121909–1
	Cobalt	492	ug/L	500	ug/L	98.4	90.0 – 110.0	P	19–DEC–09 11:18	121909–1
	Copper	487	ug/L	500	ug/L	97.5	90.0 – 110.0	P	19–DEC–09 11:18	121909–1
	Iron	5050	ug/L	5000	ug/L	101	90.0 – 110.0	P	19–DEC–09 11:18	121909–1
	Lead	489	ug/L	500	ug/L	97.8	90.0 – 110.0	P	19–DEC–09 11:18	121909–1
	Magnesium	5170	ug/L	5000	ug/L	103.4	90.0 – 110.0	P	19–DEC–09 11:18	121909–1
	Manganese	489	ug/L	500	ug/L	97.8	90.0 – 110.0	P	19–DEC–09 11:18	121909–1
	Potassium	4970	ug/L	5000	ug/L	99.5	90.0 – 110.0	P	19–DEC–09 11:18	121909–1
	Silicon	2420	ug/L	2500	ug/L	96.8	90.0 – 110.0	P	19–DEC–09 11:18	121909–1
	Silver	489	ug/L	500	ug/L	97.8	90.0 – 110.0	P	19–DEC–09 11:18	121909–1
	Sodium	9910	ug/L	10000	ug/L	99.1	90.0 – 110.0	P	19–DEC–09 11:18	121909–1
	Titanium	484	ug/L	500	ug/L	96.7	90.0 – 110.0	P	19–DEC–09 11:18	121909–1
	Vanadium	495	ug/L	500	ug/L	99	90.0 – 110.0	P	19–DEC–09 11:18	121909–1
	Zinc	487	ug/L	500	ug/L	97.4	90.0 – 110.0	P	19–DEC–09 11:18	121909–1
	Arsenic	47.6	ug/L	50	ug/L	95.2	90.0 – 110.0	MS	31–DEC–09 19:18	091231–3
	Beryllium	53.3	ug/L	50	ug/L	106.6	90.0 – 110.0	MS	31–DEC–09 19:18	091231–3

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–853

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Nickel	51.1	ug/L	50	ug/L	102.1	90.0 – 110.0	MS	31–DEC–09 19:18	091231–3
	Selenium	49.8	ug/L	50	ug/L	99.7	90.0 – 110.0	MS	31–DEC–09 19:18	091231–3
	Thallium	48.6	ug/L	50	ug/L	97.1	90.0 – 110.0	MS	31–DEC–09 19:18	091231–3
	Lithium	51.1	ug/L	50	ug/L	102.1	90.0 – 110.0	MS	01–JAN–10 06:42	091231–5
	Uranium	53.3	ug/L	50	ug/L	106.5	90.0 – 110.0	MS	01–JAN–10 06:42	091231–5
	Mercury	5.23	ug/L	5	ug/L	104.6	80.0 – 120.0	AV	04–JAN–10 10:14	010410S1–7
	Lithium	50.7	ug/L	50	ug/L	101.4	90.0 – 110.0	MS	06–JAN–10 13:40	100106–6
CCV05										
	Aluminum	5120	ug/L	5000	ug/L	102.5	90.0 – 110.0	P	19–DEC–09 12:04	121909–1
	Antimony	499	ug/L	500	ug/L	99.8	90.0 – 110.0	P	19–DEC–09 12:04	121909–1
	Barium	495	ug/L	500	ug/L	98.9	90.0 – 110.0	P	19–DEC–09 12:04	121909–1
	Boron	477	ug/L	500	ug/L	95.5	90.0 – 110.0	P	19–DEC–09 12:04	121909–1
	Cadmium	494	ug/L	500	ug/L	98.8	90.0 – 110.0	P	19–DEC–09 12:04	121909–1
	Calcium	5130	ug/L	5000	ug/L	102.7	90.0 – 110.0	P	19–DEC–09 12:04	121909–1
	Chromium	493	ug/L	500	ug/L	98.5	90.0 – 110.0	P	19–DEC–09 12:04	121909–1
	Cobalt	486	ug/L	500	ug/L	97.3	90.0 – 110.0	P	19–DEC–09 12:04	121909–1
	Copper	491	ug/L	500	ug/L	98.2	90.0 – 110.0	P	19–DEC–09 12:04	121909–1
	Iron	5180	ug/L	5000	ug/L	103.6	90.0 – 110.0	P	19–DEC–09 12:04	121909–1
	Lead	497	ug/L	500	ug/L	99.5	90.0 – 110.0	P	19–DEC–09 12:04	121909–1
	Magnesium	5320	ug/L	5000	ug/L	106.3	90.0 – 110.0	P	19–DEC–09 12:04	121909–1
	Manganese	493	ug/L	500	ug/L	98.6	90.0 – 110.0	P	19–DEC–09 12:04	121909–1
	Potassium	5200	ug/L	5000	ug/L	104	90.0 – 110.0	P	19–DEC–09 12:04	121909–1
	Silicon	2430	ug/L	2500	ug/L	97.1	90.0 – 110.0	P	19–DEC–09 12:04	121909–1
	Silver	489	ug/L	500	ug/L	97.9	90.0 – 110.0	P	19–DEC–09 12:04	121909–1
	Sodium	9870	ug/L	10000	ug/L	98.7	90.0 – 110.0	P	19–DEC–09 12:04	121909–1
	Titanium	488	ug/L	500	ug/L	97.5	90.0 – 110.0	P	19–DEC–09 12:04	121909–1
	Vanadium	496	ug/L	500	ug/L	99.2	90.0 – 110.0	P	19–DEC–09 12:04	121909–1
	Zinc	490	ug/L	500	ug/L	97.9	90.0 – 110.0	P	19–DEC–09 12:04	121909–1
	Arsenic	48.4	ug/L	50	ug/L	96.8	90.0 – 110.0	MS	31–DEC–09 20:14	091231–3
	Beryllium	52.8	ug/L	50	ug/L	105.7	90.0 – 110.0	MS	31–DEC–09 20:14	091231–3

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–853

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Nickel	51.4	ug/L	50	ug/L	102.8	90.0 – 110.0	MS	31–DEC–09 20:14	091231–3
	Selenium	49.8	ug/L	50	ug/L	99.5	90.0 – 110.0	MS	31–DEC–09 20:14	091231–3
	Thallium	48.3	ug/L	50	ug/L	96.5	90.0 – 110.0	MS	31–DEC–09 20:14	091231–3
	Lithium	53.9	ug/L	50	ug/L	107.9	90.0 – 110.0	MS	01–JAN–10 07:02	091231–5
	Uranium	52.6	ug/L	50	ug/L	105.1	90.0 – 110.0	MS	01–JAN–10 07:02	091231–5
CCV06										
	Aluminum	4960	ug/L	5000	ug/L	99.3	90.0 – 110.0	P	19–DEC–09 13:07	121909–1
	Antimony	495	ug/L	500	ug/L	99	90.0 – 110.0	P	19–DEC–09 13:07	121909–1
	Barium	492	ug/L	500	ug/L	98.5	90.0 – 110.0	P	19–DEC–09 13:07	121909–1
	Boron	477	ug/L	500	ug/L	95.4	90.0 – 110.0	P	19–DEC–09 13:07	121909–1
	Cadmium	492	ug/L	500	ug/L	98.3	90.0 – 110.0	P	19–DEC–09 13:07	121909–1
	Calcium	4990	ug/L	5000	ug/L	99.9	90.0 – 110.0	P	19–DEC–09 13:07	121909–1
	Chromium	491	ug/L	500	ug/L	98.3	90.0 – 110.0	P	19–DEC–09 13:07	121909–1
	Cobalt	492	ug/L	500	ug/L	98.4	90.0 – 110.0	P	19–DEC–09 13:07	121909–1
	Copper	488	ug/L	500	ug/L	97.5	90.0 – 110.0	P	19–DEC–09 13:07	121909–1
	Iron	4970	ug/L	5000	ug/L	99.4	90.0 – 110.0	P	19–DEC–09 13:07	121909–1
	Lead	488	ug/L	500	ug/L	97.6	90.0 – 110.0	P	19–DEC–09 13:07	121909–1
	Magnesium	5180	ug/L	5000	ug/L	103.6	90.0 – 110.0	P	19–DEC–09 13:07	121909–1
	Manganese	491	ug/L	500	ug/L	98.2	90.0 – 110.0	P	19–DEC–09 13:07	121909–1
	Potassium	5010	ug/L	5000	ug/L	100.2	90.0 – 110.0	P	19–DEC–09 13:07	121909–1
	Silicon	2420	ug/L	2500	ug/L	96.7	90.0 – 110.0	P	19–DEC–09 13:07	121909–1
	Silver	490	ug/L	500	ug/L	98	90.0 – 110.0	P	19–DEC–09 13:07	121909–1
	Sodium	9370	ug/L	10000	ug/L	93.7	90.0 – 110.0	P	19–DEC–09 13:07	121909–1
	Titanium	486	ug/L	500	ug/L	97.3	90.0 – 110.0	P	19–DEC–09 13:07	121909–1
	Vanadium	496	ug/L	500	ug/L	99.2	90.0 – 110.0	P	19–DEC–09 13:07	121909–1
	Zinc	487	ug/L	500	ug/L	97.4	90.0 – 110.0	P	19–DEC–09 13:07	121909–1
	Arsenic	47.1	ug/L	50	ug/L	94.3	90.0 – 110.0	MS	31–DEC–09 21:10	091231–3
	Beryllium	54.1	ug/L	50	ug/L	108.2	90.0 – 110.0	MS	31–DEC–09 21:10	091231–3
	Nickel	50.6	ug/L	50	ug/L	101.2	90.0 – 110.0	MS	31–DEC–09 21:10	091231–3
	Selenium	49.5	ug/L	50	ug/L	99	90.0 – 110.0	MS	31–DEC–09 21:10	091231–3

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–853

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Thallium	48.9	ug/L	50	ug/L	97.9	90.0 – 110.0	MS	31–DEC–09 21:10	091231–3
CCV07										
	Aluminum	4840	ug/L	5000	ug/L	96.7	90.0 – 110.0	P	19–DEC–09 13:29	121909–1
	Antimony	503	ug/L	500	ug/L	100.5	90.0 – 110.0	P	19–DEC–09 13:29	121909–1
	Barium	500	ug/L	500	ug/L	100.1	90.0 – 110.0	P	19–DEC–09 13:29	121909–1
	Boron	484	ug/L	500	ug/L	96.7	90.0 – 110.0	P	19–DEC–09 13:29	121909–1
	Cadmium	500	ug/L	500	ug/L	100	90.0 – 110.0	P	19–DEC–09 13:29	121909–1
	Calcium	4830	ug/L	5000	ug/L	96.6	90.0 – 110.0	P	19–DEC–09 13:29	121909–1
	Chromium	500	ug/L	500	ug/L	99.9	90.0 – 110.0	P	19–DEC–09 13:29	121909–1
	Cobalt	500	ug/L	500	ug/L	100.1	90.0 – 110.0	P	19–DEC–09 13:29	121909–1
	Copper	495	ug/L	500	ug/L	99.1	90.0 – 110.0	P	19–DEC–09 13:29	121909–1
	Iron	4910	ug/L	5000	ug/L	98.2	90.0 – 110.0	P	19–DEC–09 13:29	121909–1
	Lead	498	ug/L	500	ug/L	99.5	90.0 – 110.0	P	19–DEC–09 13:29	121909–1
	Magnesium	5070	ug/L	5000	ug/L	101.4	90.0 – 110.0	P	19–DEC–09 13:29	121909–1
	Manganese	495	ug/L	500	ug/L	99.1	90.0 – 110.0	P	19–DEC–09 13:29	121909–1
	Potassium	4900	ug/L	5000	ug/L	98	90.0 – 110.0	P	19–DEC–09 13:29	121909–1
	Silicon	2450	ug/L	2500	ug/L	98.2	90.0 – 110.0	P	19–DEC–09 13:29	121909–1
	Silver	498	ug/L	500	ug/L	99.5	90.0 – 110.0	P	19–DEC–09 13:29	121909–1
	Sodium	9620	ug/L	10000	ug/L	96.2	90.0 – 110.0	P	19–DEC–09 13:29	121909–1
	Titanium	490	ug/L	500	ug/L	98.1	90.0 – 110.0	P	19–DEC–09 13:29	121909–1
	Vanadium	503	ug/L	500	ug/L	100.7	90.0 – 110.0	P	19–DEC–09 13:29	121909–1
	Zinc	494	ug/L	500	ug/L	98.9	90.0 – 110.0	P	19–DEC–09 13:29	121909–1
	Arsenic	48	ug/L	50	ug/L	96.1	90.0 – 110.0	MS	31–DEC–09 22:06	091231–3
	Beryllium	51.9	ug/L	50	ug/L	103.9	90.0 – 110.0	MS	31–DEC–09 22:06	091231–3
	Nickel	51.4	ug/L	50	ug/L	102.7	90.0 – 110.0	MS	31–DEC–09 22:06	091231–3
	Selenium	49.6	ug/L	50	ug/L	99.1	90.0 – 110.0	MS	31–DEC–09 22:06	091231–3
	Thallium	48.9	ug/L	50	ug/L	97.8	90.0 – 110.0	MS	31–DEC–09 22:06	091231–3
CCV08										
	Aluminum	4890	ug/L	5000	ug/L	97.8	90.0 – 110.0	P	19–DEC–09 14:38	121909–1
	Antimony	507	ug/L	500	ug/L	101.3	90.0 – 110.0	P	19–DEC–09 14:38	121909–1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-853

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Barium	506	ug/L	500	ug/L	101.3	90.0 – 110.0	P	19-DEC-09 14:38	121909-1
	Boron	491	ug/L	500	ug/L	98.2	90.0 – 110.0	P	19-DEC-09 14:38	121909-1
	Cadmium	505	ug/L	500	ug/L	100.9	90.0 – 110.0	P	19-DEC-09 14:38	121909-1
	Calcium	4970	ug/L	5000	ug/L	99.3	90.0 – 110.0	P	19-DEC-09 14:38	121909-1
	Chromium	504	ug/L	500	ug/L	100.9	90.0 – 110.0	P	19-DEC-09 14:38	121909-1
	Cobalt	506	ug/L	500	ug/L	101.2	90.0 – 110.0	P	19-DEC-09 14:38	121909-1
	Copper	504	ug/L	500	ug/L	100.8	90.0 – 110.0	P	19-DEC-09 14:38	121909-1
	Iron	5050	ug/L	5000	ug/L	101	90.0 – 110.0	P	19-DEC-09 14:38	121909-1
	Lead	502	ug/L	500	ug/L	100.5	90.0 – 110.0	P	19-DEC-09 14:38	121909-1
	Magnesium	5180	ug/L	5000	ug/L	103.5	90.0 – 110.0	P	19-DEC-09 14:38	121909-1
	Manganese	503	ug/L	500	ug/L	100.7	90.0 – 110.0	P	19-DEC-09 14:38	121909-1
	Potassium	4950	ug/L	5000	ug/L	99.1	90.0 – 110.0	P	19-DEC-09 14:38	121909-1
	Silicon	2500	ug/L	2500	ug/L	99.8	90.0 – 110.0	P	19-DEC-09 14:38	121909-1
	Silver	505	ug/L	500	ug/L	100.9	90.0 – 110.0	P	19-DEC-09 14:38	121909-1
	Sodium	9680	ug/L	10000	ug/L	96.8	90.0 – 110.0	P	19-DEC-09 14:38	121909-1
	Titanium	499	ug/L	500	ug/L	99.8	90.0 – 110.0	P	19-DEC-09 14:38	121909-1
	Vanadium	510	ug/L	500	ug/L	101.9	90.0 – 110.0	P	19-DEC-09 14:38	121909-1
	Zinc	501	ug/L	500	ug/L	100.3	90.0 – 110.0	P	19-DEC-09 14:38	121909-1
	Arsenic	47.1	ug/L	50	ug/L	94.2	90.0 – 110.0	MS	31-DEC-09 23:02	091231-3
	Beryllium	46.1	ug/L	50	ug/L	92.1	90.0 – 110.0	MS	31-DEC-09 23:02	091231-3
	Nickel	51.2	ug/L	50	ug/L	102.5	90.0 – 110.0	MS	31-DEC-09 23:02	091231-3
	Selenium	49.6	ug/L	50	ug/L	99.2	90.0 – 110.0	MS	31-DEC-09 23:02	091231-3
	Thallium	48.1	ug/L	50	ug/L	96.1	90.0 – 110.0	MS	31-DEC-09 23:02	091231-3
CCV09										
	Aluminum	4940	ug/L	5000	ug/L	98.9	90.0 – 110.0	P	19-DEC-09 15:48	121909-1
	Antimony	498	ug/L	500	ug/L	99.6	90.0 – 110.0	P	19-DEC-09 15:48	121909-1
	Barium	497	ug/L	500	ug/L	99.5	90.0 – 110.0	P	19-DEC-09 15:48	121909-1
	Boron	479	ug/L	500	ug/L	95.7	90.0 – 110.0	P	19-DEC-09 15:48	121909-1
	Cadmium	496	ug/L	500	ug/L	99.2	90.0 – 110.0	P	19-DEC-09 15:48	121909-1
	Calcium	4950	ug/L	5000	ug/L	99	90.0 – 110.0	P	19-DEC-09 15:48	121909-1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–853

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Chromium	495	ug/L	500	ug/L	99	90.0 – 110.0	P	19–DEC–09 15:48	121909–1
	Cobalt	491	ug/L	500	ug/L	98.1	90.0 – 110.0	P	19–DEC–09 15:48	121909–1
	Copper	497	ug/L	500	ug/L	99.3	90.0 – 110.0	P	19–DEC–09 15:48	121909–1
	Iron	5080	ug/L	5000	ug/L	101.7	90.0 – 110.0	P	19–DEC–09 15:48	121909–1
	Lead	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	19–DEC–09 15:48	121909–1
	Magnesium	5180	ug/L	5000	ug/L	103.7	90.0 – 110.0	P	19–DEC–09 15:48	121909–1
	Manganese	497	ug/L	500	ug/L	99.4	90.0 – 110.0	P	19–DEC–09 15:48	121909–1
	Potassium	4960	ug/L	5000	ug/L	99.2	90.0 – 110.0	P	19–DEC–09 15:48	121909–1
	Silicon	2450	ug/L	2500	ug/L	98	90.0 – 110.0	P	19–DEC–09 15:48	121909–1
	Silver	493	ug/L	500	ug/L	98.7	90.0 – 110.0	P	19–DEC–09 15:48	121909–1
	Sodium	9810	ug/L	10000	ug/L	98.1	90.0 – 110.0	P	19–DEC–09 15:48	121909–1
	Titanium	492	ug/L	500	ug/L	98.5	90.0 – 110.0	P	19–DEC–09 15:48	121909–1
	Vanadium	498	ug/L	500	ug/L	99.7	90.0 – 110.0	P	19–DEC–09 15:48	121909–1
	Zinc	492	ug/L	500	ug/L	98.5	90.0 – 110.0	P	19–DEC–09 15:48	121909–1
	Arsenic	47.7	ug/L	50	ug/L	95.3	90.0 – 110.0	MS	31–DEC–09 23:58	091231–3
	Beryllium	48.8	ug/L	50	ug/L	97.5	90.0 – 110.0	MS	31–DEC–09 23:58	091231–3
	Nickel	51.1	ug/L	50	ug/L	102.2	90.0 – 110.0	MS	31–DEC–09 23:58	091231–3
	Selenium	50.4	ug/L	50	ug/L	100.7	90.0 – 110.0	MS	31–DEC–09 23:58	091231–3
	Thallium	48.7	ug/L	50	ug/L	97.4	90.0 – 110.0	MS	31–DEC–09 23:58	091231–3
CCV10										
	Aluminum	4880	ug/L	5000	ug/L	97.7	90.0 – 110.0	P	19–DEC–09 16:42	121909–1
	Antimony	506	ug/L	500	ug/L	101.3	90.0 – 110.0	P	19–DEC–09 16:42	121909–1
	Barium	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	19–DEC–09 16:42	121909–1
	Boron	482	ug/L	500	ug/L	96.4	90.0 – 110.0	P	19–DEC–09 16:42	121909–1
	Cadmium	500	ug/L	500	ug/L	100.1	90.0 – 110.0	P	19–DEC–09 16:42	121909–1
	Calcium	4810	ug/L	5000	ug/L	96.3	90.0 – 110.0	P	19–DEC–09 16:42	121909–1
	Chromium	499	ug/L	500	ug/L	99.9	90.0 – 110.0	P	19–DEC–09 16:42	121909–1
	Cobalt	496	ug/L	500	ug/L	99.1	90.0 – 110.0	P	19–DEC–09 16:42	121909–1
	Copper	501	ug/L	500	ug/L	100.1	90.0 – 110.0	P	19–DEC–09 16:42	121909–1
	Iron	4840	ug/L	5000	ug/L	96.8	90.0 – 110.0	P	19–DEC–09 16:42	121909–1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–853

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Lead	505	ug/L	500	ug/L	101	90.0 – 110.0	P	19–DEC–09 16:42	121909–1
	Magnesium	4990	ug/L	5000	ug/L	99.9	90.0 – 110.0	P	19–DEC–09 16:42	121909–1
	Manganese	500	ug/L	500	ug/L	100.1	90.0 – 110.0	P	19–DEC–09 16:42	121909–1
	Potassium	4860	ug/L	5000	ug/L	97.3	90.0 – 110.0	P	19–DEC–09 16:42	121909–1
	Silicon	2470	ug/L	2500	ug/L	98.7	90.0 – 110.0	P	19–DEC–09 16:42	121909–1
	Silver	497	ug/L	500	ug/L	99.4	90.0 – 110.0	P	19–DEC–09 16:42	121909–1
	Sodium	9330	ug/L	10000	ug/L	93.3	90.0 – 110.0	P	19–DEC–09 16:42	121909–1
	Titanium	496	ug/L	500	ug/L	99.1	90.0 – 110.0	P	19–DEC–09 16:42	121909–1
	Vanadium	502	ug/L	500	ug/L	100.5	90.0 – 110.0	P	19–DEC–09 16:42	121909–1
	Zinc	497	ug/L	500	ug/L	99.4	90.0 – 110.0	P	19–DEC–09 16:42	121909–1
	Arsenic	47.9	ug/L	50	ug/L	95.7	90.0 – 110.0	MS	01–JAN–10 00:48	091231–3
	Beryllium	51.4	ug/L	50	ug/L	102.9	90.0 – 110.0	MS	01–JAN–10 00:48	091231–3
	Nickel	51.1	ug/L	50	ug/L	102.2	90.0 – 110.0	MS	01–JAN–10 00:48	091231–3
	Selenium	49.1	ug/L	50	ug/L	98.1	90.0 – 110.0	MS	01–JAN–10 00:48	091231–3
	Thallium	48	ug/L	50	ug/L	95.9	90.0 – 110.0	MS	01–JAN–10 00:48	091231–3
CCV11										
	Aluminum	4850	ug/L	5000	ug/L	97	90.0 – 110.0	P	19–DEC–09 17:30	121909–1
	Antimony	513	ug/L	500	ug/L	102.6	90.0 – 110.0	P	19–DEC–09 17:30	121909–1
	Barium	509	ug/L	500	ug/L	101.8	90.0 – 110.0	P	19–DEC–09 17:30	121909–1
	Boron	492	ug/L	500	ug/L	98.4	90.0 – 110.0	P	19–DEC–09 17:30	121909–1
	Cadmium	509	ug/L	500	ug/L	101.8	90.0 – 110.0	P	19–DEC–09 17:30	121909–1
	Calcium	4870	ug/L	5000	ug/L	97.3	90.0 – 110.0	P	19–DEC–09 17:30	121909–1
	Chromium	509	ug/L	500	ug/L	101.8	90.0 – 110.0	P	19–DEC–09 17:30	121909–1
	Cobalt	510	ug/L	500	ug/L	102	90.0 – 110.0	P	19–DEC–09 17:30	121909–1
	Copper	506	ug/L	500	ug/L	101.2	90.0 – 110.0	P	19–DEC–09 17:30	121909–1
	Iron	4940	ug/L	5000	ug/L	98.7	90.0 – 110.0	P	19–DEC–09 17:30	121909–1
	Lead	504	ug/L	500	ug/L	100.9	90.0 – 110.0	P	19–DEC–09 17:30	121909–1
	Magnesium	5010	ug/L	5000	ug/L	100.3	90.0 – 110.0	P	19–DEC–09 17:30	121909–1
	Manganese	508	ug/L	500	ug/L	101.6	90.0 – 110.0	P	19–DEC–09 17:30	121909–1
	Potassium	4820	ug/L	5000	ug/L	96.4	90.0 – 110.0	P	19–DEC–09 17:30	121909–1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–853

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Silicon	2510	ug/L	2500	ug/L	100.5	90.0 – 110.0	P	19–DEC–09 17:30	121909–1
	Silver	508	ug/L	500	ug/L	101.5	90.0 – 110.0	P	19–DEC–09 17:30	121909–1
	Sodium	9420	ug/L	10000	ug/L	94.2	90.0 – 110.0	P	19–DEC–09 17:30	121909–1
	Titanium	503	ug/L	500	ug/L	100.6	90.0 – 110.0	P	19–DEC–09 17:30	121909–1
	Vanadium	513	ug/L	500	ug/L	102.6	90.0 – 110.0	P	19–DEC–09 17:30	121909–1
	Zinc	506	ug/L	500	ug/L	101.2	90.0 – 110.0	P	19–DEC–09 17:30	121909–1
CCV12										
	Aluminum	4970	ug/L	5000	ug/L	99.4	90.0 – 110.0	P	19–DEC–09 18:46	121909–1
	Antimony	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	19–DEC–09 18:46	121909–1
	Barium	498	ug/L	500	ug/L	99.6	90.0 – 110.0	P	19–DEC–09 18:46	121909–1
	Boron	477	ug/L	500	ug/L	95.5	90.0 – 110.0	P	19–DEC–09 18:46	121909–1
	Cadmium	496	ug/L	500	ug/L	99.2	90.0 – 110.0	P	19–DEC–09 18:46	121909–1
	Calcium	4960	ug/L	5000	ug/L	99.2	90.0 – 110.0	P	19–DEC–09 18:46	121909–1
	Chromium	497	ug/L	500	ug/L	99.4	90.0 – 110.0	P	19–DEC–09 18:46	121909–1
	Cobalt	490	ug/L	500	ug/L	98	90.0 – 110.0	P	19–DEC–09 18:46	121909–1
	Copper	497	ug/L	500	ug/L	99.4	90.0 – 110.0	P	19–DEC–09 18:46	121909–1
	Iron	5030	ug/L	5000	ug/L	100.6	90.0 – 110.0	P	19–DEC–09 18:46	121909–1
	Lead	502	ug/L	500	ug/L	100.3	90.0 – 110.0	P	19–DEC–09 18:46	121909–1
	Magnesium	5110	ug/L	5000	ug/L	102.1	90.0 – 110.0	P	19–DEC–09 18:46	121909–1
	Manganese	497	ug/L	500	ug/L	99.4	90.0 – 110.0	P	19–DEC–09 18:46	121909–1
	Potassium	4910	ug/L	5000	ug/L	98.2	90.0 – 110.0	P	19–DEC–09 18:46	121909–1
	Silicon	2450	ug/L	2500	ug/L	97.8	90.0 – 110.0	P	19–DEC–09 18:46	121909–1
	Silver	494	ug/L	500	ug/L	98.8	90.0 – 110.0	P	19–DEC–09 18:46	121909–1
	Sodium	9500	ug/L	10000	ug/L	95	90.0 – 110.0	P	19–DEC–09 18:46	121909–1
	Titanium	491	ug/L	500	ug/L	98.3	90.0 – 110.0	P	19–DEC–09 18:46	121909–1
	Vanadium	500	ug/L	500	ug/L	100.1	90.0 – 110.0	P	19–DEC–09 18:46	121909–1
	Zinc	493	ug/L	500	ug/L	98.6	90.0 – 110.0	P	19–DEC–09 18:46	121909–1
CCV13										
	Aluminum	5020	ug/L	5000	ug/L	100.4	90.0 – 110.0	P	19–DEC–09 20:03	121909–1
	Antimony	498	ug/L	500	ug/L	99.6	90.0 – 110.0	P	19–DEC–09 20:03	121909–1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–853

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Barium	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	19–DEC–09 20:03	121909–1
	Boron	486	ug/L	500	ug/L	97.1	90.0 – 110.0	P	19–DEC–09 20:03	121909–1
	Cadmium	500	ug/L	500	ug/L	100.1	90.0 – 110.0	P	19–DEC–09 20:03	121909–1
	Calcium	5030	ug/L	5000	ug/L	100.7	90.0 – 110.0	P	19–DEC–09 20:03	121909–1
	Chromium	503	ug/L	500	ug/L	100.6	90.0 – 110.0	P	19–DEC–09 20:03	121909–1
	Cobalt	499	ug/L	500	ug/L	99.7	90.0 – 110.0	P	19–DEC–09 20:03	121909–1
	Copper	498	ug/L	500	ug/L	99.6	90.0 – 110.0	P	19–DEC–09 20:03	121909–1
	Iron	5130	ug/L	5000	ug/L	102.6	90.0 – 110.0	P	19–DEC–09 20:03	121909–1
	Lead	496	ug/L	500	ug/L	99.3	90.0 – 110.0	P	19–DEC–09 20:03	121909–1
	Magnesium	5260	ug/L	5000	ug/L	105.2	90.0 – 110.0	P	19–DEC–09 20:03	121909–1
	Manganese	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	19–DEC–09 20:03	121909–1
	Potassium	4970	ug/L	5000	ug/L	99.5	90.0 – 110.0	P	19–DEC–09 20:03	121909–1
	Silicon	2470	ug/L	2500	ug/L	98.7	90.0 – 110.0	P	19–DEC–09 20:03	121909–1
	Silver	500	ug/L	500	ug/L	100	90.0 – 110.0	P	19–DEC–09 20:03	121909–1
	Sodium	9780	ug/L	10000	ug/L	97.8	90.0 – 110.0	P	19–DEC–09 20:03	121909–1
	Titanium	496	ug/L	500	ug/L	99.2	90.0 – 110.0	P	19–DEC–09 20:03	121909–1
	Vanadium	507	ug/L	500	ug/L	101.3	90.0 – 110.0	P	19–DEC–09 20:03	121909–1
	Zinc	497	ug/L	500	ug/L	99.5	90.0 – 110.0	P	19–DEC–09 20:03	121909–1
CCV14										
	Aluminum	5060	ug/L	5000	ug/L	101.3	90.0 – 110.0	P	19–DEC–09 21:20	121909–1
	Antimony	502	ug/L	500	ug/L	100.4	90.0 – 110.0	P	19–DEC–09 21:20	121909–1
	Barium	510	ug/L	500	ug/L	102.1	90.0 – 110.0	P	19–DEC–09 21:20	121909–1
	Boron	493	ug/L	500	ug/L	98.7	90.0 – 110.0	P	19–DEC–09 21:20	121909–1
	Cadmium	510	ug/L	500	ug/L	102	90.0 – 110.0	P	19–DEC–09 21:20	121909–1
	Calcium	5090	ug/L	5000	ug/L	101.7	90.0 – 110.0	P	19–DEC–09 21:20	121909–1
	Chromium	513	ug/L	500	ug/L	102.5	90.0 – 110.0	P	19–DEC–09 21:20	121909–1
	Cobalt	509	ug/L	500	ug/L	101.8	90.0 – 110.0	P	19–DEC–09 21:20	121909–1
	Copper	508	ug/L	500	ug/L	101.6	90.0 – 110.0	P	19–DEC–09 21:20	121909–1
	Iron	5240	ug/L	5000	ug/L	104.9	90.0 – 110.0	P	19–DEC–09 21:20	121909–1
	Lead	503	ug/L	500	ug/L	100.5	90.0 – 110.0	P	19–DEC–09 21:20	121909–1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–853

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Magnesium	5350	ug/L	5000	ug/L	107	90.0 – 110.0	P	19–DEC–09 21:20	121909–1
	Manganese	505	ug/L	500	ug/L	101.1	90.0 – 110.0	P	19–DEC–09 21:20	121909–1
	Potassium	5000	ug/L	5000	ug/L	100	90.0 – 110.0	P	19–DEC–09 21:20	121909–1
	Silicon	2520	ug/L	2500	ug/L	100.6	90.0 – 110.0	P	19–DEC–09 21:20	121909–1
	Silver	510	ug/L	500	ug/L	101.9	90.0 – 110.0	P	19–DEC–09 21:20	121909–1
	Sodium	10100	ug/L	10000	ug/L	101.3	90.0 – 110.0	P	19–DEC–09 21:20	121909–1
	Titanium	500	ug/L	500	ug/L	100	90.0 – 110.0	P	19–DEC–09 21:20	121909–1
	Vanadium	517	ug/L	500	ug/L	103.3	90.0 – 110.0	P	19–DEC–09 21:20	121909–1
	Zinc	507	ug/L	500	ug/L	101.5	90.0 – 110.0	P	19–DEC–09 21:20	121909–1
CCV15										
	Aluminum	5050	ug/L	5000	ug/L	100.9	90.0 – 110.0	P	19–DEC–09 22:31	121909–1
	Antimony	503	ug/L	500	ug/L	100.6	90.0 – 110.0	P	19–DEC–09 22:31	121909–1
	Barium	509	ug/L	500	ug/L	101.9	90.0 – 110.0	P	19–DEC–09 22:31	121909–1
	Boron	491	ug/L	500	ug/L	98.2	90.0 – 110.0	P	19–DEC–09 22:31	121909–1
	Cadmium	510	ug/L	500	ug/L	102	90.0 – 110.0	P	19–DEC–09 22:31	121909–1
	Calcium	5070	ug/L	5000	ug/L	101.4	90.0 – 110.0	P	19–DEC–09 22:31	121909–1
	Chromium	512	ug/L	500	ug/L	102.4	90.0 – 110.0	P	19–DEC–09 22:31	121909–1
	Cobalt	507	ug/L	500	ug/L	101.5	90.0 – 110.0	P	19–DEC–09 22:31	121909–1
	Copper	506	ug/L	500	ug/L	101.2	90.0 – 110.0	P	19–DEC–09 22:31	121909–1
	Iron	5240	ug/L	5000	ug/L	104.9	90.0 – 110.0	P	19–DEC–09 22:31	121909–1
	Lead	506	ug/L	500	ug/L	101.1	90.0 – 110.0	P	19–DEC–09 22:31	121909–1
	Magnesium	5210	ug/L	5000	ug/L	104.2	90.0 – 110.0	P	19–DEC–09 22:31	121909–1
	Manganese	509	ug/L	500	ug/L	101.8	90.0 – 110.0	P	19–DEC–09 22:31	121909–1
	Potassium	4970	ug/L	5000	ug/L	99.4	90.0 – 110.0	P	19–DEC–09 22:31	121909–1
	Silicon	2510	ug/L	2500	ug/L	100.3	90.0 – 110.0	P	19–DEC–09 22:31	121909–1
	Silver	508	ug/L	500	ug/L	101.6	90.0 – 110.0	P	19–DEC–09 22:31	121909–1
	Sodium	10300	ug/L	10000	ug/L	102.8	90.0 – 110.0	P	19–DEC–09 22:31	121909–1
	Titanium	504	ug/L	500	ug/L	100.7	90.0 – 110.0	P	19–DEC–09 22:31	121909–1
	Vanadium	516	ug/L	500	ug/L	103.2	90.0 – 110.0	P	19–DEC–09 22:31	121909–1
	Zinc	506	ug/L	500	ug/L	101.3	90.0 – 110.0	P	19–DEC–09 22:31	121909–1

METALS
–2b–
CRDL Standard for AA & ICP

SDG No: 10–853

Contract: LANL01004 **Lab Code:** GEL

AA CRDL Standard Source: SPEX

ICP CRDL Standard Source Solutions Plus

Instrument ID: HG3,ICPMS4,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Advisory Limits (%R)	M	Analysis Date/Time	Run Number
CRDL01										
	Nickel	2.12	ug/L	2	ug/L	105.8	70.0 – 130.0	MS	31–DEC–09 17:02	091231–3
	Thallium	1.05	ug/L	1	ug/L	104.7	70.0 – 130.0	MS	31–DEC–09 17:02	091231–3
	Arsenic	4.52	ug/L	5	ug/L	90.3	70.0 – 130.0	MS	31–DEC–09 17:02	091231–3
	Beryllium	.635	ug/L	.5	ug/L	127	70.0 – 130.0	MS	31–DEC–09 17:02	091231–3
	Selenium	5.26	ug/L	5	ug/L	105.2	70.0 – 130.0	MS	31–DEC–09 17:02	091231–3
	Uranium	.195	ug/L	.2	ug/L	97.5	70.0 – 130.0	MS	01–JAN–10 05:28	091231–5
	Lithium	11.2	ug/L	10	ug/L	112.4	70.0 – 130.0	MS	01–JAN–10 05:28	091231–5
	Mercury	.172	ug/L	.2	ug/L	86	70.0 – 130.0	AV	04–JAN–10 09:15	010410S1–7
	Lithium	12	ug/L	10	ug/L	119.6	70.0 – 130.0	MS	06–JAN–10 12:12	100106–6
PQL01										
	Aluminum	202	ug/L	200	ug/L	100.9	70.0 – 130.0	P	19–DEC–09 08:04	121909–1
	Iron	98.2	ug/L	100	ug/L	98.2	70.0 – 130.0	P	19–DEC–09 08:04	121909–1
	Lead	9.29	ug/L	10	ug/L	92.9	70.0 – 130.0	P	19–DEC–09 08:04	121909–1
	Magnesium	313	ug/L	300	ug/L	104.3	70.0 – 130.0	P	19–DEC–09 08:04	121909–1
	Manganese	10.5	ug/L	10	ug/L	104.9	70.0 – 130.0	P	19–DEC–09 08:04	121909–1
	Potassium	165	ug/L	150	ug/L	109.8	70.0 – 130.0	P	19–DEC–09 08:04	121909–1
	Silver	5.1	ug/L	5	ug/L	101.9	70.0 – 130.0	P	19–DEC–09 08:04	121909–1
	Sodium	305	ug/L	300	ug/L	101.6	70.0 – 130.0	P	19–DEC–09 08:04	121909–1
	Antimony	10.3	ug/L	10	ug/L	102.6	70.0 – 130.0	P	19–DEC–09 08:04	121909–1
	Barium	5.05	ug/L	5	ug/L	101	70.0 – 130.0	P	19–DEC–09 08:04	121909–1
	Cadmium	5.08	ug/L	5	ug/L	101.6	70.0 – 130.0	P	19–DEC–09 08:04	121909–1
	Chromium	5.05	ug/L	5	ug/L	101.1	70.0 – 130.0	P	19–DEC–09 08:04	121909–1
	Cobalt	4.93	ug/L	5	ug/L	98.5	70.0 – 130.0	P	19–DEC–09 08:04	121909–1
	Copper	10.3	ug/L	10	ug/L	102.5	70.0 – 130.0	P	19–DEC–09 08:04	121909–1
	Vanadium	4.7	ug/L	5	ug/L	94.1	70.0 – 130.0	P	19–DEC–09 08:04	121909–1
	Zinc	9.89	ug/L	10	ug/L	98.9	70.0 – 130.0	P	19–DEC–09 08:04	121909–1
	Calcium	210	ug/L	200	ug/L	104.8	70.0 – 130.0	P	19–DEC–09 08:04	121909–1
	Boron	49.5	ug/L	50	ug/L	99.1	70.0 – 130.0	P	19–DEC–09 08:04	121909–1
	Silicon	102	ug/L	100	ug/L	102.4	70.0 – 130.0	P	19–DEC–09 08:04	121909–1
	Titanium	5	ug/L	5	ug/L	99.9	70.0 – 130.0	P	19–DEC–09 08:04	121909–1

METALS
–2b–
CRDL Standard for AA & ICP

SDG No: 10–853

Contract: LANL01004 **Lab Code:** GEL

AA CRDL Standard Source:

ICP CRDL Standard Source

Instrument ID: HG3,ICPMS4,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Advisory Limits (%R)	M	Analysis Date/Time	Run Number
	Potassium	166	ug/L	150	ug/L	110.4	70.0 – 130.0	P	20–DEC–09 09:13	122009A–2
	Sodium	283	ug/L	300	ug/L	94.4	70.0 – 130.0	P	20–DEC–09 09:13	122009A–2

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-853

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
ICB01										
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	19-DEC-09 07:58	121909-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	19-DEC-09 07:58	121909-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	19-DEC-09 07:58	121909-1
	Boron	10.0	+/-50	U	10.0	50.0	SOL	P	19-DEC-09 07:58	121909-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	19-DEC-09 07:58	121909-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	19-DEC-09 07:58	121909-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	19-DEC-09 07:58	121909-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	19-DEC-09 07:58	121909-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	19-DEC-09 07:58	121909-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	19-DEC-09 07:58	121909-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	19-DEC-09 07:58	121909-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	19-DEC-09 07:58	121909-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	19-DEC-09 07:58	121909-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	19-DEC-09 07:58	121909-1
	Silicon	15.0	+/-100	U	15.0	100	SOL	P	19-DEC-09 07:58	121909-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	19-DEC-09 07:58	121909-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	19-DEC-09 07:58	121909-1
	Titanium	1.0	+/-5	U	1.0	5.0	SOL	P	19-DEC-09 07:58	121909-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	19-DEC-09 07:58	121909-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	19-DEC-09 07:58	121909-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	20-DEC-09 09:06	122009A-2
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	20-DEC-09 09:06	122009A-2
	Arsenic	1.0	+/-5	U	1.0	5.0	SOL	MS	31-DEC-09 16:56	091231-3
	Beryllium	0.1	+/-.5	U	0.1	0.5	SOL	MS	31-DEC-09 16:56	091231-3
	Nickel	0.5	+/-2	U	0.5	2.0	SOL	MS	31-DEC-09 16:56	091231-3
	Selenium	2.5	+/-5	U	2.5	5.0	SOL	MS	31-DEC-09 16:56	091231-3
	Thallium	0.3	+/-1	U	0.3	1.0	SOL	MS	31-DEC-09 16:56	091231-3
	Lithium	2.0	+/-10	U	2.0	10.0	SOL	MS	01-JAN-10 05:25	091231-5
	Uranium	0.066	+/-.2	U	0.066	0.2	SOL	MS	01-JAN-10 05:25	091231-5
	Mercury	0.068	+/-.2	U	0.068	0.2	SOL	AV	04-JAN-10 09:14	010410S1-7
	Lithium	2.0	+/-10	U	2.0	10.0	SOL	MS	06-JAN-10 12:06	100106-6

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–853

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
CCB01										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	19–DEC–09 08:43	121909–1
	Antimony	4.79	+/–10	J	3.3	10.0	SOL	P	19–DEC–09 08:43	121909–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	19–DEC–09 08:43	121909–1
	Boron	14.3	+/–50	J	10.0	50.0	SOL	P	19–DEC–09 08:43	121909–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	19–DEC–09 08:43	121909–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	19–DEC–09 08:43	121909–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	19–DEC–09 08:43	121909–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	19–DEC–09 08:43	121909–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	19–DEC–09 08:43	121909–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	19–DEC–09 08:43	121909–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	19–DEC–09 08:43	121909–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	19–DEC–09 08:43	121909–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	19–DEC–09 08:43	121909–1
	Potassium	99.96	+/–250	J	64.0	250	SOL	P	19–DEC–09 08:43	121909–1
	Silicon	15.0	+/–100	U	15.0	100	SOL	P	19–DEC–09 08:43	121909–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	19–DEC–09 08:43	121909–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	19–DEC–09 08:43	121909–1
	Titanium	1.0	+/–5	U	1.0	5.0	SOL	P	19–DEC–09 08:43	121909–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	19–DEC–09 08:43	121909–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	19–DEC–09 08:43	121909–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	20–DEC–09 09:51	122009A–2
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	20–DEC–09 09:51	122009A–2
	Arsenic	1.0	+/–5	U	1.0	5.0	SOL	MS	31–DEC–09 17:27	091231–3
	Beryllium	0.1	+/–.5	U	0.1	0.5	SOL	MS	31–DEC–09 17:27	091231–3
	Nickel	0.5	+/–2	U	0.5	2.0	SOL	MS	31–DEC–09 17:27	091231–3
	Selenium	2.5	+/–5	U	2.5	5.0	SOL	MS	31–DEC–09 17:27	091231–3
	Thallium	0.3	+/–1	U	0.3	1.0	SOL	MS	31–DEC–09 17:27	091231–3
	Lithium	2.0	+/–10	U	2.0	10.0	SOL	MS	01–JAN–10 05:38	091231–5
	Uranium	0.066	+/–.2	U	0.066	0.2	SOL	MS	01–JAN–10 05:38	091231–5
	Mercury	0.068	+/–.2	U	0.068	0.2	SOL	AV	04–JAN–10 09:19	010410S1–7
	Lithium	2.0	+/–10	U	2.0	10.0	SOL	MS	06–JAN–10 12:37	100106–6

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–853

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
CCB02										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	19–DEC–09 09:12	121909–1
	Antimony	4.36	+/–10	J	3.3	10.0	SOL	P	19–DEC–09 09:12	121909–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	19–DEC–09 09:12	121909–1
	Boron	10.0	+/–50	U	10.0	50.0	SOL	P	19–DEC–09 09:12	121909–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	19–DEC–09 09:12	121909–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	19–DEC–09 09:12	121909–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	19–DEC–09 09:12	121909–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	19–DEC–09 09:12	121909–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	19–DEC–09 09:12	121909–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	19–DEC–09 09:12	121909–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	19–DEC–09 09:12	121909–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	19–DEC–09 09:12	121909–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	19–DEC–09 09:12	121909–1
	Potassium	69.21	+/–250	J	64.0	250	SOL	P	19–DEC–09 09:12	121909–1
	Silicon	15.0	+/–100	U	15.0	100	SOL	P	19–DEC–09 09:12	121909–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	19–DEC–09 09:12	121909–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	19–DEC–09 09:12	121909–1
	Titanium	1.0	+/–5	U	1.0	5.0	SOL	P	19–DEC–09 09:12	121909–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	19–DEC–09 09:12	121909–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	19–DEC–09 09:12	121909–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	20–DEC–09 10:11	122009A–2
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	20–DEC–09 10:11	122009A–2
	Arsenic	1.0	+/–5	U	1.0	5.0	SOL	MS	31–DEC–09 17:45	091231–3
	Beryllium	0.1	+/–.5	U	0.1	0.5	SOL	MS	31–DEC–09 17:45	091231–3
	Nickel	0.5	+/–2	U	0.5	2.0	SOL	MS	31–DEC–09 17:45	091231–3
	Selenium	2.5	+/–5	U	2.5	5.0	SOL	MS	31–DEC–09 17:45	091231–3
	Thallium	0.3	+/–1	U	0.3	1.0	SOL	MS	31–DEC–09 17:45	091231–3
	Lithium	2.0	+/–10	U	2.0	10.0	SOL	MS	01–JAN–10 06:00	091231–5
	Uranium	0.066	+/–.2	U	0.066	0.2	SOL	MS	01–JAN–10 06:00	091231–5
	Mercury	0.068	+/–.2	U	0.068	0.2	SOL	AV	04–JAN–10 09:39	010410S1–7
	Lithium	2.0	+/–10	U	2.0	10.0	SOL	MS	06–JAN–10 12:56	100106–6

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–853

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
CCB03										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	19–DEC–09 10:21	121909–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	19–DEC–09 10:21	121909–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	19–DEC–09 10:21	121909–1
	Boron	10.0	+/–50	U	10.0	50.0	SOL	P	19–DEC–09 10:21	121909–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	19–DEC–09 10:21	121909–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	19–DEC–09 10:21	121909–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	19–DEC–09 10:21	121909–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	19–DEC–09 10:21	121909–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	19–DEC–09 10:21	121909–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	19–DEC–09 10:21	121909–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	19–DEC–09 10:21	121909–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	19–DEC–09 10:21	121909–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	19–DEC–09 10:21	121909–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	19–DEC–09 10:21	121909–1
	Silicon	15.0	+/–100	U	15.0	100	SOL	P	19–DEC–09 10:21	121909–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	19–DEC–09 10:21	121909–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	19–DEC–09 10:21	121909–1
	Titanium	1.0	+/–5	U	1.0	5.0	SOL	P	19–DEC–09 10:21	121909–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	19–DEC–09 10:21	121909–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	19–DEC–09 10:21	121909–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	20–DEC–09 11:22	122009A–2
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	20–DEC–09 11:22	122009A–2
	Arsenic	1.0	+/–5	U	1.0	5.0	SOL	MS	31–DEC–09 18:28	091231–3
	Beryllium	0.1	+/–.5	U	0.1	0.5	SOL	MS	31–DEC–09 18:28	091231–3
	Nickel	0.5	+/–2	U	0.5	2.0	SOL	MS	31–DEC–09 18:28	091231–3
	Selenium	2.5	+/–5	U	2.5	5.0	SOL	MS	31–DEC–09 18:28	091231–3
	Thallium	0.3	+/–1	U	0.3	1.0	SOL	MS	31–DEC–09 18:28	091231–3
	Lithium	2.0	+/–10	U	2.0	10.0	SOL	MS	01–JAN–10 06:22	091231–5
	Uranium	0.066	+/–.2	U	0.066	0.2	SOL	MS	01–JAN–10 06:22	091231–5
	Mercury	0.068	+/–.2	U	0.068	0.2	SOL	AV	04–JAN–10 09:59	010410S1–7
	Lithium	2.0	+/–10	U	2.0	10.0	SOL	MS	06–JAN–10 13:28	100106–6

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–853

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
CCB04										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	19–DEC–09 11:25	121909–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	19–DEC–09 11:25	121909–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	19–DEC–09 11:25	121909–1
	Boron	10.0	+/–50	U	10.0	50.0	SOL	P	19–DEC–09 11:25	121909–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	19–DEC–09 11:25	121909–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	19–DEC–09 11:25	121909–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	19–DEC–09 11:25	121909–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	19–DEC–09 11:25	121909–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	19–DEC–09 11:25	121909–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	19–DEC–09 11:25	121909–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	19–DEC–09 11:25	121909–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	19–DEC–09 11:25	121909–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	19–DEC–09 11:25	121909–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	19–DEC–09 11:25	121909–1
	Silicon	15.0	+/–100	U	15.0	100	SOL	P	19–DEC–09 11:25	121909–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	19–DEC–09 11:25	121909–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	19–DEC–09 11:25	121909–1
	Titanium	1.0	+/–5	U	1.0	5.0	SOL	P	19–DEC–09 11:25	121909–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	19–DEC–09 11:25	121909–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	19–DEC–09 11:25	121909–1
	Arsenic	1.0	+/–5	U	1.0	5.0	SOL	MS	31–DEC–09 19:24	091231–3
	Beryllium	0.1	+/–.5	U	0.1	0.5	SOL	MS	31–DEC–09 19:24	091231–3
	Nickel	0.5	+/–2	U	0.5	2.0	SOL	MS	31–DEC–09 19:24	091231–3
	Selenium	2.5	+/–5	U	2.5	5.0	SOL	MS	31–DEC–09 19:24	091231–3
	Thallium	0.3	+/–1	U	0.3	1.0	SOL	MS	31–DEC–09 19:24	091231–3
	Lithium	2.0	+/–10	U	2.0	10.0	SOL	MS	01–JAN–10 06:45	091231–5
	Uranium	0.066	+/–.2	U	0.066	0.2	SOL	MS	01–JAN–10 06:45	091231–5
	Mercury	0.068	+/–.2	U	0.068	0.2	SOL	AV	04–JAN–10 10:16	010410S1–7
	Lithium	2.0	+/–10	U	2.0	10.0	SOL	MS	06–JAN–10 13:46	100106–6
CCB05										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	19–DEC–09 12:11	121909–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–853

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	19–DEC–09 12:11	121909–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	19–DEC–09 12:11	121909–1
	Boron	10.0	+/–50	U	10.0	50.0	SOL	P	19–DEC–09 12:11	121909–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	19–DEC–09 12:11	121909–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	19–DEC–09 12:11	121909–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	19–DEC–09 12:11	121909–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	19–DEC–09 12:11	121909–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	19–DEC–09 12:11	121909–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	19–DEC–09 12:11	121909–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	19–DEC–09 12:11	121909–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	19–DEC–09 12:11	121909–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	19–DEC–09 12:11	121909–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	19–DEC–09 12:11	121909–1
	Silicon	15.0	+/–100	U	15.0	100	SOL	P	19–DEC–09 12:11	121909–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	19–DEC–09 12:11	121909–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	19–DEC–09 12:11	121909–1
	Titanium	1.0	+/–5	U	1.0	5.0	SOL	P	19–DEC–09 12:11	121909–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	19–DEC–09 12:11	121909–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	19–DEC–09 12:11	121909–1
	Arsenic	1.0	+/–5	U	1.0	5.0	SOL	MS	31–DEC–09 20:20	091231–3
	Beryllium	0.1	+/–.5	U	0.1	0.5	SOL	MS	31–DEC–09 20:20	091231–3
	Nickel	0.5	+/–2	U	0.5	2.0	SOL	MS	31–DEC–09 20:20	091231–3
	Selenium	2.5	+/–5	U	2.5	5.0	SOL	MS	31–DEC–09 20:20	091231–3
	Thallium	0.3	+/–1	U	0.3	1.0	SOL	MS	31–DEC–09 20:20	091231–3
	Lithium	2.0	+/–10	U	2.0	10.0	SOL	MS	01–JAN–10 07:05	091231–5
	Uranium	0.066	+/–.2	U	0.066	0.2	SOL	MS	01–JAN–10 07:05	091231–5
CCB06										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	19–DEC–09 13:14	121909–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	19–DEC–09 13:14	121909–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	19–DEC–09 13:14	121909–1
	Boron	10.0	+/–50	U	10.0	50.0	SOL	P	19–DEC–09 13:14	121909–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–853

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	19–DEC–09 13:14	121909–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	19–DEC–09 13:14	121909–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	19–DEC–09 13:14	121909–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	19–DEC–09 13:14	121909–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	19–DEC–09 13:14	121909–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	19–DEC–09 13:14	121909–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	19–DEC–09 13:14	121909–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	19–DEC–09 13:14	121909–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	19–DEC–09 13:14	121909–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	19–DEC–09 13:14	121909–1
	Silicon	15.0	+/–100	U	15.0	100	SOL	P	19–DEC–09 13:14	121909–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	19–DEC–09 13:14	121909–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	19–DEC–09 13:14	121909–1
	Titanium	1.0	+/–5	U	1.0	5.0	SOL	P	19–DEC–09 13:14	121909–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	19–DEC–09 13:14	121909–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	19–DEC–09 13:14	121909–1
	Arsenic	1.0	+/–5	U	1.0	5.0	SOL	MS	31–DEC–09 21:16	091231–3
	Beryllium	0.1	+/–.5	U	0.1	0.5	SOL	MS	31–DEC–09 21:16	091231–3
	Nickel	0.5	+/–2	U	0.5	2.0	SOL	MS	31–DEC–09 21:16	091231–3
	Selenium	2.5	+/–5	U	2.5	5.0	SOL	MS	31–DEC–09 21:16	091231–3
	Thallium	0.3	+/–1	U	0.3	1.0	SOL	MS	31–DEC–09 21:16	091231–3
CCB07										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	19–DEC–09 13:36	121909–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	19–DEC–09 13:36	121909–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	19–DEC–09 13:36	121909–1
	Boron	10.0	+/–50	U	10.0	50.0	SOL	P	19–DEC–09 13:36	121909–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	19–DEC–09 13:36	121909–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	19–DEC–09 13:36	121909–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	19–DEC–09 13:36	121909–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	19–DEC–09 13:36	121909–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	19–DEC–09 13:36	121909–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–853

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Iron	80.0	+/–250	U	80.0	250	SOL	P	19–DEC–09 13:36	121909–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	19–DEC–09 13:36	121909–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	19–DEC–09 13:36	121909–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	19–DEC–09 13:36	121909–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	19–DEC–09 13:36	121909–1
	Silicon	15.0	+/–100	U	15.0	100	SOL	P	19–DEC–09 13:36	121909–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	19–DEC–09 13:36	121909–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	19–DEC–09 13:36	121909–1
	Titanium	1.0	+/–5	U	1.0	5.0	SOL	P	19–DEC–09 13:36	121909–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	19–DEC–09 13:36	121909–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	19–DEC–09 13:36	121909–1
	Arsenic	1.0	+/–5	U	1.0	5.0	SOL	MS	31–DEC–09 22:12	091231–3
	Beryllium	0.1	+/–.5	U	0.1	0.5	SOL	MS	31–DEC–09 22:12	091231–3
	Nickel	0.5	+/–2	U	0.5	2.0	SOL	MS	31–DEC–09 22:12	091231–3
	Selenium	2.5	+/–5	U	2.5	5.0	SOL	MS	31–DEC–09 22:12	091231–3
	Thallium	0.3	+/–1	U	0.3	1.0	SOL	MS	31–DEC–09 22:12	091231–3
CCB08										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	19–DEC–09 14:45	121909–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	19–DEC–09 14:45	121909–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	19–DEC–09 14:45	121909–1
	Boron	10.0	+/–50	U	10.0	50.0	SOL	P	19–DEC–09 14:45	121909–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	19–DEC–09 14:45	121909–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	19–DEC–09 14:45	121909–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	19–DEC–09 14:45	121909–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	19–DEC–09 14:45	121909–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	19–DEC–09 14:45	121909–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	19–DEC–09 14:45	121909–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	19–DEC–09 14:45	121909–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	19–DEC–09 14:45	121909–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	19–DEC–09 14:45	121909–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	19–DEC–09 14:45	121909–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–853

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Silicon	15.0	+/–100	U	15.0	100	SOL	P	19–DEC–09 14:45	121909–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	19–DEC–09 14:45	121909–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	19–DEC–09 14:45	121909–1
	Titanium	1.0	+/–5	U	1.0	5.0	SOL	P	19–DEC–09 14:45	121909–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	19–DEC–09 14:45	121909–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	19–DEC–09 14:45	121909–1
	Arsenic	1.0	+/–5	U	1.0	5.0	SOL	MS	31–DEC–09 23:08	091231–3
	Beryllium	0.1	+/–.5	U	0.1	0.5	SOL	MS	31–DEC–09 23:08	091231–3
	Nickel	0.5	+/–2	U	0.5	2.0	SOL	MS	31–DEC–09 23:08	091231–3
	Selenium	2.5	+/–5	U	2.5	5.0	SOL	MS	31–DEC–09 23:08	091231–3
	Thallium	0.3	+/–1	U	0.3	1.0	SOL	MS	31–DEC–09 23:08	091231–3
CCB09										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	19–DEC–09 15:54	121909–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	19–DEC–09 15:54	121909–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	19–DEC–09 15:54	121909–1
	Boron	10.0	+/–50	U	10.0	50.0	SOL	P	19–DEC–09 15:54	121909–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	19–DEC–09 15:54	121909–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	19–DEC–09 15:54	121909–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	19–DEC–09 15:54	121909–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	19–DEC–09 15:54	121909–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	19–DEC–09 15:54	121909–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	19–DEC–09 15:54	121909–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	19–DEC–09 15:54	121909–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	19–DEC–09 15:54	121909–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	19–DEC–09 15:54	121909–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	19–DEC–09 15:54	121909–1
	Silicon	15.0	+/–100	U	15.0	100	SOL	P	19–DEC–09 15:54	121909–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	19–DEC–09 15:54	121909–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	19–DEC–09 15:54	121909–1
	Titanium	1.0	+/–5	U	1.0	5.0	SOL	P	19–DEC–09 15:54	121909–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	19–DEC–09 15:54	121909–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–853

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	19–DEC–09 15:54	121909–1
	Arsenic	–1.05	+/–5	J	1.0	5.0	SOL	MS	01–JAN–10 00:04	091231–3
	Beryllium	0.1	+/–.5	U	0.1	0.5	SOL	MS	01–JAN–10 00:04	091231–3
	Nickel	0.5	+/–2	U	0.5	2.0	SOL	MS	01–JAN–10 00:04	091231–3
	Selenium	2.5	+/–5	U	2.5	5.0	SOL	MS	01–JAN–10 00:04	091231–3
	Thallium	0.3	+/–1	U	0.3	1.0	SOL	MS	01–JAN–10 00:04	091231–3
CCB10										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	19–DEC–09 16:49	121909–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	19–DEC–09 16:49	121909–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	19–DEC–09 16:49	121909–1
	Boron	10.0	+/–50	U	10.0	50.0	SOL	P	19–DEC–09 16:49	121909–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	19–DEC–09 16:49	121909–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	19–DEC–09 16:49	121909–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	19–DEC–09 16:49	121909–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	19–DEC–09 16:49	121909–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	19–DEC–09 16:49	121909–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	19–DEC–09 16:49	121909–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	19–DEC–09 16:49	121909–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	19–DEC–09 16:49	121909–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	19–DEC–09 16:49	121909–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	19–DEC–09 16:49	121909–1
	Silicon	15.0	+/–100	U	15.0	100	SOL	P	19–DEC–09 16:49	121909–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	19–DEC–09 16:49	121909–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	19–DEC–09 16:49	121909–1
	Titanium	1.0	+/–5	U	1.0	5.0	SOL	P	19–DEC–09 16:49	121909–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	19–DEC–09 16:49	121909–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	19–DEC–09 16:49	121909–1
	Arsenic	1.0	+/–5	U	1.0	5.0	SOL	MS	01–JAN–10 00:54	091231–3
	Beryllium	0.1	+/–.5	U	0.1	0.5	SOL	MS	01–JAN–10 00:54	091231–3
	Nickel	0.5	+/–2	U	0.5	2.0	SOL	MS	01–JAN–10 00:54	091231–3
	Selenium	2.5	+/–5	U	2.5	5.0	SOL	MS	01–JAN–10 00:54	091231–3

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–853

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Thallium	0.3	+/–1	U	0.3	1.0	SOL	MS	01–JAN–10 00:54	091231–3
CCB11										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	19–DEC–09 17:37	121909–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	19–DEC–09 17:37	121909–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	19–DEC–09 17:37	121909–1
	Boron	10.0	+/–50	U	10.0	50.0	SOL	P	19–DEC–09 17:37	121909–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	19–DEC–09 17:37	121909–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	19–DEC–09 17:37	121909–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	19–DEC–09 17:37	121909–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	19–DEC–09 17:37	121909–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	19–DEC–09 17:37	121909–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	19–DEC–09 17:37	121909–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	19–DEC–09 17:37	121909–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	19–DEC–09 17:37	121909–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	19–DEC–09 17:37	121909–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	19–DEC–09 17:37	121909–1
	Silicon	15.0	+/–100	U	15.0	100	SOL	P	19–DEC–09 17:37	121909–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	19–DEC–09 17:37	121909–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	19–DEC–09 17:37	121909–1
	Titanium	1.0	+/–5	U	1.0	5.0	SOL	P	19–DEC–09 17:37	121909–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	19–DEC–09 17:37	121909–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	19–DEC–09 17:37	121909–1
CCB12										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	19–DEC–09 18:53	121909–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	19–DEC–09 18:53	121909–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	19–DEC–09 18:53	121909–1
	Boron	10.0	+/–50	U	10.0	50.0	SOL	P	19–DEC–09 18:53	121909–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	19–DEC–09 18:53	121909–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	19–DEC–09 18:53	121909–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	19–DEC–09 18:53	121909–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	19–DEC–09 18:53	121909–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–853

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	19–DEC–09 18:53	121909–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	19–DEC–09 18:53	121909–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	19–DEC–09 18:53	121909–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	19–DEC–09 18:53	121909–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	19–DEC–09 18:53	121909–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	19–DEC–09 18:53	121909–1
	Silicon	15.0	+/–100	U	15.0	100	SOL	P	19–DEC–09 18:53	121909–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	19–DEC–09 18:53	121909–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	19–DEC–09 18:53	121909–1
	Titanium	1.0	+/–5	U	1.0	5.0	SOL	P	19–DEC–09 18:53	121909–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	19–DEC–09 18:53	121909–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	19–DEC–09 18:53	121909–1
CCB13										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	19–DEC–09 20:10	121909–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	19–DEC–09 20:10	121909–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	19–DEC–09 20:10	121909–1
	Boron	10.0	+/–50	U	10.0	50.0	SOL	P	19–DEC–09 20:10	121909–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	19–DEC–09 20:10	121909–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	19–DEC–09 20:10	121909–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	19–DEC–09 20:10	121909–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	19–DEC–09 20:10	121909–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	19–DEC–09 20:10	121909–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	19–DEC–09 20:10	121909–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	19–DEC–09 20:10	121909–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	19–DEC–09 20:10	121909–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	19–DEC–09 20:10	121909–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	19–DEC–09 20:10	121909–1
	Silicon	15.0	+/–100	U	15.0	100	SOL	P	19–DEC–09 20:10	121909–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	19–DEC–09 20:10	121909–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	19–DEC–09 20:10	121909–1
	Titanium	1.0	+/–5	U	1.0	5.0	SOL	P	19–DEC–09 20:10	121909–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–853

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	19–DEC–09 20:10	121909–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	19–DEC–09 20:10	121909–1
CCB14										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	19–DEC–09 21:27	121909–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	19–DEC–09 21:27	121909–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	19–DEC–09 21:27	121909–1
	Boron	10.0	+/–50	U	10.0	50.0	SOL	P	19–DEC–09 21:27	121909–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	19–DEC–09 21:27	121909–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	19–DEC–09 21:27	121909–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	19–DEC–09 21:27	121909–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	19–DEC–09 21:27	121909–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	19–DEC–09 21:27	121909–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	19–DEC–09 21:27	121909–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	19–DEC–09 21:27	121909–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	19–DEC–09 21:27	121909–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	19–DEC–09 21:27	121909–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	19–DEC–09 21:27	121909–1
	Silicon	15.0	+/–100	U	15.0	100	SOL	P	19–DEC–09 21:27	121909–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	19–DEC–09 21:27	121909–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	19–DEC–09 21:27	121909–1
	Titanium	1.0	+/–5	U	1.0	5.0	SOL	P	19–DEC–09 21:27	121909–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	19–DEC–09 21:27	121909–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	19–DEC–09 21:27	121909–1
CCB15										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	19–DEC–09 22:38	121909–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	19–DEC–09 22:38	121909–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	19–DEC–09 22:38	121909–1
	Boron	10.0	+/–50	U	10.0	50.0	SOL	P	19–DEC–09 22:38	121909–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	19–DEC–09 22:38	121909–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	19–DEC–09 22:38	121909–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	19–DEC–09 22:38	121909–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–853

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	19–DEC–09 22:38	121909–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	19–DEC–09 22:38	121909–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	19–DEC–09 22:38	121909–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	19–DEC–09 22:38	121909–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	19–DEC–09 22:38	121909–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	19–DEC–09 22:38	121909–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	19–DEC–09 22:38	121909–1
	Silicon	15.0	+/–100	U	15.0	100	SOL	P	19–DEC–09 22:38	121909–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	19–DEC–09 22:38	121909–1
	Sodium	–77.01	+/–250	J	70.0	250	SOL	P	19–DEC–09 22:38	121909–1
	Titanium	1.0	+/–5	U	1.0	5.0	SOL	P	19–DEC–09 22:38	121909–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	19–DEC–09 22:38	121909–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	19–DEC–09 22:38	121909–1

METALS
–3b–
PREPARATION BLANK SUMMARY

SDG NO. 10–853

Contract: LANL01004

Matrix: SOIL

Sample ID	Analyte	Result	Units	Acceptance Window	Conc Qual	M	MDL	RDL
1201994218								
	Aluminum	6730	ug/Kg	+/–19800	U	P	6730	19800
	Antimony	327	ug/Kg	+/–990	U	P	327	990
	Barium	99	ug/Kg	+/–495	U	P	99	495
	Calcium	7920	ug/Kg	+/–24800	U	P	7920	24800
	Chromium	149	ug/Kg	+/–495	U	P	149	495
	Cadmium	99	ug/Kg	+/–495	U	P	99	495
	Boron	990	ug/Kg	+/–4950	U	P	990	4950
	Cobalt	149	ug/Kg	+/–495	U	P	149	495
	Iron	7920	ug/Kg	+/–24800	U	P	7920	24800
	Vanadium	99	ug/Kg	+/–495	U	P	99	495
	Titanium	99	ug/Kg	+/–495	U	P	99	495
	Sodium	6930	ug/Kg	+/–24800	U	P	6930	24800
	Silver	99	ug/Kg	+/–495	U	P	99	495
	Silicon	1490	ug/Kg	+/–9900	U	P	1490	9900
	Potassium	6340	ug/Kg	+/–24800	U	P	6340	24800
	Manganese	198	ug/Kg	+/–990	U	P	198	990
	Magnesium	8420	ug/Kg	+/–29700	U	P	8420	29700
	Lead	248	ug/Kg	+/–990	U	P	248	990
	Zinc	327	ug/Kg	+/–990	U	P	327	990
	Copper	297	ug/Kg	+/–990	U	P	297	990
1201994298								
	Lithium	0.394	mg/kg	+/–1.97	U	MS	0.394	1.97
	Nickel	0.0986	mg/kg	+/–0.394	U	MS	0.0986	0.394
	Arsenic	0.197	mg/kg	+/–0.986	U	MS	0.197	0.986
	Beryllium	0.0197	mg/kg	+/–0.0986	U	MS	0.0197	0.0986
	Selenium	0.493	mg/kg	+/–0.986	U	MS	0.493	0.986
	Thallium	0.0592	mg/kg	+/–0.197	U	MS	0.0592	0.197
	Uranium	0.013	mg/kg	+/–0.0395	U	MS	0.013	0.0395
1202003907								
	Mercury	4.02	ug/kg	+/–11.8	U	AV	4.02	11.8

METALS
-4-
Interference Check Sample

SDG No: 10-853

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Aluminum	522000	ug/L	500000	ug/L	104	80.0 – 120.0	19-DEC-09 08:11	121909-1
	Antimony	5.41	ug/L					19-DEC-09 08:11	121909-1
	Barium	2.26	ug/L					19-DEC-09 08:11	121909-1
	Boron	-5.38	ug/L					19-DEC-09 08:11	121909-1
	Cadmium	-0.766	ug/L					19-DEC-09 08:11	121909-1
	Calcium	485000	ug/L	500000	ug/L	97	80.0 – 120.0	19-DEC-09 08:11	121909-1
	Chromium	1.8	ug/L					19-DEC-09 08:11	121909-1
	Cobalt	-1.27	ug/L					19-DEC-09 08:11	121909-1
	Copper	2.3	ug/L					19-DEC-09 08:11	121909-1
	Iron	190000	ug/L	200000	ug/L	95.1	80.0 – 120.0	19-DEC-09 08:11	121909-1
	Lead	-4.14	ug/L					19-DEC-09 08:11	121909-1
	Magnesium	496000	ug/L	500000	ug/L	99.1	80.0 – 120.0	19-DEC-09 08:11	121909-1
	Manganese	10.5	ug/L					19-DEC-09 08:11	121909-1
	Potassium	7.68	ug/L					19-DEC-09 08:11	121909-1
	Silicon	-0.353	ug/L					19-DEC-09 08:11	121909-1
	Silver	0.47	ug/L					19-DEC-09 08:11	121909-1
	Sodium	20.1	ug/L					19-DEC-09 08:11	121909-1
	Titanium	0.368	ug/L					19-DEC-09 08:11	121909-1
	Vanadium	-0.645	ug/L					19-DEC-09 08:11	121909-1
	Zinc	-8.3	ug/L					19-DEC-09 08:11	121909-1
ICSAB01									
	Aluminum	522000	ug/L	500000	ug/L	104	80.0 – 120.0	19-DEC-09 08:17	121909-1
	Antimony	507	ug/L	500	ug/L	101	80.0 – 120.0	19-DEC-09 08:17	121909-1
	Barium	476	ug/L	500	ug/L	95.2	80.0 – 120.0	19-DEC-09 08:17	121909-1
	Boron	496	ug/L	500	ug/L	99.2	80.0 – 120.0	19-DEC-09 08:17	121909-1
	Cadmium	453	ug/L	500	ug/L	90.5	80.0 – 120.0	19-DEC-09 08:17	121909-1
	Calcium	483000	ug/L	500000	ug/L	96.6	80.0 – 120.0	19-DEC-09 08:17	121909-1
	Chromium	466	ug/L	500	ug/L	93.3	80.0 – 120.0	19-DEC-09 08:17	121909-1
	Cobalt	425	ug/L	500	ug/L	84.9	80.0 – 120.0	19-DEC-09 08:17	121909-1

METALS
–4–
Interference Check Sample

SDG No: 10–853

Contract: LANL01004 **Lab Code:** GEL

ICS:

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
	Copper	531	ug/L	500	ug/L	106	80.0 – 120.0	19–DEC–09 08:17	121909–1
	Iron	189000	ug/L	200000	ug/L	94.4	80.0 – 120.0	19–DEC–09 08:17	121909–1
	Lead	446	ug/L	500	ug/L	89.1	80.0 – 120.0	19–DEC–09 08:17	121909–1
	Magnesium	492000	ug/L	500000	ug/L	98.4	80.0 – 120.0	19–DEC–09 08:17	121909–1
	Manganese	471	ug/L	500	ug/L	94.2	80.0 – 120.0	19–DEC–09 08:17	121909–1
	Potassium	5600	ug/L	5000	ug/L	112	80.0 – 120.0	19–DEC–09 08:17	121909–1
	Silicon	5000	ug/L	5000	ug/L	100	80.0 – 120.0	19–DEC–09 08:17	121909–1
	Silver	266	ug/L	250	ug/L	107	80.0 – 120.0	19–DEC–09 08:17	121909–1
	Sodium	5500	ug/L	5000	ug/L	110	80.0 – 120.0	19–DEC–09 08:17	121909–1
	Titanium	487	ug/L	500	ug/L	97.4	80.0 – 120.0	19–DEC–09 08:17	121909–1
	Vanadium	489	ug/L	500	ug/L	97.8	80.0 – 120.0	19–DEC–09 08:17	121909–1
	Zinc	464	ug/L	500	ug/L	92.7	80.0 – 120.0	19–DEC–09 08:17	121909–1

METALS
-4-
Interference Check Sample

SDG No: 10-853

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Potassium	-9.18	ug/L					20-DEC-09 09:20	122009A-2
	Sodium	5.55	ug/L					20-DEC-09 09:20	122009A-2
ICSAB01									
	Potassium	5500	ug/L	5000	ug/L	110	80.0 - 120.0	20-DEC-09 09:26	122009A-2
	Sodium	5440	ug/L	5000	ug/L	109	80.0 - 120.0	20-DEC-09 09:26	122009A-2

METALS
-4-
Interference Check Sample

SDG No: 10-853

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: ICPMS4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Arsenic	-0.619	ug/L					31-DEC-09 17:08	091231-3
	Beryllium	0.054	ug/L					31-DEC-09 17:08	091231-3
	Nickel	3.31	ug/L					31-DEC-09 17:08	091231-3
	Selenium	0.045	ug/L					31-DEC-09 17:08	091231-3
	Thallium	0.022	ug/L					31-DEC-09 17:08	091231-3
ICSAB01									
	Arsenic	21.4	ug/L	20	ug/L	107	80.0 - 120.0	31-DEC-09 17:14	091231-3
	Beryllium	19.4	ug/L	20	ug/L	97.1	80.0 - 120.0	31-DEC-09 17:14	091231-3
	Nickel	22.1	ug/L	22.7	ug/L	97.2	80.0 - 120.0	31-DEC-09 17:14	091231-3
	Selenium	21.0	ug/L	20	ug/L	105	80.0 - 120.0	31-DEC-09 17:14	091231-3
	Thallium	18.2	ug/L	20	ug/L	91.2	80.0 - 120.0	31-DEC-09 17:14	091231-3

METALS
–4–
Interference Check Sample

SDG No: 10–853

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: ICPMS4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Lithium	0.088	ug/L					01–JAN–10 05:30	091231–5
	Uranium	–0.044	ug/L					01–JAN–10 05:30	091231–5
ICSAB01									
	Lithium	18.9	ug/L	20	ug/L	94.6	80.0 – 120.0	01–JAN–10 05:33	091231–5
	Uranium	20.5	ug/L	20	ug/L	102	80.0 – 120.0	01–JAN–10 05:33	091231–5

METALS
–4–
Interference Check Sample

SDG No: 10–853

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: ICPMS4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Lithium	0.051	ug/L					06–JAN–10 12:19	100106–6
ICSAB01									
	Lithium	19.5	ug/L	20	ug/L	97.5	80.0 – 120.0	06–JAN–10 12:25	100106–6

METALS
–5a–

Matrix Spike Summary

SDG NO. 10–853 **Client ID** RE03–09–14224S

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 87

Sample ID: 242661001 **Spike ID:** 1201994221

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Aluminum	ug/Kg		15700000		9390000		565000	1120	N/A	P
Antimony	ug/Kg	75–125	48100		365	U	56500	85.1		P
Barium	ug/Kg	75–125	232000		156000		56500	135	N	P
Boron	ug/Kg	75–125	57200		1830	J	56500	97.9		P
Cadmium	ug/Kg	75–125	55800		111	U	56500	98.6		P
Calcium	ug/Kg	75–125	2340000		1830000		565000	90.4		P
Chromium	ug/Kg	75–125	69200		10000		56500	105		P
Cobalt	ug/Kg	75–125	61600		6160		56500	98.2		P
Copper	ug/Kg	75–125	69100		7450		56500	109		P
Iron	ug/Kg		15700000		13900000		565000	311	N/A	P
Lead	ug/Kg	75–125	70900		13400		56500	102		P
Magnesium	ug/Kg	75–125	2860000		1900000		565000	170	N	P
Manganese	ug/Kg		618000		449000		56500	300	N/A	P
Potassium	ug/Kg	75–125	2350000		1490000		565000	153	N	P
Silicon	ug/Kg	75–125	2380000		1770000		565000	108		P
Silver	ug/Kg	75–125	59200		584		56500	104		P
Sodium	ug/Kg	75–125	981000		416000		565000	100		P
Titanium	ug/Kg		603000		470000		56500	235	N/A	P
Vanadium	ug/Kg	75–125	87900		27000		56500	108		P
Zinc	ug/Kg	75–125	94000		33500		56500	107		P

METALS
–5a–

Matrix Spike Duplicate Summary

SDG NO. 10–853 **Client ID** RE03–09–14224SD

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 87

Sample ID: 242661001 **Spike ID:** 1201994223

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Silver	ug/Kg	75–125	55800		584		54900	101		P
Sodium	ug/Kg	75–125	972000		416000		549000	101		P
Titanium	ug/Kg		578000		470000		54900	196	N/A	P
Vanadium	ug/Kg	75–125	81800		27000		54900	99.8		P
Zinc	ug/Kg	75–125	87400		33500		54900	98.2		P
Aluminum	ug/Kg		15600000		9390000		549000	1140	N/A	P
Antimony	ug/Kg	75–125	46200		365	U	54900	84.1		P
Barium	ug/Kg	75–125	208000		156000		54900	94.8		P
Boron	ug/Kg	75–125	53600		1830	J	54900	94.4		P
Cadmium	ug/Kg	75–125	52500		111	U	54900	95.6		P
Calcium	ug/Kg	75–125	2370000		1830000		549000	99.6		P
Chromium	ug/Kg	75–125	64600		10000		54900	99.5		P
Cobalt	ug/Kg	75–125	55700		6160		54900	90.3		P
Copper	ug/Kg	75–125	64300		7450		54900	104		P
Iron	ug/Kg		15400000		13900000		549000	267	N/A	P
Lead	ug/Kg	75–125	65100		13400		54900	94.2		P
Magnesium	ug/Kg	75–125	2830000		1900000		549000	169	N	P
Manganese	ug/Kg		424000		449000		54900	–45.4	N/A	P
Potassium	ug/Kg	75–125	2280000		1490000		549000	143	N	P
Silicon	ug/Kg	75–125	2000000		1770000		549000	42.5	N	P

METALS
–5a–

Matrix Spike Summary

SDG NO. 10–853 **Client ID** RE03–09–14224S

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 87

Sample ID: 242661001 **Spike ID:** 1201994301

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Beryllium	mg/kg	75–125	6.8		0.898		5.62	105		MS
Lithium	mg/kg	75–125	22.2		14.2		5.62	144	N	MS
Nickel	mg/kg	75–125	14.2		8.17		5.62	107		MS
Selenium	mg/kg	75–125	2		0.552	U	2.25	79		MS
Thallium	mg/kg	75–125	11		0.227		11.2	95.7		MS
Uranium	mg/kg	75–125	7.26		1.14		5.62	109		MS
Arsenic	mg/kg	75–125	10.6		2.02		8.99	95.6		MS

METALS
–5a–

Matrix Spike Duplicate Summary

SDG NO. 10–853 **Client ID** RE03–09–14224SD

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 87

Sample ID: 242661001 **Spike ID:** 1201998121

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Arsenic	mg/kg	75–125	10.3		2.02		8.8	94.3		MS
Beryllium	mg/kg	75–125	6.73		0.898		5.5	106		MS
Lithium	mg/kg	75–125	21.2		14.2		5.5	128	N	MS
Nickel	mg/kg	75–125	13.5		8.17		5.5	97.1		MS
Selenium	mg/kg	75–125	2.08		0.552	U	2.2	84.4		MS
Thallium	mg/kg	75–125	10.6		0.227		11	93.9		MS
Uranium	mg/kg	75–125	6.96		1.14		5.5	106		MS

METALS
–5a–

Matrix Spike Summary

SDG NO. 10–853 **Client ID** RE03–09–14224S

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 87

Sample ID: 242661001 **Spike ID:** 1202003910

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Mercury	ug/kg	75–125	142		19.4		122	101		AV

METALS
–5a–

Matrix Spike Duplicate Summary

SDG NO. 10–853 **Client ID** RE03–09–14224SD

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 87

Sample ID: 242661001 **Spike ID:** 1202003914

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Mercury	ug/kg	75–125	142		19.4		120	102		AV

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–853

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE03–09–14224D

Sample ID: 242661001 **Duplicate ID:** 1201994220 **Percent Solids for Dup:** 87

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	ug/Kg	+/–20%	9390000		8490000		10.1		P
Antimony	ug/Kg		365	U	375	U			P
Barium	ug/Kg	+/–20%	156000		146000		6.39		P
Boron	ug/Kg		1830	J	1140	U	200		P
Cadmium	ug/Kg		111	U	114	U			P
Calcium	ug/Kg	+/–20%	1830000		1740000		4.94		P
Chromium	ug/Kg	+/–20%	10000		9560		4.68		P
Cobalt	ug/Kg	+/–20%	6160		5630		8.97		P
Copper	ug/Kg	+/–20%	7450		6990		6.3		P
Iron	ug/Kg	+/–20%	13900000		12700000		9.33		P
Lead	ug/Kg	+/–20%	13400		12400		8.27		P
Magnesium	ug/Kg	+/–20%	1900000		1780000		6.63		P
Manganese	ug/Kg	+/–20%	449000		419000		6.83		P
Potassium	ug/Kg	+/–20%	1490000		1350000		9.63		P
Silicon	ug/Kg	+/–20%	1770000		1710000		3.25		P
Silver	ug/Kg	+/–569	584		478	J	20		P
Sodium	ug/Kg	+/–20%	416000		398000		4.28		P
Titanium	ug/Kg	+/–20%	470000		435000		7.89		P
Vanadium	ug/Kg	+/–20%	27000		24900		7.91		P
Zinc	ug/Kg	+/–20%	33500		30200		10.4		P

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–853

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE03–09–14224SD

Sample ID: 1201994221 **Duplicate ID:** 1201994223 **Percent Solids for Dup:** 87

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	ug/Kg	+/–20	15700000		15600000		.41		P
Antimony	ug/Kg	+/–20	48100		46200		4.1		P
Barium	ug/Kg	+/–20	232000		208000		11.1		P
Boron	ug/Kg	+/–20	57200		53600		6.37		P
Cadmium	ug/Kg	+/–20	55800		52500		6.03		P
Calcium	ug/Kg	+/–20	2340000		2370000		1.52		P
Chromium	ug/Kg	+/–20	69200		64600		6.82		P
Cobalt	ug/Kg	+/–20	61600		55700		10.1		P
Copper	ug/Kg	+/–20	69100		64300		7.14		P
Iron	ug/Kg	+/–20	15700000		15400000		1.89		P
Lead	ug/Kg	+/–20	70900		65100		8.4		P
Magnesium	ug/Kg	+/–20	2860000		2830000		1.18		P
Manganese	ug/Kg	+/–20	618000		424000		37.3	*	P
Potassium	ug/Kg	+/–20	2350000		2280000		3.4		P
Silicon	ug/Kg	+/–20	2380000		2000000		17.2		P
Silver	ug/Kg	+/–20	59200		55800		5.95		P
Sodium	ug/Kg	+/–20	981000		972000		.963		P
Titanium	ug/Kg	+/–20	603000		578000		4.32		P
Vanadium	ug/Kg	+/–20	87900		81800		7.2		P
Zinc	ug/Kg	+/–20	94000		87400		7.27		P

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–853

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE03–09–14224D

Sample ID: 242661001 **Duplicate ID:** 1201994300 **Percent Solids for Dup:** 87

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Arsenic	mg/kg	+/–1.12	2.02		2.09		3.42		MS
Beryllium	mg/kg	+/–20%	0.898		0.91		1.33		MS
Lithium	mg/kg	+/–20%	14.2		13.7		3.32		MS
Nickel	mg/kg	+/–20%	8.17		8.23		.691		MS
Selenium	mg/kg		0.552	U	0.56	U			MS
Thallium	mg/kg	+/–.224	0.227		0.195	J	15.1		MS
Uranium	mg/kg	+/–20%	1.14		1.12		1.3		MS

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–853

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE03–09–14224SD

Sample ID: 1201994301 **Duplicate ID:** 1201998121 **Percent Solids for Dup:** 87

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Arsenic	mg/kg	+/–20	10.6		10.3		2.79		MS
Beryllium	mg/kg	+/–20	6.8		6.73		1.06		MS
Lithium	mg/kg	+/–20	22.2		21.2		4.8		MS
Nickel	mg/kg	+/–20	14.2		13.5		4.72		MS
Selenium	mg/kg	+/–20	2		2.08		4.06		MS
Thallium	mg/kg	+/–20	11		10.6		3.96		MS
Uranium	mg/kg	+/–20	7.26		6.96		4.28		MS

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–853

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE03–09–14224D

Sample ID: 242661001 **Duplicate ID:** 1202003909 **Percent Solids for Dup:** 87

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Mercury	ug/kg	+/–13.1	19.4		16		18.9		AV

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–853

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE03–09–14224SD

Sample ID: 1202003910 **Duplicate ID:** 1202003914 **Percent Solids for Dup:** 87

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Mercury	ug/kg	+/–20	142		142		.0883		AV

METALS
–7–
Laboratory Control Sample Summary

SDG NO. 10–853

Contract: LANL01004

Aqueous LCS Source: **Solid LCS Source:** ERA

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1201994219								
	Silicon	ug/Kg	1210000	1560000		129	10–190	P
	Silver	ug/Kg	30100	28400		94.5	66–134	P
	Sodium	ug/Kg	1020000	933000		91.5	74–127	P
	Titanium	ug/Kg	462000	542000		117	39–161	P
	Vanadium	ug/Kg	115000	112000		97.8	79–121	P
	Zinc	ug/Kg	594000	533000		89.7	80–121	P
	Aluminum	ug/Kg	10500000	8090000		77.1	56–144	P
	Antimony	ug/Kg	173000	138000		79.5	71–130	P
	Barium	ug/Kg	198000	170000		85.9	80–120	P
	Boron	ug/Kg	141000	131000		93	75–125	P
	Cadmium	ug/Kg	60700	52100		85.9	81–120	P
	Calcium	ug/Kg	9870000	8970000		90.8	83–117	P
	Chromium	ug/Kg	236000	208000		88.2	80–120	P
	Cobalt	ug/Kg	91200	80100		87.8	81–120	P
	Copper	ug/Kg	174000	169000		97.1	81–118	P
	Iron	ug/Kg	18000000	18400000		102	51–149	P
	Lead	ug/Kg	86000	78800		91.7	79–121	P
	Magnesium	ug/Kg	4000000	3480000		86.9	79–122	P
	Manganese	ug/Kg	558000	478000		85.6	81–119	P
	Potassium	ug/Kg	4300000	3680000		85.6	74–127	P

METALS
–7–
Laboratory Control Sample Summary

SDG NO. 10–853

Contract: LANL01004

Aqueous LCS Source: **Solid LCS Source:** ERA

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1201994299								
	Arsenic	mg/kg	104	110		106	83–120	MS
	Beryllium	mg/kg	77.6	90.5		117	81.2–126.8	MS
	Lithium	mg/kg	10.6	11.3	J	107	66.7–133.7	MS
	Nickel	mg/kg	134	144		107	83.3–121.4	MS
	Selenium	mg/kg	286	300		105	80.2–125.9	MS
	Thallium	mg/kg	121	131		109	78–123.2	MS
	Uranium	mg/kg	2.13	1.86		87.1	61.9–130.7	MS

METALS
-7-
Laboratory Control Sample Summary

SDG NO. 10-853

Contract: LANL01004

Aqueous LCS Source: **Solid LCS Source:** ERA

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202003908								
	Mercury	ug/kg	5150	5170		100	71.6-128.3	AV

METALS
–9–
Serial Dilution Sample Summary

SDG NO. 10–853 **Client ID** RE03–09–14224L

Contract: LANL01004

Matrix: SOLID **Level:** Low

Sample ID: 242661001 **Serial Dilution ID:** 1201994222

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Aluminum	84800		82000		3.3		10	P
Antimony	3.3	U	16.5	U				P
Barium	1410		1420		.709		10	P
Boron	16.6	J	50	U	100			P
Cadmium	1	U	5	U				P
Calcium	16500		16100		2.42		10	P
Chromium	90.5		93		2.76		10	P
Cobalt	55.6		56.5		1.62			P
Copper	67.3		63		6.39			P
Iron	126000		121000		4.37		10	P
Lead	121		116		4.13			P
Magnesium	17200		16400		4.94		10	P
Manganese	4060		4210		3.69		10	P
Potassium	13500		13000		4.07		10	P
Silicon	16000		15500		3.44		10	P
Silver	5.28		5	U	100			P
Sodium	3760		3200		15	E	10	P
Titanium	4250		4280		.588		10	P
Vanadium	244		242		1.02		10	P
Zinc	303		304		.165		10	P

METALS
–9–
Serial Dilution Sample Summary

SDG NO. 10–853 **Client ID** RE03–09–14224L

Contract: LANL01004

Matrix: SOLID **Level:** Low

Sample ID: 242661001 **Serial Dilution ID:** 1201994302

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Arsenic	9.16		7.9	J	13.8			MS
Beryllium	4.07		4.2		3.19			MS
Lithium	64.1		64.5		.624			MS
Nickel	37		38.9		5			MS
Selenium	2.5	U	12.5	U				MS
Thallium	1.03		1.5	U	100			MS
Uranium	5.16		4.97		3.78			MS

METALS
–9–
Serial Dilution Sample Summary

SDG NO. 10–853 **Client ID** RE03–09–14224L

Contract: LANL01004

Matrix: SOLID **Level:** Low

Sample ID: 242661001 **Serial Dilution ID:** 1202003913

Analyte	Initial Value µg/L	C	Serial Value µg/L	C	% Difference	Qual	Acceptance Limit	M
Mercury	.308		.34	U	100			AV

METALS
-13-
SAMPLE PREPARATION SUMMARY

SDG No: 10-853 **Method Type:** P

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number 932274							
1201994218	MB for batch 932274	MB	S	17-DEC-09	.505g	50mL	
1201994219	LCS for batch 932274	LCS	S	17-DEC-09	.508g	50mL	
1201994221	RE03-09-14224S	MS	S	17-DEC-09	.509g	50mL	
1201994223	RE03-09-14224SD	MSD	S	17-DEC-09	.524g	50mL	
1201994220	RE03-09-14224D	DUP	S	17-DEC-09	.506g	50mL	
242661001	RE03-09-14224	SAMPLE	S	17-DEC-09	.52g	50mL	
242661002	RE03-09-14227	SAMPLE	S	17-DEC-09	.505g	50mL	
242661003	RE03-09-14225	SAMPLE	S	17-DEC-09	.525g	50mL	
242661004	RE03-09-14226	SAMPLE	S	17-DEC-09	.512g	50mL	
242661005	RE03-09-14288	SAMPLE	S	17-DEC-09	.507g	50mL	
242661006	RE03-09-14287	SAMPLE	S	17-DEC-09	.506g	50mL	
242661007	RE03-09-14267	SAMPLE	S	17-DEC-09	.525g	50mL	
242661008	RE03-09-14265	SAMPLE	S	17-DEC-09	.514g	50mL	
242661009	RE03-09-14281	SAMPLE	S	17-DEC-09	.519g	50mL	
242661010	RE03-09-14284	SAMPLE	S	17-DEC-09	.516g	50mL	
242661011	RE03-09-14274	SAMPLE	S	17-DEC-09	.502g	50mL	
242661012	RE03-09-14277	SAMPLE	S	17-DEC-09	.502g	50mL	
242661013	RE03-09-14282	SAMPLE	S	17-DEC-09	.518g	50mL	
242661014	RE03-09-14269	SAMPLE	S	17-DEC-09	.505g	50mL	

METALS
–13–
SAMPLE PREPARATION SUMMARY

SDG No: 10–853 **Method Type:** P

Contract: **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
242661015	RE03–09–14273	SAMPLE	S	17–DEC–09	.514g	50mL	
242661016	RE03–09–14271	SAMPLE	S	17–DEC–09	.511g	50mL	
242661017	RE03–09–14278	SAMPLE	S	17–DEC–09	.519g	50mL	
242661018	RE03–09–14285	SAMPLE	S	17–DEC–09	.525g	50mL	
242661019	RE03–09–14286	SAMPLE	S	17–DEC–09	.504g	50mL	
242661020	RE03–09–14283	SAMPLE	S	17–DEC–09	.501g	50mL	

METALS
-13-
SAMPLE PREPARATION SUMMARY

SDG No: 10-853 **Method Type:** MS

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number	932314						
1201994298	MB for batch 932314	MB	S	17-DEC-09	.507g	50mL	
1201994299	LCS for batch 932314	LCS	S	17-DEC-09	.511g	50mL	
1201994301	RE03-09-14224S	MS	S	17-DEC-09	.512g	50mL	
1201998121	RE03-09-14224SD	MSD	S	17-DEC-09	.523g	50mL	
1201994300	RE03-09-14224D	DUP	S	17-DEC-09	.514g	50mL	
242661001	RE03-09-14224	SAMPLE	S	17-DEC-09	.521g	50mL	
242661002	RE03-09-14227	SAMPLE	S	17-DEC-09	.506g	50mL	
242661003	RE03-09-14225	SAMPLE	S	17-DEC-09	.524g	50mL	
242661004	RE03-09-14226	SAMPLE	S	17-DEC-09	.509g	50mL	
242661005	RE03-09-14288	SAMPLE	S	17-DEC-09	.5g	50mL	
242661006	RE03-09-14287	SAMPLE	S	17-DEC-09	.502g	50mL	
242661007	RE03-09-14267	SAMPLE	S	17-DEC-09	.507g	50mL	
242661008	RE03-09-14265	SAMPLE	S	17-DEC-09	.523g	50mL	
242661009	RE03-09-14281	SAMPLE	S	17-DEC-09	.503g	50mL	
242661010	RE03-09-14284	SAMPLE	S	17-DEC-09	.5g	50mL	
242661011	RE03-09-14274	SAMPLE	S	17-DEC-09	.506g	50mL	
242661012	RE03-09-14277	SAMPLE	S	17-DEC-09	.523g	50mL	
242661013	RE03-09-14282	SAMPLE	S	17-DEC-09	.508g	50mL	
242661014	RE03-09-14269	SAMPLE	S	17-DEC-09	.512g	50mL	

METALS
-13-
SAMPLE PREPARATION SUMMARY

SDG No: 10-853 **Method Type:** MS

Contract: **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
242661015	RE03-09-14273	SAMPLE	S	17-DEC-09	.504g	50mL	
242661016	RE03-09-14271	SAMPLE	S	17-DEC-09	.51g	50mL	
242661017	RE03-09-14278	SAMPLE	S	17-DEC-09	.522g	50mL	
242661018	RE03-09-14285	SAMPLE	S	17-DEC-09	.512g	50mL	
242661019	RE03-09-14286	SAMPLE	S	17-DEC-09	.505g	50mL	
242661020	RE03-09-14283	SAMPLE	S	17-DEC-09	.523g	50mL	

METALS
–13–
SAMPLE PREPARATION SUMMARY

SDG No: 10–853 **Method Type**: AV

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number	936548						
1202003907	MB for batch 936548	MB	S	31–DEC–09	.507g	30mL	
1202003908	LCS for batch 936548	LCS	S	31–DEC–09	.207g	30mL	
1202003910	RE03–09–14224S	MS	S	31–DEC–09	.567g	30mL	
1202003914	RE03–09–14224SD	MSD	S	31–DEC–09	.577g	30mL	
1202003909	RE03–09–14224D	DUP	S	31–DEC–09	.527g	30mL	
242661001	RE03–09–14224	SAMPLE	S	31–DEC–09	.548g	30mL	
242661002	RE03–09–14227	SAMPLE	S	31–DEC–09	.53g	30mL	
242661003	RE03–09–14225	SAMPLE	S	31–DEC–09	.535g	30mL	
242661004	RE03–09–14226	SAMPLE	S	31–DEC–09	.526g	30mL	
242661005	RE03–09–14288	SAMPLE	S	31–DEC–09	.553g	30mL	
242661006	RE03–09–14287	SAMPLE	S	31–DEC–09	.552g	30mL	
242661007	RE03–09–14267	SAMPLE	S	31–DEC–09	.6g	30mL	
242661008	RE03–09–14265	SAMPLE	S	31–DEC–09	.6g	30mL	
242661009	RE03–09–14281	SAMPLE	S	31–DEC–09	.51g	30mL	
242661010	RE03–09–14284	SAMPLE	S	31–DEC–09	.6g	30mL	
242661011	RE03–09–14274	SAMPLE	S	31–DEC–09	.588g	30mL	
242661012	RE03–09–14277	SAMPLE	S	31–DEC–09	.533g	30mL	
242661013	RE03–09–14282	SAMPLE	S	31–DEC–09	.576g	30mL	
242661014	RE03–09–14269	SAMPLE	S	31–DEC–09	.53g	30mL	

METALS
–13–
SAMPLE PREPARATION SUMMARY

SDG No: 10–853 **Method Type:** AV

Contract: **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
242661015	RE03–09–14273	SAMPLE	S	31–DEC–09	.582g	30mL	
242661016	RE03–09–14271	SAMPLE	S	31–DEC–09	.534g	30mL	
242661017	RE03–09–14278	SAMPLE	S	31–DEC–09	.568g	30mL	
242661018	RE03–09–14285	SAMPLE	S	31–DEC–09	.507g	30mL	
242661019	RE03–09–14286	SAMPLE	S	31–DEC–09	.507g	30mL	
242661020	RE03–09–14283	SAMPLE	S	31–DEC–09	.577g	30mL	

Metals
–14–
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: OPTIMA3
Start Date: 19–DEC–09
End Date: 19–DEC–09
Client Sdg: 10–853
Method P
Data File: 121909–1

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Li	Mg	Mn	Hg	Ni	K	Se	Si	Ag	Na	Tl	Ti	U	V	Zn
S0.0	1	07:18	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
S0.1	1	07:25		X		X		X	X		X	X	X		X			X			X		X	X			X		X	X
S0.5	1	07:31	X	X		X		X	X	X	X	X	X		X		X	X			X		X	X			X		X	X
SCAL	1	07:38	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
S10	1	07:45	X							X				X			X								X					
ICV01	1	07:51	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
ICB01	1	07:58	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
PQL01	1	08:04	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
ICSA01	1	08:11	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
ICSAB01	1	08:17	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
LR01	1	08:23	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
LR02	1	08:29	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
CCV01	1	08:36	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
CCB01	1	08:43	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
LR03	1	08:54	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
CCV02	1	09:05	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
CCB02	1	09:12	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
ZZZZZZ	1	09:19																												
ZZZZZZ	1	09:26																												
ZZZZZZ	1	09:33																												
ZZZZZZ	1	09:40																												
ZZZZZZ	1	09:46																												
ZZZZZZ	1	09:53																												
ZZZZZZ	1	10:00																												
ZZZZZZ	1	10:07																												
CCV03	1	10:14	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
CCB03	1	10:21	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
ZZZZZZ	1	10:30																												
ZZZZZZ	1	10:37																												
ZZZZZZ	1	10:44																												
ZZZZZZ	1	10:50																												
ZZZZZZ	1	10:57																												
ZZZZZZ	5	11:04																												
ZZZZZZ	1	11:11																												
CCV04	1	11:18	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
CCB04	1	11:25	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
ZZZZZZ	5	11:30																												
ZZZZZZ	5	11:37																												
ZZZZZZ	5	11:43																												
ZZZZZZ	25	11:50																												

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time																											
ZZZZZZ	5	11:57																											
CCV05	1	12:04	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
CCB05	1	12:11	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
ZZZZZZ	1	12:19																											
ZZZZZZ	1	12:26																											
ZZZZZZ	1	12:32																											
ZZZZZZ	1	12:39																											
ZZZZZZ	1	12:46																											
ZZZZZZ	5	12:53																											
ZZZZZZ	1	13:00																											
CCV06	1	13:07	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
CCB06	1	13:14	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
CCV07	1	13:29	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
CCB07	1	13:36	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
ZZZZZZ	1	13:43																											
ZZZZZZ	1	13:50																											
ZZZZZZ	1	13:56																											
ZZZZZZ	1	14:03																											
ZZZZZZ	1	14:10																											
ZZZZZZ	1	14:17																											
ZZZZZZ	5	14:24																											
ZZZZZZ	1	14:31																											
CCV08	1	14:38	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
CCB08	1	14:45	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
ZZZZZZ	1	14:52																											
ZZZZZZ	1	14:59																											
ZZZZZZ	1	15:06																											
ZZZZZZ	1	15:13																											
ZZZZZZ	1	15:20																											
ZZZZZZ	5	15:27																											
ZZZZZZ	1	15:34																											
ZZZZZZ	1	15:41																											
CCV09	1	15:48	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
CCB09	1	15:54	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
ZZZZZZ	1	16:01																											
ZZZZZZ	1	16:08																											
ZZZZZZ	1	16:15																											
ZZZZZZ	1	16:22																											
ZZZZZZ	1	16:29																											
ZZZZZZ	1	16:35																											

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Analysis Run Log

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Li	Mg	Mn	Hg	Ni	K	Se	Si	Ag	Na	Tl	Ti	U	V	Zn
CCV10	1	16:42	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
CCB10	1	16:49	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
ZZZZZZ	1	16:56																												
ZZZZZZ	1	17:03																												
ZZZZZZ	1	17:10																												
ZZZZZZ	5	17:17																												
ZZZZZZ	1	17:23																												
CCV11	1	17:30	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
CCB11	1	17:37	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
ZZZZZZ	1	17:44																												
ZZZZZZ	1	17:51																												
ZZZZZZ	1	17:58																												
ZZZZZZ	1	18:05																												
ZZZZZZ	1	18:12																												
ZZZZZZ	5	18:19																												
ZZZZZZ	1	18:26																												
ZZZZZZ	1	18:33																												
ZZZZZZ	1	18:39																												
CCV12	1	18:46	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
CCB12	1	18:53	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
1201994218	1	19:00	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
1201994219	1	19:07	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
242661001	1	19:13	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
1201994220	1	19:20	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
1201994221	1	19:28	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
1201994223	1	19:35	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
1201994222	5	19:42	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
242661002	1	19:49	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
242661003	1	19:56	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
CCV13	1	20:03	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
CCB13	1	20:10	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
242661004	1	20:17	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
242661005	1	20:24	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
242661006	1	20:31	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
242661007	1	20:38	X	X		X		X	X	X	X	X	X	X	X		X	X					X	X			X		X	X
242661008	1	20:45	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
242661009	1	20:52	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
242661010	1	20:59	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
242661011	1	21:06	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
242661012	1	21:13	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X

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Analysis Run Log

Samp No.	D/F	Run Time																												
CCV14	1	21:20	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
CCB14	1	21:27	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
242661013	1	21:34	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
242661014	1	21:41	X	X		X		X	X	X	X	X	X	X	X		X	X					X	X			X		X	X
242661015	1	21:48	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
242661016	1	21:55	X	X		X		X	X	X	X	X	X	X	X		X	X					X	X			X		X	X
242661017	1	22:02	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
242661018	1	22:09	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
242661019	1	22:17	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
242661020	1	22:24	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
CCV15	1	22:31	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
CCB15	1	22:38	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X

Metals
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Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: OPTIMA3
Start Date: 20–DEC–09 **End Date:** 20–DEC–09

Client Sdg: 10–853
Method P
Data File: 122009A–2

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Li	Mg	Mn	Hg	Ni	K	Se	Si	Ag	Na	Tl	Ti	U	V	Zn
S0.0	1	08:27																			X				X					
S0.1	1	08:34																			X									
S0.5	1	08:40																			X									
SCAL	1	08:47																			X				X					
S10	1	08:54																							X					
ICV01	1	08:59																			X				X					
ICB01	1	09:06																			X				X					
PQL01	1	09:13																			X				X					
ICSA01	1	09:20																			X				X					
ICSAB01	1	09:26																			X				X					
LR01	1	09:31																			X				X					
LR02	1	09:37																			X				X					
CCV01	1	09:44																			X				X					
CCB01	1	09:51																			X				X					
LR03	1	09:57																			X				X					
CCV02	1	10:04																			X				X					
CCB02	1	10:11																			X				X					
ZZZZZZ	5	10:27																												
ZZZZZZ	5	10:34																												
242661007	5	10:41																			X				X					
242661014	5	10:48																			X				X					
242661016	5	10:55																			X				X					
ZZZZZZ	5	11:02																												
ZZZZZZ	5	11:08																												
CCV03	1	11:15																			X				X					
CCB03	1	11:22																			X				X					

Metals
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Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: HG3
Start Date: 04-JAN-10 **End Date:** 04-JAN-10

Client Sdg: 10-853
Method AV
Data File: 010410S1-7

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Li	Mg	Mn	Hg	Ni	K	Se	Si	Ag	Na	Tl	Ti	U	V	Zn
S0.0	1	09:02																	X											
S0.2	1	09:04																	X											
S0.5	1	09:05																	X											
S2.0	1	09:07																	X											
S5.0	1	09:09																	X											
S10.0	1	09:10																	X											
ICV01	1	09:12																	X											
ICB01	1	09:14																	X											
CRDL01	1	09:15																	X											
CCV01	1	09:17																	X											
CCB01	1	09:19																	X											
1202003907	1	09:20																	X											
1202003908	10	09:22																	X											
242661001	1	09:24																	X											
1202003909	1	09:25																	X											
1202003910	1	09:27																	X											
1202003914	1	09:29																	X											
1202003913	5	09:30																	X											
242661002	1	09:32																	X											
242661003	1	09:34																	X											
242661004	1	09:35																	X											
CCV02	1	09:37																	X											
CCB02	1	09:39																	X											
242661005	1	09:40																	X											
242661006	1	09:42																	X											
242661007	1	09:44																	X											
242661008	1	09:45																	X											
242661009	1	09:47																	X											
242661010	1	09:49																	X											
242661011	1	09:50																	X											
242661012	1	09:52																	X											
242661013	1	09:54																	X											
242661014	1	09:55																	X											
CCV03	1	09:57																	X											
CCB03	1	09:59																	X											
242661015	1	10:00																	X											
242661016	1	10:02																	X											
242661017	1	10:04																	X											
242661018	1	10:05																	X											
242661019	1	10:07																	X											

Metals
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Analysis Run Log

Samp No.	D/F	Run Time																												
242661020	1	10:09																	X											
ZZZZZZ	1	10:10																												
ZZZZZZ	10	10:12																												
CCV04	1	10:14																	X											
CCB04	1	10:16																	X											

Metals
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Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: ICPMS4
Start Date: 31–DEC–09 **End Date:** 01–JAN–10

Client Sdg: 10–853
Method MS
Data File: 091231–3

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Li	Mg	Mn	Hg	Ni	K	Se	Si	Ag	Na	Tl	Ti	U	V	Zn
S0.0	1	16:31			X		X													X		X				X				
S10	1	16:37			X		X													X		X				X				
S100	1	16:43			X		X													X		X				X				
ICV01	1	16:49			X		X													X		X				X				
ICB01	1	16:56			X		X													X		X				X				
CRDL01	1	17:02			X		X													X		X				X				
ICSA01	1	17:08			X		X													X		X				X				
ICSAB01	1	17:14			X		X													X		X				X				
CCV01	1	17:20			X		X													X		X				X				
CCB01	1	17:27			X		X													X		X				X				
LR01	1	17:33			X		X													X		X				X				
CCV02	1	17:39			X		X													X		X				X				
CCB02	1	17:45			X		X													X		X				X				
ZZZZZZ	2	17:51																												
ZZZZZZ	40	17:57																												
ZZZZZZ	2	18:04																												
ZZZZZZ	2	18:10																												
ZZZZZZ	2	18:16																												
CCV03	1	18:22			X		X													X		X				X				
CCB03	1	18:28			X		X													X		X				X				
ZZZZZZ	2	18:35																												
ZZZZZZ	10	18:41																												
ZZZZZZ	2	18:47																												
ZZZZZZ	2	18:53																												
ZZZZZZ	2	18:59																												
ZZZZZZ	2	19:06																												
ZZZZZZ	2	19:12																												
CCV04	1	19:18			X		X													X		X				X				
CCB04	1	19:24			X		X													X		X				X				
ZZZZZZ	2	19:30																												
ZZZZZZ	2	19:37																												
ZZZZZZ	2	19:43																												
ZZZZZZ	2	19:49																												
ZZZZZZ	2	19:55																												
ZZZZZZ	2	20:01																												
ZZZZZZ	2	20:08																												
CCV05	1	20:14			X		X													X		X				X				
CCB05	1	20:20			X		X													X		X				X				
ZZZZZZ	2	20:26																												
ZZZZZZ	2	20:33																												

Metals
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Analysis Run Log

Samp No.	D/F	Run Time																												
ZZZZZZ	2	20:39																												
ZZZZZZ	2	20:45																												
ZZZZZZ	2	20:51																												
ZZZZZZ	2	20:57																												
ZZZZZZ	2	21:04																												
CCV06	1	21:10			X		X												X		X				X					
CCB06	1	21:16			X		X												X		X				X					
1201994298	2	21:22			X		X												X		X				X					
1201994299	40	21:28			X		X												X		X				X					
ZZZZZZ	20	21:35																												
242661001	2	21:41			X		X												X		X				X					
1201994300	2	21:47			X		X												X		X				X					
1201994301	2	21:53			X		X												X		X				X					
1201998121	2	22:00			X		X												X		X				X					
CCV07	1	22:06			X		X												X		X				X					
CCB07	1	22:12			X		X												X		X				X					
1201994302	10	22:18			X		X												X		X				X					
242661002	2	22:24			X		X												X		X				X					
242661003	2	22:31			X		X												X		X				X					
242661004	2	22:37			X		X												X		X				X					
242661005	2	22:43			X		X												X		X				X					
242661006	2	22:49			X		X												X		X				X					
242661007	2	22:56			X		X												X		X				X					
CCV08	1	23:02			X		X												X		X				X					
CCB08	1	23:08			X		X												X		X				X					
242661008	2	23:14			X		X												X		X				X					
242661009	2	23:21			X		X												X		X				X					
242661010	2	23:27			X		X												X		X				X					
242661011	2	23:33			X		X												X		X				X					
242661012	2	23:39			X		X												X		X				X					
242661013	2	23:46			X		X												X		X				X					
242661014	2	23:52			X		X												X		X				X					
CCV09	1	23:58			X		X												X		X				X					
CCB09	1	00:04			X		X												X		X				X					
242661015	2	00:10			X		X												X		X				X					
242661016	2	00:17			X		X												X		X				X					
242661017	2	00:23			X		X												X		X				X					
242661018	2	00:29			X		X												X		X				X					
242661019	2	00:35			X		X												X		X				X					
242661020	2	00:42			X		X												X		X				X					

Metals
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Analysis Run Log

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Li	Mg	Mn	Hg	Ni	K	Se	Si	Ag	Na	Tl	Ti	U	V	Zn
CCV10	1	00:48			X		X													X		X				X				
CCB10	1	00:54			X		X													X		X				X				

Metals
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Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: ICPMS4
Start Date: 31–DEC–09 **End Date:** 01–JAN–10

Client Sdg: 10–853
Method MS
Data File: 091231–5

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Li	Mg	Mn	Hg	Ni	K	Se	Si	Ag	Na	Tl	Ti	U	V	Zn
S0.0	1	05:16														X												X		
S10	1	05:18														X												X		
S100	1	05:20														X												X		
ICV01	1	05:23														X												X		
ICB01	1	05:25														X												X		
CRDL01	1	05:28														X												X		
ICSA01	1	05:30														X												X		
ICSAB01	1	05:33														X												X		
CCV01	1	05:35														X												X		
CCB01	1	05:38														X												X		
1201994298	2	05:40														X												X		
1201994299	40	05:43																										X		
1201994299	20	05:45														X														
242661001	2	05:48														X												X		
1201994300	2	05:50														X												X		
1201994301	2	05:52														X												X		
1201998121	2	05:55														X												X		
CCV02	1	05:57														X												X		
CCB02	1	06:00														X												X		
1201994302	10	06:02														X												X		
242661002	2	06:05														X												X		
242661003	2	06:07														X												X		
242661004	2	06:10																										X		
242661005	2	06:12														X												X		
242661006	2	06:15														X												X		
242661007	2	06:17														X												X		
CCV03	1	06:20														X												X		
CCB03	1	06:22														X												X		
242661008	2	06:25														X												X		
242661009	2	06:27														X												X		
242661010	2	06:30														X												X		
242661011	2	06:32														X												X		
242661012	2	06:35														X												X		
242661013	2	06:37														X												X		
242661014	2	06:40														X												X		
CCV04	1	06:42														X												X		
CCB04	1	06:45														X												X		
242661015	2	06:47														X												X		
242661016	2	06:50														X												X		
242661017	2	06:52														X												X		

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Analysis Run Log

Samp No.	D/F	Run Time																												
242661018	2	06:55													X												X		
242661019	2	06:57													X												X		
242661020	2	07:00													X												X		
CCV05	1	07:02													X												X		
CCB05	1	07:05													X												X		

Metals
–14–
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: ICPMS4
Start Date: 06–JAN–10 **End Date:** 06–JAN–10

Client Sdg: 10–853
Method MS
Data File: 100106–6

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Li	Mg	Mn	Hg	Ni	K	Se	Si	Ag	Na	Tl	Ti	U	V	Zn
S0.0	1	11:42														X														
S10	1	11:48														X														
S100	1	11:54														X														
ICV01	1	12:00														X														
ICB01	1	12:06														X														
CRDL01	1	12:12														X														
ICSA01	1	12:19														X														
ICSAB01	1	12:25														X														
CCV01	1	12:31														X														
CCB01	1	12:37														X														
LR01	1	12:43														X														
CCV02	1	12:50														X														
CCB02	1	12:56														X														
ZZZZZZ	2	13:03																												
ZZZZZZ	20	13:09																												
ZZZZZZ	2	13:15																												
CCV03	1	13:21														X														
CCB03	1	13:28														X														
242661004	2	13:34														X														
CCV04	1	13:40														X														
CCB04	1	13:46														X														

Standards

METALS
–10–
Instrument Detection Limits

SDG NO. 10–853

Contract: LANL01004 **Lab Code: GEL** **MDL Effective Date:** 01–JUL–09

ICP/MS	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
SOLID	Aluminum		15.0	50
	Antimony		0.5	3
	Arsenic		1.0	5
	Barium		0.5	2
	Beryllium		0.1	.5
	Boron		4.0	15
	Cadmium		0.1	1
	Calcium		33.0	100
	Chromium		1.0	3
	Cobalt		0.3	1
	Copper		0.33	1
	Iron		25.0	100
	Lead		0.5	2
	Lithium		2.0	10
	Magnesium		7.5	25
	Manganese		1.0	5
	Nickel		0.5	2
	Potassium		80.0	300
	Selenium		2.5	5
	Silver		0.2	1
	Sodium		80.0	250
	Thallium		0.3	1
	Titanium		2.0	10
	Uranium		0.066	.2
	Vanadium		2.0	10
	Zinc		2.0	10

METALS
-10-
Instrument Detection Limits

SDG NO. 10-853

Contract: LANL01004 **Lab Code: GEL** **MDL Effective Date:** 15-JUN-09

MERCURY	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
SOLID	Mercury		0.068	.2

METALS
–10–
Instrument Detection Limits

SDG NO. 10–853

Contract: LANL01004 **Lab Code: GEL** **MDL Effective Date:** 01–JUL–09

ICP	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
SOLID	Aluminum	396.153	68.0	200
	Antimony	206.836	3.3	10
	Arsenic	188.979	5.0	30
	Barium	233.527	1.0	5
	Beryllium	313.107	1.0	5
	Boron	249.677	10.0	50
	Cadmium	226.502	1.0	5
	Calcium	317.933	80.0	250
	Chromium	267.716	1.5	5
	Cobalt	228.616	1.5	5
	Copper	324.752	3.0	10
	Iron	238.204	80.0	250
	Lead	220.353	2.5	10
	Magnesium	279.077	85.0	300
	Manganese	257.61	2.0	10
	Nickel	231.604	1.5	5
	Potassium	766.49	64.0	250
	Selenium	196.026	5.0	30
	Silicon	251.611	15.0	100
	Silver	328.068	1.0	5
	Sodium	589.592	70.0	250
	Thallium	190.801	5.0	20
	Titanium	334.94	1.0	5
	Uranium	409.014	10.0	50
	Vanadium	292.402	1.0	5
	Zinc	213.857	3.3	10

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA3
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-853
Effective Dates: 01-NOV-09

Parmname	Wavelength	Aluminum	Antimony	Arsenic	Barium	Beryllium
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.02738	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	-0.44940	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	-0.22121	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	-0.33886	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	-0.13648	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	-0.05571	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.19671	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	-0.02739	0.00000	0.00000	0.00000	0.00000
Tin	189.927	-0.00058	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA3
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-853
Effective Dates: 01-NOV-09

Parmname	Wavelength	Boron	Cadmium	Chromium	Cobalt	Copper
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	24.5549	0.00000	0.00000
Arsenic	188.979	0.52529	0.00000	-0.67113	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	2.54031	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.38952	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	-31.5465	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	0.78023
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.63859	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	160.41
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	5.22870	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.35099	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	1.93161	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.39273	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	1.19810

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA3
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-853
Effective Dates: 01-NOV-09

Parmname	Wavelength	Iron	Lead	Magnesium	Manganese	Molybdenum
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	42.8126
Antimony	206.836	-0.01635	0.00000	0.00000	0.00000	-22.2146
Arsenic	188.979	-0.21271	0.00000	0.00000	0.00000	1.34645
Barium	233.527	-0.03709	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.13266	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.09998	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	-0.01788	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.01425	0.00000	0.00000	0.00000	-2.64232
Copper	324.752	-0.05101	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.09069	0.00000	0.00000	0.00000	-2.44485
Magnesium	279.077	0.85543	0.00000	0.00000	0.00000	-20.2401
Manganese	257.61	-0.09972	0.00000	0.01862	0.00000	0.00000
Molybdenum	202.031	-0.07094	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.80633	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	-0.03176	0.00000	0.01823	12.4291	-3.60863
Selenium	196.026	-3.00009	0.00000	0.00000	0.00000	-3.17982
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	17.4444
Silver	328.068	-0.31825	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	-5.85948	0.00000
Tin	189.927	-0.01337	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.12581	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.15211	0.00000	-0.02256	0.00000	-14.2921
Zinc	213.857	0.09548	0.00000	0.03423	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL **GEL Job No:** 10-853
Contract: LANL01004
Instrument: OPTIMA3 **Effective Dates:** 01-NOV-09
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Parmname	Wavelength	Nickel	Phosphorous	Potassium	Selenium	Silicon
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	-0.64279	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	0.44040	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.33191	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	6.38465	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA3
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-853
Effective Dates: 01-NOV-09

Parmname	Wavelength	Silver	Strontium	Sulfur	Thallium	Tin
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	0.00000	-17.4077
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	-13.8713
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	3.10491
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA3
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-853
Effective Dates: 01-NOV-09

Parmname	Wavelength	Titanium	Uranium	Vanadium	Zinc
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	2.73145	0.00000	-2.31857	0.00000
Arsenic	188.979	-8.38419	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	-2.24883	0.00000
Beryllium	313.107	-1.96555	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.32181	-1.76281	0.00000
Cobalt	228.616	2.12623	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.85359	-3.92851	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	-7.67419	0.00000	2.18873	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.44145	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	1.10141	-1.94183	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000

METALS
-12-
Linear Ranges

SDG NO. 10-853

Contract: LANL01004 **Lab Code: GEL**

Instrument ID OPTIMA3

Analyte	Integration Time (sec)	LDR	Units	Effective Date
Aluminum	20	500000	ug/L	01-NOV-09
Antimony	20	10000	ug/L	01-NOV-09
Arsenic	20	10000	ug/L	01-NOV-09
Barium	20	15000	ug/L	01-NOV-09
Beryllium	20	3000	ug/L	01-NOV-09
Boron	20	5000	ug/L	01-NOV-09
Cadmium	20	10000	ug/L	01-NOV-09
Calcium	20	500000	ug/L	01-NOV-09
Chromium	20	25000	ug/L	01-NOV-09
Cobalt	20	10000	ug/L	01-NOV-09
Copper	20	20000	ug/L	01-NOV-09
Iron	20	500000	ug/L	01-NOV-09
Lead	20	25000	ug/L	01-NOV-09
Magnesium	20	500000	ug/L	01-NOV-09
Manganese	20	10000	ug/L	01-NOV-09
Nickel	20	10000	ug/L	01-NOV-09
Potassium	20	300000	ug/L	01-NOV-09
Selenium	20	10000	ug/L	01-NOV-09
Silicon	20	50000	ug/L	01-NOV-09
Silver	20	1000	ug/L	01-NOV-09
Sodium	20	500000	ug/L	01-NOV-09
Thallium	20	10000	ug/L	01-NOV-09
Titanium	20	10000	ug/L	01-NOV-09
Uranium	20	15000	ug/L	01-NOV-09
Vanadium	20	10000	ug/L	01-NOV-09
Zinc	20	15000	ug/L	01-NOV-09

METALS
–12–
Linear Ranges

SDG NO. 10–853

Contract: LANL01004 **Lab Code: GEL**

Instrument ID ICPMS4

Analyte	Integration Time (msec)	LDR	Units	Effective Date
Aluminum	1	50000	ug/L	01–NOV–09
Antimony	1000	250	ug/L	01–NOV–09
Arsenic	1000	1000	ug/L	01–NOV–09
Barium	1000	1000	ug/L	01–NOV–09
Beryllium	1000	1000	ug/L	01–NOV–09
Boron	1000	200	ug/L	01–NOV–09
Cadmium	1000	1000	ug/L	01–NOV–09
Calcium	500	50000	ug/L	01–NOV–09
Chromium	1000	1000	ug/L	01–NOV–09
Cobalt	1000	1000	ug/L	01–NOV–09
Copper	1000	1000	ug/L	01–NOV–09
Iron	500	50000	ug/L	01–NOV–09
Lead	1000	5000	ug/L	01–NOV–09
Lithium	1000	1000	ug/L	01–NOV–09
Magnesium	1	50000	ug/L	01–NOV–09
Manganese	1000	1000	ug/L	01–NOV–09
Nickel	1000	1000	ug/L	01–NOV–09
Potassium	1	50000	ug/L	01–NOV–09
Selenium	1000	500	ug/L	01–NOV–09
Silver	1000	250	ug/L	01–NOV–09
Sodium	1	50000	ug/L	01–NOV–09
Thallium	1000	500	ug/L	01–NOV–09
Titanium	1000	100	ug/L	01–NOV–09
Uranium	1000	5000	ug/L	01–NOV–09
Vanadium	1000	100	ug/L	01–NOV–09
Zinc	1000	2500	ug/L	01–NOV–09

Raw Data

Method: Hg_ReAlign
Result: 010610

Sample ID: Hg_ReAlign

Hg 253.652

Rep: 1

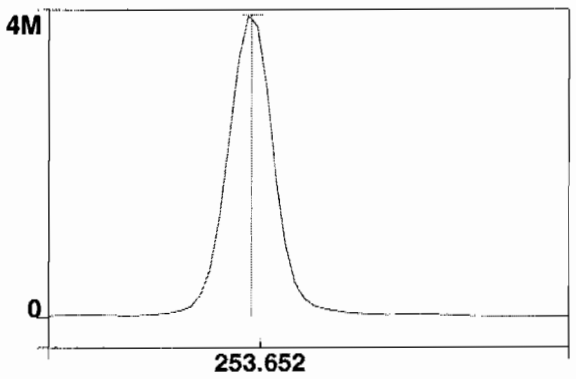

Intensity: 3442974.1 cps
Conc:

1

12/19/2009 07:08:27 Hg ReAlign... Actual peak offset (nm): -0.008
Drift (nm): -0.001 Slit adjustment: -5

Analysis Begun

Start Time: 12/19/2009 07:18:32 **Plasma On Time: 12/14/2009 06:02:42**
Logged In Analyst: Optima3 **Technique: ICP Continuous**
Spectrometer Model: Optima 5300 DV, S/N 077C7090601Autosampler Model: S10

Sample Information File: C:\pe\Optima3\Sample Information\121909.sif
Batch ID:
Results Data Set: 121909
Results Library: C:\pe\Optima3\Results\Results.mdb

Method Loaded
Method Name: General Eng.2AX **Method Last Saved: 12/18/2009 08:35:25**
IEC File: 101209.iec **MSF File:**
Method Description:

Analyte	Calibration Equation	Processing	View	Internal Standard	IEC
Ag 328.068	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Al 396.153Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
As 188.979	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
B 249.677	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ba 233.527	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Be 313.107	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ca 317.933Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	No
Cd 226.502	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Co 228.616	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cr 267.716	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cu 324.752	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Fe 238.204 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
K 766.490 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Mg 279.077 IEC	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Mn 257.610	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Mo 202.031	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Na 589.592 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	No
Ni 231.604	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
P 214.914	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Pb 220.353	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
S 181.975 Axial	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sb 206.836	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sc 361.383	Lin Thru 0	Peak Area	Axial	n/a	n/a
Sc Radial	Lin, Calc Int	Peak Area	Radial	n/a	n/a
Se 196.026	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Si 251.611	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sn 189.927	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sr 421.552	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Ti 334.940	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Tl 190.801	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
U 409.014	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
V 292.402	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y 371.029	Lin, Calc Int	Peak Area	Axial	n/a	n/a
Zn 213.857	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y RADIAL	Lin, Calc Int	Peak Area	Radial	n/a	n/a
SiO2	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes

Sequence No.: 1 **Autosampler Location: 8**
Sample ID: S0 **Date Collected: 12/19/2009 07:18:33**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: S0

	Net	Corrected	Calib.	Analysis

Repl#	Analyte	Intensity	Intensity	Conc.	Units	Time
1	Sc Radial	5478.8	5478.8	98.4	%	07:20:26
1	Y RADIAL	5815.0	5815.0	98.37	%	07:20:26
1	Al 396.153Radial†	-24.1	-24.4	[0.00]	ug/L	07:20:26
1	Ca 317.933Radial†	16.7	16.9	[0.00]	ug/L	07:20:46
1	Fe 238.204 Radial†	10.3	10.5	[0.00]	ug/L	07:20:46
1	K 766.490 Radial†	2671.9	2715.1	[0.00]	ug/L	07:20:26
1	Mg 279.077 IEC†	1.3	1.3	[0.00]	ug/L	07:20:46
1	Na 589.592 Radial†	-738.0	-749.9	[0.00]	ug/L	07:20:26
1	Sr 421.552†	-45.6	-46.3	[0.00]	ug/L	07:20:26
1	Sc 361.383	898614.7	898614.7	99.967	%	07:21:43
1	Y 371.029	744516.0	744516.0	100.01	%	07:21:43
1	Ag 328.068†	322.6	322.7	[0.00]	ug/L	07:21:43
1	As 188.979†	-23.0	-23.0	[0.00]	ug/L	07:22:03
1	B 249.677†	-19.3	-19.3	[0.00]	ug/L	07:21:43
1	Ba 233.527†	0.5	0.5	[0.00]	ug/L	07:22:03
1	Be 313.107†	-4762.2	-4763.7	[0.00]	ug/L	07:21:43
1	Cd 226.502†	-226.8	-226.9	[0.00]	ug/L	07:22:03
1	Co 228.616†	-93.2	-93.3	[0.00]	ug/L	07:22:03
1	Cr 267.716†	64.4	64.4	[0.00]	ug/L	07:22:03
1	Cu 324.752†	6010.5	6012.5	[0.00]	ug/L	07:21:43
1	Mn 257.610†	495.5	495.7	[0.00]	ug/L	07:22:03
1	Mo 202.031†	22.9	22.9	[0.00]	ug/L	07:22:03
1	Ni 231.604†	81.1	81.1	[0.00]	ug/L	07:22:03
1	P 214.914†	252.5	252.6	[0.00]	ug/L	07:22:03
1	Pb 220.353†	-69.6	-69.6	[0.00]	ug/L	07:22:03
1	S 181.975 Axial†	49.0	49.0	[0.00]	ug/L	07:22:03
1	Sb 206.836†	41.9	41.9	[0.00]	ug/L	07:22:03
1	Se 196.026†	-26.4	-26.4	[0.00]	ug/L	07:22:03
1	Si 251.611†	572.2	572.4	[0.00]	ug/L	07:22:03
1	Sn 189.927†	-0.0	-0.0	[0.00]	ug/L	07:22:03
1	Ti 334.940†	-1412.7	-1413.1	[0.00]	ug/L	07:21:43
1	Tl 190.801†	-41.3	-41.3	[0.00]	ug/L	07:22:03
1	U 409.014†	-2387.3	-2388.1	[0.00]	ug/L	07:21:43
1	V 292.402†	-1470.6	-1471.1	[0.00]	ug/L	07:21:43
1	Zn 213.857†	805.5	805.7	[0.00]	ug/L	07:22:03
1	SiO2†	625.7	625.9	[0.00]	ug/L	07:22:59
2	Sc Radial	5605.4	5605.4	101	%	07:20:51
2	Y RADIAL	5959.0	5959.0	100.8	%	07:20:51
2	Al 396.153Radial†	-10.2	-10.1	[0.00]	ug/L	07:20:51
2	Ca 317.933Radial†	24.3	24.1	[0.00]	ug/L	07:21:11
2	Fe 238.204 Radial†	10.3	10.3	[0.00]	ug/L	07:21:11
2	K 766.490 Radial†	2688.1	2669.9	[0.00]	ug/L	07:20:51
2	Mg 279.077 IEC†	2.1	2.1	[0.00]	ug/L	07:21:11
2	Na 589.592 Radial†	-787.1	-781.7	[0.00]	ug/L	07:20:51
2	Sr 421.552†	11.8	11.7	[0.00]	ug/L	07:20:51
2	Sc 361.383	902152.2	902152.2	100.36	%	07:22:08
2	Y 371.029	745973.5	745973.5	100.20	%	07:22:08
2	Ag 328.068†	349.4	348.1	[0.00]	ug/L	07:22:08
2	As 188.979†	-34.6	-34.5	[0.00]	ug/L	07:22:28
2	B 249.677†	-53.5	-53.3	[0.00]	ug/L	07:22:08
2	Ba 233.527†	-5.5	-5.5	[0.00]	ug/L	07:22:28
2	Be 313.107†	-4719.3	-4702.4	[0.00]	ug/L	07:22:08
2	Cd 226.502†	-235.3	-234.5	[0.00]	ug/L	07:22:28
2	Co 228.616†	-75.1	-74.9	[0.00]	ug/L	07:22:28
2	Cr 267.716†	79.9	79.6	[0.00]	ug/L	07:22:28
2	Cu 324.752†	6108.5	6086.5	[0.00]	ug/L	07:22:08
2	Mn 257.610†	473.2	471.5	[0.00]	ug/L	07:22:28
2	Mo 202.031†	16.0	15.9	[0.00]	ug/L	07:22:28
2	Ni 231.604†	93.1	92.7	[0.00]	ug/L	07:22:28
2	P 214.914†	263.9	262.9	[0.00]	ug/L	07:22:28
2	Pb 220.353†	-67.5	-67.3	[0.00]	ug/L	07:22:28
2	S 181.975 Axial†	47.0	46.8	[0.00]	ug/L	07:22:28
2	Sb 206.836†	40.8	40.7	[0.00]	ug/L	07:22:28
2	Se 196.026†	-31.1	-31.0	[0.00]	ug/L	07:22:28
2	Si 251.611†	582.7	580.6	[0.00]	ug/L	07:22:28
2	Sn 189.927†	9.6	9.6	[0.00]	ug/L	07:22:28
2	Ti 334.940†	-1325.3	-1320.6	[0.00]	ug/L	07:22:08
2	Tl 190.801†	-47.5	-47.3	[0.00]	ug/L	07:22:28
2	U 409.014†	-2384.5	-2375.9	[0.00]	ug/L	07:22:08
2	V 292.402†	-1446.9	-1441.7	[0.00]	ug/L	07:22:08

2	Zn 213.857†	789.3	786.4	[0.00]	ug/L	07:22:28
2	SiO2†	594.9	592.8	[0.00]	ug/L	07:23:04
3	Sc Radial	5617.7	5617.7	101	%	07:21:16
3	Y RADIAL	5960.2	5960.2	100.8	%	07:21:16
3	Al 396.153Radial†	-14.7	-14.5	[0.00]	ug/L	07:21:16
3	Ca 317.933Radial†	17.9	17.7	[0.00]	ug/L	07:21:36
3	Fe 238.204 Radial†	12.0	11.9	[0.00]	ug/L	07:21:36
3	K 766.490 Radial†	2777.3	2752.4	[0.00]	ug/L	07:21:16
3	Mg 279.077 IEC†	0.8	0.8	[0.00]	ug/L	07:21:36
3	Na 589.592 Radial†	-760.1	-753.3	[0.00]	ug/L	07:21:16
3	Sr 421.552†	-0.8	-0.8	[0.00]	ug/L	07:21:16
3	Sc 361.383	895959.8	895959.8	99.672	%	07:22:33
3	Y 371.029	742903.0	742903.0	99.790	%	07:22:33
3	Ag 328.068†	437.5	439.0	[0.00]	ug/L	07:22:33
3	As 188.979†	-46.8	-47.0	[0.00]	ug/L	07:22:53
3	B 249.677†	-5.1	-5.1	[0.00]	ug/L	07:22:33
3	Ba 233.527†	-2.8	-2.8	[0.00]	ug/L	07:22:53
3	Be 313.107†	-4711.7	-4727.2	[0.00]	ug/L	07:22:33
3	Cd 226.502†	-225.4	-226.2	[0.00]	ug/L	07:22:53
3	Co 228.616†	-92.9	-93.2	[0.00]	ug/L	07:22:53
3	Cr 267.716†	96.1	96.4	[0.00]	ug/L	07:22:53
3	Cu 324.752†	6047.8	6067.7	[0.00]	ug/L	07:22:33
3	Mn 257.610†	505.6	507.2	[0.00]	ug/L	07:22:53
3	Mo 202.031†	20.7	20.8	[0.00]	ug/L	07:22:53
3	Ni 231.604†	106.5	106.9	[0.00]	ug/L	07:22:53
3	P 214.914†	257.9	258.7	[0.00]	ug/L	07:22:53
3	Pb 220.353†	-55.1	-55.3	[0.00]	ug/L	07:22:53
3	S 181.975 Axial†	51.0	51.2	[0.00]	ug/L	07:22:53
3	Sb 206.836†	40.9	41.0	[0.00]	ug/L	07:22:53
3	Se 196.026†	-28.1	-28.2	[0.00]	ug/L	07:22:53
3	Si 251.611†	577.5	579.4	[0.00]	ug/L	07:22:53
3	Sn 189.927†	0.9	0.9	[0.00]	ug/L	07:22:53
3	Ti 334.940†	-1424.4	-1429.1	[0.00]	ug/L	07:22:33
3	Tl 190.801†	-55.4	-55.6	[0.00]	ug/L	07:22:53
3	U 409.014†	-2345.0	-2352.7	[0.00]	ug/L	07:22:33
3	V 292.402†	-1490.6	-1495.5	[0.00]	ug/L	07:22:33
3	Zn 213.857†	785.9	788.5	[0.00]	ug/L	07:22:53
3	SiO2†	599.4	601.4	[0.00]	ug/L	07:23:09

Mean Data: S0

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	898908.9	3106.67	0.35%	100.00	%
Sc Radial	5567.3	76.90	1.38%	100	%
Y 371.029	744464.2	1535.89	0.21%	100.00	%
Y RADIAL	5911.4	83.50	1.41%	100.0	%
Ag 328.068†	369.9	61.12	16.52%	[0.00]	ug/L
Al 396.153Radial†	-16.4	7.33	44.73%	[0.00]	ug/L
As 188.979†	-34.8	12.01	34.47%	[0.00]	ug/L
B 249.677†	-25.9	24.77	95.49%	[0.00]	ug/L
Ba 233.527†	-2.6	3.03	116.57%	[0.00]	ug/L
Be 313.107†	-4731.1	30.86	0.65%	[0.00]	ug/L
Ca 317.933Radial†	19.6	3.95	20.19%	[0.00]	ug/L
Cd 226.502†	-229.2	4.60	2.01%	[0.00]	ug/L
Co 228.616†	-87.1	10.59	12.16%	[0.00]	ug/L
Cr 267.716†	80.2	16.00	19.96%	[0.00]	ug/L
Cu 324.752†	6055.6	38.46	0.64%	[0.00]	ug/L
Fe 238.204 Radial†	10.9	0.90	8.24%	[0.00]	ug/L
K 766.490 Radial†	2712.4	41.33	1.52%	[0.00]	ug/L
Mg 279.077 IEC†	1.4	0.62	44.68%	[0.00]	ug/L
Mn 257.610†	491.5	18.26	3.72%	[0.00]	ug/L
Mo 202.031†	19.9	3.60	18.10%	[0.00]	ug/L
Na 589.592 Radial†	-761.7	17.47	2.29%	[0.00]	ug/L
Ni 231.604†	93.6	12.92	13.80%	[0.00]	ug/L
P 214.914†	258.1	5.20	2.02%	[0.00]	ug/L
Pb 220.353†	-64.1	7.69	12.00%	[0.00]	ug/L
S 181.975 Axial†	49.0	2.20	4.48%	[0.00]	ug/L
Sb 206.836†	41.2	0.62	1.51%	[0.00]	ug/L
Se 196.026†	-28.5	2.32	8.14%	[0.00]	ug/L
Si 251.611†	577.5	4.43	0.77%	[0.00]	ug/L

Sn 189.927†	3.5	5.29	151.73%	[0.00] ug/L
Sr 421.552†	-11.8	30.54	258.65%	[0.00] ug/L
Ti 334.940†	-1387.6	58.58	4.22%	[0.00] ug/L
Tl 190.801†	-48.1	7.20	14.99%	[0.00] ug/L
U 409.014†	-2372.2	17.99	0.76%	[0.00] ug/L
V 292.402†	-1469.4	26.93	1.83%	[0.00] ug/L
Zn 213.857†	793.5	10.61	1.34%	[0.00] ug/L
SiO2†	606.7	17.18	2.83%	[0.00] ug/L

Sequence No.: 2
Sample ID: S0.1
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 2
Date Collected: 12/19/2009 07:25:19
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc Radial	5487.3	5487.3	98.6	%	07:27:16
1	Y RADIAL	5798.7	5798.7	98.09	%	07:27:16
1	K 766.490 Radial†	8549.2	5961.4	[1000]	ug/L	07:27:11
1	Sr 421.552†	17310.3	17574.4	[100]	ug/L	07:27:16
1	Sc 361.383	912189.9	912189.9	101.48	%	07:27:43
1	Y 371.029	750828.6	750828.6	100.85	%	07:27:43
1	Ag 328.068†	23552.4	22839.6	[100]	ug/L	07:27:48
1	As 188.979†	246.5	277.7	[100]	ug/L	07:28:08
1	B 249.677†	4718.4	4675.6	[100]	ug/L	07:27:48
1	Ba 233.527†	14914.6	14700.1	[100]	ug/L	07:27:48
1	Be 313.107†	292153.2	292630.7	[100]	ug/L	07:27:43
1	Cd 226.502†	10025.8	10109.1	[100]	ug/L	07:27:48
1	Co 228.616†	5539.2	5545.7	[100]	ug/L	07:28:08
1	Cr 267.716†	10041.0	9814.7	[100]	ug/L	07:27:48
1	Cu 324.752†	41032.1	34379.1	[100]	ug/L	07:27:48
1	Mn 257.610†	102308.9	100327.8	[100]	ug/L	07:27:48
1	Mo 202.031†	1670.1	1625.9	[100]	ug/L	07:28:08
1	Ni 231.604†	4765.5	4602.6	[100]	ug/L	07:27:48
1	P 214.914†	1178.9	903.6	[500]	ug/L	07:28:08
1	Pb 220.353†	888.6	939.8	[100]	ug/L	07:28:08
1	S 181.975 Axial†	203.7	151.7	[200]	ug/L	07:28:08
1	Sb 206.836†	368.9	322.4	[100]	ug/L	07:28:08
1	Se 196.026†	149.4	175.7	[100]	ug/L	07:28:08
1	Si 251.611†	18108.2	17267.1	[500]	ug/L	07:27:48
1	Sn 189.927†	664.5	651.3	[100]	ug/L	07:28:08
1	Ti 334.940†	66419.0	66839.5	[100]	ug/L	07:27:48
1	Tl 190.801†	342.9	385.9	[100]	ug/L	07:28:08
1	U 409.014†	1313.4	3666.5	[100]	ug/L	07:27:43
1	V 292.402†	14183.7	15446.6	[100]	ug/L	07:27:48
1	Zn 213.857†	12980.8	11998.3	[100]	ug/L	07:27:48
1	SiO2†	18208.6	17336.8	[1069.5]	ug/L	07:29:14
2	Sc Radial	5476.4	5476.4	98.4	%	07:27:26
2	Y RADIAL	5792.1	5792.1	97.98	%	07:27:26
2	K 766.490 Radial†	8519.1	5948.1	[1000]	ug/L	07:27:21
2	Sr 421.552†	17168.0	17464.8	[100]	ug/L	07:27:26
2	Sc 361.383	905291.1	905291.1	100.71	%	07:28:13
2	Y 371.029	745901.0	745901.0	100.19	%	07:28:13
2	Ag 328.068†	23672.6	23135.8	[100]	ug/L	07:28:18
2	As 188.979†	249.3	282.4	[100]	ug/L	07:28:38
2	B 249.677†	4606.6	4600.1	[100]	ug/L	07:28:18
2	Ba 233.527†	14882.8	14780.5	[100]	ug/L	07:28:18
2	Be 313.107†	290759.3	293440.5	[100]	ug/L	07:28:13
2	Cd 226.502†	10066.1	10224.3	[100]	ug/L	07:28:18
2	Co 228.616†	5553.2	5601.2	[100]	ug/L	07:28:38
2	Cr 267.716†	10006.3	9855.6	[100]	ug/L	07:28:18
2	Cu 324.752†	41287.6	34940.9	[100]	ug/L	07:28:18
2	Mn 257.610†	102396.0	101182.6	[100]	ug/L	07:28:18
2	Mo 202.031†	1662.6	1631.0	[100]	ug/L	07:28:38
2	Ni 231.604†	4773.8	4646.6	[100]	ug/L	07:28:18
2	P 214.914†	1198.1	931.6	[500]	ug/L	07:28:38
2	Pb 220.353†	883.0	940.8	[100]	ug/L	07:28:38
2	S 181.975 Axial†	209.0	158.5	[200]	ug/L	07:28:38
2	Sb 206.836†	371.5	327.6	[100]	ug/L	07:28:38
2	Se 196.026†	142.2	169.7	[100]	ug/L	07:28:38
2	Si 251.611†	18120.6	17415.4	[500]	ug/L	07:28:18
2	Sn 189.927†	664.9	656.7	[100]	ug/L	07:28:38
2	Ti 334.940†	66659.4	67577.1	[100]	ug/L	07:28:18
2	Tl 190.801†	347.9	393.6	[100]	ug/L	07:28:38
2	U 409.014†	1421.3	3783.5	[100]	ug/L	07:28:13

2	V 292.402†	14119.4	15489.3	[100]	ug/L	07:28:18
2	Zn 213.857†	13044.4	12158.8	[100]	ug/L	07:28:18
2	SiO2†	18265.7	17530.3	[1069.5]	ug/L	07:29:19
3	Sc Radial	5563.0	5563.0	99.9	%	07:27:36
3	Y RADIAL	5921.7	5921.7	100.2	%	07:27:36
3	K 766.490 Radial†	8355.7	5649.7	[1000]	ug/L	07:27:31
3	Sr 421.552†	17531.8	17557.2	[100]	ug/L	07:27:36
3	Sc 361.383	900253.6	900253.6	100.15	%	07:28:44
3	Y 371.029	741176.9	741176.9	99.558	%	07:28:44
3	Ag 328.068†	23727.7	23322.3	[100]	ug/L	07:28:49
3	As 188.979†	243.9	278.4	[100]	ug/L	07:29:09
3	B 249.677†	4711.2	4730.1	[100]	ug/L	07:28:49
3	Ba 233.527†	15022.9	15003.1	[100]	ug/L	07:28:49
3	Be 313.107†	288700.8	293000.7	[100]	ug/L	07:28:44
3	Cd 226.502†	10225.1	10439.0	[100]	ug/L	07:28:49
3	Co 228.616†	5580.3	5659.1	[100]	ug/L	07:29:09
3	Cr 267.716†	10071.5	9976.3	[100]	ug/L	07:28:49
3	Cu 324.752†	41363.7	35246.4	[100]	ug/L	07:28:49
3	Mn 257.610†	103350.9	102705.1	[100]	ug/L	07:28:49
3	Mo 202.031†	1694.4	1672.0	[100]	ug/L	07:29:09
3	Ni 231.604†	4799.4	4698.6	[100]	ug/L	07:28:49
3	P 214.914†	1204.5	944.6	[500]	ug/L	07:29:09
3	Pb 220.353†	886.9	949.6	[100]	ug/L	07:29:09
3	S 181.975 Axial†	203.8	154.5	[200]	ug/L	07:29:09
3	Sb 206.836†	379.2	337.5	[100]	ug/L	07:29:09
3	Se 196.026†	150.9	179.2	[100]	ug/L	07:29:09
3	Si 251.611†	18313.4	17708.6	[500]	ug/L	07:28:49
3	Sn 189.927†	673.8	669.3	[100]	ug/L	07:29:09
3	Ti 334.940†	67148.8	68436.1	[100]	ug/L	07:28:49
3	Tl 190.801†	334.2	381.8	[100]	ug/L	07:29:09
3	U 409.014†	1275.4	3645.7	[100]	ug/L	07:28:44
3	V 292.402†	14218.0	15666.2	[100]	ug/L	07:28:49
3	Zn 213.857†	13125.4	12312.2	[100]	ug/L	07:28:49
3	SiO2†	18184.1	17550.3	[1069.5]	ug/L	07:29:24

Mean Data: S0.1

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	905911.6	5992.28	0.66%	100.78	%
Sc Radial	5508.9	47.15	0.86%	99.0	%
Y 371.029	745968.8	4826.23	0.65%	100.20	%
Y RADIAL	5837.5	73.00	1.25%	98.75	%
Ag 328.068†	23099.2	243.44	1.05%	[100]	ug/L
As 188.979†	279.5	2.55	0.91%	[100]	ug/L
B 249.677†	4668.6	65.27	1.40%	[100]	ug/L
Ba 233.527†	14827.9	156.96	1.06%	[100]	ug/L
Be 313.107†	293024.0	405.43	0.14%	[100]	ug/L
Cd 226.502†	10257.5	167.47	1.63%	[100]	ug/L
Co 228.616†	5602.0	56.71	1.01%	[100]	ug/L
Cr 267.716†	9882.2	84.02	0.85%	[100]	ug/L
Cu 324.752†	34855.5	439.91	1.26%	[100]	ug/L
K 766.490 Radial†	5853.1	176.23	3.01%	[1000]	ug/L
Mn 257.610†	101405.2	1204.15	1.19%	[100]	ug/L
Mo 202.031†	1643.0	25.23	1.54%	[100]	ug/L
Ni 231.604†	4649.2	48.08	1.03%	[100]	ug/L
P 214.914†	926.6	20.94	2.26%	[500]	ug/L
Pb 220.353†	943.4	5.41	0.57%	[100]	ug/L
S 181.975 Axial†	154.9	3.43	2.22%	[200]	ug/L
Sb 206.836†	329.1	7.67	2.33%	[100]	ug/L
Se 196.026†	174.9	4.78	2.73%	[100]	ug/L
Si 251.611†	17463.7	224.68	1.29%	[500]	ug/L
Sn 189.927†	659.1	9.26	1.40%	[100]	ug/L
Sr 421.552†	17532.2	58.93	0.34%	[100]	ug/L
Ti 334.940†	67617.6	799.06	1.18%	[100]	ug/L
Tl 190.801†	387.1	5.99	1.55%	[100]	ug/L
U 409.014†	3698.6	74.30	2.01%	[100]	ug/L
V 292.402†	15534.0	116.43	0.75%	[100]	ug/L
Zn 213.857†	12156.5	157.00	1.29%	[100]	ug/L
SiO2†	17472.5	117.91	0.67%	[1069.5]	ug/L

Sequence No.: 3
Sample ID: S0.5
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 3
Date Collected: 12/19/2009 07:31:35
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc Radial	5698.6	5698.6	102	%	07:33:27
1	Y RADIAL	5996.3	5996.3	101.4	%	07:33:27
1	Al 396.153Radial†	6661.4	6524.4	[5000]	ug/L	07:33:27
1	Ca 317.933Radial†	3487.8	3387.9	[5000]	ug/L	07:33:47
1	K 766.490 Radial†	31038.0	27610.5	[5000]	ug/L	07:33:27
1	Mg 279.077 IEC†	168.2	163.0	[5000]	ug/L	07:33:47
1	Sr 421.552†	85392.6	83437.2	[500]	ug/L	07:33:27
1	Sc 361.383	911583.3	911583.3	101.41	%	07:34:45
1	Y 371.029	742613.9	742613.9	99.751	%	07:34:45
1	Ag 328.068†	115620.3	113642.9	[500]	ug/L	07:34:50
1	As 188.979†	1338.4	1354.6	[500]	ug/L	07:35:10
1	B 249.677†	23962.3	23655.1	[500]	ug/L	07:34:50
1	Ba 233.527†	73782.2	72758.9	[500]	ug/L	07:34:50
1	Be 313.107†	1493604.4	1477568.7	[500]	ug/L	07:34:45
1	Cd 226.502†	51230.7	50747.6	[500]	ug/L	07:34:50
1	Co 228.616†	28624.9	28314.0	[500]	ug/L	07:34:50
1	Cr 267.716†	49613.8	48843.9	[500]	ug/L	07:34:50
1	Cu 324.752†	181967.9	173382.3	[500]	ug/L	07:34:50
1	Mn 257.610†	510769.1	503176.0	[500]	ug/L	07:34:45
1	Mo 202.031†	8205.8	8071.8	[500]	ug/L	07:35:10
1	Ni 231.604†	23096.0	22681.3	[500]	ug/L	07:34:50
1	P 214.914†	5002.6	4674.9	[2500]	ug/L	07:35:10
1	Pb 220.353†	4633.9	4633.5	[500]	ug/L	07:35:10
1	S 181.975 Axial†	856.2	795.3	[1000]	ug/L	07:35:10
1	Sb 206.836†	1688.5	1623.8	[500]	ug/L	07:35:10
1	Se 196.026†	880.9	897.1	[500]	ug/L	07:35:10
1	Si 251.611†	88216.3	86412.3	[2500]	ug/L	07:34:50
1	Sn 189.927†	3297.6	3248.2	[500]	ug/L	07:35:10
1	Ti 334.940†	343434.3	340046.8	[500]	ug/L	07:34:45
1	Tl 190.801†	1867.7	1889.8	[500]	ug/L	07:35:10
1	U 409.014†	15743.9	17897.2	[500]	ug/L	07:34:50
1	V 292.402†	77149.3	77546.1	[500]	ug/L	07:34:50
1	Zn 213.857†	61946.9	60292.0	[500]	ug/L	07:34:50
1	SiO2†	87667.2	85841.6	[5347.5]	ug/L	07:36:18
2	Sc Radial	5544.1	5544.1	99.6	%	07:33:52
2	Y RADIAL	5872.3	5872.3	99.34	%	07:33:52
2	Al 396.153Radial†	6702.3	6746.7	[5000]	ug/L	07:33:52
2	Ca 317.933Radial†	3502.6	3497.7	[5000]	ug/L	07:34:12
2	K 766.490 Radial†	31160.7	28578.6	[5000]	ug/L	07:33:52
2	Mg 279.077 IEC†	167.3	166.6	[5000]	ug/L	07:34:12
2	Sr 421.552†	86131.2	86503.3	[500]	ug/L	07:33:52
2	Sc 361.383	910470.8	910470.8	101.29	%	07:35:16
2	Y 371.029	742224.9	742224.9	99.699	%	07:35:16
2	Ag 328.068†	116498.7	114649.4	[500]	ug/L	07:35:21
2	As 188.979†	1351.2	1368.8	[500]	ug/L	07:35:41
2	B 249.677†	24291.1	24008.5	[500]	ug/L	07:35:21
2	Ba 233.527†	74164.9	73225.7	[500]	ug/L	07:35:21
2	Be 313.107†	1488084.5	1473918.6	[500]	ug/L	07:35:16
2	Cd 226.502†	51465.4	51041.1	[500]	ug/L	07:35:21
2	Co 228.616†	28756.1	28478.0	[500]	ug/L	07:35:21
2	Cr 267.716†	49856.9	49143.7	[500]	ug/L	07:35:21
2	Cu 324.752†	183493.8	175108.1	[500]	ug/L	07:35:21
2	Mn 257.610†	509468.2	502507.1	[500]	ug/L	07:35:16
2	Mo 202.031†	8230.1	8105.7	[500]	ug/L	07:35:41
2	Ni 231.604†	23282.9	22893.7	[500]	ug/L	07:35:21
2	P 214.914†	5048.0	4725.9	[2500]	ug/L	07:35:41
2	Pb 220.353†	4679.5	4684.1	[500]	ug/L	07:35:41
2	S 181.975 Axial†	854.5	794.6	[1000]	ug/L	07:35:41
2	Sb 206.836†	1691.8	1629.1	[500]	ug/L	07:35:41

2	Se 196.026†	899.7	916.8	[500]	ug/L	07:35:41
2	Si 251.611†	89036.4	87328.2	[2500]	ug/L	07:35:21
2	Sn 189.927†	3300.4	3255.0	[500]	ug/L	07:35:41
2	Ti 334.940†	342481.4	339519.8	[500]	ug/L	07:35:16
2	Tl 190.801†	1889.7	1913.8	[500]	ug/L	07:35:41
2	U 409.014†	15663.2	17836.5	[500]	ug/L	07:35:21
2	V 292.402†	77677.0	78160.0	[500]	ug/L	07:35:21
2	Zn 213.857†	62437.5	60851.0	[500]	ug/L	07:35:21
2	SiO2†	87988.4	86264.4	[5347.5]	ug/L	07:36:23
3	Sc Radial	5544.8	5544.8	99.6	%	07:34:17
3	Y RADIAL	5884.0	5884.0	99.54	%	07:34:17
3	Al 396.153Radial†	6724.5	6768.1	[5000]	ug/L	07:34:17
3	Ca 317.933Radial†	3514.9	3509.6	[5000]	ug/L	07:34:37
3	K 766.490 Radial†	31310.5	28724.8	[5000]	ug/L	07:34:17
3	Mg 279.077 IEC†	164.6	163.8	[5000]	ug/L	07:34:37
3	Sr 421.552†	86504.2	86866.2	[500]	ug/L	07:34:17
3	Sc 361.383	916258.2	916258.2	101.93	%	07:35:47
3	Y 371.029	744779.1	744779.1	100.04	%	07:35:47
3	Ag 328.068†	114994.9	112447.6	[500]	ug/L	07:35:52
3	As 188.979†	1341.9	1351.3	[500]	ug/L	07:36:12
3	B 249.677†	23873.3	23447.2	[500]	ug/L	07:35:52
3	Ba 233.527†	73326.7	71940.9	[500]	ug/L	07:35:52
3	Be 313.107†	1496868.1	1473256.1	[500]	ug/L	07:35:47
3	Cd 226.502†	50806.8	50073.9	[500]	ug/L	07:35:52
3	Co 228.616†	28469.0	28017.1	[500]	ug/L	07:35:52
3	Cr 267.716†	49159.5	48148.5	[500]	ug/L	07:35:52
3	Cu 324.752†	180929.5	171448.0	[500]	ug/L	07:35:52
3	Mn 257.610†	513596.8	503380.4	[500]	ug/L	07:35:47
3	Mo 202.031†	8179.4	8004.6	[500]	ug/L	07:36:12
3	Ni 231.604†	22942.9	22414.9	[500]	ug/L	07:35:52
3	P 214.914†	4998.7	4646.0	[2500]	ug/L	07:36:12
3	Pb 220.353†	4660.7	4636.5	[500]	ug/L	07:36:12
3	S 181.975 Axial†	854.8	789.6	[1000]	ug/L	07:36:12
3	Sb 206.836†	1673.4	1600.5	[500]	ug/L	07:36:12
3	Se 196.026†	875.7	887.7	[500]	ug/L	07:36:12
3	Si 251.611†	87985.4	85741.9	[2500]	ug/L	07:35:52
3	Sn 189.927†	3294.7	3228.8	[500]	ug/L	07:36:12
3	Ti 334.940†	345096.9	339950.1	[500]	ug/L	07:35:47
3	Tl 190.801†	1880.0	1892.5	[500]	ug/L	07:36:12
3	U 409.014†	15626.7	17703.1	[500]	ug/L	07:35:52
3	V 292.402†	76454.9	76476.7	[500]	ug/L	07:35:52
3	Zn 213.857†	61666.8	59705.6	[500]	ug/L	07:35:52
3	SiO2†	88510.5	86227.9	[5347.5]	ug/L	07:36:28

Mean Data: S0.5

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	912770.8	3070.96	0.34%	101.54	%
Sc Radial	5595.8	88.97	1.59%	101	%
Y 371.029	743206.0	1376.22	0.19%	99.831	%
Y RADIAL	5917.5	68.45	1.16%	100.1	%
Ag 328.068†	113579.9	1102.25	0.97%	[500]	ug/L
Al 396.153Radial†	6679.7	134.98	2.02%	[5000]	ug/L
As 188.979†	1358.2	9.33	0.69%	[500]	ug/L
B 249.677†	23703.6	283.81	1.20%	[500]	ug/L
Ba 233.527†	72641.8	650.34	0.90%	[500]	ug/L
Be 313.107†	1474914.5	2322.40	0.16%	[500]	ug/L
Ca 317.933Radial†	3465.0	67.07	1.94%	[5000]	ug/L
Cd 226.502†	50620.9	495.86	0.98%	[500]	ug/L
Co 228.616†	28269.7	233.63	0.83%	[500]	ug/L
Cr 267.716†	48712.0	510.51	1.05%	[500]	ug/L
Cu 324.752†	173312.8	1831.02	1.06%	[500]	ug/L
K 766.490 Radial†	28304.6	605.52	2.14%	[5000]	ug/L
Mg 279.077 IEC†	164.5	1.90	1.16%	[5000]	ug/L
Mn 257.610†	503021.2	456.81	0.09%	[500]	ug/L
Mo 202.031†	8060.7	51.43	0.64%	[500]	ug/L
Ni 231.604†	22663.3	239.92	1.06%	[500]	ug/L
P 214.914†	4682.3	40.43	0.86%	[2500]	ug/L
Pb 220.353†	4651.4	28.36	0.61%	[500]	ug/L
S 181.975 Axial†	793.2	3.11	0.39%	[1000]	ug/L

Sb 206.836†	1617.8	15.24	0.94%	[500]	ug/L
Se 196.026†	900.6	14.86	1.65%	[500]	ug/L
Si 251.611†	86494.1	796.32	0.92%	[2500]	ug/L
Sn 189.927†	3244.0	13.61	0.42%	[500]	ug/L
Sr 421.552†	85602.2	1883.74	2.20%	[500]	ug/L
Ti 334.940†	339838.9	280.53	0.08%	[500]	ug/L
Tl 190.801†	1898.7	13.14	0.69%	[500]	ug/L
U 409.014†	17812.3	99.34	0.56%	[500]	ug/L
V 292.402†	77394.2	851.88	1.10%	[500]	ug/L
Zn 213.857†	60282.9	572.79	0.95%	[500]	ug/L
SiO2†	86111.3	234.29	0.27%	[5347.5]	ug/L

Sequence No.: 4
Sample ID: SCAL
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 4
Date Collected: 12/19/2009 07:38:39
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: SCAL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc Radial	5458.4	5458.4	98.0	%	07:40:52
1	Y RADIAL	5752.0	5752.0	97.30	%	07:40:52
1	Al 396.153Radial†	13231.1	13511.3	[10000]	ug/L	07:40:32
1	Ca 317.933Radial†	6909.0	7027.2	[10000]	ug/L	07:40:52
1	Fe 238.204 Radial†	1208.9	1222.1	[10000]	ug/L	07:40:52
1	K 766.490 Radial†	58416.7	56869.0	[10000]	ug/L	07:40:32
1	Mg 279.077 IEC†	328.1	333.2	[10000]	ug/L	07:40:52
1	Na 589.592 Radial†	31728.7	33123.0	[10000]	ug/L	07:40:32
1	Sr 421.552†	167103.4	170447.0	[1000]	ug/L	07:40:32
1	Sc 361.383	883286.8	883286.8	98.262	%	07:41:56
1	Y 371.029	722299.4	722299.4	97.023	%	07:41:56
1	Ag 328.068†	229508.6	233197.9	[1000]	ug/L	07:41:56
1	As 188.979†	2687.9	2770.2	[1000]	ug/L	07:42:16
1	B 249.677†	48055.0	48930.9	[1000]	ug/L	07:41:56
1	Ba 233.527†	144993.0	147560.0	[1000]	ug/L	07:41:56
1	Be 313.107†	2940610.9	2997350.5	[1000]	ug/L	07:41:50
1	Cd 226.502†	100505.1	102511.8	[1000]	ug/L	07:41:56
1	Co 228.616†	56144.1	57224.2	[1000]	ug/L	07:41:56
1	Cr 267.716†	97363.7	99005.6	[1000]	ug/L	07:41:56
1	Cu 324.752†	355274.2	355502.2	[1000]	ug/L	07:41:56
1	Mn 257.610†	999949.7	1017143.7	[1000]	ug/L	07:41:50
1	Mo 202.031†	16404.5	16674.8	[1000]	ug/L	07:42:16
1	Ni 231.604†	45154.9	45859.9	[1000]	ug/L	07:41:56
1	P 214.914†	9756.0	9670.5	[5000]	ug/L	07:42:16
1	Pb 220.353†	9330.3	9559.4	[1000]	ug/L	07:42:16
1	S 181.975 Axial†	1660.2	1640.5	[2000]	ug/L	07:42:16
1	Sb 206.836†	3356.4	3374.5	[1000]	ug/L	07:42:16
1	Se 196.026†	1787.8	1847.9	[1000]	ug/L	07:42:16
1	Si 251.611†	175705.1	178235.2	[5000]	ug/L	07:41:56
1	Sn 189.927†	6616.7	6730.2	[1000]	ug/L	07:42:16
1	Ti 334.940†	682059.7	695510.4	[1000]	ug/L	07:41:50
1	Tl 190.801†	3759.8	3874.4	[1000]	ug/L	07:42:16
1	U 409.014†	33472.3	36436.5	[1000]	ug/L	07:41:56
1	V 292.402†	153695.1	157882.8	[1000]	ug/L	07:41:56
1	Zn 213.857†	120840.9	122184.6	[1000]	ug/L	07:41:56
1	SiO2†	176496.9	179011.8	[10695]	ug/L	07:43:25
2	Sc Radial	5481.8	5481.8	98.5	%	07:41:17
2	Y RADIAL	5756.9	5756.9	97.39	%	07:41:17
2	Al 396.153Radial†	13086.7	13307.2	[10000]	ug/L	07:40:57
2	Ca 317.933Radial†	6935.3	7023.9	[10000]	ug/L	07:41:17
2	Fe 238.204 Radial†	1218.3	1226.4	[10000]	ug/L	07:41:17
2	K 766.490 Radial†	58033.5	56226.2	[10000]	ug/L	07:40:57
2	Mg 279.077 IEC†	329.5	333.2	[10000]	ug/L	07:41:17
2	Na 589.592 Radial†	31540.3	32793.8	[10000]	ug/L	07:40:57
2	Sr 421.552†	166280.3	168885.5	[1000]	ug/L	07:40:57
2	Sc 361.383	889720.3	889720.3	98.978	%	07:42:27
2	Y 371.029	726788.9	726788.9	97.626	%	07:42:27
2	Ag 328.068†	231283.9	233302.6	[1000]	ug/L	07:42:27
2	As 188.979†	2694.6	2757.3	[1000]	ug/L	07:42:48
2	B 249.677†	48707.7	49236.7	[1000]	ug/L	07:42:27
2	Ba 233.527†	146245.8	147758.7	[1000]	ug/L	07:42:27
2	Be 313.107†	2946784.0	2981948.1	[1000]	ug/L	07:42:22
2	Cd 226.502†	101381.2	102657.4	[1000]	ug/L	07:42:27
2	Co 228.616†	56748.5	57421.7	[1000]	ug/L	07:42:27
2	Cr 267.716†	98089.1	99021.9	[1000]	ug/L	07:42:27
2	Cu 324.752†	358645.1	356293.5	[1000]	ug/L	07:42:27
2	Mn 257.610†	1003368.4	1013239.3	[1000]	ug/L	07:42:22
2	Mo 202.031†	16394.9	16544.3	[1000]	ug/L	07:42:48
2	Ni 231.604†	45567.5	45944.5	[1000]	ug/L	07:42:27

2	P 214.914†	9781.5	9624.4	[5000]	ug/L	07:42:48
2	Pb 220.353†	9327.8	9488.2	[1000]	ug/L	07:42:48
2	S 181.975 Axial†	1667.8	1636.1	[2000]	ug/L	07:42:48
2	Sb 206.836†	3359.7	3353.1	[1000]	ug/L	07:42:48
2	Se 196.026†	1796.9	1843.9	[1000]	ug/L	07:42:48
2	Si 251.611†	177399.5	178654.1	[5000]	ug/L	07:42:27
2	Sn 189.927†	6623.3	6688.2	[1000]	ug/L	07:42:48
2	Ti 334.940†	684913.7	693374.7	[1000]	ug/L	07:42:22
2	Tl 190.801†	3769.1	3856.1	[1000]	ug/L	07:42:48
2	U 409.014†	33664.1	36384.0	[1000]	ug/L	07:42:27
2	V 292.402†	154988.7	158058.7	[1000]	ug/L	07:42:27
2	Zn 213.857†	122079.3	122546.6	[1000]	ug/L	07:42:27
2	SiO2†	173385.7	174569.7	[10695]	ug/L	07:43:30
3	Sc Radial	5420.9	5420.9	97.4	%	07:41:42
3	Y RADIAL	5726.3	5726.3	96.87	%	07:41:42
3	Al 396.153Radial†	13241.2	13615.2	[10000]	ug/L	07:41:22
3	Ca 317.933Radial†	6857.1	7022.7	[10000]	ug/L	07:41:42
3	Fe 238.204 Radial†	1201.5	1223.0	[10000]	ug/L	07:41:42
3	K 766.490 Radial†	58301.6	57164.1	[10000]	ug/L	07:41:22
3	Mg 279.077 IEC†	322.7	330.1	[10000]	ug/L	07:41:42
3	Na 589.592 Radial†	31620.0	33235.8	[10000]	ug/L	07:41:22
3	Sr 421.552†	167104.9	171630.6	[1000]	ug/L	07:41:22
3	Sc 361.383	881299.8	881299.8	98.041	%	07:42:59
3	Y 371.029	720248.3	720248.3	96.747	%	07:42:59
3	Ag 328.068†	229110.1	233318.0	[1000]	ug/L	07:42:59
3	As 188.979†	2675.8	2764.1	[1000]	ug/L	07:43:19
3	B 249.677†	48076.0	49062.6	[1000]	ug/L	07:42:59
3	Ba 233.527†	144549.3	147440.1	[1000]	ug/L	07:42:59
3	Be 313.107†	2928638.8	2991886.7	[1000]	ug/L	07:42:54
3	Cd 226.502†	100101.7	102331.0	[1000]	ug/L	07:42:59
3	Co 228.616†	56030.6	57237.3	[1000]	ug/L	07:42:59
3	Cr 267.716†	96920.1	98776.5	[1000]	ug/L	07:42:59
3	Cu 324.752†	354627.6	355657.8	[1000]	ug/L	07:42:59
3	Mn 257.610†	997443.7	1016882.0	[1000]	ug/L	07:42:54
3	Mo 202.031†	16337.4	16644.0	[1000]	ug/L	07:43:19
3	Ni 231.604†	45005.2	45810.8	[1000]	ug/L	07:42:59
3	P 214.914†	9701.9	9637.7	[5000]	ug/L	07:43:19
3	Pb 220.353†	9312.6	9562.7	[1000]	ug/L	07:43:19
3	S 181.975 Axial†	1665.3	1649.6	[2000]	ug/L	07:43:19
3	Sb 206.836†	3339.7	3365.2	[1000]	ug/L	07:43:19
3	Se 196.026†	1778.6	1842.6	[1000]	ug/L	07:43:19
3	Si 251.611†	175462.8	178391.2	[5000]	ug/L	07:42:59
3	Sn 189.927†	6593.5	6721.7	[1000]	ug/L	07:43:19
3	Ti 334.940†	680484.2	695468.5	[1000]	ug/L	07:42:54
3	Tl 190.801†	3751.4	3874.4	[1000]	ug/L	07:43:19
3	U 409.014†	33504.8	36546.4	[1000]	ug/L	07:42:59
3	V 292.402†	153091.7	157620.0	[1000]	ug/L	07:42:59
3	Zn 213.857†	120479.7	122093.4	[1000]	ug/L	07:42:59
3	SiO2†	176761.6	179686.8	[10695]	ug/L	07:43:35

Mean Data: SCAL

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	884768.9	4401.57	0.50%	98.427	%
Sc Radial	5453.7	30.74	0.56%	98.0	%
Y 371.029	723112.2	3345.20	0.46%	97.132	%
Y RADIAL	5745.1	16.46	0.29%	97.19	%
Ag 328.068†	233272.8	65.36	0.03%	[1000]	ug/L
Al 396.153Radial†	13477.9	156.70	1.16%	[10000]	ug/L
As 188.979†	2763.9	6.49	0.23%	[1000]	ug/L
B 249.677†	49076.7	153.41	0.31%	[1000]	ug/L
Ba 233.527†	147586.3	160.90	0.11%	[1000]	ug/L
Be 313.107†	2990395.1	7808.79	0.26%	[1000]	ug/L
Ca 317.933Radial†	7024.6	2.35	0.03%	[10000]	ug/L
Cd 226.502†	102500.1	163.51	0.16%	[1000]	ug/L
Co 228.616†	57294.4	110.43	0.19%	[1000]	ug/L
Cr 267.716†	98934.7	137.20	0.14%	[1000]	ug/L
Cu 324.752†	355817.8	419.23	0.12%	[1000]	ug/L
Fe 238.204 Radial†	1223.8	2.26	0.18%	[10000]	ug/L
K 766.490 Radial†	56753.1	479.54	0.84%	[10000]	ug/L

Mg 279.077 IEC†	332.2	1.81	0.55%	[10000]	ug/L
Mn 257.610†	1015755.0	2182.60	0.21%	[1000]	ug/L
Mo 202.031†	16621.0	68.19	0.41%	[1000]	ug/L
Na 589.592 Radial†	33050.9	229.64	0.69%	[10000]	ug/L
Ni 231.604†	45871.7	67.60	0.15%	[1000]	ug/L
P 214.914†	9644.2	23.71	0.25%	[5000]	ug/L
Pb 220.353†	9536.8	42.08	0.44%	[1000]	ug/L
S 181.975 Axial†	1642.1	6.88	0.42%	[2000]	ug/L
Sb 206.836†	3364.3	10.72	0.32%	[1000]	ug/L
Se 196.026†	1844.8	2.75	0.15%	[1000]	ug/L
Si 251.611†	178426.8	211.73	0.12%	[5000]	ug/L
Sn 189.927†	6713.4	22.19	0.33%	[1000]	ug/L
Sr 421.552†	170321.0	1376.88	0.81%	[1000]	ug/L
Ti 334.940†	694784.6	1221.12	0.18%	[1000]	ug/L
Tl 190.801†	3868.3	10.55	0.27%	[1000]	ug/L
U 409.014†	36455.7	82.89	0.23%	[1000]	ug/L
V 292.402†	157853.8	220.80	0.14%	[1000]	ug/L
Zn 213.857†	122274.9	239.67	0.20%	[1000]	ug/L
SiO2†	177756.1	2780.09	1.56%	[10695]	ug/L

Sequence No.: 5
Sample ID: S10
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 5
Date Collected: 12/19/2009 07:45:47
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S10

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc Radial	5443.9	5443.9	97.8	%	07:48:00
1	Y RADIAL	5719.5	5719.5	96.75	%	07:48:00
1	Al 396.153Radial†	66553.4	68078.1	[50000]	ug/L	07:47:40
1	Ca 317.933Radial†	34047.9	34799.9	[50000]	ug/L	07:47:40
1	Fe 238.204 Radial†	2348.4	2390.8	[20000]	ug/L	07:48:00
1	Mg 279.077 IEC†	1563.4	1597.4	[50000]	ug/L	07:48:00
1	Na 589.592 Radial†	64624.0	66850.2	[20000]	ug/L	07:47:40
1	Sc 361.383	885309.8	885309.8	98.487	%	07:48:57
1	Y 371.029	716976.9	716976.9	96.308	%	07:48:57
2	Sc Radial	5354.0	5354.0	96.2	%	07:48:25
2	Y RADIAL	5644.3	5644.3	95.48	%	07:48:25
2	Al 396.153Radial†	66773.6	69450.0	[50000]	ug/L	07:48:05
2	Ca 317.933Radial†	34121.7	35461.4	[50000]	ug/L	07:48:05
2	Fe 238.204 Radial†	2313.7	2395.0	[20000]	ug/L	07:48:25
2	Mg 279.077 IEC†	1545.8	1606.0	[50000]	ug/L	07:48:25
2	Na 589.592 Radial†	64658.1	67995.5	[20000]	ug/L	07:48:05
2	Sc 361.383	885315.1	885315.1	98.488	%	07:49:03
2	Y 371.029	716928.7	716928.7	96.301	%	07:49:03
3	Sc Radial	5394.3	5394.3	96.9	%	07:48:50
3	Y RADIAL	5697.1	5697.1	96.38	%	07:48:50
3	Al 396.153Radial†	66387.5	68533.3	[50000]	ug/L	07:48:30
3	Ca 317.933Radial†	33886.8	34954.2	[50000]	ug/L	07:48:30
3	Fe 238.204 Radial†	2336.3	2400.4	[20000]	ug/L	07:48:50
3	Mg 279.077 IEC†	1571.3	1620.3	[50000]	ug/L	07:48:50
3	Na 589.592 Radial†	64043.1	66859.0	[20000]	ug/L	07:48:30
3	Sc 361.383	884318.5	884318.5	98.377	%	07:49:08
3	Y 371.029	714960.3	714960.3	96.037	%	07:49:08

Mean Data: S10

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	884981.1	573.86	0.06%	98.451	%
Sc Radial	5397.4	45.03	0.83%	96.9	%
Y 371.029	716288.6	1150.60	0.16%	96.215	%
Y RADIAL	5687.0	38.61	0.68%	96.20	%
Al 396.153Radial†	68687.1	698.77	1.02%	[50000]	ug/L
Ca 317.933Radial†	35071.8	346.05	0.99%	[50000]	ug/L
Fe 238.204 Radial†	2395.4	4.80	0.20%	[20000]	ug/L
Mg 279.077 IEC†	1607.9	11.55	0.72%	[50000]	ug/L
Na 589.592 Radial†	67234.9	658.71	0.98%	[20000]	ug/L

Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 328.068	3	Lin Thru 0	0.0	232.0	0.00000	0.999945	
Al 396.153Radial	3	Lin Thru 0	0.0	1.372	0.00000	0.999990	
As 188.979	3	Lin Thru 0	0.0	2.755	0.00000	0.999976	
B 249.677	3	Lin Thru 0	0.0	48.73	0.00000	0.999900	
Ba 233.527	3	Lin Thru 0	0.0	147.1	0.00000	0.999980	
Be 313.107	3	Lin Thru 0	0.0	2982	0.00000	0.999984	
Ca 317.933Radial	3	Lin Thru 0	0.0	0.7014	0.00000	0.999999	
Cd 226.502	3	Lin Thru 0	0.0	102.3	0.00000	0.999988	
Co 228.616	3	Lin Thru 0	0.0	57.13	0.00000	0.999985	
Cr 267.716	3	Lin Thru 0	0.0	98.63	0.00000	0.999981	
Cu 324.752	3	Lin Thru 0	0.0	353.9	0.00000	0.999946	
Fe 238.204 Radia	2	Lin Thru 0	0.0	0.1203	0.00000	0.999962	
K 766.490 Radial	3	Lin Thru 0	0.0	5.674	0.00000	0.999995	

Mg 279.077 IEC	3	Lin Thru 0	0.0	0.0322	0.00000	0.999978
Mn 257.610	3	Lin Thru 0	0.0	1014	0.00000	0.999993
Mo 202.031	3	Lin Thru 0	0.0	16.52	0.00000	0.999927
Na 589.592 Radia	2	Lin Thru 0	0.0	3.350	0.00000	0.999977
Ni 231.604	3	Lin Thru 0	0.0	45.77	0.00000	0.999988
P 214.914	3	Lin Thru 0	0.0	1.917	0.00000	0.999928
Pb 220.353	3	Lin Thru 0	0.0	9.490	0.00000	0.999952
S 181.975 Axial	3	Lin Thru 0	0.0	0.8151	0.00000	0.999897
Sb 206.836	3	Lin Thru 0	0.0	3.338	0.00000	0.999881
Se 196.026	3	Lin Thru 0	0.0	1.835	0.00000	0.999946
Si 251.611	3	Lin Thru 0	0.0	35.46	0.00000	0.999924
Sn 189.927	3	Lin Thru 0	0.0	6.668	0.00000	0.999909
Sr 421.552	3	Lin Thru 0	0.0	170.5	0.00000	0.999995
Ti 334.940	3	Lin Thru 0	0.0	691.6	0.00000	0.999960
Tl 190.801	3	Lin Thru 0	0.0	3.854	0.00000	0.999973
U 409.014	3	Lin Thru 0	0.0	36.29	0.00000	0.999957
V 292.402	3	Lin Thru 0	0.0	157.2	0.00000	0.999969
Zn 213.857	3	Lin Thru 0	0.0	121.9	0.00000	0.999984
SiO2	3	Lin Thru 0	0.0	16.52	0.00000	0.999922

Sequence No.: 6
Sample ID: ICV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 9
Date Collected: 12/19/2009 07:51:20
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5444.4	5444.4	97.8	%			07:53:13
1	Y RADIAL	5780.0	5780.0	97.78	%			07:53:13
1	Al 396.153Radial†	6892.9	7064.9	5125.0	ug/L	5125.0	ppb	07:53:13
1	Ca 317.933Radial†	3491.7	3551.0	5062.7	ug/L	5062.7	ppb	07:53:33
1	Fe 238.204 Radial†	623.4	626.6	5224.6	ug/L	5224.6	ppb	07:53:33
1	K 766.490 Radial†	17054.5	14727.1	2590.2	ug/L	2590.2	ppb	07:53:13
1	Mg 279.077 IEC†	179.6	182.2	5664.2	ug/L	5664.2	ppb	07:53:33
1	Na 589.592 Radial†	7634.6	8568.6	2557.5	ug/L	2557.5	ppb	07:53:13
1	Sr 421.552†	91042.1	93109.2	545.93	ug/L	545.93	ppb	07:53:13
1	Sc 361.383	921038.2	921038.2	102.46	%			07:54:30
1	Y 371.029	751036.4	751036.4	100.88	%			07:54:30
1	Ag 328.068†	61913.3	60055.9	262.06	ug/L	262.06	ppb	07:54:30
1	As 188.979†	1299.5	1303.1	477.36	ug/L	477.36	ppb	07:54:50
1	B 249.677†	25924.6	25327.6	517.83	ug/L	517.83	ppb	07:54:30
1	Ba 233.527†	77370.0	75513.6	514.57	ug/L	514.57	ppb	07:54:30
1	Be 313.107†	792101.8	777801.5	261.82	ug/L	261.82	ppb	07:54:30
1	Cd 226.502†	52492.9	51460.8	503.08	ug/L	503.08	ppb	07:54:30
1	Co 228.616†	29141.1	28528.1	499.63	ug/L	499.63	ppb	07:54:50
1	Cr 267.716†	49609.9	48337.8	490.90	ug/L	490.90	ppb	07:54:30
1	Cu 324.752†	192334.8	181658.1	513.52	ug/L	513.52	ppb	07:54:30
1	Mn 257.610†	537446.4	524042.0	517.32	ug/L	517.32	ppb	07:54:30
1	Mo 202.031†	9083.7	8845.6	535.80	ug/L	535.80	ppb	07:54:50
1	Ni 231.604†	23391.3	22735.7	496.44	ug/L	496.44	ppb	07:54:50
1	P 214.914†	5165.2	4783.0	2417.5	ug/L	2417.5	ppb	07:54:50
1	Pb 220.353†	4811.1	4759.5	503.19	ug/L	503.19	ppb	07:54:50
1	S 181.975 Axial†	2127.2	2027.1	2485.8	ug/L	2485.8	ppb	07:54:50
1	Sb 206.836†	1721.3	1638.8	499.83	ug/L	499.83	ppb	07:54:50
1	Se 196.026†	4795.0	4708.3	2583.5	ug/L	2583.5	ppb	07:54:50
1	Si 251.611†	177060.6	172229.0	4844.6	ug/L	4844.6	ppb	07:54:30
1	Sn 189.927†	3651.7	3560.4	534.58	ug/L	534.58	ppb	07:54:50
1	Ti 334.940†	352297.4	345220.5	499.01	ug/L	499.01	ppb	07:54:30
1	Tl 190.801†	2053.7	2052.4	535.78	ug/L	535.78	ppb	07:54:50
1	U 409.014†	15881.3	17872.0	490.81	ug/L	490.81	ppb	07:54:30
1	V 292.402†	80574.1	80107.6	516.71	ug/L	516.71	ppb	07:54:30
1	Zn 213.857†	65324.0	62961.0	511.89	ug/L	511.89	ppb	07:54:30
1	SiO2†	175583.6	170758.3	10313	ug/L	10313	ppb	07:55:48
2	Sc Radial	5630.4	5630.4	101	%			07:53:38
2	Y RADIAL	5980.9	5980.9	101.2	%			07:53:38
2	Al 396.153Radial†	6940.6	6879.1	4989.5	ug/L	4989.5	ppb	07:53:38
2	Ca 317.933Radial†	3554.1	3494.7	4982.5	ug/L	4982.5	ppb	07:53:58
2	Fe 238.204 Radial†	635.9	617.9	5152.2	ug/L	5152.2	ppb	07:53:58
2	K 766.490 Radial†	17212.3	14306.8	2516.2	ug/L	2516.2	ppb	07:53:38
2	Mg 279.077 IEC†	175.9	172.5	5363.7	ug/L	5363.7	ppb	07:53:58
2	Na 589.592 Radial†	7648.7	8324.6	2484.7	ug/L	2484.7	ppb	07:53:38
2	Sr 421.552†	91649.9	90634.1	531.42	ug/L	531.42	ppb	07:53:38
2	Sc 361.383	912402.0	912402.0	101.50	%			07:54:56
2	Y 371.029	745300.6	745300.6	100.11	%			07:54:56
2	Ag 328.068†	61182.6	59907.8	261.40	ug/L	261.40	ppb	07:54:56
2	As 188.979†	1284.0	1299.8	476.15	ug/L	476.15	ppb	07:55:17
2	B 249.677†	25547.6	25195.7	515.13	ug/L	515.13	ppb	07:54:56
2	Ba 233.527†	76885.1	75750.7	516.17	ug/L	516.17	ppb	07:54:56
2	Be 313.107†	784684.8	777811.5	261.83	ug/L	261.83	ppb	07:54:56
2	Cd 226.502†	52050.7	51510.1	503.57	ug/L	503.57	ppb	07:54:56
2	Co 228.616†	28980.3	28638.8	501.58	ug/L	501.58	ppb	07:55:17
2	Cr 267.716†	49329.9	48520.2	492.75	ug/L	492.75	ppb	07:54:56
2	Cu 324.752†	189448.0	180590.8	510.50	ug/L	510.50	ppb	07:54:56
2	Mn 257.610†	532430.5	524065.1	517.34	ug/L	517.34	ppb	07:54:56
2	Mo 202.031†	9043.5	8889.8	538.48	ug/L	538.48	ppb	07:55:17
2	Ni 231.604†	23282.0	22844.1	498.80	ug/L	498.80	ppb	07:55:17

2	P 214.914†	5126.0	4792.1	2422.8 ug/L	2422.8 ppb	07:55:17
2	Pb 220.353†	4770.6	4764.1	503.66 ug/L	503.66 ppb	07:55:17
2	S 181.975 Axial†	2107.0	2026.8	2485.5 ug/L	2485.5 ppb	07:55:17
2	Sb 206.836†	1722.3	1655.6	504.91 ug/L	504.91 ppb	07:55:17
2	Se 196.026†	4761.3	4719.4	2589.3 ug/L	2589.3 ppb	07:55:17
2	Si 251.611†	174947.2	171782.5	4832.0 ug/L	4832.0 ppb	07:54:56
2	Sn 189.927†	3624.1	3567.0	535.55 ug/L	535.55 ppb	07:55:17
2	Ti 334.940†	348230.1	344467.9	497.92 ug/L	497.92 ppb	07:54:56
2	Tl 190.801†	2015.0	2033.3	530.79 ug/L	530.79 ppb	07:55:17
2	U 409.014†	15752.9	17892.2	491.37 ug/L	491.37 ppb	07:54:56
2	V 292.402†	79807.6	80096.8	516.68 ug/L	516.68 ppb	07:54:56
2	Zn 213.857†	64572.3	62823.9	510.77 ug/L	510.77 ppb	07:54:56
2	SiO2†	173765.9	170589.5	10303 ug/L	10303 ppb	07:55:53
3	Sc Radial	5610.4	5610.4	101 %		07:54:03
3	Y RADIAL	5950.9	5950.9	100.7 %		07:54:03
3	Al 396.153Radial†	6959.4	6922.3	5020.8 ug/L	5020.8 ppb	07:54:03
3	Ca 317.933Radial†	3558.7	3511.8	5006.8 ug/L	5006.8 ppb	07:54:23
3	Fe 238.204 Radial†	634.6	618.9	5160.6 ug/L	5160.6 ppb	07:54:23
3	K 766.490 Radial†	17312.4	14466.9	2544.4 ug/L	2544.4 ppb	07:54:03
3	Mg 279.077 IEC†	177.6	174.8	5435.5 ug/L	5435.5 ppb	07:54:23
3	Na 589.592 Radial†	7656.2	8359.1	2494.9 ug/L	2494.9 ppb	07:54:03
3	Sr 421.552†	91549.5	90857.7	532.73 ug/L	532.73 ppb	07:54:03
3	Sc 361.383	914520.1	914520.1	101.74 %		07:55:22
3	Y 371.029	748122.2	748122.2	100.49 %		07:55:22
3	Ag 328.068†	61352.7	59935.5	261.53 ug/L	261.53 ppb	07:55:22
3	As 188.979†	1301.5	1314.1	481.34 ug/L	481.34 ppb	07:55:43
3	B 249.677†	25536.8	25126.8	513.71 ug/L	513.71 ppb	07:55:22
3	Ba 233.527†	76908.9	75598.7	515.15 ug/L	515.15 ppb	07:55:22
3	Be 313.107†	787955.5	779235.9	262.30 ug/L	262.30 ppb	07:55:22
3	Cd 226.502†	51998.8	51340.4	501.91 ug/L	501.91 ppb	07:55:22
3	Co 228.616†	29162.0	28751.3	503.56 ug/L	503.56 ppb	07:55:43
3	Cr 267.716†	49364.3	48441.5	491.96 ug/L	491.96 ppb	07:55:22
3	Cu 324.752†	189845.4	180549.1	510.38 ug/L	510.38 ppb	07:55:22
3	Mn 257.610†	532871.1	523283.3	516.56 ug/L	516.56 ppb	07:55:22
3	Mo 202.031†	9106.6	8931.3	540.99 ug/L	540.99 ppb	07:55:43
3	Ni 231.604†	23413.4	22920.2	500.46 ug/L	500.46 ppb	07:55:43
3	P 214.914†	5156.1	4810.0	2432.1 ug/L	2432.1 ppb	07:55:43
3	Pb 220.353†	4797.5	4779.7	505.31 ug/L	505.31 ppb	07:55:43
3	S 181.975 Axial†	2135.9	2050.4	2514.5 ug/L	2514.5 ppb	07:55:43
3	Sb 206.836†	1729.7	1659.0	506.03 ug/L	506.03 ppb	07:55:43
3	Se 196.026†	4771.4	4718.5	2588.8 ug/L	2588.8 ppb	07:55:43
3	Si 251.611†	175040.1	171474.6	4823.3 ug/L	4823.3 ppb	07:55:22
3	Sn 189.927†	3644.0	3578.3	537.25 ug/L	537.25 ppb	07:55:43
3	Ti 334.940†	349022.1	344451.8	497.89 ug/L	497.89 ppb	07:55:22
3	Tl 190.801†	2027.2	2040.6	532.68 ug/L	532.68 ppb	07:55:43
3	U 409.014†	15749.2	17852.5	490.28 ug/L	490.28 ppb	07:55:22
3	V 292.402†	80316.8	80415.2	518.74 ug/L	518.74 ppb	07:55:22
3	Zn 213.857†	64628.8	62732.0	510.01 ug/L	510.01 ppb	07:55:22
3	SiO2†	176402.7	172784.8	10436 ug/L	10436 ppb	07:55:59

Mean Data: ICV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	915986.8	101.90	%	0.501				0.49%
Sc Radial	5561.7	99.9	%	1.83				1.84%
Y 371.029	748153.1	100.50	%	0.385				0.38%
Y RADIAL	5903.9	99.87	%	1.834				1.84%
Ag 328.068†	59966.4	261.67	ug/L	0.350	261.67	ppb	0.350	0.13%
QC value within limits for Ag 328.068 Recovery = 104.67%								
Al 396.153Radial†	6955.4	5045.1	ug/L	70.93	5045.1	ppb	70.93	1.41%
QC value within limits for Al 396.153Radial Recovery = 100.90%								
As 188.979†	1305.7	478.28	ug/L	2.714	478.28	ppb	2.714	0.57%
QC value within limits for As 188.979 Recovery = 95.66%								
B 249.677†	25216.7	515.56	ug/L	2.094	515.56	ppb	2.094	0.41%
QC value within limits for B 249.677 Recovery = 103.11%								
Ba 233.527†	75621.0	515.30	ug/L	0.815	515.30	ppb	0.815	0.16%
QC value within limits for Ba 233.527 Recovery = 103.06%								
Be 313.107†	778283.0	261.98	ug/L	0.276	261.98	ppb	0.276	0.11%
QC value within limits for Be 313.107 Recovery = 104.79%								
Ca 317.933Radial†	3519.1	5017.3	ug/L	41.14	5017.3	ppb	41.14	0.82%

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   QC value within limits for Ca 317.933Radial  Recovery = 100.35%
Cd 226.502†            51437.1      502.85 ug/L         0.853      502.85 ppb          0.853   0.17%
   QC value within limits for Cd 226.502  Recovery = 100.57%
Co 228.616†            28639.4      501.59 ug/L         1.962      501.59 ppb          1.962   0.39%
   QC value within limits for Co 228.616  Recovery = 100.32%
Cr 267.716†            48433.2      491.87 ug/L         0.927      491.87 ppb          0.927   0.19%
   QC value within limits for Cr 267.716  Recovery = 98.37%
Cu 324.752†           180932.7      511.46 ug/L         1.778      511.46 ppb          1.778   0.35%
   QC value within limits for Cu 324.752  Recovery = 102.29%
Fe 238.204 Radial†       621.1      5179.1 ug/L        39.57      5179.1 ppb         39.57   0.76%
   QC value within limits for Fe 238.204 Radial  Recovery = 103.58%
K 766.490 Radial†      14500.3      2550.3 ug/L        37.36      2550.3 ppb         37.36   1.47%
   QC value within limits for K 766.490 Radial  Recovery = 102.01%
Mg 279.077 IEC†          176.5      5487.8 ug/L       156.96      5487.8 ppb        156.96   2.86%
   QC value within limits for Mg 279.077 IEC  Recovery = 109.76%
Mn 257.610†           523796.8      517.07 ug/L         0.440      517.07 ppb          0.440   0.09%
   QC value within limits for Mn 257.610  Recovery = 103.41%
Mo 202.031†             8888.9      538.42 ug/L         2.593      538.42 ppb          2.593   0.48%
   QC value within limits for Mo 202.031  Recovery = 107.68%
Na 589.592 Radial†      8417.4      2512.4 ug/L        39.42      2512.4 ppb         39.42   1.57%
   QC value within limits for Na 589.592 Radial  Recovery = 100.49%
Ni 231.604†            22833.3      498.57 ug/L         2.025      498.57 ppb          2.025   0.41%
   QC value within limits for Ni 231.604  Recovery = 99.71%
P 214.914†              4795.0      2424.1 ug/L         7.41      2424.1 ppb          7.41   0.31%
   QC value within limits for P 214.914  Recovery = 96.96%
Pb 220.353†             4767.8      504.05 ug/L         1.114      504.05 ppb          1.114   0.22%
   QC value within limits for Pb 220.353  Recovery = 100.81%
S 181.975 Axial†        2034.8      2495.3 ug/L        16.65      2495.3 ppb         16.65   0.67%
   QC value within limits for S 181.975 Axial  Recovery = 99.81%
Sb 206.836†             1651.1      503.59 ug/L         3.303      503.59 ppb          3.303   0.66%
   QC value within limits for Sb 206.836  Recovery = 100.72%
Se 196.026†             4715.4      2587.2 ug/L         3.24      2587.2 ppb          3.24   0.13%
   QC value within limits for Se 196.026  Recovery = 103.49%
Si 251.611†           171828.7      4833.3 ug/L        10.74      4833.3 ppb         10.74   0.22%
   QC value within limits for Si 251.611  Recovery = 96.67%
Sn 189.927†             3568.6      535.79 ug/L         1.350      535.79 ppb          1.350   0.25%
   QC value within limits for Sn 189.927  Recovery = 107.16%
Sr 421.552†            91533.7      536.69 ug/L         8.027      536.69 ppb          8.027   1.50%
   QC value within limits for Sr 421.552  Recovery = 107.34%
Ti 334.940†           344713.4      498.27 ug/L         0.637      498.27 ppb          0.637   0.13%
   QC value within limits for Ti 334.940  Recovery = 99.65%
Tl 190.801†             2042.1      533.08 ug/L         2.515      533.08 ppb          2.515   0.47%
   QC value within limits for Tl 190.801  Recovery = 106.62%
U 409.014†             17872.2      490.82 ug/L         0.546      490.82 ppb          0.546   0.11%
   QC value within limits for U 409.014  Recovery = 98.16%
V 292.402†             80206.5      517.38 ug/L         1.182      517.38 ppb          1.182   0.23%
   QC value within limits for V 292.402  Recovery = 103.48%
Zn 213.857†            62838.9      510.89 ug/L         0.949      510.89 ppb          0.949   0.19%
   QC value within limits for Zn 213.857  Recovery = 102.18%
SiO2†                 171377.5       10351 ug/L          73.9       10351 ppb           73.9   0.71%
   QC value within limits for SiO2  Recovery = 96.78%
All analyte(s) passed QC.
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Sequence No.: 7
Sample ID: ICB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 10
Date Collected: 12/19/2009 07:58:10
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	5633.0	5633.0	101	%			08:00:02
1	Y RADIAL	5992.9	5992.9	101.4	%			08:00:02
1	Al 396.153Radial†	-23.8	-7.1	-5.2088	ug/L	-5.2088	ppb	08:00:02
1	Ca 317.933Radial†	11.5	-8.2	-11.756	ug/L	-11.756	ppb	08:00:22
1	Fe 238.204 Radial†	9.0	-2.0	-16.794	ug/L	-16.794	ppb	08:00:22
1	K 766.490 Radial†	2846.2	100.6	17.727	ug/L	17.727	ppb	08:00:02
1	Mg 279.077 IEC†	-0.2	-1.6	-49.006	ug/L	-49.006	ppb	08:00:22
1	Na 589.592 Radial†	-746.7	23.7	7.0683	ug/L	7.0683	ppb	08:00:02
1	Sr 421.552†	14.5	26.1	0.1533	ug/L	0.1533	ppb	08:00:02
1	Sc 361.383	908352.1	908352.1	101.05	%			08:01:19
1	Y 371.029	753325.8	753325.8	101.19	%			08:01:19
1	Ag 328.068†	383.8	9.9	0.0412	ug/L	0.0412	ppb	08:01:19
1	As 188.979†	-35.3	-0.1	-0.0516	ug/L	-0.0516	ppb	08:01:39
1	B 249.677†	34.1	59.7	1.2279	ug/L	1.2279	ppb	08:01:19
1	Ba 233.527†	-2.6	0.0	-0.0011	ug/L	-0.0011	ppb	08:01:39
1	Be 313.107†	-4773.8	6.9	0.0026	ug/L	0.0026	ppb	08:01:19
1	Cd 226.502†	-211.2	20.1	0.1987	ug/L	0.1987	ppb	08:01:39
1	Co 228.616†	-85.3	2.7	0.0493	ug/L	0.0493	ppb	08:01:39
1	Cr 267.716†	100.9	19.7	0.2010	ug/L	0.2010	ppb	08:01:39
1	Cu 324.752†	6054.8	-63.8	-0.1810	ug/L	-0.1810	ppb	08:01:19
1	Mn 257.610†	529.0	32.0	0.0308	ug/L	0.0308	ppb	08:01:39
1	Mo 202.031†	31.0	10.8	0.6520	ug/L	0.6520	ppb	08:01:39
1	Ni 231.604†	105.2	10.5	0.2291	ug/L	0.2291	ppb	08:01:39
1	P 214.914†	265.3	4.5	2.4195	ug/L	2.4195	ppb	08:01:39
1	Pb 220.353†	-57.8	6.9	0.7269	ug/L	0.7269	ppb	08:01:39
1	S 181.975 Axial†	47.4	-2.1	-2.6173	ug/L	-2.6173	ppb	08:01:39
1	Sb 206.836†	45.9	4.2	1.2983	ug/L	1.2983	ppb	08:01:39
1	Se 196.026†	-30.7	-1.9	-1.0898	ug/L	-1.0898	ppb	08:01:39
1	Si 251.611†	614.6	30.7	0.8426	ug/L	0.8426	ppb	08:01:39
1	Sn 189.927†	18.1	14.4	2.1560	ug/L	2.1560	ppb	08:01:39
1	Ti 334.940†	-1316.1	85.1	0.1251	ug/L	0.1251	ppb	08:01:19
1	Tl 190.801†	-43.5	5.0	1.2953	ug/L	1.2953	ppb	08:01:39
1	U 409.014†	-2622.0	-222.6	-6.1300	ug/L	-6.1300	ppb	08:01:19
1	V 292.402†	-1532.7	-47.3	-0.3022	ug/L	-0.3022	ppb	08:01:19
1	Zn 213.857†	813.8	11.8	0.0988	ug/L	0.0988	ppb	08:01:39
1	SiO2†	610.2	-2.8	-0.2235	ug/L	-0.2235	ppb	08:02:35
2	Sc Radial	5554.2	5554.2	99.8	%			08:00:28
2	Y RADIAL	5938.0	5938.0	100.4	%			08:00:28
2	Al 396.153Radial†	-36.9	-20.6	-14.990	ug/L	-14.990	ppb	08:00:28
2	Ca 317.933Radial†	14.6	-5.0	-7.0814	ug/L	-7.0814	ppb	08:00:48
2	Fe 238.204 Radial†	11.3	0.4	3.5031	ug/L	3.5031	ppb	08:00:48
2	K 766.490 Radial†	2706.0	-0.1	-0.0125	ug/L	-0.0125	ppb	08:00:28
2	Mg 279.077 IEC†	3.1	1.7	53.599	ug/L	53.599	ppb	08:00:48
2	Na 589.592 Radial†	-821.2	-61.5	-18.352	ug/L	-18.352	ppb	08:00:28
2	Sr 421.552†	13.0	24.8	0.1455	ug/L	0.1455	ppb	08:00:28
2	Sc 361.383	901427.5	901427.5	100.28	%			08:01:45
2	Y 371.029	746836.3	746836.3	100.32	%			08:01:45
2	Ag 328.068†	267.2	-103.5	-0.4421	ug/L	-0.4421	ppb	08:01:45
2	As 188.979†	-31.4	3.5	1.2583	ug/L	1.2583	ppb	08:02:05
2	B 249.677†	105.3	131.0	2.6871	ug/L	2.6871	ppb	08:01:45
2	Ba 233.527†	-4.1	-1.5	-0.0106	ug/L	-0.0106	ppb	08:02:05
2	Be 313.107†	-4736.5	7.9	0.0027	ug/L	0.0027	ppb	08:01:45
2	Cd 226.502†	-207.9	21.8	0.2129	ug/L	0.2129	ppb	08:02:05
2	Co 228.616†	-72.8	14.5	0.2547	ug/L	0.2547	ppb	08:02:05
2	Cr 267.716†	70.8	-9.6	-0.0960	ug/L	-0.0960	ppb	08:02:05
2	Cu 324.752†	6081.3	8.7	0.0247	ug/L	0.0247	ppb	08:01:45
2	Mn 257.610†	543.0	50.1	0.0487	ug/L	0.0487	ppb	08:02:05
2	Mo 202.031†	23.1	3.2	0.1926	ug/L	0.1926	ppb	08:02:05
2	Ni 231.604†	84.9	-8.9	-0.1951	ug/L	-0.1951	ppb	08:02:05

2	P 214.914†	243.2	-15.5	-8.0992 ug/L	-8.0992 ppb	08:02:05
2	Pb 220.353†	-66.0	-1.7	-0.1865 ug/L	-0.1865 ppb	08:02:05
2	S 181.975 Axial†	45.6	-3.5	-4.3044 ug/L	-4.3044 ppb	08:02:05
2	Sb 206.836†	46.3	4.9	1.5034 ug/L	1.5034 ppb	08:02:05
2	Se 196.026†	-26.0	2.6	1.4315 ug/L	1.4315 ppb	08:02:05
2	Si 251.611†	612.6	33.4	0.9355 ug/L	0.9355 ppb	08:02:05
2	Sn 189.927†	9.9	6.4	0.9588 ug/L	0.9588 ppb	08:02:05
2	Ti 334.940†	-1379.1	12.4	0.0194 ug/L	0.0194 ppb	08:01:45
2	Tl 190.801†	-44.4	3.8	0.9919 ug/L	0.9919 ppb	08:02:05
2	U 409.014†	-2530.9	-151.6	-4.1776 ug/L	-4.1776 ppb	08:01:45
2	V 292.402†	-1515.8	-42.1	-0.2725 ug/L	-0.2725 ppb	08:01:45
2	Zn 213.857†	798.7	2.9	0.0227 ug/L	0.0227 ppb	08:02:05
2	SiO2†	618.6	10.2	0.6041 ug/L	0.6041 ppb	08:02:40
3	Sc Radial	5718.2	5718.2	103 %		08:00:53
3	Y RADIAL	6101.0	6101.0	103.2 %		08:00:53
3	Al 396.153Radial†	-20.7	-3.8	-2.7370 ug/L	-2.7370 ppb	08:00:53
3	Ca 317.933Radial†	25.2	5.0	7.1167 ug/L	7.1167 ppb	08:01:13
3	Fe 238.204 Radial†	7.2	-3.9	-32.269 ug/L	-32.269 ppb	08:01:13
3	K 766.490 Radial†	2845.8	58.3	10.269 ug/L	10.269 ppb	08:00:53
3	Mg 279.077 IEC†	2.7	1.2	37.406 ug/L	37.406 ppb	08:01:13
3	Na 589.592 Radial†	-815.4	-32.2	-9.6081 ug/L	-9.6081 ppb	08:00:53
3	Sr 421.552†	67.8	77.8	0.4562 ug/L	0.4562 ppb	08:00:53
3	Sc 361.383	903054.1	903054.1	100.46 %		08:02:10
3	Y 371.029	749009.9	749009.9	100.61 %		08:02:10
3	Ag 328.068†	350.2	-21.3	-0.1000 ug/L	-0.1000 ppb	08:02:10
3	As 188.979†	-29.2	5.7	2.0722 ug/L	2.0722 ppb	08:02:30
3	B 249.677†	24.1	49.9	1.0284 ug/L	1.0284 ppb	08:02:10
3	Ba 233.527†	-1.9	0.7	0.0032 ug/L	0.0032 ppb	08:02:30
3	Be 313.107†	-4675.3	77.2	0.0259 ug/L	0.0259 ppb	08:02:10
3	Cd 226.502†	-222.9	7.3	0.0746 ug/L	0.0746 ppb	08:02:30
3	Co 228.616†	-86.7	0.8	0.0136 ug/L	0.0136 ppb	08:02:30
3	Cr 267.716†	86.4	5.8	0.0595 ug/L	0.0595 ppb	08:02:30
3	Cu 324.752†	5898.6	-184.0	-0.5215 ug/L	-0.5215 ppb	08:02:10
3	Mn 257.610†	557.4	63.4	0.0586 ug/L	0.0586 ppb	08:02:30
3	Mo 202.031†	20.2	0.3	0.0140 ug/L	0.0140 ppb	08:02:30
3	Ni 231.604†	112.8	18.7	0.4084 ug/L	0.4084 ppb	08:02:30
3	P 214.914†	244.1	-15.1	-7.7377 ug/L	-7.7377 ppb	08:02:30
3	Pb 220.353†	-58.9	5.4	0.5758 ug/L	0.5758 ppb	08:02:30
3	S 181.975 Axial†	50.3	1.1	1.3122 ug/L	1.3122 ppb	08:02:30
3	Sb 206.836†	42.9	1.5	0.4590 ug/L	0.4590 ppb	08:02:30
3	Se 196.026†	-19.1	9.5	5.0569 ug/L	5.0569 ppb	08:02:30
3	Si 251.611†	601.0	20.7	0.5766 ug/L	0.5766 ppb	08:02:30
3	Sn 189.927†	13.4	9.8	1.4742 ug/L	1.4742 ppb	08:02:30
3	Ti 334.940†	-1382.0	11.9	0.0196 ug/L	0.0196 ppb	08:02:10
3	Tl 190.801†	-40.1	8.1	2.1112 ug/L	2.1112 ppb	08:02:30
3	U 409.014†	-2549.8	-165.8	-4.5651 ug/L	-4.5651 ppb	08:02:10
3	V 292.402†	-1524.1	-47.7	-0.3062 ug/L	-0.3062 ppb	08:02:10
3	Zn 213.857†	798.1	0.9	0.0074 ug/L	0.0074 ppb	08:02:30
3	SiO2†	631.0	21.4	1.2795 ug/L	1.2795 ppb	08:02:45

Mean Data: ICB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	904277.9	100.60	%	0.403				0.40%
Sc Radial	5635.2	101	%	1.5				1.46%
Y 371.029	749724.0	100.71	%	0.444				0.44%
Y RADIAL	6010.6	101.7	%	1.40				1.38%
Ag 328.068†	-38.3	-0.1669	ug/L	0.24852	-0.1669	ppb	0.24852	148.86%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-10.5	-7.6454	ug/L	6.47987	-7.6454	ppb	6.47987	84.76%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	3.0	1.0930	ug/L	1.07147	1.0930	ppb	1.07147	98.03%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	80.2	1.6478	ug/L	0.90558	1.6478	ppb	0.90558	54.96%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-0.2	-0.0029	ug/L	0.00706	-0.0029	ppb	0.00706	246.00%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	30.7	0.0104	ug/L	0.01346	0.0104	ppb	0.01346	129.54%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-2.7	-3.9068	ug/L	9.82850	-3.9068	ppb	9.82850	251.57%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              16.4      0.1621 ug/L       0.07613      0.1621 ppb        0.07613  46.97%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†               6.0      0.1059 ug/L       0.13012      0.1059 ppb        0.13012 122.90%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†               5.3      0.0548 ug/L       0.14854      0.0548 ppb        0.14854 270.93%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -79.7     -0.2259 ug/L       0.27588     -0.2259 ppb        0.27588 122.12%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       -1.8     -15.187 ug/L       17.9402     -15.187 ppb        17.9402 118.13%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        52.9      9.3280 ug/L       8.90725      9.3280 ppb        8.90725  95.49%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           0.5      14.000 ug/L       55.1622      14.000 ppb        55.1622 394.03%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              48.5      0.0461 ug/L       0.01409      0.0461 ppb        0.01409  30.57%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               4.7      0.2862 ug/L       0.32916      0.2862 ppb        0.32916 115.00%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      -23.3     -6.9639 ug/L      12.91480     -6.9639 ppb       12.91480 185.45%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               6.8      0.1475 ug/L       0.30989      0.1475 ppb        0.30989 210.16%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -8.7     -4.4724 ug/L       5.97135     -4.4724 ppb        5.97135 133.51%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               3.5      0.3721 ug/L       0.48959      0.3721 ppb        0.48959 131.59%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         -1.5     -1.8698 ug/L       2.88195     -1.8698 ppb        2.88195 154.13%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               3.5      1.0869 ug/L       0.55336      1.0869 ppb        0.55336  50.91%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               3.4      1.7995 ug/L       3.08980      1.7995 ppb        3.08980 171.70%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†              28.3      0.7849 ug/L       0.18630      0.7849 ppb        0.18630  23.73%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†              10.2      1.5297 ug/L       0.60050      1.5297 ppb        0.60050  39.26%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              42.9      0.2517 ug/L       0.17719      0.2517 ppb        0.17719  70.40%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              36.5      0.0547 ug/L       0.06098      0.0547 ppb        0.06098 111.50%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               5.6      1.4662 ug/L       0.57885      1.4662 ppb        0.57885  39.48%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†             -180.0     -4.9576 ug/L       1.03368     -4.9576 ppb        1.03368  20.85%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              -45.7     -0.2937 ug/L       0.01842     -0.2937 ppb        0.01842   6.27%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               5.2      0.0430 ug/L       0.04892      0.0430 ppb        0.04892 113.85%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                     9.6      0.5534 ug/L       0.75275      0.5534 ppb        0.75275 136.03%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 8
Sample ID: PQL
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 11
Date Collected: 12/19/2009 08:04:56
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: PQL

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	5582.1	5582.1	100	%			08:06:49
1	Y RADIAL	5945.3	5945.3	100.6	%			08:06:49
1	Al 396.153Radial†	275.3	290.9	211.55	ug/L	211.55	ppb	08:06:49
1	Ca 317.933Radial†	170.8	150.8	215.00	ug/L	215.00	ppb	08:07:09
1	Fe 238.204 Radial†	21.7	10.7	89.465	ug/L	89.465	ppb	08:07:09
1	K 766.490 Radial†	3673.8	951.7	167.50	ug/L	167.50	ppb	08:06:49
1	Mg 279.077 IEC†	12.9	11.5	356.66	ug/L	356.66	ppb	08:07:09
1	Na 589.592 Radial†	247.8	1008.8	301.10	ug/L	301.10	ppb	08:06:49
1	Sr 421.552†	895.5	904.9	5.3043	ug/L	5.3043	ppb	08:06:49
1	Sc 361.383	903406.6	903406.6	100.50	%			08:08:06
1	Y 371.029	747574.7	747574.7	100.42	%			08:08:06
1	Ag 328.068†	1528.9	1151.4	4.9655	ug/L	4.9655	ppb	08:08:06
1	As 188.979†	44.5	79.1	28.742	ug/L	28.742	ppb	08:08:26
1	B 249.677†	2440.1	2453.9	50.336	ug/L	50.336	ppb	08:08:06
1	Ba 233.527†	751.9	750.7	5.1167	ug/L	5.1167	ppb	08:08:26
1	Be 313.107†	10154.0	14834.6	4.9847	ug/L	4.9847	ppb	08:08:06
1	Cd 226.502†	297.2	524.9	5.1277	ug/L	5.1277	ppb	08:08:26
1	Co 228.616†	187.0	273.1	4.7958	ug/L	4.7958	ppb	08:08:26
1	Cr 267.716†	563.8	480.8	4.8687	ug/L	4.8687	ppb	08:08:26
1	Cu 324.752†	9745.0	3641.0	10.292	ug/L	10.292	ppb	08:08:06
1	Mn 257.610†	11261.3	10713.8	10.570	ug/L	10.570	ppb	08:08:06
1	Mo 202.031†	188.9	168.0	10.178	ug/L	10.178	ppb	08:08:26
1	Ni 231.604†	326.9	231.7	5.0600	ug/L	5.0600	ppb	08:08:26
1	P 214.914†	538.1	277.3	143.13	ug/L	143.13	ppb	08:08:26
1	Pb 220.353†	30.3	94.2	9.9843	ug/L	9.9843	ppb	08:08:26
1	S 181.975 Axial†	133.0	83.3	102.19	ug/L	102.19	ppb	08:08:26
1	Sb 206.836†	75.7	34.1	10.471	ug/L	10.471	ppb	08:08:26
1	Se 196.026†	28.6	57.0	31.392	ug/L	31.392	ppb	08:08:26
1	Si 251.611†	4214.8	3616.3	101.71	ug/L	101.71	ppb	08:08:06
1	Sn 189.927†	66.5	62.7	9.4233	ug/L	9.4233	ppb	08:08:26
1	Ti 334.940†	2053.2	3430.6	4.9477	ug/L	4.9477	ppb	08:08:06
1	Tl 190.801†	27.7	75.6	19.681	ug/L	19.681	ppb	08:08:26
1	U 409.014†	-576.2	1798.9	49.542	ug/L	49.542	ppb	08:08:06
1	V 292.402†	-704.2	768.7	5.1180	ug/L	5.1180	ppb	08:08:06
1	Zn 213.857†	2005.3	1201.7	9.7905	ug/L	9.7905	ppb	08:08:26
1	SiO2†	4172.2	3544.7	214.06	ug/L	214.06	ppb	08:09:22
2	Sc Radial	5594.2	5594.2	100	%			08:07:14
2	Y RADIAL	5983.8	5983.8	101.2	%			08:07:14
2	Al 396.153Radial†	243.1	258.3	187.77	ug/L	187.77	ppb	08:07:14
2	Ca 317.933Radial†	169.7	149.3	212.87	ug/L	212.87	ppb	08:07:34
2	Fe 238.204 Radial†	22.8	11.8	98.101	ug/L	98.101	ppb	08:07:34
2	K 766.490 Radial†	3672.4	942.3	165.84	ug/L	165.84	ppb	08:07:14
2	Mg 279.077 IEC†	10.5	9.1	281.54	ug/L	281.54	ppb	08:07:34
2	Na 589.592 Radial†	270.9	1031.2	307.79	ug/L	307.79	ppb	08:07:14
2	Sr 421.552†	876.1	883.7	5.1798	ug/L	5.1798	ppb	08:07:14
2	Sc 361.383	903805.3	903805.3	100.54	%			08:08:32
2	Y 371.029	749465.8	749465.8	100.67	%			08:08:32
2	Ag 328.068†	1542.8	1164.5	5.0200	ug/L	5.0200	ppb	08:08:32
2	As 188.979†	51.8	86.3	31.360	ug/L	31.360	ppb	08:08:52
2	B 249.677†	2378.3	2391.3	49.051	ug/L	49.051	ppb	08:08:32
2	Ba 233.527†	747.5	746.0	5.0837	ug/L	5.0837	ppb	08:08:52
2	Be 313.107†	10083.9	14760.4	4.9601	ug/L	4.9601	ppb	08:08:32
2	Cd 226.502†	286.9	514.5	5.0255	ug/L	5.0255	ppb	08:08:52
2	Co 228.616†	196.7	282.8	4.9628	ug/L	4.9628	ppb	08:08:52
2	Cr 267.716†	589.4	506.1	5.1230	ug/L	5.1230	ppb	08:08:52
2	Cu 324.752†	9700.9	3592.7	10.156	ug/L	10.156	ppb	08:08:32
2	Mn 257.610†	11119.5	10567.8	10.428	ug/L	10.428	ppb	08:08:32
2	Mo 202.031†	179.5	158.7	9.6114	ug/L	9.6114	ppb	08:08:52
2	Ni 231.604†	340.6	245.2	5.3538	ug/L	5.3538	ppb	08:08:52

2	P 214.914†	538.3	277.3	143.14 ug/L	143.14 ppb	08:08:52
2	Pb 220.353†	18.7	82.7	8.7637 ug/L	8.7637 ppb	08:08:52
2	S 181.975 Axial†	129.9	80.2	98.385 ug/L	98.385 ppb	08:08:52
2	Sb 206.836†	76.4	34.7	10.668 ug/L	10.668 ppb	08:08:52
2	Se 196.026†	35.1	63.5	34.937 ug/L	34.937 ppb	08:08:52
2	Si 251.611†	4220.2	3619.9	101.82 ug/L	101.82 ppb	08:08:32
2	Sn 189.927†	74.9	71.0	10.671 ug/L	10.671 ppb	08:08:52
2	Ti 334.940†	2148.1	3524.1	5.0812 ug/L	5.0812 ppb	08:08:32
2	Tl 190.801†	36.9	84.8	22.059 ug/L	22.059 ppb	08:08:52
2	U 409.014†	-451.7	1922.9	52.958 ug/L	52.958 ppb	08:08:32
2	V 292.402†	-790.0	683.7	4.5727 ug/L	4.5727 ppb	08:08:32
2	Zn 213.857†	2012.0	1207.6	9.8383 ug/L	9.8383 ppb	08:08:52
2	SiO2†	4225.9	3596.4	217.20 ug/L	217.20 ppb	08:09:27
3	Sc Radial	5694.2	5694.2	102 %		08:07:39
3	Y RADIAL	6097.6	6097.6	103.2 %		08:07:39
3	Al 396.153Radial†	273.2	283.5	206.12 ug/L	206.12 ppb	08:07:39
3	Ca 317.933Radial†	164.1	140.9	200.83 ug/L	200.83 ppb	08:07:59
3	Fe 238.204 Radial†	24.3	12.8	106.90 ug/L	106.90 ppb	08:07:59
3	K 766.490 Radial†	3707.6	912.5	160.61 ug/L	160.61 ppb	08:07:39
3	Mg 279.077 IEC†	11.3	9.7	300.85 ug/L	300.85 ppb	08:07:59
3	Na 589.592 Radial†	268.1	1023.7	305.56 ug/L	305.56 ppb	08:07:39
3	Sr 421.552†	906.5	898.1	5.2643 ug/L	5.2643 ppb	08:07:39
3	Sc 361.383	895634.3	895634.3	99.636 %		08:08:57
3	Y 371.029	742826.7	742826.7	99.780 %		08:08:57
3	Ag 328.068†	1594.7	1230.6	5.3053 ug/L	5.3053 ppb	08:08:57
3	As 188.979†	51.5	86.5	31.414 ug/L	31.414 ppb	08:09:17
3	B 249.677†	2363.8	2398.4	49.195 ug/L	49.195 ppb	08:08:57
3	Ba 233.527†	721.7	727.0	4.9541 ug/L	4.9541 ppb	08:09:17
3	Be 313.107†	9896.0	14663.3	4.9272 ug/L	4.9272 ppb	08:08:57
3	Cd 226.502†	290.5	520.7	5.0853 ug/L	5.0853 ppb	08:09:17
3	Co 228.616†	198.0	285.8	5.0168 ug/L	5.0168 ppb	08:09:17
3	Cr 267.716†	588.8	510.8	5.1707 ug/L	5.1707 ppb	08:09:17
3	Cu 324.752†	9662.9	3642.6	10.297 ug/L	10.297 ppb	08:08:57
3	Mn 257.610†	11054.0	10603.0	10.464 ug/L	10.464 ppb	08:08:57
3	Mo 202.031†	185.2	166.0	10.054 ug/L	10.054 ppb	08:09:17
3	Ni 231.604†	340.1	247.8	5.4108 ug/L	5.4108 ppb	08:09:17
3	P 214.914†	552.1	296.0	152.88 ug/L	152.88 ppb	08:09:17
3	Pb 220.353†	21.8	85.9	9.1090 ug/L	9.1090 ppb	08:09:17
3	S 181.975 Axial†	128.9	80.4	98.568 ug/L	98.568 ppb	08:09:17
3	Sb 206.836†	72.2	31.3	9.6438 ug/L	9.6438 ppb	08:09:17
3	Se 196.026†	20.2	48.8	26.964 ug/L	26.964 ppb	08:09:17
3	Si 251.611†	4247.1	3685.1	103.65 ug/L	103.65 ppb	08:08:57
3	Sn 189.927†	76.4	73.2	10.996 ug/L	10.996 ppb	08:09:17
3	Ti 334.940†	2043.7	3438.8	4.9561 ug/L	4.9561 ppb	08:08:57
3	Tl 190.801†	35.4	83.6	21.759 ug/L	21.759 ppb	08:09:17
3	U 409.014†	-361.1	2009.8	55.350 ug/L	55.350 ppb	08:08:57
3	V 292.402†	-808.3	658.2	4.4202 ug/L	4.4202 ppb	08:08:57
3	Zn 213.857†	2020.3	1234.1	10.054 ug/L	10.054 ppb	08:09:17
3	SiO2†	4132.7	3541.2	213.84 ug/L	213.84 ppb	08:09:32

Mean Data: PQL

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	900948.7	100.23	%	0.512				0.51%
Sc Radial	5623.5	101	%	1.1				1.09%
Y 371.029	746622.4	100.29	%	0.459				0.46%
Y RADIAL	6008.9	101.6	%	1.34				1.32%
Ag 328.068†	1182.2	5.0969	ug/L	0.18247	5.0969	ppb	0.18247	3.58%
QC value within limits for Ag 328.068 Recovery = 101.94%								
Al 396.153Radial†	277.6	201.81	ug/L	12.461	201.81	ppb	12.461	6.17%
QC value within limits for Al 396.153Radial Recovery = 100.91%								
As 188.979†	84.0	30.505	ug/L	1.5273	30.505	ppb	1.5273	5.01%
QC value within limits for As 188.979 Recovery = 101.68%								
B 249.677†	2414.5	49.527	ug/L	0.7040	49.527	ppb	0.7040	1.42%
QC value within limits for B 249.677 Recovery = 99.05%								
Ba 233.527†	741.2	5.0515	ug/L	0.08594	5.0515	ppb	0.08594	1.70%
QC value within limits for Ba 233.527 Recovery = 101.03%								
Be 313.107†	14752.8	4.9573	ug/L	0.02882	4.9573	ppb	0.02882	0.58%
QC value within limits for Be 313.107 Recovery = 99.15%								
Ca 317.933Radial†	147.0	209.57	ug/L	7.646	209.57	ppb	7.646	3.65%

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   QC value within limits for Ca 317.933Radial  Recovery = 104.78%
Cd 226.502†              520.0      5.0795 ug/L       0.05136      5.0795 ppb        0.05136   1.01%
   QC value within limits for Cd 226.502  Recovery = 101.59%
Co 228.616†              280.6      4.9251 ug/L       0.11520      4.9251 ppb        0.11520   2.34%
   QC value within limits for Co 228.616  Recovery = 98.50%
Cr 267.716†              499.2      5.0541 ug/L       0.16234      5.0541 ppb        0.16234   3.21%
   QC value within limits for Cr 267.716  Recovery = 101.08%
Cu 324.752†             3625.4      10.248 ug/L        0.0801      10.248 ppb         0.0801   0.78%
   QC value within limits for Cu 324.752  Recovery = 102.48%
Fe 238.204 Radial†        11.8      98.155 ug/L        8.7175      98.155 ppb         8.7175   8.88%
   QC value within limits for Fe 238.204 Radial  Recovery = 98.16%
K 766.490 Radial†        935.5      164.65 ug/L         3.598      164.65 ppb          3.598   2.19%
   QC value within limits for K 766.490 Radial  Recovery = 109.77%
Mg 279.077 IEC†           10.1      313.02 ug/L        39.010      313.02 ppb         39.010  12.46%
   QC value within limits for Mg 279.077 IEC  Recovery = 104.34%
Mn 257.610†            10628.2      10.487 ug/L        0.0738      10.487 ppb         0.0738   0.70%
   QC value within limits for Mn 257.610  Recovery = 104.87%
Mo 202.031†              164.2      9.9476 ug/L       0.29768      9.9476 ppb        0.29768   2.99%
   QC value within limits for Mo 202.031  Recovery = 99.48%
Na 589.592 Radial†      1021.3      304.81 ug/L         3.405      304.81 ppb          3.405   1.12%
   QC value within limits for Na 589.592 Radial  Recovery = 101.60%
Ni 231.604†              241.6      5.2749 ug/L       0.18821      5.2749 ppb        0.18821   3.57%
   QC value within limits for Ni 231.604  Recovery = 105.50%
P 214.914†               283.5      146.38 ug/L         5.626      146.38 ppb          5.626   3.84%
   QC value within limits for P 214.914  Recovery = 97.59%
Pb 220.353†               87.6      9.2857 ug/L       0.62922      9.2857 ppb        0.62922   6.78%
   QC value within limits for Pb 220.353  Recovery = 92.86%
S 181.975 Axial†          81.3      99.715 ug/L        2.1474      99.715 ppb         2.1474   2.15%
   QC value within limits for S 181.975 Axial  Recovery = 99.71%
Sb 206.836†               33.4      10.261 ug/L        0.5434      10.261 ppb         0.5434   5.30%
   QC value within limits for Sb 206.836  Recovery = 102.61%
Se 196.026†               56.4      31.098 ug/L        3.9950      31.098 ppb         3.9950  12.85%
   QC value within limits for Se 196.026  Recovery = 103.66%
Si 251.611†             3640.4      102.39 ug/L         1.091      102.39 ppb          1.091   1.07%
   QC value within limits for Si 251.611  Recovery = 102.39%
Sn 189.927†               68.9      10.363 ug/L        0.8302      10.363 ppb         0.8302   8.01%
   QC value within limits for Sn 189.927  Recovery = 103.63%
Sr 421.552†              895.6      5.2495 ug/L       0.06354      5.2495 ppb        0.06354   1.21%
   QC value within limits for Sr 421.552  Recovery = 104.99%
Ti 334.940†             3464.5      4.9950 ug/L       0.07476      4.9950 ppb        0.07476   1.50%
   QC value within limits for Ti 334.940  Recovery = 99.90%
Tl 190.801†               81.3      21.166 ug/L        1.2953      21.166 ppb         1.2953   6.12%
   QC value within limits for Tl 190.801  Recovery = 105.83%
U 409.014†              1910.5      52.617 ug/L        2.9189      52.617 ppb         2.9189   5.55%
   QC value within limits for U 409.014  Recovery = 105.23%
V 292.402†               703.5      4.7037 ug/L       0.36683      4.7037 ppb        0.36683   7.80%
   QC value within limits for V 292.402  Recovery = 94.07%
Zn 213.857†             1214.5      9.8944 ug/L       0.14055      9.8944 ppb        0.14055   1.42%
   QC value within limits for Zn 213.857  Recovery = 98.94%
SiO2†                   3560.8      215.03 ug/L         1.879      215.03 ppb          1.879   0.87%
   QC value within limits for SiO2  Recovery = 100.95%
All analyte(s) passed QC.
```

Sequence No.: 9
Sample ID: ICSA
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 13
Date Collected: 12/19/2009 08:11:43
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSA

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4965.4	4965.4	89.2	%			08:13:42
1	Y RADIAL	5306.3	5306.3	89.76	%			08:13:42
1	Al 396.153Radial†	638506.0	715917.4	521660	ug/L	521660	ppb	08:13:37
1	Ca 317.933Radial†	304213.5	341068.5	486270	ug/L	486270	ppb	08:13:37
1	Fe 238.204 Radial†	20544.1	23023.4	191390	ug/L	191390	ppb	08:13:42
1	K 766.490 Radial†	2335.1	-94.2	-0.8072	ug/L	-0.8072	ppb	08:13:37
1	Mg 279.077 IEC†	14271.5	16000.0	496650	ug/L	496650	ppb	08:13:42
1	Na 589.592 Radial†	-608.5	79.4	23.702	ug/L	23.702	ppb	08:13:42
1	Sr 421.552†	563.3	643.4	-0.7347	ug/L	-0.7347	ppb	08:13:42
1	Sc 361.383	778772.9	778772.9	86.635	%			08:14:09
1	Y 371.029	629428.6	629428.6	84.548	%			08:14:09
1	Ag 328.068†	-10493.1	-12481.7	3.0959	ug/L	3.0959	ppb	08:14:09
1	As 188.979†	-98.2	-78.5	0.8647	ug/L	0.8647	ppb	08:14:29
1	B 249.677†	880.6	1042.4	-4.0016	ug/L	-4.0016	ppb	08:14:09
1	Ba 233.527†	-608.4	-699.6	2.3815	ug/L	2.3815	ppb	08:14:29
1	Be 313.107†	-5164.9	-1230.5	-0.4597	ug/L	-0.4597	ppb	08:14:09
1	Cd 226.502†	1378.8	1820.7	-1.3254	ug/L	-1.3254	ppb	08:14:29
1	Co 228.616†	2.4	89.9	-1.1513	ug/L	-1.1513	ppb	08:14:29
1	Cr 267.716†	-40.4	-126.8	2.1581	ug/L	2.1581	ppb	08:14:29
1	Cu 324.752†	2906.4	-2700.9	2.1325	ug/L	2.1325	ppb	08:14:09
1	Mn 257.610†	997.1	659.4	10.487	ug/L	10.487	ppb	08:14:09
1	Mo 202.031†	-233.2	-289.1	-3.9219	ug/L	-3.9219	ppb	08:14:29
1	Ni 231.604†	276.7	225.8	4.9336	ug/L	4.9336	ppb	08:14:29
1	P 214.914†	180.9	-49.3	-2.9362	ug/L	-2.9362	ppb	08:14:29
1	Pb 220.353†	-892.7	-966.4	-0.5179	ug/L	-0.5179	ppb	08:14:29
1	S 181.975 Axial†	71.0	32.9	-62.209	ug/L	-62.209	ppb	08:14:29
1	Sb 206.836†	80.1	51.3	2.8317	ug/L	2.8317	ppb	08:14:29
1	Se 196.026†	-1063.3	-1198.8	0.9330	ug/L	0.9330	ppb	08:14:29
1	Si 251.611†	445.1	-63.7	-1.2862	ug/L	-1.2862	ppb	08:14:29
1	Sn 189.927†	-368.7	-429.0	-11.014	ug/L	-11.014	ppb	08:14:29
1	Ti 334.940†	-15524.5	-16531.7	1.4504	ug/L	1.4504	ppb	08:14:09
1	Tl 190.801†	-97.8	-64.8	-2.7545	ug/L	-2.7545	ppb	08:14:29
1	U 409.014†	-1149.3	1045.6	4.7308	ug/L	4.7308	ppb	08:14:09
1	V 292.402†	1033.1	2661.9	-1.1448	ug/L	-1.1448	ppb	08:14:29
1	Zn 213.857†	3396.8	3127.3	-9.6552	ug/L	-9.6552	ppb	08:14:29
1	SiO2†	469.8	-64.3	-2.7856	ug/L	-2.7856	ppb	08:15:26
2	Sc Radial	4901.3	4901.3	88.0	%			08:13:52
2	Y RADIAL	5232.3	5232.3	88.51	%			08:13:52
2	Al 396.153Radial†	635689.0	722076.0	526140	ug/L	526140	ppb	08:13:47
2	Ca 317.933Radial†	302103.7	343130.7	489210	ug/L	489210	ppb	08:13:47
2	Fe 238.204 Radial†	20179.1	22909.9	190450	ug/L	190450	ppb	08:13:52
2	K 766.490 Radial†	2362.7	-28.7	11.005	ug/L	11.005	ppb	08:13:47
2	Mg 279.077 IEC†	14102.8	16017.5	497190	ug/L	497190	ppb	08:13:52
2	Na 589.592 Radial†	-625.8	50.8	15.164	ug/L	15.164	ppb	08:13:52
2	Sr 421.552†	583.9	675.0	-0.5762	ug/L	-0.5762	ppb	08:13:52
2	Sc 361.383	795745.3	795745.3	88.523	%			08:14:35
2	Y 371.029	643936.1	643936.1	86.497	%			08:14:35
2	Ag 328.068†	-10312.9	-12019.8	4.7311	ug/L	4.7311	ppb	08:14:35
2	As 188.979†	-83.9	-60.0	7.4646	ug/L	7.4646	ppb	08:14:55
2	B 249.677†	671.9	785.0	-9.1583	ug/L	-9.1583	ppb	08:14:35
2	Ba 233.527†	-608.0	-684.3	2.4509	ug/L	2.4509	ppb	08:14:55
2	Be 313.107†	-5144.3	-1080.1	-0.4080	ug/L	-0.4080	ppb	08:14:35
2	Cd 226.502†	1361.4	1767.1	-1.7562	ug/L	-1.7562	ppb	08:14:55
2	Co 228.616†	-14.8	70.4	-1.4804	ug/L	-1.4804	ppb	08:14:55
2	Cr 267.716†	-95.4	-187.9	1.5222	ug/L	1.5222	ppb	08:14:55
2	Cu 324.752†	3030.9	-2631.7	2.2797	ug/L	2.2797	ppb	08:14:35
2	Mn 257.610†	1048.8	693.3	10.417	ug/L	10.417	ppb	08:14:35
2	Mo 202.031†	-240.4	-291.5	-4.1337	ug/L	-4.1337	ppb	08:14:55
2	Ni 231.604†	217.9	152.6	3.3328	ug/L	3.3328	ppb	08:14:55

2	P 214.914†	205.7	-25.7	11.586 ug/L	11.586 ppb	08:14:55
2	Pb 220.353†	-895.2	-947.2	2.5837 ug/L	2.5837 ppb	08:14:55
2	S 181.975 Axial†	85.9	48.0	-44.606 ug/L	-44.606 ppb	08:14:55
2	Sb 206.836†	88.7	59.0	5.0050 ug/L	5.0050 ppb	08:14:55
2	Se 196.026†	-1055.7	-1164.1	17.648 ug/L	17.648 ppb	08:14:55
2	Si 251.611†	453.9	-64.7	-1.3115 ug/L	-1.3115 ppb	08:14:55
2	Sn 189.927†	-384.2	-437.5	-11.990 ug/L	-11.990 ppb	08:14:55
2	Ti 334.940†	-15481.1	-16100.5	2.2289 ug/L	2.2289 ppb	08:14:35
2	Tl 190.801†	-106.0	-71.7	-4.4083 ug/L	-4.4083 ppb	08:14:55
2	U 409.014†	-1282.8	923.1	1.4750 ug/L	1.4750 ppb	08:14:35
2	V 292.402†	1054.5	2660.6	-1.0061 ug/L	-1.0061 ppb	08:14:55
2	Zn 213.857†	3381.4	3026.3	-10.402 ug/L	-10.402 ppb	08:14:55
2	SiO2†	479.1	-65.4	-2.8444 ug/L	-2.8444 ppb	08:15:31
3	Sc Radial	4971.1	4971.1	89.3 %		08:14:03
3	Y RADIAL	5311.8	5311.8	89.86 %		08:14:03
3	Al 396.153Radial†	633647.8	709660.3	517100 ug/L	517100 ppb	08:13:58
3	Ca 317.933Radial†	300431.0	336443.5	479680 ug/L	479680 ppb	08:13:58
3	Fe 238.204 Radial†	20276.7	22697.7	188690 ug/L	188690 ppb	08:14:03
3	K 766.490 Radial†	2406.6	-17.2	12.829 ug/L	12.829 ppb	08:13:58
3	Mg 279.077 IEC†	14177.2	15876.2	492800 ug/L	492800 ppb	08:14:03
3	Na 589.592 Radial†	-616.3	71.4	21.317 ug/L	21.317 ppb	08:14:03
3	Sr 421.552†	592.0	674.8	-0.4894 ug/L	-0.4894 ppb	08:14:03
3	Sc 361.383	688555.3	688555.3	76.599 %		08:15:00
3	Y 371.029	557089.3	557089.3	74.831 %		08:15:00
3	Ag 328.068†	-10825.8	-14503.0	-6.4178 ug/L	-6.4178 ppb	08:15:00
3	As 188.979†	-106.0	-103.5	-8.6520 ug/L	-8.6520 ppb	08:15:20
3	B 249.677†	803.0	1074.3	-2.9874 ug/L	-2.9874 ppb	08:15:00
3	Ba 233.527†	-575.9	-749.2	1.9467 ug/L	1.9467 ppb	08:15:20
3	Be 313.107†	-5212.8	-2074.2	-0.7498 ug/L	-0.7498 ppb	08:15:00
3	Cd 226.502†	1363.2	2008.8	0.7842 ug/L	0.7842 ppb	08:15:20
3	Co 228.616†	-1.3	85.5	-1.1883 ug/L	-1.1883 ppb	08:15:20
3	Cr 267.716†	-65.4	-165.6	1.7183 ug/L	1.7183 ppb	08:15:20
3	Cu 324.752†	2702.2	-2527.8	2.4833 ug/L	2.4833 ppb	08:15:00
3	Mn 257.610†	1011.8	829.4	10.457 ug/L	10.457 ppb	08:15:00
3	Mo 202.031†	-232.1	-322.9	-6.1608 ug/L	-6.1608 ppb	08:15:20
3	Ni 231.604†	224.5	199.6	4.3593 ug/L	4.3593 ppb	08:15:20
3	P 214.914†	183.2	-18.9	13.324 ug/L	13.324 ppb	08:15:20
3	Pb 220.353†	-884.9	-1091.2	-14.475 ug/L	-14.475 ppb	08:15:20
3	S 181.975 Axial†	84.5	61.3	-26.486 ug/L	-26.486 ppb	08:15:20
3	Sb 206.836†	85.4	70.2	8.4040 ug/L	8.4040 ppb	08:15:20
3	Se 196.026†	-1049.6	-1341.7	-85.771 ug/L	-85.771 ppb	08:15:20
3	Si 251.611†	468.7	34.4	1.5400 ug/L	1.5400 ppb	08:15:20
3	Sn 189.927†	-373.7	-491.4	-21.083 ug/L	-21.083 ppb	08:15:20
3	Ti 334.940†	-15677.1	-19078.9	-2.5757 ug/L	-2.5757 ppb	08:15:00
3	Tl 190.801†	-99.2	-81.4	-7.2071 ug/L	-7.2071 ppb	08:15:20
3	U 409.014†	-1051.8	999.1	3.7920 ug/L	3.7920 ppb	08:15:00
3	V 292.402†	1041.5	2829.1	0.2161 ug/L	0.2161 ppb	08:15:20
3	Zn 213.857†	3415.0	3664.7	-4.8544 ug/L	-4.8544 ppb	08:15:20
3	SiO2†	413.2	-67.3	-2.8308 ug/L	-2.8308 ppb	08:15:36

Mean Data: ICSA

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	754357.8	83.919	%	6.4094				7.64%
Sc Radial	4945.9	88.8	%	0.70				0.78%
Y 371.029	610151.3	81.958	%	6.2491				7.62%
Y RADIAL	5283.5	89.38	%	0.751				0.84%
Ag 328.068†	-13001.5	0.4697	ug/L	6.02056	0.4697	ppb	6.02056	>999.9%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	715884.6	521630	ug/L	4523.4	521630	ppb	4523.4	0.87%
QC value within limits for Al 396.153Radial Recovery = 104.33%								
As 188.979†	-80.7	-0.1076	ug/L	8.10215	-0.1076	ppb	8.10215	>999.9%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	967.2	-5.3824	ug/L	3.30909	-5.3824	ppb	3.30909	61.48%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-711.0	2.2597	ug/L	0.27329	2.2597	ppb	0.27329	12.09%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-1461.6	-0.5392	ug/L	0.18426	-0.5392	ppb	0.18426	34.18%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	340214.2	485050	ug/L	4882.4	485050	ppb	4882.4	1.01%

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   QC value within limits for Ca 317.933Radial  Recovery = 97.01%
Cd 226.502†            1865.5     -0.7658 ug/L      1.35952     -0.7658 ppb      1.35952 177.52%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†              81.9     -1.2734 ug/L      0.18027     -1.2734 ppb      0.18027  14.16%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†            -160.1      1.7995 ug/L      0.32565      1.7995 ppb      0.32565  18.10%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†           -2620.1      2.2985 ug/L      0.17615      2.2985 ppb      0.17615   7.66%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†    22877.0     190180 ug/L       1374.2     190180 ppb       1374.2   0.72%
   QC value within limits for Fe 238.204 Radial  Recovery = 95.09%
K 766.490 Radial†        -46.7      7.6756 ug/L      7.40261      7.6756 ppb      7.40261  96.44%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†       15964.6     495550 ug/L       2391.4     495550 ppb       2391.4   0.48%
   QC value within limits for Mg 279.077 IEC  Recovery = 99.11%
Mn 257.610†             727.4      10.454 ug/L      0.0355      10.454 ppb       0.0355   0.34%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†            -301.2      -4.7388 ug/L      1.23603     -4.7388 ppb      1.23603  26.08%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       67.2      20.061 ug/L       4.4057      20.061 ppb       4.4057  21.96%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†             192.7      4.2085 ug/L      0.81095      4.2085 ppb      0.81095  19.27%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†              -31.3      7.3245 ug/L      8.92847      7.3245 ppb      8.92847 121.90%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†           -1001.6      -4.1363 ug/L      9.08662     -4.1363 ppb      9.08662 219.68%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         47.4     -44.434 ug/L      17.8622     -44.434 ppb      17.8622  40.20%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              60.2      5.4136 ug/L      2.80850      5.4136 ppb      2.80850  51.88%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†           -1234.9     -22.397 ug/L      55.5164     -22.397 ppb      55.5164 247.88%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†             -31.4      -0.3526 ug/L      1.63904     -0.3526 ppb      1.63904 464.89%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†            -452.6     -14.696 ug/L       5.5534     -14.696 ppb       5.5534  37.79%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             664.4      -0.6001 ug/L      0.12435     -0.6001 ppb      0.12435  20.72%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†          -17237.0       0.3679 ug/L      2.57876      0.3679 ppb      2.57876 700.99%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†             -72.6     -4.7900 ug/L      2.25068     -4.7900 ppb      2.25068  46.99%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              989.3      3.3326 ug/L      1.67580      3.3326 ppb      1.67580  50.28%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†             2717.2     -0.6449 ug/L      0.74892     -0.6449 ppb      0.74892 116.12%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†            3272.7     -8.3039 ug/L      3.01059     -8.3039 ppb      3.01059  36.26%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                   -65.7     -2.8203 ug/L      0.03079     -2.8203 ppb      0.03079   1.09%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 10
Sample ID: ICSAB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 14
Date Collected: 12/19/2009 08:17:47
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSAB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4945.8	4945.8	88.8	%			08:19:45
1	Y RADIAL	5290.0	5290.0	89.49	%			08:19:45
1	Al 396.153Radial†	649158.0	730747.4	532440	ug/L	532440	ppb	08:19:40
1	Ca 317.933Radial†	306372.6	344851.8	491670	ug/L	491670	ppb	08:19:40
1	Fe 238.204 Radial†	20544.0	23114.7	192170	ug/L	192170	ppb	08:19:45
1	K 766.490 Radial†	31006.4	32190.2	5683.8	ug/L	5683.8	ppb	08:19:40
1	Mg 279.077 IEC†	14326.2	16125.0	500540	ug/L	500540	ppb	08:19:45
1	Na 589.592 Radial†	15924.6	18687.3	5577.6	ug/L	5577.6	ppb	08:19:45
1	Sr 421.552†	80481.3	90606.3	526.75	ug/L	526.75	ppb	08:19:40
1	Sc 361.383	846053.0	846053.0	94.120	%			08:20:13
1	Y 371.029	681027.6	681027.6	91.479	%			08:20:13
1	Ag 328.068†	43870.3	46241.1	257.76	ug/L	257.76	ppb	08:20:13
1	As 188.979†	1126.7	1232.0	480.02	ug/L	480.02	ppb	08:20:33
1	B 249.677†	22781.5	24230.6	470.74	ug/L	470.74	ppb	08:20:13
1	Ba 233.527†	61601.7	65452.8	453.04	ug/L	453.04	ppb	08:20:13
1	Be 313.107†	618819.6	662210.5	222.94	ug/L	222.94	ppb	08:20:13
1	Cd 226.502†	42944.6	45856.7	429.53	ug/L	429.53	ppb	08:20:13
1	Co 228.616†	22094.1	23561.5	409.91	ug/L	409.91	ppb	08:20:33
1	Cr 267.716†	40874.9	43348.3	443.61	ug/L	443.61	ppb	08:20:13
1	Cu 324.752†	170907.8	175529.5	505.74	ug/L	505.74	ppb	08:20:13
1	Mn 257.610†	419056.0	444744.4	448.52	ug/L	448.52	ppb	08:20:13
1	Mo 202.031†	6864.1	7273.0	453.88	ug/L	453.88	ppb	08:20:33
1	Ni 231.604†	18085.3	19121.5	417.52	ug/L	417.52	ppb	08:20:33
1	P 214.914†	4401.8	4418.7	2256.3	ug/L	2256.3	ppb	08:20:33
1	Pb 220.353†	2905.8	3151.4	436.49	ug/L	436.49	ppb	08:20:33
1	S 181.975 Axial†	1970.0	2044.0	2402.9	ug/L	2402.9	ppb	08:20:33
1	Sb 206.836†	1588.2	1646.2	487.46	ug/L	487.46	ppb	08:20:33
1	Se 196.026†	2958.8	3172.1	2387.7	ug/L	2387.7	ppb	08:20:33
1	Si 251.611†	159892.3	169303.9	4763.2	ug/L	4763.2	ppb	08:20:13
1	Sn 189.927†	2475.2	2626.4	447.80	ug/L	447.80	ppb	08:20:33
1	Ti 334.940†	284350.0	303501.9	464.10	ug/L	464.10	ppb	08:20:13
1	Tl 190.801†	1438.7	1576.7	426.40	ug/L	426.40	ppb	08:20:33
1	U 409.014†	14007.9	17255.2	450.39	ug/L	450.39	ppb	08:20:13
1	V 292.402†	68909.8	74684.2	463.64	ug/L	463.64	ppb	08:20:13
1	Zn 213.857†	55486.5	58159.4	438.24	ug/L	438.24	ppb	08:20:13
1	SiO2†	162686.8	172243.8	10406	ug/L	10406	ppb	08:21:30
2	Sc Radial	5012.9	5012.9	90.0	%			08:19:55
2	Y RADIAL	5292.6	5292.6	89.53	%			08:19:55
2	Al 396.153Radial†	634040.9	704178.7	513080	ug/L	513080	ppb	08:19:50
2	Ca 317.933Radial†	299837.9	332978.7	474740	ug/L	474740	ppb	08:19:50
2	Fe 238.204 Radial†	20307.6	22542.7	187410	ug/L	187410	ppb	08:19:55
2	K 766.490 Radial†	30485.8	31144.9	5498.6	ug/L	5498.6	ppb	08:19:50
2	Mg 279.077 IEC†	14177.9	15744.5	488730	ug/L	488730	ppb	08:19:55
2	Na 589.592 Radial†	15816.9	18327.8	5470.3	ug/L	5470.3	ppb	08:19:55
2	Sr 421.552†	78493.1	87185.8	506.85	ug/L	506.85	ppb	08:19:50
2	Sc 361.383	794837.6	794837.6	88.422	%			08:20:39
2	Y 371.029	640297.9	640297.9	86.008	%			08:20:39
2	Ag 328.068†	44144.7	49554.8	270.82	ug/L	270.82	ppb	08:20:39
2	As 188.979†	1096.9	1275.3	495.29	ug/L	495.29	ppb	08:20:59
2	B 249.677†	23009.8	26048.5	508.62	ug/L	508.62	ppb	08:20:39
2	Ba 233.527†	62311.0	70472.2	487.07	ug/L	487.07	ppb	08:20:39
2	Be 313.107†	625476.7	712104.0	239.74	ug/L	239.74	ppb	08:20:39
2	Cd 226.502†	43451.7	49370.2	464.38	ug/L	464.38	ppb	08:20:39
2	Co 228.616†	21876.1	24827.5	432.12	ug/L	432.12	ppb	08:20:59
2	Cr 267.716†	41398.8	46739.2	477.96	ug/L	477.96	ppb	08:20:39
2	Cu 324.752†	172883.1	189463.8	544.86	ug/L	544.86	ppb	08:20:39
2	Mn 257.610†	424144.0	479187.4	482.24	ug/L	482.24	ppb	08:20:39
2	Mo 202.031†	6792.1	7661.5	477.05	ug/L	477.05	ppb	08:20:59
2	Ni 231.604†	17873.4	20120.0	439.33	ug/L	439.33	ppb	08:20:59

2	P 214.914†	4374.0	4688.6	2388.3 ug/L	2388.3 ppb	08:20:59
2	Pb 220.353†	2873.4	3313.7	449.68 ug/L	449.68 ppb	08:20:59
2	S 181.975 Axial†	1954.0	2160.8	2550.0 ug/L	2550.0 ppb	08:20:59
2	Sb 206.836†	1583.3	1749.3	518.94 ug/L	518.94 ppb	08:20:59
2	Se 196.026†	2957.7	3373.4	2480.3 ug/L	2480.3 ppb	08:20:59
2	Si 251.611†	161618.2	182202.1	5126.5 ug/L	5126.5 ppb	08:20:39
2	Sn 189.927†	2485.1	2807.0	473.06 ug/L	473.06 ppb	08:20:59
2	Ti 334.940†	288683.6	327869.7	498.42 ug/L	498.42 ppb	08:20:39
2	Tl 190.801†	1439.3	1675.8	451.85 ug/L	451.85 ppb	08:20:59
2	U 409.014†	14050.3	18262.2	478.67 ug/L	478.67 ppb	08:20:39
2	V 292.402†	70005.4	80640.9	502.32 ug/L	502.32 ppb	08:20:39
2	Zn 213.857†	56214.9	62781.8	476.82 ug/L	476.82 ppb	08:20:39
2	SiO2†	160671.6	181102.4	10941 ug/L	10941 ppb	08:21:36
3	Sc Radial	5091.8	5091.8	91.5 %		08:20:05
3	Y RADIAL	5391.7	5391.7	91.21 %		08:20:05
3	Al 396.153Radial†	654310.0	715428.8	521280 ug/L	521280 ppb	08:20:00
3	Ca 317.933Radial†	309162.3	338013.7	481920 ug/L	481920 ppb	08:20:00
3	Fe 238.204 Radial†	20589.4	22501.3	187070 ug/L	187070 ppb	08:20:05
3	K 766.490 Radial†	31512.7	31743.1	5604.4 ug/L	5604.4 ppb	08:20:00
3	Mg 279.077 IEC†	14360.6	15700.3	487350 ug/L	487350 ppb	08:20:05
3	Na 589.592 Radial†	16040.8	18300.4	5462.1 ug/L	5462.1 ppb	08:20:05
3	Sr 421.552†	81447.7	89065.5	517.80 ug/L	517.80 ppb	08:20:00
3	Sc 361.383	796544.8	796544.8	88.612 %		08:21:05
3	Y 371.029	642022.6	642022.6	86.240 %		08:21:05
3	Ag 328.068†	44226.6	49540.3	270.53 ug/L	270.53 ppb	08:21:05
3	As 188.979†	1109.1	1286.4	499.27 ug/L	499.27 ppb	08:21:25
3	B 249.677†	23022.9	26007.5	507.83 ug/L	507.83 ppb	08:21:05
3	Ba 233.527†	62498.9	70533.2	487.47 ug/L	487.47 ppb	08:21:05
3	Be 313.107†	626717.7	711988.3	239.70 ug/L	239.70 ppb	08:21:05
3	Cd 226.502†	43501.3	49320.9	463.93 ug/L	463.93 ppb	08:21:05
3	Co 228.616†	21909.9	24812.6	431.87 ug/L	431.87 ppb	08:21:25
3	Cr 267.716†	41480.6	46731.2	477.87 ug/L	477.87 ppb	08:21:05
3	Cu 324.752†	172868.1	189027.8	543.61 ug/L	543.61 ppb	08:21:05
3	Mn 257.610†	424544.9	478611.7	481.67 ug/L	481.67 ppb	08:21:05
3	Mo 202.031†	6820.1	7676.7	477.95 ug/L	477.95 ppb	08:21:25
3	Ni 231.604†	17905.2	20112.6	439.16 ug/L	439.16 ppb	08:21:25
3	P 214.914†	4419.0	4728.8	2412.5 ug/L	2412.5 ppb	08:21:25
3	Pb 220.353†	2872.8	3306.1	450.74 ug/L	450.74 ppb	08:21:25
3	S 181.975 Axial†	1967.0	2170.8	2560.6 ug/L	2560.6 ppb	08:21:25
3	Sb 206.836†	1577.2	1738.7	515.45 ug/L	515.45 ppb	08:21:25
3	Se 196.026†	2951.7	3359.5	2472.8 ug/L	2472.8 ppb	08:21:25
3	Si 251.611†	161769.8	181981.4	5120.3 ug/L	5120.3 ppb	08:21:05
3	Sn 189.927†	2461.1	2773.9	468.84 ug/L	468.84 ppb	08:21:25
3	Ti 334.940†	288848.1	327355.6	498.05 ug/L	498.05 ppb	08:21:05
3	Tl 190.801†	1440.7	1673.9	451.59 ug/L	451.59 ppb	08:21:25
3	U 409.014†	14160.4	18352.4	481.20 ug/L	481.20 ppb	08:21:05
3	V 292.402†	70009.9	80476.3	501.31 ug/L	501.31 ppb	08:21:05
3	Zn 213.857†	56232.2	62665.1	475.95 ug/L	475.95 ppb	08:21:05
3	SiO2†	160728.6	180777.2	10921 ug/L	10921 ppb	08:21:41

Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	812478.5	90.385	%	3.2360				3.58%
Sc Radial	5016.8	90.1	%	1.31				1.46%
Y 371.029	654449.4	87.909	%	3.0940				3.52%
Y RADIAL	5324.8	90.08	%	0.981				1.09%
Ag 328.068†	48445.4	266.37	ug/L	7.461	266.37	ppb	7.461	2.80%
QC value within limits for Ag 328.068 Recovery = 106.55%								
Al 396.153Radial†	716785.0	522270	ug/L	9718.0	522270	ppb	9718.0	1.86%
QC value within limits for Al 396.153Radial Recovery = 104.45%								
As 188.979†	1264.6	491.53	ug/L	10.162	491.53	ppb	10.162	2.07%
QC value within limits for As 188.979 Recovery = 98.31%								
B 249.677†	25428.9	495.73	ug/L	21.645	495.73	ppb	21.645	4.37%
QC value within limits for B 249.677 Recovery = 99.15%								
Ba 233.527†	68819.4	475.86	ug/L	19.760	475.86	ppb	19.760	4.15%
QC value within limits for Ba 233.527 Recovery = 95.17%								
Be 313.107†	695434.3	234.13	ug/L	9.689	234.13	ppb	9.689	4.14%
QC value within limits for Be 313.107 Recovery = 93.65%								
Ca 317.933Radial†	338614.7	482770	ug/L	8496.4	482770	ppb	8496.4	1.76%

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   QC value within limits for Ca 317.933Radial  Recovery = 96.55%
Cd 226.502†            48182.6      452.61 ug/L        19.993      452.61 ppb        19.993   4.42%
   QC value within limits for Cd 226.502  Recovery = 90.52%
Co 228.616†            24400.5      424.63 ug/L        12.754      424.63 ppb        12.754   3.00%
   QC value within limits for Co 228.616  Recovery = 84.93%
Cr 267.716†            45606.2      466.48 ug/L        19.807      466.48 ppb        19.807   4.25%
   QC value within limits for Cr 267.716  Recovery = 93.30%
Cu 324.752†           184673.7      531.41 ug/L        22.238      531.41 ppb        22.238   4.18%
   QC value within limits for Cu 324.752  Recovery = 106.28%
Fe 238.204 Radial†     22719.6      188880 ug/L        2849.5      188880 ppb        2849.5   1.51%
   QC value within limits for Fe 238.204 Radial  Recovery = 94.44%
K 766.490 Radial†      31692.7      5595.6 ug/L         92.94      5595.6 ppb         92.94   1.66%
   QC value within limits for K 766.490 Radial  Recovery = 111.91%
Mg 279.077 IEC†        15856.6      492210 ug/L        7247.9      492210 ppb        7247.9   1.47%
   QC value within limits for Mg 279.077 IEC  Recovery = 98.44%
Mn 257.610†           467514.5      470.81 ug/L        19.304      470.81 ppb        19.304   4.10%
   QC value within limits for Mn 257.610  Recovery = 94.16%
Mo 202.031†             7537.1      469.63 ug/L        13.647      469.63 ppb        13.647   2.91%
   QC value within limits for Mo 202.031  Recovery = 93.93%
Na 589.592 Radial†     18438.5      5503.4 ug/L         64.45      5503.4 ppb         64.45   1.17%
   QC value within limits for Na 589.592 Radial  Recovery = 110.07%
Ni 231.604†            19784.7      432.01 ug/L        12.541      432.01 ppb        12.541   2.90%
   QC value within limits for Ni 231.604  Recovery = 86.40%
P 214.914†              4612.0      2352.4 ug/L         84.11      2352.4 ppb         84.11   3.58%
   QC value within limits for P 214.914  Recovery = 94.10%
Pb 220.353†             3257.1      445.64 ug/L         7.937      445.64 ppb         7.937   1.78%
   QC value within limits for Pb 220.353  Recovery = 89.13%
S 181.975 Axial†        2125.2      2504.5 ug/L         88.15      2504.5 ppb         88.15   3.52%
   QC value within limits for S 181.975 Axial  Recovery = 100.18%
Sb 206.836†             1711.4      507.28 ug/L        17.259      507.28 ppb        17.259   3.40%
   QC value within limits for Sb 206.836  Recovery = 101.46%
Se 196.026†             3301.7      2446.9 ug/L         51.44      2446.9 ppb         51.44   2.10%
   QC value within limits for Se 196.026  Recovery = 97.88%
Si 251.611†           177829.1      5003.3 ug/L        207.95      5003.3 ppb        207.95   4.16%
   QC value within limits for Si 251.611  Recovery = 100.07%
Sn 189.927†             2735.8      463.23 ug/L        13.532      463.23 ppb        13.532   2.92%
   QC value within limits for Sn 189.927  Recovery = 92.65%
Sr 421.552†            88952.5      517.13 ug/L         9.967      517.13 ppb         9.967   1.93%
   QC value within limits for Sr 421.552  Recovery = 103.43%
Ti 334.940†           319575.7      486.86 ug/L        19.711      486.86 ppb        19.711   4.05%
   QC value within limits for Ti 334.940  Recovery = 97.37%
Tl 190.801†             1642.1      443.28 ug/L        14.620      443.28 ppb        14.620   3.30%
   QC value within limits for Tl 190.801  Recovery = 88.66%
U 409.014†             17956.6      470.08 ug/L        17.102      470.08 ppb        17.102   3.64%
   QC value within limits for U 409.014  Recovery = 94.02%
V 292.402†             78600.5      489.09 ug/L        22.047      489.09 ppb        22.047   4.51%
   QC value within limits for V 292.402  Recovery = 97.82%
Zn 213.857†            61202.1      463.67 ug/L        22.027      463.67 ppb        22.027   4.75%
   QC value within limits for Zn 213.857  Recovery = 92.73%
SiO2†                 178041.1       10756 ug/L         303.6       10756 ppb         303.6   2.82%
   QC value within limits for SiO2  Recovery = 100.57%
All analyte(s) passed QC.
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Sequence No.: 11
Sample ID: LR1
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 15
Date Collected: 12/19/2009 08:23:51
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4692.3	4692.3	84.3	%			08:25:48
1	Y RADIAL	5012.9	5012.9	84.80	%			08:25:48
1	Al 396.153Radial†	614656.2	729282.0	531400	ug/L	531400	ppb	08:25:43
1	Ca 317.933Radial†	293765.5	348521.8	496900	ug/L	496900	ppb	08:25:43
1	Fe 238.204 Radial†	48062.2	57013.0	473950	ug/L	473950	ppb	08:25:48
1	K 766.490 Radial†	2819.2	632.5	-117.10	ug/L	-117.10	ppb	08:25:43
1	Mg 279.077 IEC†	13987.6	16594.3	514860	ug/L	514860	ppb	08:25:48
1	Na 589.592 Radial†	1624875.8	1928613.4	575630	ug/L	575630	ppb	08:25:43
1	Sr 421.552†	882.2	1058.5	1.6014	ug/L	1.6014	ppb	08:25:48
1	Sc 361.383	769480.6	769480.6	85.602	%			08:26:17
1	Y 371.029	622972.7	622972.7	83.681	%			08:26:17
1	Ag 328.068†	-24603.7	-29112.1	13.395	ug/L	13.395	ppb	08:26:17
1	As 188.979†	-214.3	-215.5	-5.0853	ug/L	-5.0853	ppb	08:26:37
1	B 249.677†	1848.7	2185.6	-18.034	ug/L	-18.034	ppb	08:26:17
1	Ba 233.527†	-1673.2	-1952.1	4.3798	ug/L	4.3798	ppb	08:26:37
1	Be 313.107†	-11864.9	-9129.5	-3.0844	ug/L	-3.0844	ppb	08:26:17
1	Cd 226.502†	3618.4	4456.2	-3.7990	ug/L	-3.7990	ppb	08:26:37
1	Co 228.616†	237.2	364.2	-0.4639	ug/L	-0.4639	ppb	08:26:37
1	Cr 267.716†	46.1	-26.3	3.5909	ug/L	3.5909	ppb	08:26:37
1	Cu 324.752†	-122.5	-6198.7	6.6635	ug/L	6.6635	ppb	08:26:17
1	Mn 257.610†	-25217.2	-29950.3	8.1288	ug/L	8.1288	ppb	08:26:17
1	Mo 202.031†	-528.1	-636.8	-4.9235	ug/L	-4.9235	ppb	08:26:17
1	Ni 231.604†	271.7	223.8	4.8852	ug/L	4.8852	ppb	08:26:37
1	P 214.914†	607.7	451.8	35.364	ug/L	35.364	ppb	08:26:37
1	Pb 220.353†	-643.5	-687.6	7.8042	ug/L	7.8042	ppb	08:26:37
1	S 181.975 Axial†	120.2	91.4	7.5621	ug/L	7.5621	ppb	08:26:37
1	Sb 206.836†	58.5	27.1	-0.7172	ug/L	-0.7172	ppb	08:26:37
1	Se 196.026†	-2491.1	-2881.5	-56.706	ug/L	-56.706	ppb	08:26:37
1	Si 251.611†	-565.0	-1237.5	-34.030	ug/L	-34.030	ppb	08:26:37
1	Sn 189.927†	-420.1	-494.3	-15.912	ug/L	-15.912	ppb	08:26:37
1	Ti 334.940†	-8021.9	-7983.6	7.9674	ug/L	7.9674	ppb	08:26:17
1	Tl 190.801†	-135.5	-110.3	-14.412	ug/L	-14.412	ppb	08:26:37
1	U 409.014†	449025.2	526924.4	14458	ug/L	14458	ppb	08:26:17
1	V 292.402†	2871.1	4823.4	-2.1401	ug/L	-2.1401	ppb	08:26:17
1	Zn 213.857†	6450.9	6742.4	-7.6041	ug/L	-7.6041	ppb	08:26:37
1	SiO2†	-680.3	-1401.4	-82.979	ug/L	-82.979	ppb	08:27:34
2	Sc Radial	4757.0	4757.0	85.4	%			08:25:59
2	Y RADIAL	5107.7	5107.7	86.40	%			08:25:59
2	Al 396.153Radial†	632178.8	739878.4	539120	ug/L	539120	ppb	08:25:54
2	Ca 317.933Radial†	300099.2	351197.5	500710	ug/L	500710	ppb	08:25:54
2	Fe 238.204 Radial†	47847.0	55986.2	465420	ug/L	465420	ppb	08:25:59
2	K 766.490 Radial†	2689.4	435.1	-151.46	ug/L	-151.46	ppb	08:25:54
2	Mg 279.077 IEC†	13913.0	16281.5	505150	ug/L	505150	ppb	08:25:59
2	Na 589.592 Radial†	1647947.9	1929415.4	575870	ug/L	575870	ppb	08:25:54
2	Sr 421.552†	822.6	974.6	1.0736	ug/L	1.0736	ppb	08:25:59
2	Sc 361.383	829578.9	829578.9	92.287	%			08:26:43
2	Y 371.029	670999.6	670999.6	90.132	%			08:26:43
2	Ag 328.068†	-24230.2	-26625.1	22.193	ug/L	22.193	ppb	08:26:43
2	As 188.979†	-212.6	-195.6	0.8307	ug/L	0.8307	ppb	08:27:03
2	B 249.677†	1914.5	2100.4	-18.649	ug/L	-18.649	ppb	08:26:43
2	Ba 233.527†	-1708.3	-1848.4	4.7599	ug/L	4.7599	ppb	08:27:03
2	Be 313.107†	-11729.1	-7978.2	-2.6975	ug/L	-2.6975	ppb	08:26:43
2	Cd 226.502†	3617.7	4149.2	-5.9484	ug/L	-5.9484	ppb	08:27:03
2	Co 228.616†	228.3	334.4	-0.8544	ug/L	-0.8544	ppb	08:27:03
2	Cr 267.716†	-3.7	-84.2	3.2232	ug/L	3.2232	ppb	08:27:03
2	Cu 324.752†	-70.9	-6132.4	6.4154	ug/L	6.4154	ppb	08:26:43
2	Mn 257.610†	-25124.3	-27715.5	9.6628	ug/L	9.6628	ppb	08:26:43
2	Mo 202.031†	-514.6	-577.5	-1.9424	ug/L	-1.9424	ppb	08:26:43
2	Ni 231.604†	300.2	231.7	5.0587	ug/L	5.0587	ppb	08:27:03

2	P 214.914†	636.5	431.6	34.371	ug/L	34.371 ppb	08:27:03
2	Pb 220.353†	-640.8	-630.3	16.292	ug/L	16.292 ppb	08:27:03
2	S 181.975 Axial†	140.3	103.0	20.303	ug/L	20.303 ppb	08:27:03
2	Sb 206.836†	63.8	27.9	-0.6703	ug/L	-0.6703 ppb	08:27:03
2	Se 196.026†	-2501.1	-2681.6	27.385	ug/L	27.385 ppb	08:27:03
2	Si 251.611†	-576.5	-1202.1	-33.099	ug/L	-33.099 ppb	08:27:03
2	Sn 189.927†	-423.3	-462.2	-10.812	ug/L	-10.812 ppb	08:27:03
2	Ti 334.940†	-8412.1	-7727.5	9.0551	ug/L	9.0551 ppb	08:26:43
2	Tl 190.801†	-122.0	-84.2	-7.4033	ug/L	-7.4033 ppb	08:27:03
2	U 409.014†	444768.1	484310.7	13285	ug/L	13285 ppb	08:26:43
2	V 292.402†	2601.5	4288.3	-6.6933	ug/L	-6.6933 ppb	08:26:43
2	Zn 213.857†	6480.7	6228.8	-10.670	ug/L	-10.670 ppb	08:27:03
2	SiO2†	-535.4	-1186.8	-70.127	ug/L	-70.127 ppb	08:27:39
3	Sc Radial	4910.4	4910.4	88.2	%		08:26:10
3	Y RADIAL	5233.2	5233.2	88.53	%		08:26:10
3	Al 396.153Radial†	628142.7	712191.4	518940	ug/L	518940 ppb	08:26:05
3	Ca 317.933Radial†	298967.6	338943.6	483240	ug/L	483240 ppb	08:26:05
3	Fe 238.204 Radial†	47717.5	54090.2	449660	ug/L	449660 ppb	08:26:10
3	K 766.490 Radial†	2761.1	418.0	-147.53	ug/L	-147.53 ppb	08:26:05
3	Mg 279.077 IEC†	13878.2	15733.4	488150	ug/L	488150 ppb	08:26:10
3	Na 589.592 Radial†	1647451.6	1868607.7	557720	ug/L	557720 ppb	08:26:05
3	Sr 421.552†	859.2	986.0	1.3026	ug/L	1.3026 ppb	08:26:10
3	Sc 361.383	776834.8	776834.8	86.420	%		08:27:08
3	Y 371.029	628719.7	628719.7	84.453	%		08:27:08
3	Ag 328.068†	-24650.2	-28893.7	6.4605	ug/L	6.4605 ppb	08:27:08
3	As 188.979†	-221.8	-221.9	-11.149	ug/L	-11.149 ppb	08:27:28
3	B 249.677†	1839.3	2154.2	-15.456	ug/L	-15.456 ppb	08:27:08
3	Ba 233.527†	-1717.7	-1985.0	3.2537	ug/L	3.2537 ppb	08:27:28
3	Be 313.107†	-11829.8	-8957.7	-3.0274	ug/L	-3.0274 ppb	08:27:08
3	Cd 226.502†	3550.7	4337.9	-2.5268	ug/L	-2.5268 ppb	08:27:28
3	Co 228.616†	241.7	366.8	-0.0775	ug/L	-0.0775 ppb	08:27:28
3	Cr 267.716†	10.6	-67.9	2.7514	ug/L	2.7514 ppb	08:27:28
3	Cu 324.752†	-204.6	-6292.3	5.1597	ug/L	5.1597 ppb	08:27:08
3	Mn 257.610†	-25758.5	-30297.8	5.8607	ug/L	5.8607 ppb	08:27:08
3	Mo 202.031†	-568.2	-677.4	-9.1084	ug/L	-9.1084 ppb	08:27:08
3	Ni 231.604†	306.0	260.5	5.6873	ug/L	5.6873 ppb	08:27:28
3	P 214.914†	617.6	456.6	53.301	ug/L	53.301 ppb	08:27:28
3	Pb 220.353†	-644.2	-681.4	7.6517	ug/L	7.6517 ppb	08:27:28
3	S 181.975 Axial†	132.5	104.3	25.899	ug/L	25.899 ppb	08:27:28
3	Sb 206.836†	62.4	31.0	0.4261	ug/L	0.4261 ppb	08:27:28
3	Se 196.026†	-2448.9	-2805.2	-90.632	ug/L	-90.632 ppb	08:27:28
3	Si 251.611†	-543.6	-1206.5	-33.113	ug/L	-33.113 ppb	08:27:28
3	Sn 189.927†	-399.4	-465.7	-13.371	ug/L	-13.371 ppb	08:27:28
3	Ti 334.940†	-8307.2	-8225.0	6.9306	ug/L	6.9306 ppb	08:27:08
3	Tl 190.801†	-102.1	-70.1	-4.3326	ug/L	-4.3326 ppb	08:27:28
3	U 409.014†	451578.8	524913.5	14406	ug/L	14406 ppb	08:27:08
3	V 292.402†	2840.2	4756.0	0.3816	ug/L	0.3816 ppb	08:27:08
3	Zn 213.857†	6358.9	6564.6	-5.8321	ug/L	-5.8321 ppb	08:27:28
3	SiO2†	-523.4	-1212.3	-71.434	ug/L	-71.434 ppb	08:27:44

Mean Data: LR1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	791964.8	88.103	%	3.6468				4.14%
Sc Radial	4786.6	86.0	%	2.01				2.34%
Y 371.029	640897.3	86.088	%	3.5230				4.09%
Y RADIAL	5117.9	86.58	%	1.869				2.16%
Ag 328.068†	-28210.3	14.016	ug/L	7.8845	14.016	ppb	7.8845	56.25%
Al 396.153Radial†	727117.3	529820	ug/L	10179.1	529820	ppb	10179.1	1.92%
QC value within limits for Al 396.153Radial Recovery = 105.96%								
As 188.979†	-211.0	-5.1347	ug/L	5.99020	-5.1347	ppb	5.99020	116.66%
B 249.677†	2146.8	-17.380	ug/L	1.6944	-17.380	ppb	1.6944	9.75%
Ba 233.527†	-1928.5	4.1311	ug/L	0.78333	4.1311	ppb	0.78333	18.96%
Be 313.107†	-8688.5	-2.9364	ug/L	0.20885	-2.9364	ppb	0.20885	7.11%
Ca 317.933Radial†	346220.9	493620	ug/L	9185.6	493620	ppb	9185.6	1.86%
QC value within limits for Ca 317.933Radial Recovery = 98.72%								
Cd 226.502†	4314.5	-4.0914	ug/L	1.72944	-4.0914	ppb	1.72944	42.27%
Co 228.616†	355.2	-0.4653	ug/L	0.38848	-0.4653	ppb	0.38848	83.49%
Cr 267.716†	-59.5	3.1885	ug/L	0.42084	3.1885	ppb	0.42084	13.20%
Cu 324.752†	-6207.8	6.0795	ug/L	0.80620	6.0795	ppb	0.80620	13.26%

Fe 238.204 Radial†	55696.5	463010 ug/L	12326.4	463010 ppb	12326.4	2.66%
QC value within limits for Fe 238.204 Radial Recovery = 92.60%						
K 766.490 Radial†	495.2	-138.70 ug/L	18.804	-138.70 ppb	18.804	13.56%
Mg 279.077 IEC†	16203.1	502720 ug/L	13520.9	502720 ppb	13520.9	2.69%
QC value within limits for Mg 279.077 IEC Recovery = 100.54%						
Mn 257.610†	-29321.2	7.8841 ug/L	1.91283	7.8841 ppb	1.91283	24.26%
Mo 202.031†	-630.6	-5.3248 ug/L	3.59978	-5.3248 ppb	3.59978	67.60%
Na 589.592 Radial†	1908878.8	569740 ug/L	10410.1	569740 ppb	10410.1	1.83%
QC value greater than the upper limit for Na 589.592 Radial Recovery = 113.95%						
Ni 231.604†	238.7	5.2104 ug/L	0.42201	5.2104 ppb	0.42201	8.10%
P 214.914†	446.7	41.012 ug/L	10.6542	41.012 ppb	10.6542	25.98%
Pb 220.353†	-666.4	10.582 ug/L	4.9448	10.582 ppb	4.9448	46.73%
S 181.975 Axial†	99.6	17.922 ug/L	9.3978	17.922 ppb	9.3978	52.44%
Sb 206.836†	28.7	-0.3205 ug/L	0.64693	-0.3205 ppb	0.64693	201.87%
Se 196.026†	-2789.5	-39.984 ug/L	60.7594	-39.984 ppb	60.7594	151.96%
Si 251.611†	-1215.4	-33.414 ug/L	0.5335	-33.414 ppb	0.5335	1.60%
Sn 189.927†	-474.0	-13.365 ug/L	2.5500	-13.365 ppb	2.5500	19.08%
Sr 421.552†	1006.4	1.3259 ug/L	0.26466	1.3259 ppb	0.26466	19.96%
Ti 334.940†	-7978.7	7.9844 ug/L	1.06234	7.9844 ppb	1.06234	13.31%
Tl 190.801†	-88.2	-8.7161 ug/L	5.16646	-8.7161 ppb	5.16646	59.28%
U 409.014†	512049.5	14050 ug/L	662.6	14050 ppb	662.6	4.72%
QC value within limits for U 409.014 Recovery = 93.67%						
V 292.402†	4622.6	-2.8173 ug/L	3.58574	-2.8173 ppb	3.58574	127.28%
Zn 213.857†	6511.9	-8.0354 ug/L	2.44758	-8.0354 ppb	2.44758	30.46%
SiO2†	-1266.8	-74.847 ug/L	7.0731	-74.847 ppb	7.0731	9.45%

QC Failed. Continue with analysis.

Sequence No.: 12
Sample ID: LR2
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 16
Date Collected: 12/19/2009 08:29:53
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR2

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5447.1	5447.1	97.8	%			08:31:51
1	Y RADIAL	5800.8	5800.8	98.13	%			08:31:51
1	Al 396.153Radial†	614.4	644.3	51.060	ug/L	51.060	ppb	08:31:51
1	Ca 317.933Radial†	41.7	23.1	32.879	ug/L	32.879	ppb	08:32:11
1	Fe 238.204 Radial†	-25.4	-36.9	-13.698	ug/L	-13.698	ppb	08:32:11
1	K 766.490 Radial†	1623659.6	1656783.1	291920	ug/L	291920	ppb	08:31:46
1	Mg 279.077 IEC†	-7.8	-9.4	-93.210	ug/L	-93.210	ppb	08:32:11
1	Na 589.592 Radial†	-294.4	460.8	137.53	ug/L	137.53	ppb	08:31:51
1	Sr 421.552†	1563831.3	1598358.5	9372.6	ug/L	9372.6	ppb	08:31:46
1	Sc 361.383	863865.1	863865.1	96.102	%			08:33:28
1	Y 371.029	697025.7	697025.7	93.628	%			08:33:28
1	Ag 328.068†	-8155.2	-8855.9	1.0213	ug/L	1.0213	ppb	08:33:33
1	As 188.979†	26297.6	27399.2	10029	ug/L	10029	ppb	08:33:33
1	B 249.677†	233893.2	243407.3	4971.8	ug/L	4971.8	ppb	08:33:28
1	Ba 233.527†	2028481.0	2110771.6	14368	ug/L	14368	ppb	08:33:28
1	Be 313.107†	8211275.7	8549107.9	2886.3	ug/L	2886.3	ppb	08:33:22
1	Cd 226.502†	952935.8	991822.1	9706.2	ug/L	9706.2	ppb	08:33:28
1	Co 228.616†	509788.5	530555.8	9288.1	ug/L	9288.1	ppb	08:33:33
1	Cr 267.716†	2270999.3	2363045.2	23975	ug/L	23975	ppb	08:33:28
1	Cu 324.752†	6917777.4	7192350.6	20321	ug/L	20321	ppb	08:33:22
1	Mn 257.610†	9150004.2	9520694.7	9390.9	ug/L	9390.9	ppb	08:33:22
1	Mo 202.031†	155188.8	161464.3	9773.6	ug/L	9773.6	ppb	08:33:33
1	Ni 231.604†	430929.1	448316.7	9789.4	ug/L	9789.4	ppb	08:33:28
1	P 214.914†	34551.5	35695.1	15505	ug/L	15505	ppb	08:33:33
1	Pb 220.353†	224071.9	233225.8	24585	ug/L	24585	ppb	08:33:33
1	S 181.975 Axial†	41020.8	42635.9	52306	ug/L	52306	ppb	08:33:33
1	Sb 206.836†	33975.2	35312.3	10385	ug/L	10385	ppb	08:33:33
1	Se 196.026†	17780.4	18530.2	10126	ug/L	10126	ppb	08:33:33
1	Si 251.611†	1622065.9	1687289.6	47278	ug/L	47278	ppb	08:33:28
1	Sn 189.927†	66912.6	69623.5	10442	ug/L	10442	ppb	08:33:33
1	Ti 334.940†	6528399.3	6794620.0	9815.5	ug/L	9815.5	ppb	08:33:22
1	Tl 190.801†	35746.3	37244.5	9723.1	ug/L	9723.1	ppb	08:33:33
1	U 409.014†	-1063.6	1265.5	-11.372	ug/L	-11.372	ppb	08:33:33
1	V 292.402†	1510866.6	1573626.3	10128	ug/L	10128	ppb	08:33:28
1	Zn 213.857†	1655286.5	1721641.8	14033	ug/L	14033	ppb	08:33:28
1	SiO2†	1621563.5	1686737.7	101470	ug/L	101470	ppb	08:34:21
2	Sc Radial	5508.3	5508.3	98.9	%			08:32:21
2	Y RADIAL	5846.5	5846.5	98.90	%			08:32:21
2	Al 396.153Radial†	656.0	679.4	93.074	ug/L	93.074	ppb	08:32:21
2	Ca 317.933Radial†	40.7	21.5	30.691	ug/L	30.691	ppb	08:32:41
2	Fe 238.204 Radial†	-24.5	-35.7	-13.399	ug/L	-13.399	ppb	08:32:41
2	K 766.490 Radial†	1592082.3	1606413.9	283050	ug/L	283050	ppb	08:32:16
2	Mg 279.077 IEC†	-5.6	-7.0	-28.305	ug/L	-28.305	ppb	08:32:41
2	Na 589.592 Radial†	-359.7	398.1	118.82	ug/L	118.82	ppb	08:32:21
2	Sr 421.552†	1529669.9	1546057.6	9065.9	ug/L	9065.9	ppb	08:32:16
2	Sc 361.383	885471.4	885471.4	98.505	%			08:33:48
2	Y 371.029	716006.2	716006.2	96.177	%			08:33:48
2	Ag 328.068†	-8015.3	-8506.8	1.3835	ug/L	1.3835	ppb	08:33:53
2	As 188.979†	25907.3	26335.3	9640.3	ug/L	9640.3	ppb	08:33:53
2	B 249.677†	233463.7	237032.6	4841.8	ug/L	4841.8	ppb	08:33:48
2	Ba 233.527†	2013175.5	2043729.0	13912	ug/L	13912	ppb	08:33:48
2	Be 313.107†	8172181.3	8300929.0	2802.5	ug/L	2802.5	ppb	08:33:42
2	Cd 226.502†	946780.5	961377.5	9408.3	ug/L	9408.3	ppb	08:33:48
2	Co 228.616†	505323.2	513078.8	8982.0	ug/L	8982.0	ppb	08:33:53
2	Cr 267.716†	2257842.3	2292026.0	23255	ug/L	23255	ppb	08:33:48
2	Cu 324.752†	6856868.5	6954869.1	19650	ug/L	19650	ppb	08:33:42
2	Mn 257.610†	9097309.1	9234873.5	9109.0	ug/L	9109.0	ppb	08:33:42
2	Mo 202.031†	152811.7	155110.8	9389.1	ug/L	9389.1	ppb	08:33:53
2	Ni 231.604†	428197.3	434601.8	9489.9	ug/L	9489.9	ppb	08:33:48

2	P 214.914†	33955.7	34212.9	14834	ug/L	14834 ppb	08:33:53
2	Pb 220.353†	220934.2	224351.0	23650	ug/L	23650 ppb	08:33:53
2	S 181.975 Axial†	40452.0	41016.9	50319	ug/L	50319 ppb	08:33:53
2	Sb 206.836†	33461.0	33927.5	9972.9	ug/L	9972.9 ppb	08:33:53
2	Se 196.026†	17510.9	17805.2	9730.0	ug/L	9730.0 ppb	08:33:53
2	Si 251.611†	1616483.2	1640436.6	45968	ug/L	45968 ppb	08:33:48
2	Sn 189.927†	66028.6	67027.2	10053	ug/L	10053 ppb	08:33:53
2	Ti 334.940†	6483993.3	6583778.4	9510.9	ug/L	9510.9 ppb	08:33:42
2	Tl 190.801†	35327.2	35911.4	9375.5	ug/L	9375.5 ppb	08:33:53
2	U 409.014†	-1318.4	1033.8	-16.365	ug/L	-16.365 ppb	08:33:53
2	V 292.402†	1503274.4	1527556.7	9830.4	ug/L	9830.4 ppb	08:33:48
2	Zn 213.857†	1646160.2	1670347.8	13615	ug/L	13615 ppb	08:33:48
2	SiO2†	1643194.6	1667524.2	100330	ug/L	100330 ppb	08:34:28
3	Sc Radial	5347.2	5347.2	96.0	%		08:32:52
3	Y RADIAL	5646.4	5646.4	95.52	%		08:32:52
3	Al 396.153Radial†	614.0	655.7	75.242	ug/L	75.242 ppb	08:32:52
3	Ca 317.933Radial†	35.2	17.0	24.301	ug/L	24.301 ppb	08:33:12
3	Fe 238.204 Radial†	-21.5	-33.3	6.6826	ug/L	6.6826 ppb	08:33:12
3	K 766.490 Radial†	1632133.2	1696581.5	298940	ug/L	298940 ppb	08:32:47
3	Mg 279.077 IEC†	-4.4	-6.0	4.6751	ug/L	4.6751 ppb	08:33:12
3	Na 589.592 Radial†	-368.2	378.3	112.91	ug/L	112.91 ppb	08:32:52
3	Sr 421.552†	1572114.2	1636817.0	9598.1	ug/L	9598.1 ppb	08:32:47
3	Sc 361.383	882318.6	882318.6	98.154	%		08:34:08
3	Y 371.029	712097.8	712097.8	95.652	%		08:34:08
3	Ag 328.068†	-8070.4	-8592.1	1.0600	ug/L	1.0600 ppb	08:34:13
3	As 188.979†	25636.3	26153.2	9574.1	ug/L	9574.1 ppb	08:34:13
3	B 249.677†	232894.6	237299.7	4847.2	ug/L	4847.2 ppb	08:34:08
3	Ba 233.527†	2015206.8	2053101.5	13976	ug/L	13976 ppb	08:34:08
3	Be 313.107†	8139672.2	8297454.3	2801.3	ug/L	2801.3 ppb	08:34:01
3	Cd 226.502†	947584.7	965631.4	9449.9	ug/L	9449.9 ppb	08:34:08
3	Co 228.616†	504163.3	513730.3	8993.4	ug/L	8993.4 ppb	08:34:13
3	Cr 267.716†	2255404.9	2297733.4	23313	ug/L	23313 ppb	08:34:08
3	Cu 324.752†	6828189.6	6950525.2	19638	ug/L	19638 ppb	08:34:01
3	Mn 257.610†	9053696.6	9223442.7	9097.7	ug/L	9097.7 ppb	08:34:01
3	Mo 202.031†	152470.5	155317.5	9401.6	ug/L	9401.6 ppb	08:34:13
3	Ni 231.604†	428074.6	436030.2	9521.1	ug/L	9521.1 ppb	08:34:08
3	P 214.914†	33915.4	34295.0	14879	ug/L	14879 ppb	08:34:13
3	Pb 220.353†	220344.7	224551.9	23671	ug/L	23671 ppb	08:34:13
3	S 181.975 Axial†	40057.8	40762.0	50007	ug/L	50007 ppb	08:34:13
3	Sb 206.836†	33322.6	33907.9	9966.2	ug/L	9966.2 ppb	08:34:13
3	Se 196.026†	17433.7	17790.0	9721.8	ug/L	9721.8 ppb	08:34:13
3	Si 251.611†	1615482.8	1645281.4	46099	ug/L	46099 ppb	08:34:08
3	Sn 189.927†	65867.2	67102.2	10064	ug/L	10064 ppb	08:34:13
3	Ti 334.940†	6452914.2	6575636.6	9499.1	ug/L	9499.1 ppb	08:34:01
3	Tl 190.801†	35128.8	35837.4	9356.1	ug/L	9356.1 ppb	08:34:13
3	U 409.014†	-1074.9	1277.1	-9.7754	ug/L	-9.7754 ppb	08:34:13
3	V 292.402†	1499608.5	1529275.3	9841.5	ug/L	9841.5 ppb	08:34:08
3	Zn 213.857†	1646870.4	1677043.1	13670	ug/L	13670 ppb	08:34:08
3	SiO2†	1621980.5	1651872.1	99374	ug/L	99374 ppb	08:34:35

Mean Data: LR2

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	877218.4	97.587	%	1.2984				1.33%
Sc Radial	5434.2	97.6	%	1.46				1.50%
Y 371.029	708376.6	95.153	%	1.3463				1.41%
Y RADIAL	5764.5	97.52	%	1.773				1.82%
Ag 328.068†	-8651.6	1.1549	ug/L	0.19889	1.1549	ppb	0.19889	17.22%
Al 396.153Radial†	659.8	73.125	ug/L	21.0872	73.125	ppb	21.0872	28.84%
As 188.979†	26629.2	9747.8	ug/L	245.73	9747.8	ppb	245.73	2.52%
QC value within limits for As 188.979 Recovery = 97.48%								
B 249.677†	239246.5	4886.9	ug/L	73.56	4886.9	ppb	73.56	1.51%
QC value within limits for B 249.677 Recovery = 97.74%								
Ba 233.527†	2069200.7	14085	ug/L	247.1	14085	ppb	247.1	1.75%
QC value within limits for Ba 233.527 Recovery = 93.90%								
Be 313.107†	8382497.1	2830.1	ug/L	48.75	2830.1	ppb	48.75	1.72%
QC value within limits for Be 313.107 Recovery = 94.34%								
Ca 317.933Radial†	20.5	29.290	ug/L	4.4572	29.290	ppb	4.4572	15.22%
Cd 226.502†	972943.7	9521.5	ug/L	161.35	9521.5	ppb	161.35	1.69%
QC value within limits for Cd 226.502 Recovery = 95.21%								

Co 228.616†	519121.6	9087.8 ug/L	173.56	9087.8 ppb	173.56	1.91%
QC value within limits for Co 228.616 Recovery = 90.88%						
Cr 267.716†	2317601.5	23514 ug/L	400.3	23514 ppb	400.3	1.70%
QC value within limits for Cr 267.716 Recovery = 94.06%						
Cu 324.752†	7032581.6	19870 ug/L	391.0	19870 ppb	391.0	1.97%
QC value within limits for Cu 324.752 Recovery = 99.35%						
Fe 238.204 Radial†	-35.3	-6.8049 ug/L	11.68145	-6.8049 ppb	11.68145	171.66%
K 766.490 Radial†	1653259.5	291300 ug/L	7964.1	291300 ppb	7964.1	2.73%
QC value within limits for K 766.490 Radial Recovery = 97.10%						
Mg 279.077 IEC†	-7.5	-38.946 ug/L	49.8026	-38.946 ppb	49.8026	127.87%
Mn 257.610†	9326337.0	9199.2 ug/L	166.12	9199.2 ppb	166.12	1.81%
QC value within limits for Mn 257.610 Recovery = 91.99%						
Mo 202.031†	157297.6	9521.4 ug/L	218.52	9521.4 ppb	218.52	2.30%
QC value within limits for Mo 202.031 Recovery = 95.21%						
Na 589.592 Radial†	412.4	123.09 ug/L	12.850	123.09 ppb	12.850	10.44%
Ni 231.604†	439649.6	9600.1 ug/L	164.63	9600.1 ppb	164.63	1.71%
QC value within limits for Ni 231.604 Recovery = 96.00%						
P 214.914†	34734.3	15072 ug/L	375.0	15072 ppb	375.0	2.49%
QC value within limits for P 214.914 Recovery = 100.48%						
Pb 220.353†	227376.2	23969 ug/L	534.2	23969 ppb	534.2	2.23%
QC value within limits for Pb 220.353 Recovery = 95.87%						
S 181.975 Axial†	41471.6	50877 ug/L	1246.8	50877 ppb	1246.8	2.45%
QC value within limits for S 181.975 Axial Recovery = 101.75%						
Sb 206.836†	34382.6	10108 ug/L	240.0	10108 ppb	240.0	2.37%
QC value within limits for Sb 206.836 Recovery = 101.08%						
Se 196.026†	18041.8	9859.3 ug/L	231.13	9859.3 ppb	231.13	2.34%
QC value within limits for Se 196.026 Recovery = 98.59%						
Si 251.611†	1657669.2	46448 ug/L	721.6	46448 ppb	721.6	1.55%
QC value within limits for Si 251.611 Recovery = 92.90%						
Sn 189.927†	67917.6	10186 ug/L	221.6	10186 ppb	221.6	2.18%
QC value within limits for Sn 189.927 Recovery = 101.86%						
Sr 421.552†	1593744.4	9345.5 ug/L	267.13	9345.5 ppb	267.13	2.86%
QC value within limits for Sr 421.552 Recovery = 93.46%						
Ti 334.940†	6651345.0	9608.5 ug/L	179.36	9608.5 ppb	179.36	1.87%
QC value within limits for Ti 334.940 Recovery = 96.09%						
Tl 190.801†	36331.1	9484.9 ug/L	206.54	9484.9 ppb	206.54	2.18%
QC value within limits for Tl 190.801 Recovery = 94.85%						
U 409.014†	1192.2	-12.504 ug/L	3.4375	-12.504 ppb	3.4375	27.49%
V 292.402†	1543486.1	9933.4 ug/L	168.88	9933.4 ppb	168.88	1.70%
QC value within limits for V 292.402 Recovery = 99.33%						
Zn 213.857†	1689677.6	13773 ug/L	227.2	13773 ppb	227.2	1.65%
QC value within limits for Zn 213.857 Recovery = 91.82%						
SiO2†	1668711.3	100390 ug/L	1051.1	100390 ppb	1051.1	1.05%
QC value within limits for SiO2 Recovery = 93.83%						

All analyte(s) passed QC.

Sequence No.: 13
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 12/19/2009 08:36:44
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5478.0	5478.0	98.4	%			08:38:36
1	Y RADIAL	5868.1	5868.1	99.27	%			08:38:36
1	Al 396.153Radial†	6604.6	6728.5	4881.5	ug/L	4881.5	ppb	08:38:36
1	Ca 317.933Radial†	3486.7	3523.9	5024.2	ug/L	5024.2	ppb	08:38:56
1	Fe 238.204 Radial†	620.1	619.3	5164.3	ug/L	5164.3	ppb	08:38:56
1	K 766.490 Radial†	31159.4	28954.6	5094.6	ug/L	5094.6	ppb	08:38:36
1	Mg 279.077 IEC†	167.6	169.0	5252.3	ug/L	5252.3	ppb	08:38:56
1	Na 589.592 Radial†	32390.5	33679.8	10052	ug/L	10052	ppb	08:38:36
1	Sr 421.552†	84442.2	85829.5	503.25	ug/L	503.25	ppb	08:38:36
1	Sc 361.383	895534.1	895534.1	99.625	%			08:39:54
1	Y 371.029	729151.2	729151.2	97.943	%			08:39:54
1	Ag 328.068†	114332.8	114393.8	496.16	ug/L	496.16	ppb	08:39:59
1	As 188.979†	1390.2	1430.3	523.52	ug/L	523.52	ppb	08:40:19
1	B 249.677†	25190.7	25311.6	517.51	ug/L	517.51	ppb	08:39:59
1	Ba 233.527†	73117.2	73395.3	500.14	ug/L	500.14	ppb	08:39:59
1	Be 313.107†	1455940.8	1466158.6	492.65	ug/L	492.65	ppb	08:39:54
1	Cd 226.502†	50630.1	51050.1	499.07	ug/L	499.07	ppb	08:39:59
1	Co 228.616†	28353.7	28547.6	499.89	ug/L	499.89	ppb	08:39:59
1	Cr 267.716†	49064.5	49169.3	499.31	ug/L	499.31	ppb	08:39:59
1	Cu 324.752†	180343.2	174967.2	494.61	ug/L	494.61	ppb	08:39:59
1	Mn 257.610†	500444.2	501838.7	495.42	ug/L	495.42	ppb	08:39:54
1	Mo 202.031†	8197.4	8208.4	497.23	ug/L	497.23	ppb	08:40:19
1	Ni 231.604†	22947.2	22940.1	500.90	ug/L	500.90	ppb	08:39:59
1	P 214.914†	4963.5	4724.1	2389.3	ug/L	2389.3	ppb	08:40:19
1	Pb 220.353†	4647.1	4728.7	499.82	ug/L	499.82	ppb	08:40:19
1	S 181.975 Axial†	861.6	815.9	999.92	ug/L	999.92	ppb	08:40:19
1	Sb 206.836†	1714.0	1679.3	510.25	ug/L	510.25	ppb	08:40:19
1	Se 196.026†	881.3	913.1	515.40	ug/L	515.40	ppb	08:40:19
1	Si 251.611†	87737.7	87490.9	2455.2	ug/L	2455.2	ppb	08:39:59
1	Sn 189.927†	3302.0	3311.0	497.16	ug/L	497.16	ppb	08:40:19
1	Ti 334.940†	335831.9	338485.0	489.27	ug/L	489.27	ppb	08:39:54
1	Tl 190.801†	1909.7	1965.0	512.91	ug/L	512.91	ppb	08:40:19
1	U 409.014†	15318.7	17748.7	487.40	ug/L	487.40	ppb	08:39:59
1	V 292.402†	76180.0	77936.4	502.35	ug/L	502.35	ppb	08:39:59
1	Zn 213.857†	61498.7	60936.9	495.31	ug/L	495.31	ppb	08:39:59
1	SiO2†	87682.4	87406.1	5266.4	ug/L	5266.4	ppb	08:41:27
2	Sc Radial	5470.7	5470.7	98.3	%			08:39:02
2	Y RADIAL	5851.8	5851.8	98.99	%			08:39:02
2	Al 396.153Radial†	6688.6	6823.0	4950.3	ug/L	4950.3	ppb	08:39:02
2	Ca 317.933Radial†	3462.2	3503.7	4995.4	ug/L	4995.4	ppb	08:39:22
2	Fe 238.204 Radial†	613.1	613.0	5112.0	ug/L	5112.0	ppb	08:39:22
2	K 766.490 Radial†	31323.5	29164.0	5131.5	ug/L	5131.5	ppb	08:39:02
2	Mg 279.077 IEC†	165.2	166.7	5181.2	ug/L	5181.2	ppb	08:39:22
2	Na 589.592 Radial†	32449.9	33784.4	10084	ug/L	10084	ppb	08:39:02
2	Sr 421.552†	84752.6	86260.4	505.77	ug/L	505.77	ppb	08:39:02
2	Sc 361.383	898202.6	898202.6	99.921	%			08:40:25
2	Y 371.029	731599.8	731599.8	98.272	%			08:40:25
2	Ag 328.068†	114436.4	114156.4	495.13	ug/L	495.13	ppb	08:40:30
2	As 188.979†	1396.5	1432.5	524.29	ug/L	524.29	ppb	08:40:50
2	B 249.677†	25180.5	25226.3	515.77	ug/L	515.77	ppb	08:40:30
2	Ba 233.527†	73300.5	73360.7	499.90	ug/L	499.90	ppb	08:40:30
2	Be 313.107†	1463841.3	1469723.4	493.85	ug/L	493.85	ppb	08:40:25
2	Cd 226.502†	50754.9	51024.0	498.82	ug/L	498.82	ppb	08:40:30
2	Co 228.616†	28381.3	28490.8	498.90	ug/L	498.90	ppb	08:40:30
2	Cr 267.716†	49228.5	49187.1	499.49	ug/L	499.49	ppb	08:40:30
2	Cu 324.752†	180319.6	174405.8	493.02	ug/L	493.02	ppb	08:40:30
2	Mn 257.610†	501757.6	501660.6	495.24	ug/L	495.24	ppb	08:40:25
2	Mo 202.031†	8258.5	8245.1	499.45	ug/L	499.45	ppb	08:40:50
2	Ni 231.604†	22915.3	22839.7	498.71	ug/L	498.71	ppb	08:40:30

2	P 214.914†	5024.0	4769.9	2413.5 ug/L	2413.5 ppb	08:40:50
2	Pb 220.353†	4668.9	4736.6	500.68 ug/L	500.68 ppb	08:40:50
2	S 181.975 Axial†	876.0	827.7	1014.4 ug/L	1014.4 ppb	08:40:50
2	Sb 206.836†	1737.3	1697.4	515.75 ug/L	515.75 ppb	08:40:50
2	Se 196.026†	889.7	918.9	518.39 ug/L	518.39 ppb	08:40:50
2	Si 251.611†	87773.8	87265.3	2448.7 ug/L	2448.7 ppb	08:40:30
2	Sn 189.927†	3318.9	3318.0	498.22 ug/L	498.22 ppb	08:40:50
2	Ti 334.940†	337085.9	338738.5	489.63 ug/L	489.63 ppb	08:40:25
2	Tl 190.801†	1909.4	1959.0	511.36 ug/L	511.36 ppb	08:40:50
2	U 409.014†	15289.2	17673.5	485.34 ug/L	485.34 ppb	08:40:30
2	V 292.402†	76392.5	77922.0	502.29 ug/L	502.29 ppb	08:40:30
2	Zn 213.857†	61499.2	60754.0	493.83 ug/L	493.83 ppb	08:40:30
2	SiO2†	86796.8	86258.4	5196.8 ug/L	5196.8 ppb	08:41:32
3	Sc Radial	5527.0	5527.0	99.3 %		08:39:27
3	Y RADIAL	5885.1	5885.1	99.56 %		08:39:27
3	Al 396.153Radial†	6729.7	6795.1	4930.3 ug/L	4930.3 ppb	08:39:27
3	Ca 317.933Radial†	3462.1	3467.7	4944.1 ug/L	4944.1 ppb	08:39:47
3	Fe 238.204 Radial†	615.5	609.1	5078.8 ug/L	5078.8 ppb	08:39:47
3	K 766.490 Radial†	31748.3	29267.2	5149.6 ug/L	5149.6 ppb	08:39:27
3	Mg 279.077 IEC†	166.7	166.6	5177.1 ug/L	5177.1 ppb	08:39:47
3	Na 589.592 Radial†	32818.5	33819.3	10094 ug/L	10094 ppb	08:39:27
3	Sr 421.552†	85542.3	86177.5	505.29 ug/L	505.29 ppb	08:39:27
3	Sc 361.383	903528.7	903528.7	100.51 %		08:40:56
3	Y 371.029	736412.2	736412.2	98.918 %		08:40:56
3	Ag 328.068†	115070.6	114112.3	494.92 ug/L	494.92 ppb	08:41:02
3	As 188.979†	1365.6	1393.4	510.12 ug/L	510.12 ppb	08:41:22
3	B 249.677†	25303.2	25199.7	515.23 ug/L	515.23 ppb	08:41:02
3	Ba 233.527†	73502.5	73129.3	498.32 ug/L	498.32 ppb	08:41:02
3	Be 313.107†	1471318.1	1468526.2	493.45 ug/L	493.45 ppb	08:40:56
3	Cd 226.502†	50979.8	50948.3	498.08 ug/L	498.08 ppb	08:41:02
3	Co 228.616†	28513.2	28454.5	498.24 ug/L	498.24 ppb	08:41:02
3	Cr 267.716†	49272.1	48940.0	496.98 ug/L	496.98 ppb	08:41:02
3	Cu 324.752†	181324.8	174342.1	492.84 ug/L	492.84 ppb	08:41:02
3	Mn 257.610†	503616.2	500549.7	494.14 ug/L	494.14 ppb	08:40:56
3	Mo 202.031†	8154.3	8092.7	490.22 ug/L	490.22 ppb	08:41:22
3	Ni 231.604†	23027.9	22816.5	498.20 ug/L	498.20 ppb	08:41:02
3	P 214.914†	4962.9	4679.4	2366.2 ug/L	2366.2 ppb	08:41:22
3	Pb 220.353†	4639.8	4680.1	494.69 ug/L	494.69 ppb	08:41:22
3	S 181.975 Axial†	861.8	808.4	990.74 ug/L	990.74 ppb	08:41:22
3	Sb 206.836†	1687.6	1637.7	497.57 ug/L	497.57 ppb	08:41:22
3	Se 196.026†	881.0	905.0	510.69 ug/L	510.69 ppb	08:41:22
3	Si 251.611†	88176.0	87147.6	2445.6 ug/L	2445.6 ppb	08:41:02
3	Sn 189.927†	3280.6	3260.4	489.56 ug/L	489.56 ppb	08:41:22
3	Ti 334.940†	338176.1	337834.6	488.32 ug/L	488.32 ppb	08:40:56
3	Tl 190.801†	1881.8	1920.3	501.31 ug/L	501.31 ppb	08:41:22
3	U 409.014†	15529.1	17821.9	489.43 ug/L	489.43 ppb	08:41:02
3	V 292.402†	76616.9	77694.6	500.73 ug/L	500.73 ppb	08:41:02
3	Zn 213.857†	61788.1	60678.6	493.22 ug/L	493.22 ppb	08:41:02
3	SiO2†	86670.9	85621.1	5158.6 ug/L	5158.6 ppb	08:41:37

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	899088.5	100.02	%	0.453				0.45%
Sc Radial	5491.9	98.6	%	0.55				0.56%
Y 371.029	732387.7	98.378	%	0.4962				0.50%
Y RADIAL	5868.3	99.27	%	0.282				0.28%
Ag 328.068†	114220.8	495.40	ug/L	0.668	495.40	ppb	0.668	0.13%
QC value within limits for Ag 328.068 Recovery = 99.08%								
Al 396.153Radial†	6782.2	4920.7	ug/L	35.38	4920.7	ppb	35.38	0.72%
QC value within limits for Al 396.153Radial Recovery = 98.41%								
As 188.979†	1418.7	519.31	ug/L	7.969	519.31	ppb	7.969	1.53%
QC value within limits for As 188.979 Recovery = 103.86%								
B 249.677†	25245.8	516.17	ug/L	1.191	516.17	ppb	1.191	0.23%
QC value within limits for B 249.677 Recovery = 103.23%								
Ba 233.527†	73295.1	499.45	ug/L	0.987	499.45	ppb	0.987	0.20%
QC value within limits for Ba 233.527 Recovery = 99.89%								
Be 313.107†	1468136.1	493.32	ug/L	0.609	493.32	ppb	0.609	0.12%
QC value within limits for Be 313.107 Recovery = 98.66%								
Ca 317.933Radial†	3498.5	4987.9	ug/L	40.58	4987.9	ppb	40.58	0.81%

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   QC value within limits for Ca 317.933Radial  Recovery = 99.76%
Cd 226.502†            51007.5      498.66 ug/L         0.514      498.66 ppb          0.514   0.10%
   QC value within limits for Cd 226.502  Recovery = 99.73%
Co 228.616†            28497.6      499.01 ug/L         0.828      499.01 ppb          0.828   0.17%
   QC value within limits for Co 228.616  Recovery = 99.80%
Cr 267.716†            49098.8      498.59 ug/L         1.400      498.59 ppb          1.400   0.28%
   QC value within limits for Cr 267.716  Recovery = 99.72%
Cu 324.752†           174571.7      493.49 ug/L         0.974      493.49 ppb          0.974   0.20%
   QC value within limits for Cu 324.752  Recovery = 98.70%
Fe 238.204 Radial†       613.8      5118.4 ug/L         43.12      5118.4 ppb          43.12   0.84%
   QC value within limits for Fe 238.204 Radial  Recovery = 102.37%
K 766.490 Radial†      29128.6      5125.2 ug/L         28.07      5125.2 ppb          28.07   0.55%
   QC value within limits for K 766.490 Radial  Recovery = 102.50%
Mg 279.077 IEC†          167.4      5203.5 ug/L         42.27      5203.5 ppb          42.27   0.81%
   QC value within limits for Mg 279.077 IEC  Recovery = 104.07%
Mn 257.610†           501349.7      494.93 ug/L         0.692      494.93 ppb          0.692   0.14%
   QC value within limits for Mn 257.610  Recovery = 98.99%
Mo 202.031†            8182.1      495.63 ug/L         4.816      495.63 ppb          4.816   0.97%
   QC value within limits for Mo 202.031  Recovery = 99.13%
Na 589.592 Radial†     33761.2       10077 ug/L          21.7       10077 ppb           21.7   0.21%
   QC value within limits for Na 589.592 Radial  Recovery = 100.77%
Ni 231.604†            22865.5      499.27 ug/L         1.434      499.27 ppb          1.434   0.29%
   QC value within limits for Ni 231.604  Recovery = 99.85%
P 214.914†              4724.5      2389.6 ug/L         23.64      2389.6 ppb          23.64   0.99%
   QC value within limits for P 214.914  Recovery = 95.59%
Pb 220.353†             4715.2      498.40 ug/L         3.234      498.40 ppb          3.234   0.65%
   QC value within limits for Pb 220.353  Recovery = 99.68%
S 181.975 Axial†         817.3      1001.7 ug/L         11.93      1001.7 ppb          11.93   1.19%
   QC value within limits for S 181.975 Axial  Recovery = 100.17%
Sb 206.836†             1671.5      507.86 ug/L         9.325      507.86 ppb          9.325   1.84%
   QC value within limits for Sb 206.836  Recovery = 101.57%
Se 196.026†              912.3      514.83 ug/L         3.881      514.83 ppb          3.881   0.75%
   QC value within limits for Se 196.026  Recovery = 102.97%
Si 251.611†            87301.3      2449.8 ug/L          4.87      2449.8 ppb           4.87   0.20%
   QC value within limits for Si 251.611  Recovery = 97.99%
Sn 189.927†             3296.5      494.98 ug/L         4.722      494.98 ppb          4.722   0.95%
   QC value within limits for Sn 189.927  Recovery = 99.00%
Sr 421.552†            86089.1      504.77 ug/L         1.341      504.77 ppb          1.341   0.27%
   QC value within limits for Sr 421.552  Recovery = 100.95%
Ti 334.940†           338352.7      489.07 ug/L         0.676      489.07 ppb          0.676   0.14%
   QC value within limits for Ti 334.940  Recovery = 97.81%
Tl 190.801†             1948.1      508.53 ug/L         6.300      508.53 ppb          6.300   1.24%
   QC value within limits for Tl 190.801  Recovery = 101.71%
U 409.014†             17748.0      487.39 ug/L         2.049      487.39 ppb          2.049   0.42%
   QC value within limits for U 409.014  Recovery = 97.48%
V 292.402†             77851.0      501.79 ug/L         0.920      501.79 ppb          0.920   0.18%
   QC value within limits for V 292.402  Recovery = 100.36%
Zn 213.857†            60789.8      494.12 ug/L         1.073      494.12 ppb          1.073   0.22%
   QC value within limits for Zn 213.857  Recovery = 98.82%
SiO2†                  86428.5      5207.3 ug/L         54.66      5207.3 ppb          54.66   1.05%
   QC value within limits for SiO2  Recovery = 97.38%
All analyte(s) passed QC.
```

Sequence No.: 14
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 12/19/2009 08:43:49
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5585.9	5585.9	100	%			08:45:41
1	Y RADIAL	5963.5	5963.5	100.9	%			08:45:41
1	Al 396.153Radial†	-19.9	-3.5	-2.6070	ug/L	-2.6070	ppb	08:45:41
1	Ca 317.933Radial†	26.0	6.4	9.0609	ug/L	9.0609	ppb	08:46:01
1	Fe 238.204 Radial†	10.9	0.0	0.1134	ug/L	0.1134	ppb	08:46:01
1	K 766.490 Radial†	3304.0	580.6	102.32	ug/L	102.32	ppb	08:45:41
1	Mg 279.077 IEC†	-0.5	-1.9	-59.420	ug/L	-59.420	ppb	08:46:01
1	Na 589.592 Radial†	-711.1	52.9	15.786	ug/L	15.786	ppb	08:45:41
1	Sr 421.552†	12.4	24.2	0.1416	ug/L	0.1416	ppb	08:45:41
1	Sc 361.383	882647.5	882647.5	98.191	%			08:46:58
1	Y 371.029	730820.2	730820.2	98.167	%			08:46:58
1	Ag 328.068†	368.9	5.8	0.0252	ug/L	0.0252	ppb	08:46:58
1	As 188.979†	6.8	41.7	15.135	ug/L	15.135	ppb	08:47:18
1	B 249.677†	764.9	805.0	16.520	ug/L	16.520	ppb	08:46:58
1	Ba 233.527†	1.7	4.4	0.0279	ug/L	0.0279	ppb	08:47:18
1	Be 313.107†	-4607.0	39.2	0.0133	ug/L	0.0133	ppb	08:46:58
1	Cd 226.502†	-179.1	46.7	0.4571	ug/L	0.4571	ppb	08:47:18
1	Co 228.616†	-92.7	-7.3	-0.1243	ug/L	-0.1243	ppb	08:47:18
1	Cr 267.716†	115.0	37.0	0.3749	ug/L	0.3749	ppb	08:47:18
1	Cu 324.752†	5983.3	38.0	0.1073	ug/L	0.1073	ppb	08:46:58
1	Mn 257.610†	524.0	42.1	0.0427	ug/L	0.0427	ppb	08:47:18
1	Mo 202.031†	41.8	22.7	1.3758	ug/L	1.3758	ppb	08:47:18
1	Ni 231.604†	95.9	4.1	0.0902	ug/L	0.0902	ppb	08:47:18
1	P 214.914†	249.6	-3.9	-2.0245	ug/L	-2.0245	ppb	08:47:18
1	Pb 220.353†	-69.9	-7.1	-0.7469	ug/L	-0.7469	ppb	08:47:18
1	S 181.975 Axial†	59.8	11.9	14.576	ug/L	14.576	ppb	08:47:18
1	Sb 206.836†	48.9	8.6	2.6407	ug/L	2.6407	ppb	08:47:18
1	Se 196.026†	-20.6	7.5	4.0908	ug/L	4.0908	ppb	08:47:18
1	Si 251.611†	705.9	141.5	3.9239	ug/L	3.9239	ppb	08:47:18
1	Sn 189.927†	18.2	15.0	2.2525	ug/L	2.2525	ppb	08:47:18
1	Ti 334.940†	-1321.0	42.2	0.0632	ug/L	0.0632	ppb	08:46:58
1	Tl 190.801†	-27.2	20.4	5.2955	ug/L	5.2955	ppb	08:47:18
1	U 409.014†	-2472.0	-145.3	-4.0038	ug/L	-4.0038	ppb	08:46:58
1	V 292.402†	-1563.0	-122.4	-0.7679	ug/L	-0.7679	ppb	08:46:58
1	Zn 213.857†	855.3	77.5	0.6371	ug/L	0.6371	ppb	08:47:18
1	SiO2†	696.7	102.9	6.0890	ug/L	6.0890	ppb	08:48:14
2	Sc Radial	5679.2	5679.2	102	%			08:46:06
2	Y RADIAL	6053.6	6053.6	102.4	%			08:46:06
2	Al 396.153Radial†	-29.6	-12.7	-9.2958	ug/L	-9.2958	ppb	08:46:06
2	Ca 317.933Radial†	23.6	3.6	5.0742	ug/L	5.0742	ppb	08:46:26
2	Fe 238.204 Radial†	13.0	1.8	15.290	ug/L	15.290	ppb	08:46:26
2	K 766.490 Radial†	3283.2	506.1	89.192	ug/L	89.192	ppb	08:46:06
2	Mg 279.077 IEC†	4.8	3.4	104.14	ug/L	104.14	ppb	08:46:26
2	Na 589.592 Radial†	-724.7	51.3	15.297	ug/L	15.297	ppb	08:46:06
2	Sr 421.552†	43.4	54.4	0.3187	ug/L	0.3187	ppb	08:46:06
2	Sc 361.383	894399.5	894399.5	99.498	%			08:47:23
2	Y 371.029	741616.7	741616.7	99.618	%			08:47:23
2	Ag 328.068†	406.8	38.9	0.1763	ug/L	0.1763	ppb	08:47:23
2	As 188.979†	-4.7	30.1	10.929	ug/L	10.929	ppb	08:47:43
2	B 249.677†	639.2	668.4	13.714	ug/L	13.714	ppb	08:47:23
2	Ba 233.527†	-9.2	-6.6	-0.0444	ug/L	-0.0444	ppb	08:47:43
2	Be 313.107†	-4636.4	71.3	0.0238	ug/L	0.0238	ppb	08:47:23
2	Cd 226.502†	-191.2	37.1	0.3612	ug/L	0.3612	ppb	08:47:43
2	Co 228.616†	-80.8	5.9	0.1069	ug/L	0.1069	ppb	08:47:43
2	Cr 267.716†	119.6	40.1	0.4079	ug/L	0.4079	ppb	08:47:43
2	Cu 324.752†	6095.9	71.1	0.2016	ug/L	0.2016	ppb	08:47:23
2	Mn 257.610†	541.0	52.3	0.0512	ug/L	0.0512	ppb	08:47:43
2	Mo 202.031†	42.7	23.1	1.3976	ug/L	1.3976	ppb	08:47:43
2	Ni 231.604†	115.3	22.3	0.4874	ug/L	0.4874	ppb	08:47:43

2	P 214.914†	251.0	-5.8	-3.0602 ug/L	-3.0602 ppb	08:47:43
2	Pb 220.353†	-84.6	-20.9	-2.2067 ug/L	-2.2067 ppb	08:47:43
2	S 181.975 Axial†	53.0	4.2	5.1837 ug/L	5.1837 ppb	08:47:43
2	Sb 206.836†	59.2	18.2	5.5244 ug/L	5.5244 ppb	08:47:43
2	Se 196.026†	-25.1	3.2	1.8153 ug/L	1.8153 ppb	08:47:43
2	Si 251.611†	690.6	116.6	3.2274 ug/L	3.2274 ppb	08:47:43
2	Sn 189.927†	18.3	14.9	2.2301 ug/L	2.2301 ppb	08:47:43
2	Ti 334.940†	-1403.2	-22.7	-0.0310 ug/L	-0.0310 ppb	08:47:23
2	Tl 190.801†	-31.6	16.3	4.2296 ug/L	4.2296 ppb	08:47:43
2	U 409.014†	-2495.3	-135.7	-3.7417 ug/L	-3.7417 ppb	08:47:23
2	V 292.402†	-1448.9	13.2	0.0967 ug/L	0.0967 ppb	08:47:23
2	Zn 213.857†	859.7	70.5	0.5696 ug/L	0.5696 ppb	08:47:43
2	SiO2†	722.0	118.9	7.0682 ug/L	7.0682 ppb	08:48:19
3	Sc Radial	5731.2	5731.2	103 %		08:46:31
3	Y RADIAL	6055.8	6055.8	102.4 %		08:46:31
3	Al 396.153Radial†	-8.8	7.8	5.6564 ug/L	5.6564 ppb	08:46:31
3	Ca 317.933Radial†	22.2	2.0	2.8825 ug/L	2.8825 ppb	08:46:51
3	Fe 238.204 Radial†	11.8	0.5	4.4524 ug/L	4.4524 ppb	08:46:51
3	K 766.490 Radial†	3425.4	615.0	108.37 ug/L	108.37 ppb	08:46:31
3	Mg 279.077 IEC†	5.5	3.9	122.32 ug/L	122.32 ppb	08:46:51
3	Na 589.592 Radial†	-631.0	148.7	44.394 ug/L	44.394 ppb	08:46:31
3	Sr 421.552†	-23.4	-11.0	-0.0643 ug/L	-0.0643 ppb	08:46:31
3	Sc 361.383	887478.8	887478.8	98.728 %		08:47:49
3	Y 371.029	736256.7	736256.7	98.898 %		08:47:49
3	Ag 328.068†	372.8	7.7	0.0347 ug/L	0.0347 ppb	08:47:49
3	As 188.979†	-3.1	31.7	11.503 ug/L	11.503 ppb	08:48:09
3	B 249.677†	583.3	616.8	12.658 ug/L	12.658 ppb	08:47:49
3	Ba 233.527†	-4.3	-1.8	-0.0131 ug/L	-0.0131 ppb	08:48:09
3	Be 313.107†	-4527.8	145.0	0.0488 ug/L	0.0488 ppb	08:47:49
3	Cd 226.502†	-183.8	43.1	0.4210 ug/L	0.4210 ppb	08:48:09
3	Co 228.616†	-89.2	-3.3	-0.0536 ug/L	-0.0536 ppb	08:48:09
3	Cr 267.716†	140.5	62.2	0.6302 ug/L	0.6302 ppb	08:48:09
3	Cu 324.752†	6093.3	116.2	0.3287 ug/L	0.3287 ppb	08:47:49
3	Mn 257.610†	541.4	56.9	0.0543 ug/L	0.0543 ppb	08:48:09
3	Mo 202.031†	43.4	24.0	1.4560 ug/L	1.4560 ppb	08:48:09
3	Ni 231.604†	119.4	27.4	0.5977 ug/L	0.5977 ppb	08:48:09
3	P 214.914†	259.2	4.4	2.2580 ug/L	2.2580 ppb	08:48:09
3	Pb 220.353†	-68.2	-5.0	-0.5269 ug/L	-0.5269 ppb	08:48:09
3	S 181.975 Axial†	54.0	5.7	7.0149 ug/L	7.0149 ppb	08:48:09
3	Sb 206.836†	61.1	20.6	6.2055 ug/L	6.2055 ppb	08:48:09
3	Se 196.026†	-22.1	6.1	3.3633 ug/L	3.3633 ppb	08:48:09
3	Si 251.611†	682.5	113.8	3.1462 ug/L	3.1462 ppb	08:48:09
3	Sn 189.927†	6.9	3.5	0.5269 ug/L	0.5269 ppb	08:48:09
3	Ti 334.940†	-1301.0	69.8	0.1020 ug/L	0.1020 ppb	08:47:49
3	Tl 190.801†	-25.5	22.3	5.7757 ug/L	5.7757 ppb	08:48:09
3	U 409.014†	-2436.5	-95.6	-2.6370 ug/L	-2.6370 ppb	08:47:49
3	V 292.402†	-1542.0	-92.5	-0.5707 ug/L	-0.5707 ppb	08:47:49
3	Zn 213.857†	869.7	87.4	0.7079 ug/L	0.7079 ppb	08:48:09
3	SiO2†	737.5	140.3	8.3564 ug/L	8.3564 ppb	08:48:24

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	888175.3	98.806	%	0.6571				0.67%
Sc Radial	5665.4	102	%	1.3				1.30%
Y 371.029	736231.2	98.894	%	0.7251				0.73%
Y RADIAL	6024.3	101.9	%	0.89				0.87%
Ag 328.068†	17.5	0.0787	ug/L	0.08467	0.0787	ppb	0.08467	107.55%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-2.8	-2.0821	ug/L	7.48988	-2.0821	ppb	7.48988	359.72%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	34.5	12.522	ug/L	2.2810	12.522	ppb	2.2810	18.22%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	696.7	14.298	ug/L	1.9963	14.298	ppb	1.9963	13.96%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-1.3	-0.0099	ug/L	0.03627	-0.0099	ppb	0.03627	368.04%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	85.2	0.0287	ug/L	0.01825	0.0287	ppb	0.01825	63.71%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	4.0	5.6726	ug/L	3.13237	5.6726	ppb	3.13237	55.22%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                42.3      0.4131 ug/L       0.04846      0.4131 ppb        0.04846  11.73%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                -1.5     -0.0237 ug/L       0.11846     -0.0237 ppb        0.11846 500.23%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                46.4      0.4710 ug/L       0.13884      0.4710 ppb        0.13884  29.48%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†                75.1      0.2125 ug/L       0.11109      0.2125 ppb        0.11109  52.27%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          0.8      6.6187 ug/L       7.81697      6.6187 ppb        7.81697 118.10%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         567.2     99.962 ug/L        9.8058     99.962 ppb         9.8058   9.81%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             1.8     55.681 ug/L      100.0932     55.681 ppb       100.0932 179.76%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                50.5      0.0494 ug/L       0.00603      0.0494 ppb        0.00603  12.20%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                23.3      1.4098 ug/L       0.04147      1.4098 ppb        0.04147   2.94%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†         84.3     25.159 ug/L      16.6597     25.159 ppb        16.6597  66.22%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                17.9      0.3918 ug/L       0.26697      0.3918 ppb        0.26697  68.14%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -1.8     -0.9422 ug/L       2.81945     -0.9422 ppb        2.81945 299.23%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               -11.0     -1.1602 ug/L       0.91297     -1.1602 ppb        0.91297  78.69%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            7.3      8.9248 ug/L       4.97886      8.9248 ppb        4.97886  55.79%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                15.8      4.7902 ug/L       1.89246      4.7902 ppb        1.89246  39.51%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 5.6      3.0898 ug/L       1.16213      3.0898 ppb        1.16213  37.61%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†               124.0      3.4325 ug/L       0.42751      3.4325 ppb        0.42751  12.45%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                11.1      1.6698 ug/L       0.98988      1.6698 ppb        0.98988  59.28%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                22.5      0.1320 ug/L       0.19170      0.1320 ppb        0.19170 145.24%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                29.8      0.0447 ug/L       0.06842      0.0447 ppb        0.06842 153.00%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                19.7      5.1003 ug/L       0.79132      5.1003 ppb        0.79132  15.52%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -125.5     -3.4608 ug/L       0.72537     -3.4608 ppb        0.72537  20.96%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                -67.2     -0.4140 ug/L       0.45308     -0.4140 ppb        0.45308 109.45%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                78.5      0.6382 ug/L       0.06919      0.6382 ppb        0.06919  10.84%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                     120.7      7.1712 ug/L       1.13717      7.1712 ppb        1.13717  15.86%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
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Analysis Begun

Start Time: 12/19/2009 08:54:07 **Plasma On Time: 12/14/2009 06:02:42**
Logged In Analyst: Optima3 **Technique: ICP Continuous**
Spectrometer Model: Optima 5300 DV, S/N 077C7090601Autosampler Model: S10

Sample Information File: C:\pe\Optima3\Sample Information\121909.sif
Batch ID:
Results Data Set: 121909
Results Library: C:\pe\Optima3\Results\Results.mdb

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Method Loaded
Method Name: General Eng.2AX **Method Last Saved: 12/19/2009 07:23:10**
IEC File: 101209.iec **MSF File:**
Method Description:

Analyte	Calibration Equation	Processing	View	Internal Standard	IEC
Ag 328.068	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Al 396.153Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
As 188.979	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
B 249.677	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ba 233.527	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Be 313.107	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ca 317.933Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	No
Cd 226.502	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Co 228.616	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cr 267.716	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cu 324.752	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Fe 238.204 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
K 766.490 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Mg 279.077 IEC	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Mn 257.610	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Mo 202.031	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Na 589.592 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	No
Ni 231.604	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
P 214.914	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Pb 220.353	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
S 181.975 Axial	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sb 206.836	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sc 361.383	Lin Thru 0	Peak Area	Axial	n/a	n/a
Sc Radial	Lin, Calc Int	Peak Area	Radial	n/a	n/a
Se 196.026	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Si 251.611	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sn 189.927	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sr 421.552	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Ti 334.940	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Tl 190.801	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
U 409.014	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
V 292.402	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y 371.029	Lin, Calc Int	Peak Area	Axial	n/a	n/a
Zn 213.857	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y RADIAL	Lin, Calc Int	Peak Area	Radial	n/a	n/a
SiO2	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes

==========

Sequence No.: 1 **Autosampler Location: 30**
Sample ID: LR1 **Date Collected: 12/19/2009 08:54:08**
Analyst: HSC **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: LR1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Units	Sample Conc.	Units	Analysis Time
1	Sc Radial	5453.6	5453.6	98.0	%			08:56:06
1	Y RADIAL	5764.5	5764.5	97.52	%			08:56:06
1	Al 396.153Radial†	-42.8	-27.3	-19.920	ug/L	-19.920	ppb	08:56:06

1	Ca 317.933Radial†	24.5	5.4	7.7557 ug/L	7.7557 ppb	08:56:26
1	Fe 238.204 Radial†	7.2	-3.6	-29.566 ug/L	-29.566 ppb	08:56:26
1	K 766.490 Radial†	4057.7	1429.9	98.277 ug/L	98.277 ppb	08:56:06
1	Mg 279.077 IEC†	3.1	1.8	56.059 ug/L	56.059 ppb	08:56:26
1	Na 589.592 Radial†	1144887.8	1169525.2	349070 ug/L	349070 ppb	08:56:01
1	Sr 421.552†	-0.9	10.8	0.0635 ug/L	0.0635 ppb	08:56:06
1	Sc 361.383	854394.5	854394.5	95.048 %		08:57:34
1	Y 371.029	689985.0	689985.0	92.682 %		08:57:34
1	Ag 328.068†	308.9	-44.9	-0.2041 ug/L	-0.2041 ppb	08:57:34
1	As 188.979†	-10.8	23.4	8.4936 ug/L	8.4936 ppb	08:57:54
1	B 249.677†	263.4	303.1	6.2236 ug/L	6.2236 ppb	08:57:34
1	Ba 233.527†	16.1	19.5	0.1301 ug/L	0.1301 ppb	08:57:54
1	Be 313.107†	-4712.1	-226.5	-0.0770 ug/L	-0.0770 ppb	08:57:34
1	Cd 226.502†	-198.0	20.8	0.2067 ug/L	0.2067 ppb	08:57:54
1	Co 228.616†	-66.0	17.7	0.3113 ug/L	0.3113 ppb	08:57:54
1	Cr 267.716†	105.0	30.3	0.3061 ug/L	0.3061 ppb	08:57:54
1	Cu 324.752†	6127.1	390.8	1.1027 ug/L	1.1027 ppb	08:57:34
1	Mn 257.610†	513.5	48.7	0.0441 ug/L	0.0441 ppb	08:57:54
1	Mo 202.031†	21.7	2.9	0.1739 ug/L	0.1739 ppb	08:57:54
1	Ni 231.604†	95.6	7.0	0.1518 ug/L	0.1518 ppb	08:57:54
1	P 214.914†	254.3	9.5	4.8092 ug/L	4.8092 ppb	08:57:54
1	Pb 220.353†	-77.0	-16.9	-1.7836 ug/L	-1.7836 ppb	08:57:54
1	S 181.975 Axial†	45.0	-1.6	-1.9640 ug/L	-1.9640 ppb	08:57:54
1	Sb 206.836†	37.6	-1.7	-0.4816 ug/L	-0.4816 ppb	08:57:54
1	Se 196.026†	-24.9	2.3	1.1562 ug/L	1.1562 ppb	08:57:54
1	Si 251.611†	582.5	35.4	0.9071 ug/L	0.9071 ppb	08:57:54
1	Sn 189.927†	9.5	6.5	0.9771 ug/L	0.9771 ppb	08:57:54
1	Ti 334.940†	-1660.2	-359.1	-0.5180 ug/L	-0.5180 ppb	08:57:34
1	Tl 190.801†	-30.9	15.6	4.0441 ug/L	4.0441 ppb	08:57:54
1	U 409.014†	-2319.2	-67.8	-1.8646 ug/L	-1.8646 ppb	08:57:34
1	V 292.402†	-1481.7	-89.4	-0.5638 ug/L	-0.5638 ppb	08:57:34
1	Zn 213.857†	819.6	68.8	0.5625 ug/L	0.5625 ppb	08:57:54
1	SiO2†	652.8	80.1	4.6525 ug/L	4.6525 ppb	08:58:50
2	Sc Radial	5498.5	5498.5	98.8 %		08:56:37
2	Y RADIAL	5833.5	5833.5	98.68 %		08:56:37
2	Al 396.153Radial†	-13.3	2.9	2.0719 ug/L	2.0719 ppb	08:56:37
2	Ca 317.933Radial†	28.9	9.7	13.785 ug/L	13.785 ppb	08:56:57
2	Fe 238.204 Radial†	9.8	-1.0	-8.1758 ug/L	-8.1758 ppb	08:56:57
2	K 766.490 Radial†	3953.0	1290.0	72.436 ug/L	72.436 ppb	08:56:37
2	Mg 279.077 IEC†	2.6	1.3	39.578 ug/L	39.578 ppb	08:56:57
2	Na 589.592 Radial†	1163347.2	1178658.7	351800 ug/L	351800 ppb	08:56:32
2	Sr 421.552†	17.7	29.8	0.1744 ug/L	0.1744 ppb	08:56:37
2	Sc 361.383	856147.5	856147.5	95.243 %		08:57:59
2	Y 371.029	691778.8	691778.8	92.923 %		08:57:59
2	Ag 328.068†	371.4	20.0	0.0888 ug/L	0.0888 ppb	08:57:59
2	As 188.979†	-15.1	18.9	6.8618 ug/L	6.8618 ppb	08:58:19
2	B 249.677†	219.9	256.8	5.2702 ug/L	5.2702 ppb	08:57:59
2	Ba 233.527†	18.0	21.5	0.1448 ug/L	0.1448 ppb	08:58:19
2	Be 313.107†	-4678.9	-181.5	-0.0616 ug/L	-0.0616 ppb	08:57:59
2	Cd 226.502†	-206.5	12.3	0.1218 ug/L	0.1218 ppb	08:58:19
2	Co 228.616†	-62.7	21.3	0.3763 ug/L	0.3763 ppb	08:58:19
2	Cr 267.716†	101.2	26.1	0.2669 ug/L	0.2669 ppb	08:58:19
2	Cu 324.752†	6158.4	410.4	1.1592 ug/L	1.1592 ppb	08:57:59
2	Mn 257.610†	536.7	72.0	0.0695 ug/L	0.0695 ppb	08:58:19
2	Mo 202.031†	37.5	19.5	1.1778 ug/L	1.1778 ppb	08:58:19
2	Ni 231.604†	109.2	21.1	0.4606 ug/L	0.4606 ppb	08:58:19
2	P 214.914†	256.4	11.2	5.6694 ug/L	5.6694 ppb	08:58:19
2	Pb 220.353†	-73.6	-13.2	-1.3845 ug/L	-1.3845 ppb	08:58:19
2	S 181.975 Axial†	52.3	5.9	7.2078 ug/L	7.2078 ppb	08:58:19
2	Sb 206.836†	44.1	5.1	1.5796 ug/L	1.5796 ppb	08:58:19
2	Se 196.026†	-31.8	-4.9	-2.6664 ug/L	-2.6664 ppb	08:58:19
2	Si 251.611†	622.8	76.4	2.0510 ug/L	2.0510 ppb	08:58:19
2	Sn 189.927†	18.0	15.4	2.3087 ug/L	2.3087 ppb	08:58:19
2	Ti 334.940†	-1575.0	-266.1	-0.3803 ug/L	-0.3803 ppb	08:57:59
2	Tl 190.801†	-43.0	2.9	0.7449 ug/L	0.7449 ppb	08:58:19
2	U 409.014†	-2560.7	-316.4	-8.7173 ug/L	-8.7173 ppb	08:57:59
2	V 292.402†	-1471.3	-75.4	-0.4773 ug/L	-0.4773 ppb	08:57:59
2	Zn 213.857†	844.2	92.8	0.7563 ug/L	0.7563 ppb	08:58:19
2	SiO2†	625.0	49.6	2.7738 ug/L	2.7738 ppb	08:58:55
3	Sc Radial	5453.2	5453.2	98.0 %		08:57:07
3	Y RADIAL	5736.1	5736.1	97.03 %		08:57:07

3	Al 396.153Radial†	-19.3	-3.3	-2.4598	ug/L	-2.4598 ppb	08:57:07
3	Ca 317.933Radial†	30.3	11.4	16.232	ug/L	16.232 ppb	08:57:27
3	Fe 238.204 Radial†	12.2	1.5	12.781	ug/L	12.781 ppb	08:57:27
3	K 766.490 Radial†	4099.4	1472.8	103.07	ug/L	103.07 ppb	08:57:07
3	Mg 279.077 IEC†	3.2	1.9	58.114	ug/L	58.114 ppb	08:57:27
3	Na 589.592 Radial†	1165472.6	1190620.3	355370	ug/L	355370 ppb	08:57:02
3	Sr 421.552†	0.3	12.1	0.0709	ug/L	0.0709 ppb	08:57:07
3	Sc 361.383	857800.0	857800.0	95.427	%		08:58:24
3	Y 371.029	692234.0	692234.0	92.984	%		08:58:24
3	Ag 328.068†	412.6	62.4	0.2793	ug/L	0.2793 ppb	08:58:24
3	As 188.979†	-18.3	15.6	5.6712	ug/L	5.6712 ppb	08:58:45
3	B 249.677†	198.7	234.2	4.8027	ug/L	4.8027 ppb	08:58:24
3	Ba 233.527†	33.0	37.2	0.2525	ug/L	0.2525 ppb	08:58:45
3	Be 313.107†	-4853.4	-354.9	-0.1197	ug/L	-0.1197 ppb	08:58:24
3	Cd 226.502†	-193.5	26.4	0.2576	ug/L	0.2576 ppb	08:58:45
3	Co 228.616†	-58.3	26.0	0.4581	ug/L	0.4581 ppb	08:58:45
3	Cr 267.716†	124.1	49.9	0.5080	ug/L	0.5080 ppb	08:58:45
3	Cu 324.752†	6096.5	333.1	0.9418	ug/L	0.9418 ppb	08:58:24
3	Mn 257.610†	520.1	53.5	0.0530	ug/L	0.0530 ppb	08:58:45
3	Mo 202.031†	35.1	16.9	1.0226	ug/L	1.0226 ppb	08:58:45
3	Ni 231.604†	109.8	21.4	0.4682	ug/L	0.4682 ppb	08:58:45
3	P 214.914†	258.8	13.1	6.6958	ug/L	6.6958 ppb	08:58:45
3	Pb 220.353†	-99.9	-40.7	-4.2838	ug/L	-4.2838 ppb	08:58:45
3	S 181.975 Axial†	50.6	4.1	4.9969	ug/L	4.9969 ppb	08:58:45
3	Sb 206.836†	46.7	7.7	2.3539	ug/L	2.3539 ppb	08:58:45
3	Se 196.026†	-25.7	1.6	0.9017	ug/L	0.9017 ppb	08:58:45
3	Si 251.611†	609.1	60.8	1.6050	ug/L	1.6050 ppb	08:58:45
3	Sn 189.927†	15.0	12.2	1.8326	ug/L	1.8326 ppb	08:58:45
3	Ti 334.940†	-1565.6	-253.0	-0.3610	ug/L	-0.3610 ppb	08:58:24
3	Tl 190.801†	-46.0	-0.1	-0.0375	ug/L	-0.0375 ppb	08:58:45
3	U 409.014†	-2586.5	-338.3	-9.3227	ug/L	-9.3227 ppb	08:58:24
3	V 292.402†	-1465.2	-66.0	-0.4237	ug/L	-0.4237 ppb	08:58:24
3	Zn 213.857†	843.2	90.1	0.7314	ug/L	0.7314 ppb	08:58:45
3	SiO2†	601.9	24.0	1.2123	ug/L	1.2123 ppb	08:59:00

Mean Data: LR1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	856114.0	95.239	%	0.1895				0.20%
Sc Radial	5468.4	98.2	%	0.47				0.48%
Y 371.029	691332.6	92.863	%	0.1597				0.17%
Y RADIAL	5778.0	97.74	%	0.848				0.87%
Ag 328.068†	12.5	0.0547	ug/L	0.24352	0.0547	ppb	0.24352	445.52%
Al 396.153Radial†	-9.2	-6.7694	ug/L	11.61227	-6.7694	ppb	11.61227	171.54%
As 188.979†	19.3	7.0089	ug/L	1.41693	7.0089	ppb	1.41693	20.22%
B 249.677†	264.7	5.4321	ug/L	0.72414	5.4321	ppb	0.72414	13.33%
Ba 233.527†	26.1	0.1758	ug/L	0.06682	0.1758	ppb	0.06682	38.00%
Be 313.107†	-254.3	-0.0861	ug/L	0.03011	-0.0861	ppb	0.03011	34.97%
Ca 317.933Radial†	8.8	12.591	ug/L	4.3627	12.591	ppb	4.3627	34.65%
Cd 226.502†	19.9	0.1953	ug/L	0.06861	0.1953	ppb	0.06861	35.12%
Co 228.616†	21.6	0.3819	ug/L	0.07353	0.3819	ppb	0.07353	19.25%
Cr 267.716†	35.4	0.3603	ug/L	0.12939	0.3603	ppb	0.12939	35.91%
Cu 324.752†	378.1	1.0679	ug/L	0.11279	1.0679	ppb	0.11279	10.56%
Fe 238.204 Radial†	-1.0	-8.3201	ug/L	21.17379	-8.3201	ppb	21.17379	254.49%
K 766.490 Radial†	1397.6	91.262	ug/L	16.4784	91.262	ppb	16.4784	18.06%
Mg 279.077 IEC†	1.6	51.250	ug/L	10.1604	51.250	ppb	10.1604	19.82%
Mn 257.610†	58.1	0.0555	ug/L	0.01289	0.0555	ppb	0.01289	23.21%
Mo 202.031†	13.1	0.7914	ug/L	0.54039	0.7914	ppb	0.54039	68.28%
Na 589.592 Radial†	1179601.4	352080	ug/L	3157.5	352080	ppb	3157.5	0.90%
Ni 231.604†	16.5	0.3602	ug/L	0.18052	0.3602	ppb	0.18052	50.11%
P 214.914†	11.2	5.7248	ug/L	0.94451	5.7248	ppb	0.94451	16.50%
Pb 220.353†	-23.6	-2.4839	ug/L	1.57141	-2.4839	ppb	1.57141	63.26%
S 181.975 Axial†	2.8	3.4135	ug/L	4.78648	3.4135	ppb	4.78648	140.22%
Sb 206.836†	3.7	1.1506	ug/L	1.46556	1.1506	ppb	1.46556	127.37%
Se 196.026†	-0.3	-0.2028	ug/L	2.13729	-0.2028	ppb	2.13729	>999.9%
Si 251.611†	57.5	1.5210	ug/L	0.57658	1.5210	ppb	0.57658	37.91%
Sn 189.927†	11.4	1.7061	ug/L	0.67472	1.7061	ppb	0.67472	39.55%
Sr 421.552†	17.6	0.1029	ug/L	0.06198	0.1029	ppb	0.06198	60.21%
Ti 334.940†	-292.7	-0.4198	ug/L	0.08562	-0.4198	ppb	0.08562	20.40%
Tl 190.801†	6.1	1.5838	ug/L	2.16626	1.5838	ppb	2.16626	136.77%

U 409.014†	-240.8	-6.6348	ug/L	4.14225	-6.6348	ppb	4.14225	62.43%
V 292.402†	-77.0	-0.4883	ug/L	0.07067	-0.4883	ppb	0.07067	14.47%
Zn 213.857†	83.9	0.6834	ug/L	0.10543	0.6834	ppb	0.10543	15.43%
SiO2†	51.3	2.8795	ug/L	1.72254	2.8795	ppb	1.72254	59.82%

==========

Sequence No.: 2
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:
User canceled analysis.

Autosampler Location: 7
Date Collected: 12/19/2009 09:01:10
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

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Analysis Begun

Start Time: 12/19/2009 09:05:36
Logged In Analyst: Optima3
Spectrometer Model: Optima 5300 DV, S/N 077C7090601

Plasma On Time: 12/14/2009 06:02:42
Technique: ICP Continuous
Autosampler Model: S10

Sample Information File: C:\pe\Optima3\Sample Information\121909.sif
Batch ID:
Results Data Set: 121909
Results Library: C:\pe\Optima3\Results\Results.mdb

==========

Sequence No.: 2
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 12/19/2009 09:05:37
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	5369.0	5369.0	96.4	%			09:07:29
1	Y RADIAL	5694.7	5694.7	96.33	%			09:07:29
1	Al 396.153Radial†	6580.7	6840.1	4963.0	ug/L	4963.0	ppb	09:07:29
1	Ca 317.933Radial†	3510.2	3620.3	5161.6	ug/L	5161.6	ppb	09:07:49
1	Fe 238.204 Radial†	625.9	638.1	5320.0	ug/L	5320.0	ppb	09:07:49
1	K 766.490 Radial†	30593.9	29011.6	5104.6	ug/L	5104.6	ppb	09:07:29
1	Mg 279.077 IEC†	167.8	172.6	5363.3	ug/L	5363.3	ppb	09:07:49
1	Na 589.592 Radial†	31916.6	33857.2	10105	ug/L	10105	ppb	09:07:29
1	Sr 421.552†	83315.4	86404.8	506.62	ug/L	506.62	ppb	09:07:29
1	Sc 361.383	914636.7	914636.7	101.75	%			09:08:48
1	Y 371.029	744942.0	744942.0	100.06	%			09:08:48
1	Ag 328.068†	114886.4	112541.0	488.22	ug/L	488.22	ppb	09:08:48
1	As 188.979†	1351.8	1363.4	499.23	ug/L	499.23	ppb	09:09:08
1	B 249.677†	24376.5	23983.3	490.26	ug/L	490.26	ppb	09:08:48
1	Ba 233.527†	73633.9	72370.3	493.16	ug/L	493.16	ppb	09:08:48
1	Be 313.107†	1481352.4	1460610.7	490.79	ug/L	490.79	ppb	09:08:48
1	Cd 226.502†	51167.9	50517.2	493.84	ug/L	493.84	ppb	09:08:48
1	Co 228.616†	28217.1	27819.0	487.13	ug/L	487.13	ppb	09:09:08
1	Cr 267.716†	49303.7	48375.7	491.26	ug/L	491.26	ppb	09:08:48
1	Cu 324.752†	182806.2	173607.2	490.77	ug/L	490.77	ppb	09:08:48
1	Mn 257.610†	507226.8	498013.2	491.66	ug/L	491.66	ppb	09:08:48
1	Mo 202.031†	8300.1	8137.5	492.95	ug/L	492.95	ppb	09:09:08
1	Ni 231.604†	22900.3	22412.9	489.39	ug/L	489.39	ppb	09:09:08
1	P 214.914†	5061.9	4716.7	2385.8	ug/L	2385.8	ppb	09:09:08
1	Pb 220.353†	4720.4	4703.3	497.13	ug/L	497.13	ppb	09:09:08
1	S 181.975 Axial†	857.1	793.3	972.29	ug/L	972.29	ppb	09:09:08
1	Sb 206.836†	1703.0	1632.5	496.23	ug/L	496.23	ppb	09:09:08
1	Se 196.026†	898.1	911.2	514.84	ug/L	514.84	ppb	09:09:08
1	Si 251.611†	88010.5	85919.6	2410.9	ug/L	2410.9	ppb	09:08:48
1	Sn 189.927†	3332.3	3271.6	491.27	ug/L	491.27	ppb	09:09:08
1	Ti 334.940†	340573.8	336105.0	485.84	ug/L	485.84	ppb	09:08:48
1	Tl 190.801†	1888.2	1903.8	497.07	ug/L	497.07	ppb	09:09:08
1	U 409.014†	14905.8	17021.7	467.37	ug/L	467.37	ppb	09:08:48
1	V 292.402†	76580.5	76733.1	494.58	ug/L	494.58	ppb	09:08:48
1	Zn 213.857†	61823.8	59967.1	487.41	ug/L	487.41	ppb	09:08:48
1	SiO2†	88107.6	85985.9	5180.6	ug/L	5180.6	ppb	09:10:08
2	Sc Radial	5512.0	5512.0	99.0	%			09:07:54
2	Y RADIAL	5826.2	5826.2	98.56	%			09:07:54
2	Al 396.153Radial†	6731.0	6814.8	4944.8	ug/L	4944.8	ppb	09:07:54

2	Ca 317.933Radial†	3504.8	3520.4	5019.1 ug/L	5019.1 ppb	09:08:14
2	Fe 238.204 Radial†	620.7	616.1	5136.5 ug/L	5136.5 ppb	09:08:14
2	K 766.490 Radial†	31008.1	28606.5	5033.3 ug/L	5033.3 ppb	09:07:54
2	Mg 279.077 IEC†	166.4	166.7	5181.6 ug/L	5181.6 ppb	09:08:14
2	Na 589.592 Radial†	32296.5	33381.9	9963.5 ug/L	9963.5 ppb	09:07:54
2	Sr 421.552†	84568.2	85427.8	500.89 ug/L	500.89 ppb	09:07:54
2	Sc 361.383	924044.8	924044.8	102.80 %		09:09:15
2	Y 371.029	750584.6	750584.6	100.82 %		09:09:15
2	Ag 328.068†	115963.3	112439.0	487.71 ug/L	487.71 ppb	09:09:15
2	As 188.979†	1338.4	1336.8	489.58 ug/L	489.58 ppb	09:09:35
2	B 249.677†	24586.8	23944.0	489.49 ug/L	489.49 ppb	09:09:15
2	Ba 233.527†	74528.7	72503.9	494.06 ug/L	494.06 ppb	09:09:15
2	Be 313.107†	1495184.9	1459244.0	490.33 ug/L	490.33 ppb	09:09:15
2	Cd 226.502†	51691.9	50515.0	493.83 ug/L	493.83 ppb	09:09:15
2	Co 228.616†	28231.9	27551.0	482.42 ug/L	482.42 ppb	09:09:35
2	Cr 267.716†	49813.0	48377.8	491.28 ug/L	491.28 ppb	09:09:15
2	Cu 324.752†	184794.8	173712.5	491.06 ug/L	491.06 ppb	09:09:15
2	Mn 257.610†	513349.2	498893.6	492.51 ug/L	492.51 ppb	09:09:15
2	Mo 202.031†	8283.7	8038.5	486.94 ug/L	486.94 ppb	09:09:35
2	Ni 231.604†	22891.3	22175.0	484.20 ug/L	484.20 ppb	09:09:35
2	P 214.914†	5037.2	4642.1	2346.9 ug/L	2346.9 ppb	09:09:35
2	Pb 220.353†	4715.3	4651.1	491.63 ug/L	491.63 ppb	09:09:35
2	S 181.975 Axial†	862.1	789.6	967.74 ug/L	967.74 ppb	09:09:35
2	Sb 206.836†	1678.4	1591.5	483.70 ug/L	483.70 ppb	09:09:35
2	Se 196.026†	887.2	891.6	503.55 ug/L	503.55 ppb	09:09:35
2	Si 251.611†	89176.8	86173.5	2418.3 ug/L	2418.3 ppb	09:09:15
2	Sn 189.927†	3319.0	3225.2	484.30 ug/L	484.30 ppb	09:09:35
2	Ti 334.940†	344925.9	336930.8	487.03 ug/L	487.03 ppb	09:09:15
2	Tl 190.801†	1898.5	1894.9	494.82 ug/L	494.82 ppb	09:09:35
2	U 409.014†	15089.9	17051.7	468.22 ug/L	468.22 ppb	09:09:15
2	V 292.402†	77246.5	76614.6	493.77 ug/L	493.77 ppb	09:09:15
2	Zn 213.857†	62496.0	60002.5	487.76 ug/L	487.76 ppb	09:09:15
2	SiO2†	88167.7	85162.7	5131.1 ug/L	5131.1 ppb	09:10:13
3	Sc Radial	5599.4	5599.4	101 %		09:08:19
3	Y RADIAL	5967.2	5967.2	100.9 %		09:08:19
3	Al 396.153Radial†	6760.8	6738.4	4889.0 ug/L	4889.0 ppb	09:08:19
3	Ca 317.933Radial†	3487.3	3447.7	4915.5 ug/L	4915.5 ppb	09:08:39
3	Fe 238.204 Radial†	620.9	606.4	5056.7 ug/L	5056.7 ppb	09:08:39
3	K 766.490 Radial†	31251.0	28359.2	4989.7 ug/L	4989.7 ppb	09:08:19
3	Mg 279.077 IEC†	170.7	168.3	5231.9 ug/L	5231.9 ppb	09:08:39
3	Na 589.592 Radial†	32610.2	33184.7	9904.7 ug/L	9904.7 ppb	09:08:19
3	Sr 421.552†	85476.0	84997.4	498.37 ug/L	498.37 ppb	09:08:19
3	Sc 361.383	918700.5	918700.5	102.20 %		09:09:43
3	Y 371.029	748040.2	748040.2	100.48 %		09:09:43
3	Ag 328.068†	115324.5	112470.2	487.83 ug/L	487.83 ppb	09:09:43
3	As 188.979†	1344.1	1350.0	494.34 ug/L	494.34 ppb	09:10:03
3	B 249.677†	24449.1	23948.3	489.58 ug/L	489.58 ppb	09:09:43
3	Ba 233.527†	73997.1	72405.5	493.39 ug/L	493.39 ppb	09:09:43
3	Be 313.107†	1488761.9	1461420.5	491.06 ug/L	491.06 ppb	09:09:43
3	Cd 226.502†	51374.3	50496.7	493.66 ug/L	493.66 ppb	09:09:43
3	Co 228.616†	28250.2	27728.7	485.54 ug/L	485.54 ppb	09:10:03
3	Cr 267.716†	49599.9	48451.2	492.02 ug/L	492.02 ppb	09:09:43
3	Cu 324.752†	183769.4	173754.9	491.18 ug/L	491.18 ppb	09:09:43
3	Mn 257.610†	509669.2	498197.8	491.81 ug/L	491.81 ppb	09:09:43
3	Mo 202.031†	8281.3	8083.0	489.64 ug/L	489.64 ppb	09:10:03
3	Ni 231.604†	22910.2	22323.1	487.43 ug/L	487.43 ppb	09:10:03
3	P 214.914†	5070.0	4702.6	2378.6 ug/L	2378.6 ppb	09:10:03
3	Pb 220.353†	4743.1	4705.0	497.31 ug/L	497.31 ppb	09:10:03
3	S 181.975 Axial†	866.7	799.0	979.25 ug/L	979.25 ppb	09:10:03
3	Sb 206.836†	1694.6	1616.9	491.39 ug/L	491.39 ppb	09:10:03
3	Se 196.026†	892.7	902.0	509.00 ug/L	509.00 ppb	09:10:03
3	Si 251.611†	88656.1	86168.7	2418.1 ug/L	2418.1 ppb	09:09:43
3	Sn 189.927†	3320.7	3245.6	487.35 ug/L	487.35 ppb	09:10:03
3	Ti 334.940†	342358.9	336371.1	486.22 ug/L	486.22 ppb	09:09:43
3	Tl 190.801†	1881.3	1888.8	493.20 ug/L	493.20 ppb	09:10:03
3	U 409.014†	14957.1	17007.1	467.00 ug/L	467.00 ppb	09:09:43
3	V 292.402†	76966.2	76777.5	494.85 ug/L	494.85 ppb	09:09:43
3	Zn 213.857†	62078.6	59947.7	487.29 ug/L	487.29 ppb	09:09:43
3	SiO2†	88683.1	86165.9	5191.8 ug/L	5191.8 ppb	09:10:18

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	919127.3	102.25	%	0.525				0.51%
Sc Radial	5493.5	98.7	%	2.09				2.12%
Y 371.029	747855.6	100.46	%	0.380				0.38%
Y RADIAL	5829.4	98.61	%	2.305				2.34%
Ag 328.068†	112483.4	487.92	ug/L	0.263	487.92	ppb	0.263	0.05%
QC value within limits for Ag 328.068 Recovery = 97.58%								
Al 396.153Radial†	6797.8	4932.3	ug/L	38.56	4932.3	ppb	38.56	0.78%
QC value within limits for Al 396.153Radial Recovery = 98.65%								
As 188.979†	1350.1	494.38	ug/L	4.824	494.38	ppb	4.824	0.98%
QC value within limits for As 188.979 Recovery = 98.88%								
B 249.677†	23958.5	489.78	ug/L	0.421	489.78	ppb	0.421	0.09%
QC value within limits for B 249.677 Recovery = 97.96%								
Ba 233.527†	72426.6	493.53	ug/L	0.467	493.53	ppb	0.467	0.09%
QC value within limits for Ba 233.527 Recovery = 98.71%								
Be 313.107†	1460425.0	490.72	ug/L	0.368	490.72	ppb	0.368	0.07%
QC value within limits for Be 313.107 Recovery = 98.14%								
Ca 317.933Radial†	3529.5	5032.1	ug/L	123.55	5032.1	ppb	123.55	2.46%
QC value within limits for Ca 317.933Radial Recovery = 100.64%								
Cd 226.502†	50509.6	493.77	ug/L	0.099	493.77	ppb	0.099	0.02%
QC value within limits for Cd 226.502 Recovery = 98.75%								
Co 228.616†	27699.6	485.03	ug/L	2.394	485.03	ppb	2.394	0.49%
QC value within limits for Co 228.616 Recovery = 97.01%								
Cr 267.716†	48401.6	491.52	ug/L	0.435	491.52	ppb	0.435	0.09%
QC value within limits for Cr 267.716 Recovery = 98.30%								
Cu 324.752†	173691.5	491.01	ug/L	0.208	491.01	ppb	0.208	0.04%
QC value within limits for Cu 324.752 Recovery = 98.20%								
Fe 238.204 Radial†	620.2	5171.1	ug/L	134.97	5171.1	ppb	134.97	2.61%
QC value within limits for Fe 238.204 Radial Recovery = 103.42%								
K 766.490 Radial†	28659.1	5042.5	ug/L	58.00	5042.5	ppb	58.00	1.15%
QC value within limits for K 766.490 Radial Recovery = 100.85%								
Mg 279.077 IEC†	169.2	5258.9	ug/L	93.79	5258.9	ppb	93.79	1.78%
QC value within limits for Mg 279.077 IEC Recovery = 105.18%								
Mn 257.610†	498368.2	491.99	ug/L	0.454	491.99	ppb	0.454	0.09%
QC value within limits for Mn 257.610 Recovery = 98.40%								
Mo 202.031†	8086.3	489.84	ug/L	3.009	489.84	ppb	3.009	0.61%
QC value within limits for Mo 202.031 Recovery = 97.97%								
Na 589.592 Radial†	33474.6	9991.2	ug/L	103.18	9991.2	ppb	103.18	1.03%
QC value within limits for Na 589.592 Radial Recovery = 99.91%								
Ni 231.604†	22303.7	487.01	ug/L	2.623	487.01	ppb	2.623	0.54%
QC value within limits for Ni 231.604 Recovery = 97.40%								
P 214.914†	4687.2	2370.4	ug/L	20.69	2370.4	ppb	20.69	0.87%
QC value within limits for P 214.914 Recovery = 94.82%								
Pb 220.353†	4686.5	495.36	ug/L	3.226	495.36	ppb	3.226	0.65%
QC value within limits for Pb 220.353 Recovery = 99.07%								
S 181.975 Axial†	794.0	973.09	ug/L	5.802	973.09	ppb	5.802	0.60%
QC value within limits for S 181.975 Axial Recovery = 97.31%								
Sb 206.836†	1613.6	490.44	ug/L	6.317	490.44	ppb	6.317	1.29%
QC value within limits for Sb 206.836 Recovery = 98.09%								
Se 196.026†	901.6	509.13	ug/L	5.644	509.13	ppb	5.644	1.11%
QC value within limits for Se 196.026 Recovery = 101.83%								
Si 251.611†	86087.3	2415.8	ug/L	4.17	2415.8	ppb	4.17	0.17%
QC value within limits for Si 251.611 Recovery = 96.63%								
Sn 189.927†	3247.5	487.64	ug/L	3.494	487.64	ppb	3.494	0.72%
QC value within limits for Sn 189.927 Recovery = 97.53%								
Sr 421.552†	85610.0	501.96	ug/L	4.227	501.96	ppb	4.227	0.84%
QC value within limits for Sr 421.552 Recovery = 100.39%								
Ti 334.940†	336469.0	486.36	ug/L	0.607	486.36	ppb	0.607	0.12%
QC value within limits for Ti 334.940 Recovery = 97.27%								
Tl 190.801†	1895.8	495.03	ug/L	1.948	495.03	ppb	1.948	0.39%
QC value within limits for Tl 190.801 Recovery = 99.01%								
U 409.014†	17026.8	467.53	ug/L	0.625	467.53	ppb	0.625	0.13%
QC value within limits for U 409.014 Recovery = 93.51%								
V 292.402†	76708.4	494.40	ug/L	0.565	494.40	ppb	0.565	0.11%
QC value within limits for V 292.402 Recovery = 98.88%								
Zn 213.857†	59972.4	487.49	ug/L	0.241	487.49	ppb	0.241	0.05%
QC value within limits for Zn 213.857 Recovery = 97.50%								
SiO2†	85771.5	5167.8	ug/L	32.29	5167.8	ppb	32.29	0.62%
QC value within limits for SiO2 Recovery = 96.64%								

Sequence No.: 3
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 12/19/2009 09:12:28
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5761.3	5761.3	103	%			09:14:21
1	Y RADIAL	6142.1	6142.1	103.9	%			09:14:21
1	Al 396.153Radial†	-23.3	-6.1	-4.5054	ug/L	-4.5054	ppb	09:14:21
1	Ca 317.933Radial†	26.3	5.9	8.3647	ug/L	8.3647	ppb	09:14:41
1	Fe 238.204 Radial†	9.5	-1.7	-14.303	ug/L	-14.303	ppb	09:14:41
1	K 766.490 Radial†	3231.6	410.3	72.307	ug/L	72.307	ppb	09:14:21
1	Mg 279.077 IEC†	1.8	0.4	11.580	ug/L	11.580	ppb	09:14:41
1	Na 589.592 Radial†	-707.8	77.7	23.191	ug/L	23.191	ppb	09:14:21
1	Sr 421.552†	-11.0	1.1	0.0066	ug/L	0.0066	ppb	09:14:21
1	Sc 361.383	910094.4	910094.4	101.24	%			09:15:38
1	Y 371.029	756146.9	756146.9	101.57	%			09:15:38
1	Ag 328.068†	413.8	38.8	0.1604	ug/L	0.1604	ppb	09:15:38
1	As 188.979†	-25.2	9.9	3.6044	ug/L	3.6044	ppb	09:15:58
1	B 249.677†	241.1	264.1	5.4221	ug/L	5.4221	ppb	09:15:38
1	Ba 233.527†	6.1	8.6	0.0578	ug/L	0.0578	ppb	09:15:58
1	Be 313.107†	-4569.4	217.9	0.0731	ug/L	0.0731	ppb	09:15:38
1	Cd 226.502†	-204.0	27.7	0.2720	ug/L	0.2720	ppb	09:15:58
1	Co 228.616†	-81.8	6.3	0.1135	ug/L	0.1135	ppb	09:15:58
1	Cr 267.716†	101.9	20.5	0.2069	ug/L	0.2069	ppb	09:15:58
1	Cu 324.752†	6079.6	-50.7	-0.1440	ug/L	-0.1440	ppb	09:15:38
1	Mn 257.610†	524.8	26.9	0.0249	ug/L	0.0249	ppb	09:15:58
1	Mo 202.031†	34.8	14.5	0.8785	ug/L	0.8785	ppb	09:15:58
1	Ni 231.604†	95.9	1.1	0.0241	ug/L	0.0241	ppb	09:15:58
1	P 214.914†	255.2	-6.0	-3.0803	ug/L	-3.0803	ppb	09:15:58
1	Pb 220.353†	-70.4	-5.5	-0.5755	ug/L	-0.5755	ppb	09:15:58
1	S 181.975 Axial†	55.8	6.2	7.5575	ug/L	7.5575	ppb	09:15:58
1	Sb 206.836†	52.6	10.7	3.2541	ug/L	3.2541	ppb	09:15:58
1	Se 196.026†	-27.7	1.2	0.5957	ug/L	0.5957	ppb	09:15:58
1	Si 251.611†	649.9	64.4	1.7733	ug/L	1.7733	ppb	09:15:58
1	Sn 189.927†	12.0	8.4	1.2617	ug/L	1.2617	ppb	09:15:58
1	Ti 334.940†	-1404.4	0.5	0.0002	ug/L	0.0002	ppb	09:15:38
1	Tl 190.801†	-31.3	17.2	4.4587	ug/L	4.4587	ppb	09:15:58
1	U 409.014†	-2326.2	74.6	2.0561	ug/L	2.0561	ppb	09:15:38
1	V 292.402†	-1496.3	-8.5	-0.0351	ug/L	-0.0351	ppb	09:15:38
1	Zn 213.857†	842.5	38.6	0.3174	ug/L	0.3174	ppb	09:15:58
1	SiO2†	665.9	51.0	2.9953	ug/L	2.9953	ppb	09:16:54
2	Sc Radial	5678.0	5678.0	102	%			09:14:46
2	Y RADIAL	6057.0	6057.0	102.5	%			09:14:46
2	Al 396.153Radial†	-25.8	-8.9	-6.5567	ug/L	-6.5567	ppb	09:14:46
2	Ca 317.933Radial†	27.0	6.9	9.8800	ug/L	9.8800	ppb	09:15:06
2	Fe 238.204 Radial†	13.0	1.9	15.724	ug/L	15.724	ppb	09:15:06
2	K 766.490 Radial†	3208.7	433.6	76.423	ug/L	76.423	ppb	09:14:46
2	Mg 279.077 IEC†	4.0	2.5	78.599	ug/L	78.599	ppb	09:15:06
2	Na 589.592 Radial†	-745.4	30.8	9.2021	ug/L	9.2021	ppb	09:14:46
2	Sr 421.552†	7.5	19.2	0.1124	ug/L	0.1124	ppb	09:14:46
2	Sc 361.383	900498.5	900498.5	100.18	%			09:16:03
2	Y 371.029	746282.3	746282.3	100.24	%			09:16:03
2	Ag 328.068†	413.7	43.1	0.1920	ug/L	0.1920	ppb	09:16:03
2	As 188.979†	-35.1	-0.2	-0.0627	ug/L	-0.0627	ppb	09:16:23
2	B 249.677†	224.5	250.0	5.1285	ug/L	5.1285	ppb	09:16:03
2	Ba 233.527†	3.1	5.7	0.0390	ug/L	0.0390	ppb	09:16:23
2	Be 313.107†	-4643.3	96.0	0.0324	ug/L	0.0324	ppb	09:16:03
2	Cd 226.502†	-214.2	15.4	0.1491	ug/L	0.1491	ppb	09:16:23
2	Co 228.616†	-83.7	3.6	0.0647	ug/L	0.0647	ppb	09:16:23
2	Cr 267.716†	136.1	55.7	0.5657	ug/L	0.5657	ppb	09:16:23
2	Cu 324.752†	6016.2	-50.0	-0.1406	ug/L	-0.1406	ppb	09:16:03
2	Mn 257.610†	545.6	53.2	0.0526	ug/L	0.0526	ppb	09:16:23
2	Mo 202.031†	36.3	16.3	0.9901	ug/L	0.9901	ppb	09:16:23
2	Ni 231.604†	119.8	26.0	0.5678	ug/L	0.5678	ppb	09:16:23

2	P 214.914†	261.1	2.5	1.3372 ug/L	1.3372 ppb	09:16:23
2	Pb 220.353†	-60.3	3.8	0.4037 ug/L	0.4037 ppb	09:16:23
2	S 181.975 Axial†	52.9	3.8	4.6649 ug/L	4.6649 ppb	09:16:23
2	Sb 206.836†	61.8	20.5	6.1683 ug/L	6.1683 ppb	09:16:23
2	Se 196.026†	-29.2	-0.6	-0.2803 ug/L	-0.2803 ppb	09:16:23
2	Si 251.611†	663.7	85.1	2.3532 ug/L	2.3532 ppb	09:16:23
2	Sn 189.927†	9.6	6.1	0.9222 ug/L	0.9222 ppb	09:16:23
2	Ti 334.940†	-1305.7	84.2	0.1232 ug/L	0.1232 ppb	09:16:03
2	Tl 190.801†	-40.5	7.7	1.9919 ug/L	1.9919 ppb	09:16:23
2	U 409.014†	-2477.6	-101.0	-2.7858 ug/L	-2.7858 ppb	09:16:03
2	V 292.402†	-1515.4	-43.3	-0.2679 ug/L	-0.2679 ppb	09:16:03
2	Zn 213.857†	839.5	44.5	0.3570 ug/L	0.3570 ppb	09:16:23
2	SiO2†	657.6	49.7	2.9109 ug/L	2.9109 ppb	09:16:59
3	Sc Radial	5713.4	5713.4	103 %		09:15:11
3	Y RADIAL	6132.6	6132.6	103.7 %		09:15:11
3	Al 396.153Radial†	-11.3	5.4	3.8830 ug/L	3.8830 ppb	09:15:11
3	Ca 317.933Radial†	20.4	0.3	0.3784 ug/L	0.3784 ppb	09:15:31
3	Fe 238.204 Radial†	8.0	-3.1	-25.709 ug/L	-25.709 ppb	09:15:31
3	K 766.490 Radial†	3126.7	334.3	58.904 ug/L	58.904 ppb	09:15:11
3	Mg 279.077 IEC†	1.9	0.5	14.231 ug/L	14.231 ppb	09:15:31
3	Na 589.592 Radial†	-715.9	64.1	19.122 ug/L	19.122 ppb	09:15:11
3	Sr 421.552†	18.7	30.0	0.1761 ug/L	0.1761 ppb	09:15:11
3	Sc 361.383	909049.9	909049.9	101.13 %		09:16:29
3	Y 371.029	754134.2	754134.2	101.30 %		09:16:29
3	Ag 328.068†	321.8	-51.7	-0.2304 ug/L	-0.2304 ppb	09:16:29
3	As 188.979†	-26.3	8.8	3.1931 ug/L	3.1931 ppb	09:16:49
3	B 249.677†	254.5	277.6	5.7013 ug/L	5.7013 ppb	09:16:29
3	Ba 233.527†	14.6	17.0	0.1153 ug/L	0.1153 ppb	09:16:49
3	Be 313.107†	-4685.2	98.2	0.0328 ug/L	0.0328 ppb	09:16:29
3	Cd 226.502†	-204.8	26.6	0.2634 ug/L	0.2634 ppb	09:16:49
3	Co 228.616†	-87.8	0.3	0.0065 ug/L	0.0065 ppb	09:16:49
3	Cr 267.716†	129.3	47.7	0.4835 ug/L	0.4835 ppb	09:16:49
3	Cu 324.752†	6034.4	-88.5	-0.2513 ug/L	-0.2513 ppb	09:16:29
3	Mn 257.610†	524.7	27.4	0.0242 ug/L	0.0242 ppb	09:16:49
3	Mo 202.031†	29.5	9.3	0.5624 ug/L	0.5624 ppb	09:16:49
3	Ni 231.604†	124.2	29.2	0.6388 ug/L	0.6388 ppb	09:16:49
3	P 214.914†	241.4	-19.3	-10.008 ug/L	-10.008 ppb	09:16:49
3	Pb 220.353†	-60.5	4.3	0.4557 ug/L	0.4557 ppb	09:16:49
3	S 181.975 Axial†	44.9	-4.6	-5.5974 ug/L	-5.5974 ppb	09:16:49
3	Sb 206.836†	54.0	12.1	3.6622 ug/L	3.6622 ppb	09:16:49
3	Se 196.026†	-25.9	2.9	1.4922 ug/L	1.4922 ppb	09:16:49
3	Si 251.611†	652.4	67.7	1.8737 ug/L	1.8737 ppb	09:16:49
3	Sn 189.927†	13.7	10.1	1.5097 ug/L	1.5097 ppb	09:16:49
3	Ti 334.940†	-1452.6	-48.8	-0.0708 ug/L	-0.0708 ppb	09:16:29
3	Tl 190.801†	-33.7	14.7	3.8215 ug/L	3.8215 ppb	09:16:49
3	U 409.014†	-2398.8	0.2	0.0067 ug/L	0.0067 ppb	09:16:29
3	V 292.402†	-1438.3	47.2	0.3122 ug/L	0.3122 ppb	09:16:29
3	Zn 213.857†	828.3	25.5	0.2075 ug/L	0.2075 ppb	09:16:49
3	SiO2†	678.1	63.8	3.7903 ug/L	3.7903 ppb	09:17:04

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	906547.6	100.85	%	0.586				0.58%
Sc Radial	5717.6	103	%	0.8				0.73%
Y 371.029	752187.8	101.04	%	0.700				0.69%
Y RADIAL	6110.5	103.4	%	0.79				0.76%
Ag 328.068†	10.1	0.0407	ug/L	0.23532	0.0407	ppb	0.23532	578.43%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-3.2	-2.3930	ug/L	5.53111	-2.3930	ppb	5.53111	231.13%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	6.2	2.2449	ug/L	2.00899	2.2449	ppb	2.00899	89.49%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	263.9	5.4173	ug/L	0.28645	5.4173	ppb	0.28645	5.29%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	10.5	0.0707	ug/L	0.03977	0.0707	ppb	0.03977	56.25%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	137.4	0.0461	ug/L	0.02336	0.0461	ppb	0.02336	50.67%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	4.4	6.2077	ug/L	5.10486	6.2077	ppb	5.10486	82.23%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              23.2      0.2281 ug/L       0.06861      0.2281 ppb        0.06861  30.07%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†               3.4      0.0616 ug/L       0.05358      0.0616 ppb        0.05358  86.97%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              41.3      0.4187 ug/L       0.18795      0.4187 ppb        0.18795  44.89%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -63.1     -0.1786 ug/L       0.06296     -0.1786 ppb        0.06296  35.25%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       -1.0     -8.0959 ug/L      21.40274     -8.0959 ppb       21.40274 264.37%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       392.7      69.211 ug/L        9.1602      69.211 ppb         9.1602  13.24%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           1.1      34.803 ug/L       37.9512      34.803 ppb        37.9512 109.04%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              35.8      0.0339 ug/L       0.01617      0.0339 ppb        0.01617  47.72%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              13.4      0.8104 ug/L       0.22183      0.8104 ppb        0.22183  27.37%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       57.5      17.172 ug/L        7.1957      17.172 ppb         7.1957  41.90%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              18.8      0.4102 ug/L       0.33629      0.4102 ppb        0.33629  81.98%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -7.6     -3.9170 ug/L       5.71870     -3.9170 ppb        5.71870 146.00%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               0.9      0.0946 ug/L       0.58096      0.0946 ppb        0.58096 614.03%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          1.8      2.2083 ug/L       6.91295      2.2083 ppb        6.91295 313.04%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              14.5      4.3615 ug/L       1.57796      4.3615 ppb        1.57796  36.18%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               1.1      0.6025 ug/L       0.88627      0.6025 ppb        0.88627 147.10%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†              72.4      2.0001 ug/L       0.30994      2.0001 ppb        0.30994  15.50%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               8.2      1.2312 ug/L       0.29497      1.2312 ppb        0.29497  23.96%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              16.8      0.0984 ug/L       0.08560      0.0984 ppb        0.08560  87.03%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              11.9      0.0175 ug/L       0.09815      0.0175 ppb        0.09815 559.38%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              13.2      3.4240 ug/L       1.28055      3.4240 ppb        1.28055  37.40%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -8.8     -0.2410 ug/L       2.43041     -0.2410 ppb        2.43041 >999.9%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               -1.6      0.0031 ug/L       0.29189      0.0031 ppb        0.29189 >999.9%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              36.2      0.2940 ug/L       0.07745      0.2940 ppb        0.07745  26.35%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                    54.9      3.2322 ug/L       0.48516      3.2322 ppb        0.48516  15.01%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

User canceled analysis.

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Analysis Begun

Start Time: 12/19/2009 10:14:09 **Plasma On Time: 12/14/2009 06:02:42**
Logged In Analyst: Optima3 **Technique: ICP Continuous**
Spectrometer Model: Optima 5300 DV, S/N 077C7090601Autosampler Model: S10

Sample Information File: C:\pe\Optima3\Sample Information\121909.sif
Batch ID:
Results Data Set: 121909
Results Library: C:\pe\Optima3\Results\Results.mdb

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Sequence No.: 11 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 12/19/2009 10:14:10**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5553.5	5553.5	99.8	%			10:16:02
1	Y RADIAL	5849.0	5849.0	98.94	%			10:16:02
1	Al 396.153Radial†	6715.1	6748.2	4896.3	ug/L	4896.3	ppb	10:16:02
1	Ca 317.933Radial†	3514.9	3504.0	4995.8	ug/L	4995.8	ppb	10:16:22
1	Fe 238.204 Radial†	615.1	605.8	5051.3	ug/L	5051.3	ppb	10:16:22
1	K 766.490 Radial†	31181.6	28546.7	5022.9	ug/L	5022.9	ppb	10:16:02
1	Mg 279.077 IEC†	168.2	167.2	5196.7	ug/L	5196.7	ppb	10:16:22
1	Na 589.592 Radial†	31392.4	32232.1	9620.3	ug/L	9620.3	ppb	10:16:02
1	Sr 421.552†	84136.2	84357.1	494.61	ug/L	494.61	ppb	10:16:02
1	Sc 361.383	928285.0	928285.0	103.27	%			10:17:19
1	Y 371.029	755808.8	755808.8	101.52	%			10:17:19
1	Ag 328.068†	115537.1	111510.9	483.67	ug/L	483.67	ppb	10:17:25
1	As 188.979†	1372.6	1364.0	499.44	ug/L	499.44	ppb	10:17:45
1	B 249.677†	24261.4	23519.5	480.78	ug/L	480.78	ppb	10:17:25
1	Ba 233.527†	73799.7	71466.8	487.00	ug/L	487.00	ppb	10:17:25
1	Be 313.107†	1506253.3	1463318.2	491.70	ug/L	491.70	ppb	10:17:19
1	Cd 226.502†	51430.0	50031.7	489.11	ug/L	489.11	ppb	10:17:25
1	Co 228.616†	28664.8	27844.8	487.56	ug/L	487.56	ppb	10:17:25
1	Cr 267.716†	49603.2	47953.3	486.96	ug/L	486.96	ppb	10:17:25
1	Cu 324.752†	181881.2	170069.9	480.77	ug/L	480.77	ppb	10:17:25
1	Mn 257.610†	515022.7	498233.1	491.85	ug/L	491.85	ppb	10:17:19
1	Mo 202.031†	8300.7	8018.1	485.71	ug/L	485.71	ppb	10:17:45
1	Ni 231.604†	23182.5	22355.3	488.13	ug/L	488.13	ppb	10:17:25
1	P 214.914†	5080.5	4661.6	2358.9	ug/L	2358.9	ppb	10:17:45
1	Pb 220.353†	4726.8	4641.3	490.60	ug/L	490.60	ppb	10:17:45
1	S 181.975 Axial†	864.0	787.7	965.33	ug/L	965.33	ppb	10:17:45
1	Sb 206.836†	1718.0	1622.4	493.13	ug/L	493.13	ppb	10:17:45
1	Se 196.026†	897.0	897.1	506.31	ug/L	506.31	ppb	10:17:45
1	Si 251.611†	88612.6	85230.9	2391.7	ug/L	2391.7	ppb	10:17:25
1	Sn 189.927†	3382.1	3271.6	491.25	ug/L	491.25	ppb	10:17:45
1	Ti 334.940†	346373.1	336799.5	486.84	ug/L	486.84	ppb	10:17:19
1	Tl 190.801†	1904.1	1891.9	493.99	ug/L	493.99	ppb	10:17:45
1	U 409.014†	15318.0	17205.5	472.47	ug/L	472.47	ppb	10:17:25
1	V 292.402†	77029.9	76061.6	490.25	ug/L	490.25	ppb	10:17:25
1	Zn 213.857†	62259.7	59495.9	483.60	ug/L	483.60	ppb	10:17:25
1	SiO2†	89163.1	85734.8	5165.8	ug/L	5165.8	ppb	10:18:53
2	Sc Radial	5562.3	5562.3	99.9	%			10:16:27
2	Y RADIAL	5881.8	5881.8	99.50	%			10:16:27
2	Al 396.153Radial†	6767.1	6789.5	4927.6	ug/L	4927.6	ppb	10:16:27
2	Ca 317.933Radial†	3494.2	3477.8	4958.4	ug/L	4958.4	ppb	10:16:47
2	Fe 238.204 Radial†	611.6	601.3	5013.3	ug/L	5013.3	ppb	10:16:47
2	K 766.490 Radial†	30931.5	28246.8	4970.4	ug/L	4970.4	ppb	10:16:27
2	Mg 279.077 IEC†	167.7	166.4	5172.9	ug/L	5172.9	ppb	10:16:47
2	Na 589.592 Radial†	31287.8	32077.5	9574.2	ug/L	9574.2	ppb	10:16:27
2	Sr 421.552†	83971.0	84058.2	492.86	ug/L	492.86	ppb	10:16:27
2	Sc 361.383	971392.0	971392.0	108.06	%			10:17:51

2	Y 371.029	790540.5	790540.5	106.19 %		10:17:51
2	Ag 328.068†	116551.1	107484.4	466.24 ug/L	466.24 ppb	10:17:56
2	As 188.979†	1349.7	1283.8	470.03 ug/L	470.03 ppb	10:18:16
2	B 249.677†	24539.4	22734.3	464.71 ug/L	464.71 ppb	10:17:56
2	Ba 233.527†	74366.5	68820.0	468.97 ug/L	468.97 ppb	10:17:56
2	Be 313.107†	1447628.7	1344341.0	451.72 ug/L	451.72 ppb	10:17:51
2	Cd 226.502†	51680.1	48053.1	469.75 ug/L	469.75 ppb	10:17:56
2	Co 228.616†	28909.2	26839.1	469.97 ug/L	469.97 ppb	10:17:56
2	Cr 267.716†	49854.5	46054.4	467.68 ug/L	467.68 ppb	10:17:56
2	Cu 324.752†	183761.7	163994.2	463.60 ug/L	463.60 ppb	10:17:56
2	Mn 257.610†	498086.1	460428.6	454.56 ug/L	454.56 ppb	10:17:51
2	Mo 202.031†	8202.5	7570.5	458.61 ug/L	458.61 ppb	10:18:16
2	Ni 231.604†	23319.2	21485.6	469.14 ug/L	469.14 ppb	10:17:56
2	P 214.914†	4996.0	4365.2	2206.6 ug/L	2206.6 ppb	10:18:16
2	Pb 220.353†	4669.7	4385.3	463.58 ug/L	463.58 ppb	10:18:16
2	S 181.975 Axial†	857.5	744.5	912.43 ug/L	912.43 ppb	10:18:16
2	Sb 206.836†	1704.3	1535.9	466.67 ug/L	466.67 ppb	10:18:16
2	Se 196.026†	880.6	843.4	476.83 ug/L	476.83 ppb	10:18:16
2	Si 251.611†	89486.5	82231.7	2307.7 ug/L	2307.7 ppb	10:17:56
2	Sn 189.927†	3334.6	3082.3	462.85 ug/L	462.85 ppb	10:18:16
2	Ti 334.940†	333765.0	310247.8	448.46 ug/L	448.46 ppb	10:17:51
2	Tl 190.801†	1877.1	1785.1	465.92 ug/L	465.92 ppb	10:18:16
2	U 409.014†	15600.1	16808.3	461.57 ug/L	461.57 ppb	10:17:56
2	V 292.402†	77479.0	73167.1	471.49 ug/L	471.49 ppb	10:17:56
2	Zn 213.857†	62628.5	57161.7	464.60 ug/L	464.60 ppb	10:17:56
2	SiO2†	88791.1	81559.1	4914.2 ug/L	4914.2 ppb	10:18:58
3	Sc Radial	5621.6	5621.6	101 %		10:16:52
3	Y RADIAL	5952.0	5952.0	100.7 %		10:16:52
3	Al 396.153Radial†	6807.6	6758.2	4903.5 ug/L	4903.5 ppb	10:16:52
3	Ca 317.933Radial†	3483.6	3430.4	4890.8 ug/L	4890.8 ppb	10:17:12
3	Fe 238.204 Radial†	607.9	591.2	4930.1 ug/L	4930.1 ppb	10:17:12
3	K 766.490 Radial†	31287.2	28272.5	4974.6 ug/L	4974.6 ppb	10:16:52
3	Mg 279.077 IEC†	167.2	164.2	5103.2 ug/L	5103.2 ppb	10:17:12
3	Na 589.592 Radial†	31440.9	31898.8	9520.9 ug/L	9520.9 ppb	10:16:52
3	Sr 421.552†	84737.0	83930.2	492.11 ug/L	492.11 ppb	10:16:52
3	Sc 361.383	913742.9	913742.9	101.65 %		10:18:22
3	Y 371.029	742553.7	742553.7	99.743 %		10:18:22
3	Ag 328.068†	115791.4	113541.6	492.40 ug/L	492.40 ppb	10:18:27
3	As 188.979†	1346.3	1359.3	497.67 ug/L	497.67 ppb	10:18:47
3	B 249.677†	24317.2	23948.4	489.57 ug/L	489.57 ppb	10:18:27
3	Ba 233.527†	74026.4	72827.2	496.26 ug/L	496.26 ppb	10:18:27
3	Be 313.107†	1460514.8	1441535.4	484.38 ug/L	484.38 ppb	10:18:22
3	Cd 226.502†	51426.0	50820.4	496.84 ug/L	496.84 ppb	10:18:27
3	Co 228.616†	28727.0	28347.8	496.38 ug/L	496.38 ppb	10:18:27
3	Cr 267.716†	49621.1	48735.4	494.90 ug/L	494.90 ppb	10:18:27
3	Cu 324.752†	182730.2	173708.1	491.04 ug/L	491.04 ppb	10:18:27
3	Mn 257.610†	503302.9	494640.7	488.30 ug/L	488.30 ppb	10:18:22
3	Mo 202.031†	8224.5	8071.1	488.90 ug/L	488.90 ppb	10:18:47
3	Ni 231.604†	23184.4	22714.4	495.97 ug/L	495.97 ppb	10:18:27
3	P 214.914†	5034.2	4694.4	2374.4 ug/L	2374.4 ppb	10:18:47
3	Pb 220.353†	4672.5	4660.7	492.65 ug/L	492.65 ppb	10:18:47
3	S 181.975 Axial†	870.1	807.0	989.04 ug/L	989.04 ppb	10:18:47
3	Sb 206.836†	1712.3	1643.3	499.28 ug/L	499.28 ppb	10:18:47
3	Se 196.026†	896.4	910.4	513.17 ug/L	513.17 ppb	10:18:47
3	Si 251.611†	88927.9	86906.7	2438.9 ug/L	2438.9 ppb	10:18:27
3	Sn 189.927†	3324.6	3267.2	490.58 ug/L	490.58 ppb	10:18:47
3	Ti 334.940†	337899.2	333801.2	482.49 ug/L	482.49 ppb	10:18:22
3	Tl 190.801†	1889.6	1907.0	497.80 ug/L	497.80 ppb	10:18:47
3	U 409.014†	15562.2	17681.7	485.59 ug/L	485.59 ppb	10:18:27
3	V 292.402†	77205.7	77421.7	498.99 ug/L	498.99 ppb	10:18:27
3	Zn 213.857†	62221.4	60417.7	491.11 ug/L	491.11 ppb	10:18:27
3	SiO2†	88259.5	86220.0	5195.1 ug/L	5195.1 ppb	10:19:03

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	937806.7	104.33	%	3.335				3.20%
Sc Radial	5579.1	100	%	0.7				0.66%
Y 371.029	762967.7	102.49	%	3.329				3.25%
Y RADIAL	5894.2	99.71	%	0.890				0.89%

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Ag 328.068†          110845.7      480.77 ug/L        13.320      480.77 ppb        13.320   2.77%
   QC value within limits for Ag 328.068  Recovery = 96.15%
Al 396.153Radial†      6765.3      4909.1 ug/L         16.38      4909.1 ppb         16.38   0.33%
   QC value within limits for Al 396.153Radial  Recovery = 98.18%
As 188.979†            1335.7      489.05 ug/L        16.490      489.05 ppb        16.490   3.37%
   QC value within limits for As 188.979  Recovery = 97.81%
B 249.677†            23400.7      478.36 ug/L        12.606      478.36 ppb        12.606   2.64%
   QC value within limits for B 249.677  Recovery = 95.67%
Ba 233.527†           71038.0      484.07 ug/L        13.879      484.07 ppb        13.879   2.87%
   QC value within limits for Ba 233.527  Recovery = 96.81%
Be 313.107†         1416398.2      475.93 ug/L        21.285      475.93 ppb        21.285   4.47%
   QC value within limits for Be 313.107  Recovery = 95.19%
Ca 317.933Radial†      3470.7      4948.3 ug/L         53.19      4948.3 ppb         53.19   1.07%
   QC value within limits for Ca 317.933Radial  Recovery = 98.97%
Cd 226.502†           49635.0      485.24 ug/L        13.954      485.24 ppb        13.954   2.88%
   QC value within limits for Cd 226.502  Recovery = 97.05%
Co 228.616†           27677.2      484.64 ug/L        13.448      484.64 ppb        13.448   2.77%
   QC value within limits for Co 228.616  Recovery = 96.93%
Cr 267.716†           47581.0      483.18 ug/L        13.999      483.18 ppb        13.999   2.90%
   QC value within limits for Cr 267.716  Recovery = 96.64%
Cu 324.752†          169257.4      478.47 ug/L        13.864      478.47 ppb        13.864   2.90%
   QC value within limits for Cu 324.752  Recovery = 95.69%
Fe 238.204 Radial†       599.4      4998.2 ug/L         61.99      4998.2 ppb         61.99   1.24%
   QC value within limits for Fe 238.204 Radial  Recovery = 99.96%
K 766.490 Radial†     28355.3      4989.3 ug/L         29.14      4989.3 ppb         29.14   0.58%
   QC value within limits for K 766.490 Radial  Recovery = 99.79%
Mg 279.077 IEC†         165.9      5157.6 ug/L         48.58      5157.6 ppb         48.58   0.94%
   QC value within limits for Mg 279.077 IEC  Recovery = 103.15%
Mn 257.610†          484434.1      478.23 ug/L        20.582      478.23 ppb        20.582   4.30%
   QC value within limits for Mn 257.610  Recovery = 95.65%
Mo 202.031†            7886.6      477.74 ug/L        16.644      477.74 ppb        16.644   3.48%
   QC value within limits for Mo 202.031  Recovery = 95.55%
Na 589.592 Radial†    32069.5      9571.8 ug/L         49.78      9571.8 ppb         49.78   0.52%
   QC value within limits for Na 589.592 Radial  Recovery = 95.72%
Ni 231.604†           22185.1      484.42 ug/L        13.797      484.42 ppb        13.797   2.85%
   QC value within limits for Ni 231.604  Recovery = 96.88%
P 214.914†             4573.7      2313.3 ug/L         92.71      2313.3 ppb         92.71   4.01%
   QC value within limits for P 214.914  Recovery = 92.53%
Pb 220.353†            4562.4      482.28 ug/L        16.225      482.28 ppb        16.225   3.36%
   QC value within limits for Pb 220.353  Recovery = 96.46%
S 181.975 Axial†        779.7      955.60 ug/L        39.216      955.60 ppb        39.216   4.10%
   QC value within limits for S 181.975 Axial  Recovery = 95.56%
Sb 206.836†            1600.5      486.36 ug/L        17.325      486.36 ppb        17.325   3.56%
   QC value within limits for Sb 206.836  Recovery = 97.27%
Se 196.026†             883.6      498.77 ug/L        19.304      498.77 ppb        19.304   3.87%
   QC value within limits for Se 196.026  Recovery = 99.75%
Si 251.611†           84789.8      2379.4 ug/L         66.46      2379.4 ppb         66.46   2.79%
   QC value within limits for Si 251.611  Recovery = 95.18%
Sn 189.927†            3207.0      481.56 ug/L        16.205      481.56 ppb        16.205   3.37%
   QC value within limits for Sn 189.927  Recovery = 96.31%
Sr 421.552†           84115.2      493.19 ug/L         1.284      493.19 ppb         1.284   0.26%
   QC value within limits for Sr 421.552  Recovery = 98.64%
Ti 334.940†          326949.5      472.60 ug/L        21.016      472.60 ppb        21.016   4.45%
   QC value within limits for Ti 334.940  Recovery = 94.52%
Tl 190.801†            1861.3      485.91 ug/L        17.413      485.91 ppb        17.413   3.58%
   QC value within limits for Tl 190.801  Recovery = 97.18%
U 409.014†            17231.8      473.21 ug/L        12.029      473.21 ppb        12.029   2.54%
   QC value within limits for U 409.014  Recovery = 94.64%
V 292.402†            75550.2      486.91 ug/L        14.053      486.91 ppb        14.053   2.89%
   QC value within limits for V 292.402  Recovery = 97.38%
Zn 213.857†           59025.1      479.77 ug/L        13.663      479.77 ppb        13.663   2.85%
   QC value within limits for Zn 213.857  Recovery = 95.95%
SiO2†                 84504.6      5091.7 ug/L        154.40      5091.7 ppb        154.40   3.03%
   QC value within limits for SiO2  Recovery = 95.22%
All analyte(s) passed QC.
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Sequence No.: 12
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 12/19/2009 10:21:12
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5616.6	5616.6	101	%			10:23:05
1	Y RADIAL	5983.2	5983.2	101.2	%			10:23:05
1	Al 396.153Radial†	-31.6	-14.9	-10.891	ug/L	-10.891	ppb	10:23:05
1	Ca 317.933Radial†	18.6	-1.1	-1.5731	ug/L	-1.5731	ppb	10:23:25
1	Fe 238.204 Radial†	8.6	-2.3	-19.368	ug/L	-19.368	ppb	10:23:25
1	K 766.490 Radial†	2944.4	206.2	36.342	ug/L	36.342	ppb	10:23:05
1	Mg 279.077 IEC†	1.1	-0.4	-10.962	ug/L	-10.962	ppb	10:23:25
1	Na 589.592 Radial†	-793.5	-24.9	-7.4390	ug/L	-7.4390	ppb	10:23:05
1	Sr 421.552†	7.1	18.8	0.1105	ug/L	0.1105	ppb	10:23:05
1	Sc 361.383	905995.4	905995.4	100.79	%			10:24:22
1	Y 371.029	752925.4	752925.4	101.14	%			10:24:22
1	Ag 328.068†	395.5	22.5	0.0934	ug/L	0.0934	ppb	10:24:22
1	As 188.979†	-34.2	0.9	0.3236	ug/L	0.3236	ppb	10:24:42
1	B 249.677†	-14.0	12.0	0.2494	ug/L	0.2494	ppb	10:24:22
1	Ba 233.527†	-7.1	-4.5	-0.0321	ug/L	-0.0321	ppb	10:24:42
1	Be 313.107†	-4641.4	126.0	0.0422	ug/L	0.0422	ppb	10:24:22
1	Cd 226.502†	-229.2	1.7	0.0192	ug/L	0.0192	ppb	10:24:42
1	Co 228.616†	-91.8	-4.0	-0.0676	ug/L	-0.0676	ppb	10:24:42
1	Cr 267.716†	103.9	22.9	0.2328	ug/L	0.2328	ppb	10:24:42
1	Cu 324.752†	5985.0	-117.4	-0.3326	ug/L	-0.3326	ppb	10:24:22
1	Mn 257.610†	516.8	21.3	0.0193	ug/L	0.0193	ppb	10:24:42
1	Mo 202.031†	31.7	11.5	0.6977	ug/L	0.6977	ppb	10:24:42
1	Ni 231.604†	115.3	20.8	0.4545	ug/L	0.4545	ppb	10:24:42
1	P 214.914†	249.1	-10.9	-5.6026	ug/L	-5.6026	ppb	10:24:42
1	Pb 220.353†	-68.4	-3.9	-0.4052	ug/L	-0.4052	ppb	10:24:42
1	S 181.975 Axial†	52.9	3.4	4.2206	ug/L	4.2206	ppb	10:24:42
1	Sb 206.836†	48.5	6.9	2.0831	ug/L	2.0831	ppb	10:24:42
1	Se 196.026†	-38.8	-9.9	-5.4699	ug/L	-5.4699	ppb	10:24:42
1	Si 251.611†	604.5	22.3	0.6016	ug/L	0.6016	ppb	10:24:42
1	Sn 189.927†	11.6	8.1	1.2076	ug/L	1.2076	ppb	10:24:42
1	Ti 334.940†	-1406.7	-8.1	-0.0095	ug/L	-0.0095	ppb	10:24:22
1	Tl 190.801†	-39.0	9.4	2.4333	ug/L	2.4333	ppb	10:24:42
1	U 409.014†	-2585.5	-193.1	-5.3183	ug/L	-5.3183	ppb	10:24:22
1	V 292.402†	-1549.5	-67.9	-0.4298	ug/L	-0.4298	ppb	10:24:22
1	Zn 213.857†	840.2	40.0	0.3281	ug/L	0.3281	ppb	10:24:42
1	SiO2†	726.8	114.4	6.8658	ug/L	6.8658	ppb	10:25:38
2	Sc Radial	5663.0	5663.0	102	%			10:23:30
2	Y RADIAL	6054.5	6054.5	102.4	%			10:23:30
2	Al 396.153Radial†	-9.8	6.7	4.8721	ug/L	4.8721	ppb	10:23:30
2	Ca 317.933Radial†	21.1	1.2	1.6955	ug/L	1.6955	ppb	10:23:50
2	Fe 238.204 Radial†	9.2	-1.8	-15.273	ug/L	-15.273	ppb	10:23:50
2	K 766.490 Radial†	2927.1	165.2	29.125	ug/L	29.125	ppb	10:23:30
2	Mg 279.077 IEC†	1.7	0.2	7.0445	ug/L	7.0445	ppb	10:23:50
2	Na 589.592 Radial†	-797.6	-22.5	-6.7162	ug/L	-6.7162	ppb	10:23:30
2	Sr 421.552†	-8.7	3.2	0.0188	ug/L	0.0188	ppb	10:23:30
2	Sc 361.383	902480.6	902480.6	100.40	%			10:24:47
2	Y 371.029	748554.3	748554.3	100.55	%			10:24:47
2	Ag 328.068†	254.7	-116.2	-0.5047	ug/L	-0.5047	ppb	10:24:47
2	As 188.979†	-24.5	10.4	3.7686	ug/L	3.7686	ppb	10:25:07
2	B 249.677†	-20.1	5.9	0.1226	ug/L	0.1226	ppb	10:24:47
2	Ba 233.527†	-14.4	-11.7	-0.0811	ug/L	-0.0811	ppb	10:25:07
2	Be 313.107†	-4597.8	151.5	0.0509	ug/L	0.0509	ppb	10:24:47
2	Cd 226.502†	-212.0	18.0	0.1779	ug/L	0.1779	ppb	10:25:07
2	Co 228.616†	-82.5	4.9	0.0883	ug/L	0.0883	ppb	10:25:07
2	Cr 267.716†	121.3	40.7	0.4129	ug/L	0.4129	ppb	10:25:07
2	Cu 324.752†	5977.6	-101.6	-0.2879	ug/L	-0.2879	ppb	10:24:47
2	Mn 257.610†	534.6	41.0	0.0388	ug/L	0.0388	ppb	10:25:07
2	Mo 202.031†	34.9	14.9	0.9029	ug/L	0.9029	ppb	10:25:07
2	Ni 231.604†	118.0	24.0	0.5238	ug/L	0.5238	ppb	10:25:07

2	P 214.914†	254.4	-4.6	-2.3516 ug/L	-2.3516 ppb	10:25:07
2	Pb 220.353†	-71.0	-6.7	-0.6995 ug/L	-0.6995 ppb	10:25:07
2	S 181.975 Axial†	49.4	0.2	0.2426 ug/L	0.2426 ppb	10:25:07
2	Sb 206.836†	41.5	0.1	0.0609 ug/L	0.0609 ppb	10:25:07
2	Se 196.026†	-23.5	5.1	2.7465 ug/L	2.7465 ppb	10:25:07
2	Si 251.611†	605.5	25.7	0.6962 ug/L	0.6962 ppb	10:25:07
2	Sn 189.927†	7.2	3.7	0.5489 ug/L	0.5489 ppb	10:25:07
2	Ti 334.940†	-1358.1	34.9	0.0518 ug/L	0.0518 ppb	10:24:47
2	Tl 190.801†	-48.4	-0.1	-0.0293 ug/L	-0.0293 ppb	10:25:07
2	U 409.014†	-2503.2	-121.1	-3.3361 ug/L	-3.3361 ppb	10:24:47
2	V 292.402†	-1533.9	-58.4	-0.3629 ug/L	-0.3629 ppb	10:24:47
2	Zn 213.857†	833.2	36.4	0.2965 ug/L	0.2965 ppb	10:25:07
2	SiO2†	624.6	15.5	0.8798 ug/L	0.8798 ppb	10:25:43
3	Sc Radial	5677.5	5677.5	102 %		10:23:55
3	Y RADIAL	6030.0	6030.0	102.0 %		10:23:55
3	Al 396.153Radial†	-26.1	-9.2	-6.7339 ug/L	-6.7339 ppb	10:23:55
3	Ca 317.933Radial†	24.5	4.5	6.3638 ug/L	6.3638 ppb	10:24:15
3	Fe 238.204 Radial†	10.2	-0.9	-7.5989 ug/L	-7.5989 ppb	10:24:15
3	K 766.490 Radial†	2927.7	158.5	27.929 ug/L	27.929 ppb	10:23:55
3	Mg 279.077 IEC†	5.1	3.6	112.34 ug/L	112.34 ppb	10:24:15
3	Na 589.592 Radial†	-810.1	-32.7	-9.7554 ug/L	-9.7554 ppb	10:23:55
3	Sr 421.552†	29.8	41.0	0.2403 ug/L	0.2403 ppb	10:23:55
3	Sc 361.383	899794.8	899794.8	100.10 %		10:25:13
3	Y 371.029	747572.3	747572.3	100.42 %		10:25:13
3	Ag 328.068†	404.1	33.8	0.1452 ug/L	0.1452 ppb	10:25:13
3	As 188.979†	-22.4	12.4	4.5017 ug/L	4.5017 ppb	10:25:33
3	B 249.677†	29.0	54.9	1.1276 ug/L	1.1276 ppb	10:25:13
3	Ba 233.527†	0.2	2.8	0.0182 ug/L	0.0182 ppb	10:25:33
3	Be 313.107†	-4622.2	113.5	0.0382 ug/L	0.0382 ppb	10:25:13
3	Cd 226.502†	-230.4	-1.0	-0.0086 ug/L	-0.0086 ppb	10:25:33
3	Co 228.616†	-86.0	1.2	0.0203 ug/L	0.0203 ppb	10:25:33
3	Cr 267.716†	102.8	22.6	0.2292 ug/L	0.2292 ppb	10:25:33
3	Cu 324.752†	6083.4	21.8	0.0613 ug/L	0.0613 ppb	10:25:13
3	Mn 257.610†	510.0	18.1	0.0150 ug/L	0.0150 ppb	10:25:33
3	Mo 202.031†	21.0	1.1	0.0683 ug/L	0.0683 ppb	10:25:33
3	Ni 231.604†	124.9	31.2	0.6826 ug/L	0.6826 ppb	10:25:33
3	P 214.914†	246.5	-11.8	-6.1636 ug/L	-6.1636 ppb	10:25:33
3	Pb 220.353†	-69.4	-5.3	-0.5598 ug/L	-0.5598 ppb	10:25:33
3	S 181.975 Axial†	52.9	3.9	4.7370 ug/L	4.7370 ppb	10:25:33
3	Sb 206.836†	45.4	4.2	1.2541 ug/L	1.2541 ppb	10:25:33
3	Se 196.026†	-30.3	-1.8	-0.9937 ug/L	-0.9937 ppb	10:25:33
3	Si 251.611†	611.1	33.1	0.9199 ug/L	0.9199 ppb	10:25:33
3	Sn 189.927†	7.6	4.1	0.6221 ug/L	0.6221 ppb	10:25:33
3	Ti 334.940†	-1352.0	36.9	0.0555 ug/L	0.0555 ppb	10:25:13
3	Tl 190.801†	-38.5	9.6	2.4997 ug/L	2.4997 ppb	10:25:33
3	U 409.014†	-2522.3	-147.6	-4.0671 ug/L	-4.0671 ppb	10:25:13
3	V 292.402†	-1523.8	-52.9	-0.3400 ug/L	-0.3400 ppb	10:25:13
3	Zn 213.857†	835.8	41.4	0.3323 ug/L	0.3323 ppb	10:25:33
3	SiO2†	597.8	-9.4	-0.5979 ug/L	-0.5979 ppb	10:25:48

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	902756.9	100.43	%	0.346				0.34%
Sc Radial	5652.3	102	%	0.6				0.56%
Y 371.029	749684.0	100.70	%	0.383				0.38%
Y RADIAL	6022.6	101.9	%	0.61				0.60%
Ag 328.068†	-20.0	-0.0887	ug/L	0.36117	-0.0887	ppb	0.36117	407.26%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-5.8	-4.2509	ug/L	8.16959	-4.2509	ppb	8.16959	192.19%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	7.9	2.8646	ug/L	2.23093	2.8646	ppb	2.23093	77.88%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	24.3	0.4998	ug/L	0.54730	0.4998	ppb	0.54730	109.49%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-4.5	-0.0316	ug/L	0.04966	-0.0316	ppb	0.04966	156.96%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	130.3	0.0438	ug/L	0.00650	0.0438	ppb	0.00650	14.86%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	1.5	2.1620	ug/L	3.98896	2.1620	ppb	3.98896	184.50%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                 6.2      0.0628 ug/L       0.10058      0.0628 ppb        0.10058 160.07%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                 0.7      0.0136 ug/L       0.07818      0.0136 ppb        0.07818 572.90%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                28.7      0.2916 ug/L       0.10500      0.2916 ppb        0.10500  36.01%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               -65.7     -0.1864 ug/L       0.21567     -0.1864 ppb        0.21567 115.69%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -1.7     -14.080 ug/L        5.9746     -14.080 ppb         5.9746  42.43%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         176.6      31.132 ug/L        4.5515      31.132 ppb         4.5515  14.62%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             1.2      36.141 ug/L       66.6022      36.141 ppb        66.6022 184.28%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                26.8      0.0244 ug/L       0.01272      0.0244 ppb        0.01272  52.20%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 9.2      0.5563 ug/L       0.43487      0.5563 ppb        0.43487  78.18%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        -26.7     -7.9702 ug/L       1.58771     -7.9702 ppb        1.58771  19.92%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                25.3      0.5536 ug/L       0.11694      0.5536 ppb        0.11694  21.12%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -9.1     -4.7059 ug/L       2.05810     -4.7059 ppb        2.05810  43.73%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -5.3     -0.5548 ug/L       0.14721     -0.5548 ppb        0.14721  26.53%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            2.5      3.0667 ug/L       2.45938      3.0667 ppb        2.45938  80.20%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 3.7      1.1327 ug/L       1.01653      1.1327 ppb        1.01653  89.74%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -2.2     -1.2391 ug/L       4.11367     -1.2391 ppb        4.11367 332.00%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                27.0      0.7392 ug/L       0.16345      0.7392 ppb        0.16345  22.11%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 5.3      0.7929 ug/L       0.36102      0.7929 ppb        0.36102  45.53%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                21.0      0.1232 ug/L       0.11130      0.1232 ppb        0.11130  90.32%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                21.2      0.0326 ug/L       0.03652      0.0326 ppb        0.03652 112.09%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 6.3      1.6346 ug/L       1.44132      1.6346 ppb        1.44132  88.18%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -154.0     -4.2405 ug/L       1.00241     -4.2405 ppb        1.00241  23.64%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               -59.8     -0.3776 ug/L       0.04666     -0.3776 ppb        0.04666  12.36%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                39.3      0.3190 ug/L       0.01959      0.3190 ppb        0.01959   6.14%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                      40.2      2.3826 ug/L       3.95230      2.3826 ppb        3.95230 165.88%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 8
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 12/19/2009 11:18:11
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5421.2	5421.2	97.4	%			11:20:04
1	Y RADIAL	5768.9	5768.9	97.59	%			11:20:04
1	Al 396.153Radial†	6592.6	6786.7	4924.3	ug/L	4924.3	ppb	11:20:04
1	Ca 317.933Radial†	3518.3	3593.6	5123.5	ug/L	5123.5	ppb	11:20:24
1	Fe 238.204 Radial†	623.1	629.0	5244.8	ug/L	5244.8	ppb	11:20:24
1	K 766.490 Radial†	30360.9	28466.7	5008.6	ug/L	5008.6	ppb	11:20:04
1	Mg 279.077 IEC†	168.0	171.1	5318.7	ug/L	5318.7	ppb	11:20:24
1	Na 589.592 Radial†	31723.4	33340.0	9951.0	ug/L	9951.0	ppb	11:20:04
1	Sr 421.552†	83800.8	86071.0	504.66	ug/L	504.66	ppb	11:20:04
1	Sc 361.383	916565.1	916565.1	101.96	%			11:21:21
1	Y 371.029	745912.1	745912.1	100.19	%			11:21:21
1	Ag 328.068†	116199.1	113590.8	492.72	ug/L	492.72	ppb	11:21:27
1	As 188.979†	1356.6	1365.3	499.90	ug/L	499.90	ppb	11:21:47
1	B 249.677†	24066.3	23628.6	482.97	ug/L	482.97	ppb	11:21:27
1	Ba 233.527†	74033.3	72609.8	494.79	ug/L	494.79	ppb	11:21:27
1	Be 313.107†	1474137.1	1450471.3	487.38	ug/L	487.38	ppb	11:21:21
1	Cd 226.502†	51380.1	50619.5	494.85	ug/L	494.85	ppb	11:21:27
1	Co 228.616†	28786.6	28319.2	495.87	ug/L	495.87	ppb	11:21:27
1	Cr 267.716†	49665.9	48629.0	493.83	ug/L	493.83	ppb	11:21:27
1	Cu 324.752†	183621.8	174029.1	491.96	ug/L	491.96	ppb	11:21:27
1	Mn 257.610†	506237.3	495994.0	489.66	ug/L	489.66	ppb	11:21:21
1	Mo 202.031†	8229.5	8051.1	487.72	ug/L	487.72	ppb	11:21:47
1	Ni 231.604†	23227.5	22686.4	495.36	ug/L	495.36	ppb	11:21:27
1	P 214.914†	5038.6	4683.5	2368.3	ug/L	2368.3	ppb	11:21:47
1	Pb 220.353†	4663.1	4637.3	490.16	ug/L	490.16	ppb	11:21:47
1	S 181.975 Axial†	867.3	801.6	982.45	ug/L	982.45	ppb	11:21:47
1	Sb 206.836†	1713.6	1639.4	498.07	ug/L	498.07	ppb	11:21:47
1	Se 196.026†	884.4	895.9	506.25	ug/L	506.25	ppb	11:21:47
1	Si 251.611†	89190.3	86894.7	2438.6	ug/L	2438.6	ppb	11:21:27
1	Sn 189.927†	3317.6	3250.2	488.05	ug/L	488.05	ppb	11:21:47
1	Ti 334.940†	340271.1	335103.9	484.38	ug/L	484.38	ppb	11:21:21
1	Tl 190.801†	1867.5	1879.6	490.72	ug/L	490.72	ppb	11:21:47
1	U 409.014†	15812.6	17880.2	491.03	ug/L	491.03	ppb	11:21:27
1	V 292.402†	77518.7	77494.9	499.41	ug/L	499.41	ppb	11:21:27
1	Zn 213.857†	62354.6	60359.9	490.60	ug/L	490.60	ppb	11:21:27
1	SiO2†	89262.1	86936.0	5238.4	ug/L	5238.4	ppb	11:22:54
2	Sc Radial	5644.1	5644.1	101	%			11:20:29
2	Y RADIAL	5989.3	5989.3	101.3	%			11:20:29
2	Al 396.153Radial†	6837.1	6760.4	4905.2	ug/L	4905.2	ppb	11:20:29
2	Ca 317.933Radial†	3485.5	3418.5	4873.8	ug/L	4873.8	ppb	11:20:49
2	Fe 238.204 Radial†	615.6	596.4	4973.1	ug/L	4973.1	ppb	11:20:49
2	K 766.490 Radial†	31316.4	28177.5	4957.7	ug/L	4957.7	ppb	11:20:29
2	Mg 279.077 IEC†	167.3	163.7	5087.5	ug/L	5087.5	ppb	11:20:49
2	Na 589.592 Radial†	32916.4	33229.8	9918.1	ug/L	9918.1	ppb	11:20:29
2	Sr 421.552†	86839.7	85668.8	502.31	ug/L	502.31	ppb	11:20:29
2	Sc 361.383	916884.0	916884.0	102.00	%			11:21:53
2	Y 371.029	746582.4	746582.4	100.28	%			11:21:53
2	Ag 328.068†	115175.8	112547.9	488.12	ug/L	488.12	ppb	11:21:58
2	As 188.979†	1339.3	1347.9	493.53	ug/L	493.53	ppb	11:22:18
2	B 249.677†	23825.7	23384.5	478.01	ug/L	478.01	ppb	11:21:58
2	Ba 233.527†	73340.0	71904.8	489.98	ug/L	489.98	ppb	11:21:58
2	Be 313.107†	1468688.7	1444626.8	485.42	ug/L	485.42	ppb	11:21:53
2	Cd 226.502†	50884.5	50116.1	489.95	ug/L	489.95	ppb	11:21:58
2	Co 228.616†	28445.9	27975.3	489.85	ug/L	489.85	ppb	11:21:58
2	Cr 267.716†	49174.9	48130.7	488.76	ug/L	488.76	ppb	11:21:58
2	Cu 324.752†	181234.0	171625.4	485.16	ug/L	485.16	ppb	11:21:58
2	Mn 257.610†	504181.1	493805.3	487.48	ug/L	487.48	ppb	11:21:53
2	Mo 202.031†	8180.2	7999.9	484.60	ug/L	484.60	ppb	11:22:18
2	Ni 231.604†	23047.1	22501.7	491.33	ug/L	491.33	ppb	11:21:58

2	P 214.914†	5013.2	4656.8	2355.7 ug/L	2355.7 ppb	11:22:18
2	Pb 220.353†	4650.9	4623.8	488.75 ug/L	488.75 ppb	11:22:18
2	S 181.975 Axial†	857.0	791.2	969.64 ug/L	969.64 ppb	11:22:18
2	Sb 206.836†	1686.7	1612.5	490.02 ug/L	490.02 ppb	11:22:18
2	Se 196.026†	882.2	893.4	504.06 ug/L	504.06 ppb	11:22:18
2	Si 251.611†	88290.5	85982.1	2412.9 ug/L	2412.9 ppb	11:21:58
2	Sn 189.927†	3307.9	3239.6	486.43 ug/L	486.43 ppb	11:22:18
2	Ti 334.940†	338885.3	333629.2	482.24 ug/L	482.24 ppb	11:21:53
2	Tl 190.801†	1886.7	1897.8	495.44 ug/L	495.44 ppb	11:22:18
2	U 409.014†	15428.5	17498.2	480.54 ug/L	480.54 ppb	11:21:58
2	V 292.402†	76544.7	76513.5	493.14 ug/L	493.14 ppb	11:21:58
2	Zn 213.857†	61731.3	59727.5	485.48 ug/L	485.48 ppb	11:21:58
2	SiO2†	88342.5	86004.0	5182.2 ug/L	5182.2 ppb	11:23:00
3	Sc Radial	5645.6	5645.6	101 %		11:20:54
3	Y RADIAL	5995.8	5995.8	101.4 %		11:20:54
3	Al 396.153Radial†	6857.5	6778.8	4918.6 ug/L	4918.6 ppb	11:20:54
3	Ca 317.933Radial†	3499.3	3431.2	4892.0 ug/L	4892.0 ppb	11:21:14
3	Fe 238.204 Radial†	611.5	592.1	4937.6 ug/L	4937.6 ppb	11:21:14
3	K 766.490 Radial†	31288.9	28142.6	4951.6 ug/L	4951.6 ppb	11:20:54
3	Mg 279.077 IEC†	167.9	164.2	5103.4 ug/L	5103.4 ppb	11:21:14
3	Na 589.592 Radial†	32746.1	33053.7	9865.6 ug/L	9865.6 ppb	11:20:54
3	Sr 421.552†	86687.7	85497.4	501.30 ug/L	501.30 ppb	11:20:54
3	Sc 361.383	917696.3	917696.3	102.09 %		11:22:24
3	Y 371.029	747878.2	747878.2	100.46 %		11:22:24
3	Ag 328.068†	114777.1	112057.5	485.99 ug/L	485.99 ppb	11:22:29
3	As 188.979†	1342.0	1349.4	494.09 ug/L	494.09 ppb	11:22:49
3	B 249.677†	23771.8	23311.1	476.51 ug/L	476.51 ppb	11:22:29
3	Ba 233.527†	73281.2	71783.6	489.15 ug/L	489.15 ppb	11:22:29
3	Be 313.107†	1477837.5	1452313.8	488.00 ug/L	488.00 ppb	11:22:24
3	Cd 226.502†	50770.3	49960.0	488.42 ug/L	488.42 ppb	11:22:29
3	Co 228.616†	28512.8	28016.2	490.57 ug/L	490.57 ppb	11:22:29
3	Cr 267.716†	49183.8	48096.7	488.42 ug/L	488.42 ppb	11:22:29
3	Cu 324.752†	181303.5	171536.2	484.90 ug/L	484.90 ppb	11:22:29
3	Mn 257.610†	506303.5	495446.8	489.09 ug/L	489.09 ppb	11:22:24
3	Mo 202.031†	8219.2	8031.0	486.48 ug/L	486.48 ppb	11:22:49
3	Ni 231.604†	22983.7	22419.6	489.54 ug/L	489.54 ppb	11:22:29
3	P 214.914†	5017.3	4656.5	2355.6 ug/L	2355.6 ppb	11:22:49
3	Pb 220.353†	4650.6	4619.4	488.31 ug/L	488.31 ppb	11:22:49
3	S 181.975 Axial†	856.1	789.5	967.64 ug/L	967.64 ppb	11:22:49
3	Sb 206.836†	1715.8	1639.4	498.17 ug/L	498.17 ppb	11:22:49
3	Se 196.026†	901.9	912.0	514.06 ug/L	514.06 ppb	11:22:49
3	Si 251.611†	88130.9	85749.1	2406.3 ug/L	2406.3 ppb	11:22:29
3	Sn 189.927†	3323.7	3252.2	488.32 ug/L	488.32 ppb	11:22:49
3	Ti 334.940†	340568.9	334984.2	484.20 ug/L	484.20 ppb	11:22:24
3	Tl 190.801†	1892.8	1902.1	496.59 ug/L	496.59 ppb	11:22:49
3	U 409.014†	15463.1	17518.8	481.12 ug/L	481.12 ppb	11:22:29
3	V 292.402†	76385.7	76291.3	491.76 ug/L	491.76 ppb	11:22:29
3	Zn 213.857†	61617.6	59562.6	484.15 ug/L	484.15 ppb	11:22:29
3	SiO2†	88704.5	86281.8	5198.9 ug/L	5198.9 ppb	11:23:05

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	917048.5	102.02	%	0.065				0.06%
Sc Radial	5570.3	100	%	2.3				2.32%
Y 371.029	746790.9	100.31	%	0.134				0.13%
Y RADIAL	5918.0	100.1	%	2.19				2.18%
Ag 328.068†	112732.1	488.94	ug/L	3.439	488.94	ppb	3.439	0.70%
QC value within limits for Ag 328.068 Recovery = 97.79%								
Al 396.153Radial†	6775.3	4916.0	ug/L	9.77	4916.0	ppb	9.77	0.20%
QC value within limits for Al 396.153Radial Recovery = 98.32%								
As 188.979†	1354.2	495.84	ug/L	3.528	495.84	ppb	3.528	0.71%
QC value within limits for As 188.979 Recovery = 99.17%								
B 249.677†	23441.4	479.16	ug/L	3.382	479.16	ppb	3.382	0.71%
QC value within limits for B 249.677 Recovery = 95.83%								
Ba 233.527†	72099.4	491.31	ug/L	3.048	491.31	ppb	3.048	0.62%
QC value within limits for Ba 233.527 Recovery = 98.26%								
Be 313.107†	1449137.3	486.93	ug/L	1.348	486.93	ppb	1.348	0.28%
QC value within limits for Be 313.107 Recovery = 97.39%								
Ca 317.933Radial†	3481.1	4963.1	ug/L	139.17	4963.1	ppb	139.17	2.80%

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   QC value within limits for Ca 317.933Radial  Recovery = 99.26%
Cd 226.502†            50231.9      491.07 ug/L        3.356      491.07 ppb        3.356   0.68%
   QC value within limits for Cd 226.502  Recovery = 98.21%
Co 228.616†            28103.6      492.10 ug/L        3.288      492.10 ppb        3.288   0.67%
   QC value within limits for Co 228.616  Recovery = 98.42%
Cr 267.716†            48285.5      490.34 ug/L        3.029      490.34 ppb        3.029   0.62%
   QC value within limits for Cr 267.716  Recovery = 98.07%
Cu 324.752†           172396.9      487.34 ug/L        4.004      487.34 ppb        4.004   0.82%
   QC value within limits for Cu 324.752  Recovery = 97.47%
Fe 238.204 Radial†       605.8      5051.9 ug/L      168.05      5051.9 ppb      168.05   3.33%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.04%
K 766.490 Radial†      28262.2      4972.7 ug/L       31.32      4972.7 ppb       31.32   0.63%
   QC value within limits for K 766.490 Radial  Recovery = 99.45%
Mg 279.077 IEC†          166.3      5169.9 ug/L      129.15      5169.9 ppb      129.15   2.50%
   QC value within limits for Mg 279.077 IEC  Recovery = 103.40%
Mn 257.610†           495082.0      488.74 ug/L        1.132      488.74 ppb        1.132   0.23%
   QC value within limits for Mn 257.610  Recovery = 97.75%
Mo 202.031†             8027.4      486.26 ug/L        1.569      486.26 ppb        1.569   0.32%
   QC value within limits for Mo 202.031  Recovery = 97.25%
Na 589.592 Radial†     33207.8      9911.6 ug/L       43.10      9911.6 ppb       43.10   0.43%
   QC value within limits for Na 589.592 Radial  Recovery = 99.12%
Ni 231.604†            22535.9      492.07 ug/L        2.984      492.07 ppb        2.984   0.61%
   QC value within limits for Ni 231.604  Recovery = 98.41%
P 214.914†              4665.6      2359.9 ug/L        7.31      2359.9 ppb         7.31   0.31%
   QC value within limits for P 214.914  Recovery = 94.39%
Pb 220.353†             4626.8      489.07 ug/L        0.969      489.07 ppb        0.969   0.20%
   QC value within limits for Pb 220.353  Recovery = 97.81%
S 181.975 Axial†         794.1      973.24 ug/L        8.036      973.24 ppb        8.036   0.83%
   QC value within limits for S 181.975 Axial  Recovery = 97.32%
Sb 206.836†             1630.4      495.42 ug/L        4.675      495.42 ppb        4.675   0.94%
   QC value within limits for Sb 206.836  Recovery = 99.08%
Se 196.026†              900.4      508.12 ug/L        5.260      508.12 ppb        5.260   1.04%
   QC value within limits for Se 196.026  Recovery = 101.62%
Si 251.611†            86208.7      2419.3 ug/L       17.04      2419.3 ppb       17.04   0.70%
   QC value within limits for Si 251.611  Recovery = 96.77%
Sn 189.927†             3247.3      487.60 ug/L        1.022      487.60 ppb        1.022   0.21%
   QC value within limits for Sn 189.927  Recovery = 97.52%
Sr 421.552†            85745.8      502.76 ug/L        1.725      502.76 ppb        1.725   0.34%
   QC value within limits for Sr 421.552  Recovery = 100.55%
Ti 334.940†           334572.4      483.61 ug/L        1.187      483.61 ppb        1.187   0.25%
   QC value within limits for Ti 334.940  Recovery = 96.72%
Tl 190.801†             1893.2      494.25 ug/L        3.114      494.25 ppb        3.114   0.63%
   QC value within limits for Tl 190.801  Recovery = 98.85%
U 409.014†             17632.4      484.23 ug/L        5.893      484.23 ppb        5.893   1.22%
   QC value within limits for U 409.014  Recovery = 96.85%
V 292.402†             76766.6      494.77 ug/L        4.075      494.77 ppb        4.075   0.82%
   QC value within limits for V 292.402  Recovery = 98.95%
Zn 213.857†            59883.3      486.74 ug/L        3.408      486.74 ppb        3.408   0.70%
   QC value within limits for Zn 213.857  Recovery = 97.35%
SiO2†                  86407.3      5206.5 ug/L       28.89      5206.5 ppb       28.89   0.55%
   QC value within limits for SiO2  Recovery = 97.36%
All analyte(s) passed QC.
```

Sequence No.: 9
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 12/19/2009 11:25:14
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5786.9	5786.9	104	%			11:27:07
1	Y RADIAL	6211.1	6211.1	105.1	%			11:27:07
1	Al 396.153Radial†	-13.6	3.3	2.3976	ug/L	2.3976	ppb	11:27:07
1	Ca 317.933Radial†	20.0	-0.4	-0.5254	ug/L	-0.5254	ppb	11:27:27
1	Fe 238.204 Radial†	8.5	-2.7	-22.205	ug/L	-22.205	ppb	11:27:27
1	K 766.490 Radial†	2909.0	86.1	15.173	ug/L	15.173	ppb	11:27:07
1	Mg 279.077 IEC†	1.6	0.2	5.7970	ug/L	5.7970	ppb	11:27:27
1	Na 589.592 Radial†	-745.9	44.1	13.159	ug/L	13.159	ppb	11:27:07
1	Sr 421.552†	31.8	42.4	0.2485	ug/L	0.2485	ppb	11:27:07
1	Sc 361.383	920098.0	920098.0	102.36	%			11:28:24
1	Y 371.029	759500.4	759500.4	102.02	%			11:28:24
1	Ag 328.068†	450.4	70.1	0.2915	ug/L	0.2915	ppb	11:28:29
1	As 188.979†	-23.0	12.3	4.4752	ug/L	4.4752	ppb	11:28:49
1	B 249.677†	-165.7	-135.9	-2.7865	ug/L	-2.7865	ppb	11:28:29
1	Ba 233.527†	1.0	3.6	0.0232	ug/L	0.0232	ppb	11:28:49
1	Be 313.107†	-4674.8	164.0	0.0549	ug/L	0.0549	ppb	11:28:29
1	Cd 226.502†	-217.2	17.0	0.1688	ug/L	0.1688	ppb	11:28:49
1	Co 228.616†	-94.8	-5.5	-0.0947	ug/L	-0.0947	ppb	11:28:49
1	Cr 267.716†	99.9	17.4	0.1751	ug/L	0.1751	ppb	11:28:49
1	Cu 324.752†	6107.3	-88.9	-0.2522	ug/L	-0.2522	ppb	11:28:29
1	Mn 257.610†	509.9	6.7	0.0043	ug/L	0.0043	ppb	11:28:49
1	Mo 202.031†	24.3	3.8	0.2298	ug/L	0.2298	ppb	11:28:49
1	Ni 231.604†	110.4	14.3	0.3127	ug/L	0.3127	ppb	11:28:49
1	P 214.914†	246.3	-17.4	-9.0232	ug/L	-9.0232	ppb	11:28:49
1	Pb 220.353†	-65.7	-0.1	-0.0085	ug/L	-0.0085	ppb	11:28:49
1	S 181.975 Axial†	47.2	-2.9	-3.5365	ug/L	-3.5365	ppb	11:28:49
1	Sb 206.836†	46.1	3.8	1.1615	ug/L	1.1615	ppb	11:28:49
1	Se 196.026†	-16.5	12.4	6.7024	ug/L	6.7024	ppb	11:28:49
1	Si 251.611†	655.4	62.8	1.7600	ug/L	1.7600	ppb	11:28:49
1	Sn 189.927†	7.9	4.2	0.6307	ug/L	0.6307	ppb	11:28:49
1	Ti 334.940†	-1460.0	-38.8	-0.0577	ug/L	-0.0577	ppb	11:28:29
1	Tl 190.801†	-45.0	4.1	1.0652	ug/L	1.0652	ppb	11:28:49
1	U 409.014†	-2298.8	126.3	3.4832	ug/L	3.4832	ppb	11:28:24
1	V 292.402†	-1519.5	-15.1	-0.0825	ug/L	-0.0825	ppb	11:28:29
1	Zn 213.857†	830.6	17.9	0.1469	ug/L	0.1469	ppb	11:28:49
1	SiO2†	673.9	51.8	3.1098	ug/L	3.1098	ppb	11:29:55
2	Sc Radial	5493.8	5493.8	98.7	%			11:27:32
2	Y RADIAL	5877.2	5877.2	99.42	%			11:27:32
2	Al 396.153Radial†	-23.5	-7.5	-5.4602	ug/L	-5.4602	ppb	11:27:32
2	Ca 317.933Radial†	23.6	4.3	6.1521	ug/L	6.1521	ppb	11:27:52
2	Fe 238.204 Radial†	8.8	-2.0	-16.372	ug/L	-16.372	ppb	11:27:52
2	K 766.490 Radial†	2863.7	189.5	33.406	ug/L	33.406	ppb	11:27:32
2	Mg 279.077 IEC†	-0.1	-1.5	-46.795	ug/L	-46.795	ppb	11:27:52
2	Na 589.592 Radial†	-798.6	-47.6	-14.215	ug/L	-14.215	ppb	11:27:32
2	Sr 421.552†	-0.1	11.7	0.0687	ug/L	0.0687	ppb	11:27:32
2	Sc 361.383	932950.6	932950.6	103.79	%			11:28:54
2	Y 371.029	769916.6	769916.6	103.42	%			11:28:54
2	Ag 328.068†	331.1	-50.9	-0.2244	ug/L	-0.2244	ppb	11:28:59
2	As 188.979†	-28.2	7.7	2.7909	ug/L	2.7909	ppb	11:29:19
2	B 249.677†	-172.9	-140.6	-2.8839	ug/L	-2.8839	ppb	11:28:59
2	Ba 233.527†	14.4	16.5	0.1129	ug/L	0.1129	ppb	11:29:19
2	Be 313.107†	-4707.0	195.9	0.0662	ug/L	0.0662	ppb	11:28:59
2	Cd 226.502†	-228.8	8.8	0.0876	ug/L	0.0876	ppb	11:29:19
2	Co 228.616†	-80.1	9.9	0.1731	ug/L	0.1731	ppb	11:29:19
2	Cr 267.716†	97.1	13.4	0.1358	ug/L	0.1358	ppb	11:29:19
2	Cu 324.752†	6176.2	-104.7	-0.2966	ug/L	-0.2966	ppb	11:28:59
2	Mn 257.610†	514.9	4.7	0.0038	ug/L	0.0038	ppb	11:29:19
2	Mo 202.031†	23.7	2.9	0.1773	ug/L	0.1773	ppb	11:29:19
2	Ni 231.604†	116.5	18.6	0.4072	ug/L	0.4072	ppb	11:29:19

2	P 214.914†	255.3	-12.1	-6.2696	ug/L	-6.2696 ppb	11:29:19
2	Pb 220.353†	-85.1	-17.9	-1.8845	ug/L	-1.8845 ppb	11:29:19
2	S 181.975 Axial†	53.2	2.3	2.8069	ug/L	2.8069 ppb	11:29:19
2	Sb 206.836†	46.1	3.2	0.9731	ug/L	0.9731 ppb	11:29:19
2	Se 196.026†	-23.6	5.7	3.0783	ug/L	3.0783 ppb	11:29:19
2	Si 251.611†	674.1	72.0	2.0160	ug/L	2.0160 ppb	11:29:19
2	Sn 189.927†	3.4	-0.2	-0.0278	ug/L	-0.0278 ppb	11:29:19
2	Ti 334.940†	-1257.2	176.3	0.2541	ug/L	0.2541 ppb	11:28:59
2	Tl 190.801†	-29.7	19.5	5.0552	ug/L	5.0552 ppb	11:29:19
2	U 409.014†	-2378.3	80.7	2.2239	ug/L	2.2239 ppb	11:28:54
2	V 292.402†	-1432.4	89.3	0.5757	ug/L	0.5757 ppb	11:28:59
2	Zn 213.857†	835.7	11.7	0.0969	ug/L	0.0969 ppb	11:29:19
2	SiO2†	657.8	27.1	1.6110	ug/L	1.6110 ppb	11:30:00
3	Sc Radial	5582.7	5582.7	100	%		11:27:57
3	Y RADIAL	5973.3	5973.3	101.0	%		11:27:57
3	Al 396.153Radial†	-27.6	-11.1	-8.1077	ug/L	-8.1077 ppb	11:27:57
3	Ca 317.933Radial†	22.1	2.5	3.4951	ug/L	3.4951 ppb	11:28:17
3	Fe 238.204 Radial†	8.6	-2.3	-19.379	ug/L	-19.379 ppb	11:28:17
3	K 766.490 Radial†	2871.3	150.9	26.599	ug/L	26.599 ppb	11:27:57
3	Mg 279.077 IEC†	2.1	0.7	21.435	ug/L	21.435 ppb	11:28:17
3	Na 589.592 Radial†	-742.1	21.6	6.4454	ug/L	6.4454 ppb	11:27:57
3	Sr 421.552†	1.0	12.8	0.0751	ug/L	0.0751 ppb	11:27:57
3	Sc 361.383	924411.0	924411.0	102.84	%		11:29:24
3	Y 371.029	763846.5	763846.5	102.60	%		11:29:24
3	Ag 328.068†	443.5	61.3	0.2572	ug/L	0.2572 ppb	11:29:29
3	As 188.979†	-31.3	4.4	1.6015	ug/L	1.6015 ppb	11:29:50
3	B 249.677†	-203.8	-172.2	-3.5324	ug/L	-3.5324 ppb	11:29:29
3	Ba 233.527†	-0.3	2.3	0.0146	ug/L	0.0146 ppb	11:29:50
3	Be 313.107†	-4636.9	222.1	0.0745	ug/L	0.0745 ppb	11:29:29
3	Cd 226.502†	-209.1	25.8	0.2550	ug/L	0.2550 ppb	11:29:50
3	Co 228.616†	-79.8	9.5	0.1679	ug/L	0.1679 ppb	11:29:50
3	Cr 267.716†	91.5	8.8	0.0890	ug/L	0.0890 ppb	11:29:50
3	Cu 324.752†	6095.3	-128.4	-0.3638	ug/L	-0.3638 ppb	11:29:29
3	Mn 257.610†	496.6	-8.6	-0.0108	ug/L	-0.0108 ppb	11:29:50
3	Mo 202.031†	24.5	3.9	0.2363	ug/L	0.2363 ppb	11:29:50
3	Ni 231.604†	124.6	27.6	0.6032	ug/L	0.6032 ppb	11:29:50
3	P 214.914†	241.0	-23.7	-12.278	ug/L	-12.278 ppb	11:29:50
3	Pb 220.353†	-68.3	-2.3	-0.2446	ug/L	-0.2446 ppb	11:29:50
3	S 181.975 Axial†	49.4	-1.0	-1.1990	ug/L	-1.1990 ppb	11:29:50
3	Sb 206.836†	38.4	-3.9	-1.1428	ug/L	-1.1428 ppb	11:29:50
3	Se 196.026†	-32.8	-3.4	-1.8896	ug/L	-1.8896 ppb	11:29:50
3	Si 251.611†	645.4	50.2	1.3993	ug/L	1.3993 ppb	11:29:50
3	Sn 189.927†	8.8	5.1	0.7600	ug/L	0.7600 ppb	11:29:50
3	Ti 334.940†	-1413.8	12.8	0.0186	ug/L	0.0186 ppb	11:29:29
3	Tl 190.801†	-31.6	17.4	4.5038	ug/L	4.5038 ppb	11:29:50
3	U 409.014†	-2432.5	6.8	0.1896	ug/L	0.1896 ppb	11:29:24
3	V 292.402†	-1530.9	-19.2	-0.1153	ug/L	-0.1153 ppb	11:29:29
3	Zn 213.857†	829.7	13.3	0.1067	ug/L	0.1067 ppb	11:29:50
3	SiO2†	695.2	69.4	4.1659	ug/L	4.1659 ppb	11:30:05

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	925819.9	102.99	%	0.728				0.71%
Sc Radial	5621.1	101	%	2.7				2.67%
Y 371.029	764421.2	102.68	%	0.703				0.68%
Y RADIAL	6020.5	101.8	%	2.91				2.85%
Ag 328.068†	26.9	0.1081	ug/L	0.28846	0.1081	ppb	0.28846	266.89%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-5.1	-3.7234	ug/L	5.46373	-3.7234	ppb	5.46373	146.74%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	8.1	2.9558	ug/L	1.44394	2.9558	ppb	1.44394	48.85%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-149.6	-3.0676	ug/L	0.40543	-3.0676	ppb	0.40543	13.22%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	7.5	0.0502	ug/L	0.05441	0.0502	ppb	0.05441	108.31%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	194.0	0.0652	ug/L	0.00985	0.0652	ppb	0.00985	15.11%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	2.1	3.0406	ug/L	3.36188	3.0406	ppb	3.36188	110.57%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                17.2      0.1705 ug/L       0.08368      0.1705 ppb        0.08368  49.09%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                 4.7      0.0821 ug/L       0.15314      0.0821 ppb        0.15314 186.58%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                13.2      0.1333 ug/L       0.04310      0.1333 ppb        0.04310  32.34%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -107.3     -0.3042 ug/L       0.05618     -0.3042 ppb        0.05618  18.47%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -2.3     -19.319 ug/L        2.9168     -19.319 ppb         2.9168  15.10%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         142.2      25.060 ug/L        9.2134      25.060 ppb         9.2134  36.77%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -0.2     -6.5210 ug/L      35.74393     -6.5210 ppb       35.74393 548.14%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                 0.9     -0.0009 ug/L       0.00858     -0.0009 ppb        0.00858 966.34%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 3.6      0.2145 ug/L       0.03235      0.2145 ppb        0.03235  15.09%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†          6.0      1.7964 ug/L      14.26729      1.7964 ppb       14.26729 794.21%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                20.2      0.4410 ug/L       0.14815      0.4410 ppb        0.14815  33.59%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -17.8     -9.1903 ug/L       3.00774     -9.1903 ppb        3.00774  32.73%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -6.8     -0.7125 ug/L       1.02183     -0.7125 ppb        1.02183 143.41%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -0.5     -0.6429 ug/L       3.20807     -0.6429 ppb        3.20807 499.04%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 1.1      0.3306 ug/L       1.27945      0.3306 ppb        1.27945 387.00%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 4.9      2.6304 ug/L       4.31348      2.6304 ppb        4.31348 163.99%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                61.7      1.7251 ug/L       0.30985      1.7251 ppb        0.30985  17.96%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 3.0      0.4543 ug/L       0.42248      0.4543 ppb        0.42248  93.00%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                22.3      0.1307 ug/L       0.10201      0.1307 ppb        0.10201  78.02%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                50.1      0.0717 ug/L       0.16255      0.0717 ppb        0.16255 226.72%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                13.7      3.5414 ug/L       2.16211      3.5414 ppb        2.16211  61.05%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 71.3      1.9656 ug/L       1.66196      1.9656 ppb        1.66196  84.55%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 18.3      0.1260 ug/L       0.38983      0.1260 ppb        0.38983 309.44%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                14.3      0.1168 ug/L       0.02648      0.1168 ppb        0.02648  22.67%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                      49.4      2.9623 ug/L       1.28387      2.9623 ppb        1.28387  43.34%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 6
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 12/19/2009 12:04:19
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	5215.8	5215.8	93.7	%			12:06:11
1	Y RADIAL	5527.1	5527.1	93.50	%			12:06:11
1	Al 396.153Radial†	6909.2	7391.2	5364.7	ug/L	5364.7	ppb	12:06:11
1	Ca 317.933Radial†	3510.2	3727.1	5313.9	ug/L	5313.9	ppb	12:06:31
1	Fe 238.204 Radial†	609.7	639.9	5335.1	ug/L	5335.1	ppb	12:06:31
1	K 766.490 Radial†	31496.3	30906.3	5438.5	ug/L	5438.5	ppb	12:06:11
1	Mg 279.077 IEC†	166.6	176.4	5483.7	ug/L	5483.7	ppb	12:06:31
1	Na 589.592 Radial†	31745.8	34646.7	10341	ug/L	10341	ppb	12:06:11
1	Sr 421.552†	85549.9	91326.6	535.48	ug/L	535.48	ppb	12:06:11
1	Sc 361.383	922665.3	922665.3	102.64	%			12:07:30
1	Y 371.029	750972.1	750972.1	100.87	%			12:07:30
1	Ag 328.068†	116484.3	113115.2	490.70	ug/L	490.70	ppb	12:07:30
1	As 188.979†	1340.6	1340.9	491.12	ug/L	491.12	ppb	12:07:51
1	B 249.677†	24009.9	23417.7	478.66	ug/L	478.66	ppb	12:07:30
1	Ba 233.527†	74481.1	72566.0	494.49	ug/L	494.49	ppb	12:07:30
1	Be 313.107†	1497392.4	1463569.3	491.78	ug/L	491.78	ppb	12:07:30
1	Cd 226.502†	51605.6	50506.0	493.72	ug/L	493.72	ppb	12:07:30
1	Co 228.616†	28258.7	27618.2	483.60	ug/L	483.60	ppb	12:07:51
1	Cr 267.716†	49853.3	48489.6	492.42	ug/L	492.42	ppb	12:07:30
1	Cu 324.752†	185199.2	174375.2	492.95	ug/L	492.95	ppb	12:07:30
1	Mn 257.610†	512893.1	499195.8	492.82	ug/L	492.82	ppb	12:07:30
1	Mo 202.031†	8311.0	8077.1	489.30	ug/L	489.30	ppb	12:07:51
1	Ni 231.604†	22987.9	22302.4	486.98	ug/L	486.98	ppb	12:07:51
1	P 214.914†	5057.4	4669.1	2360.7	ug/L	2360.7	ppb	12:07:51
1	Pb 220.353†	4753.4	4695.1	496.35	ug/L	496.35	ppb	12:07:51
1	S 181.975 Axial†	861.2	790.0	968.09	ug/L	968.09	ppb	12:07:51
1	Sb 206.836†	1713.8	1628.4	494.85	ug/L	494.85	ppb	12:07:51
1	Se 196.026†	892.2	897.7	507.56	ug/L	507.56	ppb	12:07:51
1	Si 251.611†	89480.6	86599.2	2430.1	ug/L	2430.1	ppb	12:07:30
1	Sn 189.927†	3346.8	3257.1	489.12	ug/L	489.12	ppb	12:07:51
1	Ti 334.940†	345381.4	337876.2	488.41	ug/L	488.41	ppb	12:07:30
1	Tl 190.801†	1895.8	1895.1	494.87	ug/L	494.87	ppb	12:07:51
1	U 409.014†	14940.5	16928.0	464.78	ug/L	464.78	ppb	12:07:30
1	V 292.402†	77525.9	76999.2	496.21	ug/L	496.21	ppb	12:07:30
1	Zn 213.857†	62585.1	60180.2	489.17	ug/L	489.17	ppb	12:07:30
1	SiO2†	88749.6	85857.8	5172.8	ug/L	5172.8	ppb	12:08:51
2	Sc Radial	5269.7	5269.7	94.7	%			12:06:37
2	Y RADIAL	5569.7	5569.7	94.22	%			12:06:37
2	Al 396.153Radial†	6560.4	6947.3	5041.1	ug/L	5041.1	ppb	12:06:37
2	Ca 317.933Radial†	3456.5	3632.1	5178.5	ug/L	5178.5	ppb	12:06:57
2	Fe 238.204 Radial†	606.9	630.3	5254.7	ug/L	5254.7	ppb	12:06:57
2	K 766.490 Radial†	30150.8	29141.2	5127.6	ug/L	5127.6	ppb	12:06:37
2	Mg 279.077 IEC†	164.0	171.8	5340.7	ug/L	5340.7	ppb	12:06:57
2	Na 589.592 Radial†	30075.4	32535.7	9711.0	ug/L	9711.0	ppb	12:06:37
2	Sr 421.552†	81101.4	85693.8	502.45	ug/L	502.45	ppb	12:06:37
2	Sc 361.383	921073.8	921073.8	102.47	%			12:07:58
2	Y 371.029	750272.1	750272.1	100.78	%			12:07:58
2	Ag 328.068†	115776.1	112620.1	488.54	ug/L	488.54	ppb	12:07:58
2	As 188.979†	1363.7	1365.7	500.08	ug/L	500.08	ppb	12:08:18
2	B 249.677†	23799.3	23252.5	475.27	ug/L	475.27	ppb	12:07:58
2	Ba 233.527†	74377.2	72590.0	494.65	ug/L	494.65	ppb	12:07:58
2	Be 313.107†	1495290.2	1464038.3	491.94	ug/L	491.94	ppb	12:07:58
2	Cd 226.502†	51508.3	50498.0	493.65	ug/L	493.65	ppb	12:07:58
2	Co 228.616†	28382.1	27786.2	486.55	ug/L	486.55	ppb	12:08:18
2	Cr 267.716†	49814.0	48535.1	492.88	ug/L	492.88	ppb	12:07:58
2	Cu 324.752†	183902.9	173421.8	490.25	ug/L	490.25	ppb	12:07:58
2	Mn 257.610†	511766.6	498959.8	492.58	ug/L	492.58	ppb	12:07:58
2	Mo 202.031†	8348.8	8128.0	492.37	ug/L	492.37	ppb	12:08:18
2	Ni 231.604†	23046.5	22398.3	489.07	ug/L	489.07	ppb	12:08:18

2	P 214.914†	5077.3	4697.0	2375.7 ug/L	2375.7 ppb	12:08:18
2	Pb 220.353†	4747.1	4697.0	496.49 ug/L	496.49 ppb	12:08:18
2	S 181.975 Axial†	861.5	791.7	970.31 ug/L	970.31 ppb	12:08:18
2	Sb 206.836†	1724.5	1641.8	498.91 ug/L	498.91 ppb	12:08:18
2	Se 196.026†	893.9	900.9	509.02 ug/L	509.02 ppb	12:08:18
2	Si 251.611†	89040.6	86320.5	2422.3 ug/L	2422.3 ppb	12:07:58
2	Sn 189.927†	3336.3	3252.6	488.42 ug/L	488.42 ppb	12:08:18
2	Ti 334.940†	343776.3	336891.2	486.98 ug/L	486.98 ppb	12:07:58
2	Tl 190.801†	1892.2	1894.7	494.74 ug/L	494.74 ppb	12:08:18
2	U 409.014†	15005.0	17016.1	467.22 ug/L	467.22 ppb	12:07:58
2	V 292.402†	77237.3	76848.1	495.31 ug/L	495.31 ppb	12:07:58
2	Zn 213.857†	62496.6	60199.1	489.32 ug/L	489.32 ppb	12:07:58
2	SiO2†	89491.5	86731.3	5225.8 ug/L	5225.8 ppb	12:08:56
3	Sc Radial	5538.8	5538.8	99.5 %		12:07:02
3	Y RADIAL	5842.5	5842.5	98.83 %		12:07:02
3	Al 396.153Radial†	6787.9	6839.2	4962.3 ug/L	4962.3 ppb	12:07:02
3	Ca 317.933Radial†	3443.5	3441.6	4906.8 ug/L	4906.8 ppb	12:07:22
3	Fe 238.204 Radial†	600.6	592.8	4943.6 ug/L	4943.6 ppb	12:07:22
3	K 766.490 Radial†	31132.6	28580.4	5028.9 ug/L	5028.9 ppb	12:07:02
3	Mg 279.077 IEC†	165.4	164.8	5124.3 ug/L	5124.3 ppb	12:07:22
3	Na 589.592 Radial†	31114.0	32035.9	9561.8 ug/L	9561.8 ppb	12:07:02
3	Sr 421.552†	84223.2	84668.6	496.44 ug/L	496.44 ppb	12:07:02
3	Sc 361.383	916829.3	916829.3	101.99 %		12:08:25
3	Y 371.029	745650.2	745650.2	100.16 %		12:08:25
3	Ag 328.068†	115388.8	112763.5	489.06 ug/L	489.06 ppb	12:08:25
3	As 188.979†	1356.3	1364.6	499.63 ug/L	499.63 ppb	12:08:46
3	B 249.677†	23822.2	23382.6	477.98 ug/L	477.98 ppb	12:08:25
3	Ba 233.527†	74079.4	72634.0	494.94 ug/L	494.94 ppb	12:08:25
3	Be 313.107†	1484645.3	1460357.4	490.70 ug/L	490.70 ppb	12:08:25
3	Cd 226.502†	51428.0	50652.0	495.19 ug/L	495.19 ppb	12:08:25
3	Co 228.616†	28390.9	27923.1	488.95 ug/L	488.95 ppb	12:08:46
3	Cr 267.716†	49534.4	48486.1	492.38 ug/L	492.38 ppb	12:08:25
3	Cu 324.752†	183066.0	173432.2	490.26 ug/L	490.26 ppb	12:08:25
3	Mn 257.610†	510397.0	499929.3	493.51 ug/L	493.51 ppb	12:08:25
3	Mo 202.031†	8336.9	8154.1	493.93 ug/L	493.93 ppb	12:08:46
3	Ni 231.604†	23037.5	22493.6	491.15 ug/L	491.15 ppb	12:08:46
3	P 214.914†	5077.5	4720.2	2388.0 ug/L	2388.0 ppb	12:08:46
3	Pb 220.353†	4752.7	4723.8	499.33 ug/L	499.33 ppb	12:08:46
3	S 181.975 Axial†	873.3	807.2	989.28 ug/L	989.28 ppb	12:08:46
3	Sb 206.836†	1729.6	1654.5	502.85 ug/L	502.85 ppb	12:08:46
3	Se 196.026†	904.0	914.9	515.70 ug/L	515.70 ppb	12:08:46
3	Si 251.611†	88849.4	86535.3	2428.3 ug/L	2428.3 ppb	12:08:25
3	Sn 189.927†	3349.7	3280.8	492.62 ug/L	492.62 ppb	12:08:46
3	Ti 334.940†	342691.2	337380.5	487.68 ug/L	487.68 ppb	12:08:25
3	Tl 190.801†	1901.9	1912.8	499.41 ug/L	499.41 ppb	12:08:46
3	U 409.014†	14842.2	16924.3	464.73 ug/L	464.73 ppb	12:08:25
3	V 292.402†	76938.6	76904.2	495.73 ug/L	495.73 ppb	12:08:25
3	Zn 213.857†	62308.9	60297.4	490.15 ug/L	490.15 ppb	12:08:25
3	SiO2†	87638.2	85318.6	5140.2 ug/L	5140.2 ppb	12:09:01

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	920189.5	102.37	%	0.336				0.33%
Sc Radial	5341.4	95.9	%	3.11				3.24%
Y 371.029	748964.8	100.60	%	0.388				0.39%
Y RADIAL	5646.4	95.52	%	2.895				3.03%
Ag 328.068†	112832.9	489.43	ug/L	1.130	489.43	ppb	1.130	0.23%
QC value within limits for Ag 328.068 Recovery = 97.89%								
Al 396.153Radial†	7059.2	5122.7	ug/L	213.25	5122.7	ppb	213.25	4.16%
QC value within limits for Al 396.153Radial Recovery = 102.45%								
As 188.979†	1357.1	496.94	ug/L	5.048	496.94	ppb	5.048	1.02%
QC value within limits for As 188.979 Recovery = 99.39%								
B 249.677†	23350.9	477.30	ug/L	1.791	477.30	ppb	1.791	0.38%
QC value within limits for B 249.677 Recovery = 95.46%								
Ba 233.527†	72596.7	494.69	ug/L	0.226	494.69	ppb	0.226	0.05%
QC value within limits for Ba 233.527 Recovery = 98.94%								
Be 313.107†	1462655.0	491.48	ug/L	0.672	491.48	ppb	0.672	0.14%
QC value within limits for Be 313.107 Recovery = 98.30%								
Ca 317.933Radial†	3600.3	5133.0	ug/L	207.31	5133.0	ppb	207.31	4.04%

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   QC value within limits for Ca 317.933Radial  Recovery = 102.66%
Cd 226.502†            50552.0      494.19 ug/L        0.869      494.19 ppb        0.869   0.18%
   QC value within limits for Cd 226.502  Recovery = 98.84%
Co 228.616†            27775.8      486.37 ug/L        2.682      486.37 ppb        2.682   0.55%
   QC value within limits for Co 228.616  Recovery = 97.27%
Cr 267.716†            48503.6      492.56 ug/L        0.278      492.56 ppb        0.278   0.06%
   QC value within limits for Cr 267.716  Recovery = 98.51%
Cu 324.752†           173743.1      491.15 ug/L        1.554      491.15 ppb        1.554   0.32%
   QC value within limits for Cu 324.752  Recovery = 98.23%
Fe 238.204 Radial†       621.0      5177.8 ug/L      206.78      5177.8 ppb      206.78   3.99%
   QC value within limits for Fe 238.204 Radial  Recovery = 103.56%
K 766.490 Radial†      29542.7      5198.3 ug/L      213.75      5198.3 ppb      213.75   4.11%
   QC value within limits for K 766.490 Radial  Recovery = 103.97%
Mg 279.077 IEC†          171.0      5316.2 ug/L      180.96      5316.2 ppb      180.96   3.40%
   QC value within limits for Mg 279.077 IEC  Recovery = 106.32%
Mn 257.610†           499361.7      492.97 ug/L        0.483      492.97 ppb        0.483   0.10%
   QC value within limits for Mn 257.610  Recovery = 98.59%
Mo 202.031†             8119.7      491.87 ug/L        2.357      491.87 ppb        2.357   0.48%
   QC value within limits for Mo 202.031  Recovery = 98.37%
Na 589.592 Radial†     33072.8      9871.3 ug/L      413.63      9871.3 ppb      413.63   4.19%
   QC value within limits for Na 589.592 Radial  Recovery = 98.71%
Ni 231.604†            22398.1      489.07 ug/L        2.087      489.07 ppb        2.087   0.43%
   QC value within limits for Ni 231.604  Recovery = 97.81%
P 214.914†              4695.4      2374.8 ug/L       13.67      2374.8 ppb       13.67   0.58%
   QC value within limits for P 214.914  Recovery = 94.99%
Pb 220.353†             4705.3      497.39 ug/L        1.684      497.39 ppb        1.684   0.34%
   QC value within limits for Pb 220.353  Recovery = 99.48%
S 181.975 Axial†         796.3      975.89 ug/L       11.649      975.89 ppb       11.649   1.19%
   QC value within limits for S 181.975 Axial  Recovery = 97.59%
Sb 206.836†             1641.6      498.87 ug/L        3.996      498.87 ppb        3.996   0.80%
   QC value within limits for Sb 206.836  Recovery = 99.77%
Se 196.026†              904.5      510.76 ug/L        4.338      510.76 ppb        4.338   0.85%
   QC value within limits for Se 196.026  Recovery = 102.15%
Si 251.611†            86485.0      2426.9 ug/L         4.10      2426.9 ppb         4.10   0.17%
   QC value within limits for Si 251.611  Recovery = 97.08%
Sn 189.927†             3263.5      490.05 ug/L        2.250      490.05 ppb        2.250   0.46%
   QC value within limits for Sn 189.927  Recovery = 98.01%
Sr 421.552†            87229.7      511.46 ug/L       21.020      511.46 ppb       21.020   4.11%
   QC value within limits for Sr 421.552  Recovery = 102.29%
Ti 334.940†           337382.7      487.69 ug/L        0.716      487.69 ppb        0.716   0.15%
   QC value within limits for Ti 334.940  Recovery = 97.54%
Tl 190.801†             1900.9      496.34 ug/L        2.661      496.34 ppb        2.661   0.54%
   QC value within limits for Tl 190.801  Recovery = 99.27%
U 409.014†             16956.2      465.58 ug/L        1.422      465.58 ppb        1.422   0.31%
   QC value within limits for U 409.014  Recovery = 93.12%
V 292.402†             76917.2      495.75 ug/L        0.452      495.75 ppb        0.452   0.09%
   QC value within limits for V 292.402  Recovery = 99.15%
Zn 213.857†            60225.6      489.55 ug/L        0.531      489.55 ppb        0.531   0.11%
   QC value within limits for Zn 213.857  Recovery = 97.91%
SiO2†                  85969.2      5179.6 ug/L       43.18      5179.6 ppb       43.18   0.83%
   QC value within limits for SiO2  Recovery = 96.86%
All analyte(s) passed QC.
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Sequence No.: 7
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 12/19/2009 12:11:12
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	5707.4	5707.4	103	%			12:13:04
1	Y RADIAL	6104.4	6104.4	103.3	%			12:13:04
1	Al 396.153Radial†	-15.9	0.9	0.6021	ug/L	0.6021	ppb	12:13:04
1	Ca 317.933Radial†	23.9	3.8	5.3603	ug/L	5.3603	ppb	12:13:24
1	Fe 238.204 Radial†	9.6	-1.5	-12.798	ug/L	-12.798	ppb	12:13:24
1	K 766.490 Radial†	2816.2	34.7	6.1053	ug/L	6.1053	ppb	12:13:04
1	Mg 279.077 IEC†	0.2	-1.2	-37.921	ug/L	-37.921	ppb	12:13:24
1	Na 589.592 Radial†	-755.3	24.9	7.4376	ug/L	7.4376	ppb	12:13:04
1	Sr 421.552†	44.4	55.1	0.3229	ug/L	0.3229	ppb	12:13:04
1	Sc 361.383	923666.3	923666.3	102.75	%			12:14:21
1	Y 371.029	763001.3	763001.3	102.49	%			12:14:21
1	Ag 328.068†	383.6	3.4	0.0104	ug/L	0.0104	ppb	12:14:26
1	As 188.979†	-32.8	2.9	1.0526	ug/L	1.0526	ppb	12:14:46
1	B 249.677†	-280.0	-246.6	-5.0595	ug/L	-5.0595	ppb	12:14:46
1	Ba 233.527†	-11.2	-8.3	-0.0559	ug/L	-0.0559	ppb	12:14:46
1	Be 313.107†	-4565.7	287.8	0.0970	ug/L	0.0970	ppb	12:14:26
1	Cd 226.502†	-215.3	19.7	0.1938	ug/L	0.1938	ppb	12:14:46
1	Co 228.616†	-85.1	4.3	0.0756	ug/L	0.0756	ppb	12:14:46
1	Cr 267.716†	110.2	27.1	0.2750	ug/L	0.2750	ppb	12:14:46
1	Cu 324.752†	6002.7	-213.8	-0.6046	ug/L	-0.6046	ppb	12:14:26
1	Mn 257.610†	499.3	-5.6	-0.0061	ug/L	-0.0061	ppb	12:14:46
1	Mo 202.031†	27.5	6.9	0.4151	ug/L	0.4151	ppb	12:14:46
1	Ni 231.604†	111.9	15.3	0.3345	ug/L	0.3345	ppb	12:14:46
1	P 214.914†	246.0	-18.7	-9.6664	ug/L	-9.6664	ppb	12:14:46
1	Pb 220.353†	-71.1	-5.1	-0.5352	ug/L	-0.5352	ppb	12:14:46
1	S 181.975 Axial†	46.7	-3.5	-4.3068	ug/L	-4.3068	ppb	12:14:46
1	Sb 206.836†	36.0	-6.2	-1.8699	ug/L	-1.8699	ppb	12:14:46
1	Se 196.026†	-23.2	5.9	3.1725	ug/L	3.1725	ppb	12:14:46
1	Si 251.611†	639.4	44.8	1.2550	ug/L	1.2550	ppb	12:14:46
1	Sn 189.927†	-1.3	-4.8	-0.7190	ug/L	-0.7190	ppb	12:14:46
1	Ti 334.940†	-1257.8	163.5	0.2357	ug/L	0.2357	ppb	12:14:26
1	Tl 190.801†	-46.6	2.7	0.6997	ug/L	0.6997	ppb	12:14:46
1	U 409.014†	-2355.2	80.1	2.2087	ug/L	2.2087	ppb	12:14:21
1	V 292.402†	-1429.1	78.7	0.5112	ug/L	0.5112	ppb	12:14:26
1	Zn 213.857†	826.2	10.5	0.0874	ug/L	0.0874	ppb	12:14:46
1	SiO2†	640.8	17.0	1.0147	ug/L	1.0147	ppb	12:15:52
2	Sc Radial	5660.8	5660.8	102	%			12:13:29
2	Y RADIAL	6041.7	6041.7	102.2	%			12:13:29
2	Al 396.153Radial†	-18.9	-2.2	-1.5858	ug/L	-1.5858	ppb	12:13:29
2	Ca 317.933Radial†	23.3	3.4	4.8247	ug/L	4.8247	ppb	12:13:49
2	Fe 238.204 Radial†	10.6	-0.4	-3.4825	ug/L	-3.4825	ppb	12:13:49
2	K 766.490 Radial†	2916.4	155.8	27.467	ug/L	27.467	ppb	12:13:29
2	Mg 279.077 IEC†	3.3	1.9	57.791	ug/L	57.791	ppb	12:13:49
2	Na 589.592 Radial†	-805.1	-30.2	-9.0087	ug/L	-9.0087	ppb	12:13:29
2	Sr 421.552†	28.6	40.0	0.2344	ug/L	0.2344	ppb	12:13:29
2	Sc 361.383	916990.4	916990.4	102.01	%			12:14:51
2	Y 371.029	757415.2	757415.2	101.74	%			12:14:51
2	Ag 328.068†	386.8	9.3	0.0409	ug/L	0.0409	ppb	12:14:56
2	As 188.979†	-22.8	12.4	4.5224	ug/L	4.5224	ppb	12:15:16
2	B 249.677†	-254.8	-223.9	-4.5946	ug/L	-4.5946	ppb	12:15:16
2	Ba 233.527†	11.0	13.4	0.0914	ug/L	0.0914	ppb	12:15:16
2	Be 313.107†	-4671.3	152.0	0.0513	ug/L	0.0513	ppb	12:14:56
2	Cd 226.502†	-214.5	19.0	0.1858	ug/L	0.1858	ppb	12:15:16
2	Co 228.616†	-73.7	14.9	0.2606	ug/L	0.2606	ppb	12:15:16
2	Cr 267.716†	124.4	41.8	0.4246	ug/L	0.4246	ppb	12:15:16
2	Cu 324.752†	5983.0	-190.5	-0.5385	ug/L	-0.5385	ppb	12:14:56
2	Mn 257.610†	520.1	18.4	0.0167	ug/L	0.0167	ppb	12:15:16
2	Mo 202.031†	22.4	2.1	0.1268	ug/L	0.1268	ppb	12:15:16
2	Ni 231.604†	95.7	0.3	0.0054	ug/L	0.0054	ppb	12:15:16

2	P 214.914†	251.7	-11.3	-5.8317 ug/L	-5.8317 ppb	12:15:16
2	Pb 220.353†	-59.1	6.2	0.6490 ug/L	0.6490 ppb	12:15:16
2	S 181.975 Axial†	52.5	2.5	3.0218 ug/L	3.0218 ppb	12:15:16
2	Sb 206.836†	42.7	0.7	0.1874 ug/L	0.1874 ppb	12:15:16
2	Se 196.026†	-29.6	-0.5	-0.2974 ug/L	-0.2974 ppb	12:15:16
2	Si 251.611†	613.5	23.9	0.6644 ug/L	0.6644 ppb	12:15:16
2	Sn 189.927†	2.1	-1.5	-0.2206 ug/L	-0.2206 ppb	12:15:16
2	Ti 334.940†	-1300.8	112.4	0.1635 ug/L	0.1635 ppb	12:14:56
2	Tl 190.801†	-35.7	13.0	3.3841 ug/L	3.3841 ppb	12:15:16
2	U 409.014†	-2484.9	-63.7	-1.7545 ug/L	-1.7545 ppb	12:14:51
2	V 292.402†	-1475.3	23.2	0.1477 ug/L	0.1477 ppb	12:14:56
2	Zn 213.857†	812.1	2.6	0.0201 ug/L	0.0201 ppb	12:15:16
2	SiO2†	585.9	-32.4	-1.9828 ug/L	-1.9828 ppb	12:15:57
3	Sc Radial	5627.8	5627.8	101 %		12:13:54
3	Y RADIAL	6011.7	6011.7	101.7 %		12:13:54
3	Al 396.153Radial†	-18.9	-2.3	-1.6774 ug/L	-1.6774 ppb	12:13:54
3	Ca 317.933Radial†	17.7	-2.1	-3.0092 ug/L	-3.0092 ppb	12:14:14
3	Fe 238.204 Radial†	11.5	0.5	4.3539 ug/L	4.3539 ppb	12:14:14
3	K 766.490 Radial†	2879.6	136.2	24.009 ug/L	24.009 ppb	12:13:54
3	Mg 279.077 IEC†	1.6	0.2	5.1561 ug/L	5.1561 ppb	12:14:14
3	Na 589.592 Radial†	-784.5	-14.4	-4.3064 ug/L	-4.3064 ppb	12:13:54
3	Sr 421.552†	-24.3	-12.2	-0.0717 ug/L	-0.0717 ppb	12:13:54
3	Sc 361.383	912968.1	912968.1	101.56 %		12:15:22
3	Y 371.029	753654.3	753654.3	101.23 %		12:15:22
3	Ag 328.068†	368.9	-6.7	-0.0250 ug/L	-0.0250 ppb	12:15:27
3	As 188.979†	-32.7	2.7	0.9721 ug/L	0.9721 ppb	12:15:47
3	B 249.677†	-263.1	-233.1	-4.7856 ug/L	-4.7856 ppb	12:15:47
3	Ba 233.527†	1.4	4.0	0.0283 ug/L	0.0283 ppb	12:15:47
3	Be 313.107†	-4741.8	62.4	0.0209 ug/L	0.0209 ppb	12:15:27
3	Cd 226.502†	-223.1	9.5	0.0927 ug/L	0.0927 ppb	12:15:47
3	Co 228.616†	-79.0	9.3	0.1610 ug/L	0.1610 ppb	12:15:47
3	Cr 267.716†	111.0	29.2	0.2968 ug/L	0.2968 ppb	12:15:47
3	Cu 324.752†	5984.8	-162.9	-0.4602 ug/L	-0.4602 ppb	12:15:27
3	Mn 257.610†	511.9	12.5	0.0127 ug/L	0.0127 ppb	12:15:47
3	Mo 202.031†	12.6	-7.5	-0.4514 ug/L	-0.4514 ppb	12:15:47
3	Ni 231.604†	108.8	13.5	0.2950 ug/L	0.2950 ppb	12:15:47
3	P 214.914†	261.7	-0.4	-0.1510 ug/L	-0.1510 ppb	12:15:47
3	Pb 220.353†	-83.0	-17.7	-1.8661 ug/L	-1.8661 ppb	12:15:47
3	S 181.975 Axial†	49.8	0.1	0.0691 ug/L	0.0691 ppb	12:15:47
3	Sb 206.836†	48.8	6.8	2.0403 ug/L	2.0403 ppb	12:15:47
3	Se 196.026†	-32.3	-3.3	-1.7778 ug/L	-1.7778 ppb	12:15:47
3	Si 251.611†	603.8	17.1	0.4789 ug/L	0.4789 ppb	12:15:47
3	Sn 189.927†	8.0	4.4	0.6611 ug/L	0.6611 ppb	12:15:47
3	Ti 334.940†	-1422.6	-13.1	-0.0189 ug/L	-0.0189 ppb	12:15:27
3	Tl 190.801†	-29.8	18.8	4.8639 ug/L	4.8639 ppb	12:15:47
3	U 409.014†	-2437.8	-28.0	-0.7734 ug/L	-0.7734 ppb	12:15:22
3	V 292.402†	-1424.2	67.1	0.4184 ug/L	0.4184 ppb	12:15:27
3	Zn 213.857†	821.3	15.1	0.1218 ug/L	0.1218 ppb	12:15:47
3	SiO2†	641.1	24.5	1.4804 ug/L	1.4804 ppb	12:16:02

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	917875.0	102.11	%	0.601				0.59%
Sc Radial	5665.3	102	%	0.7				0.71%
Y 371.029	758023.6	101.82	%	0.632				0.62%
Y RADIAL	6052.6	102.4	%	0.80				0.78%
Ag 328.068†	2.0	0.0088	ug/L	0.03297	0.0088	ppb	0.03297	376.67%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-1.2	-0.8870	ug/L	1.29044	-0.8870	ppb	1.29044	145.48%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	6.0	2.1824	ug/L	2.02694	2.1824	ppb	2.02694	92.88%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-234.5	-4.8133	ug/L	0.23365	-4.8133	ppb	0.23365	4.85%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	3.0	0.0213	ug/L	0.07388	0.0213	ppb	0.07388	347.62%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	167.4	0.0564	ug/L	0.03831	0.0564	ppb	0.03831	67.94%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	1.7	2.3919	ug/L	4.68517	2.3919	ppb	4.68517	195.88%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                16.0      0.1574 ug/L       0.05616      0.1574 ppb        0.05616  35.67%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                 9.5      0.1658 ug/L       0.09261      0.1658 ppb        0.09261  55.87%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                32.7      0.3321 ug/L       0.08085      0.3321 ppb        0.08085  24.34%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -189.1     -0.5344 ug/L       0.07233     -0.5344 ppb        0.07233  13.53%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -0.5     -3.9756 ug/L       8.58659     -3.9756 ppb        8.58659 215.98%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         108.9      19.194 ug/L      11.4662      19.194 ppb        11.4662  59.74%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             0.3      8.3422 ug/L      47.93540      8.3422 ppb       47.93540 574.61%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                 8.4      0.0078 ug/L       0.01214      0.0078 ppb        0.01214 156.18%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 0.5      0.0302 ug/L       0.44121      0.0302 ppb        0.44121 >999.9%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†         -6.6     -1.9592 ug/L       8.47068     -1.9592 ppb        8.47068 432.36%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                 9.7      0.2116 ug/L       0.17970      0.2116 ppb        0.17970  84.91%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -10.2     -5.2164 ug/L       4.78744     -5.2164 ppb        4.78744  91.78%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -5.5     -0.5841 ug/L       1.25825     -0.5841 ppb        1.25825 215.42%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -0.3     -0.4053 ug/L       3.68726     -0.4053 ppb        3.68726 909.82%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 0.4      0.1192 ug/L       1.95598      0.1192 ppb        1.95598 >999.9%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 0.7      0.3657 ug/L       2.54094      0.3657 ppb        2.54094 694.74%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                28.6      0.7994 ug/L       0.40528      0.7994 ppb        0.40528  50.70%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                -0.6     -0.0928 ug/L       0.69888     -0.0928 ppb        0.69888 752.72%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                27.6      0.1619 ug/L       0.20707      0.1619 ppb        0.20707 127.91%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                87.6      0.1267 ug/L       0.13119      0.1267 ppb        0.13119 103.52%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                11.5      2.9826 ug/L       2.11091      2.9826 ppb        2.11091  70.77%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 -3.9     -0.1064 ug/L       2.06409     -0.1064 ppb        2.06409 >999.9%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 56.3      0.3591 ug/L       0.18887      0.3591 ppb        0.18887  52.60%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                 9.4      0.0764 ug/L       0.05170      0.0764 ppb        0.05170  67.63%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                       3.1      0.1707 ug/L       1.87951      0.1707 ppb        1.87951 >999.9%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 8
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 12/19/2009 13:07:25
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5405.0	5405.0	97.1	%			13:09:18
1	Y RADIAL	5751.1	5751.1	97.29	%			13:09:18
1	Al 396.153Radial†	6692.3	6909.7	5014.0	ug/L	5014.0	ppb	13:09:18
1	Ca 317.933Radial†	3461.8	3546.2	5056.0	ug/L	5056.0	ppb	13:09:38
1	Fe 238.204 Radial†	598.9	606.0	5053.6	ug/L	5053.6	ppb	13:09:38
1	K 766.490 Radial†	30587.8	28793.9	5066.5	ug/L	5066.5	ppb	13:09:18
1	Mg 279.077 IEC†	163.4	166.9	5188.0	ug/L	5188.0	ppb	13:09:38
1	Na 589.592 Radial†	30044.8	31708.6	9464.1	ug/L	9464.1	ppb	13:09:18
1	Sr 421.552†	82369.7	84854.9	497.53	ug/L	497.53	ppb	13:09:18
1	Sc 361.383	915252.1	915252.1	101.82	%			13:10:35
1	Y 371.029	744373.7	744373.7	99.988	%			13:10:35
1	Ag 328.068†	115927.9	113487.9	492.21	ug/L	492.21	ppb	13:10:41
1	As 188.979†	1339.8	1350.7	494.60	ug/L	494.60	ppb	13:11:01
1	B 249.677†	23779.7	23381.0	477.92	ug/L	477.92	ppb	13:10:41
1	Ba 233.527†	73912.1	72594.9	494.68	ug/L	494.68	ppb	13:10:41
1	Be 313.107†	1475043.1	1453435.1	488.38	ug/L	488.38	ppb	13:10:35
1	Cd 226.502†	51240.0	50554.3	494.23	ug/L	494.23	ppb	13:10:41
1	Co 228.616†	28624.9	28200.8	493.79	ug/L	493.79	ppb	13:10:41
1	Cr 267.716†	49513.0	48548.7	493.01	ug/L	493.01	ppb	13:10:41
1	Cu 324.752†	182768.9	173449.7	490.32	ug/L	490.32	ppb	13:10:41
1	Mn 257.610†	507618.2	498062.5	491.68	ug/L	491.68	ppb	13:10:35
1	Mo 202.031†	8182.0	8016.0	485.58	ug/L	485.58	ppb	13:11:01
1	Ni 231.604†	23108.0	22601.8	493.51	ug/L	493.51	ppb	13:10:41
1	P 214.914†	4999.9	4652.5	2352.6	ug/L	2352.6	ppb	13:11:01
1	Pb 220.353†	4644.6	4625.8	488.98	ug/L	488.98	ppb	13:11:01
1	S 181.975 Axial†	863.7	799.3	979.56	ug/L	979.56	ppb	13:11:01
1	Sb 206.836†	1696.2	1624.7	493.61	ug/L	493.61	ppb	13:11:01
1	Se 196.026†	882.9	895.7	505.55	ug/L	505.55	ppb	13:11:01
1	Si 251.611†	88813.7	86650.4	2431.7	ug/L	2431.7	ppb	13:10:41
1	Sn 189.927†	3304.7	3242.2	486.85	ug/L	486.85	ppb	13:11:01
1	Ti 334.940†	341436.0	336726.7	486.73	ug/L	486.73	ppb	13:10:35
1	Tl 190.801†	1880.0	1894.5	494.63	ug/L	494.63	ppb	13:11:01
1	U 409.014†	15682.8	17774.9	488.15	ug/L	488.15	ppb	13:10:41
1	V 292.402†	77184.9	77276.1	498.00	ug/L	498.00	ppb	13:10:41
1	Zn 213.857†	62127.1	60224.2	489.53	ug/L	489.53	ppb	13:10:41
1	SiO2†	88149.6	85968.9	5179.9	ug/L	5179.9	ppb	13:12:08
2	Sc Radial	5495.3	5495.3	98.7	%			13:09:43
2	Y RADIAL	5821.0	5821.0	98.47	%			13:09:43
2	Al 396.153Radial†	6714.1	6818.3	4947.5	ug/L	4947.5	ppb	13:09:43
2	Ca 317.933Radial†	3464.8	3490.5	4976.6	ug/L	4976.6	ppb	13:10:03
2	Fe 238.204 Radial†	595.9	592.8	4943.4	ug/L	4943.4	ppb	13:10:03
2	K 766.490 Radial†	30563.5	28251.1	4970.9	ug/L	4970.9	ppb	13:09:43
2	Mg 279.077 IEC†	168.3	169.1	5256.0	ug/L	5256.0	ppb	13:10:03
2	Na 589.592 Radial†	30065.0	31220.2	9318.3	ug/L	9318.3	ppb	13:09:43
2	Sr 421.552†	82399.8	83490.2	489.53	ug/L	489.53	ppb	13:09:43
2	Sc 361.383	918014.8	918014.8	102.13	%			13:11:07
2	Y 371.029	747425.3	747425.3	100.40	%			13:11:07
2	Ag 328.068†	115018.9	112255.2	486.84	ug/L	486.84	ppb	13:11:12
2	As 188.979†	1334.8	1341.8	491.38	ug/L	491.38	ppb	13:11:32
2	B 249.677†	23625.3	23159.6	473.40	ug/L	473.40	ppb	13:11:12
2	Ba 233.527†	73474.7	71948.1	490.27	ug/L	490.27	ppb	13:11:12
2	Be 313.107†	1478848.4	1452801.5	488.17	ug/L	488.17	ppb	13:11:07
2	Cd 226.502†	50882.3	50052.5	489.33	ug/L	489.33	ppb	13:11:12
2	Co 228.616†	28476.6	27971.1	489.77	ug/L	489.77	ppb	13:11:12
2	Cr 267.716†	49212.9	48108.5	488.54	ug/L	488.54	ppb	13:11:12
2	Cu 324.752†	181096.8	171272.2	484.16	ug/L	484.16	ppb	13:11:12
2	Mn 257.610†	508746.6	497667.0	491.28	ug/L	491.28	ppb	13:11:07
2	Mo 202.031†	8184.6	7994.4	484.26	ug/L	484.26	ppb	13:11:32
2	Ni 231.604†	22988.7	22416.7	489.47	ug/L	489.47	ppb	13:11:12

2	P 214.914†	4971.2	4609.6	2331.2 ug/L	2331.2 ppb	13:11:32
2	Pb 220.353†	4654.4	4621.6	488.54 ug/L	488.54 ppb	13:11:32
2	S 181.975 Axial†	848.0	781.4	957.62 ug/L	957.62 ppb	13:11:32
2	Sb 206.836†	1714.4	1637.5	497.46 ug/L	497.46 ppb	13:11:32
2	Se 196.026†	880.6	890.8	502.51 ug/L	502.51 ppb	13:11:32
2	Si 251.611†	88042.1	85632.3	2403.1 ug/L	2403.1 ppb	13:11:12
2	Sn 189.927†	3292.0	3220.0	483.50 ug/L	483.50 ppb	13:11:32
2	Ti 334.940†	342332.7	336595.6	486.54 ug/L	486.54 ppb	13:11:07
2	Tl 190.801†	1863.5	1872.8	489.02 ug/L	489.02 ppb	13:11:32
2	U 409.014†	15573.1	17621.2	483.94 ug/L	483.94 ppb	13:11:12
2	V 292.402†	76647.5	76521.7	493.20 ug/L	493.20 ppb	13:11:12
2	Zn 213.857†	61618.5	59542.5	483.98 ug/L	483.98 ppb	13:11:12
2	SiO2†	89228.3	86764.6	5228.3 ug/L	5228.3 ppb	13:12:14
3	Sc Radial	5482.9	5482.9	98.5 %		13:10:08
3	Y RADIAL	5806.0	5806.0	98.22 %		13:10:08
3	Al 396.153Radial†	6679.2	6798.3	4933.0 ug/L	4933.0 ppb	13:10:08
3	Ca 317.933Radial†	3438.9	3472.2	4950.4 ug/L	4950.4 ppb	13:10:28
3	Fe 238.204 Radial†	591.5	589.7	4917.7 ug/L	4917.7 ppb	13:10:28
3	K 766.490 Radial†	30602.7	28361.0	4990.3 ug/L	4990.3 ppb	13:10:08
3	Mg 279.077 IEC†	163.0	164.1	5101.9 ug/L	5101.9 ppb	13:10:28
3	Na 589.592 Radial†	30050.5	31274.5	9334.5 ug/L	9334.5 ppb	13:10:08
3	Sr 421.552†	82283.5	83561.2	489.95 ug/L	489.95 ppb	13:10:08
3	Sc 361.383	921164.5	921164.5	102.48 %		13:11:38
3	Y 371.029	751025.7	751025.7	100.88 %		13:11:38
3	Ag 328.068†	116394.1	113212.1	490.97 ug/L	490.97 ppb	13:11:43
3	As 188.979†	1338.3	1340.8	491.00 ug/L	491.00 ppb	13:12:03
3	B 249.677†	23991.1	23437.4	479.10 ug/L	479.10 ppb	13:11:43
3	Ba 233.527†	73986.3	72201.4	492.00 ug/L	492.00 ppb	13:11:43
3	Be 313.107†	1486996.7	1455801.5	489.17 ug/L	489.17 ppb	13:11:38
3	Cd 226.502†	51238.5	50229.8	491.07 ug/L	491.07 ppb	13:11:43
3	Co 228.616†	28717.2	28110.5	492.20 ug/L	492.20 ppb	13:11:43
3	Cr 267.716†	49762.3	48479.9	492.31 ug/L	492.31 ppb	13:11:43
3	Cu 324.752†	183347.5	172862.2	488.65 ug/L	488.65 ppb	13:11:43
3	Mn 257.610†	509396.6	496598.0	490.23 ug/L	490.23 ppb	13:11:38
3	Mo 202.031†	8166.4	7949.2	481.53 ug/L	481.53 ppb	13:12:03
3	Ni 231.604†	23124.8	22472.5	490.69 ug/L	490.69 ppb	13:11:43
3	P 214.914†	4984.7	4606.2	2328.8 ug/L	2328.8 ppb	13:12:03
3	Pb 220.353†	4646.5	4598.3	486.07 ug/L	486.07 ppb	13:12:03
3	S 181.975 Axial†	861.7	791.9	970.55 ug/L	970.55 ppb	13:12:03
3	Sb 206.836†	1706.0	1623.6	493.16 ug/L	493.16 ppb	13:12:03
3	Se 196.026†	875.0	882.3	497.84 ug/L	497.84 ppb	13:12:03
3	Si 251.611†	88998.9	86271.2	2421.1 ug/L	2421.1 ppb	13:11:43
3	Sn 189.927†	3311.5	3228.0	484.71 ug/L	484.71 ppb	13:12:03
3	Ti 334.940†	343273.8	336367.8	486.20 ug/L	486.20 ppb	13:11:38
3	Tl 190.801†	1863.4	1866.4	487.34 ug/L	487.34 ppb	13:12:03
3	U 409.014†	15740.8	17732.7	487.01 ug/L	487.01 ppb	13:11:43
3	V 292.402†	77474.2	77071.8	496.67 ug/L	496.67 ppb	13:11:43
3	Zn 213.857†	62245.7	59948.3	487.30 ug/L	487.30 ppb	13:11:43
3	SiO2†	88533.9	85788.2	5169.2 ug/L	5169.2 ppb	13:12:19

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	918143.8	102.14	%	0.329				0.32%
Sc Radial	5461.1	98.1	%	0.88				0.90%
Y 371.029	747608.2	100.42	%	0.447				0.45%
Y RADIAL	5792.7	97.99	%	0.622				0.63%
Ag 328.068†	112985.0	490.01	ug/L	2.808	490.01	ppb	2.808	0.57%
QC value within limits for Ag 328.068 Recovery = 98.00%								
Al 396.153Radial†	6842.1	4964.8	ug/L	43.18	4964.8	ppb	43.18	0.87%
QC value within limits for Al 396.153Radial Recovery = 99.30%								
As 188.979†	1344.4	492.33	ug/L	1.977	492.33	ppb	1.977	0.40%
QC value within limits for As 188.979 Recovery = 98.47%								
B 249.677†	23326.0	476.81	ug/L	3.008	476.81	ppb	3.008	0.63%
QC value within limits for B 249.677 Recovery = 95.36%								
Ba 233.527†	72248.1	492.32	ug/L	2.222	492.32	ppb	2.222	0.45%
QC value within limits for Ba 233.527 Recovery = 98.46%								
Be 313.107†	1454012.7	488.57	ug/L	0.530	488.57	ppb	0.530	0.11%
QC value within limits for Be 313.107 Recovery = 97.71%								
Ca 317.933Radial†	3503.0	4994.3	ug/L	54.95	4994.3	ppb	54.95	1.10%

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   QC value within limits for Ca 317.933Radial  Recovery = 99.89%
Cd 226.502†            50278.9      491.54 ug/L         2.484      491.54 ppb          2.484   0.51%
   QC value within limits for Cd 226.502  Recovery = 98.31%
Co 228.616†            28094.1      491.92 ug/L         2.026      491.92 ppb          2.026   0.41%
   QC value within limits for Co 228.616  Recovery = 98.38%
Cr 267.716†            48379.0      491.28 ug/L         2.405      491.28 ppb          2.405   0.49%
   QC value within limits for Cr 267.716  Recovery = 98.26%
Cu 324.752†           172528.1      487.71 ug/L         3.185      487.71 ppb          3.185   0.65%
   QC value within limits for Cu 324.752  Recovery = 97.54%
Fe 238.204 Radial†       596.2      4971.6 ug/L         72.19      4971.6 ppb          72.19   1.45%
   QC value within limits for Fe 238.204 Radial  Recovery = 99.43%
K 766.490 Radial†      28468.7      5009.2 ug/L         50.54      5009.2 ppb          50.54   1.01%
   QC value within limits for K 766.490 Radial  Recovery = 100.18%
Mg 279.077 IEC†          166.7      5182.0 ug/L         77.23      5182.0 ppb          77.23   1.49%
   QC value within limits for Mg 279.077 IEC  Recovery = 103.64%
Mn 257.610†           497442.5      491.06 ug/L         0.752      491.06 ppb          0.752   0.15%
   QC value within limits for Mn 257.610  Recovery = 98.21%
Mo 202.031†             7986.5      483.79 ug/L         2.067      483.79 ppb          2.067   0.43%
   QC value within limits for Mo 202.031  Recovery = 96.76%
Na 589.592 Radial†     31401.1      9372.3 ug/L         79.90      9372.3 ppb          79.90   0.85%
   QC value within limits for Na 589.592 Radial  Recovery = 93.72%
Ni 231.604†            22497.0      491.22 ug/L         2.074      491.22 ppb          2.074   0.42%
   QC value within limits for Ni 231.604  Recovery = 98.24%
P 214.914†              4622.8      2337.5 ug/L         13.10      2337.5 ppb          13.10   0.56%
   QC value within limits for P 214.914  Recovery = 93.50%
Pb 220.353†             4615.2      487.86 ug/L         1.565      487.86 ppb          1.565   0.32%
   QC value within limits for Pb 220.353  Recovery = 97.57%
S 181.975 Axial†         790.9      969.24 ug/L        11.030      969.24 ppb         11.030   1.14%
   QC value within limits for S 181.975 Axial  Recovery = 96.92%
Sb 206.836†             1628.6      494.74 ug/L         2.363      494.74 ppb          2.363   0.48%
   QC value within limits for Sb 206.836  Recovery = 98.95%
Se 196.026†              889.6      501.97 ug/L         3.886      501.97 ppb          3.886   0.77%
   QC value within limits for Se 196.026  Recovery = 100.39%
Si 251.611†            86184.6      2418.6 ug/L         14.48      2418.6 ppb          14.48   0.60%
   QC value within limits for Si 251.611  Recovery = 96.75%
Sn 189.927†             3230.1      485.02 ug/L         1.697      485.02 ppb          1.697   0.35%
   QC value within limits for Sn 189.927  Recovery = 97.00%
Sr 421.552†            83968.8      492.34 ug/L         4.504      492.34 ppb          4.504   0.91%
   QC value within limits for Sr 421.552  Recovery = 98.47%
Ti 334.940†           336563.4      486.49 ug/L         0.265      486.49 ppb          0.265   0.05%
   QC value within limits for Ti 334.940  Recovery = 97.30%
Tl 190.801†             1877.9      490.33 ug/L         3.815      490.33 ppb          3.815   0.78%
   QC value within limits for Tl 190.801  Recovery = 98.07%
U 409.014†             17709.6      486.36 ug/L         2.179      486.36 ppb          2.179   0.45%
   QC value within limits for U 409.014  Recovery = 97.27%
V 292.402†             76956.5      495.96 ug/L         2.480      495.96 ppb          2.480   0.50%
   QC value within limits for V 292.402  Recovery = 99.19%
Zn 213.857†            59905.0      486.93 ug/L         2.792      486.93 ppb          2.792   0.57%
   QC value within limits for Zn 213.857  Recovery = 97.39%
SiO2†                  86173.9      5192.5 ug/L         31.45      5192.5 ppb          31.45   0.61%
   QC value within limits for SiO2  Recovery = 97.10%
All analyte(s) passed QC.
```

Sequence No.: 9
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 12/19/2009 13:14:28
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	5541.2	5541.2	99.5	%			13:16:21
1	Y RADIAL	5929.7	5929.7	100.3	%			13:16:21
1	Al 396.153Radial†	-24.1	-7.8	-5.7407	ug/L	-5.7407	ppb	13:16:21
1	Ca 317.933Radial†	21.0	1.6	2.2287	ug/L	2.2287	ppb	13:16:41
1	Fe 238.204 Radial†	8.5	-2.4	-19.757	ug/L	-19.757	ppb	13:16:41
1	K 766.490 Radial†	2892.7	193.9	34.179	ug/L	34.179	ppb	13:16:21
1	Mg 279.077 IEC†	3.6	2.2	68.116	ug/L	68.116	ppb	13:16:41
1	Na 589.592 Radial†	-785.1	-27.1	-8.0967	ug/L	-8.0967	ppb	13:16:21
1	Sr 421.552†	15.3	27.2	0.1592	ug/L	0.1592	ppb	13:16:21
1	Sc 361.383	910397.5	910397.5	101.28	%			13:17:38
1	Y 371.029	751088.9	751088.9	100.89	%			13:17:38
1	Ag 328.068†	409.6	34.5	0.1424	ug/L	0.1424	ppb	13:17:43
1	As 188.979†	-37.8	-2.5	-0.8934	ug/L	-0.8934	ppb	13:18:03
1	B 249.677†	-331.8	-301.7	-6.1898	ug/L	-6.1898	ppb	13:18:03
1	Ba 233.527†	3.7	6.3	0.0416	ug/L	0.0416	ppb	13:18:03
1	Be 313.107†	-4596.8	192.3	0.0646	ug/L	0.0646	ppb	13:17:43
1	Cd 226.502†	-227.7	4.3	0.0444	ug/L	0.0444	ppb	13:18:03
1	Co 228.616†	-67.0	20.9	0.3683	ug/L	0.3683	ppb	13:18:03
1	Cr 267.716†	124.4	42.7	0.4322	ug/L	0.4322	ppb	13:18:03
1	Cu 324.752†	6129.9	-3.0	-0.0096	ug/L	-0.0096	ppb	13:17:43
1	Mn 257.610†	527.7	29.6	0.0259	ug/L	0.0259	ppb	13:18:03
1	Mo 202.031†	35.3	15.0	0.9050	ug/L	0.9050	ppb	13:18:03
1	Ni 231.604†	98.2	3.4	0.0746	ug/L	0.0746	ppb	13:18:03
1	P 214.914†	238.9	-22.2	-11.525	ug/L	-11.525	ppb	13:18:03
1	Pb 220.353†	-67.5	-2.6	-0.2726	ug/L	-0.2726	ppb	13:18:03
1	S 181.975 Axial†	48.2	-1.4	-1.6763	ug/L	-1.6763	ppb	13:18:03
1	Sb 206.836†	46.3	4.5	1.3782	ug/L	1.3782	ppb	13:18:03
1	Se 196.026†	-33.7	-4.8	-2.6476	ug/L	-2.6476	ppb	13:18:03
1	Si 251.611†	605.6	20.5	0.5478	ug/L	0.5478	ppb	13:18:03
1	Sn 189.927†	10.0	6.4	0.9551	ug/L	0.9551	ppb	13:18:03
1	Ti 334.940†	-1352.1	52.5	0.0765	ug/L	0.0765	ppb	13:17:43
1	Tl 190.801†	-32.4	16.0	4.1604	ug/L	4.1604	ppb	13:18:03
1	U 409.014†	-2453.7	-50.5	-1.3897	ug/L	-1.3897	ppb	13:17:38
1	V 292.402†	-1518.9	-30.3	-0.1780	ug/L	-0.1780	ppb	13:17:43
1	Zn 213.857†	825.2	21.3	0.1735	ug/L	0.1735	ppb	13:18:03
1	SiO2†	657.0	42.1	2.4828	ug/L	2.4828	ppb	13:19:09
2	Sc Radial	5628.2	5628.2	101	%			13:16:46
2	Y RADIAL	6039.2	6039.2	102.2	%			13:16:46
2	Al 396.153Radial†	-11.4	5.1	3.6816	ug/L	3.6816	ppb	13:16:46
2	Ca 317.933Radial†	21.3	1.5	2.1543	ug/L	2.1543	ppb	13:17:06
2	Fe 238.204 Radial†	11.2	0.2	1.8896	ug/L	1.8896	ppb	13:17:06
2	K 766.490 Radial†	2896.8	152.9	26.961	ug/L	26.961	ppb	13:16:46
2	Mg 279.077 IEC†	1.5	0.1	4.1263	ug/L	4.1263	ppb	13:17:06
2	Na 589.592 Radial†	-798.0	-27.7	-8.2573	ug/L	-8.2573	ppb	13:16:46
2	Sr 421.552†	0.9	12.7	0.0742	ug/L	0.0742	ppb	13:16:46
2	Sc 361.383	917167.0	917167.0	102.03	%			13:18:08
2	Y 371.029	757595.2	757595.2	101.76	%			13:18:08
2	Ag 328.068†	385.8	8.2	0.0341	ug/L	0.0341	ppb	13:18:13
2	As 188.979†	-33.3	2.2	0.7923	ug/L	0.7923	ppb	13:18:33
2	B 249.677†	-313.9	-281.8	-5.7834	ug/L	-5.7834	ppb	13:18:33
2	Ba 233.527†	5.3	7.8	0.0530	ug/L	0.0530	ppb	13:18:33
2	Be 313.107†	-4475.6	344.7	0.1157	ug/L	0.1157	ppb	13:18:13
2	Cd 226.502†	-200.5	32.6	0.3195	ug/L	0.3195	ppb	13:18:33
2	Co 228.616†	-71.8	16.7	0.2938	ug/L	0.2938	ppb	13:18:33
2	Cr 267.716†	89.7	7.7	0.0777	ug/L	0.0777	ppb	13:18:33
2	Cu 324.752†	6102.8	-74.3	-0.2098	ug/L	-0.2098	ppb	13:18:13
2	Mn 257.610†	554.7	52.2	0.0516	ug/L	0.0516	ppb	13:18:33
2	Mo 202.031†	27.8	7.4	0.4462	ug/L	0.4462	ppb	13:18:33
2	Ni 231.604†	122.8	26.8	0.5858	ug/L	0.5858	ppb	13:18:33

2	P 214.914†	257.0	-6.2	-3.1711	ug/L	-3.1711 ppb	13:18:33
2	Pb 220.353†	-54.7	10.5	1.1044	ug/L	1.1044 ppb	13:18:33
2	S 181.975 Axial†	44.2	-5.7	-7.0232	ug/L	-7.0232 ppb	13:18:33
2	Sb 206.836†	45.1	2.9	0.9022	ug/L	0.9022 ppb	13:18:33
2	Se 196.026†	-30.0	-0.9	-0.4616	ug/L	-0.4616 ppb	13:18:33
2	Si 251.611†	606.9	17.3	0.4704	ug/L	0.4704 ppb	13:18:33
2	Sn 189.927†	7.9	4.3	0.6440	ug/L	0.6440 ppb	13:18:33
2	Ti 334.940†	-1366.6	48.2	0.0691	ug/L	0.0691 ppb	13:18:13
2	Tl 190.801†	-38.9	10.0	2.5909	ug/L	2.5909 ppb	13:18:33
2	U 409.014†	-2362.8	56.4	1.5538	ug/L	1.5538 ppb	13:18:08
2	V 292.402†	-1523.9	-24.1	-0.1445	ug/L	-0.1445 ppb	13:18:13
2	Zn 213.857†	826.1	16.1	0.1282	ug/L	0.1282 ppb	13:18:33
2	SiO2†	603.2	-15.4	-0.9757	ug/L	-0.9757 ppb	13:19:14
3	Sc Radial	5516.8	5516.8	99.1	%		13:17:11
3	Y RADIAL	5911.5	5911.5	100.0	%		13:17:11
3	Al 396.153Radial†	-42.3	-26.3	-19.187	ug/L	-19.187 ppb	13:17:11
3	Ca 317.933Radial†	22.9	3.5	4.9640	ug/L	4.9640 ppb	13:17:31
3	Fe 238.204 Radial†	10.6	-0.2	-1.2813	ug/L	-1.2813 ppb	13:17:31
3	K 766.490 Radial†	2849.4	163.1	28.739	ug/L	28.739 ppb	13:17:11
3	Mg 279.077 IEC†	3.4	2.0	63.360	ug/L	63.360 ppb	13:17:31
3	Na 589.592 Radial†	-775.4	-20.8	-6.2114	ug/L	-6.2114 ppb	13:17:11
3	Sr 421.552†	21.5	33.5	0.1962	ug/L	0.1962 ppb	13:17:11
3	Sc 361.383	908988.7	908988.7	101.12	%		13:18:38
3	Y 371.029	751889.6	751889.6	101.00	%		13:18:38
3	Ag 328.068†	366.0	-8.0	-0.0349	ug/L	-0.0349 ppb	13:18:43
3	As 188.979†	-28.0	7.1	2.5911	ug/L	2.5911 ppb	13:19:03
3	B 249.677†	-338.0	-308.3	-6.3284	ug/L	-6.3284 ppb	13:19:03
3	Ba 233.527†	-1.4	1.3	0.0091	ug/L	0.0091 ppb	13:19:03
3	Be 313.107†	-4550.6	231.0	0.0776	ug/L	0.0776 ppb	13:18:43
3	Cd 226.502†	-213.9	17.7	0.1732	ug/L	0.1732 ppb	13:19:03
3	Co 228.616†	-68.3	19.6	0.3438	ug/L	0.3438 ppb	13:19:03
3	Cr 267.716†	109.2	27.8	0.2820	ug/L	0.2820 ppb	13:19:03
3	Cu 324.752†	6067.8	-55.1	-0.1557	ug/L	-0.1557 ppb	13:18:43
3	Mn 257.610†	542.0	44.5	0.0426	ug/L	0.0426 ppb	13:19:03
3	Mo 202.031†	27.0	6.8	0.4125	ug/L	0.4125 ppb	13:19:03
3	Ni 231.604†	95.5	0.8	0.0183	ug/L	0.0183 ppb	13:19:03
3	P 214.914†	252.5	-8.4	-4.3580	ug/L	-4.3580 ppb	13:19:03
3	Pb 220.353†	-71.6	-6.7	-0.7099	ug/L	-0.7099 ppb	13:19:03
3	S 181.975 Axial†	50.7	1.1	1.3481	ug/L	1.3481 ppb	13:19:03
3	Sb 206.836†	40.2	-1.5	-0.4327	ug/L	-0.4327 ppb	13:19:03
3	Se 196.026†	-25.3	3.5	1.8909	ug/L	1.8909 ppb	13:19:03
3	Si 251.611†	627.1	42.6	1.1851	ug/L	1.1851 ppb	13:19:03
3	Sn 189.927†	4.6	1.1	0.1672	ug/L	0.1672 ppb	13:19:03
3	Ti 334.940†	-1351.7	50.9	0.0732	ug/L	0.0732 ppb	13:18:43
3	Tl 190.801†	-35.2	13.3	3.4402	ug/L	3.4402 ppb	13:19:03
3	U 409.014†	-2360.0	38.4	1.0579	ug/L	1.0579 ppb	13:18:38
3	V 292.402†	-1443.5	41.9	0.2757	ug/L	0.2757 ppb	13:18:43
3	Zn 213.857†	824.3	21.6	0.1751	ug/L	0.1751 ppb	13:19:03
3	SiO2†	647.3	33.5	1.9906	ug/L	1.9906 ppb	13:19:19

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	912184.4	101.48	%	0.486				0.48%
Sc Radial	5562.1	99.9	%	1.05				1.05%
Y 371.029	753524.6	101.22	%	0.477				0.47%
Y RADIAL	5960.1	100.8	%	1.17				1.16%
Ag 328.068†	11.6	0.0472	ug/L	0.08939	0.0472	ppb	0.08939	189.45%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-9.7	-7.0821	ug/L	11.49330	-7.0821	ppb	11.49330	162.29%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	2.3	0.8300	ug/L	1.74256	0.8300	ppb	1.74256	209.95%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-297.3	-6.1005	ug/L	0.28326	-6.1005	ppb	0.28326	4.64%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	5.1	0.0345	ug/L	0.02278	0.0345	ppb	0.02278	65.95%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	256.0	0.0860	ug/L	0.02655	0.0860	ppb	0.02655	30.88%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	2.2	3.1157	ug/L	1.60116	3.1157	ppb	1.60116	51.39%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                18.2      0.1790 ug/L       0.13766      0.1790 ppb        0.13766  76.90%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                19.1      0.3353 ug/L       0.03798      0.3353 ppb        0.03798  11.33%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                26.1      0.2640 ug/L       0.17791      0.2640 ppb        0.17791  67.40%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               -44.1     -0.1250 ug/L       0.10360     -0.1250 ppb        0.10360  82.86%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -0.8     -6.3828 ug/L      11.69010     -6.3828 ppb       11.69010 183.15%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         170.0      29.960 ug/L        3.7604      29.960 ppb         3.7604  12.55%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            1.5      45.201 ug/L       35.6508      45.201 ppb        35.6508  78.87%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                42.1      0.0401 ug/L       0.01304      0.0401 ppb        0.01304  32.55%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 9.7      0.5879 ug/L       0.27513      0.5879 ppb        0.27513  46.80%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        -25.2     -7.5218 ug/L       1.13765     -7.5218 ppb        1.13765  15.12%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                10.4      0.2262 ug/L       0.31264      0.2262 ppb        0.31264 138.20%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -12.2     -6.3514 ug/L       4.51977     -6.3514 ppb        4.51977  71.16%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                 0.4      0.0406 ug/L       0.94683      0.0406 ppb        0.94683 >999.9%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -2.0     -2.4505 ug/L       4.23903     -2.4505 ppb        4.23903 172.99%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 2.0      0.6159 ug/L       0.93876      0.6159 ppb        0.93876 152.41%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -0.7     -0.4061 ug/L       2.26976     -0.4061 ppb        2.26976 558.93%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                26.8      0.7344 ug/L       0.39224      0.7344 ppb        0.39224  53.41%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 3.9      0.5888 ug/L       0.39683      0.5888 ppb        0.39683  67.40%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                24.4      0.1432 ug/L       0.06255      0.1432 ppb        0.06255  43.69%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                50.5      0.0729 ug/L       0.00372      0.0729 ppb        0.00372   5.09%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                13.1      3.3972 ug/L       0.78567      3.3972 ppb        0.78567  23.13%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 14.8      0.4073 ug/L       1.57594      0.4073 ppb        1.57594 386.89%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 -4.2     -0.0156 ug/L       0.25285     -0.0156 ppb        0.25285 >999.9%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                19.7      0.1589 ug/L       0.02659      0.1589 ppb        0.02659  16.73%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                      20.1      1.1659 ug/L       1.87092      1.1659 ppb        1.87092 160.47%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
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Analysis Begun

Start Time: 12/19/2009 13:29:48 **Plasma On Time: 12/14/2009 06:02:42**
Logged In Analyst: Optima3 **Technique: ICP Continuous**
Spectrometer Model: Optima 5300 DV, S/N 077C7090601Autosampler Model: S10

Sample Information File: C:\pe\Optima3\Sample Information\121909.sif
Batch ID:
Results Data Set: 121909
Results Library: C:\pe\Optima3\Results\Results.mdb

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Sequence No.: 1 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 12/19/2009 13:29:49**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5624.2	5624.2	101	%			13:31:41
1	Y RADIAL	5944.8	5944.8	100.6	%			13:31:41
1	Al 396.153Radial†	6695.8	6644.4	4820.3	ug/L	4820.3	ppb	13:31:41
1	Ca 317.933Radial†	3427.3	3373.0	4809.0	ug/L	4809.0	ppb	13:32:01
1	Fe 238.204 Radial†	602.8	585.8	4886.1	ug/L	4886.1	ppb	13:32:01
1	K 766.490 Radial†	30806.2	27781.7	4888.0	ug/L	4888.0	ppb	13:31:41
1	Mg 279.077 IEC†	165.7	162.7	5056.5	ug/L	5056.5	ppb	13:32:01
1	Na 589.592 Radial†	31754.2	32194.2	9609.0	ug/L	9609.0	ppb	13:31:41
1	Sr 421.552†	84217.2	83376.0	488.86	ug/L	488.86	ppb	13:31:41
1	Sc 361.383	897936.1	897936.1	99.892	%			13:32:59
1	Y 371.029	731386.3	731386.3	98.243	%			13:32:59
1	Ag 328.068†	115917.0	115672.6	501.60	ug/L	501.60	ppb	13:33:04
1	As 188.979†	1336.5	1372.8	502.62	ug/L	502.62	ppb	13:33:24
1	B 249.677†	23882.3	23934.1	489.26	ug/L	489.26	ppb	13:33:04
1	Ba 233.527†	74016.2	74099.0	504.92	ug/L	504.92	ppb	13:33:04
1	Be 313.107†	1456814.5	1463123.9	491.64	ug/L	491.64	ppb	13:32:59
1	Cd 226.502†	51254.5	51539.2	503.88	ug/L	503.88	ppb	13:33:04
1	Co 228.616†	28786.2	28904.5	506.13	ug/L	506.13	ppb	13:33:04
1	Cr 267.716†	49633.1	49606.7	503.75	ug/L	503.75	ppb	13:33:04
1	Cu 324.752†	182966.7	177109.4	500.65	ug/L	500.65	ppb	13:33:04
1	Mn 257.610†	501972.7	502025.0	495.58	ug/L	495.58	ppb	13:32:59
1	Mo 202.031†	8177.8	8166.8	494.69	ug/L	494.69	ppb	13:33:24
1	Ni 231.604†	23214.1	23145.7	505.39	ug/L	505.39	ppb	13:33:04
1	P 214.914†	4995.4	4742.8	2398.2	ug/L	2398.2	ppb	13:33:24
1	Pb 220.353†	4657.1	4726.2	499.55	ug/L	499.55	ppb	13:33:24
1	S 181.975 Axial†	866.7	818.6	1003.3	ug/L	1003.3	ppb	13:33:24
1	Sb 206.836†	1694.4	1655.0	502.82	ug/L	502.82	ppb	13:33:24
1	Se 196.026†	868.4	897.8	506.21	ug/L	506.21	ppb	13:33:24
1	Si 251.611†	88806.3	88325.1	2478.8	ug/L	2478.8	ppb	13:33:04
1	Sn 189.927†	3305.6	3305.7	496.35	ug/L	496.35	ppb	13:33:24
1	Ti 334.940†	337383.1	339136.1	490.19	ug/L	490.19	ppb	13:32:59
1	Tl 190.801†	1882.0	1932.1	504.34	ug/L	504.34	ppb	13:33:24
1	U 409.014†	15563.0	17952.0	493.03	ug/L	493.03	ppb	13:33:04
1	V 292.402†	77172.0	78725.0	507.37	ug/L	507.37	ppb	13:33:04
1	Zn 213.857†	62095.1	61368.9	498.85	ug/L	498.85	ppb	13:33:04
1	SiO2†	87953.7	87442.3	5268.9	ug/L	5268.9	ppb	13:34:32
2	Sc Radial	5631.9	5631.9	101	%			13:32:06
2	Y RADIAL	5937.7	5937.7	100.4	%			13:32:06
2	Al 396.153Radial†	6612.4	6552.9	4753.6	ug/L	4753.6	ppb	13:32:06
2	Ca 317.933Radial†	3398.1	3339.5	4761.2	ug/L	4761.2	ppb	13:32:26
2	Fe 238.204 Radial†	596.7	579.0	4828.6	ug/L	4828.6	ppb	13:32:26
2	K 766.490 Radial†	30442.7	27381.0	4817.5	ug/L	4817.5	ppb	13:32:06
2	Mg 279.077 IEC†	165.3	162.0	5037.6	ug/L	5037.6	ppb	13:32:26
2	Na 589.592 Radial†	31226.6	31630.0	9440.6	ug/L	9440.6	ppb	13:32:06
2	Sr 421.552†	83043.2	82102.2	481.39	ug/L	481.39	ppb	13:32:06
2	Sc 361.383	895420.5	895420.5	99.612	%			13:33:30
2	Y 371.029	730199.6	730199.6	98.084	%			13:33:30

2	Ag 328.068†	114302.1	114377.5	495.98 ug/L	495.98 ppb	13:33:35
2	As 188.979†	1322.0	1362.0	498.70 ug/L	498.70 ppb	13:33:55
2	B 249.677†	23397.1	23514.2	480.67 ug/L	480.67 ppb	13:33:35
2	Ba 233.527†	72884.7	73171.2	498.60 ug/L	498.60 ppb	13:33:35
2	Be 313.107†	1456175.4	1466579.4	492.80 ug/L	492.80 ppb	13:33:30
2	Cd 226.502†	50528.1	50954.1	498.16 ug/L	498.16 ppb	13:33:35
2	Co 228.616†	28214.7	28411.8	497.51 ug/L	497.51 ppb	13:33:35
2	Cr 267.716†	48957.8	49068.3	498.28 ug/L	498.28 ppb	13:33:35
2	Cu 324.752†	179804.2	174449.1	493.13 ug/L	493.13 ppb	13:33:35
2	Mn 257.610†	500240.5	501697.9	495.25 ug/L	495.25 ppb	13:33:30
2	Mo 202.031†	8178.6	8190.6	496.13 ug/L	496.13 ppb	13:33:55
2	Ni 231.604†	22808.4	22803.7	497.92 ug/L	497.92 ppb	13:33:35
2	P 214.914†	4991.3	4752.7	2404.7 ug/L	2404.7 ppb	13:33:55
2	Pb 220.353†	4654.0	4736.2	500.60 ug/L	500.60 ppb	13:33:55
2	S 181.975 Axial†	869.0	823.3	1009.1 ug/L	1009.1 ppb	13:33:55
2	Sb 206.836†	1692.2	1657.6	503.78 ug/L	503.78 ppb	13:33:55
2	Se 196.026†	880.3	912.2	513.87 ug/L	513.87 ppb	13:33:55
2	Si 251.611†	87326.6	87089.4	2443.9 ug/L	2443.9 ppb	13:33:35
2	Sn 189.927†	3315.6	3325.0	499.24 ug/L	499.24 ppb	13:33:55
2	Ti 334.940†	336500.3	339198.8	490.28 ug/L	490.28 ppb	13:33:30
2	Tl 190.801†	1887.3	1942.7	507.15 ug/L	507.15 ppb	13:33:55
2	U 409.014†	15345.1	17777.1	488.23 ug/L	488.23 ppb	13:33:35
2	V 292.402†	76056.4	77822.2	501.65 ug/L	501.65 ppb	13:33:35
2	Zn 213.857†	61072.1	60516.5	491.92 ug/L	491.92 ppb	13:33:35
2	SiO2†	88187.7	87924.6	5298.1 ug/L	5298.1 ppb	13:34:37
3	Sc Radial	5559.0	5559.0	99.9 %		13:32:31
3	Y RADIAL	5849.3	5849.3	98.95 %		13:32:31
3	Al 396.153Radial†	6774.9	6801.4	4934.9 ug/L	4934.9 ppb	13:32:31
3	Ca 317.933Radial†	3464.6	3450.2	4919.0 ug/L	4919.0 ppb	13:32:51
3	Fe 238.204 Radial†	611.7	601.7	5018.0 ug/L	5018.0 ppb	13:32:51
3	K 766.490 Radial†	31051.7	28385.5	4994.4 ug/L	4994.4 ppb	13:32:31
3	Mg 279.077 IEC†	165.8	164.6	5117.9 ug/L	5117.9 ppb	13:32:51
3	Na 589.592 Radial†	32090.4	32899.8	9819.6 ug/L	9819.6 ppb	13:32:31
3	Sr 421.552†	85144.8	85283.5	500.05 ug/L	500.05 ppb	13:32:31
3	Sc 361.383	905366.9	905366.9	100.72 %		13:34:01
3	Y 371.029	737781.8	737781.8	99.102 %		13:34:01
3	Ag 328.068†	115403.6	114210.5	495.32 ug/L	495.32 ppb	13:34:06
3	As 188.979†	1331.6	1356.9	496.88 ug/L	496.88 ppb	13:34:26
3	B 249.677†	23663.6	23520.8	480.78 ug/L	480.78 ppb	13:34:06
3	Ba 233.527†	73494.6	72972.9	497.26 ug/L	497.26 ppb	13:34:06
3	Be 313.107†	1472936.0	1467160.7	492.99 ug/L	492.99 ppb	13:34:01
3	Cd 226.502†	50992.4	50857.8	497.20 ug/L	497.20 ppb	13:34:06
3	Co 228.616†	28535.0	28418.6	497.61 ug/L	497.61 ppb	13:34:06
3	Cr 267.716†	49366.9	48934.6	496.93 ug/L	496.93 ppb	13:34:06
3	Cu 324.752†	181635.9	174284.7	492.67 ug/L	492.67 ppb	13:34:06
3	Mn 257.610†	505748.8	501649.8	495.22 ug/L	495.22 ppb	13:34:01
3	Mo 202.031†	8186.5	8108.2	491.16 ug/L	491.16 ppb	13:34:26
3	Ni 231.604†	23035.4	22777.6	497.35 ug/L	497.35 ppb	13:34:06
3	P 214.914†	4987.6	4693.9	2373.9 ug/L	2373.9 ppb	13:34:26
3	Pb 220.353†	4630.0	4661.0	492.69 ug/L	492.69 ppb	13:34:26
3	S 181.975 Axial†	852.1	797.0	976.77 ug/L	976.77 ppb	13:34:26
3	Sb 206.836†	1703.3	1649.9	501.27 ug/L	501.27 ppb	13:34:26
3	Se 196.026†	880.9	903.1	509.51 ug/L	509.51 ppb	13:34:26
3	Si 251.611†	88195.3	86988.8	2441.2 ug/L	2441.2 ppb	13:34:06
3	Sn 189.927†	3293.5	3266.5	490.48 ug/L	490.48 ppb	13:34:26
3	Ti 334.940†	340409.7	339369.1	490.54 ug/L	490.54 ppb	13:34:01
3	Tl 190.801†	1869.3	1904.1	497.14 ug/L	497.14 ppb	13:34:26
3	U 409.014†	15530.8	17792.2	488.62 ug/L	488.62 ppb	13:34:06
3	V 292.402†	76799.4	77721.0	500.91 ug/L	500.91 ppb	13:34:06
3	Zn 213.857†	61782.7	60548.5	492.16 ug/L	492.16 ppb	13:34:06
3	SiO2†	87051.0	85823.4	5170.9 ug/L	5170.9 ppb	13:34:42

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	899574.5	100.07	%	0.575				0.57%
Sc Radial	5605.0	101	%	0.7				0.71%
Y 371.029	733122.5	98.477	%	0.5478				0.56%
Y RADIAL	5910.6	99.99	%	0.900				0.90%
Ag 328.068†	114753.6	497.64	ug/L	3.451	497.64	ppb	3.451	0.69%

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   QC value within limits for Ag 328.068  Recovery = 99.53%
Al 396.153Radial†       6666.2      4836.2 ug/L        91.70      4836.2 ppb        91.70   1.90%
   QC value within limits for Al 396.153Radial  Recovery = 96.72%
As 188.979†             1363.9      499.40 ug/L        2.934      499.40 ppb        2.934   0.59%
   QC value within limits for As 188.979  Recovery = 99.88%
B 249.677†             23656.3      483.57 ug/L        4.928      483.57 ppb        4.928   1.02%
   QC value within limits for B 249.677  Recovery = 96.71%
Ba 233.527†            73414.4      500.26 ug/L        4.092      500.26 ppb        4.092   0.82%
   QC value within limits for Ba 233.527  Recovery = 100.05%
Be 313.107†          1465621.4      492.48 ug/L        0.732      492.48 ppb        0.732   0.15%
   QC value within limits for Be 313.107  Recovery = 98.50%
Ca 317.933Radial†       3387.6      4829.7 ug/L        80.90      4829.7 ppb        80.90   1.68%
   QC value within limits for Ca 317.933Radial  Recovery = 96.59%
Cd 226.502†            51117.0      499.75 ug/L        3.613      499.75 ppb        3.613   0.72%
   QC value within limits for Cd 226.502  Recovery = 99.95%
Co 228.616†            28578.3      500.41 ug/L        4.948      500.41 ppb        4.948   0.99%
   QC value within limits for Co 228.616  Recovery = 100.08%
Cr 267.716†            49203.2      499.65 ug/L        3.612      499.65 ppb        3.612   0.72%
   QC value within limits for Cr 267.716  Recovery = 99.93%
Cu 324.752†           175281.1      495.48 ug/L        4.478      495.48 ppb        4.478   0.90%
   QC value within limits for Cu 324.752  Recovery = 99.10%
Fe 238.204 Radial†       588.8      4910.9 ug/L        97.14      4910.9 ppb        97.14   1.98%
   QC value within limits for Fe 238.204 Radial  Recovery = 98.22%
K 766.490 Radial†      27849.4      4900.0 ug/L        89.04      4900.0 ppb        89.04   1.82%
   QC value within limits for K 766.490 Radial  Recovery = 98.00%
Mg 279.077 IEC†          163.1      5070.7 ug/L        42.00      5070.7 ppb        42.00   0.83%
   QC value within limits for Mg 279.077 IEC  Recovery = 101.41%
Mn 257.610†           501790.9      495.35 ug/L        0.199      495.35 ppb        0.199   0.04%
   QC value within limits for Mn 257.610  Recovery = 99.07%
Mo 202.031†             8155.2      493.99 ug/L        2.560      493.99 ppb        2.560   0.52%
   QC value within limits for Mo 202.031  Recovery = 98.80%
Na 589.592 Radial†     32241.4      9623.1 ug/L       189.89      9623.1 ppb       189.89   1.97%
   QC value within limits for Na 589.592 Radial  Recovery = 96.23%
Ni 231.604†            22909.0      500.22 ug/L        4.485      500.22 ppb        4.485   0.90%
   QC value within limits for Ni 231.604  Recovery = 100.04%
P 214.914†              4729.8      2392.2 ug/L        16.24      2392.2 ppb        16.24   0.68%
   QC value within limits for P 214.914  Recovery = 95.69%
Pb 220.353†             4707.8      497.61 ug/L        4.296      497.61 ppb        4.296   0.86%
   QC value within limits for Pb 220.353  Recovery = 99.52%
S 181.975 Axial†         813.0      996.40 ug/L       17.251      996.40 ppb       17.251   1.73%
   QC value within limits for S 181.975 Axial  Recovery = 99.64%
Sb 206.836†             1654.2      502.62 ug/L        1.270      502.62 ppb        1.270   0.25%
   QC value within limits for Sb 206.836  Recovery = 100.52%
Se 196.026†              904.4      509.86 ug/L        3.844      509.86 ppb        3.844   0.75%
   QC value within limits for Se 196.026  Recovery = 101.97%
Si 251.611†            87467.7      2454.6 ug/L        20.97      2454.6 ppb        20.97   0.85%
   QC value within limits for Si 251.611  Recovery = 98.19%
Sn 189.927†             3299.1      495.36 ug/L        4.461      495.36 ppb        4.461   0.90%
   QC value within limits for Sn 189.927  Recovery = 99.07%
Sr 421.552†            83587.2      490.10 ug/L        9.388      490.10 ppb        9.388   1.92%
   QC value within limits for Sr 421.552  Recovery = 98.02%
Ti 334.940†           339234.7      490.34 ug/L        0.180      490.34 ppb        0.180   0.04%
   QC value within limits for Ti 334.940  Recovery = 98.07%
Tl 190.801†             1926.3      502.88 ug/L        5.166      502.88 ppb        5.166   1.03%
   QC value within limits for Tl 190.801  Recovery = 100.58%
U 409.014†             17840.4      489.96 ug/L        2.666      489.96 ppb        2.666   0.54%
   QC value within limits for U 409.014  Recovery = 97.99%
V 292.402†             78089.4      503.31 ug/L        3.536      503.31 ppb        3.536   0.70%
   QC value within limits for V 292.402  Recovery = 100.66%
Zn 213.857†            60811.3      494.31 ug/L        3.931      494.31 ppb        3.931   0.80%
   QC value within limits for Zn 213.857  Recovery = 98.86%
SiO2†                  87063.4      5246.0 ug/L        66.58      5246.0 ppb        66.58   1.27%
   QC value within limits for SiO2  Recovery = 98.10%
All analyte(s) passed QC.
```

Sequence No.: 2
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 12/19/2009 13:36:52
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	5523.8	5523.8	99.2	%			13:38:44
1	Y RADIAL	5914.4	5914.4	100.1	%			13:38:44
1	Al 396.153Radial†	-32.8	-16.7	-12.211	ug/L	-12.211	ppb	13:38:44
1	Ca 317.933Radial†	26.1	6.7	9.6005	ug/L	9.6005	ppb	13:39:04
1	Fe 238.204 Radial†	9.6	-1.2	-9.7705	ug/L	-9.7705	ppb	13:39:04
1	K 766.490 Radial†	2883.8	194.0	34.206	ug/L	34.206	ppb	13:38:44
1	Mg 279.077 IEC†	2.1	0.7	21.523	ug/L	21.523	ppb	13:39:04
1	Na 589.592 Radial†	-877.3	-122.5	-36.565	ug/L	-36.565	ppb	13:38:44
1	Sr 421.552†	-17.2	-5.5	-0.0325	ug/L	-0.0325	ppb	13:38:44
1	Sc 361.383	897667.6	897667.6	99.862	%			13:40:01
1	Y 371.029	743887.0	743887.0	99.922	%			13:40:01
1	Ag 328.068†	406.1	36.7	0.1567	ug/L	0.1567	ppb	13:40:01
1	As 188.979†	-27.4	7.4	2.7011	ug/L	2.7011	ppb	13:40:21
1	B 249.677†	-259.7	-234.1	-4.8038	ug/L	-4.8038	ppb	13:40:21
1	Ba 233.527†	-0.2	2.4	0.0163	ug/L	0.0163	ppb	13:40:21
1	Be 313.107†	-4643.1	81.6	0.0275	ug/L	0.0275	ppb	13:40:01
1	Cd 226.502†	-215.9	12.9	0.1278	ug/L	0.1278	ppb	13:40:21
1	Co 228.616†	-81.5	5.5	0.0979	ug/L	0.0979	ppb	13:40:21
1	Cr 267.716†	105.2	25.2	0.2560	ug/L	0.2560	ppb	13:40:21
1	Cu 324.752†	5929.9	-117.5	-0.3325	ug/L	-0.3325	ppb	13:40:01
1	Mn 257.610†	520.8	30.1	0.0283	ug/L	0.0283	ppb	13:40:21
1	Mo 202.031†	29.9	10.1	0.6110	ug/L	0.6110	ppb	13:40:21
1	Ni 231.604†	114.1	20.7	0.4526	ug/L	0.4526	ppb	13:40:21
1	P 214.914†	247.9	-9.8	-5.0607	ug/L	-5.0607	ppb	13:40:21
1	Pb 220.353†	-74.7	-10.7	-1.1315	ug/L	-1.1315	ppb	13:40:21
1	S 181.975 Axial†	40.6	-8.3	-10.196	ug/L	-10.196	ppb	13:40:21
1	Sb 206.836†	53.6	12.5	3.7579	ug/L	3.7579	ppb	13:40:21
1	Se 196.026†	-28.9	-0.4	-0.2719	ug/L	-0.2719	ppb	13:40:21
1	Si 251.611†	635.2	58.6	1.6301	ug/L	1.6301	ppb	13:40:21
1	Sn 189.927†	6.5	3.1	0.4606	ug/L	0.4606	ppb	13:40:21
1	Ti 334.940†	-1325.0	60.7	0.0886	ug/L	0.0886	ppb	13:40:01
1	Tl 190.801†	-45.3	2.7	0.6906	ug/L	0.6906	ppb	13:40:21
1	U 409.014†	-2406.7	-37.8	-1.0419	ug/L	-1.0419	ppb	13:40:01
1	V 292.402†	-1429.4	38.0	0.2505	ug/L	0.2505	ppb	13:40:01
1	Zn 213.857†	814.4	22.0	0.1783	ug/L	0.1783	ppb	13:40:21
1	SiO2†	636.6	30.8	1.8127	ug/L	1.8127	ppb	13:41:17
2	Sc Radial	5521.3	5521.3	99.2	%			13:39:09
2	Y RADIAL	5902.3	5902.3	99.85	%			13:39:09
2	Al 396.153Radial†	-30.9	-14.8	-10.795	ug/L	-10.795	ppb	13:39:09
2	Ca 317.933Radial†	27.0	7.7	10.928	ug/L	10.928	ppb	13:39:29
2	Fe 238.204 Radial†	10.3	-0.5	-4.3803	ug/L	-4.3803	ppb	13:39:29
2	K 766.490 Radial†	2985.2	297.6	52.454	ug/L	52.454	ppb	13:39:09
2	Mg 279.077 IEC†	1.7	0.3	9.8938	ug/L	9.8938	ppb	13:39:29
2	Na 589.592 Radial†	-783.1	-28.0	-8.3562	ug/L	-8.3562	ppb	13:39:09
2	Sr 421.552†	62.5	74.8	0.4387	ug/L	0.4387	ppb	13:39:09
2	Sc 361.383	902635.4	902635.4	100.41	%			13:40:26
2	Y 371.029	749033.0	749033.0	100.61	%			13:40:26
2	Ag 328.068†	405.2	33.6	0.1456	ug/L	0.1456	ppb	13:40:26
2	As 188.979†	-24.5	10.4	3.7734	ug/L	3.7734	ppb	13:40:47
2	B 249.677†	-278.7	-251.6	-5.1640	ug/L	-5.1640	ppb	13:40:47
2	Ba 233.527†	2.4	5.0	0.0338	ug/L	0.0338	ppb	13:40:47
2	Be 313.107†	-4348.0	401.0	0.1345	ug/L	0.1345	ppb	13:40:26
2	Cd 226.502†	-221.9	8.2	0.0807	ug/L	0.0807	ppb	13:40:47
2	Co 228.616†	-69.6	17.8	0.3144	ug/L	0.3144	ppb	13:40:47
2	Cr 267.716†	88.5	8.0	0.0821	ug/L	0.0821	ppb	13:40:47
2	Cu 324.752†	6087.7	7.0	0.0195	ug/L	0.0195	ppb	13:40:26
2	Mn 257.610†	544.0	50.3	0.0490	ug/L	0.0490	ppb	13:40:47
2	Mo 202.031†	36.5	16.5	0.9974	ug/L	0.9974	ppb	13:40:47
2	Ni 231.604†	91.4	-2.6	-0.0571	ug/L	-0.0571	ppb	13:40:47

2	P 214.914†	256.2	-2.9	-1.5141 ug/L	-1.5141 ppb	13:40:47
2	Pb 220.353†	-56.6	7.7	0.8116 ug/L	0.8116 ppb	13:40:47
2	S 181.975 Axial†	53.1	3.9	4.7330 ug/L	4.7330 ppb	13:40:47
2	Sb 206.836†	47.1	5.7	1.7150 ug/L	1.7150 ppb	13:40:47
2	Se 196.026†	-31.1	-2.5	-1.3759 ug/L	-1.3759 ppb	13:40:47
2	Si 251.611†	597.0	17.1	0.4473 ug/L	0.4473 ppb	13:40:47
2	Sn 189.927†	2.2	-1.3	-0.1869 ug/L	-0.1869 ppb	13:40:47
2	Ti 334.940†	-1375.5	17.7	0.0275 ug/L	0.0275 ppb	13:40:26
2	Tl 190.801†	-39.2	9.0	2.3435 ug/L	2.3435 ppb	13:40:47
2	U 409.014†	-2490.8	-108.3	-2.9834 ug/L	-2.9834 ppb	13:40:26
2	V 292.402†	-1485.9	-10.4	-0.0566 ug/L	-0.0566 ppb	13:40:26
2	Zn 213.857†	811.8	14.9	0.1227 ug/L	0.1227 ppb	13:40:47
2	SiO2†	606.8	-2.4	-0.2193 ug/L	-0.2193 ppb	13:41:22
3	Sc Radial	5561.0	5561.0	99.9 %		13:39:35
3	Y RADIAL	5950.1	5950.1	100.7 %		13:39:35
3	Al 396.153Radial†	-16.8	-0.5	-0.3708 ug/L	-0.3708 ppb	13:39:35
3	Ca 317.933Radial†	18.7	-0.8	-1.1997 ug/L	-1.1997 ppb	13:39:55
3	Fe 238.204 Radial†	10.5	-0.3	-2.7052 ug/L	-2.7052 ppb	13:39:55
3	K 766.490 Radial†	2759.5	50.2	8.8367 ug/L	8.8367 ppb	13:39:35
3	Mg 279.077 IEC†	2.8	1.4	42.177 ug/L	42.177 ppb	13:39:55
3	Na 589.592 Radial†	-740.6	20.2	6.0201 ug/L	6.0201 ppb	13:39:35
3	Sr 421.552†	-24.2	-12.4	-0.0729 ug/L	-0.0729 ppb	13:39:35
3	Sc 361.383	902513.8	902513.8	100.40 %		13:40:52
3	Y 371.029	748743.6	748743.6	100.57 %		13:40:52
3	Ag 328.068†	331.8	-39.5	-0.1681 ug/L	-0.1681 ppb	13:40:52
3	As 188.979†	-33.1	1.9	0.6888 ug/L	0.6888 ppb	13:41:12
3	B 249.677†	-247.0	-220.1	-4.5177 ug/L	-4.5177 ppb	13:41:12
3	Ba 233.527†	12.2	14.7	0.0998 ug/L	0.0998 ppb	13:41:12
3	Be 313.107†	-4653.4	96.3	0.0325 ug/L	0.0325 ppb	13:40:52
3	Cd 226.502†	-214.1	16.0	0.1569 ug/L	0.1569 ppb	13:41:12
3	Co 228.616†	-67.6	19.7	0.3464 ug/L	0.3464 ppb	13:41:12
3	Cr 267.716†	102.1	21.5	0.2193 ug/L	0.2193 ppb	13:41:12
3	Cu 324.752†	5973.6	-105.9	-0.2992 ug/L	-0.2992 ppb	13:40:52
3	Mn 257.610†	516.8	23.3	0.0219 ug/L	0.0219 ppb	13:41:12
3	Mo 202.031†	26.9	6.9	0.4179 ug/L	0.4179 ppb	13:41:12
3	Ni 231.604†	119.3	25.2	0.5502 ug/L	0.5502 ppb	13:41:12
3	P 214.914†	259.1	-0.0	0.0312 ug/L	0.0312 ppb	13:41:12
3	Pb 220.353†	-57.2	7.1	0.7493 ug/L	0.7493 ppb	13:41:12
3	S 181.975 Axial†	47.1	-2.1	-2.5824 ug/L	-2.5824 ppb	13:41:12
3	Sb 206.836†	46.9	5.5	1.6684 ug/L	1.6684 ppb	13:41:12
3	Se 196.026†	-32.3	-3.7	-2.0223 ug/L	-2.0223 ppb	13:41:12
3	Si 251.611†	623.5	43.6	1.2172 ug/L	1.2172 ppb	13:41:12
3	Sn 189.927†	6.2	2.7	0.4094 ug/L	0.4094 ppb	13:41:12
3	Ti 334.940†	-1306.7	86.1	0.1261 ug/L	0.1261 ppb	13:40:52
3	Tl 190.801†	-35.6	12.6	3.2591 ug/L	3.2591 ppb	13:41:12
3	U 409.014†	-2527.6	-145.3	-4.0027 ug/L	-4.0027 ppb	13:40:52
3	V 292.402†	-1498.4	-23.0	-0.1471 ug/L	-0.1471 ppb	13:40:52
3	Zn 213.857†	813.4	16.6	0.1316 ug/L	0.1316 ppb	13:41:12
3	SiO2†	613.6	4.4	0.2439 ug/L	0.2439 ppb	13:41:27

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	900938.9	100.23	%	0.315				0.31%
Sc Radial	5535.4	99.4	%	0.40				0.40%
Y 371.029	747221.2	100.37	%	0.388				0.39%
Y RADIAL	5922.2	100.2	%	0.42				0.42%
Ag 328.068†	10.3	0.0447	ug/L	0.18438	0.0447	ppb	0.18438	412.25%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-10.7	-7.7922	ug/L	6.46613	-7.7922	ppb	6.46613	82.98%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	6.6	2.3878	ug/L	1.56598	2.3878	ppb	1.56598	65.58%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-235.3	-4.8285	ug/L	0.32389	-4.8285	ppb	0.32389	6.71%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	7.4	0.0500	ug/L	0.04401	0.0500	ppb	0.04401	88.08%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	193.0	0.0649	ug/L	0.06038	0.0649	ppb	0.06038	93.07%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	4.5	6.4428	ug/L	6.65179	6.4428	ppb	6.65179	103.24%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              12.4      0.1218 ug/L       0.03842      0.1218 ppb        0.03842  31.54%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†              14.4      0.2529 ug/L       0.13517      0.2529 ppb        0.13517  53.45%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              18.2      0.1858 ug/L       0.09167      0.1858 ppb        0.09167  49.34%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -72.1     -0.2041 ug/L       0.19433     -0.2041 ppb        0.19433  95.23%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       -0.7     -5.6186 ug/L       3.69185     -5.6186 ppb        3.69185  65.71%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       180.6      31.832 ug/L       21.9054      31.832 ppb        21.9054  68.81%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           0.8      24.531 ug/L       16.3504      24.531 ppb        16.3504  66.65%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              34.6      0.0331 ug/L       0.01414      0.0331 ppb        0.01414  42.76%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              11.2      0.6754 ug/L       0.29506      0.6754 ppb        0.29506  43.69%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      -43.4     -12.967 ug/L       21.6638     -12.967 ppb        21.6638 167.07%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              14.4      0.3153 ug/L       0.32612      0.3153 ppb        0.32612 103.44%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -4.3     -2.1812 ug/L       2.61067     -2.1812 ppb        2.61067 119.69%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               1.4      0.1431 ug/L       1.10431      0.1431 ppb        1.10431 771.59%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         -2.2     -2.6819 ug/L       7.46521     -2.6819 ppb        7.46521 278.35%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               7.9      2.3805 ug/L       1.19312      2.3805 ppb        1.19312  50.12%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              -2.2     -1.2234 ug/L       0.88514     -1.2234 ppb        0.88514  72.35%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†              39.8      1.0982 ug/L       0.60036      1.0982 ppb        0.60036  54.67%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               1.5      0.2277 ug/L       0.35999      0.2277 ppb        0.35999 158.10%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              19.0      0.1111 ug/L       0.28444      0.1111 ppb        0.28444 256.05%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              54.8      0.0807 ug/L       0.04977      0.0807 ppb        0.04977  61.63%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               8.1      2.0977 ug/L       1.30176      2.0977 ppb        1.30176  62.06%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              -97.1     -2.6760 ug/L       1.50414     -2.6760 ppb        1.50414  56.21%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                1.6      0.0156 ug/L       0.20838      0.0156 ppb        0.20838 >999.9%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              17.8      0.1442 ug/L       0.02983      0.1442 ppb        0.02983  20.69%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                    11.0      0.6124 ug/L       1.06492      0.6124 ppb        1.06492 173.88%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 11
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 12/19/2009 14:38:46
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	5574.9	5574.9	100	%			14:40:38
1	Y RADIAL	5867.4	5867.4	99.26	%			14:40:38
1	Al 396.153Radial†	6763.5	6770.6	4911.6	ug/L	4911.6	ppb	14:40:38
1	Ca 317.933Radial†	3484.8	3460.5	4933.7	ug/L	4933.7	ppb	14:40:58
1	Fe 238.204 Radial†	610.1	598.3	4990.4	ug/L	4990.4	ppb	14:40:58
1	K 766.490 Radial†	30886.7	28132.0	4949.5	ug/L	4949.5	ppb	14:40:38
1	Mg 279.077 IEC†	169.1	167.5	5206.1	ug/L	5206.1	ppb	14:40:58
1	Na 589.592 Radial†	31913.2	32631.1	9739.4	ug/L	9739.4	ppb	14:40:38
1	Sr 421.552†	85031.4	84926.8	497.95	ug/L	497.95	ppb	14:40:38
1	Sc 361.383	884224.6	884224.6	98.366	%			14:41:56
1	Y 371.029	718549.9	718549.9	96.519	%			14:41:56
1	Ag 328.068†	117816.3	119402.9	517.75	ug/L	517.75	ppb	14:42:01
1	As 188.979†	1354.8	1412.1	517.09	ug/L	517.09	ppb	14:42:21
1	B 249.677†	24175.1	24602.6	502.93	ug/L	502.93	ppb	14:42:01
1	Ba 233.527†	74958.9	76206.4	519.28	ug/L	519.28	ppb	14:42:01
1	Be 313.107†	1497350.3	1526947.7	513.09	ug/L	513.09	ppb	14:41:56
1	Cd 226.502†	51932.1	53023.8	518.40	ug/L	518.40	ppb	14:42:01
1	Co 228.616†	29128.9	29699.8	520.04	ug/L	520.04	ppb	14:42:01
1	Cr 267.716†	50181.5	50934.7	517.23	ug/L	517.23	ppb	14:42:01
1	Cu 324.752†	186397.0	183436.9	518.53	ug/L	518.53	ppb	14:42:01
1	Mn 257.610†	516173.3	524253.9	517.51	ug/L	517.51	ppb	14:41:56
1	Mo 202.031†	8302.6	8420.6	510.06	ug/L	510.06	ppb	14:42:21
1	Ni 231.604†	23516.1	23813.0	519.96	ug/L	519.96	ppb	14:42:01
1	P 214.914†	5070.6	4896.7	2475.7	ug/L	2475.7	ppb	14:42:21
1	Pb 220.353†	4712.6	4854.9	513.15	ug/L	513.15	ppb	14:42:21
1	S 181.975 Axial†	861.8	827.1	1013.7	ug/L	1013.7	ppb	14:42:21
1	Sb 206.836†	1715.5	1702.7	517.29	ug/L	517.29	ppb	14:42:21
1	Se 196.026†	883.6	926.8	522.35	ug/L	522.35	ppb	14:42:21
1	Si 251.611†	90434.4	91358.8	2564.0	ug/L	2564.0	ppb	14:42:01
1	Sn 189.927†	3330.9	3382.8	507.92	ug/L	507.92	ppb	14:42:21
1	Ti 334.940†	347914.8	355080.2	513.24	ug/L	513.24	ppb	14:41:56
1	Tl 190.801†	1895.4	1974.9	515.66	ug/L	515.66	ppb	14:42:21
1	U 409.014†	16116.4	18756.2	515.15	ug/L	515.15	ppb	14:42:01
1	V 292.402†	78332.0	81102.3	522.71	ug/L	522.71	ppb	14:42:01
1	Zn 213.857†	63071.7	63325.5	514.76	ug/L	514.76	ppb	14:42:01
1	SiO2†	90362.1	91256.0	5499.1	ug/L	5499.1	ppb	14:43:29
2	Sc Radial	5511.2	5511.2	99.0	%			14:41:03
2	Y RADIAL	5851.4	5851.4	98.98	%			14:41:03
2	Al 396.153Radial†	6647.7	6731.8	4884.1	ug/L	4884.1	ppb	14:41:03
2	Ca 317.933Radial†	3493.1	3509.1	5003.0	ug/L	5003.0	ppb	14:41:23
2	Fe 238.204 Radial†	616.5	611.9	5102.4	ug/L	5102.4	ppb	14:41:23
2	K 766.490 Radial†	30416.4	28013.6	4928.9	ug/L	4928.9	ppb	14:41:03
2	Mg 279.077 IEC†	166.8	167.1	5194.1	ug/L	5194.1	ppb	14:41:23
2	Na 589.592 Radial†	31178.0	32257.0	9627.8	ug/L	9627.8	ppb	14:41:03
2	Sr 421.552†	83232.4	84091.4	493.05	ug/L	493.05	ppb	14:41:03
2	Sc 361.383	912615.4	912615.4	101.52	%			14:42:27
2	Y 371.029	743683.0	743683.0	99.895	%			14:42:27
2	Ag 328.068†	116581.6	114460.7	496.43	ug/L	496.43	ppb	14:42:32
2	As 188.979†	1343.6	1358.2	497.36	ug/L	497.36	ppb	14:42:52
2	B 249.677†	23934.7	23601.2	482.42	ug/L	482.42	ppb	14:42:32
2	Ba 233.527†	74317.1	73203.5	498.83	ug/L	498.83	ppb	14:42:32
2	Be 313.107†	1478724.2	1461246.5	491.01	ug/L	491.01	ppb	14:42:27
2	Cd 226.502†	51355.1	50813.0	496.76	ug/L	496.76	ppb	14:42:32
2	Co 228.616†	28801.3	28455.9	498.27	ug/L	498.27	ppb	14:42:32
2	Cr 267.716†	49719.9	48893.0	496.51	ug/L	496.51	ppb	14:42:32
2	Cu 324.752†	183821.0	175004.7	494.71	ug/L	494.71	ppb	14:42:32
2	Mn 257.610†	508020.7	499899.4	493.50	ug/L	493.50	ppb	14:42:27
2	Mo 202.031†	8255.4	8111.6	491.37	ug/L	491.37	ppb	14:42:52
2	Ni 231.604†	23204.9	22762.8	497.03	ug/L	497.03	ppb	14:42:32

2	P 214.914†	5033.8	4700.1	2376.6 ug/L	2376.6 ppb	14:42:52
2	Pb 220.353†	4693.9	4687.5	495.46 ug/L	495.46 ppb	14:42:52
2	S 181.975 Axial†	858.5	796.6	976.34 ug/L	976.34 ppb	14:42:52
2	Sb 206.836†	1710.0	1643.1	499.21 ug/L	499.21 ppb	14:42:52
2	Se 196.026†	893.2	908.3	512.58 ug/L	512.58 ppb	14:42:52
2	Si 251.611†	89397.5	87477.4	2455.0 ug/L	2455.0 ppb	14:42:32
2	Sn 189.927†	3307.7	3254.6	488.70 ug/L	488.70 ppb	14:42:52
2	Ti 334.940†	342155.4	338404.2	489.15 ug/L	489.15 ppb	14:42:27
2	Tl 190.801†	1875.2	1895.1	494.78 ug/L	494.78 ppb	14:42:52
2	U 409.014†	15715.8	17852.0	490.26 ug/L	490.26 ppb	14:42:32
2	V 292.402†	77485.0	77790.6	501.35 ug/L	501.35 ppb	14:42:32
2	Zn 213.857†	62328.7	60599.0	492.57 ug/L	492.57 ppb	14:42:32
2	SiO2†	89521.8	87570.6	5276.8 ug/L	5276.8 ppb	14:43:34
3	Sc Radial	5494.8	5494.8	98.7 %		14:41:28
3	Y RADIAL	5829.1	5829.1	98.61 %		14:41:28
3	Al 396.153Radial†	6608.6	6712.2	4869.7 ug/L	4869.7 ppb	14:41:28
3	Ca 317.933Radial†	3454.3	3480.3	4961.9 ug/L	4961.9 ppb	14:41:48
3	Fe 238.204 Radial†	609.2	606.4	5056.5 ug/L	5056.5 ppb	14:41:48
3	K 766.490 Radial†	30611.5	28303.1	4979.9 ug/L	4979.9 ppb	14:41:28
3	Mg 279.077 IEC†	164.2	165.0	5127.9 ug/L	5127.9 ppb	14:41:48
3	Na 589.592 Radial†	31240.1	32414.1	9674.7 ug/L	9674.7 ppb	14:41:28
3	Sr 421.552†	82965.1	84071.9	492.94 ug/L	492.94 ppb	14:41:28
3	Sc 361.383	908125.8	908125.8	101.03 %		14:42:58
3	Y 371.029	740200.1	740200.1	99.427 %		14:42:58
3	Ag 328.068†	116791.0	115235.7	499.76 ug/L	499.76 ppb	14:43:03
3	As 188.979†	1349.1	1370.2	501.75 ug/L	501.75 ppb	14:43:23
3	B 249.677†	24058.4	23840.2	487.33 ug/L	487.33 ppb	14:43:03
3	Ba 233.527†	74267.4	73516.2	500.96 ug/L	500.96 ppb	14:43:03
3	Be 313.107†	1489641.0	1479253.2	497.06 ug/L	497.06 ppb	14:42:58
3	Cd 226.502†	51301.0	51009.5	498.68 ug/L	498.68 ppb	14:43:03
3	Co 228.616†	28746.0	28541.3	499.76 ug/L	499.76 ppb	14:43:03
3	Cr 267.716†	49797.7	49212.2	499.75 ug/L	499.75 ppb	14:43:03
3	Cu 324.752†	184533.1	176604.7	499.23 ug/L	499.23 ppb	14:43:03
3	Mn 257.610†	511280.2	505599.5	499.12 ug/L	499.12 ppb	14:42:58
3	Mo 202.031†	8253.4	8149.7	493.67 ug/L	493.67 ppb	14:43:23
3	Ni 231.604†	23211.5	22882.4	499.64 ug/L	499.64 ppb	14:43:03
3	P 214.914†	5069.9	4760.4	2407.5 ug/L	2407.5 ppb	14:43:23
3	Pb 220.353†	4698.7	4715.1	498.37 ug/L	498.37 ppb	14:43:23
3	S 181.975 Axial†	862.0	804.3	985.72 ug/L	985.72 ppb	14:43:23
3	Sb 206.836†	1714.9	1656.3	503.24 ug/L	503.24 ppb	14:43:23
3	Se 196.026†	891.3	910.8	513.78 ug/L	513.78 ppb	14:43:23
3	Si 251.611†	89459.8	87974.3	2468.9 ug/L	2468.9 ppb	14:43:03
3	Sn 189.927†	3335.5	3298.2	495.24 ug/L	495.24 ppb	14:43:23
3	Ti 334.940†	344425.8	342317.7	494.80 ug/L	494.80 ppb	14:42:58
3	Tl 190.801†	1890.0	1918.9	501.01 ug/L	501.01 ppb	14:43:23
3	U 409.014†	15800.0	18011.8	494.66 ug/L	494.66 ppb	14:43:03
3	V 292.402†	77684.5	78365.5	505.05 ug/L	505.05 ppb	14:43:03
3	Zn 213.857†	62531.8	61103.6	496.69 ug/L	496.69 ppb	14:43:03
3	SiO2†	88372.4	86868.8	5234.1 ug/L	5234.1 ppb	14:43:39

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	901655.3	100.31	%	1.698				1.69%
Sc Radial	5527.0	99.3	%	0.76				0.77%
Y 371.029	734144.3	98.614	%	1.8291				1.85%
Y RADIAL	5849.3	98.95	%	0.326				0.33%
Ag 328.068†	116366.4	504.65	ug/L	11.470	504.65	ppb	11.470	2.27%
QC value within limits for Ag 328.068 Recovery = 100.93%								
Al 396.153Radial†	6738.2	4888.5	ug/L	21.27	4888.5	ppb	21.27	0.44%
QC value within limits for Al 396.153Radial Recovery = 97.77%								
As 188.979†	1380.2	505.40	ug/L	10.358	505.40	ppb	10.358	2.05%
QC value within limits for As 188.979 Recovery = 101.08%								
B 249.677†	24014.6	490.89	ug/L	10.710	490.89	ppb	10.710	2.18%
QC value within limits for B 249.677 Recovery = 98.18%								
Ba 233.527†	74308.7	506.36	ug/L	11.243	506.36	ppb	11.243	2.22%
QC value within limits for Ba 233.527 Recovery = 101.27%								
Be 313.107†	1489149.1	500.38	ug/L	11.410	500.38	ppb	11.410	2.28%
QC value within limits for Be 313.107 Recovery = 100.08%								
Ca 317.933Radial†	3483.3	4966.2	ug/L	34.82	4966.2	ppb	34.82	0.70%

QC value within limits for Ca 317.933Radial Recovery = 99.32%

Cd 226.502†	51615.4	504.61 ug/L	11.980	504.61 ppb	11.980	2.37%

QC value within limits for Cd 226.502 Recovery = 100.92%

Co 228.616†	28899.0	506.02 ug/L	12.163	506.02 ppb	12.163	2.40%

QC value within limits for Co 228.616 Recovery = 101.20%

Cr 267.716†	49679.9	504.49 ug/L	11.150	504.49 ppb	11.150	2.21%

QC value within limits for Cr 267.716 Recovery = 100.90%

Cu 324.752†	178348.8	504.16 ug/L	12.651	504.16 ppb	12.651	2.51%

QC value within limits for Cu 324.752 Recovery = 100.83%

Fe 238.204 Radial†	605.5	5049.8 ug/L	56.34	5049.8 ppb	56.34	1.12%

QC value within limits for Fe 238.204 Radial Recovery = 101.00%

K 766.490 Radial†	28149.6	4952.8 ug/L	25.63	4952.8 ppb	25.63	0.52%

QC value within limits for K 766.490 Radial Recovery = 99.06%

Mg 279.077 IEC†	166.5	5176.0 ug/L	42.13	5176.0 ppb	42.13	0.81%

QC value within limits for Mg 279.077 IEC Recovery = 103.52%

Mn 257.610†	509917.6	503.38 ug/L	12.559	503.38 ppb	12.559	2.49%

QC value within limits for Mn 257.610 Recovery = 100.68%

Mo 202.031†	8227.3	498.37 ug/L	10.195	498.37 ppb	10.195	2.05%

QC value within limits for Mo 202.031 Recovery = 99.67%

Na 589.592 Radial†	32434.1	9680.6 ug/L	56.08	9680.6 ppb	56.08	0.58%

QC value within limits for Na 589.592 Radial Recovery = 96.81%

Ni 231.604†	23152.7	505.54 ug/L	12.555	505.54 ppb	12.555	2.48%

QC value within limits for Ni 231.604 Recovery = 101.11%

P 214.914†	4785.7	2420.0 ug/L	50.72	2420.0 ppb	50.72	2.10%

QC value within limits for P 214.914 Recovery = 96.80%

Pb 220.353†	4752.5	502.33 ug/L	9.485	502.33 ppb	9.485	1.89%

QC value within limits for Pb 220.353 Recovery = 100.47%

S 181.975 Axial†	809.3	991.94 ug/L	19.461	991.94 ppb	19.461	1.96%

QC value within limits for S 181.975 Axial Recovery = 99.19%

Sb 206.836†	1667.4	506.58 ug/L	9.492	506.58 ppb	9.492	1.87%

QC value within limits for Sb 206.836 Recovery = 101.32%

Se 196.026†	915.3	516.24 ug/L	5.329	516.24 ppb	5.329	1.03%

QC value within limits for Se 196.026 Recovery = 103.25%

Si 251.611†	88936.9	2496.0 ug/L	59.35	2496.0 ppb	59.35	2.38%

QC value within limits for Si 251.611 Recovery = 99.84%

Sn 189.927†	3311.8	497.28 ug/L	9.772	497.28 ppb	9.772	1.97%

QC value within limits for Sn 189.927 Recovery = 99.46%

Sr 421.552†	84363.4	494.65 ug/L	2.862	494.65 ppb	2.862	0.58%

QC value within limits for Sr 421.552 Recovery = 98.93%

Ti 334.940†	345267.4	499.06 ug/L	12.597	499.06 ppb	12.597	2.52%

QC value within limits for Ti 334.940 Recovery = 99.81%

Tl 190.801†	1929.6	503.82 ug/L	10.722	503.82 ppb	10.722	2.13%

QC value within limits for Tl 190.801 Recovery = 100.76%

U 409.014†	18206.7	500.03 ug/L	13.281	500.03 ppb	13.281	2.66%

QC value within limits for U 409.014 Recovery = 100.01%

V 292.402†	79086.1	509.71 ug/L	11.417	509.71 ppb	11.417	2.24%

QC value within limits for V 292.402 Recovery = 101.94%

Zn 213.857†	61676.1	501.34 ug/L	11.806	501.34 ppb	11.806	2.35%

QC value within limits for Zn 213.857 Recovery = 100.27%

SiO2†	88565.2	5336.7 ug/L	142.27	5336.7 ppb	142.27	2.67%

QC value within limits for SiO2 Recovery = 99.80%

All analyte(s) passed QC.

Sequence No.: 12
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 12/19/2009 14:45:49
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5595.1	5595.1	100	%			14:47:41
1	Y RADIAL	5917.3	5917.3	100.1	%			14:47:41
1	Al 396.153Radial†	-7.4	9.0	6.5606	ug/L	6.5606	ppb	14:47:41
1	Ca 317.933Radial†	26.3	6.6	9.4622	ug/L	9.4622	ppb	14:48:01
1	Fe 238.204 Radial†	8.8	-2.1	-17.526	ug/L	-17.526	ppb	14:48:01
1	K 766.490 Radial†	2813.7	87.3	15.384	ug/L	15.384	ppb	14:47:41
1	Mg 279.077 IEC†	2.6	1.1	35.724	ug/L	35.724	ppb	14:48:01
1	Na 589.592 Radial†	-751.6	13.8	4.1327	ug/L	4.1327	ppb	14:47:41
1	Sr 421.552†	-9.6	2.2	0.0130	ug/L	0.0130	ppb	14:47:41
1	Sc 361.383	886574.4	886574.4	98.628	%			14:48:58
1	Y 371.029	751714.0	751714.0	100.97	%			14:48:58
1	Ag 328.068†	362.7	-2.2	-0.0151	ug/L	-0.0151	ppb	14:48:58
1	As 188.979†	-26.2	8.2	2.9821	ug/L	2.9821	ppb	14:49:18
1	B 249.677†	-271.6	-249.4	-5.1168	ug/L	-5.1168	ppb	14:49:18
1	Ba 233.527†	9.6	12.3	0.0816	ug/L	0.0816	ppb	14:49:18
1	Be 313.107†	-4717.8	-52.3	-0.0174	ug/L	-0.0174	ppb	14:48:58
1	Cd 226.502†	-210.7	15.6	0.1541	ug/L	0.1541	ppb	14:49:18
1	Co 228.616†	-80.2	5.8	0.1016	ug/L	0.1016	ppb	14:49:18
1	Cr 267.716†	80.8	1.8	0.0180	ug/L	0.0180	ppb	14:49:18
1	Cu 324.752†	6110.7	140.1	0.3950	ug/L	0.3950	ppb	14:48:58
1	Mn 257.610†	534.2	50.2	0.0471	ug/L	0.0471	ppb	14:49:18
1	Mo 202.031†	24.6	5.1	0.3057	ug/L	0.3057	ppb	14:49:18
1	Ni 231.604†	88.7	-3.7	-0.0799	ug/L	-0.0799	ppb	14:49:18
1	P 214.914†	250.5	-4.1	-2.1563	ug/L	-2.1563	ppb	14:49:18
1	Pb 220.353†	-73.7	-10.6	-1.1162	ug/L	-1.1162	ppb	14:49:18
1	S 181.975 Axial†	49.7	1.4	1.6869	ug/L	1.6869	ppb	14:49:18
1	Sb 206.836†	47.5	6.9	2.0984	ug/L	2.0984	ppb	14:49:18
1	Se 196.026†	-11.3	17.1	9.2485	ug/L	9.2485	ppb	14:49:18
1	Si 251.611†	646.8	78.3	2.1933	ug/L	2.1933	ppb	14:49:18
1	Sn 189.927†	12.1	8.8	1.3154	ug/L	1.3154	ppb	14:49:18
1	Ti 334.940†	-1335.2	33.8	0.0507	ug/L	0.0507	ppb	14:48:58
1	Tl 190.801†	-43.1	4.4	1.1398	ug/L	1.1398	ppb	14:49:18
1	U 409.014†	-2445.5	-107.4	-2.9556	ug/L	-2.9556	ppb	14:48:58
1	V 292.402†	-1538.9	-90.9	-0.5759	ug/L	-0.5759	ppb	14:48:58
1	Zn 213.857†	842.9	61.0	0.5011	ug/L	0.5011	ppb	14:49:18
1	SiO2†	660.7	63.2	3.7971	ug/L	3.7971	ppb	14:50:14
2	Sc Radial	5731.1	5731.1	103	%			14:48:06
2	Y RADIAL	6107.4	6107.4	103.3	%			14:48:06
2	Al 396.153Radial†	-25.2	-8.1	-5.9045	ug/L	-5.9045	ppb	14:48:06
2	Ca 317.933Radial†	26.0	5.7	8.1533	ug/L	8.1533	ppb	14:48:26
2	Fe 238.204 Radial†	8.7	-2.5	-20.397	ug/L	-20.397	ppb	14:48:26
2	K 766.490 Radial†	2864.2	69.9	12.311	ug/L	12.311	ppb	14:48:06
2	Mg 279.077 IEC†	2.7	1.2	36.846	ug/L	36.846	ppb	14:48:26
2	Na 589.592 Radial†	-778.9	5.0	1.4887	ug/L	1.4887	ppb	14:48:06
2	Sr 421.552†	-2.0	9.9	0.0580	ug/L	0.0580	ppb	14:48:06
2	Sc 361.383	882937.6	882937.6	98.223	%			14:49:23
2	Y 371.029	748195.0	748195.0	100.50	%			14:49:23
2	Ag 328.068†	429.4	67.3	0.2867	ug/L	0.2867	ppb	14:49:23
2	As 188.979†	-29.4	4.9	1.7623	ug/L	1.7623	ppb	14:49:43
2	B 249.677†	-246.1	-224.7	-4.6085	ug/L	-4.6085	ppb	14:49:43
2	Ba 233.527†	3.3	5.9	0.0385	ug/L	0.0385	ppb	14:49:43
2	Be 313.107†	-4701.5	-55.4	-0.0186	ug/L	-0.0186	ppb	14:49:23
2	Cd 226.502†	-221.5	3.7	0.0384	ug/L	0.0384	ppb	14:49:43
2	Co 228.616†	-70.8	15.0	0.2623	ug/L	0.2623	ppb	14:49:43
2	Cr 267.716†	105.3	27.0	0.2747	ug/L	0.2747	ppb	14:49:43
2	Cu 324.752†	6018.1	71.4	0.2008	ug/L	0.2008	ppb	14:49:23
2	Mn 257.610†	563.0	81.7	0.0778	ug/L	0.0778	ppb	14:49:43
2	Mo 202.031†	18.3	-1.2	-0.0768	ug/L	-0.0768	ppb	14:49:43
2	Ni 231.604†	123.4	32.0	0.6996	ug/L	0.6996	ppb	14:49:43

2	P 214.914†	249.6	-4.0	-2.0687	ug/L	-2.0687	ppb	14:49:43
2	Pb 220.353†	-70.4	-7.7	-0.8076	ug/L	-0.8076	ppb	14:49:43
2	S 181.975 Axial†	46.5	-1.7	-2.0327	ug/L	-2.0327	ppb	14:49:43
2	Sb 206.836†	46.0	5.6	1.6770	ug/L	1.6770	ppb	14:49:43
2	Se 196.026†	-26.9	1.2	0.5728	ug/L	0.5728	ppb	14:49:43
2	Si 251.611†	633.1	67.1	1.8857	ug/L	1.8857	ppb	14:49:43
2	Sn 189.927†	8.8	5.4	0.8150	ug/L	0.8150	ppb	14:49:43
2	Ti 334.940†	-1355.2	7.8	0.0146	ug/L	0.0146	ppb	14:49:23
2	Tl 190.801†	-25.1	22.5	5.8467	ug/L	5.8467	ppb	14:49:43
2	U 409.014†	-2565.5	-239.7	-6.6024	ug/L	-6.6024	ppb	14:49:23
2	V 292.402†	-1515.0	-73.0	-0.4746	ug/L	-0.4746	ppb	14:49:23
2	Zn 213.857†	849.8	71.6	0.5834	ug/L	0.5834	ppb	14:49:43
2	SiO2†	681.5	87.2	5.2673	ug/L	5.2673	ppb	14:50:19
3	Sc Radial	5576.3	5576.3	100	%			14:48:31
3	Y RADIAL	5946.3	5946.3	100.6	%			14:48:31
3	Al 396.153Radial†	-14.7	1.7	1.2876	ug/L	1.2876	ppb	14:48:31
3	Ca 317.933Radial†	23.6	4.0	5.6632	ug/L	5.6632	ppb	14:48:51
3	Fe 238.204 Radial†	9.2	-1.7	-14.412	ug/L	-14.412	ppb	14:48:51
3	K 766.490 Radial†	2773.6	56.7	9.9821	ug/L	9.9821	ppb	14:48:31
3	Mg 279.077 IEC†	2.2	0.8	26.345	ug/L	26.345	ppb	14:48:51
3	Na 589.592 Radial†	-750.5	12.4	3.7003	ug/L	3.7003	ppb	14:48:31
3	Sr 421.552†	56.9	68.6	0.4024	ug/L	0.4024	ppb	14:48:31
3	Sc 361.383	886705.2	886705.2	98.642	%			14:49:49
3	Y 371.029	754502.0	754502.0	101.35	%			14:49:49
3	Ag 328.068†	408.3	44.0	0.1837	ug/L	0.1837	ppb	14:49:49
3	As 188.979†	-26.5	8.0	2.8879	ug/L	2.8879	ppb	14:50:09
3	B 249.677†	-283.6	-261.6	-5.3664	ug/L	-5.3664	ppb	14:50:09
3	Ba 233.527†	-0.4	2.2	0.0129	ug/L	0.0129	ppb	14:50:09
3	Be 313.107†	-4696.1	-29.6	-0.0100	ug/L	-0.0100	ppb	14:49:49
3	Cd 226.502†	-223.6	2.5	0.0266	ug/L	0.0266	ppb	14:50:09
3	Co 228.616†	-87.4	-1.5	-0.0282	ug/L	-0.0282	ppb	14:50:09
3	Cr 267.716†	92.5	13.6	0.1367	ug/L	0.1367	ppb	14:50:09
3	Cu 324.752†	6218.2	248.2	0.7005	ug/L	0.7005	ppb	14:49:49
3	Mn 257.610†	541.6	57.6	0.0549	ug/L	0.0549	ppb	14:50:09
3	Mo 202.031†	8.9	-10.9	-0.6607	ug/L	-0.6607	ppb	14:50:09
3	Ni 231.604†	112.5	20.5	0.4471	ug/L	0.4471	ppb	14:50:09
3	P 214.914†	274.2	19.9	10.299	ug/L	10.299	ppb	14:50:09
3	Pb 220.353†	-76.3	-13.3	-1.4056	ug/L	-1.4056	ppb	14:50:09
3	S 181.975 Axial†	46.8	-1.5	-1.8757	ug/L	-1.8757	ppb	14:50:09
3	Sb 206.836†	42.6	1.9	0.5707	ug/L	0.5707	ppb	14:50:09
3	Se 196.026†	-36.4	-8.4	-4.6096	ug/L	-4.6096	ppb	14:50:09
3	Si 251.611†	660.4	92.0	2.6006	ug/L	2.6006	ppb	14:50:09
3	Sn 189.927†	7.3	3.9	0.5824	ug/L	0.5824	ppb	14:50:09
3	Ti 334.940†	-1373.8	-5.1	-0.0067	ug/L	-0.0067	ppb	14:49:49
3	Tl 190.801†	-39.1	8.4	2.1936	ug/L	2.1936	ppb	14:50:09
3	U 409.014†	-2375.1	-35.6	-0.9786	ug/L	-0.9786	ppb	14:49:49
3	V 292.402†	-1529.8	-81.4	-0.5263	ug/L	-0.5263	ppb	14:49:49
3	Zn 213.857†	837.4	55.4	0.4510	ug/L	0.4510	ppb	14:50:09
3	SiO2†	654.4	56.7	3.4472	ug/L	3.4472	ppb	14:50:24

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	885405.8	98.498	%	0.2379				0.24%
Sc Radial	5634.2	101	%	1.5				1.50%
Y 371.029	751470.3	100.94	%	0.425				0.42%
Y RADIAL	5990.3	101.3	%	1.73				1.71%
Ag 328.068†	36.4	0.1518	ug/L	0.15341	0.1518	ppb	0.15341	101.08%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	0.9	0.6479	ug/L	6.25712	0.6479	ppb	6.25712	965.75%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	7.0	2.5441	ug/L	0.67868	2.5441	ppb	0.67868	26.68%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-245.2	-5.0305	ug/L	0.38624	-5.0305	ppb	0.38624	7.68%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	6.8	0.0443	ug/L	0.03471	0.0443	ppb	0.03471	78.28%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-45.8	-0.0153	ug/L	0.00468	-0.0153	ppb	0.00468	30.54%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	5.4	7.7596	ug/L	1.92987	7.7596	ppb	1.92987	24.87%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                 7.3      0.0730 ug/L       0.07047      0.0730 ppb        0.07047  96.50%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                 6.4      0.1119 ug/L       0.14552      0.1119 ppb        0.14552 130.00%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                14.1      0.1431 ug/L       0.12849      0.1431 ppb        0.12849  89.76%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               153.3      0.4321 ug/L       0.25191      0.4321 ppb        0.25191  58.30%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -2.1     -17.445 ug/L        2.9934     -17.445 ppb         2.9934  17.16%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          71.3      12.559 ug/L        2.7093      12.559 ppb         2.7093  21.57%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             1.1      32.972 ug/L        5.7661      32.972 ppb         5.7661  17.49%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                63.2      0.0600 ug/L       0.01598      0.0600 ppb        0.01598  26.65%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                -2.4     -0.1439 ug/L       0.48666     -0.1439 ppb        0.48666 338.12%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†         10.4      3.1072 ug/L       1.41829      3.1072 ppb        1.41829  45.64%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                16.3      0.3556 ug/L       0.39772      0.3556 ppb        0.39772 111.84%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                  4.0      2.0247 ug/L       7.16599      2.0247 ppb        7.16599 353.93%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               -10.5     -1.1098 ug/L       0.29904     -1.1098 ppb        0.29904  26.95%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -0.6     -0.7405 ug/L       2.10363     -0.7405 ppb        2.10363 284.08%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 4.8      1.4487 ug/L       0.78898      1.4487 ppb        0.78898  54.46%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 3.3      1.7372 ug/L       7.00209      1.7372 ppb        7.00209 403.06%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                79.1      2.2265 ug/L       0.35863      2.2265 ppb        0.35863  16.11%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 6.0      0.9043 ug/L       0.37460      0.9043 ppb        0.37460  41.43%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                26.9      0.1578 ug/L       0.21298      0.1578 ppb        0.21298 134.95%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                12.2      0.0195 ug/L       0.02900      0.0195 ppb        0.02900 148.50%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                11.8      3.0600 ug/L       2.47017      3.0600 ppb        2.47017  80.72%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -127.5     -3.5122 ug/L       2.85293     -3.5122 ppb        2.85293  81.23%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                -81.8     -0.5256 ug/L       0.05065     -0.5256 ppb        0.05065   9.64%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                62.7      0.5118 ug/L       0.06685      0.5118 ppb        0.06685  13.06%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                      69.0      4.1705 ug/L       0.96577      4.1705 ppb        0.96577  23.16%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 21
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 12/19/2009 15:48:06
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	5456.8	5456.8	98.0	%			15:49:59
1	Y RADIAL	5770.8	5770.8	97.62	%			15:49:59
1	Al 396.153Radial†	6682.6	6834.2	4958.7	ug/L	4958.7	ppb	15:49:59
1	Ca 317.933Radial†	3452.2	3502.5	4993.7	ug/L	4993.7	ppb	15:50:19
1	Fe 238.204 Radial†	611.5	613.0	5111.0	ug/L	5111.0	ppb	15:50:19
1	K 766.490 Radial†	30340.9	28242.7	4969.2	ug/L	4969.2	ppb	15:49:59
1	Mg 279.077 IEC†	167.2	169.2	5260.4	ug/L	5260.4	ppb	15:50:19
1	Na 589.592 Radial†	31459.9	32858.4	9807.3	ug/L	9807.3	ppb	15:49:59
1	Sr 421.552†	83578.5	85282.4	500.04	ug/L	500.04	ppb	15:49:59
1	Sc 361.383	909946.0	909946.0	101.23	%			15:51:18
1	Y 371.029	739529.2	739529.2	99.337	%			15:51:18
1	Ag 328.068†	115534.4	113763.1	493.43	ug/L	493.43	ppb	15:51:18
1	As 188.979†	1340.4	1358.9	497.65	ug/L	497.65	ppb	15:51:38
1	B 249.677†	23685.7	23424.4	478.81	ug/L	478.81	ppb	15:51:18
1	Ba 233.527†	73889.3	72995.6	497.41	ug/L	497.41	ppb	15:51:18
1	Be 313.107†	1481540.0	1468300.8	493.38	ug/L	493.38	ppb	15:51:18
1	Cd 226.502†	51137.3	50746.2	496.10	ug/L	496.10	ppb	15:51:18
1	Co 228.616†	28257.5	28001.9	490.32	ug/L	490.32	ppb	15:51:38
1	Cr 267.716†	49448.5	48768.6	495.25	ug/L	495.25	ppb	15:51:18
1	Cu 324.752†	184050.8	175762.8	496.85	ug/L	496.85	ppb	15:51:18
1	Mn 257.610†	510299.5	503618.4	497.17	ug/L	497.17	ppb	15:51:18
1	Mo 202.031†	8261.0	8140.9	493.14	ug/L	493.14	ppb	15:51:38
1	Ni 231.604†	22854.8	22484.0	490.94	ug/L	490.94	ppb	15:51:38
1	P 214.914†	5049.2	4729.9	2391.9	ug/L	2391.9	ppb	15:51:38
1	Pb 220.353†	4745.3	4751.8	502.26	ug/L	502.26	ppb	15:51:38
1	S 181.975 Axial†	856.1	796.8	976.47	ug/L	976.47	ppb	15:51:38
1	Sb 206.836†	1701.6	1639.7	498.30	ug/L	498.30	ppb	15:51:38
1	Se 196.026†	886.1	903.9	510.22	ug/L	510.22	ppb	15:51:38
1	Si 251.611†	88925.3	87269.2	2449.0	ug/L	2449.0	ppb	15:51:18
1	Sn 189.927†	3318.8	3275.1	491.78	ug/L	491.78	ppb	15:51:38
1	Ti 334.940†	343331.6	340554.7	492.27	ug/L	492.27	ppb	15:51:18
1	Tl 190.801†	1872.3	1897.6	495.53	ug/L	495.53	ppb	15:51:38
1	U 409.014†	14926.8	17118.0	470.04	ug/L	470.04	ppb	15:51:18
1	V 292.402†	76784.4	77322.5	498.36	ug/L	498.36	ppb	15:51:18
1	Zn 213.857†	62117.3	60570.3	492.36	ug/L	492.36	ppb	15:51:18
1	SiO2†	89425.3	87733.9	5286.6	ug/L	5286.6	ppb	15:52:38
2	Sc Radial	5540.9	5540.9	99.5	%			15:50:24
2	Y RADIAL	5835.1	5835.1	98.71	%			15:50:24
2	Al 396.153Radial†	6720.4	6768.7	4910.9	ug/L	4910.9	ppb	15:50:24
2	Ca 317.933Radial†	3424.5	3421.2	4877.7	ug/L	4877.7	ppb	15:50:44
2	Fe 238.204 Radial†	609.3	601.4	5014.5	ug/L	5014.5	ppb	15:50:44
2	K 766.490 Radial†	30680.2	28113.7	4946.5	ug/L	4946.5	ppb	15:50:24
2	Mg 279.077 IEC†	161.4	160.8	4998.1	ug/L	4998.1	ppb	15:50:44
2	Na 589.592 Radial†	31835.2	32748.3	9774.4	ug/L	9774.4	ppb	15:50:24
2	Sr 421.552†	84410.3	84823.8	497.35	ug/L	497.35	ppb	15:50:24
2	Sc 361.383	908929.3	908929.3	101.11	%			15:51:45
2	Y 371.029	739147.4	739147.4	99.286	%			15:51:45
2	Ag 328.068†	115425.3	113782.8	493.48	ug/L	493.48	ppb	15:51:45
2	As 188.979†	1336.6	1356.7	496.80	ug/L	496.80	ppb	15:52:05
2	B 249.677†	23652.4	23417.6	478.68	ug/L	478.68	ppb	15:51:45
2	Ba 233.527†	73881.5	73069.6	497.91	ug/L	497.91	ppb	15:51:45
2	Be 313.107†	1478888.2	1467315.5	493.05	ug/L	493.05	ppb	15:51:45
2	Cd 226.502†	51255.1	50919.3	497.80	ug/L	497.80	ppb	15:51:45
2	Co 228.616†	28254.0	28029.6	490.81	ug/L	490.81	ppb	15:52:05
2	Cr 267.716†	49460.2	48834.8	495.92	ug/L	495.92	ppb	15:51:45
2	Cu 324.752†	183706.5	175625.7	496.46	ug/L	496.46	ppb	15:51:45
2	Mn 257.610†	509664.9	503554.7	497.10	ug/L	497.10	ppb	15:51:45
2	Mo 202.031†	8294.5	8183.2	495.69	ug/L	495.69	ppb	15:52:05
2	Ni 231.604†	22883.7	22537.8	492.12	ug/L	492.12	ppb	15:52:05

2	P 214.914†	5034.3	4720.7	2387.2 ug/L	2387.2 ppb	15:52:05
2	Pb 220.353†	4714.4	4726.5	499.59 ug/L	499.59 ppb	15:52:05
2	S 181.975 Axial†	859.7	801.2	981.92 ug/L	981.92 ppb	15:52:05
2	Sb 206.836†	1708.6	1648.6	500.97 ug/L	500.97 ppb	15:52:05
2	Se 196.026†	884.9	903.6	509.79 ug/L	509.79 ppb	15:52:05
2	Si 251.611†	88978.5	87420.1	2453.3 ug/L	2453.3 ppb	15:51:45
2	Sn 189.927†	3309.6	3269.6	490.94 ug/L	490.94 ppb	15:52:05
2	Ti 334.940†	343069.5	340674.9	492.43 ug/L	492.43 ppb	15:51:45
2	Tl 190.801†	1883.1	1910.4	498.84 ug/L	498.84 ppb	15:52:05
2	U 409.014†	14889.8	17097.8	469.49 ug/L	469.49 ppb	15:51:45
2	V 292.402†	76718.5	77342.2	498.53 ug/L	498.53 ppb	15:51:45
2	Zn 213.857†	62132.6	60654.1	493.06 ug/L	493.06 ppb	15:51:45
2	SiO2†	89471.9	87878.9	5295.3 ug/L	5295.3 ppb	15:52:43
3	Sc Radial	5492.0	5492.0	98.6 %		15:50:49
3	Y RADIAL	5812.6	5812.6	98.33 %		15:50:49
3	Al 396.153Radial†	6726.5	6835.1	4959.2 ug/L	4959.2 ppb	15:50:49
3	Ca 317.933Radial†	3460.2	3488.0	4973.0 ug/L	4973.0 ppb	15:51:09
3	Fe 238.204 Radial†	616.9	614.5	5123.7 ug/L	5123.7 ppb	15:51:09
3	K 766.490 Radial†	30491.2	28196.4	4961.0 ug/L	4961.0 ppb	15:50:49
3	Mg 279.077 IEC†	169.2	170.1	5288.9 ug/L	5288.9 ppb	15:51:09
3	Na 589.592 Radial†	31820.4	33018.0	9854.9 ug/L	9854.9 ppb	15:50:49
3	Sr 421.552†	83963.5	85125.5	499.12 ug/L	499.12 ppb	15:50:49
3	Sc 361.383	908514.2	908514.2	101.07 %		15:52:13
3	Y 371.029	739032.0	739032.0	99.270 %		15:52:13
3	Ag 328.068†	115201.9	113614.0	492.79 ug/L	492.79 ppb	15:52:13
3	As 188.979†	1349.4	1369.9	501.63 ug/L	501.63 ppb	15:52:33
3	B 249.677†	23619.6	23395.8	478.22 ug/L	478.22 ppb	15:52:13
3	Ba 233.527†	73721.6	72944.8	497.06 ug/L	497.06 ppb	15:52:13
3	Be 313.107†	1478550.0	1467649.0	493.16 ug/L	493.16 ppb	15:52:13
3	Cd 226.502†	50902.9	50593.9	494.61 ug/L	494.61 ppb	15:52:13
3	Co 228.616†	28241.1	28029.6	490.81 ug/L	490.81 ppb	15:52:33
3	Cr 267.716†	49251.1	48650.3	494.05 ug/L	494.05 ppb	15:52:13
3	Cu 324.752†	183628.7	175631.7	496.48 ug/L	496.48 ppb	15:52:13
3	Mn 257.610†	508331.7	502465.8	496.03 ug/L	496.03 ppb	15:52:13
3	Mo 202.031†	8292.8	8185.2	495.82 ug/L	495.82 ppb	15:52:33
3	Ni 231.604†	22869.5	22534.2	492.04 ug/L	492.04 ppb	15:52:33
3	P 214.914†	5032.3	4721.1	2387.3 ug/L	2387.3 ppb	15:52:33
3	Pb 220.353†	4730.1	4744.1	501.45 ug/L	501.45 ppb	15:52:33
3	S 181.975 Axial†	869.7	811.5	994.52 ug/L	994.52 ppb	15:52:33
3	Sb 206.836†	1686.1	1627.1	494.59 ug/L	494.59 ppb	15:52:33
3	Se 196.026†	894.6	913.7	515.60 ug/L	515.60 ppb	15:52:33
3	Si 251.611†	88853.2	87336.3	2450.9 ug/L	2450.9 ppb	15:52:13
3	Sn 189.927†	3305.5	3267.1	490.57 ug/L	490.57 ppb	15:52:33
3	Ti 334.940†	342619.9	340385.1	492.02 ug/L	492.02 ppb	15:52:13
3	Tl 190.801†	1886.8	1914.9	499.99 ug/L	499.99 ppb	15:52:33
3	U 409.014†	15025.1	17238.5	473.36 ug/L	473.36 ppb	15:52:13
3	V 292.402†	76678.1	77336.9	498.49 ug/L	498.49 ppb	15:52:13
3	Zn 213.857†	61944.7	60496.3	491.75 ug/L	491.75 ppb	15:52:13
3	SiO2†	89131.2	87582.2	5277.3 ug/L	5277.3 ppb	15:52:48

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	909129.8	101.14	%	0.082				0.08%
Sc Radial	5496.6	98.7	%	0.76				0.77%
Y 371.029	739236.2	99.298	%	0.0350				0.04%
Y RADIAL	5806.2	98.22	%	0.552				0.56%
Ag 328.068†	113720.0	493.23	ug/L	0.387	493.23	ppb	0.387	0.08%
QC value within limits for Ag 328.068 Recovery = 98.65%								
Al 396.153Radial†	6812.7	4942.9	ug/L	27.76	4942.9	ppb	27.76	0.56%
QC value within limits for Al 396.153Radial Recovery = 98.86%								
As 188.979†	1361.8	498.69	ug/L	2.580	498.69	ppb	2.580	0.52%
QC value within limits for As 188.979 Recovery = 99.74%								
B 249.677†	23412.6	478.57	ug/L	0.310	478.57	ppb	0.310	0.06%
QC value within limits for B 249.677 Recovery = 95.71%								
Ba 233.527†	73003.3	497.46	ug/L	0.425	497.46	ppb	0.425	0.09%
QC value within limits for Ba 233.527 Recovery = 99.49%								
Be 313.107†	1467755.1	493.19	ug/L	0.168	493.19	ppb	0.168	0.03%
QC value within limits for Be 313.107 Recovery = 98.64%								
Ca 317.933Radial†	3470.6	4948.1	ug/L	61.86	4948.1	ppb	61.86	1.25%

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   QC value within limits for Ca 317.933Radial  Recovery = 98.96%
Cd 226.502†            50753.1      496.17 ug/L         1.598      496.17 ppb          1.598   0.32%
   QC value within limits for Cd 226.502  Recovery = 99.23%
Co 228.616†            28020.4      490.65 ug/L         0.285      490.65 ppb          0.285   0.06%
   QC value within limits for Co 228.616  Recovery = 98.13%
Cr 267.716†            48751.2      495.07 ug/L         0.948      495.07 ppb          0.948   0.19%
   QC value within limits for Cr 267.716  Recovery = 99.01%
Cu 324.752†           175673.4      496.60 ug/L         0.220      496.60 ppb          0.220   0.04%
   QC value within limits for Cu 324.752  Recovery = 99.32%
Fe 238.204 Radial†       609.6      5083.1 ug/L        59.68      5083.1 ppb         59.68   1.17%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.66%
K 766.490 Radial†      28184.3      4958.9 ug/L        11.50      4958.9 ppb         11.50   0.23%
   QC value within limits for K 766.490 Radial  Recovery = 99.18%
Mg 279.077 IEC†          166.7      5182.5 ug/L       160.31      5182.5 ppb        160.31   3.09%
   QC value within limits for Mg 279.077 IEC  Recovery = 103.65%
Mn 257.610†           503213.0      496.77 ug/L         0.637      496.77 ppb          0.637   0.13%
   QC value within limits for Mn 257.610  Recovery = 99.35%
Mo 202.031†             8169.8      494.89 ug/L         1.511      494.89 ppb          1.511   0.31%
   QC value within limits for Mo 202.031  Recovery = 98.98%
Na 589.592 Radial†     32874.9      9812.2 ug/L        40.47      9812.2 ppb         40.47   0.41%
   QC value within limits for Na 589.592 Radial  Recovery = 98.12%
Ni 231.604†            22518.7      491.70 ug/L         0.657      491.70 ppb          0.657   0.13%
   QC value within limits for Ni 231.604  Recovery = 98.34%
P 214.914†              4723.9      2388.8 ug/L         2.66      2388.8 ppb          2.66   0.11%
   QC value within limits for P 214.914  Recovery = 95.55%
Pb 220.353†             4740.8      501.10 ug/L         1.369      501.10 ppb          1.369   0.27%
   QC value within limits for Pb 220.353  Recovery = 100.22%
S 181.975 Axial†         803.1      984.31 ug/L         9.256      984.31 ppb          9.256   0.94%
   QC value within limits for S 181.975 Axial  Recovery = 98.43%
Sb 206.836†             1638.5      497.95 ug/L         3.206      497.95 ppb          3.206   0.64%
   QC value within limits for Sb 206.836  Recovery = 99.59%
Se 196.026†              907.1      511.87 ug/L         3.239      511.87 ppb          3.239   0.63%
   QC value within limits for Se 196.026  Recovery = 102.37%
Si 251.611†            87341.9      2451.1 ug/L         2.12      2451.1 ppb          2.12   0.09%
   QC value within limits for Si 251.611  Recovery = 98.04%
Sn 189.927†             3270.6      491.10 ug/L         0.616      491.10 ppb          0.616   0.13%
   QC value within limits for Sn 189.927  Recovery = 98.22%
Sr 421.552†            85077.2      498.84 ug/L         1.366      498.84 ppb          1.366   0.27%
   QC value within limits for Sr 421.552  Recovery = 99.77%
Ti 334.940†           340538.3      492.24 ug/L         0.209      492.24 ppb          0.209   0.04%
   QC value within limits for Ti 334.940  Recovery = 98.45%
Tl 190.801†             1907.6      498.12 ug/L         2.320      498.12 ppb          2.320   0.47%
   QC value within limits for Tl 190.801  Recovery = 99.62%
U 409.014†             17151.4      470.96 ug/L         2.092      470.96 ppb          2.092   0.44%
   QC value within limits for U 409.014  Recovery = 94.19%
V 292.402†             77333.8      498.46 ug/L         0.090      498.46 ppb          0.090   0.02%
   QC value within limits for V 292.402  Recovery = 99.69%
Zn 213.857†            60573.6      492.39 ug/L         0.658      492.39 ppb          0.658   0.13%
   QC value within limits for Zn 213.857  Recovery = 98.48%
SiO2†                  87731.7      5286.4 ug/L         8.99      5286.4 ppb          8.99   0.17%
   QC value within limits for SiO2  Recovery = 98.86%
All analyte(s) passed QC.
```

Sequence No.: 22
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 12/19/2009 15:54:59
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5502.9	5502.9	98.8	%			15:56:52
1	Y RADIAL	5861.7	5861.7	99.16	%			15:56:52
1	Al 396.153Radial†	3.3	19.7	14.337	ug/L	14.337	ppb	15:56:52
1	Ca 317.933Radial†	26.9	7.6	10.907	ug/L	10.907	ppb	15:57:12
1	Fe 238.204 Radial†	11.8	1.0	8.6196	ug/L	8.6196	ppb	15:57:12
1	K 766.490 Radial†	2797.3	117.5	20.727	ug/L	20.727	ppb	15:56:52
1	Mg 279.077 IEC†	0.6	-0.8	-25.151	ug/L	-25.151	ppb	15:57:12
1	Na 589.592 Radial†	-794.2	-41.8	-12.481	ug/L	-12.481	ppb	15:56:52
1	Sr 421.552†	24.9	37.0	0.2166	ug/L	0.2166	ppb	15:56:52
1	Sc 361.383	891223.9	891223.9	99.145	%			15:58:09
1	Y 371.029	736664.6	736664.6	98.952	%			15:58:09
1	Ag 328.068†	337.4	-29.6	-0.1232	ug/L	-0.1232	ppb	15:58:09
1	As 188.979†	-29.7	4.8	1.7548	ug/L	1.7548	ppb	15:58:29
1	B 249.677†	-334.9	-311.9	-6.4025	ug/L	-6.4025	ppb	15:58:29
1	Ba 233.527†	-1.9	0.7	0.0046	ug/L	0.0046	ppb	15:58:29
1	Be 313.107†	-4683.3	7.4	0.0027	ug/L	0.0027	ppb	15:58:09
1	Cd 226.502†	-224.2	3.0	0.0291	ug/L	0.0291	ppb	15:58:29
1	Co 228.616†	-77.7	8.7	0.1551	ug/L	0.1551	ppb	15:58:29
1	Cr 267.716†	110.3	31.1	0.3162	ug/L	0.3162	ppb	15:58:29
1	Cu 324.752†	6186.2	184.0	0.5203	ug/L	0.5203	ppb	15:58:09
1	Mn 257.610†	528.0	41.1	0.0418	ug/L	0.0418	ppb	15:58:29
1	Mo 202.031†	38.6	19.0	1.1528	ug/L	1.1528	ppb	15:58:29
1	Ni 231.604†	111.5	18.9	0.4124	ug/L	0.4124	ppb	15:58:29
1	P 214.914†	254.3	-1.5	-0.8904	ug/L	-0.8904	ppb	15:58:29
1	Pb 220.353†	-63.6	-0.1	-0.0042	ug/L	-0.0042	ppb	15:58:29
1	S 181.975 Axial†	46.9	-1.7	-2.1329	ug/L	-2.1329	ppb	15:58:29
1	Sb 206.836†	43.4	2.5	0.7788	ug/L	0.7788	ppb	15:58:29
1	Se 196.026†	-28.0	0.3	0.1964	ug/L	0.1964	ppb	15:58:29
1	Si 251.611†	657.6	85.8	2.3930	ug/L	2.3930	ppb	15:58:29
1	Sn 189.927†	4.3	0.9	0.1302	ug/L	0.1302	ppb	15:58:29
1	Ti 334.940†	-1313.7	62.6	0.0920	ug/L	0.0920	ppb	15:58:09
1	Tl 190.801†	-32.0	15.8	4.1049	ug/L	4.1049	ppb	15:58:29
1	U 409.014†	-2442.5	-91.3	-2.5176	ug/L	-2.5176	ppb	15:58:09
1	V 292.402†	-1470.9	-14.2	-0.0809	ug/L	-0.0809	ppb	15:58:09
1	Zn 213.857†	858.6	72.4	0.5908	ug/L	0.5908	ppb	15:58:29
1	SiO2†	663.1	62.1	3.7017	ug/L	3.7017	ppb	15:59:25
2	Sc Radial	5519.0	5519.0	99.1	%			15:57:17
2	Y RADIAL	5880.0	5880.0	99.47	%			15:57:17
2	Al 396.153Radial†	-17.5	-1.3	-0.9514	ug/L	-0.9514	ppb	15:57:17
2	Ca 317.933Radial†	28.3	8.9	12.759	ug/L	12.759	ppb	15:57:37
2	Fe 238.204 Radial†	8.6	-2.2	-18.688	ug/L	-18.688	ppb	15:57:37
2	K 766.490 Radial†	2738.6	50.1	8.8311	ug/L	8.8311	ppb	15:57:17
2	Mg 279.077 IEC†	-1.1	-2.5	-77.144	ug/L	-77.144	ppb	15:57:37
2	Na 589.592 Radial†	-793.3	-38.6	-11.517	ug/L	-11.517	ppb	15:57:17
2	Sr 421.552†	40.3	52.4	0.3074	ug/L	0.3074	ppb	15:57:17
2	Sc 361.383	893385.5	893385.5	99.386	%			15:58:34
2	Y 371.029	738756.3	738756.3	99.233	%			15:58:34
2	Ag 328.068†	358.0	-9.7	-0.0472	ug/L	-0.0472	ppb	15:58:34
2	As 188.979†	-38.4	-3.8	-1.3948	ug/L	-1.3948	ppb	15:58:54
2	B 249.677†	-322.6	-298.7	-6.1278	ug/L	-6.1278	ppb	15:58:54
2	Ba 233.527†	-8.4	-5.8	-0.0408	ug/L	-0.0408	ppb	15:58:54
2	Be 313.107†	-4669.3	32.9	0.0113	ug/L	0.0113	ppb	15:58:34
2	Cd 226.502†	-219.5	8.4	0.0838	ug/L	0.0838	ppb	15:58:54
2	Co 228.616†	-86.9	-0.4	-0.0064	ug/L	-0.0064	ppb	15:58:54
2	Cr 267.716†	108.0	28.5	0.2893	ug/L	0.2893	ppb	15:58:54
2	Cu 324.752†	6061.4	43.3	0.1213	ug/L	0.1213	ppb	15:58:34
2	Mn 257.610†	505.9	17.6	0.0169	ug/L	0.0169	ppb	15:58:54
2	Mo 202.031†	22.1	2.3	0.1387	ug/L	0.1387	ppb	15:58:54
2	Ni 231.604†	108.5	15.6	0.3417	ug/L	0.3417	ppb	15:58:54

2	P 214.914†	248.7	-7.8	-4.0793	ug/L	-4.0793 ppb	15:58:54
2	Pb 220.353†	-71.9	-8.3	-0.8703	ug/L	-0.8703 ppb	15:58:54
2	S 181.975 Axial†	49.0	0.3	0.3243	ug/L	0.3243 ppb	15:58:54
2	Sb 206.836†	42.8	1.8	0.5302	ug/L	0.5302 ppb	15:58:54
2	Se 196.026†	-32.4	-4.1	-2.3053	ug/L	-2.3053 ppb	15:58:54
2	Si 251.611†	649.1	75.6	2.1274	ug/L	2.1274 ppb	15:58:54
2	Sn 189.927†	1.5	-2.0	-0.2966	ug/L	-0.2966 ppb	15:58:54
2	Ti 334.940†	-1302.2	77.4	0.1137	ug/L	0.1137 ppb	15:58:34
2	Tl 190.801†	-36.6	11.3	2.9261	ug/L	2.9261 ppb	15:58:54
2	U 409.014†	-2456.3	-99.2	-2.7320	ug/L	-2.7320 ppb	15:58:34
2	V 292.402†	-1508.4	-48.3	-0.3096	ug/L	-0.3096 ppb	15:58:34
2	Zn 213.857†	854.6	66.3	0.5458	ug/L	0.5458 ppb	15:58:54
2	SiO2†	647.6	44.9	2.7095	ug/L	2.7095 ppb	15:59:30
3	Sc Radial	5457.3	5457.3	98.0	%		15:57:42
3	Y RADIAL	5794.9	5794.9	98.03	%		15:57:42
3	Al 396.153Radial†	-12.2	4.0	2.8721	ug/L	2.8721 ppb	15:57:42
3	Ca 317.933Radial†	25.1	6.0	8.5300	ug/L	8.5300 ppb	15:58:02
3	Fe 238.204 Radial†	8.6	-2.1	-17.457	ug/L	-17.457 ppb	15:58:02
3	K 766.490 Radial†	2776.5	120.0	21.168	ug/L	21.168 ppb	15:57:42
3	Mg 279.077 IEC†	2.5	1.2	36.307	ug/L	36.307 ppb	15:58:02
3	Na 589.592 Radial†	-826.2	-81.2	-24.241	ug/L	-24.241 ppb	15:57:42
3	Sr 421.552†	-5.3	6.4	0.0373	ug/L	0.0373 ppb	15:57:42
3	Sc 361.383	900010.8	900010.8	100.12	%		15:58:59
3	Y 371.029	745393.2	745393.2	100.12	%		15:58:59
3	Ag 328.068†	374.3	3.9	0.0073	ug/L	0.0073 ppb	15:58:59
3	As 188.979†	-32.4	2.5	0.9044	ug/L	0.9044 ppb	15:59:19
3	B 249.677†	-342.6	-316.2	-6.4877	ug/L	-6.4877 ppb	15:59:19
3	Ba 233.527†	-6.5	-3.9	-0.0277	ug/L	-0.0277 ppb	15:59:19
3	Be 313.107†	-4708.9	27.9	0.0098	ug/L	0.0098 ppb	15:58:59
3	Cd 226.502†	-221.9	7.6	0.0760	ug/L	0.0760 ppb	15:59:19
3	Co 228.616†	-74.2	13.0	0.2280	ug/L	0.2280 ppb	15:59:19
3	Cr 267.716†	104.9	24.6	0.2480	ug/L	0.2480 ppb	15:59:19
3	Cu 324.752†	5991.5	-71.4	-0.2025	ug/L	-0.2025 ppb	15:58:59
3	Mn 257.610†	520.2	28.1	0.0253	ug/L	0.0253 ppb	15:59:19
3	Mo 202.031†	26.6	6.7	0.4014	ug/L	0.4014 ppb	15:59:19
3	Ni 231.604†	109.3	15.6	0.3412	ug/L	0.3412 ppb	15:59:19
3	P 214.914†	248.9	-9.5	-4.9007	ug/L	-4.9007 ppb	15:59:19
3	Pb 220.353†	-83.5	-19.4	-2.0364	ug/L	-2.0364 ppb	15:59:19
3	S 181.975 Axial†	49.0	-0.1	-0.0900	ug/L	-0.0900 ppb	15:59:19
3	Sb 206.836†	43.7	2.4	0.7242	ug/L	0.7242 ppb	15:59:19
3	Se 196.026†	-38.9	-10.3	-5.6725	ug/L	-5.6725 ppb	15:59:19
3	Si 251.611†	652.0	73.8	2.0645	ug/L	2.0645 ppb	15:59:19
3	Sn 189.927†	6.9	3.4	0.5116	ug/L	0.5116 ppb	15:59:19
3	Ti 334.940†	-1239.3	149.8	0.2155	ug/L	0.2155 ppb	15:58:59
3	Tl 190.801†	-25.5	22.6	5.8597	ug/L	5.8597 ppb	15:59:19
3	U 409.014†	-2253.1	121.9	3.3591	ug/L	3.3591 ppb	15:58:59
3	V 292.402†	-1499.1	-27.9	-0.1619	ug/L	-0.1619 ppb	15:58:59
3	Zn 213.857†	866.5	71.8	0.5877	ug/L	0.5877 ppb	15:59:19
3	SiO2†	625.5	18.1	1.0595	ug/L	1.0595 ppb	15:59:35

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	894873.4	99.551	%	0.5093				0.51%
Sc Radial	5493.1	98.7	%	0.57				0.58%
Y 371.029	740271.4	99.437	%	0.6122				0.62%
Y RADIAL	5845.5	98.89	%	0.758				0.77%
Ag 328.068†	-11.8	-0.0544	ug/L	0.06559	-0.0544	ppb	0.06559	120.61%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	7.5	5.4193	ug/L	7.95634	5.4193	ppb	7.95634	146.81%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	1.2	0.4215	ug/L	1.62939	0.4215	ppb	1.62939	386.57%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-308.9	-6.3393	ug/L	0.18808	-6.3393	ppb	0.18808	2.97%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-3.0	-0.0213	ug/L	0.02339	-0.0213	ppb	0.02339	109.83%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	22.8	0.0079	ug/L	0.00460	0.0079	ppb	0.00460	58.18%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	7.5	10.732	ug/L	2.1197	10.732	ppb	2.1197	19.75%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                 6.3      0.0630 ug/L       0.02956      0.0630 ppb        0.02956  46.94%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                 7.1      0.1256 ug/L       0.11999      0.1256 ppb        0.11999  95.56%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                28.1      0.2845 ug/L       0.03437      0.2845 ppb        0.03437  12.08%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†                52.0      0.1463 ug/L       0.36204      0.1463 ppb        0.36204 247.39%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -1.1     -9.1751 ug/L      15.42291     -9.1751 ppb       15.42291 168.10%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          95.9      16.909 ug/L        6.9991      16.909 ppb         6.9991  41.39%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -0.7     -21.996 ug/L       56.7914     -21.996 ppb       56.7914 258.19%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                28.9      0.0280 ug/L       0.01267      0.0280 ppb        0.01267  45.24%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 9.3      0.5643 ug/L       0.52630      0.5643 ppb        0.52630  93.27%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        -53.9     -16.080 ug/L        7.0842     -16.080 ppb         7.0842  44.06%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                16.7      0.3651 ug/L       0.04097      0.3651 ppb        0.04097  11.22%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -6.3     -3.2902 ug/L       2.11844     -3.2902 ppb        2.11844  64.39%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -9.2     -0.9703 ug/L       1.01980     -0.9703 ppb        1.01980 105.10%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -0.5     -0.6329 ug/L       1.31546     -0.6329 ppb        1.31546 207.86%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 2.2      0.6777 ug/L       0.13065      0.6777 ppb        0.13065  19.28%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -4.7     -2.5938 ug/L       2.94507     -2.5938 ppb        2.94507 113.54%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                78.4      2.1950 ug/L       0.17434      2.1950 ppb        0.17434   7.94%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 0.8      0.1151 ug/L       0.40430      0.1151 ppb        0.40430 351.28%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                31.9      0.1871 ug/L       0.13745      0.1871 ppb        0.13745  73.45%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                96.6      0.1404 ug/L       0.06592      0.1404 ppb        0.06592  46.95%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                16.6      4.2969 ug/L       1.47619      4.2969 ppb        1.47619  34.35%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                -22.9     -0.6302 ug/L       3.45647     -0.6302 ppb        3.45647 548.50%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                -30.1     -0.1841 ug/L       0.11592     -0.1841 ppb        0.11592  62.95%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                70.2      0.5748 ug/L       0.02512      0.5748 ppb        0.02512   4.37%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                      41.7      2.4902 ug/L       1.33465      2.4902 ppb        1.33465  53.60%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
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Sequence No.: 29
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 12/19/2009 16:42:50
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	5581.6	5581.6	100	%			16:44:42
1	Y RADIAL	5900.6	5900.6	99.82	%			16:44:42
1	Al 396.153Radial†	6852.1	6850.9	4970.5	ug/L	4970.5	ppb	16:44:42
1	Ca 317.933Radial†	3449.8	3421.4	4877.9	ug/L	4877.9	ppb	16:45:02
1	Fe 238.204 Radial†	602.2	589.7	4918.2	ug/L	4918.2	ppb	16:45:02
1	K 766.490 Radial†	31002.7	28210.7	4963.6	ug/L	4963.6	ppb	16:44:42
1	Mg 279.077 IEC†	166.6	164.7	5120.9	ug/L	5120.9	ppb	16:45:02
1	Na 589.592 Radial†	31298.6	31979.9	9545.1	ug/L	9545.1	ppb	16:44:42
1	Sr 421.552†	84337.7	84133.0	493.30	ug/L	493.30	ppb	16:44:42
1	Sc 361.383	902282.5	902282.5	100.38	%			16:46:01
1	Y 371.029	733344.9	733344.9	98.506	%			16:46:01
1	Ag 328.068†	115367.1	114565.9	496.84	ug/L	496.84	ppb	16:46:01
1	As 188.979†	1340.1	1369.9	501.62	ug/L	501.62	ppb	16:46:21
1	B 249.677†	23585.9	23523.7	480.86	ug/L	480.86	ppb	16:46:01
1	Ba 233.527†	73941.7	73667.8	501.98	ug/L	501.98	ppb	16:46:01
1	Be 313.107†	1482335.9	1481524.6	497.82	ug/L	497.82	ppb	16:46:01
1	Cd 226.502†	51321.4	51358.7	502.11	ug/L	502.11	ppb	16:46:01
1	Co 228.616†	28384.4	28365.4	496.70	ug/L	496.70	ppb	16:46:21
1	Cr 267.716†	49494.7	49229.5	499.92	ug/L	499.92	ppb	16:46:01
1	Cu 324.752†	183556.8	176814.9	499.82	ug/L	499.82	ppb	16:46:01
1	Mn 257.610†	509896.9	507498.9	500.98	ug/L	500.98	ppb	16:46:01
1	Mo 202.031†	8333.5	8282.5	501.70	ug/L	501.70	ppb	16:46:21
1	Ni 231.604†	22978.2	22798.7	497.81	ug/L	497.81	ppb	16:46:21
1	P 214.914†	5065.8	4788.8	2422.4	ug/L	2422.4	ppb	16:46:21
1	Pb 220.353†	4736.3	4782.7	505.55	ug/L	505.55	ppb	16:46:21
1	S 181.975 Axial†	850.6	798.4	978.48	ug/L	978.48	ppb	16:46:21
1	Sb 206.836†	1720.3	1672.6	508.34	ug/L	508.34	ppb	16:46:21
1	Se 196.026†	901.2	926.4	521.90	ug/L	521.90	ppb	16:46:21
1	Si 251.611†	89013.0	88102.7	2472.4	ug/L	2472.4	ppb	16:46:01
1	Sn 189.927†	3332.0	3316.1	497.91	ug/L	497.91	ppb	16:46:21
1	Ti 334.940†	342769.3	342875.3	495.61	ug/L	495.61	ppb	16:46:01
1	Tl 190.801†	1894.1	1935.1	505.25	ug/L	505.25	ppb	16:46:21
1	U 409.014†	14825.1	17141.9	470.71	ug/L	470.71	ppb	16:46:01
1	V 292.402†	76764.1	77946.5	502.47	ug/L	502.47	ppb	16:46:01
1	Zn 213.857†	62252.1	61225.8	497.72	ug/L	497.72	ppb	16:46:01
1	SiO2†	89124.2	88184.3	5313.5	ug/L	5313.5	ppb	16:47:22
2	Sc Radial	5701.2	5701.2	102	%			16:45:07
2	Y RADIAL	6016.2	6016.2	101.8	%			16:45:07
2	Al 396.153Radial†	6768.8	6626.1	4806.7	ug/L	4806.7	ppb	16:45:07
2	Ca 317.933Radial†	3404.9	3305.3	4712.4	ug/L	4712.4	ppb	16:45:27
2	Fe 238.204 Radial†	591.6	566.8	4727.4	ug/L	4727.4	ppb	16:45:27
2	K 766.490 Radial†	30510.3	27081.1	4764.7	ug/L	4764.7	ppb	16:45:07
2	Mg 279.077 IEC†	162.3	157.1	4885.1	ug/L	4885.1	ppb	16:45:27
2	Na 589.592 Radial†	30684.4	30725.1	9170.6	ug/L	9170.6	ppb	16:45:07
2	Sr 421.552†	83411.7	81463.9	477.65	ug/L	477.65	ppb	16:45:07
2	Sc 361.383	901296.6	901296.6	100.27	%			16:46:29
2	Y 371.029	732977.0	732977.0	98.457	%			16:46:29
2	Ag 328.068†	115282.6	114607.2	496.95	ug/L	496.95	ppb	16:46:29
2	As 188.979†	1354.0	1385.2	507.14	ug/L	507.14	ppb	16:46:49
2	B 249.677†	23604.3	23567.7	481.79	ug/L	481.79	ppb	16:46:29
2	Ba 233.527†	73706.5	73513.8	500.93	ug/L	500.93	ppb	16:46:29
2	Be 313.107†	1480885.1	1481693.2	497.88	ug/L	497.88	ppb	16:46:29
2	Cd 226.502†	51119.2	51213.0	500.70	ug/L	500.70	ppb	16:46:29
2	Co 228.616†	28373.4	28385.3	497.05	ug/L	497.05	ppb	16:46:49
2	Cr 267.716†	49433.9	49222.8	499.85	ug/L	499.85	ppb	16:46:29
2	Cu 324.752†	183873.1	177330.4	501.26	ug/L	501.26	ppb	16:46:29
2	Mn 257.610†	508843.8	507004.3	500.47	ug/L	500.47	ppb	16:46:29
2	Mo 202.031†	8321.3	8279.4	501.49	ug/L	501.49	ppb	16:46:49
2	Ni 231.604†	22965.2	22810.8	498.08	ug/L	498.08	ppb	16:46:49

2	P 214.914†	5064.2	4792.7	2424.4 ug/L	2424.4 ppb	16:46:49
2	Pb 220.353†	4742.9	4794.4	506.76 ug/L	506.76 ppb	16:46:49
2	S 181.975 Axial†	859.4	808.1	990.43 ug/L	990.43 ppb	16:46:49
2	Sb 206.836†	1711.8	1666.1	506.46 ug/L	506.46 ppb	16:46:49
2	Se 196.026†	887.2	913.4	514.21 ug/L	514.21 ppb	16:46:49
2	Si 251.611†	88668.9	87856.5	2465.5 ug/L	2465.5 ppb	16:46:29
2	Sn 189.927†	3363.9	3351.5	503.21 ug/L	503.21 ppb	16:46:49
2	Ti 334.940†	342638.2	343118.1	495.95 ug/L	495.95 ppb	16:46:29
2	Tl 190.801†	1891.4	1934.5	505.08 ug/L	505.08 ppb	16:46:49
2	U 409.014†	14971.2	17303.8	475.20 ug/L	475.20 ppb	16:46:29
2	V 292.402†	76688.9	77955.2	502.56 ug/L	502.56 ppb	16:46:29
2	Zn 213.857†	62114.2	61156.1	497.17 ug/L	497.17 ppb	16:46:29
2	SiO2†	88702.1	87860.4	5294.0 ug/L	5294.0 ppb	16:47:27
3	Sc Radial	5661.8	5661.8	102 %		16:45:33
3	Y RADIAL	5973.2	5973.2	101.0 %		16:45:33
3	Al 396.153Radial†	6819.7	6722.2	4876.9 ug/L	4876.9 ppb	16:45:33
3	Ca 317.933Radial†	3477.2	3399.6	4846.8 ug/L	4846.8 ppb	16:45:53
3	Fe 238.204 Radial†	605.1	584.1	4871.2 ug/L	4871.2 ppb	16:45:53
3	K 766.490 Radial†	30860.2	27632.5	4861.8 ug/L	4861.8 ppb	16:45:33
3	Mg 279.077 IEC†	164.2	160.0	4974.5 ug/L	4974.5 ppb	16:45:53
3	Na 589.592 Radial†	30863.5	31109.8	9285.4 ug/L	9285.4 ppb	16:45:33
3	Sr 421.552†	84014.4	82623.2	484.45 ug/L	484.45 ppb	16:45:33
3	Sc 361.383	903722.1	903722.1	100.54 %		16:46:56
3	Y 371.029	734881.8	734881.8	98.713 %		16:46:56
3	Ag 328.068†	115519.5	114534.4	496.69 ug/L	496.69 ppb	16:46:56
3	As 188.979†	1335.5	1363.2	499.19 ug/L	499.19 ppb	16:47:16
3	B 249.677†	23705.9	23605.6	482.55 ug/L	482.55 ppb	16:46:56
3	Ba 233.527†	73823.1	73432.5	500.38 ug/L	500.38 ppb	16:46:56
3	Be 313.107†	1481402.3	1478243.4	496.72 ug/L	496.72 ppb	16:46:56
3	Cd 226.502†	51023.0	50980.4	498.41 ug/L	498.41 ppb	16:46:56
3	Co 228.616†	28222.8	28159.6	493.09 ug/L	493.09 ppb	16:47:16
3	Cr 267.716†	49381.1	49038.0	497.98 ug/L	497.98 ppb	16:46:56
3	Cu 324.752†	184303.5	177266.4	501.09 ug/L	501.09 ppb	16:46:56
3	Mn 257.610†	509275.6	506071.7	499.57 ug/L	499.57 ppb	16:46:56
3	Mo 202.031†	8279.2	8215.3	497.63 ug/L	497.63 ppb	16:47:16
3	Ni 231.604†	22896.3	22680.7	495.24 ug/L	495.24 ppb	16:47:16
3	P 214.914†	5028.0	4743.2	2398.4 ug/L	2398.4 ppb	16:47:16
3	Pb 220.353†	4713.2	4752.2	502.30 ug/L	502.30 ppb	16:47:16
3	S 181.975 Axial†	851.5	798.0	977.99 ug/L	977.99 ppb	16:47:16
3	Sb 206.836†	1710.5	1660.2	504.56 ug/L	504.56 ppb	16:47:16
3	Se 196.026†	887.7	911.5	513.62 ug/L	513.62 ppb	16:47:16
3	Si 251.611†	88817.0	87766.5	2463.0 ug/L	2463.0 ppb	16:46:56
3	Sn 189.927†	3337.5	3316.3	497.94 ug/L	497.94 ppb	16:47:16
3	Ti 334.940†	343209.3	342769.0	495.46 ug/L	495.46 ppb	16:46:56
3	Tl 190.801†	1890.5	1928.5	503.56 ug/L	503.56 ppb	16:47:16
3	U 409.014†	14851.3	17144.4	470.79 ug/L	470.79 ppb	16:46:56
3	V 292.402†	76848.9	77909.0	502.18 ug/L	502.18 ppb	16:46:56
3	Zn 213.857†	62075.9	60951.8	495.49 ug/L	495.49 ppb	16:46:56
3	SiO2†	89335.9	88253.5	5317.9 ug/L	5317.9 ppb	16:47:32

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	902433.7	100.39	%	0.136				0.14%
Sc Radial	5648.2	101	%	1.1				1.08%
Y 371.029	733734.6	98.559	%	0.1357				0.14%
Y RADIAL	5963.3	100.9	%	0.99				0.98%
Ag 328.068†	114569.2	496.83	ug/L	0.133	496.83	ppb	0.133	0.03%
QC value within limits for Ag 328.068 Recovery = 99.37%								
Al 396.153Radial†	6733.1	4884.7	ug/L	82.17	4884.7	ppb	82.17	1.68%
QC value within limits for Al 396.153Radial Recovery = 97.69%								
As 188.979†	1372.8	502.65	ug/L	4.077	502.65	ppb	4.077	0.81%
QC value within limits for As 188.979 Recovery = 100.53%								
B 249.677†	23565.6	481.73	ug/L	0.849	481.73	ppb	0.849	0.18%
QC value within limits for B 249.677 Recovery = 96.35%								
Ba 233.527†	73538.1	501.09	ug/L	0.814	501.09	ppb	0.814	0.16%
QC value within limits for Ba 233.527 Recovery = 100.22%								
Be 313.107†	1480487.1	497.47	ug/L	0.653	497.47	ppb	0.653	0.13%
QC value within limits for Be 313.107 Recovery = 99.49%								
Ca 317.933Radial†	3375.4	4812.4	ug/L	87.96	4812.4	ppb	87.96	1.83%

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   QC value within limits for Ca 317.933Radial  Recovery = 96.25%
Cd 226.502†            51184.0      500.41 ug/L         1.866      500.41 ppb          1.866   0.37%
   QC value within limits for Cd 226.502  Recovery = 100.08%
Co 228.616†            28303.4      495.61 ug/L         2.193      495.61 ppb          2.193   0.44%
   QC value within limits for Co 228.616  Recovery = 99.12%
Cr 267.716†            49163.4      499.25 ug/L         1.101      499.25 ppb          1.101   0.22%
   QC value within limits for Cr 267.716  Recovery = 99.85%
Cu 324.752†           177137.2      500.72 ug/L         0.790      500.72 ppb          0.790   0.16%
   QC value within limits for Cu 324.752  Recovery = 100.14%
Fe 238.204 Radial†       580.2      4838.9 ug/L        99.38      4838.9 ppb         99.38   2.05%
   QC value within limits for Fe 238.204 Radial  Recovery = 96.78%
K 766.490 Radial†      27641.4      4863.4 ug/L        99.47      4863.4 ppb         99.47   2.05%
   QC value within limits for K 766.490 Radial  Recovery = 97.27%
Mg 279.077 IEC†          160.6      4993.5 ug/L       119.03      4993.5 ppb        119.03   2.38%
   QC value within limits for Mg 279.077 IEC  Recovery = 99.87%
Mn 257.610†           506858.3      500.34 ug/L         0.714      500.34 ppb          0.714   0.14%
   QC value within limits for Mn 257.610  Recovery = 100.07%
Mo 202.031†             8259.0      500.27 ug/L         2.295      500.27 ppb          2.295   0.46%
   QC value within limits for Mo 202.031  Recovery = 100.05%
Na 589.592 Radial†     31271.6      9333.7 ug/L       191.86      9333.7 ppb        191.86   2.06%
   QC value within limits for Na 589.592 Radial  Recovery = 93.34%
Ni 231.604†            22763.4      497.04 ug/L         1.568      497.04 ppb          1.568   0.32%
   QC value within limits for Ni 231.604  Recovery = 99.41%
P 214.914†              4774.9      2415.0 ug/L        14.46      2415.0 ppb         14.46   0.60%
   QC value within limits for P 214.914  Recovery = 96.60%
Pb 220.353†             4776.4      504.87 ug/L         2.303      504.87 ppb          2.303   0.46%
   QC value within limits for Pb 220.353  Recovery = 100.97%
S 181.975 Axial†         801.5      982.30 ug/L         7.047      982.30 ppb          7.047   0.72%
   QC value within limits for S 181.975 Axial  Recovery = 98.23%
Sb 206.836†             1666.3      506.45 ug/L         1.892      506.45 ppb          1.892   0.37%
   QC value within limits for Sb 206.836  Recovery = 101.29%
Se 196.026†              917.1      516.58 ug/L         4.624      516.58 ppb          4.624   0.90%
   QC value within limits for Se 196.026  Recovery = 103.32%
Si 251.611†            87908.6      2467.0 ug/L         4.86      2467.0 ppb           4.86   0.20%
   QC value within limits for Si 251.611  Recovery = 98.68%
Sn 189.927†             3328.0      499.69 ug/L         3.050      499.69 ppb          3.050   0.61%
   QC value within limits for Sn 189.927  Recovery = 99.94%
Sr 421.552†            82740.0      485.13 ug/L         7.847      485.13 ppb          7.847   1.62%
   QC value within limits for Sr 421.552  Recovery = 97.03%
Ti 334.940†           342920.8      495.68 ug/L         0.253      495.68 ppb          0.253   0.05%
   QC value within limits for Ti 334.940  Recovery = 99.14%
Tl 190.801†             1932.7      504.63 ug/L         0.932      504.63 ppb          0.932   0.18%
   QC value within limits for Tl 190.801  Recovery = 100.93%
U 409.014†             17196.7      472.23 ug/L         2.567      472.23 ppb          2.567   0.54%
   QC value within limits for U 409.014  Recovery = 94.45%
V 292.402†             77936.9      502.40 ug/L         0.197      502.40 ppb          0.197   0.04%
   QC value within limits for V 292.402  Recovery = 100.48%
Zn 213.857†            61111.2      496.79 ug/L         1.158      496.79 ppb          1.158   0.23%
   QC value within limits for Zn 213.857  Recovery = 99.36%
SiO2†                  88099.4      5308.4 ug/L        12.72      5308.4 ppb         12.72   0.24%
   QC value within limits for SiO2  Recovery = 99.27%
All analyte(s) passed QC.
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Sequence No.: 30
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 12/19/2009 16:49:41
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5356.2	5356.2	96.2	%			16:51:34
1	Y RADIAL	5696.5	5696.5	96.36	%			16:51:34
1	Al 396.153Radial†	-30.5	-15.3	-11.178	ug/L	-11.178	ppb	16:51:34
1	Ca 317.933Radial†	26.2	7.6	10.871	ug/L	10.871	ppb	16:51:54
1	Fe 238.204 Radial†	10.0	-0.5	-4.0367	ug/L	-4.0367	ppb	16:51:54
1	K 766.490 Radial†	2948.5	352.3	62.097	ug/L	62.097	ppb	16:51:34
1	Mg 279.077 IEC†	2.1	0.8	24.492	ug/L	24.492	ppb	16:51:54
1	Na 589.592 Radial†	-791.8	-61.3	-18.301	ug/L	-18.301	ppb	16:51:34
1	Sr 421.552†	21.1	33.8	0.1979	ug/L	0.1979	ppb	16:51:34
1	Sc 361.383	901341.2	901341.2	100.27	%			16:52:51
1	Y 371.029	747084.1	747084.1	100.35	%			16:52:51
1	Ag 328.068†	441.6	70.5	0.3030	ug/L	0.3030	ppb	16:52:51
1	As 188.979†	-30.5	4.4	1.5941	ug/L	1.5941	ppb	16:53:11
1	B 249.677†	-432.7	-405.6	-8.3225	ug/L	-8.3225	ppb	16:53:11
1	Ba 233.527†	-2.5	0.1	-0.0001	ug/L	-0.0001	ppb	16:53:11
1	Be 313.107†	-4667.7	76.1	0.0257	ug/L	0.0257	ppb	16:52:51
1	Cd 226.502†	-221.9	7.9	0.0774	ug/L	0.0774	ppb	16:53:11
1	Co 228.616†	-90.5	-3.1	-0.0544	ug/L	-0.0544	ppb	16:53:11
1	Cr 267.716†	81.7	1.3	0.0130	ug/L	0.0130	ppb	16:53:11
1	Cu 324.752†	6027.8	-44.1	-0.1247	ug/L	-0.1247	ppb	16:52:51
1	Mn 257.610†	523.8	30.9	0.0296	ug/L	0.0296	ppb	16:53:11
1	Mo 202.031†	25.2	5.2	0.3155	ug/L	0.3155	ppb	16:53:11
1	Ni 231.604†	105.8	11.9	0.2611	ug/L	0.2611	ppb	16:53:11
1	P 214.914†	257.3	-1.5	-0.7251	ug/L	-0.7251	ppb	16:53:11
1	Pb 220.353†	-66.0	-1.8	-0.1866	ug/L	-0.1866	ppb	16:53:11
1	S 181.975 Axial†	43.6	-5.5	-6.7828	ug/L	-6.7828	ppb	16:53:11
1	Sb 206.836†	25.8	-15.5	-4.5984	ug/L	-4.5984	ppb	16:53:11
1	Se 196.026†	-34.2	-5.6	-3.0630	ug/L	-3.0630	ppb	16:53:11
1	Si 251.611†	633.5	54.3	1.5008	ug/L	1.5008	ppb	16:53:11
1	Sn 189.927†	13.0	9.5	1.4191	ug/L	1.4191	ppb	16:53:11
1	Ti 334.940†	-1333.8	57.4	0.0846	ug/L	0.0846	ppb	16:52:51
1	Tl 190.801†	-32.5	15.7	4.0721	ug/L	4.0721	ppb	16:53:11
1	U 409.014†	-2461.3	-82.5	-2.2713	ug/L	-2.2713	ppb	16:52:51
1	V 292.402†	-1529.1	-55.5	-0.3520	ug/L	-0.3520	ppb	16:52:51
1	Zn 213.857†	846.2	50.4	0.4110	ug/L	0.4110	ppb	16:53:11
1	SiO2†	680.0	71.5	4.2611	ug/L	4.2611	ppb	16:54:07
2	Sc Radial	5592.1	5592.1	100	%			16:51:59
2	Y RADIAL	5949.9	5949.9	100.7	%			16:51:59
2	Al 396.153Radial†	-19.8	-3.3	-2.4472	ug/L	-2.4472	ppb	16:51:59
2	Ca 317.933Radial†	31.9	12.1	17.321	ug/L	17.321	ppb	16:52:19
2	Fe 238.204 Radial†	11.4	0.5	4.1575	ug/L	4.1575	ppb	16:52:19
2	K 766.490 Radial†	2781.3	56.6	9.9699	ug/L	9.9699	ppb	16:51:59
2	Mg 279.077 IEC†	4.1	2.7	82.457	ug/L	82.457	ppb	16:52:19
2	Na 589.592 Radial†	-766.5	-1.4	-0.4208	ug/L	-0.4208	ppb	16:51:59
2	Sr 421.552†	28.6	40.3	0.2359	ug/L	0.2359	ppb	16:51:59
2	Sc 361.383	904486.1	904486.1	100.62	%			16:53:16
2	Y 371.029	748570.8	748570.8	100.55	%			16:53:16
2	Ag 328.068†	408.0	35.6	0.1552	ug/L	0.1552	ppb	16:53:16
2	As 188.979†	-28.5	6.5	2.3731	ug/L	2.3731	ppb	16:53:36
2	B 249.677†	-355.2	-327.1	-6.7128	ug/L	-6.7128	ppb	16:53:36
2	Ba 233.527†	-4.2	-1.6	-0.0109	ug/L	-0.0109	ppb	16:53:36
2	Be 313.107†	-4690.6	69.5	0.0234	ug/L	0.0234	ppb	16:53:16
2	Cd 226.502†	-218.7	11.8	0.1150	ug/L	0.1150	ppb	16:53:36
2	Co 228.616†	-80.9	6.7	0.1178	ug/L	0.1178	ppb	16:53:36
2	Cr 267.716†	121.5	40.6	0.4120	ug/L	0.4120	ppb	16:53:36
2	Cu 324.752†	6129.6	36.3	0.1027	ug/L	0.1027	ppb	16:53:16
2	Mn 257.610†	517.2	22.5	0.0211	ug/L	0.0211	ppb	16:53:36
2	Mo 202.031†	29.1	9.0	0.5480	ug/L	0.5480	ppb	16:53:36
2	Ni 231.604†	104.1	9.9	0.2161	ug/L	0.2161	ppb	16:53:36

2	P 214.914†	240.5	-19.1	-9.9832	ug/L	-9.9832 ppb	16:53:36
2	Pb 220.353†	-83.2	-18.6	-1.9647	ug/L	-1.9647 ppb	16:53:36
2	S 181.975 Axial†	54.1	4.7	5.8192	ug/L	5.8192 ppb	16:53:36
2	Sb 206.836†	41.4	-0.0	-0.0181	ug/L	-0.0181 ppb	16:53:36
2	Se 196.026†	-22.2	6.4	3.5270	ug/L	3.5270 ppb	16:53:36
2	Si 251.611†	636.9	55.5	1.5531	ug/L	1.5531 ppb	16:53:36
2	Sn 189.927†	0.6	-2.9	-0.4300	ug/L	-0.4300 ppb	16:53:36
2	Ti 334.940†	-1367.0	29.0	0.0432	ug/L	0.0432 ppb	16:53:16
2	Tl 190.801†	-46.8	1.5	0.3983	ug/L	0.3983 ppb	16:53:36
2	U 409.014†	-2432.5	-45.3	-1.2501	ug/L	-1.2501 ppb	16:53:16
2	V 292.402†	-1489.0	-10.4	-0.0599	ug/L	-0.0599 ppb	16:53:16
2	Zn 213.857†	855.6	56.8	0.4613	ug/L	0.4613 ppb	16:53:36
2	SiO2†	665.1	54.4	3.2668	ug/L	3.2668 ppb	16:54:12
3	Sc Radial	5629.6	5629.6	101	%		16:52:24
3	Y RADIAL	6005.7	6005.7	101.6	%		16:52:24
3	Al 396.153Radial†	-7.1	9.4	6.8037	ug/L	6.8037 ppb	16:52:24
3	Ca 317.933Radial†	30.4	10.5	14.952	ug/L	14.952 ppb	16:52:44
3	Fe 238.204 Radial†	10.4	-0.6	-4.6195	ug/L	-4.6195 ppb	16:52:44
3	K 766.490 Radial†	2850.6	106.6	18.797	ug/L	18.797 ppb	16:52:24
3	Mg 279.077 IEC†	2.3	0.9	28.577	ug/L	28.577 ppb	16:52:44
3	Na 589.592 Radial†	-820.3	-49.5	-14.786	ug/L	-14.786 ppb	16:52:24
3	Sr 421.552†	23.9	35.4	0.2076	ug/L	0.2076 ppb	16:52:24
3	Sc 361.383	898232.8	898232.8	99.925	%		16:53:41
3	Y 371.029	744253.0	744253.0	99.972	%		16:53:41
3	Ag 328.068†	289.1	-80.6	-0.3460	ug/L	-0.3460 ppb	16:53:41
3	As 188.979†	-20.9	13.9	5.0532	ug/L	5.0532 ppb	16:54:01
3	B 249.677†	-391.6	-366.0	-7.5102	ug/L	-7.5102 ppb	16:54:01
3	Ba 233.527†	-3.5	-0.9	-0.0054	ug/L	-0.0054 ppb	16:54:01
3	Be 313.107†	-4718.3	9.2	0.0031	ug/L	0.0031 ppb	16:53:41
3	Cd 226.502†	-215.7	13.3	0.1312	ug/L	0.1312 ppb	16:54:01
3	Co 228.616†	-83.2	3.9	0.0702	ug/L	0.0702 ppb	16:54:01
3	Cr 267.716†	94.0	13.9	0.1422	ug/L	0.1422 ppb	16:54:01
3	Cu 324.752†	6171.6	120.6	0.3406	ug/L	0.3406 ppb	16:53:41
3	Mn 257.610†	535.5	44.4	0.0428	ug/L	0.0428 ppb	16:54:01
3	Mo 202.031†	35.5	15.7	0.9477	ug/L	0.9477 ppb	16:54:01
3	Ni 231.604†	118.5	25.0	0.5457	ug/L	0.5457 ppb	16:54:01
3	P 214.914†	255.8	-2.1	-1.1233	ug/L	-1.1233 ppb	16:54:01
3	Pb 220.353†	-79.6	-15.6	-1.6435	ug/L	-1.6435 ppb	16:54:01
3	S 181.975 Axial†	52.0	3.0	3.7069	ug/L	3.7069 ppb	16:54:01
3	Sb 206.836†	45.7	4.5	1.3815	ug/L	1.3815 ppb	16:54:01
3	Se 196.026†	-25.6	2.9	1.5906	ug/L	1.5906 ppb	16:54:01
3	Si 251.611†	634.5	57.5	1.5951	ug/L	1.5951 ppb	16:54:01
3	Sn 189.927†	11.0	7.5	1.1278	ug/L	1.1278 ppb	16:54:01
3	Ti 334.940†	-1383.7	2.8	0.0057	ug/L	0.0057 ppb	16:53:41
3	Tl 190.801†	-40.3	7.7	2.0025	ug/L	2.0025 ppb	16:54:01
3	U 409.014†	-2445.3	-74.9	-2.0639	ug/L	-2.0639 ppb	16:53:41
3	V 292.402†	-1423.1	45.2	0.2984	ug/L	0.2984 ppb	16:53:41
3	Zn 213.857†	852.2	59.3	0.4823	ug/L	0.4823 ppb	16:54:01
3	SiO2†	635.0	28.8	1.6888	ug/L	1.6888 ppb	16:54:17

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	901353.4	100.27	%	0.348				0.35%
Sc Radial	5526.0	99.3	%	2.66				2.68%
Y 371.029	746636.0	100.29	%	0.295				0.29%
Y RADIAL	5884.0	99.54	%	2.788				2.80%
Ag 328.068†	8.5	0.0374	ug/L	0.34017	0.0374	ppb	0.34017	909.61%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-3.1	-2.2739	ug/L	8.99212	-2.2739	ppb	8.99212	395.46%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	8.3	3.0068	ug/L	1.81450	3.0068	ppb	1.81450	60.35%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-366.2	-7.5152	ug/L	0.80485	-7.5152	ppb	0.80485	10.71%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-0.8	-0.0055	ug/L	0.00541	-0.0055	ppb	0.00541	98.56%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	51.6	0.0174	ug/L	0.01242	0.0174	ppb	0.01242	71.43%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	10.1	14.381	ug/L	3.2628	14.381	ppb	3.2628	22.69%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                11.0      0.1079 ug/L       0.02763      0.1079 ppb        0.02763  25.61%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                 2.5      0.0445 ug/L       0.08887      0.0445 ppb        0.08887 199.64%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                18.6      0.1890 ug/L       0.20357      0.1890 ppb        0.20357 107.69%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†                37.6      0.1062 ug/L       0.23269      0.1062 ppb        0.23269 219.13%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -0.2     -1.4996 ug/L       4.90783     -1.4996 ppb        4.90783 327.28%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         171.8      30.288 ug/L       27.8987      30.288 ppb        27.8987  92.11%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             1.5      45.175 ug/L       32.3515      45.175 ppb        32.3515  71.61%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                32.6      0.0312 ug/L       0.01093      0.0312 ppb        0.01093  35.04%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                10.0      0.6037 ug/L       0.31976      0.6037 ppb        0.31976  52.97%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        -37.4     -11.169 ug/L        9.4730     -11.169 ppb         9.4730  84.81%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                15.6      0.3410 ug/L       0.17875      0.3410 ppb        0.17875  52.42%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -7.5     -3.9439 ug/L       5.23400     -3.9439 ppb        5.23400 132.71%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               -12.0     -1.2649 ug/L       0.94759     -1.2649 ppb        0.94759  74.91%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            0.7      0.9144 ug/L       6.74914      0.9144 ppb        6.74914 738.06%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                -3.7     -1.0783 ug/L       3.12772     -1.0783 ppb        3.12772 290.05%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 1.3      0.6849 ug/L       3.38706      0.6849 ppb        3.38706 494.56%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                55.8      1.5497 ug/L       0.04723      1.5497 ppb        0.04723   3.05%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 4.7      0.7056 ug/L       0.99423      0.7056 ppb        0.99423 140.90%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                36.5      0.2138 ug/L       0.01977      0.2138 ppb        0.01977   9.25%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                29.7      0.0445 ug/L       0.03944      0.0445 ppb        0.03944  88.61%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 8.3      2.1577 ug/L       1.84182      2.1577 ppb        1.84182  85.36%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                -67.6     -1.8618 ug/L       0.53976     -1.8618 ppb        0.53976  28.99%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 -6.9     -0.0378 ug/L       0.32577     -0.0378 ppb        0.32577 860.84%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                55.5      0.4515 ug/L       0.03659      0.4515 ppb        0.03659   8.10%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                      51.6      3.0722 ug/L       1.29713      3.0722 ppb        1.29713  42.22%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 36
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 12/19/2009 17:30:40
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	6232.9	6232.9	112	%			17:32:32
1	Y RADIAL	6556.3	6556.3	110.9	%			17:32:32
1	Al 396.153Radial†	6769.6	6063.1	4396.7	ug/L	4396.7	ppb	17:32:32
1	Ca 317.933Radial†	3480.7	3089.4	4404.7	ug/L	4404.7	ppb	17:32:52
1	Fe 238.204 Radial†	608.0	532.2	4440.0	ug/L	4440.0	ppb	17:32:52
1	K 766.490 Radial†	30508.1	24537.8	4316.6	ug/L	4316.6	ppb	17:32:32
1	Mg 279.077 IEC†	167.8	148.5	4617.3	ug/L	4617.3	ppb	17:32:52
1	Na 589.592 Radial†	31462.1	28864.0	8615.1	ug/L	8615.1	ppb	17:32:32
1	Sr 421.552†	84122.0	75150.7	440.63	ug/L	440.63	ppb	17:32:32
1	Sc 361.383	909689.5	909689.5	101.20	%			17:33:50
1	Y 371.029	740657.6	740657.6	99.489	%			17:33:50
1	Ag 328.068†	118953.9	117174.3	507.94	ug/L	507.94	ppb	17:33:55
1	As 188.979†	1367.4	1386.0	507.44	ug/L	507.44	ppb	17:34:15
1	B 249.677†	24326.1	24063.7	491.97	ug/L	491.97	ppb	17:33:55
1	Ba 233.527†	75515.2	74622.9	508.47	ug/L	508.47	ppb	17:33:55
1	Be 313.107†	1515204.0	1501978.7	504.69	ug/L	504.69	ppb	17:33:50
1	Cd 226.502†	52397.2	52005.4	508.49	ug/L	508.49	ppb	17:33:55
1	Co 228.616†	29381.8	29120.7	509.90	ug/L	509.90	ppb	17:33:55
1	Cr 267.716†	50815.3	50133.0	509.08	ug/L	509.08	ppb	17:33:55
1	Cu 324.752†	187740.9	179460.4	507.27	ug/L	507.27	ppb	17:33:55
1	Mn 257.610†	518766.4	512127.1	505.50	ug/L	505.50	ppb	17:33:50
1	Mo 202.031†	8309.6	8191.3	496.14	ug/L	496.14	ppb	17:34:15
1	Ni 231.604†	23687.6	23313.3	509.05	ug/L	509.05	ppb	17:33:55
1	P 214.914†	5085.1	4766.8	2409.9	ug/L	2409.9	ppb	17:34:15
1	Pb 220.353†	4732.3	4740.2	500.97	ug/L	500.97	ppb	17:34:15
1	S 181.975 Axial†	862.4	803.1	984.42	ug/L	984.42	ppb	17:34:15
1	Sb 206.836†	1731.8	1670.1	507.20	ug/L	507.20	ppb	17:34:15
1	Se 196.026†	893.3	911.2	512.10	ug/L	512.10	ppb	17:34:15
1	Si 251.611†	91244.9	89586.1	2514.5	ug/L	2514.5	ppb	17:33:55
1	Sn 189.927†	3339.1	3296.1	494.86	ug/L	494.86	ppb	17:34:15
1	Ti 334.940†	349174.4	346423.9	500.70	ug/L	500.70	ppb	17:33:50
1	Tl 190.801†	1906.2	1931.7	504.34	ug/L	504.34	ppb	17:34:15
1	U 409.014†	16159.4	18340.1	503.77	ug/L	503.77	ppb	17:33:55
1	V 292.402†	78907.4	79441.7	512.02	ug/L	512.02	ppb	17:33:55
1	Zn 213.857†	63813.7	62263.9	506.21	ug/L	506.21	ppb	17:33:55
1	SiO2†	90418.4	88740.2	5347.8	ug/L	5347.8	ppb	17:35:23
2	Sc Radial	5407.4	5407.4	97.1	%			17:32:57
2	Y RADIAL	5741.6	5741.6	97.13	%			17:32:57
2	Al 396.153Radial†	6759.9	6976.1	5061.6	ug/L	5061.6	ppb	17:32:57
2	Ca 317.933Radial†	3501.1	3585.0	5111.3	ug/L	5111.3	ppb	17:33:17
2	Fe 238.204 Radial†	616.6	623.9	5202.7	ug/L	5202.7	ppb	17:33:17
2	K 766.490 Radial†	30641.6	28835.1	5073.5	ug/L	5073.5	ppb	17:32:57
2	Mg 279.077 IEC†	164.2	167.7	5211.6	ug/L	5211.6	ppb	17:33:17
2	Na 589.592 Radial†	31208.8	32893.2	9817.7	ug/L	9817.7	ppb	17:32:57
2	Sr 421.552†	83521.3	86002.6	504.26	ug/L	504.26	ppb	17:32:57
2	Sc 361.383	898709.0	898709.0	99.978	%			17:34:21
2	Y 371.029	730582.1	730582.1	98.135	%			17:34:21
2	Ag 328.068†	117566.8	117223.0	508.41	ug/L	508.41	ppb	17:34:26
2	As 188.979†	1359.3	1394.5	510.63	ug/L	510.63	ppb	17:34:46
2	B 249.677†	24106.9	24138.2	493.40	ug/L	493.40	ppb	17:34:26
2	Ba 233.527†	74940.4	74959.6	510.80	ug/L	510.80	ppb	17:34:26
2	Be 313.107†	1496213.8	1501277.6	504.45	ug/L	504.45	ppb	17:34:21
2	Cd 226.502†	52000.7	52241.4	510.72	ug/L	510.72	ppb	17:34:26
2	Co 228.616†	29075.7	29169.3	510.76	ug/L	510.76	ppb	17:34:26
2	Cr 267.716†	50251.2	50182.3	509.60	ug/L	509.60	ppb	17:34:26
2	Cu 324.752†	185305.1	179290.8	506.83	ug/L	506.83	ppb	17:34:26
2	Mn 257.610†	514173.2	513796.0	507.22	ug/L	507.22	ppb	17:34:21
2	Mo 202.031†	8347.2	8329.2	504.54	ug/L	504.54	ppb	17:34:46
2	Ni 231.604†	23521.0	23432.6	511.66	ug/L	511.66	ppb	17:34:26

2	P 214.914†	5083.2	4826.2	2440.7	ug/L	2440.7 ppb	17:34:46
2	Pb 220.353†	4749.3	4814.4	508.89	ug/L	508.89 ppb	17:34:46
2	S 181.975 Axial†	863.7	814.9	998.70	ug/L	998.70 ppb	17:34:46
2	Sb 206.836†	1746.4	1705.6	518.20	ug/L	518.20 ppb	17:34:46
2	Se 196.026†	901.3	930.0	524.78	ug/L	524.78 ppb	17:34:46
2	Si 251.611†	90267.8	89710.5	2517.6	ug/L	2517.6 ppb	17:34:26
2	Sn 189.927†	3379.8	3377.0	507.08	ug/L	507.08 ppb	17:34:46
2	Ti 334.940†	345573.9	347038.4	501.63	ug/L	501.63 ppb	17:34:21
2	Tl 190.801†	1904.8	1953.2	509.95	ug/L	509.95 ppb	17:34:46
2	U 409.014†	15728.3	18104.1	497.17	ug/L	497.17 ppb	17:34:26
2	V 292.402†	78371.1	79858.0	514.67	ug/L	514.67 ppb	17:34:26
2	Zn 213.857†	63191.7	62412.2	507.32	ug/L	507.32 ppb	17:34:26
2	SiO2†	90637.2	90050.7	5426.2	ug/L	5426.2 ppb	17:35:28
3	Sc Radial	5448.9	5448.9	97.9	%		17:33:22
3	Y RADIAL	5766.3	5766.3	97.55	%		17:33:22
3	Al 396.153Radial†	6845.2	7010.4	5086.7	ug/L	5086.7 ppb	17:33:22
3	Ca 317.933Radial†	3509.8	3566.5	5084.9	ug/L	5084.9 ppb	17:33:42
3	Fe 238.204 Radial†	617.1	619.6	5167.0	ug/L	5167.0 ppb	17:33:42
3	K 766.490 Radial†	30845.1	28803.0	5067.8	ug/L	5067.8 ppb	17:33:22
3	Mg 279.077 IEC†	165.5	167.7	5213.8	ug/L	5213.8 ppb	17:33:42
3	Na 589.592 Radial†	31499.2	32945.4	9833.2	ug/L	9833.2 ppb	17:33:22
3	Sr 421.552†	84708.7	86561.3	507.54	ug/L	507.54 ppb	17:33:22
3	Sc 361.383	900959.4	900959.4	100.23	%		17:34:52
3	Y 371.029	732906.0	732906.0	98.447	%		17:34:52
3	Ag 328.068†	117393.6	116756.5	506.37	ug/L	506.37 ppb	17:34:57
3	As 188.979†	1359.0	1390.7	509.30	ug/L	509.30 ppb	17:35:17
3	B 249.677†	24014.7	23986.0	490.28	ug/L	490.28 ppb	17:34:57
3	Ba 233.527†	74767.6	74600.0	508.35	ug/L	508.35 ppb	17:34:57
3	Be 313.107†	1516090.2	1517370.8	509.86	ug/L	509.86 ppb	17:34:52
3	Cd 226.502†	51797.3	51908.6	507.47	ug/L	507.47 ppb	17:34:57
3	Co 228.616†	29029.0	29050.0	508.65	ug/L	508.65 ppb	17:34:57
3	Cr 267.716†	50250.9	50056.4	508.32	ug/L	508.32 ppb	17:34:57
3	Cu 324.752†	184897.8	178421.4	504.37	ug/L	504.37 ppb	17:34:57
3	Mn 257.610†	520010.6	518335.6	511.69	ug/L	511.69 ppb	17:34:52
3	Mo 202.031†	8318.6	8279.7	501.55	ug/L	501.55 ppb	17:35:17
3	Ni 231.604†	23485.6	23338.5	509.60	ug/L	509.60 ppb	17:34:57
3	P 214.914†	5065.6	4796.0	2425.3	ug/L	2425.3 ppb	17:35:17
3	Pb 220.353†	4710.1	4763.4	503.52	ug/L	503.52 ppb	17:35:17
3	S 181.975 Axial†	862.0	811.0	993.95	ug/L	993.95 ppb	17:35:17
3	Sb 206.836†	1733.4	1688.2	512.87	ug/L	512.87 ppb	17:35:17
3	Se 196.026†	898.6	925.1	521.96	ug/L	521.96 ppb	17:35:17
3	Si 251.611†	90045.6	89263.2	2505.1	ug/L	2505.1 ppb	17:34:57
3	Sn 189.927†	3354.9	3343.8	502.09	ug/L	502.09 ppb	17:35:17
3	Ti 334.940†	350142.5	350733.2	506.97	ug/L	506.97 ppb	17:34:52
3	Tl 190.801†	1905.0	1948.8	508.88	ug/L	508.88 ppb	17:35:17
3	U 409.014†	16132.3	18467.8	507.20	ug/L	507.20 ppb	17:34:57
3	V 292.402†	78146.1	79437.6	511.97	ug/L	511.97 ppb	17:34:57
3	Zn 213.857†	63021.4	62084.4	504.65	ug/L	504.65 ppb	17:34:57
3	SiO2†	89945.1	89133.8	5370.9	ug/L	5370.9 ppb	17:35:33

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	903119.3	100.47	%	0.645				0.64%
Sc Radial	5696.4	102	%	8.4				8.16%
Y 371.029	734715.2	98.690	%	0.7087				0.72%
Y RADIAL	6021.4	101.9	%	7.84				7.70%
Ag 328.068†	117051.3	507.57	ug/L	1.069	507.57	ppb	1.069	0.21%
QC value within limits for Ag 328.068 Recovery = 101.51%								
Al 396.153Radial†	6683.2	4848.3	ug/L	391.33	4848.3	ppb	391.33	8.07%
QC value within limits for Al 396.153Radial Recovery = 96.97%								
As 188.979†	1390.4	509.12	ug/L	1.599	509.12	ppb	1.599	0.31%
QC value within limits for As 188.979 Recovery = 101.82%								
B 249.677†	24062.6	491.88	ug/L	1.558	491.88	ppb	1.558	0.32%
QC value within limits for B 249.677 Recovery = 98.38%								
Ba 233.527†	74727.5	509.20	ug/L	1.380	509.20	ppb	1.380	0.27%
QC value within limits for Ba 233.527 Recovery = 101.84%								
Be 313.107†	1506875.7	506.34	ug/L	3.057	506.34	ppb	3.057	0.60%
QC value within limits for Be 313.107 Recovery = 101.27%								
Ca 317.933Radial†	3413.7	4867.0	ug/L	400.56	4867.0	ppb	400.56	8.23%

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   QC value within limits for Ca 317.933Radial  Recovery = 97.34%
Cd 226.502†            52051.8      508.90 ug/L         1.664      508.90 ppb          1.664   0.33%
   QC value within limits for Cd 226.502  Recovery = 101.78%
Co 228.616†            29113.3      509.77 ug/L         1.060      509.77 ppb          1.060   0.21%
   QC value within limits for Co 228.616  Recovery = 101.95%
Cr 267.716†            50123.9      509.00 ug/L         0.646      509.00 ppb          0.646   0.13%
   QC value within limits for Cr 267.716  Recovery = 101.80%
Cu 324.752†           179057.6      506.15 ug/L         1.562      506.15 ppb          1.562   0.31%
   QC value within limits for Cu 324.752  Recovery = 101.23%
Fe 238.204 Radial†       591.9      4936.6 ug/L        430.43      4936.6 ppb         430.43   8.72%
   QC value within limits for Fe 238.204 Radial  Recovery = 98.73%
K 766.490 Radial†      27392.0      4819.3 ug/L        435.35      4819.3 ppb         435.35   9.03%
   QC value within limits for K 766.490 Radial  Recovery = 96.39%
Mg 279.077 IEC†          161.3      5014.2 ug/L        343.77      5014.2 ppb         343.77   6.86%
   QC value within limits for Mg 279.077 IEC  Recovery = 100.28%
Mn 257.610†           514752.9      508.14 ug/L         3.194      508.14 ppb          3.194   0.63%
   QC value within limits for Mn 257.610  Recovery = 101.63%
Mo 202.031†             8266.7      500.75 ug/L         4.259      500.75 ppb          4.259   0.85%
   QC value within limits for Mo 202.031  Recovery = 100.15%
Na 589.592 Radial†     31567.5      9422.0 ug/L        698.86      9422.0 ppb         698.86   7.42%
   QC value within limits for Na 589.592 Radial  Recovery = 94.22%
Ni 231.604†            23361.5      510.10 ug/L         1.374      510.10 ppb          1.374   0.27%
   QC value within limits for Ni 231.604  Recovery = 102.02%
P 214.914†              4796.3      2425.3 ug/L         15.43      2425.3 ppb          15.43   0.64%
   QC value within limits for P 214.914  Recovery = 97.01%
Pb 220.353†             4772.7      504.46 ug/L         4.046      504.46 ppb          4.046   0.80%
   QC value within limits for Pb 220.353  Recovery = 100.89%
S 181.975 Axial†         809.7      992.36 ug/L         7.276      992.36 ppb          7.276   0.73%
   QC value within limits for S 181.975 Axial  Recovery = 99.24%
Sb 206.836†             1688.0      512.76 ug/L         5.504      512.76 ppb          5.504   1.07%
   QC value within limits for Sb 206.836  Recovery = 102.55%
Se 196.026†              922.1      519.61 ug/L         6.655      519.61 ppb          6.655   1.28%
   QC value within limits for Se 196.026  Recovery = 103.92%
Si 251.611†            89519.9      2512.4 ug/L          6.54      2512.4 ppb           6.54   0.26%
   QC value within limits for Si 251.611  Recovery = 100.50%
Sn 189.927†             3339.0      501.34 ug/L         6.145      501.34 ppb          6.145   1.23%
   QC value within limits for Sn 189.927  Recovery = 100.27%
Sr 421.552†            82571.5      484.14 ug/L        37.717      484.14 ppb         37.717   7.79%
   QC value within limits for Sr 421.552  Recovery = 96.83%
Ti 334.940†           348065.2      503.10 ug/L         3.381      503.10 ppb          3.381   0.67%
   QC value within limits for Ti 334.940  Recovery = 100.62%
Tl 190.801†             1944.6      507.72 ug/L         2.980      507.72 ppb          2.980   0.59%
   QC value within limits for Tl 190.801  Recovery = 101.54%
U 409.014†             18304.0      502.71 ug/L         5.097      502.71 ppb          5.097   1.01%
   QC value within limits for U 409.014  Recovery = 100.54%
V 292.402†             79579.1      512.89 ug/L         1.544      512.89 ppb          1.544   0.30%
   QC value within limits for V 292.402  Recovery = 102.58%
Zn 213.857†            62253.5      506.06 ug/L         1.341      506.06 ppb          1.341   0.26%
   QC value within limits for Zn 213.857  Recovery = 101.21%
SiO2†                  89308.2      5381.6 ug/L         40.29      5381.6 ppb          40.29   0.75%
   QC value within limits for SiO2  Recovery = 100.64%
All analyte(s) passed QC.
```

Sequence No.: 37
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 12/19/2009 17:37:42
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5462.8	5462.8	98.1	%			17:39:34
1	Y RADIAL	5855.1	5855.1	99.05	%			17:39:34
1	Al 396.153Radial†	-10.2	5.9	4.3101	ug/L	4.3101	ppb	17:39:34
1	Ca 317.933Radial†	18.4	-0.8	-1.1435	ug/L	-1.1435	ppb	17:39:54
1	Fe 238.204 Radial†	9.4	-1.3	-10.696	ug/L	-10.696	ppb	17:39:54
1	K 766.490 Radial†	2738.6	78.5	13.850	ug/L	13.850	ppb	17:39:34
1	Mg 279.077 IEC†	3.2	1.9	58.280	ug/L	58.280	ppb	17:39:54
1	Na 589.592 Radial†	-806.8	-60.6	-18.084	ug/L	-18.084	ppb	17:39:34
1	Sr 421.552†	-14.0	-2.4	-0.0142	ug/L	-0.0142	ppb	17:39:34
1	Sc 361.383	909741.3	909741.3	101.21	%			17:40:51
1	Y 371.029	750297.3	750297.3	100.78	%			17:40:51
1	Ag 328.068†	394.8	20.2	0.0805	ug/L	0.0805	ppb	17:40:56
1	As 188.979†	-27.6	7.6	2.7452	ug/L	2.7452	ppb	17:41:16
1	B 249.677†	-380.1	-349.6	-7.1728	ug/L	-7.1728	ppb	17:41:16
1	Ba 233.527†	1.7	4.3	0.0280	ug/L	0.0280	ppb	17:41:16
1	Be 313.107†	-4620.4	165.7	0.0558	ug/L	0.0558	ppb	17:40:56
1	Cd 226.502†	-218.5	13.3	0.1312	ug/L	0.1312	ppb	17:41:16
1	Co 228.616†	-97.0	-8.8	-0.1526	ug/L	-0.1526	ppb	17:41:16
1	Cr 267.716†	105.0	23.6	0.2378	ug/L	0.2378	ppb	17:41:16
1	Cu 324.752†	6158.0	29.1	0.0817	ug/L	0.0817	ppb	17:40:56
1	Mn 257.610†	495.6	-1.7	-0.0039	ug/L	-0.0039	ppb	17:41:16
1	Mo 202.031†	26.8	6.6	0.4015	ug/L	0.4015	ppb	17:41:16
1	Ni 231.604†	117.0	22.0	0.4814	ug/L	0.4814	ppb	17:41:16
1	P 214.914†	248.6	-12.4	-6.4657	ug/L	-6.4657	ppb	17:41:16
1	Pb 220.353†	-103.0	-37.7	-3.9679	ug/L	-3.9679	ppb	17:41:16
1	S 181.975 Axial†	50.5	0.9	1.1319	ug/L	1.1319	ppb	17:41:16
1	Sb 206.836†	35.6	-6.0	-1.7983	ug/L	-1.7983	ppb	17:41:16
1	Se 196.026†	-26.8	2.0	1.0833	ug/L	1.0833	ppb	17:41:16
1	Si 251.611†	650.8	65.6	1.8367	ug/L	1.8367	ppb	17:41:16
1	Sn 189.927†	5.1	1.6	0.2399	ug/L	0.2399	ppb	17:41:16
1	Ti 334.940†	-1321.6	81.7	0.1169	ug/L	0.1169	ppb	17:40:56
1	Tl 190.801†	-36.3	12.2	3.1668	ug/L	3.1668	ppb	17:41:16
1	U 409.014†	-2310.7	89.1	2.4545	ug/L	2.4545	ppb	17:40:51
1	V 292.402†	-1524.9	-37.3	-0.2240	ug/L	-0.2240	ppb	17:40:56
1	Zn 213.857†	770.4	-32.3	-0.2694	ug/L	-0.2694	ppb	17:41:16
1	SiO2†	638.2	23.9	1.4218	ug/L	1.4218	ppb	17:42:22
2	Sc Radial	5492.6	5492.6	98.7	%			17:39:59
2	Y RADIAL	5822.2	5822.2	98.49	%			17:39:59
2	Al 396.153Radial†	-19.6	-3.5	-2.5917	ug/L	-2.5917	ppb	17:39:59
2	Ca 317.933Radial†	17.9	-1.4	-2.0141	ug/L	-2.0141	ppb	17:40:19
2	Fe 238.204 Radial†	8.8	-2.0	-16.365	ug/L	-16.365	ppb	17:40:19
2	K 766.490 Radial†	2870.9	197.5	34.813	ug/L	34.813	ppb	17:39:59
2	Mg 279.077 IEC†	-0.1	-1.5	-45.435	ug/L	-45.435	ppb	17:40:19
2	Na 589.592 Radial†	-818.3	-67.8	-20.227	ug/L	-20.227	ppb	17:39:59
2	Sr 421.552†	-24.9	-13.4	-0.0788	ug/L	-0.0788	ppb	17:39:59
2	Sc 361.383	909449.5	909449.5	101.17	%			17:41:21
2	Y 371.029	750555.7	750555.7	100.82	%			17:41:21
2	Ag 328.068†	372.4	-1.9	-0.0141	ug/L	-0.0141	ppb	17:41:26
2	As 188.979†	-20.3	14.8	5.3630	ug/L	5.3630	ppb	17:41:46
2	B 249.677†	-385.5	-355.1	-7.2848	ug/L	-7.2848	ppb	17:41:46
2	Ba 233.527†	-0.1	2.5	0.0163	ug/L	0.0163	ppb	17:41:46
2	Be 313.107†	-4731.5	54.4	0.0183	ug/L	0.0183	ppb	17:41:26
2	Cd 226.502†	-232.1	-0.3	-0.0007	ug/L	-0.0007	ppb	17:41:46
2	Co 228.616†	-98.2	-9.9	-0.1720	ug/L	-0.1720	ppb	17:41:46
2	Cr 267.716†	93.9	12.7	0.1280	ug/L	0.1280	ppb	17:41:46
2	Cu 324.752†	6198.4	71.0	0.1997	ug/L	0.1997	ppb	17:41:26
2	Mn 257.610†	478.5	-18.5	-0.0190	ug/L	-0.0190	ppb	17:41:46
2	Mo 202.031†	30.7	10.4	0.6313	ug/L	0.6313	ppb	17:41:46
2	Ni 231.604†	119.4	24.5	0.5349	ug/L	0.5349	ppb	17:41:46

2	P 214.914†	255.5	-5.6	-2.9450	ug/L	-2.9450	ppb	17:41:46
2	Pb 220.353†	-70.1	-5.2	-0.5492	ug/L	-0.5492	ppb	17:41:46
2	S 181.975 Axial†	47.6	-1.9	-2.3506	ug/L	-2.3506	ppb	17:41:46
2	Sb 206.836†	43.1	1.3	0.3957	ug/L	0.3957	ppb	17:41:46
2	Se 196.026†	-24.0	4.8	2.5515	ug/L	2.5515	ppb	17:41:46
2	Si 251.611†	661.7	76.5	2.1381	ug/L	2.1381	ppb	17:41:46
2	Sn 189.927†	-2.7	-6.1	-0.9194	ug/L	-0.9194	ppb	17:41:46
2	Ti 334.940†	-1405.6	-1.7	-0.0030	ug/L	-0.0030	ppb	17:41:26
2	Tl 190.801†	-36.5	12.0	3.1236	ug/L	3.1236	ppb	17:41:46
2	U 409.014†	-2367.2	32.4	0.8952	ug/L	0.8952	ppb	17:41:21
2	V 292.402†	-1480.5	6.1	0.0510	ug/L	0.0510	ppb	17:41:26
2	Zn 213.857†	786.1	-16.6	-0.1363	ug/L	-0.1363	ppb	17:41:46
2	SiO2†	668.6	54.2	3.2359	ug/L	3.2359	ppb	17:42:27
3	Sc Radial	5601.8	5601.8	101	%			17:40:24
3	Y RADIAL	5948.6	5948.6	100.6	%			17:40:24
3	Al 396.153Radial†	-18.0	-1.5	-1.1391	ug/L	-1.1391	ppb	17:40:24
3	Ca 317.933Radial†	23.4	3.6	5.1883	ug/L	5.1883	ppb	17:40:44
3	Fe 238.204 Radial†	8.2	-2.8	-22.947	ug/L	-22.947	ppb	17:40:44
3	K 766.490 Radial†	2823.2	93.4	16.474	ug/L	16.474	ppb	17:40:24
3	Mg 279.077 IEC†	1.3	-0.1	-3.3732	ug/L	-3.3732	ppb	17:40:44
3	Na 589.592 Radial†	-822.2	-55.4	-16.548	ug/L	-16.548	ppb	17:40:24
3	Sr 421.552†	-24.1	-12.2	-0.0713	ug/L	-0.0713	ppb	17:40:24
3	Sc 361.383	913029.2	913029.2	101.57	%			17:41:51
3	Y 371.029	752745.2	752745.2	101.11	%			17:41:51
3	Ag 328.068†	358.0	-17.4	-0.0825	ug/L	-0.0825	ppb	17:41:56
3	As 188.979†	-27.1	8.1	2.9498	ug/L	2.9498	ppb	17:42:16
3	B 249.677†	-360.5	-329.0	-6.7489	ug/L	-6.7489	ppb	17:42:16
3	Ba 233.527†	5.0	7.5	0.0510	ug/L	0.0510	ppb	17:42:16
3	Be 313.107†	-4611.1	191.3	0.0644	ug/L	0.0644	ppb	17:41:56
3	Cd 226.502†	-219.0	13.5	0.1351	ug/L	0.1351	ppb	17:42:16
3	Co 228.616†	-75.6	12.7	0.2249	ug/L	0.2249	ppb	17:42:16
3	Cr 267.716†	112.3	30.4	0.3080	ug/L	0.3080	ppb	17:42:16
3	Cu 324.752†	6117.4	-32.8	-0.0938	ug/L	-0.0938	ppb	17:41:56
3	Mn 257.610†	476.2	-22.6	-0.0246	ug/L	-0.0246	ppb	17:42:16
3	Mo 202.031†	40.7	20.2	1.2181	ug/L	1.2181	ppb	17:42:16
3	Ni 231.604†	126.9	31.3	0.6848	ug/L	0.6848	ppb	17:42:16
3	P 214.914†	249.6	-12.4	-6.4353	ug/L	-6.4353	ppb	17:42:16
3	Pb 220.353†	-89.4	-24.0	-2.5219	ug/L	-2.5219	ppb	17:42:16
3	S 181.975 Axial†	48.6	-1.1	-1.3735	ug/L	-1.3735	ppb	17:42:16
3	Sb 206.836†	45.3	3.4	1.0137	ug/L	1.0137	ppb	17:42:16
3	Se 196.026†	-29.0	-0.0	-0.0703	ug/L	-0.0703	ppb	17:42:16
3	Si 251.611†	647.4	59.9	1.6643	ug/L	1.6643	ppb	17:42:16
3	Sn 189.927†	-1.1	-4.6	-0.6891	ug/L	-0.6891	ppb	17:42:16
3	Ti 334.940†	-1339.1	69.2	0.0999	ug/L	0.0999	ppb	17:41:56
3	Tl 190.801†	-34.6	14.0	3.6308	ug/L	3.6308	ppb	17:42:16
3	U 409.014†	-2383.4	25.7	0.7108	ug/L	0.7108	ppb	17:41:51
3	V 292.402†	-1454.9	37.0	0.2573	ug/L	0.2573	ppb	17:41:56
3	Zn 213.857†	776.3	-29.3	-0.2422	ug/L	-0.2422	ppb	17:42:16
3	SiO2†	678.4	61.3	3.6573	ug/L	3.6573	ppb	17:42:32

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	910740.0	101.32	%	0.221				0.22%
Sc Radial	5519.0	99.1	%	1.31				1.33%
Y 371.029	751199.4	100.90	%	0.181				0.18%
Y RADIAL	5875.3	99.39	%	1.110				1.12%
Ag 328.068†	0.3	-0.0054	ug/L	0.08182	-0.0054	ppb	0.08182	>999.9%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	0.3	0.1931	ug/L	3.63865	0.1931	ppb	3.63865	>999.9%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	10.2	3.6860	ug/L	1.45591	3.6860	ppb	1.45591	39.50%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-344.6	-7.0688	ug/L	0.28269	-7.0688	ppb	0.28269	4.00%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	4.8	0.0318	ug/L	0.01764	0.0318	ppb	0.01764	55.52%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	137.1	0.0461	ug/L	0.02452	0.0461	ppb	0.02452	53.16%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	0.5	0.6769	ug/L	3.93116	0.6769	ppb	3.93116	580.73%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                 8.8      0.0885 ug/L       0.07729      0.0885 ppb        0.07729  87.33%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                -2.0     -0.0332 ug/L       0.22377     -0.0332 ppb        0.22377 673.34%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                22.2      0.2246 ug/L       0.09072      0.2246 ppb        0.09072  40.39%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†                22.4      0.0625 ug/L       0.14770      0.0625 ppb        0.14770 236.22%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -2.0     -16.669 ug/L        6.1315     -16.669 ppb         6.1315  36.78%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         123.1      21.712 ug/L       11.4209      21.712 ppb        11.4209  52.60%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             0.1      3.1570 ug/L       52.16506      3.1570 ppb       52.16506 >999.9%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               -14.3     -0.0158 ug/L       0.01071     -0.0158 ppb        0.01071  67.70%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                12.4      0.7503 ug/L       0.42111      0.7503 ppb        0.42111  56.12%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        -61.3     -18.286 ug/L        1.8481     -18.286 ppb         1.8481  10.11%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                26.0      0.5670 ug/L       0.10546      0.5670 ppb        0.10546  18.60%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -10.1     -5.2820 ug/L       2.02395     -5.2820 ppb        2.02395  38.32%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               -22.3     -2.3463 ug/L       1.71609     -2.3463 ppb        1.71609  73.14%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -0.7     -0.8641 ug/L       1.79630     -0.8641 ppb        1.79630 207.89%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                -0.4     -0.1296 ug/L       1.47774     -0.1296 ppb        1.47774 >999.9%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 2.3      1.1881 ug/L       1.31404      1.1881 ppb        1.31404 110.60%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                67.3      1.8797 ug/L       0.23982      1.8797 ppb        0.23982  12.76%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                -3.0     -0.4562 ug/L       0.61375     -0.4562 ppb        0.61375 134.54%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                -9.3     -0.0548 ug/L       0.03536     -0.0548 ppb        0.03536  64.55%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                49.7      0.0713 ug/L       0.06490      0.0713 ppb        0.06490  91.06%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                12.7      3.3071 ug/L       0.28115      3.3071 ppb        0.28115   8.50%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 49.1      1.3535 ug/L       0.95795      1.3535 ppb        0.95795  70.77%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                  1.9      0.0281 ug/L       0.24146      0.0281 ppb        0.24146 858.33%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               -26.1     -0.2160 ug/L       0.07029     -0.2160 ppb        0.07029  32.54%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                      46.5      2.7717 ug/L       1.18788      2.7717 ppb        1.18788  42.86%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 47
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 12/19/2009 18:46:58
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5647.2	5647.2	101	%			18:48:50
1	Y RADIAL	5941.0	5941.0	100.5	%			18:48:50
1	Al 396.153Radial†	6908.7	6827.4	4954.1	ug/L	4954.1	ppb	18:48:50
1	Ca 317.933Radial†	3508.2	3439.0	4903.1	ug/L	4903.1	ppb	18:49:10
1	Fe 238.204 Radial†	616.9	597.3	4980.2	ug/L	4980.2	ppb	18:49:10
1	K 766.490 Radial†	30947.2	27796.9	4891.0	ug/L	4891.0	ppb	18:48:50
1	Mg 279.077 IEC†	164.3	160.6	4992.1	ug/L	4992.1	ppb	18:49:10
1	Na 589.592 Radial†	31381.8	31699.4	9461.3	ug/L	9461.3	ppb	18:48:50
1	Sr 421.552†	84592.2	83407.1	489.04	ug/L	489.04	ppb	18:48:50
1	Sc 361.383	951738.4	951738.4	105.88	%			18:50:09
1	Y 371.029	774917.7	774917.7	104.09	%			18:50:09
1	Ag 328.068†	116624.5	109781.0	476.18	ug/L	476.18	ppb	18:50:09
1	As 188.979†	1371.7	1330.4	487.12	ug/L	487.12	ppb	18:50:29
1	B 249.677†	23713.9	22423.5	458.32	ug/L	458.32	ppb	18:50:09
1	Ba 233.527†	74517.9	70384.1	479.62	ug/L	479.62	ppb	18:50:09
1	Be 313.107†	1500672.8	1422103.9	477.85	ug/L	477.85	ppb	18:50:09
1	Cd 226.502†	51538.3	48906.7	478.11	ug/L	478.11	ppb	18:50:09
1	Co 228.616†	28662.9	27159.0	475.58	ug/L	475.58	ppb	18:50:29
1	Cr 267.716†	49888.1	47038.7	477.68	ug/L	477.68	ppb	18:50:09
1	Cu 324.752†	184723.4	168414.1	476.09	ug/L	476.09	ppb	18:50:09
1	Mn 257.610†	513177.4	484200.3	478.00	ug/L	478.00	ppb	18:50:09
1	Mo 202.031†	8468.3	7978.3	483.29	ug/L	483.29	ppb	18:50:29
1	Ni 231.604†	23322.7	21934.5	478.95	ug/L	478.95	ppb	18:50:29
1	P 214.914†	5122.9	4580.4	2317.2	ug/L	2317.2	ppb	18:50:29
1	Pb 220.353†	4783.2	4581.8	484.34	ug/L	484.34	ppb	18:50:29
1	S 181.975 Axial†	871.5	774.1	948.73	ug/L	948.73	ppb	18:50:29
1	Sb 206.836†	1730.9	1593.6	484.51	ug/L	484.51	ppb	18:50:29
1	Se 196.026†	904.1	882.5	498.10	ug/L	498.10	ppb	18:50:29
1	Si 251.611†	89306.6	83771.9	2350.7	ug/L	2350.7	ppb	18:50:09
1	Sn 189.927†	3388.9	3197.3	480.10	ug/L	480.10	ppb	18:50:29
1	Ti 334.940†	344357.4	326630.2	472.14	ug/L	472.14	ppb	18:50:09
1	Tl 190.801†	1920.5	1861.9	486.12	ug/L	486.12	ppb	18:50:29
1	U 409.014†	14919.0	16463.1	452.05	ug/L	452.05	ppb	18:50:09
1	V 292.402†	77528.5	74694.4	481.51	ug/L	481.51	ppb	18:50:09
1	Zn 213.857†	62642.8	58372.0	474.46	ug/L	474.46	ppb	18:50:09
1	SiO2†	89303.6	83739.9	5045.2	ug/L	5045.2	ppb	18:51:30
2	Sc Radial	5596.4	5596.4	101	%			18:49:15
2	Y RADIAL	5882.4	5882.4	99.51	%			18:49:15
2	Al 396.153Radial†	6906.2	6886.6	4996.5	ug/L	4996.5	ppb	18:49:15
2	Ca 317.933Radial†	3536.2	3498.2	4987.5	ug/L	4987.5	ppb	18:49:35
2	Fe 238.204 Radial†	619.6	605.5	5049.0	ug/L	5049.0	ppb	18:49:35
2	K 766.490 Radial†	30892.5	28019.3	4929.9	ug/L	4929.9	ppb	18:49:15
2	Mg 279.077 IEC†	169.8	167.5	5206.6	ug/L	5206.6	ppb	18:49:35
2	Na 589.592 Radial†	31355.6	31954.1	9537.4	ug/L	9537.4	ppb	18:49:15
2	Sr 421.552†	84598.6	84170.1	493.52	ug/L	493.52	ppb	18:49:15
2	Sc 361.383	910287.3	910287.3	101.27	%			18:50:37
2	Y 371.029	741723.2	741723.2	99.632	%			18:50:37
2	Ag 328.068†	117517.1	115678.3	501.69	ug/L	501.69	ppb	18:50:37
2	As 188.979†	1367.1	1384.8	507.10	ug/L	507.10	ppb	18:50:57
2	B 249.677†	24036.4	23761.9	485.74	ug/L	485.74	ppb	18:50:37
2	Ba 233.527†	75196.4	74259.1	506.02	ug/L	506.02	ppb	18:50:37
2	Be 313.107†	1519227.0	1504968.1	505.69	ug/L	505.69	ppb	18:50:37
2	Cd 226.502†	52044.7	51623.3	504.69	ug/L	504.69	ppb	18:50:37
2	Co 228.616†	28509.2	28239.9	494.49	ug/L	494.49	ppb	18:50:57
2	Cr 267.716†	50507.5	49796.0	505.68	ug/L	505.68	ppb	18:50:37
2	Cu 324.752†	187466.0	179067.1	506.19	ug/L	506.19	ppb	18:50:37
2	Mn 257.610†	518748.4	511772.7	505.20	ug/L	505.20	ppb	18:50:37
2	Mo 202.031†	8399.0	8274.1	501.20	ug/L	501.20	ppb	18:50:57
2	Ni 231.604†	23168.3	22785.2	497.52	ug/L	497.52	ppb	18:50:57

2	P 214.914†	5102.9	4781.0	2417.3 ug/L	2417.3 ppb	18:50:57
2	Pb 220.353†	4797.5	4801.6	507.53 ug/L	507.53 ppb	18:50:57
2	S 181.975 Axial†	856.8	797.1	976.90 ug/L	976.90 ppb	18:50:57
2	Sb 206.836†	1727.3	1664.5	505.80 ug/L	505.80 ppb	18:50:57
2	Se 196.026†	894.0	911.3	514.09 ug/L	514.09 ppb	18:50:57
2	Si 251.611†	90353.7	88646.9	2487.7 ug/L	2487.7 ppb	18:50:37
2	Sn 189.927†	3379.8	3334.1	500.63 ug/L	500.63 ppb	18:50:57
2	Ti 334.940†	348977.3	346002.7	500.13 ug/L	500.13 ppb	18:50:37
2	Tl 190.801†	1909.5	1933.7	504.95 ug/L	504.95 ppb	18:50:57
2	U 409.014†	15399.5	17579.2	482.73 ug/L	482.73 ppb	18:50:37
2	V 292.402†	78497.7	78985.9	509.07 ug/L	509.07 ppb	18:50:37
2	Zn 213.857†	63218.4	61634.7	501.05 ug/L	501.05 ppb	18:50:37
2	SiO2†	91532.1	89781.3	5410.2 ug/L	5410.2 ppb	18:51:35
3	Sc Radial	5570.6	5570.6	100 %		18:49:40
3	Y RADIAL	5901.8	5901.8	99.84 %		18:49:40
3	Al 396.153Radial†	6818.4	6830.8	4955.5 ug/L	4955.5 ppb	18:49:40
3	Ca 317.933Radial†	3521.3	3499.6	4989.5 ug/L	4989.5 ppb	18:50:00
3	Fe 238.204 Radial†	618.8	607.5	5066.1 ug/L	5066.1 ppb	18:50:00
3	K 766.490 Radial†	30586.2	27855.6	4901.0 ug/L	4901.0 ppb	18:49:40
3	Mg 279.077 IEC†	166.2	164.7	5120.7 ug/L	5120.7 ppb	18:50:00
3	Na 589.592 Radial†	31041.3	31784.6	9486.8 ug/L	9486.8 ppb	18:49:40
3	Sr 421.552†	83768.3	83730.5	490.94 ug/L	490.94 ppb	18:49:40
3	Sc 361.383	906644.4	906644.4	100.86 %		18:51:04
3	Y 371.029	738867.5	738867.5	99.248 %		18:51:04
3	Ag 328.068†	117640.6	116267.0	504.25 ug/L	504.25 ppb	18:51:04
3	As 188.979†	1366.0	1389.2	508.70 ug/L	508.70 ppb	18:51:24
3	B 249.677†	24055.3	23876.0	488.06 ug/L	488.06 ppb	18:51:04
3	Ba 233.527†	75136.2	74497.7	507.64 ug/L	507.64 ppb	18:51:04
3	Be 313.107†	1519713.7	1511478.5	507.88 ug/L	507.88 ppb	18:51:04
3	Cd 226.502†	51935.0	51721.1	505.64 ug/L	505.64 ppb	18:51:04
3	Co 228.616†	28735.4	28577.4	500.41 ug/L	500.41 ppb	18:51:24
3	Cr 267.716†	50488.6	49977.7	507.52 ug/L	507.52 ppb	18:51:04
3	Cu 324.752†	187392.0	179737.6	508.08 ug/L	508.08 ppb	18:51:04
3	Mn 257.610†	518492.9	513577.6	506.99 ug/L	506.99 ppb	18:51:04
3	Mo 202.031†	8482.9	8390.7	508.26 ug/L	508.26 ppb	18:51:24
3	Ni 231.604†	23362.1	23069.2	503.72 ug/L	503.72 ppb	18:51:24
3	P 214.914†	5127.8	4826.0	2440.4 ug/L	2440.4 ppb	18:51:24
3	Pb 220.353†	4830.2	4853.1	512.96 ug/L	512.96 ppb	18:51:24
3	S 181.975 Axial†	876.2	819.7	1004.7 ug/L	1004.7 ppb	18:51:24
3	Sb 206.836†	1742.7	1686.6	512.60 ug/L	512.60 ppb	18:51:24
3	Se 196.026†	904.2	925.0	521.63 ug/L	521.63 ppb	18:51:24
3	Si 251.611†	90369.0	89020.5	2498.1 ug/L	2498.1 ppb	18:51:04
3	Sn 189.927†	3393.7	3361.3	504.70 ug/L	504.70 ppb	18:51:24
3	Ti 334.940†	348827.1	347238.5	501.92 ug/L	501.92 ppb	18:51:04
3	Tl 190.801†	1912.5	1944.2	507.68 ug/L	507.68 ppb	18:51:24
3	U 409.014†	15144.2	17387.2	477.44 ug/L	477.44 ppb	18:51:04
3	V 292.402†	78427.7	79228.0	510.70 ug/L	510.70 ppb	18:51:04
3	Zn 213.857†	63192.6	61859.9	502.85 ug/L	502.85 ppb	18:51:04
3	SiO2†	90026.0	88651.3	5341.5 ug/L	5341.5 ppb	18:51:40

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	922890.0	102.67	%	2.787				2.71%
Sc Radial	5604.7	101	%	0.7				0.70%
Y 371.029	751836.1	100.99	%	2.692				2.67%
Y RADIAL	5908.4	99.95	%	0.505				0.51%
Ag 328.068†	113908.7	494.04	ug/L	15.522	494.04	ppb	15.522	3.14%
QC value within limits for Ag 328.068 Recovery = 98.81%								
Al 396.153Radial†	6848.3	4968.7	ug/L	24.09	4968.7	ppb	24.09	0.48%
QC value within limits for Al 396.153Radial Recovery = 99.37%								
As 188.979†	1368.2	500.97	ug/L	12.023	500.97	ppb	12.023	2.40%
QC value within limits for As 188.979 Recovery = 100.19%								
B 249.677†	23353.8	477.37	ug/L	16.538	477.37	ppb	16.538	3.46%
QC value within limits for B 249.677 Recovery = 95.47%								
Ba 233.527†	73047.0	497.76	ug/L	15.732	497.76	ppb	15.732	3.16%
QC value within limits for Ba 233.527 Recovery = 99.55%								
Be 313.107†	1479516.8	497.14	ug/L	16.743	497.14	ppb	16.743	3.37%
QC value within limits for Be 313.107 Recovery = 99.43%								
Ca 317.933Radial†	3479.0	4960.1	ug/L	49.32	4960.1	ppb	49.32	0.99%

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   QC value within limits for Ca 317.933Radial  Recovery = 99.20%
Cd 226.502†            50750.4      496.15 ug/L        15.626      496.15 ppb        15.626   3.15%
   QC value within limits for Cd 226.502  Recovery = 99.23%
Co 228.616†            27992.1      490.16 ug/L        12.968      490.16 ppb        12.968   2.65%
   QC value within limits for Co 228.616  Recovery = 98.03%
Cr 267.716†            48937.5      496.96 ug/L        16.721      496.96 ppb        16.721   3.36%
   QC value within limits for Cr 267.716  Recovery = 99.39%
Cu 324.752†           175739.6      496.78 ug/L        17.952      496.78 ppb        17.952   3.61%
   QC value within limits for Cu 324.752  Recovery = 99.36%
Fe 238.204 Radial†       603.4      5031.8 ug/L         45.45      5031.8 ppb         45.45   0.90%
   QC value within limits for Fe 238.204 Radial  Recovery = 100.64%
K 766.490 Radial†      27890.6      4907.3 ug/L         20.18      4907.3 ppb         20.18   0.41%
   QC value within limits for K 766.490 Radial  Recovery = 98.15%
Mg 279.077 IEC†          164.3      5106.5 ug/L        107.99      5106.5 ppb        107.99   2.11%
   QC value within limits for Mg 279.077 IEC  Recovery = 102.13%
Mn 257.610†           503183.5      496.73 ug/L        16.243      496.73 ppb        16.243   3.27%
   QC value within limits for Mn 257.610  Recovery = 99.35%
Mo 202.031†            8214.4      497.58 ug/L        12.870      497.58 ppb        12.870   2.59%
   QC value within limits for Mo 202.031  Recovery = 99.52%
Na 589.592 Radial†     31812.7      9495.2 ug/L         38.69      9495.2 ppb         38.69   0.41%
   QC value within limits for Na 589.592 Radial  Recovery = 94.95%
Ni 231.604†            22596.3      493.40 ug/L        12.892      493.40 ppb        12.892   2.61%
   QC value within limits for Ni 231.604  Recovery = 98.68%
P 214.914†              4729.1      2391.6 ug/L         65.49      2391.6 ppb         65.49   2.74%
   QC value within limits for P 214.914  Recovery = 95.67%
Pb 220.353†             4745.5      501.61 ug/L        15.198      501.61 ppb        15.198   3.03%
   QC value within limits for Pb 220.353  Recovery = 100.32%
S 181.975 Axial†         797.0      976.76 ug/L        27.968      976.76 ppb        27.968   2.86%
   QC value within limits for S 181.975 Axial  Recovery = 97.68%
Sb 206.836†             1648.2      500.97 ug/L        14.655      500.97 ppb        14.655   2.93%
   QC value within limits for Sb 206.836  Recovery = 100.19%
Se 196.026†              906.3      511.27 ug/L        12.012      511.27 ppb        12.012   2.35%
   QC value within limits for Se 196.026  Recovery = 102.25%
Si 251.611†            87146.4      2445.5 ug/L         82.31      2445.5 ppb         82.31   3.37%
   QC value within limits for Si 251.611  Recovery = 97.82%
Sn 189.927†             3297.6      495.14 ug/L        13.183      495.14 ppb        13.183   2.66%
   QC value within limits for Sn 189.927  Recovery = 99.03%
Sr 421.552†            83769.2      491.17 ug/L         2.245      491.17 ppb         2.245   0.46%
   QC value within limits for Sr 421.552  Recovery = 98.23%
Ti 334.940†           339957.1      491.40 ug/L        16.701      491.40 ppb        16.701   3.40%
   QC value within limits for Ti 334.940  Recovery = 98.28%
Tl 190.801†             1913.3      499.58 ug/L        11.740      499.58 ppb        11.740   2.35%
   QC value within limits for Tl 190.801  Recovery = 99.92%
U 409.014†             17143.2      470.74 ug/L        16.405      470.74 ppb        16.405   3.48%
   QC value within limits for U 409.014  Recovery = 94.15%
V 292.402†             77636.1      500.43 ug/L        16.402      500.43 ppb        16.402   3.28%
   QC value within limits for V 292.402  Recovery = 100.09%
Zn 213.857†            60622.2      492.79 ug/L        15.899      492.79 ppb        15.899   3.23%
   QC value within limits for Zn 213.857  Recovery = 98.56%
SiO2†                  87390.8      5265.6 ug/L        193.94      5265.6 ppb        193.94   3.68%
   QC value within limits for SiO2  Recovery = 98.47%
All analyte(s) passed QC.
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Sequence No.: 48
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 12/19/2009 18:53:49
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	5655.1	5655.1	102	%			18:55:41
1	Y RADIAL	6009.0	6009.0	101.7	%			18:55:41
1	Al 396.153Radial†	-30.4	-13.5	-9.8848	ug/L	-9.8848	ppb	18:55:41
1	Ca 317.933Radial†	25.8	5.9	8.3465	ug/L	8.3465	ppb	18:56:01
1	Fe 238.204 Radial†	9.0	-2.0	-16.975	ug/L	-16.975	ppb	18:56:01
1	K 766.490 Radial†	2841.5	85.0	14.990	ug/L	14.990	ppb	18:55:41
1	Mg 279.077 IEC†	1.7	0.3	9.4391	ug/L	9.4391	ppb	18:56:01
1	Na 589.592 Radial†	-878.4	-103.1	-30.779	ug/L	-30.779	ppb	18:55:41
1	Sr 421.552†	6.8	18.5	0.1084	ug/L	0.1084	ppb	18:55:41
1	Sc 361.383	897621.4	897621.4	99.857	%			18:56:58
1	Y 371.029	746989.3	746989.3	100.34	%			18:56:58
1	Ag 328.068†	393.1	23.8	0.0945	ug/L	0.0945	ppb	18:56:58
1	As 188.979†	-30.3	4.4	1.6166	ug/L	1.6166	ppb	18:57:18
1	B 249.677†	-414.0	-388.6	-7.9740	ug/L	-7.9740	ppb	18:57:18
1	Ba 233.527†	-7.4	-4.8	-0.0342	ug/L	-0.0342	ppb	18:57:18
1	Be 313.107†	-4615.1	109.3	0.0367	ug/L	0.0367	ppb	18:56:58
1	Cd 226.502†	-207.1	21.8	0.2154	ug/L	0.2154	ppb	18:57:18
1	Co 228.616†	-84.0	3.0	0.0539	ug/L	0.0539	ppb	18:57:18
1	Cr 267.716†	116.7	36.7	0.3710	ug/L	0.3710	ppb	18:57:18
1	Cu 324.752†	6175.3	128.6	0.3625	ug/L	0.3625	ppb	18:56:58
1	Mn 257.610†	475.6	-15.2	-0.0168	ug/L	-0.0168	ppb	18:57:18
1	Mo 202.031†	27.0	7.2	0.4348	ug/L	0.4348	ppb	18:57:18
1	Ni 231.604†	128.7	35.4	0.7724	ug/L	0.7724	ppb	18:57:18
1	P 214.914†	231.2	-26.6	-13.893	ug/L	-13.893	ppb	18:57:18
1	Pb 220.353†	-73.9	-10.0	-1.0532	ug/L	-1.0532	ppb	18:57:18
1	S 181.975 Axial†	53.0	4.1	5.0514	ug/L	5.0514	ppb	18:57:18
1	Sb 206.836†	50.5	9.3	2.8209	ug/L	2.8209	ppb	18:57:18
1	Se 196.026†	-27.1	1.4	0.7208	ug/L	0.7208	ppb	18:57:18
1	Si 251.611†	637.7	61.2	1.7080	ug/L	1.7080	ppb	18:57:18
1	Sn 189.927†	14.2	10.7	1.6075	ug/L	1.6075	ppb	18:57:18
1	Ti 334.940†	-1364.6	21.0	0.0302	ug/L	0.0302	ppb	18:56:58
1	Tl 190.801†	-49.7	-1.7	-0.4416	ug/L	-0.4416	ppb	18:57:18
1	U 409.014†	-2328.4	40.4	1.1153	ug/L	1.1153	ppb	18:56:58
1	V 292.402†	-1518.9	-51.6	-0.3173	ug/L	-0.3173	ppb	18:56:58
1	Zn 213.857†	777.5	-14.9	-0.1265	ug/L	-0.1265	ppb	18:57:18
1	SiO2†	645.1	39.4	2.3477	ug/L	2.3477	ppb	18:58:14
2	Sc Radial	5605.2	5605.2	101	%			18:56:06
2	Y RADIAL	5939.8	5939.8	100.5	%			18:56:06
2	Al 396.153Radial†	-30.8	-14.2	-10.397	ug/L	-10.397	ppb	18:56:06
2	Ca 317.933Radial†	17.5	-2.1	-3.0652	ug/L	-3.0652	ppb	18:56:26
2	Fe 238.204 Radial†	8.8	-2.1	-17.737	ug/L	-17.737	ppb	18:56:26
2	K 766.490 Radial†	2805.8	74.4	13.137	ug/L	13.137	ppb	18:56:06
2	Mg 279.077 IEC†	0.3	-1.1	-34.251	ug/L	-34.251	ppb	18:56:26
2	Na 589.592 Radial†	-938.2	-170.2	-50.800	ug/L	-50.800	ppb	18:56:06
2	Sr 421.552†	43.0	54.5	0.3199	ug/L	0.3199	ppb	18:56:06
2	Sc 361.383	899343.4	899343.4	100.05	%			18:57:23
2	Y 371.029	747666.3	747666.3	100.43	%			18:57:23
2	Ag 328.068†	338.9	-31.2	-0.1337	ug/L	-0.1337	ppb	18:57:23
2	As 188.979†	-31.5	3.3	1.1974	ug/L	1.1974	ppb	18:57:43
2	B 249.677†	-390.2	-364.0	-7.4695	ug/L	-7.4695	ppb	18:57:43
2	Ba 233.527†	-0.5	2.1	0.0126	ug/L	0.0126	ppb	18:57:43
2	Be 313.107†	-4587.9	145.4	0.0490	ug/L	0.0490	ppb	18:57:23
2	Cd 226.502†	-243.8	-14.5	-0.1400	ug/L	-0.1400	ppb	18:57:43
2	Co 228.616†	-72.7	14.4	0.2560	ug/L	0.2560	ppb	18:57:43
2	Cr 267.716†	89.0	8.8	0.0911	ug/L	0.0911	ppb	18:57:43
2	Cu 324.752†	6286.7	228.1	0.6437	ug/L	0.6437	ppb	18:57:23
2	Mn 257.610†	497.0	5.3	0.0041	ug/L	0.0041	ppb	18:57:43
2	Mo 202.031†	42.8	22.9	1.3841	ug/L	1.3841	ppb	18:57:43
2	Ni 231.604†	119.0	25.4	0.5546	ug/L	0.5546	ppb	18:57:43

2	P 214.914†	241.9	-16.3	-8.5704	ug/L	-8.5704 ppb	18:57:43
2	Pb 220.353†	-73.6	-9.5	-0.9979	ug/L	-0.9979 ppb	18:57:43
2	S 181.975 Axial†	39.6	-9.4	-11.533	ug/L	-11.533 ppb	18:57:43
2	Sb 206.836†	43.0	1.8	0.5786	ug/L	0.5786 ppb	18:57:43
2	Se 196.026†	-26.0	2.5	1.3011	ug/L	1.3011 ppb	18:57:43
2	Si 251.611†	637.3	59.5	1.6480	ug/L	1.6480 ppb	18:57:43
2	Sn 189.927†	7.4	4.0	0.5922	ug/L	0.5922 ppb	18:57:43
2	Ti 334.940†	-1308.2	80.0	0.1196	ug/L	0.1196 ppb	18:57:23
2	Tl 190.801†	-35.2	12.9	3.3460	ug/L	3.3460 ppb	18:57:43
2	U 409.014†	-2713.1	-339.6	-9.3543	ug/L	-9.3543 ppb	18:57:23
2	V 292.402†	-1533.0	-62.8	-0.3962	ug/L	-0.3962 ppb	18:57:23
2	Zn 213.857†	785.2	-8.7	-0.0727	ug/L	-0.0727 ppb	18:57:43
2	SiO2†	684.6	77.6	4.6355	ug/L	4.6355 ppb	18:58:19
3	Sc Radial	5485.4	5485.4	98.5	%		18:56:31
3	Y RADIAL	5816.0	5816.0	98.39	%		18:56:31
3	Al 396.153Radial†	-31.8	-15.9	-11.590	ug/L	-11.590 ppb	18:56:31
3	Ca 317.933Radial†	15.9	-3.5	-4.9561	ug/L	-4.9561 ppb	18:56:51
3	Fe 238.204 Radial†	8.2	-2.6	-21.559	ug/L	-21.559 ppb	18:56:51
3	K 766.490 Radial†	2943.2	274.7	48.434	ug/L	48.434 ppb	18:56:31
3	Mg 279.077 IEC†	2.1	0.7	22.369	ug/L	22.369 ppb	18:56:51
3	Na 589.592 Radial†	-920.7	-172.8	-51.580	ug/L	-51.580 ppb	18:56:31
3	Sr 421.552†	5.3	17.2	0.1007	ug/L	0.1007 ppb	18:56:31
3	Sc 361.383	894804.2	894804.2	99.543	%		18:57:48
3	Y 371.029	744731.3	744731.3	100.04	%		18:57:48
3	Ag 328.068†	387.3	19.2	0.0781	ug/L	0.0781 ppb	18:57:48
3	As 188.979†	-24.4	10.3	3.7444	ug/L	3.7444 ppb	18:58:09
3	B 249.677†	-404.5	-380.4	-7.8046	ug/L	-7.8046 ppb	18:58:09
3	Ba 233.527†	3.1	5.8	0.0384	ug/L	0.0384 ppb	18:58:09
3	Be 313.107†	-4586.9	123.2	0.0417	ug/L	0.0417 ppb	18:57:48
3	Cd 226.502†	-221.9	6.2	0.0637	ug/L	0.0637 ppb	18:58:09
3	Co 228.616†	-89.1	-2.4	-0.0416	ug/L	-0.0416 ppb	18:58:09
3	Cr 267.716†	78.9	-0.9	-0.0083	ug/L	-0.0083 ppb	18:58:09
3	Cu 324.752†	6156.9	129.6	0.3650	ug/L	0.3650 ppb	18:57:48
3	Mn 257.610†	488.6	-0.7	-0.0032	ug/L	-0.0032 ppb	18:58:09
3	Mo 202.031†	27.4	7.7	0.4641	ug/L	0.4641 ppb	18:58:09
3	Ni 231.604†	120.4	27.4	0.5989	ug/L	0.5989 ppb	18:58:09
3	P 214.914†	251.0	-5.9	-3.1236	ug/L	-3.1236 ppb	18:58:09
3	Pb 220.353†	-83.9	-20.2	-2.1300	ug/L	-2.1300 ppb	18:58:09
3	S 181.975 Axial†	52.3	3.6	4.4036	ug/L	4.4036 ppb	18:58:09
3	Sb 206.836†	43.0	2.0	0.6019	ug/L	0.6019 ppb	18:58:09
3	Se 196.026†	-38.8	-10.5	-5.7608	ug/L	-5.7608 ppb	18:58:09
3	Si 251.611†	643.7	69.2	1.9282	ug/L	1.9282 ppb	18:58:09
3	Sn 189.927†	1.5	-2.0	-0.2940	ug/L	-0.2940 ppb	18:58:09
3	Ti 334.940†	-1231.0	151.0	0.2193	ug/L	0.2193 ppb	18:57:48
3	Tl 190.801†	-44.7	3.2	0.8307	ug/L	0.8307 ppb	18:58:09
3	U 409.014†	-2462.3	-101.3	-2.7891	ug/L	-2.7891 ppb	18:57:48
3	V 292.402†	-1453.2	9.6	0.0658	ug/L	0.0658 ppb	18:57:48
3	Zn 213.857†	797.5	7.6	0.0597	ug/L	0.0597 ppb	18:58:09
3	SiO2†	680.8	77.3	4.6261	ug/L	4.6261 ppb	18:58:24

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	897256.3	99.816	%	0.2549				0.26%
Sc Radial	5581.9	100	%	1.6				1.56%
Y 371.029	746462.3	100.27	%	0.206				0.21%
Y RADIAL	5921.6	100.2	%	1.65				1.65%
Ag 328.068†	3.9	0.0129	ug/L	0.12730	0.0129	ppb	0.12730	983.56%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-14.5	-10.624	ug/L	0.8750	-10.624	ppb	0.8750	8.24%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	6.0	2.1861	ug/L	1.36569	2.1861	ppb	1.36569	62.47%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-377.7	-7.7494	ug/L	0.25675	-7.7494	ppb	0.25675	3.31%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	1.0	0.0056	ug/L	0.03684	0.0056	ppb	0.03684	657.92%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	126.0	0.0425	ug/L	0.00617	0.0425	ppb	0.00617	14.51%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	0.1	0.1084	ug/L	7.19676	0.1084	ppb	7.19676	>999.9%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                 4.5      0.0463 ug/L       0.17830      0.0463 ppb        0.17830 384.68%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                 5.0      0.0895 ug/L       0.15192      0.0895 ppb        0.15192 169.83%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                14.9      0.1513 ug/L       0.19667      0.1513 ppb        0.19667 129.98%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               162.1      0.4570 ug/L       0.16164      0.4570 ppb        0.16164  35.37%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -2.3     -18.757 ug/L        2.4562     -18.757 ppb         2.4562  13.09%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         144.7      25.520 ug/L       19.8654      25.520 ppb        19.8654  77.84%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -0.0      -0.8144 ug/L      29.66973     -0.8144 ppb       29.66973 >999.9%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                -3.5      -0.0053 ug/L       0.01061     -0.0053 ppb        0.01061 199.05%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                12.6       0.7610 ug/L       0.53982      0.7610 ppb        0.53982  70.93%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       -148.7     -44.386 ug/L       11.7911     -44.386 ppb        11.7911  26.56%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                29.4       0.6420 ug/L       0.11509      0.6420 ppb        0.11509  17.93%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -16.2      -8.5291 ug/L       5.38489     -8.5291 ppb        5.38489  63.14%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -13.2      -1.3937 ug/L       0.63827     -1.3937 ppb        0.63827  45.80%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -0.6      -0.6927 ug/L       9.39375     -0.6927 ppb        9.39375 >999.9%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 4.4       1.3338 ug/L       1.28791      1.3338 ppb        1.28791  96.56%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -2.2      -1.2463 ug/L       3.92044     -1.2463 ppb        3.92044 314.56%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                63.3       1.7614 ug/L       0.14752      1.7614 ppb        0.14752   8.38%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 4.2       0.6352 ug/L       0.95150      0.6352 ppb        0.95150 149.78%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                30.1       0.1763 ug/L       0.12439      0.1763 ppb        0.12439  70.56%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                84.0       0.1230 ug/L       0.09459      0.1230 ppb        0.09459  76.90%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 4.8       1.2451 ug/L       1.92751      1.2451 ppb        1.92751 154.81%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -133.5      -3.6760 ug/L       5.29088     -3.6760 ppb        5.29088 143.93%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               -35.0      -0.2159 ug/L       0.24711     -0.2159 ppb        0.24711 114.45%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                -5.3      -0.0465 ug/L       0.09585     -0.0465 ppb        0.09585 206.17%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                      64.8       3.8698 ug/L       1.31813      3.8698 ppb        1.31813  34.06%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 49
Sample ID: 1201994218|932275|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 65
Date Collected: 12/19/2009 19:00:33
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1201994218|932275|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5578.4	5578.4	100	%			19:02:26
1	Y RADIAL	5930.3	5930.3	100.3	%			19:02:26
1	Al 396.153Radial†	-28.3	-11.9	-8.6880	ug/L	-8.6880	ppb	19:02:26
1	Ca 317.933Radial†	25.6	5.9	8.4430	ug/L	8.4430	ppb	19:02:46
1	Fe 238.204 Radial†	13.1	2.1	17.825	ug/L	17.825	ppb	19:02:46
1	K 766.490 Radial†	2857.6	139.5	24.588	ug/L	24.588	ppb	19:02:26
1	Mg 279.077 IEC†	3.9	2.5	76.787	ug/L	76.787	ppb	19:02:46
1	Na 589.592 Radial†	-847.5	-84.2	-25.124	ug/L	-25.124	ppb	19:02:26
1	Sr 421.552†	27.9	39.7	0.2327	ug/L	0.2327	ppb	19:02:26
1	Sc 361.383	923966.6	923966.6	102.79	%			19:03:43
1	Y 371.029	763268.8	763268.8	102.53	%			19:03:43
1	Ag 328.068†	411.8	30.7	0.1367	ug/L	0.1367	ppb	19:03:48
1	As 188.979†	-31.5	4.2	1.5229	ug/L	1.5229	ppb	19:04:08
1	B 249.677†	-438.4	-400.5	-8.2232	ug/L	-8.2232	ppb	19:04:08
1	Ba 233.527†	84.4	84.7	0.5773	ug/L	0.5773	ppb	19:04:08
1	Be 313.107†	-4533.1	321.0	0.1083	ug/L	0.1083	ppb	19:03:48
1	Cd 226.502†	-229.4	6.0	0.0569	ug/L	0.0569	ppb	19:04:08
1	Co 228.616†	-77.5	11.7	0.2056	ug/L	0.2056	ppb	19:04:08
1	Cr 267.716†	117.4	34.1	0.3453	ug/L	0.3453	ppb	19:04:08
1	Cu 324.752†	6166.7	-56.1	-0.1575	ug/L	-0.1575	ppb	19:03:48
1	Mn 257.610†	967.4	449.7	0.4439	ug/L	0.4439	ppb	19:04:08
1	Mo 202.031†	31.5	10.8	0.6520	ug/L	0.6520	ppb	19:04:08
1	Ni 231.604†	128.0	31.0	0.6764	ug/L	0.6764	ppb	19:04:08
1	P 214.914†	247.7	-17.1	-8.9003	ug/L	-8.9003	ppb	19:04:08
1	Pb 220.353†	-65.4	0.5	0.0479	ug/L	0.0479	ppb	19:04:08
1	S 181.975 Axial†	47.3	-3.0	-3.6781	ug/L	-3.6781	ppb	19:04:08
1	Sb 206.836†	46.7	4.3	1.2988	ug/L	1.2988	ppb	19:04:08
1	Se 196.026†	-37.4	-7.9	-4.2484	ug/L	-4.2484	ppb	19:04:08
1	Si 251.611†	943.2	340.2	9.5693	ug/L	9.5693	ppb	19:04:08
1	Sn 189.927†	10.1	6.3	0.9503	ug/L	0.9503	ppb	19:04:08
1	Ti 334.940†	-1196.6	223.4	0.3218	ug/L	0.3218	ppb	19:03:48
1	Tl 190.801†	-40.0	9.2	2.3783	ug/L	2.3783	ppb	19:04:08
1	U 409.014†	-2305.0	129.8	3.5725	ug/L	3.5725	ppb	19:03:43
1	V 292.402†	-1437.5	70.9	0.4657	ug/L	0.4657	ppb	19:03:48
1	Zn 213.857†	909.5	91.3	0.7403	ug/L	0.7403	ppb	19:04:08
1	SiO2†	1014.7	380.5	22.988	ug/L	22.988	ppb	19:05:14
2	Sc Radial	5565.5	5565.5	100.0	%			19:02:51
2	Y RADIAL	5942.8	5942.8	100.5	%			19:02:51
2	Al 396.153Radial†	-17.8	-1.4	-1.0732	ug/L	-1.0732	ppb	19:02:51
2	Ca 317.933Radial†	29.8	10.3	14.657	ug/L	14.657	ppb	19:03:11
2	Fe 238.204 Radial†	14.9	4.0	33.498	ug/L	33.498	ppb	19:03:11
2	K 766.490 Radial†	2794.4	82.8	14.603	ug/L	14.603	ppb	19:02:51
2	Mg 279.077 IEC†	2.7	1.3	39.174	ug/L	39.174	ppb	19:03:11
2	Na 589.592 Radial†	-801.2	-39.8	-11.866	ug/L	-11.866	ppb	19:02:51
2	Sr 421.552†	-1.2	10.6	0.0618	ug/L	0.0618	ppb	19:02:51
2	Sc 361.383	934983.3	934983.3	104.01	%			19:04:13
2	Y 371.029	770335.4	770335.4	103.48	%			19:04:13
2	Ag 328.068†	474.1	85.9	0.3800	ug/L	0.3800	ppb	19:04:18
2	As 188.979†	-38.2	-1.9	-0.6831	ug/L	-0.6831	ppb	19:04:38
2	B 249.677†	-424.7	-382.4	-7.8526	ug/L	-7.8526	ppb	19:04:38
2	Ba 233.527†	111.8	110.1	0.7510	ug/L	0.7510	ppb	19:04:38
2	Be 313.107†	-4681.9	229.9	0.0778	ug/L	0.0778	ppb	19:04:18
2	Cd 226.502†	-219.4	18.2	0.1754	ug/L	0.1754	ppb	19:04:38
2	Co 228.616†	-76.0	14.1	0.2470	ug/L	0.2470	ppb	19:04:38
2	Cr 267.716†	109.9	25.5	0.2591	ug/L	0.2591	ppb	19:04:38
2	Cu 324.752†	6111.7	-179.7	-0.5060	ug/L	-0.5060	ppb	19:04:18
2	Mn 257.610†	979.5	450.3	0.4467	ug/L	0.4467	ppb	19:04:38
2	Mo 202.031†	34.2	13.0	0.7870	ug/L	0.7870	ppb	19:04:38
2	Ni 231.604†	138.6	39.7	0.8675	ug/L	0.8675	ppb	19:04:38

2	P 214.914†	229.7	-37.2	-19.365 ug/L	-19.365 ppb	19:04:38
2	Pb 220.353†	-72.2	-5.4	-0.5673 ug/L	-0.5673 ppb	19:04:38
2	S 181.975 Axial†	49.5	-1.4	-1.7555 ug/L	-1.7555 ppb	19:04:38
2	Sb 206.836†	40.7	-2.1	-0.6188 ug/L	-0.6188 ppb	19:04:38
2	Se 196.026†	-26.2	3.3	1.9050 ug/L	1.9050 ppb	19:04:38
2	Si 251.611†	933.6	320.1	9.0081 ug/L	9.0081 ppb	19:04:38
2	Sn 189.927†	4.9	1.2	0.1830 ug/L	0.1830 ppb	19:04:38
2	Ti 334.940†	-1166.1	266.5	0.3838 ug/L	0.3838 ppb	19:04:18
2	Tl 190.801†	-41.8	7.9	2.0476 ug/L	2.0476 ppb	19:04:38
2	U 409.014†	-2281.9	178.4	4.9103 ug/L	4.9103 ppb	19:04:13
2	V 292.402†	-1406.0	117.6	0.7643 ug/L	0.7643 ppb	19:04:18
2	Zn 213.857†	932.1	102.6	0.8321 ug/L	0.8321 ppb	19:04:38
2	SiO2†	1008.3	362.7	21.921 ug/L	21.921 ppb	19:05:19
3	Sc Radial	5656.9	5656.9	102 %		19:03:16
3	Y RADIAL	6017.9	6017.9	101.8 %		19:03:16
3	Al 396.153Radial†	-20.5	-3.8	-2.7481 ug/L	-2.7481 ppb	19:03:16
3	Ca 317.933Radial†	29.4	9.4	13.395 ug/L	13.395 ppb	19:03:36
3	Fe 238.204 Radial†	15.8	4.7	38.981 ug/L	38.981 ppb	19:03:36
3	K 766.490 Radial†	2878.3	120.2	21.192 ug/L	21.192 ppb	19:03:16
3	Mg 279.077 IEC†	1.0	-0.5	-14.199 ug/L	-14.199 ppb	19:03:36
3	Na 589.592 Radial†	-816.8	-42.2	-12.610 ug/L	-12.610 ppb	19:03:16
3	Sr 421.552†	-35.6	-23.2	-0.1361 ug/L	-0.1361 ppb	19:03:16
3	Sc 361.383	925256.3	925256.3	102.93 %		19:04:43
3	Y 371.029	763868.9	763868.9	102.61 %		19:04:43
3	Ag 328.068†	470.3	87.0	0.3856 ug/L	0.3856 ppb	19:04:49
3	As 188.979†	-24.9	10.6	3.8603 ug/L	3.8603 ppb	19:05:09
3	B 249.677†	-432.0	-393.8	-8.0868 ug/L	-8.0868 ppb	19:05:09
3	Ba 233.527†	75.3	75.7	0.5169 ug/L	0.5169 ppb	19:05:09
3	Be 313.107†	-4572.0	289.3	0.0976 ug/L	0.0976 ppb	19:04:49
3	Cd 226.502†	-205.0	30.0	0.2903 ug/L	0.2903 ppb	19:05:09
3	Co 228.616†	-78.1	11.2	0.1954 ug/L	0.1954 ppb	19:05:09
3	Cr 267.716†	121.0	37.4	0.3787 ug/L	0.3787 ppb	19:05:09
3	Cu 324.752†	6052.9	-175.1	-0.4926 ug/L	-0.4926 ppb	19:04:49
3	Mn 257.610†	957.7	439.0	0.4371 ug/L	0.4371 ppb	19:05:09
3	Mo 202.031†	23.1	2.6	0.1598 ug/L	0.1598 ppb	19:05:09
3	Ni 231.604†	123.8	26.7	0.5824 ug/L	0.5824 ppb	19:05:09
3	P 214.914†	250.7	-14.5	-7.5043 ug/L	-7.5043 ppb	19:05:09
3	Pb 220.353†	-86.0	-19.5	-2.0577 ug/L	-2.0577 ppb	19:05:09
3	S 181.975 Axial†	46.5	-3.9	-4.7445 ug/L	-4.7445 ppb	19:05:09
3	Sb 206.836†	51.4	8.7	2.6127 ug/L	2.6127 ppb	19:05:09
3	Se 196.026†	-24.0	5.2	2.9306 ug/L	2.9306 ppb	19:05:09
3	Si 251.611†	935.1	331.1	9.3227 ug/L	9.3227 ppb	19:05:09
3	Sn 189.927†	9.1	5.3	0.7987 ug/L	0.7987 ppb	19:05:09
3	Ti 334.940†	-1237.1	185.7	0.2674 ug/L	0.2674 ppb	19:04:49
3	Tl 190.801†	-37.0	12.1	3.1494 ug/L	3.1494 ppb	19:05:09
3	U 409.014†	-2301.0	136.7	3.7608 ug/L	3.7608 ppb	19:04:43
3	V 292.402†	-1463.1	47.9	0.3077 ug/L	0.3077 ppb	19:04:49
3	Zn 213.857†	895.9	76.8	0.6237 ug/L	0.6237 ppb	19:05:09
3	SiO2†	981.1	346.5	20.955 ug/L	20.955 ppb	19:05:24

Mean Data: 1201994218|932275|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	928068.7	103.24	%	0.670				0.65%
Sc Radial	5600.2	101	%	0.9				0.88%
Y 371.029	765824.3	102.87	%	0.526				0.51%
Y RADIAL	5963.7	100.9	%	0.80				0.79%
Ag 328.068†	67.8	0.3008	ug/L	0.14208	0.3008	ppb	0.14208	47.24%
Al 396.153Radial†	-5.7	-4.1698	ug/L	4.00153	-4.1698	ppb	4.00153	95.97%
As 188.979†	4.3	1.5667	ug/L	2.27203	1.5667	ppb	2.27203	145.02%
B 249.677†	-392.2	-8.0542	ug/L	0.18741	-8.0542	ppb	0.18741	2.33%
Ba 233.527†	90.2	0.6150	ug/L	0.12153	0.6150	ppb	0.12153	19.76%
Be 313.107†	280.1	0.0946	ug/L	0.01544	0.0946	ppb	0.01544	16.33%
Ca 317.933Radial†	8.5	12.165	ug/L	3.2848	12.165	ppb	3.2848	27.00%
Cd 226.502†	18.1	0.1742	ug/L	0.11672	0.1742	ppb	0.11672	67.00%
Co 228.616†	12.3	0.2160	ug/L	0.02731	0.2160	ppb	0.02731	12.64%
Cr 267.716†	32.3	0.3277	ug/L	0.06173	0.3277	ppb	0.06173	18.84%
Cu 324.752†	-136.9	-0.3854	ug/L	0.19746	-0.3854	ppb	0.19746	51.24%
Fe 238.204 Radial†	3.6	30.101	ug/L	10.9793	30.101	ppb	10.9793	36.47%
K 766.490 Radial†	114.2	20.128	ug/L	5.0771	20.128	ppb	5.0771	25.22%

Mg 279.077 IEC†	1.1	33.921	ug/L	45.7202	33.921	ppb	45.7202 134.79%
Mn 257.610†	446.3	0.4426	ug/L	0.00494	0.4426	ppb	0.00494 1.12%
Mo 202.031†	8.8	0.5329	ug/L	0.33013	0.5329	ppb	0.33013 61.95%
Na 589.592 Radial†	-55.4	-16.533	ug/L	7.4490	-16.533	ppb	7.4490 45.05%
Ni 231.604†	32.4	0.7088	ug/L	0.14529	0.7088	ppb	0.14529 20.50%
P 214.914†	-22.9	-11.923	ug/L	6.4822	-11.923	ppb	6.4822 54.37%
Pb 220.353†	-8.1	-0.8590	ug/L	1.08269	-0.8590	ppb	1.08269 126.03%
S 181.975 Axial†	-2.8	-3.3927	ug/L	1.51480	-3.3927	ppb	1.51480 44.65%
Sb 206.836†	3.6	1.0975	ug/L	1.62512	1.0975	ppb	1.62512 148.07%
Se 196.026†	0.2	0.1957	ug/L	3.88274	0.1957	ppb	3.88274 >999.9%
Si 251.611†	330.4	9.3001	ug/L	0.28128	9.3001	ppb	0.28128 3.02%
Sn 189.927†	4.3	0.6440	ug/L	0.40637	0.6440	ppb	0.40637 63.10%
Sr 421.552†	9.0	0.0528	ug/L	0.18453	0.0528	ppb	0.18453 349.48%
Ti 334.940†	225.2	0.3243	ug/L	0.05825	0.3243	ppb	0.05825 17.96%
Tl 190.801†	9.7	2.5251	ug/L	0.56538	2.5251	ppb	0.56538 22.39%
U 409.014†	148.3	4.0812	ug/L	0.72418	4.0812	ppb	0.72418 17.74%
V 292.402†	78.8	0.5126	ug/L	0.23185	0.5126	ppb	0.23185 45.23%
Zn 213.857†	90.2	0.7320	ug/L	0.10445	0.7320	ppb	0.10445 14.27%
SiO2†	363.2	21.955	ug/L	1.0170	21.955	ppb	1.0170 4.63%

Sequence No.: 50
Sample ID: 1201994219|932275|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 66
Date Collected: 12/19/2009 19:07:34
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1201994219|932275|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5732.6	5732.6	103	%			19:09:47
1	Y RADIAL	6690.9	6690.9	113.2	%			19:09:47
1	Al 396.153Radial†	116739.7	113390.5	82603	ug/L	82603	ppb	19:09:27
1	Ca 317.933Radial†	65876.4	63957.6	91186	ug/L	91186	ppb	19:09:27
1	Fe 238.204 Radial†	23262.0	22580.5	187740	ug/L	187740	ppb	19:09:27
1	K 766.490 Radial†	221019.5	211935.0	37297	ug/L	37297	ppb	19:09:27
1	Mg 279.077 IEC†	1189.1	1153.5	35664	ug/L	35664	ppb	19:09:47
1	Na 589.592 Radial†	31963.6	31803.7	9492.5	ug/L	9492.5	ppb	19:09:27
1	Sr 421.552†	375568.7	364752.7	2138.0	ug/L	2138.0	ppb	19:09:27
1	Sc 361.383	934242.4	934242.4	103.93	%			19:10:48
1	Y 371.029	838779.9	838779.9	112.67	%			19:10:48
1	Ag 328.068†	54145.2	51727.4	289.07	ug/L	289.07	ppb	19:10:48
1	As 188.979†	2660.5	2594.7	1017.1	ug/L	1017.1	ppb	19:10:54
1	B 249.677†	68771.8	66196.8	1331.5	ug/L	1331.5	ppb	19:10:48
1	Ba 233.527†	262463.2	252539.3	1726.0	ug/L	1726.0	ppb	19:10:48
1	Be 313.107†	2214382.7	2135364.7	726.92	ug/L	726.92	ppb	19:10:48
1	Cd 226.502†	58145.6	56175.7	531.38	ug/L	531.38	ppb	19:10:54
1	Co 228.616†	49159.4	47387.3	816.20	ug/L	816.20	ppb	19:10:54
1	Cr 267.716†	216343.0	208080.6	2115.1	ug/L	2115.1	ppb	19:10:48
1	Cu 324.752†	634514.7	604461.5	1717.4	ug/L	1717.4	ppb	19:10:48
1	Mn 257.610†	5089232.8	4896263.9	4847.6	ug/L	4847.6	ppb	19:10:48
1	Mo 202.031†	7919.9	7600.5	473.38	ug/L	473.38	ppb	19:10:54
1	Ni 231.604†	56418.1	54190.7	1183.5	ug/L	1183.5	ppb	19:10:54
1	P 214.914†	15070.4	14242.4	7044.8	ug/L	7044.8	ppb	19:10:54
1	Pb 220.353†	7886.3	7652.1	809.29	ug/L	809.29	ppb	19:10:54
1	S 181.975 Axial†	3088.0	2922.2	3568.7	ug/L	3568.7	ppb	19:10:54
1	Sb 206.836†	5039.0	4807.2	1403.5	ug/L	1403.5	ppb	19:10:54
1	Se 196.026†	4020.4	3896.8	2706.1	ug/L	2706.1	ppb	19:10:54
1	Si 251.611†	584041.1	561374.9	15806	ug/L	15806	ppb	19:10:48
1	Sn 189.927†	6564.4	6312.7	958.78	ug/L	958.78	ppb	19:10:54
1	Ti 334.940†	3949633.3	3801643.7	5500.7	ug/L	5500.7	ppb	19:10:48
1	Tl 190.801†	4167.8	4058.3	1118.8	ug/L	1118.8	ppb	19:10:54
1	U 409.014†	-9035.2	-6321.3	-201.86	ug/L	-201.86	ppb	19:10:48
1	V 292.402†	189823.1	184113.3	1142.6	ug/L	1142.6	ppb	19:10:48
1	Zn 213.857†	689492.4	662621.8	5405.7	ug/L	5405.7	ppb	19:10:48
1	SiO2†	579927.1	557387.3	33698	ug/L	33698	ppb	19:11:28
2	Sc Radial	5750.6	5750.6	103	%			19:10:13
2	Y RADIAL	6697.2	6697.2	113.3	%			19:10:13
2	Al 396.153Radial†	115881.8	112204.4	81739	ug/L	81739	ppb	19:09:52
2	Ca 317.933Radial†	65725.3	63610.7	90692	ug/L	90692	ppb	19:09:52
2	Fe 238.204 Radial†	23193.8	22443.6	186600	ug/L	186600	ppb	19:09:52
2	K 766.490 Radial†	221959.3	212171.9	37339	ug/L	37339	ppb	19:09:52
2	Mg 279.077 IEC†	1172.6	1133.8	35056	ug/L	35056	ppb	19:10:13
2	Na 589.592 Radial†	31941.9	31685.4	9457.2	ug/L	9457.2	ppb	19:09:52
2	Sr 421.552†	374593.8	362665.4	2125.8	ug/L	2125.8	ppb	19:09:52
2	Sc 361.383	923792.9	923792.9	102.77	%			19:11:03
2	Y 371.029	828576.5	828576.5	111.30	%			19:11:03
2	Ag 328.068†	53417.2	51608.4	288.19	ug/L	288.19	ppb	19:11:03
2	As 188.979†	2629.8	2593.8	1016.6	ug/L	1016.6	ppb	19:11:08
2	B 249.677†	68111.1	66302.4	1333.9	ug/L	1333.9	ppb	19:11:03
2	Ba 233.527†	259992.9	252992.1	1729.0	ug/L	1729.0	ppb	19:11:03
2	Be 313.107†	2189436.7	2135191.4	726.87	ug/L	726.87	ppb	19:11:03
2	Cd 226.502†	57477.2	56158.2	531.33	ug/L	531.33	ppb	19:11:08
2	Co 228.616†	48484.7	47265.8	814.08	ug/L	814.08	ppb	19:11:08
2	Cr 267.716†	214244.3	208393.1	2118.2	ug/L	2118.2	ppb	19:11:03
2	Cu 324.752†	625914.3	602998.6	1713.2	ug/L	1713.2	ppb	19:11:03
2	Mn 257.610†	5042752.8	4906425.6	4857.5	ug/L	4857.5	ppb	19:11:03
2	Mo 202.031†	7778.8	7549.4	470.21	ug/L	470.21	ppb	19:11:08
2	Ni 231.604†	55721.5	54127.0	1182.1	ug/L	1182.1	ppb	19:11:08

2	P 214.914†	14922.8	14262.7	7056.6	ug/L	7056.6	ppb	19:11:08
2	Pb 220.353†	7715.5	7571.7	800.72	ug/L	800.72	ppb	19:11:08
2	S 181.975 Axial†	2986.6	2857.1	3489.0	ug/L	3489.0	ppb	19:11:08
2	Sb 206.836†	4964.8	4789.8	1398.0	ug/L	1398.0	ppb	19:11:08
2	Se 196.026†	4003.8	3924.4	2717.6	ug/L	2717.6	ppb	19:11:08
2	Si 251.611†	578275.6	562121.3	15827	ug/L	15827	ppb	19:11:03
2	Sn 189.927†	6450.3	6273.1	952.77	ug/L	952.77	ppb	19:11:08
2	Ti 334.940†	3908239.1	3804351.2	5504.5	ug/L	5504.5	ppb	19:11:03
2	Tl 190.801†	4120.5	4057.6	1118.7	ug/L	1118.7	ppb	19:11:08
2	U 409.014†	-8896.7	-6284.8	-200.71	ug/L	-200.71	ppb	19:11:03
2	V 292.402†	187736.6	184149.0	1143.0	ug/L	1143.0	ppb	19:11:03
2	Zn 213.857†	683731.7	664520.6	5421.4	ug/L	5421.4	ppb	19:11:03
2	SiO2†	584498.1	568147.0	34349	ug/L	34349	ppb	19:11:33
3	Sc Radial	5753.3	5753.3	103	%			19:10:38
3	Y RADIAL	6727.8	6727.8	113.8	%			19:10:38
3	Al 396.153Radial†	116827.9	113067.8	82368	ug/L	82368	ppb	19:10:18
3	Ca 317.933Radial†	66283.9	64121.7	91420	ug/L	91420	ppb	19:10:18
3	Fe 238.204 Radial†	23323.8	22559.0	187560	ug/L	187560	ppb	19:10:18
3	K 766.490 Radial†	223431.5	213496.7	37572	ug/L	37572	ppb	19:10:18
3	Mg 279.077 IEC†	1179.6	1140.1	35250	ug/L	35250	ppb	19:10:38
3	Na 589.592 Radial†	32103.1	31827.1	9499.4	ug/L	9499.4	ppb	19:10:18
3	Sr 421.552†	377480.1	365289.9	2141.2	ug/L	2141.2	ppb	19:10:18
3	Sc 361.383	928800.7	928800.7	103.33	%			19:11:17
3	Y 371.029	832810.8	832810.8	111.87	%			19:11:17
3	Ag 328.068†	53976.0	51868.9	289.62	ug/L	289.62	ppb	19:11:17
3	As 188.979†	2603.2	2554.2	1002.4	ug/L	1002.4	ppb	19:11:22
3	B 249.677†	68395.9	66220.7	1332.1	ug/L	1332.1	ppb	19:11:17
3	Ba 233.527†	261322.9	252915.3	1728.5	ug/L	1728.5	ppb	19:11:17
3	Be 313.107†	2196807.9	2130838.6	725.41	ug/L	725.41	ppb	19:11:17
3	Cd 226.502†	57259.1	55645.5	526.21	ug/L	526.21	ppb	19:11:22
3	Co 228.616†	48504.8	47030.9	809.95	ug/L	809.95	ppb	19:11:22
3	Cr 267.716†	214997.8	207998.3	2114.3	ug/L	2114.3	ppb	19:11:17
3	Cu 324.752†	630784.8	604428.6	1717.3	ug/L	1717.3	ppb	19:11:17
3	Mn 257.610†	5062902.0	4899470.0	4850.8	ug/L	4850.8	ppb	19:11:17
3	Mo 202.031†	7807.5	7536.4	469.49	ug/L	469.49	ppb	19:11:22
3	Ni 231.604†	55627.5	53743.6	1173.7	ug/L	1173.7	ppb	19:11:22
3	P 214.914†	14858.6	14122.3	6982.1	ug/L	6982.1	ppb	19:11:22
3	Pb 220.353†	7677.2	7494.2	792.61	ug/L	792.61	ppb	19:11:22
3	S 181.975 Axial†	3002.3	2856.7	3488.4	ug/L	3488.4	ppb	19:11:22
3	Sb 206.836†	4963.6	4762.7	1389.9	ug/L	1389.9	ppb	19:11:22
3	Se 196.026†	3973.1	3873.8	2692.9	ug/L	2692.9	ppb	19:11:22
3	Si 251.611†	580885.2	561613.0	15813	ug/L	15813	ppb	19:11:17
3	Sn 189.927†	6454.3	6243.1	948.36	ug/L	948.36	ppb	19:11:22
3	Ti 334.940†	3928199.4	3803164.9	5502.9	ug/L	5502.9	ppb	19:11:17
3	Tl 190.801†	4102.7	4018.7	1108.6	ug/L	1108.6	ppb	19:11:22
3	U 409.014†	-9131.6	-6465.5	-205.81	ug/L	-205.81	ppb	19:11:17
3	V 292.402†	188734.9	184130.3	1142.7	ug/L	1142.7	ppb	19:11:17
3	Zn 213.857†	686354.7	663472.1	5412.8	ug/L	5412.8	ppb	19:11:17
3	SiO2†	583849.2	564452.4	34125	ug/L	34125	ppb	19:11:39

Mean Data: 1201994219|932275|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	928945.3	103.34	%	0.581				0.56%
Sc Radial	5745.5	103	%	0.2				0.20%
Y 371.029	833389.0	111.94	%	0.689				0.62%
Y RADIAL	6705.3	113.4	%	0.33				0.29%
Ag 328.068†	51734.9	288.96	ug/L	0.725	288.96	ppb	0.725	0.25%
Al 396.153Radial†	112887.6	82236	ug/L	446.8	82236	ppb	446.8	0.54%
As 188.979†	2580.9	1012.0	ug/L	8.36	1012.0	ppb	8.36	0.83%
B 249.677†	66239.9	1332.5	ug/L	1.22	1332.5	ppb	1.22	0.09%
Ba 233.527†	252815.6	1727.8	ug/L	1.63	1727.8	ppb	1.63	0.09%
Be 313.107†	2133798.2	726.40	ug/L	0.860	726.40	ppb	0.860	0.12%
Ca 317.933Radial†	63896.7	91099	ug/L	371.9	91099	ppb	371.9	0.41%
Cd 226.502†	55993.1	529.64	ug/L	2.970	529.64	ppb	2.970	0.56%
Co 228.616†	47228.0	813.41	ug/L	3.177	813.41	ppb	3.177	0.39%
Cr 267.716†	208157.3	2115.9	ug/L	2.10	2115.9	ppb	2.10	0.10%
Cu 324.752†	603962.9	1716.0	ug/L	2.39	1716.0	ppb	2.39	0.14%
Fe 238.204 Radial†	22527.7	187300	ug/L	611.9	187300	ppb	611.9	0.33%
K 766.490 Radial†	212534.5	37403	ug/L	148.3	37403	ppb	148.3	0.40%

Mg 279.077 IEC†	1142.5	35323	ug/L	310.8	35323	ppb	310.8	0.88%
Mn 257.610†	4900719.9	4852.0	ug/L	5.07	4852.0	ppb	5.07	0.10%
Mo 202.031†	7562.1	471.03	ug/L	2.070	471.03	ppb	2.070	0.44%
Na 589.592 Radial†	31772.1	9483.0	ug/L	22.68	9483.0	ppb	22.68	0.24%
Ni 231.604†	54020.4	1179.8	ug/L	5.28	1179.8	ppb	5.28	0.45%
P 214.914†	14209.1	7027.8	ug/L	40.06	7027.8	ppb	40.06	0.57%
Pb 220.353†	7572.7	800.88	ug/L	8.341	800.88	ppb	8.341	1.04%
S 181.975 Axial†	2878.7	3515.4	ug/L	46.17	3515.4	ppb	46.17	1.31%
Sb 206.836†	4786.5	1397.1	ug/L	6.83	1397.1	ppb	6.83	0.49%
Se 196.026†	3898.3	2705.5	ug/L	12.32	2705.5	ppb	12.32	0.46%
Si 251.611†	561703.0	15816	ug/L	10.8	15816	ppb	10.8	0.07%
Sn 189.927†	6276.3	953.30	ug/L	5.229	953.30	ppb	5.229	0.55%
Sr 421.552†	364236.0	2135.0	ug/L	8.13	2135.0	ppb	8.13	0.38%
Ti 334.940†	3803053.3	5502.7	ug/L	1.95	5502.7	ppb	1.95	0.04%
Tl 190.801†	4044.8	1115.3	ug/L	5.86	1115.3	ppb	5.86	0.53%
U 409.014†	-6357.2	-202.79	ug/L	2.672	-202.79	ppb	2.672	1.32%
V 292.402†	184130.9	1142.8	ug/L	0.18	1142.8	ppb	0.18	0.02%
Zn 213.857†	663538.2	5413.3	ug/L	7.87	5413.3	ppb	7.87	0.15%
SiO2†	563328.9	34057	ug/L	331.1	34057	ppb	331.1	0.97%

Sequence No.: 51
Sample ID: 242661001|932275|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 67
Date Collected: 12/19/2009 19:13:50
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 242661001|932275|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	5586.0	5586.0	100	%			19:16:04
1	Y RADIAL	6436.3	6436.3	108.9	%			19:16:04
1	Al 396.153Radial†	116730.2	116354.5	84782	ug/L	84782	ppb	19:15:44
1	Ca 317.933Radial†	11614.2	11555.6	16475	ug/L	16475	ppb	19:15:44
1	Fe 238.204 Radial†	15165.7	15103.9	125560	ug/L	125560	ppb	19:15:44
1	K 766.490 Radial†	79355.6	76376.7	13423	ug/L	13423	ppb	19:15:44
1	Mg 279.077 IEC†	557.1	553.8	17088	ug/L	17088	ppb	19:16:04
1	Na 589.592 Radial†	11864.4	12586.2	3756.6	ug/L	3756.6	ppb	19:15:44
1	Sr 421.552†	37298.7	37185.3	217.90	ug/L	217.90	ppb	19:15:44
1	Sc 361.383	918512.9	918512.9	102.18	%			19:17:02
1	Y 371.029	813960.9	813960.9	109.34	%			19:17:07
1	Ag 328.068†	-8685.7	-8870.2	4.7138	ug/L	4.7138	ppb	19:17:07
1	As 188.979†	-59.5	-23.4	46.606	ug/L	46.606	ppb	19:17:27
1	B 249.677†	1681.6	1671.7	17.483	ug/L	17.483	ppb	19:17:07
1	Ba 233.527†	213466.8	208913.3	1425.1	ug/L	1425.1	ppb	19:17:07
1	Be 313.107†	-13511.0	-8491.5	5.5090	ug/L	5.5090	ppb	19:17:07
1	Cd 226.502†	1117.3	1322.7	0.4262	ug/L	0.4262	ppb	19:17:27
1	Co 228.616†	3771.7	3778.3	55.894	ug/L	55.894	ppb	19:17:27
1	Cr 267.716†	8946.9	8675.8	90.740	ug/L	90.740	ppb	19:17:27
1	Cu 324.752†	28555.5	21890.5	68.254	ug/L	68.254	ppb	19:17:07
1	Mn 257.610†	4195268.7	4105236.9	4061.5	ug/L	4061.5	ppb	19:17:02
1	Mo 202.031†	-42.3	-61.3	5.1966	ug/L	5.1966	ppb	19:17:27
1	Ni 231.604†	3263.9	3100.7	67.705	ug/L	67.705	ppb	19:17:27
1	P 214.914†	2588.2	2274.9	1104.0	ug/L	1104.0	ppb	19:17:27
1	Pb 220.353†	1039.6	1081.5	122.63	ug/L	122.63	ppb	19:17:27
1	S 181.975 Axial†	493.4	433.9	515.65	ug/L	515.65	ppb	19:17:27
1	Sb 206.836†	83.4	40.4	-1.6445	ug/L	-1.6445	ppb	19:17:27
1	Se 196.026†	-777.7	-732.6	-6.0739	ug/L	-6.0739	ppb	19:17:27
1	Si 251.611†	584749.5	571691.6	16116	ug/L	16116	ppb	19:17:07
1	Sn 189.927†	-90.2	-91.8	-10.329	ug/L	-10.329	ppb	19:17:27
1	Ti 334.940†	3003284.1	2940572.1	4252.5	ug/L	4252.5	ppb	19:17:02
1	Tl 190.801†	-267.7	-213.9	2.2353	ug/L	2.2353	ppb	19:17:27
1	U 409.014†	-9081.0	-6514.9	-195.47	ug/L	-195.47	ppb	19:17:07
1	V 292.402†	41993.5	42566.7	246.91	ug/L	246.91	ppb	19:17:07
1	Zn 213.857†	40708.5	39046.1	307.15	ug/L	307.15	ppb	19:17:07
1	SiO2†	583913.8	570844.6	34554	ug/L	34554	ppb	19:18:36
2	Sc Radial	5597.7	5597.7	101	%			19:16:29
2	Y RADIAL	6457.5	6457.5	109.2	%			19:16:29
2	Al 396.153Radial†	115111.7	114502.2	83433	ug/L	83433	ppb	19:16:09
2	Ca 317.933Radial†	11487.3	11405.3	16261	ug/L	16261	ppb	19:16:09
2	Fe 238.204 Radial†	14984.4	14892.0	123800	ug/L	123800	ppb	19:16:09
2	K 766.490 Radial†	78492.0	75352.8	13242	ug/L	13242	ppb	19:16:09
2	Mg 279.077 IEC†	562.5	558.0	17220	ug/L	17220	ppb	19:16:29
2	Na 589.592 Radial†	11678.3	12376.4	3694.0	ug/L	3694.0	ppb	19:16:09
2	Sr 421.552†	36622.6	36435.3	213.50	ug/L	213.50	ppb	19:16:09
2	Sc 361.383	931371.4	931371.4	103.61	%			19:17:33
2	Y 371.029	810729.8	810729.8	108.90	%			19:17:39
2	Ag 328.068†	-8531.8	-8604.3	5.2477	ug/L	5.2477	ppb	19:17:39
2	As 188.979†	-57.1	-20.3	47.431	ug/L	47.431	ppb	19:17:59
2	B 249.677†	1666.9	1634.7	16.959	ug/L	16.959	ppb	19:17:39
2	Ba 233.527†	211827.4	204446.9	1394.7	ug/L	1394.7	ppb	19:17:39
2	Be 313.107†	-13700.8	-8492.1	5.5037	ug/L	5.5037	ppb	19:17:39
2	Cd 226.502†	1138.3	1327.8	0.6518	ug/L	0.6518	ppb	19:17:59
2	Co 228.616†	3806.4	3760.9	55.606	ug/L	55.606	ppb	19:17:59
2	Cr 267.716†	9030.7	8635.8	90.291	ug/L	90.291	ppb	19:17:59
2	Cu 324.752†	28333.6	21290.5	66.469	ug/L	66.469	ppb	19:17:39
2	Mn 257.610†	4244618.1	4096182.5	4052.4	ug/L	4052.4	ppb	19:17:33
2	Mo 202.031†	-46.0	-64.3	4.8925	ug/L	4.8925	ppb	19:17:59
2	Ni 231.604†	3287.1	3078.9	67.230	ug/L	67.230	ppb	19:17:59

2	P 214.914†	2604.5	2255.6	1095.1	ug/L	1095.1 ppb	19:17:59
2	Pb 220.353†	1044.2	1071.9	121.46	ug/L	121.46 ppb	19:17:59
2	S 181.975 Axial†	492.8	426.6	506.95	ug/L	506.95 ppb	19:17:59
2	Sb 206.836†	73.6	29.8	-4.8450	ug/L	-4.8450 ppb	19:17:59
2	Se 196.026†	-799.7	-743.3	-17.466	ug/L	-17.466 ppb	19:17:59
2	Si 251.611†	580998.7	560170.8	15791	ug/L	15791 ppb	19:17:39
2	Sn 189.927†	-106.6	-106.4	-12.563	ug/L	-12.563 ppb	19:17:59
2	Ti 334.940†	3043478.2	2938786.8	4249.9	ug/L	4249.9 ppb	19:17:33
2	Tl 190.801†	-248.0	-191.2	8.0231	ug/L	8.0231 ppb	19:17:59
2	U 409.014†	-9042.7	-6355.3	-190.84	ug/L	-190.84 ppb	19:17:39
2	V 292.402†	41637.9	41656.0	241.39	ug/L	241.39 ppb	19:17:39
2	Zn 213.857†	40322.6	38123.6	299.75	ug/L	299.75 ppb	19:17:39
2	SiO2†	589509.6	568355.8	34404	ug/L	34404 ppb	19:18:42
3	Sc Radial	5577.6	5577.6	100	%		19:16:54
3	Y RADIAL	6410.0	6410.0	108.4	%		19:16:54
3	Al 396.153Radial†	118626.1	118422.2	86289	ug/L	86289 ppb	19:16:34
3	Ca 317.933Radial†	11789.4	11747.9	16749	ug/L	16749 ppb	19:16:34
3	Fe 238.204 Radial†	15405.8	15366.3	127740	ug/L	127740 ppb	19:16:34
3	K 766.490 Radial†	80873.0	78010.4	13711	ug/L	13711 ppb	19:16:34
3	Mg 279.077 IEC†	558.0	555.6	17142	ug/L	17142 ppb	19:16:54
3	Na 589.592 Radial†	12082.2	12821.4	3826.8	ug/L	3826.8 ppb	19:16:34
3	Sr 421.552†	37834.0	37775.6	221.36	ug/L	221.36 ppb	19:16:34
3	Sc 361.383	929184.7	929184.7	103.37	%		19:18:05
3	Y 371.029	810629.3	810629.3	108.89	%		19:18:10
3	Ag 328.068†	-8677.2	-8764.4	5.8758	ug/L	5.8758 ppb	19:18:10
3	As 188.979†	-71.7	-34.5	42.877	ug/L	42.877 ppb	19:18:30
3	B 249.677†	1603.8	1577.5	15.262	ug/L	15.262 ppb	19:18:10
3	Ba 233.527†	213358.9	206409.5	1408.2	ug/L	1408.2 ppb	19:18:10
3	Be 313.107†	-13742.5	-8563.6	5.4834	ug/L	5.4834 ppb	19:18:10
3	Cd 226.502†	1132.0	1324.3	0.2234	ug/L	0.2234 ppb	19:18:30
3	Co 228.616†	3788.4	3752.1	55.397	ug/L	55.397 ppb	19:18:30
3	Cr 267.716†	9025.5	8651.3	90.522	ug/L	90.522 ppb	19:18:30
3	Cu 324.752†	28461.7	21478.8	67.202	ug/L	67.202 ppb	19:18:10
3	Mn 257.610†	4246013.3	4107173.1	4063.6	ug/L	4063.6 ppb	19:18:05
3	Mo 202.031†	-50.4	-68.6	4.9089	ug/L	4.9089 ppb	19:18:30
3	Ni 231.604†	3282.9	3082.4	67.306	ug/L	67.306 ppb	19:18:30
3	P 214.914†	2590.9	2248.4	1089.0	ug/L	1089.0 ppb	19:18:30
3	Pb 220.353†	1023.9	1054.6	119.95	ug/L	119.95 ppb	19:18:30
3	S 181.975 Axial†	498.0	432.8	514.00	ug/L	514.00 ppb	19:18:30
3	Sb 206.836†	82.6	38.7	-2.1964	ug/L	-2.1964 ppb	19:18:30
3	Se 196.026†	-779.0	-725.1	4.8282	ug/L	4.8282 ppb	19:18:30
3	Si 251.611†	587607.9	567884.3	16009	ug/L	16009 ppb	19:18:10
3	Sn 189.927†	-109.3	-109.3	-12.891	ug/L	-12.891 ppb	19:18:30
3	Ti 334.940†	3037646.3	2940057.7	4251.8	ug/L	4251.8 ppb	19:18:05
3	Tl 190.801†	-262.1	-205.4	4.4913	ug/L	4.4913 ppb	19:18:30
3	U 409.014†	-8862.0	-6201.1	-187.09	ug/L	-187.09 ppb	19:18:10
3	V 292.402†	41998.6	42099.6	243.62	ug/L	243.62 ppb	19:18:10
3	Zn 213.857†	40658.3	38540.0	302.79	ug/L	302.79 ppb	19:18:10
3	SiO2†	587624.7	567871.4	34374	ug/L	34374 ppb	19:18:47

Mean Data: 242661001|932275|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	926356.3	103.05	%	0.765				0.74%
Sc Radial	5587.1	100	%	0.2				0.18%
Y 371.029	811773.3	109.04	%	0.255				0.23%
Y RADIAL	6434.6	108.9	%	0.40				0.37%
Ag 328.068†	-8746.3	5.2791	ug/L	0.58163	5.2791	ppb	0.58163	11.02%
Al 396.153Radial†	116426.3	84835	ug/L	1428.9	84835	ppb	1428.9	1.68%
As 188.979†	-26.1	45.638	ug/L	2.4262	45.638	ppb	2.4262	5.32%
B 249.677†	1628.0	16.568	ug/L	1.1608	16.568	ppb	1.1608	7.01%
Ba 233.527†	206589.9	1409.3	ug/L	15.25	1409.3	ppb	15.25	1.08%
Be 313.107†	-8515.8	5.4987	ug/L	0.01354	5.4987	ppb	0.01354	0.25%
Ca 317.933Radial†	11569.6	16495	ug/L	244.9	16495	ppb	244.9	1.48%
Cd 226.502†	1324.9	0.4338	ug/L	0.21427	0.4338	ppb	0.21427	49.40%
Co 228.616†	3763.7	55.632	ug/L	0.2494	55.632	ppb	0.2494	0.45%
Cr 267.716†	8654.3	90.518	ug/L	0.2242	90.518	ppb	0.2242	0.25%
Cu 324.752†	21553.3	67.308	ug/L	0.8973	67.308	ppb	0.8973	1.33%
Fe 238.204 Radial†	15120.7	125700	ug/L	1975.0	125700	ppb	1975.0	1.57%
K 766.490 Radial†	76580.0	13458	ug/L	236.4	13458	ppb	236.4	1.76%

Mg 279.077 IEC†	555.8	17150	ug/L	66.5	17150	ppb	66.5	0.39%
Mn 257.610†	4102864.2	4059.2	ug/L	5.97	4059.2	ppb	5.97	0.15%
Mo 202.031†	-64.7	4.9994	ug/L	0.17105	4.9994	ppb	0.17105	3.42%
Na 589.592 Radial†	12594.7	3759.1	ug/L	66.44	3759.1	ppb	66.44	1.77%
Ni 231.604†	3087.3	67.413	ug/L	0.2550	67.413	ppb	0.2550	0.38%
P 214.914†	2259.6	1096.0	ug/L	7.51	1096.0	ppb	7.51	0.68%
Pb 220.353†	1069.3	121.35	ug/L	1.341	121.35	ppb	1.341	1.11%
S 181.975 Axial†	431.1	512.20	ug/L	4.624	512.20	ppb	4.624	0.90%
Sb 206.836†	36.3	-2.8953	ug/L	1.71088	-2.8953	ppb	1.71088	59.09%
Se 196.026†	-733.7	-6.2372	ug/L	11.14792	-6.2372	ppb	11.14792	178.73%
Si 251.611†	566582.2	15972	ug/L	165.5	15972	ppb	165.5	1.04%
Sn 189.927†	-102.5	-11.928	ug/L	1.3939	-11.928	ppb	1.3939	11.69%
Sr 421.552†	37132.0	217.58	ug/L	3.937	217.58	ppb	3.937	1.81%
Ti 334.940†	2939805.5	4251.4	ug/L	1.34	4251.4	ppb	1.34	0.03%
Tl 190.801†	-203.5	4.9166	ug/L	2.91724	4.9166	ppb	2.91724	59.33%
U 409.014†	-6357.1	-191.13	ug/L	4.194	-191.13	ppb	4.194	2.19%
V 292.402†	42107.4	243.97	ug/L	2.773	243.97	ppb	2.773	1.14%
Zn 213.857†	38569.9	303.23	ug/L	3.718	303.23	ppb	3.718	1.23%
SiO2†	569023.9	34444	ug/L	96.6	34444	ppb	96.6	0.28%

Sequence No.: 52
Sample ID: 1201994220|932275|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 68
Date Collected: 12/19/2009 19:20:57
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1201994220|932275|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5727.3	5727.3	103	%			19:23:11
1	Y RADIAL	6551.2	6551.2	110.8	%			19:23:11
1	Al 396.153Radial†	105326.3	102400.6	74615	ug/L	74615	ppb	19:22:51
1	Ca 317.933Radial†	11085.3	10756.0	15335	ug/L	15335	ppb	19:22:51
1	Fe 238.204 Radial†	13803.0	13406.6	111450	ug/L	111450	ppb	19:22:51
1	K 766.490 Radial†	72266.7	67535.7	11868	ug/L	11868	ppb	19:22:51
1	Mg 279.077 IEC†	513.0	497.3	15347	ug/L	15347	ppb	19:23:11
1	Na 589.592 Radial†	11284.2	11730.7	3501.3	ug/L	3501.3	ppb	19:22:51
1	Sr 421.552†	35488.9	34509.4	202.22	ug/L	202.22	ppb	19:22:51
1	Sc 361.383	945376.5	945376.5	105.17	%			19:24:09
1	Y 371.029	837590.9	837590.9	112.51	%			19:24:09
1	Ag 328.068†	-7909.4	-7890.5	4.1073	ug/L	4.1073	ppb	19:24:14
1	As 188.979†	-51.5	-14.2	44.118	ug/L	44.118	ppb	19:24:34
1	B 249.677†	1229.6	1195.1	9.5946	ug/L	9.5946	ppb	19:24:14
1	Ba 233.527†	197871.2	188148.0	1283.4	ug/L	1283.4	ppb	19:24:14
1	Be 313.107†	-12236.3	-6903.8	5.1882	ug/L	5.1882	ppb	19:24:14
1	Cd 226.502†	977.1	1158.2	0.2239	ug/L	0.2239	ppb	19:24:34
1	Co 228.616†	3387.2	3307.8	48.722	ug/L	48.722	ppb	19:24:34
1	Cr 267.716†	8518.2	8019.4	83.775	ug/L	83.775	ppb	19:24:14
1	Cu 324.752†	27102.4	19714.7	61.387	ug/L	61.387	ppb	19:24:14
1	Mn 257.610†	3916227.5	3723243.7	3683.3	ug/L	3683.3	ppb	19:24:09
1	Mo 202.031†	-47.9	-65.4	3.9457	ug/L	3.9457	ppb	19:24:34
1	Ni 231.604†	2998.0	2757.0	60.201	ug/L	60.201	ppb	19:24:34
1	P 214.914†	2369.4	1994.9	966.81	ug/L	966.81	ppb	19:24:34
1	Pb 220.353†	918.4	937.3	106.32	ug/L	106.32	ppb	19:24:34
1	S 181.975 Axial†	451.6	380.4	452.04	ug/L	452.04	ppb	19:24:34
1	Sb 206.836†	79.7	34.5	-2.0986	ug/L	-2.0986	ppb	19:24:34
1	Se 196.026†	-732.4	-667.9	-15.084	ug/L	-15.084	ppb	19:24:34
1	Si 251.611†	561619.3	533436.8	15038	ug/L	15038	ppb	19:24:09
1	Sn 189.927†	-104.4	-102.8	-12.291	ug/L	-12.291	ppb	19:24:34
1	Ti 334.940†	2775335.4	2640308.3	3818.3	ug/L	3818.3	ppb	19:24:09
1	Tl 190.801†	-242.8	-182.8	4.6147	ug/L	4.6147	ppb	19:24:34
1	U 409.014†	-9006.7	-6191.8	-184.77	ug/L	-184.77	ppb	19:24:09
1	V 292.402†	38101.6	37698.2	218.54	ug/L	218.54	ppb	19:24:14
1	Zn 213.857†	36358.6	33777.9	265.41	ug/L	265.41	ppb	19:24:14
1	SiO2†	560175.0	532034.4	32206	ug/L	32206	ppb	19:25:44
2	Sc Radial	5714.1	5714.1	103	%			19:23:36
2	Y RADIAL	6524.9	6524.9	110.4	%			19:23:36
2	Al 396.153Radial†	102890.7	100263.8	73058	ug/L	73058	ppb	19:23:16
2	Ca 317.933Radial†	10777.0	10480.5	14942	ug/L	14942	ppb	19:23:16
2	Fe 238.204 Radial†	13501.3	13143.5	109260	ug/L	109260	ppb	19:23:16
2	K 766.490 Radial†	71038.3	66500.9	11685	ug/L	11685	ppb	19:23:16
2	Mg 279.077 IEC†	519.6	504.9	15583	ug/L	15583	ppb	19:23:36
2	Na 589.592 Radial†	11052.3	11530.1	3441.4	ug/L	3441.4	ppb	19:23:16
2	Sr 421.552†	34616.0	33738.6	197.70	ug/L	197.70	ppb	19:23:16
2	Sc 361.383	936243.5	936243.5	104.15	%			19:24:41
2	Y 371.029	830365.7	830365.7	111.54	%			19:24:41
2	Ag 328.068†	-7650.0	-7714.8	4.1393	ug/L	4.1393	ppb	19:24:46
2	As 188.979†	-53.9	-17.0	42.812	ug/L	42.812	ppb	19:25:06
2	B 249.677†	1211.5	1189.1	9.7592	ug/L	9.7592	ppb	19:24:46
2	Ba 233.527†	194376.7	186628.1	1273.0	ug/L	1273.0	ppb	19:24:46
2	Be 313.107†	-12095.3	-6881.9	5.2053	ug/L	5.2053	ppb	19:24:46
2	Cd 226.502†	986.7	1176.5	0.6217	ug/L	0.6217	ppb	19:25:06
2	Co 228.616†	3421.5	3372.2	49.865	ug/L	49.865	ppb	19:25:06
2	Cr 267.716†	8409.3	7993.8	83.476	ug/L	83.476	ppb	19:24:46
2	Cu 324.752†	26572.2	19457.0	60.547	ug/L	60.547	ppb	19:24:46
2	Mn 257.610†	3886376.7	3730908.1	3690.7	ug/L	3690.7	ppb	19:24:41
2	Mo 202.031†	-49.5	-67.4	3.6712	ug/L	3.6712	ppb	19:25:06
2	Ni 231.604†	3013.3	2799.5	61.130	ug/L	61.130	ppb	19:25:06

2	P 214.914†	2368.5	2015.9	979.17 ug/L	979.17 ppb	19:25:06
2	Pb 220.353†	946.9	973.2	109.93 ug/L	109.93 ppb	19:25:06
2	S 181.975 Axial†	446.2	379.4	451.08 ug/L	451.08 ppb	19:25:06
2	Sb 206.836†	78.4	34.0	-2.2322 ug/L	-2.2322 ppb	19:25:06
2	Se 196.026†	-728.3	-670.7	-23.499 ug/L	-23.499 ppb	19:25:06
2	Si 251.611†	555630.4	532896.0	15023 ug/L	15023 ppb	19:24:41
2	Sn 189.927†	-94.7	-94.4	-11.110 ug/L	-11.110 ppb	19:25:06
2	Ti 334.940†	2752128.7	2643769.6	3823.3 ug/L	3823.3 ppb	19:24:41
2	Tl 190.801†	-247.5	-189.6	2.8868 ug/L	2.8868 ppb	19:25:06
2	U 409.014†	-9157.1	-6419.7	-190.78 ug/L	-190.78 ppb	19:24:41
2	V 292.402†	37500.6	37474.6	217.44 ug/L	217.44 ppb	19:24:46
2	Zn 213.857†	35677.8	33461.6	263.01 ug/L	263.01 ppb	19:24:46
2	SiO2†	558751.4	535863.4	32437 ug/L	32437 ppb	19:25:50
3	Sc Radial	5623.4	5623.4	101 %		19:24:01
3	Y RADIAL	6447.2	6447.2	109.1 %		19:24:01
3	Al 396.153Radial†	105712.7	104674.0	76271 ug/L	76271 ppb	19:23:41
3	Ca 317.933Radial†	11038.7	10908.9	15553 ug/L	15553 ppb	19:23:41
3	Fe 238.204 Radial†	13804.2	13655.5	113520 ug/L	113520 ppb	19:23:41
3	K 766.490 Radial†	72445.1	69009.5	12127 ug/L	12127 ppb	19:23:41
3	Mg 279.077 IEC†	522.5	515.8	15920 ug/L	15920 ppb	19:24:01
3	Na 589.592 Radial†	11316.8	11965.6	3571.4 ug/L	3571.4 ppb	19:23:41
3	Sr 421.552†	35545.7	35202.7	206.28 ug/L	206.28 ppb	19:23:41
3	Sc 361.383	931325.1	931325.1	103.61 %		19:25:13
3	Y 371.029	825744.7	825744.7	110.92 %		19:25:13
3	Ag 328.068†	-7899.5	-7994.4	4.3669 ug/L	4.3669 ppb	19:25:18
3	As 188.979†	-50.9	-14.3	44.456 ug/L	44.456 ppb	19:25:38
3	B 249.677†	1227.7	1210.9	9.6419 ug/L	9.6419 ppb	19:25:18
3	Ba 233.527†	197857.3	190973.2	1302.7 ug/L	1302.7 ppb	19:25:18
3	Be 313.107†	-12096.6	-6944.4	5.1917 ug/L	5.1917 ppb	19:25:18
3	Cd 226.502†	982.3	1177.3	0.2037 ug/L	0.2037 ppb	19:25:38
3	Co 228.616†	3407.4	3375.9	49.875 ug/L	49.875 ppb	19:25:38
3	Cr 267.716†	8504.1	8127.9	84.920 ug/L	84.920 ppb	19:25:18
3	Cu 324.752†	27087.1	20088.7	62.549 ug/L	62.549 ppb	19:25:18
3	Mn 257.610†	3868089.8	3732963.4	3693.1 ug/L	3693.1 ppb	19:25:13
3	Mo 202.031†	-36.2	-54.8	4.7332 ug/L	4.7332 ppb	19:25:38
3	Ni 231.604†	3008.2	2809.9	61.357 ug/L	61.357 ppb	19:25:38
3	P 214.914†	2404.8	2063.1	1001.1 ug/L	1001.1 ppb	19:25:38
3	Pb 220.353†	937.7	969.1	109.87 ug/L	109.87 ppb	19:25:38
3	S 181.975 Axial†	459.5	394.5	469.01 ug/L	469.01 ppb	19:25:38
3	Sb 206.836†	81.9	37.8	-1.1610 ug/L	-1.1610 ppb	19:25:38
3	Se 196.026†	-722.7	-669.0	-9.1648 ug/L	-9.1648 ppb	19:25:38
3	Si 251.611†	554591.5	534710.6	15074 ug/L	15074 ppb	19:25:13
3	Sn 189.927†	-108.0	-107.7	-12.976 ug/L	-12.976 ppb	19:25:38
3	Ti 334.940†	2740350.1	2646355.5	3827.1 ug/L	3827.1 ppb	19:25:13
3	Tl 190.801†	-235.8	-179.6	5.5967 ug/L	5.5967 ppb	19:25:38
3	U 409.014†	-9042.8	-6355.9	-189.56 ug/L	-189.56 ppb	19:25:13
3	V 292.402†	38155.0	38296.3	222.04 ug/L	222.04 ppb	19:25:18
3	Zn 213.857†	36341.4	34282.9	269.32 ug/L	269.32 ppb	19:25:18
3	SiO2†	553084.6	533227.0	32278 ug/L	32278 ppb	19:25:55

Mean Data: 1201994220|932275|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	937648.4	104.31	%	0.793				0.76%
Sc Radial	5688.2	102	%	1.0				0.99%
Y 371.029	831233.7	111.66	%	0.802				0.72%
Y RADIAL	6507.8	110.1	%	0.91				0.83%
Ag 328.068†	-7866.6	4.2045	ug/L	0.14157	4.2045	ppb	0.14157	3.37%
Al 396.153Radial†	102446.1	74648	ug/L	1607.0	74648	ppb	1607.0	2.15%
As 188.979†	-15.2	43.795	ug/L	0.8682	43.795	ppb	0.8682	1.98%
B 249.677†	1198.4	9.6652	ug/L	0.08477	9.6652	ppb	0.08477	0.88%
Ba 233.527†	188583.1	1286.4	ug/L	15.07	1286.4	ppb	15.07	1.17%
Be 313.107†	-6910.0	5.1951	ug/L	0.00907	5.1951	ppb	0.00907	0.17%
Ca 317.933Radial†	10715.2	15277	ug/L	309.5	15277	ppb	309.5	2.03%
Cd 226.502†	1170.7	0.3498	ug/L	0.23567	0.3498	ppb	0.23567	67.38%
Co 228.616†	3352.0	49.487	ug/L	0.6631	49.487	ppb	0.6631	1.34%
Cr 267.716†	8047.0	84.057	ug/L	0.7626	84.057	ppb	0.7626	0.91%
Cu 324.752†	19753.5	61.494	ug/L	1.0052	61.494	ppb	1.0052	1.63%
Fe 238.204 Radial†	13401.9	111410	ug/L	2128.5	111410	ppb	2128.5	1.91%
K 766.490 Radial†	67682.0	11893	ug/L	222.4	11893	ppb	222.4	1.87%

Mg 279.077 IEC†	506.0	15617	ug/L	288.2	15617	ppb	288.2	1.85%
Mn 257.610†	3729038.4	3689.0	ug/L	5.09	3689.0	ppb	5.09	0.14%
Mo 202.031†	-62.6	4.1167	ug/L	0.55126	4.1167	ppb	0.55126	13.39%
Na 589.592 Radial†	11742.1	3504.7	ug/L	65.06	3504.7	ppb	65.06	1.86%
Ni 231.604†	2788.8	60.896	ug/L	0.6121	60.896	ppb	0.6121	1.01%
P 214.914†	2024.6	982.36	ug/L	17.363	982.36	ppb	17.363	1.77%
Pb 220.353†	959.9	108.71	ug/L	2.068	108.71	ppb	2.068	1.90%
S 181.975 Axial†	384.8	457.38	ug/L	10.084	457.38	ppb	10.084	2.20%
Sb 206.836†	35.5	-1.8306	ug/L	0.58368	-1.8306	ppb	0.58368	31.88%
Se 196.026†	-669.2	-15.916	ug/L	7.2034	-15.916	ppb	7.2034	45.26%
Si 251.611†	533681.1	15045	ug/L	26.2	15045	ppb	26.2	0.17%
Sn 189.927†	-101.6	-12.126	ug/L	0.9441	-12.126	ppb	0.9441	7.79%
Sr 421.552†	34483.6	202.07	ug/L	4.292	202.07	ppb	4.292	2.12%
Ti 334.940†	2643477.8	3822.9	ug/L	4.39	3822.9	ppb	4.39	0.11%
Tl 190.801†	-184.0	4.3660	ug/L	1.37196	4.3660	ppb	1.37196	31.42%
U 409.014†	-6322.5	-188.37	ug/L	3.174	-188.37	ppb	3.174	1.68%
V 292.402†	37823.1	219.34	ug/L	2.399	219.34	ppb	2.399	1.09%
Zn 213.857†	33840.8	265.91	ug/L	3.188	265.91	ppb	3.188	1.20%
SiO2†	533708.3	32307	ug/L	118.7	32307	ppb	118.7	0.37%

Sequence No.: 53
Sample ID: 1201994221|932275|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 69
Date Collected: 12/19/2009 19:28:05
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1201994221|932275|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	5662.6	5662.6	102	%			19:30:18
1	Y RADIAL	6512.3	6512.3	110.2	%			19:30:18
1	Al 396.153Radial†	191968.7	188753.1	137520	ug/L	137520	ppb	19:29:58
1	Ca 317.933Radial†	14791.5	14522.9	20706	ug/L	20706	ppb	19:30:18
1	Fe 238.204 Radial†	16790.6	16497.1	137160	ug/L	137160	ppb	19:29:58
1	K 766.490 Radial†	121890.1	117125.5	20594	ug/L	20594	ppb	19:29:58
1	Mg 279.077 IEC†	833.6	818.2	25297	ug/L	25297	ppb	19:30:18
1	Na 589.592 Radial†	28451.0	28733.6	8576.1	ug/L	8576.1	ppb	19:29:58
1	Sr 421.552†	125399.0	123299.7	722.82	ug/L	722.82	ppb	19:29:58
1	Sc 361.383	898259.9	898259.9	99.928	%			19:31:22
1	Y 371.029	790985.8	790985.8	106.25	%			19:31:22
1	Ag 328.068†	110556.5	110266.4	523.58	ug/L	523.58	ppb	19:31:22
1	As 188.979†	1286.5	1322.3	544.80	ug/L	544.80	ppb	19:31:42
1	B 249.677†	25558.0	25602.4	505.83	ug/L	505.83	ppb	19:31:22
1	Ba 233.527†	301263.3	301483.5	2055.9	ug/L	2055.9	ppb	19:31:22
1	Be 313.107†	1518971.4	1524799.9	521.70	ug/L	521.70	ppb	19:31:16
1	Cd 226.502†	51658.4	51924.9	494.47	ug/L	494.47	ppb	19:31:22
1	Co 228.616†	31571.6	31681.5	543.29	ug/L	543.29	ppb	19:31:42
1	Cr 267.716†	60146.5	60109.8	613.17	ug/L	613.17	ppb	19:31:22
1	Cu 324.752†	219728.0	213831.1	611.15	ug/L	611.15	ppb	19:31:22
1	Mn 257.610†	5454521.3	5457970.4	5396.8	ug/L	5396.8	ppb	19:31:16
1	Mo 202.031†	7786.6	7772.3	480.20	ug/L	480.20	ppb	19:31:42
1	Ni 231.604†	25715.6	25640.6	559.87	ug/L	559.87	ppb	19:31:42
1	P 214.914†	3780.4	3525.1	1684.6	ug/L	1684.6	ppb	19:31:42
1	Pb 220.353†	5669.3	5737.5	624.89	ug/L	624.89	ppb	19:31:42
1	S 181.975 Axial†	4639.3	4593.6	5608.4	ug/L	5608.4	ppb	19:31:42
1	Sb 206.836†	1481.0	1440.8	421.59	ug/L	421.59	ppb	19:31:42
1	Se 196.026†	23.1	51.6	465.25	ug/L	465.25	ppb	19:31:42
1	Si 251.611†	747204.1	747166.4	21052	ug/L	21052	ppb	19:31:22
1	Sn 189.927†	3268.8	3267.7	494.14	ug/L	494.14	ppb	19:31:42
1	Ti 334.940†	3634559.7	3638573.0	5261.5	ug/L	5261.5	ppb	19:31:16
1	Tl 190.801†	1576.9	1626.1	492.93	ug/L	492.93	ppb	19:31:42
1	U 409.014†	9504.6	11883.7	308.99	ug/L	308.99	ppb	19:31:22
1	V 292.402†	123736.1	125294.9	777.95	ug/L	777.95	ppb	19:31:22
1	Zn 213.857†	104459.3	103741.2	832.56	ug/L	832.56	ppb	19:31:22
1	SiO2†	753287.8	753225.4	45571	ug/L	45571	ppb	19:32:51
2	Sc Radial	5685.4	5685.4	102	%			19:30:43
2	Y RADIAL	6511.0	6511.0	110.1	%			19:30:43
2	Al 396.153Radial†	194572.1	190546.4	138820	ug/L	138820	ppb	19:30:23
2	Ca 317.933Radial†	14809.1	14481.8	20647	ug/L	20647	ppb	19:30:43
2	Fe 238.204 Radial†	17028.9	16664.3	138550	ug/L	138550	ppb	19:30:23
2	K 766.490 Radial†	123735.6	118452.7	20827	ug/L	20827	ppb	19:30:23
2	Mg 279.077 IEC†	838.0	819.2	25327	ug/L	25327	ppb	19:30:43
2	Na 589.592 Radial†	28929.8	29090.5	8682.7	ug/L	8682.7	ppb	19:30:23
2	Sr 421.552†	127502.0	124865.1	732.00	ug/L	732.00	ppb	19:30:23
2	Sc 361.383	893903.8	893903.8	99.443	%			19:31:53
2	Y 371.029	786466.0	786466.0	105.64	%			19:31:53
2	Ag 328.068†	109938.9	110184.6	523.69	ug/L	523.69	ppb	19:31:53
2	As 188.979†	1299.3	1341.4	552.81	ug/L	552.81	ppb	19:32:13
2	B 249.677†	25512.6	25681.4	507.25	ug/L	507.25	ppb	19:31:53
2	Ba 233.527†	299872.7	301554.3	2056.4	ug/L	2056.4	ppb	19:31:53
2	Be 313.107†	1542524.0	1555892.0	532.33	ug/L	532.33	ppb	19:31:48
2	Cd 226.502†	51406.7	51923.7	494.32	ug/L	494.32	ppb	19:31:53
2	Co 228.616†	31691.1	31955.7	547.87	ug/L	547.87	ppb	19:32:13
2	Cr 267.716†	59812.9	60067.7	612.77	ug/L	612.77	ppb	19:31:53
2	Cu 324.752†	218459.6	213627.2	610.64	ug/L	610.64	ppb	19:31:53
2	Mn 257.610†	5531282.9	5561761.9	5499.3	ug/L	5499.3	ppb	19:31:48
2	Mo 202.031†	7855.6	7879.7	486.79	ug/L	486.79	ppb	19:32:13
2	Ni 231.604†	25842.1	25893.2	565.39	ug/L	565.39	ppb	19:32:13

2	P 214.914†	3800.1	3563.3	1704.0 ug/L	1704.0 ppb	19:32:13
2	Pb 220.353†	5673.6	5769.4	628.46 ug/L	628.46 ppb	19:32:13
2	S 181.975 Axial†	4691.4	4668.7	5700.3 ug/L	5700.3 ppb	19:32:13
2	Sb 206.836†	1495.1	1462.2	427.89 ug/L	427.89 ppb	19:32:13
2	Se 196.026†	34.0	62.7	475.74 ug/L	475.74 ppb	19:32:13
2	Si 251.611†	741282.5	744855.6	20987 ug/L	20987 ppb	19:31:53
2	Sn 189.927†	3266.9	3281.7	496.26 ug/L	496.26 ppb	19:32:13
2	Ti 334.940†	3689361.2	3711406.1	5366.8 ug/L	5366.8 ppb	19:31:48
2	Tl 190.801†	1589.1	1646.0	499.53 ug/L	499.53 ppb	19:32:13
2	U 409.014†	9549.6	11975.2	311.34 ug/L	311.34 ppb	19:31:53
2	V 292.402†	123075.7	125234.2	777.33 ug/L	777.33 ppb	19:31:53
2	Zn 213.857†	103978.8	103767.4	832.61 ug/L	832.61 ppb	19:31:53
2	SiO2†	759538.5	763184.6	46173 ug/L	46173 ppb	19:32:57
3	Sc Radial	5686.3	5686.3	102 %		19:31:08
3	Y RADIAL	6538.5	6538.5	110.6 %		19:31:08
3	Al 396.153Radial†	197058.6	192951.3	140570 ug/L	140570 ppb	19:30:48
3	Ca 317.933Radial†	14815.3	14485.7	20653 ug/L	20653 ppb	19:31:08
3	Fe 238.204 Radial†	17225.5	16854.2	140130 ug/L	140130 ppb	19:30:48
3	K 766.490 Radial†	125217.8	119885.1	21080 ug/L	21080 ppb	19:30:48
3	Mg 279.077 IEC†	836.9	818.0	25288 ug/L	25288 ppb	19:31:08
3	Na 589.592 Radial†	29286.3	29435.1	8785.5 ug/L	8785.5 ppb	19:30:48
3	Sr 421.552†	129155.6	126464.8	741.38 ug/L	741.38 ppb	19:30:48
3	Sc 361.383	893471.5	893471.5	99.395 %		19:32:25
3	Y 371.029	786407.5	786407.5	105.63 %		19:32:25
3	Ag 328.068†	109869.8	110168.6	524.15 ug/L	524.15 ppb	19:32:25
3	As 188.979†	1287.8	1330.5	549.27 ug/L	549.27 ppb	19:32:45
3	B 249.677†	25349.7	25529.9	503.94 ug/L	503.94 ppb	19:32:25
3	Ba 233.527†	299157.4	300980.6	2052.6 ug/L	2052.6 ppb	19:32:25
3	Be 313.107†	1545934.0	1560073.2	533.77 ug/L	533.77 ppb	19:32:20
3	Cd 226.502†	51151.9	51692.4	491.90 ug/L	491.90 ppb	19:32:25
3	Co 228.616†	31498.3	31777.1	544.67 ug/L	544.67 ppb	19:32:45
3	Cr 267.716†	59605.3	59887.9	610.98 ug/L	610.98 ppb	19:32:25
3	Cu 324.752†	218722.6	213998.1	611.77 ug/L	611.77 ppb	19:32:25
3	Mn 257.610†	5545812.4	5579071.3	5516.5 ug/L	5516.5 ppb	19:32:20
3	Mo 202.031†	7783.3	7810.8	482.74 ug/L	482.74 ppb	19:32:45
3	Ni 231.604†	25717.7	25780.6	562.93 ug/L	562.93 ppb	19:32:45
3	P 214.914†	3761.7	3526.5	1683.9 ug/L	1683.9 ppb	19:32:45
3	Pb 220.353†	5656.7	5755.2	627.21 ug/L	627.21 ppb	19:32:45
3	S 181.975 Axial†	4634.9	4614.1	5632.9 ug/L	5632.9 ppb	19:32:45
3	Sb 206.836†	1491.2	1459.1	426.76 ug/L	426.76 ppb	19:32:45
3	Se 196.026†	34.1	62.9	480.83 ug/L	480.83 ppb	19:32:45
3	Si 251.611†	742962.9	746906.9	21044 ug/L	21044 ppb	19:32:25
3	Sn 189.927†	3236.0	3252.2	491.85 ug/L	491.85 ppb	19:32:45
3	Ti 334.940†	3700496.9	3724404.7	5385.6 ug/L	5385.6 ppb	19:32:20
3	Tl 190.801†	1566.8	1624.4	494.22 ug/L	494.22 ppb	19:32:45
3	U 409.014†	9503.3	11933.4	309.99 ug/L	309.99 ppb	19:32:25
3	V 292.402†	123006.5	125224.5	776.95 ug/L	776.95 ppb	19:32:25
3	Zn 213.857†	103700.8	103538.3	830.59 ug/L	830.59 ppb	19:32:25
3	SiO2†	753858.2	757839.4	45849 ug/L	45849 ppb	19:33:02

Mean Data: 1201994221|932275|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	895211.7	99.589	%	0.2947				0.30%
Sc Radial	5678.1	102	%	0.2				0.24%
Y 371.029	787953.1	105.84	%	0.353				0.33%
Y RADIAL	6520.6	110.3	%	0.26				0.24%
Ag 328.068†	110206.5	523.81	ug/L	0.302	523.81	ppb	0.302	0.06%
Al 396.153Radial†	190750.3	138970	ug/L	1534.9	138970	ppb	1534.9	1.10%
As 188.979†	1331.4	548.96	ug/L	4.013	548.96	ppb	4.013	0.73%
B 249.677†	25604.5	505.68	ug/L	1.661	505.68	ppb	1.661	0.33%
Ba 233.527†	301339.5	2055.0	ug/L	2.08	2055.0	ppb	2.08	0.10%
Be 313.107†	1546921.7	529.27	ug/L	6.594	529.27	ppb	6.594	1.25%
Ca 317.933Radial†	14496.8	20668	ug/L	32.3	20668	ppb	32.3	0.16%
Cd 226.502†	51847.0	493.56	ug/L	1.442	493.56	ppb	1.442	0.29%
Co 228.616†	31804.8	545.28	ug/L	2.346	545.28	ppb	2.346	0.43%
Cr 267.716†	60021.8	612.31	ug/L	1.170	612.31	ppb	1.170	0.19%
Cu 324.752†	213818.8	611.19	ug/L	0.565	611.19	ppb	0.565	0.09%
Fe 238.204 Radial†	16671.8	138610	ug/L	1485.4	138610	ppb	1485.4	1.07%
K 766.490 Radial†	118487.8	20834	ug/L	242.7	20834	ppb	242.7	1.17%

Mg 279.077 IEC†	818.4	25304	ug/L	20.2	25304	ppb	20.2	0.08%
Mn 257.610†	5532934.5	5470.9	ug/L	64.74	5470.9	ppb	64.74	1.18%
Mo 202.031†	7820.9	483.24	ug/L	3.328	483.24	ppb	3.328	0.69%
Na 589.592 Radial†	29086.4	8681.4	ug/L	104.69	8681.4	ppb	104.69	1.21%
Ni 231.604†	25771.5	562.73	ug/L	2.763	562.73	ppb	2.763	0.49%
P 214.914†	3538.3	1690.8	ug/L	11.40	1690.8	ppb	11.40	0.67%
Pb 220.353†	5754.0	626.85	ug/L	1.808	626.85	ppb	1.808	0.29%
S 181.975 Axial†	4625.5	5647.2	ug/L	47.58	5647.2	ppb	47.58	0.84%
Sb 206.836†	1454.1	425.41	ug/L	3.357	425.41	ppb	3.357	0.79%
Se 196.026†	59.1	473.94	ug/L	7.948	473.94	ppb	7.948	1.68%
Si 251.611†	746309.6	21028	ug/L	35.8	21028	ppb	35.8	0.17%
Sn 189.927†	3267.2	494.08	ug/L	2.206	494.08	ppb	2.206	0.45%
Sr 421.552†	124876.5	732.07	ug/L	9.280	732.07	ppb	9.280	1.27%
Ti 334.940†	3691461.3	5338.0	ug/L	66.88	5338.0	ppb	66.88	1.25%
Tl 190.801†	1632.2	495.56	ug/L	3.501	495.56	ppb	3.501	0.71%
U 409.014†	11930.8	310.10	ug/L	1.178	310.10	ppb	1.178	0.38%
V 292.402†	125251.2	777.41	ug/L	0.504	777.41	ppb	0.504	0.06%
Zn 213.857†	103682.3	831.92	ug/L	1.150	831.92	ppb	1.150	0.14%
SiO2†	758083.1	45864	ug/L	301.6	45864	ppb	301.6	0.66%

Sequence No.: 54
Sample ID: 1201994223|932275|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 70
Date Collected: 12/19/2009 19:35:12
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1201994223|932275|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5548.8	5548.8	99.7	%			19:37:25
1	Y RADIAL	6396.8	6396.8	108.2	%			19:37:25
1	Al 396.153Radial†	206235.1	206937.1	150770	ug/L	150770	ppb	19:37:05
1	Ca 317.933Radial†	15929.2	15962.6	22758	ug/L	22758	ppb	19:37:05
1	Fe 238.204 Radial†	17746.4	17794.6	147940	ug/L	147940	ppb	19:37:05
1	K 766.490 Radial†	125581.8	123286.9	21701	ug/L	21701	ppb	19:37:05
1	Mg 279.077 IEC†	851.0	852.4	26351	ug/L	26351	ppb	19:37:25
1	Na 589.592 Radial†	30177.3	31039.3	9264.3	ug/L	9264.3	ppb	19:37:05
1	Sr 421.552†	132449.0	132901.2	779.10	ug/L	779.10	ppb	19:37:05
1	Sc 361.383	938434.7	938434.7	104.40	%			19:38:24
1	Y 371.029	806223.6	806223.6	108.30	%			19:38:29
1	Ag 328.068†	112103.4	107011.9	513.01	ug/L	513.01	ppb	19:38:29
1	As 188.979†	1304.2	1284.1	532.60	ug/L	532.60	ppb	19:38:49
1	B 249.677†	25952.7	24885.5	489.78	ug/L	489.78	ppb	19:38:29
1	Ba 233.527†	290432.1	278202.0	1898.0	ug/L	1898.0	ppb	19:38:29
1	Be 313.107†	1555772.5	1494976.2	511.69	ug/L	511.69	ppb	19:38:24
1	Cd 226.502†	52362.1	50385.8	478.32	ug/L	478.32	ppb	19:38:29
1	Co 228.616†	30801.4	29591.2	506.44	ug/L	506.44	ppb	19:38:49
1	Cr 267.716†	60429.8	57804.4	589.94	ug/L	589.94	ppb	19:38:29
1	Cu 324.752†	221355.6	205976.8	589.51	ug/L	589.51	ppb	19:38:29
1	Mn 257.610†	4071746.4	3899757.5	3860.9	ug/L	3860.9	ppb	19:38:24
1	Mo 202.031†	7809.8	7461.0	462.12	ug/L	462.12	ppb	19:38:49
1	Ni 231.604†	25573.9	24403.2	532.86	ug/L	532.86	ppb	19:38:49
1	P 214.914†	3688.0	3274.6	1553.0	ug/L	1553.0	ppb	19:38:49
1	Pb 220.353†	5598.5	5426.7	594.21	ug/L	594.21	ppb	19:38:49
1	S 181.975 Axial†	4657.9	4412.8	5383.9	ug/L	5383.9	ppb	19:38:49
1	Sb 206.836†	1522.3	1417.0	413.99	ug/L	413.99	ppb	19:38:49
1	Se 196.026†	30.0	57.2	502.86	ug/L	502.86	ppb	19:38:49
1	Si 251.611†	678781.6	649614.6	18301	ug/L	18301	ppb	19:38:29
1	Sn 189.927†	3269.2	3128.0	473.56	ug/L	473.56	ppb	19:38:49
1	Ti 334.940†	3796497.7	3637981.1	5260.8	ug/L	5260.8	ppb	19:38:24
1	Tl 190.801†	1642.9	1621.7	483.41	ug/L	483.41	ppb	19:38:49
1	U 409.014†	10233.9	12175.1	315.71	ug/L	315.71	ppb	19:38:29
1	V 292.402†	124275.6	120510.6	745.66	ug/L	745.66	ppb	19:38:29
1	Zn 213.857†	104877.9	99667.0	798.28	ug/L	798.28	ppb	19:38:29
1	SiO2†	683430.9	654038.9	39565	ug/L	39565	ppb	19:39:59
2	Sc Radial	5686.9	5686.9	102	%			19:37:50
2	Y RADIAL	6501.0	6501.0	110.0	%			19:37:50
2	Al 396.153Radial†	197875.3	193730.2	141140	ug/L	141140	ppb	19:37:30
2	Ca 317.933Radial†	15364.1	15021.4	21416	ug/L	21416	ppb	19:37:30
2	Fe 238.204 Radial†	17085.8	16715.6	138970	ug/L	138970	ppb	19:37:30
2	K 766.490 Radial†	122883.8	117587.1	20695	ug/L	20695	ppb	19:37:30
2	Mg 279.077 IEC†	845.9	826.8	25562	ug/L	25562	ppb	19:37:50
2	Na 589.592 Radial†	29520.2	29661.0	8852.9	ug/L	8852.9	ppb	19:37:30
2	Sr 421.552†	127995.9	125315.9	734.64	ug/L	734.64	ppb	19:37:30
2	Sc 361.383	936060.5	936060.5	104.13	%			19:38:56
2	Y 371.029	797402.8	797402.8	107.11	%			19:39:01
2	Ag 328.068†	110588.8	105829.7	504.92	ug/L	504.92	ppb	19:39:01
2	As 188.979†	1317.2	1299.8	536.97	ug/L	536.97	ppb	19:39:21
2	B 249.677†	25636.6	24645.0	486.03	ug/L	486.03	ppb	19:39:01
2	Ba 233.527†	288174.1	276739.2	1887.7	ug/L	1887.7	ppb	19:39:01
2	Be 313.107†	1550723.2	1493907.2	511.35	ug/L	511.35	ppb	19:38:56
2	Cd 226.502†	52073.1	50235.5	477.75	ug/L	477.75	ppb	19:39:01
2	Co 228.616†	30837.9	29701.1	508.48	ug/L	508.48	ppb	19:39:21
2	Cr 267.716†	60017.8	57555.6	587.25	ug/L	587.25	ppb	19:39:01
2	Cu 324.752†	217988.8	203281.4	581.43	ug/L	581.43	ppb	19:39:01
2	Mn 257.610†	4069506.6	3907499.3	3867.6	ug/L	3867.6	ppb	19:38:56
2	Mo 202.031†	7785.9	7457.0	461.24	ug/L	461.24	ppb	19:39:21
2	Ni 231.604†	25607.6	24497.6	534.92	ug/L	534.92	ppb	19:39:21

2	P 214.914†	3695.0	3290.3	1566.5 ug/L	1566.5 ppb	19:39:21
2	Pb 220.353†	5602.8	5444.4	594.66 ug/L	594.66 ppb	19:39:21
2	S 181.975 Axial†	4663.2	4429.1	5405.9 ug/L	5405.9 ppb	19:39:21
2	Sb 206.836†	1559.4	1456.3	425.97 ug/L	425.97 ppb	19:39:21
2	Se 196.026†	45.8	72.5	482.60 ug/L	482.60 ppb	19:39:21
2	Si 251.611†	670157.8	642982.3	18115 ug/L	18115 ppb	19:39:01
2	Sn 189.927†	3283.9	3150.0	476.59 ug/L	476.59 ppb	19:39:21
2	Ti 334.940†	3790783.1	3641717.2	5266.1 ug/L	5266.1 ppb	19:38:56
2	Tl 190.801†	1630.4	1613.8	481.18 ug/L	481.18 ppb	19:39:21
2	U 409.014†	10057.0	12030.1	312.84 ug/L	312.84 ppb	19:39:01
2	V 292.402†	123106.6	119690.0	741.77 ug/L	741.77 ppb	19:39:01
2	Zn 213.857†	103701.2	98791.8	791.98 ug/L	791.98 ppb	19:39:01
2	SiO2†	681387.8	653737.3	39547 ug/L	39547 ppb	19:40:04
3	Sc Radial	5755.0	5755.0	103 %		19:38:16
3	Y RADIAL	6599.6	6599.6	111.6 %		19:38:16
3	Al 396.153Radial†	192286.9	186032.5	135530 ug/L	135530 ppb	19:37:56
3	Ca 317.933Radial†	14978.7	14470.6	20631 ug/L	20631 ppb	19:37:56
3	Fe 238.204 Radial†	16567.9	16016.7	133160 ug/L	133160 ppb	19:37:56
3	K 766.490 Radial†	119068.9	112473.5	19793 ug/L	19793 ppb	19:37:56
3	Mg 279.077 IEC†	847.8	818.8	25319 ug/L	25319 ppb	19:38:16
3	Na 589.592 Radial†	28434.6	28268.9	8437.4 ug/L	8437.4 ppb	19:37:56
3	Sr 421.552†	124075.1	120040.6	703.71 ug/L	703.71 ppb	19:37:56
3	Sc 361.383	933681.5	933681.5	103.87 %		19:39:28
3	Y 371.029	799905.0	799905.0	107.45 %		19:39:33
3	Ag 328.068†	111101.8	106594.2	506.30 ug/L	506.30 ppb	19:39:33
3	As 188.979†	1307.9	1294.0	533.94 ug/L	533.94 ppb	19:39:53
3	B 249.677†	25711.1	24779.5	489.56 ug/L	489.56 ppb	19:39:33
3	Ba 233.527†	288759.9	278008.3	1896.1 ug/L	1896.1 ppb	19:39:33
3	Be 313.107†	1544265.6	1491484.3	510.52 ug/L	510.52 ppb	19:39:28
3	Cd 226.502†	52018.2	50310.1	479.06 ug/L	479.06 ppb	19:39:33
3	Co 228.616†	30666.1	29611.1	507.00 ug/L	507.00 ppb	19:39:53
3	Cr 267.716†	60072.1	57754.7	589.17 ug/L	589.17 ppb	19:39:33
3	Cu 324.752†	219449.1	205220.7	586.62 ug/L	586.62 ppb	19:39:33
3	Mn 257.610†	4053334.2	3901886.3	3861.5 ug/L	3861.5 ppb	19:39:28
3	Mo 202.031†	7763.8	7454.8	460.70 ug/L	460.70 ppb	19:39:53
3	Ni 231.604†	25472.5	24430.3	533.45 ug/L	533.45 ppb	19:39:53
3	P 214.914†	3682.2	3286.9	1566.6 ug/L	1566.6 ppb	19:39:53
3	Pb 220.353†	5560.4	5417.4	591.02 ug/L	591.02 ppb	19:39:53
3	S 181.975 Axial†	4621.9	4400.8	5372.2 ug/L	5372.2 ppb	19:39:53
3	Sb 206.836†	1538.7	1440.1	421.11 ug/L	421.11 ppb	19:39:53
3	Se 196.026†	36.1	63.2	459.13 ug/L	459.13 ppb	19:39:53
3	Si 251.611†	672950.8	647310.9	18237 ug/L	18237 ppb	19:39:33
3	Sn 189.927†	3257.6	3132.8	473.85 ug/L	473.85 ppb	19:39:53
3	Ti 334.940†	3777940.7	3638628.2	5261.6 ug/L	5261.6 ppb	19:39:28
3	Tl 190.801†	1603.2	1591.5	475.18 ug/L	475.18 ppb	19:39:53
3	U 409.014†	10066.1	12063.4	314.49 ug/L	314.49 ppb	19:39:33
3	V 292.402†	123439.5	120311.7	746.61 ug/L	746.61 ppb	19:39:33
3	Zn 213.857†	104244.6	99568.8	798.92 ug/L	798.92 ppb	19:39:33
3	SiO2†	681610.3	655618.7	39662 ug/L	39662 ppb	19:40:10

Mean Data: 1201994223|932275|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	936058.9	104.13	%	0.264				0.25%
Sc Radial	5663.6	102	%	1.9				1.85%
Y 371.029	801177.2	107.62	%	0.611				0.57%
Y RADIAL	6499.1	109.9	%	1.72				1.56%
Ag 328.068†	106478.6	508.07	ug/L	4.328	508.07	ppb	4.328	0.85%
Al 396.153Radial†	195566.6	142480	ug/L	7703.8	142480	ppb	7703.8	5.41%
As 188.979†	1292.6	534.50	ug/L	2.241	534.50	ppb	2.241	0.42%
B 249.677†	24770.0	488.46	ug/L	2.106	488.46	ppb	2.106	0.43%
Ba 233.527†	277649.9	1894.0	ug/L	5.48	1894.0	ppb	5.48	0.29%
Be 313.107†	1493455.9	511.19	ug/L	0.600	511.19	ppb	0.600	0.12%
Ca 317.933Radial†	15151.5	21602	ug/L	1075.7	21602	ppb	1075.7	4.98%
Cd 226.502†	50310.5	478.37	ug/L	0.656	478.37	ppb	0.656	0.14%
Co 228.616†	29634.5	507.31	ug/L	1.052	507.31	ppb	1.052	0.21%
Cr 267.716†	57704.9	588.78	ug/L	1.386	588.78	ppb	1.386	0.24%
Cu 324.752†	204826.3	585.85	ug/L	4.090	585.85	ppb	4.090	0.70%
Fe 238.204 Radial†	16842.3	140030	ug/L	7445.7	140030	ppb	7445.7	5.32%
K 766.490 Radial†	117782.5	20730	ug/L	954.4	20730	ppb	954.4	4.60%

Mg 279.077 IEC†	832.7	25744	ug/L	540.0	25744	ppb	540.0	2.10%
Mn 257.610†	3903047.7	3863.3	ug/L	3.73	3863.3	ppb	3.73	0.10%
Mo 202.031†	7457.6	461.35	ug/L	0.718	461.35	ppb	0.718	0.16%
Na 589.592 Radial†	29656.4	8851.6	ug/L	413.44	8851.6	ppb	413.44	4.67%
Ni 231.604†	24443.7	533.74	ug/L	1.062	533.74	ppb	1.062	0.20%
P 214.914†	3283.9	1562.0	ug/L	7.79	1562.0	ppb	7.79	0.50%
Pb 220.353†	5429.5	593.30	ug/L	1.985	593.30	ppb	1.985	0.33%
S 181.975 Axial†	4414.2	5387.3	ug/L	17.09	5387.3	ppb	17.09	0.32%
Sb 206.836†	1437.8	420.35	ug/L	6.026	420.35	ppb	6.026	1.43%
Se 196.026†	64.3	481.53	ug/L	21.881	481.53	ppb	21.881	4.54%
Si 251.611†	646635.9	18218	ug/L	94.8	18218	ppb	94.8	0.52%
Sn 189.927†	3137.0	474.67	ug/L	1.675	474.67	ppb	1.675	0.35%
Sr 421.552†	126085.9	739.15	ug/L	37.899	739.15	ppb	37.899	5.13%
Ti 334.940†	3639442.2	5262.8	ug/L	2.87	5262.8	ppb	2.87	0.05%
Tl 190.801†	1609.0	479.92	ug/L	4.255	479.92	ppb	4.255	0.89%
U 409.014†	12089.5	314.35	ug/L	1.437	314.35	ppb	1.437	0.46%
V 292.402†	120170.8	744.68	ug/L	2.563	744.68	ppb	2.563	0.34%
Zn 213.857†	99342.5	796.39	ug/L	3.834	796.39	ppb	3.834	0.48%
SiO2†	654465.0	39591	ug/L	61.7	39591	ppb	61.7	0.16%

Sequence No.: 55
Sample ID: 1201994222|932275|5
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 71
Date Collected: 12/19/2009 19:42:20
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1201994222|932275|5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5700.0	5700.0	102	%			19:44:13
1	Y RADIAL	6153.3	6153.3	104.1	%			19:44:13
1	Al 396.153Radial†	23494.0	22963.4	16732	ug/L	16732	ppb	19:44:13
1	Ca 317.933Radial†	2302.5	2229.3	3178.4	ug/L	3178.4	ppb	19:44:33
1	Fe 238.204 Radial†	2952.9	2873.2	23886	ug/L	23886	ppb	19:44:33
1	K 766.490 Radial†	18113.9	14979.7	2632.0	ug/L	2632.0	ppb	19:44:13
1	Mg 279.077 IEC†	109.3	105.4	3250.9	ug/L	3250.9	ppb	19:44:33
1	Na 589.592 Radial†	1475.9	2203.2	657.60	ug/L	657.60	ppb	19:44:13
1	Sr 421.552†	7188.8	7033.3	41.213	ug/L	41.213	ppb	19:44:13
1	Sc 361.383	924918.3	924918.3	102.89	%			19:45:30
1	Y 371.029	771824.5	771824.5	103.68	%			19:45:30
1	Ag 328.068†	-1379.3	-1710.4	0.8022	ug/L	0.8022	ppb	19:45:35
1	As 188.979†	-38.1	-2.2	10.096	ug/L	10.096	ppb	19:45:55
1	B 249.677†	27.8	53.0	-2.1153	ug/L	-2.1153	ppb	19:45:35
1	Ba 233.527†	42739.0	41539.7	283.33	ug/L	283.33	ppb	19:45:35
1	Be 313.107†	-6475.4	-1562.2	1.1590	ug/L	1.1590	ppb	19:45:35
1	Cd 226.502†	57.8	285.3	0.4112	ug/L	0.4112	ppb	19:45:55
1	Co 228.616†	705.0	772.3	11.475	ug/L	11.475	ppb	19:45:55
1	Cr 267.716†	1895.9	1762.4	18.400	ug/L	18.400	ppb	19:45:35
1	Cu 324.752†	10302.9	3957.6	12.400	ug/L	12.400	ppb	19:45:35
1	Mn 257.610†	877839.6	852662.6	843.37	ug/L	843.37	ppb	19:45:30
1	Mo 202.031†	9.2	-10.9	1.0348	ug/L	1.0348	ppb	19:45:55
1	Ni 231.604†	734.2	620.0	13.538	ug/L	13.538	ppb	19:45:55
1	P 214.914†	694.3	416.7	201.91	ug/L	201.91	ppb	19:45:55
1	Pb 220.353†	142.3	202.3	23.103	ug/L	23.103	ppb	19:45:55
1	S 181.975 Axial†	137.1	84.2	100.06	ug/L	100.06	ppb	19:45:55
1	Sb 206.836†	46.3	3.8	-1.6731	ug/L	-1.6731	ppb	19:45:55
1	Se 196.026†	-180.6	-147.0	-5.2477	ug/L	-5.2477	ppb	19:45:55
1	Si 251.611†	113364.9	109599.6	3089.6	ug/L	3089.6	ppb	19:45:35
1	Sn 189.927†	-21.9	-24.7	-3.0511	ug/L	-3.0511	ppb	19:45:55
1	Ti 334.940†	607890.5	592183.8	856.38	ug/L	856.38	ppb	19:45:30
1	Tl 190.801†	-79.8	-29.5	4.1157	ug/L	4.1157	ppb	19:45:55
1	U 409.014†	-3722.3	-1245.4	-37.352	ug/L	-37.352	ppb	19:45:30
1	V 292.402†	7030.7	8302.4	48.220	ug/L	48.220	ppb	19:45:35
1	Zn 213.857†	8744.0	7704.6	60.696	ug/L	60.696	ppb	19:45:35
1	SiO2†	114192.2	110374.3	6681.1	ug/L	6681.1	ppb	19:47:02
2	Sc Radial	5519.8	5519.8	99.1	%			19:44:38
2	Y RADIAL	5969.4	5969.4	101.0	%			19:44:38
2	Al 396.153Radial†	22621.5	22832.6	16637	ug/L	16637	ppb	19:44:38
2	Ca 317.933Radial†	2312.6	2312.9	3297.6	ug/L	3297.6	ppb	19:44:58
2	Fe 238.204 Radial†	2953.8	2968.3	24676	ug/L	24676	ppb	19:44:58
2	K 766.490 Radial†	17557.8	14996.5	2635.0	ug/L	2635.0	ppb	19:44:38
2	Mg 279.077 IEC†	109.9	109.5	3378.6	ug/L	3378.6	ppb	19:44:58
2	Na 589.592 Radial†	1397.7	2171.3	648.08	ug/L	648.08	ppb	19:44:38
2	Sr 421.552†	6947.9	7019.5	41.131	ug/L	41.131	ppb	19:44:38
2	Sc 361.383	924651.5	924651.5	102.86	%			19:46:01
2	Y 371.029	771122.8	771122.8	103.58	%			19:46:01
2	Ag 328.068†	-1466.3	-1795.4	0.7035	ug/L	0.7035	ppb	19:46:06
2	As 188.979†	-37.1	-1.2	10.547	ug/L	10.547	ppb	19:46:26
2	B 249.677†	35.1	60.0	-2.0749	ug/L	-2.0749	ppb	19:46:06
2	Ba 233.527†	42929.3	41736.7	284.70	ug/L	284.70	ppb	19:46:06
2	Be 313.107†	-6469.8	-1558.6	1.1587	ug/L	1.1587	ppb	19:46:06
2	Cd 226.502†	45.1	273.0	0.2119	ug/L	0.2119	ppb	19:46:26
2	Co 228.616†	683.2	751.2	11.097	ug/L	11.097	ppb	19:46:26
2	Cr 267.716†	1920.1	1786.5	18.660	ug/L	18.660	ppb	19:46:06
2	Cu 324.752†	10479.3	4132.0	12.933	ug/L	12.933	ppb	19:46:06
2	Mn 257.610†	877285.4	852370.0	843.15	ug/L	843.15	ppb	19:46:01
2	Mo 202.031†	13.7	-6.6	1.3536	ug/L	1.3536	ppb	19:46:26
2	Ni 231.604†	728.8	614.9	13.427	ug/L	13.427	ppb	19:46:26

2	P 214.914†	704.8	427.1	206.60 ug/L	206.60 ppb	19:46:26
2	Pb 220.353†	151.9	211.7	24.009 ug/L	24.009 ppb	19:46:26
2	S 181.975 Axial†	137.8	85.0	100.98 ug/L	100.98 ppb	19:46:26
2	Sb 206.836†	48.5	6.0	-1.0139 ug/L	-1.0139 ppb	19:46:26
2	Se 196.026†	-176.1	-142.7	-0.4892 ug/L	-0.4892 ppb	19:46:26
2	Si 251.611†	113747.4	110003.2	3101.0 ug/L	3101.0 ppb	19:46:06
2	Sn 189.927†	-27.3	-30.0	-3.8221 ug/L	-3.8221 ppb	19:46:26
2	Ti 334.940†	607175.6	591659.3	855.63 ug/L	855.63 ppb	19:46:01
2	Tl 190.801†	-77.7	-27.4	4.6486 ug/L	4.6486 ppb	19:46:26
2	U 409.014†	-3944.6	-1462.6	-43.436 ug/L	-43.436 ppb	19:46:01
2	V 292.402†	7037.3	8310.8	48.149 ug/L	48.149 ppb	19:46:06
2	Zn 213.857†	8764.3	7726.7	60.798 ug/L	60.798 ppb	19:46:06
2	SiO2†	114479.1	110685.3	6700.0 ug/L	6700.0 ppb	19:47:07
3	Sc Radial	5759.0	5759.0	103 %		19:45:04
3	Y RADIAL	6251.0	6251.0	105.7 %		19:45:04
3	Al 396.153Radial†	22562.1	21827.4	15905 ug/L	15905 ppb	19:45:04
3	Ca 317.933Radial†	2319.5	2222.7	3168.9 ug/L	3168.9 ppb	19:45:24
3	Fe 238.204 Radial†	2958.1	2848.7	23682 ug/L	23682 ppb	19:45:24
3	K 766.490 Radial†	17520.1	14224.4	2498.9 ug/L	2498.9 ppb	19:45:04
3	Mg 279.077 IEC†	107.6	102.6	3166.1 ug/L	3166.1 ppb	19:45:24
3	Na 589.592 Radial†	1328.2	2045.6	610.56 ug/L	610.56 ppb	19:45:04
3	Sr 421.552†	6895.6	6677.9	39.129 ug/L	39.129 ppb	19:45:04
3	Sc 361.383	922540.2	922540.2	102.63 %		19:46:31
3	Y 371.029	769023.8	769023.8	103.30 %		19:46:31
3	Ag 328.068†	-1320.1	-1656.2	0.9688 ug/L	0.9688 ppb	19:46:36
3	As 188.979†	-31.0	4.6	12.477 ug/L	12.477 ppb	19:46:56
3	B 249.677†	6.8	32.6	-2.5071 ug/L	-2.5071 ppb	19:46:36
3	Ba 233.527†	42704.8	41613.5	283.82 ug/L	283.82 ppb	19:46:36
3	Be 313.107†	-6541.9	-1643.2	1.1237 ug/L	1.1237 ppb	19:46:36
3	Cd 226.502†	36.4	264.7	0.2299 ug/L	0.2299 ppb	19:46:56
3	Co 228.616†	695.5	764.8	11.356 ug/L	11.356 ppb	19:46:56
3	Cr 267.716†	1928.2	1798.7	18.764 ug/L	18.764 ppb	19:46:36
3	Cu 324.752†	10338.7	4018.3	12.561 ug/L	12.561 ppb	19:46:36
3	Mn 257.610†	870317.5	847532.4	838.29 ug/L	838.29 ppb	19:46:31
3	Mo 202.031†	10.4	-9.8	1.0894 ug/L	1.0894 ppb	19:46:56
3	Ni 231.604†	758.5	645.5	14.096 ug/L	14.096 ppb	19:46:56
3	P 214.914†	706.6	430.4	208.90 ug/L	208.90 ppb	19:46:56
3	Pb 220.353†	136.7	197.3	22.402 ug/L	22.402 ppb	19:46:56
3	S 181.975 Axial†	142.5	89.9	107.10 ug/L	107.10 ppb	19:46:56
3	Sb 206.836†	45.9	3.5	-1.7499 ug/L	-1.7499 ppb	19:46:56
3	Se 196.026†	-184.1	-150.9	-8.0820 ug/L	-8.0820 ppb	19:46:56
3	Si 251.611†	112709.3	109244.7	3079.7 ug/L	3079.7 ppb	19:46:36
3	Sn 189.927†	-32.9	-35.5	-4.6752 ug/L	-4.6752 ppb	19:46:56
3	Ti 334.940†	603375.4	589307.3	852.22 ug/L	852.22 ppb	19:46:31
3	Tl 190.801†	-83.8	-33.6	2.9732 ug/L	2.9732 ppb	19:46:56
3	U 409.014†	-3720.9	-1253.4	-37.548 ug/L	-37.548 ppb	19:46:31
3	V 292.402†	7055.9	8344.5	48.522 ug/L	48.522 ppb	19:46:36
3	Zn 213.857†	8710.6	7694.0	60.628 ug/L	60.628 ppb	19:46:36
3	SiO2†	115803.6	112230.6	6793.6 ug/L	6793.6 ppb	19:47:12

Mean Data: 1201994222|932275|5

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	924036.6	102.80	%	0.145				0.14%
Sc Radial	5659.6	102	%	2.2				2.20%
Y 371.029	770657.0	103.52	%	0.196				0.19%
Y RADIAL	6124.6	103.6	%	2.42				2.33%
Ag 328.068†	-1720.7	0.8249	ug/L	0.13408	0.8249	ppb	0.13408	16.26%
Al 396.153Radial†	22541.1	16425	ug/L	452.9	16425	ppb	452.9	2.76%
As 188.979†	0.4	11.040	ug/L	1.2643	11.040	ppb	1.2643	11.45%
B 249.677†	48.5	-2.2325	ug/L	0.23873	-2.2325	ppb	0.23873	10.69%
Ba 233.527†	41630.0	283.95	ug/L	0.693	283.95	ppb	0.693	0.24%
Be 313.107†	-1588.0	1.1471	ug/L	0.02033	1.1471	ppb	0.02033	1.77%
Ca 317.933Radial†	2255.0	3215.0	ug/L	71.72	3215.0	ppb	71.72	2.23%
Cd 226.502†	274.3	0.2844	ug/L	0.11023	0.2844	ppb	0.11023	38.76%
Co 228.616†	762.8	11.309	ug/L	0.1930	11.309	ppb	0.1930	1.71%
Cr 267.716†	1782.5	18.608	ug/L	0.1875	18.608	ppb	0.1875	1.01%
Cu 324.752†	4036.0	12.632	ug/L	0.2734	12.632	ppb	0.2734	2.16%
Fe 238.204 Radial†	2896.8	24081	ug/L	525.2	24081	ppb	525.2	2.18%
K 766.490 Radial†	14733.5	2588.6	ug/L	77.75	2588.6	ppb	77.75	3.00%

Mg 279.077 IEC†	105.8	3265.2	ug/L	106.99	3265.2	ppb	106.99	3.28%
Mn 257.610†	850855.0	841.60	ug/L	2.873	841.60	ppb	2.873	0.34%
Mo 202.031†	-9.1	1.1593	ug/L	0.17051	1.1593	ppb	0.17051	14.71%
Na 589.592 Radial†	2140.1	638.75	ug/L	24.873	638.75	ppb	24.873	3.89%
Ni 231.604†	626.8	13.687	ug/L	0.3584	13.687	ppb	0.3584	2.62%
P 214.914†	424.7	205.80	ug/L	3.563	205.80	ppb	3.563	1.73%
Pb 220.353†	203.8	23.171	ug/L	0.8055	23.171	ppb	0.8055	3.48%
S 181.975 Axial†	86.4	102.71	ug/L	3.829	102.71	ppb	3.829	3.73%
Sb 206.836†	4.4	-1.4790	ug/L	0.40455	-1.4790	ppb	0.40455	27.35%
Se 196.026†	-146.9	-4.6063	ug/L	3.83680	-4.6063	ppb	3.83680	83.29%
Si 251.611†	109615.8	3090.1	ug/L	10.68	3090.1	ppb	10.68	0.35%
Sn 189.927†	-30.1	-3.8495	ug/L	0.81243	-3.8495	ppb	0.81243	21.10%
Sr 421.552†	6910.2	40.491	ug/L	1.1803	40.491	ppb	1.1803	2.91%
Ti 334.940†	591050.1	854.74	ug/L	2.217	854.74	ppb	2.217	0.26%
Tl 190.801†	-30.2	3.9125	ug/L	0.85599	3.9125	ppb	0.85599	21.88%
U 409.014†	-1320.4	-39.446	ug/L	3.4575	-39.446	ppb	3.4575	8.77%
V 292.402†	8319.2	48.297	ug/L	0.1982	48.297	ppb	0.1982	0.41%
Zn 213.857†	7708.4	60.707	ug/L	0.0858	60.707	ppb	0.0858	0.14%
SiO2†	111096.7	6724.9	ug/L	60.26	6724.9	ppb	60.26	0.90%

Sequence No.: 56
Sample ID: 242661002|932275|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 72
Date Collected: 12/19/2009 19:49:23
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 242661002|932275|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5615.5	5615.5	101	%			19:51:16
1	Y RADIAL	7986.6	7986.6	135.1	%			19:51:16
1	Al 396.153Radial†	60302.8	59801.0	43574	ug/L	43574	ppb	19:51:16
1	Ca 317.933Radial†	5901.1	5830.9	8313.2	ug/L	8313.2	ppb	19:51:16
1	Fe 238.204 Radial†	10744.7	10641.5	88464	ug/L	88464	ppb	19:51:16
1	K 766.490 Radial†	26418.9	23479.5	4127.6	ug/L	4127.6	ppb	19:51:16
1	Mg 279.077 IEC†	235.1	231.7	7117.7	ug/L	7117.7	ppb	19:51:36
1	Na 589.592 Radial†	5295.0	6011.2	1794.2	ug/L	1794.2	ppb	19:51:16
1	Sr 421.552†	13652.5	13547.0	79.361	ug/L	79.361	ppb	19:51:16
1	Sc 361.383	937212.2	937212.2	104.26	%			19:52:34
1	Y 371.029	1025247.4	1025247.4	137.72	%			19:52:34
1	Ag 328.068†	-5865.2	-5995.4	4.1629	ug/L	4.1629	ppb	19:52:39
1	As 188.979†	-18.9	16.7	35.409	ug/L	35.409	ppb	19:52:59
1	B 249.677†	489.4	495.4	-1.5982	ug/L	-1.5982	ppb	19:52:39
1	Ba 233.527†	44261.3	42455.0	291.98	ug/L	291.98	ppb	19:52:39
1	Be 313.107†	522.4	5232.2	5.4271	ug/L	5.4271	ppb	19:52:39
1	Cd 226.502†	645.3	848.1	-0.5261	ug/L	-0.5261	ppb	19:52:59
1	Co 228.616†	586.9	650.0	6.2761	ug/L	6.2761	ppb	19:52:59
1	Cr 267.716†	4087.0	3839.8	40.740	ug/L	40.740	ppb	19:52:59
1	Cu 324.752†	13469.3	6863.3	23.904	ug/L	23.904	ppb	19:52:39
1	Mn 257.610†	1490690.6	1429275.5	1418.5	ug/L	1418.5	ppb	19:52:34
1	Mo 202.031†	137.9	112.4	13.081	ug/L	13.081	ppb	19:52:59
1	Ni 231.604†	1890.0	1719.2	37.555	ug/L	37.555	ppb	19:52:59
1	P 214.914†	1548.8	1227.4	580.46	ug/L	580.46	ppb	19:52:59
1	Pb 220.353†	335.4	385.7	43.166	ug/L	43.166	ppb	19:52:59
1	S 181.975 Axial†	109.9	56.4	60.623	ug/L	60.623	ppb	19:52:59
1	Sb 206.836†	55.4	11.9	-2.0244	ug/L	-2.0244	ppb	19:52:59
1	Se 196.026†	-560.4	-509.0	-2.5954	ug/L	-2.5954	ppb	19:52:59
1	Si 251.611†	475643.3	455626.6	12846	ug/L	12846	ppb	19:52:34
1	Sn 189.927†	-39.2	-41.1	-4.0891	ug/L	-4.0891	ppb	19:52:59
1	Ti 334.940†	1345892.1	1292273.9	1869.0	ug/L	1869.0	ppb	19:52:34
1	Tl 190.801†	-152.7	-98.4	-1.9529	ug/L	-1.9529	ppb	19:52:59
1	U 409.014†	-15064.1	-12076.2	-343.93	ug/L	-343.93	ppb	19:52:34
1	V 292.402†	9808.7	10877.2	53.266	ug/L	53.266	ppb	19:52:39
1	Zn 213.857†	52104.0	49181.0	394.40	ug/L	394.40	ppb	19:52:39
1	SiO2†	477654.6	457526.5	27699	ug/L	27699	ppb	19:54:07
2	Sc Radial	5697.1	5697.1	102	%			19:51:41
2	Y RADIAL	8079.1	8079.1	136.7	%			19:51:41
2	Al 396.153Radial†	60593.2	59228.5	43157	ug/L	43157	ppb	19:51:41
2	Ca 317.933Radial†	5942.6	5787.6	8251.5	ug/L	8251.5	ppb	19:51:41
2	Fe 238.204 Radial†	10815.8	10558.4	87773	ug/L	87773	ppb	19:51:41
2	K 766.490 Radial†	26562.6	23244.7	4086.2	ug/L	4086.2	ppb	19:51:41
2	Mg 279.077 IEC†	238.0	231.2	7103.9	ug/L	7103.9	ppb	19:52:01
2	Na 589.592 Radial†	5182.8	5826.3	1739.0	ug/L	1739.0	ppb	19:51:41
2	Sr 421.552†	13684.4	13384.3	78.408	ug/L	78.408	ppb	19:51:41
2	Sc 361.383	937804.8	937804.8	104.33	%			19:53:05
2	Y 371.029	1024636.6	1024636.6	137.63	%			19:53:05
2	Ag 328.068†	-5816.9	-5945.6	4.1454	ug/L	4.1454	ppb	19:53:10
2	As 188.979†	-22.5	13.2	34.046	ug/L	34.046	ppb	19:53:30
2	B 249.677†	451.9	459.1	-2.2497	ug/L	-2.2497	ppb	19:53:10
2	Ba 233.527†	43904.9	42086.5	289.45	ug/L	289.45	ppb	19:53:10
2	Be 313.107†	562.7	5270.4	5.4419	ug/L	5.4419	ppb	19:53:10
2	Cd 226.502†	637.2	840.0	-0.5363	ug/L	-0.5363	ppb	19:53:30
2	Co 228.616†	582.3	645.2	6.2006	ug/L	6.2006	ppb	19:53:30
2	Cr 267.716†	4084.1	3834.6	40.674	ug/L	40.674	ppb	19:53:30
2	Cu 324.752†	13224.0	6620.0	23.181	ug/L	23.181	ppb	19:53:10
2	Mn 257.610†	1494060.1	1431601.7	1420.7	ug/L	1420.7	ppb	19:53:05
2	Mo 202.031†	154.2	127.9	13.969	ug/L	13.969	ppb	19:53:30
2	Ni 231.604†	1866.0	1695.0	37.027	ug/L	37.027	ppb	19:53:30

2	P 214.914†	1546.7	1224.5	579.47	ug/L	579.47 ppb	19:53:30
2	Pb 220.353†	302.5	354.0	39.789	ug/L	39.789 ppb	19:53:30
2	S 181.975 Axial†	110.2	56.7	61.021	ug/L	61.021 ppb	19:53:30
2	Sb 206.836†	64.0	20.2	0.4569	ug/L	0.4569 ppb	19:53:30
2	Se 196.026†	-569.9	-517.7	-9.5186	ug/L	-9.5186 ppb	19:53:30
2	Si 251.611†	476476.6	456137.0	12861	ug/L	12861 ppb	19:53:05
2	Sn 189.927†	-39.1	-41.0	-4.0879	ug/L	-4.0879 ppb	19:53:30
2	Ti 334.940†	1347470.2	1292970.8	1870.0	ug/L	1870.0 ppb	19:53:05
2	Tl 190.801†	-150.1	-95.8	-1.2581	ug/L	-1.2581 ppb	19:53:30
2	U 409.014†	-15121.0	-12121.7	-345.09	ug/L	-345.09 ppb	19:53:05
2	V 292.402†	9666.8	10735.3	52.478	ug/L	52.478 ppb	19:53:10
2	Zn 213.857†	51681.1	48744.0	390.89	ug/L	390.89 ppb	19:53:10
2	SiO2†	479234.5	458751.3	27774	ug/L	27774 ppb	19:54:12
3	Sc Radial	5749.8	5749.8	103	%		19:52:06
3	Y RADIAL	8162.0	8162.0	138.1	%		19:52:06
3	Al 396.153Radial†	61611.7	59671.8	43480	ug/L	43480 ppb	19:52:06
3	Ca 317.933Radial†	6027.8	5816.8	8293.2	ug/L	8293.2 ppb	19:52:06
3	Fe 238.204 Radial†	10900.9	10543.9	87652	ug/L	87652 ppb	19:52:06
3	K 766.490 Radial†	26764.6	23202.4	4078.8	ug/L	4078.8 ppb	19:52:06
3	Mg 279.077 IEC†	236.8	227.9	7000.6	ug/L	7000.6 ppb	19:52:26
3	Na 589.592 Radial†	5351.6	5943.3	1773.9	ug/L	1773.9 ppb	19:52:06
3	Sr 421.552†	13922.1	13491.9	79.038	ug/L	79.038 ppb	19:52:06
3	Sc 361.383	942742.2	942742.2	104.88	%		19:53:36
3	Y 371.029	1031065.0	1031065.0	138.50	%		19:53:36
3	Ag 328.068†	-5933.2	-6027.2	3.7535	ug/L	3.7535 ppb	19:53:41
3	As 188.979†	-4.4	30.7	40.341	ug/L	40.341 ppb	19:54:01
3	B 249.677†	471.6	475.6	-1.8953	ug/L	-1.8953 ppb	19:53:41
3	Ba 233.527†	44121.6	42072.8	289.35	ug/L	289.35 ppb	19:53:41
3	Be 313.107†	524.5	5231.2	5.4242	ug/L	5.4242 ppb	19:53:41
3	Cd 226.502†	641.6	840.9	-0.5151	ug/L	-0.5151 ppb	19:54:01
3	Co 228.616†	591.0	650.6	6.2985	ug/L	6.2985 ppb	19:54:01
3	Cr 267.716†	4033.3	3765.7	39.974	ug/L	39.974 ppb	19:54:01
3	Cu 324.752†	13247.4	6575.9	23.051	ug/L	23.051 ppb	19:53:41
3	Mn 257.610†	1497350.1	1427238.4	1416.4	ug/L	1416.4 ppb	19:53:36
3	Mo 202.031†	128.2	102.4	12.415	ug/L	12.415 ppb	19:54:01
3	Ni 231.604†	1875.0	1694.2	37.010	ug/L	37.010 ppb	19:54:01
3	P 214.914†	1517.1	1188.5	560.90	ug/L	560.90 ppb	19:54:01
3	Pb 220.353†	308.3	358.0	40.290	ug/L	40.290 ppb	19:54:01
3	S 181.975 Axial†	96.7	43.2	44.452	ug/L	44.452 ppb	19:54:01
3	Sb 206.836†	46.2	2.8	-4.7635	ug/L	-4.7635 ppb	19:54:01
3	Se 196.026†	-581.4	-525.9	-14.290	ug/L	-14.290 ppb	19:54:01
3	Si 251.611†	478245.4	455431.6	12841	ug/L	12841 ppb	19:53:36
3	Sn 189.927†	-39.5	-41.2	-4.1163	ug/L	-4.1163 ppb	19:54:01
3	Ti 334.940†	1352875.8	1291360.6	1867.7	ug/L	1867.7 ppb	19:53:36
3	Tl 190.801†	-140.1	-85.5	1.3798	ug/L	1.3798 ppb	19:54:01
3	U 409.014†	-15199.2	-12120.3	-345.04	ug/L	-345.04 ppb	19:53:36
3	V 292.402†	9764.7	10780.1	52.760	ug/L	52.760 ppb	19:53:41
3	Zn 213.857†	51840.1	48636.2	390.02	ug/L	390.02 ppb	19:53:41
3	SiO2†	477002.7	454217.5	27499	ug/L	27499 ppb	19:54:18

Mean Data: 242661002|932275|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	939253.1	104.49	%	0.338				0.32%
Sc Radial	5687.5	102	%	1.2				1.19%
Y 371.029	1026983.0	137.95	%	0.477				0.35%
Y RADIAL	8075.9	136.6	%	1.48				1.09%
Ag 328.068†	-5989.4	4.0206	ug/L	0.23147	4.0206	ppb	0.23147	5.76%
Al 396.153Radial†	59567.1	43404	ug/L	218.8	43404	ppb	218.8	0.50%
As 188.979†	20.2	36.598	ug/L	3.3118	36.598	ppb	3.3118	9.05%
B 249.677†	476.7	-1.9144	ug/L	0.32614	-1.9144	ppb	0.32614	17.04%
Ba 233.527†	42204.7	290.26	ug/L	1.491	290.26	ppb	1.491	0.51%
Be 313.107†	5244.6	5.4311	ug/L	0.00950	5.4311	ppb	0.00950	0.17%
Ca 317.933Radial†	5811.7	8286.0	ug/L	31.48	8286.0	ppb	31.48	0.38%
Cd 226.502†	843.0	-0.5258	ug/L	0.01064	-0.5258	ppb	0.01064	2.02%
Co 228.616†	648.6	6.2584	ug/L	0.05128	6.2584	ppb	0.05128	0.82%
Cr 267.716†	3813.3	40.463	ug/L	0.4248	40.463	ppb	0.4248	1.05%
Cu 324.752†	6686.4	23.379	ug/L	0.4596	23.379	ppb	0.4596	1.97%
Fe 238.204 Radial†	10581.3	87963	ug/L	437.7	87963	ppb	437.7	0.50%
K 766.490 Radial†	23308.9	4097.5	ug/L	26.33	4097.5	ppb	26.33	0.64%

Mg 279.077 IEC†	230.2	7074.1	ug/L	63.98	7074.1	ppb	63.98	0.90%
Mn 257.610†	1429371.9	1418.5	ug/L	2.16	1418.5	ppb	2.16	0.15%
Mo 202.031†	114.2	13.155	ug/L	0.7794	13.155	ppb	0.7794	5.93%
Na 589.592 Radial†	5926.9	1769.0	ug/L	27.91	1769.0	ppb	27.91	1.58%
Ni 231.604†	1702.8	37.197	ug/L	0.3098	37.197	ppb	0.3098	0.83%
P 214.914†	1213.5	573.61	ug/L	11.017	573.61	ppb	11.017	1.92%
Pb 220.353†	365.9	41.082	ug/L	1.8221	41.082	ppb	1.8221	4.44%
S 181.975 Axial†	52.1	55.365	ug/L	9.4536	55.365	ppb	9.4536	17.08%
Sb 206.836†	11.6	-2.1103	ug/L	2.61127	-2.1103	ppb	2.61127	123.74%
Se 196.026†	-517.5	-8.8012	ug/L	5.88004	-8.8012	ppb	5.88004	66.81%
Si 251.611†	455731.7	12849	ug/L	10.3	12849	ppb	10.3	0.08%
Sn 189.927†	-41.1	-4.0978	ug/L	0.01609	-4.0978	ppb	0.01609	0.39%
Sr 421.552†	13474.4	78.935	ug/L	0.4847	78.935	ppb	0.4847	0.61%
Ti 334.940†	1292201.8	1868.9	ug/L	1.17	1868.9	ppb	1.17	0.06%
Tl 190.801†	-93.2	-0.6104	ug/L	1.75824	-0.6104	ppb	1.75824	288.05%
U 409.014†	-12106.1	-344.69	ug/L	0.658	-344.69	ppb	0.658	0.19%
V 292.402†	10797.5	52.835	ug/L	0.3993	52.835	ppb	0.3993	0.76%
Zn 213.857†	48853.8	391.77	ug/L	2.320	391.77	ppb	2.320	0.59%
SiO2†	456831.8	27657	ug/L	142.0	27657	ppb	142.0	0.51%

Sequence No.: 57
Sample ID: 242661003|932275|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 73
Date Collected: 12/19/2009 19:56:29
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 242661003|932275|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	5337.3	5337.3	95.9	%			19:58:42
1	Y RADIAL	6469.2	6469.2	109.4	%			19:58:42
1	Al 396.153Radial†	144812.4	151069.4	110080	ug/L	110080	ppb	19:58:22
1	Ca 317.933Radial†	11013.8	11468.9	16352	ug/L	16352	ppb	19:58:22
1	Fe 238.204 Radial†	15582.3	16242.9	135030	ug/L	135030	ppb	19:58:22
1	K 766.490 Radial†	54356.9	53987.0	9490.7	ug/L	9490.7	ppb	19:58:22
1	Mg 279.077 IEC†	618.9	644.2	19888	ug/L	19888	ppb	19:58:42
1	Na 589.592 Radial†	10863.4	12093.2	3609.5	ug/L	3609.5	ppb	19:58:22
1	Sr 421.552†	36149.3	37719.0	221.03	ug/L	221.03	ppb	19:58:22
1	Sc 361.383	908853.0	908853.0	101.11	%			19:59:41
1	Y 371.029	846847.3	846847.3	113.75	%			19:59:41
1	Ag 328.068†	-8877.3	-9150.1	6.6362	ug/L	6.6362	ppb	19:59:46
1	As 188.979†	-81.6	-45.9	42.312	ug/L	42.312	ppb	20:00:06
1	B 249.677†	1060.0	1074.3	3.9912	ug/L	3.9912	ppb	19:59:46
1	Ba 233.527†	219507.5	217108.4	1481.1	ug/L	1481.1	ppb	19:59:46
1	Be 313.107†	-11879.1	-7018.0	6.5736	ug/L	6.5736	ppb	19:59:46
1	Cd 226.502†	1077.8	1295.2	-0.7916	ug/L	-0.7916	ppb	20:00:06
1	Co 228.616†	3177.9	3230.2	45.593	ug/L	45.593	ppb	20:00:06
1	Cr 267.716†	8572.3	8398.3	88.076	ug/L	88.076	ppb	19:59:46
1	Cu 324.752†	26227.2	19884.6	63.069	ug/L	63.069	ppb	19:59:46
1	Mn 257.610†	3296934.0	3260369.6	3229.0	ug/L	3229.0	ppb	19:59:41
1	Mo 202.031†	71.2	50.5	12.635	ug/L	12.635	ppb	20:00:06
1	Ni 231.604†	3043.8	2916.9	63.695	ug/L	63.695	ppb	20:00:06
1	P 214.914†	2277.0	1994.0	959.33	ug/L	959.33	ppb	20:00:06
1	Pb 220.353†	945.9	999.6	118.92	ug/L	118.92	ppb	20:00:06
1	S 181.975 Axial†	244.4	192.7	214.75	ug/L	214.75	ppb	20:00:06
1	Sb 206.836†	80.9	38.8	-3.2798	ug/L	-3.2798	ppb	20:00:06
1	Se 196.026†	-829.2	-791.6	-5.9103	ug/L	-5.9103	ppb	20:00:06
1	Si 251.611†	562215.2	555486.4	15660	ug/L	15660	ppb	19:59:41
1	Sn 189.927†	-93.0	-95.5	-10.751	ug/L	-10.751	ppb	20:00:06
1	Ti 334.940†	3174653.1	3141305.7	4542.8	ug/L	4542.8	ppb	19:59:41
1	Tl 190.801†	-255.6	-204.8	2.7404	ug/L	2.7404	ppb	20:00:06
1	U 409.014†	-10909.8	-8418.2	-249.09	ug/L	-249.09	ppb	19:59:41
1	V 292.402†	38203.5	39254.9	224.14	ug/L	224.14	ppb	19:59:46
1	Zn 213.857†	44343.7	43065.0	339.14	ug/L	339.14	ppb	19:59:46
1	SiO2†	569090.7	562257.4	34037	ug/L	34037	ppb	20:01:16
2	Sc Radial	5604.3	5604.3	101	%			19:59:07
2	Y RADIAL	6746.6	6746.6	114.1	%			19:59:07
2	Al 396.153Radial†	144698.8	143759.1	104750	ug/L	104750	ppb	19:58:47
2	Ca 317.933Radial†	10906.8	10815.1	15419	ug/L	15419	ppb	19:58:47
2	Fe 238.204 Radial†	15507.2	15393.8	127970	ug/L	127970	ppb	19:58:47
2	K 766.490 Radial†	54285.6	51214.4	9001.3	ug/L	9001.3	ppb	19:58:47
2	Mg 279.077 IEC†	614.5	609.0	18800	ug/L	18800	ppb	19:59:07
2	Na 589.592 Radial†	10848.1	11538.1	3443.8	ug/L	3443.8	ppb	19:58:47
2	Sr 421.552†	36143.3	35916.3	210.47	ug/L	210.47	ppb	19:58:47
2	Sc 361.383	907157.4	907157.4	100.92	%			20:00:13
2	Y 371.029	846672.1	846672.1	113.73	%			20:00:13
2	Ag 328.068†	-8786.1	-9076.2	4.5955	ug/L	4.5955	ppb	20:00:18
2	As 188.979†	-49.1	-13.8	52.909	ug/L	52.909	ppb	20:00:38
2	B 249.677†	1008.7	1025.5	3.9263	ug/L	3.9263	ppb	20:00:18
2	Ba 233.527†	215839.3	213879.3	1458.9	ug/L	1458.9	ppb	20:00:18
2	Be 313.107†	-11686.0	-6848.6	6.6371	ug/L	6.6371	ppb	20:00:18
2	Cd 226.502†	1099.5	1318.7	0.1436	ug/L	0.1436	ppb	20:00:38
2	Co 228.616†	3158.2	3216.6	45.439	ug/L	45.439	ppb	20:00:38
2	Cr 267.716†	8489.3	8331.9	87.270	ug/L	87.270	ppb	20:00:18
2	Cu 324.752†	25756.4	19466.7	61.528	ug/L	61.528	ppb	20:00:18
2	Mn 257.610†	3288736.3	3258341.4	3226.4	ug/L	3226.4	ppb	20:00:13
2	Mo 202.031†	71.3	50.8	12.150	ug/L	12.150	ppb	20:00:38
2	Ni 231.604†	3039.9	2918.7	63.734	ug/L	63.734	ppb	20:00:38

2	P 214.914†	2284.4	2005.5	969.41 ug/L	969.41 ppb	20:00:38
2	Pb 220.353†	973.1	1028.3	121.33 ug/L	121.33 ppb	20:00:38
2	S 181.975 Axial†	242.4	191.2	214.00 ug/L	214.00 ppb	20:00:38
2	Sb 206.836†	91.5	49.5	-0.0181 ug/L	-0.0181 ppb	20:00:38
2	Se 196.026†	-811.2	-775.3	-19.211 ug/L	-19.211 ppb	20:00:38
2	Si 251.611†	561474.8	555792.0	15669 ug/L	15669 ppb	20:00:13
2	Sn 189.927†	-81.9	-84.7	-9.3245 ug/L	-9.3245 ppb	20:00:38
2	Ti 334.940†	3171097.8	3143651.6	4546.1 ug/L	4546.1 ppb	20:00:13
2	Tl 190.801†	-249.1	-198.8	4.1785 ug/L	4.1785 ppb	20:00:38
2	U 409.014†	-10812.6	-8342.1	-246.10 ug/L	-246.10 ppb	20:00:13
2	V 292.402†	37650.5	38777.6	222.16 ug/L	222.16 ppb	20:00:18
2	Zn 213.857†	43604.4	42414.3	334.52 ug/L	334.52 ppb	20:00:18
2	SiO2†	565214.0	559468.0	33868 ug/L	33868 ppb	20:01:21
3	Sc Radial	5640.8	5640.8	101 %		19:59:32
3	Y RADIAL	6770.8	6770.8	114.5 %		19:59:32
3	Al 396.153Radial†	144835.1	142963.3	104170 ug/L	104170 ppb	19:59:12
3	Ca 317.933Radial†	10930.4	10768.3	15353 ug/L	15353 ppb	19:59:12
3	Fe 238.204 Radial†	15546.4	15332.9	127470 ug/L	127470 ppb	19:59:12
3	K 766.490 Radial†	54404.4	50982.8	8960.4 ug/L	8960.4 ppb	19:59:12
3	Mg 279.077 IEC†	617.6	608.1	18774 ug/L	18774 ppb	19:59:32
3	Na 589.592 Radial†	10811.7	11432.4	3412.2 ug/L	3412.2 ppb	19:59:12
3	Sr 421.552†	36160.8	35701.2	209.20 ug/L	209.20 ppb	19:59:12
3	Sc 361.383	910739.7	910739.7	101.32 %		20:00:45
3	Y 371.029	850325.6	850325.6	114.22 %		20:00:45
3	Ag 328.068†	-8794.9	-9050.5	4.5389 ug/L	4.5389 ppb	20:00:50
3	As 188.979†	-66.4	-30.7	46.695 ug/L	46.695 ppb	20:01:10
3	B 249.677†	910.7	924.8	1.9283 ug/L	1.9283 ppb	20:00:50
3	Ba 233.527†	216470.8	213661.4	1457.4 ug/L	1457.4 ppb	20:00:50
3	Be 313.107†	-11811.4	-6926.8	6.6101 ug/L	6.6101 ppb	20:00:50
3	Cd 226.502†	1105.0	1319.8	0.2047 ug/L	0.2047 ppb	20:01:10
3	Co 228.616†	3157.0	3203.1	45.209 ug/L	45.209 ppb	20:01:10
3	Cr 267.716†	8418.6	8229.1	86.220 ug/L	86.220 ppb	20:00:50
3	Cu 324.752†	25885.2	19493.3	61.578 ug/L	61.578 ppb	20:00:50
3	Mn 257.610†	3300385.5	3257020.8	3225.0 ug/L	3225.0 ppb	20:00:45
3	Mo 202.031†	60.6	39.9	11.457 ug/L	11.457 ppb	20:01:10
3	Ni 231.604†	3029.2	2896.2	63.244 ug/L	63.244 ppb	20:01:10
3	P 214.914†	2290.2	2002.3	967.91 ug/L	967.91 ppb	20:01:10
3	Pb 220.353†	941.6	993.5	117.57 ug/L	117.57 ppb	20:01:10
3	S 181.975 Axial†	244.3	192.1	215.18 ug/L	215.18 ppb	20:01:10
3	Sb 206.836†	83.6	41.3	-2.5058 ug/L	-2.5058 ppb	20:01:10
3	Se 196.026†	-836.2	-796.9	-32.572 ug/L	-32.572 ppb	20:01:10
3	Si 251.611†	563253.4	555359.1	15657 ug/L	15657 ppb	20:00:45
3	Sn 189.927†	-101.8	-104.0	-12.240 ug/L	-12.240 ppb	20:01:10
3	Ti 334.940†	3183351.1	3143385.8	4545.7 ug/L	4545.7 ppb	20:00:45
3	Tl 190.801†	-249.5	-198.2	4.2946 ug/L	4.2946 ppb	20:01:10
3	U 409.014†	-10880.5	-8366.9	-246.72 ug/L	-246.72 ppb	20:00:45
3	V 292.402†	37822.4	38800.5	222.37 ug/L	222.37 ppb	20:00:50
3	Zn 213.857†	43715.1	42353.7	334.07 ug/L	334.07 ppb	20:00:50
3	SiO2†	567610.0	559629.9	33878 ug/L	33878 ppb	20:01:27

Mean Data: 242661003|932275|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	908916.7	101.11	%	0.199				0.20%
Sc Radial	5527.5	99.3	%	2.98				3.00%
Y 371.029	847948.3	113.90	%	0.277				0.24%
Y RADIAL	6662.2	112.7	%	2.83				2.51%
Ag 328.068†	-9092.3	5.2569	ug/L	1.19488	5.2569	ppb	1.19488	22.73%
Al 396.153Radial†	145930.6	106330	ug/L	3255.7	106330	ppb	3255.7	3.06%
As 188.979†	-30.1	47.305	ug/L	5.3247	47.305	ppb	5.3247	11.26%
B 249.677†	1008.2	3.2819	ug/L	1.17273	3.2819	ppb	1.17273	35.73%
Ba 233.527†	214883.0	1465.8	ug/L	13.28	1465.8	ppb	13.28	0.91%
Be 313.107†	-6931.2	6.6069	ug/L	0.03186	6.6069	ppb	0.03186	0.48%
Ca 317.933Radial†	11017.4	15708	ug/L	558.4	15708	ppb	558.4	3.55%
Cd 226.502†	1311.2	-0.1478	ug/L	0.55842	-0.1478	ppb	0.55842	377.90%
Co 228.616†	3216.6	45.414	ug/L	0.1935	45.414	ppb	0.1935	0.43%
Cr 267.716†	8319.8	87.189	ug/L	0.9309	87.189	ppb	0.9309	1.07%
Cu 324.752†	19614.9	62.059	ug/L	0.8758	62.059	ppb	0.8758	1.41%
Fe 238.204 Radial†	15656.5	130160	ug/L	4229.2	130160	ppb	4229.2	3.25%
K 766.490 Radial†	52061.4	9150.8	ug/L	295.06	9150.8	ppb	295.06	3.22%

Mg 279.077 IEC†	620.5	19154	ug/L	635.8	19154	ppb	635.8	3.32%
Mn 257.610†	3258577.3	3226.8	ug/L	2.05	3226.8	ppb	2.05	0.06%
Mo 202.031†	47.1	12.081	ug/L	0.5920	12.081	ppb	0.5920	4.90%
Na 589.592 Radial†	11687.9	3488.5	ug/L	105.94	3488.5	ppb	105.94	3.04%
Ni 231.604†	2910.6	63.558	ug/L	0.2723	63.558	ppb	0.2723	0.43%
P 214.914†	2000.6	965.55	ug/L	5.440	965.55	ppb	5.440	0.56%
Pb 220.353†	1007.1	119.27	ug/L	1.908	119.27	ppb	1.908	1.60%
S 181.975 Axial†	192.0	214.64	ug/L	0.595	214.64	ppb	0.595	0.28%
Sb 206.836†	43.2	-1.9346	ug/L	1.70422	-1.9346	ppb	1.70422	88.09%
Se 196.026†	-787.9	-19.231	ug/L	13.3311	-19.231	ppb	13.3311	69.32%
Si 251.611†	555545.8	15662	ug/L	6.3	15662	ppb	6.3	0.04%
Sn 189.927†	-94.7	-10.772	ug/L	1.4579	-10.772	ppb	1.4579	13.53%
Sr 421.552†	36445.5	213.57	ug/L	6.493	213.57	ppb	6.493	3.04%
Ti 334.940†	3142781.1	4544.8	ug/L	1.83	4544.8	ppb	1.83	0.04%
Tl 190.801†	-200.6	3.7378	ug/L	0.86574	3.7378	ppb	0.86574	23.16%
U 409.014†	-8375.7	-247.31	ug/L	1.577	-247.31	ppb	1.577	0.64%
V 292.402†	38944.3	222.89	ug/L	1.091	222.89	ppb	1.091	0.49%
Zn 213.857†	42611.0	335.91	ug/L	2.807	335.91	ppb	2.807	0.84%
SiO2†	560451.8	33928	ug/L	94.6	33928	ppb	94.6	0.28%

Sequence No.: 58
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 12/19/2009 20:03:38
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	5536.9	5536.9	99.5	%			20:05:30
1	Y RADIAL	5848.8	5848.8	98.94	%			20:05:30
1	Al 396.153Radial†	6852.0	6905.9	5010.8	ug/L	5010.8	ppb	20:05:30
1	Ca 317.933Radial†	3505.4	3505.0	4997.2	ug/L	4997.2	ppb	20:05:50
1	Fe 238.204 Radial†	618.1	610.6	5091.9	ug/L	5091.9	ppb	20:05:50
1	K 766.490 Radial†	30841.1	28297.7	4978.8	ug/L	4978.8	ppb	20:05:30
1	Mg 279.077 IEC†	166.8	166.3	5170.6	ug/L	5170.6	ppb	20:05:50
1	Na 589.592 Radial†	31789.9	32725.8	9767.7	ug/L	9767.7	ppb	20:05:30
1	Sr 421.552†	84854.1	85331.0	500.32	ug/L	500.32	ppb	20:05:30
1	Sc 361.383	915318.4	915318.4	101.83	%			20:06:47
1	Y 371.029	746613.4	746613.4	100.29	%			20:06:47
1	Ag 328.068†	118679.3	116181.7	503.88	ug/L	503.88	ppb	20:06:53
1	As 188.979†	1376.1	1386.3	507.60	ug/L	507.60	ppb	20:07:13
1	B 249.677†	24324.1	23913.9	488.83	ug/L	488.83	ppb	20:06:53
1	Ba 233.527†	75389.4	74040.5	504.54	ug/L	504.54	ppb	20:06:53
1	Be 313.107†	1523064.4	1500490.5	504.18	ug/L	504.18	ppb	20:06:47
1	Cd 226.502†	52335.2	51626.1	504.71	ug/L	504.71	ppb	20:06:53
1	Co 228.616†	29086.5	28652.2	501.70	ug/L	501.70	ppb	20:06:53
1	Cr 267.716†	50880.4	49888.0	506.61	ug/L	506.61	ppb	20:06:53
1	Cu 324.752†	186877.0	177471.2	501.68	ug/L	501.68	ppb	20:06:53
1	Mn 257.610†	518433.7	508647.9	502.13	ug/L	502.13	ppb	20:06:47
1	Mo 202.031†	8357.9	8188.2	496.00	ug/L	496.00	ppb	20:07:13
1	Ni 231.604†	23681.1	23163.0	505.77	ug/L	505.77	ppb	20:06:53
1	P 214.914†	5076.3	4727.2	2389.8	ug/L	2389.8	ppb	20:07:13
1	Pb 220.353†	4738.8	4717.9	498.71	ug/L	498.71	ppb	20:07:13
1	S 181.975 Axial†	867.0	802.4	983.41	ug/L	983.41	ppb	20:07:13
1	Sb 206.836†	1720.2	1648.1	500.69	ug/L	500.69	ppb	20:07:13
1	Se 196.026†	901.1	913.5	515.41	ug/L	515.41	ppb	20:07:13
1	Si 251.611†	90700.5	88496.9	2483.6	ug/L	2483.6	ppb	20:06:53
1	Sn 189.927†	3368.2	3304.3	496.16	ug/L	496.16	ppb	20:07:13
1	Ti 334.940†	348485.6	343625.6	496.69	ug/L	496.69	ppb	20:06:47
1	Tl 190.801†	1910.7	1924.5	502.49	ug/L	502.49	ppb	20:07:13
1	U 409.014†	15775.2	17864.6	490.59	ug/L	490.59	ppb	20:06:53
1	V 292.402†	79161.0	79211.2	510.44	ug/L	510.44	ppb	20:06:53
1	Zn 213.857†	63669.6	61734.6	501.82	ug/L	501.82	ppb	20:06:53
1	SiO2†	89918.3	87699.6	5284.3	ug/L	5284.3	ppb	20:08:20
2	Sc Radial	5510.2	5510.2	99.0	%			20:05:55
2	Y RADIAL	5853.9	5853.9	99.03	%			20:05:55
2	Al 396.153Radial†	6844.9	6932.1	5030.1	ug/L	5030.1	ppb	20:05:55
2	Ca 317.933Radial†	3505.0	3521.7	5021.0	ug/L	5021.0	ppb	20:06:15
2	Fe 238.204 Radial†	619.4	614.9	5127.6	ug/L	5127.6	ppb	20:06:15
2	K 766.490 Radial†	30640.6	28245.5	4969.6	ug/L	4969.6	ppb	20:05:55
2	Mg 279.077 IEC†	170.2	170.6	5303.2	ug/L	5303.2	ppb	20:06:15
2	Na 589.592 Radial†	31698.4	32788.3	9786.3	ug/L	9786.3	ppb	20:05:55
2	Sr 421.552†	84659.9	85548.5	501.60	ug/L	501.60	ppb	20:05:55
2	Sc 361.383	923680.0	923680.0	102.76	%			20:07:18
2	Y 371.029	752756.5	752756.5	101.11	%			20:07:18
2	Ag 328.068†	117729.9	114202.7	495.33	ug/L	495.33	ppb	20:07:24
2	As 188.979†	1379.4	1377.3	504.33	ug/L	504.33	ppb	20:07:44
2	B 249.677†	24108.6	23488.0	480.10	ug/L	480.10	ppb	20:07:24
2	Ba 233.527†	74873.7	72868.4	496.55	ug/L	496.55	ppb	20:07:24
2	Be 313.107†	1532544.8	1496176.4	502.73	ug/L	502.73	ppb	20:07:18
2	Cd 226.502†	51911.1	50748.1	496.12	ug/L	496.12	ppb	20:07:24
2	Co 228.616†	28984.6	28294.4	495.42	ug/L	495.42	ppb	20:07:24
2	Cr 267.716†	50583.5	49146.8	499.08	ug/L	499.08	ppb	20:07:24
2	Cu 324.752†	185448.0	174419.1	493.06	ug/L	493.06	ppb	20:07:24
2	Mn 257.610†	521523.4	507045.8	500.55	ug/L	500.55	ppb	20:07:18
2	Mo 202.031†	8363.5	8119.3	491.84	ug/L	491.84	ppb	20:07:44
2	Ni 231.604†	23496.2	22772.5	497.24	ug/L	497.24	ppb	20:07:24

2	P 214.914†	5066.0	4672.0	2362.3 ug/L	2362.3 ppb	20:07:44
2	Pb 220.353†	4728.4	4665.7	493.20 ug/L	493.20 ppb	20:07:44
2	S 181.975 Axial†	867.7	795.5	974.89 ug/L	974.89 ppb	20:07:44
2	Sb 206.836†	1716.6	1629.3	495.06 ug/L	495.06 ppb	20:07:44
2	Se 196.026†	896.4	900.9	508.61 ug/L	508.61 ppb	20:07:44
2	Si 251.611†	90074.0	87081.0	2443.8 ug/L	2443.8 ppb	20:07:24
2	Sn 189.927†	3369.0	3275.2	491.79 ug/L	491.79 ppb	20:07:44
2	Ti 334.940†	350745.9	342727.2	495.40 ug/L	495.40 ppb	20:07:18
2	Tl 190.801†	1922.0	1918.5	500.97 ug/L	500.97 ppb	20:07:44
2	U 409.014†	15789.5	17738.3	487.12 ug/L	487.12 ppb	20:07:24
2	V 292.402†	78606.2	77967.5	502.47 ug/L	502.47 ppb	20:07:24
2	Zn 213.857†	63039.0	60554.9	492.20 ug/L	492.20 ppb	20:07:24
2	SiO2†	90354.4	87324.7	5261.8 ug/L	5261.8 ppb	20:08:25
3	Sc Radial	5518.9	5518.9	99.1 %		20:06:20
3	Y RADIAL	5863.5	5863.5	99.19 %		20:06:20
3	Al 396.153Radial†	6847.9	6924.3	5024.2 ug/L	5024.2 ppb	20:06:20
3	Ca 317.933Radial†	3551.5	3563.0	5079.9 ug/L	5079.9 ppb	20:06:40
3	Fe 238.204 Radial†	626.1	620.7	5175.9 ug/L	5175.9 ppb	20:06:40
3	K 766.490 Radial†	30690.4	28247.0	4969.9 ug/L	4969.9 ppb	20:06:20
3	Mg 279.077 IEC†	170.5	170.6	5303.0 ug/L	5303.0 ppb	20:06:40
3	Na 589.592 Radial†	31705.1	32744.6	9773.3 ug/L	9773.3 ppb	20:06:20
3	Sr 421.552†	84696.2	85450.3	501.02 ug/L	501.02 ppb	20:06:20
3	Sc 361.383	922236.0	922236.0	102.60 %		20:07:50
3	Y 371.029	752846.8	752846.8	101.13 %		20:07:50
3	Ag 328.068†	118823.1	115447.7	500.73 ug/L	500.73 ppb	20:07:55
3	As 188.979†	1372.9	1373.0	502.78 ug/L	502.78 ppb	20:08:15
3	B 249.677†	24444.6	23852.2	487.56 ug/L	487.56 ppb	20:07:55
3	Ba 233.527†	75457.5	73551.4	501.21 ug/L	501.21 ppb	20:07:55
3	Be 313.107†	1533770.8	1499706.6	503.92 ug/L	503.92 ppb	20:07:50
3	Cd 226.502†	52275.9	51182.8	500.37 ug/L	500.37 ppb	20:07:55
3	Co 228.616†	29111.4	28462.1	498.37 ug/L	498.37 ppb	20:07:55
3	Cr 267.716†	50893.0	49525.6	502.93 ug/L	502.93 ppb	20:07:55
3	Cu 324.752†	187313.0	176519.5	499.00 ug/L	499.00 ppb	20:07:55
3	Mn 257.610†	520880.1	507213.5	500.72 ug/L	500.72 ppb	20:07:50
3	Mo 202.031†	8405.7	8173.2	495.10 ug/L	495.10 ppb	20:08:15
3	Ni 231.604†	23698.9	23005.9	502.34 ug/L	502.34 ppb	20:07:55
3	P 214.914†	5097.0	4709.9	2381.2 ug/L	2381.2 ppb	20:08:15
3	Pb 220.353†	4760.5	4704.1	497.24 ug/L	497.24 ppb	20:08:15
3	S 181.975 Axial†	881.0	809.7	992.34 ug/L	992.34 ppb	20:08:15
3	Sb 206.836†	1726.6	1641.7	498.80 ug/L	498.80 ppb	20:08:15
3	Se 196.026†	904.9	910.5	514.03 ug/L	514.03 ppb	20:08:15
3	Si 251.611†	90946.6	88068.7	2471.5 ug/L	2471.5 ppb	20:07:55
3	Sn 189.927†	3385.2	3296.1	494.94 ug/L	494.94 ppb	20:08:15
3	Ti 334.940†	350435.9	342959.6	495.74 ug/L	495.74 ppb	20:07:50
3	Tl 190.801†	1938.3	1937.4	505.83 ug/L	505.83 ppb	20:08:15
3	U 409.014†	15847.6	17818.9	489.33 ug/L	489.33 ppb	20:07:55
3	V 292.402†	79183.0	78649.6	506.85 ug/L	506.85 ppb	20:07:55
3	Zn 213.857†	63639.2	61236.0	497.74 ug/L	497.74 ppb	20:07:55
3	SiO2†	89487.1	86616.9	5218.8 ug/L	5218.8 ppb	20:08:31

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	920411.5	102.39	%	0.497				0.49%
Sc Radial	5522.0	99.2	%	0.24				0.25%
Y 371.029	750738.9	100.84	%	0.480				0.48%
Y RADIAL	5855.4	99.05	%	0.126				0.13%
Ag 328.068†	115277.4	499.98	ug/L	4.321	499.98	ppb	4.321	0.86%
QC value within limits for Ag 328.068 Recovery = 100.00%								
Al 396.153Radial†	6920.8	5021.7	ug/L	9.89	5021.7	ppb	9.89	0.20%
QC value within limits for Al 396.153Radial Recovery = 100.43%								
As 188.979†	1378.8	504.91	ug/L	2.460	504.91	ppb	2.460	0.49%
QC value within limits for As 188.979 Recovery = 100.98%								
B 249.677†	23751.4	485.50	ug/L	4.717	485.50	ppb	4.717	0.97%
QC value within limits for B 249.677 Recovery = 97.10%								
Ba 233.527†	73486.8	500.77	ug/L	4.010	500.77	ppb	4.010	0.80%
QC value within limits for Ba 233.527 Recovery = 100.15%								
Be 313.107†	1498791.2	503.61	ug/L	0.772	503.61	ppb	0.772	0.15%
QC value within limits for Be 313.107 Recovery = 100.72%								
Ca 317.933Radial†	3529.9	5032.7	ug/L	42.57	5032.7	ppb	42.57	0.85%

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   QC value within limits for Ca 317.933Radial  Recovery = 100.65%
Cd 226.502†            51185.7      500.40 ug/L         4.298      500.40 ppb          4.298   0.86%
   QC value within limits for Cd 226.502  Recovery = 100.08%
Co 228.616†            28469.6      498.50 ug/L         3.138      498.50 ppb          3.138   0.63%
   QC value within limits for Co 228.616  Recovery = 99.70%
Cr 267.716†            49520.2      502.87 ug/L         3.764      502.87 ppb          3.764   0.75%
   QC value within limits for Cr 267.716  Recovery = 100.57%
Cu 324.752†           176136.6      497.91 ug/L         4.412      497.91 ppb          4.412   0.89%
   QC value within limits for Cu 324.752  Recovery = 99.58%
Fe 238.204 Radial†       615.4      5131.8 ug/L        42.17      5131.8 ppb          42.17   0.82%
   QC value within limits for Fe 238.204 Radial  Recovery = 102.64%
K 766.490 Radial†      28263.4      4972.8 ug/L         5.23      4972.8 ppb           5.23   0.11%
   QC value within limits for K 766.490 Radial  Recovery = 99.46%
Mg 279.077 IEC†          169.2      5258.9 ug/L        76.52      5258.9 ppb          76.52   1.46%
   QC value within limits for Mg 279.077 IEC  Recovery = 105.18%
Mn 257.610†           507635.7      501.13 ug/L         0.867      501.13 ppb          0.867   0.17%
   QC value within limits for Mn 257.610  Recovery = 100.23%
Mo 202.031†             8160.2      494.31 ug/L         2.192      494.31 ppb          2.192   0.44%
   QC value within limits for Mo 202.031  Recovery = 98.86%
Na 589.592 Radial†     32752.9      9775.8 ug/L         9.57      9775.8 ppb           9.57   0.10%
   QC value within limits for Na 589.592 Radial  Recovery = 97.76%
Ni 231.604†            22980.5      501.78 ug/L         4.290      501.78 ppb          4.290   0.86%
   QC value within limits for Ni 231.604  Recovery = 100.36%
P 214.914†              4703.0      2377.8 ug/L        14.05      2377.8 ppb          14.05   0.59%
   QC value within limits for P 214.914  Recovery = 95.11%
Pb 220.353†             4695.9      496.38 ug/L         2.853      496.38 ppb          2.853   0.57%
   QC value within limits for Pb 220.353  Recovery = 99.28%
S 181.975 Axial†         802.5      983.54 ug/L         8.725      983.54 ppb          8.725   0.89%
   QC value within limits for S 181.975 Axial  Recovery = 98.35%
Sb 206.836†             1639.7      498.19 ug/L         2.866      498.19 ppb          2.866   0.58%
   QC value within limits for Sb 206.836  Recovery = 99.64%
Se 196.026†              908.3      512.68 ug/L         3.592      512.68 ppb          3.592   0.70%
   QC value within limits for Se 196.026  Recovery = 102.54%
Si 251.611†            87882.2      2466.3 ug/L        20.43      2466.3 ppb          20.43   0.83%
   QC value within limits for Si 251.611  Recovery = 98.65%
Sn 189.927†             3291.9      494.30 ug/L         2.253      494.30 ppb          2.253   0.46%
   QC value within limits for Sn 189.927  Recovery = 98.86%
Sr 421.552†            85443.3      500.98 ug/L         0.639      500.98 ppb          0.639   0.13%
   QC value within limits for Sr 421.552  Recovery = 100.20%
Ti 334.940†           343104.1      495.94 ug/L         0.671      495.94 ppb          0.671   0.14%
   QC value within limits for Ti 334.940  Recovery = 99.19%
Tl 190.801†             1926.8      503.10 ug/L         2.490      503.10 ppb          2.490   0.49%
   QC value within limits for Tl 190.801  Recovery = 100.62%
U 409.014†             17807.3      489.01 ug/L         1.757      489.01 ppb          1.757   0.36%
   QC value within limits for U 409.014  Recovery = 97.80%
V 292.402†             78609.4      506.59 ug/L         3.994      506.59 ppb          3.994   0.79%
   QC value within limits for V 292.402  Recovery = 101.32%
Zn 213.857†            61175.1      497.25 ug/L         4.828      497.25 ppb          4.828   0.97%
   QC value within limits for Zn 213.857  Recovery = 99.45%
SiO2†                  87213.7      5255.0 ug/L        33.28      5255.0 ppb          33.28   0.63%
   QC value within limits for SiO2  Recovery = 98.27%
All analyte(s) passed QC.
```

Sequence No.: 59
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 12/19/2009 20:10:40
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	5507.6	5507.6	98.9	%			20:12:32
1	Y RADIAL	5859.4	5859.4	99.12	%			20:12:32
1	Al 396.153Radial†	-10.9	5.4	3.9041	ug/L	3.9041	ppb	20:12:32
1	Ca 317.933Radial†	19.1	-0.3	-0.4332	ug/L	-0.4332	ppb	20:12:52
1	Fe 238.204 Radial†	10.1	-0.7	-5.8129	ug/L	-5.8129	ppb	20:12:52
1	K 766.490 Radial†	2786.0	103.8	18.316	ug/L	18.316	ppb	20:12:32
1	Mg 279.077 IEC†	2.6	1.3	39.293	ug/L	39.293	ppb	20:12:52
1	Na 589.592 Radial†	-961.6	-210.4	-62.799	ug/L	-62.799	ppb	20:12:32
1	Sr 421.552†	-28.0	-16.5	-0.0968	ug/L	-0.0968	ppb	20:12:32
1	Sc 361.383	900238.6	900238.6	100.15	%			20:13:49
1	Y 371.029	751098.2	751098.2	100.89	%			20:13:49
1	Ag 328.068†	453.4	82.8	0.3602	ug/L	0.3602	ppb	20:13:49
1	As 188.979†	-27.2	7.7	2.8015	ug/L	2.8015	ppb	20:14:09
1	B 249.677†	-336.0	-309.5	-6.3520	ug/L	-6.3520	ppb	20:14:09
1	Ba 233.527†	11.3	13.8	0.0931	ug/L	0.0931	ppb	20:14:09
1	Be 313.107†	-4568.8	169.1	0.0567	ug/L	0.0567	ppb	20:13:49
1	Cd 226.502†	-225.9	3.6	0.0367	ug/L	0.0367	ppb	20:14:09
1	Co 228.616†	-86.8	0.4	0.0070	ug/L	0.0070	ppb	20:14:09
1	Cr 267.716†	125.5	45.1	0.4591	ug/L	0.4591	ppb	20:14:09
1	Cu 324.752†	6186.1	121.4	0.3426	ug/L	0.3426	ppb	20:13:49
1	Mn 257.610†	531.8	39.6	0.0377	ug/L	0.0377	ppb	20:14:09
1	Mo 202.031†	19.4	-0.5	-0.0281	ug/L	-0.0281	ppb	20:14:09
1	Ni 231.604†	126.1	32.4	0.7071	ug/L	0.7071	ppb	20:14:09
1	P 214.914†	232.0	-26.4	-13.822	ug/L	-13.822	ppb	20:14:09
1	Pb 220.353†	-74.7	-10.5	-1.1062	ug/L	-1.1062	ppb	20:14:09
1	S 181.975 Axial†	50.3	1.2	1.4558	ug/L	1.4558	ppb	20:14:09
1	Sb 206.836†	48.8	7.6	2.2577	ug/L	2.2577	ppb	20:14:09
1	Se 196.026†	-30.9	-2.3	-1.2770	ug/L	-1.2770	ppb	20:14:09
1	Si 251.611†	699.8	121.3	3.4137	ug/L	3.4137	ppb	20:14:09
1	Sn 189.927†	6.7	3.2	0.4871	ug/L	0.4871	ppb	20:14:09
1	Ti 334.940†	-1401.6	-12.0	-0.0139	ug/L	-0.0139	ppb	20:13:49
1	Tl 190.801†	-36.4	11.7	3.0314	ug/L	3.0314	ppb	20:14:09
1	U 409.014†	-2666.3	-290.1	-7.9932	ug/L	-7.9932	ppb	20:13:49
1	V 292.402†	-1529.1	-57.5	-0.3797	ug/L	-0.3797	ppb	20:13:49
1	Zn 213.857†	806.0	11.3	0.0867	ug/L	0.0867	ppb	20:14:09
1	SiO2†	715.2	107.5	6.4905	ug/L	6.4905	ppb	20:15:05
2	Sc Radial	5556.7	5556.7	99.8	%			20:12:57
2	Y RADIAL	5920.9	5920.9	100.2	%			20:12:57
2	Al 396.153Radial†	-0.6	15.7	11.432	ug/L	11.432	ppb	20:12:57
2	Ca 317.933Radial†	21.8	2.3	3.2977	ug/L	3.2977	ppb	20:13:17
2	Fe 238.204 Radial†	10.8	-0.1	-0.4775	ug/L	-0.4775	ppb	20:13:17
2	K 766.490 Radial†	2884.8	177.9	31.382	ug/L	31.382	ppb	20:12:57
2	Mg 279.077 IEC†	1.9	0.5	16.978	ug/L	16.978	ppb	20:13:17
2	Na 589.592 Radial†	-958.9	-199.0	-59.404	ug/L	-59.404	ppb	20:12:57
2	Sr 421.552†	-7.7	4.1	0.0241	ug/L	0.0241	ppb	20:12:57
2	Sc 361.383	895509.5	895509.5	99.622	%			20:14:14
2	Y 371.029	747443.1	747443.1	100.40	%			20:14:14
2	Ag 328.068†	442.4	74.2	0.3255	ug/L	0.3255	ppb	20:14:14
2	As 188.979†	-31.5	3.2	1.1605	ug/L	1.1605	ppb	20:14:34
2	B 249.677†	-326.7	-302.0	-6.1982	ug/L	-6.1982	ppb	20:14:34
2	Ba 233.527†	-4.9	-2.3	-0.0157	ug/L	-0.0157	ppb	20:14:34
2	Be 313.107†	-4587.7	126.0	0.0421	ug/L	0.0421	ppb	20:14:14
2	Cd 226.502†	-221.6	6.7	0.0665	ug/L	0.0665	ppb	20:14:34
2	Co 228.616†	-70.4	16.4	0.2901	ug/L	0.2901	ppb	20:14:34
2	Cr 267.716†	101.3	21.5	0.2202	ug/L	0.2202	ppb	20:14:34
2	Cu 324.752†	6136.5	104.2	0.2943	ug/L	0.2943	ppb	20:14:14
2	Mn 257.610†	550.4	61.0	0.0598	ug/L	0.0598	ppb	20:14:34
2	Mo 202.031†	34.0	14.3	0.8628	ug/L	0.8628	ppb	20:14:34
2	Ni 231.604†	126.3	33.2	0.7242	ug/L	0.7242	ppb	20:14:34

2	P 214.914†	237.7	-19.4	-10.183 ug/L	-10.183 ppb	20:14:34
2	Pb 220.353†	-78.9	-15.1	-1.5910 ug/L	-1.5910 ppb	20:14:34
2	S 181.975 Axial†	42.4	-6.5	-7.9405 ug/L	-7.9405 ppb	20:14:34
2	Sb 206.836†	50.0	9.0	2.6959 ug/L	2.6959 ppb	20:14:34
2	Se 196.026†	-22.4	6.0	3.2958 ug/L	3.2958 ppb	20:14:34
2	Si 251.611†	705.7	130.9	3.6669 ug/L	3.6669 ppb	20:14:34
2	Sn 189.927†	3.4	-0.1	-0.0124 ug/L	-0.0124 ppb	20:14:34
2	Ti 334.940†	-1431.8	-49.6	-0.0684 ug/L	-0.0684 ppb	20:14:14
2	Tl 190.801†	-24.5	23.5	6.0961 ug/L	6.0961 ppb	20:14:34
2	U 409.014†	-2625.6	-263.3	-7.2551 ug/L	-7.2551 ppb	20:14:14
2	V 292.402†	-1475.5	-11.7	-0.0756 ug/L	-0.0756 ppb	20:14:14
2	Zn 213.857†	801.6	11.1	0.0857 ug/L	0.0857 ppb	20:14:34
2	SiO2†	690.2	86.2	5.1607 ug/L	5.1607 ppb	20:15:10
3	Sc Radial	5561.7	5561.7	99.9 %		20:13:22
3	Y RADIAL	5942.4	5942.4	100.5 %		20:13:22
3	Al 396.153Radial†	0.9	17.2	12.557 ug/L	12.557 ppb	20:13:22
3	Ca 317.933Radial†	15.9	-3.6	-5.1683 ug/L	-5.1683 ppb	20:13:42
3	Fe 238.204 Radial†	13.3	2.4	20.182 ug/L	20.182 ppb	20:13:42
3	K 766.490 Radial†	2977.2	267.7	47.218 ug/L	47.218 ppb	20:13:22
3	Mg 279.077 IEC†	-1.3	-2.7	-82.654 ug/L	-82.654 ppb	20:13:42
3	Na 589.592 Radial†	-943.4	-182.7	-54.532 ug/L	-54.532 ppb	20:13:22
3	Sr 421.552†	15.4	27.3	0.1599 ug/L	0.1599 ppb	20:13:22
3	Sc 361.383	894539.4	894539.4	99.514 %		20:14:40
3	Y 371.029	746604.8	746604.8	100.29 %		20:14:40
3	Ag 328.068†	440.2	72.5	0.3204 ug/L	0.3204 ppb	20:14:40
3	As 188.979†	-32.5	2.2	0.7907 ug/L	0.7907 ppb	20:15:00
3	B 249.677†	-343.3	-319.1	-6.5508 ug/L	-6.5508 ppb	20:15:00
3	Ba 233.527†	-6.1	-3.5	-0.0241 ug/L	-0.0241 ppb	20:15:00
3	Be 313.107†	-4567.4	141.4	0.0476 ug/L	0.0476 ppb	20:14:40
3	Cd 226.502†	-220.1	8.0	0.0762 ug/L	0.0762 ppb	20:15:00
3	Co 228.616†	-92.7	-6.1	-0.1064 ug/L	-0.1064 ppb	20:15:00
3	Cr 267.716†	90.9	11.2	0.1138 ug/L	0.1138 ppb	20:15:00
3	Cu 324.752†	6275.8	250.8	0.7098 ug/L	0.7098 ppb	20:14:40
3	Mn 257.610†	547.0	58.2	0.0610 ug/L	0.0610 ppb	20:15:00
3	Mo 202.031†	22.3	2.5	0.1548 ug/L	0.1548 ppb	20:15:00
3	Ni 231.604†	117.9	24.9	0.5431 ug/L	0.5431 ppb	20:15:00
3	P 214.914†	224.0	-33.0	-17.334 ug/L	-17.334 ppb	20:15:00
3	Pb 220.353†	-68.7	-5.0	-0.5207 ug/L	-0.5207 ppb	20:15:00
3	S 181.975 Axial†	48.1	-0.7	-0.8522 ug/L	-0.8522 ppb	20:15:00
3	Sb 206.836†	45.9	5.0	1.4921 ug/L	1.4921 ppb	20:15:00
3	Se 196.026†	-25.9	2.5	1.4454 ug/L	1.4454 ppb	20:15:00
3	Si 251.611†	675.3	101.1	2.8314 ug/L	2.8314 ppb	20:15:00
3	Sn 189.927†	6.7	3.3	0.4929 ug/L	0.4929 ppb	20:15:00
3	Ti 334.940†	-1323.7	57.5	0.0841 ug/L	0.0841 ppb	20:14:40
3	Tl 190.801†	-38.2	9.7	2.5120 ug/L	2.5120 ppb	20:15:00
3	U 409.014†	-2472.0	-111.8	-3.0840 ug/L	-3.0840 ppb	20:14:40
3	V 292.402†	-1515.3	-53.3	-0.3480 ug/L	-0.3480 ppb	20:14:40
3	Zn 213.857†	792.3	2.6	0.0182 ug/L	0.0182 ppb	20:15:00
3	SiO2†	674.1	70.7	4.2379 ug/L	4.2379 ppb	20:15:15

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	896762.5	99.761	%	0.3392				0.34%
Sc Radial	5542.0	99.5	%	0.54				0.54%
Y 371.029	748382.0	100.53	%	0.321				0.32%
Y RADIAL	5907.6	99.94	%	0.729				0.73%
Ag 328.068†	76.5	0.3354	ug/L	0.02165	0.3354	ppb	0.02165	6.45%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	12.8	9.2979	ug/L	4.70489	9.2979	ppb	4.70489	50.60%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	4.4	1.5842	ug/L	1.07026	1.5842	ppb	1.07026	67.56%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-310.2	-6.3670	ug/L	0.17680	-6.3670	ppb	0.17680	2.78%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	2.7	0.0178	ug/L	0.06537	0.0178	ppb	0.06537	367.87%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	145.5	0.0488	ug/L	0.00735	0.0488	ppb	0.00735	15.06%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-0.5	-0.7679	ug/L	4.24291	-0.7679	ppb	4.24291	552.52%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                6.1      0.0598 ug/L       0.02059      0.0598 ppb        0.02059  34.44%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                3.6      0.0636 ug/L       0.20422      0.0636 ppb        0.20422 321.28%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†               25.9      0.2644 ug/L       0.17686      0.2644 ppb        0.17686  66.90%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              158.8      0.4489 ug/L       0.22721      0.4489 ppb        0.22721  50.62%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         0.6      4.6305 ug/L      13.72962      4.6305 ppb       13.72962 296.50%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        183.1      32.305 ug/L       14.4729      32.305 ppb        14.4729  44.80%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           -0.3     -8.7946 ug/L      64.93003     -8.7946 ppb       64.93003 738.29%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               52.9      0.0528 ug/L       0.01310      0.0528 ppb        0.01310  24.80%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                5.4      0.3298 ug/L       0.47054      0.3298 ppb        0.47054 142.66%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      -197.4     -58.912 ug/L        4.1555     -58.912 ppb         4.1555   7.05%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               30.1      0.6581 ug/L       0.09997      0.6581 ppb        0.09997  15.19%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -26.3     -13.779 ug/L        3.5755     -13.779 ppb         3.5755  25.95%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -10.2     -1.0726 ug/L       0.53597     -1.0726 ppb        0.53597  49.97%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          -2.0     -2.4456 ug/L       4.89661     -2.4456 ppb        4.89661 200.22%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                7.2      2.1486 ug/L       0.60930      2.1486 ppb        0.60930  28.36%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                2.1      1.1547 ug/L       2.30018      1.1547 ppb        2.30018 199.20%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†              117.8      3.3040 ug/L       0.42843      3.3040 ppb        0.42843  12.97%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                2.2      0.3225 ug/L       0.29009      0.3225 ppb        0.29009  89.94%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                5.0      0.0291 ug/L       0.12839      0.0291 ppb        0.12839 441.34%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               -1.4      0.0006 ug/L       0.07731      0.0006 ppb        0.07731 >999.9%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               15.0      3.8798 ug/L       1.93680      3.8798 ppb        1.93680  49.92%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              -221.8     -6.1108 ug/L       2.64714     -6.1108 ppb        2.64714  43.32%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               -40.8     -0.2678 ug/L       0.16720     -0.2678 ppb        0.16720  62.44%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                8.3      0.0635 ug/L       0.03926      0.0635 ppb        0.03926  61.78%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                     88.1      5.2964 ug/L       1.13240      5.2964 ppb        1.13240  21.38%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 60
Sample ID: 242661004|932275|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 74
Date Collected: 12/19/2009 20:17:25
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 242661004|932275|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	5606.6	5606.6	101	%			20:19:39
1	Y RADIAL	7157.2	7157.2	121.1	%			20:19:39
1	Al 396.153Radial†	134752.9	133824.7	97512	ug/L	97512	ppb	20:19:19
1	Ca 317.933Radial†	13437.4	13323.7	18996	ug/L	18996	ppb	20:19:19
1	Fe 238.204 Radial†	16004.7	15881.7	132030	ug/L	132030	ppb	20:19:19
1	K 766.490 Radial†	58228.0	55107.4	9709.7	ug/L	9709.7	ppb	20:19:19
1	Mg 279.077 IEC†	603.8	598.2	18460	ug/L	18460	ppb	20:19:39
1	Na 589.592 Radial†	12467.2	13141.5	3922.3	ug/L	3922.3	ppb	20:19:19
1	Sr 421.552†	28632.9	28444.0	166.62	ug/L	166.62	ppb	20:19:19
1	Sc 361.383	922019.1	922019.1	102.57	%			20:20:36
1	Y 371.029	911877.4	911877.4	122.49	%			20:20:36
1	Ag 328.068†	-8674.6	-8827.1	6.6694	ug/L	6.6694	ppb	20:20:41
1	As 188.979†	-39.2	-3.4	41.477	ug/L	41.477	ppb	20:21:01
1	B 249.677†	1072.4	1071.4	4.4172	ug/L	4.4172	ppb	20:20:41
1	Ba 233.527†	113001.5	110171.7	754.01	ug/L	754.01	ppb	20:20:41
1	Be 313.107†	-1761.8	3013.4	6.2331	ug/L	6.2331	ppb	20:20:41
1	Cd 226.502†	1038.7	1241.9	-1.0154	ug/L	-1.0154	ppb	20:21:01
1	Co 228.616†	1227.2	1283.6	15.241	ug/L	15.241	ppb	20:21:01
1	Cr 267.716†	6681.5	6433.9	67.958	ug/L	67.958	ppb	20:20:41
1	Cu 324.752†	21022.1	14439.7	47.532	ug/L	47.532	ppb	20:20:41
1	Mn 257.610†	1352006.3	1317627.1	1312.5	ug/L	1312.5	ppb	20:20:36
1	Mo 202.031†	-4.8	-24.6	7.8763	ug/L	7.8763	ppb	20:21:01
1	Ni 231.604†	2913.8	2747.2	60.009	ug/L	60.009	ppb	20:21:01
1	P 214.914†	2176.8	1864.1	892.23	ug/L	892.23	ppb	20:21:01
1	Pb 220.353†	628.3	676.7	82.315	ug/L	82.315	ppb	20:21:01
1	S 181.975 Axial†	203.4	149.3	163.98	ug/L	163.98	ppb	20:21:01
1	Sb 206.836†	84.1	40.8	2.9678	ug/L	2.9678	ppb	20:21:01
1	Se 196.026†	-809.8	-760.9	-0.1014	ug/L	-0.1014	ppb	20:21:01
1	Si 251.611†	635112.5	618616.1	17441	ug/L	17441	ppb	20:20:36
1	Sn 189.927†	-73.4	-75.0	-7.4563	ug/L	-7.4563	ppb	20:21:01
1	Ti 334.940†	1883544.9	1837721.7	2658.2	ug/L	2658.2	ppb	20:20:36
1	Tl 190.801†	-169.4	-117.1	-0.1506	ug/L	-0.1506	ppb	20:21:01
1	U 409.014†	-14752.6	-12010.6	-347.65	ug/L	-347.65	ppb	20:20:36
1	V 292.402†	22301.5	23211.9	124.35	ug/L	124.35	ppb	20:20:41
1	Zn 213.857†	65309.2	62878.7	502.02	ug/L	502.02	ppb	20:20:41
1	SiO2†	634475.4	617965.7	37410	ug/L	37410	ppb	20:22:09
2	Sc Radial	5611.3	5611.3	101	%			20:20:04
2	Y RADIAL	7140.9	7140.9	120.8	%			20:20:04
2	Al 396.153Radial†	132138.9	131118.3	95540	ug/L	95540	ppb	20:19:44
2	Ca 317.933Radial†	13196.8	13073.6	18639	ug/L	18639	ppb	20:19:44
2	Fe 238.204 Radial†	15653.6	15519.9	129020	ug/L	129020	ppb	20:19:44
2	K 766.490 Radial†	57207.5	54046.2	9522.5	ug/L	9522.5	ppb	20:19:44
2	Mg 279.077 IEC†	603.5	597.3	18437	ug/L	18437	ppb	20:20:04
2	Na 589.592 Radial†	11993.3	12660.8	3778.9	ug/L	3778.9	ppb	20:19:44
2	Sr 421.552†	27976.6	27768.8	162.66	ug/L	162.66	ppb	20:19:44
2	Sc 361.383	921090.3	921090.3	102.47	%			20:21:07
2	Y 371.029	910121.2	910121.2	122.25	%			20:21:07
2	Ag 328.068†	-8430.5	-8597.4	6.6505	ug/L	6.6505	ppb	20:21:12
2	As 188.979†	-37.3	-1.6	41.628	ug/L	41.628	ppb	20:21:32
2	B 249.677†	987.4	989.6	3.1354	ug/L	3.1354	ppb	20:21:12
2	Ba 233.527†	111357.2	108678.2	743.74	ug/L	743.74	ppb	20:21:12
2	Be 313.107†	-1907.7	2869.4	6.1774	ug/L	6.1774	ppb	20:21:12
2	Cd 226.502†	1014.7	1219.5	-0.9338	ug/L	-0.9338	ppb	20:21:32
2	Co 228.616†	1249.0	1306.0	15.682	ug/L	15.682	ppb	20:21:32
2	Cr 267.716†	6634.1	6394.2	67.497	ug/L	67.497	ppb	20:21:12
2	Cu 324.752†	20430.5	13883.0	45.806	ug/L	45.806	ppb	20:21:12
2	Mn 257.610†	1347596.7	1314652.8	1309.3	ug/L	1309.3	ppb	20:21:07
2	Mo 202.031†	4.6	-15.4	8.2179	ug/L	8.2179	ppb	20:21:32
2	Ni 231.604†	2913.3	2749.6	60.062	ug/L	60.062	ppb	20:21:32

2	P 214.914†	2196.6	1885.6	905.44 ug/L	905.44 ppb	20:21:32
2	Pb 220.353†	633.1	681.9	82.675 ug/L	82.675 ppb	20:21:32
2	S 181.975 Axial†	186.1	132.6	143.85 ug/L	143.85 ppb	20:21:32
2	Sb 206.836†	68.7	25.8	-1.5035 ug/L	-1.5035 ppb	20:21:32
2	Se 196.026†	-818.1	-769.9	-14.357 ug/L	-14.357 ppb	20:21:32
2	Si 251.611†	632948.4	617128.5	17399 ug/L	17399 ppb	20:21:07
2	Sn 189.927†	-74.2	-75.9	-7.6720 ug/L	-7.6720 ppb	20:21:32
2	Ti 334.940†	1878978.2	1835116.8	2654.4 ug/L	2654.4 ppb	20:21:07
2	Tl 190.801†	-170.2	-118.0	-0.4745 ug/L	-0.4745 ppb	20:21:32
2	U 409.014†	-14786.3	-12058.0	-348.58 ug/L	-348.58 ppb	20:21:07
2	V 292.402†	21872.7	22815.3	122.30 ug/L	122.30 ppb	20:21:12
2	Zn 213.857†	64205.7	61866.0	494.00 ug/L	494.00 ppb	20:21:12
2	SiO2†	638340.7	622361.7	37676 ug/L	37676 ppb	20:22:15
3	Sc Radial	5560.5	5560.5	99.9 %		20:20:29
3	Y RADIAL	7098.0	7098.0	120.1 %		20:20:29
3	Al 396.153Radial†	133222.4	133400.1	97203 ug/L	97203 ppb	20:20:09
3	Ca 317.933Radial†	13264.4	13260.9	18906 ug/L	18906 ppb	20:20:09
3	Fe 238.204 Radial†	15805.2	15813.5	131460 ug/L	131460 ppb	20:20:09
3	K 766.490 Radial†	57606.2	54963.5	9684.4 ug/L	9684.4 ppb	20:20:09
3	Mg 279.077 IEC†	600.0	599.4	18498 ug/L	18498 ppb	20:20:29
3	Na 589.592 Radial†	12107.1	12883.4	3845.3 ug/L	3845.3 ppb	20:20:09
3	Sr 421.552†	28130.1	28176.0	165.05 ug/L	165.05 ppb	20:20:09
3	Sc 361.383	924098.5	924098.5	102.80 %		20:21:38
3	Y 371.029	915795.5	915795.5	123.01 %		20:21:38
3	Ag 328.068†	-8547.4	-8684.3	7.0872 ug/L	7.0872 ppb	20:21:43
3	As 188.979†	-26.0	9.6	46.093 ug/L	46.093 ppb	20:22:04
3	B 249.677†	1015.1	1013.4	3.2997 ug/L	3.2997 ppb	20:21:43
3	Ba 233.527†	111214.4	108185.5	740.48 ug/L	740.48 ppb	20:21:43
3	Be 313.107†	-2103.0	2685.4	6.1234 ug/L	6.1234 ppb	20:21:43
3	Cd 226.502†	1007.6	1209.3	-1.2775 ug/L	-1.2775 ppb	20:22:04
3	Co 228.616†	1265.2	1317.8	15.841 ug/L	15.841 ppb	20:22:04
3	Cr 267.716†	6654.0	6392.5	67.523 ug/L	67.523 ppb	20:21:43
3	Cu 324.752†	20447.4	13834.5	45.793 ug/L	45.793 ppb	20:21:43
3	Mn 257.610†	1352221.2	1314870.1	1309.7 ug/L	1309.7 ppb	20:21:38
3	Mo 202.031†	-12.6	-32.1	7.3793 ug/L	7.3793 ppb	20:22:04
3	Ni 231.604†	2918.7	2745.6	59.974 ug/L	59.974 ppb	20:22:04
3	P 214.914†	2202.0	1883.9	903.15 ug/L	903.15 ppb	20:22:04
3	Pb 220.353†	602.7	650.4	79.522 ug/L	79.522 ppb	20:22:04
3	S 181.975 Axial†	202.5	148.0	162.39 ug/L	162.39 ppb	20:22:04
3	Sb 206.836†	54.1	11.4	-5.8454 ug/L	-5.8454 ppb	20:22:04
3	Se 196.026†	-814.2	-763.5	-3.2597 ug/L	-3.2597 ppb	20:22:04
3	Si 251.611†	636296.6	618374.6	17434 ug/L	17434 ppb	20:21:38
3	Sn 189.927†	-72.2	-73.7	-7.2760 ug/L	-7.2760 ppb	20:22:04
3	Ti 334.940†	1887880.6	1837807.1	2658.3 ug/L	2658.3 ppb	20:21:38
3	Tl 190.801†	-163.9	-111.4	1.3194 ug/L	1.3194 ppb	20:22:04
3	U 409.014†	-14755.9	-11981.4	-346.78 ug/L	-346.78 ppb	20:21:38
3	V 292.402†	21999.2	22868.9	122.26 ug/L	122.26 ppb	20:21:43
3	Zn 213.857†	64107.9	61566.8	491.32 ug/L	491.32 ppb	20:21:43
3	SiO2†	632104.2	614267.3	37186 ug/L	37186 ppb	20:22:20

Mean Data: 242661004|932275|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	922402.6	102.61	%	0.171				0.17%
Sc Radial	5592.8	100	%	0.5				0.50%
Y 371.029	912598.0	122.58	%	0.390				0.32%
Y RADIAL	7132.1	120.6	%	0.52				0.43%
Ag 328.068†	-8702.9	6.8024	ug/L	0.24686	6.8024	ppb	0.24686	3.63%
Al 396.153Radial†	132781.0	96751	ug/L	1060.6	96751	ppb	1060.6	1.10%
As 188.979†	1.5	43.066	ug/L	2.6224	43.066	ppb	2.6224	6.09%
B 249.677†	1024.8	3.6175	ug/L	0.69747	3.6175	ppb	0.69747	19.28%
Ba 233.527†	109011.8	746.08	ug/L	7.059	746.08	ppb	7.059	0.95%
Be 313.107†	2856.1	6.1780	ug/L	0.05489	6.1780	ppb	0.05489	0.89%
Ca 317.933Radial†	13219.4	18847	ug/L	185.5	18847	ppb	185.5	0.98%
Cd 226.502†	1223.5	-1.0755	ug/L	0.17956	-1.0755	ppb	0.17956	16.70%
Co 228.616†	1302.4	15.588	ug/L	0.3106	15.588	ppb	0.3106	1.99%
Cr 267.716†	6406.8	67.659	ug/L	0.2585	67.659	ppb	0.2585	0.38%
Cu 324.752†	14052.4	46.377	ug/L	1.0003	46.377	ppb	1.0003	2.16%
Fe 238.204 Radial†	15738.4	130830	ug/L	1597.9	130830	ppb	1597.9	1.22%
K 766.490 Radial†	54705.7	9638.9	ug/L	101.60	9638.9	ppb	101.60	1.05%

Mg 279.077 IEC†	598.3	18465	ug/L	30.9	18465	ppb	30.9	0.17%
Mn 257.610†	1315716.7	1310.5	ug/L	1.75	1310.5	ppb	1.75	0.13%
Mo 202.031†	-24.1	7.8245	ug/L	0.42172	7.8245	ppb	0.42172	5.39%
Na 589.592 Radial†	12895.2	3848.8	ug/L	71.79	3848.8	ppb	71.79	1.87%
Ni 231.604†	2747.5	60.015	ug/L	0.0442	60.015	ppb	0.0442	0.07%
P 214.914†	1877.9	900.27	ug/L	7.062	900.27	ppb	7.062	0.78%
Pb 220.353†	669.6	81.504	ug/L	1.7260	81.504	ppb	1.7260	2.12%
S 181.975 Axial†	143.3	156.74	ug/L	11.191	156.74	ppb	11.191	7.14%
Sb 206.836†	26.0	-1.4603	ug/L	4.40675	-1.4603	ppb	4.40675	301.76%
Se 196.026†	-764.8	-5.9060	ug/L	7.48712	-5.9060	ppb	7.48712	126.77%
Si 251.611†	618039.7	17424	ug/L	22.5	17424	ppb	22.5	0.13%
Sn 189.927†	-74.9	-7.4681	ug/L	0.19830	-7.4681	ppb	0.19830	2.66%
Sr 421.552†	28129.6	164.77	ug/L	1.992	164.77	ppb	1.992	1.21%
Ti 334.940†	1836881.9	2656.9	ug/L	2.22	2656.9	ppb	2.22	0.08%
Tl 190.801†	-115.5	0.2314	ug/L	0.95601	0.2314	ppb	0.95601	413.13%
U 409.014†	-12016.7	-347.67	ug/L	0.902	-347.67	ppb	0.902	0.26%
V 292.402†	22965.4	122.97	ug/L	1.200	122.97	ppb	1.200	0.98%
Zn 213.857†	62103.8	495.78	ug/L	5.569	495.78	ppb	5.569	1.12%
SiO2†	618198.2	37424	ug/L	245.4	37424	ppb	245.4	0.66%

Sequence No.: 61
Sample ID: 242661005|932275|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 75
Date Collected: 12/19/2009 20:24:32
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 242661005|932275|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5606.4	5606.4	101	%			20:26:45
1	Y RADIAL	6646.5	6646.5	112.4	%			20:26:45
1	Al 396.153Radial†	62550.1	62129.7	45271	ug/L	45271	ppb	20:26:25
1	Ca 317.933Radial†	7794.1	7720.1	11007	ug/L	11007	ppb	20:26:25
1	Fe 238.204 Radial†	10611.2	10526.2	87506	ug/L	87506	ppb	20:26:25
1	K 766.490 Radial†	38192.8	35213.6	6176.5	ug/L	6176.5	ppb	20:26:25
1	Mg 279.077 IEC†	299.7	296.2	9121.9	ug/L	9121.9	ppb	20:26:45
1	Na 589.592 Radial†	1411.8	2163.6	645.77	ug/L	645.77	ppb	20:26:25
1	Sr 421.552†	20527.5	20395.9	119.50	ug/L	119.50	ppb	20:26:25
1	Sc 361.383	935697.6	935697.6	104.09	%			20:27:43
1	Y 371.029	860122.2	860122.2	115.54	%			20:27:43
1	Ag 328.068†	-5780.0	-5922.7	4.2949	ug/L	4.2949	ppb	20:27:48
1	As 188.979†	-50.3	-13.5	33.518	ug/L	33.518	ppb	20:28:08
1	B 249.677†	497.9	504.3	-1.3754	ug/L	-1.3754	ppb	20:27:48
1	Ba 233.527†	97567.4	93733.9	640.63	ug/L	640.63	ppb	20:27:48
1	Be 313.107†	-11419.8	-6239.7	3.7397	ug/L	3.7397	ppb	20:27:48
1	Cd 226.502†	689.0	891.1	-0.0054	ug/L	-0.0054	ppb	20:28:08
1	Co 228.616†	2636.4	2619.8	38.568	ug/L	38.568	ppb	20:28:08
1	Cr 267.716†	6279.5	5952.4	62.231	ug/L	62.231	ppb	20:27:48
1	Cu 324.752†	16927.2	10206.1	33.300	ug/L	33.300	ppb	20:27:48
1	Mn 257.610†	3148548.6	3024266.1	2991.6	ug/L	2991.6	ppb	20:27:43
1	Mo 202.031†	70.0	47.4	9.0751	ug/L	9.0751	ppb	20:28:08
1	Ni 231.604†	2181.9	2002.5	43.724	ug/L	43.724	ppb	20:28:08
1	P 214.914†	1491.8	1175.1	552.95	ug/L	552.95	ppb	20:28:08
1	Pb 220.353†	670.0	707.7	77.543	ug/L	77.543	ppb	20:28:08
1	S 181.975 Axial†	277.6	217.7	258.18	ug/L	258.18	ppb	20:28:08
1	Sb 206.836†	74.6	30.5	-0.0289	ug/L	-0.0289	ppb	20:28:08
1	Se 196.026†	-563.2	-512.6	-7.2491	ug/L	-7.2491	ppb	20:28:08
1	Si 251.611†	455776.5	437279.4	12328	ug/L	12328	ppb	20:27:43
1	Sn 189.927†	-60.2	-61.4	-6.8636	ug/L	-6.8636	ppb	20:28:08
1	Ti 334.940†	2134799.0	2052253.0	2967.9	ug/L	2967.9	ppb	20:27:43
1	Tl 190.801†	-220.3	-163.6	-1.5069	ug/L	-1.5069	ppb	20:28:08
1	U 409.014†	-9583.5	-6834.5	-199.43	ug/L	-199.43	ppb	20:27:43
1	V 292.402†	22351.9	22942.5	129.20	ug/L	129.20	ppb	20:27:48
1	Zn 213.857†	31810.6	29766.3	235.14	ug/L	235.14	ppb	20:27:48
1	SiO2†	450736.4	432408.2	26177	ug/L	26177	ppb	20:29:16
2	Sc Radial	5623.7	5623.7	101	%			20:27:10
2	Y RADIAL	6662.9	6662.9	112.7	%			20:27:10
2	Al 396.153Radial†	62396.8	61787.5	45022	ug/L	45022	ppb	20:26:50
2	Ca 317.933Radial†	7796.4	7698.7	10976	ug/L	10976	ppb	20:26:50
2	Fe 238.204 Radial†	10597.7	10480.6	87127	ug/L	87127	ppb	20:26:50
2	K 766.490 Radial†	38123.8	35029.0	6144.0	ug/L	6144.0	ppb	20:26:50
2	Mg 279.077 IEC†	303.0	298.6	9195.9	ug/L	9195.9	ppb	20:27:10
2	Na 589.592 Radial†	1435.2	2182.5	651.40	ug/L	651.40	ppb	20:26:50
2	Sr 421.552†	20506.5	20312.7	119.01	ug/L	119.01	ppb	20:26:50
2	Sc 361.383	935744.3	935744.3	104.10	%			20:28:14
2	Y 371.029	861361.5	861361.5	115.70	%			20:28:14
2	Ag 328.068†	-5752.7	-5896.2	4.2859	ug/L	4.2859	ppb	20:28:19
2	As 188.979†	-52.6	-15.7	32.644	ug/L	32.644	ppb	20:28:39
2	B 249.677†	421.2	430.6	-2.8367	ug/L	-2.8367	ppb	20:28:19
2	Ba 233.527†	98119.3	94259.5	644.20	ug/L	644.20	ppb	20:28:19
2	Be 313.107†	-11665.1	-6474.8	3.6556	ug/L	3.6556	ppb	20:28:19
2	Cd 226.502†	680.7	883.1	-0.0458	ug/L	-0.0458	ppb	20:28:39
2	Co 228.616†	2621.7	2605.6	38.332	ug/L	38.332	ppb	20:28:39
2	Cr 267.716†	6323.5	5994.4	62.652	ug/L	62.652	ppb	20:28:19
2	Cu 324.752†	16968.0	10244.5	33.389	ug/L	33.389	ppb	20:28:19
2	Mn 257.610†	3142198.3	3018014.8	2985.4	ug/L	2985.4	ppb	20:28:14
2	Mo 202.031†	69.3	46.7	9.0093	ug/L	9.0093	ppb	20:28:39
2	Ni 231.604†	2184.0	2004.4	43.765	ug/L	43.765	ppb	20:28:39

2	P 214.914†	1503.3	1186.1	558.88	ug/L	558.88	ppb	20:28:39
2	Pb 220.353†	673.1	710.7	77.827	ug/L	77.827	ppb	20:28:39
2	S 181.975 Axial†	276.5	216.6	256.92	ug/L	256.92	ppb	20:28:39
2	Sb 206.836†	70.7	26.7	-1.1870	ug/L	-1.1870	ppb	20:28:39
2	Se 196.026†	-555.3	-504.9	-4.2604	ug/L	-4.2604	ppb	20:28:39
2	Si 251.611†	455443.0	436937.1	12319	ug/L	12319	ppb	20:28:14
2	Sn 189.927†	-71.5	-72.1	-8.4894	ug/L	-8.4894	ppb	20:28:39
2	Ti 334.940†	2132985.9	2050408.9	2965.2	ug/L	2965.2	ppb	20:28:14
2	Tl 190.801†	-214.7	-158.2	-0.1761	ug/L	-0.1761	ppb	20:28:39
2	U 409.014†	-9476.5	-6731.3	-196.54	ug/L	-196.54	ppb	20:28:14
2	V 292.402†	22582.5	23163.0	130.67	ug/L	130.67	ppb	20:28:19
2	Zn 213.857†	31973.3	29921.1	236.45	ug/L	236.45	ppb	20:28:19
2	SiO2†	455948.5	437393.5	26479	ug/L	26479	ppb	20:29:21
3	Sc Radial	5616.7	5616.7	101	%			20:27:35
3	Y RADIAL	6624.7	6624.7	112.1	%			20:27:35
3	Al 396.153Radial†	63490.6	62948.8	45868	ug/L	45868	ppb	20:27:15
3	Ca 317.933Radial†	7901.1	7812.0	11138	ug/L	11138	ppb	20:27:15
3	Fe 238.204 Radial†	10731.5	10626.3	88338	ug/L	88338	ppb	20:27:15
3	K 766.490 Radial†	38662.8	35610.5	6246.6	ug/L	6246.6	ppb	20:27:15
3	Mg 279.077 IEC†	294.8	290.8	8954.7	ug/L	8954.7	ppb	20:27:35
3	Na 589.592 Radial†	1415.9	2165.1	646.22	ug/L	646.22	ppb	20:27:15
3	Sr 421.552†	20844.5	20673.0	121.12	ug/L	121.12	ppb	20:27:15
3	Sc 361.383	929775.0	929775.0	103.43	%			20:28:45
3	Y 371.029	856383.0	856383.0	115.03	%			20:28:45
3	Ag 328.068†	-5774.7	-5953.0	4.4516	ug/L	4.4516	ppb	20:28:50
3	As 188.979†	-54.9	-18.2	31.948	ug/L	31.948	ppb	20:29:10
3	B 249.677†	450.7	461.7	-2.3609	ug/L	-2.3609	ppb	20:28:50
3	Ba 233.527†	99179.1	95889.2	655.32	ug/L	655.32	ppb	20:28:50
3	Be 313.107†	-11663.6	-6545.3	3.6380	ug/L	3.6380	ppb	20:28:50
3	Cd 226.502†	694.6	900.7	0.0055	ug/L	0.0055	ppb	20:29:10
3	Co 228.616†	2628.9	2628.7	38.717	ug/L	38.717	ppb	20:29:10
3	Cr 267.716†	6320.6	6030.6	63.044	ug/L	63.044	ppb	20:28:50
3	Cu 324.752†	17153.5	10528.5	34.253	ug/L	34.253	ppb	20:28:50
3	Mn 257.610†	3129161.3	3024789.7	2992.2	ug/L	2992.2	ppb	20:28:45
3	Mo 202.031†	72.2	49.9	9.2872	ug/L	9.2872	ppb	20:29:10
3	Ni 231.604†	2194.3	2027.8	44.277	ug/L	44.277	ppb	20:29:10
3	P 214.914†	1495.5	1187.8	558.97	ug/L	558.97	ppb	20:29:10
3	Pb 220.353†	671.2	713.0	78.162	ug/L	78.162	ppb	20:29:10
3	S 181.975 Axial†	283.4	225.0	266.97	ug/L	266.97	ppb	20:29:10
3	Sb 206.836†	68.3	24.8	-1.7392	ug/L	-1.7392	ppb	20:29:10
3	Se 196.026†	-552.1	-505.3	-0.6679	ug/L	-0.6679	ppb	20:29:10
3	Si 251.611†	452623.5	437020.1	12321	ug/L	12321	ppb	20:28:45
3	Sn 189.927†	-66.5	-67.7	-7.7956	ug/L	-7.7956	ppb	20:29:10
3	Ti 334.940†	2121591.7	2052547.9	2968.3	ug/L	2968.3	ppb	20:28:45
3	Tl 190.801†	-200.7	-146.0	3.0615	ug/L	3.0615	ppb	20:29:10
3	U 409.014†	-9372.5	-6689.2	-195.53	ug/L	-195.53	ppb	20:28:45
3	V 292.402†	22812.2	23524.3	132.78	ug/L	132.78	ppb	20:28:50
3	Zn 213.857†	32449.6	30578.8	241.73	ug/L	241.73	ppb	20:28:50
3	SiO2†	450602.7	435037.2	26336	ug/L	26336	ppb	20:29:27

Mean Data: 242661005|932275|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	933739.0	103.87	%	0.382				0.37%
Sc Radial	5615.6	101	%	0.2				0.15%
Y 371.029	859288.9	115.42	%	0.348				0.30%
Y RADIAL	6644.7	112.4	%	0.32				0.29%
Ag 328.068†	-5923.9	4.3442	ug/L	0.09319	4.3442	ppb	0.09319	2.15%
Al 396.153Radial†	62288.7	45387	ug/L	434.8	45387	ppb	434.8	0.96%
As 188.979†	-15.8	32.704	ug/L	0.7867	32.704	ppb	0.7867	2.41%
B 249.677†	465.5	-2.1910	ug/L	0.74532	-2.1910	ppb	0.74532	34.02%
Ba 233.527†	94627.5	646.72	ug/L	7.662	646.72	ppb	7.662	1.18%
Be 313.107†	-6419.9	3.6778	ug/L	0.05433	3.6778	ppb	0.05433	1.48%
Ca 317.933Radial†	7743.6	11040	ug/L	85.8	11040	ppb	85.8	0.78%
Cd 226.502†	891.6	-0.0152	ug/L	0.02703	-0.0152	ppb	0.02703	177.33%
Co 228.616†	2618.1	38.539	ug/L	0.1943	38.539	ppb	0.1943	0.50%
Cr 267.716†	5992.5	62.642	ug/L	0.4065	62.642	ppb	0.4065	0.65%
Cu 324.752†	10326.4	33.647	ug/L	0.5266	33.647	ppb	0.5266	1.56%
Fe 238.204 Radial†	10544.4	87657	ug/L	619.6	87657	ppb	619.6	0.71%
K 766.490 Radial†	35284.4	6189.1	ug/L	52.41	6189.1	ppb	52.41	0.85%

Mg 279.077 IEC†	295.2	9090.8	ug/L	123.59	9090.8	ppb	123.59	1.36%
Mn 257.610†	3022356.9	2989.7	ug/L	3.77	2989.7	ppb	3.77	0.13%
Mo 202.031†	48.0	9.1239	ug/L	0.14521	9.1239	ppb	0.14521	1.59%
Na 589.592 Radial†	2170.4	647.80	ug/L	3.131	647.80	ppb	3.131	0.48%
Ni 231.604†	2011.6	43.922	ug/L	0.3079	43.922	ppb	0.3079	0.70%
P 214.914†	1183.0	556.93	ug/L	3.452	556.93	ppb	3.452	0.62%
Pb 220.353†	710.5	77.844	ug/L	0.3101	77.844	ppb	0.3101	0.40%
S 181.975 Axial†	219.8	260.69	ug/L	5.476	260.69	ppb	5.476	2.10%
Sb 206.836†	27.3	-0.9850	ug/L	0.87288	-0.9850	ppb	0.87288	88.61%
Se 196.026†	-507.6	-4.0591	ug/L	3.29523	-4.0591	ppb	3.29523	81.18%
Si 251.611†	437078.8	12323	ug/L	5.0	12323	ppb	5.0	0.04%
Sn 189.927†	-67.1	-7.7162	ug/L	0.81580	-7.7162	ppb	0.81580	10.57%
Sr 421.552†	20460.5	119.88	ug/L	1.105	119.88	ppb	1.105	0.92%
Ti 334.940†	2051736.6	2967.1	ug/L	1.68	2967.1	ppb	1.68	0.06%
Tl 190.801†	-155.9	0.4595	ug/L	2.34960	0.4595	ppb	2.34960	511.32%
U 409.014†	-6751.6	-197.17	ug/L	2.023	-197.17	ppb	2.023	1.03%
V 292.402†	23209.9	130.88	ug/L	1.799	130.88	ppb	1.799	1.37%
Zn 213.857†	30088.7	237.77	ug/L	3.487	237.77	ppb	3.487	1.47%
SiO2†	434946.3	26331	ug/L	151.0	26331	ppb	151.0	0.57%

Sequence No.: 62
Sample ID: 242661006|932275|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 76
Date Collected: 12/19/2009 20:31:37
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 242661006|932275|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5638.4	5638.4	101	%			20:33:50
1	Y RADIAL	6810.1	6810.1	115.2	%			20:33:50
1	Al 396.153Radial†	66156.0	65338.0	47609	ug/L	47609	ppb	20:33:30
1	Ca 317.933Radial†	9607.5	9466.7	13497	ug/L	13497	ppb	20:33:30
1	Fe 238.204 Radial†	10162.2	10023.1	83324	ug/L	83324	ppb	20:33:30
1	K 766.490 Radial†	44150.1	40880.8	7183.2	ug/L	7183.2	ppb	20:33:30
1	Mg 279.077 IEC†	308.0	302.7	9328.3	ug/L	9328.3	ppb	20:33:50
1	Na 589.592 Radial†	957.4	1707.0	509.49	ug/L	509.49	ppb	20:33:30
1	Sr 421.552†	22800.7	22525.0	131.96	ug/L	131.96	ppb	20:33:30
1	Sc 361.383	945238.1	945238.1	105.15	%			20:34:48
1	Y 371.029	885953.7	885953.7	119.01	%			20:34:48
1	Ag 328.068†	-5537.5	-5636.0	4.0356	ug/L	4.0356	ppb	20:34:53
1	As 188.979†	-40.7	-3.9	35.274	ug/L	35.274	ppb	20:35:13
1	B 249.677†	554.7	553.4	0.2238	ug/L	0.2238	ppb	20:34:53
1	Ba 233.527†	111034.3	105594.8	721.06	ug/L	721.06	ppb	20:34:53
1	Be 313.107†	-10671.3	-5417.1	3.7597	ug/L	3.7597	ppb	20:34:53
1	Cd 226.502†	666.9	863.4	0.1368	ug/L	0.1368	ppb	20:35:13
1	Co 228.616†	1815.7	1813.8	24.839	ug/L	24.839	ppb	20:35:13
1	Cr 267.716†	4536.9	4234.4	44.712	ug/L	44.712	ppb	20:35:13
1	Cu 324.752†	20305.2	13254.4	41.699	ug/L	41.699	ppb	20:34:53
1	Mn 257.610†	2508499.3	2385058.1	2360.7	ug/L	2360.7	ppb	20:34:48
1	Mo 202.031†	62.6	39.7	8.3133	ug/L	8.3133	ppb	20:35:13
1	Ni 231.604†	1818.5	1635.8	35.720	ug/L	35.720	ppb	20:35:13
1	P 214.914†	1872.6	1522.7	737.03	ug/L	737.03	ppb	20:35:13
1	Pb 220.353†	705.8	735.3	81.305	ug/L	81.305	ppb	20:35:13
1	S 181.975 Axial†	512.3	438.2	528.21	ug/L	528.21	ppb	20:35:13
1	Sb 206.836†	75.9	31.0	0.6653	ug/L	0.6653	ppb	20:35:13
1	Se 196.026†	-531.1	-476.5	0.0241	ug/L	0.0241	ppb	20:35:13
1	Si 251.611†	502395.4	477193.9	13454	ug/L	13454	ppb	20:34:48
1	Sn 189.927†	-86.3	-85.5	-10.282	ug/L	-10.282	ppb	20:35:13
1	Ti 334.940†	2061901.2	1962228.3	2837.8	ug/L	2837.8	ppb	20:34:48
1	Tl 190.801†	-173.1	-116.5	6.1689	ug/L	6.1689	ppb	20:35:13
1	U 409.014†	-9483.4	-6646.4	-193.69	ug/L	-193.69	ppb	20:34:48
1	V 292.402†	20226.9	20705.0	115.76	ug/L	115.76	ppb	20:34:53
1	Zn 213.857†	39293.2	36573.7	291.41	ug/L	291.41	ppb	20:34:53
1	SiO2†	497524.1	472532.2	28606	ug/L	28606	ppb	20:36:21
2	Sc Radial	5681.9	5681.9	102	%			20:34:15
2	Y RADIAL	6840.8	6840.8	115.7	%			20:34:15
2	Al 396.153Radial†	66545.3	65218.8	47522	ug/L	47522	ppb	20:33:55
2	Ca 317.933Radial†	9645.2	9431.0	13446	ug/L	13446	ppb	20:33:55
2	Fe 238.204 Radial†	10150.1	9934.4	82586	ug/L	82586	ppb	20:33:55
2	K 766.490 Radial†	44509.2	40898.6	7186.3	ug/L	7186.3	ppb	20:33:55
2	Mg 279.077 IEC†	308.9	301.3	9284.4	ug/L	9284.4	ppb	20:34:15
2	Na 589.592 Radial†	1018.8	1759.9	525.29	ug/L	525.29	ppb	20:33:55
2	Sr 421.552†	22942.3	22491.1	131.76	ug/L	131.76	ppb	20:33:55
2	Sc 361.383	944539.1	944539.1	105.08	%			20:35:19
2	Y 371.029	885565.9	885565.9	118.95	%			20:35:19
2	Ag 328.068†	-5548.5	-5650.4	3.7299	ug/L	3.7299	ppb	20:35:24
2	As 188.979†	-44.2	-7.2	33.903	ug/L	33.903	ppb	20:35:44
2	B 249.677†	493.5	495.6	-0.8657	ug/L	-0.8657	ppb	20:35:24
2	Ba 233.527†	110623.0	105281.5	718.90	ug/L	718.90	ppb	20:35:24
2	Be 313.107†	-10774.4	-5522.8	3.7172	ug/L	3.7172	ppb	20:35:24
2	Cd 226.502†	671.6	868.3	0.2593	ug/L	0.2593	ppb	20:35:44
2	Co 228.616†	1825.5	1824.5	25.041	ug/L	25.041	ppb	20:35:44
2	Cr 267.716†	4505.5	4207.7	44.428	ug/L	44.428	ppb	20:35:44
2	Cu 324.752†	20308.3	13271.7	41.710	ug/L	41.710	ppb	20:35:24
2	Mn 257.610†	2502698.1	2381302.4	2356.9	ug/L	2356.9	ppb	20:35:19
2	Mo 202.031†	56.3	33.7	7.8956	ug/L	7.8956	ppb	20:35:44
2	Ni 231.604†	1862.1	1678.5	36.654	ug/L	36.654	ppb	20:35:44

2	P 214.914†	1868.4	1520.1	736.22 ug/L	736.22 ppb	20:35:44
2	Pb 220.353†	725.1	754.1	83.329 ug/L	83.329 ppb	20:35:44
2	S 181.975 Axial†	499.7	426.5	513.91 ug/L	513.91 ppb	20:35:44
2	Sb 206.836†	64.9	20.5	-2.4499 ug/L	-2.4499 ppb	20:35:44
2	Se 196.026†	-526.6	-472.6	-0.1161 ug/L	-0.1161 ppb	20:35:44
2	Si 251.611†	500322.7	475574.9	13408 ug/L	13408 ppb	20:35:19
2	Sn 189.927†	-82.2	-81.7	-9.7236 ug/L	-9.7236 ppb	20:35:44
2	Ti 334.940†	2057771.7	1959749.3	2834.3 ug/L	2834.3 ppb	20:35:19
2	Tl 190.801†	-177.6	-120.9	4.9739 ug/L	4.9739 ppb	20:35:44
2	U 409.014†	-9467.2	-6637.6	-193.35 ug/L	-193.35 ppb	20:35:19
2	V 292.402†	20297.6	20786.4	116.39 ug/L	116.39 ppb	20:35:24
2	Zn 213.857†	39192.6	36505.7	290.91 ug/L	290.91 ppb	20:35:24
2	SiO2†	492944.6	468524.0	28363 ug/L	28363 ppb	20:36:26
3	Sc Radial	5657.0	5657.0	102 %		20:34:40
3	Y RADIAL	6832.2	6832.2	115.6 %		20:34:40
3	Al 396.153Radial†	66028.9	64998.0	47361 ug/L	47361 ppb	20:34:20
3	Ca 317.933Radial†	9609.3	9437.4	13455 ug/L	13455 ppb	20:34:20
3	Fe 238.204 Radial†	10125.1	9953.7	82746 ug/L	82746 ppb	20:34:20
3	K 766.490 Radial†	44103.1	40691.2	7149.7 ug/L	7149.7 ppb	20:34:20
3	Mg 279.077 IEC†	310.6	304.3	9378.4 ug/L	9378.4 ppb	20:34:40
3	Na 589.592 Radial†	1005.6	1751.3	522.72 ug/L	522.72 ppb	20:34:20
3	Sr 421.552†	22695.1	22346.9	130.91 ug/L	130.91 ppb	20:34:20
3	Sc 361.383	942954.5	942954.5	104.90 %		20:35:50
3	Y 371.029	883727.2	883727.2	118.71 %		20:35:50
3	Ag 328.068†	-5562.4	-5672.5	3.6906 ug/L	3.6906 ppb	20:35:55
3	As 188.979†	-41.6	-4.8	34.819 ug/L	34.819 ppb	20:36:15
3	B 249.677†	587.1	585.6	0.9600 ug/L	0.9600 ppb	20:35:55
3	Ba 233.527†	111405.4	106204.2	725.18 ug/L	725.18 ppb	20:35:55
3	Be 313.107†	-10585.9	-5360.4	3.7761 ug/L	3.7761 ppb	20:35:55
3	Cd 226.502†	680.3	877.7	0.3347 ug/L	0.3347 ppb	20:36:15
3	Co 228.616†	1824.1	1826.0	25.065 ug/L	25.065 ppb	20:36:15
3	Cr 267.716†	4525.2	4233.7	44.696 ug/L	44.696 ppb	20:36:15
3	Cu 324.752†	20415.5	13406.3	42.099 ug/L	42.099 ppb	20:35:55
3	Mn 257.610†	2503049.5	2385639.9	2361.2 ug/L	2361.2 ppb	20:35:50
3	Mo 202.031†	61.1	38.4	8.1937 ug/L	8.1937 ppb	20:36:15
3	Ni 231.604†	1857.5	1677.2	36.624 ug/L	36.624 ppb	20:36:15
3	P 214.914†	1867.8	1522.5	737.21 ug/L	737.21 ppb	20:36:15
3	Pb 220.353†	729.6	759.6	83.855 ug/L	83.855 ppb	20:36:15
3	S 181.975 Axial†	501.7	429.3	517.33 ug/L	517.33 ppb	20:36:15
3	Sb 206.836†	65.2	21.0	-2.3245 ug/L	-2.3245 ppb	20:36:15
3	Se 196.026†	-533.6	-480.2	-3.7420 ug/L	-3.7420 ppb	20:36:15
3	Si 251.611†	500404.9	476453.4	13433 ug/L	13433 ppb	20:35:50
3	Sn 189.927†	-84.2	-83.8	-10.034 ug/L	-10.034 ppb	20:36:15
3	Ti 334.940†	2055947.9	1961301.7	2836.5 ug/L	2836.5 ppb	20:35:50
3	Tl 190.801†	-179.9	-123.4	4.3778 ug/L	4.3778 ppb	20:36:15
3	U 409.014†	-9595.9	-6775.4	-197.17 ug/L	-197.17 ppb	20:35:50
3	V 292.402†	20245.8	20769.6	116.26 ug/L	116.26 ppb	20:35:55
3	Zn 213.857†	39368.1	36735.7	292.78 ug/L	292.78 ppb	20:35:55
3	SiO2†	492870.4	469241.6	28407 ug/L	28407 ppb	20:36:32

Mean Data: 242661006|932275|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	944243.9	105.04	%	0.130				0.12%
Sc Radial	5659.1	102	%	0.4				0.39%
Y 371.029	885082.2	118.89	%	0.160				0.13%
Y RADIAL	6827.7	115.5	%	0.27				0.23%
Ag 328.068†	-5653.0	3.8187	ug/L	0.18884	3.8187	ppb	0.18884	4.95%
Al 396.153Radial†	65184.9	47497	ug/L	125.7	47497	ppb	125.7	0.26%
As 188.979†	-5.3	34.665	ug/L	0.6987	34.665	ppb	0.6987	2.02%
B 249.677†	544.9	0.1060	ug/L	0.91856	0.1060	ppb	0.91856	866.29%
Ba 233.527†	105693.5	721.71	ug/L	3.189	721.71	ppb	3.189	0.44%
Be 313.107†	-5433.4	3.7510	ug/L	0.03040	3.7510	ppb	0.03040	0.81%
Ca 317.933Radial†	9445.0	13466	ug/L	27.2	13466	ppb	27.2	0.20%
Cd 226.502†	869.8	0.2436	ug/L	0.09986	0.2436	ppb	0.09986	40.99%
Co 228.616†	1821.4	24.982	ug/L	0.1243	24.982	ppb	0.1243	0.50%
Cr 267.716†	4225.3	44.612	ug/L	0.1592	44.612	ppb	0.1592	0.36%
Cu 324.752†	13310.8	41.836	ug/L	0.2276	41.836	ppb	0.2276	0.54%
Fe 238.204 Radial†	9970.4	82886	ug/L	387.9	82886	ppb	387.9	0.47%
K 766.490 Radial†	40823.5	7173.1	ug/L	20.30	7173.1	ppb	20.30	0.28%

Mg 279.077 IEC†	302.8	9330.4	ug/L	47.07	9330.4	ppb	47.07	0.50%
Mn 257.610†	2384000.1	2359.6	ug/L	2.34	2359.6	ppb	2.34	0.10%
Mo 202.031†	37.2	8.1342	ug/L	0.21513	8.1342	ppb	0.21513	2.64%
Na 589.592 Radial†	1739.4	519.17	ug/L	8.476	519.17	ppb	8.476	1.63%
Ni 231.604†	1663.8	36.333	ug/L	0.5308	36.333	ppb	0.5308	1.46%
P 214.914†	1521.8	736.82	ug/L	0.529	736.82	ppb	0.529	0.07%
Pb 220.353†	749.7	82.830	ug/L	1.3466	82.830	ppb	1.3466	1.63%
S 181.975 Axial†	431.3	519.82	ug/L	7.468	519.82	ppb	7.468	1.44%
Sb 206.836†	24.2	-1.3697	ug/L	1.76351	-1.3697	ppb	1.76351	128.75%
Se 196.026†	-476.4	-1.2780	ug/L	2.13501	-1.2780	ppb	2.13501	167.06%
Si 251.611†	476407.4	13431	ug/L	22.9	13431	ppb	22.9	0.17%
Sn 189.927†	-83.7	-10.013	ug/L	0.2799	-10.013	ppb	0.2799	2.80%
Sr 421.552†	22454.3	131.54	ug/L	0.554	131.54	ppb	0.554	0.42%
Ti 334.940†	1961093.1	2836.2	ug/L	1.81	2836.2	ppb	1.81	0.06%
Tl 190.801†	-120.3	5.1735	ug/L	0.91211	5.1735	ppb	0.91211	17.63%
U 409.014†	-6686.5	-194.74	ug/L	2.115	-194.74	ppb	2.115	1.09%
V 292.402†	20753.7	116.14	ug/L	0.331	116.14	ppb	0.331	0.28%
Zn 213.857†	36605.0	291.70	ug/L	0.968	291.70	ppb	0.968	0.33%
SiO2†	470099.3	28459	ug/L	129.4	28459	ppb	129.4	0.45%

Sequence No.: 63
Sample ID: 242661007|932275|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 77
Date Collected: 12/19/2009 20:38:42
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 242661007|932275|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5407.0	5407.0	97.1	%			20:40:55
1	Y RADIAL	6173.8	6173.8	104.4	%			20:40:55
1	Al 396.153Radial†	29775.1	30673.9	22350	ug/L	22350	ppb	20:40:35
1	Ca 317.933Radial†	19793.8	20360.9	29029	ug/L	29029	ppb	20:40:35
1	Fe 238.204 Radial†	13321.5	13705.5	113940	ug/L	113940	ppb	20:40:35
1	K 766.490 Radial†	124579.0	125558.8	22091	ug/L	22091	ppb	20:40:35
1	Mg 279.077 IEC†	349.1	358.1	11020	ug/L	11020	ppb	20:40:55
1	Na 589.592 Radial†	127893.4	132445.6	39531	ug/L	39531	ppb	20:40:35
1	Sr 421.552†	13455.9	13866.5	81.042	ug/L	81.042	ppb	20:40:35
1	Sc 361.383	905269.6	905269.6	100.71	%			20:41:54
1	Y 371.029	798912.5	798912.5	107.31	%			20:41:54
1	Ag 328.068†	-7608.2	-7924.7	4.5670	ug/L	4.5670	ppb	20:41:54
1	As 188.979†	-87.6	-52.2	25.165	ug/L	25.165	ppb	20:42:14
1	B 249.677†	487.6	510.1	-4.7365	ug/L	-4.7365	ppb	20:41:54
1	Ba 233.527†	39298.3	39024.8	269.98	ug/L	269.98	ppb	20:41:54
1	Be 313.107†	-19403.8	-14536.4	1.3292	ug/L	1.3292	ppb	20:41:54
1	Cd 226.502†	981.4	1203.7	0.4127	ug/L	0.4127	ppb	20:42:14
1	Co 228.616†	1963.0	2036.3	27.406	ug/L	27.406	ppb	20:42:14
1	Cr 267.716†	8707.2	8565.9	89.350	ug/L	89.350	ppb	20:42:14
1	Cu 324.752†	130724.6	123750.5	355.45	ug/L	355.45	ppb	20:41:54
1	Mn 257.610†	1960135.2	1945871.1	1930.5	ug/L	1930.5	ppb	20:41:54
1	Mo 202.031†	113.6	92.9	13.706	ug/L	13.706	ppb	20:42:14
1	Ni 231.604†	2369.7	2259.4	49.344	ug/L	49.344	ppb	20:42:14
1	P 214.914†	5848.5	5549.3	2753.8	ug/L	2753.8	ppb	20:42:14
1	Pb 220.353†	853.0	911.0	91.409	ug/L	91.409	ppb	20:42:14
1	S 181.975 Axial†	2304.1	2238.9	2742.3	ug/L	2742.3	ppb	20:42:14
1	Sb 206.836†	77.0	35.2	1.2556	ug/L	1.2556	ppb	20:42:14
1	Se 196.026†	-690.7	-657.4	-9.0964	ug/L	-9.0964	ppb	20:42:14
1	Si 251.611†	345045.7	342043.8	9637.6	ug/L	9637.6	ppb	20:41:54
1	Sn 189.927†	-171.4	-173.6	-21.493	ug/L	-21.493	ppb	20:42:14
1	Ti 334.940†	2197177.8	2183127.3	3158.0	ug/L	3158.0	ppb	20:41:54
1	Tl 190.801†	-190.2	-140.8	-1.1430	ug/L	-1.1430	ppb	20:42:14
1	U 409.014†	-8521.1	-6089.0	-182.27	ug/L	-182.27	ppb	20:41:54
1	V 292.402†	35650.9	36869.8	213.67	ug/L	213.67	ppb	20:41:54
1	Zn 213.857†	148259.8	146424.6	1188.9	ug/L	1188.9	ppb	20:41:54
1	SiO2†	343828.4	340805.9	20619	ug/L	20619	ppb	20:43:14
2	Sc Radial	5446.4	5446.4	97.8	%			20:41:21
2	Y RADIAL	6187.8	6187.8	104.7	%			20:41:21
2	Al 396.153Radial†	29646.5	30320.6	22093	ug/L	22093	ppb	20:41:00
2	Ca 317.933Radial†	19725.5	20143.6	28719	ug/L	28719	ppb	20:41:00
2	Fe 238.204 Radial†	13229.9	13512.5	112330	ug/L	112330	ppb	20:41:00
2	K 766.490 Radial†	124754.8	124810.2	21960	ug/L	21960	ppb	20:41:00
2	Mg 279.077 IEC†	353.9	360.3	11093	ug/L	11093	ppb	20:41:21
2	Na 589.592 Radial†	127640.9	131234.5	39170	ug/L	39170	ppb	20:41:00
2	Sr 421.552†	13388.6	13697.5	80.054	ug/L	80.054	ppb	20:41:00
2	Sc 361.383	905261.7	905261.7	100.71	%			20:42:21
2	Y 371.029	799740.7	799740.7	107.43	%			20:42:21
2	Ag 328.068†	-7403.9	-7721.9	4.9134	ug/L	4.9134	ppb	20:42:21
2	As 188.979†	-80.4	-45.1	27.467	ug/L	27.467	ppb	20:42:41
2	B 249.677†	488.4	510.9	-4.5070	ug/L	-4.5070	ppb	20:42:21
2	Ba 233.527†	39227.8	38955.1	269.45	ug/L	269.45	ppb	20:42:21
2	Be 313.107†	-19764.2	-14894.4	1.2005	ug/L	1.2005	ppb	20:42:21
2	Cd 226.502†	966.3	1188.7	0.4257	ug/L	0.4257	ppb	20:42:41
2	Co 228.616†	1960.2	2033.6	27.389	ug/L	27.389	ppb	20:42:41
2	Cr 267.716†	8660.9	8520.0	88.857	ug/L	88.857	ppb	20:42:41
2	Cu 324.752†	130391.7	123421.1	354.44	ug/L	354.44	ppb	20:42:21
2	Mn 257.610†	1960197.1	1945949.5	1930.4	ug/L	1930.4	ppb	20:42:21
2	Mo 202.031†	109.6	89.0	13.353	ug/L	13.353	ppb	20:42:41
2	Ni 231.604†	2328.2	2218.3	48.445	ug/L	48.445	ppb	20:42:41

2	P 214.914†	5836.9	5537.9	2749.2	ug/L	2749.2 ppb	20:42:41
2	Pb 220.353†	870.4	928.3	93.306	ug/L	93.306 ppb	20:42:41
2	S 181.975 Axial†	2304.9	2239.7	2743.3	ug/L	2743.3 ppb	20:42:41
2	Sb 206.836†	77.5	35.7	1.4256	ug/L	1.4256 ppb	20:42:41
2	Se 196.026†	-699.8	-666.4	-18.913	ug/L	-18.913 ppb	20:42:41
2	Si 251.611†	344402.5	341408.1	9619.7	ug/L	9619.7 ppb	20:42:21
2	Sn 189.927†	-168.2	-170.5	-21.071	ug/L	-21.071 ppb	20:42:41
2	Ti 334.940†	2194082.5	2180072.7	3153.6	ug/L	3153.6 ppb	20:42:21
2	Tl 190.801†	-189.3	-139.9	-0.9450	ug/L	-0.9450 ppb	20:42:41
2	U 409.014†	-8690.2	-6257.0	-186.69	ug/L	-186.69 ppb	20:42:21
2	V 292.402†	35661.3	36880.4	213.97	ug/L	213.97 ppb	20:42:21
2	Zn 213.857†	148587.1	146750.8	1191.7	ug/L	1191.7 ppb	20:42:21
2	SiO2†	341380.6	338378.2	20472	ug/L	20472 ppb	20:43:19
3	Sc Radial	5493.2	5493.2	98.7	%		20:41:46
3	Y RADIAL	6257.2	6257.2	105.9	%		20:41:46
3	Al 396.153Radial†	29722.5	30139.8	21961	ug/L	21961 ppb	20:41:26
3	Ca 317.933Radial†	19768.9	20016.0	28537	ug/L	28537 ppb	20:41:26
3	Fe 238.204 Radial†	13259.0	13427.0	111620	ug/L	111620 ppb	20:41:26
3	K 766.490 Radial†	124985.9	123959.4	21810	ug/L	21810 ppb	20:41:26
3	Mg 279.077 IEC†	355.7	359.1	11054	ug/L	11054 ppb	20:41:46
3	Na 589.592 Radial†	127660.2	130143.8	38844	ug/L	38844 ppb	20:41:26
3	Sr 421.552†	13448.6	13641.8	79.729	ug/L	79.729 ppb	20:41:26
3	Sc 361.383	912059.8	912059.8	101.46	%		20:42:48
3	Y 371.029	804391.1	804391.1	108.05	%		20:42:48
3	Ag 328.068†	-7555.5	-7816.5	4.2619	ug/L	4.2619 ppb	20:42:48
3	As 188.979†	-95.0	-58.8	22.369	ug/L	22.369 ppb	20:43:08
3	B 249.677†	519.2	537.6	-3.8632	ug/L	-3.8632 ppb	20:42:48
3	Ba 233.527†	39415.5	38849.7	268.71	ug/L	268.71 ppb	20:42:48
3	Be 313.107†	-19599.7	-14586.0	1.3020	ug/L	1.3020 ppb	20:42:48
3	Cd 226.502†	986.1	1201.1	0.6182	ug/L	0.6182 ppb	20:43:08
3	Co 228.616†	1965.5	2024.2	27.238	ug/L	27.238 ppb	20:43:08
3	Cr 267.716†	8701.6	8496.0	88.598	ug/L	88.598 ppb	20:43:08
3	Cu 324.752†	131529.9	123577.9	354.85	ug/L	354.85 ppb	20:42:48
3	Mn 257.610†	1971913.1	1942988.8	1927.4	ug/L	1927.4 ppb	20:42:48
3	Mo 202.031†	114.9	93.4	13.570	ug/L	13.570 ppb	20:43:08
3	Ni 231.604†	2350.0	2222.5	48.537	ug/L	48.537 ppb	20:43:08
3	P 214.914†	5868.3	5525.6	2743.3	ug/L	2743.3 ppb	20:43:08
3	Pb 220.353†	851.9	903.7	90.735	ug/L	90.735 ppb	20:43:08
3	S 181.975 Axial†	2327.2	2244.7	2749.4	ug/L	2749.4 ppb	20:43:08
3	Sb 206.836†	81.5	39.1	2.4398	ug/L	2.4398 ppb	20:43:08
3	Se 196.026†	-677.3	-639.1	-6.2104	ug/L	-6.2104 ppb	20:43:08
3	Si 251.611†	346434.0	340861.3	9604.3	ug/L	9604.3 ppb	20:42:48
3	Sn 189.927†	-169.5	-170.6	-21.117	ug/L	-21.117 ppb	20:43:08
3	Ti 334.940†	2209887.0	2179410.4	3152.6	ug/L	3152.6 ppb	20:42:48
3	Tl 190.801†	-189.1	-138.3	-0.5739	ug/L	-0.5739 ppb	20:43:08
3	U 409.014†	-8548.3	-6052.8	-180.98	ug/L	-180.98 ppb	20:42:48
3	V 292.402†	35768.3	36722.0	213.09	ug/L	213.09 ppb	20:42:48
3	Zn 213.857†	149160.1	146215.8	1187.4	ug/L	1187.4 ppb	20:42:48
3	SiO2†	345025.8	339444.2	20537	ug/L	20537 ppb	20:43:24

Mean Data: 242661007|932275|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	907530.4	100.96	%	0.436				0.43%
Sc Radial	5448.9	97.9	%	0.77				0.79%
Y 371.029	801014.8	107.60	%	0.397				0.37%
Y RADIAL	6206.3	105.0	%	0.76				0.72%
Ag 328.068†	-7821.0	4.5808	ug/L	0.32599	4.5808	ppb	0.32599	7.12%
Al 396.153Radial†	30378.1	22135	ug/L	197.9	22135	ppb	197.9	0.89%
As 188.979†	-52.0	25.000	ug/L	2.5532	25.000	ppb	2.5532	10.21%
B 249.677†	519.5	-4.3689	ug/L	0.45271	-4.3689	ppb	0.45271	10.36%
Ba 233.527†	38943.2	269.38	ug/L	0.642	269.38	ppb	0.642	0.24%
Be 313.107†	-14672.2	1.2773	ug/L	0.06785	1.2773	ppb	0.06785	5.31%
Ca 317.933Radial†	20173.5	28762	ug/L	248.6	28762	ppb	248.6	0.86%
Cd 226.502†	1197.8	0.4856	ug/L	0.11507	0.4856	ppb	0.11507	23.70%
Co 228.616†	2031.4	27.345	ug/L	0.0923	27.345	ppb	0.0923	0.34%
Cr 267.716†	8527.3	88.935	ug/L	0.3822	88.935	ppb	0.3822	0.43%
Cu 324.752†	123583.2	354.91	ug/L	0.510	354.91	ppb	0.510	0.14%
Fe 238.204 Radial†	13548.3	112630	ug/L	1185.9	112630	ppb	1185.9	1.05%
K 766.490 Radial†	124776.1	21954	ug/L	140.9	21954	ppb	140.9	0.64%

Mg 279.077 IEC†	359.2	11056	ug/L	36.2	11056	ppb	36.2	0.33%
Mn 257.610†	1944936.5	1929.5	ug/L	1.75	1929.5	ppb	1.75	0.09%
Mo 202.031†	91.8	13.543	ug/L	0.1778	13.543	ppb	0.1778	1.31%
Na 589.592 Radial†	131274.6	39182	ug/L	343.7	39182	ppb	343.7	0.88%
Ni 231.604†	2233.4	48.776	ug/L	0.4945	48.776	ppb	0.4945	1.01%
P 214.914†	5537.6	2748.8	ug/L	5.30	2748.8	ppb	5.30	0.19%
Pb 220.353†	914.3	91.816	ug/L	1.3331	91.816	ppb	1.3331	1.45%
S 181.975 Axial†	2241.1	2745.0	ug/L	3.87	2745.0	ppb	3.87	0.14%
Sb 206.836†	36.7	1.7070	ug/L	0.64030	1.7070	ppb	0.64030	37.51%
Se 196.026†	-654.3	-11.406	ug/L	6.6588	-11.406	ppb	6.6588	58.38%
Si 251.611†	341437.7	9620.5	ug/L	16.64	9620.5	ppb	16.64	0.17%
Sn 189.927†	-171.6	-21.227	ug/L	0.2316	-21.227	ppb	0.2316	1.09%
Sr 421.552†	13735.3	80.275	ug/L	0.6838	80.275	ppb	0.6838	0.85%
Ti 334.940†	2180870.1	3154.7	ug/L	2.88	3154.7	ppb	2.88	0.09%
Tl 190.801†	-139.7	-0.8873	ug/L	0.28890	-0.8873	ppb	0.28890	32.56%
U 409.014†	-6132.9	-183.31	ug/L	2.998	-183.31	ppb	2.998	1.64%
V 292.402†	36824.1	213.58	ug/L	0.449	213.58	ppb	0.449	0.21%
Zn 213.857†	146463.7	1189.3	ug/L	2.19	1189.3	ppb	2.19	0.18%
SiO2†	339542.8	20543	ug/L	73.6	20543	ppb	73.6	0.36%

Sequence No.: 64
Sample ID: 242661008|932275|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 78
Date Collected: 12/19/2009 20:45:36
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 242661008|932275|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5640.2	5640.2	101	%			20:47:29
1	Y RADIAL	6295.8	6295.8	106.5	%			20:47:29
1	Al 396.153Radial†	16290.8	16096.7	11729	ug/L	11729	ppb	20:47:29
1	Ca 317.933Radial†	16371.7	16140.6	23012	ug/L	23012	ppb	20:47:29
1	Fe 238.204 Radial†	4815.4	4742.3	39424	ug/L	39424	ppb	20:47:29
1	K 766.490 Radial†	76949.4	73242.4	12891	ug/L	12891	ppb	20:47:29
1	Mg 279.077 IEC†	217.7	213.5	6595.6	ug/L	6595.6	ppb	20:47:49
1	Na 589.592 Radial†	65910.5	65820.3	19645	ug/L	19645	ppb	20:47:29
1	Sr 421.552†	9101.8	8996.0	52.538	ug/L	52.538	ppb	20:47:29
1	Sc 361.383	925736.4	925736.4	102.98	%			20:48:46
1	Y 371.029	794649.3	794649.3	106.74	%			20:48:46
1	Ag 328.068†	-2437.2	-2736.5	1.4035	ug/L	1.4035	ppb	20:48:46
1	As 188.979†	-47.0	-10.8	11.395	ug/L	11.395	ppb	20:49:06
1	B 249.677†	-206.2	-174.3	-8.8451	ug/L	-8.8451	ppb	20:48:46
1	Ba 233.527†	29511.0	28658.4	196.42	ug/L	196.42	ppb	20:48:46
1	Be 313.107†	-8038.5	-3074.4	1.1301	ug/L	1.1301	ppb	20:48:46
1	Cd 226.502†	202.8	426.1	0.2428	ug/L	0.2428	ppb	20:49:06
1	Co 228.616†	807.3	871.0	12.422	ug/L	12.422	ppb	20:49:06
1	Cr 267.716†	2816.9	2655.1	27.781	ug/L	27.781	ppb	20:49:06
1	Cu 324.752†	25654.8	18855.7	55.285	ug/L	55.285	ppb	20:48:46
1	Mn 257.610†	803220.5	779452.1	772.64	ug/L	772.64	ppb	20:48:46
1	Mo 202.031†	17.0	-3.4	2.5933	ug/L	2.5933	ppb	20:49:06
1	Ni 231.604†	1338.2	1205.9	26.338	ug/L	26.338	ppb	20:49:06
1	P 214.914†	3911.0	3539.6	1809.6	ug/L	1809.6	ppb	20:49:06
1	Pb 220.353†	239.1	296.2	30.566	ug/L	30.566	ppb	20:49:06
1	S 181.975 Axial†	1127.4	1045.8	1280.6	ug/L	1280.6	ppb	20:49:06
1	Sb 206.836†	55.7	12.9	0.2845	ug/L	0.2845	ppb	20:49:06
1	Se 196.026†	-261.5	-225.4	-1.4859	ug/L	-1.4859	ppb	20:49:06
1	Si 251.611†	201920.0	195491.0	5508.2	ug/L	5508.2	ppb	20:48:46
1	Sn 189.927†	-161.3	-160.1	-21.092	ug/L	-21.092	ppb	20:49:06
1	Ti 334.940†	781722.9	760456.4	1100.7	ug/L	1100.7	ppb	20:48:46
1	Tl 190.801†	-92.5	-41.8	2.1690	ug/L	2.1690	ppb	20:49:06
1	U 409.014†	-4448.5	-1947.4	-58.666	ug/L	-58.666	ppb	20:48:46
1	V 292.402†	11332.7	12473.7	72.161	ug/L	72.161	ppb	20:48:46
1	Zn 213.857†	35088.5	33278.1	268.70	ug/L	268.70	ppb	20:48:46
1	SiO2†	198322.5	191968.5	11614	ug/L	11614	ppb	20:50:03
2	Sc Radial	5573.9	5573.9	100	%			20:47:54
2	Y RADIAL	6213.0	6213.0	105.1	%			20:47:54
2	Al 396.153Radial†	16165.4	16162.7	11777	ug/L	11777	ppb	20:47:54
2	Ca 317.933Radial†	16222.5	16183.8	23074	ug/L	23074	ppb	20:47:54
2	Fe 238.204 Radial†	4806.9	4790.4	39823	ug/L	39823	ppb	20:47:54
2	K 766.490 Radial†	76086.8	73284.5	12898	ug/L	12898	ppb	20:47:54
2	Mg 279.077 IEC†	214.7	213.0	6579.8	ug/L	6579.8	ppb	20:48:14
2	Na 589.592 Radial†	65270.2	65954.8	19686	ug/L	19686	ppb	20:47:54
2	Sr 421.552†	9053.8	9054.9	52.883	ug/L	52.883	ppb	20:47:54
2	Sc 361.383	913788.5	913788.5	101.66	%			20:49:12
2	Y 371.029	785266.2	785266.2	105.48	%			20:49:12
2	Ag 328.068†	-2378.7	-2709.9	1.6460	ug/L	1.6460	ppb	20:49:12
2	As 188.979†	-38.9	-3.5	14.131	ug/L	14.131	ppb	20:49:32
2	B 249.677†	-95.3	-67.8	-6.7137	ug/L	-6.7137	ppb	20:49:12
2	Ba 233.527†	29154.0	28681.9	196.59	ug/L	196.59	ppb	20:49:12
2	Be 313.107†	-7990.1	-3128.9	1.1109	ug/L	1.1109	ppb	20:49:12
2	Cd 226.502†	207.7	433.5	0.2756	ug/L	0.2756	ppb	20:49:32
2	Co 228.616†	814.6	888.4	12.721	ug/L	12.721	ppb	20:49:32
2	Cr 267.716†	2817.5	2691.4	28.154	ug/L	28.154	ppb	20:49:32
2	Cu 324.752†	25191.6	18725.9	54.939	ug/L	54.939	ppb	20:49:12
2	Mn 257.610†	792964.9	779561.2	772.79	ug/L	772.79	ppb	20:49:12
2	Mo 202.031†	13.9	-6.3	2.4464	ug/L	2.4464	ppb	20:49:32
2	Ni 231.604†	1334.6	1219.3	26.630	ug/L	26.630	ppb	20:49:32

2	P 214.914†	3877.3	3556.0	1817.9 ug/L	1817.9 ppb	20:49:32
2	Pb 220.353†	240.1	300.3	30.976 ug/L	30.976 ppb	20:49:32
2	S 181.975 Axial†	1140.4	1072.8	1313.8 ug/L	1313.8 ppb	20:49:32
2	Sb 206.836†	48.1	6.1	-1.7626 ug/L	-1.7626 ppb	20:49:32
2	Se 196.026†	-262.5	-229.7	-2.6233 ug/L	-2.6233 ppb	20:49:32
2	Si 251.611†	198549.9	194739.3	5487.1 ug/L	5487.1 ppb	20:49:12
2	Sn 189.927†	-164.6	-165.4	-21.878 ug/L	-21.878 ppb	20:49:32
2	Ti 334.940†	771311.9	760139.8	1100.3 ug/L	1100.3 ppb	20:49:12
2	Tl 190.801†	-102.5	-52.8	-0.6788 ug/L	-0.6788 ppb	20:49:32
2	U 409.014†	-4348.6	-1905.6	-57.566 ug/L	-57.566 ppb	20:49:12
2	V 292.402†	11031.7	12321.5	71.131 ug/L	71.131 ppb	20:49:12
2	Zn 213.857†	34707.6	33348.9	269.25 ug/L	269.25 ppb	20:49:12
2	SiO2†	196763.3	192952.7	11674 ug/L	11674 ppb	20:50:09
3	Sc Radial	5564.1	5564.1	99.9 %		20:48:19
3	Y RADIAL	6202.6	6202.6	104.9 %		20:48:19
3	Al 396.153Radial†	16060.7	16086.4	11721 ug/L	11721 ppb	20:48:19
3	Ca 317.933Radial†	16110.9	16100.7	22955 ug/L	22955 ppb	20:48:19
3	Fe 238.204 Radial†	4749.1	4740.9	39412 ug/L	39412 ppb	20:48:19
3	K 766.490 Radial†	75579.5	72910.7	12832 ug/L	12832 ppb	20:48:19
3	Mg 279.077 IEC†	217.9	216.6	6693.2 ug/L	6693.2 ppb	20:48:39
3	Na 589.592 Radial†	64801.4	65600.5	19580 ug/L	19580 ppb	20:48:19
3	Sr 421.552†	8967.7	8984.7	52.472 ug/L	52.472 ppb	20:48:19
3	Sc 361.383	916393.9	916393.9	101.95 %		20:49:38
3	Y 371.029	786047.0	786047.0	105.59 %		20:49:38
3	Ag 328.068†	-2382.3	-2706.8	1.5253 ug/L	1.5253 ppb	20:49:38
3	As 188.979†	-45.8	-10.1	11.663 ug/L	11.663 ppb	20:49:58
3	B 249.677†	-65.1	-37.9	-6.0470 ug/L	-6.0470 ppb	20:49:38
3	Ba 233.527†	29177.0	28622.9	196.17 ug/L	196.17 ppb	20:49:38
3	Be 313.107†	-8050.5	-3165.7	1.0981 ug/L	1.0981 ppb	20:49:38
3	Cd 226.502†	191.3	416.8	0.1528 ug/L	0.1528 ppb	20:49:58
3	Co 228.616†	829.6	900.9	12.944 ug/L	12.944 ppb	20:49:58
3	Cr 267.716†	2823.2	2689.2	28.125 ug/L	28.125 ppb	20:49:58
3	Cu 324.752†	25390.0	18849.9	55.268 ug/L	55.268 ppb	20:49:38
3	Mn 257.610†	794955.7	779296.3	772.48 ug/L	772.48 ppb	20:49:38
3	Mo 202.031†	2.2	-17.7	1.7247 ug/L	1.7247 ppb	20:49:58
3	Ni 231.604†	1312.1	1193.4	26.065 ug/L	26.065 ppb	20:49:58
3	P 214.914†	3896.9	3564.5	1822.6 ug/L	1822.6 ppb	20:49:58
3	Pb 220.353†	246.8	306.2	31.618 ug/L	31.618 ppb	20:49:58
3	S 181.975 Axial†	1134.8	1064.1	1303.1 ug/L	1303.1 ppb	20:49:58
3	Sb 206.836†	42.7	0.7	-3.4191 ug/L	-3.4191 ppb	20:49:58
3	Se 196.026†	-264.7	-231.1	-4.6114 ug/L	-4.6114 ppb	20:49:58
3	Si 251.611†	199045.9	194670.6	5485.1 ug/L	5485.1 ppb	20:49:38
3	Sn 189.927†	-169.2	-169.4	-22.497 ug/L	-22.497 ppb	20:49:58
3	Ti 334.940†	773364.1	759995.7	1100.0 ug/L	1100.0 ppb	20:49:38
3	Tl 190.801†	-110.5	-60.3	-2.6498 ug/L	-2.6498 ppb	20:49:58
3	U 409.014†	-4444.3	-1987.3	-59.764 ug/L	-59.764 ppb	20:49:38
3	V 292.402†	11053.6	12312.1	71.123 ug/L	71.123 ppb	20:49:38
3	Zn 213.857†	34725.6	33269.5	268.63 ug/L	268.63 ppb	20:49:38
3	SiO2†	197609.4	193232.3	11691 ug/L	11691 ppb	20:50:14

Mean Data: 242661008|932275|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	918639.6	102.19	%	0.699				0.68%
Sc Radial	5592.7	100	%	0.7				0.74%
Y 371.029	788654.1	105.94	%	0.699				0.66%
Y RADIAL	6237.1	105.5	%	0.86				0.82%
Ag 328.068†	-2717.7	1.5249	ug/L	0.12123	1.5249	ppb	0.12123	7.95%
Al 396.153Radial†	16115.2	11742	ug/L	30.2	11742	ppb	30.2	0.26%
As 188.979†	-8.1	12.396	ug/L	1.5081	12.396	ppb	1.5081	12.17%
B 249.677†	-93.3	-7.2019	ug/L	1.46155	-7.2019	ppb	1.46155	20.29%
Ba 233.527†	28654.4	196.39	ug/L	0.209	196.39	ppb	0.209	0.11%
Be 313.107†	-3123.0	1.1130	ug/L	0.01608	1.1130	ppb	0.01608	1.44%
Ca 317.933Radial†	16141.7	23014	ug/L	59.2	23014	ppb	59.2	0.26%
Cd 226.502†	425.5	0.2237	ug/L	0.06355	0.2237	ppb	0.06355	28.41%
Co 228.616†	886.8	12.696	ug/L	0.2618	12.696	ppb	0.2618	2.06%
Cr 267.716†	2678.6	28.020	ug/L	0.2077	28.020	ppb	0.2077	0.74%
Cu 324.752†	18810.5	55.164	ug/L	0.1954	55.164	ppb	0.1954	0.35%
Fe 238.204 Radial†	4757.9	39553	ug/L	234.1	39553	ppb	234.1	0.59%
K 766.490 Radial†	73145.9	12874	ug/L	36.1	12874	ppb	36.1	0.28%

Mg 279.077 IEC†	214.4	6622.9	ug/L	61.44	6622.9	ppb	61.44	0.93%
Mn 257.610†	779436.5	772.64	ug/L	0.152	772.64	ppb	0.152	0.02%
Mo 202.031†	-9.1	2.2548	ug/L	0.46490	2.2548	ppb	0.46490	20.62%
Na 589.592 Radial†	65791.9	19637	ug/L	53.4	19637	ppb	53.4	0.27%
Ni 231.604†	1206.2	26.344	ug/L	0.2824	26.344	ppb	0.2824	1.07%
P 214.914†	3553.4	1816.7	ug/L	6.56	1816.7	ppb	6.56	0.36%
Pb 220.353†	300.9	31.053	ug/L	0.5302	31.053	ppb	0.5302	1.71%
S 181.975 Axial†	1060.9	1299.2	ug/L	16.92	1299.2	ppb	16.92	1.30%
Sb 206.836†	6.6	-1.6324	ug/L	1.85520	-1.6324	ppb	1.85520	113.65%
Se 196.026†	-228.8	-2.9069	ug/L	1.58191	-2.9069	ppb	1.58191	54.42%
Si 251.611†	194967.0	5493.5	ug/L	12.82	5493.5	ppb	12.82	0.23%
Sn 189.927†	-165.0	-21.822	ug/L	0.7044	-21.822	ppb	0.7044	3.23%
Sr 421.552†	9011.8	52.631	ug/L	0.2205	52.631	ppb	0.2205	0.42%
Ti 334.940†	760197.3	1100.3	ug/L	0.34	1100.3	ppb	0.34	0.03%
Tl 190.801†	-51.6	-0.3865	ug/L	2.42268	-0.3865	ppb	2.42268	626.76%
U 409.014†	-1946.7	-58.665	ug/L	1.0989	-58.665	ppb	1.0989	1.87%
V 292.402†	12369.1	71.471	ug/L	0.5969	71.471	ppb	0.5969	0.84%
Zn 213.857†	33298.8	268.86	ug/L	0.335	268.86	ppb	0.335	0.12%
SiO2†	192717.9	11659	ug/L	40.2	11659	ppb	40.2	0.35%

Sequence No.: 65
Sample ID: 242661009|932275|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 79
Date Collected: 12/19/2009 20:52:25
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 242661009|932275|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	5704.0	5704.0	102	%			20:54:18
1	Y RADIAL	7844.2	7844.2	132.7	%			20:54:18
1	Al 396.153Radial†	11434.1	11176.5	8143.2	ug/L	8143.2	ppb	20:54:18
1	Ca 317.933Radial†	2906.5	2817.3	4016.7	ug/L	4016.7	ppb	20:54:38
1	Fe 238.204 Radial†	8174.6	7967.9	66238	ug/L	66238	ppb	20:54:18
1	K 766.490 Radial†	16273.0	13170.6	2291.3	ug/L	2291.3	ppb	20:54:18
1	Mg 279.077 IEC†	71.3	68.2	2060.9	ug/L	2060.9	ppb	20:54:38
1	Na 589.592 Radial†	2099.0	2810.4	838.82	ug/L	838.82	ppb	20:54:18
1	Sr 421.552†	3708.7	3631.6	21.258	ug/L	21.258	ppb	20:54:18
1	Sc 361.383	945923.9	945923.9	105.23	%			20:55:35
1	Y 371.029	996274.9	996274.9	133.82	%			20:55:35
1	Ag 328.068†	-4335.1	-4489.6	3.2450	ug/L	3.2450	ppb	20:55:40
1	As 188.979†	-86.8	-47.7	22.946	ug/L	22.946	ppb	20:56:00
1	B 249.677†	113.9	134.2	-6.0747	ug/L	-6.0747	ppb	20:55:40
1	Ba 233.527†	24733.3	23506.6	162.36	ug/L	162.36	ppb	20:55:40
1	Be 313.107†	-26123.0	-20093.5	0.3014	ug/L	0.3014	ppb	20:55:40
1	Cd 226.502†	516.0	719.6	0.4261	ug/L	0.4261	ppb	20:56:00
1	Co 228.616†	880.5	923.9	7.7110	ug/L	7.7110	ppb	20:56:00
1	Cr 267.716†	2024.9	1844.1	20.092	ug/L	20.092	ppb	20:56:00
1	Cu 324.752†	13378.5	6658.0	22.190	ug/L	22.190	ppb	20:55:40
1	Mn 257.610†	2786010.2	2647046.5	2617.5	ug/L	2617.5	ppb	20:55:35
1	Mo 202.031†	258.8	226.1	18.383	ug/L	18.383	ppb	20:56:00
1	Ni 231.604†	915.8	776.7	16.960	ug/L	16.960	ppb	20:56:00
1	P 214.914†	1526.9	1192.9	568.58	ug/L	568.58	ppb	20:56:00
1	Pb 220.353†	409.5	453.2	44.163	ug/L	44.163	ppb	20:56:00
1	S 181.975 Axial†	133.8	78.1	94.214	ug/L	94.214	ppb	20:56:00
1	Sb 206.836†	73.9	29.1	-0.1959	ug/L	-0.1959	ppb	20:56:00
1	Se 196.026†	-421.4	-371.9	-0.3546	ug/L	-0.3546	ppb	20:56:00
1	Si 251.611†	202764.8	192109.4	5416.1	ug/L	5416.1	ppb	20:55:40
1	Sn 189.927†	19.2	14.7	3.5183	ug/L	3.5183	ppb	20:56:00
1	Ti 334.940†	2605316.3	2477212.5	3582.0	ug/L	3582.0	ppb	20:55:35
1	Tl 190.801†	-214.0	-155.3	2.4886	ug/L	2.4886	ppb	20:56:00
1	U 409.014†	-14829.9	-11720.6	-331.30	ug/L	-331.30	ppb	20:55:35
1	V 292.402†	8483.7	9531.5	46.211	ug/L	46.211	ppb	20:55:40
1	Zn 213.857†	74448.8	69955.0	567.20	ug/L	567.20	ppb	20:55:40
1	SiO2†	202898.5	192207.2	11636	ug/L	11636	ppb	20:57:08
2	Sc Radial	5640.3	5640.3	101	%			20:54:43
2	Y RADIAL	7693.4	7693.4	130.1	%			20:54:43
2	Al 396.153Radial†	11284.4	11154.7	8127.3	ug/L	8127.3	ppb	20:54:43
2	Ca 317.933Radial†	2871.7	2814.9	4013.4	ug/L	4013.4	ppb	20:55:03
2	Fe 238.204 Radial†	8083.3	7967.7	66237	ug/L	66237	ppb	20:54:43
2	K 766.490 Radial†	16266.2	13343.1	2321.6	ug/L	2321.6	ppb	20:54:43
2	Mg 279.077 IEC†	71.3	69.0	2086.2	ug/L	2086.2	ppb	20:55:03
2	Na 589.592 Radial†	2075.8	2810.6	838.88	ug/L	838.88	ppb	20:54:43
2	Sr 421.552†	3617.2	3582.2	20.968	ug/L	20.968	ppb	20:54:43
2	Sc 361.383	933204.6	933204.6	103.82	%			20:56:06
2	Y 371.029	984848.7	984848.7	132.29	%			20:56:06
2	Ag 328.068†	-4403.9	-4612.0	2.7232	ug/L	2.7232	ppb	20:56:11
2	As 188.979†	-63.1	-26.0	30.863	ug/L	30.863	ppb	20:56:31
2	B 249.677†	88.5	111.2	-6.5470	ug/L	-6.5470	ppb	20:56:11
2	Ba 233.527†	24922.6	24009.3	165.78	ug/L	165.78	ppb	20:56:11
2	Be 313.107†	-26321.8	-20623.4	0.1308	ug/L	0.1308	ppb	20:56:11
2	Cd 226.502†	510.5	720.9	0.4399	ug/L	0.4399	ppb	20:56:31
2	Co 228.616†	879.7	934.5	7.8911	ug/L	7.8911	ppb	20:56:31
2	Cr 267.716†	2047.5	1892.1	20.581	ug/L	20.581	ppb	20:56:31
2	Cu 324.752†	13311.9	6767.1	22.498	ug/L	22.498	ppb	20:56:11
2	Mn 257.610†	2752118.2	2650485.0	2620.9	ug/L	2620.9	ppb	20:56:06
2	Mo 202.031†	256.8	227.5	18.470	ug/L	18.470	ppb	20:56:31
2	Ni 231.604†	947.1	818.7	17.878	ug/L	17.878	ppb	20:56:31

2	P 214.914†	1536.4	1221.9	583.65 ug/L	583.65 ppb	20:56:31
2	Pb 220.353†	449.7	497.2	48.803 ug/L	48.803 ppb	20:56:31
2	S 181.975 Axial†	130.7	76.9	92.775 ug/L	92.775 ppb	20:56:31
2	Sb 206.836†	61.3	17.8	-3.5946 ug/L	-3.5946 ppb	20:56:31
2	Se 196.026†	-435.3	-390.8	-10.641 ug/L	-10.641 ppb	20:56:31
2	Si 251.611†	203957.4	195884.4	5522.5 ug/L	5522.5 ppb	20:56:11
2	Sn 189.927†	12.1	8.2	2.5298 ug/L	2.5298 ppb	20:56:31
2	Ti 334.940†	2572886.8	2479719.5	3585.6 ug/L	3585.6 ppb	20:56:06
2	Tl 190.801†	-225.5	-169.1	-1.0460 ug/L	-1.0460 ppb	20:56:31
2	U 409.014†	-14618.3	-11708.9	-330.97 ug/L	-330.97 ppb	20:56:06
2	V 292.402†	8633.0	9785.1	47.823 ug/L	47.823 ppb	20:56:11
2	Zn 213.857†	74866.9	71322.0	578.41 ug/L	578.41 ppb	20:56:11
2	SiO2†	203506.0	195420.4	11830 ug/L	11830 ppb	20:57:13
3	Sc Radial	5717.0	5717.0	103 %		20:55:08
3	Y RADIAL	7820.1	7820.1	132.3 %		20:55:08
3	Al 396.153Radial†	11495.8	11211.1	8168.4 ug/L	8168.4 ppb	20:55:08
3	Ca 317.933Radial†	2880.9	2785.9	3971.9 ug/L	3971.9 ppb	20:55:28
3	Fe 238.204 Radial†	8240.9	8014.1	66623 ug/L	66623 ppb	20:55:08
3	K 766.490 Radial†	16361.2	13220.2	2299.9 ug/L	2299.9 ppb	20:55:08
3	Mg 279.077 IEC†	67.2	64.0	1930.8 ug/L	1930.8 ppb	20:55:28
3	Na 589.592 Radial†	2125.6	2831.5	845.13 ug/L	845.13 ppb	20:55:08
3	Sr 421.552†	3706.7	3621.4	21.199 ug/L	21.199 ppb	20:55:08
3	Sc 361.383	934518.7	934518.7	103.96 %		20:56:37
3	Y 371.029	984137.9	984137.9	132.19 %		20:56:37
3	Ag 328.068†	-4359.5	-4563.3	3.0640 ug/L	3.0640 ppb	20:56:42
3	As 188.979†	-75.8	-38.1	26.531 ug/L	26.531 ppb	20:57:02
3	B 249.677†	87.3	109.9	-6.6240 ug/L	-6.6240 ppb	20:56:42
3	Ba 233.527†	24966.3	24017.6	165.85 ug/L	165.85 ppb	20:56:42
3	Be 313.107†	-26153.6	-20426.0	0.1999 ug/L	0.1999 ppb	20:56:42
3	Cd 226.502†	514.2	723.8	0.4299 ug/L	0.4299 ppb	20:57:02
3	Co 228.616†	890.6	943.8	8.0461 ug/L	8.0461 ppb	20:57:02
3	Cr 267.716†	2039.9	1882.0	20.486 ug/L	20.486 ppb	20:57:02
3	Cu 324.752†	13507.0	6936.7	22.997 ug/L	22.997 ppb	20:56:42
3	Mn 257.610†	2759225.9	2653594.3	2624.0 ug/L	2624.0 ppb	20:56:37
3	Mo 202.031†	263.0	233.1	18.838 ug/L	18.838 ppb	20:57:02
3	Ni 231.604†	945.7	816.0	17.819 ug/L	17.819 ppb	20:57:02
3	P 214.914†	1531.1	1214.7	579.54 ug/L	579.54 ppb	20:57:02
3	Pb 220.353†	443.8	490.9	48.118 ug/L	48.118 ppb	20:57:02
3	S 181.975 Axial†	130.7	76.7	92.472 ug/L	92.472 ppb	20:57:02
3	Sb 206.836†	75.3	31.2	0.4709 ug/L	0.4709 ppb	20:57:02
3	Se 196.026†	-424.7	-380.0	-3.5803 ug/L	-3.5803 ppb	20:57:02
3	Si 251.611†	204946.2	196559.2	5541.5 ug/L	5541.5 ppb	20:56:42
3	Sn 189.927†	24.4	20.0	4.3105 ug/L	4.3105 ppb	20:57:02
3	Ti 334.940†	2577590.0	2480758.6	3587.1 ug/L	3587.1 ppb	20:56:37
3	Tl 190.801†	-220.8	-164.3	0.2397 ug/L	0.2397 ppb	20:57:02
3	U 409.014†	-14729.5	-11796.0	-333.42 ug/L	-333.42 ppb	20:56:37
3	V 292.402†	8615.1	9756.2	47.576 ug/L	47.576 ppb	20:56:42
3	Zn 213.857†	75222.5	71562.6	580.35 ug/L	580.35 ppb	20:56:42
3	SiO2†	201683.6	193391.8	11707 ug/L	11707 ppb	20:57:18

Mean Data: 242661009|932275|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	937882.4	104.34	%	0.778				0.75%
Sc Radial	5687.1	102	%	0.7				0.72%
Y 371.029	988420.5	132.77	%	0.915				0.69%
Y RADIAL	7785.9	131.7	%	1.37				1.04%
Ag 328.068†	-4554.9	3.0107	ug/L	0.26496	3.0107	ppb	0.26496	8.80%
Al 396.153Radial†	11180.8	8146.3	ug/L	20.73	8146.3	ppb	20.73	0.25%
As 188.979†	-37.2	26.780	ug/L	3.9645	26.780	ppb	3.9645	14.80%
B 249.677†	118.4	-6.4152	ug/L	0.29742	-6.4152	ppb	0.29742	4.64%
Ba 233.527†	23844.5	164.66	ug/L	1.995	164.66	ppb	1.995	1.21%
Be 313.107†	-20380.9	0.2107	ug/L	0.08579	0.2107	ppb	0.08579	40.72%
Ca 317.933Radial†	2806.0	4000.6	ug/L	24.95	4000.6	ppb	24.95	0.62%
Cd 226.502†	721.4	0.4319	ug/L	0.00715	0.4319	ppb	0.00715	1.66%
Co 228.616†	934.0	7.8827	ug/L	0.16771	7.8827	ppb	0.16771	2.13%
Cr 267.716†	1872.7	20.386	ug/L	0.2590	20.386	ppb	0.2590	1.27%
Cu 324.752†	6787.3	22.562	ug/L	0.4073	22.562	ppb	0.4073	1.81%
Fe 238.204 Radial†	7983.2	66366	ug/L	222.5	66366	ppb	222.5	0.34%
K 766.490 Radial†	13244.6	2304.3	ug/L	15.64	2304.3	ppb	15.64	0.68%

Mg 279.077 IEC†	67.1	2026.0	ug/L	83.36	2026.0	ppb	83.36	4.11%
Mn 257.610†	2650375.2	2620.8	ug/L	3.25	2620.8	ppb	3.25	0.12%
Mo 202.031†	228.9	18.563	ug/L	0.2414	18.563	ppb	0.2414	1.30%
Na 589.592 Radial†	2817.5	840.94	ug/L	3.626	840.94	ppb	3.626	0.43%
Ni 231.604†	803.8	17.553	ug/L	0.5140	17.553	ppb	0.5140	2.93%
P 214.914†	1209.8	577.26	ug/L	7.789	577.26	ppb	7.789	1.35%
Pb 220.353†	480.4	47.028	ug/L	2.5045	47.028	ppb	2.5045	5.33%
S 181.975 Axial†	77.2	93.154	ug/L	0.9310	93.154	ppb	0.9310	1.00%
Sb 206.836†	26.0	-1.1065	ug/L	2.18039	-1.1065	ppb	2.18039	197.05%
Se 196.026†	-380.9	-4.8585	ug/L	5.26076	-4.8585	ppb	5.26076	108.28%
Si 251.611†	194851.0	5493.4	ug/L	67.62	5493.4	ppb	67.62	1.23%
Sn 189.927†	14.3	3.4529	ug/L	0.89217	3.4529	ppb	0.89217	25.84%
Sr 421.552†	3611.7	21.142	ug/L	0.1531	21.142	ppb	0.1531	0.72%
Ti 334.940†	2479230.2	3584.9	ug/L	2.63	3584.9	ppb	2.63	0.07%
Tl 190.801†	-162.9	0.5608	ug/L	1.78905	0.5608	ppb	1.78905	319.02%
U 409.014†	-11741.8	-331.90	ug/L	1.330	-331.90	ppb	1.330	0.40%
V 292.402†	9690.9	47.203	ug/L	0.8679	47.203	ppb	0.8679	1.84%
Zn 213.857†	70946.5	575.32	ug/L	7.096	575.32	ppb	7.096	1.23%
SiO2†	193673.1	11724	ug/L	98.4	11724	ppb	98.4	0.84%

Sequence No.: 66
Sample ID: 242661010|932275|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 80
Date Collected: 12/19/2009 20:59:29
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 242661010|932275|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	6040.9	6040.9	109	%			21:01:22
1	Y RADIAL	7160.4	7160.4	121.1	%			21:01:22
1	Al 396.153Radial†	15616.7	14408.6	10498	ug/L	10498	ppb	21:01:22
1	Ca 317.933Radial†	1496.5	1359.6	1938.4	ug/L	1938.4	ppb	21:01:42
1	Fe 238.204 Radial†	10510.1	9675.1	80430	ug/L	80430	ppb	21:01:22
1	K 766.490 Radial†	15923.7	11962.7	2100.4	ug/L	2100.4	ppb	21:01:22
1	Mg 279.077 IEC†	63.6	57.2	1708.0	ug/L	1708.0	ppb	21:01:42
1	Na 589.592 Radial†	4637.3	5035.3	1502.9	ug/L	1502.9	ppb	21:01:22
1	Sr 421.552†	3906.5	3612.0	21.162	ug/L	21.162	ppb	21:01:22
1	Sc 361.383	937947.1	937947.1	104.34	%			21:02:40
1	Y 371.029	868096.2	868096.2	116.61	%			21:02:40
1	Ag 328.068†	-6008.2	-6128.0	0.7092	ug/L	0.7092	ppb	21:02:45
1	As 188.979†	-113.6	-74.0	16.895	ug/L	16.895	ppb	21:03:05
1	B 249.677†	211.7	228.9	-6.0014	ug/L	-6.0014	ppb	21:02:45
1	Ba 233.527†	17470.2	16745.7	116.89	ug/L	116.89	ppb	21:02:45
1	Be 313.107†	-30462.8	-24463.8	-0.8555	ug/L	-0.8555	ppb	21:02:45
1	Cd 226.502†	667.0	868.4	0.4711	ug/L	0.4711	ppb	21:03:05
1	Co 228.616†	579.7	642.7	2.2537	ug/L	2.2537	ppb	21:03:05
1	Cr 267.716†	5460.7	5153.2	53.796	ug/L	53.796	ppb	21:03:05
1	Cu 324.752†	8177.9	1782.0	9.1377	ug/L	9.1377	ppb	21:02:45
1	Mn 257.610†	946482.5	906597.6	902.23	ug/L	902.23	ppb	21:02:40
1	Mo 202.031†	478.0	438.2	32.230	ug/L	32.230	ppb	21:03:05
1	Ni 231.604†	1501.0	1345.0	29.379	ug/L	29.379	ppb	21:03:05
1	P 214.914†	837.5	544.6	222.02	ug/L	222.02	ppb	21:03:05
1	Pb 220.353†	520.7	563.1	55.152	ug/L	55.152	ppb	21:03:05
1	S 181.975 Axial†	115.7	61.9	73.813	ug/L	73.813	ppb	21:03:05
1	Sb 206.836†	64.8	20.8	-3.4454	ug/L	-3.4454	ppb	21:03:05
1	Se 196.026†	-546.7	-495.5	-24.197	ug/L	-24.197	ppb	21:03:05
1	Si 251.611†	245594.8	234795.4	6619.6	ug/L	6619.6	ppb	21:02:45
1	Sn 189.927†	40.7	35.5	6.6066	ug/L	6.6066	ppb	21:03:05
1	Ti 334.940†	2696735.9	2585883.0	3738.9	ug/L	3738.9	ppb	21:02:40
1	Tl 190.801†	-174.8	-119.5	3.0696	ug/L	3.0696	ppb	21:03:05
1	U 409.014†	-6997.4	-4333.9	-129.63	ug/L	-129.63	ppb	21:02:45
1	V 292.402†	5284.6	6534.0	25.373	ug/L	25.373	ppb	21:02:45
1	Zn 213.857†	35408.3	33141.0	263.87	ug/L	263.87	ppb	21:02:45
1	SiO2†	245554.6	234727.8	14210	ug/L	14210	ppb	21:04:12
2	Sc Radial	5662.5	5662.5	102	%			21:01:47
2	Y RADIAL	6792.5	6792.5	114.9	%			21:01:47
2	Al 396.153Radial†	15714.3	15466.4	11269	ug/L	11269	ppb	21:01:47
2	Ca 317.933Radial†	1471.3	1426.9	2034.4	ug/L	2034.4	ppb	21:02:07
2	Fe 238.204 Radial†	10630.8	10441.1	86798	ug/L	86798	ppb	21:01:47
2	K 766.490 Radial†	15955.0	12974.2	2279.0	ug/L	2279.0	ppb	21:01:47
2	Mg 279.077 IEC†	61.8	59.4	1770.8	ug/L	1770.8	ppb	21:02:07
2	Na 589.592 Radial†	4840.7	5521.0	1647.8	ug/L	1647.8	ppb	21:01:47
2	Sr 421.552†	3897.7	3843.9	22.521	ug/L	22.521	ppb	21:01:47
2	Sc 361.383	937216.9	937216.9	104.26	%			21:03:11
2	Y 371.029	867576.7	867576.7	116.54	%			21:03:11
2	Ag 328.068†	-5909.6	-6038.0	3.2189	ug/L	3.2189	ppb	21:03:16
2	As 188.979†	-117.4	-77.7	16.574	ug/L	16.574	ppb	21:03:36
2	B 249.677†	244.4	260.3	-6.2013	ug/L	-6.2013	ppb	21:03:16
2	Ba 233.527†	17507.1	16794.2	117.45	ug/L	117.45	ppb	21:03:16
2	Be 313.107†	-30248.7	-24281.2	-0.7832	ug/L	-0.7832	ppb	21:03:16
2	Cd 226.502†	675.5	877.1	-0.0813	ug/L	-0.0813	ppb	21:03:36
2	Co 228.616†	598.0	660.7	2.4655	ug/L	2.4655	ppb	21:03:36
2	Cr 267.716†	5473.5	5169.6	54.074	ug/L	54.074	ppb	21:03:36
2	Cu 324.752†	8024.0	1640.4	9.0625	ug/L	9.0625	ppb	21:03:16
2	Mn 257.610†	945654.9	906510.5	902.78	ug/L	902.78	ppb	21:03:11
2	Mo 202.031†	475.7	436.4	32.572	ug/L	32.572	ppb	21:03:36
2	Ni 231.604†	1497.7	1342.9	29.333	ug/L	29.333	ppb	21:03:36

2	P 214.914†	816.2	524.8	206.91 ug/L	206.91 ppb	21:03:36
2	Pb 220.353†	531.7	574.0	55.956 ug/L	55.956 ppb	21:03:36
2	S 181.975 Axial†	126.6	72.4	86.581 ug/L	86.581 ppb	21:03:36
2	Sb 206.836†	74.8	30.5	-0.4805 ug/L	-0.4805 ppb	21:03:36
2	Se 196.026†	-552.1	-501.0	-7.7809 ug/L	-7.7809 ppb	21:03:36
2	Si 251.611†	243962.2	233413.0	6580.5 ug/L	6580.5 ppb	21:03:16
2	Sn 189.927†	45.1	39.8	7.3398 ug/L	7.3398 ppb	21:03:36
2	Ti 334.940†	2698655.4	2589737.6	3744.5 ug/L	3744.5 ppb	21:03:11
2	Tl 190.801†	-168.2	-113.3	4.7438 ug/L	4.7438 ppb	21:03:36
2	U 409.014†	-6929.8	-4274.3	-128.79 ug/L	-128.79 ppb	21:03:16
2	V 292.402†	5118.3	6378.5	23.412 ug/L	23.412 ppb	21:03:16
2	Zn 213.857†	35419.8	33178.5	263.57 ug/L	263.57 ppb	21:03:16
2	SiO2†	244550.2	233947.7	14163 ug/L	14163 ppb	21:04:18
3	Sc Radial	5717.6	5717.6	103 %		21:02:12
3	Y RADIAL	6813.8	6813.8	115.3 %		21:02:12
3	Al 396.153Radial†	15647.5	15252.6	11113 ug/L	11113 ppb	21:02:12
3	Ca 317.933Radial†	1470.5	1412.3	2013.5 ug/L	2013.5 ppb	21:02:33
3	Fe 238.204 Radial†	10628.1	10337.8	85940 ug/L	85940 ppb	21:02:12
3	K 766.490 Radial†	15861.0	12731.6	2236.2 ug/L	2236.2 ppb	21:02:12
3	Mg 279.077 IEC†	57.3	54.4	1616.8 ug/L	1616.8 ppb	21:02:33
3	Na 589.592 Radial†	4769.4	5405.7	1613.4 ug/L	1613.4 ppb	21:02:12
3	Sr 421.552†	3887.4	3797.0	22.247 ug/L	22.247 ppb	21:02:12
3	Sc 361.383	941729.5	941729.5	104.76 %		21:03:42
3	Y 371.029	870628.6	870628.6	116.95 %		21:03:42
3	Ag 328.068†	-6014.8	-6111.2	2.6205 ug/L	2.6205 ppb	21:03:47
3	As 188.979†	-105.0	-65.4	20.922 ug/L	20.922 ppb	21:04:07
3	B 249.677†	221.6	237.5	-6.5556 ug/L	-6.5556 ppb	21:03:47
3	Ba 233.527†	17320.8	16535.8	115.66 ug/L	115.66 ppb	21:03:47
3	Be 313.107†	-30211.5	-24106.7	-0.7217 ug/L	-0.7217 ppb	21:03:47
3	Cd 226.502†	673.4	872.0	-0.0449 ug/L	-0.0449 ppb	21:04:07
3	Co 228.616†	578.8	639.6	2.1028 ug/L	2.1028 ppb	21:04:07
3	Cr 267.716†	5416.7	5090.3	53.255 ug/L	53.255 ppb	21:04:07
3	Cu 324.752†	8150.9	1724.7	9.2569 ug/L	9.2569 ppb	21:03:47
3	Mn 257.610†	951093.2	907355.3	903.53 ug/L	903.53 ppb	21:03:42
3	Mo 202.031†	467.4	426.2	31.897 ug/L	31.897 ppb	21:04:07
3	Ni 231.604†	1512.9	1350.5	29.501 ug/L	29.501 ppb	21:04:07
3	P 214.914†	797.2	502.9	196.08 ug/L	196.08 ppb	21:04:07
3	Pb 220.353†	537.3	576.9	56.297 ug/L	56.297 ppb	21:04:07
3	S 181.975 Axial†	120.2	65.8	78.481 ug/L	78.481 ppb	21:04:07
3	Sb 206.836†	68.9	24.5	-2.2705 ug/L	-2.2705 ppb	21:04:07
3	Se 196.026†	-551.9	-498.3	-8.9500 ug/L	-8.9500 ppb	21:04:07
3	Si 251.611†	243358.7	231715.7	6532.7 ug/L	6532.7 ppb	21:03:47
3	Sn 189.927†	47.9	42.3	7.7056 ug/L	7.7056 ppb	21:04:07
3	Ti 334.940†	2712761.3	2590799.2	3746.0 ug/L	3746.0 ppb	21:03:42
3	Tl 190.801†	-169.5	-113.8	4.6326 ug/L	4.6326 ppb	21:04:07
3	U 409.014†	-7104.6	-4409.3	-132.40 ug/L	-132.40 ppb	21:03:47
3	V 292.402†	5162.8	6397.4	23.642 ug/L	23.642 ppb	21:03:47
3	Zn 213.857†	35114.7	32724.5	259.93 ug/L	259.93 ppb	21:03:47
3	SiO2†	245019.0	233271.3	14122 ug/L	14122 ppb	21:04:23

Mean Data: 242661010|932275|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	938964.5	104.46	%	0.269				0.26%
Sc Radial	5807.0	104	%	3.7				3.52%
Y 371.029	868767.2	116.70	%	0.219				0.19%
Y RADIAL	6922.2	117.1	%	3.49				2.98%
Ag 328.068†	-6092.4	2.1829	ug/L	1.31083	2.1829	ppb	1.31083	60.05%
Al 396.153Radial†	15042.5	10960	ug/L	407.6	10960	ppb	407.6	3.72%
As 188.979†	-72.4	18.130	ug/L	2.4226	18.130	ppb	2.4226	13.36%
B 249.677†	242.2	-6.2528	ug/L	0.28068	-6.2528	ppb	0.28068	4.49%
Ba 233.527†	16691.9	116.67	ug/L	0.914	116.67	ppb	0.914	0.78%
Be 313.107†	-24283.9	-0.7868	ug/L	0.06695	-0.7868	ppb	0.06695	8.51%
Ca 317.933Radial†	1399.6	1995.4	ug/L	50.49	1995.4	ppb	50.49	2.53%
Cd 226.502†	872.5	0.1150	ug/L	0.30899	0.1150	ppb	0.30899	268.74%
Co 228.616†	647.6	2.2740	ug/L	0.18220	2.2740	ppb	0.18220	8.01%
Cr 267.716†	5137.7	53.709	ug/L	0.4162	53.709	ppb	0.4162	0.78%
Cu 324.752†	1715.7	9.1524	ug/L	0.09801	9.1524	ppb	0.09801	1.07%
Fe 238.204 Radial†	10151.4	84389	ug/L	3455.5	84389	ppb	3455.5	4.09%
K 766.490 Radial†	12556.2	2205.2	ug/L	93.20	2205.2	ppb	93.20	4.23%

Mg 279.077 IEC†	57.0	1698.5	ug/L	77.43	1698.5	ppb	77.43	4.56%
Mn 257.610†	906821.2	902.85	ug/L	0.652	902.85	ppb	0.652	0.07%
Mo 202.031†	433.6	32.233	ug/L	0.3379	32.233	ppb	0.3379	1.05%
Na 589.592 Radial†	5320.7	1588.1	ug/L	75.73	1588.1	ppb	75.73	4.77%
Ni 231.604†	1346.1	29.404	ug/L	0.0868	29.404	ppb	0.0868	0.30%
P 214.914†	524.1	208.34	ug/L	13.029	208.34	ppb	13.029	6.25%
Pb 220.353†	571.4	55.802	ug/L	0.5879	55.802	ppb	0.5879	1.05%
S 181.975 Axial†	66.7	79.625	ug/L	6.4603	79.625	ppb	6.4603	8.11%
Sb 206.836†	25.3	-2.0654	ug/L	1.49305	-2.0654	ppb	1.49305	72.29%
Se 196.026†	-498.3	-13.643	ug/L	9.1590	-13.643	ppb	9.1590	67.14%
Si 251.611†	233308.0	6577.6	ug/L	43.51	6577.6	ppb	43.51	0.66%
Sn 189.927†	39.2	7.2173	ug/L	0.55969	7.2173	ppb	0.55969	7.75%
Sr 421.552†	3751.0	21.977	ug/L	0.7185	21.977	ppb	0.7185	3.27%
Ti 334.940†	2588806.6	3743.1	ug/L	3.74	3743.1	ppb	3.74	0.10%
Tl 190.801†	-115.5	4.1487	ug/L	0.93619	4.1487	ppb	0.93619	22.57%
U 409.014†	-4339.2	-130.27	ug/L	1.890	-130.27	ppb	1.890	1.45%
V 292.402†	6436.7	24.142	ug/L	1.0719	24.142	ppb	1.0719	4.44%
Zn 213.857†	33014.7	262.46	ug/L	2.193	262.46	ppb	2.193	0.84%
SiO2†	233982.3	14165	ug/L	44.2	14165	ppb	44.2	0.31%

Sequence No.: 67
Sample ID: 242661011|932275|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 81
Date Collected: 12/19/2009 21:06:33
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 242661011|932275|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5667.0	5667.0	102	%			21:08:26
1	Y RADIAL	7686.3	7686.3	130.0	%			21:08:26
1	Al 396.153Radial†	34387.6	33799.0	24627	ug/L	24627	ppb	21:08:26
1	Ca 317.933Radial†	3611.8	3528.6	5030.9	ug/L	5030.9	ppb	21:08:26
1	Fe 238.204 Radial†	10394.1	10200.3	84796	ug/L	84796	ppb	21:08:26
1	K 766.490 Radial†	16888.0	13878.4	2430.4	ug/L	2430.4	ppb	21:08:26
1	Mg 279.077 IEC†	131.2	127.5	3886.1	ug/L	3886.1	ppb	21:08:46
1	Na 589.592 Radial†	2096.7	2821.5	842.12	ug/L	842.12	ppb	21:08:26
1	Sr 421.552†	7606.6	7484.6	43.842	ug/L	43.842	ppb	21:08:26
1	Sc 361.383	948116.0	948116.0	105.47	%			21:09:44
1	Y 371.029	990229.4	990229.4	133.01	%			21:09:44
1	Ag 328.068†	-5873.0	-5938.1	3.3856	ug/L	3.3856	ppb	21:09:49
1	As 188.979†	-55.3	-17.6	36.567	ug/L	36.567	ppb	21:10:09
1	B 249.677†	149.1	167.3	-7.8567	ug/L	-7.8567	ppb	21:09:49
1	Ba 233.527†	24457.0	23190.3	160.93	ug/L	160.93	ppb	21:09:49
1	Be 313.107†	-19279.4	-13547.7	2.4543	ug/L	2.4543	ppb	21:09:49
1	Cd 226.502†	626.9	823.6	-0.4038	ug/L	-0.4038	ppb	21:10:09
1	Co 228.616†	868.6	910.6	7.2436	ug/L	7.2436	ppb	21:10:09
1	Cr 267.716†	4144.0	3848.7	40.826	ug/L	40.826	ppb	21:10:09
1	Cu 324.752†	12968.0	6239.4	21.954	ug/L	21.954	ppb	21:09:49
1	Mn 257.610†	1785115.8	1691977.0	1677.3	ug/L	1677.3	ppb	21:09:44
1	Mo 202.031†	205.9	175.3	16.628	ug/L	16.628	ppb	21:10:09
1	Ni 231.604†	1551.7	1377.6	30.090	ug/L	30.090	ppb	21:10:09
1	P 214.914†	1073.0	759.2	333.16	ug/L	333.16	ppb	21:10:09
1	Pb 220.353†	488.4	527.1	54.129	ug/L	54.129	ppb	21:10:09
1	S 181.975 Axial†	131.0	75.2	87.455	ug/L	87.455	ppb	21:10:09
1	Sb 206.836†	64.1	19.6	-3.6902	ug/L	-3.6902	ppb	21:10:09
1	Se 196.026†	-545.7	-488.8	-5.4077	ug/L	-5.4077	ppb	21:10:09
1	Si 251.611†	352152.6	333298.4	9397.3	ug/L	9397.3	ppb	21:09:49
1	Sn 189.927†	1.9	-1.7	1.4213	ug/L	1.4213	ppb	21:10:09
1	Ti 334.940†	2595673.7	2462346.1	3560.6	ug/L	3560.6	ppb	21:09:44
1	Tl 190.801†	-211.8	-152.8	-2.1168	ug/L	-2.1168	ppb	21:10:09
1	U 409.014†	-20707.7	-17260.7	-486.31	ug/L	-486.31	ppb	21:09:44
1	V 292.402†	11251.1	12136.6	59.675	ug/L	59.675	ppb	21:09:49
1	Zn 213.857†	47737.8	44466.7	356.24	ug/L	356.24	ppb	21:09:49
1	SiO2†	358357.8	339152.4	20533	ug/L	20533	ppb	21:11:16
2	Sc Radial	5734.3	5734.3	103	%			21:08:51
2	Y RADIAL	7714.5	7714.5	130.5	%			21:08:51
2	Al 396.153Radial†	34425.1	33438.7	24365	ug/L	24365	ppb	21:08:51
2	Ca 317.933Radial†	3609.0	3484.3	4967.7	ug/L	4967.7	ppb	21:08:51
2	Fe 238.204 Radial†	10422.3	10107.8	84027	ug/L	84027	ppb	21:08:51
2	K 766.490 Radial†	17011.2	13803.2	2417.0	ug/L	2417.0	ppb	21:08:51
2	Mg 279.077 IEC†	132.0	126.7	3862.7	ug/L	3862.7	ppb	21:09:11
2	Na 589.592 Radial†	2145.8	2845.0	849.14	ug/L	849.14	ppb	21:08:51
2	Sr 421.552†	7673.1	7461.4	43.706	ug/L	43.706	ppb	21:08:51
2	Sc 361.383	948879.2	948879.2	105.56	%			21:10:15
2	Y 371.029	990504.3	990504.3	133.05	%			21:10:15
2	Ag 328.068†	-5726.4	-5794.7	3.7439	ug/L	3.7439	ppb	21:10:20
2	As 188.979†	-57.7	-19.9	35.673	ug/L	35.673	ppb	21:10:40
2	B 249.677†	151.0	168.9	-7.7200	ug/L	-7.7200	ppb	21:10:20
2	Ba 233.527†	24300.6	23023.5	159.77	ug/L	159.77	ppb	21:10:20
2	Be 313.107†	-19315.6	-13567.3	2.4579	ug/L	2.4579	ppb	21:10:20
2	Cd 226.502†	617.6	814.3	-0.4180	ug/L	-0.4180	ppb	21:10:40
2	Co 228.616†	867.4	908.8	7.2106	ug/L	7.2106	ppb	21:10:40
2	Cr 267.716†	4194.5	3893.5	41.264	ug/L	41.264	ppb	21:10:40
2	Cu 324.752†	12947.2	6209.8	21.831	ug/L	21.831	ppb	21:10:20
2	Mn 257.610†	1792083.7	1697216.7	1682.4	ug/L	1682.4	ppb	21:10:15
2	Mo 202.031†	201.1	170.7	16.291	ug/L	16.291	ppb	21:10:40
2	Ni 231.604†	1549.6	1374.4	30.019	ug/L	30.019	ppb	21:10:40

2	P 214.914†	1062.3	748.3	327.99 ug/L	327.99 ppb	21:10:40
2	Pb 220.353†	500.3	538.0	55.277 ug/L	55.277 ppb	21:10:40
2	S 181.975 Axial†	132.4	76.4	88.983 ug/L	88.983 ppb	21:10:40
2	Sb 206.836†	57.4	13.2	-5.6469 ug/L	-5.6469 ppb	21:10:40
2	Se 196.026†	-555.1	-497.3	-12.415 ug/L	-12.415 ppb	21:10:40
2	Si 251.611†	349219.6	330251.3	9311.4 ug/L	9311.4 ppb	21:10:20
2	Sn 189.927†	1.7	-1.9	1.3709 ug/L	1.3709 ppb	21:10:40
2	Ti 334.940†	2601534.7	2465919.0	3565.8 ug/L	3565.8 ppb	21:10:15
2	Tl 190.801†	-221.4	-161.7	-4.3678 ug/L	-4.3678 ppb	21:10:40
2	U 409.014†	-20770.9	-17304.9	-487.43 ug/L	-487.43 ppb	21:10:15
2	V 292.402†	11067.1	11953.7	58.615 ug/L	58.615 ppb	21:10:20
2	Zn 213.857†	47451.5	44159.1	353.80 ug/L	353.80 ppb	21:10:20
2	SiO2†	357870.0	338417.0	20489 ug/L	20489 ppb	21:11:22
3	Sc Radial	5781.9	5781.9	104 %		21:09:16
3	Y RADIAL	7806.6	7806.6	132.1 %		21:09:16
3	Al 396.153Radial†	34691.9	33420.5	24352 ug/L	24352 ppb	21:09:16
3	Ca 317.933Radial†	3639.1	3484.5	4967.9 ug/L	4967.9 ppb	21:09:16
3	Fe 238.204 Radial†	10475.1	10075.4	83758 ug/L	83758 ppb	21:09:16
3	K 766.490 Radial†	17090.3	13743.5	2406.5 ug/L	2406.5 ppb	21:09:16
3	Mg 279.077 IEC†	132.5	126.1	3845.2 ug/L	3845.2 ppb	21:09:36
3	Na 589.592 Radial†	2196.3	2876.4	858.53 ug/L	858.53 ppb	21:09:16
3	Sr 421.552†	7757.2	7481.1	43.822 ug/L	43.822 ppb	21:09:16
3	Sc 361.383	949785.3	949785.3	105.66 %		21:10:46
3	Y 371.029	991238.0	991238.0	133.15 %		21:10:46
3	Ag 328.068†	-5802.9	-5862.0	3.3668 ug/L	3.3668 ppb	21:10:51
3	As 188.979†	-56.2	-18.3	36.178 ug/L	36.178 ppb	21:11:11
3	B 249.677†	191.8	207.5	-6.8939 ug/L	-6.8939 ppb	21:10:51
3	Ba 233.527†	24517.4	23206.7	161.00 ug/L	161.00 ppb	21:10:51
3	Be 313.107†	-19219.4	-13458.7	2.4921 ug/L	2.4921 ppb	21:10:51
3	Cd 226.502†	619.7	815.7	-0.3764 ug/L	-0.3764 ppb	21:11:11
3	Co 228.616†	882.4	922.3	7.4511 ug/L	7.4511 ppb	21:11:11
3	Cr 267.716†	4170.7	3867.2	40.994 ug/L	40.994 ppb	21:11:11
3	Cu 324.752†	13171.9	6410.7	22.385 ug/L	22.385 ppb	21:10:51
3	Mn 257.610†	1792286.5	1695789.1	1681.0 ug/L	1681.0 ppb	21:10:46
3	Mo 202.031†	191.5	161.4	15.710 ug/L	15.710 ppb	21:11:11
3	Ni 231.604†	1569.0	1391.4	30.390 ug/L	30.390 ppb	21:11:11
3	P 214.914†	1071.3	755.8	332.05 ug/L	332.05 ppb	21:11:11
3	Pb 220.353†	472.4	511.1	52.460 ug/L	52.460 ppb	21:11:11
3	S 181.975 Axial†	131.5	75.4	87.769 ug/L	87.769 ppb	21:11:11
3	Sb 206.836†	65.2	20.5	-3.4762 ug/L	-3.4762 ppb	21:11:11
3	Se 196.026†	-546.3	-488.6	-8.4454 ug/L	-8.4454 ppb	21:11:11
3	Si 251.611†	354087.3	334542.7	9432.5 ug/L	9432.5 ppb	21:10:51
3	Sn 189.927†	-1.5	-4.9	0.9078 ug/L	0.9078 ppb	21:11:11
3	Ti 334.940†	2603187.7	2465132.5	3564.6 ug/L	3564.6 ppb	21:10:46
3	Tl 190.801†	-212.1	-152.7	-2.0409 ug/L	-2.0409 ppb	21:11:11
3	U 409.014†	-20756.4	-17272.3	-486.50 ug/L	-486.50 ppb	21:10:46
3	V 292.402†	11219.3	12087.7	59.504 ug/L	59.504 ppb	21:10:51
3	Zn 213.857†	47861.9	44504.5	356.65 ug/L	356.65 ppb	21:10:51
3	SiO2†	355800.1	336134.6	20350 ug/L	20350 ppb	21:11:27

Mean Data: 242661011|932275|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	948926.8	105.56	%	0.093				0.09%
Sc Radial	5727.7	103	%	1.0				1.01%
Y 371.029	990657.2	133.07	%	0.070				0.05%
Y RADIAL	7735.8	130.9	%	1.06				0.81%
Ag 328.068†	-5864.9	3.4988	ug/L	0.21250	3.4988	ppb	0.21250	6.07%
Al 396.153Radial†	33552.7	24448	ug/L	155.5	24448	ppb	155.5	0.64%
As 188.979†	-18.6	36.139	ug/L	0.4482	36.139	ppb	0.4482	1.24%
B 249.677†	181.2	-7.4902	ug/L	0.52094	-7.4902	ppb	0.52094	6.95%
Ba 233.527†	23140.2	160.57	ug/L	0.694	160.57	ppb	0.694	0.43%
Be 313.107†	-13524.6	2.4681	ug/L	0.02084	2.4681	ppb	0.02084	0.84%
Ca 317.933Radial†	3499.1	4988.8	ug/L	36.44	4988.8	ppb	36.44	0.73%
Cd 226.502†	817.9	-0.3994	ug/L	0.02114	-0.3994	ppb	0.02114	5.29%
Co 228.616†	913.9	7.3018	ug/L	0.13038	7.3018	ppb	0.13038	1.79%
Cr 267.716†	3869.8	41.028	ug/L	0.2210	41.028	ppb	0.2210	0.54%
Cu 324.752†	6286.7	22.057	ug/L	0.2909	22.057	ppb	0.2909	1.32%
Fe 238.204 Radial†	10127.8	84194	ug/L	538.9	84194	ppb	538.9	0.64%
K 766.490 Radial†	13808.4	2418.0	ug/L	11.98	2418.0	ppb	11.98	0.50%

Mg 279.077 IEC†	126.8	3864.7	ug/L	20.50	3864.7	ppb	20.50	0.53%
Mn 257.610†	1694994.3	1680.2	ug/L	2.63	1680.2	ppb	2.63	0.16%
Mo 202.031†	169.1	16.210	ug/L	0.4646	16.210	ppb	0.4646	2.87%
Na 589.592 Radial†	2847.6	849.93	ug/L	8.232	849.93	ppb	8.232	0.97%
Ni 231.604†	1381.1	30.166	ug/L	0.1968	30.166	ppb	0.1968	0.65%
P 214.914†	754.4	331.07	ug/L	2.720	331.07	ppb	2.720	0.82%
Pb 220.353†	525.4	53.955	ug/L	1.4165	53.955	ppb	1.4165	2.63%
S 181.975 Axial†	75.7	88.069	ug/L	0.8067	88.069	ppb	0.8067	0.92%
Sb 206.836†	17.8	-4.2711	ug/L	1.19624	-4.2711	ppb	1.19624	28.01%
Se 196.026†	-491.6	-8.7560	ug/L	3.51395	-8.7560	ppb	3.51395	40.13%
Si 251.611†	332697.5	9380.4	ug/L	62.26	9380.4	ppb	62.26	0.66%
Sn 189.927†	-2.8	1.2333	ug/L	0.28307	1.2333	ppb	0.28307	22.95%
Sr 421.552†	7475.7	43.790	ug/L	0.0731	43.790	ppb	0.0731	0.17%
Ti 334.940†	2464465.9	3563.7	ug/L	2.71	3563.7	ppb	2.71	0.08%
Tl 190.801†	-155.7	-2.8418	ug/L	1.32207	-2.8418	ppb	1.32207	46.52%
U 409.014†	-17279.3	-486.75	ug/L	0.600	-486.75	ppb	0.600	0.12%
V 292.402†	12059.3	59.265	ug/L	0.5686	59.265	ppb	0.5686	0.96%
Zn 213.857†	44376.8	355.57	ug/L	1.545	355.57	ppb	1.545	0.43%
SiO2†	337901.3	20457	ug/L	95.3	20457	ppb	95.3	0.47%

Sequence No.: 68
Sample ID: 242661012|932275|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 82
Date Collected: 12/19/2009 21:13:38
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 242661012|932275|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5635.5	5635.5	101	%			21:15:51
1	Y RADIAL	6551.1	6551.1	110.8	%			21:15:51
1	Al 396.153Radial†	93583.4	92467.4	67377	ug/L	67377	ppb	21:15:31
1	Ca 317.933Radial†	46986.1	46398.0	66151	ug/L	66151	ppb	21:15:31
1	Fe 238.204 Radial†	11927.6	11772.4	97866	ug/L	97866	ppb	21:15:31
1	K 766.490 Radial†	59679.7	56245.2	9877.1	ug/L	9877.1	ppb	21:15:31
1	Mg 279.077 IEC†	425.8	419.3	12934	ug/L	12934	ppb	21:15:51
1	Na 589.592 Radial†	3787.8	4503.6	1344.2	ug/L	1344.2	ppb	21:15:31
1	Sr 421.552†	55842.1	55178.3	322.94	ug/L	322.94	ppb	21:15:31
1	Sc 361.383	927791.0	927791.0	103.21	%			21:16:49
1	Y 371.029	835217.0	835217.0	112.19	%			21:16:49
1	Ag 328.068†	-6268.1	-6442.9	4.9094	ug/L	4.9094	ppb	21:16:49
1	As 188.979†	-55.0	-18.5	40.188	ug/L	40.188	ppb	21:17:09
1	B 249.677†	724.3	727.7	1.8129	ug/L	1.8129	ppb	21:16:49
1	Ba 233.527†	171500.2	166164.0	1133.4	ug/L	1133.4	ppb	21:16:49
1	Be 313.107†	-15711.7	-10491.5	3.9193	ug/L	3.9193	ppb	21:16:49
1	Cd 226.502†	1204.1	1395.8	3.9050	ug/L	3.9050	ppb	21:17:09
1	Co 228.616†	3141.6	3130.9	45.829	ug/L	45.829	ppb	21:17:09
1	Cr 267.716†	7688.4	7368.9	76.870	ug/L	76.870	ppb	21:17:09
1	Cu 324.752†	36079.2	28900.5	86.647	ug/L	86.647	ppb	21:16:49
1	Mn 257.610†	3393946.8	3287801.8	3252.5	ug/L	3252.5	ppb	21:16:49
1	Mo 202.031†	-28.5	-47.4	4.0702	ug/L	4.0702	ppb	21:17:09
1	Ni 231.604†	2887.9	2704.5	59.055	ug/L	59.055	ppb	21:17:09
1	P 214.914†	2668.3	2327.1	1144.2	ug/L	1144.2	ppb	21:17:09
1	Pb 220.353†	1088.5	1118.7	124.90	ug/L	124.90	ppb	21:17:09
1	S 181.975 Axial†	632.8	564.1	678.80	ug/L	678.80	ppb	21:17:09
1	Sb 206.836†	85.7	41.8	-0.0953	ug/L	-0.0953	ppb	21:17:09
1	Se 196.026†	-624.5	-576.5	-7.5521	ug/L	-7.5521	ppb	21:17:09
1	Si 251.611†	537370.7	520064.8	14662	ug/L	14662	ppb	21:16:49
1	Sn 189.927†	-242.9	-238.8	-27.605	ug/L	-27.605	ppb	21:17:09
1	Ti 334.940†	2699873.4	2617213.9	3787.6	ug/L	3787.6	ppb	21:16:49
1	Tl 190.801†	-226.5	-171.3	4.7017	ug/L	4.7017	ppb	21:17:09
1	U 409.014†	-8315.9	-5684.9	-169.09	ug/L	-169.09	ppb	21:16:49
1	V 292.402†	31615.9	32101.1	185.04	ug/L	185.04	ppb	21:16:49
1	Zn 213.857†	104379.8	100336.9	812.64	ug/L	812.64	ppb	21:16:49
1	SiO2†	532148.8	514976.3	31174	ug/L	31174	ppb	21:18:09
2	Sc Radial	5595.2	5595.2	101	%			21:16:16
2	Y RADIAL	6519.6	6519.6	110.3	%			21:16:16
2	Al 396.153Radial†	92888.3	92441.4	67358	ug/L	67358	ppb	21:15:56
2	Ca 317.933Radial†	46563.9	46312.1	66028	ug/L	66028	ppb	21:15:56
2	Fe 238.204 Radial†	11877.2	11807.1	98155	ug/L	98155	ppb	21:15:56
2	K 766.490 Radial†	59470.2	56461.2	9915.2	ug/L	9915.2	ppb	21:15:56
2	Mg 279.077 IEC†	427.8	424.2	13088	ug/L	13088	ppb	21:16:16
2	Na 589.592 Radial†	3718.6	4461.7	1331.7	ug/L	1331.7	ppb	21:15:56
2	Sr 421.552†	55037.9	54775.2	320.58	ug/L	320.58	ppb	21:15:56
2	Sc 361.383	928097.6	928097.6	103.25	%			21:17:16
2	Y 371.029	835352.2	835352.2	112.21	%			21:17:16
2	Ag 328.068†	-6212.8	-6387.4	5.2425	ug/L	5.2425	ppb	21:17:16
2	As 188.979†	-50.0	-13.6	41.959	ug/L	41.959	ppb	21:17:36
2	B 249.677†	797.4	798.3	3.2247	ug/L	3.2247	ppb	21:17:16
2	Ba 233.527†	171148.3	165768.2	1130.7	ug/L	1130.7	ppb	21:17:16
2	Be 313.107†	-15585.3	-10364.0	3.9555	ug/L	3.9555	ppb	21:17:16
2	Cd 226.502†	1185.0	1376.9	3.6903	ug/L	3.6903	ppb	21:17:36
2	Co 228.616†	3105.8	3095.2	45.206	ug/L	45.206	ppb	21:17:36
2	Cr 267.716†	7578.9	7260.4	75.773	ug/L	75.773	ppb	21:17:36
2	Cu 324.752†	36068.6	28878.7	86.600	ug/L	86.600	ppb	21:17:16
2	Mn 257.610†	3389718.0	3282619.8	3247.4	ug/L	3247.4	ppb	21:17:16
2	Mo 202.031†	-32.8	-51.6	3.8361	ug/L	3.8361	ppb	21:17:36
2	Ni 231.604†	2846.5	2663.4	58.158	ug/L	58.158	ppb	21:17:36

2	P 214.914†	2619.8	2279.3	1119.0 ug/L	1119.0 ppb	21:17:36
2	Pb 220.353†	1062.3	1093.0	122.17 ug/L	122.17 ppb	21:17:36
2	S 181.975 Axial†	615.3	547.0	657.76 ug/L	657.76 ppb	21:17:36
2	Sb 206.836†	90.5	46.4	1.3237 ug/L	1.3237 ppb	21:17:36
2	Se 196.026†	-621.3	-573.2	-4.8883 ug/L	-4.8883 ppb	21:17:36
2	Si 251.611†	537145.5	519674.8	14651 ug/L	14651 ppb	21:17:16
2	Sn 189.927†	-241.0	-236.9	-27.333 ug/L	-27.333 ppb	21:17:36
2	Ti 334.940†	2698358.9	2614883.1	3784.2 ug/L	3784.2 ppb	21:17:16
2	Tl 190.801†	-239.7	-184.1	1.3430 ug/L	1.3430 ppb	21:17:36
2	U 409.014†	-8123.6	-5495.9	-163.91 ug/L	-163.91 ppb	21:17:16
2	V 292.402†	31627.1	32101.8	185.01 ug/L	185.01 ppb	21:17:16
2	Zn 213.857†	104285.5	100212.2	811.59 ug/L	811.59 ppb	21:17:16
2	SiO2†	536271.6	518799.2	31406 ug/L	31406 ppb	21:18:15
3	Sc Radial	5652.9	5652.9	102 %		21:16:41
3	Y RADIAL	6573.4	6573.4	111.2 %		21:16:41
3	Al 396.153Radial†	94684.3	93266.4	67959 ug/L	67959 ppb	21:16:21
3	Ca 317.933Radial†	47519.6	46780.2	66696 ug/L	66696 ppb	21:16:21
3	Fe 238.204 Radial†	12089.4	11895.4	98889 ug/L	98889 ppb	21:16:21
3	K 766.490 Radial†	60407.9	56780.4	9971.5 ug/L	9971.5 ppb	21:16:21
3	Mg 279.077 IEC†	425.9	418.1	12898 ug/L	12898 ppb	21:16:41
3	Na 589.592 Radial†	3915.5	4617.9	1378.3 ug/L	1378.3 ppb	21:16:21
3	Sr 421.552†	56583.5	55738.2	326.22 ug/L	326.22 ppb	21:16:21
3	Sc 361.383	922586.0	922586.0	102.63 %		21:17:43
3	Y 371.029	829798.7	829798.7	111.46 %		21:17:43
3	Ag 328.068†	-6268.9	-6477.9	5.0948 ug/L	5.0948 ppb	21:17:43
3	As 188.979†	-63.7	-27.3	37.123 ug/L	37.123 ppb	21:18:03
3	B 249.677†	797.1	802.5	3.2141 ug/L	3.2141 ppb	21:17:43
3	Ba 233.527†	170515.1	166141.6	1133.3 ug/L	1133.3 ppb	21:17:43
3	Be 313.107†	-15389.6	-10263.5	3.9903 ug/L	3.9903 ppb	21:17:43
3	Cd 226.502†	1196.3	1394.7	3.7918 ug/L	3.7918 ppb	21:18:03
3	Co 228.616†	3102.2	3109.7	45.447 ug/L	45.447 ppb	21:18:03
3	Cr 267.716†	7623.5	7347.7	76.674 ug/L	76.674 ppb	21:18:03
3	Cu 324.752†	35861.7	28885.8	86.657 ug/L	86.657 ppb	21:17:43
3	Mn 257.610†	3373206.5	3286145.5	3251.0 ug/L	3251.0 ppb	21:17:43
3	Mo 202.031†	-43.9	-62.6	3.2235 ug/L	3.2235 ppb	21:18:03
3	Ni 231.604†	2848.4	2681.7	58.557 ug/L	58.557 ppb	21:18:03
3	P 214.914†	2632.5	2306.9	1133.0 ug/L	1133.0 ppb	21:18:03
3	Pb 220.353†	1088.9	1125.1	125.62 ug/L	125.62 ppb	21:18:03
3	S 181.975 Axial†	619.5	554.6	667.03 ug/L	667.03 ppb	21:18:03
3	Sb 206.836†	84.7	41.3	-0.2135 ug/L	-0.2135 ppb	21:18:03
3	Se 196.026†	-613.5	-569.3	-0.4161 ug/L	-0.4161 ppb	21:18:03
3	Si 251.611†	533688.3	519414.3	14643 ug/L	14643 ppb	21:17:43
3	Sn 189.927†	-225.5	-223.2	-25.187 ug/L	-25.187 ppb	21:18:03
3	Ti 334.940†	2682743.5	2615281.5	3784.8 ug/L	3784.8 ppb	21:17:43
3	Tl 190.801†	-216.3	-162.7	6.9366 ug/L	6.9366 ppb	21:18:03
3	U 409.014†	-8407.4	-5819.4	-172.92 ug/L	-172.92 ppb	21:17:43
3	V 292.402†	31420.6	32083.6	184.75 ug/L	184.75 ppb	21:17:43
3	Zn 213.857†	103798.5	100341.1	812.58 ug/L	812.58 ppb	21:17:43
3	SiO2†	531143.0	516905.2	31291 ug/L	31291 ppb	21:18:20

Mean Data: 242661012|932275|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	926158.2	103.03	%	0.345				0.33%
Sc Radial	5627.9	101	%	0.5				0.53%
Y 371.029	833456.0	111.95	%	0.426				0.38%
Y RADIAL	6548.0	110.8	%	0.46				0.41%
Ag 328.068†	-6436.0	5.0822	ug/L	0.16691	5.0822	ppb	0.16691	3.28%
Al 396.153Radial†	92725.0	67565	ug/L	341.7	67565	ppb	341.7	0.51%
As 188.979†	-19.8	39.757	ug/L	2.4466	39.757	ppb	2.4466	6.15%
B 249.677†	776.2	2.7506	ug/L	0.81209	2.7506	ppb	0.81209	29.52%
Ba 233.527†	166024.6	1132.5	ug/L	1.51	1132.5	ppb	1.51	0.13%
Be 313.107†	-10373.0	3.9550	ug/L	0.03549	3.9550	ppb	0.03549	0.90%
Ca 317.933Radial†	46496.8	66292	ug/L	355.3	66292	ppb	355.3	0.54%
Cd 226.502†	1389.2	3.7957	ug/L	0.10740	3.7957	ppb	0.10740	2.83%
Co 228.616†	3112.0	45.494	ug/L	0.3141	45.494	ppb	0.3141	0.69%
Cr 267.716†	7325.7	76.439	ug/L	0.5848	76.439	ppb	0.5848	0.77%
Cu 324.752†	28888.3	86.635	ug/L	0.0305	86.635	ppb	0.0305	0.04%
Fe 238.204 Radial†	11824.9	98303	ug/L	527.0	98303	ppb	527.0	0.54%
K 766.490 Radial†	56495.6	9921.2	ug/L	47.48	9921.2	ppb	47.48	0.48%

Mg 279.077 IEC†	420.5	12973	ug/L	101.3	12973	ppb	101.3	0.78%
Mn 257.610†	3285522.4	3250.3	ug/L	2.61	3250.3	ppb	2.61	0.08%
Mo 202.031†	-53.9	3.7099	ug/L	0.43726	3.7099	ppb	0.43726	11.79%
Na 589.592 Radial†	4527.7	1351.4	ug/L	24.12	1351.4	ppb	24.12	1.78%
Ni 231.604†	2683.2	58.590	ug/L	0.4493	58.590	ppb	0.4493	0.77%
P 214.914†	2304.4	1132.1	ug/L	12.61	1132.1	ppb	12.61	1.11%
Pb 220.353†	1112.2	124.23	ug/L	1.823	124.23	ppb	1.823	1.47%
S 181.975 Axial†	555.2	667.86	ug/L	10.549	667.86	ppb	10.549	1.58%
Sb 206.836†	43.2	0.3383	ug/L	0.85545	0.3383	ppb	0.85545	252.87%
Se 196.026†	-573.0	-4.2855	ug/L	3.60597	-4.2855	ppb	3.60597	84.14%
Si 251.611†	519718.0	14652	ug/L	9.2	14652	ppb	9.2	0.06%
Sn 189.927†	-233.0	-26.708	ug/L	1.3243	-26.708	ppb	1.3243	4.96%
Sr 421.552†	55230.5	323.25	ug/L	2.833	323.25	ppb	2.833	0.88%
Ti 334.940†	2615792.8	3785.5	ug/L	1.80	3785.5	ppb	1.80	0.05%
Tl 190.801†	-172.7	4.3271	ug/L	2.81556	4.3271	ppb	2.81556	65.07%
U 409.014†	-5666.7	-168.64	ug/L	4.520	-168.64	ppb	4.520	2.68%
V 292.402†	32095.5	184.93	ug/L	0.158	184.93	ppb	0.158	0.09%
Zn 213.857†	100296.7	812.27	ug/L	0.590	812.27	ppb	0.590	0.07%
SiO2†	516893.6	31290	ug/L	115.7	31290	ppb	115.7	0.37%

Sequence No.: 69
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 12/19/2009 21:20:30
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	5542.3	5542.3	99.6	%			21:22:22
1	Y RADIAL	5883.9	5883.9	99.53	%			21:22:22
1	Al 396.153Radial†	6905.1	6952.5	5044.7	ug/L	5044.7	ppb	21:22:22
1	Ca 317.933Radial†	3588.2	3584.7	5110.8	ug/L	5110.8	ppb	21:22:42
1	Fe 238.204 Radial†	641.3	633.3	5280.6	ug/L	5280.6	ppb	21:22:42
1	K 766.490 Radial†	31007.4	28434.5	5002.8	ug/L	5002.8	ppb	21:22:22
1	Mg 279.077 IEC†	174.7	174.1	5411.2	ug/L	5411.2	ppb	21:22:42
1	Na 589.592 Radial†	32936.2	33846.0	10102	ug/L	10102	ppb	21:22:22
1	Sr 421.552†	86771.3	87173.6	511.13	ug/L	511.13	ppb	21:22:22
1	Sc 361.383	911251.2	911251.2	101.37	%			21:23:40
1	Y 371.029	744336.2	744336.2	99.983	%			21:23:40
1	Ag 328.068†	119317.2	117331.2	508.91	ug/L	508.91	ppb	21:23:45
1	As 188.979†	1361.0	1377.4	504.43	ug/L	504.43	ppb	21:24:05
1	B 249.677†	24335.3	24031.6	491.21	ug/L	491.21	ppb	21:23:45
1	Ba 233.527†	75679.9	74657.4	508.75	ug/L	508.75	ppb	21:23:45
1	Be 313.107†	1526234.7	1510293.9	507.47	ug/L	507.47	ppb	21:23:40
1	Cd 226.502†	52435.0	51954.0	507.90	ug/L	507.90	ppb	21:23:45
1	Co 228.616†	29240.9	28932.0	506.59	ug/L	506.59	ppb	21:23:45
1	Cr 267.716†	51161.7	50388.6	511.70	ug/L	511.70	ppb	21:23:45
1	Cu 324.752†	187842.9	179243.2	506.70	ug/L	506.70	ppb	21:23:45
1	Mn 257.610†	518653.7	511137.5	504.60	ug/L	504.60	ppb	21:23:40
1	Mo 202.031†	8337.1	8204.3	496.99	ug/L	496.99	ppb	21:24:05
1	Ni 231.604†	23767.6	23352.1	509.90	ug/L	509.90	ppb	21:23:45
1	P 214.914†	5058.1	4731.5	2391.1	ug/L	2391.1	ppb	21:24:05
1	Pb 220.353†	4749.4	4749.1	501.98	ug/L	501.98	ppb	21:24:05
1	S 181.975 Axial†	863.8	803.1	984.29	ug/L	984.29	ppb	21:24:05
1	Sb 206.836†	1702.7	1638.4	497.68	ug/L	497.68	ppb	21:24:05
1	Se 196.026†	897.3	913.6	516.05	ug/L	516.05	ppb	21:24:05
1	Si 251.611†	91159.6	89347.4	2507.6	ug/L	2507.6	ppb	21:23:45
1	Sn 189.927†	3354.9	3306.0	496.42	ug/L	496.42	ppb	21:24:05
1	Ti 334.940†	349003.3	345663.8	499.64	ug/L	499.64	ppb	21:23:40
1	Tl 190.801†	1913.5	1935.6	505.36	ug/L	505.36	ppb	21:24:05
1	U 409.014†	15911.0	18067.7	496.15	ug/L	496.15	ppb	21:23:45
1	V 292.402†	79700.5	80090.4	516.03	ug/L	516.03	ppb	21:23:45
1	Zn 213.857†	63899.6	62240.6	505.91	ug/L	505.91	ppb	21:23:45
1	SiO2†	90171.3	88343.4	5323.3	ug/L	5323.3	ppb	21:25:13
2	Sc Radial	5513.0	5513.0	99.0	%			21:22:47
2	Y RADIAL	5814.6	5814.6	98.36	%			21:22:47
2	Al 396.153Radial†	6927.3	7011.9	5087.9	ug/L	5087.9	ppb	21:22:47
2	Ca 317.933Radial†	3527.8	3542.9	5051.2	ug/L	5051.2	ppb	21:23:07
2	Fe 238.204 Radial†	627.7	622.9	5194.6	ug/L	5194.6	ppb	21:23:07
2	K 766.490 Radial†	30833.8	28424.8	5001.1	ug/L	5001.1	ppb	21:22:47
2	Mg 279.077 IEC†	167.6	167.9	5217.8	ug/L	5217.8	ppb	21:23:07
2	Na 589.592 Radial†	32872.1	33957.2	10135	ug/L	10135	ppb	21:22:47
2	Sr 421.552†	86385.4	87247.4	511.56	ug/L	511.56	ppb	21:22:47
2	Sc 361.383	912422.1	912422.1	101.50	%			21:24:11
2	Y 371.029	745461.2	745461.2	100.13	%			21:24:11
2	Ag 328.068†	119483.5	117344.0	508.94	ug/L	508.94	ppb	21:24:16
2	As 188.979†	1371.0	1385.5	507.38	ug/L	507.38	ppb	21:24:36
2	B 249.677†	24433.3	24097.4	492.57	ug/L	492.57	ppb	21:24:16
2	Ba 233.527†	75815.5	74695.2	509.00	ug/L	509.00	ppb	21:24:16
2	Be 313.107†	1532675.3	1514707.1	508.96	ug/L	508.96	ppb	21:24:11
2	Cd 226.502†	52591.3	52041.6	508.77	ug/L	508.77	ppb	21:24:16
2	Co 228.616†	29336.6	28989.2	507.60	ug/L	507.60	ppb	21:24:16
2	Cr 267.716†	51173.2	50335.2	511.15	ug/L	511.15	ppb	21:24:16
2	Cu 324.752†	188390.3	179544.6	507.54	ug/L	507.54	ppb	21:24:16
2	Mn 257.610†	520500.1	512299.9	505.74	ug/L	505.74	ppb	21:24:11
2	Mo 202.031†	8386.2	8242.1	499.27	ug/L	499.27	ppb	21:24:36
2	Ni 231.604†	23862.8	23415.8	511.29	ug/L	511.29	ppb	21:24:16

2	P 214.914†	5094.6	4761.1	2406.5 ug/L	2406.5 ppb	21:24:36
2	Pb 220.353†	4744.0	4737.8	500.81 ug/L	500.81 ppb	21:24:36
2	S 181.975 Axial†	861.4	799.6	979.97 ug/L	979.97 ppb	21:24:36
2	Sb 206.836†	1726.1	1659.3	504.02 ug/L	504.02 ppb	21:24:36
2	Se 196.026†	903.3	918.5	518.45 ug/L	518.45 ppb	21:24:36
2	Si 251.611†	91435.6	89504.0	2511.9 ug/L	2511.9 ppb	21:24:16
2	Sn 189.927†	3362.0	3308.7	496.83 ug/L	496.83 ppb	21:24:36
2	Ti 334.940†	349602.8	345812.7	499.86 ug/L	499.86 ppb	21:24:11
2	Tl 190.801†	1917.2	1936.9	505.70 ug/L	505.70 ppb	21:24:36
2	U 409.014†	15833.0	17970.7	493.49 ug/L	493.49 ppb	21:24:16
2	V 292.402†	79736.1	80024.6	515.65 ug/L	515.65 ppb	21:24:16
2	Zn 213.857†	64038.2	62296.2	506.37 ug/L	506.37 ppb	21:24:16
2	SiO2†	88245.4	86331.8	5201.4 ug/L	5201.4 ppb	21:25:18
3	Sc Radial	5510.4	5510.4	99.0 %		21:23:12
3	Y RADIAL	5837.1	5837.1	98.74 %		21:23:12
3	Al 396.153Radial†	6887.4	6974.9	5060.9 ug/L	5060.9 ppb	21:23:12
3	Ca 317.933Radial†	3559.1	3576.3	5098.8 ug/L	5098.8 ppb	21:23:32
3	Fe 238.204 Radial†	634.9	630.5	5257.8 ug/L	5257.8 ppb	21:23:32
3	K 766.490 Radial†	30791.9	28397.5	4996.2 ug/L	4996.2 ppb	21:23:12
3	Mg 279.077 IEC†	173.8	174.2	5415.3 ug/L	5415.3 ppb	21:23:32
3	Na 589.592 Radial†	32901.4	34002.9	10149 ug/L	10149 ppb	21:23:12
3	Sr 421.552†	86493.2	87398.3	512.44 ug/L	512.44 ppb	21:23:12
3	Sc 361.383	912721.5	912721.5	101.54 %		21:24:42
3	Y 371.029	745021.5	745021.5	100.07 %		21:24:42
3	Ag 328.068†	119993.9	117808.1	510.96 ug/L	510.96 ppb	21:24:47
3	As 188.979†	1396.0	1409.7	516.15 ug/L	516.15 ppb	21:25:07
3	B 249.677†	24628.9	24282.1	496.34 ug/L	496.34 ppb	21:24:47
3	Ba 233.527†	76472.7	75318.0	513.24 ug/L	513.24 ppb	21:24:47
3	Be 313.107†	1529042.8	1510634.2	507.59 ug/L	507.59 ppb	21:24:42
3	Cd 226.502†	53096.2	52521.8	513.46 ug/L	513.46 ppb	21:24:47
3	Co 228.616†	29624.1	29262.9	512.39 ug/L	512.39 ppb	21:24:47
3	Cr 267.716†	51591.7	50730.8	515.17 ug/L	515.17 ppb	21:24:47
3	Cu 324.752†	189050.3	180133.7	509.21 ug/L	509.21 ppb	21:24:47
3	Mn 257.610†	520866.1	512492.1	505.93 ug/L	505.93 ppb	21:24:42
3	Mo 202.031†	8418.6	8271.3	501.05 ug/L	501.05 ppb	21:25:07
3	Ni 231.604†	24037.5	23580.1	514.88 ug/L	514.88 ppb	21:24:47
3	P 214.914†	5097.5	4762.3	2406.8 ug/L	2406.8 ppb	21:25:07
3	Pb 220.353†	4783.8	4775.5	504.78 ug/L	504.78 ppb	21:25:07
3	S 181.975 Axial†	876.9	814.7	998.44 ug/L	998.44 ppb	21:25:07
3	Sb 206.836†	1725.0	1657.7	503.55 ug/L	503.55 ppb	21:25:07
3	Se 196.026†	901.7	916.6	517.63 ug/L	517.63 ppb	21:25:07
3	Si 251.611†	92026.7	90056.6	2527.5 ug/L	2527.5 ppb	21:24:47
3	Sn 189.927†	3387.2	3332.5	500.40 ug/L	500.40 ppb	21:25:07
3	Ti 334.940†	349780.1	345874.3	499.94 ug/L	499.94 ppb	21:24:42
3	Tl 190.801†	1922.5	1941.4	506.85 ug/L	506.85 ppb	21:25:07
3	U 409.014†	16168.6	18296.2	502.44 ug/L	502.44 ppb	21:24:47
3	V 292.402†	80191.4	80447.2	518.37 ug/L	518.37 ppb	21:24:47
3	Zn 213.857†	64463.8	62694.7	509.60 ug/L	509.60 ppb	21:24:47
3	SiO2†	91829.1	89832.8	5413.3 ug/L	5413.3 ppb	21:25:23

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	912131.6	101.47	%	0.086				0.09%
Sc Radial	5521.9	99.2	%	0.32				0.32%
Y 371.029	744939.6	100.06	%	0.076				0.08%
Y RADIAL	5845.2	98.88	%	0.597				0.60%
Ag 328.068†	117494.4	509.60	ug/L	1.176	509.60	ppb	1.176	0.23%
QC value within limits for Ag 328.068 Recovery = 101.92%								
Al 396.153Radial†	6979.8	5064.5	ug/L	21.80	5064.5	ppb	21.80	0.43%
QC value within limits for Al 396.153Radial Recovery = 101.29%								
As 188.979†	1390.9	509.32	ug/L	6.097	509.32	ppb	6.097	1.20%
QC value within limits for As 188.979 Recovery = 101.86%								
B 249.677†	24137.0	493.37	ug/L	2.657	493.37	ppb	2.657	0.54%
QC value within limits for B 249.677 Recovery = 98.67%								
Ba 233.527†	74890.2	510.33	ug/L	2.525	510.33	ppb	2.525	0.49%
QC value within limits for Ba 233.527 Recovery = 102.07%								
Be 313.107†	1511878.4	508.01	ug/L	0.824	508.01	ppb	0.824	0.16%
QC value within limits for Be 313.107 Recovery = 101.60%								
Ca 317.933Radial†	3568.0	5087.0	ug/L	31.52	5087.0	ppb	31.52	0.62%

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   QC value within limits for Ca 317.933Radial  Recovery = 101.74%
Cd 226.502†            52172.5      510.05 ug/L         2.991      510.05 ppb          2.991   0.59%
   QC value within limits for Cd 226.502  Recovery = 102.01%
Co 228.616†            29061.4      508.86 ug/L         3.100      508.86 ppb          3.100   0.61%
   QC value within limits for Co 228.616  Recovery = 101.77%
Cr 267.716†            50484.9      512.67 ug/L         2.177      512.67 ppb          2.177   0.42%
   QC value within limits for Cr 267.716  Recovery = 102.53%
Cu 324.752†           179640.5      507.82 ug/L         1.280      507.82 ppb          1.280   0.25%
   QC value within limits for Cu 324.752  Recovery = 101.56%
Fe 238.204 Radial†       628.9      5244.4 ug/L        44.56      5244.4 ppb         44.56   0.85%
   QC value within limits for Fe 238.204 Radial  Recovery = 104.89%
K 766.490 Radial†      28418.9      5000.0 ug/L         3.39      5000.0 ppb          3.39   0.07%
   QC value within limits for K 766.490 Radial  Recovery = 100.00%
Mg 279.077 IEC†          172.1      5348.1 ug/L       112.86      5348.1 ppb        112.86   2.11%
   QC value within limits for Mg 279.077 IEC  Recovery = 106.96%
Mn 257.610†           511976.5      505.42 ug/L         0.721      505.42 ppb          0.721   0.14%
   QC value within limits for Mn 257.610  Recovery = 101.08%
Mo 202.031†             8239.2      499.10 ug/L         2.033      499.10 ppb          2.033   0.41%
   QC value within limits for Mo 202.031  Recovery = 99.82%
Na 589.592 Radial†     33935.4       10129 ug/L        24.1        10129 ppb         24.1   0.24%
   QC value within limits for Na 589.592 Radial  Recovery = 101.29%
Ni 231.604†            23449.4      512.02 ug/L         2.569      512.02 ppb          2.569   0.50%
   QC value within limits for Ni 231.604  Recovery = 102.40%
P 214.914†              4751.6      2401.5 ug/L         8.99      2401.5 ppb          8.99   0.37%
   QC value within limits for P 214.914  Recovery = 96.06%
Pb 220.353†             4754.1      502.52 ug/L         2.037      502.52 ppb          2.037   0.41%
   QC value within limits for Pb 220.353  Recovery = 100.50%
S 181.975 Axial†         805.8      987.57 ug/L         9.663      987.57 ppb          9.663   0.98%
   QC value within limits for S 181.975 Axial  Recovery = 98.76%
Sb 206.836†             1651.8      501.75 ug/L         3.532      501.75 ppb          3.532   0.70%
   QC value within limits for Sb 206.836  Recovery = 100.35%
Se 196.026†              916.2      517.37 ug/L         1.217      517.37 ppb          1.217   0.24%
   QC value within limits for Se 196.026  Recovery = 103.47%
Si 251.611†            89636.0      2515.6 ug/L        10.47      2515.6 ppb         10.47   0.42%
   QC value within limits for Si 251.611  Recovery = 100.63%
Sn 189.927†             3315.7      497.88 ug/L         2.187      497.88 ppb          2.187   0.44%
   QC value within limits for Sn 189.927  Recovery = 99.58%
Sr 421.552†            87273.1      511.71 ug/L         0.672      511.71 ppb          0.672   0.13%
   QC value within limits for Sr 421.552  Recovery = 102.34%
Ti 334.940†           345783.6      499.81 ug/L         0.154      499.81 ppb          0.154   0.03%
   QC value within limits for Ti 334.940  Recovery = 99.96%
Tl 190.801†             1938.0      505.97 ug/L         0.782      505.97 ppb          0.782   0.15%
   QC value within limits for Tl 190.801  Recovery = 101.19%
U 409.014†             18111.5      497.36 ug/L         4.597      497.36 ppb          4.597   0.92%
   QC value within limits for U 409.014  Recovery = 99.47%
V 292.402†             80187.4      516.69 ug/L         1.475      516.69 ppb          1.475   0.29%
   QC value within limits for V 292.402  Recovery = 103.34%
Zn 213.857†            62410.5      507.29 ug/L         2.012      507.29 ppb          2.012   0.40%
   QC value within limits for Zn 213.857  Recovery = 101.46%
SiO2†                  88169.3      5312.6 ug/L       106.34      5312.6 ppb        106.34   2.00%
   QC value within limits for SiO2  Recovery = 99.35%
All analyte(s) passed QC.
```

Sequence No.: 70
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 12/19/2009 21:27:32
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5542.7	5542.7	99.6	%			21:29:24
1	Y RADIAL	5933.7	5933.7	100.4	%			21:29:24
1	Al 396.153Radial†	6.8	23.3	16.927	ug/L	16.927	ppb	21:29:24
1	Ca 317.933Radial†	17.3	-2.2	-3.2042	ug/L	-3.2042	ppb	21:29:44
1	Fe 238.204 Radial†	7.8	-3.0	-25.335	ug/L	-25.335	ppb	21:29:44
1	K 766.490 Radial†	2799.9	99.8	17.623	ug/L	17.623	ppb	21:29:24
1	Mg 279.077 IEC†	4.8	3.4	105.48	ug/L	105.48	ppb	21:29:44
1	Na 589.592 Radial†	-983.7	-226.4	-67.580	ug/L	-67.580	ppb	21:29:24
1	Sr 421.552†	-10.9	0.8	0.0048	ug/L	0.0048	ppb	21:29:24
1	Sc 361.383	925819.9	925819.9	102.99	%			21:30:41
1	Y 371.029	766525.1	766525.1	102.96	%			21:30:41
1	Ag 328.068†	427.0	44.7	0.1838	ug/L	0.1838	ppb	21:30:46
1	As 188.979†	-29.1	6.5	2.3758	ug/L	2.3758	ppb	21:31:06
1	B 249.677†	-390.6	-353.3	-7.2479	ug/L	-7.2479	ppb	21:31:06
1	Ba 233.527†	0.5	3.0	0.0200	ug/L	0.0200	ppb	21:31:06
1	Be 313.107†	-4565.0	298.8	0.1006	ug/L	0.1006	ppb	21:30:46
1	Cd 226.502†	-232.6	3.3	0.0352	ug/L	0.0352	ppb	21:31:06
1	Co 228.616†	-82.1	7.4	0.1307	ug/L	0.1307	ppb	21:31:06
1	Cr 267.716†	85.3	2.7	0.0269	ug/L	0.0269	ppb	21:31:06
1	Cu 324.752†	6249.9	12.7	0.0346	ug/L	0.0346	ppb	21:30:46
1	Mn 257.610†	548.2	40.8	0.0358	ug/L	0.0358	ppb	21:31:06
1	Mo 202.031†	28.1	7.4	0.4438	ug/L	0.4438	ppb	21:31:06
1	Ni 231.604†	126.1	28.8	0.6300	ug/L	0.6300	ppb	21:31:06
1	P 214.914†	242.6	-22.5	-11.695	ug/L	-11.695	ppb	21:31:06
1	Pb 220.353†	-82.4	-16.0	-1.6754	ug/L	-1.6754	ppb	21:31:06
1	S 181.975 Axial†	42.9	-7.4	-9.0398	ug/L	-9.0398	ppb	21:31:06
1	Sb 206.836†	27.1	-14.9	-4.4291	ug/L	-4.4291	ppb	21:31:06
1	Se 196.026†	-26.2	3.1	1.6094	ug/L	1.6094	ppb	21:31:06
1	Si 251.611†	733.2	134.5	3.7742	ug/L	3.7742	ppb	21:31:06
1	Sn 189.927†	12.1	8.3	1.2443	ug/L	1.2443	ppb	21:31:06
1	Ti 334.940†	-1274.6	150.0	0.2164	ug/L	0.2164	ppb	21:30:46
1	Tl 190.801†	-28.4	20.5	5.3186	ug/L	5.3186	ppb	21:31:06
1	U 409.014†	-2414.4	28.0	0.7743	ug/L	0.7743	ppb	21:30:41
1	V 292.402†	-1496.3	16.6	0.1197	ug/L	0.1197	ppb	21:30:46
1	Zn 213.857†	790.9	-25.6	-0.2152	ug/L	-0.2152	ppb	21:31:06
1	SiO2†	711.4	84.1	5.0543	ug/L	5.0543	ppb	21:32:12
2	Sc Radial	5620.8	5620.8	101	%			21:29:49
2	Y RADIAL	5978.0	5978.0	101.1	%			21:29:49
2	Al 396.153Radial†	-5.0	11.5	8.3261	ug/L	8.3261	ppb	21:29:49
2	Ca 317.933Radial†	18.4	-1.3	-1.8814	ug/L	-1.8814	ppb	21:30:09
2	Fe 238.204 Radial†	11.6	0.6	5.1512	ug/L	5.1512	ppb	21:30:09
2	K 766.490 Radial†	2867.8	128.1	22.599	ug/L	22.599	ppb	21:29:49
2	Mg 279.077 IEC†	1.8	0.4	13.140	ug/L	13.140	ppb	21:30:09
2	Na 589.592 Radial†	-928.3	-157.8	-47.110	ug/L	-47.110	ppb	21:29:49
2	Sr 421.552†	-11.3	0.6	0.0035	ug/L	0.0035	ppb	21:29:49
2	Sc 361.383	913155.8	913155.8	101.58	%			21:31:11
2	Y 371.029	756784.6	756784.6	101.65	%			21:31:11
2	Ag 328.068†	437.0	60.3	0.2628	ug/L	0.2628	ppb	21:31:16
2	As 188.979†	-22.9	12.2	4.4491	ug/L	4.4491	ppb	21:31:36
2	B 249.677†	-394.9	-362.8	-7.4473	ug/L	-7.4473	ppb	21:31:36
2	Ba 233.527†	13.3	15.7	0.1076	ug/L	0.1076	ppb	21:31:36
2	Be 313.107†	-4569.5	232.9	0.0784	ug/L	0.0784	ppb	21:31:16
2	Cd 226.502†	-217.0	15.5	0.1517	ug/L	0.1517	ppb	21:31:36
2	Co 228.616†	-79.8	8.6	0.1519	ug/L	0.1519	ppb	21:31:36
2	Cr 267.716†	111.0	29.1	0.2957	ug/L	0.2957	ppb	21:31:36
2	Cu 324.752†	6179.5	27.5	0.0780	ug/L	0.0780	ppb	21:31:16
2	Mn 257.610†	524.4	24.7	0.0246	ug/L	0.0246	ppb	21:31:36
2	Mo 202.031†	33.3	12.9	0.7795	ug/L	0.7795	ppb	21:31:36
2	Ni 231.604†	126.3	30.7	0.6708	ug/L	0.6708	ppb	21:31:36

2	P 214.914†	244.7	-17.2	-8.9634	ug/L	-8.9634 ppb	21:31:36
2	Pb 220.353†	-77.0	-11.8	-1.2358	ug/L	-1.2358 ppb	21:31:36
2	S 181.975 Axial†	57.4	7.5	9.1942	ug/L	9.1942 ppb	21:31:36
2	Sb 206.836†	49.8	7.8	2.3611	ug/L	2.3611 ppb	21:31:36
2	Se 196.026†	-31.7	-2.7	-1.4352	ug/L	-1.4352 ppb	21:31:36
2	Si 251.611†	689.6	101.4	2.8341	ug/L	2.8341 ppb	21:31:36
2	Sn 189.927†	10.4	6.7	1.0096	ug/L	1.0096 ppb	21:31:36
2	Ti 334.940†	-1323.2	85.0	0.1225	ug/L	0.1225 ppb	21:31:16
2	Tl 190.801†	-38.3	10.4	2.6987	ug/L	2.6987 ppb	21:31:36
2	U 409.014†	-2393.0	16.6	0.4558	ug/L	0.4558 ppb	21:31:11
2	V 292.402†	-1426.6	65.1	0.4254	ug/L	0.4254 ppb	21:31:16
2	Zn 213.857†	790.4	-15.4	-0.1320	ug/L	-0.1320 ppb	21:31:36
2	SiO2†	717.1	99.3	5.9593	ug/L	5.9593 ppb	21:32:17
3	Sc Radial	5628.4	5628.4	101	%		21:30:14
3	Y RADIAL	6012.5	6012.5	101.7	%		21:30:14
3	Al 396.153Radial†	-30.1	-13.4	-9.8100	ug/L	-9.8100 ppb	21:30:14
3	Ca 317.933Radial†	18.3	-1.5	-2.0853	ug/L	-2.0853 ppb	21:30:34
3	Fe 238.204 Radial†	10.0	-1.0	-8.5186	ug/L	-8.5186 ppb	21:30:34
3	K 766.490 Radial†	2915.8	171.7	30.289	ug/L	30.289 ppb	21:30:14
3	Mg 279.077 IEC†	3.2	1.7	53.922	ug/L	53.922 ppb	21:30:34
3	Na 589.592 Radial†	-983.9	-211.6	-63.152	ug/L	-63.152 ppb	21:30:14
3	Sr 421.552†	-18.1	-6.1	-0.0355	ug/L	-0.0355 ppb	21:30:14
3	Sc 361.383	921008.9	921008.9	102.46	%		21:31:41
3	Y 371.029	762473.2	762473.2	102.42	%		21:31:41
3	Ag 328.068†	459.9	79.0	0.3382	ug/L	0.3382 ppb	21:31:46
3	As 188.979†	-33.7	1.9	0.6915	ug/L	0.6915 ppb	21:32:06
3	B 249.677†	-403.3	-367.6	-7.5440	ug/L	-7.5440 ppb	21:32:06
3	Ba 233.527†	5.1	7.6	0.0511	ug/L	0.0511 ppb	21:32:06
3	Be 313.107†	-4542.2	297.9	0.1001	ug/L	0.1001 ppb	21:31:46
3	Cd 226.502†	-218.5	15.9	0.1568	ug/L	0.1568 ppb	21:32:06
3	Co 228.616†	-86.4	2.7	0.0499	ug/L	0.0499 ppb	21:32:06
3	Cr 267.716†	90.4	8.1	0.0819	ug/L	0.0819 ppb	21:32:06
3	Cu 324.752†	6164.1	-39.4	-0.1117	ug/L	-0.1117 ppb	21:31:46
3	Mn 257.610†	546.1	41.6	0.0391	ug/L	0.0391 ppb	21:32:06
3	Mo 202.031†	33.1	12.4	0.7527	ug/L	0.7527 ppb	21:32:06
3	Ni 231.604†	122.3	25.8	0.5628	ug/L	0.5628 ppb	21:32:06
3	P 214.914†	242.8	-21.1	-10.982	ug/L	-10.982 ppb	21:32:06
3	Pb 220.353†	-58.9	6.6	0.6910	ug/L	0.6910 ppb	21:32:06
3	S 181.975 Axial†	54.2	3.9	4.7321	ug/L	4.7321 ppb	21:32:06
3	Sb 206.836†	28.5	-13.4	-3.9711	ug/L	-3.9711 ppb	21:32:06
3	Se 196.026†	-29.1	0.1	0.0171	ug/L	0.0171 ppb	21:32:06
3	Si 251.611†	694.8	100.6	2.8109	ug/L	2.8109 ppb	21:32:06
3	Sn 189.927†	10.8	7.1	1.0600	ug/L	1.0600 ppb	21:32:06
3	Ti 334.940†	-1360.6	59.7	0.0867	ug/L	0.0867 ppb	21:31:46
3	Tl 190.801†	-38.2	10.8	2.8060	ug/L	2.8060 ppb	21:32:06
3	U 409.014†	-2476.6	-45.0	-1.2383	ug/L	-1.2383 ppb	21:31:41
3	V 292.402†	-1523.4	-17.4	-0.1000	ug/L	-0.1000 ppb	21:31:46
3	Zn 213.857†	785.4	-27.0	-0.2262	ug/L	-0.2262 ppb	21:32:06
3	SiO2†	702.9	79.4	4.7493	ug/L	4.7493 ppb	21:32:22

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	919994.9	102.35	%	0.711				0.69%
Sc Radial	5597.3	101	%	0.9				0.85%
Y 371.029	761927.6	102.35	%	0.657				0.64%
Y RADIAL	5974.7	101.1	%	0.67				0.66%
Ag 328.068†	61.3	0.2616	ug/L	0.07721	0.2616	ppb	0.07721	29.51%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	7.1	5.1478	ug/L	13.64909	5.1478	ppb	13.64909	265.14%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	6.9	2.5055	ug/L	1.88218	2.5055	ppb	1.88218	75.12%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-361.3	-7.4130	ug/L	0.15101	-7.4130	ppb	0.15101	2.04%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	8.8	0.0596	ug/L	0.04442	0.0596	ppb	0.04442	74.56%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	276.5	0.0930	ug/L	0.01271	0.0930	ppb	0.01271	13.66%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-1.7	-2.3903	ug/L	0.71219	-2.3903	ppb	0.71219	29.79%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              11.6      0.1145 ug/L       0.06878      0.1145 ppb        0.06878  60.05%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†               6.2      0.1108 ug/L       0.05383      0.1108 ppb        0.05383  48.57%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              13.3      0.1348 ug/L       0.14202      0.1348 ppb        0.14202 105.32%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               0.3      0.0003 ug/L       0.09937      0.0003 ppb        0.09937 >999.9%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       -1.2     -9.5674 ug/L      15.27007     -9.5674 ppb       15.27007 159.61%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       133.2      23.504 ug/L        6.3814      23.504 ppb         6.3814  27.15%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           1.9      57.513 ug/L       46.2723      57.513 ppb        46.2723  80.46%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              35.7      0.0332 ug/L       0.00759      0.0332 ppb        0.00759  22.87%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              10.9      0.6587 ug/L       0.18655      0.6587 ppb        0.18655  28.32%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      -198.6     -59.281 ug/L      10.7698     -59.281 ppb        10.7698  18.17%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              28.4      0.6212 ug/L       0.05454      0.6212 ppb        0.05454   8.78%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†              -20.3     -10.547 ug/L        1.4169     -10.547 ppb         1.4169  13.43%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -7.1     -0.7401 ug/L       1.25868     -0.7401 ppb        1.25868 170.08%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          1.3      1.6288 ug/L       9.50485      1.6288 ppb        9.50485 583.54%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -6.8     -2.0130 ug/L       3.79501     -2.0130 ppb        3.79501 188.52%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               0.2      0.0638 ug/L       1.52281      0.0638 ppb        1.52281 >999.9%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†             112.2      3.1397 ug/L       0.54959      3.1397 ppb        0.54959  17.50%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               7.4      1.1046 ug/L       0.12353      1.1046 ppb        0.12353  11.18%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              -1.6     -0.0091 ug/L       0.02293     -0.0091 ppb        0.02293 252.71%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              98.2      0.1419 ug/L       0.06699      0.1419 ppb        0.06699  47.22%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              13.9      3.6078 ug/L       1.48258      3.6078 ppb        1.48258  41.09%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -0.1     -0.0027 ug/L       1.08181     -0.0027 ppb        1.08181 >999.9%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               21.4      0.1483 ug/L       0.26385      0.1483 ppb        0.26385 177.86%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†             -22.7     -0.1911 ug/L       0.05152     -0.1911 ppb        0.05152  26.96%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                    87.6      5.2543 ug/L       0.62928      5.2543 ppb        0.62928  11.98%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 71
Sample ID: 242661013|932275|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 83
Date Collected: 12/19/2009 21:34:31
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 242661013|932275|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5723.0	5723.0	103	%			21:36:24
1	Y RADIAL	8079.3	8079.3	136.7	%			21:36:24
1	Al 396.153Radial†	5471.2	5338.8	3889.2	ug/L	3889.2	ppb	21:36:24
1	Ca 317.933Radial†	1072.2	1023.5	1459.2	ug/L	1459.2	ppb	21:36:44
1	Fe 238.204 Radial†	7762.5	7540.5	62685	ug/L	62685	ppb	21:36:24
1	K 766.490 Radial†	13913.1	10822.2	1879.9	ug/L	1879.9	ppb	21:36:24
1	Mg 279.077 IEC†	19.7	17.8	498.28	ug/L	498.28	ppb	21:36:44
1	Na 589.592 Radial†	2378.4	3075.4	917.91	ug/L	917.91	ppb	21:36:24
1	Sr 421.552†	1421.7	1394.8	8.1656	ug/L	8.1656	ppb	21:36:24
1	Sc 361.383	940860.1	940860.1	104.67	%			21:37:42
1	Y 371.029	1025175.7	1025175.7	137.71	%			21:37:42
1	Ag 328.068†	-4054.0	-4243.2	3.1040	ug/L	3.1040	ppb	21:37:47
1	As 188.979†	-79.1	-40.8	25.248	ug/L	25.248	ppb	21:38:07
1	B 249.677†	86.9	108.9	-6.1147	ug/L	-6.1147	ppb	21:37:47
1	Ba 233.527†	12133.4	11595.0	81.226	ug/L	81.226	ppb	21:37:47
1	Be 313.107†	-27713.7	-21746.9	-0.2007	ug/L	-0.2007	ppb	21:37:47
1	Cd 226.502†	416.6	627.2	-0.0699	ug/L	-0.0699	ppb	21:38:07
1	Co 228.616†	728.4	783.0	5.1492	ug/L	5.1492	ppb	21:38:07
1	Cr 267.716†	21361.5	20328.9	207.41	ug/L	207.41	ppb	21:37:47
1	Cu 324.752†	11382.7	4819.6	16.815	ug/L	16.815	ppb	21:37:47
1	Mn 257.610†	2515829.6	2403162.0	2376.7	ug/L	2376.7	ppb	21:37:42
1	Mo 202.031†	383.2	346.3	25.407	ug/L	25.407	ppb	21:38:07
1	Ni 231.604†	4825.6	4516.8	98.679	ug/L	98.679	ppb	21:37:47
1	P 214.914†	1239.8	926.5	431.97	ug/L	431.97	ppb	21:38:07
1	Pb 220.353†	311.8	361.9	33.906	ug/L	33.906	ppb	21:38:07
1	S 181.975 Axial†	69.8	17.7	20.930	ug/L	20.930	ppb	21:38:07
1	Sb 206.836†	77.6	32.9	-3.4319	ug/L	-3.4319	ppb	21:38:07
1	Se 196.026†	-403.8	-357.3	-3.7571	ug/L	-3.7571	ppb	21:38:07
1	Si 251.611†	162425.0	154605.3	4358.5	ug/L	4358.5	ppb	21:37:42
1	Sn 189.927†	65.4	59.0	9.8347	ug/L	9.8347	ppb	21:38:07
1	Ti 334.940†	2610694.7	2495676.2	3608.5	ug/L	3608.5	ppb	21:37:42
1	Tl 190.801†	-205.6	-148.4	3.0293	ug/L	3.0293	ppb	21:38:07
1	U 409.014†	-15535.7	-12470.8	-351.88	ug/L	-351.88	ppb	21:37:42
1	V 292.402†	5487.3	6712.1	28.745	ug/L	28.745	ppb	21:37:47
1	Zn 213.857†	46202.0	43348.4	348.87	ug/L	348.87	ppb	21:37:47
1	SiO2†	162482.6	154631.1	9360.5	ug/L	9360.5	ppb	21:39:14
2	Sc Radial	5692.5	5692.5	102	%			21:36:49
2	Y RADIAL	8016.1	8016.1	135.6	%			21:36:49
2	Al 396.153Radial†	5471.8	5367.8	3910.4	ug/L	3910.4	ppb	21:36:49
2	Ca 317.933Radial†	1072.9	1029.7	1468.1	ug/L	1468.1	ppb	21:37:09
2	Fe 238.204 Radial†	7755.0	7573.5	62960	ug/L	62960	ppb	21:36:49
2	K 766.490 Radial†	13862.3	10844.9	1883.9	ug/L	1883.9	ppb	21:36:49
2	Mg 279.077 IEC†	18.4	16.6	461.29	ug/L	461.29	ppb	21:37:09
2	Na 589.592 Radial†	2331.2	3041.5	907.81	ug/L	907.81	ppb	21:36:49
2	Sr 421.552†	1404.1	1385.0	8.1081	ug/L	8.1081	ppb	21:36:49
2	Sc 361.383	943761.0	943761.0	104.99	%			21:38:13
2	Y 371.029	1028262.8	1028262.8	138.12	%			21:38:13
2	Ag 328.068†	-4247.8	-4415.9	2.4544	ug/L	2.4544	ppb	21:38:18
2	As 188.979†	-68.6	-30.5	29.054	ug/L	29.054	ppb	21:38:38
2	B 249.677†	72.5	95.0	-6.4367	ug/L	-6.4367	ppb	21:38:18
2	Ba 233.527†	12344.6	11760.5	82.363	ug/L	82.363	ppb	21:38:18
2	Be 313.107†	-27883.1	-21826.9	-0.2191	ug/L	-0.2191	ppb	21:38:18
2	Cd 226.502†	419.2	628.4	-0.0848	ug/L	-0.0848	ppb	21:38:38
2	Co 228.616†	719.7	772.6	4.9544	ug/L	4.9544	ppb	21:38:38
2	Cr 267.716†	21723.4	20610.9	210.28	ug/L	210.28	ppb	21:38:18
2	Cu 324.752†	11559.5	4954.6	17.210	ug/L	17.210	ppb	21:38:18
2	Mn 257.610†	2527273.9	2406674.0	2380.1	ug/L	2380.1	ppb	21:38:13
2	Mo 202.031†	383.7	345.6	25.384	ug/L	25.384	ppb	21:38:38
2	Ni 231.604†	4862.8	4538.1	99.145	ug/L	99.145	ppb	21:38:18

2	P 214.914†	1263.5	945.4	441.57 ug/L	441.57 ppb	21:38:38
2	Pb 220.353†	299.7	349.6	32.585 ug/L	32.585 ppb	21:38:38
2	S 181.975 Axial†	68.4	16.1	18.995 ug/L	18.995 ppb	21:38:38
2	Sb 206.836†	84.7	39.4	-1.5145 ug/L	-1.5145 ppb	21:38:38
2	Se 196.026†	-415.2	-367.0	-8.1692 ug/L	-8.1692 ppb	21:38:38
2	Si 251.611†	163182.1	154849.4	4365.4 ug/L	4365.4 ppb	21:38:13
2	Sn 189.927†	76.9	69.7	11.453 ug/L	11.453 ppb	21:38:38
2	Ti 334.940†	2621826.4	2498611.9	3612.7 ug/L	3612.7 ppb	21:38:13
2	Tl 190.801†	-207.1	-149.2	2.8568 ug/L	2.8568 ppb	21:38:38
2	U 409.014†	-15586.6	-12473.6	-352.00 ug/L	-352.00 ppb	21:38:13
2	V 292.402†	5619.9	6822.3	29.397 ug/L	29.397 ppb	21:38:18
2	Zn 213.857†	46907.3	43884.5	353.24 ug/L	353.24 ppb	21:38:18
2	SiO2†	161123.8	152859.8	9253.2 ug/L	9253.2 ppb	21:39:20
3	Sc Radial	5734.5	5734.5	103 %		21:37:14
3	Y RADIAL	8046.6	8046.6	136.1 %		21:37:14
3	Al 396.153Radial†	5532.9	5387.9	3925.0 ug/L	3925.0 ppb	21:37:14
3	Ca 317.933Radial†	1084.9	1033.6	1473.7 ug/L	1473.7 ppb	21:37:34
3	Fe 238.204 Radial†	7782.6	7544.8	62721 ug/L	62721 ppb	21:37:14
3	K 766.490 Radial†	13830.7	10714.9	1861.0 ug/L	1861.0 ppb	21:37:14
3	Mg 279.077 IEC†	22.2	20.1	572.35 ug/L	572.35 ppb	21:37:34
3	Na 589.592 Radial†	2356.0	3049.0	910.03 ug/L	910.03 ppb	21:37:14
3	Sr 421.552†	1483.8	1452.3	8.5024 ug/L	8.5024 ppb	21:37:14
3	Sc 361.383	935142.1	935142.1	104.03 %		21:38:44
3	Y 371.029	1019001.5	1019001.5	136.88 %		21:38:44
3	Ag 328.068†	-4177.1	-4385.2	2.5043 ug/L	2.5043 ppb	21:38:49
3	As 188.979†	-63.8	-26.5	30.424 ug/L	30.424 ppb	21:39:09
3	B 249.677†	169.8	189.1	-4.4738 ug/L	-4.4738 ppb	21:38:49
3	Ba 233.527†	12282.7	11809.4	82.686 ug/L	82.686 ppb	21:38:49
3	Be 313.107†	-27726.6	-21921.2	-0.2564 ug/L	-0.2564 ppb	21:38:49
3	Cd 226.502†	409.2	622.5	-0.1181 ug/L	-0.1181 ppb	21:39:09
3	Co 228.616†	719.3	778.6	5.0696 ug/L	5.0696 ppb	21:39:09
3	Cr 267.716†	21534.0	20619.5	210.36 ug/L	210.36 ppb	21:38:49
3	Cu 324.752†	11450.7	4951.5	17.189 ug/L	17.189 ppb	21:38:49
3	Mn 257.610†	2502572.0	2405115.3	2378.6 ug/L	2378.6 ppb	21:38:44
3	Mo 202.031†	393.5	358.4	26.145 ug/L	26.145 ppb	21:39:09
3	Ni 231.604†	4832.4	4551.6	99.439 ug/L	99.439 ppb	21:38:49
3	P 214.914†	1255.2	948.5	443.39 ug/L	443.39 ppb	21:39:09
3	Pb 220.353†	298.1	350.6	32.723 ug/L	32.723 ppb	21:39:09
3	S 181.975 Axial†	66.8	15.2	17.898 ug/L	17.898 ppb	21:39:09
3	Sb 206.836†	74.1	30.0	-4.3582 ug/L	-4.3582 ppb	21:39:09
3	Se 196.026†	-413.4	-368.9	-9.9532 ug/L	-9.9532 ppb	21:39:09
3	Si 251.611†	161668.2	154826.7	4364.8 ug/L	4364.8 ppb	21:38:44
3	Sn 189.927†	64.8	58.9	9.8199 ug/L	9.8199 ppb	21:39:09
3	Ti 334.940†	2595808.8	2496618.6	3609.9 ug/L	3609.9 ppb	21:38:44
3	Tl 190.801†	-213.1	-156.8	0.8738 ug/L	0.8738 ppb	21:39:09
3	U 409.014†	-15340.8	-12374.2	-349.23 ug/L	-349.23 ppb	21:38:44
3	V 292.402†	5563.8	6817.7	29.426 ug/L	29.426 ppb	21:38:49
3	Zn 213.857†	46406.6	43815.0	352.68 ug/L	352.68 ppb	21:38:49
3	SiO2†	162914.1	155995.1	9443.1 ug/L	9443.1 ppb	21:39:25

Mean Data: 242661013|932275|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	939921.1	104.56	%	0.488				0.47%
Sc Radial	5716.7	103	%	0.4				0.38%
Y 371.029	1024146.7	137.57	%	0.633				0.46%
Y RADIAL	8047.3	136.1	%	0.53				0.39%
Ag 328.068†	-4348.1	2.6876	ug/L	0.36153	2.6876	ppb	0.36153	13.45%
Al 396.153Radial†	5364.8	3908.2	ug/L	17.99	3908.2	ppb	17.99	0.46%
As 188.979†	-32.6	28.242	ug/L	2.6820	28.242	ppb	2.6820	9.50%
B 249.677†	131.0	-5.6751	ug/L	1.05273	-5.6751	ppb	1.05273	18.55%
Ba 233.527†	11721.6	82.092	ug/L	0.7667	82.092	ppb	0.7667	0.93%
Be 313.107†	-21831.7	-0.2254	ug/L	0.02841	-0.2254	ppb	0.02841	12.60%
Ca 317.933Radial†	1028.9	1467.0	ug/L	7.33	1467.0	ppb	7.33	0.50%
Cd 226.502†	626.0	-0.0910	ug/L	0.02468	-0.0910	ppb	0.02468	27.13%
Co 228.616†	778.1	5.0577	ug/L	0.09793	5.0577	ppb	0.09793	1.94%
Cr 267.716†	20519.7	209.35	ug/L	1.678	209.35	ppb	1.678	0.80%
Cu 324.752†	4908.6	17.071	ug/L	0.2224	17.071	ppb	0.2224	1.30%
Fe 238.204 Radial†	7552.9	62788	ug/L	149.4	62788	ppb	149.4	0.24%
K 766.490 Radial†	10794.0	1875.0	ug/L	12.24	1875.0	ppb	12.24	0.65%

Mg 279.077 IEC†	18.2	510.64	ug/L	56.553	510.64	ppb	56.553	11.07%
Mn 257.610†	2404983.8	2378.5	ug/L	1.75	2378.5	ppb	1.75	0.07%
Mo 202.031†	350.1	25.645	ug/L	0.4329	25.645	ppb	0.4329	1.69%
Na 589.592 Radial†	3055.3	911.92	ug/L	5.306	911.92	ppb	5.306	0.58%
Ni 231.604†	4535.5	99.088	ug/L	0.3830	99.088	ppb	0.3830	0.39%
P 214.914†	940.1	438.98	ug/L	6.137	438.98	ppb	6.137	1.40%
Pb 220.353†	354.0	33.072	ug/L	0.7260	33.072	ppb	0.7260	2.20%
S 181.975 Axial†	16.3	19.275	ug/L	1.5350	19.275	ppb	1.5350	7.96%
Sb 206.836†	34.1	-3.1015	ug/L	1.45033	-3.1015	ppb	1.45033	46.76%
Se 196.026†	-364.4	-7.2932	ug/L	3.18957	-7.2932	ppb	3.18957	43.73%
Si 251.611†	154760.5	4362.9	ug/L	3.80	4362.9	ppb	3.80	0.09%
Sn 189.927†	62.5	10.369	ug/L	0.9385	10.369	ppb	0.9385	9.05%
Sr 421.552†	1410.7	8.2587	ug/L	0.21302	8.2587	ppb	0.21302	2.58%
Ti 334.940†	2496968.9	3610.4	ug/L	2.17	3610.4	ppb	2.17	0.06%
Tl 190.801†	-151.4	2.2533	ug/L	1.19778	2.2533	ppb	1.19778	53.16%
U 409.014†	-12439.5	-351.04	ug/L	1.566	-351.04	ppb	1.566	0.45%
V 292.402†	6784.0	29.189	ug/L	0.3849	29.189	ppb	0.3849	1.32%
Zn 213.857†	43682.6	351.60	ug/L	2.379	351.60	ppb	2.379	0.68%
SiO2†	154495.3	9352.2	ug/L	95.19	9352.2	ppb	95.19	1.02%

Sequence No.: 72
Sample ID: 242661014|932275|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 84
Date Collected: 12/19/2009 21:41:36
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 242661014|932275|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5495.4	5495.4	98.7	%			21:43:29
1	Y RADIAL	6156.9	6156.9	104.2	%			21:43:29
1	Al 396.153Radial†	15658.4	15879.6	11571	ug/L	11571	ppb	21:43:29
1	Ca 317.933Radial†	11201.0	11328.0	16151	ug/L	16151	ppb	21:43:29
1	Fe 238.204 Radial†	7224.7	7308.3	60755	ug/L	60755	ppb	21:43:29
1	K 766.490 Radial†	118022.4	116853.7	20566	ug/L	20566	ppb	21:43:29
1	Mg 279.077 IEC†	285.4	287.7	8882.8	ug/L	8882.8	ppb	21:43:49
1	Na 589.592 Radial†	142221.1	144843.0	43231	ug/L	43231	ppb	21:43:29
1	Sr 421.552†	6250.3	6343.8	37.050	ug/L	37.050	ppb	21:43:29
1	Sc 361.383	898774.6	898774.6	99.985	%			21:44:47
1	Y 371.029	775448.9	775448.9	104.16	%			21:44:47
1	Ag 328.068†	-4022.4	-4392.9	1.6181	ug/L	1.6181	ppb	21:44:47
1	As 188.979†	-54.0	-19.2	14.202	ug/L	14.202	ppb	21:45:07
1	B 249.677†	1.8	27.8	-7.5310	ug/L	-7.5310	ppb	21:44:47
1	Ba 233.527†	19406.3	19411.8	134.43	ug/L	134.43	ppb	21:44:47
1	Be 313.107†	-11505.5	-6776.1	0.4758	ug/L	0.4758	ppb	21:44:47
1	Cd 226.502†	434.9	664.1	0.4399	ug/L	0.4399	ppb	21:45:07
1	Co 228.616†	842.5	929.7	12.461	ug/L	12.461	ppb	21:45:07
1	Cr 267.716†	6932.0	6852.9	70.776	ug/L	70.776	ppb	21:44:47
1	Cu 324.752†	19231.9	13179.2	40.335	ug/L	40.335	ppb	21:44:47
1	Mn 257.610†	912290.0	911934.8	905.40	ug/L	905.40	ppb	21:44:47
1	Mo 202.031†	-9.4	-29.3	2.5388	ug/L	2.5388	ppb	21:45:07
1	Ni 231.604†	1440.5	1347.1	29.423	ug/L	29.423	ppb	21:45:07
1	P 214.914†	4999.0	4741.7	2422.0	ug/L	2422.0	ppb	21:45:07
1	Pb 220.353†	306.2	370.3	36.600	ug/L	36.600	ppb	21:45:07
1	S 181.975 Axial†	1872.0	1823.3	2234.5	ug/L	2234.5	ppb	21:45:07
1	Sb 206.836†	49.0	7.8	-2.6573	ug/L	-2.6573	ppb	21:45:07
1	Se 196.026†	-406.2	-377.7	-19.725	ug/L	-19.725	ppb	21:45:07
1	Si 251.611†	152834.0	152279.4	4287.2	ug/L	4287.2	ppb	21:44:47
1	Sn 189.927†	-130.4	-133.9	-17.592	ug/L	-17.592	ppb	21:45:07
1	Ti 334.940†	965517.1	967048.9	1399.0	ug/L	1399.0	ppb	21:44:47
1	Tl 190.801†	-102.9	-54.8	1.7747	ug/L	1.7747	ppb	21:45:07
1	U 409.014†	-4589.5	-2217.9	-68.886	ug/L	-68.886	ppb	21:44:47
1	V 292.402†	15675.0	17146.8	98.307	ug/L	98.307	ppb	21:44:47
1	Zn 213.857†	32096.1	31307.4	250.43	ug/L	250.43	ppb	21:44:47
1	SiO2†	155738.7	155155.3	9379.4	ug/L	9379.4	ppb	21:46:04
2	Sc Radial	5428.6	5428.6	97.5	%			21:43:54
2	Y RADIAL	6067.6	6067.6	102.6	%			21:43:54
2	Al 396.153Radial†	15695.1	16112.5	11740	ug/L	11740	ppb	21:43:54
2	Ca 317.933Radial†	11191.1	11457.5	16335	ug/L	16335	ppb	21:43:54
2	Fe 238.204 Radial†	7234.3	7408.2	61585	ug/L	61585	ppb	21:43:54
2	K 766.490 Radial†	117855.5	118154.4	20795	ug/L	20795	ppb	21:43:54
2	Mg 279.077 IEC†	286.4	292.3	9024.7	ug/L	9024.7	ppb	21:44:14
2	Na 589.592 Radial†	142316.0	146713.9	43790	ug/L	43790	ppb	21:43:54
2	Sr 421.552†	6244.2	6415.5	37.468	ug/L	37.468	ppb	21:43:54
2	Sc 361.383	899274.6	899274.6	100.04	%			21:45:12
2	Y 371.029	774135.7	774135.7	103.99	%			21:45:12
2	Ag 328.068†	-4068.1	-4436.4	1.7091	ug/L	1.7091	ppb	21:45:12
2	As 188.979†	-45.9	-11.1	17.263	ug/L	17.263	ppb	21:45:33
2	B 249.677†	-132.9	-106.9	-10.405	ug/L	-10.405	ppb	21:45:12
2	Ba 233.527†	19584.0	19578.7	135.59	ug/L	135.59	ppb	21:45:12
2	Be 313.107†	-11493.8	-6758.1	0.4820	ug/L	0.4820	ppb	21:45:12
2	Cd 226.502†	446.2	675.2	0.4642	ug/L	0.4642	ppb	21:45:33
2	Co 228.616†	843.2	929.9	12.454	ug/L	12.454	ppb	21:45:33
2	Cr 267.716†	6954.2	6871.3	70.979	ug/L	70.979	ppb	21:45:12
2	Cu 324.752†	19218.1	13154.7	40.308	ug/L	40.308	ppb	21:45:12
2	Mn 257.610†	914317.0	913453.7	906.98	ug/L	906.98	ppb	21:45:12
2	Mo 202.031†	-8.1	-28.0	2.6761	ug/L	2.6761	ppb	21:45:33
2	Ni 231.604†	1386.5	1292.4	28.227	ug/L	28.227	ppb	21:45:33

2	P 214.914†	4978.0	4717.9	2409.0	ug/L	2409.0 ppb	21:45:33
2	Pb 220.353†	309.1	373.1	36.860	ug/L	36.860 ppb	21:45:33
2	S 181.975 Axial†	1871.6	1821.8	2232.7	ug/L	2232.7 ppb	21:45:33
2	Sb 206.836†	56.3	15.1	-0.4619	ug/L	-0.4619 ppb	21:45:33
2	Se 196.026†	-397.0	-368.4	-12.084	ug/L	-12.084 ppb	21:45:33
2	Si 251.611†	153421.4	152781.5	4301.3	ug/L	4301.3 ppb	21:45:12
2	Sn 189.927†	-129.2	-132.6	-17.368	ug/L	-17.368 ppb	21:45:33
2	Ti 334.940†	966119.0	967113.7	1399.1	ug/L	1399.1 ppb	21:45:12
2	Tl 190.801†	-112.5	-64.4	-0.7085	ug/L	-0.7085 ppb	21:45:33
2	U 409.014†	-4795.2	-2421.0	-74.587	ug/L	-74.587 ppb	21:45:12
2	V 292.402†	15633.8	17096.9	97.857	ug/L	97.857 ppb	21:45:12
2	Zn 213.857†	32124.8	31318.1	250.44	ug/L	250.44 ppb	21:45:12
2	SiO2†	150516.4	149848.5	9057.9	ug/L	9057.9 ppb	21:46:09
3	Sc Radial	5400.4	5400.4	97.0	%		21:44:19
3	Y RADIAL	6037.8	6037.8	102.1	%		21:44:19
3	Al 396.153Radial†	15634.4	16133.8	11756	ug/L	11756 ppb	21:44:19
3	Ca 317.933Radial†	11147.8	11472.7	16357	ug/L	16357 ppb	21:44:19
3	Fe 238.204 Radial†	7212.4	7424.4	61720	ug/L	61720 ppb	21:44:19
3	K 766.490 Radial†	116960.2	117861.8	20744	ug/L	20744 ppb	21:44:19
3	Mg 279.077 IEC†	285.1	292.5	9028.9	ug/L	9028.9 ppb	21:44:39
3	Na 589.592 Radial†	141165.1	146288.6	43663	ug/L	43663 ppb	21:44:19
3	Sr 421.552†	6205.1	6408.6	37.427	ug/L	37.427 ppb	21:44:19
3	Sc 361.383	899830.8	899830.8	100.10	%		21:45:38
3	Y 371.029	774134.1	774134.1	103.99	%		21:45:38
3	Ag 328.068†	-4006.4	-4372.2	2.0290	ug/L	2.0290 ppb	21:45:38
3	As 188.979†	-53.1	-18.2	14.717	ug/L	14.717 ppb	21:45:58
3	B 249.677†	-140.2	-114.1	-10.570	ug/L	-10.570 ppb	21:45:38
3	Ba 233.527†	19527.2	19509.8	135.13	ug/L	135.13 ppb	21:45:38
3	Be 313.107†	-11449.1	-6706.2	0.5067	ug/L	0.5067 ppb	21:45:38
3	Cd 226.502†	434.5	663.2	0.3342	ug/L	0.3342 ppb	21:45:58
3	Co 228.616†	834.0	920.2	12.273	ug/L	12.273 ppb	21:45:58
3	Cr 267.716†	6996.7	6909.4	71.367	ug/L	71.367 ppb	21:45:38
3	Cu 324.752†	19382.4	13307.0	40.746	ug/L	40.746 ppb	21:45:38
3	Mn 257.610†	916520.2	915089.8	908.61	ug/L	908.61 ppb	21:45:38
3	Mo 202.031†	-10.7	-30.6	2.5258	ug/L	2.5258 ppb	21:45:58
3	Ni 231.604†	1420.6	1325.5	28.951	ug/L	28.951 ppb	21:45:58
3	P 214.914†	4991.3	4728.1	2414.1	ug/L	2414.1 ppb	21:45:58
3	Pb 220.353†	278.3	342.1	33.588	ug/L	33.588 ppb	21:45:58
3	S 181.975 Axial†	1867.1	1816.2	2225.8	ug/L	2225.8 ppb	21:45:58
3	Sb 206.836†	62.9	21.6	1.4602	ug/L	1.4602 ppb	21:45:58
3	Se 196.026†	-395.6	-366.7	-10.774	ug/L	-10.774 ppb	21:45:58
3	Si 251.611†	153817.1	153082.0	4309.8	ug/L	4309.8 ppb	21:45:38
3	Sn 189.927†	-130.7	-134.1	-17.582	ug/L	-17.582 ppb	21:45:58
3	Ti 334.940†	969282.1	969676.6	1402.9	ug/L	1402.9 ppb	21:45:38
3	Tl 190.801†	-113.4	-65.2	-0.8676	ug/L	-0.8676 ppb	21:45:58
3	U 409.014†	-4747.2	-2370.1	-73.202	ug/L	-73.202 ppb	21:45:38
3	V 292.402†	15635.6	17089.0	97.783	ug/L	97.783 ppb	21:45:38
3	Zn 213.857†	32221.4	31394.9	251.05	ug/L	251.05 ppb	21:45:38
3	SiO2†	153060.3	152296.8	9206.2	ug/L	9206.2 ppb	21:46:14

Mean Data: 242661014|932275|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	899293.3	100.04	%	0.059				0.06%
Sc Radial	5441.5	97.7	%	0.88				0.90%
Y 371.029	774572.9	104.04	%	0.102				0.10%
Y RADIAL	6087.4	103.0	%	1.05				1.02%
Ag 328.068†	-4400.5	1.7854	ug/L	0.21586	1.7854	ppb	0.21586	12.09%
Al 396.153Radial†	16042.0	11689	ug/L	102.7	11689	ppb	102.7	0.88%
As 188.979†	-16.2	15.394	ug/L	1.6387	15.394	ppb	1.6387	10.65%
B 249.677†	-64.4	-9.5020	ug/L	1.70892	-9.5020	ppb	1.70892	17.98%
Ba 233.527†	19500.1	135.05	ug/L	0.586	135.05	ppb	0.586	0.43%
Be 313.107†	-6746.8	0.4882	ug/L	0.01633	0.4882	ppb	0.01633	3.35%
Ca 317.933Radial†	11419.4	16281	ug/L	113.4	16281	ppb	113.4	0.70%
Cd 226.502†	667.5	0.4128	ug/L	0.06913	0.4128	ppb	0.06913	16.75%
Co 228.616†	926.6	12.396	ug/L	0.1065	12.396	ppb	0.1065	0.86%
Cr 267.716†	6877.8	71.041	ug/L	0.3003	71.041	ppb	0.3003	0.42%
Cu 324.752†	13213.6	40.463	ug/L	0.2450	40.463	ppb	0.2450	0.61%
Fe 238.204 Radial†	7380.3	61354	ug/L	522.5	61354	ppb	522.5	0.85%
K 766.490 Radial†	117623.3	20702	ug/L	120.1	20702	ppb	120.1	0.58%

Mg 279.077 IEC†	290.9	8978.8	ug/L	83.15	8978.8	ppb	83.15	0.93%
Mn 257.610†	913492.8	907.00	ug/L	1.603	907.00	ppb	1.603	0.18%
Mo 202.031†	-29.3	2.5802	ug/L	0.08325	2.5802	ppb	0.08325	3.23%
Na 589.592 Radial†	145948.5	43561	ug/L	292.7	43561	ppb	292.7	0.67%
Ni 231.604†	1321.7	28.867	ug/L	0.6023	28.867	ppb	0.6023	2.09%
P 214.914†	4729.2	2415.0	ug/L	6.54	2415.0	ppb	6.54	0.27%
Pb 220.353†	361.8	35.683	ug/L	1.8186	35.683	ppb	1.8186	5.10%
S 181.975 Axial†	1820.4	2231.0	ug/L	4.61	2231.0	ppb	4.61	0.21%
Sb 206.836†	14.8	-0.5530	ug/L	2.06026	-0.5530	ppb	2.06026	372.55%
Se 196.026†	-370.9	-14.194	ug/L	4.8341	-14.194	ppb	4.8341	34.06%
Si 251.611†	152714.3	4299.4	ug/L	11.40	4299.4	ppb	11.40	0.27%
Sn 189.927†	-133.6	-17.514	ug/L	0.1264	-17.514	ppb	0.1264	0.72%
Sr 421.552†	6389.3	37.315	ug/L	0.2308	37.315	ppb	0.2308	0.62%
Ti 334.940†	967946.4	1400.3	ug/L	2.17	1400.3	ppb	2.17	0.16%
Tl 190.801†	-61.5	0.0662	ug/L	1.48177	0.0662	ppb	1.48177	>999.9%
U 409.014†	-2336.4	-72.225	ug/L	2.9734	-72.225	ppb	2.9734	4.12%
V 292.402†	17110.9	97.982	ug/L	0.2839	97.982	ppb	0.2839	0.29%
Zn 213.857†	31340.1	250.64	ug/L	0.356	250.64	ppb	0.356	0.14%
SiO2†	152433.5	9214.5	ug/L	160.91	9214.5	ppb	160.91	1.75%

Sequence No.: 73
Sample ID: 242661015|932275|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 85
Date Collected: 12/19/2009 21:48:26
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 242661015|932275|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5734.8	5734.8	103	%			21:50:19
1	Y RADIAL	7209.8	7209.8	122.0	%			21:50:19
1	Al 396.153Radial†	42742.6	41510.7	30247	ug/L	30247	ppb	21:50:19
1	Ca 317.933Radial†	7674.0	7430.3	10594	ug/L	10594	ppb	21:50:19
1	Fe 238.204 Radial†	11080.6	10746.1	89334	ug/L	89334	ppb	21:50:19
1	K 766.490 Radial†	29260.6	25693.7	4514.2	ug/L	4514.2	ppb	21:50:19
1	Mg 279.077 IEC†	192.0	185.0	5667.9	ug/L	5667.9	ppb	21:50:39
1	Na 589.592 Radial†	1819.0	2527.5	754.39	ug/L	754.39	ppb	21:50:19
1	Sr 421.552†	13620.1	13234.1	77.505	ug/L	77.505	ppb	21:50:19
1	Sc 361.383	949767.5	949767.5	105.66	%			21:51:37
1	Y 371.029	930029.2	930029.2	124.93	%			21:51:37
1	Ag 328.068†	-6292.5	-6325.5	3.0217	ug/L	3.0217	ppb	21:51:42
1	As 188.979†	-72.3	-33.6	31.617	ug/L	31.617	ppb	21:52:02
1	B 249.677†	364.1	370.6	-4.2980	ug/L	-4.2980	ppb	21:51:42
1	Ba 233.527†	49340.7	46701.1	320.94	ug/L	320.94	ppb	21:51:42
1	Be 313.107†	-20981.3	-15126.7	1.9628	ug/L	1.9628	ppb	21:51:42
1	Cd 226.502†	786.0	973.1	0.6029	ug/L	0.6029	ppb	21:52:02
1	Co 228.616†	1155.6	1180.9	11.942	ug/L	11.942	ppb	21:52:02
1	Cr 267.716†	3603.4	3330.3	35.608	ug/L	35.608	ppb	21:52:02
1	Cu 324.752†	18062.7	11039.9	35.749	ug/L	35.749	ppb	21:51:42
1	Mn 257.610†	1691596.2	1600522.3	1587.5	ug/L	1587.5	ppb	21:51:37
1	Mo 202.031†	210.6	179.5	17.202	ug/L	17.202	ppb	21:52:02
1	Ni 231.604†	1374.2	1207.0	26.359	ug/L	26.359	ppb	21:52:02
1	P 214.914†	1533.0	1192.8	555.31	ug/L	555.31	ppb	21:52:02
1	Pb 220.353†	760.7	784.0	82.079	ug/L	82.079	ppb	21:52:02
1	S 181.975 Axial†	399.4	329.1	397.73	ug/L	397.73	ppb	21:52:02
1	Sb 206.836†	93.5	47.3	4.5373	ug/L	4.5373	ppb	21:52:02
1	Se 196.026†	-591.4	-531.2	-13.944	ug/L	-13.944	ppb	21:52:02
1	Si 251.611†	443836.0	419491.8	11827	ug/L	11827	ppb	21:51:37
1	Sn 189.927†	-46.3	-47.3	-4.7788	ug/L	-4.7788	ppb	21:52:02
1	Ti 334.940†	2614347.5	2475740.6	3580.2	ug/L	3580.2	ppb	21:51:37
1	Tl 190.801†	-194.4	-135.9	1.9635	ug/L	1.9635	ppb	21:52:02
1	U 409.014†	-11119.4	-8151.7	-235.90	ug/L	-235.90	ppb	21:51:37
1	V 292.402†	14855.3	15529.2	81.075	ug/L	81.075	ppb	21:51:42
1	Zn 213.857†	50607.1	47103.7	377.39	ug/L	377.39	ppb	21:51:42
1	SiO2†	432604.4	408832.5	24751	ug/L	24751	ppb	21:53:10
2	Sc Radial	5595.9	5595.9	101	%			21:50:44
2	Y RADIAL	7111.2	7111.2	120.3	%			21:50:44
2	Al 396.153Radial†	43403.8	43198.0	31476	ug/L	31476	ppb	21:50:44
2	Ca 317.933Radial†	7788.2	7728.8	11019	ug/L	11019	ppb	21:50:44
2	Fe 238.204 Radial†	11259.4	11190.8	93031	ug/L	93031	ppb	21:50:44
2	K 766.490 Radial†	29718.5	26854.0	4719.1	ug/L	4719.1	ppb	21:50:44
2	Mg 279.077 IEC†	188.2	185.9	5692.3	ug/L	5692.3	ppb	21:51:04
2	Na 589.592 Radial†	1775.7	2528.3	754.62	ug/L	754.62	ppb	21:50:44
2	Sr 421.552†	13808.2	13749.4	80.522	ug/L	80.522	ppb	21:50:44
2	Sc 361.383	942590.6	942590.6	104.86	%			21:52:08
2	Y 371.029	920975.1	920975.1	123.71	%			21:52:08
2	Ag 328.068†	-6193.8	-6276.7	4.4701	ug/L	4.4701	ppb	21:52:13
2	As 188.979†	-68.9	-30.8	32.901	ug/L	32.901	ppb	21:52:33
2	B 249.677†	338.4	348.6	-5.2391	ug/L	-5.2391	ppb	21:52:13
2	Ba 233.527†	49848.8	47541.3	326.79	ug/L	326.79	ppb	21:52:13
2	Be 313.107†	-20974.3	-15271.2	1.8457	ug/L	1.8457	ppb	21:52:13
2	Cd 226.502†	787.5	980.2	0.3026	ug/L	0.3026	ppb	21:52:33
2	Co 228.616†	1162.5	1195.7	12.224	ug/L	12.224	ppb	21:52:33
2	Cr 267.716†	3597.8	3350.9	35.887	ug/L	35.887	ppb	21:52:33
2	Cu 324.752†	18184.8	11286.5	36.634	ug/L	36.634	ppb	21:52:13
2	Mn 257.610†	1670137.6	1592248.3	1579.7	ug/L	1579.7	ppb	21:52:08
2	Mo 202.031†	191.7	162.9	16.461	ug/L	16.461	ppb	21:52:33
2	Ni 231.604†	1383.6	1225.9	26.771	ug/L	26.771	ppb	21:52:33

2	P 214.914†	1514.5	1186.3	549.20	ug/L	549.20 ppb	21:52:33
2	Pb 220.353†	746.5	776.0	81.201	ug/L	81.201 ppb	21:52:33
2	S 181.975 Axial†	401.0	333.4	402.82	ug/L	402.82 ppb	21:52:33
2	Sb 206.836†	74.4	29.8	-0.6212	ug/L	-0.6212 ppb	21:52:33
2	Se 196.026†	-598.6	-542.3	-8.5772	ug/L	-8.5772 ppb	21:52:33
2	Si 251.611†	436717.4	415901.4	11726	ug/L	11726 ppb	21:52:08
2	Sn 189.927†	-51.1	-52.2	-5.4278	ug/L	-5.4278 ppb	21:52:33
2	Ti 334.940†	2569243.5	2451566.7	3545.2	ug/L	3545.2 ppb	21:52:08
2	Tl 190.801†	-204.2	-146.6	-1.1053	ug/L	-1.1053 ppb	21:52:33
2	U 409.014†	-11039.9	-8156.0	-236.49	ug/L	-236.49 ppb	21:52:08
2	V 292.402†	15107.0	15876.3	82.744	ug/L	82.744 ppb	21:52:13
2	Zn 213.857†	51018.4	47860.5	383.24	ug/L	383.24 ppb	21:52:13
2	SiO2†	433337.6	412649.1	24982	ug/L	24982 ppb	21:53:15
3	Sc Radial	6255.7	6255.7	112	%		21:51:09
3	Y RADIAL	7771.3	7771.3	131.5	%		21:51:09
3	Al 396.153Radial†	41943.2	37343.9	27210	ug/L	27210 ppb	21:51:09
3	Ca 317.933Radial†	7536.1	6687.2	9534.1	ug/L	9534.1 ppb	21:51:09
3	Fe 238.204 Radial†	10915.8	9703.6	80668	ug/L	80668 ppb	21:51:09
3	K 766.490 Radial†	28801.5	22919.6	4024.9	ug/L	4024.9 ppb	21:51:09
3	Mg 279.077 IEC†	190.4	168.1	5149.6	ug/L	5149.6 ppb	21:51:29
3	Na 589.592 Radial†	1658.9	2238.0	667.98	ug/L	667.98 ppb	21:51:09
3	Sr 421.552†	13324.8	11870.2	69.517	ug/L	69.517 ppb	21:51:09
3	Sc 361.383	947996.4	947996.4	105.46	%		21:52:39
3	Y 371.029	924694.1	924694.1	124.21	%		21:52:39
3	Ag 328.068†	-6080.8	-6135.9	0.9616	ug/L	0.9616 ppb	21:52:44
3	As 188.979†	-59.2	-21.3	34.427	ug/L	34.427 ppb	21:53:04
3	B 249.677†	372.3	379.0	-2.9757	ug/L	-2.9757 ppb	21:52:44
3	Ba 233.527†	49475.4	46916.1	322.08	ug/L	322.08 ppb	21:52:44
3	Be 313.107†	-20723.4	-14919.2	1.9573	ug/L	1.9573 ppb	21:52:44
3	Cd 226.502†	795.5	983.5	1.5707	ug/L	1.5707 ppb	21:53:04
3	Co 228.616†	1159.7	1186.8	12.248	ug/L	12.248 ppb	21:53:04
3	Cr 267.716†	3611.7	3344.5	35.598	ug/L	35.598 ppb	21:53:04
3	Cu 324.752†	18162.9	11166.8	35.665	ug/L	35.665 ppb	21:52:44
3	Mn 257.610†	1675509.2	1588259.3	1574.6	ug/L	1574.6 ppb	21:52:39
3	Mo 202.031†	186.1	156.6	15.202	ug/L	15.202 ppb	21:53:04
3	Ni 231.604†	1363.1	1198.9	26.181	ug/L	26.181 ppb	21:53:04
3	P 214.914†	1489.3	1154.1	541.03	ug/L	541.03 ppb	21:53:04
3	Pb 220.353†	732.8	759.0	79.461	ug/L	79.461 ppb	21:53:04
3	S 181.975 Axial†	401.6	331.8	401.74	ug/L	401.74 ppb	21:53:04
3	Sb 206.836†	75.8	30.6	-0.4097	ug/L	-0.4097 ppb	21:53:04
3	Se 196.026†	-589.6	-530.6	-40.325	ug/L	-40.325 ppb	21:53:04
3	Si 251.611†	437798.3	414551.5	11688	ug/L	11688 ppb	21:52:39
3	Sn 189.927†	-33.6	-35.4	-3.2231	ug/L	-3.2231 ppb	21:53:04
3	Ti 334.940†	2581587.9	2449300.0	3541.9	ug/L	3541.9 ppb	21:52:39
3	Tl 190.801†	-186.5	-128.8	3.3696	ug/L	3.3696 ppb	21:53:04
3	U 409.014†	-11176.9	-8225.9	-236.86	ug/L	-236.86 ppb	21:52:39
3	V 292.402†	14905.7	15603.3	82.870	ug/L	82.870 ppb	21:52:44
3	Zn 213.857†	50644.1	47228.2	379.25	ug/L	379.25 ppb	21:52:44
3	SiO2†	434978.1	411848.1	24934	ug/L	24934 ppb	21:53:21

Mean Data: 242661015|932275|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	946784.9	105.33	%	0.416				0.39%
Sc Radial	5862.1	105	%	6.2				5.93%
Y 371.029	925232.8	124.28	%	0.611				0.49%
Y RADIAL	7364.1	124.6	%	6.02				4.84%
Ag 328.068†	-6246.0	2.8178	ug/L	1.76308	2.8178	ppb	1.76308	62.57%
Al 396.153Radial†	40684.2	29644	ug/L	2195.7	29644	ppb	2195.7	7.41%
As 188.979†	-28.6	32.982	ug/L	1.4068	32.982	ppb	1.4068	4.27%
B 249.677†	366.1	-4.1710	ug/L	1.13702	-4.1710	ppb	1.13702	27.26%
Ba 233.527†	47052.8	323.27	ug/L	3.102	323.27	ppb	3.102	0.96%
Be 313.107†	-15105.7	1.9219	ug/L	0.06609	1.9219	ppb	0.06609	3.44%
Ca 317.933Radial†	7282.1	10382	ug/L	764.7	10382	ppb	764.7	7.37%
Cd 226.502†	978.9	0.8254	ug/L	0.66272	0.8254	ppb	0.66272	80.29%
Co 228.616†	1187.8	12.138	ug/L	0.1698	12.138	ppb	0.1698	1.40%
Cr 267.716†	3341.9	35.698	ug/L	0.1640	35.698	ppb	0.1640	0.46%
Cu 324.752†	11164.4	36.016	ug/L	0.5369	36.016	ppb	0.5369	1.49%
Fe 238.204 Radial†	10546.9	87677	ug/L	6345.9	87677	ppb	6345.9	7.24%
K 766.490 Radial†	25155.8	4419.4	ug/L	356.66	4419.4	ppb	356.66	8.07%

Mg 279.077 IEC†	179.6	5503.3	ug/L	306.51	5503.3	ppb	306.51	5.57%
Mn 257.610†	1593676.6	1580.6	ug/L	6.52	1580.6	ppb	6.52	0.41%
Mo 202.031†	166.3	16.288	ug/L	1.0109	16.288	ppb	1.0109	6.21%
Na 589.592 Radial†	2431.3	725.66	ug/L	49.955	725.66	ppb	49.955	6.88%
Ni 231.604†	1210.6	26.437	ug/L	0.3025	26.437	ppb	0.3025	1.14%
P 214.914†	1177.7	548.51	ug/L	7.164	548.51	ppb	7.164	1.31%
Pb 220.353†	773.0	80.914	ug/L	1.3325	80.914	ppb	1.3325	1.65%
S 181.975 Axial†	331.4	400.76	ug/L	2.680	400.76	ppb	2.680	0.67%
Sb 206.836†	35.9	1.1688	ug/L	2.91915	1.1688	ppb	2.91915	249.75%
Se 196.026†	-534.7	-20.949	ug/L	16.9934	-20.949	ppb	16.9934	81.12%
Si 251.611†	416648.2	11747	ug/L	71.9	11747	ppb	71.9	0.61%
Sn 189.927†	-45.0	-4.4765	ug/L	1.13301	-4.4765	ppb	1.13301	25.31%
Sr 421.552†	12951.2	75.848	ug/L	5.6866	75.848	ppb	5.6866	7.50%
Ti 334.940†	2458869.1	3555.8	ug/L	21.20	3555.8	ppb	21.20	0.60%
Tl 190.801†	-137.1	1.4092	ug/L	2.28835	1.4092	ppb	2.28835	162.38%
U 409.014†	-8177.9	-236.41	ug/L	0.481	-236.41	ppb	0.481	0.20%
V 292.402†	15669.6	82.230	ug/L	1.0023	82.230	ppb	1.0023	1.22%
Zn 213.857†	47397.5	379.96	ug/L	2.988	379.96	ppb	2.988	0.79%
SiO2†	411109.9	24889	ug/L	121.9	24889	ppb	121.9	0.49%

Sequence No.: 74
Sample ID: 242661016|932275|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 86
Date Collected: 12/19/2009 21:55:32
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 242661016|932275|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5597.1	5597.1	101	%			21:57:30
1	Y RADIAL	6352.5	6352.5	107.5	%			21:57:30
1	Al 396.153Radial†	23045.8	22939.4	16715	ug/L	16715	ppb	21:57:30
1	Ca 317.933Radial†	8337.9	8273.9	11796	ug/L	11796	ppb	21:57:30
1	Fe 238.204 Radial†	8087.1	8033.1	66780	ug/L	66780	ppb	21:57:30
1	K 766.490 Radial†	181699.4	178019.0	31324	ug/L	31324	ppb	21:57:25
1	Mg 279.077 IEC†	274.6	271.7	8379.7	ug/L	8379.7	ppb	21:57:50
1	Na 589.592 Radial†	280587.8	279854.7	83528	ug/L	83528	ppb	21:57:25
1	Sr 421.552†	12494.4	12439.7	72.835	ug/L	72.835	ppb	21:57:30
1	Sc 361.383	919235.7	919235.7	102.26	%			21:58:58
1	Y 371.029	801189.8	801189.8	107.62	%			21:58:58
1	Ag 328.068†	-4242.9	-4519.0	3.2093	ug/L	3.2093	ppb	21:59:03
1	As 188.979†	-60.9	-24.7	20.077	ug/L	20.077	ppb	21:59:23
1	B 249.677†	99.4	123.2	-6.3922	ug/L	-6.3922	ppb	21:59:03
1	Ba 233.527†	31427.3	30735.0	211.63	ug/L	211.63	ppb	21:59:03
1	Be 313.107†	-15775.0	-10695.1	0.7970	ug/L	0.7970	ppb	21:59:03
1	Cd 226.502†	494.9	713.2	0.3188	ug/L	0.3188	ppb	21:59:23
1	Co 228.616†	1317.6	1375.6	18.462	ug/L	18.462	ppb	21:59:23
1	Cr 267.716†	3660.2	3499.1	36.905	ug/L	36.905	ppb	21:59:23
1	Cu 324.752†	28595.9	21908.0	65.305	ug/L	65.305	ppb	21:59:03
1	Mn 257.610†	1422558.5	1390610.5	1378.2	ug/L	1378.2	ppb	21:58:58
1	Mo 202.031†	19.4	-0.9	4.6810	ug/L	4.6810	ppb	21:59:23
1	Ni 231.604†	1588.5	1459.8	31.880	ug/L	31.880	ppb	21:59:23
1	P 214.914†	4878.9	4512.9	2295.6	ug/L	2295.6	ppb	21:59:23
1	Pb 220.353†	502.1	555.1	56.715	ug/L	56.715	ppb	21:59:23
1	S 181.975 Axial†	2725.2	2615.9	3205.9	ug/L	3205.9	ppb	21:59:23
1	Sb 206.836†	62.3	19.7	-0.4360	ug/L	-0.4360	ppb	21:59:23
1	Se 196.026†	-430.5	-392.5	-8.7671	ug/L	-8.7671	ppb	21:59:23
1	Si 251.611†	292158.9	285121.0	8029.5	ug/L	8029.5	ppb	21:59:03
1	Sn 189.927†	-101.5	-102.7	-13.280	ug/L	-13.280	ppb	21:59:23
1	Ti 334.940†	1575995.3	1542533.4	2230.9	ug/L	2230.9	ppb	21:58:58
1	Tl 190.801†	-137.2	-86.1	2.8825	ug/L	2.8825	ppb	21:59:23
1	U 409.014†	-6150.5	-3642.3	-108.82	ug/L	-108.82	ppb	21:59:03
1	V 292.402†	17003.6	18097.0	102.47	ug/L	102.47	ppb	21:59:03
1	Zn 213.857†	62659.6	60480.5	489.08	ug/L	489.08	ppb	21:59:03
1	SiO2†	290590.9	283558.5	17146	ug/L	17146	ppb	22:00:30
2	Sc Radial	5507.0	5507.0	98.9	%			21:58:00
2	Y RADIAL	6214.5	6214.5	105.1	%			21:58:00
2	Al 396.153Radial†	22572.0	22835.3	16639	ug/L	16639	ppb	21:58:00
2	Ca 317.933Radial†	8186.3	8256.3	11771	ug/L	11771	ppb	21:58:00
2	Fe 238.204 Radial†	7990.1	8066.6	67059	ug/L	67059	ppb	21:58:00
2	K 766.490 Radial†	185340.7	184656.3	32493	ug/L	32493	ppb	21:57:55
2	Mg 279.077 IEC†	270.5	272.0	8389.7	ug/L	8389.7	ppb	21:58:20
2	Na 589.592 Radial†	287250.2	291155.0	86901	ug/L	86901	ppb	21:57:55
2	Sr 421.552†	12293.9	12440.2	72.838	ug/L	72.838	ppb	21:58:00
2	Sc 361.383	915031.3	915031.3	101.79	%			21:59:29
2	Y 371.029	797228.7	797228.7	107.09	%			21:59:29
2	Ag 328.068†	-4240.9	-4536.1	3.2220	ug/L	3.2220	ppb	21:59:34
2	As 188.979†	-66.5	-30.5	18.012	ug/L	18.012	ppb	21:59:54
2	B 249.677†	44.9	70.0	-7.5208	ug/L	-7.5208	ppb	21:59:34
2	Ba 233.527†	31015.7	30471.8	209.84	ug/L	209.84	ppb	21:59:34
2	Be 313.107†	-15442.7	-10439.5	0.8815	ug/L	0.8815	ppb	21:59:34
2	Cd 226.502†	533.8	753.6	0.6868	ug/L	0.6868	ppb	21:59:54
2	Co 228.616†	1324.4	1388.2	18.679	ug/L	18.679	ppb	21:59:54
2	Cr 267.716†	3655.5	3510.9	37.027	ug/L	37.027	ppb	21:59:54
2	Cu 324.752†	28116.7	21565.8	64.352	ug/L	64.352	ppb	21:59:34
2	Mn 257.610†	1415874.3	1390435.9	1378.0	ug/L	1378.0	ppb	21:59:29
2	Mo 202.031†	16.2	-3.9	4.5190	ug/L	4.5190	ppb	21:59:54
2	Ni 231.604†	1605.6	1483.8	32.403	ug/L	32.403	ppb	21:59:54

2	P 214.914†	4867.5	4523.6	2301.1	ug/L	2301.1 ppb	21:59:54
2	Pb 220.353†	514.6	569.6	58.201	ug/L	58.201 ppb	21:59:54
2	S 181.975 Axial†	2711.2	2614.4	3204.1	ug/L	3204.1 ppb	21:59:54
2	Sb 206.836†	73.5	31.0	2.9333	ug/L	2.9333 ppb	21:59:54
2	Se 196.026†	-419.6	-383.6	-3.1016	ug/L	-3.1016 ppb	21:59:54
2	Si 251.611†	287839.6	282190.5	7946.5	ug/L	7946.5 ppb	21:59:34
2	Sn 189.927†	-106.0	-107.6	-14.015	ug/L	-14.015 ppb	21:59:54
2	Ti 334.940†	1568366.4	1542120.2	2230.3	ug/L	2230.3 ppb	21:59:29
2	Tl 190.801†	-141.0	-90.4	1.7673	ug/L	1.7673 ppb	21:59:54
2	U 409.014†	-6145.4	-3664.9	-109.48	ug/L	-109.48 ppb	21:59:34
2	V 292.402†	16612.4	17789.1	100.46	ug/L	100.46 ppb	21:59:34
2	Zn 213.857†	61798.7	59916.3	484.43	ug/L	484.43 ppb	21:59:34
2	SiO2†	292252.7	286496.7	17323	ug/L	17323 ppb	22:00:36
3	Sc Radial	5612.2	5612.2	101	%		21:58:30
3	Y RADIAL	6348.1	6348.1	107.4	%		21:58:30
3	Al 396.153Radial†	23017.0	22849.4	16649	ug/L	16649 ppb	21:58:30
3	Ca 317.933Radial†	8324.4	8238.3	11746	ug/L	11746 ppb	21:58:30
3	Fe 238.204 Radial†	8105.0	8029.3	66749	ug/L	66749 ppb	21:58:30
3	K 766.490 Radial†	182470.6	178299.2	31374	ug/L	31374 ppb	21:58:25
3	Mg 279.077 IEC†	272.6	269.0	8297.0	ug/L	8297.0 ppb	21:58:50
3	Na 589.592 Radial†	280977.2	279492.4	83420	ug/L	83420 ppb	21:58:25
3	Sr 421.552†	12500.2	12412.1	72.674	ug/L	72.674 ppb	21:58:30
3	Sc 361.383	908579.9	908579.9	101.08	%		22:00:00
3	Y 371.029	792800.8	792800.8	106.49	%		22:00:00
3	Ag 328.068†	-4236.0	-4560.8	3.0167	ug/L	3.0167 ppb	22:00:05
3	As 188.979†	-64.1	-28.6	18.653	ug/L	18.653 ppb	22:00:25
3	B 249.677†	62.5	87.7	-7.1153	ug/L	-7.1153 ppb	22:00:05
3	Ba 233.527†	31150.2	30821.2	212.21	ug/L	212.21 ppb	22:00:05
3	Be 313.107†	-15554.5	-10657.8	0.8075	ug/L	0.8075 ppb	22:00:05
3	Cd 226.502†	510.8	734.6	0.5317	ug/L	0.5317 ppb	22:00:25
3	Co 228.616†	1305.3	1378.5	18.513	ug/L	18.513 ppb	22:00:25
3	Cr 267.716†	3656.2	3537.2	37.289	ug/L	37.289 ppb	22:00:25
3	Cu 324.752†	28207.7	21851.9	65.145	ug/L	65.145 ppb	22:00:05
3	Mn 257.610†	1405367.5	1389917.2	1377.5	ug/L	1377.5 ppb	22:00:00
3	Mo 202.031†	5.9	-14.1	3.8841	ug/L	3.8841 ppb	22:00:25
3	Ni 231.604†	1588.0	1477.6	32.268	ug/L	32.268 ppb	22:00:25
3	P 214.914†	4844.3	4534.6	2307.0	ug/L	2307.0 ppb	22:00:25
3	Pb 220.353†	508.1	566.8	57.934	ug/L	57.934 ppb	22:00:25
3	S 181.975 Axial†	2710.2	2632.3	3226.1	ug/L	3226.1 ppb	22:00:25
3	Sb 206.836†	66.8	24.9	1.1187	ug/L	1.1187 ppb	22:00:25
3	Se 196.026†	-419.2	-386.2	-5.4532	ug/L	-5.4532 ppb	22:00:25
3	Si 251.611†	288808.0	285156.4	8030.5	ug/L	8030.5 ppb	22:00:05
3	Sn 189.927†	-92.7	-95.2	-12.152	ug/L	-12.152 ppb	22:00:25
3	Ti 334.940†	1557017.5	1541832.1	2229.9	ug/L	2229.9 ppb	22:00:00
3	Tl 190.801†	-145.0	-95.4	0.4616	ug/L	0.4616 ppb	22:00:25
3	U 409.014†	-6040.3	-3603.8	-107.76	ug/L	-107.76 ppb	22:00:05
3	V 292.402†	16726.7	18018.1	101.96	ug/L	101.96 ppb	22:00:05
3	Zn 213.857†	61997.2	60543.7	489.61	ug/L	489.61 ppb	22:00:05
3	SiO2†	292560.2	288839.5	17466	ug/L	17466 ppb	22:00:41

Mean Data: 242661016|932275|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	914282.3	101.71	%	0.597				0.59%
Sc Radial	5572.1	100	%	1.0				1.02%
Y 371.029	797073.1	107.07	%	0.564				0.53%
Y RADIAL	6305.0	106.7	%	1.33				1.24%
Ag 328.068†	-4538.7	3.1494	ug/L	0.11504	3.1494	ppb	0.11504	3.65%
Al 396.153Radial†	22874.7	16668	ug/L	41.1	16668	ppb	41.1	0.25%
As 188.979†	-27.9	18.914	ug/L	1.0571	18.914	ppb	1.0571	5.59%
B 249.677†	93.6	-7.0094	ug/L	0.57166	-7.0094	ppb	0.57166	8.16%
Ba 233.527†	30676.0	211.23	ug/L	1.233	211.23	ppb	1.233	0.58%
Be 313.107†	-10597.5	0.8287	ug/L	0.04608	0.8287	ppb	0.04608	5.56%
Ca 317.933Radial†	8256.2	11771	ug/L	25.4	11771	ppb	25.4	0.22%
Cd 226.502†	733.8	0.5124	ug/L	0.18475	0.5124	ppb	0.18475	36.05%
Co 228.616†	1380.7	18.551	ug/L	0.1135	18.551	ppb	0.1135	0.61%
Cr 267.716†	3515.7	37.073	ug/L	0.1965	37.073	ppb	0.1965	0.53%
Cu 324.752†	21775.2	64.934	ug/L	0.5102	64.934	ppb	0.5102	0.79%
Fe 238.204 Radial†	8043.0	66863	ug/L	170.8	66863	ppb	170.8	0.26%
K 766.490 Radial†	180324.8	31730	ug/L	660.7	31730	ppb	660.7	2.08%

Mg 279.077 IEC†	270.9	8355.5	ug/L	50.93	8355.5	ppb	50.93	0.61%
Mn 257.610†	1390321.2	1377.9	ug/L	0.36	1377.9	ppb	0.36	0.03%
Mo 202.031†	-6.3	4.3614	ug/L	0.42118	4.3614	ppb	0.42118	9.66%
Na 589.592 Radial†	283500.7	84617	ug/L	1979.2	84617	ppb	1979.2	2.34%
Ni 231.604†	1473.7	32.184	ug/L	0.2716	32.184	ppb	0.2716	0.84%
P 214.914†	4523.7	2301.3	ug/L	5.69	2301.3	ppb	5.69	0.25%
Pb 220.353†	563.8	57.617	ug/L	0.7922	57.617	ppb	0.7922	1.37%
S 181.975 Axial†	2620.9	3212.0	ug/L	12.20	3212.0	ppb	12.20	0.38%
Sb 206.836†	25.2	1.2053	ug/L	1.68635	1.2053	ppb	1.68635	139.91%
Se 196.026†	-387.5	-5.7740	ug/L	2.84631	-5.7740	ppb	2.84631	49.30%
Si 251.611†	284156.0	8002.1	ug/L	48.22	8002.1	ppb	48.22	0.60%
Sn 189.927†	-101.8	-13.149	ug/L	0.9386	-13.149	ppb	0.9386	7.14%
Sr 421.552†	12430.6	72.783	ug/L	0.0940	72.783	ppb	0.0940	0.13%
Ti 334.940†	1542161.9	2230.4	ug/L	0.51	2230.4	ppb	0.51	0.02%
Tl 190.801†	-90.7	1.7038	ug/L	1.21170	1.7038	ppb	1.21170	71.12%
U 409.014†	-3637.0	-108.69	ug/L	0.870	-108.69	ppb	0.870	0.80%
V 292.402†	17968.1	101.63	ug/L	1.042	101.63	ppb	1.042	1.02%
Zn 213.857†	60313.5	487.71	ug/L	2.851	487.71	ppb	2.851	0.58%
SiO2†	286298.2	17312	ug/L	160.2	17312	ppb	160.2	0.93%

Sequence No.: 75
Sample ID: 242661017|932275|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 87
Date Collected: 12/19/2009 22:02:52
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 242661017|932275|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	5574.4	5574.4	100	%			22:05:05
1	Y RADIAL	6422.1	6422.1	108.6	%			22:05:05
1	Al 396.153Radial†	117992.5	117858.4	85878	ug/L	85878	ppb	22:04:45
1	Ca 317.933Radial†	10968.1	10934.5	15590	ug/L	15590	ppb	22:04:45
1	Fe 238.204 Radial†	11669.8	11644.1	96799	ug/L	96799	ppb	22:04:45
1	K 766.490 Radial†	58223.9	55437.2	9748.1	ug/L	9748.1	ppb	22:04:45
1	Mg 279.077 IEC†	402.9	401.0	12368	ug/L	12368	ppb	22:05:05
1	Na 589.592 Radial†	7190.1	7942.6	2370.6	ug/L	2370.6	ppb	22:04:45
1	Sr 421.552†	22501.7	22484.8	131.70	ug/L	131.70	ppb	22:04:45
1	Sc 361.383	940690.3	940690.3	104.65	%			22:06:03
1	Y 371.029	841180.3	841180.3	112.99	%			22:06:03
1	Ag 328.068†	-6807.5	-6875.0	3.4353	ug/L	3.4353	ppb	22:06:08
1	As 188.979†	-75.1	-36.9	35.269	ug/L	35.269	ppb	22:06:28
1	B 249.677†	751.1	743.7	2.2854	ug/L	2.2854	ppb	22:06:08
1	Ba 233.527†	174292.2	166553.5	1136.0	ug/L	1136.0	ppb	22:06:08
1	Be 313.107†	-13932.4	-8582.4	5.0171	ug/L	5.0171	ppb	22:06:08
1	Cd 226.502†	917.0	1105.5	1.1717	ug/L	1.1717	ppb	22:06:28
1	Co 228.616†	3123.3	3071.6	44.312	ug/L	44.312	ppb	22:06:28
1	Cr 267.716†	8041.9	7604.6	79.242	ug/L	79.242	ppb	22:06:08
1	Cu 324.752†	26991.1	19736.7	60.701	ug/L	60.701	ppb	22:06:08
1	Mn 257.610†	2937640.8	2806671.9	2777.8	ug/L	2777.8	ppb	22:06:03
1	Mo 202.031†	-28.5	-47.1	4.0149	ug/L	4.0149	ppb	22:06:28
1	Ni 231.604†	2923.9	2700.5	58.968	ug/L	58.968	ppb	22:06:28
1	P 214.914†	1779.2	1442.1	694.12	ug/L	694.12	ppb	22:06:28
1	Pb 220.353†	980.2	1000.7	116.73	ug/L	116.73	ppb	22:06:28
1	S 181.975 Axial†	485.0	414.4	491.51	ug/L	491.51	ppb	22:06:28
1	Sb 206.836†	101.9	56.1	3.3357	ug/L	3.3357	ppb	22:06:28
1	Se 196.026†	-658.4	-600.6	-21.347	ug/L	-21.347	ppb	22:06:28
1	Si 251.611†	544244.6	519494.1	14646	ug/L	14646	ppb	22:06:03
1	Sn 189.927†	-97.2	-96.4	-11.491	ug/L	-11.491	ppb	22:06:28
1	Ti 334.940†	2905898.6	2778218.6	4017.7	ug/L	4017.7	ppb	22:06:03
1	Tl 190.801†	-232.8	-174.4	3.4163	ug/L	3.4163	ppb	22:06:28
1	U 409.014†	-8505.2	-5755.2	-170.89	ug/L	-170.89	ppb	22:06:08
1	V 292.402†	32158.1	32199.2	185.55	ug/L	185.55	ppb	22:06:08
1	Zn 213.857†	69766.9	65874.6	530.15	ug/L	530.15	ppb	22:06:08
1	SiO2†	540999.2	516363.6	31258	ug/L	31258	ppb	22:07:36
2	Sc Radial	5599.4	5599.4	101	%			22:05:30
2	Y RADIAL	6487.4	6487.4	109.7	%			22:05:30
2	Al 396.153Radial†	118655.9	117990.9	85975	ug/L	85975	ppb	22:05:10
2	Ca 317.933Radial†	10998.7	10915.9	15563	ug/L	15563	ppb	22:05:10
2	Fe 238.204 Radial†	11718.9	11640.7	96772	ug/L	96772	ppb	22:05:10
2	K 766.490 Radial†	58370.9	55323.2	9728.0	ug/L	9728.0	ppb	22:05:10
2	Mg 279.077 IEC†	407.5	403.8	12455	ug/L	12455	ppb	22:05:30
2	Na 589.592 Radial†	7257.9	7977.9	2381.2	ug/L	2381.2	ppb	22:05:10
2	Sr 421.552†	22642.7	22524.5	131.94	ug/L	131.94	ppb	22:05:10
2	Sc 361.383	934935.5	934935.5	104.01	%			22:06:34
2	Y 371.029	835576.2	835576.2	112.24	%			22:06:34
2	Ag 328.068†	-6946.3	-7048.5	2.6884	ug/L	2.6884	ppb	22:06:39
2	As 188.979†	-59.6	-22.5	40.479	ug/L	40.479	ppb	22:06:59
2	B 249.677†	717.2	715.5	1.7104	ug/L	1.7104	ppb	22:06:39
2	Ba 233.527†	175188.1	168440.0	1148.9	ug/L	1148.9	ppb	22:06:39
2	Be 313.107†	-13892.2	-8625.8	4.9977	ug/L	4.9977	ppb	22:06:39
2	Cd 226.502†	912.0	1106.0	1.1802	ug/L	1.1802	ppb	22:06:59
2	Co 228.616†	3117.2	3084.2	44.545	ug/L	44.545	ppb	22:06:59
2	Cr 267.716†	8073.9	7682.6	80.037	ug/L	80.037	ppb	22:06:39
2	Cu 324.752†	27231.4	20126.5	61.801	ug/L	61.801	ppb	22:06:39
2	Mn 257.610†	2917945.7	2805014.7	2776.2	ug/L	2776.2	ppb	22:06:34
2	Mo 202.031†	-20.8	-39.9	4.4515	ug/L	4.4515	ppb	22:06:59
2	Ni 231.604†	2939.4	2732.6	59.670	ug/L	59.670	ppb	22:06:59

2	P 214.914†	1784.1	1457.2	701.88	ug/L	701.88 ppb	22:06:59
2	Pb 220.353†	993.6	1019.3	118.72	ug/L	118.72 ppb	22:06:59
2	S 181.975 Axial†	491.4	423.4	502.57	ug/L	502.57 ppb	22:06:59
2	Sb 206.836†	95.2	50.3	1.5730	ug/L	1.5730 ppb	22:06:59
2	Se 196.026†	-642.6	-589.3	-15.246	ug/L	-15.246 ppb	22:06:59
2	Si 251.611†	540771.9	519356.4	14642	ug/L	14642 ppb	22:06:34
2	Sn 189.927†	-100.6	-100.3	-12.078	ug/L	-12.078 ppb	22:06:59
2	Ti 334.940†	2886339.3	2776505.3	4015.2	ug/L	4015.2 ppb	22:06:34
2	Tl 190.801†	-233.8	-176.8	2.7760	ug/L	2.7760 ppb	22:06:59
2	U 409.014†	-8512.1	-5811.9	-172.45	ug/L	-172.45 ppb	22:06:39
2	V 292.402†	32307.9	32532.3	187.68	ug/L	187.68 ppb	22:06:39
2	Zn 213.857†	70172.7	66675.1	536.71	ug/L	536.71 ppb	22:06:39
2	SiO2†	533913.8	512733.4	31038	ug/L	31038 ppb	22:07:41
3	Sc Radial	5647.7	5647.7	101	%		22:05:55
3	Y RADIAL	6523.1	6523.1	110.3	%		22:05:55
3	Al 396.153Radial†	119813.7	118124.1	86072	ug/L	86072 ppb	22:05:35
3	Ca 317.933Radial†	11058.0	10881.0	15513	ug/L	15513 ppb	22:05:35
3	Fe 238.204 Radial†	11753.0	11574.8	96224	ug/L	96224 ppb	22:05:35
3	K 766.490 Radial†	58956.9	55405.0	9742.5	ug/L	9742.5 ppb	22:05:35
3	Mg 279.077 IEC†	408.8	401.5	12386	ug/L	12386 ppb	22:05:55
3	Na 589.592 Radial†	7254.0	7912.4	2361.6	ug/L	2361.6 ppb	22:05:35
3	Sr 421.552†	22824.5	22511.4	131.86	ug/L	131.86 ppb	22:05:35
3	Sc 361.383	944401.8	944401.8	105.06	%		22:07:05
3	Y 371.029	844599.7	844599.7	113.45	%		22:07:05
3	Ag 328.068†	-6626.9	-6677.6	4.0869	ug/L	4.0869 ppb	22:07:10
3	As 188.979†	-70.0	-31.8	36.981	ug/L	36.981 ppb	22:07:30
3	B 249.677†	733.3	723.9	1.9571	ug/L	1.9571 ppb	22:07:10
3	Ba 233.527†	173454.1	165101.2	1126.1	ug/L	1126.1 ppb	22:07:10
3	Be 313.107†	-13964.4	-8560.6	5.0072	ug/L	5.0072 ppb	22:07:10
3	Cd 226.502†	920.4	1105.2	1.2272	ug/L	1.2272 ppb	22:07:30
3	Co 228.616†	3098.7	3036.5	43.723	ug/L	43.723 ppb	22:07:30
3	Cr 267.716†	7993.0	7527.8	78.449	ug/L	78.449 ppb	22:07:10
3	Cu 324.752†	26826.3	19478.5	59.942	ug/L	59.942 ppb	22:07:10
3	Mn 257.610†	2937349.9	2795363.0	2766.6	ug/L	2766.6 ppb	22:07:05
3	Mo 202.031†	-6.8	-26.3	5.2316	ug/L	5.2316 ppb	22:07:30
3	Ni 231.604†	2934.4	2699.5	58.948	ug/L	58.948 ppb	22:07:30
3	P 214.914†	1774.7	1431.1	689.03	ug/L	689.03 ppb	22:07:30
3	Pb 220.353†	986.5	1003.0	117.07	ug/L	117.07 ppb	22:07:30
3	S 181.975 Axial†	475.0	403.1	477.65	ug/L	477.65 ppb	22:07:30
3	Sb 206.836†	96.3	50.5	1.6950	ug/L	1.6950 ppb	22:07:30
3	Se 196.026†	-650.0	-590.1	-17.341	ug/L	-17.341 ppb	22:07:30
3	Si 251.611†	544336.9	517538.1	14590	ug/L	14590 ppb	22:07:05
3	Sn 189.927†	-99.6	-98.2	-11.789	ug/L	-11.789 ppb	22:07:30
3	Ti 334.940†	2910990.3	2772152.3	4008.9	ug/L	4008.9 ppb	22:07:05
3	Tl 190.801†	-235.4	-176.0	2.8896	ug/L	2.8896 ppb	22:07:30
3	U 409.014†	-8585.3	-5799.5	-172.04	ug/L	-172.04 ppb	22:07:10
3	V 292.402†	31903.9	31836.5	183.36	ug/L	183.36 ppb	22:07:10
3	Zn 213.857†	69301.6	65169.7	524.43	ug/L	524.43 ppb	22:07:10
3	SiO2†	539258.6	512675.2	31035	ug/L	31035 ppb	22:07:47

Mean Data: 242661017|932275|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	940009.2	104.57	%	0.531				0.51%
Sc Radial	5607.2	101	%	0.7				0.66%
Y 371.029	840452.1	112.89	%	0.612				0.54%
Y RADIAL	6477.5	109.6	%	0.87				0.79%
Ag 328.068†	-6867.0	3.4035	ug/L	0.69979	3.4035	ppb	0.69979	20.56%
Al 396.153Radial†	117991.1	85975	ug/L	96.8	85975	ppb	96.8	0.11%
As 188.979†	-30.4	37.576	ug/L	2.6557	37.576	ppb	2.6557	7.07%
B 249.677†	727.7	1.9843	ug/L	0.28848	1.9843	ppb	0.28848	14.54%
Ba 233.527†	166698.2	1137.0	ug/L	11.39	1137.0	ppb	11.39	1.00%
Be 313.107†	-8589.6	5.0073	ug/L	0.00971	5.0073	ppb	0.00971	0.19%
Ca 317.933Radial†	10910.5	15555	ug/L	38.7	15555	ppb	38.7	0.25%
Cd 226.502†	1105.6	1.1930	ug/L	0.02990	1.1930	ppb	0.02990	2.51%
Co 228.616†	3064.1	44.193	ug/L	0.4234	44.193	ppb	0.4234	0.96%
Cr 267.716†	7605.0	79.243	ug/L	0.7936	79.243	ppb	0.7936	1.00%
Cu 324.752†	19780.6	60.815	ug/L	0.9347	60.815	ppb	0.9347	1.54%
Fe 238.204 Radial†	11619.9	96598	ug/L	324.8	96598	ppb	324.8	0.34%
K 766.490 Radial†	55388.5	9739.5	ug/L	10.36	9739.5	ppb	10.36	0.11%

Mg 279.077 IEC†	402.1	12403	ug/L	45.8	12403	ppb	45.8	0.37%
Mn 257.610†	2802349.9	2773.6	ug/L	6.06	2773.6	ppb	6.06	0.22%
Mo 202.031†	-37.8	4.5660	ug/L	0.61637	4.5660	ppb	0.61637	13.50%
Na 589.592 Radial†	7944.3	2371.1	ug/L	9.79	2371.1	ppb	9.79	0.41%
Ni 231.604†	2710.9	59.195	ug/L	0.4114	59.195	ppb	0.4114	0.70%
P 214.914†	1443.5	695.01	ug/L	6.475	695.01	ppb	6.475	0.93%
Pb 220.353†	1007.7	117.51	ug/L	1.063	117.51	ppb	1.063	0.90%
S 181.975 Axial†	413.7	490.57	ug/L	12.486	490.57	ppb	12.486	2.55%
Sb 206.836†	52.3	2.2012	ug/L	0.98435	2.2012	ppb	0.98435	44.72%
Se 196.026†	-593.4	-17.978	ug/L	3.1001	-17.978	ppb	3.1001	17.24%
Si 251.611†	518796.2	14626	ug/L	30.8	14626	ppb	30.8	0.21%
Sn 189.927†	-98.3	-11.786	ug/L	0.2933	-11.786	ppb	0.2933	2.49%
Sr 421.552†	22506.9	131.83	ug/L	0.119	131.83	ppb	0.119	0.09%
Ti 334.940†	2775625.4	4014.0	ug/L	4.52	4014.0	ppb	4.52	0.11%
Tl 190.801†	-175.7	3.0273	ug/L	0.34167	3.0273	ppb	0.34167	11.29%
U 409.014†	-5788.9	-171.80	ug/L	0.809	-171.80	ppb	0.809	0.47%
V 292.402†	32189.3	185.53	ug/L	2.162	185.53	ppb	2.162	1.17%
Zn 213.857†	65906.5	530.43	ug/L	6.147	530.43	ppb	6.147	1.16%
SiO2†	513924.1	31110	ug/L	127.9	31110	ppb	127.9	0.41%

Sequence No.: 76
Sample ID: 242661018|932275|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 88
Date Collected: 12/19/2009 22:09:58
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 242661018|932275|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5704.3	5704.3	102	%			22:11:51
1	Y RADIAL	6621.7	6621.7	112.0	%			22:11:51
1	Al 396.153Radial†	29124.3	28441.1	20721	ug/L	20721	ppb	22:11:51
1	Ca 317.933Radial†	2166.2	2094.6	2986.4	ug/L	2986.4	ppb	22:12:11
1	Fe 238.204 Radial†	12865.3	12545.5	104290	ug/L	104290	ppb	22:11:51
1	K 766.490 Radial†	17389.1	14259.0	2499.9	ug/L	2499.9	ppb	22:11:51
1	Mg 279.077 IEC†	62.9	60.0	1774.6	ug/L	1774.6	ppb	22:12:11
1	Na 589.592 Radial†	6102.6	6717.7	2005.0	ug/L	2005.0	ppb	22:11:51
1	Sr 421.552†	4276.7	4185.8	24.517	ug/L	24.517	ppb	22:11:51
1	Sc 361.383	863925.3	863925.3	96.108	%			22:13:09
1	Y 371.029	787666.6	787666.6	105.80	%			22:13:09
1	Ag 328.068†	-6935.8	-7586.5	2.4645	ug/L	2.4645	ppb	22:13:14
1	As 188.979†	-138.0	-108.8	19.525	ug/L	19.525	ppb	22:13:34
1	B 249.677†	366.4	407.2	-5.5189	ug/L	-5.5189	ppb	22:13:14
1	Ba 233.527†	15483.9	16113.5	113.54	ug/L	113.54	ppb	22:13:14
1	Be 313.107†	-29843.3	-26320.6	1.2436	ug/L	1.2436	ppb	22:13:14
1	Cd 226.502†	847.6	1111.1	0.4515	ug/L	0.4515	ppb	22:13:34
1	Co 228.616†	774.9	893.4	3.4347	ug/L	3.4347	ppb	22:13:34
1	Cr 267.716†	2856.6	2892.2	31.337	ug/L	31.337	ppb	22:13:34
1	Cu 324.752†	8833.6	3135.7	14.180	ug/L	14.180	ppb	22:13:14
1	Mn 257.610†	1436305.2	1493975.1	1484.0	ug/L	1484.0	ppb	22:13:09
1	Mo 202.031†	863.1	878.1	60.552	ug/L	60.552	ppb	22:13:34
1	Ni 231.604†	866.5	808.0	17.644	ug/L	17.644	ppb	22:13:34
1	P 214.914†	880.0	657.6	264.66	ug/L	264.66	ppb	22:13:34
1	Pb 220.353†	339.1	416.9	40.142	ug/L	40.142	ppb	22:13:34
1	S 181.975 Axial†	172.0	129.9	155.32	ug/L	155.32	ppb	22:13:34
1	Sb 206.836†	83.2	45.4	1.5514	ug/L	1.5514	ppb	22:13:34
1	Se 196.026†	-648.8	-646.6	-32.580	ug/L	-32.580	ppb	22:13:34
1	Si 251.611†	293689.0	305004.1	8598.7	ug/L	8598.7	ppb	22:13:14
1	Sn 189.927†	78.0	77.6	13.358	ug/L	13.358	ppb	22:13:34
1	Ti 334.940†	3404379.5	3543623.2	5123.7	ug/L	5123.7	ppb	22:13:09
1	Tl 190.801†	-211.0	-171.5	3.7914	ug/L	3.7914	ppb	22:13:34
1	U 409.014†	-5465.2	-3314.3	-104.49	ug/L	-104.49	ppb	22:13:14
1	V 292.402†	8913.3	10743.6	47.438	ug/L	47.438	ppb	22:13:14
1	Zn 213.857†	47476.7	48605.7	388.49	ug/L	388.49	ppb	22:13:14
1	SiO2†	296101.4	307485.0	18614	ug/L	18614	ppb	22:14:43
2	Sc Radial	5804.9	5804.9	104	%			22:12:16
2	Y RADIAL	6748.6	6748.6	114.2	%			22:12:16
2	Al 396.153Radial†	29497.9	28307.0	20624	ug/L	20624	ppb	22:12:16
2	Ca 317.933Radial†	2168.3	2060.0	2937.0	ug/L	2937.0	ppb	22:12:36
2	Fe 238.204 Radial†	13016.3	12472.7	103690	ug/L	103690	ppb	22:12:16
2	K 766.490 Radial†	17699.6	14262.8	2501.9	ug/L	2501.9	ppb	22:12:16
2	Mg 279.077 IEC†	63.3	59.3	1754.3	ug/L	1754.3	ppb	22:12:36
2	Na 589.592 Radial†	6130.8	6641.6	1982.3	ug/L	1982.3	ppb	22:12:16
2	Sr 421.552†	4333.0	4167.5	24.410	ug/L	24.410	ppb	22:12:16
2	Sc 361.383	922724.6	922724.6	102.65	%			22:13:40
2	Y 371.029	834084.0	834084.0	112.04	%			22:13:40
2	Ag 328.068†	-6941.7	-7132.4	4.1969	ug/L	4.1969	ppb	22:13:46
2	As 188.979†	-126.4	-88.3	23.522	ug/L	23.522	ppb	22:14:06
2	B 249.677†	439.1	453.7	-4.4801	ug/L	-4.4801	ppb	22:13:46
2	Ba 233.527†	15733.6	15330.1	108.18	ug/L	108.18	ppb	22:13:46
2	Be 313.107†	-30279.2	-24766.6	0.9838	ug/L	0.9838	ppb	22:13:46
2	Cd 226.502†	840.6	1048.0	-0.1062	ug/L	-0.1062	ppb	22:14:06
2	Co 228.616†	769.2	836.4	3.2799	ug/L	3.2799	ppb	22:14:06
2	Cr 267.716†	2848.1	2694.4	29.312	ug/L	29.312	ppb	22:14:06
2	Cu 324.752†	8867.0	2582.5	12.586	ug/L	12.586	ppb	22:13:46
2	Mn 257.610†	1418032.3	1380941.1	1372.4	ug/L	1372.4	ppb	22:13:40
2	Mo 202.031†	858.2	816.2	56.761	ug/L	56.761	ppb	22:14:06
2	Ni 231.604†	840.1	724.8	15.827	ug/L	15.827	ppb	22:14:06

2	P 214.914†	892.1	610.9	241.06 ug/L	241.06 ppb	22:14:06
2	Pb 220.353†	319.7	375.5	35.805 ug/L	35.805 ppb	22:14:06
2	S 181.975 Axial†	159.4	106.3	126.33 ug/L	126.33 ppb	22:14:06
2	Sb 206.836†	66.9	24.0	-3.8144 ug/L	-3.8144 ppb	22:14:06
2	Se 196.026†	-648.7	-603.5	-10.939 ug/L	-10.939 ppb	22:14:06
2	Si 251.611†	297881.6	289615.7	8164.8 ug/L	8164.8 ppb	22:13:46
2	Sn 189.927†	84.8	79.1	13.571 ug/L	13.571 ppb	22:14:06
2	Ti 334.940†	3353993.8	3268814.0	4726.4 ug/L	4726.4 ppb	22:13:40
2	Tl 190.801†	-206.7	-153.3	4.8230 ug/L	4.8230 ppb	22:14:06
2	U 409.014†	-5365.9	-2855.2	-91.764 ug/L	-91.764 ppb	22:13:46
2	V 292.402†	9007.2	10244.1	44.762 ug/L	44.762 ppb	22:13:46
2	Zn 213.857†	48222.8	46184.6	368.71 ug/L	368.71 ppb	22:13:46
2	SiO2†	298540.8	290228.7	17569 ug/L	17569 ppb	22:14:48
3	Sc Radial	5870.7	5870.7	105 %		22:12:41
3	Y RADIAL	6811.0	6811.0	115.2 %		22:12:41
3	Al 396.153Radial†	29417.1	27913.2	20337 ug/L	20337 ppb	22:12:41
3	Ca 317.933Radial†	2105.0	1976.6	2818.1 ug/L	2818.1 ppb	22:13:01
3	Fe 238.204 Radial†	12927.2	12248.3	101820 ug/L	101820 ppb	22:12:41
3	K 766.490 Radial†	17539.2	13920.3	2441.9 ug/L	2441.9 ppb	22:12:41
3	Mg 279.077 IEC†	60.6	56.1	1654.4 ug/L	1654.4 ppb	22:13:01
3	Na 589.592 Radial†	6055.7	6504.4	1941.4 ug/L	1941.4 ppb	22:12:41
3	Sr 421.552†	4256.6	4048.4	23.713 ug/L	23.713 ppb	22:12:41
3	Sc 361.383	942819.0	942819.0	104.88 %		22:14:12
3	Y 371.029	850761.9	850761.9	114.28 %		22:14:12
3	Ag 328.068†	-7003.7	-7047.4	3.9330 ug/L	3.9330 ppb	22:14:17
3	As 188.979†	-127.5	-86.7	22.931 ug/L	22.931 ppb	22:14:37
3	B 249.677†	298.6	310.6	-7.1686 ug/L	-7.1686 ppb	22:14:17
3	Ba 233.527†	15702.6	14973.9	105.69 ug/L	105.69 ppb	22:14:17
3	Be 313.107†	-30524.4	-24371.7	0.9081 ug/L	0.9081 ppb	22:14:17
3	Cd 226.502†	840.2	1030.2	-0.0936 ug/L	-0.0936 ppb	22:14:37
3	Co 228.616†	755.4	807.3	3.0161 ug/L	3.0161 ppb	22:14:37
3	Cr 267.716†	2866.6	2652.9	28.854 ug/L	28.854 ppb	22:14:37
3	Cu 324.752†	8777.1	2312.7	11.728 ug/L	11.728 ppb	22:14:17
3	Mn 257.610†	1413637.1	1347308.1	1339.1 ug/L	1339.1 ppb	22:14:12
3	Mo 202.031†	851.0	791.5	55.134 ug/L	55.134 ppb	22:14:37
3	Ni 231.604†	874.3	740.0	16.160 ug/L	16.160 ppb	22:14:37
3	P 214.914†	903.1	603.0	238.43 ug/L	238.43 ppb	22:14:37
3	Pb 220.353†	335.7	384.1	36.798 ug/L	36.798 ppb	22:14:37
3	S 181.975 Axial†	163.8	107.1	127.45 ug/L	127.45 ppb	22:14:37
3	Sb 206.836†	83.0	37.9	0.5804 ug/L	0.5804 ppb	22:14:37
3	Se 196.026†	-650.7	-591.9	-10.328 ug/L	-10.328 ppb	22:14:37
3	Si 251.611†	296102.4	281734.5	7942.7 ug/L	7942.7 ppb	22:14:17
3	Sn 189.927†	80.1	72.9	12.601 ug/L	12.601 ppb	22:14:37
3	Ti 334.940†	3350206.3	3195564.1	4620.4 ug/L	4620.4 ppb	22:14:12
3	Tl 190.801†	-208.4	-150.6	4.5108 ug/L	4.5108 ppb	22:14:37
3	U 409.014†	-5380.4	-2757.6	-88.839 ug/L	-88.839 ppb	22:14:17
3	V 292.402†	8950.1	10002.7	43.609 ug/L	43.609 ppb	22:14:17
3	Zn 213.857†	48013.8	44984.1	359.04 ug/L	359.04 ppb	22:14:17
3	SiO2†	299654.3	285091.8	17258 ug/L	17258 ppb	22:14:53

Mean Data: 242661018|932275|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	909823.0	101.21	%	4.561				4.51%
Sc Radial	5793.3	104	%	1.5				1.45%
Y 371.029	824170.8	110.71	%	4.392				3.97%
Y RADIAL	6727.1	113.8	%	1.63				1.43%
Ag 328.068†	-7255.5	3.5315	ug/L	0.93336	3.5315	ppb	0.93336	26.43%
Al 396.153Radial†	28220.4	20561	ug/L	199.8	20561	ppb	199.8	0.97%
As 188.979†	-94.6	21.993	ug/L	2.1575	21.993	ppb	2.1575	9.81%
B 249.677†	390.5	-5.7225	ug/L	1.35578	-5.7225	ppb	1.35578	23.69%
Ba 233.527†	15472.5	109.14	ug/L	4.010	109.14	ppb	4.010	3.67%
Be 313.107†	-25153.0	1.0452	ug/L	0.17598	1.0452	ppb	0.17598	16.84%
Ca 317.933Radial†	2043.7	2913.8	ug/L	86.49	2913.8	ppb	86.49	2.97%
Cd 226.502†	1063.1	0.0839	ug/L	0.31843	0.0839	ppb	0.31843	379.51%
Co 228.616†	845.7	3.2435	ug/L	0.21164	3.2435	ppb	0.21164	6.52%
Cr 267.716†	2746.5	29.834	ug/L	1.3214	29.834	ppb	1.3214	4.43%
Cu 324.752†	2677.0	12.831	ug/L	1.2439	12.831	ppb	1.2439	9.69%
Fe 238.204 Radial†	12422.1	103270	ug/L	1287.8	103270	ppb	1287.8	1.25%
K 766.490 Radial†	14147.4	2481.2	ug/L	34.08	2481.2	ppb	34.08	1.37%

Mg 279.077 IEC†	58.5	1727.8	ug/L	64.31	1727.8	ppb	64.31	3.72%
Mn 257.610†	1407408.1	1398.5	ug/L	75.89	1398.5	ppb	75.89	5.43%
Mo 202.031†	828.6	57.482	ug/L	2.7802	57.482	ppb	2.7802	4.84%
Na 589.592 Radial†	6621.2	1976.2	ug/L	32.26	1976.2	ppb	32.26	1.63%
Ni 231.604†	757.6	16.543	ug/L	0.9671	16.543	ppb	0.9671	5.85%
P 214.914†	623.8	248.05	ug/L	14.449	248.05	ppb	14.449	5.83%
Pb 220.353†	392.2	37.582	ug/L	2.2718	37.582	ppb	2.2718	6.05%
S 181.975 Axial†	114.5	136.36	ug/L	16.426	136.36	ppb	16.426	12.05%
Sb 206.836†	35.7	-0.5609	ug/L	2.85914	-0.5609	ppb	2.85914	509.77%
Se 196.026†	-614.0	-17.949	ug/L	12.6747	-17.949	ppb	12.6747	70.62%
Si 251.611†	292118.1	8235.4	ug/L	333.66	8235.4	ppb	333.66	4.05%
Sn 189.927†	76.6	13.177	ug/L	0.5096	13.177	ppb	0.5096	3.87%
Sr 421.552†	4133.9	24.214	ug/L	0.4366	24.214	ppb	0.4366	1.80%
Ti 334.940†	3336000.4	4823.5	ug/L	265.32	4823.5	ppb	265.32	5.50%
Tl 190.801†	-158.5	4.3751	ug/L	0.52905	4.3751	ppb	0.52905	12.09%
U 409.014†	-2975.7	-95.032	ug/L	8.3229	-95.032	ppb	8.3229	8.76%
V 292.402†	10330.1	45.270	ug/L	1.9645	45.270	ppb	1.9645	4.34%
Zn 213.857†	46591.5	372.08	ug/L	15.012	372.08	ppb	15.012	4.03%
SiO2†	294268.5	17814	ug/L	710.1	17814	ppb	710.1	3.99%

Sequence No.: 77
Sample ID: 242661019|932275|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 89
Date Collected: 12/19/2009 22:17:05
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 242661019|932275|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5762.2	5762.2	104	%			22:18:58
1	Y RADIAL	6899.6	6899.6	116.7	%			22:18:58
1	Al 396.153Radial†	20339.1	19667.6	14329	ug/L	14329	ppb	22:18:58
1	Ca 317.933Radial†	1146.3	1087.9	1551.1	ug/L	1551.1	ppb	22:19:18
1	Fe 238.204 Radial†	10434.9	10071.1	83722	ug/L	83722	ppb	22:18:58
1	K 766.490 Radial†	12700.9	9558.9	1671.2	ug/L	1671.2	ppb	22:18:58
1	Mg 279.077 IEC†	50.4	47.3	1397.1	ug/L	1397.1	ppb	22:19:18
1	Na 589.592 Radial†	3890.5	4520.6	1349.3	ug/L	1349.3	ppb	22:18:58
1	Sr 421.552†	2377.3	2308.7	13.524	ug/L	13.524	ppb	22:18:58
1	Sc 361.383	942439.1	942439.1	104.84	%			22:20:15
1	Y 371.029	873500.0	873500.0	117.33	%			22:20:15
1	Ag 328.068†	-5467.8	-5585.2	4.1158	ug/L	4.1158	ppb	22:20:20
1	As 188.979†	-122.6	-82.1	15.200	ug/L	15.200	ppb	22:20:40
1	B 249.677†	71.4	94.1	-9.2055	ug/L	-9.2055	ppb	22:20:20
1	Ba 233.527†	12794.4	12206.1	86.152	ug/L	86.152	ppb	22:20:20
1	Be 313.107†	-24899.4	-19018.3	1.1517	ug/L	1.1517	ppb	22:20:20
1	Cd 226.502†	637.0	836.8	-0.1780	ug/L	-0.1780	ppb	22:20:40
1	Co 228.616†	608.5	667.5	2.4740	ug/L	2.4740	ppb	22:20:40
1	Cr 267.716†	1959.5	1788.8	19.729	ug/L	19.729	ppb	22:20:40
1	Cu 324.752†	8302.8	1863.7	9.5365	ug/L	9.5365	ppb	22:20:20
1	Mn 257.610†	1492522.1	1423092.7	1412.0	ug/L	1412.0	ppb	22:20:15
1	Mo 202.031†	674.4	623.4	43.675	ug/L	43.675	ppb	22:20:40
1	Ni 231.604†	738.5	610.8	13.337	ug/L	13.337	ppb	22:20:40
1	P 214.914†	800.8	505.7	200.41	ug/L	200.41	ppb	22:20:40
1	Pb 220.353†	260.7	312.7	29.389	ug/L	29.389	ppb	22:20:40
1	S 181.975 Axial†	114.0	59.7	70.415	ug/L	70.415	ppb	22:20:40
1	Sb 206.836†	78.0	33.2	1.1061	ug/L	1.1061	ppb	22:20:40
1	Se 196.026†	-527.9	-475.0	-2.5102	ug/L	-2.5102	ppb	22:20:40
1	Si 251.611†	228600.1	217463.9	6130.8	ug/L	6130.8	ppb	22:20:20
1	Sn 189.927†	74.0	67.1	11.348	ug/L	11.348	ppb	22:20:40
1	Ti 334.940†	2776398.9	2649547.8	3830.9	ug/L	3830.9	ppb	22:20:15
1	Tl 190.801†	-189.1	-132.3	3.5524	ug/L	3.5524	ppb	22:20:40
1	U 409.014†	-5685.3	-3050.5	-94.614	ug/L	-94.614	ppb	22:20:20
1	V 292.402†	4947.2	6188.1	22.806	ug/L	22.806	ppb	22:20:20
1	Zn 213.857†	38064.5	35512.8	283.12	ug/L	283.12	ppb	22:20:20
1	SiO2†	234305.5	222876.5	13492	ug/L	13492	ppb	22:21:48
2	Sc Radial	5809.2	5809.2	104	%			22:19:23
2	Y RADIAL	6976.7	6976.7	118.0	%			22:19:23
2	Al 396.153Radial†	20255.1	19427.9	14155	ug/L	14155	ppb	22:19:23
2	Ca 317.933Radial†	1143.8	1076.6	1534.9	ug/L	1534.9	ppb	22:19:43
2	Fe 238.204 Radial†	10395.9	9952.1	82732	ug/L	82732	ppb	22:19:23
2	K 766.490 Radial†	12653.0	9413.6	1645.6	ug/L	1645.6	ppb	22:19:23
2	Mg 279.077 IEC†	46.6	43.2	1272.2	ug/L	1272.2	ppb	22:19:43
2	Na 589.592 Radial†	3817.0	4419.6	1319.1	ug/L	1319.1	ppb	22:19:23
2	Sr 421.552†	2350.1	2264.0	13.262	ug/L	13.262	ppb	22:19:23
2	Sc 361.383	934785.4	934785.4	103.99	%			22:20:46
2	Y 371.029	866413.0	866413.0	116.38	%			22:20:46
2	Ag 328.068†	-5592.7	-5748.0	3.0906	ug/L	3.0906	ppb	22:20:51
2	As 188.979†	-120.4	-81.0	15.426	ug/L	15.426	ppb	22:21:11
2	B 249.677†	145.0	165.3	-7.6105	ug/L	-7.6105	ppb	22:20:51
2	Ba 233.527†	12908.9	12416.0	87.545	ug/L	87.545	ppb	22:20:51
2	Be 313.107†	-25461.6	-19753.3	0.8958	ug/L	0.8958	ppb	22:20:51
2	Cd 226.502†	638.8	843.4	-0.0137	ug/L	-0.0137	ppb	22:21:11
2	Co 228.616†	576.7	641.7	2.0484	ug/L	2.0484	ppb	22:21:11
2	Cr 267.716†	1962.4	1807.0	19.899	ug/L	19.899	ppb	22:21:11
2	Cu 324.752†	8349.3	1973.3	9.7956	ug/L	9.7956	ppb	22:20:51
2	Mn 257.610†	1477781.9	1420574.1	1409.4	ug/L	1409.4	ppb	22:20:46
2	Mo 202.031†	676.0	630.2	44.017	ug/L	44.017	ppb	22:21:11
2	Ni 231.604†	745.9	623.6	13.619	ug/L	13.619	ppb	22:21:11

2	P 214.914†	825.1	535.3	216.55	ug/L	216.55 ppb	22:21:11
2	Pb 220.353†	259.9	314.0	29.566	ug/L	29.566 ppb	22:21:11
2	S 181.975 Axial†	102.3	49.3	57.754	ug/L	57.754 ppb	22:21:11
2	Sb 206.836†	70.6	26.6	-0.8592	ug/L	-0.8592 ppb	22:21:11
2	Se 196.026†	-539.9	-490.7	-14.045	ug/L	-14.045 ppb	22:21:11
2	Si 251.611†	231433.9	221974.1	6258.0	ug/L	6258.0 ppb	22:20:51
2	Sn 189.927†	66.3	60.2	10.309	ug/L	10.309 ppb	22:21:11
2	Ti 334.940†	2750400.6	2646229.5	3826.1	ug/L	3826.1 ppb	22:20:46
2	Tl 190.801†	-174.1	-119.3	6.8564	ug/L	6.8564 ppb	22:21:11
2	U 409.014†	-5736.7	-3144.3	-97.077	ug/L	-97.077 ppb	22:20:51
2	V 292.402†	5104.6	6378.1	24.168	ug/L	24.168 ppb	22:20:51
2	Zn 213.857†	38451.7	36182.4	288.71	ug/L	288.71 ppb	22:20:51
2	SiO2†	234745.8	225129.7	13629	ug/L	13629 ppb	22:21:53
3	Sc Radial	5674.1	5674.1	102	%		22:19:48
3	Y RADIAL	6826.7	6826.7	115.5	%		22:19:48
3	Al 396.153Radial†	20274.0	19908.6	14505	ug/L	14505 ppb	22:19:48
3	Ca 317.933Radial†	1150.2	1109.0	1581.1	ug/L	1581.1 ppb	22:20:08
3	Fe 238.204 Radial†	10402.6	10195.9	84759	ug/L	84759 ppb	22:19:48
3	K 766.490 Radial†	12678.5	9727.3	1701.0	ug/L	1701.0 ppb	22:19:48
3	Mg 279.077 IEC†	50.1	47.7	1410.7	ug/L	1410.7 ppb	22:20:08
3	Na 589.592 Radial†	3843.3	4532.5	1352.8	ug/L	1352.8 ppb	22:19:48
3	Sr 421.552†	2380.7	2347.7	13.752	ug/L	13.752 ppb	22:19:48
3	Sc 361.383	944751.5	944751.5	105.10	%		22:21:17
3	Y 371.029	876566.5	876566.5	117.74	%		22:21:17
3	Ag 328.068†	-5505.7	-5608.5	4.3668	ug/L	4.3668 ppb	22:21:22
3	As 188.979†	-120.7	-80.0	16.114	ug/L	16.114 ppb	22:21:42
3	B 249.677†	101.0	122.1	-8.7674	ug/L	-8.7674 ppb	22:21:22
3	Ba 233.527†	12799.5	12181.0	86.023	ug/L	86.023 ppb	22:21:22
3	Be 313.107†	-25400.6	-19436.9	1.0096	ug/L	1.0096 ppb	22:21:22
3	Cd 226.502†	651.3	848.9	-0.1630	ug/L	-0.1630 ppb	22:21:42
3	Co 228.616†	592.7	651.0	2.1740	ug/L	2.1740 ppb	22:21:42
3	Cr 267.716†	1971.4	1795.6	19.819	ug/L	19.819 ppb	22:21:42
3	Cu 324.752†	8295.3	1837.3	9.5146	ug/L	9.5146 ppb	22:21:22
3	Mn 257.610†	1493755.5	1420781.8	1409.8	ug/L	1409.8 ppb	22:21:17
3	Mo 202.031†	684.0	630.9	44.204	ug/L	44.204 ppb	22:21:42
3	Ni 231.604†	749.1	619.2	13.521	ug/L	13.521 ppb	22:21:42
3	P 214.914†	806.3	509.1	201.41	ug/L	201.41 ppb	22:21:42
3	Pb 220.353†	237.5	290.0	26.947	ug/L	26.947 ppb	22:21:42
3	S 181.975 Axial†	113.2	58.7	69.161	ug/L	69.161 ppb	22:21:42
3	Sb 206.836†	70.3	25.6	-1.1405	ug/L	-1.1405 ppb	22:21:42
3	Se 196.026†	-533.5	-479.1	-1.5326	ug/L	-1.5326 ppb	22:21:42
3	Si 251.611†	229757.3	218031.3	6146.8	ug/L	6146.8 ppb	22:21:22
3	Sn 189.927†	67.5	60.8	10.417	ug/L	10.417 ppb	22:21:42
3	Ti 334.940†	2782597.2	2648963.5	3830.1	ug/L	3830.1 ppb	22:21:17
3	Tl 190.801†	-182.2	-125.3	5.3373	ug/L	5.3373 ppb	22:21:42
3	U 409.014†	-5738.7	-3088.0	-95.779	ug/L	-95.779 ppb	22:21:22
3	V 292.402†	5136.0	6356.2	23.723	ug/L	23.723 ppb	22:21:22
3	Zn 213.857†	38261.5	35611.3	283.83	ug/L	283.83 ppb	22:21:22
3	SiO2†	235221.2	223200.8	13512	ug/L	13512 ppb	22:21:58

Mean Data: 242661019|932275|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	940658.7	104.64	%	0.580				0.55%
Sc Radial	5748.5	103	%	1.2				1.19%
Y 371.029	872159.8	117.15	%	0.700				0.60%
Y RADIAL	6901.0	116.7	%	1.27				1.09%
Ag 328.068†	-5647.2	3.8577	ug/L	0.67613	3.8577	ppb	0.67613	17.53%
Al 396.153Radial†	19668.0	14330	ug/L	175.2	14330	ppb	175.2	1.22%
As 188.979†	-81.0	15.580	ug/L	0.4760	15.580	ppb	0.4760	3.06%
B 249.677†	127.2	-8.5278	ug/L	0.82408	-8.5278	ppb	0.82408	9.66%
Ba 233.527†	12267.7	86.573	ug/L	0.8441	86.573	ppb	0.8441	0.97%
Be 313.107†	-19402.8	1.0190	ug/L	0.12823	1.0190	ppb	0.12823	12.58%
Ca 317.933Radial†	1091.2	1555.7	ug/L	23.44	1555.7	ppb	23.44	1.51%
Cd 226.502†	843.0	-0.1182	ug/L	0.09086	-0.1182	ppb	0.09086	76.85%
Co 228.616†	653.4	2.2321	ug/L	0.21870	2.2321	ppb	0.21870	9.80%
Cr 267.716†	1797.1	19.815	ug/L	0.0847	19.815	ppb	0.0847	0.43%
Cu 324.752†	1891.4	9.6156	ug/L	0.15631	9.6156	ppb	0.15631	1.63%
Fe 238.204 Radial†	10073.0	83738	ug/L	1013.6	83738	ppb	1013.6	1.21%
K 766.490 Radial†	9566.6	1672.6	ug/L	27.72	1672.6	ppb	27.72	1.66%

Mg 279.077 IEC†	46.1	1360.0	ug/L	76.33	1360.0	ppb	76.33	5.61%
Mn 257.610†	1421482.9	1410.4	ug/L	1.39	1410.4	ppb	1.39	0.10%
Mo 202.031†	628.2	43.965	ug/L	0.2682	43.965	ppb	0.2682	0.61%
Na 589.592 Radial†	4490.9	1340.4	ug/L	18.51	1340.4	ppb	18.51	1.38%
Ni 231.604†	617.9	13.492	ug/L	0.1429	13.492	ppb	0.1429	1.06%
P 214.914†	516.7	206.12	ug/L	9.045	206.12	ppb	9.045	4.39%
Pb 220.353†	305.6	28.634	ug/L	1.4637	28.634	ppb	1.4637	5.11%
S 181.975 Axial†	55.9	65.777	ug/L	6.9761	65.777	ppb	6.9761	10.61%
Sb 206.836†	28.5	-0.2979	ug/L	1.22398	-0.2979	ppb	1.22398	410.93%
Se 196.026†	-481.6	-6.0292	ug/L	6.95894	-6.0292	ppb	6.95894	115.42%
Si 251.611†	219156.4	6178.5	ug/L	69.28	6178.5	ppb	69.28	1.12%
Sn 189.927†	62.7	10.691	ug/L	0.5710	10.691	ppb	0.5710	5.34%
Sr 421.552†	2306.8	13.512	ug/L	0.2454	13.512	ppb	0.2454	1.82%
Ti 334.940†	2648246.9	3829.1	ug/L	2.56	3829.1	ppb	2.56	0.07%
Tl 190.801†	-125.6	5.2487	ug/L	1.65376	5.2487	ppb	1.65376	31.51%
U 409.014†	-3094.3	-95.824	ug/L	1.2318	-95.824	ppb	1.2318	1.29%
V 292.402†	6307.5	23.566	ug/L	0.6948	23.566	ppb	0.6948	2.95%
Zn 213.857†	35768.9	285.22	ug/L	3.043	285.22	ppb	3.043	1.07%
SiO2†	223735.7	13544	ug/L	73.8	13544	ppb	73.8	0.54%

Sequence No.: 78
Sample ID: 242661020|932275|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 90
Date Collected: 12/19/2009 22:24:10
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 242661020|932275|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5720.3	5720.3	103	%			22:26:03
1	Y RADIAL	6754.2	6754.2	114.3	%			22:26:03
1	Al 396.153Radial†	35041.4	34120.6	24861	ug/L	24861	ppb	22:26:03
1	Ca 317.933Radial†	3332.0	3223.3	4595.6	ug/L	4595.6	ppb	22:26:23
1	Fe 238.204 Radial†	11979.1	11647.9	96830	ug/L	96830	ppb	22:26:03
1	K 766.490 Radial†	28326.7	24856.6	4371.4	ug/L	4371.4	ppb	22:26:03
1	Mg 279.077 IEC†	145.7	140.4	4276.7	ug/L	4276.7	ppb	22:26:23
1	Na 589.592 Radial†	6050.0	6649.9	1984.8	ug/L	1984.8	ppb	22:26:03
1	Sr 421.552†	7456.9	7269.2	42.583	ug/L	42.583	ppb	22:26:03
1	Sc 361.383	932722.0	932722.0	103.76	%			22:27:21
1	Y 371.029	852934.1	852934.1	114.57	%			22:27:21
1	Ag 328.068†	-6514.9	-6648.6	4.0112	ug/L	4.0112	ppb	22:27:26
1	As 188.979†	-115.9	-76.8	18.898	ug/L	18.898	ppb	22:27:46
1	B 249.677†	257.6	274.2	-7.2638	ug/L	-7.2638	ppb	22:27:26
1	Ba 233.527†	29315.0	28254.9	195.76	ug/L	195.76	ppb	22:27:26
1	Be 313.107†	-25062.9	-19423.2	0.9530	ug/L	0.9530	ppb	22:27:26
1	Cd 226.502†	777.0	978.0	-0.0977	ug/L	-0.0977	ppb	22:27:46
1	Co 228.616†	986.7	1038.0	8.8417	ug/L	8.8417	ppb	22:27:46
1	Cr 267.716†	3213.4	3016.7	32.472	ug/L	32.472	ppb	22:27:46
1	Cu 324.752†	10958.5	4505.7	17.670	ug/L	17.670	ppb	22:27:26
1	Mn 257.610†	1239474.7	1194049.7	1187.4	ug/L	1187.4	ppb	22:27:21
1	Mo 202.031†	386.7	352.8	28.226	ug/L	28.226	ppb	22:27:46
1	Ni 231.604†	1434.5	1289.0	28.151	ug/L	28.151	ppb	22:27:46
1	P 214.914†	886.2	596.0	239.21	ug/L	239.21	ppb	22:27:46
1	Pb 220.353†	410.5	459.6	46.111	ug/L	46.111	ppb	22:27:46
1	S 181.975 Axial†	126.2	72.6	84.219	ug/L	84.219	ppb	22:27:46
1	Sb 206.836†	79.7	35.6	1.0581	ug/L	1.0581	ppb	22:27:46
1	Se 196.026†	-613.7	-562.9	-9.1635	ug/L	-9.1635	ppb	22:27:46
1	Si 251.611†	387290.8	372673.3	10507	ug/L	10507	ppb	22:27:26
1	Sn 189.927†	9.4	5.6	2.6233	ug/L	2.6233	ppb	22:27:46
1	Ti 334.940†	2724802.8	2627410.5	3799.1	ug/L	3799.1	ppb	22:27:21
1	Tl 190.801†	-193.9	-138.8	0.5029	ug/L	0.5029	ppb	22:27:46
1	U 409.014†	-8353.4	-5678.4	-168.69	ug/L	-168.69	ppb	22:27:26
1	V 292.402†	8223.1	9394.4	40.926	ug/L	40.926	ppb	22:27:26
1	Zn 213.857†	39524.0	37297.6	296.30	ug/L	296.30	ppb	22:27:26
1	SiO2†	397084.1	382082.3	23131	ug/L	23131	ppb	22:28:54
2	Sc Radial	5755.4	5755.4	103	%			22:26:28
2	Y RADIAL	6790.3	6790.3	114.9	%			22:26:28
2	Al 396.153Radial†	35280.7	34143.7	24878	ug/L	24878	ppb	22:26:28
2	Ca 317.933Radial†	3333.8	3205.2	4569.8	ug/L	4569.8	ppb	22:26:48
2	Fe 238.204 Radial†	12102.1	11695.6	97226	ug/L	97226	ppb	22:26:28
2	K 766.490 Radial†	28697.4	25046.8	4404.9	ug/L	4404.9	ppb	22:26:28
2	Mg 279.077 IEC†	144.6	138.4	4215.8	ug/L	4215.8	ppb	22:26:48
2	Na 589.592 Radial†	6097.8	6660.1	1987.8	ug/L	1987.8	ppb	22:26:28
2	Sr 421.552†	7479.7	7247.0	42.453	ug/L	42.453	ppb	22:26:28
2	Sc 361.383	947645.3	947645.3	105.42	%			22:27:52
2	Y 371.029	866347.7	866347.7	116.37	%			22:27:52
2	Ag 328.068†	-6486.8	-6523.1	4.6775	ug/L	4.6775	ppb	22:27:57
2	As 188.979†	-116.8	-76.0	19.219	ug/L	19.219	ppb	22:28:17
2	B 249.677†	289.5	300.6	-6.7756	ug/L	-6.7756	ppb	22:27:57
2	Ba 233.527†	29277.4	27774.3	192.51	ug/L	192.51	ppb	22:27:57
2	Be 313.107†	-25261.3	-19231.0	1.0017	ug/L	1.0017	ppb	22:27:57
2	Cd 226.502†	742.1	933.1	-0.5766	ug/L	-0.5766	ppb	22:28:17
2	Co 228.616†	1002.3	1037.9	8.8460	ug/L	8.8460	ppb	22:28:17
2	Cr 267.716†	3220.5	2974.7	32.050	ug/L	32.050	ppb	22:28:17
2	Cu 324.752†	10803.8	4192.6	16.805	ug/L	16.805	ppb	22:27:57
2	Mn 257.610†	1254210.2	1189216.0	1182.6	ug/L	1182.6	ppb	22:27:52
2	Mo 202.031†	373.4	334.3	27.135	ug/L	27.135	ppb	22:28:17
2	Ni 231.604†	1434.7	1267.3	27.678	ug/L	27.678	ppb	22:28:17

2	P 214.914†	880.3	577.0	229.09	ug/L	229.09 ppb	22:28:17
2	Pb 220.353†	402.5	445.9	44.626	ug/L	44.626 ppb	22:28:17
2	S 181.975 Axial†	130.7	75.0	87.113	ug/L	87.113 ppb	22:28:17
2	Sb 206.836†	72.8	27.8	-1.2572	ug/L	-1.2572 ppb	22:28:17
2	Se 196.026†	-615.0	-554.8	-3.5608	ug/L	-3.5608 ppb	22:28:17
2	Si 251.611†	387666.8	367152.0	10351	ug/L	10351 ppb	22:27:57
2	Sn 189.927†	4.6	0.8	1.9134	ug/L	1.9134 ppb	22:28:17
2	Ti 334.940†	2762565.9	2621877.6	3791.1	ug/L	3791.1 ppb	22:27:52
2	Tl 190.801†	-185.1	-127.5	3.3324	ug/L	3.3324 ppb	22:28:17
2	U 409.014†	-8343.2	-5541.9	-164.98	ug/L	-164.98 ppb	22:27:57
2	V 292.402†	8177.0	9225.9	39.793	ug/L	39.793 ppb	22:27:57
2	Zn 213.857†	39565.3	36736.9	291.67	ug/L	291.67 ppb	22:27:57
2	SiO2†	396308.6	375320.2	22721	ug/L	22721 ppb	22:28:59
3	Sc Radial	5723.4	5723.4	103	%		22:26:53
3	Y RADIAL	6755.6	6755.6	114.3	%		22:26:53
3	Al 396.153Radial†	35102.0	34160.6	24890	ug/L	24890 ppb	22:26:53
3	Ca 317.933Radial†	3293.5	3184.1	4539.7	ug/L	4539.7 ppb	22:27:13
3	Fe 238.204 Radial†	11969.7	11632.2	96700	ug/L	96700 ppb	22:26:53
3	K 766.490 Radial†	28518.3	25027.8	4401.5	ug/L	4401.5 ppb	22:26:53
3	Mg 279.077 IEC†	142.4	137.1	4175.0	ug/L	4175.0 ppb	22:27:13
3	Na 589.592 Radial†	6107.4	6702.4	2000.5	ug/L	2000.5 ppb	22:26:53
3	Sr 421.552†	7447.6	7256.2	42.507	ug/L	42.507 ppb	22:26:53
3	Sc 361.383	939221.7	939221.7	104.48	%		22:28:23
3	Y 371.029	857959.1	857959.1	115.25	%		22:28:23
3	Ag 328.068†	-6546.2	-6635.2	4.0247	ug/L	4.0247 ppb	22:28:28
3	As 188.979†	-121.9	-81.9	17.006	ug/L	17.006 ppb	22:28:48
3	B 249.677†	346.0	357.0	-5.5461	ug/L	-5.5461 ppb	22:28:28
3	Ba 233.527†	29252.0	27999.1	194.02	ug/L	194.02 ppb	22:28:28
3	Be 313.107†	-25037.7	-19231.9	1.0069	ug/L	1.0069 ppb	22:28:28
3	Cd 226.502†	785.8	981.3	-0.0529	ug/L	-0.0529 ppb	22:28:48
3	Co 228.616†	983.6	1028.5	8.6882	ug/L	8.6882 ppb	22:28:48
3	Cr 267.716†	3236.6	3017.5	32.477	ug/L	32.477 ppb	22:28:48
3	Cu 324.752†	10895.5	4372.2	17.286	ug/L	17.286 ppb	22:28:28
3	Mn 257.610†	1246549.2	1192554.0	1185.9	ug/L	1185.9 ppb	22:28:23
3	Mo 202.031†	401.6	364.5	28.922	ug/L	28.922 ppb	22:28:48
3	Ni 231.604†	1428.1	1273.3	27.808	ug/L	27.808 ppb	22:28:48
3	P 214.914†	888.0	591.8	237.20	ug/L	237.20 ppb	22:28:48
3	Pb 220.353†	402.0	448.8	44.983	ug/L	44.983 ppb	22:28:48
3	S 181.975 Axial†	136.2	81.3	94.899	ug/L	94.899 ppb	22:28:48
3	Sb 206.836†	75.4	30.9	-0.2796	ug/L	-0.2796 ppb	22:28:48
3	Se 196.026†	-610.6	-555.9	-5.7314	ug/L	-5.7314 ppb	22:28:48
3	Si 251.611†	386632.9	369460.6	10416	ug/L	10416 ppb	22:28:28
3	Sn 189.927†	19.7	15.3	4.0795	ug/L	4.0795 ppb	22:28:48
3	Ti 334.940†	2740018.4	2623800.3	3793.9	ug/L	3793.9 ppb	22:28:23
3	Tl 190.801†	-201.9	-145.1	-1.1939	ug/L	-1.1939 ppb	22:28:48
3	U 409.014†	-8416.6	-5683.1	-168.81	ug/L	-168.81 ppb	22:28:28
3	V 292.402†	8205.8	9323.1	40.505	ug/L	40.505 ppb	22:28:28
3	Zn 213.857†	39474.2	36986.3	293.77	ug/L	293.77 ppb	22:28:28
3	SiO2†	399022.0	381288.7	23082	ug/L	23082 ppb	22:29:04

Mean Data: 242661020|932275|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	939863.0	104.56	%	0.832				0.80%
Sc Radial	5733.1	103	%	0.3				0.34%
Y 371.029	859080.3	115.40	%	0.910				0.79%
Y RADIAL	6766.7	114.5	%	0.35				0.30%
Ag 328.068†	-6602.3	4.2378	ug/L	0.38089	4.2378	ppb	0.38089	8.99%
Al 396.153Radial†	34141.6	24877	ug/L	14.6	24877	ppb	14.6	0.06%
As 188.979†	-78.2	18.374	ug/L	1.1959	18.374	ppb	1.1959	6.51%
B 249.677†	310.6	-6.5285	ug/L	0.88513	-6.5285	ppb	0.88513	13.56%
Ba 233.527†	28009.4	194.09	ug/L	1.628	194.09	ppb	1.628	0.84%
Be 313.107†	-19295.4	0.9872	ug/L	0.02974	0.9872	ppb	0.02974	3.01%
Ca 317.933Radial†	3204.2	4568.3	ug/L	27.97	4568.3	ppb	27.97	0.61%
Cd 226.502†	964.1	-0.2424	ug/L	0.29029	-0.2424	ppb	0.29029	119.76%
Co 228.616†	1034.8	8.7920	ug/L	0.08989	8.7920	ppb	0.08989	1.02%
Cr 267.716†	3003.0	32.333	ug/L	0.2449	32.333	ppb	0.2449	0.76%
Cu 324.752†	4356.9	17.254	ug/L	0.4331	17.254	ppb	0.4331	2.51%
Fe 238.204 Radial†	11658.5	96919	ug/L	274.3	96919	ppb	274.3	0.28%
K 766.490 Radial†	24977.1	4392.6	ug/L	18.49	4392.6	ppb	18.49	0.42%

Mg 279.077 IEC†	138.6	4222.5	ug/L	51.18	4222.5	ppb	51.18	1.21%
Mn 257.610†	1191939.9	1185.3	ug/L	2.42	1185.3	ppb	2.42	0.20%
Mo 202.031†	350.6	28.094	ug/L	0.9010	28.094	ppb	0.9010	3.21%
Na 589.592 Radial†	6670.8	1991.0	ug/L	8.32	1991.0	ppb	8.32	0.42%
Ni 231.604†	1276.5	27.879	ug/L	0.2445	27.879	ppb	0.2445	0.88%
P 214.914†	588.3	235.17	ug/L	5.360	235.17	ppb	5.360	2.28%
Pb 220.353†	451.4	45.240	ug/L	0.7751	45.240	ppb	0.7751	1.71%
S 181.975 Axial†	76.3	88.744	ug/L	5.5239	88.744	ppb	5.5239	6.22%
Sb 206.836†	31.4	-0.1596	ug/L	1.16227	-0.1596	ppb	1.16227	728.44%
Se 196.026†	-557.9	-6.1519	ug/L	2.82495	-6.1519	ppb	2.82495	45.92%
Si 251.611†	369762.0	10425	ug/L	78.2	10425	ppb	78.2	0.75%
Sn 189.927†	7.3	2.8721	ug/L	1.10427	2.8721	ppb	1.10427	38.45%
Sr 421.552†	7257.5	42.515	ug/L	0.0652	42.515	ppb	0.0652	0.15%
Ti 334.940†	2624362.8	3794.7	ug/L	4.06	3794.7	ppb	4.06	0.11%
Tl 190.801†	-137.2	0.8805	ug/L	2.28667	0.8805	ppb	2.28667	259.71%
U 409.014†	-5634.5	-167.49	ug/L	2.176	-167.49	ppb	2.176	1.30%
V 292.402†	9314.4	40.408	ug/L	0.5729	40.408	ppb	0.5729	1.42%
Zn 213.857†	37007.0	293.92	ug/L	2.319	293.92	ppb	2.319	0.79%
SiO2†	379563.7	22978	ug/L	223.8	22978	ppb	223.8	0.97%

Sequence No.: 79
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 12/19/2009 22:31:15
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	5558.1	5558.1	99.8	%			22:33:07
1	Y RADIAL	5857.2	5857.2	99.08	%			22:33:07
1	Al 396.153Radial†	6877.6	6905.4	5010.3	ug/L	5010.3	ppb	22:33:07
1	Ca 317.933Radial†	3554.8	3541.1	5048.7	ug/L	5048.7	ppb	22:33:27
1	Fe 238.204 Radial†	630.4	620.5	5174.6	ug/L	5174.6	ppb	22:33:27
1	K 766.490 Radial†	30661.4	27999.9	4926.1	ug/L	4926.1	ppb	22:33:07
1	Mg 279.077 IEC†	168.5	167.4	5203.2	ug/L	5203.2	ppb	22:33:27
1	Na 589.592 Radial†	33266.0	34082.9	10173	ug/L	10173	ppb	22:33:07
1	Sr 421.552†	86595.2	86750.8	508.65	ug/L	508.65	ppb	22:33:07
1	Sc 361.383	910574.2	910574.2	101.30	%			22:34:25
1	Y 371.029	744846.1	744846.1	100.05	%			22:34:25
1	Ag 328.068†	119310.7	117412.3	509.22	ug/L	509.22	ppb	22:34:30
1	As 188.979†	1369.6	1386.9	507.88	ug/L	507.88	ppb	22:34:50
1	B 249.677†	24306.2	24020.8	491.00	ug/L	491.00	ppb	22:34:30
1	Ba 233.527†	75816.4	74847.7	510.04	ug/L	510.04	ppb	22:34:30
1	Be 313.107†	1536172.3	1521223.7	511.15	ug/L	511.15	ppb	22:34:25
1	Cd 226.502†	52664.5	52219.0	510.51	ug/L	510.51	ppb	22:34:30
1	Co 228.616†	29345.9	29057.0	508.78	ug/L	508.78	ppb	22:34:30
1	Cr 267.716†	51235.4	50498.9	512.81	ug/L	512.81	ppb	22:34:30
1	Cu 324.752†	187878.9	179416.4	507.18	ug/L	507.18	ppb	22:34:30
1	Mn 257.610†	521403.0	514231.8	507.64	ug/L	507.64	ppb	22:34:25
1	Mo 202.031†	8357.4	8230.5	498.57	ug/L	498.57	ppb	22:34:50
1	Ni 231.604†	23870.8	23471.4	512.50	ug/L	512.50	ppb	22:34:30
1	P 214.914†	5061.8	4738.9	2395.0	ug/L	2395.0	ppb	22:34:50
1	Pb 220.353†	4732.6	4736.0	500.61	ug/L	500.61	ppb	22:34:50
1	S 181.975 Axial†	862.4	802.3	983.32	ug/L	983.32	ppb	22:34:50
1	Sb 206.836†	1706.6	1643.5	499.23	ug/L	499.23	ppb	22:34:50
1	Se 196.026†	893.0	910.1	513.79	ug/L	513.79	ppb	22:34:50
1	Si 251.611†	91236.4	89490.1	2511.6	ug/L	2511.6	ppb	22:34:30
1	Sn 189.927†	3351.3	3304.9	496.25	ug/L	496.25	ppb	22:34:50
1	Ti 334.940†	350860.8	347753.5	502.66	ug/L	502.66	ppb	22:34:25
1	Tl 190.801†	1908.2	1931.8	504.41	ug/L	504.41	ppb	22:34:50
1	U 409.014†	16009.9	18177.0	499.18	ug/L	499.18	ppb	22:34:30
1	V 292.402†	79823.6	80270.4	517.21	ug/L	517.21	ppb	22:34:30
1	Zn 213.857†	64033.9	62420.0	507.38	ug/L	507.38	ppb	22:34:30
1	SiO2†	90311.1	88547.5	5335.6	ug/L	5335.6	ppb	22:35:58
2	Sc Radial	5515.3	5515.3	99.1	%			22:33:32
2	Y RADIAL	5842.7	5842.7	98.84	%			22:33:32
2	Al 396.153Radial†	6902.7	6984.1	5067.5	ug/L	5067.5	ppb	22:33:32
2	Ca 317.933Radial†	3567.5	3581.5	5106.3	ug/L	5106.3	ppb	22:33:52
2	Fe 238.204 Radial†	641.5	636.7	5308.8	ug/L	5308.8	ppb	22:33:52
2	K 766.490 Radial†	30801.5	28379.2	4992.9	ug/L	4992.9	ppb	22:33:32
2	Mg 279.077 IEC†	168.1	168.3	5230.8	ug/L	5230.8	ppb	22:33:52
2	Na 589.592 Radial†	33475.4	34552.4	10313	ug/L	10313	ppb	22:33:32
2	Sr 421.552†	86823.1	87652.7	513.94	ug/L	513.94	ppb	22:33:32
2	Sc 361.383	911232.9	911232.9	101.37	%			22:34:56
2	Y 371.029	745221.1	745221.1	100.10	%			22:34:56
2	Ag 328.068†	118404.0	116432.7	505.04	ug/L	505.04	ppb	22:35:01
2	As 188.979†	1370.8	1387.0	507.96	ug/L	507.96	ppb	22:35:21
2	B 249.677†	24181.7	23880.6	488.12	ug/L	488.12	ppb	22:35:01
2	Ba 233.527†	75264.6	74249.3	505.97	ug/L	505.97	ppb	22:35:01
2	Be 313.107†	1542713.1	1526579.6	512.94	ug/L	512.94	ppb	22:34:56
2	Cd 226.502†	52394.3	51914.9	507.52	ug/L	507.52	ppb	22:35:01
2	Co 228.616†	29032.6	28727.1	503.01	ug/L	503.01	ppb	22:35:01
2	Cr 267.716†	50876.1	50107.8	508.85	ug/L	508.85	ppb	22:35:01
2	Cu 324.752†	186389.4	177813.0	502.66	ug/L	502.66	ppb	22:35:01
2	Mn 257.610†	522647.3	515087.2	508.50	ug/L	508.50	ppb	22:34:56
2	Mo 202.031†	8424.6	8290.8	502.23	ug/L	502.23	ppb	22:35:21
2	Ni 231.604†	23660.8	23247.2	507.61	ug/L	507.61	ppb	22:35:01

2	P 214.914†	5106.8	4779.6	2416.9 ug/L	2416.9 ppb	22:35:21
2	Pb 220.353†	4778.7	4778.2	505.06 ug/L	505.06 ppb	22:35:21
2	S 181.975 Axial†	873.3	812.5	995.73 ug/L	995.73 ppb	22:35:21
2	Sb 206.836†	1723.5	1659.0	504.10 ug/L	504.10 ppb	22:35:21
2	Se 196.026†	901.0	917.4	518.20 ug/L	518.20 ppb	22:35:21
2	Si 251.611†	90540.4	88738.4	2490.3 ug/L	2490.3 ppb	22:35:01
2	Sn 189.927†	3385.8	3336.5	501.00 ug/L	501.00 ppb	22:35:21
2	Ti 334.940†	351606.4	348238.7	503.37 ug/L	503.37 ppb	22:34:56
2	Tl 190.801†	1921.3	1943.4	507.45 ug/L	507.45 ppb	22:35:21
2	U 409.014†	15792.0	17950.7	492.93 ug/L	492.93 ppb	22:35:01
2	V 292.402†	79278.7	79675.9	513.45 ug/L	513.45 ppb	22:35:01
2	Zn 213.857†	63515.3	61862.8	502.83 ug/L	502.83 ppb	22:35:01
2	SiO2†	91419.7	89576.6	5397.7 ug/L	5397.7 ppb	22:36:03
3	Sc Radial	5533.8	5533.8	99.4 %		22:33:58
3	Y RADIAL	5853.1	5853.1	99.01 %		22:33:58
3	Al 396.153Radial†	6913.3	6971.6	5058.3 ug/L	5058.3 ppb	22:33:58
3	Ca 317.933Radial†	3547.2	3549.1	5060.0 ug/L	5060.0 ppb	22:34:18
3	Fe 238.204 Radial†	636.3	629.3	5247.6 ug/L	5247.6 ppb	22:34:18
3	K 766.490 Radial†	30930.0	28405.0	4997.4 ug/L	4997.4 ppb	22:33:58
3	Mg 279.077 IEC†	167.7	167.3	5200.1 ug/L	5200.1 ppb	22:34:18
3	Na 589.592 Radial†	33761.7	34727.9	10365 ug/L	10365 ppb	22:33:58
3	Sr 421.552†	87399.7	87941.0	515.63 ug/L	515.63 ppb	22:33:58
3	Sc 361.383	905706.3	905706.3	100.76 %		22:35:27
3	Y 371.029	740059.4	740059.4	99.408 %		22:35:27
3	Ag 328.068†	118880.3	117618.2	510.13 ug/L	510.13 ppb	22:35:32
3	As 188.979†	1376.1	1400.6	512.90 ug/L	512.90 ppb	22:35:53
3	B 249.677†	24300.9	24144.4	493.52 ug/L	493.52 ppb	22:35:32
3	Ba 233.527†	75705.5	75139.9	512.03 ug/L	512.03 ppb	22:35:32
3	Be 313.107†	1536269.2	1529470.5	513.92 ug/L	513.92 ppb	22:35:27
3	Cd 226.502†	52600.5	52434.9	512.61 ug/L	512.61 ppb	22:35:32
3	Co 228.616†	29277.7	29145.0	510.33 ug/L	510.33 ppb	22:35:32
3	Cr 267.716†	51086.5	50622.9	514.07 ug/L	514.07 ppb	22:35:32
3	Cu 324.752†	187127.1	179667.1	507.89 ug/L	507.89 ppb	22:35:32
3	Mn 257.610†	521722.8	517315.8	510.69 ug/L	510.69 ppb	22:35:27
3	Mo 202.031†	8407.3	8324.3	504.25 ug/L	504.25 ppb	22:35:53
3	Ni 231.604†	23825.9	23553.5	514.30 ug/L	514.30 ppb	22:35:32
3	P 214.914†	5117.0	4820.6	2437.5 ug/L	2437.5 ppb	22:35:53
3	Pb 220.353†	4806.9	4834.9	511.04 ug/L	511.04 ppb	22:35:53
3	S 181.975 Axial†	879.2	823.6	1009.4 ug/L	1009.4 ppb	22:35:53
3	Sb 206.836†	1718.0	1663.9	505.49 ug/L	505.49 ppb	22:35:53
3	Se 196.026†	903.6	925.3	522.34 ug/L	522.34 ppb	22:35:53
3	Si 251.611†	91159.6	89898.0	2522.9 ug/L	2522.9 ppb	22:35:32
3	Sn 189.927†	3364.5	3335.8	500.89 ug/L	500.89 ppb	22:35:53
3	Ti 334.940†	350410.5	349168.2	504.70 ug/L	504.70 ppb	22:35:27
3	Tl 190.801†	1932.6	1966.1	513.33 ug/L	513.33 ppb	22:35:53
3	U 409.014†	16059.7	18311.4	502.87 ug/L	502.87 ppb	22:35:32
3	V 292.402†	79430.1	80303.4	517.50 ug/L	517.50 ppb	22:35:32
3	Zn 213.857†	63881.1	62608.1	508.90 ug/L	508.90 ppb	22:35:32
3	SiO2†	90624.8	89338.0	5383.2 ug/L	5383.2 ppb	22:36:08

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	909171.1	101.14	%	0.336				0.33%
Sc Radial	5535.7	99.4	%	0.38				0.39%
Y 371.029	743375.5	99.854	%	0.3866				0.39%
Y RADIAL	5851.0	98.98	%	0.127				0.13%
Ag 328.068†	117154.4	508.13	ug/L	2.718	508.13	ppb	2.718	0.53%
QC value within limits for Ag 328.068 Recovery = 101.63%								
Al 396.153Radial†	6953.7	5045.4	ug/L	30.70	5045.4	ppb	30.70	0.61%
QC value within limits for Al 396.153Radial Recovery = 100.91%								
As 188.979†	1391.5	509.58	ug/L	2.872	509.58	ppb	2.872	0.56%
QC value within limits for As 188.979 Recovery = 101.92%								
B 249.677†	24015.3	490.88	ug/L	2.704	490.88	ppb	2.704	0.55%
QC value within limits for B 249.677 Recovery = 98.18%								
Ba 233.527†	74745.6	509.35	ug/L	3.089	509.35	ppb	3.089	0.61%
QC value within limits for Ba 233.527 Recovery = 101.87%								
Be 313.107†	1525757.9	512.67	ug/L	1.405	512.67	ppb	1.405	0.27%
QC value within limits for Be 313.107 Recovery = 102.53%								
Ca 317.933Radial†	3557.2	5071.7	ug/L	30.52	5071.7	ppb	30.52	0.60%

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   QC value within limits for Ca 317.933Radial  Recovery = 101.43%
Cd 226.502†            52189.6      510.21 ug/L         2.561      510.21 ppb          2.561   0.50%
   QC value within limits for Cd 226.502  Recovery = 102.04%
Co 228.616†            28976.4      507.37 ug/L         3.857      507.37 ppb          3.857   0.76%
   QC value within limits for Co 228.616  Recovery = 101.47%
Cr 267.716†            50409.9      511.91 ug/L         2.727      511.91 ppb          2.727   0.53%
   QC value within limits for Cr 267.716  Recovery = 102.38%
Cu 324.752†           178965.5      505.91 ug/L         2.840      505.91 ppb          2.840   0.56%
   QC value within limits for Cu 324.752  Recovery = 101.18%
Fe 238.204 Radial†       628.8      5243.6 ug/L         67.19      5243.6 ppb          67.19   1.28%
   QC value within limits for Fe 238.204 Radial  Recovery = 104.87%
K 766.490 Radial†      28261.3      4972.1 ug/L         39.93      4972.1 ppb          39.93   0.80%
   QC value within limits for K 766.490 Radial  Recovery = 99.44%
Mg 279.077 IEC†          167.7      5211.4 ug/L         16.94      5211.4 ppb          16.94   0.33%
   QC value within limits for Mg 279.077 IEC  Recovery = 104.23%
Mn 257.610†           515544.9      508.94 ug/L         1.573      508.94 ppb          1.573   0.31%
   QC value within limits for Mn 257.610  Recovery = 101.79%
Mo 202.031†             8281.9      501.68 ug/L         2.881      501.68 ppb          2.881   0.57%
   QC value within limits for Mo 202.031  Recovery = 100.34%
Na 589.592 Radial†     34454.4       10284 ug/L          99.5       10284 ppb           99.5   0.97%
   QC value within limits for Na 589.592 Radial  Recovery = 102.84%
Ni 231.604†            23424.0      511.47 ug/L         3.461      511.47 ppb          3.461   0.68%
   QC value within limits for Ni 231.604  Recovery = 102.29%
P 214.914†              4779.7      2416.5 ug/L         21.25      2416.5 ppb          21.25   0.88%
   QC value within limits for P 214.914  Recovery = 96.66%
Pb 220.353†             4783.0      505.57 ug/L         5.237      505.57 ppb          5.237   1.04%
   QC value within limits for Pb 220.353  Recovery = 101.11%
S 181.975 Axial†         812.8      996.15 ug/L        13.040      996.15 ppb         13.040   1.31%
   QC value within limits for S 181.975 Axial  Recovery = 99.61%
Sb 206.836†             1655.5      502.94 ug/L         3.289      502.94 ppb          3.289   0.65%
   QC value within limits for Sb 206.836  Recovery = 100.59%
Se 196.026†              917.6      518.11 ug/L         4.275      518.11 ppb          4.275   0.83%
   QC value within limits for Se 196.026  Recovery = 103.62%
Si 251.611†            89375.5      2508.3 ug/L         16.58      2508.3 ppb          16.58   0.66%
   QC value within limits for Si 251.611  Recovery = 100.33%
Sn 189.927†             3325.7      499.38 ug/L         2.711      499.38 ppb          2.711   0.54%
   QC value within limits for Sn 189.927  Recovery = 99.88%
Sr 421.552†            87448.2      512.74 ug/L         3.641      512.74 ppb          3.641   0.71%
   QC value within limits for Sr 421.552  Recovery = 102.55%
Ti 334.940†           348386.8      503.58 ug/L         1.038      503.58 ppb          1.038   0.21%
   QC value within limits for Ti 334.940  Recovery = 100.72%
Tl 190.801†             1947.1      508.40 ug/L         4.538      508.40 ppb          4.538   0.89%
   QC value within limits for Tl 190.801  Recovery = 101.68%
U 409.014†             18146.4      498.32 ug/L         5.023      498.32 ppb          5.023   1.01%
   QC value within limits for U 409.014  Recovery = 99.66%
V 292.402†             80083.2      516.05 ug/L         2.257      516.05 ppb          2.257   0.44%
   QC value within limits for V 292.402  Recovery = 103.21%
Zn 213.857†            62297.0      506.37 ug/L         3.158      506.37 ppb          3.158   0.62%
   QC value within limits for Zn 213.857  Recovery = 101.27%
SiO2†                  89154.0      5372.2 ug/L         32.48      5372.2 ppb          32.48   0.60%
   QC value within limits for SiO2  Recovery = 100.46%
All analyte(s) passed QC.
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Sequence No.: 80
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 12/19/2009 22:38:18
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5586.0	5586.0	100	%			22:40:10
1	Y RADIAL	5946.8	5946.8	100.6	%			22:40:10
1	Al 396.153Radial†	-37.4	-20.9	-15.259	ug/L	-15.259	ppb	22:40:10
1	Ca 317.933Radial†	15.5	-4.1	-5.8835	ug/L	-5.8835	ppb	22:40:30
1	Fe 238.204 Radial†	11.8	0.9	7.5314	ug/L	7.5314	ppb	22:40:30
1	K 766.490 Radial†	2847.9	126.0	22.236	ug/L	22.236	ppb	22:40:10
1	Mg 279.077 IEC†	1.1	-0.3	-7.8212	ug/L	-7.8212	ppb	22:40:30
1	Na 589.592 Radial†	-1014.7	-249.7	-74.517	ug/L	-74.517	ppb	22:40:10
1	Sr 421.552†	-4.7	7.2	0.0421	ug/L	0.0421	ppb	22:40:10
1	Sc 361.383	899058.9	899058.9	100.02	%			22:41:27
1	Y 371.029	753225.3	753225.3	101.18	%			22:41:27
1	Ag 328.068†	410.2	40.2	0.1807	ug/L	0.1807	ppb	22:41:27
1	As 188.979†	-28.7	6.1	2.2205	ug/L	2.2205	ppb	22:41:47
1	B 249.677†	-437.7	-411.7	-8.4504	ug/L	-8.4504	ppb	22:41:47
1	Ba 233.527†	18.5	21.1	0.1426	ug/L	0.1426	ppb	22:41:47
1	Be 313.107†	-4442.1	289.7	0.0970	ug/L	0.0970	ppb	22:41:27
1	Cd 226.502†	-220.7	8.5	0.0826	ug/L	0.0826	ppb	22:41:47
1	Co 228.616†	-61.9	25.2	0.4435	ug/L	0.4435	ppb	22:41:47
1	Cr 267.716†	100.2	20.1	0.2052	ug/L	0.2052	ppb	22:41:47
1	Cu 324.752†	6051.2	-5.3	-0.0147	ug/L	-0.0147	ppb	22:41:27
1	Mn 257.610†	528.7	37.1	0.0375	ug/L	0.0375	ppb	22:41:47
1	Mo 202.031†	29.6	9.7	0.5860	ug/L	0.5860	ppb	22:41:47
1	Ni 231.604†	105.7	12.1	0.2636	ug/L	0.2636	ppb	22:41:47
1	P 214.914†	239.8	-18.3	-9.5394	ug/L	-9.5394	ppb	22:41:47
1	Pb 220.353†	-89.4	-25.3	-2.6687	ug/L	-2.6687	ppb	22:41:47
1	S 181.975 Axial†	44.3	-4.7	-5.7563	ug/L	-5.7563	ppb	22:41:47
1	Sb 206.836†	43.5	2.3	0.7051	ug/L	0.7051	ppb	22:41:47
1	Se 196.026†	-26.1	2.4	1.3309	ug/L	1.3309	ppb	22:41:47
1	Si 251.611†	652.6	75.0	2.0967	ug/L	2.0967	ppb	22:41:47
1	Sn 189.927†	6.9	3.4	0.5136	ug/L	0.5136	ppb	22:41:47
1	Ti 334.940†	-1442.8	-54.9	-0.0761	ug/L	-0.0761	ppb	22:41:27
1	Tl 190.801†	-38.2	9.9	2.5692	ug/L	2.5692	ppb	22:41:47
1	U 409.014†	-2677.5	-304.8	-8.3997	ug/L	-8.3997	ppb	22:41:27
1	V 292.402†	-1557.1	-87.4	-0.5650	ug/L	-0.5650	ppb	22:41:27
1	Zn 213.857†	799.5	5.9	0.0459	ug/L	0.0459	ppb	22:41:47
1	SiO2†	688.8	82.0	4.9232	ug/L	4.9232	ppb	22:42:43
2	Sc Radial	5503.1	5503.1	98.8	%			22:40:35
2	Y RADIAL	5875.5	5875.5	99.39	%			22:40:35
2	Al 396.153Radial†	-22.3	-6.2	-4.5540	ug/L	-4.5540	ppb	22:40:35
2	Ca 317.933Radial†	15.9	-3.5	-5.0278	ug/L	-5.0278	ppb	22:40:55
2	Fe 238.204 Radial†	12.4	1.6	13.418	ug/L	13.418	ppb	22:40:55
2	K 766.490 Radial†	2901.0	222.4	39.238	ug/L	39.238	ppb	22:40:35
2	Mg 279.077 IEC†	1.3	-0.0	-1.3349	ug/L	-1.3349	ppb	22:40:55
2	Na 589.592 Radial†	-1052.6	-303.2	-90.486	ug/L	-90.486	ppb	22:40:35
2	Sr 421.552†	9.2	21.1	0.1238	ug/L	0.1238	ppb	22:40:35
2	Sc 361.383	897778.1	897778.1	99.874	%			22:41:52
2	Y 371.029	752422.0	752422.0	101.07	%			22:41:52
2	Ag 328.068†	441.9	72.5	0.3166	ug/L	0.3166	ppb	22:41:52
2	As 188.979†	-32.9	1.9	0.6983	ug/L	0.6983	ppb	22:42:12
2	B 249.677†	-460.9	-435.6	-8.9405	ug/L	-8.9405	ppb	22:42:12
2	Ba 233.527†	-8.1	-5.5	-0.0381	ug/L	-0.0381	ppb	22:42:12
2	Be 313.107†	-4470.2	255.3	0.0857	ug/L	0.0857	ppb	22:41:52
2	Cd 226.502†	-217.1	11.8	0.1143	ug/L	0.1143	ppb	22:42:12
2	Co 228.616†	-90.5	-3.5	-0.0599	ug/L	-0.0599	ppb	22:42:12
2	Cr 267.716†	107.6	27.6	0.2792	ug/L	0.2792	ppb	22:42:12
2	Cu 324.752†	6052.2	4.3	0.0127	ug/L	0.0127	ppb	22:41:52
2	Mn 257.610†	514.6	23.7	0.0248	ug/L	0.0248	ppb	22:42:12
2	Mo 202.031†	32.5	12.7	0.7695	ug/L	0.7695	ppb	22:42:12
2	Ni 231.604†	108.1	14.7	0.3209	ug/L	0.3209	ppb	22:42:12

2	P 214.914†	250.1	-7.6	-3.9972	ug/L	-3.9972	ppb	22:42:12
2	Pb 220.353†	-70.1	-6.1	-0.6430	ug/L	-0.6430	ppb	22:42:12
2	S 181.975 Axial†	45.8	-3.1	-3.8427	ug/L	-3.8427	ppb	22:42:12
2	Sb 206.836†	43.3	2.2	0.6514	ug/L	0.6514	ppb	22:42:12
2	Se 196.026†	-21.3	7.2	3.9693	ug/L	3.9693	ppb	22:42:12
2	Si 251.611†	673.9	97.3	2.7185	ug/L	2.7185	ppb	22:42:12
2	Sn 189.927†	0.9	-2.6	-0.3952	ug/L	-0.3952	ppb	22:42:12
2	Ti 334.940†	-1362.5	23.4	0.0340	ug/L	0.0340	ppb	22:41:52
2	Tl 190.801†	-29.4	18.7	4.8419	ug/L	4.8419	ppb	22:42:12
2	U 409.014†	-2415.5	-46.3	-1.2790	ug/L	-1.2790	ppb	22:41:52
2	V 292.402†	-1534.1	-66.7	-0.4177	ug/L	-0.4177	ppb	22:41:52
2	Zn 213.857†	790.5	-2.0	-0.0199	ug/L	-0.0199	ppb	22:42:12
2	SiO2†	701.6	95.8	5.7468	ug/L	5.7468	ppb	22:42:48
3	Sc Radial	5633.9	5633.9	101	%			22:41:00
3	Y RADIAL	5989.2	5989.2	101.3	%			22:41:00
3	Al 396.153Radial†	-0.5	15.9	11.562	ug/L	11.562	ppb	22:41:00
3	Ca 317.933Radial†	15.8	-4.0	-5.7039	ug/L	-5.7039	ppb	22:41:20
3	Fe 238.204 Radial†	9.1	-1.9	-16.002	ug/L	-16.002	ppb	22:41:20
3	K 766.490 Radial†	2961.1	213.7	37.696	ug/L	37.696	ppb	22:41:00
3	Mg 279.077 IEC†	4.9	3.4	105.84	ug/L	105.84	ppb	22:41:20
3	Na 589.592 Radial†	-994.6	-221.2	-66.020	ug/L	-66.020	ppb	22:41:00
3	Sr 421.552†	40.5	51.9	0.3041	ug/L	0.3041	ppb	22:41:00
3	Sc 361.383	896723.6	896723.6	99.757	%			22:42:17
3	Y 371.029	749182.2	749182.2	100.63	%			22:42:17
3	Ag 328.068†	451.5	82.7	0.3508	ug/L	0.3508	ppb	22:42:17
3	As 188.979†	-23.4	11.4	4.1268	ug/L	4.1268	ppb	22:42:37
3	B 249.677†	-449.9	-425.1	-8.7213	ug/L	-8.7213	ppb	22:42:37
3	Ba 233.527†	-4.5	-1.9	-0.0151	ug/L	-0.0151	ppb	22:42:37
3	Be 313.107†	-4456.2	264.0	0.0887	ug/L	0.0887	ppb	22:42:17
3	Cd 226.502†	-209.3	19.4	0.1917	ug/L	0.1917	ppb	22:42:37
3	Co 228.616†	-85.4	1.4	0.0269	ug/L	0.0269	ppb	22:42:37
3	Cr 267.716†	93.8	13.8	0.1395	ug/L	0.1395	ppb	22:42:37
3	Cu 324.752†	6179.7	139.2	0.3924	ug/L	0.3924	ppb	22:42:17
3	Mn 257.610†	526.5	36.3	0.0322	ug/L	0.0322	ppb	22:42:37
3	Mo 202.031†	28.9	9.1	0.5522	ug/L	0.5522	ppb	22:42:37
3	Ni 231.604†	129.8	36.5	0.7973	ug/L	0.7973	ppb	22:42:37
3	P 214.914†	246.1	-11.4	-5.9894	ug/L	-5.9894	ppb	22:42:37
3	Pb 220.353†	-73.4	-9.6	-1.0027	ug/L	-1.0027	ppb	22:42:37
3	S 181.975 Axial†	51.2	2.3	2.8119	ug/L	2.8119	ppb	22:42:37
3	Sb 206.836†	40.5	-0.6	-0.1779	ug/L	-0.1779	ppb	22:42:37
3	Se 196.026†	-27.5	0.9	0.4676	ug/L	0.4676	ppb	22:42:37
3	Si 251.611†	674.6	98.7	2.7602	ug/L	2.7602	ppb	22:42:37
3	Sn 189.927†	6.8	3.4	0.5054	ug/L	0.5054	ppb	22:42:37
3	Ti 334.940†	-1346.6	37.7	0.0554	ug/L	0.0554	ppb	22:42:17
3	Tl 190.801†	-40.7	7.3	1.8872	ug/L	1.8872	ppb	22:42:37
3	U 409.014†	-2463.3	-97.1	-2.6732	ug/L	-2.6732	ppb	22:42:17
3	V 292.402†	-1570.5	-104.9	-0.6597	ug/L	-0.6597	ppb	22:42:17
3	Zn 213.857†	792.8	1.2	0.0020	ug/L	0.0020	ppb	22:42:37
3	SiO2†	738.3	133.5	8.0294	ug/L	8.0294	ppb	22:42:53

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	897853.5	99.883	%	0.1301				0.13%
Sc Radial	5574.3	100	%	1.2				1.19%
Y 371.029	751609.8	100.96	%	0.288				0.28%
Y RADIAL	5937.2	100.4	%	0.97				0.97%
Ag 328.068†	65.1	0.2827	ug/L	0.08993	0.2827	ppb	0.08993	31.81%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-3.7	-2.7506	ug/L	13.50115	-2.7506	ppb	13.50115	490.85%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	6.5	2.3485	ug/L	1.71784	2.3485	ppb	1.71784	73.15%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-424.1	-8.7041	ug/L	0.24552	-8.7041	ppb	0.24552	2.82%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	4.6	0.0298	ug/L	0.09837	0.0298	ppb	0.09837	330.13%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	269.7	0.0904	ug/L	0.00588	0.0904	ppb	0.00588	6.50%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-3.9	-5.5384	ug/L	0.45122	-5.5384	ppb	0.45122	8.15%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                13.2      0.1296 ug/L       0.05612      0.1296 ppb        0.05612  43.31%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                 7.7      0.1368 ug/L       0.26913      0.1368 ppb        0.26913 196.68%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                20.5      0.2080 ug/L       0.06990      0.2080 ppb        0.06990  33.60%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†                46.0      0.1301 ug/L       0.22750      0.1301 ppb        0.22750 174.81%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          0.2      1.6490 ug/L      15.56712      1.6490 ppb       15.56712 944.05%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         187.4      33.056 ug/L        9.4028      33.056 ppb         9.4028  28.44%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             1.0      32.228 ug/L       63.8322      32.228 ppb        63.8322 198.07%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                32.4      0.0315 ug/L       0.00638      0.0315 ppb        0.00638  20.27%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                10.5      0.6359 ug/L       0.11693      0.6359 ppb        0.11693  18.39%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       -258.0     -77.007 ug/L       12.4218     -77.007 ppb        12.4218  16.13%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                21.1      0.4606 ug/L       0.29300      0.4606 ppb        0.29300  63.61%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -12.4      -6.5086 ug/L       2.80734     -6.5086 ppb        2.80734  43.13%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -13.7      -1.4381 ug/L       1.08077     -1.4381 ppb        1.08077  75.15%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          -1.8      -2.2623 ug/L       4.49742     -2.2623 ppb        4.49742 198.79%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 1.3      0.3928 ug/L       0.49503      0.3928 ppb        0.49503 126.01%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 3.5      1.9226 ug/L       1.82428      1.9226 ppb        1.82428  94.89%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                90.4      2.5251 ug/L       0.37158      2.5251 ppb        0.37158  14.72%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 1.4      0.2079 ug/L       0.52232      0.2079 ppb        0.52232 251.19%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                26.7      0.1567 ug/L       0.13409      0.1567 ppb        0.13409  85.59%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                 2.1      0.0044 ug/L       0.07058      0.0044 ppb        0.07058 >999.9%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                11.9      3.0995 ug/L       1.54707      3.0995 ppb        1.54707  49.91%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -149.4      -4.1173 ug/L       3.77359     -4.1173 ppb        3.77359  91.65%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                -86.3      -0.5475 ug/L       0.12194     -0.5475 ppb        0.12194  22.27%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                 1.7      0.0093 ug/L       0.03351      0.0093 ppb        0.03351 359.20%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                     103.8      6.2331 ug/L       1.60922      6.2331 ppb        1.60922  25.82%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Reprocessing Begun
Logged In Analyst: Optima3 Technique: ICP Continuous

Results Data Set (original): 122009
Results Library (original): C:\pe\Optima3\Results\Results.mdb
Results Data Set (reprocessed): 122009A
Results Library (reprocessed): C:\pe\Optima3\Results\Results.mdb

Method Loaded
Method Name: General Eng.2AX Method Last Saved: 12/20/2009 10:20:40
IEC File: 101209.iec MSF File:
Method Description:

Analyte	Calibration Equation	Processing	View	Internal Standard	IEC
Ag 328.068	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Al 396.153Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
As 188.979	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
B 249.677	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ba 233.527	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Be 313.107	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ca 317.933Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	No
Cd 226.502	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Co 228.616	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cr 267.716	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cu 324.752	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Fe 238.204 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
K 766.490 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Mg 279.077 IEC	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Mn 257.610	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Mo 202.031	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Na 589.592 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	No
Ni 231.604	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
P 214.914	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Pb 220.353	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
S 181.975 Axial	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sb 206.836	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sc 361.383	Lin Thru 0	Peak Area	Axial	n/a	n/a
Sc Radial	Lin, Calc Int	Peak Area	Radial	n/a	n/a
Se 196.026	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Si 251.611	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sn 189.927	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sr 421.552	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Ti 334.940	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Tl 190.801	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
U 409.014	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
V 292.402	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y 371.029	Lin, Calc Int	Peak Area	Axial	n/a	n/a
Zn 213.857	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y RADIAL	Lin, Calc Int	Peak Area	Radial	n/a	n/a
SiO2	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes

Sequence No.: 1 Autosampler Location: 8
Sample ID: S0 Date Collected: 12/20/2009 08:27:25
Analyst: Data Type: Reprocessed on 12/20/2009 10:23:17
Logged In Analyst (Original) : Optima3
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:

Replicate Data: S0

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc 361.383	906069.3	906069.3	100.74	%	08:30:35
1	Sc Radial	5636.8	5636.8	101	%	08:29:18
1	Y 371.029	747249.6	747249.6	100.59	%	08:30:35
1	Y RADIAL	5945.0	5945.0	101.4	%	08:29:18
1	Ag 328.068†	482.6	479.0	[0.00]	ug/L	08:30:35

1	Al 396.153Radial†	0.6	0.6	[0.00]	ug/L	08:29:18
1	As 188.979†	-27.2	-27.0	[0.00]	ug/L	08:30:55
1	B 249.677†	546.0	542.0	[0.00]	ug/L	08:30:35
1	Ba 233.527†	-14.5	-14.4	[0.00]	ug/L	08:30:55
1	Be 313.107†	-4640.3	-4606.2	[0.00]	ug/L	08:30:35
1	Ca 317.933Radial†	16.7	16.5	[0.00]	ug/L	08:29:38
1	Cd 226.502†	-237.4	-235.7	[0.00]	ug/L	08:30:55
1	Co 228.616†	-83.2	-82.6	[0.00]	ug/L	08:30:55
1	Cr 267.716†	91.6	90.9	[0.00]	ug/L	08:30:55
1	Cu 324.752†	6084.4	6039.8	[0.00]	ug/L	08:30:35
1	Fe 238.204 Radial†	10.7	10.6	[0.00]	ug/L	08:29:38
1	K 766.490 Radial†	2850.3	2825.4	[0.00]	ug/L	08:29:18
1	Mg 279.077 IEC†	1.6	1.5	[0.00]	ug/L	08:29:38
1	Mn 257.610†	482.1	478.5	[0.00]	ug/L	08:30:55
1	Mo 202.031†	18.7	18.6	[0.00]	ug/L	08:30:55
1	Na 589.592 Radial†	-1253.0	-1242.1	[0.00]	ug/L	08:29:18
1	Ni 231.604†	103.6	102.9	[0.00]	ug/L	08:30:55
1	P 214.914†	263.1	261.2	[0.00]	ug/L	08:30:55
1	Pb 220.353†	-81.1	-80.5	[0.00]	ug/L	08:30:55
1	S 181.975 Axial†	60.5	60.1	[0.00]	ug/L	08:30:55
1	Sb 206.836†	50.6	50.3	[0.00]	ug/L	08:30:55
1	Se 196.026†	-29.2	-29.0	[0.00]	ug/L	08:30:55
1	Si 251.611†	665.8	660.9	[0.00]	ug/L	08:30:55
1	Sn 189.927†	-2.3	-2.3	[0.00]	ug/L	08:30:55
1	Sr 421.552†	8.0	8.0	[0.00]	ug/L	08:29:18
1	Ti 334.940†	-1410.0	-1399.6	[0.00]	ug/L	08:30:35
1	Tl 190.801†	-51.2	-50.8	[0.00]	ug/L	08:30:55
1	U 409.014†	-2785.5	-2765.1	[0.00]	ug/L	08:30:35
1	V 292.402†	-1436.3	-1425.8	[0.00]	ug/L	08:30:35
1	Zn 213.857†	804.1	798.2	[0.00]	ug/L	08:30:55
1	SiO2†	632.1	627.5	[0.00]	ug/L	08:31:51
2	Sc 361.383	902659.9	902659.9	100.36	%	08:31:01
2	Sc Radial	5593.4	5593.4	100	%	08:29:43
2	Y 371.029	746227.4	746227.4	100.45	%	08:31:01
2	Y RADIAL	5858.0	5858.0	99.94	%	08:29:43
2	Ag 328.068†	345.4	344.2	[0.00]	ug/L	08:31:01
2	Al 396.153Radial†	-16.5	-16.5	[0.00]	ug/L	08:29:43
2	As 188.979†	-27.8	-27.7	[0.00]	ug/L	08:31:21
2	B 249.677†	433.1	431.6	[0.00]	ug/L	08:31:01
2	Ba 233.527†	-7.2	-7.2	[0.00]	ug/L	08:31:21
2	Be 313.107†	-4584.8	-4568.4	[0.00]	ug/L	08:31:01
2	Ca 317.933Radial†	19.8	19.8	[0.00]	ug/L	08:30:03
2	Cd 226.502†	-211.1	-210.4	[0.00]	ug/L	08:31:21
2	Co 228.616†	-82.9	-82.6	[0.00]	ug/L	08:31:21
2	Cr 267.716†	96.1	95.8	[0.00]	ug/L	08:31:21
2	Cu 324.752†	6094.1	6072.2	[0.00]	ug/L	08:31:01
2	Fe 238.204 Radial†	12.0	12.0	[0.00]	ug/L	08:30:03
2	K 766.490 Radial†	2817.8	2814.9	[0.00]	ug/L	08:29:43
2	Mg 279.077 IEC†	1.2	1.2	[0.00]	ug/L	08:30:03
2	Mn 257.610†	505.5	503.7	[0.00]	ug/L	08:31:21
2	Mo 202.031†	33.6	33.5	[0.00]	ug/L	08:31:21
2	Na 589.592 Radial†	-1265.8	-1264.5	[0.00]	ug/L	08:29:43
2	Ni 231.604†	113.4	113.0	[0.00]	ug/L	08:31:21
2	P 214.914†	248.3	247.4	[0.00]	ug/L	08:31:21
2	Pb 220.353†	-71.3	-71.1	[0.00]	ug/L	08:31:21
2	S 181.975 Axial†	60.6	60.4	[0.00]	ug/L	08:31:21
2	Sb 206.836†	38.1	38.0	[0.00]	ug/L	08:31:21
2	Se 196.026†	-28.4	-28.3	[0.00]	ug/L	08:31:21
2	Si 251.611†	653.3	651.0	[0.00]	ug/L	08:31:21
2	Sn 189.927†	5.6	5.5	[0.00]	ug/L	08:31:21
2	Sr 421.552†	-1.3	-1.3	[0.00]	ug/L	08:29:43
2	Ti 334.940†	-1478.9	-1473.6	[0.00]	ug/L	08:31:01
2	Tl 190.801†	-44.7	-44.5	[0.00]	ug/L	08:31:21
2	U 409.014†	-2712.0	-2702.3	[0.00]	ug/L	08:31:01
2	V 292.402†	-1477.6	-1472.3	[0.00]	ug/L	08:31:01
2	Zn 213.857†	824.2	821.2	[0.00]	ug/L	08:31:21
2	SiO2†	719.1	716.5	[0.00]	ug/L	08:31:56
3	Sc 361.383	889538.8	889538.8	98.901	%	08:31:26
3	Sc Radial	5532.4	5532.4	99.0	%	08:30:08
3	Y 371.029	735222.5	735222.5	98.967	%	08:31:26
3	Y RADIAL	5781.3	5781.3	98.63	%	08:30:08

3	Ag 328.068†	370.8	374.9	[0.00]	ug/L	08:31:26
3	Al 396.153Radial†	-23.7	-24.0	[0.00]	ug/L	08:30:08
3	As 188.979†	-27.3	-27.6	[0.00]	ug/L	08:31:46
3	B 249.677†	416.9	421.5	[0.00]	ug/L	08:31:26
3	Ba 233.527†	-4.2	-4.2	[0.00]	ug/L	08:31:46
3	Be 313.107†	-4560.0	-4610.7	[0.00]	ug/L	08:31:26
3	Ca 317.933Radial†	17.1	17.3	[0.00]	ug/L	08:30:29
3	Cd 226.502†	-228.7	-231.3	[0.00]	ug/L	08:31:46
3	Co 228.616†	-88.0	-88.9	[0.00]	ug/L	08:31:46
3	Cr 267.716†	109.6	110.9	[0.00]	ug/L	08:31:46
3	Cu 324.752†	6081.5	6149.0	[0.00]	ug/L	08:31:26
3	Fe 238.204 Radial†	11.0	11.1	[0.00]	ug/L	08:30:29
3	K 766.490 Radial†	2947.4	2976.8	[0.00]	ug/L	08:30:08
3	Mg 279.077 IEC†	4.0	4.1	[0.00]	ug/L	08:30:29
3	Mn 257.610†	486.9	492.3	[0.00]	ug/L	08:31:46
3	Mo 202.031†	24.3	24.6	[0.00]	ug/L	08:31:46
3	Na 589.592 Radial†	-1260.9	-1273.5	[0.00]	ug/L	08:30:08
3	Ni 231.604†	89.9	90.9	[0.00]	ug/L	08:31:46
3	P 214.914†	254.2	257.0	[0.00]	ug/L	08:31:46
3	Pb 220.353†	-81.0	-81.9	[0.00]	ug/L	08:31:46
3	S 181.975 Axial†	55.2	55.8	[0.00]	ug/L	08:31:46
3	Sb 206.836†	38.5	38.9	[0.00]	ug/L	08:31:46
3	Se 196.026†	-28.8	-29.1	[0.00]	ug/L	08:31:46
3	Si 251.611†	660.3	667.6	[0.00]	ug/L	08:31:46
3	Sn 189.927†	2.2	2.3	[0.00]	ug/L	08:31:46
3	Sr 421.552†	10.1	10.2	[0.00]	ug/L	08:30:08
3	Ti 334.940†	-1520.1	-1537.0	[0.00]	ug/L	08:31:26
3	Tl 190.801†	-41.6	-42.0	[0.00]	ug/L	08:31:46
3	U 409.014†	-2687.8	-2717.7	[0.00]	ug/L	08:31:26
3	V 292.402†	-1490.6	-1507.2	[0.00]	ug/L	08:31:26
3	Zn 213.857†	786.4	795.1	[0.00]	ug/L	08:31:46
3	SiO2†	703.0	710.9	[0.00]	ug/L	08:32:01

Mean Data: S0

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	899422.7	8727.82	0.97%	100.00	%
Sc Radial	5587.5	52.42	0.94%	100	%
Y 371.029	742899.8	6668.39	0.90%	100.00	%
Y RADIAL	5861.4	81.86	1.40%	100.0	%
Ag 328.068†	399.4	70.68	17.70%	[0.00]	ug/L
Al 396.153Radial†	-13.3	12.59	94.64%	[0.00]	ug/L
As 188.979†	-27.5	0.39	1.43%	[0.00]	ug/L
B 249.677†	465.0	66.82	14.37%	[0.00]	ug/L
Ba 233.527†	-8.6	5.22	60.67%	[0.00]	ug/L
Be 313.107†	-4595.1	23.23	0.51%	[0.00]	ug/L
Ca 317.933Radial†	17.9	1.71	9.56%	[0.00]	ug/L
Cd 226.502†	-225.8	13.51	5.99%	[0.00]	ug/L
Co 228.616†	-84.7	3.64	4.30%	[0.00]	ug/L
Cr 267.716†	99.2	10.40	10.48%	[0.00]	ug/L
Cu 324.752†	6087.0	56.09	0.92%	[0.00]	ug/L
Fe 238.204 Radial†	11.2	0.71	6.32%	[0.00]	ug/L
K 766.490 Radial†	2872.4	90.59	3.15%	[0.00]	ug/L
Mg 279.077 IEC†	2.3	1.58	69.70%	[0.00]	ug/L
Mn 257.610†	491.5	12.61	2.57%	[0.00]	ug/L
Mo 202.031†	25.6	7.53	29.43%	[0.00]	ug/L
Na 589.592 Radial†	-1260.0	16.17	1.28%	[0.00]	ug/L
Ni 231.604†	102.3	11.04	10.80%	[0.00]	ug/L
P 214.914†	255.2	7.07	2.77%	[0.00]	ug/L
Pb 220.353†	-77.8	5.89	7.57%	[0.00]	ug/L
S 181.975 Axial†	58.8	2.56	4.35%	[0.00]	ug/L
Sb 206.836†	42.4	6.83	16.11%	[0.00]	ug/L
Se 196.026†	-28.8	0.48	1.65%	[0.00]	ug/L
Si 251.611†	659.8	8.38	1.27%	[0.00]	ug/L
Sn 189.927†	1.8	3.95	216.58%	[0.00]	ug/L
Sr 421.552†	5.6	6.11	108.82%	[0.00]	ug/L
Ti 334.940†	-1470.0	68.73	4.68%	[0.00]	ug/L
Tl 190.801†	-45.8	4.53	9.89%	[0.00]	ug/L
U 409.014†	-2728.3	32.73	1.20%	[0.00]	ug/L
V 292.402†	-1468.4	40.85	2.78%	[0.00]	ug/L

Zn 213.857†	804.8	14.29	1.78%	[0.00] ug/L
SiO2†	685.0	49.85	7.28%	[0.00] ug/L

Sequence No.: 2
Sample ID: S0.1
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 2
Date Collected: 12/20/2009 08:34:12
Data Type: Reprocessed on 12/20/2009 10:23:19

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc 361.383	877769.3	877769.3	97.593	%	08:36:37
1	Sc Radial	5490.8	5490.8	98.3	%	08:36:10
1	Y 371.029	737173.8	737173.8	99.229	%	08:36:37
1	Y RADIAL	5747.8	5747.8	98.06	%	08:36:10
1	Ag 328.068†	24005.1	24197.9	[100]	ug/L	08:36:37
1	As 188.979†	244.6	278.1	[100]	ug/L	08:36:57
1	B 249.677†	5149.5	4811.5	[100]	ug/L	08:36:37
1	Ba 233.527†	15106.7	15487.9	[100]	ug/L	08:36:37
1	Be 313.107†	295900.1	307794.6	[100]	ug/L	08:36:37
1	Cd 226.502†	10125.2	10600.8	[100]	ug/L	08:36:57
1	Co 228.616†	5766.6	5993.6	[100]	ug/L	08:36:57
1	Cr 267.716†	10155.6	10307.0	[100]	ug/L	08:36:37
1	Cu 324.752†	41764.3	36707.5	[100]	ug/L	08:36:37
1	K 766.490 Radial†	8468.9	5745.7	[1000]	ug/L	08:36:05
1	Mn 257.610†	105169.3	107272.2	[100]	ug/L	08:36:37
1	Mo 202.031†	1706.2	1722.8	[100]	ug/L	08:36:57
1	Ni 231.604†	4806.2	4822.5	[100]	ug/L	08:36:57
1	P 214.914†	1220.1	995.0	[500]	ug/L	08:36:57
1	Pb 220.353†	920.4	1020.9	[100]	ug/L	08:36:57
1	S 181.975 Axial†	213.7	160.2	[200]	ug/L	08:36:57
1	Sb 206.836†	364.5	331.1	[100]	ug/L	08:36:57
1	Se 196.026†	159.3	192.0	[100]	ug/L	08:36:57
1	Si 251.611†	18467.7	18263.4	[500]	ug/L	08:36:37
1	Sn 189.927†	672.5	687.2	[100]	ug/L	08:36:57
1	Sr 421.552†	16766.0	17055.7	[100]	ug/L	08:36:10
1	Ti 334.940†	67988.4	71135.6	[100]	ug/L	08:36:37
1	Tl 190.801†	344.8	399.1	[100]	ug/L	08:36:57
1	U 409.014†	1105.4	3861.0	[100]	ug/L	08:36:37
1	V 292.402†	14243.7	16063.6	[100]	ug/L	08:36:37
1	Zn 213.857†	13274.5	12797.1	[100]	ug/L	08:36:37
1	SiO2†	18484.1	18255.1	[1069.5]	ug/L	08:37:53
2	Sc 361.383	879935.8	879935.8	97.833	%	08:37:02
2	Sc Radial	5463.7	5463.7	97.8	%	08:36:20
2	Y 371.029	738936.2	738936.2	99.466	%	08:37:02
2	Y RADIAL	5750.6	5750.6	98.11	%	08:36:20
2	Ag 328.068†	24112.9	24247.5	[100]	ug/L	08:37:02
2	As 188.979†	258.7	291.9	[100]	ug/L	08:37:22
2	B 249.677†	5066.3	4713.4	[100]	ug/L	08:37:02
2	Ba 233.527†	15142.7	15486.6	[100]	ug/L	08:37:02
2	Be 313.107†	297303.9	308483.0	[100]	ug/L	08:37:02
2	Cd 226.502†	10168.5	10619.4	[100]	ug/L	08:37:22
2	Co 228.616†	5787.4	6000.3	[100]	ug/L	08:37:22
2	Cr 267.716†	10242.4	10370.0	[100]	ug/L	08:37:02
2	Cu 324.752†	42125.9	36971.8	[100]	ug/L	08:37:02
2	K 766.490 Radial†	8461.2	5780.7	[1000]	ug/L	08:36:15
2	Mn 257.610†	105746.0	107596.3	[100]	ug/L	08:37:02
2	Mo 202.031†	1719.2	1731.7	[100]	ug/L	08:37:22
2	Ni 231.604†	4823.3	4827.9	[100]	ug/L	08:37:22
2	P 214.914†	1216.7	988.5	[500]	ug/L	08:37:22
2	Pb 220.353†	916.0	1014.1	[100]	ug/L	08:37:22
2	S 181.975 Axial†	221.9	168.0	[200]	ug/L	08:37:22
2	Sb 206.836†	369.1	334.9	[100]	ug/L	08:37:22
2	Se 196.026†	157.7	190.0	[100]	ug/L	08:37:22
2	Si 251.611†	18501.8	18251.7	[500]	ug/L	08:37:02
2	Sn 189.927†	687.4	700.8	[100]	ug/L	08:37:22
2	Sr 421.552†	16654.4	17026.3	[100]	ug/L	08:36:20
2	Ti 334.940†	68249.0	71230.5	[100]	ug/L	08:37:02
2	Tl 190.801†	347.0	400.4	[100]	ug/L	08:37:22

2	U 409.014†	974.0	3723.9	[100]	ug/L	08:37:02
2	V 292.402†	14275.5	16060.0	[100]	ug/L	08:37:02
2	Zn 213.857†	13370.6	12861.9	[100]	ug/L	08:37:02
2	SiO2†	18649.8	18377.9	[1069.5]	ug/L	08:37:58
3	Sc 361.383	875878.1	875878.1	97.382	%	08:37:28
3	Sc Radial	5467.6	5467.6	97.9	%	08:36:30
3	Y 371.029	732896.1	732896.1	98.653	%	08:37:28
3	Y RADIAL	5731.2	5731.2	97.78	%	08:36:30
3	Ag 328.068†	23890.6	24133.4	[100]	ug/L	08:37:28
3	As 188.979†	245.4	279.5	[100]	ug/L	08:37:48
3	B 249.677†	5017.9	4687.8	[100]	ug/L	08:37:28
3	Ba 233.527†	15092.4	15506.7	[100]	ug/L	08:37:28
3	Be 313.107†	294136.5	306638.3	[100]	ug/L	08:37:28
3	Cd 226.502†	10054.7	10550.8	[100]	ug/L	08:37:48
3	Co 228.616†	5718.2	5956.6	[100]	ug/L	08:37:48
3	Cr 267.716†	10147.7	10321.3	[100]	ug/L	08:37:28
3	Cu 324.752†	41635.3	36667.5	[100]	ug/L	08:37:28
3	K 766.490 Radial†	8319.2	5629.2	[1000]	ug/L	08:36:25
3	Mn 257.610†	105115.1	107449.1	[100]	ug/L	08:37:28
3	Mo 202.031†	1695.9	1716.0	[100]	ug/L	08:37:48
3	Ni 231.604†	4744.5	4769.8	[100]	ug/L	08:37:48
3	P 214.914†	1208.5	985.8	[500]	ug/L	08:37:48
3	Pb 220.353†	897.8	999.8	[100]	ug/L	08:37:48
3	S 181.975 Axial†	219.7	166.9	[200]	ug/L	08:37:48
3	Sb 206.836†	367.9	335.4	[100]	ug/L	08:37:48
3	Se 196.026†	152.5	185.4	[100]	ug/L	08:37:48
3	Si 251.611†	18394.5	18229.1	[500]	ug/L	08:37:28
3	Sn 189.927†	681.5	698.0	[100]	ug/L	08:37:48
3	Sr 421.552†	16605.6	16964.1	[100]	ug/L	08:36:30
3	Ti 334.940†	67804.0	71096.7	[100]	ug/L	08:37:28
3	Tl 190.801†	348.1	403.3	[100]	ug/L	08:37:48
3	U 409.014†	1067.1	3824.1	[100]	ug/L	08:37:28
3	V 292.402†	14193.3	16043.3	[100]	ug/L	08:37:28
3	Zn 213.857†	13268.1	12819.9	[100]	ug/L	08:37:28
3	SiO2†	18508.1	18320.6	[1069.5]	ug/L	08:38:03

Mean Data: S0.1

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	877861.1	2030.40	0.23%	97.603	%
Sc Radial	5474.0	14.66	0.27%	98.0	%
Y 371.029	736335.4	3106.12	0.42%	99.116	%
Y RADIAL	5743.2	10.49	0.18%	97.98	%
Ag 328.068†	24192.9	57.24	0.24%	[100]	ug/L
As 188.979†	283.1	7.59	2.68%	[100]	ug/L
B 249.677†	4737.6	65.31	1.38%	[100]	ug/L
Ba 233.527†	15493.8	11.25	0.07%	[100]	ug/L
Be 313.107†	307638.6	932.20	0.30%	[100]	ug/L
Cd 226.502†	10590.3	35.51	0.34%	[100]	ug/L
Co 228.616†	5983.5	23.51	0.39%	[100]	ug/L
Cr 267.716†	10332.8	33.06	0.32%	[100]	ug/L
Cu 324.752†	36782.3	165.33	0.45%	[100]	ug/L
K 766.490 Radial†	5718.5	79.30	1.39%	[1000]	ug/L
Mn 257.610†	107439.2	162.31	0.15%	[100]	ug/L
Mo 202.031†	1723.5	7.89	0.46%	[100]	ug/L
Ni 231.604†	4806.7	32.10	0.67%	[100]	ug/L
P 214.914†	989.8	4.70	0.47%	[500]	ug/L
Pb 220.353†	1011.6	10.80	1.07%	[100]	ug/L
S 181.975 Axial†	165.1	4.20	2.55%	[200]	ug/L
Sb 206.836†	333.8	2.33	0.70%	[100]	ug/L
Se 196.026†	189.1	3.39	1.79%	[100]	ug/L
Si 251.611†	18248.1	17.43	0.10%	[500]	ug/L
Sn 189.927†	695.4	7.16	1.03%	[100]	ug/L
Sr 421.552†	17015.4	46.78	0.27%	[100]	ug/L
Ti 334.940†	71154.3	68.84	0.10%	[100]	ug/L
Tl 190.801†	400.9	2.12	0.53%	[100]	ug/L
U 409.014†	3803.0	70.95	1.87%	[100]	ug/L
V 292.402†	16055.6	10.84	0.07%	[100]	ug/L
Zn 213.857†	12826.3	32.85	0.26%	[100]	ug/L
SiO2†	18317.9	61.45	0.34%	[1069.5]	ug/L

Sequence No.: 3
Sample ID: S0.5
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 3
Date Collected: 12/20/2009 08:40:14
Data Type: Reprocessed on 12/20/2009 10:23:28

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc 361.383	912534.1	912534.1	101.46	%	08:43:25
1	Sc Radial	5587.5	5587.5	100.0	%	08:42:06
1	Y 371.029	740931.5	740931.5	99.735	%	08:43:25
1	Y RADIAL	5785.2	5785.2	98.70	%	08:42:06
1	Ag 328.068†	116668.4	114592.7	[500]	ug/L	08:43:25
1	Al 396.153Radial†	6850.2	6863.6	[5000]	ug/L	08:42:06
1	As 188.979†	1363.0	1370.8	[500]	ug/L	08:43:46
1	B 249.677†	24695.1	23875.3	[500]	ug/L	08:43:25
1	Ba 233.527†	74756.6	73691.1	[500]	ug/L	08:43:25
1	Be 313.107†	1509306.4	1492215.5	[500]	ug/L	08:43:25
1	Ca 317.933Radial†	3531.4	3513.6	[5000]	ug/L	08:42:26
1	Cd 226.502†	52257.3	51732.2	[500]	ug/L	08:43:25
1	Co 228.616†	28354.2	28031.6	[500]	ug/L	08:43:46
1	Cr 267.716†	50394.2	49570.9	[500]	ug/L	08:43:25
1	Cu 324.752†	185120.7	176373.8	[500]	ug/L	08:43:25
1	K 766.490 Radial†	30656.6	27784.5	[5000]	ug/L	08:42:06
1	Mg 279.077 IEC†	171.8	169.5	[5000]	ug/L	08:42:26
1	Mn 257.610†	515189.4	507295.5	[500]	ug/L	08:43:25
1	Mo 202.031†	8318.2	8173.1	[500]	ug/L	08:43:46
1	Ni 231.604†	23057.2	22623.7	[500]	ug/L	08:43:46
1	P 214.914†	5089.9	4761.6	[2500]	ug/L	08:43:46
1	Pb 220.353†	4790.3	4799.3	[500]	ug/L	08:43:46
1	S 181.975 Axial†	867.6	796.4	[1000]	ug/L	08:43:46
1	Sb 206.836†	1692.8	1626.1	[500]	ug/L	08:43:46
1	Se 196.026†	896.4	912.3	[500]	ug/L	08:43:46
1	Si 251.611†	89976.6	88023.9	[2500]	ug/L	08:43:25
1	Sn 189.927†	3359.0	3308.9	[500]	ug/L	08:43:46
1	Sr 421.552†	87532.7	87527.9	[500]	ug/L	08:42:06
1	Ti 334.940†	344183.8	340708.6	[500]	ug/L	08:43:25
1	Tl 190.801†	1883.8	1902.6	[500]	ug/L	08:43:46
1	U 409.014†	14809.8	17325.3	[500]	ug/L	08:43:25
1	V 292.402†	78142.4	78488.1	[500]	ug/L	08:43:25
1	Zn 213.857†	62985.6	61275.7	[500]	ug/L	08:43:25
1	SiO2†	90301.7	88319.2	[5347.5]	ug/L	08:44:46
2	Sc 361.383	899552.0	899552.0	100.01	%	08:43:53
2	Sc Radial	5613.2	5613.2	100	%	08:42:32
2	Y 371.029	730040.6	730040.6	98.269	%	08:43:53
2	Y RADIAL	5836.6	5836.6	99.58	%	08:42:32
2	Ag 328.068†	115129.1	114713.1	[500]	ug/L	08:43:53
2	Al 396.153Radial†	6947.6	6929.1	[5000]	ug/L	08:42:32
2	As 188.979†	1364.7	1392.0	[500]	ug/L	08:44:13
2	B 249.677†	24249.8	23781.2	[500]	ug/L	08:43:53
2	Ba 233.527†	73706.6	73704.6	[500]	ug/L	08:43:53
2	Be 313.107†	1488193.9	1492575.0	[500]	ug/L	08:43:53
2	Ca 317.933Radial†	3491.6	3457.7	[5000]	ug/L	08:42:52
2	Cd 226.502†	51500.7	51719.0	[500]	ug/L	08:43:53
2	Co 228.616†	28442.7	28523.3	[500]	ug/L	08:44:13
2	Cr 267.716†	49692.5	49586.2	[500]	ug/L	08:43:53
2	Cu 324.752†	182290.2	176177.0	[500]	ug/L	08:43:53
2	K 766.490 Radial†	30970.1	27955.8	[5000]	ug/L	08:42:32
2	Mg 279.077 IEC†	168.7	165.6	[5000]	ug/L	08:42:52
2	Mn 257.610†	508812.7	508248.0	[500]	ug/L	08:43:53
2	Mo 202.031†	8368.6	8341.8	[500]	ug/L	08:44:13
2	Ni 231.604†	23178.8	23073.2	[500]	ug/L	08:44:13
2	P 214.914†	5123.2	4867.3	[2500]	ug/L	08:44:13
2	Pb 220.353†	4800.5	4877.6	[500]	ug/L	08:44:13
2	S 181.975 Axial†	875.0	816.2	[1000]	ug/L	08:44:13
2	Sb 206.836†	1703.0	1660.4	[500]	ug/L	08:44:13

2	Se 196.026†	896.4	925.0	[500]	ug/L	08:44:13
2	Si 251.611†	88987.1	88314.5	[2500]	ug/L	08:43:53
2	Sn 189.927†	3368.1	3365.8	[500]	ug/L	08:44:13
2	Sr 421.552†	88477.2	88066.1	[500]	ug/L	08:42:32
2	Ti 334.940†	339556.3	340977.5	[500]	ug/L	08:43:53
2	Tl 190.801†	1901.3	1946.8	[500]	ug/L	08:44:13
2	U 409.014†	14371.5	17097.8	[500]	ug/L	08:43:53
2	V 292.402†	76887.9	78345.3	[500]	ug/L	08:43:53
2	Zn 213.857†	62238.6	61424.8	[500]	ug/L	08:43:53
2	SiO2†	91435.1	90737.0	[5347.5]	ug/L	08:44:51
3	Sc 361.383	904172.0	904172.0	100.53	%	08:44:20
3	Sc Radial	5570.4	5570.4	99.7	%	08:42:57
3	Y 371.029	732689.3	732689.3	98.626	%	08:44:20
3	Y RADIAL	5769.3	5769.3	98.43	%	08:42:57
3	Ag 328.068†	115833.5	114825.7	[500]	ug/L	08:44:20
3	Al 396.153Radial†	6815.1	6849.4	[5000]	ug/L	08:42:57
3	As 188.979†	1365.0	1385.3	[500]	ug/L	08:44:40
3	B 249.677†	24540.7	23946.8	[500]	ug/L	08:44:20
3	Ba 233.527†	74230.6	73849.3	[500]	ug/L	08:44:20
3	Be 313.107†	1492313.7	1489070.2	[500]	ug/L	08:44:20
3	Ca 317.933Radial†	3495.6	3488.5	[5000]	ug/L	08:43:17
3	Cd 226.502†	51809.0	51762.6	[500]	ug/L	08:44:20
3	Co 228.616†	28466.6	28401.9	[500]	ug/L	08:44:40
3	Cr 267.716†	49993.5	49631.8	[500]	ug/L	08:44:20
3	Cu 324.752†	183547.0	176495.9	[500]	ug/L	08:44:20
3	K 766.490 Radial†	30591.2	27812.9	[5000]	ug/L	08:42:57
3	Mg 279.077 IEC†	169.6	167.9	[5000]	ug/L	08:43:17
3	Mn 257.610†	511707.6	508528.3	[500]	ug/L	08:44:20
3	Mo 202.031†	8348.9	8279.4	[500]	ug/L	08:44:40
3	Ni 231.604†	23178.1	22954.1	[500]	ug/L	08:44:40
3	P 214.914†	5116.2	4834.1	[2500]	ug/L	08:44:40
3	Pb 220.353†	4822.4	4874.9	[500]	ug/L	08:44:40
3	S 181.975 Axial†	874.2	810.8	[1000]	ug/L	08:44:40
3	Sb 206.836†	1698.8	1647.5	[500]	ug/L	08:44:40
3	Se 196.026†	893.1	917.2	[500]	ug/L	08:44:40
3	Si 251.611†	89412.0	88282.5	[2500]	ug/L	08:44:20
3	Sn 189.927†	3354.9	3335.4	[500]	ug/L	08:44:40
3	Sr 421.552†	87420.8	87684.1	[500]	ug/L	08:42:57
3	Ti 334.940†	341602.0	341277.7	[500]	ug/L	08:44:20
3	Tl 190.801†	1899.0	1934.8	[500]	ug/L	08:44:40
3	U 409.014†	14540.2	17192.2	[500]	ug/L	08:44:20
3	V 292.402†	77171.1	78234.2	[500]	ug/L	08:44:20
3	Zn 213.857†	62573.1	61439.6	[500]	ug/L	08:44:20
3	SiO2†	89675.9	88519.9	[5347.5]	ug/L	08:44:56

Mean Data: S0.5

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	905419.4	6580.34	0.73%	100.67	%
Sc Radial	5590.4	21.58	0.39%	100	%
Y 371.029	734553.8	5679.80	0.77%	98.877	%
Y RADIAL	5797.0	35.16	0.61%	98.90	%
Ag 328.068†	114710.5	116.50	0.10%	[500]	ug/L
Al 396.153Radial†	6880.7	42.50	0.62%	[5000]	ug/L
As 188.979†	1382.7	10.81	0.78%	[500]	ug/L
B 249.677†	23867.8	83.02	0.35%	[500]	ug/L
Ba 233.527†	73748.3	87.69	0.12%	[500]	ug/L
Be 313.107†	1491286.9	1928.09	0.13%	[500]	ug/L
Ca 317.933Radial†	3486.6	27.99	0.80%	[5000]	ug/L
Cd 226.502†	51737.9	22.36	0.04%	[500]	ug/L
Co 228.616†	28318.9	256.16	0.90%	[500]	ug/L
Cr 267.716†	49596.3	31.64	0.06%	[500]	ug/L
Cu 324.752†	176348.9	160.91	0.09%	[500]	ug/L
K 766.490 Radial†	27851.1	91.80	0.33%	[5000]	ug/L
Mg 279.077 IEC†	167.7	1.95	1.16%	[5000]	ug/L
Mn 257.610†	508023.9	646.21	0.13%	[500]	ug/L
Mo 202.031†	8264.8	85.33	1.03%	[500]	ug/L
Ni 231.604†	22883.7	232.91	1.02%	[500]	ug/L
P 214.914†	4821.0	54.05	1.12%	[2500]	ug/L
Pb 220.353†	4850.6	44.46	0.92%	[500]	ug/L

S 181.975 Axial†	807.8	10.22	1.27%	[1000]	ug/L
Sb 206.836†	1644.7	17.33	1.05%	[500]	ug/L
Se 196.026†	918.2	6.43	0.70%	[500]	ug/L
Si 251.611†	88207.0	159.32	0.18%	[2500]	ug/L
Sn 189.927†	3336.7	28.46	0.85%	[500]	ug/L
Sr 421.552†	87759.4	276.87	0.32%	[500]	ug/L
Ti 334.940†	340987.9	284.71	0.08%	[500]	ug/L
Tl 190.801†	1928.1	22.89	1.19%	[500]	ug/L
U 409.014†	17205.1	114.31	0.66%	[500]	ug/L
V 292.402†	78355.8	127.28	0.16%	[500]	ug/L
Zn 213.857†	61380.0	90.64	0.15%	[500]	ug/L
SiO2†	89192.1	1341.74	1.50%	[5347.5]	ug/L

Sequence No.: 4
Sample ID: SCAL
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 4
Date Collected: 12/20/2009 08:47:07
Data Type: Reprocessed on 12/20/2009 10:23:29

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: SCAL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc 361.383	880648.0	880648.0	97.913	%	08:50:24
1	Sc Radial	5487.6	5487.6	98.2	%	08:49:20
1	Y 371.029	718642.7	718642.7	96.735	%	08:50:24
1	Y RADIAL	5675.6	5675.6	96.83	%	08:49:20
1	Ag 328.068†	230844.5	235366.5	[1000]	ug/L	08:50:24
1	Al 396.153Radial†	13325.9	13581.9	[10000]	ug/L	08:49:00
1	As 188.979†	2743.9	2829.9	[1000]	ug/L	08:50:44
1	B 249.677†	48618.7	49190.1	[1000]	ug/L	08:50:24
1	Ba 233.527†	145780.7	148897.2	[1000]	ug/L	08:50:24
1	Be 313.107†	2940715.5	3008004.0	[1000]	ug/L	08:50:18
1	Ca 317.933Radial†	6949.2	7057.9	[10000]	ug/L	08:49:20
1	Cd 226.502†	101685.5	104079.2	[1000]	ug/L	08:50:24
1	Co 228.616†	56440.1	57728.1	[1000]	ug/L	08:50:24
1	Cr 267.716†	98511.2	100512.2	[1000]	ug/L	08:50:24
1	Cu 324.752†	356921.3	358443.6	[1000]	ug/L	08:50:24
1	Fe 238.204 Radial†	1274.0	1286.0	[10000]	ug/L	08:49:20
1	K 766.490 Radial†	56919.1	55083.1	[10000]	ug/L	08:49:00
1	Mg 279.077 IEC†	334.7	338.6	[10000]	ug/L	08:49:20
1	Mn 257.610†	1000733.4	1021576.7	[1000]	ug/L	08:50:18
1	Mo 202.031†	16590.0	16918.2	[1000]	ug/L	08:50:44
1	Na 589.592 Radial†	34091.9	35972.6	[10000]	ug/L	08:49:00
1	Ni 231.604†	45589.0	46458.6	[1000]	ug/L	08:50:24
1	P 214.914†	9939.1	9895.8	[5000]	ug/L	08:50:44
1	Pb 220.353†	9529.8	9810.8	[1000]	ug/L	08:50:44
1	S 181.975 Axial†	1717.1	1695.0	[2000]	ug/L	08:50:44
1	Sb 206.836†	3392.6	3422.5	[1000]	ug/L	08:50:44
1	Se 196.026†	1826.3	1894.0	[1000]	ug/L	08:50:44
1	Si 251.611†	176910.4	180022.1	[5000]	ug/L	08:50:24
1	Sn 189.927†	6748.4	6890.5	[1000]	ug/L	08:50:44
1	Sr 421.552†	170395.4	173492.3	[1000]	ug/L	08:49:00
1	Ti 334.940†	678831.8	694774.0	[1000]	ug/L	08:50:18
1	Tl 190.801†	3817.6	3944.8	[1000]	ug/L	08:50:44
1	U 409.014†	33074.2	36507.7	[1000]	ug/L	08:50:24
1	V 292.402†	154930.1	159701.5	[1000]	ug/L	08:50:24
1	Zn 213.857†	122212.4	124013.0	[1000]	ug/L	08:50:24
1	SiO2†	176184.0	179255.1	[10695]	ug/L	08:51:53
2	Sc 361.383	881244.5	881244.5	97.979	%	08:50:55
2	Sc Radial	5407.7	5407.7	96.8	%	08:49:45
2	Y 371.029	719620.9	719620.9	96.866	%	08:50:55
2	Y RADIAL	5595.2	5595.2	95.46	%	08:49:45
2	Ag 328.068†	231229.0	235599.4	[1000]	ug/L	08:50:55
2	Al 396.153Radial†	13313.6	13769.5	[10000]	ug/L	08:49:25
2	As 188.979†	2738.8	2822.8	[1000]	ug/L	08:51:15
2	B 249.677†	48862.0	49404.9	[1000]	ug/L	08:50:55
2	Ba 233.527†	146377.3	149405.3	[1000]	ug/L	08:50:55
2	Be 313.107†	2957385.7	3022985.2	[1000]	ug/L	08:50:50
2	Ca 317.933Radial†	6880.5	7091.4	[10000]	ug/L	08:49:45
2	Cd 226.502†	101852.3	104179.1	[1000]	ug/L	08:50:55
2	Co 228.616†	56717.7	57972.4	[1000]	ug/L	08:50:55
2	Cr 267.716†	98520.8	100453.8	[1000]	ug/L	08:50:55
2	Cu 324.752†	357710.8	359002.5	[1000]	ug/L	08:50:55
2	Fe 238.204 Radial†	1265.9	1296.8	[10000]	ug/L	08:49:45
2	K 766.490 Radial†	57041.5	56065.7	[10000]	ug/L	08:49:25
2	Mg 279.077 IEC†	332.7	341.5	[10000]	ug/L	08:49:45
2	Mn 257.610†	1004918.5	1025156.3	[1000]	ug/L	08:50:50
2	Mo 202.031†	16571.8	16888.1	[1000]	ug/L	08:51:15
2	Na 589.592 Radial†	34193.1	36590.0	[10000]	ug/L	08:49:25
2	Ni 231.604†	45705.4	46545.9	[1000]	ug/L	08:50:55

2	P 214.914†	9924.3	9873.8	[5000]	ug/L	08:51:15
2	Pb 220.353†	9518.0	9792.2	[1000]	ug/L	08:51:15
2	S 181.975 Axial†	1705.0	1681.4	[2000]	ug/L	08:51:15
2	Sb 206.836†	3387.7	3415.2	[1000]	ug/L	08:51:15
2	Se 196.026†	1813.6	1879.9	[1000]	ug/L	08:51:15
2	Si 251.611†	177446.6	180447.1	[5000]	ug/L	08:50:55
2	Sn 189.927†	6739.2	6876.4	[1000]	ug/L	08:51:15
2	Sr 421.552†	170342.8	176000.8	[1000]	ug/L	08:49:25
2	Ti 334.940†	681470.2	696997.4	[1000]	ug/L	08:50:50
2	Tl 190.801†	3807.5	3931.8	[1000]	ug/L	08:51:15
2	U 409.014†	32918.2	36325.5	[1000]	ug/L	08:50:55
2	V 292.402†	155267.6	159938.9	[1000]	ug/L	08:50:55
2	Zn 213.857†	122424.2	124144.7	[1000]	ug/L	08:50:55
2	SiO2†	175722.4	178662.2	[10695]	ug/L	08:51:58
3	Sc 361.383	880397.3	880397.3	97.885	%	08:51:27
3	Sc Radial	5431.5	5431.5	97.2	%	08:50:10
3	Y 371.029	717466.1	717466.1	96.576	%	08:51:27
3	Y RADIAL	5618.1	5618.1	95.85	%	08:50:10
3	Ag 328.068†	231146.5	235742.2	[1000]	ug/L	08:51:27
3	Al 396.153Radial†	13385.7	13783.6	[10000]	ug/L	08:49:50
3	As 188.979†	2736.9	2823.5	[1000]	ug/L	08:51:47
3	B 249.677†	48884.3	49475.7	[1000]	ug/L	08:51:27
3	Ba 233.527†	146266.1	149435.5	[1000]	ug/L	08:51:27
3	Be 313.107†	2960773.7	3029351.3	[1000]	ug/L	08:51:22
3	Ca 317.933Radial†	6865.0	7044.4	[10000]	ug/L	08:50:10
3	Cd 226.502†	101986.7	104416.4	[1000]	ug/L	08:51:27
3	Co 228.616†	56692.6	58002.5	[1000]	ug/L	08:51:27
3	Cr 267.716†	98578.7	100609.8	[1000]	ug/L	08:51:27
3	Cu 324.752†	357778.6	359423.2	[1000]	ug/L	08:51:27
3	Fe 238.204 Radial†	1254.4	1279.2	[10000]	ug/L	08:50:10
3	K 766.490 Radial†	57128.9	55898.0	[10000]	ug/L	08:49:50
3	Mg 279.077 IEC†	335.1	342.5	[10000]	ug/L	08:50:10
3	Mn 257.610†	1008949.1	1030261.0	[1000]	ug/L	08:51:22
3	Mo 202.031†	16540.9	16872.8	[1000]	ug/L	08:51:47
3	Na 589.592 Radial†	34489.8	36740.8	[10000]	ug/L	08:49:50
3	Ni 231.604†	45736.8	46622.9	[1000]	ug/L	08:51:27
3	P 214.914†	9904.5	9863.3	[5000]	ug/L	08:51:47
3	Pb 220.353†	9476.9	9759.5	[1000]	ug/L	08:51:47
3	S 181.975 Axial†	1694.6	1672.5	[2000]	ug/L	08:51:47
3	Sb 206.836†	3376.2	3406.8	[1000]	ug/L	08:51:47
3	Se 196.026†	1809.6	1877.5	[1000]	ug/L	08:51:47
3	Si 251.611†	177517.2	180693.5	[5000]	ug/L	08:51:27
3	Sn 189.927†	6720.2	6863.6	[1000]	ug/L	08:51:47
3	Sr 421.552†	171392.6	176311.5	[1000]	ug/L	08:49:50
3	Ti 334.940†	683900.3	700149.4	[1000]	ug/L	08:51:22
3	Tl 190.801†	3796.1	3923.9	[1000]	ug/L	08:51:47
3	U 409.014†	32966.2	36406.9	[1000]	ug/L	08:51:27
3	V 292.402†	155223.2	160046.0	[1000]	ug/L	08:51:27
3	Zn 213.857†	122759.5	124607.5	[1000]	ug/L	08:51:27
3	SiO2†	175939.3	179056.4	[10695]	ug/L	08:52:03

Mean Data: SCAL

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	880763.3	435.24	0.05%	97.925	%
Sc Radial	5442.3	41.02	0.75%	97.4	%
Y 371.029	718576.6	1078.92	0.15%	96.726	%
Y RADIAL	5629.7	41.42	0.74%	96.05	%
Ag 328.068†	235569.4	189.62	0.08%	[1000]	ug/L
Al 396.153Radial†	13711.7	112.61	0.82%	[10000]	ug/L
As 188.979†	2825.4	3.92	0.14%	[1000]	ug/L
B 249.677†	49356.9	148.70	0.30%	[1000]	ug/L
Ba 233.527†	149246.0	302.46	0.20%	[1000]	ug/L
Be 313.107†	3020113.5	10959.51	0.36%	[1000]	ug/L
Ca 317.933Radial†	7064.6	24.18	0.34%	[10000]	ug/L
Cd 226.502†	104224.9	173.25	0.17%	[1000]	ug/L
Co 228.616†	57901.0	150.48	0.26%	[1000]	ug/L
Cr 267.716†	100525.3	78.80	0.08%	[1000]	ug/L
Cu 324.752†	358956.4	491.42	0.14%	[1000]	ug/L
Fe 238.204 Radial†	1287.3	8.88	0.69%	[10000]	ug/L

K 766.490 Radial†	55682.3	525.61	0.94%	[10000]	ug/L
Mg 279.077 IEC†	340.8	2.03	0.59%	[10000]	ug/L
Mn 257.610†	1025664.7	4364.46	0.43%	[1000]	ug/L
Mo 202.031†	16893.0	23.09	0.14%	[1000]	ug/L
Na 589.592 Radial†	36434.5	407.02	1.12%	[10000]	ug/L
Ni 231.604†	46542.5	82.20	0.18%	[1000]	ug/L
P 214.914†	9877.7	16.57	0.17%	[5000]	ug/L
Pb 220.353†	9787.5	25.97	0.27%	[1000]	ug/L
S 181.975 Axial†	1683.0	11.32	0.67%	[2000]	ug/L
Sb 206.836†	3414.8	7.87	0.23%	[1000]	ug/L
Se 196.026†	1883.8	8.92	0.47%	[1000]	ug/L
Si 251.611†	180387.6	339.63	0.19%	[5000]	ug/L
Sn 189.927†	6876.8	13.46	0.20%	[1000]	ug/L
Sr 421.552†	175268.2	1545.78	0.88%	[1000]	ug/L
Ti 334.940†	697306.9	2701.08	0.39%	[1000]	ug/L
Tl 190.801†	3933.5	10.55	0.27%	[1000]	ug/L
U 409.014†	36413.4	91.25	0.25%	[1000]	ug/L
V 292.402†	159895.5	176.31	0.11%	[1000]	ug/L
Zn 213.857†	124255.0	312.23	0.25%	[1000]	ug/L
SiO2†	178991.2	301.78	0.17%	[10695]	ug/L

Sequence No.: 5
Sample ID: S10
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 5
Date Collected: 12/20/2009 08:54:15
Data Type: Reprocessed on 12/20/2009 10:23:30

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S10

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc 361.383	880730.7	880730.7	97.922	%	08:57:25
1	Sc Radial	5366.7	5366.7	96.0	%	08:56:28
1	Y 371.029	710397.7	710397.7	95.625	%	08:57:25
1	Y RADIAL	5565.2	5565.2	94.95	%	08:56:28
1	Al 396.153Radial†	68291.5	71115.3	[50000]	ug/L	08:56:08
1	Ca 317.933Radial†	34337.5	35732.8	[50000]	ug/L	08:56:08
1	Fe 238.204 Radial†	2430.9	2519.7	[20000]	ug/L	08:56:28
1	Mg 279.077 IEC†	1583.5	1646.4	[50000]	ug/L	08:56:28
1	Na 589.592 Radial†	69011.1	73111.2	[20000]	ug/L	08:56:08
2	Sc 361.383	874840.9	874840.9	97.267	%	08:57:31
2	Sc Radial	5313.4	5313.4	95.1	%	08:56:53
2	Y 371.029	706592.6	706592.6	95.113	%	08:57:31
2	Y RADIAL	5510.9	5510.9	94.02	%	08:56:53
2	Al 396.153Radial†	68122.5	71650.7	[50000]	ug/L	08:56:33
2	Ca 317.933Radial†	34297.9	36049.7	[50000]	ug/L	08:56:33
2	Fe 238.204 Radial†	2403.8	2516.6	[20000]	ug/L	08:56:53
2	Mg 279.077 IEC†	1579.9	1659.1	[50000]	ug/L	08:56:53
2	Na 589.592 Radial†	68815.1	73625.8	[20000]	ug/L	08:56:33
3	Sc 361.383	883372.1	883372.1	98.215	%	08:57:37
3	Sc Radial	5362.8	5362.8	96.0	%	08:57:18
3	Y 371.029	712569.7	712569.7	95.917	%	08:57:37
3	Y RADIAL	5554.9	5554.9	94.77	%	08:57:18
3	Al 396.153Radial†	68304.6	71180.1	[50000]	ug/L	08:56:58
3	Ca 317.933Radial†	34328.1	35748.7	[50000]	ug/L	08:56:58
3	Fe 238.204 Radial†	2420.7	2511.0	[20000]	ug/L	08:57:18
3	Mg 279.077 IEC†	1593.6	1658.1	[50000]	ug/L	08:57:18
3	Na 589.592 Radial†	68904.0	73051.3	[20000]	ug/L	08:56:58

Mean Data: S10

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	879647.9	4367.44	0.50%	97.801	%
Sc Radial	5347.6	29.72	0.56%	95.7	%
Y 371.029	709853.3	3025.52	0.43%	95.552	%
Y RADIAL	5543.7	28.87	0.52%	94.58	%
Al 396.153Radial†	71315.4	292.23	0.41%	[50000]	ug/L
Ca 317.933Radial†	35843.7	178.52	0.50%	[50000]	ug/L
Fe 238.204 Radial†	2515.8	4.43	0.18%	[20000]	ug/L
Mg 279.077 IEC†	1654.6	7.08	0.43%	[50000]	ug/L
Na 589.592 Radial†	73262.8	315.84	0.43%	[20000]	ug/L

Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 328.068	3	Lin Thru 0	0.0	234.4	0.00000	0.999941	
Al 396.153Radial	3	Lin Thru 0	0.0	1.424	0.00000	0.999967	
As 188.979	3	Lin Thru 0	0.0	2.814	0.00000	0.999964	
B 249.677	3	Lin Thru 0	0.0	49.02	0.00000	0.999909	
Ba 233.527	3	Lin Thru 0	0.0	148.9	0.00000	0.999983	
Be 313.107	3	Lin Thru 0	0.0	3013	0.00000	0.999986	
Ca 317.933Radial	3	Lin Thru 0	0.0	0.7163	0.00000	0.999993	
Cd 226.502	3	Lin Thru 0	0.0	104.1	0.00000	0.999995	
Co 228.616	3	Lin Thru 0	0.0	57.67	0.00000	0.999956	
Cr 267.716	3	Lin Thru 0	0.0	100.3	0.00000	0.999982	
Cu 324.752	3	Lin Thru 0	0.0	357.8	0.00000	0.999973	
Fe 238.204 Radia	2	Lin Thru 0	0.0	0.1264	0.00000	0.999957	

K 766.490 Radial	3	Lin Thru 0	0.0	5.570	0.00000	0.999997
Mg 279.077 IEC	3	Lin Thru 0	0.0	0.0331	0.00000	0.999983
Mn 257.610	3	Lin Thru 0	0.0	1024	0.00000	0.999983
Mo 202.031	3	Lin Thru 0	0.0	16.82	0.00000	0.999961
Na 589.592 Radia	2	Lin Thru 0	0.0	3.659	0.00000	0.999998
Ni 231.604	3	Lin Thru 0	0.0	46.40	0.00000	0.999973
P 214.914	3	Lin Thru 0	0.0	1.966	0.00000	0.999954
Pb 220.353	3	Lin Thru 0	0.0	9.773	0.00000	0.999989
S 181.975 Axial	3	Lin Thru 0	0.0	0.8347	0.00000	0.999870
Sb 206.836	3	Lin Thru 0	0.0	3.389	0.00000	0.999890
Se 196.026	3	Lin Thru 0	0.0	1.874	0.00000	0.999949
Si 251.611	3	Lin Thru 0	0.0	35.92	0.00000	0.999960
Sn 189.927	3	Lin Thru 0	0.0	6.837	0.00000	0.999929
Sr 421.552	3	Lin Thru 0	0.0	175.3	0.00000	0.999996
Ti 334.940	3	Lin Thru 0	0.0	694.4	0.00000	0.999959
Tl 190.801	3	Lin Thru 0	0.0	3.919	0.00000	0.999967
U 409.014	3	Lin Thru 0	0.0	36.03	0.00000	0.999742
V 292.402	3	Lin Thru 0	0.0	159.3	0.00000	0.999968
Zn 213.857	3	Lin Thru 0	0.0	124.0	0.00000	0.999984
SiO2	3	Lin Thru 0	0.0	16.73	0.00000	0.999997

Sequence No.: 6
Sample ID: ICV
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 9
Date Collected: 12/20/2009 08:59:48
Data Type: Reprocessed on 12/20/2009 10:23:31

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc 361.383	905964.8	905964.8	100.73	%			09:02:59
1	Sc Radial	5563.5	5563.5	99.6	%			09:01:41
1	Y 371.029	739085.0	739085.0	99.487	%			09:02:59
1	Y RADIAL	5826.0	5826.0	99.39	%			09:01:41
1	Ag 328.068†	60902.2	60063.0	259.43	ug/L	259.43	ppb	09:02:59
1	Al 396.153Radial†	6953.3	6996.7	4891.6	ug/L	4891.6	ppb	09:01:41
1	As 188.979†	1295.6	1313.8	471.20	ug/L	471.20	ppb	09:03:19
1	B 249.677†	25689.8	25039.2	508.86	ug/L	508.86	ppb	09:02:59
1	Ba 233.527†	76016.0	75475.7	508.00	ug/L	508.00	ppb	09:02:59
1	Be 313.107†	779472.0	778438.3	259.32	ug/L	259.32	ppb	09:02:59
1	Ca 317.933Radial†	3505.9	3503.2	4890.7	ug/L	4890.7	ppb	09:02:01
1	Cd 226.502†	51717.1	51569.4	495.24	ug/L	495.24	ppb	09:02:59
1	Co 228.616†	28898.2	28774.3	499.31	ug/L	499.31	ppb	09:03:19
1	Cr 267.716†	49157.5	48703.4	486.48	ug/L	486.48	ppb	09:02:59
1	Cu 324.752†	188853.3	181402.6	507.27	ug/L	507.27	ppb	09:02:59
1	Fe 238.204 Radial†	650.2	641.8	5094.6	ug/L	5094.6	ppb	09:02:01
1	K 766.490 Radial†	16729.9	13929.8	2495.7	ug/L	2495.7	ppb	09:01:41
1	Mg 279.077 IEC†	178.1	176.6	5335.3	ug/L	5335.3	ppb	09:02:01
1	Mn 257.610†	525826.7	521538.1	509.65	ug/L	509.65	ppb	09:02:59
1	Mo 202.031†	9029.4	8938.6	531.80	ug/L	531.80	ppb	09:03:19
1	Na 589.592 Radial†	7608.9	8901.8	2432.7	ug/L	2432.7	ppb	09:01:41
1	Ni 231.604†	23278.1	23007.8	495.53	ug/L	495.53	ppb	09:03:19
1	P 214.914†	5168.6	4876.1	2403.5	ug/L	2403.5	ppb	09:03:19
1	Pb 220.353†	4812.7	4855.8	498.45	ug/L	498.45	ppb	09:03:19
1	S 181.975 Axial†	2107.6	2033.7	2435.5	ug/L	2435.5	ppb	09:03:19
1	Sb 206.836†	1724.2	1669.3	501.38	ug/L	501.38	ppb	09:03:19
1	Se 196.026†	4742.2	4736.7	2545.5	ug/L	2545.5	ppb	09:03:19
1	Si 251.611†	173611.1	171697.5	4767.8	ug/L	4767.8	ppb	09:02:59
1	Sn 189.927†	3642.3	3614.1	529.19	ug/L	529.19	ppb	09:03:19
1	Sr 421.552†	91609.2	91999.6	524.83	ug/L	524.83	ppb	09:01:41
1	Ti 334.940†	342983.1	341976.4	492.36	ug/L	492.36	ppb	09:02:59
1	Tl 190.801†	2003.9	2035.2	522.52	ug/L	522.52	ppb	09:03:19
1	U 409.014†	15050.0	17669.6	488.85	ug/L	488.85	ppb	09:02:59
1	V 292.402†	79383.5	80278.7	511.20	ug/L	511.20	ppb	09:02:59
1	Zn 213.857†	64267.5	62998.6	503.87	ug/L	503.87	ppb	09:02:59
1	SiO2†	172224.8	170296.2	10155	ug/L	10155	ppb	09:04:16
2	Sc 361.383	912691.6	912691.6	101.48	%			09:03:25
2	Sc Radial	5495.5	5495.5	98.4	%			09:02:06
2	Y 371.029	744312.0	744312.0	100.19	%			09:03:25
2	Y RADIAL	5758.3	5758.3	98.24	%			09:02:06
2	Ag 328.068†	61358.4	60067.0	259.47	ug/L	259.47	ppb	09:03:25
2	Al 396.153Radial†	6900.6	7029.4	4914.8	ug/L	4914.8	ppb	09:02:06
2	As 188.979†	1307.0	1315.4	471.81	ug/L	471.81	ppb	09:03:45
2	B 249.677†	25910.8	25069.0	509.46	ug/L	509.46	ppb	09:03:25
2	Ba 233.527†	76729.8	75622.9	508.99	ug/L	508.99	ppb	09:03:25
2	Be 313.107†	787525.2	780671.0	260.06	ug/L	260.06	ppb	09:03:25
2	Ca 317.933Radial†	3501.1	3541.9	4944.8	ug/L	4944.8	ppb	09:02:26
2	Cd 226.502†	52403.4	51867.3	498.10	ug/L	498.10	ppb	09:03:25
2	Co 228.616†	29029.8	28692.5	497.88	ug/L	497.88	ppb	09:03:45
2	Cr 267.716†	49566.6	48746.8	486.92	ug/L	486.92	ppb	09:03:25
2	Cu 324.752†	189885.1	181037.4	506.26	ug/L	506.26	ppb	09:03:25
2	Fe 238.204 Radial†	650.6	650.3	5161.6	ug/L	5161.6	ppb	09:02:26
2	K 766.490 Radial†	16560.2	13965.1	2502.0	ug/L	2502.0	ppb	09:02:06
2	Mg 279.077 IEC†	175.0	175.7	5309.5	ug/L	5309.5	ppb	09:02:26
2	Mn 257.610†	531010.5	522799.0	510.89	ug/L	510.89	ppb	09:03:25
2	Mo 202.031†	9030.7	8873.9	527.96	ug/L	527.96	ppb	09:03:45
2	Na 589.592 Radial†	7609.6	8997.0	2458.7	ug/L	2458.7	ppb	09:02:06
2	Ni 231.604†	23317.5	22876.3	492.70	ug/L	492.70	ppb	09:03:45

2	P 214.914†	5194.1	4863.4	2397.2 ug/L	2397.2 ppb	09:03:45
2	Pb 220.353†	4822.1	4829.9	495.79 ug/L	495.79 ppb	09:03:45
2	S 181.975 Axial†	2121.7	2032.1	2433.7 ug/L	2433.7 ppb	09:03:45
2	Sb 206.836†	1737.9	1670.2	501.59 ug/L	501.59 ppb	09:03:45
2	Se 196.026†	4787.7	4746.8	2551.2 ug/L	2551.2 ppb	09:03:45
2	Si 251.611†	175124.6	171918.8	4774.1 ug/L	4774.1 ppb	09:03:25
2	Sn 189.927†	3689.0	3633.6	532.03 ug/L	532.03 ppb	09:03:45
2	Sr 421.552†	90723.5	92236.8	526.19 ug/L	526.19 ppb	09:02:06
2	Ti 334.940†	345840.4	342282.6	492.80 ug/L	492.80 ppb	09:03:25
2	Tl 190.801†	2026.5	2042.8	524.49 ug/L	524.49 ppb	09:03:45
2	U 409.014†	15265.6	17772.0	491.69 ug/L	491.69 ppb	09:03:25
2	V 292.402†	80087.2	80391.3	511.85 ug/L	511.85 ppb	09:03:25
2	Zn 213.857†	64887.0	63138.8	505.02 ug/L	505.02 ppb	09:03:25
2	SiO2†	174065.9	170850.3	10188 ug/L	10188 ppb	09:04:21
3	Sc 361.383	908103.1	908103.1	100.97 %		09:03:51
3	Sc Radial	5524.7	5524.7	98.9 %		09:02:31
3	Y 371.029	739274.9	739274.9	99.512 %		09:03:51
3	Y RADIAL	5750.0	5750.0	98.10 %		09:02:31
3	Ag 328.068†	61119.6	60136.0	259.75 ug/L	259.75 ppb	09:03:51
3	Al 396.153Radial†	6879.0	6970.5	4873.2 ug/L	4873.2 ppb	09:02:31
3	As 188.979†	1297.7	1312.7	470.84 ug/L	470.84 ppb	09:04:11
3	B 249.677†	25781.4	25069.9	509.48 ug/L	509.48 ppb	09:03:51
3	Ba 233.527†	76445.3	75723.2	509.66 ug/L	509.66 ppb	09:03:51
3	Be 313.107†	781435.4	778560.9	259.36 ug/L	259.36 ppb	09:03:51
3	Ca 317.933Radial†	3500.9	3522.8	4918.2 ug/L	4918.2 ppb	09:02:51
3	Cd 226.502†	52030.0	51758.4	497.06 ug/L	497.06 ppb	09:03:51
3	Co 228.616†	29079.5	28886.2	501.25 ug/L	501.25 ppb	09:04:11
3	Cr 267.716†	49396.3	48824.9	487.69 ug/L	487.69 ppb	09:03:51
3	Cu 324.752†	188868.8	180976.4	506.09 ug/L	506.09 ppb	09:03:51
3	Fe 238.204 Radial†	649.9	646.1	5128.3 ug/L	5128.3 ppb	09:02:51
3	K 766.490 Radial†	16550.2	13866.0	2484.2 ug/L	2484.2 ppb	09:02:31
3	Mg 279.077 IEC†	174.0	173.7	5248.0 ug/L	5248.0 ppb	09:02:51
3	Mn 257.610†	528856.7	523309.9	511.39 ug/L	511.39 ppb	09:03:51
3	Mo 202.031†	9073.1	8960.8	533.12 ug/L	533.12 ppb	09:04:11
3	Na 589.592 Radial†	7567.3	8913.4	2435.9 ug/L	2435.9 ppb	09:02:31
3	Ni 231.604†	23384.8	23059.0	496.63 ug/L	496.63 ppb	09:04:11
3	P 214.914†	5179.7	4875.0	2403.2 ug/L	2403.2 ppb	09:04:11
3	Pb 220.353†	4835.1	4866.7	499.57 ug/L	499.57 ppb	09:04:11
3	S 181.975 Axial†	2121.7	2042.7	2446.4 ug/L	2446.4 ppb	09:04:11
3	Sb 206.836†	1731.9	1672.9	502.49 ug/L	502.49 ppb	09:04:11
3	Se 196.026†	4782.1	4765.2	2560.8 ug/L	2560.8 ppb	09:04:11
3	Si 251.611†	174450.1	172122.7	4779.6 ug/L	4779.6 ppb	09:03:51
3	Sn 189.927†	3669.3	3632.4	531.86 ug/L	531.86 ppb	09:04:11
3	Sr 421.552†	90458.5	91481.5	521.88 ug/L	521.88 ppb	09:02:31
3	Ti 334.940†	344259.8	342439.1	493.03 ug/L	493.03 ppb	09:03:51
3	Tl 190.801†	2029.0	2055.4	527.68 ug/L	527.68 ppb	09:04:11
3	U 409.014†	15043.4	17628.0	487.69 ug/L	487.69 ppb	09:03:51
3	V 292.402†	79682.1	80388.9	511.91 ug/L	511.91 ppb	09:03:51
3	Zn 213.857†	64522.6	63101.0	504.70 ug/L	504.70 ppb	09:03:51
3	SiO2†	174821.5	172465.5	10285 ug/L	10285 ppb	09:04:27

Mean Data: ICV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	908919.9	101.06	%	0.382				0.38%
Sc Radial	5527.9	98.9	%	0.61				0.62%
Y 371.029	740890.6	99.730	%	0.3990				0.40%
Y RADIAL	5778.1	98.58	%	0.710				0.72%
Ag 328.068†	60088.7	259.55	ug/L	0.178	259.55	ppb	0.178	0.07%
QC value within limits for Ag 328.068 Recovery = 103.82%								
Al 396.153Radial†	6998.9	4893.2	ug/L	20.84	4893.2	ppb	20.84	0.43%
QC value within limits for Al 396.153Radial Recovery = 97.86%								
As 188.979†	1314.0	471.28	ug/L	0.491	471.28	ppb	0.491	0.10%
QC value within limits for As 188.979 Recovery = 94.26%								
B 249.677†	25059.4	509.27	ug/L	0.352	509.27	ppb	0.352	0.07%
QC value within limits for B 249.677 Recovery = 101.85%								
Ba 233.527†	75607.2	508.89	ug/L	0.837	508.89	ppb	0.837	0.16%
QC value within limits for Ba 233.527 Recovery = 101.78%								
Be 313.107†	779223.4	259.58	ug/L	0.417	259.58	ppb	0.417	0.16%
QC value within limits for Be 313.107 Recovery = 103.83%								

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Ca 317.933Radial†        3522.6      4917.9 ug/L          27.04      4917.9 ppb          27.04   0.55%
   QC value within limits for Ca 317.933Radial  Recovery = 98.36%
Cd 226.502†             51731.7      496.80 ug/L          1.444      496.80 ppb          1.444   0.29%
   QC value within limits for Cd 226.502  Recovery = 99.36%
Co 228.616†             28784.3      499.48 ug/L          1.693      499.48 ppb          1.693   0.34%
   QC value within limits for Co 228.616  Recovery = 99.90%
Cr 267.716†             48758.4      487.03 ug/L          0.615      487.03 ppb          0.615   0.13%
   QC value within limits for Cr 267.716  Recovery = 97.41%
Cu 324.752†            181138.8      506.54 ug/L          0.643      506.54 ppb          0.643   0.13%
   QC value within limits for Cu 324.752  Recovery = 101.31%
Fe 238.204 Radial†        646.1      5128.2 ug/L          33.49      5128.2 ppb          33.49   0.65%
   QC value within limits for Fe 238.204 Radial  Recovery = 102.56%
K 766.490 Radial†       13920.3      2493.9 ug/L           9.01      2493.9 ppb           9.01   0.36%
   QC value within limits for K 766.490 Radial  Recovery = 99.76%
Mg 279.077 IEC†           175.3      5297.6 ug/L          44.87      5297.6 ppb          44.87   0.85%
   QC value within limits for Mg 279.077 IEC  Recovery = 105.95%
Mn 257.610†            522549.0      510.64 ug/L          0.894      510.64 ppb          0.894   0.17%
   QC value within limits for Mn 257.610  Recovery = 102.13%
Mo 202.031†             8924.4      530.96 ug/L          2.682      530.96 ppb          2.682   0.51%
   QC value within limits for Mo 202.031  Recovery = 106.19%
Na 589.592 Radial†      8937.4      2442.5 ug/L          14.20      2442.5 ppb          14.20   0.58%
   QC value within limits for Na 589.592 Radial  Recovery = 97.70%
Ni 231.604†            22981.0      494.95 ug/L          2.030      494.95 ppb          2.030   0.41%
   QC value within limits for Ni 231.604  Recovery = 98.99%
P 214.914†              4871.5      2401.3 ug/L           3.54      2401.3 ppb           3.54   0.15%
   QC value within limits for P 214.914  Recovery = 96.05%
Pb 220.353†             4850.8      497.93 ug/L          1.942      497.93 ppb          1.942   0.39%
   QC value within limits for Pb 220.353  Recovery = 99.59%
S 181.975 Axial†        2036.2      2438.5 ug/L           6.86      2438.5 ppb           6.86   0.28%
   QC value within limits for S 181.975 Axial  Recovery = 97.54%
Sb 206.836†             1670.8      501.82 ug/L          0.589      501.82 ppb          0.589   0.12%
   QC value within limits for Sb 206.836  Recovery = 100.36%
Se 196.026†             4749.6      2552.5 ug/L           7.73      2552.5 ppb           7.73   0.30%
   QC value within limits for Se 196.026  Recovery = 102.10%
Si 251.611†            171913.0      4773.8 ug/L           5.91      4773.8 ppb           5.91   0.12%
   QC value within limits for Si 251.611  Recovery = 95.48%
Sn 189.927†             3626.7      531.03 ug/L          1.597      531.03 ppb          1.597   0.30%
   QC value within limits for Sn 189.927  Recovery = 106.21%
Sr 421.552†            91906.0      524.30 ug/L          2.204      524.30 ppb          2.204   0.42%
   QC value within limits for Sr 421.552  Recovery = 104.86%
Ti 334.940†            342232.7      492.73 ug/L          0.340      492.73 ppb          0.340   0.07%
   QC value within limits for Ti 334.940  Recovery = 98.55%
Tl 190.801†             2044.4      524.90 ug/L          2.602      524.90 ppb          2.602   0.50%
   QC value within limits for Tl 190.801  Recovery = 104.98%
U 409.014†             17689.9      489.41 ug/L          2.055      489.41 ppb          2.055   0.42%
   QC value within limits for U 409.014  Recovery = 97.88%
V 292.402†             80352.9      511.65 ug/L          0.390      511.65 ppb          0.390   0.08%
   QC value within limits for V 292.402  Recovery = 102.33%
Zn 213.857†            63079.4      504.53 ug/L          0.591      504.53 ppb          0.591   0.12%
   QC value within limits for Zn 213.857  Recovery = 100.91%
SiO2†                 171204.0       10209 ug/L           67.3       10209 ppb           67.3   0.66%
   QC value within limits for SiO2  Recovery = 95.46%
All analyte(s) passed QC.
```

Sequence No.: 7
Sample ID: ICB
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 10
Date Collected: 12/20/2009 09:06:37
Data Type: Reprocessed on 12/20/2009 10:23:33

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc 361.383	909741.1	909741.1	101.15	%			09:09:47
1	Sc Radial	5613.2	5613.2	100	%			09:08:30
1	Y 371.029	748636.7	748636.7	100.77	%			09:09:47
1	Y RADIAL	5870.2	5870.2	100.1	%			09:08:30
1	Ag 328.068†	502.2	97.1	0.4112	ug/L	0.4112	ppb	09:09:52
1	Al 396.153Radial†	-41.9	-28.4	-19.977	ug/L	-19.977	ppb	09:08:30
1	As 188.979†	-23.1	4.6	1.6332	ug/L	1.6332	ppb	09:10:12
1	B 249.677†	357.0	-112.0	-2.2868	ug/L	-2.2868	ppb	09:09:52
1	Ba 233.527†	-1.3	7.3	0.0478	ug/L	0.0478	ppb	09:10:12
1	Be 313.107†	-4458.7	186.9	0.0621	ug/L	0.0621	ppb	09:09:52
1	Ca 317.933Radial†	19.8	1.9	2.6307	ug/L	2.6307	ppb	09:08:50
1	Cd 226.502†	-222.7	5.5	0.0529	ug/L	0.0529	ppb	09:10:12
1	Co 228.616†	-72.6	13.0	0.2268	ug/L	0.2268	ppb	09:10:12
1	Cr 267.716†	86.7	-13.5	-0.1367	ug/L	-0.1367	ppb	09:10:12
1	Cu 324.752†	6177.7	20.6	0.0578	ug/L	0.0578	ppb	09:09:52
1	Fe 238.204 Radial†	12.0	0.7	5.6407	ug/L	5.6407	ppb	09:08:50
1	K 766.490 Radial†	2891.7	6.2	1.1116	ug/L	1.1116	ppb	09:08:30
1	Mg 279.077 IEC†	2.9	0.6	19.109	ug/L	19.109	ppb	09:08:50
1	Mn 257.610†	500.1	2.9	0.0030	ug/L	0.0030	ppb	09:10:12
1	Mo 202.031†	35.8	9.9	0.5864	ug/L	0.5864	ppb	09:10:12
1	Na 589.592 Radial†	-1328.4	-62.4	-17.040	ug/L	-17.040	ppb	09:08:30
1	Ni 231.604†	115.6	12.0	0.2592	ug/L	0.2592	ppb	09:10:12
1	P 214.914†	251.5	-6.5	-3.3441	ug/L	-3.3441	ppb	09:10:12
1	Pb 220.353†	-76.9	1.8	0.1773	ug/L	0.1773	ppb	09:10:12
1	S 181.975 Axial†	51.8	-7.6	-9.0691	ug/L	-9.0691	ppb	09:10:12
1	Sb 206.836†	46.0	3.1	0.9265	ug/L	0.9265	ppb	09:10:12
1	Se 196.026†	-34.0	-4.9	-2.5842	ug/L	-2.5842	ppb	09:10:12
1	Si 251.611†	692.6	24.9	0.6809	ug/L	0.6809	ppb	09:10:12
1	Sn 189.927†	4.4	2.6	0.3760	ug/L	0.3760	ppb	09:10:12
1	Sr 421.552†	-5.7	-11.3	-0.0643	ug/L	-0.0643	ppb	09:08:30
1	Ti 334.940†	-1453.8	32.8	0.0461	ug/L	0.0461	ppb	09:09:52
1	Tl 190.801†	-32.6	13.6	3.4706	ug/L	3.4706	ppb	09:10:12
1	U 409.014†	-2656.2	102.3	2.8386	ug/L	2.8386	ppb	09:09:47
1	V 292.402†	-1585.9	-99.5	-0.6110	ug/L	-0.6110	ppb	09:09:52
1	Zn 213.857†	788.8	-25.0	-0.2042	ug/L	-0.2042	ppb	09:10:12
1	SiO2†	722.4	29.3	1.7253	ug/L	1.7253	ppb	09:11:18
2	Sc 361.383	911833.9	911833.9	101.38	%			09:10:17
2	Sc Radial	5557.2	5557.2	99.5	%			09:08:55
2	Y 371.029	751406.7	751406.7	101.15	%			09:10:17
2	Y RADIAL	5830.7	5830.7	99.48	%			09:08:55
2	Ag 328.068†	382.3	-22.3	-0.0972	ug/L	-0.0972	ppb	09:10:22
2	Al 396.153Radial†	-43.6	-30.5	-21.450	ug/L	-21.450	ppb	09:08:55
2	As 188.979†	-25.0	2.8	0.9849	ug/L	0.9849	ppb	09:10:42
2	B 249.677†	254.6	-213.9	-4.3642	ug/L	-4.3642	ppb	09:10:22
2	Ba 233.527†	-1.1	7.6	0.0508	ug/L	0.0508	ppb	09:10:42
2	Be 313.107†	-4453.1	202.6	0.0673	ug/L	0.0673	ppb	09:10:22
2	Ca 317.933Radial†	17.3	-0.4	-0.6205	ug/L	-0.6205	ppb	09:09:15
2	Cd 226.502†	-219.8	9.0	0.0860	ug/L	0.0860	ppb	09:10:42
2	Co 228.616†	-75.3	10.4	0.1823	ug/L	0.1823	ppb	09:10:42
2	Cr 267.716†	107.4	6.7	0.0663	ug/L	0.0663	ppb	09:10:42
2	Cu 324.752†	6037.2	-132.0	-0.3688	ug/L	-0.3688	ppb	09:10:22
2	Fe 238.204 Radial†	11.4	0.3	2.0571	ug/L	2.0571	ppb	09:09:15
2	K 766.490 Radial†	2796.0	-61.1	-10.966	ug/L	-10.966	ppb	09:08:55
2	Mg 279.077 IEC†	0.7	-1.6	-48.211	ug/L	-48.211	ppb	09:09:15
2	Mn 257.610†	514.2	15.6	0.0164	ug/L	0.0164	ppb	09:10:42
2	Mo 202.031†	35.1	9.0	0.5372	ug/L	0.5372	ppb	09:10:42
2	Na 589.592 Radial†	-1303.5	-50.6	-13.841	ug/L	-13.841	ppb	09:08:55
2	Ni 231.604†	105.3	1.6	0.0354	ug/L	0.0354	ppb	09:10:42

2	P 214.914†	266.6	7.8	4.0143 ug/L	4.0143 ppb	09:10:42
2	Pb 220.353†	-92.7	-13.6	-1.3955 ug/L	-1.3955 ppb	09:10:42
2	S 181.975 Axial†	52.9	-6.6	-7.8931 ug/L	-7.8931 ppb	09:10:42
2	Sb 206.836†	42.7	-0.3	-0.0758 ug/L	-0.0758 ppb	09:10:42
2	Se 196.026†	-35.7	-6.4	-3.3968 ug/L	-3.3968 ppb	09:10:42
2	Si 251.611†	707.6	38.1	1.0551 ug/L	1.0551 ppb	09:10:42
2	Sn 189.927†	3.8	1.9	0.2765 ug/L	0.2765 ppb	09:10:42
2	Sr 421.552†	-11.0	-16.7	-0.0951 ug/L	-0.0951 ppb	09:08:55
2	Ti 334.940†	-1486.3	4.0	0.0042 ug/L	0.0042 ppb	09:10:22
2	Tl 190.801†	-45.0	1.4	0.3560 ug/L	0.3560 ppb	09:10:42
2	U 409.014†	-2646.0	118.4	3.2849 ug/L	3.2849 ppb	09:10:17
2	V 292.402†	-1489.8	-1.1	0.0056 ug/L	0.0056 ppb	09:10:22
2	Zn 213.857†	798.2	-17.5	-0.1390 ug/L	-0.1390 ppb	09:10:42
2	SiO2†	702.8	8.3	0.4805 ug/L	0.4805 ppb	09:11:23
3	Sc 361.383	922023.3	922023.3	102.51 %		09:10:47
3	Sc Radial	5547.4	5547.4	99.3 %		09:09:20
3	Y 371.029	758434.6	758434.6	102.09 %		09:10:47
3	Y RADIAL	5839.8	5839.8	99.63 %		09:09:20
3	Ag 328.068†	397.2	-12.0	-0.0483 ug/L	-0.0483 ppb	09:10:53
3	Al 396.153Radial†	-19.2	-6.0	-4.2143 ug/L	-4.2143 ppb	09:09:20
3	As 188.979†	-29.3	-1.2	-0.4042 ug/L	-0.4042 ppb	09:11:13
3	B 249.677†	185.3	-284.3	-5.8003 ug/L	-5.8003 ppb	09:10:53
3	Ba 233.527†	-3.6	5.1	0.0341 ug/L	0.0341 ppb	09:11:13
3	Be 313.107†	-4584.2	123.3	0.0412 ug/L	0.0412 ppb	09:10:53
3	Ca 317.933Radial†	14.2	-3.6	-5.0409 ug/L	-5.0409 ppb	09:09:40
3	Cd 226.502†	-226.1	5.2	0.0491 ug/L	0.0491 ppb	09:11:13
3	Co 228.616†	-84.7	2.1	0.0358 ug/L	0.0358 ppb	09:11:13
3	Cr 267.716†	94.9	-6.6	-0.0660 ug/L	-0.0660 ppb	09:11:13
3	Cu 324.752†	6140.1	-97.4	-0.2718 ug/L	-0.2718 ppb	09:10:53
3	Fe 238.204 Radial†	12.3	1.1	9.0835 ug/L	9.0835 ppb	09:09:40
3	K 766.490 Radial†	2876.2	24.7	4.4281 ug/L	4.4281 ppb	09:09:20
3	Mg 279.077 IEC†	2.6	0.3	9.0877 ug/L	9.0877 ppb	09:09:40
3	Mn 257.610†	517.0	12.8	0.0132 ug/L	0.0132 ppb	09:11:13
3	Mo 202.031†	23.4	-2.7	-0.1611 ug/L	-0.1611 ppb	09:11:13
3	Na 589.592 Radial†	-1230.7	20.4	5.5681 ug/L	5.5681 ppb	09:09:20
3	Ni 231.604†	117.6	12.5	0.2692 ug/L	0.2692 ppb	09:11:13
3	P 214.914†	250.0	-11.3	-5.6719 ug/L	-5.6719 ppb	09:11:13
3	Pb 220.353†	-84.7	-4.8	-0.4882 ug/L	-0.4882 ppb	09:11:13
3	S 181.975 Axial†	47.0	-12.9	-15.453 ug/L	-15.453 ppb	09:11:13
3	Sb 206.836†	48.3	4.7	1.4032 ug/L	1.4032 ppb	09:11:13
3	Se 196.026†	-24.6	4.8	2.5663 ug/L	2.5663 ppb	09:11:13
3	Si 251.611†	701.7	24.6	0.6833 ug/L	0.6833 ppb	09:11:13
3	Sn 189.927†	10.0	8.0	1.1636 ug/L	1.1636 ppb	09:11:13
3	Sr 421.552†	-2.5	-8.1	-0.0464 ug/L	-0.0464 ppb	09:09:20
3	Ti 334.940†	-1405.4	99.1	0.1429 ug/L	0.1429 ppb	09:10:53
3	Tl 190.801†	-48.0	-1.1	-0.2703 ug/L	-0.2703 ppb	09:11:13
3	U 409.014†	-2824.9	-27.3	-0.7601 ug/L	-0.7601 ppb	09:10:47
3	V 292.402†	-1548.2	-41.8	-0.2678 ug/L	-0.2678 ppb	09:10:53
3	Zn 213.857†	789.1	-35.1	-0.2854 ug/L	-0.2854 ppb	09:11:13
3	SiO2†	710.6	8.3	0.4886 ug/L	0.4886 ppb	09:11:28

Mean Data: ICB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	914532.8	101.68	%	0.731				0.72%
Sc Radial	5572.6	99.7	%	0.64				0.64%
Y 371.029	752826.0	101.34	%	0.680				0.67%
Y RADIAL	5846.9	99.75	%	0.353				0.35%
Ag 328.068†	21.0	0.0886	ug/L	0.28045	0.0886	ppb	0.28045	316.58%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-21.6	-15.214	ug/L	9.5543	-15.214	ppb	9.5543	62.80%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	2.1	0.7379	ug/L	1.04091	0.7379	ppb	1.04091	141.06%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-203.4	-4.1504	ug/L	1.76646	-4.1504	ppb	1.76646	42.56%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	6.7	0.0442	ug/L	0.00892	0.0442	ppb	0.00892	20.18%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	171.0	0.0569	ug/L	0.01381	0.0569	ppb	0.01381	24.28%
QC value within limits for Be 313.107 Recovery = Not calculated								

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Ca 317.933Radial†          -0.7     -1.0102 ug/L       3.85065     -1.0102 ppb        3.85065 381.17%
   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                 6.6      0.0626 ug/L       0.02030      0.0626 ppb        0.02030  32.41%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                 8.5      0.1483 ug/L       0.09992      0.1483 ppb        0.09992  67.36%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                -4.5     -0.0455 ug/L       0.10301     -0.0455 ppb        0.10301 226.54%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               -69.6     -0.1942 ug/L       0.22360     -0.1942 ppb        0.22360 115.12%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          0.7      5.5938 ug/L       3.51344      5.5938 ppb        3.51344  62.81%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         -10.1     -1.8089 ug/L       8.10215     -1.8089 ppb        8.10215 447.91%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -0.2     -6.6717 ug/L      36.32170     -6.6717 ppb       36.32170 544.42%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                10.4      0.0109 ug/L       0.00698      0.0109 ppb        0.00698  64.13%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 5.4      0.3208 ug/L       0.41813      0.3208 ppb        0.41813 130.32%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        -30.9     -8.4376 ug/L      12.23433     -8.4376 ppb       12.23433 145.00%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                 8.7      0.1879 ug/L       0.13219      0.1879 ppb        0.13219  70.34%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -3.3     -1.6673 ug/L       5.05616     -1.6673 ppb        5.05616 303.26%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -5.5     -0.5688 ug/L       0.78947     -0.5688 ppb        0.78947 138.79%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -9.0     -10.805 ug/L        4.0680     -10.805 ppb         4.0680  37.65%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 2.5      0.7513 ug/L       0.75490      0.7513 ppb        0.75490 100.48%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -2.2     -1.1382 ug/L       3.23384     -1.1382 ppb        3.23384 284.12%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                29.2      0.8064 ug/L       0.21539      0.8064 ppb        0.21539  26.71%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 4.1      0.6054 ug/L       0.48597      0.6054 ppb        0.48597  80.28%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               -12.0     -0.0686 ug/L       0.02461     -0.0686 ppb        0.02461  35.88%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                45.3      0.0644 ug/L       0.07111      0.0644 ppb        0.07111 110.41%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 4.6      1.1854 ug/L       2.00362      1.1854 ppb        2.00362 169.02%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 64.4      1.7878 ug/L       2.21777      1.7878 ppb        2.21777 124.05%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                -47.5     -0.2911 ug/L       0.30895     -0.2911 ppb        0.30895 106.14%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               -25.9     -0.2096 ug/L       0.07333     -0.2096 ppb        0.07333  34.99%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                      15.3      0.8981 ug/L       0.71633      0.8981 ppb        0.71633  79.76%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 8
Sample ID: PQL
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 11
Date Collected: 12/20/2009 09:13:38
Data Type: Reprocessed on 12/20/2009 10:23:34
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: PQL

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc 361.383	892200.5	892200.5	99.197	%			09:16:48
1	Sc Radial	5608.9	5608.9	100	%			09:15:31
1	Y 371.029	737792.9	737792.9	99.313	%			09:16:48
1	Y RADIAL	5891.4	5891.4	100.5	%			09:15:31
1	Ag 328.068†	1517.8	1130.7	4.8274	ug/L	4.8274	ppb	09:16:48
1	Al 396.153Radial†	257.9	270.3	189.39	ug/L	189.39	ppb	09:15:31
1	As 188.979†	43.2	71.1	25.281	ug/L	25.281	ppb	09:17:08
1	B 249.677†	2569.2	2124.9	43.323	ug/L	43.323	ppb	09:16:48
1	Ba 233.527†	751.5	766.2	5.1565	ug/L	5.1565	ppb	09:17:08
1	Be 313.107†	10605.0	15286.0	5.0835	ug/L	5.0835	ppb	09:16:48
1	Ca 317.933Radial†	168.9	150.4	209.97	ug/L	209.97	ppb	09:15:51
1	Cd 226.502†	276.8	504.8	4.8434	ug/L	4.8434	ppb	09:17:08
1	Co 228.616†	213.0	299.4	5.2068	ug/L	5.2068	ppb	09:17:08
1	Cr 267.716†	553.2	458.5	4.5656	ug/L	4.5656	ppb	09:16:48
1	Cu 324.752†	9809.6	3802.0	10.631	ug/L	10.631	ppb	09:16:48
1	Fe 238.204 Radial†	23.6	12.3	97.565	ug/L	97.565	ppb	09:15:51
1	K 766.490 Radial†	3831.0	944.1	169.29	ug/L	169.29	ppb	09:15:31
1	Mg 279.077 IEC†	13.7	11.4	342.84	ug/L	342.84	ppb	09:15:51
1	Mn 257.610†	11283.4	10883.2	10.630	ug/L	10.630	ppb	09:16:48
1	Mo 202.031†	191.9	167.8	9.9860	ug/L	9.9860	ppb	09:17:08
1	Na 589.592 Radial†	-257.5	1003.5	274.23	ug/L	274.23	ppb	09:15:31
1	Ni 231.604†	358.7	259.3	5.5853	ug/L	5.5853	ppb	09:17:08
1	P 214.914†	543.6	292.8	147.33	ug/L	147.33	ppb	09:17:08
1	Pb 220.353†	31.9	110.0	11.305	ug/L	11.305	ppb	09:17:08
1	S 181.975 Axial†	130.8	73.1	87.539	ug/L	87.539	ppb	09:17:08
1	Sb 206.836†	72.9	31.1	9.4609	ug/L	9.4609	ppb	09:17:08
1	Se 196.026†	27.4	56.4	30.464	ug/L	30.464	ppb	09:17:08
1	Si 251.611†	4253.2	3627.8	100.73	ug/L	100.73	ppb	09:16:48
1	Sn 189.927†	69.6	68.4	10.024	ug/L	10.024	ppb	09:17:08
1	Sr 421.552†	887.2	878.2	5.0084	ug/L	5.0084	ppb	09:15:31
1	Ti 334.940†	2156.8	3644.3	5.2350	ug/L	5.2350	ppb	09:16:48
1	Tl 190.801†	32.5	78.5	20.108	ug/L	20.108	ppb	09:17:08
1	U 409.014†	-875.5	1845.8	51.209	ug/L	51.209	ppb	09:16:48
1	V 292.402†	-746.5	715.9	4.7220	ug/L	4.7220	ppb	09:16:48
1	Zn 213.857†	2051.6	1263.3	10.124	ug/L	10.124	ppb	09:17:08
1	SiO2†	4305.7	3655.6	217.96	ug/L	217.96	ppb	09:18:05
2	Sc 361.383	894030.4	894030.4	99.400	%			09:17:14
2	Sc Radial	5563.1	5563.1	99.6	%			09:15:56
2	Y 371.029	740381.4	740381.4	99.661	%			09:17:14
2	Y RADIAL	5830.5	5830.5	99.47	%			09:15:56
2	Ag 328.068†	1538.1	1148.0	4.9073	ug/L	4.9073	ppb	09:17:14
2	Al 396.153Radial†	255.0	269.4	188.80	ug/L	188.80	ppb	09:15:56
2	As 188.979†	50.0	77.8	27.671	ug/L	27.671	ppb	09:17:34
2	B 249.677†	2538.0	2088.3	42.573	ug/L	42.573	ppb	09:17:14
2	Ba 233.527†	758.9	772.1	5.1962	ug/L	5.1962	ppb	09:17:34
2	Be 313.107†	10696.7	15356.3	5.1065	ug/L	5.1065	ppb	09:17:14
2	Ca 317.933Radial†	164.6	147.4	205.84	ug/L	205.84	ppb	09:16:16
2	Cd 226.502†	312.9	540.5	5.1850	ug/L	5.1850	ppb	09:17:34
2	Co 228.616†	206.9	292.9	5.0938	ug/L	5.0938	ppb	09:17:34
2	Cr 267.716†	621.4	526.0	5.2386	ug/L	5.2386	ppb	09:17:14
2	Cu 324.752†	9704.7	3676.2	10.281	ug/L	10.281	ppb	09:17:14
2	Fe 238.204 Radial†	25.6	14.5	114.57	ug/L	114.57	ppb	09:16:16
2	K 766.490 Radial†	3765.8	910.0	163.16	ug/L	163.16	ppb	09:15:56
2	Mg 279.077 IEC†	13.4	11.1	336.55	ug/L	336.55	ppb	09:16:16
2	Mn 257.610†	11318.3	10895.0	10.643	ug/L	10.643	ppb	09:17:14
2	Mo 202.031†	197.8	173.4	10.317	ug/L	10.317	ppb	09:17:34
2	Na 589.592 Radial†	-209.8	1049.2	286.74	ug/L	286.74	ppb	09:15:56
2	Ni 231.604†	352.1	252.0	5.4268	ug/L	5.4268	ppb	09:17:34

2	P 214.914†	533.2	281.3	141.51 ug/L	141.51 ppb		09:17:34
2	Pb 220.353†	15.9	93.8	9.6523 ug/L	9.6523 ppb		09:17:34
2	S 181.975 Axial†	135.7	77.8	93.185 ug/L	93.185 ppb		09:17:34
2	Sb 206.836†	68.8	26.8	8.1667 ug/L	8.1667 ppb		09:17:34
2	Se 196.026†	18.6	47.5	25.772 ug/L	25.772 ppb		09:17:34
2	Si 251.611†	4316.3	3682.5	102.25 ug/L	102.25 ppb		09:17:14
2	Sn 189.927†	66.8	65.4	9.5921 ug/L	9.5921 ppb		09:17:34
2	Sr 421.552†	895.9	894.2	5.0998 ug/L	5.0998 ppb		09:15:56
2	Ti 334.940†	2067.2	3549.7	5.0990 ug/L	5.0990 ppb		09:17:14
2	Tl 190.801†	35.2	81.2	20.802 ug/L	20.802 ppb		09:17:34
2	U 409.014†	-927.3	1795.4	49.808 ug/L	49.808 ppb		09:17:14
2	V 292.402†	-775.8	688.0	4.5462 ug/L	4.5462 ppb		09:17:14
2	Zn 213.857†	2051.6	1259.2	10.091 ug/L	10.091 ppb		09:17:34
2	SiO2†	4349.2	3690.4	220.04 ug/L	220.04 ppb		09:18:10
3	Sc 361.383	891429.0	891429.0	99.111 %			09:17:39
3	Sc Radial	5571.9	5571.9	99.7 %			09:16:21
3	Y 371.029	736861.1	736861.1	99.187 %			09:17:39
3	Y RADIAL	5863.7	5863.7	100.0 %			09:16:21
3	Ag 328.068†	1586.9	1201.7	5.1400 ug/L	5.1400 ppb		09:17:39
3	Al 396.153Radial†	273.7	287.8	201.69 ug/L	201.69 ppb		09:16:21
3	As 188.979†	53.2	81.1	28.852 ug/L	28.852 ppb		09:17:59
3	B 249.677†	2459.0	2016.1	41.099 ug/L	41.099 ppb		09:17:39
3	Ba 233.527†	763.0	778.4	5.2400 ug/L	5.2400 ppb		09:17:59
3	Be 313.107†	10620.1	15310.5	5.0911 ug/L	5.0911 ppb		09:17:39
3	Ca 317.933Radial†	168.3	150.9	210.72 ug/L	210.72 ppb		09:16:42
3	Cd 226.502†	290.2	518.6	4.9735 ug/L	4.9735 ppb		09:17:59
3	Co 228.616†	193.2	279.6	4.8634 ug/L	4.8634 ppb		09:17:59
3	Cr 267.716†	649.3	555.9	5.5380 ug/L	5.5380 ppb		09:17:39
3	Cu 324.752†	9830.8	3832.0	10.716 ug/L	10.716 ppb		09:17:39
3	Fe 238.204 Radial†	26.6	15.5	122.43 ug/L	122.43 ppb		09:16:42
3	K 766.490 Radial†	3778.9	917.1	164.43 ug/L	164.43 ppb		09:16:21
3	Mg 279.077 IEC†	13.7	11.5	347.16 ug/L	347.16 ppb		09:16:42
3	Mn 257.610†	11309.3	10919.2	10.668 ug/L	10.668 ppb		09:17:39
3	Mo 202.031†	193.7	169.9	10.108 ug/L	10.108 ppb		09:17:59
3	Na 589.592 Radial†	-203.5	1055.9	288.57 ug/L	288.57 ppb		09:16:21
3	Ni 231.604†	347.9	248.8	5.3581 ug/L	5.3581 ppb		09:17:59
3	P 214.914†	542.0	291.7	146.74 ug/L	146.74 ppb		09:17:59
3	Pb 220.353†	1.6	79.5	8.1823 ug/L	8.1823 ppb		09:17:59
3	S 181.975 Axial†	133.0	75.5	90.386 ug/L	90.386 ppb		09:17:59
3	Sb 206.836†	69.4	27.6	8.3956 ug/L	8.3956 ppb		09:17:59
3	Se 196.026†	26.5	55.5	30.075 ug/L	30.075 ppb		09:17:59
3	Si 251.611†	4279.8	3658.3	101.58 ug/L	101.58 ppb		09:17:39
3	Sn 189.927†	69.9	68.7	10.078 ug/L	10.078 ppb		09:17:59
3	Sr 421.552†	895.6	892.5	5.0901 ug/L	5.0901 ppb		09:16:21
3	Ti 334.940†	1971.4	3459.1	4.9681 ug/L	4.9681 ppb		09:17:39
3	Tl 190.801†	36.5	82.6	21.148 ug/L	21.148 ppb		09:17:59
3	U 409.014†	-885.9	1834.5	50.890 ug/L	50.890 ppb		09:17:39
3	V 292.402†	-697.5	764.7	5.0258 ug/L	5.0258 ppb		09:17:39
3	Zn 213.857†	2047.7	1261.2	10.106 ug/L	10.106 ppb		09:17:59
3	SiO2†	4240.5	3593.6	214.25 ug/L	214.25 ppb		09:18:15

Mean Data: PQL

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	892553.3	99.236	%	0.1486				0.15%
Sc Radial	5581.3	99.9	%	0.43				0.44%
Y 371.029	738345.1	99.387	%	0.2455				0.25%
Y RADIAL	5861.9	100.0	%	0.52				0.52%
Ag 328.068†	1160.2	4.9582	ug/L	0.16238	4.9582	ppb	0.16238	3.28%
QC value within limits for Ag 328.068 Recovery = 99.16%								
Al 396.153Radial†	275.8	193.30	ug/L	7.278	193.30	ppb	7.278	3.77%
QC value within limits for Al 396.153Radial Recovery = 96.65%								
As 188.979†	76.6	27.268	ug/L	1.8190	27.268	ppb	1.8190	6.67%
QC value within limits for As 188.979 Recovery = 90.89%								
B 249.677†	2076.4	42.332	ug/L	1.1313	42.332	ppb	1.1313	2.67%
QC value within limits for B 249.677 Recovery = 84.66%								
Ba 233.527†	772.2	5.1976	ug/L	0.04175	5.1976	ppb	0.04175	0.80%
QC value within limits for Ba 233.527 Recovery = 103.95%								
Be 313.107†	15317.6	5.0937	ug/L	0.01175	5.0937	ppb	0.01175	0.23%
QC value within limits for Be 313.107 Recovery = 101.87%								

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Ca 317.933Radial†        149.6      208.84 ug/L        2.629      208.84 ppb        2.629   1.26%
   QC value within limits for Ca 317.933Radial  Recovery = 104.42%
Cd 226.502†              521.3      5.0006 ug/L      0.17242      5.0006 ppb      0.17242   3.45%
   QC value within limits for Cd 226.502  Recovery = 100.01%
Co 228.616†              290.6      5.0547 ug/L      0.17504      5.0547 ppb      0.17504   3.46%
   QC value within limits for Co 228.616  Recovery = 101.09%
Cr 267.716†              513.5      5.1141 ug/L      0.49800      5.1141 ppb      0.49800   9.74%
   QC value within limits for Cr 267.716  Recovery = 102.28%
Cu 324.752†             3770.0      10.543 ug/L       0.2310      10.543 ppb       0.2310   2.19%
   QC value within limits for Cu 324.752  Recovery = 105.43%
Fe 238.204 Radial†        14.1      111.52 ug/L       12.711      111.52 ppb       12.711  11.40%
   QC value within limits for Fe 238.204 Radial  Recovery = 111.52%
K 766.490 Radial†        923.7      165.63 ug/L        3.233      165.63 ppb        3.233   1.95%
   QC value within limits for K 766.490 Radial  Recovery = 110.42%
Mg 279.077 IEC†           11.3      342.18 ug/L        5.334      342.18 ppb        5.334   1.56%
   QC value within limits for Mg 279.077 IEC  Recovery = 114.06%
Mn 257.610†            10899.1      10.647 ug/L       0.0190      10.647 ppb       0.0190   0.18%
   QC value within limits for Mn 257.610  Recovery = 106.47%
Mo 202.031†              170.4      10.137 ug/L       0.1674      10.137 ppb       0.1674   1.65%
   QC value within limits for Mo 202.031  Recovery = 101.37%
Na 589.592 Radial†      1036.2      283.18 ug/L        7.802      283.18 ppb        7.802   2.76%
   QC value within limits for Na 589.592 Radial  Recovery = 94.39%
Ni 231.604†              253.3      5.4567 ug/L      0.11647      5.4567 ppb      0.11647   2.13%
   QC value within limits for Ni 231.604  Recovery = 109.13%
P 214.914†               288.6      145.19 ug/L        3.204      145.19 ppb        3.204   2.21%
   QC value within limits for P 214.914  Recovery = 96.80%
Pb 220.353†               94.4      9.7131 ug/L      1.56202      9.7131 ppb      1.56202  16.08%
   QC value within limits for Pb 220.353  Recovery = 97.13%
S 181.975 Axial†          75.5      90.370 ug/L        2.8232      90.370 ppb        2.8232   3.12%
   QC value within limits for S 181.975 Axial  Recovery = 90.37%
Sb 206.836†               28.5      8.6744 ug/L      0.69067      8.6744 ppb      0.69067   7.96%
   QC value within limits for Sb 206.836  Recovery = 86.74%
Se 196.026†               53.1      28.771 ug/L        2.6040      28.771 ppb        2.6040   9.05%
   QC value within limits for Se 196.026  Recovery = 95.90%
Si 251.611†             3656.2      101.52 ug/L         0.763      101.52 ppb         0.763   0.75%
   QC value within limits for Si 251.611  Recovery = 101.52%
Sn 189.927†               67.5      9.8980 ug/L      0.26629      9.8980 ppb      0.26629   2.69%
   QC value within limits for Sn 189.927  Recovery = 98.98%
Sr 421.552†              888.3      5.0661 ug/L      0.05022      5.0661 ppb      0.05022   0.99%
   QC value within limits for Sr 421.552  Recovery = 101.32%
Ti 334.940†             3551.0      5.1007 ug/L      0.13344      5.1007 ppb      0.13344   2.62%
   QC value within limits for Ti 334.940  Recovery = 102.01%
Tl 190.801†               80.8      20.686 ug/L        0.5295      20.686 ppb        0.5295   2.56%
   QC value within limits for Tl 190.801  Recovery = 103.43%
U 409.014†              1825.2      50.636 ug/L        0.7343      50.636 ppb        0.7343   1.45%
   QC value within limits for U 409.014  Recovery = 101.27%
V 292.402†               722.8      4.7647 ug/L      0.24263      4.7647 ppb      0.24263   5.09%
   QC value within limits for V 292.402  Recovery = 95.29%
Zn 213.857†             1261.2      10.107 ug/L       0.0164      10.107 ppb       0.0164   0.16%
   QC value within limits for Zn 213.857  Recovery = 101.07%
SiO2†                   3646.5      217.42 ug/L        2.931      217.42 ppb        2.931   1.35%
   QC value within limits for SiO2  Recovery = 102.07%
All analyte(s) passed QC.
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Sequence No.: 9
Sample ID: ICSA
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 13
Date Collected: 12/20/2009 09:20:26
Data Type: Reprocessed on 12/20/2009 10:23:35

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSA

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc 361.383	782892.7	782892.7	87.044	%			09:22:51
1	Sc Radial	4980.8	4980.8	89.1	%			09:22:24
1	Y 371.029	631140.9	631140.9	84.956	%			09:22:51
1	Y RADIAL	5237.3	5237.3	89.35	%			09:22:24
1	Ag 328.068†	-10579.3	-12553.4	2.4103	ug/L	2.4103	ppb	09:22:51
1	Al 396.153Radial†	654467.9	734198.7	515690	ug/L	515690	ppb	09:22:19
1	As 188.979†	-109.3	-98.1	-5.9554	ug/L	-5.9554	ppb	09:23:12
1	B 249.677†	747.8	394.0	-16.947	ug/L	-16.947	ppb	09:22:51
1	Ba 233.527†	-645.9	-733.5	-0.1414	ug/L	-0.1414	ppb	09:23:12
1	Be 313.107†	-5017.9	-1169.7	-0.4365	ug/L	-0.4365	ppb	09:22:51
1	Ca 317.933Radial†	305583.7	342787.5	478560	ug/L	478560	ppb	09:22:19
1	Cd 226.502†	1393.3	1826.5	-1.2775	ug/L	-1.2775	ppb	09:23:12
1	Co 228.616†	-17.2	64.9	-1.5564	ug/L	-1.5564	ppb	09:23:12
1	Cr 267.716†	-89.1	-201.5	1.3760	ug/L	1.3760	ppb	09:23:12
1	Cu 324.752†	2814.1	-2854.0	1.6297	ug/L	1.6297	ppb	09:22:51
1	Fe 238.204 Radial†	21225.5	23799.6	188320	ug/L	188320	ppb	09:22:24
1	K 766.490 Radial†	2378.0	-204.7	-20.966	ug/L	-20.966	ppb	09:22:19
1	Mg 279.077 IEC†	14589.5	16364.3	493730	ug/L	493730	ppb	09:22:24
1	Mn 257.610†	344.3	-96.0	9.4911	ug/L	9.4911	ppb	09:22:51
1	Mo 202.031†	-250.2	-313.1	-0.5566	ug/L	-0.5566	ppb	09:23:12
1	Na 589.592 Radial†	-1047.1	85.3	23.320	ug/L	23.320	ppb	09:22:24
1	Ni 231.604†	265.6	202.9	4.3725	ug/L	4.3725	ppb	09:23:12
1	P 214.914†	202.0	-23.1	11.479	ug/L	11.479	ppb	09:23:12
1	Pb 220.353†	-973.5	-1040.6	-6.2458	ug/L	-6.2458	ppb	09:23:12
1	S 181.975 Axial†	84.1	37.9	-56.080	ug/L	-56.080	ppb	09:23:12
1	Sb 206.836†	73.0	41.5	-0.2096	ug/L	-0.2096	ppb	09:23:12
1	Se 196.026†	-1129.3	-1268.6	6.9364	ug/L	6.9364	ppb	09:23:12
1	Si 251.611†	495.6	-90.5	-1.9751	ug/L	-1.9751	ppb	09:23:12
1	Sn 189.927†	-393.7	-454.1	-13.928	ug/L	-13.928	ppb	09:23:12
1	Sr 421.552†	585.5	651.2	-0.7207	ug/L	-0.7207	ppb	09:22:24
1	Ti 334.940†	-16130.9	-17061.8	0.3770	ug/L	0.3770	ppb	09:22:51
1	Tl 190.801†	-103.0	-72.6	-4.6192	ug/L	-4.6192	ppb	09:23:12
1	U 409.014†	-1316.6	1215.8	10.055	ug/L	10.055	ppb	09:22:51
1	V 292.402†	963.2	2575.0	-1.5109	ug/L	-1.5109	ppb	09:23:12
1	Zn 213.857†	3539.5	3261.6	-0.3783	ug/L	-0.3783	ppb	09:23:12
1	SiO2†	438.5	-181.2	-9.6529	ug/L	-9.6529	ppb	09:24:08
2	Sc 361.383	775026.0	775026.0	86.169	%			09:23:17
2	Sc Radial	4970.9	4970.9	89.0	%			09:22:34
2	Y 371.029	623830.9	623830.9	83.972	%			09:23:17
2	Y RADIAL	5189.5	5189.5	88.54	%			09:22:34
2	Ag 328.068†	-10570.9	-12666.9	1.8869	ug/L	1.8869	ppb	09:23:17
2	Al 396.153Radial†	650034.7	730686.4	513220	ug/L	513220	ppb	09:22:29
2	As 188.979†	-102.7	-91.8	-3.7441	ug/L	-3.7441	ppb	09:23:37
2	B 249.677†	834.9	503.9	-14.674	ug/L	-14.674	ppb	09:23:17
2	Ba 233.527†	-688.0	-789.8	-0.5251	ug/L	-0.5251	ppb	09:23:37
2	Be 313.107†	-5028.7	-1240.7	-0.4590	ug/L	-0.4590	ppb	09:23:17
2	Ca 317.933Radial†	303408.7	341029.5	476100	ug/L	476100	ppb	09:22:29
2	Cd 226.502†	1386.1	1834.4	-1.1778	ug/L	-1.1778	ppb	09:23:37
2	Co 228.616†	-20.2	61.2	-1.6199	ug/L	-1.6199	ppb	09:23:37
2	Cr 267.716†	-128.2	-248.0	0.9102	ug/L	0.9102	ppb	09:23:37
2	Cu 324.752†	2777.7	-2863.5	1.5910	ug/L	1.5910	ppb	09:23:17
2	Fe 238.204 Radial†	21155.8	23769.1	188080	ug/L	188080	ppb	09:22:34
2	K 766.490 Radial†	2585.7	34.1	21.893	ug/L	21.893	ppb	09:22:29
2	Mg 279.077 IEC†	14470.4	16263.2	490680	ug/L	490680	ppb	09:22:34
2	Mn 257.610†	521.5	113.6	9.7285	ug/L	9.7285	ppb	09:23:17
2	Mo 202.031†	-256.4	-323.1	-1.1752	ug/L	-1.1752	ppb	09:23:37
2	Na 589.592 Radial†	-1181.0	-67.6	-18.462	ug/L	-18.462	ppb	09:22:34
2	Ni 231.604†	261.7	201.4	4.3401	ug/L	4.3401	ppb	09:23:37

2	P 214.914†	216.0	-4.5	20.351 ug/L	20.351 ppb		09:23:37
2	Pb 220.353†	-956.9	-1032.7	-5.9756 ug/L	-5.9756 ppb		09:23:37
2	S 181.975 Axial†	93.4	49.6	-41.482 ug/L	-41.482 ppb		09:23:37
2	Sb 206.836†	72.4	41.6	-0.0753 ug/L	-0.0753 ppb		09:23:37
2	Se 196.026†	-1129.0	-1281.4	-1.1043 ug/L	-1.1043 ppb		09:23:37
2	Si 251.611†	458.5	-127.7	-3.0255 ug/L	-3.0255 ppb		09:23:37
2	Sn 189.927†	-373.0	-434.6	-11.345 ug/L	-11.345 ppb		09:23:37
2	Sr 421.552†	570.8	636.0	-0.7847 ug/L	-0.7847 ppb		09:22:34
2	Ti 334.940†	-15627.9	-16666.2	0.8212 ug/L	0.8212 ppb		09:23:17
2	Tl 190.801†	-106.7	-78.1	-6.0964 ug/L	-6.0964 ppb		09:23:37
2	U 409.014†	-1471.4	1020.7	4.6728 ug/L	4.6728 ppb		09:23:17
2	V 292.402†	993.0	2620.8	-1.2752 ug/L	-1.2752 ppb		09:23:37
2	Zn 213.857†	3497.0	3253.4	-0.3268 ug/L	-0.3268 ppb		09:23:37
2	SiO2†	435.6	-179.4	-9.5734 ug/L	-9.5734 ppb		09:24:13
3	Sc 361.383	782477.9	782477.9	86.998 %			09:23:42
3	Sc Radial	5073.6	5073.6	90.8 %			09:22:45
3	Y 371.029	629387.0	629387.0	84.720 %			09:23:42
3	Y RADIAL	5302.8	5302.8	90.47 %			09:22:45
3	Ag 328.068†	-10740.1	-12744.6	1.1614 ug/L	1.1614 ppb		09:23:42
3	Al 396.153Radial†	653182.9	719365.6	505270 ug/L	505270 ppb		09:22:40
3	As 188.979†	-107.0	-95.6	-5.3322 ug/L	-5.3322 ppb		09:24:02
3	B 249.677†	877.1	543.2	-13.676 ug/L	-13.676 ppb		09:23:42
3	Ba 233.527†	-652.5	-741.4	-0.2388 ug/L	-0.2388 ppb		09:24:02
3	Be 313.107†	-5051.3	-1211.1	-0.4492 ug/L	-0.4492 ppb		09:23:42
3	Ca 317.933Radial†	304742.2	335595.6	468520 ug/L	468520 ppb		09:22:40
3	Cd 226.502†	1417.2	1854.8	-0.8320 ug/L	-0.8320 ppb		09:24:02
3	Co 228.616†	12.9	99.5	-0.9319 ug/L	-0.9319 ppb		09:24:02
3	Cr 267.716†	-117.5	-234.2	1.0187 ug/L	1.0187 ppb		09:24:02
3	Cu 324.752†	2739.4	-2938.2	1.3057 ug/L	1.3057 ppb		09:23:42
3	Fe 238.204 Radial†	21421.0	23579.8	186580 ug/L	186580 ppb		09:22:45
3	K 766.490 Radial†	2385.7	-245.0	-28.470 ug/L	-28.470 ppb		09:22:40
3	Mg 279.077 IEC†	14645.9	16127.3	486580 ug/L	486580 ppb		09:22:45
3	Mn 257.610†	598.2	196.1	9.7360 ug/L	9.7360 ppb		09:23:42
3	Mo 202.031†	-242.7	-304.6	-0.2186 ug/L	-0.2186 ppb		09:24:02
3	Na 589.592 Radial†	-1104.9	43.2	11.803 ug/L	11.803 ppb		09:22:45
3	Ni 231.604†	258.8	195.3	4.2070 ug/L	4.2070 ppb		09:24:02
3	P 214.914†	214.1	-9.1	16.556 ug/L	16.556 ppb		09:24:02
3	Pb 220.353†	-971.4	-1038.7	-8.2504 ug/L	-8.2504 ppb		09:24:02
3	S 181.975 Axial†	87.3	41.6	-49.609 ug/L	-49.609 ppb		09:24:02
3	Sb 206.836†	104.8	78.0	10.878 ug/L	10.878 ppb		09:24:02
3	Se 196.026†	-1137.6	-1278.8	-5.8332 ug/L	-5.8332 ppb		09:24:02
3	Si 251.611†	445.6	-147.7	-3.5821 ug/L	-3.5821 ppb		09:24:02
3	Sn 189.927†	-379.7	-438.3	-12.686 ug/L	-12.686 ppb		09:24:02
3	Sr 421.552†	594.0	648.5	-0.6427 ug/L	-0.6427 ppb		09:22:45
3	Ti 334.940†	-15808.7	-16701.3	0.3738 ug/L	0.3738 ppb		09:23:42
3	Tl 190.801†	-100.0	-69.2	-4.0396 ug/L	-4.0396 ppb		09:24:02
3	U 409.014†	-1401.4	1117.5	7.5476 ug/L	7.5476 ppb		09:23:42
3	V 292.402†	920.5	2526.4	-1.7112 ug/L	-1.7112 ppb		09:24:02
3	Zn 213.857†	3536.1	3259.7	-0.0568 ug/L	-0.0568 ppb		09:24:02
3	SiO2†	482.6	-130.2	-6.6344 ug/L	-6.6344 ppb		09:24:18

Mean Data: ICSA

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	780132.2	86.737	%	0.4922				0.57%
Sc Radial	5008.4	89.6	%	1.01				1.13%
Y 371.029	628119.6	84.550	%	0.5137				0.61%
Y RADIAL	5243.2	89.45	%	0.971				1.08%
Ag 328.068†	-12655.0	1.8195	ug/L	0.62713	1.8195	ppb	0.62713	34.47%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	728083.6	511390	ug/L	5444.5	511390	ppb	5444.5	1.06%
QC value within limits for Al 396.153Radial Recovery = 102.28%								
As 188.979†	-95.1	-5.0106	ug/L	1.14017	-5.0106	ppb	1.14017	22.76%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	480.4	-15.099	ug/L	1.6766	-15.099	ppb	1.6766	11.10%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-754.9	-0.3018	ug/L	0.19945	-0.3018	ppb	0.19945	66.09%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-1207.2	-0.4482	ug/L	0.01126	-0.4482	ppb	0.01126	2.51%
QC value within limits for Be 313.107 Recovery = Not calculated								

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Ca 317.933Radial†     339804.2      474390 ug/L        5234.2      474390 ppb        5234.2   1.10%
   QC value within limits for Ca 317.933Radial  Recovery = 94.88%
Cd 226.502†             1838.5     -1.0958 ug/L       0.23381     -1.0958 ppb       0.23381  21.34%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†               75.2     -1.3694 ug/L       0.38020     -1.3694 ppb       0.38020  27.76%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†             -227.9      1.1016 ug/L       0.24370      1.1016 ppb       0.24370  22.12%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -2885.2      1.5088 ug/L       0.17694      1.5088 ppb       0.17694  11.73%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†     23716.2      187660 ug/L         942.3      187660 ppb         942.3   0.50%
   QC value within limits for Fe 238.204 Radial  Recovery = 93.83%
K 766.490 Radial†       -138.5     -9.1813 ug/L      27.17124     -9.1813 ppb      27.17124 295.94%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†        16251.6      490330 ug/L        3588.3      490330 ppb        3588.3   0.73%
   QC value within limits for Mg 279.077 IEC  Recovery = 98.07%
Mn 257.610†               71.2      9.6519 ug/L       0.13931      9.6519 ppb       0.13931   1.44%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†             -313.6     -0.6501 ug/L       0.48511     -0.6501 ppb       0.48511  74.61%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        20.3      5.5538 ug/L      21.58062      5.5538 ppb      21.58062 388.58%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              199.9      4.3065 ug/L       0.08767      4.3065 ppb       0.08767   2.04%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -12.3      16.129 ug/L        4.4512      16.129 ppb        4.4512  27.60%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†            -1037.3     -6.8239 ug/L       1.24270     -6.8239 ppb       1.24270  18.21%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          43.0     -49.057 ug/L        7.3147     -49.057 ppb        7.3147  14.91%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               53.7      3.5310 ug/L       6.36291      3.5310 ppb       6.36291 180.20%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†            -1276.3     -0.0004 ug/L       6.45601     -0.0004 ppb       6.45601 >999.9%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†             -122.0     -2.8609 ug/L       0.81607     -2.8609 ppb       0.81607  28.53%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†             -442.3     -12.653 ug/L        1.2917     -12.653 ppb        1.2917  10.21%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              645.2     -0.7160 ug/L       0.07111     -0.7160 ppb       0.07111   9.93%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†           -16809.8      0.5240 ug/L       0.25740      0.5240 ppb       0.25740  49.12%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -73.3     -4.9184 ug/L       1.06055     -4.9184 ppb       1.06055  21.56%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              1118.0      7.4252 ug/L       2.69318      7.4252 ppb       2.69318  36.27%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              2574.1     -1.4991 ug/L       0.21824     -1.4991 ppb       0.21824  14.56%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†             3258.2     -0.2540 ug/L       0.17268     -0.2540 ppb       0.17268  68.00%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                   -163.6     -8.6202 ug/L       1.72024     -8.6202 ppb       1.72024  19.96%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 10
Sample ID: ICSAB
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 14
Date Collected: 12/20/2009 09:26:29
Data Type: Reprocessed on 12/20/2009 10:23:36

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSAB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc 361.383	790131.1	790131.1	87.849	%			09:28:54
1	Sc Radial	5040.4	5040.4	90.2	%			09:28:27
1	Y 371.029	634358.5	634358.5	85.390	%			09:28:54
1	Y RADIAL	5279.8	5279.8	90.08	%			09:28:27
1	Ag 328.068†	45321.8	51191.3	275.82	ug/L	275.82	ppb	09:28:54
1	Al 396.153Radial†	647277.1	717550.4	503970	ug/L	503970	ppb	09:28:22
1	As 188.979†	1101.4	1281.2	487.80	ug/L	487.80	ppb	09:28:59
1	B 249.677†	23635.1	26439.2	513.33	ug/L	513.33	ppb	09:28:54
1	Ba 233.527†	63730.6	72554.5	493.03	ug/L	493.03	ppb	09:28:54
1	Be 313.107†	644327.1	738046.1	245.89	ug/L	245.89	ppb	09:28:54
1	Ca 317.933Radial†	303360.1	336271.0	469460	ug/L	469460	ppb	09:28:22
1	Cd 226.502†	44249.2	50595.6	467.62	ug/L	467.62	ppb	09:28:59
1	Co 228.616†	22694.4	25918.3	447.03	ug/L	447.03	ppb	09:28:59
1	Cr 267.716†	41694.6	47362.7	476.39	ug/L	476.39	ppb	09:28:59
1	Cu 324.752†	175809.8	194040.9	551.91	ug/L	551.91	ppb	09:28:54
1	Fe 238.204 Radial†	21396.1	23707.4	187610	ug/L	187610	ppb	09:28:27
1	K 766.490 Radial†	30088.5	30482.2	5481.4	ug/L	5481.4	ppb	09:28:22
1	Mg 279.077 IEC†	14586.9	16168.0	487820	ug/L	487820	ppb	09:28:27
1	Mn 257.610†	433756.7	493262.8	491.26	ug/L	491.26	ppb	09:28:54
1	Mo 202.031†	6964.5	7902.3	487.69	ug/L	487.69	ppb	09:28:59
1	Na 589.592 Radial†	16775.9	19856.8	5426.6	ug/L	5426.6	ppb	09:28:27
1	Ni 231.604†	18678.5	21159.8	455.74	ug/L	455.74	ppb	09:28:59
1	P 214.914†	4595.7	4976.3	2469.2	ug/L	2469.2	ppb	09:28:59
1	Pb 220.353†	2989.5	3480.8	454.59	ug/L	454.59	ppb	09:28:59
1	S 181.975 Axial†	2030.3	2252.3	2599.4	ug/L	2599.4	ppb	09:28:59
1	Sb 206.836†	1605.6	1785.2	522.00	ug/L	522.00	ppb	09:28:59
1	Se 196.026†	3013.1	3458.7	2526.1	ug/L	2526.1	ppb	09:28:59
1	Si 251.611†	165534.5	187771.5	5215.7	ug/L	5215.7	ppb	09:28:54
1	Sn 189.927†	2513.2	2859.0	469.68	ug/L	469.68	ppb	09:28:59
1	Sr 421.552†	79580.5	88213.1	498.93	ug/L	498.93	ppb	09:28:22
1	Ti 334.940†	292746.1	334709.0	506.12	ug/L	506.12	ppb	09:28:54
1	Tl 190.801†	1477.9	1728.1	457.83	ug/L	457.83	ppb	09:28:59
1	U 409.014†	14061.8	18735.2	495.49	ug/L	495.49	ppb	09:28:54
1	V 292.402†	71565.9	82933.4	510.19	ug/L	510.19	ppb	09:28:54
1	Zn 213.857†	56769.6	63817.1	484.71	ug/L	484.71	ppb	09:28:59
1	SiO2†	164029.4	186033.1	11097	ug/L	11097	ppb	09:29:27
2	Sc 361.383	792237.8	792237.8	88.083	%			09:29:05
2	Sc Radial	5052.0	5052.0	90.4	%			09:28:37
2	Y 371.029	635763.5	635763.5	85.579	%			09:29:05
2	Y RADIAL	5263.5	5263.5	89.80	%			09:28:37
2	Ag 328.068†	45254.1	50977.3	275.09	ug/L	275.09	ppb	09:29:05
2	Al 396.153Radial†	645723.2	714180.6	501610	ug/L	501610	ppb	09:28:32
2	As 188.979†	1166.3	1351.6	512.87	ug/L	512.87	ppb	09:29:10
2	B 249.677†	23645.4	26379.4	512.07	ug/L	512.07	ppb	09:29:05
2	Ba 233.527†	63983.1	72648.2	493.66	ug/L	493.66	ppb	09:29:05
2	Be 313.107†	646850.3	738960.2	246.20	ug/L	246.20	ppb	09:29:05
2	Ca 317.933Radial†	301532.7	333476.1	465560	ug/L	465560	ppb	09:28:32
2	Cd 226.502†	44060.4	50247.2	464.23	ug/L	464.23	ppb	09:29:10
2	Co 228.616†	22632.6	25779.4	444.61	ug/L	444.61	ppb	09:29:10
2	Cr 267.716†	41609.8	47140.1	474.18	ug/L	474.18	ppb	09:29:10
2	Cu 324.752†	176569.8	194371.6	552.85	ug/L	552.85	ppb	09:29:05
2	Fe 238.204 Radial†	21491.9	23758.8	188010	ug/L	188010	ppb	09:28:37
2	K 766.490 Radial†	29898.6	30195.4	5430.0	ug/L	5430.0	ppb	09:28:32
2	Mg 279.077 IEC†	14641.7	16191.4	488520	ug/L	488520	ppb	09:28:37
2	Mn 257.610†	435239.3	493633.0	491.65	ug/L	491.65	ppb	09:29:05
2	Mo 202.031†	6913.0	7822.7	483.01	ug/L	483.01	ppb	09:29:10
2	Na 589.592 Radial†	16823.0	19866.1	5429.1	ug/L	5429.1	ppb	09:28:37
2	Ni 231.604†	18694.5	21121.5	454.91	ug/L	454.91	ppb	09:29:10

2	P 214.914†	4559.5	4921.2	2439.9	ug/L	2439.9 ppb	09:29:10
2	Pb 220.353†	2967.1	3446.3	450.49	ug/L	450.49 ppb	09:29:10
2	S 181.975 Axial†	2018.5	2232.9	2576.5	ug/L	2576.5 ppb	09:29:10
2	Sb 206.836†	1621.2	1798.1	525.82	ug/L	525.82 ppb	09:29:10
2	Se 196.026†	2992.0	3425.6	2509.3	ug/L	2509.3 ppb	09:29:10
2	Si 251.611†	166482.1	188346.2	5231.8	ug/L	5231.8 ppb	09:29:05
2	Sn 189.927†	2522.0	2861.4	469.64	ug/L	469.64 ppb	09:29:10
2	Sr 421.552†	79400.6	87811.1	496.67	ug/L	496.67 ppb	09:28:32
2	Ti 334.940†	293960.3	335201.3	506.63	ug/L	506.63 ppb	09:29:05
2	Tl 190.801†	1481.5	1727.7	457.67	ug/L	457.67 ppb	09:29:10
2	U 409.014†	14111.6	18749.1	495.83	ug/L	495.83 ppb	09:29:05
2	V 292.402†	71710.5	82880.9	509.75	ug/L	509.75 ppb	09:29:05
2	Zn 213.857†	56661.7	63522.8	482.29	ug/L	482.29 ppb	09:29:10
2	SiO2†	164377.7	185932.0	11091	ug/L	11091 ppb	09:29:32
3	Sc 361.383	784048.3	784048.3	87.172	%		09:29:16
3	Sc Radial	4900.9	4900.9	87.7	%		09:28:47
3	Y 371.029	629560.7	629560.7	84.744	%		09:29:16
3	Y RADIAL	5110.1	5110.1	87.18	%		09:28:47
3	Ag 328.068†	44659.8	50832.2	274.55	ug/L	274.55 ppb	09:29:16
3	Al 396.153Radial†	646272.2	736833.4	517520	ug/L	517520 ppb	09:28:42
3	As 188.979†	1156.5	1354.1	513.90	ug/L	513.90 ppb	09:29:21
3	B 249.677†	23248.5	26204.5	508.37	ug/L	508.37 ppb	09:29:16
3	Ba 233.527†	63128.4	72426.5	492.20	ug/L	492.20 ppb	09:29:16
3	Be 313.107†	638509.6	737062.8	245.57	ug/L	245.57 ppb	09:29:16
3	Ca 317.933Radial†	301531.1	343760.1	479920	ug/L	479920 ppb	09:28:42
3	Cd 226.502†	44154.1	50877.2	470.20	ug/L	470.20 ppb	09:29:21
3	Co 228.616†	22750.4	26182.9	451.62	ug/L	451.62 ppb	09:29:21
3	Cr 267.716†	41847.9	47906.7	481.84	ug/L	481.84 ppb	09:29:21
3	Cu 324.752†	174008.2	193526.8	550.53	ug/L	550.53 ppb	09:29:16
3	Fe 238.204 Radial†	20940.5	23863.3	188840	ug/L	188840 ppb	09:28:47
3	K 766.490 Radial†	29764.8	31062.8	5586.3	ug/L	5586.3 ppb	09:28:42
3	Mg 279.077 IEC†	14267.3	16264.0	490710	ug/L	490710 ppb	09:28:47
3	Mn 257.610†	429991.8	492774.5	490.85	ug/L	490.85 ppb	09:29:16
3	Mo 202.031†	6977.8	7979.0	492.37	ug/L	492.37 ppb	09:29:21
3	Na 589.592 Radial†	16426.7	19988.2	5462.5	ug/L	5462.5 ppb	09:28:47
3	Ni 231.604†	18696.2	21345.1	459.73	ug/L	459.73 ppb	09:29:21
3	P 214.914†	4545.4	4959.1	2464.4	ug/L	2464.4 ppb	09:29:21
3	Pb 220.353†	2970.1	3484.9	457.97	ug/L	457.97 ppb	09:29:21
3	S 181.975 Axial†	2015.6	2253.4	2598.0	ug/L	2598.0 ppb	09:29:21
3	Sb 206.836†	1627.9	1825.1	533.56	ug/L	533.56 ppb	09:29:21
3	Se 196.026†	3013.9	3486.2	2547.1	ug/L	2547.1 ppb	09:29:21
3	Si 251.611†	164070.2	187553.6	5209.5	ug/L	5209.5 ppb	09:29:16
3	Sn 189.927†	2556.9	2931.4	481.38	ug/L	481.38 ppb	09:29:21
3	Sr 421.552†	79570.5	90713.3	513.09	ug/L	513.09 ppb	09:28:42
3	Ti 334.940†	290558.2	334784.5	506.77	ug/L	506.77 ppb	09:29:16
3	Tl 190.801†	1498.9	1765.3	467.65	ug/L	467.65 ppb	09:29:21
3	U 409.014†	13825.1	18587.9	491.24	ug/L	491.24 ppb	09:29:16
3	V 292.402†	71052.1	82976.0	510.39	ug/L	510.39 ppb	09:29:16
3	Zn 213.857†	56848.2	64408.7	489.29	ug/L	489.29 ppb	09:29:21
3	SiO2†	163051.4	186359.8	11116	ug/L	11116 ppb	09:29:37

Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	788805.7	87.701	%	0.4728				0.54%
Sc Radial	4997.8	89.4	%	1.51				1.68%
Y 371.029	633227.6	85.237	%	0.4378				0.51%
Y RADIAL	5217.8	89.02	%	1.597				1.79%
Ag 328.068†	51000.3	275.15	ug/L	0.636	275.15	ppb	0.636	0.23%
QC value within limits for Ag 328.068 Recovery = 110.06%								
Al 396.153Radial†	722854.8	507700	ug/L	8584.7	507700	ppb	8584.7	1.69%
QC value within limits for Al 396.153Radial Recovery = 101.54%								
As 188.979†	1329.0	504.86	ug/L	14.780	504.86	ppb	14.780	2.93%
QC value within limits for As 188.979 Recovery = 100.97%								
B 249.677†	26341.1	511.26	ug/L	2.579	511.26	ppb	2.579	0.50%
QC value within limits for B 249.677 Recovery = 102.25%								
Ba 233.527†	72543.1	492.96	ug/L	0.735	492.96	ppb	0.735	0.15%
QC value within limits for Ba 233.527 Recovery = 98.59%								
Be 313.107†	738023.0	245.89	ug/L	0.316	245.89	ppb	0.316	0.13%
QC value within limits for Be 313.107 Recovery = 98.35%								

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Ca 317.933Radial†     337835.8      471650 ug/L        7423.7      471650 ppb         7423.7   1.57%
   QC value within limits for Ca 317.933Radial  Recovery = 94.33%
Cd 226.502†            50573.3      467.35 ug/L         2.995      467.35 ppb          2.995   0.64%
   QC value within limits for Cd 226.502  Recovery = 93.47%
Co 228.616†            25960.2      447.75 ug/L         3.559      447.75 ppb          3.559   0.79%
   QC value within limits for Co 228.616  Recovery = 89.55%
Cr 267.716†            47469.8      477.47 ug/L         3.943      477.47 ppb          3.943   0.83%
   QC value within limits for Cr 267.716  Recovery = 95.49%
Cu 324.752†           193979.8      551.77 ug/L         1.166      551.77 ppb          1.166   0.21%
   QC value within limits for Cu 324.752  Recovery = 110.35%
Fe 238.204 Radial†     23776.5      188150 ug/L         628.5      188150 ppb          628.5   0.33%
   QC value within limits for Fe 238.204 Radial  Recovery = 94.08%
K 766.490 Radial†      30580.1      5499.2 ug/L         79.70      5499.2 ppb          79.70   1.45%
   QC value within limits for K 766.490 Radial  Recovery = 109.98%
Mg 279.077 IEC†        16207.8      489020 ug/L        1509.9      489020 ppb         1509.9   0.31%
   QC value within limits for Mg 279.077 IEC  Recovery = 97.80%
Mn 257.610†           493223.4      491.25 ug/L         0.398      491.25 ppb          0.398   0.08%
   QC value within limits for Mn 257.610  Recovery = 98.25%
Mo 202.031†             7901.3      487.69 ug/L         4.684      487.69 ppb          4.684   0.96%
   QC value within limits for Mo 202.031  Recovery = 97.54%
Na 589.592 Radial†     19903.7      5439.4 ug/L         20.04      5439.4 ppb          20.04   0.37%
   QC value within limits for Na 589.592 Radial  Recovery = 108.79%
Ni 231.604†            21208.8      456.79 ug/L         2.575      456.79 ppb          2.575   0.56%
   QC value within limits for Ni 231.604  Recovery = 91.36%
P 214.914†              4952.2      2457.9 ug/L         15.71      2457.9 ppb          15.71   0.64%
   QC value within limits for P 214.914  Recovery = 98.31%
Pb 220.353†             3470.7      454.35 ug/L         3.743      454.35 ppb          3.743   0.82%
   QC value within limits for Pb 220.353  Recovery = 90.87%
S 181.975 Axial†        2246.2      2591.3 ug/L         12.83      2591.3 ppb          12.83   0.50%
   QC value within limits for S 181.975 Axial  Recovery = 103.65%
Sb 206.836†             1802.8      527.13 ug/L         5.891      527.13 ppb          5.891   1.12%
   QC value within limits for Sb 206.836  Recovery = 105.43%
Se 196.026†             3456.8      2527.5 ug/L         18.94      2527.5 ppb          18.94   0.75%
   QC value within limits for Se 196.026  Recovery = 101.10%
Si 251.611†           187890.5      5219.0 ug/L         11.51      5219.0 ppb          11.51   0.22%
   QC value within limits for Si 251.611  Recovery = 104.38%
Sn 189.927†             2883.9      473.57 ug/L         6.766      473.57 ppb          6.766   1.43%
   QC value within limits for Sn 189.927  Recovery = 94.71%
Sr 421.552†            88912.5      502.90 ug/L         8.903      502.90 ppb          8.903   1.77%
   QC value within limits for Sr 421.552  Recovery = 100.58%
Ti 334.940†           334898.3      506.51 ug/L         0.343      506.51 ppb          0.343   0.07%
   QC value within limits for Ti 334.940  Recovery = 101.30%
Tl 190.801†             1740.4      461.05 ug/L         5.716      461.05 ppb          5.716   1.24%
   QC value within limits for Tl 190.801  Recovery = 92.21%
U 409.014†             18690.7      494.19 ug/L         2.560      494.19 ppb          2.560   0.52%
   QC value within limits for U 409.014  Recovery = 98.84%
V 292.402†             82930.1      510.11 ug/L         0.329      510.11 ppb          0.329   0.06%
   QC value within limits for V 292.402  Recovery = 102.02%
Zn 213.857†            63916.2      485.43 ug/L         3.555      485.43 ppb          3.555   0.73%
   QC value within limits for Zn 213.857  Recovery = 97.09%
SiO2†                 186108.3       11101 ug/L          13.1       11101 ppb           13.1   0.12%
   QC value within limits for SiO2  Recovery = 103.80%
All analyte(s) passed QC.
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Sequence No.: 11
Sample ID: LR1
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 15
Date Collected: 12/20/2009 09:31:48
Data Type: Reprocessed on 12/20/2009 10:23:37

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc 361.383	769341.1	769341.1	85.537	%			09:34:14
1	Sc Radial	4860.0	4860.0	87.0	%			09:33:45
1	Y 371.029	620229.0	620229.0	83.488	%			09:34:14
1	Y RADIAL	5050.3	5050.3	86.16	%			09:33:45
1	Ag 328.068†	-25045.9	-29680.1	-1.5500	ug/L	-1.5500	ppb	09:34:14
1	Al 396.153Radial†	632428.8	727121.0	510720	ug/L	510720	ppb	09:33:40
1	As 188.979†	-228.8	-240.1	-18.618	ug/L	-18.618	ppb	09:34:34
1	B 249.677†	1967.7	1835.4	-19.918	ug/L	-19.918	ppb	09:34:14
1	Ba 233.527†	-1802.7	-2098.9	-3.1324	ug/L	-3.1324	ppb	09:34:34
1	Be 313.107†	-11553.5	-8911.9	-2.9808	ug/L	-2.9808	ppb	09:34:14
1	Ca 317.933Radial†	294605.3	338691.8	472840	ug/L	472840	ppb	09:33:40
1	Cd 226.502†	3652.2	4495.5	-0.0264	ug/L	-0.0264	ppb	09:34:34
1	Co 228.616†	205.0	324.3	-0.6204	ug/L	-0.6204	ppb	09:34:34
1	Cr 267.716†	0.3	-98.9	2.0459	ug/L	2.0459	ppb	09:34:34
1	Cu 324.752†	-343.3	-6488.4	3.9171	ug/L	3.9171	ppb	09:34:14
1	Fe 238.204 Radial†	47527.7	54631.7	432290	ug/L	432290	ppb	09:33:45
1	K 766.490 Radial†	2964.1	535.4	-101.63	ug/L	-101.63	ppb	09:33:40
1	Mg 279.077 IEC†	13667.6	15711.5	473820	ug/L	473820	ppb	09:33:45
1	Mn 257.610†	-27112.7	-32188.5	2.8514	ug/L	2.8514	ppb	09:34:14
1	Mo 202.031†	-535.9	-652.0	2.6796	ug/L	2.6796	ppb	09:34:14
1	Na 589.592 Radial†	1602651.5	1843839.6	503890	ug/L	503890	ppb	09:33:40
1	Ni 231.604†	299.0	247.2	5.3246	ug/L	5.3246	ppb	09:34:34
1	P 214.914†	643.1	496.6	78.999	ug/L	78.999	ppb	09:34:34
1	Pb 220.353†	-708.4	-750.3	2.2685	ug/L	2.2685	ppb	09:34:34
1	S 181.975 Axial†	107.4	66.9	-20.354	ug/L	-20.354	ppb	09:34:34
1	Sb 206.836†	77.8	48.5	5.4237	ug/L	5.4237	ppb	09:34:34
1	Se 196.026†	-2639.8	-3057.4	-181.83	ug/L	-181.83	ppb	09:34:34
1	Si 251.611†	-551.3	-1304.3	-35.444	ug/L	-35.444	ppb	09:34:34
1	Sn 189.927†	-413.8	-485.6	-15.869	ug/L	-15.869	ppb	09:34:34
1	Sr 421.552†	810.3	926.0	0.9002	ug/L	0.9002	ppb	09:33:45
1	Ti 334.940†	-8229.5	-8150.9	6.4129	ug/L	6.4129	ppb	09:34:14
1	Tl 190.801†	-111.6	-84.7	-7.9934	ug/L	-7.9934	ppb	09:34:34
1	U 409.014†	452369.6	531585.4	14700	ug/L	14700	ppb	09:34:14
1	V 292.402†	2578.9	4483.3	1.1986	ug/L	1.1986	ppb	09:34:14
1	Zn 213.857†	6505.2	6800.2	16.201	ug/L	16.201	ppb	09:34:34
1	SiO2†	-638.2	-1431.1	-83.676	ug/L	-83.676	ppb	09:35:31
2	Sc 361.383	771771.3	771771.3	85.807	%			09:34:39
2	Sc Radial	4927.7	4927.7	88.2	%			09:33:56
2	Y 371.029	622387.2	622387.2	83.778	%			09:34:39
2	Y RADIAL	5173.1	5173.1	88.26	%			09:33:56
2	Ag 328.068†	-25011.1	-29547.4	-0.1508	ug/L	-0.1508	ppb	09:34:39
2	Al 396.153Radial†	631299.7	715850.6	502800	ug/L	502800	ppb	09:33:51
2	As 188.979†	-239.6	-251.7	-22.446	ug/L	-22.446	ppb	09:34:59
2	B 249.677†	1945.6	1802.4	-20.865	ug/L	-20.865	ppb	09:34:39
2	Ba 233.527†	-1883.3	-2186.2	-3.6664	ug/L	-3.6664	ppb	09:34:59
2	Be 313.107†	-11696.9	-9036.5	-3.0237	ug/L	-3.0237	ppb	09:34:39
2	Ca 317.933Radial†	293157.3	332396.2	464050	ug/L	464050	ppb	09:33:51
2	Cd 226.502†	3613.1	4436.5	-0.7984	ug/L	-0.7984	ppb	09:34:59
2	Co 228.616†	215.0	335.3	-0.4633	ug/L	-0.4633	ppb	09:34:59
2	Cr 267.716†	-7.1	-107.5	2.0032	ug/L	2.0032	ppb	09:34:59
2	Cu 324.752†	-440.6	-6600.5	3.7086	ug/L	3.7086	ppb	09:34:39
2	Fe 238.204 Radial†	48418.8	54891.4	434350	ug/L	434350	ppb	09:33:56
2	K 766.490 Radial†	2831.2	338.0	-132.96	ug/L	-132.96	ppb	09:33:51
2	Mg 279.077 IEC†	13994.6	15866.4	478490	ug/L	478490	ppb	09:33:56
2	Mn 257.610†	-27272.3	-32274.7	2.8851	ug/L	2.8851	ppb	09:34:39
2	Mo 202.031†	-568.5	-688.0	0.7359	ug/L	0.7359	ppb	09:34:39
2	Na 589.592 Radial†	1593640.0	1808305.1	494180	ug/L	494180	ppb	09:33:51
2	Ni 231.604†	310.3	259.3	5.5855	ug/L	5.5855	ppb	09:34:59

2	P 214.914†	672.7	528.8	91.095	ug/L	91.095 ppb	09:34:59
2	Pb 220.353†	-666.0	-698.4	5.6361	ug/L	5.6361 ppb	09:34:59
2	S 181.975 Axial†	121.3	82.6	0.0822	ug/L	0.0822 ppb	09:34:59
2	Sb 206.836†	54.1	20.7	-2.5719	ug/L	-2.5719 ppb	09:34:59
2	Se 196.026†	-2638.6	-3046.2	-170.83	ug/L	-170.83 ppb	09:34:59
2	Si 251.611†	-581.2	-1337.2	-36.311	ug/L	-36.311 ppb	09:34:59
2	Sn 189.927†	-411.8	-481.7	-16.198	ug/L	-16.198 ppb	09:34:59
2	Sr 421.552†	802.0	903.8	0.8553	ug/L	0.8553 ppb	09:33:56
2	Ti 334.940†	-8734.4	-8709.0	5.1592	ug/L	5.1592 ppb	09:34:39
2	Tl 190.801†	-116.2	-89.7	-9.4799	ug/L	-9.4799 ppb	09:34:59
2	U 409.014†	453201.7	530889.8	14681	ug/L	14681 ppb	09:34:39
2	V 292.402†	2617.9	4519.3	1.1501	ug/L	1.1501 ppb	09:34:39
2	Zn 213.857†	6528.0	6802.8	15.954	ug/L	15.954 ppb	09:34:59
2	SiO2†	-624.1	-1412.3	-82.449	ug/L	-82.449 ppb	09:35:36
3	Sc 361.383	768499.4	768499.4	85.444	%		09:35:05
3	Sc Radial	4832.5	4832.5	86.5	%		09:34:06
3	Y 371.029	620371.6	620371.6	83.507	%		09:35:05
3	Y RADIAL	5082.1	5082.1	86.70	%		09:34:06
3	Ag 328.068†	-24822.0	-29450.1	1.0397	ug/L	1.0397 ppb	09:35:05
3	Al 396.153Radial†	634118.9	733203.5	514990	ug/L	514990 ppb	09:34:01
3	As 188.979†	-206.1	-213.7	-8.5120	ug/L	-8.5120 ppb	09:35:25
3	B 249.677†	1758.9	1593.5	-25.506	ug/L	-25.506 ppb	09:35:05
3	Ba 233.527†	-1854.9	-2162.3	-3.4351	ug/L	-3.4351 ppb	09:35:25
3	Be 313.107†	-11595.1	-8975.4	-3.0040	ug/L	-3.0040 ppb	09:35:05
3	Ca 317.933Radial†	294908.7	340965.8	476020	ug/L	476020 ppb	09:34:01
3	Cd 226.502†	3627.1	4470.8	-0.7547	ug/L	-0.7547 ppb	09:35:25
3	Co 228.616†	197.5	315.9	-0.8332	ug/L	-0.8332 ppb	09:35:25
3	Cr 267.716†	-10.4	-111.4	2.0132	ug/L	2.0132 ppb	09:35:25
3	Cu 324.752†	-453.5	-6617.8	3.8063	ug/L	3.8063 ppb	09:35:05
3	Fe 238.204 Radial†	47797.0	55253.3	437210	ug/L	437210 ppb	09:34:06
3	K 766.490 Radial†	2919.3	503.0	-109.47	ug/L	-109.47 ppb	09:34:01
3	Mg 279.077 IEC†	13828.8	15987.1	482130	ug/L	482130 ppb	09:34:06
3	Mn 257.610†	-27540.9	-32724.3	2.6639	ug/L	2.6639 ppb	09:35:05
3	Mo 202.031†	-526.5	-641.7	3.7626	ug/L	3.7626 ppb	09:35:05
3	Na 589.592 Radial†	1609931.6	1862718.8	509050	ug/L	509050 ppb	09:34:01
3	Ni 231.604†	325.9	279.2	6.0139	ug/L	6.0139 ppb	09:35:25
3	P 214.914†	661.8	519.3	88.017	ug/L	88.017 ppb	09:35:25
3	Pb 220.353†	-683.7	-722.3	5.6935	ug/L	5.6935 ppb	09:35:25
3	S 181.975 Axial†	121.4	83.3	-1.5016	ug/L	-1.5016 ppb	09:35:25
3	Sb 206.836†	74.1	44.3	4.0890	ug/L	4.0890 ppb	09:35:25
3	Se 196.026†	-2649.1	-3071.7	-173.24	ug/L	-173.24 ppb	09:35:25
3	Si 251.611†	-623.7	-1389.8	-37.818	ug/L	-37.818 ppb	09:35:25
3	Sn 189.927†	-441.2	-518.2	-20.239	ug/L	-20.239 ppb	09:35:25
3	Sr 421.552†	804.6	924.7	0.8635	ug/L	0.8635 ppb	09:34:06
3	Ti 334.940†	-8865.5	-8905.8	5.4981	ug/L	5.4981 ppb	09:35:05
3	Tl 190.801†	-130.9	-107.5	-13.693	ug/L	-13.693 ppb	09:35:25
3	U 409.014†	451403.0	531033.3	14684	ug/L	14684 ppb	09:35:05
3	V 292.402†	2513.6	4410.3	0.1596	ug/L	0.1596 ppb	09:35:05
3	Zn 213.857†	6520.9	6826.9	15.873	ug/L	15.873 ppb	09:35:25
3	SiO2†	-695.4	-1498.8	-87.711	ug/L	-87.711 ppb	09:35:41

Mean Data: LR1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	769870.6	85.596	%	0.1889				0.22%
Sc Radial	4873.4	87.2	%	0.88				1.00%
Y 371.029	620995.9	83.591	%	0.1625				0.19%
Y RADIAL	5101.8	87.04	%	1.088				1.25%
Ag 328.068†	-29559.2	-0.2204	ug/L	1.29624	-0.2204	ppb	1.29624	588.20%
Al 396.153Radial†	725391.7	509500	ug/L	6184.2	509500	ppb	6184.2	1.21%
QC value within limits for Al 396.153Radial Recovery = 101.90%								
As 188.979†	-235.2	-16.526	ug/L	7.1990	-16.526	ppb	7.1990	43.56%
B 249.677†	1743.8	-22.096	ug/L	2.9902	-22.096	ppb	2.9902	13.53%
Ba 233.527†	-2149.2	-3.4113	ug/L	0.26780	-3.4113	ppb	0.26780	7.85%
Be 313.107†	-8974.6	-3.0028	ug/L	0.02148	-3.0028	ppb	0.02148	0.72%
Ca 317.933Radial†	337351.3	470970	ug/L	6197.6	470970	ppb	6197.6	1.32%
QC value within limits for Ca 317.933Radial Recovery = 94.19%								
Cd 226.502†	4467.6	-0.5265	ug/L	0.43367	-0.5265	ppb	0.43367	82.37%
Co 228.616†	325.2	-0.6390	ug/L	0.18561	-0.6390	ppb	0.18561	29.05%
Cr 267.716†	-105.9	2.0208	ug/L	0.02234	2.0208	ppb	0.02234	1.11%

Cu 324.752†	-6568.9	3.8107	ug/L	0.10429	3.8107	ppb	0.10429	2.74%
Fe 238.204 Radial†	54925.5	434620	ug/L	2470.3	434620	ppb	2470.3	0.57%
QC value less than the lower limit for Fe 238.204 Radial Recovery = 86.92%								
K 766.490 Radial†	458.8	-114.69	ug/L	16.305	-114.69	ppb	16.305	14.22%
Mg 279.077 IEC†	15855.0	478150	ug/L	4166.7	478150	ppb	4166.7	0.87%
QC value within limits for Mg 279.077 IEC Recovery = 95.63%								
Mn 257.610†	-32395.8	2.8001	ug/L	0.11919	2.8001	ppb	0.11919	4.26%
Mo 202.031†	-660.6	2.3927	ug/L	1.53357	2.3927	ppb	1.53357	64.09%
Na 589.592 Radial†	1838287.8	502370	ug/L	7550.4	502370	ppb	7550.4	1.50%
QC value within limits for Na 589.592 Radial Recovery = 100.47%								
Ni 231.604†	261.9	5.6414	ug/L	0.34803	5.6414	ppb	0.34803	6.17%
P 214.914†	514.9	86.037	ug/L	6.2861	86.037	ppb	6.2861	7.31%
Pb 220.353†	-723.7	4.5327	ug/L	1.96110	4.5327	ppb	1.96110	43.27%
S 181.975 Axial†	77.6	-7.2579	ug/L	11.36942	-7.2579	ppb	11.36942	156.65%
Sb 206.836†	37.8	2.3136	ug/L	4.28323	2.3136	ppb	4.28323	185.13%
Se 196.026†	-3058.4	-175.30	ug/L	5.780	-175.30	ppb	5.780	3.30%
Si 251.611†	-1343.8	-36.524	ug/L	1.2012	-36.524	ppb	1.2012	3.29%
Sn 189.927†	-495.2	-17.435	ug/L	2.4340	-17.435	ppb	2.4340	13.96%
Sr 421.552†	918.2	0.8730	ug/L	0.02392	0.8730	ppb	0.02392	2.74%
Ti 334.940†	-8588.6	5.6901	ug/L	0.64851	5.6901	ppb	0.64851	11.40%
Tl 190.801†	-93.9	-10.389	ug/L	2.9564	-10.389	ppb	2.9564	28.46%
U 409.014†	531169.5	14688	ug/L	10.4	14688	ppb	10.4	0.07%
QC value within limits for U 409.014 Recovery = 97.92%								
V 292.402†	4471.0	0.8361	ug/L	0.58637	0.8361	ppb	0.58637	70.13%
Zn 213.857†	6810.0	16.009	ug/L	0.1708	16.009	ppb	0.1708	1.07%
SiO2†	-1447.4	-84.612	ug/L	2.7531	-84.612	ppb	2.7531	3.25%

QC Failed. Continue with analysis.

Sequence No.: 12
Sample ID: LR2
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 16
Date Collected: 12/20/2009 09:37:50
Data Type: Reprocessed on 12/20/2009 10:23:39

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR2

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc 361.383	876452.1	876452.1	97.446	%			09:41:25
1	Sc Radial	5415.2	5415.2	96.9	%			09:39:48
1	Y 371.029	703674.5	703674.5	94.720	%			09:41:25
1	Y RADIAL	5607.5	5607.5	95.67	%			09:39:48
1	Ag 328.068†	-8046.4	-8656.6	2.1638	ug/L	2.1638	ppb	09:41:30
1	Al 396.153Radial†	644.2	678.0	65.488	ug/L	65.488	ppb	09:39:48
1	As 188.979†	26953.0	27686.8	9922.8	ug/L	9922.8	ppb	09:41:30
1	B 249.677†	240043.6	245869.8	4992.6	ug/L	4992.6	ppb	09:41:25
1	Ba 233.527†	2038049.6	2091472.6	14064	ug/L	14064	ppb	09:41:25
1	Be 313.107†	8404037.0	8628889.8	2883.0	ug/L	2883.0	ppb	09:41:19
1	Ca 317.933Radial†	35.8	19.1	26.666	ug/L	26.666	ppb	09:40:08
1	Cd 226.502†	982874.9	1008860.4	9698.6	ug/L	9698.6	ppb	09:41:25
1	Co 228.616†	513129.1	526662.2	9134.6	ug/L	9134.6	ppb	09:41:30
1	Cr 267.716†	2336498.5	2397635.6	23926	ug/L	23926	ppb	09:41:25
1	Cu 324.752†	6994055.4	7171272.6	20044	ug/L	20044	ppb	09:41:19
1	Fe 238.204 Radial†	-22.6	-34.5	15.086	ug/L	15.086	ppb	09:40:08
1	K 766.490 Radial†	1607232.3	1655516.5	297150	ug/L	297150	ppb	09:39:43
1	Mg 279.077 IEC†	-2.5	-4.8	48.908	ug/L	48.908	ppb	09:40:08
1	Mn 257.610†	9322506.8	9566344.8	9340.8	ug/L	9340.8	ppb	09:41:19
1	Mo 202.031†	157293.4	161390.3	9593.1	ug/L	9593.1	ppb	09:41:30
1	Na 589.592 Radial†	-810.4	423.8	115.82	ug/L	115.82	ppb	09:39:48
1	Ni 231.604†	443313.4	454829.8	9796.4	ug/L	9796.4	ppb	09:41:25
1	P 214.914†	34996.5	35658.5	15063	ug/L	15063	ppb	09:41:30
1	Pb 220.353†	228333.4	234395.5	23992	ug/L	23992	ppb	09:41:30
1	S 181.975 Axial†	41782.3	42818.6	51300	ug/L	51300	ppb	09:41:30
1	Sb 206.836†	34385.6	35244.4	10200	ug/L	10200	ppb	09:41:30
1	Se 196.026†	18150.4	18654.9	9982.0	ug/L	9982.0	ppb	09:41:30
1	Si 251.611†	1665717.0	1708713.2	47268	ug/L	47268	ppb	09:41:25
1	Sn 189.927†	68430.1	70221.7	10271	ug/L	10271	ppb	09:41:30
1	Sr 421.552†	1638604.9	1690754.4	9646.2	ug/L	9646.2	ppb	09:39:43
1	Ti 334.940†	6599746.6	6774186.5	9747.4	ug/L	9747.4	ppb	09:41:19
1	Tl 190.801†	36206.2	37200.9	9553.0	ug/L	9553.0	ppb	09:41:30
1	U 409.014†	-1133.4	1565.3	-2.7024	ug/L	-2.7024	ppb	09:41:30
1	V 292.402†	1548153.7	1590197.0	10101	ug/L	10101	ppb	09:41:25
1	Zn 213.857†	1703841.4	1747691.8	14009	ug/L	14009	ppb	09:41:25
1	SiO2†	1672307.5	1715451.3	101900	ug/L	101900	ppb	09:42:18
2	Sc 361.383	871866.4	871866.4	96.936	%			09:41:45
2	Sc Radial	5471.9	5471.9	97.9	%			09:40:18
2	Y 371.029	700619.0	700619.0	94.309	%			09:41:45
2	Y RADIAL	5690.7	5690.7	97.09	%			09:40:18
2	Ag 328.068†	-7929.3	-8579.3	2.4916	ug/L	2.4916	ppb	09:41:50
2	Al 396.153Radial†	628.2	654.8	47.183	ug/L	47.183	ppb	09:40:18
2	As 188.979†	26972.2	27852.2	9982.5	ug/L	9982.5	ppb	09:41:50
2	B 249.677†	238641.6	245719.1	4989.4	ug/L	4989.4	ppb	09:41:45
2	Ba 233.527†	2026062.8	2090107.2	14055	ug/L	14055	ppb	09:41:45
2	Be 313.107†	8463161.9	8735243.9	2918.5	ug/L	2918.5	ppb	09:41:39
2	Ca 317.933Radial†	38.6	21.5	30.074	ug/L	30.074	ppb	09:40:38
2	Cd 226.502†	975230.1	1006279.0	9673.7	ug/L	9673.7	ppb	09:41:45
2	Co 228.616†	512353.9	528632.1	9168.7	ug/L	9168.7	ppb	09:41:50
2	Cr 267.716†	2321259.5	2394526.1	23895	ug/L	23895	ppb	09:41:45
2	Cu 324.752†	7057334.1	7274301.3	20331	ug/L	20331	ppb	09:41:39
2	Fe 238.204 Radial†	-21.6	-33.2	26.364	ug/L	26.364	ppb	09:40:38
2	K 766.490 Radial†	1609047.6	1640163.2	294390	ug/L	294390	ppb	09:40:13
2	Mg 279.077 IEC†	-5.5	-7.8	-41.468	ug/L	-41.468	ppb	09:40:38
2	Mn 257.610†	9368944.6	9664568.2	9436.7	ug/L	9436.7	ppb	09:41:39
2	Mo 202.031†	157240.7	162184.9	9640.3	ug/L	9640.3	ppb	09:41:50
2	Na 589.592 Radial†	-953.6	286.3	78.232	ug/L	78.232	ppb	09:40:18
2	Ni 231.604†	439827.6	453626.6	9770.4	ug/L	9770.4	ppb	09:41:45

2	P 214.914†	34738.5	35581.2	14979	ug/L	14979 ppb	09:41:50
2	Pb 220.353†	228419.6	235716.9	24127	ug/L	24127 ppb	09:41:50
2	S 181.975 Axial†	41878.7	43143.6	51690	ug/L	51690 ppb	09:41:50
2	Sb 206.836†	34342.1	35385.1	10244	ug/L	10244 ppb	09:41:50
2	Se 196.026†	18184.1	18787.6	10053	ug/L	10053 ppb	09:41:50
2	Si 251.611†	1654215.0	1705838.3	47188	ug/L	47188 ppb	09:41:45
2	Sn 189.927†	68389.1	70548.8	10319	ug/L	10319 ppb	09:41:50
2	Sr 421.552†	1643381.5	1678089.0	9573.9	ug/L	9573.9 ppb	09:40:13
2	Ti 334.940†	6645612.7	6857124.1	9866.8	ug/L	9866.8 ppb	09:41:39
2	Tl 190.801†	36305.4	37498.6	9630.3	ug/L	9630.3 ppb	09:41:50
2	U 409.014†	-1470.9	1211.0	-12.478	ug/L	-12.478 ppb	09:41:50
2	V 292.402†	1539505.3	1589631.3	10098	ug/L	10098 ppb	09:41:45
2	Zn 213.857†	1692031.0	1744704.5	13985	ug/L	13985 ppb	09:41:45
2	SiO2†	1683949.2	1736487.2	103160	ug/L	103160 ppb	09:42:25
3	Sc 361.383	878675.3	878675.3	97.693	%		09:42:05
3	Sc Radial	5384.2	5384.2	96.4	%		09:40:49
3	Y 371.029	706547.9	706547.9	95.107	%		09:42:05
3	Y RADIAL	5605.6	5605.6	95.63	%		09:40:49
3	Ag 328.068†	-7931.2	-8517.8	2.6994	ug/L	2.6994 ppb	09:42:10
3	Al 396.153Radial†	634.1	671.4	65.743	ug/L	65.743 ppb	09:40:49
3	As 188.979†	26620.2	27276.2	9776.3	ug/L	9776.3 ppb	09:42:10
3	B 249.677†	240656.2	245873.6	4992.9	ug/L	4992.9 ppb	09:42:05
3	Ba 233.527†	2037586.0	2085706.3	14026	ug/L	14026 ppb	09:42:05
3	Be 313.107†	8372944.8	8575242.6	2865.0	ug/L	2865.0 ppb	09:41:58
3	Ca 317.933Radial†	36.6	20.1	28.079	ug/L	28.079 ppb	09:41:09
3	Cd 226.502†	980322.0	1003695.2	9648.9	ug/L	9648.9 ppb	09:42:05
3	Co 228.616†	510063.0	522191.4	9057.0	ug/L	9057.0 ppb	09:42:10
3	Cr 267.716†	2334190.1	2389206.0	23842	ug/L	23842 ppb	09:42:05
3	Cu 324.752†	6953351.6	7111447.6	19876	ug/L	19876 ppb	09:41:58
3	Fe 238.204 Radial†	-21.7	-33.7	18.878	ug/L	18.878 ppb	09:41:09
3	K 766.490 Radial†	1569324.1	1625706.2	291800	ug/L	291800 ppb	09:40:44
3	Mg 279.077 IEC†	-2.9	-5.3	32.259	ug/L	32.259 ppb	09:41:09
3	Mn 257.610†	9264347.9	9482606.9	9259.0	ug/L	9259.0 ppb	09:41:58
3	Mo 202.031†	155815.6	159469.2	9478.9	ug/L	9478.9 ppb	09:42:10
3	Na 589.592 Radial†	-933.5	291.3	79.598	ug/L	79.598 ppb	09:40:49
3	Ni 231.604†	442236.6	452576.5	9747.9	ug/L	9747.9 ppb	09:42:05
3	P 214.914†	34355.4	34911.4	14708	ug/L	14708 ppb	09:42:10
3	Pb 220.353†	226811.5	232244.8	23772	ug/L	23772 ppb	09:42:10
3	S 181.975 Axial†	41227.8	42142.5	50490	ug/L	50490 ppb	09:42:10
3	Sb 206.836†	33999.6	34760.0	10055	ug/L	10055 ppb	09:42:10
3	Se 196.026†	17887.2	18338.4	9812.9	ug/L	9812.9 ppb	09:42:10
3	Si 251.611†	1668524.4	1707261.9	47232	ug/L	47232 ppb	09:42:05
3	Sn 189.927†	67767.2	69365.5	10145	ug/L	10145 ppb	09:42:10
3	Sr 421.552†	1595531.9	1655770.3	9446.6	ug/L	9446.6 ppb	09:40:44
3	Ti 334.940†	6563586.8	6720036.8	9669.4	ug/L	9669.4 ppb	09:41:58
3	Tl 190.801†	35983.4	36878.8	9470.2	ug/L	9470.2 ppb	09:42:10
3	U 409.014†	-1510.5	1182.2	-13.175	ug/L	-13.175 ppb	09:42:10
3	V 292.402†	1549399.8	1587452.8	10083	ug/L	10083 ppb	09:42:05
3	Zn 213.857†	1701395.2	1740763.8	13953	ug/L	13953 ppb	09:42:05
3	SiO2†	1669346.9	1708078.7	101470	ug/L	101470 ppb	09:42:32

Mean Data: LR2

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	875664.6	97.359	%	0.3860				0.40%
Sc Radial	5423.8	97.1	%	0.80				0.82%
Y 371.029	703613.8	94.712	%	0.3991				0.42%
Y RADIAL	5634.6	96.13	%	0.829				0.86%
Ag 328.068†	-8584.6	2.4516	ug/L	0.27002	2.4516	ppb	0.27002	11.01%
Al 396.153Radial†	668.0	59.471	ug/L	10.6428	59.471	ppb	10.6428	17.90%
As 188.979†	27605.1	9893.9	ug/L	106.10	9893.9	ppb	106.10	1.07%
QC value within limits for As 188.979 Recovery = 98.94%								
B 249.677†	245820.8	4991.6	ug/L	1.91	4991.6	ppb	1.91	0.04%
QC value within limits for B 249.677 Recovery = 99.83%								
Ba 233.527†	2089095.3	14048	ug/L	20.3	14048	ppb	20.3	0.14%
QC value within limits for Ba 233.527 Recovery = 93.66%								
Be 313.107†	8646458.8	2888.8	ug/L	27.22	2888.8	ppb	27.22	0.94%
QC value within limits for Be 313.107 Recovery = 96.29%								
Ca 317.933Radial†	20.3	28.273	ug/L	1.7123	28.273	ppb	1.7123	6.06%
Cd 226.502†	1006278.2	9673.7	ug/L	24.83	9673.7	ppb	24.83	0.26%

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   QC value within limits for Cd 226.502  Recovery = 96.74%
Co 228.616†          525828.6      9120.1 ug/L        57.25      9120.1 ppb        57.25   0.63%
   QC value within limits for Co 228.616  Recovery = 91.20%
Cr 267.716†         2393789.2       23888 ug/L         42.5       23888 ppb         42.5   0.18%
   QC value within limits for Cr 267.716  Recovery = 95.55%
Cu 324.752†         7185673.9       20084 ug/L        230.2       20084 ppb        230.2   1.15%
   QC value within limits for Cu 324.752  Recovery = 100.42%
Fe 238.204 Radial†      -33.8      20.109 ug/L       5.7393      20.109 ppb       5.7393  28.54%
K 766.490 Radial†   1640462.0      294450 ug/L       2676.2      294450 ppb       2676.2   0.91%
   QC value within limits for K 766.490 Radial  Recovery = 98.15%
Mg 279.077 IEC†          -6.0      13.233 ug/L      48.0985      13.233 ppb      48.0985 363.47%
Mn 257.610†         9571173.3      9345.5 ug/L        88.93      9345.5 ppb        88.93   0.95%
   QC value within limits for Mn 257.610  Recovery = 93.46%
Mo 202.031†          161014.8      9570.7 ug/L        82.99      9570.7 ppb        82.99   0.87%
   QC value within limits for Mo 202.031  Recovery = 95.71%
Na 589.592 Radial†      333.8      91.215 ug/L      21.3155      91.215 ppb      21.3155  23.37%
Ni 231.604†          453677.6      9771.5 ug/L        24.28      9771.5 ppb        24.28   0.25%
   QC value within limits for Ni 231.604  Recovery = 97.72%
P 214.914†            35383.7       14917 ug/L        185.3       14917 ppb        185.3   1.24%
   QC value within limits for P 214.914  Recovery = 99.45%
Pb 220.353†          234119.1       23964 ug/L        179.3       23964 ppb        179.3   0.75%
   QC value within limits for Pb 220.353  Recovery = 95.85%
S 181.975 Axial†      42701.6       51160 ug/L        611.8       51160 ppb        611.8   1.20%
   QC value within limits for S 181.975 Axial  Recovery = 102.32%
Sb 206.836†           35129.9       10166 ug/L         99.1       10166 ppb         99.1   0.97%
   QC value within limits for Sb 206.836  Recovery = 101.66%
Se 196.026†           18593.6      9949.3 ug/L       123.40      9949.3 ppb       123.40   1.24%
   QC value within limits for Se 196.026  Recovery = 99.49%
Si 251.611†         1707271.2       47229 ug/L         40.1       47229 ppb         40.1   0.08%
   QC value within limits for Si 251.611  Recovery = 94.46%
Sn 189.927†           70045.3       10245 ug/L         89.4       10245 ppb         89.4   0.87%
   QC value within limits for Sn 189.927  Recovery = 102.45%
Sr 421.552†         1674871.3      9555.6 ug/L       101.05      9555.6 ppb       101.05   1.06%
   QC value within limits for Sr 421.552  Recovery = 95.56%
Ti 334.940†         6783782.5      9761.2 ug/L        99.43      9761.2 ppb        99.43   1.02%
   QC value within limits for Ti 334.940  Recovery = 97.61%
Tl 190.801†           37192.8      9551.2 ug/L        80.07      9551.2 ppb        80.07   0.84%
   QC value within limits for Tl 190.801  Recovery = 95.51%
U 409.014†             1319.5     -9.4517 ug/L      5.85549     -9.4517 ppb      5.85549  61.95%
V 292.402†          1589093.7       10094 ug/L         10.1       10094 ppb         10.1   0.10%
   QC value within limits for V 292.402  Recovery = 100.94%
Zn 213.857†         1744386.7       13982 ug/L         27.8       13982 ppb         27.8   0.20%
   QC value within limits for Zn 213.857  Recovery = 93.22%
SiO2†               1720005.7      102170 ug/L        877.5      102170 ppb        877.5   0.86%
   QC value within limits for SiO2  Recovery = 95.49%
All analyte(s) passed QC.
```

Sequence No.: 13
Sample ID: CCV
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 12/20/2009 09:44:42
Data Type: Reprocessed on 12/20/2009 10:23:40

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc 361.383	911610.1	911610.1	101.36	%			09:47:53
1	Sc Radial	5589.4	5589.4	100	%			09:46:34
1	Y 371.029	738495.6	738495.6	99.407	%			09:47:53
1	Y RADIAL	5782.0	5782.0	98.64	%			09:46:34
1	Ag 328.068†	116242.2	114288.8	490.72	ug/L	490.72	ppb	09:47:53
1	Al 396.153Radial†	6849.8	6860.8	4797.8	ug/L	4797.8	ppb	09:46:34
1	As 188.979†	1424.0	1432.4	513.40	ug/L	513.40	ppb	09:48:14
1	B 249.677†	25924.6	25113.0	510.39	ug/L	510.39	ppb	09:47:53
1	Ba 233.527†	74615.7	73626.8	495.56	ug/L	495.56	ppb	09:47:53
1	Be 313.107†	1504824.3	1489301.1	495.24	ug/L	495.24	ppb	09:47:53
1	Ca 317.933Radial†	3535.4	3516.3	4909.1	ug/L	4909.1	ppb	09:46:54
1	Cd 226.502†	52113.4	51642.4	495.94	ug/L	495.94	ppb	09:47:53
1	Co 228.616†	28553.2	28256.2	490.21	ug/L	490.21	ppb	09:48:14
1	Cr 267.716†	50279.6	49508.3	494.49	ug/L	494.49	ppb	09:47:53
1	Cu 324.752†	184722.2	176165.6	492.64	ug/L	492.64	ppb	09:47:53
1	Fe 238.204 Radial†	652.5	641.0	5087.8	ug/L	5087.8	ppb	09:46:54
1	K 766.490 Radial†	30797.7	27914.9	5003.3	ug/L	5003.3	ppb	09:46:34
1	Mg 279.077 IEC†	175.0	172.6	5216.3	ug/L	5216.3	ppb	09:46:54
1	Mn 257.610†	514710.5	507337.7	495.79	ug/L	495.79	ppb	09:47:53
1	Mo 202.031†	8408.7	8270.7	492.10	ug/L	492.10	ppb	09:48:14
1	Na 589.592 Radial†	34656.7	35904.9	9812.2	ug/L	9812.2	ppb	09:46:34
1	Ni 231.604†	23215.9	22803.3	491.13	ug/L	491.13	ppb	09:48:14
1	P 214.914†	5139.2	4815.3	2374.5	ug/L	2374.5	ppb	09:48:14
1	Pb 220.353†	4818.1	4831.5	495.86	ug/L	495.86	ppb	09:48:14
1	S 181.975 Axial†	880.2	809.7	969.11	ug/L	969.11	ppb	09:48:14
1	Sb 206.836†	1745.4	1679.6	502.72	ug/L	502.72	ppb	09:48:14
1	Se 196.026†	906.9	923.5	511.06	ug/L	511.06	ppb	09:48:14
1	Si 251.611†	90345.6	88477.9	2451.2	ug/L	2451.2	ppb	09:47:53
1	Sn 189.927†	3427.1	3379.5	494.87	ug/L	494.87	ppb	09:48:14
1	Sr 421.552†	86211.5	86176.7	491.61	ug/L	491.61	ppb	09:46:34
1	Ti 334.940†	343480.9	340358.9	490.04	ug/L	490.04	ppb	09:47:53
1	Tl 190.801†	1930.9	1950.8	500.98	ug/L	500.98	ppb	09:48:14
1	U 409.014†	14652.5	17184.9	475.39	ug/L	475.39	ppb	09:47:53
1	V 292.402†	77686.3	78116.2	497.03	ug/L	497.03	ppb	09:47:53
1	Zn 213.857†	63093.4	61445.0	491.39	ug/L	491.39	ppb	09:47:53
1	SiO2†	90305.3	88413.0	5259.7	ug/L	5259.7	ppb	09:49:14
2	Sc 361.383	912438.6	912438.6	101.45	%			09:48:21
2	Sc Radial	5534.1	5534.1	99.0	%			09:46:59
2	Y 371.029	739731.1	739731.1	99.573	%			09:48:21
2	Y RADIAL	5761.3	5761.3	98.29	%			09:46:59
2	Ag 328.068†	116558.1	114496.0	491.61	ug/L	491.61	ppb	09:48:21
2	Al 396.153Radial†	6792.7	6871.6	4805.5	ug/L	4805.5	ppb	09:46:59
2	As 188.979†	1408.9	1416.3	507.68	ug/L	507.68	ppb	09:48:41
2	B 249.677†	25923.7	25088.9	509.90	ug/L	509.90	ppb	09:48:21
2	Ba 233.527†	74544.5	73489.7	494.63	ug/L	494.63	ppb	09:48:21
2	Be 313.107†	1504609.5	1487741.3	494.72	ug/L	494.72	ppb	09:48:21
2	Ca 317.933Radial†	3502.6	3518.6	4912.2	ug/L	4912.2	ppb	09:47:20
2	Cd 226.502†	52135.8	51617.9	495.71	ug/L	495.71	ppb	09:48:21
2	Co 228.616†	28400.7	28080.3	487.16	ug/L	487.16	ppb	09:48:41
2	Cr 267.716†	50247.2	49431.2	493.72	ug/L	493.72	ppb	09:48:21
2	Cu 324.752†	185055.9	176329.1	493.09	ug/L	493.09	ppb	09:48:21
2	Fe 238.204 Radial†	646.6	641.7	5092.8	ug/L	5092.8	ppb	09:47:20
2	K 766.490 Radial†	30516.3	27938.5	5007.6	ug/L	5007.6	ppb	09:46:59
2	Mg 279.077 IEC†	170.5	169.9	5132.1	ug/L	5132.1	ppb	09:47:20
2	Mn 257.610†	514453.7	506623.5	495.09	ug/L	495.09	ppb	09:48:21
2	Mo 202.031†	8370.6	8225.6	489.42	ug/L	489.42	ppb	09:48:41
2	Na 589.592 Radial†	34140.9	35730.5	9764.6	ug/L	9764.6	ppb	09:46:59
2	Ni 231.604†	23121.2	22689.1	488.67	ug/L	488.67	ppb	09:48:41

2	P 214.914†	5109.0	4780.9	2356.8	ug/L	2356.8 ppb	09:48:41
2	Pb 220.353†	4815.0	4824.1	495.10	ug/L	495.10 ppb	09:48:41
2	S 181.975 Axial†	883.6	812.3	972.22	ug/L	972.22 ppb	09:48:41
2	Sb 206.836†	1732.0	1664.9	498.23	ug/L	498.23 ppb	09:48:41
2	Se 196.026†	895.9	911.9	504.87	ug/L	504.87 ppb	09:48:41
2	Si 251.611†	90251.9	88304.6	2446.4	ug/L	2446.4 ppb	09:48:21
2	Sn 189.927†	3390.6	3340.4	489.15	ug/L	489.15 ppb	09:48:41
2	Sr 421.552†	85286.8	86104.5	491.20	ug/L	491.20 ppb	09:46:59
2	Ti 334.940†	343539.0	340108.5	489.68	ug/L	489.68 ppb	09:48:21
2	Tl 190.801†	1927.4	1945.7	499.68	ug/L	499.68 ppb	09:48:41
2	U 409.014†	14508.3	17029.7	471.08	ug/L	471.08 ppb	09:48:21
2	V 292.402†	77661.2	78021.8	496.39	ug/L	496.39 ppb	09:48:21
2	Zn 213.857†	63023.3	61319.4	490.40	ug/L	490.40 ppb	09:48:21
2	SiO2†	90392.3	88417.9	5260.2	ug/L	5260.2 ppb	09:49:19
3	Sc 361.383	912856.7	912856.7	101.49	%		09:48:48
3	Sc Radial	5584.1	5584.1	99.9	%		09:47:25
3	Y 371.029	739901.0	739901.0	99.596	%		09:48:48
3	Y RADIAL	5842.7	5842.7	99.68	%		09:47:25
3	Ag 328.068†	116278.7	114168.1	490.21	ug/L	490.21 ppb	09:48:48
3	Al 396.153Radial†	6890.1	6907.6	4830.8	ug/L	4830.8 ppb	09:47:25
3	As 188.979†	1415.2	1421.9	509.65	ug/L	509.65 ppb	09:49:08
3	B 249.677†	25873.7	25027.9	508.66	ug/L	508.66 ppb	09:48:48
3	Ba 233.527†	74489.0	73401.4	494.04	ug/L	494.04 ppb	09:48:48
3	Be 313.107†	1507975.0	1490378.0	495.59	ug/L	495.59 ppb	09:48:48
3	Ca 317.933Radial†	3515.0	3499.3	4885.3	ug/L	4885.3 ppb	09:47:45
3	Cd 226.502†	52041.3	51501.2	494.59	ug/L	494.59 ppb	09:48:48
3	Co 228.616†	28467.2	28133.0	488.08	ug/L	488.08 ppb	09:49:08
3	Cr 267.716†	50212.1	49374.0	493.15	ug/L	493.15 ppb	09:48:48
3	Cu 324.752†	185167.3	176355.3	493.17	ug/L	493.17 ppb	09:48:48
3	Fe 238.204 Radial†	650.6	639.8	5078.1	ug/L	5078.1 ppb	09:47:45
3	K 766.490 Radial†	31075.7	28222.4	5058.5	ug/L	5058.5 ppb	09:47:25
3	Mg 279.077 IEC†	173.0	170.8	5161.1	ug/L	5161.1 ppb	09:47:45
3	Mn 257.610†	514063.7	506007.0	494.49	ug/L	494.49 ppb	09:48:48
3	Mo 202.031†	8404.1	8254.9	491.16	ug/L	491.16 ppb	09:49:08
3	Na 589.592 Radial†	34671.6	35952.9	9825.3	ug/L	9825.3 ppb	09:47:25
3	Ni 231.604†	23189.6	22746.1	489.90	ug/L	489.90 ppb	09:49:08
3	P 214.914†	5136.7	4805.9	2369.5	ug/L	2369.5 ppb	09:49:08
3	Pb 220.353†	4793.0	4800.2	492.66	ug/L	492.66 ppb	09:49:08
3	S 181.975 Axial†	883.7	812.0	971.84	ug/L	971.84 ppb	09:49:08
3	Sb 206.836†	1733.8	1665.9	498.61	ug/L	498.61 ppb	09:49:08
3	Se 196.026†	902.5	918.0	508.06	ug/L	508.06 ppb	09:49:08
3	Si 251.611†	90344.8	88355.4	2447.8	ug/L	2447.8 ppb	09:48:48
3	Sn 189.927†	3401.1	3349.2	490.44	ug/L	490.44 ppb	09:49:08
3	Sr 421.552†	86553.0	86600.5	494.03	ug/L	494.03 ppb	09:47:25
3	Ti 334.940†	343473.2	339888.6	489.36	ug/L	489.36 ppb	09:48:48
3	Tl 190.801†	1918.9	1936.5	497.31	ug/L	497.31 ppb	09:49:08
3	U 409.014†	14570.1	17084.0	472.59	ug/L	472.59 ppb	09:48:48
3	V 292.402†	77772.0	78095.9	496.89	ug/L	496.89 ppb	09:48:48
3	Zn 213.857†	62948.5	61217.3	489.57	ug/L	489.57 ppb	09:48:48
3	SiO2†	89374.7	87374.5	5197.7	ug/L	5197.7 ppb	09:49:24

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	912301.8	101.43	%	0.071				0.07%
Sc Radial	5569.2	99.7	%	0.55				0.55%
Y 371.029	739375.9	99.526	%	0.1033				0.10%
Y RADIAL	5795.3	98.87	%	0.721				0.73%
Ag 328.068†	114317.6	490.85	ug/L	0.710	490.85	ppb	0.710	0.14%
QC value within limits for Ag 328.068 Recovery = 98.17%								
Al 396.153Radial†	6880.0	4811.4	ug/L	17.23	4811.4	ppb	17.23	0.36%
QC value within limits for Al 396.153Radial Recovery = 96.23%								
As 188.979†	1423.5	510.24	ug/L	2.902	510.24	ppb	2.902	0.57%
QC value within limits for As 188.979 Recovery = 102.05%								
B 249.677†	25076.6	509.65	ug/L	0.891	509.65	ppb	0.891	0.17%
QC value within limits for B 249.677 Recovery = 101.93%								
Ba 233.527†	73506.0	494.74	ug/L	0.763	494.74	ppb	0.763	0.15%
QC value within limits for Ba 233.527 Recovery = 98.95%								
Be 313.107†	1489140.2	495.18	ug/L	0.440	495.18	ppb	0.440	0.09%
QC value within limits for Be 313.107 Recovery = 99.04%								

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Ca 317.933Radial†       3511.4      4902.2 ug/L        14.72      4902.2 ppb        14.72   0.30%
   QC value within limits for Ca 317.933Radial  Recovery = 98.04%
Cd 226.502†            51587.2      495.41 ug/L        0.724      495.41 ppb        0.724   0.15%
   QC value within limits for Cd 226.502  Recovery = 99.08%
Co 228.616†            28156.5      488.48 ug/L        1.568      488.48 ppb        1.568   0.32%
   QC value within limits for Co 228.616  Recovery = 97.70%
Cr 267.716†            49437.8      493.78 ug/L        0.672      493.78 ppb        0.672   0.14%
   QC value within limits for Cr 267.716  Recovery = 98.76%
Cu 324.752†           176283.3      492.97 ug/L        0.287      492.97 ppb        0.287   0.06%
   QC value within limits for Cu 324.752  Recovery = 98.59%
Fe 238.204 Radial†       640.8      5086.2 ug/L         7.49      5086.2 ppb         7.49   0.15%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.72%
K 766.490 Radial†      28025.2      5023.1 ug/L        30.73      5023.1 ppb        30.73   0.61%
   QC value within limits for K 766.490 Radial  Recovery = 100.46%
Mg 279.077 IEC†          171.1      5169.9 ug/L        42.80      5169.9 ppb        42.80   0.83%
   QC value within limits for Mg 279.077 IEC  Recovery = 103.40%
Mn 257.610†           506656.1      495.12 ug/L        0.650      495.12 ppb        0.650   0.13%
   QC value within limits for Mn 257.610  Recovery = 99.02%
Mo 202.031†             8250.4      490.89 ug/L        1.359      490.89 ppb        1.359   0.28%
   QC value within limits for Mo 202.031  Recovery = 98.18%
Na 589.592 Radial†     35862.8      9800.7 ug/L        31.99      9800.7 ppb        31.99   0.33%
   QC value within limits for Na 589.592 Radial  Recovery = 98.01%
Ni 231.604†            22746.2      489.90 ug/L        1.229      489.90 ppb        1.229   0.25%
   QC value within limits for Ni 231.604  Recovery = 97.98%
P 214.914†              4800.7      2366.9 ug/L         9.11      2366.9 ppb         9.11   0.38%
   QC value within limits for P 214.914  Recovery = 94.68%
Pb 220.353†             4818.6      494.54 ug/L        1.669      494.54 ppb        1.669   0.34%
   QC value within limits for Pb 220.353  Recovery = 98.91%
S 181.975 Axial†         811.3      971.06 ug/L        1.694      971.06 ppb        1.694   0.17%
   QC value within limits for S 181.975 Axial  Recovery = 97.11%
Sb 206.836†             1670.2      499.85 ug/L        2.492      499.85 ppb        2.492   0.50%
   QC value within limits for Sb 206.836  Recovery = 99.97%
Se 196.026†              917.8      508.00 ug/L        3.098      508.00 ppb        3.098   0.61%
   QC value within limits for Se 196.026  Recovery = 101.60%
Si 251.611†            88379.3      2448.5 ug/L         2.45      2448.5 ppb         2.45   0.10%
   QC value within limits for Si 251.611  Recovery = 97.94%
Sn 189.927†             3356.4      491.49 ug/L        3.002      491.49 ppb        3.002   0.61%
   QC value within limits for Sn 189.927  Recovery = 98.30%
Sr 421.552†            86293.9      492.28 ug/L        1.529      492.28 ppb        1.529   0.31%
   QC value within limits for Sr 421.552  Recovery = 98.46%
Ti 334.940†           340118.6      489.69 ug/L        0.339      489.69 ppb        0.339   0.07%
   QC value within limits for Ti 334.940  Recovery = 97.94%
Tl 190.801†             1944.3      499.32 ug/L        1.859      499.32 ppb        1.859   0.37%
   QC value within limits for Tl 190.801  Recovery = 99.86%
U 409.014†             17099.5      473.02 ug/L        2.186      473.02 ppb        2.186   0.46%
   QC value within limits for U 409.014  Recovery = 94.60%
V 292.402†             78078.0      496.77 ug/L        0.336      496.77 ppb        0.336   0.07%
   QC value within limits for V 292.402  Recovery = 99.35%
Zn 213.857†            61327.2      490.45 ug/L        0.915      490.45 ppb        0.915   0.19%
   QC value within limits for Zn 213.857  Recovery = 98.09%
SiO2†                  88068.5      5239.2 ug/L        35.95      5239.2 ppb        35.95   0.69%
   QC value within limits for SiO2  Recovery = 97.97%
All analyte(s) passed QC.
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Sequence No.: 14
Sample ID: CCB
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 12/20/2009 09:51:34
Data Type: Reprocessed on 12/20/2009 10:23:41
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc 361.383	901297.4	901297.4	100.21	%			09:54:43
1	Sc Radial	5594.5	5594.5	100	%			09:53:26
1	Y 371.029	745622.5	745622.5	100.37	%			09:54:43
1	Y RADIAL	5831.0	5831.0	99.48	%			09:53:26
1	Ag 328.068†	426.0	25.8	0.1116	ug/L	0.1116	ppb	09:54:43
1	Al 396.153Radial†	-9.7	3.6	2.5000	ug/L	2.5000	ppb	09:53:26
1	As 188.979†	-5.9	21.6	7.6658	ug/L	7.6658	ppb	09:55:03
1	B 249.677†	852.4	385.6	7.8655	ug/L	7.8655	ppb	09:54:43
1	Ba 233.527†	-0.1	8.5	0.0562	ug/L	0.0562	ppb	09:55:03
1	Be 313.107†	-4564.4	40.2	0.0135	ug/L	0.0135	ppb	09:54:43
1	Ca 317.933Radial†	22.7	4.8	6.6790	ug/L	6.6790	ppb	09:53:46
1	Cd 226.502†	-200.5	25.7	0.2463	ug/L	0.2463	ppb	09:55:03
1	Co 228.616†	-69.9	15.0	0.2620	ug/L	0.2620	ppb	09:55:03
1	Cr 267.716†	76.2	-23.2	-0.2313	ug/L	-0.2313	ppb	09:54:43
1	Cu 324.752†	6221.9	121.9	0.3411	ug/L	0.3411	ppb	09:54:43
1	Fe 238.204 Radial†	12.2	0.9	7.4437	ug/L	7.4437	ppb	09:53:46
1	K 766.490 Radial†	3066.6	190.4	34.197	ug/L	34.197	ppb	09:53:26
1	Mg 279.077 IEC†	-0.3	-2.5	-76.009	ug/L	-76.009	ppb	09:53:46
1	Mn 257.610†	535.2	42.5	0.0437	ug/L	0.0437	ppb	09:55:03
1	Mo 202.031†	40.6	15.0	0.8907	ug/L	0.8907	ppb	09:55:03
1	Na 589.592 Radial†	-1282.2	-20.6	-5.6219	ug/L	-5.6219	ppb	09:53:26
1	Ni 231.604†	118.7	16.2	0.3493	ug/L	0.3493	ppb	09:55:03
1	P 214.914†	255.9	0.2	0.0894	ug/L	0.0894	ppb	09:55:03
1	Pb 220.353†	-75.0	3.0	0.3059	ug/L	0.3059	ppb	09:55:03
1	S 181.975 Axial†	58.5	-0.4	-0.4657	ug/L	-0.4657	ppb	09:55:03
1	Sb 206.836†	43.4	0.9	0.3785	ug/L	0.3785	ppb	09:55:03
1	Se 196.026†	-35.2	-6.3	-3.3429	ug/L	-3.3429	ppb	09:55:03
1	Si 251.611†	753.4	92.0	2.5185	ug/L	2.5185	ppb	09:55:03
1	Sn 189.927†	36.8	34.9	5.1040	ug/L	5.1040	ppb	09:55:03
1	Sr 421.552†	3.1	-2.6	-0.0147	ug/L	-0.0147	ppb	09:53:26
1	Ti 334.940†	-1407.1	65.9	0.0957	ug/L	0.0957	ppb	09:54:43
1	Tl 190.801†	-34.4	11.5	2.9358	ug/L	2.9358	ppb	09:55:03
1	U 409.014†	-2759.5	-25.4	-0.7059	ug/L	-0.7059	ppb	09:54:43
1	V 292.402†	-1527.3	-55.7	-0.3411	ug/L	-0.3411	ppb	09:54:43
1	Zn 213.857†	842.6	36.0	0.2897	ug/L	0.2897	ppb	09:55:03
1	SiO2†	757.9	71.4	4.1730	ug/L	4.1730	ppb	09:55:59
2	Sc 361.383	897860.5	897860.5	99.826	%			09:55:08
2	Sc Radial	5730.3	5730.3	103	%			09:53:51
2	Y 371.029	743726.1	743726.1	100.11	%			09:55:08
2	Y RADIAL	6026.6	6026.6	102.8	%			09:53:51
2	Ag 328.068†	354.7	-44.1	-0.1893	ug/L	-0.1893	ppb	09:55:08
2	Al 396.153Radial†	-6.0	7.5	5.2254	ug/L	5.2254	ppb	09:53:51
2	As 188.979†	-14.5	13.0	4.6098	ug/L	4.6098	ppb	09:55:28
2	B 249.677†	838.2	374.6	7.6410	ug/L	7.6410	ppb	09:55:08
2	Ba 233.527†	6.3	14.9	0.0993	ug/L	0.0993	ppb	09:55:28
2	Be 313.107†	-4478.2	109.1	0.0363	ug/L	0.0363	ppb	09:55:08
2	Ca 317.933Radial†	23.8	5.3	7.4470	ug/L	7.4470	ppb	09:54:11
2	Cd 226.502†	-215.4	10.0	0.0948	ug/L	0.0948	ppb	09:55:28
2	Co 228.616†	-86.3	-1.7	-0.0286	ug/L	-0.0286	ppb	09:55:28
2	Cr 267.716†	108.0	9.0	0.0881	ug/L	0.0881	ppb	09:55:08
2	Cu 324.752†	6201.3	125.0	0.3501	ug/L	0.3501	ppb	09:55:08
2	Fe 238.204 Radial†	13.1	1.6	12.385	ug/L	12.385	ppb	09:54:11
2	K 766.490 Radial†	3277.5	323.5	58.083	ug/L	58.083	ppb	09:53:51
2	Mg 279.077 IEC†	0.5	-1.8	-55.127	ug/L	-55.127	ppb	09:54:11
2	Mn 257.610†	526.2	35.6	0.0370	ug/L	0.0370	ppb	09:55:28
2	Mo 202.031†	35.4	9.9	0.5904	ug/L	0.5904	ppb	09:55:28
2	Na 589.592 Radial†	-1268.3	23.3	6.3769	ug/L	6.3769	ppb	09:53:51
2	Ni 231.604†	101.0	-1.0	-0.0224	ug/L	-0.0224	ppb	09:55:28

2	P 214.914†	252.8	-1.9	-0.9811 ug/L	-0.9811 ppb	09:55:28
2	Pb 220.353†	-67.9	9.8	1.0045 ug/L	1.0045 ppb	09:55:28
2	S 181.975 Axial†	54.5	-4.1	-4.9229 ug/L	-4.9229 ppb	09:55:28
2	Sb 206.836†	59.9	17.6	5.2710 ug/L	5.2710 ppb	09:55:28
2	Se 196.026†	-23.1	5.6	3.0514 ug/L	3.0514 ppb	09:55:28
2	Si 251.611†	762.5	104.0	2.8525 ug/L	2.8525 ppb	09:55:28
2	Sn 189.927†	28.5	26.7	3.9080 ug/L	3.9080 ppb	09:55:28
2	Sr 421.552†	1.8	-3.8	-0.0220 ug/L	-0.0220 ppb	09:53:51
2	Ti 334.940†	-1421.3	46.2	0.0654 ug/L	0.0654 ppb	09:55:08
2	Tl 190.801†	-28.0	17.8	4.5342 ug/L	4.5342 ppb	09:55:28
2	U 409.014†	-2597.4	126.5	3.5084 ug/L	3.5084 ppb	09:55:08
2	V 292.402†	-1558.1	-92.4	-0.5680 ug/L	-0.5680 ppb	09:55:08
2	Zn 213.857†	842.0	38.7	0.3128 ug/L	0.3128 ppb	09:55:28
2	SiO2†	767.7	84.0	4.9311 ug/L	4.9311 ppb	09:56:04
3	Sc 361.383	903037.4	903037.4	100.40 %		09:55:34
3	Sc Radial	5612.9	5612.9	100 %		09:54:16
3	Y 371.029	749045.0	749045.0	100.83 %		09:55:34
3	Y RADIAL	5918.8	5918.8	101.0 %		09:54:16
3	Ag 328.068†	417.3	16.2	0.0661 ug/L	0.0661 ppb	09:55:34
3	Al 396.153Radial†	-20.2	-6.8	-4.8072 ug/L	-4.8072 ppb	09:54:16
3	As 188.979†	-21.5	6.0	2.1442 ug/L	2.1442 ppb	09:55:54
3	B 249.677†	771.9	303.8	6.1986 ug/L	6.1986 ppb	09:55:34
3	Ba 233.527†	-1.7	6.9	0.0463 ug/L	0.0463 ppb	09:55:54
3	Be 313.107†	-4495.0	118.1	0.0391 ug/L	0.0391 ppb	09:55:34
3	Ca 317.933Radial†	18.0	0.0	0.0445 ug/L	0.0445 ppb	09:54:36
3	Cd 226.502†	-197.0	29.5	0.2841 ug/L	0.2841 ppb	09:55:54
3	Co 228.616†	-84.3	0.7	0.0151 ug/L	0.0151 ppb	09:55:54
3	Cr 267.716†	109.4	9.8	0.0971 ug/L	0.0971 ppb	09:55:34
3	Cu 324.752†	6238.6	126.6	0.3538 ug/L	0.3538 ppb	09:55:34
3	Fe 238.204 Radial†	10.8	-0.5	-3.6084 ug/L	-3.6084 ppb	09:54:36
3	K 766.490 Radial†	3206.7	319.9	57.426 ug/L	57.426 ppb	09:54:16
3	Mg 279.077 IEC†	-0.4	-2.7	-81.444 ug/L	-81.444 ppb	09:54:36
3	Mn 257.610†	556.2	62.5	0.0621 ug/L	0.0621 ppb	09:55:54
3	Mo 202.031†	40.2	14.4	0.8577 ug/L	0.8577 ppb	09:55:54
3	Na 589.592 Radial†	-1190.6	74.8	20.433 ug/L	20.433 ppb	09:54:16
3	Ni 231.604†	112.3	9.6	0.2074 ug/L	0.2074 ppb	09:55:54
3	P 214.914†	245.9	-10.3	-5.2213 ug/L	-5.2213 ppb	09:55:54
3	Pb 220.353†	-70.9	7.2	0.7381 ug/L	0.7381 ppb	09:55:54
3	S 181.975 Axial†	51.3	-7.7	-9.2271 ug/L	-9.2271 ppb	09:55:54
3	Sb 206.836†	44.2	1.6	0.5687 ug/L	0.5687 ppb	09:55:54
3	Se 196.026†	-29.3	-0.4	-0.2442 ug/L	-0.2442 ppb	09:55:54
3	Si 251.611†	736.7	73.9	2.0126 ug/L	2.0126 ppb	09:55:54
3	Sn 189.927†	27.9	25.9	3.7925 ug/L	3.7925 ppb	09:55:54
3	Sr 421.552†	-9.6	-15.2	-0.0867 ug/L	-0.0867 ppb	09:54:16
3	Ti 334.940†	-1519.1	-43.0	-0.0629 ug/L	-0.0629 ppb	09:55:34
3	Tl 190.801†	-35.1	10.9	2.7735 ug/L	2.7735 ppb	09:55:54
3	U 409.014†	-2667.6	71.4	1.9820 ug/L	1.9820 ppb	09:55:34
3	V 292.402†	-1483.3	-8.9	-0.0410 ug/L	-0.0410 ppb	09:55:34
3	Zn 213.857†	853.7	45.5	0.3678 ug/L	0.3678 ppb	09:55:54
3	SiO2†	788.9	100.7	5.9207 ug/L	5.9207 ppb	09:56:09

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	900731.7	100.15	%	0.293				0.29%
Sc Radial	5645.9	101	%	1.3				1.30%
Y 371.029	746131.2	100.43	%	0.363				0.36%
Y RADIAL	5925.4	101.1	%	1.67				1.65%
Ag 328.068†	-0.7	-0.0039	ug/L	0.16217	-0.0039	ppb	0.16217	>999.9%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	1.4	0.9728	ug/L	5.18778	0.9728	ppb	5.18778	533.31%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	13.5	4.8066	ug/L	2.76606	4.8066	ppb	2.76606	57.55%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	354.7	7.2351	ug/L	0.90459	7.2351	ppb	0.90459	12.50%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	10.1	0.0673	ug/L	0.02819	0.0673	ppb	0.02819	41.91%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	89.1	0.0296	ug/L	0.01401	0.0296	ppb	0.01401	47.27%
QC value within limits for Be 313.107 Recovery = Not calculated								

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Ca 317.933Radial†          3.4      4.7235 ug/L       4.07030      4.7235 ppb        4.07030  86.17%
   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†               21.7      0.2084 ug/L       0.10019      0.2084 ppb        0.10019  48.08%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                4.7      0.0829 ug/L       0.15671      0.0829 ppb        0.15671 189.13%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†               -1.4     -0.0154 ug/L       0.18704     -0.0154 ppb        0.18704 >999.9%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              124.5      0.3483 ug/L       0.00651      0.3483 ppb        0.00651   1.87%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         0.7      5.4067 ug/L       8.18879      5.4067 ppb        8.18879 151.46%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        277.9     49.902 ug/L       13.6049     49.902 ppb        13.6049  27.26%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           -2.3    -70.860 ug/L       13.8933    -70.860 ppb        13.8933  19.61%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               46.9      0.0476 ug/L       0.01300      0.0476 ppb        0.01300  27.31%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               13.1      0.7796 ug/L       0.16469      0.7796 ppb        0.16469  21.12%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        25.8      7.0627 ug/L      13.04094      7.0627 ppb       13.04094 184.65%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                8.3      0.1781 ug/L       0.18753      0.1781 ppb        0.18753 105.30%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -4.0     -2.0377 ug/L       2.80858     -2.0377 ppb        2.80858 137.83%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                6.7      0.6828 ug/L       0.35256      0.6828 ppb        0.35256  51.64%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          -4.1     -4.8719 ug/L       4.38095     -4.8719 ppb        4.38095  89.92%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                6.7      2.0727 ug/L       2.77141      2.0727 ppb        2.77141 133.71%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               -0.4     -0.1786 ug/L       3.19766     -0.1786 ppb        3.19766 >999.9%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†               90.0      2.4612 ug/L       0.42286      2.4612 ppb        0.42286  17.18%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               29.2      4.2682 ug/L       0.72616      4.2682 ppb        0.72616  17.01%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               -7.2     -0.0411 ug/L       0.03963     -0.0411 ppb        0.03963  96.39%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               23.1      0.0327 ug/L       0.08416      0.0327 ppb        0.08416 257.03%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               13.4      3.4145 ug/L       0.97308      3.4145 ppb        0.97308  28.50%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                57.5      1.5948 ug/L       2.13367      1.5948 ppb        2.13367 133.79%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               -52.3     -0.3167 ug/L       0.26437     -0.3167 ppb        0.26437  83.48%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               40.0      0.3234 ug/L       0.04014      0.3234 ppb        0.04014  12.41%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                     85.4      5.0083 ug/L       0.87639      5.0083 ppb        0.87639  17.50%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
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Sequence No.: 15
Sample ID: LR1
Analyst: HSC
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 37
Date Collected: 12/20/2009 09:57:38
Data Type: Reprocessed on 12/20/2009 10:23:42

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc 361.383	887208.5	887208.5	98.642	%			10:00:49
1	Sc Radial	5505.9	5505.9	98.5	%			09:59:31
1	Y 371.029	723390.8	723390.8	97.374	%			10:00:49
1	Y RADIAL	5738.0	5738.0	97.89	%			09:59:31
1	Ag 328.068†	-27869.9	-28653.0	5.2422	ug/L	5.2422	ppb	10:00:49
1	Al 396.153Radial†	-46.7	-34.1	-22.772	ug/L	-22.772	ppb	09:59:31
1	As 188.979†	-242.9	-218.8	-18.927	ug/L	-18.927	ppb	10:01:09
1	B 249.677†	2588.0	2158.6	-6.5089	ug/L	-6.5089	ppb	10:00:49
1	Ba 233.527†	-2044.0	-2063.5	-4.1325	ug/L	-4.1325	ppb	10:01:09
1	Be 313.107†	-4413.0	121.3	0.0401	ug/L	0.0401	ppb	10:00:49
1	Ca 317.933Radial†	14.2	-3.4	-4.8162	ug/L	-4.8162	ppb	09:59:51
1	Cd 226.502†	3539.2	3813.7	-1.4408	ug/L	-1.4408	ppb	10:01:09
1	Co 228.616†	216.3	304.0	-0.2334	ug/L	-0.2334	ppb	10:01:09
1	Cr 267.716†	-609.9	-717.5	-0.2629	ug/L	-0.2629	ppb	10:01:09
1	Cu 324.752†	-2414.8	-8535.1	-4.4246	ug/L	-4.4246	ppb	10:00:49
1	Fe 238.204 Radial†	47445.3	48137.8	380910	ug/L	380910	ppb	09:59:31
1	K 766.490 Radial†	2873.6	43.9	20.394	ug/L	20.394	ppb	09:59:31
1	Mg 279.077 IEC†	13.5	11.4	18.889	ug/L	18.889	ppb	09:59:51
1	Mn 257.610†	-41963.9	-43033.1	-4.0398	ug/L	-4.0398	ppb	10:00:49
1	Mo 202.031†	-433.7	-465.2	8.8573	ug/L	8.8573	ppb	10:01:09
1	Na 589.592 Radial†	-1248.8	-7.3	-2.0044	ug/L	-2.0044	ppb	09:59:31
1	Ni 231.604†	247.5	148.7	3.2011	ug/L	3.2011	ppb	10:01:09
1	P 214.914†	813.5	569.5	-13.701	ug/L	-13.701	ppb	10:01:09
1	Pb 220.353†	222.5	303.3	-0.2821	ug/L	-0.2821	ppb	10:01:09
1	S 181.975 Axial†	69.7	11.9	14.317	ug/L	14.317	ppb	10:01:09
1	Sb 206.836†	21.6	-20.5	-0.1895	ug/L	-0.1895	ppb	10:01:09
1	Se 196.026†	-2367.9	-2371.7	-68.722	ug/L	-68.722	ppb	10:01:09
1	Si 251.611†	-727.3	-1397.1	-38.402	ug/L	-38.402	ppb	10:01:09
1	Sn 189.927†	-20.9	-23.0	1.7247	ug/L	1.7247	ppb	10:01:09
1	Sr 421.552†	45.5	40.5	0.2313	ug/L	0.2313	ppb	09:59:31
1	Ti 334.940†	-1507.6	-58.3	-0.1010	ug/L	-0.1010	ppb	10:01:09
1	Tl 190.801†	-44.6	0.5	-0.2574	ug/L	-0.2574	ppb	10:01:09
1	U 409.014†	-1137.9	1574.8	-4.2000	ug/L	-4.2000	ppb	10:00:49
1	V 292.402†	6983.9	8548.5	-4.5667	ug/L	-4.5667	ppb	10:01:09
1	Zn 213.857†	5126.6	4392.3	15.685	ug/L	15.685	ppb	10:01:09
1	SiO2†	-749.4	-1444.7	-85.303	ug/L	-85.303	ppb	10:02:07
2	Sc 361.383	891661.0	891661.0	99.137	%			10:01:16
2	Sc Radial	5474.1	5474.1	98.0	%			09:59:57
2	Y 371.029	727098.7	727098.7	97.873	%			10:01:16
2	Y RADIAL	5755.3	5755.3	98.19	%			09:59:57
2	Ag 328.068†	-27864.3	-28506.3	6.4863	ug/L	6.4863	ppb	10:01:16
2	Al 396.153Radial†	-46.1	-33.8	-22.550	ug/L	-22.550	ppb	09:59:57
2	As 188.979†	-246.3	-221.0	-19.418	ug/L	-19.418	ppb	10:01:36
2	B 249.677†	2549.6	2106.7	-7.8115	ug/L	-7.8115	ppb	10:01:16
2	Ba 233.527†	-2119.9	-2129.7	-4.5291	ug/L	-4.5291	ppb	10:01:36
2	Be 313.107†	-4433.5	123.0	0.0407	ug/L	0.0407	ppb	10:01:16
2	Ca 317.933Radial†	16.8	-0.7	-0.9324	ug/L	-0.9324	ppb	10:00:17
2	Cd 226.502†	3574.0	3830.9	-1.4609	ug/L	-1.4609	ppb	10:01:36
2	Co 228.616†	220.6	307.3	-0.2030	ug/L	-0.2030	ppb	10:01:36
2	Cr 267.716†	-601.0	-705.5	-0.1093	ug/L	-0.1093	ppb	10:01:36
2	Cu 324.752†	-2401.1	-8509.0	-4.2575	ug/L	-4.2575	ppb	10:01:16
2	Fe 238.204 Radial†	47400.5	48371.6	382760	ug/L	382760	ppb	09:59:57
2	K 766.490 Radial†	2734.4	-81.3	-2.0242	ug/L	-2.0242	ppb	09:59:57
2	Mg 279.077 IEC†	13.7	11.7	26.326	ug/L	26.326	ppb	10:00:17
2	Mn 257.610†	-42160.5	-43019.0	-3.8417	ug/L	-3.8417	ppb	10:01:16
2	Mo 202.031†	-431.0	-460.3	9.3280	ug/L	9.3280	ppb	10:01:36
2	Na 589.592 Radial†	-1237.1	-2.7	-0.7511	ug/L	-0.7511	ppb	09:59:57
2	Ni 231.604†	212.1	111.7	2.4031	ug/L	2.4031	ppb	10:01:36

2	P 214.914†	821.9	573.8	-12.999 ug/L	-12.999 ppb	10:01:36
2	Pb 220.353†	256.5	336.6	2.9692 ug/L	2.9692 ppb	10:01:36
2	S 181.975 Axial†	79.0	20.9	25.088 ug/L	25.088 ppb	10:01:36
2	Sb 206.836†	26.1	-16.1	1.1648 ug/L	1.1648 ppb	10:01:36
2	Se 196.026†	-2391.6	-2383.6	-69.230 ug/L	-69.230 ppb	10:01:36
2	Si 251.611†	-764.4	-1430.9	-39.343 ug/L	-39.343 ppb	10:01:36
2	Sn 189.927†	-11.7	-13.6	3.1284 ug/L	3.1284 ppb	10:01:36
2	Sr 421.552†	84.5	80.6	0.4600 ug/L	0.4600 ppb	09:59:57
2	Ti 334.940†	-1505.8	-48.9	-0.0884 ug/L	-0.0884 ppb	10:01:36
2	Tl 190.801†	-52.2	-6.9	-2.1553 ug/L	-2.1553 ppb	10:01:36
2	U 409.014†	-1056.1	1663.1	-1.9825 ug/L	-1.9825 ppb	10:01:16
2	V 292.402†	7100.9	8631.2	-4.3198 ug/L	-4.3198 ppb	10:01:36
2	Zn 213.857†	5189.9	4430.2	15.899 ug/L	15.899 ppb	10:01:36
2	SiO2†	-755.6	-1447.1	-85.453 ug/L	-85.453 ppb	10:02:12
3	Sc 361.383	898038.0	898038.0	99.846 %		10:01:42
3	Sc Radial	5390.4	5390.4	96.5 %		10:00:22
3	Y 371.029	731380.1	731380.1	98.449 %		10:01:42
3	Y RADIAL	5639.3	5639.3	96.21 %		10:00:22
3	Ag 328.068†	-28214.3	-28657.2	5.5898 ug/L	5.5898 ppb	10:01:42
3	Al 396.153Radial†	-73.0	-62.4	-42.652 ug/L	-42.652 ppb	10:00:22
3	As 188.979†	-247.1	-220.0	-19.187 ug/L	-19.187 ppb	10:02:02
3	B 249.677†	2631.1	2170.1	-6.4203 ug/L	-6.4203 ppb	10:01:42
3	Ba 233.527†	-2085.8	-2080.4	-4.2166 ug/L	-4.2166 ppb	10:02:02
3	Be 313.107†	-4449.3	139.0	0.0461 ug/L	0.0461 ppb	10:01:42
3	Ca 317.933Radial†	8.3	-9.3	-12.923 ug/L	-12.923 ppb	10:00:42
3	Cd 226.502†	3562.1	3793.3	-1.7467 ug/L	-1.7467 ppb	10:02:02
3	Co 228.616†	243.4	328.5	0.1779 ug/L	0.1779 ppb	10:02:02
3	Cr 267.716†	-630.3	-730.5	-0.3726 ug/L	-0.3726 ppb	10:02:02
3	Cu 324.752†	-2379.2	-8469.9	-4.1865 ug/L	-4.1865 ppb	10:01:42
3	Fe 238.204 Radial†	46583.8	48276.5	382000 ug/L	382000 ppb	10:00:22
3	K 766.490 Radial†	2893.7	127.2	35.379 ug/L	35.379 ppb	10:00:22
3	Mg 279.077 IEC†	12.9	11.1	7.2562 ug/L	7.2562 ppb	10:00:42
3	Mn 257.610†	-42210.1	-42766.7	-3.6701 ug/L	-3.6701 ppb	10:01:42
3	Mo 202.031†	-423.5	-449.7	9.8845 ug/L	9.8845 ppb	10:02:02
3	Na 589.592 Radial†	-1205.8	10.1	2.7689 ug/L	2.7689 ppb	10:00:22
3	Ni 231.604†	199.1	97.1	2.0894 ug/L	2.0894 ppb	10:02:02
3	P 214.914†	813.9	560.0	-19.520 ug/L	-19.520 ppb	10:02:02
3	Pb 220.353†	243.1	321.3	1.4662 ug/L	1.4662 ppb	10:02:02
3	S 181.975 Axial†	66.5	7.9	9.4391 ug/L	9.4391 ppb	10:02:02
3	Sb 206.836†	16.6	-25.8	-1.7531 ug/L	-1.7531 ppb	10:02:02
3	Se 196.026†	-2383.0	-2357.9	-57.894 ug/L	-57.894 ppb	10:02:02
3	Si 251.611†	-708.5	-1369.5	-37.645 ug/L	-37.645 ppb	10:02:02
3	Sn 189.927†	-36.6	-38.5	-0.5293 ug/L	-0.5293 ppb	10:02:02
3	Sr 421.552†	73.5	70.6	0.4030 ug/L	0.4030 ppb	10:00:22
3	Ti 334.940†	-1484.9	-17.2	-0.0443 ug/L	-0.0443 ppb	10:02:02
3	Tl 190.801†	-63.1	-17.4	-4.8281 ug/L	-4.8281 ppb	10:02:02
3	U 409.014†	-979.0	1747.8	0.4658 ug/L	0.4658 ppb	10:01:42
3	V 292.402†	7173.1	8652.5	-4.0579 ug/L	-4.0579 ppb	10:02:02
3	Zn 213.857†	5171.0	4374.1	15.488 ug/L	15.488 ppb	10:02:02
3	SiO2†	-764.4	-1450.5	-85.682 ug/L	-85.682 ppb	10:02:17

Mean Data: LR1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	892302.5	99.208	%	0.6052				0.61%
Sc Radial	5456.8	97.7	%	1.07				1.09%
Y 371.029	727289.9	97.899	%	0.5382				0.55%
Y RADIAL	5710.9	97.43	%	1.068				1.10%
Ag 328.068†	-28605.5	5.7728	ug/L	0.64196	5.7728	ppb	0.64196	11.12%
Al 396.153Radial†	-43.4	-29.325	ug/L	11.5423	-29.325	ppb	11.5423	39.36%
As 188.979†	-219.9	-19.178	ug/L	0.2456	-19.178	ppb	0.2456	1.28%
B 249.677†	2145.1	-6.9136	ug/L	0.77887	-6.9136	ppb	0.77887	11.27%
Ba 233.527†	-2091.2	-4.2928	ug/L	0.20894	-4.2928	ppb	0.20894	4.87%
Be 313.107†	127.8	0.0423	ug/L	0.00329	0.0423	ppb	0.00329	7.78%
Ca 317.933Radial†	-4.5	-6.2240	ug/L	6.11821	-6.2240	ppb	6.11821	98.30%
Cd 226.502†	3812.6	-1.5495	ug/L	0.17111	-1.5495	ppb	0.17111	11.04%
Co 228.616†	313.3	-0.0861	ug/L	0.22921	-0.0861	ppb	0.22921	266.09%
Cr 267.716†	-717.8	-0.2483	ug/L	0.13229	-0.2483	ppb	0.13229	53.29%
Cu 324.752†	-8504.7	-4.2895	ug/L	0.12224	-4.2895	ppb	0.12224	2.85%
Fe 238.204 Radial†	48262.0	381890	ug/L	930.3	381890	ppb	930.3	0.24%

K 766.490 Radial†	29.9	17.916	ug/L	18.8241	17.916	ppb	18.8241 105.07%
Mg 279.077 IEC†	11.4	17.490	ug/L	9.6114	17.490	ppb	9.6114 54.95%
Mn 257.610†	-42939.6	-3.8505	ug/L	0.18503	-3.8505	ppb	0.18503 4.81%
Mo 202.031†	-458.4	9.3566	ug/L	0.51416	9.3566	ppb	0.51416 5.50%
Na 589.592 Radial†	0.0	0.0045	ug/L	2.47472	0.0045	ppb	2.47472 >999.9%
Ni 231.604†	119.2	2.5645	ug/L	0.57314	2.5645	ppb	0.57314 22.35%
P 214.914†	567.8	-15.407	ug/L	3.5792	-15.407	ppb	3.5792 23.23%
Pb 220.353†	320.4	1.3844	ug/L	1.62721	1.3844	ppb	1.62721 117.54%
S 181.975 Axial†	13.6	16.281	ug/L	8.0073	16.281	ppb	8.0073 49.18%
Sb 206.836†	-20.8	-0.2593	ug/L	1.46019	-0.2593	ppb	1.46019 563.18%
Se 196.026†	-2371.1	-65.282	ug/L	6.4031	-65.282	ppb	6.4031 9.81%
Si 251.611†	-1399.2	-38.464	ug/L	0.8506	-38.464	ppb	0.8506 2.21%
Sn 189.927†	-25.0	1.4413	ug/L	1.84526	1.4413	ppb	1.84526 128.03%
Sr 421.552†	63.9	0.3647	ug/L	0.11906	0.3647	ppb	0.11906 32.64%
Ti 334.940†	-41.5	-0.0779	ug/L	0.02981	-0.0779	ppb	0.02981 38.27%
Tl 190.801†	-7.9	-2.4136	ug/L	2.29626	-2.4136	ppb	2.29626 95.14%
U 409.014†	1661.9	-1.9055	ug/L	2.33382	-1.9055	ppb	2.33382 122.47%
V 292.402†	8610.7	-4.3148	ug/L	0.25447	-4.3148	ppb	0.25447 5.90%
Zn 213.857†	4398.9	15.690	ug/L	0.2054	15.690	ppb	0.2054 1.31%
SiO2†	-1447.4	-85.479	ug/L	0.1911	-85.479	ppb	0.1911 0.22%

Sequence No.: 16
Sample ID: CCV
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 12/20/2009 10:04:29
Data Type: Reprocessed on 12/20/2009 10:23:43

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc 361.383	904964.3	904964.3	100.62	%			10:07:39
1	Sc Radial	5532.6	5532.6	99.0	%			10:06:21
1	Y 371.029	734085.0	734085.0	98.813	%			10:07:39
1	Y RADIAL	5789.8	5789.8	98.78	%			10:06:21
1	Ag 328.068†	116605.5	115492.0	495.85	ug/L	495.85	ppb	10:07:44
1	Al 396.153Radial†	6865.9	6947.4	4858.8	ug/L	4858.8	ppb	10:06:21
1	As 188.979†	1367.5	1386.6	497.18	ug/L	497.18	ppb	10:08:04
1	B 249.677†	24973.7	24355.8	494.92	ug/L	494.92	ppb	10:07:44
1	Ba 233.527†	74432.0	73984.8	497.97	ug/L	497.97	ppb	10:07:44
1	Be 313.107†	1508465.6	1503823.5	500.06	ug/L	500.06	ppb	10:07:39
1	Ca 317.933Radial†	3506.6	3523.5	4919.1	ug/L	4919.1	ppb	10:06:41
1	Cd 226.502†	52035.6	51942.8	498.84	ug/L	498.84	ppb	10:07:44
1	Co 228.616†	28870.5	28778.4	499.25	ug/L	499.25	ppb	10:07:44
1	Cr 267.716†	50308.0	49900.8	498.40	ug/L	498.40	ppb	10:07:44
1	Cu 324.752†	183297.8	176088.3	492.42	ug/L	492.42	ppb	10:07:44
1	Fe 238.204 Radial†	643.9	639.1	5072.7	ug/L	5072.7	ppb	10:06:41
1	K 766.490 Radial†	30397.4	27826.9	4987.5	ug/L	4987.5	ppb	10:06:21
1	Mg 279.077 IEC†	169.8	169.2	5111.9	ug/L	5111.9	ppb	10:06:41
1	Mn 257.610†	514103.5	510463.8	498.84	ug/L	498.84	ppb	10:07:39
1	Mo 202.031†	8276.6	8200.4	487.92	ug/L	487.92	ppb	10:08:04
1	Na 589.592 Radial†	34184.0	35783.5	9779.0	ug/L	9779.0	ppb	10:06:21
1	Ni 231.604†	23489.2	23243.1	500.60	ug/L	500.60	ppb	10:07:44
1	P 214.914†	5091.6	4805.2	2369.3	ug/L	2369.3	ppb	10:08:04
1	Pb 220.353†	4705.3	4754.4	487.97	ug/L	487.97	ppb	10:08:04
1	S 181.975 Axial†	877.3	813.2	973.33	ug/L	973.33	ppb	10:08:04
1	Sb 206.836†	1705.6	1652.8	494.51	ug/L	494.51	ppb	10:08:04
1	Se 196.026†	896.6	919.9	509.07	ug/L	509.07	ppb	10:08:04
1	Si 251.611†	89866.2	88656.1	2456.3	ug/L	2456.3	ppb	10:07:44
1	Sn 189.927†	3362.3	3339.9	489.08	ug/L	489.08	ppb	10:08:04
1	Sr 421.552†	85758.8	86604.7	494.06	ug/L	494.06	ppb	10:06:21
1	Ti 334.940†	343352.8	342720.3	493.42	ug/L	493.42	ppb	10:07:39
1	Tl 190.801†	1885.9	1920.2	493.14	ug/L	493.14	ppb	10:08:04
1	U 409.014†	15449.6	18083.4	500.32	ug/L	500.32	ppb	10:07:44
1	V 292.402†	77806.0	78798.0	501.30	ug/L	501.30	ppb	10:07:44
1	Zn 213.857†	62871.0	61681.2	493.24	ug/L	493.24	ppb	10:07:44
1	SiO2†	89629.0	88395.2	5258.9	ug/L	5258.9	ppb	10:09:12
2	Sc 361.383	902750.0	902750.0	100.37	%			10:08:10
2	Sc Radial	5569.1	5569.1	99.7	%			10:06:46
2	Y 371.029	733120.6	733120.6	98.684	%			10:08:10
2	Y RADIAL	5777.5	5777.5	98.57	%			10:06:46
2	Ag 328.068†	115809.2	114983.0	493.70	ug/L	493.70	ppb	10:08:15
2	Al 396.153Radial†	6924.3	6960.5	4867.7	ug/L	4867.7	ppb	10:06:46
2	As 188.979†	1395.7	1418.0	508.34	ug/L	508.34	ppb	10:08:35
2	B 249.677†	24683.4	24127.4	490.26	ug/L	490.26	ppb	10:08:15
2	Ba 233.527†	73977.8	73713.8	496.15	ug/L	496.15	ppb	10:08:15
2	Be 313.107†	1506220.2	1505263.7	500.54	ug/L	500.54	ppb	10:08:10
2	Ca 317.933Radial†	3542.6	3536.5	4937.2	ug/L	4937.2	ppb	10:07:07
2	Cd 226.502†	51655.1	51690.5	496.41	ug/L	496.41	ppb	10:08:15
2	Co 228.616†	28744.9	28723.7	498.32	ug/L	498.32	ppb	10:08:15
2	Cr 267.716†	50036.1	49752.5	496.92	ug/L	496.92	ppb	10:08:15
2	Cu 324.752†	182439.3	175679.9	491.28	ug/L	491.28	ppb	10:08:15
2	Fe 238.204 Radial†	654.2	645.2	5121.0	ug/L	5121.0	ppb	10:07:07
2	K 766.490 Radial†	30589.1	27817.8	4985.9	ug/L	4985.9	ppb	10:06:46
2	Mg 279.077 IEC†	173.8	172.1	5200.1	ug/L	5200.1	ppb	10:07:07
2	Mn 257.610†	513150.1	510767.3	499.14	ug/L	499.14	ppb	10:08:10
2	Mo 202.031†	8384.2	8327.8	495.49	ug/L	495.49	ppb	10:08:35
2	Na 589.592 Radial†	34397.6	35771.2	9775.7	ug/L	9775.7	ppb	10:06:46
2	Ni 231.604†	23308.8	23120.6	497.96	ug/L	497.96	ppb	10:08:15

2	P 214.914†	5163.7	4889.5	2412.4	ug/L	2412.4 ppb	10:08:35
2	Pb 220.353†	4777.6	4837.8	496.53	ug/L	496.53 ppb	10:08:35
2	S 181.975 Axial†	882.4	820.4	981.96	ug/L	981.96 ppb	10:08:35
2	Sb 206.836†	1724.9	1676.1	501.73	ug/L	501.73 ppb	10:08:35
2	Se 196.026†	913.6	939.0	519.43	ug/L	519.43 ppb	10:08:35
2	Si 251.611†	89535.8	88545.9	2453.0	ug/L	2453.0 ppb	10:08:15
2	Sn 189.927†	3407.6	3393.2	496.88	ug/L	496.88 ppb	10:08:35
2	Sr 421.552†	86344.9	86624.7	494.17	ug/L	494.17 ppb	10:06:46
2	Ti 334.940†	342456.3	342664.2	493.35	ug/L	493.35 ppb	10:08:10
2	Tl 190.801†	1917.7	1956.4	502.41	ug/L	502.41 ppb	10:08:35
2	U 409.014†	14980.8	17653.9	488.39	ug/L	488.39 ppb	10:08:15
2	V 292.402†	77452.3	78635.3	500.35	ug/L	500.35 ppb	10:08:15
2	Zn 213.857†	62629.4	61593.7	492.55	ug/L	492.55 ppb	10:08:15
2	SiO2†	90134.0	89116.8	5301.7	ug/L	5301.7 ppb	10:09:17
3	Sc 361.383	911182.2	911182.2	101.31	%		10:08:41
3	Sc Radial	5496.3	5496.3	98.4	%		10:07:12
3	Y 371.029	738611.2	738611.2	99.423	%		10:08:41
3	Y RADIAL	5695.1	5695.1	97.16	%		10:07:12
3	Ag 328.068†	115461.3	113571.8	487.66	ug/L	487.66 ppb	10:08:47
3	Al 396.153Radial†	6821.9	6948.4	4859.7	ug/L	4859.7 ppb	10:07:12
3	As 188.979†	1377.2	1386.9	497.29	ug/L	497.29 ppb	10:09:07
3	B 249.677†	24652.7	23869.5	485.00	ug/L	485.00 ppb	10:08:47
3	Ba 233.527†	73893.4	72948.4	491.00	ug/L	491.00 ppb	10:08:47
3	Be 313.107†	1521514.5	1506473.2	500.95	ug/L	500.95 ppb	10:08:41
3	Ca 317.933Radial†	3524.6	3565.2	4977.3	ug/L	4977.3 ppb	10:07:32
3	Cd 226.502†	51583.3	51143.3	491.14	ug/L	491.14 ppb	10:08:47
3	Co 228.616†	28780.1	28493.4	494.30	ug/L	494.30 ppb	10:08:47
3	Cr 267.716†	50011.7	49267.0	492.07	ug/L	492.07 ppb	10:08:47
3	Cu 324.752†	181862.4	173428.3	484.99	ug/L	484.99 ppb	10:08:47
3	Fe 238.204 Radial†	649.1	648.7	5148.5	ug/L	5148.5 ppb	10:07:32
3	K 766.490 Radial†	30446.0	28078.8	5032.7	ug/L	5032.7 ppb	10:07:12
3	Mg 279.077 IEC†	173.3	173.9	5253.7	ug/L	5253.7 ppb	10:07:32
3	Mn 257.610†	519429.5	512234.4	500.57	ug/L	500.57 ppb	10:08:41
3	Mo 202.031†	8304.0	8171.3	486.20	ug/L	486.20 ppb	10:09:07
3	Na 589.592 Radial†	34202.0	36029.6	9846.3	ug/L	9846.3 ppb	10:07:12
3	Ni 231.604†	23265.3	22862.8	492.41	ug/L	492.41 ppb	10:08:47
3	P 214.914†	5093.9	4773.0	2354.1	ug/L	2354.1 ppb	10:09:07
3	Pb 220.353†	4761.6	4778.0	490.38	ug/L	490.38 ppb	10:09:07
3	S 181.975 Axial†	871.7	801.7	959.60	ug/L	959.60 ppb	10:09:07
3	Sb 206.836†	1718.1	1653.5	494.82	ug/L	494.82 ppb	10:09:07
3	Se 196.026†	897.9	915.1	506.76	ug/L	506.76 ppb	10:09:07
3	Si 251.611†	89264.9	87453.0	2422.8	ug/L	2422.8 ppb	10:08:47
3	Sn 189.927†	3389.9	3344.3	489.73	ug/L	489.73 ppb	10:09:07
3	Sr 421.552†	85551.8	86965.9	496.12	ug/L	496.12 ppb	10:07:12
3	Ti 334.940†	346929.5	343922.1	495.17	ug/L	495.17 ppb	10:08:41
3	Tl 190.801†	1895.9	1917.2	492.46	ug/L	492.46 ppb	10:09:07
3	U 409.014†	15040.1	17574.4	486.19	ug/L	486.19 ppb	10:08:47
3	V 292.402†	77142.1	77615.0	493.81	ug/L	493.81 ppb	10:08:47
3	Zn 213.857†	62549.0	60936.9	487.29	ug/L	487.29 ppb	10:08:47
3	SiO2†	89697.3	87854.7	5226.6	ug/L	5226.6 ppb	10:09:22

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	906298.8	100.76	%	0.486				0.48%
Sc Radial	5532.7	99.0	%	0.65				0.66%
Y 371.029	735272.2	98.973	%	0.3946				0.40%
Y RADIAL	5754.1	98.17	%	0.878				0.89%
Ag 328.068†	114682.3	492.40	ug/L	4.243	492.40	ppb	4.243	0.86%
QC value within limits for Ag 328.068 Recovery = 98.48%								
Al 396.153Radial†	6952.1	4862.1	ug/L	4.92	4862.1	ppb	4.92	0.10%
QC value within limits for Al 396.153Radial Recovery = 97.24%								
As 188.979†	1397.2	500.94	ug/L	6.414	500.94	ppb	6.414	1.28%
QC value within limits for As 188.979 Recovery = 100.19%								
B 249.677†	24117.5	490.06	ug/L	4.961	490.06	ppb	4.961	1.01%
QC value within limits for B 249.677 Recovery = 98.01%								
Ba 233.527†	73549.0	495.04	ug/L	3.617	495.04	ppb	3.617	0.73%
QC value within limits for Ba 233.527 Recovery = 99.01%								
Be 313.107†	1505186.8	500.52	ug/L	0.442	500.52	ppb	0.442	0.09%
QC value within limits for Be 313.107 Recovery = 100.10%								

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Ca 317.933Radial†       3541.7      4944.5 ug/L        29.79      4944.5 ppb        29.79   0.60%
   QC value within limits for Ca 317.933Radial  Recovery = 98.89%
Cd 226.502†            51592.2      495.46 ug/L        3.933      495.46 ppb        3.933   0.79%
   QC value within limits for Cd 226.502  Recovery = 99.09%
Co 228.616†            28665.2      497.29 ug/L        2.632      497.29 ppb        2.632   0.53%
   QC value within limits for Co 228.616  Recovery = 99.46%
Cr 267.716†            49640.1      495.80 ug/L        3.310      495.80 ppb        3.310   0.67%
   QC value within limits for Cr 267.716  Recovery = 99.16%
Cu 324.752†           175065.5      489.56 ug/L        4.002      489.56 ppb        4.002   0.82%
   QC value within limits for Cu 324.752  Recovery = 97.91%
Fe 238.204 Radial†       644.3      5114.1 ug/L        38.37      5114.1 ppb        38.37   0.75%
   QC value within limits for Fe 238.204 Radial  Recovery = 102.28%
K 766.490 Radial†      27907.9      5002.0 ug/L        26.56      5002.0 ppb        26.56   0.53%
   QC value within limits for K 766.490 Radial  Recovery = 100.04%
Mg 279.077 IEC†          171.7      5188.6 ug/L        71.59      5188.6 ppb        71.59   1.38%
   QC value within limits for Mg 279.077 IEC  Recovery = 103.77%
Mn 257.610†           511155.1      499.52 ug/L        0.927      499.52 ppb        0.927   0.19%
   QC value within limits for Mn 257.610  Recovery = 99.90%
Mo 202.031†             8233.1      489.87 ug/L        4.947      489.87 ppb        4.947   1.01%
   QC value within limits for Mo 202.031  Recovery = 97.97%
Na 589.592 Radial†     35861.4      9800.3 ug/L        39.83      9800.3 ppb        39.83   0.41%
   QC value within limits for Na 589.592 Radial  Recovery = 98.00%
Ni 231.604†            23075.5      496.99 ug/L        4.183      496.99 ppb        4.183   0.84%
   QC value within limits for Ni 231.604  Recovery = 99.40%
P 214.914†              4822.6      2378.6 ug/L        30.28      2378.6 ppb        30.28   1.27%
   QC value within limits for P 214.914  Recovery = 95.14%
Pb 220.353†             4790.1      491.62 ug/L        4.413      491.62 ppb        4.413   0.90%
   QC value within limits for Pb 220.353  Recovery = 98.32%
S 181.975 Axial†         811.8      971.63 ug/L       11.277      971.63 ppb       11.277   1.16%
   QC value within limits for S 181.975 Axial  Recovery = 97.16%
Sb 206.836†             1660.8      497.02 ug/L        4.079      497.02 ppb        4.079   0.82%
   QC value within limits for Sb 206.836  Recovery = 99.40%
Se 196.026†              924.7      511.75 ug/L        6.743      511.75 ppb        6.743   1.32%
   QC value within limits for Se 196.026  Recovery = 102.35%
Si 251.611†            88218.3      2444.0 ug/L        18.47      2444.0 ppb        18.47   0.76%
   QC value within limits for Si 251.611  Recovery = 97.76%
Sn 189.927†             3359.1      491.89 ug/L        4.327      491.89 ppb        4.327   0.88%
   QC value within limits for Sn 189.927  Recovery = 98.38%
Sr 421.552†            86731.8      494.78 ug/L        1.158      494.78 ppb        1.158   0.23%
   QC value within limits for Sr 421.552  Recovery = 98.96%
Ti 334.940†           343102.2      493.98 ug/L        1.028      493.98 ppb        1.028   0.21%
   QC value within limits for Ti 334.940  Recovery = 98.80%
Tl 190.801†             1931.3      496.00 ug/L        5.557      496.00 ppb        5.557   1.12%
   QC value within limits for Tl 190.801  Recovery = 99.20%
U 409.014†             17770.6      491.63 ug/L        7.600      491.63 ppb        7.600   1.55%
   QC value within limits for U 409.014  Recovery = 98.33%
V 292.402†             78349.4      498.49 ug/L        4.079      498.49 ppb        4.079   0.82%
   QC value within limits for V 292.402  Recovery = 99.70%
Zn 213.857†            61403.9      491.03 ug/L        3.254      491.03 ppb        3.254   0.66%
   QC value within limits for Zn 213.857  Recovery = 98.21%
SiO2†                  88455.6      5262.4 ug/L        37.67      5262.4 ppb        37.67   0.72%
   QC value within limits for SiO2  Recovery = 98.41%
All analyte(s) passed QC.
```

Sequence No.: 17
Sample ID: CCB
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 12/20/2009 10:11:33
Data Type: Reprocessed on 12/20/2009 10:23:44

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc 361.383	920001.4	920001.4	102.29	%			10:14:42
1	Sc Radial	5661.7	5661.7	101	%			10:13:25
1	Y 371.029	756683.9	756683.9	101.86	%			10:14:42
1	Y RADIAL	5945.8	5945.8	101.4	%			10:13:25
1	Ag 328.068†	407.1	-1.4	-0.0142	ug/L	-0.0142	ppb	10:14:47
1	Al 396.153Radial†	-30.2	-16.5	-11.600	ug/L	-11.600	ppb	10:13:25
1	As 188.979†	-25.9	2.1	0.7503	ug/L	0.7503	ppb	10:15:07
1	B 249.677†	381.0	-92.5	-1.8851	ug/L	-1.8851	ppb	10:14:47
1	Ba 233.527†	1.7	10.3	0.0674	ug/L	0.0674	ppb	10:15:07
1	Be 313.107†	-4449.2	245.4	0.0813	ug/L	0.0813	ppb	10:14:47
1	Ca 317.933Radial†	16.9	-1.2	-1.6966	ug/L	-1.6966	ppb	10:13:45
1	Cd 226.502†	-224.4	6.4	0.0634	ug/L	0.0634	ppb	10:15:07
1	Co 228.616†	-88.4	-1.7	-0.0274	ug/L	-0.0274	ppb	10:15:07
1	Cr 267.716†	101.8	0.3	0.0020	ug/L	0.0020	ppb	10:15:07
1	Cu 324.752†	6131.0	-93.2	-0.2614	ug/L	-0.2614	ppb	10:14:47
1	Fe 238.204 Radial†	8.8	-2.5	-20.055	ug/L	-20.055	ppb	10:13:45
1	K 766.490 Radial†	2828.8	-80.6	-14.478	ug/L	-14.478	ppb	10:13:25
1	Mg 279.077 IEC†	3.6	1.3	39.757	ug/L	39.757	ppb	10:13:45
1	Mn 257.610†	524.8	21.5	0.0183	ug/L	0.0183	ppb	10:15:07
1	Mo 202.031†	33.4	7.1	0.4174	ug/L	0.4174	ppb	10:15:07
1	Na 589.592 Radial†	-1290.3	-13.4	-3.6628	ug/L	-3.6628	ppb	10:13:25
1	Ni 231.604†	118.3	13.4	0.2886	ug/L	0.2886	ppb	10:15:07
1	P 214.914†	250.3	-10.5	-5.2475	ug/L	-5.2475	ppb	10:15:07
1	Pb 220.353†	-62.6	16.6	1.7026	ug/L	1.7026	ppb	10:15:07
1	S 181.975 Axial†	54.4	-5.6	-6.7006	ug/L	-6.7006	ppb	10:15:07
1	Sb 206.836†	59.8	16.1	4.7714	ug/L	4.7714	ppb	10:15:07
1	Se 196.026†	-28.6	0.8	0.3832	ug/L	0.3832	ppb	10:15:07
1	Si 251.611†	708.9	33.2	0.9171	ug/L	0.9171	ppb	10:15:07
1	Sn 189.927†	13.0	10.9	1.5899	ug/L	1.5899	ppb	10:15:07
1	Sr 421.552†	-0.9	-6.5	-0.0373	ug/L	-0.0373	ppb	10:13:25
1	Ti 334.940†	-1537.1	-32.6	-0.0467	ug/L	-0.0467	ppb	10:14:47
1	Tl 190.801†	-42.8	3.9	0.9996	ug/L	0.9996	ppb	10:15:07
1	U 409.014†	-2823.3	-31.8	-0.8800	ug/L	-0.8800	ppb	10:14:42
1	V 292.402†	-1592.3	-88.3	-0.5460	ug/L	-0.5460	ppb	10:14:47
1	Zn 213.857†	826.0	2.7	0.0199	ug/L	0.0199	ppb	10:15:07
1	SiO2†	720.8	19.7	1.1632	ug/L	1.1632	ppb	10:16:13
2	Sc 361.383	918548.4	918548.4	102.13	%			10:15:12
2	Sc Radial	5547.3	5547.3	99.3	%			10:13:50
2	Y 371.029	755205.8	755205.8	101.66	%			10:15:12
2	Y RADIAL	5820.4	5820.4	99.30	%			10:13:50
2	Ag 328.068†	403.5	-4.3	-0.0203	ug/L	-0.0203	ppb	10:15:17
2	Al 396.153Radial†	-21.3	-8.2	-5.7127	ug/L	-5.7127	ppb	10:13:50
2	As 188.979†	-25.6	2.4	0.8569	ug/L	0.8569	ppb	10:15:37
2	B 249.677†	359.0	-113.5	-2.3171	ug/L	-2.3171	ppb	10:15:17
2	Ba 233.527†	19.1	27.3	0.1838	ug/L	0.1838	ppb	10:15:37
2	Be 313.107†	-4508.2	180.8	0.0602	ug/L	0.0602	ppb	10:15:17
2	Ca 317.933Radial†	14.4	-3.3	-4.6520	ug/L	-4.6520	ppb	10:14:10
2	Cd 226.502†	-203.4	26.6	0.2558	ug/L	0.2558	ppb	10:15:37
2	Co 228.616†	-74.2	12.1	0.2083	ug/L	0.2083	ppb	10:15:37
2	Cr 267.716†	76.6	-24.2	-0.2417	ug/L	-0.2417	ppb	10:15:37
2	Cu 324.752†	6146.2	-68.7	-0.1921	ug/L	-0.1921	ppb	10:15:17
2	Fe 238.204 Radial†	11.3	0.2	1.2461	ug/L	1.2461	ppb	10:14:10
2	K 766.490 Radial†	3034.1	183.7	32.994	ug/L	32.994	ppb	10:13:50
2	Mg 279.077 IEC†	5.4	3.1	94.991	ug/L	94.991	ppb	10:14:10
2	Mn 257.610†	526.1	23.6	0.0214	ug/L	0.0214	ppb	10:15:37
2	Mo 202.031†	21.1	-4.9	-0.2894	ug/L	-0.2894	ppb	10:15:37
2	Na 589.592 Radial†	-1355.1	-104.9	-28.671	ug/L	-28.671	ppb	10:13:50
2	Ni 231.604†	121.9	17.1	0.3678	ug/L	0.3678	ppb	10:15:37

2	P 214.914†	244.4	-15.8	-8.0011	ug/L	-8.0011	ppb	10:15:37
2	Pb 220.353†	-77.4	2.1	0.2090	ug/L	0.2090	ppb	10:15:37
2	S 181.975 Axial†	57.6	-2.3	-2.7781	ug/L	-2.7781	ppb	10:15:37
2	Sb 206.836†	46.4	3.0	0.9155	ug/L	0.9155	ppb	10:15:37
2	Se 196.026†	-34.4	-4.9	-2.6241	ug/L	-2.6241	ppb	10:15:37
2	Si 251.611†	721.8	46.9	1.2950	ug/L	1.2950	ppb	10:15:37
2	Sn 189.927†	15.3	13.2	1.9289	ug/L	1.9289	ppb	10:15:37
2	Sr 421.552†	26.4	20.9	0.1195	ug/L	0.1195	ppb	10:13:50
2	Ti 334.940†	-1420.8	78.8	0.1115	ug/L	0.1115	ppb	10:15:17
2	Tl 190.801†	-46.7	0.1	0.0199	ug/L	0.0199	ppb	10:15:37
2	U 409.014†	-2632.0	151.2	4.1963	ug/L	4.1963	ppb	10:15:12
2	V 292.402†	-1457.3	41.4	0.2660	ug/L	0.2660	ppb	10:15:17
2	Zn 213.857†	819.4	-2.5	-0.0258	ug/L	-0.0258	ppb	10:15:37
2	SiO2†	745.1	44.6	2.6381	ug/L	2.6381	ppb	10:16:18
3	Sc 361.383	913228.2	913228.2	101.53	%			10:15:43
3	Sc Radial	5644.1	5644.1	101	%			10:14:15
3	Y 371.029	750802.5	750802.5	101.06	%			10:15:43
3	Y RADIAL	5917.2	5917.2	101.0	%			10:14:15
3	Ag 328.068†	415.7	10.0	0.0446	ug/L	0.0446	ppb	10:15:48
3	Al 396.153Radial†	-27.9	-14.3	-10.094	ug/L	-10.094	ppb	10:14:15
3	As 188.979†	-38.3	-10.3	-3.6471	ug/L	-3.6471	ppb	10:16:08
3	B 249.677†	322.4	-147.5	-3.0122	ug/L	-3.0122	ppb	10:15:48
3	Ba 233.527†	11.0	19.5	0.1313	ug/L	0.1313	ppb	10:16:08
3	Be 313.107†	-4495.7	167.4	0.0557	ug/L	0.0557	ppb	10:15:48
3	Ca 317.933Radial†	21.1	3.0	4.2409	ug/L	4.2409	ppb	10:14:35
3	Cd 226.502†	-212.6	16.3	0.1548	ug/L	0.1548	ppb	10:16:08
3	Co 228.616†	-88.1	-2.0	-0.0341	ug/L	-0.0341	ppb	10:16:08
3	Cr 267.716†	103.0	2.3	0.0213	ug/L	0.0213	ppb	10:16:08
3	Cu 324.752†	6179.0	-1.5	-0.0031	ug/L	-0.0031	ppb	10:15:48
3	Fe 238.204 Radial†	13.9	2.6	20.431	ug/L	20.431	ppb	10:14:35
3	K 766.490 Radial†	2953.5	51.6	9.2546	ug/L	9.2546	ppb	10:14:15
3	Mg 279.077 IEC†	3.2	0.9	26.134	ug/L	26.134	ppb	10:14:35
3	Mn 257.610†	541.1	41.4	0.0420	ug/L	0.0420	ppb	10:16:08
3	Mo 202.031†	34.3	8.2	0.4907	ug/L	0.4907	ppb	10:16:08
3	Na 589.592 Radial†	-1270.0	2.8	0.7523	ug/L	0.7523	ppb	10:14:15
3	Ni 231.604†	90.5	-13.1	-0.2819	ug/L	-0.2819	ppb	10:16:08
3	P 214.914†	240.4	-18.4	-9.3738	ug/L	-9.3738	ppb	10:16:08
3	Pb 220.353†	-60.4	18.4	1.8764	ug/L	1.8764	ppb	10:16:08
3	S 181.975 Axial†	57.0	-2.6	-3.1604	ug/L	-3.1604	ppb	10:16:08
3	Sb 206.836†	34.3	-8.6	-2.5245	ug/L	-2.5245	ppb	10:16:08
3	Se 196.026†	-32.9	-3.6	-1.8708	ug/L	-1.8708	ppb	10:16:08
3	Si 251.611†	678.7	8.6	0.2236	ug/L	0.2236	ppb	10:16:08
3	Sn 189.927†	8.4	6.4	0.9405	ug/L	0.9405	ppb	10:16:08
3	Sr 421.552†	-15.7	-21.2	-0.1210	ug/L	-0.1210	ppb	10:14:15
3	Ti 334.940†	-1433.8	57.9	0.0810	ug/L	0.0810	ppb	10:15:48
3	Tl 190.801†	-49.3	-2.8	-0.7170	ug/L	-0.7170	ppb	10:16:08
3	U 409.014†	-2553.5	213.5	5.9229	ug/L	5.9229	ppb	10:15:43
3	V 292.402†	-1490.1	0.9	0.0215	ug/L	0.0215	ppb	10:15:48
3	Zn 213.857†	837.0	19.5	0.1574	ug/L	0.1574	ppb	10:16:08
3	SiO2†	723.7	27.8	1.6272	ug/L	1.6272	ppb	10:16:23

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	917259.3	101.98	%	0.396				0.39%
Sc Radial	5617.7	101	%	1.1				1.10%
Y 371.029	754230.7	101.53	%	0.412				0.41%
Y RADIAL	5894.5	100.6	%	1.12				1.11%
Ag 328.068†	1.5	0.0034	ug/L	0.03582	0.0034	ppb	0.03582	>999.9%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-13.0	-9.1356	ug/L	3.05857	-9.1356	ppb	3.05857	33.48%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-1.9	-0.6800	ug/L	2.57016	-0.6800	ppb	2.57016	377.98%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-117.9	-2.4048	ug/L	0.56861	-2.4048	ppb	0.56861	23.64%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	19.0	0.1275	ug/L	0.05831	0.1275	ppb	0.05831	45.74%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	197.8	0.0658	ug/L	0.01368	0.0658	ppb	0.01368	20.81%
QC value within limits for Be 313.107 Recovery = Not calculated								

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Ca 317.933Radial†          -0.5     -0.7026 ug/L       4.52900     -0.7026 ppb        4.52900 644.62%
   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                16.4      0.1580 ug/L       0.09622      0.1580 ppb        0.09622  60.90%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                 2.8      0.0489 ug/L       0.13808      0.0489 ppb        0.13808 282.17%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                -7.2     -0.0728 ug/L       0.14658     -0.0728 ppb        0.14658 201.37%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               -54.5     -0.1522 ug/L       0.13371     -0.1522 ppb        0.13371  87.85%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          0.1      0.5405 ug/L      20.25239      0.5405 ppb       20.25239 >999.9%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          51.5      9.2568 ug/L      23.73610      9.2568 ppb       23.73610 256.42%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             1.8     53.627 ug/L       36.4639      53.627 ppb        36.4639  68.00%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                28.9      0.0272 ug/L       0.01290      0.0272 ppb        0.01290  47.37%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 3.5      0.2062 ug/L       0.43081      0.2062 ppb        0.43081 208.92%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        -38.5     -10.527 ug/L       15.8676     -10.527 ppb        15.8676 150.73%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                 5.8      0.1248 ug/L       0.35446      0.1248 ppb        0.35446 284.02%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -14.9     -7.5408 ug/L       2.10131     -7.5408 ppb        2.10131  27.87%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                12.4      1.2627 ug/L       0.91663      1.2627 ppb        0.91663  72.60%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -3.5     -4.2130 ug/L       2.16273     -4.2130 ppb        2.16273  51.33%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 3.5      1.0541 ug/L       3.64989      1.0541 ppb        3.64989 346.24%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -2.6     -1.3706 ug/L       1.56483     -1.3706 ppb        1.56483 114.17%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                29.6      0.8119 ug/L       0.54340      0.8119 ppb        0.54340  66.93%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                10.2      1.4864 ug/L       0.50226      1.4864 ppb        0.50226  33.79%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                -2.3     -0.0130 ug/L       0.12209     -0.0130 ppb        0.12209 942.67%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                34.7      0.0486 ug/L       0.08392      0.0486 ppb        0.08392 172.75%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 0.4      0.1008 ug/L       0.86113      0.1008 ppb        0.86113 854.07%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                111.0      3.0797 ug/L       3.53625      3.0797 ppb        3.53625 114.82%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                -15.3     -0.0862 ug/L       0.41659     -0.0862 ppb        0.41659 483.44%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                 6.6      0.0505 ug/L       0.09535      0.0505 ppb        0.09535 188.87%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                      30.7      1.8095 ug/L       0.75417      1.8095 ppb        0.75417  41.68%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 3
Sample ID: 242661007|932275|5
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 40
Date Collected: 12/20/2009 10:41:46
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 242661007|932275|5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5728.4	5728.4	103	%			10:43:39
1	Y RADIAL	6049.1	6049.1	103.2	%			10:43:39
1	Al 396.153Radial†	6354.2	6211.2	4362.6	ug/L	4362.6	ppb	10:43:39
1	Ca 317.933Radial†	4206.3	4085.0	5703.0	ug/L	5703.0	ppb	10:43:39
1	Fe 238.204 Radial†	2882.2	2800.1	22157	ug/L	22157	ppb	10:43:59
1	K 766.490 Radial†	28197.9	24632.0	4414.5	ug/L	4414.5	ppb	10:43:39
1	Mg 279.077 IEC†	77.9	73.7	2204.9	ug/L	2204.9	ppb	10:43:59
1	Na 589.592 Radial†	27957.5	28529.9	7796.7	ug/L	7796.7	ppb	10:43:39
1	Sr 421.552†	2899.2	2822.2	16.049	ug/L	16.049	ppb	10:43:39
1	Sc 361.383	910381.8	910381.8	101.22	%			10:44:56
1	Y 371.029	753331.0	753331.0	101.40	%			10:44:56
1	Ag 328.068†	-1261.2	-1645.4	0.5145	ug/L	0.5145	ppb	10:44:56
1	As 188.979†	-34.7	-6.8	6.5253	ug/L	6.5253	ppb	10:45:16
1	B 249.677†	139.1	-327.6	-9.6402	ug/L	-9.6402	ppb	10:44:56
1	Ba 233.527†	8333.9	8242.2	56.003	ug/L	56.003	ppb	10:45:16
1	Be 313.107†	-7534.9	-2849.1	0.3490	ug/L	0.3490	ppb	10:44:56
1	Cd 226.502†	22.5	248.0	0.1737	ug/L	0.1737	ppb	10:45:16
1	Co 228.616†	342.7	423.3	5.6440	ug/L	5.6440	ppb	10:45:16
1	Cr 267.716†	1898.4	1776.4	18.203	ug/L	18.203	ppb	10:45:16
1	Cu 324.752†	31448.2	24982.6	70.956	ug/L	70.956	ppb	10:44:56
1	Mn 257.610†	424008.3	418412.6	410.72	ug/L	410.72	ppb	10:44:56
1	Mo 202.031†	36.6	10.6	2.7551	ug/L	2.7551	ppb	10:45:16
1	Ni 231.604†	571.6	462.4	9.9616	ug/L	9.9616	ppb	10:45:16
1	P 214.914†	1421.7	1149.4	556.87	ug/L	556.87	ppb	10:45:16
1	Pb 220.353†	118.0	194.4	18.995	ug/L	18.995	ppb	10:45:16
1	S 181.975 Axial†	522.2	457.1	546.84	ug/L	546.84	ppb	10:45:16
1	Sb 206.836†	51.3	8.3	0.4512	ug/L	0.4512	ppb	10:45:16
1	Se 196.026†	-168.9	-138.1	-3.2873	ug/L	-3.2873	ppb	10:45:16
1	Si 251.611†	81035.2	79399.8	2208.8	ug/L	2208.8	ppb	10:44:56
1	Sn 189.927†	-49.2	-50.5	-6.4913	ug/L	-6.4913	ppb	10:45:16
1	Ti 334.940†	461424.3	457339.7	658.94	ug/L	658.94	ppb	10:44:56
1	Tl 190.801†	-71.5	-24.9	1.0817	ug/L	1.0817	ppb	10:45:16
1	U 409.014†	-3794.5	-1020.5	-31.145	ug/L	-31.145	ppb	10:44:56
1	V 292.402†	6226.5	7619.9	43.745	ug/L	43.745	ppb	10:44:56
1	Zn 213.857†	32095.4	30904.2	247.88	ug/L	247.88	ppb	10:44:56
1	SiO2†	80503.4	78849.4	4710.4	ug/L	4710.4	ppb	10:46:13
2	Sc Radial	5662.7	5662.7	101	%			10:44:04
2	Y RADIAL	5967.3	5967.3	101.8	%			10:44:04
2	Al 396.153Radial†	6229.5	6160.0	4326.6	ug/L	4326.6	ppb	10:44:04
2	Ca 317.933Radial†	4159.7	4086.6	5705.2	ug/L	5705.2	ppb	10:44:04
2	Fe 238.204 Radial†	2886.0	2836.5	22445	ug/L	22445	ppb	10:44:24
2	K 766.490 Radial†	27838.0	24595.9	4408.1	ug/L	4408.1	ppb	10:44:04
2	Mg 279.077 IEC†	76.8	73.5	2200.6	ug/L	2200.6	ppb	10:44:24
2	Na 589.592 Radial†	27544.4	28438.5	7771.8	ug/L	7771.8	ppb	10:44:04
2	Sr 421.552†	2831.7	2788.4	15.856	ug/L	15.856	ppb	10:44:04
2	Sc 361.383	911617.2	911617.2	101.36	%			10:45:22
2	Y 371.029	754681.9	754681.9	101.59	%			10:45:22
2	Ag 328.068†	-1249.1	-1631.8	0.6651	ug/L	0.6651	ppb	10:45:22
2	As 188.979†	-44.0	-16.0	3.3167	ug/L	3.3167	ppb	10:45:42
2	B 249.677†	129.0	-337.8	-9.8871	ug/L	-9.8871	ppb	10:45:22
2	Ba 233.527†	8322.4	8219.7	55.858	ug/L	55.858	ppb	10:45:42
2	Be 313.107†	-7606.6	-2909.7	0.3269	ug/L	0.3269	ppb	10:45:22
2	Cd 226.502†	23.0	248.5	0.1500	ug/L	0.1500	ppb	10:45:42
2	Co 228.616†	361.3	441.2	5.9537	ug/L	5.9537	ppb	10:45:42
2	Cr 267.716†	1898.7	1774.1	18.184	ug/L	18.184	ppb	10:45:42
2	Cu 324.752†	31374.4	24867.7	70.650	ug/L	70.650	ppb	10:45:22
2	Mn 257.610†	423402.0	417246.8	409.61	ug/L	409.61	ppb	10:45:22
2	Mo 202.031†	44.9	18.7	3.2650	ug/L	3.2650	ppb	10:45:42
2	Ni 231.604†	595.5	485.3	10.454	ug/L	10.454	ppb	10:45:42

2	P 214.914†	1412.3	1138.3	551.04	ug/L	551.04 ppb	10:45:42
2	Pb 220.353†	127.7	203.8	19.933	ug/L	19.933 ppb	10:45:42
2	S 181.975 Axial†	522.2	456.5	546.04	ug/L	546.04 ppb	10:45:42
2	Sb 206.836†	48.2	5.1	-0.4556	ug/L	-0.4556 ppb	10:45:42
2	Se 196.026†	-162.4	-131.5	1.1488	ug/L	1.1488 ppb	10:45:42
2	Si 251.611†	80893.7	79151.8	2201.9	ug/L	2201.9 ppb	10:45:22
2	Sn 189.927†	-45.6	-46.8	-5.9498	ug/L	-5.9498 ppb	10:45:42
2	Ti 334.940†	461326.4	456625.4	657.91	ug/L	657.91 ppb	10:45:22
2	Tl 190.801†	-72.7	-25.9	0.7998	ug/L	0.7998 ppb	10:45:42
2	U 409.014†	-3771.8	-993.0	-30.418	ug/L	-30.418 ppb	10:45:22
2	V 292.402†	6126.5	7512.9	43.038	ug/L	43.038 ppb	10:45:22
2	Zn 213.857†	32066.8	30833.0	247.28	ug/L	247.28 ppb	10:45:22
2	SiO2†	79779.7	78027.5	4661.3	ug/L	4661.3 ppb	10:46:18
3	Sc Radial	5509.8	5509.8	98.6	%		10:44:29
3	Y RADIAL	5858.3	5858.3	99.95	%		10:44:29
3	Al 396.153Radial†	6117.5	6217.0	4366.7	ug/L	4366.7 ppb	10:44:29
3	Ca 317.933Radial†	4039.3	4078.4	5693.7	ug/L	5693.7 ppb	10:44:29
3	Fe 238.204 Radial†	2910.9	2940.7	23269	ug/L	23269 ppb	10:44:49
3	K 766.490 Radial†	27386.1	24899.9	4462.7	ug/L	4462.7 ppb	10:44:29
3	Mg 279.077 IEC†	79.7	78.6	2351.8	ug/L	2351.8 ppb	10:44:49
3	Na 589.592 Radial†	26947.7	28587.7	7812.5	ug/L	7812.5 ppb	10:44:29
3	Sr 421.552†	2786.3	2819.9	16.036	ug/L	16.036 ppb	10:44:29
3	Sc 361.383	907789.8	907789.8	100.93	%		10:45:48
3	Y 371.029	752175.6	752175.6	101.25	%		10:45:48
3	Ag 328.068†	-1399.3	-1785.7	0.2864	ug/L	0.2864 ppb	10:45:48
3	As 188.979†	-37.8	-10.0	5.5459	ug/L	5.5459 ppb	10:46:08
3	B 249.677†	38.0	-427.4	-11.825	ug/L	-11.825 ppb	10:45:48
3	Ba 233.527†	8241.4	8174.1	55.573	ug/L	55.573 ppb	10:46:08
3	Be 313.107†	-7550.7	-2886.0	0.3295	ug/L	0.3295 ppb	10:45:48
3	Cd 226.502†	21.9	247.4	0.0572	ug/L	0.0572 ppb	10:46:08
3	Co 228.616†	348.2	429.7	5.7496	ug/L	5.7496 ppb	10:46:08
3	Cr 267.716†	1870.3	1753.8	17.998	ug/L	17.998 ppb	10:46:08
3	Cu 324.752†	31113.6	24739.8	70.334	ug/L	70.334 ppb	10:45:48
3	Mn 257.610†	420929.2	416557.9	409.01	ug/L	409.01 ppb	10:45:48
3	Mo 202.031†	51.3	25.3	3.7316	ug/L	3.7316 ppb	10:46:08
3	Ni 231.604†	579.9	472.3	10.174	ug/L	10.174 ppb	10:46:08
3	P 214.914†	1421.6	1153.3	558.11	ug/L	558.11 ppb	10:46:08
3	Pb 220.353†	125.5	202.2	19.710	ug/L	19.710 ppb	10:46:08
3	S 181.975 Axial†	511.8	448.3	536.24	ug/L	536.24 ppb	10:46:08
3	Sb 206.836†	62.8	19.8	3.9030	ug/L	3.9030 ppb	10:46:08
3	Se 196.026†	-164.6	-134.3	2.2668	ug/L	2.2668 ppb	10:46:08
3	Si 251.611†	80019.7	78622.3	2187.1	ug/L	2187.1 ppb	10:45:48
3	Sn 189.927†	-45.8	-47.2	-6.0004	ug/L	-6.0004 ppb	10:46:08
3	Ti 334.940†	457531.9	454784.8	655.26	ug/L	655.26 ppb	10:45:48
3	Tl 190.801†	-87.2	-40.6	-2.9759	ug/L	-2.9759 ppb	10:46:08
3	U 409.014†	-3866.5	-1102.5	-33.562	ug/L	-33.562 ppb	10:45:48
3	V 292.402†	6082.6	7494.9	42.806	ug/L	42.806 ppb	10:45:48
3	Zn 213.857†	31842.5	30744.1	246.52	ug/L	246.52 ppb	10:45:48
3	SiO2†	80232.7	78808.3	4707.9	ug/L	4707.9 ppb	10:46:23

Mean Data: 242661007|932275|5

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	909929.6	101.17	%	0.217				0.21%
Sc Radial	5633.7	101	%	2.0				1.99%
Y 371.029	753396.1	101.41	%	0.169				0.17%
Y RADIAL	5958.3	101.7	%	1.63				1.61%
Ag 328.068†	-1687.6	0.4887	ug/L	0.19069	0.4887	ppb	0.19069	39.02%
Al 396.153Radial†	6196.1	4352.0	ug/L	22.03	4352.0	ppb	22.03	0.51%
As 188.979†	-10.9	5.1293	ug/L	1.64440	5.1293	ppb	1.64440	32.06%
B 249.677†	-364.2	-10.451	ug/L	1.1965	-10.451	ppb	1.1965	11.45%
Ba 233.527†	8212.0	55.811	ug/L	0.2191	55.811	ppb	0.2191	0.39%
Be 313.107†	-2881.6	0.3351	ug/L	0.01208	0.3351	ppb	0.01208	3.61%
Ca 317.933Radial†	4083.3	5700.6	ug/L	6.10	5700.6	ppb	6.10	0.11%
Cd 226.502†	248.0	0.1270	ug/L	0.06157	0.1270	ppb	0.06157	48.48%
Co 228.616†	431.4	5.7824	ug/L	0.15744	5.7824	ppb	0.15744	2.72%
Cr 267.716†	1768.1	18.128	ug/L	0.1135	18.128	ppb	0.1135	0.63%
Cu 324.752†	24863.4	70.647	ug/L	0.3110	70.647	ppb	0.3110	0.44%
Fe 238.204 Radial†	2859.1	22624	ug/L	577.4	22624	ppb	577.4	2.55%
K 766.490 Radial†	24709.2	4428.4	ug/L	29.84	4428.4	ppb	29.84	0.67%

Mg 279.077 IEC†	75.3	2252.4	ug/L	86.12	2252.4	ppb	86.12	3.82%
Mn 257.610†	417405.8	409.78	ug/L	0.864	409.78	ppb	0.864	0.21%
Mo 202.031†	18.2	3.2506	ug/L	0.48845	3.2506	ppb	0.48845	15.03%
Na 589.592 Radial†	28518.7	7793.7	ug/L	20.55	7793.7	ppb	20.55	0.26%
Ni 231.604†	473.3	10.196	ug/L	0.2470	10.196	ppb	0.2470	2.42%
P 214.914†	1147.0	555.34	ug/L	3.775	555.34	ppb	3.775	0.68%
Pb 220.353†	200.1	19.546	ug/L	0.4905	19.546	ppb	0.4905	2.51%
S 181.975 Axial†	454.0	543.04	ug/L	5.902	543.04	ppb	5.902	1.09%
Sb 206.836†	11.1	1.2995	ug/L	2.29983	1.2995	ppb	2.29983	176.97%
Se 196.026†	-134.6	0.0427	ug/L	2.93760	0.0427	ppb	2.93760	>999.9%
Si 251.611†	79058.0	2199.3	ug/L	11.07	2199.3	ppb	11.07	0.50%
Sn 189.927†	-48.2	-6.1472	ug/L	0.29909	-6.1472	ppb	0.29909	4.87%
Sr 421.552†	2810.2	15.980	ug/L	0.1077	15.980	ppb	0.1077	0.67%
Ti 334.940†	456250.0	657.37	ug/L	1.898	657.37	ppb	1.898	0.29%
Tl 190.801†	-30.5	-0.3648	ug/L	2.26566	-0.3648	ppb	2.26566	621.04%
U 409.014†	-1038.6	-31.709	ug/L	1.6458	-31.709	ppb	1.6458	5.19%
V 292.402†	7542.6	43.196	ug/L	0.4888	43.196	ppb	0.4888	1.13%
Zn 213.857†	30827.1	247.23	ug/L	0.679	247.23	ppb	0.679	0.27%
SiO2†	78561.7	4693.2	ug/L	27.67	4693.2	ppb	27.67	0.59%

Sequence No.: 4
Sample ID: 242661014|932275|5
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 41
Date Collected: 12/20/2009 10:48:35
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 242661014|932275|5

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	5543.0	5543.0	99.2	%			10:50:27
1	Y RADIAL	5828.3	5828.3	99.44	%			10:50:27
1	Al 396.153Radial†	3382.8	3423.3	2404.5	ug/L	2404.5	ppb	10:50:27
1	Ca 317.933Radial†	2427.5	2429.1	3391.3	ug/L	3391.3	ppb	10:50:47
1	Fe 238.204 Radial†	1707.2	1709.7	13529	ug/L	13529	ppb	10:50:47
1	K 766.490 Radial†	27004.7	24349.4	4365.2	ug/L	4365.2	ppb	10:50:27
1	Mg 279.077 IEC†	63.7	62.0	1858.9	ug/L	1858.9	ppb	10:50:47
1	Na 589.592 Radial†	35008.5	36550.0	9988.5	ug/L	9988.5	ppb	10:50:27
1	Sr 421.552†	1428.4	1434.2	8.1513	ug/L	8.1513	ppb	10:50:27
1	Sc 361.383	891250.1	891250.1	99.091	%			10:51:44
1	Y 371.029	736851.4	736851.4	99.186	%			10:51:44
1	Ag 328.068†	-598.0	-1002.9	0.2933	ug/L	0.2933	ppb	10:51:44
1	As 188.979†	-23.5	3.8	6.0275	ug/L	6.0275	ppb	10:52:04
1	B 249.677†	-101.0	-566.9	-13.369	ug/L	-13.369	ppb	10:52:04
1	Ba 233.527†	4461.3	4510.8	30.676	ug/L	30.676	ppb	10:52:04
1	Be 313.107†	-6075.6	-1536.2	0.0969	ug/L	0.0969	ppb	10:51:44
1	Cd 226.502†	-89.8	135.1	-0.0500	ug/L	-0.0500	ppb	10:52:04
1	Co 228.616†	120.4	206.3	2.7354	ug/L	2.7354	ppb	10:52:04
1	Cr 267.716†	1574.8	1490.1	15.145	ug/L	15.145	ppb	10:52:04
1	Cu 324.752†	8915.4	2910.1	8.8238	ug/L	8.8238	ppb	10:51:44
1	Mn 257.610†	202433.5	203798.2	200.31	ug/L	200.31	ppb	10:51:44
1	Mo 202.031†	23.4	-1.9	1.1828	ug/L	1.1828	ppb	10:52:04
1	Ni 231.604†	400.5	301.9	6.5044	ug/L	6.5044	ppb	10:52:04
1	P 214.914†	1264.7	1021.1	507.87	ug/L	507.87	ppb	10:52:04
1	Pb 220.353†	15.1	93.1	8.9443	ug/L	8.9443	ppb	10:52:04
1	S 181.975 Axial†	444.3	389.6	466.31	ug/L	466.31	ppb	10:52:04
1	Sb 206.836†	42.1	0.1	-1.0705	ug/L	-1.0705	ppb	10:52:04
1	Se 196.026†	-113.5	-85.7	-2.8016	ug/L	-2.8016	ppb	10:52:04
1	Si 251.611†	37673.1	37358.7	1038.5	ug/L	1038.5	ppb	10:51:44
1	Sn 189.927†	-31.4	-33.5	-4.3651	ug/L	-4.3651	ppb	10:52:04
1	Ti 334.940†	210936.4	214340.7	308.86	ug/L	308.86	ppb	10:51:44
1	Tl 190.801†	-65.5	-20.3	-1.6574	ug/L	-1.6574	ppb	10:52:04
1	U 409.014†	-3250.5	-551.9	-17.050	ug/L	-17.050	ppb	10:51:44
1	V 292.402†	2031.0	3518.1	19.696	ug/L	19.696	ppb	10:52:04
1	Zn 213.857†	7578.8	6843.5	54.377	ug/L	54.377	ppb	10:52:04
1	SiO2†	37588.0	37247.7	2223.5	ug/L	2223.5	ppb	10:53:00
2	Sc Radial	5678.9	5678.9	102	%			10:50:52
2	Y RADIAL	6011.0	6011.0	102.6	%			10:50:52
2	Al 396.153Radial†	3469.3	3426.8	2407.0	ug/L	2407.0	ppb	10:50:52
2	Ca 317.933Radial†	2413.9	2357.2	3290.9	ug/L	3290.9	ppb	10:51:12
2	Fe 238.204 Radial†	1689.0	1650.6	13061	ug/L	13061	ppb	10:51:12
2	K 766.490 Radial†	27509.4	24194.5	4337.3	ug/L	4337.3	ppb	10:50:52
2	Mg 279.077 IEC†	67.3	64.0	1919.2	ug/L	1919.2	ppb	10:51:12
2	Na 589.592 Radial†	35861.5	36544.6	9987.1	ug/L	9987.1	ppb	10:50:52
2	Sr 421.552†	1436.2	1407.5	7.9998	ug/L	7.9998	ppb	10:50:52
2	Sc 361.383	883472.3	883472.3	98.227	%			10:52:10
2	Y 371.029	730409.9	730409.9	98.319	%			10:52:10
2	Ag 328.068†	-477.9	-885.9	0.6429	ug/L	0.6429	ppb	10:52:10
2	As 188.979†	-32.2	-5.3	2.7256	ug/L	2.7256	ppb	10:52:30
2	B 249.677†	-106.2	-573.1	-13.433	ug/L	-13.433	ppb	10:52:30
2	Ba 233.527†	4401.1	4489.2	30.518	ug/L	30.518	ppb	10:52:30
2	Be 313.107†	-5976.8	-1489.6	0.1108	ug/L	0.1108	ppb	10:52:10
2	Cd 226.502†	-88.6	135.6	0.0008	ug/L	0.0008	ppb	10:52:30
2	Co 228.616†	119.8	206.6	2.7491	ug/L	2.7491	ppb	10:52:30
2	Cr 267.716†	1551.3	1480.1	15.039	ug/L	15.039	ppb	10:52:30
2	Cu 324.752†	8932.3	3006.6	9.0695	ug/L	9.0695	ppb	10:52:10
2	Mn 257.610†	200685.1	203816.8	200.28	ug/L	200.28	ppb	10:52:10
2	Mo 202.031†	16.9	-8.3	0.7573	ug/L	0.7573	ppb	10:52:30
2	Ni 231.604†	399.1	304.1	6.5506	ug/L	6.5506	ppb	10:52:30

2	P 214.914†	1258.8	1026.3	510.84 ug/L	510.84 ppb	10:52:30
2	Pb 220.353†	15.8	93.9	9.0723 ug/L	9.0723 ppb	10:52:30
2	S 181.975 Axial†	433.2	382.3	457.52 ug/L	457.52 ppb	10:52:30
2	Sb 206.836†	35.1	-6.7	-3.0950 ug/L	-3.0950 ppb	10:52:30
2	Se 196.026†	-111.3	-84.5	-3.6169 ug/L	-3.6169 ppb	10:52:30
2	Si 251.611†	37479.6	37496.4	1042.4 ug/L	1042.4 ppb	10:52:10
2	Sn 189.927†	-39.6	-42.1	-5.6414 ug/L	-5.6414 ppb	10:52:30
2	Ti 334.940†	208556.4	213791.7	308.07 ug/L	308.07 ppb	10:52:10
2	Tl 190.801†	-51.9	-7.1	1.7176 ug/L	1.7176 ppb	10:52:30
2	U 409.014†	-3484.3	-818.8	-24.399 ug/L	-24.399 ppb	10:52:10
2	V 292.402†	1971.4	3475.5	19.482 ug/L	19.482 ppb	10:52:30
2	Zn 213.857†	7500.1	6830.7	54.296 ug/L	54.296 ppb	10:52:30
2	SiO2†	37525.0	37517.5	2239.7 ug/L	2239.7 ppb	10:53:06
3	Sc Radial	5622.5	5622.5	101 %		10:51:18
3	Y RADIAL	5954.2	5954.2	101.6 %		10:51:18
3	Al 396.153Radial†	3425.3	3417.2	2400.2 ug/L	2400.2 ppb	10:51:18
3	Ca 317.933Radial†	2423.2	2390.2	3336.9 ug/L	3336.9 ppb	10:51:38
3	Fe 238.204 Radial†	1706.0	1684.1	13326 ug/L	13326 ppb	10:51:38
3	K 766.490 Radial†	27216.3	24174.4	4333.8 ug/L	4333.8 ppb	10:51:18
3	Mg 279.077 IEC†	67.1	64.4	1932.7 ug/L	1932.7 ppb	10:51:38
3	Na 589.592 Radial†	35463.0	36502.1	9975.4 ug/L	9975.4 ppb	10:51:18
3	Sr 421.552†	1459.6	1444.9	8.2128 ug/L	8.2128 ppb	10:51:18
3	Sc 361.383	873905.4	873905.4	97.163 %		10:52:35
3	Y 371.029	723119.1	723119.1	97.337 %		10:52:35
3	Ag 328.068†	-554.6	-970.2	0.3678 ug/L	0.3678 ppb	10:52:35
3	As 188.979†	-29.7	-3.1	3.5500 ug/L	3.5500 ppb	10:52:55
3	B 249.677†	-54.8	-521.4	-12.413 ug/L	-12.413 ppb	10:52:55
3	Ba 233.527†	4439.7	4577.9	31.122 ug/L	31.122 ppb	10:52:55
3	Be 313.107†	-5913.3	-1490.9	0.1086 ug/L	0.1086 ppb	10:52:35
3	Cd 226.502†	-84.3	139.0	0.0067 ug/L	0.0067 ppb	10:52:55
3	Co 228.616†	109.5	197.4	2.5861 ug/L	2.5861 ppb	10:52:55
3	Cr 267.716†	1528.1	1473.5	14.977 ug/L	14.977 ppb	10:52:55
3	Cu 324.752†	8724.0	2891.7	8.7621 ug/L	8.7621 ppb	10:52:35
3	Mn 257.610†	197737.5	203019.7	199.53 ug/L	199.53 ppb	10:52:35
3	Mo 202.031†	6.6	-18.8	0.1621 ug/L	0.1621 ppb	10:52:55
3	Ni 231.604†	382.8	291.7	6.2853 ug/L	6.2853 ppb	10:52:55
3	P 214.914†	1263.0	1044.7	520.04 ug/L	520.04 ppb	10:52:55
3	Pb 220.353†	-12.8	64.6	6.0492 ug/L	6.0492 ppb	10:52:55
3	S 181.975 Axial†	435.0	389.0	465.53 ug/L	465.53 ppb	10:52:55
3	Sb 206.836†	31.0	-10.5	-4.1993 ug/L	-4.1993 ppb	10:52:55
3	Se 196.026†	-106.6	-80.9	-0.8758 ug/L	-0.8758 ppb	10:52:55
3	Si 251.611†	36686.1	37097.4	1031.3 ug/L	1031.3 ppb	10:52:35
3	Sn 189.927†	-29.2	-31.9	-4.1328 ug/L	-4.1328 ppb	10:52:55
3	Ti 334.940†	205679.7	213155.4	307.15 ug/L	307.15 ppb	10:52:35
3	Tl 190.801†	-59.1	-15.0	-0.3100 ug/L	-0.3100 ppb	10:52:55
3	U 409.014†	-3231.3	-597.3	-18.284 ug/L	-18.284 ppb	10:52:35
3	V 292.402†	2027.0	3554.6	19.943 ug/L	19.943 ppb	10:52:55
3	Zn 213.857†	7532.1	6947.2	55.223 ug/L	55.223 ppb	10:52:55
3	SiO2†	37821.5	38240.9	2282.9 ug/L	2282.9 ppb	10:53:11

Mean Data: 242661014|932275|5

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	882875.9	98.160	%	0.9659				0.98%
Sc Radial	5614.8	100	%	1.2				1.22%
Y 371.029	730126.8	98.281	%	0.9248				0.94%
Y RADIAL	5931.2	101.2	%	1.59				1.58%
Ag 328.068†	-953.0	0.4347	ug/L	0.18413	0.4347	ppb	0.18413	42.36%
Al 396.153Radial†	3422.5	2403.9	ug/L	3.40	2403.9	ppb	3.40	0.14%
As 188.979†	-1.6	4.1010	ug/L	1.71851	4.1010	ppb	1.71851	41.90%
B 249.677†	-553.8	-13.072	ug/L	0.5715	-13.072	ppb	0.5715	4.37%
Ba 233.527†	4526.0	30.772	ug/L	0.3130	30.772	ppb	0.3130	1.02%
Be 313.107†	-1505.6	0.1054	ug/L	0.00747	0.1054	ppb	0.00747	7.09%
Ca 317.933Radial†	2392.2	3339.7	ug/L	50.27	3339.7	ppb	50.27	1.51%
Cd 226.502†	136.6	-0.0142	ug/L	0.03119	-0.0142	ppb	0.03119	220.05%
Co 228.616†	203.4	2.6902	ug/L	0.09045	2.6902	ppb	0.09045	3.36%
Cr 267.716†	1481.2	15.053	ug/L	0.0851	15.053	ppb	0.0851	0.57%
Cu 324.752†	2936.1	8.8852	ug/L	0.16264	8.8852	ppb	0.16264	1.83%
Fe 238.204 Radial†	1681.5	13306	ug/L	234.4	13306	ppb	234.4	1.76%
K 766.490 Radial†	24239.5	4345.4	ug/L	17.19	4345.4	ppb	17.19	0.40%

Mg 279.077 IEC†	63.4	1903.6	ug/L	39.25	1903.6	ppb	39.25	2.06%
Mn 257.610†	203544.9	200.04	ug/L	0.443	200.04	ppb	0.443	0.22%
Mo 202.031†	-9.7	0.7008	ug/L	0.51270	0.7008	ppb	0.51270	73.16%
Na 589.592 Radial†	36532.3	9983.7	ug/L	7.16	9983.7	ppb	7.16	0.07%
Ni 231.604†	299.2	6.4468	ug/L	0.14172	6.4468	ppb	0.14172	2.20%
P 214.914†	1030.7	512.92	ug/L	6.346	512.92	ppb	6.346	1.24%
Pb 220.353†	83.9	8.0219	ug/L	1.70968	8.0219	ppb	1.70968	21.31%
S 181.975 Axial†	386.9	463.12	ug/L	4.866	463.12	ppb	4.866	1.05%
Sb 206.836†	-5.7	-2.7883	ug/L	1.58677	-2.7883	ppb	1.58677	56.91%
Se 196.026†	-83.7	-2.4314	ug/L	1.40755	-2.4314	ppb	1.40755	57.89%
Si 251.611†	37317.5	1037.4	ug/L	5.64	1037.4	ppb	5.64	0.54%
Sn 189.927†	-35.8	-4.7131	ug/L	0.81228	-4.7131	ppb	0.81228	17.23%
Sr 421.552†	1428.9	8.1213	ug/L	0.10962	8.1213	ppb	0.10962	1.35%
Ti 334.940†	213762.6	308.02	ug/L	0.855	308.02	ppb	0.855	0.28%
Tl 190.801†	-14.1	-0.0833	ug/L	1.69887	-0.0833	ppb	1.69887	>999.9%
U 409.014†	-656.0	-19.911	ug/L	3.9354	-19.911	ppb	3.9354	19.76%
V 292.402†	3516.1	19.707	ug/L	0.2308	19.707	ppb	0.2308	1.17%
Zn 213.857†	6873.8	54.632	ug/L	0.5135	54.632	ppb	0.5135	0.94%
SiO2†	37668.7	2248.7	ug/L	30.73	2248.7	ppb	30.73	1.37%

Sequence No.: 5
Sample ID: 242661016|932275|5
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 42
Date Collected: 12/20/2009 10:55:21
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 242661016|932275|5

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	5686.6	5686.6	102	%			10:57:14
1	Y RADIAL	6005.7	6005.7	102.5	%			10:57:14
1	Al 396.153Radial†	4739.7	4670.4	3280.4	ug/L	3280.4	ppb	10:57:14
1	Ca 317.933Radial†	1751.1	1702.7	2377.1	ug/L	2377.1	ppb	10:57:34
1	Fe 238.204 Radial†	1742.5	1700.9	13459	ug/L	13459	ppb	10:57:34
1	K 766.490 Radial†	39030.7	35478.3	6359.5	ug/L	6359.5	ppb	10:57:14
1	Mg 279.077 IEC†	59.4	56.1	1680.9	ug/L	1680.9	ppb	10:57:34
1	Na 589.592 Radial†	60394.0	60601.7	16561	ug/L	16561	ppb	10:57:14
1	Sr 421.552†	2607.8	2556.8	14.565	ug/L	14.565	ppb	10:57:14
1	Sc 361.383	915791.7	915791.7	101.82	%			10:58:31
1	Y 371.029	754945.2	754945.2	101.62	%			10:58:31
1	Ag 328.068†	-514.5	-904.7	0.7023	ug/L	0.7023	ppb	10:58:31
1	As 188.979†	-38.8	-10.6	2.1739	ug/L	2.1739	ppb	10:58:51
1	B 249.677†	23.0	-442.5	-10.825	ug/L	-10.825	ppb	10:58:51
1	Ba 233.527†	6581.9	6472.9	43.847	ug/L	43.847	ppb	10:58:51
1	Be 313.107†	-6746.3	-2030.6	0.2303	ug/L	0.2303	ppb	10:58:31
1	Cd 226.502†	-74.8	152.3	0.1216	ug/L	0.1216	ppb	10:58:51
1	Co 228.616†	215.8	296.7	3.9912	ug/L	3.9912	ppb	10:58:51
1	Cr 267.716†	856.3	741.8	7.6815	ug/L	7.6815	ppb	10:58:51
1	Cu 324.752†	10445.7	4172.0	12.347	ug/L	12.347	ppb	10:58:31
1	Mn 257.610†	297648.5	291836.8	286.27	ug/L	286.27	ppb	10:58:31
1	Mo 202.031†	19.5	-6.4	0.9080	ug/L	0.9080	ppb	10:58:51
1	Ni 231.604†	415.8	306.1	6.5934	ug/L	6.5934	ppb	10:58:51
1	P 214.914†	1211.6	934.8	463.78	ug/L	463.78	ppb	10:58:51
1	Pb 220.353†	36.4	113.6	11.241	ug/L	11.241	ppb	10:58:51
1	S 181.975 Axial†	591.1	521.7	624.44	ug/L	624.44	ppb	10:58:51
1	Sb 206.836†	39.3	-3.8	-2.4354	ug/L	-2.4354	ppb	10:58:51
1	Se 196.026†	-105.2	-74.5	3.1149	ug/L	3.1149	ppb	10:58:51
1	Si 251.611†	66478.2	64630.1	1797.0	ug/L	1797.0	ppb	10:58:31
1	Sn 189.927†	-16.0	-17.6	-2.1394	ug/L	-2.1394	ppb	10:58:51
1	Ti 334.940†	323736.6	319420.1	460.14	ug/L	460.14	ppb	10:58:31
1	Tl 190.801†	-72.0	-24.9	-1.1357	ug/L	-1.1357	ppb	10:58:51
1	U 409.014†	-3282.2	-495.1	-15.451	ug/L	-15.451	ppb	10:58:31
1	V 292.402†	2077.2	3508.5	19.478	ug/L	19.478	ppb	10:58:51
1	Zn 213.857†	13533.2	12486.4	99.894	ug/L	99.894	ppb	10:58:31
1	SiO2†	66487.4	64614.1	3858.0	ug/L	3858.0	ppb	10:59:48
2	Sc Radial	5687.9	5687.9	102	%			10:57:39
2	Y RADIAL	5984.5	5984.5	102.1	%			10:57:39
2	Al 396.153Radial†	4702.5	4632.8	3254.0	ug/L	3254.0	ppb	10:57:39
2	Ca 317.933Radial†	1739.2	1690.7	2360.3	ug/L	2360.3	ppb	10:57:59
2	Fe 238.204 Radial†	1734.9	1693.1	13397	ug/L	13397	ppb	10:57:59
2	K 766.490 Radial†	38846.8	35289.1	6325.6	ug/L	6325.6	ppb	10:57:39
2	Mg 279.077 IEC†	58.9	55.6	1667.5	ug/L	1667.5	ppb	10:57:59
2	Na 589.592 Radial†	59984.0	60185.9	16448	ug/L	16448	ppb	10:57:39
2	Sr 421.552†	2575.1	2524.1	14.379	ug/L	14.379	ppb	10:57:39
2	Sc 361.383	916387.4	916387.4	101.89	%			10:58:56
2	Y 371.029	754042.5	754042.5	101.50	%			10:58:56
2	Ag 328.068†	-650.3	-1037.6	0.1149	ug/L	0.1149	ppb	10:58:56
2	As 188.979†	-30.2	-2.2	5.1674	ug/L	5.1674	ppb	10:59:17
2	B 249.677†	14.5	-450.8	-10.987	ug/L	-10.987	ppb	10:59:17
2	Ba 233.527†	6576.3	6463.2	43.781	ug/L	43.781	ppb	10:59:17
2	Be 313.107†	-6745.5	-2025.5	0.2339	ug/L	0.2339	ppb	10:58:56
2	Cd 226.502†	-58.3	168.5	0.2843	ug/L	0.2843	ppb	10:59:17
2	Co 228.616†	217.4	298.1	4.0169	ug/L	4.0169	ppb	10:59:17
2	Cr 267.716†	843.8	729.0	7.5529	ug/L	7.5529	ppb	10:59:17
2	Cu 324.752†	10647.9	4363.7	12.880	ug/L	12.880	ppb	10:58:56
2	Mn 257.610†	298649.5	292629.2	287.04	ug/L	287.04	ppb	10:58:56
2	Mo 202.031†	35.5	9.3	1.8354	ug/L	1.8354	ppb	10:59:17
2	Ni 231.604†	427.9	317.7	6.8433	ug/L	6.8433	ppb	10:59:17

2	P 214.914†	1209.5	931.9	462.27 ug/L	462.27 ppb	10:59:17
2	Pb 220.353†	56.5	133.3	13.262 ug/L	13.262 ppb	10:59:17
2	S 181.975 Axial†	593.6	523.9	627.00 ug/L	627.00 ppb	10:59:17
2	Sb 206.836†	42.1	-1.1	-1.6240 ug/L	-1.6240 ppb	10:59:17
2	Se 196.026†	-104.2	-73.5	3.4465 ug/L	3.4465 ppb	10:59:17
2	Si 251.611†	66932.7	65033.7	1808.3 ug/L	1808.3 ppb	10:58:56
2	Sn 189.927†	-22.5	-23.9	-3.0749 ug/L	-3.0749 ppb	10:59:17
2	Ti 334.940†	324669.8	320129.3	461.16 ug/L	461.16 ppb	10:58:56
2	Tl 190.801†	-61.9	-14.9	1.4187 ug/L	1.4187 ppb	10:59:17
2	U 409.014†	-3245.2	-456.8	-14.378 ug/L	-14.378 ppb	10:58:56
2	V 292.402†	2132.0	3560.9	19.831 ug/L	19.831 ppb	10:59:17
2	Zn 213.857†	13571.8	12515.7	100.13 ug/L	100.13 ppb	10:58:56
2	SiO2†	66302.6	64390.2	3844.6 ug/L	3844.6 ppb	10:59:53
3	Sc Radial	5653.3	5653.3	101 %		10:58:04
3	Y RADIAL	5969.8	5969.8	101.8 %		10:58:04
3	Al 396.153Radial†	4691.6	4650.3	3266.2 ug/L	3266.2 ppb	10:58:04
3	Ca 317.933Radial†	1746.9	1708.7	2385.5 ug/L	2385.5 ppb	10:58:24
3	Fe 238.204 Radial†	1733.8	1702.4	13471 ug/L	13471 ppb	10:58:24
3	K 766.490 Radial†	38811.3	35487.2	6361.2 ug/L	6361.2 ppb	10:58:04
3	Mg 279.077 IEC†	57.5	54.5	1634.8 ug/L	1634.8 ppb	10:58:24
3	Na 589.592 Radial†	59494.2	60061.7	16414 ug/L	16414 ppb	10:58:04
3	Sr 421.552†	2568.8	2533.3	14.431 ug/L	14.431 ppb	10:58:04
3	Sc 361.383	909347.7	909347.7	101.10 %		10:59:22
3	Y 371.029	749676.7	749676.7	100.91 %		10:59:22
3	Ag 328.068†	-577.9	-971.0	0.4234 ug/L	0.4234 ppb	10:59:22
3	As 188.979†	-32.0	-4.2	4.4532 ug/L	4.4532 ppb	10:59:42
3	B 249.677†	39.6	-425.8	-10.487 ug/L	-10.487 ppb	10:59:42
3	Ba 233.527†	6544.9	6482.1	43.910 ug/L	43.910 ppb	10:59:42
3	Be 313.107†	-6723.6	-2055.2	0.2241 ug/L	0.2241 ppb	10:59:22
3	Cd 226.502†	-80.6	146.1	0.0608 ug/L	0.0608 ppb	10:59:42
3	Co 228.616†	220.2	302.5	4.0921 ug/L	4.0921 ppb	10:59:42
3	Cr 267.716†	845.0	736.6	7.6295 ug/L	7.6295 ppb	10:59:42
3	Cu 324.752†	10526.8	4324.9	12.775 ug/L	12.775 ppb	10:59:22
3	Mn 257.610†	295456.3	291740.0	286.18 ug/L	286.18 ppb	10:59:22
3	Mo 202.031†	36.8	10.8	1.9327 ug/L	1.9327 ppb	10:59:42
3	Ni 231.604†	424.0	317.1	6.8299 ug/L	6.8299 ppb	10:59:42
3	P 214.914†	1225.0	956.5	474.73 ug/L	474.73 ppb	10:59:42
3	Pb 220.353†	48.2	125.5	12.461 ug/L	12.461 ppb	10:59:42
3	S 181.975 Axial†	592.8	527.6	631.49 ug/L	631.49 ppb	10:59:42
3	Sb 206.836†	36.3	-6.5	-3.1751 ug/L	-3.1751 ppb	10:59:42
3	Se 196.026†	-104.4	-74.4	3.2034 ug/L	3.2034 ppb	10:59:42
3	Si 251.611†	65941.7	64562.1	1795.1 ug/L	1795.1 ppb	10:59:22
3	Sn 189.927†	-9.3	-11.0	-1.1752 ug/L	-1.1752 ppb	10:59:42
3	Ti 334.940†	322182.7	320136.3	461.17 ug/L	461.17 ppb	10:59:22
3	Tl 190.801†	-56.3	-9.9	2.6854 ug/L	2.6854 ppb	10:59:42
3	U 409.014†	-3233.5	-469.9	-14.751 ug/L	-14.751 ppb	10:59:22
3	V 292.402†	2093.4	3539.0	19.681 ug/L	19.681 ppb	10:59:42
3	Zn 213.857†	13444.7	12493.1	99.947 ug/L	99.947 ppb	10:59:22
3	SiO2†	66436.7	65026.6	3882.6 ug/L	3882.6 ppb	10:59:58

Mean Data: 242661016|932275|5

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	913842.3	101.60	%	0.434				0.43%
Sc Radial	5675.9	102	%	0.4				0.35%
Y 371.029	752888.1	101.34	%	0.379				0.37%
Y RADIAL	5986.7	102.1	%	0.31				0.30%
Ag 328.068†	-971.1	0.4135	ug/L	0.29384	0.4135	ppb	0.29384	71.06%
Al 396.153Radial†	4651.2	3266.9	ug/L	13.24	3266.9	ppb	13.24	0.41%
As 188.979†	-5.7	3.9315	ug/L	1.56345	3.9315	ppb	1.56345	39.77%
B 249.677†	-439.7	-10.767	ug/L	0.2551	-10.767	ppb	0.2551	2.37%
Ba 233.527†	6472.7	43.846	ug/L	0.0641	43.846	ppb	0.0641	0.15%
Be 313.107†	-2037.1	0.2294	ug/L	0.00496	0.2294	ppb	0.00496	2.16%
Ca 317.933Radial†	1700.7	2374.3	ug/L	12.80	2374.3	ppb	12.80	0.54%
Cd 226.502†	155.6	0.1556	ug/L	0.11555	0.1556	ppb	0.11555	74.28%
Co 228.616†	299.1	4.0334	ug/L	0.05241	4.0334	ppb	0.05241	1.30%
Cr 267.716†	735.8	7.6213	ug/L	0.06465	7.6213	ppb	0.06465	0.85%
Cu 324.752†	4286.9	12.667	ug/L	0.2823	12.667	ppb	0.2823	2.23%
Fe 238.204 Radial†	1698.8	13443	ug/L	39.8	13443	ppb	39.8	0.30%
K 766.490 Radial†	35418.2	6348.7	ug/L	20.09	6348.7	ppb	20.09	0.32%

Mg 279.077 IEC†	55.4	1661.1	ug/L	23.71	1661.1	ppb	23.71	1.43%
Mn 257.610†	292068.7	286.49	ug/L	0.472	286.49	ppb	0.472	0.16%
Mo 202.031†	4.5	1.5587	ug/L	0.56566	1.5587	ppb	0.56566	36.29%
Na 589.592 Radial†	60283.1	16474	ug/L	77.3	16474	ppb	77.3	0.47%
Ni 231.604†	313.6	6.7555	ug/L	0.14055	6.7555	ppb	0.14055	2.08%
P 214.914†	941.1	466.93	ug/L	6.800	466.93	ppb	6.800	1.46%
Pb 220.353†	124.1	12.321	ug/L	1.0177	12.321	ppb	1.0177	8.26%
S 181.975 Axial†	524.4	627.64	ug/L	3.571	627.64	ppb	3.571	0.57%
Sb 206.836†	-3.8	-2.4115	ug/L	0.77583	-2.4115	ppb	0.77583	32.17%
Se 196.026†	-74.2	3.2549	ug/L	0.17168	3.2549	ppb	0.17168	5.27%
Si 251.611†	64742.0	1800.1	ug/L	7.10	1800.1	ppb	7.10	0.39%
Sn 189.927†	-17.5	-2.1298	ug/L	0.94992	-2.1298	ppb	0.94992	44.60%
Sr 421.552†	2538.0	14.458	ug/L	0.0961	14.458	ppb	0.0961	0.66%
Ti 334.940†	319895.3	460.82	ug/L	0.592	460.82	ppb	0.592	0.13%
Tl 190.801†	-16.6	0.9895	ug/L	1.94639	0.9895	ppb	1.94639	196.71%
U 409.014†	-473.9	-14.860	ug/L	0.5446	-14.860	ppb	0.5446	3.66%
V 292.402†	3536.2	19.663	ug/L	0.1769	19.663	ppb	0.1769	0.90%
Zn 213.857†	12498.4	99.990	ug/L	0.1247	99.990	ppb	0.1247	0.12%
SiO2†	64677.0	3861.7	ug/L	19.27	3861.7	ppb	19.27	0.50%

Sequence No.: 8
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 12/20/2009 11:15:42
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	5570.5	5570.5	99.7	%			11:17:34
1	Y RADIAL	5811.2	5811.2	99.14	%			11:17:34
1	Al 396.153Radial†	6881.6	6915.9	4836.6	ug/L	4836.6	ppb	11:17:34
1	Ca 317.933Radial†	3572.8	3565.8	4978.2	ug/L	4978.2	ppb	11:17:54
1	Fe 238.204 Radial†	662.6	653.4	5185.6	ug/L	5185.6	ppb	11:17:54
1	K 766.490 Radial†	30419.9	27640.4	4953.9	ug/L	4953.9	ppb	11:17:34
1	Mg 279.077 IEC†	176.2	174.5	5270.9	ug/L	5270.9	ppb	11:17:54
1	Na 589.592 Radial†	35137.3	36504.6	9976.1	ug/L	9976.1	ppb	11:17:34
1	Sr 421.552†	86765.2	87024.4	496.45	ug/L	496.45	ppb	11:17:34
1	Sc 361.383	918317.6	918317.6	102.10	%			11:18:53
1	Y 371.029	744856.2	744856.2	100.26	%			11:18:53
1	Ag 328.068†	117606.8	114787.6	492.89	ug/L	492.89	ppb	11:18:53
1	As 188.979†	1384.2	1383.2	495.91	ug/L	495.91	ppb	11:19:13
1	B 249.677†	27964.5	26924.0	547.33	ug/L	547.33	ppb	11:18:53
1	Ba 233.527†	75319.8	73778.6	496.58	ug/L	496.58	ppb	11:18:53
1	Be 313.107†	1525414.7	1498623.5	498.33	ug/L	498.33	ppb	11:18:53
1	Cd 226.502†	52573.0	51717.0	496.65	ug/L	496.65	ppb	11:18:53
1	Co 228.616†	28667.0	28161.9	488.57	ug/L	488.57	ppb	11:19:13
1	Cr 267.716†	50688.2	49546.1	494.87	ug/L	494.87	ppb	11:18:53
1	Cu 324.752†	187103.6	177166.8	495.44	ug/L	495.44	ppb	11:18:53
1	Mn 257.610†	519149.9	507976.5	496.42	ug/L	496.42	ppb	11:18:53
1	Mo 202.031†	8438.5	8239.3	490.24	ug/L	490.24	ppb	11:19:13
1	Ni 231.604†	23368.1	22785.0	490.74	ug/L	490.74	ppb	11:19:13
1	P 214.914†	5174.5	4812.9	2372.6	ug/L	2372.6	ppb	11:19:13
1	Pb 220.353†	4843.1	4821.3	494.81	ug/L	494.81	ppb	11:19:13
1	S 181.975 Axial†	903.3	825.9	988.56	ug/L	988.56	ppb	11:19:13
1	Sb 206.836†	1722.1	1644.3	492.12	ug/L	492.12	ppb	11:19:13
1	Se 196.026†	900.4	910.7	504.52	ug/L	504.52	ppb	11:19:13
1	Si 251.611†	90984.1	88452.2	2450.6	ug/L	2450.6	ppb	11:18:53
1	Sn 189.927†	3403.8	3331.9	487.92	ug/L	487.92	ppb	11:19:13
1	Ti 334.940†	347099.6	341427.9	491.58	ug/L	491.58	ppb	11:18:53
1	Tl 190.801†	1922.6	1928.9	495.39	ug/L	495.39	ppb	11:19:13
1	U 409.014†	14818.0	17241.5	476.94	ug/L	476.94	ppb	11:18:53
1	V 292.402†	78427.4	78282.1	498.03	ug/L	498.03	ppb	11:18:53
1	Zn 213.857†	63556.6	61444.0	491.38	ug/L	491.38	ppb	11:18:53
1	SiO2†	90875.2	88320.5	5254.4	ug/L	5254.4	ppb	11:20:14
2	Sc Radial	5510.0	5510.0	98.6	%			11:17:59
2	Y RADIAL	5755.9	5755.9	98.20	%			11:17:59
2	Al 396.153Radial†	6799.9	6908.8	4831.6	ug/L	4831.6	ppb	11:17:59
2	Ca 317.933Radial†	3593.1	3625.8	5061.8	ug/L	5061.8	ppb	11:18:19
2	Fe 238.204 Radial†	661.4	659.5	5233.9	ug/L	5233.9	ppb	11:18:19
2	K 766.490 Radial†	30125.8	27677.0	4960.5	ug/L	4960.5	ppb	11:17:59
2	Mg 279.077 IEC†	175.7	175.9	5315.0	ug/L	5315.0	ppb	11:18:19
2	Na 589.592 Radial†	34755.3	36504.0	9976.0	ug/L	9976.0	ppb	11:17:59
2	Sr 421.552†	85926.8	87129.5	497.05	ug/L	497.05	ppb	11:17:59
2	Sc 361.383	917417.9	917417.9	102.00	%			11:19:21
2	Y 371.029	744435.3	744435.3	100.21	%			11:19:21
2	Ag 328.068†	117770.1	115060.7	494.07	ug/L	494.07	ppb	11:19:21
2	As 188.979†	1386.5	1386.8	497.22	ug/L	497.22	ppb	11:19:41
2	B 249.677†	28004.9	26990.6	548.67	ug/L	548.67	ppb	11:19:21
2	Ba 233.527†	75257.2	73789.6	496.66	ug/L	496.66	ppb	11:19:21
2	Be 313.107†	1525660.4	1500329.6	498.90	ug/L	498.90	ppb	11:19:21
2	Cd 226.502†	52539.4	51734.6	496.81	ug/L	496.81	ppb	11:19:21
2	Co 228.616†	28764.0	28284.5	490.70	ug/L	490.70	ppb	11:19:41
2	Cr 267.716†	50658.1	49565.2	495.06	ug/L	495.06	ppb	11:19:21
2	Cu 324.752†	187311.8	177550.6	496.52	ug/L	496.52	ppb	11:19:21
2	Mn 257.610†	519691.0	509005.7	497.43	ug/L	497.43	ppb	11:19:21
2	Mo 202.031†	8451.1	8259.8	491.46	ug/L	491.46	ppb	11:19:41
2	Ni 231.604†	23421.1	22859.4	492.34	ug/L	492.34	ppb	11:19:41

2	P 214.914†	5199.7	4842.6	2387.5 ug/L	2387.5 ppb	11:19:41
2	Pb 220.353†	4854.9	4837.5	496.46 ug/L	496.46 ppb	11:19:41
2	S 181.975 Axial†	892.4	816.2	976.90 ug/L	976.90 ppb	11:19:41
2	Sb 206.836†	1715.1	1639.0	490.64 ug/L	490.64 ppb	11:19:41
2	Se 196.026†	906.5	917.5	508.33 ug/L	508.33 ppb	11:19:41
2	Si 251.611†	91052.4	88606.5	2454.8 ug/L	2454.8 ppb	11:19:21
2	Sn 189.927†	3419.0	3350.1	490.59 ug/L	490.59 ppb	11:19:41
2	Ti 334.940†	346930.7	341595.6	491.82 ug/L	491.82 ppb	11:19:21
2	Tl 190.801†	1909.3	1917.6	492.51 ug/L	492.51 ppb	11:19:41
2	U 409.014†	14730.6	17170.1	474.95 ug/L	474.95 ppb	11:19:21
2	V 292.402†	78543.3	78471.1	499.23 ug/L	499.23 ppb	11:19:21
2	Zn 213.857†	63627.1	61574.2	492.41 ug/L	492.41 ppb	11:19:21
2	SiO2†	89970.7	87520.9	5206.5 ug/L	5206.5 ppb	11:20:19
3	Sc Radial	5637.4	5637.4	101 %		11:18:24
3	Y RADIAL	5887.7	5887.7	100.4 %		11:18:24
3	Al 396.153Radial†	6960.2	6911.9	4833.8 ug/L	4833.8 ppb	11:18:24
3	Ca 317.933Radial†	3533.3	3484.1	4864.1 ug/L	4864.1 ppb	11:18:44
3	Fe 238.204 Radial†	651.8	634.8	5038.8 ug/L	5038.8 ppb	11:18:44
3	K 766.490 Radial†	30783.6	27638.8	4953.6 ug/L	4953.6 ppb	11:18:24
3	Mg 279.077 IEC†	171.3	167.5	5062.1 ug/L	5062.1 ppb	11:18:44
3	Na 589.592 Radial†	35463.6	36409.8	9950.2 ug/L	9950.2 ppb	11:18:24
3	Sr 421.552†	87691.2	86909.5	495.79 ug/L	495.79 ppb	11:18:24
3	Sc 361.383	920144.4	920144.4	102.30 %		11:19:48
3	Y 371.029	744791.7	744791.7	100.25 %		11:19:48
3	Ag 328.068†	118287.0	115223.8	494.71 ug/L	494.71 ppb	11:19:48
3	As 188.979†	1400.4	1396.3	500.59 ug/L	500.59 ppb	11:20:08
3	B 249.677†	27947.7	26853.3	545.90 ug/L	545.90 ppb	11:19:48
3	Ba 233.527†	75748.4	74051.1	498.41 ug/L	498.41 ppb	11:19:48
3	Be 313.107†	1531193.5	1501306.0	499.23 ug/L	499.23 ppb	11:19:48
3	Cd 226.502†	53018.9	52050.7	499.87 ug/L	499.87 ppb	11:19:48
3	Co 228.616†	28755.3	28192.5	489.10 ug/L	489.10 ppb	11:20:08
3	Cr 267.716†	50958.0	49711.2	496.52 ug/L	496.52 ppb	11:19:48
3	Cu 324.752†	188415.5	178085.3	498.00 ug/L	498.00 ppb	11:19:48
3	Mn 257.610†	523066.5	510795.5	499.16 ug/L	499.16 ppb	11:19:48
3	Mo 202.031†	8451.7	8235.8	490.02 ug/L	490.02 ppb	11:20:08
3	Ni 231.604†	23401.0	22771.7	490.45 ug/L	490.45 ppb	11:20:08
3	P 214.914†	5203.5	4831.1	2381.6 ug/L	2381.6 ppb	11:20:08
3	Pb 220.353†	4845.0	4813.7	494.04 ug/L	494.04 ppb	11:20:08
3	S 181.975 Axial†	892.5	813.6	973.82 ug/L	973.82 ppb	11:20:08
3	Sb 206.836†	1712.9	1631.9	488.43 ug/L	488.43 ppb	11:20:08
3	Se 196.026†	920.9	929.0	513.82 ug/L	513.82 ppb	11:20:08
3	Si 251.611†	91766.3	89039.9	2466.9 ug/L	2466.9 ppb	11:19:48
3	Sn 189.927†	3414.5	3335.8	488.47 ug/L	488.47 ppb	11:20:08
3	Ti 334.940†	349010.8	342621.2	493.29 ug/L	493.29 ppb	11:19:48
3	Tl 190.801†	1914.6	1917.3	492.46 ug/L	492.46 ppb	11:20:08
3	U 409.014†	14707.2	17104.4	473.15 ug/L	473.15 ppb	11:19:48
3	V 292.402†	78992.8	78682.3	500.55 ug/L	500.55 ppb	11:19:48
3	Zn 213.857†	64102.0	61853.6	494.70 ug/L	494.70 ppb	11:19:48
3	SiO2†	90326.7	87607.6	5211.8 ug/L	5211.8 ppb	11:20:24

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	918626.6	102.14	%	0.154				0.15%
Sc Radial	5572.7	99.7	%	1.14				1.14%
Y 371.029	744694.4	100.24	%	0.031				0.03%
Y RADIAL	5818.3	99.26	%	1.129				1.14%
Ag 328.068†	115024.1	493.89	ug/L	0.927	493.89	ppb	0.927	0.19%
QC value within limits for Ag 328.068 Recovery = 98.78%								
Al 396.153Radial†	6912.2	4834.0	ug/L	2.51	4834.0	ppb	2.51	0.05%
QC value within limits for Al 396.153Radial Recovery = 96.68%								
As 188.979†	1388.8	497.91	ug/L	2.415	497.91	ppb	2.415	0.49%
QC value within limits for As 188.979 Recovery = 99.58%								
B 249.677†	26922.6	547.30	ug/L	1.385	547.30	ppb	1.385	0.25%
QC value within limits for B 249.677 Recovery = 109.46%								
Ba 233.527†	73873.1	497.22	ug/L	1.036	497.22	ppb	1.036	0.21%
QC value within limits for Ba 233.527 Recovery = 99.44%								
Be 313.107†	1500086.4	498.82	ug/L	0.452	498.82	ppb	0.452	0.09%
QC value within limits for Be 313.107 Recovery = 99.76%								
Ca 317.933Radial†	3558.6	4968.1	ug/L	99.25	4968.1	ppb	99.25	2.00%

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   QC value within limits for Ca 317.933Radial  Recovery = 99.36%
Cd 226.502†            51834.1      497.78 ug/L        1.813      497.78 ppb        1.813   0.36%
   QC value within limits for Cd 226.502  Recovery = 99.56%
Co 228.616†            28212.9      489.45 ug/L        1.108      489.45 ppb        1.108   0.23%
   QC value within limits for Co 228.616  Recovery = 97.89%
Cr 267.716†            49607.5      495.48 ug/L        0.902      495.48 ppb        0.902   0.18%
   QC value within limits for Cr 267.716  Recovery = 99.10%
Cu 324.752†           177600.9      496.65 ug/L        1.285      496.65 ppb        1.285   0.26%
   QC value within limits for Cu 324.752  Recovery = 99.33%
Fe 238.204 Radial†       649.2      5152.8 ug/L       101.64      5152.8 ppb       101.64   1.97%
   QC value within limits for Fe 238.204 Radial  Recovery = 103.06%
K 766.490 Radial†      27652.1      4956.0 ug/L         3.88      4956.0 ppb         3.88   0.08%
   QC value within limits for K 766.490 Radial  Recovery = 99.12%
Mg 279.077 IEC†          172.6      5216.0 ug/L       135.09      5216.0 ppb       135.09   2.59%
   QC value within limits for Mg 279.077 IEC  Recovery = 104.32%
Mn 257.610†           509259.2      497.67 ug/L        1.387      497.67 ppb        1.387   0.28%
   QC value within limits for Mn 257.610  Recovery = 99.53%
Mo 202.031†             8245.0      490.58 ug/L        0.777      490.58 ppb        0.777   0.16%
   QC value within limits for Mo 202.031  Recovery = 98.12%
Na 589.592 Radial†     36472.8      9967.4 ug/L       14.92      9967.4 ppb       14.92   0.15%
   QC value within limits for Na 589.592 Radial  Recovery = 99.67%
Ni 231.604†            22805.4      491.17 ug/L        1.018      491.17 ppb        1.018   0.21%
   QC value within limits for Ni 231.604  Recovery = 98.23%
P 214.914†              4828.9      2380.6 ug/L        7.51      2380.6 ppb         7.51   0.32%
   QC value within limits for P 214.914  Recovery = 95.22%
Pb 220.353†             4824.2      495.10 ug/L        1.238      495.10 ppb        1.238   0.25%
   QC value within limits for Pb 220.353  Recovery = 99.02%
S 181.975 Axial†         818.6      979.76 ug/L        7.774      979.76 ppb        7.774   0.79%
   QC value within limits for S 181.975 Axial  Recovery = 97.98%
Sb 206.836†             1638.4      490.40 ug/L        1.854      490.40 ppb        1.854   0.38%
   QC value within limits for Sb 206.836  Recovery = 98.08%
Se 196.026†              919.1      508.89 ug/L        4.671      508.89 ppb        4.671   0.92%
   QC value within limits for Se 196.026  Recovery = 101.78%
Si 251.611†            88699.5      2457.4 ug/L        8.49      2457.4 ppb         8.49   0.35%
   QC value within limits for Si 251.611  Recovery = 98.30%
Sn 189.927†             3339.3      488.99 ug/L        1.408      488.99 ppb        1.408   0.29%
   QC value within limits for Sn 189.927  Recovery = 97.80%
Sr 421.552†            87021.1      496.43 ug/L        0.627      496.43 ppb        0.627   0.13%
   QC value within limits for Sr 421.552  Recovery = 99.29%
Ti 334.940†           341881.6      492.23 ug/L        0.926      492.23 ppb        0.926   0.19%
   QC value within limits for Ti 334.940  Recovery = 98.45%
Tl 190.801†             1921.2      493.46 ug/L        1.678      493.46 ppb        1.678   0.34%
   QC value within limits for Tl 190.801  Recovery = 98.69%
U 409.014†             17172.0      475.02 ug/L        1.896      475.02 ppb        1.896   0.40%
   QC value within limits for U 409.014  Recovery = 95.00%
V 292.402†             78478.5      499.27 ug/L        1.259      499.27 ppb        1.259   0.25%
   QC value within limits for V 292.402  Recovery = 99.85%
Zn 213.857†            61623.9      492.83 ug/L        1.697      492.83 ppb        1.697   0.34%
   QC value within limits for Zn 213.857  Recovery = 98.57%
SiO2†                  87816.3      5224.2 ug/L       26.25      5224.2 ppb       26.25   0.50%
   QC value within limits for SiO2  Recovery = 97.69%
All analyte(s) passed QC.
```

Sequence No.: 9
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 12/20/2009 11:22:34
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	5650.3	5650.3	101	%			11:24:27
1	Y RADIAL	5949.1	5949.1	101.5	%			11:24:27
1	Al 396.153Radial†	-15.5	-2.0	-1.4658	ug/L	-1.4658	ppb	11:24:27
1	Ca 317.933Radial†	17.8	-0.3	-0.4224	ug/L	-0.4224	ppb	11:24:47
1	Fe 238.204 Radial†	12.4	1.0	8.2564	ug/L	8.2564	ppb	11:24:47
1	K 766.490 Radial†	3095.5	188.8	33.921	ug/L	33.921	ppb	11:24:27
1	Mg 279.077 IEC†	3.3	1.0	28.940	ug/L	28.940	ppb	11:24:47
1	Na 589.592 Radial†	-1458.3	-182.1	-49.755	ug/L	-49.755	ppb	11:24:27
1	Sr 421.552†	-22.5	-27.9	-0.1591	ug/L	-0.1591	ppb	11:24:27
1	Sc 361.383	889609.7	889609.7	98.909	%			11:25:43
1	Y 371.029	736233.4	736233.4	99.103	%			11:25:43
1	Ag 328.068†	345.6	-50.0	-0.2081	ug/L	-0.2081	ppb	11:25:43
1	As 188.979†	-31.8	-4.7	-1.6706	ug/L	-1.6706	ppb	11:26:03
1	B 249.677†	1929.2	1485.5	30.302	ug/L	30.302	ppb	11:25:43
1	Ba 233.527†	-1.6	7.0	0.0462	ug/L	0.0462	ppb	11:26:03
1	Be 313.107†	-4505.2	40.2	0.0132	ug/L	0.0132	ppb	11:25:43
1	Cd 226.502†	-220.0	3.3	0.0314	ug/L	0.0314	ppb	11:26:03
1	Co 228.616†	-69.4	14.5	0.2549	ug/L	0.2549	ppb	11:26:03
1	Cr 267.716†	95.4	-2.7	-0.0263	ug/L	-0.0263	ppb	11:26:03
1	Cu 324.752†	6111.9	92.3	0.2583	ug/L	0.2583	ppb	11:25:43
1	Mn 257.610†	543.1	57.6	0.0565	ug/L	0.0565	ppb	11:26:03
1	Mo 202.031†	42.3	17.2	1.0254	ug/L	1.0254	ppb	11:26:03
1	Ni 231.604†	131.6	30.8	0.6643	ug/L	0.6643	ppb	11:26:03
1	P 214.914†	243.5	-8.9	-4.5919	ug/L	-4.5919	ppb	11:26:03
1	Pb 220.353†	-81.7	-4.8	-0.4888	ug/L	-0.4888	ppb	11:26:03
1	S 181.975 Axial†	53.6	-4.6	-5.4701	ug/L	-5.4701	ppb	11:26:03
1	Sb 206.836†	46.3	4.4	1.3222	ug/L	1.3222	ppb	11:26:03
1	Se 196.026†	-28.3	0.2	0.1304	ug/L	0.1304	ppb	11:26:03
1	Si 251.611†	689.5	37.3	1.0077	ug/L	1.0077	ppb	11:26:03
1	Sn 189.927†	4.0	2.2	0.3256	ug/L	0.3256	ppb	11:26:03
1	Ti 334.940†	-1491.0	-37.4	-0.0518	ug/L	-0.0518	ppb	11:25:43
1	Tl 190.801†	-39.7	5.7	1.4499	ug/L	1.4499	ppb	11:26:03
1	U 409.014†	-2867.1	-170.4	-4.7309	ug/L	-4.7309	ppb	11:25:43
1	V 292.402†	-1522.3	-70.7	-0.4389	ug/L	-0.4389	ppb	11:25:43
1	Zn 213.857†	837.5	41.9	0.3316	ug/L	0.3316	ppb	11:26:03
1	SiO2†	725.0	48.0	2.8053	ug/L	2.8053	ppb	11:26:59
2	Sc Radial	5607.3	5607.3	100	%			11:24:52
2	Y RADIAL	5847.9	5847.9	99.77	%			11:24:52
2	Al 396.153Radial†	-35.3	-21.8	-15.344	ug/L	-15.344	ppb	11:24:52
2	Ca 317.933Radial†	22.0	4.0	5.6031	ug/L	5.6031	ppb	11:25:12
2	Fe 238.204 Radial†	12.7	1.5	11.829	ug/L	11.829	ppb	11:25:12
2	K 766.490 Radial†	3024.3	141.3	25.374	ug/L	25.374	ppb	11:24:52
2	Mg 279.077 IEC†	3.8	1.6	46.905	ug/L	46.905	ppb	11:25:12
2	Na 589.592 Radial†	-1349.0	-84.3	-23.028	ug/L	-23.028	ppb	11:24:52
2	Sr 421.552†	9.2	3.6	0.0202	ug/L	0.0202	ppb	11:24:52
2	Sc 361.383	890261.5	890261.5	98.981	%			11:26:09
2	Y 371.029	736919.4	736919.4	99.195	%			11:26:09
2	Ag 328.068†	297.7	-98.6	-0.4178	ug/L	-0.4178	ppb	11:26:09
2	As 188.979†	-16.4	10.9	3.8485	ug/L	3.8485	ppb	11:26:29
2	B 249.677†	1851.9	1405.9	28.680	ug/L	28.680	ppb	11:26:09
2	Ba 233.527†	-4.0	4.5	0.0286	ug/L	0.0286	ppb	11:26:29
2	Be 313.107†	-4525.2	23.3	0.0076	ug/L	0.0076	ppb	11:26:09
2	Cd 226.502†	-238.0	-14.7	-0.1421	ug/L	-0.1421	ppb	11:26:29
2	Co 228.616†	-76.8	7.1	0.1230	ug/L	0.1230	ppb	11:26:29
2	Cr 267.716†	106.5	8.4	0.0831	ug/L	0.0831	ppb	11:26:29
2	Cu 324.752†	6152.3	128.6	0.3600	ug/L	0.3600	ppb	11:26:09
2	Mn 257.610†	520.2	34.0	0.0335	ug/L	0.0335	ppb	11:26:29
2	Mo 202.031†	25.7	0.4	0.0233	ug/L	0.0233	ppb	11:26:29
2	Ni 231.604†	123.2	22.2	0.4783	ug/L	0.4783	ppb	11:26:29

2	P 214.914†	256.8	4.3	2.1196 ug/L	2.1196 ppb	11:26:29
2	Pb 220.353†	-69.7	7.4	0.7490 ug/L	0.7490 ppb	11:26:29
2	S 181.975 Axial†	54.9	-3.3	-3.9854 ug/L	-3.9854 ppb	11:26:29
2	Sb 206.836†	37.6	-4.4	-1.3202 ug/L	-1.3202 ppb	11:26:29
2	Se 196.026†	-27.3	1.2	0.6956 ug/L	0.6956 ppb	11:26:29
2	Si 251.611†	683.3	30.4	0.8401 ug/L	0.8401 ppb	11:26:29
2	Sn 189.927†	-1.2	-3.0	-0.4435 ug/L	-0.4435 ppb	11:26:29
2	Ti 334.940†	-1498.3	-43.7	-0.0614 ug/L	-0.0614 ppb	11:26:09
2	Tl 190.801†	-41.7	3.6	0.9240 ug/L	0.9240 ppb	11:26:29
2	U 409.014†	-2797.8	-98.3	-2.7287 ug/L	-2.7287 ppb	11:26:09
2	V 292.402†	-1592.6	-140.5	-0.8881 ug/L	-0.8881 ppb	11:26:09
2	Zn 213.857†	838.7	42.5	0.3371 ug/L	0.3371 ppb	11:26:29
2	SiO2†	689.2	11.3	0.6606 ug/L	0.6606 ppb	11:27:05
3	Sc Radial	5623.7	5623.7	101 %		11:25:17
3	Y RADIAL	5848.2	5848.2	99.77 %		11:25:17
3	Al 396.153Radial†	-29.9	-16.4	-11.525 ug/L	-11.525 ppb	11:25:17
3	Ca 317.933Radial†	24.8	6.8	9.4972 ug/L	9.4972 ppb	11:25:37
3	Fe 238.204 Radial†	10.2	-1.1	-8.3809 ug/L	-8.3809 ppb	11:25:37
3	K 766.490 Radial†	2937.1	45.8	8.2351 ug/L	8.2351 ppb	11:25:17
3	Mg 279.077 IEC†	0.1	-2.2	-66.850 ug/L	-66.850 ppb	11:25:37
3	Na 589.592 Radial†	-1321.8	-53.3	-14.562 ug/L	-14.562 ppb	11:25:17
3	Sr 421.552†	-27.5	-32.9	-0.1881 ug/L	-0.1881 ppb	11:25:17
3	Sc 361.383	900897.0	900897.0	100.16 %		11:26:34
3	Y 371.029	746183.9	746183.9	100.44 %		11:26:34
3	Ag 328.068†	408.8	8.7	0.0322 ug/L	0.0322 ppb	11:26:34
3	As 188.979†	-24.9	2.6	0.9242 ug/L	0.9242 ppb	11:26:54
3	B 249.677†	1874.4	1406.3	28.689 ug/L	28.689 ppb	11:26:34
3	Ba 233.527†	5.4	14.0	0.0920 ug/L	0.0920 ppb	11:26:54
3	Be 313.107†	-4522.4	80.1	0.0265 ug/L	0.0265 ppb	11:26:34
3	Cd 226.502†	-224.4	1.7	0.0175 ug/L	0.0175 ppb	11:26:54
3	Co 228.616†	-72.1	12.8	0.2225 ug/L	0.2225 ppb	11:26:54
3	Cr 267.716†	119.9	20.5	0.2036 ug/L	0.2036 ppb	11:26:54
3	Cu 324.752†	6144.7	47.6	0.1327 ug/L	0.1327 ppb	11:26:34
3	Mn 257.610†	513.7	21.3	0.0213 ug/L	0.0213 ppb	11:26:54
3	Mo 202.031†	30.8	5.2	0.3063 ug/L	0.3063 ppb	11:26:54
3	Ni 231.604†	127.2	24.7	0.5318 ug/L	0.5318 ppb	11:26:54
3	P 214.914†	251.0	-4.6	-2.3537 ug/L	-2.3537 ppb	11:26:54
3	Pb 220.353†	-79.1	-1.2	-0.1198 ug/L	-0.1198 ppb	11:26:54
3	S 181.975 Axial†	59.0	0.1	0.1643 ug/L	0.1643 ppb	11:26:54
3	Sb 206.836†	35.3	-7.2	-2.0985 ug/L	-2.0985 ppb	11:26:54
3	Se 196.026†	-20.3	8.5	4.4968 ug/L	4.4968 ppb	11:26:54
3	Si 251.611†	663.1	2.1	0.0490 ug/L	0.0490 ppb	11:26:54
3	Sn 189.927†	6.3	4.5	0.6613 ug/L	0.6613 ppb	11:26:54
3	Ti 334.940†	-1488.9	-16.4	-0.0225 ug/L	-0.0225 ppb	11:26:34
3	Tl 190.801†	-35.7	10.1	2.5848 ug/L	2.5848 ppb	11:26:54
3	U 409.014†	-2789.8	-56.9	-1.5784 ug/L	-1.5784 ppb	11:26:34
3	V 292.402†	-1613.5	-142.4	-0.8931 ug/L	-0.8931 ppb	11:26:34
3	Zn 213.857†	824.7	18.5	0.1488 ug/L	0.1488 ppb	11:26:54
3	SiO2†	676.7	-9.4	-0.5844 ug/L	-0.5844 ppb	11:27:10

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	893589.4	99.351	%	0.7046				0.71%
Sc Radial	5627.1	101	%	0.4				0.39%
Y 371.029	739778.9	99.580	%	0.7481				0.75%
Y RADIAL	5881.7	100.3	%	0.99				0.99%
Ag 328.068†	-46.6	-0.1979	ug/L	0.22515	-0.1979	ppb	0.22515	113.76%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-13.4	-9.4450	ug/L	7.16917	-9.4450	ppb	7.16917	75.90%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	3.0	1.0340	ug/L	2.76121	1.0340	ppb	2.76121	267.04%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	1432.6	29.224	ug/L	0.9343	29.224	ppb	0.9343	3.20%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	8.5	0.0556	ug/L	0.03272	0.0556	ppb	0.03272	58.86%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	47.9	0.0158	ug/L	0.00971	0.0158	ppb	0.00971	61.48%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	3.5	4.8926	ug/L	4.99786	4.8926	ppb	4.99786	102.15%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              -3.2     -0.0311 ug/L       0.09640     -0.0311 ppb        0.09640 310.38%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†              11.5      0.2001 ug/L       0.06874      0.2001 ppb        0.06874  34.35%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†               8.7      0.0868 ug/L       0.11498      0.0868 ppb        0.11498 132.49%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              89.5      0.2503 ug/L       0.11386      0.2503 ppb        0.11386  45.48%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        0.5      3.9015 ug/L      10.78579      3.9015 ppb       10.78579 276.46%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       125.3      22.510 ug/L       13.0803      22.510 ppb        13.0803  58.11%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           0.1      2.9983 ug/L      61.15358      2.9983 ppb       61.15358 >999.9%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              37.6      0.0371 ug/L       0.01789      0.0371 ppb        0.01789  48.25%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               7.6      0.4517 ug/L       0.51663      0.4517 ppb        0.51663 114.38%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†     -106.5     -29.115 ug/L       18.3688     -29.115 ppb        18.3688  63.09%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              25.9      0.5581 ug/L       0.09580      0.5581 ppb        0.09580  17.16%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -3.1     -1.6087 ug/L       3.41723     -1.6087 ppb        3.41723 212.42%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               0.5      0.0468 ug/L       0.63550      0.0468 ppb        0.63550 >999.9%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         -2.6     -3.0971 ug/L       2.92035     -3.0971 ppb        2.92035  94.29%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -2.4     -0.6988 ug/L       1.79304     -0.6988 ppb        1.79304 256.57%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               3.3      1.7743 ug/L       2.37466      1.7743 ppb        2.37466 133.84%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†              23.3      0.6323 ug/L       0.51199      0.6323 ppb        0.51199  80.98%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               1.2      0.1812 ug/L       0.56639      0.1812 ppb        0.56639 312.64%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             -19.1     -0.1090 ug/L       0.11283     -0.1090 ppb        0.11283 103.53%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             -32.5     -0.0452 ug/L       0.02027     -0.0452 ppb        0.02027  44.82%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               6.5      1.6529 ug/L       0.84879      1.6529 ppb        0.84879  51.35%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†             -108.5     -3.0126 ug/L       1.59535     -3.0126 ppb        1.59535  52.96%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†             -117.9     -0.7400 ug/L       0.26080     -0.7400 ppb        0.26080  35.24%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              34.3      0.2725 ug/L       0.10719      0.2725 ppb        0.10719  39.34%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                    16.7      0.9605 ug/L       1.71463      0.9605 ppb        1.71463 178.52%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Daily Performance Report

Sample ID: Sample
Sample Date/Time: Thursday, December 31, 2009 11:09:45
Sample Description:
Method File: c:\elandata\Method\daily2.mth
Dataset File: c:\elandata\Dataset\090811\Sample.341
Tuning File: c:\elandata\Tuning\default2.tun
Optimization File: c:\elandata\Optimize\default.dac
Dual Detector Mode: Pulse

Acq. Dead Time(ns): 35
Current Dead Time (ns): 35

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Be	9.0	787.2	787.222	23.521	3.0
	Mg	24.0	17954.7	17954.679	328.562	1.8
	Co	58.9	52662.5	52662.500	638.671	1.2
	Rh	102.9	85840.8	85840.751	876.424	1.0
	In	114.9	107225.9	107225.935	1057.281	1.0
	Pb	208.0	59486.6	59486.611	738.160	1.2
⌈>	Ba	137.9	92930.2	92930.213	918.587	1.0
⌊	Ba++	69.0	1974.5	0.021	0.000	1.1
⌈>	Ce	139.9	110614.8	110614.809	682.543	0.6
⌊	CeO	155.9	2629.3	0.024	0.001	2.3
	Bkgd	220.0	6.9	6.900	1.557	22.6

Current Optimization File Data

Current Value	Description
0.84	Nebulizer Gas Flow
6.00	Lens Voltage
1000.00	ICP RF Power
-1875.00	Analog Stage Voltage
1100.00	Pulse Stage Voltage
50.00	Discriminator Threshold
-2.00	AC Rod Offset

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	21	7.5	894.7
Co	59	21	8.5	32687.7
In	115	21	10.0	82053.3

ICPMS #4 TUNING REPORT

File Name: default2.tun
File Path: c:\elandata\Tuning

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas Peak W
He	3.0	3.0	607	2060	0.696
Be	9.0	9.1	2058	2055	0.648
Mg	24.0	24.0	5683	2065	0.642
Mg	25.0	25.1	5957	2070	0.630
Mg	26.0	26.0	6169	2085	0.633
Co	58.9	59.0	14186	2120	0.689
Rh	102.9	102.9	24869	2220	0.692
In	114.9	115.0	27784	2255	0.667
Ce	139.9	139.9	33855	2300	0.685
Pb	206.0	206.0	49932	2460	0.699
Pb	207.0	207.0	50125	2380	0.660
Pb	208.0	208.0	50436	2490	0.762
U	238.1	238.1	57706	2480	0.753

ICPMS#4 - Summary Report

Sample ID: Blank
Sample Date/Time: Thursday, December 31, 2009 16:31:20
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\091231\Blank.117

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7		ug/L		20	
	Be	9		ug/L		2	
	B	11		ug/L		50	
	Na	23		ug/L		17678	
	Mg	24		ug/L		2334	
	Al	27		ug/L		3000	
	P	31		ug/L		2286	
	K	39		ug/L		384440	
	Ca	43		ug/L		472	
>	Sc	45		ug/L		892416	
	Ti	47		ug/L		178	
	V	51		ug/L		7826	
	Cr	52		ug/L		836	
	Cr	53		ug/L		151538	
	Mn	55		ug/L		859	
	Fe	57		ug/L		4451	
	Co	59		ug/L		137	
	Ni	60		ug/L		45	
	Cu	63		ug/L		91	
	Cu	65		ug/L		65	
	Zn	66		ug/L		85	
	Zn	67		ug/L		6405	
	Zn	68		ug/L		536	
>	Ge	74		ug/L		125160	
	As	75		ug/L		575	
	Se	77		ug/L		4974	
	Se	82		ug/L		-16	
	Kr	83		ug/L		55	
	Sr	88		ug/L		123	
	Y	89		ug/L		12	
	Zr	90		ug/L		151	
	Mo	98		ug/L		34	
	Ag	107		ug/L		54	
	Cd	111		ug/L		9	
	Cd	114		ug/L		27	
>	In	115		ug/L		69432	
	Sn	120		ug/L		105	
	Sb	121		ug/L		134	
	Sb	123		ug/L		126	
	Ba	135		ug/L		18	
	Ba	137		ug/L		22	
	Ho	165		ug/L		11	
>	Lu	175		ug/L		77149	
	Tl	205		ug/L		121	
	Pb	208		ug/L		294	
	Bi	209		ug/L		21	
	Th	232		ug/L		196	
	U	238		ug/L		108	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	
Be	9	Linear Thru Zero	
B	11	Simple Linear	
Na	23	Simple Linear	
Mg	24	Simple Linear	
Al	27	Simple Linear	
P	31	Simple Linear	
K	39	Simple Linear	
Ca	43	Simple Linear	
Sc	45	Linear Thru Zero	
Ti	47	Simple Linear	
V	51	Simple Linear	
Cr	52	Simple Linear	
Cr	53	Simple Linear	
Mn	55	Simple Linear	
Fe	57	Simple Linear	
Co	59	Simple Linear	
Ni	60	Linear Thru Zero	
Cu	63	Simple Linear	
Cu	65	Simple Linear	
Zn	66	Simple Linear	
Zn	67	Simple Linear	
Zn	68	Simple Linear	
Ge	74	Simple Linear	
As	75	Simple Linear	
Se	77	Simple Linear	
Se	82	Simple Linear	
Kr	83	Simple Linear	
Sr	88	Simple Linear	
Y	89	Simple Linear	
Zr	90	Simple Linear	
Mo	98	Simple Linear	
Ag	107	Simple Linear	
Cd	111	Simple Linear	
Cd	114	Simple Linear	
In	115	Simple Linear	
Sn	120	Simple Linear	
Sb	121	Simple Linear	
Sb	123	Simple Linear	
Ba	135	Simple Linear	
Ba	137	Simple Linear	
Ho	165	Simple Linear	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	
Pb	208	Simple Linear	
Bi	209	Simple Linear	
Th	232	Simple Linear	
U	238	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45					
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115					
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175					
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Thursday, December 31, 2009 16:37:31
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\091231\Standard 1.118

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	10.000	ug/L	1.078	1980	0.002
	Be	9	10.000	ug/L	4.817	516	0.001
	B	11	20.000	ug/L	2.148	935	0.001
	Na	23	1000.000	ug/L	4.425	1081829	1.168
	Mg	24	1000.000	ug/L	1.400	786760	0.861
	Al	27	1000.000	ug/L	10.890	1099290	1.204
	P	31	1000.000	ug/L	1.406	61897	0.065
	K	39	1000.000	ug/L	10.801	2525639	2.342
	Ca	43	1000.000	ug/L	3.786	4559	0.004
>	Sc	45		ug/L		911040	911039.812
	Ti	47	10.000	ug/L	2.606	2042	0.002
	V	51	10.000	ug/L	37.672	21013	0.014
	Cr	52	10.000	ug/L	2.484	20052	0.021
	Cr	53		ug/L		150110	-0.005
	Mn	55	10.000	ug/L	1.414	31371	0.033
	Fe	57	1000.000	ug/L	1.072	66685	0.068
	Co	59	10.000	ug/L	0.678	23562	0.026
	Ni	60	10.000	ug/L	2.037	4896	0.005
	Cu	63		ug/L		11095	0.012
	Cu	65	10.000	ug/L	2.240	5319	0.006
	Zn	66	10.000	ug/L	0.786	2886	0.022
	Zn	67		ug/L		6651	0.001
	Zn	68		ug/L		2477	0.015
>	Ge	74		ug/L		127252	127251.611
	As	75	10.000	ug/L	16.753	3429	0.022
	Se	77		ug/L		5295	0.002
	Se	82	10.000	ug/L	5.137	286	0.002
	Kr	83		ug/L		48	-0.000
	Sr	88	10.000	ug/L	0.773	44850	0.629
	Y	89		ug/L		22	0.000
	Zr	90	10.000	ug/L	0.328	23713	0.331
	Mo	98	10.000	ug/L	0.124	10029	0.141
	Ag	107	10.000	ug/L	1.827	15735	0.221
	Cd	111	10.000	ug/L	1.338	3636	0.051
	Cd	114		ug/L		8231	0.115
>	In	115		ug/L		71083	71083.218
	Sn	120	10.000	ug/L	0.670	16227	0.227
	Sb	121	10.000	ug/L	4.196	12297	0.171
	Sb	123		ug/L		9461	0.131
	Ba	135		ug/L		3841	0.049
	Ba	137	10.000	ug/L	1.218	6663	0.084
	Ho	165		ug/L		11	-0.000
>	Lu	175		ug/L		78799	78798.854
	Tl	205	10.000	ug/L	1.171	22585	0.285
	Pb	208	10.000	ug/L	1.445	51085	0.645
	Bi	209		ug/L		27	0.000
	Th	232	10.000	ug/L	1.075	61946	0.784
	U	238	10.000	ug/L	1.509	64963	0.823

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45					
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115					
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175					
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Thursday, December 31, 2009 16:43:40
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\091231\Standard 2.119

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**99.864**	**ug/L**	2.989	18287	0.019
	Be	9	**99.963**	**ug/L**	1.151	5249	0.005
	B	11	**199.958**	**ug/L**	0.405	9233	0.009
	Na	23	**10002.408**	**ug/L**	2.382	11594105	11.972
	Mg	24	**10003.480**	**ug/L**	8.799	8618820	8.922
	Al	27	**9996.491**	**ug/L**	6.585	11238460	11.632
	P	31	**9997.664**	**ug/L**	1.823	619969	0.639
	K	39	**9986.149**	**ug/L**	4.827	20275034	20.539
	Ca	43	**9998.547**	**ug/L**	0.628	43152	0.044
>	Sc	45		**ug/L**		966885	966884.597
	Ti	47	**100.005**	**ug/L**	0.310	20039	0.021
	V	51	**100.289**	**ug/L**	3.385	203693	0.202
	Cr	52	**99.972**	**ug/L**	2.202	199014	0.205
	Cr	53		**ug/L**		175458	0.012
	Mn	55	**99.987**	**ug/L**	0.253	320548	0.331
	Fe	57	**9996.870**	**ug/L**	0.812	644076	0.661
	Co	59	**99.962**	**ug/L**	0.757	239467	0.248
	Ni	60	**99.977**	**ug/L**	1.245	50332	0.052
	Cu	63		**ug/L**		114043	0.118
	Cu	65	**99.980**	**ug/L**	0.340	54741	0.057
	Zn	66	**99.958**	**ug/L**	1.624	28439	0.211
	Zn	67		**ug/L**		11099	0.032
	Zn	68		**ug/L**		20704	0.150
>	Ge	74		**ug/L**		134371	134371.313
	As	75	**100.076**	**ug/L**	2.707	33170	0.242
	Se	77		**ug/L**		7976	0.020
	Se	82	**99.976**	**ug/L**	1.888	3095	0.023
	Kr	83		**ug/L**		48	-0.000
	Sr	88	**100.010**	**ug/L**	1.891	472378	6.358
	Y	89		**ug/L**		59	0.001
	Zr	90	**100.018**	**ug/L**	2.333	250830	3.375
	Mo	98	**100.010**	**ug/L**	1.416	105522	1.420
	Ag	107	**99.985**	**ug/L**	1.088	161495	2.173
	Cd	111	**99.979**	**ug/L**	2.129	37108	0.500
	Cd	114		**ug/L**		85056	1.144
>	In	115		**ug/L**		74301	74300.974
	Sn	120	**99.993**	**ug/L**	2.089	167418	2.252
	Sb	121	**100.031**	**ug/L**	0.693	131288	1.765
	Sb	123		**ug/L**		100488	1.351
	Ba	135		**ug/L**		39671	0.485
	Ba	137	**100.011**	**ug/L**	2.098	69688	0.852
	Ho	165		**ug/L**		16	0.000
>	Lu	175		**ug/L**		81799	81799.041
	Tl	205	**99.970**	**ug/L**	1.094	226554	2.768
	Pb	208	**99.976**	**ug/L**	1.478	515095	6.294
	Bi	209		**ug/L**		50	0.000
	Th	232	**99.989**	**ug/L**	1.676	633791	7.747
	U	238	**99.964**	**ug/L**	2.339	649429	7.939

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	0.9999
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	0.9999
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	0.9996
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45					
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115					
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175					
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Thursday, December 31, 2009 16:49:49
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\091231\QC Std 1.120

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**50.310**	**ug/L**	2.556	9548	0.010
	Be	9	**50.897**	**ug/L**	1.478	2768	0.003
	B	11	**103.312**	**ug/L**	0.957	4965	0.005
	Na	23	**5024.441**	**ug/L**	7.593	6038409	6.014
	Mg	24	**4802.894**	**ug/L**	5.809	4286978	4.284
	Al	27	**5103.003**	**ug/L**	14.046	5936953	5.938
	P	31	**4972.300**	**ug/L**	0.993	320459	0.318
	K	39	**5448.646**	**ug/L**	8.047	11638076	11.206
	Ca	43	**5026.091**	**ug/L**	3.224	22720	0.022
>	Sc	45		**ug/L**		1000654	1000653.522
	Ti	47	**50.270**	**ug/L**	0.728	10524	0.010
	V	51	**48.072**	**ug/L**	7.689	105747	0.097
	Cr	52	**51.275**	**ug/L**	0.457	106130	0.105
	Cr	53		**ug/L**		168267	-0.002
	Mn	55	**51.152**	**ug/L**	0.827	170182	0.169
	Fe	57	**5011.266**	**ug/L**	0.939	336677	0.331
	Co	59	**49.906**	**ug/L**	0.393	123819	0.124
	Ni	60	**51.565**	**ug/L**	1.046	26891	0.027
	Cu	63		**ug/L**		60225	0.060
	Cu	65	**50.034**	**ug/L**	0.666	28389	0.028
	Zn	66	**51.255**	**ug/L**	2.397	15211	0.108
	Zn	67		**ug/L**		8972	0.013
	Zn	68		**ug/L**		11240	0.076
>	Ge	74		**ug/L**		139745	139745.101
	As	75	**48.634**	**ug/L**	1.104	17101	0.118
	Se	77		**ug/L**		7196	0.012
	Se	82	**49.994**	**ug/L**	1.872	1601	0.012
	Kr	83		**ug/L**		50	-0.000
	Sr	88	**50.713**	**ug/L**	1.796	246677	3.224
	Y	89		**ug/L**		32	0.000
	Zr	90	**49.154**	**ug/L**	1.495	127007	1.659
	Mo	98	**49.537**	**ug/L**	1.275	53826	0.703
	Ag	107	**50.590**	**ug/L**	1.783	84144	1.100
	Cd	111	**50.527**	**ug/L**	1.104	19314	0.252
	Cd	114		**ug/L**		44157	0.577
>	In	115		**ug/L**		76474	76474.335
	Sn	120	**50.747**	**ug/L**	1.806	87529	1.143
	Sb	121	**50.255**	**ug/L**	4.184	67948	0.887
	Sb	123		**ug/L**		51563	0.673
	Ba	135		**ug/L**		20715	0.249
	Ba	137	**50.945**	**ug/L**	0.899	36090	0.434
	Ho	165		**ug/L**		14	0.000
>	Lu	175		**ug/L**		83122	83121.617
	Tl	205	**49.045**	**ug/L**	1.065	112995	1.358
	Pb	208	**50.822**	**ug/L**	0.754	266271	3.200
	Bi	209		**ug/L**		55	0.000
	Th	232	**50.971**	**ug/L**	1.968	328452	3.949
	U	238	**52.793**	**ug/L**	1.736	348636	4.193

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	0.9999
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	0.9999
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	0.9996
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7	100.620				
	Be	9	101.794				
	B	11	103.312				
	Na	23	100.489				
	Mg	24	96.058				
	Al	27	101.050				
	P	31	99.446				
	K	39	108.973				
	Ca	43	100.522				
>	Sc	45		112.1			
	Ti	47	100.539				
	V	51	96.144				
	Cr	52	102.550				
	Cr	53					
	Mn	55	102.304				
	Fe	57	100.225				
	Co	59	99.813				
	Ni	60	103.130				
	Cu	63					
	Cu	65	100.068				
	Zn	66	102.509				
	Zn	67					
	Zn	68					
>	Ge	74		111.7			
	As	75	97.267				
	Se	77					
	Se	82	99.988				
	Kr	83					
	Sr	88	101.427				
	Y	89					
	Zr	90	98.308				
	Mo	98	99.073				
	Ag	107	101.181				
	Cd	111	101.055				
	Cd	114					
>	In	115		110.1			
	Sn	120	101.495				
	Sb	121	100.509				
	Sb	123					
	Ba	135					
	Ba	137	101.890				
	Ho	165					
>	Lu	175		107.7			
	Tl	205	98.089				
	Pb	208	101.645				
	Bi	209					
	Th	232	101.942				
	U	238	105.587				

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Thursday, December 31, 2009 16:56:01
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\091231\QC Std 2.121

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.013**	**ug/L**	127.205	25	0.000
	Be	9	**0.045**	**ug/L**	84.035	5	0.000
	B	11	**4.149**	**ug/L**	12.627	251	0.000
	Na	23	**0.034**	**ug/L**	3490.493	19680	0.000
	Mg	24	**0.850**	**ug/L**	429.955	3334	0.001
	Al	27	**0.292**	**ug/L**	621.555	3667	0.000
	P	31	**-5.554**	**ug/L**	45.172	2187	-0.000
	K	39	**6.068**	**ug/L**	199.596	439333	0.012
	Ca	43	**-7.796**	**ug/L**	103.067	490	-0.000
>	Sc	45		**ug/L**		991173	991172.506
	Ti	47	**-0.151**	**ug/L**	10.749	167	-0.000
	V	51	**-2.651**	**ug/L**	63.498	3380	-0.005
	Cr	52	**0.746**	**ug/L**	3.846	2445	0.002
	Cr	53		**ug/L**		159042	-0.009
	Mn	55	**-0.005**	**ug/L**	221.054	938	-0.000
	Fe	57	**-0.371**	**ug/L**	314.134	4919	-0.000
	Co	59	**0.005**	**ug/L**	54.589	163	0.000
	Ni	60	**0.002**	**ug/L**	320.353	51	0.000
	Cu	63		**ug/L**		117	0.000
	Cu	65	**0.000**	**ug/L**	3616.485	72	0.000
	Zn	66	**-0.041**	**ug/L**	17.741	82	-0.000
	Zn	67		**ug/L**		6660	-0.003
	Zn	68		**ug/L**		576	-0.000
>	Ge	74		**ug/L**		138417	138417.461
	As	75	**0.209**	**ug/L**	368.835	704	0.001
	Se	77		**ug/L**		5821	0.002
	Se	82	**0.532**	**ug/L**	27.200	-0	0.000
	Kr	83		**ug/L**		46	-0.000
	Sr	88	**0.002**	**ug/L**	109.340	146	0.000
	Y	89		**ug/L**		18	0.000
	Zr	90	**0.118**	**ug/L**	20.457	472	0.004
	Mo	98	**0.044**	**ug/L**	6.783	84	0.001
	Ag	107	**0.010**	**ug/L**	98.019	77	0.000
	Cd	111	**0.009**	**ug/L**	34.188	13	0.000
	Cd	114		**ug/L**		31	0.000
>	In	115		**ug/L**		76517	76516.731
	Sn	120	**0.126**	**ug/L**	4.170	333	0.003
	Sb	121	**0.725**	**ug/L**	9.882	1127	0.013
	Sb	123		**ug/L**		915	0.010
	Ba	135		**ug/L**		20	0.000
	Ba	137	**0.008**	**ug/L**	78.883	29	0.000
	Ho	165		**ug/L**		14	0.000
>	Lu	175		**ug/L**		81265	81265.322
	Tl	205	**0.105**	**ug/L**	19.050	362	0.003
	Pb	208	**0.010**	**ug/L**	50.263	359	0.001
	Bi	209		**ug/L**		29	0.000
	Th	232	**0.098**	**ug/L**	27.566	825	0.008
	U	238	**0.008**	**ug/L**	20.307	164	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	0.9999
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	0.9999
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	0.9996
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		111.1			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		110.6			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		110.2			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		105.3			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Thursday, December 31, 2009 17:02:13
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\091231\QC Std 3.122

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**11.148**	ug/L	2.670	2106	0.002
	Be	9	**0.635**	ug/L	23.530	37	0.000
	B	11	**17.054**	ug/L	1.765	855	0.001
	Na	23	**279.971**	ug/L	8.433	350603	0.335
	Mg	24	**18.673**	ug/L	43.145	19014	0.017
	Al	27	**32.518**	ug/L	33.101	40728	0.038
	P	31	**49.214**	ug/L	3.354	5636	0.003
	K	39	**318.472**	ug/L	2.078	1072474	0.655
	Ca	43	**194.393**	ug/L	6.557	1369	0.001
>	Sc	45		ug/L		987698	987698.171
	Ti	47	**9.198**	ug/L	1.362	2062	0.002
	V	51	**8.864**	ug/L	15.792	26290	0.018
	Cr	52	**11.348**	ug/L	1.376	23904	0.023
	Cr	53		ug/L		159405	-0.008
	Mn	55	**5.514**	ug/L	1.241	18957	0.018
	Fe	57	**107.261**	ug/L	2.183	11934	0.007
	Co	59	**1.086**	ug/L	2.960	2807	0.003
	Ni	60	**2.116**	ug/L	4.454	1137	0.001
	Cu	63		ug/L		1411	0.001
	Cu	65	**1.099**	ug/L	5.044	686	0.001
	Zn	66	**11.050**	ug/L	0.640	3261	0.023
	Zn	67		ug/L		7005	0.000
	Zn	68		ug/L		2814	0.016
>	Ge	74		ug/L		135857	135856.643
	As	75	**4.515**	ug/L	5.490	2110	0.011
	Se	77		ug/L		6052	0.005
	Se	82	**5.261**	ug/L	7.897	149	0.001
	Kr	83		ug/L		57	-0.000
	Sr	88	**10.861**	ug/L	1.398	52300	0.690
	Y	89		ug/L		14	0.000
	Zr	90	**2.011**	ug/L	0.392	5292	0.068
	Mo	98	**0.573**	ug/L	6.307	651	0.008
	Ag	107	**1.023**	ug/L	1.424	1739	0.022
	Cd	111	**1.072**	ug/L	2.275	414	0.005
	Cd	114		ug/L		955	0.012
>	In	115		ug/L		75561	75560.825
	Sn	120	**5.321**	ug/L	2.201	9170	0.120
	Sb	121	**3.285**	ug/L	0.724	4526	0.058
	Sb	123		ug/L		3564	0.045
	Ba	135		ug/L		893	0.011
	Ba	137	**2.156**	ug/L	2.502	1508	0.018
	Ho	165		ug/L		15	0.000
>	Lu	175		ug/L		80857	80857.002
	Tl	205	**1.047**	ug/L	0.829	2471	0.029
	Pb	208	**2.158**	ug/L	2.388	11294	0.136
	Bi	209		ug/L		20	-0.000
	Th	232	**1.082**	ug/L	2.588	6984	0.084
	U	238	**0.220**	ug/L	6.123	1527	0.017

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	0.9999
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	0.9999
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	0.9996
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7	111.478				
	Be	9	127.085				
	B	11	113.691				
	Na	23	111.988				
	Mg	24	124.486				
	Al	27	108.394				
	P	31	98.427				
	K	39	106.157				
	Ca	43	97.197				
>	Sc	45		110.7			
	Ti	47	91.981				
	V	51	88.636				
	Cr	52	113.481				
	Cr	53					
	Mn	55	110.279				
	Fe	57	107.261				
	Co	59	108.570				
	Ni	60	105.820				
	Cu	63					
	Cu	65	109.943				
	Zn	66	110.501				
	Zn	67					
	Zn	68					
>	Ge	74		108.5			
	As	75	90.292				
	Se	77					
	Se	82	105.218				
	Kr	83					
	Sr	88	108.611				
	Y	89					
	Zr	90	100.534				
	Mo	98	114.537				
	Ag	107	102.306				
	Cd	111	107.182				
	Cd	114					
>	In	115		108.8			
	Sn	120	106.428				
	Sb	121	109.496				
	Sb	123					
	Ba	135					
	Ba	137	107.779				
	Ho	165					
>	Lu	175		104.8			
	Tl	205	104.707				
	Pb	208	107.918				
	Bi	209					
	Th	232	108.225				
	U	238	110.119				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Thursday, December 31, 2009 17:08:24
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\091231\QC Std 4.123

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.017**	ug/L	176.325	26	0.000
	Be	9	**0.054**	ug/L	81.547	6	0.000
	B	11	**1.963**	ug/L	12.548	152	0.000
	Na	23	**95152.233**	ug/L	2.741	115634285	113.885
	Mg	24	**93301.574**	ug/L	6.523	84383682	83.216
	Al	27	**98475.604**	ug/L	1.072	116291800	114.587
	P	31	**96127.045**	ug/L	0.277	6235987	6.142
	K	39	**103818.656**	ug/L	6.891	216953208	213.526
	Ca	43	**98607.590**	ug/L	0.330	442002	0.435
>	Sc	45		ug/L		1014908	1014907.874
	Ti	47	**1503.706**	ug/L	0.482	313436	0.309
	V	51	**-4.492**	ug/L	38.518	-333	-0.009
	Cr	52	**5.348**	ug/L	1.491	12078	0.011
	Cr	53		ug/L		154384	-0.018
	Mn	55	**5.853**	ug/L	0.958	20618	0.019
	Fe	57	**97310.664**	ug/L	0.494	6537947	6.437
	Co	59	**0.258**	ug/L	4.209	803	0.001
	Ni	60	**3.312**	ug/L	3.327	1800	0.002
	Cu	63		ug/L		2632	0.002
	Cu	65	**2.370**	ug/L	2.581	1434	0.001
	Zn	66	**4.111**	ug/L	2.748	1277	0.009
	Zn	67		ug/L		7020	0.000
	Zn	68		ug/L		896	0.002
>	Ge	74		ug/L		136546	136545.915
	As	75	**-0.619**	ug/L	76.501	421	-0.001
	Se	77		ug/L		6377	0.007
	Se	82	**0.045**	ug/L	1971.814	-16	0.000
	Kr	83		ug/L		88	0.000
	Sr	88	**1.158**	ug/L	2.830	5561	0.074
	Y	89		ug/L		144	0.002
	Zr	90	**0.470**	ug/L	46.095	1326	0.016
	Mo	98	**2098.237**	ug/L	0.979	2197484	29.794
	Ag	107	**0.042**	ug/L	15.885	125	0.001
	Cd	111	**0.300**	ug/L	26.540	120	0.002
	Cd	114		ug/L		2091	0.028
>	In	115		ug/L		73761	73761.242
	Sn	120	**0.155**	ug/L	7.050	369	0.003
	Sb	121	**0.278**	ug/L	3.227	504	0.005
	Sb	123		ug/L		438	0.004
	Ba	135		ug/L		302	0.003
	Ba	137	**0.690**	ug/L	4.224	511	0.006
	Ho	165		ug/L		228	0.003
>	Lu	175		ug/L		82852	82852.407
	Tl	205	**0.022**	ug/L	12.562	180	0.001
	Pb	208	**0.158**	ug/L	2.576	1139	0.010
	Bi	209		ug/L		181	0.002
	Th	232	**0.067**	ug/L	30.294	641	0.005
	U	238	**-0.011**	ug/L	11.072	47	-0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	0.9999
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	0.9999
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	0.9996
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23	95.152				
	Mg	24	93.302				
	Al	27	98.476				
	P	31	96.127				
	K	39	103.819				
	Ca	43	98.608				
>	Sc	45		113.7			
	Ti	47	75.185				
	V	51					
	Cr	52	144.553				
	Cr	53					
	Mn	55	100.910				
	Fe	57	97.311				
	Co	59	103.089				
	Ni	60	122.674				
	Cu	63					
	Cu	65	81.720				
	Zn	66	114.195				
	Zn	67					
	Zn	68					
>	Ge	74		109.1			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88	96.524				
	Y	89					
	Zr	90					
	Mo	98	104.912				
	Ag	107					
	Cd	111	75.068				
	Cd	114					
>	In	115		106.2			
	Sn	120					
	Sb	121	277.585				
	Sb	123					
	Ba	135					
	Ba	137	103.017				
	Ho	165					
>	Lu	175		107.4			
	Tl	205					
	Pb	208	78.932				
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
QC Std 4	Ti	47ICSA is out of limits

QC Action

QC Action Line: Continue

ICPMS#4 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Thursday, December 31, 2009 17:14:35
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\091231\QC Std 5.124

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**16.114**	ug/L	2.271	3122	0.003
	Be	9	**19.428**	ug/L	5.257	1076	0.001
	B	11	**19.702**	ug/L	3.617	1008	0.001
	Na	23	**95900.598**	ug/L	5.166	116789184	114.780
	Mg	24	**91266.156**	ug/L	3.065	82788527	81.401
	Al	27	**102356.295**	ug/L	5.872	121165300	119.103
	P	31	**96346.349**	ug/L	0.631	6260221	6.156
	K	39	**103444.884**	ug/L	2.232	216774204	212.758
	Ca	43	**99222.684**	ug/L	1.495	445440	0.438
>	Sc	45		ug/L		1016575	1016574.660
	Ti	47	**1527.582**	ug/L	1.081	318993	0.314
	V	51	**17.067**	ug/L	8.042	43898	0.034
	Cr	52	**24.790**	ug/L	1.450	52612	0.051
	Cr	53		ug/L		158357	-0.014
	Mn	55	**25.491**	ug/L	1.698	86647	0.084
	Fe	57	**100014.940**	ug/L	1.007	6729313	6.615
	Co	59	**19.577**	ug/L	0.591	49436	0.048
	Ni	60	**22.052**	ug/L	1.607	11711	0.011
	Cu	63		ug/L		24670	0.024
	Cu	65	**20.822**	ug/L	1.109	12044	0.012
	Zn	66	**22.561**	ug/L	2.598	6648	0.048
	Zn	67		ug/L		8122	0.008
	Zn	68		ug/L		4674	0.030
>	Ge	74		ug/L		137642	137641.638
	As	75	**21.384**	ug/L	1.971	7761	0.052
	Se	77		ug/L		6773	0.009
	Se	82	**20.990**	ug/L	2.965	652	0.005
	Kr	83		ug/L		81	0.000
	Sr	88	**22.102**	ug/L	1.288	104411	1.405
	Y	89		ug/L		158	0.002
	Zr	90	**21.710**	ug/L	1.998	54524	0.733
	Mo	98	**2118.961**	ug/L	2.106	2232941	30.088
	Ag	107	**19.366**	ug/L	0.956	31297	0.421
	Cd	111	**20.174**	ug/L	0.466	7490	0.101
	Cd	114		ug/L		18748	0.252
>	In	115		ug/L		74222	74221.652
	Sn	120	**20.662**	ug/L	2.427	34650	0.465
	Sb	121	**21.982**	ug/L	1.316	28927	0.388
	Sb	123		ug/L		22154	0.297
	Ba	135		ug/L		8230	0.100
	Ba	137	**20.375**	ug/L	1.490	14342	0.174
	Ho	165		ug/L		240	0.003
>	Lu	175		ug/L		82517	82517.143
	Tl	205	**18.233**	ug/L	1.343	41780	0.505
	Pb	208	**19.177**	ug/L	1.600	99932	1.207
	Bi	209		ug/L		242	0.003
	Th	232	**20.230**	ug/L	1.439	129524	1.567
	U	238	**20.802**	ug/L	1.472	136429	1.652

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	0.9999
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	0.9999
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	0.9996
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7	80.571				
	Be	9	97.141				
	B	11	98.511				
	Na	23	95.901				
	Mg	24	91.266				
	Al	27	102.356				
	P	31	96.346				
	K	39	103.445				
	Ca	43	99.223				
>	Sc	45		113.9			
	Ti	47	76.379				
	V	51	85.333				
	Cr	52	104.600				
	Cr	53					
	Mn	55	98.803				
	Fe	57	100.015				
	Co	59	96.675				
	Ni	60	97.145				
	Cu	63					
	Cu	65	90.925				
	Zn	66	95.598				
	Zn	67					
	Zn	68					
>	Ge	74		110.0			
	As	75	106.920				
	Se	77					
	Se	82	104.949				
	Kr	83					
	Sr	88	104.257				
	Y	89					
	Zr	90	108.548				
	Mo	98	105.948				
	Ag	107	96.830				
	Cd	111	98.892				
	Cd	114					
>	In	115		106.9			
	Sn	120	103.310				
	Sb	121	109.365				
	Sb	123					
	Ba	135					
	Ba	137	98.571				
	Ho	165					
>	Lu	175		107.0			
	Tl	205	91.165				
	Pb	208	94.938				
	Bi	209					
	Th	232	101.148				
	U	238	104.008				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 5	Ti	47	ICSAB is out of limits

QC Action

QC Action Line: Continue

ICPMS#4 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Thursday, December 31, 2009 17:20:47
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\091231\QC Std 6.125

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**44.803**	**ug/L**	0.518	8738	0.008
	Be	9	**46.969**	**ug/L**	0.814	2624	0.003
	B	11	**92.260**	**ug/L**	3.511	4560	0.004
	Na	23	**4865.796**	**ug/L**	5.833	6006829	5.824
	Mg	24	**4663.109**	**ug/L**	0.900	4277008	4.159
	Al	27	**5024.661**	**ug/L**	3.726	6013101	5.847
	P	31	**4926.587**	**ug/L**	0.615	326151	0.315
	K	39	**5442.342**	**ug/L**	5.557	11945740	11.193
	Ca	43	**5028.471**	**ug/L**	1.601	23341	0.022
>	Sc	45		**ug/L**		1027718	1027717.915
	Ti	47	**51.357**	**ug/L**	1.488	11038	0.011
	V	51	**48.246**	**ug/L**	0.824	108892	0.097
	Cr	52	**50.823**	**ug/L**	1.019	108040	0.104
	Cr	53		**ug/L**		173942	-0.001
	Mn	55	**51.568**	**ug/L**	1.030	176207	0.170
	Fe	57	**5070.947**	**ug/L**	1.759	349838	0.335
	Co	59	**49.567**	**ug/L**	0.537	126307	0.123
	Ni	60	**50.912**	**ug/L**	2.155	27269	0.026
	Cu	63		**ug/L**		61212	0.059
	Cu	65	**50.098**	**ug/L**	0.774	29194	0.028
	Zn	66	**51.382**	**ug/L**	0.520	15604	0.108
	Zn	67		**ug/L**		9372	0.014
	Zn	68		**ug/L**		11551	0.077
>	Ge	74		**ug/L**		142965	142964.562
	As	75	**48.479**	**ug/L**	2.647	17441	0.117
	Se	77		**ug/L**		7547	0.013
	Se	82	**48.069**	**ug/L**	2.840	1574	0.011
	Kr	83		**ug/L**		57	-0.000
	Sr	88	**51.127**	**ug/L**	1.132	253584	3.250
	Y	89		**ug/L**		42	0.000
	Zr	90	**49.432**	**ug/L**	1.068	130245	1.668
	Mo	98	**50.268**	**ug/L**	0.584	55697	0.714
	Ag	107	**50.223**	**ug/L**	0.040	85180	1.092
	Cd	111	**49.910**	**ug/L**	2.023	19452	0.249
	Cd	114		**ug/L**		44316	0.568
>	In	115		**ug/L**		77978	77977.931
	Sn	120	**50.557**	**ug/L**	0.548	88921	1.139
	Sb	121	**50.473**	**ug/L**	1.324	69598	0.891
	Sb	123		**ug/L**		52754	0.675
	Ba	135		**ug/L**		21155	0.254
	Ba	137	**51.239**	**ug/L**	1.451	36311	0.436
	Ho	165		**ug/L**		17	0.000
>	Lu	175		**ug/L**		83159	83159.194
	Tl	205	**48.508**	**ug/L**	1.056	111803	1.343
	Pb	208	**50.292**	**ug/L**	1.654	263579	3.166
	Bi	209		**ug/L**		75	0.001
	Th	232	**50.622**	**ug/L**	1.302	326326	3.922
	U	238	**52.251**	**ug/L**	0.566	345202	4.150

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	0.9999
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	0.9999
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	0.9996
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7	89.606				
	Be	9	93.937				
	B	11	92.260				
	Na	23	97.316				
	Mg	24	93.262				
	Al	27	99.498				
	P	31	98.532				
	K	39	108.847				
	Ca	43	100.569				
>	Sc	45		115.2			
	Ti	47	102.714				
	V	51	96.493				
	Cr	52	101.647				
	Cr	53					
	Mn	55	103.135				
	Fe	57	101.419				
	Co	59	99.134				
	Ni	60	101.824				
	Cu	63					
	Cu	65	100.196				
	Zn	66	102.764				
	Zn	67					
	Zn	68					
>	Ge	74		114.2			
	As	75	96.958				
	Se	77					
	Se	82	96.138				
	Kr	83					
	Sr	88	102.255				
	Y	89					
	Zr	90	98.863				
	Mo	98	100.535				
	Ag	107	100.445				
	Cd	111	99.819				
	Cd	114					
>	In	115		112.3			
	Sn	120	101.113				
	Sb	121	100.947				
	Sb	123					
	Ba	135					
	Ba	137	102.479				
	Ho	165					
>	Lu	175		107.8			
	Tl	205	97.015				
	Pb	208	100.583				
	Bi	209					
	Th	232	101.245				
	U	238	104.501				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 6	Li	7	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#4 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Thursday, December 31, 2009 17:27:00
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\091231\QC Std 7.126

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**-0.021**	ug/L	88.211	19	-0.000
	Be	9	**0.012**	ug/L	87.267	3	0.000
	B	11	**2.528**	ug/L	20.913	181	0.000
	Na	23	**7.672**	ug/L	50.039	29698	0.009
	Mg	24	**6.163**	ug/L	137.483	8337	0.005
	Al	27	**3.811**	ug/L	42.603	8002	0.004
	P	31	**0.064**	ug/L	2219.411	2631	0.000
	K	39	**8.270**	ug/L	144.378	458934	0.017
	Ca	43	**-1.193**	ug/L	240.426	537	-0.000
>	Sc	45		ug/L		1025009	1025008.517
	Ti	47	**0.210**	ug/L	28.732	249	0.000
	V	51	**-3.217**	ug/L	84.077	2376	-0.006
	Cr	52	**0.623**	ug/L	19.947	2270	0.001
	Cr	53		ug/L		160917	-0.013
	Mn	55	**-0.006**	ug/L	42.701	965	-0.000
	Fe	57	**2.749**	ug/L	63.810	5299	0.000
	Co	59	**0.019**	ug/L	59.679	204	0.000
	Ni	60	**0.015**	ug/L	222.056	60	0.000
	Cu	63		ug/L		121	0.000
	Cu	65	**0.006**	ug/L	110.417	78	0.000
	Zn	66	**0.031**	ug/L	49.497	106	0.000
	Zn	67		ug/L		6729	-0.004
	Zn	68		ug/L		561	-0.000
>	Ge	74		ug/L		143001	143001.284
	As	75	**0.126**	ug/L	474.890	701	0.000
	Se	77		ug/L		6525	0.006
	Se	82	**0.521**	ug/L	78.910	-1	0.000
	Kr	83		ug/L		54	-0.000
	Sr	88	**0.012**	ug/L	64.926	201	0.001
	Y	89		ug/L		11	-0.000
	Zr	90	**0.110**	ug/L	3.955	464	0.004
	Mo	98	**0.200**	ug/L	18.856	261	0.003
	Ag	107	**0.025**	ug/L	21.344	104	0.001
	Cd	111	**0.034**	ug/L	12.188	23	0.000
	Cd	114		ug/L		30	-0.000
>	In	115		ug/L		78651	78650.899
	Sn	120	**0.112**	ug/L	1.957	317	0.003
	Sb	121	**0.404**	ug/L	8.152	713	0.007
	Sb	123		ug/L		588	0.006
	Ba	135		ug/L		18	-0.000
	Ba	137	**0.027**	ug/L	14.975	43	0.000
	Ho	165		ug/L		16	0.000
>	Lu	175		ug/L		82531	82530.592
	Tl	205	**0.178**	ug/L	23.415	536	0.005
	Pb	208	**0.016**	ug/L	27.692	395	0.001
	Bi	209		ug/L		21	-0.000
	Th	232	**0.080**	ug/L	14.127	719	0.006
	U	238	**0.019**	ug/L	37.850	241	0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	0.9999
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	0.9999
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	0.9996
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		114.9			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		114.3			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		113.3			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		107.0			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 10
Sample Date/Time: Thursday, December 31, 2009 17:33:12
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\091231\QC Std 10.127

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**839.907**	**ug/L**	4.558	161646	0.159
	Be	9	**912.877**	**ug/L**	1.111	50409	0.050
	B	11	**1.255**	**ug/L**	6.315	118	0.000
	Na	23	**47287.351**	**ug/L**	4.700	57600599	56.597
	Mg	24	**45547.095**	**ug/L**	4.220	41314506	40.624
	Al	27	**49550.464**	**ug/L**	2.583	58650055	57.658
	P	31	**23250.306**	**ug/L**	1.167	1513422	1.486
	K	39	**54070.961**	**ug/L**	7.431	113488724	111.209
	Ca	43	**49100.963**	**ug/L**	1.969	220831	0.217
>	Sc	45		**ug/L**		1017016	1017016.310
	Ti	47	**32.487**	**ug/L**	2.295	6986	0.007
	V	51	**972.638**	**ug/L**	1.143	2001455	1.959
	Cr	52	**924.818**	**ug/L**	0.800	1929084	1.896
	Cr	53		**ug/L**		380541	0.204
	Mn	55	**961.189**	**ug/L**	1.051	3232934	3.178
	Fe	57	**48926.327**	**ug/L**	1.512	3296302	3.236
	Co	59	**937.363**	**ug/L**	1.144	2360909	2.321
	Ni	60	**930.632**	**ug/L**	0.284	492424	0.484
	Cu	63		**ug/L**		1087305	1.069
	Cu	65	**901.623**	**ug/L**	0.921	518686	0.510
	Zn	66	**2358.674**	**ug/L**	1.648	681655	4.979
	Zn	67		**ug/L**		113821	0.780
	Zn	68		**ug/L**		479765	3.501
>	Ge	74		**ug/L**		136885	136885.082
	As	75	**952.240**	**ug/L**	1.668	316343	2.306
	Se	77		**ug/L**		17013	0.085
	Se	82	**484.960**	**ug/L**	1.662	15366	0.112
	Kr	83		**ug/L**		60	0.000
	Sr	88	**1001.890**	**ug/L**	2.483	4768741	63.694
	Y	89		**ug/L**		164	0.002
	Zr	90	**507.653**	**ug/L**	0.815	1282639	17.131
	Mo	98	**1013.181**	**ug/L**	1.100	1077065	14.387
	Ag	107	**239.944**	**ug/L**	1.403	390462	5.215
	Cd	111	**992.125**	**ug/L**	1.555	371060	4.957
	Cd	114		**ug/L**		851250	11.370
>	In	115		**ug/L**		74869	74868.763
	Sn	120	**1008.512**	**ug/L**	0.337	1700916	22.718
	Sb	121	**253.362**	**ug/L**	2.138	334823	4.470
	Sb	123		**ug/L**		254859	3.402
	Ba	135		**ug/L**		400788	4.759
	Ba	137	**968.883**	**ug/L**	1.054	694893	8.252
	Ho	165		**ug/L**		70	0.001
>	Lu	175		**ug/L**		84211	84210.658
	Tl	205	**460.726**	**ug/L**	1.320	1074237	12.756
	Pb	208	**4800.738**	**ug/L**	1.421	25451920	302.239
	Bi	209		**ug/L**		615	0.007
	Th	232	**2449.815**	**ug/L**	1.761	15982355	189.801
	U	238	**5060.041**	**ug/L**	1.412	33840182	401.883

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	0.9999
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	0.9999
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	0.9996
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7	83.991				
	Be	9	91.288				
	B	11					
	Na	23	94.575				
	Mg	24	91.094				
	Al	27	99.101				
	P	31	93.001				
	K	39	108.142				
	Ca	43	98.202				
>	Sc	45			114.0		
	Ti	47					
	V	51	97.264				
	Cr	52	92.482				
	Cr	53					
	Mn	55	96.119				
	Fe	57	97.853				
	Co	59	93.736				
	Ni	60	93.063				
	Cu	63					
	Cu	65	90.162				
	Zn	66	94.347				
	Zn	67					
	Zn	68					
>	Ge	74			109.4		
	As	75	95.224				
	Se	77					
	Se	82	96.992				
	Kr	83					
	Sr	88	100.189				
	Y	89					
	Zr	90	101.531				
	Mo	98	101.318				
	Ag	107	95.978				
	Cd	111	99.213				
	Cd	114					
>	In	115			107.8		
	Sn	120	100.851				
	Sb	121	101.345				
	Sb	123					
	Ba	135					
	Ba	137	96.888				
	Ho	165					
>	Lu	175			109.2		
	Tl	205	92.145				
	Pb	208	96.015				
	Bi	209					
	Th	232	97.993				
	U	238	101.201				

QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
QC Std 10	Li	7LRS is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#4 - Summary Report

Sample ID: QC Std 11
Sample Date/Time: Thursday, December 31, 2009 17:39:21
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\091231\QC Std 11.128

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**43.226**	**ug/L**	0.312	8501	0.008
	Be	9	**47.096**	**ug/L**	2.172	2652	0.003
	B	11	**92.772**	**ug/L**	5.279	4622	0.004
	Na	23	**5030.798**	**ug/L**	3.885	6261719	6.021
	Mg	24	**4711.259**	**ug/L**	4.962	4356766	4.202
	Al	27	**5288.442**	**ug/L**	6.193	6378088	6.154
	P	31	**4883.945**	**ug/L**	1.984	325991	0.312
	K	39	**5271.387**	**ug/L**	5.153	11677233	10.842
	Ca	43	**4990.560**	**ug/L**	0.910	23359	0.022
>	Sc	45		**ug/L**		1036255	1036254.560
	Ti	47	**50.329**	**ug/L**	1.811	10911	0.010
	V	51	**45.090**	**ug/L**	4.137	103182	0.091
	Cr	52	**51.026**	**ug/L**	2.423	109368	0.105
	Cr	53		**ug/L**		173473	-0.002
	Mn	55	**52.018**	**ug/L**	1.596	179203	0.172
	Fe	57	**5097.372**	**ug/L**	2.382	354512	0.337
	Co	59	**50.306**	**ug/L**	1.828	129237	0.125
	Ni	60	**50.923**	**ug/L**	2.519	27500	0.026
	Cu	63		**ug/L**		62192	0.060
	Cu	65	**50.319**	**ug/L**	1.907	29563	0.028
	Zn	66	**52.133**	**ug/L**	1.255	15873	0.110
	Zn	67		**ug/L**		9683	0.016
	Zn	68		**ug/L**		11931	0.079
>	Ge	74		**ug/L**		143359	143358.505
	As	75	**49.684**	**ug/L**	1.267	17910	0.120
	Se	77		**ug/L**		7107	0.010
	Se	82	**51.099**	**ug/L**	3.054	1680	0.012
	Kr	83		**ug/L**		57	-0.000
	Sr	88	**50.699**	**ug/L**	1.736	257006	3.223
	Y	89		**ug/L**		25	0.000
	Zr	90	**51.368**	**ug/L**	3.030	138294	1.733
	Mo	98	**49.520**	**ug/L**	1.319	56078	0.703
	Ag	107	**50.214**	**ug/L**	1.503	87050	1.091
	Cd	111	**50.366**	**ug/L**	1.033	20065	0.252
	Cd	114		**ug/L**		45867	0.575
>	In	115		**ug/L**		79707	79707.410
	Sn	120	**51.376**	**ug/L**	2.025	92344	1.157
	Sb	121	**51.435**	**ug/L**	1.802	72481	0.908
	Sb	123		**ug/L**		55504	0.694
	Ba	135		**ug/L**		21636	0.255
	Ba	137	**51.676**	**ug/L**	0.326	37394	0.440
	Ho	165		**ug/L**		16	0.000
>	Lu	175		**ug/L**		84907	84907.108
	Tl	205	**49.567**	**ug/L**	2.436	116633	1.372
	Pb	208	**51.351**	**ug/L**	0.635	274809	3.233
	Bi	209		**ug/L**		55	0.000
	Th	232	**52.266**	**ug/L**	1.585	343992	4.049
	U	238	**53.485**	**ug/L**	2.391	360760	4.248

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	0.9999
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	0.9999
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	0.9996
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7	86.451				
	Be	9	94.193				
	B	11	92.772				
	Na	23	100.616				
	Mg	24	94.225				
	Al	27	104.722				
	P	31	97.679				
	K	39	105.428				
	Ca	43	99.811				
>	Sc	45		116.1			
	Ti	47	100.657				
	V	51	90.179				
	Cr	52	102.051				
	Cr	53					
	Mn	55	104.036				
	Fe	57	101.947				
	Co	59	100.611				
	Ni	60	101.847				
	Cu	63					
	Cu	65	100.638				
	Zn	66	104.266				
	Zn	67					
	Zn	68					
>	Ge	74		114.5			
	As	75	99.367				
	Se	77					
	Se	82	102.198				
	Kr	83					
	Sr	88	101.399				
	Y	89					
	Zr	90	102.736				
	Mo	98	99.039				
	Ag	107	100.429				
	Cd	111	100.732				
	Cd	114					
>	In	115		114.8			
	Sn	120	102.751				
	Sb	121	102.869				
	Sb	123					
	Ba	135					
	Ba	137	103.353				
	Ho	165					
>	Lu	175		110.1			
	Tl	205	99.134				
	Pb	208	102.703				
	Bi	209					
	Th	232	104.532				
	U	238	106.971				

QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
QC Std 11	Li	7CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#4 - Summary Report

Sample ID: QC Std 12
Sample Date/Time: Thursday, December 31, 2009 17:45:33
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\091231\QC Std 12.129

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.161**	ug/L	10.065	55	0.000
	Be	9	**0.070**	ug/L	94.557	7	0.000
	B	11	**2.456**	ug/L	27.842	179	0.000
	Na	23	**4.211**	ug/L	69.967	25690	0.005
	Mg	24	**7.194**	ug/L	37.738	9337	0.006
	Al	27	**3.195**	ug/L	122.127	7336	0.004
	P	31	**-2.297**	ug/L	24.996	2496	-0.000
	K	39	**14.924**	ug/L	34.358	476829	0.031
	Ca	43	**-2.756**	ug/L	160.102	534	-0.000
>	Sc	45		ug/L		1033305	1033305.127
	Ti	47	**-0.008**	ug/L	50.832	204	-0.000
	V	51	**-1.431**	ug/L	28.396	6082	-0.003
	Cr	52	**0.760**	ug/L	28.978	2579	0.002
	Cr	53		ug/L		163651	-0.011
	Mn	55	**0.040**	ug/L	78.670	1131	0.000
	Fe	57	**-0.417**	ug/L	584.010	5126	-0.000
	Co	59	**0.060**	ug/L	44.697	311	0.000
	Ni	60	**0.059**	ug/L	67.236	84	0.000
	Cu	63		ug/L		206	0.000
	Cu	65	**0.084**	ug/L	32.219	124	0.000
	Zn	66	**0.211**	ug/L	39.195	163	0.000
	Zn	67		ug/L		7119	-0.002
	Zn	68		ug/L		674	0.000
>	Ge	74		ug/L		145403	145403.007
	As	75	**0.181**	ug/L	1138.486	732	0.000
	Se	77		ug/L		6244	0.003
	Se	82	**0.570**	ug/L	105.973	1	0.000
	Kr	83		ug/L		57	-0.000
	Sr	88	**0.061**	ug/L	51.434	444	0.004
	Y	89		ug/L		15	0.000
	Zr	90	**0.216**	ug/L	8.725	746	0.007
	Mo	98	**0.195**	ug/L	12.633	257	0.003
	Ag	107	**0.050**	ug/L	16.312	148	0.001
	Cd	111	**0.064**	ug/L	27.010	35	0.000
	Cd	114		ug/L		90	0.001
>	In	115		ug/L		78866	78865.696
	Sn	120	**0.618**	ug/L	12.585	1216	0.014
	Sb	121	**1.419**	ug/L	10.029	2126	0.025
	Sb	123		ug/L		1616	0.019
	Ba	135		ug/L		44	0.000
	Ba	137	**0.066**	ug/L	32.057	71	0.001
	Ho	165		ug/L		13	0.000
>	Lu	175		ug/L		83297	83297.338
	Tl	205	**0.253**	ug/L	7.978	715	0.007
	Pb	208	**0.418**	ug/L	28.127	2507	0.026
	Bi	209		ug/L		29	0.000
	Th	232	**0.328**	ug/L	3.343	2328	0.025
	U	238	**0.264**	ug/L	45.699	1857	0.021

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	0.9999
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	0.9999
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	0.9996
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		115.8			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		116.2			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		113.6			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		108.0			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
QC Std 12	U	238CCB is out of limits (+/- PQL)

QC Action

QC Action Line: Continue

ICPMS#4 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Thursday, December 31, 2009 18:22:41
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\091231\QC Std 6.135

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**50.757**	**ug/L**	1.569	9363	0.010
	Be	9	**49.522**	**ug/L**	2.108	2618	0.003
	B	11	**97.016**	**ug/L**	3.324	4534	0.005
	Na	23	**5081.712**	**ug/L**	5.380	5930137	6.082
	Mg	24	**4652.178**	**ug/L**	3.250	4037735	4.149
	Al	27	**5308.264**	**ug/L**	4.769	6015727	6.177
	P	31	**4955.896**	**ug/L**	1.350	310490	0.317
	K	39	**5501.487**	**ug/L**	2.881	11425509	11.315
	Ca	43	**5051.211**	**ug/L**	2.249	22186	0.022
>	Sc	45		**ug/L**		972697	972696.969
	Ti	47	**50.481**	**ug/L**	0.950	10274	0.010
	V	51	**48.779**	**ug/L**	1.096	104113	0.098
	Cr	52	**50.860**	**ug/L**	0.739	102332	0.104
	Cr	53		**ug/L**		149479	-0.016
	Mn	55	**51.699**	**ug/L**	1.114	167170	0.171
	Fe	57	**5085.577**	**ug/L**	0.745	332010	0.336
	Co	59	**50.170**	**ug/L**	1.211	120973	0.124
	Ni	60	**51.197**	**ug/L**	1.271	25952	0.027
	Cu	63		**ug/L**		58499	0.060
	Cu	65	**50.577**	**ug/L**	1.016	27890	0.029
	Zn	66	**50.890**	**ug/L**	2.632	14585	0.107
	Zn	67		**ug/L**		7986	0.008
	Zn	68		**ug/L**		10853	0.076
>	Ge	74		**ug/L**		134924	134923.900
	As	75	**48.795**	**ug/L**	1.144	16566	0.118
	Se	77		**ug/L**		6633	0.009
	Se	82	**50.054**	**ug/L**	0.940	1548	0.012
	Kr	83		**ug/L**		50	-0.000
	Sr	88	**50.712**	**ug/L**	0.288	238803	3.224
	Y	89		**ug/L**		60	0.001
	Zr	90	**49.655**	**ug/L**	1.551	124202	1.676
	Mo	98	**49.985**	**ug/L**	0.897	52577	0.710
	Ag	107	**49.869**	**ug/L**	1.182	80291	1.084
	Cd	111	**50.992**	**ug/L**	1.574	18867	0.255
	Cd	114		**ug/L**		42604	0.575
>	In	115		**ug/L**		74030	74029.921
	Sn	120	**50.623**	**ug/L**	1.595	84523	1.140
	Sb	121	**50.478**	**ug/L**	2.346	66079	0.891
	Sb	123		**ug/L**		50345	0.678
	Ba	135		**ug/L**		20453	0.250
	Ba	137	**49.977**	**ug/L**	1.608	34867	0.426
	Ho	165		**ug/L**		18	0.000
>	Lu	175		**ug/L**		81860	81860.042
	Tl	205	**48.195**	**ug/L**	0.599	109351	1.334
	Pb	208	**50.596**	**ug/L**	1.044	261046	3.185
	Bi	209		**ug/L**		76	0.001
	Th	232	**51.370**	**ug/L**	0.775	325988	3.980
	U	238	**53.839**	**ug/L**	1.086	350129	4.276

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	0.9999
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	0.9999
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	0.9996
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7	101.515				
	Be	9	99.044				
	B	11	97.016				
	Na	23	101.634				
	Mg	24	93.044				
	Al	27	105.114				
	P	31	99.118				
	K	39	110.030				
	Ca	43	101.024				
>	Sc	45		109.0			
	Ti	47	100.963				
	V	51	97.557				
	Cr	52	101.719				
	Cr	53					
	Mn	55	103.398				
	Fe	57	101.712				
	Co	59	100.340				
	Ni	60	102.393				
	Cu	63					
	Cu	65	101.155				
	Zn	66	101.781				
	Zn	67					
	Zn	68					
>	Ge	74		107.8			
	As	75	97.589				
	Se	77					
	Se	82	100.108				
	Kr	83					
	Sr	88	101.423				
	Y	89					
	Zr	90	99.309				
	Mo	98	99.970				
	Ag	107	99.738				
	Cd	111	101.984				
	Cd	114					
>	In	115		106.6			
	Sn	120	101.245				
	Sb	121	100.956				
	Sb	123					
	Ba	135					
	Ba	137	99.955				
	Ho	165					
>	Lu	175		106.1			
	Tl	205	96.390				
	Pb	208	101.192				
	Bi	209					
	Th	232	102.741				
	U	238	107.678				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 6	K	39	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#4 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Thursday, December 31, 2009 18:28:54
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\091231\QC Std 7.136

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.107**	ug/L	36.936	41	0.000
	Be	9	**0.022**	ug/L	179.716	4	0.000
	B	11	**3.149**	ug/L	10.093	198	0.000
	Na	23	**4.894**	ug/L	43.379	24688	0.006
	Mg	24	**-2.152**	ug/L	31.361	667	-0.002
	Al	27	**3.357**	ug/L	94.912	7002	0.004
	P	31	**-1.993**	ug/L	21.037	2341	-0.000
	K	39	**-5.414**	ug/L	179.185	403633	-0.011
	Ca	43	**-7.686**	ug/L	59.920	476	-0.000
>	Sc	45		ug/L		961688	961688.288
	Ti	47	**0.035**	ug/L	299.904	199	0.000
	V	51	**-0.881**	ug/L	298.882	6716	-0.002
	Cr	52	**0.927**	ug/L	17.643	2730	0.002
	Cr	53		ug/L		144487	-0.020
	Mn	55	**0.018**	ug/L	37.522	982	0.000
	Fe	57	**2.577**	ug/L	53.368	4960	0.000
	Co	59	**0.018**	ug/L	16.979	189	0.000
	Ni	60	**0.013**	ug/L	165.558	55	0.000
	Cu	63		ug/L		138	0.000
	Cu	65	**0.006**	ug/L	358.716	73	0.000
	Zn	66	**0.078**	ug/L	109.094	114	0.000
	Zn	67		ug/L		5947	-0.007
	Zn	68		ug/L		512	-0.000
>	Ge	74		ug/L		135197	135197.425
	As	75	**0.245**	ug/L	217.933	701	0.001
	Se	77		ug/L		5680	0.002
	Se	82	**0.819**	ug/L	61.186	9	0.000
	Kr	83		ug/L		45	-0.000
	Sr	88	**0.016**	ug/L	35.461	209	0.001
	Y	89		ug/L		21	0.000
	Zr	90	**0.138**	ug/L	14.062	512	0.005
	Mo	98	**0.061**	ug/L	16.693	101	0.001
	Ag	107	**0.022**	ug/L	17.609	94	0.000
	Cd	111	**0.026**	ug/L	47.136	19	0.000
	Cd	114		ug/L		43	0.000
>	In	115		ug/L		74889	74889.200
	Sn	120	**0.146**	ug/L	8.620	359	0.003
	Sb	121	**0.365**	ug/L	12.134	627	0.006
	Sb	123		ug/L		539	0.005
	Ba	135		ug/L		37	0.000
	Ba	137	**0.044**	ug/L	31.215	53	0.000
	Ho	165		ug/L		15	0.000
>	Lu	175		ug/L		80187	80186.558
	Tl	205	**0.146**	ug/L	17.724	449	0.004
	Pb	208	**0.066**	ug/L	21.792	641	0.004
	Bi	209		ug/L		24	0.000
	Th	232	**0.097**	ug/L	11.925	807	0.008
	U	238	**0.028**	ug/L	28.605	292	0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	0.9999
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	0.9999
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	0.9996
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		107.8			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		108.0			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		107.9			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		103.9			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Thursday, December 31, 2009 19:18:28
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\091231\QC Std 6.144

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**54.218**	ug/L	1.187	9511	0.010
	Be	9	**53.287**	ug/L	3.578	2678	0.003
	B	11	**100.197**	ug/L	2.358	4452	0.005
	Na	23	**5100.704**	ug/L	5.931	5668480	6.105
	Mg	24	**4701.740**	ug/L	3.459	3883205	4.194
	Al	27	**5157.050**	ug/L	5.044	5553585	6.001
	P	31	**5026.007**	ug/L	0.673	299450	0.321
	K	39	**5253.419**	ug/L	3.719	10396234	10.805
	Ca	43	**5003.479**	ug/L	0.727	20907	0.022
>	Sc	45		ug/L		925010	925009.516
	Ti	47	**50.085**	ug/L	0.524	9694	0.010
	V	51	**48.444**	ug/L	6.673	98303	0.098
	Cr	52	**51.135**	ug/L	0.717	97833	0.105
	Cr	53		ug/L		137625	-0.021
	Mn	55	**51.814**	ug/L	0.635	159343	0.171
	Fe	57	**5111.729**	ug/L	0.729	317363	0.338
	Co	59	**50.055**	ug/L	1.811	114785	0.124
	Ni	60	**51.063**	ug/L	0.403	24619	0.027
	Cu	63		ug/L		55772	0.060
	Cu	65	**50.643**	ug/L	0.721	26561	0.029
	Zn	66	**51.454**	ug/L	1.170	14231	0.109
	Zn	67		ug/L		7582	0.007
	Zn	68		ug/L		10436	0.076
>	Ge	74		ug/L		130199	130198.599
	As	75	**47.597**	ug/L	2.413	15606	0.115
	Se	77		ug/L		5616	0.003
	Se	82	**49.836**	ug/L	1.840	1487	0.012
	Kr	83		ug/L		42	-0.000
	Sr	88	**49.972**	ug/L	1.669	229978	3.177
	Y	89		ug/L		65	0.001
	Zr	90	**49.098**	ug/L	0.809	120046	1.657
	Mo	98	**49.125**	ug/L	1.513	50513	0.698
	Ag	107	**49.318**	ug/L	0.396	77611	1.072
	Cd	111	**49.820**	ug/L	1.673	18016	0.249
	Cd	114		ug/L		41147	0.568
>	In	115		ug/L		72354	72354.134
	Sn	120	**49.996**	ug/L	0.994	81591	1.126
	Sb	121	**49.667**	ug/L	2.569	63560	0.876
	Sb	123		ug/L		48825	0.673
	Ba	135		ug/L		19620	0.247
	Ba	137	**50.072**	ug/L	1.845	33918	0.426
	Ho	165		ug/L		14	0.000
>	Lu	175		ug/L		79474	79473.603
	Tl	205	**48.551**	ug/L	0.721	106945	1.344
	Pb	208	**50.692**	ug/L	0.795	253938	3.191
	Bi	209		ug/L		62	0.001
	Th	232	**51.279**	ug/L	0.939	315912	3.973
	U	238	**53.344**	ug/L	1.164	336802	4.237

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	0.9999
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	0.9999
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	0.9996
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7	108.436				
	Be	9	106.574				
	B	11	100.197				
	Na	23	102.014				
	Mg	24	94.035				
	Al	27	102.120				
	P	31	100.520				
	K	39	105.068				
	Ca	43	100.070				
>	Sc	45		103.7			
	Ti	47	100.171				
	V	51	96.888				
	Cr	52	102.270				
	Cr	53					
	Mn	55	103.629				
	Fe	57	102.235				
	Co	59	100.110				
	Ni	60	102.127				
	Cu	63					
	Cu	65	101.286				
	Zn	66	102.907				
	Zn	67					
	Zn	68					
>	Ge	74		104.0			
	As	75	95.195				
	Se	77					
	Se	82	99.672				
	Kr	83					
	Sr	88	99.945				
	Y	89					
	Zr	90	98.197				
	Mo	98	98.249				
	Ag	107	98.636				
	Cd	111	99.641				
	Cd	114					
>	In	115		104.2			
	Sn	120	99.992				
	Sb	121	99.333				
	Sb	123					
	Ba	135					
	Ba	137	100.143				
	Ho	165					
>	Lu	175		103.0			
	Tl	205	97.102				
	Pb	208	101.384				
	Bi	209					
	Th	232	102.558				
	U	238	106.688				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Thursday, December 31, 2009 19:24:42
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\091231\QC Std 7.145

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.100**	ug/L	34.544	39	0.000
	Be	9	**0.024**	ug/L	92.864	4	0.000
	B	11	**2.576**	ug/L	12.071	167	0.000
	Na	23	**-1.962**	ug/L	144.138	16343	-0.002
	Mg	24	**0.657**	ug/L	181.448	3000	0.001
	Al	27	**4.152**	ug/L	67.957	7669	0.005
	P	31	**-2.699**	ug/L	39.180	2239	-0.000
	K	39	**1.420**	ug/L	1914.454	406079	0.003
	Ca	43	**-20.964**	ug/L	41.588	409	-0.000
>	Sc	45		ug/L		936793	936792.572
	Ti	47	**0.011**	ug/L	252.027	189	0.000
	V	51	**-2.565**	ug/L	78.438	3378	-0.005
	Cr	52	**0.502**	ug/L	39.159	1844	0.001
	Cr	53		ug/L		130184	-0.031
	Mn	55	**0.015**	ug/L	86.983	948	0.000
	Fe	57	**-2.549**	ug/L	14.383	4514	-0.000
	Co	59	**0.015**	ug/L	40.611	178	0.000
	Ni	60	**0.005**	ug/L	477.037	50	0.000
	Cu	63		ug/L		112	0.000
	Cu	65	**0.005**	ug/L	323.762	71	0.000
	Zn	66	**0.052**	ug/L	69.002	103	0.000
	Zn	67		ug/L		5398	-0.010
	Zn	68		ug/L		436	-0.001
>	Ge	74		ug/L		131408	131407.640
	As	75	**-0.113**	ug/L	378.453	569	-0.000
	Se	77		ug/L		4501	-0.005
	Se	82	**0.607**	ug/L	60.436	2	0.000
	Kr	83		ug/L		43	-0.000
	Sr	88	**0.012**	ug/L	53.187	184	0.001
	Y	89		ug/L		22	0.000
	Zr	90	**0.127**	ug/L	13.377	469	0.004
	Mo	98	**0.043**	ug/L	27.407	79	0.001
	Ag	107	**0.018**	ug/L	35.150	85	0.000
	Cd	111	**0.008**	ug/L	247.808	12	0.000
	Cd	114		ug/L		36	0.000
>	In	115		ug/L		72471	72470.503
	Sn	120	**0.103**	ug/L	9.511	278	0.002
	Sb	121	**0.362**	ug/L	9.254	603	0.006
	Sb	123		ug/L		482	0.005
	Ba	135		ug/L		27	0.000
	Ba	137	**0.029**	ug/L	46.598	42	0.000
	Ho	165		ug/L		11	-0.000
>	Lu	175		ug/L		78761	78761.006
	Tl	205	**0.123**	ug/L	20.398	390	0.003
	Pb	208	**0.035**	ug/L	4.736	476	0.002
	Bi	209		ug/L		21	-0.000
	Th	232	**0.085**	ug/L	17.538	717	0.007
	U	238	**0.021**	ug/L	13.071	244	0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	0.9999
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	0.9999
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	0.9996
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		105.0			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		105.0			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		104.4			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		102.1			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Thursday, December 31, 2009 20:14:21
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\091231\QC Std 6.153

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**57.932**	ug/L	2.254	9776	0.011
	Be	9	**52.828**	ug/L	1.817	2555	0.003
	B	11	**99.617**	ug/L	1.453	4260	0.005
	Na	23	**5022.358**	ug/L	3.162	5370733	6.011
	Mg	24	**4792.267**	ug/L	3.874	3808432	4.274
	Al	27	**5069.104**	ug/L	1.288	5254243	5.898
	P	31	**5031.089**	ug/L	0.215	288422	0.321
	K	39	**5299.861**	ug/L	2.875	10085773	10.900
	Ca	43	**4951.937**	ug/L	1.006	19915	0.022
>	Sc	45		ug/L		890149	890148.559
	Ti	47	**49.981**	ug/L	1.250	9309	0.010
	V	51	**50.604**	ug/L	1.542	98560	0.102
	Cr	52	**50.574**	ug/L	1.968	93114	0.104
	Cr	53		ug/L		130559	-0.023
	Mn	55	**51.595**	ug/L	0.275	152704	0.171
	Fe	57	**5125.477**	ug/L	0.825	306234	0.339
	Co	59	**50.280**	ug/L	0.948	110977	0.125
	Ni	60	**51.380**	ug/L	1.178	23839	0.027
	Cu	63		ug/L		53127	0.060
	Cu	65	**50.611**	ug/L	0.993	25545	0.029
	Zn	66	**51.609**	ug/L	1.614	13695	0.109
	Zn	67		ug/L		7138	0.006
	Zn	68		ug/L		10098	0.077
>	Ge	74		ug/L		124931	124930.580
	As	75	**48.375**	ug/L	1.188	15212	0.117
	Se	77		ug/L		4971	0.000
	Se	82	**49.753**	ug/L	0.933	1424	0.012
	Kr	83		ug/L		44	-0.000
	Sr	88	**50.166**	ug/L	1.471	220373	3.189
	Y	89		ug/L		69	0.001
	Zr	90	**49.136**	ug/L	1.509	114657	1.658
	Mo	98	**49.207**	ug/L	0.603	48283	0.699
	Ag	107	**50.035**	ug/L	1.019	75151	1.088
	Cd	111	**49.996**	ug/L	1.098	17256	0.250
	Cd	114		ug/L		39925	0.578
>	In	115		ug/L		69052	69052.495
	Sn	120	**50.661**	ug/L	1.059	78902	1.141
	Sb	121	**50.919**	ug/L	1.866	62179	0.898
	Sb	123		ug/L		46969	0.678
	Ba	135		ug/L		18802	0.243
	Ba	137	**49.696**	ug/L	1.486	32738	0.423
	Ho	165		ug/L		16	0.000
>	Lu	175		ug/L		77293	77292.640
	Tl	205	**48.266**	ug/L	0.707	103408	1.336
	Pb	208	**50.409**	ug/L	1.648	245582	3.174
	Bi	209		ug/L		70	0.001
	Th	232	**51.953**	ug/L	1.185	311321	4.025
	U	238	**54.493**	ug/L	0.762	334623	4.328

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	0.9999
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	0.9999
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	0.9996
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7	115.864				
	Be	9	105.657				
	B	11	99.617				
	Na	23	100.447				
	Mg	24	95.845				
	Al	27	100.378				
	P	31	100.622				
	K	39	105.997				
	Ca	43	99.039				
>	Sc	45		99.7			
	Ti	47	99.962				
	V	51	101.209				
	Cr	52	101.149				
	Cr	53					
	Mn	55	103.191				
	Fe	57	102.510				
	Co	59	100.560				
	Ni	60	102.760				
	Cu	63					
	Cu	65	101.222				
	Zn	66	103.219				
	Zn	67					
	Zn	68					
>	Ge	74		99.8			
	As	75	96.751				
	Se	77					
	Se	82	99.506				
	Kr	83					
	Sr	88	100.333				
	Y	89					
	Zr	90	98.272				
	Mo	98	98.415				
	Ag	107	100.069				
	Cd	111	99.991				
	Cd	114					
>	In	115		99.5			
	Sn	120	101.321				
	Sb	121	101.839				
	Sb	123					
	Ba	135					
	Ba	137	99.393				
	Ho	165					
>	Lu	175		100.2			
	Tl	205	96.531				
	Pb	208	100.818				
	Bi	209					
	Th	232	103.907				
	U	238	108.987				

QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
QC Std 6	Li	7CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#4 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Thursday, December 31, 2009 20:20:34
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\091231\QC Std 7.154

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.087**	ug/L	30.173	35	0.000
	Be	9	**-0.007**	ug/L	285.888	2	-0.000
	B	11	**2.143**	ug/L	25.573	142	0.000
	Na	23	**-6.049**	ug/L	101.250	11339	-0.007
	Mg	24	**-1.274**	ug/L	55.772	1333	-0.001
	Al	27	**1.872**	ug/L	182.440	5001	0.002
	P	31	**-2.107**	ug/L	101.646	2186	-0.000
	K	39	**-17.042**	ug/L	45.954	356395	-0.035
	Ca	43	**-17.178**	ug/L	43.651	408	-0.000
>	Sc	45		ug/L		900611	900610.834
	Ti	47	**-0.037**	ug/L	320.374	173	-0.000
	V	51	**-0.903**	ug/L	108.088	6254	-0.002
	Cr	52	**0.236**	ug/L	47.614	1279	0.000
	Cr	53		ug/L		120532	-0.036
	Mn	55	**-0.004**	ug/L	378.585	855	-0.000
	Fe	57	**-5.532**	ug/L	12.296	4162	-0.000
	Co	59	**0.017**	ug/L	58.913	175	0.000
	Ni	60	**0.018**	ug/L	73.852	54	0.000
	Cu	63		ug/L		102	0.000
	Cu	65	**-0.008**	ug/L	196.116	61	-0.000
	Zn	66	**0.069**	ug/L	49.658	103	0.000
	Zn	67		ug/L		4976	-0.012
	Zn	68		ug/L		360	-0.001
>	Ge	74		ug/L		125711	125710.955
	As	75	**-0.287**	ug/L	393.871	489	-0.001
	Se	77		ug/L		4087	-0.007
	Se	82	**0.646**	ug/L	67.371	3	0.000
	Kr	83		ug/L		43	-0.000
	Sr	88	**0.013**	ug/L	22.829	181	0.001
	Y	89		ug/L		23	0.000
	Zr	90	**0.124**	ug/L	8.778	446	0.004
	Mo	98	**0.051**	ug/L	7.224	85	0.001
	Ag	107	**0.018**	ug/L	41.984	82	0.000
	Cd	111	**0.013**	ug/L	72.090	13	0.000
	Cd	114		ug/L		33	0.000
>	In	115		ug/L		69983	69983.088
	Sn	120	**0.105**	ug/L	6.511	272	0.002
	Sb	121	**0.368**	ug/L	10.090	590	0.007
	Sb	123		ug/L		513	0.006
	Ba	135		ug/L		24	0.000
	Ba	137	**0.037**	ug/L	75.121	47	0.000
	Ho	165		ug/L		11	-0.000
>	Lu	175		ug/L		77251	77251.430
	Tl	205	**0.128**	ug/L	20.226	395	0.004
	Pb	208	**0.029**	ug/L	1.004	437	0.002
	Bi	209		ug/L		18	-0.000
	Th	232	**0.089**	ug/L	13.676	731	0.007
	U	238	**0.022**	ug/L	21.994	242	0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	0.9999
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	0.9999
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	0.9996
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		100.9			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		100.4			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		100.8			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		100.1			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Thursday, December 31, 2009 21:10:17
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\091231\QC Std 6.162

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**59.335**	ug/L	1.839	9817	0.011
	Be	9	**54.092**	ug/L	1.297	2565	0.003
	B	11	**101.916**	ug/L	1.387	4271	0.005
	Na	23	**5209.824**	ug/L	7.952	5458703	6.235
	Mg	24	**4602.728**	ug/L	1.400	3584113	4.105
	Al	27	**5109.127**	ug/L	6.355	5193849	5.945
	P	31	**5046.374**	ug/L	1.812	283574	0.322
	K	39	**5161.054**	ug/L	6.344	9646653	10.615
	Ca	43	**4969.366**	ug/L	1.119	19585	0.022
>	Sc	45		ug/L		872529	872528.857
	Ti	47	**49.129**	ug/L	1.652	8975	0.010
	V	51	**45.942**	ug/L	3.063	88415	0.093
	Cr	52	**49.537**	ug/L	1.014	89434	0.102
	Cr	53		ug/L		120634	-0.031
	Mn	55	**51.140**	ug/L	0.836	148359	0.169
	Fe	57	**5057.539**	ug/L	0.087	296240	0.335
	Co	59	**49.758**	ug/L	0.929	107648	0.123
	Ni	60	**50.585**	ug/L	0.628	23007	0.026
	Cu	63		ug/L		51494	0.059
	Cu	65	**49.298**	ug/L	1.490	24393	0.028
	Zn	66	**50.919**	ug/L	1.297	13096	0.107
	Zn	67		ug/L		6620	0.004
	Zn	68		ug/L		9612	0.075
>	Ge	74		ug/L		121087	121087.152
	As	75	**47.129**	ug/L	2.472	14384	0.114
	Se	77		ug/L		4890	0.001
	Se	82	**49.488**	ug/L	1.282	1373	0.011
	Kr	83		ug/L		45	-0.000
	Sr	88	**49.663**	ug/L	1.129	215072	3.157
	Y	89		ug/L		83	0.001
	Zr	90	**48.242**	ug/L	2.697	110992	1.628
	Mo	98	**48.317**	ug/L	3.079	46752	0.686
	Ag	107	**48.904**	ug/L	2.278	72405	1.063
	Cd	111	**49.626**	ug/L	1.600	16887	0.248
	Cd	114		ug/L		38940	0.571
>	In	115		ug/L		68085	68084.754
	Sn	120	**50.020**	ug/L	2.960	76803	1.127
	Sb	121	**49.573**	ug/L	4.272	59700	0.875
	Sb	123		ug/L		45425	0.665
	Ba	135		ug/L		18472	0.240
	Ba	137	**48.798**	ug/L	0.790	31918	0.416
	Ho	165		ug/L		14	0.000
>	Lu	175		ug/L		76739	76739.004
	Tl	205	**48.937**	ug/L	1.134	104097	1.355
	Pb	208	**50.864**	ug/L	0.531	246020	3.202
	Bi	209		ug/L		64	0.001
	Th	232	**52.823**	ug/L	0.373	314241	4.092
	U	238	**54.626**	ug/L	0.263	333047	4.339

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	0.9999
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	0.9999
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	0.9996
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7	118.669				
	Be	9	108.184				
	B	11	101.916				
	Na	23	104.196				
	Mg	24	92.055				
	Al	27	101.171				
	P	31	100.927				
	K	39	103.221				
	Ca	43	99.387				
>	Sc	45			97.8		
	Ti	47	98.258				
	V	51	91.883				
	Cr	52	99.075				
	Cr	53					
	Mn	55	102.280				
	Fe	57	101.151				
	Co	59	99.516				
	Ni	60	101.169				
	Cu	63					
	Cu	65	98.596				
	Zn	66	101.838				
	Zn	67					
	Zn	68					
>	Ge	74			96.7		
	As	75	94.258				
	Se	77					
	Se	82	98.976				
	Kr	83					
	Sr	88	99.327				
	Y	89					
	Zr	90	96.484				
	Mo	98	96.634				
	Ag	107	97.809				
	Cd	111	99.252				
	Cd	114					
>	In	115			98.1		
	Sn	120	100.041				
	Sb	121	99.147				
	Sb	123					
	Ba	135					
	Ba	137	97.596				
	Ho	165					
>	Lu	175			99.5		
	Tl	205	97.874				
	Pb	208	101.727				
	Bi	209					
	Th	232	105.646				
	U	238	109.253				

QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
QC Std 6	Li	7CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#4 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Thursday, December 31, 2009 21:16:30
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\091231\QC Std 7.163

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.085**	**ug/L**	15.909	34	0.000
	Be	9	**0.043**	**ug/L**	157.884	4	0.000
	B	11	**2.393**	**ug/L**	7.766	149	0.000
	Na	23	**-4.453**	**ug/L**	42.294	12672	-0.005
	Mg	24	**5.202**	**ug/L**	58.004	6335	0.005
	Al	27	**3.339**	**ug/L**	18.123	6335	0.004
	P	31	**-1.480**	**ug/L**	107.354	2158	-0.000
	K	39	**-20.020**	**ug/L**	11.512	340682	-0.041
	Ca	43	**-18.273**	**ug/L**	3.683	392	-0.000
>	Sc	45		**ug/L**		874399	874399.404
	Ti	47	**-0.019**	**ug/L**	388.845	171	-0.000
	V	51	**-2.834**	**ug/L**	46.434	2685	-0.006
	Cr	52	**0.343**	**ug/L**	13.028	1434	0.001
	Cr	53		**ug/L**		117199	-0.036
	Mn	55	**0.003**	**ug/L**	813.876	849	0.000
	Fe	57	**-4.014**	**ug/L**	54.426	4129	-0.000
	Co	59	**0.021**	**ug/L**	49.289	179	0.000
	Ni	60	**-0.006**	**ug/L**	30.755	41	-0.000
	Cu	63		**ug/L**		102	0.000
	Cu	65	**0.002**	**ug/L**	1491.686	65	0.000
	Zn	66	**0.080**	**ug/L**	66.989	104	0.000
	Zn	67		**ug/L**		4802	-0.012
	Zn	68		**ug/L**		360	-0.001
>	Ge	74		**ug/L**		123061	123061.351
	As	75	**-0.185**	**ug/L**	253.677	510	-0.000
	Se	77		**ug/L**		3896	-0.008
	Se	82	**0.662**	**ug/L**	40.415	3	0.000
	Kr	83		**ug/L**		42	-0.000
	Sr	88	**0.016**	**ug/L**	67.430	191	0.001
	Y	89		**ug/L**		23	0.000
	Zr	90	**0.133**	**ug/L**	18.385	457	0.004
	Mo	98	**0.046**	**ug/L**	22.405	78	0.001
	Ag	107	**0.027**	**ug/L**	55.669	94	0.001
	Cd	111	**0.029**	**ug/L**	52.844	18	0.000
	Cd	114		**ug/L**		29	0.000
>	In	115		**ug/L**		68438	68437.964
	Sn	120	**0.119**	**ug/L**	16.371	287	0.003
	Sb	121	**0.368**	**ug/L**	19.868	577	0.006
	Sb	123		**ug/L**		473	0.005
	Ba	135		**ug/L**		33	0.000
	Ba	137	**0.040**	**ug/L**	32.159	48	0.000
	Ho	165		**ug/L**		9	-0.000
>	Lu	175		**ug/L**		75942	75942.076
	Tl	205	**0.128**	**ug/L**	11.822	387	0.004
	Pb	208	**0.036**	**ug/L**	25.660	460	0.002
	Bi	209		**ug/L**		19	-0.000
	Th	232	**0.099**	**ug/L**	18.410	774	0.008
	U	238	**0.030**	**ug/L**	28.509	286	0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	0.9999
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	0.9999
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	0.9996
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45			98.0		
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74			98.3		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115			98.6		
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175			98.4		
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 1201994298
Sample Date/Time: Thursday, December 31, 2009 21:22:44
Sample Type:
Sample Description: LANL 6020 MB
Number of Replicates: 3
Batch ID: 932315|2|skj
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\091231\1201994298.164

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**-0.003**	ug/L	372.660	19	-0.000
	Be	9	**0.023**	ug/L	294.405	3	0.000
	B	11	**0.795**	ug/L	33.456	80	0.000
	Na	23	**1.095**	ug/L	266.288	18012	0.001
	Mg	24	**-2.496**	ug/L	30.237	333	-0.002
	Al	27	**5.238**	ug/L	142.486	8003	0.006
	P	31	**18.255**	ug/L	24.680	3183	0.001
	K	39	**-24.210**	ug/L	37.681	325332	-0.050
	Ca	43	**-28.075**	ug/L	28.931	346	-0.000
>	Sc	45		ug/L		854418	854418.034
	Ti	47	**0.101**	ug/L	85.575	188	0.000
	V	51	**-2.700**	ug/L	23.342	2852	-0.005
	Cr	52	**0.713**	ug/L	17.695	2052	0.001
	Cr	53		ug/L		89967	-0.064
	Mn	55	**0.227**	ug/L	11.189	1463	0.001
	Fe	57	**14.971**	ug/L	6.269	5107	0.001
	Co	59	**-0.001**	ug/L	411.229	128	-0.000
	Ni	60	**0.041**	ug/L	57.536	61	0.000
	Cu	63		ug/L		201	0.000
	Cu	65	**0.112**	ug/L	29.949	116	0.000
	Zn	66	**0.915**	ug/L	2.586	305	0.002
	Zn	67		ug/L		3679	-0.020
	Zn	68		ug/L		454	-0.000
>	Ge	74		ug/L		116787	116786.746
	As	75	**-0.568**	ug/L	180.213	372	-0.001
	Se	77		ug/L		2816	-0.016
	Se	82	**0.387**	ug/L	66.635	-4	0.000
	Kr	83		ug/L		41	-0.000
	Sr	88	**0.006**	ug/L	75.442	145	0.000
	Y	89		ug/L		28	0.000
	Zr	90	**0.202**	ug/L	12.877	599	0.007
	Mo	98	**-0.001**	ug/L	63.744	31	-0.000
	Ag	107	**-0.007**	ug/L	79.605	41	-0.000
	Cd	111	**0.002**	ug/L	195.687	9	0.000
	Cd	114		ug/L		17	-0.000
>	In	115		ug/L		66604	66603.812
	Sn	120	**0.164**	ug/L	12.196	347	0.004
	Sb	121	**0.052**	ug/L	45.521	190	0.001
	Sb	123		ug/L		194	0.001
	Ba	135		ug/L		48	0.000
	Ba	137	**0.083**	ug/L	8.385	74	0.001
	Ho	165		ug/L		12	0.000
>	Lu	175		ug/L		74662	74661.689
	Tl	205	**0.011**	ug/L	87.649	140	0.000
	Pb	208	**0.184**	ug/L	1.440	1149	0.012
	Bi	209		ug/L		40	0.000
	Th	232	**0.032**	ug/L	15.880	377	0.003
	U	238	**-0.009**	ug/L	19.012	49	-0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	0.9999
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	0.9999
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	0.9996
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45			95.7		
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74			93.3		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115			95.9		
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175			96.8		
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 1201994299
Sample Date/Time: Thursday, December 31, 2009 21:28:58
Sample Type:
Sample Description: LANL 6020 LCS
Number of Replicates: 3
Batch ID: 932315|40|skj
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\091231\1201994299.165

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**3.351**	**ug/L**	4.395	568	0.001
	Be	9	**23.128**	**ug/L**	4.170	1088	0.001
	B	11	**43.023**	**ug/L**	2.659	1816	0.002
	Na	23	**290.350**	**ug/L**	6.258	317839	0.348
	Mg	24	**1089.367**	**ug/L**	6.052	842500	0.972
	Al	27	**3692.278**	**ug/L**	9.437	3720770	4.296
	P	31	**209.174**	**ug/L**	3.130	13777	0.013
	K	39	**1316.427**	**ug/L**	2.861	2715831	2.708
	Ca	43	**2760.197**	**ug/L**	1.830	10992	0.012
>	Sc	45		**ug/L**		865206	865205.930
	Ti	47	**146.866**	**ug/L**	1.781	26251	0.030
	V	51	**24.593**	**ug/L**	2.749	50446	0.050
	Cr	52	**62.930**	**ug/L**	0.334	112430	0.129
	Cr	53		**ug/L**		125365	-0.025
	Mn	55	**152.979**	**ug/L**	0.320	438428	0.506
	Fe	57	**4981.175**	**ug/L**	1.264	289366	0.329
	Co	59	**25.714**	**ug/L**	1.028	55223	0.064
	Ni	60	**36.757**	**ug/L**	0.843	16586	0.019
	Cu	63		**ug/L**		48039	0.055
	Cu	65	**47.387**	**ug/L**	1.286	23249	0.027
	Zn	66	**161.535**	**ug/L**	1.279	41407	0.341
	Zn	67		**ug/L**		10691	0.037
	Zn	68		**ug/L**		28990	0.235
>	Ge	74		**ug/L**		121194	121194.487
	As	75	**28.146**	**ug/L**	4.264	8816	0.068
	Se	77		**ug/L**		5552	0.006
	Se	82	**76.656**	**ug/L**	1.282	2137	0.018
	Kr	83		**ug/L**		46	-0.000
	Sr	88	**60.862**	**ug/L**	1.739	259056	3.869
	Y	89		**ug/L**		13459	0.201
	Zr	90	**2.781**	**ug/L**	2.801	6425	0.094
	Mo	98	**13.168**	**ug/L**	2.322	12544	0.187
	Ag	107	**2.379**	**ug/L**	1.666	3512	0.052
	Cd	111	**16.038**	**ug/L**	3.048	5370	0.080
	Cd	114		**ug/L**		12210	0.182
>	In	115		**ug/L**		66929	66928.513
	Sn	120	**11.748**	**ug/L**	1.221	17811	0.265
	Sb	121	**12.877**	**ug/L**	2.453	15334	0.227
	Sb	123		**ug/L**		11712	0.173
	Ba	135		**ug/L**		20220	0.267
	Ba	137	**54.007**	**ug/L**	1.446	34823	0.460
	Ho	165		**ug/L**		558	0.007
>	Lu	175		**ug/L**		75665	75664.617
	Tl	205	**33.562**	**ug/L**	1.537	70424	0.929
	Pb	208	**24.285**	**ug/L**	1.106	115965	1.529
	Bi	209		**ug/L**		964	0.012
	Th	232	**2.514**	**ug/L**	1.431	14930	0.195
	U	238	**0.525**	**ug/L**	2.324	3260	0.042

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	0.9999
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	0.9999
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	0.9996
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45			97.0		
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74			96.8		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115			96.4		
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175			98.1		
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
	Ti	47	Sample is out of limits (over linear range)

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 242661001
Sample Date/Time: Thursday, December 31, 2009 21:41:22
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 932315|2|skj
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\091231\242661001.167

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**72.072**	ug/L	1.085	12352	0.014
	Be	9	**4.067**	ug/L	9.116	202	0.000
	B	11	**21.213**	ug/L	1.628	962	0.001
	Na	23	**2040.678**	ug/L	2.748	2226339	2.442
	Mg	24	**10674.635**	ug/L	5.764	8603865	9.521
	Al	27	**73175.236**	ug/L	3.034	76967694	85.148
	P	31	**640.498**	ug/L	1.445	39313	0.041
	K	39	**10166.739**	ug/L	1.585	19293307	20.910
	Ca	43	**8657.951**	ug/L	0.030	35012	0.038
>	Sc	45		ug/L		904210	904209.637
	Ti	47	**1685.590**	ug/L	0.172	313016	0.346
	V	51	**124.083**	ug/L	0.867	233966	0.250
	Cr	52	**51.438**	ug/L	1.140	96209	0.105
	Cr	53		ug/L		101538	-0.057
	Mn	55	**1861.900**	ug/L	1.035	5566214	6.156
	Fe	57	**60619.057**	ug/L	0.891	3629588	4.010
	Co	59	**27.777**	ug/L	0.871	62328	0.069
	Ni	60	**37.004**	ug/L	1.742	17448	0.019
	Cu	63		ug/L		36286	0.040
	Cu	65	**34.242**	ug/L	1.779	17572	0.019
	Zn	66	**180.473**	ug/L	1.912	45541	0.381
	Zn	67		ug/L		12026	0.050
	Zn	68		ug/L		34869	0.288
>	Ge	74		ug/L		119347	119347.456
	As	75	**9.163**	ug/L	18.193	3191	0.022
	Se	77		ug/L		2934	-0.015
	Se	82	**1.009**	ug/L	16.086	13	0.000
	Kr	83		ug/L		66	0.000
	Sr	88	**124.544**	ug/L	1.306	531867	7.918
	Y	89		ug/L		208760	3.108
	Zr	90	**74.575**	ug/L	2.138	169151	2.517
	Mo	98	**1.711**	ug/L	4.380	1664	0.024
	Ag	107	**0.386**	ug/L	7.720	616	0.008
	Cd	111	**1.369**	ug/L	3.012	468	0.007
	Cd	114		ug/L		327	0.004
>	In	115		ug/L		67160	67160.439
	Sn	120	**1.192**	ug/L	3.633	1904	0.027
	Sb	121	**0.289**	ug/L	5.693	472	0.005
	Sb	123		ug/L		420	0.004
	Ba	135		ug/L		279244	3.509
	Ba	137	**711.952**	ug/L	1.474	482502	6.064
	Ho	165		ug/L		8655	0.109
>	Lu	175		ug/L		79567	79566.766
	Tl	205	**1.029**	ug/L	3.977	2391	0.028
	Pb	208	**60.601**	ug/L	1.096	303858	3.815
	Bi	209		ug/L		5778	0.072
	Th	232	**34.266**	ug/L	0.893	211443	2.655
	U	238	**5.294**	ug/L	0.698	33569	0.421

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	0.9999
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	0.9999
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	0.9996
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		101.3			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		95.4			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		96.7			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		103.1			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
	Al	27	Sample is out of limits (over linear range)
	Ti	47	Sample is out of limits (over linear range)
	V	51	Sample is out of limits (over linear range)
	Mn	55	Sample is out of limits (over linear range)
	Fe	57	Sample is out of limits (over linear range)

QC Action

QC Action Line: Continue

ICPMS#4 - Summary Report

Sample ID: 1201994300
Sample Date/Time: Thursday, December 31, 2009 21:47:35
Sample Type:
Sample Description: LANL 6020 DUP
Number of Replicates: 3
Batch ID: 932315|2|skj
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\091231\1201994300.168

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**68.236**	ug/L	0.420	11949	0.013
	Be	9	**4.066**	ug/L	1.681	206	0.000
	B	11	**20.198**	ug/L	1.516	938	0.001
	Na	23	**1958.276**	ug/L	3.580	2183481	2.344
	Mg	24	**10559.212**	ug/L	3.734	8706055	9.418
	Al	27	**71145.378**	ug/L	0.661	76463539	82.786
	P	31	**633.109**	ug/L	0.512	39734	0.040
	K	39	**10021.398**	ug/L	6.145	19424763	20.611
	Ca	43	**8520.503**	ug/L	1.129	35203	0.038
>	Sc	45		ug/L		923672	923672.063
	Ti	47	**1709.860**	ug/L	0.177	324367	0.351
	V	51	**127.472**	ug/L	0.380	245284	0.257
	Cr	52	**49.287**	ug/L	1.092	94211	0.101
	Cr	53		ug/L		100856	-0.061
	Mn	55	**1916.942**	ug/L	0.402	5854689	6.338
	Fe	57	**61855.930**	ug/L	0.596	3783425	4.091
	Co	59	**28.264**	ug/L	1.555	64778	0.070
	Ni	60	**36.760**	ug/L	1.695	17711	0.019
	Cu	63		ug/L		35656	0.038
	Cu	65	**32.760**	ug/L	0.999	17179	0.019
	Zn	66	**164.372**	ug/L	0.945	42714	0.347
	Zn	67		ug/L		11613	0.043
	Zn	68		ug/L		33245	0.266
>	Ge	74		ug/L		122848	122847.548
	As	75	**9.354**	ug/L	4.239	3347	0.023
	Se	77		ug/L		2883	-0.016
	Se	82	**0.938**	ug/L	72.053	11	0.000
	Kr	83		ug/L		80	0.000
	Sr	88	**121.175**	ug/L	1.480	531921	7.704
	Y	89		ug/L		212274	3.075
	Zr	90	**74.095**	ug/L	0.172	172760	2.500
	Mo	98	**1.691**	ug/L	0.610	1691	0.024
	Ag	107	**0.370**	ug/L	5.614	609	0.008
	Cd	111	**1.346**	ug/L	5.283	473	0.007
	Cd	114		ug/L		292	0.004
>	In	115		ug/L		69035	69034.793
	Sn	120	**1.135**	ug/L	16.007	1871	0.026
	Sb	121	**0.189**	ug/L	9.376	363	0.003
	Sb	123		ug/L		348	0.003
	Ba	135		ug/L		283864	3.538
	Ba	137	**713.656**	ug/L	1.810	487660	6.078
	Ho	165		ug/L		8642	0.108
>	Lu	175		ug/L		80237	80237.200
	Tl	205	**0.873**	ug/L	1.346	2066	0.024
	Pb	208	**57.774**	ug/L	1.706	292119	3.637
	Bi	209		ug/L		5454	0.068
	Th	232	**33.956**	ug/L	1.133	211265	2.631
	U	238	**5.147**	ug/L	1.622	32908	0.409

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	0.9999
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	0.9999
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	0.9996
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		103.5			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		98.2			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		99.4			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		104.0			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
	Al	27	Sample is out of limits (over linear range)
	Ti	47	Sample is out of limits (over linear range)
	V	51	Sample is out of limits (over linear range)
	Mn	55	Sample is out of limits (over linear range)
	Fe	57	Sample is out of limits (over linear range)

QC Action

QC Action Line: Continue

ICPMS#4 - Summary Report

Sample ID: 1201994301
Sample Date/Time: Thursday, December 31, 2009 21:53:49
Sample Type:
Sample Description: LANL 6020 MS
Number of Replicates: 3
Batch ID: 932315|2|skj
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\091231\1201994301.169

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**107.698**	ug/L	3.182	19056	0.020
	Be	9	**30.262**	ug/L	2.733	1538	0.002
	B	11	**73.434**	ug/L	1.708	3310	0.003
	Na	23	**3043.183**	ug/L	2.599	3421840	3.642
	Mg	24	**12940.442**	ug/L	2.915	10782249	11.542
	Al	27	**82239.012**	ug/L	1.890	89403523	95.694
	P	31	**1621.512**	ug/L	1.038	99187	0.104
	K	39	**12460.138**	ug/L	1.054	24344584	25.627
	Ca	43	**10802.517**	ug/L	0.580	45011	0.048
>	Sc	45		ug/L		934155	934155.049
	Ti	47	**1976.522**	ug/L	0.740	379195	0.406
	V	51	**160.077**	ug/L	1.166	309452	0.322
	Cr	52	**83.032**	ug/L	0.473	159898	0.170
	Cr	53		ug/L		108168	-0.054
	Mn	55	**2174.850**	ug/L	0.399	6718179	7.191
	Fe	57	**62648.650**	ug/L	0.890	3875989	4.144
	Co	59	**56.283**	ug/L	0.327	130347	0.139
	Ni	60	**63.042**	ug/L	0.329	30684	0.033
	Cu	63		ug/L		65221	0.070
	Cu	65	**59.034**	ug/L	0.736	31256	0.033
	Zn	66	**209.288**	ug/L	1.233	54903	0.442
	Zn	67		ug/L		13659	0.059
	Zn	68		ug/L		42603	0.339
>	Ge	74		ug/L		124083	124082.863
	As	75	**47.225**	ug/L	1.779	14764	0.114
	Se	77		ug/L		2981	-0.016
	Se	82	**8.890**	ug/L	5.461	240	0.002
	Kr	83		ug/L		87	0.000
	Sr	88	**167.541**	ug/L	0.890	729835	10.651
	Y	89		ug/L		208253	3.040
	Zr	90	**111.312**	ug/L	0.721	257486	3.756
	Mo	98	**24.880**	ug/L	0.860	24235	0.353
	Ag	107	**25.207**	ug/L	1.113	37585	0.548
	Cd	111	**6.728**	ug/L	3.313	2312	0.034
	Cd	114		ug/L		4345	0.063
>	In	115		ug/L		68506	68506.006
	Sn	120	**12.311**	ug/L	1.695	19100	0.277
	Sb	121	**30.179**	ug/L	0.690	36611	0.532
	Sb	123		ug/L		28108	0.408
	Ba	135		ug/L		317505	3.935
	Ba	137	**792.630**	ug/L	1.172	544699	6.751
	Ho	165		ug/L		8600	0.106
>	Lu	175		ug/L		80687	80687.054
	Tl	205	**48.879**	ug/L	1.391	109313	1.353
	Pb	208	**165.235**	ug/L	1.439	839571	10.403
	Bi	209		ug/L		5493	0.068
	Th	232	**58.003**	ug/L	1.424	362791	4.494
	U	238	**32.380**	ug/L	2.054	207583	2.572

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	0.9999
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	0.9999
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	0.9996
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		104.7			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		99.1			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		98.7			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		104.6			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
	Al	27	Sample is out of limits (over linear range)
	Ti	47	Sample is out of limits (over linear range)
	V	51	Sample is out of limits (over linear range)
	Mn	55	Sample is out of limits (over linear range)
	Fe	57	Sample is out of limits (over linear range)

QC Action

QC Action Line: Continue

ICPMS#4 - Summary Report

Sample ID: 1201998121
Sample Date/Time: Thursday, December 31, 2009 22:00:03
Sample Type:
Sample Description: LANL 6020 MSD
Number of Replicates: 3
Batch ID: 932315|2|skj
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\091231\1201998121.170

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**104.731**	ug/L	1.212	18813	0.020
	Be	9	**30.586**	ug/L	1.120	1577	0.002
	B	11	**73.676**	ug/L	1.715	3370	0.003
	Na	23	**3048.638**	ug/L	3.431	3478232	3.649
	Mg	24	**12796.294**	ug/L	5.806	10824620	11.413
	Al	27	**86366.686**	ug/L	1.500	95285333	100.497
	P	31	**1572.008**	ug/L	1.407	97670	0.100
	K	39	**12825.043**	ug/L	2.586	25418610	26.378
	Ca	43	**10308.604**	ug/L	1.548	43628	0.045
>	Sc	45		ug/L		948183	948182.622
	Ti	47	**1954.317**	ug/L	0.878	380512	0.401
	V	51	**162.398**	ug/L	1.998	318469	0.327
	Cr	52	**78.496**	ug/L	1.442	153474	0.161
	Cr	53		ug/L		104955	-0.059
	Mn	55	**1949.333**	ug/L	0.895	6112249	6.445
	Fe	57	**63496.652**	ug/L	0.782	3987311	4.200
	Co	59	**52.908**	ug/L	0.480	124372	0.131
	Ni	60	**61.428**	ug/L	1.036	30343	0.032
	Cu	63		ug/L		64091	0.067
	Cu	65	**57.688**	ug/L	1.660	31002	0.033
	Zn	66	**195.678**	ug/L	0.540	51724	0.413
	Zn	67		ug/L		12890	0.052
	Zn	68		ug/L		39366	0.311
>	Ge	74		ug/L		125006	125006.215
	As	75	**46.910**	ug/L	1.561	14775	0.114
	Se	77		ug/L		2968	-0.016
	Se	82	**9.457**	ug/L	5.479	258	0.002
	Kr	83		ug/L		87	0.000
	Sr	88	**160.207**	ug/L	1.341	714438	10.185
	Y	89		ug/L		219489	3.129
	Zr	90	**109.579**	ug/L	1.120	259503	3.698
	Mo	98	**22.961**	ug/L	0.332	22900	0.326
	Ag	107	**24.096**	ug/L	1.219	36784	0.524
	Cd	111	**6.526**	ug/L	2.109	2295	0.033
	Cd	114		ug/L		4312	0.061
>	In	115		ug/L		70134	70134.025
	Sn	120	**11.369**	ug/L	1.374	18068	0.256
	Sb	121	**26.419**	ug/L	1.907	32827	0.466
	Sb	123		ug/L		25328	0.359
	Ba	135		ug/L		313423	3.853
	Ba	137	**779.470**	ug/L	0.801	540004	6.639
	Ho	165		ug/L		8920	0.110
>	Lu	175		ug/L		81334	81334.370
	Tl	205	**47.988**	ug/L	0.681	108192	1.329
	Pb	208	**157.449**	ug/L	0.614	806526	9.912
	Bi	209		ug/L		5671	0.069
	Th	232	**59.270**	ug/L	0.502	373680	4.592
	U	238	**32.118**	ug/L	0.435	207596	2.551

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	0.9999
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	0.9999
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	0.9996
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		106.2			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		99.9			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		101.0			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		105.4			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
	Al	27	Sample is out of limits (over linear range)
	Ti	47	Sample is out of limits (over linear range)
	V	51	Sample is out of limits (over linear range)
	Mn	55	Sample is out of limits (over linear range)
	Fe	57	Sample is out of limits (over linear range)

QC Action

QC Action Line: Continue

ICPMS#4 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Thursday, December 31, 2009 22:06:17
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\091231\QC Std 6.171

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**54.105**	**ug/L**	2.250	9696	0.010
	Be	9	**51.936**	**ug/L**	2.584	2667	0.003
	B	11	**99.317**	**ug/L**	0.291	4510	0.005
	Na	23	**4860.398**	**ug/L**	4.964	5515095	5.817
	Mg	24	**4746.462**	**ug/L**	2.097	4005334	4.233
	Al	27	**4948.994**	**ug/L**	5.067	5448552	5.759
	P	31	**4936.333**	**ug/L**	0.817	300523	0.315
	K	39	**5364.511**	**ug/L**	4.969	10826963	11.033
	Ca	43	**4979.147**	**ug/L**	2.047	21252	0.022
>	Sc	45		**ug/L**		945186	945185.666
	Ti	47	**50.968**	**ug/L**	2.024	10073	0.010
	V	51	**48.166**	**ug/L**	3.403	100014	0.097
	Cr	52	**50.469**	**ug/L**	1.020	98697	0.103
	Cr	53		**ug/L**		134492	-0.027
	Mn	55	**51.825**	**ug/L**	1.816	162820	0.171
	Fe	57	**5090.379**	**ug/L**	1.869	322891	0.337
	Co	59	**50.322**	**ug/L**	0.285	117938	0.125
	Ni	60	**51.349**	**ug/L**	0.398	25295	0.027
	Cu	63		**ug/L**		57161	0.060
	Cu	65	**50.812**	**ug/L**	0.538	27229	0.029
	Zn	66	**51.230**	**ug/L**	1.863	14568	0.108
	Zn	67		**ug/L**		7317	0.004
	Zn	68		**ug/L**		10691	0.076
>	Ge	74		**ug/L**		133882	133882.367
	As	75	**48.027**	**ug/L**	2.914	16181	0.116
	Se	77		**ug/L**		5488	0.001
	Se	82	**49.568**	**ug/L**	3.105	1521	0.011
	Kr	83		**ug/L**		42	-0.000
	Sr	88	**51.342**	**ug/L**	1.349	235731	3.264
	Y	89		**ug/L**		102	0.001
	Zr	90	**49.796**	**ug/L**	0.869	121445	1.680
	Mo	98	**49.716**	**ug/L**	1.048	50991	0.706
	Ag	107	**50.319**	**ug/L**	1.793	78997	1.094
	Cd	111	**51.220**	**ug/L**	2.350	18481	0.256
	Cd	114		**ug/L**		41902	0.580
>	In	115		**ug/L**		72176	72175.589
	Sn	120	**50.561**	**ug/L**	1.098	82311	1.139
	Sb	121	**50.466**	**ug/L**	2.276	64420	0.890
	Sb	123		**ug/L**		49082	0.678
	Ba	135		**ug/L**		19705	0.246
	Ba	137	**49.750**	**ug/L**	1.111	33913	0.424
	Ho	165		**ug/L**		19	0.000
>	Lu	175		**ug/L**		79981	79980.743
	Tl	205	**48.909**	**ug/L**	0.284	108426	1.354
	Pb	208	**50.628**	**ug/L**	1.093	255223	3.187
	Bi	209		**ug/L**		69	0.001
	Th	232	**51.778**	**ug/L**	1.280	321027	4.012
	U	238	**53.712**	**ug/L**	1.930	341269	4.266

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	0.9999
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	0.9999
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	0.9996
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7	108.211				
	Be	9	103.873				
	B	11	99.317				
	Na	23	97.208				
	Mg	24	94.929				
	Al	27	98.000				
	P	31	98.727				
	K	39	107.290				
	Ca	43	99.583				
>	Sc	45			105.9		
	Ti	47	101.937				
	V	51	96.331				
	Cr	52	100.938				
	Cr	53					
	Mn	55	103.650				
	Fe	57	101.808				
	Co	59	100.644				
	Ni	60	102.699				
	Cu	63					
	Cu	65	101.625				
	Zn	66	102.461				
	Zn	67					
	Zn	68					
>	Ge	74			107.0		
	As	75	96.054				
	Se	77					
	Se	82	99.137				
	Kr	83					
	Sr	88	102.683				
	Y	89					
	Zr	90	99.592				
	Mo	98	99.432				
	Ag	107	100.639				
	Cd	111	102.439				
	Cd	114					
>	In	115			104.0		
	Sn	120	101.123				
	Sb	121	100.932				
	Sb	123					
	Ba	135					
	Ba	137	99.499				
	Ho	165					
>	Lu	175			103.7		
	Tl	205	97.817				
	Pb	208	101.256				
	Bi	209					
	Th	232	103.557				
	U	238	107.424				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Thursday, December 31, 2009 22:12:30
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\091231\QC Std 7.172

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.084**	ug/L	48.699	37	0.000
	Be	9	**-0.010**	ug/L	204.356	2	-0.000
	B	11	**3.332**	ug/L	4.796	205	0.000
	Na	23	**-3.435**	ug/L	74.198	15008	-0.004
	Mg	24	**0.190**	ug/L	1278.863	2667	0.000
	Al	27	**5.503**	ug/L	67.737	9337	0.006
	P	31	**-4.761**	ug/L	10.523	2157	-0.000
	K	39	**-6.999**	ug/L	91.744	397800	-0.014
	Ca	43	**-19.579**	ug/L	34.197	423	-0.000
>	Sc	45		ug/L		955310	955309.810
	Ti	47	**0.045**	ug/L	137.157	199	0.000
	V	51	**-2.174**	ug/L	52.098	4200	-0.004
	Cr	52	**0.676**	ug/L	12.738	2219	0.001
	Cr	53		ug/L		128232	-0.036
	Mn	55	**0.094**	ug/L	40.497	1215	0.000
	Fe	57	**-0.317**	ug/L	706.119	4745	-0.000
	Co	59	**0.013**	ug/L	97.183	178	0.000
	Ni	60	**0.008**	ug/L	223.086	52	0.000
	Cu	63		ug/L		118	0.000
	Cu	65	**0.001**	ug/L	2099.423	70	0.000
	Zn	66	**0.043**	ug/L	126.816	104	0.000
	Zn	67		ug/L		5224	-0.012
	Zn	68		ug/L		403	-0.001
>	Ge	74		ug/L		135044	135043.640
	As	75	**-0.709**	ug/L	263.590	389	-0.002
	Se	77		ug/L		4463	-0.007
	Se	82	**0.469**	ug/L	18.386	-2	0.000
	Kr	83		ug/L		45	-0.000
	Sr	88	**0.028**	ug/L	43.317	260	0.002
	Y	89		ug/L		31	0.000
	Zr	90	**0.146**	ug/L	11.555	523	0.005
	Mo	98	**0.063**	ug/L	10.804	101	0.001
	Ag	107	**0.025**	ug/L	55.626	98	0.001
	Cd	111	**0.035**	ug/L	61.778	22	0.000
	Cd	114		ug/L		42	0.000
>	In	115		ug/L		73489	73488.782
	Sn	120	**0.120**	ug/L	5.619	310	0.003
	Sb	121	**0.397**	ug/L	14.989	656	0.007
	Sb	123		ug/L		528	0.005
	Ba	135		ug/L		38	0.000
	Ba	137	**0.062**	ug/L	14.639	65	0.001
	Ho	165		ug/L		12	0.000
>	Lu	175		ug/L		78672	78672.179
	Tl	205	**0.206**	ug/L	16.286	571	0.006
	Pb	208	**0.050**	ug/L	19.381	549	0.003
	Bi	209		ug/L		23	0.000
	Th	232	**0.094**	ug/L	11.693	771	0.007
	U	238	**0.033**	ug/L	28.352	314	0.003

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	0.9999
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	0.9999
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	0.9996
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		107.0			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		107.9			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		105.8			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		102.0			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 1201994302
Sample Date/Time: Thursday, December 31, 2009 22:18:45
Sample Type:
Sample Description: LANL 6020 SDILT
Number of Replicates: 3
Batch ID: 932315|10|skj
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\091231\1201994302.173

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**14.217**	ug/L	2.348	2459	0.003
	Be	9	**0.840**	ug/L	9.040	44	0.000
	B	11	**5.127**	ug/L	3.868	272	0.000
	Na	23	**440.926**	ug/L	1.674	496136	0.528
	Mg	24	**2124.858**	ug/L	4.771	1719367	1.895
	Al	27	**13892.603**	ug/L	4.200	14649385	16.166
	P	31	**122.059**	ug/L	2.679	9388	0.008
	K	39	**2046.129**	ug/L	2.011	4203804	4.208
	Ca	43	**1724.228**	ug/L	1.528	7371	0.008
>	Sc	45		ug/L		906128	906128.439
	Ti	47	**339.914**	ug/L	1.810	63400	0.070
	V	51	**24.472**	ug/L	13.626	52607	0.049
	Cr	52	**10.612**	ug/L	0.493	20563	0.022
	Cr	53		ug/L		114590	-0.043
	Mn	55	**373.733**	ug/L	1.128	1120488	1.236
	Fe	57	**12261.211**	ug/L	0.209	739392	0.811
	Co	59	**5.701**	ug/L	1.703	12932	0.014
	Ni	60	**7.770**	ug/L	0.278	3709	0.004
	Cu	63		ug/L		7726	0.008
	Cu	65	**7.055**	ug/L	0.923	3682	0.004
	Zn	66	**37.089**	ug/L	1.658	9838	0.078
	Zn	67		ug/L		6361	-0.000
	Zn	68		ug/L		7664	0.057
>	Ge	74		ug/L		124592	124592.217
	As	75	**1.581**	ug/L	60.461	1050	0.004
	Se	77		ug/L		3688	-0.010
	Se	82	**0.797**	ug/L	22.253	7	0.000
	Kr	83		ug/L		45	-0.000
	Sr	88	**24.607**	ug/L	1.501	108498	1.564
	Y	89		ug/L		41845	0.604
	Zr	90	**14.135**	ug/L	0.759	33199	0.477
	Mo	98	**0.330**	ug/L	2.908	358	0.005
	Ag	107	**0.065**	ug/L	3.521	152	0.001
	Cd	111	**0.232**	ug/L	15.828	89	0.001
	Cd	114		ug/L		67	0.001
>	In	115		ug/L		69284	69283.687
	Sn	120	**0.229**	ug/L	10.351	461	0.005
	Sb	121	**0.117**	ug/L	17.719	277	0.002
	Sb	123		ug/L		245	0.002
	Ba	135		ug/L		55256	0.707
	Ba	137	**144.464**	ug/L	2.543	96123	1.230
	Ho	165		ug/L		1701	0.022
>	Lu	175		ug/L		78110	78110.078
	Tl	205	**0.200**	ug/L	4.608	554	0.006
	Pb	208	**12.237**	ug/L	1.200	60469	0.770
	Bi	209		ug/L		1179	0.015
	Th	232	**6.803**	ug/L	1.445	41368	0.527
	U	238	**1.053**	ug/L	0.393	6643	0.084

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	0.9999
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	0.9999
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	0.9996
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		101.5			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		99.5			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		99.8			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		101.2			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
	Ti	47	Sample is out of limits (over linear range)

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 242661002
Sample Date/Time: Thursday, December 31, 2009 22:24:58
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 932315|2|skj
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\091231\242661002.174

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**53.567**	**ug/L**	0.493	9235	0.010
	Be	9	**4.438**	**ug/L**	3.104	221	0.000
	B	11	**11.389**	**ug/L**	0.998	543	0.001
	Na	23	**1150.946**	**ug/L**	7.780	1270699	1.378
	Mg	24	**6230.925**	**ug/L**	2.681	5052154	5.557
	Al	27	**47037.566**	**ug/L**	1.109	49743313	54.733
	P	31	**350.886**	**ug/L**	1.600	22703	0.022
	K	39	**4798.202**	**ug/L**	2.746	9358568	9.869
	Ca	43	**5059.768**	**ug/L**	2.287	20763	0.022
>	Sc	45		**ug/L**		908842	908841.808
	Ti	47	**733.185**	**ug/L**	1.266	136961	0.150
	V	51	**40.914**	**ug/L**	2.253	82887	0.082
	Cr	52	**43.380**	**ug/L**	2.338	81678	0.089
	Cr	53		**ug/L**		96116	-0.064
	Mn	55	**990.038**	**ug/L**	0.310	2975719	3.273
	Fe	57	**46232.484**	**ug/L**	1.460	2783754	3.058
	Co	59	**5.943**	**ug/L**	1.555	13514	0.015
	Ni	60	**32.904**	**ug/L**	2.135	15603	0.017
	Cu	63		**ug/L**		18704	0.020
	Cu	65	**17.480**	**ug/L**	0.930	9051	0.010
	Zn	66	**172.011**	**ug/L**	0.513	43940	0.363
	Zn	67		**ug/L**		10742	0.038
	Zn	68		**ug/L**		31699	0.258
>	Ge	74		**ug/L**		120780	120780.310
	As	75	**7.735**	**ug/L**	3.282	2818	0.019
	Se	77		**ug/L**		2744	-0.017
	Se	82	**2.230**	**ug/L**	8.635	47	0.001
	Kr	83		**ug/L**		96	0.000
	Sr	88	**53.133**	**ug/L**	0.500	229386	3.378
	Y	89		**ug/L**		588728	8.675
	Zr	90	**68.388**	**ug/L**	0.689	156777	2.308
	Mo	98	**5.808**	**ug/L**	0.119	5630	0.082
	Ag	107	**0.340**	**ug/L**	7.765	554	0.007
	Cd	111	**1.132**	**ug/L**	14.383	392	0.006
	Cd	114		**ug/L**		159	0.002
>	In	115		**ug/L**		67870	67869.612
	Sn	120	**1.374**	**ug/L**	2.458	2204	0.031
	Sb	121	**0.282**	**ug/L**	11.155	468	0.005
	Sb	123		**ug/L**		396	0.004
	Ba	135		**ug/L**		89550	1.056
	Ba	137	**214.765**	**ug/L**	1.685	155063	1.829
	Ho	165		**ug/L**		23619	0.279
>	Lu	175		**ug/L**		84777	84777.391
	Tl	205	**0.536**	**ug/L**	3.317	1391	0.015
	Pb	208	**22.473**	**ug/L**	2.666	120226	1.415
	Bi	209		**ug/L**		11501	0.135
	Th	232	**28.483**	**ug/L**	0.860	187275	2.207
	U	238	**3.354**	**ug/L**	0.728	22700	0.266

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	0.9999
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	0.9999
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	0.9996
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		101.8			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		96.5			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		97.7			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		109.9			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
	Ti	47	Sample is out of limits (over linear range)

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 242661003
Sample Date/Time: Thursday, December 31, 2009 22:31:11
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 932315|2|skj
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\091231\242661003.175

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**82.370**	ug/L	2.439	14615	0.016
	Be	9	**5.565**	ug/L	3.184	285	0.000
	B	11	**16.870**	ug/L	1.328	803	0.001
	Na	23	**1993.017**	ug/L	4.698	2253407	2.385
	Mg	24	**11640.234**	ug/L	3.482	9730443	10.382
	Al	27	**89884.126**	ug/L	3.269	97974161	104.590
	P	31	**663.831**	ug/L	1.615	42112	0.042
	K	39	**8196.639**	ug/L	5.790	16191498	16.858
	Ca	43	**8920.790**	ug/L	1.185	37353	0.039
>	Sc	45		ug/L		936510	936510.260
	Ti	47	**1900.758**	ug/L	1.079	365521	0.390
	V	51	**139.096**	ug/L	1.745	270549	0.280
	Cr	52	**49.362**	ug/L	2.311	95612	0.101
	Cr	53		ug/L		96670	-0.066
	Mn	55	**10425.196**	ug/L	1.465	32281889	34.468
	Fe	57	**71567.935**	ug/L	1.148	4437977	4.734
	Co	59	**87.423**	ug/L	1.246	202888	0.216
	Ni	60	**56.914**	ug/L	1.531	27768	0.030
	Cu	63		ug/L		40469	0.043
	Cu	65	**37.494**	ug/L	1.901	19921	0.021
	Zn	66	**169.703**	ug/L	2.136	44091	0.358
	Zn	67		ug/L		13083	0.055
	Zn	68		ug/L		38997	0.313
>	Ge	74		ug/L		122852	122851.929
	As	75	**11.552**	ug/L	4.675	4001	0.028
	Se	77		ug/L		2781	-0.017
	Se	82	**1.313**	ug/L	15.316	22	0.000
	Kr	83		ug/L		88	0.000
	Sr	88	**140.510**	ug/L	0.181	612742	8.933
	Y	89		ug/L		375608	5.477
	Zr	90	**83.308**	ug/L	0.964	192965	2.811
	Mo	98	**3.142**	ug/L	1.922	3093	0.045
	Ag	107	**0.372**	ug/L	2.211	608	0.008
	Cd	111	**1.943**	ug/L	13.652	675	0.010
	Cd	114		ug/L		664	0.009
>	In	115		ug/L		68581	68581.120
	Sn	120	**1.417**	ug/L	2.398	2293	0.032
	Sb	121	**0.235**	ug/L	8.629	417	0.004
	Sb	123		ug/L		367	0.004
	Ba	135		ug/L		699870	8.452
	Ba	137	**1689.788**	ug/L	0.451	1191880	14.392
	Ho	165		ug/L		15657	0.189
>	Lu	175		ug/L		82817	82816.895
	Tl	205	**4.385**	ug/L	0.496	10185	0.121
	Pb	208	**97.098**	ug/L	1.065	506544	6.113
	Bi	209		ug/L		9096	0.110
	Th	232	**34.900**	ug/L	0.862	224116	2.704
	U	238	**3.874**	ug/L	2.138	25590	0.308

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	0.9999
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	0.9999
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	0.9996
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		104.9			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		98.2			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		98.8			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		107.3			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
	Al	27	Sample is out of limits (over linear range)
	Ti	47	Sample is out of limits (over linear range)
	V	51	Sample is out of limits (over linear range)
	Mn	55	Sample is out of limits (over linear range)
	Fe	57	Sample is out of limits (over linear range)

Ba	137Sample is out of limits (over linear range)

QC Action

QC Action Line: Continue

ICPMS#4 - Summary Report

Sample ID: 242661004
Sample Date/Time: Thursday, December 31, 2009 22:37:24
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 932315|2|sk|
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\091231\242661004.176

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**120.294**	**ug/L**	1.863	21430	0.023
	Be	9	**4.095**	**ug/L**	10.161	211	0.000
	B	11	**17.625**	**ug/L**	1.221	840	0.001
	Na	23	**2262.753**	**ug/L**	3.668	2564688	2.708
	Mg	24	**12453.253**	**ug/L**	0.888	10450755	11.107
	Al	27	**82194.932**	**ug/L**	5.264	89907678	95.643
	P	31	**499.029**	**ug/L**	0.522	32398	0.032
	K	39	**8524.609**	**ug/L**	3.955	16899124	17.533
	Ca	43	**9241.857**	**ug/L**	0.921	38840	0.041
>	Sc	45		**ug/L**		940569	940568.783
	Ti	47	**1165.727**	**ug/L**	0.595	225225	0.239
	V	51	**78.924**	**ug/L**	1.524	157799	0.159
	Cr	52	**43.934**	**ug/L**	0.629	85592	0.090
	Cr	53		**ug/L**		96966	-0.067
	Mn	55	**695.952**	**ug/L**	0.554	2165287	2.301
	Fe	57	**66595.894**	**ug/L**	0.262	4147970	4.405
	Co	59	**11.507**	**ug/L**	1.058	26951	0.028
	Ni	60	**36.095**	**ug/L**	0.486	17708	0.019
	Cu	63		**ug/L**		27732	0.029
	Cu	65	**25.214**	**ug/L**	3.718	13475	0.014
	Zn	66	**234.713**	**ug/L**	1.585	61494	0.495
	Zn	67		**ug/L**		13784	0.060
	Zn	68		**ug/L**		45065	0.359
>	Ge	74		**ug/L**		123946	123945.664
	As	75	**8.164**	**ug/L**	2.913	3019	0.020
	Se	77		**ug/L**		2850	-0.017
	Se	82	**1.304**	**ug/L**	23.914	22	0.000
	Kr	83		**ug/L**		92	0.000
	Sr	88	**86.289**	**ug/L**	1.097	383445	5.486
	Y	89		**ug/L**		409145	5.855
	Zr	90	**112.523**	**ug/L**	1.290	265483	3.797
	Mo	98	**3.183**	**ug/L**	2.077	3191	0.045
	Ag	107	**0.484**	**ug/L**	3.855	789	0.011
	Cd	111	**1.756**	**ug/L**	2.167	622	0.009
	Cd	114		**ug/L**		133	0.002
>	In	115		**ug/L**		69886	69885.568
	Sn	120	**2.040**	**ug/L**	3.191	3315	0.046
	Sb	121	**0.236**	**ug/L**	10.488	426	0.004
	Sb	123		**ug/L**		355	0.003
	Ba	135		**ug/L**		157052	1.862
	Ba	137	**379.815**	**ug/L**	1.310	272861	3.235
	Ho	165		**ug/L**		16056	0.190
>	Lu	175		**ug/L**		84346	84346.479
	Tl	205	**0.646**	**ug/L**	1.316	1640	0.018
	Pb	208	**41.572**	**ug/L**	0.998	221057	2.617
	Bi	209		**ug/L**		10879	0.129
	Th	232	**26.390**	**ug/L**	0.446	172658	2.045
	U	238	**2.098**	**ug/L**	1.071	14174	0.167

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	0.9999
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	0.9999
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	0.9996
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		105.4			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		99.0			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		100.7			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		109.3			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
	Al	27	Sample is out of limits (over linear range)
	Ti	47	Sample is out of limits (over linear range)
	Fe	57	Sample is out of limits (over linear range)

QC Action

QC Action Line: Continue

ICPMS#4 - Summary Report

Sample ID: 242661005
Sample Date/Time: Thursday, December 31, 2009 22:43:38
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 932315|2|skj
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\091231\242661005.177

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**44.761**	ug/L	1.736	7738	0.008
	Be	9	**3.369**	ug/L	2.948	169	0.000
	B	11	**11.780**	ug/L	4.603	561	0.001
	Na	23	**493.286**	ug/L	9.867	555653	0.590
	Mg	24	**6621.337**	ug/L	4.363	5383647	5.906
	Al	27	**47225.017**	ug/L	5.869	50079417	54.952
	P	31	**395.298**	ug/L	0.490	25345	0.025
	K	39	**5870.093**	ug/L	1.185	11391945	12.073
	Ca	43	**5852.241**	ug/L	1.600	24002	0.026
>	Sc	45		ug/L		911054	911054.142
	Ti	47	**1297.840**	ug/L	0.705	242877	0.266
	V	51	**85.991**	ug/L	1.828	165792	0.173
	Cr	52	**30.950**	ug/L	2.128	58659	0.063
	Cr	53		ug/L		89956	-0.071
	Mn	55	**2526.609**	ug/L	2.079	7611632	8.354
	Fe	57	**45724.031**	ug/L	2.642	2760016	3.024
	Co	59	**29.755**	ug/L	2.575	67267	0.074
	Ni	60	**22.587**	ug/L	0.985	10750	0.012
	Cu	63		ug/L		20504	0.022
	Cu	65	**19.147**	ug/L	1.050	9933	0.011
	Zn	66	**122.871**	ug/L	0.272	31643	0.259
	Zn	67		ug/L		8954	0.022
	Zn	68		ug/L		23944	0.193
>	Ge	74		ug/L		121679	121678.915
	As	75	**7.961**	ug/L	6.549	2905	0.019
	Se	77		ug/L		2644	-0.018
	Se	82	**0.914**	ug/L	48.847	10	0.000
	Kr	83		ug/L		79	0.000
	Sr	88	**69.888**	ug/L	0.643	305132	4.443
	Y	89		ug/L		242128	3.527
	Zr	90	**58.827**	ug/L	0.639	136430	1.985
	Mo	98	**3.715**	ug/L	2.296	3655	0.053
	Ag	107	**0.247**	ug/L	5.423	422	0.005
	Cd	111	**1.050**	ug/L	2.146	369	0.005
	Cd	114		ug/L		206	0.003
>	In	115		ug/L		68650	68650.362
	Sn	120	**1.268**	ug/L	1.277	2064	0.029
	Sb	121	**0.209**	ug/L	6.671	386	0.004
	Sb	123		ug/L		316	0.003
	Ba	135		ug/L		155812	1.915
	Ba	137	**391.400**	ug/L	1.745	271193	3.334
	Ho	165		ug/L		9740	0.120
>	Lu	175		ug/L		81345	81345.091
	Tl	205	**0.513**	ug/L	4.818	1283	0.014
	Pb	208	**46.405**	ug/L	1.484	237947	2.922
	Bi	209		ug/L		2486	0.030
	Th	232	**26.693**	ug/L	1.807	168444	2.068
	U	238	**3.247**	ug/L	2.179	21091	0.258

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	0.9999
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	0.9999
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	0.9996
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		102.1			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		97.2			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		98.9			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		105.4			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
	Ti	47	Sample is out of limits (over linear range)
	Mn	55	Sample is out of limits (over linear range)

QC Action

ICPMS#4 - Summary Report

Sample ID: 242661006
Sample Date/Time: Thursday, December 31, 2009 22:49:53
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 932315|2|skj
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\091231\242661006.178

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**51.799**	ug/L	1.948	8957	0.010
	Be	9	**4.308**	ug/L	5.414	216	0.000
	B	11	**14.146**	ug/L	1.514	664	0.001
	Na	23	**410.600**	ug/L	2.701	466155	0.491
	Mg	24	**7480.656**	ug/L	2.742	6086512	6.672
	Al	27	**54342.659**	ug/L	4.785	57641745	63.234
	P	31	**593.506**	ug/L	0.639	36910	0.038
	K	39	**7237.189**	ug/L	1.825	13965132	14.885
	Ca	43	**8146.824**	ug/L	0.803	33248	0.036
>	Sc	45		ug/L		911756	911755.819
	Ti	47	**1350.186**	ug/L	0.639	252859	0.277
	V	51	**96.494**	ug/L	1.453	185237	0.194
	Cr	52	**33.273**	ug/L	1.064	63049	0.068
	Cr	53		ug/L		88720	-0.072
	Mn	55	**2296.594**	ug/L	1.145	6924626	7.593
	Fe	57	**51980.005**	ug/L	1.286	3139721	3.438
	Co	59	**30.190**	ug/L	0.914	68304	0.075
	Ni	60	**25.440**	ug/L	0.516	12113	0.013
	Cu	63		ug/L		27865	0.030
	Cu	65	**26.288**	ug/L	1.304	13624	0.015
	Zn	66	**167.221**	ug/L	0.905	42885	0.353
	Zn	67		ug/L		10689	0.037
	Zn	68		ug/L		32167	0.261
>	Ge	74		ug/L		121249	121248.932
	As	75	**11.068**	ug/L	5.095	3808	0.027
	Se	77		ug/L		2597	-0.018
	Se	82	**1.351**	ug/L	22.207	23	0.000
	Kr	83		ug/L		78	0.000
	Sr	88	**85.626**	ug/L	0.572	376689	5.444
	Y	89		ug/L		283087	4.092
	Zr	90	**66.106**	ug/L	1.126	154476	2.231
	Mo	98	**3.941**	ug/L	2.435	3904	0.056
	Ag	107	**0.269**	ug/L	1.103	458	0.006
	Cd	111	**1.515**	ug/L	7.433	532	0.008
	Cd	114		ug/L		517	0.007
>	In	115		ug/L		69177	69177.500
	Sn	120	**1.225**	ug/L	0.629	2012	0.028
	Sb	121	**0.347**	ug/L	7.182	557	0.006
	Sb	123		ug/L		481	0.005
	Ba	135		ug/L		185957	2.296
	Ba	137	**465.482**	ug/L	1.291	321137	3.965
	Ho	165		ug/L		11319	0.140
>	Lu	175		ug/L		81000	81000.155
	Tl	205	**0.578**	ug/L	1.517	1423	0.016
	Pb	208	**55.701**	ug/L	1.564	284319	3.507
	Bi	209		ug/L		3040	0.037
	Th	232	**27.226**	ug/L	0.563	171073	2.109
	U	238	**7.953**	ug/L	0.923	51277	0.632

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	0.9999
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	0.9999
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	0.9996
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		102.2			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		96.9			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		99.6			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		105.0			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
	Al	27	Sample is out of limits (over linear range)
	Ti	47	Sample is out of limits (over linear range)
	Mn	55	Sample is out of limits (over linear range)
	Fe	57	Sample is out of limits (over linear range)

QC Action

QC Action Line: Continue

ICPMS#4 - Summary Report

Sample ID: 242661007
Sample Date/Time: Thursday, December 31, 2009 22:56:08
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 932315|2|skj
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\091231\242661007.179

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**20.819**	ug/L	5.512	3977	0.004
	Be	9	**1.011**	ug/L	15.381	58	0.000
	B	11	**5.376**	ug/L	1.513	313	0.000
	Na	23	**17711.997**	ug/L	14.949	21365636	21.199
	Mg	24	**6390.251**	ug/L	4.247	5730095	5.700
	Al	27	**15754.429**	ug/L	1.152	18427923	18.332
	P	31	**1372.188**	ug/L	2.319	90662	0.088
	K	39	**10960.020**	ug/L	5.851	23091554	22.542
	Ca	43	**45439.578**	ug/L	0.967	201938	0.200
>	Sc	45		ug/L		1004747	1004747.482
	Ti	47	**1105.354**	ug/L	0.274	228156	0.227
	V	51	**77.403**	ug/L	1.651	165408	0.156
	Cr	52	**24.113**	ug/L	0.790	50617	0.049
	Cr	53		ug/L		105751	-0.064
	Mn	55	**870.623**	ug/L	0.954	2893863	2.878
	Fe	57	**34951.087**	ug/L	1.033	2328435	2.312
	Co	59	**12.565**	ug/L	1.437	31431	0.031
	Ni	60	**24.314**	ug/L	0.936	12762	0.013
	Cu	63		ug/L		41368	0.041
	Cu	65	**34.742**	ug/L	1.787	19809	0.020
	Zn	66	**326.367**	ug/L	0.890	94448	0.689
	Zn	67		ug/L		18955	0.087
	Zn	68		ug/L		68246	0.494
>	Ge	74		ug/L		136979	136978.643
	As	75	**3.179**	ug/L	27.910	1676	0.008
	Se	77		ug/L		4150	-0.009
	Se	82	**0.595**	ug/L	43.088	1	0.000
	Kr	83		ug/L		74	0.000
	Sr	88	**76.464**	ug/L	1.884	364729	4.861
	Y	89		ug/L		169201	2.256
	Zr	90	**21.790**	ug/L	1.476	55316	0.735
	Mo	98	**2.651**	ug/L	3.213	2861	0.038
	Ag	107	**0.114**	ug/L	5.142	243	0.002
	Cd	111	**0.719**	ug/L	7.323	279	0.004
	Cd	114		ug/L		437	0.005
>	In	115		ug/L		74994	74994.497
	Sn	120	**1.498**	ug/L	2.179	2643	0.034
	Sb	121	**0.401**	ug/L	2.341	676	0.007
	Sb	123		ug/L		553	0.006
	Ba	135		ug/L		171900	2.043
	Ba	137	**412.698**	ug/L	1.671	295824	3.515
	Ho	165		ug/L		6430	0.076
>	Lu	175		ug/L		84130	84129.946
	Tl	205	**0.218**	ug/L	5.760	639	0.006
	Pb	208	**32.748**	ug/L	0.747	173756	2.062
	Bi	209		ug/L		1487	0.017
	Th	232	**9.330**	ug/L	1.620	61009	0.723
	U	238	**2.080**	ug/L	1.162	14014	0.165

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	0.9999
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	0.9999
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	0.9996
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		112.6			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		109.4			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		108.0			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		109.0			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
	Ti	47	Sample is out of limits (over linear range)

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Thursday, December 31, 2009 23:02:22
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\091231\QC Std 6.180

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**45.467**	ug/L	1.552	9152	0.009
	Be	9	**46.063**	ug/L	2.455	2656	0.003
	B	11	**88.029**	ug/L	2.919	4494	0.004
	Na	23	**4645.117**	ug/L	2.889	5918859	5.560
	Mg	24	**4531.394**	ug/L	3.272	4289471	4.042
	Al	27	**4937.918**	ug/L	5.792	6097127	5.746
	P	31	**4873.196**	ug/L	1.329	333025	0.311
	K	39	**5310.597**	ug/L	1.426	12043633	10.922
	Ca	43	**4977.730**	ug/L	1.369	23853	0.022
>	Sc	45		ug/L		1060814	1060813.509
	Ti	47	**49.582**	ug/L	0.783	11008	0.010
	V	51	**48.376**	ug/L	2.857	112689	0.097
	Cr	52	**51.738**	ug/L	1.526	113504	0.106
	Cr	53		ug/L		153352	-0.025
	Mn	55	**51.242**	ug/L	0.511	180736	0.169
	Fe	57	**5113.610**	ug/L	0.739	364083	0.338
	Co	59	**50.304**	ug/L	0.411	132314	0.125
	Ni	60	**51.243**	ug/L	0.309	28332	0.027
	Cu	63		ug/L		63442	0.060
	Cu	65	**50.166**	ug/L	1.152	30173	0.028
	Zn	66	**50.325**	ug/L	1.542	15756	0.106
	Zn	67		ug/L		7968	0.003
	Zn	68		ug/L		11579	0.074
>	Ge	74		ug/L		147364	147363.983
	As	75	**47.100**	ug/L	2.682	17487	0.114
	Se	77		ug/L		7265	0.010
	Se	82	**49.585**	ug/L	1.944	1675	0.011
	Kr	83		ug/L		50	-0.000
	Sr	88	**50.831**	ug/L	1.459	257089	3.231
	Y	89		ug/L		95	0.001
	Zr	90	**50.381**	ug/L	1.694	135351	1.700
	Mo	98	**49.629**	ug/L	1.575	56071	0.705
	Ag	107	**49.458**	ug/L	1.598	85534	1.075
	Cd	111	**49.752**	ug/L	1.928	19773	0.249
	Cd	114		ug/L		45507	0.572
>	In	115		ug/L		79523	79523.460
	Sn	120	**49.433**	ug/L	1.380	88663	1.114
	Sb	121	**48.892**	ug/L	0.458	68756	0.863
	Sb	123		ug/L		52130	0.654
	Ba	135		ug/L		21258	0.251
	Ba	137	**51.312**	ug/L	0.574	36942	0.437
	Ho	165		ug/L		22	0.000
>	Lu	175		ug/L		84474	84473.861
	Tl	205	**48.057**	ug/L	0.668	112525	1.331
	Pb	208	**50.343**	ug/L	0.876	268052	3.169
	Bi	209		ug/L		70	0.001
	Th	232	**51.041**	ug/L	0.158	334260	3.954
	U	238	**52.694**	ug/L	0.820	353651	4.185

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	0.9999
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	0.9999
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	0.9996
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7	90.935				
	Be	9	92.126				
	B	11	88.029				
	Na	23	92.902				
	Mg	24	90.628				
	Al	27	97.781				
	P	31	97.464				
	K	39	106.212				
	Ca	43	99.555				
>	Sc	45		118.9			
	Ti	47	99.164				
	V	51	96.752				
	Cr	52	103.476				
	Cr	53					
	Mn	55	102.483				
	Fe	57	102.272				
	Co	59	100.608				
	Ni	60	102.485				
	Cu	63					
	Cu	65	100.331				
	Zn	66	100.651				
	Zn	67					
	Zn	68					
>	Ge	74		117.7			
	As	75	94.200				
	Se	77					
	Se	82	99.171				
	Kr	83					
	Sr	88	101.662				
	Y	89					
	Zr	90	100.762				
	Mo	98	99.258				
	Ag	107	98.915				
	Cd	111	99.505				
	Cd	114					
>	In	115		114.5			
	Sn	120	98.866				
	Sb	121	97.783				
	Sb	123					
	Ba	135					
	Ba	137	102.624				
	Ho	165					
>	Lu	175		109.5			
	Tl	205	96.114				
	Pb	208	100.686				
	Bi	209					
	Th	232	102.082				
	U	238	105.388				

QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
QC Std 6	B	11CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#4 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Thursday, December 31, 2009 23:08:35
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\091231\QC Std 7.181

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.025**	ug/L	73.792	29	0.000
	Be	9	**0.022**	ug/L	84.598	4	0.000
	B	11	**2.064**	ug/L	21.833	163	0.000
	Na	23	**-4.416**	ug/L	36.682	15342	-0.005
	Mg	24	**2.043**	ug/L	81.536	4667	0.002
	Al	27	**3.392**	ug/L	80.080	7669	0.004
	P	31	**-6.758**	ug/L	23.791	2246	-0.000
	K	39	**-9.398**	ug/L	148.552	434193	-0.019
	Ca	43	**-22.504**	ug/L	17.266	453	-0.000
>	Sc	45		ug/L		1054846	1054845.637
	Ti	47	**-0.076**	ug/L	72.411	194	-0.000
	V	51	**-4.070**	ug/L	2.922	604	-0.008
	Cr	52	**1.292**	ug/L	12.136	3786	0.003
	Cr	53		ug/L		141535	-0.036
	Mn	55	**0.039**	ug/L	32.214	1150	0.000
	Fe	57	**5.875**	ug/L	36.986	5670	0.000
	Co	59	**0.023**	ug/L	32.695	221	0.000
	Ni	60	**0.016**	ug/L	40.623	62	0.000
	Cu	63		ug/L		121	0.000
	Cu	65	**-0.023**	ug/L	30.980	63	-0.000
	Zn	66	**0.018**	ug/L	76.946	106	0.000
	Zn	67		ug/L		5501	-0.014
	Zn	68		ug/L		435	-0.001
>	Ge	74		ug/L		148954	148953.831
	As	75	**0.377**	ug/L	139.127	820	0.001
	Se	77		ug/L		5827	-0.001
	Se	82	**0.832**	ug/L	22.313	10	0.000
	Kr	83		ug/L		44	-0.000
	Sr	88	**0.019**	ug/L	1.726	236	0.001
	Y	89		ug/L		19	0.000
	Zr	90	**0.139**	ug/L	10.792	546	0.005
	Mo	98	**0.049**	ug/L	27.569	94	0.001
	Ag	107	**0.021**	ug/L	60.249	97	0.000
	Cd	111	**0.020**	ug/L	69.740	18	0.000
	Cd	114		ug/L		44	0.000
>	In	115		ug/L		79473	79473.411
	Sn	120	**0.105**	ug/L	7.731	308	0.002
	Sb	121	**0.356**	ug/L	21.111	653	0.006
	Sb	123		ug/L		555	0.005
	Ba	135		ug/L		33	0.000
	Ba	137	**0.046**	ug/L	9.731	56	0.000
	Ho	165		ug/L		15	0.000
>	Lu	175		ug/L		82611	82611.004
	Tl	205	**0.151**	ug/L	16.639	476	0.004
	Pb	208	**0.035**	ug/L	9.927	499	0.002
	Bi	209		ug/L		23	0.000
	Th	232	**0.087**	ug/L	13.032	770	0.007
	U	238	**0.025**	ug/L	14.992	279	0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	0.9999
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	0.9999
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	0.9996
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		118.2			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		119.0			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		114.5			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		107.1			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 242661008
Sample Date/Time: Thursday, December 31, 2009 23:14:50
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 932315|2|skj
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\091231\242661008.182

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**13.561**	ug/L	1.868	2656	0.003
	Be	9	**0.711**	ug/L	6.195	42	0.000
	B	11	**3.584**	ug/L	11.893	232	0.000
	Na	23	**11055.004**	ug/L	1.551	13599389	13.231
	Mg	24	**4588.809**	ug/L	3.583	4199743	4.093
	Al	27	**9511.332**	ug/L	1.834	11356621	11.067
	P	31	**1330.165**	ug/L	1.037	89820	0.085
	K	39	**8230.450**	ug/L	3.114	17819318	16.928
	Ca	43	**7427.001**	ug/L	0.532	34157	0.033
>	Sc	45		ug/L		1026053	1026053.347
	Ti	47	**762.592**	ug/L	1.588	160807	0.157
	V	51	**51.053**	ug/L	1.769	114531	0.103
	Cr	52	**26.212**	ug/L	1.107	56090	0.054
	Cr	53		ug/L		113810	-0.059
	Mn	55	**464.214**	ug/L	1.483	1575428	1.535
	Fe	57	**19973.625**	ug/L	0.204	1360639	1.321
	Co	59	**6.706**	ug/L	0.819	17196	0.017
	Ni	60	**19.496**	ug/L	2.928	10454	0.010
	Cu	63		ug/L		30954	0.030
	Cu	65	**25.565**	ug/L	1.708	14908	0.014
	Zn	66	**140.293**	ug/L	2.296	42063	0.296
	Zn	67		ug/L		10988	0.026
	Zn	68		ug/L		30418	0.210
>	Ge	74		ug/L		141752	141752.232
	As	75	**3.779**	ug/L	15.164	1947	0.009
	Se	77		ug/L		4094	-0.011
	Se	82	**1.055**	ug/L	56.882	17	0.000
	Kr	83		ug/L		64	0.000
	Sr	88	**39.394**	ug/L	1.499	192121	2.504
	Y	89		ug/L		141192	1.842
	Zr	90	**19.324**	ug/L	1.000	50148	0.652
	Mo	98	**3.612**	ug/L	2.691	3968	0.051
	Ag	107	**0.102**	ug/L	14.189	230	0.002
	Cd	111	**0.476**	ug/L	8.801	192	0.002
	Cd	114		ug/L		180	0.002
>	In	115		ug/L		76648	76648.143
	Sn	120	**1.073**	ug/L	3.605	1969	0.024
	Sb	121	**0.325**	ug/L	7.010	588	0.006
	Sb	123		ug/L		504	0.005
	Ba	135		ug/L		42279	0.498
	Ba	137	**101.565**	ug/L	1.690	73419	0.865
	Ho	165		ug/L		5383	0.063
>	Lu	175		ug/L		84857	84856.816
	Tl	205	**0.216**	ug/L	1.841	640	0.006
	Pb	208	**25.581**	ug/L	0.185	136986	1.611
	Bi	209		ug/L		1353	0.016
	Th	232	**17.803**	ug/L	0.673	117261	1.379
	U	238	**2.248**	ug/L	1.528	15273	0.179

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	0.9999
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	0.9999
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	0.9996
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		115.0			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		113.3			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		110.4			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		110.0			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
	Ti	47	Sample is out of limits (over linear range)

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 242661009
Sample Date/Time: Thursday, December 31, 2009 23:21:04
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 932315|2|skj
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\091231\242661009.183

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**13.672**	ug/L	1.555	2571	0.003
	Be	9	**1.204**	ug/L	5.397	67	0.000
	B	11	**2.824**	ug/L	12.675	188	0.000
	Na	23	**554.137**	ug/L	10.139	672914	0.663
	Mg	24	**1493.517**	ug/L	2.143	1314863	1.332
	Al	27	**9001.530**	ug/L	10.122	10322053	10.474
	P	31	**285.715**	ug/L	1.702	20509	0.018
	K	39	**1857.039**	ug/L	10.861	4187022	3.819
	Ca	43	**3104.948**	ug/L	0.900	14014	0.014
>	Sc	45		ug/L		985149	985148.810
	Ti	47	**883.889**	ug/L	1.198	178928	0.181
	V	51	**19.373**	ug/L	1.810	47085	0.039
	Cr	52	**8.658**	ug/L	0.277	18409	0.018
	Cr	53		ug/L		96920	-0.071
	Mn	55	**1082.321**	ug/L	1.246	3526181	3.578
	Fe	57	**22477.342**	ug/L	0.099	1469579	1.487
	Co	59	**3.980**	ug/L	0.955	9859	0.010
	Ni	60	**9.395**	ug/L	2.794	4865	0.005
	Cu	63		ug/L		12600	0.013
	Cu	65	**10.811**	ug/L	2.877	6095	0.006
	Zn	66	**237.088**	ug/L	1.363	68083	0.500
	Zn	67		ug/L		14358	0.055
	Zn	68		ug/L		48748	0.355
>	Ge	74		ug/L		135855	135854.983
	As	75	**3.448**	ug/L	17.848	1759	0.008
	Se	77		ug/L		3314	-0.015
	Se	82	**1.455**	ug/L	27.211	29	0.000
	Kr	83		ug/L		90	0.000
	Sr	88	**14.935**	ug/L	2.438	72014	0.949
	Y	89		ug/L		456271	6.027
	Zr	90	**29.789**	ug/L	2.486	76262	1.005
	Mo	98	**6.733**	ug/L	0.447	7275	0.096
	Ag	107	**0.136**	ug/L	12.730	282	0.003
	Cd	111	**0.781**	ug/L	12.574	305	0.004
	Cd	114		ug/L		240	0.003
>	In	115		ug/L		75722	75722.116
	Sn	120	**3.386**	ug/L	2.379	5889	0.076
	Sb	121	**0.308**	ug/L	6.072	558	0.005
	Sb	123		ug/L		487	0.005
	Ba	135		ug/L		31791	0.368
	Ba	137	**75.272**	ug/L	1.419	55401	0.641
	Ho	165		ug/L		16696	0.193
>	Lu	175		ug/L		86381	86380.912
	Tl	205	**0.131**	ug/L	14.308	449	0.004
	Pb	208	**19.136**	ug/L	1.687	104384	1.205
	Bi	209		ug/L		3148	0.036
	Th	232	**15.465**	ug/L	0.840	103715	1.198
	U	238	**1.804**	ug/L	1.426	12495	0.143

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	0.9999
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	0.9999
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	0.9996
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		110.4			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		108.5			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		109.1			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		112.0			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
	Ti	47	Sample is out of limits (over linear range)
	Mn	55	Sample is out of limits (over linear range)

QC Action

QC Action Line: Continue

ICPMS#4 - Summary Report

Sample ID: 242661010
Sample Date/Time: Thursday, December 31, 2009 23:27:18
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 932315|2|skj
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\091231\242661010.184

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**14.517**	ug/L	1.113	2603	0.003
	Be	9	**1.297**	ug/L	15.408	69	0.000
	B	11	**2.901**	ug/L	12.497	182	0.000
	Na	23	**986.362**	ug/L	8.289	1128021	1.181
	Mg	24	**1309.417**	ug/L	2.771	1099773	1.168
	Al	27	**11361.854**	ug/L	1.510	12427951	13.221
	P	31	**115.240**	ug/L	1.931	9326	0.007
	K	39	**1870.337**	ug/L	5.379	4019206	3.847
	Ca	43	**1083.646**	ug/L	1.880	4989	0.005
>	Sc	45		ug/L		939718	939717.693
	Ti	47	**1367.970**	ug/L	0.957	264063	0.281
	V	51	**13.226**	ug/L	2.018	33280	0.027
	Cr	52	**16.516**	ug/L	0.976	32696	0.034
	Cr	53		ug/L		90276	-0.074
	Mn	55	**376.660**	ug/L	1.077	1171085	1.245
	Fe	57	**29317.730**	ug/L	1.828	1826841	1.939
	Co	59	**1.902**	ug/L	2.165	4570	0.005
	Ni	60	**9.531**	ug/L	1.009	4707	0.005
	Cu	63		ug/L		7018	0.007
	Cu	65	**6.582**	ug/L	1.190	3567	0.004
	Zn	66	**113.855**	ug/L	0.566	30661	0.240
	Zn	67		ug/L		8223	0.013
	Zn	68		ug/L		21802	0.167
>	Ge	74		ug/L		127214	127213.898
	As	75	**1.951**	ug/L	38.125	1185	0.005
	Se	77		ug/L		2851	-0.017
	Se	82	**0.639**	ug/L	94.261	3	0.000
	Kr	83		ug/L		65	0.000
	Sr	88	**14.267**	ug/L	1.561	64500	0.907
	Y	89		ug/L		223796	3.153
	Zr	90	**30.201**	ug/L	1.437	72488	1.019
	Mo	98	**14.330**	ug/L	3.740	14475	0.203
	Ag	107	**0.097**	ug/L	3.624	204	0.002
	Cd	111	**0.468**	ug/L	32.644	175	0.002
	Cd	114		ug/L		88	0.001
>	In	115		ug/L		70980	70979.924
	Sn	120	**4.115**	ug/L	2.493	6685	0.093
	Sb	121	**0.195**	ug/L	6.408	381	0.003
	Sb	123		ug/L		334	0.003
	Ba	135		ug/L		37784	0.457
	Ba	137	**93.682**	ug/L	1.316	65909	0.798
	Ho	165		ug/L		9453	0.114
>	Lu	175		ug/L		82582	82581.847
	Tl	205	**0.216**	ug/L	7.198	624	0.006
	Pb	208	**23.910**	ug/L	1.277	124616	1.505
	Bi	209		ug/L		2691	0.032
	Th	232	**22.835**	ug/L	0.490	146313	1.769
	U	238	**2.143**	ug/L	0.535	14171	0.170

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	0.9999
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	0.9999
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	0.9996
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		105.3			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		101.6			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		102.2			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		107.0			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
	Ti	47	Sample is out of limits (over linear range)

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 242661011
Sample Date/Time: Thursday, December 31, 2009 23:33:31
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 932315|2|skj
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\091231\242661011.185

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	29.999	ug/L	0.613	5285	0.006
	Be	9	2.575	ug/L	3.141	132	0.000
	B	11	4.573	ug/L	11.083	253	0.000
	Na	23	578.162	ug/L	2.062	659900	0.692
	Mg	24	2741.053	ug/L	4.626	2268111	2.445
	Al	27	22277.690	ug/L	2.924	24031398	25.923
	P	31	196.950	ug/L	2.385	14043	0.013
	K	39	2391.595	ug/L	3.421	4961775	4.919
	Ca	43	2406.653	ug/L	1.442	10336	0.011
>	Sc	45		ug/L		927250	927249.613
	Ti	47	1222.080	ug/L	0.121	232781	0.251
	V	51	32.778	ug/L	5.504	69325	0.066
	Cr	52	15.375	ug/L	2.191	30089	0.032
	Cr	53		ug/L		85691	-0.077
	Mn	55	735.834	ug/L	0.691	2256564	2.433
	Fe	57	39429.811	ug/L	0.984	2422890	2.608
	Co	59	5.104	ug/L	1.807	11860	0.013
	Ni	60	12.727	ug/L	0.982	6186	0.007
	Cu	63		ug/L		14505	0.016
	Cu	65	13.449	ug/L	2.681	7119	0.008
	Zn	66	150.992	ug/L	1.638	40017	0.319
	Zn	67		ug/L		9522	0.025
	Zn	68		ug/L		28707	0.225
>	Ge	74		ug/L		125297	125297.399
	As	75	5.665	ug/L	7.164	2295	0.014
	Se	77		ug/L		2694	-0.018
	Se	82	1.446	ug/L	11.665	26	0.000
	Kr	83		ug/L		93	0.000
	Sr	88	20.720	ug/L	0.861	99676	1.317
	Y	89		ug/L		510240	6.752
	Zr	90	78.403	ug/L	0.529	200094	2.646
	Mo	98	5.723	ug/L	1.776	6178	0.081
	Ag	107	0.263	ug/L	10.436	490	0.006
	Cd	111	1.180	ug/L	10.564	455	0.006
	Cd	114		ug/L		59	0.000
>	In	115		ug/L		75566	75566.000
	Sn	120	2.599	ug/L	1.918	4538	0.059
	Sb	121	0.268	ug/L	6.451	503	0.005
	Sb	123		ug/L		386	0.003
	Ba	135		ug/L		26918	0.318
	Ba	137	64.746	ug/L	3.135	46672	0.551
	Ho	165		ug/L		19999	0.236
>	Lu	175		ug/L		84625	84625.159
	Tl	205	0.147	ug/L	11.882	475	0.004
	Pb	208	23.046	ug/L	1.412	123083	1.451
	Bi	209		ug/L		3496	0.041
	Th	232	28.081	ug/L	1.872	184279	2.176
	U	238	3.176	ug/L	2.487	21457	0.252

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	0.9999
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	0.9999
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	0.9996
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		103.9			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		100.1			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		108.8			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		109.7			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
	Ti	47	Sample is out of limits (over linear range)

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 242661012
Sample Date/Time: Thursday, December 31, 2009 23:39:46
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 932315|2|skj
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\091231\242661012.186

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**66.420**	ug/L	1.483	11631	0.013
	Be	9	**3.698**	ug/L	6.567	188	0.000
	B	11	**18.396**	ug/L	3.193	859	0.001
	Na	23	**866.079**	ug/L	3.908	975575	1.037
	Mg	24	**8756.336**	ug/L	3.076	7213090	7.810
	Al	27	**66134.033**	ug/L	6.205	71085884	76.954
	P	31	**591.164**	ug/L	2.194	37244	0.038
	K	39	**8160.050**	ug/L	1.904	15900616	16.783
	Ca	43	**11204.955**	ug/L	1.390	46134	0.049
>	Sc	45		ug/L		923592	923592.107
	Ti	47	**1700.428**	ug/L	1.383	322522	0.349
	V	51	**98.608**	ug/L	2.941	191505	0.199
	Cr	52	**43.884**	ug/L	2.544	83937	0.090
	Cr	53		ug/L		94028	-0.068
	Mn	55	**1526.595**	ug/L	0.587	4662246	5.047
	Fe	57	**48059.518**	ug/L	0.727	2940323	3.179
	Co	59	**23.336**	ug/L	1.866	53504	0.058
	Ni	60	**34.590**	ug/L	2.540	16661	0.018
	Cu	63		ug/L		50533	0.055
	Cu	65	**46.821**	ug/L	0.974	24522	0.026
	Zn	66	**509.404**	ug/L	1.995	133093	1.075
	Zn	67		ug/L		24511	0.147
	Zn	68		ug/L		95902	0.771
>	Ge	74		ug/L		123717	123717.136
	As	75	**8.161**	ug/L	9.303	3016	0.020
	Se	77		ug/L		2753	-0.017
	Se	82	**0.743**	ug/L	37.566	6	0.000
	Kr	83		ug/L		80	0.000
	Sr	88	**103.165**	ug/L	1.043	452253	6.559
	Y	89		ug/L		233640	3.389
	Zr	90	**81.445**	ug/L	2.123	189589	2.748
	Mo	98	**2.276**	ug/L	2.138	2261	0.032
	Ag	107	**0.609**	ug/L	2.169	967	0.013
	Cd	111	**3.573**	ug/L	1.833	1239	0.018
	Cd	114		ug/L		1966	0.028
>	In	115		ug/L		68941	68940.600
	Sn	120	**1.376**	ug/L	2.985	2242	0.031
	Sb	121	**0.400**	ug/L	6.199	620	0.007
	Sb	123		ug/L		524	0.006
	Ba	135		ug/L		223738	2.747
	Ba	137	**559.931**	ug/L	0.417	388383	4.769
	Ho	165		ug/L		9376	0.115
>	Lu	175		ug/L		81432	81431.927
	Tl	205	**0.639**	ug/L	1.875	1567	0.018
	Pb	208	**66.515**	ug/L	0.652	341298	4.188
	Bi	209		ug/L		3409	0.042
	Th	232	**29.525**	ug/L	0.487	186482	2.287
	U	238	**5.367**	ug/L	0.473	34827	0.426

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	0.9999
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	0.9999
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	0.9996
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		103.5			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		98.8			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		99.3			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		105.6			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
	Al	27	Sample is out of limits (over linear range)
	Ti	47	Sample is out of limits (over linear range)
	Mn	55	Sample is out of limits (over linear range)

QC Action

QC Action Line: Continue

ICPMS#4 - Summary Report

Sample ID: 242661013
Sample Date/Time: Thursday, December 31, 2009 23:46:01
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 932315|2|skj
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\091231\242661013.187

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**11.603**	ug/L	5.374	2009	0.002
	Be	9	**1.341**	ug/L	9.471	68	0.000
	B	11	**1.061**	ug/L	27.403	97	0.000
	Na	23	**682.608**	ug/L	15.743	758238	0.817
	Mg	24	**334.402**	ug/L	3.203	272578	0.298
	Al	27	**2901.144**	ug/L	5.148	3061693	3.376
	P	31	**288.844**	ug/L	1.640	19040	0.018
	K	39	**1326.489**	ug/L	5.462	2861272	2.728
	Ca	43	**824.493**	ug/L	3.703	3773	0.004
>	Sc	45		ug/L		905846	905846.139
	Ti	47	**998.891**	ug/L	0.621	185907	0.205
	V	51	**7.933**	ug/L	1.333	22420	0.016
	Cr	52	**30.385**	ug/L	0.684	57277	0.062
	Cr	53		ug/L		89901	-0.071
	Mn	55	**1173.357**	ug/L	0.868	3515122	3.879
	Fe	57	**22820.361**	ug/L	1.419	1371918	1.509
	Co	59	**2.291**	ug/L	1.831	5277	0.006
	Ni	60	**16.574**	ug/L	0.272	7856	0.009
	Cu	63		ug/L		8453	0.009
	Cu	65	**7.926**	ug/L	1.250	4127	0.004
	Zn	66	**123.436**	ug/L	1.173	32763	0.261
	Zn	67		ug/L		8397	0.016
	Zn	68		ug/L		23454	0.183
>	Ge	74		ug/L		125416	125416.422
	As	75	**2.906**	ug/L	6.963	1459	0.007
	Se	77		ug/L		2736	-0.018
	Se	82	**1.953**	ug/L	18.338	41	0.000
	Kr	83		ug/L		84	0.000
	Sr	88	**4.397**	ug/L	2.095	20387	0.280
	Y	89		ug/L		506194	6.984
	Zr	90	**25.290**	ug/L	0.506	62012	0.853
	Mo	98	**9.781**	ug/L	1.898	10100	0.139
	Ag	107	**0.095**	ug/L	6.160	206	0.002
	Cd	111	**0.604**	ug/L	3.013	228	0.003
	Cd	114		ug/L		98	0.001
>	In	115		ug/L		72481	72481.085
	Sn	120	**4.447**	ug/L	0.689	7369	0.100
	Sb	121	**0.293**	ug/L	3.727	515	0.005
	Sb	123		ug/L		455	0.004
	Ba	135		ug/L		18099	0.212
	Ba	137	**43.193**	ug/L	0.757	31331	0.368
	Ho	165		ug/L		19574	0.230
>	Lu	175		ug/L		85096	85096.223
	Tl	205	**0.074**	ug/L	1.681	308	0.002
	Pb	208	**12.650**	ug/L	0.227	68097	0.796
	Bi	209		ug/L		6146	0.072
	Th	232	**16.490**	ug/L	1.312	108938	1.278
	U	238	**1.968**	ug/L	0.820	13420	0.156

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	0.9999
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	0.9999
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	0.9996
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		101.5			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		100.2			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		104.4			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		110.3			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
	Ti	47	Sample is out of limits (over linear range)
	Mn	55	Sample is out of limits (over linear range)

QC Action

QC Action Line: Continue

ICPMS#4 - Summary Report

Sample ID: 242661014
Sample Date/Time: Thursday, December 31, 2009 23:52:17
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 932315|2|skj
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\091231\242661014.188

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**21.187**	**ug/L**	3.467	3917	0.004
	Be	9	**1.095**	**ug/L**	9.713	60	0.000
	B	11	**1.840**	**ug/L**	14.236	140	0.000
	Na	23	**22069.439**	**ug/L**	1.939	25696508	26.414
	Mg	24	**6873.048**	**ug/L**	4.678	5956906	6.130
	Al	27	**11383.514**	**ug/L**	4.412	12879590	13.246
	P	31	**1148.040**	**ug/L**	0.485	73799	0.073
	K	39	**12057.911**	**ug/L**	1.193	24523589	24.800
	Ca	43	**5478.887**	**ug/L**	1.337	24003	0.024
>	Sc	45		**ug/L**		972199	972198.766
	Ti	47	**921.539**	**ug/L**	1.217	184051	0.189
	V	51	**47.648**	**ug/L**	4.044	101835	0.096
	Cr	52	**38.126**	**ug/L**	1.969	76895	0.078
	Cr	53		**ug/L**		99963	-0.067
	Mn	55	**550.349**	**ug/L**	1.637	1769749	1.820
	Fe	57	**31382.410**	**ug/L**	1.212	2023467	2.076
	Co	59	**9.469**	**ug/L**	2.395	22940	0.023
	Ni	60	**27.598**	**ug/L**	1.667	14004	0.014
	Cu	63		**ug/L**		46921	0.048
	Cu	65	**40.477**	**ug/L**	0.984	22329	0.023
	Zn	66	**151.576**	**ug/L**	0.497	42784	0.320
	Zn	67		**ug/L**		10494	0.028
	Zn	68		**ug/L**		30659	0.226
>	Ge	74		**ug/L**		133414	133414.498
	As	75	**3.990**	**ug/L**	5.709	1901	0.010
	Se	77		**ug/L**		2931	-0.018
	Se	82	**1.138**	**ug/L**	27.782	18	0.000
	Kr	83		**ug/L**		60	0.000
	Sr	88	**43.169**	**ug/L**	0.525	202099	2.744
	Y	89		**ug/L**		127396	1.730
	Zr	90	**12.551**	**ug/L**	0.870	31326	0.424
	Mo	98	**24.194**	**ug/L**	1.599	25315	0.344
	Ag	107	**0.066**	**ug/L**	9.468	163	0.001
	Cd	111	**0.478**	**ug/L**	21.250	184	0.002
	Cd	114		**ug/L**		310	0.004
>	In	115		**ug/L**		73597	73596.689
	Sn	120	**1.073**	**ug/L**	0.697	1889	0.024
	Sb	121	**0.277**	**ug/L**	4.816	502	0.005
	Sb	123		**ug/L**		416	0.004
	Ba	135		**ug/L**		59902	0.715
	Ba	137	**147.694**	**ug/L**	1.418	105445	1.258
	Ho	165		**ug/L**		5203	0.062
>	Lu	175		**ug/L**		83796	83795.911
	Tl	205	**0.142**	**ug/L**	6.940	460	0.004
	Pb	208	**27.679**	**ug/L**	0.286	146341	1.743
	Bi	209		**ug/L**		1625	0.019
	Th	232	**10.839**	**ug/L**	0.870	70575	0.840
	U	238	**1.765**	**ug/L**	1.619	11865	0.140

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	0.9999
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	0.9999
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	0.9996
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		108.9			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		106.6			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		106.0			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		108.6			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
	Ti	47	Sample is out of limits (over linear range)

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Thursday, December 31, 2009 23:58:31
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\091231\QC Std 6.189

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**49.312**	**ug/L**	0.876	9497	0.009
	Be	9	**48.757**	**ug/L**	1.848	2691	0.003
	B	11	**91.353**	**ug/L**	5.300	4463	0.004
	Na	23	**4946.220**	**ug/L**	3.893	6029386	5.920
	Mg	24	**4881.855**	**ug/L**	10.615	4419077	4.354
	Al	27	**4918.007**	**ug/L**	4.912	5810914	5.723
	P	31	**4870.025**	**ug/L**	1.020	318528	0.311
	K	39	**5191.748**	**ug/L**	1.056	11277271	10.678
	Ca	43	**4976.567**	**ug/L**	1.202	22822	0.022
>	Sc	45		**ug/L**		1015245	1015244.785
	Ti	47	**50.178**	**ug/L**	1.498	10660	0.010
	V	51	**48.093**	**ug/L**	1.853	107242	0.097
	Cr	52	**50.847**	**ug/L**	1.440	106795	0.104
	Cr	53		**ug/L**		140079	-0.032
	Mn	55	**51.636**	**ug/L**	1.438	174278	0.171
	Fe	57	**5129.741**	**ug/L**	1.707	349508	0.339
	Co	59	**50.718**	**ug/L**	1.115	127658	0.126
	Ni	60	**51.115**	**ug/L**	0.497	27048	0.027
	Cu	63		**ug/L**		60664	0.060
	Cu	65	**50.298**	**ug/L**	0.502	28954	0.028
	Zn	66	**50.520**	**ug/L**	1.820	15279	0.107
	Zn	67		**ug/L**		7692	0.003
	Zn	68		**ug/L**		11296	0.075
>	Ge	74		**ug/L**		142389	142388.643
	As	75	**47.665**	**ug/L**	1.847	17094	0.115
	Se	77		**ug/L**		5975	0.002
	Se	82	**50.360**	**ug/L**	2.904	1643	0.012
	Kr	83		**ug/L**		43	-0.000
	Sr	88	**50.870**	**ug/L**	0.139	248800	3.234
	Y	89		**ug/L**		103	0.001
	Zr	90	**50.073**	**ug/L**	1.398	130080	1.690
	Mo	98	**49.726**	**ug/L**	1.971	54330	0.706
	Ag	107	**49.551**	**ug/L**	0.728	82873	1.077
	Cd	111	**49.867**	**ug/L**	0.868	19165	0.249
	Cd	114		**ug/L**		44248	0.575
>	In	115		**ug/L**		76891	76891.470
	Sn	120	**49.685**	**ug/L**	1.688	86164	1.119
	Sb	121	**49.828**	**ug/L**	2.875	67754	0.879
	Sb	123		**ug/L**		51838	0.672
	Ba	135		**ug/L**		20583	0.250
	Ba	137	**51.294**	**ug/L**	0.632	35936	0.437
	Ho	165		**ug/L**		22	0.000
>	Lu	175		**ug/L**		82201	82200.976
	Tl	205	**48.681**	**ug/L**	1.301	110921	1.348
	Pb	208	**50.587**	**ug/L**	0.355	262111	3.185
	Bi	209		**ug/L**		70	0.001
	Th	232	**51.735**	**ug/L**	1.293	329677	4.008
	U	238	**54.186**	**ug/L**	1.401	353859	4.304

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	0.9999
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	0.9999
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	0.9996
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7	98.624				
	Be	9	97.514				
	B	11	91.353				
	Na	23	98.924				
	Mg	24	97.637				
	Al	27	97.386				
	P	31	97.400				
	K	39	103.835				
	Ca	43	99.531				
>	Sc	45		113.8			
	Ti	47	100.356				
	V	51	96.186				
	Cr	52	101.694				
	Cr	53					
	Mn	55	103.273				
	Fe	57	102.595				
	Co	59	101.435				
	Ni	60	102.230				
	Cu	63					
	Cu	65	100.595				
	Zn	66	101.040				
	Zn	67					
	Zn	68					
>	Ge	74		113.8			
	As	75	95.330				
	Se	77					
	Se	82	100.719				
	Kr	83					
	Sr	88	101.740				
	Y	89					
	Zr	90	100.146				
	Mo	98	99.452				
	Ag	107	99.101				
	Cd	111	99.734				
	Cd	114					
>	In	115		110.7			
	Sn	120	99.370				
	Sb	121	99.655				
	Sb	123					
	Ba	135					
	Ba	137	102.587				
	Ho	165					
>	Lu	175		106.5			
	Tl	205	97.361				
	Pb	208	101.174				
	Bi	209					
	Th	232	103.470				
	U	238	108.372				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Friday, January 01, 2010 00:04:44
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\091231\QC Std 7.190

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.036**	**ug/L**	25.932	30	0.000
	Be	9	**0.037**	**ug/L**	102.951	5	0.000
	B	11	**2.052**	**ug/L**	10.810	156	0.000
	Na	23	**-1.732**	**ug/L**	277.280	18012	-0.002
	Mg	24	**2.226**	**ug/L**	54.210	4667	0.002
	Al	27	**1.353**	**ug/L**	164.993	5001	0.002
	P	31	**-5.968**	**ug/L**	28.088	2207	-0.000
	K	39	**5.180**	**ug/L**	454.003	446579	0.011
	Ca	43	**-25.433**	**ug/L**	0.668	422	-0.000
>	Sc	45		**ug/L**		1012693	1012693.276
	Ti	47	**0.074**	**ug/L**	56.898	217	0.000
	V	51	**-4.028**	**ug/L**	42.510	635	-0.008
	Cr	52	**0.862**	**ug/L**	7.757	2739	0.002
	Cr	53		**ug/L**		132901	-0.039
	Mn	55	**0.028**	**ug/L**	81.138	1069	0.000
	Fe	57	**-1.133**	**ug/L**	149.511	4974	-0.000
	Co	59	**0.029**	**ug/L**	27.645	229	0.000
	Ni	60	**0.011**	**ug/L**	97.564	57	0.000
	Cu	63		**ug/L**		136	0.000
	Cu	65	**-0.003**	**ug/L**	601.367	72	-0.000
	Zn	66	**0.070**	**ug/L**	17.456	119	0.000
	Zn	67		**ug/L**		5407	-0.014
	Zn	68		**ug/L**		423	-0.001
>	Ge	74		**ug/L**		144100	144100.257
	As	75	**-1.050**	**ug/L**	51.400	296	-0.003
	Se	77		**ug/L**		4868	-0.006
	Se	82	**1.246**	**ug/L**	29.315	23	0.000
	Kr	83		**ug/L**		39	-0.000
	Sr	88	**0.019**	**ug/L**	41.952	232	0.001
	Y	89		**ug/L**		30	0.000
	Zr	90	**0.146**	**ug/L**	8.593	547	0.005
	Mo	98	**0.054**	**ug/L**	16.407	97	0.001
	Ag	107	**0.025**	**ug/L**	43.240	103	0.001
	Cd	111	**0.038**	**ug/L**	42.757	24	0.000
	Cd	114		**ug/L**		38	0.000
>	In	115		**ug/L**		77089	77089.482
	Sn	120	**0.113**	**ug/L**	12.741	313	0.003
	Sb	121	**0.397**	**ug/L**	11.066	689	0.007
	Sb	123		**ug/L**		524	0.005
	Ba	135		**ug/L**		30	0.000
	Ba	137	**0.035**	**ug/L**	48.408	47	0.000
	Ho	165		**ug/L**		11	-0.000
>	Lu	175		**ug/L**		80199	80198.957
	Tl	205	**0.143**	**ug/L**	20.870	442	0.004
	Pb	208	**0.029**	**ug/L**	38.550	454	0.002
	Bi	209		**ug/L**		28	0.000
	Th	232	**0.090**	**ug/L**	16.698	763	0.007
	U	238	**0.027**	**ug/L**	29.417	283	0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	0.9999
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	0.9999
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	0.9996
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		113.5			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		115.1			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		111.0			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		104.0			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 242661015
Sample Date/Time: Friday, January 01, 2010 00:10:59
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 932315|2|skj
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\091231\242661015.191

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**26.083**	ug/L	0.193	4726	0.005
	Be	9	**2.483**	ug/L	13.942	131	0.000
	B	11	**7.589**	ug/L	4.926	397	0.000
	Na	23	**531.397**	ug/L	14.076	625591	0.636
	Mg	24	**3592.864**	ug/L	6.872	3055718	3.205
	Al	27	**28807.146**	ug/L	10.412	31929829	33.520
	P	31	**300.683**	ug/L	1.779	20748	0.019
	K	39	**3513.191**	ug/L	2.639	7297222	7.226
	Ca	43	**5102.224**	ug/L	0.487	21952	0.023
>	Sc	45		ug/L		952990	952990.355
	Ti	47	**1242.823**	ug/L	1.060	243281	0.255
	V	51	**46.787**	ug/L	1.979	98168	0.094
	Cr	52	**18.166**	ug/L	1.941	36379	0.037
	Cr	53		ug/L		97522	-0.067
	Mn	55	**664.422**	ug/L	0.755	2094350	2.197
	Fe	57	**41164.476**	ug/L	0.839	2599530	2.723
	Co	59	**7.383**	ug/L	0.901	17568	0.018
	Ni	60	**13.885**	ug/L	2.065	6931	0.007
	Cu	63		ug/L		20654	0.022
	Cu	65	**18.431**	ug/L	1.583	10003	0.010
	Zn	66	**157.214**	ug/L	2.289	42935	0.332
	Zn	67		ug/L		10741	0.032
	Zn	68		ug/L		31021	0.236
>	Ge	74		ug/L		129113	129113.469
	As	75	**7.271**	ug/L	13.287	2866	0.018
	Se	77		ug/L		2957	-0.017
	Se	82	**1.177**	ug/L	34.708	19	0.000
	Kr	83		ug/L		83	0.000
	Sr	88	**39.608**	ug/L	1.049	190838	2.518
	Y	89		ug/L		330020	4.357
	Zr	90	**63.310**	ug/L	0.293	161968	2.136
	Mo	98	**6.389**	ug/L	1.574	6907	0.091
	Ag	107	**0.265**	ug/L	3.011	494	0.006
	Cd	111	**1.287**	ug/L	7.522	497	0.006
	Cd	114		ug/L		320	0.004
>	In	115		ug/L		75737	75736.647
	Sn	120	**1.934**	ug/L	3.122	3414	0.044
	Sb	121	**0.442**	ug/L	10.974	738	0.008
	Sb	123		ug/L		615	0.006
	Ba	135		ug/L		66963	0.802
	Ba	137	**162.391**	ug/L	2.322	115428	1.383
	Ho	165		ug/L		12246	0.147
>	Lu	175		ug/L		83456	83455.927
	Tl	205	**0.278**	ug/L	0.582	773	0.008
	Pb	208	**34.295**	ug/L	2.420	180465	2.159
	Bi	209		ug/L		7767	0.093
	Th	232	**22.163**	ug/L	1.135	143502	1.717
	U	238	**3.140**	ug/L	0.665	20930	0.249

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	0.9999
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	0.9999
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	0.9996
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45			106.8		
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74			103.2		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115			109.1		
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175			108.2		
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
	Ti	47	Sample is out of limits (over linear range)

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 242661016
Sample Date/Time: Friday, January 01, 2010 00:17:14
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 932315|2|skj
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\091231\242661016.192

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**19.104**	ug/L	5.640	3579	0.004
	Be	9	**0.850**	ug/L	3.748	48	0.000
	B	11	**4.135**	ug/L	1.607	249	0.000
	Na	23	**35536.197**	ug/L	5.501	41865097	42.532
	Mg	24	**3999.620**	ug/L	2.179	3516818	3.567
	Al	27	**11259.722**	ug/L	0.585	12911100	13.102
	P	31	**1163.880**	ug/L	0.377	75771	0.074
	K	39	**15891.024**	ug/L	5.512	32578782	32.683
	Ca	43	**8032.550**	ug/L	0.187	35423	0.035
>	Sc	45		ug/L		985043	985043.227
	Ti	47	**664.320**	ug/L	0.522	134521	0.136
	V	51	**34.640**	ug/L	3.693	77368	0.070
	Cr	52	**18.755**	ug/L	1.965	38799	0.038
	Cr	53		ug/L		98485	-0.070
	Mn	55	**537.314**	ug/L	1.610	1750402	1.776
	Fe	57	**18020.604**	ug/L	1.107	1178731	1.192
	Co	59	**7.810**	ug/L	0.568	19203	0.019
	Ni	60	**14.658**	ug/L	1.581	7558	0.008
	Cu	63		ug/L		32769	0.033
	Cu	65	**27.739**	ug/L	1.278	15521	0.016
	Zn	66	**185.060**	ug/L	0.493	52718	0.391
	Zn	67		ug/L		11949	0.038
	Zn	68		ug/L		37757	0.276
>	Ge	74		ug/L		134708	134707.966
	As	75	**2.757**	ug/L	14.879	1519	0.007
	Se	77		ug/L		3114	-0.017
	Se	82	**0.975**	ug/L	26.216	14	0.000
	Kr	83		ug/L		57	-0.000
	Sr	88	**34.084**	ug/L	0.217	158923	2.167
	Y	89		ug/L		131389	1.793
	Zr	90	**17.587**	ug/L	0.779	43657	0.593
	Mo	98	**1.758**	ug/L	2.701	1865	0.025
	Ag	107	**0.106**	ug/L	1.799	226	0.002
	Cd	111	**0.625**	ug/L	6.639	238	0.003
	Cd	114		ug/L		303	0.004
>	In	115		ug/L		73285	73285.183
	Sn	120	**1.204**	ug/L	2.226	2098	0.027
	Sb	121	**0.421**	ug/L	1.656	686	0.007
	Sb	123		ug/L		544	0.006
	Ba	135		ug/L		41004	0.497
	Ba	137	**100.848**	ug/L	3.150	70899	0.859
	Ho	165		ug/L		5038	0.061
>	Lu	175		ug/L		82515	82515.471
	Tl	205	**0.147**	ug/L	2.441	464	0.004
	Pb	208	**27.787**	ug/L	1.342	144651	1.749
	Bi	209		ug/L		1493	0.018
	Th	232	**18.328**	ug/L	1.765	117382	1.420
	U	238	**1.998**	ug/L	2.547	13213	0.159

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	0.9999
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	0.9999
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	0.9996
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		110.4			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		107.6			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		105.5			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		107.0			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
	Ti	47	Sample is out of limits (over linear range)

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 242661017
Sample Date/Time: Friday, January 01, 2010 00:23:28
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 932315|2|skj
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\091231\242661017.193

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**63.737**	**ug/L**	1.228	11831	0.012
	Be	9	**3.902**	**ug/L**	6.724	210	0.000
	B	11	**14.494**	**ug/L**	2.071	729	0.001
	Na	23	**1334.067**	**ug/L**	6.230	1581756	1.597
	Mg	24	**9933.436**	**ug/L**	5.080	8681131	8.860
	Al	27	**72773.728**	**ug/L**	8.003	82849505	84.680
	P	31	**543.437**	**ug/L**	1.451	36503	0.035
	K	39	**7510.691**	**ug/L**	1.670	15548201	15.447
	Ca	43	**8612.385**	**ug/L**	0.863	37710	0.038
>	Sc	45		**ug/L**		979060	979059.589
	Ti	47	**1800.807**	**ug/L**	1.288	362043	0.370
	V	51	**97.317**	**ug/L**	1.136	200522	0.196
	Cr	52	**43.061**	**ug/L**	0.505	87346	0.088
	Cr	53		**ug/L**		99493	-0.068
	Mn	55	**1638.220**	**ug/L**	1.319	5303348	5.416
	Fe	57	**49612.228**	**ug/L**	2.051	3217214	3.282
	Co	59	**27.287**	**ug/L**	0.789	66307	0.068
	Ni	60	**36.844**	**ug/L**	0.890	18815	0.019
	Cu	63		**ug/L**		36239	0.037
	Cu	65	**31.561**	**ug/L**	2.045	17545	0.018
	Zn	66	**279.673**	**ug/L**	0.629	76861	0.590
	Zn	67		**ug/L**		16500	0.076
	Zn	68		**ug/L**		56441	0.430
>	Ge	74		**ug/L**		130033	130033.106
	As	75	**7.610**	**ug/L**	8.794	2995	0.018
	Se	77		**ug/L**		2993	-0.017
	Se	82	**1.165**	**ug/L**	20.530	19	0.000
	Kr	83		**ug/L**		77	0.000
	Sr	88	**78.305**	**ug/L**	0.494	362993	4.978
	Y	89		**ug/L**		215415	2.955
	Zr	90	**82.106**	**ug/L**	0.933	202123	2.771
	Mo	98	**2.133**	**ug/L**	4.562	2242	0.030
	Ag	107	**0.437**	**ug/L**	5.952	749	0.009
	Cd	111	**1.693**	**ug/L**	5.960	625	0.008
	Cd	114		**ug/L**		667	0.009
>	In	115		**ug/L**		72890	72889.834
	Sn	120	**1.489**	**ug/L**	0.740	2554	0.034
	Sb	121	**0.428**	**ug/L**	7.134	691	0.008
	Sb	123		**ug/L**		584	0.006
	Ba	135		**ug/L**		249034	2.929
	Ba	137	**596.568**	**ug/L**	1.981	431912	5.081
	Ho	165		**ug/L**		8314	0.098
>	Lu	175		**ug/L**		85006	85006.355
	Tl	205	**0.696**	**ug/L**	3.631	1771	0.019
	Pb	208	**58.749**	**ug/L**	0.521	314723	3.699
	Bi	209		**ug/L**		4554	0.053
	Th	232	**27.229**	**ug/L**	0.644	179538	2.110
	U	238	**3.376**	**ug/L**	0.855	22909	0.268

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	0.9999
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	0.9999
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	0.9996
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		109.7			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		103.9			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		105.0			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		110.2			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
	Al	27	Sample is out of limits (over linear range)
	Ti	47	Sample is out of limits (over linear range)
	Mn	55	Sample is out of limits (over linear range)

QC Action

QC Action Line: Continue

ICPMS#4 - Summary Report

Sample ID: 242661018
Sample Date/Time: Friday, January 01, 2010 00:29:43
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 932315|2|skj
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\091231\242661018.194

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**18.449**	**ug/L**	0.869	3294	0.003
	Be	9	**2.375**	**ug/L**	7.078	123	0.000
	B	11	**5.276**	**ug/L**	3.829	288	0.000
	Na	23	**1013.008**	**ug/L**	4.610	1154912	1.212
	Mg	24	**2119.228**	**ug/L**	7.171	1774838	1.890
	Al	27	**24197.446**	**ug/L**	11.875	26384122	28.156
	P	31	**149.868**	**ug/L**	4.114	11377	0.010
	K	39	**2520.743**	**ug/L**	4.273	5263845	5.184
	Ca	43	**2433.857**	**ug/L**	0.675	10560	0.011
>	Sc	45		**ug/L**		937424	937424.223
	Ti	47	**1629.896**	**ug/L**	0.275	313802	0.335
	V	51	**28.540**	**ug/L**	4.958	62105	0.057
	Cr	52	**12.373**	**ug/L**	0.349	24656	0.025
	Cr	53		**ug/L**		89417	-0.074
	Mn	55	**478.447**	**ug/L**	0.353	1483781	1.582
	Fe	57	**41679.324**	**ug/L**	0.307	2589030	2.757
	Co	59	**2.864**	**ug/L**	1.453	6792	0.007
	Ni	60	**7.995**	**ug/L**	0.642	3946	0.004
	Cu	63		**ug/L**		12068	0.013
	Cu	65	**11.096**	**ug/L**	2.559	5952	0.006
	Zn	66	**147.372**	**ug/L**	0.982	40001	0.311
	Zn	67		**ug/L**		9694	0.024
	Zn	68		**ug/L**		28048	0.214
>	Ge	74		**ug/L**		128308	128307.978
	As	75	**4.398**	**ug/L**	9.697	1955	0.011
	Se	77		**ug/L**		2751	-0.018
	Se	82	**1.272**	**ug/L**	47.385	21	0.000
	Kr	83		**ug/L**		61	0.000
	Sr	88	**19.213**	**ug/L**	1.769	88717	1.221
	Y	89		**ug/L**		190362	2.625
	Zr	90	**58.208**	**ug/L**	1.281	142624	1.964
	Mo	98	**19.059**	**ug/L**	2.224	19662	0.271
	Ag	107	**0.221**	**ug/L**	0.612	405	0.005
	Cd	111	**0.838**	**ug/L**	4.213	313	0.004
	Cd	114		**ug/L**		100	0.001
>	In	115		**ug/L**		72541	72540.958
	Sn	120	**4.085**	**ug/L**	1.968	6782	0.092
	Sb	121	**0.282**	**ug/L**	5.979	501	0.005
	Sb	123		**ug/L**		402	0.004
	Ba	135		**ug/L**		28785	0.349
	Ba	137	**71.007**	**ug/L**	0.368	49880	0.605
	Ho	165		**ug/L**		8132	0.098
>	Lu	175		**ug/L**		82437	82437.006
	Tl	205	**0.142**	**ug/L**	11.069	452	0.004
	Pb	208	**17.049**	**ug/L**	0.735	88795	1.073
	Bi	209		**ug/L**		754	0.009
	Th	232	**24.093**	**ug/L**	1.384	154077	1.867
	U	238	**2.368**	**ug/L**	1.677	15621	0.188

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	0.9999
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	0.9999
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	0.9996
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		105.0			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		102.5			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		104.5			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		106.9			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
	Ti	47	Sample is out of limits (over linear range)

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 242661019
Sample Date/Time: Friday, January 01, 2010 00:35:58
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 932315|2|skj
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\091231\242661019.195

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**23.185**	**ug/L**	2.325	4082	0.004
	Be	9	**2.194**	**ug/L**	9.750	113	0.000
	B	11	**1.838**	**ug/L**	16.350	133	0.000
	Na	23	**762.451**	**ug/L**	6.479	863410	0.913
	Mg	24	**864.736**	**ug/L**	4.660	716566	0.771
	Al	27	**8953.624**	**ug/L**	5.834	9649846	10.419
	P	31	**124.276**	**ug/L**	4.065	9724	0.008
	K	39	**1252.418**	**ug/L**	2.832	2782957	2.576
	Ca	43	**714.203**	**ug/L**	2.064	3406	0.003
>	Sc	45		**ug/L**		925680	925680.306
	Ti	47	**1728.035**	**ug/L**	0.495	328517	0.355
	V	51	**13.667**	**ug/L**	5.895	33611	0.028
	Cr	52	**7.817**	**ug/L**	2.856	15704	0.016
	Cr	53		**ug/L**		85671	-0.077
	Mn	55	**604.652**	**ug/L**	1.406	1851351	1.999
	Fe	57	**35828.977**	**ug/L**	0.922	2198298	2.370
	Co	59	**1.821**	**ug/L**	1.517	4316	0.005
	Ni	60	**4.769**	**ug/L**	2.230	2343	0.002
	Cu	63		**ug/L**		6448	0.007
	Cu	65	**6.259**	**ug/L**	1.618	3344	0.004
	Zn	66	**145.878**	**ug/L**	0.377	38910	0.308
	Zn	67		**ug/L**		9399	0.023
	Zn	68		**ug/L**		27425	0.213
>	Ge	74		**ug/L**		126077	126076.856
	As	75	**2.091**	**ug/L**	25.784	1219	0.005
	Se	77		**ug/L**		2636	-0.019
	Se	82	**0.603**	**ug/L**	48.333	2	0.000
	Kr	83		**ug/L**		72	0.000
	Sr	88	**6.565**	**ug/L**	1.827	30306	0.417
	Y	89		**ug/L**		230310	3.185
	Zr	90	**40.980**	**ug/L**	1.965	100148	1.383
	Mo	98	**22.247**	**ug/L**	3.110	22872	0.316
	Ag	107	**0.161**	**ug/L**	2.208	309	0.004
	Cd	111	**0.600**	**ug/L**	19.922	226	0.003
	Cd	114		**ug/L**		72	0.001
>	In	115		**ug/L**		72316	72315.763
	Sn	120	**5.838**	**ug/L**	2.907	9617	0.132
	Sb	121	**0.191**	**ug/L**	9.745	383	0.003
	Sb	123		**ug/L**		321	0.003
	Ba	135		**ug/L**		15230	0.187
	Ba	137	**37.732**	**ug/L**	1.046	26227	0.321
	Ho	165		**ug/L**		9652	0.118
>	Lu	175		**ug/L**		81533	81533.179
	Tl	205	**0.065**	**ug/L**	10.192	274	0.002
	Pb	208	**10.157**	**ug/L**	1.804	52440	0.639
	Bi	209		**ug/L**		175	0.002
	Th	232	**22.153**	**ug/L**	1.133	140131	1.716
	U	238	**2.317**	**ug/L**	3.359	15114	0.184

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	0.9999
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	0.9999
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	0.9996
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		103.7			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		100.7			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		104.2			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		105.7			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
	Ti	47	Sample is out of limits (over linear range)

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 242661020
Sample Date/Time: Friday, January 01, 2010 00:42:13
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 932315|2|skj
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\091231\242661020.196

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**27.320**	**ug/L**	2.281	4810	0.005
	Be	9	**1.973**	**ug/L**	5.883	102	0.000
	B	11	**5.283**	**ug/L**	1.401	285	0.000
	Na	23	**1062.885**	**ug/L**	2.858	1197207	1.272
	Mg	24	**3231.383**	**ug/L**	2.230	2671884	2.882
	Al	27	**24153.036**	**ug/L**	2.618	26048019	28.105
	P	31	**146.758**	**ug/L**	2.422	11060	0.009
	K	39	**3716.437**	**ug/L**	8.583	7473429	7.644
	Ca	43	**2215.341**	**ug/L**	3.029	9543	0.010
>	Sc	45		**ug/L**		926407	926407.330
	Ti	47	**1374.965**	**ug/L**	1.041	261619	0.282
	V	51	**24.743**	**ug/L**	2.034	54292	0.050
	Cr	52	**16.016**	**ug/L**	1.170	31285	0.033
	Cr	53		**ug/L**		84233	-0.079
	Mn	55	**378.961**	**ug/L**	1.262	1161594	1.253
	Fe	57	**37405.883**	**ug/L**	0.863	2296753	2.474
	Co	59	**3.681**	**ug/L**	1.127	8589	0.009
	Ni	60	**12.038**	**ug/L**	1.817	5849	0.006
	Cu	63		**ug/L**		12173	0.013
	Cu	65	**11.416**	**ug/L**	2.167	6048	0.006
	Zn	66	**138.064**	**ug/L**	2.288	36115	0.291
	Zn	67		**ug/L**		8910	0.021
	Zn	68		**ug/L**		25805	0.204
>	Ge	74		**ug/L**		123665	123665.367
	As	75	**1.492**	**ug/L**	56.680	1017	0.004
	Se	77		**ug/L**		2520	-0.019
	Se	82	**1.288**	**ug/L**	19.858	21	0.000
	Kr	83		**ug/L**		71	0.000
	Sr	88	**22.288**	**ug/L**	1.406	99074	1.417
	Y	89		**ug/L**		243768	3.491
	Zr	90	**50.792**	**ug/L**	1.100	119845	1.714
	Mo	98	**12.837**	**ug/L**	0.779	12763	0.182
	Ag	107	**0.183**	**ug/L**	5.370	332	0.004
	Cd	111	**0.781**	**ug/L**	10.297	281	0.004
	Cd	114		**ug/L**		70	0.001
>	In	115		**ug/L**		69830	69829.627
	Sn	120	**3.527**	**ug/L**	2.855	5655	0.079
	Sb	121	**0.163**	**ug/L**	4.125	335	0.003
	Sb	123		**ug/L**		303	0.003
	Ba	135		**ug/L**		34545	0.421
	Ba	137	**85.702**	**ug/L**	2.819	59817	0.730
	Ho	165		**ug/L**		10070	0.123
>	Lu	175		**ug/L**		81925	81925.421
	Tl	205	**0.323**	**ug/L**	3.256	862	0.009
	Pb	208	**19.866**	**ug/L**	2.702	102753	1.251
	Bi	209		**ug/L**		1866	0.023
	Th	232	**25.138**	**ug/L**	1.436	159746	1.948
	U	238	**2.316**	**ug/L**	1.480	15185	0.184

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	0.9999
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	0.9999
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	0.9996
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		103.8			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		98.8			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		100.6			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		106.2			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
	Ti	47	Sample is out of limits (over linear range)

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Friday, January 01, 2010 00:48:27
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\091231\QC Std 6.197

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**54.660**	**ug/L**	1.828	9778	0.010
	Be	9	**51.427**	**ug/L**	0.942	2637	0.003
	B	11	**96.653**	**ug/L**	3.258	4382	0.005
	Na	23	**4937.410**	**ug/L**	2.491	5591787	5.909
	Mg	24	**4995.796**	**ug/L**	9.214	4202236	4.456
	Al	27	**5139.475**	**ug/L**	6.620	5640236	5.980
	P	31	**4932.509**	**ug/L**	1.163	299764	0.315
	K	39	**5376.501**	**ug/L**	2.813	10840948	11.058
	Ca	43	**4989.783**	**ug/L**	0.969	21266	0.022
>	Sc	45		**ug/L**		943390	943389.683
	Ti	47	**50.684**	**ug/L**	1.485	10005	0.010
	V	51	**48.357**	**ug/L**	0.582	100175	0.097
	Cr	52	**50.292**	**ug/L**	0.254	98149	0.103
	Cr	53		**ug/L**		126614	-0.036
	Mn	55	**51.204**	**ug/L**	1.060	160593	0.169
	Fe	57	**5062.102**	**ug/L**	1.196	320530	0.335
	Co	59	**49.789**	**ug/L**	1.454	116441	0.123
	Ni	60	**51.077**	**ug/L**	1.185	25111	0.027
	Cu	63		**ug/L**		56173	0.059
	Cu	65	**50.070**	**ug/L**	1.237	26784	0.028
	Zn	66	**50.000**	**ug/L**	0.054	14187	0.106
	Zn	67		**ug/L**		6853	0.000
	Zn	68		**ug/L**		10543	0.075
>	Ge	74		**ug/L**		133554	133553.809
	As	75	**47.847**	**ug/L**	2.578	16094	0.116
	Se	77		**ug/L**		5346	0.000
	Se	82	**49.056**	**ug/L**	2.649	1501	0.011
	Kr	83		**ug/L**		40	-0.000
	Sr	88	**49.864**	**ug/L**	1.691	230513	3.170
	Y	89		**ug/L**		122	0.002
	Zr	90	**49.320**	**ug/L**	1.907	121111	1.664
	Mo	98	**48.469**	**ug/L**	2.695	50052	0.688
	Ag	107	**48.949**	**ug/L**	1.226	77380	1.064
	Cd	111	**49.738**	**ug/L**	1.778	18067	0.248
	Cd	114		**ug/L**		41628	0.572
>	In	115		**ug/L**		72687	72686.921
	Sn	120	**49.695**	**ug/L**	2.128	81460	1.119
	Sb	121	**49.510**	**ug/L**	3.661	63630	0.874
	Sb	123		**ug/L**		48359	0.664
	Ba	135		**ug/L**		19516	0.243
	Ba	137	**49.077**	**ug/L**	1.719	33623	0.418
	Ho	165		**ug/L**		21	0.000
>	Lu	175		**ug/L**		80384	80384.330
	Tl	205	**47.950**	**ug/L**	1.995	106838	1.328
	Pb	208	**50.224**	**ug/L**	0.181	254478	3.162
	Bi	209		**ug/L**		60	0.000
	Th	232	**51.728**	**ug/L**	1.350	322338	4.008
	U	238	**52.977**	**ug/L**	1.025	338328	4.208

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	0.9999
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	0.9999
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	0.9996
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7	109.321				
	Be	9	102.853				
	B	11	96.653				
	Na	23	98.748				
	Mg	24	99.916				
	Al	27	101.772				
	P	31	98.650				
	K	39	107.530				
	Ca	43	99.796				
>	Sc	45		105.7			
	Ti	47	101.368				
	V	51	96.713				
	Cr	52	100.585				
	Cr	53					
	Mn	55	102.408				
	Fe	57	101.242				
	Co	59	99.578				
	Ni	60	102.154				
	Cu	63					
	Cu	65	100.140				
	Zn	66	100.001				
	Zn	67					
	Zn	68					
>	Ge	74		106.7			
	As	75	95.694				
	Se	77					
	Se	82	98.112				
	Kr	83					
	Sr	88	99.728				
	Y	89					
	Zr	90	98.639				
	Mo	98	96.938				
	Ag	107	97.898				
	Cd	111	99.476				
	Cd	114					
>	In	115		104.7			
	Sn	120	99.389				
	Sb	121	99.019				
	Sb	123					
	Ba	135					
	Ba	137	98.154				
	Ho	165					
>	Lu	175		104.2			
	Tl	205	95.900				
	Pb	208	100.448				
	Bi	209					
	Th	232	103.455				
	U	238	105.954				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Friday, January 01, 2010 00:54:40
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\091231\QC Std 7.198

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.037**	ug/L	57.585	28	0.000
	Be	9	**0.050**	ug/L	69.899	5	0.000
	B	11	**2.296**	ug/L	34.311	155	0.000
	Na	23	**-2.279**	ug/L	162.321	16009	-0.003
	Mg	24	**1.056**	ug/L	134.573	3334	0.001
	Al	27	**5.012**	ug/L	23.479	8669	0.006
	P	31	**-4.660**	ug/L	55.775	2125	-0.000
	K	39	**7.731**	ug/L	244.729	420128	0.016
	Ca	43	**-35.540**	ug/L	21.160	349	-0.000
>	Sc	45		ug/L		940300	940300.171
	Ti	47	**0.016**	ug/L	217.526	191	0.000
	V	51	**-1.041**	ug/L	44.438	6250	-0.002
	Cr	52	**0.681**	ug/L	10.553	2192	0.001
	Cr	53		ug/L		123514	-0.038
	Mn	55	**0.005**	ug/L	146.289	920	0.000
	Fe	57	**-3.030**	ug/L	160.712	4493	-0.000
	Co	59	**0.020**	ug/L	36.911	190	0.000
	Ni	60	**-0.008**	ug/L	211.536	43	-0.000
	Cu	63		ug/L		116	0.000
	Cu	65	**-0.007**	ug/L	45.713	65	-0.000
	Zn	66	**0.047**	ug/L	48.476	104	0.000
	Zn	67		ug/L		4909	-0.015
	Zn	68		ug/L		398	-0.001
>	Ge	74		ug/L		134624	134623.533
	As	75	**-0.805**	ug/L	84.472	353	-0.002
	Se	77		ug/L		4458	-0.007
	Se	82	**0.821**	ug/L	28.102	9	0.000
	Kr	83		ug/L		46	-0.000
	Sr	88	**0.014**	ug/L	19.080	196	0.001
	Y	89		ug/L		19	0.000
	Zr	90	**0.148**	ug/L	17.391	520	0.005
	Mo	98	**0.059**	ug/L	17.795	96	0.001
	Ag	107	**0.015**	ug/L	20.960	80	0.000
	Cd	111	**0.031**	ug/L	59.476	21	0.000
	Cd	114		ug/L		33	0.000
>	In	115		ug/L		72830	72830.010
	Sn	120	**0.105**	ug/L	25.080	280	0.002
	Sb	121	**0.378**	ug/L	17.307	624	0.007
	Sb	123		ug/L		509	0.005
	Ba	135		ug/L		25	0.000
	Ba	137	**0.035**	ug/L	24.679	46	0.000
	Ho	165		ug/L		11	-0.000
>	Lu	175		ug/L		77383	77383.399
	Tl	205	**0.151**	ug/L	27.819	442	0.004
	Pb	208	**0.023**	ug/L	8.378	407	0.001
	Bi	209		ug/L		18	-0.000
	Th	232	**0.086**	ug/L	23.287	707	0.007
	U	238	**0.024**	ug/L	27.405	257	0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	0.9999
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	0.9999
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	0.9996
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		105.4			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		107.6			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		104.9			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		100.3			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: Blank
Sample Date/Time: Friday, January 01, 2010 05:16:04
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li,be,ni,tl,u.mth
Dataset File: C:\elandata\Dataset\091231\Blank.240

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7		ug/L		32	
	Be	9		ug/L		4	
>	Sc	45		ug/L		949419	
	Ni	60		ug/L		46	
>	Lu	175		ug/L		78288	
	Tl	205		ug/L		223	
	U	238		ug/L		321	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
>	Sc	45					
	Ni	60					
>	Lu	175					
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Friday, January 01, 2010 05:18:31
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li,be,ni,tl,u.mth
Dataset File: C:\elandata\Dataset\091231\Standard 1.241

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**10.000**	**ug/L**	1.954	1903	0.002
	Be	9	**10.000**	**ug/L**	10.003	499	0.001
>	Sc	45		**ug/L**		953441	953441.237
	Ni	60	**10.000**	**ug/L**	0.630	5068	0.005
>	Lu	175		**ug/L**		78528	78528.389
	Tl	205	**10.000**	**ug/L**	1.379	22254	0.281
	U	238	**10.000**	**ug/L**	1.135	64233	0.814

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
>	Sc	45					
	Ni	60					
>	Lu	175					
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Friday, January 01, 2010 05:20:55
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li,be,ni,tl,u.mth
Dataset File: C:\elandata\Dataset\091231\Standard 2.242

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Li	7	**99.997**	**ug/L**	0.631	18343	0.020
|	Be	9	**100.027**	**ug/L**	1.399	4998	0.005
|>	Sc	45		**ug/L**		935729	935728.592
⌊	Ni	60	**99.994**	**ug/L**	1.115	49045	0.052
⌈>	Lu	175		**ug/L**		77779	77778.604
|	Tl	205	**99.994**	**ug/L**	1.104	217162	2.789
⌊	U	238	**99.975**	**ug/L**	1.735	617946	7.941

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Li	7					
|	Be	9					
|>	Sc	45					
⌊	Ni	60					
⌈>	Lu	175					
|	Tl	205					
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Friday, January 01, 2010 05:23:21
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li,be,ni,tl,u.mth
Dataset File: C:\elandata\Dataset\091231\QC Std 1.243

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**52.293**	**ug/L**	1.859	9702	0.010
	Be	9	**50.484**	**ug/L**	2.396	2550	0.003
>	Sc	45		**ug/L**		945171	945170.538
	Ni	60	**50.852**	**ug/L**	0.880	25215	0.027
>	Lu	175		**ug/L**		78687	78687.235
	Tl	205	**47.975**	**ug/L**	1.402	105518	1.338
	U	238	**53.339**	**ug/L**	1.359	333693	4.237

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7	104.585				
	Be	9	100.968				
>	Sc	45			99.6		
	Ni	60	101.704				
>	Lu	175			100.5		
	Tl	205	95.950				
	U	238	106.679				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Friday, January 01, 2010 05:25:48
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li,be,ni,tl,u.mth
Dataset File: C:\elandata\Dataset\091231\QC Std 2.244

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.016**	**ug/L**	151.444	35	0.000
	Be	9	**-0.027**	**ug/L**	120.190	3	-0.000
>	Sc	45		**ug/L**		957070	957069.559
	Ni	60	**0.001**	**ug/L**	2319.474	46	0.000
>	Lu	175		**ug/L**		79147	79147.446
	Tl	205	**0.134**	**ug/L**	8.237	522	0.004
	U	238	**0.014**	**ug/L**	7.665	415	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
>	Sc	45			100.8		
	Ni	60					
>	Lu	175			101.1		
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Friday, January 01, 2010 05:28:16
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li,be,ni,tl,u.mth
Dataset File: C:\elandata\Dataset\091231\QC Std 3.245

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**11.236**	**ug/L**	2.911	2142	0.002
	Be	9	**0.494**	**ug/L**	28.953	30	0.000
>	Sc	45		**ug/L**		959890	959890.249
	Ni	60	**2.167**	**ug/L**	6.850	1135	0.001
>	Lu	175		**ug/L**		78907	78907.127
	Tl	205	**1.040**	**ug/L**	2.694	2514	0.029
	U	238	**0.195**	**ug/L**	4.459	1546	0.015

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7	112.358				
	Be	9	98.900				
>	Sc	45			101.1		
	Ni	60	108.326				
>	Lu	175			100.8		
	Tl	205	104.039				
	U	238	97.558				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Friday, January 01, 2010 05:30:42
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li,be,ni,tl,u.mth
Dataset File: C:\elandata\Dataset\091231\QC Std 4.246

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.088**	**ug/L**	34.321	47	0.000
	Be	9	**0.015**	**ug/L**	220.302	5	0.000
>	Sc	45		**ug/L**		926775	926775.339
	Ni	60	**3.546**	**ug/L**	3.130	1765	0.002
>	Lu	175		**ug/L**		77275	77274.542
	Tl	205	**0.008**	**ug/L**	79.595	238	0.000
	U	238	**-0.044**	**ug/L**	1.281	48	-0.003

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
>	Sc	45			97.6		
	Ni	60	131.321				
>	Lu	175			98.7		
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Friday, January 01, 2010 05:33:09
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li,be,ni,tl,u.mth
Dataset File: C:\elandata\Dataset\091231\QC Std 5.247

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**18.915**	**ug/L**	1.728	3437	0.004
	Be	9	**19.668**	**ug/L**	1.680	970	0.001
>	Sc	45		**ug/L**		920471	920470.848
	Ni	60	**21.934**	**ug/L**	1.687	10616	0.011
>	Lu	175		**ug/L**		78262	78261.927
	Tl	205	**17.409**	**ug/L**	2.861	38217	0.486
	U	238	**20.467**	**ug/L**	3.368	127512	1.626

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7	94.577				
	Be	9	98.340				
>	Sc	45			97.0		
	Ni	60	96.628				
>	Lu	175			100.0		
	Tl	205	87.046				
	U	238	102.333				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Friday, January 01, 2010 05:35:37
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li,be,ni,tl,u.mth
Dataset File: C:\elandata\Dataset\091231\QC Std 6.248

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**48.374**	**ug/L**	2.233	9008	0.009
	Be	9	**50.589**	**ug/L**	3.571	2563	0.003
>	Sc	45		**ug/L**		948572	948572.377
	Ni	60	**49.896**	**ug/L**	2.291	24825	0.026
>	Lu	175		**ug/L**		79165	79165.213
	Tl	205	**47.055**	**ug/L**	2.209	104119	1.313
	U	238	**52.489**	**ug/L**	1.146	330366	4.169

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7	96.748				
	Be	9	101.178				
>	Sc	45			99.9		
	Ni	60	99.792				
>	Lu	175			101.1		
	Tl	205	94.110				
	U	238	104.977				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Friday, January 01, 2010 05:38:06
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li,be,ni,tl,u.mth
Dataset File: C:\elandata\Dataset\091231\QC Std 7.249

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.011**	**ug/L**	257.729	34	0.000
	Be	9	**-0.013**	**ug/L**	342.396	4	-0.000
>	Sc	45		**ug/L**		947576	947576.074
	Ni	60	**0.008**	**ug/L**	93.513	50	0.000
>	Lu	175		**ug/L**		78264	78263.609
	Tl	205	**0.218**	**ug/L**	2.635	699	0.006
	U	238	**0.012**	**ug/L**	2.955	396	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
>	Sc	45		99.8			
	Ni	60					
>	Lu	175		100.0			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 1201994298
Sample Date/Time: Friday, January 01, 2010 05:40:36
Sample Type:
Sample Description: LANL 6020 MB
Number of Replicates: 3
Batch ID: 932315|2|skj
Method File: c:\elandata\Method\li,be,ni,tl,u.mth
Dataset File: C:\elandata\Dataset\091231\1201994298.250

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	-0.033	ug/L	42.049	25	-0.000
	Be	9	-0.046	ug/L	41.828	2	-0.000
>	Sc	45		ug/L		939080	939079.579
	Ni	60	0.060	ug/L	29.694	75	0.000
>	Lu	175		ug/L		77345	77345.255
	Tl	205	0.057	ug/L	11.237	343	0.002
	U	238	-0.041	ug/L	2.590	64	-0.003

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
>	Sc	45		98.9			
	Ni	60					
>	Lu	175		98.8			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 1201994299
Sample Date/Time: Friday, January 01, 2010 05:43:05
Sample Type:
Sample Description: LANL 6020 LCS
Number of Replicates: 3
Batch ID: 932315|40|skj
Method File: c:\elandata\Method\li,be,ni,tl,u.mth
Dataset File: C:\elandata\Dataset\091231\1201994299.251

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**2.979**	**ug/L**	1.384	590	0.001
	Be	9	**21.148**	**ug/L**	3.345	1085	0.001
>	Sc	45		**ug/L**		957638	957638.230
	Ni	60	**36.816**	**ug/L**	2.294	18511	0.019
>	Lu	175		**ug/L**		78813	78812.960
	Tl	205	**31.907**	**ug/L**	1.275	70374	0.890
	U	238	**0.474**	**ug/L**	2.476	3293	0.038

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
>	Sc	45		100.9			
	Ni	60					
>	Lu	175		100.7			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 1201994299
Sample Date/Time: Friday, January 01, 2010 05:45:32
Sample Type:
Sample Description: LANL 6020 LCS
Number of Replicates: 3
Batch ID: 932315|20|skj
Method File: c:\elandata\Method\li,be,ni,tl,u.mth
Dataset File: C:\elandata\Dataset\091231\1201994299.252

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**5.786**	**ug/L**	3.951	1092	0.001
	Be	9	**41.196**	**ug/L**	0.871	2064	0.002
>	Sc	45		**ug/L**		936770	936770.267
	Ni	60	**71.800**	**ug/L**	1.148	35274	0.038
>	Lu	175		**ug/L**		77772	77771.563
	Tl	205	**64.013**	**ug/L**	0.921	139087	1.786
	U	238	**1.015**	**ug/L**	3.408	6588	0.081

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
>	Sc	45			98.7		
	Ni	60					
>	Lu	175			99.3		
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 242661001
Sample Date/Time: Friday, January 01, 2010 05:48:00
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 932315|2|skj
Method File: c:\elandata\Method\li,be,ni,tl,u.mth
Dataset File: C:\elandata\Dataset\091231\242661001.253

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**64.120**	**ug/L**	1.336	11859	0.013
	Be	9	**4.011**	**ug/L**	4.580	206	0.000
>	Sc	45		**ug/L**		942589	942588.673
	Ni	60	**35.952**	**ug/L**	0.285	17794	0.019
>	Lu	175		**ug/L**		79934	79933.836
	Tl	205	**1.145**	**ug/L**	2.064	2782	0.032
	U	238	**5.155**	**ug/L**	1.315	33052	0.409

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
>	Sc	45			99.3		
	Ni	60					
>	Lu	175			102.1		
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 1201994300
Sample Date/Time: Friday, January 01, 2010 05:50:29
Sample Type:
Sample Description: LANL 6020 DUP
Number of Replicates: 3
Batch ID: 932315|2|skj
Method File: c:\elandata\Method\li,be,ni,tl,u.mth
Dataset File: C:\elandata\Dataset\091231\1201994300.254

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**61.191**	**ug/L**	1.369	11138	0.012
	Be	9	**3.777**	**ug/L**	11.804	191	0.000
>	Sc	45		**ug/L**		927587	927586.927
	Ni	60	**36.077**	**ug/L**	1.119	17570	0.019
>	Lu	175		**ug/L**		80348	80348.463
	Tl	205	**0.859**	**ug/L**	2.261	2154	0.024
	U	238	**5.020**	**ug/L**	1.466	32367	0.399

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
>	Sc	45		97.7			
	Ni	60					
>	Lu	175		102.6			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 1201994301
Sample Date/Time: Friday, January 01, 2010 05:52:59
Sample Type:
Sample Description: LANL 6020 MS
Number of Replicates: 3
Batch ID: 932315|2|skj
Method File: c:\elandata\Method\li,be,ni,tl,u.mth
Dataset File: C:\elandata\Dataset\091231\1201994301.255

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**98.973**	**ug/L**	1.447	17960	0.019
	Be	9	**30.226**	**ug/L**	1.531	1497	0.002
>	Sc	45		**ug/L**		925683	925683.319
	Ni	60	**60.804**	**ug/L**	1.654	29518	0.032
>	Lu	175		**ug/L**		80454	80454.074
	Tl	205	**48.255**	**ug/L**	1.590	108506	1.346
	U	238	**32.307**	**ug/L**	2.144	206759	2.566

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
>	Sc	45		97.5			
	Ni	60					
>	Lu	175		102.8			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 1201998121
Sample Date/Time: Friday, January 01, 2010 05:55:29
Sample Type:
Sample Description: LANL 6020 MSD
Number of Replicates: 3
Batch ID: 932315|2|skj
Method File: c:\elandata\Method\li,be,ni,tl,u.mth
Dataset File: C:\elandata\Dataset\091231\1201998121.256

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**96.359**	**ug/L**	1.087	17419	0.019
	Be	9	**30.982**	**ug/L**	3.310	1528	0.002
>	Sc	45		**ug/L**		922056	922055.623
	Ni	60	**60.164**	**ug/L**	0.630	29099	0.032
>	Lu	175		**ug/L**		80336	80335.726
	Tl	205	**47.417**	**ug/L**	0.246	106480	1.323
	U	238	**31.619**	**ug/L**	0.738	202098	2.512

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
>	Sc	45			97.1		
	Ni	60					
>	Lu	175			102.6		
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Friday, January 01, 2010 05:57:58
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li,be,ni,tl,u.mth
Dataset File: C:\elandata\Dataset\091231\QC Std 6.257

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**49.786**	**ug/L**	0.873	8983	0.010
	Be	9	**53.770**	**ug/L**	2.649	2642	0.003
>	Sc	45		**ug/L**		918861	918861.343
	Ni	60	**49.812**	**ug/L**	0.380	24017	0.026
>	Lu	175		**ug/L**		78480	78479.780
	Tl	205	**48.088**	**ug/L**	0.328	105489	1.341
	U	238	**53.490**	**ug/L**	0.379	333776	4.249

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7	99.573				
	Be	9	107.540				
>	Sc	45			96.8		
	Ni	60	99.623				
>	Lu	175			100.2		
	Tl	205	96.175				
	U	238	106.981				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Friday, January 01, 2010 06:00:27
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li,be,ni,tl,u.mth
Dataset File: C:\elandata\Dataset\091231\QC Std 7.258

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.072**	**ug/L**	49.877	44	0.000
	Be	9	**0.016**	**ug/L**	224.144	5	0.000
>	Sc	45		**ug/L**		925714	925714.056
	Ni	60	**0.002**	**ug/L**	188.868	46	0.000
>	Lu	175		**ug/L**		76944	76943.820
	Tl	205	**0.243**	**ug/L**	7.458	742	0.007
	U	238	**0.007**	**ug/L**	55.552	358	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
>	Sc	45			97.5		
	Ni	60					
>	Lu	175			98.3		
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 1201994302
Sample Date/Time: Friday, January 01, 2010 06:02:57
Sample Type:
Sample Description: LANL 6020 SDILT
Number of Replicates: 3
Batch ID: 932315|10|skj
Method File: c:\elandata\Method\li,be,ni,tl,u.mth
Dataset File: C:\elandata\Dataset\091231\1201994302.259

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**12.904**	**ug/L**	4.091	2329	0.003
	Be	9	**0.767**	**ug/L**	22.280	41	0.000
>	Sc	45		**ug/L**		910567	910566.832
	Ni	60	**7.513**	**ug/L**	0.531	3627	0.004
>	Lu	175		**ug/L**		77798	77797.798
	Tl	205	**0.186**	**ug/L**	5.971	624	0.005
	U	238	**0.993**	**ug/L**	4.399	6448	0.079

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
>	Sc	45			95.9		
	Ni	60					
>	Lu	175			99.4		
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 242661002
Sample Date/Time: Friday, January 01, 2010 06:05:26
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 932315|2|skj
Method File: c:\elandata\Method\li,be,ni,tl,u.mth
Dataset File: C:\elandata\Dataset\091231\242661002.260

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**49.177**	**ug/L**	0.520	8631	0.010
	Be	9	**4.299**	**ug/L**	10.608	209	0.000
>	Sc	45		**ug/L**		893755	893754.946
	Ni	60	**32.436**	**ug/L**	1.659	15224	0.017
>	Lu	175		**ug/L**		83907	83907.210
	Tl	205	**0.516**	**ug/L**	6.313	1446	0.014
	U	238	**3.332**	**ug/L**	2.154	22548	0.265

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
>	Sc	45		94.1			
	Ni	60					
>	Lu	175		107.2			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 242661003
Sample Date/Time: Friday, January 01, 2010 06:07:55
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 932315|2|skj
Method File: c:\elandata\Method\li,be,ni,tl,u.mth
Dataset File: C:\elandata\Dataset\091231\242661003.261

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**79.872**	**ug/L**	0.834	13997	0.016
	Be	9	**5.614**	**ug/L**	5.557	272	0.000
>	Sc	45		**ug/L**		893514	893514.403
	Ni	60	**57.117**	**ug/L**	0.449	26773	0.030
>	Lu	175		**ug/L**		81600	81600.236
	Tl	205	**4.247**	**ug/L**	1.894	9899	0.118
	U	238	**3.770**	**ug/L**	2.065	24769	0.299

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
>	Sc	45		94.1			
	Ni	60					
>	Lu	175		104.2			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 242661004
Sample Date/Time: Friday, January 01, 2010 06:10:24
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 932315|2|skj
Method File: c:\elandata\Method\li,be,ni,tl,u.mth
Dataset File: C:\elandata\Dataset\091231\242661004.262

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**116.578**	**ug/L**	1.773	20767	0.023
	Be	9	**3.836**	**ug/L**	10.648	190	0.000
>	Sc	45		**ug/L**		908961	908960.619
	Ni	60	**34.558**	**ug/L**	0.558	16496	0.018
>	Lu	175		**ug/L**		81963	81963.028
	Tl	205	**0.630**	**ug/L**	4.298	1673	0.018
	U	238	**2.052**	**ug/L**	1.670	13692	0.163

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
>	Sc	45		95.7			
	Ni	60					
>	Lu	175		104.7			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 242661005
Sample Date/Time: Friday, January 01, 2010 06:12:53
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 932315|2|skj
Method File: c:\elandata\Method\li,be,ni,tl,u.mth
Dataset File: C:\elandata\Dataset\091231\242661005.263

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**41.308**	**ug/L**	2.870	7173	0.008
	Be	9	**3.069**	**ug/L**	8.925	149	0.000
>	Sc	45		**ug/L**		883830	883830.161
	Ni	60	**22.018**	**ug/L**	1.770	10232	0.012
>	Lu	175		**ug/L**		79358	79357.605
	Tl	205	**0.490**	**ug/L**	3.445	1310	0.014
	U	238	**3.162**	**ug/L**	0.905	20254	0.251

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
>	Sc	45		93.1			
	Ni	60					
>	Lu	175		101.4			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 242661006
Sample Date/Time: Friday, January 01, 2010 06:15:24
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 932315|2|skj
Method File: c:\elandata\Method\li,be,ni,tl,u.mth
Dataset File: C:\elandata\Dataset\091231\242661006.264

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**47.885**	**ug/L**	0.491	8416	0.009
	Be	9	**4.219**	**ug/L**	5.363	205	0.000
>	Sc	45		**ug/L**		894813	894813.469
	Ni	60	**24.993**	**ug/L**	1.669	11755	0.013
>	Lu	175		**ug/L**		80255	80255.269
	Tl	205	**0.530**	**ug/L**	1.483	1415	0.015
	U	238	**7.723**	**ug/L**	1.150	49560	0.613

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
>	Sc	45		94.2			
	Ni	60					
>	Lu	175		102.5			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 242661007
Sample Date/Time: Friday, January 01, 2010 06:17:54
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 932315|2|skj
Method File: c:\elandata\Method\li,be,ni,tl,u.mth
Dataset File: C:\elandata\Dataset\091231\242661007.265

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**21.130**	**ug/L**	1.672	3889	0.004
	Be	9	**1.095**	**ug/L**	12.812	59	0.000
>	Sc	45		**ug/L**		932902	932901.557
	Ni	60	**23.870**	**ug/L**	1.051	11709	0.013
>	Lu	175		**ug/L**		81554	81553.944
	Tl	205	**0.184**	**ug/L**	5.044	650	0.005
	U	238	**1.979**	**ug/L**	1.555	13156	0.157

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
>	Sc	45			98.3		
	Ni	60					
>	Lu	175			104.2		
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Friday, January 01, 2010 06:20:24
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li,be,ni,tl,u.mth
Dataset File: C:\elandata\Dataset\091231\QC Std 6.266

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**47.194**	**ug/L**	2.669	9129	0.009
	Be	9	**49.813**	**ug/L**	2.032	2622	0.003
>	Sc	45		**ug/L**		984993	984992.954
	Ni	60	**50.216**	**ug/L**	2.078	25947	0.026
>	Lu	175		**ug/L**		80875	80875.423
	Tl	205	**47.085**	**ug/L**	0.678	106448	1.313
	U	238	**52.962**	**ug/L**	1.552	340565	4.207

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7	94.389				
	Be	9	99.627				
>	Sc	45			103.7		
	Ni	60	100.431				
>	Lu	175			103.3		
	Tl	205	94.169				
	U	238	105.925				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Friday, January 01, 2010 06:22:52
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li,be,ni,tl,u.mth
Dataset File: C:\elandata\Dataset\091231\QC Std 7.267

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.008**	**ug/L**	523.309	33	0.000
	Be	9	**-0.014**	**ug/L**	461.647	4	-0.000
>	Sc	45		**ug/L**		956378	956378.218
	Ni	60	**0.027**	**ug/L**	47.485	60	0.000
>	Lu	175		**ug/L**		78865	78865.216
	Tl	205	**0.152**	**ug/L**	8.330	558	0.004
	U	238	**0.006**	**ug/L**	10.557	363	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
>	Sc	45		100.7			
	Ni	60					
>	Lu	175		100.7			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 242661008
Sample Date/Time: Friday, January 01, 2010 06:25:23
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 932315|2|skj
Method File: c:\elandata\Method\li,be,ni,tl,u.mth
Dataset File: C:\elandata\Dataset\091231\242661008.268

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**13.909**	**ug/L**	4.639	2650	0.003
	Be	9	**0.641**	**ug/L**	4.086	37	0.000
>	Sc	45		**ug/L**		962566	962565.591
	Ni	60	**19.423**	**ug/L**	1.830	9838	0.010
>	Lu	175		**ug/L**		81192	81191.548
	Tl	205	**0.189**	**ug/L**	3.385	660	0.005
	U	238	**2.191**	**ug/L**	1.399	14461	0.174

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
>	Sc	45		101.4			
	Ni	60					
>	Lu	175		103.7			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 242661009
Sample Date/Time: Friday, January 01, 2010 06:27:53
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 932315|2|skj
Method File: c:\elandata\Method\li,be,ni,tl,u.mth
Dataset File: C:\elandata\Dataset\091231\242661009.269

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**13.132**	**ug/L**	3.378	2447	0.003
	Be	9	**1.263**	**ug/L**	11.269	68	0.000
>	Sc	45		**ug/L**		939948	939947.905
	Ni	60	**9.216**	**ug/L**	1.401	4582	0.005
>	Lu	175		**ug/L**		83624	83624.231
	Tl	205	**0.119**	**ug/L**	10.100	516	0.003
	U	238	**1.709**	**ug/L**	1.252	11696	0.136

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
>	Sc	45			99.0		
	Ni	60					
>	Lu	175			106.8		
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 242661010
Sample Date/Time: Friday, January 01, 2010 06:30:22
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 932315|2|skj
Method File: c:\elandata\Method\li,be,ni,tl,u.mth
Dataset File: C:\elandata\Dataset\091231\242661010.270

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**12.953**	**ug/L**	2.635	2365	0.003
	Be	9	**1.202**	**ug/L**	16.530	63	0.000
>	Sc	45		**ug/L**		920972	920971.685
	Ni	60	**9.222**	**ug/L**	0.846	4492	0.005
>	Lu	175		**ug/L**		80857	80856.998
	Tl	205	**0.166**	**ug/L**	3.322	604	0.005
	U	238	**2.114**	**ug/L**	0.738	13906	0.168

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
>	Sc	45			97.0		
	Ni	60					
>	Lu	175			103.3		
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 242661011
Sample Date/Time: Friday, January 01, 2010 06:32:52
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 932315|2|skj
Method File: c:\elandata\Method\li,be,ni,tl,u.mth
Dataset File: C:\elandata\Dataset\091231\242661011.271

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Li	7	**28.335**	**ug/L**	1.419	5034	0.006
|	Be	9	**2.332**	**ug/L**	8.937	116	0.000
|>	Sc	45		**ug/L**		902247	902247.463
⌊	Ni	60	**12.483**	**ug/L**	0.590	5942	0.007
⌈>	Lu	175		**ug/L**		83646	83646.358
|	Tl	205	**0.123**	**ug/L**	12.702	524	0.003
⌊	U	238	**3.097**	**ug/L**	1.551	20918	0.246

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Li	7					
|	Be	9					
|>	Sc	45		95.0			
⌊	Ni	60					
⌈>	Lu	175		106.8			
|	Tl	205					
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 242661012
Sample Date/Time: Friday, January 01, 2010 06:35:22
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 932315|2|skj
Method File: c:\elandata\Method\li,be,ni,tl,u.mth
Dataset File: C:\elandata\Dataset\091231\242661012.272

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**61.680**	**ug/L**	1.422	10986	0.012
	Be	9	**3.609**	**ug/L**	5.978	179	0.000
>	Sc	45		**ug/L**		907763	907763.035
	Ni	60	**33.404**	**ug/L**	0.422	15925	0.017
>	Lu	175		**ug/L**		80466	80466.493
	Tl	205	**0.622**	**ug/L**	2.646	1624	0.017
	U	238	**5.202**	**ug/L**	1.292	33575	0.413

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
>	Sc	45			95.6		
	Ni	60					
>	Lu	175			102.8		
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 242661013
Sample Date/Time: Friday, January 01, 2010 06:37:53
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 932315|2|sk|
Method File: c:\elandata\Method\li,be,ni,tl,u.mth
Dataset File: C:\elandata\Dataset\091231\242661013.273

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	10.484	ug/L	2.687	1854	0.002
	Be	9	1.180	ug/L	14.495	60	0.000
>	Sc	45		ug/L		889024	889024.276
	Ni	60	15.874	ug/L	1.455	7434	0.008
>	Lu	175		ug/L		82966	82966.068
	Tl	205	0.059	ug/L	11.403	372	0.002
	U	238	1.921	ug/L	2.357	12998	0.153

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
>	Sc	45		93.6			
	Ni	60					
>	Lu	175		106.0			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 242661014
Sample Date/Time: Friday, January 01, 2010 06:40:24
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 932315|2|skj
Method File: c:\elandata\Method\li,be,ni,tl,u.mth
Dataset File: C:\elandata\Dataset\091231\242661014.274

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**21.118**	**ug/L**	2.192	3784	0.004
	Be	9	**1.084**	**ug/L**	7.599	57	0.000
>	Sc	45		**ug/L**		908378	908378.173
	Ni	60	**27.412**	**ug/L**	1.087	13086	0.014
>	Lu	175		**ug/L**		79348	79347.901
	Tl	205	**0.114**	**ug/L**	4.961	479	0.003
	U	238	**1.758**	**ug/L**	0.791	11404	0.140

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
>	Sc	45			95.7		
	Ni	60					
>	Lu	175			101.4		
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Friday, January 01, 2010 06:42:54
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li,be,ni,tl,u.mth
Dataset File: C:\elandata\Dataset\091231\QC Std 6.275

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**51.068**	**ug/L**	0.489	9355	0.010
	Be	9	**51.991**	**ug/L**	4.036	2592	0.003
>	Sc	45		**ug/L**		932994	932994.266
	Ni	60	**49.751**	**ug/L**	0.594	24354	0.026
>	Lu	175		**ug/L**		78716	78716.067
	Tl	205	**47.095**	**ug/L**	1.743	103620	1.314
	U	238	**53.245**	**ug/L**	1.050	333220	4.229

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7	102.137				
	Be	9	103.982				
>	Sc	45			98.3		
	Ni	60	99.503				
>	Lu	175			100.5		
	Tl	205	94.191				
	U	238	106.489				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Friday, January 01, 2010 06:45:23
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li,be,ni,tl,u.mth
Dataset File: C:\elandata\Dataset\091231\QC Std 7.276

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**-0.005**	**ug/L**	434.136	30	-0.000
	Be	9	**0.009**	**ug/L**	247.463	5	0.000
>	Sc	45		**ug/L**		924494	924493.930
	Ni	60	**0.015**	**ug/L**	39.864	52	0.000
>	Lu	175		**ug/L**		79004	79004.019
	Tl	205	**0.154**	**ug/L**	0.691	565	0.004
	U	238	**0.009**	**ug/L**	68.063	379	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
>	Sc	45		97.4			
	Ni	60					
>	Lu	175		100.9			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 242661015
Sample Date/Time: Friday, January 01, 2010 06:47:54
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 932315|2|sk|
Method File: c:\elandata\Method\li,be,ni,tl,u.mth
Dataset File: C:\elandata\Dataset\091231\242661015.277

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**25.709**	**ug/L**	2.936	4602	0.005
	Be	9	**2.399**	**ug/L**	17.946	120	0.000
>	Sc	45		**ug/L**		908805	908804.632
	Ni	60	**13.334**	**ug/L**	1.005	6391	0.007
>	Lu	175		**ug/L**		81446	81446.338
	Tl	205	**0.251**	**ug/L**	4.513	802	0.007
	U	238	**3.074**	**ug/L**	3.608	20220	0.244

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
>	Sc	45		95.7			
	Ni	60					
>	Lu	175		104.0			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 242661016
Sample Date/Time: Friday, January 01, 2010 06:50:24
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 932315|2|skj
Method File: c:\elandata\Method\li,be,ni,tl,u.mth
Dataset File: C:\elandata\Dataset\091231\242661016.278

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**18.991**	**ug/L**	2.451	3459	0.004
	Be	9	**1.010**	**ug/L**	19.594	54	0.000
>	Sc	45		**ug/L**		922627	922627.418
	Ni	60	**14.628**	**ug/L**	0.705	7112	0.008
>	Lu	175		**ug/L**		79709	79709.235
	Tl	205	**0.129**	**ug/L**	12.734	514	0.004
	U	238	**1.948**	**ug/L**	1.745	12659	0.155

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
>	Sc	45		97.2			
	Ni	60					
>	Lu	175		101.8			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 242661017
Sample Date/Time: Friday, January 01, 2010 06:52:54
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 932315|2|sk|
Method File: c:\elandata\Method\li,be,ni,tl,u.mth
Dataset File: C:\elandata\Dataset\091231\242661017.279

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**61.680**	**ug/L**	0.653	11256	0.012
	Be	9	**3.965**	**ug/L**	1.614	201	0.000
>	Sc	45		**ug/L**		929930	929929.840
	Ni	60	**36.696**	**ug/L**	0.309	17917	0.019
>	Lu	175		**ug/L**		81690	81690.394
	Tl	205	**0.649**	**ug/L**	4.204	1712	0.018
	U	238	**3.301**	**ug/L**	1.462	21755	0.262

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
>	Sc	45			97.9		
	Ni	60					
>	Lu	175			104.3		
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 242661018
Sample Date/Time: Friday, January 01, 2010 06:55:24
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 932315|2|skj
Method File: c:\elandata\Method\li,be,ni,tl,u.mth
Dataset File: C:\elandata\Dataset\091231\242661018.280

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**18.030**	**ug/L**	3.205	3202	0.004
	Be	9	**2.373**	**ug/L**	9.568	118	0.000
>	Sc	45		**ug/L**		898929	898928.725
	Ni	60	**7.876**	**ug/L**	0.714	3752	0.004
>	Lu	175		**ug/L**		80559	80558.641
	Tl	205	**0.091**	**ug/L**	9.430	434	0.003
	U	238	**2.257**	**ug/L**	3.167	14770	0.179

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
>	Sc	45		94.7			
	Ni	60					
>	Lu	175		102.9			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 242661019
Sample Date/Time: Friday, January 01, 2010 06:57:54
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 932315|2|skj
Method File: c:\elandata\Method\li,be,ni,tl,u.mth
Dataset File: C:\elandata\Dataset\091231\242661019.281

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**22.069**	**ug/L**	4.031	3885	0.004
	Be	9	**2.145**	**ug/L**	23.706	106	0.000
>	Sc	45		**ug/L**		893069	893068.541
	Ni	60	**4.528**	**ug/L**	3.781	2160	0.002
>	Lu	175		**ug/L**		81139	81138.914
	Tl	205	**0.027**	**ug/L**	42.446	293	0.001
	U	238	**2.217**	**ug/L**	1.244	14620	0.176

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
>	Sc	45		94.1			
	Ni	60					
>	Lu	175		103.6			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 242661020
Sample Date/Time: Friday, January 01, 2010 07:00:26
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 932315|2|skj
Method File: c:\elandata\Method\li,be,ni,tl,u.mth
Dataset File: C:\elandata\Dataset\091231\242661020.282

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**25.892**	**ug/L**	1.249	4642	0.005
	Be	9	**1.964**	**ug/L**	12.714	100	0.000
>	Sc	45		**ug/L**		910152	910152.089
	Ni	60	**12.075**	**ug/L**	0.956	5799	0.006
>	Lu	175		**ug/L**		80779	80778.893
	Tl	205	**0.287**	**ug/L**	3.534	877	0.008
	U	238	**2.248**	**ug/L**	1.470	14751	0.179

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
>	Sc	45		95.9			
	Ni	60					
>	Lu	175		103.2			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Friday, January 01, 2010 07:02:55
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li,be,ni,tl,u.mth
Dataset File: C:\elandata\Dataset\091231\QC Std 6.283

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**53.936**	**ug/L**	1.380	9631	0.011
	Be	9	**52.778**	**ug/L**	0.664	2566	0.003
>	Sc	45		**ug/L**		909496	909495.965
	Ni	60	**49.404**	**ug/L**	1.069	23575	0.026
>	Lu	175		**ug/L**		78844	78844.109
	Tl	205	**46.967**	**ug/L**	2.031	103508	1.310
	U	238	**52.555**	**ug/L**	2.970	329403	4.175

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7	107.871				
	Be	9	105.556				
>	Sc	45			95.8		
	Ni	60	98.809				
>	Lu	175			100.7		
	Tl	205	93.934				
	U	238	105.109				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Friday, January 01, 2010 07:05:24
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li,be,ni,tl,u.mth
Dataset File: C:\elandata\Dataset\091231\QC Std 7.284

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.014**	**ug/L**	175.941	33	0.000
	Be	9	**-0.030**	**ug/L**	77.081	3	-0.000
>	Sc	45		**ug/L**		904687	904686.718
	Ni	60	**0.023**	**ug/L**	85.792	55	0.000
>	Lu	175		**ug/L**		77356	77355.648
	Tl	205	**0.139**	**ug/L**	4.009	521	0.004
	U	238	**0.009**	**ug/L**	36.985	373	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
>	Sc	45			95.3		
	Ni	60					
>	Lu	175			98.8		
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

Daily Performance Report

Sample ID: Sample
Sample Date/Time: Wednesday, January 06, 2010 11:10:30
Sample Description:
Method File: c:\elandata\Method\daily2.mth
Dataset File: c:\elandata\Dataset\090811\Sample.346
Tuning File: c:\elandata\Tuning\default2.tun
Optimization File: c:\elandata\Optimize\default.dac
Dual Detector Mode: Pulse
Acq. Dead Time(ns): 35
Current Dead Time (ns): 35

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Be	9.0	919.6	919.630	21.572	2.3
	Mg	24.0	20080.9	20080.906	307.562	1.5
	Co	58.9	49084.0	49083.984	419.634	0.9
	Rh	102.9	85969.7	85969.738	1140.741	1.3
	In	114.9	111872.1	111872.135	429.627	0.4
	Pb	208.0	37594.6	37594.607	394.480	1.0
⌈>	Ba	137.9	89335.1	89335.070	586.494	0.7
⌊	Ba++	69.0	2230.9	0.025	0.001	4.2
⌈>	Ce	139.9	105853.1	105853.128	429.147	0.4
⌊	CeO	155.9	2311.3	0.022	0.000	0.9
	Bkgd	220.0	7.2	7.200	1.151	16.0

Current Optimization File Data

Current Value	Description
0.84	Nebulizer Gas Flow
6.00	Lens Voltage
1000.00	ICP RF Power
-1875.00	Analog Stage Voltage
1100.00	Pulse Stage Voltage
50.00	Discriminator Threshold
-2.00	AC Rod Offset

Current AutoLens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	17	7.3	978.0
Co	59	17	8.3	36100.6
In	115	17	9.8	82051.3

ICPMS #4 TUNING REPORT

File Name: default2.tun
File Path: c:\elandata\Tuning

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas Peak W
He	3.0	3.0	602	2060	0.636
Be	9.0	9.0	2029	2055	0.641
Mg	24.0	24.0	5677	2075	0.627
Mg	25.0	25.1	5963	2080	0.655
Mg	26.0	26.0	6130	2085	0.620
Co	58.9	59.0	14168	2140	0.623
Rh	102.9	102.9	24866	2230	0.647
In	114.9	114.9	27785	2255	0.658
Ce	139.9	139.9	33852	2310	0.623
Pb	206.0	206.0	49940	2500	0.624
Pb	207.0	207.0	50113	2380	0.631
Pb	208.0	208.0	50448	2570	0.630
U	238.1	238.1	57687	2510	0.672

ICPMS#4 - Summary Report

Sample ID: Blank
Sample Date/Time: Wednesday, January 06, 2010 11:42:03
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100106\Blank.001

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7		ug/L		16	
	Be	9		ug/L		2	
	B	11		ug/L		121	
	Na	23		ug/L		19682	
	Mg	24		ug/L		0	
	Al	27		ug/L		2000	
	P	31		ug/L		3428	
	K	39		ug/L		461678	
	Ca	43		ug/L		587	
>	Sc	45		ug/L		263488	
	Ti	47		ug/L		203	
	V	51		ug/L		6	
	Cr	52		ug/L		800	
	Cr	53		ug/L		171455	
	Mn	55		ug/L		814	
	Fe	57		ug/L		4393	
	Co	59		ug/L		174	
	Ni	60		ug/L		40	
	Cu	63		ug/L		89	
	Cu	65		ug/L		59	
	Zn	66		ug/L		91	
	Zn	67		ug/L		8416	
	Zn	68		ug/L		848	
>	Ge	74		ug/L		102913	
	As	75		ug/L		465	
	Se	77		ug/L		5093	
	Se	82		ug/L		-4	
	Kr	83		ug/L		58	
	Sr	88		ug/L		50	
	Y	89		ug/L		11	
	Zr	90		ug/L		66	
	Mo	98		ug/L		16	
	Ag	107		ug/L		53	
	Cd	111		ug/L		10	
	Cd	114		ug/L		23	
>	In	115		ug/L		60731	
	Sn	120		ug/L		183	
	Sb	121		ug/L		1749	
	Sb	123		ug/L		1428	
	Ba	135		ug/L		9	
	Ba	137		ug/L		18	
	Ho	165		ug/L		11	
>	Lu	175		ug/L		47776	
	Tl	205		ug/L		21	
	Pb	208		ug/L		180	
	Bi	209		ug/L		15	
	Th	232		ug/L		179	
	U	238		ug/L		16	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Simple Linear	
Be	9	Simple Linear	
B	11	Simple Linear	
Na	23	Simple Linear	
Mg	24	Simple Linear	
Al	27	Simple Linear	
P	31	Simple Linear	
K	39	Simple Linear	
Ca	43	Simple Linear	
Sc	45	Simple Linear	
Ti	47	Simple Linear	
V	51	Simple Linear	
Cr	52	Simple Linear	
Cr	53	Simple Linear	
Mn	55	Simple Linear	
Fe	57	Simple Linear	
Co	59	Simple Linear	
Ni	60	Simple Linear	
Cu	63	Simple Linear	
Cu	65	Simple Linear	
Zn	66	Simple Linear	
Zn	67	Simple Linear	
Zn	68	Simple Linear	
Ge	74	Simple Linear	
As	75	Simple Linear	
Se	77	Simple Linear	
Se	82	Simple Linear	
Kr	83	Simple Linear	
Sr	88	Simple Linear	
Y	89	Simple Linear	
Zr	90	Simple Linear	
Mo	98	Simple Linear	
Ag	107	Simple Linear	
Cd	111	Simple Linear	
Cd	114	Simple Linear	
In	115	Simple Linear	
Sn	120	Simple Linear	
Sb	121	Simple Linear	
Sb	123	Simple Linear	
Ba	135	Simple Linear	
Ba	137	Simple Linear	
Ho	165	Simple Linear	
Lu	175	Simple Linear	
Tl	205	Simple Linear	
Pb	208	Simple Linear	
Bi	209	Simple Linear	
Th	232	Simple Linear	
U	238	Simple Linear	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45					
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115					
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175					
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Wednesday, January 06, 2010 11:48:15
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100106\Standard 1.002

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	10.000	ug/L	2.350	2076	0.008
	Be	9	10.000	ug/L	2.434	592	0.002
	B	11	20.000	ug/L	3.011	1135	0.004
	Na	23	1000.000	ug/L	6.636	1277136	4.634
	Mg	24	1000.000	ug/L	2.116	911528	3.361
	Al	27	1000.000	ug/L	3.519	1177270	4.335
	P	31	1000.000	ug/L	0.862	71493	0.251
	K	39	1000.000	ug/L	6.482	2771156	8.463
	Ca	43	1000.000	ug/L	1.832	5176	0.017
>	Sc	45		ug/L		271193	271192.869
	Ti	47	10.000	ug/L	2.633	2331	0.008
	V	51	10.000	ug/L	10.677	28680	0.106
	Cr	52	10.000	ug/L	1.155	21475	0.076
	Cr	53		ug/L		162853	-0.050
	Mn	55	10.000	ug/L	1.064	34625	0.125
	Fe	57	1000.000	ug/L	1.192	72571	0.251
	Co	59	10.000	ug/L	0.789	25858	0.095
	Ni	60	10.000	ug/L	1.977	5386	0.020
	Cu	63		ug/L		12324	0.045
	Cu	65	10.000	ug/L	0.307	6043	0.022
	Zn	66	10.000	ug/L	2.927	3241	0.030
	Zn	67		ug/L		8508	-0.002
	Zn	68		ug/L		3071	0.021
>	Ge	74		ug/L		106509	106508.999
	As	75	10.000	ug/L	2.278	3708	0.030
	Se	77		ug/L		4574	-0.007
	Se	82	10.000	ug/L	2.276	333	0.003
	Kr	83		ug/L		68	0.000
	Sr	88	10.000	ug/L	0.167	52152	0.823
	Y	89		ug/L		13	0.000
	Zr	90	10.000	ug/L	2.126	26697	0.421
	Mo	98	10.000	ug/L	1.141	11942	0.188
	Ag	107	10.000	ug/L	0.372	19085	0.301
	Cd	111	10.000	ug/L	2.431	4348	0.069
	Cd	114		ug/L		10284	0.162
>	In	115		ug/L		63322	63322.116
	Sn	120	10.000	ug/L	0.476	19636	0.307
	Sb	121	10.000	ug/L	7.505	15017	0.208
	Sb	123		ug/L		11653	0.160
	Ba	135		ug/L		4480	0.091
	Ba	137	10.000	ug/L	2.455	7589	0.155
	Ho	165		ug/L		8	-0.000
>	Lu	175		ug/L		48937	48936.831
	Tl	205	10.000	ug/L	0.836	6746	0.137
	Pb	208	10.000	ug/L	0.420	39590	0.805
	Bi	209		ug/L		20	0.000
	Th	232	10.000	ug/L	1.034	50076	1.020
	U	238	10.000	ug/L	1.114	52283	1.068

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45					
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115					
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175					
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Wednesday, January 06, 2010 11:54:23
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100106\Standard 2.003

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**99.911**	**ug/L**	3.762	19791	0.070
	Be	9	**99.994**	**ug/L**	2.529	6142	0.022
	B	11	**200.029**	**ug/L**	0.998	10880	0.038
	Na	23	**10001.153**	**ug/L**	0.175	13339888	46.889
	Mg	24	**9995.476**	**ug/L**	5.067	9127162	32.141
	Al	27	**10003.951**	**ug/L**	0.889	12827819	45.149
	P	31	**9996.793**	**ug/L**	1.308	693153	2.427
	K	39	**9993.940**	**ug/L**	6.377	23125215	79.748
	Ca	43	**10000.017**	**ug/L**	1.697	48509	0.169
>	Sc	45		**ug/L**		284048	284048.153
	Ti	47	**100.000**	**ug/L**	1.645	22449	0.078
	V	51	**99.661**	**ug/L**	1.929	223265	0.786
	Cr	52	**99.993**	**ug/L**	2.341	215581	0.756
	Cr	53		**ug/L**		181876	-0.010
	Mn	55	**99.980**	**ug/L**	1.561	347819	1.222
	Fe	57	**9997.217**	**ug/L**	2.301	697823	2.441
	Co	59	**99.964**	**ug/L**	2.963	259689	0.914
	Ni	60	**99.974**	**ug/L**	2.425	54596	0.192
	Cu	63		**ug/L**		122756	0.432
	Cu	65	**99.932**	**ug/L**	1.742	58658	0.206
	Zn	66	**99.954**	**ug/L**	1.010	31219	0.282
	Zn	67		**ug/L**		12910	0.035
	Zn	68		**ug/L**		23063	0.201
>	Ge	74		**ug/L**		110281	110281.148
	As	75	**100.069**	**ug/L**	1.238	36406	0.326
	Se	77		**ug/L**		6786	0.012
	Se	82	**99.967**	**ug/L**	0.336	3380	0.031
	Kr	83		**ug/L**		70	0.000
	Sr	88	**100.012**	**ug/L**	1.986	526614	8.329
	Y	89		**ug/L**		51	0.001
	Zr	90	**100.065**	**ug/L**	1.421	284737	4.503
	Mo	98	**100.026**	**ug/L**	1.527	122244	1.933
	Ag	107	**99.985**	**ug/L**	0.959	187191	2.960
	Cd	111	**100.020**	**ug/L**	0.560	44210	0.699
	Cd	114		**ug/L**		102295	1.618
>	In	115		**ug/L**		63223	63222.987
	Sn	120	**100.012**	**ug/L**	1.553	196702	3.108
	Sb	121	**100.125**	**ug/L**	5.011	152441	2.382
	Sb	123		**ug/L**		115469	1.803
	Ba	135		**ug/L**		45297	0.906
	Ba	137	**100.004**	**ug/L**	0.919	77717	1.554
	Ho	165		**ug/L**		14	0.000
>	Lu	175		**ug/L**		50010	50009.557
	Tl	205	**99.990**	**ug/L**	0.678	68059	1.360
	Pb	208	**99.965**	**ug/L**	1.233	389197	7.780
	Bi	209		**ug/L**		50	0.001
	Th	232	**99.996**	**ug/L**	1.736	507876	10.153
	U	238	**99.976**	**ug/L**	1.950	521672	10.433

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	0.9994
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	0.9999
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45					
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115					
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175					
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Wednesday, January 06, 2010 12:00:33
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100106\QC Std 1.004

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**50.182**	**ug/L**	2.369	10038	0.035
	Be	9	**51.004**	**ug/L**	1.443	3162	0.011
	B	11	**104.641**	**ug/L**	2.246	5801	0.020
	Na	23	**5231.285**	**ug/L**	3.449	7049078	24.526
	Mg	24	**5284.032**	**ug/L**	6.048	4864832	16.991
	Al	27	**5237.374**	**ug/L**	4.545	6775887	23.637
	P	31	**5049.854**	**ug/L**	1.394	354941	1.226
	K	39	**4925.139**	**ug/L**	4.314	11758922	39.301
	Ca	43	**5031.187**	**ug/L**	0.733	24931	0.085
>	Sc	45		**ug/L**		286459	286458.740
	Ti	47	**50.877**	**ug/L**	0.699	11628	0.040
	V	51	**50.008**	**ug/L**	1.300	113021	0.394
	Cr	52	**51.050**	**ug/L**	0.767	111450	0.386
	Cr	53		**ug/L**		170341	-0.056
	Mn	55	**51.525**	**ug/L**	1.096	181247	0.630
	Fe	57	**4986.861**	**ug/L**	0.366	353550	1.218
	Co	59	**50.050**	**ug/L**	0.775	131268	0.458
	Ni	60	**51.237**	**ug/L**	1.898	28245	0.098
	Cu	63		**ug/L**		63165	0.220
	Cu	65	**51.331**	**ug/L**	2.166	30427	0.106
	Zn	66	**52.404**	**ug/L**	2.193	16438	0.148
	Zn	67		**ug/L**		10446	0.013
	Zn	68		**ug/L**		12524	0.105
>	Ge	74		**ug/L**		110454	110454.497
	As	75	**47.165**	**ug/L**	2.681	17453	0.153
	Se	77		**ug/L**		5635	0.002
	Se	82	**50.520**	**ug/L**	2.252	1709	0.016
	Kr	83		**ug/L**		63	0.000
	Sr	88	**50.941**	**ug/L**	1.131	273485	4.242
	Y	89		**ug/L**		21	0.000
	Zr	90	**48.765**	**ug/L**	1.746	141495	2.194
	Mo	98	**48.843**	**ug/L**	0.792	60862	0.944
	Ag	107	**50.297**	**ug/L**	0.695	96029	1.489
	Cd	111	**50.035**	**ug/L**	1.556	22552	0.350
	Cd	114		**ug/L**		52590	0.816
>	In	115		**ug/L**		64454	64454.132
	Sn	120	**50.305**	**ug/L**	2.285	100961	1.563
	Sb	121	**49.012**	**ug/L**	6.845	77025	1.166
	Sb	123		**ug/L**		58524	0.884
	Ba	135		**ug/L**		23221	0.451
	Ba	137	**49.450**	**ug/L**	1.426	39534	0.768
	Ho	165		**ug/L**		10	-0.000
>	Lu	175		**ug/L**		51440	51440.316
	Tl	205	**48.369**	**ug/L**	1.538	33868	0.658
	Pb	208	**50.617**	**ug/L**	2.087	202771	3.939
	Bi	209		**ug/L**		43	0.001
	Th	232	**50.059**	**ug/L**	2.180	261591	5.083
	U	238	**51.617**	**ug/L**	3.121	277001	5.386

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	0.9994
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	0.9999
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7	100.364				
	Be	9	102.008				
	B	11	104.641				
	Na	23	104.626				
	Mg	24	105.681				
	Al	27	103.710				
	P	31	100.997				
	K	39	98.503				
	Ca	43	100.624				
>	Sc	45		108.7			
	Ti	47	101.754				
	V	51	100.017				
	Cr	52	102.100				
	Cr	53					
	Mn	55	103.050				
	Fe	57	99.737				
	Co	59	100.100				
	Ni	60	102.475				
	Cu	63					
	Cu	65	102.662				
	Zn	66	104.808				
	Zn	67					
	Zn	68					
>	Ge	74		107.3			
	As	75	94.330				
	Se	77					
	Se	82	101.040				
	Kr	83					
	Sr	88	101.883				
	Y	89					
	Zr	90	97.531				
	Mo	98	97.687				
	Ag	107	100.594				
	Cd	111	100.070				
	Cd	114					
>	In	115		106.1			
	Sn	120	100.610				
	Sb	121	98.024				
	Sb	123					
	Ba	135					
	Ba	137	98.901				
	Ho	165					
>	Lu	175		107.7			
	Tl	205	96.737				
	Pb	208	101.234				
	Bi	209					
	Th	232	100.118				
	U	238	103.234				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Wednesday, January 06, 2010 12:06:45
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100106\QC Std 2.005

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.022**	**ug/L**	81.443	21	0.000
	Be	9	**0.009**	**ug/L**	289.019	3	0.000
	B	11	**3.794**	**ug/L**	9.429	331	0.001
	Na	23	**6.057**	**ug/L**	31.656	29030	0.028
	Mg	24	**0.370**	**ug/L**	173.205	333	0.001
	Al	27	**-0.895**	**ug/L**	0.384	1000	-0.004
	P	31	**-2.242**	**ug/L**	56.289	3509	-0.001
	K	39	**15.871**	**ug/L**	104.102	528982	0.127
	Ca	43	**1.272**	**ug/L**	1225.453	633	0.000
>	Sc	45		**ug/L**		281513	281513.164
	Ti	47	**0.017**	**ug/L**	272.119	220	0.000
	V	51	**3.316**	**ug/L**	126.996	7344	0.026
	Cr	52	**-0.045**	**ug/L**	134.196	758	-0.000
	Cr	53		**ug/L**		180935	-0.008
	Mn	55	**-0.002**	**ug/L**	239.783	861	-0.000
	Fe	57	**2.045**	**ug/L**	89.381	4833	0.000
	Co	59	**0.006**	**ug/L**	19.644	203	0.000
	Ni	60	**0.012**	**ug/L**	125.577	49	0.000
	Cu	63		**ug/L**		114	0.000
	Cu	65	**0.006**	**ug/L**	412.064	67	0.000
	Zn	66	**-0.034**	**ug/L**	31.468	85	-0.000
	Zn	67		**ug/L**		8775	-0.001
	Zn	68		**ug/L**		862	-0.000
>	Ge	74		**ug/L**		108648	108648.032
	As	75	**-0.582**	**ug/L**	23.059	285	-0.002
	Se	77		**ug/L**		5271	-0.001
	Se	82	**-0.639**	**ug/L**	48.616	-26	-0.000
	Kr	83		**ug/L**		77	0.000
	Sr	88	**0.005**	**ug/L**	68.688	82	0.000
	Y	89		**ug/L**		10	-0.000
	Zr	90	**0.221**	**ug/L**	7.263	711	0.010
	Mo	98	**0.056**	**ug/L**	21.732	87	0.001
	Ag	107	**0.013**	**ug/L**	56.511	82	0.000
	Cd	111	**-0.011**	**ug/L**	86.868	5	-0.000
	Cd	114		**ug/L**		19	-0.000
>	In	115		**ug/L**		64536	64535.990
	Sn	120	**0.259**	**ug/L**	14.379	715	0.008
	Sb	121	**0.715**	**ug/L**	27.419	2956	0.017
	Sb	123		**ug/L**		2325	0.013
	Ba	135		**ug/L**		13	0.000
	Ba	137	**0.000**	**ug/L**	2957.412	19	0.000
	Ho	165		**ug/L**		8	-0.000
>	Lu	175		**ug/L**		48723	48723.102
	Tl	205	**0.068**	**ug/L**	52.248	66	0.001
	Pb	208	**0.011**	**ug/L**	81.588	227	0.001
	Bi	209		**ug/L**		18	0.000
	Th	232	**0.149**	**ug/L**	16.155	921	0.015
	U	238	**0.014**	**ug/L**	27.150	90	0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	0.9994
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	0.9999
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		106.8			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		105.6			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		106.3			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		102.0			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Wednesday, January 06, 2010 12:12:57
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100106\QC Std 3.006

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**11.963**	**ug/L**	2.257	2344	0.008
	Be	9	**0.579**	**ug/L**	16.916	37	0.000
	B	11	**17.057**	**ug/L**	5.249	1029	0.003
	Na	23	**277.961**	**ug/L**	9.221	384815	1.303
	Mg	24	**15.243**	**ug/L**	5.064	13673	0.049
	Al	27	**34.668**	**ug/L**	8.376	45740	0.156
	P	31	**43.930**	**ug/L**	1.399	6608	0.011
	K	39	**337.754**	**ug/L**	10.651	1240761	2.695
	Ca	43	**208.129**	**ug/L**	3.647	1601	0.004
>	Sc	45		**ug/L**		279051	279050.612
	Ti	47	**9.480**	**ug/L**	0.611	2286	0.007
	V	51	**11.669**	**ug/L**	8.017	25671	0.092
	Cr	52	**10.802**	**ug/L**	0.816	23642	0.082
	Cr	53		**ug/L**		162837	-0.067
	Mn	55	**5.700**	**ug/L**	0.119	20297	0.070
	Fe	57	**110.678**	**ug/L**	2.949	12191	0.027
	Co	59	**1.102**	**ug/L**	0.623	2996	0.010
	Ni	60	**2.181**	**ug/L**	3.569	1211	0.004
	Cu	63		**ug/L**		1527	0.005
	Cu	65	**1.174**	**ug/L**	3.618	739	0.002
	Zn	66	**11.139**	**ug/L**	1.624	3539	0.031
	Zn	67		**ug/L**		8192	-0.007
	Zn	68		**ug/L**		3219	0.021
>	Ge	74		**ug/L**		109469	109468.921
	As	75	**4.539**	**ug/L**	28.371	2112	0.015
	Se	77		**ug/L**		4754	-0.006
	Se	82	**5.353**	**ug/L**	8.413	175	0.002
	Kr	83		**ug/L**		62	0.000
	Sr	88	**10.866**	**ug/L**	1.372	58680	0.905
	Y	89		**ug/L**		13	0.000
	Zr	90	**1.894**	**ug/L**	3.371	5592	0.085
	Mo	98	**0.545**	**ug/L**	3.058	699	0.011
	Ag	107	**1.001**	**ug/L**	1.701	1976	0.030
	Cd	111	**1.080**	**ug/L**	5.825	500	0.008
	Cd	114		**ug/L**		1123	0.017
>	In	115		**ug/L**		64793	64793.207
	Sn	120	**5.248**	**ug/L**	0.851	10762	0.163
	Sb	121	**2.437**	**ug/L**	4.230	5623	0.058
	Sb	123		**ug/L**		4272	0.042
	Ba	135		**ug/L**		960	0.019
	Ba	137	**2.070**	**ug/L**	0.673	1603	0.032
	Ho	165		**ug/L**		6	-0.000
>	Lu	175		**ug/L**		49258	49258.269
	Tl	205	**1.072**	**ug/L**	5.348	740	0.015
	Pb	208	**2.186**	**ug/L**	0.209	8567	0.170
	Bi	209		**ug/L**		24	0.000
	Th	232	**1.089**	**ug/L**	2.168	5629	0.111
	U	238	**0.225**	**ug/L**	3.454	1176	0.024

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	0.9994
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	0.9999
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7	119.627				
	Be	9	115.814				
	B	11	113.714				
	Na	23	111.185				
	Mg	24	101.621				
	Al	27	115.560				
	P	31	87.860				
	K	39	112.585				
	Ca	43	104.064				
>	Sc	45		105.9			
	Ti	47	94.798				
	V	51	116.687				
	Cr	52	108.016				
	Cr	53					
	Mn	55	113.990				
	Fe	57	110.678				
	Co	59	110.210				
	Ni	60	109.032				
	Cu	63					
	Cu	65	117.413				
	Zn	66	111.395				
	Zn	67					
	Zn	68					
>	Ge	74		106.4			
	As	75	90.788				
	Se	77					
	Se	82	107.052				
	Kr	83					
	Sr	88	108.659				
	Y	89					
	Zr	90	94.714				
	Mo	98	108.952				
	Ag	107	100.061				
	Cd	111	107.965				
	Cd	114					
>	In	115		106.7			
	Sn	120	104.951				
	Sb	121	81.241				
	Sb	123					
	Ba	135					
	Ba	137	103.479				
	Ho	165					
>	Lu	175		103.1			
	Tl	205	107.236				
	Pb	208	109.317				
	Bi	209					
	Th	232	108.850				
	U	238	112.718				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Wednesday, January 06, 2010 12:19:08
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100106\QC Std 4.007

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.051**	ug/L	32.397	27	0.000
	Be	9	**0.058**	ug/L	44.372	6	0.000
	B	11	**1.223**	ug/L	16.759	194	0.000
	Na	23	**100805.902**	ug/L	1.892	133005702	472.610
	Mg	24	**102133.456**	ug/L	7.006	92416873	328.421
	Al	27	**103707.603**	ug/L	3.139	131710873	468.044
	P	31	**100436.925**	ug/L	1.044	6865596	24.388
	K	39	**102763.686**	ug/L	3.468	231252154	820.018
	Ca	43	**98518.505**	ug/L	0.733	467862	1.661
>	Sc	45		ug/L		281355	281354.845
	Ti	47	**1497.753**	ug/L	0.347	330091	1.172
	V	51	**3.130**	ug/L	99.866	6916	0.025
	Cr	52	**4.363**	ug/L	2.579	10139	0.033
	Cr	53		ug/L		149587	-0.119
	Mn	55	**5.658**	ug/L	1.198	20321	0.069
	Fe	57	**97285.929**	ug/L	1.108	6687608	23.753
	Co	59	**0.254**	ug/L	4.194	839	0.002
	Ni	60	**2.925**	ug/L	1.302	1624	0.006
	Cu	63		ug/L		2610	0.009
	Cu	65	**2.474**	ug/L	4.768	1501	0.005
	Zn	66	**3.680**	ug/L	2.098	1190	0.010
	Zn	67		ug/L		7751	-0.008
	Zn	68		ug/L		986	0.001
>	Ge	74		ug/L		105592	105591.887
	As	75	**-0.659**	ug/L	138.307	253	-0.002
	Se	77		ug/L		4470	-0.007
	Se	82	**-0.397**	ug/L	35.303	-17	-0.000
	Kr	83		ug/L		94	0.000
	Sr	88	**1.156**	ug/L	1.355	5925	0.096
	Y	89		ug/L		159	0.002
	Zr	90	**0.490**	ug/L	48.249	1411	0.022
	Mo	98	**2037.335**	ug/L	0.913	2403290	39.377
	Ag	107	**0.061**	ug/L	17.380	164	0.002
	Cd	111	**0.528**	ug/L	21.204	235	0.004
	Cd	114		ug/L		2370	0.038
>	In	115		ug/L		61033	61033.204
	Sn	120	**0.201**	ug/L	4.892	565	0.006
	Sb	121	**-0.321**	ug/L	20.104	1291	-0.008
	Sb	123		ug/L		1042	-0.006
	Ba	135		ug/L		311	0.006
	Ba	137	**0.606**	ug/L	3.850	488	0.009
	Ho	165		ug/L		210	0.004
>	Lu	175		ug/L		49778	49778.409
	Tl	205	**0.039**	ug/L	28.006	48	0.001
	Pb	208	**0.169**	ug/L	3.168	841	0.013
	Bi	209		ug/L		125	0.002
	Th	232	**0.121**	ug/L	40.512	796	0.012
	U	238	**0.002**	ug/L	62.623	30	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	0.9994
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	0.9999
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23	100.806				
	Mg	24	102.133				
	Al	27	103.708				
	P	31	100.437				
	K	39	102.764				
	Ca	43	98.519				
>	Sc	45			106.8		
	Ti	47	74.888				
	V	51					
	Cr	52	117.924				
	Cr	53					
	Mn	55	97.554				
	Fe	57	97.286				
	Co	59	101.547				
	Ni	60	108.347				
	Cu	63					
	Cu	65	85.317				
	Zn	66	102.210				
	Zn	67					
	Zn	68					
>	Ge	74			102.6		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88	96.320				
	Y	89					
	Zr	90					
	Mo	98	101.867				
	Ag	107					
	Cd	111	132.076				
	Cd	114					
>	In	115			100.5		
	Sn	120					
	Sb	121	-321.413				
	Sb	123					
	Ba	135					
	Ba	137	90.482				
	Ho	165					
>	Lu	175			104.2		
	Tl	205					
	Pb	208	84.396				
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
QC Std 4	Ti	47ICSA is out of limits

QC Action

QC Action Line: Continue

ICPMS#4 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Wednesday, January 06, 2010 12:25:19
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100106\QC Std 5.008

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**19.503**	ug/L	2.426	3748	0.014
	Be	9	**19.191**	ug/L	2.668	1141	0.004
	B	11	**20.112**	ug/L	2.552	1170	0.004
	Na	23	**104404.486**	ug/L	1.495	134353733	489.482
	Mg	24	**100582.235**	ug/L	3.735	88752066	323.432
	Al	27	**104214.819**	ug/L	4.992	129107891	470.333
	P	31	**101694.519**	ug/L	1.171	6780952	24.694
	K	39	**102446.844**	ug/L	3.291	224879063	817.490
	Ca	43	**100012.265**	ug/L	0.715	463296	1.686
>	Sc	45		ug/L		274459	274458.877
	Ti	47	**1517.042**	ug/L	0.999	326138	1.188
	V	51	**22.221**	ug/L	5.954	48104	0.175
	Cr	52	**24.321**	ug/L	0.748	51312	0.184
	Cr	53		ug/L		150627	-0.102
	Mn	55	**25.410**	ug/L	0.359	86069	0.310
	Fe	57	**99188.004**	ug/L	0.269	6651228	24.217
	Co	59	**19.359**	ug/L	0.365	48761	0.177
	Ni	60	**21.445**	ug/L	1.587	11352	0.041
	Cu	63		ug/L		24325	0.088
	Cu	65	**20.916**	ug/L	1.932	11915	0.043
	Zn	66	**23.020**	ug/L	1.468	6790	0.065
	Zn	67		ug/L		8355	-0.001
	Zn	68		ug/L		4941	0.040
>	Ge	74		ug/L		103072	103071.532
	As	75	**20.644**	ug/L	2.728	7388	0.067
	Se	77		ug/L		5029	-0.001
	Se	82	**22.704**	ug/L	6.740	714	0.007
	Kr	83		ug/L		80	0.000
	Sr	88	**22.189**	ug/L	1.165	109087	1.848
	Y	89		ug/L		158	0.002
	Zr	90	**21.573**	ug/L	2.349	57339	0.971
	Mo	98	**2093.478**	ug/L	1.914	2387466	40.462
	Ag	107	**19.741**	ug/L	1.180	34535	0.584
	Cd	111	**20.269**	ug/L	1.525	8369	0.142
	Cd	114		ug/L		21008	0.356
>	In	115		ug/L		59007	59006.676
	Sn	120	**20.577**	ug/L	0.802	37912	0.640
	Sb	121	**21.334**	ug/L	2.077	31654	0.508
	Sb	123		ug/L		24068	0.384
	Ba	135		ug/L		8707	0.178
	Ba	137	**19.681**	ug/L	1.626	14938	0.306
	Ho	165		ug/L		204	0.004
>	Lu	175		ug/L		48795	48794.684
	Tl	205	**18.412**	ug/L	1.646	12245	0.251
	Pb	208	**19.055**	ug/L	1.519	72535	1.483
	Bi	209		ug/L		189	0.004
	Th	232	**19.952**	ug/L	0.317	99029	2.026
	U	238	**20.318**	ug/L	2.209	103459	2.120

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	0.9994
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	0.9999
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7	97.513				
	Be	9	95.954				
	B	11	100.561				
	Na	23	104.404				
	Mg	24	100.582				
	Al	27	104.215				
	P	31	101.695				
	K	39	102.447				
	Ca	43	100.012				
>	Sc	45		104.2			
	Ti	47	75.852				
	V	51	111.103				
	Cr	52	102.621				
	Cr	53					
	Mn	55	98.488				
	Fe	57	99.188				
	Co	59	95.599				
	Ni	60	94.473				
	Cu	63					
	Cu	65	91.335				
	Zn	66	97.543				
	Zn	67					
	Zn	68					
>	Ge	74		100.2			
	As	75	103.222				
	Se	77					
	Se	82	113.521				
	Kr	83					
	Sr	88	104.667				
	Y	89					
	Zr	90	107.863				
	Mo	98	104.674				
	Ag	107	98.707				
	Cd	111	99.356				
	Cd	114					
>	In	115		97.2			
	Sn	120	102.887				
	Sb	121	106.141				
	Sb	123					
	Ba	135					
	Ba	137	95.216				
	Ho	165					
>	Lu	175		102.1			
	Tl	205	92.062				
	Pb	208	94.332				
	Bi	209					
	Th	232	99.760				
	U	238	101.590				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 5	Ti	47	ICSAB is out of limits

QC Action

QC Action Line: Continue

ICPMS#4 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Wednesday, January 06, 2010 12:31:31
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100106\QC Std 6.009

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**54.400**	ug/L	2.603	10525	0.038
	Be	9	**52.173**	ug/L	0.865	3129	0.011
	B	11	**99.584**	ug/L	0.596	5349	0.019
	Na	23	**5058.076**	ug/L	1.321	6592713	23.714
	Mg	24	**4909.000**	ug/L	1.869	4374365	15.785
	Al	27	**5253.583**	ug/L	2.863	6575240	23.710
	P	31	**5093.221**	ug/L	0.728	346336	1.237
	K	39	**5218.175**	ug/L	4.434	12026364	41.639
	Ca	43	**5020.709**	ug/L	0.661	24074	0.085
>	Sc	45		ug/L		277145	277145.109
	Ti	47	**50.946**	ug/L	1.832	11264	0.040
	V	51	**50.302**	ug/L	1.929	109986	0.397
	Cr	52	**50.988**	ug/L	0.776	107696	0.386
	Cr	53		ug/L		162207	-0.065
	Mn	55	**51.197**	ug/L	1.132	174220	0.626
	Fe	57	**4959.369**	ug/L	0.978	340161	1.211
	Co	59	**49.717**	ug/L	0.979	126152	0.455
	Ni	60	**51.269**	ug/L	0.507	27346	0.099
	Cu	63		ug/L		61493	0.222
	Cu	65	**51.886**	ug/L	1.213	29758	0.107
	Zn	66	**51.416**	ug/L	1.558	15922	0.145
	Zn	67		ug/L		9406	0.005
	Zn	68		ug/L		12071	0.102
>	Ge	74		ug/L		109016	109016.136
	As	75	**47.104**	ug/L	2.449	17202	0.153
	Se	77		ug/L		5906	0.005
	Se	82	**52.047**	ug/L	2.505	1737	0.016
	Kr	83		ug/L		57	-0.000
	Sr	88	**51.012**	ug/L	0.894	264886	4.248
	Y	89		ug/L		21	0.000
	Zr	90	**48.985**	ug/L	0.634	137495	2.204
	Mo	98	**49.687**	ug/L	0.681	59891	0.960
	Ag	107	**49.457**	ug/L	0.657	91341	1.464
	Cd	111	**49.423**	ug/L	1.286	21546	0.345
	Cd	114		ug/L		49877	0.800
>	In	115		ug/L		62346	62346.266
	Sn	120	**49.807**	ug/L	1.824	96683	1.548
	Sb	121	**47.614**	ug/L	4.602	72451	1.133
	Sb	123		ug/L		55314	0.863
	Ba	135		ug/L		22354	0.453
	Ba	137	**49.809**	ug/L	1.301	38223	0.774
	Ho	165		ug/L		10	-0.000
>	Lu	175		ug/L		49371	49371.332
	Tl	205	**49.683**	ug/L	1.002	33395	0.676
	Pb	208	**51.402**	ug/L	0.139	197682	4.000
	Bi	209		ug/L		43	0.001
	Th	232	**50.110**	ug/L	0.391	251372	5.088
	U	238	**51.748**	ug/L	0.318	266623	5.400

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	0.9994
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	0.9999
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7	108.800				
	Be	9	104.346				
	B	11	99.584				
	Na	23	101.162				
	Mg	24	98.180				
	Al	27	104.031				
	P	31	101.864				
	K	39	104.364				
	Ca	43	100.414				
>	Sc	45		105.2			
	Ti	47	101.892				
	V	51	100.604				
	Cr	52	101.977				
	Cr	53					
	Mn	55	102.395				
	Fe	57	99.187				
	Co	59	99.435				
	Ni	60	102.537				
	Cu	63					
	Cu	65	103.771				
	Zn	66	102.833				
	Zn	67					
	Zn	68					
>	Ge	74		105.9			
	As	75	94.209				
	Se	77					
	Se	82	104.093				
	Kr	83					
	Sr	88	102.023				
	Y	89					
	Zr	90	97.971				
	Mo	98	99.375				
	Ag	107	98.914				
	Cd	111	98.846				
	Cd	114					
>	In	115		102.7			
	Sn	120	99.613				
	Sb	121	95.229				
	Sb	123					
	Ba	135					
	Ba	137	99.617				
	Ho	165					
>	Lu	175		103.3			
	Tl	205	99.366				
	Pb	208	102.803				
	Bi	209					
	Th	232	100.220				
	U	238	103.497				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Wednesday, January 06, 2010 12:37:44
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100106\QC Std 7.010

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.056**	ug/L	28.514	27	0.000
	Be	9	**-0.007**	ug/L	154.181	2	-0.000
	B	11	**1.829**	ug/L	22.419	217	0.000
	Na	23	**9.128**	ug/L	59.204	31703	0.043
	Mg	24	**1.542**	ug/L	86.615	1333	0.005
	Al	27	**-0.585**	ug/L	162.536	1333	-0.003
	P	31	**-11.343**	ug/L	11.893	2770	-0.003
	K	39	**-14.958**	ug/L	53.076	441047	-0.119
	Ca	43	**12.914**	ug/L	74.239	661	0.000
>	Sc	45		ug/L		270083	270083.071
	Ti	47	**0.545**	ug/L	18.463	323	0.000
	V	51	**3.943**	ug/L	85.687	8350	0.031
	Cr	52	**0.125**	ug/L	103.526	1078	0.001
	Cr	53		ug/L		170265	-0.020
	Mn	55	**0.006**	ug/L	379.479	853	0.000
	Fe	57	**5.709**	ug/L	33.748	4878	0.001
	Co	59	**0.001**	ug/L	1029.537	182	0.000
	Ni	60	**0.009**	ug/L	132.710	46	0.000
	Cu	63		ug/L		93	0.000
	Cu	65	**0.014**	ug/L	210.655	69	0.000
	Zn	66	**-0.045**	ug/L	109.078	79	-0.000
	Zn	67		ug/L		7669	-0.009
	Zn	68		ug/L		660	-0.002
>	Ge	74		ug/L		105540	105540.185
	As	75	**-0.862**	ug/L	120.291	182	-0.003
	Se	77		ug/L		5677	0.004
	Se	82	**0.444**	ug/L	130.486	10	0.000
	Kr	83		ug/L		54	-0.000
	Sr	88	**0.003**	ug/L	68.461	67	0.000
	Y	89		ug/L		11	-0.000
	Zr	90	**0.189**	ug/L	6.987	591	0.009
	Mo	98	**0.110**	ug/L	16.934	146	0.002
	Ag	107	**0.006**	ug/L	87.393	66	0.000
	Cd	111	**0.004**	ug/L	337.491	12	0.000
	Cd	114		ug/L		17	-0.000
>	In	115		ug/L		61524	61524.095
	Sn	120	**0.219**	ug/L	15.528	605	0.007
	Sb	121	**-0.034**	ug/L	324.173	1722	-0.001
	Sb	123		ug/L		1333	-0.002
	Ba	135		ug/L		10	0.000
	Ba	137	**-0.006**	ug/L	67.857	14	-0.000
	Ho	165		ug/L		9	-0.000
>	Lu	175		ug/L		47997	47996.976
	Tl	205	**0.086**	ug/L	16.207	77	0.001
	Pb	208	**0.007**	ug/L	39.201	208	0.001
	Bi	209		ug/L		20	0.000
	Th	232	**0.085**	ug/L	21.693	595	0.009
	U	238	**0.009**	ug/L	39.538	64	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	0.9994
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	0.9999
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		102.5			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		102.6			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		101.3			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		100.5			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 10
Sample Date/Time: Wednesday, January 06, 2010 12:43:56
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100106\QC Std 10.011

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**1037.981**	ug/L	3.390	192740	0.724
	Be	9	**985.320**	ug/L	1.200	56752	0.213
	B	11	**1.183**	ug/L	67.904	182	0.000
	Na	23	**50480.530**	ug/L	0.208	63057884	236.669
	Mg	24	**49110.732**	ug/L	1.170	42065611	157.921
	Al	27	**53259.037**	ug/L	4.859	64033349	240.364
	P	31	**23888.075**	ug/L	0.605	1548430	5.801
	K	39	**49458.677**	ug/L	4.452	105611220	394.663
	Ca	43	**48978.822**	ug/L	0.575	220493	0.826
>	Sc	45		ug/L		266356	266355.912
	Ti	47	**31.118**	ug/L	4.025	6694	0.024
	V	51	**916.087**	ug/L	2.044	1925051	7.227
	Cr	52	**936.664**	ug/L	1.072	1887535	7.083
	Cr	53		ug/L		367913	0.731
	Mn	55	**979.687**	ug/L	1.361	3189720	11.971
	Fe	57	**49265.114**	ug/L	0.587	3208324	12.028
	Co	59	**934.479**	ug/L	0.533	2275888	8.544
	Ni	60	**924.287**	ug/L	0.550	473137	1.776
	Cu	63		ug/L		1038389	3.898
	Cu	65	**914.401**	ug/L	0.429	502972	1.888
	Zn	66	**2359.365**	ug/L	0.564	677759	6.661
	Zn	67		ug/L		112193	1.021
	Zn	68		ug/L		479408	4.704
>	Ge	74		ug/L		101732	101732.301
	As	75	**934.779**	ug/L	0.633	309889	3.042
	Se	77		ug/L		15475	0.103
	Se	82	**489.219**	ug/L	1.426	15275	0.150
	Kr	83		ug/L		62	0.000
	Sr	88	**993.662**	ug/L	0.556	4870177	82.748
	Y	89		ug/L		164	0.003
	Zr	90	**489.535**	ug/L	0.466	1296470	22.027
	Mo	98	**973.901**	ug/L	0.422	1107844	18.823
	Ag	107	**236.108**	ug/L	1.820	411391	6.990
	Cd	111	**960.287**	ug/L	0.749	395037	6.712
	Cd	114		ug/L		911611	15.489
>	In	115		ug/L		58856	58856.386
	Sn	120	**998.469**	ug/L	0.197	1826550	31.031
	Sb	121	**250.835**	ug/L	3.127	353044	5.968
	Sb	123		ug/L		268128	4.531
	Ba	135		ug/L		411892	8.499
	Ba	137	**928.995**	ug/L	0.768	699642	14.434
	Ho	165		ug/L		65	0.001
>	Lu	175		ug/L		48477	48477.288
	Tl	205	**483.664**	ug/L	1.701	318991	6.580
	Pb	208	**4877.883**	ug/L	1.981	18399571	379.610
	Bi	209		ug/L		420	0.008
	Th	232	**2434.791**	ug/L	2.601	11982596	247.213
	U	238	**5004.944**	ug/L	1.152	25317198	522.287

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	0.9994
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	0.9999
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7	103.798				
	Be	9	98.532				
	B	11					
	Na	23	100.961				
	Mg	24	98.221				
	Al	27	106.518				
	P	31	95.552				
	K	39	98.917				
	Ca	43	97.958				
>	Sc	45		101.1			
	Ti	47					
	V	51	91.609				
	Cr	52	93.666				
	Cr	53					
	Mn	55	97.969				
	Fe	57	98.530				
	Co	59	93.448				
	Ni	60	92.429				
	Cu	63					
	Cu	65	91.440				
	Zn	66	94.375				
	Zn	67					
	Zn	68					
>	Ge	74		98.9			
	As	75	93.478				
	Se	77					
	Se	82	97.844				
	Kr	83					
	Sr	88	99.366				
	Y	89					
	Zr	90	97.907				
	Mo	98	97.390				
	Ag	107	94.443				
	Cd	111	96.029				
	Cd	114					
>	In	115		96.9			
	Sn	120	99.847				
	Sb	121	100.334				
	Sb	123					
	Ba	135					
	Ba	137	92.899				
	Ho	165					
>	Lu	175		101.5			
	Tl	205	96.733				
	Pb	208	97.558				
	Bi	209					
	Th	232	97.392				
	U	238	100.099				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 11
Sample Date/Time: Wednesday, January 06, 2010 12:50:05
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100106\QC Std 11.012

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**51.246**	**ug/L**	2.980	9901	0.036
	Be	9	**50.356**	**ug/L**	1.320	3015	0.011
	B	11	**98.604**	**ug/L**	1.839	5288	0.019
	Na	23	**5267.771**	**ug/L**	3.560	6854830	24.697
	Mg	24	**5098.734**	**ug/L**	6.575	4536195	16.395
	Al	27	**5320.554**	**ug/L**	0.523	6645738	24.012
	P	31	**5009.833**	**ug/L**	1.653	340186	1.216
	K	39	**5197.301**	**ug/L**	2.302	11960926	41.473
	Ca	43	**5004.181**	**ug/L**	0.229	23955	0.084
>	Sc	45		**ug/L**		276681	276680.869
	Ti	47	**51.053**	**ug/L**	2.114	11269	0.040
	V	51	**49.613**	**ug/L**	2.356	108291	0.391
	Cr	52	**50.969**	**ug/L**	1.002	107481	0.385
	Cr	53		**ug/L**		162372	-0.064
	Mn	55	**51.169**	**ug/L**	0.624	173850	0.625
	Fe	57	**4918.024**	**ug/L**	0.716	336823	1.201
	Co	59	**49.556**	**ug/L**	0.572	125545	0.453
	Ni	60	**51.421**	**ug/L**	0.639	27382	0.099
	Cu	63		**ug/L**		60856	0.220
	Cu	65	**51.564**	**ug/L**	0.775	29520	0.106
	Zn	66	**52.665**	**ug/L**	0.835	16048	0.149
	Zn	67		**ug/L**		9638	0.008
	Zn	68		**ug/L**		12072	0.104
>	Ge	74		**ug/L**		107288	107287.516
	As	75	**50.483**	**ug/L**	1.050	18107	0.164
	Se	77		**ug/L**		5601	0.003
	Se	82	**50.418**	**ug/L**	3.397	1656	0.015
	Kr	83		**ug/L**		57	-0.000
	Sr	88	**50.274**	**ug/L**	1.886	264638	4.187
	Y	89		**ug/L**		22	0.000
	Zr	90	**51.770**	**ug/L**	1.931	147292	2.329
	Mo	98	**48.171**	**ug/L**	2.570	58851	0.931
	Ag	107	**48.954**	**ug/L**	1.154	91644	1.449
	Cd	111	**49.357**	**ug/L**	0.796	21815	0.345
	Cd	114		**ug/L**		50870	0.804
>	In	115		**ug/L**		63203	63202.598
	Sn	120	**52.315**	**ug/L**	2.178	102938	1.626
	Sb	121	**50.112**	**ug/L**	6.288	77153	1.192
	Sb	123		**ug/L**		58780	0.907
	Ba	135		**ug/L**		22449	0.452
	Ba	137	**49.761**	**ug/L**	0.721	38422	0.773
	Ho	165		**ug/L**		12	0.000
>	Lu	175		**ug/L**		49670	49670.034
	Tl	205	**50.712**	**ug/L**	0.761	34293	0.690
	Pb	208	**52.086**	**ug/L**	1.471	201506	4.053
	Bi	209		**ug/L**		41	0.001
	Th	232	**51.765**	**ug/L**	2.822	261202	5.256
	U	238	**52.741**	**ug/L**	2.114	273363	5.504

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	0.9994
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	0.9999
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7	102.492				
	Be	9	100.712				
	B	11	98.604				
	Na	23	105.355				
	Mg	24	101.975				
	Al	27	105.358				
	P	31	100.197				
	K	39	103.946				
	Ca	43	100.084				
>	Sc	45		105.0			
	Ti	47	102.106				
	V	51	99.225				
	Cr	52	101.939				
	Cr	53					
	Mn	55	102.338				
	Fe	57	98.360				
	Co	59	99.112				
	Ni	60	102.842				
	Cu	63					
	Cu	65	103.129				
	Zn	66	105.330				
	Zn	67					
	Zn	68					
>	Ge	74		104.3			
	As	75	100.965				
	Se	77					
	Se	82	100.836				
	Kr	83					
	Sr	88	100.548				
	Y	89					
	Zr	90	103.539				
	Mo	98	96.342				
	Ag	107	97.907				
	Cd	111	98.714				
	Cd	114					
>	In	115		104.1			
	Sn	120	104.630				
	Sb	121	100.223				
	Sb	123					
	Ba	135					
	Ba	137	99.522				
	Ho	165					
>	Lu	175		104.0			
	Tl	205	101.425				
	Pb	208	104.171				
	Bi	209					
	Th	232	103.530				
	U	238	105.483				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 12
Sample Date/Time: Wednesday, January 06, 2010 12:56:17
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100106\QC Std 12.013

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.169**	**ug/L**	25.594	49	0.000
	Be	9	**0.010**	**ug/L**	103.852	3	0.000
	B	11	**1.890**	**ug/L**	22.621	226	0.000
	Na	23	**1.824**	**ug/L**	144.336	23019	0.009
	Mg	24	**1.137**	**ug/L**	173.205	1000	0.004
	Al	27	**1.799**	**ug/L**	70.081	4334	0.008
	P	31	**-9.676**	**ug/L**	11.590	2948	-0.002
	K	39	**-12.169**	**ug/L**	93.431	457560	-0.097
	Ca	43	**4.255**	**ug/L**	182.467	636	0.000
>	Sc	45		**ug/L**		276454	276453.856
	Ti	47	**0.063**	**ug/L**	56.772	226	0.000
	V	51	**5.230**	**ug/L**	28.364	11422	0.041
	Cr	52	**0.073**	**ug/L**	159.208	992	0.001
	Cr	53		**ug/L**		175023	-0.018
	Mn	55	**0.000**	**ug/L**	482.314	855	0.000
	Fe	57	**0.726**	**ug/L**	148.759	4657	0.000
	Co	59	**0.002**	**ug/L**	420.541	189	0.000
	Ni	60	**0.014**	**ug/L**	27.380	50	0.000
	Cu	63		**ug/L**		138	0.000
	Cu	65	**0.037**	**ug/L**	5.956	83	0.000
	Zn	66	**0.105**	**ug/L**	48.531	125	0.000
	Zn	67		**ug/L**		8061	-0.006
	Zn	68		**ug/L**		784	-0.001
>	Ge	74		**ug/L**		106456	106455.968
	As	75	**0.617**	**ug/L**	51.181	696	0.002
	Se	77		**ug/L**		5480	0.002
	Se	82	**0.138**	**ug/L**	254.603	0	0.000
	Kr	83		**ug/L**		64	0.000
	Sr	88	**0.010**	**ug/L**	29.097	103	0.001
	Y	89		**ug/L**		10	-0.000
	Zr	90	**0.361**	**ug/L**	10.339	1083	0.016
	Mo	98	**0.150**	**ug/L**	11.088	197	0.003
	Ag	107	**0.019**	**ug/L**	46.369	90	0.001
	Cd	111	**0.028**	**ug/L**	67.901	22	0.000
	Cd	114		**ug/L**		45	0.000
>	In	115		**ug/L**		62472	62472.177
	Sn	120	**1.198**	**ug/L**	9.065	2513	0.037
	Sb	121	**1.404**	**ug/L**	19.015	3882	0.033
	Sb	123		**ug/L**		3095	0.026
	Ba	135		**ug/L**		18	0.000
	Ba	137	**0.008**	**ug/L**	44.714	25	0.000
	Ho	165		**ug/L**		13	0.000
>	Lu	175		**ug/L**		48014	48013.704
	Tl	205	**0.180**	**ug/L**	16.338	139	0.002
	Pb	208	**0.184**	**ug/L**	11.269	867	0.014
	Bi	209		**ug/L**		17	0.000
	Th	232	**0.303**	**ug/L**	19.759	1658	0.031
	U	238	**0.072**	**ug/L**	17.453	374	0.007

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	0.9994
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	0.9999
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		104.9			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		103.4			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		102.9			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		100.5			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Wednesday, January 06, 2010 13:21:57
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100106\QC Std 6.017

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**49.955**	ug/L	3.897	9732	0.035
	Be	9	**50.471**	ug/L	1.500	3048	0.011
	B	11	**97.231**	ug/L	2.505	5261	0.018
	Na	23	**5186.265**	ug/L	2.433	6808023	24.315
	Mg	24	**5014.186**	ug/L	2.431	4501339	16.124
	Al	27	**5368.793**	ug/L	6.590	6767752	24.230
	P	31	**4985.855**	ug/L	0.784	341524	1.211
	K	39	**5227.971**	ug/L	1.526	12131634	41.717
	Ca	43	**4946.919**	ug/L	0.602	23895	0.083
>	Sc	45		ug/L		279094	279094.097
	Ti	47	**50.529**	ug/L	0.763	11255	0.040
	V	51	**52.088**	ug/L	1.640	114689	0.411
	Cr	52	**51.458**	ug/L	1.620	109468	0.389
	Cr	53		ug/L		157876	-0.085
	Mn	55	**51.690**	ug/L	0.953	177127	0.632
	Fe	57	**5002.559**	ug/L	1.812	345475	1.221
	Co	59	**49.960**	ug/L	1.827	127664	0.457
	Ni	60	**50.997**	ug/L	1.451	27388	0.098
	Cu	63		ug/L		60834	0.218
	Cu	65	**51.189**	ug/L	1.943	29553	0.106
	Zn	66	**52.677**	ug/L	0.618	16143	0.149
	Zn	67		ug/L		9280	0.004
	Zn	68		ug/L		11990	0.103
>	Ge	74		ug/L		107905	107904.576
	As	75	**48.316**	ug/L	0.153	17451	0.157
	Se	77		ug/L		5603	0.002
	Se	82	**51.516**	ug/L	3.036	1702	0.016
	Kr	83		ug/L		51	-0.000
	Sr	88	**50.284**	ug/L	0.697	264524	4.187
	Y	89		ug/L		115	0.002
	Zr	90	**49.167**	ug/L	1.117	139807	2.212
	Mo	98	**48.686**	ug/L	0.656	59449	0.941
	Ag	107	**49.790**	ug/L	0.585	93152	1.474
	Cd	111	**49.808**	ug/L	1.735	21999	0.348
	Cd	114		ug/L		50938	0.806
>	In	115		ug/L		63160	63159.591
	Sn	120	**49.477**	ug/L	1.070	97313	1.538
	Sb	121	**47.344**	ug/L	5.586	73000	1.126
	Sb	123		ug/L		56092	0.864
	Ba	135		ug/L		22582	0.455
	Ba	137	**49.862**	ug/L	0.611	38448	0.775
	Ho	165		ug/L		14	0.000
>	Lu	175		ug/L		49608	49608.156
	Tl	205	**51.843**	ug/L	0.557	35011	0.705
	Pb	208	**50.632**	ug/L	1.459	195650	3.940
	Bi	209		ug/L		59	0.001
	Th	232	**50.310**	ug/L	1.528	253566	5.108
	U	238	**51.542**	ug/L	1.031	266826	5.379

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	0.9994
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	0.9999
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7	99.910				
	Be	9	100.942				
	B	11	97.231				
	Na	23	103.725				
	Mg	24	100.284				
	Al	27	106.313				
	P	31	99.717				
	K	39	104.559				
	Ca	43	98.938				
>	Sc	45		105.9			
	Ti	47	101.058				
	V	51	104.177				
	Cr	52	102.917				
	Cr	53					
	Mn	55	103.381				
	Fe	57	100.051				
	Co	59	99.920				
	Ni	60	101.994				
	Cu	63					
	Cu	65	102.377				
	Zn	66	105.354				
	Zn	67					
	Zn	68					
>	Ge	74		104.9			
	As	75	96.632				
	Se	77					
	Se	82	103.032				
	Kr	83					
	Sr	88	100.567				
	Y	89					
	Zr	90	98.334				
	Mo	98	97.372				
	Ag	107	99.580				
	Cd	111	99.615				
	Cd	114					
>	In	115		104.0			
	Sn	120	98.954				
	Sb	121	94.687				
	Sb	123					
	Ba	135					
	Ba	137	99.724				
	Ho	165					
>	Lu	175		103.8			
	Tl	205	103.686				
	Pb	208	101.263				
	Bi	209					
	Th	232	100.619				
	U	238	103.085				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Wednesday, January 06, 2010 13:28:10
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100106\QC Std 7.018

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.136**	**ug/L**	16.248	43	0.000
	Be	9	**0.054**	**ug/L**	75.000	5	0.000
	B	11	**1.995**	**ug/L**	8.676	230	0.000
	Na	23	**0.134**	**ug/L**	457.449	20682	0.001
	Mg	24	**1.130**	**ug/L**	100.881	1000	0.004
	Al	27	**2.625**	**ug/L**	64.458	5334	0.012
	P	31	**-12.011**	**ug/L**	4.435	2770	-0.003
	K	39	**-17.942**	**ug/L**	45.613	441385	-0.143
	Ca	43	**-3.596**	**ug/L**	117.350	595	-0.000
>	Sc	45		**ug/L**		274436	274435.879
	Ti	47	**0.082**	**ug/L**	160.074	228	0.000
	V	51	**3.123**	**ug/L**	126.263	6746	0.025
	Cr	52	**0.453**	**ug/L**	20.170	1772	0.003
	Cr	53		**ug/L**		165551	-0.047
	Mn	55	**0.025**	**ug/L**	77.937	930	0.000
	Fe	57	**7.419**	**ug/L**	15.815	5072	0.002
	Co	59	**0.004**	**ug/L**	175.036	191	0.000
	Ni	60	**-0.005**	**ug/L**	425.037	39	-0.000
	Cu	63		**ug/L**		99	0.000
	Cu	65	**0.018**	**ug/L**	39.109	72	0.000
	Zn	66	**-0.035**	**ug/L**	80.780	83	-0.000
	Zn	67		**ug/L**		7449	-0.011
	Zn	68		**ug/L**		666	-0.002
>	Ge	74		**ug/L**		105916	105916.273
	As	75	**-0.347**	**ug/L**	164.384	358	-0.001
	Se	77		**ug/L**		5207	-0.000
	Se	82	**0.144**	**ug/L**	218.256	0	0.000
	Kr	83		**ug/L**		63	0.000
	Sr	88	**0.009**	**ug/L**	38.896	98	0.001
	Y	89		**ug/L**		26	0.000
	Zr	90	**0.266**	**ug/L**	7.214	803	0.012
	Mo	98	**0.063**	**ug/L**	24.781	91	0.001
	Ag	107	**0.011**	**ug/L**	77.050	74	0.000
	Cd	111	**-0.002**	**ug/L**	252.483	9	-0.000
	Cd	114		**ug/L**		30	0.000
>	In	115		**ug/L**		61522	61522.343
	Sn	120	**0.268**	**ug/L**	12.156	698	0.008
	Sb	121	**-0.099**	**ug/L**	144.105	1625	-0.002
	Sb	123		**ug/L**		1294	-0.002
	Ba	135		**ug/L**		13	0.000
	Ba	137	**0.018**	**ug/L**	62.321	31	0.000
	Ho	165		**ug/L**		10	-0.000
>	Lu	175		**ug/L**		47138	47137.782
	Tl	205	**0.170**	**ug/L**	7.027	130	0.002
	Pb	208	**0.060**	**ug/L**	13.584	398	0.005
	Bi	209		**ug/L**		22	0.000
	Th	232	**0.109**	**ug/L**	24.320	699	0.011
	U	238	**0.017**	**ug/L**	15.075	100	0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	0.9994
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	0.9999
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		104.2			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		102.9			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		101.3			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		98.7			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 242661004
Sample Date/Time: Wednesday, January 06, 2010 13:34:22
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 932315|2|skj
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100106\242661004.019

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**114.227**	ug/L	1.570	24921	0.080
	Be	9	**3.736**	ug/L	4.907	255	0.001
	B	11	**16.855**	ug/L	2.852	1141	0.003
	Na	23	**2259.607**	ug/L	6.417	3337312	10.594
	Mg	24	**13231.268**	ug/L	4.096	13307333	42.546
	Al	27	**81530.282**	ug/L	4.672	115051790	367.955
	P	31	**492.674**	ug/L	3.207	41479	0.120
	K	39	**8337.666**	ug/L	3.191	21349854	66.532
	Ca	43	**9077.253**	ug/L	3.021	48548	0.153
>	Sc	45		ug/L		312712	312712.137
	Ti	47	**1137.476**	ug/L	0.562	278691	0.890
	V	51	**76.587**	ug/L	2.664	188950	0.604
	Cr	52	**42.422**	ug/L	1.186	101274	0.321
	Cr	53		ug/L		126156	-0.247
	Mn	55	**677.296**	ug/L	1.384	2589234	8.276
	Fe	57	**64957.749**	ug/L	0.884	4964918	15.860
	Co	59	**10.976**	ug/L	1.438	31588	0.100
	Ni	60	**34.291**	ug/L	1.789	20654	0.066
	Cu	63		ug/L		32626	0.104
	Cu	65	**24.590**	ug/L	1.251	15948	0.051
	Zn	66	**269.950**	ug/L	1.388	74623	0.762
	Zn	67		ug/L		17515	0.097
	Zn	68		ug/L		54749	0.552
>	Ge	74		ug/L		97799	97799.288
	As	75	**11.164**	ug/L	3.533	3993	0.036
	Se	77		ug/L		3241	-0.016
	Se	82	**0.978**	ug/L	32.323	25	0.000
	Kr	83		ug/L		112	0.001
	Sr	88	**96.374**	ug/L	0.813	482152	8.026
	Y	89		ug/L		515582	8.582
	Zr	90	**122.729**	ug/L	1.580	331813	5.522
	Mo	98	**3.576**	ug/L	3.403	4167	0.069
	Ag	107	**0.580**	ug/L	4.472	1083	0.017
	Cd	111	**2.019**	ug/L	5.572	857	0.014
	Cd	114		ug/L		202	0.003
>	In	115		ug/L		60074	60074.173
	Sn	120	**2.382**	ug/L	2.701	4627	0.074
	Sb	121	**-0.286**	ug/L	25.221	1320	-0.007
	Sb	123		ug/L		1013	-0.007
	Ba	135		ug/L		199203	3.743
	Ba	137	**409.440**	ug/L	1.069	338566	6.361
	Ho	165		ug/L		17031	0.320
>	Lu	175		ug/L		53218	53218.146
	Tl	205	**0.789**	ug/L	3.966	595	0.011
	Pb	208	**46.023**	ug/L	1.189	190793	3.582
	Bi	209		ug/L		8872	0.166
	Th	232	**28.146**	ug/L	0.935	152276	2.858
	U	238	**2.243**	ug/L	0.352	12475	0.234

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	0.9994
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	0.9999
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		118.7			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		95.0			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		98.9			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		111.4			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Al 27 Upper, S, EEE	Al	27	Sample is out of limits (over linear range)
Ti 47 Upper, S, EEE	Ti	47	Sample is out of limits (over linear range)
Fe 57 Upper, S, EEE	Fe	57	Sample is out of limits (over linear range)

QC Action

QC Action Line: Continue

ICPMS#4 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Wednesday, January 06, 2010 13:40:34
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100106\QC Std 6.020

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**50.692**	**ug/L**	6.195	9664	0.035
	Be	9	**49.632**	**ug/L**	0.754	2935	0.011
	B	11	**98.246**	**ug/L**	2.187	5206	0.019
	Na	23	**5396.539**	**ug/L**	3.167	6936742	25.301
	Mg	24	**5200.992**	**ug/L**	2.158	4571050	16.724
	Al	27	**5393.600**	**ug/L**	2.812	6651160	24.342
	P	31	**4992.006**	**ug/L**	0.889	334747	1.212
	K	39	**5298.501**	**ug/L**	5.884	12043435	42.280
	Ca	43	**4964.005**	**ug/L**	1.248	23481	0.084
>	Sc	45		**ug/L**		273274	273274.330
	Ti	47	**50.102**	**ug/L**	1.008	10929	0.039
	V	51	**51.429**	**ug/L**	1.951	110828	0.406
	Cr	52	**51.210**	**ug/L**	1.373	106660	0.387
	Cr	53		**ug/L**		154032	-0.087
	Mn	55	**52.067**	**ug/L**	1.954	174643	0.636
	Fe	57	**5011.091**	**ug/L**	2.091	338755	1.223
	Co	59	**49.561**	**ug/L**	1.751	123984	0.453
	Ni	60	**51.809**	**ug/L**	3.187	27240	0.100
	Cu	63		**ug/L**		60447	0.221
	Cu	65	**51.696**	**ug/L**	2.389	29223	0.107
	Zn	66	**52.398**	**ug/L**	0.725	15865	0.148
	Zn	67		**ug/L**		8999	0.003
	Zn	68		**ug/L**		11757	0.102
>	Ge	74		**ug/L**		106604	106604.438
	As	75	**49.414**	**ug/L**	0.660	17623	0.161
	Se	77		**ug/L**		5400	0.001
	Se	82	**51.392**	**ug/L**	0.541	1678	0.016
	Kr	83		**ug/L**		59	-0.000
	Sr	88	**50.330**	**ug/L**	0.405	260802	4.191
	Y	89		**ug/L**		86	0.001
	Zr	90	**49.527**	**ug/L**	0.669	138719	2.229
	Mo	98	**48.688**	**ug/L**	0.839	58561	0.941
	Ag	107	**49.411**	**ug/L**	0.601	91058	1.463
	Cd	111	**49.472**	**ug/L**	0.688	21522	0.346
	Cd	114		**ug/L**		50197	0.807
>	In	115		**ug/L**		62212	62212.280
	Sn	120	**49.548**	**ug/L**	0.799	95990	1.540
	Sb	121	**47.434**	**ug/L**	5.242	72026	1.129
	Sb	123		**ug/L**		55135	0.862
	Ba	135		**ug/L**		22149	0.454
	Ba	137	**49.375**	**ug/L**	0.692	37410	0.767
	Ho	165		**ug/L**		13	0.000
>	Lu	175		**ug/L**		48744	48744.180
	Tl	205	**51.965**	**ug/L**	1.025	34481	0.707
	Pb	208	**50.986**	**ug/L**	0.455	193587	3.968
	Bi	209		**ug/L**		46	0.001
	Th	232	**50.701**	**ug/L**	0.811	251108	5.148
	U	238	**51.738**	**ug/L**	0.890	263175	5.399

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	0.9994
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	0.9999
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7	101.384				
	Be	9	99.264				
	B	11	98.246				
	Na	23	107.931				
	Mg	24	104.020				
	Al	27	106.804				
	P	31	99.840				
	K	39	105.970				
	Ca	43	99.280				
>	Sc	45		103.7			
	Ti	47	100.204				
	V	51	102.858				
	Cr	52	102.420				
	Cr	53					
	Mn	55	104.134				
	Fe	57	100.222				
	Co	59	99.122				
	Ni	60	103.618				
	Cu	63					
	Cu	65	103.392				
	Zn	66	104.796				
	Zn	67					
	Zn	68					
>	Ge	74		103.6			
	As	75	98.829				
	Se	77					
	Se	82	102.784				
	Kr	83					
	Sr	88	100.661				
	Y	89					
	Zr	90	99.055				
	Mo	98	97.377				
	Ag	107	98.822				
	Cd	111	98.943				
	Cd	114					
>	In	115		102.4			
	Sn	120	99.096				
	Sb	121	94.868				
	Sb	123					
	Ba	135					
	Ba	137	98.750				
	Ho	165					
>	Lu	175		102.0			
	Tl	205	103.930				
	Pb	208	101.972				
	Bi	209					
	Th	232	101.403				
	U	238	103.476				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Wednesday, January 06, 2010 13:46:47
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100106\QC Std 7.021

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.156**	**ug/L**	38.216	45	0.000
	Be	9	**0.035**	**ug/L**	50.221	4	0.000
	B	11	**1.800**	**ug/L**	31.023	212	0.000
	Na	23	**3.896**	**ug/L**	51.294	24688	0.018
	Mg	24	**1.955**	**ug/L**	91.712	1667	0.006
	Al	27	**0.547**	**ug/L**	384.961	2667	0.002
	P	31	**-12.585**	**ug/L**	6.016	2643	-0.003
	K	39	**-5.929**	**ug/L**	221.670	452747	-0.047
	Ca	43	**-3.713**	**ug/L**	177.022	575	-0.000
>	Sc	45		**ug/L**		265542	265542.191
	Ti	47	**0.050**	**ug/L**	98.809	215	0.000
	V	51	**2.374**	**ug/L**	24.566	4977	0.019
	Cr	52	**0.233**	**ug/L**	40.380	1273	0.002
	Cr	53		**ug/L**		158765	-0.053
	Mn	55	**0.009**	**ug/L**	14.184	849	0.000
	Fe	57	**7.453**	**ug/L**	10.987	4910	0.002
	Co	59	**-0.004**	**ug/L**	158.028	165	-0.000
	Ni	60	**0.005**	**ug/L**	393.231	43	0.000
	Cu	63		**ug/L**		102	0.000
	Cu	65	**0.009**	**ug/L**	197.433	65	0.000
	Zn	66	**0.007**	**ug/L**	539.987	94	0.000
	Zn	67		**ug/L**		7021	-0.015
	Zn	68		**ug/L**		624	-0.002
>	Ge	74		**ug/L**		104478	104478.033
	As	75	**-0.279**	**ug/L**	192.652	377	-0.001
	Se	77		**ug/L**		4993	-0.002
	Se	82	**0.065**	**ug/L**	725.139	-2	0.000
	Kr	83		**ug/L**		53	-0.000
	Sr	88	**0.007**	**ug/L**	23.624	84	0.001
	Y	89		**ug/L**		19	0.000
	Zr	90	**0.263**	**ug/L**	7.844	784	0.012
	Mo	98	**0.056**	**ug/L**	19.151	81	0.001
	Ag	107	**0.014**	**ug/L**	30.684	79	0.000
	Cd	111	**0.006**	**ug/L**	67.616	13	0.000
	Cd	114		**ug/L**		30	0.000
>	In	115		**ug/L**		60733	60732.839
	Sn	120	**0.237**	**ug/L**	18.044	630	0.007
	Sb	121	**-0.129**	**ug/L**	137.834	1561	-0.003
	Sb	123		**ug/L**		1317	-0.002
	Ba	135		**ug/L**		18	0.000
	Ba	137	**0.011**	**ug/L**	81.060	26	0.000
	Ho	165		**ug/L**		8	-0.000
>	Lu	175		**ug/L**		47546	47546.469
	Tl	205	**0.114**	**ug/L**	24.897	95	0.002
	Pb	208	**0.041**	**ug/L**	2.279	333	0.003
	Bi	209		**ug/L**		17	0.000
	Th	232	**0.095**	**ug/L**	29.121	639	0.010
	U	238	**0.015**	**ug/L**	19.811	92	0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	0.9994
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	0.9999
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45			100.8		
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74			101.5		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115			100.0		
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175			99.5		
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

Analysis Begun

Logged In Analyst: Administrator **Technique: AA FIMS-MHS**
Spectrometer Model: FIMS-100, S/N B050-9550 **Autosampler Model: S10**

Sample Information File: C:\data-AA\Administrator\Sample Information\010410S1.SIF
Batch ID:
Results Data Set: 010410S1
Results Library: C:\data-AA\Administrator\Results\Results.mdb

Method Loaded
Method Name: SOIL **Method Last Saved: 12/24/2009 06:34:04**
Method Description: 7471A, ILM04 ANALYST JXL

Sequence No.: 1 **Autosampler Location: 1**
Sample ID: Calib Blank **Date Collected: 1/4/2010 09:01:07**
Analyst: **Data Type: Original**

Replicate Data: Calib Blank

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.00]	0.0001	-0.0011	0.0001	09:01:59	Yes
2		[0.00]	0.0001	-0.0010	0.0001	09:02:29	Yes
Mean:		[0.00]	0.0001				
SD:		0.00	0.0000				
%RSD:		0.00	17.81				

Auto-zero performed.

Sequence No.: 2 **Autosampler Location: 2**
Sample ID: S0.2 **Date Collected: 1/4/2010 09:02:48**
Analyst: **Data Type: Original**

Replicate Data: S0.2

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.2]	0.0025	0.0104	0.0026	09:03:38	Yes
2		[0.2]	0.0024	0.0096	0.0025	09:04:08	Yes
Mean:		[0.2]	0.0025				
SD:		0.0	0.0000				
%RSD:		0.0	1.64				

Standard number 1 applied. [0.2]
Correlation Coef.: 1.000000 Slope: 0.01235 Intercept: 0.00000

Sequence No.: 3 **Autosampler Location: 3**
Sample ID: S0.5 **Date Collected: 1/4/2010 09:04:27**
Analyst: **Data Type: Original**

Replicate Data: S0.5

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.5]	0.0062	0.0264	0.0062	09:05:18	Yes
2		[0.5]	0.0060	0.0250	0.0061	09:05:48	Yes
Mean:		[0.5]	0.0061				
SD:		0.0	0.0001				
%RSD:		0.0	1.67				

Standard number 2 applied. [0.5]
Correlation Coef.: 0.999988 Slope: 0.01221 Intercept: 0.00001

Sequence No.: 4 **Autosampler Location: 4**
Sample ID: S2.0 **Date Collected: 1/4/2010 09:06:07**
Analyst: **Data Type: Original**

Replicate Data: S2.0

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[2.0]	0.0245	0.1048	0.0246	09:06:59	Yes
2		[2.0]	0.0243	0.1034	0.0244	09:07:29	Yes
Mean:		[2.0]	0.0244				
SD:		0.0	0.0001				
%RSD:		0.0	0.44				

Standard number 3 applied. [2.0]
Correlation Coef.: 0.999999 Slope: 0.01220 Intercept: 0.00001

Sequence No.: 5 **Autosampler Location: 5**
Sample ID: S5.0 **Date Collected: 1/4/2010 09:07:49**
Analyst: **Data Type: Original**

Replicate Data: S5.0

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[5.0]	0.0600	0.2582	0.0601	09:08:40	Yes
2		[5.0]	0.0597	0.2556	0.0598	09:09:10	Yes
Mean:		[5.0]	0.0599				
SD:		0.0	0.0002				
%RSD:		0.0	0.32				

Standard number 4 applied. [5.0]
Correlation Coef.: 0.999969 Slope: 0.01197 Intercept: 0.00014

Sequence No.: 6 **Autosampler Location: 6**
Sample ID: S10.0 **Date Collected: 1/4/2010 09:09:30**
Analyst: **Data Type: Original**

Replicate Data: S10.0

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[10.0]	0.1167	0.5049	0.1168	09:10:20	Yes
2		[10.0]	0.1165	0.5019	0.1166	09:10:50	Yes
Mean:		[10.0]	0.1166				
SD:		0.0	0.0001				
%RSD:		0.0	0.11				

Standard number 5 applied. [10.0]
Correlation Coef.: 0.999901 Slope: 0.01168 Intercept: 0.00047

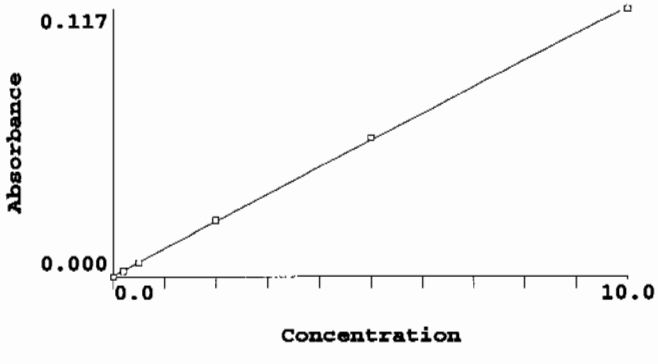

Calibration data for Hg 253.7 **Equation: Linear, Calculated Intercept**

ID	Mean Signal (Abs)	Entered Conc. ug/L	Calculated Conc. ug/L	Standard Deviation	%RSD
Calib Blank	0.0000	0	-0.040	0.00	17.8
S0.2	0.0025	0.2	0.172	0.00	1.6
S0.5	0.0061	0.5	0.483	0.00	1.7
S2.0	0.0244	2.0	2.051	0.00	0.4

S5.0	0.0599	5.0	5.086	0.00	0.3
S10.0	0.1166	10.0	9.948	0.00	0.1

Correlation Coef.: 0.999901 Slope: 0.01168 Intercept: 0.00047

Sequence No.: 7 **Autosampler Location: 9**
Sample ID: ICV **Date Collected: 1/4/2010 09:11:09**
Analyst: **Data Type: Original**

Replicate Data: ICV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.158	5.158	0.0607	0.2593	0.0608	09:12:00	Yes
2	5.119	5.119	0.0602	0.2561	0.0603	09:12:30	Yes
Mean:	5.138	5.138	0.0605				
SD:	0.028	0.028	0.0003				
%RSD:	0.540	0.540	0.54				

QC value within limits for Hg 253.7 Recovery = 102.77%
All analyte(s) passed QC.

Sequence No.: 8 **Autosampler Location: 10**
Sample ID: ICB **Date Collected: 1/4/2010 09:12:50**
Analyst: **Data Type: Original**

Replicate Data: ICB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.035	-0.035	0.0001	-0.0009	0.0001	09:13:40	Yes
2	-0.040	-0.040	0.0000	-0.0015	0.0001	09:14:10	Yes
Mean:	-0.038	-0.038	0.0000				
SD:	0.003	0.003	0.0000				
%RSD:	8.583	8.583	132.71				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 9 **Autosampler Location: 11**
Sample ID: CRDL **Date Collected: 1/4/2010 09:14:30**
Analyst: **Data Type: Original**

Replicate Data: CRDL

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.170	0.170	0.0025	0.0094	0.0025	09:15:21	Yes
2	0.174	0.174	0.0025	0.0099	0.0026	09:15:51	Yes
Mean:	0.172	0.172	0.0025				
SD:	0.003	0.003	0.0000				
%RSD:	1.472	1.472	1.20				

QC value within limits for Hg 253.7 Recovery = 86.07%
All analyte(s) passed QC.

Sequence No.: 10 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 1/4/2010 09:16:11**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.141	5.141	0.0605	0.2576	0.0606	09:17:01	Yes
2	5.127	5.127	0.0603	0.2566	0.0604	09:17:31	Yes
Mean:	5.134	5.134	0.0604				
SD:	0.010	0.010	0.0001				
%RSD:	0.194	0.194	0.19				

QC value within limits for Hg 253.7 Recovery = 102.68%
All analyte(s) passed QC.

Sequence No.: 11
Sample ID: CCB
Analyst:
Autosampler Location: 8
Date Collected: 1/4/2010 09:17:50
Data Type: Original

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.036	-0.036	0.0001	-0.0013	0.0001	09:18:41	Yes
2	-0.033	-0.033	0.0001	-0.0009	0.0002	09:19:10	Yes
Mean:	-0.034	-0.034	0.0001				
SD:	0.002	0.002	0.0000				
%RSD:	6.388	6.388	37.13				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 12
Sample ID: 1202003907|936549|1
Analyst: JXL
Autosampler Location: 12
Date Collected: 1/4/2010 09:19:30
Data Type: Original

Replicate Data: 1202003907|936549|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.029	-0.029	0.0001	-0.0003	0.0002	09:20:22	Yes
2	-0.028	-0.028	0.0001	-0.0006	0.0002	09:20:51	Yes
Mean:	-0.029	-0.029	0.0001				
SD:	0.001	0.001	0.0000				
%RSD:	3.073	3.073	7.83				

Sequence No.: 13
Sample ID: 1202003908|936549|10
Analyst: JXL
Autosampler Location: 13
Date Collected: 1/4/2010 09:21:12
Data Type: Original

Replicate Data: 1202003908|936549|10

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	3.575	3.575	0.0422	0.1797	0.0423	09:22:03	Yes
2	3.555	3.555	0.0420	0.1769	0.0420	09:22:33	Yes
Mean:	3.565	3.565	0.0421				
SD:	0.014	0.014	0.0002				
%RSD:	0.391	0.391	0.39				

Sequence No.: 14
Sample ID: 242661001|936549|1
Analyst: JXL
Autosampler Location: 14
Date Collected: 1/4/2010 09:22:53
Data Type: Original

Replicate Data: 242661001|936549|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.316	0.316	0.0042	0.0169	0.0042	09:23:44	Yes
2	0.301	0.301	0.0040	0.0163	0.0040	09:24:13	Yes
Mean:	0.308	0.308	0.0041				
SD:	0.011	0.011	0.0001				
%RSD:	3.443	3.443	3.05				

Sequence No.: 15
Sample ID: 1202003909|936549|1
Analyst: JXL
Autosampler Location: 15
Date Collected: 1/4/2010 09:24:32
Data Type: Original

Replicate Data: 1202003909|936549|1

Repl	SampleConc	StndConc	BlnkCorr	Peak	Peak	Time	Peak

#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.245	0.245	0.0033	0.0133	0.0034	09:25:23	Yes
2	0.245	0.245	0.0033	0.0134	0.0034	09:25:52	Yes
Mean:	0.245	0.245	0.0033				
SD:	0.000	0.000	0.0000				
%RSD:	0.011	0.011	0.01				

==========

Sequence No.: 16 **Autosampler Location: 16**
Sample ID: 1202003910|936549|1 **Date Collected: 1/4/2010 09:26:11**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202003910|936549|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.336	2.336	0.0277	0.1180	0.0278	09:27:02	Yes
2	2.323	2.323	0.0276	0.1173	0.0277	09:27:31	Yes
Mean:	2.330	2.330	0.0277				
SD:	0.009	0.009	0.0001				
%RSD:	0.407	0.407	0.40				

==========

Sequence No.: 17 **Autosampler Location: 17**
Sample ID: 1202003914|936549|1 **Date Collected: 1/4/2010 09:27:50**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202003914|936549|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.375	2.375	0.0282	0.1202	0.0283	09:28:41	Yes
2	2.364	2.364	0.0281	0.1189	0.0281	09:29:11	Yes
Mean:	2.369	2.369	0.0281				
SD:	0.008	0.008	0.0001				
%RSD:	0.355	0.355	0.35				

==========

Sequence No.: 18 **Autosampler Location: 18**
Sample ID: 1202003913|936549|5 **Date Collected: 1/4/2010 09:29:30**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202003913|936549|5

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.033	0.033	0.0009	0.0032	0.0009	09:30:20	Yes
2	0.029	0.029	0.0008	0.0024	0.0009	09:30:50	Yes
Mean:	0.031	0.031	0.0008				
SD:	0.003	0.003	0.0000				
%RSD:	9.114	9.114	3.98				

==========

Sequence No.: 19 **Autosampler Location: 19**
Sample ID: 242661002|936549|1 **Date Collected: 1/4/2010 09:31:10**
Analyst: JXL **Data Type: Original**

Replicate Data: 242661002|936549|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.124	0.124	0.0019	0.0078	0.0020	09:32:01	Yes
2	0.124	0.124	0.0019	0.0082	0.0020	09:32:30	Yes
Mean:	0.124	0.124	0.0019				
SD:	0.000	0.000	0.0000				
%RSD:	0.020	0.020	0.02				

==========

Sequence No.: 20 **Autosampler Location: 20**
Sample ID: 242661003|936549|1 **Date Collected: 1/4/2010 09:32:50**
Analyst: JXL **Data Type: Original**

Replicate Data: 242661003|936549|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.202	0.202	0.0028	0.0118	0.0029	09:33:40	Yes
2	0.206	0.206	0.0029	0.0121	0.0029	09:34:10	Yes
Mean:	0.204	0.204	0.0028				
SD:	0.002	0.002	0.0000				
%RSD:	1.118	1.118	0.93				

Sequence No.: 21 **Autosampler Location: 21**
Sample ID: 242661004|936549|1 **Date Collected: 1/4/2010 09:34:30**
Analyst: JXL **Data Type: Original**

Replicate Data: 242661004|936549|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.318	0.318	0.0042	0.0175	0.0042	09:35:20	Yes
2	0.319	0.319	0.0042	0.0177	0.0043	09:35:50	Yes
Mean:	0.319	0.319	0.0042				
SD:	0.001	0.001	0.0000				
%RSD:	0.366	0.366	0.33				

Sequence No.: 22 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 1/4/2010 09:36:10**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.133	5.133	0.0604	0.2569	0.0605	09:37:01	Yes
2	5.112	5.112	0.0602	0.2554	0.0602	09:37:30	Yes
Mean:	5.122	5.122	0.0603				
SD:	0.015	0.015	0.0002				
%RSD:	0.298	0.298	0.30				

QC value within limits for Hg 253.7 Recovery = 102.45%
All analyte(s) passed QC.

Sequence No.: 23 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 1/4/2010 09:37:49**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.035	-0.035	0.0001	-0.0001	0.0001	09:38:40	Yes
2	-0.034	-0.034	0.0001	0.0001	0.0001	09:39:10	Yes
Mean:	-0.034	-0.034	0.0001				
SD:	0.001	0.001	0.0000				
%RSD:	2.452	2.452	14.88				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 24 **Autosampler Location: 22**
Sample ID: 242661005|936549|1 **Date Collected: 1/4/2010 09:39:29**
Analyst: JXL **Data Type: Original**

Replicate Data: 242661005|936549|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.118	0.118	0.0018	0.0075	0.0019	09:40:21	Yes
2	0.122	0.122	0.0019	0.0079	0.0020	09:40:50	Yes

Mean:	0.120	0.120	0.0019
SD:	0.003	0.003	0.0000
%RSD:	2.249	2.249	1.69

==========

Sequence No.: 25 **Autosampler Location: 23**
Sample ID: 242661006|936549|1 **Date Collected: 1/4/2010 09:41:10**
Analyst: JXL **Data Type: Original**

Replicate Data: 242661006|936549|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.174	0.174	0.0025	0.0104	0.0026	09:42:01	Yes
2	0.175	0.175	0.0025	0.0106	0.0026	09:42:31	Yes
Mean:	0.174	0.174	0.0025				
SD:	0.001	0.001	0.0000				
%RSD:	0.771	0.771	0.63				

==========

Sequence No.: 26 **Autosampler Location: 24**
Sample ID: 242661007|936549|1 **Date Collected: 1/4/2010 09:42:51**
Analyst: JXL **Data Type: Original**

Replicate Data: 242661007|936549|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.891	0.891	0.0109	0.0463	0.0109	09:43:43	Yes
2	0.885	0.885	0.0108	0.0458	0.0109	09:44:13	Yes
Mean:	0.888	0.888	0.0108				
SD:	0.004	0.004	0.0000				
%RSD:	0.466	0.466	0.45				

==========

Sequence No.: 27 **Autosampler Location: 25**
Sample ID: 242661008|936549|1 **Date Collected: 1/4/2010 09:44:33**
Analyst: JXL **Data Type: Original**

Replicate Data: 242661008|936549|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.008	-0.008	0.0004	0.0011	0.0004	09:45:25	Yes
2	-0.008	-0.008	0.0004	0.0014	0.0004	09:45:54	Yes
Mean:	-0.008	-0.008	0.0004				
SD:	0.000	0.000	0.0000				
%RSD:	3.618	3.618	0.92				

==========

Sequence No.: 28 **Autosampler Location: 26**
Sample ID: 242661009|936549|1 **Date Collected: 1/4/2010 09:46:15**
Analyst: JXL **Data Type: Original**

Replicate Data: 242661009|936549|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.036	0.036	0.0009	0.0040	0.0010	09:47:06	Yes
2	0.033	0.033	0.0009	0.0033	0.0009	09:47:36	Yes
Mean:	0.035	0.035	0.0009				
SD:	0.002	0.002	0.0000				
%RSD:	5.814	5.814	2.70				

==========

Sequence No.: 29 **Autosampler Location: 27**
Sample ID: 242661010|936549|1 **Date Collected: 1/4/2010 09:47:55**
Analyst: JXL **Data Type: Original**

Replicate Data: 242661010|936549|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.052	0.052	0.0011	0.0042	0.0011	09:48:46	Yes
2	0.056	0.056	0.0011	0.0047	0.0012	09:49:16	Yes
Mean:	0.054	0.054	0.0011				
SD:	0.003	0.003	0.0000				
%RSD:	4.933	4.933	2.84				

Sequence No.: 30 **Autosampler Location: 28**
Sample ID: 242661011|936549|1 **Date Collected: 1/4/2010 09:49:35**
Analyst: JXL **Data Type: Original**

Replicate Data: 242661011|936549|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.297	0.297	0.0039	0.0163	0.0040	09:50:25	Yes
2	0.289	0.289	0.0038	0.0160	0.0039	09:50:55	Yes
Mean:	0.293	0.293	0.0039				
SD:	0.005	0.005	0.0001				
%RSD:	1.806	1.806	1.59				

Sequence No.: 31 **Autosampler Location: 29**
Sample ID: 242661012|936549|1 **Date Collected: 1/4/2010 09:51:14**
Analyst: JXL **Data Type: Original**

Replicate Data: 242661012|936549|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.243	0.243	0.0033	0.0140	0.0034	09:52:05	Yes
2	0.247	0.247	0.0034	0.0140	0.0034	09:52:35	Yes
Mean:	0.245	0.245	0.0033				
SD:	0.003	0.003	0.0000				
%RSD:	1.170	1.170	1.01				

Sequence No.: 32 **Autosampler Location: 30**
Sample ID: 242661013|936549|1 **Date Collected: 1/4/2010 09:52:54**
Analyst: JXL **Data Type: Original**

Replicate Data: 242661013|936549|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.039	0.039	0.0009	0.0039	0.0010	09:53:45	Yes
2	0.038	0.038	0.0009	0.0040	0.0010	09:54:15	Yes
Mean:	0.039	0.039	0.0009				
SD:	0.000	0.000	0.0000				
%RSD:	0.907	0.907	0.45				

Sequence No.: 33 **Autosampler Location: 31**
Sample ID: 242661014|936549|1 **Date Collected: 1/4/2010 09:54:34**
Analyst: JXL **Data Type: Original**

Replicate Data: 242661014|936549|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.154	0.154	0.0023	0.0094	0.0023	09:55:25	Yes
2	0.153	0.153	0.0023	0.0095	0.0023	09:55:54	Yes
Mean:	0.154	0.154	0.0023				
SD:	0.001	0.001	0.0000				
%RSD:	0.655	0.655	0.52				

Sequence No.: 34 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 1/4/2010 09:56:14**

Analyst: Data Type: Original

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.098	5.098	0.0600	0.2548	0.0601	09:57:04	Yes
2	5.079	5.079	0.0598	0.2537	0.0598	09:57:34	Yes
Mean:	5.088	5.088	0.0599				
SD:	0.014	0.014	0.0002				
%RSD:	0.267	0.267	0.26				

QC value within limits for Hg 253.7 Recovery = 101.76%
All analyte(s) passed QC.

Sequence No.: 35 Autosampler Location: 8
Sample ID: CCB Date Collected: 1/4/2010 09:57:53
Analyst: Data Type: Original

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.032	-0.032	0.0001	0.0005	0.0002	09:58:43	Yes
2	-0.036	-0.036	0.0000	0.0003	0.0001	09:59:13	Yes
Mean:	-0.034	-0.034	0.0001				
SD:	0.003	0.003	0.0000				
%RSD:	9.057	9.057	52.18				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 36 Autosampler Location: 32
Sample ID: 242661015|936549|1 Date Collected: 1/4/2010 09:59:32
Analyst: JXL Data Type: Original

Replicate Data: 242661015|936549|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.267	0.267	0.0036	0.0159	0.0036	10:00:23	Yes
2	0.261	0.261	0.0035	0.0147	0.0036	10:00:53	Yes
Mean:	0.264	0.264	0.0035				
SD:	0.004	0.004	0.0000				
%RSD:	1.509	1.509	1.31				

Sequence No.: 37 Autosampler Location: 33
Sample ID: 242661016|936549|1 Date Collected: 1/4/2010 10:01:12
Analyst: JXL Data Type: Original

Replicate Data: 242661016|936549|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.397	0.397	0.0051	0.0219	0.0052	10:02:03	Yes
2	0.395	0.395	0.0051	0.0214	0.0051	10:02:33	Yes
Mean:	0.396	0.396	0.0051				
SD:	0.001	0.001	0.0000				
%RSD:	0.340	0.340	0.31				

Sequence No.: 38 Autosampler Location: 34
Sample ID: 242661017|936549|1 Date Collected: 1/4/2010 10:02:52
Analyst: JXL Data Type: Original

Replicate Data: 242661017|936549|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.301	0.301	0.0040	0.0171	0.0040	10:03:43	Yes

2	0.299	0.299	0.0040	0.0171	0.0040	10:04:13	Yes
Mean:	0.300	0.300	0.0040				
SD:	0.001	0.001	0.0000				
%RSD:	0.247	0.247	0.22				

Sequence No.: 39 **Autosampler Location: 35**
Sample ID: 242661018|936549|1 **Date Collected: 1/4/2010 10:04:33**
Analyst: JXL **Data Type: Original**

Replicate Data: 242661018|936549|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.149	0.149	0.0022	0.0108	0.0023	10:05:24	Yes
2	0.142	0.142	0.0021	0.0093	0.0022	10:05:54	Yes
Mean:	0.145	0.145	0.0022				
SD:	0.006	0.006	0.0001				
%RSD:	3.822	3.822	3.00				

Sequence No.: 40 **Autosampler Location: 36**
Sample ID: 242661019|936549|1 **Date Collected: 1/4/2010 10:06:14**
Analyst: JXL **Data Type: Original**

Replicate Data: 242661019|936549|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.046	0.046	0.0010	0.0043	0.0011	10:07:06	Yes
2	0.046	0.046	0.0010	0.0048	0.0011	10:07:36	Yes
Mean:	0.046	0.046	0.0010				
SD:	0.000	0.000	0.0000				
%RSD:	0.974	0.974	0.52				

Sequence No.: 41 **Autosampler Location: 37**
Sample ID: 242661020|936549|1 **Date Collected: 1/4/2010 10:07:56**
Analyst: JXL **Data Type: Original**

Replicate Data: 242661020|936549|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.154	0.154	0.0023	0.0102	0.0023	10:08:48	Yes
2	0.157	0.157	0.0023	0.0106	0.0024	10:09:18	Yes
Mean:	0.155	0.155	0.0023				
SD:	0.002	0.002	0.0000				
%RSD:	1.490	1.490	1.19				

Sequence No.: 42 **Autosampler Location: 38**
Sample ID: 1202002025|935647|1 **Date Collected: 1/4/2010 10:09:38**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202002025|935647|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.028	-0.028	0.0001	0.0016	0.0002	10:10:29	Yes
2	-0.025	-0.025	0.0002	0.0021	0.0002	10:10:59	Yes
Mean:	-0.027	-0.027	0.0002				
SD:	0.002	0.002	0.0000				
%RSD:	6.459	6.459	12.75				

Sequence No.: 43 **Autosampler Location: 39**
Sample ID: 1202002026|935647|10 **Date Collected: 1/4/2010 10:11:19**
Analyst: JXL **Data Type: Original**

==========

Analysis Begun

Logged In Analyst: Administrator **Technique: AA FIMS-MHS**
Spectrometer Model: FIMS-100, S/N B050-9550 **Autosampler Model: S10**

Sample Information File: C:\data-AA\Administrator\Sample Information\010410S1.SIF
Batch ID:
Results Data Set: 010410S1
Results Library: C:\data-AA\Administrator\Results\Results.mdb

==========

Method Loaded
Method Name: SOIL **Method Last Saved: 1/4/2010 09:02:30**
Method Description: 7471A, ILM04 ANALYST JXL

==========

Sequence No.: 1 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 1/4/2010 10:13:36**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.223	5.223	0.0615	0.2628	0.0615	10:14:26	Yes
2	5.233	5.233	0.0616	0.2619	0.0616	10:14:56	Yes
Mean:	5.228	5.228	0.0615				
SD:	0.006	0.006	0.0001				
%RSD:	0.123	0.123	0.12				

QC value within limits for Hg 253.7 Recovery = 104.56%
All analyte(s) passed QC.

==========

Sequence No.: 2 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 1/4/2010 10:15:15**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.034	-0.034	0.0001	0.0002	0.0001	10:16:06	Yes
2	-0.034	-0.034	0.0001	0.0003	0.0001	10:16:36	Yes
Mean:	-0.034	-0.034	0.0001				
SD:	0.000	0.000	0.0000				
%RSD:	0.933	0.933	5.29				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

==========

Sequence No.: 3 **Autosampler Location: 38**
Sample ID: 1202002025|935647|1 **Date Collected: 1/4/2010 10:16:55**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202002025|935647|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.035	-0.035	0.0001	0.0002	0.0001	10:17:46	Yes
2	-0.033	-0.033	0.0001	0.0006	0.0001	10:18:16	Yes
Mean:	-0.034	-0.034	0.0001				
SD:	0.001	0.001	0.0000				
%RSD:	3.984	3.984	24.49				

==========

Sequence No.: 4 **Autosampler Location: 39**
Sample ID: 1202002026|935647|10 **Date Collected: 1/4/2010 10:18:35**
Analyst: JXL **Data Type: Original**

Miscellaneous

Prep LogBook

Analyst: BCD1 Verified by:_____

Batch: 932274

Lab SOP: GL-MA-E-009 REV# 19

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1201994219	UI062540-I	.508	g
MS	1201994221	UI091216-01	.25	mL
MS	1201994221	UI091216-06	.25	mL
MSD	1201994223	UI091216-01	.25	mL
MSD	1201994223	UI091216-06	.25	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1201994218		SW846 3050B	17-DEC-2009 09:33	0.505 g	50 mL	99.0099	SOIL
LCS	1201994219		SW846 3050B	17-DEC-2009 09:33	0.508 g	50 mL	98.4252	SOIL
SAMPLE	242661001		SW846 3050B	17-DEC-2009 09:33	0.52 g	50 mL	96.15385	SOIL
DUP	1201994220	242661001	SW846 3050B	17-DEC-2009 09:33	0.506 g	50 mL	98.81423	SOIL
MS	1201994221	242661001	SW846 3050B	17-DEC-2009 09:33	0.509 g	50 mL	98.23183	SOIL
MSD	1201994223	242661001	SW846 3050B	17-DEC-2009 09:33	0.524 g	50 mL	95.41985	SOIL
SDILT	1201994222	242661001	SW846 3050B	17-DEC-2009 09:33	0.52 g	50 mL	96.15385	SOIL
SAMPLE	242661002		SW846 3050B	17-DEC-2009 09:33	0.505 g	50 mL	99.0099	SOIL
SAMPLE	242661003		SW846 3050B	17-DEC-2009 09:33	0.525 g	50 mL	95.2381	SOIL
SAMPLE	242661004		SW846 3050B	17-DEC-2009 09:33	0.512 g	50 mL	97.65625	SOIL
SAMPLE	242661005		SW846 3050B	17-DEC-2009 09:33	0.507 g	50 mL	98.61933	SOIL
SAMPLE	242661006		SW846 3050B	17-DEC-2009 09:33	0.506 g	50 mL	98.81423	SOIL
SAMPLE	242661007		SW846 3050B	17-DEC-2009 09:33	0.525 g	50 mL	95.2381	SOIL
SAMPLE	242661008		SW846 3050B	17-DEC-2009 09:33	0.514 g	50 mL	97.27626	SOIL
SAMPLE	242661009		SW846 3050B	17-DEC-2009 09:33	0.519 g	50 mL	96.33911	SOIL
SAMPLE	242661010		SW846 3050B	17-DEC-2009 09:33	0.516 g	50 mL	96.89922	SOIL
SAMPLE	242661011		SW846 3050B	17-DEC-2009 09:33	0.502 g	50 mL	99.60159	SOIL
SAMPLE	242661012		SW846 3050B	17-DEC-2009 09:33	0.502 g	50 mL	99.60159	SOIL
SAMPLE	242661013		SW846 3050B	17-DEC-2009 09:33	0.518 g	50 mL	96.5251	SOIL
SAMPLE	242661014		SW846 3050B	17-DEC-2009 09:33	0.505 g	50 mL	99.0099	SOIL
SAMPLE	242661015		SW846 3050B	17-DEC-2009 09:33	0.514 g	50 mL	97.27626	SOIL
SAMPLE	242661016		SW846 3050B	17-DEC-2009 09:33	0.511 g	50 mL	97.84736	SOIL
SAMPLE	242661017		SW846 3050B	17-DEC-2009 09:33	0.519 g	50 mL	96.33911	SOIL
SAMPLE	242661018		SW846 3050B	17-DEC-2009 09:33	0.525 g	50 mL	95.2381	SOIL
SAMPLE	242661019		SW846 3050B	17-DEC-2009 09:33	0.504 g	50 mL	99.20635	SOIL
SAMPLE	242661020		SW846 3050B	17-DEC-2009 09:33	0.501 g	50 mL	99.8004	SOIL

Reagent/Solvent Lot ID Amount Description

Prep LogBook

1238343	10 mL	HYDROCHLORIC ACID
1238345	1.25 mL	Nitric Acid CONC.

Comments The QC sample is a soft, brown, clumpy soil.

Prep LogBook

Analyst: BCD1 Verified by:_____

Batch: 932314

Lab SOP: GL-MA-E-009 REV# 19

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1201994299	UI062540-MS	.511	g
MS	1201994301	UI091015-A	.5	mL
MS	1201994301	UI091015-B	.5	mL
MSD	1201998121	UI091015-A	.5	mL
MSD	1201998121	UI091015-B	.5	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1201994298		SW846 3050B	17-DEC-2009 09:42	0.507 g	50 mL	98.61933	SOIL
LCS	1201994299		SW846 3050B	17-DEC-2009 09:42	0.511 g	50 mL	97.84736	SOIL
SAMPLE	242661001		SW846 3050B	17-DEC-2009 09:42	0.521 g	50 mL	95.96929	SOIL
DUP	1201994300	242661001	SW846 3050B	17-DEC-2009 09:42	0.514 g	50 mL	97.27626	SOIL
MS	1201994301	242661001	SW846 3050B	17-DEC-2009 09:42	0.512 g	50 mL	97.65625	SOIL
MSD	1201998121	242661001	SW846 3050B	17-DEC-2009 09:42	0.523 g	50 mL	95.60229	SOIL
SDILT	1201994302	242661001	SW846 3050B	17-DEC-2009 09:42	0.521 g	50 mL	95.96929	SOIL
SAMPLE	242661002		SW846 3050B	17-DEC-2009 09:42	0.506 g	50 mL	98.81423	SOIL
SAMPLE	242661003		SW846 3050B	17-DEC-2009 09:42	0.524 g	50 mL	95.41985	SOIL
SAMPLE	242661004		SW846 3050B	17-DEC-2009 09:42	0.509 g	50 mL	98.23183	SOIL
SAMPLE	242661005		SW846 3050B	17-DEC-2009 09:42	0.5 g	50 mL	100	SOIL
SAMPLE	242661006		SW846 3050B	17-DEC-2009 09:42	0.502 g	50 mL	99.60159	SOIL
SAMPLE	242661007		SW846 3050B	17-DEC-2009 09:42	0.507 g	50 mL	98.61933	SOIL
SAMPLE	242661008		SW846 3050B	17-DEC-2009 09:42	0.523 g	50 mL	95.60229	SOIL
SAMPLE	242661009		SW846 3050B	17-DEC-2009 09:42	0.503 g	50 mL	99.40358	SOIL
SAMPLE	242661010		SW846 3050B	17-DEC-2009 09:42	0.5 g	50 mL	100	SOIL
SAMPLE	242661011		SW846 3050B	17-DEC-2009 09:42	0.506 g	50 mL	98.81423	SOIL
SAMPLE	242661012		SW846 3050B	17-DEC-2009 09:42	0.523 g	50 mL	95.60229	SOIL
SAMPLE	242661013		SW846 3050B	17-DEC-2009 09:42	0.508 g	50 mL	98.4252	SOIL
SAMPLE	242661014		SW846 3050B	17-DEC-2009 09:42	0.512 g	50 mL	97.65625	SOIL
SAMPLE	242661015		SW846 3050B	17-DEC-2009 09:42	0.504 g	50 mL	99.20635	SOIL
SAMPLE	242661016		SW846 3050B	17-DEC-2009 09:42	0.51 g	50 mL	98.03922	SOIL
SAMPLE	242661017		SW846 3050B	17-DEC-2009 09:42	0.522 g	50 mL	95.78544	SOIL
SAMPLE	242661018		SW846 3050B	17-DEC-2009 09:42	0.512 g	50 mL	97.65625	SOIL
SAMPLE	242661019		SW846 3050B	17-DEC-2009 09:42	0.505 g	50 mL	99.0099	SOIL
SAMPLE	242661020		SW846 3050B	17-DEC-2009 09:42	0.523 g	50 mL	95.60229	SOIL

Reagent/Solvent Lot ID Amount Description

Prep LogBook

1203655-02	1.5 mL	Hydrogen Peroxide 30%
1238345	5 mL	Nitric Acid CONC.

Comments The QC sample is a soft, brown, clumpy soil.

Prep LogBook

Analyst: JXL1 Verified by:_____

Batch: 936548

Lab SOP: GL-MA-E-010 REV# 23

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1202003908	UI031809A	.207	g
MS	1202003910	WHG1248585-14	.3	mL
MSD	1202003914	WHG1248585-14	.3	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1202003907		SW846 7471A Prep	31-DEC-2009 08:00	0.507 g	30 mL	59.1716	SOIL
LCS	1202003908		SW846 7471A Prep	31-DEC-2009 08:00	0.207 g	30 mL	144.92754	SOIL
SAMPLE	242661001		SW846 7471A Prep	31-DEC-2009 08:00	0.548 g	30 mL	54.74453	SOIL
DUP	1202003909	242661001	SW846 7471A Prep	31-DEC-2009 08:00	0.527 g	30 mL	56.926	SOIL
MS	1202003910	242661001	SW846 7471A Prep	31-DEC-2009 08:00	0.567 g	30 mL	52.91005	SOIL
MSD	1202003914	242661001	SW846 7471A Prep	31-DEC-2009 08:00	0.577 g	30 mL	51.99307	SOIL
SDILT	1202003913	242661001	SW846 7471A Prep	31-DEC-2009 08:00	0.548 g	30 mL	54.74453	SOIL
SAMPLE	242661002		SW846 7471A Prep	31-DEC-2009 08:00	0.53 g	30 mL	56.60377	SOIL
SAMPLE	242661003		SW846 7471A Prep	31-DEC-2009 08:00	0.535 g	30 mL	56.07477	SOIL
SAMPLE	242661004		SW846 7471A Prep	31-DEC-2009 08:00	0.526 g	30 mL	57.03422	SOIL
SAMPLE	242661005		SW846 7471A Prep	31-DEC-2009 08:00	0.553 g	30 mL	54.24955	SOIL
SAMPLE	242661006		SW846 7471A Prep	31-DEC-2009 08:00	0.552 g	30 mL	54.34783	SOIL
SAMPLE	242661007		SW846 7471A Prep	31-DEC-2009 08:00	0.6 g	30 mL	50	SOIL
SAMPLE	242661008		SW846 7471A Prep	31-DEC-2009 08:00	0.6 g	30 mL	50	SOIL
SAMPLE	242661009		SW846 7471A Prep	31-DEC-2009 08:00	0.51 g	30 mL	58.82353	SOIL
SAMPLE	242661010		SW846 7471A Prep	31-DEC-2009 08:00	0.6 g	30 mL	50	SOIL
SAMPLE	242661011		SW846 7471A Prep	31-DEC-2009 08:00	0.588 g	30 mL	51.02041	SOIL
SAMPLE	242661012		SW846 7471A Prep	31-DEC-2009 08:00	0.533 g	30 mL	56.28518	SOIL
SAMPLE	242661013		SW846 7471A Prep	31-DEC-2009 08:00	0.576 g	30 mL	52.08333	SOIL
SAMPLE	242661014		SW846 7471A Prep	31-DEC-2009 08:00	0.53 g	30 mL	56.60377	SOIL
SAMPLE	242661015		SW846 7471A Prep	31-DEC-2009 08:00	0.582 g	30 mL	51.54639	SOIL
SAMPLE	242661016		SW846 7471A Prep	31-DEC-2009 08:00	0.534 g	30 mL	56.17978	SOIL
SAMPLE	242661017		SW846 7471A Prep	31-DEC-2009 08:00	0.568 g	30 mL	52.8169	SOIL
SAMPLE	242661018		SW846 7471A Prep	31-DEC-2009 08:00	0.507 g	30 mL	59.1716	SOIL
SAMPLE	242661019		SW846 7471A Prep	31-DEC-2009 08:00	0.507 g	30 mL	59.1716	SOIL
SAMPLE	242661020		SW846 7471A Prep	31-DEC-2009 08:00	0.577 g	30 mL	51.99307	SOIL

Reagent/Solvent Lot ID	Amount	Description
1236355-A	1.125 mL	Hydrochloric Acid Conc.
1240182-1	.375 mL	NITRIC ACID
1244904-C	7.5 mL	5% KMnO4 solution

Comments Sample is a brown, medium soil.
Digestion Start Date: 31-DEC-09 08:00:08
Digestion End Date: 31-DEC-09 08:30:08

Prep LogBook

1206350-C	2 mL	Hg reducing agent
WHG1248599-07	30 uL	Mercury Working Standard 1st Source CAL S 0.2/CRA
WHG1248601-08	75 uL	Mercury Working Standard 1st Source CAL S 0.5
WHG1248603-11	1.5 mL	Mercury Working 1st Source CAL S 10.0
WHG1248606-09	300 uL	Mercury Working 1st Source CAL S 2.0
WHG1248608-10	750 uL	Mercury Working 1st Source CAL S 5.0/CCV
WHG1248610-12	750 uL	Mercury Working 2nd Source S 5.0/ICV

COMPANY - WIDE NONCONFORMANCE REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
28-DEC-09	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
ICP	SW846 3050B/6010B	Solid	LANL
Batch ID:	**Sample Numbers:**		
932275	See Below		

Potentially affected work order(s)(SDG): 242661(10-853)

Application Issues:

Failed Recovery for MS/PS

Failed RPD for MS/MSD, or PS/PSD

Failed Recovery for MSD/PSD

Specification and Requirements Nonconformance Description:	NRG Disposition:
1. Failed Recovery for MS/PS: QC 1201994221MS 2. Failed RPD for MS/MSD, or PS/PSD: QC 1201994223MSD 3. Failed Recovery for MSD/PSD: QC 1201994223MSD	1. The matrix spike recovery failed outside of the control limits for barium,magnesium and potassium due to possible matrix interferences and/or non-homogeneity. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported. 2. The matrix spike and matrix spike duplicate % RPD failed outside of the control limits for manganese due to possible matrix interferences and/or sample non-homogeneity. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported. 3. The matrix spike duplicate recovery failed outside of the control limits for magnesium,potassium and silicon due to possible matrix interferences and/or non-homogeneity. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported.

Originator's Name:

Helen Camello 04-JAN-10

Data Validator/Group Leader:

Eric Lawson 06-JAN-10

NCR Report No.: 776469
Revision No.:

COMPANY - WIDE NONCONFORMANCE REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
04-JAN-10	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
ICP/MS	SW846 3050B/6020	Solid	LANL
Batch ID:	**Sample Numbers:**		
932315	See Below		

Potentially affected work order(s)(SDG): 242661(10-853)

Application Issues:

Failed Recovery for MS/PS

Failed Recovery for MSD/PSD

Specification and Requirements Nonconformance Description:	NRG Disposition:
1. Failed Recovery for MS/PS: QC 1201994301MS 2. Failed Recovery for MSD/PSD: QC 1201998121MSD	The matrix spike and matrix spike duplicate recovery failed outside of the control limits for Li due to possible matrix interferences and/or non-homogeneity. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported.

Originator's Name:

Samantha Jacobs 04-JAN-10

Data Validator/Group Leader:

Paul Boyd 06-JAN-10

Standard Logbook

Serial ID: UHG1167639-01 **Opened:** 13-AUG-09 **Amount :** 125 mL
Name: MHGSTOCK1 **Received:** 13-AUG-09 **Catalog Number :** PLHG4-2Y
Type: Source Material **Expires:** 13-AUG-10 **Lot Number :** 15-37HG
Employee: Bryan Davis **Solvent :** 10% HNO3
Supplier: Spex
Description: Mercury Source Standard #1 1,000 mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Mercury	1000 mg/L		

Serial ID: UHG1167641-02 **Opened:** 13-AUG-09 **Amount :** 100 mL
Name: MHGSTOCK2 **Received:** 13-AUG-09 **Catalog Number :** AHG1KN-100
Type: Source Material **Expires:** 13-AUG-10 **Lot Number :** 4905530
Employee: Bryan Davis **Solvent :** 3% HNO3
Supplier: Ricca Chemical Company
Description: Mercury Source Standard #2 1,000 mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Mercury	999.7 mg/L		

Serial ID: UI031809A **Opened:** 18-MAR-09 **Catalog Number :** 540
Name: METALSOILSRM **Received:** 18-MAR-09 **Lot Number :** D061-540
Type: Source Material **Expires:** 10-OCT-10
Employee: Jamie Johnson
Supplier: ERA
Description: Metals LCS Soil SRM
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	10600 mg/kg	Antimony	126 mg/kg
Arsenic	225 mg/kg	Barium	565 mg/kg
Beryllium	162 mg/kg	Boron	107 mg/kg
Cadmium	69.1 mg/kg	Calcium	10000 mg/kg
Chromium	124 mg/kg	Cobalt	115 mg/kg
Copper	66.7 mg/kg	Iron	17600 mg/kg
Lead	223 mg/kg	Magnesium	4260 mg/kg
Manganese	368 mg/kg	Mercury	5.15 mg/kg
Molybdenum	107 mg/kg	Nickel	172 mg/kg
Potassium	4090 mg/kg	Selenium	147 mg/kg
Silver	35.2 mg/kg	Sodium	538 mg/kg
Strontium	117 mg/kg	Thallium	173 mg/kg
Tin	164 mg/kg	Titanium	381 mg/kg
Vanadium	93.9 mg/kg	Zinc	349 mg/kg

Standard Logbook

Serial ID: UI062540-I **Opened:** 12-JUN-09 **Amount :** 80 g
Name: ICP SOIL SRM **Received:** 12-JUN-09 **Lot Number :** D062-540
Type: Source Material **Expires:** 31-JAN-12
Employee: Bryan Davis
Supplier: ERA
Description: Metals Soil LCS SRM ICP/Hg
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	10500 mg/kg	Antimony	173 mg/kg
Arsenic	104 mg/kg	Barium	198 mg/kg
Beryllium	77.6 mg/kg	Boron	141 mg/kg
Cadmium	60.7 mg/kg	Calcium	9870 mg/kg
Chromium	236 mg/kg	Cobalt	91.2 mg/kg
Copper	174 mg/kg	Iron	18000 mg/kg
Lead	86 mg/kg	Magnesium	4000 mg/kg
Manganese	558 mg/kg	Mercury	8.46 mg/kg
Molybdenum	48.6 mg/kg	Nickel	134 mg/kg
Phosphorous	736 mg/kg	Potassium	4300 mg/kg
Selenium	286 mg/kg	Silica	2591 mg/kg
Silicon	1211 mg/kg	Silver	30.1 mg/kg
Sodium	1020 mg/kg	Strontium	227 mg/kg
Sulfur	385 mg/kg	Thallium	121 mg/kg
Tin	104 mg/kg	Titanium	462 mg/kg
Vanadium	115 mg/kg	Zinc	594 mg/kg

Serial ID: UI062540-MS **Opened:** 12-JUN-09 **Lot Number :** D062-540
Name: ICPMS SOIL SRM **Received:** 12-JUN-09
Type: Source Material **Expires:** 31-JAN-12
Employee: Bryan Davis
Supplier: ERA
Description: Metals Soil LCS SRM ICPMS
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	10500 mg/kg	Antimony	67.4 mg/kg
Arsenic	104 mg/kg	Barium	198 mg/kg
Beryllium	77.6 mg/kg	Boron	141 mg/kg
Cadmium	60.6 mg/kg	Calcium	9870 mg/kg
Chromium	236 mg/kg	Cobalt	91.2 mg/kg
Copper	174 mg/kg	Iron	18000 mg/kg
Lead	86 mg/kg	Lithium	10.6 mg/kg
Magnesium	4000 mg/kg	Manganese	558 mg/kg
Mercury	8.46 mg/kg	Molybdenum	48.6 mg/kg
Nickel	134 mg/kg	Phosphorous	755 mg/kg
Potassium	4300 mg/kg	Selenium	286 mg/kg
Silver	30.1 mg/kg	Sodium	1020 mg/kg

Analyte	Concentration	Analyte	Concentration
Strontium	227 mg/kg	Thallium	121 mg/kg
Thorium	9.84 mg/kg	Tin	104 mg/kg
Titanium	462 mg/kg	Uranium	2.13 mg/kg
Uranium-235	.0153 mg/kg	Uranium-238	2.11 mg/kg
Vanadium	92.4 mg/kg	Zinc	594 mg/kg
Zirconium	10.6 mg/kg		

Serial ID: UI090422-40 **Opened:** 04-MAY-09 **Amount :** 500 mL
Name: TRACE ICP ICSA SOLN A **Received:** 22-APR-09 **Catalog Number :** 160005-01-03
Type: Source Material **Expires:** 04-MAY-10 **Lot Number :** 1013357
Employee: Helen Camello **Solvent :** 5%HNO3
Supplier: o2si
Description: TRACE ICP ICSA SOLN A mg/L+/-0.5%IN5%HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	5000 mg/L	Calcium	5000 mg/L
Iron	2000 mg/L	Magnesium	5000 mg/L

Serial ID: UI090610-03 **Opened:** 10-JUN-09 **Catalog Number :** 060074-06-01
Name: ICPMS Tungsten - 10mg/L S **Received:** 10-JUN-09 **Lot Number :** 1016338
Type: Source Material **Expires:** 10-JUN-10 **Solvent :** 2% HNO3
Employee: Paul Boyd
Supplier: O2SI
Description: ICPMS Tungsten standard SPIKE - 10mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Tungsten	10 mg/L		

Serial ID: UI090701-09 **Opened:** 01-JUL-09 **Amount :** 250 mL
Name: ICP-MS CRDL Master #1 **Received:** 01-JUL-09 **Catalog Number :** 160044-09-02
Type: Source Material **Expires:** 01-JUL-10 **Lot Number :** 1016477
Employee: Paul Boyd **Solvent :** +/- 0.5% IN 2% HNO3
Supplier: 02SI
Description: ICPMS CRDL Master Soln #1
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	15 mg/L	Arsenic	5 mg/L
Barium	2 mg/L	Beryllium	.5 mg/L
Boron	15 mg/L	Cadmium	1 mg/L
Calcium	100 mg/L	Chromium	3 mg/L
Cobalt	1 mg/L	Copper	1 mg/L

Analyte	Concentration	Analyte	Concentration
Iron	25 mg/L	Lead	2 mg/L
Lithium	10 mg/L	Magnesium	15 mg/L
Manganese	5 mg/L	Nickel	2 mg/L
Phosphorous	50 mg/L	Potassium	300 mg/L
Selenium	5 mg/L	Sodium	250 mg/L
Strontium	10 mg/L	Thallium	1 mg/L
Thorium	1 mg/L	Uranium	.2 mg/L
Vanadium	10 mg/L	Zinc	10 mg/L

Serial ID: UI090701-10 **Opened:** 01-JUL-09 **Amount :** 250 mL
Name: ICP-MS CRDL Master #2 **Received:** 01-JUL-09 **Catalog Number :** 160044-08-02
Type: Source Material **Expires:** 01-JUL-10 **Lot Number :** 1016476
Employee: Paul Boyd **Solvent :** +/- 0.5% IN 2% HNO3
Supplier: 02SI
Description: ICPMS CRDL Soln #2
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	2 mg/L	Molybdenum	.5 mg/L
Silver	1 mg/L	Tin	2 mg/L
Titanium	10 mg/L	Tungsten	5 mg/L
Zirconium	2 mg/L		

Serial ID: UI090701-40 **Opened:** 01-JUL-09 **Amount :** 500 mL
Name: TRACE ICP Stock PQL Sta **Received:** 30-JUN-09 **Catalog Number :** 160543-01-03
Type: Source Material **Expires:** 01-JUL-10 **Lot Number :** 1016475
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3+TrHF
Supplier: 02si
Description: TRACE ICP Stock PQL Standard
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	100 mg/L	Antimony	5 mg/L
Arsenic	15 mg/L	Barium	2.5 mg/L
Beryllium	2.5 mg/L	Boron	25 mg/L
Cadmium	2.5 mg/L	Calcium	100 mg/L
Chromium	2.5 mg/L	Cobalt	2.5 mg/L
Copper	5 mg/L	Iron	50 mg/L
Lead	5 mg/L	Magnesium	150 mg/L
Manganese	5 mg/L	Molybdenum	5 mg/L
Nickel	2.5 mg/L	Phosphorous	75 mg/L
Potassium	75 mg/L	Selenium	15 mg/L
Silicon	50 mg/L	Silver	2.5 mg/L
Sodium	150 mg/L	Strontium	2.5 mg/L
Sulfur	50 mg/L	Thallium	10 mg/L

Analyte	Concentration	Analyte	Concentration
Tin	5 mg/L	Titanium	2.5 mg/L
Uranium	25 mg/L	Vanadium	2.5 mg/L
Zinc	5 mg/L		

Serial ID: UI090828-42 **Opened:** 16-SEP-09 **Amount :** 500 mL
Name: TRACE ICP Na-1000SOUR **Received:** 27-AUG-09 **Catalog Number :** 060011-02-03
Type: Source Material **Expires:** 16-SEP-10 **Lot Number :** 1017098
Employee: Helen Camello **Solvent :** 1%HNO3
Supplier: 02SI
Description: Sodium 1000 +/- 3 ug/mL in 1% HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Sodium	1000 ug/mL		

Serial ID: UI090925-40 **Opened:** 23-OCT-09 **Amount :** 500 mL
Name: SECOND SOURCE STD -1 **Received:** 25-SEP-09 **Catalog Number :** SGELMX38-500N
Type: Source Material **Expires:** 30-SEP-10 **Lot Number :** 4909129
Employee: Helen Camello **Solvent :** 5%HNO3
Supplier: SPECTRO PURE
Description: SECOND SOURCE STD #1A 5%HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Arsenic	100 mg/L
Barium	100 mg/L	Boron	100 mg/L
Cadmium	100 mg/L	Calcium	1000 mg/L
Chromium	100 mg/L	Cobalt	100 mg/L
Copper	100 mg/L	Iron	1000 mg/L
Lead	100 mg/L	Phosphorous	500 mg/L
Potassium	500 mg/L	Selenium	500 mg/L
Sodium	500 mg/L	Strontium	100 mg/L

Serial ID: UI090925-41 **Opened:** 23-OCT-09 **Amount :** 500 mL
Name: SECOND SOURCE STD -1 **Received:** 25-SEP-09 **Catalog Number :** SGELMX39-500B
Type: Source Material **Expires:** 30-SEP-10 **Lot Number :** 4909130
Employee: Helen Camello **Solvent :** 5%HNO3,TR.HF
Supplier: SPECTRO PURE
Description: SECOND SOURCE STD #1B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	100 mg/L	Beryllium	50 mg/L
Magnesium	1000 mg/L	Manganese	100 mg/L

Analyte	Concentration	Analyte	Concentration
Molybdenum	100 mg/L	Nickel	100 mg/L
Silver	50 mg/L	Sulfur	500 mg/L
Thallium	100 mg/L	Tin	100 mg/L
Titanium	100 mg/L	Uranium	100 mg/L
Vanadium	100 mg/L	Zinc	100 mg/L

Serial ID: UI091015-42 **Opened:** 28-OCT-09 **Amount :** 500 mL
Name: SI 1000mg/L **Received:** 15-OCT-09 **Catalog Number :** 060014-02-03
Type: Source Material **Expires:** 28-OCT-10 **Lot Number :** 1017581
Employee: Helen Camello **Solvent :** 0.3%H2O(NH4)2SiF6
Supplier: o2si
Description: Silicon 1000mg/L+/-0.3%in H2O(NH4)2SiF6
Comments: None

Analyte	Concentration	Analyte	Concentration
Silica	2139 mg/L	Silicon	1000 mg/L

Serial ID: UI091015-A **Opened:** 15-OCT-09 **Catalog Number :** 160067-03
Name: ICP-MS DOE SOIL SPIKE **Received:** 15-OCT-09 **Lot Number :** 1017142
Type: Source Material **Expires:** 15-OCT-10
Employee: Francena Armstrong
Supplier: 02si
Description: ICP-MS Spike for soil products.
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	200 mg/L	Arsenic	8 mg/L
Barium	5 mg/L	Beryllium	5 mg/L
Boron	10 mg/L	Cadmium	1 mg/L
Calcium	200 mg/L	Chromium	5 mg/L
Cobalt	5 mg/L	Copper	5 mg/L
Iron	200 mg/L	Lead	20 mg/L
Lithium	5 mg/L	Magnesium	200 mg/L
Manganese	5 mg/L	Nickel	5 mg/L
Phosphorus, Total as P	200 mg/L	Potassium	200 mg/L
Selenium	2 mg/L	Sodium	200 mg/L
Strontium	5 mg/L	Thallium	10 mg/L
Thorium	5 mg/L	Uranium	5 mg/L
Uranium-235	.036 mg/L	Uranium-238	4.964 mg/L
Vanadium	5 mg/L	Zinc	5 mg/L

Standard Logbook

Serial ID: UI091015-B **Opened:** 15-OCT-09 **Catalog Number :** 160067-03
Name: ICP-MS DOE SOIL SPIKE **Received:** 15-OCT-09 **Lot Number :** 1017142
Type: Source Material **Expires:** 15-OCT-10
Employee: Francena Armstrong
Supplier: 02si
Description: ICP-MS Spike for Soil Products
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	20 mg/L	Molybdenum	5 mg/L
Silicon	200 mg/L	Silver	5 mg/L
Tin	5 mg/L	Zirconium	5 mg/L

Serial ID: UI091102-40 **Opened:** 16-NOV-09 **Amount :** 500 mL
Name: TRACE CALSTD#1A SOUF **Received:** 02-NOV-09 **Catalog Number :** HP2270-1-500
Type: Source Material **Expires:** 31-OCT-10 **Lot Number :** 0930215
Employee: Helen Camello **Solvent :** HNO3
Supplier: Environmental Express
Description: Trace Calibration Std #1A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	2000 mg/L	Arsenic	200 mg/L
Barium	200 mg/L	Beryllium	200 mg/L
Boron	200 mg/L	Cadmium	200 mg/L
Calcium	2000 mg/L	Chromium	200 mg/L
Cobalt	200 mg/L	Copper	200 mg/L
Iron	2000 mg/L	Lead	200 mg/L
Magnesium	2000 mg/L	Manganese	200 mg/L
Nickel	200 mg/L	Phosphorous	1000 mg/L
Potassium	2000 mg/L	Selenium	200 mg/L
Sodium	2000 mg/L	Strontium	200 mg/L
Thallium	200 mg/L	Uranium	200 mg/L
Vanadium	200 mg/L	Zinc	200 mg/L

Serial ID: UI091102-41 **Opened:** 16-NOV-09 **Amount :** 500 mL
Name: TRACE CALSTD#1B SOUF **Received:** 02-NOV-09 **Catalog Number :** HP2270-2-500
Type: Source Material **Expires:** 31-OCT-10 **Lot Number :** 0930216
Employee: Helen Camello **Solvent :** HNO3
Supplier: Environmental Express
Description: Trace Calibration Standard #1B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	200 mg/L	Molybdenum	200 mg/L
Silver	200 mg/L	Sulfur	400 mg/L

Analyte	Concentration	Analyte	Concentration
Tin	200 mg/L	Titanium	200 mg/L

Serial ID: UI091102-42 **Opened:** 17-NOV-09 **Amount :** 200 mL
Name: SILICON **Received:** 02-NOV-09 **Catalog Number :** HP100050-4F
Type: Source Material **Expires:** 17-NOV-10 **Lot Number :** 0921924
Employee: Helen Camello **Solvent :** H20/tr HF
Supplier: ENVIRNMENTAL EXPRESS
Description: SILICON 1000mg/L H20/tr HF
Comments: None

Analyte	Concentration	Analyte	Concentration
Silica	2139 mg/L	Silicon	1000 mg/L

Serial ID: UI091130-48 **Opened:** 11-DEC-09 **Amount :** 1000 mL
Name: Trace ICP ICSA **Received:** 01-DEC-09 **Catalog Number :** 160005-02
Type: Source Material **Expires:** 01-JAN-10 **Lot Number :** 1018045
Employee: Helen Camello **Solvent :** 3% HCl + 1% HNO3
Supplier: o2si
Description: Trace ICP Interferent Check Standard A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 UG/L	Calcium	500000 UG/L
Iron	200000 UG/L	Magnesium	500000 UG/L

Serial ID: UI091211-40 **Opened:** 11-DEC-09 **Amount :** 500 mL
Name: ICP HIGH RANGE STD-A **Received:** 09-DEC-09 **Catalog Number :** 160211-05-03
Type: Source Material **Expires:** 11-DEC-10 **Lot Number :** 1017958
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3
Supplier: 02SI
Description: ICP HIGH RANGE STD SOLUTION A
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	10000 ug/L	Arsenic	10000 ug/L
Barium	15000 ug/L	Beryllium	3000 ug/L
Boron	5000 ug/L	Cadmium	10000 ug/L
Chromium	25000 ug/L	Cobalt	10000 ug/L
Copper	20000 ug/L	Lead	25000 ug/L
Manganese	10000 ug/L	Molybdenum	10000 ug/L
Nickel	10000 ug/L	Phosphorous	15000 ug/L
Potassium	300000 ug/L	Selenium	10000 ug/L
Silica	107000 ug/L	Silicon	50000 ug/L
Silver	1000 ug/L	Strontium	10000 ug/L

Analyte	Concentration	Analyte	Concentration
Sulfur	50000 ug/L	Thallium	10000 ug/L
Tin	10000 ug/L	Titanium	10000 ug/L
Vanadium	10000 ug/L	Zinc	15000 ug/L

Serial ID: UI091211-41 **Opened:** 11-DEC-09 **Amount :** 500 mL
Name: ICP HIGH RANGE STD B **Received:** 09-DEC-09 **Catalog Number :** 160211-05-03
Type: Source Material **Expires:** 11-DEC-10 **Lot Number :** 1017958
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3
Supplier: 02SI
Description: ICP HIGH RANGE STD SOLUTION B
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 ug/L	Calcium	500000 ug/L
Iron	500000 ug/L	Magnesium	500000 ug/L
Sodium	500000 ug/L	Uranium	15000 ug/L

Serial ID: UI091212-11 **Opened:** 12-DEC-09 **Amount :** 1000 mL
Name: ICP-MS ICSA Master A **Received:** 12-DEC-09 **Catalog Number :** 160013-01-01L
Type: Source Material **Expires:** 12-DEC-10 **Lot Number :** 1015303
Employee: Paul Boyd **Solvent :** 2% HNO3
Supplier: 02SI
Description: ICP-MS ICSA Master A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Calcium	1000 mg/L
Carbon	2000 mg/L	Chloride	10000 mg/L
Iron	1000 mg/L	Magnesium	1000 mg/L
Molybdenum	20 mg/L	Phosphorous	1000 mg/L
Potassium	1000 mg/L	Sodium	1000 mg/L
Sulfur	1000 mg/L	Titanium	20 mg/L

Serial ID: UI091212-60 **Opened:** 12-DEC-09 **Amount :** .5 mL
Name: ICPMS High Range Standa **Received:** 12-DEC-09 **Catalog Number :** 160212-02-01
Type: Source Material **Expires:** 12-DEC-10 **Lot Number :** 1018064
Employee: Paul Boyd **Solvent :** 2%HNO3 + Tr HF
Supplier: O2SI
Description: Linear Range Standard A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	5000 mg/L	Arsenic	100 mg/L
Barium	250 mg/L	Beryllium	100 mg/L

Analyte	Concentration	Analyte	Concentration
Cadmium	100 mg/L	Calcium	5000 mg/L
Chromium	100 mg/L	Cobalt	100 mg/L
Copper	100 mg/L	Iron	5000 mg/L
Lead	500 mg/L	Lithium	100 mg/L
Magnesium	5000 mg/L	Manganese	100 mg/L
Nickel	100 mg/L	Phosphorous	2500 mg/L
Potassium	5000 mg/L	Selenium	50 mg/L
Sodium	5000 mg/L	Strontium	100 mg/L
Thallium	50 mg/L	Thorium	250 mg/L
Uranium	500 mg/L	Vanadium	100 mg/L
Zinc	250 mg/L		

Serial ID: UI091212-61 **Opened:** 12-DEC-09 **Amount :** .5 mL
Name: ICPMS High Range Standar **Received:** 12-DEC-09 **Catalog Number :** 160212-02-01
Type: Source Material **Expires:** 12-DEC-10 **Lot Number :** 1018064
Employee: Paul Boyd **Solvent :** 2%HNO3 + Tr HF
Supplier: O2SI
Description: Linear Range Standard B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	25 mg/L	Molybdenum	100 mg/L
Silver	25 mg/L	Tin	100 mg/L
Tungsten	100 mg/L	Zirconium	50 mg/L

Serial ID: UI091216-01 **Opened:** 16-DEC-09 **Lot Number :** 1018095
Name: METALSPIKE-1 **Received:** 16-DEC-09
Type: Source Material **Expires:** 16-DEC-10
Employee: Francena Armstrong
Supplier: OS2I
Description: Metals Spike Mix I
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 ug/mL	Arsenic	100 ug/mL
Barium	100 ug/mL	Beryllium	100 ug/mL
Boron	100 ug/mL	Cadmium	100 ug/mL
Calcium	1000 ug/mL	Cobalt	100 ug/mL
Iron	1000 ug/mL	Lead	100 ug/mL
Magnesium	1000 ug/mL	Phosphorous	100 ug/mL
Potassium	1000 ug/mL	Silver	100 ug/mL
Sodium	1000 ug/mL	Strontium	100 ug/mL

Standard Logbook

Serial ID: UI091216-06 **Opened:** 16-DEC-09 **Lot Number :** 1018096
Name: METALSPIKE-2 **Received:** 16-DEC-09
Type: Source Material **Expires:** 16-DEC-10
Employee: Francena Armstrong
Supplier: OS2I
Description: Metals Spike Mix II
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	100 ug/mL	Chromium	100 ug/mL
Copper	100 ug/mL	Manganese	100 ug/mL
Molybdenum	100 ug/mL	Nickel	100 ug/mL
Selenium	100 ug/mL	Silica	2141 ug/mL
Silicon	1000 ug/mL	Sulfur	1000 ug/mL
Thallium	100 ug/mL	Tin	100 ug/mL
Titanium	100 ug/mL	Uranium	100 ug/mL
Vanadium	100 ug/mL	Zinc	100 ug/mL

Serial ID: UI091217-06 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master A **Received:** 17-DEC-09 **Catalog Number :** 160055-01
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018209
Employee: Paul Boyd **Solvent :** +/- 0.5% in 5% HNO3 100 cm2
Supplier: 02SI
Description: ICPMS ICV/CCV SOLN A - 10ppm
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	2020 mg/L	Calcium	2000 mg/L
Iron	2000 mg/L	Magnesium	2000 mg/L
Phosphorous	2000 mg/L	Potassium	2000 mg/L
Sodium	2000 mg/L		

Serial ID: UI091217-07 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master B **Received:** 17-DEC-09 **Catalog Number :** 160054-02
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018210
Employee: Paul Boyd **Solvent :** +/- 0.5% in 5% HNO3 100 cm2
Supplier: 02SI
Description: ICPMS ICV/CCV Soln B - 10ppm
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	20 mg/L	Barium	20 mg/L
Beryllium	20 mg/L	Boron	40 mg/L
Cadmium	20 mg/L	Chromium	20 mg/L
Cobalt	20 mg/L	Copper	20 mg/L
Lead	20 mg/L	Lithium	20 mg/L

Analyte	Concentration	Analyte	Concentration
Manganese	20 mg/L	Nickel	20 mg/L
Selenium	20 mg/L	Strontium	20 mg/L
Thallium	20 mg/L	Thorium	20 mg/L
Uranium	20 mg/L	Vanadium	20 mg/L
Zinc	20 mg/L		

Serial ID: UI091217-08 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master C **Received:** 17-DEC-09 **Catalog Number :** 160054-03
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018211
Employee: Paul Boyd **Solvent :** +/- 0.5% in 5% HNO3 100 cm2
Supplier: 02SI
Description: ICPMS ICV/CCV Soln C - 10ppm
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	20 mg/L	Molybdenum	20 mg/L
Silver	20 mg/L	Tin	20 mg/L
Titanium	20 mg/L	Tungsten	20 mg/L
Zirconium	20 mg/L		

Serial ID: UI091217-12 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICSAB Master B **Received:** 17-DEC-09 **Catalog Number :** 160033-02
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018212
Employee: Paul Boyd **Solvent :** +/- 0.5% in 2% HNO3
Supplier: 02SI
Description: ICPMS ICSAB Master B
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	2 mg/L	Barium	2 mg/L
Beryllium	2 mg/L	Boron	2 mg/L
Cadmium	2 mg/L	Chromium	2 mg/L
Cobalt	2 mg/L	Copper	2 mg/L
Lead	2 mg/L	Lithium	2 mg/L
Manganese	2 mg/L	Nickel	2 mg/L
Selenium	2 mg/L	Strontium	2 mg/L
Thallium	2 mg/L	Thorium	2 mg/L
Uranium	2 mg/L	Vanadium	2 mg/L
Zinc	2 mg/L		

Standard Logbook

Serial ID: UI091217-13 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICSAB Master C **Received:** 17-DEC-09 **Catalog Number :** 160033-03
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1016926
Employee: Paul Boyd **Solvent :** +/- 0.5% in 2% HNO3
Supplier: 02SI
Description: ICPMS ICSAB Master C
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	2 mg/L	Silver	2 mg/L
Tin	2 mg/L	Tungsten	2 mg/L
Zirconium	2 mg/L		

Serial ID: UMS090303-01 **Opened:** 03-MAR-09 **Amount :** 250 mL
Name: ICPMSCalSPIKEB **Received:** 03-MAR-09 **Catalog Number :** ZGEL-100-250
Type: Source Material **Expires:** 28-FEB-10 **Lot Number :** 14-81JB
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution B
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	10 mg/L	Barium	10 mg/L
Beryllium	10 mg/L	Boron	20 mg/L
Cadmium	10 mg/L	Chromium	10 mg/L
Cobalt	10 mg/L	Copper	10 mg/L
Lead	10 mg/L	Lithium	10 mg/L
Manganese	10 mg/L	Nickel	10 mg/L
Selenium	10 mg/L	Silver	10 mg/L
Strontium	10 mg/L	Thallium	10 mg/L
Thorium	10 mg/L	Uranium	10 mg/L
Vanadium	10 mg/L	Zinc	10 mg/L

Serial ID: UMS090303-02 **Opened:** 03-MAR-09 **Catalog Number :** ZGEL-102-250
Name: ICPMSCalSPIKEA **Received:** 03-MAR-09 **Lot Number :** 14-83JB
Type: Source Material **Expires:** 28-FEB-10
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Calcium	1000 mg/L
Iron	1000 mg/L	Magnesium	1000 mg/L
Phosphorous	1000 mg/L	Potassium	1000 mg/L
Sodium	1000 mg/L		

Standard Logbook

Serial ID: UMS090303-03 **Opened:** 03-MAR-09 **Amount :** 250 ml
Name: ICPMSCalSPIKEC **Received:** 03-MAR-09 **Catalog Number :** ZGEL-101-250
Type: Source Material **Expires:** 28-FEB-10 **Lot Number :** 15-199JB
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution C
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	10 mg/L	Molybdenum	10 mg/L
Tin	10 mg/L	Titanium	10 mg/L
Zirconium	10 mg/L		

Serial ID: IHG091222-01 **Opened:** 22-DEC-09 **Instrument Id :** Mercury
Name: MHGINTER1 **Received:** 22-DEC-09 **Pipet Id :** Minou1
Type: Intermediate **Expires:** 23-DEC-09 **Solvent :** 1mL HNO3 + Typel H2O
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Intermediate 1st Source 200 ug/L
Comments: Prepare fresh daily

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167639-01	Mercury	1000 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: IHG091222-02 **Opened:** 22-DEC-09 **Pipet Id :** Minou1
Name: MHGINTER2 **Received:** 22-DEC-09 **Solvent :** 2% HNO3-1240182
Type: Intermediate **Expires:** 23-DEC-09
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Intermediate 2nd Source 200 ug/L
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167641-02	Mercury	999.7 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: WHG091222-07 **Opened:** 22-DEC-09 **Pipet Id :** Hg1289245
Name: MHGWORKCALS0.2CRA **Received:** 22-DEC-09 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 28-DEC-09
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working Standard 1st Source CAL S 0.2/CRA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG091222-01	Mercury	200 ug/L	30 uL	30 mL	.2 ug/L

Standard Logbook

Serial ID: WHG091222-08 **Opened:** 22-DEC-09 **Pipet Id :** Hg1289245
Name: MHGWORKCALS0.5 **Received:** 22-DEC-09 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 28-DEC-09
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working Standard 1st Source CAL S 0.5
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG091222-01	Mercury	200 ug/L	75 uL	30 mL	.5 ug/L

Serial ID: WHG091222-09 **Opened:** 22-DEC-09 **Pipet Id :** Hg1289245
Name: MHGWORKCALS2.0 **Received:** 22-DEC-09 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 28-DEC-09
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL S 2.0
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG091222-01	Mercury	200 ug/L	300 uL	30 mL	2 ug/L

Serial ID: WHG091222-10 **Opened:** 22-DEC-09 **Pipet Id :** Hg1289245
Name: MHGWORKCALS5.0CCV **Received:** 22-DEC-09 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 28-DEC-09
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL S 5.0/CCV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG091222-01	Mercury	200 ug/L	750 uL	30 mL	5 ug/L

Serial ID: WHG091222-11 **Opened:** 22-DEC-09 **Pipet Id :** Hg1289245
Name: MHGWORKCALS10.0 **Received:** 22-DEC-09 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 28-DEC-09
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working 1st Source CAL S 10.0
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG091222-01	Mercury	200 ug/L	1500 uL	30 mL	10 ug/L

Standard Logbook

Serial ID: WHG091222-12 **Opened:** 22-DEC-09 **Pipet Id :** Hg1289245
Name: MHGWORKS5.0ICV **Received:** 22-DEC-09 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 28-DEC-09
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 2nd Source S 5.0/ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG091222-02	Mercury	200 ug/L	750 uL	30 mL	5 ug/L

Serial ID: WHG091222-14 **Opened:** 22-DEC-09 **Pipet Id :** Hg1289245
Name: MHGSOILMSSPIKE **Received:** 22-DEC-09 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 28-DEC-09
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury soil working intermediate standard for MS
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167639-01	Mercury	1000 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: WHG1248585-14 **Opened:** 30-DEC-09 **Pipet Id :** Hg1289245
Name: MHGSOILMSSPIKE **Received:** 30-DEC-09 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 31-DEC-09
Employee: Bryan Davis **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury soil working intermediate standard for MS
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167639-01	Mercury	1000 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: WHG1248599-07 **Opened:** 30-DEC-09 **Pipet Id :** Hg1289245
Name: MHGWORKCALS0.2CRA **Received:** 30-DEC-09 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 31-DEC-09
Employee: Bryan Davis
Supplier: GEL
Description: Mercury Working Standard 1st Source CAL S 0.2/CRA
Comments: None

Analyte	Concentration	Analyte	Concentration
Mercury	.2 ug/L		

Standard Logbook

Serial ID: WHG1248601-08 **Opened:** 30-DEC-09 **Pipet Id :** Hg1289245
Name: MHGWORKCALS0.5 **Received:** 30-DEC-09 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 31-DEC-09
Employee: Bryan Davis **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working Standard 1st Source CAL S 0.5
Comments: None

Analyte	Concentration	Analyte	Concentration
Mercury	.5 ug/L		

Serial ID: WHG1248603-11 **Opened:** 30-DEC-09 **Pipet Id :** Hg1289245
Name: MHGWORKCALS10.0 **Received:** 30-DEC-09 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 31-DEC-09
Employee: Bryan Davis
Supplier: GEL
Description: Mercury Working 1st Source CAL S 10.0
Comments: None

Analyte	Concentration	Analyte	Concentration
Mercury	10 ug/L		

Serial ID: WHG1248606-09 **Opened:** 30-DEC-09 **Pipet Id :** Hg1289245
Name: MHGWORKCALS2.0 **Received:** 30-DEC-09 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 31-DEC-09
Employee: Bryan Davis **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL S 2.0
Comments: None

Analyte	Concentration	Analyte	Concentration
Mercury	2 ug/L		

Serial ID: WHG1248608-10 **Opened:** 30-DEC-09 **Pipet Id :** Hg1289245
Name: MHGWORKCALS5.0CCV **Received:** 30-DEC-09 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 31-DEC-09
Employee: Bryan Davis **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL S 5.0/CCV
Comments: None

Analyte	Concentration	Analyte	Concentration
Mercury	5 ug/L		

Standard Logbook

Serial ID: WHG1248610-12 **Opened:** 30-DEC-09 **Pipet Id :** Hg1289245
Name: MHGWORKS5.0ICV **Received:** 30-DEC-09 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 31-DEC-09
Employee: Bryan Davis **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 2nd Source S 5.0/ICV
Comments: None

Analyte	Concentration	Analyte	Concentration
Mercury	5 ug/L		

Serial ID: WI091219-42 **Opened:** 19-DEC-09 **Balance Id :** 216
Name: TRACE ICP 0.1 PPM STD. **Received:** 02-NOV-09 **Pipet Id :** 1099667
Type: Working **Expires:** 20-DEC-09 **Solvent :** 3%HCL and 1%HNO3 -1242318
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP 0.1 PPM CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WI091219-44	Aluminum	10000 ug/L	10 mL	100 mL	1000 ug/L
WI091219-44	Antimony	1000 ug/L	10 mL	100 mL	100 ug/L
WI091219-44	Arsenic	1000 ug/L	10 mL	100 mL	100 ug/L
WI091219-44	Barium	1000 ug/L	10 mL	100 mL	100 ug/L
WI091219-44	Beryllium	1000 ug/L	10 mL	100 mL	100 ug/L
WI091219-44	Boron	1000 ug/L	10 mL	100 mL	100 ug/L
WI091219-44	Cadmium	1000 ug/L	10 mL	100 mL	100 ug/L
WI091219-44	Calcium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI091219-44	Chromium	1000 ug/L	10 mL	100 mL	100 ug/L
WI091219-44	Cobalt	1000 ug/L	10 mL	100 mL	100 ug/L
WI091219-44	Copper	1000 ug/L	10 mL	100 mL	100 ug/L
WI091219-44	Iron	10000 ug/L	10 mL	100 mL	1000 ug/L
WI091219-44	Lead	1000 ug/L	10 mL	100 mL	100 ug/L
WI091219-44	Magnesium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI091219-44	Manganese	1000 ug/L	10 mL	100 mL	100 ug/L
WI091219-44	Molybdenum	1000 ug/L	10 mL	100 mL	100 ug/L
WI091219-44	Nickel	1000 ug/L	10 mL	100 mL	100 ug/L
WI091219-44	Phosphorous	5000 ug/L	10 mL	100 mL	500 ug/L
WI091219-44	Potassium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI091219-44	Selenium	1000 ug/L	10 mL	100 mL	100 ug/L
WI091219-44	Silica	10698 ug/L	10 mL	100 mL	1069 ug/L
WI091219-44	Silicon	5000 ug/L	10 mL	100 mL	500 ug/L
WI091219-44	Silver	1000 ug/L	10 mL	100 mL	100 ug/L
WI091219-44	Sodium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI091219-44	Strontium	1000 ug/L	10 mL	100 mL	100 ug/L
WI091219-44	Sulfur	2000 ug/L	10 mL	100 mL	200 ug/L
WI091219-44	Thallium	1000 ug/L	10 mL	100 mL	100 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WI091219-44	Tin	1000 ug/L	10 mL	100 mL	100 ug/L
WI091219-44	Titanium	1000 ug/L	10 mL	100 mL	100 ug/L
WI091219-44	Uranium	1000 ug/L	10 mL	100 mL	100 ug/L
WI091219-44	Vanadium	1000 ug/L	10 mL	100 mL	100 ug/L
WI091219-44	Zinc	1000 ug/L	10 mL	100 mL	100 ug/L

Serial ID: WI091219-43 **Opened:** 19-DEC-09 **Balance Id :** 216
Name: TRACE ICP 0.5/CCV STD. **Received:** 02-NOV-09 **Pipet Id :** 1099667
Type: Working **Expires:** 20-DEC-09 **Solvent :** 3%HCL and 1%HNO3 -1242318
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP 0.5/CCV CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090828-42	Sodium	1000 ug/mL	5 mL	1000 mL	5000 UG/L
UI091015-42	Silica	2139 mg/L	2.5 mL	1000 mL	5348.25 UG/L
UI091015-42	Silicon	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI091102-40	Aluminum	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Arsenic	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Barium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Beryllium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Boron	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Cadmium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Calcium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Chromium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Cobalt	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Copper	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Iron	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Lead	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Magnesium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Manganese	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Nickel	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Phosphorous	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI091102-40	Potassium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Selenium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Sodium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Strontium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Thallium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Uranium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Vanadium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Zinc	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Antimony	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Molybdenum	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Silver	200 mg/L	2.5 mL	1000 mL	500 UG/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091102-41	Sulfur	400 mg/L	2.5 mL	1000 mL	1000 UG/L
UI091102-41	Tin	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Titanium	200 mg/L	2.5 mL	1000 mL	500 UG/L

Serial ID: WI091219-44 **Opened:** 19-DEC-09 **Balance Id :** 216
Name: TRACE ICP SCAL 1.0 **Received:** 02-NOV-09 **Pipet Id :** 1099667
Type: Working **Expires:** 20-DEC-09 **Solvent :** 3%HCL and 1 %HNO3-1242318
Employee: Helen Camello
Supplier: o2si
Description: Trace ICP Calibration Standard 1.0ppm
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091015-42	Silica	2139 mg/L	2.5 mL	500 mL	10698 ug/L
UI091015-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI091102-40	Aluminum	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Arsenic	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Barium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Beryllium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Boron	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Cadmium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Calcium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Chromium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Cobalt	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Copper	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Iron	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Lead	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Magnesium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Manganese	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Nickel	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Phosphorous	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI091102-40	Potassium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Selenium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Sodium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Strontium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Thallium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Uranium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Vanadium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Zinc	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Antimony	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Molybdenum	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Silver	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Sulfur	400 mg/L	2.5 mL	500 mL	2000 ug/L
UI091102-41	Tin	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Titanium	200 mg/L	2.5 mL	500 mL	1000 ug/L

Standard Logbook

Serial ID: WI091219-45 **Opened:** 19-DEC-09 **Balance Id :** 216
Name: TRACE ICP S-10 STD **Received:** 22-APR-09 **Pipet Id :** 1099667
Type: Working **Expires:** 20-DEC-09 **Solvent :** 3%HCL and 1%HNO3 -1242318
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP S-10 CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090422-40	Aluminum	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Calcium	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Iron	2000 mg/L	5 mL	500 mL	20000 UG/L
UI090422-40	Magnesium	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090828-42	Sodium	1000 ug/mL	10 mL	500 mL	20000 UG/L

Serial ID: WI091219-46 **Opened:** 19-DEC-09 **Balance Id :** 216
Name: ICP TRACE ICV **Received:** 25-SEP-09 **Pipet Id :** 1099667
Type: Working **Expires:** 20-DEC-09 **Solvent :** 3%HCL AND 1%HNO3-1242318
Employee: Helen Camello
Supplier: GEL
Description: Initial Calibration Verification ICP Trace Metals
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090925-40	Aluminum	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Arsenic	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Barium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Boron	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cadmium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Calcium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Chromium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cobalt	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Copper	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Iron	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Lead	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Phosphorous	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Potassium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Selenium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Sodium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Strontium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Antimony	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Beryllium	50 mg/L	2.5 mL	500 mL	250 ug/L
UI090925-41	Magnesium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-41	Manganese	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Molybdenum	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Nickel	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Silver	50 mg/L	2.5 mL	500 mL	250 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090925-41	Sulfur	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-41	Thallium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Tin	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Titanium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Uranium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Vanadium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Zinc	100 mg/L	2.5 mL	500 mL	500 ug/L
UI091102-42	Silica	2139 mg/L	2.5 mL	500 mL	10695 ug/L
UI091102-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L

Serial ID: WI091219-47 **Opened:** 19-DEC-09 **Balance Id :** 216
Name: PQL Working Standard **Received:** 30-JUN-09 **Pipet Id :** 1099667
Type: Working **Expires:** 20-DEC-09 **Solvent :** 3%HCL &1%HNO3-1242318
Employee: Helen Camello
Supplier: 02si
Description: PQL Working Standard
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-40	Aluminum	100 mg/L	2 mL	1000 mL	200 ug/L
UI090701-40	Antimony	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Arsenic	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Barium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Beryllium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Boron	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Cadmium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Calcium	100 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Chromium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Cobalt	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Copper	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Iron	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Lead	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Magnesium	150 mg/L	2 mL	1000 mL	300 ug/L
UI090701-40	Manganese	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Molybdenum	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Nickel	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Phosphorous	75 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Potassium	75 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Selenium	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Silicon	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Silver	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sodium	150 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Strontium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sulfur	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Thallium	10 mg/L	2 mL	1000 mL	20 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-40	Tin	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Titanium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Uranium	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Vanadium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Zinc	5 mg/L	2 mL	1000 mL	10 ug/L

Serial ID: WI091220-42 **Opened:** 20-DEC-09 **Balance Id :** 216
Name: TRACE ICP 0.1 PPM STD. **Received:** 02-NOV-09 **Pipet Id :** 1099667
Type: Working **Expires:** 21-DEC-09 **Solvent :** 3%HCL and 1%HNO3 -1242318
Employee: Helen Carnello
Supplier: GEL
Description: TRACE ICP 0.1 PPM CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WI091220-44	Aluminum	10000 ug/L	10 mL	100 mL	1000 ug/L
WI091220-44	Antimony	1000 ug/L	10 mL	100 mL	100 ug/L
WI091220-44	Arsenic	1000 ug/L	10 mL	100 mL	100 ug/L
WI091220-44	Barium	1000 ug/L	10 mL	100 mL	100 ug/L
WI091220-44	Beryllium	1000 ug/L	10 mL	100 mL	100 ug/L
WI091220-44	Boron	1000 ug/L	10 mL	100 mL	100 ug/L
WI091220-44	Cadmium	1000 ug/L	10 mL	100 mL	100 ug/L
WI091220-44	Calcium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI091220-44	Chromium	1000 ug/L	10 mL	100 mL	100 ug/L
WI091220-44	Cobalt	1000 ug/L	10 mL	100 mL	100 ug/L
WI091220-44	Copper	1000 ug/L	10 mL	100 mL	100 ug/L
WI091220-44	Iron	10000 ug/L	10 mL	100 mL	1000 ug/L
WI091220-44	Lead	1000 ug/L	10 mL	100 mL	100 ug/L
WI091220-44	Magnesium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI091220-44	Manganese	1000 ug/L	10 mL	100 mL	100 ug/L
WI091220-44	Molybdenum	1000 ug/L	10 mL	100 mL	100 ug/L
WI091220-44	Nickel	1000 ug/L	10 mL	100 mL	100 ug/L
WI091220-44	Phosphorous	5000 ug/L	10 mL	100 mL	500 ug/L
WI091220-44	Potassium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI091220-44	Selenium	1000 ug/L	10 mL	100 mL	100 ug/L
WI091220-44	Silica	10698 ug/L	10 mL	100 mL	1069 ug/L
WI091220-44	Silicon	5000 ug/L	10 mL	100 mL	500 ug/L
WI091220-44	Silver	1000 ug/L	10 mL	100 mL	100 ug/L
WI091220-44	Sodium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI091220-44	Strontium	1000 ug/L	10 mL	100 mL	100 ug/L
WI091220-44	Sulfur	2000 ug/L	10 mL	100 mL	200 ug/L
WI091220-44	Thallium	1000 ug/L	10 mL	100 mL	100 ug/L
WI091220-44	Tin	1000 ug/L	10 mL	100 mL	100 ug/L
WI091220-44	Titanium	1000 ug/L	10 mL	100 mL	100 ug/L
WI091220-44	Uranium	1000 ug/L	10 mL	100 mL	100 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WI091220-44	Vanadium	1000 ug/L	10 mL	100 mL	100 ug/L
WI091220-44	Zinc	1000 ug/L	10 mL	100 mL	100 ug/L

Serial ID: WI091220-43 **Opened:** 20-DEC-09 **Balance Id :** 216
Name: TRACE ICP 0.5/CCV STD. **Received:** 02-NOV-09 **Pipet Id :** 1099667
Type: Working **Expires:** 21-DEC-09 **Solvent :** 3%HCL and 1%HNO3 -1242318
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP 0.5/CCV CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090828-42	Sodium	1000 ug/mL	5 mL	1000 mL	5000 UG/L
UI091015-42	Silica	2139 mg/L	2.5 mL	1000 mL	5348.25 UG/L
UI091015-42	Silicon	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI091102-40	Aluminum	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Arsenic	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Barium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Beryllium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Boron	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Cadmium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Calcium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Chromium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Cobalt	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Copper	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Iron	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Lead	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Magnesium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Manganese	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Nickel	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Phosphorous	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI091102-40	Potassium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Selenium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Sodium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Strontium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Thallium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Uranium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Vanadium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Zinc	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Antimony	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Molybdenum	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Silver	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Sulfur	400 mg/L	2.5 mL	1000 mL	1000 UG/L
UI091102-41	Tin	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Titanium	200 mg/L	2.5 mL	1000 mL	500 UG/L

Standard Logbook

Serial ID: WI091220-44 **Opened:** 20-DEC-09 **Balance Id :** 216
Name: TRACE ICP SCAL 1.0 **Received:** 02-NOV-09 **Pipet Id :** 1099667
Type: Working **Expires:** 21-DEC-09 **Solvent :** 3%HCL and 1 %HNO3-1242318
Employee: Helen Camello
Supplier: o2si
Description: Trace ICP Calibration Standard 1.0ppm
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091015-42	Silica	2139 mg/L	2.5 mL	500 mL	10698 ug/L
UI091015-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI091102-40	Aluminum	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Arsenic	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Barium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Beryllium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Boron	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Cadmium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Calcium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Chromium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Cobalt	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Copper	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Iron	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Lead	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Magnesium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Manganese	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Nickel	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Phosphorous	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI091102-40	Potassium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Selenium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Sodium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Strontium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Thallium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Uranium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Vanadium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Zinc	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Antimony	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Molybdenum	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Silver	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Sulfur	400 mg/L	2.5 mL	500 mL	2000 ug/L
UI091102-41	Tin	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Titanium	200 mg/L	2.5 mL	500 mL	1000 ug/L

Standard Logbook

Serial ID: WI091220-45 **Opened:** 20-DEC-09 **Balance Id :** 216
Name: TRACE ICP S-10 STD **Received:** 22-APR-09 **Pipet Id :** 1099667
Type: Working **Expires:** 21-DEC-09 **Solvent :** 3%HCL and 1%HNO3 -1242318
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP S-10 CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090422-40	Aluminum	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Calcium	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Iron	2000 mg/L	5 mL	500 mL	20000 UG/L
UI090422-40	Magnesium	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090828-42	Sodium	1000 ug/mL	10 mL	500 mL	20000 UG/L

Serial ID: WI091220-46 **Opened:** 20-DEC-09 **Balance Id :** 216
Name: ICP TRACE ICV **Received:** 25-SEP-09 **Pipet Id :** 1099667
Type: Working **Expires:** 21-DEC-09 **Solvent :** 3%HCL AND 1%HNO3-1242318
Employee: Helen Camello
Supplier: GEL
Description: Initial Calibration Verification ICP Trace Metals
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090925-40	Aluminum	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Arsenic	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Barium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Boron	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cadmium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Calcium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Chromium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cobalt	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Copper	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Iron	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Lead	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Phosphorous	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Potassium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Selenium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Sodium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Strontium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Antimony	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Beryllium	50 mg/L	2.5 mL	500 mL	250 ug/L
UI090925-41	Magnesium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-41	Manganese	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Molybdenum	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Nickel	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Silver	50 mg/L	2.5 mL	500 mL	250 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090925-41	Sulfur	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-41	Thallium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Tin	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Titanium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Uranium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Vanadium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Zinc	100 mg/L	2.5 mL	500 mL	500 ug/L
UI091102-42	Silica	2139 mg/L	2.5 mL	500 mL	10695 ug/L
UI091102-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L

Serial ID: WI091220-47 **Opened:** 20-DEC-09 **Balance Id :** 216
Name: PQL Working Standard **Received:** 30-JUN-09 **Pipet Id :** 1099667
Type: Working **Expires:** 21-DEC-09 **Solvent :** 3%HCL &1%HNO3-1242318
Employee: Helen Camello
Supplier: 02si
Description: PQL Working Standard
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-40	Aluminum	100 mg/L	2 mL	1000 mL	200 ug/L
UI090701-40	Antimony	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Arsenic	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Barium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Beryllium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Boron	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Cadmium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Calcium	100 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Chromium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Cobalt	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Copper	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Iron	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Lead	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Magnesium	150 mg/L	2 mL	1000 mL	300 ug/L
UI090701-40	Manganese	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Molybdenum	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Nickel	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Phosphorous	75 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Potassium	75 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Selenium	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Silicon	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Silver	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sodium	150 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Strontium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sulfur	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Thallium	10 mg/L	2 mL	1000 mL	20 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-40	Tin	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Titanium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Uranium	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Vanadium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Zinc	5 mg/L	2 mL	1000 mL	10 ug/L

Serial ID: WMS091231-04 **Opened:** 31-DEC-09 **Amount :** 50 mL
Name: ICPMS Cal Standard 100 **Received:** 31-DEC-09 **Balance Id :** 4025216
Type: Working **Expires:** 01-JAN-10 **Pipet Id :** 3541598
Employee: Elizabeth Janssen **Solvent :** 2%HNO3/1%HCl-1247304
Supplier: GEL
Description: ICPMS Calibration Standard (100 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090610-03	Tungsten	10 mg/L	.5 mL	50 mL	100 ug/L
UMS090303-01	Arsenic	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Barium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Beryllium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Boron	20 mg/L	.5 mL	50 mL	200 ug/l
UMS090303-01	Cadmium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Chromium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Cobalt	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Copper	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Lead	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Lithium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Manganese	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Nickel	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Selenium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Silver	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Strontium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Thallium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Thorium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Uranium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Vanadium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Zinc	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-02	Aluminum	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Calcium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Iron	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Magnesium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Phosphorous	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Potassium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Sodium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-03	Antimony	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Molybdenum	10 mg/L	.5 mL	50 mL	100 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UMS090303-03	Tin	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Titanium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Zirconium	10 mg/L	.5 mL	50 mL	100 ug/l

Serial ID: WMS091231-04A **Opened:** 31-DEC-09 **Balance Id :** 4025216
Name: ICPMS Cal Standard 10 **Received:** 31-DEC-09 **Pipet Id :** 3541598
Type: Working **Expires:** 01-JAN-10 **Solvent :** 2%HNO3/1%HCl - 1247304
Employee: Elizabeth Janssen
Supplier: GEL
Description: ICPMS Calibration Standard (10 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS091231-04	Aluminum	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS091231-04	Antimony	100 ug/l	5 mL	50 mL	10 ug/l
WMS091231-04	Arsenic	100 ug/l	5 mL	50 mL	10 ug/l
WMS091231-04	Barium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091231-04	Beryllium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091231-04	Boron	200 ug/l	5 mL	50 mL	20 ug/l
WMS091231-04	Cadmium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091231-04	Calcium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS091231-04	Chromium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091231-04	Cobalt	100 ug/l	5 mL	50 mL	10 ug/l
WMS091231-04	Copper	100 ug/l	5 mL	50 mL	10 ug/l
WMS091231-04	Iron	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS091231-04	Lead	100 ug/l	5 mL	50 mL	10 ug/l
WMS091231-04	Lithium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091231-04	Magnesium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS091231-04	Manganese	100 ug/l	5 mL	50 mL	10 ug/l
WMS091231-04	Molybdenum	100 ug/l	5 mL	50 mL	10 ug/l
WMS091231-04	Nickel	100 ug/l	5 mL	50 mL	10 ug/l
WMS091231-04	Phosphorous	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS091231-04	Potassium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS091231-04	Selenium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091231-04	Silver	100 ug/l	5 mL	50 mL	10 ug/l
WMS091231-04	Sodium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS091231-04	Strontium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091231-04	Thallium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091231-04	Thorium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091231-04	Tin	100 ug/l	5 mL	50 mL	10 ug/l
WMS091231-04	Titanium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091231-04	Tungsten	100 ug/L	5 mL	50 mL	10 ug/L
WMS091231-04	Uranium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091231-04	Vanadium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091231-04	Zinc	100 ug/l	5 mL	50 mL	10 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS091231-04	Zirconium	100 ug/l	5 mL	50 mL	10 ug/l

Serial ID: WMS091231-05 **Opened:** 31-DEC-09 **Balance Id :** 40245216
Name: ICPMS ICV **Received:** 31-DEC-09 **Pipet Id :** 3541598
Type: Working **Expires:** 01-JAN-10 **Solvent :** 2%HNO3/1%HCl - 1247304
Employee: Elizabeth Janssen
Supplier: GEL
Description: ICPMS ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-06	Aluminum	2020 mg/L	.125 mL	50 mL	5050 ug/L
UI091217-06	Calcium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Iron	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Magnesium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Phosphorous	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Potassium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Sodium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-07	Arsenic	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Barium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Beryllium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Boron	40 mg/L	.125 mL	50 mL	100 ug/L
UI091217-07	Cadmium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Chromium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Cobalt	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Copper	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lead	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lithium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Manganese	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Nickel	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Selenium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Strontium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thallium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thorium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Uranium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Vanadium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Zinc	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Antimony	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Molybdenum	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Silver	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tin	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Titanium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tungsten	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Zirconium	20 mg/L	.125 mL	50 mL	50 ug/L

Standard Logbook

Serial ID: WMS091231-06 **Opened:** 31-DEC-09 **Balance Id :** 40245216
Name: ICPMS CRDL **Received:** 31-DEC-09 **Pipet Id :** 3820544
Type: Working **Expires:** 01-JAN-10 **Solvent :** 2%HNO3/1%HCl - 1247304
Employee: Elizabeth Janssen
Supplier: GEL
Description: ICPMS CRDL
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Aluminum	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Arsenic	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Barium	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Beryllium	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-09	Boron	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Cadmium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Calcium	100 mg/L	.05 mL	50 mL	100 ug/L
UI090701-09	Chromium	3 mg/L	.05 mL	50 mL	3 ug/L
UI090701-09	Cobalt	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Copper	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Iron	25 mg/L	.05 mL	50 mL	25 ug/L
UI090701-09	Lead	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Lithium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Magnesium	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Manganese	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Nickel	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Phosphorous	50 mg/L	.05 mL	50 mL	50 ug/L
UI090701-09	Potassium	300 mg/L	.05 mL	50 mL	300 ug/L
UI090701-09	Selenium	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Sodium	250 mg/L	.05 mL	50 mL	250 ug/L
UI090701-09	Strontium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Thallium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Thorium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Uranium	.2 mg/L	.05 mL	50 mL	.2 ug/L
UI090701-09	Vanadium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Zinc	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Antimony	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-10	Molybdenum	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-10	Silver	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-10	Tin	2 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Titanium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Tungsten	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Zirconium	2 mg/L	.05 mL	50 mL	2 ug/L

Standard Logbook

Serial ID: WMS091231-07 **Opened:** 31-DEC-09 **Balance Id :** 40245216
Name: ICPMS ICSA **Received:** 31-DEC-09 **Lot Number :** 1010773
Type: Working **Expires:** 01-JAN-10 **Pipet Id :** 3541598
Employee: Elizabeth Janssen **Solvent :** 2%HNO3/1%HCl - 1247304
Supplier: GEL
Description: ICPMS ICSA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI091212-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI091212-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: WMS091231-08 **Opened:** 31-DEC-09 **Balance Id :** 40245216
Name: ICPMS ICSAB **Received:** 31-DEC-09 **Pipet Id :** 1758088
Type: Working **Expires:** 01-JAN-10 **Solvent :** 2%HNO3/1%HCl - 1247304
Employee: Elizabeth Janssen
Supplier: GEL
Description: ICPMS ICSAB
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI091212-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI091212-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L
UI091217-12	Arsenic	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Barium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Beryllium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Boron	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Cadmium	2 mg/L	.5 mL	50 mL	20.2 ug/L
UI091217-12	Chromium	2 mg/L	.5 mL	50 mL	22.2 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-12	Cobalt	2 mg/L	.5 mL	50 mL	20.4 ug/L
UI091217-12	Copper	2 mg/L	.5 mL	50 mL	23.4 ug/L
UI091217-12	Lead	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Lithium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Manganese	2 mg/L	.5 mL	50 mL	22.7 ug/L
UI091217-12	Nickel	2 mg/L	.5 mL	50 mL	22.4 ug/L
UI091217-12	Selenium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Strontium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thallium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thorium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Uranium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Vanadium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Zinc	2 mg/L	.5 mL	50 mL	27 ug/L
UI091217-13	Antimony	2 mg/L	.5 mL	50 mL	20.5 ug/L
UI091217-13	Silver	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tin	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tungsten	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Zirconium	2 mg/L	.5 mL	50 mL	20 ug/L

Serial ID: WMS091231-70 **Opened:** 31-DEC-09 **Balance Id :** 40245216
Name: ICPMS LINEAR RANGE ST **Received:** 31-DEC-09 **Pipet Id :** 1758088
Type: Working **Expires:** 01-JAN-10 **Solvent :** 2%HNO3/1%HCl - 1247304
Employee: Elizabeth Janssen
Supplier: 02SI
Description: ICPMS LINEAR RANGE STANDARD
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-60	Aluminum	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Arsenic	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Barium	250 mg/L	.5 mL	50 mL	2500 ug/L
UI091212-60	Beryllium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Cadmium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Calcium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Chromium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Cobalt	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Copper	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Iron	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Lead	500 mg/L	.5 mL	50 mL	5000 ug/L
UI091212-60	Lithium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Magnesium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Manganese	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Nickel	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Phosphorous	2500 mg/L	.5 mL	50 mL	25000 ug/L
UI091212-60	Potassium	5000 mg/L	.5 mL	50 mL	50000 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-60	Selenium	50 mg/L	.5 mL	50 mL	500 ug/L
UI091212-60	Sodium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Strontium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Thallium	50 mg/L	.5 mL	50 mL	500 ug/L
UI091212-60	Thorium	250 mg/L	.5 mL	50 mL	2500 ug/L
UI091212-60	Uranium	500 mg/L	.5 mL	50 mL	5000 ug/L
UI091212-60	Vanadium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Zinc	250 mg/L	.5 mL	50 mL	2500 ug/L
UI091212-61	Antimony	25 mg/L	.5 mL	50 mL	250 ug/L
UI091212-61	Molybdenum	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-61	Silver	25 mg/L	.5 mL	50 mL	250 ug/L
UI091212-61	Tin	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-61	Tungsten	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-61	Zirconium	50 mg/L	.5 mL	50 mL	500 ug/L

Serial ID: WMS100105-04B **Opened:** 05-JAN-10 **Amount :** 50 mL
Name: ICPMS Cal Standard 100 **Received:** 05-JAN-10 **Balance Id :** 40245216
Type: Working **Expires:** 06-JAN-10 **Pipet Id :** 1758088
Employee: Rose Jenkins **Solvent :** 2%HNO3/1%HCl- 1238829
Supplier: GEL
Description: ICPMS Calibration Standard (100 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090610-03	Tungsten	10 mg/L	.5 mL	50 mL	100 ug/L
UMS090303-01	Arsenic	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Barium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Beryllium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Boron	20 mg/L	.5	50 mL	200 ug/l
UMS090303-01	Cadmium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Chromium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Cobalt	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Copper	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Lead	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Lithium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Manganese	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Nickel	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Selenium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Silver	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Strontium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Thallium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Thorium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Uranium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Vanadium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Zinc	10 mg/L	.5	50 mL	100 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UMS090303-02	Aluminum	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Calcium	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Iron	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Magnesium	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Phosphorous	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Potassium	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Sodium	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-03	Antimony	10 mg/L	.5	50 mL	100 ug/l
UMS090303-03	Molybdenum	10 mg/L	.5	50 mL	100 ug/l
UMS090303-03	Tin	10 mg/L	.5	50 mL	100 ug/l
UMS090303-03	Titanium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-03	Zirconium	10 mg/L	.5	50 mL	100 ug/l

Serial ID: WMS100106-04 **Opened:** 06-JAN-10 **Amount :** 50 mL
Name: ICPMS Cal Standard 100 **Received:** 06-JAN-10 **Balance Id :** 4025216
Type: Working **Expires:** 07-JAN-10 **Pipet Id :** 3541598
Employee: Paul Boyd **Solvent :** 2%HNO3/1%HCl-1249336
Supplier: GEL
Description: ICPMS Calibration Standard (100 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090610-03	Tungsten	10 mg/L	.5 mL	50 mL	100 ug/L
UMS090303-01	Arsenic	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Barium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Beryllium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Boron	20 mg/L	.5 mL	50 mL	200 ug/l
UMS090303-01	Cadmium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Chromium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Cobalt	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Copper	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Lead	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Lithium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Manganese	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Nickel	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Selenium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Silver	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Strontium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Thallium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Thorium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Uranium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Vanadium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Zinc	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-02	Aluminum	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Calcium	1000 mg/L	.5 mL	50 mL	10000 ug/l

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Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UMS090303-02	Iron	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Magnesium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Phosphorous	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Potassium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Sodium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-03	Antimony	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Molybdenum	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Tin	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Titanium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Zirconium	10 mg/L	.5 mL	50 mL	100 ug/l

Serial ID: WMS100106-04A **Opened:** 06-JAN-10 **Balance Id :** 4025216
Name: ICPMS Cal Standard 10 **Received:** 06-JAN-10 **Pipet Id :** 3541598
Type: Working **Expires:** 06-JAN-10 **Solvent :** 2%HNO3/1%HCl - 1249336
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS Calibration Standard (10 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100105-04B	Aluminum	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100105-04B	Antimony	100 ug/l	5 mL	50 mL	10 ug/l
WMS100105-04B	Arsenic	100 ug/l	5 mL	50 mL	10 ug/l
WMS100105-04B	Barium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100105-04B	Beryllium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100105-04B	Boron	200 ug/l	5 mL	50 mL	20 ug/l
WMS100105-04B	Cadmium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100105-04B	Calcium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100105-04B	Chromium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100105-04B	Cobalt	100 ug/l	5 mL	50 mL	10 ug/l
WMS100105-04B	Copper	100 ug/l	5 mL	50 mL	10 ug/l
WMS100105-04B	Iron	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100105-04B	Lead	100 ug/l	5 mL	50 mL	10 ug/l
WMS100105-04B	Lithium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100105-04B	Magnesium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100105-04B	Manganese	100 ug/l	5 mL	50 mL	10 ug/l
WMS100105-04B	Molybdenum	100 ug/l	5 mL	50 mL	10 ug/l
WMS100105-04B	Nickel	100 ug/l	5 mL	50 mL	10 ug/l
WMS100105-04B	Phosphorous	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100105-04B	Potassium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100105-04B	Selenium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100105-04B	Silver	100 ug/l	5 mL	50 mL	10 ug/l
WMS100105-04B	Sodium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100105-04B	Strontium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100105-04B	Thallium	100 ug/l	5 mL	50 mL	10 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100105-04B	Thorium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100105-04B	Tin	100 ug/l	5 mL	50 mL	10 ug/l
WMS100105-04B	Titanium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100105-04B	Tungsten	100 ug/L	5 mL	50 mL	10 ug/L
WMS100105-04B	Uranium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100105-04B	Vanadium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100105-04B	Zinc	100 ug/l	5 mL	50 mL	10 ug/l
WMS100105-04B	Zirconium	100 ug/l	5 mL	50 mL	10 ug/l

Serial ID: WMS100106-05 **Opened:** 06-JAN-10 **Balance Id :** 40245216
Name: ICPMS ICV **Received:** 06-JAN-10 **Pipet Id :** 3541598
Type: Working **Expires:** 07-JAN-10 **Solvent :** 2%HNO3/1%HCl - 1249336
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-06	Aluminum	2020 mg/L	.125 mL	50 mL	5050 ug/L
UI091217-06	Calcium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Iron	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Magnesium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Phosphorous	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Potassium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Sodium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-07	Arsenic	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Barium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Beryllium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Boron	40 mg/L	.125 mL	50 mL	100 ug/L
UI091217-07	Cadmium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Chromium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Cobalt	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Copper	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lead	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lithium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Manganese	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Nickel	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Selenium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Strontium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thallium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thorium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Uranium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Vanadium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Zinc	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Antimony	20 mg/L	.125 mL	50 mL	50 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-08	Molybdenum	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Silver	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tin	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Titanium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tungsten	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Zirconium	20 mg/L	.125 mL	50 mL	50 ug/L

Serial ID: WMS100106-06 **Opened:** 06-JAN-10 **Balance Id :** 40245216
Name: ICPMS CRDL **Received:** 06-JAN-10 **Pipet Id :** 3820544
Type: Working **Expires:** 07-JAN-10 **Solvent :** 2%HNO3/1%HCl - 1249336
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS CRDL
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Aluminum	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Arsenic	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Barium	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Beryllium	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-09	Boron	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Cadmium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Calcium	100 mg/L	.05 mL	50 mL	100 ug/L
UI090701-09	Chromium	3 mg/L	.05 mL	50 mL	3 ug/L
UI090701-09	Cobalt	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Copper	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Iron	25 mg/L	.05 mL	50 mL	25 ug/L
UI090701-09	Lead	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Lithium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Magnesium	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Manganese	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Nickel	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Phosphorous	50 mg/L	.05 mL	50 mL	50 ug/L
UI090701-09	Potassium	300 mg/L	.05 mL	50 mL	300 ug/L
UI090701-09	Selenium	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Sodium	250 mg/L	.05 mL	50 mL	250 ug/L
UI090701-09	Strontium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Thallium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Thorium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Uranium	.2 mg/L	.05 mL	50 mL	.2 ug/L
UI090701-09	Vanadium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Zinc	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Antimony	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-10	Molybdenum	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-10	Silver	1 mg/L	.05 mL	50 mL	1 ug/L

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-10	Tin	2 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Titanium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Tungsten	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Zirconium	2 mg/L	.05 mL	50 mL	2 ug/L

Serial ID: WMS100106-07 **Opened:** 06-JAN-10 **Balance Id :** 40245216
Name: ICPMS ICSA **Received:** 06-JAN-10 **Lot Number :** 1010773
Type: Working **Expires:** 07-JAN-10 **Pipet Id :** 3541598
Employee: Paul Boyd **Solvent :** 2%HNO3/1%HCl - 1249336
Supplier: GEL
Description: ICPMS ICSA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI091212-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI091212-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: WMS100106-08 **Opened:** 06-JAN-10 **Balance Id :** 40245216
Name: ICPMS ICSAB **Received:** 06-JAN-10 **Pipet Id :** 1758088
Type: Working **Expires:** 07-JAN-10 **Solvent :** 2%HNO3/1%HCl - 1249336
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS ICSAB
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI091212-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI091212-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L
UI091217-12	Arsenic	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Barium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Beryllium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Boron	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Cadmium	2 mg/L	.5 mL	50 mL	20.2 ug/L
UI091217-12	Chromium	2 mg/L	.5 mL	50 mL	22.2 ug/L
UI091217-12	Cobalt	2 mg/L	.5 mL	50 mL	20.4 ug/L
UI091217-12	Copper	2 mg/L	.5 mL	50 mL	23.4 ug/L
UI091217-12	Lead	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Lithium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Manganese	2 mg/L	.5 mL	50 mL	22.7 ug/L
UI091217-12	Nickel	2 mg/L	.5 mL	50 mL	22.4 ug/L
UI091217-12	Selenium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Strontium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thallium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thorium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Uranium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Vanadium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Zinc	2 mg/L	.5 mL	50 mL	27 ug/L
UI091217-13	Antimony	2 mg/L	.5 mL	50 mL	20.5 ug/L
UI091217-13	Silver	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tin	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tungsten	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Zirconium	2 mg/L	.5 mL	50 mL	20 ug/L

Serial ID: WMS100106-70 **Opened:** 06-JAN-10 **Balance Id :** 40245216
Name: ICPMS LINEAR RANGE ST **Received:** 06-JAN-10 **Pipet Id :** 1758088
Type: Working **Expires:** 07-JAN-10 **Solvent :** 2%HNO3/1%HCl - 1249336
Employee: Paul Boyd
Supplier: 02SI
Description: ICPMS LINEAR RANGE STANDARD
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-60	Aluminum	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Arsenic	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Barium	250 mg/L	.5 mL	50 mL	2500 ug/L
UI091212-60	Beryllium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Cadmium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Calcium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Chromium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Cobalt	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Copper	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Iron	5000 mg/L	.5 mL	50 mL	50000 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-60	Lead	500 mg/L	.5 mL	50 mL	5000 ug/L
UI091212-60	Lithium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Magnesium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Manganese	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Nickel	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Phosphorous	2500 mg/L	.5 mL	50 mL	25000 ug/L
UI091212-60	Potassium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Selenium	50 mg/L	.5 mL	50 mL	500 ug/L
UI091212-60	Sodium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Strontium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Thallium	50 mg/L	.5 mL	50 mL	500 ug/L
UI091212-60	Thorium	250 mg/L	.5 mL	50 mL	2500 ug/L
UI091212-60	Uranium	500 mg/L	.5 mL	50 mL	5000 ug/L
UI091212-60	Vanadium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Zinc	250 mg/L	.5 mL	50 mL	2500 ug/L
UI091212-61	Antimony	25 mg/L	.5 mL	50 mL	250 ug/L
UI091212-61	Molybdenum	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-61	Silver	25 mg/L	.5 mL	50 mL	250 ug/L
UI091212-61	Tin	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-61	Tungsten	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-61	Zirconium	50 mg/L	.5 mL	50 mL	500 ug/L

Serial ID: 1156689-A **Opened:** 20-JUL-09 **Lot Number :** 41226920
Name: B-KMnO4(VWR)-MER **Received:** 20-JUL-09
Type: Reagent/Solvent **Expires:** 20-JUL-10
Employee: Tara Griffin **Verified:** 07-AUG-07
Supplier: VWR
Description: Potassium Permanganate
Comments: None

Serial ID: 1164796-A **Opened:** 06-AUG-09 **Lot Number :** 49149927
Name: B-NH2OH.HCl-MER **Received:** 06-AUG-09
Type: Reagent/Solvent **Expires:** 06-AUG-10
Employee: Tara Griffin
Supplier: Fisher Scientific
Description: Hydroxlyamine Hydrochloride
Comments: None

Serial ID: 1203655-02 **Opened:** 15-OCT-09 **Lot Number :** ZU74081198 mL
Name: B-H2O2 **Received:** 15-OCT-09
Type: Reagent/Solvent **Expires:** 15-OCT-10
Employee: Francena Armstrong
Supplier: EM SCIENCE

Description: Hydrogen Peroxide 30%
Comments: None

Serial ID: 1206350-C **Opened:** 22-OCT-09 **Balance Id :** BAL-002
Name: B-NaCl.NH2OH.HCl-MER **Received:** 22-OCT-09
Type: Reagent/Solvent **Expires:** 06-AUG-10
Employee: Tara Griffin
Supplier: GEL
Description: Hg reducing agent
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1164796-A	B-NH2OH.HCl-MER	N/A	120 g	1000 mL	N/A

Serial ID: 1236355-A **Opened:** 01-DEC-09 **Lot Number :** 200930201
Name: B-HCl-MER **Received:** 01-DEC-09
Type: Reagent/Solvent **Expires:** 01-DEC-10
Employee: Tara Griffin
Supplier: Aristar
Description: Hydrochloric Acid Conc.
Comments: None

Serial ID: 1238343 **Opened:** 04-DEC-09 **Lot Number :** H41032
Name: I-HCL **Received:** 04-DEC-09 **Preservative_Id :** 5 none
Type: Reagent/Solvent **Expires:** 04-DEC-10
Employee: Francena Armstrong
Supplier: J.T. BAKER
Description: HYDROCHLORIC ACID
Comments: None

Serial ID: 1238345 **Opened:** 04-DEC-09 **Lot Number :** H20053 L
Name: I-HNO3 **Received:** 04-DEC-09
Type: Reagent/Solvent **Expires:** 04-DEC-10
Employee: Francena Armstrong
Supplier: BAKER
Description: Nitric Acid CONC.
Comments: None

Standard Logbook

Serial ID: 1240182-1 **Opened:** 09-DEC-09 **Instrument Id :** MERCURY
Name: B-HNO3-MER **Received:** 09-DEC-09 **Lot Number :** H34040
Type: Reagent/Solvent **Expires:** 09-DEC-10
Employee: Tara Griffin
Supplier: Mallinckrodt Chemicals
Description: NITRIC ACID
Comments: None

Serial ID: 1242318 **Opened:** 14-DEC-09 **Amount :** 20 L
Name: B-ICP-RINSE SOLN **Received:** 01-DEC-09 **Lot Number :** H04040+G34050
Type: Reagent/Solvent **Expires:** 20-DEC-09 **Solvent :** 3%HCL+1%HNO3
Employee: Helen Camello
Supplier: GEL
Description: 3%HCL+1%HNO3 RINSE SOLN.
Comments: None

Serial ID: 1244904-C **Opened:** 18-DEC-09 **Balance Id :** BAL-002
Name: B-KMnO4-MER **Received:** 18-DEC-09
Type: Reagent/Solvent **Expires:** 18-JUN-10
Employee: Tara Griffin
Supplier: GEL
Description: 5% KMnO4 solution
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1156689-A	B-KMnO4(VWR)-MER	Crystals	50 g	1000 mL	3%

Serial ID: 1244970 **Opened:** 18-DEC-09 **Lot Number :** H41032
Name: I-HCL **Received:** 18-DEC-09 **Preservative_Id :** 5 none
Type: Reagent/Solvent **Expires:** 18-DEC-10
Employee: Francena Armstrong
Supplier: J.T. BAKER
Description: HYDROCHLORIC ACID
Comments: None

Serial ID: 1247304 **Opened:** 28-DEC-09 **Solvent :** Type I Water
Name: B-2%HNO3/1%HCl-ICPMS **Received:** 28-DEC-09
Type: Reagent/Solvent **Expires:** 04-JAN-10
Employee: Elizabeth Janssen
Supplier: GEL
Description: 2%HNO3/1%HCl Solution (Type I Water)
Comments: None

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1238345	I-HNO3	69.0-70.0	180 mL	9 l	N/A
1244970	I-HCL	36.5-38.0	90 mL	9 l	N/A

Serial ID: 1249336 **Opened:** 04-JAN-10 **Solvent :** Type I Water
Name: B-2%HNO3/1%HCl-ICPMS **Received:** 04-JAN-10
Type: Reagent/Solvent **Expires:** 11-JAN-10
Employee: Paul Boyd
Supplier: GEL
Description: 2%HNO3/1%HCl Solution (Type I Water)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1238345	I-HNO3	69.0-70.0	180 mL	9 l	N/A
1244970	I-HCL	36.5-38.0	90 mL	9 l	N/A

General Chemistry Analysis

Case Narrative

General Chemistry Narrative
Los Alamos National Laboratory (LANL)
SDG 10-853

Method/Analysis Information

Product:	**Cyanide, Total**		
Analytical Batch:	931336 and 932514	**Method:**	SW846 9012A
Prep Batch :	931334 and 932513	**Method:**	SW846 9010B Prep

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 9012A:

Sample ID	Client ID
242661001	RE03-09-14224
242661002	RE03-09-14227
242661003	RE03-09-14225
242661004	RE03-09-14226
242661005	RE03-09-14288
242661006	RE03-09-14287
242661007	RE03-09-14267
242661008	RE03-09-14265
242661009	RE03-09-14281
242661010	RE03-09-14284
242661011	RE03-09-14274
242661012	RE03-09-14277
242661013	RE03-09-14282
242661014	RE03-09-14269
242661015	RE03-09-14273
242661016	RE03-09-14271
242661017	RE03-09-14278
242661018	RE03-09-14285
242661019	RE03-09-14286
242661020	RE03-09-14283
1201992111	Method Blank (MB)
1201992112	242435001(RE16-10-280) Sample Duplicate (DUP)
1201992113	242435001(RE16-10-280) Matrix Spike (MS)
1201992114	242435001(RE16-10-280) Matrix Spike Duplicate (MSD)
1201992115	Laboratory Control Sample (LCS)
1201994710	242661001(RE03-09-14224) Sample Duplicate (DUP)
1201994711	242661001(RE03-09-14224) Matrix Spike (MS)
1201994712	242661001(RE03-09-14224) Matrix Spike Duplicate (MSD)
1201994713	Method Blank (MB)
1201994714	242661012(RE03-09-14277) Sample Duplicate (DUP)
1201994715	242661013(RE03-09-14282) Sample Duplicate (DUP)
1201994716	242661012(RE03-09-14277) Matrix Spike (MS)
1201994717	242661013(RE03-09-14282) Matrix Spike (MS)
1201994718	242661012(RE03-09-14277) Matrix Spike Duplicate (MSD)
1201994719	242661013(RE03-09-14282) Matrix Spike Duplicate (MSD)
1201994720	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on a "dry weight" basis.

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-095 REV# 12.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

The Flow Injection analysis was performed on a Lachat QuickChem FIA+ 8000 Series.

Initial Calibration

All initial calibration requirements have been met for this SDG.

Continuing Calibration Blanks

All continuing calibration blanks (CCBs) associated with reported data from this batch were within acceptance limits.

Calibration Verification Information (CCV)

All continuing calibration verification standards (CCVs) associated with reported data from this batch were within acceptance limits.

Y Intercept Rule

The absolute value of the intercept is less than 3 times the MDL.

Quality Control (QC) Information

Method Blank (MB) Statement

The MBs analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery

The LCS spike recoveries met the acceptance limits.

Quality Control (QC) Designation

The following samples were selected for QC analysis: 242435001 (RE16-10-280), 242661001 (RE03-09-14224)- Batch 931336, 242661012 (RE03-09-14277) and 242661013 (RE03-09-14282)- Batch 932514.

Matrix Spike (MS)/Post Spike (PS) Recovery Statement

The MS/PS recoveries for this sample set were within the required acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement

The MSD recoveries for this sample set were within the required acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement

The RPDs between the spike and spike duplicate met the acceptance limits.

Duplicate Relative Percent Difference (RPD) Statement

The RPD between the sample and its duplicate met the acceptance limits.

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times
All samples in this SDG met the specified holding time.

Sample Preservation/Integrity
All the samples from this sample group met the preservation and integrity requirements of the method.

Sample Dilutions
The following samples in this sample group were diluted due to high concentration: 1201992115 (LCS)- Batch 931336 and 1201994720 (LCS)- Batch 932514.

Sample Re-analysis
The samples in this SDG did not require re-analysis.

Miscellaneous Information

Nonconformance (NCR) Documentation
An NCR was not required for this SDG.

Additional Comments
Additional comments were not required for this SDG.

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:
Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Tom Lewis, Jr. **Date:** 05Jan10

Sample Data Summary

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis Report
for

LANL010 Los Alamos National Laboratory (72733-001-09)

Client SDG: 10-853 GEL Work Order: 242661

The Qualifiers in this report are defined as follows:

* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.

** Indicates the analyte is a surrogate compound.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the detection limit.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Valerie Davis.

Reviewed by _____

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: December 22, 2009

Client SDG: 10-853

Client Sample ID:	RE03-09-14285	Project:	LANL01004
Sample ID:	242661018	Client ID:	LANL010
Matrix:	S		
Collect Date:	07-DEC-09 12:00		
Receive Date:	10-DEC-09		
Collector:	Client		
Moisture:	14%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total Federal "Dry Weight Corrected"										
Cyanide, Total	U	ND	79.1	291	ug/kg	1	AXC2 12/15/09	1011	932514	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	SXJ1	12/14/09	1200	932513

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: December 22, 2009

Client SDG: 10-853

Client Sample ID:	RE03-09-14286	Project:	LANL01004
Sample ID:	242661019	Client ID:	LANL010
Matrix:	S		
Collect Date:	07-DEC-09 12:00		
Receive Date:	10-DEC-09		
Collector:	Client		
Moisture:	13%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total Federal "Dry Weight Corrected"										
Cyanide, Total	U	ND	73.8	271	ug/kg	1	AXC2 12/15/09	1012	932514	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	SXJ1	12/14/09	1200	932513

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Project: **LANL ER Project**

Report Date: December 22, 2009

Client SDG: 10-853

Client Sample ID:	RE03-09-14283	Project:	LANL01004
Sample ID:	242661020	Client ID:	LANL010
Matrix:	S		
Collect Date:	07-DEC-09 12:00		
Receive Date:	10-DEC-09		
Collector:	Client		
Moisture:	17.8%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total Federal "Dry Weight Corrected"										
Cyanide, Total	U	ND	72.6	267	ug/kg	1	AXC2 12/15/09	1013	932514	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	SXJ1	12/14/09	1200	932513

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Project: **LANL ER Project**

Report Date: December 22, 2009

Client SDG: 10-853

Client Sample ID:	RE03-09-14224	Project:	LANL01004
Sample ID:	242661001	Client ID:	LANL010
Matrix:	S		
Collect Date:	07-DEC-09 12:00		
Receive Date:	10-DEC-09		
Collector:	Client		
Moisture:	13.1%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total Federal "Dry Weight Corrected"										
Cyanide, Total	J	156	78.2	288	ug/kg	1	AXC2 12/16/09	1342	931336	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	EXF1	12/16/09	1244	931334

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Project: **LANL ER Project**

Report Date: December 22, 2009

Client SDG: 10-853

Client Sample ID:	RE03-09-14227	Project:	LANL01004
Sample ID:	242661002	Client ID:	LANL010
Matrix:	S		
Collect Date:	07-DEC-09 12:00		
Receive Date:	10-DEC-09		
Collector:	Client		
Moisture:	9.69%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total Federal "Dry Weight Corrected"										
Cyanide, Total	U	ND	75.3	277	ug/kg	1	AXC2 12/16/09	1345	931336	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	EXF1	12/16/09	1244	931334

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Project: **LANL ER Project**

Report Date: December 22, 2009

Client SDG: 10-853

Client Sample ID:	RE03-09-14225	Project:	LANL01004
Sample ID:	242661003	Client ID:	LANL010
Matrix:	S		
Collect Date:	07-DEC-09 12:00		
Receive Date:	10-DEC-09		
Collector:	Client		
Moisture:	10.6%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total Federal "Dry Weight Corrected"										
Cyanide, Total	U	ND	76.1	280	ug/kg	1	AXC2 12/16/09	1346	931336	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	EXF1	12/16/09	1244	931334

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Project: **LANL ER Project**

Report Date: December 22, 2009

Client SDG: 10-853

Client Sample ID:	RE03-09-14226	Project:	LANL01004
Sample ID:	242661004	Client ID:	LANL010
Matrix:	S		
Collect Date:	07-DEC-09 12:00		
Receive Date:	10-DEC-09		
Collector:	Client		
Moisture:	10.6%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total Federal "Dry Weight Corrected"										
Cyanide, Total	U	ND	76.1	280	ug/kg	1	AXC2 12/16/09	1351	931336	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	EXF1	12/16/09	1244	931334

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Project: **LANL ER Project**

Report Date: December 22, 2009

Client SDG: 10-853

Client Sample ID:	RE03-09-14288	Project:	LANL01004
Sample ID:	242661005	Client ID:	LANL010
Matrix:	S		
Collect Date:	07-DEC-09 12:00		
Receive Date:	10-DEC-09		
Collector:	Client		
Moisture:	4.88%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total Federal "Dry Weight Corrected"										
Cyanide, Total	U	ND	71.5	263	ug/kg	1	AXC2 12/16/09	1352	931336	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	EXF1	12/16/09	1244	931334

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Project: **LANL ER Project**

Report Date: December 22, 2009

Client SDG: 10-853

Client Sample ID:	RE03-09-14287	Project:	LANL01004
Sample ID:	242661006	Client ID:	LANL010
Matrix:	S		
Collect Date:	07-DEC-09 12:00		
Receive Date:	10-DEC-09		
Collector:	Client		
Moisture:	8.95%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total Federal "Dry Weight Corrected"										
Cyanide, Total	J	165	74.7	275	ug/kg	1	AXC2 12/16/09	1352	931336	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	EXF1	12/16/09	1244	931334

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Project: **LANL ER Project**

Report Date: December 22, 2009

Client SDG: 10-853

Client Sample ID:	RE03-09-14267	Project:	LANL01004
Sample ID:	242661007	Client ID:	LANL010
Matrix:	S		
Collect Date:	07-DEC-09 12:00		
Receive Date:	10-DEC-09		
Collector:	Client		
Moisture:	13%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total Federal "Dry Weight Corrected"										
Cyanide, Total	J	98.3	78.2	287	ug/kg	1	AXC2 12/16/09	1353	931336	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	EXF1	12/16/09	1244	931334

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Project: **LANL ER Project**

Report Date: December 22, 2009

Client SDG: 10-853

Client Sample ID:	RE03-09-14265	Project:	LANL01004
Sample ID:	242661008	Client ID:	LANL010
Matrix:	S		
Collect Date:	07-DEC-09 12:00		
Receive Date:	10-DEC-09		
Collector:	Client		
Moisture:	14.6%		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Flow Injection Analysis											
SW9012A Cyanide, Total Federal "Dry Weight Corrected"											
Cyanide, Total	U	ND	79.7	293	ug/kg	1	AXC2	12/16/09	1354	931336	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	EXF1	12/16/09	1244	931334

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: December 22, 2009

Client SDG: 10-853

Client Sample ID:	RE03-09-14281	Project:	LANL01004
Sample ID:	242661009	Client ID:	LANL010
Matrix:	S		
Collect Date:	07-DEC-09 12:00		
Receive Date:	10-DEC-09		
Collector:	Client		
Moisture:	13.9%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total Federal "Dry Weight Corrected"										
Cyanide, Total	U	ND	79.0	290	ug/kg	1	AXC2 12/16/09	1355	931336	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	EXF1	12/16/09	1244	931334

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Project: **LANL ER Project**

Report Date: December 22, 2009

Client SDG: 10-853

Client Sample ID:	RE03-09-14284	Project:	LANL01004
Sample ID:	242661010	Client ID:	LANL010
Matrix:	S		
Collect Date:	07-DEC-09 12:00		
Receive Date:	10-DEC-09		
Collector:	Client		
Moisture:	12.1%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total Federal "Dry Weight Corrected"										
Cyanide, Total	U	ND	77.4	284	ug/kg	1	AXC2 12/16/09	1356	931336	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	EXF1	12/16/09	1244	931334

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Project: **LANL ER Project**

Report Date: December 22, 2009

Client SDG: 10-853

Client Sample ID:	RE03-09-14274	Project:	LANL01004
Sample ID:	242661011	Client ID:	LANL010
Matrix:	S		
Collect Date:	07-DEC-09 12:00		
Receive Date:	10-DEC-09		
Collector:	Client		
Moisture:	3.58%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total Federal "Dry Weight Corrected"										
Cyanide, Total	U	ND	70.5	259	ug/kg	1	AXC2 12/16/09	1357	931336	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	EXF1	12/16/09	1244	931334

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Project: **LANL ER Project**

Report Date: December 22, 2009

Client SDG: 10-853

Client Sample ID:	RE03-09-14277	Project:	LANL01004
Sample ID:	242661012	Client ID:	LANL010
Matrix:	S		
Collect Date:	07-DEC-09 12:00		
Receive Date:	10-DEC-09		
Collector:	Client		
Moisture:	9.96%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total Federal "Dry Weight Corrected"										
Cyanide, Total	U	ND	66.2	244	ug/kg	1	AXC2 12/15/09	0957	932514	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	SXJ1	12/14/09	1200	932513

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: December 22, 2009

Client SDG: 10-853

Client Sample ID:	RE03-09-14282	Project:	LANL01004
Sample ID:	242661013	Client ID:	LANL010
Matrix:	S		
Collect Date:	07-DEC-09 12:00		
Receive Date:	10-DEC-09		
Collector:	Client		
Moisture:	13.9%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total Federal "Dry Weight Corrected"										
Cyanide, Total	U	ND	70.5	259	ug/kg	1	AXC2 12/15/09	1000	932514	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	SXJ1	12/14/09	1200	932513

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Project: **LANL ER Project**

Report Date: December 22, 2009

Client SDG: 10-853

Client Sample ID:	RE03-09-14269	Project:	LANL01004
Sample ID:	242661014	Client ID:	LANL010
Matrix:	S		
Collect Date:	07-DEC-09 12:00		
Receive Date:	10-DEC-09		
Collector:	Client		
Moisture:	13.4%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total Federal "Dry Weight Corrected"										
Cyanide, Total	U	ND	78.6	289	ug/kg	1	AXC2 12/15/09	1007	932514	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	SXJ1	12/14/09	1200	932513

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: December 22, 2009

Client SDG: 10-853

Client Sample ID:	RE03-09-14273	Project:	LANL01004
Sample ID:	242661015	Client ID:	LANL010
Matrix:	S		
Collect Date:	07-DEC-09 12:00		
Receive Date:	10-DEC-09		
Collector:	Client		
Moisture:	9.79%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total Federal "Dry Weight Corrected"										
Cyanide, Total	U	ND	68.5	252	ug/kg	1	AXC2 12/15/09	1008	932514	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	SXJ1	12/14/09	1200	932513

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Certificate of Analysis

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: December 22, 2009

Client SDG: 10-853

Client Sample ID:	RE03-09-14271	Project:	LANL01004
Sample ID:	242661016	Client ID:	LANL010
Matrix:	S		
Collect Date:	07-DEC-09 12:00		
Receive Date:	10-DEC-09		
Collector:	Client		
Moisture:	14.4%		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Flow Injection Analysis											
SW9012A Cyanide, Total Federal "Dry Weight Corrected"											
Cyanide, Total	J	89.3	75.0	276	ug/kg	1	AXC2	12/15/09	1009	932514	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	SXJ1	12/14/09	1200	932513

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: December 22, 2009

Client SDG: 10-853

Client Sample ID:	RE03-09-14278	Project:	LANL01004
Sample ID:	242661017	Client ID:	LANL010
Matrix:	S		
Collect Date:	07-DEC-09 12:00		
Receive Date:	10-DEC-09		
Collector:	Client		
Moisture:	7.54%		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Flow Injection Analysis											
SW9012A Cyanide, Total Federal "Dry Weight Corrected"											
Cyanide, Total	U	ND	66.9	246	ug/kg	1	AXC2	12/15/09	1010	932514	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	SXJ1	12/14/09	1200	932513

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

Quality Control Summary

GEL LABORATORIES LLC

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QC Summary

Report Date: December 22, 2009
Page 1 of 2

Los Alamos National Laboratory
PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico

Contact: Ms. Joylene Valdez

Workorder: 242661

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Flow Injection Analysis										
Batch 931336										
QC1201992112 242435001 DUP										
Cyanide, Total		450		563	ug/kg	22.3 ^		(+/-287)	AXC2	12/16/09 13:28
QC1201994710 242661001 DUP										
Cyanide, Total	J	156	J	119	ug/kg	26.8 ^		(+/-288)		12/16/09 13:43
QC1201992115 LCS										
Cyanide, Total	67800			84900	ug/kg		125	(46%-145%)		12/16/09 13:27
QC1201992111 MB										
Cyanide, Total			U	250	ug/kg					12/16/09 13:26
QC1201992113 242435001 MS										
Cyanide, Total	5740	450		4810	ug/kg		76.1	(50%-130%)		12/16/09 13:29
QC1201994711 242661001 MS										
Cyanide, Total	5750 J	156		5530	ug/kg		93.5	(50%-130%)		12/16/09 13:43
QC1201992114 242435001 MSD										
Cyanide, Total	5740	450		5670	ug/kg	16.3	91	(0%-30%)		12/16/09 13:30
QC1201994712 242661001 MSD										
Cyanide, Total	5750 J	156		5580	ug/kg	0.828	94.3	(0%-30%)		12/16/09 13:44
Batch 932514										
QC1201994714 242661012 DUP										
Cyanide, Total	U	ND	U	ND	ug/kg	N/A			AXC2	12/15/09 09:58
QC1201994715 242661013 DUP										
Cyanide, Total	U	ND	U	ND	ug/kg	N/A				12/15/09 10:01
QC1201994720 LCS										
Cyanide, Total	67900			80000	ug/kg		118	(46%-145%)		12/15/09 09:49
QC1201994713 MB										
Cyanide, Total			U	250	ug/kg					12/15/09 09:48
QC1201994716 242661012 MS										
Cyanide, Total	5550 U	ND		4350	ug/kg		78.3	(50%-130%)		12/15/09 09:59
QC1201994717 242661013 MS										
Cyanide, Total	5810 U	ND		5580	ug/kg		96.2	(50%-130%)		12/15/09 10:02
QC1201994718 242661012 MSD										
Cyanide, Total	5340 U	ND		4710	ug/kg	7.98	88.2	(0%-30%)		12/15/09 09:59
QC1201994719 242661013 MSD										
Cyanide, Total	5480 U	ND		5310	ug/kg	5.00	97	(0%-30%)		12/15/09 10:03

Notes:
RER is calculated at the 95% confidence level (2-sigma).
The Qualifiers in this report are defined as follows:

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product

QC Summary

Workorder: 242661

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time

B	For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD	Results are either below the MDC or tracer recovery is low
C	Analyte has been confirmed by GC/MS analysis
D	Results are reported from a diluted aliquot of the sample
E	Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
F	Estimated Value
H	Analytical holding time was exceeded
J	Value is estimated
M	M if above MDC and less than LLD
M	Matrix Related Failure
N/A	RPD or %Recovery limits do not apply.
ND	Analyte concentration is not detected above the detection limit
NJ	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R	Sample results are rejected
U	Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI	Gamma Spectroscopy--Uncertain identification
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
Z	Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d	5-day BOD--The 2:1 depletion requirement was not met for this sample
h	Preparation or preservation holding time was exceeded

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more.
^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.
* Indicates that a Quality Control parameter was not within specifications.
For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

Instrument QC Data Summary

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Report Run On: 22-DEC-2009 09:47

GEL Laboratories LLC

Contract: LANL01004

SDG #: 10-853

Flow Injection Analysis

Method: SW846 9012A Concentration Units:ug/L

Instrument: Lachat QuickChem FIA+ 8000 Series

Parmname: Cyanide, Total

Sample Type	Run Date	Data File	Result	Nominal	Recovery	Limits	Within Limits
ICV	**15-DEC-2009 09:12:44**	**OM_12-15-2009_09-02-12**	**138**	**150**	**92**	**(90%-110%)**	**Yes**
CCV	15-DEC-2009 09:39:27	OM_12-15-2009_09-02-12	99.1	100	99	(90%-110%)	Yes
CCV	15-DEC-2009 09:51:48	OM_12-15-2009_09-02-12	98.6	100	99	(90%-110%)	Yes
CCV	15-DEC-2009 10:04:19	OM_12-15-2009_09-02-12	99.3	100	99	(90%-110%)	Yes
CCV	15-DEC-2009 10:16:47	OM_12-15-2009_09-02-12	99.3	100	99	(90%-110%)	Yes
ICV	**16-DEC-2009 09:10:10**	**OM_12-16-2009_08-59-38**	**142**	**150**	**95**	**(90%-110%)**	**Yes**
CCV	16-DEC-2009 13:22:35	OM_12-16-2009_13-19-13	96.4	100	96	(90%-110%)	Yes
CCV	16-DEC-2009 13:35:03	OM_12-16-2009_13-19-13	98.7	100	99	(90%-110%)	Yes
CCV	16-DEC-2009 13:47:29	OM_12-16-2009_13-19-13	101	100	101	(90%-110%)	Yes
CCV	16-DEC-2009 13:59:53	OM_12-16-2009_13-19-13	103	100	103	(90%-110%)	Yes

Sample Type	Run Date	Data File	Result	Limits	Within Limits
ICB	**15-DEC-2009 09:14:34**	**OM_12-15-2009_09-02-12**	**2.48**	**5**	**Yes**
CCB	15-DEC-2009 09:41:16	OM_12-15-2009_09-02-12	-2.89	5	Yes
CCB	15-DEC-2009 09:53:38	OM_12-15-2009_09-02-12	-1.54	5	Yes
CCB	15-DEC-2009 10:06:09	OM_12-15-2009_09-02-12	-1.54	5	Yes
CCB	15-DEC-2009 10:18:38	OM_12-15-2009_09-02-12	-2.75	5	Yes
ICB	**16-DEC-2009 09:12:00**	**OM_12-16-2009_08-59-38**	**-1.32**	**5**	**Yes**
CCB	16-DEC-2009 13:24:26	OM_12-16-2009_13-19-13	-0.809	5	Yes
CCB	16-DEC-2009 13:36:54	OM_12-16-2009_13-19-13	-0.805	5	Yes
CCB	16-DEC-2009 13:49:20	OM_12-16-2009_13-19-13	-0.779	5	Yes
CCB	16-DEC-2009 14:01:44	OM_12-16-2009_13-19-13	-0.843	5	Yes

Cyanide, Total

Prep LogBook

Analyst: SXJ1 Verified by:_____

Batch: 932513

Lab SOP: GL-GC-E-067 REV# 13

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1201994720	URF1200957-01	.25	g
MS	1201994716	URF1184831-02	.025	mL
MS	1201994717	URF1184831-02	.025	mL
MSD	1201994718	URF1184831-02	.025	mL
MSD	1201994719	URF1184831-02	.025	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Ph	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1201994713		SW846 9010B Prep	14-DEC-2009 12:00	>12	0.5 g	25 mL	50	SOIL
LCS	1201994720		SW846 9010B Prep	14-DEC-2009 12:00	>12	0.25 g	25 mL	100	SOIL
SAMPLE	242441002		SW846 9010B Prep	14-DEC-2009 12:00	>12	0.543 g	25 mL	46.04052	OIL
SAMPLE	242441003		SW846 9010B Prep	14-DEC-2009 12:00	>12	0.533 g	25 mL	46.90432	OIL
SAMPLE	242565001		SW846 9010C Distillation	14-DEC-2009 12:00	>12	0.568 g	25 mL	44.01408	SOLID
SAMPLE	242567001		SW846 9010C Distillation	14-DEC-2009 12:00	>12	0.535 g	25 mL	46.72897	SOLID
SAMPLE	242661012		SW846 9010B Prep	14-DEC-2009 12:00	>12	0.57 g	25 mL	43.85965	SOIL
DUP	1201994714	242661012	SW846 9010B Prep	14-DEC-2009 12:00	>12	0.5 g	25 mL	50	SOIL
MS	1201994716	242661012	SW846 9010B Prep	14-DEC-2009 12:00	>12	0.5 g	25 mL	50	SOIL
MSD	1201994718	242661012	SW846 9010B Prep	14-DEC-2009 12:00	>12	0.52 g	25 mL	48.07692	SOIL
SAMPLE	242661013		SW846 9010B Prep	14-DEC-2009 12:00	>12	0.56 g	25 mL	44.64286	SOIL
DUP	1201994715	242661013	SW846 9010B Prep	14-DEC-2009 12:00	>12	0.56 g	25 mL	44.64286	SOIL
MS	1201994717	242661013	SW846 9010B Prep	14-DEC-2009 12:00	>12	0.5 g	25 mL	50	SOIL
MSD	1201994719	242661013	SW846 9010B Prep	14-DEC-2009 12:00	>12	0.53 g	25 mL	47.16981	SOIL
SAMPLE	242661014		SW846 9010B Prep	14-DEC-2009 12:00	>12	0.5 g	25 mL	50	SOIL
SAMPLE	242661015		SW846 9010B Prep	14-DEC-2009 12:00	>12	0.55 g	25 mL	45.45455	SOIL
SAMPLE	242661016		SW846 9010B Prep	14-DEC-2009 12:00	>12	0.53 g	25 mL	47.16981	SOIL
SAMPLE	242661017		SW846 9010B Prep	14-DEC-2009 12:00	>12	0.55 g	25 mL	45.45455	SOIL
SAMPLE	242661018		SW846 9010B Prep	14-DEC-2009 12:00	>12	0.5 g	25 mL	50	SOIL
SAMPLE	242661019		SW846 9010B Prep	14-DEC-2009 12:00	>12	0.53 g	25 mL	47.16981	SOIL
SAMPLE	242661020		SW846 9010B Prep	14-DEC-2009 12:00	>12	0.57 g	25 mL	43.85965	SOIL
SAMPLE	242668001		SW846 9010B Prep	14-DEC-2009 12:00	>12	0.56 g	25 mL	44.64286	SOIL
SAMPLE	242668002		SW846 9010B Prep	14-DEC-2009 12:00	>12	0.51 g	25 mL	49.01961	SOIL
SAMPLE	242743002		SW846 9010B Prep	14-DEC-2009 12:00	>12	0.57 g	25 mL	43.85965	SOIL
SAMPLE	242748001		SW846 9010B Prep	14-DEC-2009 12:00	>12	0.51 g	25 mL	49.01961	SOIL
SAMPLE	242748002		SW846 9010B Prep	14-DEC-2009 12:00	>12	0.52 g	25 mL	48.07692	SOIL
SAMPLE	242750001		SW846 9010B Prep	14-DEC-2009 12:00	>12	0.54 g	25 mL	46.2963	SOIL
SAMPLE	242792001		SW846 9010B Prep	14-DEC-2009 12:00	>12	0.53 g	25 mL	47.16981	SOIL

Prep LogBook

Reagent/Solvent Lot ID	Amount	Description	Comments
091211-C	25 mL	0.25N Sodium Hydroxide Solution	
1176724-C	1.25 mL	0.8N H3NO3S	
1238146-C	2.5 mL	50% H2SO4 CN Prep	
1176778-C	1 mL	51% MgCl2 Soln	
1238142-C	1.25 mL	Bismuth Nitrate Solution	

Prep LogBook

Analyst: EXF1 Verified by:_____

Batch: 931334

Lab SOP: GL-GC-E-067 REV# 13

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1201992115	URF1200957-01	.25	g
MS	1201992113	URF1184831-02	.025	mL
MS	1201994711	URF1184831-02	.025	mL
MSD	1201992114	URF1184831-02	.025	mL
MSD	1201994712	URF1184831-02	.025	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Ph	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1201992111		SW846 9010B Prep	16-DEC-2009 12:44	>12	0.5 g	25 mL	50	SOIL
LCS	1201992115		SW846 9010B Prep	16-DEC-2009 12:44	>12	0.2504 g	25 mL	99.84026	SOIL
SAMPLE	242435001		SW846 9010B Prep	16-DEC-2009 12:44	>12	0.5 g	25 mL	50	SOIL
DUP	1201992112	242435001	SW846 9010B Prep	16-DEC-2009 12:44	>12	0.5 g	25 mL	50	SOIL
MS	1201992113	242435001	SW846 9010B Prep	16-DEC-2009 12:44	>12	0.5 g	25 mL	50	SOIL
MSD	1201992114	242435001	SW846 9010B Prep	16-DEC-2009 12:44	>12	0.5 g	25 mL	50	SOIL
SAMPLE	242435002		SW846 9010B Prep	16-DEC-2009 12:44	>12	0.5 g	25 mL	50	SOIL
SAMPLE	242435003		SW846 9010B Prep	16-DEC-2009 12:44	>12	0.5 g	25 mL	50	SOIL
SAMPLE	242435004		SW846 9010B Prep	16-DEC-2009 12:44	>12	0.5 g	25 mL	50	SOIL
SAMPLE	242435005		SW846 9010B Prep	16-DEC-2009 12:44	>12	0.5 g	25 mL	50	SOIL
SAMPLE	242435006		SW846 9010B Prep	16-DEC-2009 12:44	>12	0.5 g	25 mL	50	SOIL
SAMPLE	242435007		SW846 9010B Prep	16-DEC-2009 12:44	>12	0.5 g	25 mL	50	SOIL
SAMPLE	242447002		SW846 9010B Prep	16-DEC-2009 12:44	>12	0.5 g	25 mL	50	SOIL
SAMPLE	242447003		SW846 9010B Prep	16-DEC-2009 12:44	>12	0.5 g	25 mL	50	SOIL
SAMPLE	242661001		SW846 9010B Prep	16-DEC-2009 12:44	>12	0.5 g	25 mL	50	SOIL
DUP	1201994710	242661001	SW846 9010B Prep	16-DEC-2009 12:44	>12	0.5 g	25 mL	50	SOIL
MS	1201994711	242661001	SW846 9010B Prep	16-DEC-2009 12:44	>12	0.5 g	25 mL	50	SOIL
MSD	1201994712	242661001	SW846 9010B Prep	16-DEC-2009 12:44	>12	0.5 g	25 mL	50	SOIL
SAMPLE	242661002		SW846 9010B Prep	16-DEC-2009 12:44	>12	0.5 g	25 mL	50	SOIL
SAMPLE	242661003		SW846 9010B Prep	16-DEC-2009 12:44	>12	0.5 g	25 mL	50	SOIL
SAMPLE	242661004		SW846 9010B Prep	16-DEC-2009 12:44	>12	0.5 g	25 mL	50	SOIL
SAMPLE	242661005		SW846 9010B Prep	16-DEC-2009 12:44	>12	0.5 g	25 mL	50	SOIL
SAMPLE	242661006		SW846 9010B Prep	16-DEC-2009 12:44	>12	0.5 g	25 mL	50	SOIL
SAMPLE	242661007		SW846 9010B Prep	16-DEC-2009 12:44	>12	0.5 g	25 mL	50	SOIL
SAMPLE	242661008		SW846 9010B Prep	16-DEC-2009 12:44	>12	0.5 g	25 mL	50	SOIL
SAMPLE	242661009		SW846 9010B Prep	16-DEC-2009 12:44	>12	0.5 g	25 mL	50	SOIL
SAMPLE	242661010		SW846 9010B Prep	16-DEC-2009 12:44	>12	0.5 g	25 mL	50	SOIL
SAMPLE	242661011		SW846 9010B Prep	16-DEC-2009 12:44	>12	0.5 g	25 mL	50	SOIL

Prep LogBook

Reagent/Solvent Lot ID	Amount	Description
091211-C	25 mL	0.25N Sodium Hydroxide Solution
WCN091216-07	.0375 mL	150 ppb CN Distilled ICV Standard
1176724-C	1.25 mL	0.8N H3NO3S
1238146-C	2.5 mL	50% H2SO4 CN Prep
1176778-C	1 mL	51% MgCl2 Soln
1238142-C	1.25 mL	Bismuth Nitrate Solution

Comments:

This is runlog Lachat1

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
200 ppb		1	axc2	12/15/2009 9:05:34	OM_12-15-2009_09-02-12
150 ppb		1	axc2	12/15/2009 9:06:27	OM_12-15-2009_09-02-12
100 ppb		1	axc2	12/15/2009 9:07:19	OM_12-15-2009_09-02-12
50 ppb		1	axc2	12/15/2009 9:08:13	OM_12-15-2009_09-02-12
10 ppb		1	axc2	12/15/2009 9:09:06	OM_12-15-2009_09-02-12
CRDL 5.0 ppb		1	axc2	12/15/2009 9:09:59	OM_12-15-2009_09-02-12
ICAL-00		1	axc2	12/15/2009 9:10:53	OM_12-15-2009_09-02-12
ICV		1	axc2	12/15/2009 9:12:44	OM_12-15-2009_09-02-12
ICB		1	axc2	12/15/2009 9:14:34	OM_12-15-2009_09-02-12
CRDL		1	axc2	12/15/2009 9:16:24	OM_12-15-2009_09-02-12
1201992122	931341	1	axc2	12/15/2009 9:18:13	OM_12-15-2009_09-02-12
1201992132	931341	1	axc2	12/15/2009 9:19:07	OM_12-15-2009_09-02-12
242436001	931341	1	axc2	12/15/2009 9:20:00	OM_12-15-2009_09-02-12
1201992123	931341	1	axc2	12/15/2009 9:20:53	OM_12-15-2009_09-02-12
1201992126	931341	1	axc2	12/15/2009 9:21:46	OM_12-15-2009_09-02-12
1201992129	931341	1	axc2	12/15/2009 9:22:38	OM_12-15-2009_09-02-12
242441001	931341	1	axc2	12/15/2009 9:23:31	OM_12-15-2009_09-02-12
242448001	931341	1	axc2	12/15/2009 9:24:24	OM_12-15-2009_09-02-12
242448002	931341	1	axc2	12/15/2009 9:25:16	OM_12-15-2009_09-02-12
242448003	931341	1	axc2	12/15/2009 9:26:08	OM_12-15-2009_09-02-12
CCV		1	axc2	12/15/2009 9:27:01	OM_12-15-2009_09-02-12
CCB		1	axc2	12/15/2009 9:28:51	OM_12-15-2009_09-02-12
242448004	931341	1	axc2	12/15/2009 9:30:39	OM_12-15-2009_09-02-12
242448005	931341	1	axc2	12/15/2009 9:31:31	OM_12-15-2009_09-02-12
242448006	931341	1	axc2	12/15/2009 9:32:23	OM_12-15-2009_09-02-12
242475001	931341	1	axc2	12/15/2009 9:33:14	OM_12-15-2009_09-02-12
1201992125	931341	1	axc2	12/15/2009 9:34:06	OM_12-15-2009_09-02-12
1201992128	931341	1	axc2	12/15/2009 9:35:00	OM_12-15-2009_09-02-12
1201992131	931341	1	axc2	12/15/2009 9:35:53	OM_12-15-2009_09-02-12
242637001	931341	1	axc2	12/15/2009 9:36:46	OM_12-15-2009_09-02-12
242669001	931341	1	axc2	12/15/2009 9:37:40	OM_12-15-2009_09-02-12
242669002	931341	1	axc2	12/15/2009 9:38:33	OM_12-15-2009_09-02-12
CCV		1	axc2	12/15/2009 9:39:27	OM_12-15-2009_09-02-12
CCB		1	axc2	12/15/2009 9:41:16	OM_12-15-2009_09-02-12
242669003	931341	1	axc2	12/15/2009 9:43:04	OM_12-15-2009_09-02-12
242669004	931341	1	axc2	12/15/2009 9:43:58	OM_12-15-2009_09-02-12
242691002	931341	1	axc2	12/15/2009 9:44:51	OM_12-15-2009_09-02-12
242749001	931341	1	axc2	12/15/2009 9:45:43	OM_12-15-2009_09-02-12
242782001	931341	1	axc2	12/15/2009 9:46:35	OM_12-15-2009_09-02-12
242782002	931341	1	axc2	12/15/2009 9:47:27	OM_12-15-2009_09-02-12
1201994713	932514	1	axc2	12/15/2009 9:48:20	OM_12-15-2009_09-02-12
1201994720	932514	25	axc2	12/15/2009 9:49:12	OM_12-15-2009_09-02-12
242441002	932514	1	axc2	12/15/2009 9:50:04	OM_12-15-2009_09-02-12
242441003	932514	1	axc2	12/15/2009 9:50:55	OM_12-15-2009_09-02-12
CCV		1	axc2	12/15/2009 9:51:48	OM_12-15-2009_09-02-12
CCB		1	axc2	12/15/2009 9:53:38	OM_12-15-2009_09-02-12
242565001	932514	1	axc2	12/15/2009 9:55:28	OM_12-15-2009_09-02-12
242567001	932514	1	axc2	12/15/2009 9:56:22	OM_12-15-2009_09-02-12
242661012	932514	1	axc2	12/15/2009 9:57:15	OM_12-15-2009_09-02-12
1201994714	932514	1	axc2	12/15/2009 9:58:09	OM_12-15-2009_09-02-12
1201994716	932514	1	axc2	12/15/2009 9:59:02	OM_12-15-2009_09-02-12
1201994718	932514	1	axc2	12/15/2009 9:59:56	OM_12-15-2009_09-02-12
242661013	932514	1	axc2	12/15/2009 10:00:48	OM_12-15-2009_09-02-12
1201994715	932514	1	axc2	12/15/2009 10:01:41	OM_12-15-2009_09-02-12
1201994717	932514	1	axc2	12/15/2009 10:02:34	OM_12-15-2009_09-02-12
1201994719	932514	1	axc2	12/15/2009 10:03:27	OM_12-15-2009_09-02-12
CCV		1	axc2	12/15/2009 10:04:19	OM_12-15-2009_09-02-12
CCB		1	axc2	12/15/2009 10:06:09	OM_12-15-2009_09-02-12

242661014	932514	1	axc2	12/15/2009	10:07:57	OM_12-15-2009_09-02-12
242661015	932514	1	axc2	12/15/2009	10:08:50	OM_12-15-2009_09-02-12
242661016	932514	1	axc2	12/15/2009	10:09:42	OM_12-15-2009_09-02-12
242661017	932514	1	axc2	12/15/2009	10:10:34	OM_12-15-2009_09-02-12
242661018	932514	1	axc2	12/15/2009	10:11:26	OM_12-15-2009_09-02-12
242661019	932514	1	axc2	12/15/2009	10:12:20	OM_12-15-2009_09-02-12
242661020	932514	1	axc2	12/15/2009	10:13:14	OM_12-15-2009_09-02-12
242668001	932514	1	axc2	12/15/2009	10:14:09	OM_12-15-2009_09-02-12
242668002	932514	1	axc2	12/15/2009	10:15:01	OM_12-15-2009_09-02-12
242743002	932514	1	axc2	12/15/2009	10:15:55	OM_12-15-2009_09-02-12
CCV		1	axc2	12/15/2009	10:16:47	OM_12-15-2009_09-02-12
CCB		1	axc2	12/15/2009	10:18:38	OM_12-15-2009_09-02-12
242748001	932514	1	axc2	12/15/2009	10:20:28	OM_12-15-2009_09-02-12
242748002	932514	1	axc2	12/15/2009	10:21:21	OM_12-15-2009_09-02-12
242750001	932514	1	axc2	12/15/2009	10:22:15	OM_12-15-2009_09-02-12
242792001	932514	1	axc2	12/15/2009	10:23:08	OM_12-15-2009_09-02-12
1201993018	931715	1	axc2	12/15/2009	10:24:00	OM_12-15-2009_09-02-12
1201993019	931715	1	axc2	12/15/2009	10:24:53	OM_12-15-2009_09-02-12
242441001*	931715	1	axc2	12/15/2009	10:25:45	OM_12-15-2009_09-02-12
242716001	931715	1	axc2	12/15/2009	10:26:38	OM_12-15-2009_09-02-12
1201994739	931715	1	axc2	12/15/2009	10:27:30	OM_12-15-2009_09-02-12
1201994736	932522	1	axc2	12/15/2009	10:28:22	OM_12-15-2009_09-02-12
CCV		1	axc2	12/15/2009	10:29:15	OM_12-15-2009_09-02-12
CCB		1	axc2	12/15/2009	10:31:05	OM_12-15-2009_09-02-12
1201994738	932522	1	axc2	12/15/2009	10:32:55	OM_12-15-2009_09-02-12
1201994753	932522	1	axc2	12/15/2009	10:33:49	OM_12-15-2009_09-02-12
242441002	932522	1	axc2	12/15/2009	10:34:44	OM_12-15-2009_09-02-12
242441003	932522	1	axc2	12/15/2009	10:35:37	OM_12-15-2009_09-02-12
242565001	932522	1	axc2	12/15/2009	10:36:31	OM_12-15-2009_09-02-12
242567001	932522	1	axc2	12/15/2009	10:37:24	OM_12-15-2009_09-02-12
242441001	931715	1	axc2	12/15/2009	10:38:17	OM_12-15-2009_09-02-12
CCV		1	axc2	12/15/2009	10:39:09	OM_12-15-2009_09-02-12
CCB		1	axc2	12/15/2009	10:41:00	OM_12-15-2009_09-02-12

Author: axc2 Date : 12/15/2009

Original Run Filename: OM_12-15-2009_09-02-12.OMN created 12/15/2009 09:02:12
Original Run Author's Signature: [axc2]
Current Run Filename: OM_12-15-2009_09-02-12.OMN last modified 12/15/2009 10:42:05
Current Run Author's Signature: [axc2]
Description: GL-GC-E-095 EPA 335.1, 335.3, 335.4, 9012A, CLP335.2-M
Liquid LCS nominal 50 ug/L

Sample	Rep.	Cup No.	Channel 1 TCYANIDE Conc. (ug/L)	Area (Vs)	Detection Time	ADF	MDF	Description
WCN091215-01	1	S1	200	8.39	12/15/2009@09:05:34			200 ppb
WCN091215-02	1	S2	150	6.34	12/15/2009@09:06:27			150 ppb
WCN091215-03	1	S3	100	4.06	12/15/2009@09:07:19			100 ppb
WCN091215-04	1	S4	50.0	2.26	12/15/2009@09:08:13			50 ppb
WCN091215-05	1	S5	10.0	0.535	12/15/2009@09:09:06			10 ppb
WCN091215-06	1	S6	5.00	0.272	12/15/2009@09:09:59			CRDL 5.0 ppb
WCN091215-08	1	S7	0.00	2.91e-4	12/15/2009@09:10:53			0.0 ppb
DQM Test: Minimum Correlation Coefficient								
		Result:	0.99962 > 0.99500					
		Message	Pass					
		Action	Continue					
WCN091215-07	1	S8	138	5.79	12/15/2009@09:12:44			ICV
		Known Conc:	150					
DQM Test: > + Percent Relative Difference								
		Result:	-8.2 < 10.0					
		Message	ICV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	-8.2 < 10.0					
		Message	ICV Passed					
		Action	Continue					
		Calibration:	Table/Fig. 1					
WCN091215-08	1	S7	2.48	0.167	12/15/2009@09:14:34			ICB/CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	2.48 < 5.01					
		Message	ICB/CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	2.48 > -5.01					
		Message	ICB/CCB Passed					
		Action	Continue					
WCN091215-06	1	S6	4.39	0.247	12/15/2009@09:16:24			CRDL
		Known Conc:	5.00					
DQM Test: > + Concentration Limit								
		Result:	4.39 < 7.50					
		Message	CRDL Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	4.39 > 2.50					
		Message	Pass					
		Action	None					
1201992122|931341|MB	1	1	-1.54	3.22e-4	12/15/2009@09:18:13			
1201992132||LCS	1	2	48.6	2.08	12/15/2009@09:19:07			
242436001	1	3	-0.571	0.0406	12/15/2009@09:20:00			
1201992123||DUP	1	4	-2.60	-0.0439	12/15/2009@09:20:53			
1201992126||MS	1	5	96.4	4.07	12/15/2009@09:21:46			
1201992129||MSD	1	6	99.4	4.20	12/15/2009@09:22:38			
242441001	1	7	0.371	0.0798	12/15/2009@09:23:31			
242448001	1	8	5.87	0.308	12/15/2009@09:24:24			
242448002	1	9	-1.29	0.0106	12/15/2009@09:25:16			
242448003	1	10	-2.76	-0.0503	12/15/2009@09:26:08			
WCN091215-03	1	S3	98.9	4.17	12/15/2009@09:27:01			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	-1.1 < 10.0					

		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Percent Relative Difference					
		Result:	-1.1 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN091215-08	1	S7	-1.54	1.91e-4	12/15/2009@09:28:51			CCB
		Known Conc:	0.00					
			DQM Test: > + Concentration Limit					
		Result:	-1.54 < 5.00					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	-1.54 > -5.00					
		Message	CCB Passed					
		Action	Continue					
242448004	1	11	-2.52	-0.0405	12/15/2009@09:30:39			
242448005	1	12	-1.27	0.0117	12/15/2009@09:31:31			
242448006	1	13	-2.41	-0.0358	12/15/2009@09:32:23			
242475001	1	14	-1.53	5.53e-4	12/15/2009@09:33:14			
1201992125||DUP	1	15	-0.467	0.0449	12/15/2009@09:34:06			
1201992128||MS	1	16	93.5	3.95	12/15/2009@09:35:00			
1201992131||MSD	1	17	93.8	3.96	12/15/2009@09:35:53			
242637001	1	18	65.0	2.77	12/15/2009@09:36:46			
242669001	1	19	-1.54	2.89e-4	12/15/2009@09:37:40			
242669002	1	20	-1.23	0.0131	12/15/2009@09:38:33			
WCN091215-03	1	S3	99.1	4.18	12/15/2009@09:39:27			CCV
		Known Conc:	100					
			DQM Test: > + Percent Relative Difference					
		Result:	-0.9 < 10.0					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Percent Relative Difference					
		Result:	-0.9 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN091215-08	1	S7	-2.89	-0.0556	12/15/2009@09:41:16			CCB
		Known Conc:	0.00					
			DQM Test: > + Concentration Limit					
		Result:	-2.89 < 5.00					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	-2.89 > -5.00					
		Message	CCB Passed					
		Action	Continue					
242669003	1	21	-2.63	-0.0448	12/15/2009@09:43:04			
242669004	1	22	-2.63	-0.0449	12/15/2009@09:43:58			
242691002	1	23	-2.86	-0.0546	12/15/2009@09:44:51			
242749001	1	24	-1.49	0.00250	12/15/2009@09:45:43			
242782001	1	25	-1.54	3.20e-4	12/15/2009@09:46:35			
242782002	1	26	-1.54	2.83e-4	12/15/2009@09:47:27			
1201994713|932514|MB	1	27	-1.54	1.81e-4	12/15/2009@09:48:20			
1201994720||LCS	1	28	32.0	1.39	12/15/2009@09:49:12		25.00	
242441002	1	29	-1.54	3.36e-4	12/15/2009@09:50:04			
242441003	1	30	-1.19	0.0148	12/15/2009@09:50:55			
WCN091215-03	1	S3	98.6	4.17	12/15/2009@09:51:48			CCV
		Known Conc:	100					
			DQM Test: > + Percent Relative Difference					
		Result:	-1.4 < 10.0					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Percent Relative Difference					
		Result:	-1.4 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN091215-08	1	S7	-1.54	3.32e-4	12/15/2009@09:53:38			CCB
		Known Conc:	0.00					

DQM Test: > + Concentration Limit								
		Result:	-1.54 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.54 > -5.00					
		Message	CCB Passed					
		Action	Continue					
242565001	1	31	21.3	0.950	12/15/2009@09:55:28			
242567001	1	32	7.54	0.378	12/15/2009@09:56:22			
242661012	1	33	-0.324	0.0509	12/15/2009@09:57:15			
1201994714||DUP	1	34	-0.230	0.0548	12/15/2009@09:58:09			
1201994716||MS	1	35	78.3	3.32	12/15/2009@09:59:02			
1201994718||MSD	1	36	88.2	3.73	12/15/2009@09:59:56			
242661013	1	37	-1.54	1.71e-4	12/15/2009@10:00:48			
1201994715||DUP	1	38	-1.48	0.00300	12/15/2009@10:01:41			
1201994717||MS	1	39	96.2	4.06	12/15/2009@10:02:34			
1201994719||MSD	1	40	97.0	4.10	12/15/2009@10:03:27			
WCN091215-03	1	S3	99.3	4.19	12/15/2009@10:04:19			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	-0.7 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	-0.7 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN091215-08	1	S7	-1.54	3.28e-4	12/15/2009@10:06:09			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.54 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.54 > -5.00					
		Message	CCB Passed					
		Action	Continue					
242661014	1	41	-0.803	0.0309	12/15/2009@10:07:57			
242661015	1	42	-0.596	0.0396	12/15/2009@10:08:50			
242661016	1	43	1.62	0.132	12/15/2009@10:09:42			
242661017	1	44	0.839	0.0992	12/15/2009@10:10:34			
242661018	1	45	-0.737	0.0337	12/15/2009@10:11:26			
242661019	1	46	-2.20	-0.0272	12/15/2009@10:12:20			
242661020	1	47	-1.03	0.0216	12/15/2009@10:13:14			
242668001	1	48	0.794	0.0974	12/15/2009@10:14:09			
242668002	1	49	1.65	0.133	12/15/2009@10:15:01			
242743002	1	50	1.26	0.117	12/15/2009@10:15:55			
WCN091215-03	1	S3	99.3	4.19	12/15/2009@10:16:47			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	-0.7 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	-0.7 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN091215-08	1	S7	-2.75	-0.0501	12/15/2009@10:18:38			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-2.75 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-2.75 > -5.00					
		Message	CCB Passed					
		Action	Continue					

242748001	1	51	31.4	1.37	12/15/2009@10:20:28			
242748002	1	52	-0.809	0.0307	12/15/2009@10:21:21			
242750001	1	53	-0.900	0.0269	12/15/2009@10:22:15			
242792001	1	54	3.65	0.216	12/15/2009@10:23:08			
1201993018|931715|MB	1	55	-1.25	0.0123	12/15/2009@10:24:00			
1201993019||LCS	1	56	2.91	0.185	12/15/2009@10:24:53			
242441001	1	57	15.2	0.696	12/15/2009@10:25:45			
242716001	1	58	-2.69	-0.0475	12/15/2009@10:26:38			
1201994739||DUP	1	59	0.0316	0.0657	12/15/2009@10:27:30			
1201994736|932522|MB	1	60	-1.54	2.92e-4	12/15/2009@10:28:22			
WCN091215-03	1	S3	99.5	4.20	12/15/2009@10:29:15			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	-0.5 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	-0.5 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN091215-08	1	S7	-3.69	-0.0893	12/15/2009@10:31:05			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-3.69 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-3.69 > -5.00					
		Message	CCB Passed					
		Action	Continue					
1201994738||LCS	1	61	-2.46	-0.0381	12/15/2009@10:32:55			
1201994753||LCSD	1	62	-1.45	0.00407	12/15/2009@10:33:49			
242441002	1	63	-0.502	0.0435	12/15/2009@10:34:44			
242441003	1	64	-0.311	0.0514	12/15/2009@10:35:37			
242565001	1	65	51.2	2.19	12/15/2009@10:36:31			
242567001	1	66	5.32	0.285	12/15/2009@10:37:24			
242441001|931715|	1	57	9.24	0.448	12/15/2009@10:38:17			
WCN091215-03	1	S3	98.9	4.18	12/15/2009@10:39:09			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	-1.1 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	-1.1 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN091215-08	1	S7	-1.55	0.00	12/15/2009@10:41:00			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.55 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.55 > -5.00					
		Message	CCB Passed					
		Action	Continue					

Analyte Properties Table for OM_12-15-2009_09-02-12.OMN

Property	Channel 1
	TCYANIDE
Concentration Units	ug/L
Callibration Fit Type	First Order
Clear Calibration	True
Force Through Zero	False
Calibration Weighting	None
Auto Dilution Trigger	True

Author: axc2 Date : 12/15/2009

% of High Standard	100
Quik Chem Method	10-204-00-1-A
Chemistry	Direct/Bipolar
Calibration by Height	False
Inject to Peak Start	22
Peak Base Width	39

Channel 1: Current View

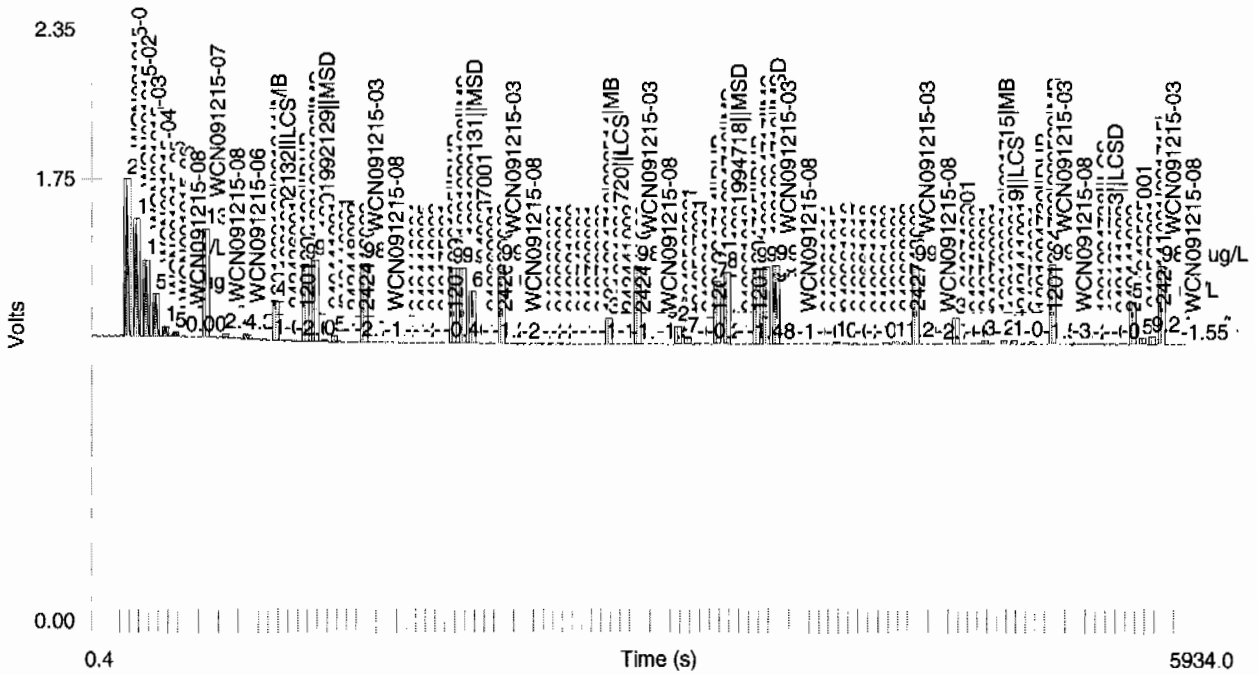

Table 1: TCYANIDE

	Conc. (ug/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	200	1	8.39	0.616	-0.2	12/15/2009	09:06:38
2	150	1	6.34	0.461	-0.7	12/15/2009	09:07:30
3	100	1	4.06	0.297	3.8	12/15/2009	09:08:22
4	50.0	1	2.26	0.164	-5.5	12/15/2009	09:09:15
5	10.0	1	0.535	0.0380	-11.1	12/15/2009	09:10:08
6	5.00	1	0.272	0.0172	1.0	12/15/2009	09:11:02
7	0.00	1	2.91e-4	0.00261		12/15/2009	09:11:56

Author: axc2 Date : 12/15/2009

Figure 1: TCYANIDE

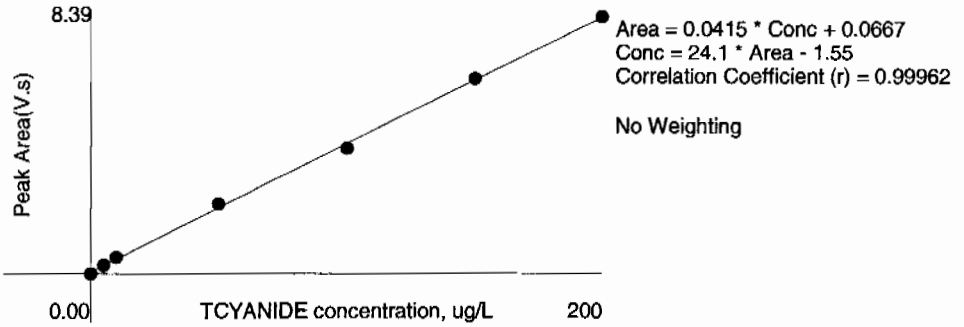

This is runlog Lachat1

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
200 ppb		1	axc2	12/16/2009 9:03:01	OM_12-16-2009_08-59-38
150 ppb		1	axc2	12/16/2009 9:03:53	OM_12-16-2009_08-59-38
100 ppb		1	axc2	12/16/2009 9:04:45	OM_12-16-2009_08-59-38
50 ppb		1	axc2	12/16/2009 9:05:38	OM_12-16-2009_08-59-38
10 ppb		1	axc2	12/16/2009 9:06:31	OM_12-16-2009_08-59-38
CRDL 5.0 ppb		1	axc2	12/16/2009 9:07:25	OM_12-16-2009_08-59-38
ICAL-00		1	axc2	12/16/2009 9:08:19	OM_12-16-2009_08-59-38
ICV		1	axc2	12/16/2009 9:10:10	OM_12-16-2009_08-59-38
ICB		1	axc2	12/16/2009 9:12:00	OM_12-16-2009_08-59-38
CRDL		1	axc2	12/16/2009 9:13:50	OM_12-16-2009_08-59-38
1201989952	930415	1	axc2	12/16/2009 9:15:41	OM_12-16-2009_08-59-38
1201989956	930415	1	axc2	12/16/2009 9:16:34	OM_12-16-2009_08-59-38
242225002	930415	1	axc2	12/16/2009 9:17:27	OM_12-16-2009_08-59-38
242225003	930415	1	axc2	12/16/2009 9:18:20	OM_12-16-2009_08-59-38
242225004	930415	1	axc2	12/16/2009 9:19:13	OM_12-16-2009_08-59-38
242225005	930415	1	axc2	12/16/2009 9:20:06	OM_12-16-2009_08-59-38
242225006	930415	1	axc2	12/16/2009 9:20:59	OM_12-16-2009_08-59-38
242225007	930415	1	axc2	12/16/2009 9:21:51	OM_12-16-2009_08-59-38
242225008	930415	1	axc2	12/16/2009 9:22:43	OM_12-16-2009_08-59-38
242225009	930415	1	axc2	12/16/2009 9:23:36	OM_12-16-2009_08-59-38
CCV		1	axc2	12/16/2009 9:24:29	OM_12-16-2009_08-59-38
CCB		1	axc2	12/16/2009 9:26:18	OM_12-16-2009_08-59-38
1201989953	930415	1	axc2	12/16/2009 9:28:07	OM_12-16-2009_08-59-38
1201989954	930415	1	axc2	12/16/2009 9:28:59	OM_12-16-2009_08-59-38
1201989955	930415	1	axc2	12/16/2009 9:29:50	OM_12-16-2009_08-59-38
242225010	930415	1	axc2	12/16/2009 9:30:42	OM_12-16-2009_08-59-38
242225011	930415	1	axc2	12/16/2009 9:31:34	OM_12-16-2009_08-59-38
242427001	930415	1	axc2	12/16/2009 9:32:27	OM_12-16-2009_08-59-38
1201990918	930415	1	axc2	12/16/2009 9:33:21	OM_12-16-2009_08-59-38
1201990919	930415	1	axc2	12/16/2009 9:34:15	OM_12-16-2009_08-59-38
1201990920	930415	1	axc2	12/16/2009 9:35:08	OM_12-16-2009_08-59-38
242427003	930415	1	axc2	12/16/2009 9:36:01	OM_12-16-2009_08-59-38
CCV		1	axc2	12/16/2009 9:36:53	OM_12-16-2009_08-59-38
CCB		1	axc2	12/16/2009 9:38:43	OM_12-16-2009_08-59-38
242428003	930415	1	axc2	12/16/2009 9:40:32	OM_12-16-2009_08-59-38
242481001	930415	1	axc2	12/16/2009 9:41:25	OM_12-16-2009_08-59-38
242487001	930415	1	axc2	12/16/2009 9:42:18	OM_12-16-2009_08-59-38
242524001	930415	1	axc2	12/16/2009 9:43:11	OM_12-16-2009_08-59-38
242585001	930415	1	axc2	12/16/2009 9:44:03	OM_12-16-2009_08-59-38
242585002	930415	1	axc2	12/16/2009 9:44:55	OM_12-16-2009_08-59-38
242585003	930415	1	axc2	12/16/2009 9:45:48	OM_12-16-2009_08-59-38
242597001	930415	1	axc2	12/16/2009 9:46:40	OM_12-16-2009_08-59-38
1201994725	932519	1	axc2	12/16/2009 9:47:32	OM_12-16-2009_08-59-38
1201994735*	932519	1	axc2	12/16/2009 9:48:23	OM_12-16-2009_08-59-38
CCV		1	axc2	12/16/2009 9:49:15	OM_12-16-2009_08-59-38
CCB		1	axc2	12/16/2009 9:51:06	OM_12-16-2009_08-59-38
242249001	932519	1	axc2	12/16/2009 9:52:55	OM_12-16-2009_08-59-38
242437003	932519	1	axc2	12/16/2009 9:53:49	OM_12-16-2009_08-59-38
1201994726	932519	1	axc2	12/16/2009 9:54:42	OM_12-16-2009_08-59-38
1201994729	932519	1	axc2	12/16/2009 9:55:37	OM_12-16-2009_08-59-38
1201994732	932519	1	axc2	12/16/2009 9:56:29	OM_12-16-2009_08-59-38
242651002	932519	1	axc2	12/16/2009 9:57:22	OM_12-16-2009_08-59-38
242653002	932519	1	axc2	12/16/2009 9:58:16	OM_12-16-2009_08-59-38
242667002	932519	1	axc2	12/16/2009 9:59:09	OM_12-16-2009_08-59-38
1201994735	932519	1	axc2	12/16/2009 10:00:00	OM_12-16-2009_08-59-38
242716001	932519	1	axc2	12/16/2009 10:00:53	OM_12-16-2009_08-59-38
CCV		1	axc2	12/16/2009 10:01:46	OM_12-16-2009_08-59-38
CCB		1	axc2	12/16/2009 10:03:36	OM_12-16-2009_08-59-38

1201994727	932519	1	axc2	12/16/2009	10:05:25	OM_12-16-2009_08-59-38
1201994730	932519	1	axc2	12/16/2009	10:06:18	OM_12-16-2009_08-59-38
1201994733*	932519	1	axc2	12/16/2009	10:07:10	OM_12-16-2009_08-59-38
242745001	932519	1	axc2	12/16/2009	10:08:02	OM_12-16-2009_08-59-38
242753001	932519	1	axc2	12/16/2009	10:08:55	OM_12-16-2009_08-59-38
242753003	932519	1	axc2	12/16/2009	10:09:47	OM_12-16-2009_08-59-38
242753005	932519	1	axc2	12/16/2009	10:10:41	OM_12-16-2009_08-59-38
242753007	932519	1	axc2	12/16/2009	10:11:35	OM_12-16-2009_08-59-38
242753009	932519	1	axc2	12/16/2009	10:12:28	OM_12-16-2009_08-59-38
242789002	932519	1	axc2	12/16/2009	10:13:22	OM_12-16-2009_08-59-38
CCV		1	axc2	12/16/2009	10:14:15	OM_12-16-2009_08-59-38
CCB		1	axc2	12/16/2009	10:16:05	OM_12-16-2009_08-59-38
1201994733	932519	1	axc2	12/16/2009	10:17:53	OM_12-16-2009_08-59-38
242790001	932519	1	axc2	12/16/2009	10:18:47	OM_12-16-2009_08-59-38
1201994728	932519	1	axc2	12/16/2009	10:19:40	OM_12-16-2009_08-59-38
1201994731	932519	1	axc2	12/16/2009	10:20:34	OM_12-16-2009_08-59-38
1201994734	932519	1	axc2	12/16/2009	10:21:27	OM_12-16-2009_08-59-38
242818001	932519	1	axc2	12/16/2009	10:22:20	OM_12-16-2009_08-59-38
242818003	932519	1	axc2	12/16/2009	10:23:12	OM_12-16-2009_08-59-38
242828001	932519	1	axc2	12/16/2009	10:24:05	OM_12-16-2009_08-59-38
242828003	932519	1	axc2	12/16/2009	10:24:58	OM_12-16-2009_08-59-38
242838001	932519	1	axc2	12/16/2009	10:25:50	OM_12-16-2009_08-59-38
CCV		1	axc2	12/16/2009	10:26:42	OM_12-16-2009_08-59-38
CCB		1	axc2	12/16/2009	10:28:33	OM_12-16-2009_08-59-38
242838002	932519	1	axc2	12/16/2009	10:30:22	OM_12-16-2009_08-59-38
1201996315	933141	1	axc2	12/16/2009	10:31:14	OM_12-16-2009_08-59-38
1201996316	933141	1	axc2	12/16/2009	10:32:08	OM_12-16-2009_08-59-38
1201996317	933141	1	axc2	12/16/2009	10:33:02	OM_12-16-2009_08-59-38
242249001	933141	1	axc2	12/16/2009	10:33:56	OM_12-16-2009_08-59-38
CCV		1	axc2	12/16/2009	10:34:49	OM_12-16-2009_08-59-38
CCB		1	axc2	12/16/2009	10:36:39	OM_12-16-2009_08-59-38

Author: axc2 Date : 12/16/2009

Original Run Filename: OM_12-16-2009_08-59-38.OMN created 12/16/2009 08:59:38
Original Run Author's Signature: [axc2]
Current Run Filename: OM_12-16-2009_08-59-38.OMN last modified 12/16/2009 10:37:45
Current Run Author's Signature: [axc2]
Description: GL-GC-E-095 EPA 335.1, 335.3, 335.4, 9012A, CLP335.2-M
Liquid LCS nominal 50 ug/L

Sample	Rep.	Cup No.	Channel 1 TCYANIDE Conc. (ug/L)	Area (Vs)	Detection Time	ADF	MDF	Description
WCN091216-01	1	S1	200	8.29	12/16/2009@09:03:01			200 ppb
WCN091216-02	1	S2	150	6.22	12/16/2009@09:03:53			150 ppb
WCN091216-03	1	S3	100	3.98	12/16/2009@09:04:45			100 ppb
WCN091216-04	1	S4	50.0	2.16	12/16/2009@09:05:38			50 ppb
WCN091216-05	1	S5	10.0	0.527	12/16/2009@09:06:31			10 ppb
WCN091216-06	1	S6	5.00	0.279	12/16/2009@09:07:25			CRDL 5.0 ppb
WCN091216-08	1	S7	0.00	0.0158	12/16/2009@09:08:19			0.0 ppb
DQM Test: Minimum Correlation Coefficient								
		Result:	0.99967 > 0.99500					
		Message	Pass					
		Action	Continue					
WCN091216-07	1	S8	142	5.88	12/16/2009@09:10:10			ICV
		Known Conc:	150					
DQM Test: > + Percent Relative Difference								
		Result:	-5.1 < 10.0					
		Message	ICV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	-5.1 < 10.0					
		Message	ICV Passed					
		Action	Continue					
		Calibration:	Table/Fig. 1					
WCN091216-08	1	S7	-1.32	0.00	12/16/2009@09:12:00			ICB/CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.32 < 5.01					
		Message	ICB/CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.32 > -5.01					
		Message	ICB/CCB Passed					
		Action	Continue					
WCN091216-06	1	S6	5.79	0.291	12/16/2009@09:13:50			CRDL
		Known Conc:	5.00					
DQM Test: > + Concentration Limit								
		Result:	5.79 < 7.50					
		Message	CRDL Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	5.79 > 2.50					
		Message	Pass					
		Action	None					
1201989952|930415|MB	1	1	-0.911	0.0169	12/16/2009@09:15:41			
1201989956||LCS	1	2	50.4	2.12	12/16/2009@09:16:34			
242225002	1	3	-0.547	0.0318	12/16/2009@09:17:27			
242225003	1	4	-1.32	1.15e-4	12/16/2009@09:18:20			
242225004	1	5	-0.190	0.0465	12/16/2009@09:19:13			
242225005	1	6	-0.679	0.0264	12/16/2009@09:20:06			
242225006	1	7	4.94	0.256	12/16/2009@09:20:59			
242225007	1	8	4.14	0.224	12/16/2009@09:21:51			
242225008	1	9	-0.596	0.0298	12/16/2009@09:22:43			
242225009	1	10	-0.630	0.0284	12/16/2009@09:23:36			
WCN091216-03	1	S3	101	4.20	12/16/2009@09:24:29			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	1.3 < 10.0					

		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Percent Relative Difference					
		Result:	1.3 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN091216-08	1	S7	-1.41	-0.00362	12/16/2009@09:26:18			CCB
		Known Conc:	0.00					
			DQM Test: > + Concentration Limit					
		Result:	-1.41 < 5.00					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	-1.41 > -5.00					
		Message	CCB Passed					
		Action	Continue					
1201989953||DUP	1	11	-0.0976	0.0502	12/16/2009@09:28:07			
1201989954||MS	1	12	104	4.31	12/16/2009@09:28:59			
1201989955||MSD	1	13	107	4.45	12/16/2009@09:29:50			
242225010	1	14	-1.35	-0.00120	12/16/2009@09:30:42			
242225011	1	15	-1.39	-0.00274	12/16/2009@09:31:34			
242427001	1	16	0.538	0.0763	12/16/2009@09:32:27			
1201990918||DUP	1	17	1.42	0.112	12/16/2009@09:33:21			
1201990919||MS	1	18	102	4.24	12/16/2009@09:34:15			
1201990920||MSD	1	19	105	4.34	12/16/2009@09:35:08			
242427003	1	20	0.175	0.0614	12/16/2009@09:36:01			
WCN091216-03	1	S3	102	4.24	12/16/2009@09:36:53			CCV
		Known Conc:	100					
			DQM Test: > + Percent Relative Difference					
		Result:	2.3 < 10.0					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Percent Relative Difference					
		Result:	2.3 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN091216-08	1	S7	-1.32	1.59e-4	12/16/2009@09:38:43			CCB
		Known Conc:	0.00					
			DQM Test: > + Concentration Limit					
		Result:	-1.32 < 5.00					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	-1.32 > -5.00					
		Message	CCB Passed					
		Action	Continue					
242428003	1	21	-0.491	0.0341	12/16/2009@09:40:32			
242481001	1	22	2.77	0.168	12/16/2009@09:41:25			
242487001	1	23	3.12	0.182	12/16/2009@09:42:18			
242524001	1	24	12.8	0.579	12/16/2009@09:43:11			
242585001	1	25	1.75	0.126	12/16/2009@09:44:03			
242585002	1	26	0.285	0.0659	12/16/2009@09:44:55			
242585003	1	27	1.57	0.119	12/16/2009@09:45:48			
242597001	1	28	-2.19	-0.0356	12/16/2009@09:46:40			
1201994725|932519|MB	1	29	-1.32	2.86e-4	12/16/2009@09:47:32			
1201994735||LCS	1	30	32.9	1.40	12/16/2009@09:48:23			
WCN091216-03	1	S3	102	4.23	12/16/2009@09:49:15			CCV
		Known Conc:	100					
			DQM Test: > + Percent Relative Difference					
		Result:	1.9 < 10.0					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Percent Relative Difference					
		Result:	1.9 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN091216-08	1	S7	-0.768	0.0228	12/16/2009@09:51:06			CCB
		Known Conc:	0.00					

DQM Test: > + Concentration Limit								
		Result:	-0.768 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-0.768 > -5.00					
		Message	CCB Passed					
		Action	Continue					
242249001	1	31	3.82	0.211	12/16/2009@09:52:55			
242437003	1	32	-0.774	0.0225	12/16/2009@09:53:49			
1201994726||DUP	1	33	-1.14	0.00767	12/16/2009@09:54:42			
1201994729||MS	1	34	105	4.37	12/16/2009@09:55:37			
1201994732||MSD	1	35	106	4.38	12/16/2009@09:56:29			
242651002	1	36	-0.656	0.0273	12/16/2009@09:57:22			
242653002	1	37	-0.785	0.0221	12/16/2009@09:58:16			
242667002	1	38	-0.726	0.0245	12/16/2009@09:59:09			
1201994735||LCS	1	30	50.0	2.10	12/16/2009@10:00:00			
242716001	1	39	-0.742	0.0239	12/16/2009@10:00:53			
WCN091216-03	1	S3	103	4.26	12/16/2009@10:01:46			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	2.8 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	2.8 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN091216-08	1	S7	-1.35	-9.85e-4	12/16/2009@10:03:36			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.35 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.35 > -5.00					
		Message	CCB Passed					
		Action	Continue					
1201994727||DUP	1	40	-1.08	0.00999	12/16/2009@10:05:25			
1201994730||MS	1	41	93.5	3.88	12/16/2009@10:06:18			
1201994733||MSD	1	42	65.5	2.74	12/16/2009@10:07:10			
242745001	1	43	-1.43	-0.00427	12/16/2009@10:08:02			
242753001	1	44	-0.916	0.0167	12/16/2009@10:08:55			
242753003	1	45	-0.802	0.0214	12/16/2009@10:09:47			
242753005	1	46	-0.781	0.0222	12/16/2009@10:10:41			
242753007	1	47	0.0561	0.0565	12/16/2009@10:11:35			
242753009	1	48	-0.877	0.0183	12/16/2009@10:12:28			
242789002	1	49	-0.970	0.0145	12/16/2009@10:13:22			
WCN091216-03	1	S3	103	4.27	12/16/2009@10:14:15			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	2.9 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	2.9 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN091216-08	1	S7	-0.844	0.0196	12/16/2009@10:16:05			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-0.844 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-0.844 > -5.00					
		Message	CCB Passed					
		Action	Continue					

1201994733||MSD	1	42	80.8	3.36	12/16/2009@10:17:53			
242790001	1	50	4.24	0.228	12/16/2009@10:18:47			
1201994728||DUP	1	51	1.41	0.112	12/16/2009@10:19:40			
1201994731||MS	1	52	107	4.43	12/16/2009@10:20:34			
1201994734||MSD	1	53	108	4.47	12/16/2009@10:21:27			
242818001	1	54	-0.204	0.0459	12/16/2009@10:22:20			
242818003	1	55	-0.636	0.0282	12/16/2009@10:23:12			
242828001	1	56	-0.327	0.0408	12/16/2009@10:24:05			
242828003	1	57	0.247	0.0643	12/16/2009@10:24:58			
242838001	1	58	-0.583	0.0303	12/16/2009@10:25:50			
WCN091216-03	1	S3	103	4.26	12/16/2009@10:26:42			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	2.6 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	2.6 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN091216-08	1	S7	-0.609	0.0293	12/16/2009@10:28:33			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-0.609 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-0.609 > -5.00					
		Message	CCB Passed					
		Action	Continue					
242838002	1	59	-0.481	0.0345	12/16/2009@10:30:22			
1201996315|933141|MB	1	60	-0.758	0.0232	12/16/2009@10:31:14			
1201996316||LCS	1	61	-0.887	0.0179	12/16/2009@10:32:08			
1201996317||LCSD	1	62	-0.706	0.0253	12/16/2009@10:33:02			
242249001	1	63	29.4	1.26	12/16/2009@10:33:56			
WCN091216-03	1	S3	103	4.26	12/16/2009@10:34:49			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	2.8 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	2.8 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN091216-08	1	S7	0.110	0.0587	12/16/2009@10:36:39			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	0.110 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	0.110 > -5.00					
		Message	CCB Passed					
		Action	Continue					

Analyte Properties Table for OM_12-16-2009_08-59-38.OMN

Property	Channel 1
	TCYANIDE
Concentration Units	ug/L
Callibration Fit Type	First Order
Clear Calibration	True
Force Through Zero	False
Calibration Weighting	None
Auto Dilution Trigger	True
% of High Standard	100
Quik Chem Method	10-204-00-1-A

Author: axc2 Date : 12/16/2009

Chemistry	Direct/Bipolar
Calibration by Height	False
Inject to Peak Start	22
Peak Base Width	39

Channel 1: Current View

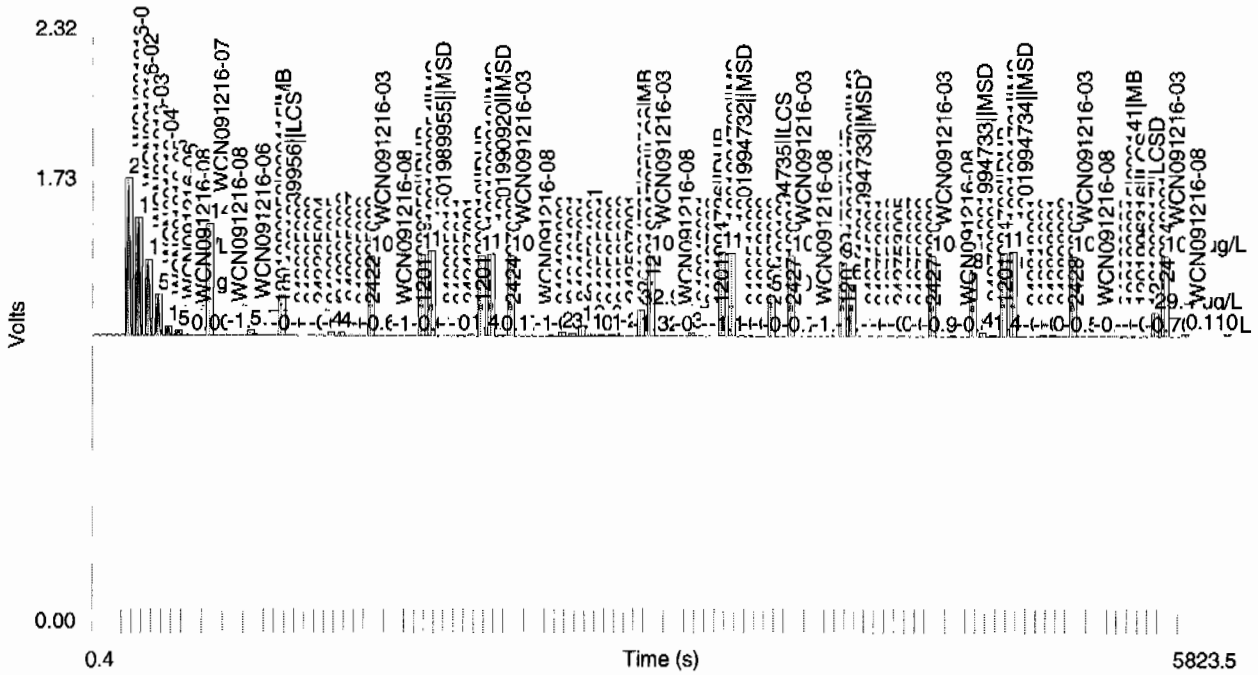

Table 1: TCYANIDE

	Conc. (ug/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	200	1	8.29	0.608	-0.6	12/16/2009	09:04:04
2	150	1	6.22	0.455	-0.4	12/16/2009	09:04:56
3	100	1	3.98	0.294	4.1	12/16/2009	09:05:48
4	50.0	1	2.16	0.158	-2.8	12/16/2009	09:06:41
5	10.0	1	0.527	0.0375	-13.2	12/16/2009	09:07:34
6	5.00	1	0.279	0.0189	-7.1	12/16/2009	09:08:28
7	0.00	1	0.0158	0.00177		12/16/2009	09:09:22

Author: axc2 Date : 12/16/2009

Figure 1: TCYANIDE

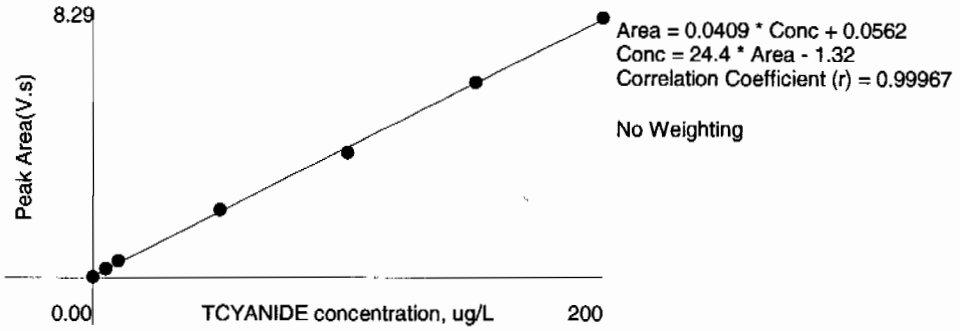

This is runlog Lachat1

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
CCV		1	axc2	12/16/2009 13:22:35	OM_12-16-2009_13-19-13
CCB		1	axc2	12/16/2009 13:24:26	OM_12-16-2009_13-19-13
1201992111	931336	1	axc2	12/16/2009 13:26:15	OM_12-16-2009_13-19-13
1201992115	931336	25	axc2	12/16/2009 13:27:09	OM_12-16-2009_13-19-13
242435001	931336	1	axc2	12/16/2009 13:28:02	OM_12-16-2009_13-19-13
1201992112	931336	1	axc2	12/16/2009 13:28:55	OM_12-16-2009_13-19-13
1201992113	931336	1	axc2	12/16/2009 13:29:48	OM_12-16-2009_13-19-13
1201992114	931336	1	axc2	12/16/2009 13:30:41	OM_12-16-2009_13-19-13
242435002	931336	1	axc2	12/16/2009 13:31:33	OM_12-16-2009_13-19-13
242435003	931336	1	axc2	12/16/2009 13:32:26	OM_12-16-2009_13-19-13
242435004	931336	1	axc2	12/16/2009 13:33:19	OM_12-16-2009_13-19-13
242435005	931336	1	axc2	12/16/2009 13:34:11	OM_12-16-2009_13-19-13
CCV		1	axc2	12/16/2009 13:35:03	OM_12-16-2009_13-19-13
CCB		1	axc2	12/16/2009 13:36:54	OM_12-16-2009_13-19-13
242435006	931336	1	axc2	12/16/2009 13:38:42	OM_12-16-2009_13-19-13
242435007	931336	1	axc2	12/16/2009 13:39:34	OM_12-16-2009_13-19-13
242447002	931336	1	axc2	12/16/2009 13:40:27	OM_12-16-2009_13-19-13
242447003	931336	1	axc2	12/16/2009 13:41:18	OM_12-16-2009_13-19-13
242661001	931336	1	axc2	12/16/2009 13:42:10	OM_12-16-2009_13-19-13
1201994710	931336	1	axc2	12/16/2009 13:43:03	OM_12-16-2009_13-19-13
1201994711	931336	1	axc2	12/16/2009 13:43:57	OM_12-16-2009_13-19-13
1201994712	931336	1	axc2	12/16/2009 13:44:50	OM_12-16-2009_13-19-13
242661002	931336	1	axc2	12/16/2009 13:45:44	OM_12-16-2009_13-19-13
242661003	931336	1	axc2	12/16/2009 13:46:37	OM_12-16-2009_13-19-13
CCV		1	axc2	12/16/2009 13:47:29	OM_12-16-2009_13-19-13
CCB		1	axc2	12/16/2009 13:49:20	OM_12-16-2009_13-19-13
242661004	931336	1	axc2	12/16/2009 13:51:09	OM_12-16-2009_13-19-13
242661005	931336	1	axc2	12/16/2009 13:52:02	OM_12-16-2009_13-19-13
242661006	931336	1	axc2	12/16/2009 13:52:55	OM_12-16-2009_13-19-13
242661007	931336	1	axc2	12/16/2009 13:53:48	OM_12-16-2009_13-19-13
242661008	931336	1	axc2	12/16/2009 13:54:40	OM_12-16-2009_13-19-13
242661009	931336	1	axc2	12/16/2009 13:55:32	OM_12-16-2009_13-19-13
242661010	931336	1	axc2	12/16/2009 13:56:25	OM_12-16-2009_13-19-13
242661011	931336	1	axc2	12/16/2009 13:57:17	OM_12-16-2009_13-19-13
1201993029	931724	1	axc2	12/16/2009 13:58:09	OM_12-16-2009_13-19-13
1201993031	931724	250	axc2	12/16/2009 13:59:00	OM_12-16-2009_13-19-13
CCV		1	axc2	12/16/2009 13:59:53	OM_12-16-2009_13-19-13
CCB		1	axc2	12/16/2009 14:01:44	OM_12-16-2009_13-19-13
242564001	931724	1	axc2	12/16/2009 14:03:34	OM_12-16-2009_13-19-13
1201993030	931724	1	axc2	12/16/2009 14:04:27	OM_12-16-2009_13-19-13
CCV		1	axc2	12/16/2009 14:05:20	OM_12-16-2009_13-19-13
CCB		1	axc2	12/16/2009 14:07:10	OM_12-16-2009_13-19-13

Author: axc2 Date : 12/16/2009

Original Run Filename: OM_12-16-2009_13-19-13.OMN created 12/16/2009 13:19:13
Original Run Author's Signature: [axc2]
Current Run Filename: OM_12-16-2009_13-19-13.OMN last modified 12/16/2009 14:08:15
Current Run Author's Signature: [axc2]
Description: GL-GC-E-095 EPA 335.1, 335.3, 335.4, 9012A, CLP335.2-M
Liquid LCS nominal 50 ug/L

Sample	Rep.	Cup No.	Channel 1 TCYANIDE Conc. (ug/L)	Area (Vs)	Detection Time	ADF	MDF	Description
WCN091216-03	1	S3	96.4	4.00	12/16/2009@13:22:35			CCV
		Known Conc:	100					
			DQM Test: > + Percent Relative Difference					
		Result:	-3.6 < 10.0					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Percent Relative Difference					
		Result:	-3.6 < 10.0					
		Message	CCV Passed					
		Action	Continue					
		Calibration:	Table/Fig. 1					
WCN091216-08	1	S7	-0.809	0.0211	12/16/2009@13:24:26			CCB
		Known Conc:	0.00					
			DQM Test: > + Concentration Limit					
		Result:	-0.809 < 5.00					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	-0.809 > -5.00					
		Message	CCB Passed					
		Action	Continue					
1201992111|931336|MB	1	1	-1.44	-0.00481	12/16/2009@13:26:15			
1201992115||LCS	1	2	34.0	1.45	12/16/2009@13:27:09		25.00	
242435001	1	3	7.84	0.375	12/16/2009@13:28:02			
1201992112||DUP	1	4	9.81	0.456	12/16/2009@13:28:55			
1201992113||MS	1	5	83.9	3.49	12/16/2009@13:29:48			
1201992114||MSD	1	6	98.8	4.10	12/16/2009@13:30:41			
242435002	1	7	2.25	0.147	12/16/2009@13:31:33			
242435003	1	8	1.42	0.112	12/16/2009@13:32:26			
242435004	1	9	7.58	0.364	12/16/2009@13:33:19			
242435005	1	10	6.95	0.339	12/16/2009@13:34:11			
WCN091216-03	1	S3	98.7	4.09	12/16/2009@13:35:03			CCV
		Known Conc:	100					
			DQM Test: > + Percent Relative Difference					
		Result:	-1.3 < 10.0					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Percent Relative Difference					
		Result:	-1.3 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN091216-08	1	S7	-0.805	0.0212	12/16/2009@13:36:54			CCB
		Known Conc:	0.00					
			DQM Test: > + Concentration Limit					
		Result:	-0.805 < 5.00					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	-0.805 > -5.00					
		Message	CCB Passed					
		Action	Continue					
242435006	1	11	0.592	0.0785	12/16/2009@13:38:42			
242435007	1	12	12.0	0.545	12/16/2009@13:39:34			
242447002	1	13	1.15	0.101	12/16/2009@13:40:27			
242447003	1	14	0.0200	0.0550	12/16/2009@13:41:18			
242661001	1	15	2.71	0.165	12/16/2009@13:42:10			

1201994710||DUP	1	16	2.07	0.139	12/16/2009@13:43:03			
1201994711||MS	1	17	96.2	3.99	12/16/2009@13:43:57			
1201994712||MSD	1	18	97.0	4.03	12/16/2009@13:44:50			
242661002	1	19	-0.0847	0.0507	12/16/2009@13:45:44			
242661003	1	20	0.165	0.0610	12/16/2009@13:46:37			
WCN091216-03	1	S3	101	4.21	12/16/2009@13:47:29			CCV
	Known Conc:		100					
DQM Test: > + Percent Relative Difference								
	Result:		1.5 < 10.0					
	Message		CCV Passed					
	Action		Continue					
DQM Test: < - Percent Relative Difference								
	Result:		1.5 < 10.0					
	Message		CCV Passed					
	Action		Continue					
WCN091216-08	1	S7	-0.779	0.0223	12/16/2009@13:49:20			CCB
	Known Conc:		0.00					
DQM Test: > + Concentration Limit								
	Result:		-0.779 < 5.00					
	Message		CCB Passed					
	Action		Continue					
DQM Test: < - Concentration Limit								
	Result:		-0.779 > -5.00					
	Message		CCB Passed					
	Action		Continue					
242661004	1	21	0.0478	0.0562	12/16/2009@13:51:09			
242661005	1	22	0.493	0.0744	12/16/2009@13:52:02			
242661006	1	23	3.00	0.177	12/16/2009@13:52:55			
242661007	1	24	1.71	0.124	12/16/2009@13:53:48			
242661008	1	25	0.775	0.0860	12/16/2009@13:54:40			
242661009	1	26	0.560	0.0771	12/16/2009@13:55:32			
242661010	1	27	-0.423	0.0369	12/16/2009@13:56:25			
242661011	1	28	-0.534	0.0324	12/16/2009@13:57:17			
1201993029|931724|MB	1	29	-1.08	0.00984	12/16/2009@13:58:09			
1201993031||LCS	1	30	75.2	3.13	12/16/2009@13:59:00		250.00	
WCN091216-03	1	S3	103	4.26	12/16/2009@13:59:53			CCV
	Known Conc:		100					
DQM Test: > + Percent Relative Difference								
	Result:		2.7 < 10.0					
	Message		CCV Passed					
	Action		Continue					
DQM Test: < - Percent Relative Difference								
	Result:		2.7 < 10.0					
	Message		CCV Passed					
	Action		Continue					
WCN091216-08	1	S7	-0.843	0.0197	12/16/2009@14:01:44			CCB
	Known Conc:		0.00					
DQM Test: > + Concentration Limit								
	Result:		-0.843 < 5.00					
	Message		CCB Passed					
	Action		Continue					
DQM Test: < - Concentration Limit								
	Result:		-0.843 > -5.00					
	Message		CCB Passed					
	Action		Continue					
242564001	1	31	0.294	0.0663	12/16/2009@14:03:34			
1201993030||DUP	1	32	0.0738	0.0572	12/16/2009@14:04:27			
WCN091216-03	1	S3	102	4.25	12/16/2009@14:05:20			CCV
	Known Conc:		100					
DQM Test: > + Percent Relative Difference								
	Result:		2.4 < 10.0					
	Message		CCV Passed					
	Action		Continue					
DQM Test: < - Percent Relative Difference								
	Result:		2.4 < 10.0					
	Message		CCV Passed					
	Action		Continue					
WCN091216-08	1	S7	-0.704	0.0254	12/16/2009@14:07:10			CCB

Author: axc2 Date : 12/16/2009

Known Conc:	0.00					
DQM Test: > + Concentration Limit						
Result:	-0.704 < 5.00					
Message	CCB Passed					
Action	Continue					
DQM Test: < - Concentration Limit						
Result:	-0.704 > -5.00					
Message	CCB Passed					
Action	Continue					

Analyte Properties Table for OM_12-16-2009_13-19-13.OMN

Property	Channel 1
	TCYANIDE
Concentration Units	ug/L
Callibration Fit Type	First Order
Clear Calibration	True
Force Through Zero	False
Calibration Weighting	None
Auto Dilution Trigger	True
% of High Standard	100
Quik Chem Method	10-204-00-1-A
Chemistry	Direct/Bipolar
Calibration by Height	False
Inject to Peak Start	22
Peak Base Width	39

Channel 1: Current View

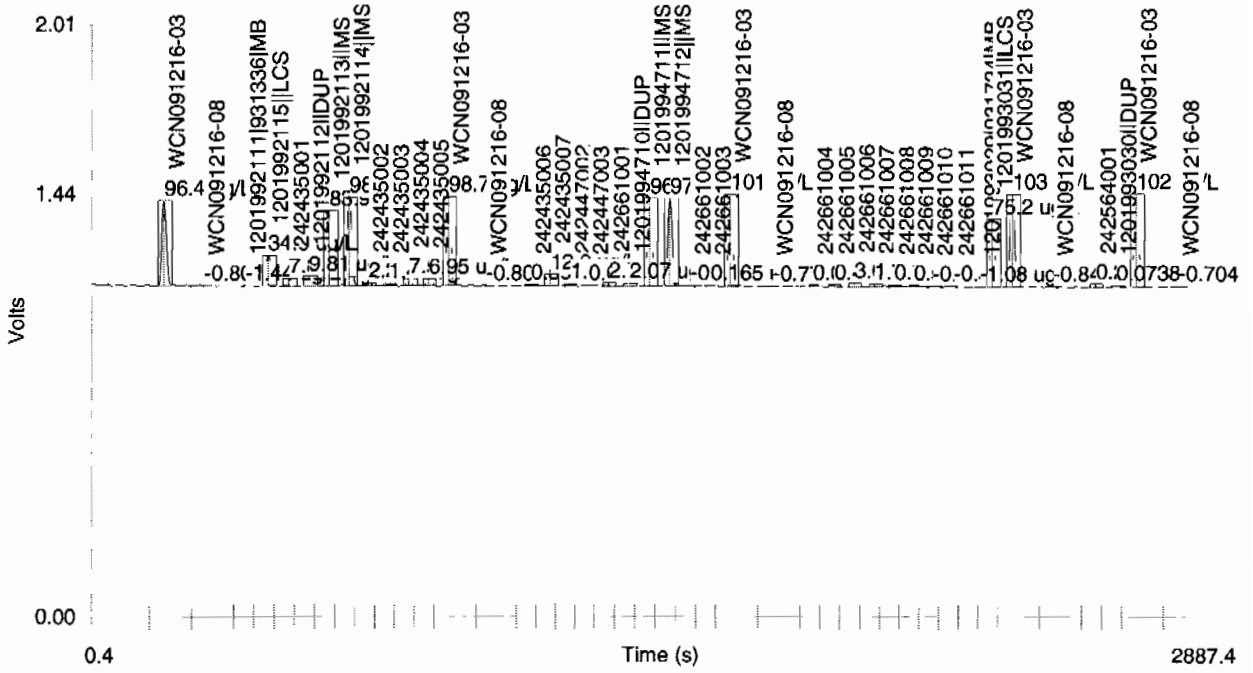

Author: axc2 Date : 12/16/2009

Table 1: TCYANIDE

	Conc. (ug/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	200	1	8.29	0.608	-0.6	12/16/2009	09:04:04
2	150	1	6.22	0.455	-0.4	12/16/2009	09:04:56
3	100	1	3.98	0.294	4.1	12/16/2009	09:05:48
4	50.0	1	2.16	0.158	-2.8	12/16/2009	09:06:41
5	10.0	1	0.527	0.0375	-13.2	12/16/2009	09:07:34
6	5.00	1	0.279	0.0189	-7.1	12/16/2009	09:08:28
7	0.00	1	0.0158	0.00177		12/16/2009	09:09:22

Figure 1: TCYANIDE

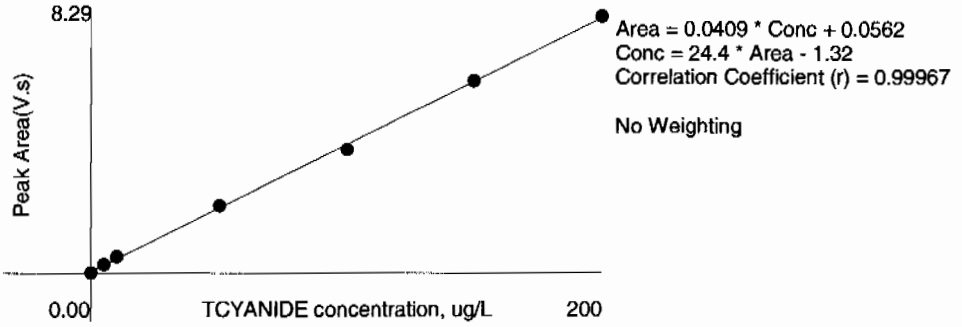

RADIOLOGICAL ANALYSIS

Radiochemistry Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-853

Method/Analysis Information

Procedure: **Dry Weight-Percent Moisture**

Analytical Method:

Analytical Batch Number: 931986

Sample ID	Client ID
242661001	RE03-09-14224
242661002	RE03-09-14227
242661003	RE03-09-14225
242661004	RE03-09-14226
242661005	RE03-09-14288
242661006	RE03-09-14287
242661007	RE03-09-14267
242661008	RE03-09-14265
242661009	RE03-09-14281
242661010	RE03-09-14284
242661011	RE03-09-14274
242661012	RE03-09-14277
242661013	RE03-09-14282
242661014	RE03-09-14269
242661015	RE03-09-14273
242661016	RE03-09-14271
242661017	RE03-09-14278
242661018	RE03-09-14285
242661019	RE03-09-14286
242661020	RE03-09-14283
1201993667	242661001(RE03-09-14224) Sample Duplicate (DUP)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-020 REV# 9.

Calibration Information:

Quality Control (QC) Information:

Designated QC
The following sample was used for QC: 242661001 (RE03-09-14224). The QC was from LANL work order 242661.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The blank result is less than 1.65 times the CSU. Not Applicable.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A nonconformance report (NCR) was not generated for this SDG.

Additional Comments
Additional comments were not required for this sample set.

Blank Decision Level
Not Applicable. The blank result is less than the decision level.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**H3**
Analytical Method:	GL-RAD-A-002
Analytical Batch Number:	933025

Sample ID	Client ID
242661001	RE03-09-14224
242661002	RE03-09-14227
242661003	RE03-09-14225
242661004	RE03-09-14226
1201996037	Method Blank (MB)
1201996038	242661001(RE03-09-14224) Sample Duplicate (DUP)
1201996039	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-002 REV# 17.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. The initial Calibration was performed in August 2009.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
The blank volume is representative of the sample volume in this batch.

Designated QC
The following sample was used for QC: 242661001 (RE03-09-14224). The QC was from LANL work order 242661.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The blank result is less than 1.65 times the CSU.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
Samples were recounted due to a negative result greater than three times the error. Second counts

being reported.

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. The following NCR was generated for this SDG:
NCR 775317 was generated due to Container scanning event for custody missed. 1. The analyst did not scan the samples 242445002, 242661001, 242661002, 242661003, 242661004 into the batch prior to analysis, however the samples did remain in their custody at all times. The error has been corrected and the analyst has been instructed on proper scanning procedures. 1. Reporting results.

Additional Comments
Additional comments were not required for this sample set.

Blank Decision Level
The blank result is less than the decision level.

Qualifier information

Manual qualifiers were not required.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer/Date: 12/28/09

COMPANY - WIDE NONCONFORMANCE REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
30-DEC-09	Radiochemistry	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
LSC	GL-RAD-A-002	Solid	LANL
Batch ID:	**Sample Numbers:**		
933025	242445002, 242661001, 242661002, 242661003, 242661004		

Potentially affected work order(s)(SDG): 242175(10-754),242177(10-766),242303(10-787),242445(10-832),242661(10-853)

Application Issues:

Container scanning event for custody missed

Specification and Requirements Nonconformance Description:	NRG Disposition:
1. The analyst did not scan the samples 242445002, 242661001, 242661002, 242661003, 242661004 into the batch prior to analysis, however the samples did remain in their custody at all times. The error has been corrected and the analyst has been instructed on proper scanning procedures.	1. Reporting results.

Originator's Name:

Dana Hunt 30-DEC-09

Data Validator/Group Leader:

Lesley Anderson 30-DEC-09

SAMPLE DATA SUMMARY

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis Report
for

LANL010 Los Alamos National Laboratory (72733-001-09)

Client SDG: 10-853 GEL Work Order: 242661

The Qualifiers in this report are defined as follows:

* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.

** Indicates the analyte is a surrogate compound.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the detection limit.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Valerie Davis.

Reviewed by _____ 12/30/07

GEL LABORATORIES LLC

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: December 30, 2009

Client Sample ID:	RE03-09-14224	Project:	LANL01004
Sample ID:	242661001	Client ID:	LANL010
Matrix:	S		
Collect Date:	07-DEC-09		
Receive Date:	10-DEC-09		
Collector:	Client		
Moisture:	13.1%		

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids												
"As Received"												
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium	U	-25	181	+/-52.7	250	pCi/L		KXK2	12/29/09	1011	933025	2

The following Analytical Methods were performed

Method	Description
1	ASTM D 2216 (Modified)
2	GL-RAD-A-002

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
- F Estimated Value
- H Analytical holding time was exceeded
- J Value is estimated
- M M if above MDC and less than LLD
- M Matrix Related Failure
- N/A RPD or %Recovery limits do not apply.
- ND Analyte concentration is not detected above the detection limit
- NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- R Sample results are rejected
- U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: December 30, 2009

Client Sample ID: RE03-09-14224
Sample ID: 242661001
Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

UI Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
Z Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d 5-day BOD--The 2:1 depletion requirement was not met for this sample
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

GEL LABORATORIES LLC

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: December 30, 2009

Client Sample ID:	RE03-09-14227	Project:	LANL01004
Sample ID:	242661002	Client ID:	LANL010
Matrix:	S		
Collect Date:	07-DEC-09		
Receive Date:	10-DEC-09		
Collector:	Client		
Moisture:	9.69%		

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids												
"As Received"												
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium	U	30.0	181	+/-53.8	250	pCi/L		KXK2	12/29/09	1214	933025	2

The following Analytical Methods were performed

Method	Description
1	ASTM D 2216 (Modified)
2	GL-RAD-A-002

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
- F Estimated Value
- H Analytical holding time was exceeded
- J Value is estimated
- M M if above MDC and less than LLD
- M Matrix Related Failure
- N/A RPD or %Recovery limits do not apply.
- ND Analyte concentration is not detected above the detection limit
- NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- R Sample results are rejected
- U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
- UI Gamma Spectroscopy--Uncertain identification

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: December 30, 2009

Client Sample ID: RE03-09-14227
Sample ID: 242661002
Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
Z Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d 5-day BOD--The 2:1 depletion requirement was not met for this sample
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: December 30, 2009

Client Sample ID: RE03-09-14225
Sample ID: 242661003
Matrix: S
Collect Date: 07-DEC-09
Receive Date: 10-DEC-09
Collector: Client
Moisture: 10.6%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids												
"As Received"												
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium	U	55.0	181	+/-54.4	250	pCi/L		KXK2	12/29/09	1418	933025	2

The following Analytical Methods were performed

Method	Description
1	ASTM D 2216 (Modified)
2	GL-RAD-A-002

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
- F Estimated Value
- H Analytical holding time was exceeded
- J Value is estimated
- M M if above MDC and less than LLD
- M Matrix Related Failure
- N/A RPD or %Recovery limits do not apply.
- ND Analyte concentration is not detected above the detection limit
- NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- R Sample results are rejected
- U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
- UI Gamma Spectroscopy--Uncertain identification

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Certificate of Analysis

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TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: December 30, 2009

Client Sample ID: RE03-09-14225
Sample ID: 242661003
Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
Z Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d 5-day BOD--The 2:1 depletion requirement was not met for this sample
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: December 30, 2009

Client Sample ID:	RE03-09-14226	Project:	LANL01004
Sample ID:	242661004	Client ID:	LANL010
Matrix:	S		
Collect Date:	07-DEC-09		
Receive Date:	10-DEC-09		
Collector:	Client		
Moisture:	10.6%		

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids												
"As Received"												
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium	U	20.0	181	+/-53.6	250	pCi/L		KXK2	12/29/09	1621	933025	2

The following Analytical Methods were performed

Method	Description
1	ASTM D 2216 (Modified)
2	GL-RAD-A-002

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
- F Estimated Value
- H Analytical holding time was exceeded
- J Value is estimated
- M M if above MDC and less than LLD
- M Matrix Related Failure
- N/A RPD or %Recovery limits do not apply.
- ND Analyte concentration is not detected above the detection limit
- NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- R Sample results are rejected
- U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
- UI Gamma Spectroscopy--Uncertain identification

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: December 30, 2009

Client Sample ID: RE03-09-14226 Project: LANL01004
Sample ID: 242661004 Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
Z Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d 5-day BOD--The 2:1 depletion requirement was not met for this sample
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

QUALITY CONTROL DATA

GEL LABORATORIES LLC

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QC Summary

Report Date: December 30, 2009
Page 1 of 2

Client : Los Alamos National Laboratory
PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico

Contact: Ms. Joylene Valdez

Workorder: 242661

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Liquid Scintillation										
Batch 933025										
QC1201996038 242661001 DUP										
Tritium	U	-25	U	-12.6	pCi/L	0.0588		(0-1)	KXK2	12/29/0920:28
	TPU:	+/-52.7		+/-53.2						
QC1201996039 LCS										
Tritium	5600			5060	pCi/L		90.4	(75%-125%)		12/25/0913:22
	TPU:			+/-369						
QC1201996037 MB										
Tritium			U	-17.4	pCi/L					12/29/0918:25
	TPU:			+/-52.6						

Notes:
The Qualifiers in this report are defined as follows:

**	Analyte is a surrogate compound
<	Result is less than value reported
>	Result is greater than value reported
A	The TIC is a suspected aldol-condensation product
B	For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD	Results are either below the MDC or tracer recovery is low
C	Analyte has been confirmed by GC/MS analysis
D	Results are reported from a diluted aliquot of the sample
E	Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
F	Estimated Value
H	Analytical holding time was exceeded
J	Value is estimated
M	M if above MDC and less than LLD
M	Matrix Related Failure
N/A	RPD or %Recovery limits do not apply.
ND	Analyte concentration is not detected above the detection limit
NJ	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R	Sample results are rejected
U	Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI	Gamma Spectroscopy--Uncertain identification
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
Z	Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d	5-day BOD--The 2:1 depletion requirement was not met for this sample
h	Preparation or preservation holding time was exceeded

QC Summary

Workorder: 242661

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more.
** Indicates analyte is a surrogate compound.
^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptence criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.
For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

RAW DATA

Radiochemistry Batch Checklist, Rev 9

Batch# 933026 Product: H3 Date: 12/20/2009

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			N/A
Samples have been blank corrected (if required)	✓		
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.	✓		
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	✓		
Sample was run within hold time.	✓		
Sample was correctly preserved if required.	✓		
Smears Taken for Radioactive batches.			N/A
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	✓		
Aux data is correct.			N/A
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)			N/A
Batch entered into Case Narrative.	✓		
Batch non-conformances completed, if applicable.	✓		NCR 775717
Batch non-conformances second reviewed and disposition verified to be completed.	✓		NCR 775717
Aliquot Correction completed if required.			N/A
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

GEL Laboratories, LLC

revised 8/1/08

Primary Review Performed By: Jane Marie Hunt

Secondary Review Performed By: L Linda 12/30/09

Tritium Que Sheet

VACUUM

21-DEC-09

Batch #: 933025 Analyst: KXK2 First Client Due Date 31-DEC-09 Internal Due Date: 17-DEC-09

Spike Isotope: Hydrogen-3 Spike Code: ——— Expiration Date: ——— Vol: ——

LCS Isotope: Hydrogen-3 LCS Code: 0134-K Expiration Date: ~~3/27/09~~ 3/27/10 KKG 12/27/09 Vol: ~~0.2~~ 0.1 LL 12/23/09

Prep Date: 12/21/09 Initials: KKG Pipet ID: 29709168 Witness: AW 12/23/09

Sample ID	Client Samp ID	Type	Hazard Code	Min CRDL	Matrix	Client	Sample Date	Aliquot in vial (g/mL)	LSC Rack #	Dist Rig #	Vol added for Dist (mL)	Initial Sample Aliquot (g/mL)	Final Wt (g)	Total moisture Dist Vol (mL) KKG 12/22/09
242175001-1	WST03-10-2137	SAMPLE		.25 pCi/mL	SOIL	LANL010	01-DEC-09	10	59.2	1		408.94	330.83	78.11
242175002-1	WST03-10-2138	SAMPLE		.25 pCi/mL	SOIL	LANL010	01-DEC-09	10	59.3	2		419.48	349.43	70.05
242177001-1	CAMO-10-7834	SAMPLE		.25 pCi/mL	SOIL	LANL010	02-DEC-09	10	59.4	3		412.37	273.81	138.56
242177002-1	CAMO-10-7835	SAMPLE		.25 pCi/mL	SOIL	LANL010	02-DEC-09	10	59.5	4		613.67	586.67	27.00
242303001-1	WST03-10-2141	SAMPLE		.25 pCi/mL	SOIL	LANL010	02-DEC-09	10	59.6	5		407.93	342.66	65.27
242303002-1	WST03-10-2142	SAMPLE		.25 pCi/mL	SOIL	LANL010	02-DEC-09	10	59.7	6		406.17	333.87	72.30
242303003-1	WST03-10-2143	SAMPLE		.25 pCi/mL	SOIL	LANL010	02-DEC-09	10	35.1	7		421.13	366.38	54.75
242445002-1	WST03-10-2144	SAMPLE		.25 pCi/mL	SOIL	LANL010	04-DEC-09	10	35.2	8		413.28	372.78	40.50
242661001-1	RE03-09-14224	SAMPLE		.25 pCi/mL	SOIL	LANL010	07-DEC-09	10	35.3	9		437.45	380.58	56.87
242661002-1	RE03-09-14227	SAMPLE		.25 pCi/mL	SOIL	LANL010	07-DEC-09	10	35.4	10		400.12	361.71	38.41
242661003-1	RE03-09-14225	SAMPLE		.25 pCi/mL	SOIL	LANL010	07-DEC-09	10	35.5	11		414.02	370.13	43.89
242661004-1	RE03-09-14226	SAMPLE		.25 pCi/mL	SOIL	LANL010	07-DEC-09	10	35.6	12		400.92	358.42	42.50
1201996037-1	MB for batch 933025	MB		.25 pCi/mL	SOIL	QC ACCOUNT		10	35.7	13		20.00	0	20.00
1201996038-1	RE03-09-14224(242661001DUP)	DUP		.25 pCi/mL	SOIL	QC ACCOUNT	07-DEC-09	10	35.8	9		437.45	380.58	56.87
1201996039-1	LCS for batch 933025	LCS		.25 pCi/mL	SOIL	QC ACCOUNT		10	35.9	14		20.00	0	20.00

KKG 12/23/09

B

Bkg Rack #: 59.1

Comments:

Instrument Used (circle as appropriate): *LS6000 (Red) 7065155, LS6500 (Blue) 7067083, LS6500 (Gold) 7070506, LS6500 (Green) 7067404, Wallac (Yellow) 4040127, LS6000 (Brown) 7060655, Wallac (Pink) 2200082, Wallac (White) 4140299, Purple 7069123, Silver 7060656*

Bkg prepared with dead water? Yes/No

Calibration Used : *Ultima Gold LLT (10 mL sample/13 mL LLT) poly vial; Ecoscint Ultra (10 mL sample/13 mL Ecoscint Ultra)*

Data Reviewed By: Nancy Marie Hunt

GEL Laboratories LLC, Radiochemistry Division

DATE	12/21/2009	INITIALS	KXK2		BATCH NUMBER	933025

Sample #	Sample Wet (g)	% Moisture of Sample (Balance Interface using % Moisture Batch)	Total Moisture in Sample (mL)	Sample Dry (g)	mLs aliquoted into LSC vial	Collection Tube Number
242175001	408.94	0.191	78.11	330.83	10	74
242175002	419.48	0.167	70.05	349.43	10	85
242177001	412.37	0.336	138.56	273.81	10	151
242177002	613.67	0.044	27.00	586.67	10	206
242303001	407.93	0.160	65.27	342.66	10	601
242303002	406.17	0.178	72.30	333.87	10	610
242303003	421.13	0.130	54.75	366.38	10	801
242445002	413.28	0.098	40.50	372.78	10	602
242661001	437.45	0.130	56.87	380.58	10	521
242661002	400.12	0.096	38.41	361.71	10	701
242661003	414.02	0.106	43.89	370.13	10	912
242661004	400.92	0.106	42.50	358.42	10	902
MB	40.00	1.000	40.00	0.00	10	5
LCS	40.00	1.000	40.00	0.00	10	532

Tritium Solid

Filename : H3VAC.XLS
File type : Excel
Version # : 1.2.5

Batch : 933025
Analyst : KXK2
Prep Date : 12/21/2009

Spike S/N : N/A
Spike Exp Date : N/A
Spike Activity (dpm/ml): N/A
Spike Volume Added: N/A

LCS S/N : 0134-K
LCS Exp Date : 3/27/2010
LCS Activity (dpm/ml): 2488.05
LCS Volume Added: 0.10

H-3 Abundance : 1
Method Uncertainty : 0.0691
Geometry: 10mL DW/13mL Ecoscint Ultra

Pipet, 0.1 ml Stdev : +/- 0.000701 ml
Pipet, 0.5 ml Stdev : +/- 0.002564 ml
Pipet, 1.0 ml Stdev : +/- 0.005480 ml
Pipet, 5.0 ml Stdev : +/- 0.025729 ml

Procedure Code : LSC_VH3S
Parmname : Tritium
Required MDC : 250 pCi/L
Halflife of Tritium : 12.28 years

Sample Characteristics

Pos.	Sample ID	Wet Sample Weight (g)	Total Moisture L	Sample Aliquot in Vial L	Sample Aliquot Stdev. L	Dry Sample Weight (g)	% Moisture of Sample	Rig number	Sample Date/Time
1	242175001.1	408.94	0.0781	0.0100	2.5729E-05	330.83	19.10%	1	12/1/2009 12:00
2	242175002.1	419.48	0.0701	0.0100	2.5729E-05	349.43	16.70%	2	12/1/2009 12:00
3	242177001.1	412.37	0.1386	0.0100	2.5729E-05	273.81	33.60%	3	12/2/2009 12:00
4	242177002.1	613.67	0.0270	0.0100	2.5729E-05	586.67	4.40%	4	12/2/2009 12:00
5	242303001.1	407.93	0.0653	0.0100	2.5729E-05	342.66	16.00%	5	12/2/2009 12:00
6	242303002.1	406.17	0.0723	0.0100	2.5729E-05	333.87	17.80%	6	12/2/2009 12:00
7	242303003.1	421.13	0.0548	0.0100	2.5729E-05	366.38	13.00%	7	12/2/2009 12:00
8	242445002.1	413.28	0.0405	0.0100	2.5729E-05	372.78	9.80%	8	12/4/2009 12:00
9	242661001.1	437.45	0.0569	0.0100	2.5729E-05	380.58	13.00%	9	12/7/2009 12:00
10	242661002.1	400.12	0.0384	0.0100	2.5729E-05	361.71	9.60%	10	12/7/2009 12:00
11	242661003.1	414.02	0.0439	0.0100	2.5729E-05	370.13	10.60%	11	12/7/2009 12:00
12	242661004.1	400.92	0.0425	0.0100	2.5729E-05	358.42	10.60%	12	12/7/2009 12:00
13	1201996037.1	20.00	0.0200	0.0100	2.5729E-05	0.00	100.00%	13	12/21/2009 0:00
14	1201996038.1	437.45	0.0569	0.0100	2.5729E-05	380.58	13.00%	9	12/7/2009 12:00
15	1201996039.1	20.00	0.0200	0.0100	2.5729E-05	0.00	100.00%	14	12/21/2009 0:00

Count raw Data					Background				Calibration Data					Backgrounds	
Pos.	Rack Position #	Counting Time (min.)	Quench#	Gross cpm	cpm	Count Time (min.)	Count Start Date/Time	Sample Decay	Counted on	Calibration Date	Calibration Due Date	Detector Efficiency (cpm/dpm)	Detector Efficiency Error (cpm/dpm)	Rack Position #	Count Start Date/Time
1	59-2	120	118.5	3.12	2.71	120	12/28/2009 16:30	0.996	LSCGOLD	8/20/2009	8/31/2010	0.1803	0.00792	59-1	12/28/2009 14:27
2	59-3	120	117.4	4.06	2.71	120	12/28/2009 18:34	0.996	LSCGOLD	8/20/2009	8/31/2010	0.1811	0.00792	59-1	12/28/2009 14:27
3	59-4	120	117.6	2.91	2.71	120	12/28/2009 20:37	0.996	LSCGOLD	8/20/2009	8/31/2010	0.1809	0.00792	59-1	12/28/2009 14:27
4	59-5	120	118	3.46	2.71	120	12/28/2009 22:41	0.996	LSCGOLD	8/20/2009	8/31/2010	0.1807	0.00792	59-1	12/28/2009 14:27
5	59-6	120	118.4	2.77	2.71	120	12/29/2009 0:44	0.996	LSCGOLD	8/20/2009	8/31/2010	0.1804	0.00792	59-1	12/28/2009 14:27
6	59-7	120	118.6	3.25	2.71	120	12/29/2009 2:48	0.996	LSCGOLD	8/20/2009	8/31/2010	0.1803	0.00792	59-1	12/28/2009 14:27
7	35-1	120	119.2	3.1	2.71	120	12/29/2009 4:54	0.996	LSCGOLD	8/20/2009	8/31/2010	0.1799	0.00792	59-1	12/28/2009 14:27
8	35-2	120	119.3	3.85	2.71	120	12/29/2009 6:58	0.996	LSCGOLD	8/20/2009	8/31/2010	0.1798	0.00792	59-1	12/28/2009 14:27
9	35-3	120	118	2.61	2.71	120	12/29/2009 10:11	0.997	LSCGOLD	8/20/2009	8/31/2010	0.1807	0.00792	59-1	12/28/2009 14:27
10	35-4	120	117.9	2.83	2.71	120	12/29/2009 12:14	0.997	LSCGOLD	8/20/2009	8/31/2010	0.1807	0.00792	59-1	12/28/2009 14:27
11	35-5	120	118	2.93	2.71	120	12/29/2009 14:18	0.997	LSCGOLD	8/20/2009	8/31/2010	0.1807	0.00792	59-1	12/28/2009 14:27
12	35-6	120	117.9	2.79	2.71	120	12/29/2009 16:21	0.997	LSCGOLD	8/20/2009	8/31/2010	0.1807	0.00792	59-1	12/28/2009 14:27
13	35-7	120	117.4	2.64	2.71	120	12/29/2009 18:25	0.999	LSCGOLD	8/20/2009	8/31/2010	0.1811	0.00792	59-1	12/28/2009 14:27
14	35-8	120	119.3	2.66	2.71	120	12/29/2009 20:28	0.997	LSCGOLD	8/20/2009	8/31/2010	0.1798	0.00792	59-1	12/28/2009 14:27
15	35-4	120	125.8	41.47	10.66	120	12/25/2009 13:22	0.999	LSCSILVER	8/21/2009	8/31/2010	0.2743	0.00792	59-1	12/24/2009 5:13

Notes:
1 - Results are decay corrected to Sample Date/Time
2 - Reference date for Spike Activity (dpm/ml) is the batch Prep Date
3 - Spike Nominals are decay corrected to Sample Date/Time

* - RPD changed to 0% due to activity below MDC for 1201996038.1

Results

Pos.	Decision Level pCi/L	Critical Level pCi/L	Required MDC pCi/L	MDC pCi/L	Sample Act. Conc. pCi/L	Sample Act. Error pCi/L	Net Count Rate CPM	Net Count Rate Error CPM	1 SIGMA Counting Uncertainty pCi/L	1 SIGMA Total Prop. Uncertainty pCi/L	Sample QC	Sample Type	RPD	RER	Nominal pCi/L	Recovery
1	124.2050	87.6898	250	181.6503	**102.8390**	0.538	0.410	0.220	55.2863	55.7484		SAMPLE				
2	123.7132	87.3426	250	180.9310	**337.2756**	0.176	1.350	0.238	59.3410	63.8213		SAMPLE				
3	123.7834	87.3921	250	181.0336	**49.9951**	1.082	0.200	0.216	54.0972	54.2092		SAMPLE				
4	123.9630	87.5189	250	181.2963	**187.7537**	0.302	0.750	0.227	56.7648	58.2515		SAMPLE				
5	124.1464	87.6484	250	181.5645	**15.0425**	3.562	0.060	0.214	53.5758	53.5861		SAMPLE				
6	124.2403	87.7147	250	181.7018	**135.4850**	0.413	0.540	0.223	55.9152	56.7058		SAMPLE				
7	124.5243	87.9152	250	182.1172	**98.0740**	0.564	0.390	0.220	55.3333	55.7533		SAMPLE				
8	124.5353	87.9230	250	182.1333	**286.7031**	0.205	1.140	0.234	58.8016	62.0995		SAMPLE				
9	123.8764	87.4578	250	181.1697	**-25.0163**	2.106	-0.100	0.211	52.6731	52.6733		SAMPLE				
10	123.8332	87.4273	250	181.1066	**30.0091**	1.791	0.120	0.215	53.7324	53.7731		SAMPLE				
11	123.8797	87.4601	250	181.1745	**55.0374**	0.985	0.220	0.217	54.2356	54.3709		SAMPLE				
12	123.8365	87.4296	250	181.1114	**20.0066**	2.676	0.080	0.214	53.5395	53.5577		SAMPLE				
13	123.3599	87.0932	250	180.4143	**-17.4384**	3.016	-0.070	0.211	52.6012	52.6014		MB				
14	124.4884	87.8899	250	182.0647	**-12.5700**	4.231	-0.050	0.212	53.1815	53.1817	242661001.1	DUP	0.0%	0.0588		
15	181.3902	113.9428	250	231.9940	**5063.0228**	0.023	30.810	0.659	108.3107	368.8861		LCS			5603.7182	90.4%

Filename: 10:13 AMab

Instrument Type	LS 6000
Data Capture Date	28 Dec 2009 14:24:33
User Filename	C:\LSCCAPTURE\GOLD\USER02\UN122801.BSF
User Number	2
User Id	TRITIUM
User Comments	GOLD
Scintillator Choice:	LIQUID

Sam	Rack	Time	H#	Raw CPM1	Raw CPM2	CPM Iso1	%Err1	CPM Iso2	%Err2	LumEx	ElTime
1	59-1	120.00	118.6	2.77	43.71	2.71	11.21	43.65	2.77	0.18	122.93
2	59-2	120.00	118.5	3.17	43.61	3.12	10.44	43.55	2.77	0.18	246.40
3	59-3	120.00	117.4	4.12	44.23	4.06	9.13	44.17	2.75	0.17	369.86
4	59-4	120.00	117.6	2.97	43.80	2.91	10.81	43.74	2.76	0.17	493.34
5	59-5	120.00	118.0	3.51	43.09	3.46	9.89	43.04	2.78	0.17	616.78
6	59-6	120.00	118.4	2.81	42.57	2.77	11.06	42.53	2.80	0.15	740.20
7	59-7	120.00	118.6	3.28	44.57	3.25	10.18	44.53	2.74	0.13	863.64

Instrument Type	LS 6000
Data Capture Date	29 Dec 2009 04:51:43
User Filename	C:\LSCCAPTURE\GOLD\USER02\UN122901.BSF
User Number	2
User Id	TRITIUM
User Comments	GOLD
Scintillator Choice:	LIQUID

Sam	Rack	Time	H#	Raw CPM1	Raw CPM2	CPM Iso1	%Err1	CPM Iso2	%Err2	LumEx	ElTime
1	35-1	120.00	119.2	3.13	42.59	3.10	10.43	42.56	2.80	0.13	122.89
2	35-2	120.00	119.3	3.88	44.16	3.85	9.35	44.12	2.75	0.12	246.29
3	35-3										
4	35-4										
5	35-5										
6	35-6										
7	35-7										
8	35-8										
13	**-1										
14	**-2										
15	**-3										

Instrument Type	LS 6000
Data Capture Date	29 Dec 2009 10:08:14
User Filename	C:\LSCCAPTURE\GOLD\USER02\UN122901.BSF
User Number	2
User Id	TRITIUM
User Comments	GOLD
Scintillator Choice:	LIQUID

Sam	Rack	Time	H#	Raw CPM1	Raw CPM2	CPM Iso1	%Err1	CPM Iso2	%Err2	LumEx	ElTime
3	35-3	120.00	118.0	2.66	42.24	2.61	11.41	42.19	2.81	0.18	122.94
4	35-4	120.00	117.9	2.88	42.82	2.83	10.97	42.76	2.79	0.18	246.40
5	35-5	120.00	118.0	2.98	41.52	2.93	10.75	41.47	2.84	0.18	369.87
6	35-6	120.00	117.9	2.84	42.66	2.79	11.02	42.61	2.80	0.17	493.32
7	35-7	120.00	117.4	2.69	42.36	2.64	11.34	42.31	2.81	0.17	616.78
8	35-8	120.00	119.3	2.71	41.60	2.66	11.30	41.55	2.83	0.17	740.26

ID:TRITIUM 25 DEC 2009 07:07

USER: 2 COMMENT:SILVER

PRESET TIME : 120.00

DATA CALC : CPM H# :YES SAMPLE REPEATS: 1 PRINTER : STD

COUNT BLANK : NO IC# : NO REPLICATES : 1 RS232 :EDIT

TWO PHASE : NO AQC : NO CYCLE REPEATS : 1 DISK : OFF

SCINTILLATOR: LIQUID LUMEX:YES LOW SAMPLE REJ: 0

LOW LEVEL : NO HALF LIFE CORRECTION DATE: none

CHAN: 20.0 - 280.0 %ERROR: 0.00 FACTOR: 1.000000 BKG. SUB: 0

CHAN: 0.0 - 1000.0 %ERROR: 0.00 FACTOR: 1.000000 BKG. SUB: 0

SAM NO	POS	TIME MIN	H#	WIND1 CPM	WIND1 %ERROR	WIND2 CPM	WIND2 %ERROR	LUMEX %	ELAPSED TIME
~~1~~	~~35-1~~	~~120.00~~	~~126.7~~	~~6.69~~	~~7.14~~	~~46.37~~	~~2.69~~	~~0.38~~	~~123.07~~
~~2~~	~~35-2~~	~~120.00~~	~~126.4~~	~~5.59~~	~~7.84~~	~~43.95~~	~~2.76~~	~~0.44~~	~~246.68~~
~~3~~	~~35-3~~	~~120.00~~	~~127.7~~	~~5.87~~	~~7.64~~	~~45.48~~	~~2.71~~	~~0.39~~	~~370.29~~
4	35-4	120.00	125.8	41.47	2.84	82.02	2.02	0.22	493.90

dwh 12/30/09

QP

INSTRUMENT CALIBRATION: Maxi 26 DEC 2009 13:20
Calibration successful

QP

Calibrating Auto DPM
Counting Standard for 14C
Calibration Complete: 14C
Counting Standard for 3H
Calibration Complete: 3H
Calibration Successful

QPQP

~~DO NOT REPORT~~ dwh 12/30/09

ID:TRITIUM 24 DEC 2009 05:09
USER: 2 COMMENT:SILVER
PRESET TIME : 120.00
DATA CALC : CPM H# :YES SAMPLE REPEATS: 1 PRINTER : STD
COUNT BLANK : NO IC# : NO REPLICATES : 1 RS232 :EDIT
TWO PHASE : NO AQC : NO CYCLE REPEATS : 1 DISK : OFF
SCINTILLATOR: LIQUID LUMEX:YES LOW SAMPLE REJ: 0
LOW LEVEL : NO HALF LIFE CORRECTION DATE: none

CHAN: 20.0 - 280.0 %ERROR: 0.00 FACTOR: 1.000000 BKG. SUB: 0
CHAN: 0.0 - 1000.0 %ERROR: 0.00 FACTOR: 1.000000 BKG. SUB: 0

SAM NO	POS	TIME MIN	H#	WIND1 CPM	WIND1 %ERROR	WIND2 CPM	WIND2 %ERROR	LUMEX %	ELAPSED TIME
1	59-1	120.00	125.6	10.66	5.70	49.68	2.60	0.89	123.29
~~2~~	~~59-2~~	~~120.00~~	~~125.5~~	~~6.38~~	~~7.44~~	~~44.28~~	~~2.76~~	~~0.91~~	~~247.09~~
3	59-3	120.00	123.6	8.87	6.24	47.52	2.66	0.73	370.83
4	59-4	120.00	124.0	6.48	7.37	44.38	2.75	0.89	494.64
5	59-5	120.00	125.0	6.48	7.34	44.96	2.73	0.76	618.41
6	59-6	120.00	125.4	5.58	7.89	44.91	2.73	0.56	742.09
7	59-7	120.00	125.2	5.97	7.59	44.97	2.73	0.48	865.75
8	59-8	120.00	126.4	6.47	7.27	44.37	2.75	0.44	989.40
9	59-9	120.00	126.5	7.40	6.77	46.23	2.69	0.33	1112.96
10	59-10	120.00	125.3	5.59	7.82	44.52	2.74	0.39	1236.55
11	59-11	120.00	125.7	6.42	7.28	44.07	2.75	0.32	1360.10
~~12~~	~~59-12~~	~~120.00~~	~~125.9~~	~~5.80~~	~~7.67~~	~~45.45~~	~~2.71~~	~~0.36~~	~~1483.71~~

QP Lh 12/30/09

INSTRUMENT CALIBRATION: Maxi 25 DEC 2009 05:55
Calibration successful

QP

Calibrating Auto DPM
Counting Standard for 14C
Calibration Complete: 14C
Counting Standard for 3H
Calibration Complete: 3H
Calibration Successful

QPQP

~~DO NOT REPORT~~ Lh 12/30/09

Sample Count Start Time:	28 Dec 2009 14:27:29		
Data Capture Date	28 Dec 2009 16:27:41		
User Filename	S02122859-1A.XLS		
	U02122859-1A.XLS		
Spectrum Type	Log Counts		
User Number	02		
User Id	TRITIUM		
User Comment	GOLD		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	1	59-1	120.00
H#, Total Counts:	118.6	5622	
Win1: Tritium - Start, End, Counts:	0	235	325
Win2: - Start, End, Counts:	0	990	4705

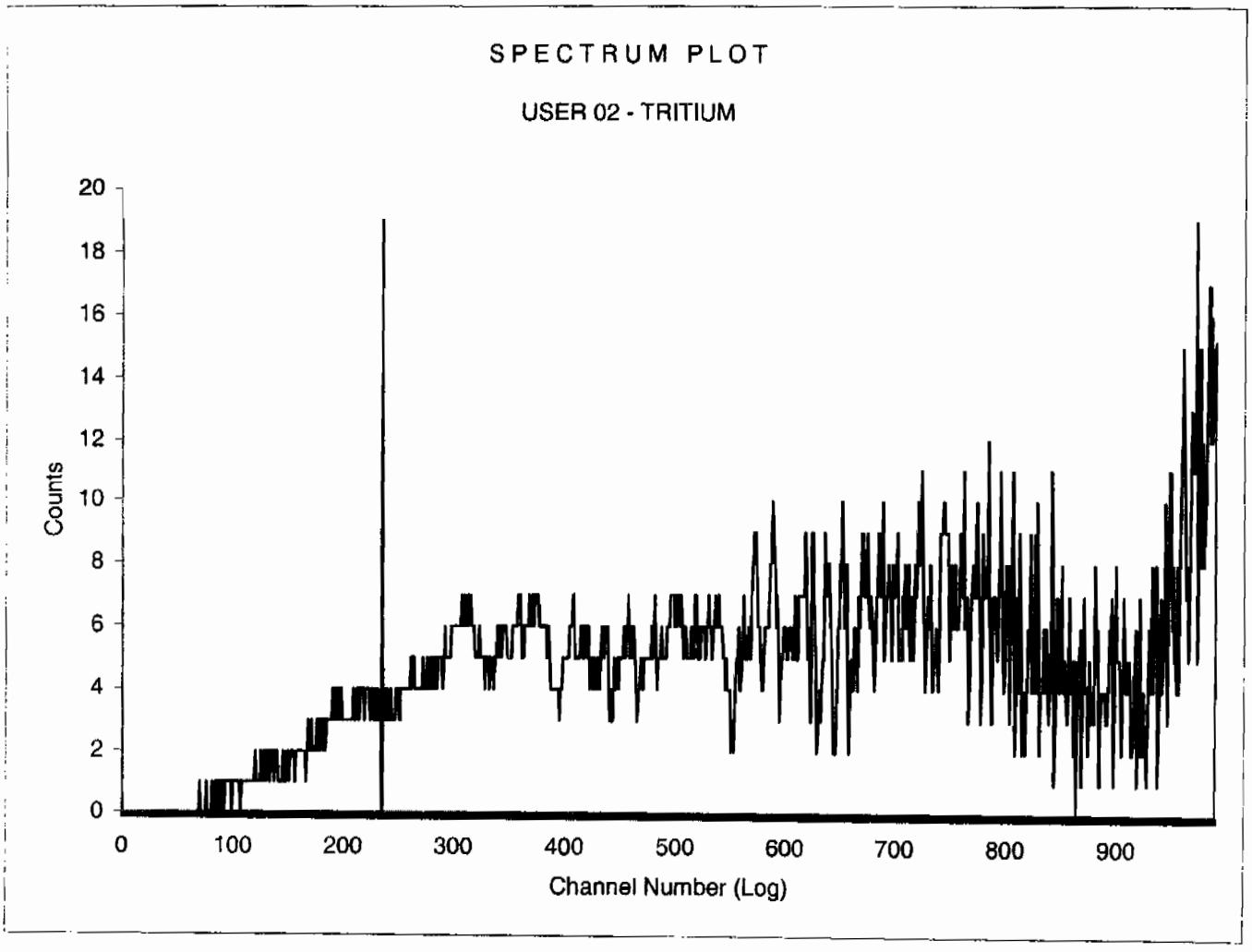

Sample Count Start Time:	28 Dec 2009 16:30:57		
Data Capture Date	28 Dec 2009 18:31:09		
User Filename	S02122859-2A.XLS		
	U02122859-1A.XLS		
Spectrum Type	Log Counts		
User Number	02		
User Id	TRITIUM		
User Comment	GOLD		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	2	59-2	120.00
H#, Total Counts:	118.5	5642	
Win1: Tritium - Start, End, Counts:	0	235	374
Win2: - Start, End, Counts:	0	990	4721

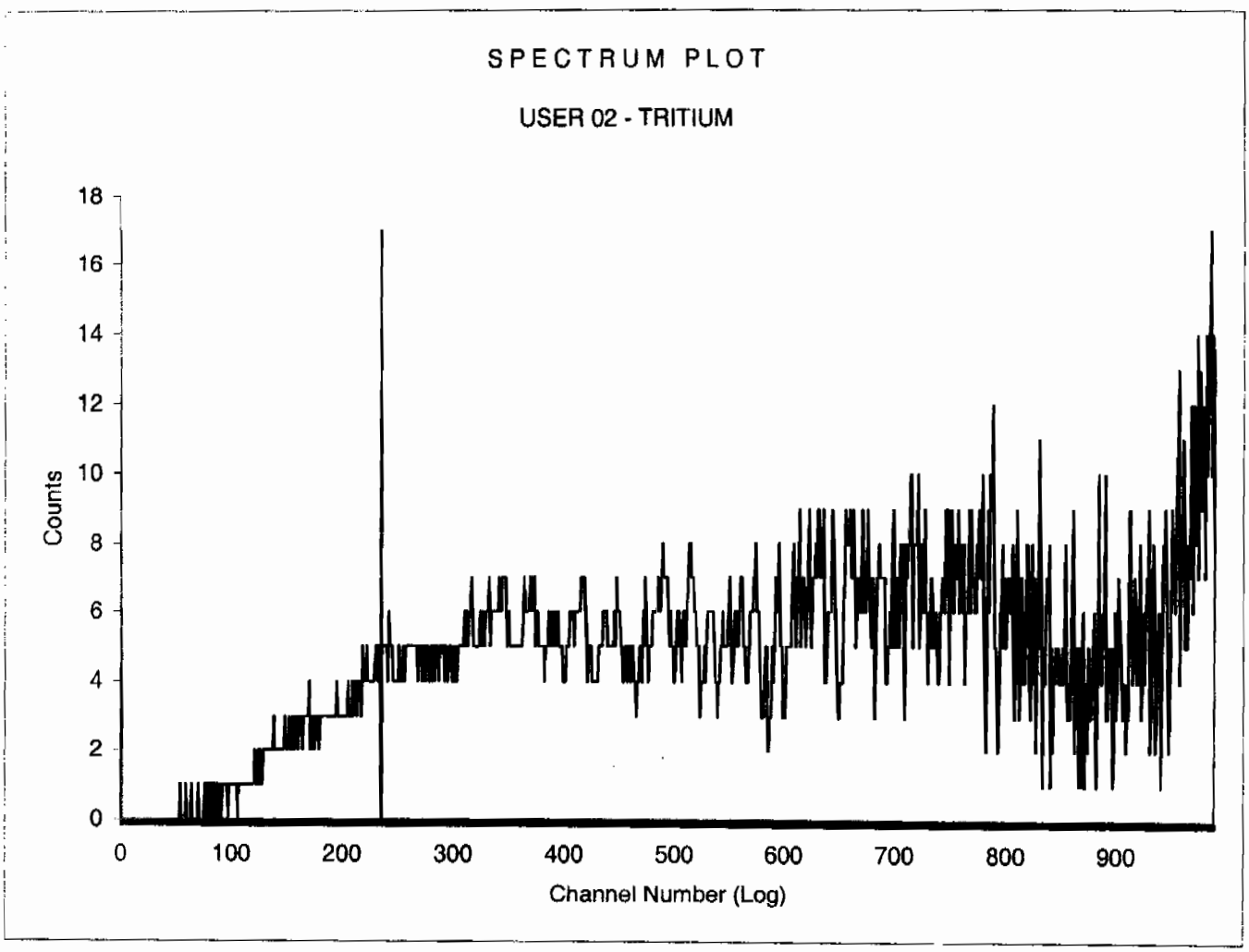

Sample Count Start Time:	28 Dec 2009 18:34:25		
Data Capture Date	28 Dec 2009 20:34:36		
User Filename	S02122859-3A.XLS		
	U02122859-1A.XLS		
Spectrum Type	Log Counts		
User Number	02		
User Id	TRITIUM		
User Comment	GOLD		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	3	59-3	120.00
H#, Total Counts:	117.4	5717	
Win1: Tritium - Start, End, Counts:	0	235	487
Win2: - Start, End, Counts:	0	990	4833

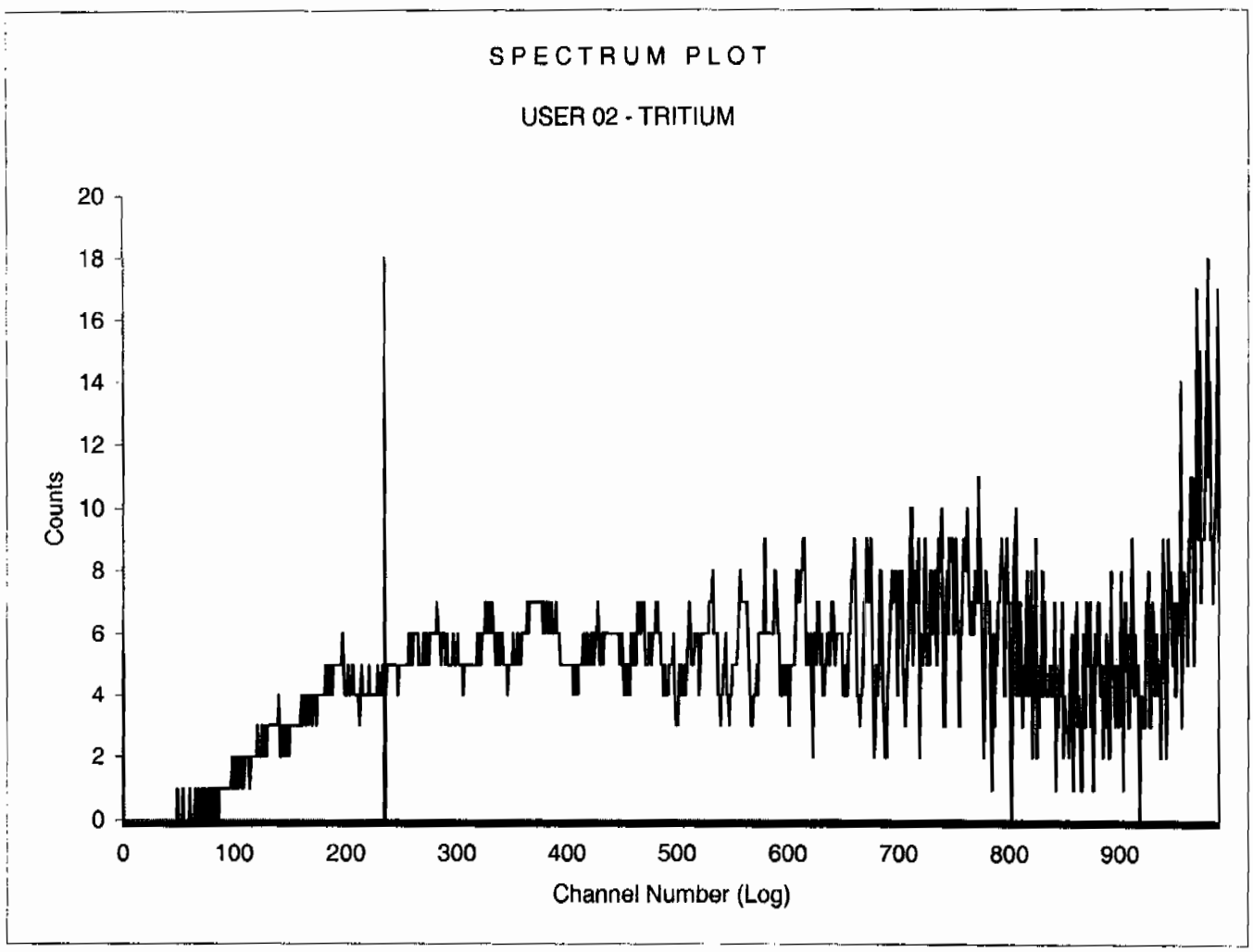

Sample Count Start Time:	28 Dec 2009 20:37:53		
Data Capture Date	28 Dec 2009 22:38:05		
User Filename	S02122859-4A.XLS		
	U02122859-1A.XLS		
Spectrum Type	Log Counts		
User Number	02		
User Id	TRITIUM		
User Comment	GOLD		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	4	59-4	120.00
H#, Total Counts:	117.6	5665	
Win1: Tritium - Start, End, Counts:	0	235	349
Win2: - Start, End, Counts:	0	990	4717

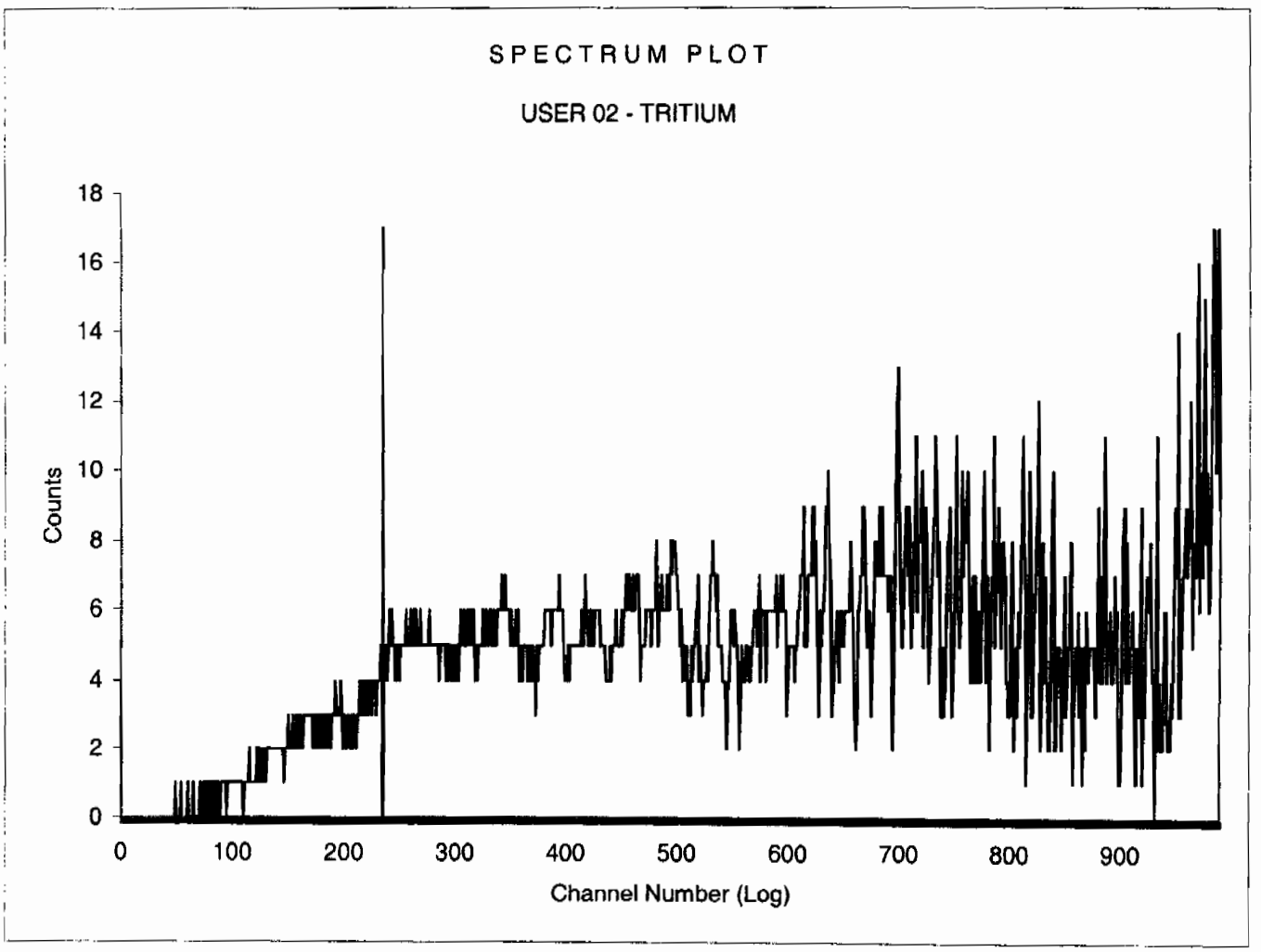

Sample Count Start Time:	28 Dec 2009 22:41:20		
Data Capture Date	29 Dec 2009 00:41:31		
User Filename	S02122959-5A.XLS		
	U02122859-1A.XLS		
Spectrum Type	Log Counts		
User Number	02		
User Id	TRITIUM		
User Comment	GOLD		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	5	59-5	120.00
H#, Total Counts:	118.0	5421	
Win1: Tritium - Start, End, Counts:	0	235	415
Win2: - Start, End, Counts:	0	990	4622

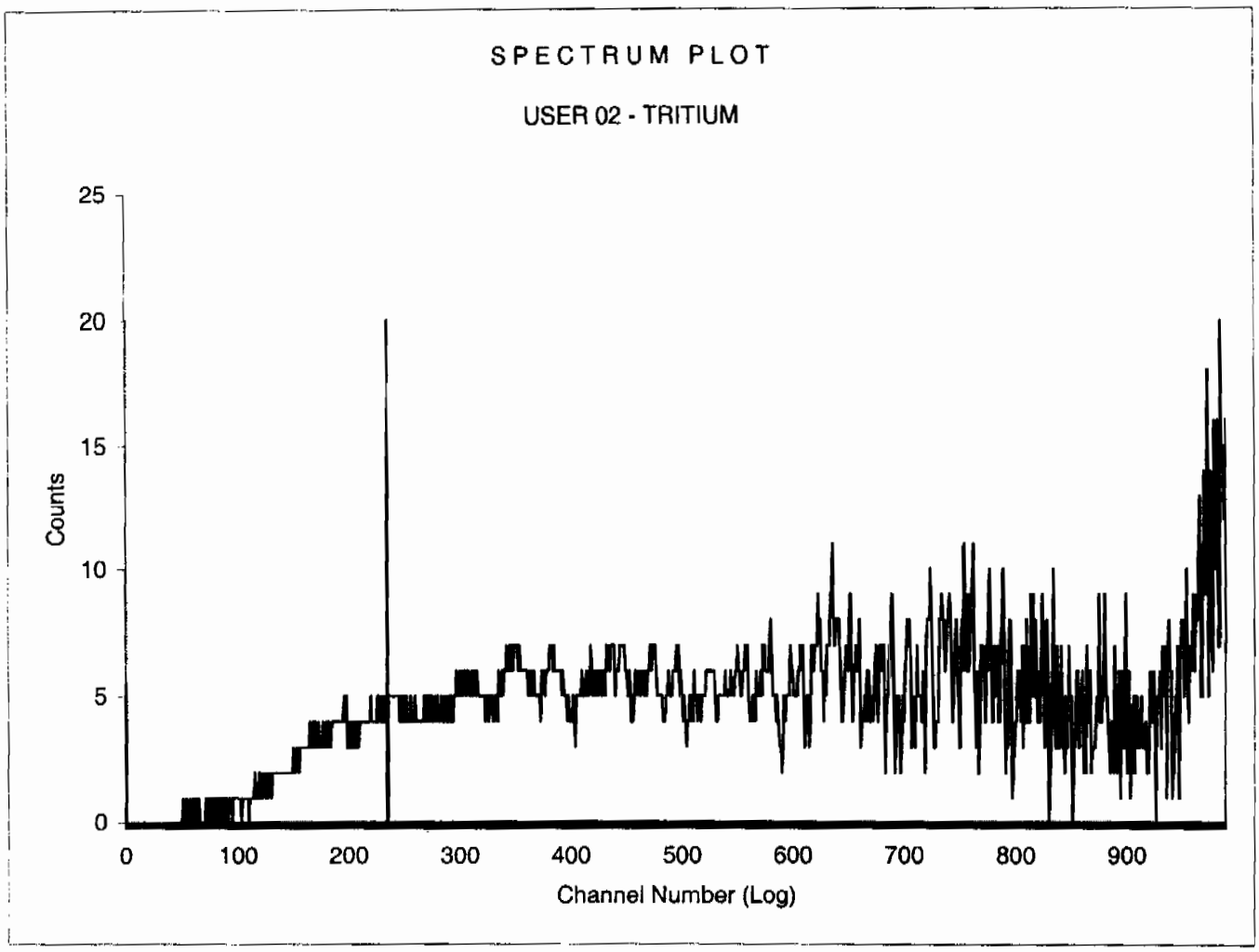

Sample Count Start Time:	29 Dec 2009 00:44:45		
Data Capture Date	29 Dec 2009 02:44:58		
User Filename	S02122959-6A.XLS		
	U02122859-1A.XLS		
Spectrum Type	Log Counts		
User Number	02		
User Id	TRITIUM		
User Comment	GOLD		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	6	59-6	120.00
H#, Total Counts:	118.4	5383	
Win1: Tritium - Start, End, Counts:	0	235	332
Win2: - Start, End, Counts:	0	990	4586

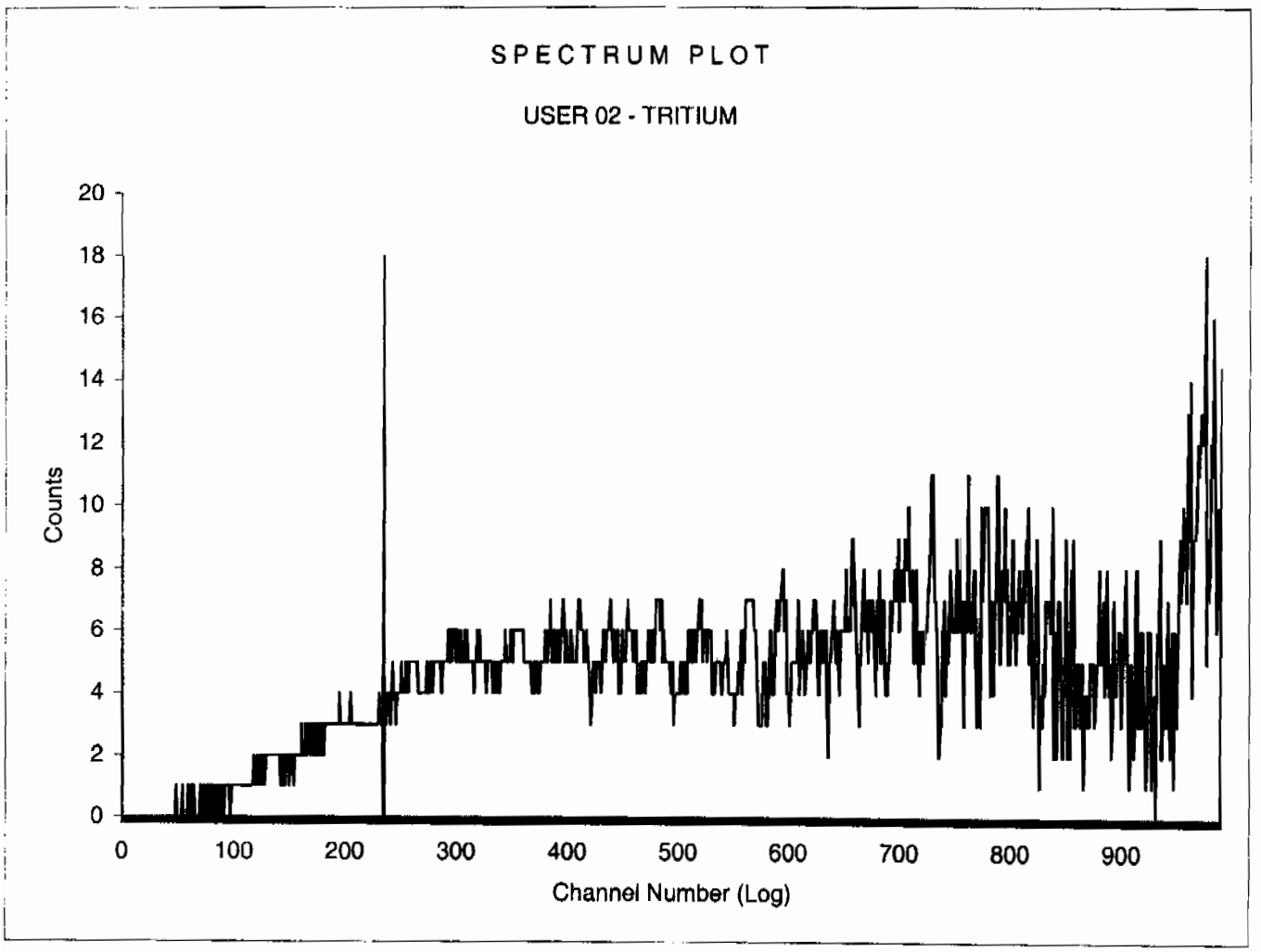

Sample Count Start Time:	29 Dec 2009 02:48:11		
Data Capture Date	29 Dec 2009 04:48:24		
User Filename	S02122959-7A.XLS		
	U02122859-1A.XLS		
Spectrum Type	Log Counts		
User Number	02		
User Id	TRITIUM		
User Comment	GOLD		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	7	59-7	120.00
H#, Total Counts:	118.6	5792	
Win1: Tritium - Start, End, Counts:	0	235	390
Win2: - Start, End, Counts:	0	990	4807

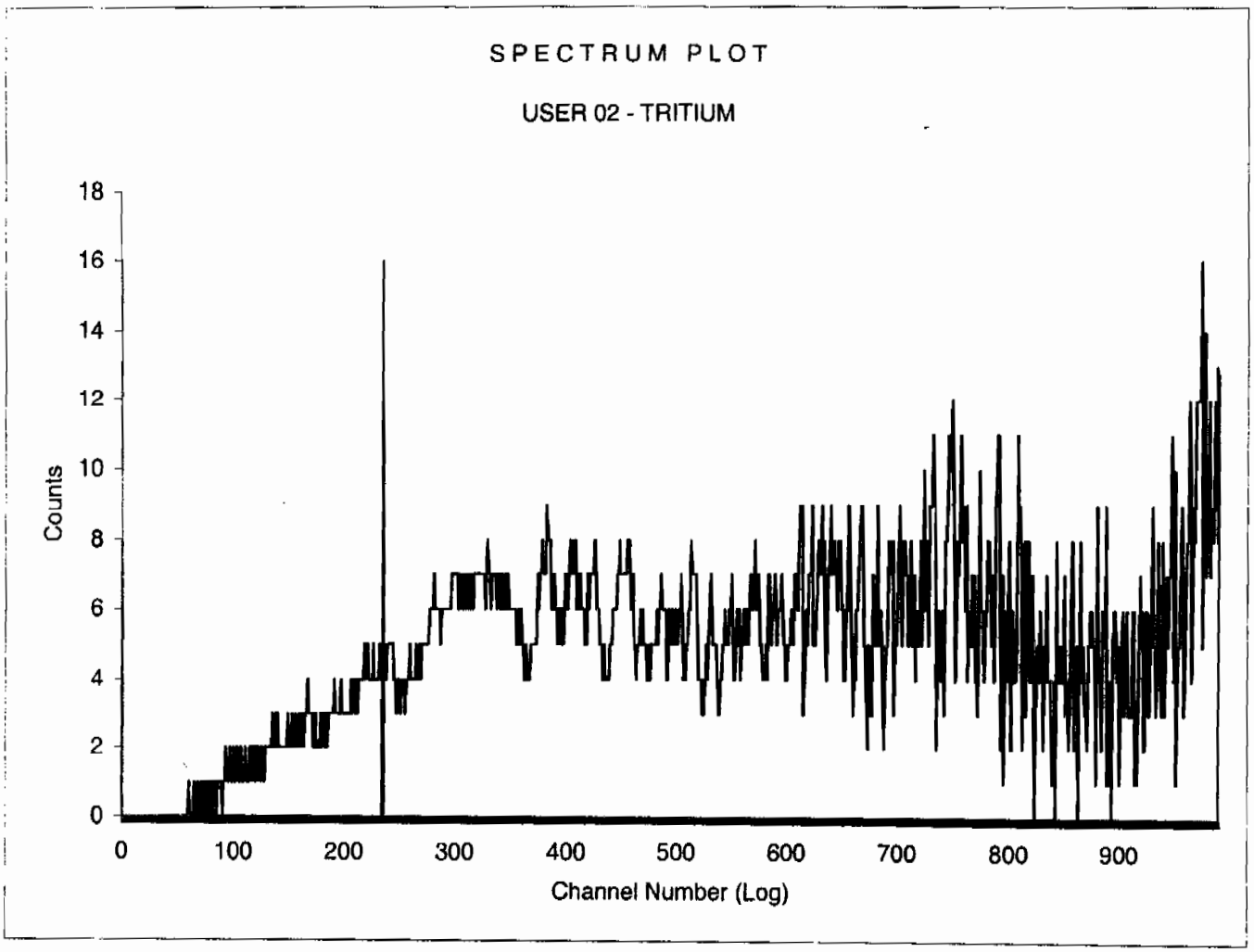

Sample Count Start Time:	29 Dec 2009 04:54:36		
Data Capture Date	29 Dec 2009 06:55:03		
User Filename	S02122935-1A.XLS		
	U02122935-1A.XLS		
Spectrum Type	Log Counts		
User Number	02		
User Id	TRITIUM		
User Comment	GOLD		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	1	35-1	120.00
H#, Total Counts:	119.2	5395	
Win1: Tritium - Start, End, Counts:	0	235	372
Win2: - Start, End, Counts:	0	990	4606

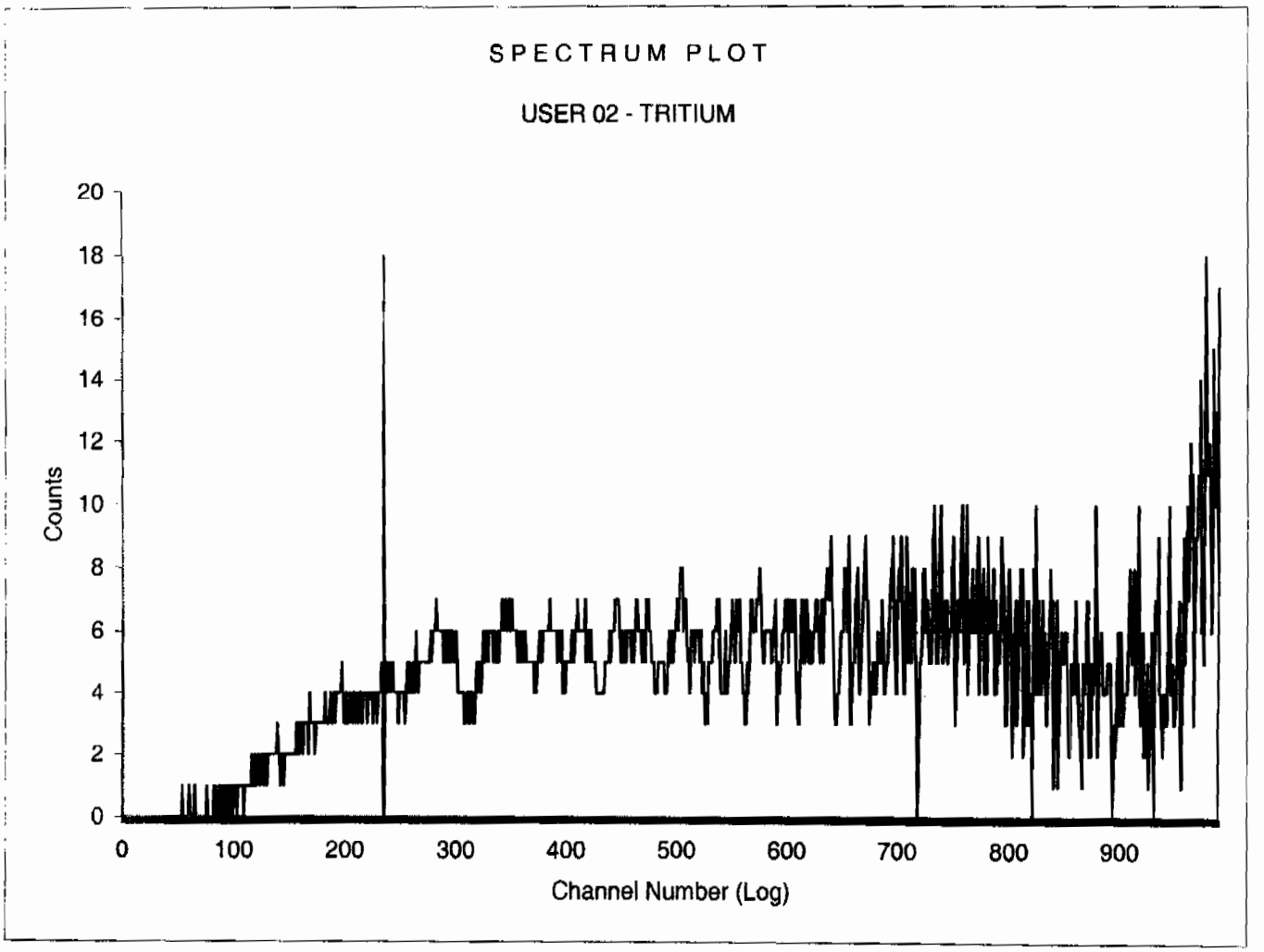

Sample Count Start Time:	29 Dec 2009 06:58:00		
Data Capture Date	29 Dec 2009 08:58:28		
User Filename	S02122935-2A.XLS		
	U02122935-1A.XLS		
Spectrum Type	Log Counts		
User Number	02		
User Id	TRITIUM		
User Comment	GOLD		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	2	35-2	120.00
H#, Total Counts:	119.3	5679	
Win1: Tritium - Start, End, Counts:	0	235	462
Win2: - Start, End, Counts:	0	990	4782

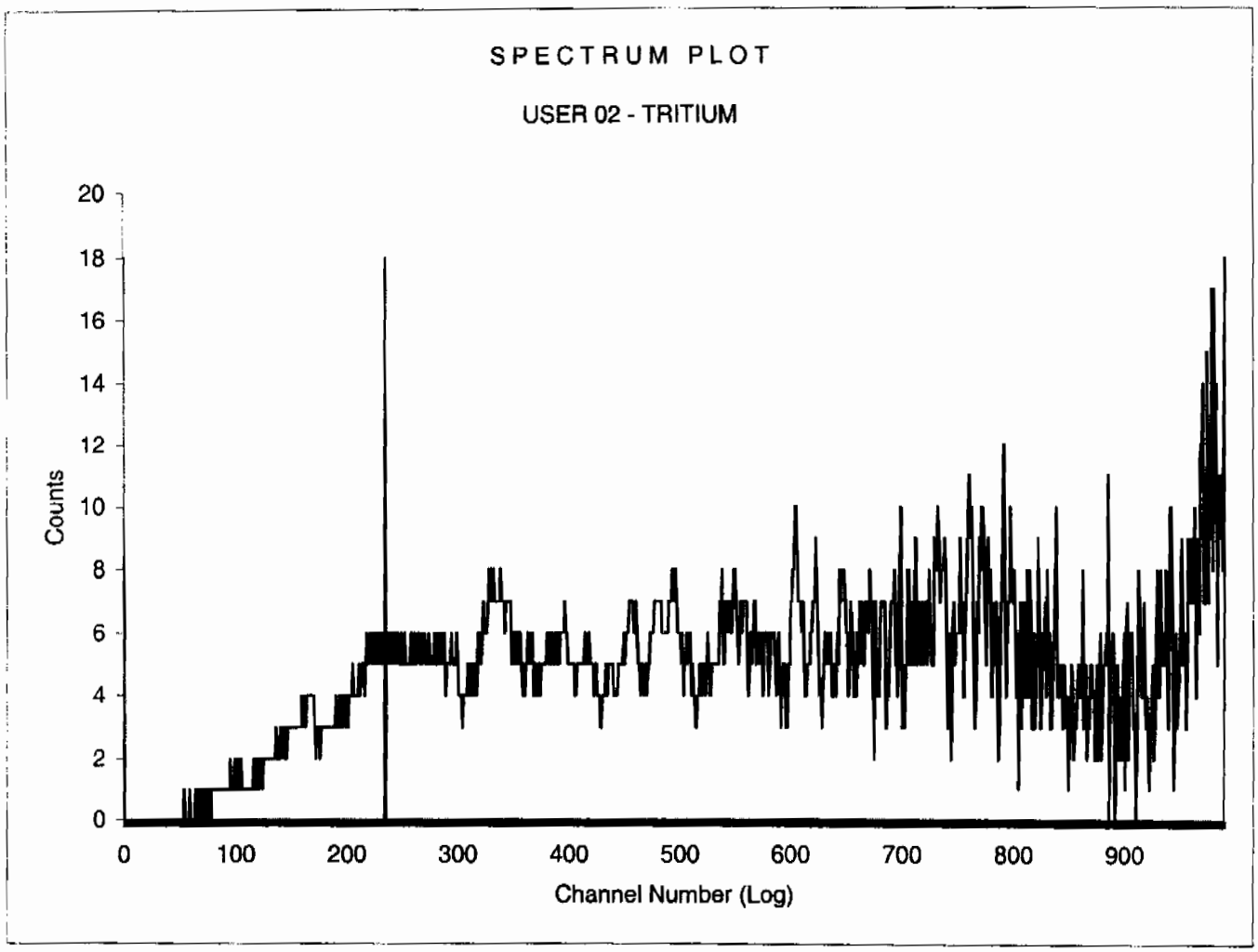

Sample Count Start Time:	29 Dec 2009 10:11:10		
Data Capture Date	29 Dec 2009 12:11:37		
User Filename	S02122935-3A.XLS		
	U02122935-3A.XLS		
Spectrum Type	Log Counts		
User Number	02		
User Id	TRITIUM		
User Comment	GOLD		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	3	35-3	120.00
H#, Total Counts:	118.0	5351	
Win1: Tritium - Start, End, Counts:	0	235	313
Win2: - Start, End, Counts:	0	990	4587

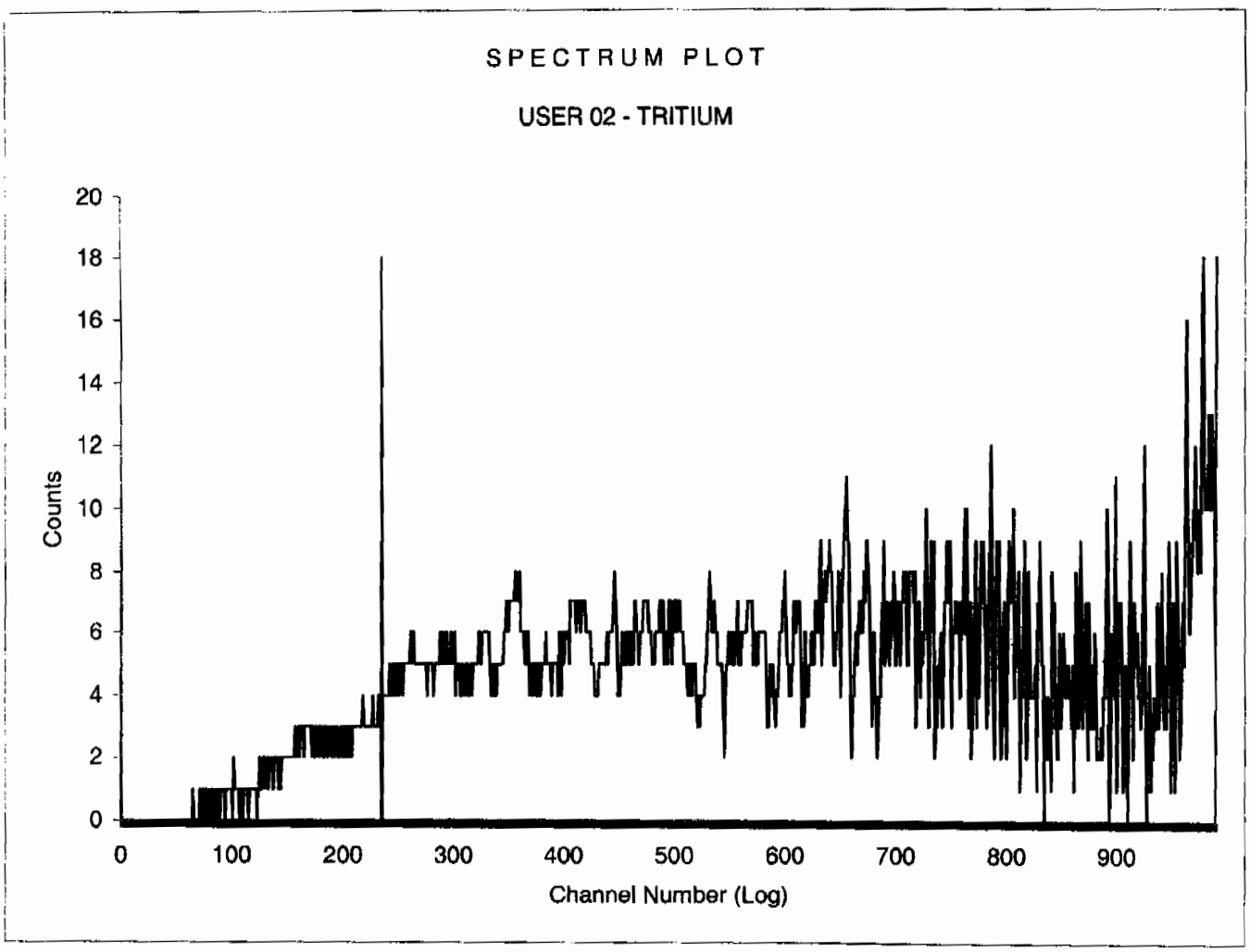

Sample Count Start Time:	29 Dec 2009 12:14:38		
Data Capture Date	29 Dec 2009 14:15:04		
User Filename	S02122935-4A.XLS		
	U02122935-3A.XLS		
Spectrum Type	Log Counts		
User Number	02		
User Id	TRITIUM		
User Comment	GOLD		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	4	35-4	120.00
H#, Total Counts:	117.9	5515	
Win1: Tritium - Start, End, Counts:	0	235	339
Win2: - Start, End, Counts:	0	990	4615

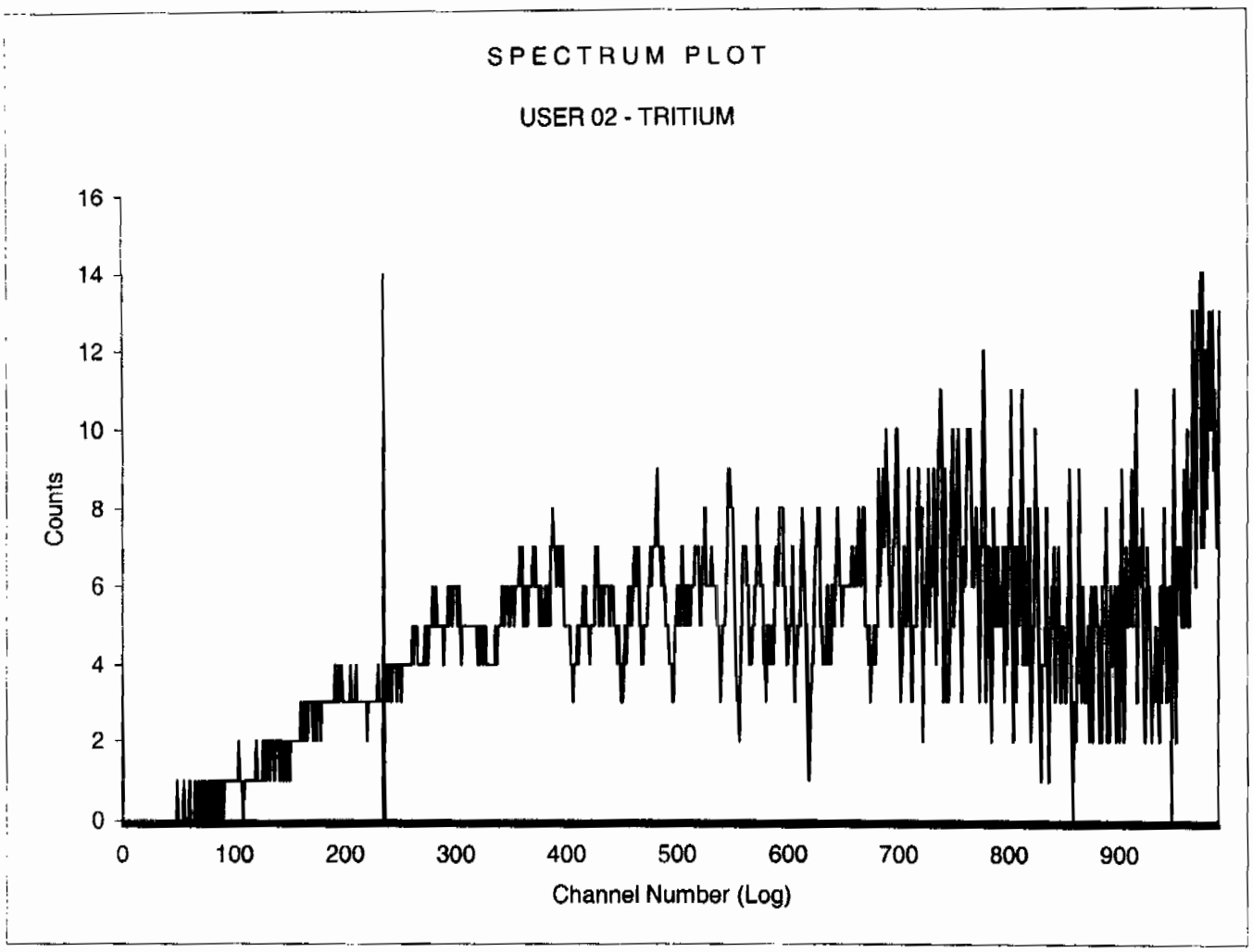

Sample Count Start Time:	29 Dec 2009 14:18:06		
Data Capture Date	29 Dec 2009 16:18:32		
User Filename	S02122935-5A.XLS		
	U02122935-3A.XLS		
Spectrum Type	Log Counts		
User Number	02		
User Id	TRITIUM		
User Comment	GOLD		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	5	35-5	120.00
H#, Total Counts:	118.0	5288	
Win1: Tritium - Start, End, Counts:	0	235	352
Win2: - Start, End, Counts:	0	990	4492

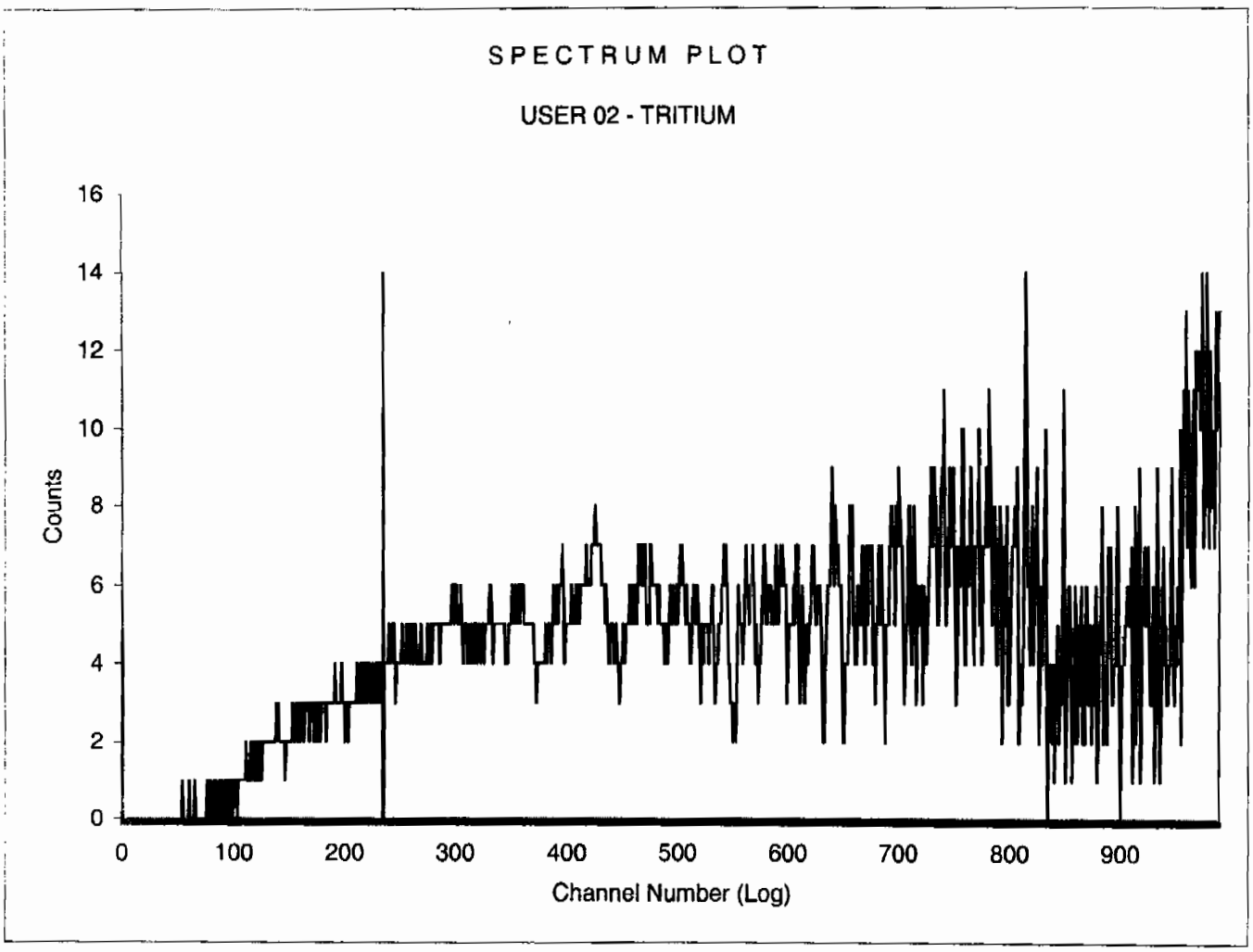

Sample Count Start Time:	29 Dec 2009 16:21:33		
Data Capture Date	29 Dec 2009 18:22:00		
User Filename	S02122935-6A.XLS		
	U02122935-3A.XLS		
Spectrum Type	Log Counts		
User Number	02		
User Id	TRITIUM		
User Comment	GOLD		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	6	35-6	120.00
H#, Total Counts:	117.9	5497	
Win1: Tritium - Start, End, Counts:	0	235	335
Win2: - Start, End, Counts:	0	990	4597

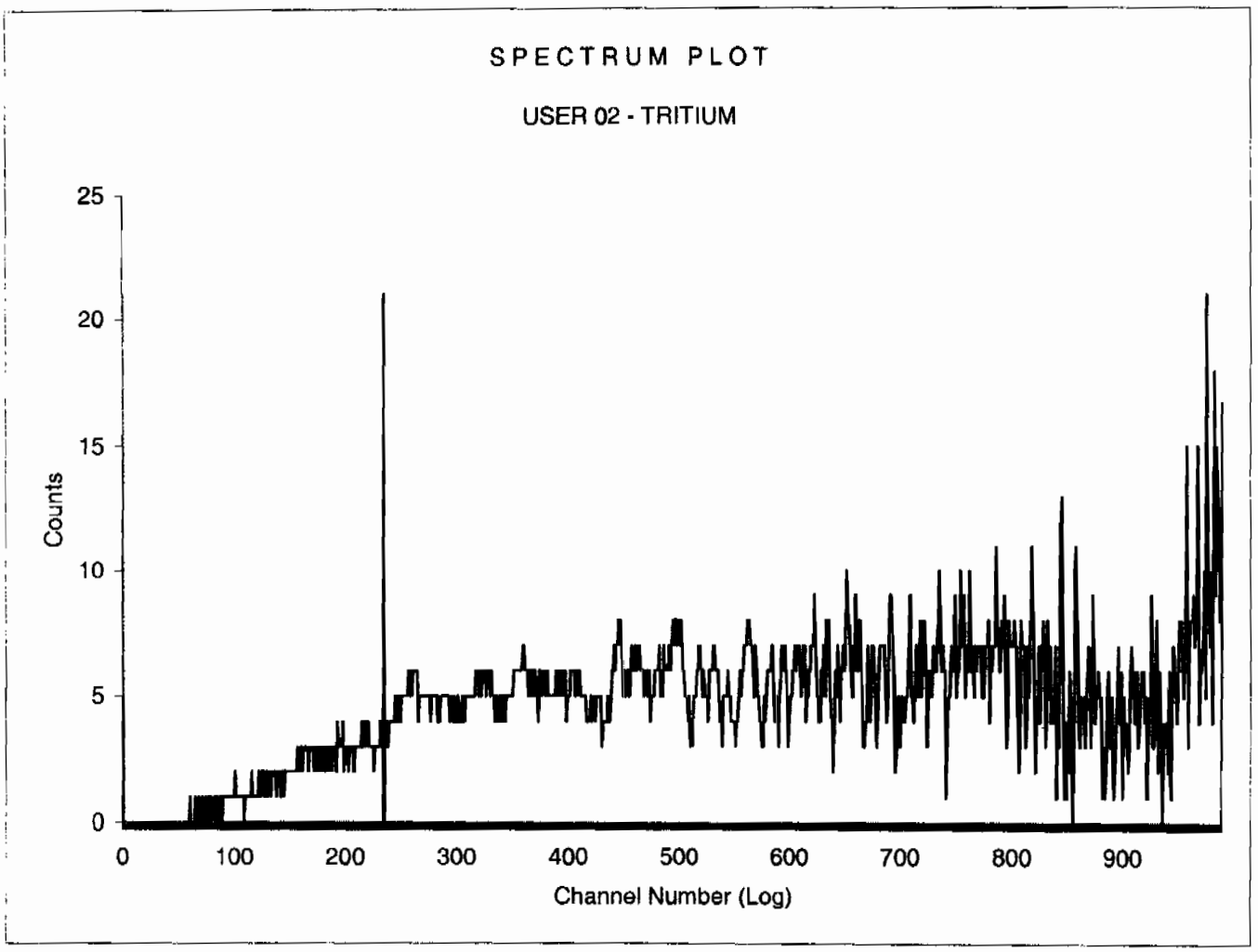

Sample Count Start Time:	29 Dec 2009 18:25:01		
Data Capture Date	29 Dec 2009 20:25:28		
User Filename	S02122935-7A.XLS		
	U02122935-3A.XLS		
Spectrum Type	Log Counts		
User Number	02		
User Id	TRITIUM		
User Comment	GOLD		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	7	35-7	120.00
H#, Total Counts:	117.4	5525	
Win1: Tritium - Start, End, Counts:	0	235	317
Win2: - Start, End, Counts:	0	990	4571

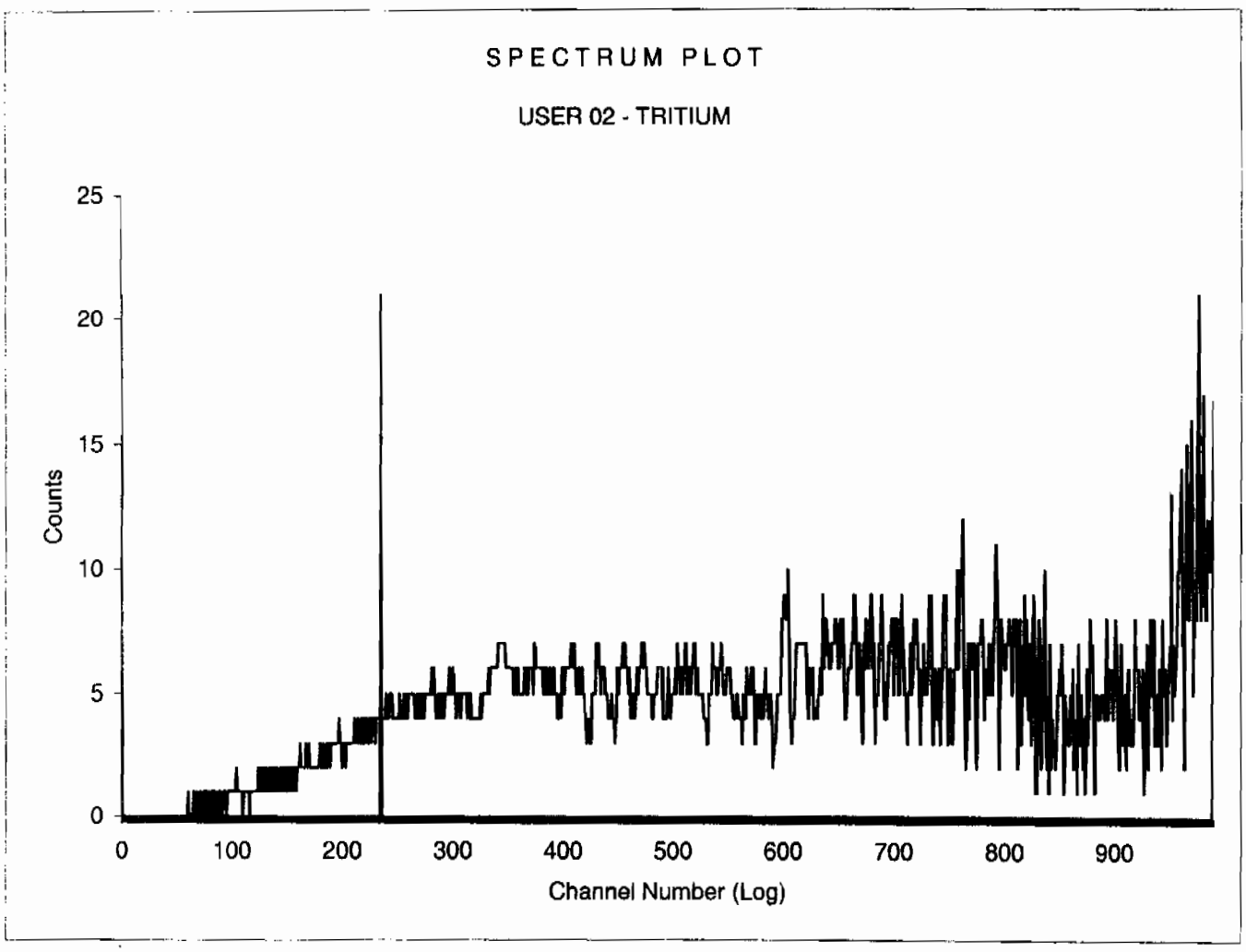

Sample Count Start Time:	29 Dec 2009 20:28:30		
Data Capture Date	29 Dec 2009 22:28:56		
User Filename	S02122935-8A.XLS		
	U02122935-3A.XLS		
Spectrum Type	Log Counts		
User Number	02		
User Id	TRITIUM		
User Comment	GOLD		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	8	35-8	120.00
H#, Total Counts:	119.3	5434	
Win1: Tritium - Start, End, Counts:	0	235	319
Win2: - Start, End, Counts:	0	990	4502

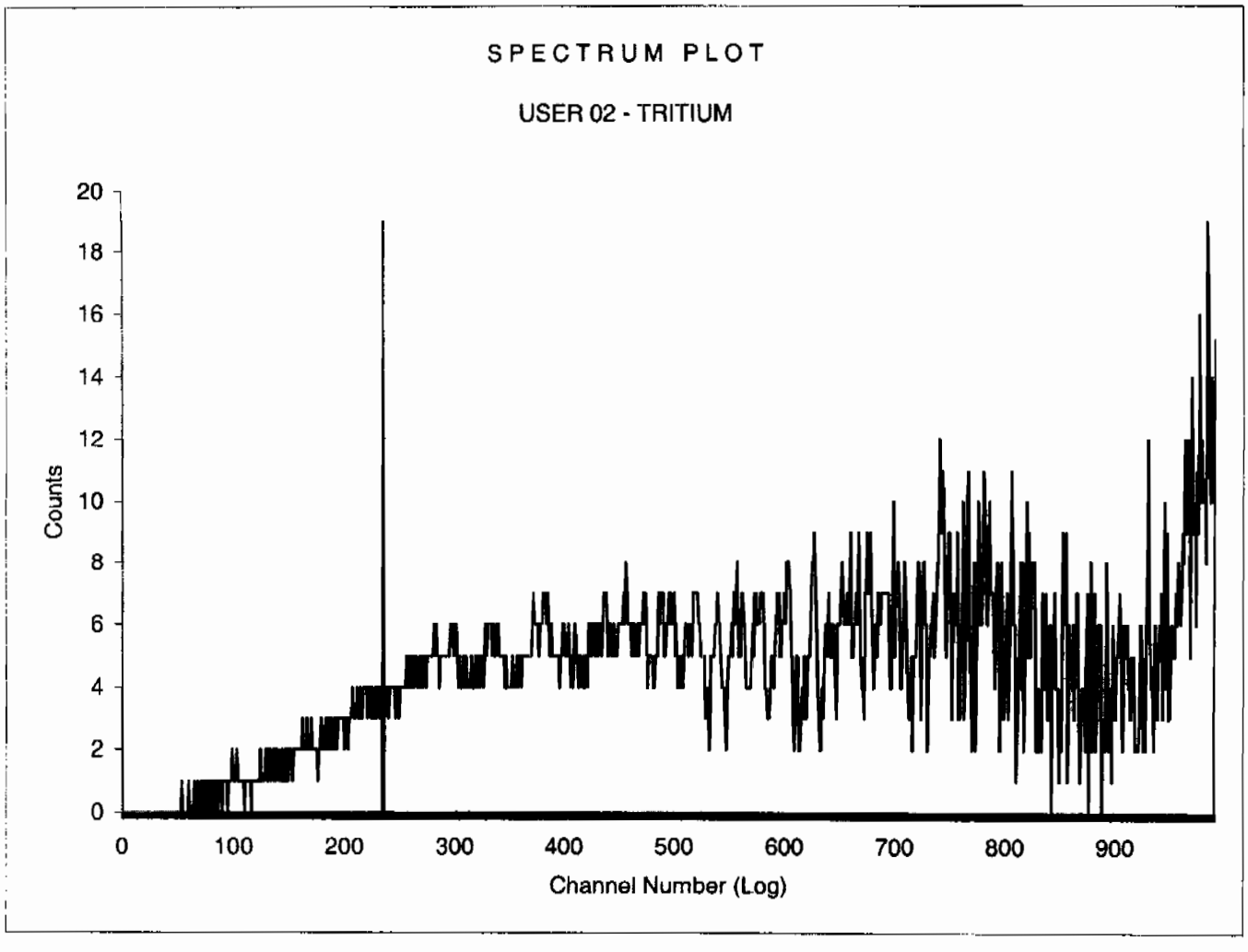

Sample Count Start Time:	24 Dec 2009 05:13:53		
Data Capture Date	24 Dec 2009 07:14:20		
User Filename	S02122459-1A.XLS		
	U02122459-1A.XLS		
Spectrum Type	Log Counts		
User Number	02		
User Id	TRITIUM		
User Comment	SILVER		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	1	59-1	120.00
H#, Total Counts:	125.6	5962	
Win1: Tritium - Start, End, Counts:	20	280	1279
Win2: - Start, End, Counts:	0	990	5514

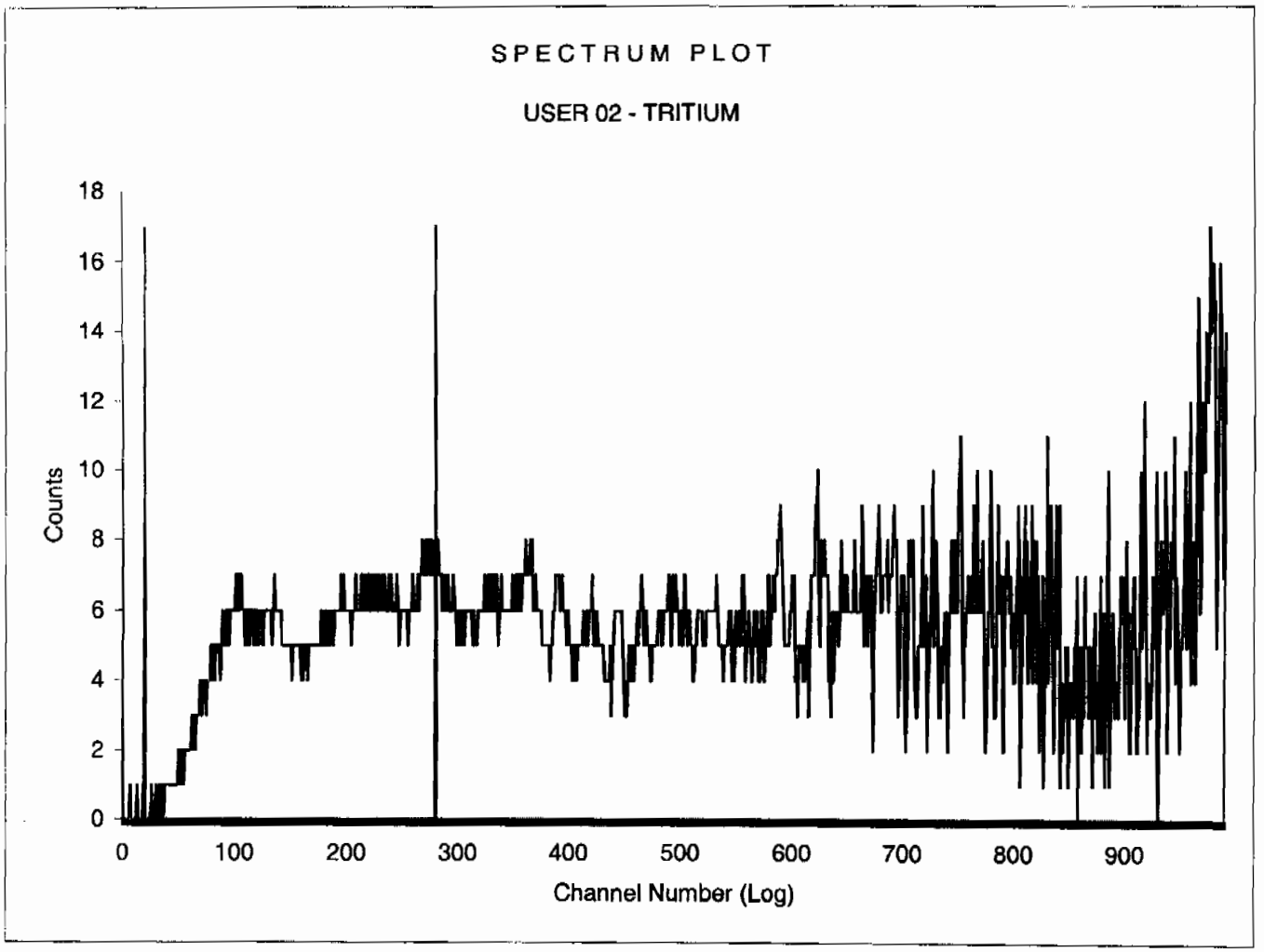

~~DO NOT REPORT~~
LH 12/30/09

Sample Count Start Time:	25 Dec 2009 13:22:24		
Data Capture Date	25 Dec 2009 15:22:50		
User Filename	S02122535-4A.XLS		
	U02122535-1A.XLS		
Spectrum Type	Log Counts		
User Number	02		
User Id	TRITIUM		
User Comment	SILVER		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	4	35-4	120.00
H#, Total Counts:	125.8	9842	
Win1: Tritium - Start, End, Counts:	20	280	4976
Win2: - Start, End, Counts:	0	990	9376

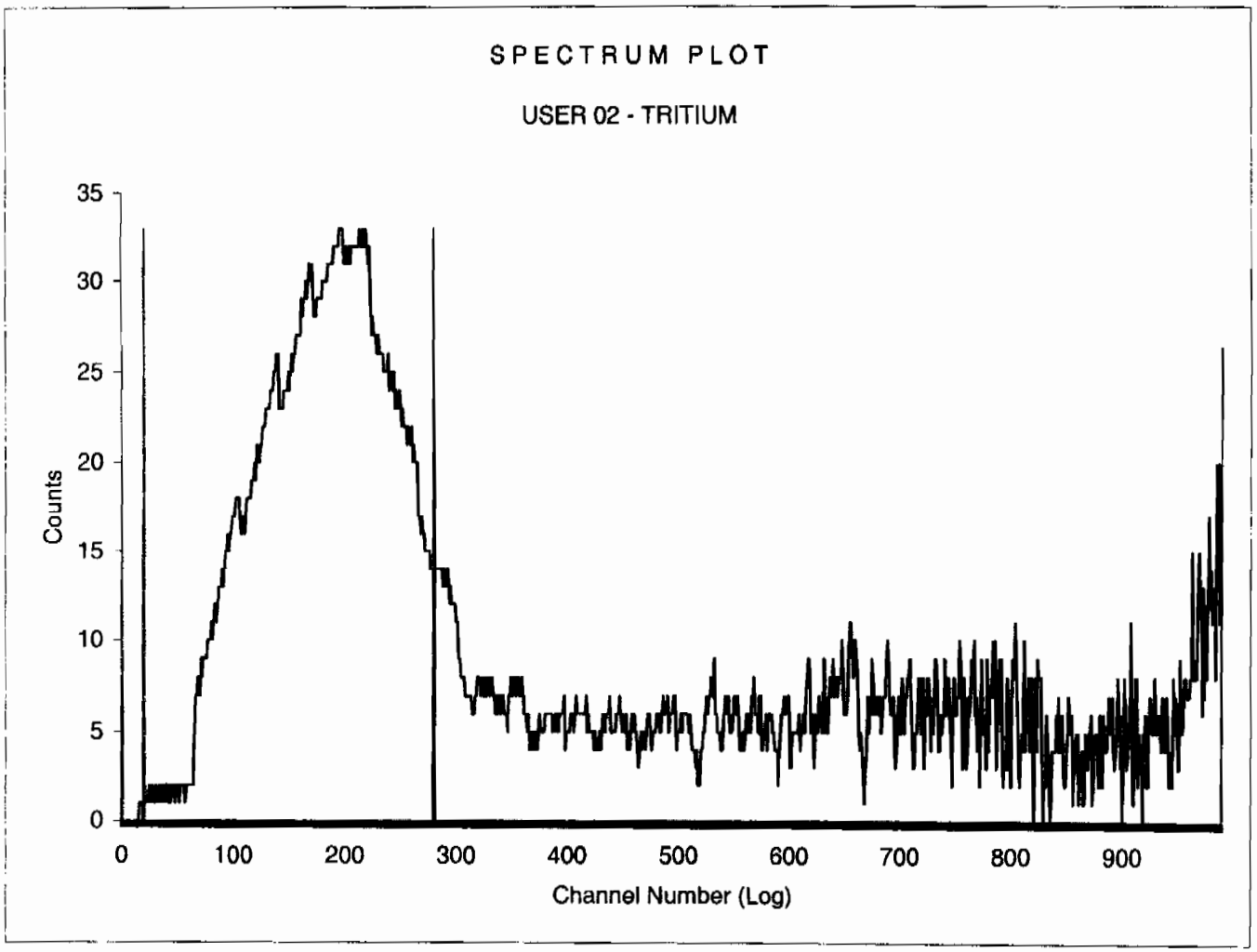

~~DO NOT REPORT~~
dwh 12/30/09

BACKGROUND AND EFFICIENCY DATA

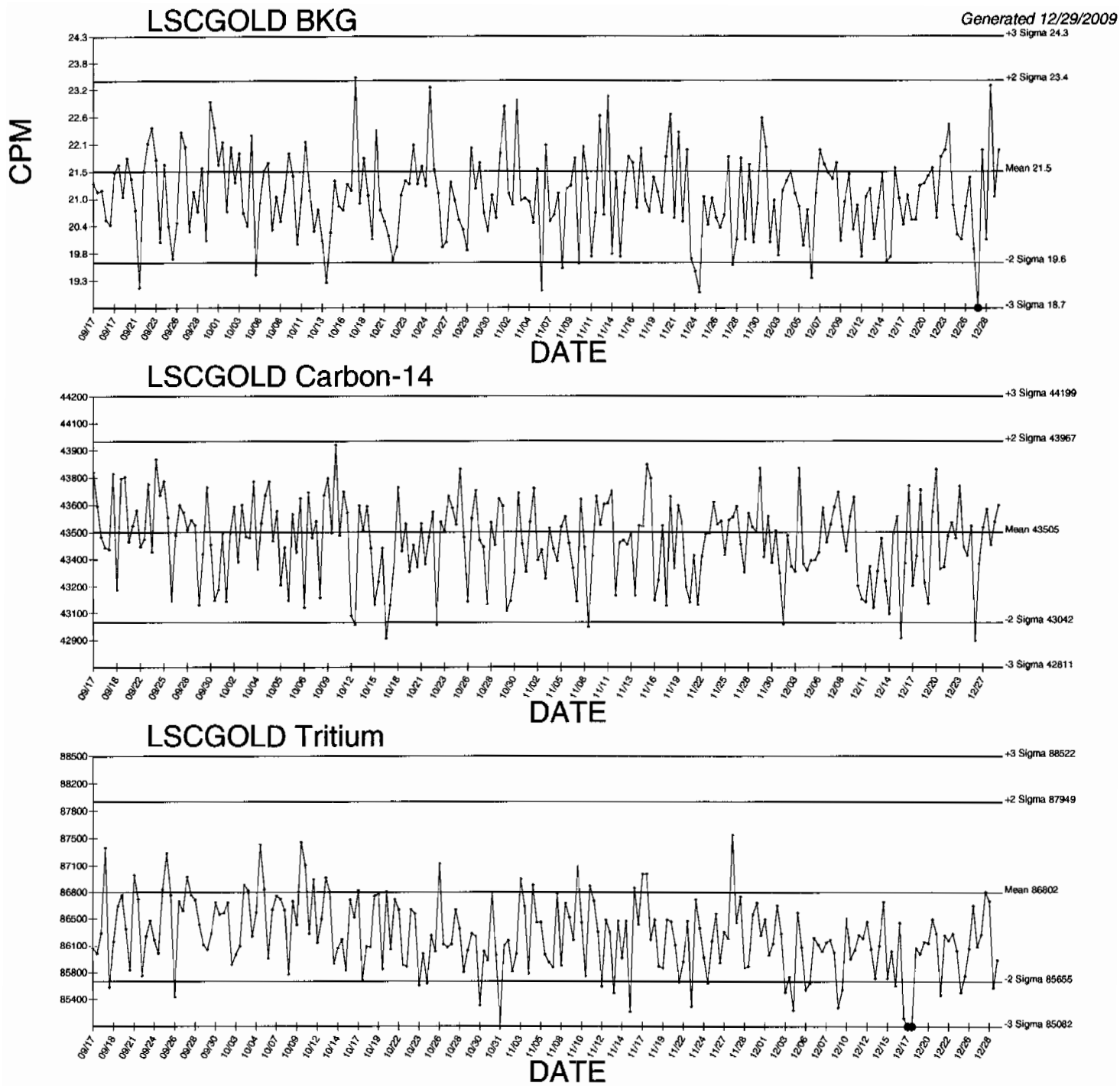

● Denotes Outlier

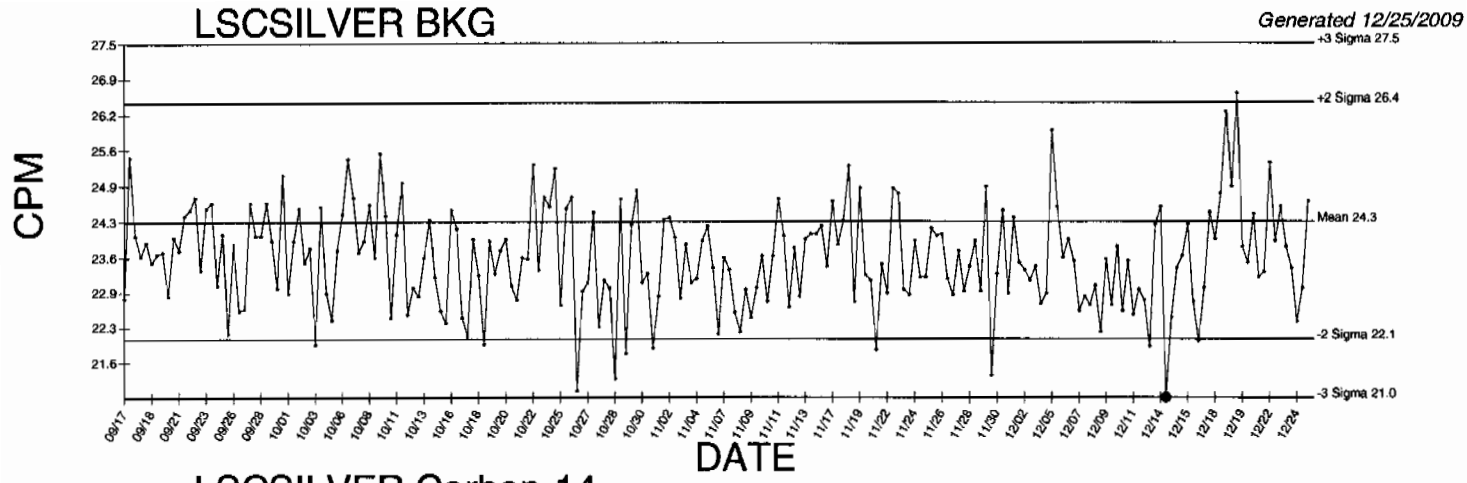

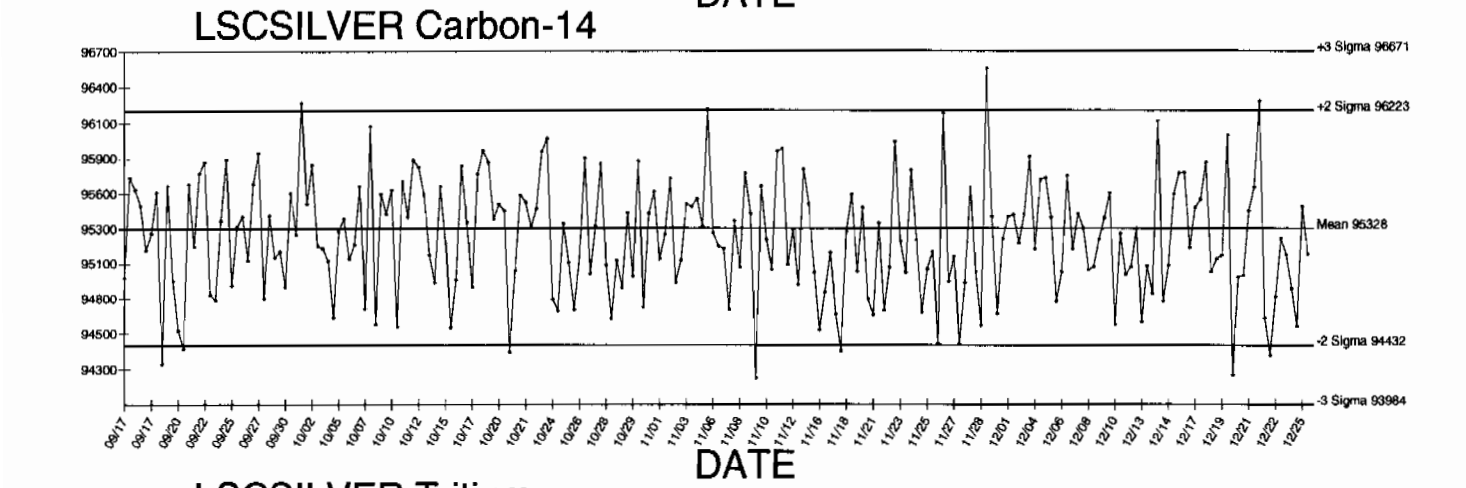

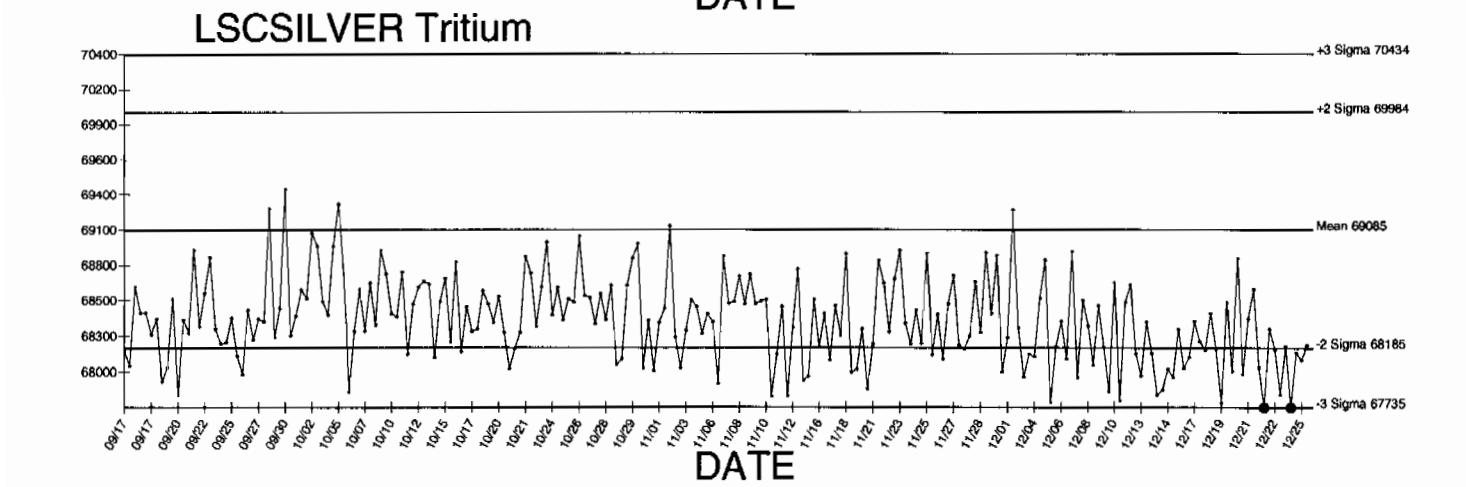

● Denotes Outlier

STANDARDS DATA

Amersham International plc
Amersham Laboratories

0134

NAMAS
CALIBRATION
No. 0146

Certificate of calibration of standard of tritium-labelled water

Description

Radionuclide: TRITIUM (HYDROGEN-3) Product code: TRY·64

Chemical form: water Batch: 111

Measurement

Reference time: 1200 GMT on 1 March 1996

Radioactive concentration of tritium: 488.0 kilobecquerels per gram of water

which is equivalent to: 13.19 microcuries per gram of water

or: 2.93×10^7 disintegrations per minute per gram of water

Method of Measurement
This reference material was calibrated by direct comparison with a standard of tritium-labelled water obtained from the National Institute of Standards and Technology, USA.

Accuracy

The OVERALL UNCERTAINTY of the result quoted above is estimated to be less than ±2.5%

This estimate of uncertainty was calculated in accordance with the recommendations of the International Commission on Radiation Units and Measurements (ICRU Report 12). The limits of uncertainty were taken as the arithmetic sum of the uncertainty due to random variations, calculated at the 99·7% confidence level, and the estimated systematic uncertainties.

Purity

No radioactive impurities were detected. (Impurities with total activity greater than 0.001% of the activity of the tritium would have been detected).

Physical Data

Half-life of tritium: 12·43 ± 0·11 years

Maximum beta energy of tritium: 18·6 keV

Remarks:

The S.I. unit of radioactivity is the becquerel.

1 becquerel (Bq) = 1 nuclear transformation per second, therefore
1 curie (Ci) = $3{\cdot}7 \times 10^{10}$ becquerels exactly.

Useful conversion factors are:

1 microcurie (μCi) = $3{\cdot}7 \times 10^4$ Bq = 37 kilobecquerels (kBq)

1 kilobecquerel (kBq) = 27·027 nanocuries (nCi)

This product meets the quality assurance requirements of NRC Regulatory Guide 4.15 for achieving implicit NIST (NBS) traceability as defined in NCRP58 (1985).

Approved signatory

RC-5-024-061

W.F. Case

Amersham
The Health Science Group

Standard Traceability Log Rad

Source Material Info	
Parent Code:	0134
Prepared By:	Angela Johnson
Carrier Conc:	DI WATER
Reference Date:	03/01/1996
Ampoule Mass (g):	5 g
Uncertainty:	+/- 2.5 %
LogBook No:	RC S 023 061

A Solution Material Info	
Isotope:	Tritium
Prepared By:	Angela Johnson
Prep Date:	02/21/2001
Verification Date:	09/10/2008
Expiration Date:	03/27/2010
Primary Code:	0134-A
Dilution(mL):	100 mL
Mass of Parent(g):	3.3659 g
Density(g/mL):	1.0004
Balance ID:	38080204

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (kBq/g)) * (conversion dpm to kBq) / (Dilution Vol) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (kBq/g)) * (conversion dpm to kBq) / Density (g/mL)/ (Dilution Vol) = Parent Activity (dpm/g)
(3.3659 g) * (488 kBq/g) * (60000 dpm/kBq) / (100 mL) = 985535.5200 dpm/mL
(3.3659 g) * (488 kBq/g) * (60000 dpm/kBq) / (1.0004 g/mL) / (100 mL) = 985180.3116 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date
07/20/2004	Amanda Fehr	5.86	1000	0134-H	5773.1566 dpm/mL	07/25/2006	07/25/2007
12/20/2005	Amanda Fehr	5.5451	1000	0134-I	5462.92 dpm/mL	12/20/2006	12/20/2007
07/11/2007	Daniel Roy	5.5863	1000	0134-J	5503.5128 dpm/ml	07/29/2008	07/29/2009
03/25/2009	Mary Aders	5.4917	1000	0134-K	5410.3147 dpm/ml	03/27/2009	03/27/2010

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for H-3 Standard 0134-K

M. Aders	Isotope	Detector CPM	BKG CPM	NET CPM	Detector Eff	Standard Mass. Used (mL)	Source DPM/mL
4/9/2009	0134-K N1	1097.2000	54.0000	1043.2000	0.380548	1.0000	2741.3099
	0134-K N2	1073.2000	54.0000	1019.2000	0.380548	1.0000	2678.242955
	0134-K N3	1085.2000	54.0000	1031.2000	0.380548	1.0000	2709.776428
						Average =	2709.776428
Mean Value (Counting) =	2709.776428		**104.954429**	**Pass**			
Stdev =	31.53347278		0.01163693	**Rule 3 (Pass/Fail)**			

Certificate Value =	2581.86	dpm/mL
Lower Limit =	2646.709482	dpm/mL
Upper Limit =	2772.843373	dpm/mL
Rule 1 Pass/Fail	**Fail**	***exception taken due to full recovery of standard**
Two sigma =	63.06694556	dpm/mL
10 % of Mean =	270.9776428	dpm/mL
Rule 2 (Pass/Fail)	**Pass**	

Verification Rules

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 10% of the certificate value.

The analyst prepared three standard verification sources for H-3 source 0134-K by transferring 0.1 mL portions of the standard into glass liquid scintillation vials. Ten mL of Ecoscint Ultra liquid scintillation cocktail was added to each vial and the vials were shaken to mix. A Blank vial was prepared in a similar fashion using 1 mL of DI water and 10 mL of Ecoscint Ultra liquid scintillation cocktail. The standard verification vials and Background source were dark adapted for two hours and counted on Silver for H-3 source standard verification. The H-3 efficiency calibration which was used for verification calculations was performed on 4/9/09 using 0020-A (H-3). Calibration data is recorded in this logbook under H-3 0020. Each verification source calculation was performed as follows:

Source dpm/g = (A - B)/(C)(D)
where:
A = Ver. source cpm,
B = BKG cpm,
C = System efficiency, (cpm/dpm), and
D = mass used for standard verification.

Reference RAD SOP M-001

Mary Fitdews 4/9/09
Amanda L. Tech 4/9/09

RUNLOGS

Instrument Run Log

Instrument Type: LSC **Batch ID: 933025**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
1201996039	LCS	KXK2	LSCSILVER	25-DEC-09 13:22	DONE	10mL DW/13mL Ecoscint Ultra	21-AUG-09 00:00
242175001	SAMPLE	KXK2	LSCGOLD	28-DEC-09 16:30	DONE	10mL DW/13mL Ecoscint Ultra	20-AUG-09 00:00
242175002	SAMPLE	KXK2	LSCGOLD	28-DEC-09 18:34	DONE	10mL DW/13mL Ecoscint Ultra	20-AUG-09 00:00
242177001	SAMPLE	KXK2	LSCGOLD	28-DEC-09 20:37	DONE	10mL DW/13mL Ecoscint Ultra	20-AUG-09 00:00
242177002	SAMPLE	KXK2	LSCGOLD	28-DEC-09 22:41	DONE	10mL DW/13mL Ecoscint Ultra	20-AUG-09 00:00
242303001	SAMPLE	KXK2	LSCGOLD	29-DEC-09 00:44	DONE	10mL DW/13mL Ecoscint Ultra	20-AUG-09 00:00
242303002	SAMPLE	KXK2	LSCGOLD	29-DEC-09 02:48	DONE	10mL DW/13mL Ecoscint Ultra	20-AUG-09 00:00
242303003	SAMPLE	KXK2	LSCGOLD	29-DEC-09 04:54	DONE	10mL DW/13mL Ecoscint Ultra	20-AUG-09 00:00
242445002	SAMPLE	KXK2	LSCGOLD	29-DEC-09 06:58	DONE	10mL DW/13mL Ecoscint Ultra	20-AUG-09 00:00
242661001	SAMPLE	KXK2	LSCGOLD	29-DEC-09 10:11	DONE	10mL DW/13mL Ecoscint Ultra	20-AUG-09 00:00
242661002	SAMPLE	KXK2	LSCGOLD	29-DEC-09 12:14	DONE	10mL DW/13mL Ecoscint Ultra	20-AUG-09 00:00
242661003	SAMPLE	KXK2	LSCGOLD	29-DEC-09 14:18	DONE	10mL DW/13mL Ecoscint Ultra	20-AUG-09 00:00
242661004	SAMPLE	KXK2	LSCGOLD	29-DEC-09 16:21	DONE	10mL DW/13mL Ecoscint Ultra	20-AUG-09 00:00
1201996037	MB	KXK2	LSCGOLD	29-DEC-09 18:25	DONE	10mL DW/13mL Ecoscint Ultra	20-AUG-09 00:00
1201996038	DUP	KXK2	LSCGOLD	29-DEC-09 20:28	DONE	10mL DW/13mL Ecoscint Ultra	20-AUG-09 00:00

Tuesday, December 22, 2009

REQUEST NUMBER: 10-1057

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

These Samples are on:

LANL Request Number:10-1057

Per Agreement Number:126310011

Project Cost Code: MR2A054196D0

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 12/22/2009

TURNAROUND/REPORT DUE: 1/21/2010

TURNAROUND REQ'D: 30 Days

RAD SCREENING: Not Required

LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:

Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:300.0	1	RE03-09-14228	S	12/21/2009	
		1	RE03-09-14229	S	12/21/2009	
		1	RE03-09-14230	S	12/21/2009	
	EPA:906.0	1	RE03-09-14228	S	12/21/2009	
		1	RE03-09-14229	S	12/21/2009	
		1	RE03-09-14230	S	12/21/2009	
	HASL-300:ISOPU	1	RE03-09-14228	S	12/21/2009	
		1	RE03-09-14229	S	12/21/2009	
		1	RE03-09-14230	S	12/21/2009	

Tuesday, December 22, 2009

REQUEST NUMBER: 10-1057

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	HASL-300:ISOU	1	RE03-09-14228	S	12/21/2009	
		1	RE03-09-14229	S	12/21/2009	
		1	RE03-09-14230	S	12/21/2009	
	SW-846:6010B	1	RE03-09-14228	S	12/21/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14229	S	12/21/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14230	S	12/21/2009	Plus, B, Li, Si, Ti, U
	SW-846:6020	1	RE03-09-14228	S	12/21/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14229	S	12/21/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14230	S	12/21/2009	Plus, B, Li, Si, Ti, U
	SW-846:6850	1	RE03-09-14228	S	12/21/2009	
		1	RE03-09-14229	S	12/21/2009	
		1	RE03-09-14230	S	12/21/2009	
	SW-846:7471A	1	RE03-09-14228	S	12/21/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14229	S	12/21/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14230	S	12/21/2009	Plus, B, Li, Si, Ti, U
	SW-846:8082	1	RE03-09-14228	S	12/21/2009	
		1	RE03-09-14229	S	12/21/2009	
		1	RE03-09-14230	S	12/21/2009	
	SW-846:8260B	1	RE03-09-14228	S	12/21/2009	
		1	RE03-09-14229	S	12/21/2009	
		1	RE03-09-14230	S	12/21/2009	
		1	RE03-10-9876	S	12/21/2009	
	SW-846:8270C	1	RE03-09-14228	S	12/21/2009	
		1	RE03-09-14229	S	12/21/2009	
		1	RE03-09-14230	S	12/21/2009	
	SW-846:9012A	1	RE03-09-14228	S	12/21/2009	
		1	RE03-09-14229	S	12/21/2009	
		1	RE03-09-14230	S	12/21/2009	

Tuesday, December 22, 2009

REQUEST NUMBER: 10-1057

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:9045C	1	RE03-09-14228	S	12/21/2009	
		1	RE03-09-14229	S	12/21/2009	
		1	RE03-09-14230	S	12/21/2009	

Final Page of REQUEST NUMBER 10-1057

Tuesday, December 22, 2009

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1057

REQUEST NUMBER: 10-1057

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 1/21/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS:

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE03-09-14228	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-09-14228	1	AMBER GLASS	8270C+8082	Ice	S
RE03-09-14228	1	POLY	AM-241+ISOPU+ISOU	None	S
RE03-09-14228	1	POLY	H3	Ice	S
RE03-09-14228	1	POLY	METALS-GEL	Ice	S
RE03-09-14228	1	POLY	Perchlorate+CN+N03+pH	Ice	S
RE03-09-14230	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-09-14230	1	AMBER GLASS	8270C+8082	Ice	S
RE03-09-14230	1	POLY	AM-241+ISOPU+ISOU	None	S
RE03-09-14230	1	POLY	H3	Ice	S
RE03-09-14230	1	POLY	METALS-GEL	Ice	S
RE03-09-14230	1	POLY	Perchlorate+CN+N03+pH	Ice	S
RE03-09-14229	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-09-14229	1	AMBER GLASS	8270C+8082	Ice	S
RE03-09-14229	1	POLY	AM-241+ISOPU+ISOU	None	S
RE03-09-14229	1	POLY	H3	Ice	S
RE03-09-14229	1	POLY	METALS-GEL	Ice	S
RE03-09-14229	1	POLY	Perchlorate+CN+N03+pH	Ice	S
RE03-10-9876	1	SEPTUM AMBER GLASS	8260B Trip Blank	Ice	S

Relinquished By:		Date	Time	Received By:		Date	Time
Printed Name	Signature	12/22/09	1400	Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

Received for DISPOSAL By:		Date	Time	Remarks:
Printed Name	Signature			

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2276 **EVENT NAME:** Soil Sampling at TA-60

SAMPLE ID: RE03-09-14228 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12/21/09	MEDIA:	NA	QBt3
TIME COLLECTED (HH:MM)		1550	SUB-MEDIA:	OTHER	NA
PRS ID:	60-006(a)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	03-608409		FIELD QC TYPE:	NA	
LOCATION TYPE:	BH		FIELD PREP:	NA	
TOP DEPTH:	0	JLJ ~~0~~ 20 ft bgs	SAMPLE USAGE:	INV	
BOTTOM DEPTH:	0	12-21-09 ~~0~~ 21 ft bgs	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	~~R~~ QBt3	SLS 12-21-09	EXCAVATED: YES / NO (NA)		

COMPOSITE TYPE: ——— COMPOSITE TIME INTERVAL: ——— WATER FLOWING: YES / NO (NA)

BOREHOLE: YES / NO / (NA) BOREHOLE DECLINATION: ——— BOREHOLE DIRECTION: ———

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C ~~+8082~~ 12-10-09	250 ML AMBER GLASS	Ice	Y	
1		AM-241+ISOPU+ISOU	500 ML POLY	None	Y	
1		H3	500 ML POLY	Ice	Y	
1		METALS-GEL	125 ML POLY	Ice	Y	
1		Perchlorate+CN+N03+pH	500 ML POLY	Ice	Y	

SAMPLE DESC: QBt3 tuff, sl. moist, sl. weathered, reddish-gray 5YR 5/2

SAMPLE COMMENTS: Samples to be collected from former location of tank.

LOCATION DESC: 60(a) - 1

FIELD SCREENING/MEASUREMENT RESULTS: PID = 0.5 ppm

Field Screening: α = 39 dpi Samples MDA

Background β = 2690 dpi

COLLECTED BY (PRINT) J. Toya **REVIEWED BY (PRINT)** J. Jack

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) M. Shendo	12/21/09	(Printed Name) Sherri Sherwood	12/21/09
(Signature) [signature]	1715	(Signature) Sherri Sherwood	1715
RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name)		(Printed Name)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2276 **EVENT NAME:** Soil Sampling at TA-60

SAMPLE ID: RE03-09-14229 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12/21/09	MEDIA:	NA	Qbt-3
TIME COLLECTED (HH:MM)		JTS 12-21-09 1605 TBLD	SUB-MEDIA:	OTHER	NA
PRS ID:	60-006(a)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	03-608409		FIELD QC TYPE:	NA	
LOCATION TYPE:	BH		FIELD PREP:	NA	
TOP DEPTH:	0	JTJ 24 ft bgs	SAMPLE USAGE:	INV	
BOTTOM DEPTH:	0	12-21-09 25 ft bgs	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	SR JTJ 12-21-09		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C~~+8082~~ ECD 12-10-09	250 ML AMBER GLASS	Ice	Y	
1		AM-241+ISOPU+ISOU	500 ML POLY	None	Y	
1		H3	500 ML POLY	Ice	Y	
1		METALS-GEL	125 ML POLY	Ice	Y	
1		Perchlorate+CN+N03+pH	500 ML POLY	Ice	Y	

SAMPLE DESC: Qbt-3 tuff, sl. moist, sl. weathered, reddish-gray 5YR 5/2

SAMPLE COMMENTS: Samples to be collected from former location of tank.

LOCATION DESC: 6(a)-1

FIELD SCREENING/MEASUREMENT RESULTS: PID = 0.5 ppm

Field Screening Background α = 39 dpi β = 26,90 dpi

COLLECTED BY (PRINT) J. Toya **REVIEWED BY (PRINT)** J. Jul

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) M. Shendo	12/21/09	(Printed Name) Sherri Sherwood	12/21/09
(Signature) [signature]	1715	(Signature) Sherri Sherwood	1715
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2276 **EVENT NAME:** Soil Sampling at TA-60

SAMPLE ID: RE03-09-14230 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12-21-09	MEDIA:	NA	Qbt-3
TIME COLLECTED (HH:MM)		1615	SUB-MEDIA:	OTHER	NA
PRS ID:	60-006(a)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	03-608409		FIELD QC TYPE:	NA	
LOCATION TYPE:	BH		FIELD PREP:	NA	
TOP DEPTH:	0	~~14~~ 29 ft bgs	SAMPLE USAGE:	INV	
BOTTOM DEPTH:	0	~~15~~ 30 ft bgs	SCREEN/PORT DESC:		NA
FIELD MATRIX:	~~SO~~ SR DJ 12-21-09		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: _____ COMPOSITE TIME INTERVAL: _____ WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: _____ BOREHOLE DIRECTION: _____

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C~~+8082~~ LLW 12-10-09	250 ML AMBER GLASS	Ice	Y	
1		AM-241+ISOPU+ISOU	500 ML POLY	None	Y	
1		H3	500 ML POLY	Ice	Y	
1		METALS-GEL	125 ML POLY	Ice	Y	
1		Perchlorate+CN+N03+pH	500 ML POLY	Ice	Y	

SAMPLE DESC: tuff Qbt-3, sl. moist, unweathered, reddish-gray 5YR 5/2

SAMPLE COMMENTS: Samples to be collected from former location of tank.

LOCATION DESC: 60(a)-1

FIELD SCREENING/MEASUREMENT RESULTS: PID = 0.4 ppm

field Screening background

α = 39 dpi

β = 26.90 dpi

COLLECTED BY (PRINT) J. Toya

REVIEWED BY (PRINT) J. Toya

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) M. Shendo	12/21/09	(Printed Name) Sherri Sherwood	12/21/09
(Signature) [signature]	1715	(Signature) Sherri Sherwood	1715
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2276 **EVENT NAME:** Soil Sampling at TA-60

SAMPLE ID: RE03-10-9876 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12-21-09	MEDIA:	NA	All H
TIME COLLECTED (HH:MM)		1500	SUB-MEDIA:	OTHER	OK
PRS ID:	60-006(a)	OK	SAMPLE TECH CODE:	DC	
LOCATION ID:	UNK		FIELD QC TYPE:	FTB	
LOCATION TYPE:	GENERIC		FIELD PREP:	NA	
TOP DEPTH:	0	20 ft	SAMPLE USAGE:	QC	
BOTTOM DEPTH:	0	21 ft	SCREEN/PORT DESC:		NA
FIELD MATRIX:	S + R QB+-3		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: ~~WATER FLOWING: YES / NO / NA~~

BOREHOLE: YES / NO / NA ~~BOREHOLE DECLINATION:~~ ~~BOREHOLE DIRECTION:~~

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1 2	JLS 12-21-09	8260B Trip Blank	40 ML SEPTUM AMBER GLASS	Ice		

SAMPLE DESC: QC Sample of RE03-09-14229

SAMPLE COMMENTS:

LOCATION DESC: 6a-1

FIELD SCREENING/MEASUREMENT RESULTS:

COLLECTED BY (PRINT) M. Sharula **REVIEWED BY (PRINT)** J. Jordan

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Jerry Jordan	1715	(Printed Name) Sherri Sherwood	1715
(Signature)	12-21-09	(Signature) Sherri Sherwood	12-21-09
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

DATA VALIDATION COVER SHEET

5114-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-1057 VALIDATION DATE: 02/08/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Linda Thal ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☒ OTHER (DESCRIBE): VOCs

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☒	☐	☐	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☒	☐	☐	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. In the FTB, sample RE03-10-9876 associated with all samples, acetone was detected. The associated sample results were NDs and, thus, were not qualified.
2. The ICV or CCV %Ds for dichlorodifluoromethane, bromomethane, trichlorofluoromethane, carbon tetrachloride, 2-hexanone, trichlorotrifluoroethane and 1,2-dibromo-3-chloropropane were >20%. The associated sample results were NDs and, thus, were qualified UJ,V7c.
3. The MS/MSD was not spiked with trichlorotrifluoroethane. No sample data were qualified as a result.

Reviewed by: Monica Dymerski **Level I** **Date:** 02/09/10

VALIDATOR'S SIGNATURE: K Thal DATE: 02/08/10

VOLATILE ORGANIC COMPOUND (VOC) ANALYTICAL DATA VALIDATION CHECKLIST

5114-2

Volatile Organic Compound (VOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, V9	J-, V9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, V9a	J-, V9a
☐	☐	☒	3. The instrument performance sample did not pass method acceptance criteria.	R, V16	R, V16
☐	☐	☒	4. Samples were analyzed outside specific method tune time criteria.	N/A	J, V16b
☐	☐	☒	5. The required instrument performance sample information is missing. Contact the SMO or external laboratory for information.	R, V16c	R, V16c
☐	☒	☐	6. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ or R, V7	J, V7
☐	☒	☐	7. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, V7a	J, V7a
☐	☒	☐	8. The affected analytes were analyzed with an RRF of <0.05 in the initial calibration and/or CCV.	R, V7b	J, V7b
☒	☐	☐	9. The Initial Calibration Verification (ICV) and/or Continuing Calibration Verification (CCV) were recovered outside the method-specific limits.	UJ, V7c	J, V7c
☐	☒	☐	10. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, V7d	J, V7d
☐	☒	☐	11. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, V7f	R, V7f

VOLATILE ORGANIC COMPOUND (VOC) ANALYTICAL DATA VALIDATION CHECKLIST

5114-2 Volatile Organic Compound (VOC) Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	12. The sample result is ≤5X (10X for common organic laboratory contaminants) the concentration of the related analyte in the method blank.	U, V4	N/A
☐	☒	☐	13. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X (10X for common laboratory contaminants).	N/A	J, V4a
☒	☐	☐	14. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, and/or equipment blank.	U, V4d	N/A
☐	☒	☐	15. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V4e	R, V4e
☐	☒	☐	16. The IS retention time has shifted by more than 30 seconds.	UJ, V0	J, V0
☐	☐	☒	17. Analyte is positively confirmed but outside the IS retention time window; however, spectral matches must be provided.	N/A	J, V0a
☐	☒	☐	18. Required IS retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V0b	R, V0b
☐	☐	☒	19. The quantitating IS are count is <10% of the expected value, which indicates increased potential for false negative results and other possible problems with sample quantitation. Follow method-specific windows.	R, V1a	J, V1a
☐	☐	☒	20. The IS area count for the quantitating IS is <50% but >10% for organics window relation to the previous continuing calibration. Follow the method-specific windows.	UJ, V1b	J, V1b

VOLATILE ORGANIC COMPOUND (VOC) ANALYTICAL DATA VALIDATION CHECKLIST

5114-2

Volatile Organic Compound (VOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	21. The IS area count for the quantitating IS is >200% of the area count for the previous organic continuing calibration. Follow the method-specific windows.	UJ, V1c	J, V1c
☐	☐	☒	22. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V1d	R, V1d
☐	☒	☐	23. The surrogate is <10%R. Follow the external laboratory limits located within the associated data package.	R, V3	J-, V3
☐	☒	☐	24. The surrogate is < the Lower Acceptance Limit (LAL) but ≥10%R. Follow the external laboratory limits located within the associated data package.	UJ, V3a	J-, V3a
☐	☒	☐	25. The surrogate %R is > the Upper Acceptance Limit (UAL) Follow the external laboratory limits located within the associated data package.	N/A	J+, V3b
☐	☒	☐	26. At least one surrogate is > the UAL and one surrogate is < the LAL. Follow the external laboratory limits located within the associated data package.	UJ, V3c	J, V3c
☐	☒	☐	27. Required surrogate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V3d	R, V3d
☐	☒	☐	28. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, V12	J-, V12
☐	☒	☐	29. The LCS percent recovery was < the LAL but > 10%. Follow the external laboratory limits located within the associated data package.	UV, V12a	J-, V12a
☐	☒	☐	30. The LCS percent recover was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, V12b

VOLATILE ORGANIC COMPOUND (VOC) ANALYTICAL DATA VALIDATION CHECKLIST

5114-2

Volatile Organic Compound (VOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	31. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V12c	R, V12c
☐	☒	☐	32. The affected analyte is considered not detected because mass spectrum did not meet specifications.	N/A	U, V8
☐	☒	☐	33. The mass spectrum column documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V8a	R, V8a
☐	☒	☐	34. Duplicate, dilution, or reanalysis.	UJ, V88	J, V88
☐	☐	☒	35. The affected analytes have elevated detection limits and may not meet project DQOs because the sample was diluted without any target analytees identified due to matrix interference. Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.	UJ, R, V15	R, V15
☒	☐	☐	36. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB, NQ, NQ
☐	☒	☐	37. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.	UJ, R, V19	J, R, V19

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1057	Date Collected:	12/21/2009 12:00	Matrix:	S
Lab Sample ID:	243472001	Date Received:	12/23/2009 10:10	%Moisture:	10.2
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14228	Method:	SW846 8260B	SOP Ref:	GL-OA-E-038
Batch ID:	937425	Inst:	VOA7.I	Dilution:	1
Run Date:	12/29/2009 19:20	Analyst:	AXO1	Purge Vol:	5 mL
Prep Date:	12/29/2009 11:45	Aliquot:	5 g	Final Volume:	5 mL
Data File:	7s211.d	Column:	DB-624	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
75-71-8	Dichlorodifluoromethane	U	1.11	ug/kg	0.378	1.11	UJ,V7c
74-87-3	Chloromethane	U	1.11	ug/kg	0.334	1.11	
75-01-4	Vinyl chloride	U	1.11	ug/kg	0.334	1.11	
74-83-9	Bromomethane	U	1.11	ug/kg	0.334	1.11	UJ,V7c
75-00-3	Chloroethane	U	1.11	ug/kg	0.334	1.11	
75-69-4	Trichlorofluoromethane	U	1.11	ug/kg	0.334	1.11	UJ,V7c
67-64-1	Acetone	U	5.57	ug/kg	1.85	5.57	
75-35-4	1,1-Dichloroethylene	U	1.11	ug/kg	0.334	1.11	
74-88-4	Iodomethane	U	5.57	ug/kg	1.78	5.57	
75-09-2	Methylene chloride	U	5.57	ug/kg	2.23	5.57	
75-15-0	Carbon disulfide	U	5.57	ug/kg	1.39	5.57	
156-60-5	trans-1,2-Dichloroethylene	U	1.11	ug/kg	0.334	1.11	
75-34-3	1,1-Dichloroethane	U	1.11	ug/kg	0.334	1.11	
78-93-3	2-Butanone	U	5.57	ug/kg	1.67	5.57	
156-59-2	cis-1,2-Dichloroethylene	U	1.11	ug/kg	0.334	1.11	
594-20-7	2,2-Dichloropropane	U	1.11	ug/kg	0.334	1.11	
67-66-3	Chloroform	U	1.11	ug/kg	0.334	1.11	
74-97-5	Bromochloromethane	U	1.11	ug/kg	0.367	1.11	
71-55-6	1,1,1-Trichloroethane	U	1.11	ug/kg	0.334	1.11	
563-58-6	1,1-Dichloropropene	U	1.11	ug/kg	0.334	1.11	
56-23-5	Carbon tetrachloride	U	1.11	ug/kg	0.334	1.11	UJ,V7c
107-06-2	1,2-Dichloroethane	U	1.11	ug/kg	0.334	1.11	
71-43-2	Benzene	U	1.11	ug/kg	0.334	1.11	
79-01-6	Trichloroethylene	U	1.11	ug/kg	0.367	1.11	
78-87-5	1,2-Dichloropropane	U	1.11	ug/kg	0.334	1.11	
75-27-4	Bromodichloromethane	U	1.11	ug/kg	0.334	1.11	
74-95-3	Dibromomethane	U	1.11	ug/kg	0.334	1.11	
108-10-1	4-Methyl-2-pentanone	U	5.57	ug/kg	1.39	5.57	
10061-01-5	cis-1,3-Dichloropropylene	U	1.11	ug/kg	0.334	1.11	
108-88-3	Toluene	U	1.11	ug/kg	0.334	1.11	
10061-02-6	trans-1,3-Dichloropropylene	U	1.11	ug/kg	0.334	1.11	
79-00-5	1,1,2-Trichloroethane	U	1.11	ug/kg	0.334	1.11	
591-78-6	2-Hexanone	U	5.57	ug/kg	1.67	5.57	UJ,V7c
142-28-9	1,3-Dichloropropane	U	1.11	ug/kg	0.334	1.11	
127-18-4	Tetrachloroethylene	U	1.11	ug/kg	0.334	1.11	
124-48-1	Dibromochloromethane	U	1.11	ug/kg	0.334	1.11	
106-93-4	1,2-Dibromoethane	U	1.11	ug/kg	0.334	1.11	
108-90-7	Chlorobenzene	U	1.11	ug/kg	0.334	1.11	

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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1057	Date Collected:	12/21/2009 12:00	Matrix:	S
Lab Sample ID:	243472001	Date Received:	12/23/2009 10:10	%Moisture:	10.2
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14228	Method:	SW846 8260B	SOP Ref:	GL-OA-E-038
Batch ID:	937425	Inst:	VOA7.I	Dilution:	1
Run Date:	12/29/2009 19:20	Analyst:	AXO1	Purge Vol:	5 mL
Prep Date:	12/29/2009 11:45	Aliquot:	5 g	Final Volume:	5 mL
Data File:	7s211.d	Column:	DB-624	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
100-41-4	Ethylbenzene	U	1.11	ug/kg	0.334	1.11	
179601-23-1	m,p-Xylenes	U	2.23	ug/kg	0.334	2.23	
95-47-6	o-Xylene	U	1.11	ug/kg	0.334	1.11	
100-42-5	Styrene	U	1.11	ug/kg	0.334	1.11	
75-25-2	Bromoform	U	1.11	ug/kg	0.334	1.11	
79-34-5	1,1,2,2-Tetrachloroethane	U	1.11	ug/kg	0.334	1.11	
96-18-4	1,2,3-Trichloropropane	U	1.11	ug/kg	0.334	1.11	
108-86-1	Bromobenzene	U	1.11	ug/kg	0.334	1.11	
103-65-1	n-Propylbenzene	U	1.11	ug/kg	0.334	1.11	
95-49-8	2-Chlorotoluene	U	1.11	ug/kg	0.334	1.11	
98-82-8	Isopropylbenzene	U	1.11	ug/kg	0.334	1.11	
108-67-8	1,3,5-Trimethylbenzene	U	1.11	ug/kg	0.334	1.11	
106-43-4	4-Chlorotoluene	U	1.11	ug/kg	0.334	1.11	
98-06-6	tert-Butylbenzene	U	1.11	ug/kg	0.334	1.11	
95-63-6	1,2,4-Trimethylbenzene	U	1.11	ug/kg	0.334	1.11	
135-98-8	sec-Butylbenzene	U	1.11	ug/kg	0.334	1.11	
99-87-6	4-Isopropyltoluene	U	1.11	ug/kg	0.334	1.11	
541-73-1	1,3-Dichlorobenzene	U	1.11	ug/kg	0.334	1.11	
106-46-7	1,4-Dichlorobenzene	U	1.11	ug/kg	0.334	1.11	
104-51-8	n-Butylbenzene	U	1.11	ug/kg	0.334	1.11	
96-12-8	1,2-Dibromo-3-chloropropane	U	1.11	ug/kg	0.334	1.11	UJ,V7c
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.57	ug/kg	1.78	5.57	UJ,V7c
630-20-6	1,1,1,2-Tetrachloroethane	U	1.11	ug/kg	0.334	1.11	
95-50-1	1,2-Dichlorobenzene	U	1.11	ug/kg	0.334	1.11	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	17.92	17.4	ug/kg		J

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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1057	Date Collected:	12/21/2009 12:00	Matrix:	S
Lab Sample ID:	243472003	Date Received:	12/23/2009 10:10	%Moisture:	8.6
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14229	Method:	SW846 8260B	SOP Ref:	GL-OA-E-038
Batch ID:	937425	Inst:	VOA7.I	Dilution:	1
Run Date:	12/29/2009 18:11	Analyst:	AXO1	Purge Vol:	5 mL
Prep Date:	12/29/2009 11:47	Aliquot:	5 g	Final Volume:	5 mL
Data File:	7s209.d	Column:	DB-624	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.09	ug/kg	0.372	1.09 UJ,V7c
74-87-3	Chloromethane	U	1.09	ug/kg	0.328	1.09
75-01-4	Vinyl chloride	U	1.09	ug/kg	0.328	1.09
74-83-9	Bromomethane	U	1.09	ug/kg	0.328	1.09 UJ,V7c
75-00-3	Chloroethane	U	1.09	ug/kg	0.328	1.09
75-69-4	Trichlorofluoromethane	U	1.09	ug/kg	0.328	1.09 UJ,V7c
67-64-1	Acetone	U	5.47	ug/kg	1.82	5.47
75-35-4	1,1-Dichloroethylene	U	1.09	ug/kg	0.328	1.09
74-88-4	Iodomethane	U	5.47	ug/kg	1.75	5.47
75-09-2	Methylene chloride	U	5.47	ug/kg	2.19	5.47
75-15-0	Carbon disulfide	U	5.47	ug/kg	1.37	5.47
156-60-5	trans-1,2-Dichloroethylene	U	1.09	ug/kg	0.328	1.09
75-34-3	1,1-Dichloroethane	U	1.09	ug/kg	0.328	1.09
78-93-3	2-Butanone	U	5.47	ug/kg	1.64	5.47
156-59-2	cis-1,2-Dichloroethylene	U	1.09	ug/kg	0.328	1.09
594-20-7	2,2-Dichloropropane	U	1.09	ug/kg	0.328	1.09
67-66-3	Chloroform	U	1.09	ug/kg	0.328	1.09
74-97-5	Bromochloromethane	U	1.09	ug/kg	0.361	1.09
71-55-6	1,1,1-Trichloroethane	U	1.09	ug/kg	0.328	1.09
563-58-6	1,1-Dichloropropene	U	1.09	ug/kg	0.328	1.09
56-23-5	Carbon tetrachloride	U	1.09	ug/kg	0.328	1.09 UJ,V7c
107-06-2	1,2-Dichloroethane	U	1.09	ug/kg	0.328	1.09
71-43-2	Benzene	U	1.09	ug/kg	0.328	1.09
79-01-6	Trichloroethylene	U	1.09	ug/kg	0.361	1.09
78-87-5	1,2-Dichloropropane	U	1.09	ug/kg	0.328	1.09
75-27-4	Bromodichloromethane	U	1.09	ug/kg	0.328	1.09
74-95-3	Dibromomethane	U	1.09	ug/kg	0.328	1.09
108-10-1	4-Methyl-2-pentanone	U	5.47	ug/kg	1.37	5.47
10061-01-5	cis-1,3-Dichloropropylene	U	1.09	ug/kg	0.328	1.09
108-88-3	Toluene	U	1.09	ug/kg	0.328	1.09
10061-02-6	trans-1,3-Dichloropropylene	U	1.09	ug/kg	0.328	1.09
79-00-5	1,1,2-Trichloroethane	U	1.09	ug/kg	0.328	1.09
591-78-6	2-Hexanone	U	5.47	ug/kg	1.64	5.47 UJ,V7c
142-28-9	1,3-Dichloropropane	U	1.09	ug/kg	0.328	1.09
127-18-4	Tetrachloroethylene	U	1.09	ug/kg	0.328	1.09
124-48-1	Dibromochloromethane	U	1.09	ug/kg	0.328	1.09
106-93-4	1,2-Dibromoethane	U	1.09	ug/kg	0.328	1.09
108-90-7	Chlorobenzene	U	1.09	ug/kg	0.328	1.09

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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1057	Date Collected:	12/21/2009 12:00	Matrix:	S
Lab Sample ID:	243472003	Date Received:	12/23/2009 10:10	%Moisture:	8.6
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14229	Method:	SW846 8260B	SOP Ref:	GL-OA-E-038
Batch ID:	937425	Inst:	VOA7.I	Dilution:	1
Run Date:	12/29/2009 18:11	Analyst:	AXO1	Purge Vol:	5 mL
Prep Date:	12/29/2009 11:47	Aliquot:	5 g	Final Volume:	5 mL
Data File:	7s209.d	Column:	DB-624	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
100-41-4	Ethylbenzene	U	1.09	ug/kg	0.328	1.09	
179601-23-1	m,p-Xylenes	U	2.19	ug/kg	0.328	2.19	
95-47-6	o-Xylene	U	1.09	ug/kg	0.328	1.09	
100-42-5	Styrene	U	1.09	ug/kg	0.328	1.09	
75-25-2	Bromoform	U	1.09	ug/kg	0.328	1.09	
79-34-5	1,1,2,2-Tetrachloroethane	U	1.09	ug/kg	0.328	1.09	
96-18-4	1,2,3-Trichloropropane	U	1.09	ug/kg	0.328	1.09	
108-86-1	Bromobenzene	U	1.09	ug/kg	0.328	1.09	
103-65-1	n-Propylbenzene	U	1.09	ug/kg	0.328	1.09	
95-49-8	2-Chlorotoluene	U	1.09	ug/kg	0.328	1.09	
98-82-8	Isopropylbenzene	U	1.09	ug/kg	0.328	1.09	
108-67-8	1,3,5-Trimethylbenzene	U	1.09	ug/kg	0.328	1.09	
106-43-4	4-Chlorotoluene	U	1.09	ug/kg	0.328	1.09	
98-06-6	tert-Butylbenzene	U	1.09	ug/kg	0.328	1.09	
95-63-6	1,2,4-Trimethylbenzene	U	1.09	ug/kg	0.328	1.09	
135-98-8	sec-Butylbenzene	U	1.09	ug/kg	0.328	1.09	
99-87-6	4-Isopropyltoluene	U	1.09	ug/kg	0.328	1.09	
541-73-1	1,3-Dichlorobenzene	U	1.09	ug/kg	0.328	1.09	
106-46-7	1,4-Dichlorobenzene	U	1.09	ug/kg	0.328	1.09	
104-51-8	n-Butylbenzene	U	1.09	ug/kg	0.328	1.09	
96-12-8	1,2-Dibromo-3-chloropropane	U	1.09	ug/kg	0.328	1.09	UJ,V7c
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.47	ug/kg	1.75	5.47	UJ,V7c
630-20-6	1,1,1,2-Tetrachloroethane	U	1.09	ug/kg	0.328	1.09	
95-50-1	1,2-Dichlorobenzene	U	1.09	ug/kg	0.328	1.09	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Flt	Qual
	Unknown	17.92	9.5	ug/kg		J
	Unknown Siloxane	19.69	13.3	ug/kg		J
	Unknown Siloxane	21.56	7.12	ug/kg		J

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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1057	Date Collected:	12/21/2009 12:00	Matrix:	S
Lab Sample ID:	243472002	Date Received:	12/23/2009 10:10	%Moisture:	7.1
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14230	Method:	SW846 8260B	SOP Ref:	GL-OA-E-038
Batch ID:	937425	Inst:	VOA7.I	Dilution:	1
Run Date:	12/30/2009 12:58	Analyst:	AXO1	Purge Vol:	5 mL
Prep Date:	12/30/2009 12:15	Aliquot:	5 g	Final Volume:	5 mL
Data File:	7s308.d	Column:	DB-624	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
75-71-8	Dichlorodifluoromethane	U	1.08	ug/kg	0.366	1.08	UJ,V7c
74-87-3	Chloromethane	U	1.08	ug/kg	0.323	1.08	
75-01-4	Vinyl chloride	U	1.08	ug/kg	0.323	1.08	
74-83-9	Bromomethane	U	1.08	ug/kg	0.323	1.08	UJ,V7c
75-00-3	Chloroethane	U	1.08	ug/kg	0.323	1.08	
75-69-4	Trichlorofluoromethane	U	1.08	ug/kg	0.323	1.08	UJ,V7c
67-64-1	Acetone	U	5.38	ug/kg	1.79	5.38	
75-35-4	1,1-Dichloroethylene	U	1.08	ug/kg	0.323	1.08	
74-88-4	Iodomethane	U	5.38	ug/kg	1.72	5.38	
75-09-2	Methylene chloride	U	5.38	ug/kg	2.15	5.38	
75-15-0	Carbon disulfide	U	5.38	ug/kg	1.35	5.38	
156-60-5	trans-1,2-Dichloroethylene	U	1.08	ug/kg	0.323	1.08	
75-34-3	1,1-Dichloroethane	U	1.08	ug/kg	0.323	1.08	
78-93-3	2-Butanone	U	5.38	ug/kg	1.61	5.38	
156-59-2	cis-1,2-Dichloroethylene	U	1.08	ug/kg	0.323	1.08	
594-20-7	2,2-Dichloropropane	U	1.08	ug/kg	0.323	1.08	
67-66-3	Chloroform	U	1.08	ug/kg	0.323	1.08	
74-97-5	Bromochloromethane	U	1.08	ug/kg	0.355	1.08	
71-55-6	1,1,1-Trichloroethane	U	1.08	ug/kg	0.323	1.08	
563-58-6	1,1-Dichloropropene	U	1.08	ug/kg	0.323	1.08	
56-23-5	Carbon tetrachloride	U	1.08	ug/kg	0.323	1.08	UJ,V7c
107-06-2	1,2-Dichloroethane	U	1.08	ug/kg	0.323	1.08	
71-43-2	Benzene	U	1.08	ug/kg	0.323	1.08	
79-01-6	Trichloroethylene	U	1.08	ug/kg	0.355	1.08	
78-87-5	1,2-Dichloropropane	U	1.08	ug/kg	0.323	1.08	
75-27-4	Bromodichloromethane	U	1.08	ug/kg	0.323	1.08	
74-95-3	Dibromomethane	U	1.08	ug/kg	0.323	1.08	
108-10-1	4-Methyl-2-pentanone	U	5.38	ug/kg	1.35	5.38	
10061-01-5	cis-1,3-Dichloropropylene	U	1.08	ug/kg	0.323	1.08	
108-88-3	Toluene	U	1.08	ug/kg	0.323	1.08	
10061-02-6	trans-1,3-Dichloropropylene	U	1.08	ug/kg	0.323	1.08	
79-00-5	1,1,2-Trichloroethane	U	1.08	ug/kg	0.323	1.08	
591-78-6	2-Hexanone	U	5.38	ug/kg	1.61	5.38	UJ,V7c
142-28-9	1,3-Dichloropropane	U	1.08	ug/kg	0.323	1.08	
127-18-4	Tetrachloroethylene	U	1.08	ug/kg	0.323	1.08	
124-48-1	Dibromochloromethane	U	1.08	ug/kg	0.323	1.08	
106-93-4	1,2-Dibromoethane	U	1.08	ug/kg	0.323	1.08	
108-90-7	Chlorobenzene	U	1.08	ug/kg	0.323	1.08	

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1057	Date Collected:	12/21/2009 12:00	Matrix:	S
Lab Sample ID:	243472002	Date Received:	12/23/2009 10:10	%Moisture:	7.1
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14230	Method:	SW846 8260B	SOP Ref:	GL-OA-E-038
Batch ID:	937425	Inst:	VOA7.I	Dilution:	1
Run Date:	12/30/2009 12:58	Analyst:	AXO1	Purge Vol:	5 mL
Prep Date:	12/30/2009 12:15	Aliquot:	5 g	Final Volume:	5 mL
Data File:	7s308.d	Column:	DB-624	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
100-41-4	Ethylbenzene	U	1.08	ug/kg	0.323	1.08	
179601-23-1	m,p-Xylenes	U	2.15	ug/kg	0.323	2.15	
95-47-6	o-Xylene	U	1.08	ug/kg	0.323	1.08	
100-42-5	Styrene	U	1.08	ug/kg	0.323	1.08	
75-25-2	Bromoform	U	1.08	ug/kg	0.323	1.08	
79-34-5	1,1,2,2-Tetrachloroethane	U	1.08	ug/kg	0.323	1.08	
96-18-4	1,2,3-Trichloropropane	U	1.08	ug/kg	0.323	1.08	
108-86-1	Bromobenzene	U	1.08	ug/kg	0.323	1.08	
103-65-1	n-Propylbenzene	U	1.08	ug/kg	0.323	1.08	
95-49-8	2-Chlorotoluene	U	1.08	ug/kg	0.323	1.08	
98-82-8	Isopropylbenzene	U	1.08	ug/kg	0.323	1.08	
108-67-8	1,3,5-Trimethylbenzene	U	1.08	ug/kg	0.323	1.08	
106-43-4	4-Chlorotoluene	U	1.08	ug/kg	0.323	1.08	
98-06-6	tert-Butylbenzene	U	1.08	ug/kg	0.323	1.08	
95-63-6	1,2,4-Trimethylbenzene	U	1.08	ug/kg	0.323	1.08	
135-98-8	sec-Butylbenzene	U	1.08	ug/kg	0.323	1.08	
99-87-6	4-Isopropyltoluene	U	1.08	ug/kg	0.323	1.08	
541-73-1	1,3-Dichlorobenzene	U	1.08	ug/kg	0.323	1.08	
106-46-7	1,4-Dichlorobenzene	U	1.08	ug/kg	0.323	1.08	
104-51-8	n-Butylbenzene	U	1.08	ug/kg	0.323	1.08	
96-12-8	1,2-Dibromo-3-chloropropane	U	1.08	ug/kg	0.323	1.08	UJ,V7c
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.38	ug/kg	1.72	5.38	UJ,V7c
630-20-6	1,1,1,2-Tetrachloroethane	U	1.08	ug/kg	0.323	1.08	
95-50-1	1,2-Dichlorobenzene	U	1.08	ug/kg	0.323	1.08	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	17.92	7.14	ug/kg		J
	Unknown Siloxane	19.69	8.92	ug/kg		J

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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1057	Date Collected:	12/21/2009 12:00	Matrix:	S
Lab Sample ID:	243472004	Date Received:	12/23/2009 10:10		
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-10-9876	Method:	SW846 8260B	SOP Ref:	GL-OA-E-038
Batch ID:	937425	Inst:	VOA7.I	Dilution:	1
Run Date:	12/29/2009 17:37	Analyst:	AXO1	Purge Vol:	5 mL
Prep Date:	12/29/2009 11:48	Aliquot:	5 g	Final Volume:	5 mL
Data File:	7s208.d	Column:	DB-624	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/kg	0.340	1.00 UJ,V7c
74-87-3	Chloromethane	U	1.00	ug/kg	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/kg	0.300	1.00
74-83-9	Bromomethane	U	1.00	ug/kg	0.300	1.00 UJ,V7c
75-00-3	Chloroethane	U	1.00	ug/kg	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/kg	0.300	1.00 UJ,V7c
67-64-1	Acetone	J	1.77	ug/kg	1.66	5.00
75-35-4	1,1-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/kg	1.60	5.00
75-09-2	Methylene chloride	U	5.00	ug/kg	2.00	5.00
75-15-0	Carbon disulfide	U	5.00	ug/kg	1.25	5.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/kg	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/kg	1.50	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/kg	0.300	1.00
74-97-5	Bromochloromethane	U	1.00	ug/kg	0.330	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/kg	0.300	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/kg	0.300	1.00
56-23-5	Carbon tetrachloride	U	1.00	ug/kg	0.300	1.00 UJ,V7c
107-06-2	1,2-Dichloroethane	U	1.00	ug/kg	0.300	1.00
71-43-2	Benzene	U	1.00	ug/kg	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/kg	0.330	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/kg	0.300	1.00
74-95-3	Dibromomethane	U	1.00	ug/kg	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/kg	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
108-88-3	Toluene	U	1.00	ug/kg	0.300	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/kg	0.300	1.00
591-78-6	2-Hexanone	U	5.00	ug/kg	1.50	5.00 UJ,V7c
142-28-9	1,3-Dichloropropane	U	1.00	ug/kg	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/kg	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/kg	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/kg	0.300	1.00
108-90-7	Chlorobenzene	U	1.00	ug/kg	0.300	1.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1057	Date Collected:	12/21/2009 12:00	Matrix:	S
Lab Sample ID:	243472004	Date Received:	12/23/2009 10:10		
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-10-9876	Method:	SW846 8260B	SOP Ref:	GL-OA-E-038
Batch ID:	937425	Inst:	VOA7.I	Dilution:	1
Run Date:	12/29/2009 17:37	Analyst:	AXO1	Purge Vol:	5 mL
Prep Date:	12/29/2009 11:48	Aliquot:	5 g	Final Volume:	5 mL
Data File:	7s208.d	Column:	DB-624	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
100-41-4	Ethylbenzene	U	1.00	ug/kg	0.300	1.00	
179601-23-1	m,p-Xylenes	U	2.00	ug/kg	0.300	2.00	
95-47-6	o-Xylene	U	1.00	ug/kg	0.300	1.00	
100-42-5	Styrene	U	1.00	ug/kg	0.300	1.00	
75-25-2	Bromoform	U	1.00	ug/kg	0.300	1.00	
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00	
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/kg	0.300	1.00	
108-86-1	Bromobenzene	U	1.00	ug/kg	0.300	1.00	
103-65-1	n-Propylbenzene	U	1.00	ug/kg	0.300	1.00	
95-49-8	2-Chlorotoluene	U	1.00	ug/kg	0.300	1.00	
98-82-8	Isopropylbenzene	U	1.00	ug/kg	0.300	1.00	
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00	
106-43-4	4-Chlorotoluene	U	1.00	ug/kg	0.300	1.00	
98-06-6	tert-Butylbenzene	U	1.00	ug/kg	0.300	1.00	
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00	
135-98-8	sec-Butylbenzene	U	1.00	ug/kg	0.300	1.00	
99-87-6	4-Isopropyltoluene	U	1.00	ug/kg	0.300	1.00	
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00	
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00	
104-51-8	n-Butylbenzene	U	1.00	ug/kg	0.300	1.00	
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/kg	0.300	1.00	UJ,V7c
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.00	ug/kg	1.60	5.00	UJ,V7c
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00	
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated Units	Fit	Qual
	No Tentatively Identified Compounds Found		ug/kg		

LT 02/08/10

DATA VALIDATION COVER SHEET

5115-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-1057 VALIDATION DATE: 02/08/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Linda Thal ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☒ OTHER (DESCRIBE): SVOCs

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☒	☐	☐	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☒	☐	☐	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. The ICV %D for 2-methyl-4,6-dinitrophenol was >20%. The %Ds for aniline; benzyl alcohol; bis(2-chloroisopropyl)ether; m,p-cresols; benzoic acid; 4-chloroaniline; 3-nitroaniline; 2,4-dinitrophenol and 2-methyl-4,6-dinitrophenol were >20% for the CCV associated with samples RE03-09-14228 and -14230. The %Ds for benzyl alcohol; bis(2-chloroisopropyl)ether; 4-chloroaniline; 3-nitroaniline and 4-nitroaniline were >20% for the CCV associated with sample -14229. The associated sample results were NDs and, thus, were qualified UJ,SV7c.

Reviewed by: Monica Dymerski **Level I** **Date:** 02/09/10

VALIDATOR'S SIGNATURE: L. Thal DATE: 2/08/10

SEMIVOLATILE ORGANIC COMPOUND (SVOC) ANALYTICAL DATA VALIDATION CHECKLIST

5115-2

Semivolatile Organic Compound (SVOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, SV9	J-, SV9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, SV9a	J-, SV9a
☐	☒	☐	3. The affected analytes are regarded as rejected because the analytical holding time was exceeded.	R, SV9b	R, SV9b
☐	☐	☒	4. The instrument performance sample did not pass method acceptance criteria.	R, SV16	R, SV16
☐	☐	☒	5. Samples were analyzed outside specific method tune time criteria.	N/A	J, SV16b
☐	☐	☒	6. The required instrument performance sample information is missing. Contact the SMO or external laboratory for information.	R, SV16c	R, SV16c
☐	☒	☐	7. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, SV7	J, SV7
☐	☒	☐	8. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, SV7a	J, SV7a
☐	☒	☐	9. The affected analytes were analyzed with an RRF of <0.05 in the initial calibration and/or Continuing Calibration Verification (CCV).	R, SV7b	J, SV7b
☒	☐	☐	10. The Initial Calibration Verification (ICV) and/or CCV were recovered outside the method-specific limits.	UJ, SV7c	J, SV7c
☐	☒	☐	11. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, SV7d	J, SV7d

SEMIVOLATILE ORGANIC COMPOUND (SVOC) ANALYTICAL DATA VALIDATION CHECKLIST

5115-2

Semivolatile Organic Compound (SVOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	12. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, SV7f	R, SV7f
☐	☒	☐	13. The sample result is ≤5X (10X for common organic laboratory contaminates) the concentration of the related analyte in the method blank.	U, SV4	J, V4a
☐	☒	☐	14. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was greater than 5X (10X for common laboratory contaminates).	N/A	J, SV4a
☐	☐	☒	15. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	UJ, SV4d	N/A
☐	☒	☐	16. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV4e	R, SV4e
☐	☒	☐	17. The IS retention time has shifted by more than 30 seconds.	UJ, SV0	J, SV0
☐	☐	☒	18. Analyte is positively confirmed but outside the IS retention time window; however, spectral matches must be provided.	N/A	J, SV0a
☐	☒	☐	19. Required IS retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV0b	R, SV0b
☐	☐	☒	20. The quantitating IS area count is <10% of the expected value, which indicates increased potential for false negative results and other possible problems with sample quantitation. Follow method-specific windows.	R, SV1a	J, SV1a

SEMIVOLATILE ORGANIC COMPOUND (SVOC) ANALYTICAL DATA VALIDATION CHECKLIST

5115-2

Semivolatile Organic Compound (SVOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	21. The IS area count for the quantitating IS is <50% but >10% for organics window relation to the previous continuing calibration. Follow method-specific windows.	UJ, SV1b	J, SV1b
☐	☐	☒	22. The IS area count for the quantitating IS is >200% of the area count for the previous continuing calibration. Follow method-specific windows.	UJ, SV1c	J, SV1c
☐	☐	☒	23. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV1d	R, SV1d
☐	☒	☐	24. The surrogate is <10%R. Follow the external laboratory limits located within the associated data package.	R, SV3	J-, SV3
☐	☒	☐	25. The surrogate is < the Lower Acceptance Level (LAL) but ≥10%R. Follow the external laboratory limits located within the associated data package.	UJ, SV3a	J-, SV3a
☐	☒	☐	26. The surrogate %R value is > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, SV3b
☐	☒	☐	27. At least one surrogate is > the Upper Acceptance Limit (UAL) and one surrogate is < the LAL. Follow the external laboratory limits located within the associated data package.	UJ, SV3c	J, SV3c
☐	☒	☐	28. Required surrogate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV3d	R, SV3d
☐	☒	☐	29. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, SV12	J-, SV12

SEMIVOLATILE ORGANIC COMPOUND (SVOC) ANALYTICAL DATA VALIDATION CHECKLIST

5115-2

Semivolatile Organic Compound (SVOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	30. The LCS percent recovery was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, SV12a	J-, SV12a
☐	☒	☐	31. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, SV12b
☐	☒	☐	32. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV12c	R, SV12c
☐	☐	☒	33. The affected analyte is considered not detected because mass spectrum did not meet specifications.	N/A	U, SV8
☐	☐	☒	34. The mass spectrum column documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV8a	R, SV8a
☐	☒	☐	35. Duplicate, dilution, or reanalysis.	UJ, SV88	J, SV88
☐	☐	☒	36. The affected analytes have elevated detection limits and may not meet project DQOs because the sample was diluted without any target analytees identified due to matrix interference. Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.	UJ, R, SV15	R, SV15
☒	☐	☐	37. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB, NQ, NQ
☐	☒	☐	38. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.	UJ, R, SV19	J, R, SV19

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1057	Date Collected:	12/21/2009 12:00	Matrix:	S
Lab Sample ID:	243472001	Date Received:	12/23/2009 10:10	%Moisture:	10.2
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14228	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	937095	Inst:	MSD7.I	Dilution:	1
Run Date:	01/02/2010 19:00	Analyst:	JMB3	Inj. Vol:	.5 uL
Prep Date:	12/28/2009 21:32	Aliquot:	30.14 g	Final Volume:	1 mL
Data File:	s7a0210.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
62-75-9	N-Methyl-N-nitrosomethylamine	U	369	ug/kg	73.9	369	
108-95-2	Phenol	U	369	ug/kg	73.9	369	
95-57-8	2-Chlorophenol	U	369	ug/kg	73.9	369	
106-46-7	1,4-Dichlorobenzene	U	369	ug/kg	73.9	369	
621-64-7	N-Nitrosodipropylamine	U	369	ug/kg	73.9	369	
59-50-7	4-Chloro-3-methylphenol	U	369	ug/kg	73.9	369	
83-32-9	Acenaphthene	U	36.9	ug/kg	12.2	36.9	
121-14-2	2,4-Dinitrotoluene	U	369	ug/kg	36.9	369	
100-02-7	4-Nitrophenol	U	369	ug/kg	122	369	
87-86-5	Pentachlorophenol	U	369	ug/kg	92.3	369	
129-00-0	Pyrene	U	36.9	ug/kg	11.1	36.9	
110-86-1	Pyridine	U	369	ug/kg	73.9	369	
62-53-3	Aniline	U	369	ug/kg	111	369	UJ,SV7c
111-44-4	bis(2-Chloroethyl) ether	U	369	ug/kg	73.9	369	
541-73-1	1,3-Dichlorobenzene	U	369	ug/kg	73.9	369	
100-51-6	Benzyl alcohol	U	369	ug/kg	111	369	UJ,SV7c
95-50-1	1,2-Dichlorobenzene	U	369	ug/kg	73.9	369	
108-60-1	bis(2-Chloroisopropyl)ether	U	369	ug/kg	73.9	369	UJ,SV7c
95-48-7	o-Cresol	U	369	ug/kg	73.9	369	
65794-96-9	m,p-Cresols	U	369	ug/kg	111	369	UJ,SV7c
67-72-1	Hexachloroethane	U	369	ug/kg	73.9	369	
98-95-3	Nitrobenzene	U	369	ug/kg	73.9	369	
78-59-1	Isophorone	U	369	ug/kg	73.9	369	
88-75-5	2-Nitrophenol	U	369	ug/kg	73.9	369	
105-67-9	2,4-Dimethylphenol	U	369	ug/kg	129	369	
111-91-1	bis(2-Chloroethoxy)methane	U	369	ug/kg	73.9	369	
120-83-2	2,4-Dichlorophenol	U	369	ug/kg	73.9	369	
65-85-0	Benzoic acid	U	739	ug/kg	185	739	UJ,SV7c
91-20-3	Naphthalene	U	36.9	ug/kg	11.1	36.9	
106-47-8	4-Chloroaniline	U	369	ug/kg	73.9	369	UJ,SV7c
87-68-3	Hexachlorobutadiene	U	369	ug/kg	73.9	369	
91-57-6	2-Methylnaphthalene	U	36.9	ug/kg	7.39	36.9	
77-47-4	Hexachlorocyclopentadiene	U	369	ug/kg	73.9	369	
88-06-2	2,4,6-Trichlorophenol	U	369	ug/kg	73.9	369	
95-95-4	2,4,5-Trichlorophenol	U	369	ug/kg	73.9	369	
91-58-7	2-Chloronaphthalene	U	36.9	ug/kg	12.2	36.9	
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	369	ug/kg	73.9	369	
99-09-2	3-Nitroaniline	U	369	ug/kg	73.9	369	UJ,SV7c

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1057	Date Collected:	12/21/2009 12:00	Matrix:	S
Lab Sample ID:	243472001	Date Received:	12/23/2009 10:10	%Moisture:	10.2
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14228	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	937095	Inst:	MSD7.I	Dilution:	1
Run Date:	01/02/2010 19:00	Analyst:	JMB3	Inj. Vol:	.5 uL
Prep Date:	12/28/2009 21:32	Aliquot:	30.14 g	Final Volume:	1 mL
Data File:	s7a0210.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
	m-Nitroaniline						
131-11-3	Dimethylphthalate	U	369	ug/kg	73.9	369	
606-20-2	2,6-Dinitrotoluene	U	369	ug/kg	36.9	369	
208-96-8	Acenaphthylene	U	36.9	ug/kg	11.1	36.9	
51-28-5	2,4-Dinitrophenol	U	739	ug/kg	140	739	UJ,SV7c
132-64-9	Dibenzofuran	U	369	ug/kg	73.9	369	
84-66-2	Diethylphthalate	U	369	ug/kg	73.9	369	
86-73-7	Fluorene	U	36.9	ug/kg	11.1	36.9	
7005-72-3	4-Chlorophenylphenylether	U	369	ug/kg	73.9	369	
534-52-1	2-Methyl-4,6-dinitrophenol	U	369	ug/kg	73.9	369	UJ,SV7c
100-01-6	4-Nitroaniline	U	369	ug/kg	111	369	
	p-Nitroaniline						
122-39-4	Diphenylamine	U	369	ug/kg	73.9	369	
122-66-7	Azobenzene	U	369	ug/kg	73.9	369	
	1,2-Diphenylhydrazine						
101-55-3	4-Bromophenylphenylether	U	369	ug/kg	73.9	369	
118-74-1	Hexachlorobenzene	U	369	ug/kg	73.9	369	
85-01-8	Phenanthrene	U	36.9	ug/kg	11.1	36.9	
120-12-7	Anthracene	U	36.9	ug/kg	7.39	36.9	
84-74-2	Di-n-butylphthalate	U	369	ug/kg	73.9	369	
206-44-0	Fluoranthene	U	36.9	ug/kg	11.1	36.9	
85-68-7	Butylbenzylphthalate	U	369	ug/kg	73.9	369	
56-55-3	Benzo(a)anthracene	U	36.9	ug/kg	11.1	36.9	
91-94-1	3,3'-Dichlorobenzidine	U	369	ug/kg	111	369	
218-01-9	Chrysene	U	36.9	ug/kg	11.1	36.9	
117-81-7	bis(2-Ethylhexyl)phthalate	U	369	ug/kg	73.9	369	
117-84-0	Di-n-octylphthalate	U	369	ug/kg	73.9	369	
205-99-2	Benzo(b)fluoranthene	U	36.9	ug/kg	11.1	36.9	
207-08-9	Benzo(k)fluoranthene	U	36.9	ug/kg	11.1	36.9	
50-32-8	Benzo(a)pyrene	U	36.9	ug/kg	11.1	36.9	
193-39-5	Indeno(1,2,3-cd)pyrene	U	36.9	ug/kg	11.1	36.9	
53-70-3	Dibenzo(a,h)anthracene	U	36.9	ug/kg	11.1	36.9	
191-24-2	Benzo(ghi)perylene	U	36.9	ug/kg	11.1	36.9	
120-82-1	1,2,4-Trichlorobenzene	U	369	ug/kg	73.9	369	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	2.8	264	ug/kg		J
	Unknown Aldol Condensate	3	325	ug/kg		J

LT 02/08/10

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1057	Date Collected:	12/21/2009 12:00	Matrix:	S
Lab Sample ID:	243472003	Date Received:	12/23/2009 10:10	%Moisture:	8.6
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14229	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	937095	Inst:	MSD7.I	Dilution:	1
Run Date:	01/04/2010 13:13	Analyst:	JMB3	Inj. Vol:	.5 uL
Prep Date:	12/28/2009 21:32	Aliquot:	30.06 g	Final Volume:	1 mL
Data File:	s7a0407.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
62-75-9	N-Methyl-N-nitrosomethylamine	U	364	ug/kg	72.8	364	
108-95-2	Phenol	U	364	ug/kg	72.8	364	
95-57-8	2-Chlorophenol	U	364	ug/kg	72.8	364	
106-46-7	1,4-Dichlorobenzene	U	364	ug/kg	72.8	364	
621-64-7	N-Nitrosodipropylamine	U	364	ug/kg	72.8	364	
59-50-7	4-Chloro-3-methylphenol	U	364	ug/kg	72.8	364	
83-32-9	Acenaphthene	U	36.4	ug/kg	12.0	36.4	
121-14-2	2,4-Dinitrotoluene	U	364	ug/kg	36.4	364	
100-02-7	4-Nitrophenol	U	364	ug/kg	120	364	
87-86-5	Pentachlorophenol	U	364	ug/kg	91.0	364	
129-00-0	Pyrene	U	36.4	ug/kg	10.9	36.4	
110-86-1	Pyridine	U	364	ug/kg	72.8	364	
62-53-3	Aniline	U	364	ug/kg	109	364	
111-44-4	bis(2-Chloroethyl) ether	U	364	ug/kg	72.8	364	
541-73-1	1,3-Dichlorobenzene	U	364	ug/kg	72.8	364	
100-51-6	Benzyl alcohol	U	364	ug/kg	109	364	UJ,SV7c
95-50-1	1,2-Dichlorobenzene	U	364	ug/kg	72.8	364	
108-60-1	bis(2-Chloroisopropyl)ether	U	364	ug/kg	72.8	364	UJ,SV7c
95-48-7	o-Cresol	U	364	ug/kg	72.8	364	
65794-96-9	m,p-Cresols	U	364	ug/kg	109	364	
67-72-1	Hexachloroethane	U	364	ug/kg	72.8	364	
98-95-3	Nitrobenzene	U	364	ug/kg	72.8	364	
78-59-1	Isophorone	U	364	ug/kg	72.8	364	
88-75-5	2-Nitrophenol	U	364	ug/kg	72.8	364	
105-67-9	2,4-Dimethylphenol	U	364	ug/kg	127	364	
111-91-1	bis(2-Chloroethoxy)methane	U	364	ug/kg	72.8	364	
120-83-2	2,4-Dichlorophenol	U	364	ug/kg	72.8	364	
65-85-0	Benzoic acid	U	728	ug/kg	182	728	
91-20-3	Naphthalene	U	36.4	ug/kg	10.9	36.4	
106-47-8	4-Chloroaniline	U	364	ug/kg	72.8	364	UJ,SV7c
87-68-3	Hexachlorobutadiene	U	364	ug/kg	72.8	364	
91-57-6	2-Methylnaphthalene	U	36.4	ug/kg	7.28	36.4	
77-47-4	Hexachlorocyclopentadiene	U	364	ug/kg	72.8	364	
88-06-2	2,4,6-Trichlorophenol	U	364	ug/kg	72.8	364	
95-95-4	2,4,5-Trichlorophenol	U	364	ug/kg	72.8	364	
91-58-7	2-Chloronaphthalene	U	36.4	ug/kg	12.0	36.4	
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	364	ug/kg	72.8	364	
99-09-2	3-Nitroaniline	U	364	ug/kg	72.8	364	UJ,SV7c

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1057	Date Collected:	12/21/2009 12:00	Matrix:	S
Lab Sample ID:	243472003	Date Received:	12/23/2009 10:10	%Moisture:	8.6
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14229	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	937095	Inst:	MSD7.I	Dilution:	1
Run Date:	01/04/2010 13:13	Analyst:	JMB3	Inj. Vol:	.5 uL
Prep Date:	12/28/2009 21:32	Aliquot:	30.06 g	Final Volume:	1 mL
Data File:	s7a0407.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
	m-Nitroaniline						
131-11-3	Dimethylphthalate	U	364	ug/kg	72.8	364	
606-20-2	2,6-Dinitrotoluene	U	364	ug/kg	36.4	364	
208-96-8	Acenaphthylene	U	36.4	ug/kg	10.9	36.4	
51-28-5	2,4-Dinitrophenol	U	728	ug/kg	138	728	
132-64-9	Dibenzofuran	U	364	ug/kg	72.8	364	
84-66-2	Diethylphthalate	U	364	ug/kg	72.8	364	
86-73-7	Fluorene	U	36.4	ug/kg	10.9	36.4	
7005-72-3	4-Chlorophenylphenylether	U	364	ug/kg	72.8	364	
534-52-1	2-Methyl-4,6-dinitrophenol	U	364	ug/kg	72.8	364	UJ,SV7c
100-01-6	4-Nitroaniline	U	364	ug/kg	109	364	UJ,SV7c
	p-Nitroaniline						
122-39-4	Diphenylamine	U	364	ug/kg	72.8	364	
122-66-7	Azobenzene	U	364	ug/kg	72.8	364	
	1,2-Diphenylhydrazine						
101-55-3	4-Bromophenylphenylether	U	364	ug/kg	72.8	364	
118-74-1	Hexachlorobenzene	U	364	ug/kg	72.8	364	
85-01-8	Phenanthrene	U	36.4	ug/kg	10.9	36.4	
120-12-7	Anthracene	U	36.4	ug/kg	7.28	36.4	
84-74-2	Di-n-butylphthalate	U	364	ug/kg	72.8	364	
206-44-0	Fluoranthene	U	36.4	ug/kg	10.9	36.4	
85-68-7	Butylbenzylphthalate	U	364	ug/kg	72.8	364	
56-55-3	Benzo(a)anthracene	U	36.4	ug/kg	10.9	36.4	
91-94-1	3,3'-Dichlorobenzidine	U	364	ug/kg	109	364	
218-01-9	Chrysene	U	36.4	ug/kg	10.9	36.4	
117-81-7	bis(2-Ethylhexyl)phthalate	U	364	ug/kg	72.8	364	
117-84-0	Di-n-octylphthalate	U	364	ug/kg	72.8	364	
205-99-2	Benzo(b)fluoranthene	U	36.4	ug/kg	10.9	36.4	
207-08-9	Benzo(k)fluoranthene	U	36.4	ug/kg	10.9	36.4	
50-32-8	Benzo(a)pyrene	U	36.4	ug/kg	10.9	36.4	
193-39-5	Indeno(1,2,3-cd)pyrene	U	36.4	ug/kg	10.9	36.4	
53-70-3	Dibenzo(a,h)anthracene	U	36.4	ug/kg	10.9	36.4	
191-24-2	Benzo(ghi)perylene	U	36.4	ug/kg	10.9	36.4	
120-82-1	1,2,4-Trichlorobenzene	U	364	ug/kg	72.8	364	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	2.09	3410	ug/kg		J
	Unknown	2.12	233	ug/kg		J

LT 02/08/10

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1057	Date Collected:	12/21/2009 12:00	Matrix:	S
Lab Sample ID:	243472003	Date Received:	12/23/2009 10:10	%Moisture:	8.6
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14229	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	937095	Inst:	MSD7.I	Dilution:	1
Run Date:	01/04/2010 13:13	Analyst:	JMB3	Inj. Vol:	.5 uL
Prep Date:	12/28/2009 21:32	Aliquot:	30.06 g	Final Volume:	1 mL
Data File:	s7a0407.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	2.23	146	ug/kg		J
	Unknown Aldol Condensate	3	303	ug/kg		J
301-02-0	9-Octadecenamide, (Z)-	10.4	182	ug/kg	93	NJ

LT 02/08/10

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1057	Date Collected:	12/21/2009 12:00	Matrix:	S
Lab Sample ID:	243472002	Date Received:	12/23/2009 10:10	%Moisture:	7.1
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14230	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	937095	Inst:	MSD7.I	Dilution:	1
Run Date:	01/02/2010 19:21	Analyst:	JMB3	Inj. Vol:	.5 uL
Prep Date:	12/28/2009 21:32	Aliquot:	30.05 g	Final Volume:	1 mL
Data File:	s7a0211.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
62-75-9	N-Methyl-N-nitrosomethylamine	U	358	ug/kg	71.6	358	
108-95-2	Phenol	U	358	ug/kg	71.6	358	
95-57-8	2-Chlorophenol	U	358	ug/kg	71.6	358	
106-46-7	1,4-Dichlorobenzene	U	358	ug/kg	71.6	358	
621-64-7	N-Nitrosodipropylamine	U	358	ug/kg	71.6	358	
59-50-7	4-Chloro-3-methylphenol	U	358	ug/kg	71.6	358	
83-32-9	Acenaphthene	U	35.8	ug/kg	11.8	35.8	
121-14-2	2,4-Dinitrotoluene	U	358	ug/kg	35.8	358	
100-02-7	4-Nitrophenol	U	358	ug/kg	118	358	
87-86-5	Pentachlorophenol	U	358	ug/kg	89.5	358	
129-00-0	Pyrene	U	35.8	ug/kg	10.7	35.8	
110-86-1	Pyridine	U	358	ug/kg	71.6	358	
62-53-3	Aniline	U	358	ug/kg	107	358	UJ,SV7c
111-44-4	bis(2-Chloroethyl) ether	U	358	ug/kg	71.6	358	
541-73-1	1,3-Dichlorobenzene	U	358	ug/kg	71.6	358	
100-51-6	Benzyl alcohol	U	358	ug/kg	107	358	UJ,SV7c
95-50-1	1,2-Dichlorobenzene	U	358	ug/kg	71.6	358	
108-60-1	bis(2-Chloroisopropyl)ether	U	358	ug/kg	71.6	358	UJ,SV7c
95-48-7	o-Cresol	U	358	ug/kg	71.6	358	
65794-96-9	m,p-Cresols	U	358	ug/kg	107	358	UJ,SV7c
67-72-1	Hexachloroethane	U	358	ug/kg	71.6	358	
98-95-3	Nitrobenzene	U	358	ug/kg	71.6	358	
78-59-1	Isophorone	U	358	ug/kg	71.6	358	
88-75-5	2-Nitrophenol	U	358	ug/kg	71.6	358	
105-67-9	2,4-Dimethylphenol	U	358	ug/kg	125	358	
111-91-1	bis(2-Chloroethoxy)methane	U	358	ug/kg	71.6	358	
120-83-2	2,4-Dichlorophenol	U	358	ug/kg	71.6	358	
65-85-0	Benzoic acid	U	716	ug/kg	179	716	UJ,SV7c
91-20-3	Naphthalene	U	35.8	ug/kg	10.7	35.8	
106-47-8	4-Chloroaniline	U	358	ug/kg	71.6	358	UJ,SV7c
87-68-3	Hexachlorobutadiene	U	358	ug/kg	71.6	358	
91-57-6	2-Methylnaphthalene	U	35.8	ug/kg	7.16	35.8	
77-47-4	Hexachlorocyclopentadiene	U	358	ug/kg	71.6	358	
88-06-2	2,4,6-Trichlorophenol	U	358	ug/kg	71.6	358	
95-95-4	2,4,5-Trichlorophenol	U	358	ug/kg	71.6	358	
91-58-7	2-Chloronaphthalene	U	35.8	ug/kg	11.8	35.8	
88-74-4	2-Nitroaniline	U	358	ug/kg	71.6	358	
	o-Nitroaniline						
99-09-2	3-Nitroaniline	U	358	ug/kg	71.6	358	UJ,SV7c

LT 02/08/10

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1057	Date Collected:	12/21/2009 12:00	Matrix:	S
Lab Sample ID:	243472002	Date Received:	12/23/2009 10:10	%Moisture:	7.1
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14230	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	937095	Inst:	MSD7.I	Dilution:	1
Run Date:	01/02/2010 19:21	Analyst:	JMB3	Inj. Vol:	.5 uL
Prep Date:	12/28/2009 21:32	Aliquot:	30.05 g	Final Volume:	1 mL
Data File:	s7a0211.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
	m-Nitroaniline						
131-11-3	Dimethylphthalate	U	358	ug/kg	71.6	358	
606-20-2	2,6-Dinitrotoluene	U	358	ug/kg	35.8	358	
208-96-8	Acenaphthylene	U	35.8	ug/kg	10.7	35.8	
51-28-5	2,4-Dinitrophenol	U	716	ug/kg	136	716	UJ,SV7c
132-64-9	Dibenzofuran	U	358	ug/kg	71.6	358	
84-66-2	Diethylphthalate	U	358	ug/kg	71.6	358	
86-73-7	Fluorene	U	35.8	ug/kg	10.7	35.8	
7005-72-3	4-Chlorophenylphenylether	U	358	ug/kg	71.6	358	
534-52-1	2-Methyl-4,6-dinitrophenol	U	358	ug/kg	71.6	358	UJ,SV7c
100-01-6	4-Nitroaniline	U	358	ug/kg	107	358	
	p-Nitroaniline						
122-39-4	Diphenylamine	U	358	ug/kg	71.6	358	
122-66-7	Azobenzene	U	358	ug/kg	71.6	358	
	1,2-Diphenylhydrazine						
101-55-3	4-Bromophenylphenylether	U	358	ug/kg	71.6	358	
118-74-1	Hexachlorobenzene	U	358	ug/kg	71.6	358	
85-01-8	Phenanthrene	U	35.8	ug/kg	10.7	35.8	
120-12-7	Anthracene	U	35.8	ug/kg	7.16	35.8	
84-74-2	Di-n-butylphthalate	U	358	ug/kg	71.6	358	
206-44-0	Fluoranthene	U	35.8	ug/kg	10.7	35.8	
85-68-7	Butylbenzylphthalate	U	358	ug/kg	71.6	358	
56-55-3	Benzo(a)anthracene	U	35.8	ug/kg	10.7	35.8	
91-94-1	3,3'-Dichlorobenzidine	U	358	ug/kg	107	358	
218-01-9	Chrysene	U	35.8	ug/kg	10.7	35.8	
117-81-7	bis(2-Ethylhexyl)phthalate	U	358	ug/kg	71.6	358	
117-84-0	Di-n-octylphthalate	U	358	ug/kg	71.6	358	
205-99-2	Benzo(b)fluoranthene	U	35.8	ug/kg	10.7	35.8	
207-08-9	Benzo(k)fluoranthene	U	35.8	ug/kg	10.7	35.8	
50-32-8	Benzo(a)pyrene	U	35.8	ug/kg	10.7	35.8	
193-39-5	Indeno(1,2,3-cd)pyrene	U	35.8	ug/kg	10.7	35.8	
53-70-3	Dibenzo(a,h)anthracene	U	35.8	ug/kg	10.7	35.8	
191-24-2	Benzo(ghi)perylene	U	35.8	ug/kg	10.7	35.8	
120-82-1	1,2,4-Trichlorobenzene	U	358	ug/kg	71.6	358	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	2.13	324	ug/kg		J
	Unknown Aldol Condensate	3.01	249	ug/kg		J

LT 02/08/10

DATA VALIDATION COVER SHEET

5121-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY

Section I.

REQUEST NUMBER: 10-1057 VALIDATION DATE: 02/08/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Susan Ball ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☒ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE):

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. The MS and MSD %R calculations were performed incorrectly. The parent sample result was < the MDL and, thus, a result of 0 µg/kg should have been used to calculate the %Rs. The laboratory subtracted the parent sample concentration. The %Rs were within the acceptance limits when calculated correctly. It should be noted that the parent QC sample was from another LANL RN. No sample results were qualified.

Reviewed by: Monica Dymerski **Level I** **Date:** 02/09/10

VALIDATOR'S SIGNATURE: DATE: 02/08/10

LC/MS/MS PERCHLORATE ANALYTICAL DATA VALIDATION CHECKLIST

5121-2 **LC/MS/MS Perchlorate Analytical Data Validation Checklist**	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	1. The Internal Standard (IS) relativer retention time has shifted by more than 0.98 to 1.02 seconds.	R, PERC0	J, PERC0
☐	☒	☐	2. Required IS retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, PERC0b	R, PERC0b
☐	☐	☒	3. The IS are count is <25% of the expected value.	UJ, PERC1a	J, PERC1a
☐	☐	☒	4. The IS area count is <70% but >25% of the average of that obtained from the calibration standards.	UJ, PERC1b	J, PERC1b
☐	☐	☒	5. The IS area count is >130% of the average of that obtained from the calibration standards.	UJ, PERC1c	J, PERC1c
☐	☐	☒	6. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, PREC1d	R, PERC1d
☐	☒	☐	7. The sample result is ≤ 5X the concentration of the related analyte in the method blank.	U, PERC4	N/A
☐	☒	☐	8. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X.	N/A	J+, PERC4a
☐	☐	☒	9. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, and/or equipment blank.	U, PERC4d	N/A
☐	☒	☐	10. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, PERC4e	R, PERC4e
☐	☒	☐	11. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, PERC7	J, PERC7
☐	☒	☐	12. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.99.	UJ, R, PERC7a	J, PERC7a

LC/MS/MS PERCHLORATE ANALYTICAL DATA VALIDATION CHECKLIST	
5121-2 LC/MS/MS Perchlorate Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	13. The ICV and/or CCV were recovered outside the method limits.	UJ, R, PERC7c	J, PERC7c
☐	☒	☐	14. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, R, PERC7d	J, PERC7d
☐	☒	☐	15. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, PERC7f	R. PERC7f
☐	☐	☒	16. The affected analyte is considered not detected because ion abundance ratios did not meet specifications.	N/A	R, PERC8
☐	☐	☒	17. The ion ratio documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	N/A	R, PERC8a
☐	☒	☐	18. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ PERC9	J-, PERC9
☐	☒	☐	19. The holding time was > 2 times the applicable holding time requirement.	R, PERC9a	J-, PERC9a
☐	☒	☐	20. The LCS percent recovery was <10%. Follow the external laboratory limits.	R, PERC12	J-, PERC12
☐	☒	☐	21. The LCS percent recovery was < the Lower Acceptance Limit but >10%. Follow the external laboratory limits.	UJ, PERC12a	J-, PERC12a
☐	☒	☐	22. The LCS percent recovery was > the Upper Acceptance Limit. Follow the external laboratory limits.	N/A	J+, PERC12b
☐	☒	☐	23. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, PERC12c	R, PERC12c
☐	☒	☐	24. The MS/MSD percent recovery was <10%	R, PERC12d	R, PERC12d
☐	☒	☐	25. The MS/MSD percent recovery was >10% but <75%	UJ, PERC12e	J, PERC12e
☐	☒	☐	26. The MS/MSD percent recovery was >125%.	N/A	J+, PERC12f

LC/MS/MS PERCHLORATE ANALYTICAL DATA VALIDATION CHECKLIST	
5121-2 **LC/MS/MS Perchlorate Analytical Data Validation Checklist**	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	27. The MS/MSD relative percent difference was >20%.	UJ, PERC12g	J, PERC12g
☐	☐	☒	28. The affected analytes are considered suspect because the sample was diluted without any target analytes identified due to matrix interference. Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.	UJ, R, PERC15	N/A
☐	☐	☒	29. The sample was diluted because target analytes were > the initial verification calibration.	UJ, PERC15a	J, PERC15a
☐	☐	☒	30. The Contract Required Detection Limit check standard (CRI) sample did not pass method-acceptance limits.	UJ, R, PERC16	J, PERC16
☐	☐	☒	31. The Interference Check Sample was not within ±20% of the known value.	UJ, PERC16a	J, PERC16a
☐	☐	☒	32. The required CRI sample information is missing. Contact the SMO or external laboratory for information.	R, PERC16c	R, PERC16c
☐	☒	☐	33. The LANL project chemist identified quality deficiencies in the reported data that require further qualification. This code can ONLY be used and/or under advisement by the LANL project chemist.	UJ, R, PERC19	J, R, PERC19
☐	☒	☐	34. Duplicate, dilution, or reanalysis.	UJ, PERC88	J, PERC88

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 936671

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE03-09-14228

Date Received: 23-DEC-09

GEL Job No (SDG): 10-1057

GEL Sample ID: 243472001

Date Filtered: 07-JAN-10

Injection Volume (uL): 20

%Solids: 90

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.557	2.23	0.557	ug/kg	U	1	07-JAN-10 17:47	per0107015a
	Perchlorate Isotope Ratio						1	07-JAN-10 17:47	per0107015a
14797-73-0	Perchlorate-101	.557	2.23	0.557	ug/kg	U	1	07-JAN-10 17:47	per0107015a
	Perchlorate-O(18)			5.46	ug/kg		1	07-JAN-10 17:47	per0107015a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 936671

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE03-09-14230

Date Received: 23-DEC-09

GEL Job No (SDG): 10-1057

GEL Sample ID: 243472002

Date Filtered: 07-JAN-10

Injection Volume (uL): 20

%Solids: 92.9

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.538	2.15	0.538	ug/kg	U	1	07-JAN-10 17:54	per0107016a
	Perchlorate Isotope Ratio						1	07-JAN-10 17:54	per0107016a
14797-73-0	Perchlorate-101	.538	2.15	0.538	ug/kg	U	1	07-JAN-10 17:54	per0107016a
	Perchlorate-O(18)			5.18	ug/kg		1	07-JAN-10 17:54	per0107016a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 936671

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE03-09-14229

Date Received: 23-DEC-09

GEL Job No (SDG): 10-1057

GEL Sample ID: 243472003

Date Filtered: 07-JAN-10

Injection Volume (uL): 20

%Solids: 91.4

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.547	2.19	0.547	ug/kg	U	1	07-JAN-10 18:01	per0107017a
	Perchlorate Isotope Ratio						1	07-JAN-10 18:01	per0107017a
14797-73-0	Perchlorate-101	.547	2.19	0.547	ug/kg	U	1	07-JAN-10 18:01	per0107017a
	Perchlorate-O(18)			5.54	ug/kg		1	07-JAN-10 18:01	per0107017a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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2/8/10

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DATA VALIDATION COVER SHEET

5116-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY

Section I.

REQUEST NUMBER: 10-1057 VALIDATION DATE: 02/08/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Susan Ball ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☒ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE): PCBs

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. It should be noted that the parent QC sample was from another LANL RN, and the raw data for the parent QC sample were not included in the data package. Since the analysis of an MS/MSD pair is not a client requirement, no sample results were qualified.

Reviewed by: Monica Dymerski **Level I** **Date:** 02/09/10

VALIDATOR'S SIGNATURE: Susan E Ball DATE: 02/08/10

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2

Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below if Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, P9	J-, P9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, P9	J-, P9a
☐	☒	☐	3. The affected analytes are regarded as rejected because the analytical holding time was exceeded.	R, P9b	R, P9b
☐	☒	☐	4. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, P7	J, P7
☐	☒	☐	5. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, P7a	J, P7a
☐	☒	☐	6. The Initial Calibration Verification (ICV) and/or Continuing Calibration Verification (CCV) were recovered outside the method-specific limits.	UJ, P7c	J, P7c
☐	☒	☐	7. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, P7d	J, P7d
☐	☐	☒	8. The multicomponent standard was not analyzed within 72 hours of the initial analysis.	R, P7e	J, P7e
☐	☒	☐	9. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, P7f	R, P7f
☐	☐	☒	10. The breakdown criteria have been exceeded. This can cause low bias in reported results. If compound is detected, qualify J-. If compound is not present, but breakdown products are present, qualify R. If no compounds or breakdown products are present, qualify UJ (4,4' DDT and Endrin).	UJ, R, P13	J-, P13

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2

Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	11. The breakdown criteria have been exceeded. This can cause high bias in the reported results and potential false positive results for the breakdown products Endrin ketone, Endrin aldehyde, DDD, and DDE.	UJ, P13a	J+, P13a
☐	☐	☒	12. The breakdown documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P13b	R, P13b
☐	☒	☐	13. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, P4	N/A
☐	☒	☐	14. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was greater than 5X.	N/A	J, P4a
☐	☐	☒	15. The sample result is ≤5X the concentration of the related analyte in the instrument blank and continuing calibration blank.	UJ, P4b	N/A
☐	☐	☒	16. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	UJ, P4d	N/A
☐	☒	☐	17. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P4e	R, P4e
☐	☒	☐	18. The analyte RT shifted by more than 0.05 minutes from the mid-level standard of the initial calibration.	R, P0	J, P0
☐	☒	☐	19. Required retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P0b	R, P0b
☐	☒	☐	20. The surrogate is <10%R. Follow the external laboratory limits located within the associated data package.	R, P3	J-, P3

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2

Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	21. The surrogate is < the Lower Acceptance Level (LAL) but ≥10%R. Follow the external laboratory limits located within the associated data package.	UJ, P3a	J-, P3a
☐	☒	☐	22. The surrogate %R value is > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, P3b
☐	☒	☐	23. At least one surrogate is > the Upper Acceptance Limit (UAL) and one surrogate is < the LAL. Follow the external laboratory limits located within the associated data package.	UJ, P3c	J, P3c
☐	☒	☐	24. Required surrogate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P3d	R, P3d
☐	☒	☐	25. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, P12	J-, P12
☐	☒	☐	26. The LCS percent recovery was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, P12a	J-, P12a
☐	☒	☐	27. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, P12b
☐	☒	☐	28. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P12c	R, P12c
☐	☐	☒	29. The analyte was not confirmed on a second dissimilar column.	N/A	R, P8
☐	☐	☒	30. The second dissimilar column documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P8a	R, P8a
☐	☒	☐	31. Duplicate, Dilution, or reanalysis.	UJ, P88	J, P88

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2

Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

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Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below if Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	32. The affected analytes have elevated detection limits and may not meet project DQOs because the sample was diluted without any target analytees identified due to matrix interference. Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.	UJ, R, P15	R, P15
☒	☐	☐	33. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB, NQ, NQ
☐	☒	☐	34. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.	UJ, R, P19	J, R, P19

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10-1057	**Date Collected:**	12/21/2009 12:00	**Matrix:**	S
Lab Sample ID:	243472001	**Date Received:**	12/23/2009 10:10	**%Moisture:**	10.2
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14228	**Method:**	SW846 8082	**SOP Ref:**	GL-OA-E-040
Batch ID:	937093	**Inst:**	ECD2A.I	**Dilution:**	1
Run Date:	12/29/2009 10:11	**Analyst:**	JAOC	**Inj. Vol:**	1 uL
Prep Date:	12/28/2009 20:43	**Aliquot:**	30.02 g	**Final Volume:**	1 mL
Data File:	016f1601.d	**Column:**	1 CLP1	**Level:**	LOW
	016b1601.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.71	ug/kg	1.23	3.71	1
11104-28-2	Aroclor-1221	U	3.71	ug/kg	1.23	3.71	1
11141-16-5	Aroclor-1232	U	3.71	ug/kg	1.23	3.71	1
53469-21-9	Aroclor-1242	U	3.71	ug/kg	1.23	3.71	1
12672-29-6	Aroclor-1248	U	3.71	ug/kg	1.23	3.71	1
11097-69-1	Aroclor-1254	U	3.71	ug/kg	1.23	3.71	1
11096-82-5	Aroclor-1260	U	3.71	ug/kg	1.23	3.71	1

SEB
2/8/10

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10-1057	**Date Collected:**	12/21/2009 12:00	**Matrix:**	S
Lab Sample ID:	243472003	**Date Received:**	12/23/2009 10:10	**%Moisture:**	8.6
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14229	**Method:**	SW846 8082	**SOP Ref:**	GL-OA-E-040
Batch ID:	937093	**Inst:**	ECD2A.I	**Dilution:**	1
Run Date:	12/29/2009 10:33	**Analyst:**	JAOC	**Inj. Vol:**	1 uL
Prep Date:	12/28/2009 20:43	**Aliquot:**	30.12 g	**Final Volume:**	1 mL
Data File:	018f1801.d	**Column:**	1 CLP1	**Level:**	LOW
	018b1801.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.63	ug/kg	1.21	3.63	1
11104-28-2	Aroclor-1221	U	3.63	ug/kg	1.21	3.63	1
11141-16-5	Aroclor-1232	U	3.63	ug/kg	1.21	3.63	1
53469-21-9	Aroclor-1242	U	3.63	ug/kg	1.21	3.63	1
12672-29-6	Aroclor-1248	U	3.63	ug/kg	1.21	3.63	1
11097-69-1	Aroclor-1254	U	3.63	ug/kg	1.21	3.63	1
11096-82-5	Aroclor-1260	U	3.63	ug/kg	1.21	3.63	1

SEB
2/8/10

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10-1057	**Date Collected:**	12/21/2009 12:00	**Matrix:**	S
Lab Sample ID:	243472002	**Date Received:**	12/23/2009 10:10	**%Moisture:**	7.1
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14230	**Method:**	SW846 8082	**SOP Ref:**	GL-OA-E-040
Batch ID:	937093	**Inst:**	ECD2A.I	**Dilution:**	1
Run Date:	12/29/2009 10:22	**Analyst:**	JAOC	**Inj. Vol:**	1 uL
Prep Date:	12/28/2009 20:43	**Aliquot:**	30.03 g	**Final Volume:**	1 mL
Data File:	017f1701.d	**Column:**	1 CLP1	**Level:**	LOW
	017b1701.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.58	ug/kg	1.19	3.58	1
11104-28-2	Aroclor-1221	U	3.58	ug/kg	1.19	3.58	1
11141-16-5	Aroclor-1232	U	3.58	ug/kg	1.19	3.58	1
53469-21-9	Aroclor-1242	U	3.58	ug/kg	1.19	3.58	1
12672-29-6	Aroclor-1248	U	3.58	ug/kg	1.19	3.58	1
11097-69-1	Aroclor-1254	U	3.58	ug/kg	1.19	3.58	1
11096-82-5	Aroclor-1260	U	3.58	ug/kg	1.19	3.58	1

SEB
2/8/10

DATA VALIDATION COVER SHEET

5118-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-1057 VALIDATION DATE: 02/08/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Ellen McEntee ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☒ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE):

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☐	☐	☒	8. QUANTITATION REPORTS
☐	☐	☒	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. In the MB, Cr and Pb were detected. The associated results were ≤5X the MB concentration and, thus, were qualified U,I4.
2. In the CCB, Tl was detected. The associated sample results were NDs and, thus, were not qualified.
3. The MS %Rs for Ca, Mg, and K were > the laboratory UAL. The associated sample results were detects and, thus, were qualified J+,I6b. The MS %R for Si was < the laboratory LAL but ≥10%. The associated sample results were detects and, thus, were qualified J-,I6a. The MS %Rs were also > the laboratory UAL for Fe, Mn, and Al, and < the laboratory LAL but ≥10% for Ti, however, the sample concentrations were > 4X the spike concentrations. Data was not qualified based on professional judgment. It should be noted that the MSs were performed on LANL samples from other SDGs. No sample data was qualified as a result.
4. The duplicate RPD for Co was >35%, and the sample and duplicate concentrations for Co were >5X the PQL. The associated sample results were detects and, thus, were qualified J,I10a.

Reviewed by: Monica Dymerski **Level I** **Date:** 02/09/10

VALIDATOR'S SIGNATURE: [illegible] DATE: 02/08/10

Form 5118-1, Revision 0.0	LOS ALAMOS Environmental Restoration Project

METALS ANALYTICAL DATA VALIDATION CHECKLIST

5118-2

Metals Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, I9	J-, I9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, I9a	J-, I9a
☐	☐	☒	3. The instrument performance sample did not pass method acceptance criteria.	R, I16	R, I16
☐	☐	☒	4. The mass calibration is not within 0.1 amu or %RSD is >5% for any isotope (Be, Mg, Co, In, Pb).	UJ, I16a	J, I16a
☐	☐	☒	5. Samples were analyzed outside specific method tune time criteria.	N/A	J, I16b
☐	☐	☒	6. The required instrument performance sample information is missing. Contact the SMO or external laboratory for information.	R, I16c	R, I16c
☐	☒	☐	7. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, I7	J, I7
☐	☒	☐	8. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, I7a	J, I7a
☐	☒	☐	9. The initial Calibration Verification (ICV) and/or Continuing Calibration Verification (CCV) were recovered outside the method-specific limits.	UJ, I7c	J, I7c
☐	☒	☐	10. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, I7d	J, I7d
☐	☒	☐	11. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, I7f	R, I7f
☐	☒	☐	12. Metals interference check sample percent recover value is <50%.	R, I2	J-, I2

METALS ANALYTICAL DATA VALIDATION CHECKLIST

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Metals Analytical Data Validation Checklist

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Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	13. Metals interference check sample percent recovery value is ≥50% and <80%	UJ, I2a	J-, I2a
☐	☒	☐	14. Metals interference check sample percent recovery value is >120%.	N/A	J+, I2b
☐	☒	☐	15. Metals interference check sample was not analyzed with the samples.	R, I2c	R, I2c
☒	☐	☐	16. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, I4	N/A
☐	☒	☐	17. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X.	N/A	J, I4a
☒	☐	☐	18. The sample result is ≤5X the concentration of the related analyte in the instrument blank and continuing calibration blank.	U, I4b	N/A
☐	☒	☐	19. Continuing calibration blanks were not analyzed at the appropriate method frequency.	UJ, I4c	J, I4c
☐	☐	☒	20. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	U, I4d	N/A
☐	☒	☐	21. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, I4e	R, I4e
☐	☒	☐	22. The associated matrix spike recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I6	R, I6
☒	☐	☐	23. The associated matrix spike recovery was <the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I6a	J+, I6a
☒	☐	☐	24. The associated matrix spike recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	UJ, I6b	J+, I6b

METALS ANALYTICAL DATA VALIDATION CHECKLIST

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Metals Analytical Data Validation Checklist

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Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	25. Required matrix spike information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. If the LCS information is present, do not Reject. Qualify data based on the LCS information.	R, I6c	R, I6c
☒	☐	☐	26. The sample and the duplicate sample results were ≥5X the RL and the duplicate RPD was >20% for water samples and >35% for soil samples.	UJ, I10a	J, I10a
☐	☒	☐	27. The duplicate sample was not prepared and/or analyzed with the samples for unspecified reasons. The duplicate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	UJ, I10d	J, I10d
☐	☒	☐	28. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I12	R, I12
☐	☒	☐	29. The LCS percent recover was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I12a	J-, I12a
☐	☒	☐	30. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, I12b
☐	☒	☐	31. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. Do not Reject if MS/MSD information is present. Qualify according to MS/MSD criteria.	R, I12c	R, I12c
☐	☐	☒	32. The quantitating IS area count is <10% for metals window in relation to the initial calibration blank. Follow the method-specific windows.	R, I1a	J, I1a

METALS ANALYTICAL DATA VALIDATION CHECKLIST	
5118-2 **Metals Analytical Data Validation Checklist**	Records Use only Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	33. The IS area count for the quantitating IS is <60% but >10% for metals window in relation to the initial calibration blank. Follow the method-specific windows.	UJ, I1b	J, I1b
☐	☐	☒	34. The IS area count for the quantitating IS is >125% in relation to the metals initial calibration blank. Follow method-specific windows.	UJ, I1c	J, I1c
☐	☐	☒	35. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, I1d	R, I1d
☐	☐	☒	36. Serial dilution sample RPD was >10% and the sample result was >50X the MDL (>100X the MDL for ICPMS). Qualify ONLY the sample used for the serial dilution.	UJ, I18	J, I18
☐	☐	☒	37. Serial dilution sample was not analyzed with the samples.	UJ, I18a	J, I18
☐	☐	☒	38. The sample result was reported as detected between the IDL and the EDL.	N/A	J, I1
☐	☒	☐	39. Duplicate, dilution, or reanalysis.	UJ, I88	J, I88
☒	☐	☐	40. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB, NQ, NQ
☐	☒	☐	41. The LANL project chemist identified quality deficiencies in the reported data that require further qualification. This code can ONLY be used and/or under advisement by the LANL project chemist.	UJ, R, I19	J, R, I19

METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1057 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 243472001 **BASIS:** Dry Weight **DATE COLLECTED** 21-DEC-09

CLIENT ID: RE03-09-14228 **LEVEL:** Low **DATE RECEIVED** 23-DEC-09

MATRIX: SOIL **%SOLIDS:** 90

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	663000	ug/Kg		7460	22000	22000	1	P	HSC	01/12/10 00:54	011110A-1	936808
7440-36-0	Antimony	1110	ug/Kg	U	366	1110	1110	1	P	HSC	01/14/10 21:45	011410-2	941050
7440-38-2	Arsenic	0.386	mg/kg	J	0.219	1.09	1.09	2	MS	RMJ	01/13/10 22:21	100113-4	936805
7440-39-3	Barium	10000	ug/Kg		110	549	549	1	P	HSC	01/12/10 00:54	011110A-1	936808
7440-41-7	Beryllium	0.378	mg/kg		0.0219	0.109	0.109	2	MS	RMJ	01/12/10 13:12	100111-3	936805
7440-42-8	Boron	5490	ug/Kg	U	1100	5490	5490	1	P	HSC	01/12/10 00:54	011110A-1	936808
7440-43-9	Cadmium	549	ug/Kg	U	110	549	549	1	P	HSC	01/12/10 00:54	011110A-1	936808
7440-70-2	Calcium J+,I6b	241000	ug/Kg		8780	27400	27400	1	P	HSC	01/12/10 00:54	011110A-1	936808
7440-47-3	Chromium U,I4	1090	ug/Kg		165	549	549	1	P	HSC	01/12/10 00:54	011110A-1	936808
7440-48-4	Cobalt J,I10a	229	ug/Kg	J	165	549	549	1	P	HSC	01/12/10 00:54	011110A-1	936808
7440-50-8	Copper	1340	ug/Kg		329	1100	1100	1	P	HSC	01/12/10 00:54	011110A-1	936808
7439-89-6	Iron	6730000	ug/Kg		8780	27400	27400	1	P	HSC	01/12/10 00:54	011110A-1	936808
7439-92-1	Lead U,I4	2630	ug/Kg		274	1100	1100	1	P	HSC	01/12/10 00:54	011110A-1	936808
7439-93-2	Lithium	10	mg/kg		0.437	2.19	2.19	2	MS	RMJ	01/19/10 00:42	100118-7	936805
7439-95-4	Magnesium J+,I6b	121000	ug/Kg		9330	32900	32900	1	P	HSC	01/12/10 00:54	011110A-1	936808
7439-96-5	Manganese	245000	ug/Kg		220	1100	1100	1	P	HSC	01/12/10 00:54	011110A-1	936808
7439-97-6	Mercury	12.3	ug/kg	U	4.19	12.3	12.3	1	AV	JXL1	01/07/10 11:39	010710S2-8	937638
7440-02-0	Nickel	0.573	mg/kg		0.109	0.437	0.437	2	MS	RMJ	01/12/10 13:12	100111-3	936805
7440-09-7	Potassium J+,I6b	223000	ug/Kg		7020	27400	27400	1	P	HSC	01/12/10 00:54	011110A-1	936808
7782-49-2	Selenium	1.09	mg/kg	U	0.547	1.09	1.09	2	MS	RMJ	01/12/10 13:12	100111-3	936805
7440-21-3	Silicon J-,I6a	425000	ug/Kg		1660	11100	11100	1	P	HSC	01/14/10 21:45	011410-2	941050
7440-22-4	Silver	201	ug/Kg	J	110	549	549	1	P	HSC	01/12/10 00:54	011110A-1	936808
7440-23-5	Sodium	153000	ug/Kg		7680	27400	27400	1	P	HSC	01/12/10 00:54	011110A-1	936808
7440-28-0	Thallium	0.219	mg/kg	U	0.0656	0.219	0.219	2	MS	RMJ	01/13/10 22:21	100113-4	936805
7440-32-6	Titanium	158000	ug/Kg		110	549	549	1	P	HSC	01/12/10 00:54	011110A-1	936808
7440-61-1	Uranium	0.586	mg/kg		0.0144	0.0437	0.0437	2	MS	RMJ	01/13/10 22:21	100113-4	936805
7440-62-2	Vanadium	2240	ug/Kg		110	549	549	1	P	HSC	01/12/10 00:54	011110A-1	936808
7440-66-6	Zinc	31800	ug/Kg		362	1100	1100	1	P	HSC	01/12/10 00:54	011110A-1	936808

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
936805	936804	SW846 3050B	0.509	g	50	mL	12/29/09	FGA
936808	936807	SW846 3050B	0.507	g	50	mL	12/29/09	FGA
937638	937637	SW846 7471A Prep	0.542	g	30	mL	01/06/10	TXB3

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METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1057 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 243472002 **BASIS:** Dry Weight **DATE COLLECTED** 21-DEC-09

CLIENT ID: RE03-09-14230 **LEVEL:** Low **DATE RECEIVED** 23-DEC-09

MATRIX: SOIL **%SOLIDS:** 92.9

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	871000	ug/Kg		7200	21200	21200	1	P	HSC	01/12/10 01:15	011110A-1	936808
7440-36-0	Antimony	987	ug/Kg	U	326	987	987	1	P	HSC	01/14/10 21:53	011410-2	941050
7440-38-2	Arsenic	0.210	mg/kg	J	0.21	1.05	1.05	2	MS	RMJ	01/13/10 22:25	100113-4	936805
7440-39-3	Barium	25800	ug/Kg		106	530	530	1	P	HSC	01/12/10 01:15	011110A-1	936808
7440-41-7	Beryllium	0.213	mg/kg		0.021	0.105	0.105	2	MS	RMJ	01/12/10 13:18	100111-3	936805
7440-42-8	Boron	5300	ug/Kg	U	1060	5300	5300	1	P	HSC	01/12/10 01:15	011110A-1	936808
7440-43-9	Cadmium	530	ug/Kg	U	106	530	530	1	P	HSC	01/12/10 01:15	011110A-1	936808
7440-70-2	Calcium J+,I6b	270000	ug/Kg		8470	26500	26500	1	P	HSC	01/12/10 01:15	011110A-1	936808
7440-47-3	Chromium U,I4	1040	ug/Kg		159	530	530	1	P	HSC	01/12/10 01:15	011110A-1	936808
7440-48-4	Cobalt J,I10a	309	ug/Kg	J	159	530	530	1	P	HSC	01/12/10 01:15	011110A-1	936808
7440-50-8	Copper	1600	ug/Kg		318	1060	1060	1	P	HSC	01/12/10 01:15	011110A-1	936808
7439-89-6	Iron	8160000	ug/Kg		8470	26500	26500	1	P	HSC	01/12/10 01:15	011110A-1	936808
7439-92-1	Lead U,I4	3450	ug/Kg		265	1060	1060	1	P	HSC	01/12/10 01:15	011110A-1	936808
7439-93-2	Lithium	6.03	mg/kg		0.42	2.1	2.1	2	MS	RMJ	01/19/10 00:45	100118-7	936805
7439-95-4	Magnesium J+,I6b	143000	ug/Kg		9000	31800	31800	1	P	HSC	01/12/10 01:15	011110A-1	936808
7439-96-5	Manganese	336000	ug/Kg		212	1060	1060	1	P	HSC	01/12/10 01:15	011110A-1	936808
7439-97-6	Mercury	11.8	ug/kg	U	4	11.8	11.8	1	AV	JXL1	01/07/10 11:41	010710S2-8	937638
7440-02-0	Nickel	0.418	mg/kg	J	0.105	0.42	0.42	2	MS	RMJ	01/12/10 13:18	100111-3	936805
7440-09-7	Potassium J+,I6b	229000	ug/Kg		6780	26500	26500	1	P	HSC	01/12/10 01:15	011110A-1	936808
7782-49-2	Selenium	1.05	mg/kg	U	0.524	1.05	1.05	2	MS	RMJ	01/12/10 13:18	100111-3	936805
7440-21-3	Silicon J-,I6a	382000	ug/Kg		1480	9870	9870	1	P	HSC	01/14/10 21:53	011410-2	941050
7440-22-4	Silver	329	ug/Kg	J	106	530	530	1	P	HSC	01/12/10 01:15	011110A-1	936808
7440-23-5	Sodium	162000	ug/Kg		7410	26500	26500	1	P	HSC	01/12/10 01:15	011110A-1	936808
7440-28-0	Thallium	0.210	mg/kg	U	0.0629	0.21	0.21	2	MS	RMJ	01/13/10 22:25	100113-4	936805
7440-32-6	Titanium	157000	ug/Kg		106	530	530	1	P	HSC	01/12/10 01:15	011110A-1	936808
7440-61-1	Uranium	0.480	mg/kg		0.0138	0.042	0.042	2	MS	RMJ	01/13/10 22:25	100113-4	936805
7440-62-2	Vanadium	2910	ug/Kg		106	530	530	1	P	HSC	01/12/10 01:15	011110A-1	936808
7440-66-6	Zinc	40600	ug/Kg		350	1060	1060	1	P	HSC	01/12/10 01:15	011110A-1	936808

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
936805	936804	SW846 3050B	0.513	g	50	mL	12/29/09	FGA
936808	936807	SW846 3050B	0.508	g	50	mL	12/29/09	FGA
937638	937637	SW846 7471A Prep	0.549	g	30	mL	01/06/10	TXB3

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METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1057 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 243472003 **BASIS:** Dry Weight **DATE COLLECTED** 21-DEC-09

CLIENT ID: RE03-09-14229 **LEVEL:** Low **DATE RECEIVED** 23-DEC-09

MATRIX: SOIL **%SOLIDS:** 91.4

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	669000	ug/Kg		7280	21400	21400	1	P	HSC	01/12/10 01:22	011110A-1	936808
7440-36-0	Antimony	1060	ug/Kg	U	350	1060	1060	1	P	HSC	01/14/10 22:13	011410-2	941050
7440-38-2	Arsenic	0.371	mg/kg	J	0.216	1.08	1.08	2	MS	RMJ	01/13/10 22:29	100113-4	936805
7440-39-3	Barium	9150	ug/Kg		107	536	536	1	P	HSC	01/12/10 01:22	011110A-1	936808
7440-41-7	Beryllium	0.273	mg/kg		0.0216	0.108	0.108	2	MS	RMJ	01/12/10 13:24	100111-3	936805
7440-42-8	Boron	5360	ug/Kg	U	1070	5360	5360	1	P	HSC	01/12/10 01:22	011110A-1	936808
7440-43-9	Cadmium	536	ug/Kg	U	107	536	536	1	P	HSC	01/12/10 01:22	011110A-1	936808
7440-70-2	Calcium J+,I6b	213000	ug/Kg		8570	26800	26800	1	P	HSC	01/12/10 01:22	011110A-1	936808
7440-47-3	Chromium U,I4	1100	ug/Kg		161	536	536	1	P	HSC	01/12/10 01:22	011110A-1	936808
7440-48-4	Cobalt J,I10a	203	ug/Kg	J	161	536	536	1	P	HSC	01/12/10 01:22	011110A-1	936808
7440-50-8	Copper	1450	ug/Kg		321	1070	1070	1	P	HSC	01/12/10 01:22	011110A-1	936808
7439-89-6	Iron	7260000	ug/Kg		8570	26800	26800	1	P	HSC	01/12/10 01:22	011110A-1	936808
7439-92-1	Lead U,I4	2630	ug/Kg		268	1070	1070	1	P	HSC	01/12/10 01:22	011110A-1	936808
7439-93-2	Lithium	10.4	mg/kg		0.432	2.16	2.16	2	MS	RMJ	01/19/10 00:48	100118-7	936805
7439-95-4	Magnesium J+,I6b	99000	ug/Kg		9100	32100	32100	1	P	HSC	01/12/10 01:22	011110A-1	936808
7439-96-5	Manganese	249000	ug/Kg		214	1070	1070	1	P	HSC	01/12/10 01:22	011110A-1	936808
7439-97-6	Mercury	12	ug/kg	U	4.07	12	12	1	AV	JXL1	01/07/10 11:43	010710S2-8	937638
7440-02-0	Nickel	0.577	mg/kg		0.108	0.432	0.432	2	MS	RMJ	01/12/10 13:24	100111-3	936805
7440-09-7	Potassium J+,I6b	242000	ug/Kg		6850	26800	26800	1	P	HSC	01/12/10 01:22	011110A-1	936808
7782-49-2	Selenium	1.08	mg/kg	U	0.54	1.08	1.08	2	MS	RMJ	01/12/10 13:24	100111-3	936805
7440-21-3	Silicon J-,I6a	403000	ug/Kg		1590	10600	10600	1	P	HSC	01/14/10 22:13	011410-2	941050
7440-22-4	Silver	250	ug/Kg	J	107	536	536	1	P	HSC	01/12/10 01:22	011110A-1	936808
7440-23-5	Sodium	180000	ug/Kg		7500	26800	26800	1	P	HSC	01/12/10 01:22	011110A-1	936808
7440-28-0	Thallium	0.216	mg/kg	U	0.0648	0.216	0.216	2	MS	RMJ	01/13/10 22:29	100113-4	936805
7440-32-6	Titanium	150000	ug/Kg		107	536	536	1	P	HSC	01/12/10 01:22	011110A-1	936808
7440-61-1	Uranium	0.557	mg/kg		0.0142	0.0432	0.0432	2	MS	RMJ	01/13/10 22:29	100113-4	936805
7440-62-2	Vanadium	2330	ug/Kg		107	536	536	1	P	HSC	01/12/10 01:22	011110A-1	936808
7440-66-6	Zinc	33600	ug/Kg		353	1070	1070	1	P	HSC	01/12/10 01:22	011110A-1	936808

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
936805	936804	SW846 3050B	0.507	g	50	mL	12/29/09	FGA
936808	936807	SW846 3050B	0.511	g	50	mL	12/29/09	FGA
937638	937637	SW846 7471A Prep	0.548	g	30	mL	01/06/10	TXB3

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DATA VALIDATION COVER SHEET

5120-1

Data Validation Cover Sheet

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Los Alamos NATIONAL LABORATORY

Section I.

REQUEST NUMBER: 10-1057 VALIDATION DATE: 02/09/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Ellen McEntee ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☒ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE):

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☐	☐	☒	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. It should be noted that the QC analyses (MS and/or duplicate) for pH and total cyanide were performed on LANL samples from other RNs. No sample data was qualified as a result.

Reviewed by: Monica Dymerski **Level I** **Date:** 02/09/10

VALIDATOR'S SIGNATURE: Ellen McEntee DATE: 02/09/10

GENERAL CHEMISTRY ANALYTICAL DATA VALIDATION CHECKLIST

5120-2

General Chemistry Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, I9	J-, I9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, I9a	J-, I9a
☐	☐	☒	3. The affected analytes are regarded as rejected because the analytical holding time was exceeded.	R, I9b	R, I9b
☐	☒	☐	4. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, I7	J, I7
☐	☒	☐	5. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, I7a	J, I7a
☐	☒	☐	6. The ICV and/or CCV were recovered outside the method specific limits.	UJ, I7c	J, I7c
☐	☒	☐	7. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, I7d	J, I7d
☐	☒	☐	8. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, I7f	R, I7f
☐	☐	☒	9. The interference check sample percent recovery value is <50%.	R, I2	J-, I2
☐	☐	☒	10. The interference check sample percent recovery value is ≥50% and <80%.	UJ, I2a	J-, I2a
☐	☐	☒	11. The interference check sample percent recovery value is >120%.	N/A	J+, I2b
☐	☐	☒	12. The interference check sample was not analyzed with the samples.	R, I2c	R, I2c
☐	☒	☐	13. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, I4	N/A

GENERAL CHEMISTRY ANALYTICAL DATA VALIDATION CHECKLIST

5120-2

General Chemistry Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	14. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X.	N/A	J, I4a
☐	☒	☐	15. The sample result is ≤5X the concentration of the related analyte in the instrument blank and continuing calibration blank.	U, I4b	N/A
☐	☒	☐	16. Continuing calibration blanks were not analyzed at the appropriate method frequency.	UJ, I4c	J, I4c
☐	☐	☒	17. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	U, I4d	N/A
☐	☒	☐	18. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, I4e	R, I4e
☐	☒	☐	19. The associate matrix spike recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I6	R, I6
☐	☒	☐	20. The associated matrix spike recovery was below the Lower Acceptance Limit (LAL) but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I6a	J-, I6a
☐	☒	☐	21. The associated matrix spike recovery was above the Upper Acceptance Limit (UAL). Follow the external laboratory limits located within the associated data package.	UJ, I6b	J+, I6b
☐	☒	☐	22. Required matrix spike information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. If LCS information is present, do not reject. Qualify data based on LCS information.	R, I6c	R, I6c
☐	☒	☐	23. The sample and/or the duplicate sample results RPD is not within the acceptance limits. Follow the external laboratory limits located within the associated data package.	UJ, I10b	J, I10b

GENERAL CHEMISTRY ANALYTICAL DATA VALIDATION CHECKLIST	
5120-2 **General Chemistry Analytical Data Validation Checklist**	Records Use only Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	24. The duplicate sample was not prepared and/or analyzed with the samples for unspecified reasons. The duplicate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	UJ, I10d	J, I10d
☐	☒	☐	25. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I12	R, I12
☐	☒	☐	26. The LCS percent recover was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I12a	J-, I12a
☐	☒	☐	27. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, I12b
☐	☒	☐	28. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. Do not Reject if MS/MSD information is present. Qualify according to MS/MSD criteria.	R, I12c	R, I12c
☐	☒	☐	29. Duplicate, dilution, or reanalysis	UJ, I88	J, I88
☐	☒	☐	30. The LANL project chemist identified quality deficiencies in the reported data that require further qualification. This code can ONLY be used and/or under advisement by the LANL project chemist.	UJ, R, I19	J, R, I19
☒	☐	☐	31. Qualification of data via data validation does not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB NQ, NQ (no qualification)

GEL LABORATORIES LLC

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: January 6, 2010

Client SDG: 10-1057

Client Sample ID:	RE03-09-14228	Project:	LANL01004
Sample ID:	243472001	Client ID:	LANL010
Matrix:	S		
Collect Date:	21-DEC-09 12:00		
Receive Date:	23-DEC-09		
Collector:	Client		
Moisture:	10.2%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Electrode Analysis										
SW9045C pH Federal "As Received"										
pH at Temp 19.2C	H	8.57	0.010	0.100	SU	1	TXT1 12/24/09	1256	936616	1
Flow Injection Analysis										
SW9012A Cyanide, Total Federal "Dry Weight Corrected"										
Cyanide, Total	U	ND	75.7	278	ug/kg	1	AXC2 12/31/09	1021	936400	2
Ion Chromatography										
EPA 300.0 Nitrate in Soil "Dry Weight Corrected"										
Nitrate-N		1.26	0.334	1.11	mg/kg	1	GXM 01/01/10 3	0151	936627	3

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 300.0 PREP	EPA 300.0 Total Anions in Soil	VH1	12/30/09	1350	936626
SW846 9010B Prep	SW846 9010B Prep	AXS5	12/30/09	1520	936399

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9045C/9045D	
2	SW846 9012A	
3	EPA 300.0	

EJM
02/09/10

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: January 6, 2010

Client SDG: 10-1057

Client Sample ID:	RE03-09-14230	Project:	LANL01004
Sample ID:	243472002	Client ID:	LANL010
Matrix:	S		
Collect Date:	21-DEC-09 12:00		
Receive Date:	23-DEC-09		
Collector:	Client		
Moisture:	7.08%		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Electrode Analysis											
SW9045C pH Federal "As Received"											
pH at Temp 19.3C	H	7.71	0.010	0.100	SU	1	TXT1	12/24/09	1259	936616	1
Flow Injection Analysis											
SW9012A Cyanide, Total Federal "Dry Weight Corrected"											
Cyanide, Total	U	ND	69.0	254	ug/kg	1	AXC2	12/31/09	1022	936400	2
Ion Chromatography											
EPA 300.0 Nitrate in Soil "Dry Weight Corrected"											
Nitrate-N		1.23	0.323	1.08	mg/kg	1	GXM 3	01/01/10	0350	936627	3

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 300.0 PREP	EPA 300.0 Total Anions in Soil	VH1	12/30/09	1350	936626
SW846 9010B Prep	SW846 9010B Prep	AXS5	12/30/09	1520	936399

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9045C/9045D	
2	SW846 9012A	
3	EPA 300.0	

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02/09/10

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: January 6, 2010

Client SDG: 10-1057

Client Sample ID:	RE03-09-14229	Project:	LANL01004
Sample ID:	243472003	Client ID:	LANL010
Matrix:	S		
Collect Date:	21-DEC-09 12:00		
Receive Date:	23-DEC-09		
Collector:	Client		
Moisture:	8.64%		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Electrode Analysis											
SW9045C pH Federal "As Received"											
pH at Temp 19.3C	H	6.65	0.010	0.100	SU	1	TXT1	12/24/09	1302	936616	1
Flow Injection Analysis											
SW9012A Cyanide, Total Federal "Dry Weight Corrected"											
Cyanide, Total	U	ND	74.4	274	ug/kg	1	AXC2	12/31/09	1023	936400	2
Ion Chromatography											
EPA 300.0 Nitrate in Soil "Dry Weight Corrected"											
Nitrate-N		1.21	0.328	1.09	mg/kg	1	GXM 3	01/01/10	0420	936627	3

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 300.0 PREP	EPA 300.0 Total Anions in Soil	VH1	12/30/09	1350	936626
SW846 9010B Prep	SW846 9010B Prep	AXS5	12/30/09	1520	936399

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9045C/9045D	
2	SW846 9012A	
3	EPA 300.0	

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02/09/10

DATA VALIDATION COVER SHEET

5119-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-1057 VALIDATION DATE: 02/09/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Ellen McEntee ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☒ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE):

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☐	☐	☒	8. QUANTITATION REPORTS
☐	☐	☒	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. An MS was not analyzed for tritium. The LCS met laboratory acceptance criteria and thus, no sample results were qualified.
2. It should be noted that the duplicates for all analyses were performed on LANL samples from other RNs. No sample data should be qualified as a result.

Reviewed by: Monica Dymerski **Level I** **Date:** 02/09/10

VALIDATOR'S SIGNATURE: Ellen McEntee DATE: 02/09/10

RAD ANALYTICAL DATA VALIDATION CHECKLIST

5119-2

Rad Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, R9	J-, R9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, R9a	J-, R9a
☐	☐	☒	3. The results for the affected analytes are considered not detected (U) because the associated sample concentration was less than or equal to the MDC.	U, R5	N/A
☐	☐	☒	4. The analyte should be regarded as rejected because spectral interferences prevent positive identification of the analytes.	R, R5a	R, R5a
☐	☒	☐	5. The MDC and/or TPU documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, R5b	J-, R5b
☐	☐	☒	6. The results for the affected analytes should be regarded as not detected (U) because the associated sample concentration was less than 3X the 1 sigma TPU.	U, R11	N/A
☐	☒	☐	7. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, R4	N/A
☐	☒	☐	8. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X.	N/A	J, R4a
☐	☐	☒	9. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	U, R4d	N/A
☐	☒	☐	10. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, R4e	R, R4e
☐	☒	☐	11. The tracer is <10%R. Follow the external laboratory limits located within the associated data package. Tracer%R is not applicable for Gamma Spectroscopy.	R, R3	R, R3

RAD ANALYTICAL DATA VALIDATION CHECKLIST

5119-2

Rad Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	12. The tracer is < the Lower Acceptance Level (LAL) but ≥10%R. Follow the external laboratory limits located within the associated data package. Tracer%R is not applicable for Gamma Spectroscopy.	UJ, R3a	J-, R3a
☐	☒	☐	13. The Tracer%R value is > the Upper Acceptance Limit (UAL). Follow the external laboratory limits located within the associated data package. Tracer%R is not applicable for Gamma Spectroscopy.	N/A	J+, R3b
☐	☒	☐	14. Required tracer information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. Tracer%R is not applicable for Gamma Spectroscopy.	R, R3d	R, R3d
☐	☒	☐	15. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, R12	R, R12
☐	☒	☐	16. The LCS percent recovery was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, R12a	J-, R12a
☐	☒	☐	17. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, R12b
☐	☒	☐	18. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, R12c	R, R12c
☐	☒	☐	19. Associated duplicate sample has DER or RER > the analytical laboratory's acceptance limits.	R, R10	J, J10
☐	☒	☐	20. The duplicate sample was not prepared and/or analyzed with the samples for unspecified reasons. The duplicate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, R6	R, R6

RAD ANALYTICAL DATA VALIDATION CHECKLIST

5119-2

Rad Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	21. The associated matrix spike recovery was <10%. Follow the external laboratory limits. MS/MSD is not applicable to Gamma Spectroscopy.	R, R6	R, R6
☐	☐	☒	22. The associated matrix spike recovery was <10%. Follow the external laboratory limits. MS/MSD is not applicable to Gamma Spectroscopy.	UJ, R6a	J-, R6a
☐	☐	☒	23. The associated matrix spike recovery was above the UAL. Follow the external laboratory limits. MS/MSD is not applicable to Gamma Spectroscopy.	UJ, R6b	J+, R6b
☒	☐	☐	24. Required matrix spike information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. If LCS information is present, do not Reject. Qualify data based on LCS information. MS/MSD is not applicable to Gamma Spectroscopy.	R, R6c	R, R6c
☐	☒	☐	25. Duplicate, dilution, or reanalysis.	UJ, R88	J, R88
☐	☒	☐	26. The LANL project chemist identified quality deficiencies in the reported data that require further qualification. This code can ONLY be used and/or under advisement by the LANL project chemist.	UJ, R, R19	J, R, R19
☒	☐	☐	27. Quantification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB NQ, NQ

GEL LABORATORIES LLC

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: January 12, 2010

Client Sample ID:	RE03-09-14228	Project:	LANL01004
Sample ID:	243472001	Client ID:	LANL010
Matrix:	S		
Collect Date:	21-DEC-09		
Receive Date:	23-DEC-09		
Collector:	Client		
Moisture:	10.2%		

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids												
"As Received"												
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	-0.000286	0.026	+/-0.00153	0.050	pCi/g		MXE1	01/06/10	1820	936962	2
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	-0.00826	0.0227	+/-0.00826	0.050	pCi/g		MXE1	01/09/10	1201	939255	3
Plutonium-239/240	U	-0.00275	0.026	+/-0.00389	0.050	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		0.860	0.112	+/-0.0825	0.100	pCi/g		MXE1	01/06/10	1352	936975	5
Uranium-235/236	U	0.0314	0.0698	+/-0.0121	0.100	pCi/g						
Uranium-238		0.835	0.0652	+/-0.0807	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium	U	142	227	+/-70.4	250	pCi/L		KXK2	01/05/10	1023	936900	6

The following Analytical Methods were performed

Method	Description
1	ASTM D 2216 (Modified)
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, Pu-11-RC Modified
5	DOE EML HASL-300, U-02-RC Modified
6	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	60.6	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	82.7	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	94.0	(50%-105%)

EJM
02/09/10

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: January 12, 2010

Client Sample ID:	RE03-09-14230	Project:	LANL01004
Sample ID:	243472002	Client ID:	LANL010
Matrix:	S		
Collect Date:	21-DEC-09		
Receive Date:	23-DEC-09		
Collector:	Client		
Moisture:	7.08%		

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids												
"As Received"												
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	-0.000669	0.0194	+/-0.00114	0.050	pCi/g		MXE1	01/06/10	1820	936962	2
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	-0.00968	0.0228	+/-0.0077	0.050	pCi/g		MXE1	01/09/10	1201	939255	3
Plutonium-239/240	U	0.00415	0.0261	+/-0.00415	0.050	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		0.829	0.116	+/-0.0809	0.100	pCi/g		MXE1	01/06/10	1352	936975	5
Uranium-235/236	U	0.0464	0.0722	+/-0.015	0.100	pCi/g						
Uranium-238		0.893	0.0675	+/-0.0858	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium	U	172	218	+/-69.1	250	pCi/L		KXK2	01/05/10	1116	936900	6

The following Analytical Methods were performed

Method	Description
1	ASTM D 2216 (Modified)
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, Pu-11-RC Modified
5	DOE EML HASL-300, U-02-RC Modified
6	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	84.9	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	87.8	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	97.3	(50%-105%)

EJM
02/09/10

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: January 12, 2010

Client Sample ID:	RE03-09-14229	Project:	LANL01004
Sample ID:	243472003	Client ID:	LANL010
Matrix:	S		
Collect Date:	21-DEC-09		
Receive Date:	23-DEC-09		
Collector:	Client		
Moisture:	8.64%		

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids												
"As Received"												
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	-0.00078	0.0176	+/-0.00104	0.050	pCi/g		MXE1	01/06/10	1820	936962	2
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	-0.00127	0.0209	+/-0.00727	0.050	pCi/g		MXE1	01/09/10	1201	939255	3
Plutonium-239/240	U	0.00127	0.0239	+/-0.00127	0.050	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		0.882	0.111	+/-0.0839	0.100	pCi/g		MXE1	01/06/10	1352	936975	5
Uranium-235/236	U	0.0266	0.069	+/-0.0127	0.100	pCi/g						
Uranium-238		0.911	0.0645	+/-0.0861	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium	U	103	244	+/-73.7	250	pCi/L		KXK2	01/07/10	0240	936900	6

The following Analytical Methods were performed

Method	Description
1	ASTM D 2216 (Modified)
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, Pu-11-RC Modified
5	DOE EML HASL-300, U-02-RC Modified
6	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	90.8	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	95.1	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	99.3	(50%-105%)

EJM
02/09/10

Tuesday, December 22, 2009

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1057

REQUEST NUMBER: 10-1057

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 1/21/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS: 243472 %

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE03-09-14228	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-09-14228	1	AMBER GLASS	8270C+8082	Ice	S
RE03-09-14228	1	POLY	AM-241+ISOPU+ISOU	None	S
RE03-09-14228	1	POLY	H3	Ice	S
RE03-09-14228	1	POLY	METALS-GEL	Ice	S
RE03-09-14228	1	POLY	Perchlorate+CN+N03+pH	Ice	S
RE03-09-14230	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-09-14230	1	AMBER GLASS	8270C+8082	Ice	S
RE03-09-14230	1	POLY	AM-241+ISOPU+ISOU	None	S
RE03-09-14230	1	POLY	H3	Ice	S
RE03-09-14230	1	POLY	METALS-GEL	Ice	S
RE03-09-14230	1	POLY	Perchlorate+CN+N03+pH	Ice	S
RE03-09-14229	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-09-14229	1	AMBER GLASS	8270C+8082	Ice	S
RE03-09-14229	1	POLY	AM-241+ISOPU+ISOU	None	S
RE03-09-14229	1	POLY	H3	Ice	S
RE03-09-14229	1	POLY	METALS-GEL	Ice	S
RE03-09-14229	1	POLY	Perchlorate+CN+N03+pH	Ice	S
RE03-10-9876	1	SEPTUM AMBER GLASS	8260B Trip Blank	Ice	S

Relinquished By:		Date	Time	Received By:		Date	Time
Printed Name	Signature	12/22/09	1400	Patricia Dover	Patricia Dover	12-23-09	10:10
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

Received for DISPOSAL By: **Date** **Time** **Remarks:**

Printed Name Signature

Tuesday, December 22, 2009

REQUEST NUMBER: 10-1057

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis
General Engineering Laboratories, Inc., Charleston, SC.
2040 Savage Rd
Charleston, SC 29407

These Samples are on:
LANL Request Number:10-1057
Per Agreement Number:126310011
Project Cost Code: MR2A054196D0

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 12/22/2009
TURNAROUND/REPORT DUE: 1/21/2010
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Not Required
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:300.0	1	RE03-09-14228	S	12/21/2009	
		1	RE03-09-14229	S	12/21/2009	
		1	RE03-09-14230	S	12/21/2009	
	EPA:906.0	1	RE03-09-14228	S	12/21/2009	
		1	RE03-09-14229	S	12/21/2009	
		1	RE03-09-14230	S	12/21/2009	
	HASL-300:ISOPU	1	RE03-09-14228	S	12/21/2009	
		1	RE03-09-14229	S	12/21/2009	
		1	RE03-09-14230	S	12/21/2009	

Tuesday, December 22, 2009

REQUEST NUMBER: 10-1057

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	HASL-300:ISOU	1	RE03-09-14228	S	12/21/2009	
		1	RE03-09-14229	S	12/21/2009	
		1	RE03-09-14230	S	12/21/2009	
	SW-846:6010B	1	RE03-09-14228	S	12/21/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14229	S	12/21/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14230	S	12/21/2009	Plus, B, Li, Si, Ti, U
	SW-846:6020	1	RE03-09-14228	S	12/21/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14229	S	12/21/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14230	S	12/21/2009	Plus, B, Li, Si, Ti, U
	SW-846:6850	1	RE03-09-14228	S	12/21/2009	
		1	RE03-09-14229	S	12/21/2009	
		1	RE03-09-14230	S	12/21/2009	
	SW-846:7471A	1	RE03-09-14228	S	12/21/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14229	S	12/21/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14230	S	12/21/2009	Plus, B, Li, Si, Ti, U
	SW-846:8082	1	RE03-09-14228	S	12/21/2009	
		1	RE03-09-14229	S	12/21/2009	
		1	RE03-09-14230	S	12/21/2009	
	SW-846:8260B	1	RE03-09-14228	S	12/21/2009	
		1	RE03-09-14229	S	12/21/2009	
		1	RE03-09-14230	S	12/21/2009	
		1	RE03-10-9876	S	12/21/2009	
	SW-846:8270C	1	RE03-09-14228	S	12/21/2009	
		1	RE03-09-14229	S	12/21/2009	
		1	RE03-09-14230	S	12/21/2009	
	SW-846:9012A	1	RE03-09-14228	S	12/21/2009	
		1	RE03-09-14229	S	12/21/2009	
		1	RE03-09-14230	S	12/21/2009	

Tuesday, December 22, 2009

REQUEST NUMBER: 10-1057

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:9045C	1	RE03-09-14228	S	12/21/2009	
		1	RE03-09-14229	S	12/21/2009	
		1	RE03-09-14230	S	12/21/2009	

Final Page of REQUEST NUMBER 10-1057

GEL Laboratories LLC

a member of The GEL Group INC

PO Box 30712 Charleston, SC 29417
2040 Savage Road Charleston, SC 29407

P 843.556.8171 F 843.766.1178

www.gel.com

January 05, 2010

Ms. Joylene Valdez
Los Alamos National Laboratory
PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545

Re: LANL ER Project
Work Order: 243472
SDG: 10-1057

Dear Ms. Valdez:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the following analytical results for the sample(s) we received on December 23, 2009, and analyzed for GC Semivolatile PCB, GC/MS Semivolatile, GC/MS Volatile, General Chemistry, Metals, Perchlorates by LCMSMS and Radiochemistry. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 4485.

Sincerely,

for

Valerie Davis
Project Manager

Purchase Order: 72733-001-09
Chain of Custody: 10-1057
Enclosures

problem solved

Los Alamos National Laboratory (72733-001-09)
LANL ER Project
Work Order #: 243472
SDG: 10-1057

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Case Narrative

Case Narrative for
Los Alamos National Laboratory (72733-001-09)
LANL ER Project
Workorder #: 243472
SDG # : 10-1057

January 05, 2010

Laboratory Identification:

GEL Laboratories LLC
2040 Savage Road
Charleston, South Carolina 29407
(843) 556-8171

Summary

Sample receipt The samples arrived at GEL Laboratories LLC, Charleston, South Carolina on December 23, 2009 for analysis. The samples were prepared/analyzed within the required holding time. Shipping container temperatures were checked, documented, and within specifications. The samples were screened according to GEL Standard Operating Procedure. The samples were delivered with proper chain of custody documentation and signatures. All sample containers arrived without any visible signs of tampering or breakage. Containers were checked for pH, where appropriate, and matched the preservative as documented on the accompanying chain of custody. The containers for radiochemistry were received at 13/15/16C temperatures. Shipping container temperature was within specification (0 - 6C).

Sample Identification The laboratory received the following samples:

Laboratory ID	Client ID
243472001	RE03-09-14228
243472002	RE03-09-14230
243472003	RE03-09-14229
243472004	RE03-10-9876

Case Narrative

Sample analyses were conducted using methodology as outlined in GEL Laboratories, LLC (GEL) Standard Operating Procedures. Any technical or administrative problems during analysis, data review, and reduction are contained in the analytical case narratives in the enclosed data package.

Data Package The enclosed data package contains the following sections: Case Narrative, Chain of Custody, Cooler Receipt Checklist, Data Package Qualifier Definitions and data from the following fractions: GC Semivolatile PCB, GC/MS Semivolatile, GC/MS Volatile, General Chemistry, Metals, Perchlorates by LCMSMS and Radiochemistry.

I certify that this data report is in compliance with the terms and conditions of the subcontract and task order, both technically and for completeness, for other than the conditions detailed in the attached case narrative.

for

Valerie Davis

Project Manager

List of current GEL Certifications as of 05 January 2010

State	Certification
Arizona	AZ0668
Arkansas	88–0651
CLIA	42D0904046
California – NELAP	01151CA
Colorado	GEL
Connecticut	PH–0169
Dept. of Navy	NFESC 413
EPA Region 5	WG–15J
Florida – NELAP	E87156
Georgia	E87156 (FL/NELAP)
Georgia DW	967
Hawaii	N/A
ISO 17025	2567.01
Idaho	SC00012
Illinois – NELAP	200029
Indiana	C–SC–01
Kansas – NELAP	E–10332
Kentucky	90129
Louisiana – NELAP	03046
Maryland	270
Massachusetts	M–SC012
Nevada	SC00012
New Jersey – NELAP	SC002
New Mexico	FL NELAP E87156
New York – NELAP	11501
North Carolina	233
North Carolina DW	45709
Oklahoma	9904
Pennsylvania – NELAP	68–00485
South Carolina	10120001/10120002
Tennessee	TN 02934
Texas – NELAP	T104704235–07B–TX
U.S. Dept. of Agriculture	S–52597
Utah – NELAP	GEL
Vermont	VT87156
Virginia	00151
Washington	C1641

Chain of Custody and Supporting Documentation

Tuesday, December 22, 2009

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1057

REQUEST NUMBER: 10-1057

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Valerie Davis

TURNAROUND/REPORT DUE: 1/21/2010

TURNAROUND REQ'D: 30

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

LAB REQUEST COMMENTS: 243472 1.

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE03-09-14228	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-09-14228	1	AMBER GLASS	8270C+8082	Ice	S
RE03-09-14228	1	POLY	AM-241+ISOPU+ISOU	None	S
RE03-09-14228	1	POLY	H3	Ice	S
RE03-09-14228	1	POLY	METALS-GEL	Ice	S
RE03-09-14228	1	POLY	Perchlorate+CN+N03+pH	Ice	S
RE03-09-14230	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-09-14230	1	AMBER GLASS	8270C+8082	Ice	S
RE03-09-14230	1	POLY	AM-241+ISOPU+ISOU	None	S
RE03-09-14230	1	POLY	H3	Ice	S
RE03-09-14230	1	POLY	METALS-GEL	Ice	S
RE03-09-14230	1	POLY	Perchlorate+CN+N03+pH	Ice	S
RE03-09-14229	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-09-14229	1	AMBER GLASS	8270C+8082	Ice	S
RE03-09-14229	1	POLY	AM-241+ISOPU+ISOU	None	S
RE03-09-14229	1	POLY	H3	Ice	S
RE03-09-14229	1	POLY	METALS-GEL	Ice	S
RE03-09-14229	1	POLY	Perchlorate+CN+N03+pH	Ice	S
RE03-10-9876	1	SEPTUM AMBER GLASS	8260B Trip Blank	Ice	S

Relinquished By:		Date	Time	Received By:		Date	Time
[illegible]	[illegible]	12/22/09	[illegible]	Patricia Dover	[illegible]	12-23-09	10:10
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

Received for DISPOSAL By: **Date** **Time** **Remarks:**

Printed Name Signature

Tuesday, December 22, 2009

REQUEST NUMBER: 10-1057

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis
General Engineering Laboratories, Inc., Charleston, SC.
2040 Savage Rd
Charleston, SC 29407

These Samples are on:
LANL Request Number:10-1057
Per Agreement Number:126310011
Project Cost Code: MR2A054196D0

Please analyse the enclosed samples
according to the schedule indicated:

SHIP DATE: 12/22/2009
TURNAROUND/REPORT DUE: 1/21/2010
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Not Required
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:300.0	1	RE03-09-14228	S	12/21/2009	
		1	RE03-09-14229	S	12/21/2009	
		1	RE03-09-14230	S	12/21/2009	
	EPA:906.0	1	RE03-09-14228	S	12/21/2009	
		1	RE03-09-14229	S	12/21/2009	
		1	RE03-09-14230	S	12/21/2009	
	HASL-300:ISOPU	1	RE03-09-14228	S	12/21/2009	
		1	RE03-09-14229	S	12/21/2009	
		1	RE03-09-14230	S	12/21/2009	

Tuesday, December 22, 2009

REQUEST NUMBER: 10-1057

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	HASL-300:ISOU	1	RE03-09-14228	S	12/21/2009	
		1	RE03-09-14229	S	12/21/2009	
		1	RE03-09-14230	S	12/21/2009	
	SW-846:6010B	1	RE03-09-14228	S	12/21/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14229	S	12/21/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14230	S	12/21/2009	Plus, B, Li, Si, Ti, U
	SW-846:6020	1	RE03-09-14228	S	12/21/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14229	S	12/21/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14230	S	12/21/2009	Plus, B, Li, Si, Ti, U
	SW-846:6850	1	RE03-09-14228	S	12/21/2009	
		1	RE03-09-14229	S	12/21/2009	
		1	RE03-09-14230	S	12/21/2009	
	SW-846:7471A	1	RE03-09-14228	S	12/21/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14229	S	12/21/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14230	S	12/21/2009	Plus, B, Li, Si, Ti, U
	SW-846:8082	1	RE03-09-14228	S	12/21/2009	
		1	RE03-09-14229	S	12/21/2009	
		1	RE03-09-14230	S	12/21/2009	
	SW-846:8260B	1	RE03-09-14228	S	12/21/2009	
		1	RE03-09-14229	S	12/21/2009	
		1	RE03-09-14230	S	12/21/2009	
		1	RE03-10-9876	S	12/21/2009	
	SW-846:8270C	1	RE03-09-14228	S	12/21/2009	
		1	RE03-09-14229	S	12/21/2009	
		1	RE03-09-14230	S	12/21/2009	
	SW-846:9012A	1	RE03-09-14228	S	12/21/2009	
		1	RE03-09-14229	S	12/21/2009	
		1	RE03-09-14230	S	12/21/2009	

Tuesday, December 22, 2009

REQUEST NUMBER: 10-1057

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:9045C	1	RE03-09-14228	S	12/21/2009	
		1	RE03-09-14229	S	12/21/2009	
		1	RE03-09-14230	S	12/21/2009	

Final Page of REQUEST NUMBER 10-1057

GEL Laboratories LLC

SAMPLE RECEIPT & REVIEW FORM

Client:LANL	**SDG/ARCOC/Work Order:10-1057**
Received By:Patricia Dover-Dent	**Date Received:December 23, 2009**

Suspected Hazard Information	**Yes**	**No**	*If Counts > x2 area background on samples not marked "radioactive", contact the Radiation Safety Group of further
COC/Samples marked as radioactive?		X	Maximum Counts Observed*:40CPM
Classified Radioactive II by RSO?		X	
COC/Samples marked containing PCBs?		X	
Shipped as a DOT Hazardous?		X	Hazard Class Shipped: UN#:
Samples identified as Foreign Soil?		X	

	Sample Receipt Criteria	**Yes**	**NA**	**No**	**Comments/Qualifiers (Required for Non-Conforming Items)**
1	Shipping containers received intact and sealed?	X			Circle Applicable: seals broken damaged container leaking container other (describe
2	Samples requiring cold preservation within (0 < 6 deg. C?	X			Preservation Method: ice bags **BLUE ICE** dry ice **NONE** other (describe) **1-6,13,15,16**
3	Chain of custody documents included with shipment?	X			
4	Sample containers intact and sealed?	X			Circle Applicable: seals broken damaged container leaking container other (describe)
5	Samples requiring chemical preservation at proper pH?		X		Sample ID's, containers affected and observed pH. If Preservative added, Lot#
6	VOA vials free of headspace (defined as < 6mm bubble)?		X		Sample ID's and containers affected:
7	Are Encore containers present?			X	(If yes, immediately deliver to Volatiles laboratory)
8	Samples received within holding time?	X			Id's and tests affected:
9	Sample ID's on COC match ID's on bottles?	X			Sample ID's and containers affected:
10	Date & time on COC match date & time on bottles?		X		Sample ID's affected: **No Time on Chain of Custody**
11	Number of containers received match number indicated on COC?	X			Sample ID's affected:
12	COC form is properly signed in relinquished/received sections?	X			

Comments:FED EX #'S

7209 7849 3479 1C
7209 7849 3446 2C
7209 7849 3457 2C
7209 7849 3527 2C
7209 7849 3549 2C
7209 7849 3480 2C
7209 7849 3490 3C
7209 7849 3505 4C
7209 7849 3550 4C
7209 7849 3538 5C
7209 7849 3516 6C
7209 7849 3413 13C
7209 7849 3424 15C
7209 7849 3435 16C

RADIOACTIVE SAMPLES

PM review: Initials GRT Date 12-24-09

ORIGIN ID: SAFA (505)665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 22DEC09
ACTWGT: 54.0 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843)556-8171
REF: 6B010AMR3A05529E00

1c

FedEx Express

WED - 23DEC A1
PRIORITY OVERNIGHT

TRK# 0201 7209 7849 3479

29407
SC-US
CHS

XX CHSA

Part # 156148-434 NRIT V3 09-09

ORIGIN ID: SAFA (505)665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 22DEC09
ACTWGT: 52.0 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843)556-8171
REF: 6B010AMR1A015AGWH0

2c

FedEx Express

3 of 3
WED - 23DEC A1
PRIORITY OVERNIGHT

MPS# 0263 7209 7849 3457
Mstr# 7209 7849 3435 0201

29407
SC-US
CHS

XX CHSA

ORIGIN ID: SAFA (505)665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 22DEC09
ACTWGT: 51.0 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843)556-8171
REF: 6B010AMR1A015AGWH0

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FedEx Express

2 of 3
WED - 23DEC A1
PRIORITY OVERNIGHT

MPS# 0263 7209 7849 3446
Mstr# 7209 7849 3435 0201

29407
SC-US
CHS

XX CHSA

Part # 156148-434 NRIT V3 09-09

ORIGIN ID: SAFA (505)665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 22DEC09
ACTWGT: 52.0 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
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CHARLESTON SC 29407
(843)556-8171
REF: 6B010AMR2A054196D0

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1 of 3
WED - 23DEC A1
PRIORITY OVERNIGHT

TRK# 0201 7209 7849 3527
MASTER

29407
SC-US
CHS

XX CHSA

ORIGIN ID: SAFA (505)665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 22DEC09
ACTWGT: 53.0 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843)556-8171
REF: 6B010AMR2A054196D0

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FedEx Express

3 of 3
MPS# 0263 7209 7849 3549
Mstr# 7209 7849 3527 0201

WED - 23DEC A1
PRIORITY OVERNIGHT

29407
SC-US
CHS

XX CHSA

Part # 156148-434 NRIT V3 09-09

ORIGIN ID: SAFA (505)665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 22DEC09
ACTWGT: 53.0 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843)556-8171
REF: 6B010AMR1A0130XK00

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FedEx Express

1 of 2
TRK# 0201 7209 7849 3480
MASTER

WED - 23DEC A1
PRIORITY OVERNIGHT

29407
SC-US
CHS

XX CHSA

Part # 156148-434 NRIT V3 09-09

ORIGIN ID: SAFA (505)665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 22DEC09
ACTWGT: 52.0 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843)556-8171
REF: 6B010AMR1A0130XK00

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MPS# 0263 7209 7849 3490
Mstr# 7209 7849 3480 0201

WED - 23DEC A1
PRIORITY OVERNIGHT

29407
SC-US
CHS

XX CHSA

ORIGIN ID: SAFA (505)665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 22DEC09
ACTWGT: 52.0 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843)556-8171
REF: 6B010AAREW01105800

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FedEx Express

TRK# 0201 7209 7849 3505

WED - 23DEC A1
PRIORITY OVERNIGHT

29407
SC-US
CHS

XX CHSA

ORIGIN ID: SAFA (505)665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 22DEC09
ACTWGT: 34.0 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843)556-8171
REF: 6B010AMR2A054196D0

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FedEx Express

TRK# 0201 7209 7849 3550

WED - 23DEC A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

Part # 156148-434 NRIT V3 09-09

ORIGIN ID: SAFA (505)665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 22DEC09
ACTWGT: 44.0 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843)556-8171
REF: 6B010AMR2A054196D0

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FedEx Express

0001 of 0001

MPS# 0263 7209 7849 3538

WED - 23 DEC A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

347274 23dec 03:36 MEMN 502C1/1888/6FE8

ORIGIN ID: SAFA (505)665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 22DEC09
ACTWGT: 10.0 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843)556-8171
REF: 6B01[illegible]AWE6L11570000

6C

FedEx Express

RADIOACTIVE

TRK# 0201 7209 7849 3516

WED - 23DEC A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US

ORIGIN ID: SAFA (505)665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 22DEC09
ACTWGT: 44.0 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843)556-8171
REF: 6B010AMR1A015AGWH0

13

FedEx Express

2 of 3

MPS# 0263 7209 7849 3413

WED - 23DEC A1
PRIORITY OVERNIGHT

Mstr# 7209 7849 3402 0201

XX CHSA

29407

ORIGIN ID: SAFA (505)665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 22DEC09
ACTWGT: 50.0 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843)556-8171
REF: 6B010AMR1A015AGWHO

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FedEx Express

3 of 3

MPS# 0263 7209 7849 3424

Mstr# 7209 7849 3402 0201

WED - 23DEC A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

ORIGIN ID: SAFA (505)665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 22DEC09
ACTWGT: 34.0 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843)556-8171
REF: 6B010AMR1A015AGWHO

16c

FedEx Express

1 of 3

TRK# 0201 7209 7849 3435

WED - 23DEC A1
PRIORITY OVERNIGHT

MASTER

XX CHSA

29407
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CHS

Data Review Qualifier Flag Definition Sheet

Data Review Qualifier Definitions

Qualifier	Explanation
*	A quality control analyte recovery is outside of specified acceptance criteria
**	Analyte is a surrogate compound
<	Result is less than value reported
>	Result is greater than value reported
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL
A	The TIC is a suspected aldol-condensation product
B	Target analyte was detected in the associated blank
B	Metals-Either presence of analyte detected in the associated blank, or MDL/IDL < sample value < PQL
BD	Results are either below the MDC or tracer recovery is low
C	Analyte has been confirmed by GC/MS analysis
D	Results are reported from a diluted aliquot of the sample
d	5-day BOD-The 2:1 depletion requirement was not met for this sample
E	Organics-Concentration of the target analyte exceeds the instrument calibration range
E	Metals-%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
H	Analytical holding time was exceeded
h	Preparation or preservation holding time was exceeded
J	Value is estimated
N	Metals-The Matrix spike sample recovery is not within specified control limits
N	Organics-Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A	Spike recovery limits do not apply. Sample concentration exceeds spike concentration by 4X or more
ND	Analyte concentration is not detected above the reporting limit
UI	Gamma Spectroscopy-Uncertain identification
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
Z	Paint Filter Test-Particulates passed through the filter, however no free liquids were observed.

GC/MS Volatile Analysis

GC/MS Volatile Organics
Los Alamos National Laboratory (LANL)
SDG 10-1057

Method/Analysis Information

Procedure:	Volatile Organic Compounds (VOC) by Gas Chromatograph/Mass Spectrometer
Analytical Method:	SW846 8260B
Prep Method:	SW846 5030
Analytical Batch Number:	937425
Prep Batch Number:	937424

Sample Analysis

The following client and quality control samples were analyzed to complete this SDG using the methods referenced in the Analysis Information section:

Sample ID	Client ID
243472001	RE03-09-14228
243472002	RE03-09-14230
243472003	RE03-09-14229
243472004	RE03-10-9876
1202005936	Method Blank (MB)
1202005939	Laboratory Control Sample (LCS)
1202005940	Laboratory Control Sample (LCS)
1202007502	Method Blank (MB)
1202007503	Laboratory Control Sample (LCS)
1202007504	Laboratory Control Sample (LCS)
1202005937	243472001(RE03-09-14228) Post Spike (PS)
1202005938	243472001(RE03-09-14228) Post Spike Duplicate (PSD)

NOTE: For volatile organic analyses the matrix spike designations may be indicated as "PS" or "PSD". The "PS" designation (post spike) indicates that the matrix was fortified prior to analysis but after applying any prep factors, such as a dilution. The laboratory considers the MS/MSD and PS/PSD designations interchangeable.
Samples 243472 001, 002 and 003 in this SDG were analyzed on an "dry weight" basis. Samples 243472 004 in this SDG were analyzed on a "as received" basis.

Preparation/Analytical Method Verification

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-038 REV# 13.

Raw data reports are processed and reviewed by the analyst using the Target software package. False positives have been removed from the Target quantitation reports per standard operating procedures (SOP) section 19.1.2.

Calibration Information

Please note that the 'Cal Date' indicated on each quantitation report reflects the date and time of the most recent calibrated analyte(s) in the Target processing method. Since the laboratory may calibrate with multiple solutions on different days using the same processing method, the Target software will update the 'Cal Date' to the last calibration file, date and time. The correct dates and times for all calibration files are located on the Calibration History report in the Standard Data section in the data package.

The surrogate compounds were calibrated using a minimum five-point calibration curve. The surrogates were added by the auto sampler at a concentration of 50 ug/L. GEL Laboratories LLC will not have

surrogate recoveries reported for Dibromofluoromethane. This is due to increased regulations for this analyte and an industry shortage.

Due to software limitations, the Calibration Summary Form 6 may not indicate all the calibration files comprising the initial calibration. A complete list of the initial calibration data files are shown in the Calibration History report located in the Standard Data section of the data package.

The linear equation used in Target and indicated on the initial calibration summary form is not a conventional linear equation (slope intercept formula) and does not match the equation found in SW-846 method 8000B. The x and y axes are inversed in Target, so that the instrument response is treated as the independent variable (x) and the concentration ratio is treated as the dependent variable (y). The equation used in Target to calculate sample results is adjusted to account for the linear equation inversion and reciprocal slope. The adjusted calculation has been independently verified to produce valid results.

Initial Calibration
All initial calibration requirements have been met for this sample delivery groups (SDG). A second source initial calibration verification (ICV) was included in the standard section directly behind the initial calibration.

Continuing Calibration Verification Requirements
All associated calibration verification standard(s) (ICV or CCV) met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MBs analyzed with this SDG met the acceptance criteria.

Surrogate Recoveries
Surrogate recoveries in all client and quality control samples were within the acceptance limits.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

QC Sample Designation
Sample 243472001 (RE03-09-14228) was designated for spike analysis in this SDG.

Matrix Spike (PS) Recovery Statement
The spike recoveries for this SDG were within the required acceptance limits.

Matrix Spike Duplicate (PSD) Recovery Statement
The spike duplicate recoveries for this SDG were within the required acceptance limits.

Relative Percent Difference (RPD) Statement
The RPD(s) between the matrix spike pair met the acceptance limits.

Internal Standard (ISTD) Acceptance
The internal standard responses in all client and quality control samples met the required acceptance criteria.

Technical Information

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection or sample receipt. Those holding times expressed in hours are calculated in the ALPHALIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Sample Preservation and Integrity
All samples met the sample preservation and integrity requirements.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-extraction/Re-analysis
Sample 243472002 (RE03-09-14230) was re-analyzed due to unacceptable recoveries in the initial analysis.

Miscellaneous Information

Electronic Package Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. An electronic signature page inserted after the case narrative of each electronic package will indicate the analyst, reviewer, and report specialist names associated with the generation of the data and package. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Data Exception (DER) Documentation
A Data Exception Document was not required for this SDG.

Manual Integrations
Data files associated with the initial calibration, continuing calibration check, and samples did not require manual integrations.

TIC Comment
Tentatively identified compounds (TIC) were required for this SDG.

Additional Comments
Additional comments were not required for this SDG.

Residual Chlorine
Residual Chlorine was not detected in any of the samples in this SDG.

System Configuration
The Volatile-GC/MS analysis was performed on the following instrument configuration:

Instrument ID	Instrument	System Configuration	Column ID	Column Description	P & T Trap
VOA7.I	Gas Chromatograph/Mass Spectrometer	HP6890N/HP5973N	DB-624	J&W, 60m x 0.25mm x 1.4um	Trap 10

Certification Statement
Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis Report
for

LANL010 Los Alamos National Laboratory (72733-001-09)

Client SDG: 10-1057 GEL Work Order: 243472

The Qualifiers in this report are defined as follows:

* A quality control analyte recovery is outside of specified acceptance criteria

** Analyte is a surrogate compound

E Organics--Concentration of the target analyte exceeds the instrument calibration range

J Value is estimated

U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

Review/Validation

GEL requires all analytical data to be verified by a qualified data reviewer. In addition, all CLP-like deliverables receive a third level review of the fractional data package.

The following data validator verified the information presented in this case narrative:

Signature: Erin Haubert **Name: Erin Haubert**

Date: 19 JAN 2010 **Title: Data Validator**

Roadmap for LANL 10-1057 VOA

This roadmap was analyzed by alc01592 on 01-04-2010, 12:35.
This roadmap was reviewed by sar00518 on 01-12-2010, 19:42.

Sample

exclude	manual	datafile	smpid	clientid	injdate	injtime	sublist	dilution	batchid	comment
☐	N	/chem/VOA7.i/122909v7/7s208.d	243472004	RE03-10-9876	29-DEC-2009	17:37	10-1057.sub	1	937425	
☐	N	/chem/VOA7.i/122909v7/7s209.d	243472003	RE03-09-14229	29-DEC-2009	18:11	10-1057.sub	1	937425	
■	N	/chem/VOA7.i/122909v7/7s210.d	243472002	RE03-09-14230	29-DEC-2009	18:46	10-1057.sub	1	937425	
☐	N	/chem/VOA7.i/122909v7/7s211.d	243472001	RE03-09-14228	29-DEC-2009	19:20	10-1057.sub	1	937425	
☐	N	/chem/VOA7.i/123009v7/7s308.d	243472002	RE03-09-14230	30-DEC-2009	12:58	10-1057.sub	1	937425	

QC Sample

exclude	manual	datafile	smpid	clientid	sampletype	injdate	injtime	sublist	dilution	batchid	comment
☐	N	/chem/VOA7.i/122909v7/7s203LB.d	1202005939	LCS	lcs	29-DEC-2009	14:44	all.sub	1	937425	
☐	N	/chem/VOA7.i/122909v7/7s205LB.d	1202005940	SLCS	lcs	29-DEC-2009	15:53	all.sub	1	937425	
☐	N	/chem/VOA7.i/122909v7/7s207BB.d	1202005936	BLANK	mb	29-DEC-2009	17:02	all.sub	1	937425	
☐	N	/chem/VOA7.i/122909v7/7s220.d	1202005937	RE03-09-14228MS	ms	30-DEC-2009	00:31	10-1057.sub	1	937425	
☐	N	/chem/VOA7.i/122909v7/7s221.d	1202005938	RE03-09-14228MSD	msd	30-DEC-2009	01:06	10-1057.sub	1	937425	
☐	N	/chem/VOA7.i/123009v7/7s303LA.d	1202007503	LCS	lcs	30-DEC-2009	10:10	all.sub	1	937425	
☐	N	/chem/VOA7.i/123009v7/7s305LA.d	1202007504	SLCS	lcs	30-DEC-2009	11:18	all.sub	1	937425	
☐	N	/chem/VOA7.i/123009v7/7s307BA.d	1202007502	BLANK	mb	30-DEC-2009	12:25	all.sub	1	937425	

Sample Data Summary

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1057**	**Date Collected:**	**12/21/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243472001**	**Date Received:**	**12/23/2009 10:10**	**%Moisture:**	**10.2**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14228**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937425**	**Inst:**	**VOA7.I**	**Dilution:**	**1**
Run Date:	**12/29/2009 19:20**	**Analyst:**	**AXO1**	**Purge Vol:**	**5 mL**
Prep Date:	**12/29/2009 11:45**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**7s211.d**	**Column:**	**DB-624**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.11	ug/kg	0.378	1.11
74-87-3	Chloromethane	U	1.11	ug/kg	0.334	1.11
75-01-4	Vinyl chloride	U	1.11	ug/kg	0.334	1.11
74-83-9	Bromomethane	U	1.11	ug/kg	0.334	1.11
75-00-3	Chloroethane	U	1.11	ug/kg	0.334	1.11
75-69-4	Trichlorofluoromethane	U	1.11	ug/kg	0.334	1.11
67-64-1	Acetone	U	5.57	ug/kg	1.85	5.57
75-35-4	1,1-Dichloroethylene	U	1.11	ug/kg	0.334	1.11
74-88-4	Iodomethane	U	5.57	ug/kg	1.78	5.57
75-09-2	Methylene chloride	U	5.57	ug/kg	2.23	5.57
75-15-0	Carbon disulfide	U	5.57	ug/kg	1.39	5.57
156-60-5	trans-1,2-Dichloroethylene	U	1.11	ug/kg	0.334	1.11
75-34-3	1,1-Dichloroethane	U	1.11	ug/kg	0.334	1.11
78-93-3	2-Butanone	U	5.57	ug/kg	1.67	5.57
156-59-2	cis-1,2-Dichloroethylene	U	1.11	ug/kg	0.334	1.11
594-20-7	2,2-Dichloropropane	U	1.11	ug/kg	0.334	1.11
67-66-3	Chloroform	U	1.11	ug/kg	0.334	1.11
74-97-5	Bromochloromethane	U	1.11	ug/kg	0.367	1.11
71-55-6	1,1,1-Trichloroethane	U	1.11	ug/kg	0.334	1.11
563-58-6	1,1-Dichloropropene	U	1.11	ug/kg	0.334	1.11
56-23-5	Carbon tetrachloride	U	1.11	ug/kg	0.334	1.11
107-06-2	1,2-Dichloroethane	U	1.11	ug/kg	0.334	1.11
71-43-2	Benzene	U	1.11	ug/kg	0.334	1.11
79-01-6	Trichloroethylene	U	1.11	ug/kg	0.367	1.11
78-87-5	1,2-Dichloropropane	U	1.11	ug/kg	0.334	1.11
75-27-4	Bromodichloromethane	U	1.11	ug/kg	0.334	1.11
74-95-3	Dibromomethane	U	1.11	ug/kg	0.334	1.11
108-10-1	4-Methyl-2-pentanone	U	5.57	ug/kg	1.39	5.57
10061-01-5	cis-1,3-Dichloropropylene	U	1.11	ug/kg	0.334	1.11
108-88-3	Toluene	U	1.11	ug/kg	0.334	1.11
10061-02-6	trans-1,3-Dichloropropylene	U	1.11	ug/kg	0.334	1.11
79-00-5	1,1,2-Trichloroethane	U	1.11	ug/kg	0.334	1.11
591-78-6	2-Hexanone	U	5.57	ug/kg	1.67	5.57
142-28-9	1,3-Dichloropropane	U	1.11	ug/kg	0.334	1.11
127-18-4	Tetrachloroethylene	U	1.11	ug/kg	0.334	1.11
124-48-1	Dibromochloromethane	U	1.11	ug/kg	0.334	1.11
106-93-4	1,2-Dibromoethane	U	1.11	ug/kg	0.334	1.11
108-90-7	Chlorobenzene	U	1.11	ug/kg	0.334	1.11

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1057**	**Date Collected:**	**12/21/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243472001**	**Date Received:**	**12/23/2009 10:10**	**%Moisture:**	**10.2**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14228**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937425**	**Inst:**	**VOA7.I**	**Dilution:**	**1**
Run Date:	**12/29/2009 19:20**	**Analyst:**	**AXO1**	**Purge Vol:**	**5 mL**
Prep Date:	**12/29/2009 11:45**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**7s211.d**	**Column:**	**DB-624**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.11	ug/kg	0.334	1.11
179601-23-1	m,p-Xylenes	U	2.23	ug/kg	0.334	2.23
95-47-6	o-Xylene	U	1.11	ug/kg	0.334	1.11
100-42-5	Styrene	U	1.11	ug/kg	0.334	1.11
75-25-2	Bromoform	U	1.11	ug/kg	0.334	1.11
79-34-5	1,1,2,2-Tetrachloroethane	U	1.11	ug/kg	0.334	1.11
96-18-4	1,2,3-Trichloropropane	U	1.11	ug/kg	0.334	1.11
108-86-1	Bromobenzene	U	1.11	ug/kg	0.334	1.11
103-65-1	n-Propylbenzene	U	1.11	ug/kg	0.334	1.11
95-49-8	2-Chlorotoluene	U	1.11	ug/kg	0.334	1.11
98-82-8	Isopropylbenzene	U	1.11	ug/kg	0.334	1.11
108-67-8	1,3,5-Trimethylbenzene	U	1.11	ug/kg	0.334	1.11
106-43-4	4-Chlorotoluene	U	1.11	ug/kg	0.334	1.11
98-06-6	tert-Butylbenzene	U	1.11	ug/kg	0.334	1.11
95-63-6	1,2,4-Trimethylbenzene	U	1.11	ug/kg	0.334	1.11
135-98-8	sec-Butylbenzene	U	1.11	ug/kg	0.334	1.11
99-87-6	4-Isopropyltoluene	U	1.11	ug/kg	0.334	1.11
541-73-1	1,3-Dichlorobenzene	U	1.11	ug/kg	0.334	1.11
106-46-7	1,4-Dichlorobenzene	U	1.11	ug/kg	0.334	1.11
104-51-8	n-Butylbenzene	U	1.11	ug/kg	0.334	1.11
96-12-8	1,2-Dibromo-3-chloropropane	U	1.11	ug/kg	0.334	1.11
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.57	ug/kg	1.78	5.57
630-20-6	1,1,1,2-Tetrachloroethane	U	1.11	ug/kg	0.334	1.11
95-50-1	1,2-Dichlorobenzene	U	1.11	ug/kg	0.334	1.11

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	17.92	17.4	ug/kg		J

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1057	Date Collected:	12/21/2009 12:00	Matrix:	S
Lab Sample ID:	243472003	Date Received:	12/23/2009 10:10	%Moisture:	8.6
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14229	Method:	SW846 8260B	SOP Ref:	GL-OA-E-038
Batch ID:	937425	Inst:	VOA7.I	Dilution:	1
Run Date:	12/29/2009 18:11	Analyst:	AXO1	Purge Vol:	5 mL
Prep Date:	12/29/2009 11:47	Aliquot:	5 g	Final Volume:	5 mL
Data File:	7s209.d	Column:	DB-624	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.09	ug/kg	0.372	1.09
74-87-3	Chloromethane	U	1.09	ug/kg	0.328	1.09
75-01-4	Vinyl chloride	U	1.09	ug/kg	0.328	1.09
74-83-9	Bromomethane	U	1.09	ug/kg	0.328	1.09
75-00-3	Chloroethane	U	1.09	ug/kg	0.328	1.09
75-69-4	Trichlorofluoromethane	U	1.09	ug/kg	0.328	1.09
67-64-1	Acetone	U	5.47	ug/kg	1.82	5.47
75-35-4	1,1-Dichloroethylene	U	1.09	ug/kg	0.328	1.09
74-88-4	Iodomethane	U	5.47	ug/kg	1.75	5.47
75-09-2	Methylene chloride	U	5.47	ug/kg	2.19	5.47
75-15-0	Carbon disulfide	U	5.47	ug/kg	1.37	5.47
156-60-5	trans-1,2-Dichloroethylene	U	1.09	ug/kg	0.328	1.09
75-34-3	1,1-Dichloroethane	U	1.09	ug/kg	0.328	1.09
78-93-3	2-Butanone	U	5.47	ug/kg	1.64	5.47
156-59-2	cis-1,2-Dichloroethylene	U	1.09	ug/kg	0.328	1.09
594-20-7	2,2-Dichloropropane	U	1.09	ug/kg	0.328	1.09
67-66-3	Chloroform	U	1.09	ug/kg	0.328	1.09
74-97-5	Bromochloromethane	U	1.09	ug/kg	0.361	1.09
71-55-6	1,1,1-Trichloroethane	U	1.09	ug/kg	0.328	1.09
563-58-6	1,1-Dichloropropene	U	1.09	ug/kg	0.328	1.09
56-23-5	Carbon tetrachloride	U	1.09	ug/kg	0.328	1.09
107-06-2	1,2-Dichloroethane	U	1.09	ug/kg	0.328	1.09
71-43-2	Benzene	U	1.09	ug/kg	0.328	1.09
79-01-6	Trichloroethylene	U	1.09	ug/kg	0.361	1.09
78-87-5	1,2-Dichloropropane	U	1.09	ug/kg	0.328	1.09
75-27-4	Bromodichloromethane	U	1.09	ug/kg	0.328	1.09
74-95-3	Dibromomethane	U	1.09	ug/kg	0.328	1.09
108-10-1	4-Methyl-2-pentanone	U	5.47	ug/kg	1.37	5.47
10061-01-5	cis-1,3-Dichloropropylene	U	1.09	ug/kg	0.328	1.09
108-88-3	Toluene	U	1.09	ug/kg	0.328	1.09
10061-02-6	trans-1,3-Dichloropropylene	U	1.09	ug/kg	0.328	1.09
79-00-5	1,1,2-Trichloroethane	U	1.09	ug/kg	0.328	1.09
591-78-6	2-Hexanone	U	5.47	ug/kg	1.64	5.47
142-28-9	1,3-Dichloropropane	U	1.09	ug/kg	0.328	1.09
127-18-4	Tetrachloroethylene	U	1.09	ug/kg	0.328	1.09
124-48-1	Dibromochloromethane	U	1.09	ug/kg	0.328	1.09
106-93-4	1,2-Dibromoethane	U	1.09	ug/kg	0.328	1.09
108-90-7	Chlorobenzene	U	1.09	ug/kg	0.328	1.09

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1057**	**Date Collected:**	**12/21/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243472003**	**Date Received:**	**12/23/2009 10:10**	**%Moisture:**	**8.6**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14229**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937425**	**Inst:**	**VOA7.1**	**Dilution:**	**1**
Run Date:	**12/29/2009 18:11**	**Analyst:**	**AXO1**	**Purge Vol:**	**5 mL**
Prep Date:	**12/29/2009 11:47**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**7s209.d**	**Column:**	**DB-624**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.09	ug/kg	0.328	1.09
179601-23-1	m,p-Xylenes	U	2.19	ug/kg	0.328	2.19
95-47-6	o-Xylene	U	1.09	ug/kg	0.328	1.09
100-42-5	Styrene	U	1.09	ug/kg	0.328	1.09
75-25-2	Bromoform	U	1.09	ug/kg	0.328	1.09
79-34-5	1,1,2,2-Tetrachloroethane	U	1.09	ug/kg	0.328	1.09
96-18-4	1,2,3-Trichloropropane	U	1.09	ug/kg	0.328	1.09
108-86-1	Bromobenzene	U	1.09	ug/kg	0.328	1.09
103-65-1	n-Propylbenzene	U	1.09	ug/kg	0.328	1.09
95-49-8	2-Chlorotoluene	U	1.09	ug/kg	0.328	1.09
98-82-8	Isopropylbenzene	U	1.09	ug/kg	0.328	1.09
108-67-8	1,3,5-Trimethylbenzene	U	1.09	ug/kg	0.328	1.09
106-43-4	4-Chlorotoluene	U	1.09	ug/kg	0.328	1.09
98-06-6	tert-Butylbenzene	U	1.09	ug/kg	0.328	1.09
95-63-6	1,2,4-Trimethylbenzene	U	1.09	ug/kg	0.328	1.09
135-98-8	sec-Butylbenzene	U	1.09	ug/kg	0.328	1.09
99-87-6	4-Isopropyltoluene	U	1.09	ug/kg	0.328	1.09
541-73-1	1,3-Dichlorobenzene	U	1.09	ug/kg	0.328	1.09
106-46-7	1,4-Dichlorobenzene	U	1.09	ug/kg	0.328	1.09
104-51-8	n-Butylbenzene	U	1.09	ug/kg	0.328	1.09
96-12-8	1,2-Dibromo-3-chloropropane	U	1.09	ug/kg	0.328	1.09
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.47	ug/kg	1.75	5.47
630-20-6	1,1,1,2-Tetrachloroethane	U	1.09	ug/kg	0.328	1.09
95-50-1	1,2-Dichlorobenzene	U	1.09	ug/kg	0.328	1.09

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	17.92	9.5	ug/kg		J
	Unknown Siloxane	19.69	13.3	ug/kg		J
	Unknown Siloxane	21.56	7.12	ug/kg		J

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1057**	**Date Collected:**	**12/21/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243472002**	**Date Received:**	**12/23/2009 10:10**	**%Moisture:**	**7.1**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14230**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937425**	**Inst:**	**VOA7.I**	**Dilution:**	**1**
Run Date:	**12/30/2009 12:58**	**Analyst:**	**AXO1**	**Purge Vol:**	**5 mL**
Prep Date:	**12/30/2009 12:15**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**7s308.d**	**Column:**	**DB-624**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.08	ug/kg	0.366	1.08
74-87-3	Chloromethane	U	1.08	ug/kg	0.323	1.08
75-01-4	Vinyl chloride	U	1.08	ug/kg	0.323	1.08
74-83-9	Bromomethane	U	1.08	ug/kg	0.323	1.08
75-00-3	Chloroethane	U	1.08	ug/kg	0.323	1.08
75-69-4	Trichlorofluoromethane	U	1.08	ug/kg	0.323	1.08
67-64-1	Acetone	U	5.38	ug/kg	1.79	5.38
75-35-4	1,1-Dichloroethylene	U	1.08	ug/kg	0.323	1.08
74-88-4	Iodomethane	U	5.38	ug/kg	1.72	5.38
75-09-2	Methylene chloride	U	5.38	ug/kg	2.15	5.38
75-15-0	Carbon disulfide	U	5.38	ug/kg	1.35	5.38
156-60-5	trans-1,2-Dichloroethylene	U	1.08	ug/kg	0.323	1.08
75-34-3	1,1-Dichloroethane	U	1.08	ug/kg	0.323	1.08
78-93-3	2-Butanone	U	5.38	ug/kg	1.61	5.38
156-59-2	cis-1,2-Dichloroethylene	U	1.08	ug/kg	0.323	1.08
594-20-7	2,2-Dichloropropane	U	1.08	ug/kg	0.323	1.08
67-66-3	Chloroform	U	1.08	ug/kg	0.323	1.08
74-97-5	Bromochloromethane	U	1.08	ug/kg	0.355	1.08
71-55-6	1,1,1-Trichloroethane	U	1.08	ug/kg	0.323	1.08
563-58-6	1,1-Dichloropropene	U	1.08	ug/kg	0.323	1.08
56-23-5	Carbon tetrachloride	U	1.08	ug/kg	0.323	1.08
107-06-2	1,2-Dichloroethane	U	1.08	ug/kg	0.323	1.08
71-43-2	Benzene	U	1.08	ug/kg	0.323	1.08
79-01-6	Trichloroethylene	U	1.08	ug/kg	0.355	1.08
78-87-5	1,2-Dichloropropane	U	1.08	ug/kg	0.323	1.08
75-27-4	Bromodichloromethane	U	1.08	ug/kg	0.323	1.08
74-95-3	Dibromomethane	U	1.08	ug/kg	0.323	1.08
108-10-1	4-Methyl-2-pentanone	U	5.38	ug/kg	1.35	5.38
10061-01-5	cis-1,3-Dichloropropylene	U	1.08	ug/kg	0.323	1.08
108-88-3	Toluene	U	1.08	ug/kg	0.323	1.08
10061-02-6	trans-1,3-Dichloropropylene	U	1.08	ug/kg	0.323	1.08
79-00-5	1,1,2-Trichloroethane	U	1.08	ug/kg	0.323	1.08
591-78-6	2-Hexanone	U	5.38	ug/kg	1.61	5.38
142-28-9	1,3-Dichloropropane	U	1.08	ug/kg	0.323	1.08
127-18-4	Tetrachloroethylene	U	1.08	ug/kg	0.323	1.08
124-48-1	Dibromochloromethane	U	1.08	ug/kg	0.323	1.08
106-93-4	1,2-Dibromoethane	U	1.08	ug/kg	0.323	1.08
108-90-7	Chlorobenzene	U	1.08	ug/kg	0.323	1.08

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1057	**Date Collected:**	12/21/2009 12:00	**Matrix:**	S
Lab Sample ID:	243472002	**Date Received:**	12/23/2009 10:10	**%Moisture:**	7.1
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14230	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	937425	**Inst:**	VOA7.I	**Dilution:**	1
Run Date:	12/30/2009 12:58	**Analyst:**	AXO1	**Purge Vol:**	5 mL
Prep Date:	12/30/2009 12:15	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	7s308.d	**Column:**	DB-624	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.08	ug/kg	0.323	1.08
179601-23-1	m,p-Xylenes	U	2.15	ug/kg	0.323	2.15
95-47-6	o-Xylene	U	1.08	ug/kg	0.323	1.08
100-42-5	Styrene	U	1.08	ug/kg	0.323	1.08
75-25-2	Bromoform	U	1.08	ug/kg	0.323	1.08
79-34-5	1,1,2,2-Tetrachloroethane	U	1.08	ug/kg	0.323	1.08
96-18-4	1,2,3-Trichloropropane	U	1.08	ug/kg	0.323	1.08
108-86-1	Bromobenzene	U	1.08	ug/kg	0.323	1.08
103-65-1	n-Propylbenzene	U	1.08	ug/kg	0.323	1.08
95-49-8	2-Chlorotoluene	U	1.08	ug/kg	0.323	1.08
98-82-8	Isopropylbenzene	U	1.08	ug/kg	0.323	1.08
108-67-8	1,3,5-Trimethylbenzene	U	1.08	ug/kg	0.323	1.08
106-43-4	4-Chlorotoluene	U	1.08	ug/kg	0.323	1.08
98-06-6	tert-Butylbenzene	U	1.08	ug/kg	0.323	1.08
95-63-6	1,2,4-Trimethylbenzene	U	1.08	ug/kg	0.323	1.08
135-98-8	sec-Butylbenzene	U	1.08	ug/kg	0.323	1.08
99-87-6	4-Isopropyltoluene	U	1.08	ug/kg	0.323	1.08
541-73-1	1,3-Dichlorobenzene	U	1.08	ug/kg	0.323	1.08
106-46-7	1,4-Dichlorobenzene	U	1.08	ug/kg	0.323	1.08
104-51-8	n-Butylbenzene	U	1.08	ug/kg	0.323	1.08
96-12-8	1,2-Dibromo-3-chloropropane	U	1.08	ug/kg	0.323	1.08
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.38	ug/kg	1.72	5.38
630-20-6	1,1,1,2-Tetrachloroethane	U	1.08	ug/kg	0.323	1.08
95-50-1	1,2-Dichlorobenzene	U	1.08	ug/kg	0.323	1.08

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	17.92	7.14	ug/kg		J
	Unknown Siloxane	19.69	8.92	ug/kg		J

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1057**	**Date Collected:**	**12/21/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243472004**	**Date Received:**	**12/23/2009 10:10**		
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-10-9876**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937425**	**Inst:**	**VOA7.I**	**Dilution:**	**1**
Run Date:	**12/29/2009 17:37**	**Analyst:**	**AXO1**	**Purge Vol:**	**5 mL**
Prep Date:	**12/29/2009 11:48**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**7s208.d**	**Column:**	**DB-624**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/kg	0.340	1.00
74-87-3	Chloromethane	U	1.00	ug/kg	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/kg	0.300	1.00
74-83-9	Bromomethane	U	1.00	ug/kg	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/kg	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/kg	0.300	1.00
67-64-1	Acetone	J	1.77	ug/kg	1.66	5.00
75-35-4	1,1-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/kg	1.60	5.00
75-09-2	Methylene chloride	U	5.00	ug/kg	2.00	5.00
75-15-0	Carbon disulfide	U	5.00	ug/kg	1.25	5.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/kg	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/kg	1.50	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/kg	0.300	1.00
74-97-5	Bromochloromethane	U	1.00	ug/kg	0.330	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/kg	0.300	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/kg	0.300	1.00
56-23-5	Carbon tetrachloride	U	1.00	ug/kg	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/kg	0.300	1.00
71-43-2	Benzene	U	1.00	ug/kg	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/kg	0.330	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/kg	0.300	1.00
74-95-3	Dibromomethane	U	1.00	ug/kg	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/kg	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
108-88-3	Toluene	U	1.00	ug/kg	0.300	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/kg	0.300	1.00
591-78-6	2-Hexanone	U	5.00	ug/kg	1.50	5.00
142-28-9	1,3-Dichloropropane	U	1.00	ug/kg	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/kg	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/kg	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/kg	0.300	1.00
108-90-7	Chlorobenzene	U	1.00	ug/kg	0.300	1.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1057**	**Date Collected:**	**12/21/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243472004**	**Date Received:**	**12/23/2009 10:10**		
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-10-9876**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937425**	**Inst:**	**VOA7.I**	**Dilution:**	**1**
Run Date:	**12/29/2009 17:37**	**Analyst:**	**AXO1**	**Purge Vol:**	**5 mL**
Prep Date:	**12/29/2009 11:48**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**7s208.d**	**Column:**	**DB-624**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.00	ug/kg	0.300	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/kg	0.300	2.00
95-47-6	o-Xylene	U	1.00	ug/kg	0.300	1.00
100-42-5	Styrene	U	1.00	ug/kg	0.300	1.00
75-25-2	Bromoform	U	1.00	ug/kg	0.300	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/kg	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/kg	0.300	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/kg	0.300	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/kg	0.300	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/kg	0.300	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/kg	0.300	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/kg	0.300	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/kg	0.300	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/kg	0.300	1.00
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.00	ug/kg	1.60	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated Units	Fit	Qual
	No Tentatively Identified Compounds Found		ug/kg		

QC Summary

Volatile

Surrogate Recovery Report

SDG Number: 10-1057

Matrix Type: SOLID

CAP Column (1) : DB-624

Sample ID	Client ID	DCED4 %REC	TOL %REC	BFB %REC
1202005939	LCS for batch 937424	106	96	100
1202005940	LCS for batch 937424	104	96	97
1202005936	MB for batch 937424	106	98	99
243472004	RE03-10-9876	109	102	99
243472003	RE03-09-14229	109	97	97
243472001	RE03-09-14228	104	97	97
1202005937	RE03-09-14228PS	100	97	99
1202005938	RE03-09-14228PSD	104	96	101
1202007503	LCS for batch 937424	106	96	99
1202007504	LCS for batch 937424	105	97	98
1202007502	MB for batch 937424	109	98	103
243472002	RE03-09-14230	109	98	98

Surrogate		Acceptance Limits
DCED4	= 1,2-Dichloroethane-d4	(68%-131%)
TOL	= Toluene-d8	(75%-129%)
BFB	= Bromofluorobenzene	(68%-133%)

* Recovery outside Acceptance Limits

\# Column to be used to flag recovery values

D Sample Diluted

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1057
Client ID: RE03-09-14228PS
Lab Sample ID: 1202005937
Instrument: VOA7.I
Analyst: AXO1
Purge Vol: 5 mL

Sample Type: Post Spike
Matrix: S
%Moisture: 10.2
Analysis Date: 12/30/2009 00:31
Prep Batch ID: 937424
Batch ID: 937425
Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
75-71-8	PS	Dichlorodifluoromethane	50.0	0.00	U	32.1	64	25-149
74-87-3	PS	Chloromethane	50.0	0.00	U	32.9	66	39-140
75-01-4	PS	Vinyl chloride	50.0	0.00	U	33.7	67	47-129
74-83-9	PS	Bromomethane	50.0	0.00	U	34.9	70	31-135
75-00-3	PS	Chloroethane	50.0	0.00	U	35.2	70	53-128
75-69-4	PS	Trichlorofluoromethane	50.0	0.00	U	37.8	76	51-151
67-64-1	PS	Acetone	250	0.00	U	163	65	21-153
75-35-4	PS	1,1-Dichloroethylene	50.0	0.00	U	35.0	70	61-125
74-88-4	PS	Iodomethane	250	0.00	U	173	69	53-142
75-09-2	PS	Methylene chloride	50.0	0.00	U	36.3	73	59-136
75-15-0	PS	Carbon disulfide	250	0.00	U	183	73	46-129
156-60-5	PS	trans-1,2-Dichloroethylene	50.0	0.00	U	36.6	73	56-126
75-34-3	PS	1,1-Dichloroethane	50.0	0.00	U	37.7	75	62-125
78-93-3	PS	2-Butanone	250	0.00	U	167	67	26-152
156-59-2	PS	cis-1,2-Dichloroethylene	50.0	0.00	U	35.7	71	60-130
594-20-7	PS	2,2-Dichloropropane	50.0	0.00	U	37.5	75	55-135
67-66-3	PS	Chloroform	50.0	0.00	U	36.9	74	60-127
74-97-5	PS	Bromochloromethane	50.0	0.00	U	36.7	73	61-131
71-55-6	PS	1,1,1-Trichloroethane	50.0	0.00	U	39.2	78	59-131
563-58-6	PS	1,1-Dichloropropene	50.0	0.00	U	37.3	75	57-128
56-23-5	PS	Carbon tetrachloride	50.0	0.00	U	37.4	75	58-136
107-06-2	PS	1,2-Dichloroethane	50.0	0.00	U	37.2	74	58-126

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1057
Client ID: RE03-09-14228PS
Lab Sample ID: 1202005937
Instrument: VOA7.I
Analyst: AXO1
Purge Vol: 5 mL

Sample Type: Post Spike
Matrix: S
%Moisture: 10.2
Analysis Date: 12/30/2009 00:31
Prep Batch ID: 937424
Batch ID: 937425
Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
71-43-2	PS	Benzene	50.0	0.00	U	35.3	71	56-123
79-01-6	PS	Trichloroethylene	50.0	0.00	U	36.1	72	51-137
78-87-5	PS	1,2-Dichloropropane	50.0	0.00	U	37.7	75	60-126
75-27-4	PS	Bromodichloromethane	50.0	0.00	U	38.2	76	55-138
74-95-3	PS	Dibromomethane	50.0	0.00	U	37.8	76	60-132
108-10-1	PS	4-Methyl-2-pentanone	250	0.00	U	194	77	58-136
10061-01-5	PS	cis-1,3-Dichloropropylene	50.0	0.00	U	36.5	73	54-133
108-88-3	PS	Toluene	50.0	0.00	U	35.1	70	52-128
10061-02-6	PS	trans-1,3-Dichloropropylene	50.0	0.00	U	37.1	74	53-137
79-00-5	PS	1,1,2-Trichloroethane	50.0	0.00	U	37.5	75	59-130
591-78-6	PS	2-Hexanone	250	0.00	U	160	64	31-148
142-28-9	PS	1,3-Dichloropropane	50.0	0.00	U	36.3	73	57-127
127-18-4	PS	Tetrachloroethylene	50.0	0.00	U	34.1	68	51-128
124-48-1	PS	Dibromochloromethane	50.0	0.00	U	36.4	73	59-139
106-93-4	PS	1,2-Dibromoethane	50.0	0.00	U	36.4	73	57-133
108-90-7	PS	Chlorobenzene	50.0	0.00	U	34.9	70	53-122
100-41-4	PS	Ethylbenzene	50.0	0.00	U	34.5	69	51-125
179601-23-1	PS	m,p-Xylenes	100	0.00	U	68.8	69	50-126
95-47-6	PS	o-Xylene	50.0	0.00	U	33.9	68	52-127
100-42-5	PS	Styrene	50.0	0.00	U	35.4	71	49-135
75-25-2	PS	Bromoform	50.0	0.00	U	38.8	78	57-149
79-34-5	PS	1,1,2,2-Tetrachloroethane	50.0	0.00	U	36.8	74	63-127

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number:	**10-1057**	**Sample Type:**	**Post Spike**
Client ID:	**RE03-09-14228PS**	**Matrix:**	**S**
Lab Sample ID:	**1202005937**	**%Moisture:**	**10.2**
Instrument:	**VOA7.I**	**Analysis Date:**	**12/30/2009 00:31**
Analyst:	**AXO1**	**Prep Batch ID**	**937424**
Purge Vol:	**5 mL**	**Batch ID:**	**937425**

Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
96-18-4	PS	1,2,3-Trichloropropane	50.0	0.00	U	38.0	76	57-149
108-86-1	PS	Bromobenzene	50.0	0.00	U	33.6	67	49-131
103-65-1	PS	n-Propylbenzene	50.0	0.00	U	33.9	68	40-136
95-49-8	PS	2-Chlorotoluene	50.0	0.00	U	34.7	69	44-135
98-82-8	PS	Isopropylbenzene	50.0	0.00	U	35.3	71	44-140
108-67-8	PS	1,3,5-Trimethylbenzene	50.0	0.00	U	34.5	69	42-140
106-43-4	PS	4-Chlorotoluene	50.0	0.00	U	33.9	68	44-132
98-06-6	PS	tert-Butylbenzene	50.0	0.00	U	35.6	71	42-142
95-63-6	PS	1,2,4-Trimethylbenzene	50.0	0.00	U	34.2	68	43-137
135-98-8	PS	sec-Butylbenzene	50.0	0.00	U	34.9	70	39-139
99-87-6	PS	4-Isopropyltoluene	50.0	0.00	U	34.2	68	38-145
541-73-1	PS	1,3-Dichlorobenzene	50.0	0.00	U	31.4	63	43-129
106-46-7	PS	1,4-Dichlorobenzene	50.0	0.00	U	32.2	64	44-125
104-51-8	PS	n-Butylbenzene	50.0	0.00	U	31.9	64	36-141
96-12-8	PS	1,2-Dibromo-3-chloropropane	50.0	0.00	U	38.8	78	47-151
630-20-6	PS	1,1,1,2-Tetrachloroethane	50.0	0.00	U	34.2	68	59-131
95-50-1	PS	1,2-Dichlorobenzene	50.0	0.00	U	34.1	68	43-129

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1057
Client ID: RE03-09-14228PSD
Lab Sample ID: 1202005938
Instrument: VOA7.I
Analyst: AXO1
Purge Vol: 5 mL

Sample Type: Post Spike Duplicate
Matrix: S
%Moisture: 10.2
Analysis Date: 12/30/2009 01:06
Dilution: 1
Prep Batch ID: 937424
Batch ID: 937425

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
75-71-8	PSD	Dichlorodifluoromethane	50.0	0.00	U	34.1	68	25-149	6	0-25
74-87-3	PSD	Chloromethane	50.0	0.00	U	35.1	70	39-140	7	0-25
75-01-4	PSD	Vinyl chloride	50.0	0.00	U	36.7	73	47-129	9	0-25
74-83-9	PSD	Bromomethane	50.0	0.00	U	37.0	74	31-135	6	0-25
75-00-3	PSD	Chloroethane	50.0	0.00	U	37.6	75	53-128	7	0-25
75-69-4	PSD	Trichlorofluoromethane	50.0	0.00	U	40.4	81	51-151	7	0-25
67-64-1	PSD	Acetone	250	0.00	U	179	72	21-153	9	0-25
75-35-4	PSD	1,1-Dichloroethylene	50.0	0.00	U	37.3	75	61-125	6	0-25
74-88-4	PSD	Iodomethane	250	0.00	U	184	74	53-142	6	0-25
75-09-2	PSD	Methylene chloride	50.0	0.00	U	39.6	79	59-136	9	0-25
75-15-0	PSD	Carbon disulfide	250	0.00	U	192	77	46-129	5	0-25
156-60-5	PSD	trans-1,2-Dichloroethylene	50.0	0.00	U	38.6	77	56-126	5	0-25
75-34-3	PSD	1,1-Dichloroethane	50.0	0.00	U	39.4	79	62-125	4	0-25
78-93-3	PSD	2-Butanone	250	0.00	U	181	73	26-152	8	0-25
156-59-2	PSD	cis-1,2-Dichloroethylene	50.0	0.00	U	38.5	77	60-130	8	0-25
594-20-7	PSD	2,2-Dichloropropane	50.0	0.00	U	39.6	79	55-135	5	0-25
67-66-3	PSD	Chloroform	50.0	0.00	U	39.7	79	60-127	7	0-25
74-97-5	PSD	Bromochloromethane	50.0	0.00	U	39.2	78	61-131	7	0-25
71-55-6	PSD	1,1,1-Trichloroethane	50.0	0.00	U	41.0	82	59-131	5	0-25
563-58-6	PSD	1,1-Dichloropropene	50.0	0.00	U	39.6	79	57-128	6	0-25
56-23-5	PSD	Carbon tetrachloride	50.0	0.00	U	40.7	81	58-136	9	0-25
107-06-2	PSD	1,2-Dichloroethane	50.0	0.00	U	38.9	78	58-126	4	0-25

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1057
Client ID: RE03-09-14228PSD
Lab Sample ID: 1202005938
Instrument: VOA7.I
Analyst: AXO1
Purge Vol: 5 mL

Sample Type: Post Spike Duplicate
Matrix: S
%Moisture: 10.2
Analysis Date: 12/30/2009 01:06
Dilution: 1
Prep Batch ID: 937424
Batch ID: 937425

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
71-43-2	PSD	Benzene	50.0	0.00	U	37.4	75	56-123	6	0-25
79-01-6	PSD	Trichloroethylene	50.0	0.00	U	38.7	77	51-137	7	0-25
78-87-5	PSD	1,2-Dichloropropane	50.0	0.00	U	38.3	77	60-126	1	0-25
75-27-4	PSD	Bromodichloromethane	50.0	0.00	U	40.5	81	55-138	6	0-25
74-95-3	PSD	Dibromomethane	50.0	0.00	U	39.5	79	60-132	5	0-25
108-10-1	PSD	4-Methyl-2-pentanone	250	0.00	U	200	80	58-136	3	0-25
10061-01-5	PSD	cis-1,3-Dichloropropylene	50.0	0.00	U	38.0	76	54-133	4	0-25
108-88-3	PSD	Toluene	50.0	0.00	U	35.3	71	52-128	1	0-25
10061-02-6	PSD	trans-1,3-Dichloropropylene	50.0	0.00	U	38.5	77	53-137	4	0-25
79-00-5	PSD	1,1,2-Trichloroethane	50.0	0.00	U	36.9	74	59-130	1	0-25
591-78-6	PSD	2-Hexanone	250	0.00	U	170	68	31-148	6	0-25
142-28-9	PSD	1,3-Dichloropropane	50.0	0.00	U	37.3	75	57-127	3	0-25
127-18-4	PSD	Tetrachloroethylene	50.0	0.00	U	34.0	68	51-128	0	0-25
124-48-1	PSD	Dibromochloromethane	50.0	0.00	U	37.3	75	59-139	2	0-25
106-93-4	PSD	1,2-Dibromoethane	50.0	0.00	U	38.7	77	57-133	6	0-25
108-90-7	PSD	Chlorobenzene	50.0	0.00	U	36.0	72	53-122	3	0-25
100-41-4	PSD	Ethylbenzene	50.0	0.00	U	35.8	72	51-125	4	0-25
179601-23-1	PSD	m,p-Xylenes	100	0.00	U	68.4	68	50-126	1	0-25
95-47-6	PSD	o-Xylene	50.0	0.00	U	34.3	69	52-127	1	0-25
100-42-5	PSD	Styrene	50.0	0.00	U	36.6	73	49-135	4	0-25
75-25-2	PSD	Bromoform	50.0	0.00	U	41.8	84	57-149	8	0-25
79-34-5	PSD	1,1,2,2-Tetrachloroethane	50.0	0.00	U	38.4	77	63-127	4	0-25

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1057
Client ID: RE03-09-14228PSD
Lab Sample ID: 1202005938
Instrument: VOA7.I
Analyst: AXO1
Purge Vol: 5 mL

Sample Type: Post Spike Duplicate
Matrix: S
%Moisture: 10.2
Analysis Date: 12/30/2009 01:06
Dilution: 1
Prep Batch ID: 937424
Batch ID: 937425

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
96-18-4	PSD	1,2,3-Trichloropropane	50.0	0.00	U	43.1	86	57-149	13	0-25
108-86-1	PSD	Bromobenzene	50.0	0.00	U	35.6	71	49-131	6	0-25
103-65-1	PSD	n-Propylbenzene	50.0	0.00	U	35.1	70	40-136	3	0-25
95-49-8	PSD	2-Chlorotoluene	50.0	0.00	U	35.3	71	44-135	1	0-25
98-82-8	PSD	Isopropylbenzene	50.0	0.00	U	37.0	74	44-140	5	0-25
108-67-8	PSD	1,3,5-Trimethylbenzene	50.0	0.00	U	35.5	71	42-140	3	0-25
106-43-4	PSD	4-Chlorotoluene	50.0	0.00	U	34.9	70	44-132	3	0-25
98-06-6	PSD	tert-Butylbenzene	50.0	0.00	U	36.6	73	42-142	3	0-25
95-63-6	PSD	1,2,4-Trimethylbenzene	50.0	0.00	U	35.1	70	43-137	3	0-25
135-98-8	PSD	sec-Butylbenzene	50.0	0.00	U	35.7	71	39-139	2	0-25
99-87-6	PSD	4-Isopropyltoluene	50.0	0.00	U	35.1	70	38-145	3	0-25
541-73-1	PSD	1,3-Dichlorobenzene	50.0	0.00	U	33.7	67	43-129	7	0-25
106-46-7	PSD	1,4-Dichlorobenzene	50.0	0.00	U	33.6	67	44-125	4	0-25
104-51-8	PSD	n-Butylbenzene	50.0	0.00	U	33.8	68	36-141	6	0-25
96-12-8	PSD	1,2-Dibromo-3-chloropropane	50.0	0.00	U	43.5	87	47-151	11	0-25
630-20-6	PSD	1,1,1,2-Tetrachloroethane	50.0	0.00	U	36.8	74	59-131	7	0-25
95-50-1	PSD	1,2-Dichlorobenzene	50.0	0.00	U	36.2	72	43-129	6	0-25

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1057
Client ID: LCS for batch 937424
Lab Sample ID: 1202005939
Instrument: VOA7.I
Analyst: AXO1
Purge Vol: 5 mL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 12/29/2009 14:44
Dilution: 1
Prep Batch ID: 937424
Batch ID: 937425

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
75-71-8	LCS	Dichlorodifluoromethane	50.0	0.0	53.0	106	33-155
74-87-3	LCS	Chloromethane	50.0	0.0	46.7	93	53-132
75-01-4	LCS	Vinyl chloride	50.0	0.0	52.5	105	61-128
74-83-9	LCS	Bromomethane	50.0	0.0	49.9	100	63-126
75-00-3	LCS	Chloroethane	50.0	0.0	49.8	100	67-124
75-69-4	LCS	Trichlorofluoromethane	50.0	0.0	58.2	116	67-151
67-64-1	LCS	Acetone	250	0.0	221	88	29-160
75-35-4	LCS	1,1-Dichloroethylene	50.0	0.0	53.0	106	70-125
74-88-4	LCS	Iodomethane	250	0.0	240	96	74-131
75-09-2	LCS	Methylene chloride	50.0	0.0	49.9	100	72-127
75-15-0	LCS	Carbon disulfide	250	0.0	261	104	64-127
156-60-5	LCS	trans-1,2-Dichloroethylene	50.0	0.0	49.8	100	71-122
75-34-3	LCS	1,1-Dichloroethane	50.0	0.0	49.7	99	75-120
78-93-3	LCS	2-Butanone	250	0.0	214	85	35-162
156-59-2	LCS	cis-1,2-Dichloroethylene	50.0	0.0	48.9	98	76-122
594-20-7	LCS	2,2-Dichloropropane	50.0	0.0	55.6	111	74-135
67-66-3	LCS	Chloroform	50.0	0.0	48.9	98	77-120
74-97-5	LCS	Bromochloromethane	50.0	0.0	47.4	95	76-122
71-55-6	LCS	1,1,1-Trichloroethane	50.0	0.0	54.9	110	75-128
563-58-6	LCS	1,1-Dichloropropene	50.0	0.0	53.9	108	77-125
56-23-5	LCS	Carbon tetrachloride	50.0	0.0	55.8	112	77-134
107-06-2	LCS	1,2-Dichloroethane	50.0	0.0	48.1	96	72-120

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1057
Client ID: LCS for batch 937424
Lab Sample ID: 1202005939
Instrument: VOA7.I
Analyst: AXO1
Purge Vol: 5 mL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 12/29/2009 14:44
Dilution: 1
Prep Batch ID: 937424
Batch ID: 937425

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
71-43-2	LCS	Benzene	50.0	0.0	46.8	94	72-120
79-01-6	LCS	Trichloroethylene	50.0	0.0	49.1	98	78-121
78-87-5	LCS	1,2-Dichloropropane	50.0	0.0	46.3	93	74-120
75-27-4	LCS	Bromodichloromethane	50.0	0.0	51.6	103	79-125
74-95-3	LCS	Dibromomethane	50.0	0.0	47.5	95	78-122
108-10-1	LCS	4-Methyl-2-pentanone	250	0.0	237	95	71-134
10061-01-5	LCS	cis-1,3-Dichloropropylene	50.0	0.0	48.3	97	80-125
108-88-3	LCS	Toluene	50.0	0.0	46.9	94	65-124
10061-02-6	LCS	trans-1,3-Dichloropropylene	50.0	0.0	49.1	98	71-134
79-00-5	LCS	1,1,2-Trichloroethane	50.0	0.0	44.8	90	76-120
591-78-6	LCS	2-Hexanone	250	0.0	193	77	42-159
142-28-9	LCS	1,3-Dichloropropane	50.0	0.0	42.8	86	72-120
127-18-4	LCS	Tetrachloroethylene	50.0	0.0	47.3	95	74-123
124-48-1	LCS	Dibromochloromethane	50.0	0.0	48.7	97	83-128
106-93-4	LCS	1,2-Dibromoethane	50.0	0.0	47.1	94	79-121
108-90-7	LCS	Chlorobenzene	50.0	0.0	46.0	92	75-120
100-41-4	LCS	Ethylbenzene	50.0	0.0	45.6	91	74-120
179601-23-1	LCS	m,p-Xylenes	100	0.0	90.4	90	74-120
95-47-6	LCS	o-Xylene	50.0	0.0	43.5	87	74-120
100-42-5	LCS	Styrene	50.0	0.0	45.9	92	76-125
75-25-2	LCS	Bromoform	50.0	0.0	50.4	101	77-138
79-34-5	LCS	1,1,2,2-Tetrachloroethane	50.0	0.0	45.2	90	72-122

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1057
Client ID: LCS for batch 937424
Lab Sample ID: 1202005939
Instrument: VOA7.I
Analyst: AXO1
Purge Vol: 5 mL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 12/29/2009 14:44
Dilution: 1
Prep Batch ID: 937424
Batch ID: 937425

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
96-18-4	LCS	1,2,3-Trichloropropane	50.0	0.0	47.1	94	75-135
108-86-1	LCS	Bromobenzene	50.0	0.0	42.6	85	73-120
103-65-1	LCS	n-Propylbenzene	50.0	0.0	45.0	90	68-121
95-49-8	LCS	2-Chlorotoluene	50.0	0.0	44.0	88	69-120
98-82-8	LCS	Isopropylbenzene	50.0	0.0	46.3	93	66-127
108-67-8	LCS	1,3,5-Trimethylbenzene	50.0	0.0	45.3	91	67-126
106-43-4	LCS	4-Chlorotoluene	50.0	0.0	45.0	90	72-120
98-06-6	LCS	tert-Butylbenzene	50.0	0.0	47.1	94	72-124
95-63-6	LCS	1,2,4-Trimethylbenzene	50.0	0.0	45.0	90	72-122
135-98-8	LCS	sec-Butylbenzene	50.0	0.0	46.8	94	71-124
99-87-6	LCS	4-Isopropyltoluene	50.0	0.0	47.5	95	72-130
541-73-1	LCS	1,3-Dichlorobenzene	50.0	0.0	42.7	85	73-120
106-46-7	LCS	1,4-Dichlorobenzene	50.0	0.0	43.8	88	73-120
104-51-8	LCS	n-Butylbenzene	50.0	0.0	47.9	96	72-128
96-12-8	LCS	1,2-Dibromo-3-chloropropane	50.0	0.0	50.2	100	68-145
630-20-6	LCS	1,1,1,2-Tetrachloroethane	50.0	0.0	45.5	91	78-121
95-50-1	LCS	1,2-Dichlorobenzene	50.0	0.0	44.6	89	74-120

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1057
Client ID: LCS for batch 937424
Lab Sample ID: 1202005940
Instrument: VOA7.I
Analyst: AXO1
Purge Vol: 5 mL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 12/29/2009 15:53
Dilution: 1
Prep Batch ID: 937424
Batch ID: 937425

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
76-13-1	LCS	1,1,2-Trichloro-1,2,2-Trifluor *Trichlorotrifluoroethane*	250	0.0	282	113	52-139

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1057
Client ID: LCS for batch 937424
Lab Sample ID: 1202007503
Instrument: VOA7.I
Analyst: AXO1
Purge Vol: 5 mL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 12/30/2009 10:10
Dilution: 1
Prep Batch ID: 937424
Batch ID: 937425

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
75-71-8	LCS	Dichlorodifluoromethane	50.0	0.0	46.6	93	33-155
74-87-3	LCS	Chloromethane	50.0	0.0	42.1	84	53-132
75-01-4	LCS	Vinyl chloride	50.0	0.0	47.5	95	61-128
74-83-9	LCS	Bromomethane	50.0	0.0	45.2	90	63-126
75-00-3	LCS	Chloroethane	50.0	0.0	45.7	91	67-124
75-69-4	LCS	Trichlorofluoromethane	50.0	0.0	53.4	107	67-151
67-64-1	LCS	Acetone	250	0.0	206	83	29-160
75-35-4	LCS	1,1-Dichloroethylene	50.0	0.0	48.7	97	70-125
74-88-4	LCS	Iodomethane	250	0.0	224	90	74-131
75-09-2	LCS	Methylene chloride	50.0	0.0	45.5	91	72-127
75-15-0	LCS	Carbon disulfide	250	0.0	239	96	64-127
156-60-5	LCS	trans-1,2-Dichloroethylene	50.0	0.0	46.8	94	71-122
75-34-3	LCS	1,1-Dichloroethane	50.0	0.0	46.4	93	75-120
78-93-3	LCS	2-Butanone	250	0.0	199	80	35-162
156-59-2	LCS	cis-1,2-Dichloroethylene	50.0	0.0	45.2	90	76-122
594-20-7	LCS	2,2-Dichloropropane	50.0	0.0	49.5	99	74-135
67-66-3	LCS	Chloroform	50.0	0.0	46.3	93	77-120
74-97-5	LCS	Bromochloromethane	50.0	0.0	44.3	89	76-122
71-55-6	LCS	1,1,1-Trichloroethane	50.0	0.0	51.8	104	75-128
563-58-6	LCS	1,1-Dichloropropene	50.0	0.0	49.1	98	77-125
56-23-5	LCS	Carbon tetrachloride	50.0	0.0	52.5	105	77-134
107-06-2	LCS	1,2-Dichloroethane	50.0	0.0	45.7	91	72-120

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1057 **Sample Type:** Laboratory Control Sample

Client ID: LCS for batch 937424 **Matrix:** SOIL

Lab Sample ID: 1202007503

Instrument: VOA7.I **Analysis Date:** 12/30/2009 10:10 **Dilution:** 1

Analyst: AXO1 **Prep Batch ID:** 937424

Purge Vol: 5 mL **Batch ID:** 937425

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
71-43-2	LCS	Benzene	50.0	0.0	43.8	88	72-120
79-01-6	LCS	Trichloroethylene	50.0	0.0	45.7	91	78-121
78-87-5	LCS	1,2-Dichloropropane	50.0	0.0	43.2	86	74-120
75-27-4	LCS	Bromodichloromethane	50.0	0.0	48.1	96	79-125
74-95-3	LCS	Dibromomethane	50.0	0.0	44.2	88	78-122
108-10-1	LCS	4-Methyl-2-pentanone	250	0.0	224	89	71-134
10061-01-5	LCS	cis-1,3-Dichloropropylene	50.0	0.0	45.4	91	80-125
108-88-3	LCS	Toluene	50.0	0.0	43.5	87	65-124
10061-02-6	LCS	trans-1,3-Dichloropropylene	50.0	0.0	47.1	94	71-134
79-00-5	LCS	1,1,2-Trichloroethane	50.0	0.0	43.7	87	76-120
591-78-6	LCS	2-Hexanone	250	0.0	182	73	42-159
142-28-9	LCS	1,3-Dichloropropane	50.0	0.0	41.4	83	72-120
127-18-4	LCS	Tetrachloroethylene	50.0	0.0	44.5	89	74-123
124-48-1	LCS	Dibromochloromethane	50.0	0.0	47.0	94	83-128
106-93-4	LCS	1,2-Dibromoethane	50.0	0.0	44.7	89	79-121
108-90-7	LCS	Chlorobenzene	50.0	0.0	43.2	86	75-120
100-41-4	LCS	Ethylbenzene	50.0	0.0	42.8	86	74-120
179601-23-1	LCS	m,p-Xylenes	100	0.0	86.4	86	74-120
95-47-6	LCS	o-Xylene	50.0	0.0	41.0	82	74-120
100-42-5	LCS	Styrene	50.0	0.0	43.3	87	76-125
75-25-2	LCS	Bromoform	50.0	0.0	48.5	97	77-138
79-34-5	LCS	1,1,2,2-Tetrachloroethane	50.0	0.0	42.9	86	72-122

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1057
Client ID: LCS for batch 937424
Lab Sample ID: 1202007503
Instrument: VOA7.I
Analyst: AXO1
Purge Vol: 5 mL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 12/30/2009 10:10
Dilution: 1
Prep Batch ID: 937424
Batch ID: 937425

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
96-18-4	LCS	1,2,3-Trichloropropane	50.0	0.0	45.5	91	75-135
108-86-1	LCS	Bromobenzene	50.0	0.0	41.0	82	73-120
103-65-1	LCS	n-Propylbenzene	50.0	0.0	42.2	84	68-121
95-49-8	LCS	2-Chlorotoluene	50.0	0.0	42.2	84	69-120
98-82-8	LCS	Isopropylbenzene	50.0	0.0	44.3	89	66-127
108-67-8	LCS	1,3,5-Trimethylbenzene	50.0	0.0	43.7	87	67-126
106-43-4	LCS	4-Chlorotoluene	50.0	0.0	42.8	86	72-120
98-06-6	LCS	tert-Butylbenzene	50.0	0.0	45.2	90	72-124
95-63-6	LCS	1,2,4-Trimethylbenzene	50.0	0.0	42.7	85	72-122
135-98-8	LCS	sec-Butylbenzene	50.0	0.0	45.1	90	71-124
99-87-6	LCS	4-Isopropyltoluene	50.0	0.0	44.7	89	72-130
541-73-1	LCS	1,3-Dichlorobenzene	50.0	0.0	40.9	82	73-120
106-46-7	LCS	1,4-Dichlorobenzene	50.0	0.0	41.2	82	73-120
104-51-8	LCS	n-Butylbenzene	50.0	0.0	45.2	90	72-128
96-12-8	LCS	1,2-Dibromo-3-chloropropane	50.0	0.0	48.7	97	68-145
630-20-6	LCS	1,1,1,2-Tetrachloroethane	50.0	0.0	43.9	88	78-121
95-50-1	LCS	1,2-Dichlorobenzene	50.0	0.0	42.2	84	74-120

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1057
Client ID: LCS for batch 937424
Lab Sample ID: 1202007504
Instrument: VOA7.I
Analyst: AXO1
Purge Vol: 5 mL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 12/30/2009 11:18
Dilution: 1
Prep Batch ID: 937424
Batch ID: 937425

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
76-13-1	LCS	1,1,2-Trichloro-1,2,2-Trifluor *Trichlorotrifluoroethane*	250	0.0	287	115	52-139

Method Blank Summary

SDG Number:	10-1057	Client:	LANL010	Matrix:	SOIL
Client ID:	MB for batch 937424	Instrument ID:	VOA7.I	Data File:	7s207BB.d
Lab Sample ID:	1202005936	Prep Date:	12/29/2009 08:00	Analyzed:	12/29/09 17:02
Column:	DB-624	Heated Purge:	Yes		

This method blank applies to the following samples and quality control samples:

	Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01	LCS for batch 937424	1202005939	7s203LB.d	12/29/09	1444
02	LCS for batch 937424	1202005940	7s205LB.d	12/29/09	1553
03	RE03-10-9876	243472004	7s208.d	12/29/09	1737
04	RE03-09-14229	243472003	7s209.d	12/29/09	1811
05	RE03-09-14228	243472001	7s211.d	12/29/09	1920
06	RE03-09-14228PS	1202005937	7s220.d	12/30/09	0031
07	RE03-09-14228PSD	1202005938	7s221.d	12/30/09	0106

Method Blank Summary

SDG Number:	10-1057	Client:	LANL010	Matrix:	SOIL
Client ID:	MB for batch 937424	Instrument ID:	VOA7.I	Data File:	7s307BA.d
Lab Sample ID:	1202007502	Prep Date:	12/30/2009 08:00	Analyzed:	12/30/09 12:25
Column:	DB-624	Heated Purge:	Yes		

This method blank applies to the following samples and quality control samples:

Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01 LCS for batch 937424	1202007503	7s303LA.d	12/30/09	1010
02 LCS for batch 937424	1202007504	7s305LA.d	12/30/09	1118
03 RE03-09-14230	243472002	7s308.d	12/30/09	1258

Instrument Performance Check

BFB

Lab Name GEL Laboratories LLC **Client SDG:** 10-1057

Instrument ID: VOA7.I **Injection Date/Time:** 24-DEC-09 11:13

Column Description: db624 **Lab File ID** /122409v7/7r408.d

m/e	Ion Abundance Criteria	% Relative Abundance
95	Base Peak, 100% Relative Abundance	100
50	15.0 - 40.0% of mass 95	33.2
75	30.0 - 60.0% of mass 95	57
96	5.0 - 9.0% of mass 95	6.7
173	Less than 2.0% of mass 174	0.8
174	50.0 - 100.0% of mass 95	75.6
175	5.0 -9.0% of mass 174	7.5
176	95.0 - 101.0% of mass 174	98.6
177	5.0 - 9.0% of mass 176	6.6

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
VSTD001	W7VM091224-06	/122409v7/7r409.d	24-DEC-09 11:46
VSTD002	W7VM091224-07	/122409v7/7r410.d	24-DEC-09 12:19
VSTD005	W7VM091224-08	/122409v7/7r411.d	24-DEC-09 12:53
VSTD010	W7VM091224-09	/122409v7/7r412.d	24-DEC-09 13:27
VSTD020	W7VM091224-10	/122409v7/7r413.d	24-DEC-09 14:01
VSTD050	W7VM091224-11	/122409v7/7r414.d	24-DEC-09 14:33
VSTD100	W7VM091224-12	/122409v7/7r415.d	24-DEC-09 15:07
VSTD0005	W7VM091224-13	/122409v7/7r417.d	24-DEC-09 16:16
VSTD005S	W7VM091224-14	/122409v7/7r418.d	24-DEC-09 16:50
VSTD010S	W7VM091224-15	/122409v7/7r419.d	24-DEC-09 17:22
VSTD025S	W7VM091224-16	/122409v7/7r420.d	24-DEC-09 17:55
VSTD050S	W7VM091224-17	/122409v7/7r421.d	24-DEC-09 18:29
VSTD100S	W7VM091224-18	/122409v7/7r422.d	24-DEC-09 19:04
VSTD250S	W7VM091224-19	/122409v7/7r423.d	24-DEC-09 19:39
VSTD500S	W7VM091224-20	/122409v7/7r424.d	24-DEC-09 20:13
SICV	W7VM091224-23	/122409v7/7r428.d	24-DEC-09 22:31

Instrument Performance Check

BFB

Lab Name GEL Laboratories LLC **Client SDG:** 10-1057

Instrument ID: VOA7.I **Injection Date/Time:** 27-DEC-09 23:55

Column Description: db624 **Lab File ID** /122409v7/7r704BFB.d

m/e	Ion Abundance Criteria	% Relative Abundance
95	Base Peak, 100% Relative Abundance	100
50	15.0 - 40.0% of mass 95	33.9
75	30.0 - 60.0% of mass 95	58.9
96	5.0 - 9.0% of mass 95	7
173	Less than 2.0% of mass 174	1
174	50.0 - 100.0% of mass 95	77.6
175	5.0 -9.0% of mass 174	7.5
176	95.0 - 101.0% of mass 174	96
177	5.0 - 9.0% of mass 176	6.7

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
LICV	W7VM091227-04	/122409v7/7r704.d	27-DEC-09 23:55

Instrument Performance Check

BFB

Lab Name GEL Laboratories LLC **Client SDG:** 10-1057

Instrument ID: VOA7.I **Injection Date/Time:** 29-DEC-09 14:44

Column Description: db624 **Lab File ID** /122909v7/7s203BFB.d

m/e	Ion Abundance Criteria	% Relative Abundance
95	Base Peak, 100% Relative Abundance	100
50	15.0 - 40.0% of mass 95	33.1
75	30.0 - 60.0% of mass 95	56.5
96	5.0 - 9.0% of mass 95	6.6
173	Less than 2.0% of mass 174	1
174	50.0 - 100.0% of mass 95	73.4
175	5.0 -9.0% of mass 174	7.8
176	95.0 - 101.0% of mass 174	97.4
177	5.0 - 9.0% of mass 176	6.7

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
VSTD050	W7VM091229-02	/122909v7/7s203.d	29-DEC-09 14:44
LCS	1202005939	/122909v7/7s203LB.d	29-DEC-09 14:44
VSTD250S	UVM091118-08C	/122909v7/7s204.d	29-DEC-09 15:17
SLCS	1202005940	/122909v7/7s205LB.d	29-DEC-09 15:53
BLANK	1202005936	/122909v7/7s207BB.d	29-DEC-09 17:02
RE03-10-9876	243472004	/122909v7/7s208.d	29-DEC-09 17:37
RE03-09-14229	243472003	/122909v7/7s209.d	29-DEC-09 18:11
RE03-09-14228	243472001	/122909v7/7s211.d	29-DEC-09 19:20
RE03-09-14228MS	1202005937	/122909v7/7s220.d	30-DEC-09 00:31
RE03-09-14228MSD	1202005938	/122909v7/7s221.d	30-DEC-09 01:06

Instrument Performance Check

BFB

Lab Name GEL Laboratories LLC **Client SDG:** 10-1057

Instrument ID: VOA7.I **Injection Date/Time:** 30-DEC-09 09:36

Column Description: db624 **Lab File ID** /123009v7/7s302BFB.d

m/e	Ion Abundance Criteria	% Relative Abundance
95	Base Peak, 100% Relative Abundance	100
50	15.0 - 40.0% of mass 95	32.3
75	30.0 - 60.0% of mass 95	58.7
96	5.0 - 9.0% of mass 95	6.7
173	Less than 2.0% of mass 174	0.9
174	50.0 - 100.0% of mass 95	83.6
175	5.0 -9.0% of mass 174	7.3
176	95.0 - 101.0% of mass 174	95.2
177	5.0 - 9.0% of mass 176	7.2

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
VSTD050	W7VM091230-01	/123009v7/7s302.d	30-DEC-09 09:36
LCS	1202007503	/123009v7/7s303LA.d	30-DEC-09 10:10
VSTD250S	UVM091118-08C	/123009v7/7s304.d	30-DEC-09 10:45
SLCS	1202007504	/123009v7/7s305LA.d	30-DEC-09 11:18
BLANK	1202007502	/123009v7/7s307BA.d	30-DEC-09 12:25
RE03-09-14230	243472002	/123009v7/7s308.d	30-DEC-09 12:58

Internal Standard
Area and RT Summary

Lab Name : GEL Laboratories LLC

Instrument: VOA7.I

GC Column: DB-624

Client SDG: 10-1057

STD Analysis Time: 29-DEC-09 14:44

Data File: 7s203.d

	Fluorobenzene			Chlorobenzene-d5			1,4-Dichlorobenzene-d4		
	Area	#	RT #	Area	#	RT #	Area	#	RT #
12 Hour STD	916807		15.3	718947		18.7	440230		21.0
Upper Limit	1833614		15.8	1437894		19.2	880460		21.5
Lower Limit	458404		14.8	359474		18.2	220115		20.5
Sample ID									
BLK01LCS	916807		15.3	718947		18.7	440230		21.0
BLK01SLCS	937085		15.3	726268		18.7	446452		21.0
BLK01	911829		15.3	696413		18.7	409978		21.0
RE03-10-9876	663047		15.3	505182		18.7	304749		21.0
RE03-09-14229	855936		15.3	666838		18.7	403056		21.0
RE03-09-14228	872528		15.3	669052		18.7	398010		21.0
RE03-09-14228MS	584652		15.3	453999		18.7	264457		21.0
RE03-09-14228MSD	702222		15.3	551982		18.7	317535		21.0

Area Upper Limit = +100% of internal standard area
Area Lower Limit = - 50% of internal standard area

RT Upper Limit = + 0.50 minutes of internal standard RT
RT Lower Limit = - 0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Value outside of QC Limits

Internal Standard
Area and RT Summary

Lab Name : GEL Laboratories LLC

Instrument: VOA7.I

GC Column: DB-624

Client SDG: 10-1057

STD Analysis Time: 30-DEC-09 09:36

Data File: 7s302.d

	Fluorobenzene				Chlorobenzene-d5				1,4-Dichlorobenzene-d4			
	Area	#	RT	#	Area	#	RT	#	Area	#	RT	#
12 Hour STD	885722		15.3		697641		18.7		421550		21.0	
Upper Limit	1771444		15.8		1395282		19.2		843100		21.5	
Lower Limit	442861		14.8		348821		18.2		210775		20.5	
Sample ID												
BLK02LCS	908457		15.3		705614		18.7		428737		21.0	
BLK02SLCS	910537		15.3		714069		18.7		434414		21.0	
BLK02	895992		15.3		693998		18.7		408356		21.0	
RE03-09-14230	888742		15.3		684224		18.7		409408		21.0	

Area Upper Limit = +100% of internal standard area
Area Lower Limit = - 50% of internal standard area

RT Upper Limit = + 0.50 minutes of internal standard RT
RT Lower Limit = - 0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Value outside of QC Limits

Sample Data

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1057**	**Date Collected:**	**12/21/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243472001**	**Date Received:**	**12/23/2009 10:10**	**%Moisture:**	**10.2**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14228**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937425**	**Inst:**	**VOA7.I**	**Dilution:**	**1**
Run Date:	**12/29/2009 19:20**	**Analyst:**	**AXO1**	**Purge Vol:**	**5 mL**
Prep Date:	**12/29/2009 11:45**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**7s211.d**	**Column:**	**DB-624**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.11	ug/kg	0.378	1.11
74-87-3	Chloromethane	U	1.11	ug/kg	0.334	1.11
75-01-4	Vinyl chloride	U	1.11	ug/kg	0.334	1.11
74-83-9	Bromomethane	U	1.11	ug/kg	0.334	1.11
75-00-3	Chloroethane	U	1.11	ug/kg	0.334	1.11
75-69-4	Trichlorofluoromethane	U	1.11	ug/kg	0.334	1.11
67-64-1	Acetone	U	5.57	ug/kg	1.85	5.57
75-35-4	1,1-Dichloroethylene	U	1.11	ug/kg	0.334	1.11
74-88-4	Iodomethane	U	5.57	ug/kg	1.78	5.57
75-09-2	Methylene chloride	U	5.57	ug/kg	2.23	5.57
75-15-0	Carbon disulfide	U	5.57	ug/kg	1.39	5.57
156-60-5	trans-1,2-Dichloroethylene	U	1.11	ug/kg	0.334	1.11
75-34-3	1,1-Dichloroethane	U	1.11	ug/kg	0.334	1.11
78-93-3	2-Butanone	U	5.57	ug/kg	1.67	5.57
156-59-2	cis-1,2-Dichloroethylene	U	1.11	ug/kg	0.334	1.11
594-20-7	2,2-Dichloropropane	U	1.11	ug/kg	0.334	1.11
67-66-3	Chloroform	U	1.11	ug/kg	0.334	1.11
74-97-5	Bromochloromethane	U	1.11	ug/kg	0.367	1.11
71-55-6	1,1,1-Trichloroethane	U	1.11	ug/kg	0.334	1.11
563-58-6	1,1-Dichloropropene	U	1.11	ug/kg	0.334	1.11
56-23-5	Carbon tetrachloride	U	1.11	ug/kg	0.334	1.11
107-06-2	1,2-Dichloroethane	U	1.11	ug/kg	0.334	1.11
71-43-2	Benzene	U	1.11	ug/kg	0.334	1.11
79-01-6	Trichloroethylene	U	1.11	ug/kg	0.367	1.11
78-87-5	1,2-Dichloropropane	U	1.11	ug/kg	0.334	1.11
75-27-4	Bromodichloromethane	U	1.11	ug/kg	0.334	1.11
74-95-3	Dibromomethane	U	1.11	ug/kg	0.334	1.11
108-10-1	4-Methyl-2-pentanone	U	5.57	ug/kg	1.39	5.57
10061-01-5	cis-1,3-Dichloropropylene	U	1.11	ug/kg	0.334	1.11
108-88-3	Toluene	U	1.11	ug/kg	0.334	1.11
10061-02-6	trans-1,3-Dichloropropylene	U	1.11	ug/kg	0.334	1.11
79-00-5	1,1,2-Trichloroethane	U	1.11	ug/kg	0.334	1.11
591-78-6	2-Hexanone	U	5.57	ug/kg	1.67	5.57
142-28-9	1,3-Dichloropropane	U	1.11	ug/kg	0.334	1.11
127-18-4	Tetrachloroethylene	U	1.11	ug/kg	0.334	1.11
124-48-1	Dibromochloromethane	U	1.11	ug/kg	0.334	1.11
106-93-4	1,2-Dibromoethane	U	1.11	ug/kg	0.334	1.11
108-90-7	Chlorobenzene	U	1.11	ug/kg	0.334	1.11

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1057**	**Date Collected:**	**12/21/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243472001**	**Date Received:**	**12/23/2009 10:10**	**%Moisture:**	**10.2**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14228**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937425**	**Inst:**	**VOA7.I**	**Dilution:**	**1**
Run Date:	**12/29/2009 19:20**	**Analyst:**	**AXO1**	**Purge Vol:**	**5 mL**
Prep Date:	**12/29/2009 11:45**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**7s211.d**	**Column:**	**DB-624**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.11	ug/kg	0.334	1.11
179601-23-1	m,p-Xylenes	U	2.23	ug/kg	0.334	2.23
95-47-6	o-Xylene	U	1.11	ug/kg	0.334	1.11
100-42-5	Styrene	U	1.11	ug/kg	0.334	1.11
75-25-2	Bromoform	U	1.11	ug/kg	0.334	1.11
79-34-5	1,1,2,2-Tetrachloroethane	U	1.11	ug/kg	0.334	1.11
96-18-4	1,2,3-Trichloropropane	U	1.11	ug/kg	0.334	1.11
108-86-1	Bromobenzene	U	1.11	ug/kg	0.334	1.11
103-65-1	n-Propylbenzene	U	1.11	ug/kg	0.334	1.11
95-49-8	2-Chlorotoluene	U	1.11	ug/kg	0.334	1.11
98-82-8	Isopropylbenzene	U	1.11	ug/kg	0.334	1.11
108-67-8	1,3,5-Trimethylbenzene	U	1.11	ug/kg	0.334	1.11
106-43-4	4-Chlorotoluene	U	1.11	ug/kg	0.334	1.11
98-06-6	tert-Butylbenzene	U	1.11	ug/kg	0.334	1.11
95-63-6	1,2,4-Trimethylbenzene	U	1.11	ug/kg	0.334	1.11
135-98-8	sec-Butylbenzene	U	1.11	ug/kg	0.334	1.11
99-87-6	4-Isopropyltoluene	U	1.11	ug/kg	0.334	1.11
541-73-1	1,3-Dichlorobenzene	U	1.11	ug/kg	0.334	1.11
106-46-7	1,4-Dichlorobenzene	U	1.11	ug/kg	0.334	1.11
104-51-8	n-Butylbenzene	U	1.11	ug/kg	0.334	1.11
96-12-8	1,2-Dibromo-3-chloropropane	U	1.11	ug/kg	0.334	1.11
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.57	ug/kg	1.78	5.57
630-20-6	1,1,1,2-Tetrachloroethane	U	1.11	ug/kg	0.334	1.11
95-50-1	1,2-Dichlorobenzene	U	1.11	ug/kg	0.334	1.11

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	17.92	17.4	ug/kg		J

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA7.i/122909v7/7s211.d
Lab Smp Id: 243472001 Client Smp ID: RE03-09-14228
Inj Date : 29-DEC-2009 19:20
Operator : AXO1 Inst ID: VOA7.i
Smp Info : |243472001|937425|1|VOAF|1|
Misc Info : LANL 5g N/A
Comment :
Method : /chem/VOA7.i/122909v7/VOA7-8260B-122409.m
Meth Date : 04-Jan-2010 07:38 ale01592 Quant Type: ISTD
Cal Date : 24-DEC-2009 19:39 Cal File: 7r423.d
Als bottle: 11
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-1057.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	10.15460	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
* 51 Fluorobenzene	96	15.317	15.317	(1.000)	872528	50.0000	
* 75 Chlorobenzene-d5	117	18.667	18.667	(1.000)	669052	50.0000	
* 101 1,4-Dichlorobenzene-d4	152	20.992	20.991	(1.000)	398010	50.0000	
$ 46 1,2-Dichloroethane-d4	65	14.880	14.880	(0.971)	472175	52.0772	58.0
$ 64 Toluene-d8	98	17.144	17.144	(0.918)	951700	48.6135	54.1
$ 86 Bromofluorobenzene	95	19.814	19.814	(0.944)	439872	48.3513	53.8

ION RATIO REPORT

VOA REPORT

Data file: 7s211.d
Report Date: 01/04/2010 08:03
Lab. ID: 243472001 SampleType: SAMPLE
Injection Date: 29-DEC-2009 19:20
Operator: AXO1 Instrument: VOA7.i
Sample Info: |243472001|937425|1|VOAF|1|
Miscellaneous Info: LANL 5g N/A
Comment:
Method used: /chem/VOA7.i/122909v7/VOA7-8260B-122409.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-1057
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
63 4-Methyl-2-pentanone				CAS#: 108-10-1		
58	12073	17.13	16.94	80-120	100	(T)
43	8558	17.14	16.94	259-319	71	(QT)
100	656650	17.14	16.94	0- 56	5439	(QT)
69 2-Hexanone				CAS#: 591-78-6		
43	87728	17.92	17.80	80-120	100	(T)
58	11275	17.93	17.80	15- 75	13	(QT)
57	73576	17.92	17.80	0- 47	84	(QT)
82 Bromoform				CAS#: 75-25-2		
173	3278	19.82	19.54	80-120	100	(T)
175	26431	19.82	19.54	18- 78	806	(QT)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA7.i/122909v7/7s211.d
Lab Smp Id: 243472001 Client Smp ID: RE03-09-14228
Inj Date : 29-DEC-2009 19:20
Operator : AXO1 Inst ID: VOA7.i
Smp Info : |243472001|937425|1|VOAF|1|
Misc Info : LANL 5g N/A
Comment :
Method : /chem/VOA7.i/122909v7/VOA7-8260B-122409.m
Meth Date : 04-Jan-2010 07:38 ale01592 Quant Type: ISTD
Cal Date : 24-DEC-2009 19:39 Cal File: 7r423.d
Als bottle: 11
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-1057.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	10.15460	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 75 Chlorobenzene-d5	18.667	2552508	50.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ug/l)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown				CAS #:			
17.916	799323	15.6575933	17.4	0		0	75

Data File: /chem/VOA7.i/122909v7/7s211.d
Date : 29-DEC-2009 19:20
Client ID: RE03-09-14228
Sample Info: |2434720011937425|1|VOAF|1|

Column phase: DB-624

Instrument: VOA7.i

Operator: AX01
Column diameter: 0.25

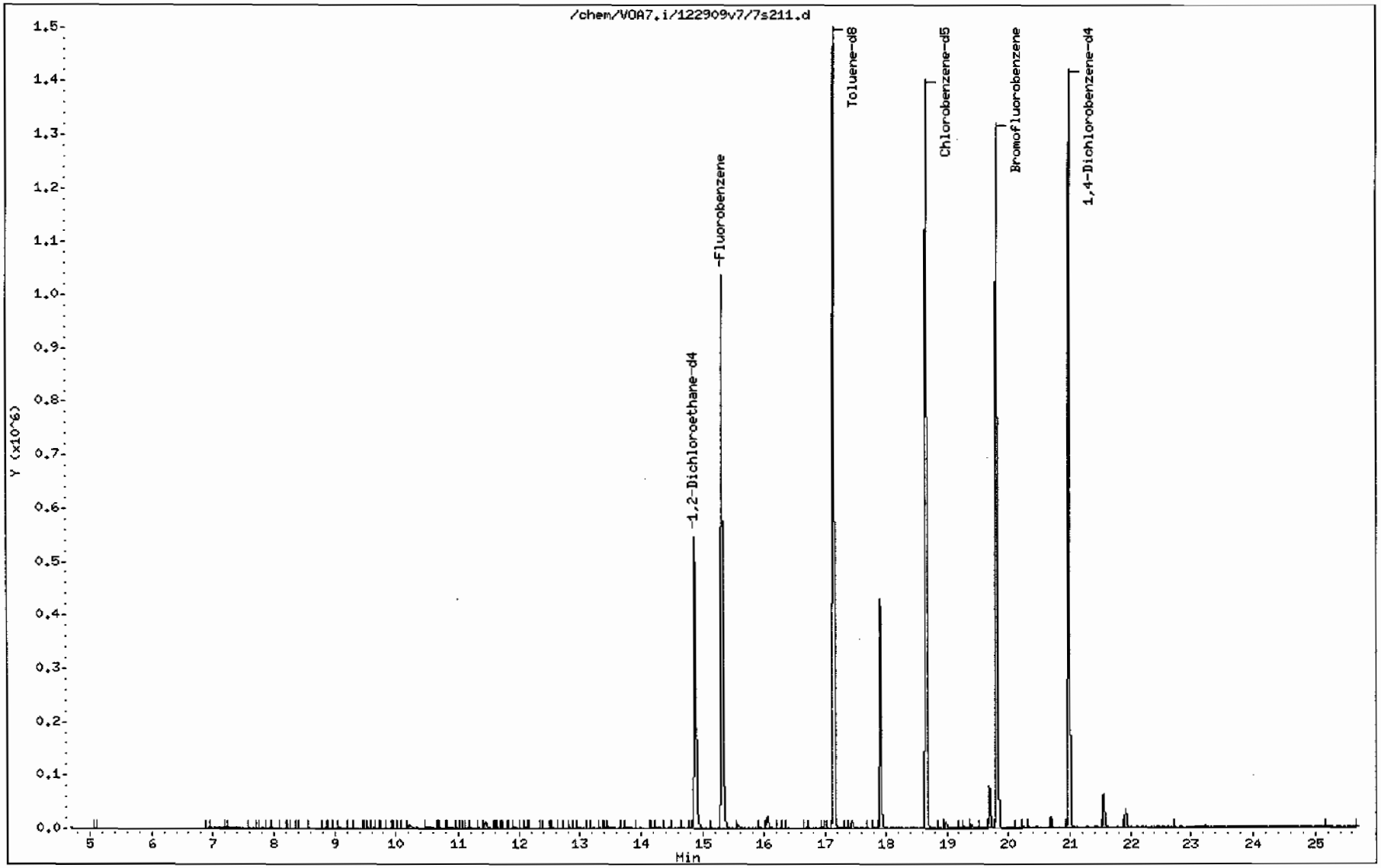

Data File: /chem/VOA7.i/122909v7/7s211.d

Date : 29-DEC-2009 19:20

Client ID: RE03-09-14228

Instrument: VOA7.i

Sample Info: |2434720011937425|1|VOAF|1|

Operator: AX01

Column phase: DB-624

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Hexanal	66-25-1	NIST05.L	3689	59	C6H12O	100
Hexanal	66-25-1	NIST05.L	3684	53	C6H12O	100
Hexanal	66-25-1	NIST05.L	3688	53	C6H12O	100

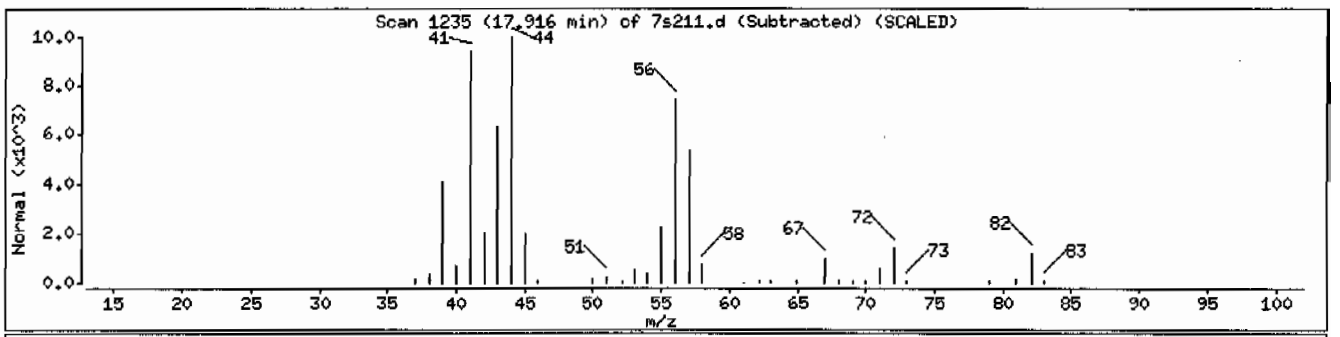

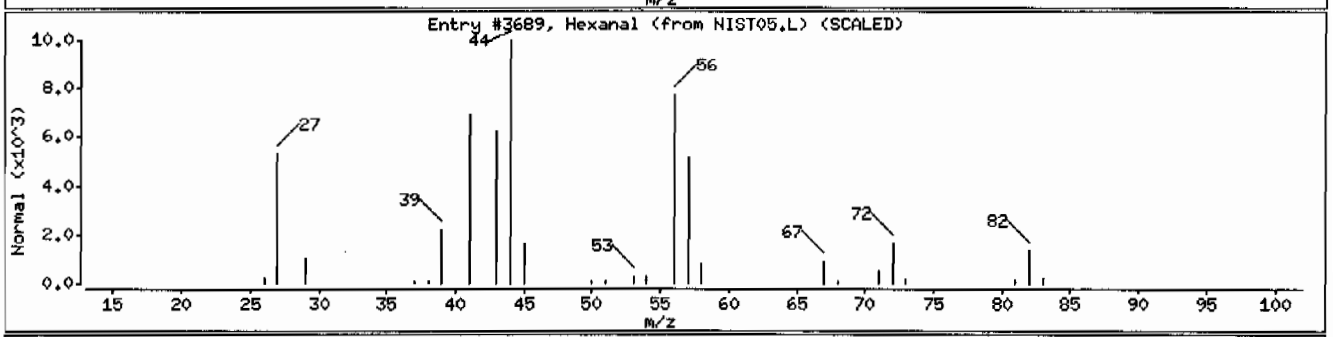

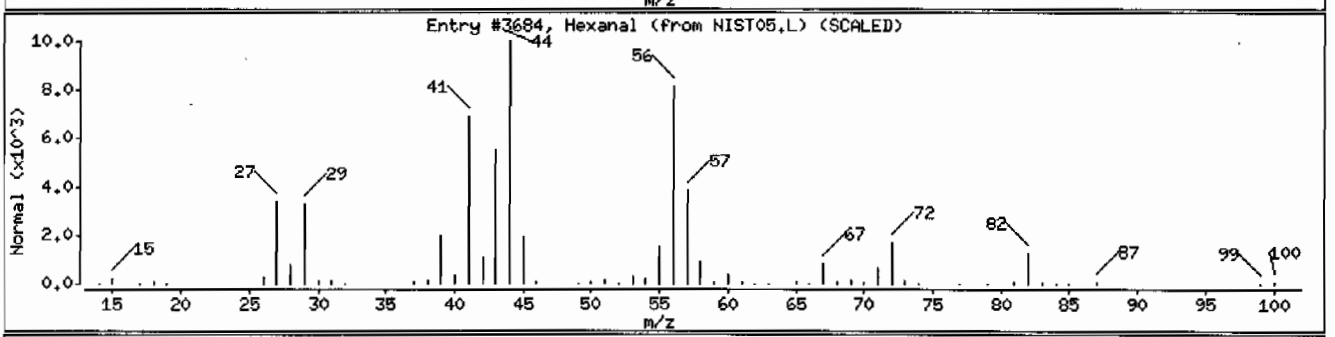

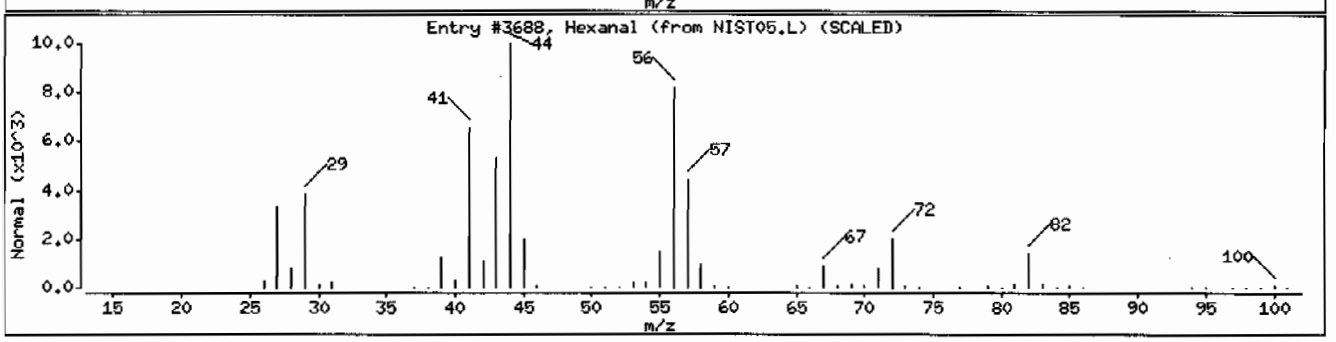

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1057**	**Date Collected:**	**12/21/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243472003**	**Date Received:**	**12/23/2009 10:10**	**%Moisture:**	**8.6**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14229**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937425**	**Inst:**	**VOA7.I**	**Dilution:**	**1**
Run Date:	**12/29/2009 18:11**	**Analyst:**	**AXO1**	**Purge Vol:**	**5 mL**
Prep Date:	**12/29/2009 11:47**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**7s209.d**	**Column:**	**DB-624**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.09	ug/kg	0.372	1.09
74-87-3	Chloromethane	U	1.09	ug/kg	0.328	1.09
75-01-4	Vinyl chloride	U	1.09	ug/kg	0.328	1.09
74-83-9	Bromomethane	U	1.09	ug/kg	0.328	1.09
75-00-3	Chloroethane	U	1.09	ug/kg	0.328	1.09
75-69-4	Trichlorofluoromethane	U	1.09	ug/kg	0.328	1.09
67-64-1	Acetone	U	5.47	ug/kg	1.82	5.47
75-35-4	1,1-Dichloroethylene	U	1.09	ug/kg	0.328	1.09
74-88-4	Iodomethane	U	5.47	ug/kg	1.75	5.47
75-09-2	Methylene chloride	U	5.47	ug/kg	2.19	5.47
75-15-0	Carbon disulfide	U	5.47	ug/kg	1.37	5.47
156-60-5	trans-1,2-Dichloroethylene	U	1.09	ug/kg	0.328	1.09
75-34-3	1,1-Dichloroethane	U	1.09	ug/kg	0.328	1.09
78-93-3	2-Butanone	U	5.47	ug/kg	1.64	5.47
156-59-2	cis-1,2-Dichloroethylene	U	1.09	ug/kg	0.328	1.09
594-20-7	2,2-Dichloropropane	U	1.09	ug/kg	0.328	1.09
67-66-3	Chloroform	U	1.09	ug/kg	0.328	1.09
74-97-5	Bromochloromethane	U	1.09	ug/kg	0.361	1.09
71-55-6	1,1,1-Trichloroethane	U	1.09	ug/kg	0.328	1.09
563-58-6	1,1-Dichloropropene	U	1.09	ug/kg	0.328	1.09
56-23-5	Carbon tetrachloride	U	1.09	ug/kg	0.328	1.09
107-06-2	1,2-Dichloroethane	U	1.09	ug/kg	0.328	1.09
71-43-2	Benzene	U	1.09	ug/kg	0.328	1.09
79-01-6	Trichloroethylene	U	1.09	ug/kg	0.361	1.09
78-87-5	1,2-Dichloropropane	U	1.09	ug/kg	0.328	1.09
75-27-4	Bromodichloromethane	U	1.09	ug/kg	0.328	1.09
74-95-3	Dibromomethane	U	1.09	ug/kg	0.328	1.09
108-10-1	4-Methyl-2-pentanone	U	5.47	ug/kg	1.37	5.47
10061-01-5	cis-1,3-Dichloropropylene	U	1.09	ug/kg	0.328	1.09
108-88-3	Toluene	U	1.09	ug/kg	0.328	1.09
10061-02-6	trans-1,3-Dichloropropylene	U	1.09	ug/kg	0.328	1.09
79-00-5	1,1,2-Trichloroethane	U	1.09	ug/kg	0.328	1.09
591-78-6	2-Hexanone	U	5.47	ug/kg	1.64	5.47
142-28-9	1,3-Dichloropropane	U	1.09	ug/kg	0.328	1.09
127-18-4	Tetrachloroethylene	U	1.09	ug/kg	0.328	1.09
124-48-1	Dibromochloromethane	U	1.09	ug/kg	0.328	1.09
106-93-4	1,2-Dibromoethane	U	1.09	ug/kg	0.328	1.09
108-90-7	Chlorobenzene	U	1.09	ug/kg	0.328	1.09

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1057**	**Date Collected:**	**12/21/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243472003**	**Date Received:**	**12/23/2009 10:10**	**%Moisture:**	**8.6**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14229**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937425**	**Inst:**	**VOA7.I**	**Dilution:**	**1**
Run Date:	**12/29/2009 18:11**	**Analyst:**	**AXO1**	**Purge Vol:**	**5 mL**
Prep Date:	**12/29/2009 11:47**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**7s209.d**	**Column:**	**DB-624**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.09	ug/kg	0.328	1.09
179601-23-1	m,p-Xylenes	U	2.19	ug/kg	0.328	2.19
95-47-6	o-Xylene	U	1.09	ug/kg	0.328	1.09
100-42-5	Styrene	U	1.09	ug/kg	0.328	1.09
75-25-2	Bromoform	U	1.09	ug/kg	0.328	1.09
79-34-5	1,1,2,2-Tetrachloroethane	U	1.09	ug/kg	0.328	1.09
96-18-4	1,2,3-Trichloropropane	U	1.09	ug/kg	0.328	1.09
108-86-1	Bromobenzene	U	1.09	ug/kg	0.328	1.09
103-65-1	n-Propylbenzene	U	1.09	ug/kg	0.328	1.09
95-49-8	2-Chlorotoluene	U	1.09	ug/kg	0.328	1.09
98-82-8	Isopropylbenzene	U	1.09	ug/kg	0.328	1.09
108-67-8	1,3,5-Trimethylbenzene	U	1.09	ug/kg	0.328	1.09
106-43-4	4-Chlorotoluene	U	1.09	ug/kg	0.328	1.09
98-06-6	tert-Butylbenzene	U	1.09	ug/kg	0.328	1.09
95-63-6	1,2,4-Trimethylbenzene	U	1.09	ug/kg	0.328	1.09
135-98-8	sec-Butylbenzene	U	1.09	ug/kg	0.328	1.09
99-87-6	4-Isopropyltoluene	U	1.09	ug/kg	0.328	1.09
541-73-1	1,3-Dichlorobenzene	U	1.09	ug/kg	0.328	1.09
106-46-7	1,4-Dichlorobenzene	U	1.09	ug/kg	0.328	1.09
104-51-8	n-Butylbenzene	U	1.09	ug/kg	0.328	1.09
96-12-8	1,2-Dibromo-3-chloropropane	U	1.09	ug/kg	0.328	1.09
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.47	ug/kg	1.75	5.47
630-20-6	1,1,1,2-Tetrachloroethane	U	1.09	ug/kg	0.328	1.09
95-50-1	1,2-Dichlorobenzene	U	1.09	ug/kg	0.328	1.09

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	17.92	9.5	ug/kg		J
	Unknown Siloxane	19.69	13.3	ug/kg		J
	Unknown Siloxane	21.56	7.12	ug/kg		J

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA7.i/122909v7/7s209.d
Lab Smp Id: 243472003 Client Smp ID: RE03-09-14229
Inj Date : 29-DEC-2009 18:11
Operator : AXO1 Inst ID: VOA7.i
Smp Info : |243472003|937425|1|VOAF|1|
Misc Info : LANL 5g N/A
Comment :
Method : /chem/VOA7.i/122909v7/VOA7-8260B-122409.m
Meth Date : 04-Jan-2010 07:38 ale01592 Quant Type: ISTD
Cal Date : 24-DEC-2009 19:39 Cal File: 7r423.d
Als bottle: 9
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-1057.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	8.64470	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
* 51 Fluorobenzene	96	15.317	15.317	(1.000)	855936	50.0000	
* 75 Chlorobenzene-d5	117	18.667	18.667	(1.000)	666838	50.0000	
* 101 1,4-Dichlorobenzene-d4	152	20.991	20.991	(1.000)	403056	50.0000	
$ 46 1,2-Dichloroethane-d4	65	14.880	14.880	(0.971)	483324	54.3402	59.5
$ 64 Toluene-d8	98	17.144	17.144	(0.918)	944216	48.3913	53.0
$ 86 Bromofluorobenzene	95	19.814	19.814	(0.944)	447649	48.5901	53.2

ION RATIO REPORT

VOA REPORT

Data file: 7s209.d
Report Date: 01/04/2010 08:03
Lab. ID: 243472003 SampleType: SAMPLE
Injection Date: 29-DEC-2009 18:11
Operator: AXO1 Instrument: VOA7.i
Sample Info: |243472003|937425|1|VOAF|1|
Miscellaneous Info: LANL 5g N/A
Comment:
Method used: /chem/VOA7.i/122909v7/VOA7-8260B-122409.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-1057
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
63 4-Methyl-2-pentanone				CAS#: 108-10-1		
58	12580	17.13	16.94	80-120	100	(T)
43	8307	17.13	16.94	259-319	66	(QT)
100	653216	17.14	16.94	0- 56	5192	(QT)
69 2-Hexanone				CAS#: 591-78-6		
43	49730	17.92	17.80	80-120	100	(T)
58	7292	17.92	17.80	15- 75	15	(QT)
57	40724	17.92	17.80	0- 47	82	(QT)
82 Bromoform				CAS#: 75-25-2		
173	3189	19.82	19.54	80-120	100	(T)
175	24977	19.81	19.54	18- 78	783	(QT)
89 1,2,3-Trichloropropane				CAS#: 96-18-4		
110	2489	19.70	19.98	80-120	100	(T)
75	6565	19.69	19.97	294-354	264	(QT)
77	892	19.67	19.97	64-124	36	(QT)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA7.i/122909v7/7s209.d
Lab Smp Id: 243472003 Client Smp ID: RE03-09-14229
Inj Date : 29-DEC-2009 18:11
Operator : AXO1 Inst ID: VOA7.i
Smp Info : |243472003|937425|1|VOAF|1|
Misc Info : LANL 5g N/A
Comment :
Method : /chem/VOA7.i/122909v7/VOA7-8260B-122409.m
Meth Date : 04-Jan-2010 07:38 ale01592 Quant Type: ISTD
Cal Date : 24-DEC-2009 19:39 Cal File: 7r423.d
Als bottle: 9
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-1057.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	8.64470	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 75 Chlorobenzene-d5	18.667	2581328	50.000
* 101 1,4-Dichlorobenzene-d4	20.991	2715820	50.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ug/l)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown				CAS #:			
17.915	448056	8.67879403	9.5	0		0	75

RT	AREA	CONCENTRATIONS ON-COL(ug/l)	FINAL(ug/Kg)	QUAL	QUANT LIBRARY	LIB ENTRY	CPND #
Unknown Siloxane				CAS #:			
19.692	628384	12.1717156	13.3	0		0	75
Unknown Siloxane				CAS #:			
21.560	353363	6.50563615	7.1	0		0	101

Data File: /chem/VOA7.i/122909v7/7s209.d
Date : 29-DEC-2009 18:11
Client ID: RE03-09-14229
Sample Info: |2434720031937425|1|VOAF|1|

Column phase: DB-624

Instrument: VOA7.i

Operator: AX01
Column diameter: 0.25

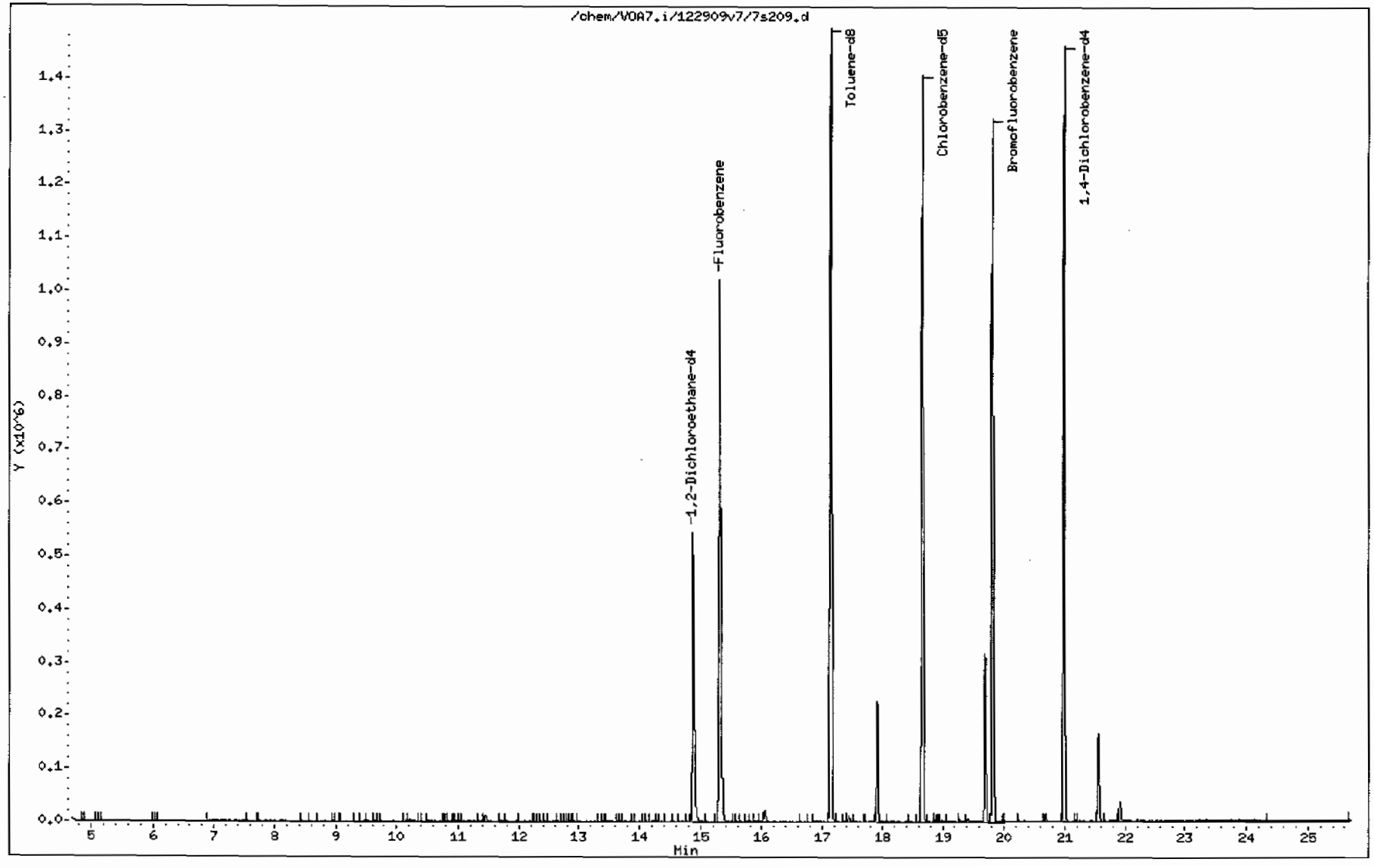

Data File: /chem/VOA7.i/122909v7/7s209.d

Date : 29-DEC-2009 18:11

Client ID: RE03-09-14229

Instrument: VOA7.i

Sample Info: |2434720031937425|1|VOAF|1|

Operator: AX01

Column phase: DB-624

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Hexanal	66-25-1	NIST05.L	3688	59	C6H12O	100
Hexanal	66-25-1	NIST05.L	3689	53	C6H12O	100
Hexanal	66-25-1	NIST05.L	3690	47	C6H12O	100

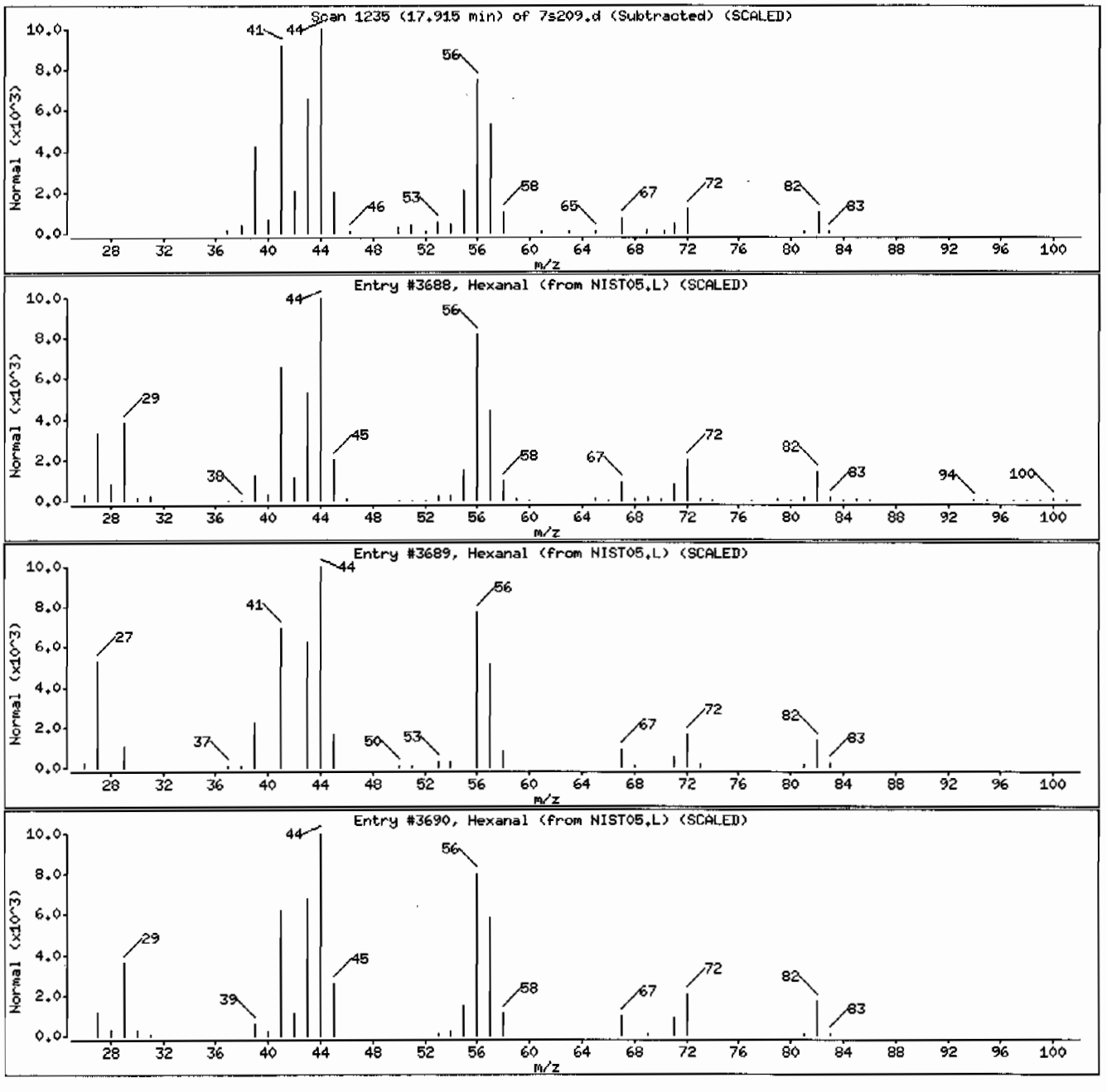

Data File: /chem/VOA7.i/122909v7/7s209.d

Date : 29-DEC-2009 18:11

Client ID: RE03-09-14229

Instrument: VOA7.i

Sample Info: |2434720031937425|1|VOAF|1|

Operator: AX01

Column phase: DB-624

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Siloxane						
Benzene, 1,1'-methylenebis[4-azido-	2915-44-8	NIST05.L	91741	30	C13H10N6	250
Trisiloxane, 1,1,3,3,5,5-hexamethyl-	1189-93-1	NIST05.L	63149	27	C6H20O2Si3	208
Anthracene, 9,10-dihydro-9,10-dimethyl-	22566-43-4	NIST05.L	63100	25	C16H16	208

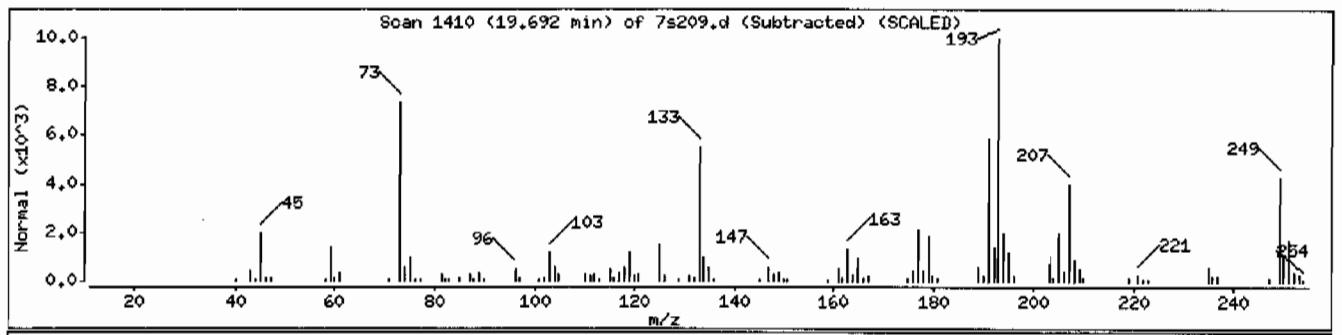

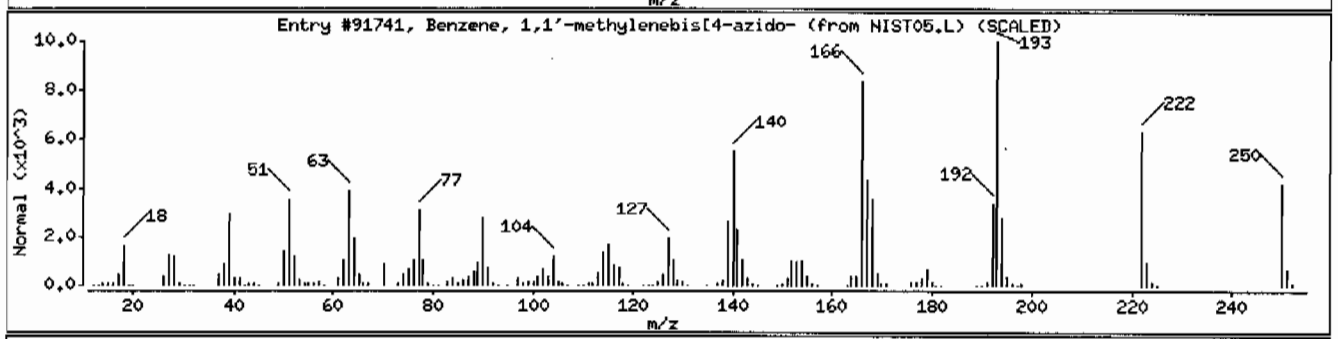

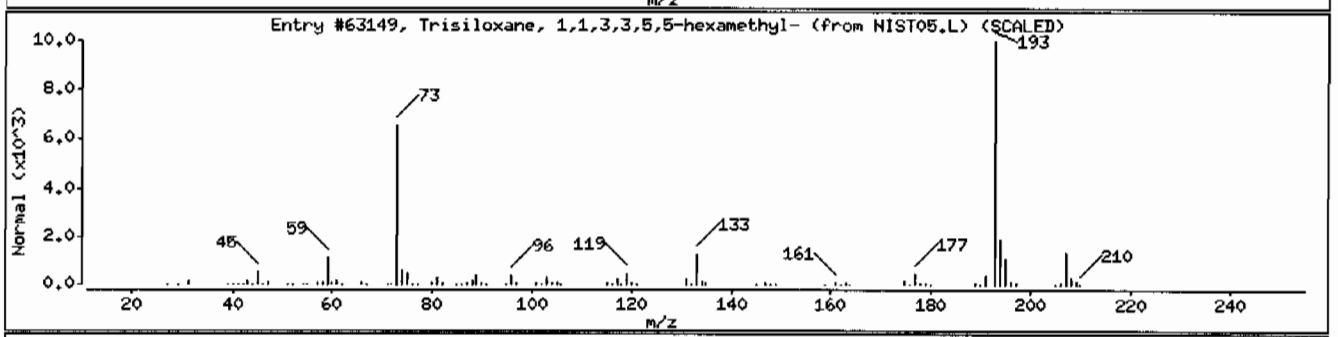

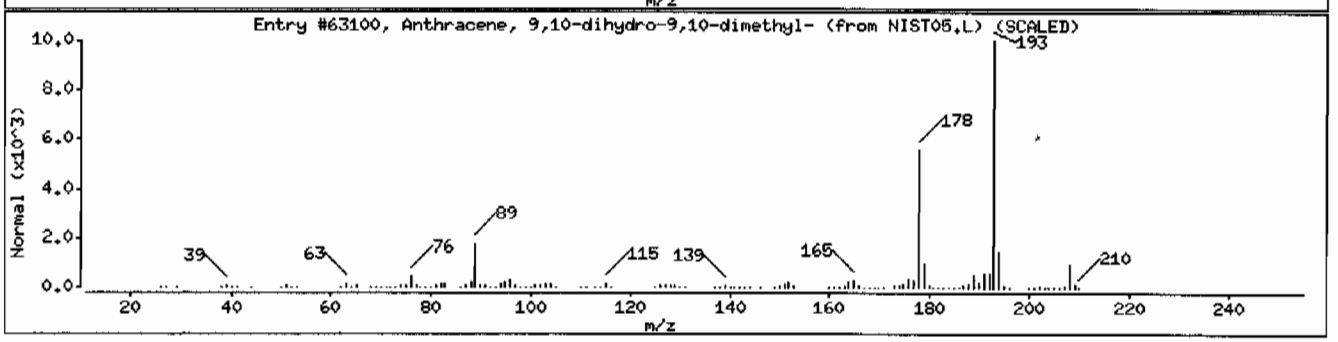

Data File: /chem/VOA7.i/122909v7/7s209.d

Date : 29-DEC-2009 18:11

Client ID: RE03-09-14229

Instrument: VOA7.i

Sample Info: |2434720031937425|1|VOAF|1|

Operator: AX01

Column phase: DB-624

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Siloxane						
Anthracene, 9,10-dihydro-9,10-bis(trimet	18586-37-3	NIST05.L	139132	37	C20H28Si2	324
Hexanoic acid, 6-bromo-, trimethylsilyl	34176-76-6	NIST05.L	102956	35	C9H19BrO2Si	266
Spiro[2.4]hept-4-ene, 5-trimethylsilylme	1000153-97-0	NIST05.L	93223	32	C14H28Si2	252

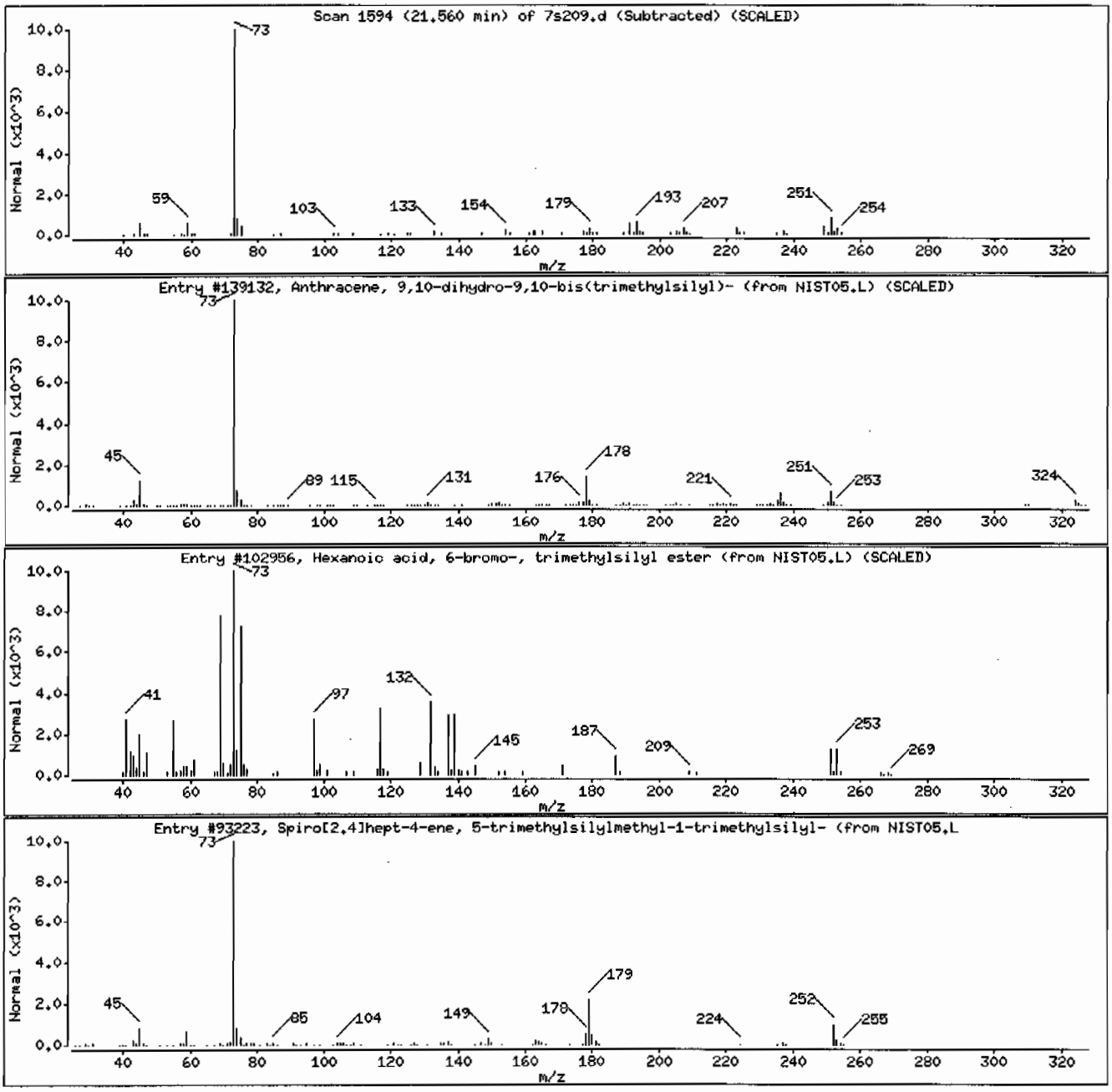

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1057**	**Date Collected:**	**12/21/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243472002**	**Date Received:**	**12/23/2009 10:10**	**%Moisture:**	**7.1**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14230**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937425**	**Inst:**	**VOA7.I**	**Dilution:**	**1**
Run Date:	**12/30/2009 12:58**	**Analyst:**	**AXO1**	**Purge Vol:**	**5 mL**
Prep Date:	**12/30/2009 12:15**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**7s308.d**	**Column:**	**DB-624**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.08	ug/kg	0.366	1.08
74-87-3	Chloromethane	U	1.08	ug/kg	0.323	1.08
75-01-4	Vinyl chloride	U	1.08	ug/kg	0.323	1.08
74-83-9	Bromomethane	U	1.08	ug/kg	0.323	1.08
75-00-3	Chloroethane	U	1.08	ug/kg	0.323	1.08
75-69-4	Trichlorofluoromethane	U	1.08	ug/kg	0.323	1.08
67-64-1	Acetone	U	5.38	ug/kg	1.79	5.38
75-35-4	1,1-Dichloroethylene	U	1.08	ug/kg	0.323	1.08
74-88-4	Iodomethane	U	5.38	ug/kg	1.72	5.38
75-09-2	Methylene chloride	U	5.38	ug/kg	2.15	5.38
75-15-0	Carbon disulfide	U	5.38	ug/kg	1.35	5.38
156-60-5	trans-1,2-Dichloroethylene	U	1.08	ug/kg	0.323	1.08
75-34-3	1,1-Dichloroethane	U	1.08	ug/kg	0.323	1.08
78-93-3	2-Butanone	U	5.38	ug/kg	1.61	5.38
156-59-2	cis-1,2-Dichloroethylene	U	1.08	ug/kg	0.323	1.08
594-20-7	2,2-Dichloropropane	U	1.08	ug/kg	0.323	1.08
67-66-3	Chloroform	U	1.08	ug/kg	0.323	1.08
74-97-5	Bromochloromethane	U	1.08	ug/kg	0.355	1.08
71-55-6	1,1,1-Trichloroethane	U	1.08	ug/kg	0.323	1.08
563-58-6	1,1-Dichloropropene	U	1.08	ug/kg	0.323	1.08
56-23-5	Carbon tetrachloride	U	1.08	ug/kg	0.323	1.08
107-06-2	1,2-Dichloroethane	U	1.08	ug/kg	0.323	1.08
71-43-2	Benzene	U	1.08	ug/kg	0.323	1.08
79-01-6	Trichloroethylene	U	1.08	ug/kg	0.355	1.08
78-87-5	1,2-Dichloropropane	U	1.08	ug/kg	0.323	1.08
75-27-4	Bromodichloromethane	U	1.08	ug/kg	0.323	1.08
74-95-3	Dibromomethane	U	1.08	ug/kg	0.323	1.08
108-10-1	4-Methyl-2-pentanone	U	5.38	ug/kg	1.35	5.38
10061-01-5	cis-1,3-Dichloropropylene	U	1.08	ug/kg	0.323	1.08
108-88-3	Toluene	U	1.08	ug/kg	0.323	1.08
10061-02-6	trans-1,3-Dichloropropylene	U	1.08	ug/kg	0.323	1.08
79-00-5	1,1,2-Trichloroethane	U	1.08	ug/kg	0.323	1.08
591-78-6	2-Hexanone	U	5.38	ug/kg	1.61	5.38
142-28-9	1,3-Dichloropropane	U	1.08	ug/kg	0.323	1.08
127-18-4	Tetrachloroethylene	U	1.08	ug/kg	0.323	1.08
124-48-1	Dibromochloromethane	U	1.08	ug/kg	0.323	1.08
106-93-4	1,2-Dibromoethane	U	1.08	ug/kg	0.323	1.08
108-90-7	Chlorobenzene	U	1.08	ug/kg	0.323	1.08

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1057**	**Date Collected:**	**12/21/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243472002**	**Date Received:**	**12/23/2009 10:10**	**%Moisture:**	**7.1**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14230**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937425**	**Inst:**	**VOA7.I**	**Dilution:**	**1**
Run Date:	**12/30/2009 12:58**	**Analyst:**	**AXO1**	**Purge Vol:**	**5 mL**
Prep Date:	**12/30/2009 12:15**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**7s308.d**	**Column:**	**DB-624**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.08	ug/kg	0.323	1.08
179601-23-1	m,p-Xylenes	U	2.15	ug/kg	0.323	2.15
95-47-6	o-Xylene	U	1.08	ug/kg	0.323	1.08
100-42-5	Styrene	U	1.08	ug/kg	0.323	1.08
75-25-2	Bromoform	U	1.08	ug/kg	0.323	1.08
79-34-5	1,1,2,2-Tetrachloroethane	U	1.08	ug/kg	0.323	1.08
96-18-4	1,2,3-Trichloropropane	U	1.08	ug/kg	0.323	1.08
108-86-1	Bromobenzene	U	1.08	ug/kg	0.323	1.08
103-65-1	n-Propylbenzene	U	1.08	ug/kg	0.323	1.08
95-49-8	2-Chlorotoluene	U	1.08	ug/kg	0.323	1.08
98-82-8	Isopropylbenzene	U	1.08	ug/kg	0.323	1.08
108-67-8	1,3,5-Trimethylbenzene	U	1.08	ug/kg	0.323	1.08
106-43-4	4-Chlorotoluene	U	1.08	ug/kg	0.323	1.08
98-06-6	tert-Butylbenzene	U	1.08	ug/kg	0.323	1.08
95-63-6	1,2,4-Trimethylbenzene	U	1.08	ug/kg	0.323	1.08
135-98-8	sec-Butylbenzene	U	1.08	ug/kg	0.323	1.08
99-87-6	4-Isopropyltoluene	U	1.08	ug/kg	0.323	1.08
541-73-1	1,3-Dichlorobenzene	U	1.08	ug/kg	0.323	1.08
106-46-7	1,4-Dichlorobenzene	U	1.08	ug/kg	0.323	1.08
104-51-8	n-Butylbenzene	U	1.08	ug/kg	0.323	1.08
96-12-8	1,2-Dibromo-3-chloropropane	U	1.08	ug/kg	0.323	1.08
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.38	ug/kg	1.72	5.38
630-20-6	1,1,1,2-Tetrachloroethane	U	1.08	ug/kg	0.323	1.08
95-50-1	1,2-Dichlorobenzene	U	1.08	ug/kg	0.323	1.08

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	17.92	7.14	ug/kg		J
	Unknown Siloxane	19.69	8.92	ug/kg		J

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA7.i/123009v7/7s308.d
Lab Smp Id: 243472002 Client Smp ID: RE03-09-14230
Inj Date : 30-DEC-2009 12:58
Operator : AXO1 Inst ID: VOA7.i
Smp Info : |243472002|937425|1|VOAF|1|
Misc Info : LANL 5g N/A
Comment :
Method : /chem/VOA7.i/123009v7/VOA7-8260B-122409.m
Meth Date : 04-Jan-2010 09:17 ale01592 Quant Type: ISTD
Cal Date : 24-DEC-2009 19:39 Cal File: 7r423.d
Als bottle: 8
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-1057.sub
Target Version: 3.50

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	7.07790	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
* 51 Fluorobenzene	96	15.316	15.317	(1.000)	888742	50.0000	
* 75 Chlorobenzene-d5	117	18.667	18.667	(1.000)	684224	50.0000	
* 101 1,4-Dichlorobenzene-d4	152	20.991	20.991	(1.000)	409408	50.0000	
$ 46 1,2-Dichloroethane-d4	65	14.880	14.880	(0.971)	503312	54.4986	58.6
$ 64 Toluene-d8	98	17.144	17.144	(0.918)	979343	48.9162	52.6
$ 86 Bromofluorobenzene	95	19.814	19.814	(0.944)	459704	49.1245	52.9

ION RATIO REPORT

VOA REPORT

Data file: 7s308.d
Report Date: 12/31/2009 08:58
Lab. ID: 243472002 SampleType: SAMPLE
Injection Date: 30-DEC-2009 12:58
Operator: AXO1 Instrument: VOA7.i
Sample Info: |243472002|937425|1|VOAF|1|
Miscellaneous Info: LANL 5g N/A
Comment:
Method used: /chem/VOA7.i/123009v7/VOA7-8260B-122409.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-1057
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
63 4-Methyl-2-pentanone				CAS#: 108-10-1		
58	13196	17.13	16.94	80-120	100	(T)
43	8487	17.13	16.94	270-330	64	(QT)
100	669504	17.14	16.94	0- 57	5073	(QT)
69 2-Hexanone				CAS#: 591-78-6		
43	38779	17.92	17.80	80-120	100	(T)
58	4808	17.92	17.80	15- 75	12	(QT)
57	30083	17.92	17.80	0- 48	78	(QT)
82 Bromoform				CAS#: 75-25-2		
173	2976	19.82	19.54	80-120	100	(T)
175	26882	19.81	19.54	19- 79	903	(QT)
89 1,2,3-Trichloropropane				CAS#: 96-18-4		
110	1042	19.68	19.97	80-120	100	(T)
75	4929	19.69	19.97	252-312	473	(QT)
77	425	19.69	19.97	65-125	41	(QT)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA7.i/123009v7/7s308.d
Lab Smp Id: 243472002 Client Smp ID: RE03-09-14230
Inj Date : 30-DEC-2009 12:58
Operator : AXO1 Inst ID: VOA7.i
Smp Info : |243472002|937425|1|VOAF|1|
Misc Info : LANL 5g N/A
Comment :
Method : /chem/VOA7.i/123009v7/VOA7-8260B-122409.m
Meth Date : 04-Jan-2010 09:17 ale01592 Quant Type: ISTD
Cal Date : 24-DEC-2009 19:39 Cal File: 7r423.d
Als bottle: 8
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-1057.sub
Target Version: 3.50

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	7.07790	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 75 Chlorobenzene-d5	18.667	2672256	50.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ug/l)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown				CAS #:			
17.915	354342	6.63000939	7.1	0		0	75
Unknown Siloxane				CAS #:			
19.692	443190	8.29243774	8.9	0		0	75

Data File: /chem/VOA7.i/123009v7/7s308.d
Date : 30-DEC-2009 12:58
Client ID: RE03-09-14230
Sample Info: |2434720021937425|1|VOAF|1|

Column phase: DB-624

Instrument: VOA7.i

Operator: AXO1
Column diameter: 0.25

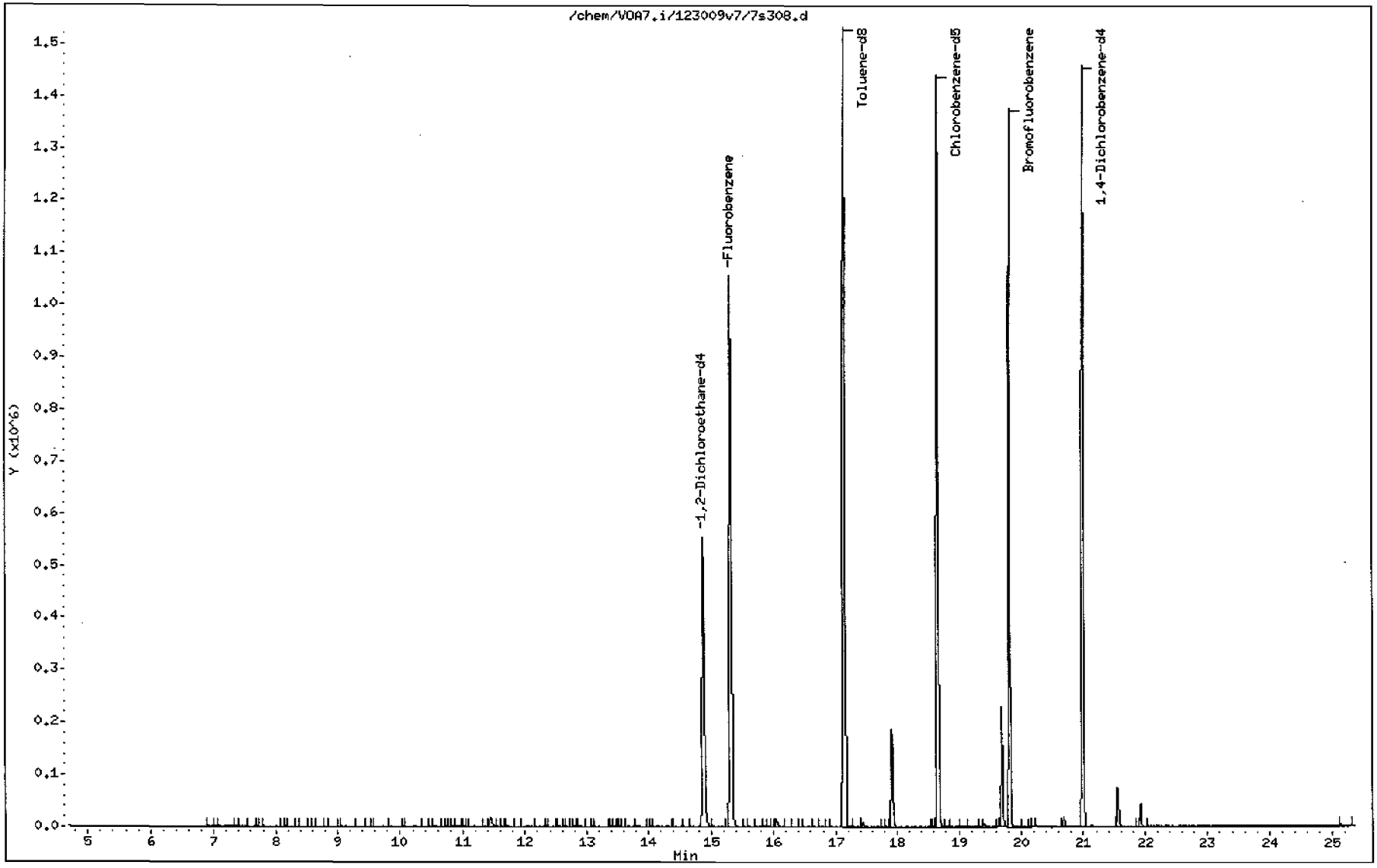

Data File: /chem/VOA7.i/123009v7/7s308.d

Page 1

Date : 30-DEC-2009 12:58

Client ID: RE03-09-14230

Instrument: VOA7.i

Sample Info: |2434720021937425|1|VOAF|1|

Operator: AX01

Column phase: DB-624

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Hexanal	66-25-1	NIST05.L	3688	59	C6H12O	100
Hexanal	66-25-1	NIST05.L	3684	53	C6H12O	100
Hexanal	66-25-1	NIST05.L	3689	53	C6H12O	100

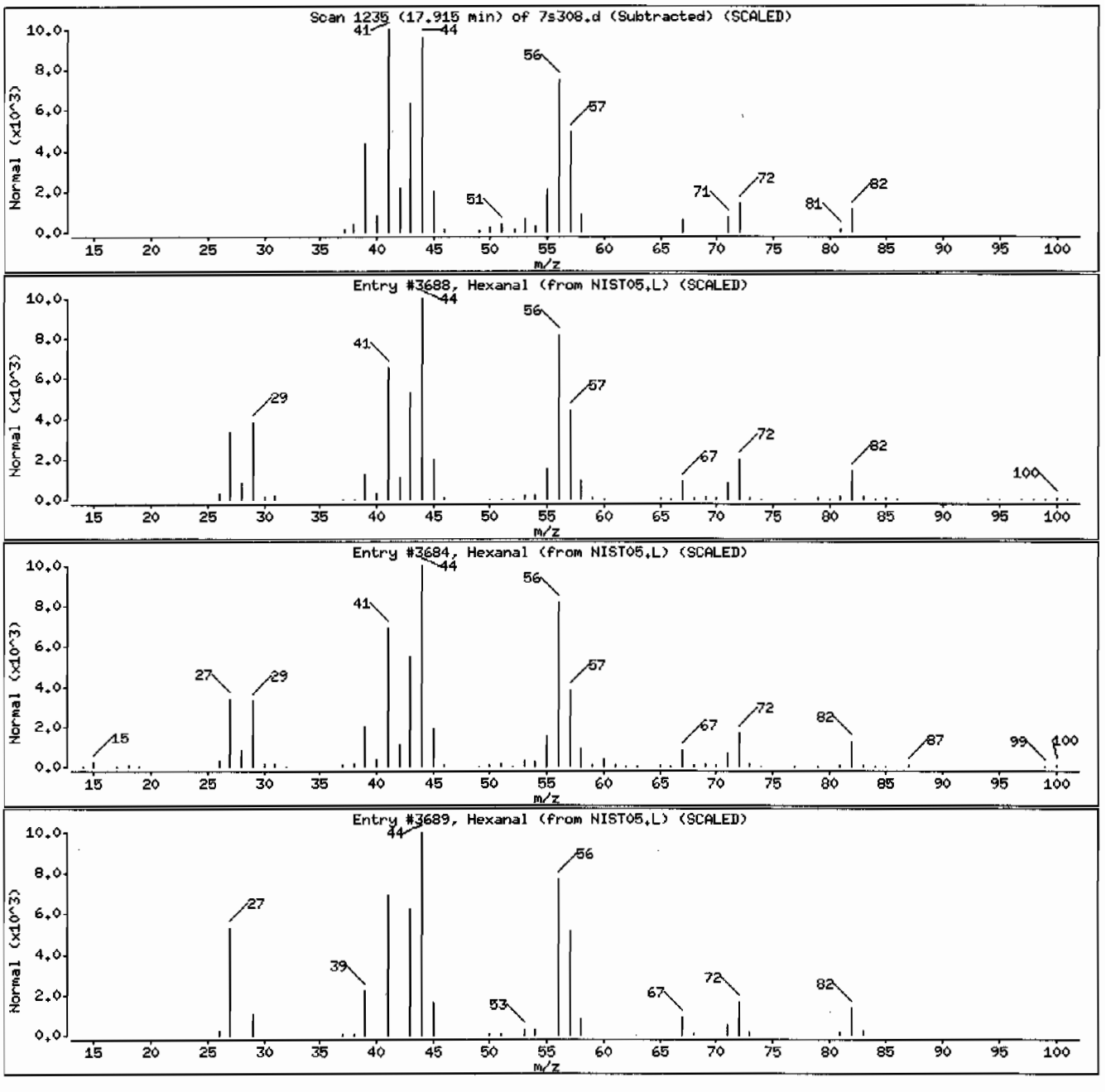

Data File: /chem/VOA7.i/123009v7/7s308.d

Date : 30-DEC-2009 12:58

Client ID: RE03-09-14230

Instrument: VOA7.i

Sample Info: |2434720021937425|1|VOAF|1|

Operator: AX01

Column phase: DB-624

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Siloxane						
Cobalt, (2-methyl-,eta.-3-propenyl)-(pen	1000157-04-3	NIST05.L	91248	41	C14H22Co	249
N-(7-Hydroxy-5-isopropyl-[1,2,4]triazolo	1000296-64-7	NIST05.L	91038	30	C11H15N5O2	249
2-Phenylindolizine	25379-20-8	NIST05.L	52067	25	C14H11N	193

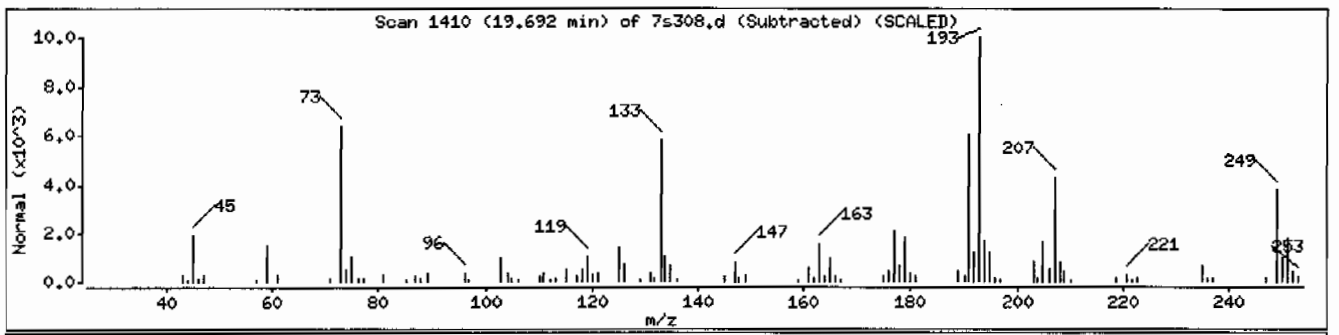

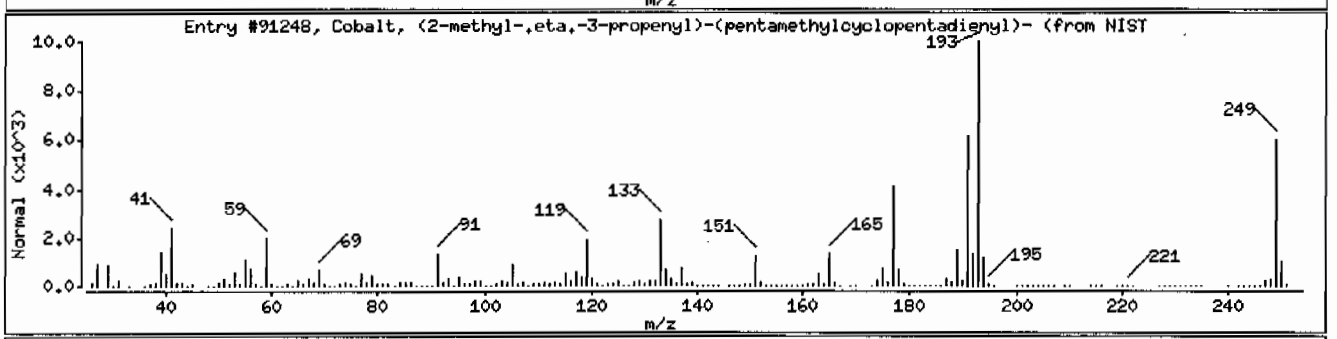

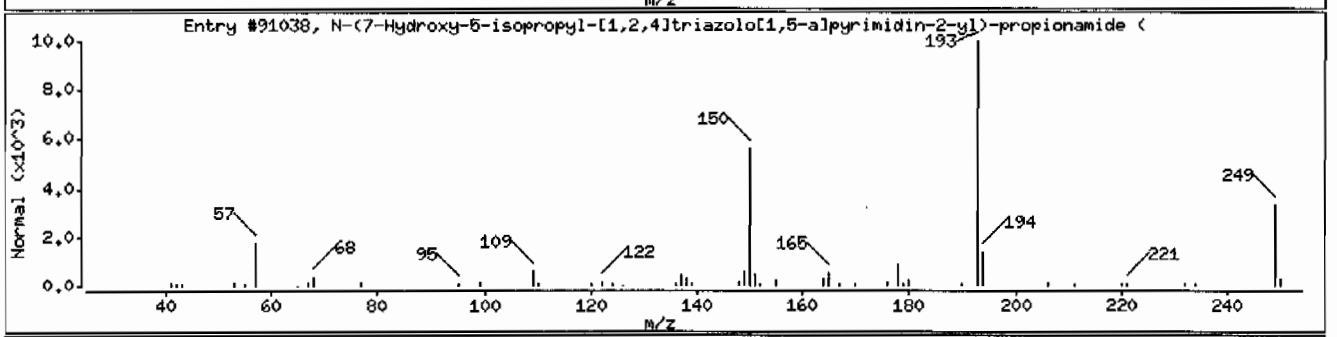

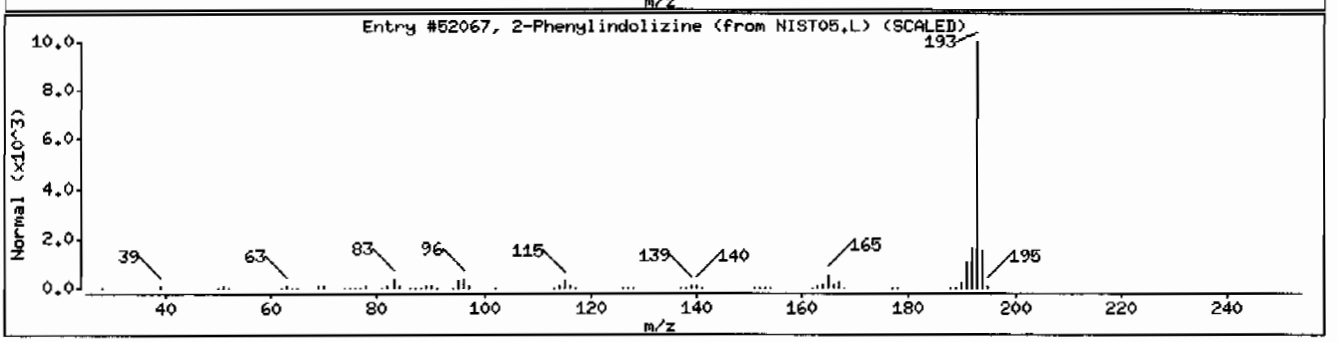

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1057**	**Date Collected:**	**12/21/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243472004**	**Date Received:**	**12/23/2009 10:10**		
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-10-9876**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937425**	**Inst:**	**VOA7.I**	**Dilution:**	**1**
Run Date:	**12/29/2009 17:37**	**Analyst:**	**AXO1**	**Purge Vol:**	**5 mL**
Prep Date:	**12/29/2009 11:48**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**7s208.d**	**Column:**	**DB-624**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/kg	0.340	1.00
74-87-3	Chloromethane	U	1.00	ug/kg	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/kg	0.300	1.00
74-83-9	Bromomethane	U	1.00	ug/kg	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/kg	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/kg	0.300	1.00
67-64-1	Acetone	J	1.77	ug/kg	1.66	5.00
75-35-4	1,1-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/kg	1.60	5.00
75-09-2	Methylene chloride	U	5.00	ug/kg	2.00	5.00
75-15-0	Carbon disulfide	U	5.00	ug/kg	1.25	5.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/kg	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/kg	1.50	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/kg	0.300	1.00
74-97-5	Bromochloromethane	U	1.00	ug/kg	0.330	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/kg	0.300	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/kg	0.300	1.00
56-23-5	Carbon tetrachloride	U	1.00	ug/kg	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/kg	0.300	1.00
71-43-2	Benzene	U	1.00	ug/kg	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/kg	0.330	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/kg	0.300	1.00
74-95-3	Dibromomethane	U	1.00	ug/kg	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/kg	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
108-88-3	Toluene	U	1.00	ug/kg	0.300	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/kg	0.300	1.00
591-78-6	2-Hexanone	U	5.00	ug/kg	1.50	5.00
142-28-9	1,3-Dichloropropane	U	1.00	ug/kg	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/kg	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/kg	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/kg	0.300	1.00
108-90-7	Chlorobenzene	U	1.00	ug/kg	0.300	1.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1057	**Date Collected:**	12/21/2009 12:00	**Matrix:**	S
Lab Sample ID:	243472004	**Date Received:**	12/23/2009 10:10		
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-10-9876	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	937425	**Inst:**	VOA7.I	**Dilution:**	1
Run Date:	12/29/2009 17:37	**Analyst:**	AXO1	**Purge Vol:**	5 mL
Prep Date:	12/29/2009 11:48	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	7s208.d	**Column:**	DB-624	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.00	ug/kg	0.300	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/kg	0.300	2.00
95-47-6	o-Xylene	U	1.00	ug/kg	0.300	1.00
100-42-5	Styrene	U	1.00	ug/kg	0.300	1.00
75-25-2	Bromoform	U	1.00	ug/kg	0.300	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/kg	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/kg	0.300	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/kg	0.300	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/kg	0.300	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/kg	0.300	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/kg	0.300	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/kg	0.300	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/kg	0.300	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/kg	0.300	1.00
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.00	ug/kg	1.60	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	No Tentatively Identified Compounds Found			ug/kg		

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA7.i/122909v7/7s208.d
Lab Smp Id: 243472004 Client Smp ID: RE03-10-9876
Inj Date : 29-DEC-2009 17:37
Operator : AXO1 Inst ID: VOA7.i
Smp Info : |243472004|937425|1|VOAF|1|
Misc Info : LANL 5g N/A
Comment :
Method : /chem/VOA7.i/122909v7/VOA7-8260B-122409.m
Meth Date : 04-Jan-2010 07:38 ale01592 Quant Type: ISTD
Cal Date : 24-DEC-2009 19:39 Cal File: 7r423.d
Als bottle: 8
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-1057.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	0.00000	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
* 51 Fluorobenzene	96	15.316	15.317	(1.000)	663047	50.0000	
* 75 Chlorobenzene-d5	117	18.667	18.667	(1.000)	505182	50.0000	
* 101 1,4-Dichlorobenzene-d4	152	20.991	20.991	(1.000)	304749	50.0000	
$ 46 1,2-Dichloroethane-d4	65	14.880	14.880	(0.971)	375135	54.4462	54.4
$ 64 Toluene-d8	98	17.144	17.144	(0.918)	754410	51.0359	51.0
$ 86 Bromofluorobenzene	95	19.814	19.814	(0.944)	346407	49.7302	49.7
13 Acetone	43	10.484	10.423	(0.684)	9571	1.76671	1.8(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

ION RATIO REPORT

VOA REPORT

Data file: 7s208.d
Report Date: 01/04/2010 08:03
Lab. ID: 243472004 SampleType: SAMPLE
Injection Date: 29-DEC-2009 17:37
Operator: AXO1 Instrument: VOA7.i
Sample Info: |243472004|937425|1|VOAF|1|
Miscellaneous Info: LANL 5g N/A
Comment:
Method used: /chem/VOA7.i/122909v7/VOA7-8260B-122409.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-1057
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
13 Acetone			CAS#: 67-64-1			
43	9571	10.48	10.42	80-120	100	(T)
58	1511	10.49	10.42	0- 53	16	(T)
63 4-Methyl-2-pentanone				CAS#: 108-10-1		
58	9685	17.13	16.94	80-120	100	(T)
43	6602	17.13	16.94	259-319	68	(QT)
100	503188	17.14	16.94	0- 56	5196	(QT)
82 Bromoform			CAS#: 75-25-2			
173	2403	19.82	19.54	80-120	100	(T)
175	20368	19.81	19.54	18- 78	848	(QT)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA7.i/122909v7/7s208.d
Lab Smp Id: 243472004 Client Smp ID: RE03-10-9876
Inj Date : 29-DEC-2009 17:37
Operator : AXO1 Inst ID: VOA7.i
Smp Info : |243472004|937425|1|VOAF|1|
Misc Info : LANL 5g N/A
Comment :
Method : /chem/VOA7.i/122909v7/VOA7-8260B-122409.m
Meth Date : 04-Jan-2010 07:38 ale01592 Quant Type: ISTD
Cal Date : 24-DEC-2009 19:39 Cal File: 7r423.d
Als bottle: 8
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-1057.sub
Target Version: 3.50
Processing Host: prdsvr07

- NO TENTATIVELY IDENTIFIED COMPOUNDS -

Data File: /chem/VOA7.i/122909v7/7s208.d
Date : 29-DEC-2009 17:37
Client ID: RE03-10-9876
Sample Info: |2434720041937425|1|VOAF|1|

Column phase: DB-624

Instrument: VOA7.i

Operator: AX01
Column diameter: 0.25

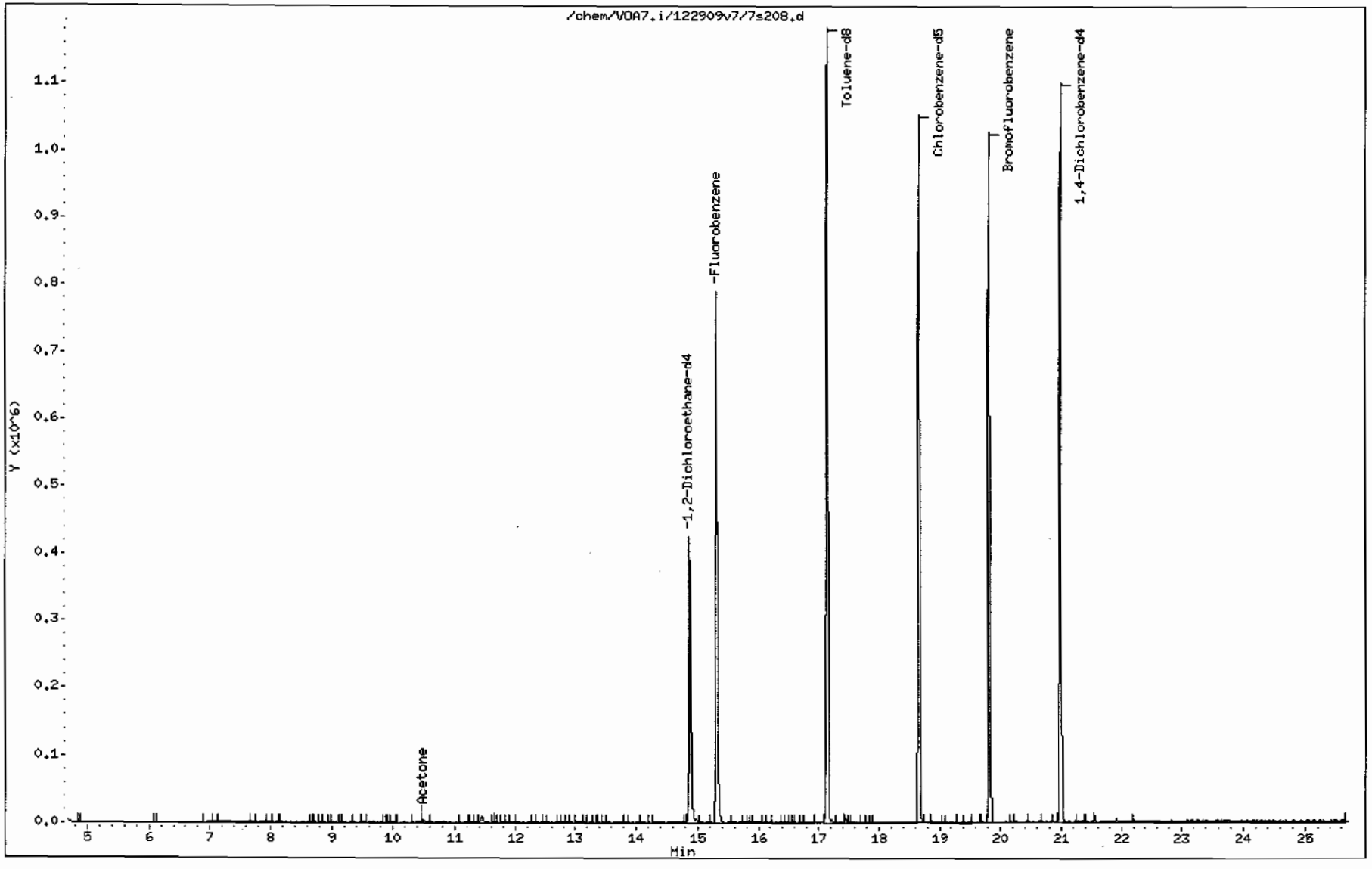

Data File: /chem/VOA7.i/122909v7/7s208.d

Date : 29-DEC-2009 17:37

Client ID: RE03-10-9876

Instrument: VOA7.i

Sample Info: |2434720041937425111VOAF111

Operator: AX01

Column phase: DB-624

Column diameter: 0.25

13 Acetone

Concentration: 1.8 ug/Kg

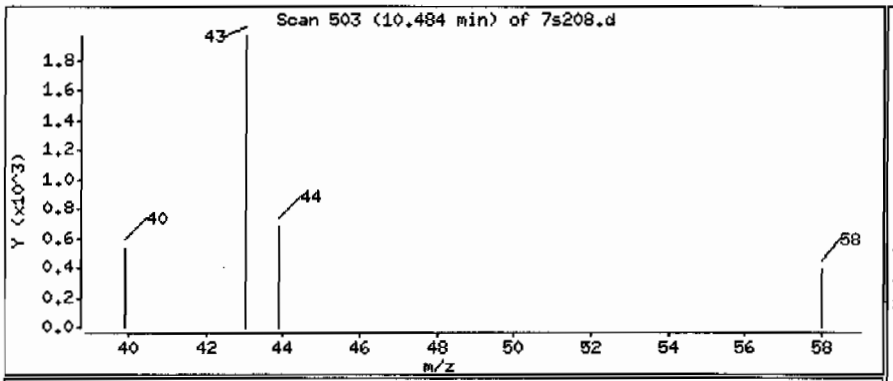

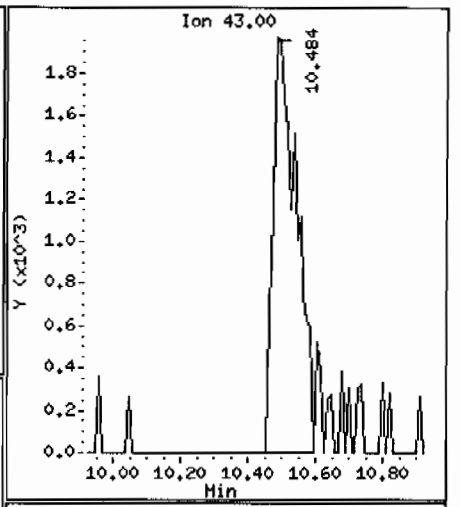

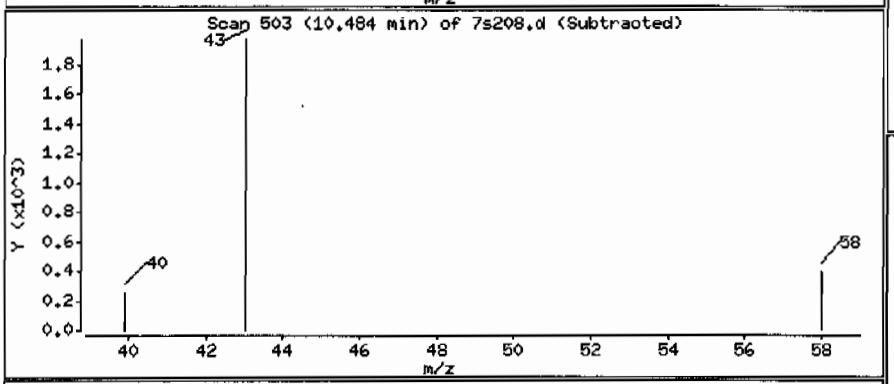

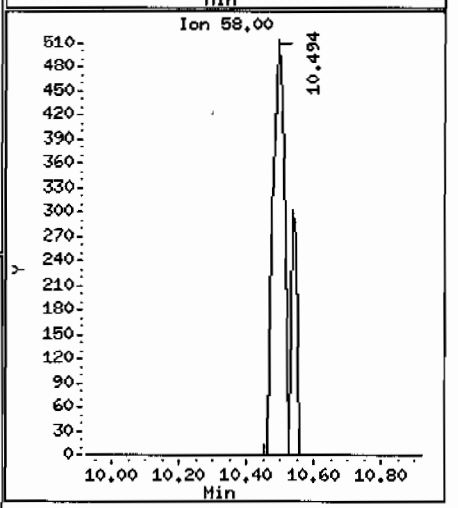

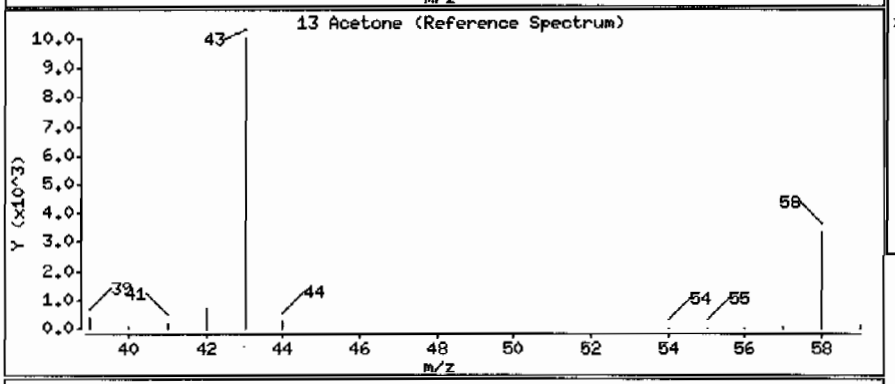

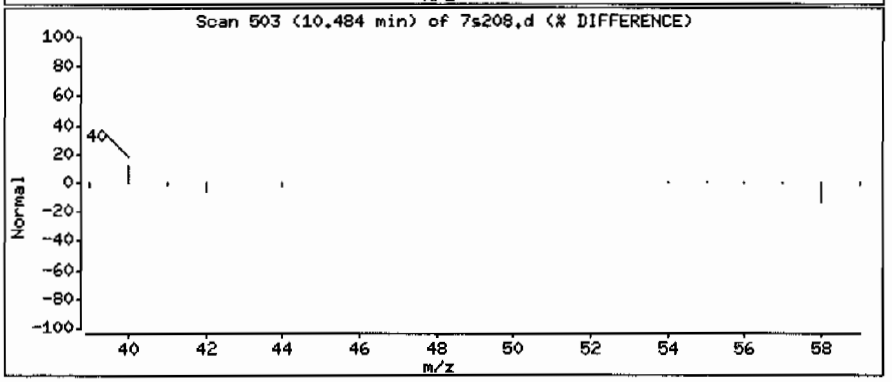

Standard Data

EPA 524.2/Low level SW846 8260B and Regular level 8260B and EPA 624
Calibration Standard Concentration Levels

	Level 1	Level 1a	Level 2	Level 3	Level 4 #	Level 5	Level 6	Level 7 !	Level 7a
Fluorobenzene (IS)									
1,2-Dichloroethane-d4(surr)		0.5	1	2	5	10	20	50	100
Dichlorodifluoromethane		0.5	1	2	5	10	20	50	100
Chloromethane		0.5	1	2	5	10	20	50	100
Vinyl chloride		0.5	1	2	5	10	20	50	100
Bromomethane		0.5	1	2	5	10	20	50	100
Chloroethane		0.5	1	2	5	10	20	50	100
Trichlorofluoromethane		0.5	1	2	5	10	20	50	100
1,1-Dichloroethene		0.5	1	2	5	10	20	50	100
Acetone	1	2.5	5	10	25	50	100	250	500
Iodomethane	1	2.5	5	10	25	50	100	250	500
Carbon disulfide	1	2.5	5	10	25	50	100	250	500
Methylene chloride		0.5	1	2	5	10	20	50	100
trans-1,2-Dichloroethene		0.5	1	2	5	10	20	50	100
1,1-Dichloroethane		0.5	1	2	5	10	20	50	100
Ethyl ether		0.5	1	2	5	10	20	50	100
Vinyl acetate	1	2.5	5	10	25	50	100	250	500
cis-1,2-Dichloroethene		0.5	1	2	5	10	20	50	100
1,2-Dichloroethene (total)		1	2	4	10	20	40	100	200
Cyclohexene		0.5	1	2	5	10	20	50	100
2-Chloroethylvinyl ether			5	10	25	50	100	250	500
2,2-Dichloropropane		0.5	1	2	5	10	20	50	100
2-Butanone	1	2.5	5	10	25	50	100	250	500
Bromochloromethane		0.5	1	2	5	10	20	50	100
Chloroform		0.5	1	2	5	10	20	50	100
1,1,1-Trichloroethane		0.5	1	2	5	10	20	50	100
1,1-Dichloropropene		0.5	1	2	5	10	20	50	100
Carbon tetrachloride		0.5	1	2	5	10	20	50	100
Benzene		0.5	1	2	5	10	20	50	100
1,2-Dichloroethane		0.5	1	2	5	10	20	50	100
Trichloroethene		0.5	1	2	5	10	20	50	100
1,2-Dichloropropane		0.5	1	2	5	10	20	50	100
Dibromomethane		0.5	1	2	5	10	20	50	100
Bromodichloromethane		0.5	1	2	5	10	20	50	100
cis-1,3-Dichloropropene		0.5	1	2	5	10	20	50	100
tert-Butylmethylether		0.5	1	2	5	10	20	50	100
Ethyl Ether			1	2	5	10	20	50	100
Acetonitrile			25	50	125	250	500	1250	2500
Methyl acetate			5	10	25	50	100	250	500
Cyclohexane			1	2	5	10	20	50	100
Methylcyclohexane			1	2	5	10	20	50	100
n-Butyl alcohol			50	100	250	500	1000	2500	5000
2-Nitropropane			5	10	25	50	100	250	500
Ethyl acetate			5	10	25	50	100	250	500
Acrolein			5	10	25	50	100	250	500
Trichlorotrifluoroethane			5	10	25	50	100	250	500
Allyl chloride			5	10	25	50	100	250	500
Acrylonitrile			5	10	25	50	100	250	500
1,4-Dioxane			50	100	250	500	1000	2500	5000
Isobutyl alcohol			50	100	250	500	1000	2500	5000
Methacrylonitrile			5	10	25	50	100	250	500
Propionitrile			5	10	25	50	100	250	500
Methyl methacrylate			5	10	25	50	100	250	500
Chlorotrifluoroethylene			5	10	25	50	100	250	500
2-Chloro-1,1,1-trifluoroethane			5	10	25	50	100	250	500

tert-Butyl alcohol			50	100	250	500	1000	2500	5000
Isopropyl ether			1	2	5	10	20	50	100
Ethyl tert-butyl ether			1	2	5	10	20	50	100
Isopropyl alcohol			50	100	250	500	1000	2500	5000
Methyl tert-amyl ether			1	2	5	10	20	50	100
1-Chlorohexane			1	2	5	10	20	50	100
2-Chloro-1,3-butadiene(chloroprene)			1	2	5	10	20	50	100
Chlorobenzene-d5 (IS)									
Toluene-d8 (surr)		0.5	1	2	5	10	20	50	100
4-Methyl-2-pentanone	1	2.5	5	10	25	50	100	250	500
Toluene		0.5	1	2	5	10	20	50	100
trans-1,3-Dichloropropene		0.5	1	2	5	10	20	50	100
1,1,2-Trichloroethane		0.5	1	2	5	10	20	50	100
Tetrachloroethene		0.5	1	2	5	10	20	50	100
1,3-Dichloropropane		0.5	1	2	5	10	20	50	100
2-Hexanone	1	2.5	5	10	25	50	20	250	500
Dibromochloromethane		0.5	1	2	5	10	20	50	100
1,2-Dibromoethane		0.5	1	2	5	10	20	50	100
Chlorobenzene		0.5	1	2	5	10	20	50	100
1,1,1,2-Tetrachloroethane		0.5	1	2	5	10	20	50	100
Ethylbenzene		0.5	1	2	5	10	20	50	100
m,p-Xylene		1	2	4	10	20	20	100	200
o-Xylene		0.5	1	2	5	10	20	50	100
Xylenes (total)		1.5	3	6	15	30	60	150	300
Stryene		0.5	1	2	5	10	20	50	100
Cyclohexanone			50	100	250	500	1000	2500	5000
Ethyl methacrylate			5	10	25	50	100	250	500
1,4-Dichlorobenzene-d4 (IS)									
Bromofluorobenzene (surr)		0.5	1	2	5	10	20	50	100
Bromoform		0.5	1	2	5	10	20	50	100
Isopropylbenzene		0.5	1	2	5	10	20	50	100
1,1,2,2-Tetrachloroethane		0.5	1	2	5	10	20	50	100
Bromobenzene		0.5	1	2	5	10	20	50	100
1,2,3-Trichloropropane		0.5	1	2	5	10	20	50	100
n-Propylbenzene		0.5	1	2	5	10	20	50	100
2-Chlorotoluene		0.5	1	2	5	10	20	50	100
1,3,5-Trimethylbenzene		0.5	1	2	5	10	20	50	100
4-Chlorotoluene		0.5	1	2	5	10	20	50	100
1,2,4-Trimethylbenzene		0.5	1	2	5	10	20	50	100
sec-Butylbenzene		0.5	1	2	5	10	20	50	100
1,3-Dichlorobenzene		0.5	1	2	5	10	20	50	100
tert-Butylbenzene		0.5	1	2	5	10	20	50	100
Isopropyltoluene		0.5	1	2	5	10	20	50	100
1,4-Dichlorobenzene		0.5	1	2	5	10	20	50	100
n-Butylbenzene		0.5	1	2	5	10	20	50	100
1,2-Dichlorobenzene		0.5	1	2	5	10	20	50	100
1,2-Dibromo-3-chloropropa		0.5	1	2	5	10	20	50	100
1,2,4-Trichlorobenzene		0.5	1	2	5	10	20	50	100
Hexachlorobutadiene		0.5	1	2	5	10	20	50	100
Naphthalene		0.5	1	2	5	10	20	50	100
1,2,3-Trichlorobenzene		0.5	1	2	5	10	20	50	100
cis-1,4-Dichloro-2-butene			5	10	25	50	100	250	500
trans-1,4-Dichloro-2-butene			5	10	25	50	100	250	500
Tetrahydrofuran			5	10	25	50	100	250	500
Pentachloroethane			5	10	25	50	100	250	500
Benzyl chloride			5	10	25	50	100	250	500
bis(2-Chloro-isopropyl)ether			5	10	25	50	100	250	500

Report Date: 30-Dec-2009 09:26

Calibration History

Method : /chem/VOA7.i/122909v7/VOA7-8260B-122409.m
Start Cal Date: 24-DEC-2009 11:46
End Cal Date : 24-DEC-2009 20:13

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 1.00000		
24-DEC-2009 16:50	ICALsubS	/chem/VOA7.i/122409v7/7r418.d
24-DEC-2009 11:46	ICALsubL+	/chem/VOA7.i/122409v7/7r409.d
Cal Level: 2 , Cal Amount: 2.00000		
24-DEC-2009 17:22	ICALsubS	/chem/VOA7.i/122409v7/7r419.d
24-DEC-2009 12:19	ICALsubL+	/chem/VOA7.i/122409v7/7r410.d
Cal Level: 3 , Cal Amount: 5.00000		
24-DEC-2009 17:55	ICALsubS	/chem/VOA7.i/122409v7/7r420.d
24-DEC-2009 12:53	ICALsubL+	/chem/VOA7.i/122409v7/7r411.d
Cal Level: 4 , Cal Amount: 10.00000		
24-DEC-2009 18:29	ICALsubS	/chem/VOA7.i/122409v7/7r421.d
24-DEC-2009 13:27	ICALsubL+	/chem/VOA7.i/122409v7/7r412.d
Cal Level: 5 , Cal Amount: 20.00000		
24-DEC-2009 19:04	ICALsubS	/chem/VOA7.i/122409v7/7r422.d
24-DEC-2009 14:01	ICALsubL+	/chem/VOA7.i/122409v7/7r413.d
Cal Level: 6 , Cal Amount: 50.00000		
24-DEC-2009 19:39	ICALsubS	/chem/VOA7.i/122409v7/7r423.d
24-DEC-2009 14:33	ICALsubL+	/chem/VOA7.i/122409v7/7r414.d
Cal Level: 7 , Cal Amount: 100.00000		
24-DEC-2009 20:13	ICALsubS	/chem/VOA7.i/122409v7/7r424.d
24-DEC-2009 15:07	ICALsubL+	/chem/VOA7.i/122409v7/7r415.d
Cal Level: 8 , Cal Amount: 200.00000		
24-DEC-2009 16:16	BENZENE+	/chem/VOA7.i/122409v7/7r417.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 6

| Ccal Level: 6 , Ccal Amount: 50.0 |

29-DEC-2009 14:44	CALsubL+	/chem/VOA7.i/122909v7/7s203.d
Ccal Level: 6 , Ccal Amount: 50.0		
29-DEC-2009 15:17	CALsubS+SS	/chem/VOA7.i/122909v7/7s204.d
Ccal Level: 6 , Ccal Amount: 50.0		
29-DEC-2009 14:10	CALsubL+	/chem/VOA7.i/122909v7/7s202.d

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 24-DEC-2009 11:46
End Cal Date : 24-DEC-2009 20:13
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/VOA7.i/122909v7/VOA7-8260B-122409.m
Cal Date : 30-Dec-2009 09:14 ale01592

Calibration File Names:
Level 1: /chem/VOA7.i/122409v7/7r418.d
Level 2: /chem/VOA7.i/122409v7/7r419.d
Level 3: /chem/VOA7.i/122409v7/7r420.d
Level 4: /chem/VOA7.i/122409v7/7r421.d
Level 5: /chem/VOA7.i/122409v7/7r422.d
Level 6: /chem/VOA7.i/122409v7/7r423.d
Level 7: /chem/VOA7.i/122409v7/7r424.d
Level 8: /chem/VOA7.i/122409v7/7r417.d

Compound	1 Level 1	2 Level 2	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	200 Level 8									
M 1 1,3-Dichloropropylene	0.45775	0.46313	0.47593	0.48212	0.47667	0.46312					
	0.43484	+++++					AVRG		0.46479		3.42160
M 2 Xylenes (total)	0.73793	0.66292	0.65337	0.65122	0.64144	0.57285					
	0.51399	+++++					AVRG		0.63339		11.25724
M 3 1,2-Dichloroethylene (total)	0.50444	0.48511	0.49603	0.49426	0.48123	0.45333					
	0.40936	+++++					AVRG		0.47482		6.98459
147 Chlorotrifluoroethylene	+++++	0.13915	0.15143	0.15345	0.17944	0.13368					
	0.15814	+++++					AVRG		0.15255		10.53763
148 2-Chloro-1,1,1-trifluoroethan	+++++	0.29048	0.29977	0.28842	0.29209	0.28326					
	0.27485	+++++					AVRG		0.28815		2.93108

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 24-DEC-2009 11:46
End Cal Date : 24-DEC-2009 20:13
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/VOA7.i/122909v7/VOA7-8260B-122409.m
Cal Date : 30-Dec-2009 09:14 ale01592

Compound	1 Level 1 100 Level 7	2 Level 2 200 Level 8	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
4 Dichlorodifluoromethane	3134	11252	32077	48360	97883	238813					
	+++++	+++++					LINR	-0.00340	0.22921		0.99840
5 Chloromethane	0.43377	0.50521	0.53501	0.47989	0.48248	0.47715					
	0.41449	+++++					AVRG		0.47543		8.56954
6 Vinyl chloride	0.32151	0.33682	0.32047	0.30666	0.31475	0.32693					
	0.28765	+++++					AVRG		0.31640		4.98821
7 Bromomethane	0.23202	0.23830	0.22636	0.21772	0.23021	0.23329					
	0.21015	+++++					AVRG		0.22687		4.30708
8 Chloroethane	0.22221	0.20569	0.21970	0.21203	0.21504	0.21899					
	0.20002	+++++					AVRG		0.21338		3.78680
9 Trichlorofluoromethane	0.42152	0.41092	0.43954	0.44283	0.44222	0.45522					
	0.40566	+++++					AVRG		0.43113		4.29780
10 Ethyl Ether	0.29291	0.28426	0.32573	0.30879	0.32035	0.32027					
	0.29593	+++++					AVRG		0.30689		5.23129
11 Acrolein	0.05533	0.05678	0.06888	0.07009	0.07231	0.06904					
	0.07549	+++++					AVRG		0.06685		11.55566
12 Trichlorotrifluoroethane	0.09833	0.11163	0.10529	0.10167	0.10155	0.09513					
	0.09130	+++++					AVRG		0.10070		6.62676

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 24-DEC-2009 11:46
End Cal Date : 24-DEC-2009 20:13
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/VOA7.i/122909v7/VOA7-8260B-122409.m
Cal Date : 30-Dec-2009 09:14 ale01592

Compound	1 Level 1 100 Level 7	2 Level 2 200 Level 8	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
13 Acetone	0.44698	0.38078	0.42086	0.40364	0.40436	0.42873					
	0.37433	+++++					AVRG		0.40852		6.33635
14 1,1-Dichloroethylene	0.22239	0.20291	0.19506	0.21166	0.20738	0.21138					
	0.19321	+++++					AVRG		0.20628		4.94295
15 Isopropyl Alcohol	0.03219	0.03427	0.03650	0.03576	0.03829	0.03659					
	0.03948	+++++					AVRG		0.03615		6.71287
16 Iodomethane	0.40528	0.43566	0.42817	0.42739	0.41972	0.39474					
	0.34116	+++++					AVRG		0.40745		7.97429
17 Acetonitrile	0.05766	0.05763	0.06582	0.05886	0.05827	0.07551					
	0.05325	+++++					AVRG		0.06100		12.12865
18 Methyl acetate	0.34802	0.34199	0.37903	0.35783	0.34036	0.35734					
	0.30716	+++++					AVRG		0.34739		6.33533
19 Carbon disulfide	0.64241	0.73290	0.70621	0.71341	0.68359	0.63179					
	0.53239	+++++					AVRG		0.66324		10.33189
20 Allyl chloride	0.56979	0.57597	0.58536	0.56515	0.55203	0.51676					
	0.46849	+++++					AVRG		0.54765		7.55105
21 tert-Butyl Alcohol	0.04712	0.05414	0.05341	0.05156	0.05409	0.04882					
	0.05232	+++++					AVRG		0.05164		5.25832

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 24-DEC-2009 11:46
End Cal Date : 24-DEC-2009 20:13
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/VOA7.i/122909v7/VOA7-8260B-122409.m
Cal Date : 30-Dec-2009 09:14 ale01592

Compound	1 Level 1	2 Level 2	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	200 Level 8									
22 Methylene chloride	+++++	11990	24910	46107	85496	185892					
	362051	+++++					LINR	-0.06243	0.16019		0.99754
23 Acrylonitrile	0.12972	0.14484	0.16080	0.15106	0.15472	0.14743					
	0.15307	+++++					AVRG		0.14880		6.62992
24 tert-Butyl methyl ether	0.98865	0.91638	0.92740	0.93103	0.86643	0.85844					
	0.79355	+++++					AVRG		0.89741		7.04453
25 trans-1,2-Dichloroethylene	0.46168	0.42343	0.46682	0.45884	0.44378	0.42302					
	0.37909	+++++					AVRG		0.43667		7.09185
26 Vinyl acetate	0.93153	0.92527	0.99184	0.94527	0.87813	0.81360					
	0.63126	+++++					AVRG		0.87384		13.81903
27 Isopropyl ether	+++++	1.51944	1.52858	1.49753	1.58628	1.47528					
	1.43718	+++++					AVRG		1.50738		3.36646
28 1,1-Dichloroethane	0.58226	0.54322	0.55623	0.55660	0.54837	0.53047					
	0.48628	+++++					AVRG		0.54335		5.47156
29 2-Chloro-1,3-butadiene	0.52486	0.49874	0.55274	0.57279	0.56062	0.55283					
	0.54386	+++++					AVRG		0.54378		4.55098
30 Ethyl tert-butyl ether	+++++	1.04193	1.05559	1.05625	1.12368	1.09492					
	1.10994	+++++					AVRG		1.08039		3.10736

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 24-DEC-2009 11:46
End Cal Date : 24-DEC-2009 20:13
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/VOA7.i/122909v7/VOA7-8260B-122409.m
Cal Date : 30-Dec-2009 09:14 ale01592

Compound	1 Level 1	2 Level 2	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	200 Level 8									
31 2-Butanone	0.42676	0.38327	0.43699	0.39114	0.41170	0.43183					
	0.35790	+++++					AVRG		0.40565		7.21570
32 Ethyl acetate	0.45915	0.46902	0.49208	0.46445	0.45880	0.41085					
	0.39756	+++++					AVRG		0.45027		7.46803
33 cis-1,2-Dichloroethylene	0.54720	0.54679	0.52525	0.52968	0.51867	0.48365					
	0.43963	+++++					AVRG		0.51298		7.55709
34 2,2-Dichloropropane	0.30317	0.29587	0.30270	0.29316	0.29697	0.28880					
	0.28438	+++++					AVRG		0.29501		2.33709
35 Propionitrile	0.05082	0.05857	0.06288	0.05901	0.06127	0.05789					
	0.06000	+++++					AVRG		0.05863		6.55508
36 Methacrylonitrile	0.26257	0.27331	0.29804	0.27957	0.28054	0.25396					
	0.24868	+++++					AVRG		0.27095		6.32135
37 Bromochloromethane	0.43295	0.43994	0.45716	0.44575	0.43473	0.41669					
	0.38095	+++++					AVRG		0.42974		5.77671
38 Chloroform	0.59269	0.54424	0.57751	0.56411	0.55580	0.53132					
	0.48555	+++++					AVRG		0.55018		6.36067
39 Tetrahydrofuran	0.30576	0.32291	0.33192	0.31558	0.31054	0.27876					
	0.28827	+++++					AVRG		0.30768		6.09075

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 24-DEC-2009 11:46
End Cal Date : 24-DEC-2009 20:13
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/VOA7.i/122909v7/VOA7-8260B-122409.m
Cal Date : 30-Dec-2009 09:14 ale01592

Compound	1 Level 1	2 Level 2	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	200 Level 8									
41 1,1,1-Trichloroethane	0.47795	0.44272	0.44235	0.45927	0.45598	0.43963					
	0.40767	+++++					AVRG		0.44651		4.86300
42 Isobutyl alcohol	0.01567	0.01762	0.01990	0.01918	0.01948	0.01778					
	0.01793	+++++					AVRG		0.01822		7.91365
43 Cyclohexane	0.56784	0.60502	0.54126	0.57114	0.54875	0.52184					
	0.46232	++++-					AVRG		0.54545		8.26932
44 1,1-Dichloropropene	0.34671	0.36722	0.35298	0.34609	0.33533	0.32146					
	0.29392	+++++					AVRG		0.33767		7.09328
45 Carbon tetrachloride	0.40106	0.33799	0.36962	0.37964	0.37880	0.35817					
	0.33283	+++++					AVRG		0.36544		6.64308
47 1,2-Dichloroethane	0.68272	0.62821	0.64217	0.64717	0.61078	0.59257					
	0.53997	+++++					AVRG		0.62051		7.34739
48 Benzene	1.11423	1.01095	0.99873	0.98630	0.94815	0.89496					
	0.80344	+++++					AVRG		0.96525		10.12107
49 Methyl tert-amyl ether	+++++	0.71032	0.73919	0.72409	0.78109	0.75479					
	0.76995	+++++					AVRG		0.74657		3.63352
50 Cyclohexene	0.42835	0.44441	0.45615	0.45040	0.43613	0.42003					
	0.38634	+++++					AVRG		0.43169		5.46061

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 24-DEC-2009 11:46
End Cal Date : 24-DEC-2009 20:13
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/VOA7.i/122909v7/VOA7-8260B-122409.m
Cal Date : 30-Dec-2009 09:14 ale01592

Compound	1 Level 1 100 Level 7	2 Level 2 200 Level 8	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
52 n-Butyl alcohol	0.01193	0.01142	0.01337	0.01280	0.01045	0.01455					
	0.01252	0.01341					AVRG		0.01255		10.23704
53 Trichloroethylene	0.33095	0.30870	0.27537	0.27474	0.27221	0.26390					
	0.24149	+++++					AVRG		0.28105		10.53900
54 Methyl methacrylate	0.17748	0.17612	0.19855	0.19202	0.19100	0.17462					
	0.17092	+++++					AVRG		0.18296		5.82270
55 Methylcyclohexane	0.41439	0.41943	0.38958	0.40215	0.36328	0.35199					
	0.31738	+++++					AVRG		0.37974		9.79714
56 1,2-Dichloropropane	0.34726	0.29458	0.30456	0.30611	0.29463	0.27150					
	0.24667	+++++					AVRG		0.29505		10.56824
57 1,4-Dioxane	0.00304	0.00333	0.00330	0.00320	0.00320	0.00320					
	0.00337	+++++					AVRG		0.00323		3.45742
58 Dibromomethane	0.19344	0.22059	0.20233	0.20314	0.19848	0.19425					
	0.18336	+++++					AVRG		0.19937		5.76178
59 Bromodichloromethane	0.42527	0.41846	0.43613	0.46056	0.45295	0.44413					
	0.41309	+++++					AVRG		0.43580		4.08745
60 2-Nitropropane	0.12624	0.13327	0.15058	0.15713	0.16624	0.16963					
	0.18024	+++++					AVRG		0.15476		12.65229

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 24-DEC-2009 11:46
End Cal Date : 24-DEC-2009 20:13
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/VOA7.i/122909v7/VOA7-8260B-122409.m
Cal Date : 30-Dec-2009 09:14 ale01592

Compound	1 Level 1	2 Level 2	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	200 Level 8									
61 2-Chloroethylvinyl ether	0.12513	0.12323	0.13854	0.13018	0.12756	0.13259					
	0.11885	+++++					AVRG		0.12801		5.06118
62 cis-1,3-Dichloropropylene	0.47650	0.47680	0.47926	0.48770	0.48223	0.45895					
	0.42958	+++++					AVRG		0.47015		4.24760
63 4-Methyl-2-pentanone	0.21716	0.20973	0.23845	0.22732	0.22538	0.23530					
	0.20286	+++++					AVRG		0.22232		5.88521
65 Toluene	0.95496	0.87677	0.83860	0.85951	0.83214	0.77818					
	0.71526	+++++					AVRG		0.83649		9.03986
66 Ethyl methacrylate	0.47384	0.47377	0.51225	0.50106	0.50003	0.43037					
	0.39652	+++++					AVRG		0.46969		8.96988
67 trans-1,3-Dichloropropylene	0.59133	0.60051	0.62298	0.63917	0.62966	0.61685					
	0.58729	+++++					AVRG		0.61254		3.23915
68 1,1,2-Trichloroethane	0.30771	0.27382	0.31743	0.29563	0.29250	0.28378					
	0.26035	+++++					AVRG		0.29017		6.72288
69 2-Hexanone	0.81217	0.72808	0.79455	0.72316	0.71567	0.70684					
	0.55934	+++++					AVRG		0.71997		11.35931
70 1,3-Dichloropropane	0.67737	0.63334	0.63537	0.62972	0.57160	0.53569					
	0.48139	+++++					AVRG		0.59492		11.49553

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 24-DEC-2009 11:46
End Cal Date : 24-DEC-2009 20:13
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/VOA7.i/122909v7/VOA7-8260B-122409.m
Cal Date : 30-Dec-2009 09:14 ale01592

Compound	1 Level 1	2 Level 2	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	200 Level 8									
71 Tetrachloroethylene	0.31246	0.29724	0.27718	0.27025	0.24830	0.23145					
	0.19955	+++++					AVRG		0.26235		14.84968
72 Dibromochloromethane	0.41809	0.35964	0.40816	0.41306	0.40972	0.41718					
	0.40349	+++++					AVRG		0.40419		5.02219
73 1,2-Dibromoethane	0.38992	0.34422	0.38844	0.39137	0.38250	0.38004					
	0.35531	+++++					AVRG		0.37597		4.95382
74 1-Chlorohexane	0.37424	0.35434	0.37809	0.38278	0.37160	0.35454					
	0.35461	+++++					AVRG		0.36717		3.36225
76 Chlorobenzene	1.05019	1.02327	0.91226	0.97677	0.93415	0.87833					
	0.81295	+++++					AVRG		0.94113		8.80129
77 1,1,1,2-Tetrachloroethane	0.47858	0.37458	0.37246	0.38566	0.38095	0.37422					
	0.35366	+++++					AVRG		0.38859		10.53071
78 Ethylbenzene	1.94028	1.78610	1.77374	1.76129	1.66184	1.51280					
	1.32471	+++++					AVRG		1.68011		12.12317
79 m,p-Xylenes	0.69748	0.65327	0.65818	0.64195	0.63743	0.56148					
	0.50443	+++++					AVRG		0.62203		10.60413
80 o-Xylene	0.81884	0.68222	0.64375	0.66977	0.64945	0.59561					
	0.53311	+++++					AVRG		0.65611		13.39413

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 24-DEC-2009 11:46
End Cal Date : 24-DEC-2009 20:13
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/VOA7.i/122909v7/VOA7-8260B-122409.m
Cal Date : 30-Dec-2009 09:14 ale01592

Compound	1 Level 1	2 Level 2	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	200 Level 8									
81 Styrene	1.16385	1.05366	1.09380	1.12491	1.09497	1.02699					
	0.90357	+++++					AVRG		1.06597		7.91533
82 Bromoform	0.43801	0.44270	0.52343	0.52254	0.56933	0.55593					
	0.54454	+++++					AVRG		0.51378		10.29039
83 Isopropylbenzene	3.29656	2.91529	2.85961	2.91548	2.88364	2.56222					
	2.19683	+++++					AVRG		2.80423		12.21491
84 cis-1,4-Dichloro-2-butene	0.36149	0.38853	0.41813	0.41581	0.41029	0.38321					
	0.38020	+++++					AVRG		0.39395		5.40165
85 Cyclohexanone	0.05334	0.06240	0.06933	0.06933	0.07623	0.07106					
	+++++	+++++					AVRG		0.06695		11.95229
87 1,1,2,2-Tetrachloroethane	0.88868	0.78443	0.91070	0.84853	0.84917	0.82442					
	0.74005	+++++					AVRG		0.83514		7.03007
88 trans-1,4-Dichloro-2-butene	0.31488	0.35069	0.38701	0.38682	0.37399	0.35188					
	0.35428	+++++					AVRG		0.35993		7.05169
89 1,2,3-Trichloropropane	0.26409	0.20308	0.26783	0.22057	0.25671	0.24614					
	0.22674	+++++					AVRG		0.24074		10.15328
90 Bromobenzene	0.96027	0.87014	0.90699	0.81046	0.82899	0.74505					
	0.66923	+++++					AVRG		0.82730		11.87452

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 24-DEC-2009 11:46
End Cal Date : 24-DEC-2009 20:13
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/VOA7.i/122909v7/VOA7-8260B-122409.m
Cal Date : 30-Dec-2009 09:14 ale01592

Compound	1 Level 1 100 Level 7	2 Level 2 200 Level 8	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
91 n-Propylbenzene	4.09160	3.73540	3.51549	3.52842	3.46017	3.06405					
	2.59109	+++++					AVRG		3.42660		14.02878
92 1,3,5-Trimethylbenzene	2.82638	2.62977	2.46107	2.59326	2.57003	2.24495					
	1.93759	+++++					AVRG		2.46615		11.84304
93 2-Chlorotoluene	3.00265	2.74397	2.69532	2.59687	2.49874	2.23812					
	1.93334	+++++					AVRG		2.52986		13.91126
94 4-Chlorotoluene	2.79381	2.49535	2.44988	2.43452	2.39288	2.17809					
	1.95960	+++++					AVRG		2.38630		10.95160
95 tert-Butylbenzene	2.55371	2.42935	2.40951	2.32594	2.31624	2.13832					
	1.87532	+++++					AVRG		2.29263		9.75564
96 1,2,4-Trimethylbenzene	2.96568	2.77051	2.79219	2.71711	2.68660	2.40823					
	2.12607	+++++					AVRG		2.63806		10.63414
97 Pentachloroethane	0.32969	0.25091	0.33375	0.30276	0.32559	0.26611					
	0.24053	+++++					AVRG		0.29276		13.52802
98 sec-Butylbenzene	3.33670	3.29984	3.21555	3.20403	3.14405	2.85149					
	2.45026	+++++					AVRG		3.07170		10.29822
99 4-Isopropyltoluene	2.72630	2.67285	2.56328	2.56180	2.50126	2.31814					
	2.04722	+++++					AVRG		2.48441		9.37214

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 24-DEC-2009 11:46
End Cal Date : 24-DEC-2009 20:13
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/VOA7.i/122909v7/VOA7-8260B-122409.m
Cal Date : 30-Dec-2009 09:14 ale01592

Compound	1 Level 1	2 Level 2	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	200 Level 8									
100 1,3-Dichlorobenzene	1.73897	1.53629	1.49771	1.49444	1.44754	1.30088					
	1.17875	+++++					AVRG		1.45637		12.24243
102 1,4-Dichlorobenzene	1.76062	1.47145	1.46266	1.44346	1.39209	1.30069					
	1.18122	+++++					AVRG		1.43031		12.51727
103 Benzyl chloride	1.11041	1.21164	1.31726	1.29311	1.29208	1.15577					
	1.05074	+++++					AVRG		1.20443		8.51834
104 n-Butylbenzene	2.92881	2.64758	2.58386	2.62908	2.65225	2.38265					
	2.08801	+++++					AVRG		2.55889		10.23760
105 1,2-Dichlorobenzene	1.58425	1.41637	1.45343	1.45871	1.43570	1.32627					
	1.19096	+++++					AVRG		1.40938		8.70487
106 bis(2-Chloroisopropyl)ether	0.69213	0.69606	0.71641	0.64060	0.63743	0.57531					
	0.57535	+++++					AVRG		0.64761		8.84006
107 1,2-Dibromo-3-chloropropane	0.20558	0.14279	0.19851	0.17135	0.18824	0.21033					
	0.19971	+++++					AVRG		0.18807		12.61406
108 1,2,4-Trichlorobenzene	1.21517	1.11166	1.05341	1.09227	1.02742	0.99507					
	0.92523	+++++					AVRG		1.06003		8.72063
109 Hexachlorobutadiene	0.75521	0.60478	0.63213	0.62622	0.60825	0.57857					
	0.53064	+++++					AVRG		0.61940		11.13371

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 24-DEC-2009 11:46
End Cal Date : 24-DEC-2009 20:13
Quant Method : ISTD
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Integrator : HP RTE
Method file : /chem/VOA7.i/122909v7/VOA7-8260B-122409.m
Cal Date : 30-Dec-2009 09:14 ale01592

Compound	1 Level 1	2 Level 2	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	200 Level 8									
110 Naphthalene	2.36774	1.94361	2.18232	2.16788	2.05689	2.13236					
	1.96745	+++++					AVRG		2.11689		6.84579
111 1,2,3-Trichlorobenzene	1.03401	1.01466	0.95956	0.99263	0.92684	0.92105					
	0.84163	+++++					AVRG		0.95577		6.89162
$ 46 1,2-Dichloroethane-d4	0.51707	0.51620	0.52473	0.52964	0.51956	0.52639					
	0.50341	+++++					AVRG		0.51957		1.67279
$ 64 Toluene-d8	1.46914	1.47830	1.44936	1.48719	1.44138	1.48126					
	1.43460	+++++					AVRG		1.46303		1.43666
$ 86 Bromofluorobenzene	1.12431	1.14153	1.17143	1.14495	1.15302	1.15212					
	1.11269	+++++					AVRG		1.14286		1.70037

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 24-DEC-2009 11:46
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Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/VOA7.i/122909v7/VOA7-8260B-122409.m
Cal Date : 30-Dec-2009 09:14 ale01592

Curve	Formula	Units
Averaged	Amt = Rsp/ml	Response
Linear	Amt = b + Rsp/ml	Response

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA7.i Injection Date: 24-DEC-2009 22:31
Lab File ID: 7r428.d Init. Cal. Date(s): 24-DEC-2009 24-DEC-2009
Analysis Type: WATER Init. Cal. Times: 11:46 20:13
Lab Sample ID: W7VM091224-23 Quant Type: ISTD
Method: /chem/VOA7.i/122409v7/VOA7-8260B-122409.m

COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
147 Chlorotrifluoroethylene	0.15255	0.14172	0.14172	0.010	-7.09618	30.00000	Averaged
148 2-Chloro-1,1,1-trifluoroeth	0.28815	0.27272	0.27272	0.010	-5.35423	30.00000	Averaged
11 Acrolein	0.06685	0.05893	0.05893	0.001	-11.84031	30.00000	Averaged
12 Trichlorotrifluoroethane	0.10070	0.09328	0.09328	0.010	-7.36473	30.00000	Averaged
15 Isopropyl Alcohol	0.03615	0.03755	0.03755	0.010	3.85656	40.00000	Averaged
20 Allyl chloride	0.54765	0.46234	0.46234	0.010	-15.57715	30.00000	Averaged
21 tert-Butyl Alcohol	0.05164	0.04965	0.04965	0.001	-3.85486	40.00000	Averaged
23 Acrylonitrile	0.14880	0.12604	0.12604	0.010	-15.29574	30.00000	Averaged
27 Isopropyl ether	1.50738	1.38196	1.38196	0.010	-8.32037	30.00000	Averaged
29 2-Chloro-1,3-butadiene	0.54378	0.51827	0.51827	0.010	-4.69118	30.00000	Averaged
30 Ethyl tert-butyl ether	1.08039	1.03096	1.03096	0.010	-4.57493	30.00000	Averaged
35 Propionitrile	0.05863	0.04866	0.04866	0.010	-17.01443	30.00000	Averaged
32 Ethyl acetate	0.45027	0.34482	0.34482	0.010	-23.41909	40.00000	Averaged
36 Methacrylonitrile	0.27095	0.21846	0.21846	0.010	-19.37326	30.00000	Averaged
39 Tetrahydrofuran	0.30768	0.24151	0.24151	0.010	-21.50365	30.00000	Averaged
42 Isobutyl alcohol	0.01822	0.01510	0.01510	0.005	-17.12505	40.00000	Averaged
49 Methyl tert-amyl ether	0.74657	0.71745	0.71745	0.010	-3.90112	30.00000	Averaged
54 Methyl methacrylate	0.18296	0.14859	0.14859	0.010	-18.78614	30.00000	Averaged
66 Ethyl methacrylate	0.46969	0.38041	0.38041	0.010	-19.00915	30.00000	Averaged
74 1-Chlorohexane	0.36717	0.34060	0.34060	0.010	-7.23597	30.00000	Averaged
57 1,4-Dioxane	0.00323	0.00255	0.00255	0.001	-21.09913	40.00000	Averaged
60 2-Nitropropane	0.15476	0.14524	0.14524	0.010	-6.15477	30.00000	Averaged
84 cis-1,4-Dichloro-2-butene	0.39395	0.35055	0.35055	0.010	-11.01710	30.00000	Averaged
85 Cyclohexanone	0.06695	0.03525	0.03525	0.010	-47.34303	40.00000	Averaged <-
88 trans-1,4-Dichloro-2-butene	0.35993	0.32033	0.32033	0.010	-11.00256	30.00000	Averaged
97 Pentachloroethane	0.29276	0.26781	0.26781	0.010	-8.52483	30.00000	Averaged
103 Benzyl chloride	1.20443	0.97930	0.97930	0.010	-18.69183	30.00000	Averaged
106 bis(2-Chloroisopropyl)ether	0.64761	0.49228	0.49228	0.010	-23.98605	30.00000	Averaged
$ 46 1,2-Dichloroethane-d4	0.51957	0.50757	0.50757	0.010	-2.31009	30.00000	Averaged
$ 64 Toluene-d8	1.46303	1.47330	1.47330	0.010	0.70218	30.00000	Averaged
$ 86 Bromofluorobenzene	1.14286	1.09179	1.09179	0.010	-4.46871	30.00000	Averaged

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA7.i
Lab File ID: 7r428.d
Analysis Type: WATER
Lab Sample ID: W7VM091224-23
Method: /chem/VOA7.i/122409v7/VOA7-8260B-122409.m

Injection Date: 24-DEC-2009 22:31
Init. Cal. Date(s): 24-DEC-2009 24-DEC-2009
Init. Cal. Times: 11:46 20:13
Quant Type: ISTD

Average %D / Drift Results.	
Calculated Average %D/Drift =	12.59659
Maximun Average %D/Drift =	20.00000
* Passed Average %D/Drift Test.	

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA7.i/122409v7/7r428.d
Lab Smp Id: W7VM091224-23 Client Smp ID: SICV
Inj Date : 24-DEC-2009 22:31
Operator : AXO1 Inst ID: VOA7.i
Smp Info : |W7VM091224-23|SICV|1|VOAF|1|
Misc Info : GEL 5uL N/A UVM091118-08C/UVM091209-08A
Comment :
Method : /chem/VOA7.i/122409v7/VOA7-8260B-122409.m
Meth Date : 30-Dec-2009 13:34 ale01592 Quant Type: ISTD
Cal Date : 24-DEC-2009 20:13 Cal File: 7r424.d
Als bottle: 22 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: CALsubS+SS.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (Uf/Vo) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	sample purged

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
147 Chlorotrifluoroethylene	116	5.029	5.029	(0.328)	455129	150.000	139
148 2-Chloro-1,1,1-trifluoroethane	118	6.618	6.618	(0.432)	875797	150.000	142
11 Acrolein	56	10.027	10.027	(0.655)	315415	250.000	220
12 Trichlorotrifluoroethane	85	10.373	10.373	(0.677)	499276	250.000	232
15 Isopropyl Alcohol	45	10.789	10.789	(0.704)	2009565	2500.00	2600
20 Allyl chloride	41	11.185	11.185	(0.730)	2474574	250.000	211
21 tert-Butyl Alcohol	59	11.672	11.672	(0.762)	2657174	2500.00	2400
23 Acrylonitrile	53	11.936	11.936	(0.779)	674623	250.000	212
27 Isopropyl ether	45	12.911	12.911	(0.843)	1479334	50.0000	45.8
29 2-Chloro-1,3-butadiene	53	12.961	12.961	(0.846)	554783	50.0000	47.6
30 Ethyl tert-butyl ether	59	13.489	13.489	(0.881)	1103598	50.0000	47.7
35 Propionitrile	54	13.814	13.814	(0.902)	260427	250.000	207
32 Ethyl acetate	43	13.804	13.804	(0.901)	1845586	250.000	191
36 Methacrylonitrile	41	14.048	14.048	(0.917)	1169255	250.000	202
39 Tetrahydrofuran	42	14.159	14.159	(0.675)	603853	250.000	196

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
42 Isobutyl alcohol	41	14.748	14.748	(0.963)	808361	2500.00	2070
49 Methyl tert-amyl ether	73	15.083	15.083	(0.985)	767998	50.0000	48.0
54 Methyl methacrylate	69	16.078	16.078	(1.050)	795280	250.000	203
66 Ethyl methacrylate	69	17.418	17.418	(0.933)	1522663	250.000	202
74 1-Chlorohexane	55	18.575	18.575	(1.213)	364602	50.0000	46.4
57 1,4-Dioxane	88	16.159	16.159	(1.055)	136513	2500.00	1970
60 2-Nitropropane	43	16.555	16.555	(1.081)	777344	250.000	235
84 cis-1,4-Dichloro-2-butene	53	19.662	19.662	(0.937)	876473	250.000	222
85 Cyclohexanone	55	19.773	19.773	(1.059)	705555	1250.00	658
88 trans-1,4-Dichloro-2-butene	53	19.936	19.936	(0.950)	800921	250.000	222
97 Pentachloroethane	167	20.606	20.606	(0.982)	669589	250.000	229
103 Benzyl chloride	91	21.123	21.123	(1.006)	2448525	250.000	203
106 bis(2-Chloroisopropyl)ether	45	21.509	21.509	(1.025)	1230831	250.000	190
* 51 Fluorobenzene	96	15.317	15.317	(1.000)	1070458	50.0000	
* 75 Chlorobenzene-d5	117	18.667	18.667	(1.000)	800542	50.0000	
* 101 1,4-Dichlorobenzene-d4	152	20.991	20.991	(1.000)	500056	50.0000	
$ 46 1,2-Dichloroethane-d4	65	14.880	14.880	(0.972)	543332	50.0000	48.8
$ 64 Toluene-d8	98	17.144	17.144	(0.918)	1179442	50.0000	50.4
$ 86 Bromofluorobenzene	95	19.814	19.814	(0.944)	545957	50.0000	47.8

Data File: /chem/VOA7.i/122409v7/7r428.d
Date : 24-DEC-2009 22:31
Client ID: SICV
Sample Info: IW7VH091224-23|SICV|1|VOAF|1|
Purge Volume: 5.0
Column phase: DB-624

Instrument: VOA7.i
Operator: AX01
Column diameter: 0.25

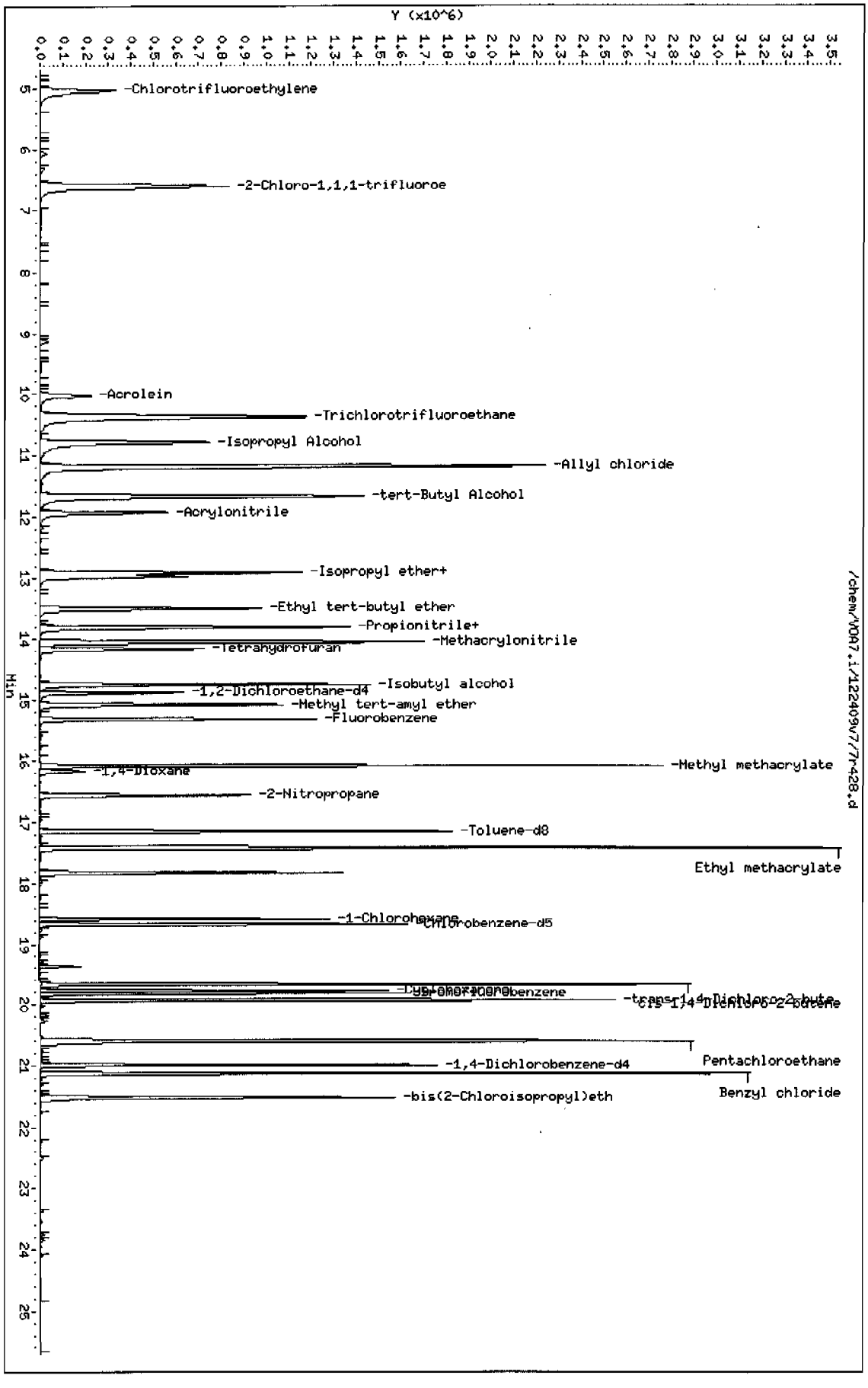

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GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA7.i Injection Date: 27-DEC-2009 23:55
Lab File ID: 7r704.d Init. Cal. Date(s): 24-DEC-2009 24-DEC-2009
Analysis Type: WATER Init. Cal. Times: 11:46 20:13
Lab Sample ID: W7VM091227-04 Quant Type: ISTD
Method: /chem/VOA7.i/122409v7/VOA7-8260B-122409.m

	COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
M	2 Xylenes (total)	0.63339	0.63783	0.63783	0.050	0.70144	30.00000	Averaged	
M	3 1,2-Dichloroethylene (total	0.47482	0.51451	0.51451	0.050	8.35843	30.00000	Averaged	
M	1 1,3-Dichloropropylene	0.46479	0.50493	0.50493	0.050	8.63620	30.00000	Averaged	
	4 Dichlorodifluoromethane	62.15231	50.00000	0.28570	0.050	24.30462	30.00000	Linear	
	5 Chloromethane	0.47543	0.50747	0.50747	0.100	6.74015	30.00000	Averaged	spcc
	6 Vinyl chloride	0.31640	0.37762	0.37762	0.050	19.34816	20.00000	Averaged	ccc
	7 Bromomethane	0.22687	0.27431	0.27431	0.050	20.91287	30.00000	Averaged	
	8 Chloroethane	0.21338	0.24946	0.24946	0.010	16.90643	30.00000	Averaged	
	9 Trichlorofluoromethane	0.43113	0.56189	0.56189	0.050	30.32832	30.00000	Averaged	<-
	10 Ethyl Ether	0.30689	0.32660	0.32660	0.001	6.42130	30.00000	Averaged	
	13 Acetone	0.40852	0.38652	0.38652	0.050	-5.38655	40.00000	Averaged	
	17 Acetonitrile	0.06100	0.07843	0.07843	0.010	28.57682	30.00000	Averaged	
	14 1,1-Dichloroethylene	0.20628	0.24628	0.24628	0.050	19.38950	20.00000	Averaged	ccc
	18 Methyl acetate	0.34739	0.36252	0.36252	0.010	4.35606	40.00000	Averaged	
	16 Iodomethane	0.40745	0.43040	0.43040	0.050	5.63419	30.00000	Averaged	
	22 Methylene chloride	57.29030	50.00000	0.19354	0.050	14.58061	30.00000	Linear	
	19 Carbon disulfide	0.66324	0.79375	0.79375	0.050	19.67757	30.00000	Averaged	
	24 tert-Butyl methyl ether	0.89741	0.93325	0.93325	0.050	3.99305	30.00000	Averaged	
	25 trans-1,2-Dichloroethylene	0.43667	0.48956	0.48956	0.050	12.11439	30.00000	Averaged	
	26 Vinyl acetate	0.87384	0.94267	0.94267	0.010	7.87699	40.00000	Averaged	
	28 1,1-Dichloroethane	0.54335	0.59778	0.59778	0.100	10.01848	30.00000	Averaged	spcc
	31 2-Butanone	0.40565	0.37116	0.37116	0.030	-8.50315	40.00000	Averaged	
	33 cis-1,2-Dichloroethylene	0.51298	0.53946	0.53946	0.050	5.16124	30.00000	Averaged	
	34 2,2-Dichloropropane	0.29501	0.34317	0.34317	0.050	16.32503	30.00000	Averaged	
	38 Chloroform	0.55018	0.59087	0.59087	0.010	7.39696	20.00000	Averaged	ccc
	37 Bromochloromethane	0.42974	0.44273	0.44273	0.010	3.02241	30.00000	Averaged	
	41 1,1,1-Trichloroethane	0.44651	0.52565	0.52565	0.010	17.72487	30.00000	Averaged	
	43 Cyclohexane	0.54545	0.61624	0.61624	0.010	12.97840	30.00000	Averaged	
	44 1,1-Dichloropropene	0.33767	0.39511	0.39511	0.010	17.00865	30.00000	Averaged	
	52 n-Butyl alcohol	0.01255	0.01508	0.01508	0.001	20.14155	40.00000	Averaged	
	45 Carbon tetrachloride	0.36544	0.44448	0.44448	0.010	21.62678	30.00000	Averaged	
$	46 1,2-Dichloroethane-d4	0.51957	0.53775	0.53775	0.010	3.49792	30.00000	Averaged	
	47 1,2-Dichloroethane	0.62051	0.64445	0.64445	0.010	3.85712	30.00000	Averaged	
	48 Benzene	0.96525	0.99445	0.99445	0.010	3.02472	30.00000	Averaged	
	50 Cyclohexene	0.43169	0.50911	0.50911	0.010	17.93488	30.00000	Averaged	

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA7.i
Lab File ID: 7r704.d
Analysis Type: WATER
Lab Sample ID: W7VM091227-04
Method: /chem/VOA7.i/122409v7/VOA7-8260B-122409.m

Injection Date: 27-DEC-2009 23:55
Init. Cal. Date(s): 24-DEC-2009 24-DEC-2009
Init. Cal. Times: 11:46 20:13
Quant Type: ISTD

	COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
	53 Trichloroethylene	0.28105	0.30413	0.30413	0.010	8.21161	30.00000	Averaged	
	56 1,2-Dichloropropane	0.29505	0.29154	0.29154	0.010	-1.18681	20.00000	Averaged	ccc
	55 Methylcyclohexane	0.37974	0.45121	0.45121	0.010	18.81919	30.00000	Averaged	
	59 Bromodichloromethane	0.43580	0.48021	0.48021	0.010	10.19027	30.00000	Averaged	
	58 Dibromomethane	0.19937	0.20330	0.20330	0.010	1.97001	30.00000	Averaged	
	61 2-Chloroethylvinyl ether	0.12801	0.13449	0.13449	0.010	5.06065	30.00000	Averaged	
	63 4-Methyl-2-pentanone	0.22232	0.22944	0.22944	0.010	3.20637	40.00000	Averaged	
	62 cis-1,3-Dichloropropylene	0.47015	0.49489	0.49489	0.010	5.26246	30.00000	Averaged	
$	64 Toluene-d8	1.46303	1.44403	1.44403	0.010	-1.29877	30.00000	Averaged	
	65 Toluene	0.83649	0.85171	0.85171	0.010	1.81946	20.00000	Averaged	ccc
	67 trans-1,3-Dichloropropylene	0.61254	0.66561	0.66561	0.010	8.66337	30.00000	Averaged	
	68 1,1,2-Trichloroethane	0.29017	0.28686	0.28686	0.010	-1.14026	30.00000	Averaged	
	69 2-Hexanone	0.71997	0.60266	0.60266	0.010	-16.29452	40.00000	Averaged	
	70 1,3-Dichloropropane	0.59492	0.55941	0.55941	0.010	-5.97016	30.00000	Averaged	
	71 Tetrachloroethylene	0.26235	0.27187	0.27187	0.010	3.62937	30.00000	Averaged	
	72 Dibromochloromethane	0.40419	0.44275	0.44275	0.010	9.53903	30.00000	Averaged	
	73 1,2-Dibromoethane	0.37597	0.38888	0.38888	0.010	3.43323	30.00000	Averaged	
	76 Chlorobenzene	0.94113	0.96991	0.96991	0.300	3.05743	30.00000	Averaged	spcc
	77 1,1,1,2-Tetrachloroethane	0.38859	0.39930	0.39930	0.010	2.75765	30.00000	Averaged	
	78 Ethylbenzene	1.68011	1.70118	1.70118	0.010	1.25427	20.00000	Averaged	ccc
	79 m,p-Xylenes	0.62203	0.63195	0.63195	0.010	1.59406	30.00000	Averaged	
	80 o-Xylene	0.65611	0.64960	0.64960	0.010	-0.99108	30.00000	Averaged	
	81 Styrene	1.06597	1.09257	1.09257	0.010	2.49569	30.00000	Averaged	
	82 Bromoform	0.51378	0.58193	0.58193	0.100	13.26373	30.00000	Averaged	spcc
	83 Isopropylbenzene	2.80423	2.91637	2.91637	0.010	3.99888	30.00000	Averaged	
	87 1,1,2,2-Tetrachloroethane	0.83514	0.84991	0.84991	0.300	1.76859	30.00000	Averaged	spcc
$	86 Bromofluorobenzene	1.14286	1.14638	1.14638	0.010	0.30784	30.00000	Averaged	
	89 1,2,3-Trichloropropane	0.24074	0.25293	0.25293	0.010	5.06563	30.00000	Averaged	
	90 Bromobenzene	0.82730	0.80504	0.80504	0.010	-2.69073	30.00000	Averaged	
	91 n-Propylbenzene	3.42660	3.46936	3.46936	0.010	1.24797	30.00000	Averaged	
	93 2-Chlorotoluene	2.52986	2.48569	2.48569	0.010	-1.74584	30.00000	Averaged	
	92 1,3,5-Trimethylbenzene	2.46615	2.52610	2.52610	0.010	2.43098	30.00000	Averaged	
	94 4-Chlorotoluene	2.38630	2.43572	2.43572	0.010	2.07073	30.00000	Averaged	
	95 tert-Butylbenzene	2.29263	2.43322	2.43322	0.010	6.13263	30.00000	Averaged	
	96 1,2,4-Trimethylbenzene	2.63806	2.66856	2.66856	0.010	1.15632	30.00000	Averaged	
	98 sec-Butylbenzene	3.07170	3.29975	3.29975	0.010	7.42425	30.00000	Averaged	

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA7.i
Lab File ID: 7r704.d
Analysis Type: WATER
Lab Sample ID: W7VM091227-04
Method: /chem/VOA7.i/122409v7/VOA7-8260B-122409.m

Injection Date: 27-DEC-2009 23:55
Init. Cal. Date(s): 24-DEC-2009 24-DEC-2009
Init. Cal. Times: 11:46 20:13
Quant Type: ISTD

COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
99 4-Isopropyltoluene	2.48441	2.67685	2.67685	0.010	7.74607	30.00000	Averaged
100 1,3-Dichlorobenzene	1.45637	1.46012	1.46012	0.010	0.25805	30.00000	Averaged
102 1,4-Dichlorobenzene	1.43031	1.44194	1.44194	0.010	0.81327	30.00000	Averaged
104 n-Butylbenzene	2.55889	2.80353	2.80353	0.010	9.56007	30.00000	Averaged
105 1,2-Dichlorobenzene	1.40938	1.43650	1.43650	0.010	1.92385	30.00000	Averaged
107 1,2-Dibromo-3-chloropropane	0.18807	0.22760	0.22760	0.010	21.01745	30.00000	Averaged
108 1,2,4-Trichlorobenzene	1.06003	1.16635	1.16635	0.010	10.02997	30.00000	Averaged
109 Hexachlorobutadiene	0.61940	0.70434	0.70434	0.010	13.71286	30.00000	Averaged
110 Naphthalene	2.11689	2.33699	2.33699	0.010	10.39701	30.00000	Averaged
111 1,2,3-Trichlorobenzene	0.95577	1.05394	1.05394	0.010	10.27156	30.00000	Averaged

Average %D / Drift Results.

Calculated Average %D/Drift = 8.46106
Maximun Average %D/Drift = 20.00000
* Passed Average %D/Drift Test.

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA7.i/122409v7/7r704.d
Lab Smp Id: W7VM091227-04 Client Smp ID: LICV
Inj Date : 27-DEC-2009 23:55
Operator : AXO1 Inst ID: VOA7.i
Smp Info : |W7VM091227-04|BFB/ICV/CCV/LCS|1|VOAF|1|
Misc Info : GEL 5mL N/A UVM091219-01C/IVM091222-01
Comment :
Method : /chem/VOA7.i/122409v7/VOA7-8260B-122409.m
Meth Date : 30-Dec-2009 13:34 ale01592 Quant Type: ISTD
Cal Date : 24-DEC-2009 20:13 Cal File: 7r424.d
Als bottle: 31 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: CALsubL+.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (Uf/Vo) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	sample purged

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
M 2 Xylenes (total)	106				1398284	150.000	151
M 3 1,2-Dichloroethylene (total)	96				971896	100.000	109
M 1 1,3-Dichloropropylene	75				953805	100.000	109
4 Dichlorodifluoromethane	85	5.148	5.148	(0.336)	269841	50.0000	62.2
5 Chloromethane	50	5.772	5.772	(0.377)	479300	50.0000	53.4
6 Vinyl chloride	62	6.188	6.188	(0.404)	356653	50.0000	59.7
7 Bromomethane	94	7.439	7.439	(0.486)	259081	50.0000	60.4
8 Chloroethane	64	7.875	7.875	(0.514)	235608	50.0000	58.4
9 Trichlorofluoromethane	101	8.789	8.789	(0.574)	530693	50.0000	65.2
10 Ethyl Ether	59	9.703	9.703	(0.633)	308468	50.0000	53.2
13 Acetone	43	10.413	10.413	(0.680)	1825311	250.000	236
17 Acetonitrile	41	11.073	11.073	(0.723)	1481551	1000.00	1280
14 1,1-Dichloroethylene	96	10.302	10.302	(0.673)	232610	50.0000	59.7
18 Methyl acetate	43	11.225	11.225	(0.733)	1711991	250.000	261
16 Iodomethane	142	10.667	10.667	(0.696)	2032542	250.000	264

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
	22 Methylene chloride	86	11.439	11.439	(0.747)	182798	50.0000	57.3
	19 Carbon disulfide	76	10.840	10.840	(0.708)	3748440	250.000	299
	24 tert-Butyl methyl ether	73	12.017	12.017	(0.785)	881437	50.0000	52.0
	25 trans-1,2-Dichloroethylene	61	12.017	12.017	(0.785)	462387	50.0000	56.0
	26 Vinyl acetate	43	12.860	12.860	(0.840)	4451716	250.000	270
	28 1,1-Dichloroethane	63	12.799	12.799	(0.836)	564597	50.0000	55.0
	31 2-Butanone	43	13.723	13.723	(0.896)	1752782	250.000	229
	33 cis-1,2-Dichloroethylene	61	13.733	13.733	(0.897)	509509	50.0000	52.6
	34 2,2-Dichloropropane	77	13.743	13.743	(0.897)	324116	50.0000	58.2
	38 Chloroform	83	14.190	14.190	(0.926)	558071	50.0000	53.7
	37 Bromochloromethane	49	14.088	14.088	(0.920)	418151	50.0000	51.5
	41 1,1,1-Trichloroethane	97	14.484	14.484	(0.946)	496471	50.0000	58.9
	43 Cyclohexane	56	14.586	14.586	(0.952)	582034	50.0000	56.5
	44 1,1-Dichloropropene	75	14.697	14.697	(0.960)	373172	50.0000	58.5
	52 n-Butyl alcohol	56	15.560	15.560	(1.016)	1424533	5000.00	6010
	45 Carbon tetrachloride	117	14.728	14.728	(0.962)	419803	50.0000	60.8
$	46 1,2-Dichloroethane-d4	65	14.880	14.880	(0.971)	507894	50.0000	51.7
	47 1,2-Dichloroethane	62	14.982	14.982	(0.978)	608670	50.0000	51.9
	48 Benzene	78	14.982	14.982	(0.978)	939241	50.0000	51.5
	50 Cyclohexene	67	15.124	15.124	(0.987)	480847	50.0000	59.0
*	51 Fluorobenzene	96	15.317	15.317	(1.000)	944486	50.0000	
	53 Trichloroethylene	95	15.763	15.763	(1.029)	287244	50.0000	54.1
	56 1,2-Dichloropropane	63	16.037	16.037	(1.047)	275359	50.0000	49.4
	55 Methylcyclohexane	83	16.027	16.027	(1.046)	426157	50.0000	59.4
	59 Bromodichloromethane	83	16.332	16.332	(1.066)	453550	50.0000	55.1
	58 Dibromomethane	93	16.180	16.180	(1.056)	192012	50.0000	51.0
	61 2-Chloroethylvinyl ether	63	16.606	16.606	(1.084)	635121	250.000	263
	63 4-Methyl-2-pentanone	58	16.941	16.941	(0.908)	838328	250.000	258
	62 cis-1,3-Dichloropropylene	75	16.819	16.819	(1.098)	467414	50.0000	52.6
$	64 Toluene-d8	98	17.144	17.144	(0.918)	1055222	50.0000	49.4
	65 Toluene	92	17.215	17.215	(0.922)	622383	50.0000	50.9
	67 trans-1,3-Dichloropropylene	75	17.388	17.388	(0.931)	486391	50.0000	54.3
	68 1,1,2-Trichloroethane	83	17.611	17.611	(0.943)	209626	50.0000	49.4
	69 2-Hexanone	43	17.804	17.804	(0.954)	2201950	250.000	209
	70 1,3-Dichloropropane	76	17.794	17.794	(0.953)	408785	50.0000	47.0
	71 Tetrachloroethylene	164	17.814	17.814	(0.954)	198666	50.0000	51.8
	72 Dibromochloromethane	129	18.068	18.068	(0.968)	323537	50.0000	54.8
	73 1,2-Dibromoethane	107	18.220	18.220	(0.976)	284173	50.0000	51.7
*	75 Chlorobenzene-d5	117	18.667	18.667	(1.000)	730748	50.0000	
	76 Chlorobenzene	112	18.697	18.697	(1.002)	708757	50.0000	51.5
	77 1,1,1,2-Tetrachloroethane	131	18.758	18.758	(1.005)	291790	50.0000	51.4
	78 Ethylbenzene	91	18.768	18.768	(1.005)	1243135	50.0000	50.6
	79 m,p-Xylenes	106	18.870	18.870	(1.011)	923587	100.000	102
	80 o-Xylene	106	19.286	19.286	(1.033)	474697	50.0000	49.5
	81 Styrene	104	19.286	19.286	(1.033)	798393	50.0000	51.2
	82 Bromoform	173	19.540	19.540	(0.931)	259660	50.0000	56.6
	83 Isopropylbenzene	105	19.631	19.631	(0.935)	1301299	50.0000	52.0

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
87 1,1,2,2-Tetrachloroethane	83	19.885	19.885	(0.947)	379234	50.0000	50.9
$ 86 Bromofluorobenzene	95	19.814	19.814	(0.944)	511521	50.0000	50.2
89 1,2,3-Trichloropropane	110	19.966	19.966	(0.951)	112860	50.0000	52.5
90 Bromobenzene	156	20.017	20.017	(0.954)	359214	50.0000	48.6
91 n-Propylbenzene	91	20.037	20.037	(0.955)	1548048	50.0000	50.6
93 2-Chlorotoluene	91	20.169	20.169	(0.961)	1109128	50.0000	49.1
92 1,3,5-Trimethylbenzene	105	20.169	20.169	(0.961)	1127159	50.0000	51.2
94 4-Chlorotoluene	91	20.271	20.271	(0.966)	1086830	50.0000	51.0
95 tert-Butylbenzene	119	20.535	20.535	(0.978)	1085717	50.0000	53.1
96 1,2,4-Trimethylbenzene	105	20.565	20.565	(0.980)	1190725	50.0000	50.6
98 sec-Butylbenzene	105	20.748	20.748	(0.988)	1472367	50.0000	53.7
99 4-Isopropyltoluene	119	20.870	20.870	(0.994)	1194425	50.0000	53.9
100 1,3-Dichlorobenzene	146	20.931	20.931	(0.997)	651515	50.0000	50.1
* 101 1,4-Dichlorobenzene-d4	152	20.992	20.992	(1.000)	446205	50.0000	
102 1,4-Dichlorobenzene	146	21.022	21.022	(1.001)	643403	50.0000	50.4
104 n-Butylbenzene	91	21.296	21.296	(1.014)	1250947	50.0000	54.8
105 1,2-Dichlorobenzene	146	21.438	21.438	(1.021)	640973	50.0000	51.0
107 1,2-Dibromo-3-chloropropane	157	22.301	22.301	(1.062)	101557	50.0000	60.5
108 1,2,4-Trichlorobenzene	180	23.357	23.357	(1.113)	520433	50.0000	55.0
109 Hexachlorobutadiene	225	23.540	23.540	(1.121)	314279	50.0000	56.8
110 Naphthalene	128	23.753	23.753	(1.132)	1042776	50.0000	55.2
111 1,2,3-Trichlorobenzene	180	24.098	24.098	(1.148)	470274	50.0000	55.1

Data File: /chem/VOA7.i/122409v7/7r704.d
Date : 27-DEC-2009 23:55
Client ID: LICV
Sample Info: IW7VH091227-04|BFB/ICV/CCV/LCS|1|VOAF|1|
Purge Volume: 5.0
Column phase: DB-624

Instrument: VOA7.i
Operator: AXO1
Column diameter: 0.25

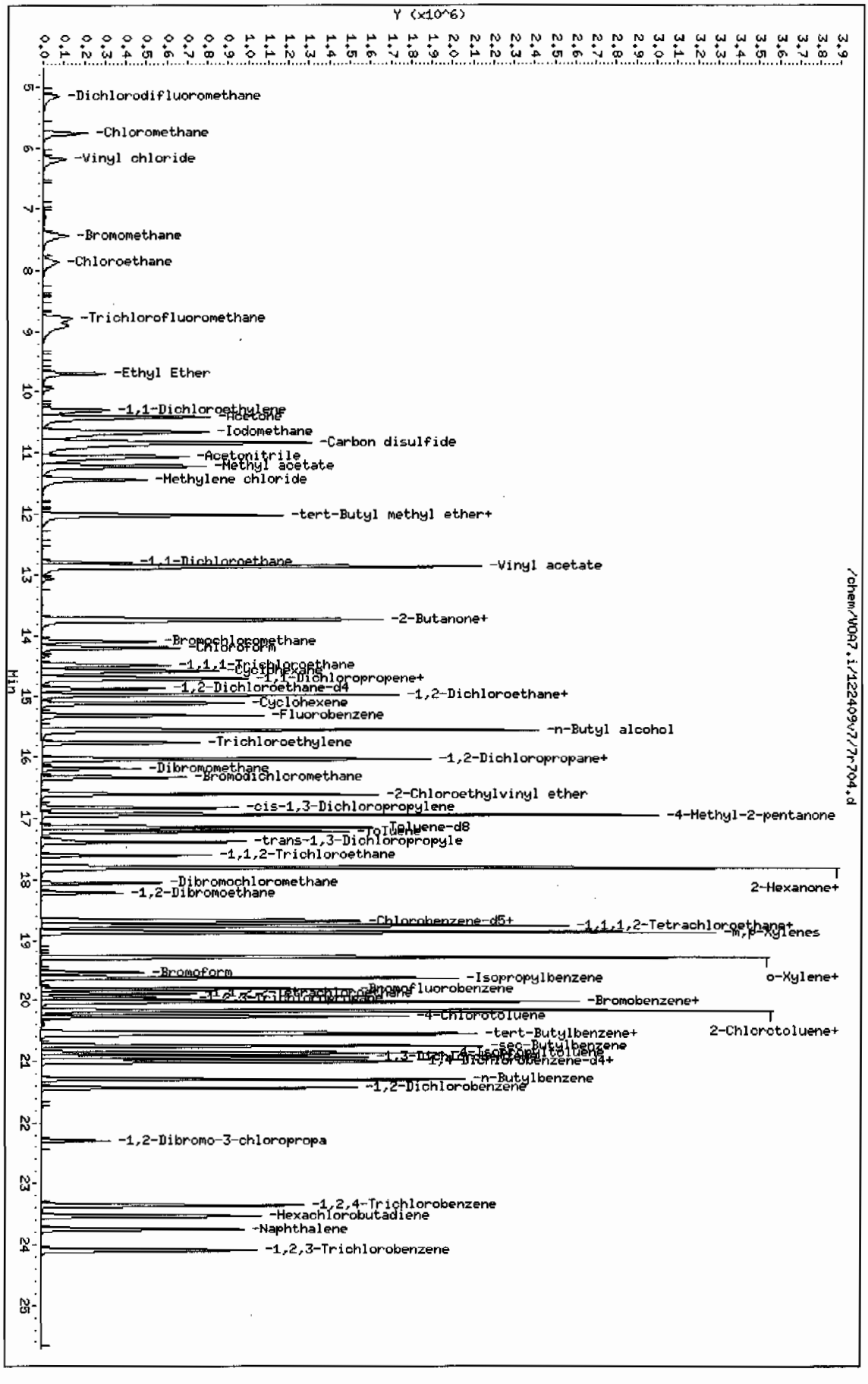

Page 1

Data File: /chem/VOA7.i/122909v7/7s203.d
Report Date: 04-Jan-2010 07:38

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA7.i
Lab File ID: 7s203.d
Analysis Type: SOIL
Lab Sample ID: W7VM091229-02
Method: /chem/VOA7.i/122909v7/VOA7-8260B-122409.m

Injection Date: 29-DEC-2009 14:44
Init. Cal. Date(s): 24-DEC-2009 24-DEC-2009
Init. Cal. Times: 11:46 20:13
Quant Type: ISTD

	COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
M	2 Xylenes (total)	0.63339	0.56542	0.56542	0.050	-10.73180	30.00000	Averaged	
M	3 1,2-Dichloroethylene (total	0.47482	0.46841	0.46841	0.050	-1.35116	30.00000	Averaged	
M	1 1,3-Dichloropropylene	0.46479	0.46295	0.46295	0.050	-0.39669	30.00000	Averaged	
	4 Dichlorodifluoromethane	52.98950	50.00000	0.24370	0.050	5.97900	30.00000	Linear	
	5 Chloromethane	0.47543	0.44452	0.44452	0.100	-6.50188	30.00000	Averaged	spcc
	6 Vinyl chloride	0.31640	0.33214	0.33214	0.050	4.97437	20.00000	Averaged	ccc
	7 Bromomethane	0.22687	0.22635	0.22635	0.050	-0.22762	30.00000	Averaged	
	8 Chloroethane	0.21338	0.21252	0.21252	0.010	-0.40146	30.00000	Averaged	
	9 Trichlorofluoromethane	0.43113	0.50218	0.50218	0.050	16.47996	30.00000	Averaged	
	10 Ethyl Ether	0.30689	0.29994	0.29994	0.001	-2.26614	30.00000	Averaged	
	13 Acetone	0.40852	0.36092	0.36092	0.050	-11.65270	40.00000	Averaged	
	17 Acetonitrile	0.06100	0.07128	0.07128	0.010	16.85614	30.00000	Averaged	
	14 1,1-Dichloroethylene	0.20628	0.21873	0.21873	0.050	6.03251	20.00000	Averaged	ccc
	18 Methyl acetate	0.34739	0.33783	0.33783	0.010	-2.75251	40.00000	Averaged	
	16 Iodomethane	0.40745	0.39103	0.39103	0.050	-4.02798	30.00000	Averaged	
	22 Methylene chloride	49.89786	50.00000	0.16986	0.050	-0.20428	30.00000	Linear	
	19 Carbon disulfide	0.66324	0.69268	0.69268	0.050	4.43866	30.00000	Averaged	
	24 tert-Butyl methyl ether	0.89741	0.82173	0.82173	0.050	-8.43301	30.00000	Averaged	
	25 trans-1,2-Dichloroethylene	0.43667	0.43506	0.43506	0.050	-0.36865	30.00000	Averaged	
	26 Vinyl acetate	0.87384	0.84893	0.84893	0.010	-2.85050	40.00000	Averaged	
	28 1,1-Dichloroethane	0.54335	0.54008	0.54008	0.100	-0.60213	30.00000	Averaged	spcc
	31 2-Butanone	0.40565	0.34659	0.34659	0.030	-14.56032	40.00000	Averaged	
	33 cis-1,2-Dichloroethylene	0.51298	0.50176	0.50176	0.050	-2.18750	30.00000	Averaged	
	34 2,2-Dichloropropane	0.29501	0.32790	0.32790	0.050	11.14856	30.00000	Averaged	
	38 Chloroform	0.55018	0.53793	0.53793	0.010	-2.22630	20.00000	Averaged	ccc
	37 Bromochloromethane	0.42974	0.40757	0.40757	0.010	-5.15871	30.00000	Averaged	
	41 1,1,1-Trichloroethane	0.44651	0.49029	0.49029	0.010	9.80610	30.00000	Averaged	
	43 Cyclohexane	0.54545	0.59311	0.59311	0.010	8.73724	30.00000	Averaged	
	44 1,1-Dichloropropene	0.33767	0.36412	0.36412	0.010	7.83273	30.00000	Averaged	
	52 n-Butyl alcohol	0.01255	0.01437	0.01437	0.001	14.49934	40.00000	Averaged	
	45 Carbon tetrachloride	0.36544	0.40755	0.40755	0.010	11.52257	30.00000	Averaged	
$	46 1,2-Dichloroethane-d4	0.51957	0.55151	0.55151	0.010	6.14710	30.00000	Averaged	
	47 1,2-Dichloroethane	0.62051	0.59695	0.59695	0.010	-3.79716	30.00000	Averaged	
	48 Benzene	0.96525	0.90298	0.90298	0.010	-6.45173	30.00000	Averaged	
	50 Cyclohexene	0.43169	0.46348	0.46348	0.010	7.36537	30.00000	Averaged	

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA7.i Injection Date: 29-DEC-2009 14:44
Lab File ID: 7s203.d Init. Cal. Date(s): 24-DEC-2009 24-DEC-2009
Analysis Type: SOIL Init. Cal. Times: 11:46 20:13
Lab Sample ID: W7VM091229-02 Quant Type: ISTD
Method: /chem/VOA7.i/122909v7/VOA7-8260B-122409.m

	COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
	53 Trichloroethylene	0.28105	0.27578	0.27578	0.010	-1.87390	30.00000	Averaged	
	56 1,2-Dichloropropane	0.29505	0.27334	0.27334	0.010	-7.35589	20.00000	Averaged	ccc
	55 Methylcyclohexane	0.37974	0.39797	0.39797	0.010	4.80104	30.00000	Averaged	
	59 Bromodichloromethane	0.43580	0.44948	0.44948	0.010	3.13840	30.00000	Averaged	
	58 Dibromomethane	0.19937	0.18920	0.18920	0.010	-5.10003	30.00000	Averaged	
	61 2-Chloroethylvinyl ether	0.12801	0.11272	0.11272	0.010	-11.94433	30.00000	Averaged	
	63 4-Methyl-2-pentanone	0.22232	0.21056	0.21056	0.010	-5.28720	40.00000	Averaged	
	62 cis-1,3-Dichloropropylene	0.47015	0.45410	0.45410	0.010	-3.41298	30.00000	Averaged	
$	64 Toluene-d8	1.46303	1.40472	1.40472	0.010	-3.98596	30.00000	Averaged	
	65 Toluene	0.83649	0.78411	0.78411	0.010	-6.26215	20.00000	Averaged	ccc
	67 trans-1,3-Dichloropropylene	0.61254	0.60164	0.60164	0.010	-1.77937	30.00000	Averaged	
	68 1,1,2-Trichloroethane	0.29017	0.25976	0.25976	0.010	-10.48009	30.00000	Averaged	
	69 2-Hexanone	0.71997	0.55556	0.55556	0.010	-22.83629	40.00000	Averaged	
	70 1,3-Dichloropropane	0.59492	0.50892	0.50892	0.010	-14.45668	30.00000	Averaged	
	71 Tetrachloroethylene	0.26235	0.24795	0.24795	0.010	-5.48653	30.00000	Averaged	
	72 Dibromochloromethane	0.40419	0.39371	0.39371	0.010	-2.59382	30.00000	Averaged	
	73 1,2-Dibromoethane	0.37597	0.35409	0.35409	0.010	-5.82037	30.00000	Averaged	
	76 Chlorobenzene	0.94113	0.86652	0.86652	0.300	-7.92743	30.00000	Averaged	spcc
	77 1,1,1,2-Tetrachloroethane	0.38859	0.35373	0.35373	0.010	-8.97138	30.00000	Averaged	
	78 Ethylbenzene	1.68011	1.53284	1.53284	0.010	-8.76539	20.00000	Averaged	ccc
	79 m,p-Xylenes	0.62203	0.56253	0.56253	0.010	-9.56484	30.00000	Averaged	
	80 o-Xylene	0.65611	0.57118	0.57118	0.010	-12.94450	30.00000	Averaged	
	81 Styrene	1.06597	0.97830	0.97830	0.010	-8.22436	30.00000	Averaged	
	82 Bromoform	0.51378	0.51776	0.51776	0.100	0.77429	30.00000	Averaged	spcc
	83 Isopropylbenzene	2.80423	2.59845	2.59845	0.010	-7.33817	30.00000	Averaged	
	87 1,1,2,2-Tetrachloroethane	0.83514	0.75470	0.75470	0.300	-9.63176	30.00000	Averaged	spcc
$	86 Bromofluorobenzene	1.14286	1.14259	1.14259	0.010	-0.02416	30.00000	Averaged	
	89 1,2,3-Trichloropropane	0.24074	0.22665	0.22665	0.010	-5.85220	30.00000	Averaged	
	90 Bromobenzene	0.82730	0.70466	0.70466	0.010	-14.82430	30.00000	Averaged	
	91 n-Propylbenzene	3.42660	3.08729	3.08729	0.010	-9.90220	30.00000	Averaged	
	93 2-Chlorotoluene	2.52986	2.22746	2.22746	0.010	-11.95317	30.00000	Averaged	
	92 1,3,5-Trimethylbenzene	2.46615	2.23580	2.23580	0.010	-9.34048	30.00000	Averaged	
	94 4-Chlorotoluene	2.38630	2.14696	2.14696	0.010	-10.02977	30.00000	Averaged	
	95 tert-Butylbenzene	2.29263	2.15887	2.15887	0.010	-5.83413	30.00000	Averaged	
	96 1,2,4-Trimethylbenzene	2.63806	2.37469	2.37469	0.010	-9.98349	30.00000	Averaged	
	98 sec-Butylbenzene	3.07170	2.87660	2.87660	0.010	-6.35162	30.00000	Averaged	

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA7.i
Lab File ID: 7s203.d
Analysis Type: SOIL
Lab Sample ID: W7VM091229-02
Method: /chem/VOA7.i/122909v7/VOA7-8260B-122409.m

Injection Date: 29-DEC-2009 14:44
Init. Cal. Date(s): 24-DEC-2009 24-DEC-2009
Init. Cal. Times: 11:46 20:13
Quant Type: ISTD

COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
99 4-Isopropyltoluene	2.48441	2.35885	2.35885	0.010	-5.05391	30.00000	Averaged
100 1,3-Dichlorobenzene	1.45637	1.24349	1.24349	0.010	-14.61690	30.00000	Averaged
102 1,4-Dichlorobenzene	1.43031	1.25239	1.25239	0.010	-12.43920	30.00000	Averaged
104 n-Butylbenzene	2.55889	2.45022	2.45022	0.010	-4.24701	30.00000	Averaged
105 1,2-Dichlorobenzene	1.40938	1.25675	1.25675	0.010	-10.83020	30.00000	Averaged
107 1,2-Dibromo-3-chloropropane	0.18807	0.18876	0.18876	0.010	0.36528	30.00000	Averaged
108 1,2,4-Trichlorobenzene	1.06003	0.97400	0.97400	0.010	-8.11608	30.00000	Averaged
109 Hexachlorobutadiene	0.61940	0.61504	0.61504	0.010	-0.70323	30.00000	Averaged
110 Naphthalene	2.11689	2.02538	2.02538	0.010	-4.32319	30.00000	Averaged
111 1,2,3-Trichlorobenzene	0.95577	0.90688	0.90688	0.010	-5.11559	30.00000	Averaged

Average %D / Drift Results.

Calculated Average %D/Drift = 6.90905
Maximun Average %D/Drift = 20.00000
* Passed Average %D/Drift Test.

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA7.i/122909v7/7s203.d
Lab Smp Id: W7VM091229-02 Client Smp ID: VSTD050
Inj Date : 29-DEC-2009 14:44
Operator : AXO1 Inst ID: VOA7.i
Smp Info : |W7VM091229-02|LCS|1|VOAF|1|
Misc Info : GEL 5g N/A UVM091214-01C/IVM091228-01
Comment :
Method : /chem/VOA7.i/122909v7/VOA7-8260B-122409.m
Meth Date : 04-Jan-2010 07:38 ale01592 Quant Type: ISTD
Cal Date : 24-DEC-2009 19:39 Cal File: 7r423.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: CALsubL+.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	0.00000	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
M 2 Xylenes (total)	106				1219511	150.000	134
M 3 1,2-Dichloroethylene (total)	96				858878	100.000	98.7
M 1 1,3-Dichloropropylene	75				848870	100.000	99.6
4 Dichlorodifluoromethane	85	5.147	5.147	(0.336)	223423	50.0000	53.0
5 Chloromethane	50	5.757	5.757	(0.376)	407535	50.0000	46.7
6 Vinyl chloride	62	6.188	6.188	(0.404)	304506	50.0000	52.5
7 Bromomethane	94	7.429	7.429	(0.485)	207518	50.0000	49.9
8 Chloroethane	64	7.855	7.855	(0.513)	194844	50.0000	49.8
9 Trichlorofluoromethane	101	8.789	8.789	(0.574)	460403	50.0000	58.2
10 Ethyl Ether	59	9.703	9.703	(0.633)	274985	50.0000	48.9
13 Acetone	43	10.423	10.423	(0.681)	1654473	250.000	221
17 Acetonitrile	41	11.073	11.073	(0.723)	1307037	1000.00	1170

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
	14 1,1-Dichloroethylene	96	10.312	10.312	(0.673)	200532	50.0000	53.0
	18 Methyl acetate	43	11.225	11.225	(0.733)	1548619	250.000	243
	16 Iodomethane	142	10.667	10.667	(0.696)	1792512	250.000	240
	22 Methylene chloride	86	11.449	11.449	(0.747)	155728	50.0000	49.9
	19 Carbon disulfide	76	10.840	10.840	(0.708)	3175276	250.000	261
	24 tert-Butyl methyl ether	73	12.017	12.017	(0.785)	753370	50.0000	45.8
	25 trans-1,2-Dichloroethylene	61	12.027	12.027	(0.785)	398862	50.0000	49.8
	26 Vinyl acetate	43	12.860	12.860	(0.840)	3891541	250.000	243
	28 1,1-Dichloroethane	63	12.799	12.799	(0.836)	495145	50.0000	49.7
	31 2-Butanone	43	13.723	13.723	(0.896)	1588780	250.000	214
	33 cis-1,2-Dichloroethylene	61	13.733	13.733	(0.897)	460016	50.0000	48.9
	34 2,2-Dichloropropane	77	13.743	13.743	(0.897)	300617	50.0000	55.6
	38 Chloroform	83	14.190	14.190	(0.926)	493176	50.0000	48.9
	37 Bromochloromethane	49	14.088	14.088	(0.920)	373664	50.0000	47.4
	41 1,1,1-Trichloroethane	97	14.484	14.484	(0.946)	449505	50.0000	54.9
	43 Cyclohexane	56	14.586	14.586	(0.952)	543768	50.0000	54.4
	44 1,1-Dichloropropene	75	14.697	14.697	(0.960)	333829	50.0000	53.9
	52 n-Butyl alcohol	56	15.560	15.560	(1.016)	1317846	5000.00	5720
	45 Carbon tetrachloride	117	14.728	14.728	(0.962)	373647	50.0000	55.8
$	46 1,2-Dichloroethane-d4	65	14.880	14.880	(0.971)	505629	50.0000	53.1
	47 1,2-Dichloroethane	62	14.982	14.982	(0.978)	547288	50.0000	48.1
	48 Benzene	78	14.982	14.982	(0.978)	827854	50.0000	46.8
	50 Cyclohexene	67	15.124	15.124	(0.987)	424924	50.0000	53.7
*	51 Fluorobenzene	96	15.317	15.317	(1.000)	916807	50.0000	
	53 Trichloroethylene	95	15.763	15.763	(1.029)	252839	50.0000	49.1
	56 1,2-Dichloropropane	63	16.037	16.037	(1.047)	250602	50.0000	46.3
	55 Methylcyclohexane	83	16.027	16.027	(1.046)	364864	50.0000	52.4
	59 Bromodichloromethane	83	16.332	16.332	(1.066)	412083	50.0000	51.6
	58 Dibromomethane	93	16.179	16.179	(1.056)	173462	50.0000	47.4
	61 2-Chloroethylvinyl ether	63	16.606	16.606	(1.084)	516721	250.000	220
	63 4-Methyl-2-pentanone	58	16.941	16.941	(0.908)	756912	250.000	237
	62 cis-1,3-Dichloropropylene	75	16.819	16.819	(1.098)	416322	50.0000	48.3
$	64 Toluene-d8	98	17.144	17.144	(0.918)	1009916	50.0000	48.0
	65 Toluene	92	17.215	17.215	(0.922)	563730	50.0000	46.9
	67 trans-1,3-Dichloropropylene	75	17.388	17.388	(0.931)	432548	50.0000	49.1
	68 1,1,2-Trichloroethane	83	17.611	17.611	(0.943)	186756	50.0000	44.8
	69 2-Hexanone	43	17.804	17.804	(0.954)	1997082	250.000	193
	70 1,3-Dichloropropane	76	17.794	17.794	(0.953)	365885	50.0000	42.8
	71 Tetrachloroethylene	164	17.814	17.814	(0.954)	178264	50.0000	47.2
	72 Dibromochloromethane	129	18.068	18.068	(0.968)	283055	50.0000	48.7
	73 1,2-Dibromoethane	107	18.220	18.220	(0.976)	254571	50.0000	47.1
*	75 Chlorobenzene-d5	117	18.667	18.667	(1.000)	718947	50.0000	
	76 Chlorobenzene	112	18.697	18.697	(1.002)	622985	50.0000	46.0
	77 1,1,1,2-Tetrachloroethane	131	18.758	18.758	(1.005)	254310	50.0000	45.5
	78 Ethylbenzene	91	18.768	18.768	(1.005)	1102031	50.0000	45.6
	79 m,p-Xylenes	106	18.870	18.870	(1.011)	808865	100.000	90.4
	80 o-Xylene	106	19.286	19.286	(1.033)	410646	50.0000	43.5

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
81 Styrene	104	19.286	19.286	(1.033)	703344	50.0000	45.9
82 Bromoform	173	19.540	19.540	(0.931)	227934	50.0000	50.4
83 Isopropylbenzene	105	19.631	19.631	(0.935)	1143917	50.0000	46.3
87 1,1,2,2-Tetrachloroethane	83	19.885	19.885	(0.947)	332242	50.0000	45.2
$ 86 Bromofluorobenzene	95	19.814	19.814	(0.944)	503001	50.0000	50.0
89 1,2,3-Trichloropropane	110	19.976	19.976	(0.952)	99778	50.0000	47.1
90 Bromobenzene	156	20.017	20.017	(0.954)	310213	50.0000	42.6
91 n-Propylbenzene	91	20.037	20.037	(0.955)	1359119	50.0000	45.0
93 2-Chlorotoluene	91	20.169	20.169	(0.961)	980595	50.0000	44.0
92 1,3,5-Trimethylbenzene	105	20.169	20.169	(0.961)	984266	50.0000	45.3
94 4-Chlorotoluene	91	20.271	20.271	(0.966)	945158	50.0000	45.0
95 tert-Butylbenzene	119	20.535	20.535	(0.978)	950400	50.0000	47.1
96 1,2,4-Trimethylbenzene	105	20.565	20.565	(0.980)	1045408	50.0000	45.0
98 sec-Butylbenzene	105	20.748	20.748	(0.988)	1266366	50.0000	46.8
99 4-Isopropyltoluene	119	20.870	20.870	(0.994)	1038436	50.0000	47.5
100 1,3-Dichlorobenzene	146	20.931	20.931	(0.997)	547422	50.0000	42.7
* 101 1,4-Dichlorobenzene-d4	152	20.991	20.991	(1.000)	440230	50.0000	
102 1,4-Dichlorobenzene	146	21.022	21.022	(1.001)	551341	50.0000	43.8
104 n-Butylbenzene	91	21.296	21.296	(1.014)	1078659	50.0000	47.9
105 1,2-Dichlorobenzene	146	21.438	21.438	(1.021)	553257	50.0000	44.6
107 1,2-Dibromo-3-chloropropane	157	22.301	22.301	(1.062)	83098	50.0000	50.2
108 1,2,4-Trichlorobenzene	180	23.357	23.357	(1.113)	428784	50.0000	45.9
109 Hexachlorobutadiene	225	23.540	23.540	(1.121)	270761	50.0000	49.6
110 Naphthalene	128	23.753	23.753	(1.132)	891632	50.0000	47.8
111 1,2,3-Trichlorobenzene	180	24.098	24.098	(1.148)	399234	50.0000	47.4

Data File: /chem/VOA7.i/122909v7/7s203.d
Date : 29-DEC-2009 14:44
Client ID: VSTD050
Sample Info: IW7VH091229-021LCS1|1|VOAF|1|
Column phase: DB-624

Instrument: VOA7.i
Operator: AXO1
Column diameter: 0.25

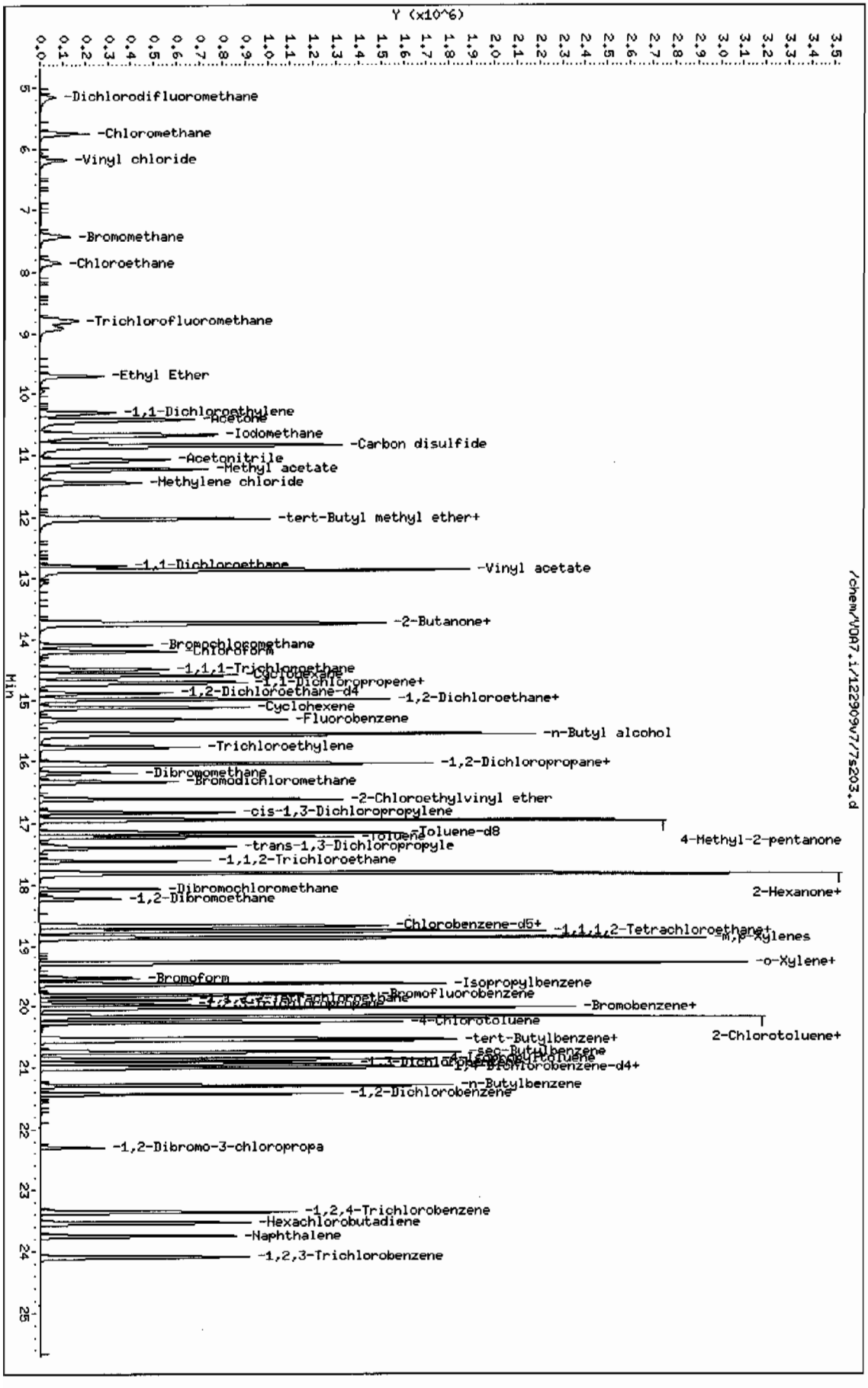

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA7.i Injection Date: 29-DEC-2009 15:17
Lab File ID: 7s204.d Init. Cal. Date(s): 24-DEC-2009 24-DEC-2009
Analysis Type: WATER Init. Cal. Times: 11:46 20:13
Lab Sample ID: UVM091118-08C Quant Type: ISTD
Method: /chem/VOA7.i/122909v7/VOA7-8260B-122409.m

COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
11 Acrolein	0.06685	0.08490	0.08490	0.001	27.00810	30.00000	Averaged	
12 Trichlorotrifluoroethane	0.10070	0.13453	0.13453	0.010	33.59539	30.00000	Averaged	<-
20 Allyl chloride	0.54765	0.59685	0.59685	0.010	8.98378	30.00000	Averaged	
23 Acrylonitrile	0.14880	0.16475	0.16475	0.010	10.71342	30.00000	Averaged	
29 2-Chloro-1,3-butadiene	0.54378	0.68457	0.68457	0.010	25.89169	30.00000	Averaged	
35 Propionitrile	0.05863	0.06436	0.06436	0.010	9.77215	30.00000	Averaged	
32 Ethyl acetate	0.45027	0.45258	0.45258	0.010	0.51199	40.00000	Averaged	
36 Methacrylonitrile	0.27095	0.28184	0.28184	0.010	4.02034	30.00000	Averaged	
39 Tetrahydrofuran	0.30768	0.30283	0.30283	0.010	-1.57528	30.00000	Averaged	
42 Isobutyl alcohol	0.01822	0.01990	0.01990	0.005	9.22165	40.00000	Averaged	
54 Methyl methacrylate	0.18296	0.19271	0.19271	0.010	5.33150	30.00000	Averaged	
66 Ethyl methacrylate	0.46969	0.46753	0.46753	0.010	-0.46117	30.00000	Averaged	
57 1,4-Dioxane	0.00323	0.00336	0.00336	0.001	3.88694	40.00000	Averaged	
60 2-Nitropropane	0.15476	0.19383	0.19383	0.010	25.24605	30.00000	Averaged	
84 cis-1,4-Dichloro-2-butene	0.39395	0.46218	0.46218	0.010	17.31836	30.00000	Averaged	
85 Cyclohexanone	0.06695	0.03515	0.03515	0.010	-47.49861	40.00000	Averaged	<-
88 trans-1,4-Dichloro-2-butene	0.35993	0.42322	0.42322	0.010	17.58364	30.00000	Averaged	
97 Pentachloroethane	0.29276	0.41503	0.41503	0.010	41.76438	30.00000	Averaged	<-
103 Benzyl chloride	1.20443	1.45620	1.45620	0.010	20.90353	30.00000	Averaged	
106 bis(2-Chloroisopropyl)ether	0.64761	0.61705	0.61705	0.010	-4.71975	30.00000	Averaged	
$ 46 1,2-Dichloroethane-d4	0.51957	0.55754	0.55754	0.010	7.30676	30.00000	Averaged	
$ 64 Toluene-d8	1.46303	1.47493	1.47493	0.010	0.81333	30.00000	Averaged	
$ 86 Bromofluorobenzene	1.14286	1.11796	1.11796	0.010	-2.17892	30.00000	Averaged	

Average %D / Drift Results.

Calculated Average %D/Drift = 6.90905
Maximun Average %D/Drift = 20.00000
* Passed Average %D/Drift Test.

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA7.i/122909v7/7s204.d
Lab Smp Id: UVM091118-08C Client Smp ID: VSTD250S
Inj Date : 29-DEC-2009 15:17
Operator : AXO1 Inst ID: VOA7.i
Smp Info : |UVM091118-08C|SHORT/SLCS|1|VOAF|1|
Misc Info : GEL 5mL N/A
Comment :
Method : /chem/VOA7.i/122909v7/VOA7-8260B-122409.m
Meth Date : 30-Dec-2009 09:14 ale01592 Quant Type: ISTD
Cal Date : 24-DEC-2009 19:39 Cal File: 7r423.d
Als bottle: 4 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: CALsubS+SS.sub
Target Version: 3.50

Concentration Formula: Amt * DF * (Uf/Vo) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	sample purged

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
11 Acrolein	56	10.027	10.027	(0.655)	378605	250.000	318
12 Trichlorotrifluoroethane	85	10.373	10.373	(0.677)	599927	250.000	334
20 Allyl chloride	41	11.185	11.185	(0.730)	2661613	250.000	272
23 Acrylonitrile	53	11.926	11.926	(0.779)	734681	250.000	277
29 2-Chloro-1,3-butadiene	53	12.961	12.961	(0.846)	610562	50.0000	62.9
35 Propionitrile	54	13.804	13.804	(0.901)	287024	250.000	274
32 Ethyl acetate	43	13.804	13.804	(0.901)	2018247	250.000	251
36 Methacrylonitrile	41	14.048	14.048	(0.917)	1256872	250.000	260
39 Tetrahydrofuran	42	14.159	14.159	(0.675)	663171	250.000	246
42 Isobutyl alcohol	41	14.748	14.748	(0.963)	887633	2500.00	2730
54 Methyl methacrylate	69	16.078	16.078	(1.050)	859391	250.000	263
66 Ethyl methacrylate	69	17.418	17.418	(0.933)	1634239	250.000	249
57 1,4-Dioxane	88	16.159	16.159	(1.055)	149760	2500.00	2600
60 2-Nitropropane	43	16.555	16.555	(1.081)	864386	250.000	313
84 cis-1,4-Dichloro-2-butene	53	19.662	19.662	(0.937)	1012133	250.000	293
85 Cyclohexanone	55	19.773	19.773	(1.059)	614329	1250.00	656

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
88 trans-1,4-Dichloro-2-butene	53	19.936	19.936	(0.950)	926827	250.000	294
97 Pentachloroethane	167	20.606	20.606	(0.982)	908891	250.000	354(A)
103 Benzyl chloride	91	21.123	21.123	(1.006)	3188959	250.000	302
106 bis(2-Chloroisopropyl)ether	45	21.509	21.509	(1.025)	1351287	250.000	238
* 51 Fluorobenzene	96	15.317	15.317	(1.000)	891892	50.0000	
* 75 Chlorobenzene-d5	117	18.667	18.667	(1.000)	699100	50.0000	
* 101 1,4-Dichlorobenzene-d4	152	20.991	20.991	(1.000)	437984	50.0000	
$ 46 1,2-Dichloroethane-d4	65	14.880	14.880	(0.972)	497262	50.0000	53.6
$ 64 Toluene-d8	98	17.144	17.144	(0.918)	1031124	50.0000	50.4
$ 86 Bromofluorobenzene	95	19.814	19.814	(0.944)	489649	50.0000	48.9

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.

Data File: /chem/VOA7.i/122909v7/7s204.d
Date : 29-DEC-2009 15:17
Client ID: VSTD250S
Sample Info: IUWM091118-08CISHORT/SLCS1I1VOAFI1I
Purge Volume: 5.0
Column phase: DB-624

Instrument: VOA7.i
Operator: AXO1
Column diameter: 0.25

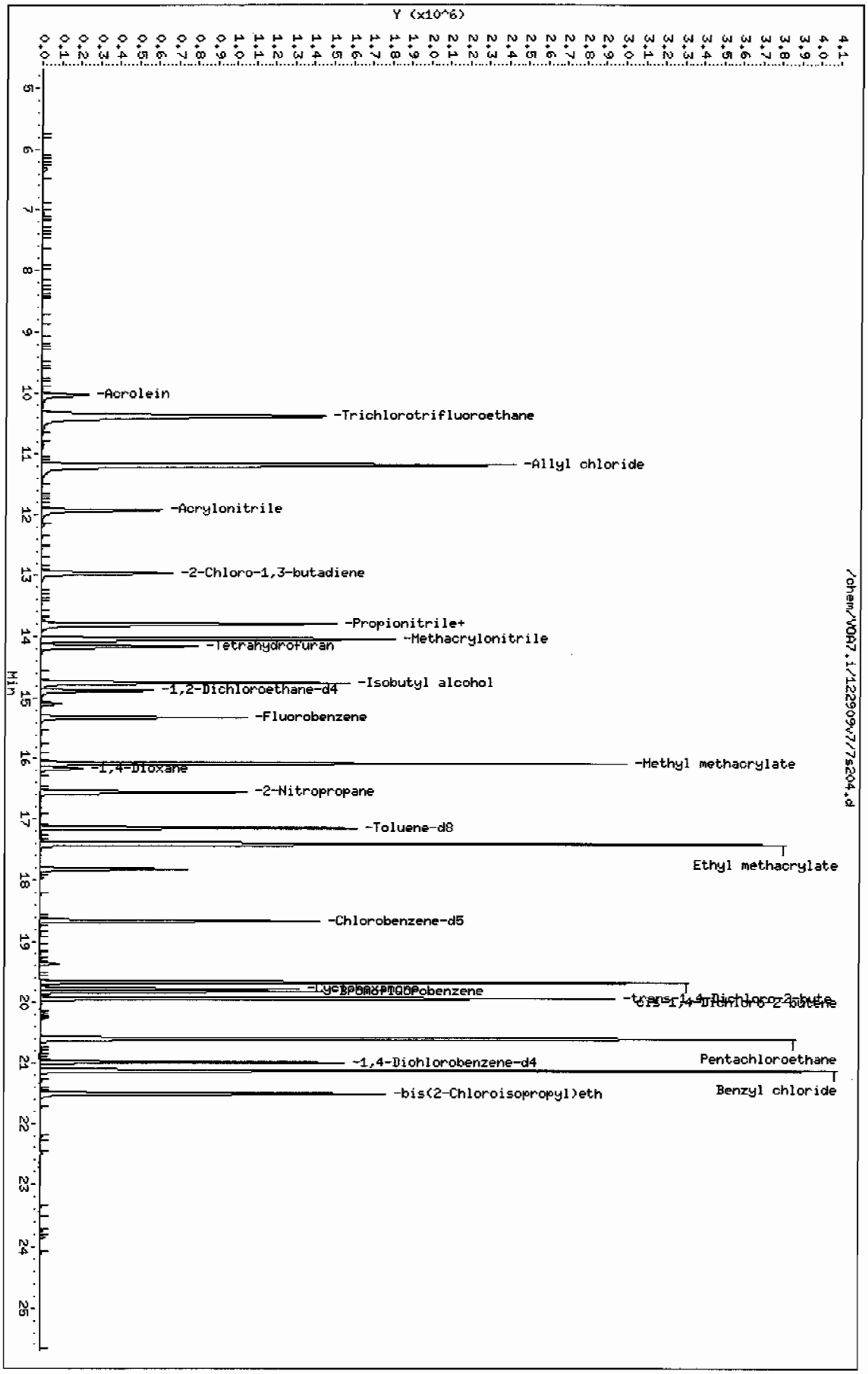

Page 1

Data File: /chem/VOA7.i/123009v7/7s302.d
Report Date: 04-Jan-2010 12:00

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA7.i
Lab File ID: 7s302.d
Analysis Type: WATER
Lab Sample ID: W7VM091230-01
Method: /chem/VOA7.i/123009v7/VOA7-8260B-122409.m

Injection Date: 30-DEC-2009 09:36
Init. Cal. Date(s): 24-DEC-2009 24-DEC-2009
Init. Cal. Times: 11:46 20:13
Quant Type: ISTD

	COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
M	2 Xylenes (total)	0.63339	0.55907	0.55907	0.050	-11.73379	30.00000	Averaged	
M	3 1,2-Dichloroethylene (total	0.47482	0.45531	0.45531	0.050	-4.11046	30.00000	Averaged	
M	1 1,3-Dichloropropylene	0.46479	0.47295	0.47295	0.050	1.75470	30.00000	Averaged	
	4 Dichlorodifluoromethane	48.15577	50.00000	0.22154	0.050	-3.68845	30.00000	Linear	
	5 Chloromethane	0.47543	0.41400	0.41400	0.100	-12.92065	30.00000	Averaged	spcc
	6 Vinyl chloride	0.31640	0.31265	0.31265	0.050	-1.18443	20.00000	Averaged	ccc
	7 Bromomethane	0.22687	0.21691	0.21691	0.050	-4.38855	30.00000	Averaged	
	8 Chloroethane	0.21338	0.19571	0.19571	0.010	-8.28027	30.00000	Averaged	
	9 Trichlorofluoromethane	0.43113	0.47205	0.47205	0.050	9.49007	30.00000	Averaged	
	10 Ethyl Ether	0.30689	0.29580	0.29580	0.001	-3.61351	30.00000	Averaged	
	13 Acetone	0.40852	0.36378	0.36378	0.050	-10.95282	40.00000	Averaged	
	17 Acetonitrile	0.06100	0.06941	0.06941	0.010	13.78964	30.00000	Averaged	
	14 1,1-Dichloroethylene	0.20628	0.20471	0.20471	0.050	-0.76338	20.00000	Averaged	ccc
	18 Methyl acetate	0.34739	0.33746	0.33746	0.010	-2.85937	40.00000	Averaged	
	16 Iodomethane	0.40745	0.37826	0.37826	0.050	-7.16210	30.00000	Averaged	
	22 Methylene chloride	50.78561	50.00000	0.17270	0.050	1.57122	30.00000	Linear	
	19 Carbon disulfide	0.66324	0.64879	0.64879	0.050	-2.17836	30.00000	Averaged	
	24 tert-Butyl methyl ether	0.89741	0.80745	0.80745	0.050	-10.02505	30.00000	Averaged	
	25 trans-1,2-Dichloroethylene	0.43667	0.42367	0.42367	0.050	-2.97704	30.00000	Averaged	
	26 Vinyl acetate	0.87384	0.85675	0.85675	0.010	-1.95560	40.00000	Averaged	
	28 1,1-Dichloroethane	0.54335	0.51801	0.51801	0.100	-4.66292	30.00000	Averaged	spcc
	31 2-Butanone	0.40565	0.34614	0.34614	0.030	-14.67183	40.00000	Averaged	
	33 cis-1,2-Dichloroethylene	0.51298	0.48695	0.48695	0.050	-5.07527	30.00000	Averaged	
	34 2,2-Dichloropropane	0.29501	0.30074	0.30074	0.050	1.94346	30.00000	Averaged	
	38 Chloroform	0.55018	0.53935	0.53935	0.010	-1.96866	20.00000	Averaged	ccc
	37 Bromochloromethane	0.42974	0.40315	0.40315	0.010	-6.18718	30.00000	Averaged	
	41 1,1,1-Trichloroethane	0.44651	0.47074	0.47074	0.010	5.42710	30.00000	Averaged	
	43 Cyclohexane	0.54545	0.54725	0.54725	0.010	0.32853	30.00000	Averaged	
	44 1,1-Dichloropropene	0.33767	0.33797	0.33797	0.010	0.08731	30.00000	Averaged	
	52 n-Butyl alcohol	0.01255	0.01446	0.01446	0.001	15.16687	40.00000	Averaged	
	45 Carbon tetrachloride	0.36544	0.39322	0.39322	0.010	7.59951	30.00000	Averaged	
$	46 1,2-Dichloroethane-d4	0.51957	0.56335	0.56335	0.010	8.42519	30.00000	Averaged	
	47 1,2-Dichloroethane	0.62051	0.61481	0.61481	0.010	-0.91831	30.00000	Averaged	
	48 Benzene	0.96525	0.87914	0.87914	0.010	-8.92090	30.00000	Averaged	
	50 Cyclohexene	0.43169	0.43267	0.43267	0.010	0.22680	30.00000	Averaged	

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA7.i
Lab File ID: 7s302.d
Analysis Type: WATER
Lab Sample ID: W7VM091230-01
Method: /chem/VOA7.i/123009v7/VOA7-8260B-122409.m

Injection Date: 30-DEC-2009 09:36
Init. Cal. Date(s): 24-DEC-2009 24-DEC-2009
Init. Cal. Times: 11:46 20:13
Quant Type: ISTD

	COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
	53 Trichloroethylene	0.28105	0.26794	0.26794	0.010	-4.66476	30.00000	Averaged	
	56 1,2-Dichloropropane	0.29505	0.26954	0.26954	0.010	-8.64514	20.00000	Averaged	ccc
	55 Methylcyclohexane	0.37974	0.37056	0.37056	0.010	-2.41864	30.00000	Averaged	
	59 Bromodichloromethane	0.43580	0.45151	0.45151	0.010	3.60549	30.00000	Averaged	
	58 Dibromomethane	0.19937	0.19181	0.19181	0.010	-3.78999	30.00000	Averaged	
	61 2-Chloroethylvinyl ether	0.12801	0.10709	0.10709	0.010	-16.34749	30.00000	Averaged	
	63 4-Methyl-2-pentanone	0.22232	0.20334	0.20334	0.010	-8.53381	40.00000	Averaged	
	62 cis-1,3-Dichloropropylene	0.47015	0.46418	0.46418	0.010	-1.26857	30.00000	Averaged	
$	64 Toluene-d8	1.46303	1.43645	1.43645	0.010	-1.81720	30.00000	Averaged	
	65 Toluene	0.83649	0.73848	0.73848	0.010	-11.71651	20.00000	Averaged	ccc
	67 trans-1,3-Dichloropropylene	0.61254	0.61158	0.61158	0.010	-0.15615	30.00000	Averaged	
	68 1,1,2-Trichloroethane	0.29017	0.26523	0.26523	0.010	-8.59580	30.00000	Averaged	
	69 2-Hexanone	0.71997	0.55581	0.55581	0.010	-22.80123	40.00000	Averaged	
	70 1,3-Dichloropropane	0.59492	0.52304	0.52304	0.010	-12.08295	30.00000	Averaged	
	71 Tetrachloroethylene	0.26235	0.23626	0.23626	0.010	-9.94343	30.00000	Averaged	
	72 Dibromochloromethane	0.40419	0.40036	0.40036	0.010	-0.94784	30.00000	Averaged	
	73 1,2-Dibromoethane	0.37597	0.35569	0.35569	0.010	-5.39443	30.00000	Averaged	
	76 Chlorobenzene	0.94113	0.85602	0.85602	0.300	-9.04381	30.00000	Averaged	spcc
	77 1,1,1,2-Tetrachloroethane	0.38859	0.36053	0.36053	0.010	-7.22016	30.00000	Averaged	
	78 Ethylbenzene	1.68011	1.49061	1.49061	0.010	-11.27900	20.00000	Averaged	ccc
	79 m,p-Xylenes	0.62203	0.55176	0.55176	0.010	-11.29720	30.00000	Averaged	
	80 o-Xylene	0.65611	0.57369	0.57369	0.010	-12.56163	30.00000	Averaged	
	81 Styrene	1.06597	0.97847	0.97847	0.010	-8.20801	30.00000	Averaged	
	82 Bromoform	0.51378	0.52152	0.52152	0.100	1.50600	30.00000	Averaged	spcc
	83 Isopropylbenzene	2.80423	2.55463	2.55463	0.010	-8.90103	30.00000	Averaged	
	87 1,1,2,2-Tetrachloroethane	0.83514	0.75859	0.75859	0.300	-9.16654	30.00000	Averaged	spcc
$	86 Bromofluorobenzene	1.14286	1.15341	1.15341	0.010	0.92266	30.00000	Averaged	
	89 1,2,3-Trichloropropane	0.24074	0.22190	0.22190	0.010	-7.82709	30.00000	Averaged	
	90 Bromobenzene	0.82730	0.71635	0.71635	0.010	-13.41180	30.00000	Averaged	
	91 n-Propylbenzene	3.42660	3.02363	3.02363	0.010	-11.76012	30.00000	Averaged	
	93 2-Chlorotoluene	2.52986	2.24301	2.24301	0.010	-11.33843	30.00000	Averaged	
	92 1,3,5-Trimethylbenzene	2.46615	2.21284	2.21284	0.010	-10.27144	30.00000	Averaged	
	94 4-Chlorotoluene	2.38630	2.15535	2.15535	0.010	-9.67843	30.00000	Averaged	
	95 tert-Butylbenzene	2.29263	2.10164	2.10164	0.010	-8.33050	30.00000	Averaged	
	96 1,2,4-Trimethylbenzene	2.63806	2.38398	2.38398	0.010	-9.63108	30.00000	Averaged	
	98 sec-Butylbenzene	3.07170	2.85182	2.85182	0.010	-7.15834	30.00000	Averaged	

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA7.i
Lab File ID: 7s302.d
Analysis Type: WATER
Lab Sample ID: W7VM091230-01
Method: /chem/VOA7.i/123009v7/VOA7-8260B-122409.m

Injection Date: 30-DEC-2009 09:36
Init. Cal. Date(s): 24-DEC-2009 24-DEC-2009
Init. Cal. Times: 11:46 20:13
Quant Type: ISTD

COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
99 4-Isopropyltoluene	2.48441	2.29614	2.29614	0.010	-7.57818	30.00000	Averaged
100 1,3-Dichlorobenzene	1.45637	1.27716	1.27716	0.010	-12.30518	30.00000	Averaged
102 1,4-Dichlorobenzene	1.43031	1.26452	1.26452	0.010	-11.59142	30.00000	Averaged
104 n-Butylbenzene	2.55889	2.38712	2.38712	0.010	-6.71275	30.00000	Averaged
105 1,2-Dichlorobenzene	1.40938	1.29104	1.29104	0.010	-8.39688	30.00000	Averaged
107 1,2-Dibromo-3-chloropropane	0.18807	0.19422	0.19422	0.010	3.27015	30.00000	Averaged
108 1,2,4-Trichlorobenzene	1.06003	0.99042	0.99042	0.010	-6.56697	30.00000	Averaged
109 Hexachlorobutadiene	0.61940	0.58898	0.58898	0.010	-4.91182	30.00000	Averaged
110 Naphthalene	2.11689	1.99001	1.99001	0.010	-5.99377	30.00000	Averaged
111 1,2,3-Trichlorobenzene	0.95577	0.91777	0.91777	0.010	-3.97600	30.00000	Averaged

Average %D / Drift Results.

Calculated Average %D/Drift = 6.92043
Maximun Average %D/Drift = 20.00000
* Passed Average %D/Drift Test.

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA7.i/123009v7/7s302.d
Lab Smp Id: W7VM091230-01 Client Smp ID: VSTD050
Inj Date : 30-DEC-2009 09:36
Operator : AXO1 Inst ID: VOA7.i
Smp Info : |W7VM091230-01|BFBCCV/LCS|1|VOAF|1|
Misc Info : GEL 5mL N/A UVM091214-01C/IVM091228-01
Comment :
Method : /chem/VOA7.i/123009v7/VOA7-8260B-122409.m
Meth Date : 04-Jan-2010 12:00 ale01592 Quant Type: ISTD
Cal Date : 24-DEC-2009 19:39 Cal File: 7r423.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: CALsubL+.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (Uf/Vo) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	sample purged

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
M 2 Xylenes (total)	106				1170088	150.000	132
M 3 1,2-Dichloroethylene (total)	96				806548	100.000	96.0
M 1 1,3-Dichloropropylene	75				837802	100.000	102
4 Dichlorodifluoromethane	85	5.147	5.147	(0.336)	196221	50.0000	48.2
5 Chloromethane	50	5.757	5.757	(0.376)	366688	50.0000	43.5
6 Vinyl chloride	62	6.188	6.188	(0.404)	276922	50.0000	49.4
7 Bromomethane	94	7.429	7.429	(0.485)	192121	50.0000	47.8
8 Chloroethane	64	7.855	7.855	(0.513)	173347	50.0000	45.8
9 Trichlorofluoromethane	101	8.789	8.789	(0.574)	418101	50.0000	54.7
10 Ethyl Ether	59	9.703	9.703	(0.633)	261999	50.0000	48.2
13 Acetone	43	10.423	10.423	(0.681)	1611039	250.000	223
17 Acetonitrile	41	11.083	11.083	(0.724)	1229585	1000.00	1140
14 1,1-Dichloroethylene	96	10.312	10.312	(0.673)	181316	50.0000	49.6
18 Methyl acetate	43	11.225	11.225	(0.733)	1494468	250.000	243
16 Iodomethane	142	10.677	10.677	(0.697)	1675183	250.000	232

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
22 Methylene chloride	86	11.449	11.449	(0.747)	152967	50.0000	50.8
19 Carbon disulfide	76	10.840	10.840	(0.708)	2873258	250.000	244
24 tert-Butyl methyl ether	73	12.017	12.017	(0.785)	715172	50.0000	45.0
25 trans-1,2-Dichloroethylene	61	12.027	12.027	(0.785)	375250	50.0000	48.5
26 Vinyl acetate	43	12.860	12.860	(0.840)	3794227	250.000	245
28 1,1-Dichloroethane	63	12.799	12.799	(0.836)	458814	50.0000	47.7
31 2-Butanone	43	13.723	13.723	(0.896)	1532908	250.000	213
33 cis-1,2-Dichloroethylene	61	13.733	13.733	(0.897)	431298	50.0000	47.5
34 2,2-Dichloropropane	77	13.743	13.743	(0.897)	266372	50.0000	51.0
38 Chloroform	83	14.190	14.190	(0.926)	477710	50.0000	49.0
37 Bromochloromethane	49	14.088	14.088	(0.920)	357080	50.0000	46.9
41 1,1,1-Trichloroethane	97	14.484	14.484	(0.946)	416946	50.0000	52.7
43 Cyclohexane	56	14.586	14.586	(0.952)	484707	50.0000	50.2
44 1,1-Dichloropropene	75	14.697	14.697	(0.960)	299345	50.0000	50.0
52 n-Butyl alcohol	56	15.560	15.560	(1.016)	1280586	5000.00	5760
45 Carbon tetrachloride	117	14.728	14.728	(0.962)	348280	50.0000	53.8
$ 46 1,2-Dichloroethane-d4	65	14.880	14.880	(0.971)	498969	50.0000	54.2
47 1,2-Dichloroethane	62	14.982	14.982	(0.978)	544554	50.0000	49.5
48 Benzene	78	14.982	14.982	(0.978)	778675	50.0000	45.5
50 Cyclohexene	67	15.124	15.124	(0.987)	383222	50.0000	50.1
* 51 Fluorobenzene	96	15.317	15.317	(1.000)	885722	50.0000	
53 Trichloroethylene	95	15.773	15.773	(1.030)	237319	50.0000	47.7
56 1,2-Dichloropropane	63	16.037	16.037	(1.047)	238736	50.0000	45.7
55 Methylcyclohexane	83	16.027	16.027	(1.046)	328210	50.0000	48.8
59 Bromodichloromethane	83	16.332	16.332	(1.066)	399914	50.0000	51.8
58 Dibromomethane	93	16.179	16.179	(1.056)	169894	50.0000	48.1
61 2-Chloroethylvinyl ether	63	16.606	16.606	(1.084)	474239	250.000	209
63 4-Methyl-2-pentanone	58	16.941	16.941	(0.908)	709304	250.000	229
62 cis-1,3-Dichloropropylene	75	16.819	16.819	(1.098)	411136	50.0000	49.4
$ 64 Toluene-d8	98	17.144	17.144	(0.918)	1002123	50.0000	49.1
65 Toluene	92	17.215	17.215	(0.922)	515194	50.0000	44.1
67 trans-1,3-Dichloropropylene	75	17.388	17.388	(0.931)	426666	50.0000	49.9
68 1,1,2-Trichloroethane	83	17.611	17.611	(0.943)	185036	50.0000	45.7
69 2-Hexanone	43	17.804	17.804	(0.954)	1938779	250.000	193
70 1,3-Dichloropropane	76	17.794	17.794	(0.953)	364894	50.0000	44.0
71 Tetrachloroethylene	164	17.824	17.824	(0.955)	164824	50.0000	45.0
72 Dibromochloromethane	129	18.058	18.058	(0.967)	279308	50.0000	49.5
73 1,2-Dibromoethane	107	18.220	18.220	(0.976)	248144	50.0000	47.3
* 75 Chlorobenzene-d5	117	18.667	18.667	(1.000)	697641	50.0000	
76 Chlorobenzene	112	18.697	18.697	(1.002)	597193	50.0000	45.5
77 1,1,1,2-Tetrachloroethane	131	18.758	18.758	(1.005)	251521	50.0000	46.4
78 Ethylbenzene	91	18.768	18.768	(1.005)	1039910	50.0000	44.4
79 m,p-Xylenes	106	18.870	18.870	(1.011)	769859	100.000	88.7
80 o-Xylene	106	19.286	19.286	(1.033)	400229	50.0000	43.7
81 Styrene	104	19.286	19.286	(1.033)	682622	50.0000	45.9
82 Bromoform	173	19.540	19.540	(0.931)	219847	50.0000	50.8
83 Isopropylbenzene	105	19.631	19.631	(0.935)	1076903	50.0000	45.5

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
87 1,1,2,2-Tetrachloroethane	83	19.885	19.885	(0.947)	319782	50.0000	45.4
$ 86 Bromofluorobenzene	95	19.814	19.814	(0.944)	486219	50.0000	50.5
89 1,2,3-Trichloropropane	110	19.966	19.966	(0.951)	93540	50.0000	46.1
90 Bromobenzene	156	20.017	20.017	(0.954)	301976	50.0000	43.3
91 n-Propylbenzene	91	20.037	20.037	(0.955)	1274611	50.0000	44.1
93 2-Chlorotoluene	91	20.169	20.169	(0.961)	945542	50.0000	44.3
92 1,3,5-Trimethylbenzene	105	20.169	20.169	(0.961)	932823	50.0000	44.9
94 4-Chlorotoluene	91	20.271	20.271	(0.966)	908587	50.0000	45.2
95 tert-Butylbenzene	119	20.535	20.535	(0.978)	885946	50.0000	45.8
96 1,2,4-Trimethylbenzene	105	20.565	20.565	(0.980)	1004968	50.0000	45.2
98 sec-Butylbenzene	105	20.748	20.748	(0.988)	1202185	50.0000	46.4
99 4-Isopropyltoluene	119	20.870	20.870	(0.994)	967936	50.0000	46.2
100 1,3-Dichlorobenzene	146	20.931	20.931	(0.997)	538386	50.0000	43.8
* 101 1,4-Dichlorobenzene-d4	152	20.991	20.991	(1.000)	421550	50.0000	
102 1,4-Dichlorobenzene	146	21.022	21.022	(1.001)	533058	50.0000	44.2
104 n-Butylbenzene	91	21.296	21.296	(1.014)	1006291	50.0000	46.6
105 1,2-Dichlorobenzene	146	21.438	21.438	(1.021)	544238	50.0000	45.8
107 1,2-Dibromo-3-chloropropane	157	22.301	22.301	(1.062)	81875	50.0000	51.6
108 1,2,4-Trichlorobenzene	180	23.357	23.357	(1.113)	417512	50.0000	46.7
109 Hexachlorobutadiene	225	23.540	23.540	(1.121)	248283	50.0000	47.5
110 Naphthalene	128	23.753	23.753	(1.132)	838890	50.0000	47.0
111 1,2,3-Trichlorobenzene	180	24.098	24.098	(1.148)	386885	50.0000	48.0

Data File: /chem/VOA7.i/123009v7/7s302.d
Date : 30-DEC-2009 09:36
Client ID: VSTD050
Sample Info: IW7VM091230-01|BFBCCV/LCS|1|VOAF|1|
Purge Volume: 5.0
Column phase: DB-624

Instrument: VOA7.i
Operator: AX01
Column diameter: 0.25

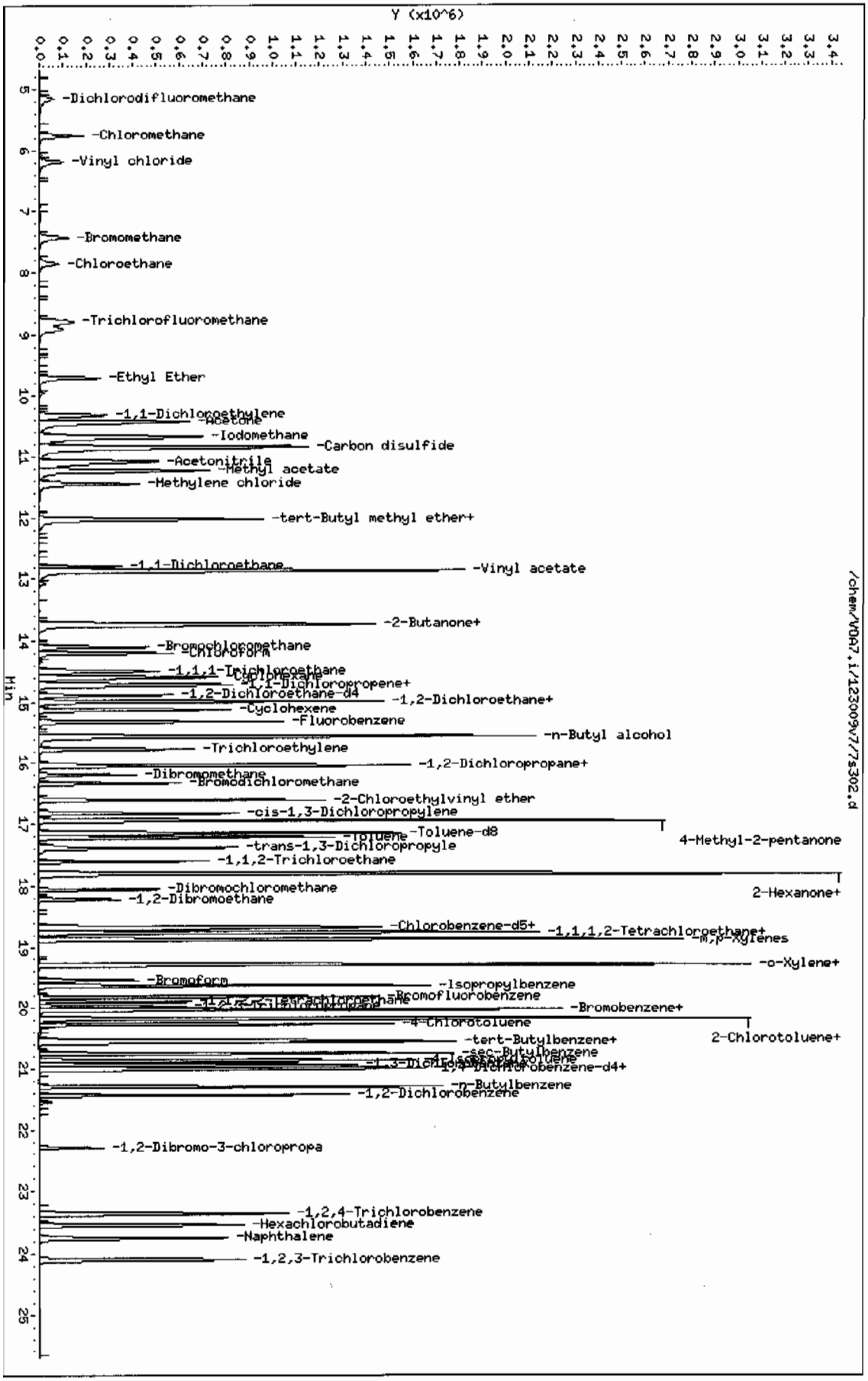

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GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA7.i Injection Date: 30-DEC-2009 10:45
Lab File ID: 7s304.d Init. Cal. Date(s): 24-DEC-2009 24-DEC-2009
Analysis Type: WATER Init. Cal. Times: 11:46 20:13
Lab Sample ID: UVM091118-08C Quant Type: ISTD
Method: /chem/VOA7.i/123009v7/VOA7-8260B-122409.m

COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
11 Acrolein	0.06685	0.07927	0.07927	0.001	18.59390	30.00000	Averaged
12 Trichlorotrifluoroethane	0.10070	0.12484	0.12484	0.010	23.97617	30.00000	Averaged
20 Allyl chloride	0.54765	0.57850	0.57850	0.010	5.63449	30.00000	Averaged
23 Acrylonitrile	0.14880	0.15681	0.15681	0.010	5.37669	30.00000	Averaged
29 2-Chloro-1,3-butadiene	0.54378	0.65018	0.65018	0.010	19.56769	30.00000	Averaged
35 Propionitrile	0.05863	0.06011	0.06011	0.010	2.51851	30.00000	Averaged
32 Ethyl acetate	0.45027	0.43246	0.43246	0.010	-3.95520	40.00000	Averaged
36 Methacrylonitrile	0.27095	0.27084	0.27084	0.010	-0.03997	30.00000	Averaged
39 Tetrahydrofuran	0.30768	0.29399	0.29399	0.010	-4.44647	30.00000	Averaged
42 Isobutyl alcohol	0.01822	0.01860	0.01860	0.005	2.06448	40.00000	Averaged
54 Methyl methacrylate	0.18296	0.18457	0.18457	0.010	0.87998	30.00000	Averaged
66 Ethyl methacrylate	0.46969	0.45723	0.45723	0.010	-2.65236	30.00000	Averaged
57 1,4-Dioxane	0.00323	0.00313	0.00313	0.001	-3.13566	40.00000	Averaged
60 2-Nitropropane	0.15476	0.18880	0.18880	0.010	21.99324	30.00000	Averaged
84 cis-1,4-Dichloro-2-butene	0.39395	0.45045	0.45045	0.010	14.34157	30.00000	Averaged
85 Cyclohexanone	0.06695	0.03282	0.03282	0.010	-50.98494	40.00000	Averaged <-
88 trans-1,4-Dichloro-2-butene	0.35993	0.41327	0.41327	0.010	14.81687	30.00000	Averaged
97 Pentachloroethane	0.29276	0.37649	0.37649	0.010	28.59909	30.00000	Averaged
103 Benzyl chloride	1.20443	1.39904	1.39904	0.010	16.15756	30.00000	Averaged
106 bis(2-Chloroisopropyl)ether	0.64761	0.58583	0.58583	0.010	-9.53998	30.00000	Averaged
$ 46 1,2-Dichloroethane-d4	0.51957	0.55628	0.55628	0.010	7.06511	30.00000	Averaged
$ 64 Toluene-d8	1.46303	1.47809	1.47809	0.010	1.02952	30.00000	Averaged
$ 86 Bromofluorobenzene	1.14286	1.13271	1.13271	0.010	-0.88802	30.00000	Averaged

Average %D / Drift Results.

Calculated Average %D/Drift = 6.92043
Maximun Average %D/Drift = 20.00000
* Passed Average %D/Drift Test.

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA7.i/123009v7/7s304.d
Lab Smp Id: UVM091118-08C Client Smp ID: VSTD250S
Inj Date : 30-DEC-2009 10:45
Operator : AXO1 Inst ID: VOA7.i
Smp Info : |UVM091118-08C|SHORT/SLCS|1|VOAF|1|
Misc Info : GEL 5mL N/A
Comment :
Method : /chem/VOA7.i/123009v7/VOA7-8260B-122409.m
Meth Date : 31-Dec-2009 15:02 ale01592 Quant Type: ISTD
Cal Date : 24-DEC-2009 19:39 Cal File: 7r423.d
Als bottle: 4 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: CALsubS+SS.sub
Target Version: 3.50

Concentration Formula: Amt * DF * (Uf/Vo) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	sample purged

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
11 Acrolein	56	10.017	10.017	(0.654)	352919	250.000	296
12 Trichlorotrifluoroethane	85	10.373	10.373	(0.677)	555780	250.000	310
20 Allyl chloride	41	11.185	11.185	(0.730)	2575411	250.000	264
23 Acrylonitrile	53	11.926	11.926	(0.779)	698073	250.000	263
29 2-Chloro-1,3-butadiene	53	12.962	12.962	(0.846)	578901	50.0000	59.8
35 Propionitrile	54	13.804	13.804	(0.901)	267600	250.000	256
32 Ethyl acetate	43	13.804	13.804	(0.901)	1925254	250.000	240
36 Methacrylonitrile	41	14.038	14.038	(0.916)	1205749	250.000	250
39 Tetrahydrofuran	42	14.159	14.159	(0.675)	629452	250.000	239
42 Isobutyl alcohol	41	14.748	14.748	(0.963)	828051	2500.00	2550
54 Methyl methacrylate	69	16.078	16.078	(1.050)	821666	250.000	252
66 Ethyl methacrylate	69	17.418	17.418	(0.933)	1563690	250.000	243
57 1,4-Dioxane	88	16.159	16.159	(1.055)	139398	2500.00	2420
60 2-Nitropropane	43	16.555	16.555	(1.081)	840499	250.000	305
84 cis-1,4-Dichloro-2-butene	53	19.662	19.662	(0.937)	964429	250.000	286
85 Cyclohexanone	55	19.773	19.773	(1.059)	561128	1250.00	613

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
88 trans-1,4-Dichloro-2-butene	53	19.926	19.926	(0.949)	884814	250.000	287
97 Pentachloroethane	167	20.606	20.606	(0.982)	806078	250.000	321(A)
103 Benzyl chloride	91	21.124	21.124	(1.006)	2995380	250.000	290
106 bis(2-Chloroisopropyl)ether	45	21.509	21.509	(1.025)	1254284	250.000	226
* 51 Fluorobenzene	96	15.317	15.317	(1.000)	890369	50.0000	
* 75 Chlorobenzene-d5	117	18.667	18.667	(1.000)	683977	50.0000	
* 101 1,4-Dichlorobenzene-d4	152	20.992	20.991	(1.000)	428206	50.0000	
$ 46 1,2-Dichloroethane-d4	65	14.880	14.880	(0.972)	495295	50.0000	53.5
$ 64 Toluene-d8	98	17.144	17.144	(0.918)	1010982	50.0000	50.5
$ 86 Bromofluorobenzene	95	19.814	19.814	(0.944)	485035	50.0000	49.6

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.

Data File: /chem/VOA7.i/123009v7/7s304.d
Date : 30-DEC-2009 10:45
Client ID: VSTD250S
Sample Info: IUWM091118-08C|SHORT/SLCS|1|VOAF|1|
Purge Volume: 5.0
Column phase: DB-624

Instrument: VOA7.i
Operator: AXO1
Column diameter: 0.25

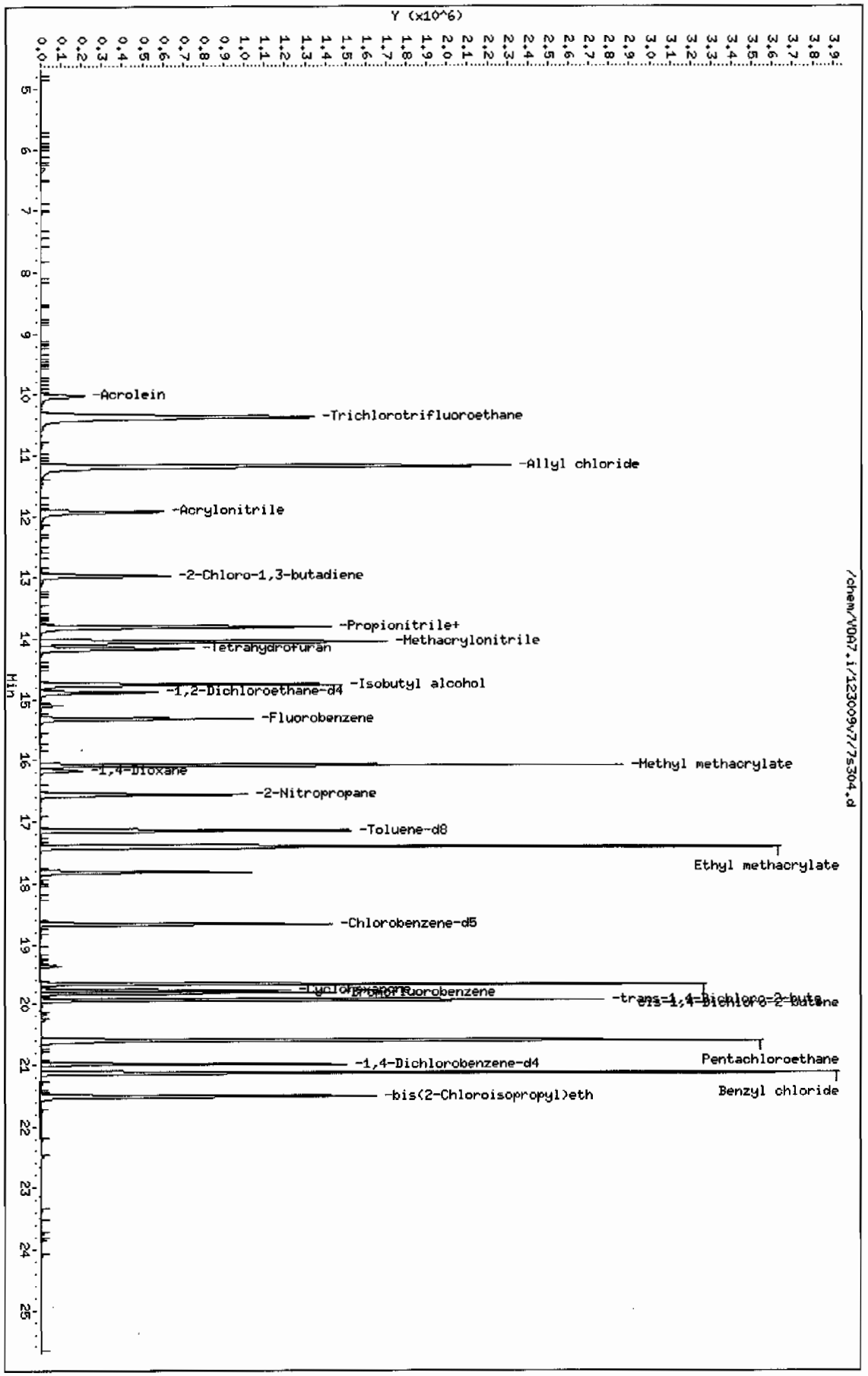

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QC Data

Data File: /chem/VOA7.i/122409v7/7r408.d

Date : 24-DEC-2009 11:13

Client ID: BFB01

Instrument: VOA7.i

Sample Info: |UVH091216-10|BFB|1|VOAF|1|

Operator: CDS1

Column phase: db624

Column diameter: 0.25

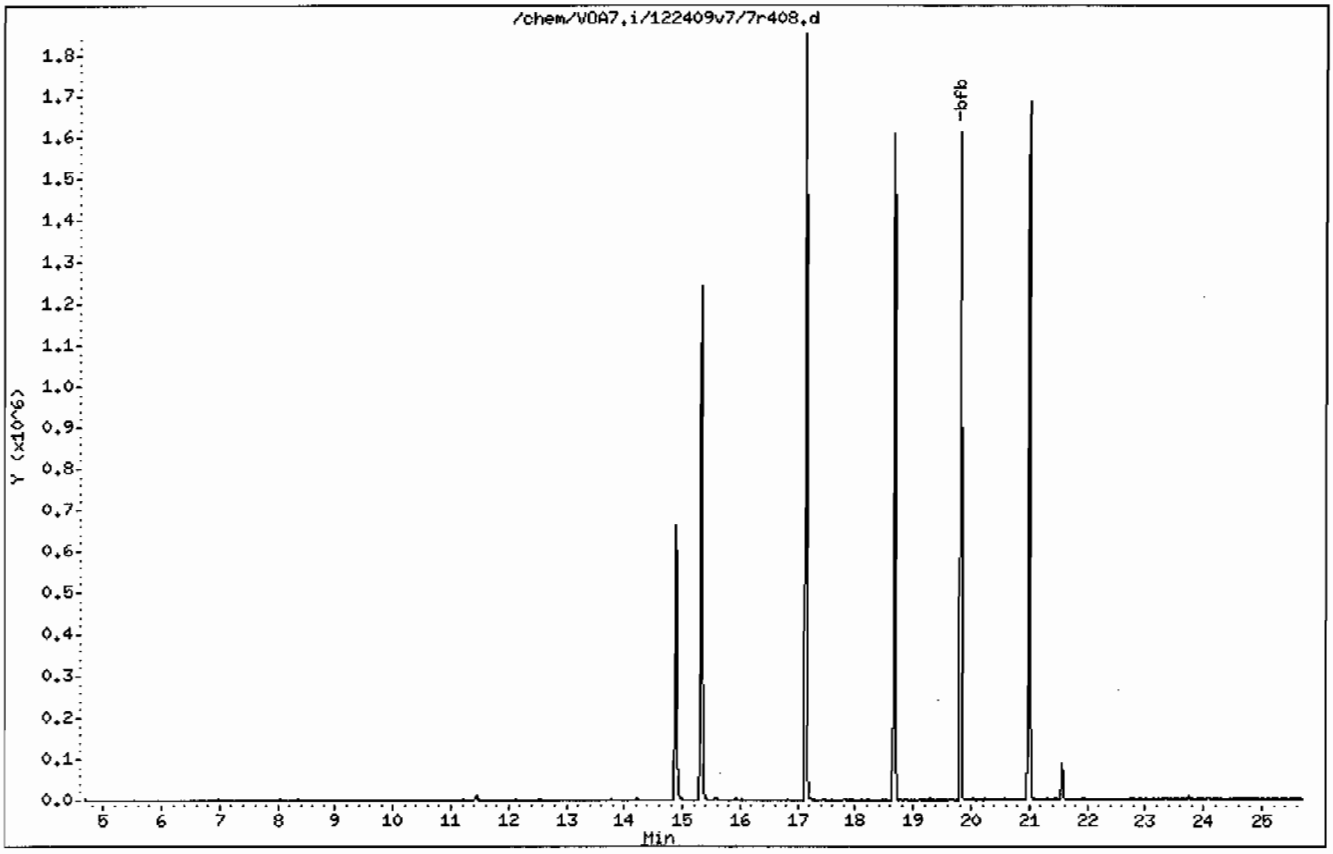

Data File: /chem/VOA7.i/122409v7/7r408.d

Date : 24-DEC-2009 11:13

Client ID: BFB01

Instrument: VOA7.i

Sample Info: |UVH091216-10|BFB|1|VOAF|1|

Operator: CDS1

Column phase: db624

Column diameter: 0.25

1 bfb

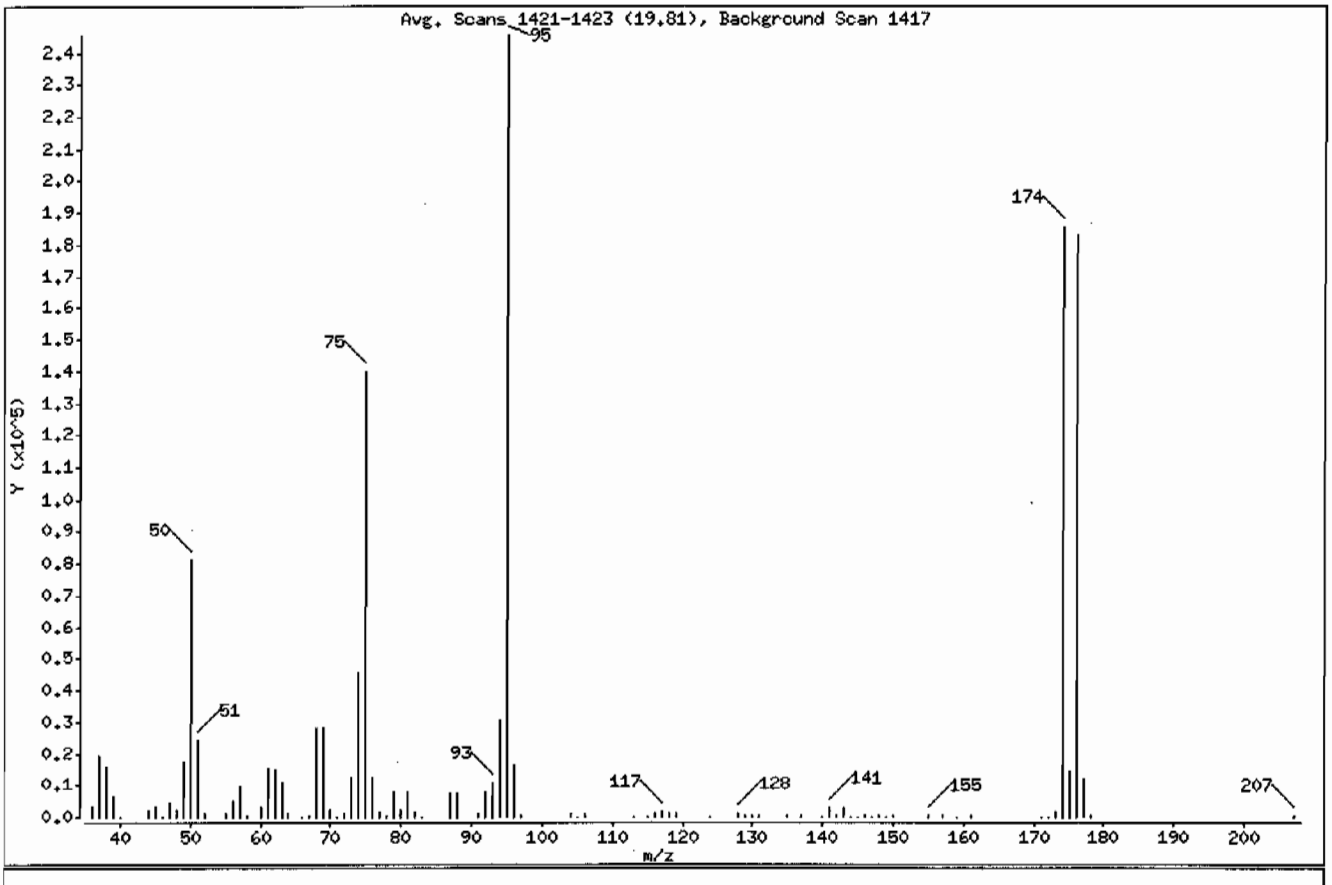

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	33.20
75	30.00 - 60.00% of mass 95	57.02
96	5.00 - 9.00% of mass 95	6.71
173	Less than 2.00% of mass 174	0.62 (0.82)
174	50.00 - 100.00% of mass 95	75.61
175	5.00 - 9.00% of mass 174	5.66 (7.48)
176	95.00 - 101.00% of mass 174	74.52 (98.55)
177	5.00 - 9.00% of mass 176	4.93 (6.62)

Data File: /chem/VOA7.i/122409v7/7r408.d

Date : 24-DEC-2009 11:13

Client ID: BFB01 Instrument: VOA7.i

Sample Info: |UVM091216-10|BFB|1|VOAF|1|

Operator: CDS1

Column phase: db624 Column diameter: 0.25

Data File: 7r408.d

Spectrum: Avg. Scans 1421-1423 (19.81), Background Scan 1417

Location of Maximum: 95.00

Number of points: 90

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	3147	66.00	88	94.00	30392	143.00	2878
37.00	19200	67.00	713	95.00	245376	144.00	94
38.00	15680	68.00	27776	96.00	16472	145.00	106
39.00	6950	69.00	28184	97.00	571	146.00	342
40.00	227	70.00	2367	104.00	1187	147.00	90
44.00	2054	71.00	87	105.00	252	148.00	572
45.00	3428	72.00	1369	106.00	1145	149.00	229
46.00	93	73.00	12186	113.00	204	150.00	339
47.00	4287	74.00	45440	115.00	121	155.00	637
48.00	2505	75.00	139904	116.00	1057	157.00	459
49.00	17616	76.00	12395	117.00	1608	159.00	263
50.00	81456	77.00	1427	118.00	988	161.00	332
51.00	24304	78.00	658	119.00	1300	171.00	133
52.00	1017	79.00	7731	124.00	98	172.00	165
55.00	1070	80.00	2070	128.00	925	173.00	1527
56.00	5129	81.00	8066	129.00	423	174.00	185536
57.00	9647	82.00	1457	130.00	824	175.00	13884
58.00	329	83.00	101	131.00	415	176.00	182848
60.00	3341	87.00	7155	135.00	476	177.00	12101
61.00	15087	88.00	7066	137.00	521	178.00	323
62.00	14779	91.00	870	140.00	95	207.00	387
63.00	10667	92.00	7824	141.00	3002		
64.00	1080	93.00	10700	142.00	393		

Data File: /chem/VOA7.i/122409v7/7r704BFB.d

Date : 27-DEC-2009 23:55

Client ID: BFB01

Instrument: VOA7.i

Sample Info: IW7VM091227-04|BFB/ICV/CCV/LCS|1|VOAF|1|

Operator: AX01

Column phase: db624

Column diameter: 0.25

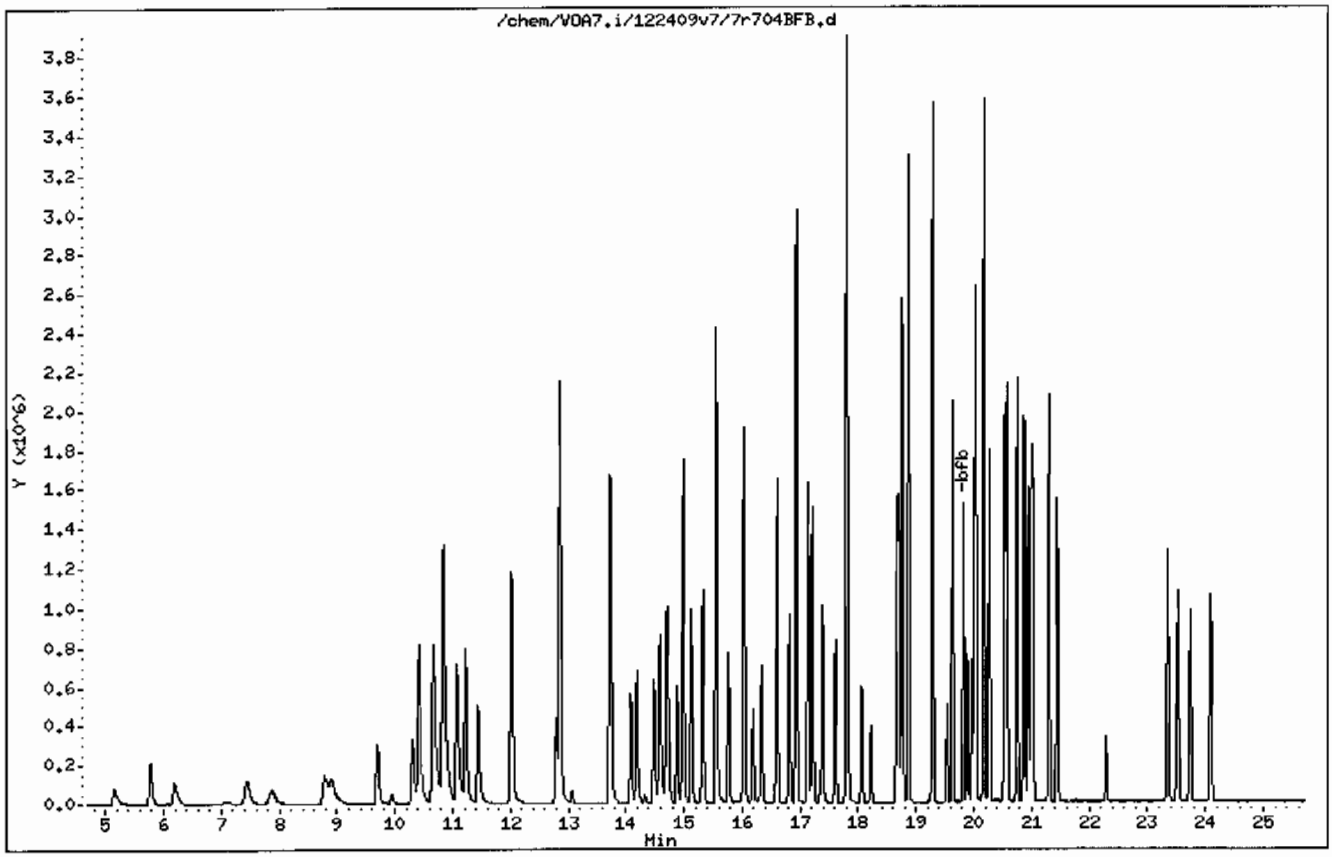

Data File: /chem/VOA7.i/122409v7/7r704BFB.d

Date : 27-DEC-2009 23:55

Client ID: BFB01

Instrument: VOA7.i

Sample Info: |W7VM091227-04|BFB/ICV/CCV/LCS|1|VOAF|1|

Operator: AX01

Column phase: db624

Column diameter: 0.25

1 bfb

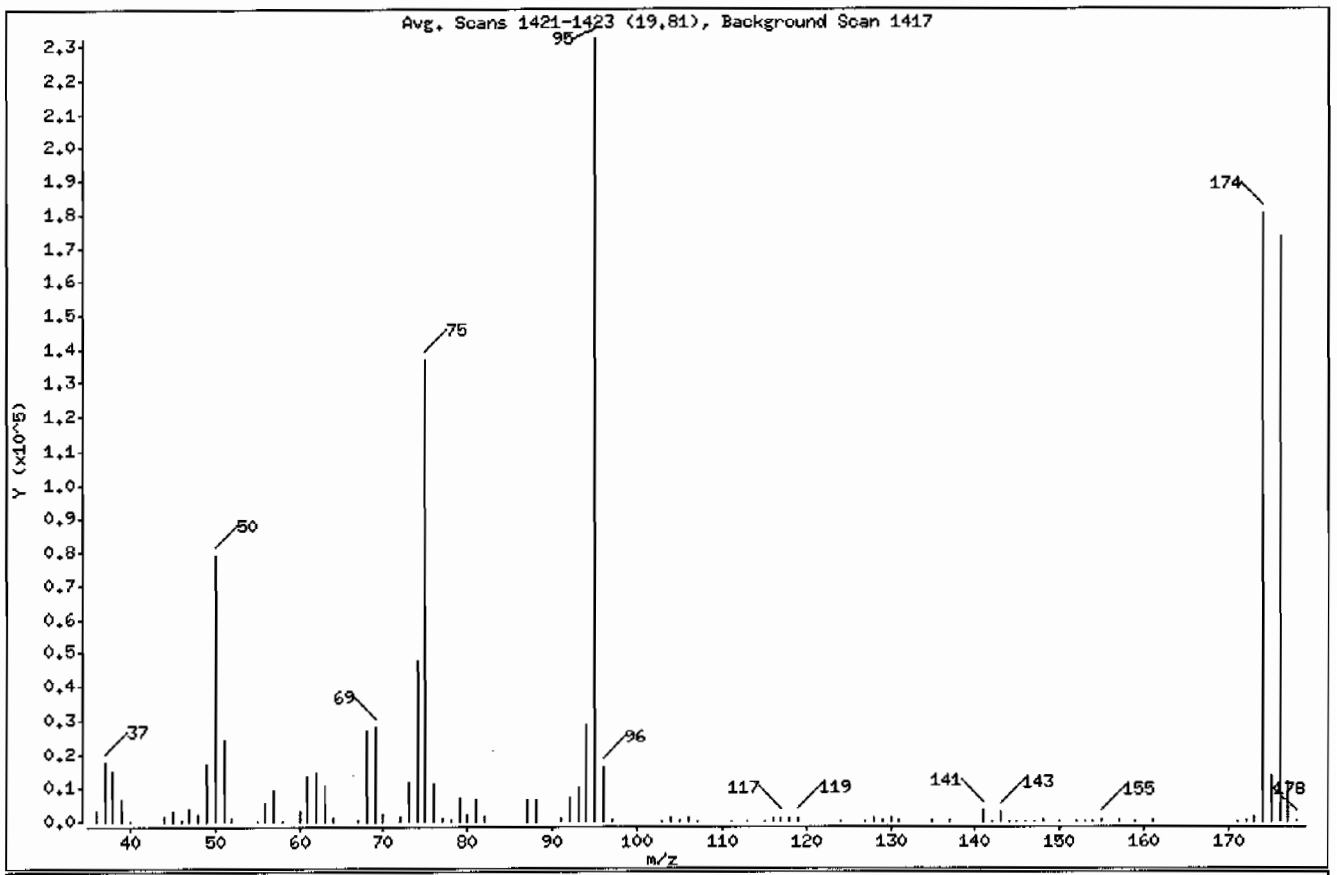

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	33.93
75	30.00 - 60.00% of mass 95	58.88
96	5.00 - 9.00% of mass 95	7.00
173	Less than 2.00% of mass 174	0.75 (0.97)
174	50.00 - 100.00% of mass 95	77.56
175	5.00 - 9.00% of mass 174	5.79 (7.46)
176	95.00 - 101.00% of mass 174	74.48 (96.02)
177	5.00 - 9.00% of mass 176	4.97 (6.67)

Data File: /chem/VOA7.i/122409v7/7r704BFB.d

Date : 27-DEC-2009 23:55

Client ID: BFB01 Instrument: VOA7.i

Sample Info: |W7VH091227-04|BFB/ICV/CCV/LCS|1|VOAF|1|

Operator: AX01

Column phase: db624 Column diameter: 0.25

Data File: 7r704BFB.d

Spectrum: Avg. Scans 1421-1423 (19.81), Background Scan 1417

Location of Maximum: 95.00

Number of points: 91

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	3015	67.00	572	97.00	502	143.00	2900
37.00	17680	68.00	26840	103.00	93	144.00	85
38.00	15202	69.00	27944	104.00	1105	145.00	256
39.00	6207	70.00	2387	105.00	334	146.00	152
40.00	184	72.00	1563	106.00	956	147.00	182
44.00	1425	73.00	11722	107.00	104	148.00	537
45.00	2998	74.00	47304	111.00	182	150.00	243
46.00	281	75.00	136704	113.00	134	152.00	105
47.00	3620	76.00	11428	115.00	235	153.00	93
48.00	2234	77.00	1038	116.00	882	154.00	129
49.00	16816	78.00	531	117.00	1159	155.00	601
50.00	78776	79.00	6832	118.00	924	157.00	451
51.00	23832	80.00	1959	119.00	1131	159.00	108
52.00	1035	81.00	6669	124.00	112	161.00	390
55.00	84	82.00	1423	127.00	85	171.00	196
56.00	5372	87.00	6470	128.00	915	172.00	387
57.00	8816	88.00	6525	129.00	455	173.00	1746
58.00	216	91.00	1039	130.00	1014	174.00	180096
60.00	2984	92.00	6938	131.00	374	175.00	13440
61.00	13171	93.00	9921	135.00	699	176.00	172928
62.00	14618	94.00	28080	137.00	424	177.00	11531
63.00	10495	95.00	232192	141.00	3150	178.00	454
64.00	834	96.00	16246	142.00	84		

Data File: /chem/VOA7.i/122909v7/7s203BFB.d

Page 1

Date : 29-DEC-2009 14:44

Client ID: BFB01

Instrument: VOA7.i

Sample Info: |W7VH091229-02|LCS|1|VOAF|1|

Operator: AX01

Column phase: db624

Column diameter: 0.25

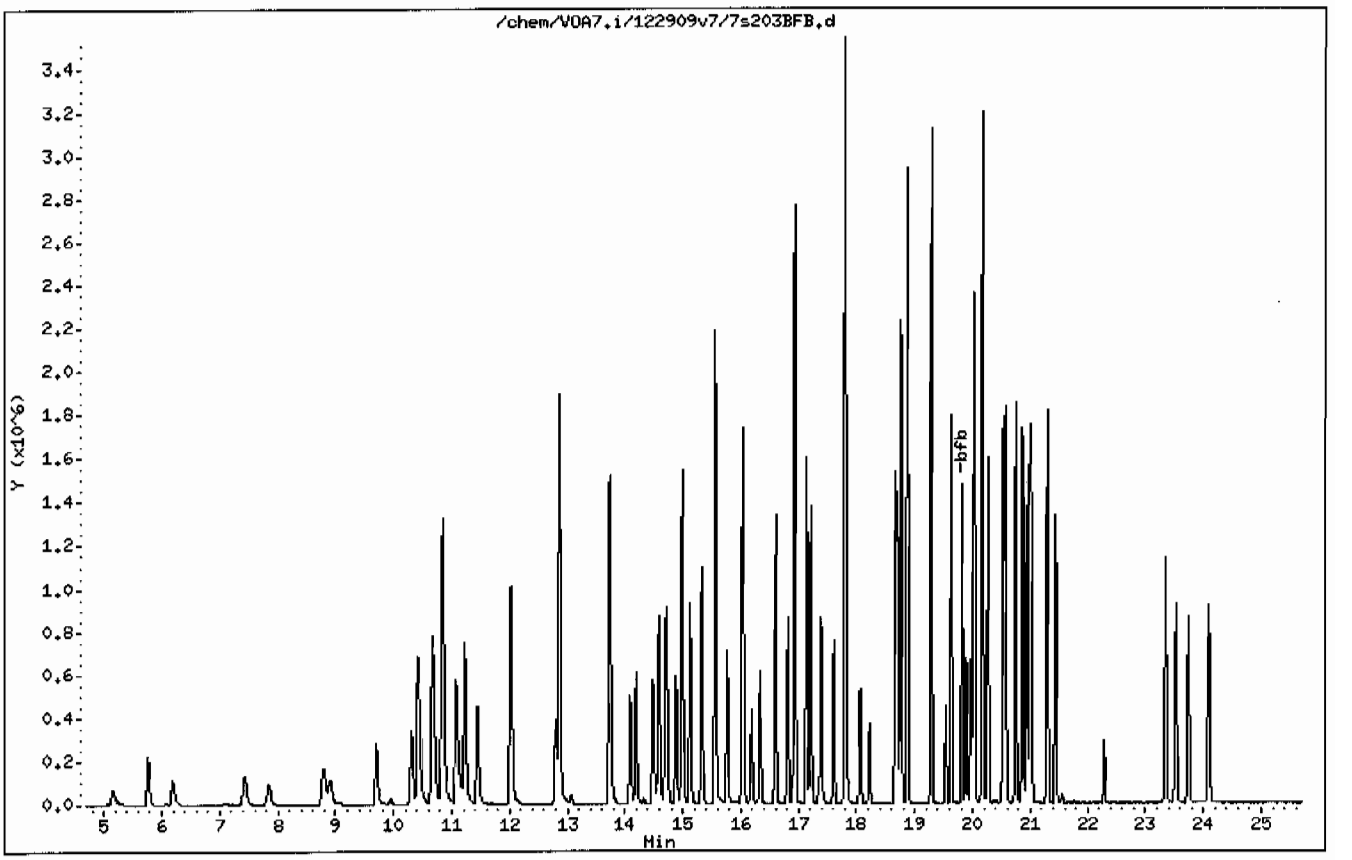

Data File: /chem/VOA7.i/122909v7/7s203BFB.d

Date : 29-DEC-2009 14:44

Client ID: BFB01 Instrument: VOA7.i

Sample Info: |W7VM091229-02|LCS|1|VOAF|1|

Operator: AX01

Column phase: db624 Column diameter: 0.25

1 bfb

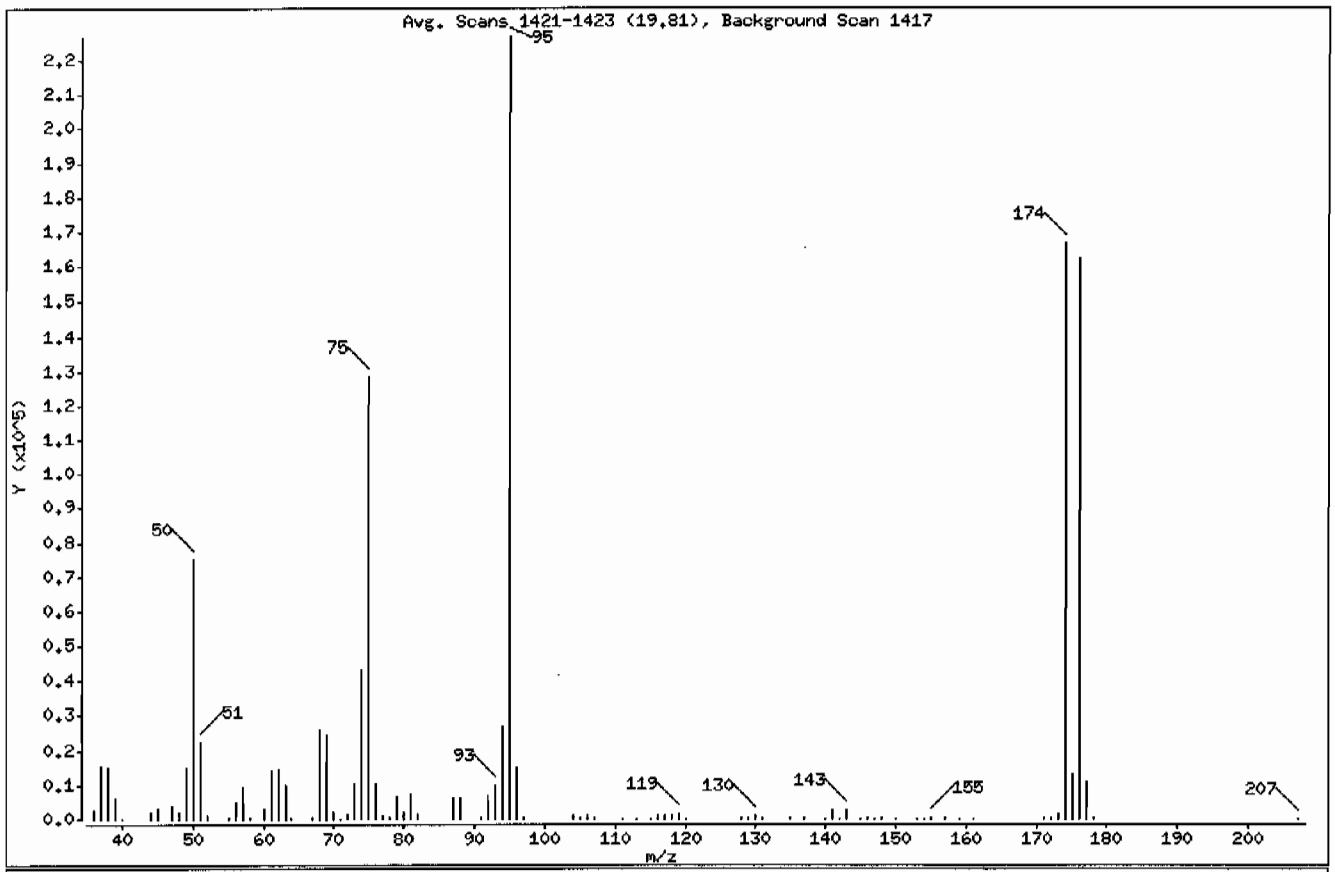

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	33.14
75	30.00 - 60.00% of mass 95	56.51
96	5.00 - 9.00% of mass 95	6.65
173	Less than 2.00% of mass 174	0.74 (1.01)
174	50.00 - 100.00% of mass 95	73.42
175	5.00 - 9.00% of mass 174	5.73 (7.81)
176	95.00 - 101.00% of mass 174	71.53 (97.43)
177	5.00 - 9.00% of mass 176	4.77 (6.67)

Data File: /chem/VOA7.i/122909v7/7s203BFB.d

Date : 29-DEC-2009 14:44

Client ID: BFB01

Instrument: VOA7.i

Sample Info: |W7VM091229-02|LCS|1|VOAF|1|

Operator: AX01

Column phase: db624

Column diameter: 0.25

Data File: 7s203BFB.d

Spectrum: Avg. Scans 1421-1423 (19.81), Background Scan 1417

Location of Maximum: 95.00

Number of points: 89

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	2624	68.00	26064	97.00	376	145.00	100
37.00	15731	69.00	24688	104.00	1077	146.00	394
38.00	14947	70.00	1941	105.00	456	147.00	86
39.00	6228	71.00	91	106.00	960	148.00	577
40.00	153	72.00	1321	107.00	269	150.00	234
44.00	2049	73.00	10517	111.00	130	153.00	216
45.00	3355	74.00	43384	113.00	101	154.00	135
47.00	3585	75.00	128168	115.00	119	155.00	537
48.00	2282	76.00	10682	116.00	907	157.00	442
49.00	15023	77.00	1028	117.00	1278	159.00	231
50.00	75168	78.00	581	118.00	868	161.00	111
51.00	22264	79.00	6994	119.00	1307	171.00	449
52.00	957	80.00	1869	120.00	92	172.00	457
55.00	435	81.00	7143	128.00	767	173.00	1687
56.00	4687	82.00	1351	129.00	275	174.00	166528
57.00	9531	87.00	6168	130.00	919	175.00	13002
58.00	368	88.00	6293	131.00	410	176.00	162240
60.00	2910	91.00	761	135.00	589	177.00	10829
61.00	13872	92.00	6653	137.00	395	178.00	298
62.00	14543	93.00	9904	140.00	87	207.00	16
63.00	10015	94.00	27104	141.00	2499		
64.00	775	95.00	226816	142.00	123		
67.00	639	96.00	15081	143.00	2741		

Data File: /chem/VOA7.i/123009v7/7s302BFB.d

Page 1

Date : 30-DEC-2009 09:36

Client ID: BFB01

Instrument: VOA7.i

Sample Info: |W7VH091230-01|BFBCCV/LCS|1|VOAF|1|

Operator: AX01

Column phase: db624

Column diameter: 0.25

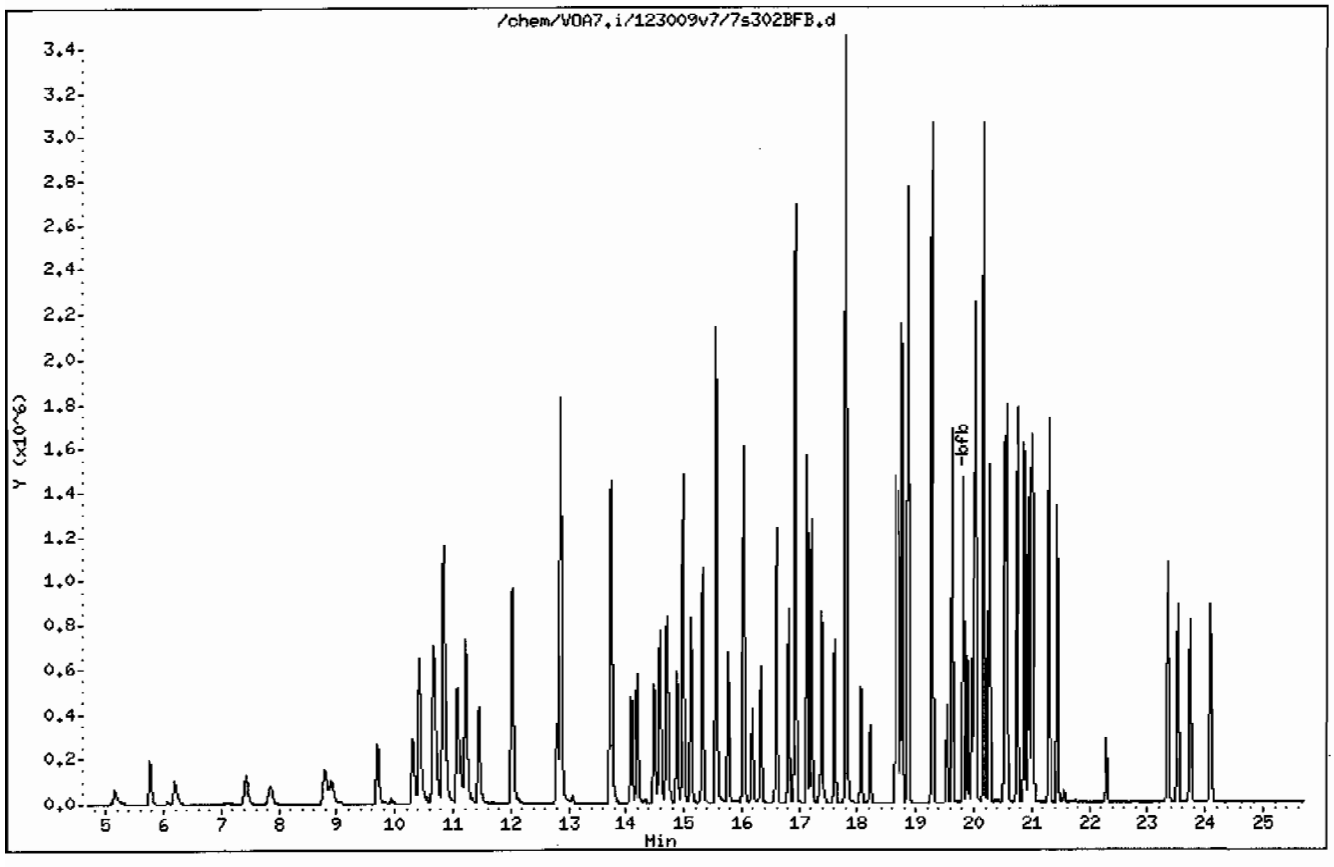

Data File: /chem/VOA7.i/123009v7/7s302BFB.d

Date : 30-DEC-2009 09:36

Client ID: BFB01

Instrument: VOA7.i

Sample Info: |W7VM091230-01|BFBCCV/LCS|1|VOAF|1|

Operator: AX01

Column phase: db624

Column diameter: 0.25

1 bfb

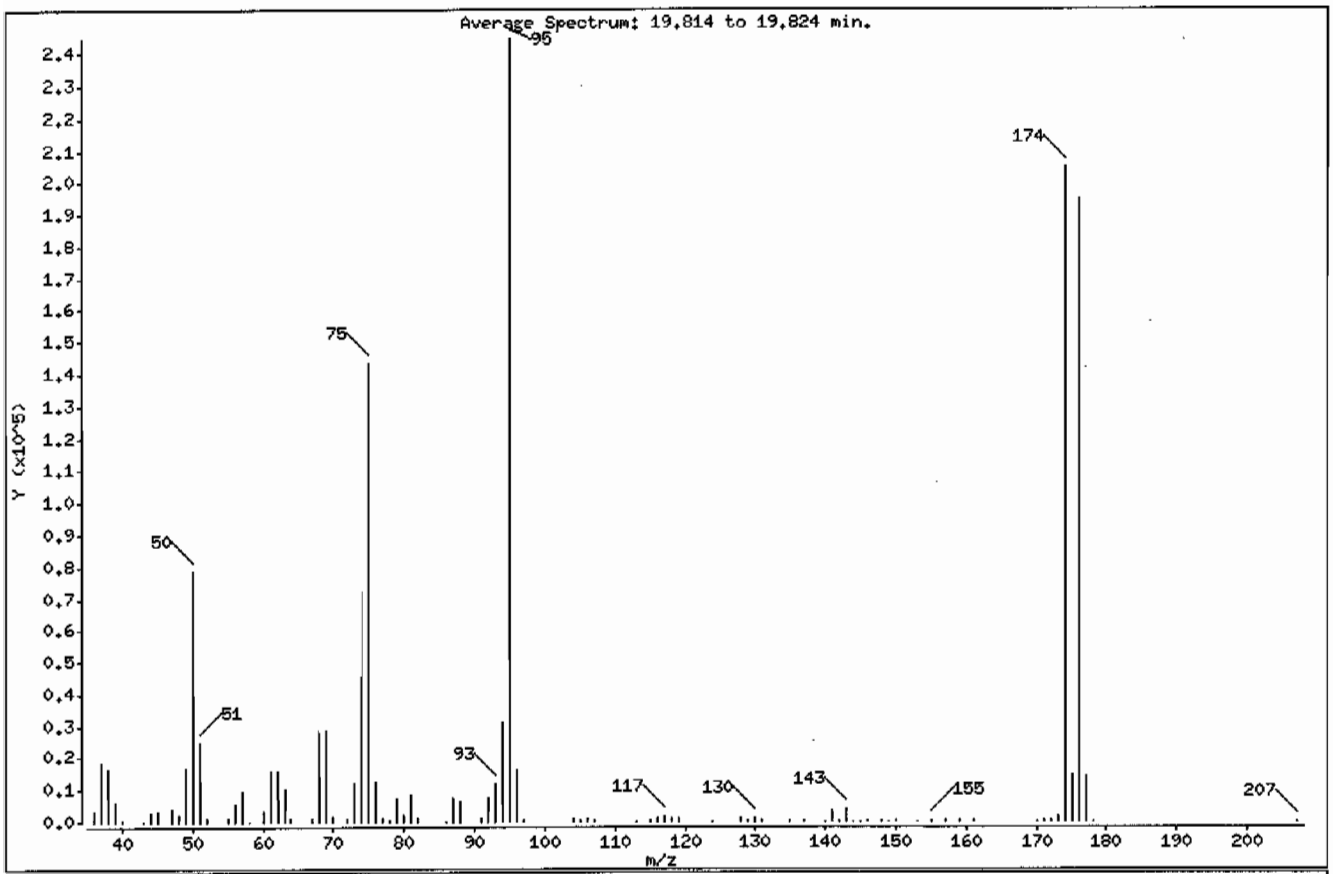

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	32.30
75	30.00 - 60.00% of mass 95	58.67
96	5.00 - 9.00% of mass 95	6.74
173	Less than 2.00% of mass 174	0.72 (0.87)
174	50.00 - 100.00% of mass 95	83.63
175	5.00 - 9.00% of mass 174	6.08 (7.27)
176	95.00 - 101.00% of mass 174	79.62 (95.20)
177	5.00 - 9.00% of mass 176	5.70 (7.16)

Data File: /chem/VOA7.i/123009v7/7s302BFB.d

Date : 30-DEC-2009 09:36

Client ID: BFB01 Instrument: VOA7.i

Sample Info: |W7VH091230-01|BFBCCV/LCS|1|VOAF|1|

Operator: AX01

Column phase: db624 Column diameter: 0.25

Data File: 7s302BFB.d
Spectrum: Average Spectrum: 19.814 to 19.824 min.
Location of Maximum: 95.00
Number of points: 90

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	3324	67.00	875	96.00	16480	144.00	156
37.00	18672	68.00	27752	97.00	453	145.00	125
38.00	16400	69.00	28600	104.00	935	146.00	416
39.00	6287	70.00	1830	105.00	341	148.00	573
40.00	414	72.00	1352	106.00	1077	149.00	136
43.00	143	73.00	12064	107.00	374	150.00	307
44.00	2725	74.00	45816	113.00	132	153.00	144
45.00	3459	75.00	143488	115.00	385	155.00	819
47.00	3831	76.00	12188	116.00	1085	157.00	366
48.00	2161	77.00	914	117.00	1757	159.00	476
49.00	16632	78.00	656	118.00	885	161.00	345
50.00	79000	79.00	7360	119.00	1352	170.00	154
51.00	24544	80.00	1991	124.00	134	171.00	442
52.00	1160	81.00	8406	128.00	861	172.00	529
55.00	898	82.00	1175	129.00	538	173.00	1771
56.00	5616	86.00	158	130.00	877	174.00	204544
57.00	9688	87.00	7266	131.00	533	175.00	14866
58.00	242	88.00	6129	135.00	386	176.00	194752
60.00	3625	91.00	1305	137.00	461	177.00	13937
61.00	15805	92.00	7391	140.00	226	178.00	216
62.00	15947	93.00	11795	141.00	3429	207.00	171
63.00	10136	94.00	30848	142.00	356		
64.00	874	95.00	244608	143.00	3702		

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1057**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202005936**				
Client Sample:	**QC for batch 937424**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 937424**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937425**	**Inst:**	**VOA7.I**	**Dilution:**	**1**
Run Date:	**12/29/2009 17:02**	**Analyst:**	**AXO1**	**Purge Vol:**	**5 mL**
Prep Date:	**12/29/2009 08:00**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**7s207BB.d**	**Column:**	**DB-624**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/kg	0.340	1.00
74-87-3	Chloromethane	U	1.00	ug/kg	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/kg	0.300	1.00
74-83-9	Bromomethane	U	1.00	ug/kg	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/kg	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/kg	0.300	1.00
67-64-1	Acetone	U	5.00	ug/kg	1.66	5.00
75-35-4	1,1-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/kg	1.60	5.00
75-09-2	Methylene chloride	U	5.00	ug/kg	2.00	5.00
75-15-0	Carbon disulfide	U	5.00	ug/kg	1.25	5.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/kg	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/kg	1.50	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/kg	0.300	1.00
74-97-5	Bromochloromethane	U	1.00	ug/kg	0.330	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/kg	0.300	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/kg	0.300	1.00
56-23-5	Carbon tetrachloride	U	1.00	ug/kg	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/kg	0.300	1.00
71-43-2	Benzene	U	1.00	ug/kg	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/kg	0.330	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/kg	0.300	1.00
74-95-3	Dibromomethane	U	1.00	ug/kg	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/kg	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
108-88-3	Toluene	U	1.00	ug/kg	0.300	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/kg	0.300	1.00
591-78-6	2-Hexanone	U	5.00	ug/kg	1.50	5.00
142-28-9	1,3-Dichloropropane	U	1.00	ug/kg	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/kg	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/kg	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/kg	0.300	1.00
108-90-7	Chlorobenzene	U	1.00	ug/kg	0.300	1.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1057**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202005936**				
Client Sample:	**QC for batch 937424**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 937424**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937425**	**Inst:**	**VOA7.I**	**Dilution:**	**1**
Run Date:	**12/29/2009 17:02**	**Analyst:**	**AXO1**	**Purge Vol:**	**5 mL**
Prep Date:	**12/29/2009 08:00**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**7s207BB.d**	**Column:**	**DB-624**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.00	ug/kg	0.300	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/kg	0.300	2.00
95-47-6	o-Xylene	U	1.00	ug/kg	0.300	1.00
100-42-5	Styrene	U	1.00	ug/kg	0.300	1.00
75-25-2	Bromoform	U	1.00	ug/kg	0.300	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/kg	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/kg	0.300	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/kg	0.300	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/kg	0.300	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/kg	0.300	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/kg	0.300	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/kg	0.300	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/kg	0.300	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/kg	0.300	1.00
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.00	ug/kg	1.60	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated Units	Fit	Qual
	No Tentatively Identified Compounds Found		ug/kg		

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA7.i/122909v7/7s207BB.d
Lab Smp Id: 1202005936 Client Smp ID: BLANK
Inj Date : 29-DEC-2009 17:02
Operator : AXO1 Inst ID: VOA7.i
Smp Info : |1202005936|937425|1|VOAF|1|
Misc Info : GEL 5g N/A
Comment :
Method : /chem/VOA7.i/122909v7/VOA7-8260B-122409.m
Meth Date : 04-Jan-2010 07:38 ale01592 Quant Type: ISTD
Cal Date : 24-DEC-2009 19:39 Cal File: 7r423.d
Als bottle: 7 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	0.00000	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
$ 46 1,2-Dichloroethane-d4	65	14.880	14.880	(0.971)	503448	53.1331	53.1
* 51 Fluorobenzene	96	15.317	15.317	(1.000)	911829	50.0000	
$ 64 Toluene-d8	98	17.144	17.144	(0.918)	994087	48.7836	48.8
* 75 Chlorobenzene-d5	117	18.667	18.667	(1.000)	696413	50.0000	
$ 86 Bromofluorobenzene	95	19.814	19.814	(0.944)	463181	49.4272	49.4
* 101 1,4-Dichlorobenzene-d4	152	20.992	20.991	(1.000)	409978	50.0000	

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA7.i/122909v7/7s207BB.d
Lab Smp Id: 1202005936 Client Smp ID: BLANK
Inj Date : 29-DEC-2009 17:02
Operator : AXO1 Inst ID: VOA7.i
Smp Info : |1202005936|937425|1|VOAF|1|
Misc Info : GEL 5g N/A
Comment :
Method : /chem/VOA7.i/122909v7/VOA7-8260B-122409.m
Meth Date : 04-Jan-2010 07:38 ale01592 Quant Type: ISTD
Cal Date : 24-DEC-2009 19:39 Cal File: 7r423.d
Als bottle: 7 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50
Processing Host: prdsvr07

- NO TENTATIVELY IDENTIFIED COMPOUNDS -

Data File: /chem/VOA7.i/122909v7/7s207BB.d
Date : 29-DEC-2009 17:02
Client ID: BLANK
Sample Info: |1202005936|937425|1|VOAF|1|

Column phase: DB-624

Instrument: VOA7.i

Operator: AXO1
Column diameter: 0.25

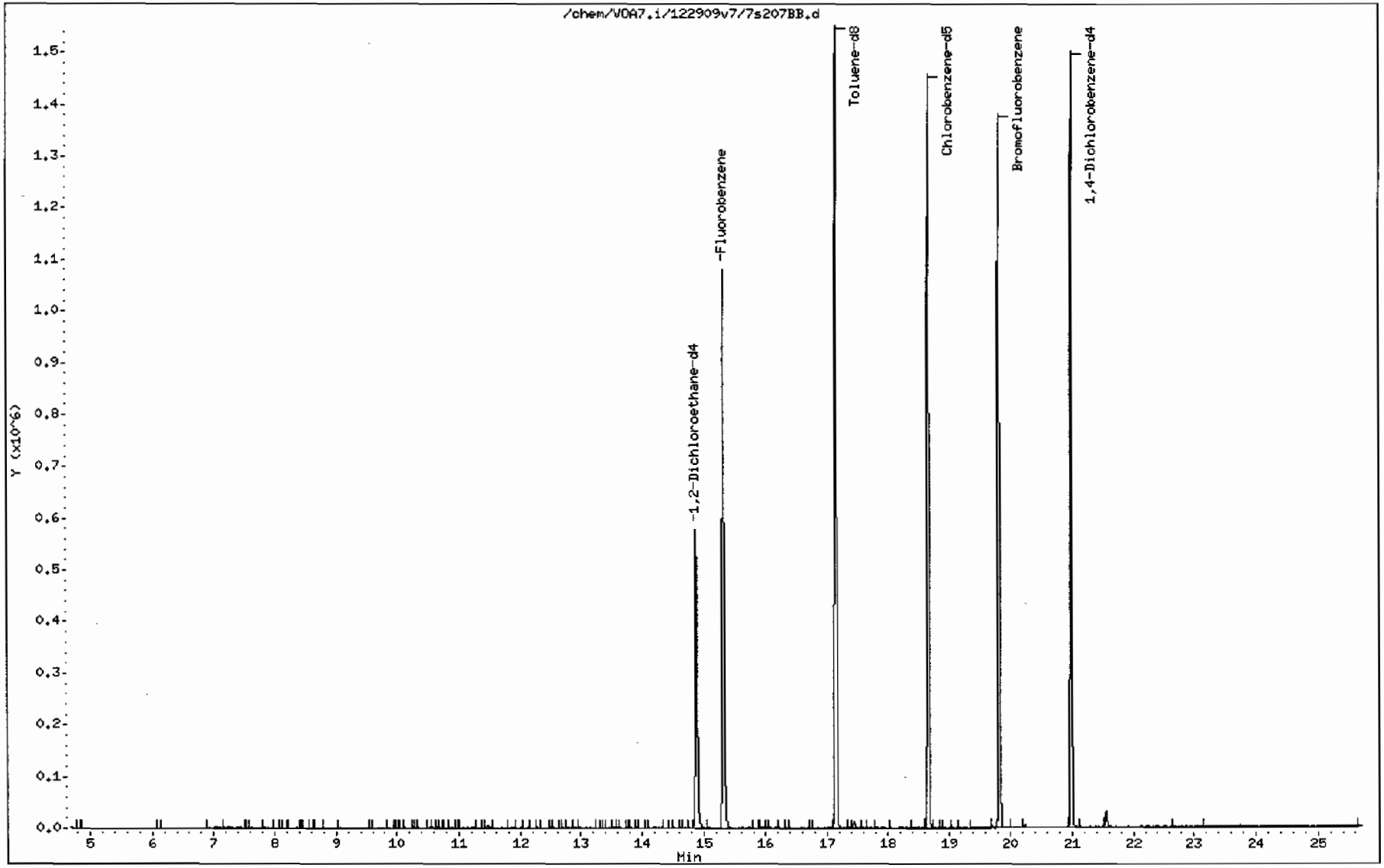

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1057**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202007502**				
Client Sample:	**QC for batch 937424**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 937424**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937425**	**Inst:**	**VOA7.I**	**Dilution:**	**1**
Run Date:	**12/30/2009 12:25**	**Analyst:**	**AXO1**	**Purge Vol:**	**5 mL**
Prep Date:	**12/30/2009 08:00**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**7s307BA.d**	**Column:**	**DB-624**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/kg	0.340	1.00
74-87-3	Chloromethane	U	1.00	ug/kg	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/kg	0.300	1.00
74-83-9	Bromomethane	U	1.00	ug/kg	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/kg	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/kg	0.300	1.00
67-64-1	Acetone	U	5.00	ug/kg	1.66	5.00
75-35-4	1,1-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/kg	1.60	5.00
75-09-2	Methylene chloride	U	5.00	ug/kg	2.00	5.00
75-15-0	Carbon disulfide	U	5.00	ug/kg	1.25	5.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/kg	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/kg	1.50	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/kg	0.300	1.00
74-97-5	Bromochloromethane	U	1.00	ug/kg	0.330	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/kg	0.300	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/kg	0.300	1.00
56-23-5	Carbon tetrachloride	U	1.00	ug/kg	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/kg	0.300	1.00
71-43-2	Benzene	U	1.00	ug/kg	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/kg	0.330	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/kg	0.300	1.00
74-95-3	Dibromomethane	U	1.00	ug/kg	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/kg	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
108-88-3	Toluene	U	1.00	ug/kg	0.300	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/kg	0.300	1.00
591-78-6	2-Hexanone	U	5.00	ug/kg	1.50	5.00
142-28-9	1,3-Dichloropropane	U	1.00	ug/kg	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/kg	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/kg	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/kg	0.300	1.00
108-90-7	Chlorobenzene	U	1.00	ug/kg	0.300	1.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1057**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202007502**				
Client Sample:	**QC for batch 937424**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 937424**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937425**	**Inst:**	**VOA7.I**	**Dilution:**	**1**
Run Date:	**12/30/2009 12:25**	**Analyst:**	**AXO1**	**Purge Vol:**	**5 mL**
Prep Date:	**12/30/2009 08:00**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**7s307BA.d**	**Column:**	**DB-624**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.00	ug/kg	0.300	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/kg	0.300	2.00
95-47-6	o-Xylene	U	1.00	ug/kg	0.300	1.00
100-42-5	Styrene	U	1.00	ug/kg	0.300	1.00
75-25-2	Bromoform	U	1.00	ug/kg	0.300	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/kg	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/kg	0.300	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/kg	0.300	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/kg	0.300	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/kg	0.300	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/kg	0.300	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/kg	0.300	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/kg	0.300	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/kg	0.300	1.00
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.00	ug/kg	1.60	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	No Tentatively Identified Compounds Found			ug/kg		

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA7.i/123009v7/7s307BA.d
Lab Smp Id: 1202007502 Client Smp ID: BLANK
Inj Date : 30-DEC-2009 12:25
Operator : AXO1 Inst ID: VOA7.i
Smp Info : |1202007502|937425|1|VOAF|1|
Misc Info : GEL 5g N/A
Comment :
Method : /chem/VOA7.i/123009v7/VOA7-8260B-122409.m
Meth Date : 04-Jan-2010 12:00 ale01592 Quant Type: ISTD
Cal Date : 24-DEC-2009 19:39 Cal File: 7r423.d
Als bottle: 7 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	0.00000	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
$ 46 1,2-Dichloroethane-d4	65	14.880	14.880	(0.971)	507733	54.5325	54.5
* 51 Fluorobenzene	96	15.317	15.317	(1.000)	895992	50.0000	
$ 64 Toluene-d8	98	17.144	17.144	(0.918)	991805	48.8410	48.8
* 75 Chlorobenzene-d5	117	18.667	18.667	(1.000)	693998	50.0000	
$ 86 Bromofluorobenzene	95	19.814	19.814	(0.944)	479859	51.4103	51.4
* 101 1,4-Dichlorobenzene-d4	152	20.991	20.991	(1.000)	408356	50.0000	

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA7.i/123009v7/7s307BA.d
Lab Smp Id: 1202007502 Client Smp ID: BLANK
Inj Date : 30-DEC-2009 12:25
Operator : AXO1 Inst ID: VOA7.i
Smp Info : |1202007502|937425|1|VOAF|1|
Misc Info : GEL 5g N/A
Comment :
Method : /chem/VOA7.i/123009v7/VOA7-8260B-122409.m
Meth Date : 04-Jan-2010 12:00 ale01592 Quant Type: ISTD
Cal Date : 24-DEC-2009 19:39 Cal File: 7r423.d
Als bottle: 7 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50

- NO TENTATIVELY IDENTIFIED COMPOUNDS -

Data File: /chem/VOA7.i/123009v7/7s307BA.d
Date : 30-DEC-2009 12:25
Client ID: BLANK
Sample Info: |1202007502193742511|VOAF|1|

Column phase: DB-624

Instrument: VOA7.i

Operator: AXO1
Column diameter: 0.25

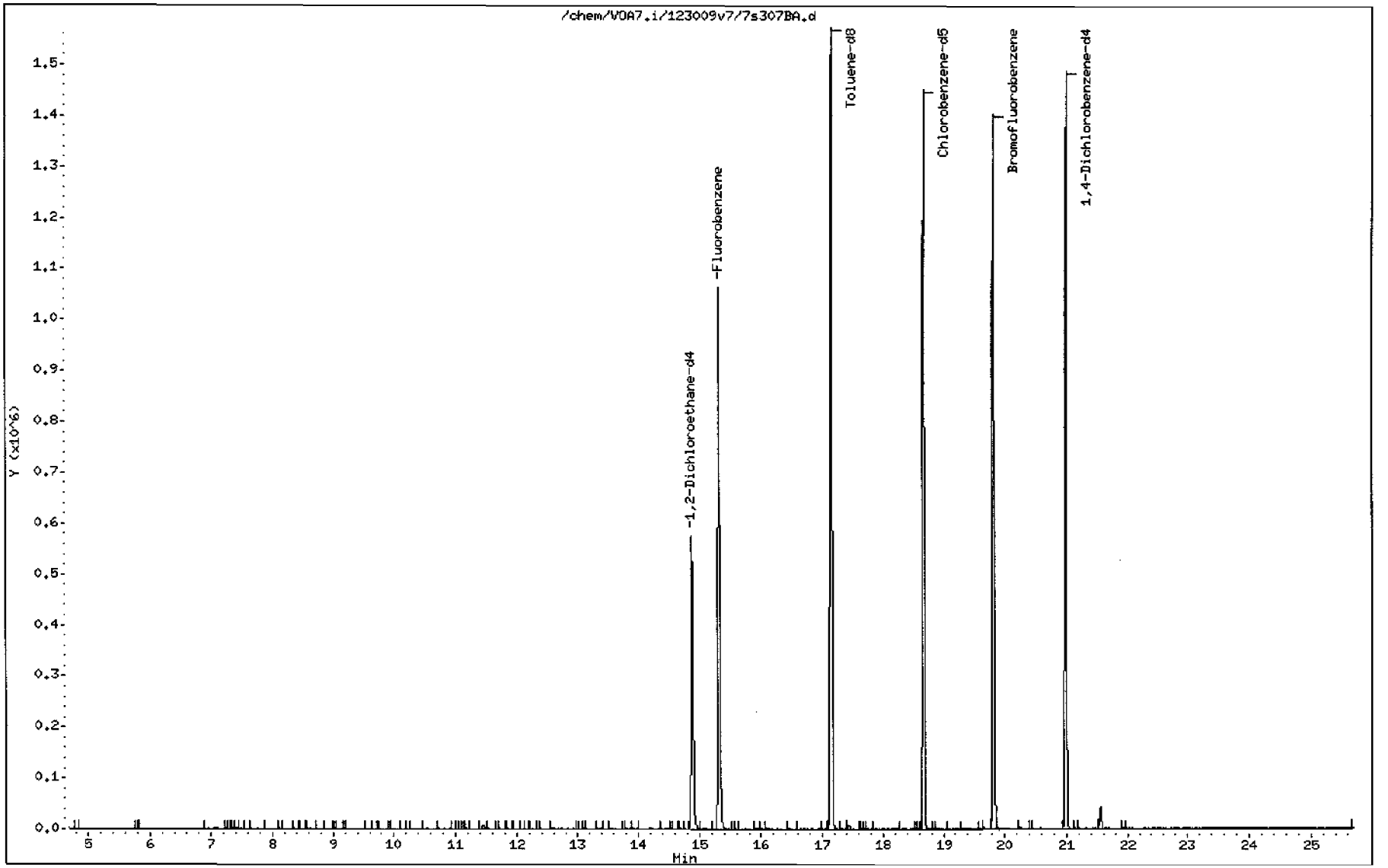

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1057**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202005939**				
Client Sample:	**QC for batch 937424**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 937424**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937425**	**Inst:**	**VOA7.I**	**Dilution:**	**1**
Run Date:	**12/29/2009 14:44**	**Analyst:**	**AXO1**	**Purge Vol:**	**5 mL**
Prep Date:	**12/29/2009 08:00**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**7s203LB.d**	**Column:**	**DB-624**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	E	53.0	ug/kg	0.340	1.00
74-87-3	Chloromethane		46.7	ug/kg	0.300	1.00
75-01-4	Vinyl chloride		52.5	ug/kg	0.300	1.00
74-83-9	Bromomethane		49.9	ug/kg	0.300	1.00
75-00-3	Chloroethane		49.8	ug/kg	0.300	1.00
75-69-4	Trichlorofluoromethane		58.2	ug/kg	0.300	1.00
67-64-1	Acetone		221	ug/kg	1.66	5.00
75-35-4	1,1-Dichloroethylene		53.0	ug/kg	0.300	1.00
74-88-4	Iodomethane		240	ug/kg	1.60	5.00
75-09-2	Methylene chloride		49.9	ug/kg	2.00	5.00
75-15-0	Carbon disulfide		261	ug/kg	1.25	5.00
156-60-5	trans-1,2-Dichloroethylene		49.8	ug/kg	0.300	1.00
75-34-3	1,1-Dichloroethane		49.7	ug/kg	0.300	1.00
78-93-3	2-Butanone		214	ug/kg	1.50	5.00
156-59-2	cis-1,2-Dichloroethylene		48.9	ug/kg	0.300	1.00
594-20-7	2,2-Dichloropropane		55.6	ug/kg	0.300	1.00
67-66-3	Chloroform		48.9	ug/kg	0.300	1.00
74-97-5	Bromochloromethane		47.4	ug/kg	0.330	1.00
71-55-6	1,1,1-Trichloroethane		54.9	ug/kg	0.300	1.00
563-58-6	1,1-Dichloropropene		53.9	ug/kg	0.300	1.00
56-23-5	Carbon tetrachloride		55.8	ug/kg	0.300	1.00
107-06-2	1,2-Dichloroethane		48.1	ug/kg	0.300	1.00
71-43-2	Benzene		46.8	ug/kg	0.300	1.00
79-01-6	Trichloroethylene		49.1	ug/kg	0.330	1.00
78-87-5	1,2-Dichloropropane		46.3	ug/kg	0.300	1.00
75-27-4	Bromodichloromethane		51.6	ug/kg	0.300	1.00
74-95-3	Dibromomethane		47.5	ug/kg	0.300	1.00
108-10-1	4-Methyl-2-pentanone		237	ug/kg	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene		48.3	ug/kg	0.300	1.00
108-88-3	Toluene		46.9	ug/kg	0.300	1.00
10061-02-6	trans-1,3-Dichloropropylene		49.1	ug/kg	0.300	1.00
79-00-5	1,1,2-Trichloroethane		44.8	ug/kg	0.300	1.00
591-78-6	2-Hexanone		193	ug/kg	1.50	5.00
142-28-9	1,3-Dichloropropane		42.8	ug/kg	0.300	1.00
127-18-4	Tetrachloroethylene		47.3	ug/kg	0.300	1.00
124-48-1	Dibromochloromethane		48.7	ug/kg	0.300	1.00
106-93-4	1,2-Dibromoethane		47.1	ug/kg	0.300	1.00
108-90-7	Chlorobenzene		46.0	ug/kg	0.300	1.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1057**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202005939**				
Client Sample:	**QC for batch 937424**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 937424**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937425**	**Inst:**	**VOA7.I**	**Dilution:**	**1**
Run Date:	**12/29/2009 14:44**	**Analyst:**	**AXO1**	**Purge Vol:**	**5 mL**
Prep Date:	**12/29/2009 08:00**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**7s203LB.d**	**Column:**	**DB-624**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene		45.6	ug/kg	0.300	1.00
179601-23-1	m,p-Xylenes		90.4	ug/kg	0.300	2.00
95-47-6	o-Xylene		43.5	ug/kg	0.300	1.00
100-42-5	Styrene		45.9	ug/kg	0.300	1.00
75-25-2	Bromoform		50.4	ug/kg	0.300	1.00
79-34-5	1,1,2,2-Tetrachloroethane		45.2	ug/kg	0.300	1.00
96-18-4	1,2,3-Trichloropropane		47.1	ug/kg	0.300	1.00
108-86-1	Bromobenzene		42.6	ug/kg	0.300	1.00
103-65-1	n-Propylbenzene		45.0	ug/kg	0.300	1.00
95-49-8	2-Chlorotoluene		44.0	ug/kg	0.300	1.00
98-82-8	Isopropylbenzene		46.3	ug/kg	0.300	1.00
108-67-8	1,3,5-Trimethylbenzene		45.3	ug/kg	0.300	1.00
106-43-4	4-Chlorotoluene		45.0	ug/kg	0.300	1.00
98-06-6	tert-Butylbenzene		47.1	ug/kg	0.300	1.00
95-63-6	1,2,4-Trimethylbenzene		45.0	ug/kg	0.300	1.00
135-98-8	sec-Butylbenzene		46.8	ug/kg	0.300	1.00
99-87-6	4-Isopropyltoluene		47.5	ug/kg	0.300	1.00
541-73-1	1,3-Dichlorobenzene		42.7	ug/kg	0.300	1.00
106-46-7	1,4-Dichlorobenzene		43.8	ug/kg	0.300	1.00
104-51-8	n-Butylbenzene		47.9	ug/kg	0.300	1.00
96-12-8	1,2-Dibromo-3-chloropropane		50.2	ug/kg	0.300	1.00
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.00	ug/kg	1.60	5.00
630-20-6	1,1,1,2-Tetrachloroethane		45.5	ug/kg	0.300	1.00
95-50-1	1,2-Dichlorobenzene		44.6	ug/kg	0.300	1.00

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA7.i/122909v7/7s203LB.d
Lab Smp Id: 1202005939 Client Smp ID: LCS
Inj Date : 29-DEC-2009 14:44
Operator : AXO1 Inst ID: VOA7.i
Smp Info : |1202005939|937425|1|VOAF|1|
Misc Info : GEL 5g N/A UVM091214-01C/IVM091228-01
Comment :
Method : /chem/VOA7.i/122909v7/VOA7-8260B-122409.m
Meth Date : 04-Jan-2010 07:38 ale01592 Quant Type: ISTD
Cal Date : 24-DEC-2009 19:39 Cal File: 7r423.d
Als bottle: 3 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	0.00000	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
M 1 1,3-Dichloropropylene	75				848870	99.6033	99.6
M 2 Xylenes (total)	106				1219511	133.963	134
M 3 1,2-Dichloroethylene (total)	96				858878	98.7219	98.7
4 Dichlorodifluoromethane	85	5.147	5.147	(0.336)	223423	52.9895	53.0(A)
5 Chloromethane	50	5.757	5.757	(0.376)	407535	46.7491	46.7
6 Vinyl chloride	62	6.188	6.188	(0.404)	304506	52.4872	52.5
7 Bromomethane	94	7.429	7.429	(0.485)	207518	49.8862	49.9
8 Chloroethane	64	7.855	7.855	(0.513)	194844	49.7993	49.8
9 Trichlorofluoromethane	101	8.789	8.789	(0.574)	460403	58.2400	58.2
10 Ethyl Ether	59	9.703	9.703	(0.633)	274985	48.8669	48.9
13 Acetone	43	10.423	10.423	(0.681)	1654473	220.868	221
14 1,1-Dichloroethylene	96	10.312	10.312	(0.673)	200532	53.0163	53.0

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
	16 Iodomethane	142	10.667	10.667	(0.696)	1792512	239.930	240
	17 Acetonitrile	41	11.073	11.073	(0.723)	1307037	1168.56	1170
	18 Methyl acetate	43	11.225	11.225	(0.733)	1548619	243.119	243
	19 Carbon disulfide	76	10.840	10.840	(0.708)	3175276	261.097	261
	22 Methylene chloride	86	11.449	11.449	(0.747)	155728	49.8979	49.9
	24 tert-Butyl methyl ether	73	12.017	12.017	(0.785)	753370	45.7835	45.8
	25 trans-1,2-Dichloroethylene	61	12.027	12.027	(0.785)	398862	49.8157	49.8
	26 Vinyl acetate	43	12.860	12.860	(0.840)	3891541	242.874	243
	28 1,1-Dichloroethane	63	12.799	12.799	(0.836)	495145	49.6989	49.7
	31 2-Butanone	43	13.723	13.723	(0.896)	1588780	213.599	214
	33 cis-1,2-Dichloroethylene	61	13.733	13.733	(0.897)	460016	48.9063	48.9
	34 2,2-Dichloropropane	77	13.743	13.743	(0.897)	300617	55.5743	55.6
	37 Bromochloromethane	49	14.088	14.088	(0.920)	373664	47.4206	47.4
	38 Chloroform	83	14.190	14.190	(0.926)	493176	48.8869	48.9
	41 1,1,1-Trichloroethane	97	14.484	14.484	(0.946)	449505	54.9031	54.9
	43 Cyclohexane	56	14.586	14.586	(0.952)	543768	54.3686	54.4
	44 1,1-Dichloropropene	75	14.697	14.697	(0.960)	333829	53.9164	53.9
	45 Carbon tetrachloride	117	14.728	14.728	(0.962)	373647	55.7613	55.8
$	46 1,2-Dichloroethane-d4	65	14.880	14.880	(0.971)	505629	53.0735	53.1
	47 1,2-Dichloroethane	62	14.982	14.982	(0.978)	547288	48.1014	48.1
	48 Benzene	78	14.982	14.982	(0.978)	827854	46.7741	46.8
	50 Cyclohexene	67	15.124	15.124	(0.987)	424924	53.6827	53.7
*	51 Fluorobenzene	96	15.317	15.317	(1.000)	916807	50.0000	
	52 n-Butyl alcohol	56	15.560	15.560	(1.016)	1317846	5724.97	5720
	53 Trichloroethylene	95	15.763	15.763	(1.029)	252839	49.0631	49.1
	55 Methylcyclohexane	83	16.027	16.027	(1.046)	364864	52.4005	52.4
	56 1,2-Dichloropropane	63	16.037	16.037	(1.047)	250602	46.3221	46.3
	58 Dibromomethane	93	16.179	16.179	(1.056)	173462	47.4500	47.4
	59 Bromodichloromethane	83	16.332	16.332	(1.066)	412083	51.5692	51.6
	61 2-Chloroethylvinyl ether	63	16.606	16.606	(1.084)	516721	220.139	220
	62 cis-1,3-Dichloropropylene	75	16.819	16.819	(1.098)	416322	48.2935	48.3
	63 4-Methyl-2-pentanone	58	16.941	16.941	(0.908)	756912	236.782	237
$	64 Toluene-d8	98	17.144	17.144	(0.918)	1009916	48.0070	48.0
	65 Toluene	92	17.215	17.215	(0.922)	563730	46.8689	46.9
	67 trans-1,3-Dichloropropylene	75	17.388	17.388	(0.931)	432548	49.1103	49.1
	68 1,1,2-Trichloroethane	83	17.611	17.611	(0.943)	186756	44.7600	44.8
	69 2-Hexanone	43	17.804	17.804	(0.954)	1997082	192.909	193
	70 1,3-Dichloropropane	76	17.794	17.794	(0.953)	365885	42.7717	42.8
	71 Tetrachloroethylene	164	17.814	17.814	(0.954)	178264	47.2567	47.2
	72 Dibromochloromethane	129	18.068	18.068	(0.968)	283055	48.7031	48.7
	73 1,2-Dibromoethane	107	18.220	18.220	(0.976)	254571	47.0898	47.1
*	75 Chlorobenzene-d5	117	18.667	18.667	(1.000)	718947	50.0000	
	76 Chlorobenzene	112	18.697	18.697	(1.002)	622985	46.0363	46.0
	77 1,1,1,2-Tetrachloroethane	131	18.758	18.758	(1.005)	254310	45.5143	45.5
	78 Ethylbenzene	91	18.768	18.768	(1.005)	1102031	45.6173	45.6
	79 m,p-Xylenes	106	18.870	18.870	(1.011)	808865	90.4352	90.4
	80 o-Xylene	106	19.286	19.286	(1.033)	410646	43.5277	43.5

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
81 Styrene	104	19.286	19.286	(1.033)	703344	45.8878	45.9
82 Bromoform	173	19.540	19.540	(0.931)	227934	50.3871	50.4
83 Isopropylbenzene	105	19.631	19.631	(0.935)	1143917	46.3309	46.3
$ 86 Bromofluorobenzene	95	19.814	19.814	(0.944)	503001	49.9879	50.0
87 1,1,2,2-Tetrachloroethane	83	19.885	19.885	(0.947)	332242	45.1841	45.2
89 1,2,3-Trichloropropane	110	19.976	19.976	(0.952)	99778	47.0739	47.1
90 Bromobenzene	156	20.017	20.017	(0.954)	310213	42.5879	42.6
91 n-Propylbenzene	91	20.037	20.037	(0.955)	1359119	45.0489	45.0
92 1,3,5-Trimethylbenzene	105	20.169	20.169	(0.961)	984266	45.3298	45.3
93 2-Chlorotoluene	91	20.169	20.169	(0.961)	980595	44.0234	44.0
94 4-Chlorotoluene	91	20.271	20.271	(0.966)	945158	44.9851	45.0
95 tert-Butylbenzene	119	20.535	20.535	(0.978)	950400	47.0829	47.1
96 1,2,4-Trimethylbenzene	105	20.565	20.565	(0.980)	1045408	45.0083	45.0
98 sec-Butylbenzene	105	20.748	20.748	(0.988)	1266366	46.8242	46.8
99 4-Isopropyltoluene	119	20.870	20.870	(0.994)	1038436	47.4730	47.5
100 1,3-Dichlorobenzene	146	20.931	20.931	(0.997)	547422	42.6915	42.7
* 101 1,4-Dichlorobenzene-d4	152	20.991	20.991	(1.000)	440230	50.0000	
102 1,4-Dichlorobenzene	146	21.022	21.022	(1.001)	551341	43.7804	43.8
104 n-Butylbenzene	91	21.296	21.296	(1.014)	1078659	47.8765	47.9
105 1,2-Dichlorobenzene	146	21.438	21.438	(1.021)	553257	44.5849	44.6
107 1,2-Dibromo-3-chloropropane	157	22.301	22.301	(1.062)	83098	50.1826	50.2
108 1,2,4-Trichlorobenzene	180	23.357	23.357	(1.113)	428784	45.9420	45.9
109 Hexachlorobutadiene	225	23.540	23.540	(1.121)	270761	49.6484	49.6
110 Naphthalene	128	23.753	23.753	(1.132)	891632	47.8384	47.8
111 1,2,3-Trichlorobenzene	180	24.098	24.098	(1.148)	399234	47.4422	47.4

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.

Data File: /chem/VOA7.i/122909v7/7s203LB.d
Date : 29-DEC-2009 14:44
Client ID: LCS
Sample Info: 1120200593919374251|1|VOAF|1|
Column phase: DB-624

Instrument: VOA7.i
Operator: AXO1
Column diameter: 0.25

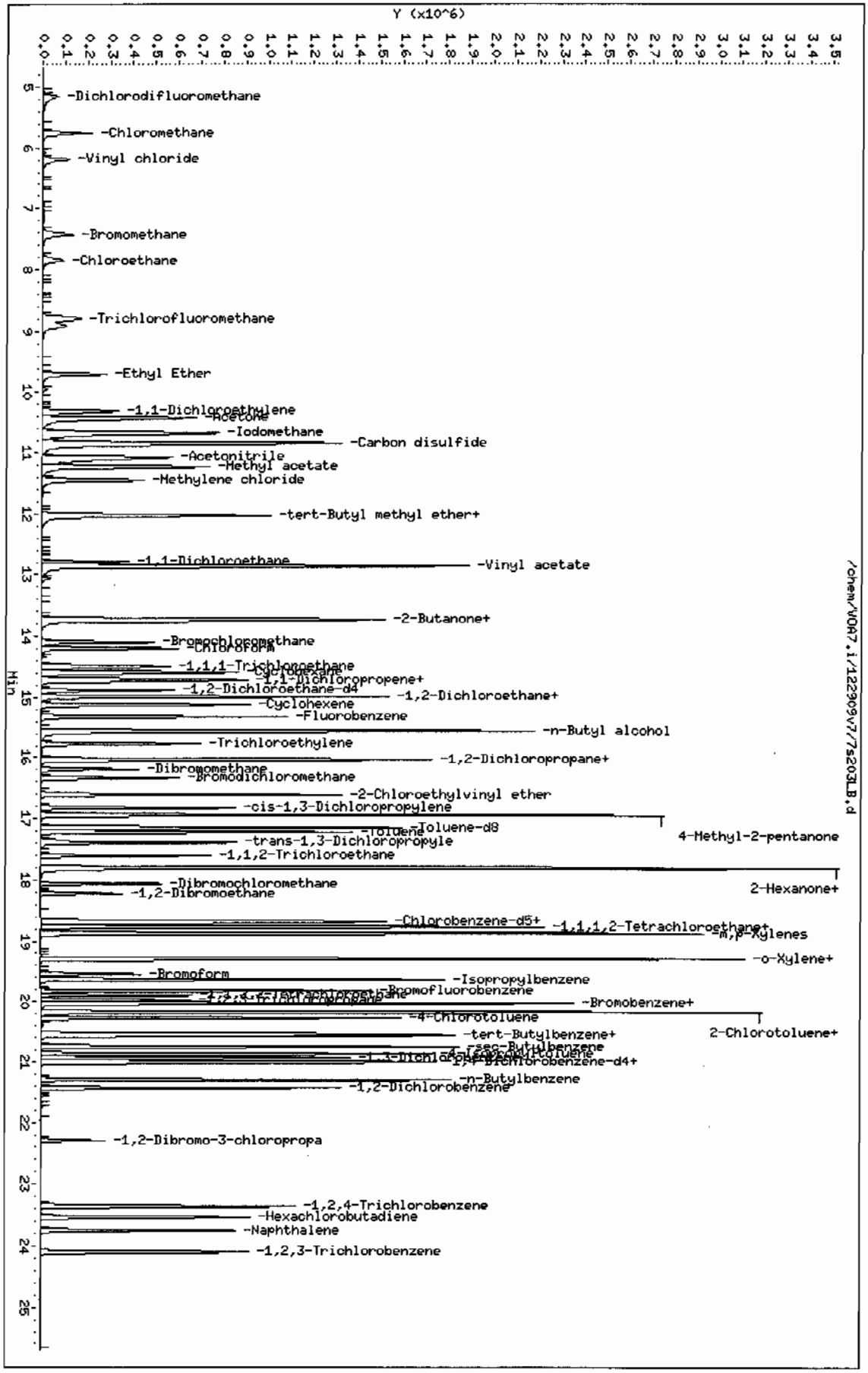

Page 1

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1057**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202007503**				
Client Sample:	**QC for batch 937424**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 937424**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937425**	**Inst:**	**VOA7.I**	**Dilution:**	**1**
Run Date:	**12/30/2009 10:10**	**Analyst:**	**AXO1**	**Purge Vol:**	**5 mL**
Prep Date:	**12/30/2009 08:00**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**7s303LA.d**	**Column:**	**DB-624**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane		46.6	ug/kg	0.340	1.00
74-87-3	Chloromethane		42.1	ug/kg	0.300	1.00
75-01-4	Vinyl chloride		47.5	ug/kg	0.300	1.00
74-83-9	Bromomethane		45.2	ug/kg	0.300	1.00
75-00-3	Chloroethane		45.7	ug/kg	0.300	1.00
75-69-4	Trichlorofluoromethane		53.4	ug/kg	0.300	1.00
67-64-1	Acetone		206	ug/kg	1.66	5.00
75-35-4	1,1-Dichloroethylene		48.7	ug/kg	0.300	1.00
74-88-4	Iodomethane		224	ug/kg	1.60	5.00
75-09-2	Methylene chloride		45.5	ug/kg	2.00	5.00
75-15-0	Carbon disulfide		239	ug/kg	1.25	5.00
156-60-5	trans-1,2-Dichloroethylene		46.8	ug/kg	0.300	1.00
75-34-3	1,1-Dichloroethane		46.4	ug/kg	0.300	1.00
78-93-3	2-Butanone		199	ug/kg	1.50	5.00
156-59-2	cis-1,2-Dichloroethylene		45.2	ug/kg	0.300	1.00
594-20-7	2,2-Dichloropropane		49.5	ug/kg	0.300	1.00
67-66-3	Chloroform		46.3	ug/kg	0.300	1.00
74-97-5	Bromochloromethane		44.3	ug/kg	0.330	1.00
71-55-6	1,1,1-Trichloroethane		51.8	ug/kg	0.300	1.00
563-58-6	1,1-Dichloropropene		49.1	ug/kg	0.300	1.00
56-23-5	Carbon tetrachloride		52.5	ug/kg	0.300	1.00
107-06-2	1,2-Dichloroethane		45.7	ug/kg	0.300	1.00
71-43-2	Benzene		43.8	ug/kg	0.300	1.00
79-01-6	Trichloroethylene		45.7	ug/kg	0.330	1.00
78-87-5	1,2-Dichloropropane		43.2	ug/kg	0.300	1.00
75-27-4	Bromodichloromethane		48.1	ug/kg	0.300	1.00
74-95-3	Dibromomethane		44.2	ug/kg	0.300	1.00
108-10-1	4-Methyl-2-pentanone		224	ug/kg	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene		45.4	ug/kg	0.300	1.00
108-88-3	Toluene		43.5	ug/kg	0.300	1.00
10061-02-6	trans-1,3-Dichloropropylene		47.1	ug/kg	0.300	1.00
79-00-5	1,1,2-Trichloroethane		43.7	ug/kg	0.300	1.00
591-78-6	2-Hexanone		182	ug/kg	1.50	5.00
142-28-9	1,3-Dichloropropane		41.4	ug/kg	0.300	1.00
127-18-4	Tetrachloroethylene		44.5	ug/kg	0.300	1.00
124-48-1	Dibromochloromethane		47.0	ug/kg	0.300	1.00
106-93-4	1,2-Dibromoethane		44.7	ug/kg	0.300	1.00
108-90-7	Chlorobenzene		43.2	ug/kg	0.300	1.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1057**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202007503**				
Client Sample:	**QC for batch 937424**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 937424**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937425**	**Inst:**	**VOA7.I**	**Dilution:**	**1**
Run Date:	**12/30/2009 10:10**	**Analyst:**	**AXO1**	**Purge Vol:**	**5 mL**
Prep Date:	**12/30/2009 08:00**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**7s303LA.d**	**Column:**	**DB-624**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene		42.8	ug/kg	0.300	1.00
179601-23-1	m,p-Xylenes		86.4	ug/kg	0.300	2.00
95-47-6	o-Xylene		41.0	ug/kg	0.300	1.00
100-42-5	Styrene		43.3	ug/kg	0.300	1.00
75-25-2	Bromoform		48.5	ug/kg	0.300	1.00
79-34-5	1,1,2,2-Tetrachloroethane		42.9	ug/kg	0.300	1.00
96-18-4	1,2,3-Trichloropropane		45.5	ug/kg	0.300	1.00
108-86-1	Bromobenzene		41.0	ug/kg	0.300	1.00
103-65-1	n-Propylbenzene		42.2	ug/kg	0.300	1.00
95-49-8	2-Chlorotoluene		42.2	ug/kg	0.300	1.00
98-82-8	Isopropylbenzene		44.3	ug/kg	0.300	1.00
108-67-8	1,3,5-Trimethylbenzene		43.7	ug/kg	0.300	1.00
106-43-4	4-Chlorotoluene		42.8	ug/kg	0.300	1.00
98-06-6	tert-Butylbenzene		45.2	ug/kg	0.300	1.00
95-63-6	1,2,4-Trimethylbenzene		42.7	ug/kg	0.300	1.00
135-98-8	sec-Butylbenzene		45.1	ug/kg	0.300	1.00
99-87-6	4-Isopropyltoluene		44.7	ug/kg	0.300	1.00
541-73-1	1,3-Dichlorobenzene		40.9	ug/kg	0.300	1.00
106-46-7	1,4-Dichlorobenzene		41.2	ug/kg	0.300	1.00
104-51-8	n-Butylbenzene		45.2	ug/kg	0.300	1.00
96-12-8	1,2-Dibromo-3-chloropropane		48.7	ug/kg	0.300	1.00
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.00	ug/kg	1.60	5.00
630-20-6	1,1,1,2-Tetrachloroethane		43.9	ug/kg	0.300	1.00
95-50-1	1,2-Dichlorobenzene		42.2	ug/kg	0.300	1.00

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA7.i/123009v7/7s303LA.d
Lab Smp Id: 1202007503 Client Smp ID: LCS
Inj Date : 30-DEC-2009 10:10
Operator : AXO1 Inst ID: VOA7.i
Smp Info : |1202007503|937425|1|VOAF|1|
Misc Info : GEL 5g N/A UVM091214-01C/IVM091228-01
Comment :
Method : /chem/VOA7.i/123009v7/VOA7-8260B-122409.m
Meth Date : 04-Jan-2010 09:17 ale01592 Quant Type: ISTD
Cal Date : 24-DEC-2009 19:39 Cal File: 7r423.d
Als bottle: 3 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	0.00000	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
M 1	1,3-Dichloropropylene	75				795034	94.1438	94.1
M 2	Xylenes (total)	106				1138625	127.462	127
M 3	1,2-Dichloroethylene (total)	96				792847	92.0290	92.0
4	Dichlorodifluoromethane	85	5.147	5.147	(0.336)	194812	46.6080	46.6
5	Chloromethane	50	5.757	5.757	(0.376)	363653	42.0987	42.1
6	Vinyl chloride	62	6.188	6.188	(0.404)	273157	47.5164	47.5
7	Bromomethane	94	7.429	7.429	(0.485)	186266	45.1889	45.2
8	Chloroethane	64	7.855	7.855	(0.513)	177228	45.7132	45.7
9	Trichlorofluoromethane	101	8.799	8.789	(0.574)	418405	53.4138	53.4
10	Ethyl Ether	59	9.703	9.703	(0.633)	252633	45.3075	45.3
13	Acetone	43	10.423	10.423	(0.681)	1531034	206.268	206
14	1,1-Dichloroethylene	96	10.312	10.312	(0.673)	182450	48.6791	48.7

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
	16 Iodomethane	142	10.667	10.677	(0.696)	1659943	224.228	224
	17 Acetonitrile	41	11.073	11.083	(0.723)	1204266	1086.57	1090
	18 Methyl acetate	43	11.225	11.225	(0.733)	1452767	230.167	230
	19 Carbon disulfide	76	10.840	10.840	(0.708)	2881602	239.126	239
	22 Methylene chloride	86	11.449	11.449	(0.747)	141452	45.4801	45.5
	24 tert-Butyl methyl ether	73	12.017	12.017	(0.785)	695299	42.6428	42.6
	25 trans-1,2-Dichloroethylene	61	12.027	12.027	(0.785)	371359	46.8070	46.8
	26 Vinyl acetate	43	12.860	12.860	(0.840)	3630030	228.635	229
	28 1,1-Dichloroethane	63	12.799	12.799	(0.836)	457956	46.3887	46.4
	31 2-Butanone	43	13.723	13.723	(0.896)	1468475	199.240	199
	33 cis-1,2-Dichloroethylene	61	13.733	13.733	(0.897)	421488	45.2220	45.2
	34 2,2-Dichloropropane	77	13.753	13.743	(0.898)	265443	49.5228	49.5
	37 Bromochloromethane	49	14.088	14.088	(0.920)	345877	44.2977	44.3
	38 Chloroform	83	14.190	14.190	(0.926)	463059	46.3234	46.3
	41 1,1,1-Trichloroethane	97	14.484	14.484	(0.946)	420344	51.8132	51.8
	43 Cyclohexane	56	14.586	14.586	(0.952)	488704	49.3122	49.3
	44 1,1-Dichloropropene	75	14.697	14.697	(0.960)	301369	49.1212	49.1
	45 Carbon tetrachloride	117	14.728	14.728	(0.962)	348788	52.5299	52.5
$	46 1,2-Dichloroethane-d4	65	14.880	14.880	(0.971)	500223	52.9887	53.0
	47 1,2-Dichloroethane	62	14.982	14.982	(0.978)	515046	45.6837	45.7
	48 Benzene	78	14.982	14.982	(0.978)	768132	43.7987	43.8
	50 Cyclohexene	67	15.124	15.124	(0.987)	378988	48.3194	48.3
*	51 Fluorobenzene	96	15.317	15.317	(1.000)	908457	50.0000	
	52 n-Butyl alcohol	56	15.560	15.560	(1.016)	1237207	5424.06	5420
	53 Trichloroethylene	95	15.773	15.773	(1.030)	233470	45.7209	45.7
	55 Methylcyclohexane	83	16.037	16.027	(1.047)	324538	47.0374	47.0
	56 1,2-Dichloropropane	63	16.037	16.037	(1.047)	231451	43.1754	43.2
	58 Dibromomethane	93	16.179	16.179	(1.056)	160218	44.2300	44.2
	59 Bromodichloromethane	83	16.332	16.332	(1.066)	381050	48.1239	48.1
	61 2-Chloroethylvinyl ether	63	16.606	16.606	(1.084)	437791	188.227	188
	62 cis-1,3-Dichloropropylene	75	16.819	16.819	(1.098)	388229	45.4486	45.4
	63 4-Methyl-2-pentanone	58	16.941	16.941	(0.908)	701341	223.544	224
$	64 Toluene-d8	98	17.144	17.144	(0.918)	992583	48.0746	48.1
	65 Toluene	92	17.215	17.215	(0.922)	514067	43.5475	43.5
	67 trans-1,3-Dichloropropylene	75	17.388	17.388	(0.931)	406805	47.0603	47.1
	68 1,1,2-Trichloroethane	83	17.611	17.611	(0.943)	179119	43.7408	43.7
	69 2-Hexanone	43	17.804	17.804	(0.954)	1850932	182.170	182
	70 1,3-Dichloropropane	76	17.794	17.794	(0.953)	347761	41.4211	41.4
	71 Tetrachloroethylene	164	17.824	17.824	(0.955)	164831	44.5214	44.5
	72 Dibromochloromethane	129	18.068	18.058	(0.968)	267882	46.9633	47.0
	73 1,2-Dibromoethane	107	18.220	18.220	(0.976)	236986	44.6653	44.7
*	75 Chlorobenzene-d5	117	18.667	18.667	(1.000)	705614	50.0000	
	76 Chlorobenzene	112	18.697	18.697	(1.002)	573361	43.1698	43.2
	77 1,1,1,2-Tetrachloroethane	131	18.758	18.758	(1.005)	240945	43.9372	43.9
	78 Ethylbenzene	91	18.768	18.768	(1.005)	1015490	42.8293	42.8
	79 m,p-Xylenes	106	18.870	18.870	(1.011)	758815	86.4424	86.4
	80 o-Xylene	106	19.286	19.286	(1.033)	379810	41.0199	41.0

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
81 Styrene	104	19.286	19.286	(1.033)	651074	43.2802	43.3
82 Bromoform	173	19.540	19.540	(0.931)	213738	48.5156	48.5
83 Isopropylbenzene	105	19.631	19.631	(0.935)	1064062	44.2519	44.2
$ 86 Bromofluorobenzene	95	19.814	19.814	(0.944)	482959	49.2828	49.3
87 1,1,2,2-Tetrachloroethane	83	19.885	19.885	(0.947)	307327	42.9161	42.9
89 1,2,3-Trichloropropane	110	19.976	19.966	(0.952)	93959	45.5169	45.5
90 Bromobenzene	156	20.017	20.017	(0.954)	290632	40.9692	41.0
91 n-Propylbenzene	91	20.027	20.037	(0.954)	1240722	42.2270	42.2
92 1,3,5-Trimethylbenzene	105	20.169	20.169	(0.961)	923651	43.6785	43.7
93 2-Chlorotoluene	91	20.169	20.169	(0.961)	914607	42.1616	42.2
94 4-Chlorotoluene	91	20.271	20.271	(0.966)	875661	42.7946	42.8
95 tert-Butylbenzene	119	20.535	20.535	(0.978)	887759	45.1586	45.2
96 1,2,4-Trimethylbenzene	105	20.565	20.565	(0.980)	965741	42.6929	42.7
98 sec-Butylbenzene	105	20.748	20.748	(0.988)	1187999	45.1041	45.1
99 4-Isopropyltoluene	119	20.870	20.870	(0.994)	952360	44.7051	44.7
100 1,3-Dichlorobenzene	146	20.931	20.931	(0.997)	510558	40.8840	40.9
* 101 1,4-Dichlorobenzene-d4	152	20.991	20.991	(1.000)	428737	50.0000	
102 1,4-Dichlorobenzene	146	21.022	21.022	(1.001)	504732	41.1537	41.2
104 n-Butylbenzene	91	21.296	21.296	(1.014)	992258	45.2222	45.2
105 1,2-Dichlorobenzene	146	21.438	21.438	(1.021)	509867	42.1897	42.2
107 1,2-Dibromo-3-chloropropane	157	22.301	22.301	(1.062)	78469	48.6575	48.6
108 1,2,4-Trichlorobenzene	180	23.357	23.357	(1.113)	401228	44.1419	44.1
109 Hexachlorobutadiene	225	23.529	23.540	(1.121)	233901	44.0392	44.0
110 Naphthalene	128	23.753	23.753	(1.132)	809151	44.5768	44.6
111 1,2,3-Trichlorobenzene	180	24.098	24.098	(1.148)	366888	44.7672	44.8

Data File: /chem/VOA7.i/123009v7/7s303LA.d
Date : 30-DEC-2009 10:10
Client ID: LCS
Sample Info: |120200750319374251|VOAF1|

Column phase: DB-624

Instrument: VOA7.i
Operator: AX01
Column diameter: 0.25

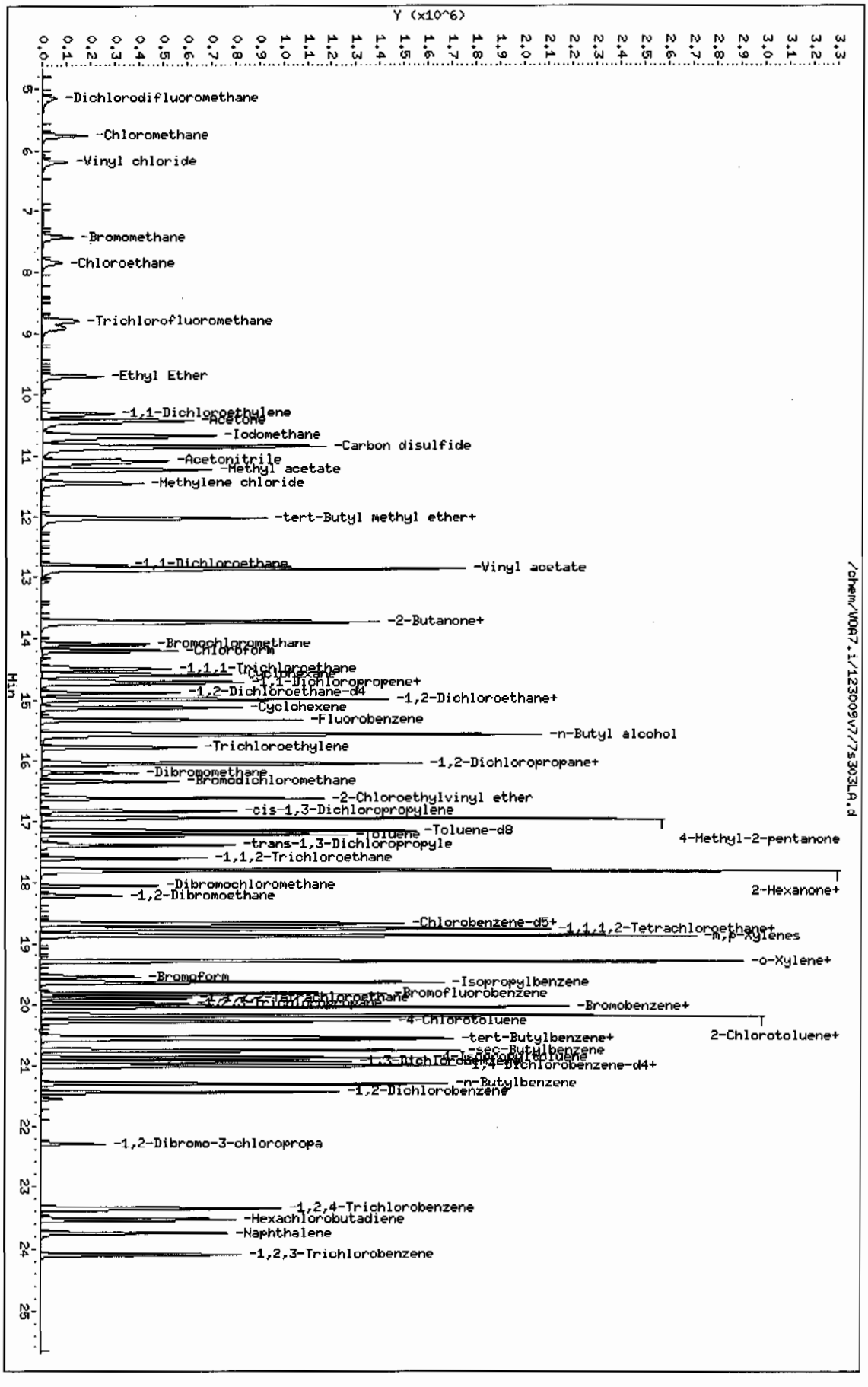

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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1057**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202005940**				
Client Sample:	**QC for batch 937424**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 937424**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937425**	**Inst:**	**VOA7.I**	**Dilution:**	**1**
Run Date:	**12/29/2009 15:53**	**Analyst:**	**AXO1**	**Purge Vol:**	**5 mL**
Prep Date:	**12/29/2009 08:00**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**7s205LB.d**	**Column:**	**DB-624**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/kg	0.340	1.00
74-87-3	Chloromethane	U	1.00	ug/kg	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/kg	0.300	1.00
74-83-9	Bromomethane	U	1.00	ug/kg	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/kg	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/kg	0.300	1.00
67-64-1	Acetone	U	5.00	ug/kg	1.66	5.00
75-35-4	1,1-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/kg	1.60	5.00
75-09-2	Methylene chloride	U	5.00	ug/kg	2.00	5.00
75-15-0	Carbon disulfide	U	5.00	ug/kg	1.25	5.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/kg	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/kg	1.50	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/kg	0.300	1.00
74-97-5	Bromochloromethane	U	1.00	ug/kg	0.330	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/kg	0.300	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/kg	0.300	1.00
56-23-5	Carbon tetrachloride	U	1.00	ug/kg	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/kg	0.300	1.00
71-43-2	Benzene	U	1.00	ug/kg	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/kg	0.330	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/kg	0.300	1.00
74-95-3	Dibromomethane	U	1.00	ug/kg	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/kg	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
108-88-3	Toluene	U	1.00	ug/kg	0.300	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/kg	0.300	1.00
591-78-6	2-Hexanone	U	5.00	ug/kg	1.50	5.00
142-28-9	1,3-Dichloropropane	U	1.00	ug/kg	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/kg	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/kg	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/kg	0.300	1.00
108-90-7	Chlorobenzene	U	1.00	ug/kg	0.300	1.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1057**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202005940**				
Client Sample:	**QC for batch 937424**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 937424**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937425**	**Inst:**	**VOA7.I**	**Dilution:**	**1**
Run Date:	**12/29/2009 15:53**	**Analyst:**	**AXO1**	**Purge Vol:**	**5 mL**
Prep Date:	**12/29/2009 08:00**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**7s205LB.d**	**Column:**	**DB-624**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.00	ug/kg	0.300	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/kg	0.300	2.00
95-47-6	o-Xylene	U	1.00	ug/kg	0.300	1.00
100-42-5	Styrene	U	1.00	ug/kg	0.300	1.00
75-25-2	Bromoform	U	1.00	ug/kg	0.300	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/kg	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/kg	0.300	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/kg	0.300	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/kg	0.300	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/kg	0.300	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/kg	0.300	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/kg	0.300	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/kg	0.300	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/kg	0.300	1.00
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*		282	ug/kg	1.60	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA7.i/122909v7/7s205LB.d
Lab Smp Id: 1202005940 Client Smp ID: SLCS
Inj Date : 29-DEC-2009 15:53
Operator : AXO1 Inst ID: VOA7.i
Smp Info : |1202005940|937425|1|VOAF|1|
Misc Info : GEL 5g N/A
Comment :
Method : /chem/VOA7.i/122909v7/VOA7-8260B-122409.m
Meth Date : 04-Jan-2010 07:38 ale01592 Quant Type: ISTD
Cal Date : 24-DEC-2009 19:39 Cal File: 7r423.d
Als bottle: 5 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	0.00000	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
11 Acrolein	56	10.017	10.027	(0.654)	337684	269.543	270
12 Trichlorotrifluoroethane	85	10.373	10.373	(0.677)	533004	282.421	282
20 Allyl chloride	41	11.185	11.185	(0.730)	2403423	234.164	234
23 Acrylonitrile	53	11.936	11.926	(0.779)	664498	238.269	238
29 2-Chloro-1,3-butadiene	53	12.961	12.961	(0.846)	551732	54.1376	54.1
32 Ethyl acetate	43	13.804	13.804	(0.901)	1837602	217.755	218
35 Propionitrile	54	13.814	13.804	(0.902)	261051	237.560	238
36 Methacrylonitrile	41	14.048	14.048	(0.917)	1150535	226.569	226
39 Tetrahydrofuran	42	14.159	14.159	(0.675)	603921	219.828	220
42 Isobutyl alcohol	41	14.748	14.748	(0.963)	814035	2383.37	2380
$ 46 1,2-Dichloroethane-d4	65	14.880	14.880	(0.972)	508482	52.2181	52.2
* 51 Fluorobenzene	96	15.317	15.317	(1.000)	937085	50.0000	

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
54 Methyl methacrylate	69	16.078	16.078	(1.050)	780117	227.510	228
57 1,4-Dioxane	88	16.159	16.159	(1.055)	132951	2194.47	2190
60 2-Nitropropane	43	16.555	16.555	(1.081)	784455	270.457	270
$ 64 Toluene-d8	98	17.144	17.144	(0.918)	1022388	48.1100	48.1
66 Ethyl methacrylate	69	17.418	17.418	(0.933)	1465455	214.799	215
* 75 Chlorobenzene-d5	117	18.667	18.667	(1.000)	726268	50.0000	
84 cis-1,4-Dichloro-2-butene	53	19.662	19.662	(0.937)	894309	254.237	254
85 Cyclohexanone	55	19.773	19.773	(1.059)	554002	569.683	570
$ 86 Bromofluorobenzene	95	19.814	19.814	(0.944)	493540	48.3641	48.4
88 trans-1,4-Dichloro-2-butene	53	19.926	19.936	(0.949)	825040	256.712	257
97 Pentachloroethane	167	20.606	20.606	(0.982)	743122	284.275	284
* 101 1,4-Dichlorobenzene-d4	152	20.992	20.991	(1.000)	446452	50.0000	
103 Benzyl chloride	91	21.124	21.123	(1.006)	2798090	260.181	260
106 bis(2-Chloroisopropyl)ether	45	21.509	21.509	(1.025)	1213905	209.925	210

Data File: /chem/VOA7.i/122909v7/7s205LB.d
Date : 29-DEC-2009 15:53
Client ID: SLCS
Sample Info: |1202905940|937425|1|VOAF|1|
Column phase: DB-624

Instrument: VOA7.i
Operator: AX01
Column diameter: 0.25

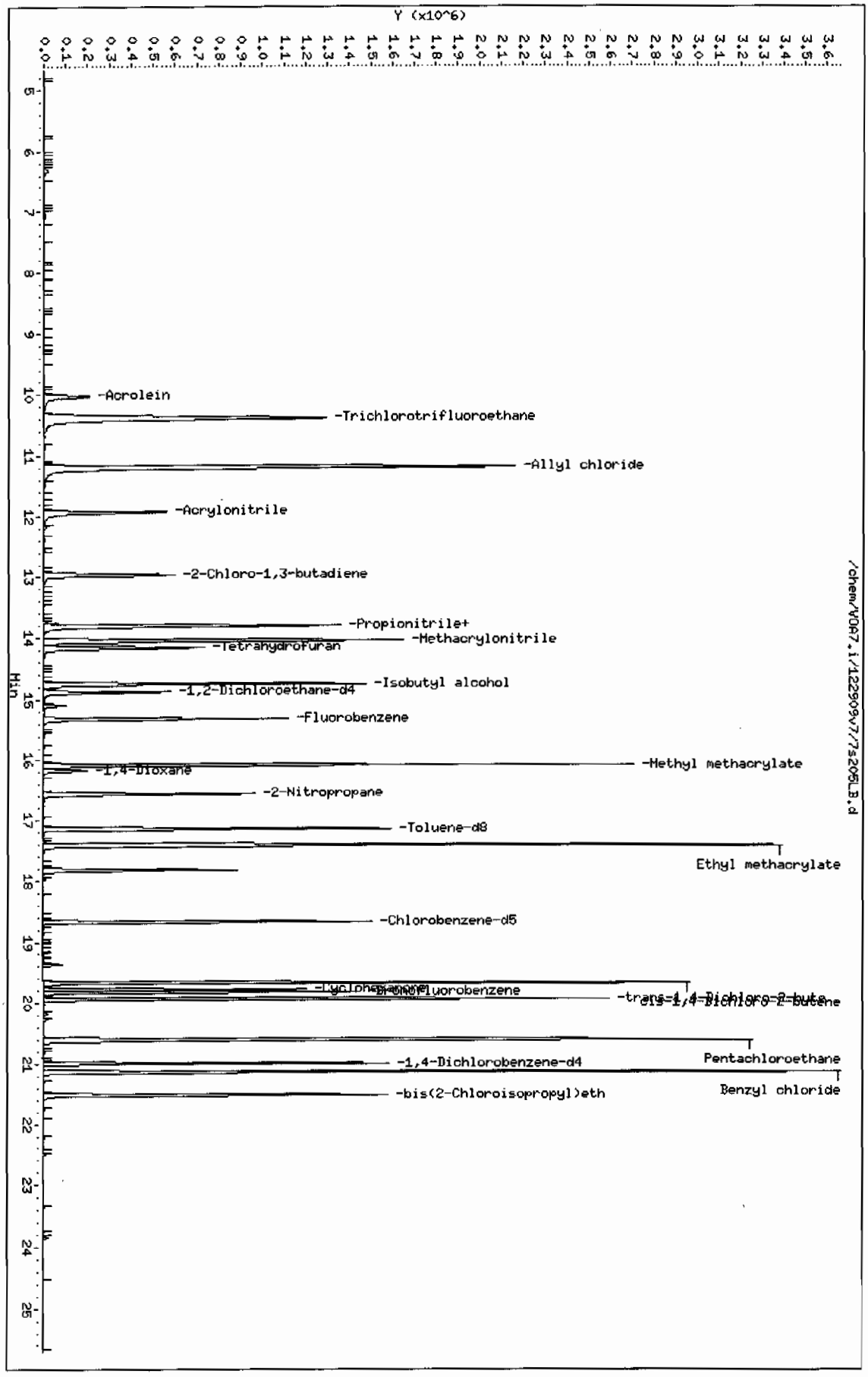

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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1057**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202007504**				
Client Sample:	**QC for batch 937424**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 937424**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937425**	**Inst:**	**VOA7.I**	**Dilution:**	**1**
Run Date:	**12/30/2009 11:18**	**Analyst:**	**AXO1**	**Purge Vol:**	**5 mL**
Prep Date:	**12/30/2009 08:00**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**7s305LA.d**	**Column:**	**DB-624**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/kg	0.340	1.00
74-87-3	Chloromethane	U	1.00	ug/kg	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/kg	0.300	1.00
74-83-9	Bromomethane	U	1.00	ug/kg	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/kg	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/kg	0.300	1.00
67-64-1	Acetone	U	5.00	ug/kg	1.66	5.00
75-35-4	1,1-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/kg	1.60	5.00
75-09-2	Methylene chloride	U	5.00	ug/kg	2.00	5.00
75-15-0	Carbon disulfide	U	5.00	ug/kg	1.25	5.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/kg	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/kg	1.50	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/kg	0.300	1.00
74-97-5	Bromochloromethane	U	1.00	ug/kg	0.330	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/kg	0.300	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/kg	0.300	1.00
56-23-5	Carbon tetrachloride	U	1.00	ug/kg	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/kg	0.300	1.00
71-43-2	Benzene	U	1.00	ug/kg	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/kg	0.330	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/kg	0.300	1.00
74-95-3	Dibromomethane	U	1.00	ug/kg	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/kg	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
108-88-3	Toluene	U	1.00	ug/kg	0.300	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/kg	0.300	1.00
591-78-6	2-Hexanone	U	5.00	ug/kg	1.50	5.00
142-28-9	1,3-Dichloropropane	U	1.00	ug/kg	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/kg	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/kg	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/kg	0.300	1.00
108-90-7	Chlorobenzene	U	1.00	ug/kg	0.300	1.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1057			**Matrix:**	SOIL
Lab Sample ID:	1202007504				
Client Sample:	QC for batch 937424	**Client:**	LANL010	**Project:**	QC
Client ID:	LCS for batch 937424	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	937425	**Inst:**	VOA7.I	**Dilution:**	1
Run Date:	12/30/2009 11:18	**Analyst:**	AXO1	**Purge Vol:**	5 mL
Prep Date:	12/30/2009 08:00	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	7s305LA.d	**Column:**	DB-624	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.00	ug/kg	0.300	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/kg	0.300	2.00
95-47-6	o-Xylene	U	1.00	ug/kg	0.300	1.00
100-42-5	Styrene	U	1.00	ug/kg	0.300	1.00
75-25-2	Bromoform	U	1.00	ug/kg	0.300	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/kg	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/kg	0.300	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/kg	0.300	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/kg	0.300	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/kg	0.300	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/kg	0.300	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/kg	0.300	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/kg	0.300	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/kg	0.300	1.00
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*		287	ug/kg	1.60	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA7.i/123009v7/7s305LA.d
Lab Smp Id: 1202007504 Client Smp ID: SLCS
Inj Date : 30-DEC-2009 11:18
Operator : AXO1 Inst ID: VOA7.i
Smp Info : |1202007504|937425|1|VOAF|1|
Misc Info : GEL 5g N/A
Comment :
Method : /chem/VOA7.i/123009v7/VOA7-8260B-122409.m
Meth Date : 04-Jan-2010 09:17 ale01592 Quant Type: ISTD
Cal Date : 24-DEC-2009 19:39 Cal File: 7r423.d
Als bottle: 5 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	0.00000	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
11 Acrolein	56	10.028	10.017	(0.655)	318920	261.988	262
12 Trichlorotrifluoroethane	85	10.373	10.373	(0.677)	526856	287.303	287
20 Allyl chloride	41	11.185	11.185	(0.730)	2376518	238.294	238
23 Acrylonitrile	53	11.926	11.926	(0.779)	647212	238.838	239
29 2-Chloro-1,3-butadiene	53	12.961	12.962	(0.846)	548943	55.4344	55.4
32 Ethyl acetate	43	13.804	13.804	(0.901)	1812963	221.099	221
35 Propionitrile	54	13.804	13.804	(0.901)	249016	233.215	233
36 Methacrylonitrile	41	14.048	14.038	(0.917)	1128507	228.711	229
39 Tetrahydrofuran	42	14.159	14.159	(0.675)	585795	219.139	219
42 Isobutyl alcohol	41	14.748	14.748	(0.963)	786238	2369.10	2370
$ 46 1,2-Dichloroethane-d4	65	14.880	14.880	(0.971)	496606	52.4854	52.5
* 51 Fluorobenzene	96	15.317	15.317	(1.000)	910537	50.0000	

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
54 Methyl methacrylate	69	16.078	16.078	(1.050)	767878	230.470	230
57 1,4-Dioxane	88	16.159	16.159	(1.055)	137965	2343.63	2340
60 2-Nitropropane	43	16.555	16.555	(1.081)	776106	275.380	275
$ 64 Toluene-d8	98	17.144	17.144	(0.918)	1011624	48.4167	48.4
66 Ethyl methacrylate	69	17.418	17.418	(0.933)	1447375	215.773	216
* 75 Chlorobenzene-d5	117	18.667	18.667	(1.000)	714069	50.0000	
84 cis-1,4-Dichloro-2-butene	53	19.662	19.662	(0.937)	886305	258.944	259
85 Cyclohexanone	55	19.773	19.773	(1.059)	529233	553.510	554
$ 86 Bromofluorobenzene	95	19.814	19.814	(0.944)	486362	48.9815	49.0
88 trans-1,4-Dichloro-2-butene	53	19.926	19.926	(0.949)	821354	262.647	263
97 Pentachloroethane	167	20.606	20.606	(0.982)	688681	270.750	271
* 101 1,4-Dichlorobenzene-d4	152	20.992	20.991	(1.000)	434414	50.0000	
103 Benzyl chloride	91	21.124	21.124	(1.006)	2728282	260.720	261
106 bis(2-Chloroisopropyl)ether	45	21.509	21.509	(1.025)	1164415	206.946	207

Data File: /chem/VOA7.i/123009v7/7s305LA.d
Date : 30-DEC-2009 11:18
Client ID: SLCS
Sample Info: 1120200750419374251|1|VOAF1|1
Column phase: DB-624

Instrument: VOA7.i
Operator: AXO1
Column diameter: 0.25

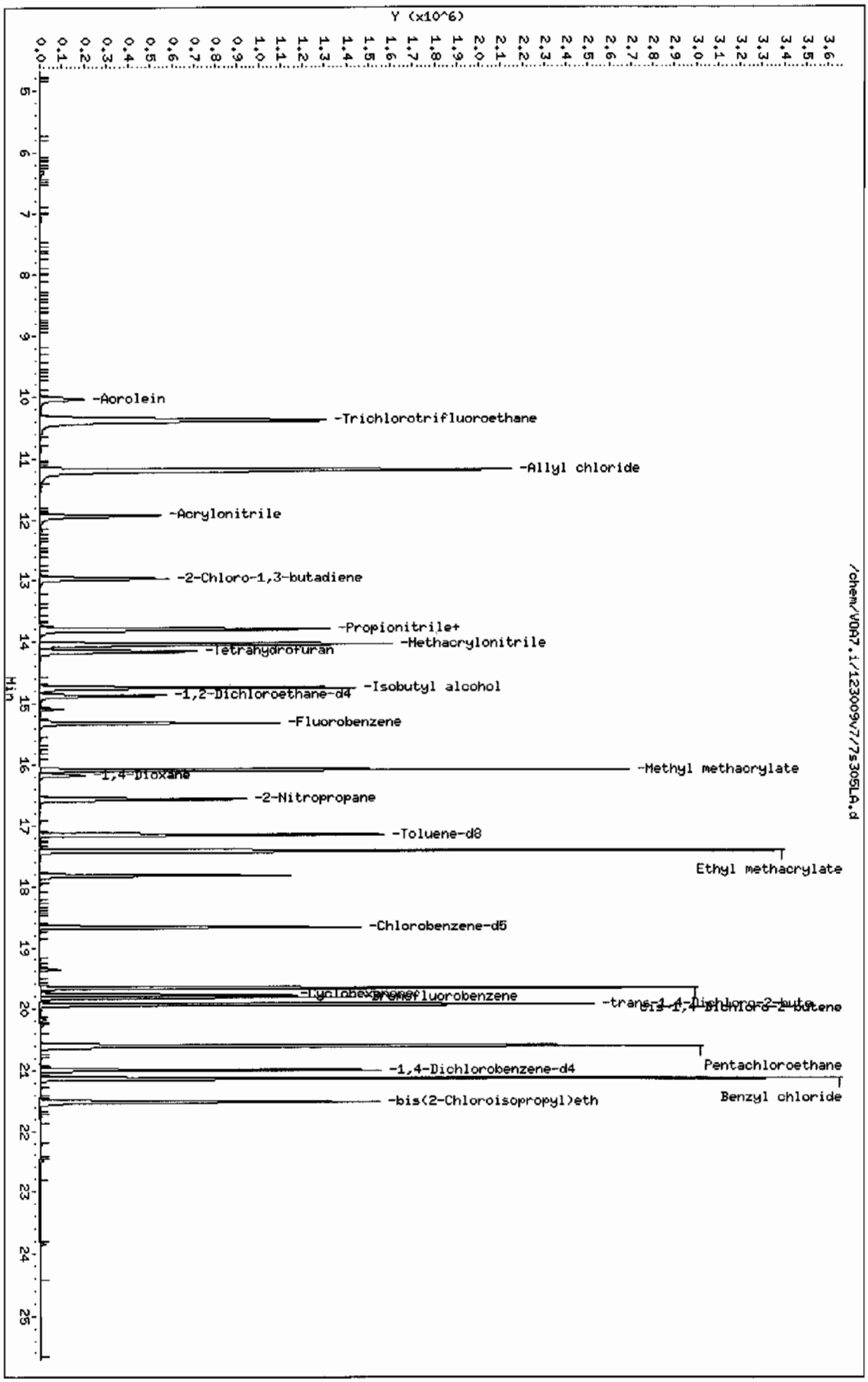

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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1057	**Date Collected:**	12/21/2009 12:00	**Matrix:**	S
Lab Sample ID:	1202005937	**Date Received:**	12/23/2009 10:10	**%Moisture:**	10.2
Client Sample:	QC for batch 937424	**Client:**	LANL010	**Project:**	QC
Client ID:	RE03-09-14228PS	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	937425	**Inst:**	VOA7.I	**Dilution:**	1
Run Date:	12/30/2009 00:31	**Analyst:**	AXO1	**Purge Vol:**	5 mL
Prep Date:	12/29/2009 11:49	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	7s220.d	**Column:**	DB-624	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane		35.7	ug/kg	0.378	1.11
74-87-3	Chloromethane		36.6	ug/kg	0.334	1.11
75-01-4	Vinyl chloride		37.5	ug/kg	0.334	1.11
74-83-9	Bromomethane		38.8	ug/kg	0.334	1.11
75-00-3	Chloroethane		39.2	ug/kg	0.334	1.11
75-69-4	Trichlorofluoromethane		42.1	ug/kg	0.334	1.11
67-64-1	Acetone		182	ug/kg	1.85	5.57
75-35-4	1,1-Dichloroethylene		39.0	ug/kg	0.334	1.11
74-88-4	Iodomethane		193	ug/kg	1.78	5.57
75-09-2	Methylene chloride		40.5	ug/kg	2.23	5.57
75-15-0	Carbon disulfide		204	ug/kg	1.39	5.57
156-60-5	trans-1,2-Dichloroethylene		40.7	ug/kg	0.334	1.11
75-34-3	1,1-Dichloroethane		42.0	ug/kg	0.334	1.11
78-93-3	2-Butanone		186	ug/kg	1.67	5.57
156-59-2	cis-1,2-Dichloroethylene		39.7	ug/kg	0.334	1.11
594-20-7	2,2-Dichloropropane		41.8	ug/kg	0.334	1.11
67-66-3	Chloroform		41.1	ug/kg	0.334	1.11
74-97-5	Bromochloromethane		40.8	ug/kg	0.367	1.11
71-55-6	1,1,1-Trichloroethane		43.6	ug/kg	0.334	1.11
563-58-6	1,1-Dichloropropene		41.6	ug/kg	0.334	1.11
56-23-5	Carbon tetrachloride		41.6	ug/kg	0.334	1.11
107-06-2	1,2-Dichloroethane		41.4	ug/kg	0.334	1.11
71-43-2	Benzene		39.3	ug/kg	0.334	1.11
79-01-6	Trichloroethylene		40.2	ug/kg	0.367	1.11
78-87-5	1,2-Dichloropropane		42.0	ug/kg	0.334	1.11
75-27-4	Bromodichloromethane		42.5	ug/kg	0.334	1.11
74-95-3	Dibromomethane		42.0	ug/kg	0.334	1.11
108-10-1	4-Methyl-2-pentanone		216	ug/kg	1.39	5.57
10061-01-5	cis-1,3-Dichloropropylene		40.6	ug/kg	0.334	1.11
108-88-3	Toluene		39.0	ug/kg	0.334	1.11
10061-02-6	trans-1,3-Dichloropropylene		41.3	ug/kg	0.334	1.11
79-00-5	1,1,2-Trichloroethane		41.7	ug/kg	0.334	1.11
591-78-6	2-Hexanone		178	ug/kg	1.67	5.57
142-28-9	1,3-Dichloropropane		40.3	ug/kg	0.334	1.11
127-18-4	Tetrachloroethylene		38.0	ug/kg	0.334	1.11
124-48-1	Dibromochloromethane		40.5	ug/kg	0.334	1.11
106-93-4	1,2-Dibromoethane		40.5	ug/kg	0.334	1.11
108-90-7	Chlorobenzene		38.9	ug/kg	0.334	1.11

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1057**	**Date Collected:**	**12/21/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**1202005937**	**Date Received:**	**12/23/2009 10:10**	**%Moisture:**	**10.2**
Client Sample:	**QC for batch 937424**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**RE03-09-14228PS**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937425**	**Inst:**	**VOA7.I**	**Dilution:**	**1**
Run Date:	**12/30/2009 00:31**	**Analyst:**	**AXO1**	**Purge Vol:**	**5 mL**
Prep Date:	**12/29/2009 11:49**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**7s220.d**	**Column:**	**DB-624**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene		38.4	ug/kg	0.334	1.11
179601-23-1	m,p-Xylenes		76.6	ug/kg	0.334	2.23
95-47-6	o-Xylene		37.8	ug/kg	0.334	1.11
100-42-5	Styrene		39.4	ug/kg	0.334	1.11
75-25-2	Bromoform		43.1	ug/kg	0.334	1.11
79-34-5	1,1,2,2-Tetrachloroethane		40.9	ug/kg	0.334	1.11
96-18-4	1,2,3-Trichloropropane		42.2	ug/kg	0.334	1.11
108-86-1	Bromobenzene		37.4	ug/kg	0.334	1.11
103-65-1	n-Propylbenzene		37.7	ug/kg	0.334	1.11
95-49-8	2-Chlorotoluene		38.7	ug/kg	0.334	1.11
98-82-8	Isopropylbenzene		39.3	ug/kg	0.334	1.11
108-67-8	1,3,5-Trimethylbenzene		38.4	ug/kg	0.334	1.11
106-43-4	4-Chlorotoluene		37.7	ug/kg	0.334	1.11
98-06-6	tert-Butylbenzene		39.6	ug/kg	0.334	1.11
95-63-6	1,2,4-Trimethylbenzene		38.1	ug/kg	0.334	1.11
135-98-8	sec-Butylbenzene		38.9	ug/kg	0.334	1.11
99-87-6	4-Isopropyltoluene		38.1	ug/kg	0.334	1.11
541-73-1	1,3-Dichlorobenzene		35.0	ug/kg	0.334	1.11
106-46-7	1,4-Dichlorobenzene		35.8	ug/kg	0.334	1.11
104-51-8	n-Butylbenzene		35.5	ug/kg	0.334	1.11
96-12-8	1,2-Dibromo-3-chloropropane		43.2	ug/kg	0.334	1.11
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.57	ug/kg	1.78	5.57
630-20-6	1,1,1,2-Tetrachloroethane		38.1	ug/kg	0.334	1.11
95-50-1	1,2-Dichlorobenzene		38.0	ug/kg	0.334	1.11

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VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA7.i/122909v7/7s220.d
Lab Smp Id: 1202005937 Client Smp ID: RE03-09-14228MS
Inj Date : 30-DEC-2009 00:31
Operator : AXO1 Inst ID: VOA7.i
Smp Info : |1202005937|937425|1|VOAF|1|
Misc Info : LANL 5g N/A MS 243472001
Comment :
Method : /chem/VOA7.i/122909v7/VOA7-8260B-122409.m
Meth Date : 04-Jan-2010 07:38 ale01592 Quant Type: ISTD
Cal Date : 24-DEC-2009 19:39 Cal File: 7r423.d
Als bottle: 20 QC Sample: MS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-1057.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	10.15460	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
* 51 Fluorobenzene	96	15.317	15.317	(1.000)	584652	50.0000	
* 75 Chlorobenzene-d5	117	18.667	18.667	(1.000)	453999	50.0000	
* 101 1,4-Dichlorobenzene-d4	152	20.992	20.991	(1.000)	264457	50.0000	
$ 46 1,2-Dichloroethane-d4	65	14.880	14.880	(0.971)	303567	49.9668	55.6
$ 64 Toluene-d8	98	17.144	17.144	(0.918)	641556	48.2943	53.8
$ 86 Bromofluorobenzene	95	19.814	19.814	(0.944)	298437	49.3712	55.0
4 Dichlorodifluoromethane	85	5.148	5.147	(0.336)	86391	32.0630	35.7
5 Chloromethane	50	5.757	5.757	(0.376)	182664	32.8580	36.6
6 Vinyl chloride	62	6.188	6.188	(0.404)	124556	33.6669	37.5
7 Bromomethane	94	7.419	7.429	(0.484)	92572	34.8967	38.8
8 Chloroethane	64	7.835	7.855	(0.512)	87803	35.1905	39.2
9 Trichlorofluoromethane	101	8.789	8.789	(0.574)	190616	37.8114	42.1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
13 Acetone	43	10.423	10.423	(0.681)	779915	163.268	182
14 1,1-Dichloroethylene	96	10.312	10.312	(0.673)	84436	35.0053	39.0
102 1,4-Dichlorobenzene	146	21.022	21.022	(1.001)	243611	32.2019	35.8
16 Iodomethane	142	10.667	10.667	(0.696)	824329	173.023	192
22 Methylene chloride	86	11.449	11.449	(0.747)	73923	36.3449	40.4
19 Carbon disulfide	76	10.840	10.840	(0.708)	1420484	183.163	204
25 trans-1,2-Dichloroethylene	61	12.027	12.027	(0.785)	186765	36.5779	40.7
28 1,1-Dichloroethane	63	12.799	12.799	(0.836)	239505	37.6973	42.0
31 2-Butanone	43	13.723	13.723	(0.896)	793153	167.214	186
33 cis-1,2-Dichloroethylene	61	13.733	13.733	(0.897)	214038	35.6831	39.7
100 1,3-Dichlorobenzene	146	20.931	20.931	(0.997)	242043	31.4222	35.0
34 2,2-Dichloropropane	77	13.743	13.743	(0.897)	129469	37.5324	41.8
38 Chloroform	83	14.190	14.190	(0.926)	237575	36.9293	41.1
105 1,2-Dichlorobenzene	146	21.438	21.438	(1.021)	254563	34.1492	38.0
37 Bromochloromethane	49	14.088	14.088	(0.920)	184371	36.6910	40.8
41 1,1,1-Trichloroethane	97	14.484	14.484	(0.946)	204443	39.1575	43.6
44 1,1-Dichloropropene	75	14.697	14.697	(0.960)	147430	37.3390	41.6
45 Carbon tetrachloride	117	14.728	14.728	(0.962)	159774	37.3902	41.6
47 1,2-Dichloroethane	62	14.982	14.982	(0.978)	270181	37.2372	41.4
48 Benzene	78	14.982	14.982	(0.978)	398766	35.3306	39.3
53 Trichloroethylene	95	15.773	15.763	(1.030)	118785	36.1454	40.2
56 1,2-Dichloropropane	63	16.037	16.037	(1.047)	130116	37.7150	42.0
59 Bromodichloromethane	83	16.332	16.332	(1.066)	194670	38.2019	42.5
58 Dibromomethane	93	16.180	16.179	(1.056)	88010	37.7524	42.0
63 4-Methyl-2-pentanone	58	16.941	16.941	(0.908)	390847	193.621	216
62 cis-1,3-Dichloropropylene	75	16.819	16.819	(1.098)	200491	36.4699	40.6
65 Toluene	92	17.215	17.215	(0.922)	266459	35.0822	39.0
67 trans-1,3-Dichloropropylene	75	17.388	17.388	(0.931)	206338	37.0988	41.3
68 1,1,2-Trichloroethane	83	17.611	17.611	(0.943)	98682	37.4537	41.7
69 2-Hexanone	43	17.804	17.804	(0.954)	1042853	159.523	178
70 1,3-Dichloropropane	76	17.794	17.794	(0.953)	195826	36.2513	40.3
71 Tetrachloroethylene	164	17.824	17.814	(0.955)	81253	34.1100	38.0
72 Dibromochloromethane	129	18.068	18.068	(0.968)	133592	36.4006	40.5
73 1,2-Dibromoethane	107	18.220	18.220	(0.976)	124201	36.3819	40.5
76 Chlorobenzene	112	18.697	18.697	(1.002)	298549	34.9366	38.9
77 1,1,1,2-Tetrachloroethane	131	18.758	18.758	(1.005)	120787	34.2331	38.1
78 Ethylbenzene	91	18.768	18.768	(1.005)	526649	34.5222	38.4
79 m,p-Xylenes	106	18.870	18.870	(1.011)	388765	68.8320	76.6
80 o-Xylene	106	19.286	19.286	(1.033)	202120	33.9273	37.8
81 Styrene	104	19.286	19.286	(1.033)	342257	35.3610	39.4
82 Bromoform	173	19.540	19.540	(0.931)	105340	38.7640	43.1
87 1,1,2,2-Tetrachloroethane	83	19.885	19.885	(0.947)	162398	36.7652	40.9
89 1,2,3-Trichloropropane	110	19.976	19.976	(0.952)	48330	37.9566	42.2
90 Bromobenzene	156	20.017	20.017	(0.954)	146875	33.5659	37.4
91 n-Propylbenzene	91	20.027	20.037	(0.954)	613916	33.8735	37.7
93 2-Chlorotoluene	91	20.169	20.169	(0.961)	464787	34.7354	38.7
83 Isopropylbenzene	105	19.631	19.631	(0.935)	523053	35.2652	39.2

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
92 1,3,5-Trimethylbenzene	105	20.169	20.169	(0.961)	450204	34.5148	38.4
94 4-Chlorotoluene	91	20.271	20.271	(0.966)	427345	33.8585	37.7
95 tert-Butylbenzene	119	20.535	20.535	(0.978)	431105	35.5521	39.6
96 1,2,4-Trimethylbenzene	105	20.565	20.565	(0.980)	477646	34.2324	38.1
98 sec-Butylbenzene	105	20.748	20.748	(0.988)	567431	34.9260	38.9
99 4-Isopropyltoluene	119	20.870	20.870	(0.994)	449375	34.1980	38.1
104 n-Butylbenzene	91	21.296	21.296	(1.014)	431369	31.8722	35.5
107 1,2-Dibromo-3-chloropropane	157	22.301	22.301	(1.062)	38567	38.7707	43.2

Data File: /chem/VOA7.i/122909v7/7s220.d
Date : 30-DEC-2009 00:31
Client ID: RE03-09-14228HS
Sample Info: 1120200559371937425111VOAF11
Column phase: DB-624

Instrument: VOA7.i
Operator: AXO1
Column diameter: 0.25

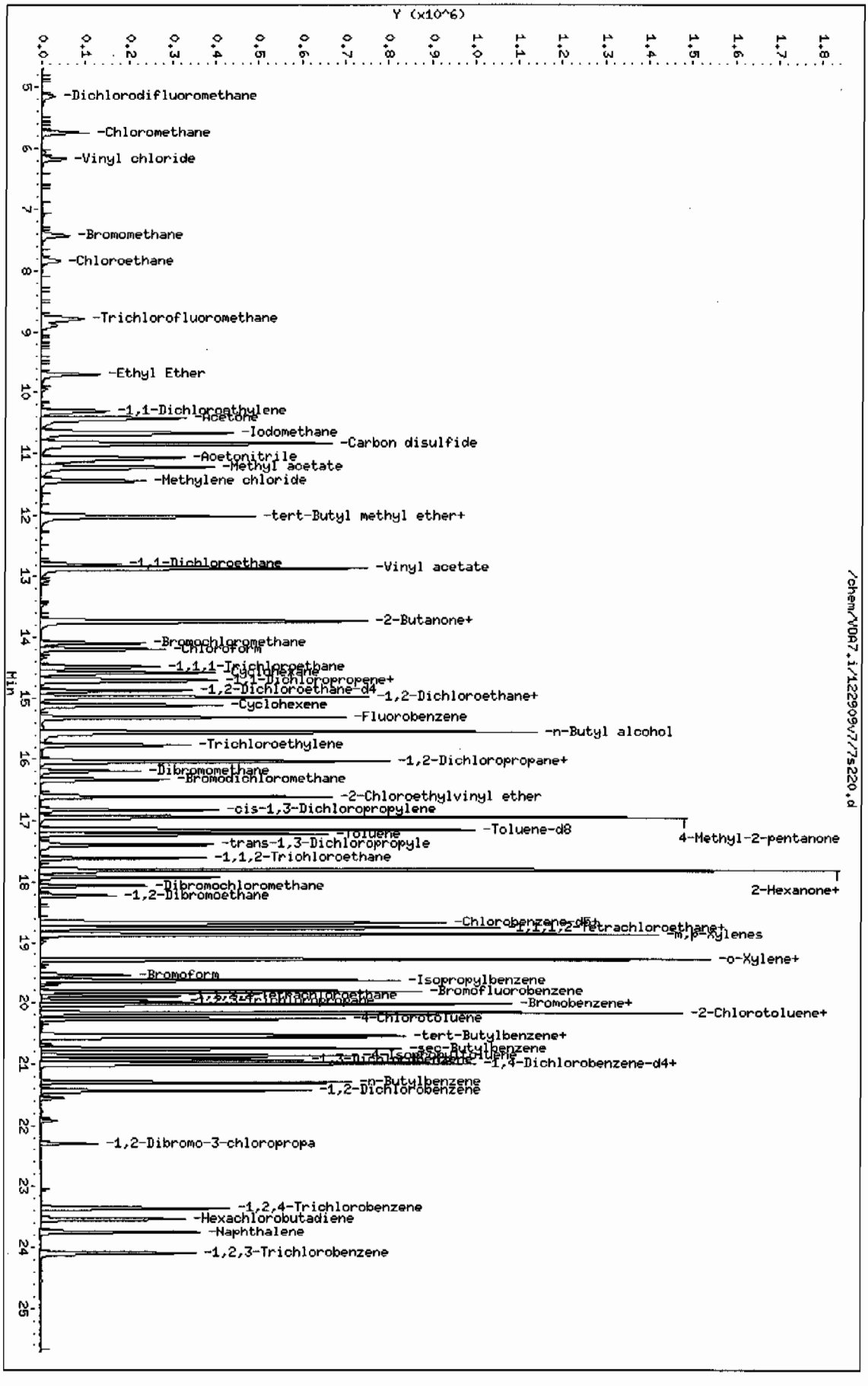

Page 1

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1057	**Date Collected:**	12/21/2009 12:00	**Matrix:**	S
Lab Sample ID:	1202005938	**Date Received:**	12/23/2009 10:10	**%Moisture:**	10.2
Client Sample:	QC for batch 937424	**Client:**	LANL010	**Project:**	QC
Client ID:	RE03-09-14228PSD	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	937425	**Inst:**	VOA7.I	**Dilution:**	1
Run Date:	12/30/2009 01:06	**Analyst:**	AXO1	**Purge Vol:**	5 mL
Prep Date:	12/29/2009 11:50	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	7s221.d	**Column:**	DB-624	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane		37.9	ug/kg	0.378	1.11
74-87-3	Chloromethane		39.0	ug/kg	0.334	1.11
75-01-4	Vinyl chloride		40.9	ug/kg	0.334	1.11
74-83-9	Bromomethane		41.1	ug/kg	0.334	1.11
75-00-3	Chloroethane		41.9	ug/kg	0.334	1.11
75-69-4	Trichlorofluoromethane		45.0	ug/kg	0.334	1.11
67-64-1	Acetone		199	ug/kg	1.85	5.57
75-35-4	1,1-Dichloroethylene		41.5	ug/kg	0.334	1.11
74-88-4	Iodomethane		205	ug/kg	1.78	5.57
75-09-2	Methylene chloride		44.1	ug/kg	2.23	5.57
75-15-0	Carbon disulfide		213	ug/kg	1.39	5.57
156-60-5	trans-1,2-Dichloroethylene		42.9	ug/kg	0.334	1.11
75-34-3	1,1-Dichloroethane		43.8	ug/kg	0.334	1.11
78-93-3	2-Butanone		202	ug/kg	1.67	5.57
156-59-2	cis-1,2-Dichloroethylene		42.8	ug/kg	0.334	1.11
594-20-7	2,2-Dichloropropane		44.1	ug/kg	0.334	1.11
67-66-3	Chloroform		44.2	ug/kg	0.334	1.11
74-97-5	Bromochloromethane		43.6	ug/kg	0.367	1.11
71-55-6	1,1,1-Trichloroethane		45.7	ug/kg	0.334	1.11
563-58-6	1,1-Dichloropropene		44.1	ug/kg	0.334	1.11
56-23-5	Carbon tetrachloride		45.3	ug/kg	0.334	1.11
107-06-2	1,2-Dichloroethane		43.3	ug/kg	0.334	1.11
71-43-2	Benzene		41.6	ug/kg	0.334	1.11
79-01-6	Trichloroethylene		43.1	ug/kg	0.367	1.11
78-87-5	1,2-Dichloropropane		42.6	ug/kg	0.334	1.11
75-27-4	Bromodichloromethane		45.1	ug/kg	0.334	1.11
74-95-3	Dibromomethane		44.0	ug/kg	0.334	1.11
108-10-1	4-Methyl-2-pentanone		223	ug/kg	1.39	5.57
10061-01-5	cis-1,3-Dichloropropylene		42.3	ug/kg	0.334	1.11
108-88-3	Toluene		39.3	ug/kg	0.334	1.11
10061-02-6	trans-1,3-Dichloropropylene		42.9	ug/kg	0.334	1.11
79-00-5	1,1,2-Trichloroethane		41.1	ug/kg	0.334	1.11
591-78-6	2-Hexanone		189	ug/kg	1.67	5.57
142-28-9	1,3-Dichloropropane		41.6	ug/kg	0.334	1.11
127-18-4	Tetrachloroethylene		37.9	ug/kg	0.334	1.11
124-48-1	Dibromochloromethane		41.5	ug/kg	0.334	1.11
106-93-4	1,2-Dibromoethane		43.1	ug/kg	0.334	1.11
108-90-7	Chlorobenzene		40.1	ug/kg	0.334	1.11

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1057**	**Date Collected:**	**12/21/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**1202005938**	**Date Received:**	**12/23/2009 10:10**	**%Moisture:**	**10.2**
Client Sample:	**QC for batch 937424**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**RE03-09-14228PSD**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937425**	**Inst:**	**VOA7.I**	**Dilution:**	**1**
Run Date:	**12/30/2009 01:06**	**Analyst:**	**AXO1**	**Purge Vol:**	**5 mL**
Prep Date:	**12/29/2009 11:50**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**7s221.d**	**Column:**	**DB-624**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene		39.8	ug/kg	0.334	1.11
179601-23-1	m,p-Xylenes		76.2	ug/kg	0.334	2.23
95-47-6	o-Xylene		38.2	ug/kg	0.334	1.11
100-42-5	Styrene		40.8	ug/kg	0.334	1.11
75-25-2	Bromoform		46.6	ug/kg	0.334	1.11
79-34-5	1,1,2,2-Tetrachloroethane		42.7	ug/kg	0.334	1.11
96-18-4	1,2,3-Trichloropropane		48.0	ug/kg	0.334	1.11
108-86-1	Bromobenzene		39.6	ug/kg	0.334	1.11
103-65-1	n-Propylbenzene		39.0	ug/kg	0.334	1.11
95-49-8	2-Chlorotoluene		39.2	ug/kg	0.334	1.11
98-82-8	Isopropylbenzene		41.2	ug/kg	0.334	1.11
108-67-8	1,3,5-Trimethylbenzene		39.5	ug/kg	0.334	1.11
106-43-4	4-Chlorotoluene		38.9	ug/kg	0.334	1.11
98-06-6	tert-Butylbenzene		40.7	ug/kg	0.334	1.11
95-63-6	1,2,4-Trimethylbenzene		39.1	ug/kg	0.334	1.11
135-98-8	sec-Butylbenzene		39.7	ug/kg	0.334	1.11
99-87-6	4-Isopropyltoluene		39.1	ug/kg	0.334	1.11
541-73-1	1,3-Dichlorobenzene		37.6	ug/kg	0.334	1.11
106-46-7	1,4-Dichlorobenzene		37.4	ug/kg	0.334	1.11
104-51-8	n-Butylbenzene		37.6	ug/kg	0.334	1.11
96-12-8	1,2-Dibromo-3-chloropropane		48.4	ug/kg	0.334	1.11
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.57	ug/kg	1.78	5.57
630-20-6	1,1,1,2-Tetrachloroethane		41.0	ug/kg	0.334	1.11
95-50-1	1,2-Dichlorobenzene		40.3	ug/kg	0.334	1.11

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA7.i/122909v7/7s221.d
Lab Smp Id: 1202005938 Client Smp ID: RE03-09-14228MSD
Inj Date : 30-DEC-2009 01:06
Operator : AXO1 Inst ID: VOA7.i
Smp Info : |1202005938|937425|1|VOAF|1|
Misc Info : LANL 5g N/A MSD 243472001
Comment :
Method : /chem/VOA7.i/122909v7/VOA7-8260B-122409.m
Meth Date : 04-Jan-2010 07:38 ale01592 Quant Type: ISTD
Cal Date : 24-DEC-2009 19:39 Cal File: 7r423.d
Als bottle: 21 QC Sample: MSD
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-1057.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	10.15460	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
* 51 Fluorobenzene	96	15.317	15.317	(1.000)	702222	50.0000	
* 75 Chlorobenzene-d5	117	18.667	18.667	(1.000)	551982	50.0000	
* 101 1,4-Dichlorobenzene-d4	152	20.992	20.991	(1.000)	317535	50.0000	
$ 46 1,2-Dichloroethane-d4	65	14.880	14.880	(0.971)	380043	52.0814	58.0
$ 64 Toluene-d8	98	17.144	17.144	(0.918)	776120	48.0530	53.5
$ 86 Bromofluorobenzene	95	19.814	19.814	(0.944)	365934	50.4182	56.1
4 Dichlorodifluoromethane	85	5.148	5.147	(0.336)	110260	34.0810	37.9
5 Chloromethane	50	5.757	5.757	(0.376)	234187	35.0731	39.0
6 Vinyl chloride	62	6.188	6.188	(0.404)	163271	36.7426	40.9
7 Bromomethane	94	7.419	7.429	(0.484)	117771	36.9629	41.1
8 Chloroethane	64	7.835	7.855	(0.512)	112804	37.6412	41.9
9 Trichlorofluoromethane	101	8.789	8.789	(0.574)	244672	40.4083	45.0

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
13 Acetone	43	10.424	10.423	(0.681)	1028193	179.206	199
14 1,1-Dichloroethylene	96	10.312	10.312	(0.673)	107955	37.2625	41.5
102 1,4-Dichlorobenzene	146	21.022	21.022	(1.001)	304886	33.5649	37.4
16 Iodomethane	142	10.667	10.667	(0.696)	1051687	183.786	204
22 Methylene chloride	86	11.449	11.449	(0.747)	96117	39.6024	44.1
19 Carbon disulfide	76	10.840	10.840	(0.708)	1786071	191.744	213
25 trans-1,2-Dichloroethylene	61	12.028	12.027	(0.785)	236421	38.5508	42.9
28 1,1-Dichloroethane	63	12.799	12.799	(0.836)	300487	39.3771	43.8
31 2-Butanone	43	13.723	13.723	(0.896)	1033291	181.369	202
33 cis-1,2-Dichloroethylene	61	13.733	13.733	(0.897)	277199	38.4757	42.8
100 1,3-Dichlorobenzene	146	20.931	20.931	(0.997)	312056	33.7396	37.6
34 2,2-Dichloropropane	77	13.743	13.743	(0.897)	164111	39.6097	44.1
38 Chloroform	83	14.190	14.190	(0.926)	306705	39.6931	44.2
105 1,2-Dichlorobenzene	146	21.438	21.438	(1.021)	323681	36.1631	40.2
37 Bromochloromethane	49	14.088	14.088	(0.920)	236597	39.2012	43.6
41 1,1,1-Trichloroethane	97	14.484	14.484	(0.946)	257324	41.0342	45.7
44 1,1-Dichloropropene	75	14.697	14.697	(0.960)	187693	39.5775	44.0
45 Carbon tetrachloride	117	14.728	14.728	(0.962)	209044	40.7298	45.3
47 1,2-Dichloroethane	62	14.982	14.982	(0.978)	339125	38.9139	43.3
48 Benzene	78	14.992	14.982	(0.979)	507211	37.4149	41.6
53 Trichloroethylene	95	15.774	15.763	(1.030)	152733	38.6943	43.1
56 1,2-Dichloropropane	63	16.038	16.037	(1.047)	158559	38.2646	42.6
59 Bromodichloromethane	83	16.332	16.332	(1.066)	247821	40.4900	45.1
58 Dibromomethane	93	16.180	16.179	(1.056)	110585	39.4940	44.0
63 4-Methyl-2-pentanone	58	16.941	16.941	(0.908)	491524	200.272	223
62 cis-1,3-Dichloropropylene	75	16.819	16.819	(1.098)	250952	38.0061	42.3
65 Toluene	92	17.215	17.215	(0.922)	325894	35.2909	39.3
67 trans-1,3-Dichloropropylene	75	17.388	17.388	(0.931)	260618	38.5403	42.9
68 1,1,2-Trichloroethane	83	17.611	17.611	(0.943)	118257	36.9159	41.1
69 2-Hexanone	43	17.804	17.804	(0.954)	1349238	169.753	189
70 1,3-Dichloropropane	76	17.794	17.794	(0.953)	245225	37.3378	41.6
71 Tetrachloroethylene	164	17.824	17.814	(0.955)	98563	34.0319	37.9
72 Dibromochloromethane	129	18.068	18.068	(0.968)	166217	37.2506	41.5
73 1,2-Dibromoethane	107	18.220	18.220	(0.976)	160718	38.7217	43.1
76 Chlorobenzene	112	18.697	18.697	(1.002)	373975	35.9946	40.1
77 1,1,1,2-Tetrachloroethane	131	18.758	18.758	(1.005)	157867	36.8000	41.0
78 Ethylbenzene	91	18.768	18.768	(1.005)	663241	35.7585	39.8
79 m,p-Xylenes	106	18.870	18.870	(1.011)	469955	68.4368	76.2
80 o-Xylene	106	19.286	19.286	(1.033)	248736	34.3407	38.2
81 Styrene	104	19.286	19.286	(1.033)	431008	36.6258	40.8
82 Bromoform	173	19.540	19.540	(0.931)	136484	41.8293	46.6
87 1,1,2,2-Tetrachloroethane	83	19.885	19.885	(0.947)	203695	38.4061	42.7
89 1,2,3-Trichloropropane	110	19.976	19.976	(0.952)	65925	43.1205	48.0
90 Bromobenzene	156	20.017	20.017	(0.954)	187024	35.5968	39.6
91 n-Propylbenzene	91	20.037	20.037	(0.955)	763073	35.0656	39.0
93 2-Chlorotoluene	91	20.169	20.169	(0.961)	566386	35.2529	39.2
83 Isopropylbenzene	105	19.631	19.631	(0.935)	658439	36.9726	41.2

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
92 1,3,5-Trimethylbenzene	105	20.169	20.169	(0.961)	556213	35.5140	39.5
94 4-Chlorotoluene	91	20.271	20.271	(0.966)	529158	34.9171	38.9
95 tert-Butylbenzene	119	20.535	20.535	(0.978)	532857	36.5979	40.7
96 1,2,4-Trimethylbenzene	105	20.565	20.565	(0.980)	588673	35.1373	39.1
98 sec-Butylbenzene	105	20.748	20.748	(0.988)	696503	35.7044	39.7
99 4-Isopropyltoluene	119	20.870	20.870	(0.994)	553950	35.1096	39.1
104 n-Butylbenzene	91	21.296	21.296	(1.014)	548733	33.7666	37.6
107 1,2-Dibromo-3-chloropropane	157	22.301	22.301	(1.062)	51910	43.4612	48.4

Data File: /chem/VOA7.i/122909v7/7s221.d
Date : 30-DEC-2009 01:06
Client ID: REG3-09-14228HSD
Sample Info: 1120200593819374251|1|VOAF|1|
Column phase: DB-624

Instrument: VOA7.i
Operator: AXO1
Column diameter: 0.25

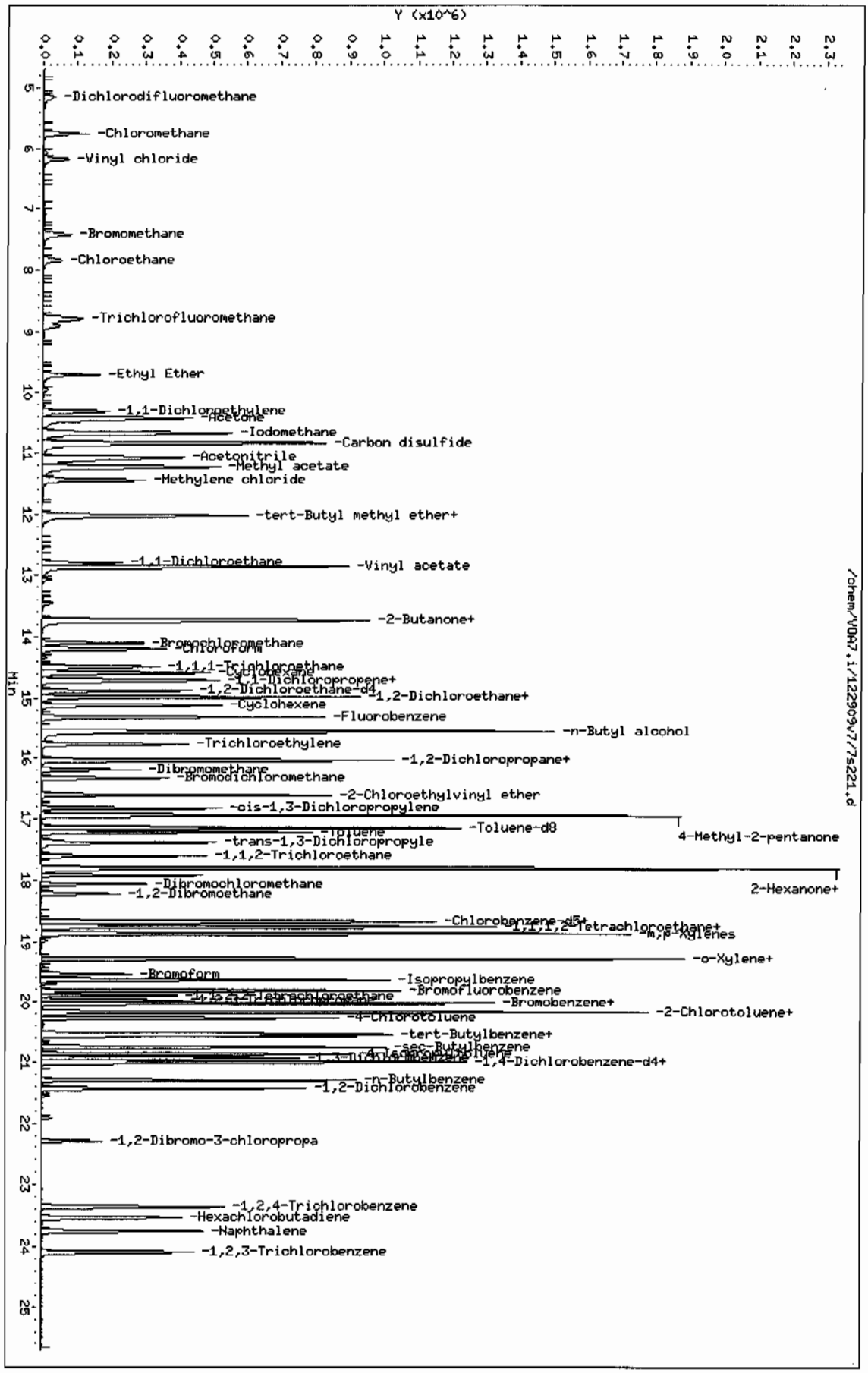

Page 1

Miscellaneous Data

Prep Logbook

Volatile Organic Compounds (VOC) by Gas Chromatograph/Mass Spectrometer

Batch ID: **937424** Verified by: _____

Analyst: Alex Olson
Method: SW846 5030
Lab SOP: GL-OA-E-038 REV# 13
Instrument: Sartorius Balance B-001

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units

Sample ID	Run Date	Matrix	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check 1
1202005936 MB	29-DEC-2009 08:00:00	Soil	5	5	1	N/A
1202005939 LCS	29-DEC-2009 08:00:00	Soil	5	5	1	N/A
1202005940 LCS	29-DEC-2009 08:00:00	Soil	5	5	1	N/A
243472001	29-DEC-2009 11:45:00	Soil	5	5	1	N/A
243472003	29-DEC-2009 11:47:00	Soil	5	5	1	N/A
243472004	29-DEC-2009 11:48:00	Soil	5	5	1	N/A
1202005937 PS (243472001)	29-DEC-2009 11:49:00	Soil	5	5	1	N/A
1202005938 PSD (243472001)	29-DEC-2009 11:50:00	Soil	5	5	1	N/A
1202007502 MB	30-DEC-2009 08:00:00	Soil	5	5	1	N/A
1202007503 LCS	30-DEC-2009 08:00:00	Soil	5	5	1	N/A
1202007504 LCS	30-DEC-2009 08:00:00	Soil	5	5	1	N/A
243472002	30-DEC-2009 12:15:00	Soil	5	5	1	N/A

Reagent/Solvent Lot ID	Description	Amount

Comments:

GEL Laboratories, LLC
Revision:11/22/04

ORGANIC RUN LOG - INSTRUMENT ID#VOA7

Date: 12/24/2009 Method 8260B/624 Operator: AXO1

REVIEWED BY: _____
DATE: _____

HARDWARE CONFIGURATION & METHOD CONDITIONS SUMMARY No# 1

Daily Instrument Readings:
Multiplier Voltage: 2000

CALIBRATION & CC INFORMATION:

Initial Calibration Date: 11/15/2009

(See pg. 217 for ICAL Std. Sci. Ids)

NaHSO4 lot # N/A

Cl test lot # N/A

Sequence Number: 122409v7

	Daily Standard Solution ID#	Volume Added for Purge (ul) Blk/ Smpl	CCV	MS/ LCS	BFB
LONG ICV	W7VM091227-04		5+5		
IS	UVM091216-09	1	1	1	
SS	UVM091216-10	1	1	1	
BFB	UVM091216-10				1
SHORT ICV	W7VM091224-23		5+5		

Purge Amount	
5	Water Purge Vol:
N/A	Soil Purge Wt.
N/A	Mid level ext. MeOH Vol:
N/A	ul
N/A	Methanol Lot #
x	Heated Purge

Analysis Date	Time	Data File	Lab Sample ID	Client	Batch #	Wt.(g) or Vol(ml/ul)	Dil. Factor	pH	AS Slot #	Matrix w or s	Analyst	Cl test (Y/N)	Acceptable (O/X)	Comments
12/24/2009	5:23	7R401.D	12019-----	GEL	RINSE	5mL	1	N/A	1	w	AXO1	N/A	X	upped EM voltage to 2000
12/24/2009	5:58	7R402.D	W7VM091224-01	GEL	BFB/CCV/LCS	5mL	1	N/A	2	w	AXO1	N/A	X	UVM091219-01B/IVM091222-01 1,2-DCP CCV Failed
12/24/2009	6:54	7R403.D	W7VM091224-02	GEL	BFB/CCV	5mL	1	N/A	2	w	AXO1	N/A	X	UVM090911-07D/UVM091130-07C CCV failure
12/24/2009	7:28	7R404.D	W7VM091224-03	GEL	LCS	5g	1	N/A	3	s	AXO1	N/A	X	UVM091219-01B/IVM091222-01 CCV failure
12/24/2009	8:38	7R405.D	W7VM091224-04	GEL	BFB/CCV	5mL	1	N/A	3	w	AXO1	N/A	X	UVM091215-01A/UVM091130-07C CCV failures
12/24/2009	9:11	7R406.D	W7VM091224-05	GEL	LCS	5g	1	N/A	4	s	AXO1	N/A	X	UVM091215-01A/IVM091222-01
12/24/2009	10:40	7R407.D	120200-----	GEL	RINSE	5mL	1	N/A	1	w	AXO1	N/A	X	
12/24/2009	11:13	7R408.D	UVM091216-10	GEL	BFB	5uL	1	N/A	2	w	AXO1	N/A	O	
12/24/2009	11:46	7R409.D	W7VM091224-06	GEL	VSTD001	5uL	1	N/A	3	w	AXO1	N/A	O	UVM090911-02D/UVM091130-02C
12/24/2009	12:19	7R410.D	W7VM091224-07	GEL	VSTD002	5uL	1	N/A	4	w	AXO1	N/A	O	UVM090911-03D/UVM091130-03C
12/24/2009	12:53	7R411.D	W7VM091224-08	GEL	VSTD005	5uL	1	N/A	5	w	AXO1	N/A	O	UVM090911-04D/UVM091130-04C
12/24/2009	13:27	7R412.D	W7VM091224-09	GEL	VSTD010	5uL	1	N/A	6	w	AXO1	N/A	O	UVM090911-05D/UVM091130-05C
12/24/2009	14:01	7R413.D	W7VM091224-10	GEL	VSTD020	5uL	1	N/A	7	w	AXO1	N/A	O	UVM090911-06D/UVM091130-06C
12/24/2009	14:33	7R414.D	W7VM091224-11	GEL	VSTD050	5uL	1	N/A	8	w	AXO1	N/A	O	UVM090911-07D/UVM091130-07C
12/24/2009	15:07	7R415.D	W7VM091224-12	GEL	VSTD100	5uL	1	N/A	9	w	AXO1	N/A	O	UVM090911-08D/UVM091130-08C
12/24/2009	15:41	7R416.D	120200-----	GEL	RINSE	5mL	1	N/A	10	w	AXO1	N/A	X	
12/24/2009	16:16	7R417.D	W7VM091224-13	GEL	VSTD0005	5uL	1	N/A	11	w	AXO1	N/A	O	UVM090911-01D/UVM091130-01C
12/24/2009	16:50	7R418.D	W7VM091224-14	GEL	VSTD005S	5uL	1	N/A	12	w	AXO1	N/A	O	UVM091216-01/UVM091209-01A
12/24/2009	17:22	7R419.D	W7VM091224-15	GEL	VSTD010S	5uL	1	N/A	13	w	AXO1	N/A	O	UVM091216-02/UVM091209-02A
12/24/2009	17:55	7R420.D	W7VM091224-16	GEL	VSTD025S	5uL	1	N/A	14	w	AXO1	N/A	O	UVM091216-03/UVM091209-03A
12/24/2009	18:29	7R421.D	W7VM091224-17	GEL	VSTD050S	5uL	1	N/A	15	w	AXO1	N/A	O	UVM091216-04/UVM091209-04A
12/24/2009	19:04	7R422.D	W7VM091224-18	GEL	VSTD100S	5uL	1	N/A	16	w	AXO1	N/A	O	UVM091216-05/UVM091209-05A
12/24/2009	19:39	7R423.D	W7VM091224-19	GEL	VSTD250S	5uL	1	N/A	17	w	AXO1	N/A	O	UVM091216-06/UVM091209-06A
12/24/2009	20:13	7R424.D	W7VM091224-20	GEL	VSTD500S	5uL	1	N/A	18	w	AXO1	N/A	O	UVM091216-07/UVM091209-07A

GEL Laboratories, LLC
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ORGANIC RUN LOG - INSTRUMENT ID#VOA7

Date: 12/24/2009 Method 8260B/624 Operator: AXO1

REVIEWED BY: _____
DATE: _____

HARDWARE CONFIGURATION & METHOD CONDITIONS SUMMARY No# 1

Daily Instrument Readings:
Multiplier Voltage: 2000

CALIBRATION & CC INFORMATION:

Initial Calibration Date: 11/15/2009

(See pg. 217 for ICAL Std. Sci. Ids)

NaHSO4 lot # N/A

Cl test lot # N/A

Sequence Number: 122409v7

Daily Standard	Solution ID#	Volume Added for Purge (ul) Blk/ Smpl	CCV	MS/ LCS	BFB
LONG ICV	W7VM091227-04		5+5		
IS	UVM091216-09	1	1	1	
SS	UVM091216-10	1	1	1	
BFB	UVM091216-10				1
SHORT ICV	W7VM091224-23		5+5		

Purge Amount	
5	Water Purge Vol:
N/A	Soil Purge Wt.
N/A	Mid level ext. MeOH Vol:
N/A	ul
N/A	Methanol Lot #
x	Heated Purge

Analysis Date	Time	Data File	Lab Sample ID	Client	Batch #	Wt.(g) or Vol(ml/ul)	Dil. Factor	pH	AS Slot #	Matrix w or s	Analyst	Cl test (Y/N)	Acceptable (O/X)	Comments
12/24/2009	20:48	7R425.D	120200-----	GEL	RINSE	5mL	1	N/A	19	w	AXO1	N/A	X	
12/24/2009	21:23	7R426.D	W7VM091224-21	GEL	ICV	5uL	1	N/A	20	w	AXO1	N/A	X	UVM091215-01A/IVM091222-01
12/24/2009	21:57	7R427.D	W7VM091224-22	GEL	ICV	5uL	1	N/A	21	w	AXO1	N/A	X	UVM091214-01B/IVM091222-01
12/24/2009	22:31	7R428.D	W7VM091224-23	GEL	SICV	5uL	1	N/A	22	w	AXO1	N/A	O	UVM091118-08C/UVM091209-08A
12/24/2009	23:06	7R429.D	120200-----	GEL	RINSE	5mL	1	N/A	23	w	AXO1	N/A	X	

GEL Laboratories, LLC
Revision:11/22/04

ORGANIC RUN LOG - INSTRUMENT ID#VOA7

Date: 12/27/2009 Method 8260B/624 Operator: AXO1

REVIEWED BY: _____
DATE: _____

HARDWARE CONFIGURATION & METHOD CONDITIONS SUMMARY No# 1

Daily Instrument Readings:
Multiplier Voltage: 1976

CALIBRATION & CC INFORMATION:

Initial Calibration Date: 12/24/2009

(See pg. 315,316 for ICAL Std. Sci. Ids)

NaHSO4 lot # N/A

Cl test lot # 81710

Sequence Number: 122709V7

Daily Standard Solution ID#		Volume Added for Purge (ul) Blk/ Smpl	CCV	MS/ LCS	BFB
CCV	W7VM091227-04		5+5		
IS	UVM091216-09	1	1	1	
SS	UVM091216-10	1	1	1	
LCS/MS	W7VM091227-04			5+5	
BFB	UVM091216-10				1
SHORT	W7VM091227-05		5+5	5+5	
LONG ICV	W7VM091227-04			5+5	

Purge Amount	
5	Water Purge Vol:
N/A	Soil Purge Wt.
N/A	Mid level ext. MeOH Vol:
N/A	ul
N/A	Methanol Lot #
x	Heated Purge

Analysis Date Time	Data File	Lab Sample ID	Client	Batch #	Wt.(g) or Vol(ml/ul)	Dil. Factor	pH	AS Slot #	Matrix w or s	Analyst	Cl test (Y/N)	Acceptable (O/X)	Comments
12/27/2009 21:16	7R701.D	W7VM091227-01	GEL	ccv	5mL	1	N/A	28	w	AXO1	N/A	X	UVM091214-01B/IVM091222-01
12/27/2009 22:12	7R702.D	W7VM091227-02	GEL	ccv	5mL	1	N/A	29	w	AXO1	N/A	X	UVM091214-01C/IVM091222-01
12/27/2009 22:58	7R703.D	W7VM091227-03	GEL	ccv	5mL	1	N/A	30	w	AXO1	N/A	X	UVM091215-01AIVM091222-01
12/27/2009 23:55	7R704.D	W7VM091227-04	GEL	BFB/ICV/CCV/LCS	5mL	1	N/A	31	w	AXO1	N/A	O	UVM091214-01C/IVM091222-01 Lowered EM to 1976
12/28/2009 0:44	7R705.D	W7VM091227-05	GEL	SHORT/SLCS	5mL	1	N/A	32	w	AXO1	N/A	O	UVM091118-01C/UVM091209-08A
12/28/2009 1:18	7R706.D	120200-----	GEL	BLANK	5mL	1	N/A	33	w	AXO1	N/A	O	
12/28/2009 1:53	7R707.D	243013006	LBNL	936416	10uL	500	pH6	34	w	AXO1	N	X	RR Neat
12/28/2009 2:27	7R708.D	243013007	LBNL	936416	10uL	500	pH6	35	w	AXO1	N	X	RR 1:10 FOAM, TIC
12/28/2009 3:02	7R709.D	243013003	LBNL	936416	10uL	500000	pH6	36	w	AXO1	N	O	FROM 1000X
12/28/2009 3:37	7R710.D	243013004	LBNL	936416	10uL	500000	pH6	37	w	AXO1	N	O	FROM 1000X
12/28/2009 4:11	7R711.D	243013008	LBNL	936416	10uL	500000	pH6	38	w	AXO1	N	O	FROM 1000X
12/28/2009 4:46	7R712.D	243013009	LBNL	936416	10uL	500000	pH6	39	w	AXO1	N	O	FROM 1000X
12/28/2009 5:20	7R713.D	243013005	LBNL	936416	50uL	100000	pH6	40	w	AXO1	N	O	FROM 1000X
12/28/2009 5:55	7R714.D	1202003611	LBNL	936416	10uL	500000	pH6	41	w	AXO1	N	O	MS 243013003 FROM 1000X
12/28/2009 6:29	7R715.D	1202003612	LBNL	936416	10uL	500000	pH6	42	w	AXO1	N	O	MSD 243013003 FROM 1000X

GEL Laboratories, LLC
Revision:11/22/04

ORGANIC RUN LOG - INSTRUMENT ID#VOA7

Date: 12/29/2009 Method 8260B/624 Operator: AXO1

REVIEWED BY: _____
DATE: _____

HARDWARE CONFIGURATION & METHOD CONDITIONS SUMMARY No# 1

Daily Instrument Readings:
Multiplier Voltage: 1976

CALIBRATION & CC INFORMATION:

Initial Calibration Date: 12/24/2009

(See pg. 315, 316 for ICAL Std. Scl. Ids)

NaHSO4 lot # N/A

Cl test lot # N/A

Sequence Number: 122909V7

Daily Standard Solution ID#		Volume Added for Purge (ul) Blk/ Smpl	CCV	MS/ LCS	BFB
CCV	W7VM091229-02		5+5		
IS	UVM091216-09	1	1	1	
SS	UVM091216-10	1	1	1	
LCS/MS	W7VM091229-02			5+5	
BFB	UVM091216-10				1
SHORT	UVM091118-08C		5	5	
DHEC	N/A				

Purge Amount	
5	Water Purge Vol:
5g	Soil Purge Wt.
Y	Mid level ext. MeOH Vol:
100	ul
CZ297	Methanol Lot #
x	Heated Purge

Analysis Date Time	Data File	Lab Sample ID	Client	Batch #	Wt.(g) or Vol(ml/ul)	Dil. Factor	pH	AS Slot #	Matrix w or s	Analyst	Cl test (Y/N)	Acceptable (O/X)	Comments
12/29/2009 13:35	7S201.D	120200-----	GEL	RINSE	5mL	1	N/A	1	w	AXO1	N/A	X	
12/29/2009 14:10	7S202.D	W7VM091229-01	GEL	CCV	5mL	1	N/A	2	w	AXO1	N/A	X	UVM091214-01C/IVM091228-01 Not Needed
12/29/2009 14:44	7S203.D	W7VM091229-02	GEL	BFB/CCV/LCS	5g	1	N/A	3	s	AXO1	N/A	O	UVM091214-01C/IVM091228-01
12/29/2009 15:17	7S204.D	UVM091118-08C	GEL	SHORT/SLCS	5mL	1	N/A	4	w	AXO1	N/A	O	TCTFM, Pentachloroethane, Cyclohexanone fail SC
12/29/2009 15:53	7S205.D	UVM091118-08C	GEL	SLCS	5g	1	N/A	5	s	AXO1	N/A	O	
12/29/2009 16:28	7S206.D	120200-----	GEL	BLANK	5mL	1	N/A	6	w	AXO1	N/A	O	
12/29/2009 17:02	7S207.D	120200-----	GEL	BLANK	5g	1	N/A	7	s	AXO1	N/A	O	
12/29/2009 17:37	7S208.D	243472004	LANL	937425	5g	1	N/A	8	s	AXO1	N/A	O	
12/29/2009 18:11	7S209.D	243472003	LANL	937425	5g	1	N/A	9	s	AXO1	N/A	O	
12/29/2009 18:46	7S210.D	243472002	LANL	937425	5g	1	N/A	10	s	AXO1	N/A	X	RR IS FAILURE SEE 7S308
12/29/2009 19:20	7S211.D	243472001	LANL	937425	5g	1	N/A	11	s	AXO1	N/A	O	
12/29/2009 19:55	7S212.D	243282001	PCGE	937419	5g	1	N/A	12	s	AXO1	N/A	O	
12/29/2009 20:30	7S213.D	243282007	PCGE	937419	5g	1	N/A	13	s	AXO1	N/A	O	
12/29/2009 21:04	7S214.D	243282013	PCGE	937419	5g	1	N/A	14	s	AXO1	N/A	O	
12/29/2009 21:39	7S215.D	243282019	PCGE	937419	5g	1	N/A	15	s	AXO1	N/A	O	
12/29/2009 22:14	7S216.D	120200-----	GEL	BLANK	0.1mL	50	N/A	16	s	AXO1	N/A	O	
12/29/2009 22:48	7S217.D	243352001	MECP	937419	0.1mL	50	N/A	17	s	AXO1	N/A	O	
12/29/2009 23:23	7S218.D	243463001	MECP	937419	0.1mL	50	N/A	18	s	AXO1	N/A	O	
12/29/2009 23:57	7S219.D	243194001	CARE	937419	0.1mL	50	N/A	19	s	AXO1	N/A	O	
12/30/2009 0:31	7S220.D	1202005937	LANL	937425	5g	1	N/A	20	s	AXO1	N/A	O	MS 243472001
12/30/2009 1:06	7S221.D	1202005938	LANL	937425	5g	1	N/A	21	s	AXO1	N/A	O	MSD 243472001
12/30/2009 1:40	7S222.D	1202005927	PCGE	937419	5g	1	N/A	22	s	AXO1	N/A	O	MS 243194001
12/30/2009 2:15	7S223.D	1202005928	PCGE	937419	5g	1	N/A	23	s	AXO1	N/A	O	MSD 243194001

GEL Laboratories, LLC
Revision:11/22/04

ORGANIC RUN LOG - INSTRUMENT ID#VOA7

Date: 12/30/2009 Method 8260B/624 Operator: AXO1

REVIEWED BY: _____
DATE: _____

HARDWARE CONFIGURATION & METHOD CONDITIONS SUMMARY No# 1

Daily Instrument Readings:
Multiplier Voltage: 1976

CALIBRATION & CC INFORMATION:

Initial Calibration Date: 12/24/2009

(See pg. 315, 316 for ICAL Std. Sci. Ids)

NaHSO4 lot # N/A

Cl test lot # 81710

Sequence Number: 123009v7

Daily Standard	Solution ID#	Volume Added for Purge (ul) Blk/ Smpl	CCV	MS/ LCS	BFB
CCV	W7VM091230-01		5+5		
IS	UVM091216-09	1	1	1	
SS	UVM091216-10	1	1	1	
LCS/MS	W7VM091230-01			5+5	
BFB	UVM091216-10				1
SHORT	UVM091118-08C		5	5	
DHEC	N/A				

Purge Amount	
5	Water Purge Vol:
n/a	Soil Purge Wt.
n/a	Mid level ext. MeOH Vol:
n/a	ul
n/a	Methanol Lot #
x	Heated Purge

Analysis Date Time	Data File	Lab Sample ID	Client	Batch #	Wt.(g) or Vol(ml/ul)	Dil. Factor	pH	AS Slot #	Matrix w or s	Analyst	Cl test (Y/N)	Acceptable (O/X)	Comments
12/30/2009 9:03	7S301.D	120200-----	GEL	RINSE	5mL	1	N/A	1	w	AXO1	N/A	X	
12/30/2009 9:36	7S302.D	W7VM091230-01	GEL	BFBCCV/LCS	5mL	1	N/A	2	w	AXO1	N/A	O	UVM091214-01C/IVM091228-01
12/30/2009 10:10	7S303.D	W7VM091230-02	GEL	LCS	5g	1	N/A	3	s	AXO1	N/A	O	UVM091214-01C/IVM091228-01
12/30/2009 10:45	7S304.D	UVM091118-08C	GEL	SHORT/SLCS	5mL	1	N/A	4	w	AXO1	N/A	O	
12/30/2009 11:18	7S305.D	UVM091118-08C	GEL	SLCS	5g	1	N/A	5	s	AXO1	N/A	O	
12/30/2009 11:52	7S306.D	120200-----	GEL	BLANK	5mL	1	N/A	6	w	AXO1	N/A	O	
12/30/2009 12:25	7S307.D	120200-----	GEL	BLANK	5g	1	N/A	7	s	AXO1	N/A	O	
12/30/2009 12:58	7S308.D	243472002	LANL	937425	5g	1	N/A	8	s	AXO1	N/A	O	
12/30/2009 13:34	7S309.D	243471001	GEEL	937731	5mL	1	pH2	9	w	AXO1	N	X	Freon/Oxy mix required in Short List See 010410v7 Seq.
12/30/2009 14:08	7S310.D	243473001	GEEL	937731	5mL	1	pH2	10	w	AXO1	N	X	
12/30/2009 14:41	7S311.D	243473002	GEEL	937731	5mL	1	pH2	11	w	AXO1	N	X	
12/30/2009 15:17	7S312.D	243473003	GEEL	937731	5mL	1	pH2	12	w	AXO1	N	X	
12/30/2009 15:51	7S313.D	243473004	GEEL	937731	5mL	1	pH2	13	w	AXO1	N	X	
12/30/2009 16:24	7S314.D	243473005	GEEL	937731	5mL	1	pH2	14	w	AXO1	N	X	
12/30/2009 16:57	7S315.D	243473006	GEEL	937731	5mL	1	pH2	15	w	AXO1	N	X	
12/30/2009 17:31	7S316.D	243473007	GEEL	937731	5mL	1	pH2	16	w	AXO1	N	X	
12/30/2009 18:04	7S317.D	243473008	GEEL	937731	5mL	1	pH2	17	w	AXO1	N	X	
12/30/2009 18:39	7S318.D	243473009	GEEL	937731	5mL	1	pH2	18	w	AXO1	N	X	
12/30/2009 19:14	7S319.D	243473010	GEEL	937731	5mL	1	pH2	19	w	AXO1	N	X	
12/30/2009 19:48	7S320.D	1202006665	GEEL	937731	5mL	1	pH2	20	w	AXO1	N	X	MS 243473001
12/30/2009 20:23	7S321.D	1202006666	GEEL	937731	5mL	1	pH2	21	w	AXO1	N	X	MSD 243473001

GC/MS Semivolatile Analysis

Semi-Volatile Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-1057

Method/Analysis Information

Procedure:	**Analysis of Semivolatile Organic Compounds by Gas Chromatography/Mass Spectrometry**
Analytical Method:	SW846 8270C
Prep Method:	SW846 3550B
Analytical Batch Number:	937095
Prep Batch Number:	937094

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 8270C:

Sample ID	Client ID
243472001	RE03-09-14228
243472002	RE03-09-14230
243472003	RE03-09-14229
1202005230	Method Blank (MB)
1202005231	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on a "dry weight" basis.

Preparation/Analytical Method Verification

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-009 REV# 23.

Raw data reports are processed and reviewed by the analyst using the Target software package. False positives have been removed from the Target quantitation reports per standard operating procedures (SOP) section 18.2.

Calibration Information

Please note that the 'Cal Date' indicated on each quantitation report reflects the date and time of the most recent calibrated analyte(s) in the Target processing method. Since the laboratory may calibrate with multiple solutions on different days using the same processing method, the Target software will update the 'Cal Date' to the last calibration file, date and time. The correct dates and times for all calibration files are located on the Calibration History report in the Standard Data section in the data package.

Due to software limitations, the Calibration Summary Form 6 may not indicate all the calibration files comprising the initial calibration. A complete list of the initial calibration data files are shown in the Calibration History report located in the Standard Data section of the data package. Please note that the second level of the initial calibration (5 mg/L) is only used for n-Nitrosodipropylamine. The various calibration mixes may not be calibrated using all of the calibration levels. In addition, not all of the mixes are calibrated using the same levels.

Diphenylamine has now superseded N-Nitroso-diphenylamine as a CCC on Quantitation Reports, Initial Calibration Reports, Calibration Check Standard Reports, etc. Previous versions of EPA Method 8270 (prior to 8270C) listed N-Nitroso-diphenylamine as a CCC. However, as stated in EPA Method 8270C, Revision 3, December, 1996, Section 1.4.5, "N-Nitroso-diphenylamine decomposes in the gas chromatographic inlet and cannot be separated from Diphenylamine." Studies of these two compounds at GEL, both independent of each other and together, show that they not only co-elute, but also have similar mass spectra. N-Nitroso-diphenylamine and Diphenylamine will be reported as Diphenylamine on all reports and forms.

The linear equation used in Target and indicated on the initial calibration summary form is not a conventional linear equation (slope intercept formula) and does not match the equation found in SW-846 method 8000B. The x and y axes are inversed in Target, so that the instrument response is treated as the independent variable (x) and the concentration ratio is treated as the dependent variable (y). The equation used in Target to calculate sample results is adjusted to account for the linear equation inversion and reciprocal slope. The adjusted calculation has been independently verified to produce valid results.

Initial Calibration
All initial calibration requirements have been met for this sample delivery group (SDG). A second source initial calibration verification (ICV) was included in the standard section directly behind the initial calibration.

CCV Requirements
All associated calibration verification standard(s) (ICV or CCV) met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Surrogate Recoveries
All the surrogate recoveries were within the established acceptance criteria for this SDG.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

QC Sample Designation
Sample 243501001 was selected for analysis as the Matrix Spike and Matrix Spike Duplicate. The sample was a re-log sample from a previous work-order and will not be reported to the client. Due to software limitations, the other SDGs in this batch not associated with work-order 243501 will not have a reportable MS and MSD in their data package. The sample and MS/MSD pair were extracted, analyzed and displayed acceptable results. The raw data files and a manually generated spike recovery report have been placed in the Miscellaneous Sections of the SDGs reported from this batch.

Matrix Spike (MS) Recovery Statement
The MS recoveries were within the established acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recoveries were within the established acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD(s) between the MS and MSD met the acceptance limits.

Internal Standard (ISTD) Acceptance
The internal standard responses were within the required acceptance criteria for all samples and QC.

Technical Information

Holding Time Specifications
All samples in this SDG met the specified holding time. GEL assigns holding times based on the associated methodology that assigns the date and time from sample collection or sample receipt. Those holding times expressed in hours are calculated in the ALPHALIMS system. Those holding times expressed as days expire at midnight on the day of expiration.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-extraction/Re-analysis
Re-extractions or re-analyses were not required in this SDG except for confirmations and/or dilutions.

Miscellaneous Information

Data Exception Report (DER) Documentation
The following DER was generated for this SDG: 776978. It is located in the Miscellaneous Section of the data report.

Manual Integrations
Some initial calibration standards, continuing calibration standards, and/or samples may require manual integrations due to software limitations. Please see the raw data in the Miscellaneous Section.

Additional Comments
Additional comments were not required for this SDG.

Electronic Package Comment
The following package was generated using an electronic data processing program referred to as "virtual packaging". In an effort to increase quality and efficiency, the laboratory is developing systems to eventually generate all data packages electronically. The following change from "traditional" packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. An electronic signature page inserted after the case narrative of each electronic package will indicate the analyst, reviewer, and report specialist names associated with the generation of the data and package. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

System Configuration

The samples reported in this SDG were analyzed on one or more of the following instrument systems. Instrument systems are referenced in the raw data and individual form headers by the Instrument ID designations listed below:

Instrument ID	Instrument	System Configuration	Column ID	Column Description
MSD7.I	HP Mass Spectrometer	HP6890/HP5973	DB-5MS	25m x 0.2mm, 0.33um (5% Phenylmethylpolysiloxane)

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

Reviewer: Dan Beuchamp **Date:** 1-13-10

Roadmap for LANL 10-1057 SVOA

This roadmap was analyzed by jos00786 on 01-05-2010, 09:12.
This roadmap was reviewed by bar00895 on 01-05-2010, 15:20.

Sample

exclude	manual	datafile	smpid	injdate	injtime	sublist	clientid	dilution	batchid	comment
☐	N	/chem/MSD7.i/s010210.b/s7a0210.d	243472001	02-JAN-2010	19:00	10-1057.sub	RE03-09-14228	1	937095	REPORT: hits in MB not detected in sample
☐	N	/chem/MSD7.i/s010210.b/s7a0211.d	243472002	02-JAN-2010	19:21	10-1057.sub	RE03-09-14230	1	937095	REPORT: hits in MB not detected in sample
■	N	/chem/MSD7.i/s010210.b/s7a0212.d	243472003	02-JAN-2010	19:43	10-1057.sub	RE03-09-14229	1	937095	
☐	N	/chem/MSD7.i/s010410.b/s7a0407.d	243472003	04-JAN-2010	13:13	10-1057.sub	RE03-09-14229	1	937095	REPORT

QC Sample

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	batchid	comment
■	N	/chem/MSD7.i/s010210.b/s7a0208-1.d	1202005230	mb	02-JAN-2010	18:17	10-1057.sub	SBLK01	1	937095	DUSE: PAH hits <RDL (c99/100/101) - see rerun s7a0406
☐	N	/chem/MSD7.i/s010210.b/s7a0209-1.d	1202005231	lcs	02-JAN-2010	18:38	10-1057.sub	SBLK01LCS	1	937095	REPORT
☐	N	/chem/MSD7.i/s010410.b/s7a0406-1.d	1202005230	mb	04 JAN-2010	12:51	10-1057.sub	SBLK01	1	937095	REPORT

Sample Data Summary

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1057**	**Date Collected:**	**12/21/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243472001**	**Date Received:**	**12/23/2009 10:10**	**%Moisture:**	**10.2**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14228**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**937095**	**Inst:**	**MSD7.I**	**Dilution:**	**1**
Run Date:	**01/02/2010 19:00**	**Analyst:**	**JMB3**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/28/2009 21:32**	**Aliquot:**	**30.14 g**	**Final Volume:**	**1 mL**
Data File:	**s7a0210.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	369	ug/kg	73.9	369
108-95-2	Phenol	U	369	ug/kg	73.9	369
95-57-8	2-Chlorophenol	U	369	ug/kg	73.9	369
106-46-7	1,4-Dichlorobenzene	U	369	ug/kg	73.9	369
621-64-7	N-Nitrosodipropylamine	U	369	ug/kg	73.9	369
59-50-7	4-Chloro-3-methylphenol	U	369	ug/kg	73.9	369
83-32-9	Acenaphthene	U	36.9	ug/kg	12.2	36.9
121-14-2	2,4-Dinitrotoluene	U	369	ug/kg	36.9	369
100-02-7	4-Nitrophenol	U	369	ug/kg	122	369
87-86-5	Pentachlorophenol	U	369	ug/kg	92.3	369
129-00-0	Pyrene	U	36.9	ug/kg	11.1	36.9
110-86-1	Pyridine	U	369	ug/kg	73.9	369
62-53-3	Aniline	U	369	ug/kg	111	369
111-44-4	bis(2-Chloroethyl) ether	U	369	ug/kg	73.9	369
541-73-1	1,3-Dichlorobenzene	U	369	ug/kg	73.9	369
100-51-6	Benzyl alcohol	U	369	ug/kg	111	369
95-50-1	1,2-Dichlorobenzene	U	369	ug/kg	73.9	369
108-60-1	bis(2-Chloroisopropyl)ether	U	369	ug/kg	73.9	369
95-48-7	o-Cresol	U	369	ug/kg	73.9	369
65794-96-9	m,p-Cresols	U	369	ug/kg	111	369
67-72-1	Hexachloroethane	U	369	ug/kg	73.9	369
98-95-3	Nitrobenzene	U	369	ug/kg	73.9	369
78-59-1	Isophorone	U	369	ug/kg	73.9	369
88-75-5	2-Nitrophenol	U	369	ug/kg	73.9	369
105-67-9	2,4-Dimethylphenol	U	369	ug/kg	129	369
111-91-1	bis(2-Chloroethoxy)methane	U	369	ug/kg	73.9	369
120-83-2	2,4-Dichlorophenol	U	369	ug/kg	73.9	369
65-85-0	Benzoic acid	U	739	ug/kg	185	739
91-20-3	Naphthalene	U	36.9	ug/kg	11.1	36.9
106-47-8	4-Chloroaniline	U	369	ug/kg	73.9	369
87-68-3	Hexachlorobutadiene	U	369	ug/kg	73.9	369
91-57-6	2-Methylnaphthalene	U	36.9	ug/kg	7.39	36.9
77-47-4	Hexachlorocyclopentadiene	U	369	ug/kg	73.9	369
88-06-2	2,4,6-Trichlorophenol	U	369	ug/kg	73.9	369
95-95-4	2,4,5-Trichlorophenol	U	369	ug/kg	73.9	369
91-58-7	2-Chloronaphthalene	U	36.9	ug/kg	12.2	36.9
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	369	ug/kg	73.9	369
99-09-2	3-Nitroaniline	U	369	ug/kg	73.9	369

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1057**	**Date Collected:**	**12/21/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243472001**	**Date Received:**	**12/23/2009 10:10**	**%Moisture:**	**10.2**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14228**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**937095**	**Inst:**	**MSD7.I**	**Dilution:**	**1**
Run Date:	**01/02/2010 19:00**	**Analyst:**	**JMB3**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/28/2009 21:32**	**Aliquot:**	**30.14 g**	**Final Volume:**	**1 mL**
Data File:	**s7a0210.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	369	ug/kg	73.9	369
606-20-2	2,6-Dinitrotoluene	U	369	ug/kg	36.9	369
208-96-8	Acenaphthylene	U	36.9	ug/kg	11.1	36.9
51-28-5	2,4-Dinitrophenol	U	739	ug/kg	140	739
132-64-9	Dibenzofuran	U	369	ug/kg	73.9	369
84-66-2	Diethylphthalate	U	369	ug/kg	73.9	369
86-73-7	Fluorene	U	36.9	ug/kg	11.1	36.9
7005-72-3	4-Chlorophenylphenylether	U	369	ug/kg	73.9	369
534-52-1	2-Methyl-4,6-dinitrophenol	U	369	ug/kg	73.9	369
100-01-6	4-Nitroaniline	U	369	ug/kg	111	369
	p-Nitroaniline					
122-39-4	Diphenylamine	U	369	ug/kg	73.9	369
122-66-7	Azobenzene	U	369	ug/kg	73.9	369
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	369	ug/kg	73.9	369
118-74-1	Hexachlorobenzene	U	369	ug/kg	73.9	369
85-01-8	Phenanthrene	U	36.9	ug/kg	11.1	36.9
120-12-7	Anthracene	U	36.9	ug/kg	7.39	36.9
84-74-2	Di-n-butylphthalate	U	369	ug/kg	73.9	369
206-44-0	Fluoranthene	U	36.9	ug/kg	11.1	36.9
85-68-7	Butylbenzylphthalate	U	369	ug/kg	73.9	369
56-55-3	Benzo(a)anthracene	U	36.9	ug/kg	11.1	36.9
91-94-1	3,3'-Dichlorobenzidine	U	369	ug/kg	111	369
218-01-9	Chrysene	U	36.9	ug/kg	11.1	36.9
117-81-7	bis(2-Ethylhexyl)phthalate	U	369	ug/kg	73.9	369
117-84-0	Di-n-octylphthalate	U	369	ug/kg	73.9	369
205-99-2	Benzo(b)fluoranthene	U	36.9	ug/kg	11.1	36.9
207-08-9	Benzo(k)fluoranthene	U	36.9	ug/kg	11.1	36.9
50-32-8	Benzo(a)pyrene	U	36.9	ug/kg	11.1	36.9
193-39-5	Indeno(1,2,3-cd)pyrene	U	36.9	ug/kg	11.1	36.9
53-70-3	Dibenzo(a,h)anthracene	U	36.9	ug/kg	11.1	36.9
191-24-2	Benzo(ghi)perylene	U	36.9	ug/kg	11.1	36.9
120-82-1	1,2,4-Trichlorobenzene	U	369	ug/kg	73.9	369

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	2.8	264	ug/kg		J
	Unknown Aldol Condensate	3	325	ug/kg		J

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1057	Date Collected:	12/21/2009 12:00	Matrix:	S
Lab Sample ID:	243472003	Date Received:	12/23/2009 10:10	%Moisture:	8.6
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14229	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	937095	Inst:	MSD7.I	Dilution:	1
Run Date:	01/04/2010 13:13	Analyst:	JMB3	Inj. Vol:	.5 uL
Prep Date:	12/28/2009 21:32	Aliquot:	30.06 g	Final Volume:	1 mL
Data File:	s7a0407.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	364	ug/kg	72.8	364
108-95-2	Phenol	U	364	ug/kg	72.8	364
95-57-8	2-Chlorophenol	U	364	ug/kg	72.8	364
106-46-7	1,4-Dichlorobenzene	U	364	ug/kg	72.8	364
621-64-7	N-Nitrosodipropylamine	U	364	ug/kg	72.8	364
59-50-7	4-Chloro-3-methylphenol	U	364	ug/kg	72.8	364
83-32-9	Acenaphthene	U	36.4	ug/kg	12.0	36.4
121-14-2	2,4-Dinitrotoluene	U	364	ug/kg	36.4	364
100-02-7	4-Nitrophenol	U	364	ug/kg	120	364
87-86-5	Pentachlorophenol	U	364	ug/kg	91.0	364
129-00-0	Pyrene	U	36.4	ug/kg	10.9	36.4
110-86-1	Pyridine	U	364	ug/kg	72.8	364
62-53-3	Aniline	U	364	ug/kg	109	364
111-44-4	bis(2-Chloroethyl) ether	U	364	ug/kg	72.8	364
541-73-1	1,3-Dichlorobenzene	U	364	ug/kg	72.8	364
100-51-6	Benzyl alcohol	U	364	ug/kg	109	364
95-50-1	1,2-Dichlorobenzene	U	364	ug/kg	72.8	364
108-60-1	bis(2-Chloroisopropyl)ether	U	364	ug/kg	72.8	364
95-48-7	o-Cresol	U	364	ug/kg	72.8	364
65794-96-9	m,p-Cresols	U	364	ug/kg	109	364
67-72-1	Hexachloroethane	U	364	ug/kg	72.8	364
98-95-3	Nitrobenzene	U	364	ug/kg	72.8	364
78-59-1	Isophorone	U	364	ug/kg	72.8	364
88-75-5	2-Nitrophenol	U	364	ug/kg	72.8	364
105-67-9	2,4-Dimethylphenol	U	364	ug/kg	127	364
111-91-1	bis(2-Chloroethoxy)methane	U	364	ug/kg	72.8	364
120-83-2	2,4-Dichlorophenol	U	364	ug/kg	72.8	364
65-85-0	Benzoic acid	U	728	ug/kg	182	728
91-20-3	Naphthalene	U	36.4	ug/kg	10.9	36.4
106-47-8	4-Chloroaniline	U	364	ug/kg	72.8	364
87-68-3	Hexachlorobutadiene	U	364	ug/kg	72.8	364
91-57-6	2-Methylnaphthalene	U	36.4	ug/kg	7.28	36.4
77-47-4	Hexachlorocyclopentadiene	U	364	ug/kg	72.8	364
88-06-2	2,4,6-Trichlorophenol	U	364	ug/kg	72.8	364
95-95-4	2,4,5-Trichlorophenol	U	364	ug/kg	72.8	364
91-58-7	2-Chloronaphthalene	U	36.4	ug/kg	12.0	36.4
88-74-4	2-Nitroaniline	U	364	ug/kg	72.8	364
	o-Nitroaniline					
99-09-2	3-Nitroaniline	U	364	ug/kg	72.8	364

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1057**	**Date Collected:**	**12/21/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243472003**	**Date Received:**	**12/23/2009 10:10**	**%Moisture:**	**8.6**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14229**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**937095**	**Inst:**	**MSD7.1**	**Dilution:**	**1**
Run Date:	**01/04/2010 13:13**	**Analyst:**	**JMB3**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/28/2009 21:32**	**Aliquot:**	**30.06 g**	**Final Volume:**	**1 mL**
Data File:	**s7a0407.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	364	ug/kg	72.8	364
606-20-2	2,6-Dinitrotoluene	U	364	ug/kg	36.4	364
208-96-8	Acenaphthylene	U	36.4	ug/kg	10.9	36.4
51-28-5	2,4-Dinitrophenol	U	728	ug/kg	138	728
132-64-9	Dibenzofuran	U	364	ug/kg	72.8	364
84-66-2	Diethylphthalate	U	364	ug/kg	72.8	364
86-73-7	Fluorene	U	36.4	ug/kg	10.9	36.4
7005-72-3	4-Chlorophenylphenylether	U	364	ug/kg	72.8	364
534-52-1	2-Methyl-4,6-dinitrophenol	U	364	ug/kg	72.8	364
100-01-6	4-Nitroaniline	U	364	ug/kg	109	364
	p-Nitroaniline					
122-39-4	Diphenylamine	U	364	ug/kg	72.8	364
122-66-7	Azobenzene	U	364	ug/kg	72.8	364
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	364	ug/kg	72.8	364
118-74-1	Hexachlorobenzene	U	364	ug/kg	72.8	364
85-01-8	Phenanthrene	U	36.4	ug/kg	10.9	36.4
120-12-7	Anthracene	U	36.4	ug/kg	7.28	36.4
84-74-2	Di-n-butylphthalate	U	364	ug/kg	72.8	364
206-44-0	Fluoranthene	U	36.4	ug/kg	10.9	36.4
85-68-7	Butylbenzylphthalate	U	364	ug/kg	72.8	364
56-55-3	Benzo(a)anthracene	U	36.4	ug/kg	10.9	36.4
91-94-1	3,3'-Dichlorobenzidine	U	364	ug/kg	109	364
218-01-9	Chrysene	U	36.4	ug/kg	10.9	36.4
117-81-7	bis(2-Ethylhexyl)phthalate	U	364	ug/kg	72.8	364
117-84-0	Di-n-octylphthalate	U	364	ug/kg	72.8	364
205-99-2	Benzo(b)fluoranthene	U	36.4	ug/kg	10.9	36.4
207-08-9	Benzo(k)fluoranthene	U	36.4	ug/kg	10.9	36.4
50-32-8	Benzo(a)pyrene	U	36.4	ug/kg	10.9	36.4
193-39-5	Indeno(1,2,3-cd)pyrene	U	36.4	ug/kg	10.9	36.4
53-70-3	Dibenzo(a,h)anthracene	U	36.4	ug/kg	10.9	36.4
191-24-2	Benzo(ghi)perylene	U	36.4	ug/kg	10.9	36.4
120-82-1	1,2,4-Trichlorobenzene	U	364	ug/kg	72.8	364

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	2.09	3410	ug/kg		J
	Unknown	2.12	233	ug/kg		J

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1057	**Date Collected:**	12/21/2009 12:00	**Matrix:**	S
Lab Sample ID:	243472003	**Date Received:**	12/23/2009 10:10	**%Moisture:**	8.6
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14229	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	937095	**Inst:**	MSD7.I	**Dilution:**	1
Run Date:	01/04/2010 13:13	**Analyst:**	JMB3	**Inj. Vol:**	.5 uL
Prep Date:	12/28/2009 21:32	**Aliquot:**	30.06 g	**Final Volume:**	1 mL
Data File:	s7a0407.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	2.23	146	ug/kg		J
	Unknown Aldol Condensate	3	303	ug/kg		J
301-02-0	9-Octadecenamide, (Z)-	10.4	182	ug/kg	93	NJ

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1057**	**Date Collected:**	**12/21/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243472002**	**Date Received:**	**12/23/2009 10:10**	**%Moisture:**	**7.1**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14230**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**937095**	**Inst:**	**MSD7.I**	**Dilution:**	**1**
Run Date:	**01/02/2010 19:21**	**Analyst:**	**JMB3**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/28/2009 21:32**	**Aliquot:**	**30.05 g**	**Final Volume:**	**1 mL**
Data File:	**s7a0211.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	358	ug/kg	71.6	358
108-95-2	Phenol	U	358	ug/kg	71.6	358
95-57-8	2-Chlorophenol	U	358	ug/kg	71.6	358
106-46-7	1,4-Dichlorobenzene	U	358	ug/kg	71.6	358
621-64-7	N-Nitrosodipropylamine	U	358	ug/kg	71.6	358
59-50-7	4-Chloro-3-methylphenol	U	358	ug/kg	71.6	358
83-32-9	Acenaphthene	U	35.8	ug/kg	11.8	35.8
121-14-2	2,4-Dinitrotoluene	U	358	ug/kg	35.8	358
100-02-7	4-Nitrophenol	U	358	ug/kg	118	358
87-86-5	Pentachlorophenol	U	358	ug/kg	89.5	358
129-00-0	Pyrene	U	35.8	ug/kg	10.7	35.8
110-86-1	Pyridine	U	358	ug/kg	71.6	358
62-53-3	Aniline	U	358	ug/kg	107	358
111-44-4	bis(2-Chloroethyl) ether	U	358	ug/kg	71.6	358
541-73-1	1,3-Dichlorobenzene	U	358	ug/kg	71.6	358
100-51-6	Benzyl alcohol	U	358	ug/kg	107	358
95-50-1	1,2-Dichlorobenzene	U	358	ug/kg	71.6	358
108-60-1	bis(2-Chloroisopropyl)ether	U	358	ug/kg	71.6	358
95-48-7	o-Cresol	U	358	ug/kg	71.6	358
65794-96-9	m,p-Cresols	U	358	ug/kg	107	358
67-72-1	Hexachloroethane	U	358	ug/kg	71.6	358
98-95-3	Nitrobenzene	U	358	ug/kg	71.6	358
78-59-1	Isophorone	U	358	ug/kg	71.6	358
88-75-5	2-Nitrophenol	U	358	ug/kg	71.6	358
105-67-9	2,4-Dimethylphenol	U	358	ug/kg	125	358
111-91-1	bis(2-Chloroethoxy)methane	U	358	ug/kg	71.6	358
120-83-2	2,4-Dichlorophenol	U	358	ug/kg	71.6	358
65-85-0	Benzoic acid	U	716	ug/kg	179	716
91-20-3	Naphthalene	U	35.8	ug/kg	10.7	35.8
106-47-8	4-Chloroaniline	U	358	ug/kg	71.6	358
87-68-3	Hexachlorobutadiene	U	358	ug/kg	71.6	358
91-57-6	2-Methylnaphthalene	U	35.8	ug/kg	7.16	35.8
77-47-4	Hexachlorocyclopentadiene	U	358	ug/kg	71.6	358
88-06-2	2,4,6-Trichlorophenol	U	358	ug/kg	71.6	358
95-95-4	2,4,5-Trichlorophenol	U	358	ug/kg	71.6	358
91-58-7	2-Chloronaphthalene	U	35.8	ug/kg	11.8	35.8
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	358	ug/kg	71.6	358
99-09-2	3-Nitroaniline	U	358	ug/kg	71.6	358

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1057**	**Date Collected:**	**12/21/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243472002**	**Date Received:**	**12/23/2009 10:10**	**%Moisture:**	**7.1**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14230**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**937095**	**Inst:**	**MSD7.I**	**Dilution:**	**1**
Run Date:	**01/02/2010 19:21**	**Analyst:**	**JMB3**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/28/2009 21:32**	**Aliquot:**	**30.05 g**	**Final Volume:**	**1 mL**
Data File:	**s7a0211.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	358	ug/kg	71.6	358
606-20-2	2,6-Dinitrotoluene	U	358	ug/kg	35.8	358
208-96-8	Acenaphthylene	U	35.8	ug/kg	10.7	35.8
51-28-5	2,4-Dinitrophenol	U	716	ug/kg	136	716
132-64-9	Dibenzofuran	U	358	ug/kg	71.6	358
84-66-2	Diethylphthalate	U	358	ug/kg	71.6	358
86-73-7	Fluorene	U	35.8	ug/kg	10.7	35.8
7005-72-3	4-Chlorophenylphenylether	U	358	ug/kg	71.6	358
534-52-1	2-Methyl-4,6-dinitrophenol	U	358	ug/kg	71.6	358
100-01-6	4-Nitroaniline	U	358	ug/kg	107	358
	p-Nitroaniline					
122-39-4	Diphenylamine	U	358	ug/kg	71.6	358
122-66-7	Azobenzene	U	358	ug/kg	71.6	358
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	358	ug/kg	71.6	358
118-74-1	Hexachlorobenzene	U	358	ug/kg	71.6	358
85-01-8	Phenanthrene	U	35.8	ug/kg	10.7	35.8
120-12-7	Anthracene	U	35.8	ug/kg	7.16	35.8
84-74-2	Di-n-butylphthalate	U	358	ug/kg	71.6	358
206-44-0	Fluoranthene	U	35.8	ug/kg	10.7	35.8
85-68-7	Butylbenzylphthalate	U	358	ug/kg	71.6	358
56-55-3	Benzo(a)anthracene	U	35.8	ug/kg	10.7	35.8
91-94-1	3,3'-Dichlorobenzidine	U	358	ug/kg	107	358
218-01-9	Chrysene	U	35.8	ug/kg	10.7	35.8
117-81-7	bis(2-Ethylhexyl)phthalate	U	358	ug/kg	71.6	358
117-84-0	Di-n-octylphthalate	U	358	ug/kg	71.6	358
205-99-2	Benzo(b)fluoranthene	U	35.8	ug/kg	10.7	35.8
207-08-9	Benzo(k)fluoranthene	U	35.8	ug/kg	10.7	35.8
50-32-8	Benzo(a)pyrene	U	35.8	ug/kg	10.7	35.8
193-39-5	Indeno(1,2,3-cd)pyrene	U	35.8	ug/kg	10.7	35.8
53-70-3	Dibenzo(a,h)anthracene	U	35.8	ug/kg	10.7	35.8
191-24-2	Benzo(ghi)perylene	U	35.8	ug/kg	10.7	35.8
120-82-1	1,2,4-Trichlorobenzene	U	358	ug/kg	71.6	358

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	2.13	324	ug/kg		J
	Unknown Aldol Condensate	3.01	249	ug/kg		J

QC Summary

Semi-Volatile

Surrogate Recovery Report

SDG Number: 10-1057

Matrix Type: SOLID

CAP Column (1) : J&W DB-5MS

Sample ID	Client ID	2FP %REC	PHL %REC	NBZ %REC	FBP %REC	TBP %REC	TPH %REC
1202005231	LCS for batch 937094	67	66	74	73	94	84
243472001	RE03-09-14228	55	56	62	65	76	78
243472002	RE03-09-14230	55	55	62	63	73	73
1202005230	MB for batch 937094	68	69	76	78	92	97
243472003	RE03-09-14229	67	69	73	76	95	88

Surrogate		Acceptance Limits
2FP	= 2-Fluorophenol	(35%-96%)
PHL	= Phenol-d5	(36%-96%)
NBZ	= Nitrobenzene-d5	(34%-104%)
FBP	= 2-Fluorobiphenyl	(36%-100%)
TBP	= 2,4,6-Tribromophenol	(37%-106%)
TPH	= p-Terphenyl-d14	(40%-124%)

* Recovery outside Acceptance Limits

\# Column to be used to flag recovery values

D Sample Diluted

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1057
Client ID: LCS for batch 937094
Lab Sample ID: 1202005231
Instrument: MSD7.I
Analyst: JMB3
Inj. Vol: .5 uL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 01/02/2010 18:38
Dilution: 1
Prep Batch ID: 937094
Batch ID: 937095

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
62-75-9	LCS	N-Methyl-N-nitrosomethylam	1670	0.0	1040	62	31-95
108-95-2	LCS	Phenol	1670	0.0	1140	68	37-104
95-57-8	LCS	2-Chlorophenol	1670	0.0	1110	66	40-105
106-46-7	LCS	1,4-Dichlorobenzene	1670	0.0	1140	68	34-103
621-64-7	LCS	N-Nitrosodipropylamine	1670	0.0	1090	65	36-110
59-50-7	LCS	4-Chloro-3-methylphenol	1670	0.0	1260	75	46-114
83-32-9	LCS	Acenaphthene	1670	0.0	1170	70	40-105
121-14-2	LCS	2,4-Dinitrotoluene	1670	0.0	1270	76	49-107
100-02-7	LCS	4-Nitrophenol	1670	0.0	1440	86	33-110
87-86-5	LCS	Pentachlorophenol	1670	0.0	1430	86	38-116
129-00-0	LCS	Pyrene	1670	0.0	1150	69	43-108
110-86-1	LCS	Pyridine	1670	0.0	1360	81	13-129
62-53-3	LCS	Aniline	1670	0.0	899	54	30-121
111-44-4	LCS	bis(2-Chloroethyl) ether	1670	0.0	965	58	37-106
541-73-1	LCS	1,3-Dichlorobenzene	1670	0.0	1140	68	33-103
100-51-6	LCS	Benzyl alcohol	1670	0.0	1310	78	31-100
95-50-1	LCS	1,2-Dichlorobenzene	1670	0.0	1190	72	34-108
108-60-1	LCS	bis(2-Chloroisopropyl)ether	1670	0.0	848	51	34-120
95-48-7	LCS	o-Cresol	1670	0.0	1100	66	39-111
65794-96-9	LCS	m,p-Cresols	1670	0.0	1210	72	43-118
67-72-1	LCS	Hexachloroethane	1670	0.0	1070	64	34-105
98-95-3	LCS	Nitrobenzene	1670	0.0	1200	72	37-110

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1057
Client ID: LCS for batch 937094
Lab Sample ID: 1202005231
Instrument: MSD7.I
Analyst: JMB3
Inj. Vol: .5 uL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 01/02/2010 18:38
Dilution: 1
Prep Batch ID: 937094
Batch ID: 937095

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
78-59-1	LCS	Isophorone	1670	0.0	1200	72	41-108
88-75-5	LCS	2-Nitrophenol	1670	0.0	1080	65	35-112
105-67-9	LCS	2,4-Dimethylphenol	1670	0.0	1210	73	35-114
111-91-1	LCS	bis(2-Chloroethoxy)methane	1670	0.0	1120	67	40-109
120-83-2	LCS	2,4-Dichlorophenol	1670	0.0	1230	74	45-109
65-85-0	LCS	Benzoic acid	3330	0.0	2030	61	27-137
91-20-3	LCS	Naphthalene	1670	0.0	1170	70	35-105
106-47-8	LCS	4-Chloroaniline	1670	0.0	949	57	30-122
87-68-3	LCS	Hexachlorobutadiene	1670	0.0	1360	82	37-111
91-57-6	LCS	2-Methylnaphthalene	1670	0.0	1260	76	40-106
77-47-4	LCS	Hexachlorocyclopentadiene	1670	0.0	1480	89	24-135
88-06-2	LCS	2,4,6-Trichlorophenol	1670	0.0	1250	75	46-107
95-95-4	LCS	2,4,5-Trichlorophenol	1670	0.0	1380	83	44-110
91-58-7	LCS	2-Chloronaphthalene	1670	0.0	1150	69	44-104
88-74-4	LCS	2-Nitroaniline *o-Nitroaniline*	1670	0.0	1120	67	44-113
99-09-2	LCS	3-Nitroaniline *m-Nitroaniline*	1670	0.0	1300	78	48-113
131-11-3	LCS	Dimethylphthalate	1670	0.0	1280	77	47-104
606-20-2	LCS	2,6-Dinitrotoluene	1670	0.0	1210	73	47-103
208-96-8	LCS	Acenaphthylene	1670	0.0	1270	76	43-104
51-28-5	LCS	2,4-Dinitrophenol	1670	0.0	1080	65	32-114
132-64-9	LCS	Dibenzofuran	1670	0.0	1520	91	47-112
84-66-2	LCS	Diethylphthalate	1670	0.0	1350	81	50-108

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1057
Client ID: LCS for batch 937094
Lab Sample ID: 1202005231
Instrument: MSD7.I
Analyst: JMB3
Inj. Vol: .5 uL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 01/02/2010 18:38
Dilution: 1
Prep Batch ID: 937094
Batch ID: 937095

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
86-73-7	LCS	Fluorene	1670	0.0	1270	76	49-102
7005-72-3	LCS	4-Chlorophenylphenylether	1670	0.0	1290	77	50-109
534-52-1	LCS	2-Methyl-4,6-dinitrophenol	1670	0.0	1020	61	35-114
100-01-6	LCS	4-Nitroaniline *p-Nitroaniline*	1670	0.0	1700	102	44-139
122-39-4	LCS	Diphenylamine	1670	0.0	1290	78	46-111
122-66-7	LCS	Azobenzene *1,2-Diphenylhydrazine*	1670	0.0	1140	68	40-119
101-55-3	LCS	4-Bromophenylphenylether	1670	0.0	1240	74	45-112
118-74-1	LCS	Hexachlorobenzene	1670	0.0	1350	81	44-115
85-01-8	LCS	Phenanthrene	1670	0.0	1200	72	45-107
120-12-7	LCS	Anthracene	1670	0.0	1210	73	46-106
84-74-2	LCS	Di-n-butylphthalate	1670	0.0	1330	80	52-115
206-44-0	LCS	Fluoranthene	1670	0.0	1350	81	50-115
85-68-7	LCS	Butylbenzylphthalate	1670	0.0	1200	72	49-115
56-55-3	LCS	Benzo(a)anthracene	1670	0.0	1250	75	48-105
91-94-1	LCS	3,3'-Dichlorobenzidine	1670	0.0	1120	67	45-98
218-01-9	LCS	Chrysene	1670	0.0	1320	79	48-105
117-81-7	LCS	bis(2-Ethylhexyl)phthalate	1670	0.0	1250	75	50-117
117-84-0	LCS	Di-n-octylphthalate	1670	0.0	1260	76	39-123
205-99-2	LCS	Benzo(b)fluoranthene	1670	0.0	1390	84	46-111
207-08-9	LCS	Benzo(k)fluoranthene	1670	0.0	1360	82	46-114
50-32-8	LCS	Benzo(a)pyrene	1670	0.0	1370	82	49-112
193-39-5	LCS	Indeno(1,2,3-cd)pyrene	1670	0.0	1280	77	45-128

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1057
Client ID: LCS for batch 937094
Lab Sample ID: 1202005231
Instrument: MSD7.I
Analyst: JMB3
Inj. Vol: .5 uL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 01/02/2010 18:38
Dilution: 1
Prep Batch ID: 937094
Batch ID: 937095

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
53-70-3	LCS	Dibenzo(a,h)anthracene	1670	0.0	1320	79	44-131
191-24-2	LCS	Benzo(ghi)perylene	1670	0.0	1200	72	42-128
120-82-1	LCS	1,2,4-Trichlorobenzene	1670	0.0	1200	72	36-109

Method Blank Summary

SDG Number:	10-1057	Client:	LANL010	Matrix:	SOIL
Client ID:	MB for batch 937094	Instrument ID:	MSD7.I	Data File:	s7a0406-1.d
Lab Sample ID:	1202005230	Prep Date:	12/28/2009 21:32	Analyzed:	01/04/10 12:51
Column:	J&W DB-5MS	Level:	LOW		

This method blank applies to the following samples and quality control samples:

	Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01	LCS for batch 937094	1202005231	s7a0209-1.d	01/02/10	1838
02	RE03-09-14228	243472001	s7a0210.d	01/02/10	1900
03	RE03-09-14230	243472002	s7a0211.d	01/02/10	1921
04	RE03-09-14229	243472003	s7a0407.d	01/04/10	1313

Instrument Performance Check

DFTPP

Lab Name GEL Laboratories LLC **Client SDG:** 10-1057

Instrument ID: MSD7.I **Injection Date/Time:** 02-JAN-10 15:42

Column Description: Phenomenex ZB-5MS **Lab File ID** /chem/MSD7.i/s010210.b/s7a0204.d

m/e	Ion Abundance Criteria	% Relative Abundance
198	Base Peak, 100% Relative Abundance	100
51	30 - 60% of mass 198	41.8
68	Less than 2% of mass 69	1.7
69	Mass 69 Relative Abundance	44.1
70	Less than 2% of mass 69	0.4
127	40 - 60% of mass 198	51.7
197	0 - 1% of mass 198	0
199	5 - 9% of mass 198	6.8
275	10 - 30% of mass 198	25.3
365	Greater than 1% of mass 198	3.2
441	Present, but less than mass 443	79.2
442	Greater than 40% of mass 198	62.3
443	17 - 23% of mass 442	19.2

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
MEGACVS	WBN091225-12.2	/chem/MSD7.i/s010210.b/s7a020	02-JAN-10 15:54
APCVS	WBN091201-08.2	/chem/MSD7.i/s010210.b/s7a020	02-JAN-10 16:21
SBLK01LCS	1202005231	/chem/MSD7.i/s010210.b/s7a020	02-JAN-10 18:38
RE03-09-14228	243472001	/chem/MSD7.i/s010210.b/s7a021	02-JAN-10 19:00
RE03-09-14230	243472002	/chem/MSD7.i/s010210.b/s7a021	02-JAN-10 19:21

Instrument Performance Check

DFTPP

Lab Name GEL Laboratories LLC **Client SDG:** 10-1057

Instrument ID: MSD7.I **Injection Date/Time:** 04-JAN-10 11:28

Column Description: Phenomenex ZB-5MS **Lab File ID** /chem/MSD7.i/s010410.b/s7a0402.d

m/e	Ion Abundance Criteria	% Relative Abundance
198	Base Peak, 100% Relative Abundance	100
51	30 - 60% of mass 198	38.9
68	Less than 2% of mass 69	1.8
69	Mass 69 Relative Abundance	42.7
70	Less than 2% of mass 69	0.5
127	40 - 60% of mass 198	49.6
197	0 - 1% of mass 198	0
199	5 - 9% of mass 198	6.9
275	10 - 30% of mass 198	25.7
365	Greater than 1% of mass 198	3.1
441	Present, but less than mass 443	77.7
442	Greater than 40% of mass 198	65.3
443	17 - 23% of mass 442	19

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
MEGACVS	WBN091225-12.2	/chem/MSD7.i/s010410.b/s7a040	04-JAN-10 11:41
APCVS	WBN100103-03.2	/chem/MSD7.i/s010410.b/s7a040	04-JAN-10 12:07
SBLK01	1202005230	/chem/MSD7.i/s010410.b/s7a040	04-JAN-10 12:51
RE03-09-14229	243472003	/chem/MSD7.i/s010410.b/s7a040	04-JAN-10 13:13

Instrument Performance Check

DFTPP

Lab Name GEL Laboratories LLC **Client SDG:** 10-1057

Instrument ID: MSD7.I **Injection Date/Time:** 30-DEC-09 08:32

Column Description: Phenomenex ZB-5MS **Lab File ID** /chem/MSD7.i/s123009.b/s7l3001.d

m/e	Ion Abundance Criteria	% Relative Abundance
198	Base Peak, 100% Relative Abundance	100
51	30 - 60% of mass 198	58.8
68	Less than 2% of mass 69	1.8
69	Mass 69 Relative Abundance	51.4
70	Less than 2% of mass 69	0.6
127	40 - 60% of mass 198	56.4
197	0 - 1% of mass 198	0
199	5 - 9% of mass 198	6.8
275	10 - 30% of mass 198	24.2
365	Greater than 1% of mass 198	2.9
441	Present, but less than mass 443	77.5
442	Greater than 40% of mass 198	60.9
443	17 - 23% of mass 442	19.5

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
MEGA001	WBN091225-09	/chem/MSD7.i/s123009.b/s7l3003	30-DEC-09 09:11
MEGA010	WBN091225-10	/chem/MSD7.i/s123009.b/s7l3004	30-DEC-09 09:38
MEGA040	WBN091225-12.1	/chem/MSD7.i/s123009.b/s7l3006	30-DEC-09 10:32
MEGA050	WBN091225-13	/chem/MSD7.i/s123009.b/s7l3007	30-DEC-09 10:59
MEGA080	WBN091225-14	/chem/MSD7.i/s123009.b/s7l3008	30-DEC-09 11:26
MEGA020	WBN091225-11	/chem/MSD7.i/s123009.b/s7l3009	30-DEC-09 11:53
MEGA100	WBN091225-15	/chem/MSD7.i/s123009.b/s7l3010	30-DEC-09 12:20
MEGA120	WBN091225-16	/chem/MSD7.i/s123009.b/s7l3011	30-DEC-09 12:47
MEGAICV	WBN091223-17.1	/chem/MSD7.i/s123009.b/s7l3013	30-DEC-09 13:41
AP010	WBN091201-01	/chem/MSD7.i/s123009.b/s7l3014	30-DEC-09 14:08
AP020	WBN091201-02	/chem/MSD7.i/s123009.b/s7l3015	30-DEC-09 14:30
AP050	WBN091201-04	/chem/MSD7.i/s123009.b/s7l3017	30-DEC-09 15:14
AP080	WBN091201-05	/chem/MSD7.i/s123009.b/s7l3018	30-DEC-09 15:36
AP100	WBN091201-06	/chem/MSD7.i/s123009.b/s7l3019	30-DEC-09 15:58
AP120	WBN091201-07	/chem/MSD7.i/s123009.b/s7l3020	30-DEC-09 16:20
APICV	WBN091201-08.1	/chem/MSD7.i/s123009.b/s7l3028	30-DEC-09 19:15

Internal Standard
Area and RT Summary

Lab Name : GEL Laboratories LLC

Client SDG: 10-1057

Instrument: MSD7.I

STD Analysis Time: 02-JAN-10 15:54

GC Column: J&W DB-5MS

Data File: s7a0205.d

	1,4-Dichlorobenzene-d4				Naphthalene-d8				Acenaphthene-d10				Phenanthrene-d10				Chrysene-d12				Perylene-d12			
	Area	#	RT	#	Area	#	RT	#	Area	#	RT	#	Area	#	RT	#	Area	#	RT	#	Area	#	RT	#
12 Hour STD	217575		3.96		798340		4.82		464697		6.07		876904		7.24		863955		9.64		746635		11.3	
Upper Limit	435150		4.46		1596680		5.32		929394		6.57		1753808		7.74		1727910		10.1		1493270		11.8	
Lower Limit	108788		3.46		399170		4.32		232349		5.57		438452		6.74		431978		9.14		373318		10.8	
Sample ID																								
BLK01LCS	269967		3.97		1022970		4.82		568992		6.07		1109679		7.24		1155468		9.64		1018181		11.3	
RE03-09-14228	295073		3.97		1062285		4.82		617665		6.07		1153060		7.24		1141274		9.63		920311		11.3	
RE03-09-14230	322757		3.97		1159333		4.82		679653		6.07		1298057		7.24		1341085		9.63		1088715		11.3	

Area Upper Limit = +100% of internal standard area
Area Lower Limit = - 50% of internal standard area

RT Upper Limit = + 0.50 minutes of internal standard RT
RT Lower Limit = - 0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Value outside of QC Limits

Internal Standard
Area and RT Summary

Lab Name : GEL Laboratories LLC

Client SDG: 10-1057

Instrument: MSD7.I

STD Analysis Time: 04-JAN-10 11:41

GC Column: J&W DB-5MS

Data File: s7a0403.d

	1,4-Dichlorobenzene-d4			Naphthalene-d8			Acenaphthene-d10			Phenanthrene-d10			Chrysene-d12			Perylene-d12		
	Area	#	RT #	Area	#	RT #	Area	#	RT #	Area	#	RT #	Area	#	RT #	Area	#	RT #
12 Hour STD	277706		3.96	988090		4.82	595807		6.07	1152466		7.24	1073914		9.64	960433		11.3
Upper Limit	555412		4.46	1976180		5.32	1191614		6.57	2304932		7.74	2147828		10.1	1920866		11.8
Lower Limit	138853		3.46	494045		4.32	297904		5.57	576233		6.74	536957		9.14	480217		10.8
Sample ID																		
BLK01	273737		3.96	1016006		4.82	593334		6.07	1121045		7.24	1019263		9.63	889221		11.3
RE03-09-14229	285585		3.96	1087343		4.82	635522		6.07	1206303		7.24	1233032		9.63	1121478		11.3

Area Upper Limit = +100% of internal standard area
Area Lower Limit = - 50% of internal standard area

RT Upper Limit = + 0.50 minutes of internal standard RT
RT Lower Limit = - 0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Value outside of QC Limits

Sample Data

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1057**	**Date Collected:**	**12/21/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243472001**	**Date Received:**	**12/23/2009 10:10**	**%Moisture:**	**10.2**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14228**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**937095**	**Inst:**	**MSD7.I**	**Dilution:**	**1**
Run Date:	**01/02/2010 19:00**	**Analyst:**	**JMB3**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/28/2009 21:32**	**Aliquot:**	**30.14 g**	**Final Volume:**	**1 mL**
Data File:	**s7a0210.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	369	ug/kg	73.9	369
108-95-2	Phenol	U	369	ug/kg	73.9	369
95-57-8	2-Chlorophenol	U	369	ug/kg	73.9	369
106-46-7	1,4-Dichlorobenzene	U	369	ug/kg	73.9	369
621-64-7	N-Nitrosodipropylamine	U	369	ug/kg	73.9	369
59-50-7	4-Chloro-3-methylphenol	U	369	ug/kg	73.9	369
83-32-9	Acenaphthene	U	36.9	ug/kg	12.2	36.9
121-14-2	2,4-Dinitrotoluene	U	369	ug/kg	36.9	369
100-02-7	4-Nitrophenol	U	369	ug/kg	122	369
87-86-5	Pentachlorophenol	U	369	ug/kg	92.3	369
129-00-0	Pyrene	U	36.9	ug/kg	11.1	36.9
110-86-1	Pyridine	U	369	ug/kg	73.9	369
62-53-3	Aniline	U	369	ug/kg	111	369
111-44-4	bis(2-Chloroethyl) ether	U	369	ug/kg	73.9	369
541-73-1	1,3-Dichlorobenzene	U	369	ug/kg	73.9	369
100-51-6	Benzyl alcohol	U	369	ug/kg	111	369
95-50-1	1,2-Dichlorobenzene	U	369	ug/kg	73.9	369
108-60-1	bis(2-Chloroisopropyl)ether	U	369	ug/kg	73.9	369
95-48-7	o-Cresol	U	369	ug/kg	73.9	369
65794-96-9	m,p-Cresols	U	369	ug/kg	111	369
67-72-1	Hexachloroethane	U	369	ug/kg	73.9	369
98-95-3	Nitrobenzene	U	369	ug/kg	73.9	369
78-59-1	Isophorone	U	369	ug/kg	73.9	369
88-75-5	2-Nitrophenol	U	369	ug/kg	73.9	369
105-67-9	2,4-Dimethylphenol	U	369	ug/kg	129	369
111-91-1	bis(2-Chloroethoxy)methane	U	369	ug/kg	73.9	369
120-83-2	2,4-Dichlorophenol	U	369	ug/kg	73.9	369
65-85-0	Benzoic acid	U	739	ug/kg	185	739
91-20-3	Naphthalene	U	36.9	ug/kg	11.1	36.9
106-47-8	4-Chloroaniline	U	369	ug/kg	73.9	369
87-68-3	Hexachlorobutadiene	U	369	ug/kg	73.9	369
91-57-6	2-Methylnaphthalene	U	36.9	ug/kg	7.39	36.9
77-47-4	Hexachlorocyclopentadiene	U	369	ug/kg	73.9	369
88-06-2	2,4,6-Trichlorophenol	U	369	ug/kg	73.9	369
95-95-4	2,4,5-Trichlorophenol	U	369	ug/kg	73.9	369
91-58-7	2-Chloronaphthalene	U	36.9	ug/kg	12.2	36.9
88-74-4	2-Nitroaniline	U	369	ug/kg	73.9	369
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	369	ug/kg	73.9	369

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1057**	**Date Collected:**	**12/21/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243472001**	**Date Received:**	**12/23/2009 10:10**	**%Moisture:**	**10.2**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14228**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**937095**	**Inst:**	**MSD7.I**	**Dilution:**	**1**
Run Date:	**01/02/2010 19:00**	**Analyst:**	**JMB3**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/28/2009 21:32**	**Aliquot:**	**30.14 g**	**Final Volume:**	**1 mL**
Data File:	**s7a0210.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	369	ug/kg	73.9	369
606-20-2	2,6-Dinitrotoluene	U	369	ug/kg	36.9	369
208-96-8	Acenaphthylene	U	36.9	ug/kg	11.1	36.9
51-28-5	2,4-Dinitrophenol	U	739	ug/kg	140	739
132-64-9	Dibenzofuran	U	369	ug/kg	73.9	369
84-66-2	Diethylphthalate	U	369	ug/kg	73.9	369
86-73-7	Fluorene	U	36.9	ug/kg	11.1	36.9
7005-72-3	4-Chlorophenylphenylether	U	369	ug/kg	73.9	369
534-52-1	2-Methyl-4,6-dinitrophenol	U	369	ug/kg	73.9	369
100-01-6	4-Nitroaniline	U	369	ug/kg	111	369
	p-Nitroaniline					
122-39-4	Diphenylamine	U	369	ug/kg	73.9	369
122-66-7	Azobenzene	U	369	ug/kg	73.9	369
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	369	ug/kg	73.9	369
118-74-1	Hexachlorobenzene	U	369	ug/kg	73.9	369
85-01-8	Phenanthrene	U	36.9	ug/kg	11.1	36.9
120-12-7	Anthracene	U	36.9	ug/kg	7.39	36.9
84-74-2	Di-n-butylphthalate	U	369	ug/kg	73.9	369
206-44-0	Fluoranthene	U	36.9	ug/kg	11.1	36.9
85-68-7	Butylbenzylphthalate	U	369	ug/kg	73.9	369
56-55-3	Benzo(a)anthracene	U	36.9	ug/kg	11.1	36.9
91-94-1	3,3'-Dichlorobenzidine	U	369	ug/kg	111	369
218-01-9	Chrysene	U	36.9	ug/kg	11.1	36.9
117-81-7	bis(2-Ethylhexyl)phthalate	U	369	ug/kg	73.9	369
117-84-0	Di-n-octylphthalate	U	369	ug/kg	73.9	369
205-99-2	Benzo(b)fluoranthene	U	36.9	ug/kg	11.1	36.9
207-08-9	Benzo(k)fluoranthene	U	36.9	ug/kg	11.1	36.9
50-32-8	Benzo(a)pyrene	U	36.9	ug/kg	11.1	36.9
193-39-5	Indeno(1,2,3-cd)pyrene	U	36.9	ug/kg	11.1	36.9
53-70-3	Dibenzo(a,h)anthracene	U	36.9	ug/kg	11.1	36.9
191-24-2	Benzo(ghi)perylene	U	36.9	ug/kg	11.1	36.9
120-82-1	1,2,4-Trichlorobenzene	U	369	ug/kg	73.9	369

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	2.8	264	ug/kg		J
	Unknown Aldol Condensate	3	325	ug/kg		J

GEL Laboratories LLC

GEL Laboratories, LLC
Data file : /chem/MSD7.i/s010210.b/s7a0210.d
Lab Smp Id: 243472001 Client Smp ID: RE03-09-14228
Inj Date : 02-JAN-2010 19:00
Operator : JMB3 Inst ID: MSD7.i
Smp Info : |243472001|937095|1|SVMF|1|LANL
Misc Info : |MSD8270_S|WBN091223-01|
Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness
Method : /chem/MSD7.i/s010210.b/MSD7-M8270C-AQA-123009.m
Meth Date : 04-Jan-2010 08:10 jos00786 Quant Type: ISTD
Cal Date : 30-DEC-2009 23:30 Cal File: s713040.d
Als bottle: 7
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-1057.sub
Target Version: 3.50
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.14000	weight of sample
M	10.15460	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.966	3.961	(1.000)	295073	40.0000	
* 29 Naphthalene-d8	136	4.823	4.823	(1.000)	1062285	40.0000	
* 46 Acenaphthene-d10	164	6.070	6.070	(1.000)	617665	40.0000	
* 67 Phenanthrene-d10	188	7.236	7.236	(1.000)	1153060	40.0000	
* 91 Chrysene-d12	240	9.634	9.638	(1.000)	1141274	40.0000	
* 98 Perylene-d12	264	11.290	11.295	(1.000)	920311	40.0000	
$ 3 2-Fluorophenol	112	3.162	3.152	(0.797)	438144	55.4603	2050
$ 5 Phenol-d5	99	3.672	3.672	(0.926)	544512	55.5916	2050
$ 20 Nitrobenzene-d5	82	4.317	4.322	(0.895)	252933	31.0171	1140
$ 39 2-Fluorobiphenyl	172	5.560	5.560	(0.916)	546048	32.6748	1210
$ 60 2,4,6-Tribromophenol	329	6.662	6.667	(1.098)	159125	76.4069	2820
$ 81 p-Terphenyl-d14	244	8.608	8.608	(0.894)	743160	38.8324	1430

ION RATIO REPORT

SV REPORT

Data file: s7a0210.d
Report Date: 01/04/2010 08:12
Lab. ID: 243472001 SampleType: SAMPLE
Injection Date: 02-JAN-2010 19:00
Operator: JMB3 Instrument: MSD7.i
Sample Info: |243472001|937095|1|SVMF|1|LANL
Miscellaneous Info: |MSD8270_S|WBN091223-01|
Comment:
Method used: /chem/MSD7.i/s010210.b/MSD7-M8270C-AQA-123009.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-1057
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
17 N-Nitrosodipropylamine				CAS#: 621-64-7		
70	38581	4.32	4.19	80-120	100	(T)
42	25349	4.32	4.19	43-103	66	(T)
27 Benzoic acid				CAS#: 65-85-0		
105	908	4.56	4.57	80-120	100	( )
122	292	4.56	4.57	55-115	32	(Q)
77	452	4.56	4.57	65-125	50	(Q)
43 Dimethylphthalate				CAS#: 131-11-3		
163	108078	6.07	5.83	80-120	100	(T)
164	617665	6.07	5.83	0- 40	571	(QT)
44 2,6-Dinitrotoluene				CAS#: 606-20-2		
165	81501	6.07	5.88	80-120	100	(T)
63	887	6.07	5.88	35- 95	1	(QT)
50 2,4-Dinitrotoluene				CAS#: 121-14-2		
165	81501	6.07	6.18	80-120	100	(T)
89	1230	6.07	6.18	43-103	2	(QT)
63	887	6.07	6.18	20- 80	1	(QT)
52 4-Nitrophenol				CAS#: 100-02-7		
139	519	6.10	6.10	80-120	100	( )
109	271	6.10	6.10	38- 98	52	( )
65	614	6.10	6.10	71-131	118	( )

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
53 Fluorene			CAS#: 86-73-7			
166	7991	6.66	6.48	80-120	100	(T)
165	8136	6.66	6.48	60-120	102	(T)
167	2868	6.66	6.48	0- 44	36	(T)
55 2-Methyl-4,6-dinitrophenol				CAS#: 534-52-1		
198	380	6.66	6.49	80-120	100	(T)
105	1046	6.66	6.49	13- 73	275	(QT)
51	1073	6.66	6.49	48-108	282	(QT)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

GEL Laboratories, LLC
Data file : /chem/MSD7.i/s010210.b/s7a0210.d
Lab Smp Id: 243472001 Client Smp ID: RE03-09-14228
Inj Date : 02-JAN-2010 19:00
Operator : JMB3 Inst ID: MSD7.i
Smp Info : |243472001|937095|1|SVMF|1|LANL
Misc Info : |MSD8270_S|WBN091223-01|
Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness
Method : /chem/MSD7.i/s010210.b/MSD7-M8270C-AQA-123009.m
Meth Date : 04-Jan-2010 08:10 jos00786 Quant Type: ISTD
Cal Date : 30-DEC-2009 23:30 Cal File: s713040.d
Als bottle: 7
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-1057.sub
Target Version: 3.50
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.14000	weight of sample
M	10.15460	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	3.966	1770679	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown				CAS #:			
2.796	316759	7.15564718	264	0		0	10
Unknown Aldol Condensate				CAS #:			
3.003	389788	8.80538392	325	0		0	10

Data File: /chem/MSD7.i/s010210.b/s7a0210.d
Date : 02-JAN-2010 19:00
Client ID: RE03-09-14228
Sample Info: |2434720011937095|1|SVMF|1|LANL
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD7.i

Operator: JMB3
Column diameter: 0.20

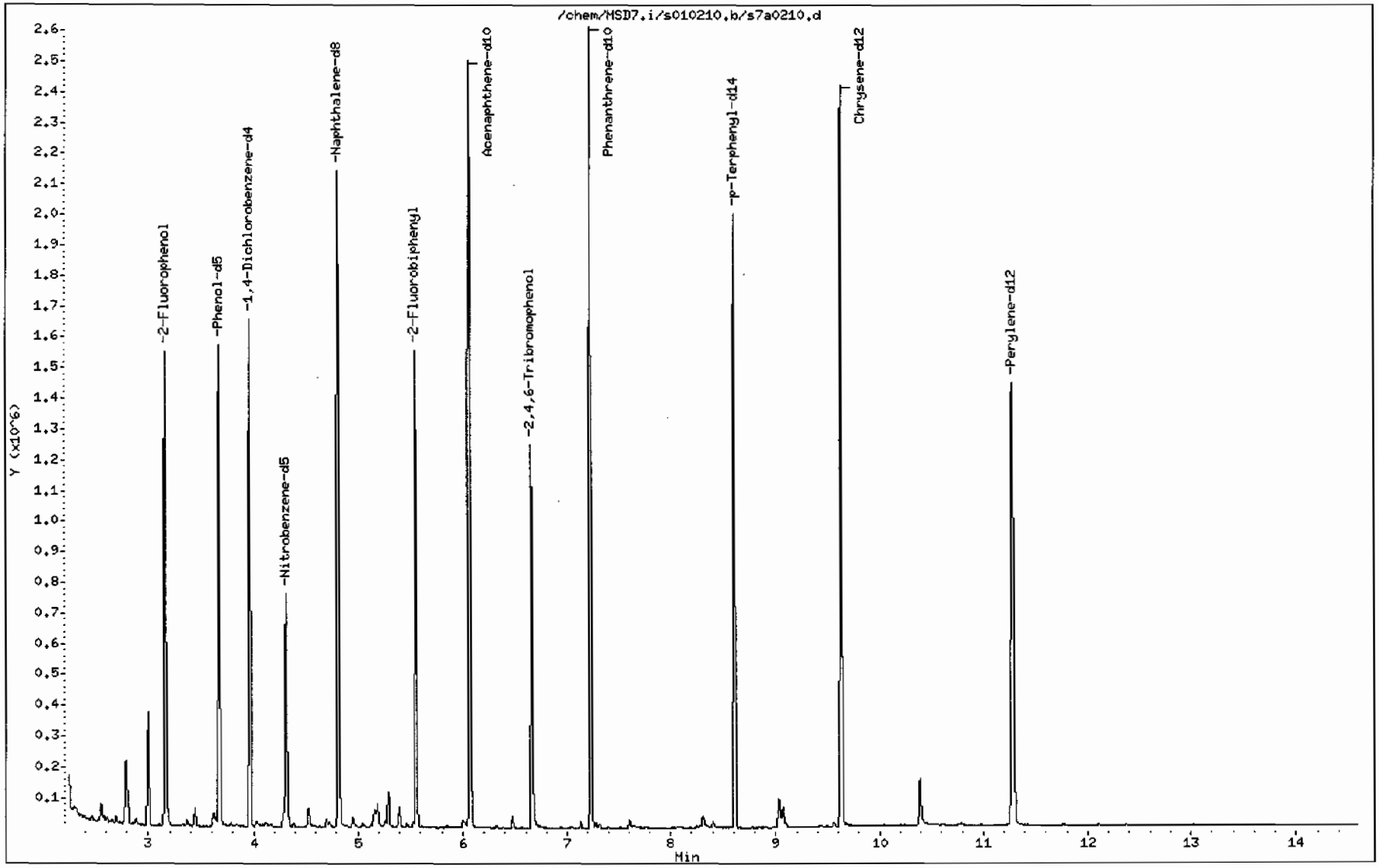

Data File: /chem/MSD7.i/s010210.b/s7a0210.d

Page 1

Date : 02-JAN-2010 19:00

Client ID: RE03-09-14228

Instrument: MSD7.i

Sample Info: |2434720011937095|1|SVMF|1|LANL

Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Hexanal	66-25-1	NIST05.L	3688	50	C6H12O	100
Hexanal	66-25-1	NIST05.L	3690	50	C6H12O	100
Hexanal	66-25-1	NIST05.L	3684	50	C6H12O	100

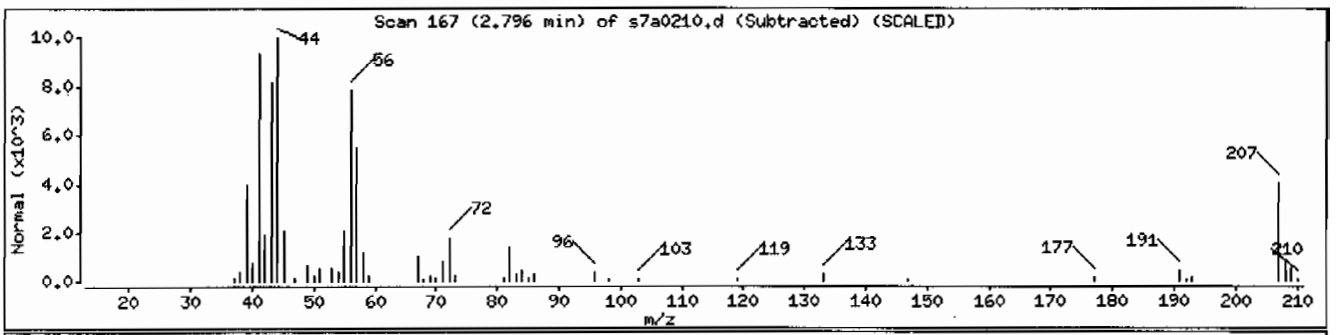

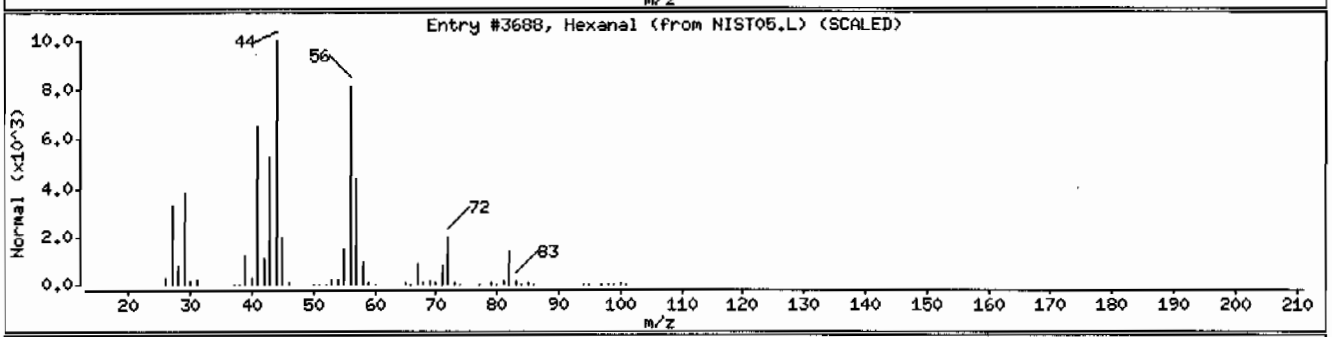

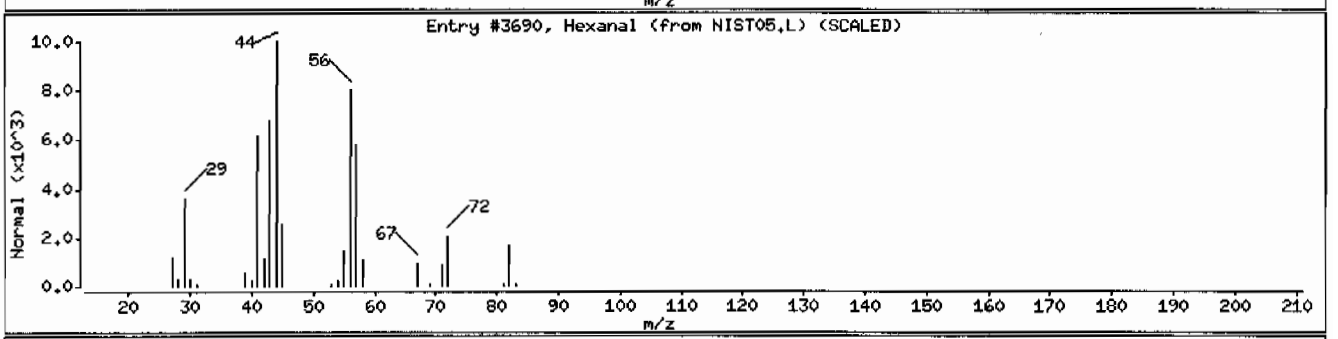

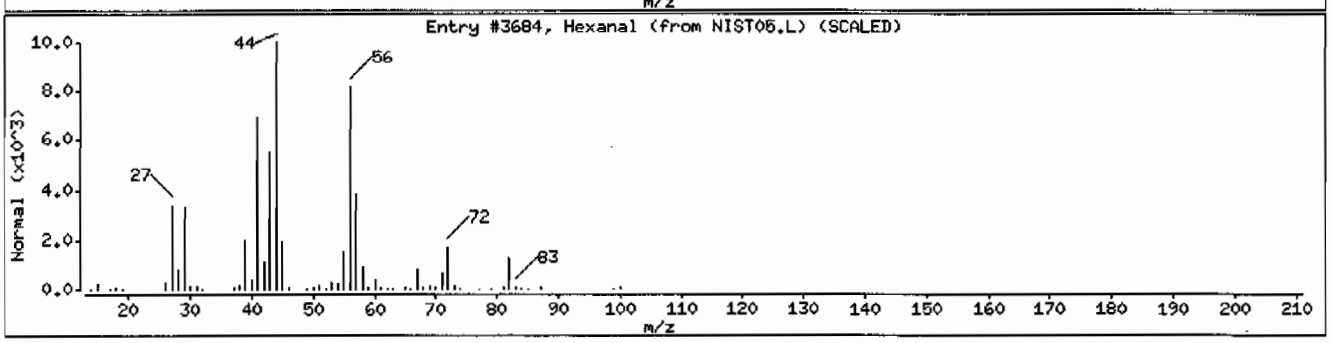

Data File: /chem/MSD7.i/s010210.b/s7a0210.d

Date : 02-JAN-2010 19:00

Client ID: RE03-09-14228

Instrument: MSD7.i

Sample Info: 1243472001|937095|1|SVMF|1|LANL

Volume Injected (uL): 0.5

Operator: JHB3

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	56	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	50	C6H12O2	116
2,3-Butanedione, monooxime	57-71-6	NIST05.L	3949	27	C4H7NO2	101

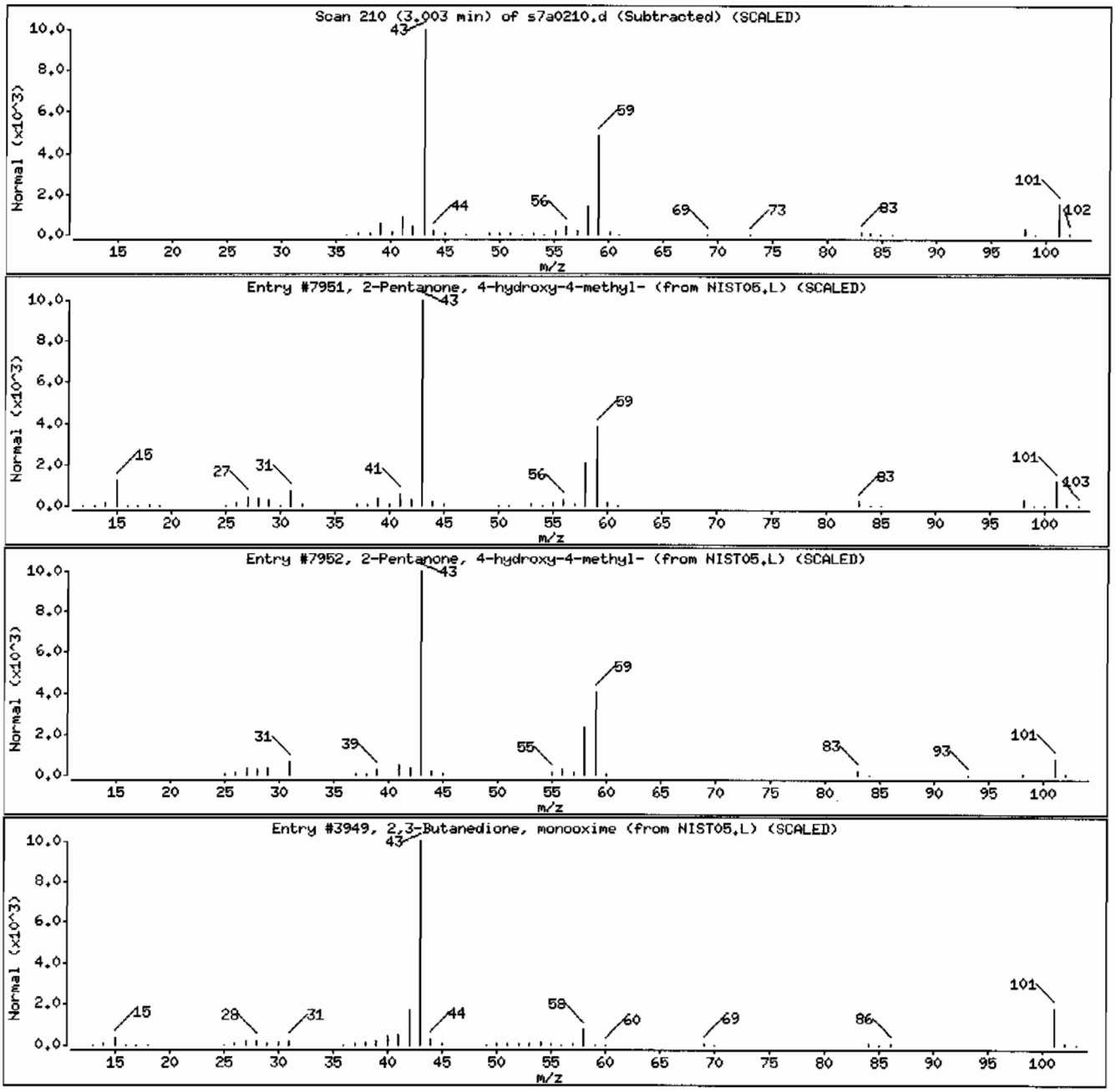

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1057**	**Date Collected:**	**12/21/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243472003**	**Date Received:**	**12/23/2009 10:10**	**%Moisture:**	**8.6**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14229**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**937095**	**Inst:**	**MSD7.I**	**Dilution:**	**1**
Run Date:	**01/04/2010 13:13**	**Analyst:**	**JMB3**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/28/2009 21:32**	**Aliquot:**	**30.06 g**	**Final Volume:**	**1 mL**
Data File:	**s7a0407.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	364	ug/kg	72.8	364
108-95-2	Phenol	U	364	ug/kg	72.8	364
95-57-8	2-Chlorophenol	U	364	ug/kg	72.8	364
106-46-7	1,4-Dichlorobenzene	U	364	ug/kg	72.8	364
621-64-7	N-Nitrosodipropylamine	U	364	ug/kg	72.8	364
59-50-7	4-Chloro-3-methylphenol	U	364	ug/kg	72.8	364
83-32-9	Acenaphthene	U	36.4	ug/kg	12.0	36.4
121-14-2	2,4-Dinitrotoluene	U	364	ug/kg	36.4	364
100-02-7	4-Nitrophenol	U	364	ug/kg	120	364
87-86-5	Pentachlorophenol	U	364	ug/kg	91.0	364
129-00-0	Pyrene	U	36.4	ug/kg	10.9	36.4
110-86-1	Pyridine	U	364	ug/kg	72.8	364
62-53-3	Aniline	U	364	ug/kg	109	364
111-44-4	bis(2-Chloroethyl) ether	U	364	ug/kg	72.8	364
541-73-1	1,3-Dichlorobenzene	U	364	ug/kg	72.8	364
100-51-6	Benzyl alcohol	U	364	ug/kg	109	364
95-50-1	1,2-Dichlorobenzene	U	364	ug/kg	72.8	364
108-60-1	bis(2-Chloroisopropyl)ether	U	364	ug/kg	72.8	364
95-48-7	o-Cresol	U	364	ug/kg	72.8	364
65794-96-9	m,p-Cresols	U	364	ug/kg	109	364
67-72-1	Hexachloroethane	U	364	ug/kg	72.8	364
98-95-3	Nitrobenzene	U	364	ug/kg	72.8	364
78-59-1	Isophorone	U	364	ug/kg	72.8	364
88-75-5	2-Nitrophenol	U	364	ug/kg	72.8	364
105-67-9	2,4-Dimethylphenol	U	364	ug/kg	127	364
111-91-1	bis(2-Chloroethoxy)methane	U	364	ug/kg	72.8	364
120-83-2	2,4-Dichlorophenol	U	364	ug/kg	72.8	364
65-85-0	Benzoic acid	U	728	ug/kg	182	728
91-20-3	Naphthalene	U	36.4	ug/kg	10.9	36.4
106-47-8	4-Chloroaniline	U	364	ug/kg	72.8	364
87-68-3	Hexachlorobutadiene	U	364	ug/kg	72.8	364
91-57-6	2-Methylnaphthalene	U	36.4	ug/kg	7.28	36.4
77-47-4	Hexachlorocyclopentadiene	U	364	ug/kg	72.8	364
88-06-2	2,4,6-Trichlorophenol	U	364	ug/kg	72.8	364
95-95-4	2,4,5-Trichlorophenol	U	364	ug/kg	72.8	364
91-58-7	2-Chloronaphthalene	U	36.4	ug/kg	12.0	36.4
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	364	ug/kg	72.8	364
99-09-2	3-Nitroaniline	U	364	ug/kg	72.8	364

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1057**	**Date Collected:**	**12/21/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243472003**	**Date Received:**	**12/23/2009 10:10**	**%Moisture:**	**8.6**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14229**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**937095**	**Inst:**	**MSD7.I**	**Dilution:**	**1**
Run Date:	**01/04/2010 13:13**	**Analyst:**	**JMB3**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/28/2009 21:32**	**Aliquot:**	**30.06 g**	**Final Volume:**	**1 mL**
Data File:	**s7a0407.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	364	ug/kg	72.8	364
606-20-2	2,6-Dinitrotoluene	U	364	ug/kg	36.4	364
208-96-8	Acenaphthylene	U	36.4	ug/kg	10.9	36.4
51-28-5	2,4-Dinitrophenol	U	728	ug/kg	138	728
132-64-9	Dibenzofuran	U	364	ug/kg	72.8	364
84-66-2	Diethylphthalate	U	364	ug/kg	72.8	364
86-73-7	Fluorene	U	36.4	ug/kg	10.9	36.4
7005-72-3	4-Chlorophenylphenylether	U	364	ug/kg	72.8	364
534-52-1	2-Methyl-4,6-dinitrophenol	U	364	ug/kg	72.8	364
100-01-6	4-Nitroaniline	U	364	ug/kg	109	364
	p-Nitroaniline					
122-39-4	Diphenylamine	U	364	ug/kg	72.8	364
122-66-7	Azobenzene	U	364	ug/kg	72.8	364
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	364	ug/kg	72.8	364
118-74-1	Hexachlorobenzene	U	364	ug/kg	72.8	364
85-01-8	Phenanthrene	U	36.4	ug/kg	10.9	36.4
120-12-7	Anthracene	U	36.4	ug/kg	7.28	36.4
84-74-2	Di-n-butylphthalate	U	364	ug/kg	72.8	364
206-44-0	Fluoranthene	U	36.4	ug/kg	10.9	36.4
85-68-7	Butylbenzylphthalate	U	364	ug/kg	72.8	364
56-55-3	Benzo(a)anthracene	U	36.4	ug/kg	10.9	36.4
91-94-1	3,3'-Dichlorobenzidine	U	364	ug/kg	109	364
218-01-9	Chrysene	U	36.4	ug/kg	10.9	36.4
117-81-7	bis(2-Ethylhexyl)phthalate	U	364	ug/kg	72.8	364
117-84-0	Di-n-octylphthalate	U	364	ug/kg	72.8	364
205-99-2	Benzo(b)fluoranthene	U	36.4	ug/kg	10.9	36.4
207-08-9	Benzo(k)fluoranthene	U	36.4	ug/kg	10.9	36.4
50-32-8	Benzo(a)pyrene	U	36.4	ug/kg	10.9	36.4
193-39-5	Indeno(1,2,3-cd)pyrene	U	36.4	ug/kg	10.9	36.4
53-70-3	Dibenzo(a,h)anthracene	U	36.4	ug/kg	10.9	36.4
191-24-2	Benzo(ghi)perylene	U	36.4	ug/kg	10.9	36.4
120-82-1	1,2,4-Trichlorobenzene	U	364	ug/kg	72.8	364

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	2.09	3410	ug/kg		J
	Unknown	2.12	233	ug/kg		J

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1057**	**Date Collected:**	**12/21/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243472003**	**Date Received:**	**12/23/2009 10:10**	**%Moisture:**	**8.6**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14229**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**937095**	**Inst:**	**MSD7.I**	**Dilution:**	**1**
Run Date:	**01/04/2010 13:13**	**Analyst:**	**JMB3**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/28/2009 21:32**	**Aliquot:**	**30.06 g**	**Final Volume:**	**1 mL**
Data File:	**s7a0407.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	2.23	146	ug/kg		J
	Unknown Aldol Condensate	3	303	ug/kg		J
301-02-0	9-Octadecenamide, (Z)-	10.4	182	ug/kg	93	NJ

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Data file : /chem/MSD7.i/s010410.b/s7a0407.d
Lab Smp Id: 243472003 Client Smp ID: RE03-09-14229
Inj Date : 04-JAN-2010 13:13
Operator : JMB3 Inst ID: MSD7.i
Smp Info : |243472003|937095|1|SVMF|1|LANL
Misc Info : |MSD8270_S|WBN091223-01|
Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness
Method : /chem/MSD7.i/s010410.b/MSD7-M8270C-AQA-123009.m
Meth Date : 04-Jan-2010 14:38 jos00786 Quant Type: ISTD
Cal Date : 30-DEC-2009 23:30 Cal File: s713040.d
Als bottle: 6
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-1057.sub
Target Version: 3.50
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.06000	weight of sample
M	8.64470	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.961	3.961	(1.000)	285585	40.0000	
* 29 Naphthalene-d8	136	4.818	4.823	(1.000)	1087343	40.0000	
* 46 Acenaphthene-d10	164	6.070	6.075	(1.000)	635522	40.0000	
* 67 Phenanthrene-d10	188	7.236	7.240	(1.000)	1206303	40.0000	
* 91 Chrysene-d12	240	9.634	9.643	(1.000)	1233032	40.0000	
* 98 Perylene-d12	264	11.300	11.309	(1.000)	1121478	40.0000	
$ 3 2-Fluorophenol	112	3.162	3.152	(0.798)	513101	67.1062	2440
$ 5 Phenol-d5	99	3.672	3.667	(0.927)	657132	69.3184	2520
$ 20 Nitrobenzene-d5	82	4.318	4.317	(0.896)	304478	36.4776	1330
$ 39 2-Fluorobiphenyl	172	5.560	5.560	(0.916)	657401	38.2327	1390
$ 60 2,4,6-Tribromophenol	329	6.663	6.667	(1.098)	203323	94.8862	3460
$ 81 p-Terphenyl-d14	244	8.613	8.613	(0.894)	910913	44.0559	1600

ION RATIO REPORT

SV REPORT

Data file: s7a0407.d
Report Date: 01/04/2010 14:37
Lab. ID: 243472003 SampleType: SAMPLE
Injection Date: 04-JAN-2010 13:13
Operator: JMB3 Instrument: MSD7.i
Sample Info: |243472003|937095|1|SVMF|1|LANL
Miscellaneous Info: |MSD8270_S|WBN091223-01|
Comment:
Method used: /chem/MSD7.i/s010410.b/MSD7-M8270C-AQA-123009.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-1057
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
17 N-Nitrosodipropylamine				CAS#: 621-64-7		
70	44714	4.32	4.19	80-120	100	(T)
42	29266	4.32	4.19	41-101	65	(T)
27 Benzoic acid				CAS#: 65-85-0		
105	1139	4.55	4.58	80-120	100	( )
122	691	4.55	4.58	55-115	61	( )
77	1095	4.55	4.58	55-115	96	( )
43 Dimethylphthalate				CAS#: 131-11-3		
163	113460	6.07	5.83	80-120	100	(T)
164	635522	6.07	5.83	0- 40	560	(QT)
44 2,6-Dinitrotoluene				CAS#: 606-20-2		
165	84143	6.07	5.89	80-120	100	(T)
63	874	6.07	5.89	35- 95	1	(QT)
50 2,4-Dinitrotoluene				CAS#: 121-14-2		
165	84143	6.07	6.19	80-120	100	(T)
89	1164	6.07	6.19	39- 99	1	(QT)
63	874	6.07	6.18	17- 77	1	(QT)
53 Fluorene				CAS#: 86-73-7		
166	10477	6.66	6.48	80-120	100	(T)
165	10778	6.66	6.48	59-119	103	(T)
167	3615	6.66	6.48	0- 44	35	(T)

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
55 2-Methyl-4,6-dinitrophenol				CAS#: 534-52-1		
198	458	6.66	6.49	80-120	100	(T)
105	1318	6.66	6.49	11- 71	288	(QT)
51	1358	6.66	6.49	34- 94	296	(QT)
61 4-Bromophenylphenylether				CAS#: 101-55-3		
248	12556	6.66	6.85	80-120	100	(T)
141	86401	6.66	6.85	42-102	688	(QT)
250	25799	6.66	6.85	68-128	205	(QT)

Q qualifier indicates ion failed ratio requirement

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Data file : /chem/MSD7.i/s010410.b/s7a0407.d
Lab Smp Id: 243472003 Client Smp ID: RE03-09-14229
Inj Date : 04-JAN-2010 13:13
Operator : JMB3 Inst ID: MSD7.i
Smp Info : |243472003|937095|1|SVMF|1|LANL
Misc Info : |MSD8270_S|WBN091223-01|
Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness
Method : /chem/MSD7.i/s010410.b/MSD7-M8270C-AQA-123009.m
Meth Date : 04-Jan-2010 14:38 jos00786 Quant Type: ISTD
Cal Date : 30-DEC-2009 23:30 Cal File: s713040.d
Als bottle: 6
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-1057.sub
Target Version: 3.50
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.06000	weight of sample
M	8.64470	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	3.961	1715086	40.000
* 91 Chrysene-d12	9.634	3149277	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown				CAS #:			
2.093	4018352	93.7177353	3410	0		0	10

RT	AREA	CONCENTRATIONS ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	QUANT LIBRARY	LIB ENTRY	CPND #
Unknown				CAS #:			
2.122	274905	6.41145534	233	0		0	10
Unknown				CAS #:			
2.228	172392	4.02059290	146	0		0	10
Unknown Aldol Condensate				CAS #:			
2.998	356373	8.31147927	303	0		0	10
9-Octadecenamide, (Z)-				CAS #: 301-02-0			
10.399	393212	4.99431335	182	93	NIST05.L	112656	91

Data File: /chem/MSD7.i/s010410.b/s7a0407.d
Date : 04-JAN-2010 13:13
Client ID: RE03-09-14229
Sample Info: 1243472003193709511|SVMF|1|LANL
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD7.i

Operator: JMB3
Column diameter: 0.20

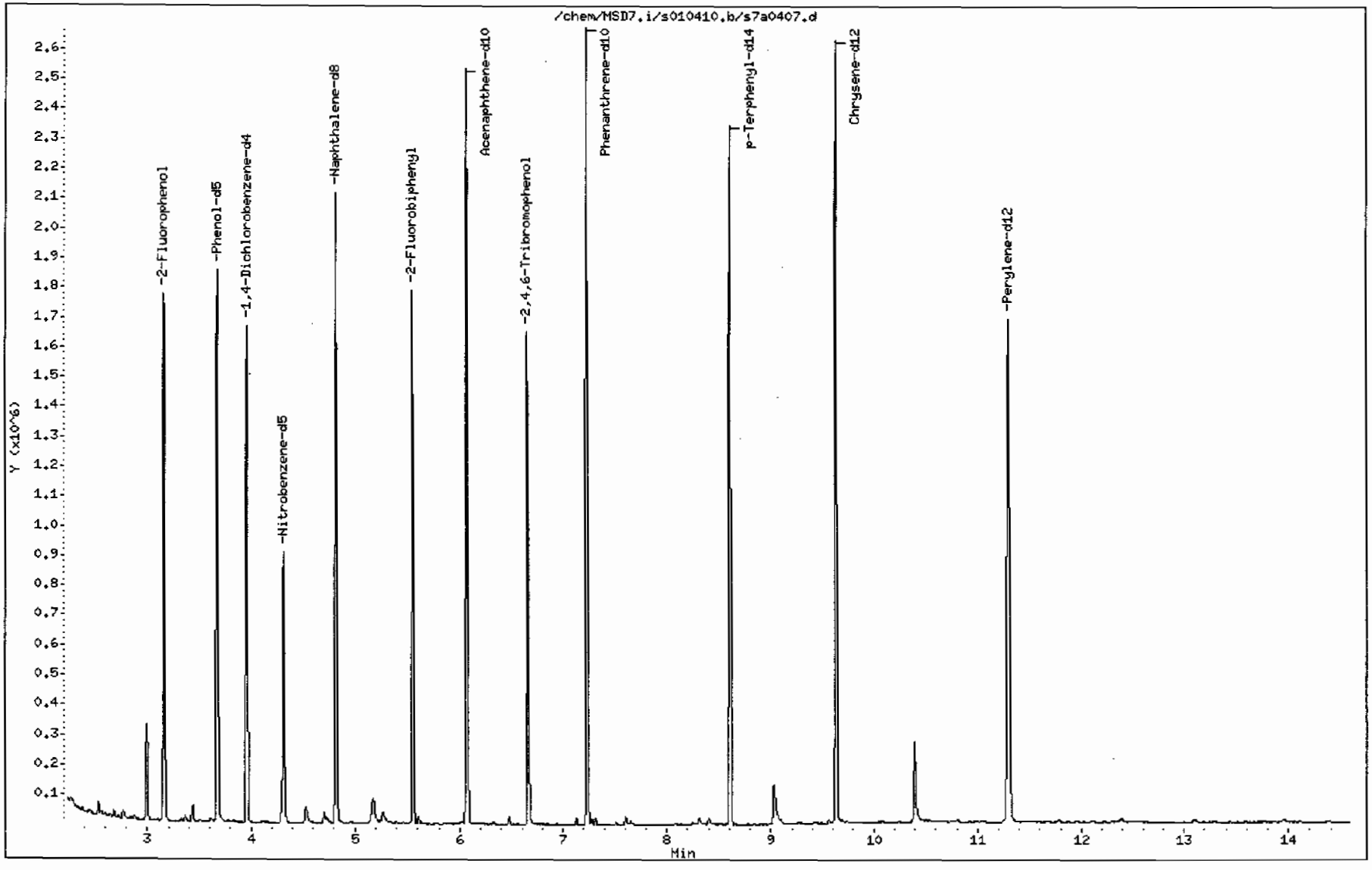

Data File: /chem/MSD7.i/s010410.b/s7a0407.d

Date : 04-JAN-2010 13:13

Client ID: RE03-09-14229

Instrument: MSD7.i

Sample Info: 1243472003|937095|1|SVMF|1|LANL

Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Propane, 2,2-dimethoxy-	77-76-9	NIST05.L	4663	59	C5H12O2	104
Propane, 2,2-dimethoxy-	77-76-9	NIST05.L	4662	45	C5H12O2	104
Propane, 2,2-dimethoxy-	77-76-9	NIST05.L	4658	38	C5H12O2	104

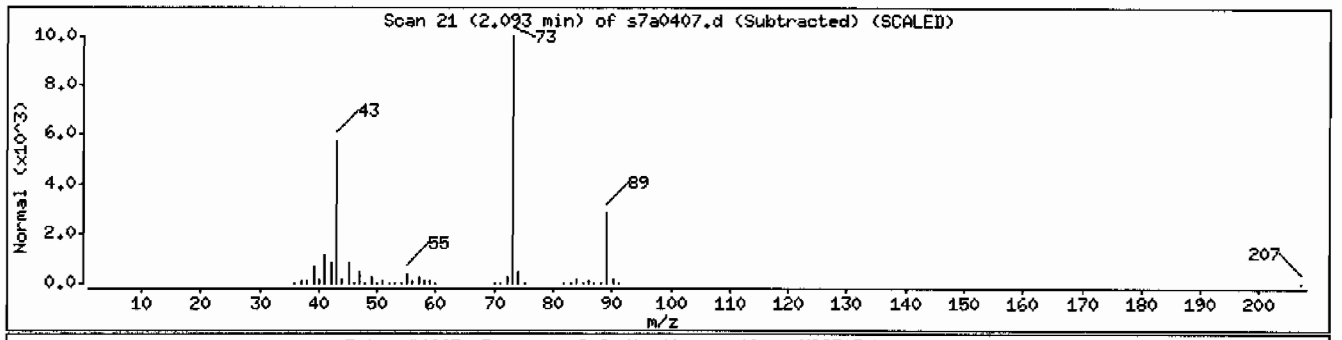

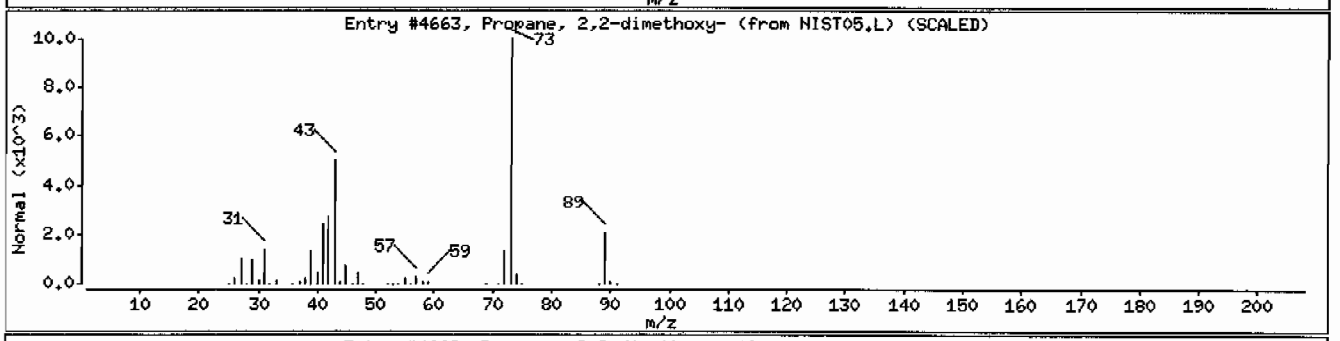

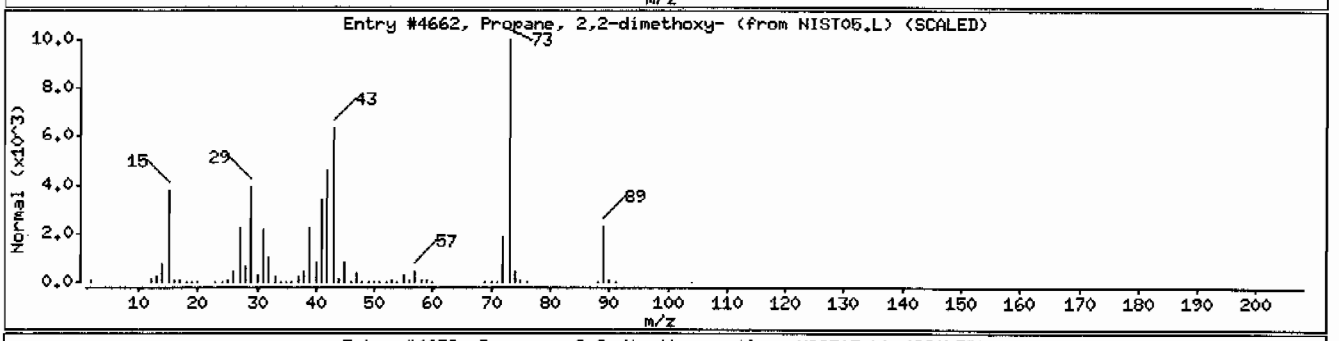

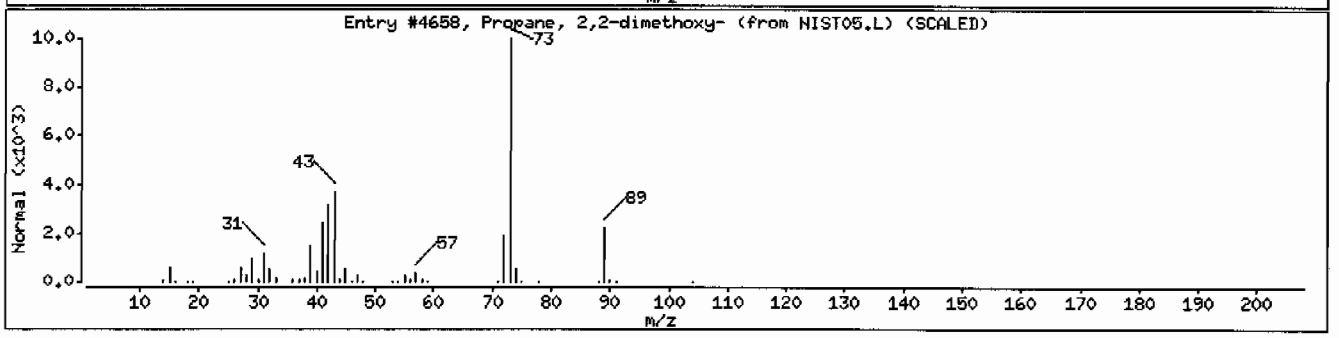

Data File: /chem/MSD7.i/s010410.b/s7a0407.d

Date : 04-JAN-2010 13:13

Client ID: RE03-09-14229

Instrument: MSD7.i

Sample Info: 1243472003|937095|1|SVMF|1|LANL

Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
2-Butanone, 3-methyl-	563-80-4	NIST05,L	1738	10	C5H10O	86
2-Pentanone	107-87-9	NIST05,L	1682	10	C5H10O	86
2-Pentanone	107-87-9	NIST05,L	1684	10	C5H10O	86

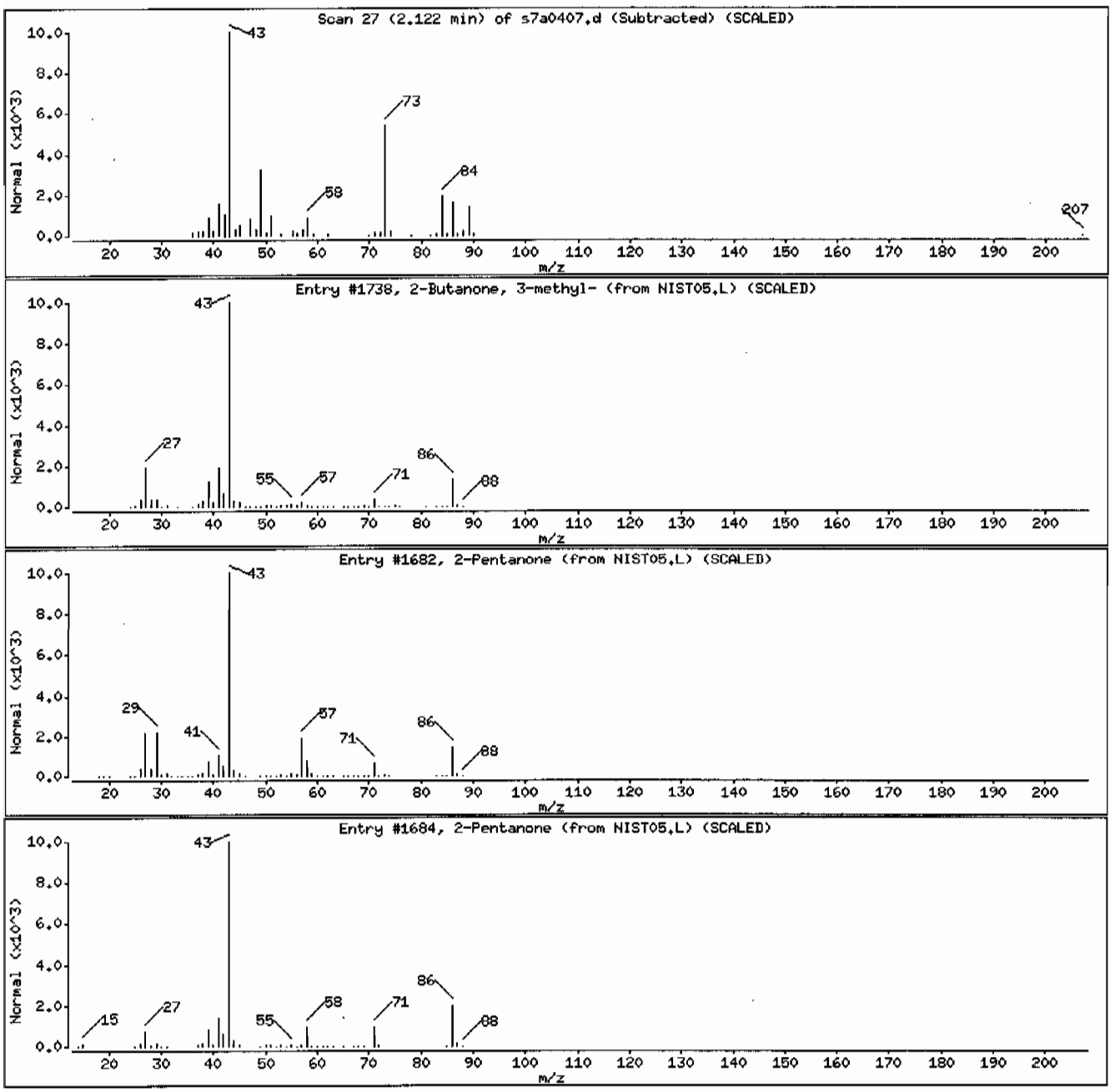

Data File: /chem/MSD7.i/s010410.b/s7a0407.d

Date : 04-JAN-2010 13:13

Client ID: RE03-09-14229

Instrument: MSD7.i

Sample Info: |2434720031937095|1|SVMF|1|LANL

Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
2-Propanone, 1-chloro-	78-95-5	NIST05.L	2355	18	C3H5Cl0	92
Ethanone, 1-oxiranyl-	4401-11-0	NIST05.L	1644	14	C4H6O2	86
2-Pentanone	107-87-9	NIST05.L	1683	11	C5H10O	86

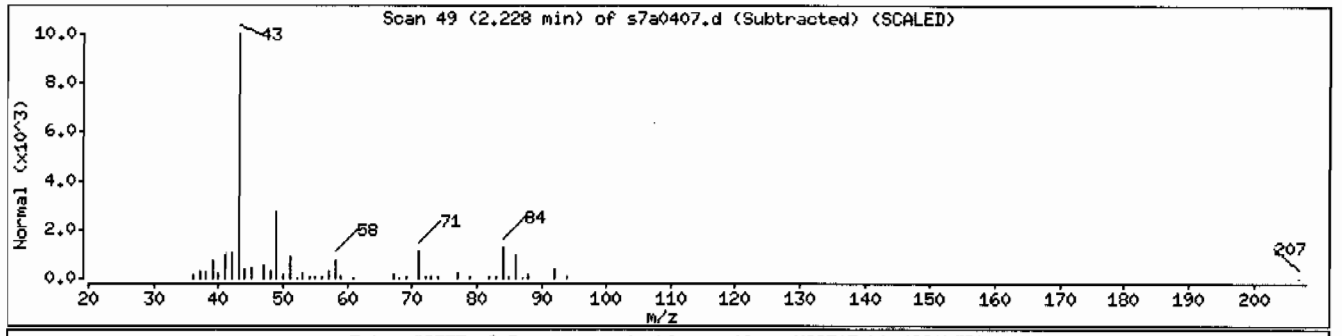

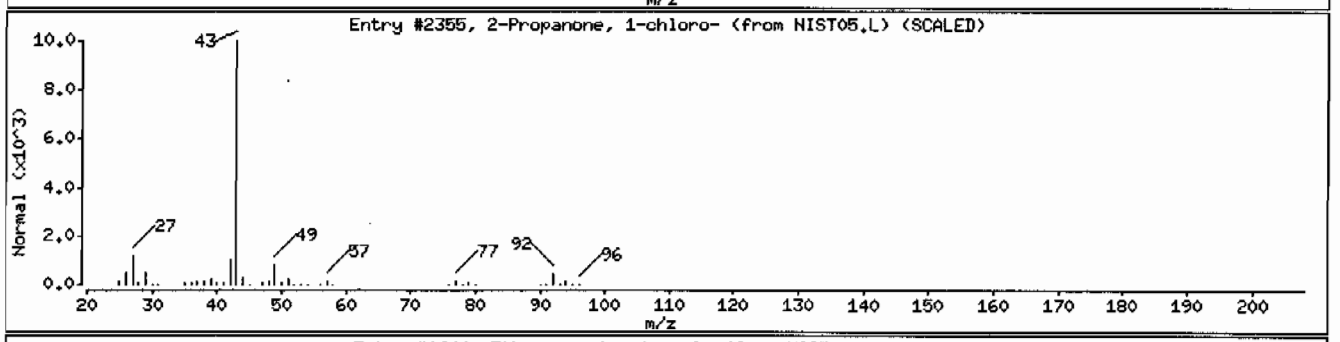

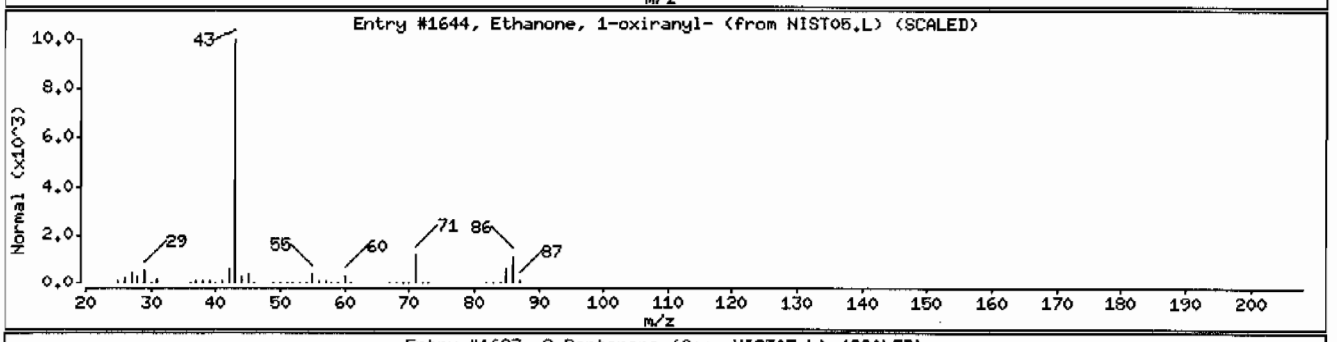

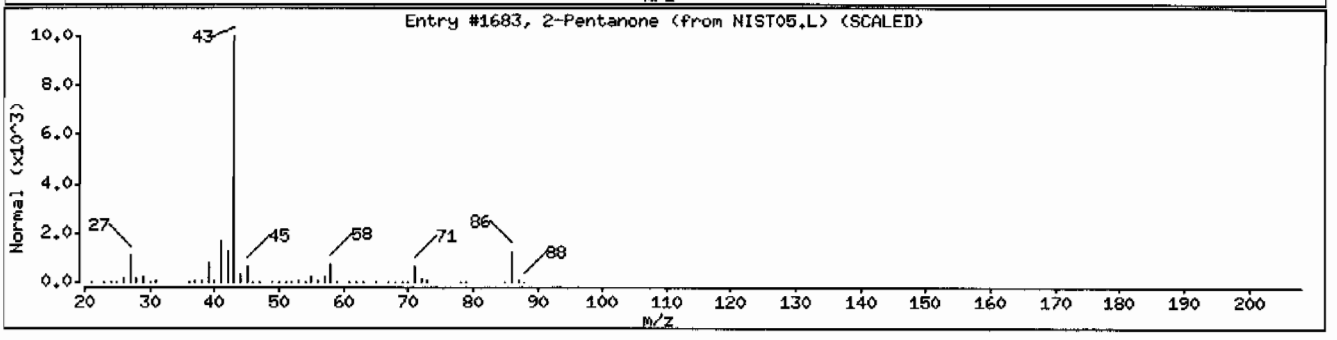

Data File: /chem/MSD7.i/s010410.b/s7a0407.d

Date : 04-JAN-2010 13:13

Client ID: RE03-09-14229

Instrument: MSD7.i

Sample Info: |2434720031937095|1|SVMF|1|LANL

Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	56	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	50	C6H12O2	116
2,3-Butanedione, monooxime	57-71-6	NIST05.L	3949	30	C4H7NO2	101

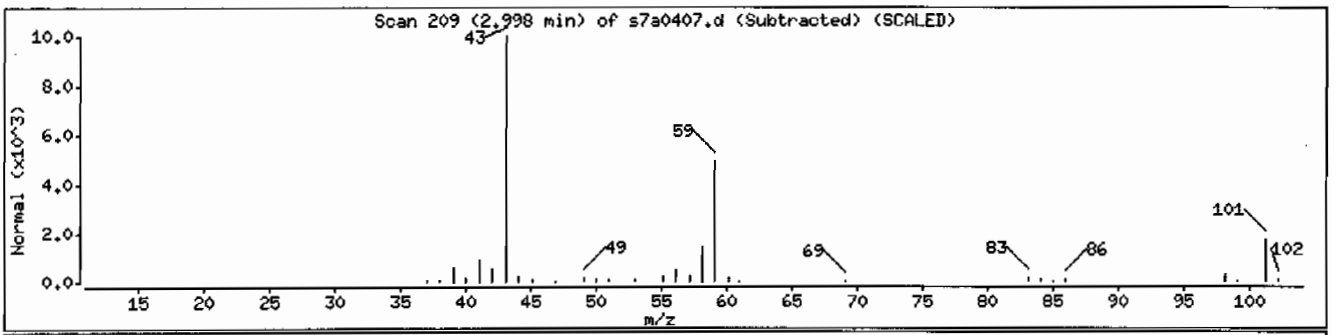

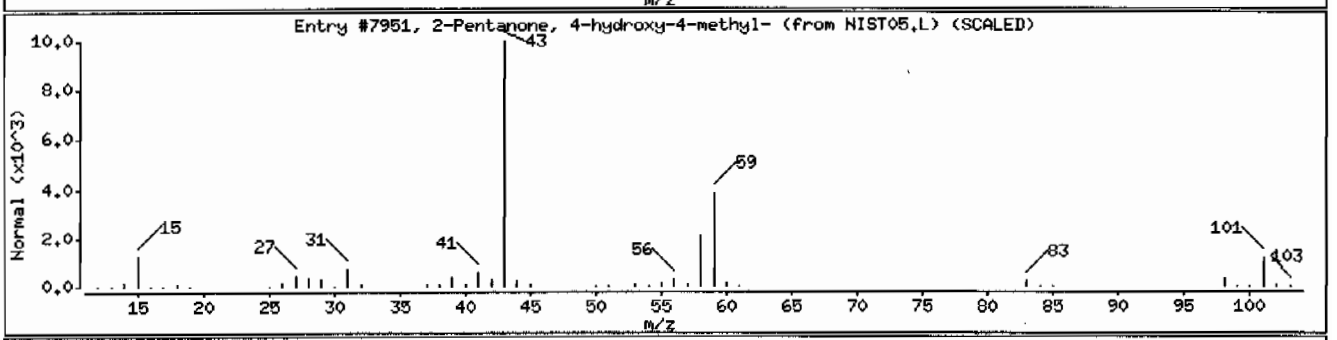

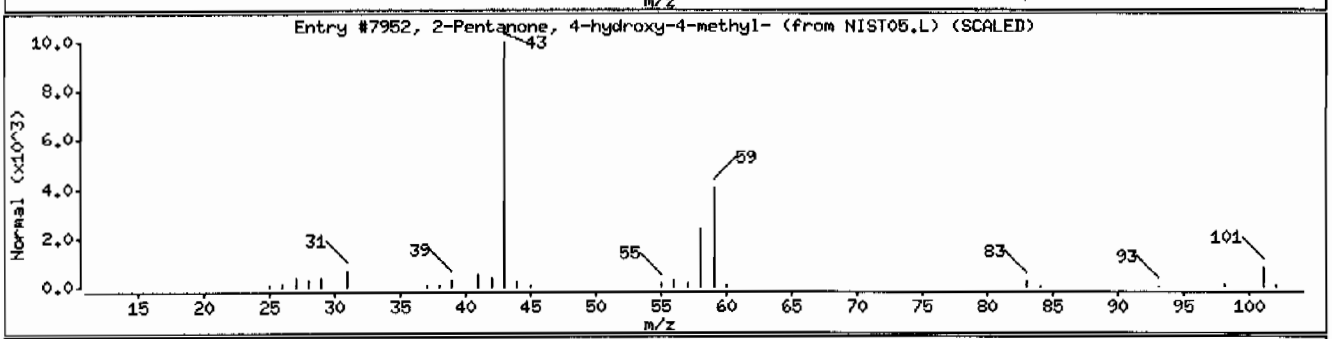

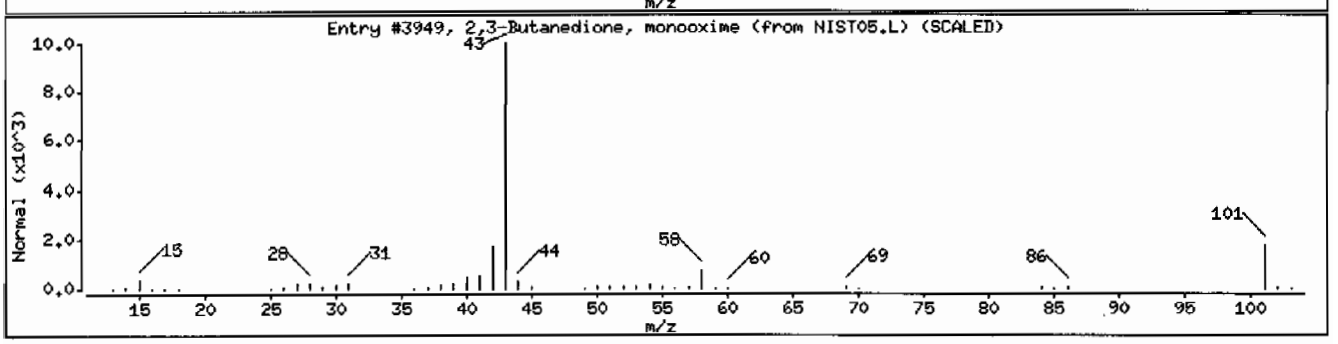

Data File: /chem/MSD7.i/s010410.b/s7a0407.d

Date : 04-JAN-2010 13:13

Client ID: RE03-09-14229

Instrument: MSD7.i

Sample Info: |2434720031937095|1|SVMF|1|LANL

Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
9-Octadecenamide, (Z)-	301-02-0	NIST05.L	112656	93	C18H35NO	281
13-Docosenamide, (Z)-	112-84-5	NIST05.L	146308	89	C22H43NO	337
Octadecanamide	124-26-5	NIST05.L	114054	87	C18H37NO	283

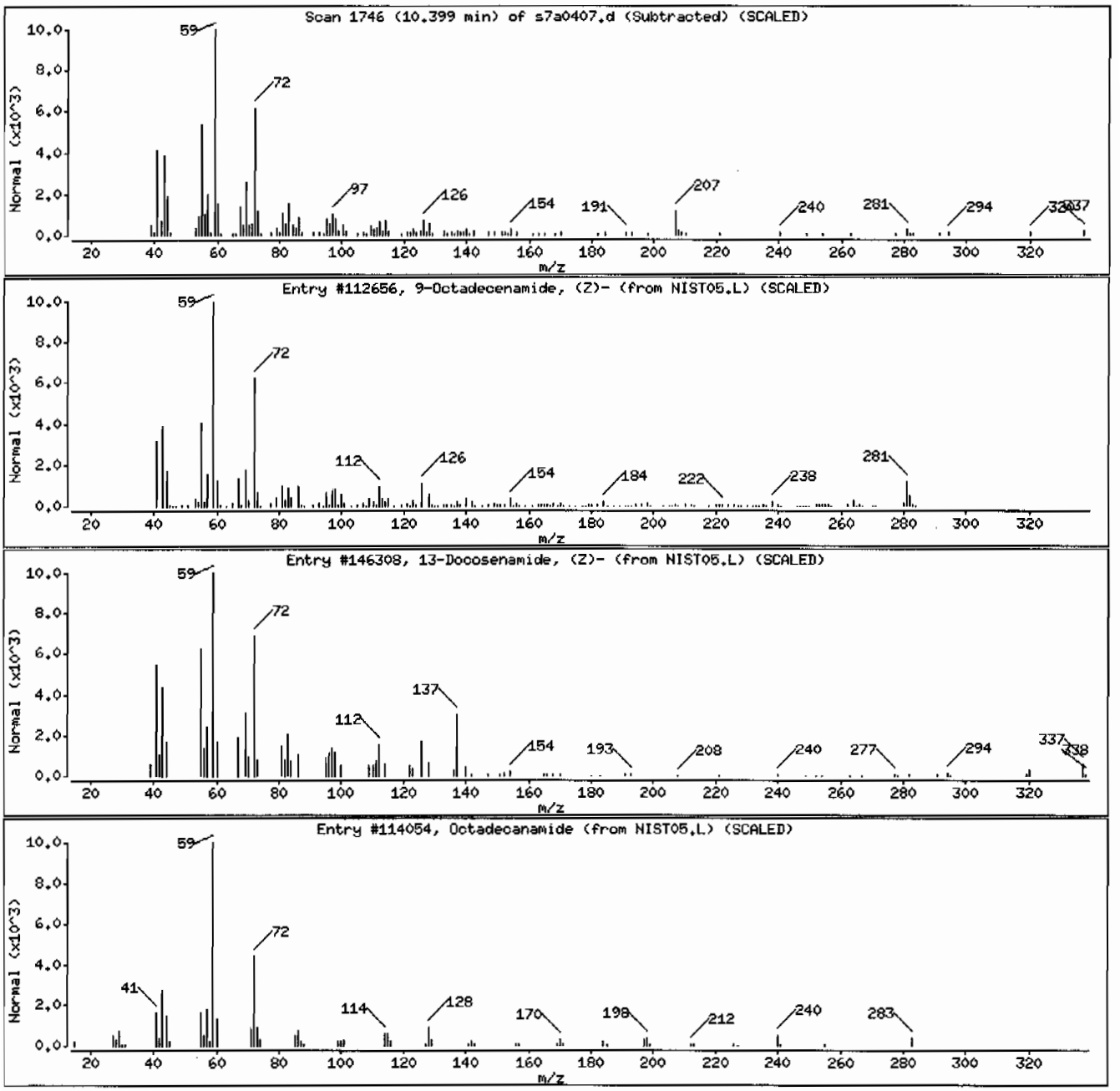

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1057**	**Date Collected:**	**12/21/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243472002**	**Date Received:**	**12/23/2009 10:10**	**%Moisture:**	**7.1**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14230**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**937095**	**Inst:**	**MSD7.I**	**Dilution:**	**1**
Run Date:	**01/02/2010 19:21**	**Analyst:**	**JMB3**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/28/2009 21:32**	**Aliquot:**	**30.05 g**	**Final Volume:**	**1 mL**
Data File:	**s7a0211.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	358	ug/kg	71.6	358
108-95-2	Phenol	U	358	ug/kg	71.6	358
95-57-8	2-Chlorophenol	U	358	ug/kg	71.6	358
106-46-7	1,4-Dichlorobenzene	U	358	ug/kg	71.6	358
621-64-7	N-Nitrosodipropylamine	U	358	ug/kg	71.6	358
59-50-7	4-Chloro-3-methylphenol	U	358	ug/kg	71.6	358
83-32-9	Acenaphthene	U	35.8	ug/kg	11.8	35.8
121-14-2	2,4-Dinitrotoluene	U	358	ug/kg	35.8	358
100-02-7	4-Nitrophenol	U	358	ug/kg	118	358
87-86-5	Pentachlorophenol	U	358	ug/kg	89.5	358
129-00-0	Pyrene	U	35.8	ug/kg	10.7	35.8
110-86-1	Pyridine	U	358	ug/kg	71.6	358
62-53-3	Aniline	U	358	ug/kg	107	358
111-44-4	bis(2-Chloroethyl) ether	U	358	ug/kg	71.6	358
541-73-1	1,3-Dichlorobenzene	U	358	ug/kg	71.6	358
100-51-6	Benzyl alcohol	U	358	ug/kg	107	358
95-50-1	1,2-Dichlorobenzene	U	358	ug/kg	71.6	358
108-60-1	bis(2-Chloroisopropyl)ether	U	358	ug/kg	71.6	358
95-48-7	o-Cresol	U	358	ug/kg	71.6	358
65794-96-9	m,p-Cresols	U	358	ug/kg	107	358
67-72-1	Hexachloroethane	U	358	ug/kg	71.6	358
98-95-3	Nitrobenzene	U	358	ug/kg	71.6	358
78-59-1	Isophorone	U	358	ug/kg	71.6	358
88-75-5	2-Nitrophenol	U	358	ug/kg	71.6	358
105-67-9	2,4-Dimethylphenol	U	358	ug/kg	125	358
111-91-1	bis(2-Chloroethoxy)methane	U	358	ug/kg	71.6	358
120-83-2	2,4-Dichlorophenol	U	358	ug/kg	71.6	358
65-85-0	Benzoic acid	U	716	ug/kg	179	716
91-20-3	Naphthalene	U	35.8	ug/kg	10.7	35.8
106-47-8	4-Chloroaniline	U	358	ug/kg	71.6	358
87-68-3	Hexachlorobutadiene	U	358	ug/kg	71.6	358
91-57-6	2-Methylnaphthalene	U	35.8	ug/kg	7.16	35.8
77-47-4	Hexachlorocyclopentadiene	U	358	ug/kg	71.6	358
88-06-2	2,4,6-Trichlorophenol	U	358	ug/kg	71.6	358
95-95-4	2,4,5-Trichlorophenol	U	358	ug/kg	71.6	358
91-58-7	2-Chloronaphthalene	U	35.8	ug/kg	11.8	35.8
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	358	ug/kg	71.6	358
99-09-2	3-Nitroaniline	U	358	ug/kg	71.6	358

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1057	Date Collected:	12/21/2009 12:00	Matrix:	S
Lab Sample ID:	243472002	Date Received:	12/23/2009 10:10	%Moisture:	7.1
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14230	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	937095	Inst:	MSD7.I	Dilution:	1
Run Date:	01/02/2010 19:21	Analyst:	JMB3	Inj. Vol:	.5 uL
Prep Date:	12/28/2009 21:32	Aliquot:	30.05 g	Final Volume:	1 mL
Data File:	s7a0211.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	358	ug/kg	71.6	358
606-20-2	2,6-Dinitrotoluene	U	358	ug/kg	35.8	358
208-96-8	Acenaphthylene	U	35.8	ug/kg	10.7	35.8
51-28-5	2,4-Dinitrophenol	U	716	ug/kg	136	716
132-64-9	Dibenzofuran	U	358	ug/kg	71.6	358
84-66-2	Diethylphthalate	U	358	ug/kg	71.6	358
86-73-7	Fluorene	U	35.8	ug/kg	10.7	35.8
7005-72-3	4-Chlorophenylphenylether	U	358	ug/kg	71.6	358
534-52-1	2-Methyl-4,6-dinitrophenol	U	358	ug/kg	71.6	358
100-01-6	4-Nitroaniline	U	358	ug/kg	107	358
	p-Nitroaniline					
122-39-4	Diphenylamine	U	358	ug/kg	71.6	358
122-66-7	Azobenzene	U	358	ug/kg	71.6	358
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	358	ug/kg	71.6	358
118-74-1	Hexachlorobenzene	U	358	ug/kg	71.6	358
85-01-8	Phenanthrene	U	35.8	ug/kg	10.7	35.8
120-12-7	Anthracene	U	35.8	ug/kg	7.16	35.8
84-74-2	Di-n-butylphthalate	U	358	ug/kg	71.6	358
206-44-0	Fluoranthene	U	35.8	ug/kg	10.7	35.8
85-68-7	Butylbenzylphthalate	U	358	ug/kg	71.6	358
56-55-3	Benzo(a)anthracene	U	35.8	ug/kg	10.7	35.8
91-94-1	3,3'-Dichlorobenzidine	U	358	ug/kg	107	358
218-01-9	Chrysene	U	35.8	ug/kg	10.7	35.8
117-81-7	bis(2-Ethylhexyl)phthalate	U	358	ug/kg	71.6	358
117-84-0	Di-n-octylphthalate	U	358	ug/kg	71.6	358
205-99-2	Benzo(b)fluoranthene	U	35.8	ug/kg	10.7	35.8
207-08-9	Benzo(k)fluoranthene	U	35.8	ug/kg	10.7	35.8
50-32-8	Benzo(a)pyrene	U	35.8	ug/kg	10.7	35.8
193-39-5	Indeno(1,2,3-cd)pyrene	U	35.8	ug/kg	10.7	35.8
53-70-3	Dibenzo(a,h)anthracene	U	35.8	ug/kg	10.7	35.8
191-24-2	Benzo(ghi)perylene	U	35.8	ug/kg	10.7	35.8
120-82-1	1,2,4-Trichlorobenzene	U	358	ug/kg	71.6	358

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	2.13	324	ug/kg		J
	Unknown Aldol Condensate	3.01	249	ug/kg		J

GEL Laboratories LLC

GEL Laboratories, LLC
Data file : /chem/MSD7.i/s010210.b/s7a0211.d
Lab Smp Id: 243472002 Client Smp ID: RE03-09-14230
Inj Date : 02-JAN-2010 19:21
Operator : JMB3 Inst ID: MSD7.i
Smp Info : |243472002|937095|1|SVMF|1|LANL
Misc Info : |MSD8270_S|WBN091223-01|
Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness
Method : /chem/MSD7.i/s010210.b/MSD7-M8270C-AQA-123009.m
Meth Date : 04-Jan-2010 08:10 jos00786 Quant Type: ISTD
Cal Date : 30-DEC-2009 23:30 Cal File: s713040.d
Als bottle: 8
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-1057.sub
Target Version: 3.50
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.05000	weight of sample
M	7.07790	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.966	3.961	(1.000)	322757	40.0000	
* 29 Naphthalene-d8	136	4.823	4.823	(1.000)	1159333	40.0000	
* 46 Acenaphthene-d10	164	6.070	6.070	(1.000)	679653	40.0000	
* 67 Phenanthrene-d10	188	7.235	7.236	(1.000)	1298057	40.0000	
* 91 Chrysene-d12	240	9.633	9.638	(1.000)	1341085	40.0000	
* 98 Perylene-d12	264	11.295	11.295	(1.000)	1088715	40.0000	
$ 3 2-Fluorophenol	112	3.166	3.152	(0.798)	475719	55.0516	1970
$ 5 Phenol-d5	99	3.672	3.672	(0.926)	593828	55.4263	1980
$ 20 Nitrobenzene-d5	82	4.317	4.322	(0.895)	276375	31.0547	1110
$ 39 2-Fluorobiphenyl	172	5.560	5.560	(0.916)	581920	31.6454	1130
$ 60 2,4,6-Tribromophenol	329	6.662	6.667	(1.098)	166638	72.7167	2600
$ 81 p-Terphenyl-d14	244	8.608	8.608	(0.894)	815613	36.2685	1300

ION RATIO REPORT

SV REPORT

Data file: s7a0211.d
Report Date: 01/04/2010 08:13
Lab. ID: 243472002 SampleType: SAMPLE
Injection Date: 02-JAN-2010 19:21
Operator: JMB3 Instrument: MSD7.i
Sample Info: |243472002|937095|1|SVMF|1|LANL
Miscellaneous Info: |MSD8270_S|WBN091223-01|
Comment:
Method used: /chem/MSD7.i/s010210.b/MSD7-M8270C-AQA-123009.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-1057
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
4 Aniline		CAS#: 62-53-3				
66	32138	3.67	3.74	80-120	100	(T)
93	160	3.55	3.74	221-281	1	(QT)
17 N-Nitrosodipropylamine				CAS#: 621-64-7		
70	41519	4.32	4.19	80-120	100	(T)
42	27108	4.32	4.19	43-103	65	(T)
43 Dimethylphthalate				CAS#: 131-11-3		
163	119940	6.07	5.83	80-120	100	(T)
164	679653	6.07	5.83	0- 40	567	(QT)
44 2,6-Dinitrotoluene				CAS#: 606-20-2		
165	89860	6.07	5.88	80-120	100	(T)
63	892	6.07	5.88	35- 95	1	(QT)
50 2,4-Dinitrotoluene				CAS#: 121-14-2		
165	89860	6.07	6.18	80-120	100	(T)
89	1112	6.07	6.18	43-103	1	(QT)
63	892	6.07	6.18	20- 80	1	(QT)
53 Fluorene			CAS#: 86-73-7			
166	8427	6.66	6.48	80-120	100	(T)
165	8713	6.66	6.48	60-120	103	(T)
167	2950	6.66	6.48	0- 44	35	(T)

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
55 2-Methyl-4,6-dinitrophenol				CAS#: 534-52-1		
198	388	6.66	6.49	80-120	100	(T)
105	1186	6.66	6.49	13- 73	305	(QT)
51	1100	6.66	6.49	48-108	283	(QT)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

GEL Laboratories, LLC
Data file : /chem/MSD7.i/s010210.b/s7a0211.d
Lab Smp Id: 243472002 Client Smp ID: RE03-09-14230
Inj Date : 02-JAN-2010 19:21
Operator : JMB3 Inst ID: MSD7.i
Smp Info : |243472002|937095|1|SVMF|1|LANL
Misc Info : |MSD8270_S|WBN091223-01|
Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness
Method : /chem/MSD7.i/s010210.b/MSD7-M8270C-AQA-123009.m
Meth Date : 04-Jan-2010 08:10 jos00786 Quant Type: ISTD
Cal Date : 30-DEC-2009 23:30 Cal File: s713040.d
Als bottle: 8
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-1057.sub
Target Version: 3.50
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.05000	weight of sample
M	7.07790	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	3.966	1938367	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown				CAS #:			
2.126	438799	9.05501536	324	0		0	10
Unknown Aldol Condensate				CAS #:			
3.008	337301	6.96051597	249	0		0	10

Data File: /chem/MSD7.i/s010210.b/s7a0211.d
Date : 02-JAN-2010 19:21
Client ID: RE03-09-14230
Sample Info: 1243472002193709511|SVMF11|LANL
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD7.i

Operator: JMB3
Column diameter: 0.20

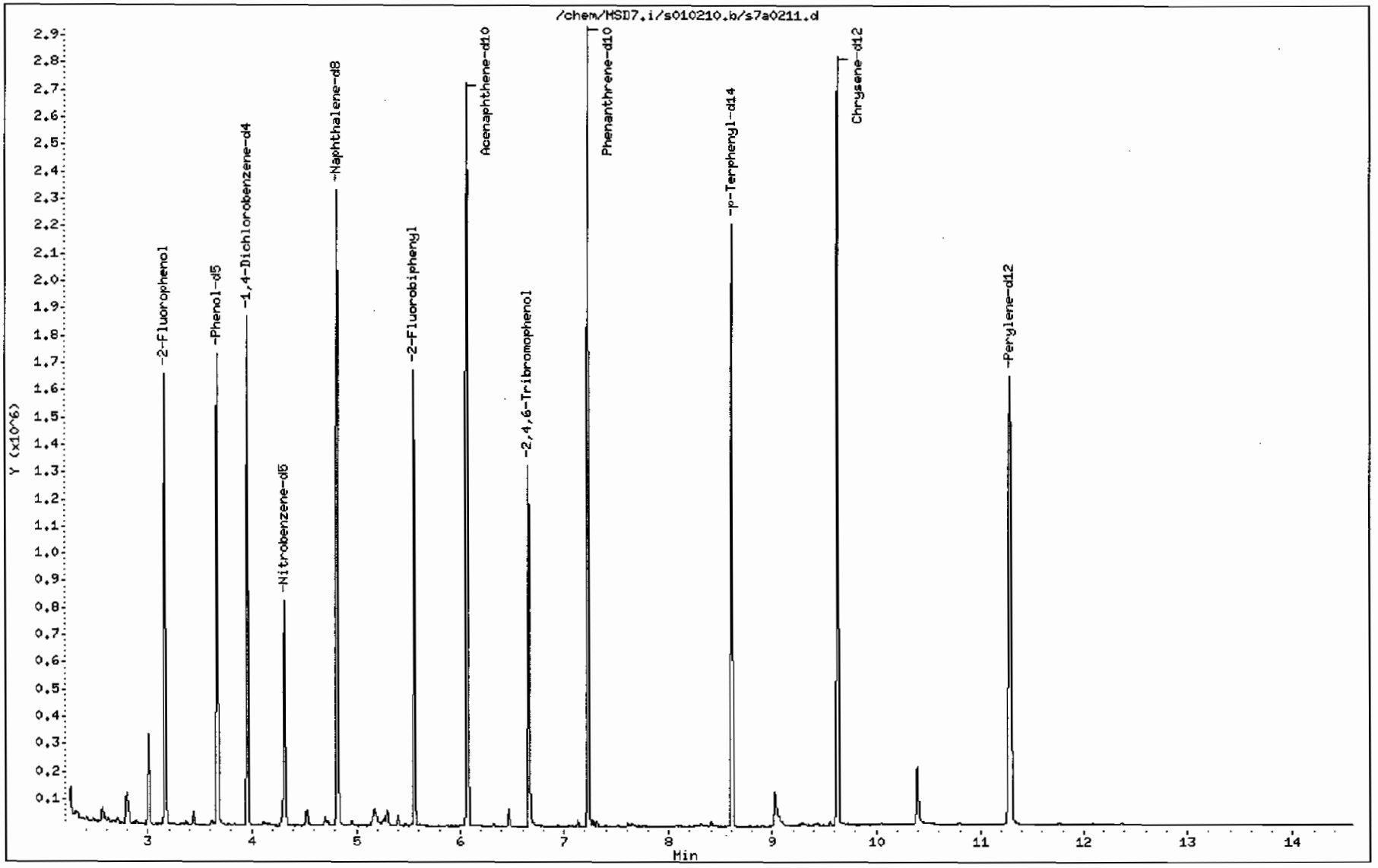

Data File: /chem/MSD7.i/s010210.b/s7a0211.d

Date : 02-JAN-2010 19:21

Client ID: RE03-09-14230 Instrument: MSD7.i

Sample Info: 1243472002|937095|1|SVMF|1|LANL

Volume Injected (uL): 0.5 Operator: JMB3

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
2-Methylthio-2,3-dimethylbutane	1000314-01-2	NIST05.L	14016	45	C7H16S	132
Propane, 2,2-dimethoxy-	77-76-9	NIST05.L	4663	37	C5H12O2	104
Propane, 2,2-dimethoxy-	77-76-9	NIST05.L	4662	33	C5H12O2	104

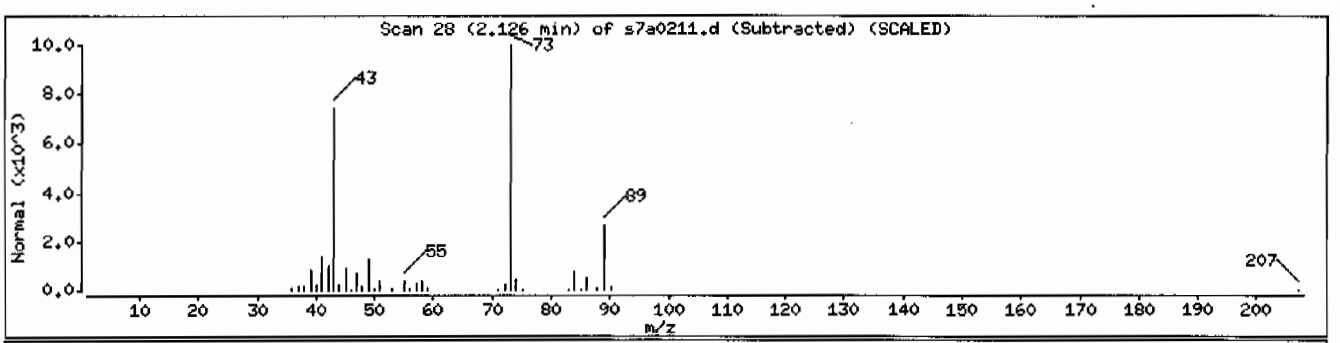

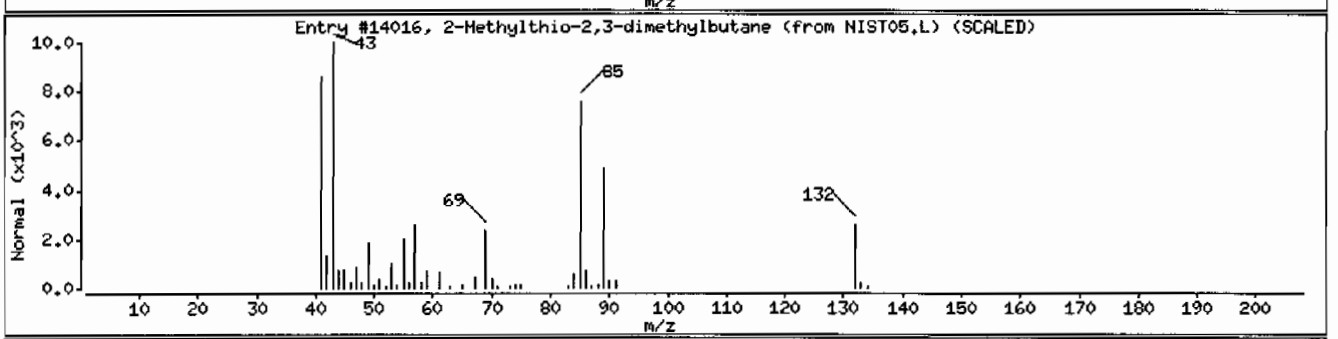

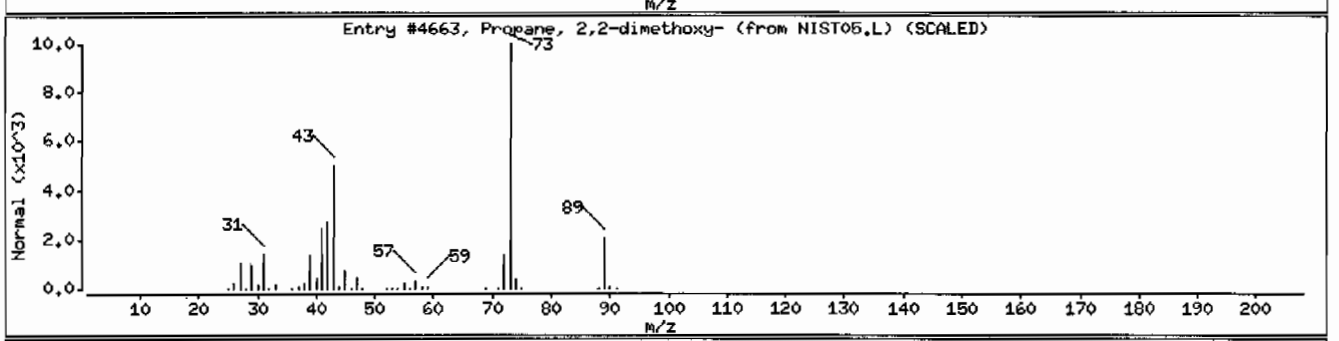

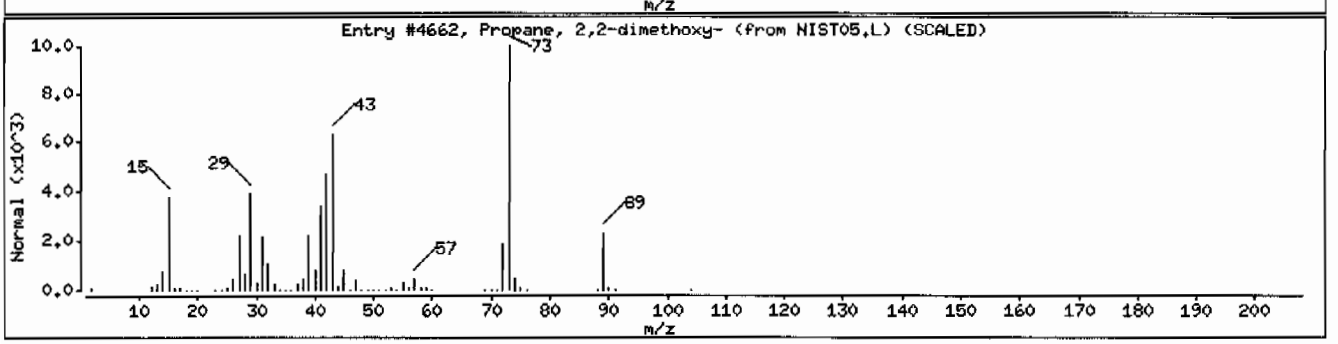

Data File: /chem/MSD7.i/s010210.b/s7a0211.d

Date : 02-JAN-2010 19:21

Client ID: RE03-09-14230

Instrument: MSD7.i

Sample Info: 1243472002|937095|1|SVMF|1|LANL

Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	56	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	50	C6H12O2	116
2,3-Butanedione, monooxime	57-71-6	NIST05.L	3949	16	C4H7NO2	101

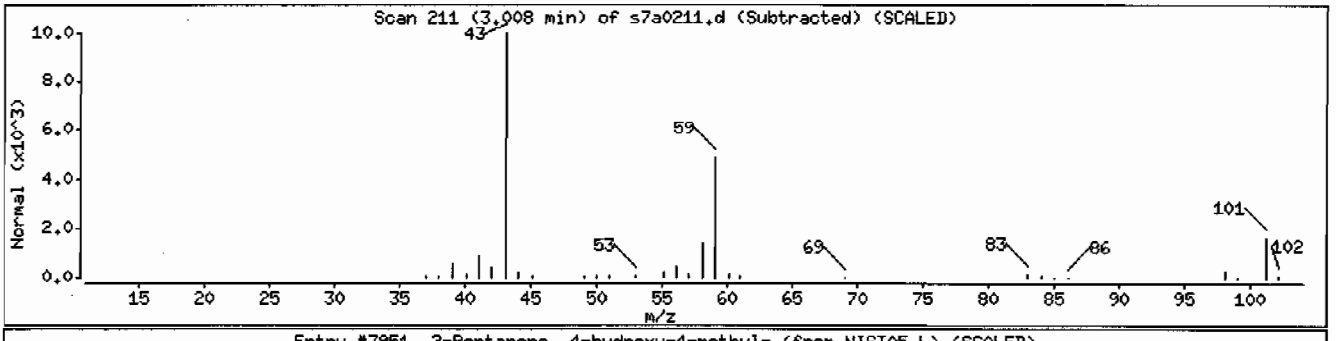

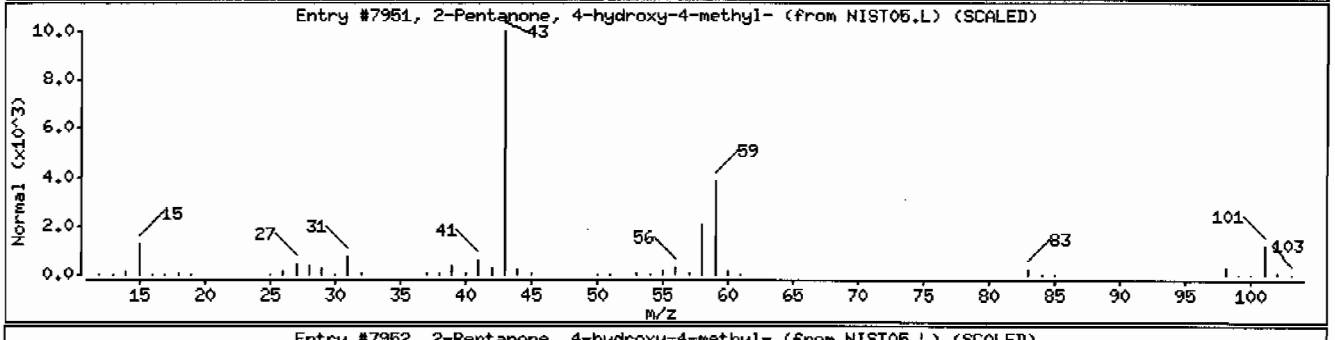

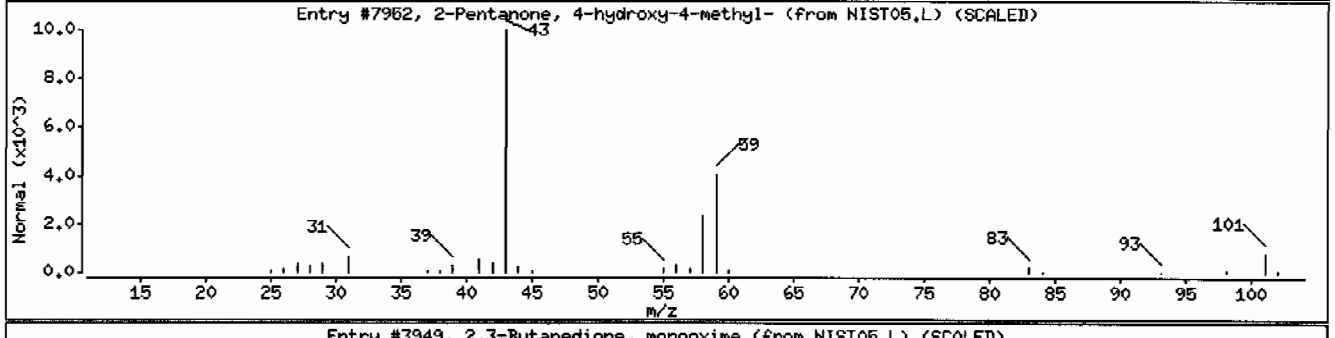

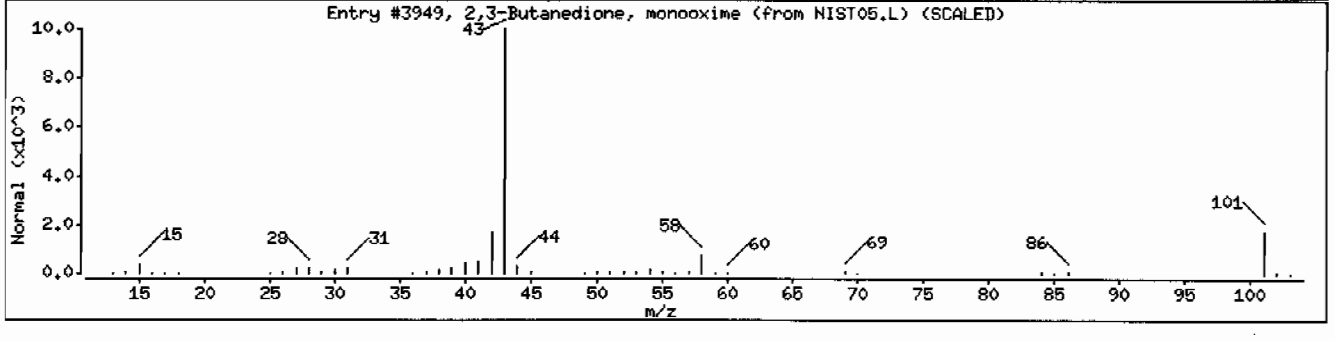

Standard Data

SW846 8270C//8270D/EPA 625								
Calibration Standard Concentration Levels*								
	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
1,4-Dichlorobenzene-d4 (INTERNAL STANDARD)								
Naphthalene-d8 (INTERNAL STANDARD)								
Acenaphthene-d10 (INTERNAL STANDARD)								
Phenanthrene-d10 (INTERNAL STANDARD)								
Chrysene-d12 (INTERNAL STANDARD)								
Perylene-d12 (INTERNAL STANDARD)								
2-Fluorophenol (SURROGATE)		10	20	40	50	80	100	120
Phenol-d5 (SURROGATE)		10	20	40	50	80	100	120
2-Chlorophenol-d4 (CLP SURROGATE)		10	20	40	50	80	100	120
1,2-Dichlorobenzene-d4 (CLP SURROGATE)		10	20	40	50	80	100	120
Nitrobenzene-d5 (SURROGATE)		10	20	40	50	80	100	120
2-Fluorobiphenyl (SURROGATE)		10	20	40	50	80	100	120
2,4,6-Tribromophenol (SURROGATE)		10	20	40	50	80	100	120
p-Terphenyl-d14 (SURROGATE)		10	20	40	50	80	100	120
N-Nitrosodimethylamine		10	20	40	50	80	100	120
Pyridine		10	20	40	50	80	100	120
Aniline		10	20	40	50	80	100	120
Benzaldehyde		10	20	40	50	80	100	120
Phenol		10	20	40	50	80	100	120
bis(2-Chloroethyl)ether	1	10	20	40	50	80	100	120
2-Chlorophenol		10	20	40	50	80	100	120
n-Decane		10	20	40	50	80	100	120
1,3-Dichlorobenzene		10	20	40	50	80	100	120
1,4-Dichlorobenzene		10	20	40	50	80	100	120
Benzyl Alcohol		10	20	40	50	80	100	120
1,2-Dichlorobenzene		10	20	40	50	80	100	120
bis(2-Chloroisopropyl)ether		10	20	40	50	80	100	120
o-Cresol (2-Methylphenol)		10	20	40	50	80	100	120
Acetophenone		10	20	40	50	80	100	120
N-Nitrosodipropylamine	1	10	20	40	50	80	100	120
m,p-Cresols (3-Methylphenol & 4-Methylphenol)		10	20	40	50	80	100	120
Hexachloroethane		10	20	40	50	80	100	120
Nitrobenzene		10	20	40	50	80	100	120
Isophorone		10	20	40	50	80	100	120
2-Nitrophenol		10	20	40	50	80	100	120
2,4-Dimethylphenol		10	20	40	50	80	100	120
bis(2-Chloroethoxy)methane		10	20	40	50	80	100	120
2,4-Dichlorophenol		10	20	40	50	80	100	120
Benzoic Acid			20	40	50	80	100	120
1,2,4-Trichlorobenzene		10	20	40	50	80	100	120
Naphthalene	1	10	20	40	50	80	100	120
alpha-Terpineol		10	20	40	50	80	100	120
4-Chloroaniline		10	20	40	50	80	100	120
Caprolactam		10	20	40	50	80	100	120

SW846 8270C//8270D/EPA 625								
Calibration Standard Concentration Levels*								
	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Hexachlorobutadiene		10	20	40	50	80	100	120
4-Chloro-3-methylphenol		10	20	40	50	80	100	120

2-Methylnaphthalene	1	10	20	40	50	80	100	120
1-Methylnaphthalene	1	10	20	40	50	80	100	120
Hexachlorocyclopentadiene		10	20	40	50	80	100	120
1,1'-Biphenyl		10	20	40	50	80	100	120
2,3-Dichloroaniline		10	20	40	50	80	100	120
2,4,6-Trichlorophenol		10	20	40	50	80	100	120
2,4,5-Trichlorophenol		10	20	40	50	80	100	120
2-Chloronaphthalene	1	10	20	40	50	80	100	120
o-Nitroaniline		10	20	40	50	80	100	120
m-Nitroaniline		10	20	40	50	80	100	120
Dimethylphthalate	1	10	20	40	50	80	100	120
2,6-Dinitrotoluene		10	20	40	50	80	100	120
Acenaphthylene	1	10	20	40	50	80	100	120
Acenaphthene	1	10	20	40	50	80	100	120
2,4-Dinitrophenol			20	40	50	80	100	120
Dibenzofuran		10	20	40	50	80	100	120
2,4-Dinitrotoluene		10	20	40	50	80	100	120
Diethylphthalate	1	10	20	40	50	80	100	120
4-Nitrophenol		10	20	40	50	80	100	120
Fluorene	1	10	20	40	50	80	100	120
4-Chlorophenyl phenyl ether		10	20	40	50	80	100	120
2-Methyl-4,6-dinitrophenol		10	20	40	50	80	100	120
p-Nitroaniline		10	20	40	50	80	100	120
Diphenylamine		10	20	40	50	80	100	120
1,2-Diphenylhydrazine		10	20	40	50	80	100	120
Tributylphosphate		10	20	40	50	80	100	120
4-Bromophenyl phenyether		10	20	40	50	80	100	120
Hexachlorobenzene		10	20	40	50	80	100	120
Atrazine		10	20	40	50	80	100	120
Pentachlorophenol		10	20	40	50	80	100	120
n-Octadecane		10	20	40	50	80	100	120
Phenanthrene	1	10	20	40	50	80	100	120
Anthracene	1	10	20	40	50	80	100	120
Di-n-butylphthalate	1	10	20	40	50	80	100	120
Fluoranthene	1	10	20	40	50	80	100	120
Benzidine		10	20	40	50	80	100	120
Pyrene	1	10	20	40	50	80	100	120
Butylbenzylphthalate	1	10	20	40	50	80	100	120
Benzo(a)anthracene	1	10	20	40	50	80	100	120
3,3'-Dichlorobenzidene		10	20	40	50	80	100	120
Chrysene	1	10	20	40	50	80	100	120
bis (2-Ethylhexyl) phthalate	1	10	20	40	50	80	100	120
Di-n-octylphthalate	1	10	20	40	50	80	100	120

SW846 8270C//8270D/EPA 625								
Calibration Standard Concentration Levels*								
	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Benzo(b)fluoranthene	1	10	20	40	50	80	100	120
Benzo(k)fluoranthene	1	10	20	40	50	80	100	120
Benzo(a)pyrene	1	10	20	40	50	80	100	120
Indeno-(1,2,3-cd)pyrene	1	10	20	40	50	80	100	120
Dibenzo(a,h)anthracene	1	10	20	40	50	80	100	120
Benzo(ghi)perylene	1	10	20	40	50	80	100	120
Carbazole	1	10	20	40	50	80	100	120

APPENDIX IX

1,4-Dioxane		10	20	40	50	80	100	120
Methyl methacrylate		10	20	40	50	80	100	120
Ethyl methacrylate		10	20	40	50	80	100	120
2-Picoline		10	20	40	50	80	100	120
N-Nitrosomethylethylamine		10	20	40	50	80	100	120
Methyl methanesulfonate		10	20	40	50	80	100	120
N-Nitrosodiethylamine		10	20	40	50	80	100	120
Ethyl methanesulfonate		10	20	40	50	80	100	120
Pentachloroethane		10	20	40	50	80	100	120
N-Nitrosopyrrolidine		10	20	40	50	80	100	120
N-Nitrosomorpholine		10	20	40	50	80	100	120
o-Toluidine		10	20	40	50	80	100	120
N-Nitrosopiperidine		10	20	40	50	80	100	120
a,a-Dimethhylphenethylamine		10	20	40	50	80	100	120
Triethylphosphorothioate		10	20	40	50	80	100	120
2,6-Dichlorophenol		10	20	40	50	80	100	120
Hexachloropropene		10	20	40	50	80	100	120
p-Phenylenediamine		10	20	40	50	80	100	120
N-Nitrosodi-n-butylamine		10	20	40	50	80	100	120
Safrole		10	20	40	50	80	100	120
1,2,4,5-Tetrachlorobenzene		10	20	40	50	80	100	120
Isosafrole		10	20	40	50	80	100	120
1,4-Naphthoquinone		10	20	40	50	80	100	120
m-Dinitrobenzene		10	20	40	50	80	100	120
Pentachlorobenzene		10	20	40	50	80	100	120
1-Naphthylamine		10	20	40	50	80	100	120
2-Naphthylamine		10	20	40	50	80	100	120
2,3,4,6-Tetrachlorophenol		10	20	40	50	80	100	120
5-Nitro-o-toluidine		10	20	40	50	80	100	120
Thionazin		10	20	40	50	80	100	120
Sulfotepp		10	20	40	50	80	100	120
Phorate		10	20	40	50	80	100	120
1,3,5-Trinitrobenzene		10	20	40	50	80	100	120
Phenacetin		10	20	40	50	80	100	120
Diallate (cis and trans)		10	20	40	50	80	100	120

SW846 8270C//8270D/EPA 625

Calibration Standard Concentration Levels*

	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Dimethoate		10	20	40	50	80	100	120
4-Aminobiphenyl		10	20	40	50	80	100	120
Pentachloronitrobenzene		10	20	40	50	80	100	120
Pronamide		10	20	40	50	80	100	120
Dinoseb		10	20	40	50	80	100	120
Disulfoton		10	20	40	50	80	100	120
Methyl parathion		10	20	40	50	80	100	120
4-Nitroquinoline oxide		10	20	40	50	80	100	120
Methapyrilene		10	20	40	50	80	100	120
Isodrin		10	20	40	50	80	100	120
Aramite		10	20	40	50	80	100	120
Kepone		10	20	40	50	80	100	120
p-(Dimethylamino)azobenzene		10	20	40	50	80	100	120

Chlorobenzilate		10	20	40	50	80	100	120
3,3'-Dimethylbenzidine		10	20	40	50	80	100	120
Famphur		10	20	40	50	80	100	120
2-Acetylaminofluorene		10	20	40	50	80	100	120
7,12-Dimethylbenz(a)anthracene		10	20	40	50	80	100	120
3-Methylcholanthrene		10	20	40	50	80	100	120
Hexachlorophene		500	1000	1250	1500	1750	2000	
p-Benzoquinone		10	20	40	50	80	100	120
Parathion		10	20	40	50	80	100	120
Methoxychlor		10	20	40	50	80	100	120
2-Ethoxyethanol		50	75	100	125	150	200	250
cis-Diallate		1.5	3	6	7.5	12	15	18
trans-Diallate		8.5	17	34	42	68	85	102
Dibenzo(a,e)pyrene		50	75	100	125	150	200	250
Phthalic anhydride		50	75	100	125	150	200	250
1,4-Dinitrobenzene		50	75	100	125	150	200	250
(2,3-Dibromopropyl)phosphate		50	75	100	125	150	200	250
Methylenebis(2-chloroaniline)		50	75	100	125	150	200	250
p-Toluidine		10	20	40	50	80	100	120
m-Toluidine		10	20	40	50	80	10	120

SW846 8270C//8270D/EPA 625								
Calibration Standard Concentration Levels*								
	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
bis(Chloromethyl)ether		10	20	40	50	80	100	120
Thiophenol		10	20	40	50	80	100	120
4-Chlorothiophenol		10	20	40	50	80	100	120
4-Chlorothio anisole		10	20	40	50	80	100	120
Phthalic acid		10	20	40	50	80	100	120
Hydroxymethyl phthalamide		10	20	40	50	80	100	120
Diphenyl sulfide		10	20	40	50	80	100	120
Diphenyl disulfide		10	20	40	50	80	100	120
Phenyl sulfone		10	20	40	50	80	100	120
Octachlorostyrene		10	20	40	50	80	100	120
2,2'-Dichlorobenzil		10	20	40	50	80	100	120
bis(p-Chlorophenyl)disulfide		10	20	40	50	80	100	120
bis(p-Chlorophenyl)sulfone		10	20	40	50	80	10	120

All values are mg/L without the prep factor.
# Indicates the calibration verification concentration level used
* Usual calibration levels using SCAN methodology
Level 1 may be included at request of client
(06/08)

Report Date: 03-Jan-2010 13:46

Calibration History

Method : /chem/MSD7.i/s123009.b/MSD7-M8270C-AQA-123009.m
Start Cal Date: 30-DEC-2009 09:11
End Cal Date : 31-DEC-2009 00:58

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 1.00000		
30-DEC-2009 09:11	MEGA-1ppm	/chem/MSD7.i/s123009.b/s713003.d
Cal Level: 2 , Cal Amount: 10.00000		
30-DEC-2009 22:47	NEV	/chem/MSD7.i/s123009.b/s713038.d
30-DEC-2009 20:36	HEX	/chem/MSD7.i/s123009.b/s713032.d
30-DEC-2009 16:41	PEST	/chem/MSD7.i/s123009.b/s713021.d
30-DEC-2009 14:08	AP12	/chem/MSD7.i/s123009.b/s713014.d
30-DEC-2009 09:38	MEGA	/chem/MSD7.i/s123009.b/s713004.d
Cal Level: 3 , Cal Amount: 20.00000		
30-DEC-2009 23:09	NEV	/chem/MSD7.i/s123009.b/s713039.d
30-DEC-2009 20:58	HEX	/chem/MSD7.i/s123009.b/s713033.d
30-DEC-2009 17:03	PEST	/chem/MSD7.i/s123009.b/s713022.d
30-DEC-2009 14:30	AP12	/chem/MSD7.i/s123009.b/s713015.d
30-DEC-2009 11:53	MEGA	/chem/MSD7.i/s123009.b/s713009.d
Cal Level: 4 , Cal Amount: 40.00000		
30-DEC-2009 23:30	NEV	/chem/MSD7.i/s123009.b/s713040.d
30-DEC-2009 21:19	HEX	/chem/MSD7.i/s123009.b/s713034.d
30-DEC-2009 17:25	PEST	/chem/MSD7.i/s123009.b/s713023.d
30-DEC-2009 14:52	AP12	/chem/MSD7.i/s123009.b/s713016.d
30-DEC-2009 10:32	MEGA	/chem/MSD7.i/s123009.b/s713006.d
Cal Level: 5 , Cal Amount: 50.00000		
30-DEC-2009 23:52	NEV	/chem/MSD7.i/s123009.b/s713041.d
30-DEC-2009 21:41	HEX	/chem/MSD7.i/s123009.b/s713035.d
30-DEC-2009 17:47	PEST	/chem/MSD7.i/s123009.b/s713024.d
30-DEC-2009 15:14	AP12	/chem/MSD7.i/s123009.b/s713017.d
30-DEC-2009 10:59	MEGA	/chem/MSD7.i/s123009.b/s713007.d
Cal Level: 6 , Cal Amount: 80.00000		
31-DEC-2009 00:14	NEV	/chem/MSD7.i/s123009.b/s713042.d
30-DEC-2009 22:03	HEX	/chem/MSD7.i/s123009.b/s713036.d
30-DEC-2009 18:09	PEST	/chem/MSD7.i/s123009.b/s713025.d
30-DEC-2009 15:36	AP12	/chem/MSD7.i/s123009.b/s713018.d
30-DEC-2009 11:26	MEGA	/chem/MSD7.i/s123009.b/s713008.d
Cal Level: 7 , Cal Amount: 100.00000		

31-DEC-2009 00:36	NEV	/chem/MSD7.i/s123009.b/s713043.d
30-DEC-2009 22:25	HEX	/chem/MSD7.i/s123009.b/s713037.d
30-DEC-2009 18:31	PEST	/chem/MSD7.i/s123009.b/s713026.d
30-DEC-2009 15:58	AP12	/chem/MSD7.i/s123009.b/s713019.d
30-DEC-2009 12:20	MEGA	/chem/MSD7.i/s123009.b/s713010.d

Cal Level: 8 , Cal Amount: 120.00000		
31-DEC-2009 00:58	NEV	/chem/MSD7.i/s123009.b/s713044.d
30-DEC-2009 18:53	PEST	/chem/MSD7.i/s123009.b/s713027.d
30-DEC-2009 16:20	AP12	/chem/MSD7.i/s123009.b/s713020.d
30-DEC-2009 12:47	MEGA	/chem/MSD7.i/s123009.b/s713011.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 40.0		
30-DEC-2009 13:41	MEGA	/chem/MSD7.i/s123009.b/s713013.d
Ccal Level: 4 , Ccal Amount: 40.0		
30-DEC-2009 19:15	AP12	/chem/MSD7.i/s123009.b/s713028.d
Ccal Level: 4 , Ccal Amount: 40.0		
31-DEC-2009 01:20	HEX	/chem/MSD7.i/s123009.b/s713045.d
Ccal Level: 4 , Ccal Amount: 40.0		
30-DEC-2009 21:19	HEX	/chem/MSD7.i/s123009.b/s713034.d
Ccal Level: 4 , Ccal Amount: 40.0		
30-DEC-2009 23:30	NEV	/chem/MSD7.i/s123009.b/s713040.d
Ccal Level: 4 , Ccal Amount: 40.0		
30-DEC-2009 19:36	PEST	/chem/MSD7.i/s123009.b/s713029.d
Ccal Level: 4 , Ccal Amount: 40.0		
30-DEC-2009 17:25	PEST	/chem/MSD7.i/s123009.b/s713023.d
Ccal Level: 4 , Ccal Amount: 40.0		
30-DEC-2009 14:52	AP12	/chem/MSD7.i/s123009.b/s713016.d
Ccal Level: 4 , Ccal Amount: 40.0		
30-DEC-2009 10:32	MEGA	/chem/MSD7.i/s123009.b/s713006.d

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 30-DEC-2009 09:11
End Cal Date : 31-DEC-2009 00:58
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD7.i/s123009.b/MSD7-M8270C-AQA-123009.m
Cal Date : 03-Jan-2010 13:29 llo00884

Calibration File Names:
Level 1: /chem/MSD7.i/s123009.b/s713003.d
Level 2: /chem/MSD7.i/s123009.b/s713038.d
Level 3: /chem/MSD7.i/s123009.b/s713039.d
Level 4: /chem/MSD7.i/s123009.b/s713040.d
Level 5: /chem/MSD7.i/s123009.b/s713041.d
Level 6: /chem/MSD7.i/s123009.b/s713042.d
Level 7: /chem/MSD7.i/s123009.b/s713043.d
Level 8: /chem/MSD7.i/s123009.b/s713044.d

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
1 N-Methyl-N-nitrosomethylamine	+++++	0.68658	0.69451	0.70150	0.70069	0.67515					
	0.66373	0.66986					AVRG		0.68458		2.22219
2 Pyridine	+++++	0.79595	0.82730	0.76536	0.85050	0.79361					
	0.85832	0.80228					AVRG		0.81333		4.11297
4 Aniline	+++++	0.57049	0.55608	0.55673	0.54622	0.55140					
	0.55257	0.54444					AVRG		0.55399		1.55322
209 Benzaldehyde	+++++	0.97540	1.03213	+++++	0.96579	0.86701					
	0.84720	0.79804					AVRG		0.91426		9.84693
6 Phenol	+++++	1.34105	1.39119	1.37632	1.33829	1.31959					
	1.29816	1.30128					AVRG		1.33798		2.65678

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 30-DEC-2009 09:11
End Cal Date : 31-DEC-2009 00:58
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD7.i/s123009.b/MSD7-M8270C-AQA-123009.m
Cal Date : 03-Jan-2010 13:29 llo00884

Compound	1 Level 1 100 Level 7	10 Level 2 120 Level 8	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
7 bis(2-Chloroethyl) ether	1.10066	1.05725	1.05096	1.07548	1.03163	1.02643					
	0.99881	0.99735					AVRG		1.04232		3.45595
8 2-Chlorophenol	+++++	1.15382	1.15591	1.14823	1.11649	1.08927					
	1.06655	1.06704					AVRG		1.11390		3.58874
203 n-Decane	+++++	2.14466	2.09058	2.03394	1.94328	1.72352					
	1.64340	1.60915					AVRG		1.88408		11.78480
9 1,3-Dichlorobenzene	+++++	1.32395	1.34288	1.31386	1.28398	1.23732					
	1.22110	1.21433					AVRG		1.27677		4.11716
11 1,4-Dichlorobenzene	+++++	1.30519	1.29036	1.29213	1.24814	1.20243					
	1.17851	1.18200					AVRG		1.24268		4.41704
12 Benzyl alcohol	+++++	0.70405	0.71754	0.72409	0.70936	0.71216					
	0.70310	0.71389					AVRG		0.71203		1.04112
13 1,2-Dichlorobenzene	+++++	1.24741	1.20389	1.20387	1.15233	1.08107					
	1.06330	1.05764					AVRG		1.14422		6.75677
14 bis(2-Chloroisopropyl)ether	+++++	2.78921	2.72033	2.70648	2.61175	2.42973					
	2.37307	2.33585					AVRG		2.56663		7.18804
15 o-Cresol	+++++	0.88059	0.87191	0.87457	0.85597	0.80504					
	0.80071	0.79091					AVRG		0.83996		4.68508

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Start Cal Date : 30-DEC-2009 09:11
End Cal Date : 31-DEC-2009 00:58
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD7.i/s123009.b/MSD7-M8270C-AQA-123009.m
Cal Date : 03-Jan-2010 13:29 llo00884

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
16 Acetophenone	+++++	1.26562	1.35095	+++++	1.29193	1.21831					
	1.19816	1.19114					AVRG		1.25268		4.96048
17 N-Nitrosodipropylamine	0.82877	0.82048	0.81031	0.81001	0.80447	0.78523					
	0.76888	0.78259					AVRG		0.80134		2.56146
18 m,p-Cresols	+++++	1.11114	1.12865	1.14819	1.13818	1.11544					
	1.10919	1.12838					AVRG		1.12560		1.29108
19 Hexachloroethane	+++++	0.52376	0.52796	0.52759	0.52645	0.50527					
	0.50055	0.50562					AVRG		0.51674		2.37618
21 Nitrobenzene	+++++	0.31004	0.31521	0.29800	0.28167	0.27269					
	0.26603	0.24996					AVRG		0.28480		8.42999
22 Isophorone	+++++	0.59956	0.59000	0.56910	0.55746	0.52879					
	0.51803	0.49473					AVRG		0.55110		7.02595
23 2-Nitrophenol	+++++	0.15588	0.18280	0.14556	0.13967	0.13172					
	0.12587	0.12043					AVRG		0.14313		14.81513
24 2,4-Dimethylphenol	+++++	0.28542	0.27843	0.26626	0.25739	0.23591					
	0.22698	0.21413					AVRG		0.25207		10.70220
25 bis(2-Chloroethoxy)methane	+++++	0.34786	0.34919	0.32497	0.31470	0.29084					
	0.28159	0.26996					AVRG		0.31130		10.14143

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Cal Date : 03-Jan-2010 13:29 11o00884

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
26 2,4-Dichlorophenol	+++++	0.22887	0.24532	0.23097	0.22429	0.21459					
	0.20800	0.19791					AVRG		0.22142		7.15438
27 Benzoic acid	+++++	+++++	42397	90340	142535	282314					
	370680	419975					LINR 1	0.26208	0.17116		0.99160
28 1,2,4-Trichlorobenzene	+++++	0.30621	0.30313	0.28247	0.27111	0.24872					
	0.23917	0.22479					AVRG		0.26794		11.78500
30 Naphthalene	0.93631	0.88901	0.87294	0.82579	0.79027	0.73543					
	0.70841	0.67548					AVRG		0.80421		11.56059
204 alpha-Terpineol	+++++	0.31187	0.30095	0.28701	0.27773	0.25123					
	0.24166	0.22745					AVRG		0.27113		11.67989
31 4-Chloroaniline	+++++	0.34194	0.33116	0.32844	0.34255	0.32468					
	0.31733	0.30921					AVRG		0.32790		3.72293
189 Caprolactam	+++++	0.07746	0.09166	+++++	0.09028	0.08506					
	0.08510	0.08192					AVRG		0.08525		6.16806
32 Hexachlorobutadiene	+++++	0.16299	0.16044	0.15234	0.14802	0.13884					
	0.13180	0.12485					AVRG		0.14561		9.87446
33 4-Chloro-3-methylphenol	+++++	0.23062	0.25101	0.24082	0.23745	0.22694					
	0.22322	0.21288					AVRG		0.23185		5.39511

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
34 2-Methylnaphthalene	0.60976	0.60117	0.59187	0.56472	0.54240	0.50019					
	0.48560	0.46343					AVRG		0.54489		10.31916
35 1-Methylnaphthalene	0.61454	0.58976	0.57537	0.55069	0.52140	0.47425					
	0.45862	0.43783					AVRG		0.52781		12.39053
36 Hexachlorocyclopentadiene	+++++	0.20546	0.23096	0.24112	0.23360	0.24137					
	0.23390	0.22281					AVRG		0.22989		5.43328
208 1,1'-Biphenyl	+++++	1.31989	1.40550	+++++	1.25736	1.13300					
	1.12424	1.08227					AVRG		1.22037		10.46118
205 2,3-Dichloroaniline	+++++	0.54319	0.54300	0.53208	0.51859	0.49143					
	0.48880	0.47342					AVRG		0.51293		5.52832
37 2,4,6-Trichlorophenol	+++++	0.31506	0.32173	0.31414	0.30736	0.29505					
	0.28467	0.28036					AVRG		0.30263		5.31191
38 2,4,5-Trichlorophenol	+++++	0.31378	0.34266	0.32564	0.32268	0.30513					
	0.30411	0.29505					AVRG		0.31558		5.09389
40 2-Chloronaphthalene	1.04453	1.03677	1.01563	1.00980	0.95498	0.92549					
	0.90078	0.87622					AVRG		0.97053		6.68556
42 o-Nitroaniline	+++++	0.27803	0.31550	0.31710	0.31361	0.32215					
	0.32136	0.31689					AVRG		0.31209		4.91059

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
41 m-Nitroaniline	+++++	0.17432	0.16334	0.18148	0.19703	0.21873					
	0.22900	0.22266					AVRG		0.19808		13.09192
43 Dimethylphthalate	+++++	1.19427	1.18150	1.16376	1.12258	1.07325					
	1.05462	1.04519					AVRG		1.11931		5.56410
44 2,6-Dinitrotoluene	+++++	0.26838	0.27600	0.27277	0.26942	0.25693					
	0.24913	0.25069					AVRG		0.26333		4.14475
45 Acenaphthylene	1.59311	1.61871	1.59533	1.57432	1.50286	1.43578					
	1.39954	1.37195					AVRG		1.51145		6.47020
47 Acenaphthene	1.02116	0.99670	1.01648	0.98811	0.94816	0.90309					
	0.89233	0.88235					AVRG		0.95605		5.98674
48 2,4-Dinitrophenol	+++++	+++++	18116	35595	57209	106361					
	140863	168878					LINR	0.32035	0.13759		0.99714
49 Dibenzofuran	+++++	1.40617	1.40063	1.37469	1.32616	1.27038					
	1.24625	1.21583					AVRG		1.32002		5.84423
50 2,4-Dinitrotoluene	+++++	0.31490	0.34564	0.34340	0.34518	0.34156					
	0.33979	0.34237					AVRG		0.33898		3.18855
51 Diethylphthalate	+++++	1.19530	1.19236	1.16309	1.13729	1.08057					
	1.05676	1.04546					AVRG		1.12441		5.62910

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Method file : /chem/MSD7.i/s123009.b/MSD7-M8270C-AQA-123009.m
Cal Date : 03-Jan-2010 13:29 11o00884

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
52 4-Nitrophenol	+++++	15078	43255	75226	106589	177495					
	222749	265401					LINR	0.09269	0.19966		0.99972
53 Fluorene	1.21241	1.19895	1.18752	1.15026	1.10239	1.03635					
	1.00695	0.99951					AVRG		1.11179		7.92291
54 4-Chlorophenylphenylether	++++-	0.58401	0.58496	0.56440	0.55622	0.53244					
	0.51436	0.50751					AVRG		0.54913		5.76051
55 2-Methyl-4,6-dinitrophenol	+++++	12461	34822	61457	93425	162986					
	214732	258640					LINR	0.18116	0.10806		0.99746
56 p-Nitroaniline	+++++	17840	41239	62220	87691	176815					
	227810	276903					LINR	0.20356	0.21282		0.99013
133 Diphenylamine	+++++	0.55562	0.52913	0.49676	0.47391	0.45236					
	0.45357	0.44692					AVRG		0.48690		8.66270
58 1,2-Diphenylhydrazine	+++++	0.71859	0.69174	0.67138	0.64999	0.62350					
	0.62262	0.60535					AVRG		0.65474		6.29476
59 Tributylphosphate	+++++	1.38994	1.48618	1.35272	1.29156	1.27757					
	1.24586	1.21821					AVRG		1.32315		7.03430
61 4-Bromophenylphenylether	+++++	0.19603	0.18807	0.18485	0.18225	0.17111					
	0.16744	0.16582					AVRG		0.17937		6.37984

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Compound	1 Level 1 100 Level 7	10 Level 2 120 Level 8	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
63 Hexachlorobenzene	+++++	0.20282	0.18871	0.18229	0.17474	0.16487					
	0.16311	0.16009					AVRG		0.17666		8.83671
207 Atrazine	+++++	0.04761	0.04973	+++++	0.04583	0.04189					
	0.04013	0.03799					AVRG		0.04386		10.43221
65 Pentachlorophenol	+++++	0.08179	0.09106	0.09684	0.09796	0.09821					
	0.09956	0.09871					AVRG		0.09488		6.76370
206 n-Octadecane	+++++	0.62600	0.58751	0.57359	0.54614	0.47586					
	0.44148	+++++					AVRG		0.54176		12.95233
68 Phenanthrene	0.96374	0.94453	0.93991	0.91864	0.90130	0.84334					
	0.82625	0.80370					AVRG		0.89268		6.75873
69 Anthracene	0.94377	0.94579	0.95595	0.92977	0.90147	0.84943					
	0.84549	0.81859					AVRG		0.89878		5.97314
72 Di-n-butylphthalate	+++++	1.20069	1.14608	1.16313	1.13368	1.05275					
	1.02192	0.99676					AVRG		1.10215		7.06097
76 Fluoranthene	0.99561	1.03503	1.05237	1.04989	1.01441	0.95737					
	0.95029	0.90454					AVRG		0.99494		5.35645
77 Benzidine	+++++	76049	105996	+++++	410097	514598					
	668158	+++++					LINR	0.02714	0.29749		0.99021

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
79 Pyrene	1.13337	1.25372	1.22515	1.17590	1.16457	1.10869					
	1.09073	1.04300					AVRG		1.14939		6.08396
85 Butylbenzylphthalate	++++	0.55451	0.54191	0.53909	0.54980	0.53712					
	0.52219	0.51523					AVRG		0.53712		2.62434
89 Benzo(a)anthracene	1.01560	0.99030	0.98455	0.98677	0.96102	0.93948					
	0.92692	0.92154					AVRG		0.96577		3.51289
90 3,3'-Dichlorobenzidine	+++++	0.29694	0.33669	+++++	0.34244	0.31986					
	0.31928	0.32363					AVRG		0.32314		4.92830
92 Chrysene	0.94266	0.92573	0.93584	0.91230	0.88720	0.84592					
	0.84249	0.81710					AVRG		0.88866		5.40632
93 bis(2-Ethylhexyl)phthalate	0.54158	0.80637	0.76054	0.76477	0.74448	0.71074					
	0.68055	0.66283					AVRG		0.70898		11.61613
94 Di-n-octylphthalate	+++++	1.27704	1.20814	1.26850	1.26709	1.21384					
	1.14449	1.15560					AVRG		1.21924		4.47332
95 Benzo(b)fluoranthene	0.95486	0.98449	1.03093	1.01763	1.01349	0.98519					
	0.96297	0.99450					AVRG		0.99301		2.68001
96 Benzo(k)fluoranthene	0.95159	1.05551	1.03038	0.98006	0.96739	0.91008					
	0.89206	0.84225					AVRG		0.95367		7.44156

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Compound	1 Level 1 100 Level 7	10 Level 2 120 Level 8	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
97 Benzo(a)pyrene	0.77570	0.87998	0.94623	0.92881	0.91190	0.88521					
	0.87479	0.86426					AVRG		0.88336		5.87857
99 Indeno(1,2,3-cd)pyrene	0.86167	0.81951	0.91560	0.93697	0.89463	0.87050					
	0.89200	0.85284					AVRG		0.88047		4.22613
100 Dibenzo(a,h)anthracene	0.70262	0.65312	0.73887	0.74938	0.71886	0.69043					
	0.70136	0.67536					AVRG		0.70375		4.52478
101 Benzo(ghi)perylene	0.76951	0.72320	0.76842	0.79488	0.75120	0.73478					
	0.75887	0.72394					AVRG		0.75310		3.31614
102 1,4-Dioxane	+++++	0.38064	0.44752	+++++	0.40899	0.37132					
	0.37584	0.36713					AVRG		0.39191		7.91201
103 Methyl methacrylate	+++++	0.21252	0.24072	+++++	0.22822	0.20576					
	0.21133	0.20754					AVRG		0.21768		6.34524
104 Ethyl methacrylate	+++++	0.84860	0.92888	+++++	0.87952	0.81494					
	0.81227	0.79984					AVRG		0.84734		5.83485
105 2-Picoline	+++++	1.26914	1.41108	+++++	1.32938	1.22430					
	1.21551	1.18973					AVRG		1.27319		6.55905
106 N-Nitrosomethylethylamine	+++++	0.48954	0.52815	+++++	0.52688	0.48521					
	0.48310	0.49822					AVRG		0.50185		4.09489

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	100 Level 7	120 Level 8									
107 Methyl methanesulfonate	+++++	0.55956	0.60819	+++++	0.59171	0.54435					
	0.54177	0.54868					AVRG		0.56571		4.89756
108 N-Nitrosodiethylamine	+++++	0.49236	0.56115	+++++	0.54841	0.51163					
	0.50566	0.51620					AVRG		0.52257		5.07366
109 Ethyl Methanesulfonate	+++++	0.69662	0.75783	+++++	0.73176	0.69461					
	0.68339	0.69627					AVRG		0.71008		4.01952
110 Pentachloroethane	+++++	0.34727	0.38364	+++++	0.36328	0.34376					
	0.33892	0.33294					AVRG		0.35164		5.32359
111 N-Nitrosopyrrolidine	+++++	0.47047	0.55080	+++++	0.57104	0.53099					
	0.52438	0.53645					AVRG		0.53069		6.38005
113 N-Nitrosomorpholine	+++++	0.78647	0.86614	+++++	0.84407	0.78185					
	0.77856	0.73318					AVRG		0.79838		6.06872
114 o-Toluidine	+++++	1.81860	1.89959	+++++	1.74948	1.67800					
	1.71904	1.66426					AVRG		1.75483		5.12472
115 N-Nitrosopiperidine	+++++	0.13766	0.15748	+++++	0.15344	0.14226					
	0.14210	0.14595					AVRG		0.14648		5.14928
116 a,a-Dimethylphenethylamine	+++++	0.80029	0.94842	+++++	1.06314	1.00771					
	1.01997	1.03785					AVRG		0.97956		9.78265

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	100 Level 7	120 Level 8									
117 Triethylphosphorothioate	+++++	0.16037	0.16479	0.15504	0.15337	0.14880					
	0.14905	0.14465					AVRG		0.15373		4.57542
118 2,6-Dichlorophenol	+++++	0.20468	0.23263	+++++	0.23766	0.22401					
	0.22422	0.22580					AVRG		0.22483		5.00559
119 Hexachloropropene	+++++	0.10381	0.12504	+++++	0.13292	0.12106					
	0.12414	0.12658					AVRG		0.12226		8.05865
120 p-Phenylenediamine	+++++	33624	88337	+++++	373649	435480					
	502699	+++++					LINR	0.05779	0.24432		0.99146
121 N-Nitrosodi-n-butylamine	+++++	0.23593	0.26606	+++++	0.22071	0.19934					
	0.19489	0.20081					AVRG		0.21962		12.55365
122 Safrole	+++++	0.20625	0.22186	+++++	0.21024	0.19441					
	0.19411	0.18808					AVRG		0.20249		6.21720
123 1,2,4,5-Tetrachlorobenzene	+++++	0.48116	0.52306	+++++	0.47606	0.42111					
	0.41685	0.39717					AVRG		0.45257		10.67643
124 Isosafrole	+++++	0.34770	0.39668	+++++	0.37626	0.34074					
	0.34025	0.34150					AVRG		0.35719		6.64564
125 1,4-Naphthoquinone	+++++	0.34497	0.42160	+++++	0.35348	0.29866					
	0.27732	0.24150					AVRG		0.32292		19.80730 <-

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 30-DEC-2009 09:11
End Cal Date : 31-DEC-2009 00:58
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD7.i/s123009.b/MSD7-M8270C-AQA-123009.m
Cal Date : 03-Jan-2010 13:29 11o00884

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
126 m-Dinitrobenzene	+++++	0.15847	0.18742	0.18612	0.18572	0.18790					
	0.18747	0.18814					AVRG		0.18303		5.93852
127 Pentachlorobenzene	+++++	0.41588	0.45795	+++++	0.40950	0.37700					
	0.37175	0.36834					AVRG		0.40007		8.68039
128 1-Naphthylamine	+++++	0.90640	0.93324	+++++	0.98278	0.89473					
	0.90205	0.89907					AVRG		0.91971		3.67096
129 2-Naphthylamine	+++++	0.98805	1.06627	+++++	1.05472	0.94173					
	0.95146	0.95585					AVRG		0.99301		5.50422
130 2,3,4,6-Tetrachlorophenol	+++++	0.25683	0.28243	0.28411	0.28286	0.26211					
	0.25765	0.25864					AVRG		0.26923		4.87199
131 5-Nitro-o-toluidine	+++++	0.24789	0.29700	+++++	0.31702	0.29517					
	0.29889	0.30493					AVRG		0.29348		8.07519
132 Thionazin	+++++	0.18215	0.18934	0.18458	0.17765	0.17507					
	0.17286	0.17008					AVRG		0.17882		3.83581
134 Sulfotepp	+++++	0.09487	0.09653	0.08816	0.08409	0.08339					
	0.08298	0.08156					AVRG		0.08737		6.93676
135 Phorate	+++++	0.39388	0.42291	0.39499	0.37845	0.38277					
	0.38082	0.37139					AVRG		0.38931		4.36879

GEL Laboratories LLC

INITIAL CALIBRATION DATA

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Method file : /chem/MSD7.i/s123009.b/MSD7-M8270C-AQA-123009.m
Cal Date : 03-Jan-2010 13:29 11o00884

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
136 1,3,5-Trinitrobenzene	+++++	19101	57859	+++++	218083	278044					
	320207	628654					LINR	0.07963	0.15410		0.99766
137 Phenacetin	+++++	0.26534	0.30655	+++++	0.30841	0.28284					
	0.28529	0.29392					AVRG		0.29039		5.57183
138 Diallate	+++++	0.25347	0.26145	+++++	0.24705	0.22777					
	0.22249	0.22479					AVRG		0.23950		6.93066
139 Dimethoate	+++++	0.21311	0.24041	0.23880	0.23311	0.24150					
	0.23999	0.23838					AVRG		0.23504		4.27200
140 4-Aminobiphenyl	+++++	0.56894	0.60878	+++++	0.62038	0.59514					
	0.59227	0.56738					AVRG		0.59215		3.57057
141 Pentachloronitrobenzene	+++++	0.07076	0.07954	+++++	0.07421	0.06657					
	0.06455	0.05928					AVRG		0.06915		10.45810
142 Pronamide	+++++	0.28872	0.30597	+++++	0.27393	0.25180					
	0.24150	0.21681					AVRG		0.26312		12.42969
143 Dinoseb	+++++	18372	50470	94649	147341	245187					
	321885	381979					LINR	0.16155	0.16002		0.99876
144 Disulfoton	+++++	0.32529	0.35005	0.32816	0.31495	0.31908					
	0.32821	0.30836					AVRG		0.32344		4.14702

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 30-DEC-2009 09:11
End Cal Date : 31-DEC-2009 00:58
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD7.i/s123009.b/MSD7-M8270C-AQA-123009.m
Cal Date : 03-Jan-2010 13:29 11o00884

Compound	1 Level 1 100 Level 7	10 Level 2 120 Level 8	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
145 Methyl parathion	+++++	0.15841	0.19125	0.20074	0.19585	0.20903					
	0.20711	0.20739					AVRG		0.19568		9.04682
146 4-Nitroquinoline-1-oxide	+++++	5752	15533	+++++	37663	45952					
	52976	+++++					WLINR	-0.16036	0.02268		0.99367
147 Methapyrilene	+++++	0.52693	0.59638	+++++	0.54752	0.49418					
	0.47666	0.42766					AVRG		0.51155		11.49270
148 Isodrin	+++++	0.11080	0.12360	+++++	0.11253	0.10319					
	0.10170	0.09774					AVRG		0.10826		8.66130
149 Aramite	+++++	0.04713	0.05735	+++++	0.05816	0.05336					
	0.05265	0.05254					AVRG		0.05353		7.41862
150 Kepone	+++++	0.08140	0.09000	+++++	0.08070	0.07602					
	0.07662	0.07706					AVRG		0.08030		6.54097
151 p-(Dimethylamino)azobenzene	+++++	0.28397	0.32857	+++++	0.31649	0.29799					
	0.29473	0.30449					AVRG		0.30437		5.26206
152 Chlorobenzilate	+++++	0.27951	0.31273	+++++	0.27964	0.25812					
	0.25102	0.25703					AVRG		0.27301		8.39184
153 3,3'-Dimethylbenzidine	+++++	0.54242	0.51066	+++++	0.51967	0.47142					
	0.48070	0.52917					AVRG		0.50900		5.45384

GEL Laboratories LLC

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Start Cal Date : 30-DEC-2009 09:11
End Cal Date : 31-DEC-2009 00:58
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD7.i/s123009.b/MSD7-M8270C-AQA-123009.m
Cal Date : 03-Jan-2010 13:29 11o00884

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	100 Level 7	120 Level 8										
154 Famphur	+++++	0.33305	0.36344	0.36271	0.35928	0.35329						
	0.35639	0.35046					AVRG		0.35409		2.94081	
155 2-Acetylaminofluorene	+++++	0.26644	0.36754	+++++	0.40911	0.39864						
	0.40184	0.41023					AVRG		0.37564		14.83309	
157 7,12Dimethylbenz(a)anthracene	+++++	0.45184	0.51291	+++++	0.49480	0.44496						
	0.44104	0.44493					AVRG		0.46508		6.61702	
158 3-Methylcholanthrene	+++++	0.38409	0.44137	+++++	0.44046	0.40659						
	0.41125	0.40396					AVRG		0.41462		5.39857	
26 Phthalic anhydride	+++++	19707	32835	84850	125137	201005						
	250327	299589					LINR	0.06315	0.11144		0.99540	
173 Carbazole	0.77836	0.70840	0.65264	0.56320	0.55750	0.64188						
	0.66230	0.64598					AVRG		0.65128		11.04235	
174 Hexachlorophene	+++++	0.03667	0.04898	0.05625	0.05503	0.05502						
	0.05498	+++++					AVRG		0.05115		14.75678	<-
179 Dibenzo(a,e)pyrene	+++++	0.31690	0.38571	0.44439	0.39338	0.41598						
	0.47325	0.42539					AVRG		0.40786		12.24124	
185 (2,3-Dibromopropyl)phosphate	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 30-DEC-2009 09:11
End Cal Date : 31-DEC-2009 00:58
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD7.i/s123009.b/MSD7-M8270C-AQA-123009.m
Cal Date : 03-Jan-2010 13:29 11o00884

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
184 p-Benzoquinone	+++++	0.08319	0.07850	0.09643	0.11109	0.10681					
	0.09614	0.10764					AVRG		0.09711		12.90125
191 Parathion	+++++	0.05709	0.06783	0.06658	0.06575	0.06755					
	0.06646	0.06628					AVRG		0.06536		5.69229
192 Methoxychlor	+++++	0.61124	0.63372	0.66420	0.66109	0.65810					
	0.65201	0.63999					AVRG		0.64576		2.92207
210 m-Toluidine	+++++	1.22398	1.25138	1.20040	1.16289	1.20332					
	1.27805	1.27693					AVRG		1.22813		3.49784
211 p-Toluidine	+++++	1.00532	0.90337	0.92575	0.91289	0.98966					
	0.96542	0.93679					AVRG		0.94846		4.12155
212 Cis Diallate	+++++	0.26314	0.27884	+++++	0.26086	0.24380					
	0.23817	0.24647					AVRG		0.25521		5.94180
213 Trans Diallate	+++++	0.29820	0.30759	+++++	0.29064	0.26796					
	0.26175	0.26445					AVRG		0.28177		6.93066
214 1,4-Dinitrobenzene	+++++	0.15660	0.19011	0.19353	0.19627	0.20434					
	0.20968	0.20777					AVRG		0.19404		9.31933
215 2-Ethoxyethanol	+++++	0.68359	0.71679	0.68201	0.77054	0.71038					
	0.66934	0.70887					AVRG		0.70593		4.74462

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 30-DEC-2009 09:11
End Cal Date : 31-DEC-2009 00:58
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD7.i/s123009.b/MSD7-M8270C-AQA-123009.m
Cal Date : 03-Jan-2010 13:29 llo00884

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
216 Methylenebis(2-chloroaniline)	+++++	0.11972	0.12065	0.11211	0.11520	0.13010					
	0.13650	0.13903					AVRG		0.12476		8.42971
226 2,2'-Dichlorobenzil	+++++	0.63734	0.63123	0.65440	0.67544	0.63150					
	0.62542	0.60801					AVRG		0.63762		3.39757
227 4-Chlorothioanisole	+++++	0.24560	0.25953	0.26979	0.26945	0.27336					
	0.26297	0.25633					AVRG		0.26243		3.65482
228 4-Chlorothiophenol	+++++	26223	78945	223135	294798	453447					
	536892	515518					LINR	0.15042	0.22616		0.99430
229 bis(p-Chlorophenyl)sulfone	+++++	0.38982	0.38311	0.37343	0.38415	0.36286					
	0.35281	0.34493					AVRG		0.37016		4.61572
230 bis(p-Chlorophenyl)disulfide	+++++	0.19885	0.18633	0.18416	0.20373	0.17944					
	0.17482	0.16904					AVRG		0.18520		6.73762
231 Diphenyl disulfide	+++++	0.24593	0.23788	0.23655	0.25167	0.23611					
	0.22807	0.22139					AVRG		0.23680		4.29157
232 Diphenyl sulfide	+++++	0.84751	0.82341	0.79052	0.79559	0.76442					
	0.73489	0.71463					AVRG		0.78157		6.03058
233 Phenyl sulfone	+++++	0.46083	0.44916	0.42915	0.44117	0.42494					
	0.41114	0.40318					AVRG		0.43137		4.76129

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 30-DEC-2009 09:11
End Cal Date : 31-DEC-2009 00:58
Quant Method : ISTD
Target Version : 3.50
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Method file : /chem/MSD7.i/s123009.b/MSD7-M8270C-AQA-123009.m
Cal Date : 03-Jan-2010 13:29 11o00884

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
234 Hydroxymethyl phthalimide	+++++	0.16428	0.18138	0.17640	0.16108	0.16142					
	0.16191	0.16328					AVRG		0.16711		4.93740
235 Phthalic acid	+++++	18148	44717	118189	201476	279371					
	369966	370505					LINR	0.24837	0.16163		0.99459
236 Thiophenol	+++++	45508	119221	323757	455006	651180					
	757274	748183					LINR	0.11158	1.16114		0.99747
237 bis(Chloromethyl)ether	+++++	0.97351	0.94972	0.94453	0.98428	0.98763					
	0.92146	0.91854					AVRG		0.95424		2.98017
238 Octachlorostyrene	+++++	0.06968	0.06717	0.06456	0.06527	0.06270					
	0.06146	0.06073					AVRG		0.06451		4.95329
M 222 Trichlorophenols	+++++	0.31442	0.33220	0.31989	0.31502	0.30009					
	0.29439	0.28770					AVRG		0.30910		5.06147
M 223 Tetrachlorophenols	+++++	0.25683	0.28243	0.28411	0.28286	0.26211					
	0.25765	0.25864					AVRG		0.26923		4.87199
M 224 Benzo(b,k)fluoranthene	0.95322	1.02000	1.03066	0.99885	0.99044	0.94764					
	0.92752	0.91837					AVRG		0.97334		4.35744
M 225 TTO Sum Semivolatiles	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+00		0.000e+00 <-

GEL Laboratories LLC

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Method file : /chem/MSD7.i/s123009.b/MSD7-M8270C-AQA-123009.m
Cal Date : 03-Jan-2010 13:29 11o00884

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	100 Level 7	120 Level 8										
$ 3 2-Fluorophenol	+++++	1.03557	1.07293	1.08082	1.07640	1.07876						
	1.06727	1.08483					AVRG		1.07094		1.54843	
$ 5 Phenol-d5	+++++	1.30014	1.33775	1.36547	1.31860	1.33238						
	1.31294	1.32724					AVRG		1.32779		1.57081	
$ 187 2-Chlorophenol-d4	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
$ 188 1,2-Dichlorobenzene-d4	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
$ 20 Nitrobenzene-d5	+++++	0.33823	0.34762	0.32771	0.31465	0.28460						
	0.27937	0.25723					AVRG		0.30706		11.00766	
$ 39 2-Fluorobiphenyl	+++++	1.20094	1.15268	1.12417	1.08753	1.03056						
	0.99692	0.98290					AVRG		1.08224		7.60592	
$ 60 2,4,6-Tribromophenol	+++++	0.12631	0.13720	0.14020	0.13807	0.13398						
	0.13374	0.13459					AVRG		0.13487		3.30804	
$ 81 p-Terphenyl-d14	+++++	0.73988	0.71859	0.68300	0.67093	0.64106						
	0.62553	0.61623					AVRG		0.67075		6.97048	

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 30-DEC-2009 09:11
End Cal Date : 31-DEC-2009 00:58
Quant Method : ISTD
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Integrator : HP RTE
Method file : /chem/MSD7.i/s123009.b/MSD7-M8270C-AQA-123009.m
Cal Date : 03-Jan-2010 13:29 11o00884

Curve	Formula	Units
Averaged	Amt = Rsp/ml	Response
Linear	Amt = b + Rsp/ml	Response
Wt Linear	Amt = b + Rsp/ml	Response

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD7.i Injection Date: 30-DEC-2009 13:41
Lab File ID: s713013.d Init. Cal. Date(s): 30-DEC-2009 31-DEC-2009
Analysis Type: Init. Cal. Times: 09:11 00:58
Lab Sample ID: WBN091223-17.1 Quant Type: ISTD
Method: /chem/MSD7.i/s123009.b/MSD7-M8270C-AQA-123009.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
$ 3 2-Fluorophenol	1.07094	1.09322	1.09322	0.000	2.08082	60.00000	Averaged
$ 5 Phenol-d5	1.32779	1.30530	1.30530	0.000	-1.69389	60.00000	Averaged
$ 20 Nitrobenzene-d5	0.30706	0.32820	0.32820	0.000	6.88603	60.00000	Averaged
$ 39 2-Fluorobiphenyl	1.08224	1.09188	1.09188	0.000	0.89030	60.00000	Averaged
$ 60 2,4,6-Tribromophenol	0.13487	0.13545	0.13545	0.000	0.42749	60.00000	Averaged
$ 81 p-Terphenyl-d14	0.67075	0.70126	0.70126	0.000	4.54957	60.00000	Averaged
1 N-Methyl-N-nitrosomethylami	0.68458	0.67785	0.67785	0.000	-0.98207	60.00000	Averaged
2 Pyridine	0.81333	0.81376	0.81376	0.000	0.05324	60.00000	Averaged
4 Aniline	0.55399	0.53921	0.53921	0.000	-2.66714	60.00000	Averaged
6 Phenol	1.33798	1.30177	1.30177	0.001	-2.70688	20.00000	Averaged ccc
7 bis(2-Chloroethyl) ether	1.04232	0.99708	0.99708	0.000	-4.34049	60.00000	Averaged
8 2-Chlorophenol	1.11390	1.06847	1.06847	0.000	-4.07832	60.00000	Averaged
203 n-Decane	1.88408	1.83585	1.83585	0.000	-2.55985	60.00000	Averaged
9 1,3-Dichlorobenzene	1.27677	1.25271	1.25271	0.000	-1.88487	60.00000	Averaged
11 1,4-Dichlorobenzene	1.24268	1.20445	1.20445	0.001	-3.07651	20.00000	Averaged ccc
13 1,2-Dichlorobenzene	1.14422	1.09936	1.09936	0.000	-3.92058	60.00000	Averaged
14 bis(2-Chloroisopropyl)ether	2.56663	2.53126	2.53126	0.000	-1.37815	60.00000	Averaged
12 Benzyl alcohol	0.71203	0.70385	0.70385	0.000	-1.14795	60.00000	Averaged
15 o-Cresol	0.83996	0.80709	0.80709	0.000	-3.91312	60.00000	Averaged
18 m,p-Cresols	1.12560	1.13147	1.13147	0.000	0.52224	60.00000	Averaged
17 N-Nitrosodipropylamine	0.80134	0.77658	0.77658	0.050	-3.09031	60.00000	Averaged spcc
19 Hexachloroethane	0.51674	0.48350	0.48350	0.000	-6.43348	60.00000	Averaged
21 Nitrobenzene	0.28480	0.30220	0.30220	0.000	6.10761	60.00000	Averaged
22 Isophorone	0.55110	0.54198	0.54198	0.000	-1.65358	60.00000	Averaged
23 2-Nitrophenol	0.14313	0.14068	0.14068	0.001	-1.71529	20.00000	Averaged ccc
24 2,4-Dimethylphenol	0.25207	0.25450	0.25450	0.000	0.96384	60.00000	Averaged
25 bis(2-Chloroethoxy)methane	0.31130	0.30848	0.30848	0.000	-0.90768	60.00000	Averaged
26 2,4-Dichlorophenol	0.22142	0.22183	0.22183	0.001	0.18458	20.00000	Averaged ccc
27 Benzoic acid	44.81373	40.00000	0.14690	0.000	12.03432	60.00000	Linear
28 1,2,4-Trichlorobenzene	0.26794	0.26923	0.26923	0.000	0.47844	60.00000	Averaged
30 Naphthalene	0.80421	0.85242	0.85242	0.000	5.99546	60.00000	Averaged
204 alpha-Terpineol	0.27113	0.25315	0.25315	0.000	-6.63009	60.00000	Averaged
31 4-Chloroaniline	0.32790	0.34216	0.34216	0.000	4.34974	60.00000	Averaged
32 Hexachlorobutadiene	0.14561	0.15097	0.15097	0.001	3.68378	20.00000	Averaged ccc
33 4-Chloro-3-methylphenol	0.23185	0.22902	0.22902	0.001	-1.22118	20.00000	Averaged ccc
34 2-Methylnaphthalene	0.54489	0.61035	0.61035	0.000	12.01307	60.00000	Averaged

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD7.i Injection Date: 30-DEC-2009 13:41
Lab File ID: s713013.d Init. Cal. Date(s): 30-DEC-2009 31-DEC-2009
Analysis Type: Init. Cal. Times: 09:11 00:58
Lab Sample ID: WBN091223-17.1 Quant Type: ISTD
Method: /chem/MSD7.i/s123009.b/MSD7-M8270C-AQA-123009.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
35 1-Methylnaphthalene	0.52781	0.56358	0.56358	0.000	6.77700	60.00000	Averaged
36 Hexachlorocyclopentadiene	0.22989	0.19968	0.19968	0.050	-13.14117	60.00000	Averaged spcc
205 2,3-Dichloroaniline	0.51293	0.50835	0.50835	0.000	-0.89246	60.00000	Averaged
37 2,4,6-Trichlorophenol	0.30263	0.29669	0.29669	0.001	-1.96031	20.00000	Averaged ccc
38 2,4,5-Trichlorophenol	0.31558	0.31564	0.31564	0.000	0.02141	60.00000	Averaged
40 2-Chloronaphthalene	0.97053	0.94996	0.94996	0.000	-2.11866	60.00000	Averaged
42 o-Nitroaniline	0.31209	0.30784	0.30784	0.000	-1.36271	60.00000	Averaged
41 m-Nitroaniline	0.19808	0.20486	0.20486	0.000	3.42477	60.00000	Averaged
43 Dimethylphthalate	1.11931	1.13372	1.13372	0.000	1.28732	60.00000	Averaged
44 2,6-Dinitrotoluene	0.26333	0.26211	0.26211	0.000	-0.46221	60.00000	Averaged
50 2,4-Dinitrotoluene	0.33898	0.34657	0.34657	0.000	2.24022	60.00000	Averaged
45 Acenaphthylene	1.51145	1.61014	1.61014	0.000	6.52934	60.00000	Averaged
47 Acenaphthene	0.95605	0.99920	0.99920	0.001	4.51314	20.00000	Averaged ccc
48 2,4-Dinitrophenol	41.29606	40.00000	0.09797	0.050	3.24015	60.00000	Linear spcc
49 Dibenzofuran	1.32002	1.30267	1.30267	0.000	-1.31439	60.00000	Averaged
51 Diethylphthalate	1.12441	1.12731	1.12731	0.000	0.25788	60.00000	Averaged
52 4-Nitrophenol	41.33889	40.00000	0.18783	0.050	3.34723	60.00000	Linear spcc
53 Fluorene	1.11179	1.17257	1.17257	0.000	5.46697	60.00000	Averaged
54 4-Chlorophenylphenylether	0.54913	0.53636	0.53636	0.000	-2.32469	60.00000	Averaged
55 2-Methyl-4,6-dinitrophenol	48.38458	40.00000	0.11113	0.000	20.96146	60.00000	Linear
56 p-Nitroaniline	38.56130	40.00000	0.16185	0.000	-3.59676	60.00000	Linear
133 Diphenylamine	0.48690	0.44704	0.44704	0.001	-8.18495	20.00000	Averaged ccc
58 1,2-Diphenylhydrazine	0.65474	0.63838	0.63838	0.000	-2.49802	60.00000	Averaged
61 4-Bromophenylphenylether	0.17937	0.17156	0.17156	0.000	-4.35367	60.00000	Averaged
63 Hexachlorobenzene	0.17666	0.16674	0.16674	0.000	-5.61443	60.00000	Averaged
65 Pentachlorophenol	0.09488	0.09447	0.09447	0.001	-0.42766	20.00000	Averaged ccc
206 n-Octadecane	0.54176	0.50586	0.50586	0.000	-6.62742	60.00000	Averaged
68 Phenanthrene	0.89268	0.91927	0.91927	0.000	2.97882	60.00000	Averaged
69 Anthracene	0.89878	0.95668	0.95668	0.000	6.44157	60.00000	Averaged
72 Di-n-butylphthalate	1.10215	1.09560	1.09560	0.000	-0.59406	60.00000	Averaged
76 Fluoranthene	0.99494	1.07478	1.07478	0.001	8.02501	20.00000	Averaged ccc
79 Pyrene	1.14939	1.19444	1.19444	0.000	3.91943	60.00000	Averaged
85 Butylbenzylphthalate	0.53712	0.51957	0.51957	0.000	-3.26828	60.00000	Averaged
89 Benzo(a)anthracene	0.96577	1.01600	1.01600	0.000	5.20053	60.00000	Averaged
92 Chrysene	0.88866	0.93308	0.93308	0.000	4.99849	60.00000	Averaged
93 bis(2-Ethylhexyl)phthalate	0.70898	0.70578	0.70578	0.000	-0.45182	60.00000	Averaged

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD7.i Injection Date: 30-DEC-2009 13:41
Lab File ID: s713013.d Init. Cal. Date(s): 30-DEC-2009 31-DEC-2009
Analysis Type: Init. Cal. Times: 09:11 00:58
Lab Sample ID: WBN091223-17.1 Quant Type: ISTD
Method: /chem/MSD7.i/s123009.b/MSD7-M8270C-AQA-123009.m

	COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
	94 Di-n-octylphthalate	1.21924	1.18535	1.18535	0.001	-2.78033	20.00000	Averaged	ccc
	95 Benzo(b)fluoranthene	0.99301	1.02988	1.02988	0.000	3.71333	60.00000	Averaged	
	96 Benzo(k)fluoranthene	0.95367	1.06244	1.06244	0.000	11.40580	60.00000	Averaged	
	97 Benzo(a)pyrene	0.88336	0.98777	0.98777	0.001	11.81999	20.00000	Averaged	ccc
	99 Indeno(1,2,3-cd)pyrene	0.88047	0.97285	0.97285	0.000	10.49246	60.00000	Averaged	
	100 Dibenzo(a,h)anthracene	0.70375	0.77528	0.77528	0.000	10.16485	60.00000	Averaged	
	101 Benzo(ghi)perylene	0.75310	0.83414	0.83414	0.000	10.76109	60.00000	Averaged	
	126 m-Dinitrobenzene	0.18303	0.18554	0.18554	0.000	1.36784	60.00000	Averaged	
	130 2,3,4,6-Tetrachlorophenol	0.26923	0.26466	0.26466	0.000	-1.69739	60.00000	Averaged	
	143 Dinoseb	39.14872	40.00000	0.13076	0.000	-2.12819	60.00000	Linear	
	173 Carbazole	0.65128	0.56901	0.56901	0.000	-12.63164	60.00000	Averaged	
	184 p-Benzoquinone	0.09711	0.08580	0.08580	0.000	-11.65017	60.00000	Averaged	
	192 Methoxychlor	0.64576	0.63229	0.63229	0.000	-2.08653	60.00000	Averaged	
	211 p-Toluidine	0.94846	0.89438	0.89438	0.000	-5.70124	60.00000	Averaged	
	210 m-Toluidine	1.22813	0.93881	0.93881	0.000	-23.55803	60.00000	Averaged	
	215 2-Ethoxyethanol	0.70593	0.77440	0.77440	0.000	9.69890	60.00000	Averaged	
	179 Dibenzo(a,e)pyrene	0.40786	0.31792	0.31792	0.000	-22.05038	60.00000	Averaged	
	26 Phthalic anhydride	52.28939	40.00000	0.13864	0.000	30.72348	60.00000	Linear	
	214 1,4-Dinitrobenzene	0.19404	0.20084	0.20084	0.000	3.50427	60.00000	Averaged	
	216 Methylenebis(2-chloroanilin	0.12476	0.12221	0.12221	0.000	-2.04422	60.00000	Averaged	
M	222 Trichlorophenols	0.30910	0.30617	0.30617	0.000	-0.94869	60.00000	Averaged	
M	223 Tetrachlorophenols	0.26923	0.26466	0.26466	0.000	-1.69739	60.00000	Averaged	
M	224 Benzo(b,k)fluoranthene	0.97334	1.04616	1.04616	0.000	7.48183	60.00000	Averaged	

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Data file : /chem/MSD7.i/s123009.b/s713013.d
Lab Smp Id: WBN091223-17.1 Client Smp ID: MEGAICV
Inj Date : 30-DEC-2009 13:41
Operator : JMB3 Inst ID: MSD7.i
Smp Info : |WBN091223-17.1|40 PPM|1|SVMF|1|MEGAICV
Misc Info : |MSD8270|WBN091223-01|
Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness
Method : /chem/MSD7.i/s123009.b/MSD7-M8270C-AQA-123009.m
Meth Date : 04-Jan-2010 07:59 jos00786 Quant Type: ISTD
Cal Date : 30-DEC-2009 23:30 Cal File: s713040.d
Als bottle: 13 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: MEGA.sub
Target Version: 3.50
Processing Host: kilroy

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	3.947	3.947	(1.000)	236494	40.0000	
* 29 Naphthalene-d8	136	4.809	4.809	(1.000)	934992	40.0000	
* 46 Acenaphthene-d10	164	6.061	6.061	(1.000)	502415	40.0000	
* 67 Phenanthrene-d10	188	7.226	7.226	(1.000)	908680	40.0000	
* 91 Chrysene-d12	240	9.629	9.629	(1.000)	845072	40.0000	
* 98 Perylene-d12	264	11.280	11.280	(1.000)	827825	40.0000	
$ 3 2-Fluorophenol	112	3.128	3.128	(0.793)	258541	40.0000	40.8
$ 5 Phenol-d5	99	3.653	3.653	(0.926)	308695	40.0000	39.3
$ 20 Nitrobenzene-d5	82	4.303	4.303	(0.895)	306868	40.0000	42.8
$ 39 2-Fluorobiphenyl	172	5.545	5.545	(0.915)	548576	40.0000	40.4
$ 60 2,4,6-Tribromophenol	329	6.653	6.653	(1.098)	68050	40.0000	40.2
$ 81 p-Terphenyl-d14	244	8.598	8.598	(0.893)	592617	40.0000	41.8
1 N-Methyl-N-nitrosomethylamine	74	2.430	2.430	(0.616)	160308	40.0000	39.6
2 Pyridine	79	2.464	2.464	(0.624)	192450	40.0000	40.0
4 Aniline	66	3.725	3.725	(0.944)	127521	40.0000	38.9
6 Phenol	94	3.663	3.663	(0.928)	307860	40.0000	38.9
7 bis(2-Chloroethyl) ether	63	3.745	3.745	(0.949)	235803	40.0000	38.3
8 2-Chlorophenol	128	3.807	3.807	(0.965)	252687	40.0000	38.4
203 n-Decane	43	3.793	3.793	(0.961)	434167	40.0000	39.0
9 1,3-Dichlorobenzene	146	3.913	3.913	(0.991)	296258	40.0000	39.2
11 1,4-Dichlorobenzene	146	3.956	3.956	(1.002)	284845	40.0000	38.8
13 1,2-Dichlorobenzene	146	4.062	4.062	(1.029)	259991	40.0000	38.4
14 bis(2-Chloroisopropyl)ether	45	4.086	4.086	(1.035)	598628	40.0000	39.4
12 Benzyl alcohol	108	4.009	4.009	(1.016)	166457	40.0000	39.5
15 o-Cresol	107	4.058	4.058	(1.028)	190872	40.0000	38.4
18 m,p-Cresols	107	4.159	4.159	(1.054)	267587	40.0000	40.2

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
17 N-Nitrosodipropylamine	70	4.183	4.183	(1.060)	183656	40.0000	38.8
19 Hexachloroethane	117	4.289	4.289	(1.087)	114344	40.0000	37.4
21 Nitrobenzene	77	4.318	4.318	(0.898)	282550	40.0000	42.4
22 Isophorone	82	4.472	4.472	(0.930)	506750	40.0000	39.3
23 2-Nitrophenol	139	4.529	4.529	(0.942)	131531	40.0000	39.3
24 2,4-Dimethylphenol	122	4.520	4.520	(0.940)	237958	40.0000	40.4
25 bis(2-Chloroethoxy)methane	93	4.592	4.592	(0.955)	288424	40.0000	39.6
26 2,4-Dichlorophenol	162	4.688	4.688	(0.975)	207408	40.0000	40.1
27 Benzoic acid	105	4.573	4.573	(0.951)	137349	40.0000	44.8
28 1,2,4-Trichlorobenzene	180	4.761	4.761	(0.990)	251724	40.0000	40.2
30 Naphthalene	128	4.828	4.828	(1.004)	797007	40.0000	42.4
204 alpha-Terpineol	59	4.799	4.799	(0.998)	236697	40.0000	37.3
31 4-Chloroaniline	127	4.838	4.838	(1.006)	319921	40.0000	41.7
32 Hexachlorobutadiene	225	4.891	4.891	(1.017)	141160	40.0000	41.5
33 4-Chloro-3-methylphenol	107	5.146	5.146	(1.070)	214129	40.0000	39.5
34 2-Methylnaphthalene	142	5.305	5.305	(1.103)	570675	40.0000	44.8
35 1-Methylnaphthalene	142	5.377	5.377	(1.118)	526939	40.0000	42.7
36 Hexachlorocyclopentadiene	237	5.406	5.406	(0.892)	100322	40.0000	34.7
205 2,3-Dichloroaniline	161	5.497	5.497	(0.907)	255404	40.0000	39.6
37 2,4,6-Trichlorophenol	196	5.488	5.488	(0.905)	149063	40.0000	39.2
38 2,4,5-Trichlorophenol	196	5.517	5.517	(0.910)	158584	40.0000	40.0
40 2-Chloronaphthalene	162	5.656	5.656	(0.933)	477276	40.0000	39.2
42 o-Nitroaniline	65	5.709	5.709	(0.942)	154662	40.0000	39.4
41 m-Nitroaniline	138	6.003	6.003	(0.990)	102927	40.0000	41.4
43 Dimethylphthalate	163	5.820	5.820	(0.960)	569598	40.0000	40.5
44 2,6-Dinitrotoluene	165	5.873	5.873	(0.969)	131690	40.0000	39.8
50 2,4-Dinitrotoluene	165	6.167	6.167	(1.017)	174122	40.0000	40.9
45 Acenaphthylene	152	5.960	5.960	(0.983)	808958	40.0000	42.6
47 Acenaphthene	154	6.085	6.085	(1.004)	502011	40.0000	41.8
48 2,4-Dinitrophenol	184	6.075	6.075	(1.002)	49224	40.0000	41.3
49 Dibenzofuran	168	6.210	6.210	(1.025)	654479	40.0000	39.5
51 Diethylphthalate	149	6.326	6.326	(1.044)	566375	40.0000	40.1
52 4-Nitrophenol	139	6.085	6.085	(1.004)	94371	40.0000	41.3
53 Fluorene	166	6.470	6.470	(1.068)	589118	40.0000	42.2
54 4-Chlorophenylphenylether	204	6.446	6.446	(1.064)	269477	40.0000	39.1
55 2-Methyl-4,6-dinitrophenol	198	6.480	6.480	(0.897)	100986	40.0000	48.4
56 p-Nitroaniline	138	6.460	6.460	(1.066)	81314	40.0000	38.6
133 Diphenylamine	169	6.533	6.533	(0.904)	406220	40.0000	36.7
58 1,2-Diphenylhydrazine	77	6.566	6.566	(0.909)	580086	40.0000	39.0
61 4-Bromophenylphenylether	248	6.831	6.831	(0.945)	155892	40.0000	38.2
63 Hexachlorobenzene	284	6.903	6.903	(0.955)	151517	40.0000	37.8
65 Pentachlorophenol	266	7.048	7.048	(0.975)	85843	40.0000	39.8
206 n-Octadecane	57	7.038	7.038	(0.974)	459664	40.0000	37.3
68 Phenanthrene	178	7.245	7.245	(1.003)	835320	40.0000	41.2
69 Anthracene	178	7.289	7.289	(1.009)	869314	40.0000	42.6
72 Di-n-butylphthalate	149	7.645	7.645	(1.058)	995548	40.0000	39.8
76 Fluoranthene	202	8.281	8.281	(1.146)	976634	40.0000	43.2

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
79 Pyrene	202	8.497	8.497	(0.882)	1009390	40.0000	41.6
85 Butylbenzylphthalate	149	9.027	9.027	(0.937)	439073	40.0000	38.7
89 Benzo(a)anthracene	228	9.614	9.614	(0.998)	858593	40.0000	42.1
92 Chrysene	228	9.653	9.653	(1.002)	788516	40.0000	42.0
93 bis(2-Ethylhexyl)phthalate	149	9.547	9.547	(0.991)	596434	40.0000	39.8
94 Di-n-octylphthalate	149	10.192	10.192	(0.904)	981259	40.0000	38.9
95 Benzo(b)fluoranthene	252	10.770	10.770	(0.955)	852563	40.0000	41.5
96 Benzo(k)fluoranthene	252	10.804	10.804	(0.958)	879514	40.0000	44.6
97 Benzo(a)pyrene	252	11.203	11.203	(0.993)	817703	40.0000	44.7
99 Indeno(1,2,3-cd)pyrene	276	13.014	13.014	(1.154)	805349	40.0000	44.2
100 Dibenzo(a,h)anthracene	278	13.033	13.033	(1.155)	641800	40.0000	44.1
101 Benzo(ghi)perylene	276	13.549	13.549	(1.201)	690523	40.0000	44.3
126 m-Dinitrobenzene	168	5.858	5.858	(0.967)	93217	40.0000	40.5
130 2,3,4,6-Tetrachlorophenol	232	6.287	6.287	(1.037)	132971	40.0000	39.3
143 Dinoseb	211	7.168	7.168	(0.992)	118822	40.0000	39.1
173 Carbazole	167	7.399	7.399	(1.024)	517051	40.0000	34.9
184 p-Benzoquinone	54	3.427	3.427	(0.868)	20291	40.0000	35.3
192 Methoxychlor	227	9.499	9.499	(0.986)	534330	40.0000	39.2
211 p-Toluidine	106	4.216	4.216	(1.068)	211516	40.0000	37.7
210 m-Toluidine	106	4.241	4.241	(1.074)	222023	40.0000	30.6
215 2-Ethoxyethanol	59	2.271	2.271	(0.575)	183141	40.0000	43.9
179 Dibenzo(a,e)pyrene	302	17.564	17.564	(1.557)	263185	40.0000	31.2
26 Phthalic anhydride	104	5.329	5.329	(1.108)	129631	40.0000	52.3
214 1,4-Dinitrobenzene	75	5.801	5.801	(0.957)	100906	40.0000	41.4
216 Methylenebis(2-chloroaniline)	231	9.557	9.557	(0.992)	103275	40.0000	39.2
M 222 Trichlorophenols	196				307647	80.0000	79.2
M 223 Tetrachlorophenols	232				132971	40.0000	39.3
M 224 Benzo(b,k)fluoranthene	252				1732077	80.0000	86.0

Data File: /chem/MSD7.i/s123009.b/s713013.d
Date : 30-DEC-2009 13:41
Client ID: MEGAICV
Sample Info: IWBN091223-17,1|40 FPH1|SVHF1|MEGAICV
Column phase: J&W DB-5MS

Instrument: MSD7.i
Operator: JMB3
Column diameter: 0.20

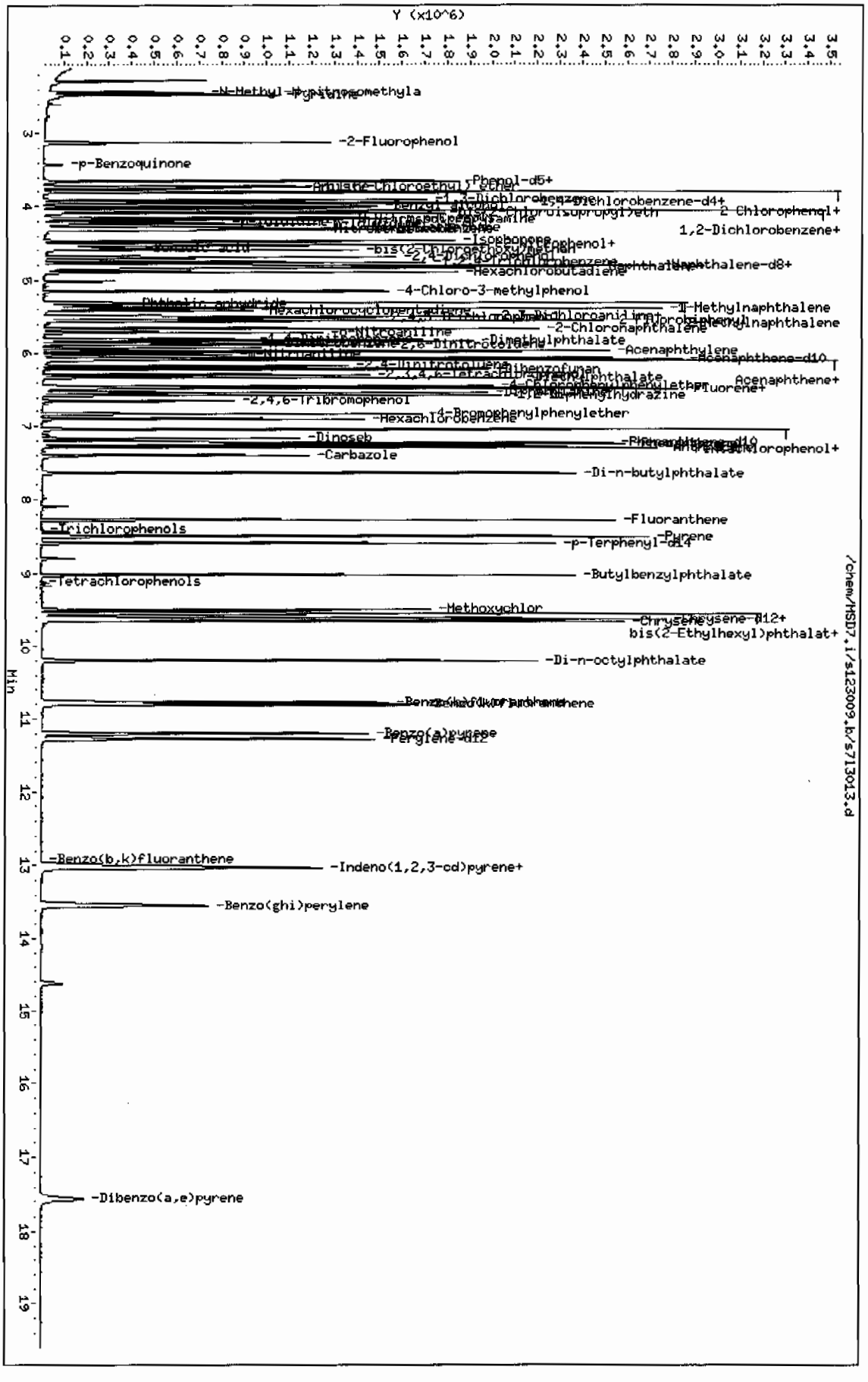

Page 1

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD7.i Injection Date: 30-DEC-2009 19:15
Lab File ID: s713028.d Init. Cal. Date(s): 30-DEC-2009 31-DEC-2009
Analysis Type: Init. Cal. Times: 09:11 00:58
Lab Sample ID: WBN091201-08.1 Quant Type: ISTD
Method: /chem/MSD7.i/s123009.b/MSD7-M8270C-AQA-123009.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
209 Benzaldehyde	0.91426	0.79076	0.79076	0.000	-13.50871	60.00000	Averaged
16 Acetophenone	1.25268	1.24263	1.24263	0.000	-0.80255	60.00000	Averaged
189 Caprolactam	0.08525	0.09265	0.09265	0.000	8.69035	60.00000	Averaged
208 1,1'-Biphenyl	1.22037	1.31923	1.31923	0.000	8.10041	60.00000	Averaged
207 Atrazine	0.04386	0.04913	0.04913	0.000	12.01958	60.00000	Averaged
77 Benzidine	34.00994	40.00000	0.24487	0.000	-14.97514	60.00000	Linear
90 3,3'-Dichlorobenzidine	0.32314	0.33513	0.33513	0.000	3.71182	60.00000	Averaged
102 1,4-Dioxane	0.39191	0.50218	0.50218	0.000	28.13874	60.00000	Averaged
103 Methyl methacrylate	0.21768	0.26252	0.26252	0.000	20.59718	60.00000	Averaged
104 Ethyl methacrylate	0.84734	1.04394	1.04394	0.000	23.20171	60.00000	Averaged
105 2-Picoline	1.27319	1.23406	1.23406	0.000	-3.07331	60.00000	Averaged
106 N-Nitrosomethylethylamine	0.50185	0.49605	0.49605	0.000	-1.15697	60.00000	Averaged
107 Methyl methanesulfonate	0.56571	0.61824	0.61824	0.000	9.28606	60.00000	Averaged
108 N-Nitrosodiethylamine	0.52257	0.50516	0.50516	0.000	-3.33017	60.00000	Averaged
109 Ethyl Methanesulfonate	0.71008	0.86521	0.86521	0.000	21.84703	60.00000	Averaged
110 Pentachloroethane	0.35164	0.48903	0.48903	0.000	39.07348	60.00000	Averaged
111 N-Nitrosopyrrolidine	0.53069	0.49855	0.49855	0.000	-6.05621	60.00000	Averaged
113 N-Nitrosomorpholine	0.79838	0.78802	0.78802	0.000	-1.29808	60.00000	Averaged
114 o-Toluidine	1.75483	1.70295	1.70295	0.000	-2.95609	60.00000	Averaged
115 N-Nitrosopiperidine	0.14648	0.14337	0.14337	0.000	-2.12437	60.00000	Averaged
116 a,a-Dimethylphenethylamine	0.97956	0.98156	0.98156	0.000	0.20425	60.00000	Averaged
118 2,6-Dichlorophenol	0.22483	0.23550	0.23550	0.000	4.74464	60.00000	Averaged
119 Hexachloropropene	0.12226	0.19553	0.19553	0.000	59.93551	60.00000	Averaged
120 p-Phenylenediamine	42.91031	40.00000	0.24797	0.000	7.27578	60.00000	Linear
121 N-Nitrosodi-n-butylamine	0.21962	0.21795	0.21795	0.000	-0.76163	60.00000	Averaged
122 Safrole	0.20249	0.23886	0.23886	0.000	17.96036	60.00000	Averaged
123 1,2,4,5-Tetrachlorobenzene	0.45257	0.51729	0.51729	0.000	14.30098	60.00000	Averaged
124 Isosafrole	0.35719	0.48749	0.48749	0.000	36.48020	60.00000	Averaged
125 1,4-Naphthoquinone	0.32292	0.37648	0.37648	0.000	16.58716	60.00000	Averaged
127 Pentachlorobenzene	0.40007	0.43417	0.43417	0.000	8.52325	60.00000	Averaged
128 1-Naphthylamine	0.91971	0.94322	0.94322	0.000	2.55586	60.00000	Averaged
129 2-Naphthylamine	0.99301	1.01245	1.01245	0.000	1.95773	60.00000	Averaged
131 5-Nitro-o-toluidine	0.29348	0.30138	0.30138	0.000	2.69018	60.00000	Averaged
136 1,3,5-Trinitrobenzene	51.86948	40.00000	0.18756	0.000	29.67371	60.00000	Linear
137 Phenacetin	0.29039	0.31898	0.31898	0.000	9.84430	60.00000	Averaged
138 Diallate	0.23950	0.23072	0.23072	0.000	-3.66605	60.00000	Averaged

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD7.i Injection Date: 30-DEC-2009 19:15
Lab File ID: s713028.d Init. Cal. Date(s): 30-DEC-2009 31-DEC-2009
Analysis Type: Init. Cal. Times: 09:11 00:58
Lab Sample ID: WBN091201-08.1 Quant Type: ISTD
Method: /chem/MSD7.i/s123009.b/MSD7-M8270C-AQA-123009.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
212 Cis Diallate	0.25521	0.32808	0.32808	0.000	28.55083	60.00000	Averaged
213 Trans Diallate	0.28177	0.27144	0.27144	0.000	-3.66605	60.00000	Averaged
140 4-Aminobiphenyl	0.59215	0.55760	0.55760	0.000	-5.83484	60.00000	Averaged
141 Pentachloronitrobenzene	0.06915	0.07621	0.07621	0.000	10.20730	60.00000	Averaged
142 Pronamide	0.26312	0.29550	0.29550	0.000	12.30482	60.00000	Averaged
146 4-Nitroquinoline-1-oxide	55.64163	40.00000	0.03519	0.000	39.10407	60.00000	Wt Linear
147 Methapyrilene	0.51155	0.57738	0.57738	0.000	12.86764	60.00000	Averaged
148 Isodrin	0.10826	0.10621	0.10621	0.000	-1.89606	60.00000	Averaged
149 Aramite	0.05353	0.04998	0.04998	0.000	-6.63568	60.00000	Averaged
150 Kepone	0.08030	0.07913	0.07913	0.000	-1.46071	60.00000	Averaged
151 p-(Dimethylamino)azobenzene	0.30437	0.29194	0.29194	0.000	-4.08427	60.00000	Averaged
152 Chlorobenzilate	0.27301	0.27963	0.27963	0.000	2.42482	60.00000	Averaged
153 3,3'-Dimethylbenzidine	0.50900	0.47575	0.47575	0.000	-6.53358	60.00000	Averaged
155 2-Acetylaminofluorene	0.37564	0.37637	0.37637	0.000	0.19487	60.00000	Averaged
157 7,12Dimethylbenz(a)anthrace	0.46508	0.45341	0.45341	0.000	-2.50797	60.00000	Averaged
158 3-Methylcholanthrene	0.41462	0.43649	0.43649	0.000	5.27515	60.00000	Averaged

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GEL Laboratories, LLC
Data file : /chem/MSD7.i/s123009.b/s713028.d
Lab Smp Id: WBN091201-08.1 Client Smp ID: APICV
Inj Date : 30-DEC-2009 19:15
Operator : JMB3 Inst ID: MSD7.i
Smp Info : |WBN091201-08.1|ICV|1|SVMF|1|APICV
Misc Info : |MSD8270|WBN091223-01|
Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness
Method : /chem/MSD7.i/s123009.b/MSD7-M8270C-AQA-123009.m
Meth Date : 03-Jan-2010 13:23 hnm Quant Type: ISTD
Cal Date : 30-DEC-2009 23:30 Cal File: s713040.d
Als bottle: 28 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AP12.sub
Target Version: 3.50
Processing Host: hpclp1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	3.942	3.942	(1.000)	238952	40.0000	
* 29 Naphthalene-d8	136	4.809	4.809	(1.000)	872047	40.0000	
* 46 Acenaphthene-d10	164	6.056	6.056	(1.000)	492952	40.0000	
* 67 Phenanthrene-d10	188	7.226	7.226	(1.000)	875080	40.0000	
* 91 Chrysene-d12	240	9.624	9.624	(1.000)	885449	40.0000	
* 98 Perylene-d12	264	11.276	11.276	(1.000)	780482	40.0000	
209 Benzaldehyde	77	3.667	3.667	(0.930)	188953	40.0000	34.6
16 Acetophenone	105	4.192	4.192	(1.064)	296929	40.0000	39.7
189 Caprolactam	113	5.074	5.074	(1.055)	80799	40.0000	43.5
208 1,1'-Biphenyl	154	5.627	5.627	(0.929)	650317	40.0000	43.2
207 Atrazine	173	6.923	6.923	(0.958)	42996	40.0000	44.8
77 Benzidine	184	8.372	8.372	(0.870)	216818	40.0000	34.0
90 3,3'-Dichlorobenzidine	252	9.557	9.557	(0.993)	296743	40.0000	41.5
102 1,4-Dioxane	88	2.276	2.276	(0.577)	119998	40.0000	51.2
103 Methyl methacrylate	100	2.271	2.271	(0.576)	62729	40.0000	48.2
104 Ethyl methacrylate	69	2.647	2.647	(0.671)	249451	40.0000	49.3
105 2-Picoline	93	2.839	2.839	(0.720)	294881	40.0000	38.8
106 N-Nitrosomethylethylamine	88	2.883	2.883	(0.731)	118531	40.0000	39.5
107 Methyl methanesulfonate	80	3.037	3.037	(0.770)	147730	40.0000	43.7
108 N-Nitrosodiethylamine	102	3.273	3.273	(0.830)	120710	40.0000	38.7
109 Ethyl Methanesulfonate	79	3.427	3.427	(0.869)	206744	40.0000	48.7
110 Pentachloroethane	167	3.769	3.769	(0.956)	116855	40.0000	55.6
111 N-Nitrosopyrrolidine	100	4.178	4.178	(1.060)	119129	40.0000	37.6
113 N-Nitrosomorpholine	56	4.197	4.197	(1.065)	188298	40.0000	39.5
114 o-Toluidine	106	4.216	4.216	(1.070)	406924	40.0000	38.8
115 N-Nitrosopiperidine	114	4.419	4.419	(0.919)	125026	40.0000	39.2

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
116 a,a-Dimethylphenethylamine	58	4.679	4.679	(0.973)	855969	40.0000	40.1
118 2,6-Dichlorophenol	162	4.847	4.847	(1.008)	205369	40.0000	41.9
119 Hexachloropropene	213	4.881	4.881	(1.015)	170513	40.0000	64.0
120 p-Phenylenediamine	108	5.083	5.083	(1.057)	216243	40.0000	42.9
121 N-Nitrosodi-n-butylamine	84	5.049	5.049	(1.050)	190063	40.0000	39.7
122 Safrole	162	5.218	5.218	(1.085)	208297	40.0000	47.2
123 1,2,4,5-Tetrachlorobenzene	216	5.420	5.420	(0.895)	254999	40.0000	45.7
124 Isosafrole	162	5.584	5.584	(0.922)	240310	40.0000	54.6
125 1,4-Naphthoquinone	158	5.772	5.772	(0.953)	185589	40.0000	46.6
127 Pentachlorobenzene	250	6.176	6.176	(1.020)	214024	40.0000	43.4
128 1-Naphthylamine	143	6.263	6.263	(1.034)	464962	40.0000	41.0
129 2-Naphthylamine	143	6.321	6.321	(1.044)	499091	40.0000	40.8
131 5-Nitro-o-toluidine	152	6.455	6.455	(1.066)	148565	40.0000	41.1
136 1,3,5-Trinitrobenzene	75	6.701	6.701	(0.927)	164130	40.0000	51.9
137 Phenacetin	108	6.744	6.744	(0.933)	279133	40.0000	43.9
138 Diallate	86	6.740	6.740	(0.933)	201900	40.0000	38.5
212 Cis Diallate	86	6.817	6.817	(0.943)	43064	6.00000	7.7
213 Trans Diallate	86	6.740	6.740	(0.933)	201900	34.0000	32.8
140 4-Aminobiphenyl	169	7.043	7.043	(0.975)	487942	40.0000	37.7
141 Pentachloronitrobenzene	237	7.062	7.062	(0.977)	66691	40.0000	44.1
142 Pronamide	173	7.053	7.053	(0.976)	258586	40.0000	44.9
146 4-Nitroquinoline-1-oxide	101	7.890	7.890	(1.092)	30794	40.0000	55.6
147 Methapyrilene	58	7.924	7.924	(1.097)	505253	40.0000	45.1
148 Isodrin	193	8.150	8.150	(1.128)	92941	40.0000	39.2
149 Aramite	185	8.545	8.545	(1.183)	43735	40.0000	37.3
150 Kepone	272	9.133	9.133	(1.264)	69242	40.0000	39.4
151 p-(Dimethylamino)azobenzene	120	8.723	8.723	(0.906)	258498	40.0000	38.4
152 Chlorobenzilate	251	8.752	8.752	(0.909)	247596	40.0000	41.0
153 3,3'-Dimethylbenzidine	212	9.036	9.036	(0.939)	421251	40.0000	37.4
155 2-Acetylaminofluorene	181	9.282	9.282	(0.964)	333254	40.0000	40.1
157 7,12Dimethylbenz(a)anthracene	256	10.741	10.741	(0.953)	353881	40.0000	39.0
158 3-Methylcholanthrene	268	11.675	11.675	(1.035)	340673	40.0000	42.1

Data File: /chem/MSD7.i/s123009.b/s713028.d
Date : 30-DEC-2009 19:15
Client ID: APICV
Sample Info: IWBN091201-08,1|ICV|1|SVMF|1|APICV
Column phase: J&W DB-5MS

Instrument: MSD7.i
Operator: JMB3
Column diameter: 0.20

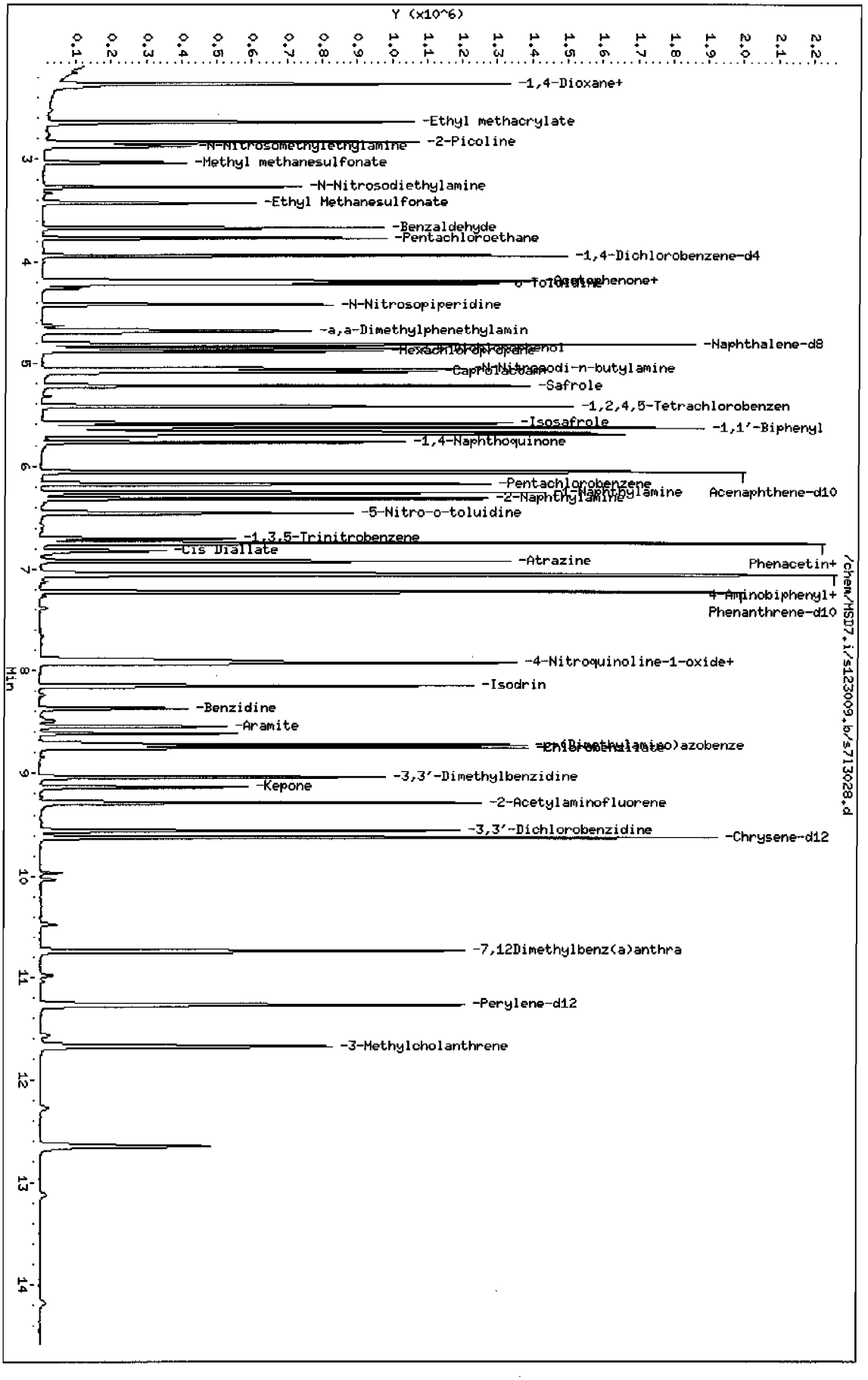

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GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD7.i Injection Date: 02-JAN-2010 15:54
Lab File ID: s7a0205.d Init. Cal. Date(s): 30-DEC-2009 31-DEC-2009
Analysis Type: Init. Cal. Times: 09:11 00:58
Lab Sample ID: WBN091225-12.2 Quant Type: ISTD
Method: /chem/MSD7.i/s010210.b/MSD7-M8270C-AQA-123009.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
$ 3 2-Fluorophenol	1.07094	0.81827	0.81827	0.000	-23.59333	60.00000	Averaged
$ 5 Phenol-d5	1.32779	1.08021	1.08021	0.000	-18.64618	60.00000	Averaged
$ 20 Nitrobenzene-d5	0.30706	0.29921	0.29921	0.000	-2.55489	60.00000	Averaged
$ 39 2-Fluorobiphenyl	1.08224	1.03680	1.03680	0.000	-4.19934	60.00000	Averaged
$ 60 2,4,6-Tribromophenol	0.13487	0.14376	0.14376	0.000	6.59239	60.00000	Averaged
$ 81 p-Terphenyl-d14	0.67075	0.63359	0.63359	0.000	-5.53938	60.00000	Averaged
1 N-Methyl-N-nitrosomethylami	0.68458	0.59344	0.59344	0.000	-13.31315	60.00000	Averaged
2 Pyridine	0.81333	0.71608	0.71608	0.000	-11.95648	60.00000	Averaged
4 Aniline	0.55399	0.42411	0.42411	0.000	-23.44510	60.00000	Averaged
6 Phenol	1.33798	1.09064	1.09064	0.001	-18.48668	20.00000	Averaged ccc
7 bis(2-Chloroethyl) ether	1.04232	0.86175	0.86175	0.000	-17.32396	60.00000	Averaged
8 2-Chlorophenol	1.11390	0.91682	0.91682	0.000	-17.69238	60.00000	Averaged
203 n-Decane	1.88408	1.47032	1.47032	0.000	-21.96071	60.00000	Averaged
9 1,3-Dichlorobenzene	1.27677	1.19200	1.19200	0.000	-6.63984	60.00000	Averaged
11 1,4-Dichlorobenzene	1.24268	1.17472	1.17472	0.001	-5.46874	20.00000	Averaged ccc
13 1,2-Dichlorobenzene	1.14422	1.10950	1.10950	0.000	-3.03419	60.00000	Averaged
14 bis(2-Chloroisopropyl)ether	2.56663	1.76520	1.76520	0.000	-31.22514	60.00000	Averaged
12 Benzyl alcohol	0.71203	0.53578	0.53578	0.000	-24.75303	60.00000	Averaged
15 o-Cresol	0.83996	0.71974	0.71974	0.000	-14.31271	60.00000	Averaged
18 m,p-Cresols	1.12560	0.84943	0.84943	0.000	-24.53501	60.00000	Averaged
17 N-Nitrosodipropylamine	0.80134	0.68942	0.68942	0.050	-13.96711	60.00000	Averaged spcc
19 Hexachloroethane	0.51674	0.46904	0.46904	0.000	-9.23143	60.00000	Averaged
21 Nitrobenzene	0.28480	0.26658	0.26658	0.000	-6.39876	60.00000	Averaged
22 Isophorone	0.55110	0.55401	0.55401	0.000	0.52867	60.00000	Averaged
23 2-Nitrophenol	0.14313	0.11964	0.11964	0.001	-16.41007	20.00000	Averaged ccc
24 2,4-Dimethylphenol	0.25207	0.23630	0.23630	0.000	-6.25823	60.00000	Averaged
25 bis(2-Chloroethoxy)methane	0.31130	0.29405	0.29405	0.000	-5.54219	60.00000	Averaged
26 2,4-Dichlorophenol	0.22142	0.19934	0.19934	0.001	-9.97033	20.00000	Averaged ccc
27 Benzoic acid	21.76429	40.00000	0.04827	0.000	-45.58927	60.00000	Linear
28 1,2,4-Trichlorobenzene	0.26794	0.26306	0.26306	0.000	-1.82288	60.00000	Averaged
30 Naphthalene	0.80421	0.73660	0.73660	0.000	-8.40637	60.00000	Averaged
204 alpha-Terpineol	0.27113	0.25190	0.25190	0.000	-7.09208	60.00000	Averaged
31 4-Chloroaniline	0.32790	0.22586	0.22586	0.000	-31.11884	60.00000	Averaged
32 Hexachlorobutadiene	0.14561	0.15148	0.15148	0.001	4.03043	20.00000	Averaged ccc
33 4-Chloro-3-methylphenol	0.23185	0.21506	0.21506	0.001	-7.24212	20.00000	Averaged ccc
34 2-Methylnaphthalene	0.54489	0.54220	0.54220	0.000	-0.49468	60.00000	Averaged

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD7.i Injection Date: 02-JAN-2010 15:54
Lab File ID: s7a0205.d Init. Cal. Date(s): 30-DEC-2009 31-DEC-2009
Analysis Type: Init. Cal. Times: 09:11 00:58
Lab Sample ID: WBN091225-12.2 Quant Type: ISTD
Method: /chem/MSD7.i/s010210.b/MSD7-M8270C-AQA-123009.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
35 1-Methylnaphthalene	0.52781	0.54280	0.54280	0.000	2.84144	60.00000	Averaged
36 Hexachlorocyclopentadiene	0.22989	0.25028	0.25028	0.050	8.86830	60.00000	Averaged|spcc
205 2,3-Dichloroaniline	0.51293	0.48470	0.48470	0.000	-5.50443	60.00000	Averaged
37 2,4,6-Trichlorophenol	0.30263	0.27895	0.27895	0.001	-7.82491	20.00000	Averaged|ccc
38 2,4,5-Trichlorophenol	0.31558	0.28348	0.28348	0.000	-10.17147	60.00000	Averaged
40 2-Chloronaphthalene	0.97053	0.84611	0.84611	0.000	-12.81893	60.00000	Averaged
42 o-Nitroaniline	0.31209	0.26644	0.26644	0.000	-14.62642	60.00000	Averaged
41 m-Nitroaniline	0.19808	0.08484	0.08484	0.000	-57.17103	60.00000	Averaged
43 Dimethylphthalate	1.11931	1.06043	1.06043	0.000	-5.26041	60.00000	Averaged
44 2,6-Dinitrotoluene	0.26333	0.24451	0.24451	0.000	-7.14901	60.00000	Averaged
50 2,4-Dinitrotoluene	0.33898	0.30786	0.30786	0.000	-9.18051	60.00000	Averaged
45 Acenaphthylene	1.51145	1.46116	1.46116	0.000	-3.32730	60.00000	Averaged
47 Acenaphthene	0.95605	0.88164	0.88164	0.001	-7.78254	20.00000	Averaged|ccc
48 2,4-Dinitrophenol	27.48891	40.00000	0.05048	0.050	-31.27772	60.00000	Linear|spcc
49 Dibenzofuran	1.32002	1.24043	1.24043	0.000	-6.02953	60.00000	Averaged
51 Diethylphthalate	1.12441	1.09500	1.09500	0.000	-2.61544	60.00000	Averaged
52 4-Nitrophenol	34.70422	40.00000	0.15472	0.050	-13.23945	60.00000	Linear|spcc
53 Fluorene	1.11179	1.07175	1.07175	0.000	-3.60170	60.00000	Averaged
54 4-Chlorophenylphenylether	0.54913	0.51875	0.51875	0.000	-5.53164	60.00000	Averaged
55 2-Methyl-4,6-dinitrophenol	27.40380	40.00000	0.05446	0.000	-31.49051	60.00000	Linear
56 p-Nitroaniline	36.14611	40.00000	0.14900	0.000	-9.63472	60.00000	Linear
133 Diphenylamine	0.48690	0.44783	0.44783	0.001	-8.02421	20.00000	Averaged|ccc
58 1,2-Diphenylhydrazine	0.65474	0.55538	0.55538	0.000	-15.17530	60.00000	Averaged
61 4-Bromophenylphenylether	0.17937	0.16769	0.16769	0.000	-6.51312	60.00000	Averaged
63 Hexachlorobenzene	0.17666	0.18253	0.18253	0.000	3.31973	60.00000	Averaged
65 Pentachlorophenol	0.09488	0.08765	0.08765	0.001	-7.61317	20.00000	Averaged|ccc
206 n-Octadecane	0.54176	0.42813	0.42813	0.000	-20.97417	60.00000	Averaged
68 Phenanthrene	0.89268	0.80640	0.80640	0.000	-9.66470	60.00000	Averaged
69 Anthracene	0.89878	0.80501	0.80501	0.000	-10.43356	60.00000	Averaged
72 Di-n-butylphthalate	1.10215	1.08066	1.08066	0.000	-1.94932	60.00000	Averaged
76 Fluoranthene	0.99494	0.95650	0.95650	0.001	-3.86298	20.00000	Averaged|ccc
79 Pyrene	1.14939	1.04220	1.04220	0.000	-9.32563	60.00000	Averaged
85 Butylbenzylphthalate	0.53712	0.46385	0.46385	0.000	-13.64173	60.00000	Averaged
89 Benzo(a)anthracene	0.96577	0.87366	0.87366	0.000	-9.53775	60.00000	Averaged
92 Chrysene	0.88866	0.81109	0.81109	0.000	-8.72825	60.00000	Averaged
93 bis(2-Ethylhexyl)phthalate	0.70898	0.63014	0.63014	0.000	-11.11992	60.00000	Averaged

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD7.i
Lab File ID: s7a0205.d
Analysis Type:
Lab Sample ID: WBN091225-12.2
Method: /chem/MSD7.i/s010210.b/MSD7-M8270C-AQA-123009.m

Injection Date: 02-JAN-2010 15:54
Init. Cal. Date(s): 30-DEC-2009 31-DEC-2009
Init. Cal. Times: 09:11 00:58
Quant Type: ISTD

	COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
	94 Di-n-octylphthalate	1.21924	1.09524	1.09524	0.001	-10.17069	20.00000	Averaged	ccc
	95 Benzo(b)fluoranthene	0.99301	0.90074	0.90074	0.000	-9.29177	60.00000	Averaged	
	96 Benzo(k)fluoranthene	0.95367	0.96363	0.96363	0.000	1.04508	60.00000	Averaged	
	97 Benzo(a)pyrene	0.88336	0.84485	0.84485	0.001	-4.35895	20.00000	Averaged	ccc
	99 Indeno(1,2,3-cd)pyrene	0.88047	0.84792	0.84792	0.000	-3.69649	60.00000	Averaged	
	100 Dibenzo(a,h)anthracene	0.70375	0.69800	0.69800	0.000	-0.81703	60.00000	Averaged	
	101 Benzo(ghi)perylene	0.75310	0.70967	0.70967	0.000	-5.76650	60.00000	Averaged	
	126 m-Dinitrobenzene	0.18303	0.16375	0.16375	0.000	-10.53720	60.00000	Averaged	
	130 2,3,4,6-Tetrachlorophenol	0.26923	0.26260	0.26260	0.000	-2.46503	60.00000	Averaged	
	143 Dinoseb	31.86813	40.00000	0.10164	0.000	-20.32967	60.00000	Linear	
	173 Carbazole	0.65128	0.51241	0.51241	0.000	-21.32313	60.00000	Averaged	
	184 p-Benzoquinone	0.09711	0.05616	0.05616	0.000	-42.16582	60.00000	Averaged	
	192 Methoxychlor	0.64576	0.59801	0.59801	0.000	-7.39500	60.00000	Averaged	
	211 p-Toluidine	0.94846	0.47141	0.47141	0.000	-50.29760	60.00000	Averaged	
	210 m-Toluidine	1.22813	0.89899	0.89899	0.000	-26.80027	60.00000	Averaged	
	215 2-Ethoxyethanol	0.70593	0.41449	0.41449	0.000	-41.28518	60.00000	Averaged	
	179 Dibenzo(a,e)pyrene	0.40786	0.44101	0.44101	0.000	8.12792	60.00000	Averaged	
	26 Phthalic anhydride	9.27497	40.00000	0.01880	0.000	-76.81257	60.00000	Linear	<-
	214 1,4-Dinitrobenzene	0.19404	0.17923	0.17923	0.000	-7.63419	60.00000	Averaged	
	216 Methylenebis(2-chloroanilin	0.12476	0.08255	0.08255	0.000	-33.83002	60.00000	Averaged	
M	222 Trichlorophenols	0.30910	0.28121	0.28121	0.000	-9.02277	60.00000	Averaged	
M	223 Tetrachlorophenols	0.26923	0.26260	0.26260	0.000	-2.46503	60.00000	Averaged	
M	224 Benzo(b,k)fluoranthene	0.97334	0.93219	0.93219	0.000	-4.22780	60.00000	Averaged	

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GEL Laboratories, LLC
Data file : /chem/MSD7.i/s010210.b/s7a0205.d
Lab Smp Id: WBN091225-12.2 Client Smp ID: MEGACVS
Inj Date : 02-JAN-2010 15:54
Operator : JMB3 Inst ID: MSD7.i
Smp Info : |WBN091225-12.2|CVS|1|SVMF|1|MEGACVS
Misc Info : |MSD8270|WBN091223-01|
Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness
Method : /chem/MSD7.i/s010210.b/MSD7-M8270C-AQA-123009.m
Meth Date : 04-Jan-2010 09:07 jos00786 Quant Type: ISTD
Cal Date : 30-DEC-2009 23:30 Cal File: s713040.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: MEGA.sub
Target Version: 3.50
Processing Host: kilroy

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	3.961	3.961	(1.000)	217575	40.0000	
* 29 Naphthalene-d8	136	4.823	4.823	(1.000)	798340	40.0000	
* 46 Acenaphthene-d10	164	6.070	6.070	(1.000)	464697	40.0000	
* 67 Phenanthrene-d10	188	7.236	7.236	(1.000)	876904	40.0000	
* 91 Chrysene-d12	240	9.638	9.638	(1.000)	863955	40.0000	
* 98 Perylene-d12	264	11.295	11.295	(1.000)	746635	40.0000	
$ 3 2-Fluorophenol	112	3.152	3.152	(0.796)	178035	40.0000	30.6
$ 5 Phenol-d5	99	3.672	3.672	(0.927)	235026	40.0000	32.5
$ 20 Nitrobenzene-d5	82	4.322	4.322	(0.896)	238875	40.0000	39.0
$ 39 2-Fluorobiphenyl	172	5.560	5.560	(0.916)	481796	40.0000	38.3(H)
$ 60 2,4,6-Tribromophenol	329	6.667	6.667	(1.098)	66805	40.0000	42.6
$ 81 p-Terphenyl-d14	244	8.608	8.608	(0.893)	547394	40.0000	37.8
1 N-Methyl-N-nitrosomethylamine	74	2.488	2.488	(0.628)	129117	40.0000	34.7
2 Pyridine	79	2.517	2.517	(0.635)	155802	40.0000	35.2
4 Aniline	66	3.744	3.744	(0.945)	92275	40.0000	30.6
6 Phenol	94	3.677	3.677	(0.928)	237295	40.0000	32.6
7 bis(2-Chloroethyl) ether	63	3.759	3.759	(0.949)	187495	40.0000	33.1
8 2-Chlorophenol	128	3.826	3.826	(0.966)	199478	40.0000	32.9
203 n-Decane	43	3.812	3.812	(0.962)	319905	40.0000	31.2
9 1,3-Dichlorobenzene	146	3.927	3.927	(0.991)	259349	40.0000	37.3
11 1,4-Dichlorobenzene	146	3.976	3.976	(1.004)	255590	40.0000	37.8
13 1,2-Dichlorobenzene	146	4.077	4.077	(1.029)	241399	40.0000	38.8
14 bis(2-Chloroisopropyl)ether	45	4.101	4.101	(1.035)	384063	40.0000	27.5(H)
12 Benzyl alcohol	108	4.024	4.024	(1.016)	116572	40.0000	30.1
15 o-Cresol	107	4.072	4.072	(1.028)	156597	40.0000	34.3
18 m,p-Cresols	107	4.168	4.168	(1.052)	184815	40.0000	30.2

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
17 N-Nitrosodipropylamine	70	4.192	4.192	(1.058)	150000	40.0000	34.4
19 Hexachloroethane	117	4.308	4.308	(1.088)	102051	40.0000	36.3
21 Nitrobenzene	77	4.332	4.332	(0.898)	212819	40.0000	37.4
22 Isophorone	82	4.486	4.486	(0.930)	442288	40.0000	40.2
23 2-Nitrophenol	139	4.549	4.549	(0.943)	95516	40.0000	33.4
24 2,4-Dimethylphenol	122	4.534	4.534	(0.940)	188646	40.0000	37.5
25 bis(2-Chloroethoxy)methane	93	4.602	4.602	(0.954)	234752	40.0000	37.8
26 2,4-Dichlorophenol	162	4.703	4.703	(0.975)	159144	40.0000	36.0
27 Benzoic acid	105	4.573	4.573	(0.948)	38537	40.0000	21.8
28 1,2,4-Trichlorobenzene	180	4.770	4.770	(0.989)	210011	40.0000	39.3
30 Naphthalene	128	4.838	4.838	(1.003)	588058	40.0000	36.6
204 alpha-Terpineol	59	4.809	4.809	(0.997)	201103	40.0000	37.2
31 4-Chloroaniline	127	4.838	4.838	(1.003)	180315	40.0000	27.6
32 Hexachlorobutadiene	225	4.905	4.905	(1.017)	120932	40.0000	41.6
33 4-Chloro-3-methylphenol	107	5.155	5.155	(1.069)	171689	40.0000	37.1
34 2-Methylnaphthalene	142	5.319	5.319	(1.103)	432859	40.0000	39.8
35 1-Methylnaphthalene	142	5.391	5.391	(1.118)	433342	40.0000	41.1
36 Hexachlorocyclopentadiene	237	5.420	5.420	(0.893)	116303	40.0000	43.5
205 2,3-Dichloroaniline	161	5.512	5.512	(0.908)	225237	40.0000	37.8
37 2,4,6-Trichlorophenol	196	5.502	5.502	(0.906)	129625	40.0000	36.9
38 2,4,5-Trichlorophenol	196	5.526	5.526	(0.910)	131731	40.0000	35.9
40 2-Chloronaphthalene	162	5.666	5.666	(0.933)	393187	40.0000	34.9
42 o-Nitroaniline	65	5.724	5.724	(0.943)	123815	40.0000	34.1
41 m-Nitroaniline	138	6.022	6.022	(0.992)	39423	40.0000	17.1
43 Dimethylphthalate	163	5.830	5.830	(0.960)	492779	40.0000	37.9
44 2,6-Dinitrotoluene	165	5.882	5.882	(0.969)	113621	40.0000	37.1
50 2,4-Dinitrotoluene	165	6.181	6.181	(1.018)	143060	40.0000	36.3
45 Acenaphthylene	152	5.974	5.974	(0.984)	678997	40.0000	38.7
47 Acenaphthene	154	6.094	6.094	(1.004)	409697	40.0000	36.9
48 2,4-Dinitrophenol	184	6.090	6.090	(1.003)	23458	40.0000	27.5
49 Dibenzofuran	168	6.220	6.220	(1.025)	576422	40.0000	37.6
51 Diethylphthalate	149	6.340	6.340	(1.044)	508842	40.0000	39.0
52 4-Nitrophenol	139	6.099	6.099	(1.005)	71897	40.0000	34.7
53 Fluorene	166	6.480	6.480	(1.067)	498038	40.0000	38.6
54 4-Chlorophenylphenylether	204	6.455	6.455	(1.063)	241063	40.0000	37.8
55 2-Methyl-4,6-dinitrophenol	198	6.494	6.494	(0.898)	47752	40.0000	27.4
56 p-Nitroaniline	138	6.480	6.480	(1.067)	69238	40.0000	36.1(H)
133 Diphenylamine	169	6.542	6.542	(0.904)	392701	40.0000	36.8
58 1,2-Diphenylhydrazine	77	6.581	6.581	(0.909)	487015	40.0000	33.9
61 4-Bromophenylphenylether	248	6.846	6.846	(0.946)	147044	40.0000	37.4
63 Hexachlorobenzene	284	6.918	6.918	(0.956)	160059	40.0000	41.3
65 Pentachlorophenol	266	7.062	7.062	(0.976)	76863	40.0000	37.0
206 n-Octadecane	57	7.053	7.053	(0.975)	375432	40.0000	31.6
68 Phenanthrene	178	7.260	7.260	(1.003)	707137	40.0000	36.1
69 Anthracene	178	7.303	7.303	(1.009)	705914	40.0000	35.8
72 Di-n-butylphthalate	149	7.654	7.654	(1.058)	947636	40.0000	39.2
76 Fluoranthene	202	8.295	8.295	(1.146)	838763	40.0000	38.4

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
79 Pyrene	202	8.512	8.512	(0.883)	900418	40.0000	36.3
85 Butylbenzylphthalate	149	9.037	9.037	(0.938)	400746	40.0000	34.5
89 Benzo(a)anthracene	228	9.624	9.624	(0.998)	754804	40.0000	36.2
92 Chrysene	228	9.662	9.662	(1.002)	700747	40.0000	36.5
93 bis(2-Ethylhexyl)phthalate	149	9.561	9.561	(0.992)	544416	40.0000	35.6
94 Di-n-octylphthalate	149	10.207	10.207	(0.904)	817744	40.0000	35.9
95 Benzo(b)fluoranthene	252	10.784	10.784	(0.955)	672525	40.0000	36.3
96 Benzo(k)fluoranthene	252	10.818	10.818	(0.958)	719482	40.0000	40.4
97 Benzo(a)pyrene	252	11.218	11.218	(0.993)	630798	40.0000	38.2
99 Indeno(1,2,3-cd)pyrene	276	13.043	13.043	(1.155)	633087	40.0000	38.5
100 Dibenzo(a,h)anthracene	278	13.057	13.057	(1.156)	521151	40.0000	39.7
101 Benzo(ghi)perylene	276	13.573	13.573	(1.202)	529866	40.0000	37.7
126 m-Dinitrobenzene	168	5.868	5.868	(0.967)	76093	40.0000	35.8
130 2,3,4,6-Tetrachlorophenol	232	6.297	6.297	(1.037)	122028	40.0000	39.0
143 Dinoseb	211	7.183	7.183	(0.993)	89126	40.0000	31.9
173 Carbazole	167	7.419	7.419	(1.025)	449332	40.0000	31.5
184 p-Benzoquinone	54	3.451	3.451	(0.871)	12220	40.0000	23.1
192 Methoxychlor	227	9.508	9.508	(0.986)	516653	40.0000	37.0
211 p-Toluidine	106	4.236	4.236	(1.069)	102566	40.0000	19.9
210 m-Toluidine	106	4.255	4.255	(1.074)	195598	40.0000	29.3(H)
215 2-Ethoxyethanol	59	2.334	2.334	(0.589)	90182	40.0000	23.5
179 Dibenzo(a,e)pyrene	302	17.632	17.632	(1.561)	329272	40.0000	43.2
26 Phthalic anhydride	104	5.343	5.343	(1.108)	15011	40.0000	9.3
214 1,4-Dinitrobenzene	75	5.810	5.810	(0.957)	83287	40.0000	36.9
216 Methylenebis(2-chloroaniline)	231	9.571	9.571	(0.993)	71322	40.0000	26.5
M 222 Trichlorophenols	196				261356	80.0000	72.8
M 223 Tetrachlorophenols	232				122028	40.0000	39.0
M 224 Benzo(b,k)fluoranthene	252				1392007	80.0000	76.6

QC Flag Legend

H - Operator selected an alternate compound hit.

Data File: /chem/MSD7.i/s010210.b/s7a0205.d
Date : 02-JAN-2010 15:54
Client ID: MEGACVS
Sample Info: IWBN091225-12,2ICVS1|1SVMF1|MEGACVS
Column phase: J&W DB-5MS

Instrument: MSD7.i
Operator: JWB3
Column diameter: 0.20

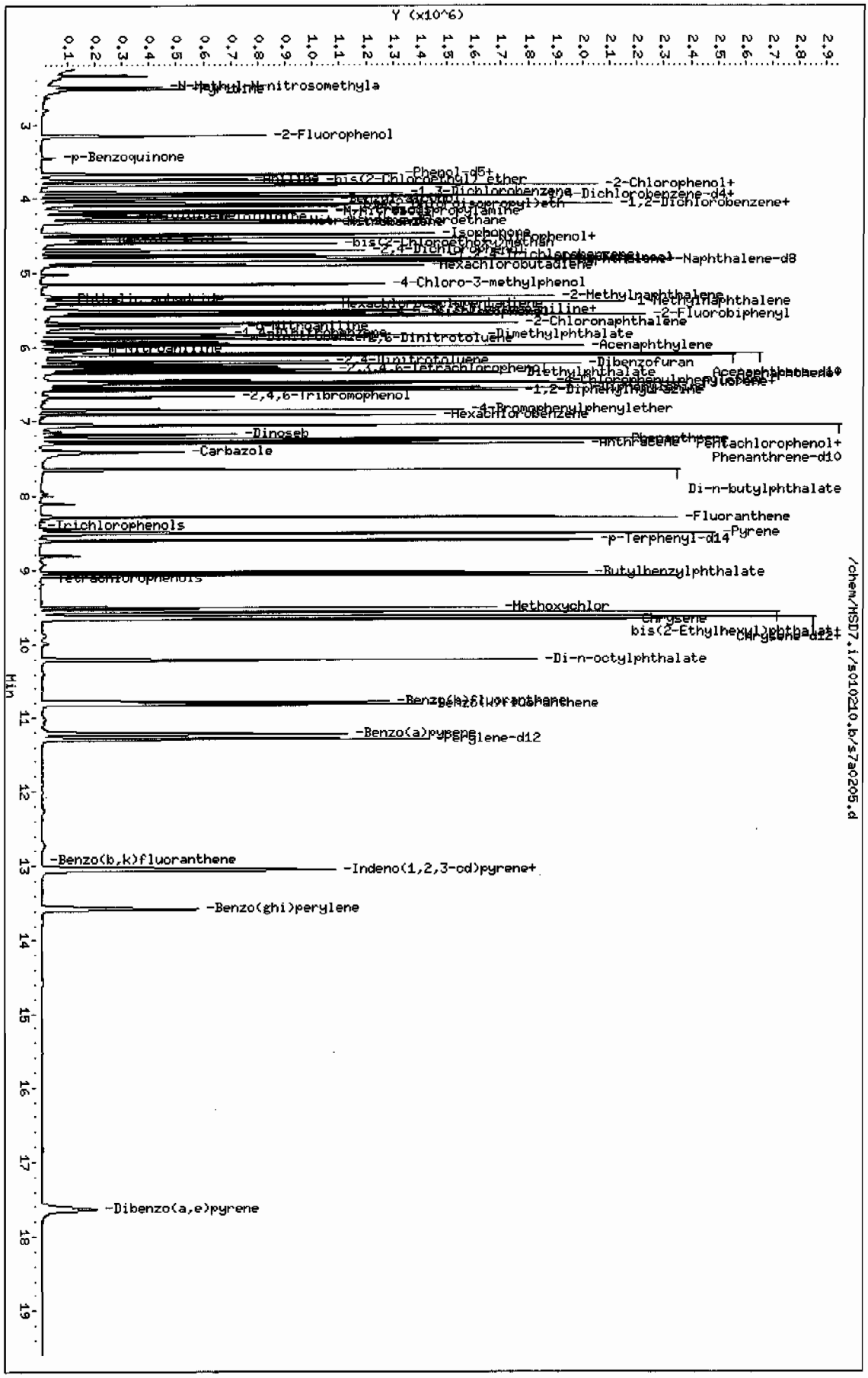

Data File: /chem/MSD7.i/s010210.b/s7a0206.d
Report Date: 04-Jan-2010 09:07

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD7.i
Lab File ID: s7a0206.d
Analysis Type:
Lab Sample ID: WBN091201-08.2 Quant Type: ISTD
Method: /chem/MSD7.i/s010210.b/MSD7-M8270C-AQA-123009.m

Injection Date: 02-JAN-2010 16:21
Init. Cal. Date(s): 30-DEC-2009 31-DEC-2009
Init. Cal. Times: 09:11 00:58

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
209 Benzaldehyde	0.91426	0.73825	0.73825	0.000	-19.25209	60.00000	Averaged
16 Acetophenone	1.25268	1.08230	1.08230	0.000	-13.60185	60.00000	Averaged
189 Caprolactam	0.08525	0.08888	0.08888	0.000	4.26693	60.00000	Averaged
208 1,1'-Biphenyl	1.22037	1.22843	1.22843	0.000	0.66021	60.00000	Averaged
207 Atrazine	0.04386	0.04510	0.04510	0.000	2.83072	60.00000	Averaged
77 Benzidine	15.95609	40.00000	0.11060	0.000	-60.10979	60.00000	Linear <-
90 3,3'-Dichlorobenzidine	0.32314	0.30565	0.30565	0.000	-5.41295	60.00000	Averaged
102 1,4-Dioxane	0.39191	0.38602	0.38602	0.000	-1.50220	60.00000	Averaged
103 Methyl methacrylate	0.21768	0.21048	0.21048	0.000	-3.30852	60.00000	Averaged
104 Ethyl methacrylate	0.84734	0.93411	0.93411	0.000	10.24043	60.00000	Averaged
105 2-Picoline	1.27319	1.10346	1.10346	0.000	-13.33111	60.00000	Averaged
106 N-Nitrosomethylethylamine	0.50185	0.43829	0.43829	0.000	-12.66554	60.00000	Averaged
107 Methyl methanesulfonate	0.56571	0.52722	0.52722	0.000	-6.80309	60.00000	Averaged
108 N-Nitrosodiethylamine	0.52257	0.44278	0.44278	0.000	-15.26845	60.00000	Averaged
109 Ethyl Methanesulfonate	0.71008	0.74327	0.74327	0.000	4.67407	60.00000	Averaged
110 Pentachloroethane	0.35164	0.46431	0.46431	0.000	32.04349	60.00000	Averaged
111 N-Nitrosopyrrolidine	0.53069	0.46917	0.46917	0.000	-11.59134	60.00000	Averaged
113 N-Nitrosomorpholine	0.79838	0.58144	0.58144	0.000	-27.17265	60.00000	Averaged
114 o-Toluidine	1.75483	1.45855	1.45855	0.000	-16.88338	60.00000	Averaged
115 N-Nitrosopiperidine	0.14648	0.13421	0.13421	0.000	-8.38043	60.00000	Averaged
116 a,a-Dimethylphenethylamine	0.97956	0.73926	0.73926	0.000	-24.53201	60.00000	Averaged
118 2,6-Dichlorophenol	0.22483	0.22086	0.22086	0.000	-1.76680	60.00000	Averaged
119 Hexachloropropene	0.12226	0.19990	0.19990	0.000	63.50548	60.00000	Averaged <-
120 p-Phenylenediamine	31.48233	40.00000	0.17817	0.000	-21.29418	60.00000	Linear
121 N-Nitrosodi-n-butylamine	0.21962	0.19045	0.19045	0.000	-13.28496	60.00000	Averaged
122 Safrole	0.20249	0.23597	0.23597	0.000	16.53550	60.00000	Averaged
123 1,2,4,5-Tetrachlorobenzene	0.45257	0.49953	0.49953	0.000	10.37578	60.00000	Averaged
124 Isosafrole	0.35719	0.45472	0.45472	0.000	27.30485	60.00000	Averaged
125 1,4-Naphthoquinone	0.32292	0.34692	0.34692	0.000	7.43095	60.00000	Averaged
127 Pentachlorobenzene	0.40007	0.44016	0.44016	0.000	10.02002	60.00000	Averaged
128 1-Naphthylamine	0.91971	0.91644	0.91644	0.000	-0.35588	60.00000	Averaged
129 2-Naphthylamine	0.99301	0.92585	0.92585	0.000	-6.76389	60.00000	Averaged
131 5-Nitro-o-toluidine	0.29348	0.30343	0.30343	0.000	3.39043	60.00000	Averaged
136 1,3,5-Trinitrobenzene	46.50957	40.00000	0.16691	0.000	16.27393	60.00000	Linear
137 Phenacetin	0.29039	0.28391	0.28391	0.000	-2.23162	60.00000	Averaged
138 Diallate	0.23950	0.21465	0.21465	0.000	-10.37468	60.00000	Averaged

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD7.i
Lab File ID: s7a0206.d
Analysis Type:
Lab Sample ID: WBN091201-08.2 Quant Type: ISTD
Method: /chem/MSD7.i/s010210.b/MSD7-M8270C-AQA-123009.m

Injection Date: 02-JAN-2010 16:21
Init. Cal. Date(s): 30-DEC-2009 31-DEC-2009
Init. Cal. Times: 09:11 00:58

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
212 Cis Diallate	0.25521	0.29069	0.29069	0.000	13.90108	60.00000	Averaged
213 Trans Diallate	0.28177	0.25253	0.25253	0.000	-10.37468	60.00000	Averaged
140 4-Aminobiphenyl	0.59215	0.44791	0.44791	0.000	-24.35895	60.00000	Averaged
141 Pentachloronitrobenzene	0.06915	0.08130	0.08130	0.000	17.56896	60.00000	Averaged
142 Pronamide	0.26312	0.30074	0.30074	0.000	14.29581	60.00000	Averaged
146 4-Nitroquinoline-1-oxide	48.56211	40.00000	0.03118	0.000	21.40527	60.00000	Wt Linear
147 Methapyrilene	0.51155	0.44354	0.44354	0.000	-13.29549	60.00000	Averaged
148 Isodrin	0.10826	0.09855	0.09855	0.000	-8.96858	60.00000	Averaged
149 Aramite	0.05353	0.04429	0.04429	0.000	-17.26503	60.00000	Averaged
150 Kepone	0.08030	0.08291	0.08291	0.000	3.25055	60.00000	Averaged
151 p-(Dimethylamino)azobenzene	0.30437	0.27106	0.27106	0.000	-10.94434	60.00000	Averaged
152 Chlorobenzilate	0.27301	0.26902	0.26902	0.000	-1.45889	60.00000	Averaged
153 3,3'-Dimethylbenzidine	0.50900	0.32634	0.32634	0.000	-35.88694	60.00000	Averaged
155 2-Acetylaminofluorene	0.37564	0.32866	0.32866	0.000	-12.50664	60.00000	Averaged
157 7,12Dimethylbenz(a)anthrace	0.46508	0.43901	0.43901	0.000	-5.60390	60.00000	Averaged
158 3-Methylcholanthrene	0.41462	0.42418	0.42418	0.000	2.30705	60.00000	Averaged

GEL Laboratories LLC

GEL Laboratories, LLC
Data file : /chem/MSD7.i/s010210.b/s7a0206.d
Lab Smp Id: WBN091201-08.2 Client Smp ID: APCVS
Inj Date : 02-JAN-2010 16:21
Operator : JMB3 Inst ID: MSD7.i
Smp Info : |WBN091201-08.2|CVS|1|SVMF|1|APCVS
Misc Info : |MSD8270|WBN091223-01|
Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness
Method : /chem/MSD7.i/s010210.b/MSD7-M8270C-AQA-123009.m
Meth Date : 04-Jan-2010 09:07 jos00786 Quant Type: ISTD
Cal Date : 30-DEC-2009 23:30 Cal File: s713040.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AP12.sub
Target Version: 3.50
Processing Host: kilroy

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	3.961	3.961	(1.000)	319191	40.0000	
* 29 Naphthalene-d8	136	4.823	4.823	(1.000)	1144958	40.0000	
* 46 Acenaphthene-d10	164	6.070	6.070	(1.000)	676544	40.0000	
* 67 Phenanthrene-d10	188	7.240	7.240	(1.000)	1284604	40.0000	
* 91 Chrysene-d12	240	9.634	9.634	(1.000)	1268214	40.0000	
* 98 Perylene-d12	264	11.295	11.295	(1.000)	1072369	40.0000	
209 Benzaldehyde	77	3.691	3.691	(0.932)	235642	40.0000	32.3
16 Acetophenone	105	4.212	4.212	(1.063)	345459	40.0000	34.6
189 Caprolactam	113	5.093	5.093	(1.056)	101768	40.0000	41.7
208 1,1'-Biphenyl	154	5.642	5.642	(0.929)	831088	40.0000	40.3
207 Atrazine	173	6.937	6.937	(0.958)	57940	40.0000	41.1
77 Benzidine	184	8.386	8.386	(0.871)	140259	40.0000	16.0
90 3,3'-Dichlorobenzidine	252	9.571	9.571	(0.994)	387626	40.0000	37.8
102 1,4-Dioxane	88	2.348	2.348	(0.593)	123214	40.0000	39.4(H)
103 Methyl methacrylate	100	2.338	2.338	(0.590)	67183	40.0000	38.7
104 Ethyl methacrylate	69	2.695	2.695	(0.680)	298160	40.0000	44.1
105 2-Picoline	93	2.882	2.882	(0.728)	352214	40.0000	34.7
106 N-Nitrosomethylethylamine	88	2.921	2.921	(0.737)	139898	40.0000	34.9(H)
107 Methyl methanesulfonate	80	3.070	3.070	(0.775)	168285	40.0000	37.3
108 N-Nitrosodiethylamine	102	3.301	3.301	(0.833)	141331	40.0000	33.9
109 Ethyl Methanesulfonate	79	3.451	3.451	(0.871)	237245	40.0000	41.9
110 Pentachloroethane	167	3.793	3.793	(0.957)	148204	40.0000	52.8
111 N-Nitrosopyrrolidine	100	4.197	4.197	(1.060)	149756	40.0000	35.4
113 N-Nitrosomorpholine	56	4.216	4.216	(1.064)	185590	40.0000	29.1
114 o-Toluidine	106	4.236	4.236	(1.069)	465557	40.0000	33.2(H)
115 N-Nitrosopiperidine	114	4.433	4.433	(0.919)	153661	40.0000	36.6

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
116 a,a-Dimethylphenethylamine	58	4.679	4.679	(0.970)	846417	40.0000	30.2
118 2,6-Dichlorophenol	162	4.866	4.866	(1.009)	252878	40.0000	39.3
119 Hexachloropropene	213	4.895	4.895	(1.015)	228873	40.0000	65.4
120 p-Phenylenediamine	108	5.102	5.102	(1.058)	203998	40.0000	31.5
121 N-Nitrosodi-n-butylamine	84	5.064	5.064	(1.050)	218053	40.0000	34.7
122 Safrole	162	5.232	5.232	(1.085)	270181	40.0000	46.6
123 1,2,4,5-Tetrachlorobenzene	216	5.435	5.435	(0.895)	337951	40.0000	44.2
124 Isosafrole	162	5.598	5.598	(0.922)	307637	40.0000	50.9
125 1,4-Naphthoquinone	158	5.786	5.786	(0.953)	234705	40.0000	43.0
127 Pentachlorobenzene	250	6.191	6.191	(1.020)	297785	40.0000	44.0
128 1-Naphthylamine	143	6.272	6.272	(1.033)	620012	40.0000	39.8
129 2-Naphthylamine	143	6.330	6.330	(1.043)	626376	40.0000	37.3
131 5-Nitro-o-toluidine	152	6.470	6.470	(1.066)	205286	40.0000	41.4
136 1,3,5-Trinitrobenzene	75	6.715	6.715	(0.928)	214414	40.0000	46.5
137 Phenacetin	108	6.764	6.764	(0.934)	364715	40.0000	39.1
138 Diallate	86	6.749	6.749	(0.932)	275746	40.0000	35.8
212 Cis Diallate	86	6.826	6.826	(0.943)	56013	6.00000	6.8
213 Trans Diallate	86	6.749	6.749	(0.932)	275746	34.0000	30.5
140 4-Aminobiphenyl	169	7.053	7.053	(0.974)	575383	40.0000	30.2
141 Pentachloronitrobenzene	237	7.072	7.072	(0.977)	104441	40.0000	47.0
142 Pronamide	173	7.067	7.067	(0.976)	386330	40.0000	45.7
146 4-Nitroquinoline-1-oxide	101	7.905	7.905	(1.092)	40048	40.0000	48.6
147 Methapyrilene	58	7.939	7.939	(1.096)	569774	40.0000	34.7
148 Isodrin	193	8.160	8.160	(1.127)	126600	40.0000	36.4
149 Aramite	185	8.555	8.555	(1.182)	56893	40.0000	33.1
150 Kepone	272	9.147	9.147	(1.263)	106506	40.0000	41.3
151 p-(Dimethylamino)azobenzene	120	8.733	8.733	(0.907)	343762	40.0000	35.6
152 Chlorobenzilate	251	8.767	8.767	(0.910)	341181	40.0000	39.4
153 3,3'-Dimethylbenzidine	212	9.051	9.051	(0.940)	413867	40.0000	25.6
155 2-Acetylaminofluorene	181	9.296	9.296	(0.965)	416806	40.0000	35.0
157 7,12Dimethylbenz(a)anthracene	256	10.756	10.756	(0.952)	470786	40.0000	37.8
158 3-Methylcholanthrene	268	11.695	11.695	(1.035)	454882	40.0000	40.9

QC Flag Legend

H - Operator selected an alternate compound hit.

Data File: /chem/MSD7.i/s010210.b/s7a0206.d
Date : 02-JAN-2010 16:21
Client ID: APCVS
Sample Info: IWBN091201-08,2|CVS1|SVMF1|APCVS
Column phase: J&W DB-5MS

Instrument: MSD7.i
Operator: JMB3
Column diameter: 0.20

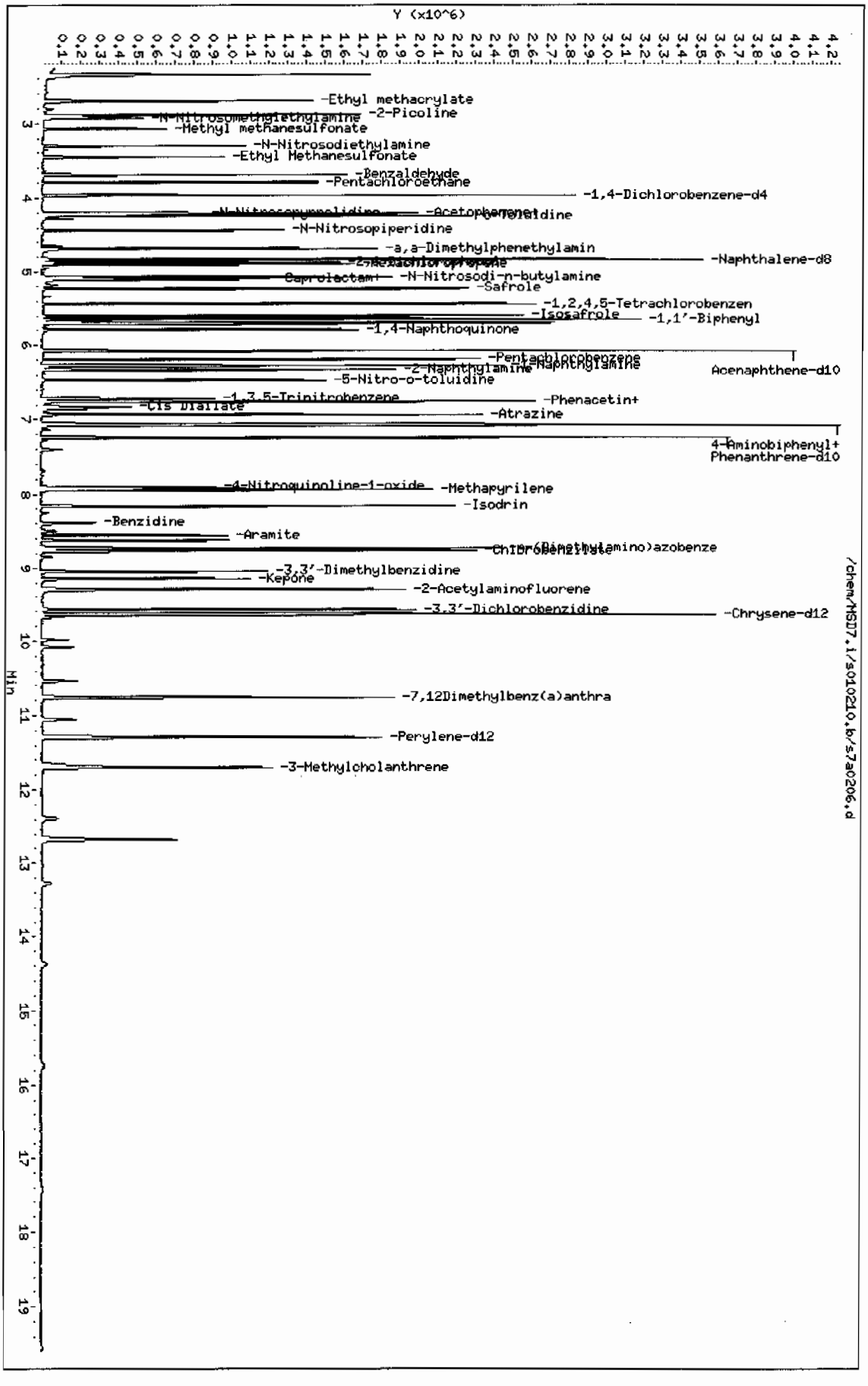

Page 1

Data File: /chem/MSD7.i/s010410.b/s7a0403.d
Report Date: 04-Jan-2010 13:20

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD7.i
Lab File ID: s7a0403.d
Analysis Type:
Lab Sample ID: WBN091225-12.2 Quant Type: ISTD
Method: /chem/MSD7.i/s010410.b/MSD7-M8270C-AQA-123009.m

Injection Date: 04-JAN-2010 11:41
Init. Cal. Date(s): 30-DEC-2009 31-DEC-2009
Init. Cal. Times: 09:11 00:58

	COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
|$	3 2-Fluorophenol	1.07094	0.89868	0.89868	0.000	-16.08454	60.00000	Averaged	
|$	5 Phenol-d5	1.32779	1.14045	1.14045	0.000	-14.10875	60.00000	Averaged	
|$	20 Nitrobenzene-d5	0.30706	0.31231	0.31231	0.000	1.70876	60.00000	Averaged	
|$	39 2-Fluorobiphenyl	1.08224	1.05420	1.05420	0.000	-2.59116	60.00000	Averaged	
|$	60 2,4,6-Tribromophenol	0.13487	0.16104	0.16104	0.000	19.40235	60.00000	Averaged	
|$	81 p-Terphenyl-d14	0.67075	0.68748	0.68748	0.000	2.49491	60.00000	Averaged	
|	1 N-Methyl-N-nitrosomethylami	0.68458	0.62527	0.62527	0.000	-8.66372	60.00000	Averaged	
|	2 Pyridine	0.81333	0.73933	0.73933	0.000	-9.09809	60.00000	Averaged	
|	4 Aniline	0.55399	0.44685	0.44685	0.000	-19.34033	60.00000	Averaged	
|	6 Phenol	1.33798	1.15634	1.15634	0.001	-13.57611	20.00000	Averaged	ccc
|	7 bis(2-Chloroethyl) ether	1.04232	0.84246	0.84246	0.000	-19.17494	60.00000	Averaged	
|	8 2-Chlorophenol	1.11390	0.98428	0.98428	0.000	-11.63670	60.00000	Averaged	
|	203 n-Decane	1.88408	1.37126	1.37126	0.000	-27.21871	60.00000	Averaged	
|	9 1,3-Dichlorobenzene	1.27677	1.22375	1.22375	0.000	-4.15316	60.00000	Averaged	
|	11 1,4-Dichlorobenzene	1.24268	1.17631	1.17631	0.001	-5.34072	20.00000	Averaged	ccc
|	13 1,2-Dichlorobenzene	1.14422	1.12779	1.12779	0.000	-1.43586	60.00000	Averaged	
|	14 bis(2-Chloroisopropyl)ether	2.56663	1.66195	1.66195	0.000	-35.24792	60.00000	Averaged	
|	12 Benzyl alcohol	0.71203	0.56461	0.56461	0.000	-20.70360	60.00000	Averaged	
|	15 o-Cresol	0.83996	0.73927	0.73927	0.000	-11.98723	60.00000	Averaged	
|	18 m,p-Cresols	1.12560	0.92298	0.92298	0.000	-18.00052	60.00000	Averaged	
|	17 N-Nitrosodipropylamine	0.80134	0.70500	0.70500	0.050	-12.02288	60.00000	Averaged	spcc
|	19 Hexachloroethane	0.51674	0.47448	0.47448	0.000	-8.17830	60.00000	Averaged	
|	21 Nitrobenzene	0.28480	0.27299	0.27299	0.000	-4.14651	60.00000	Averaged	
|	22 Isophorone	0.55110	0.57531	0.57531	0.000	4.39321	60.00000	Averaged	
|	23 2-Nitrophenol	0.14313	0.13715	0.13715	0.001	-4.17708	20.00000	Averaged	ccc
|	24 2,4-Dimethylphenol	0.25207	0.25888	0.25888	0.000	2.70207	60.00000	Averaged	
|	25 bis(2-Chloroethoxy)methane	0.31130	0.31141	0.31141	0.000	0.03526	60.00000	Averaged	
|	26 2,4-Dichlorophenol	0.22142	0.22361	0.22361	0.001	0.98781	20.00000	Averaged	ccc
|	27 Benzoic acid	38.74558	40.00000	0.12093	0.000	-3.13606	60.00000	Linear	
|	28 1,2,4-Trichlorobenzene	0.26794	0.27132	0.27132	0.000	1.26092	60.00000	Averaged	
|	30 Naphthalene	0.80421	0.74496	0.74496	0.000	-7.36676	60.00000	Averaged	
|	204 alpha-Terpineol	0.27113	0.25066	0.25066	0.000	-7.54907	60.00000	Averaged	
|	31 4-Chloroaniline	0.32790	0.23871	0.23871	0.000	-27.20132	60.00000	Averaged	
|	32 Hexachlorobutadiene	0.14561	0.15707	0.15707	0.001	7.87040	20.00000	Averaged	ccc
|	33 4-Chloro-3-methylphenol	0.23185	0.23836	0.23836	0.001	2.80684	20.00000	Averaged	ccc
|	34 2-Methylnaphthalene	0.54489	0.57459	0.57459	0.000	5.45062	60.00000	Averaged	

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD7.i
Lab File ID: s7a0403.d
Analysis Type:
Lab Sample ID: WBN091225-12.2
Method: /chem/MSD7.i/s010410.b/MSD7-M8270C-AQA-123009.m

Injection Date: 04-JAN-2010 11:41
Init. Cal. Date(s): 30-DEC-2009 31-DEC-2009
Init. Cal. Times: 09:11 00:58
Quant Type: ISTD

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
35 1-Methylnaphthalene	0.52781	0.56420	0.56420	0.000	6.89439	60.00000	Averaged
36 Hexachlorocyclopentadiene	0.22989	0.24561	0.24561	0.050	6.84024	60.00000	Averaged spcc
205 2,3-Dichloroaniline	0.51293	0.49580	0.49580	0.000	-3.34007	60.00000	Averaged
37 2,4,6-Trichlorophenol	0.30263	0.30065	0.30065	0.001	-0.65128	20.00000	Averaged ccc
38 2,4,5-Trichlorophenol	0.31558	0.31303	0.31303	0.000	-0.80593	60.00000	Averaged
40 2-Chloronaphthalene	0.97053	0.87422	0.87422	0.000	-9.92347	60.00000	Averaged
42 o-Nitroaniline	0.31209	0.26137	0.26137	0.000	-16.25177	60.00000	Averaged
41 m-Nitroaniline	0.19808	0.08305	0.08305	0.000	-58.07245	60.00000	Averaged
43 Dimethylphthalate	1.11931	1.11080	1.11080	0.000	-0.76000	60.00000	Averaged
44 2,6-Dinitrotoluene	0.26333	0.25429	0.25429	0.000	-3.43513	60.00000	Averaged
50 2,4-Dinitrotoluene	0.33898	0.32694	0.32694	0.000	-3.55133	60.00000	Averaged
45 Acenaphthylene	1.51145	1.51456	1.51456	0.000	0.20596	60.00000	Averaged
47 Acenaphthene	0.95605	0.91807	0.91807	0.001	-3.97232	20.00000	Averaged ccc
48 2,4-Dinitrophenol	40.03962	40.00000	0.09365	0.050	0.09905	60.00000	Linear spcc
49 Dibenzofuran	1.32002	1.30198	1.30198	0.000	-1.36622	60.00000	Averaged
51 Diethylphthalate	1.12441	1.14368	1.14368	0.000	1.71456	60.00000	Averaged
52 4-Nitrophenol	36.38109	40.00000	0.16309	0.050	-9.04728	60.00000	Linear spcc
53 Fluorene	1.11179	1.11713	1.11713	0.000	0.47992	60.00000	Averaged
54 4-Chlorophenylphenylether	0.54913	0.54628	0.54628	0.000	-0.51894	60.00000	Averaged
55 2-Methyl-4,6-dinitrophenol	37.37628	40.00000	0.08140	0.000	-6.55930	60.00000	Linear
56 p-Nitroaniline	29.06774	40.00000	0.11133	0.000	-27.33066	60.00000	Linear
133 Diphenylamine	0.48690	0.43600	0.43600	0.001	-10.45324	20.00000	Averaged ccc
58 1,2-Diphenylhydrazine	0.65474	0.55724	0.55724	0.000	-14.89138	60.00000	Averaged
61 4-Bromophenylphenylether	0.17937	0.17595	0.17595	0.000	-1.90665	60.00000	Averaged
63 Hexachlorobenzene	0.17666	0.18624	0.18624	0.000	5.42063	60.00000	Averaged
65 Pentachlorophenol	0.09488	0.10868	0.10868	0.001	14.54707	20.00000	Averaged ccc
206 n-Octadecane	0.54176	0.41720	0.41720	0.000	-22.99275	60.00000	Averaged
68 Phenanthrene	0.89268	0.81386	0.81386	0.000	-8.82912	60.00000	Averaged
69 Anthracene	0.89878	0.81507	0.81507	0.000	-9.31448	60.00000	Averaged
72 Di-n-butylphthalate	1.10215	1.09406	1.09406	0.000	-0.73352	60.00000	Averaged
76 Fluoranthene	0.99494	0.98953	0.98953	0.001	-0.54373	20.00000	Averaged ccc
79 Pyrene	1.14939	1.11551	1.11551	0.000	-2.94821	60.00000	Averaged
85 Butylbenzylphthalate	0.53712	0.55442	0.55442	0.000	3.22084	60.00000	Averaged
89 Benzo(a)anthracene	0.96577	0.90337	0.90337	0.000	-6.46205	60.00000	Averaged
92 Chrysene	0.88866	0.80976	0.80976	0.000	-8.87778	60.00000	Averaged
93 bis(2-Ethylhexyl)phthalate	0.70898	0.75158	0.75158	0.000	6.00866	60.00000	Averaged

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD7.i
Lab File ID: s7a0403.d
Analysis Type:
Lab Sample ID: WBN091225-12.2
Method: /chem/MSD7.i/s010410.b/MSD7-M8270C-AQA-123009.m

Injection Date: 04-JAN-2010 11:41
Init. Cal. Date(s): 30-DEC-2009 31-DEC-2009
Init. Cal. Times: 09:11 00:58
Quant Type: ISTD

	COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
	94 Di-n-octylphthalate	1.21924	1.31658	1.31658	0.001	7.98357	20.00000	Averaged	ccc
	95 Benzo(b)fluoranthene	0.99301	0.97027	0.97027	0.000	-2.29020	60.00000	Averaged	
	96 Benzo(k)fluoranthene	0.95367	0.90381	0.90381	0.000	-5.22741	60.00000	Averaged	
	97 Benzo(a)pyrene	0.88336	0.84742	0.84742	0.001	-4.06867	20.00000	Averaged	ccc
	99 Indeno(1,2,3-cd)pyrene	0.88047	0.77579	0.77579	0.000	-11.88929	60.00000	Averaged	
	100 Dibenzo(a,h)anthracene	0.70375	0.62445	0.62445	0.000	-11.26880	60.00000	Averaged	
	101 Benzo(ghi)perylene	0.75310	0.64947	0.64947	0.000	-13.76088	60.00000	Averaged	
	126 m-Dinitrobenzene	0.18303	0.17332	0.17332	0.000	-5.30850	60.00000	Averaged	
	130 2,3,4,6-Tetrachlorophenol	0.26923	0.29389	0.29389	0.000	9.15817	60.00000	Averaged	
	143 Dinoseb	41.25604	40.00000	0.13919	0.000	3.14011	60.00000	Linear	
	173 Carbazole	0.65128	0.46222	0.46222	0.000	-29.02852	60.00000	Averaged	
	184 p-Benzoquinone	0.09711	0.09234	0.09234	0.000	-4.91632	60.00000	Averaged	
	192 Methoxychlor	0.64576	0.68016	0.68016	0.000	5.32589	60.00000	Averaged	
	211 p-Toluidine	0.94846	0.58684	0.58684	0.000	-38.12641	60.00000	Averaged	
	210 m-Toluidine	1.22813	0.93008	0.93008	0.000	-24.26912	60.00000	Averaged	
	215 2-Ethoxyethanol	0.70593	0.54774	0.54774	0.000	-22.40885	60.00000	Averaged	
	179 Dibenzo(a,e)pyrene	0.40786	0.41063	0.41063	0.000	0.67907	60.00000	Averaged	
	26 Phthalic anhydride	37.34119	40.00000	0.09700	0.000	-6.64701	60.00000	Linear	
	214 1,4-Dinitrobenzene	0.19404	0.17463	0.17463	0.000	-10.00304	60.00000	Averaged	
	216 Methylenebis(2-chloroanilin	0.12476	0.09699	0.09699	0.000	-22.25648	60.00000	Averaged	
M	222 Trichlorophenols	0.30910	0.30684	0.30684	0.000	-0.73023	60.00000	Averaged	
M	223 Tetrachlorophenols	0.26923	0.29389	0.29389	0.000	9.15817	60.00000	Averaged	
M	224 Benzo(b,k)fluoranthene	0.97334	0.93704	0.93704	0.000	-3.72912	60.00000	Averaged	

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Data file : /chem/MSD7.i/s010410.b/s7a0403.d
Lab Smp Id: WBN091225-12.2 Client Smp ID: MEGACVS
Inj Date : 04-JAN-2010 11:41
Operator : JMB3 Inst ID: MSD7.i
Smp Info : |WBN091225-12.2|CVS|1|SVMF|1|MEGACVS
Misc Info : |MSD8270|WBN091223-01|
Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness
Method : /chem/MSD7.i/s010410.b/MSD7-M8270C-AQA-123009.m
Meth Date : 04-Jan-2010 13:20 jos00786 Quant Type: ISTD
Cal Date : 30-DEC-2009 23:30 Cal File: s713040.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: MEGA.sub
Target Version: 3.50
Processing Host: hpclp1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	3.961	3.961	(1.000)	277706	40.0000	
* 29 Naphthalene-d8	136	4.823	4.823	(1.000)	988090	40.0000	
* 46 Acenaphthene-d10	164	6.075	6.075	(1.000)	595807	40.0000	
* 67 Phenanthrene-d10	188	7.240	7.240	(1.000)	1152466	40.0000	
* 91 Chrysene-d12	240	9.643	9.643	(1.000)	1073914	40.0000	
* 98 Perylene-d12	264	11.309	11.309	(1.000)	960433	40.0000	
$ 3 2-Fluorophenol	112	3.152	3.152	(0.796)	249570	40.0000	33.6
$ 5 Phenol-d5	99	3.667	3.667	(0.926)	316711	40.0000	34.4
$ 20 Nitrobenzene-d5	82	4.317	4.317	(0.895)	308587	40.0000	40.7
$ 39 2-Fluorobiphenyl	172	5.560	5.560	(0.915)	628100	40.0000	39.0
$ 60 2,4,6-Tribromophenol	329	6.667	6.667	(1.097)	95947	40.0000	47.8
$ 81 p-Terphenyl-d14	244	8.613	8.613	(0.893)	738295	40.0000	41.0
1 N-Methyl-N-nitrosomethylamine	74	2.478	2.478	(0.626)	173640	40.0000	36.5
2 Pyridine	79	2.512	2.512	(0.634)	205317	40.0000	36.4
4 Aniline	66	3.744	3.744	(0.945)	124092	40.0000	32.3
6 Phenol	94	3.677	3.677	(0.928)	321122	40.0000	34.6
7 bis(2-Chloroethyl) ether	63	3.759	3.759	(0.949)	233955	40.0000	32.3
8 2-Chlorophenol	128	3.826	3.826	(0.966)	273340	40.0000	35.3
203 n-Decane	43	3.812	3.812	(0.962)	380806	40.0000	29.1
9 1,3-Dichlorobenzene	146	3.927	3.927	(0.991)	339842	40.0000	38.3
11 1,4-Dichlorobenzene	146	3.971	3.971	(1.002)	326669	40.0000	37.9
13 1,2-Dichlorobenzene	146	4.077	4.077	(1.029)	313193	40.0000	39.4
14 bis(2-Chloroisopropyl)ether	45	4.101	4.101	(1.035)	461533	40.0000	25.9
12 Benzyl alcohol	108	4.024	4.024	(1.016)	156796	40.0000	31.7
15 o-Cresol	107	4.072	4.072	(1.028)	205300	40.0000	35.2
18 m,p-Cresols	107	4.173	4.173	(1.053)	256318	40.0000	32.8

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
17 N-Nitrosodipropylamine	70	4.192	4.192	(1.058)	195782	40.0000	35.2
19 Hexachloroethane	117	4.303	4.303	(1.086)	131766	40.0000	36.7
21 Nitrobenzene	77	4.332	4.332	(0.898)	269740	40.0000	38.3
22 Isophorone	82	4.486	4.486	(0.930)	568455	40.0000	41.8
23 2-Nitrophenol	139	4.544	4.544	(0.942)	135519	40.0000	38.3
24 2,4-Dimethylphenol	122	4.534	4.534	(0.940)	255801	40.0000	41.1
25 bis(2-Chloroethoxy)methane	93	4.601	4.601	(0.954)	307704	40.0000	40.0
26 2,4-Dichlorophenol	162	4.703	4.703	(0.975)	220944	40.0000	40.4
27 Benzoic acid	105	4.582	4.582	(0.950)	119493	40.0000	38.7
28 1,2,4-Trichlorobenzene	180	4.770	4.770	(0.989)	268091	40.0000	40.5
30 Naphthalene	128	4.837	4.837	(1.003)	736089	40.0000	37.0
204 alpha-Terpineol	59	4.813	4.813	(0.998)	247677	40.0000	37.0
31 4-Chloroaniline	127	4.837	4.837	(1.003)	235865	40.0000	29.1
32 Hexachlorobutadiene	225	4.905	4.905	(1.017)	155200	40.0000	43.1
33 4-Chloro-3-methylphenol	107	5.160	5.160	(1.070)	235517	40.0000	41.1
34 2-Methylnaphthalene	142	5.319	5.319	(1.103)	567751	40.0000	42.2
35 1-Methylnaphthalene	142	5.391	5.391	(1.118)	557476	40.0000	42.8
36 Hexachlorocyclopentadiene	237	5.420	5.420	(0.892)	146339	40.0000	42.7
205 2,3-Dichloroaniline	161	5.512	5.512	(0.907)	295400	40.0000	38.7
37 2,4,6-Trichlorophenol	196	5.502	5.502	(0.906)	179132	40.0000	39.7
38 2,4,5-Trichlorophenol	196	5.531	5.531	(0.910)	186507	40.0000	39.7
40 2-Chloronaphthalene	162	5.670	5.670	(0.933)	520864	40.0000	36.0
42 o-Nitroaniline	65	5.723	5.723	(0.942)	155726	40.0000	33.5
41 m-Nitroaniline	138	6.022	6.022	(0.991)	49482	40.0000	16.8
43 Dimethylphthalate	163	5.834	5.834	(0.960)	661825	40.0000	39.7
44 2,6-Dinitrotoluene	165	5.887	5.887	(0.969)	151505	40.0000	38.6
50 2,4-Dinitrotoluene	165	6.186	6.186	(1.018)	194792	40.0000	38.6
45 Acenaphthylene	152	5.974	5.974	(0.983)	902388	40.0000	40.1
47 Acenaphthene	154	6.099	6.099	(1.004)	546993	40.0000	38.4
48 2,4-Dinitrophenol	184	6.089	6.089	(1.002)	55799	40.0000	40.0
49 Dibenzofuran	168	6.219	6.219	(1.024)	775730	40.0000	39.4
51 Diethylphthalate	149	6.340	6.340	(1.044)	681415	40.0000	40.7
52 4-Nitrophenol	139	6.104	6.104	(1.005)	97169	40.0000	36.4
53 Fluorene	166	6.484	6.484	(1.067)	665592	40.0000	40.2
54 4-Chlorophenylphenylether	204	6.460	6.460	(1.063)	325477	40.0000	39.8
55 2-Methyl-4,6-dinitrophenol	198	6.494	6.494	(0.897)	93806	40.0000	37.4
56 p-Nitroaniline	138	6.484	6.484	(1.067)	66334	40.0000	29.1
133 Diphenylamine	169	6.547	6.547	(0.904)	502475	40.0000	35.8
58 1,2-Diphenylhydrazine	77	6.581	6.581	(0.909)	642199	40.0000	34.0
61 4-Bromophenylphenylether	248	6.845	6.845	(0.945)	202774	40.0000	39.2
63 Hexachlorobenzene	284	6.918	6.918	(0.955)	214634	40.0000	42.2
65 Pentachlorophenol	266	7.067	7.067	(0.976)	125247	40.0000	45.8
206 n-Octadecane	57	7.052	7.052	(0.974)	480806	40.0000	30.8
68 Phenanthrene	178	7.264	7.264	(1.003)	937947	40.0000	36.5
69 Anthracene	178	7.303	7.303	(1.009)	939335	40.0000	36.3
72 Di-n-butylphthalate	149	7.659	7.659	(1.058)	1260868	40.0000	39.7
76 Fluoranthene	202	8.300	8.300	(1.146)	1140399	40.0000	39.8

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
79 Pyrene	202	8.516	8.516	(0.883)	1197958	40.0000	38.8
85 Butylbenzylphthalate	149	9.041	9.041	(0.938)	595403	40.0000	41.3
89 Benzo(a)anthracene	228	9.629	9.629	(0.998)	970137	40.0000	37.4
92 Chrysene	228	9.667	9.667	(1.002)	869616	40.0000	36.4
93 bis(2-Ethylhexyl)phthalate	149	9.566	9.566	(0.992)	807135	40.0000	42.4
94 Di-n-octylphthalate	149	10.216	10.216	(0.903)	1264491	40.0000	43.2
95 Benzo(b)fluoranthene	252	10.794	10.794	(0.954)	931877	40.0000	39.1
96 Benzo(k)fluoranthene	252	10.832	10.832	(0.958)	868053	40.0000	37.9
97 Benzo(a)pyrene	252	11.232	11.232	(0.993)	813889	40.0000	38.4
99 Indeno(1,2,3-cd)pyrene	276	13.062	13.062	(1.155)	745090	40.0000	35.2
100 Dibenzo(a,h)anthracene	278	13.076	13.076	(1.156)	599738	40.0000	35.5
101 Benzo(ghi)perylene	276	13.596	13.596	(1.202)	623769	40.0000	34.5
126 m-Dinitrobenzene	168	5.873	5.873	(0.967)	103264	40.0000	37.9
130 2,3,4,6-Tetrachlorophenol	232	6.301	6.301	(1.037)	175102	40.0000	43.7
143 Dinoseb	211	7.187	7.187	(0.993)	160416	40.0000	41.2
173 Carbazole	167	7.418	7.418	(1.025)	532697	40.0000	28.4
184 p-Benzoquinone	54	3.451	3.451	(0.871)	25643	40.0000	38.0
192 Methoxychlor	227	9.513	9.513	(0.987)	730429	40.0000	42.1
211 p-Toluidine	106	4.231	4.231	(1.068)	162970	40.0000	24.7
210 m-Toluidine	106	4.255	4.255	(1.074)	258288	40.0000	30.3
215 2-Ethoxyethanol	59	2.324	2.324	(0.587)	152111	40.0000	31.0
179 Dibenzo(a,e)pyrene	302	17.675	17.675	(1.563)	394380	40.0000	40.3
26 Phthalic anhydride	104	5.343	5.343	(1.108)	95842	40.0000	37.3
214 1,4-Dinitrobenzene	75	5.815	5.815	(0.957)	104047	40.0000	36.0
216 Methylenebis(2-chloroaniline)	231	9.576	9.576	(0.993)	104161	40.0000	31.1
M 222 Trichlorophenols	196				365639	80.0000	79.4
M 223 Tetrachlorophenols	232				175102	40.0000	43.7
M 224 Benzo(b,k)fluoranthene	252				1799930	80.0000	77.0

Data File: /chem/MSD7.i/s010410.b/s7a0403.d
Date : 04-JAN-2010 11:41
Client ID: MEGACVS
Sample Info: IWBN091225-12,2|CVS|1|SVMF11|MEGACVS
Column phase: J&W DB-5MS

Instrument: MSD7.i
Operator: JMB3
Column diameter: 0.20

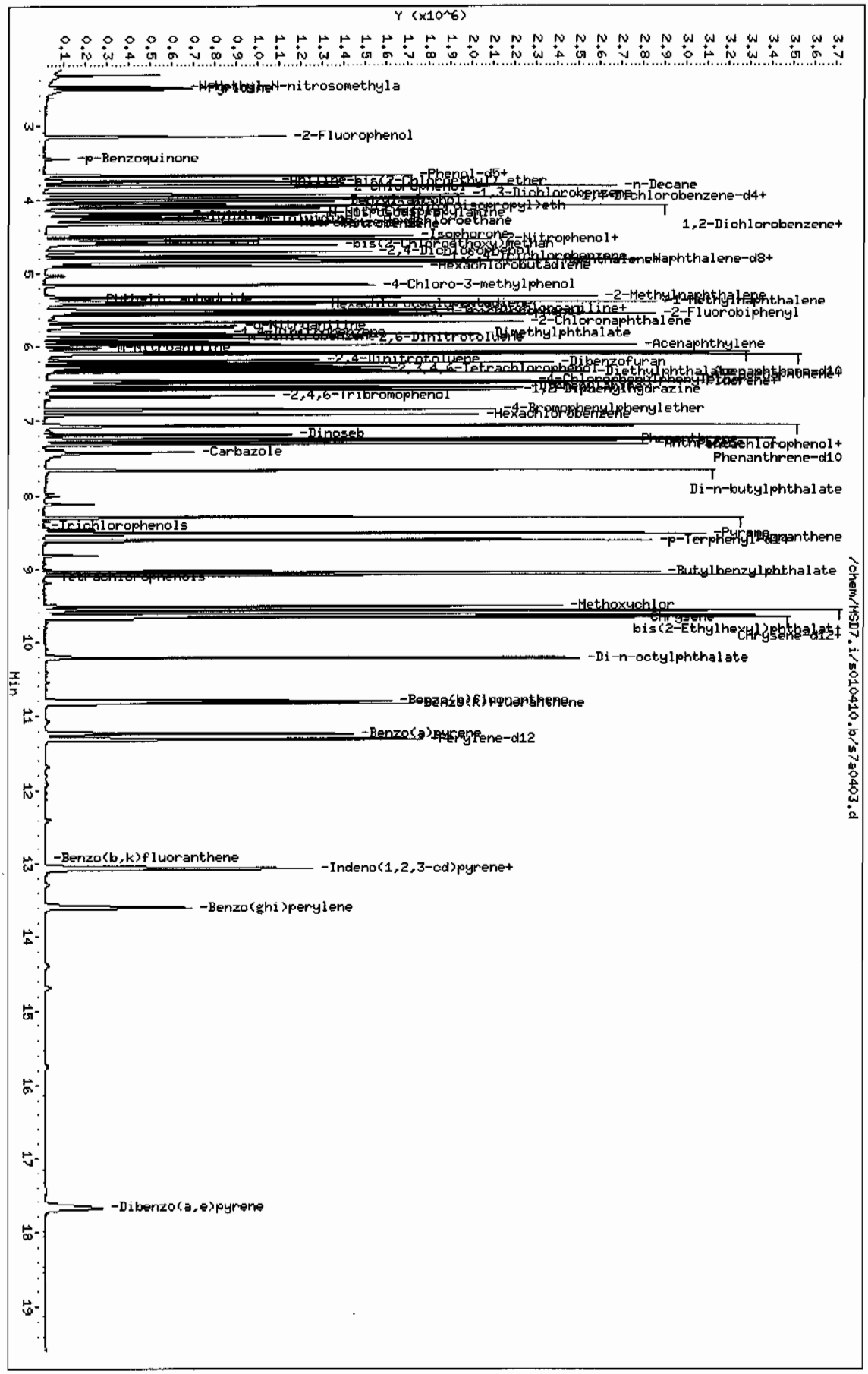

Data File: /chem/MSD7.i/s010410.b/s7a0404.d
Report Date: 04-Jan-2010 12:28

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD7.i
Lab File ID: s7a0404.d
Analysis Type:
Lab Sample ID: WBN100103-03.2 Quant Type: ISTD
Method: /chem/MSD7.i/s010410.b/MSD7-M8270C-AQA-123009.m

Injection Date: 04-JAN-2010 12:07
Init. Cal. Date(s): 30-DEC-2009 31-DEC-2009
Init. Cal. Times: 09:11 00:58

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
209 Benzaldehyde	0.91426	0.87556	0.87556	0.000	-4.23369	60.00000	Averaged
16 Acetophenone	1.25268	0.96538	0.96538	0.000	-22.93504	60.00000	Averaged
189 Caprolactam	0.08525	0.09274	0.09274	0.000	8.79336	60.00000	Averaged
208 1,1'-Biphenyl	1.22037	1.17885	1.17885	0.000	-3.40260	60.00000	Averaged
207 Atrazine	0.04386	0.04346	0.04346	0.000	-0.90631	60.00000	Averaged
77 Benzidine	14.90899	40.00000	0.10281	0.000	-62.72753	60.00000	Linear <-
90 3,3'-Dichlorobenzidine	0.32314	0.29232	0.29232	0.000	-9.53836	60.00000	Averaged
102 1,4-Dioxane	0.39191	0.36008	0.36008	0.000	-8.12110	60.00000	Averaged
103 Methyl methacrylate	0.21768	0.19755	0.19755	0.000	-9.24566	60.00000	Averaged
104 Ethyl methacrylate	0.84734	0.77655	0.77655	0.000	-8.35498	60.00000	Averaged
105 2-Picoline	1.27319	1.15297	1.15297	0.000	-9.44195	60.00000	Averaged
106 N-Nitrosomethylethylamine	0.50185	0.44202	0.44202	0.000	-11.92280	60.00000	Averaged
107 Methyl methanesulfonate	0.56571	0.49757	0.49757	0.000	-12.04449	60.00000	Averaged
108 N-Nitrosodiethylamine	0.52257	0.47070	0.47070	0.000	-9.92443	60.00000	Averaged
109 Ethyl Methanesulfonate	0.71008	0.56833	0.56833	0.000	-19.96297	60.00000	Averaged
110 Pentachloroethane	0.35164	0.34497	0.34497	0.000	-1.89560	60.00000	Averaged
111 N-Nitrosopyrrolidine	0.53069	0.47022	0.47022	0.000	-11.39430	60.00000	Averaged
113 N-Nitrosomorpholine	0.79838	0.59354	0.59354	0.000	-25.65715	60.00000	Averaged
114 o-Toluidine	1.75483	1.41606	1.41606	0.000	-19.30462	60.00000	Averaged
115 N-Nitrosopiperidine	0.14648	0.15101	0.15101	0.000	3.09174	60.00000	Averaged
116 a,a-Dimethylphenethylamine	0.97956	0.77277	0.77277	0.000	-21.11034	60.00000	Averaged
118 2,6-Dichlorophenol	0.22483	0.24344	0.24344	0.000	8.27590	60.00000	Averaged
119 Hexachloropropene	0.12226	0.14440	0.14440	0.000	18.10947	60.00000	Averaged
120 p-Phenylenediamine	30.63434	40.00000	0.17299	0.000	-23.41416	60.00000	Linear
121 N-Nitrosodi-n-butylamine	0.21962	0.21145	0.21145	0.000	-3.72145	60.00000	Averaged
122 Safrole	0.20249	0.21676	0.21676	0.000	7.04626	60.00000	Averaged
123 1,2,4,5-Tetrachlorobenzene	0.45257	0.46818	0.46818	0.000	3.44982	60.00000	Averaged
124 Isosafrole	0.35719	0.32872	0.32872	0.000	-7.96965	60.00000	Averaged
125 1,4-Naphthoquinone	0.32292	0.36512	0.36512	0.000	13.06779	60.00000	Averaged
127 Pentachlorobenzene	0.40007	0.42779	0.42779	0.000	6.92922	60.00000	Averaged
128 1-Naphthylamine	0.91971	0.86846	0.86846	0.000	-5.57304	60.00000	Averaged
129 2-Naphthylamine	0.99301	0.87365	0.87365	0.000	-12.02048	60.00000	Averaged
131 5-Nitro-o-toluidine	0.29348	0.28889	0.28889	0.000	-1.56530	60.00000	Averaged
136 1,3,5-Trinitrobenzene	38.73861	40.00000	0.13697	0.000	-3.15347	60.00000	Linear
137 Phenacetin	0.29039	0.25254	0.25254	0.000	-13.03407	60.00000	Averaged
138 Diallate	0.23950	0.22654	0.22654	0.000	-5.41399	60.00000	Averaged

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD7.i
Lab File ID: s7a0404.d
Analysis Type:
Lab Sample ID: WBN100103-03.2
Method: /chem/MSD7.i/s010410.b/MSD7-M8270C-AQA-123009.m

Injection Date: 04-JAN-2010 12:07
Init. Cal. Date(s): 30-DEC-2009 31-DEC-2009
Init. Cal. Times: 09:11 00:58
Quant Type: ISTD

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
212 Cis Diallate	0.25521	0.22885	0.22885	0.000	-10.32785	60.00000	Averaged
213 Trans Diallate	0.28177	0.26651	0.26651	0.000	-5.41399	60.00000	Averaged
140 4-Aminobiphenyl	0.59215	0.39573	0.39573	0.000	-33.17066	60.00000	Averaged
141 Pentachloronitrobenzene	0.06915	0.07875	0.07875	0.000	13.87276	60.00000	Averaged
142 Pronamide	0.26312	0.28821	0.28821	0.000	9.53432	60.00000	Averaged
146 4-Nitroquinoline-1-oxide	42.02935	40.00000	0.02747	0.000	5.07338	60.00000	Wt Linear
147 Methapyrilene	0.51155	0.38527	0.38527	0.000	-24.68677	60.00000	Averaged
148 Isodrin	0.10826	0.11119	0.11119	0.000	2.70574	60.00000	Averaged
149 Aramite	0.05353	0.05333	0.05333	0.000	-0.36966	60.00000	Averaged
150 Kepone	0.08030	0.09838	0.09838	0.000	22.51983	60.00000	Averaged
151 p-(Dimethylamino)azobenzene	0.30437	0.26965	0.26965	0.000	-11.40771	60.00000	Averaged
152 Chlorobenzilate	0.27301	0.28726	0.28726	0.000	5.22228	60.00000	Averaged
153 3,3'-Dimethylbenzidine	0.50900	0.35197	0.35197	0.000	-30.85176	60.00000	Averaged
155 2-Acetylaminofluorene	0.37564	0.32985	0.32985	0.000	-12.18765	60.00000	Averaged
157 7,12Dimethylbenz(a)anthrace	0.46508	0.45672	0.45672	0.000	-1.79601	60.00000	Averaged
158 3-Methylcholanthrene	0.41462	0.41660	0.41660	0.000	0.47780	60.00000	Averaged

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Data file : /chem/MSD7.i/s010410.b/s7a0404.d
Lab Smp Id: WBN100103-03.2 Client Smp ID: APCVS
Inj Date : 04-JAN-2010 12:07
Operator : JMB3 Inst ID: MSD7.i
Smp Info : |WBN100103-03.2|CVS|1|SVMF|1|APCVS
Misc Info : |MSD8270|WBN091223-01|
Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness
Method : /chem/MSD7.i/s010410.b/MSD7-M8270C-AQA-123009.m
Meth Date : 04-Jan-2010 12:28 jos00786 Quant Type: ISTD
Cal Date : 30-DEC-2009 23:30 Cal File: s713040.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AP12.sub
Target Version: 3.50
Processing Host: hpclp1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	3.961	3.961	(1.000)	331361	40.0000	
* 29 Naphthalene-d8	136	4.823	4.823	(1.000)	1073583	40.0000	
* 46 Acenaphthene-d10	164	6.070	6.070	(1.000)	688151	40.0000	
* 67 Phenanthrene-d10	188	7.240	7.240	(1.000)	1300874	40.0000	
* 91 Chrysene-d12	240	9.638	9.638	(1.000)	1351556	40.0000	
* 98 Perylene-d12	264	11.304	11.304	(1.000)	1308412	40.0000	
209 Benzaldehyde	77	3.687	3.687	(0.931)	290125	40.0000	38.3
16 Acetophenone	105	4.207	4.207	(1.062)	319890	40.0000	30.8
189 Caprolactam	113	5.088	5.088	(1.055)	99566	40.0000	43.5
208 1,1'-Biphenyl	154	5.637	5.637	(0.929)	811228	40.0000	38.6
207 Atrazine	173	6.937	6.937	(0.958)	56541	40.0000	39.6
77 Benzidine	184	8.391	8.391	(0.871)	138950	40.0000	14.9
90 3,3'-Dichlorobenzidine	252	9.571	9.571	(0.993)	395081	40.0000	36.2
102 1,4-Dioxane	88	2.333	2.333	(0.589)	119316	40.0000	36.8
103 Methyl methacrylate	100	2.324	2.324	(0.587)	65462	40.0000	36.3
104 Ethyl methacrylate	69	2.685	2.685	(0.678)	257317	40.0000	36.6
105 2-Picoline	93	2.878	2.878	(0.726)	382051	40.0000	36.2
106 N-Nitrosomethylethylamine	88	2.916	2.916	(0.736)	146467	40.0000	35.2
107 Methyl methanesulfonate	80	3.065	3.065	(0.774)	164876	40.0000	35.2
108 N-Nitrosodiethylamine	102	3.297	3.297	(0.832)	155973	40.0000	36.0
109 Ethyl Methanesulfonate	79	3.446	3.446	(0.870)	188321	40.0000	32.0
110 Pentachloroethane	167	3.788	3.788	(0.956)	114309	40.0000	39.2
111 N-Nitrosopyrrolidine	100	4.192	4.192	(1.058)	155812	40.0000	35.4
113 N-Nitrosomorpholine	56	4.211	4.211	(1.063)	196675	40.0000	29.7
114 o-Toluidine	106	4.231	4.231	(1.068)	469229	40.0000	32.3
115 N-Nitrosopiperidine	114	4.433	4.433	(0.919)	162123	40.0000	41.2

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
116 a,a-Dimethylphenethylamine	58	4.678	4.678	(0.970)	829636	40.0000	31.6
118 2,6-Dichlorophenol	162	4.861	4.861	(1.008)	261355	40.0000	43.3
119 Hexachloropropene	213	4.890	4.890	(1.014)	155021	40.0000	47.2
120 p-Phenylenediamine	108	5.097	5.097	(1.057)	185720	40.0000	30.6
121 N-Nitrosodi-n-butylamine	84	5.064	5.064	(1.050)	227009	40.0000	38.5
122 Safrole	162	5.227	5.227	(1.084)	232709	40.0000	42.8
123 1,2,4,5-Tetrachlorobenzene	216	5.435	5.435	(0.895)	322179	40.0000	41.4
124 Isosafrole	162	5.598	5.598	(0.922)	226210	40.0000	36.8
125 1,4-Naphthoquinone	158	5.786	5.786	(0.953)	251258	40.0000	45.2
127 Pentachlorobenzene	250	6.186	6.186	(1.019)	294385	40.0000	42.8
128 1-Naphthylamine	143	6.272	6.272	(1.033)	597630	40.0000	37.8
129 2-Naphthylamine	143	6.330	6.330	(1.043)	601202	40.0000	35.2
131 5-Nitro-o-toluidine	152	6.470	6.470	(1.066)	198799	40.0000	39.4
136 1,3,5-Trinitrobenzene	75	6.715	6.715	(0.928)	178183	40.0000	38.7
137 Phenacetin	108	6.764	6.764	(0.934)	328526	40.0000	34.8
138 Diallate	86	6.754	6.754	(0.933)	294694	40.0000	37.8
212 Cis Diallate	86	6.831	6.831	(0.943)	44656	6.00000	5.4
213 Trans Diallate	86	6.754	6.754	(0.933)	294694	34.0000	32.2
140 4-Aminobiphenyl	169	7.057	7.057	(0.975)	514793	40.0000	26.7
141 Pentachloronitrobenzene	237	7.077	7.077	(0.977)	102438	40.0000	45.5
142 Pronamide	173	7.067	7.067	(0.976)	374925	40.0000	43.8
146 4-Nitroquinoline-1-oxide	101	7.905	7.905	(1.092)	35736	40.0000	42.0
147 Methapyrilene	58	7.943	7.943	(1.097)	501185	40.0000	30.1
148 Isodrin	193	8.165	8.165	(1.128)	144644	40.0000	41.1
149 Aramite	185	8.560	8.560	(1.182)	69378	40.0000	39.8
150 Kepone	272	9.147	9.147	(1.263)	127983	40.0000	49.0
151 p-(Dimethylamino)azobenzene	120	8.738	8.738	(0.907)	364446	40.0000	35.4
152 Chlorobenzilate	251	8.767	8.767	(0.910)	388254	40.0000	42.1
153 3,3'-Dimethylbenzidine	212	9.051	9.051	(0.939)	475704	40.0000	27.6
155 2-Acetylaminofluorene	181	9.296	9.296	(0.965)	445816	40.0000	35.1
157 7,12Dimethylbenz(a)anthracene	256	10.770	10.770	(0.953)	597584	40.0000	39.3
158 3-Methylcholanthrene	268	11.709	11.709	(1.036)	545084	40.0000	40.2

Data File: /chem/MSD7.i/s010410.b/s7a0404.d
Date : 04-JAN-2010 12:07
Client ID: APCVS
Sample Info: IWBN100103-03,2ICVS|1|SVMF|1|APCVS
Column phase: J&W DB-5MS

Instrument: MSD7.i
Operator: JMB3
Column diameter: 0.20

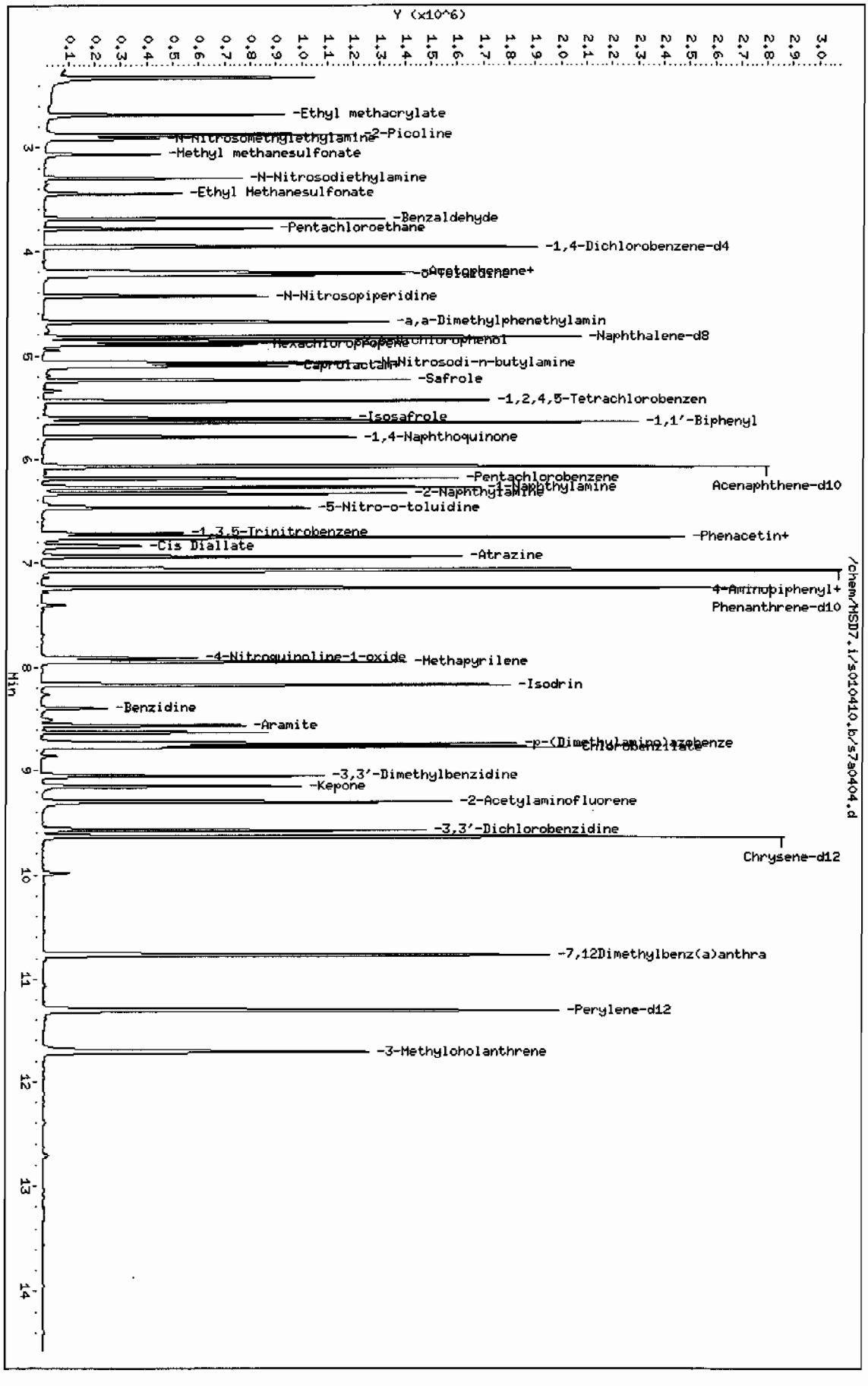

Page 1

QC Data

Data File: /chem/MSD7.i/s123009.b/s713001.d

Page 1

Date : 30-DEC-2009 08:32

Client ID: DFTPP

Instrument: MSD7.i

Sample Info: |WBN091213-01|DFTPP|1|SVMF|1|DFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

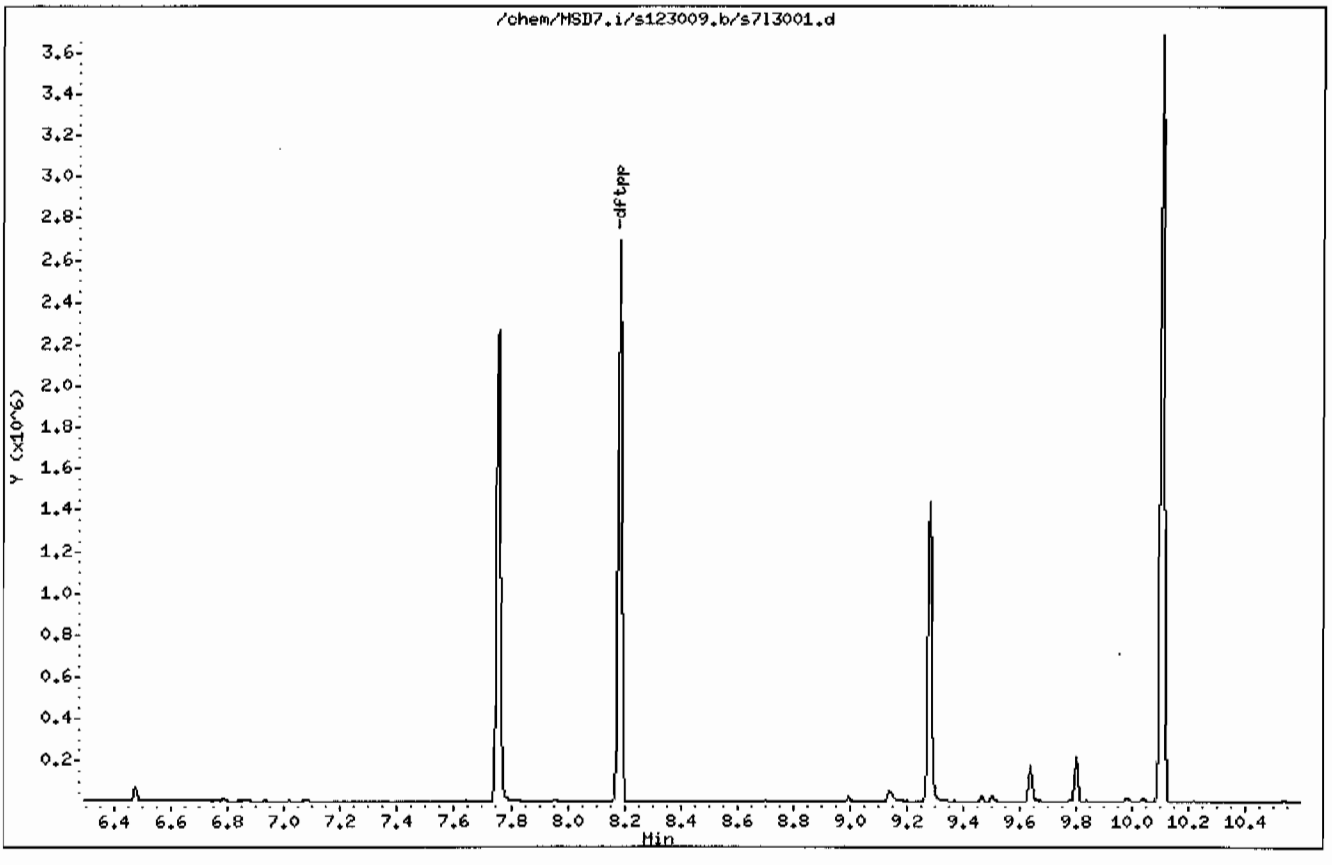

Data File: /chem/MSD7.i/s123009.b/s713001.d

Date : 30-DEC-2009 08:32

Client ID: DFTPP

Instrument: MSD7.i

Sample Info: |WBN091213-01|DFTPP|1|SVMF|1|DFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

1 dftpp

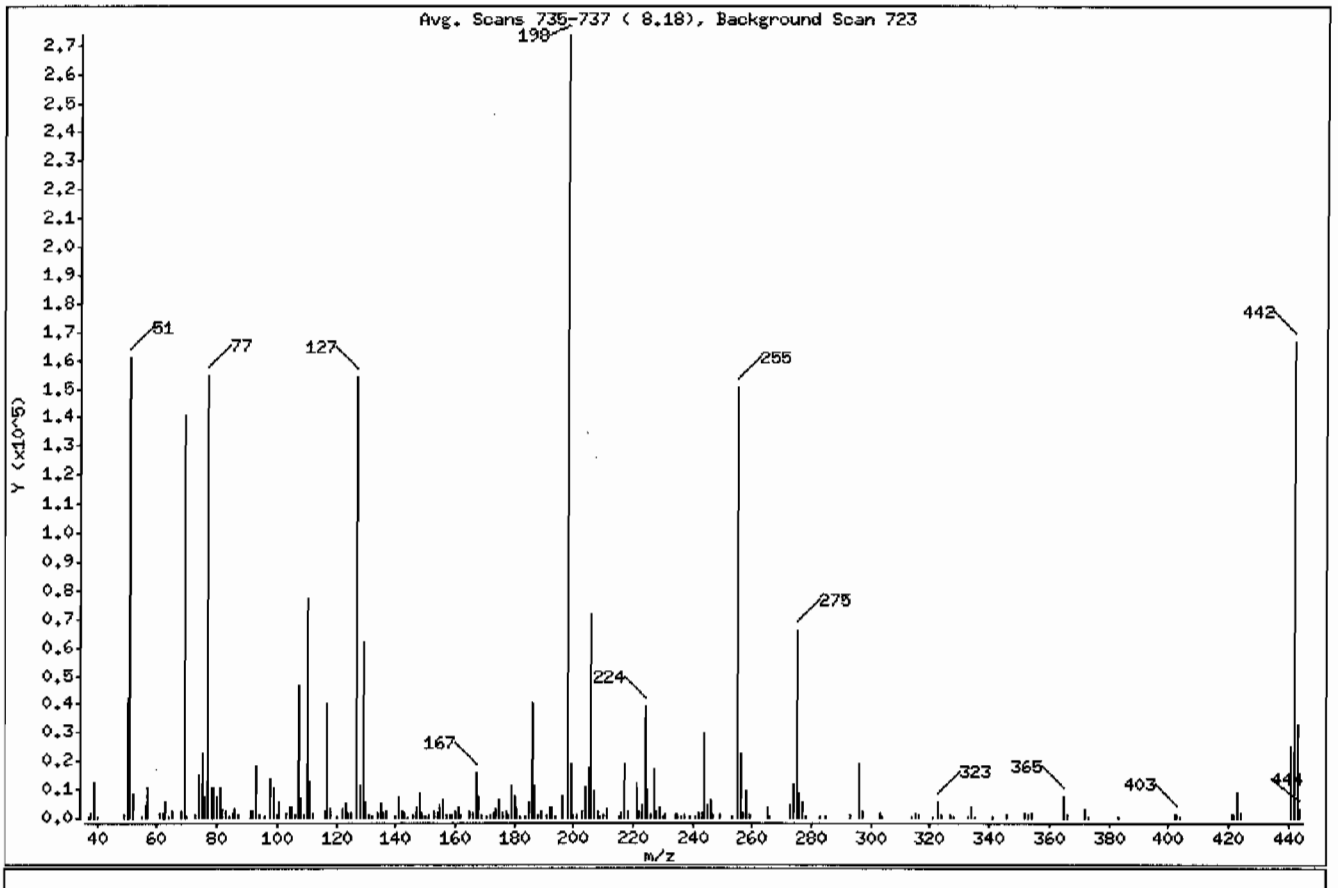

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	58.81
68	Less than 2.00% of mass 69	0.93 (1.81)
69	Mass 69 relative abundance	51.44
70	Less than 2.00% of mass 69	0.29 (0.56)
127	40.00 - 60.00% of mass 198	56.36
197	Less than 1.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.84
275	10.00 - 30.00% of mass 198	24.18
365	Greater than 1.00% of mass 198	2.85
441	Present, but less than mass 443	9.22
442	Greater than 40.00% of mass 198	60.94
443	17.00 - 23.00% of mass 442	11.90 (19.53)

Data File: /chem/MSD7.i/s123009.b/s713001.d

Date : 30-DEC-2009 08:32

Client ID: DFTPP

Instrument: MSD7.i

Sample Info: |WBN091213-01|DFTPP|1|SVMF|1|DFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

Data File: s713001.d
Spectrum: Avg. Scans 735-737 (8.18), Background Scan 723
Location of Maximum: 198.00
Number of points: 214

m/z	Y	m/z	Y	m/z	Y	m/z	Y
37.00	727	117.00	40512	182.00	595	255.00	150080
38.00	2179	118.00	2836	184.00	820	256.00	22400
39.00	12271	120.00	554	185.00	5401	257.00	1798
40.00	703	122.00	3301	186.00	39960	258.00	9611
49.00	974	123.00	4724	187.00	11522	259.00	1482
50.00	42112	124.00	2036	188.00	1159	265.00	3804
51.00	160896	125.00	2050	189.00	2740	266.00	578
52.00	8139	127.00	154176	191.00	1006	273.00	4664
55.00	591	128.00	11245	192.00	3503	274.00	12062
56.00	4232	129.00	61344	193.00	3859	275.00	66160
57.00	10553	130.00	5362	194.00	850	276.00	8994
61.00	1931	131.00	1087	196.00	7628	277.00	5623
62.00	2126	132.00	356	198.00	273600	278.00	856
63.00	5565	134.00	1933	199.00	18728	283.00	616
64.00	746	135.00	4814	200.00	1506	285.00	942
65.00	2791	136.00	1965	201.00	1231	293.00	1177
68.00	2545	137.00	2281	203.00	2268	296.00	18672
69.00	140736	140.00	740	204.00	10873	297.00	2669
70.00	784	141.00	7681	205.00	17608	303.00	2134
73.00	1164	142.00	2502	206.00	71776	304.00	554
74.00	15025	143.00	1697	207.00	9614	314.00	941
75.00	22672	144.00	179	208.00	2465	315.00	1871
76.00	7757	146.00	1374	209.00	915	316.00	1034
77.00	155008	147.00	3647	210.00	1110	321.00	399
78.00	10414	148.00	9107	211.00	2909	323.00	5380
79.00	10387	149.00	1976	215.00	833	324.00	1009
80.00	7703	150.00	598	216.00	1737	327.00	1085
81.00	10851	151.00	1200	217.00	19040	328.00	378
82.00	2909	153.00	2457	218.00	2619	333.00	375
83.00	2551	154.00	1907	221.00	12041	334.00	3793
84.00	617	155.00	4264	222.00	2340	335.00	900
85.00	1879	156.00	6243	223.00	4225	341.00	579
86.00	3277	157.00	1177	224.00	38992	346.00	1208
87.00	1404	158.00	1397	225.00	10161	352.00	1730
91.00	2436	159.00	1102	226.00	1092	353.00	1106

Data File: /chem/MSD7.i/s123009.b/s713001.d

Date : 30-DEC-2009 08:32

Client ID: DFTPP

Instrument: MSD7.i

Sample Info: |WBN091213-01|DFTPP|1|SVMF|1|DFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

Data File: s713001.d
Spectrum: Avg. Scans 735-737 (8.18), Background Scan 723
Location of Maximum: 198.00
Number of points: 214

m/z	Y	m/z	Y	m/z	Y	m/z	Y
92.00	2796	160.00	2281	227.00	17232	354.00	1653
93.00	18344	161.00	3566	228.00	2389	365.00	7811
94.00	1318	162.00	1001	229.00	3506	366.00	990
96.00	857	165.00	2745	230.00	369	372.00	2999
98.00	14094	166.00	2169	231.00	1366	373.00	638
99.00	10486	167.00	15717	234.00	1088	383.00	694
100.00	974	168.00	7435	235.00	1091	402.00	1047
101.00	5918	169.00	1184	236.00	932	403.00	1460
103.00	2074	171.00	733	237.00	1182	404.00	423
104.00	3690	172.00	1337	239.00	753	421.00	1233
105.00	3838	173.00	1655	241.00	843	422.00	1222
106.00	1192	174.00	2859	242.00	2037	423.00	8926
107.00	46824	175.00	5987	243.00	2193	424.00	1684
108.00	6820	176.00	1602	244.00	29576	441.00	25240
109.00	1382	177.00	2710	245.00	4235	442.00	166720
110.00	77576	178.00	954	246.00	6407	443.00	32560
111.00	12274	179.00	11200	247.00	1216	444.00	3081
112.00	1716	180.00	7574	249.00	1137		
116.00	2727	181.00	3499	253.00	701		

Data File: /chem/MSD7.i/s010410.b/s7a0402.d

Date : 04-JAN-2010 11:28

Client ID: DFTPP

Instrument: MSD7.i

Sample Info: |WBN091213-01|DFTPP|1|SVMF|1|DFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

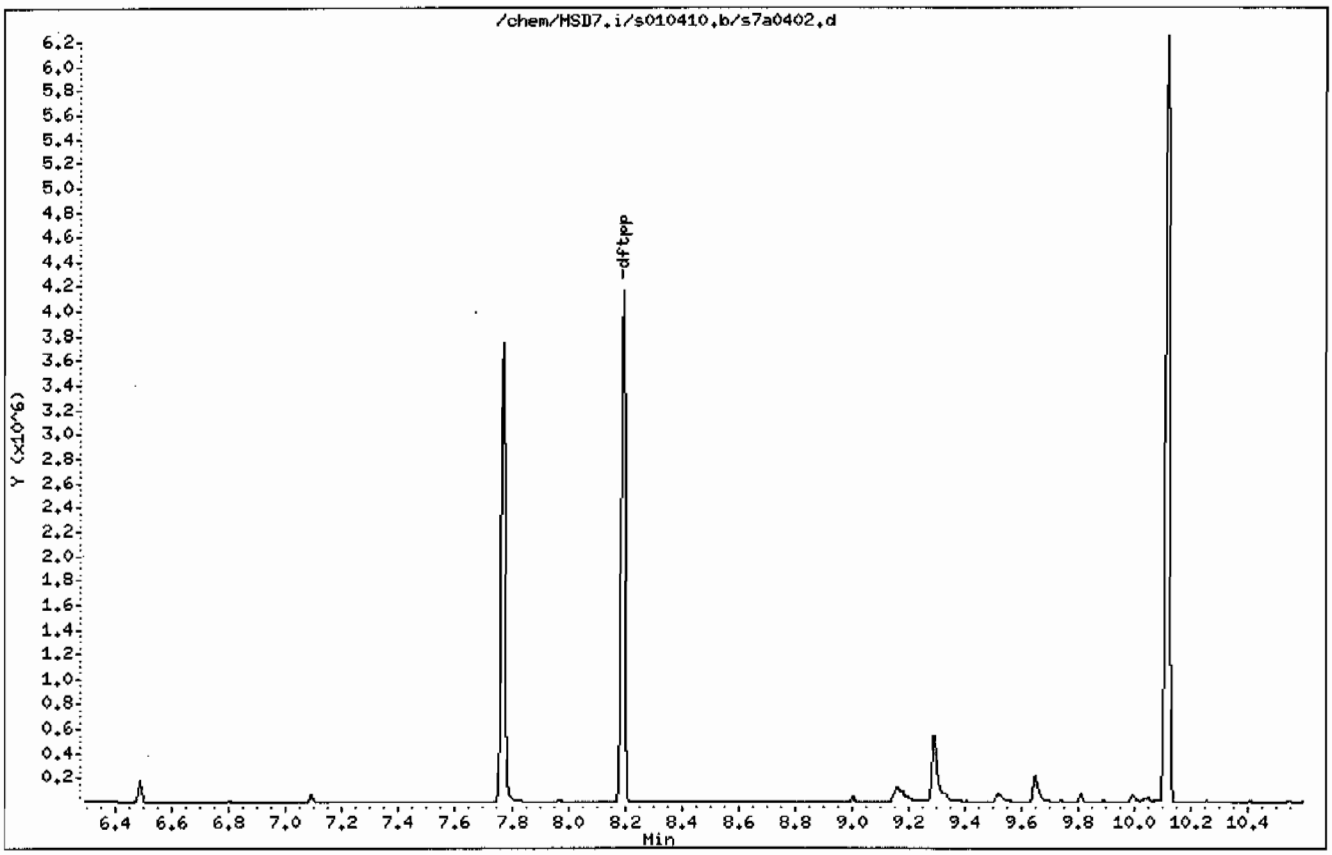

Data File: /chem/MSD7.i/s010410.b/s7a0402.d

Date : 04-JAN-2010 11:28

Client ID: DFTPP

Instrument: MSD7.i

Sample Info: |WBN091213-01|DFTPP|1|SVMF|1|DFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

1 dftpp

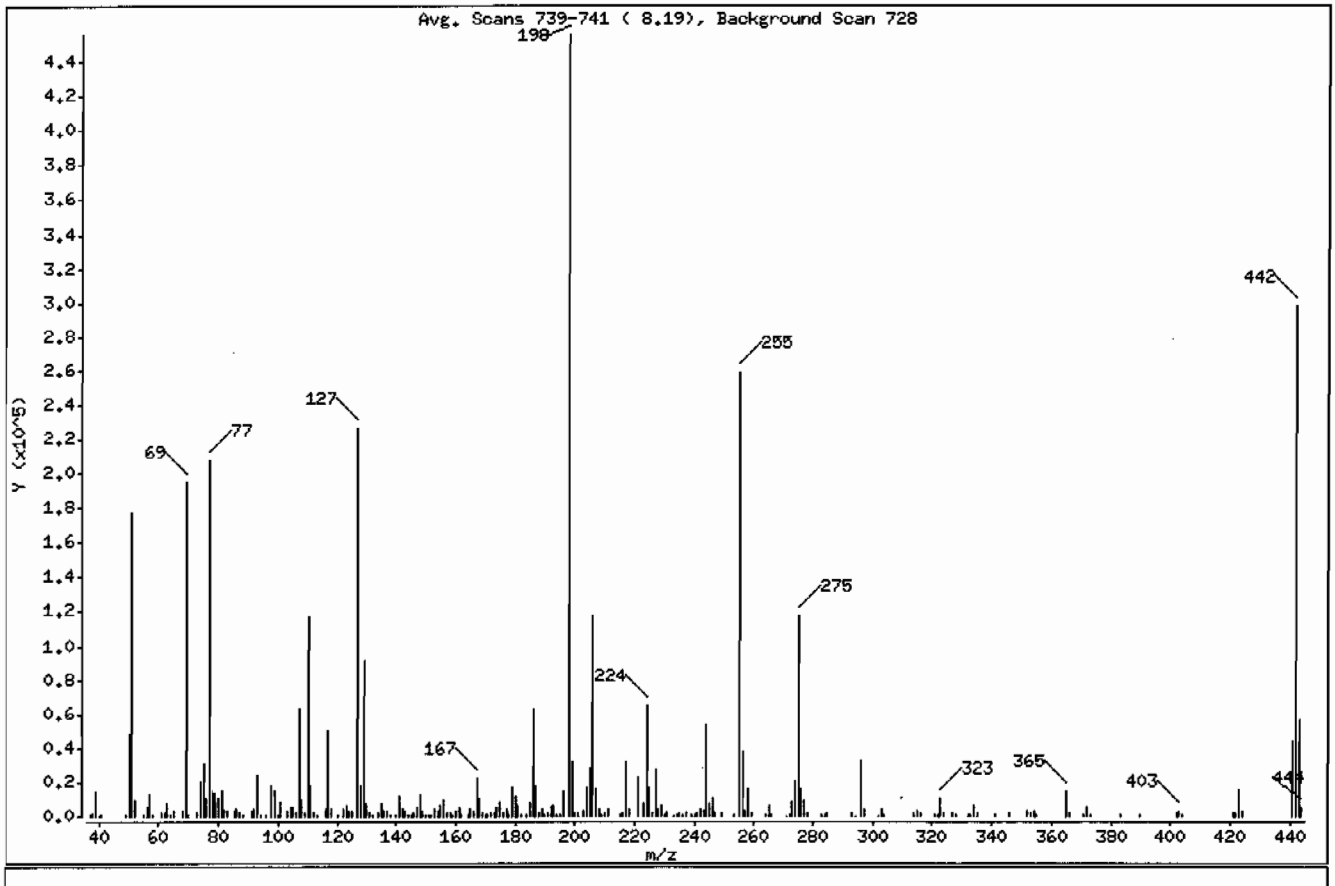

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	38.94
68	Less than 2.00% of mass 69	0.75 (1.75)
69	Mass 69 relative abundance	42.69
70	Less than 2.00% of mass 69	0.21 (0.50)
127	40.00 - 60.00% of mass 198	49.60
197	Less than 1.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.94
275	10.00 - 30.00% of mass 198	25.69
365	Greater than 1.00% of mass 198	3.11
441	Present, but less than mass 443	9.63
442	Greater than 40.00% of mass 198	65.29
443	17.00 - 23.00% of mass 442	12.39 (18.98)

Data File: /chem/MSD7.i/s010410.b/s7a0402.d

Date : 04-JAN-2010 11:28

Client ID: DFTPP

Instrument: MSD7.i

Sample Info: |WBN091213-01|DFTPP|1|SVMF|1|DFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

Data File: s7a0402.d
Spectrum: Avg. Scans 739-741 (8.19), Background Scan 728
Location of Maximum: 198.00
Number of points: 236

m/z	Y	m/z	Y	m/z	Y	m/z	Y
37.00	764	122.00	4320	187.00	17936	266.00	1139
38.00	2213	123.00	6456	188.00	1808	271.00	369
39.00	14397	124.00	2965	189.00	4076	272.00	751
40.00	297	125.00	2903	190.00	703	273.00	8277
41.00	547	127.00	226112	191.00	1836	274.00	21088
49.00	1556	128.00	17504	192.00	5173	275.00	117080
50.00	48064	129.00	91360	193.00	6021	276.00	15441
51.00	177472	130.00	7400	194.00	1231	277.00	9508
52.00	9234	131.00	1617	195.00	626	278.00	1734
55.00	1038	132.00	849	196.00	14186	283.00	1142
56.00	5425	134.00	2521	198.00	455808	284.00	808
57.00	12707	135.00	7236	199.00	31616	285.00	1854
58.00	566	136.00	2653	200.00	2542	293.00	2343
61.00	2189	137.00	3509	201.00	2179	294.00	386
62.00	2530	138.00	729	203.00	3208	296.00	32400
63.00	7327	140.00	1154	204.00	16348	297.00	4493
64.00	1058	141.00	11123	205.00	28152	302.00	389
65.00	3588	142.00	3794	206.00	117224	303.00	3901
68.00	3412	143.00	2684	207.00	16196	304.00	1008
69.00	194560	144.00	765	208.00	3881	314.00	1611
70.00	967	145.00	692	209.00	1299	315.00	3579
73.00	1650	146.00	2080	210.00	1754	316.00	2094
74.00	19656	147.00	5741	211.00	4456	321.00	982
75.00	30816	148.00	12631	215.00	1226	322.00	616
76.00	10378	149.00	2827	216.00	2304	323.00	10586
77.00	207168	150.00	731	217.00	31528	324.00	1810
78.00	14053	151.00	1385	218.00	3883	327.00	2147
79.00	14101	152.00	874	221.00	23032	328.00	1130
80.00	10716	153.00	3717	223.00	7043	332.00	804
81.00	15043	154.00	2754	224.00	64728	333.00	949
82.00	3762	155.00	6325	225.00	16361	334.00	6621
83.00	3253	156.00	9202	226.00	1735	335.00	1795
85.00	2678	157.00	1909	227.00	26960	341.00	1094
86.00	4427	158.00	2031	228.00	3958	346.00	2366
87.00	1906	159.00	1526	229.00	5850	352.00	3023

Data File: /chem/MSD7.i/s010410.b/s7a0402.d

Date : 04-JAN-2010 11:28

Client ID: DFTPP

Instrument: MSD7.i

Sample Info: |WBN091213-01|DFTPP|1|SVMF|1|DFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

Data File: s7a0402.d
Spectrum: Avg. Scans 739-741 (8.19), Background Scan 728
Location of Maximum: 198.00
Number of points: 236

m/z	Y	m/z	Y	m/z	Y	m/z	Y
88.00	691	160.00	3510	230.00	812	353.00	2061
91.00	3650	161.00	5028	231.00	2617	354.00	3196
92.00	3843	162.00	1542	233.00	350	355.00	668
93.00	23720	164.00	568	234.00	1566	365.00	14158
94.00	1510	165.00	4002	235.00	2214	366.00	2023
96.00	1179	166.00	3208	236.00	1285	371.00	767
98.00	17912	167.00	21896	237.00	2233	372.00	5000
99.00	14663	168.00	10417	239.00	1010	373.00	1400
100.00	1198	169.00	2142	240.00	910	383.00	1325
101.00	8240	170.00	713	241.00	1588	390.00	607
103.00	2744	171.00	936	242.00	3712	402.00	1953
104.00	5564	172.00	2078	243.00	3532	403.00	2657
105.00	4895	173.00	2515	244.00	53400	404.00	909
106.00	1685	174.00	4817	245.00	7457	421.00	2090
107.00	63256	175.00	8833	246.00	10578	422.00	2111
108.00	9896	176.00	2603	247.00	2022	423.00	15650
109.00	2147	177.00	4031	249.00	1827	424.00	3371
110.00	117152	178.00	1457	253.00	1115	441.00	43904
111.00	17952	179.00	16632	255.00	258560	442.00	297600
112.00	2259	180.00	11111	256.00	37640	443.00	56496
113.00	751	181.00	5898	257.00	3039	444.00	5503
116.00	3696	182.00	906	258.00	15303		
117.00	50096	184.00	1429	259.00	2537		
118.00	3834	185.00	8160	264.00	632		
120.00	746	186.00	63248	265.00	6033		

Data File: /chem/MSD7.i/s010210.b/s7a0204.d

Page 1

Date : 02-JAN-2010 15:42

Client ID: DFTPP

Instrument: MSD7.i

Sample Info: |WBN091213-01|DFTPP|1|SVMF|1|DFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

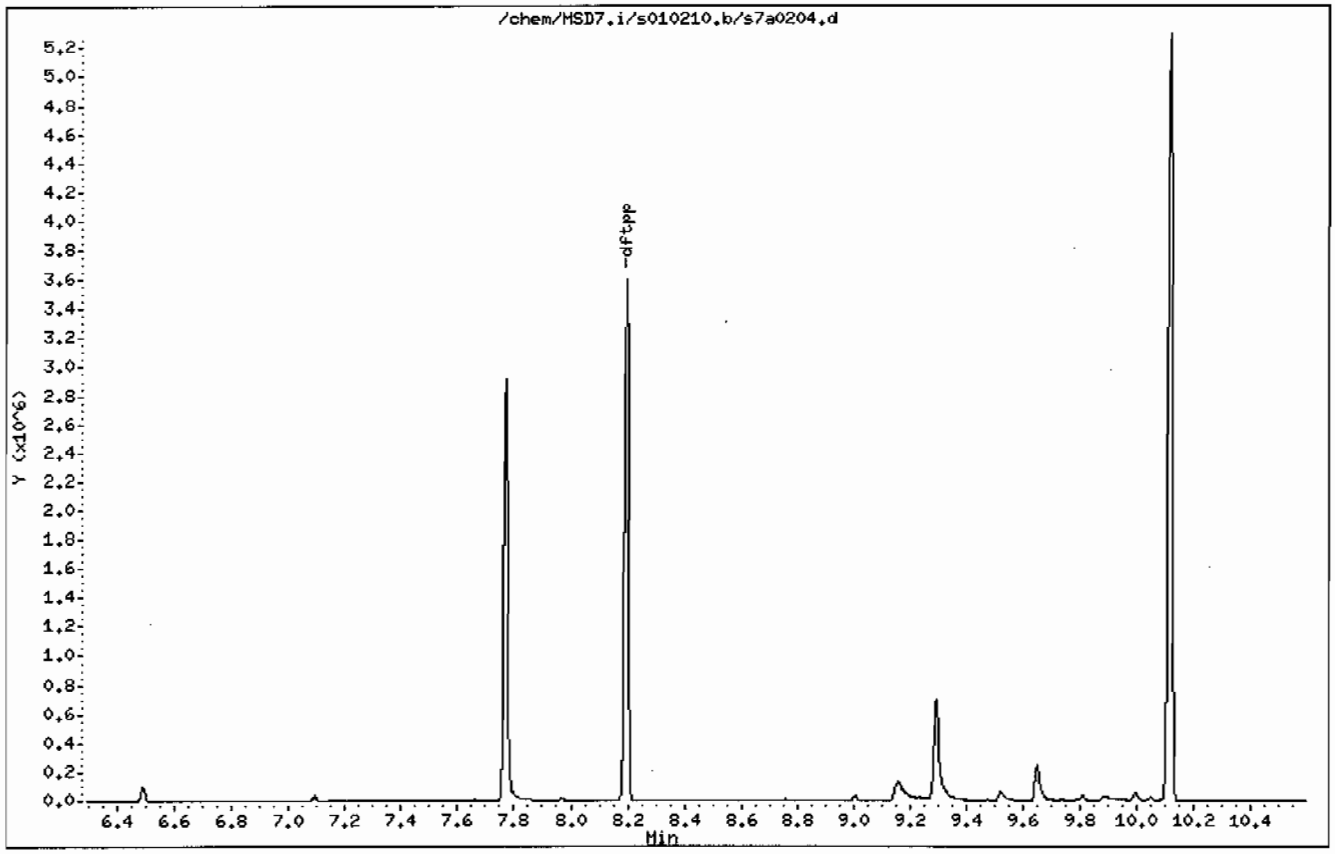

Data File: /chem/MSD7.i/s010210.b/s7a0204.d

Date : 02-JAN-2010 15:42

Client ID: DFTPP

Instrument: MSD7.i

Sample Info: |WBN091213-01|DFTPP|1|SVMF|1|DFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

1 dftpp

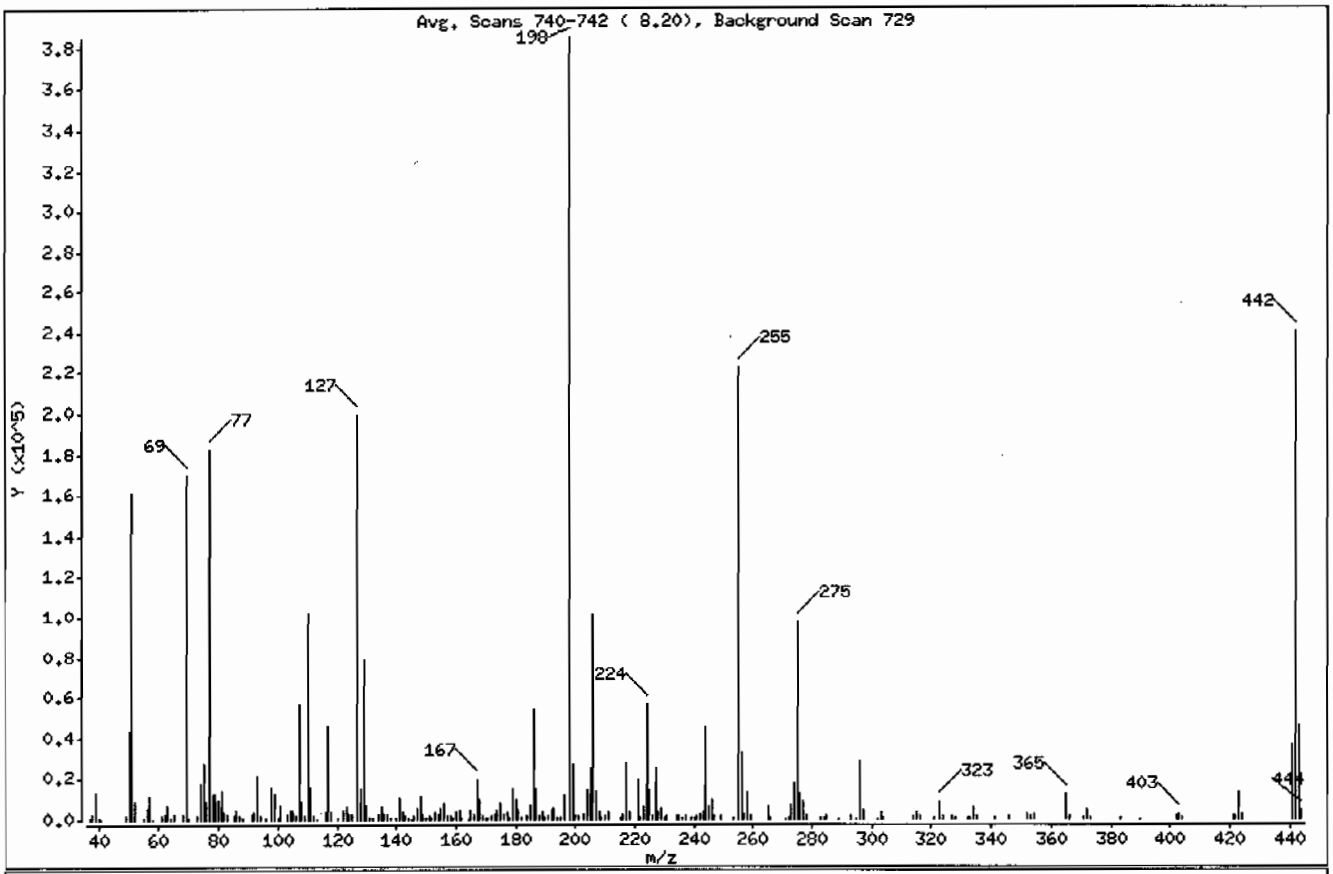

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	41.83
68	Less than 2.00% of mass 69	0.73 (1.66)
69	Mass 69 relative abundance	44.07
70	Less than 2.00% of mass 69	0.19 (0.43)
127	40.00 - 60.00% of mass 198	51.69
197	Less than 1.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.81
275	10.00 - 30.00% of mass 198	25.28
365	Greater than 1.00% of mass 198	3.19
441	Present, but less than mass 443	9.46
442	Greater than 40.00% of mass 198	62.33
443	17.00 - 23.00% of mass 442	11.94 (19.16)

Data File: /chem/MSD7.i/s010210.b/s7a0204.d

Date : 02-JAN-2010 15:42

Client ID: DFTPP

Instrument: MSD7.i

Sample Info: |WBN091213-01|DFTPP|1|SVMF|1|DFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

Data File: s7a0204.d
Spectrum: Avg. Scans 740-742 (8.20), Background Scan 729
Location of Maximum: 198.00
Number of points: 234

m/z	Y	m/z	Y	m/z	Y	m/z	Y
37.00	683	120.00	737	185.00	7427	259.00	2186
38.00	2224	122.00	4018	186.00	53840	265.00	5765
39.00	13020	123.00	6025	187.00	15395	266.00	1053
40.00	756	124.00	2718	188.00	1784	271.00	374
41.00	347	125.00	2385	189.00	3726	272.00	705
49.00	1339	127.00	199040	190.00	600	273.00	7156
50.00	43152	128.00	14776	191.00	1589	274.00	17840
51.00	161088	129.00	78688	192.00	4588	275.00	97344
52.00	8517	130.00	6890	193.00	5316	276.00	12802
55.00	824	131.00	1309	194.00	1025	277.00	8869
56.00	5023	132.00	693	195.00	560	278.00	1388
57.00	11117	134.00	2334	196.00	11710	283.00	1092
58.00	370	135.00	6486	198.00	385088	284.00	721
61.00	2079	136.00	2590	199.00	26240	285.00	1368
62.00	2382	137.00	3020	200.00	2141	289.00	354
63.00	6719	138.00	658	201.00	1816	293.00	1998
64.00	921	140.00	1158	203.00	2873	295.00	191
65.00	3082	141.00	10417	204.00	14579	296.00	28696
68.00	2812	142.00	3176	205.00	24760	297.00	4392
69.00	169728	143.00	2058	206.00	100856	302.00	343
70.00	722	144.00	606	207.00	13681	303.00	3135
73.00	1443	145.00	389	208.00	3653	304.00	934
74.00	17504	146.00	1768	209.00	1169	314.00	1487
75.00	27368	147.00	4883	210.00	1496	315.00	3488
76.00	9221	148.00	11836	211.00	3962	316.00	1911
77.00	182784	149.00	2251	215.00	996	321.00	896
78.00	12726	150.00	600	216.00	2263	323.00	9147
79.00	12636	151.00	1338	217.00	27712	324.00	1894
80.00	9731	152.00	776	218.00	3628	327.00	1693
81.00	14152	153.00	3159	221.00	19048	328.00	878
82.00	3201	154.00	2388	222.00	1060	332.00	619
83.00	2978	155.00	5362	223.00	6234	333.00	922
85.00	2130	156.00	8279	224.00	56216	334.00	5820
86.00	4076	157.00	1706	225.00	14187	335.00	1469
87.00	1654	158.00	1891	226.00	1422	341.00	960

Data File: /chem/MSD7.i/s010210.b/s7a0204.d

Date : 02-JAN-2010 15:42

Client ID: DFTPP

Instrument: MSD7.i

Sample Info: |WBN091213-01|DFTPP|1|SVMF|1|DFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

Data File: s7a0204.d
Spectrum: Avg. Scans 740-742 (8.20), Background Scan 729
Location of Maximum: 198.00
Number of points: 234

m/z	Y	m/z	Y	m/z	Y	m/z	Y
88.00	645	159.00	1285	227.00	24480	346.00	2076
91.00	2829	160.00	3121	228.00	3535	352.00	2431
92.00	3287	161.00	4676	229.00	5072	353.00	1710
93.00	20816	162.00	1308	230.00	663	354.00	2665
94.00	1534	164.00	400	231.00	2039	365.00	12269
96.00	960	165.00	4024	234.00	1638	366.00	1782
98.00	16222	166.00	3078	235.00	1596	371.00	613
99.00	12297	167.00	19864	236.00	1116	372.00	4301
100.00	1166	168.00	9384	237.00	2005	373.00	1125
101.00	7405	169.00	1652	239.00	934	383.00	1239
103.00	2269	170.00	709	240.00	724	390.00	172
104.00	4666	171.00	863	241.00	1351	402.00	1455
105.00	4579	172.00	1806	242.00	3067	403.00	2276
106.00	1493	173.00	2467	243.00	3184	404.00	813
107.00	56712	174.00	4234	244.00	45200	421.00	1840
108.00	8688	175.00	7733	245.00	6035	422.00	1714
109.00	1575	176.00	2475	246.00	9435	423.00	13146
110.00	101672	177.00	3423	247.00	1647	424.00	2698
111.00	15561	178.00	1283	249.00	1574	441.00	36432
112.00	1993	179.00	15349	253.00	1023	442.00	240064
113.00	381	180.00	10174	255.00	222144	443.00	45992
116.00	3178	181.00	4459	256.00	32712	444.00	4382
117.00	46016	182.00	740	257.00	2652		
118.00	3383	184.00	1360	258.00	13667		

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1057			Matrix:	SOIL
Lab Sample ID:	1202005230				
Client Sample:	QC for batch 937094	Client:	LANL010	Project:	QC
Client ID:	MB for batch 937094	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	937095	Inst:	MSD7.I	Dilution:	1
Run Date:	01/04/2010 12:51	Analyst:	JMB3	Inj. Vol:	.5 uL
Prep Date:	12/28/2009 21:32	Aliquot:	30 g	Final Volume:	1 mL
Data File:	s7a0406-1.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	333	ug/kg	66.7	333
108-95-2	Phenol	U	333	ug/kg	66.7	333
95-57-8	2-Chlorophenol	U	333	ug/kg	66.7	333
106-46-7	1,4-Dichlorobenzene	U	333	ug/kg	66.7	333
621-64-7	N-Nitrosodipropylamine	U	333	ug/kg	66.7	333
59-50-7	4-Chloro-3-methylphenol	U	333	ug/kg	66.7	333
83-32-9	Acenaphthene	U	33.3	ug/kg	11.0	33.3
121-14-2	2,4-Dinitrotoluene	U	333	ug/kg	33.3	333
100-02-7	4-Nitrophenol	U	333	ug/kg	110	333
87-86-5	Pentachlorophenol	U	333	ug/kg	83.3	333
129-00-0	Pyrene	U	33.3	ug/kg	10.0	33.3
110-86-1	Pyridine	U	333	ug/kg	66.7	333
62-53-3	Aniline	U	333	ug/kg	100	333
111-44-4	bis(2-Chloroethyl) ether	U	333	ug/kg	66.7	333
541-73-1	1,3-Dichlorobenzene	U	333	ug/kg	66.7	333
100-51-6	Benzyl alcohol	U	333	ug/kg	100	333
95-50-1	1,2-Dichlorobenzene	U	333	ug/kg	66.7	333
108-60-1	bis(2-Chloroisopropyl)ether	U	333	ug/kg	66.7	333
95-48-7	o-Cresol	U	333	ug/kg	66.7	333
65794-96-9	m,p-Cresols	U	333	ug/kg	100	333
67-72-1	Hexachloroethane	U	333	ug/kg	66.7	333
98-95-3	Nitrobenzene	U	333	ug/kg	66.7	333
78-59-1	Isophorone	U	333	ug/kg	66.7	333
88-75-5	2-Nitrophenol	U	333	ug/kg	66.7	333
105-67-9	2,4-Dimethylphenol	U	333	ug/kg	117	333
111-91-1	bis(2-Chloroethoxy)methane	U	333	ug/kg	66.7	333
120-83-2	2,4-Dichlorophenol	U	333	ug/kg	66.7	333
65-85-0	Benzoic acid	U	667	ug/kg	167	667
91-20-3	Naphthalene	U	33.3	ug/kg	10.0	33.3
106-47-8	4-Chloroaniline	U	333	ug/kg	66.7	333
87-68-3	Hexachlorobutadiene	U	333	ug/kg	66.7	333
91-57-6	2-Methylnaphthalene	U	33.3	ug/kg	6.67	33.3
77-47-4	Hexachlorocyclopentadiene	U	333	ug/kg	66.7	333
88-06-2	2,4,6-Trichlorophenol	U	333	ug/kg	66.7	333
95-95-4	2,4,5-Trichlorophenol	U	333	ug/kg	66.7	333
91-58-7	2-Chloronaphthalene	U	33.3	ug/kg	11.0	33.3
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	333	ug/kg	66.7	333
99-09-2	3-Nitroaniline	U	333	ug/kg	66.7	333

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1057			Matrix:	SOIL
Lab Sample ID:	1202005230				
Client Sample:	QC for batch 937094	Client:	LANL010	Project:	QC
Client ID:	MB for batch 937094	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	937095	Inst:	MSD7.I	Dilution:	1
Run Date:	01/04/2010 12:51	Analyst:	JMB3	Inj. Vol:	.5 uL
Prep Date:	12/28/2009 21:32	Aliquot:	30 g	Final Volume:	1 mL
Data File:	s7a0406-1.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	333	ug/kg	66.7	333
606-20-2	2,6-Dinitrotoluene	U	333	ug/kg	33.3	333
208-96-8	Acenaphthylene	U	33.3	ug/kg	10.0	33.3
51-28-5	2,4-Dinitrophenol	U	667	ug/kg	127	667
132-64-9	Dibenzofuran	U	333	ug/kg	66.7	333
84-66-2	Diethylphthalate	U	333	ug/kg	66.7	333
86-73-7	Fluorene	U	33.3	ug/kg	10.0	33.3
7005-72-3	4-Chlorophenylphenylether	U	333	ug/kg	66.7	333
534-52-1	2-Methyl-4,6-dinitrophenol	U	333	ug/kg	66.7	333
100-01-6	4-Nitroaniline	U	333	ug/kg	100	333
	p-Nitroaniline					
122-39-4	Diphenylamine	U	333	ug/kg	66.7	333
122-66-7	Azobenzene	U	333	ug/kg	66.7	333
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	333	ug/kg	66.7	333
118-74-1	Hexachlorobenzene	U	333	ug/kg	66.7	333
85-01-8	Phenanthrene	U	33.3	ug/kg	10.0	33.3
120-12-7	Anthracene	U	33.3	ug/kg	6.67	33.3
84-74-2	Di-n-butylphthalate	U	333	ug/kg	66.7	333
206-44-0	Fluoranthene	U	33.3	ug/kg	10.0	33.3
85-68-7	Butylbenzylphthalate	U	333	ug/kg	66.7	333
56-55-3	Benzo(a)anthracene	U	33.3	ug/kg	10.0	33.3
91-94-1	3,3'-Dichlorobenzidine	U	333	ug/kg	100	333
218-01-9	Chrysene	U	33.3	ug/kg	10.0	33.3
117-81-7	bis(2-Ethylhexyl)phthalate	U	333	ug/kg	66.7	333
117-84-0	Di-n-octylphthalate	U	333	ug/kg	66.7	333
205-99-2	Benzo(b)fluoranthene	U	33.3	ug/kg	10.0	33.3
207-08-9	Benzo(k)fluoranthene	U	33.3	ug/kg	10.0	33.3
50-32-8	Benzo(a)pyrene	U	33.3	ug/kg	10.0	33.3
193-39-5	Indeno(1,2,3-cd)pyrene	U	33.3	ug/kg	10.0	33.3
53-70-3	Dibenzo(a,h)anthracene	U	33.3	ug/kg	10.0	33.3
191-24-2	Benzo(ghi)perylene	U	33.3	ug/kg	10.0	33.3
120-82-1	1,2,4-Trichlorobenzene	U	333	ug/kg	66.7	333

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	2.1	6010	ug/kg		J
	Unknown	2.23	134	ug/kg		J

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1057**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202005230**				
Client Sample:	**QC for batch 937094**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 937094**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**937095**	**Inst:**	**MSD7.I**	**Dilution:**	**1**
Run Date:	**01/04/2010 12:51**	**Analyst:**	**JMB3**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/28/2009 21:32**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**s7a0406-1.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	3	322	ug/kg		J

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Data file : /chem/MSD7.i/s010410.b/s7a0406-1.d
Lab Smp Id: 1202005230 Client Smp ID: SBLK01
Inj Date : 04-JAN-2010 12:51
Operator : JMB3 Inst ID: MSD7.i
Smp Info : |1202005230|937095|1|SVMF|1|MB
Misc Info : |MSD8270_S|WBN091223-01|
Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness
Method : /chem/MSD7.i/s010410.b/MSD7-M8270C-AQA-123009.m
Meth Date : 04-Jan-2010 14:38 jos00786 Quant Type: ISTD
Cal Date : 30-DEC-2009 23:30 Cal File: s713040.d
Als bottle: 5 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-1057.sub
Target Version: 3.50
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	0.00000	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.961	3.961	(1.000)	273737	40.0000	
* 29 Naphthalene-d8	136	4.818	4.823	(1.000)	1016006	40.0000	
* 46 Acenaphthene-d10	164	6.070	6.075	(1.000)	593334	40.0000	
* 67 Phenanthrene-d10	188	7.236	7.240	(1.000)	1121045	40.0000	
* 91 Chrysene-d12	240	9.634	9.643	(1.000)	1019263	40.0000	
* 98 Perylene-d12	264	11.300	11.309	(1.000)	889221	40.0000	
$ 3 2-Fluorophenol	112	3.157	3.152	(0.797)	501113	68.3750	2280
$ 5 Phenol-d5	99	3.672	3.667	(0.927)	629017	69.2245	2310
$ 20 Nitrobenzene-d5	82	4.318	4.317	(0.896)	297265	38.1140	1270
$ 39 2-Fluorobiphenyl	172	5.560	5.560	(0.916)	628775	39.1680	1300
$ 60 2,4,6-Tribromophenol	329	6.663	6.667	(1.098)	183424	91.6862	3060
$ 81 p-Terphenyl-d14	244	8.613	8.613	(0.894)	826300	48.3452	1610

GEL Laboratories LLC

GEL Laboratories, LLC

Data file : /chem/MSD7.i/s010410.b/s7a0406-1.d
Lab Smp Id: 1202005230 Client Smp ID: SBLK01
Inj Date : 04-JAN-2010 12:51
Operator : JMB3 Inst ID: MSD7.i
Smp Info : |1202005230|937095|1|SVMF|1|MB
Misc Info : |MSD8270_S|WBN091223-01|
Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness
Method : /chem/MSD7.i/s010410.b/MSD7-M8270C-AQA-123009.m
Meth Date : 04-Jan-2010 14:38 jos00786 Quant Type: ISTD
Cal Date : 30-DEC-2009 23:30 Cal File: s713040.d
Als bottle: 5 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-1057.sub
Target Version: 3.50
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	0.00000	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	3.961	1645398	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown				CAS #:			
2.098	7421146	180.409733	6010	0		0	10
Unknown				CAS #:			
2.228	165492	4.02314910	134	0		0	10

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
====	====	==========	==========	====	=======	=========	======
Unknown Aldol Condensate					CAS #:		
2.998	397154	9.65490407	322	0		0	10

Data File: /chem/MSD7.i/s010410.b/s7a0406-1.d
Date : 04-JAN-2010 12:51
Client ID: SBLK01
Sample Info: 1120200523013370951|1|SWHF|1|MB
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD7.i
Operator: JMB3
Column diameter: 0.20

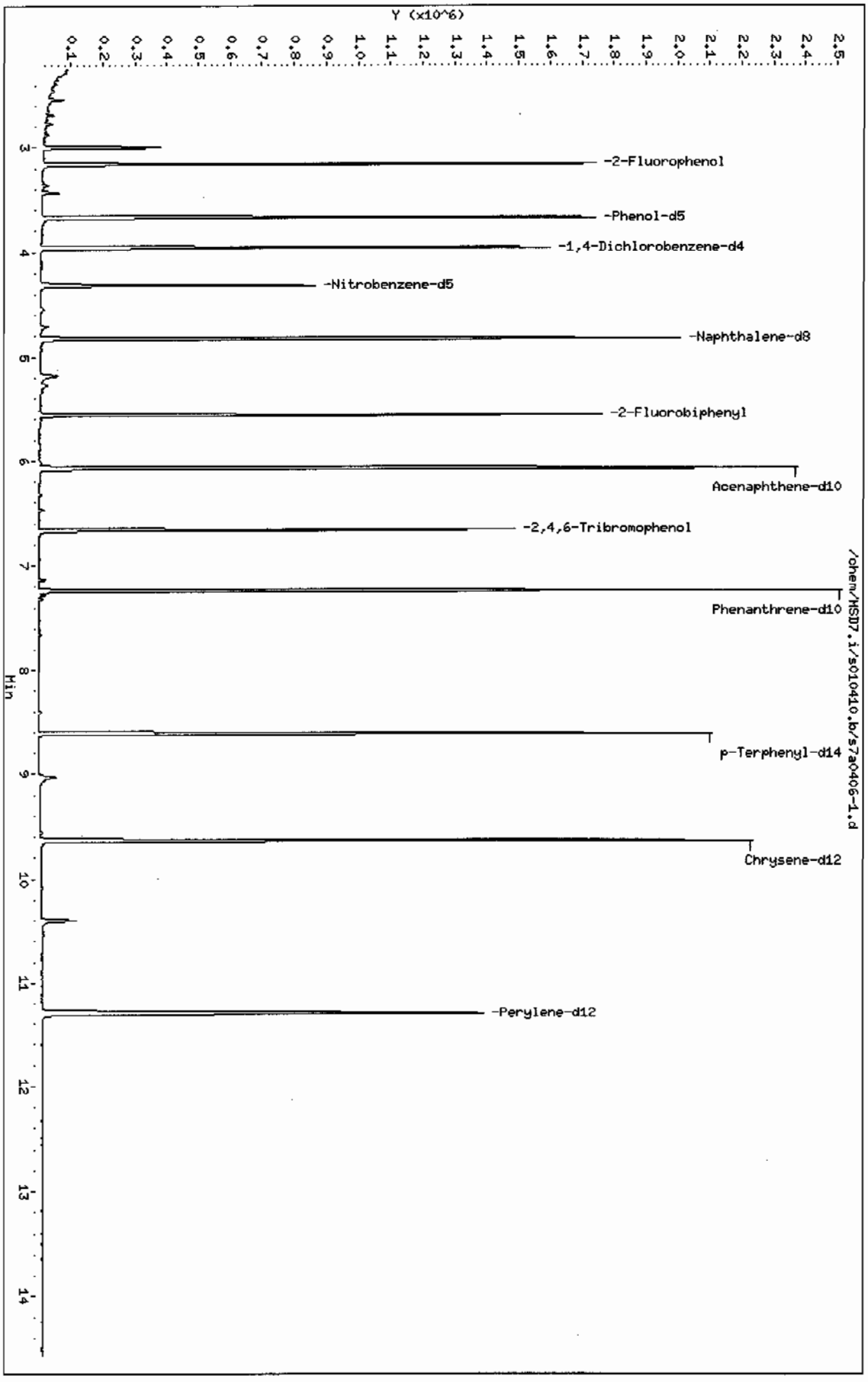

Page 1

Data File: /chem/MSD7.i/s010410.b/s7a0406-1.d

Date : 04-JAN-2010 12:51

Client ID: SBLK01

Instrument: MSD7.i

Sample Info: |1202005230193709511|SVMF|1|MB

Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Propane, 2,2-dimethoxy-	77-76-9	NIST05.L	4663	64	C5H12O2	104
N-Ethylformamide	627-45-2	NIST05.L	718	9	C3H7NO	73
Acetamide, N-methyl-	79-16-3	NIST05.L	723	9	C3H7NO	73

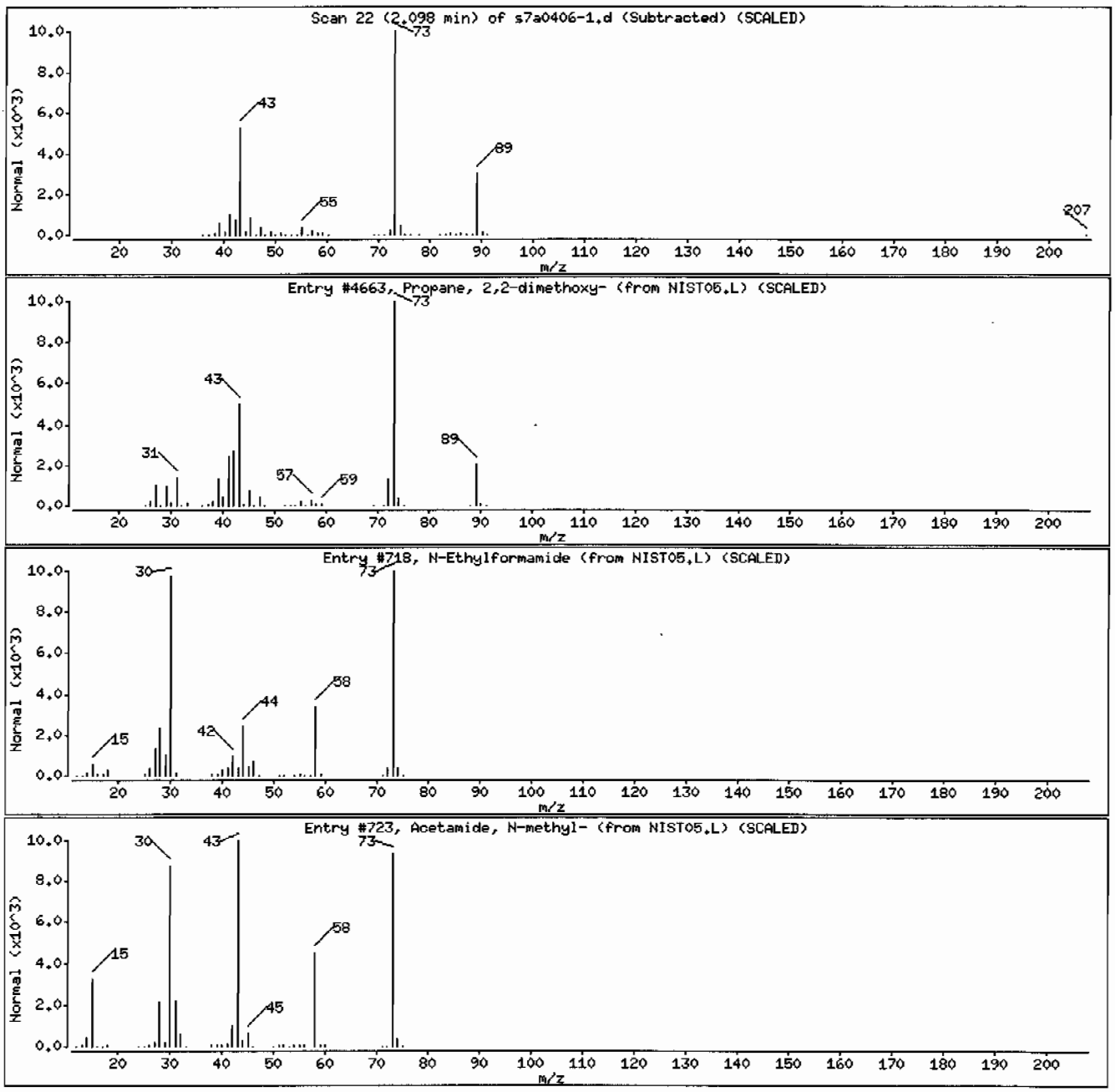

Data File: /chem/MSD7.i/s010410.b/s7a0406-1.d

Date : 04-JAN-2010 12:51

Client ID: SBLK01

Instrument: MSD7.i

Sample Info: |1202005230|937095|1|SVHF|1|MB

Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
2-Propanone, 1-chloro-	78-95-5	NIST05.L	2355	18	C3H5ClO	92
2-Butanone, 3-methyl-	563-80-4	NIST05.L	1738	14	C5H10O	86
2-Butanone, 3-methyl-	563-80-4	NIST05.L	1740	9	C5H10O	86

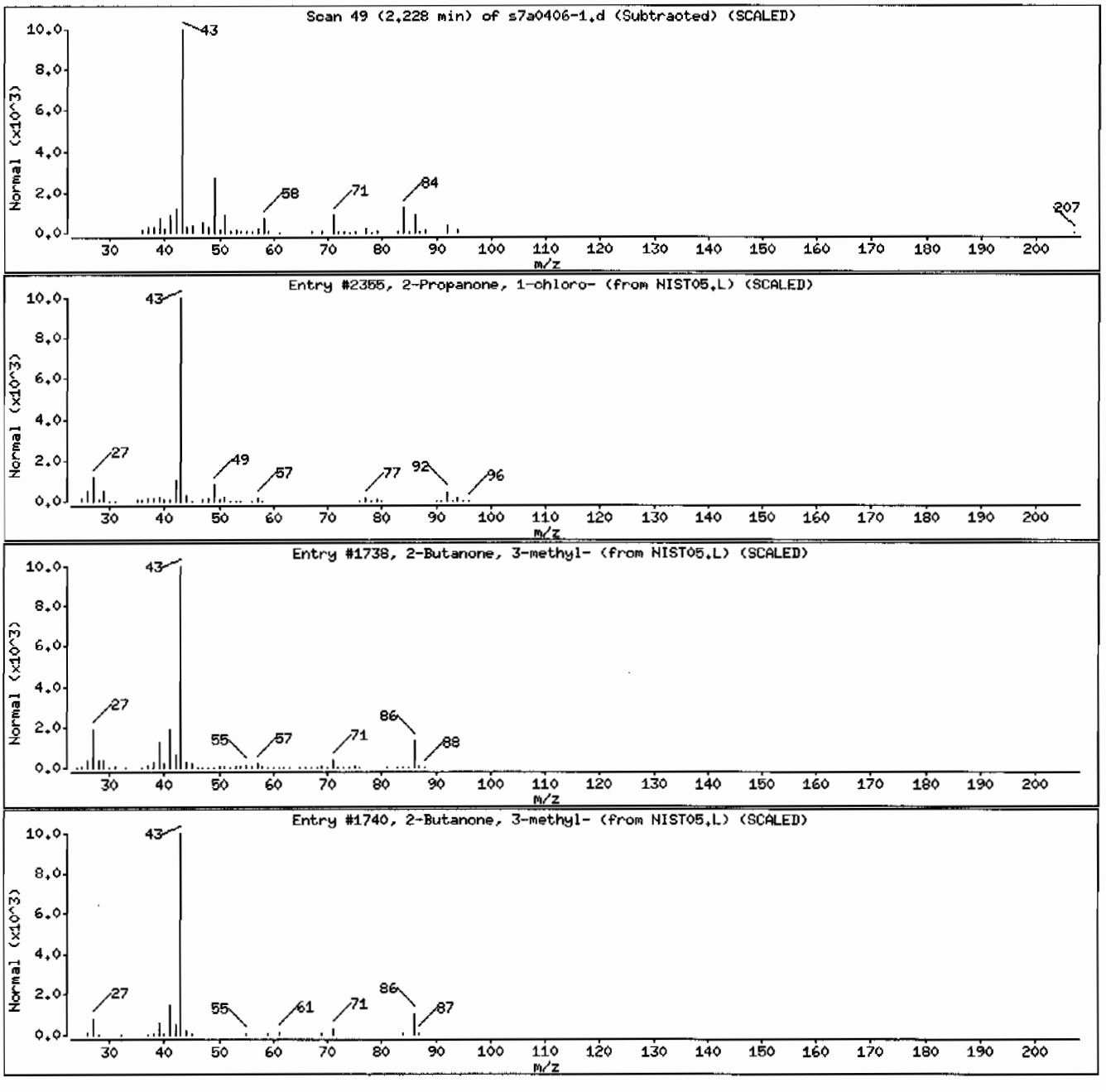

Data File: /chem/MSD7.i/s010410.b/s7a0406-1.d

Date : 04-JAN-2010 12:51

Client ID: SBLK01 Instrument: MSD7.i

Sample Info: |1202005230193709511|SVMF11|MB

Volume Injected (uL): 0.5 Operator: JMB3

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	56	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	50	C6H12O2	116
2,3-Butanedione, monooxime	57-71-6	NIST05.L	3949	16	C4H7NO2	101

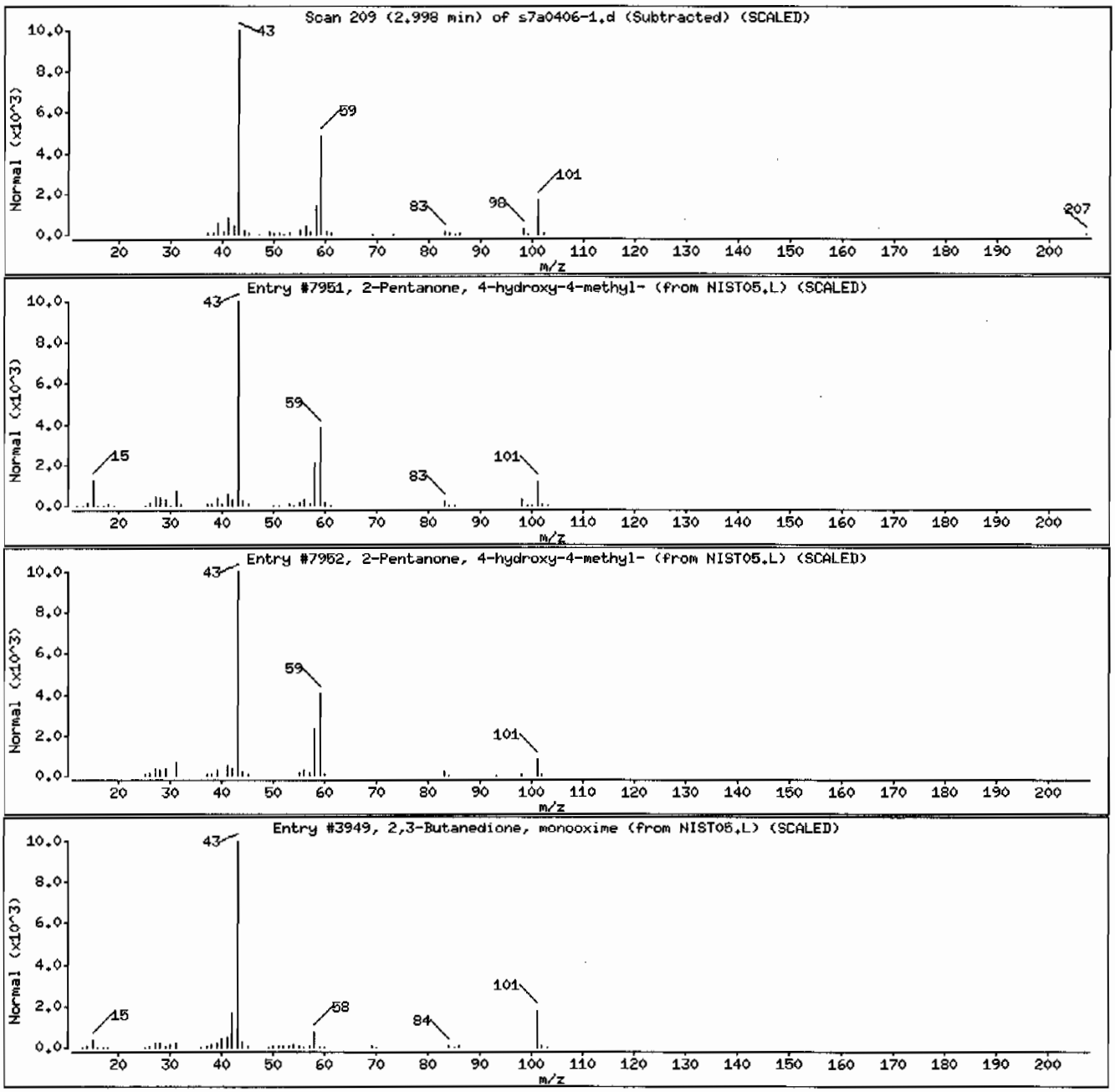

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1057**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202005231**				
Client Sample:	**QC for batch 937094**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 937094**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**937095**	**Inst:**	**MSD7.I**	**Dilution:**	**1**
Run Date:	**01/02/2010 18:38**	**Analyst:**	**JMB3**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/28/2009 21:32**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**s7a0209-1.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine		1040	ug/kg	66.7	333
108-95-2	Phenol		1140	ug/kg	66.7	333
95-57-8	2-Chlorophenol		1110	ug/kg	66.7	333
106-46-7	1,4-Dichlorobenzene		1140	ug/kg	66.7	333
621-64-7	N-Nitrosodipropylamine		1090	ug/kg	66.7	333
59-50-7	4-Chloro-3-methylphenol		1260	ug/kg	66.7	333
83-32-9	Acenaphthene		1170	ug/kg	11.0	33.3
121-14-2	2,4-Dinitrotoluene		1270	ug/kg	33.3	333
100-02-7	4-Nitrophenol		1440	ug/kg	110	333
87-86-5	Pentachlorophenol		1430	ug/kg	83.3	333
129-00-0	Pyrene		1150	ug/kg	10.0	33.3
110-86-1	Pyridine		1360	ug/kg	66.7	333
62-53-3	Aniline		899	ug/kg	100	333
111-44-4	bis(2-Chloroethyl) ether		965	ug/kg	66.7	333
541-73-1	1,3-Dichlorobenzene		1140	ug/kg	66.7	333
100-51-6	Benzyl alcohol		1310	ug/kg	100	333
95-50-1	1,2-Dichlorobenzene		1190	ug/kg	66.7	333
108-60-1	bis(2-Chloroisopropyl)ether		848	ug/kg	66.7	333
95-48-7	o-Cresol		1100	ug/kg	66.7	333
65794-96-9	m,p-Cresols		1210	ug/kg	100	333
67-72-1	Hexachloroethane		1070	ug/kg	66.7	333
98-95-3	Nitrobenzene		1200	ug/kg	66.7	333
78-59-1	Isophorone		1200	ug/kg	66.7	333
88-75-5	2-Nitrophenol		1080	ug/kg	66.7	333
105-67-9	2,4-Dimethylphenol		1210	ug/kg	117	333
111-91-1	bis(2-Chloroethoxy)methane		1120	ug/kg	66.7	333
120-83-2	2,4-Dichlorophenol		1230	ug/kg	66.7	333
65-85-0	Benzoic acid		2030	ug/kg	167	667
91-20-3	Naphthalene		1170	ug/kg	10.0	33.3
106-47-8	4-Chloroaniline		949	ug/kg	66.7	333
87-68-3	Hexachlorobutadiene		1360	ug/kg	66.7	333
91-57-6	2-Methylnaphthalene		1260	ug/kg	6.67	33.3
77-47-4	Hexachlorocyclopentadiene		1480	ug/kg	66.7	333
88-06-2	2,4,6-Trichlorophenol		1250	ug/kg	66.7	333
95-95-4	2,4,5-Trichlorophenol		1380	ug/kg	66.7	333
91-58-7	2-Chloronaphthalene		1150	ug/kg	11.0	33.3
88-74-4	2-Nitroaniline		1120	ug/kg	66.7	333
99-09-2	*o-Nitroaniline* 3-Nitroaniline		1300	ug/kg	66.7	333

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1057**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202005231**				
Client Sample:	**QC for batch 937094**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 937094**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**937095**	**Inst:**	**MSD7.I**	**Dilution:**	**1**
Run Date:	**01/02/2010 18:38**	**Analyst:**	**JMB3**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/28/2009 21:32**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**s7a0209-1.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate		1280	ug/kg	66.7	333
606-20-2	2,6-Dinitrotoluene		1210	ug/kg	33.3	333
208-96-8	Acenaphthylene		1270	ug/kg	10.0	33.3
51-28-5	2,4-Dinitrophenol		1080	ug/kg	127	667
132-64-9	Dibenzofuran		1520	ug/kg	66.7	333
84-66-2	Diethylphthalate		1350	ug/kg	66.7	333
86-73-7	Fluorene		1270	ug/kg	10.0	33.3
7005-72-3	4-Chlorophenylphenylether		1290	ug/kg	66.7	333
534-52-1	2-Methyl-4,6-dinitrophenol		1020	ug/kg	66.7	333
100-01-6	4-Nitroaniline		1700	ug/kg	100	333
	p-Nitroaniline					
122-39-4	Diphenylamine		1290	ug/kg	66.7	333
122-66-7	Azobenzene		1140	ug/kg	66.7	333
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether		1240	ug/kg	66.7	333
118-74-1	Hexachlorobenzene		1350	ug/kg	66.7	333
85-01-8	Phenanthrene		1200	ug/kg	10.0	33.3
120-12-7	Anthracene		1210	ug/kg	6.67	33.3
84-74-2	Di-n-butylphthalate		1330	ug/kg	66.7	333
206-44-0	Fluoranthene		1350	ug/kg	10.0	33.3
85-68-7	Butylbenzylphthalate		1200	ug/kg	66.7	333
56-55-3	Benzo(a)anthracene		1250	ug/kg	10.0	33.3
91-94-1	3,3'-Dichlorobenzidine		1120	ug/kg	100	333
218-01-9	Chrysene		1320	ug/kg	10.0	33.3
117-81-7	bis(2-Ethylhexyl)phthalate		1250	ug/kg	66.7	333
117-84-0	Di-n-octylphthalate		1260	ug/kg	66.7	333
205-99-2	Benzo(b)fluoranthene		1390	ug/kg	10.0	33.3
207-08-9	Benzo(k)fluoranthene		1360	ug/kg	10.0	33.3
50-32-8	Benzo(a)pyrene		1370	ug/kg	10.0	33.3
193-39-5	Indeno(1,2,3-cd)pyrene		1280	ug/kg	10.0	33.3
53-70-3	Dibenzo(a,h)anthracene		1320	ug/kg	10.0	33.3
191-24-2	Benzo(ghi)perylene		1200	ug/kg	10.0	33.3
120-82-1	1,2,4-Trichlorobenzene		1200	ug/kg	66.7	333

GEL Laboratories LLC

GEL Laboratories, LLC

Data file : /chem/MSD7.i/s010210.b/s7a0209-1.d
Lab Smp Id: 1202005231 Client Smp ID: SBLK01LCS
Inj Date : 02-JAN-2010 18:38
Operator : JMB3 Inst ID: MSD7.i
Smp Info : |1202005231|937095|1|SVMF|1|LCS
Misc Info : |MSD8270_S|WBN091223-01|
Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness
Method : /chem/MSD7.i/s010210.b/MSD7-M8270C-AQA-123009.m
Meth Date : 04-Jan-2010 08:10 jos00786 Quant Type: ISTD
Cal Date : 30-DEC-2009 23:30 Cal File: s713040.d
Als bottle: 6 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-1057.sub
Target Version: 3.50
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	0.00000	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.966	3.961	(1.000)	269967	40.0000	
* 29 Naphthalene-d8	136	4.823	4.823	(1.000)	1022970	40.0000	
* 46 Acenaphthene-d10	164	6.070	6.070	(1.000)	568992	40.0000	
* 67 Phenanthrene-d10	188	7.240	7.236	(1.000)	1109679	40.0000	
* 91 Chrysene-d12	240	9.638	9.638	(1.000)	1155468	40.0000	
* 98 Perylene-d12	264	11.295	11.295	(1.000)	1018181	40.0000	
$ 3 2-Fluorophenol	112	3.167	3.152	(0.798)	486273	67.2766	2240
$ 5 Phenol-d5	99	3.677	3.672	(0.927)	587635	65.5734	2180
$ 20 Nitrobenzene-d5	82	4.322	4.322	(0.896)	291240	37.0873	1240
$ 39 2-Fluorobiphenyl	172	5.560	5.560	(0.916)	560072	36.3809	1210
$ 60 2,4,6-Tribromophenol	329	6.667	6.667	(1.098)	180689	94.1830	3140
$ 81 p-Terphenyl-d14	244	8.613	8.608	(0.894)	813348	41.9779	1400

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
6 Phenol	94	3.687	3.677	(0.930)	308132	34.1221	1140
8 2-Chlorophenol	128	3.831	3.826	(0.966)	249600	33.2008	1110
11 1,4-Dichlorobenzene	146	3.976	3.976	(1.002)	286911	34.2087	1140
17 N-Nitrosodipropylamine	70	4.197	4.192	(1.058)	176354	32.6075	1090(Q)
28 1,2,4-Trichlorobenzene	180	4.775	4.770	(0.990)	245864	35.8796	1200
33 4-Chloro-3-methylphenol	107	5.165	5.155	(1.071)	223355	37.6694	1260
47 Acenaphthene	154	6.099	6.094	(1.005)	479051	35.2254	1170
50 2,4-Dinitrotoluene	165	6.181	6.181	(1.018)	183291	38.0124	1270
52 4-Nitrophenol	139	6.109	6.099	(1.006)	111900	43.1077	1440
65 Pentachlorophenol	266	7.067	7.062	(0.976)	113070	42.9591	1430
79 Pyrene	202	8.512	8.512	(0.883)	1144515	34.4711	1150
2 Pyridine	79	2.536	2.517	(0.639)	223584	40.7308	1360
4 Aniline	66	3.749	3.744	(0.945)	100792	26.9571	898(Q)
7 bis(2-Chloroethyl) ether	63	3.764	3.759	(0.949)	203577	28.9386	965(Q)
9 1,3-Dichlorobenzene	146	3.932	3.927	(0.992)	293478	34.0574	1140
12 Benzyl alcohol	108	4.028	4.024	(1.016)	188298	39.1831	1310
13 1,2-Dichlorobenzene	146	4.077	4.077	(1.028)	276812	35.8448	1190
14 bis(2-Chloroisopropyl)ether	45	4.106	4.101	(1.035)	440525	25.4306	848
15 o-Cresol	107	4.077	4.072	(1.028)	187682	33.1065	1100
18 m,p-Cresols	107	4.173	4.168	(1.052)	274933	36.1904	1210
19 Hexachloroethane	117	4.308	4.308	(1.086)	111909	32.0879	1070
21 Nitrobenzene	77	4.337	4.332	(0.899)	262320	36.0153	1200
22 Isophorone	82	4.486	4.486	(0.930)	506168	35.9141	1200
23 2-Nitrophenol	139	4.549	4.549	(0.943)	119140	32.5477	1080
24 2,4-Dimethylphenol	122	4.539	4.534	(0.941)	234257	36.3382	1210
25 bis(2-Chloroethoxy)methane	93	4.606	4.602	(0.955)	267035	33.5414	1120
26 2,4-Dichlorophenol	162	4.707	4.703	(0.976)	208588	36.8358	1230
27 Benzoic acid	105	4.592	4.573	(0.952)	220552	60.8694	2030
30 Naphthalene	128	4.837	4.838	(1.003)	722449	35.1267	1170
31 4-Chloroaniline	127	4.852	4.838	(1.006)	238620	28.4551	948
32 Hexachlorobutadiene	225	4.905	4.905	(1.017)	152070	40.8364	1360
34 2-Methylnaphthalene	142	5.319	5.319	(1.103)	526490	37.7811	1260
36 Hexachlorocyclopentadiene	237	5.420	5.420	(0.893)	144802	44.2801	1480
37 2,4,6-Trichlorophenol	196	5.502	5.502	(0.906)	161208	37.4486	1250
38 2,4,5-Trichlorophenol	196	5.531	5.526	(0.911)	186077	41.4517	1380
40 2-Chloronaphthalene	162	5.670	5.666	(0.934)	476898	34.5440	1150
42 o-Nitroaniline	65	5.723	5.724	(0.943)	149713	33.7236	1120
41 m-Nitroaniline	138	6.017	6.022	(0.991)	109770	38.9579	1300
43 Dimethylphthalate	163	5.829	5.830	(0.960)	609258	38.2652	1280
44 2,6-Dinitrotoluene	165	5.887	5.882	(0.970)	136504	36.4416	1210
45 Acenaphthylene	152	5.974	5.974	(0.984)	820057	38.1420	1270
48 2,4-Dinitrophenol	184	6.089	6.090	(1.003)	38608	32.5395	1080(Q)
49 Dibenzofuran	168	6.219	6.220	(1.025)	856395	45.6088	1520
51 Diethylphthalate	149	6.340	6.340	(1.044)	645693	40.3698	1340
53 Fluorene	166	6.479	6.480	(1.067)	603474	38.1583	1270
54 4-Chlorophenylphenylether	204	6.455	6.455	(1.063)	302678	38.7490	1290
55 2-Methyl-4,6-dinitrophenol	198	6.494	6.494	(0.897)	70339	30.7100	1020

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
56 p-Nitroaniline	138	6.479	6.480	(1.067)	129401	50.8860	1700
133 Diphenylamine	169	6.542	6.542	(0.904)	523713	38.7721	1290
58 1,2-Diphenylhydrazine	77	6.581	6.581	(0.909)	619521	34.1076	1140
61 4-Bromophenylphenylether	248	6.845	6.846	(0.945)	184458	37.0694	1240
63 Hexachlorobenzene	284	6.918	6.918	(0.955)	198612	40.5250	1350
68 Phenanthrene	178	7.260	7.260	(1.003)	890553	35.9607	1200
69 Anthracene	178	7.303	7.303	(1.009)	907336	36.3895	1210
72 Di-n-butylphthalate	149	7.654	7.654	(1.057)	1215899	39.7669	1320
76 Fluoranthene	202	8.295	8.295	(1.146)	1115149	40.4016	1350
85 Butylbenzylphthalate	149	9.036	9.037	(0.938)	560890	36.1498	1200
89 Benzo(a)anthracene	228	9.624	9.624	(0.998)	1042349	37.3628	1240
90 3,3'-Dichlorobenzidine	252	9.571	9.571	(0.993)	313346	33.5689	1120
92 Chrysene	228	9.662	9.662	(1.002)	1013867	39.4957	1320
93 bis(2-Ethylhexyl)phthalate	149	9.561	9.561	(0.992)	770299	37.6120	1250
94 Di-n-octylphthalate	149	10.207	10.207	(0.904)	1175837	37.8871	1260
95 Benzo(b)fluoranthene	252	10.784	10.784	(0.955)	1057427	41.8343	1390
96 Benzo(k)fluoranthene	252	10.818	10.818	(0.958)	990181	40.7900	1360
97 Benzo(a)pyrene	252	11.218	11.218	(0.993)	921228	40.9699	1360
99 Indeno(1,2,3-cd)pyrene	276	13.043	13.043	(1.155)	861153	38.4240	1280
100 Dibenzo(a,h)anthracene	278	13.057	13.057	(1.156)	710673	39.6722	1320
101 Benzo(ghi)perylene	276	13.577	13.573	(1.202)	690014	35.9949	1200
1 N-Methyl-N-nitrosomethylamine	74	2.497	2.488	(0.630)	144248	31.2204	1040

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: /chem/MSD7.i/s010210.b/s7a0209-1.d
Date : 02-JAN-2010 18:38
Client ID: SBLK01LCS
Sample Info: I120200523I937095I1|SVHFI1|LCS
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD7.i
Operator: JMB3
Column diameter: 0.20

Page 1

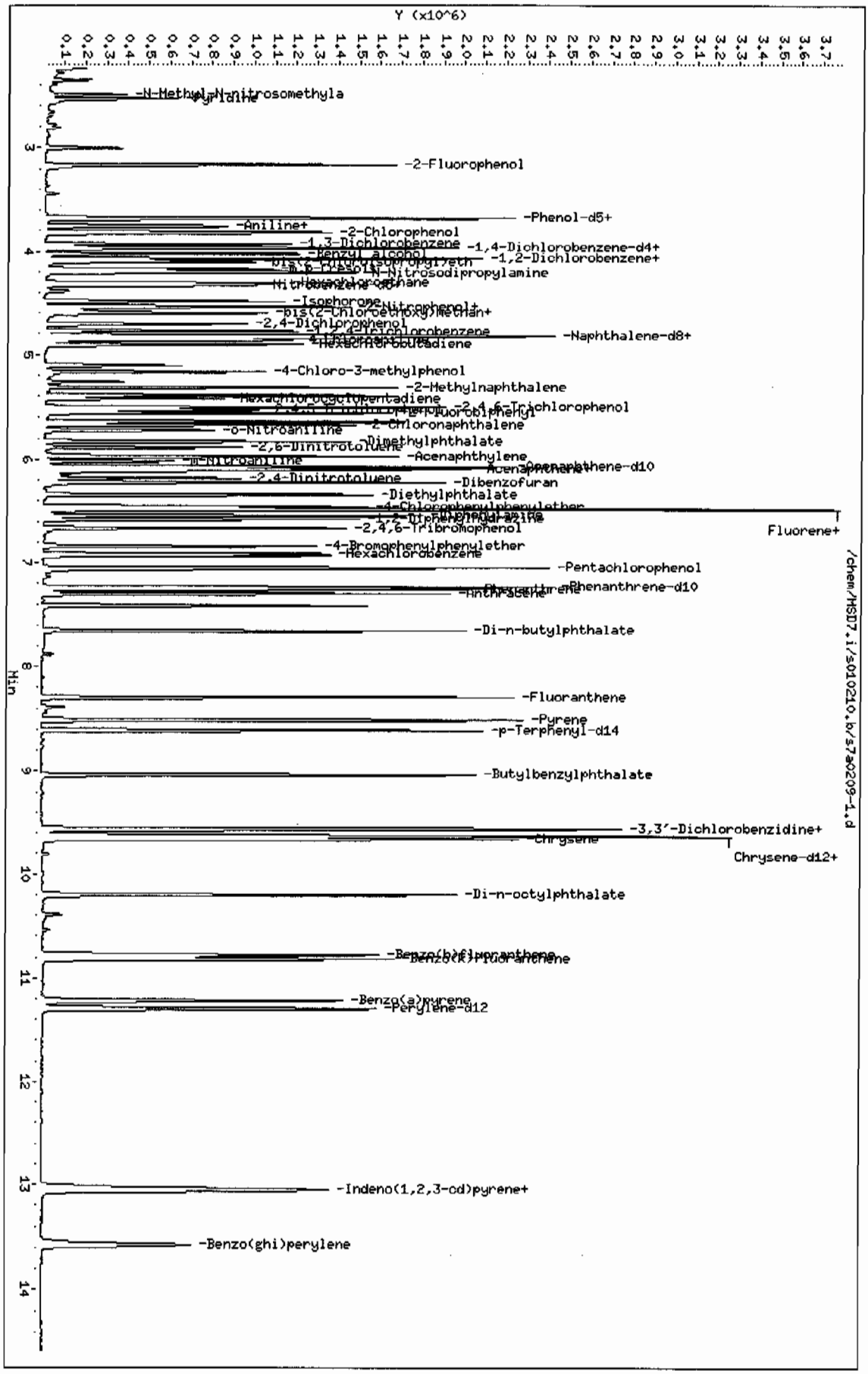

Miscellaneous Data

Prep Logbook

Extraction of Semivolatile and Nonvolatile Organic Compounds from Soil, Sludge, and Other Miscellaneous Solid Samples

Batch ID: 937094 **Verified by:** _____

Analyst: Alberto Velasco

Method: SW846 3550B

Lab SOP: GL-OA-E-010 REV# 18

Instrument: Semi-Volatiles Manual

Sample ID	Run Date	Aliquot (g)	Prepped Aliquot (mL)	Prepped Factor (mL/g)
1202005230 MB	28-DEC-2009 21:32:43	30	1	0.03333
1202005231 LCS	28-DEC-2009 21:32:43	30	1	0.03333
243472001	28-DEC-2009 21:32:43	30.14	1	0.03318
243472002	28-DEC-2009 21:32:43	30.05	1	0.03328
243472003	28-DEC-2009 21:32:43	30.06	1	0.03327
243490001	28-DEC-2009 21:32:43	30.03	1	0.0333
243490002	28-DEC-2009 21:32:43	30.19	1	0.03312
243490003	28-DEC-2009 21:32:43	30.04	1	0.03329
243490004	28-DEC-2009 21:32:43	30.02	1	0.03331
243490005	28-DEC-2009 21:32:43	30.19	1	0.03312
243490006	28-DEC-2009 21:32:43	30.17	1	0.03315
243490007	28-DEC-2009 21:32:43	30.03	1	0.0333
243509001	28-DEC-2009 21:32:43	30.03	1	0.0333
243509002	28-DEC-2009 21:32:43	30.04	1	0.03329
243509003	28-DEC-2009 21:32:43	30.18	1	0.03313

Type	Sample Id	Description	Serial Number	Spike Amt	Units
LCS	1202005231	BNA LCS w/o Benzidine 50ppm	UE091217-12	1	mL
LCS	1202005231	BENZIDINE LCS	UE091223-21	1	mL
SURR	All	BNA for all Surrogate	UE091217-10	1	mL
REGNT	All	Acetone	1233927	150	mL
REGNT	All	Methylene Chloride	1246976-D	150	mL
SOURC	All	SODIUM SULFATE	1242582	30	g

Comments:

Verified By: AJS

Final Solvent: CH2Cl2

GEL ORGANIC RUN LOG INSTRUMENT ID: MSD7

DATE: 12/31/2009 METHOD: See raw data OPERATOR: jld1 REVIEWED BY:_____ DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT:1202440-D
Multiplier Voltage: 1788 Emv Extr. Injection Volume: 0.5, 1.0 ul
DFTPP Solution ID: WBN091213-01 Internal Std ID: WBN091223-01
CALIBRATION & QC INFORMATION:
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.

SOP: GL-OA-E-009 Rev. 23 Sequence Number: /chem/MSD7.i/s123009.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
s713001-D.d	WBN091213-01	JMB3	30-DEC-2009 08:32	DFTPP	s123009	1.0	DFTPP	Tune for mega/ap/pest
s713001.d	WBN091213-01	JMB3	30-DEC-2009 08:32	DFTPP	s123009	1.0	DFTPP	Tune for mega/ap/pest
s713002.d	INSTBLANK	JMB3	30-DEC-2009 08:44	------	s123009	1.0	INSTBLANK	
s713003.d	WBN091225-09	JMB3	30-DEC-2009 09:11	1 PPM	s121709a	1.0	MEGA001	
s713004.d	WBN091225-10	JMB3	30-DEC-2009 09:38	10 PPM	s121709a	1.0	MEGA010	
s713005.d	WBN091225-11	JMB3	30-DEC-2009 10:05	20 PPM	s121709a	1.0	MEGA020	DUSE see s713009
s713006.d	WBN091225-12.1	JMB3	30-DEC-2009 10:32	40 PPM	s123009	1.0	MEGA040	
s713007.d	WBN091225-13	JMB3	30-DEC-2009 10:59	50 PPM	s123009	1.0	MEGA050	
s713008.d	WBN091225-14	JMB3	30-DEC-2009 11:26	80 PPM	s123009	1.0	MEGA080	
s713009-D.d	WBN091225-11	JMB3	30-DEC-2009 11:53	20 PPM	s123009	1.0	MEGA020	
s713009.d	WBN091225-11	JMB3	30-DEC-2009 11:53	20 PPM	s123009	1.0	MEGA020	
s713010.d	WBN091225-15	JMB3	30-DEC-2009 12:20	100 PPM	s123009	1.0	MEGA100	
s713011.d	WBN091225-16	JMB3	30-DEC-2009 12:47	120 PPM	s123009	1.0	MEGA120	
s713012.d	INSTBLANK	JMB3	30-DEC-2009 13:14	------	s123009	1.0	INSTBLANK	
s713013-D.d	WBN091223-17.1	JMB3	30-DEC-2009 13:41	40 PPM	s123009	1.0	MEGAICV	
s713013.d	WBN091223-17.1	JMB3	30-DEC-2009 13:41	40 PPM	s123009	1.0	MEGAICV	
s713014.d	WBN091201-01	JMB3	30-DEC-2009 14:08	10 PPM	s123009	1.0	AP010	
s713015.d	WBN091201-02	JMB3	30-DEC-2009 14:30	20 PPM	s123009	1.0	AP020	
s713016.d	WBN091201-03.1	JMB3	30-DEC-2009 14:52	40 PPM	s123009	1.0	AP040	DUSE-to get c77 to pass

s713017.d	WBN091201-04	JMB3	30-DEC-2009 15:14	50 PPM	s123009		1.0	AP050	
s713018.d	WBN091201-05	JMB3	30-DEC-2009 15:36	80 PPM	s123009		1.0	AP080	
s713019.d	WBN091201-06	JMB3	30-DEC-2009 15:58	100 PPM	s123009		1.0	AP100	
s713020.d	WBN091201-07	JMB3	30-DEC-2009 16:20	120 PPM	s123009		1.0	AP120	
s713021.d	WBN091202-25	JMB3	30-DEC-2009 16:41	10 PPM	s123009		1.0	PEST010	
s713022.d	WBN091202-24	JMB3	30-DEC-2009 17:03	20 PPM	s123009		1.0	PEST020	
s713023.d	WBN091202-23.1	JMB3	30-DEC-2009 17:25	40 PPM	s123009		1.0	PEST040	
s713024.d	WBN091202-22	JMB3	30-DEC-2009 17:47	50 PPM	s123009		1.0	PEST050	
s713025.d	WBN091202-21	JMB3	30-DEC-2009 18:09	80 PPM	s123009		1.0	PEST080	
s713026.d	WBN091202-20	JMB3	30-DEC-2009 18:31	100 PPM	s123009		1.0	PEST100	
s713027.d	WBN091202-19	JMB3	30-DEC-2009 18:53	120 PPM	s123009		1.0	PEST120	
s713028-D.d	WBN091201-08.1	JMB3	30-DEC-2009 19:15	ICV	s123009		1.0	APICV	
s713028.d	WBN091201-08.1	JMB3	30-DEC-2009 19:15	ICV	s123009		1.0	APICV	
s713029-D.d	WBN091202-26.1	JMB3	30-DEC-2009 19:36	ICV	s123009		1.0	PESTICV	
s713029.d	WBN091202-26.1	JMB3	30-DEC-2009 19:36	ICV	s123009		1.0	PESTICV	
s713030-D.d	WBN091213-01	JMB3	30-DEC-2009 20:01	DFTPP	s123009		1.0	DFTPP	tune for hex/nev
s713030.d	WBN091213-01	JMB3	30-DEC-2009 20:01	DFTPP	s123009		1.0	DFTPP	tune for hex/nev
s713031.d	INSTBLANK	JMB3	30-DEC-2009 20:14	------	s123009		1.0	INSTBLANK	
s713032.d	WBN091202-16	JMB3	30-DEC-2009 20:36	500 PPM	s123009		1.0	HEX500	
s713033.d	WBN091202-15	JMB3	30-DEC-2009 20:58	1000 PPM	s123009		1.0	HEX1000	
s713034.d	WBN091202-14	JMB3	30-DEC-2009 21:19	1250 PPM	s123009		1.0	HEX1250	
s713035.d	WBN091202-13	JMB3	30-DEC-2009 21:41	1500 PPM	s123009		1.0	HEX1500	
s713036.d	WBN091202-12	JMB3	30-DEC-2009 22:03	1750 PPM	s123009		1.0	HEX1750	
s713037.d	UBN090828-02.6	JMB3	30-DEC-2009 22:25	2000 PPM	s123009		1.0	HEX2000	
s713038.d	UBN091117-01	JMB3	30-DEC-2009 22:47	10 PPM	s123009		1.0	NEV010	
s713039.d	UBN091117-02	JMB3	30-DEC-2009 23:09	20 PPM	s123009		1.0	NEV020	
s713040.d	UBN091117-03	JMB3	30-DEC-2009 23:30	40 PPM	s123009		1.0	NEV040	

s713041.d	UBN091117-04	JMB3	30-DEC-2009 23:52	50 PPM	s123009		1.0	NEV050
s713042.d	UBN091117-05	JMB3	31-DEC-2009 00:14	80 PPM	s123009		1.0	NEV080
s713043.d	UBN091117-03	JMB3	31-DEC-2009 00:36	100 PPM	s123009		1.0	NEV100
s713044.d	UBN091117-02	JMB3	31-DEC-2009 00:58	120 PPM	s123009		1.0	NEV120
s713045-D.d	WBN090827-10.3	JMB3	31-DEC-2009 01:20	ICV	s123009		1.0	HEXICV
s713045.d	WBN090827-10.3	JMB3	31-DEC-2009 01:20	ICV	s123009		1.0	HEXICV

Instrument Batch: /chem/MSD7.i/s123009.b

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
05-JAN-10	Federal	SOP	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
SEMIVOA GC/MS	SW 846 EPA 8270C	Solid	LANL
Batch ID:	**Sample Numbers:**		
937095	See below		

Potentially affected work order(s)(SDG): 243472(10-1057),243490(10-1036),243509(10-1069)

Application Issues:

Other

Specification and Requirements Exception Description:	DER Disposition:
1. Sample 243501001 was selected for analysis as the Matrix Spike and Matrix Spike Duplicate.	1. The sample was a re-log sample from a previous work-order and will not be reported to the client. Due to software limitations, the other SDGs in this batch not associated with work-order 243501 will not have a reportable MS and MSD in their data package. The sample and MS/MSD pair were extracted, analyzed and displayed acceptable results. The raw data files and a manually generated spike recovery report have been placed in the Miscellaneous Sections of the SDGs reported from this batch.

Originator's Name:

Daniel Beacham 05-JAN-10

Data Validator/Group Leader:

Barbara Bailey 05-JAN-10

FORM 3
SOIL SEMIVOLATILE MATRIX SPIKE

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.:

Matrix Spike - Sample No.: RE16-10-2877 Level:(low/med) LOW

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC #	QC. LIMITS REC.
N-Methyl-N-nitrosomethy	1660	0.0	860	52	32- 90
Pyridine	1660	0.0	1010	61	30- 95
Aniline	1660	0.0	915	55	34-111
Phenol	1660	0.0	965	58	32-105
bis(2-Chloroethyl) ethe	1660	0.0	810	49	34-101
2-Chlorophenol	1660	0.0	923	56	33-106
1,3-Dichlorobenzene	1660	0.0	941	57	31- 97
1,4-Dichlorobenzene	1660	0.0	939	56	33- 95
Benzyl alcohol	1660	0.0	1110	67	17-120
1,2-Dichlorobenzene	1660	0.0	975	59	32-102
bis(2-Chloroisopropyl)e	1660	0.0	703	42	32-113
o-Cresol	1660	0.0	958	58	31-119
N-Nitrosodipropylamine	1660	0.0	916	55	31-109
m,p-Cresols	1660	0.0	1060	64	35-125
Hexachloroethane	1660	0.0	874	53	30-100
Nitrobenzene	1660	0.0	997	60	33-108
Isophorone	1660	0.0	1020	61	34-110
2-Nitrophenol	1660	0.0	988	60	32-108
2,4-Dimethylphenol	1660	0.0	1070	64	32-115
bis(2-Chloroethoxy)meth	1660	0.0	983	59	35-108
2,4-Dichlorophenol	1660	0.0	1090	66	38-110
Benzoic acid	3330	0.0	2150	64	18-134
1,2,4-Trichlorobenzene	1660	0.0	1010	61	31-105
Naphthalene	1660	0.0	1000	60	31-105
4-Chloroaniline	1660	0.0	965	58	29-123
Hexachlorobutadiene	1660	0.0	1140	69	31-108
4-Chloro-3-methylphenol	1660	0.0	1120	67	38-119
2-Methylnaphthalene	1660	0.0	1080	65	32-110

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

COMMENTS:

FORM 3
SOIL SEMIVOLATILE MATRIX SPIKE

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.:

Matrix Spike - Sample No.: RE16-10-2877 Level:(low/med) LOW

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC #	QC. LIMITS REC.
Hexachlorocyclopentadie	1660	0.0	991	60	21-122
2,4,6-Trichlorophenol	1660	0.0	1100	66	37-108
2,4,5-Trichlorophenol	1660	0.0	1230	74	37-116
2-Chloronaphthalene	1660	0.0	985	59	37-103
o-Nitroaniline	1660	0.0	988	60	36-115
m-Nitroaniline	1660	0.0	1220	73	39-117
Dimethylphthalate	1660	0.0	1080	65	41-105
2,6-Dinitrotoluene	1660	0.0	1040	63	41-103
Acenaphthylene	1660	0.0	1100	66	40-103
Acenaphthene	1660	0.0	990	60	39-101
2,4-Dinitrophenol	1660	0.0	919	55	25-104
Dibenzofuran	1660	0.0	1310	79	40-114
2,4-Dinitrotoluene	1660	0.0	1080	65	42-106
Diethylphthalate	1660	0.0	1140	69	43-110
4-Nitrophenol	1660	0.0	1240	75	24-120
Fluorene	1660	0.0	1100	66	48- 99
4-Chlorophenylphenyleth	1660	0.0	1110	67	42-110
2-Methyl-4,6-dinitrophe	1660	0.0	841	51	19-118
p-Nitroaniline	1660	0.0	1630	98	35-139
Diphenylamine	1660	0.0	1120	67	41-112
1,2-Diphenylhydrazine	1660	0.0	979	59	36-118
4-Bromophenylphenylethe	1660	0.0	1070	64	38-112
Hexachlorobenzene	1660	0.0	1170	70	38-113
Pentachlorophenol	1660	0.0	1280	77	26-121
Phenanthrene	1660	0.0	1020	61	38-110
Anthracene	1660	0.0	1030	62	38-112
Di-n-butylphthalate	1660	0.0	1110	67	42-119
Fluoranthene	1660	0.0	1120	67	38-118

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

COMMENTS: _____

FORM 3
SOIL SEMIVOLATILE MATRIX SPIKE

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.:

Matrix Spike - Sample No.: RE16-10-2877 Level:(low/med) LOW

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC #	QC. LIMITS REC.
Pyrene	1660	0.0	985	59	34-120
Butylbenzylphthalate	1660	0.0	1040	63	38-126
Benzo(a)anthracene	1660	0.0	1050	63	39-110
3,3'-Dichlorobenzidine	1660	0.0	928	56	35-106
Chrysene	1660	0.0	1090	66	39-109
bis(2-Ethylhexyl)phthal	1660	0.0	1080	65	40-125
Di-n-octylphthalate	1660	0.0	1140	69	30-147
Benzo(b)fluoranthene	1660	0.0	1200	72	38-116
Benzo(k)fluoranthene	1660	0.0	1160	70	39-120
Benzo(a)pyrene	1660	0.0	1140	69	40-115
Indeno(1,2,3-cd)pyrene	1660	0.0	964	58	32-120
Dibenzo(a,h)anthracene	1660	0.0	1000	60	38-124
Benzo(ghi)perylene	1660	0.0	872	52	28-119

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

COMMENTS:

FORM 3
SOIL SEMIVOLATILE MATRIX SPIKE DUPLICATE

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.:

Matrix Spike - Sample No.: RE16-10-2877 Level:(low/med) LOW

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
N-Methyl-N-nitrosomethy	1660	863	52	0	30	32- 90
Pyridine	1660	1040	63	3	30	30- 95
Aniline	1660	955	58	5	30	34-111
Phenol	1660	960	58	0	30	32-105
bis(2-Chloroethyl) ethe	1660	788	47	4	30	34-101
2-Chlorophenol	1660	923	56	0	30	33-106
1,3-Dichlorobenzene	1660	909	55	4	30	31- 97
1,4-Dichlorobenzene	1660	915	55	2	30	33- 95
Benzyl alcohol	1660	1090	66	2	30	17-120
1,2-Dichlorobenzene	1660	952	57	3	30	32-102
bis(2-Chloroisopropyl)e	1660	678	41	2	30	32-113
o-Cresol	1660	949	57	2	30	31-119
N-Nitrosodipropylamine	1660	942	57	4	30	31-109
m,p-Cresols	1660	1060	64	0	30	35-125
Hexachloroethane	1660	864	52	2	30	30-100
Nitrobenzene	1660	1000	60	0	30	33-108
Isophorone	1660	1010	61	0	30	34-110
2-Nitrophenol	1660	989	60	0	30	32-108
2,4-Dimethylphenol	1660	1060	64	0	30	32-115
bis(2-Chloroethoxy)meth	1660	943	57	3	30	35-108
2,4-Dichlorophenol	1660	1110	67	2	30	38-110
Benzoic acid	3320	2420	73	13	30	18-134
1,2,4-Trichlorobenzene	1660	983	59	3	30	31-105
Naphthalene	1660	978	59	2	30	31-105
4-Chloroaniline	1660	930	56	4	30	29-123
Hexachlorobutadiene	1660	1110	67	3	30	31-108
4-Chloro-3-methylphenol	1660	1130	68	1	30	38-119
2-Methylnaphthalene	1660	1060	64	2	30	32-110

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

COMMENTS:

FORM 3
SOIL SEMIVOLATILE MATRIX SPIKE DUPLICATE

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.:

Matrix Spike - Sample No.: RE16-10-2877 Level:(low/med) LOW

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Hexachlorocyclopentadie	1660	1030	62	3	30	21-122
2,4,6-Trichlorophenol	1660	1180	71	7	30	37-108
2,4,5-Trichlorophenol	1660	1200	72	3	30	37-116
2-Chloronaphthalene	1660	972	58	2	30	37-103
o-Nitroaniline	1660	1010	61	2	30	36-115
m-Nitroaniline	1660	1180	71	3	30	39-117
Dimethylphthalate	1660	1090	66	2	30	41-105
2,6-Dinitrotoluene	1660	1060	64	2	30	41-103
Acenaphthylene	1660	1090	66	0	30	40-103
Acenaphthene	1660	1010	61	2	30	39-101
2,4-Dinitrophenol	1660	1060	64	15	30	25-104
Dibenzofuran	1660	1310	79	0	30	40-114
2,4-Dinitrotoluene	1660	1090	66	2	30	42-106
Diethylphthalate	1660	1120	67	3	30	43-110
4-Nitrophenol	1660	1350	81	8	30	24-120
Fluorene	1660	1090	66	0	30	48- 99
4-Chlorophenylphenyleth	1660	1110	67	0	30	42-110
2-Methyl-4,6-dinitrophe	1660	942	57	11	30	19-118
p-Nitroaniline	1660	1630	98	0	30	35-139
Diphenylamine	1660	1150	69	3	30	41-112
1,2-Diphenylhydrazine	1660	997	60	2	30	36-118
4-Bromophenylphenylethe	1660	1100	66	3	30	38-112
Hexachlorobenzene	1660	1180	71	1	30	38-113
Pentachlorophenol	1660	1370	82	6	30	26-121
Phenanthrene	1660	1030	62	2	30	38-110
Anthracene	1660	1060	64	3	30	38-112
Di-n-butylphthalate	1660	1110	67	0	30	42-119
Fluoranthene	1660	1150	69	3	30	38-118

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

COMMENTS:

FORM 3
SOIL SEMIVOLATILE MATRIX SPIKE DUPLICATE

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.:

Matrix Spike - Sample No.: RE16-10-2877 Level:(low/med) LOW

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Pyrene	1660	999	60	2	30	34-120
Butylbenzylphthalate	1660	1050	63	0	30	38-126
Benzo(a)anthracene	1660	1090	66	5	30	39-110
3,3'-Dichlorobenzidine	1660	1030	62	10	30	35-106
Chrysene	1660	1090	66	0	30	39-109
bis(2-Ethylhexyl)phthal	1660	1090	66	2	30	40-125
Di-n-octylphthalate	1660	1120	67	3	30	30-147
Benzo(b)fluoranthene	1660	1140	69	4	30	38-116
Benzo(k)fluoranthene	1660	1210	73	4	30	39-120
Benzo(a)pyrene	1660	1160	70	1	30	40-115
Indeno(1,2,3-cd)pyrene	1660	1030	62	7	30	32-120
Dibenzo(a,h)anthracene	1660	1060	64	6	30	38-124
Benzo(ghi)perylene	1660	937	56	7	30	28-119

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 69 outside limits
Spike Recovery: 0 out of 138 outside limits

COMMENTS:

GEL Laboratories LLC

GEL Laboratories, LLC

Data file : /chem/MSD7.i/s010210.b/s7a0220.d
Lab Smp Id: 243501001 Client Smp ID: RE16-10-2877
Inj Date : 02-JAN-2010 22:36
Operator : JMB3 Inst ID: MSD7.i
Smp Info : |243501001|937095|1|SVMF|1|LANL
Misc Info : |MSD8270_S|WBN091223-01|
Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness
Method : /chem/MSD7.i/s010210.b/MSD7-M8270C-AQA-123009.m
Meth Date : 04-Jan-2010 08:10 jos00786 Quant Type: ISTD
Cal Date : 30-DEC-2009 23:30 Cal File: s713040.d
Als bottle: 17
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-947.sub
Target Version: 3.50
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariabl
e

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.05000	weight of sample
M	0.00000	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.966	3.961	(1.000)	323060	40.0000	
* 29 Naphthalene-d8	136	4.823	4.823	(1.000)	1161220	40.0000	
* 46 Acenaphthene-d10	164	6.070	6.070	(1.000)	672049	40.0000	
* 67 Phenanthrene-d10	188	7.235	7.236	(1.000)	1286463	40.0000	
* 91 Chrysene-d12	240	9.633	9.638	(1.000)	1257225	40.0000	
* 98 Perylene-d12	264	11.290	11.295	(1.000)	986387	40.0000	
$ 3 2-Fluorophenol	112	3.162	3.152	(0.797)	323377	37.3870	1240
$ 5 Phenol-d5	99	3.672	3.672	(0.926)	398164	37.1287	1240
$ 20 Nitrobenzene-d5	82	4.317	4.322	(0.895)	184477	20.6950	689
$ 39 2-Fluorobiphenyl	172	5.560	5.560	(0.916)	398478	21.9149	729
$ 60 2,4,6-Tribromophenol	329	6.662	6.667	(1.098)	120703	53.2677	1770
$ 81 p-Terphenyl-d14	244	8.608	8.608	(0.894)	547782	25.9834	865

Data File: /chem/MSD7.i/s010210.b/s7a0220.d
Date : 02-JAN-2010 22:36
Client ID: RE16-10-2877
Sample Info: 1243501001193709511SVMF11LANL
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD7.i

Operator: JMB3
Column diameter: 0.20

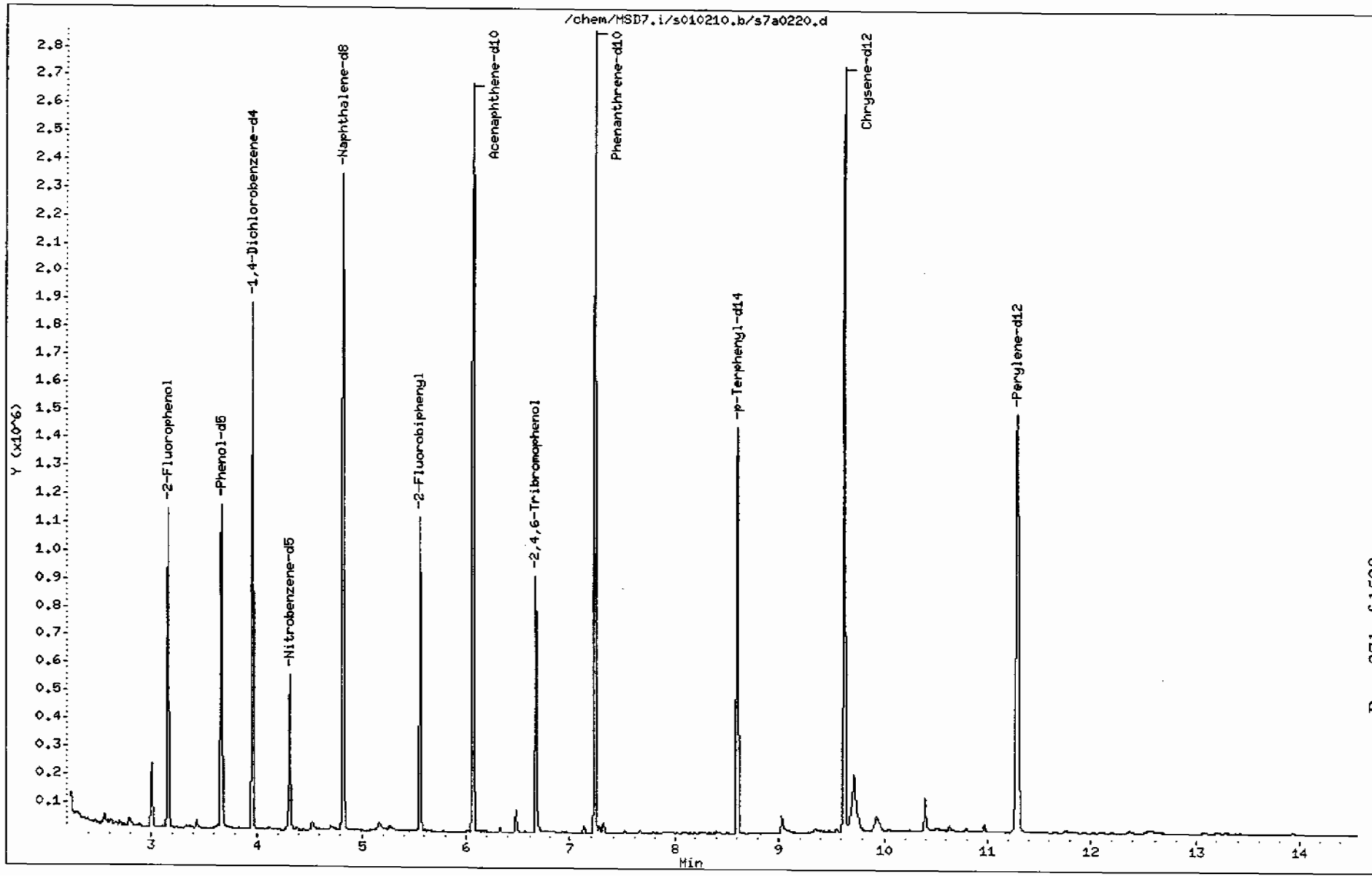

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Data file : /chem/MSD7.i/s010210.b/s7a0221.d
Lab Smp Id: 1202005232 Client Smp ID: RE16-10-2877MS
Inj Date : 02-JAN-2010 22:58
Operator : JMB3 Inst ID: MSD7.i
Smp Info : |1202005232|937095|1|SVMF|1|MS
Misc Info : |MSD8270_S|WBN091223-01|
Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness
Method : /chem/MSD7.i/s010210.b/MSD7-M8270C-AQA-123009.m
Meth Date : 04-Jan-2010 08:10 jos00786 Quant Type: ISTD
Cal Date : 30-DEC-2009 23:30 Cal File: s7l3040.d
Als bottle: 18 QC Sample: MS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-947.sub
Target Version: 3.50
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.06000	weight of sample
M	0.00000	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.966	3.961	(1.000)	306468	40.0000	
* 29 Naphthalene-d8	136	4.823	4.823	(1.000)	1173445	40.0000	
* 46 Acenaphthene-d10	164	6.070	6.070	(1.000)	678611	40.0000	
* 67 Phenanthrene-d10	188	7.235	7.236	(1.000)	1350807	40.0000	
* 91 Chrysene-d12	240	9.638	9.638	(1.000)	1341620	40.0000	
* 98 Perylene-d12	264	11.300	11.295	(1.000)	1095812	40.0000	
$ 3 2-Fluorophenol	112	3.167	3.152	(0.798)	455082	55.4625	1840
$ 5 Phenol-d5	99	3.677	3.672	(0.927)	569549	55.9857	1860
$ 20 Nitrobenzene-d5	82	4.322	4.322	(0.896)	272740	30.2777	1010
$ 39 2-Fluorobiphenyl	172	5.560	5.560	(0.916)	546783	29.7803	991
$ 60 2,4,6-Tribromophenol	329	6.667	6.667	(1.098)	192046	83.9327	2790
$ 81 p-Terphenyl-d14	244	8.608	8.608	(0.893)	811452	36.0691	1200

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
6 Phenol	94	3.687	3.677	(0.930)	297326	29.0039	965
8 2-Chlorophenol	128	3.831	3.826	(0.966)	236787	27.7451	923
11 1,4-Dichlorobenzene	146	3.976	3.976	(1.002)	268848	28.2372	939
17 N-Nitrosodipropylamine	70	4.192	4.192	(1.057)	169142	27.5492	916(Q)
28 1,2,4-Trichlorobenzene	180	4.775	4.770	(0.990)	239478	30.4663	1010
33 4-Chloro-3-methylphenol	107	5.165	5.155	(1.071)	229769	33.7820	1120
47 Acenaphthene	154	6.094	6.094	(1.004)	482953	29.7759	990
50 2,4-Dinitrotoluene	165	6.181	6.181	(1.018)	186833	32.4880	1080
52 4-Nitrophenol	139	6.114	6.099	(1.007)	113262	37.1453	1240
65 Pentachlorophenol	266	7.067	7.062	(0.977)	123500	38.5459	1280
79 Pyrene	202	8.512	8.512	(0.883)	1141595	29.6124	985
2 Pyridine	79	2.536	2.517	(0.639)	189008	30.3311	1010
4 Aniline	66	3.749	3.744	(0.945)	116786	27.5146	915(Q)
7 bis(2-Chloroethyl) ether	63	3.764	3.759	(0.949)	194464	24.3508	810(Q)
9 1,3-Dichlorobenzene	146	3.932	3.927	(0.991)	276663	28.2821	941
12 Benzyl alcohol	108	4.028	4.024	(1.016)	181554	33.2801	1110
13 1,2-Dichlorobenzene	146	4.077	4.077	(1.028)	256876	29.3015	975
14 bis(2-Chloroisopropyl)ether	45	4.101	4.101	(1.034)	415672	21.1379	703
15 o-Cresol	107	4.077	4.072	(1.028)	185420	28.8120	958
18 m,p-Cresols	107	4.173	4.168	(1.052)	274789	31.8634	1060
19 Hexachloroethane	117	4.308	4.308	(1.086)	104050	26.2811	874
21 Nitrobenzene	77	4.332	4.332	(0.898)	250425	29.9733	997
22 Isophorone	82	4.486	4.486	(0.930)	497683	30.7838	1020
23 2-Nitrophenol	139	4.549	4.549	(0.943)	124660	29.6886	988
24 2,4-Dimethylphenol	122	4.534	4.534	(0.940)	237655	32.1379	1070
25 bis(2-Chloroethoxy)methane	93	4.606	4.602	(0.955)	269825	29.5458	983
26 2,4-Dichlorophenol	162	4.707	4.703	(0.976)	212537	32.7201	1090
27 Benzoic acid	105	4.597	4.573	(0.953)	271318	64.5187	2150
30 Naphthalene	128	4.837	4.838	(1.003)	712460	30.1989	1000
31 4-Chloroaniline	127	4.852	4.838	(1.006)	279108	29.0152	965
32 Hexachlorobutadiene	225	4.905	4.905	(1.017)	146628	34.3258	1140
34 2-Methylnaphthalene	142	5.319	5.319	(1.103)	518416	32.4312	1080
36 Hexachlorocyclopentadiene	237	5.420	5.420	(0.893)	116179	29.7884	991
37 2,4,6-Trichlorophenol	196	5.502	5.502	(0.906)	169421	32.9990	1100
38 2,4,5-Trichlorophenol	196	5.536	5.526	(0.912)	197591	36.9065	1230
40 2-Chloronaphthalene	162	5.670	5.666	(0.934)	487440	29.6042	985
42 o-Nitroaniline	65	5.723	5.724	(0.943)	157237	29.6971	988
41 m-Nitroaniline	138	6.017	6.022	(0.991)	123199	36.6610	1220
43 Dimethylphthalate	163	5.829	5.830	(0.960)	618771	32.5850	1080
44 2,6-Dinitrotoluene	165	5.882	5.882	(0.969)	139576	31.2426	1040
45 Acenaphthylene	152	5.974	5.974	(0.984)	846814	33.0243	1100
48 2,4-Dinitrophenol	184	6.089	6.090	(1.003)	34569	27.6228	919(Q)
49 Dibenzofuran	168	6.219	6.220	(1.025)	883453	39.4497	1310
51 Diethylphthalate	149	6.340	6.340	(1.044)	654463	34.3085	1140
53 Fluorene	166	6.479	6.480	(1.067)	623507	33.0565	1100
54 4-Chlorophenylphenylether	204	6.455	6.455	(1.063)	311839	33.4730	1110
55 2-Methyl-4,6-dinitrophenol	198	6.494	6.494	(0.898)	65819	25.2829	841

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
56 p-Nitroaniline	138	6.479	6.480	(1.067)	147375	48.9596	1630
133 Diphenylamine	169	6.542	6.542	(0.904)	555460	33.7818	1120
58 1,2-Diphenylhydrazine	77	6.581	6.581	(0.909)	650889	29.4378	979
61 4-Bromophenylphenylether	248	6.841	6.846	(0.945)	194354	32.0860	1070
63 Hexachlorobenzene	284	6.913	6.918	(0.955)	209321	35.0861	1170
68 Phenanthrene	178	7.260	7.260	(1.003)	926209	30.7243	1020
69 Anthracene	178	7.303	7.303	(1.009)	942770	31.0612	1030
72 Di-n-butylphthalate	149	7.654	7.654	(1.058)	1239569	33.3042	1110
76 Fluoranthene	202	8.295	8.295	(1.146)	1135188	33.7861	1120
85 Butylbenzylphthalate	149	9.036	9.037	(0.938)	561811	31.1851	1040
89 Benzo(a)anthracene	228	9.624	9.624	(0.998)	1025515	31.6590	1050
90 3,3'-Dichlorobenzidine	252	9.571	9.571	(0.993)	302282	27.8904	928
92 Chrysene	228	9.662	9.662	(1.002)	980306	32.8896	1090
93 bis(2-Ethylhexyl)phthalate	149	9.556	9.561	(0.992)	771102	32.4270	1080
94 Di-n-octylphthalate	149	10.202	10.207	(0.903)	1149172	34.4047	1140
95 Benzo(b)fluoranthene	252	10.784	10.784	(0.954)	980874	36.0565	1200
96 Benzo(k)fluoranthene	252	10.818	10.818	(0.957)	911687	34.8958	1160
97 Benzo(a)pyrene	252	11.223	11.218	(0.993)	831649	34.3658	1140
99 Indeno(1,2,3-cd)pyrene	276	13.038	13.043	(1.154)	698790	28.9706	964
100 Dibenzo(a,h)anthracene	278	13.052	13.057	(1.155)	579926	30.0800	1000
101 Benzo(ghi)perylene	276	13.572	13.573	(1.201)	540709	26.2081	872
1 N-Methyl-N-nitrosomethylamine	74	2.497	2.488	(0.630)	135665	25.8655	860

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: /chem/MSD7.i/s010210.b/s7a0221.d
Date : 02-JAN-2010 22:58
Client ID: RE16-10-2877MS
Sample Info: 1120200523219370961 1 SVMF 1 1 MS
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD7.i
Operator: JMB3
Column diameter: 0.20

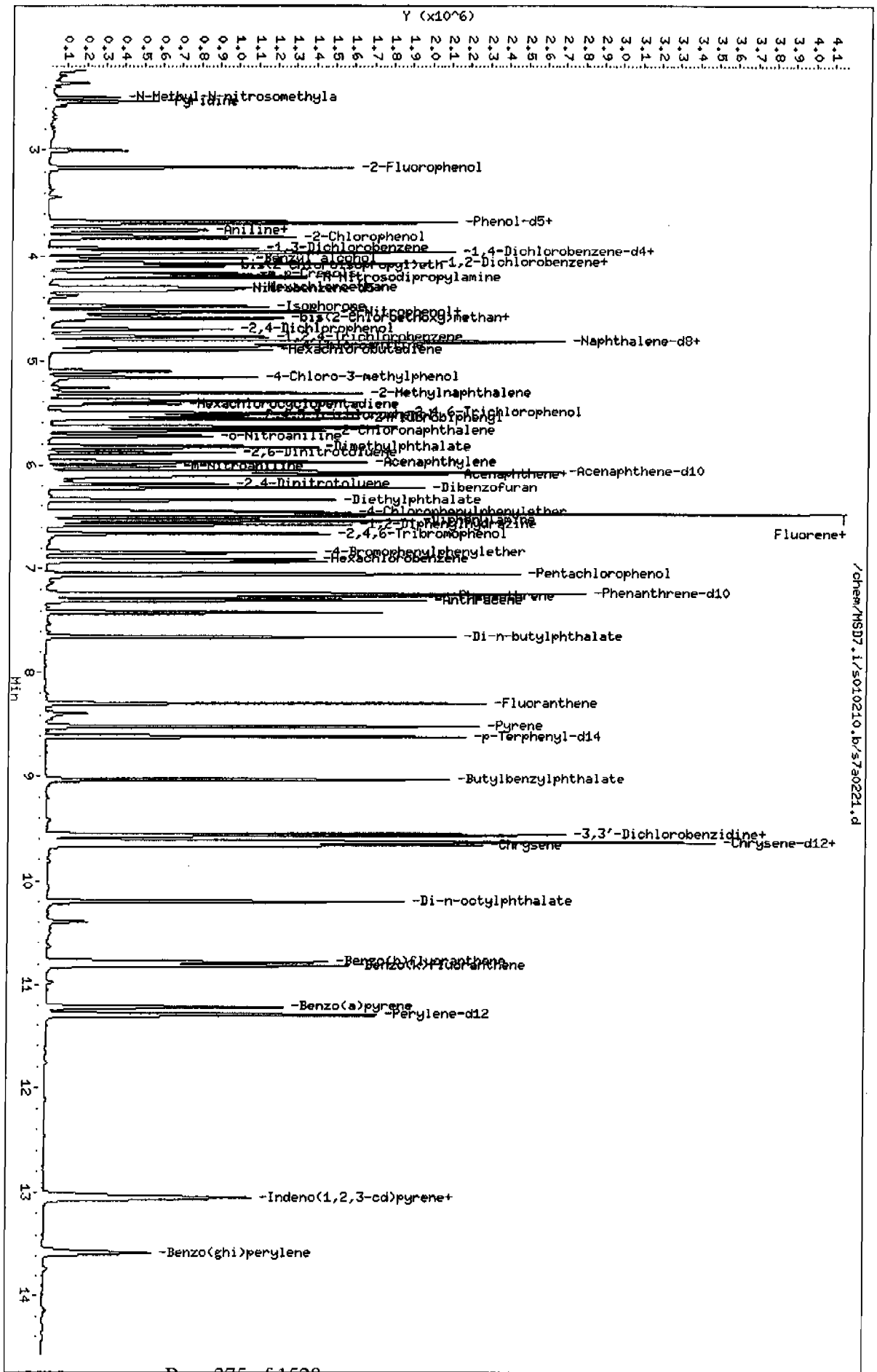

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Data file : /chem/MSD7.i/s010210.b/s7a0222.d
Lab Smp Id: 1202005233 Client Smp ID: RE16-10-2877MSD
Inj Date : 02-JAN-2010 23:19
Operator : JMB3 Inst ID: MSD7.i
Smp Info : |1202005233|937095|1|SVMF|1|MSD
Misc Info : |MSD8270_S|WBN091223-01|
Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness
Method : /chem/MSD7.i/s010210.b/MSD7-M8270C-AQA-123009.m
Meth Date : 04-Jan-2010 08:10 jos00786 Quant Type: ISTD
Cal Date : 30-DEC-2009 23:30 Cal File: s713040.d
Als bottle: 19 QC Sample: MSD
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-947.sub
Target Version: 3.50
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariabl
e

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.11000	weight of sample
M	0.00000	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.966	3.961	(1.000)	377166	40.0000	
* 29 Naphthalene-d8	136	4.823	4.823	(1.000)	1435151	40.0000	
* 46 Acenaphthene-d10	164	6.070	6.070	(1.000)	824074	40.0000	
* 67 Phenanthrene-d10	188	7.240	7.236	(1.000)	1591678	40.0000	
* 91 Chrysene-d12	240	9.643	9.638	(1.000)	1602816	40.0000	
* 98 Perylene-d12	264	11.300	11.295	(1.000)	1376343	40.0000	
$ 3 2-Fluorophenol	112	3.167	3.152	(0.798)	551711	54.6354	1810
$ 5 Phenol-d5	99	3.677	3.672	(0.927)	690353	55.1404	1830
$ 20 Nitrobenzene-d5	82	4.322	4.322	(0.896)	329722	29.9287	994
$ 39 2-Fluorobiphenyl	172	5.560	5.560	(0.916)	651685	29.2285	971
$ 60 2,4,6-Tribromophenol	329	6.667	6.667	(1.098)	228612	82.2773	2730
$ 81 p-Terphenyl-d14	244	8.608	8.608	(0.893)	958577	35.6652	1180

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
6 Phenol	94	3.687	3.677	(0.930)	364812	28.9165	960
8 2-Chlorophenol	128	3.831	3.826	(0.966)	292025	27.8036	923
11 1,4-Dichlorobenzene	146	3.976	3.976	(1.002)	322683	27.5387	915
17 N-Nitrosodipropylamine	70	4.197	4.192	(1.058)	214280	28.3590	942(Q)
28 1,2,4-Trichlorobenzene	180	4.775	4.770	(0.990)	284464	29.5901	983
33 4-Chloro-3-methylphenol	107	5.165	5.155	(1.071)	283857	34.1239	1130
47 Acenaphthene	154	6.099	6.094	(1.005)	599353	30.4296	1010
50 2,4-Dinitrotoluene	165	6.181	6.181	(1.018)	228615	32.7363	1090
52 4-Nitrophenol	139	6.114	6.099	(1.007)	152025	40.6668	1350
65 Pentachlorophenol	266	7.067	7.062	(0.976)	155569	41.2072	1370
79 Pyrene	202	8.512	8.512	(0.883)	1385640	30.0856	999
2 Pyridine	79	2.550	2.517	(0.643)	239858	31.2763	1040
4 Aniline	66	3.749	3.744	(0.945)	150191	28.7521	955(Q)
7 bis(2-Chloroethyl) ether	63	3.764	3.759	(0.949)	233262	23.7340	788(Q)
9 1,3-Dichlorobenzene	146	3.932	3.927	(0.991)	329624	27.3799	909
12 Benzyl alcohol	108	4.029	4.024	(1.016)	221301	32.9621	1090
13 1,2-Dichlorobenzene	146	4.082	4.077	(1.029)	309235	28.6621	952
14 bis(2-Chloroisopropyl)ether	45	4.106	4.101	(1.035)	494264	20.4231	678
15 o-Cresol	107	4.077	4.072	(1.028)	226350	28.5792	949
18 m,p-Cresols	107	4.178	4.168	(1.053)	339410	31.9793	1060
19 Hexachloroethane	117	4.308	4.308	(1.086)	126762	26.0162	864
21 Nitrobenzene	77	4.337	4.332	(0.899)	309302	30.2694	1000
22 Isophorone	82	4.486	4.486	(0.930)	599042	30.2965	1010
23 2-Nitrophenol	139	4.549	4.549	(0.943)	152916	29.7770	989
24 2,4-Dimethylphenol	122	4.539	4.534	(0.941)	290277	32.0958	1060
25 bis(2-Chloroethoxy)methane	93	4.606	4.602	(0.955)	317111	28.3916	943
26 2,4-Dichlorophenol	162	4.708	4.703	(0.976)	266200	33.5084	1110
27 Benzoic acid	105	4.606	4.573	(0.955)	383909	72.9996	2420
30 Naphthalene	128	4.842	4.838	(1.004)	849887	29.4548	978
31 4-Chloroaniline	127	4.852	4.838	(1.006)	329633	28.0188	930
32 Hexachlorobutadiene	225	4.905	4.905	(1.017)	175149	33.5256	1110
34 2-Methylnaphthalene	142	5.319	5.319	(1.103)	624221	31.9292	1060
36 Hexachlorocyclopentadiene	237	5.420	5.420	(0.893)	147536	31.1510	1030
37 2,4,6-Trichlorophenol	196	5.507	5.502	(0.907)	221507	35.5284	1180
38 2,4,5-Trichlorophenol	196	5.536	5.526	(0.912)	235523	36.2262	1200
40 2-Chloronaphthalene	162	5.671	5.666	(0.934)	585237	29.2697	972
42 o-Nitroaniline	65	5.724	5.724	(0.943)	196260	30.5243	1010
41 m-Nitroaniline	138	6.017	6.022	(0.991)	145208	35.5830	1180
43 Dimethylphthalate	163	5.829	5.830	(0.960)	757374	32.8438	1090
44 2,6-Dinitrotoluene	165	5.887	5.882	(0.970)	174048	32.0819	1060
45 Acenaphthylene	152	5.974	5.974	(0.984)	1024109	32.8886	1090
48 2,4-Dinitrophenol	184	6.094	6.090	(1.004)	54054	31.8825	1060(Q)
49 Dibenzofuran	168	6.220	6.220	(1.025)	1070385	39.3599	1310
51 Diethylphthalate	149	6.340	6.340	(1.044)	784824	33.8800	1120
53 Fluorene	166	6.480	6.480	(1.067)	750310	32.7575	1090
54 4-Chlorophenylphenylether	204	6.455	6.455	(1.063)	379111	33.5109	1110
55 2-Methyl-4,6-dinitrophenol	198	6.494	6.494	(0.897)	90754	28.3524	942

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
56	p-Nitroaniline	138	6.480	6.480	(1.067)	179869	49.1657	1630
133	Diphenylamine	169	6.542	6.542	(0.904)	673208	34.7470	1150
58	1,2-Diphenylhydrazine	77	6.581	6.581	(0.909)	782021	30.0162	997
61	4-Bromophenylphenylether	248	6.846	6.846	(0.945)	235461	32.9898	1100
63	Hexachlorobenzene	284	6.918	6.918	(0.955)	249223	35.4526	1180
68	Phenanthrene	178	7.260	7.260	(1.003)	1106883	31.1611	1030
69	Anthracene	178	7.303	7.303	(1.009)	1145246	32.0220	1060
72	Di-n-butylphthalate	149	7.654	7.654	(1.057)	1469572	33.5086	1110
76	Fluoranthene	202	8.295	8.295	(1.146)	1368047	34.5549	1150
85	Butylbenzylphthalate	149	9.036	9.037	(0.937)	681350	31.6572	1050
89	Benzo(a)anthracene	228	9.624	9.624	(0.998)	1271395	32.8535	1090
90	3,3'-Dichlorobenzidine	252	9.576	9.571	(0.993)	400123	30.9016	1030
92	Chrysene	228	9.662	9.662	(1.002)	1171397	32.8963	1090
93	bis(2-Ethylhexyl)phthalate	149	9.557	9.561	(0.991)	932575	32.8265	1090
94	Di-n-octylphthalate	149	10.207	10.207	(0.903)	1421385	33.8808	1120
95	Benzo(b)fluoranthene	252	10.789	10.784	(0.955)	1168079	34.1863	1140
96	Benzo(k)fluoranthene	252	10.823	10.818	(0.958)	1196893	36.4747	1210
97	Benzo(a)pyrene	252	11.223	11.218	(0.993)	1062160	34.9450	1160
99	Indeno(1,2,3-cd)pyrene	276	13.048	13.043	(1.155)	936814	30.9224	1030
100	Dibenzo(a,h)anthracene	278	13.062	13.057	(1.156)	775878	32.0412	1060
101	Benzo(ghi)perylene	276	13.577	13.573	(1.202)	730815	28.2025	937
1	N-Methyl-N-nitrosomethylamine	74	2.507	2.488	(0.632)	167693	25.9789	863

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: /chem/MSD7.i/s010210.b/s7a0222.d
Date : 02-JAN-2010 23:19
Client ID: RE16-10-2877MSD
Sample Info: |120200523319370951|1|SVMF|1|MSD
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD7.i

Operator: JMB3
Column diameter: 0.20

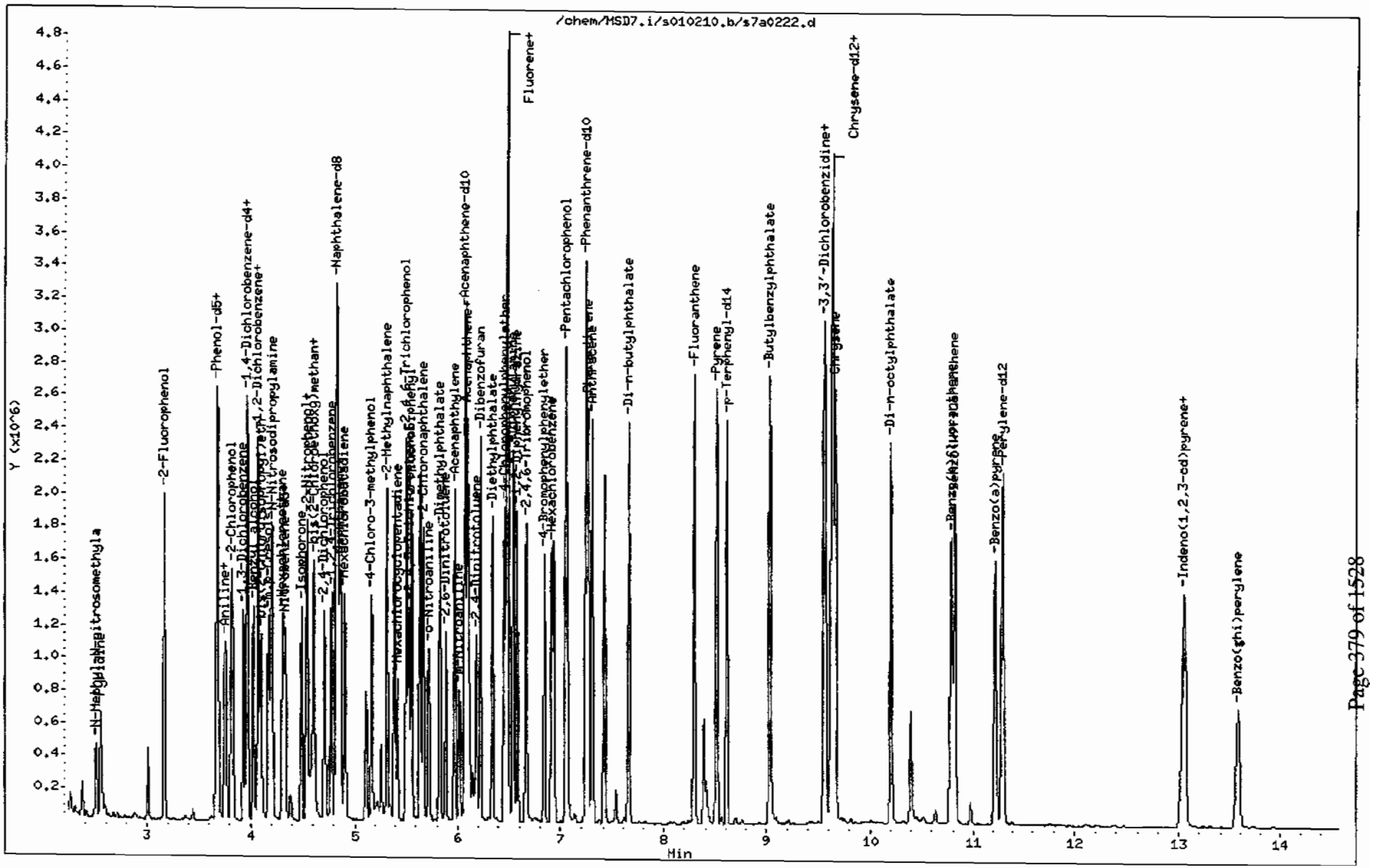

GEL ORGANIC RUN LOG INSTRUMENT ID: MSD7

DATE: 01/02/2010 METHOD: See raw data OPERATOR: JMB3 REVIEWED BY:_____ DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT:1202440-D
Multiplier Voltage: 1788 Emv Extr. Injection Volume: 0.5, 1.0 ul
DFTPP Solution ID: WBN091213-01 Internal Std ID: WBN091223-01
CALIBRATION & QC INFORMATION:
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.

SOP: GL-OA-E-009 Rev. 23 Sequence Number: /chem/MSD7.i/s010210.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
s7a0201.d	WBN091213-01	JMB3	02-JAN-2010 09:24	DFTPP	s010210	1.0	DFTPP	DUSE
s7a0202.d	WBN091213-01	JMB3	02-JAN-2010 09:39	DFTPP	s010210	1.0	DFTPP	DUSE
s7a0203.d	WBN091213-01	JMB3	02-JAN-2010 09:55	DFTPP	s010210	1.0	DFTPP	DUSE
s7a0204.d	WBN091213-01	JMB3	02-JAN-2010 15:42	DFTPP	s010210	1.0	DFTPP	8270c TUNE: PASSES
s7a0205-625.d	WBN091225-12.2	JMB3	02-JAN-2010 15:54	CVS	s010210	1.0	MEGACVS	DUSE: 625 MEGA CVS fails >20% for some analytes
s7a0205.d	WBN091225-12.2	JMB3	02-JAN-2010 15:54	CVS	s010210	1.0	MEGACVS	8270c MEGA CVS (IS1: 217575)
s7a0206.d	WBN091201-08.2	JMB3	02-JAN-2010 16:21	CVS	s010210	1.0	APCVS	8270c AP CVS
s7a0207.d	WBN091202-26.3	JMB3	02-JAN-2010 16:48	CVS	s010210	1.0	PESTCVS	8270c PEST CVS
s7a0208-1.d	1202005230	JMB3	02-JAN-2010 18:17	937095	10-1057	1.0	MB	DUSE: PAH hits <RDL (c99/100/101) - see rerun s7a0406
s7a0208-2.d	1202005230	JMB3	02-JAN-2010 18:17	937095	10-1069	1.0	MB	DUSE: PAH hits <RDL (c99/100/101) - see rerun s7a0406
s7a0208.d	1202005230	JMB3	02-JAN-2010 18:17	937095	10-1036	1.0	MB	DUSE: PAH hits <RDL (c99/100/101) - see rerun s7a0406
s7a0209-1.d	1202005231	JMB3	02-JAN-2010 18:38	937095	10-1057	1.0	LCS	REPORT
s7a0209-2.d	1202005231	JMB3	02-JAN-2010 18:38	937095	10-1069	1.0	LCS	REPORT
s7a0209.d	1202005231	JMB3	02-JAN-2010 18:38	937095	10-1036	1.0	LCS	REPORT
s7a0210.d	243472001	JMB3	02-JAN-2010 19:00	937095	10-1057	1.0	LANL	REPORT: hits in MB not detected in sample
s7a0211.d	243472002	JMB3	02-JAN-2010 19:21	937095	10-1057	1.0	LANL	REPORT: hits in MB not detected in sample
s7a0212.d	243472003	JMB3	02-JAN-2010 19:43	937095	10-1057	1.0	LANL	DUSE: no ISTD added - see rerun s4a0407
s7a0213.d	243490001	JMB3	02-JAN-2010 20:05	937095	10-1036	1.0	LANL	DUSE ISTD high, surr low - see rerun s6a0408
s7a0214.d	243490002	JMB3	02-JAN-2010 20:26	937095	10-1036	1.0	LANL	REPORT

s7a0215.d	243490003	JMB3	02-JAN-2010 20:48	937095	10-1036	1.0	LANL	REPORT
s7a0216.d	243490004	JMB3	02-JAN-2010 21:09	937095	10-1036	1.0	LANL	DUSE: c99/101 <RDL - rerun s7a0411
s7a0217.d	243490005	JMB3	02-JAN-2010 21:31	937095	10-1036	1.0	LANL	REPORT
s7a0218.d	243490006	JMB3	02-JAN-2010 21:53	937095	10-1036	1.0	LANL	REPORT
s7a0219.d	243490007	JMB3	02-JAN-2010 22:15	937095	10-1036	1.0	LANL	DUSE: c99/101 <RDL - rerun s7a0412
s7a0220.d	243501001	JMB3	02-JAN-2010 22:36	937095	10-947	1.0	LANL	DUSE: SDG removed from batch - analyzed for MS/MSD only
s7a0221.d	1202005232	JMB3	02-JAN-2010 22:58	937095	10-947	1.0	MS	DUSE: SDG removed from batch - analyzed for MS/MSD only
s7a0222.d	1202005233	JMB3	02-JAN-2010 23:19	937095	10-947	1.0	MSD	DUSE: SDG removed from batch - analyzed for MS/MSD only
s7a0223.d	243509001	JMB3	02-JAN-2010 23:41	937095	10-1069	1.0	LANL	DUSE: c99/c100/c101 >RDL - rerun s7a0413
s7a0224.d	243509002	JMB3	03-JAN-2010 00:03	937095	10-1069	1.0	LANL	DUSE: c99/c100/c101 >RDL - rerun s7a0414 ; 4x s7a0409
s7a0225.d	243509003	JMB3	03-JAN-2010 00:25	937095	10-1069	1.0	LANL	DUSE: possible carryover - see rerun s7a0410

Instrument Batch: /chem/MSD7.i/s010210.b

GEL ORGANIC RUN LOG INSTRUMENT ID: MSD7

DATE: 01/04/2010 METHOD: See raw data OPERATOR: JMB3 REVIEWED BY:_____ DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT:1202440-D
Multiplier Voltage: 1788 Emv Extr. Injection Volume: 0.5, 1.0 ul
DFTPP Solution ID: WBN091213-01 Internal Std ID: WBN091223-01
CALIBRATION & QC INFORMATION:
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.

SOP: GL-OA-E-009 Rev. 23 Sequence Number: /chem/MSD7.i/s010410.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
s7a0401.d	WBN091213-01	JMB3	04-JAN-2010 09:45	DFTPP	s010410	1.0	DFTPP	DUSE
s7a0402.d	WBN091213-01	JMB3	04-JAN-2010 11:28	DFTPP	s010410	1.0	DFTPP	8270c TUNE: PASSES
s7a0403.d	WBN091225-12.2	JMB3	04-JAN-2010 11:41	CVS	s010410	1.0	MEGACVS	8270c MEGA CVS (IS1: 277706)
s7a0404.d	WBN100103-03.2	JMB3	04-JAN-2010 12:07	CVS	s010410	1.0	APCVS	8270c AP CVS
s7a0405.d	WBN100103-23.2	JMB3	04-JAN-2010 12:29	CVS	s010410	1.0	PESTCVS	8270c PEST CVS
s7a0406-1.d	1202005230	JMB3	04-JAN-2010 12:51	937095	10-1057	1.0	MB	REPORT
s7a0406-2.d	1202005230	JMB3	04-JAN-2010 12:51	937095	10-1069	1.0	MB	REPORT
s7a0406.d	1202005230	JMB3	04-JAN-2010 12:51	937095	10-1036	1.0	MB	REPORT
s7a0407.d	243472003	JMB3	04-JAN-2010 13:13	937095	10-1057	1.0	LANL	REPORT
s7a0408.d	243490001	JMB3	04-JAN-2010 13:34	937095	10-1036	1.0	LANL	REPORT
s7a0409.d	243509002	JMB3	04-JAN-2010 13:56	937095	10-1069	4.0	LANL_4X	REPORT: OR hits from s7a0414 only
s7a0410.d	243509003	JMB3	04-JAN-2010 14:17	937095	10-1069	1.0	LANL	REPORT
s7a0411.d	243490004	JMB3	04-JAN-2010 14:39	937095	10-1036	1.0	LANL	REPORT
s7a0412.d	243490007	JMB3	04-JAN-2010 15:01	937095	10-1036	1.0	LANL	REPORT
s7a0413.d	243509001	JMB3	04-JAN-2010 15:23	937095	10-1069	1.0	LANL	REPORT
s7a0414.d	243509002	JMB3	04-JAN-2010 15:45	937095	10-1069	1.0	LANL	REPORT: all except OR hits - see s7a0409 for 4x run

Instrument Batch: /chem/MSD7.i/s010410.b

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LC/MS/MS PERCHLORATE ANALYSIS

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Perchlorate by LC/MSMS
Los Alamos National Laboratory (LANL)
SDG 10-1057

Method/Analysis Information

Procedure:	**Definitive Low Level Perchlorate Analysis Utilizing Liquid Chromatography/Mass Spectrometry/Mass Spectrometry (LC/MS/MS) by EPA Method 6850 Modified (6850M)**
Analytical Method:	SW846 6850 Modified
Prep Method:	SW846 6850 Modified
Analytical Batch Number:	936672
Prep Batch Number:	936671

Sample Analysis

Sample ID	Client ID
243472001	RE03-09-14228
243472002	RE03-09-14230
243472003	RE03-09-14229
1202004152	Interference Check Sample (ICS)
1202004148	Method Blank (MB)
1202004149	Laboratory Control Sample (LCS)
1202004150	243492001(RE12-10-7288) Matrix Spike (MS)
1202004151	243492001(RE12-10-7288) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on a "dry weight" basis.

Preparation/Analytical Method Verification

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-067 REV# 6.

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Calibration Information

Initial Calibration
All initial calibration requirements have been met for this SDG. Due to software constraints, all Initial Calibration Blanks must be designated as IPB001.

CCV Requirements
All associated calibration verification standard(s) (ICV or CCV) met the acceptance criteria.

CCB Requirements
All continuing calibration blanks (CCB) bracketing the analyses associated with this batch were within acceptance criteria.

CCV Requirements
All continuing calibration checks (CCV) requirements were met by all bracketing CCV standards.

Low Level Standard (CRI) Requirements
All low level calibration verification (CRI) requirements were met by all bracketing CRI standards.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB(s) analyzed with this SDG met the acceptance criteria.

Interference Check Sample (ICS)
The interference check sample (ICS) met all recovery acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

QC Sample Designation
Client sample 243492001 (RE12-10-7288) from SDG 10-1037 was chosen for matrix spike and matrix spike duplicate analysis. Please see the raw data in the Miscellaneous Section.

Matrix Spike (MS) Recovery Statement
The MS recoveries were within the established acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recoveries were within the established acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD(s) between the MS and MSD met the acceptance limits.

Retention Time Standard Area Acceptance
The retention time standard areas were within the required acceptance criteria for all samples and QC.

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Retention Time
During the analysis of Perchlorate by LC/MS/MS, retention time shifts are commonly observed. These retention time shifts, which are caused by fouling of the column by the sample matrices, are problematic when the retention time is used as one of the criterion for confirmation. To overcome this problem, a known amount of O(18) labeled Perchlorate was added to each sample as a retention time standard. The presence of Perchlorate was confirmed by the relative retention time (RRT) of the Perchlorate peak and the O(18) standard. A RRT window of 0.98 to 1.02, as required by Method 332.0, has been used. In addition to the isotopic ratio, the presence of Perchlorate in the samples associated with this data package have been confirmed using the relative retention criteria stated above, not the absolute retention time.

Technical Information

Holding Time Specifications
All samples in this SDG in this analytical batch met the specified holding time. GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-extraction/Re-analysis
Re-extractions or re-analyses were not required in this SDG except for dilutions.

Miscellaneous Information

Data Exception (DER) Documentation
Data exception reports (DERs) are generated to document procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception reports (DER) was not generated for this SDG.

Manual Integrations
Some initial calibration standards, continuing calibration standards, and/or samples may require manual integrations due to software limitations.

Method Comments
The samples in this SDG were not originally analyzed using EPA Method 314.0.

Additional Comments
The Perchlorate Isotope Ratio on the Form I may differ slightly from the ratio on the corresponding raw data due to rounding rules and/or significant figures or due to software limitations when there are manual integrations, dilutions or other factors. The ratio value of the Form I is the correct value.

The retention time marker, Perchlorate-O (18), is added to all samples, instrument blanks, and standards prior to injection. It is used to verify the retention time of Perchlorate and Perchlorate-101 and to insure an accurate injection occurred. Due to various anions affecting the recovery of Perchlorate-O (18) and not Perchlorate and Perchlorate-101, the calibration curves of Perchlorate and Perchlorate-101 are not internally corrected for using Perchlorate-O (18). They are external calibrations.

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Perchlorate Isotope Ratio
The Perchlorate isotope ratio met acceptance criteria for all samples and QC samples. Please see the isotope ratio criteria in the Miscellaneous Section.

System Configuration

The laboratory utilizes a Waters LC 2795 liquid chromatography instrument for perchlorate analysis. It is coupled with either a Micromass Quattro Micro Mass Spectrometer/ Mass Spectrometer, or a Micromass Quattro Ultima Mass Spectrometer/ Mass Spectrometer. Each being designated as LCMSMS #1, and LCMSMS #2, respectively. It is fitted with an electrospray probe that is operated in the negative electrospray ionization mode for perchlorate analysis. The laboratory may also utilize an Agilent 1100 liquid chromatography instrument for perchlorate analysis. It is coupled with an Applied Biosystems 4000 Mass Spectrometer/ Mass Spectrometer, designated as LCMSMS #3 or LCMSMS #4. It is also fitted with an electrospray probe that is operated in the negative electrospray ionization mode for perchlorate analysis.

Chromatographic Columns

Chromatographic separation of perchlorate is accomplished through analysis on the following anion column:

Dionex: IonPac AG-16 2 x 50 mm.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Heather M Maier **Date:** 01/15/10

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SAMPLE DATA SUMMARY

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 936671

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE03-09-14228

Date Received: 23-DEC-09

GEL Job No (SDG): 10-1057

GEL Sample ID: 243472001

Date Filtered: 07-JAN-10

Injection Volume (uL): 20

%Solids: 90

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.557	2.23	0.557	ug/kg	U	1	07-JAN-10 17:47	per0107015a
	Perchlorate Isotope Ratio						1	07-JAN-10 17:47	per0107015a
14797-73-0	Perchlorate-101	.557	2.23	0.557	ug/kg	U	1	07-JAN-10 17:47	per0107015a
	Perchlorate-O(18)			5.46	ug/kg		1	07-JAN-10 17:47	per0107015a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 936671

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE03-09-14230

Date Received: 23-DEC-09

GEL Job No (SDG): 10-1057

GEL Sample ID: 243472002

Date Filtered: 07-JAN-10

Injection Volume (uL): 20

%Solids: 92.9

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.538	2.15	0.538	ug/kg	U	1	07-JAN-10 17:54	per0107016a
	Perchlorate Isotope Ratio						1	07-JAN-10 17:54	per0107016a
14797-73-0	Perchlorate-101	.538	2.15	0.538	ug/kg	U	1	07-JAN-10 17:54	per0107016a
	Perchlorate-O(18)			5.18	ug/kg		1	07-JAN-10 17:54	per0107016a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 936671

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE03-09-14229

Date Received: 23-DEC-09

GEL Job No (SDG): 10-1057

GEL Sample ID: 243472003

Date Filtered: 07-JAN-10

Injection Volume (uL): 20

%Solids: 91.4

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.547	2.19	0.547	ug/kg	U	1	07-JAN-10 18:01	per0107017a
	Perchlorate Isotope Ratio						1	07-JAN-10 18:01	per0107017a
14797-73-0	Perchlorate-101	.547	2.19	0.547	ug/kg	U	1	07-JAN-10 18:01	per0107017a
	Perchlorate-O(18)			5.54	ug/kg		1	07-JAN-10 18:01	per0107017a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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QUALITY CONTROL SUMMARY

Perchlorate Laboratory Control Sample

Lab Name: General Engineering Laboratories

Lab Code: GEL

GEL Job No. (SDG): 10–1057

Extract Batch Code: 936671

Date Filtered: 07–JAN–10

Matrix: SOIL

Sample ID: 1202004149

Analyte^	True	Found	Units	%Rec	Q	Control Limits
Perchlorate	2.00	1.99	ug/kg	99.4		70 – 130
Perchlorate Isotope Ratio		2.89				–
Perchlorate–101	2.00	2.05	ug/kg	103		70 – 130
Perchlorate–O(18)		4.9	ug/kg			–

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate–101 peak area. The Perchlorate–101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

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Perchlorate Interference Check Sample

Lab Name: General Engineering Laboratories

Lab Code: GEL

GEL Job No. (SDG): 10–1057

Extract Batch Code: 936671

Date Filtered: 07–JAN–10

Matrix: SOIL

Sample ID: 1202004152

Analyte^	True	Found	Units	%Rec	Q	Control Limits
Perchlorate	2.00	2.11	ug/kg	106		70 – 130
Perchlorate Isotope Ratio		3.11				
Perchlorate–101	2.00	2.02	ug/kg	101		70 – 130
Perchlorate–O(18)		5.1	ug/kg			

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate–101 peak area. The Perchlorate–101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per010710a.qld

Last Altered: Friday, January 08, 2010 8:57:25 AM Eastern Standard Time
Printed: Friday, January 08, 2010 9:06:04 AM Eastern Standard Time

Name: per0107014a
Date: 07-Jan-2010
Time: 17:40:27
ID: 1202004152
Vial: 1:3,C

|LANL|936472|5020|ICS|11

CWW 01-08-10

Perchlorate

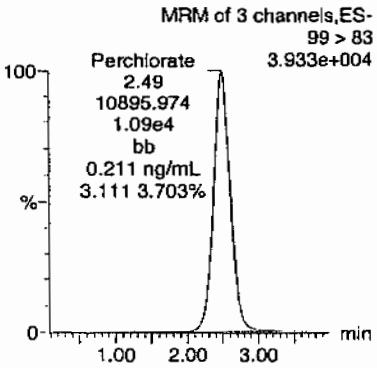

Perchlorate

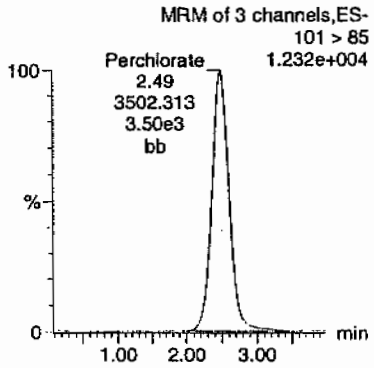

Perchlorate-101

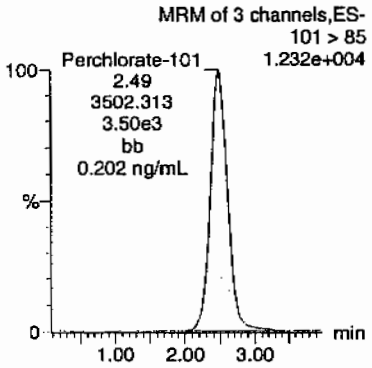

Perchlorate-O(18)

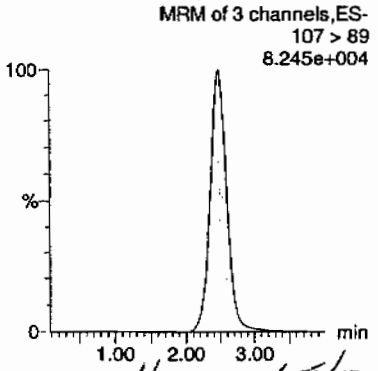

Hmm 01/08/10

D	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202004152	Perchlorate	99 > 83	2.49	10895.974	10895.974	bb			0.2110	105.51	5.51	910.317	3.11
1202004152	Perchlorate-101	101 > 85	2.49	3502.313	3502.313	bb			0.2022	101.08	1.08	796.684	
1202004152	Perchlorate-O(18)	107 > 89	2.48	23264.105	23264.105	bb			0.5098	101.95	1.95	4182.0...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Perchlorate Spike/Spike Duplicate Summary

Lab Name: General Engineering Laboratories

Lab Code: GEL

GEL Job No (SDG): 10–1057

Extract Batch Code: 936671

Date Extracted: 07–JAN–10

GEL MS/PS ID: 1202004150

Client ID: RE12–10–7288

GEL MSD/PSD ID: 1202004151

QC Type: MS

Compound^	Spike Added	Sample Conc	Units	MS Conc	MS Rec #	MSD Conc	MSD Rec #	RPD #	RPD Limit	Recovery Limit
Perchlorate	2.20	0.232	ug/kg	2.55	105	2.49	102	2.29	30	75 – 125
Perchlorate Isotope Ratio	0	0.00		3.17		3.03		0		–
Perchlorate–101	2.20	0.231	ug/kg	2.40	98.3	2.45	101	2.11	30	75 – 125
Perchlorate–O(18)	0	5.47	ug/kg	5.56		5.59		.58		–

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate–101 peak area. The Perchlorate–101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

Comments:

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

Perchlorate Initial Calibration Blank

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–1057

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id	GEL Sample ID
Perchlorate	0.00	0	NA	07–JAN–10	per0107001a	IPB001
Perchlorate–101	0.00	0	NA	07–JAN–10	per0107001a	IPB001
Perchlorate	0.00	0	NA	07–JAN–10	per0107002a	IPB001
Perchlorate–101	0.00	0	NA	07–JAN–10	per0107002a	IPB001

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per010710a.qld

Last Altered: Friday, January 08, 2010 8:57:25 AM Eastern Standard Time
Printed: Friday, January 08, 2010 9:06:04 AM Eastern Standard Time

Method: C:\MassLynx\Perchlorate.PRO\MethDB\per010710a.mdb 08 Jan 2010 08:13:48
Calibration: C:\MassLynx\Perchlorate.PRO\CurveDB\per010710a.cdb 08 Jan 2010 08:57:24

Name: per0107001a
Date: 07-Jan-2010
Time: 16:08:50
ID: IPB001
Vial: 1:1,A

CWW
01-08-10

Perchlorate

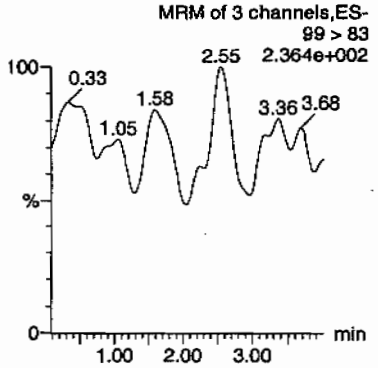

Perchlorate

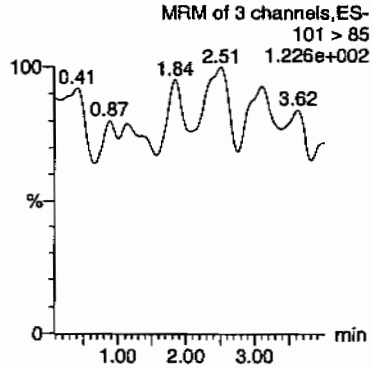

Perchlorate-101

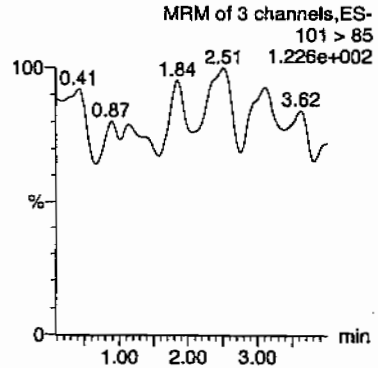

Perchlorate-O(18)

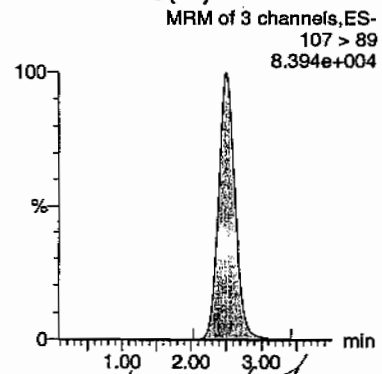

gtnm 01/08/10

D	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
PB001	Perchlorate	99 > 83											0.00
PB001	Perchlorate-101	101 > 85											
PB001	Perchlorate-O(18)	107 > 89	2.50	22868.908	22868.908	bb			0.5011	100.22	0.22	1754.3...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per010710a.qld

Last Altered: Friday, January 08, 2010 8:57:25 AM Eastern Standard Time
Printed: Friday, January 08, 2010 9:06:04 AM Eastern Standard Time

Name: per0107002a
Date: 07-Jan-2010
Time: 16:15:52
ID: IPB001
Vial: 1:1,A

CWW
01-08-10

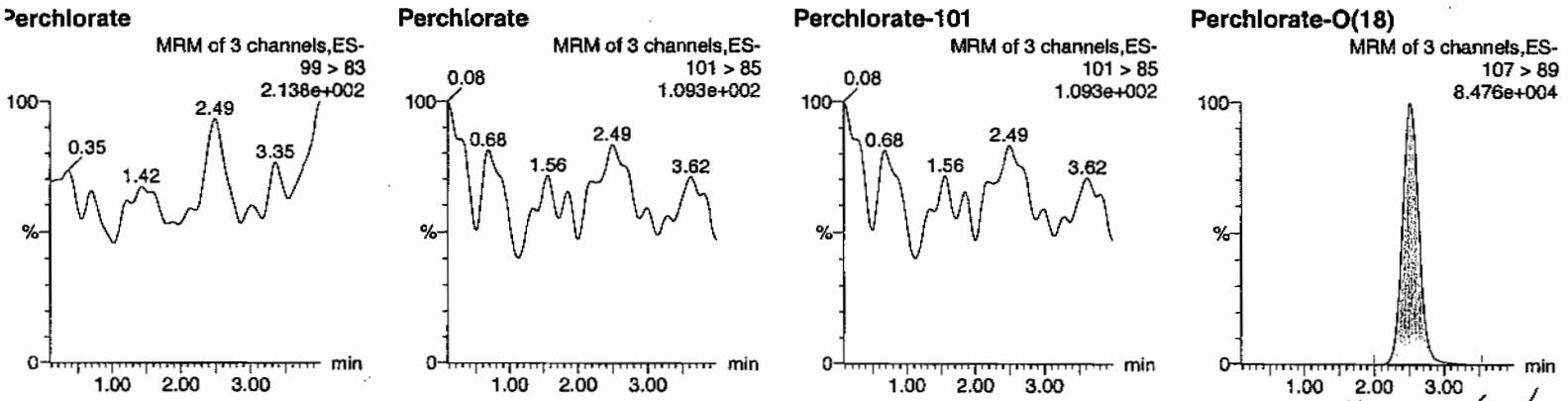

HMM 01/08/10

D	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
PB001	Perchlorate	99 > 83											0.00
PB001	Perchlorate-101	101 > 85											
PB001	Perchlorate-O(18)	107 > 89	2.51	23222.023	23222.023	bb			0.5089	101.77	1.77	11057....	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

Perchlorate Continuing Calibration Blank

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–1057

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id	GEL Sample ID
Perchlorate	0.00	0	NA	07–JAN–10	per0107008a	IPB002
Perchlorate–101	0.00	0	NA	07–JAN–10	per0107008a	IPB002
Perchlorate	0.00	0	NA	07–JAN–10	per0107010a	IPB003
Perchlorate–101	0.00	0	NA	07–JAN–10	per0107010a	IPB003
Perchlorate	0.00	0	NA	07–JAN–10	per0107019a	IPB004
Perchlorate–101	0.00	0	NA	07–JAN–10	per0107019a	IPB004

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per010710a.qld

Last Altered: Friday, January 08, 2010 8:57:25 AM Eastern Standard Time
Printed: Friday, January 08, 2010 9:06:04 AM Eastern Standard Time

Name: per0107008a
Date: 07-Jan-2010
Time: 16:58:10
ID: IPB002
Vial: 1:1,A

CWW
01-08-10

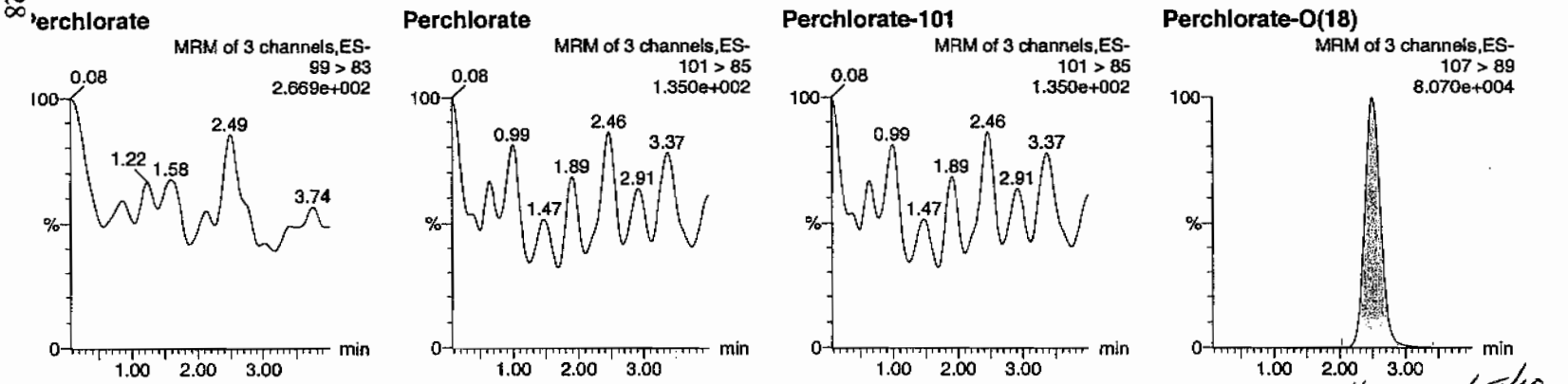

HMW 01/08/10

D	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
PB002	Perchlorate	99 > 83											0.00
PB002	Perchlorate-101	101 > 85											
PB002	Perchlorate-O(18)	107 > 89	2.50	22229.973	22229.973	bb			0.4871	97.42	-2.58	4832.5...	

EL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per010710a.qld

Last Altered: Friday, January 08, 2010 8:57:25 AM Eastern Standard Time
Printed: Friday, January 08, 2010 9:06:04 AM Eastern Standard Time

Name: per0107010a
Date: 07-Jan-2010
Time: 17:12:15
ID: IPB003
Vial: 1:1,A

CWW 01-08-10

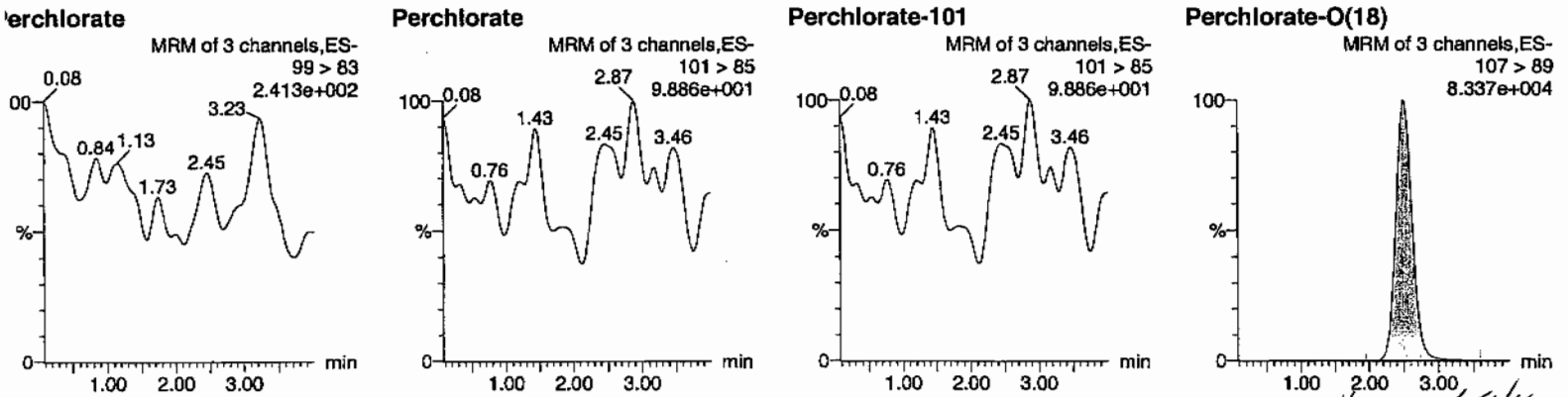

HMW 01/08/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB003	Perchlorate	99 > 83											0.00
IPB003	Perchlorate-101	101 > 85											
IPB003	Perchlorate-O(18)	107 > 89	2.50	22629.775	22629.775	bb			0.4959	99.17	-0.83	5182.3...	

EL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per010710a.qld

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Printed: Friday, January 08, 2010 9:06:04 AM Eastern Standard Time

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Date: 07-Jan-2010
Time: 18:15:36
ID: IPB004
Vial: 1:1,A

CWW
01-08-10

Perchlorate

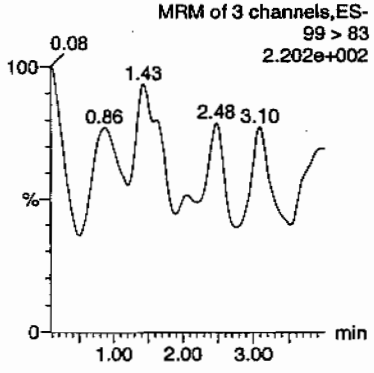

Perchlorate

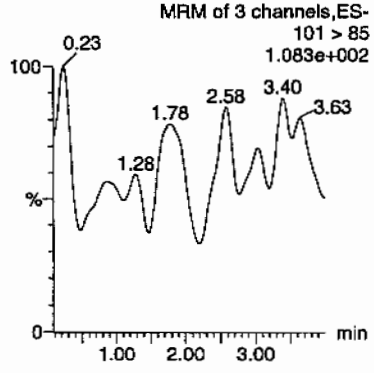

Perchlorate-101

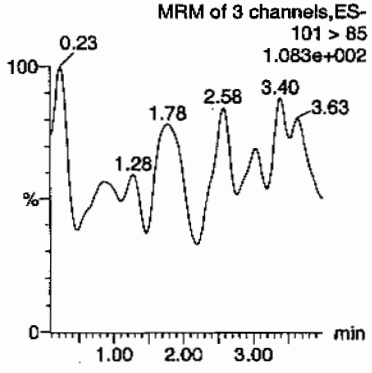

Perchlorate-O(18)

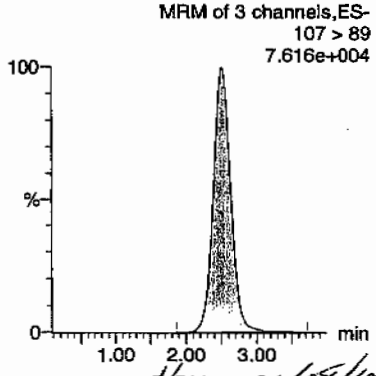

HMW 01/08/10

D	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
PB004	Perchlorate	99 > 83											0.00
PB004	Perchlorate-101	101 > 85											
PB004	Perchlorate-O(18)	107 > 89	2.51	21901.963	21901.963	bb			0.4799	95.99	-4.01	1815.2...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Nairb.ref

;Positive ion monoisotopic and average masses from solution
;of NaI/Rbi (2.0/0.05ug/ul) in 50/20 2-propanol/H2O.
;Most useful general purpose calibrant for all low
;MW applications, including MS/MS work.
;At high resolution, readily covers from m/z 50-2000.
;At reduced resolution, can be used to over m/z 3000.
;NOT RECOMMENDED FOR PROTEIN WORK. USE MYO, MYOTRP or TRP.
Updated 20 April '95

22.9898	100
84.9118	100
172.8840	100
322.7782	100
472.6725	100
622.5667	100
772.4610	100
922.3552	100
1072.2494	100
; 1222.1437	100
; 1372.0379	100
; 1521.9321	100
; 1671.8264	100
; 1821.7206	100
; 1971.6149	100
; 2121.5091	100
; 2271.4033	100
; 2421.2976	100
; 2571.1918	100
; 2721.0861	100
; 2870.9803	100
; 3020.8745	100
; 3170.7688	100
; 3320.6630	100
; 3470.5572	100
; 3620.4515	100
; 3770.3457	100
; 3920.2400	100

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QUATTRO ULTIMA: nairb_01_08_08.cal

Calibration Report - MS1 Static

Printed: Tue Jan 08 12:19:12 2008

POINTS HIGHLIGHTED BY CLICK 01-08-08

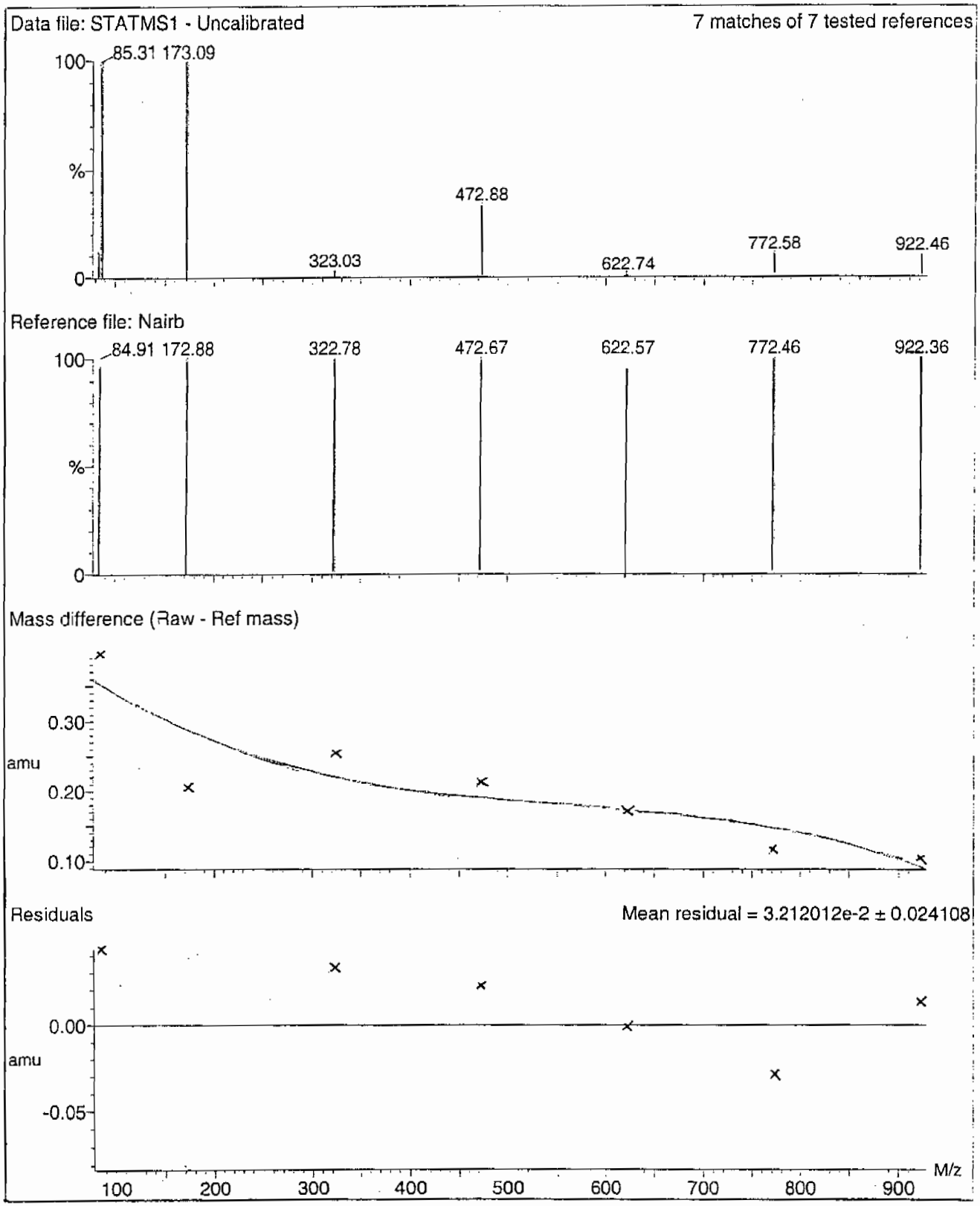

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Calibration Report - MS1 Scanning

Printed: Tue Jan 08 12:20:09 2008

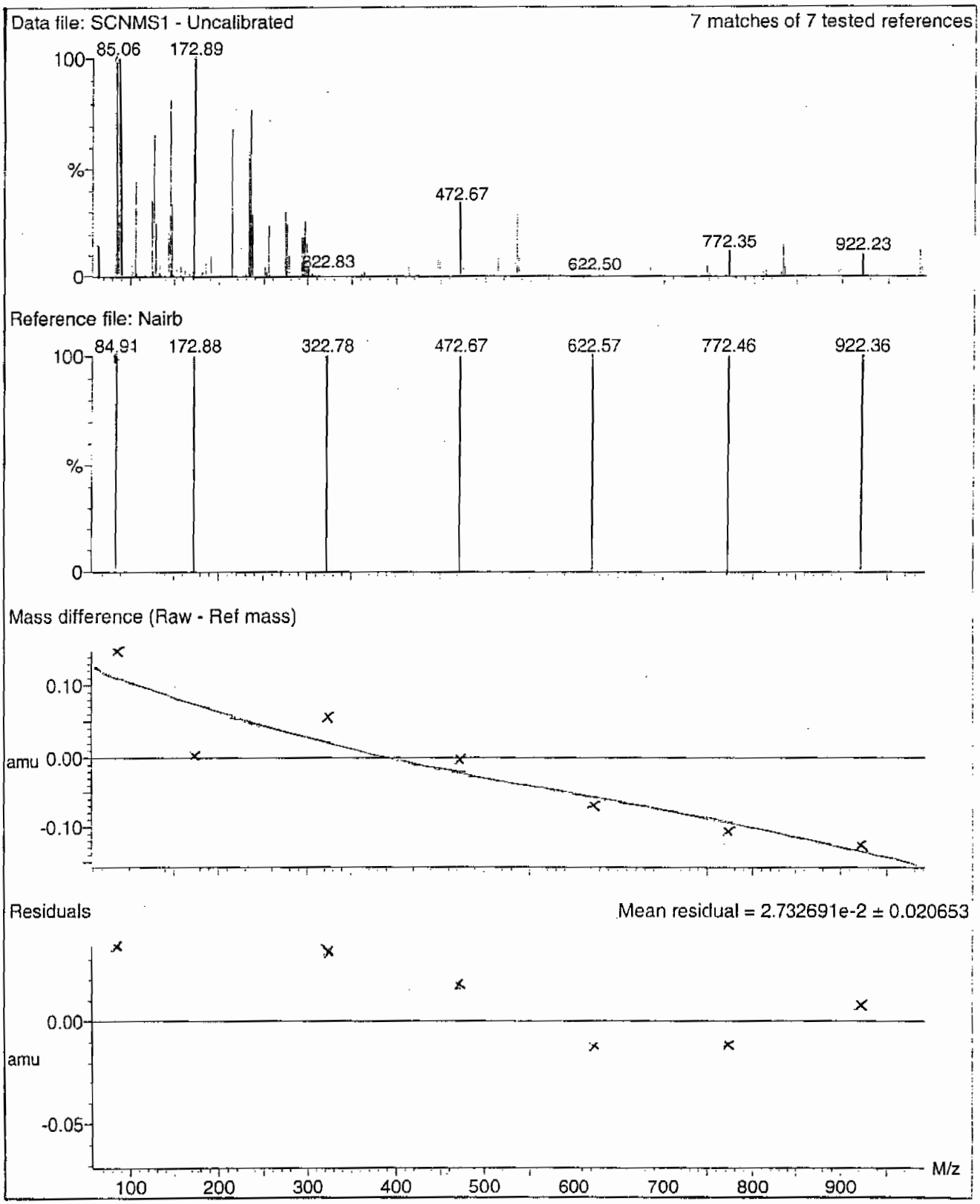

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

Calibration Report - MS1 Scan Speed Compensation

Printed: Tue Jan 08 12:21:04 2008

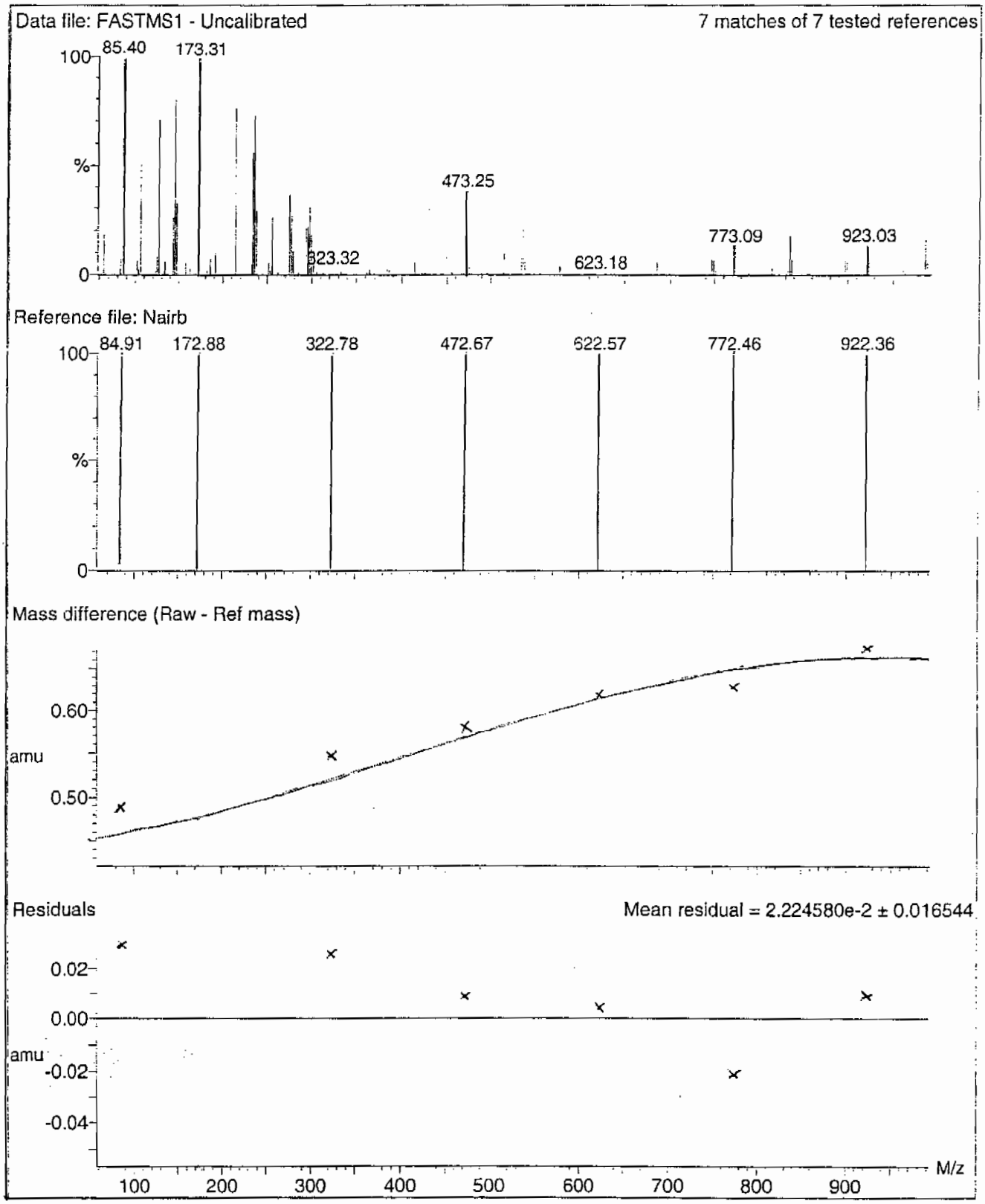

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

Calibration Report - MS2 Scan Speed Compensation

Printed: Tue Jan 08 12:23:51 2008

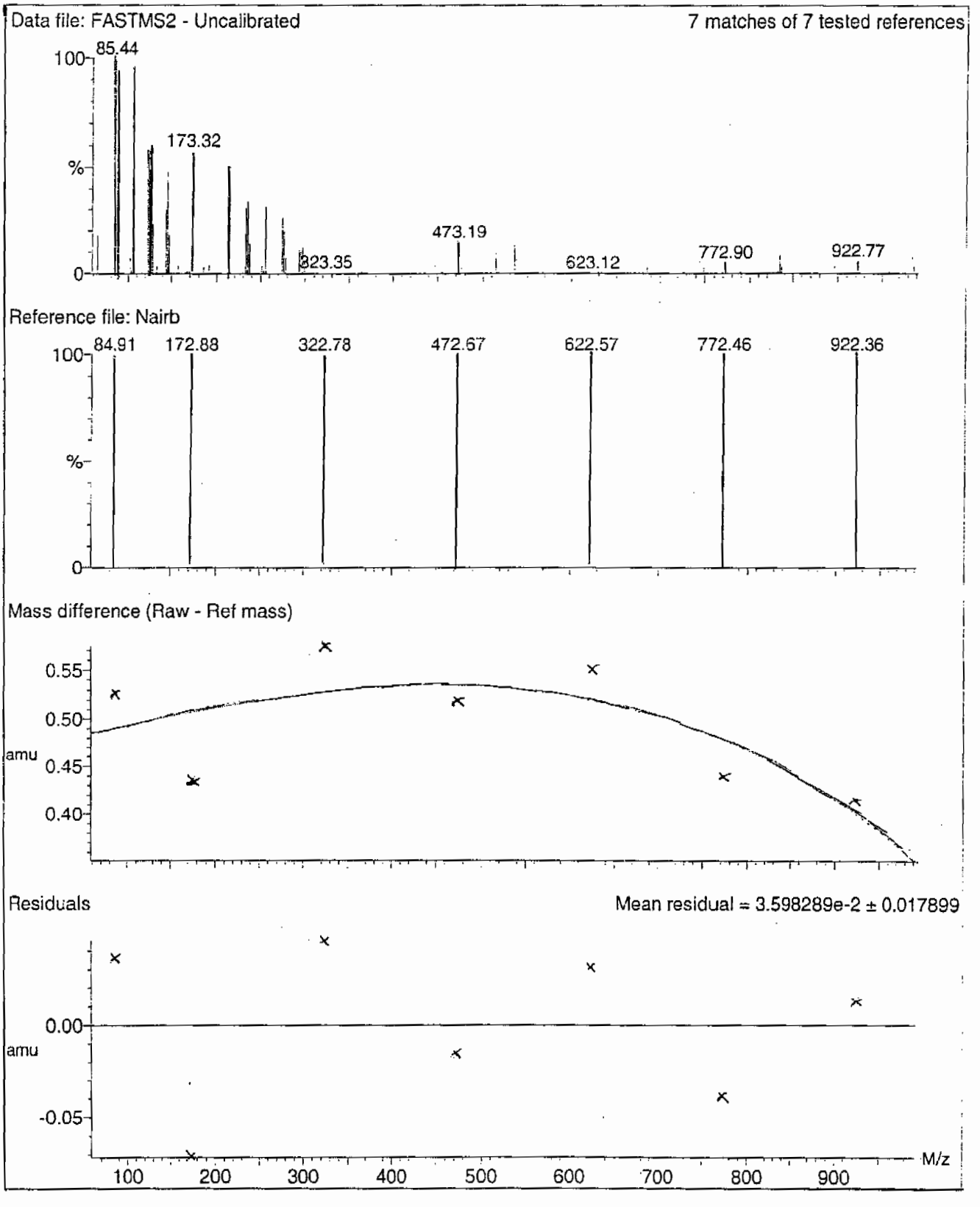

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

Calibration Report - MS2 Scanning

Printed: Tue Jan 08 12:22:56 2008

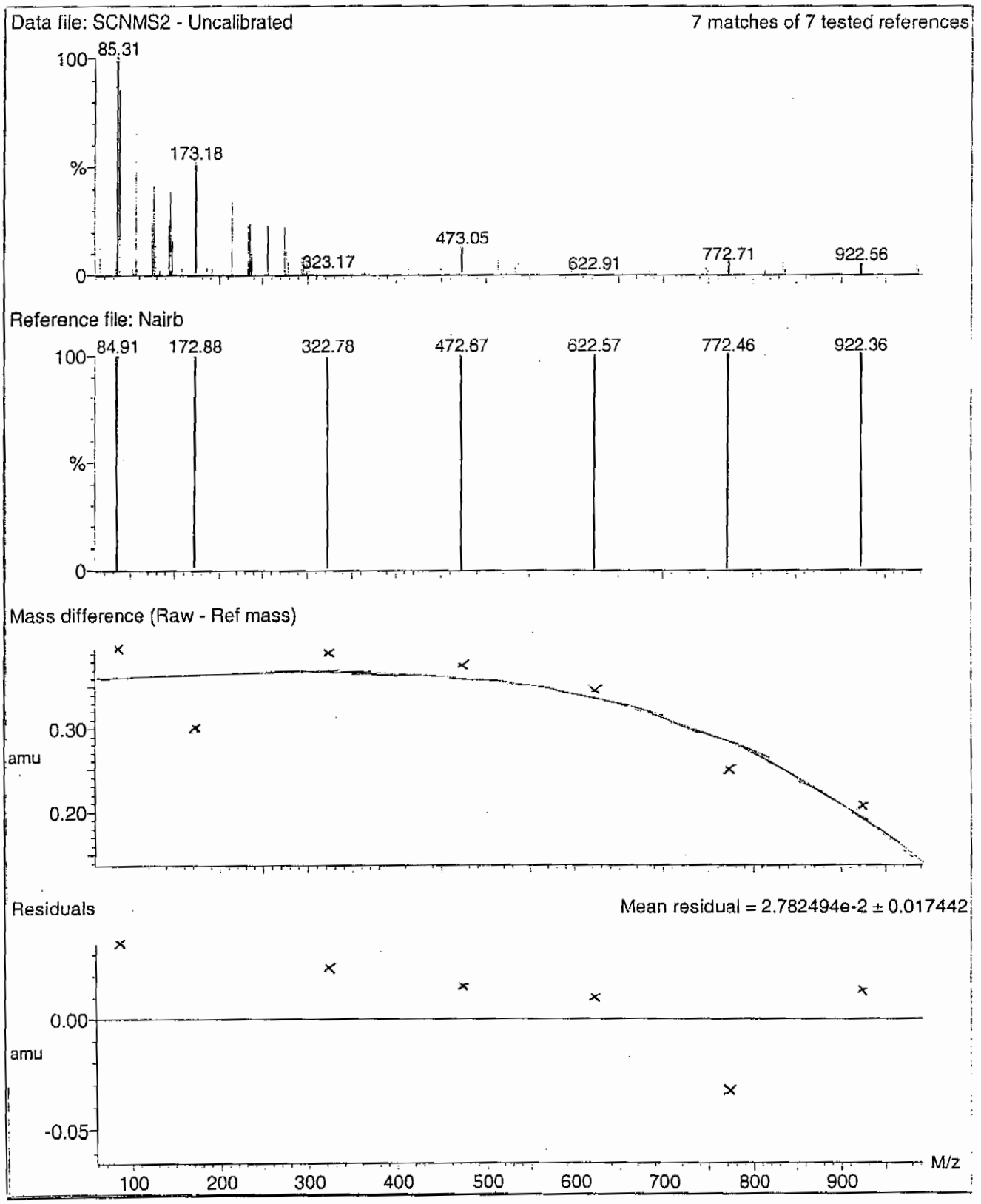

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

Calibration Report - MS2 Static

Printed: Tue Jan 08 12:21:59 2008

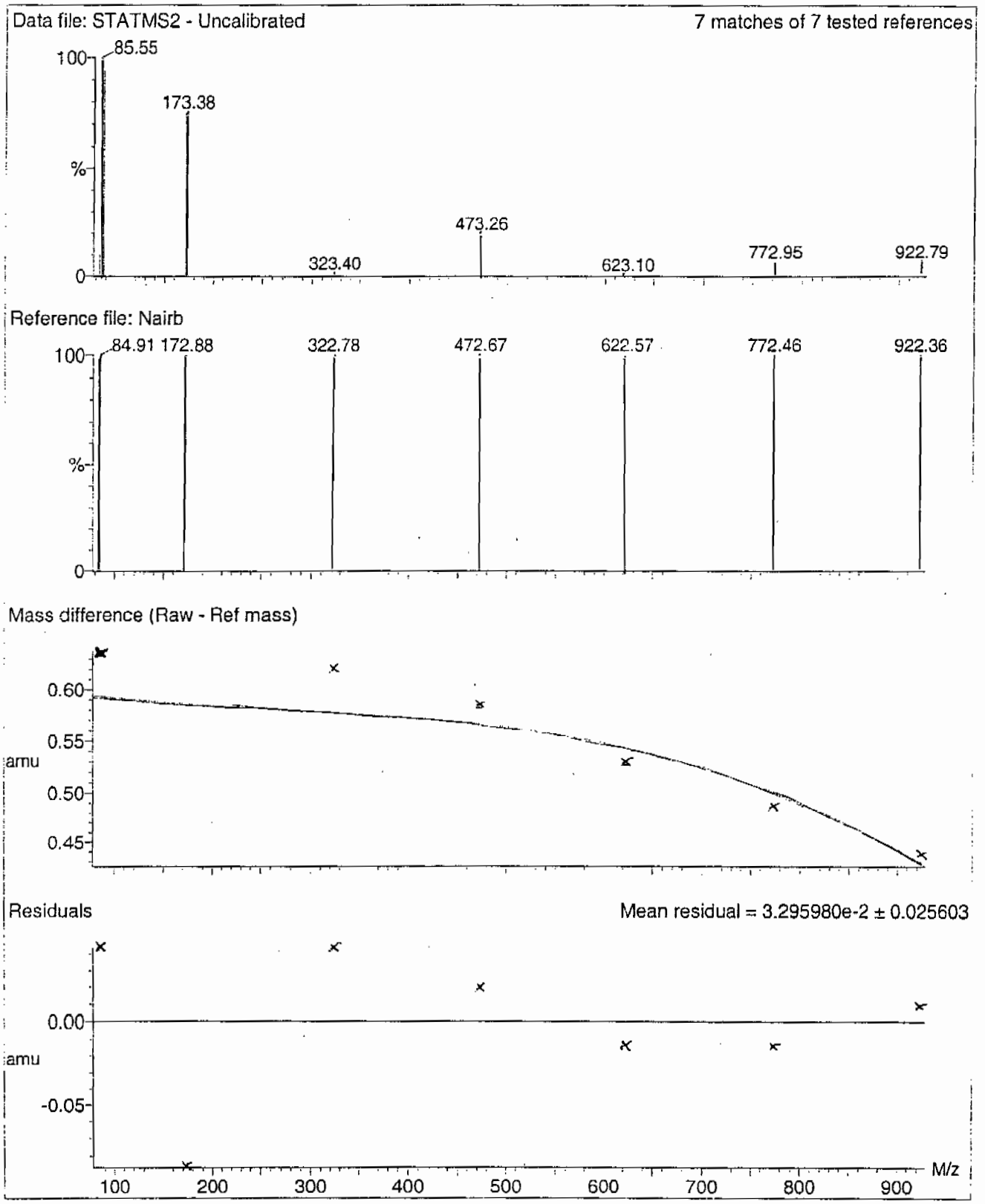

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

File: C:\MassLynx\Perchlorate.PRO\ACQUDB\Perchlorate.IPR

Printed: Thursday, January 07, 2010 13:15:46 Eastern Standard Time

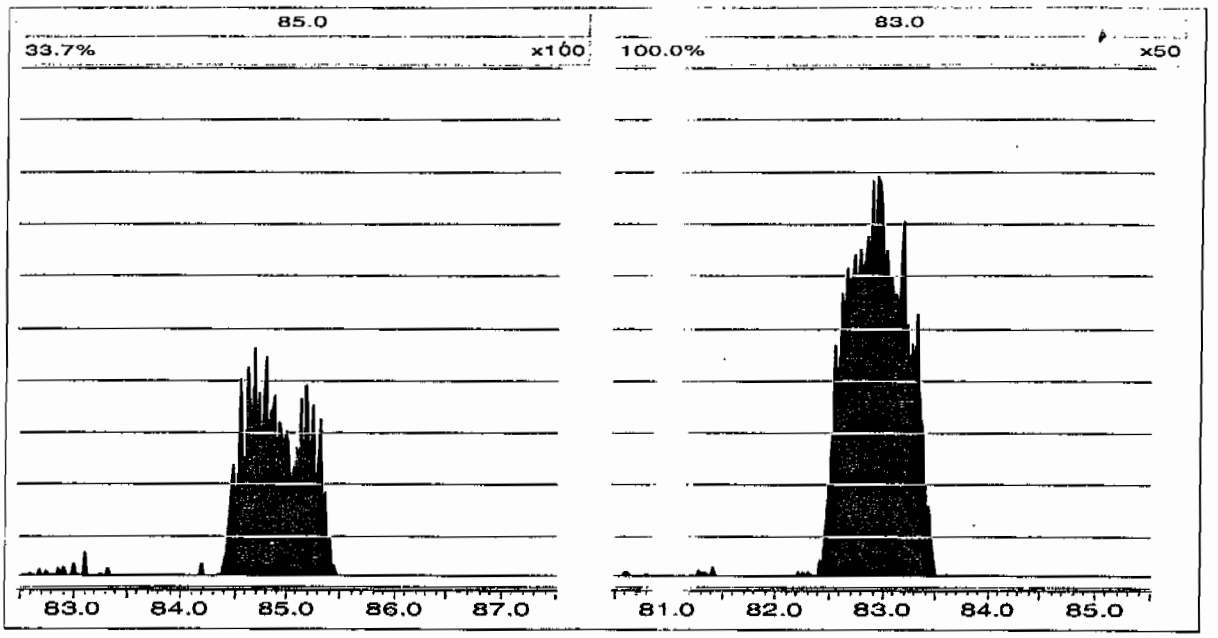

Perchlorate RT And Area Summary

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10–1057

Lab Code: GEL

Instrument ID: LCMSMS

HPLC Column: Phenomenex Ion Pac AG–16 2 X 50 mm

Sample ID	Datafile	Run Date	Area	RT	RT CLO4	RRT	Q 0.98–1.02
MidLevel Standard Area	**per0107006a**	**07–JAN–10**	**23066.8**				
Lower Area Limit			**11533.4**				
Upper Area Limit			**46133.6**				
1202004148	per0107012a	07–JAN–10 17:26	22035.6	2.53	2.52632	.999	
1202004149	per0107013a	07–JAN–10 17:33	22367.8	2.51	2.53875	1.011	
1202004152	per0107014a	07–JAN–10 17:40	23264.1	2.48	2.48908	1.004	
243472001	per0107015a	07–JAN–10 17:47	22383.1	2.53	2.52633	.999	
243472002	per0107016a	07–JAN–10 17:54	21950.6	2.51	2.53875	1.011	
243472003	per0107017a	07–JAN–10 18:01	23103.3	2.51	2.5138	1.002	

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SAMPLE
DATA

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 936671

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE03-09-14228

Date Received: 23-DEC-09

GEL Job No (SDG): 10-1057

GEL Sample ID: 243472001

Date Filtered: 07-JAN-10

Injection Volume (uL): 20

%Solids: 90

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.557	2.23	0.557	ug/kg	U	1	07-JAN-10 17:47	per0107015a
	Perchlorate Isotope Ratio						1	07-JAN-10 17:47	per0107015a
14797-73-0	Perchlorate-101	.557	2.23	0.557	ug/kg	U	1	07-JAN-10 17:47	per0107015a
	Perchlorate-O(18)			5.46	ug/kg		1	07-JAN-10 17:47	per0107015a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per010710a.qld

Last Altered: Friday, January 08, 2010 8:57:25 AM Eastern Standard Time
Printed: Friday, January 08, 2010 9:06:04 AM Eastern Standard Time

Name: per0107015a
Date: 07-Jan-2010
Time: 17:47:30
ID: 243472001
Vial: 1:3,D

|LANL|936672|SOW20|11|

CWW
01-08-10

Perchlorate

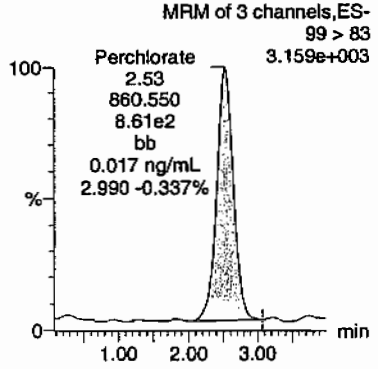

Perchlorate

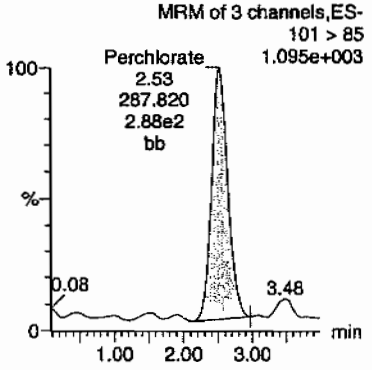

Perchlorate-101

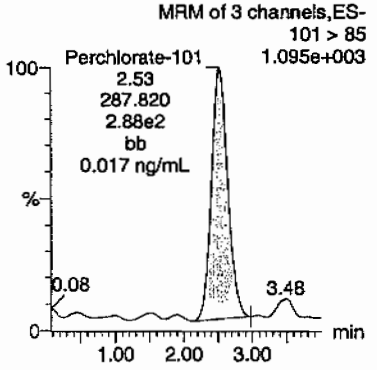

Perchlorate-O(18)

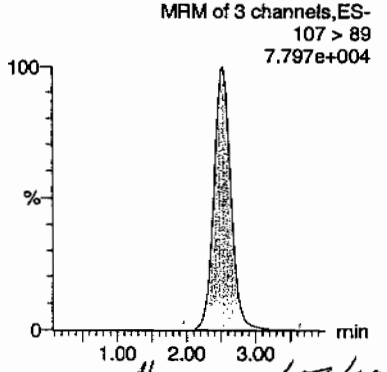

Hmm 01/08/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
243472001	Perchlorate	99 > 83	2.53	860.550	860.550	bb			0.0167			159.160	2.99
243472001	Perchlorate-101	101 > 85	2.53	287.820	287.820	bb			0.0166			15.796	
243472001	Perchlorate-O(18)	107 > 89	2.53	22383.059	22383.059	bb			0.4905	98.09	-1.91	8837.0...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 936671

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE03-09-14230

Date Received: 23-DEC-09

GEL Job No (SDG): 10-1057

GEL Sample ID: 243472002

Date Filtered: 07-JAN-10

Injection Volume (uL): 20

%Solids: 92.9

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.538	2.15	0.538	ug/kg	U	1	07-JAN-10 17:54	per0107016a
	Perchlorate Isotope Ratio						1	07-JAN-10 17:54	per0107016a
14797-73-0	Perchlorate-101	.538	2.15	0.538	ug/kg	U	1	07-JAN-10 17:54	per0107016a
	Perchlorate-O(18)			5.18	ug/kg		1	07-JAN-10 17:54	per0107016a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per010710a.qld

Last Altered: Friday, January 08, 2010 8:57:25 AM Eastern Standard Time
Printed: Friday, January 08, 2010 9:06:04 AM Eastern Standard Time

Name: per0107016a
Date: 07-Jan-2010
Time: 17:54:31
ID: 243472002
Vial: 1:3,E

|LANL|936672|50120|1|

CWW 01-08-10

Perchlorate

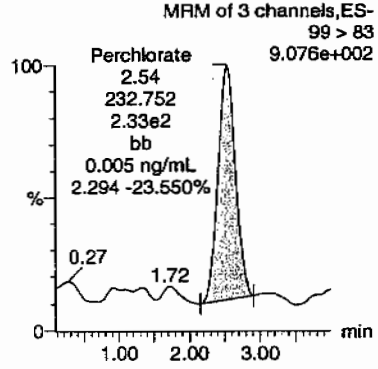

Perchlorate

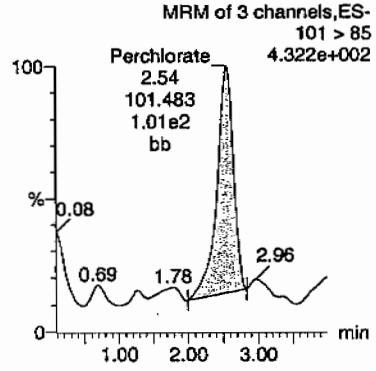

Perchlorate-101

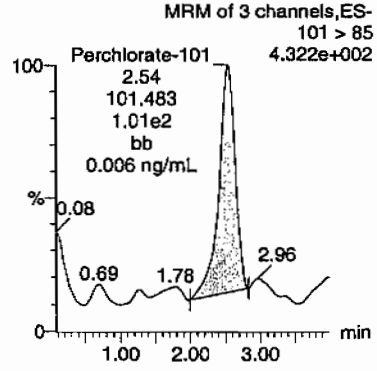

Perchlorate-O(18)

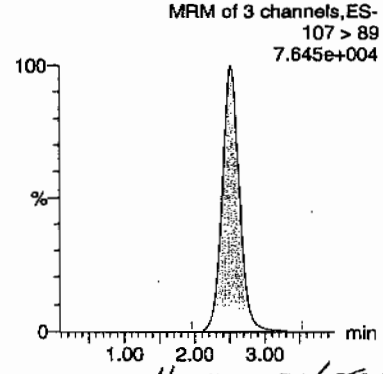

HMM 01/08/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
243472002	Perchlorate	99 > 83	2.54	232.752	232.752	bb			0.0045			62.803	2.29
243472002	Perchlorate-101	101 > 85	2.54	101.483	101.483	bb			0.0059			57.724	
243472002	Perchlorate-O(18)	107 > 89	2.51	21950.609	21950.609	bb			0.4810	96.20	-3.80	9755.8...	

OKAY
LO.0500

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 936671

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE03-09-14229

Date Received: 23-DEC-09

GEL Job No (SDG): 10-1057

GEL Sample ID: 243472003

Date Filtered: 07-JAN-10

Injection Volume (uL): 20

%Solids: 91.4

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.547	2.19	0.547	ug/kg	U	1	07-JAN-10 18:01	per0107017a
	Perchlorate Isotope Ratio						1	07-JAN-10 18:01	per0107017a
14797-73-0	Perchlorate-101	.547	2.19	0.547	ug/kg	U	1	07-JAN-10 18:01	per0107017a
	Perchlorate-O(18)			5.54	ug/kg		1	07-JAN-10 18:01	per0107017a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per010710a.qld

Last Altered: Friday, January 08, 2010 8:57:25 AM Eastern Standard Time
Printed: Friday, January 08, 2010 9:06:04 AM Eastern Standard Time

Name: per0107017a
Date: 07-Jan-2010
Time: 18:01:33
ID: 243472003
Vial: 1:3,F

|LANK|936672|SOL20|1|

01-08-10

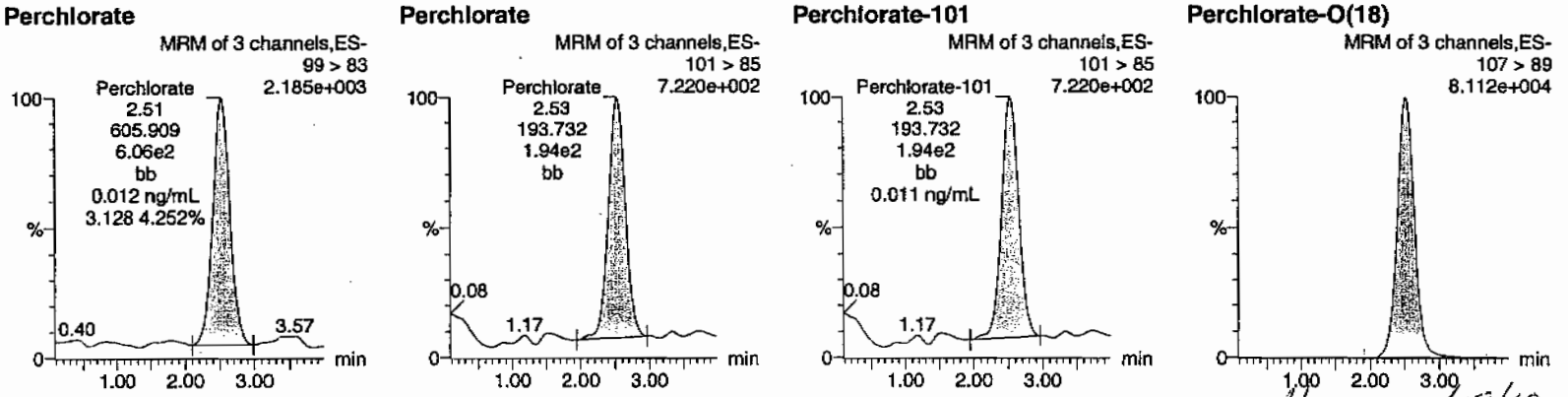

Hmm 01/08/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
243472003	Perchlorate	99 > 83	2.51	605.909	605.909	bb			0.0117			172.963	3.13
243472003	Perchlorate-101	101 > 85	2.53	193.732	193.732	bb			0.0112			68.012	
243472003	Perchlorate-O(18)	107 > 89	2.51	23103.340	23103.340	bb			0.5063	101.25	1.25	10938....	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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STANDARDS DATA

Perchlorate Initial Calibration

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10–1057

Lab Code: GEL

Instrument ID: LCMSMS **Date Analyzed:** 07–JAN–10

HPLC Column: Phenomenex Ion Pac AG–16 2 X 50 mm

Calibration Level	1	2	3	4	5
Cal Concentration (ug/L)	0.05	0.1	0.25	0.50	1.0

Parmname Perchlorate

Coefficient of Determination:

Calibration Curve: 51634.86

Response Type: External Standard

Curve Type: RF

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Perchlorate Initial Calibration

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10–1057

Lab Code: GEL

Instrument ID: LCMSMS **Date Analyzed:** 07–JAN–10

HPLC Column: Phenomenex Ion Pac AG–16 2 X 50 mm

Calibration Level	1	2	3	4	5
Cal Concentration (ug/L)	0.05	0.1	0.25	0.50	1.0

Parmname Perchlorate–101

Coefficient of Determination:

Calibration Curve: 17324.94

Response Type: External Standard

Curve Type: RF

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Quantify Calibration Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per010710a.qld

Last Altered: Friday, January 08, 2010 8:57:25 AM Eastern Standard Time
Printed: Friday, January 08, 2010 9:06:04 AM Eastern Standard Time

Method: C:\MassLynx\Perchlorate.PRO\MethDB\per010710a.mdb 08 Jan 2010 08:13:48
Calibration: C:\MassLynx\Perchlorate.PRO\CurveDB\per010710a.cdb 08 Jan 2010 08:57:24

Compound name: Perchlorate
Response Factor: 51634.9
RRF SD: 544.923, % Relative SD: 1.05534
Response type: External Std, Area
Curve type: RF

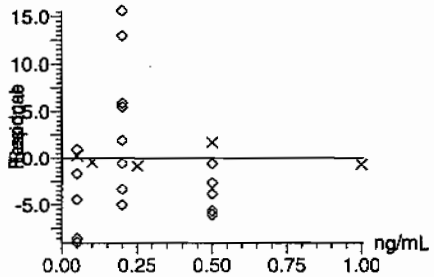

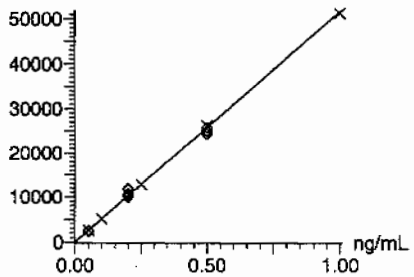

01-08-10

Compound name: Perchlorate-101
Response Factor: 17324.9
RRF SD: 489.508, % Relative SD: 2.82545
Response type: External Std, Area
Curve type: RF

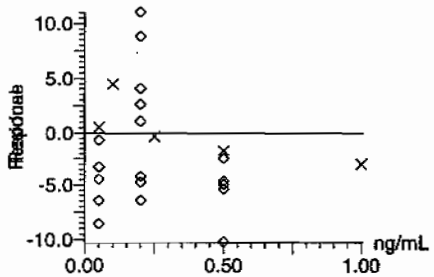

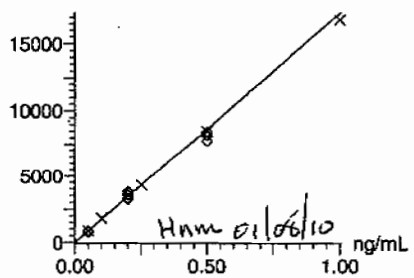

Hnm 01/06/10

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Quantify Calibration Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per010710a.qld

Last Altered: Friday, January 08, 2010 8:57:25 AM Eastern Standard Time
Printed: Friday, January 08, 2010 9:06:04 AM Eastern Standard Time

Compound name: Perchlorate-O(18)
Response Factor: 45636.2
RRF SD: 840.481, % Relative SD: 1.8417
Response type: External Std, Area
Curve type: RF

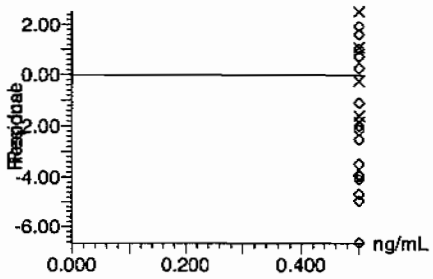

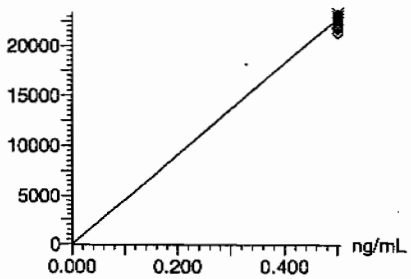

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Perchlorate Initial Calibration Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–1057

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.5	.5	99.39	07–JAN–10 17:05	per0107009a
Perchlorate Isotope Ratio		3.12		07–JAN–10 17:05	per0107009a
Perchlorate–101	.5	.48	95.05	07–JAN–10 17:05	per0107009a

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per010710a.qld

Last Altered: Friday, January 08, 2010 8:57:25 AM Eastern Standard Time
Printed: Friday, January 08, 2010 9:06:04 AM Eastern Standard Time

Name: per0107009a
Date: 07-Jan-2010
Time: 17:05:13
ID: WCL100104-06ICV
Vial: 1:2,A

Pass
aw
01-08-10

Perchlorate

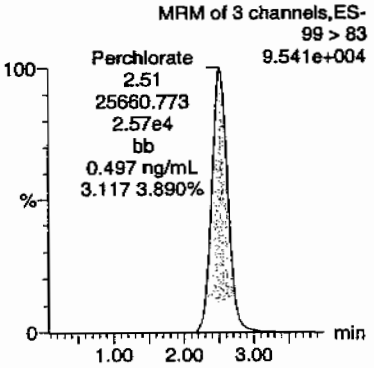

Perchlorate

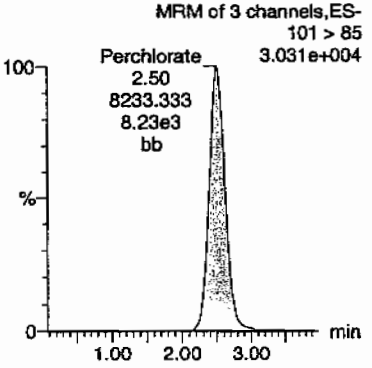

Perchlorate-101

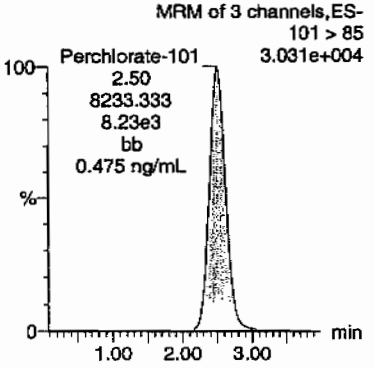

Perchlorate-O(18)

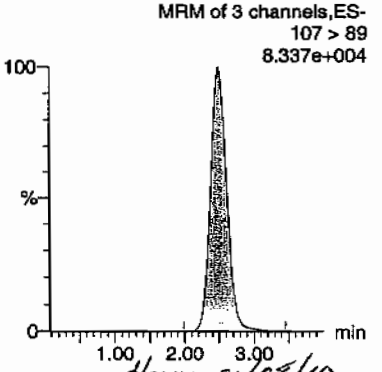

HMW 01/08/10

D	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100104-06ICV	Perchlorate	99 > 83	2.51	25660.773	25660.773	bb			0.4970	99.39	-0.61	4619.1...	3.12
WCL100104-06ICV	Perchlorate-101	101 > 85	2.50	8233.333	8233.333	bb			0.4752	95.05	-4.95	2344.3...	
WCL100104-06ICV	Perchlorate-O(18)	107 > 89	2.49	22571.494	22571.494	bb			0.4946	98.92	-1.08	1137.0...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

Perchlorate Continuing Calibration Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–1057

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.5	.47	94.35	07–JAN–10 18:08	per0107018a
Perchlorate Isotope Ratio		2.88		07–JAN–10 18:08	per0107018a
Perchlorate–101	.5	.49	97.55	07–JAN–10 18:08	per0107018a

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per010710a.qld

Last Altered: Friday, January 08, 2010 8:57:25 AM Eastern Standard Time
Printed: Friday, January 08, 2010 9:06:04 AM Eastern Standard Time

Name: per0107018a
Date: 07-Jan-2010
Time: 18:08:34
ID: WCL100104-06CCV
Vial: 1:2,A

Pwoo
01-08-10

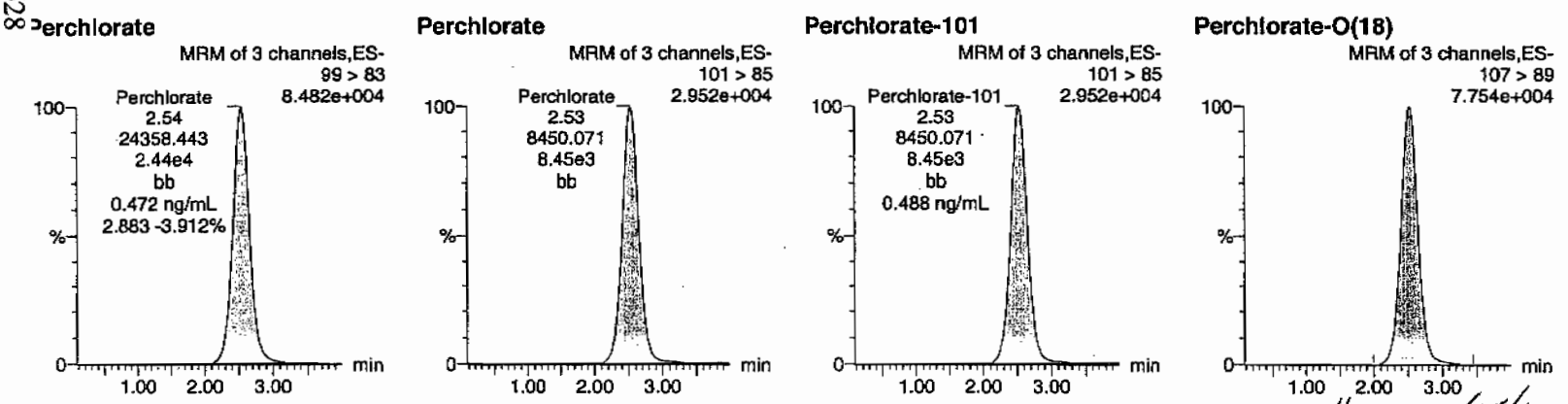

Hmm 01/08/10

D	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100104-06CCV	Perchlorate	99 > 83	2.54	24358.443	24358.443	bb			0.4717	94.35	-5.65	3780.6...	2.88
WCL100104-06CCV	Perchlorate-101	101 > 85	2.53	8450.071	8450.071	bb			0.4877	97.55	-2.45	1000.9...	
WCL100104-06CCV	Perchlorate-O(18)	107 > 89	2.53	22248.279	22248.279	bb			0.4875	97.50	-2.50	16250....	

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

Perchlorate MDL Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–1057

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.05	.05	98.3	07–JAN–10 17:19	per0107011a
Perchlorate Isotope Ratio		3.03		07–JAN–10 17:19	per0107011a
Perchlorate–101	.05	.05	96.74	07–JAN–10 17:19	per0107011a
Perchlorate	.05	.05	100.97	07–JAN–10 18:22	per0107020a
Perchlorate Isotope Ratio		3.03		07–JAN–10 18:22	per0107020a
Perchlorate–101	.05	.05	99.35	07–JAN–10 18:22	per0107020a

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per010710a.qld

Last Altered: Friday, January 08, 2010 8:57:25 AM Eastern Standard Time
Printed: Friday, January 08, 2010 9:06:04 AM Eastern Standard Time

Name: per0107011a
Date: 07-Jan-2010
Time: 17:19:18
ID: WCL100104-07CRI
Vial: 1:2,B

PWD
aw
01-08-10

Perchlorate

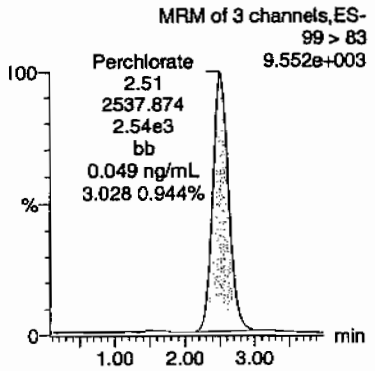

Perchlorate

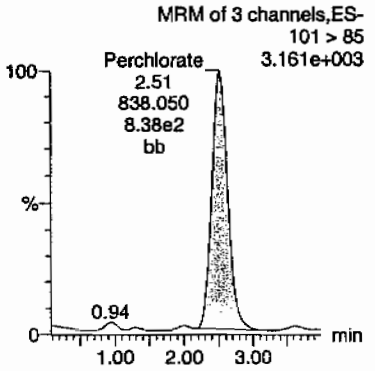

Perchlorate-101

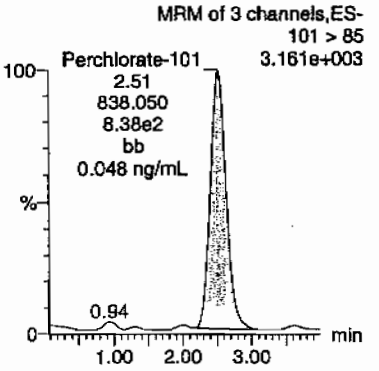

Perchlorate-O(18)

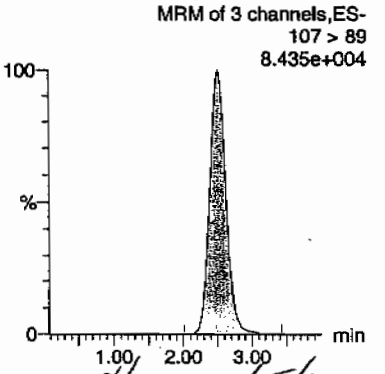

HMM 01/08/10

D	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
VCL100104-07CRI	Perchlorate	99 > 83	2.51	2537.874	2537.874	bb			0.0492	98.30	-1.70	442.243	3.03
VCL100104-07CRI	Perchlorate-101	101 > 85	2.51	838.050	838.050	bb			0.0484	96.74	-3.26	741.364	
VCL100104-07CRI	Perchlorate-O(18)	107 > 89	2.50	22983.533	22983.533	bb			0.5036	100.73	0.73	5043.2...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per010710a.qld

Last Altered: Friday, January 08, 2010 8:57:25 AM Eastern Standard Time
Printed: Friday, January 08, 2010 9:06:04 AM Eastern Standard Time

Name: per0107020a
Date: 07-Jan-2010
Time: 18:22:39
ID: WCL100104-07CRI
Vial: 1:2,B

Pass
01-08-10

Perchlorate

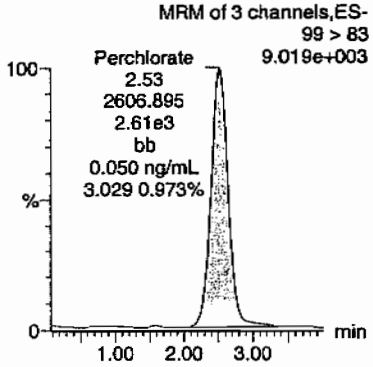

Perchlorate

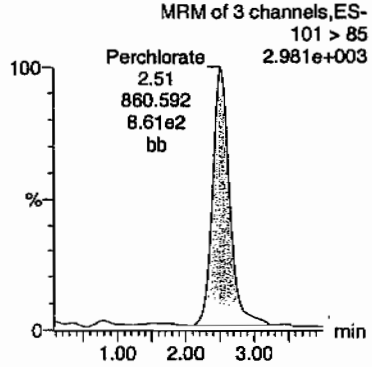

Perchlorate-101

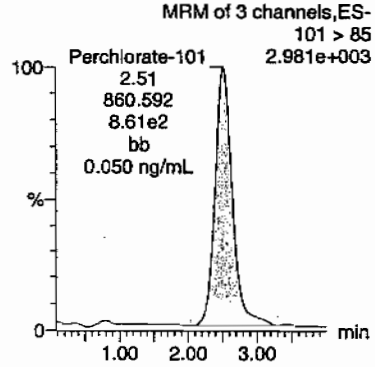

Perchlorate-O(18)

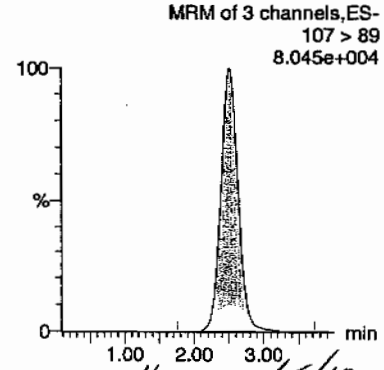

01/09/10

D	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100104-07CRI	Perchlorate	99 > 83	2.53	2606.895	2606.895	bb			0.0505	100.97	0.97	409.880	3.03
WCL100104-07CRI	Perchlorate-101	101 > 85	2.51	860.592	860.592	bb			0.0497	99.35	-0.65	63.273	
WCL100104-07CRI	Perchlorate-O(18)	107 > 89	2.50	22880.898	22880.898	bb			0.5014	100.28	0.28	10927....	

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QUALITY CONTROL

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: EPA 6850 Modified

Matrix: SOIL

Extraction Batch ID: 936671

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
MB

Date Received: 07–JAN–10

GEL Job No (SDG): 10–1057

GEL Sample ID: 1202004148

Date Filtered: 07–JAN–10

Injection Volume (uL): 20

%Solids: 100

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797–73–0	Perchlorate	.5	2	0.500	ug/kg	U	1	07–JAN–10 17:26	per0107012a
	Perchlorate Isotope Ratio						1	07–JAN–10 17:26	per0107012a
14797–73–0	Perchlorate–101	.5	2	0.500	ug/kg	U	1	07–JAN–10 17:26	per0107012a
	Perchlorate–O(18)			4.83	ug/kg		1	07–JAN–10 17:26	per0107012a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate–101 peak area. The Perchlorate–101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per010710a.qld

Last Altered: Friday, January 08, 2010 8:57:25 AM Eastern Standard Time
Printed: Friday, January 08, 2010 9:06:04 AM Eastern Standard Time

Name: per0107012a
Date: 07-Jan-2010
Time: 17:26:22
ID: 1202004148
Vial: 1:3,A

LANL | 936672 | 50120 | MB | 1 |

GWW 01-08-10

Perchlorate

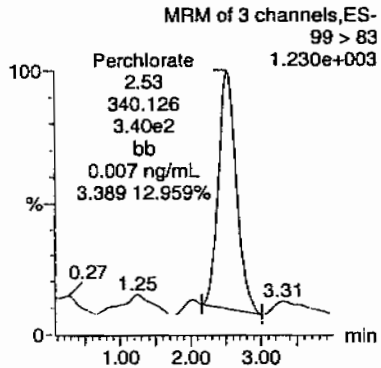

Perchlorate

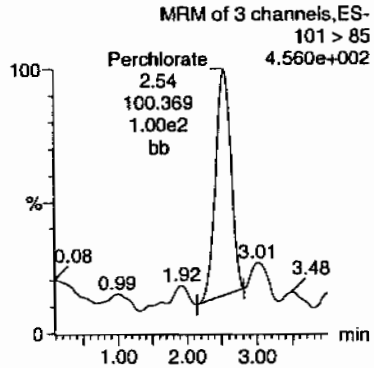

Perchlorate-101

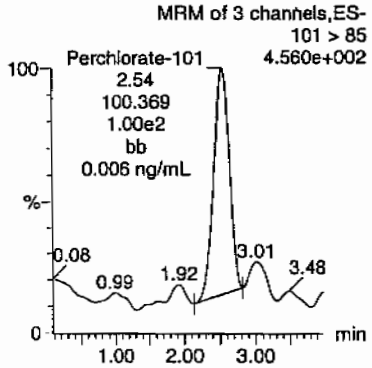

Perchlorate-O(18)

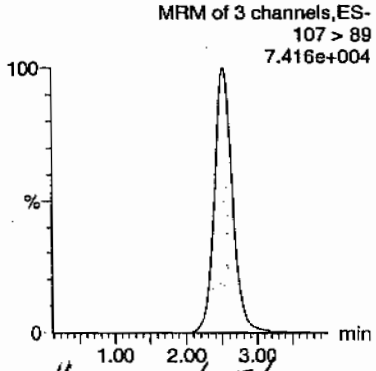

HMW 01/08/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202004148	Perchlorate	99 > 83	2.53	340.126	340.126	bb			0.0066			88.909	3.39
1202004148	Perchlorate-101	101 > 85	2.54	100.369	100.369	bb			0.0058			50.038	
1202004148	Perchlorate-O(18)	107 > 89	2.53	22035.615	22035.615	bb			0.4829	96.57	-3.43	5132.4...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: EPA 6850 Modified

Matrix: SOIL

Extraction Batch ID: 936671

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
LCS

Date Received: 07-JAN-10

GEL Job No (SDG): 10-1057

GEL Sample ID: 1202004149

Date Filtered: 07-JAN-10

Injection Volume (uL): 20

%Solids: 100

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.5	2	1.99	ug/kg	J	1	07-JAN-10 17:33	per0107013a
	Perchlorate Isotope Ratio			2.89			1	07-JAN-10 17:33	per0107013a
14797-73-0	Perchlorate-101	.5	2	2.05	ug/kg		1	07-JAN-10 17:33	per0107013a
	Perchlorate-O(18)			4.90	ug/kg		1	07-JAN-10 17:33	per0107013a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

uantify Sample Report MassLynx 4.0 SP4
ıe GEL Group, LLC Analyst: Charlers W. Wilson

ataset: C:\MassLynx\Perchlorate.PRO\per010710a.qld

ıst Altered: Friday, January 08, 2010 8:57:25 AM Eastern Standard Time
inted: Friday, January 08, 2010 9:06:04 AM Eastern Standard Time

ame: per0107013a
ate: 07-Jan-2010
me: 17:33:25
: 1202004149
ial: 1:3,B

|LANL|936672|50120|LLS|11|

WWJ
01-03-10

erchlorate

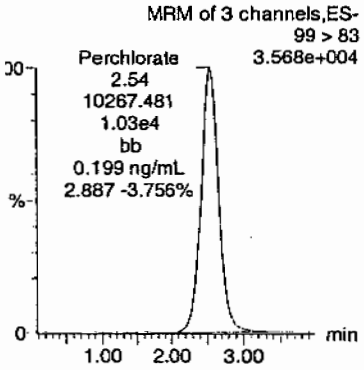

Perchlorate

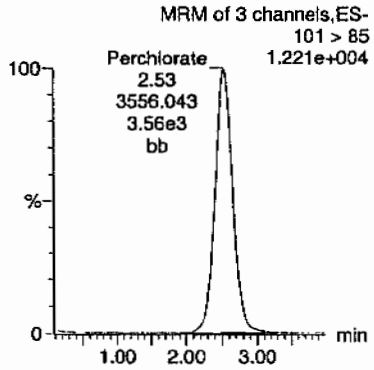

Perchlorate-101

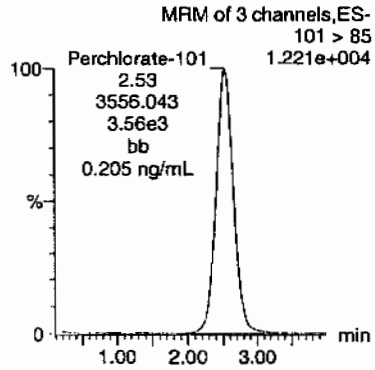

Perchlorate-O(18)

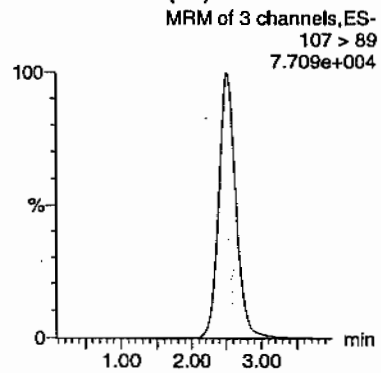

ı	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
202004149	Perchlorate	99 > 83	2.54	10267.481	10267.481	bb			0.1988	99.42	-0.58	1028.4...	2.89
202004149	Perchlorate-101	101 > 85	2.53	3556.043	3556.043	bb			0.2053	102.63	2.63	1533.4...	
202004149	Perchlorate-O(18)	107 > 89	2.51	22367.807	22367.807	bb			0.4901	98.03	-1.97	609.755	

$$\frac{10267.481}{51634.9} = 0.1988$$

HMM 01/08/10

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MISCELLANEOUS DATA

Prep Logbook

Definitive Low Level Perchlorate Analysis Utilizing Liquid Chromatography/Mass Spectrometry/Mass Spectrometry (LC/MS/MS) by EPA Method 6850 Modified (6850M)

Batch ID: 936671 Verified by: _____

Analyst: Jareth Shirley

Method: SW846 6850 Modified

Lab SOP: GL-OA-E-067 REV# 6

Instrument: MicroMass Quatro Ultima

Sample ID	Run Date	Aliquot (g)	Prepped Aliquot (mL)	Prepped Factor (mL/g)
1202004148 MB	07-JAN-2010 13:57:59	2	20	10
1202004149 LCS	07-JAN-2010 13:57:59	2	20	10
243472001	07-JAN-2010 13:57:59	2	20	10
243472002	07-JAN-2010 13:57:59	2	20	10
243472003	07-JAN-2010 13:57:59	2	20	10
243492001	07-JAN-2010 13:57:59	2	20	10
1202004150 MS (243492001)	07-JAN-2010 13:57:59	2	20	10
1202004151 MSD (243492001)	07-JAN-2010 13:57:59	2	20	10
243492002	07-JAN-2010 13:57:59	2	20	10
243492003	07-JAN-2010 13:57:59	2	20	10
243492004	07-JAN-2010 13:57:59	2	20	10
243492005	07-JAN-2010 13:57:59	2	20	10
243492006	07-JAN-2010 13:57:59	2	20	10
243492007	07-JAN-2010 13:57:59	2	20	10
1202004152 ICS	07-JAN-2010 13:57:59	2	20	10

Type	Sample Id	Description	Serial Number	Spike Amt	Units
ICS	1202004152	10 ug/L ICV/CCV Second Source	UCL091201-01.2	.4	mL
LCS	1202004149	10 ug/L ICV/CCV Second Source	UCL091201-01.2	.4	mL
MS	1202004150	10 ug/L ICV/CCV Second Source	UCL091201-01.2	.4	mL
MSD	1202004151	10 ug/L ICV/CCV Second Source	UCL091201-01.2	.4	mL

Comments:

Desalting cartridges used: 090410-1-Ba & 091002-1-H

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GEL ORGANIC RUN LOG INSTRUMENT ID: LCMSMS#2

Date: 01/07/10
Extr. Injection Volume: 20uL
Sequence Number: per010710a
Initial Calibration Date: 01/07/10

Method: EPA 6850-Modified
Int. Std.: UCL091019-03.2
Mobile Phase Lot#: 1233781, 1233976
Standard-Samp Reagent Lot#:: 1233976

Reviewed BY: [illegible]
Date: 01/08/10
SOP: GL-OA-E-067 Rev.6
Alt Check Std. ID: WCL100104-06

DataFile	Sample	Analyst	Injection Date	Batch	SDG	Dilution	Client	Comments	QC_Flag
per0107001a	IPB001	CWW	1/7/2010 16:08			1		USE	B
per0107002a	IPB001	CWW	1/7/2010 16:15			1		USE	B
per0107003a	WCLICAL-01	CWW	1/7/2010 16:22			1		USE	I
per0107004a	WCLICAL-02	CWW	1/7/2010 16:29			1		USE	I
per0107005a	WCLICAL-03	CWW	1/7/2010 16:37			1		USE	I
per0107006a	WCLICAL-04	CWW	1/7/2010 16:44			1		USE	I
per0107007a	WCLICAL-05	CWW	1/7/2010 16:51			1		USE	I
per0107008a	IPB002	CWW	1/7/2010 16:58			1		USE	B
per0107009a	WCLICV	CWW	1/7/2010 17:05			1		USE	C
per0107010a	IPB003	CWW	1/7/2010 17:12			1		USE	B
per0107011a	WCLCRI	CWW	1/7/2010 17:19			1		USE	C
per0107012a	1202004148	CWW	1/7/2010 17:26	936672	VARIOUS	1	LANL	USE	S
per0107013a	1202004149	CWW	1/7/2010 17:33	936672	VARIOUS	1	LANL	USE	S
per0107014a	1202004152	CWW	1/7/2010 17:40	936672	VARIOUS	1	LANL	USE	S
per0107015a	243472001	CWW	1/7/2010 17:47	936672	10-1057	1	LANL	USE	S
per0107016a	243472002	CWW	1/7/2010 17:54	936672	10-1057	1	LANL	USE	S
per0107017a	243472003	CWW	1/7/2010 18:01	936672	10-1057	1	LANL	USE	S
per0107018a	WCLCCV	CWW	1/7/2010 18:08			1		USE	C
per0107019a	IPB004	CWW	1/7/2010 18:15			1		USE	B
per0107020a	WCLCRI	CWW	1/7/2010 18:22			1		USE	C
per0107021a	243492001	CWW	1/7/2010 18:29	936672	10-1037	1	LANL	USE	S
per0107022a	1202004150	CWW	1/7/2010 18:36	936672	10-1037	1	LANL	USE	S
per0107023a	1202004151	CWW	1/7/2010 18:43	936672	10-1037	1	LANL	USE	S
per0107024a	243492002	CWW	1/7/2010 18:50	936672	10-1037	1	LANL	USE	S
per0107025a	243492003	CWW	1/7/2010 18:57	936672	10-1037	1	LANL	USE	S
per0107026a	243492004	CWW	1/7/2010 19:04	936672	10-1037	1	LANL	USE	S
per0107027a	243492005	CWW	1/7/2010 19:11	936672	10-1037	1	LANL	USE	S
per0107028a	243492006	CWW	1/7/2010 19:18	936672	10-1037	1	LANL	USE	S
per0107029a	243492007	CWW	1/7/2010 19:26	936672	10-1037	1	LANL	USE	S

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per0107030a	WCLCCV	CWW	1/7/2010 19:33			1		USE	C
per0107031a	IPB005	CWW	1/7/2010 19:40			1		USE	B
per0107032a	WCLCRI	CWW	1/7/2010 19:47			1		USE	C
per0107033a	1202004371	CWW	1/7/2010 19:54	936781	VARIOUS	1	LANL	USE	S
per0107034a	1202004374	CWW	1/7/2010 20:01	936781	VARIOUS	1	LANL	USE	S
per0107035a	1202004375	CWW	1/7/2010 20:08	936781	VARIOUS	1	LANL	USE	S
per0107036a	243521001	CWW	1/7/2010 20:15	936781	10-1075	1	LANL	USE	S
per0107037a	1202004372	CWW	1/7/2010 20:22	936781	10-1075	1	LANL	USE	S
per0107038a	1202004373	CWW	1/7/2010 20:29	936781	10-1075	1	LANL	USE	S
per0107039a	243521002	CWW	1/7/2010 20:36	936781	10-1075	1	LANL	USE	S
per0107040a	243521003	CWW	1/7/2010 20:43	936781	10-1075	1	LANL	USE	S
per0107041a	243521004	CWW	1/7/2010 20:50	936781	10-1075	1	LANL	USE	S
per0107042a	WCLCCV	CWW	1/7/2010 20:57			1		USE	C
per0107043a	IPB006	CWW	1/7/2010 21:04			1		USE	B
per0107044a	WCLCRI	CWW	1/7/2010 21:11			1		USE	C
per0107045a	243521005	CWW	1/7/2010 21:18	936781	10-1075	1	LANL	USE	S
per0107046a	243521006	CWW	1/7/2010 21:25	936781	10-1075	1	LANL	USE	S
per0107047a	243521007	CWW	1/7/2010 21:33	936781	10-1075	1	LANL	USE	S
per0107048a	243521008	CWW	1/7/2010 21:40	936781	10-1075	1	LANL	USE	S
per0107049a	243521009	CWW	1/7/2010 21:47	936781	10-1075	1	LANL	USE	S
per0107050a	243521010	CWW	1/7/2010 21:54	936781	10-1075	1	LANL	USE	S
per0107051a	243521011	CWW	1/7/2010 22:01	936781	10-1075	1	LANL	USE	S
per0107052a	243547002	CWW	1/7/2010 22:08	936781	10-1084	1	LANL	USE	S
per0107053a	243547003	CWW	1/7/2010 22:15	936781	10-1084	1	LANL	USE	S
per0107054a	WCLCCV	CWW	1/7/2010 22:22			1		USE	C
per0107055a	IPB007	CWW	1/7/2010 22:29			1		USE	B
per0107056a	WCLCRI	CWW	1/7/2010 22:36			1		USE	C

Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per010710a.qld

Last Altered: Friday, January 08, 2010 8:57:25 AM Eastern Standard Time
Printed: Friday, January 08, 2010 9:06:04 AM Eastern Standard Time

Name: per0107022a
Date: 07-Jan-2010
Time: 18:36:44
ID: 1202004150
Vial: 1:4,B

|LANL|936672|5020|MS|11|

WW 01-08-10

Perchlorate

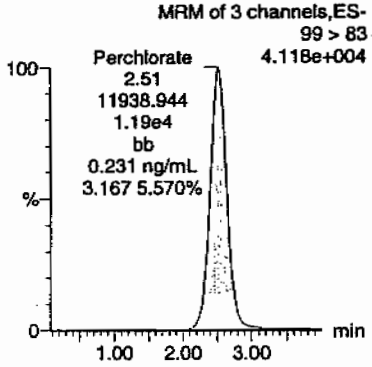

Perchlorate

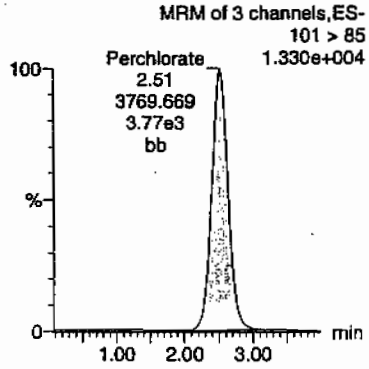

Perchlorate-101

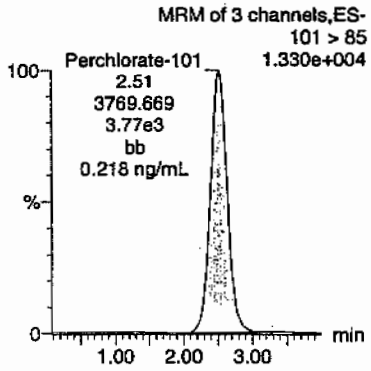

Perchlorate-O(18)

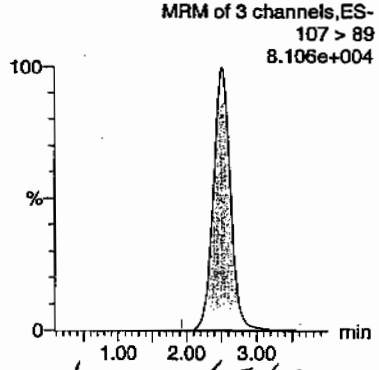

HMM 01/08/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202004150	Perchlorate	99 > 83	2.51	11938.944	11938.944	bb			0.2312	115.61	15.61	1936.2...	3.17
1202004150	Perchlorate-101	101 > 85	2.51	3769.669	3769.669	bb			0.2176	108.79	8.79	1901.3...	
1202004150	Perchlorate-O(18)	107 > 89	2.50	23055.266	23055.266	bb			0.5052	101.04	1.04	11818....	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per010710a.qld

Last Altered: Friday, January 08, 2010 8:57:25 AM Eastern Standard Time
Printed: Friday, January 08, 2010 9:06:04 AM Eastern Standard Time

Name: per0107023a
Date: 07-Jan-2010
Time: 18:43:46
ID: 1202004151
Vial: 1:4,C

|LANL|936672|50120|MSO|1|

CWW
01-08-10

Perchlorate

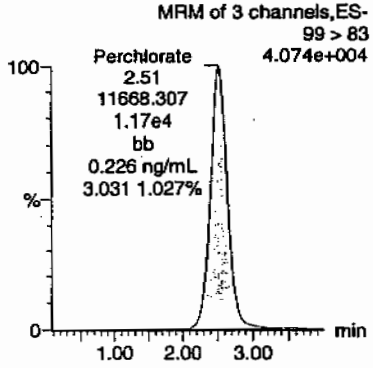

Perchlorate

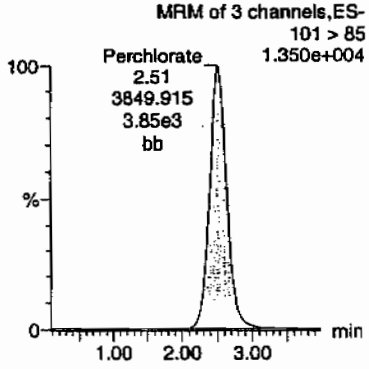

Perchlorate-101

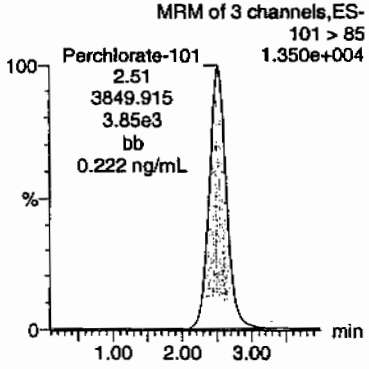

Perchlorate-O(18)

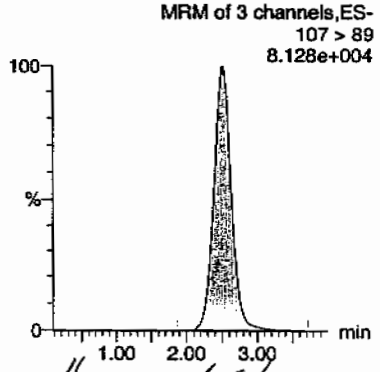

Hmm 01/08/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202004151	Perchlorate	99 > 83	2.51	11668.307	11668.307	bb			0.2260	112.99	12.99	1341.6...	3.03
1202004151	Perchlorate-101	101 > 85	2.51	3849.915	3849.915	bb			0.2222	111.11	11.11	813.774	
1202004151	Perchlorate-O(18)	107 > 89	2.50	23189.414	23189.414	bb			0.5081	101.63	1.63	8174.4...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Isotope Ratio Criteria

Isotope Ratio $_{35}Cl/_{37}CL$

2.31-3.85

Tune Criteria

The tuning solution is introduced directly into the mass spectrometer using the ESI interface in the positive ion mode. The mass range scanned is 20 to 1100 amu using at least six scans. The observed mass for the target compound in the daily calibration standards must be within 0.2 amu of the expected value. If it is greater than 0.2 amu, then a mass calibration is performed and the instrument is re-calibrated.

GC SEMIVOLATILE PCB ANALYSIS

PCB Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-1057

Method/Analysis Information

Procedure:	**Analysis of Polychlorinated Biphenyls by ECD**
Analytical Method:	SW846 8082
Prep Method:	SW846 3550B
Analytical Batch Number:	937093
Prep Batch Number:	937092

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 8082:

Sample ID	Client ID
243472001	RE03-09-14228
243472002	RE03-09-14230
243472003	RE03-09-14229
1202005226	Method Blank (MB)
1202005227	Laboratory Control Sample (LCS)
1202005228	243547002(WST54-10-9921) Matrix Spike (MS)
1202005229	243547002(WST54-10-9921) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on a "dry weight" basis.

Preparation/Analytical Method Verification

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-040 REV# 14.

Raw data reports are processed and reviewed by the analyst using the Target software package. False positives have been removed from the Target quantitation reports per standard operating procedures (SOP) section 23.0.

Calibration Information

Please note that the 'Cal Date' indicated on each quantitation report reflects the date and time of the most recent calibrated analyte(s) in the Target processing method. Since the laboratory may calibrate with multiple solutions on different days using the same processing method, the Target software will update the 'Cal Date' to the last calibration file, date and time. The correct dates and times for all calibration files are located on the Calibration History report in the Standard Data section in the data package.

Due to software limitations, the Calibration Summary Form 6 may not indicate all the calibration files comprising the initial calibration. A complete list of the initial calibration data files are shown in the Calibration History report located in the Standard Data section of the data package.

Initial Calibration
All initial calibration requirements have been met for this sample delivery group (SDG).

The linear equation used in Target and indicated on the initial calibration summary form is not a conventional linear equation (slope intercept formula) and does not match the equation found in SW-846 method 8000B. The x and y axes are inversed in Target, so that the instrument response is treated as the independent variable (x) and the concentration ratio is treated as the dependent variable (y). The equation used in Target to calculate sample results is adjusted to account for the linear equation inversion and reciprocal slope. The adjusted calculation has been independently verified to produce valid results.

Continuing Calibration Verification (CCV) Requirements
All associated calibration verification standard(s) (ICV or CCV) met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Surrogate Recoveries
All surrogate recoveries were within the established acceptance criteria for this SDG.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

QC Sample Designation
A LANL sample of similar matrix associated with another SDG (#10-1084) was selected for the matrix spike and matrix spike duplicate analysis. A Form III and QC raw data are included in the package summarizing the results.

Matrix Spike (MS) Recovery Statement
The MS recoveries were within the established acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recoveries were within the established acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD between the MS and MSD met the acceptance limits.

Technical Information

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP. All sample extracts were cleaned using alumina. Additionally, copper was added to all sample extracts to remove sulfur.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-extraction/Re-analysis
Re-extractions or re-analyses were not required in this SDG.

Miscellaneous Information

Electronic Package Comment

The following package was generated using an electronic data processing program referred to as "virtual packaging". In an effort to increase quality and efficiency, the laboratory is developing systems to eventually generate all data packages electronically. The following change from "traditional" packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. An electronic signature page inserted after the case narrative of each electronic package will indicate the analyst, reviewer, and report specialist names associated with the generation of the data and package. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Data Exception (DER) Documentation
Data exception report (DER) is for documentation of any procedural anomalies that may deviate from referenced SOP or contractual document. A DER was not required for this SDG.

Manual Integration
Certain standards and samples may have required manual integration to correctly position the baseline as set in the calibration standard injections. If manual integration was performed, copies of all manual integration peak profiles are included in the raw data section of this PCB fraction.

Additional Comments
The additional comments field is used to address special issues associated with each analysis, clarify method/contractual issues pertaining to the analysis, and to list any report documents generated as a result of sample analysis or review. The following additional comments were required:

The higher results from either column have been chosen and reported in the data package for the client samples, MB and LCS.

The data reported on the form I and III may differ slightly from the data reported on the form X. This is due to software limitations in rounding differences between the forms.

Aroclors quantitated on the raw data report by the Target data system do not necessarily represent positive Aroclor identification. In order for positive identification to be made, the Aroclor must match in pattern and retention time; as well as quantitate relatively close between the primary and confirmation columns, as specified in SW846 method 8000. When these conditions are not met, the Aroclor is reported as a non-detect on the data report. These situations will be noted on the raw data as DMP, representing does not match pattern, or DNC does not confirm.

Due to software limitation, the Form VIIs will display the results either in the % difference or % drift depending on the type of the calibration curve. If the curve of all analytes is generated using an average response factor (RF), the Form VII will display results using the %difference calculation (RF). If the curve of one or more analytes is generated using a linear curve, the Form VII will display results using the % drift calculation (by concentration) for all analytes.

System Configuration

The Semi-Volatiles-PCB analysis was performed on the following instrument configuration:

Instrument ID	Instrument	System Configuration	Column ID	Column Description
ECD2A.I_1	HP Gas Chromatograph	HP6890 Series ECD	Rtx-CLP I	30m x 0.25mm, 0.25um (Rtx-CLPesticide)
ECD2A.I_2	HP Gas Chromatograph	HP6890 Series ECD	Rtx-CLP II	30m x 0.25mm, 0.20um (Rtx-CLPesticide II)

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Jimmi Cao Date: 1/19/10

Roadmap for LANL 10-1057 PCB

This roadmap was analyzed by jcn01212 on 12-31-2009, 11:07.
This roadmap was reviewed by rob01090 on 01-04-2010, 16:35.
This roadmap was packaged by yml on 01-18-2010, 10:19.
This roadmap was validated by jim01140 on 01-19-2010, 08:57.

Front Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd2a.i/122909.b/016f1601.d	243472001	sample	29-DEC-2009	10:11	10-1057.sub	RE03-09-14228	1.00000	937093	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd2a.i/122909.b/017f1701.d	243472002	sample	29-DEC-2009	10:22	10-1057.sub	RE03-09-14230	1.00000	937093	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd2a.i/122909.b/018f1801.d	243472003	sample	29-DEC-2009	10:33	10-1057.sub	RE03-09-14229	1.00000	937093	UPLOAD BOTH, USE HIGHER

Back Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd2a.i/122909.b/016b1601.d	243472001	sample	29-DEC-2009	10:11	10-1057.sub	RE03-09-14228	1.00000	937093	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd2a.i/122909.b/017b1701.d	243472002	sample	29-DEC-2009	10:22	10-1057.sub	RE03-09-14230	1.00000	937093	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd2a.i/122909.b/018b1801.d	243472003	sample	29-DEC-2009	10:33	10-1057.sub	RE03-09-14229	1.00000	937093	UPLOAD BOTH, USE HIGHER

Front QC Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd2a.i/122909.b/012f1201-2.d	1202005226	mb	29-DEC-2009	09:27	10-1057.sub	PBLK01	1.00000	937093	
☐	N	/chem/ecd2a.i/122909.b/013f1301-2.d	1202005227	lcs	29-DEC-2009	09:38	10-1057.sub	PBLK01LCS	1.00000	937093	

Back QC Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd2a.i/122909.b/012b1201-2.d	1202005226	mb	29-DEC-2009	09:27	10-1057.sub	PBLK01	1.00000	937093	
☐	N	/chem/ecd2a.i/122909.b/013b1301-2.d	1202005227	lcs	29-DEC-2009	09:38	10-1057.sub	PBLK01LCS	1.00000	937093	

SAMPLE DATA SUMMARY

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–1057**	**Date Collected:**	**12/21/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243472001**	**Date Received:**	**12/23/2009 10:10**	**%Moisture:**	**10.2**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03–09–14228**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**937093**	**Inst:**	**ECD2A.I**	**Dilution:**	**1**
Run Date:	**12/29/2009 10:11**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**12/28/2009 20:43**	**Aliquot:**	**30.02 g**	**Final Volume:**	**1 mL**
Data File:	**016f1601.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	016b1601.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	3.71	ug/kg	1.23	3.71	1
11104–28–2	Aroclor–1221	U	3.71	ug/kg	1.23	3.71	1
11141–16–5	Aroclor–1232	U	3.71	ug/kg	1.23	3.71	1
53469–21–9	Aroclor–1242	U	3.71	ug/kg	1.23	3.71	1
12672–29–6	Aroclor–1248	U	3.71	ug/kg	1.23	3.71	1
11097–69–1	Aroclor–1254	U	3.71	ug/kg	1.23	3.71	1
11096–82–5	Aroclor–1260	U	3.71	ug/kg	1.23	3.71	1

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10–1057	**Date Collected:**	12/21/2009 12:00	**Matrix:**	S
Lab Sample ID:	243472003	**Date Received:**	12/23/2009 10:10	**%Moisture:**	8.6
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03–09–14229	**Method:**	SW846 8082	**SOP Ref:**	GL–OA–E–040
Batch ID:	937093	**Inst:**	ECD2A.I	**Dilution:**	1
Run Date:	12/29/2009 10:33	**Analyst:**	JAOC	**Inj. Vol:**	1 uL
Prep Date:	12/28/2009 20:43	**Aliquot:**	30.12 g	**Final Volume:**	1 mL
Data File:	018f1801.d	**Column:**	1 CLP1	**Level:**	LOW
	018b1801.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	3.63	ug/kg	1.21	3.63	1
11104–28–2	Aroclor–1221	U	3.63	ug/kg	1.21	3.63	1
11141–16–5	Aroclor–1232	U	3.63	ug/kg	1.21	3.63	1
53469–21–9	Aroclor–1242	U	3.63	ug/kg	1.21	3.63	1
12672–29–6	Aroclor–1248	U	3.63	ug/kg	1.21	3.63	1
11097–69–1	Aroclor–1254	U	3.63	ug/kg	1.21	3.63	1
11096–82–5	Aroclor–1260	U	3.63	ug/kg	1.21	3.63	1

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–1057**	**Date Collected:**	**12/21/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243472002**	**Date Received:**	**12/23/2009 10:10**	**%Moisture:**	**7.1**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03–09–14230**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**937093**	**Inst:**	**ECD2A.I**	**Dilution:**	**1**
Run Date:	**12/29/2009 10:22**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**12/28/2009 20:43**	**Aliquot:**	**30.03 g**	**Final Volume:**	**1 mL**
Data File:	**017f1701.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	017b1701.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	3.58	ug/kg	1.19	3.58	1
11104–28–2	Aroclor–1221	U	3.58	ug/kg	1.19	3.58	1
11141–16–5	Aroclor–1232	U	3.58	ug/kg	1.19	3.58	1
53469–21–9	Aroclor–1242	U	3.58	ug/kg	1.19	3.58	1
12672–29–6	Aroclor–1248	U	3.58	ug/kg	1.19	3.58	1
11097–69–1	Aroclor–1254	U	3.58	ug/kg	1.19	3.58	1
11096–82–5	Aroclor–1260	U	3.58	ug/kg	1.19	3.58	1

QUALITY CONTROL SUMMARY

Surrogate Recovery Report

SDG Number: 10-1057

Matrix Type: SOLID

CAP Column (1) : CLP1 **CAP Column (2) : CLP2**

Sample ID	Client ID	4CMX 1 %REC #	4CMX 2 %REC #	DCB 1 %REC #	DCB 2 %REC #
1202005226	MB for batch 937092	65	69	71	81
1202005227	LCS for batch 937092	66	69	70	79
243472001	RE03-09-14228	62	65	64	77
243472002	RE03-09-14230	57	60	63	69
243472003	RE03-09-14229	63	67	63	74

Surrogate	Acceptance Limits
4CMX = 4cmx	(34%-105%)
DCB = Decachlorobiphenyl	(33%-115%)

* Recovery outside Acceptance Limits

\# Column to be used to flag recovery values

D Sample Diluted

PCB

Quality Control Summary
Spike Recovery Report

SDG Number: 10–1057
Client ID: LCS for batch 937092
Lab Sample ID: 1202005227
Instrument: ECD2A.I
Analyst: JAOC
Inj. Vol: 1 uL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 12/29/2009 09:38
Dilution: 1
Prep Batch ID: 937092
Batch ID: 937093

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
12674–11–2	LCS	Aroclor–1016	33.3	0.0	21.1	63	41–110
11096–82–5	LCS	Aroclor–1260	33.3	0.0	26.3	79	48–110

PCB

Quality Control Summary
Spike Recovery Report

SDG Number:	**10-1084**	**Sample Type:**	**Matrix Spike**	
Client ID:	**WST54-10-9921MS**	**Matrix:**	**S**	
Lab Sample ID:	**1202005228**	**%Moisture:**	**11.1**	
Instrument:	**ECD2A.I**	**Analysis Date:**	**12/29/2009 13:53**	**Dilution: 1**
Analyst:	**JAOC**	**Prep Batch ID:**	**937092**	
Inj. Vol:	**1 uL**	**Batch ID:**	**937093**	

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
12674-11-2	MS	Aroclor-1016	37.3	0.00	U	22.4	60	23-117
11096-82-5	MS	Aroclor-1260	37.3	0.00	U	29.7	80	27-116

PCB

Quality Control Summary
Spike Recovery Report

SDG Number:	**10-1084**	**Sample Type:**	**Matrix Spike Duplicate**
Client ID:	**WST54-10-9921MSD**	**Matrix:**	**S**
Lab Sample ID:	**1202005229**	**%Moisture:**	**11.1**
Instrument:	**ECD2A.I**	**Analysis Date:**	**12/29/2009 14:04**
Analyst:	**JAOC**	**Prep Batch ID**	**937092**
Inj. Vol:	**1 uL**	**Batch ID:**	**937093**

Dilution: 1

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
12674-11-2	MSD Aroclor-1016	37.3	0.00	U	24.1	65	23-117	7	0-30
11096-82-5	MSD Aroclor-1260	37.3	0.00	U	30.7	82	27-116	3	0-30

Method Blank Summary

SDG Number:	10–1057	Client:	LANL010	Matrix:	SOIL
Client ID:	MB for batch 937092	Instrument ID:	ECD2A.I_2 ECD2A.I_1	Data File:	012b1201–1.d 012f1201–1.d
Lab Sample ID:	1202005226				
Column:	CLP2 CLP1	Prep Date:	12/28/2009 20:43	Analyzed:	12/29/09 09:27
		Level:	LOW		

This method blank applies to the following samples and quality control samples:

Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01 LCS for batch 937092	1202005227	013f1301–1.d 013b1301–1.d	12/29/09	0938
02 RE03–09–14228	243472001	016f1601.d 016b1601.d	12/29/09	1011
03 RE03–09–14230	243472002	017f1701.d 017b1701.d	12/29/09	1022
04 RE03–09–14229	243472003	018f1801.d 018b1801.d	12/29/09	1033

SAMPLE DATA

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10-1057**	**Date Collected:**	**12/21/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243472001**	**Date Received:**	**12/23/2009 10:10**	**%Moisture:**	**10.2**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14228**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**937093**	**Inst:**	**ECD2A.I**	**Dilution:**	**1**
Run Date:	**12/29/2009 10:11**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**12/28/2009 20:43**	**Aliquot:**	**30.02 g**	**Final Volume:**	**1 mL**
Data File:	**016f1601.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	016b1601.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.71	ug/kg	1.23	3.71	1
11104-28-2	Aroclor-1221	U	3.71	ug/kg	1.23	3.71	1
11141-16-5	Aroclor-1232	U	3.71	ug/kg	1.23	3.71	1
53469-21-9	Aroclor-1242	U	3.71	ug/kg	1.23	3.71	1
12672-29-6	Aroclor-1248	U	3.71	ug/kg	1.23	3.71	1
11097-69-1	Aroclor-1254	U	3.71	ug/kg	1.23	3.71	1
11096-82-5	Aroclor-1260	U	3.71	ug/kg	1.23	3.71	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/122909.b/016f1601.d
Lab Smp Id: 243472001 Client Smp ID: RE03-09-14228
Inj Date : 29-DEC-2009 10:11
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |243472001|1|
Misc Info : |ECD82P_1S|937093|SVA|LANL|SOIL|RE03-09-14228|||
Comment :
Method : /chem/ecd2a.i/122909.b/ECD2-F-8082-111209A.m
Meth Date : 29-Dec-2009 13:37 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012f1201.d
Als bottle: 16
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1057.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.02000	Weight of sample extracted (g)
M	10.15460	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.773	1.771	0.002	7721933	123.964	4.6	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.608	5.607	0.001	6928903	128.048	4.7	80.00- 120.00	100.00

Data File: /chem/ecd2a.i/122909.b/016f1601.d
Date : 29-DEC-2009 10:11
Client ID: RE03-09-14228
Sample Info: |243472001|1|
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecd2a.i

Operator: JADC
Column diameter: 0.25

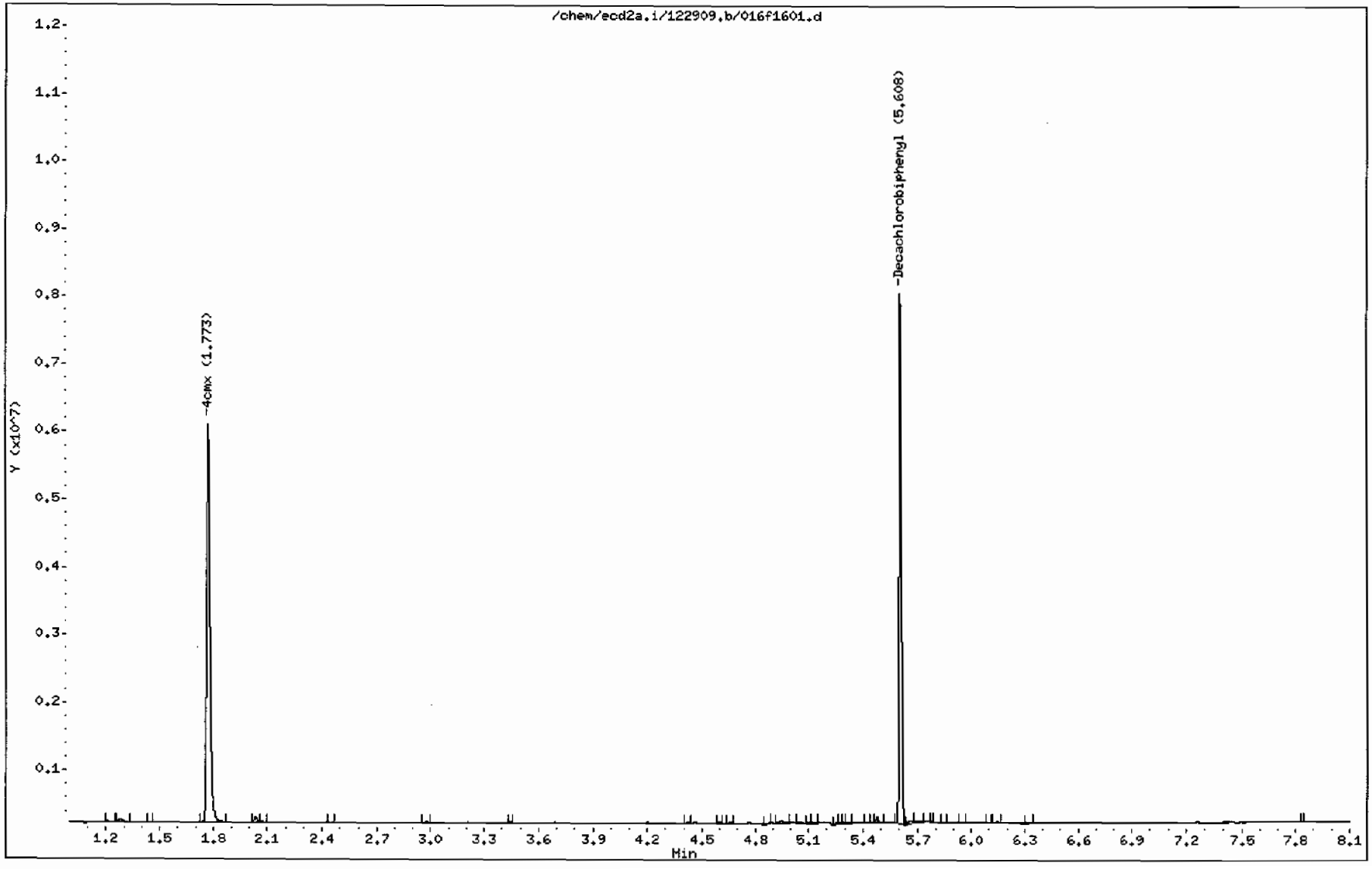

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/122909.b/016b1601.d
Lab Smp Id: 243472001 Client Smp ID: RE03-09-14228
Inj Date : 29-DEC-2009 10:11
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |243472001|1|
Misc Info : |ECD82P_1S|937093|SVA|LANL|SOIL|RE03-09-14228|||
Comment :
Method : /chem/ecd2a.i/122909.b/ECD2-B-8082-111209A.m
Meth Date : 29-Dec-2009 14:44 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012b1201.d
Als bottle: 16
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1057.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.02000	Weight of sample extracted (g)
M	10.15460	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.069	2.068	0.001	16902812	130.707	4.8	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.300	6.300	0.000	17261566	153.051	5.7	80.00- 120.00	100.00

Data File: /chem/ecd2a.i/122909.b/016b1601.d
Date : 29-DEC-2009 10:11
Client ID: RE03-09-14228
Sample Info: 1243472001111
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd2a.i

Operator: JAOC
Column diameter: 0.25

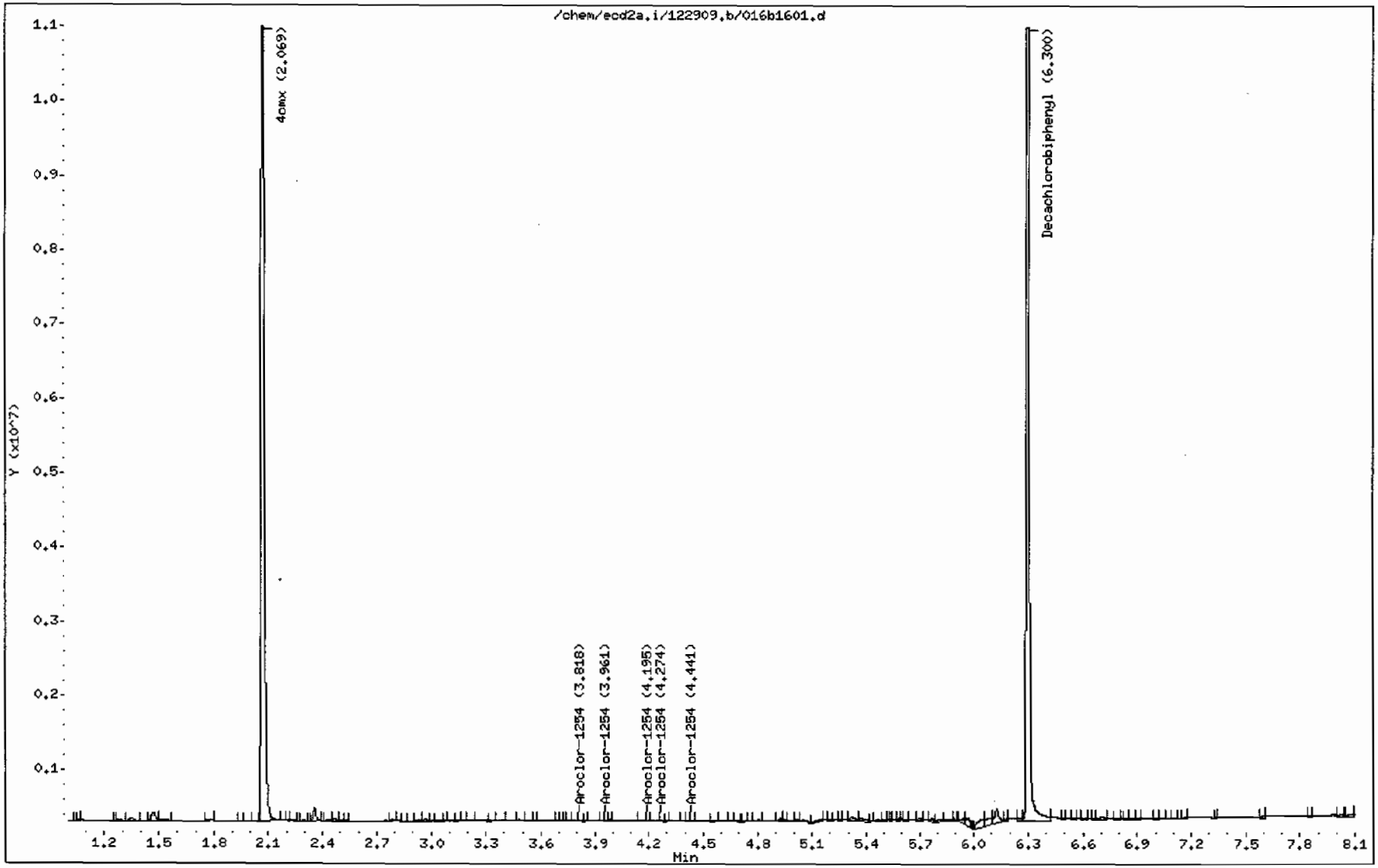

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–1057**	**Date Collected:**	**12/21/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243472003**	**Date Received:**	**12/23/2009 10:10**	**%Moisture:**	**8.6**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03–09–14229**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**937093**	**Inst:**	**ECD2A.I**	**Dilution:**	**1**
Run Date:	**12/29/2009 10:33**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**12/28/2009 20:43**	**Aliquot:**	**30.12 g**	**Final Volume:**	**1 mL**
Data File:	**018f1801.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	018b1801.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	3.63	ug/kg	1.21	3.63	1
11104–28–2	Aroclor–1221	U	3.63	ug/kg	1.21	3.63	1
11141–16–5	Aroclor–1232	U	3.63	ug/kg	1.21	3.63	1
53469–21–9	Aroclor–1242	U	3.63	ug/kg	1.21	3.63	1
12672–29–6	Aroclor–1248	U	3.63	ug/kg	1.21	3.63	1
11097–69–1	Aroclor–1254	U	3.63	ug/kg	1.21	3.63	1
11096–82–5	Aroclor–1260	U	3.63	ug/kg	1.21	3.63	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/122909.b/018f1801.d
Lab Smp Id: 243472003 Client Smp ID: RE03-09-14229
Inj Date : 29-DEC-2009 10:33
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |243472003|1|
Misc Info : |ECD82P_1S|937093|SVA|LANL|SOIL|RE03-09-14229|||
Comment :
Method : /chem/ecd2a.i/122909.b/ECD2-F-8082-111209A.m
Meth Date : 29-Dec-2009 13:37 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012f1201.d
Als bottle: 18
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1057.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.12000	Weight of sample extracted (g)
M	8.64470	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.773	1.771	0.002	7892176	126.697	4.6	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.608	5.607	0.001	6795975	125.592	4.6	80.00- 120.00	100.00

Data File: /chem/ecd2a.i/122909.b/018f1801.d
Date : 29-DEC-2009 10:33
Client ID: RE03-09-14229
Sample Info: |243472003|1|
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecd2a.i

Operator: JAOC
Column diameter: 0.25

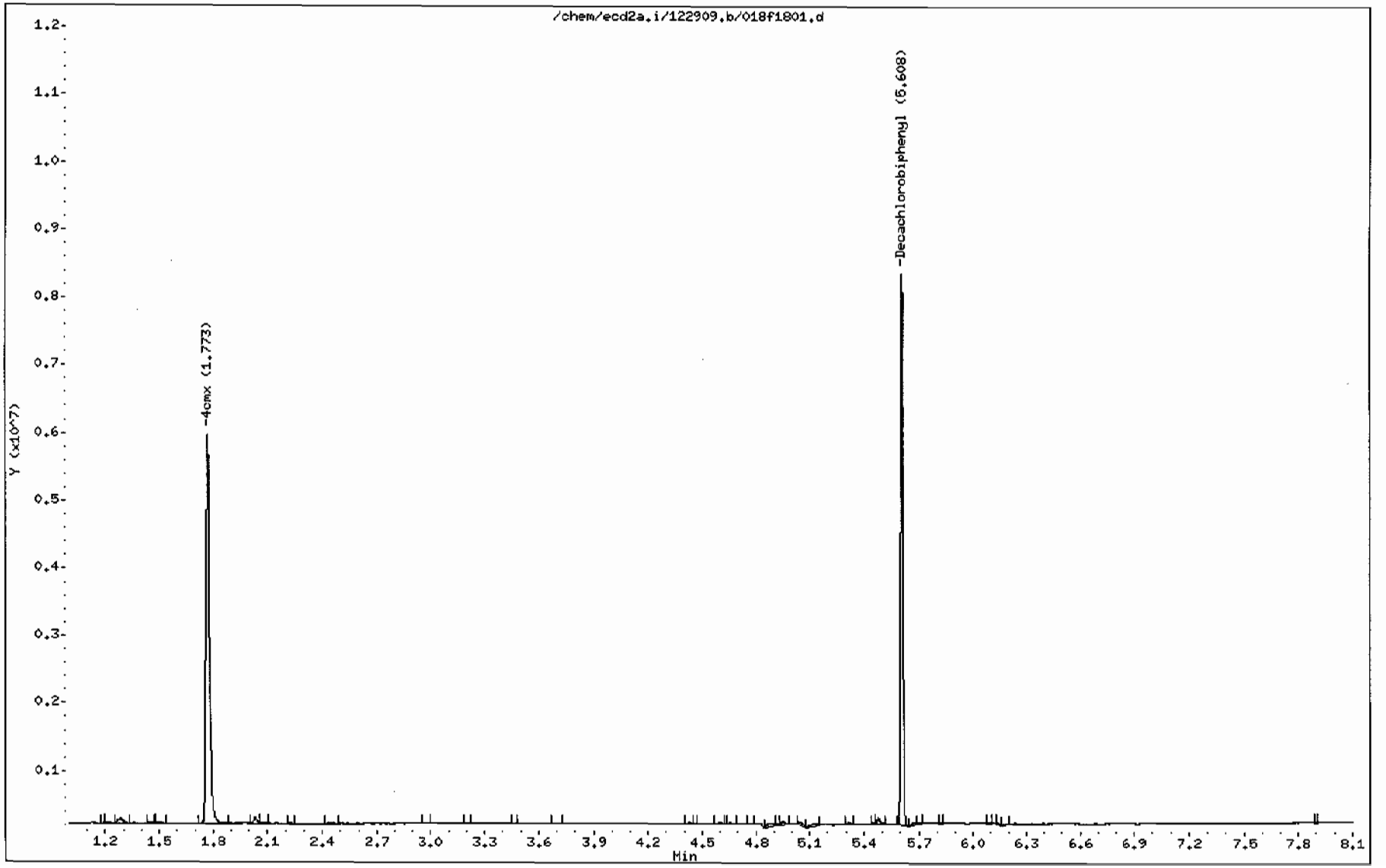

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/122909.b/018b1801.d
Lab Smp Id: 243472003 Client Smp ID: RE03-09-14229
Inj Date : 29-DEC-2009 10:33
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |243472003|1|
Misc Info : |ECD82P_1S|937093|SVA|LANL|SOIL|RE03-09-14229|||
Comment :
Method : /chem/ecd2a.i/122909.b/ECD2-B-8082-111209A.m
Meth Date : 29-Dec-2009 14:44 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012b1201.d
Als bottle: 18
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1057.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.12000	Weight of sample extracted (g)
M	8.64470	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.070	2.068	0.002	17254086	133.424	4.8	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.302	6.300	0.002	16602997	147.212	5.4	80.00- 120.00	100.00

Data File: /chem/ecd2a.i/122909.b/018b1801.d
Date : 29-DEC-2009 10:33
Client ID: RE03-09-14229
Sample Info: |243472003|1|
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd2a.i

Operator: JAOC
Column diameter: 0.25

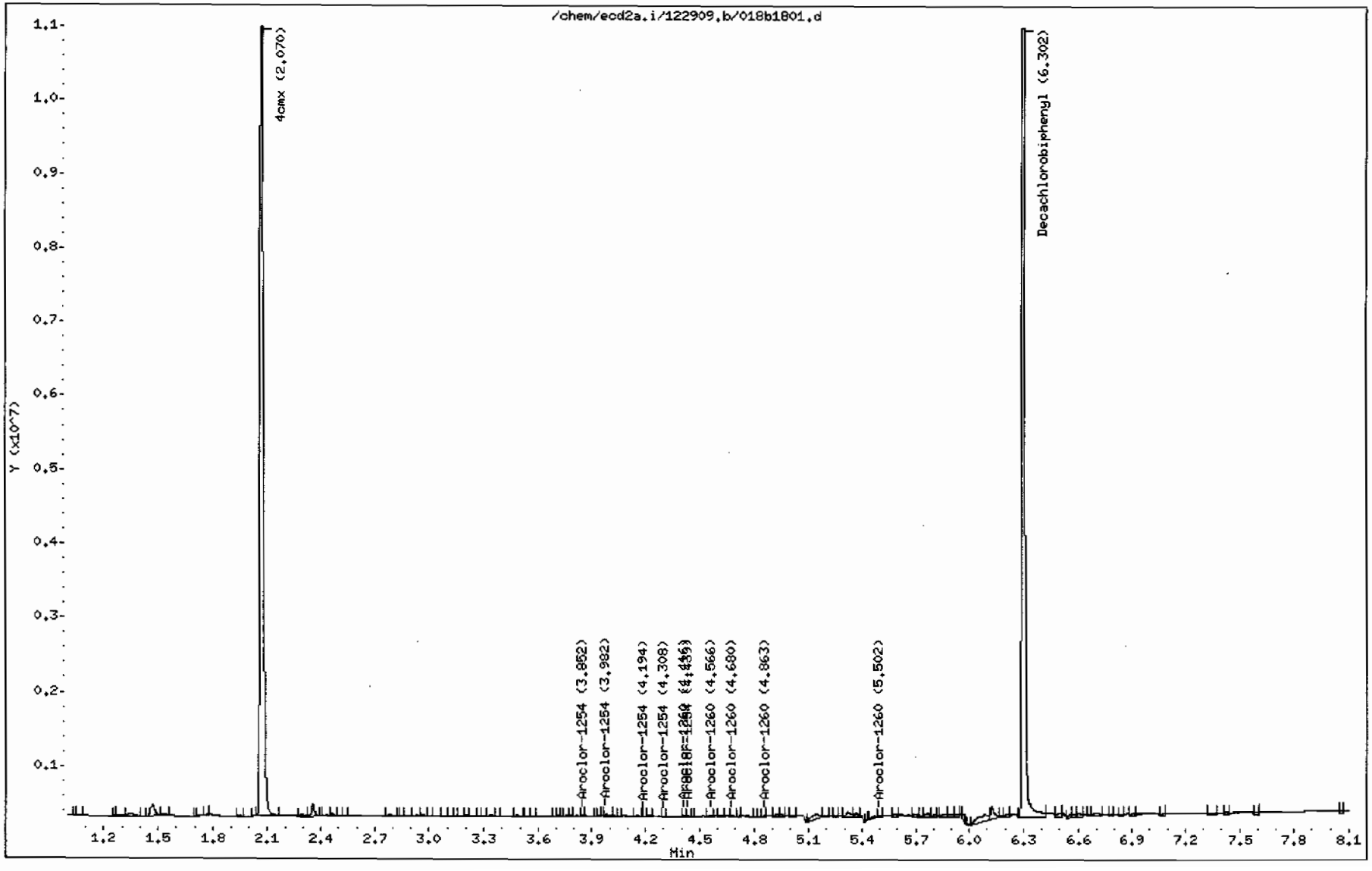

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–1057**	**Date Collected:**	**12/21/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243472002**	**Date Received:**	**12/23/2009 10:10**	**%Moisture:**	**7.1**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03–09–14230**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**937093**	**Inst:**	**ECD2A.I**	**Dilution:**	**1**
Run Date:	**12/29/2009 10:22**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**12/28/2009 20:43**	**Aliquot:**	**30.03 g**	**Final Volume:**	**1 mL**
Data File:	**017f1701.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	017b1701.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	3.58	ug/kg	1.19	3.58	1
11104–28–2	Aroclor–1221	U	3.58	ug/kg	1.19	3.58	1
11141–16–5	Aroclor–1232	U	3.58	ug/kg	1.19	3.58	1
53469–21–9	Aroclor–1242	U	3.58	ug/kg	1.19	3.58	1
12672–29–6	Aroclor–1248	U	3.58	ug/kg	1.19	3.58	1
11097–69–1	Aroclor–1254	U	3.58	ug/kg	1.19	3.58	1
11096–82–5	Aroclor–1260	U	3.58	ug/kg	1.19	3.58	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/122909.b/017f1701.d
Lab Smp Id: 243472002 Client Smp ID: RE03-09-14230
Inj Date : 29-DEC-2009 10:22
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |243472002|1|
Misc Info : |ECD82P_1S|937093|SVA|LANL|SOIL|RE03-09-14230|||
Comment :
Method : /chem/ecd2a.i/122909.b/ECD2-F-8082-111209A.m
Meth Date : 29-Dec-2009 13:37 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012f1201.d
Als bottle: 17
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1057.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.03000	Weight of sample extracted (g)
M	7.07790	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.771	1.771	0.000	7078369	113.633	4.1	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.609	5.607	0.002	6869451	126.950	4.5	80.00- 120.00	100.00

Data File: /chem/ecd2a.i/122909.b/017f1701.d
Date : 29-DEC-2009 10:22
Client ID: RE03-09-14230
Sample Info: 1243472002111
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecd2a.i

Operator: JAOC
Column diameter: 0.25

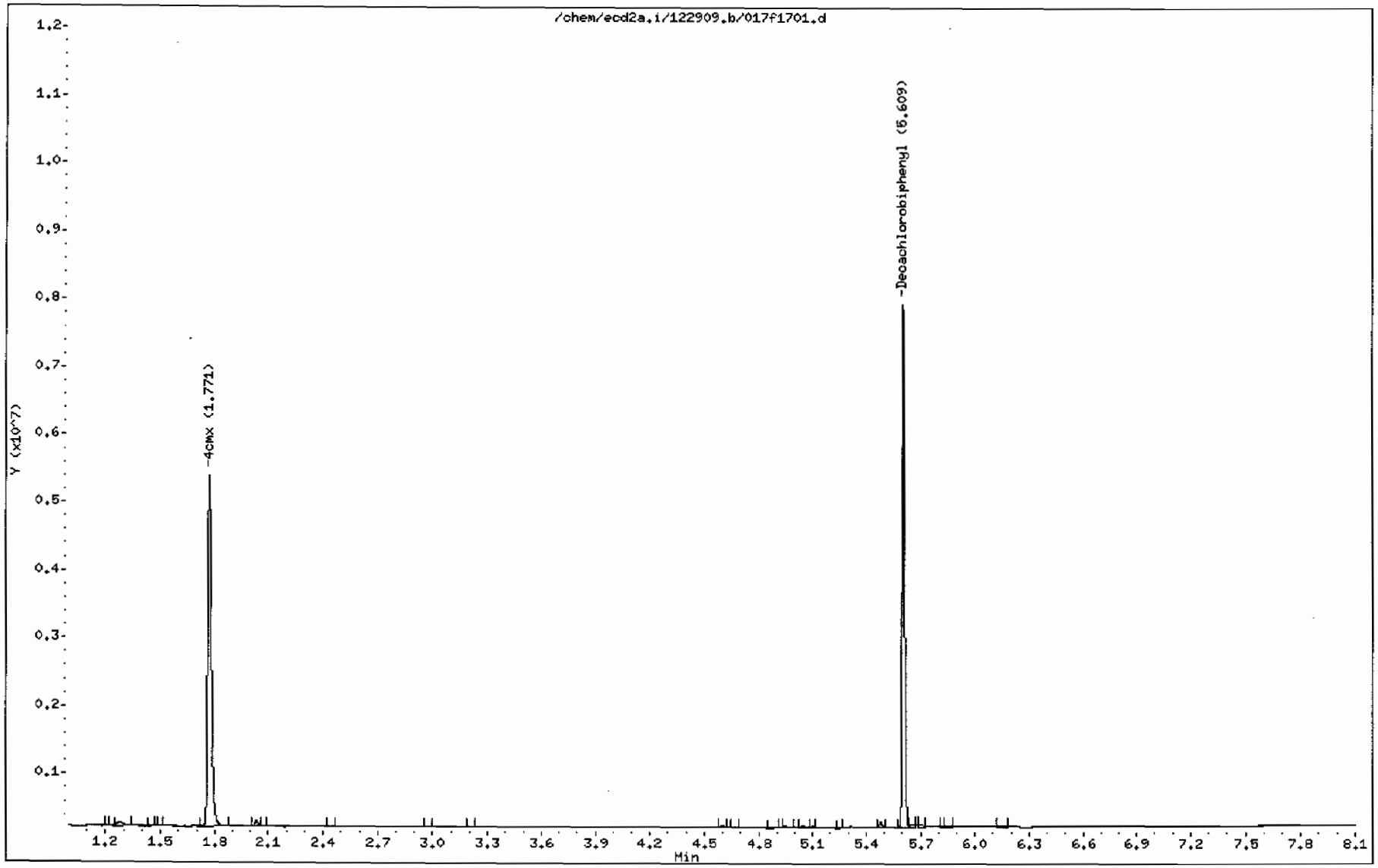

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/122909.b/017b1701.d
Lab Smp Id: 243472002 Client Smp ID: RE03-09-14230
Inj Date : 29-DEC-2009 10:22
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |243472002|1|
Misc Info : |ECD82P_1S|937093|SVA|LANL|SOIL|RE03-09-14230|||
Comment :
Method : /chem/ecd2a.i/122909.b/ECD2-B-8082-111209A.m
Meth Date : 29-Dec-2009 14:44 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012b1201.d
Als bottle: 17
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1057.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.03000	Weight of sample extracted (g)
M	7.07790	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.068	2.068	0.000	15512780	119.958	4.3	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.301	6.300	0.001	15593528	138.261	5.0	80.00- 120.00	100.00

Data File: /chem/ecd2a.i/122909.b/017b1701.d
Date : 29-DEC-2009 10:22
Client ID: RE03-09-14230
Sample Info: |243472002|1|
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd2a.i

Operator: JAOC
Column diameter: 0.25

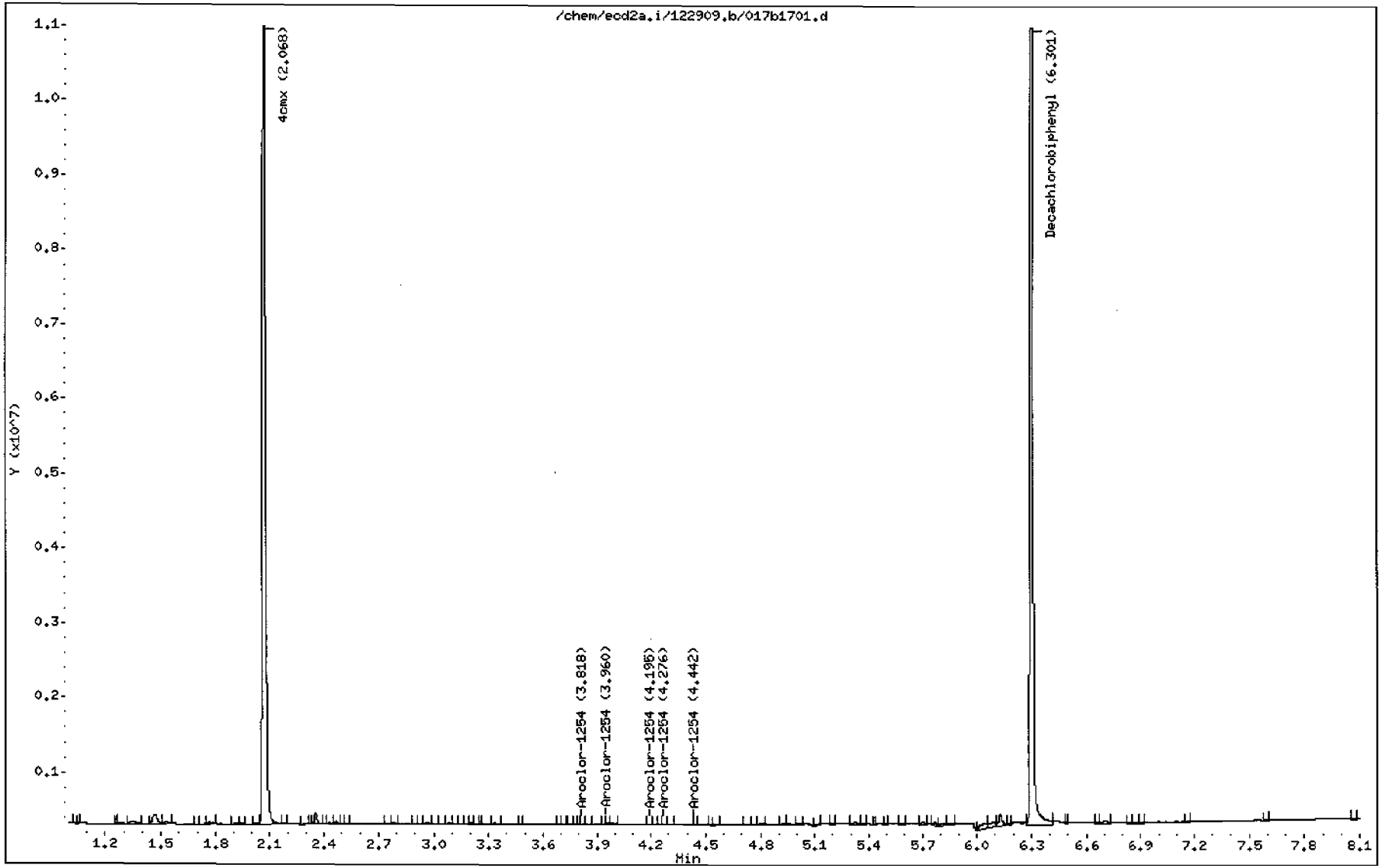

STANDARDS DATA

Report Date: 31-Dec-2009 09:15

Calibration History

Method : /chem/ecd2a.i/122909.b/ECD2-F-8082-111209A.m
Start Cal Date: 12-NOV-2009 11:00
End Cal Date : 14-DEC-2009 09:35

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 100.00000		
02-DEC-2009 07:05	AR1262	/chem/ecd2a.i/120209.b/008f0801.d
12-NOV-2009 16:22	AR1268	/chem/ecd2a.i/111209a.b/035f3501.d
30-NOV-2009 10:12	AR1248	/chem/ecd2a.i/113009a.b/011f1101.d
12-NOV-2009 14:09	AR1242	/chem/ecd2a.i/111209a.b/023f2301.d
30-NOV-2009 08:43	AR1254	/chem/ecd2a.i/113009a.b/003f0301.d
14-DEC-2009 08:51	AR1660	/chem/ecd2a.i/121409.b/011f1101.d
Cal Level: 2 , Cal Amount: 250.00000		
02-DEC-2009 07:16	AR1262	/chem/ecd2a.i/120209.b/009f0901.d
12-NOV-2009 16:33	AR1268	/chem/ecd2a.i/111209a.b/036f3601.d
30-NOV-2009 10:23	AR1248	/chem/ecd2a.i/113009a.b/012f1201.d
12-NOV-2009 14:20	AR1242	/chem/ecd2a.i/111209a.b/024f2401.d
30-NOV-2009 08:54	AR1254	/chem/ecd2a.i/113009a.b/004f0401.d
14-DEC-2009 09:02	AR1660	/chem/ecd2a.i/121409.b/012f1201.d
Cal Level: 3 , Cal Amount: 500.00000		
02-DEC-2009 07:27	AR1262	/chem/ecd2a.i/120209.b/010f1001.d
12-NOV-2009 16:44	AR1268	/chem/ecd2a.i/111209a.b/037f3701.d
30-NOV-2009 10:34	AR1248	/chem/ecd2a.i/113009a.b/013f1301.d
12-NOV-2009 14:31	AR1242	/chem/ecd2a.i/111209a.b/025f2501.d
30-NOV-2009 09:05	AR1254	/chem/ecd2a.i/113009a.b/005f0501.d
14-DEC-2009 09:13	AR1660	/chem/ecd2a.i/121409.b/013f1301.d
Cal Level: 4 , Cal Amount: 1000.00000		
30-NOV-2009 10:45	AR1248	/chem/ecd2a.i/113009a.b/014f1401.d
12-NOV-2009 14:42	AR1242	/chem/ecd2a.i/111209a.b/026f2601.d
30-NOV-2009 09:16	AR1254	/chem/ecd2a.i/113009a.b/006f0601.d
14-DEC-2009 09:24	AR1660	/chem/ecd2a.i/121409.b/014f1401.d
12-NOV-2009 11:45	DDTANALOGSTD	/chem/ecd2a.i/111209a.b/010f1001.d
12-NOV-2009 16:55	AR1268	/chem/ecd2a.i/111209a.b/038f3801.d
02-DEC-2009 07:38	AR1262	/chem/ecd2a.i/120209.b/011f1101.d
12-NOV-2009 11:11	AR1221	/chem/ecd2a.i/111209a.b/007f0701.d
12-NOV-2009 11:00	AR1232	/chem/ecd2a.i/111209a.b/006f0601.d
Cal Level: 5 , Cal Amount: 4000.00000		
02-DEC-2009 07:50	AR1262	/chem/ecd2a.i/120209.b/012f1201.d
12-NOV-2009 17:07	AR1268	/chem/ecd2a.i/111209a.b/039f3901.d
30-NOV-2009 10:56	AR1248	/chem/ecd2a.i/113009a.b/015f1501.d

12-NOV-2009 14:53	AR1242	/chem/ecd2a.i/111209a.b/027f2701.d
30-NOV-2009 09:27	AR1254	/chem/ecd2a.i/113009a.b/007f0701.d
14-DEC-2009 09:35	AR1660	/chem/ecd2a.i/121409.b/015f1501.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 1000		
29-DEC-2009 14:26	AR1660	/chem/ecd2a.i/122909.b/039f3901.d
Ccal Level: 4 , Ccal Amount: 1000		
29-DEC-2009 13:19	AR1660	/chem/ecd2a.i/122909.b/033f3301.d
Ccal Level: 4 , Ccal Amount: 1000		
29-DEC-2009 11:17	AR1660	/chem/ecd2a.i/122909.b/022f2201.d
Ccal Level: 4 , Ccal Amount: 1000		
29-DEC-2009 08:50	AR1268	/chem/ecd2a.i/122909.b/009f0901.d
Ccal Level: 4 , Ccal Amount: 1000		
29-DEC-2009 08:39	AR1262	/chem/ecd2a.i/122909.b/008f0801.d
Ccal Level: 4 , Ccal Amount: 1000		
29-DEC-2009 08:28	AR1221	/chem/ecd2a.i/122909.b/007f0701.d
Ccal Level: 4 , Ccal Amount: 1000		
29-DEC-2009 08:17	AR1232	/chem/ecd2a.i/122909.b/006f0601.d
Ccal Level: 4 , Ccal Amount: 1000		
29-DEC-2009 07:59	AR1248	/chem/ecd2a.i/122909.b/005f0501.d
Ccal Level: 4 , Ccal Amount: 1000		
29-DEC-2009 07:48	AR1242	/chem/ecd2a.i/122909.b/004f0401.d
Ccal Level: 4 , Ccal Amount: 1000		
29-DEC-2009 07:37	AR1254	/chem/ecd2a.i/122909.b/003f0301.d
Ccal Level: 4 , Ccal Amount: 1000		
29-DEC-2009 07:26	AR1660	/chem/ecd2a.i/122909.b/002f0201.d

Report Date: 31-Dec-2009 09:15

Calibration History

Method : /chem/ecd2a.i/122909.b/ECD2-B-8082-111209A.m
Start Cal Date: 12-NOV-2009 11:00
End Cal Date : 14-DEC-2009 09:35

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 100.00000		
02-DEC-2009 07:05	AR1262	/chem/ecd2a.i/120209.b/008b0801.d
12-NOV-2009 16:22	AR1268	/chem/ecd2a.i/111209a.b/035b3501.d
30-NOV-2009 10:12	AR1248	/chem/ecd2a.i/113009a.b/011b1101.d
12-NOV-2009 14:09	AR1242	/chem/ecd2a.i/111209a.b/023b2301.d
30-NOV-2009 08:43	AR1254	/chem/ecd2a.i/113009a.b/003b0301.d
14-DEC-2009 08:51	AR1660	/chem/ecd2a.i/121409.b/011b1101.d
Cal Level: 2 , Cal Amount: 250.00000		
02-DEC-2009 07:16	AR1262	/chem/ecd2a.i/120209.b/009b0901.d
12-NOV-2009 16:33	AR1268	/chem/ecd2a.i/111209a.b/036b3601.d
30-NOV-2009 10:23	AR1248	/chem/ecd2a.i/113009a.b/012b1201.d
12-NOV-2009 14:20	AR1242	/chem/ecd2a.i/111209a.b/024b2401.d
30-NOV-2009 08:54	AR1254	/chem/ecd2a.i/113009a.b/004b0401.d
14-DEC-2009 09:02	AR1660	/chem/ecd2a.i/121409.b/012b1201.d
Cal Level: 3 , Cal Amount: 500.00000		
02-DEC-2009 07:27	AR1262	/chem/ecd2a.i/120209.b/010b1001.d
12-NOV-2009 16:44	AR1268	/chem/ecd2a.i/111209a.b/037b3701.d
30-NOV-2009 10:34	AR1248	/chem/ecd2a.i/113009a.b/013b1301.d
12-NOV-2009 14:31	AR1242	/chem/ecd2a.i/111209a.b/025b2501.d
30-NOV-2009 09:05	AR1254	/chem/ecd2a.i/113009a.b/005b0501.d
14-DEC-2009 09:13	AR1660	/chem/ecd2a.i/121409.b/013b1301.d
Cal Level: 4 , Cal Amount: 1000.00000		
30-NOV-2009 10:45	AR1248	/chem/ecd2a.i/113009a.b/014b1401.d
12-NOV-2009 14:42	AR1242	/chem/ecd2a.i/111209a.b/026b2601.d
30-NOV-2009 09:16	AR1254	/chem/ecd2a.i/113009a.b/006b0601.d
14-DEC-2009 09:24	AR1660	/chem/ecd2a.i/121409.b/014b1401.d
12-NOV-2009 11:45	DDTANALOGSTD	/chem/ecd2a.i/111209a.b/010b1001.d
12-NOV-2009 16:55	AR1268	/chem/ecd2a.i/111209a.b/038b3801.d
02-DEC-2009 07:38	AR1262	/chem/ecd2a.i/120209.b/011b1101.d
12-NOV-2009 11:11	AR1221	/chem/ecd2a.i/111209a.b/007b0701.d
12-NOV-2009 11:00	AR1232	/chem/ecd2a.i/111209a.b/006b0601.d
Cal Level: 5 , Cal Amount: 4000.00000		
02-DEC-2009 07:50	AR1262	/chem/ecd2a.i/120209.b/012b1201.d
12-NOV-2009 17:07	AR1268	/chem/ecd2a.i/111209a.b/039b3901.d
30-NOV-2009 10:56	AR1248	/chem/ecd2a.i/113009a.b/015b1501.d
12-NOV-2009 14:53	AR1242	/chem/ecd2a.i/111209a.b/027b2701.d
30-NOV-2009 09:27	AR1254	/chem/ecd2a.i/113009a.b/007b0701.d
14-DEC-2009 09:35	AR1660	/chem/ecd2a.i/121409.b/015b1501.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 1000		
29-DEC-2009 14:26	AR1660	/chem/ecd2a.i/122909.b/039b3901.d
Ccal Level: 4 , Ccal Amount: 1000		
29-DEC-2009 13:19	AR1660	/chem/ecd2a.i/122909.b/033b3301.d
Ccal Level: 4 , Ccal Amount: 1000		
29-DEC-2009 11:17	AR1660	/chem/ecd2a.i/122909.b/022b2201.d
Ccal Level: 4 , Ccal Amount: 1000		
29-DEC-2009 08:17	AR1232	/chem/ecd2a.i/122909.b/006b0601.d
Ccal Level: 4 , Ccal Amount: 1000		
29-DEC-2009 07:59	AR1248	/chem/ecd2a.i/122909.b/005b0501.d
Ccal Level: 4 , Ccal Amount: 1000		
29-DEC-2009 07:48	AR1242	/chem/ecd2a.i/122909.b/004b0401.d
Ccal Level: 4 , Ccal Amount: 1000		
29-DEC-2009 07:37	AR1254	/chem/ecd2a.i/122909.b/003b0301.d
Ccal Level: 4 , Ccal Amount: 1000		
29-DEC-2009 07:26	AR1660	/chem/ecd2a.i/122909.b/002b0201.d
Ccal Level: 4 , Ccal Amount: 1000		
29-DEC-2009 08:50	AR1268	/chem/ecd2a.i/122909.b/009b0901.d
Ccal Level: 4 , Ccal Amount: 1000		
29-DEC-2009 08:39	AR1262	/chem/ecd2a.i/122909.b/008b0801.d
Ccal Level: 4 , Ccal Amount: 1000		
29-DEC-2009 08:28	AR1221	/chem/ecd2a.i/122909.b/007b0701.d

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd2a.i/122909.b/ECD2-F-8082-111209A.m
Quant Method : ESTD Target Version : 3.50
Last Update : 29-Dec-2009 14:49 Number of Cpnds : 15
Data Type : GC MULTI COMP

Global Integrator : Falcon

Chromat Events	Values
Initial:Start Threshold	500.000000
Initial:End Threshold	250.000000
Initial:Area Threshold	10000.000000
Initial:P-P Resolution	1.000000
Initial:Bunch Factor	2.000000
Initial:Negative Peaks	OFF
Initial:Tension	1.100000
8.500:Bunch Factor	2.000000

Compound	RT	RT Window	RF
1 Aroclor-1016	2.273	2.243-2.303	2.238e+03
	2.597	2.567-2.627	4.685e+03
	2.688	2.658-2.718	1.901e+03
	2.823	2.793-2.853	9.760e+02
	2.974	2.944-3.004	1.458e+03
2 Aroclor-1221	1.436	1.406-1.466	4.641e+02
	1.898	1.868-1.928	6.570e+02
	1.997	1.967-2.027	3.467e+02
3 Aroclor-1232	2.027	1.997-2.057	1.165e+03
	2.277	2.247-2.307	9.314e+02
	2.693	2.663-2.723	8.004e+02
	2.736	2.706-2.766	5.102e+02
	2.981	2.951-3.011	5.840e+02
4 Aroclor-1242	2.274	2.244-2.304	1.733e+03
	2.689	2.659-2.719	1.484e+03
	2.731	2.701-2.761	9.058e+02
	2.824	2.794-2.854	7.269e+02
	2.976	2.946-3.006	1.120e+03
5 Aroclor-1248	2.825	2.795-2.855	1.527e+03
	2.975	2.945-3.005	2.027e+03
	3.035	3.005-3.065	1.571e+03
	3.270	3.240-3.300	2.218e+03
	3.424	3.394-3.454	1.913e+03

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd2a.i/122909.b/ECD2-F-8082-111209A.m

	Compound	RT	RT Window	RF
	6 Aroclor-1254	3.242	3.212-3.272	2.080e+03
		3.424	3.394-3.454	2.772e+03
		3.694	3.664-3.724	3.742e+03
		3.886	3.856-3.916	2.783e+03
		4.015	3.985-4.045	2.760e+03
	7 Aroclor-1260	4.014	3.984-4.044	4.165e+03
		4.286	4.256-4.316	2.591e+03
		4.451	4.421-4.481	2.631e+03
		4.664	4.634-4.694	6.088e+03
		4.853	4.823-4.883	2.942e+03
	8 Aroclor-1262	3.824	3.794-3.854	2.273e+03
		4.017	3.987-4.047	3.072e+03
		4.288	4.258-4.318	4.004e+03
		4.453	4.423-4.483	3.573e+03
		4.856	4.826-4.886	2.501e+03
	9 Aroclor-1268	4.884	4.854-4.914	9.392e+03
		4.910	4.880-4.940	9.361e+03
		5.043	5.013-5.073	7.073e+03
		5.281	5.251-5.311	3.056e+03
		5.478	5.448-5.508	2.201e+04
M	10 Aroclor-Total	1.000	0.980-1.020	
$	11 4cmx	1.771	1.741-1.801	6.229e+04
$	12 Decachlorobiphenyl	5.607	5.577-5.637	5.411e+04
	13 4,4'-DDT	4.229	4.209-4.249	5.006e+04
	14 4,4'-DDD	4.036	4.016-4.056	7.298e+04
	15 4,4'-DDE	3.632	3.612-3.652	7.426e+04

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd2a.i/122909.b/ECD2-B-8082-111209A.m
Quant Method : ESTD Target Version : 3.50
Last Update : 29-Dec-2009 14:47 Number of Cpnds : 15
Data Type : GC MULTI COMP

Global Integrator : Falcon

Chromat Events	Values
Initial:Start Threshold	1000.000000
Initial:End Threshold	500.000000
Initial:Area Threshold	500.000000
Initial:P-P Resolution	0.000000
Initial:Bunch Factor	3.000000
Initial:Negative Peaks	OFF
Initial:Tension	4.000000
4.200:Tension	1.000000

Compound	RT	RT Window	RF
1 Aroclor-1016	2.745	2.715-2.775	4.538e+03
	3.179	3.149-3.209	3.602e+03
	3.330	3.300-3.360	2.053e+03
	3.359	3.329-3.389	2.137e+03
	3.518	3.488-3.548	2.871e+03
2 Aroclor-1221	2.292	2.262-2.322	1.263e+03
	2.397	2.367-2.427	7.739e+02
	2.442	2.412-2.472	3.051e+03
3 Aroclor-1232	2.442	2.412-2.472	2.061e+03
	2.747	2.717-2.777	1.960e+03
	3.183	3.153-3.213	1.498e+03
	3.254	3.224-3.284	9.309e+02
	3.521	3.491-3.551	1.107e+03
4 Aroclor-1242	2.746	2.716-2.776	3.445e+03
	3.181	3.151-3.211	2.681e+03
	3.253	3.223-3.283	1.637e+03
	3.331	3.301-3.361	1.508e+03
	3.518	3.488-3.548	2.145e+03
5 Aroclor-1248	3.332	3.302-3.362	3.282e+03
	3.519	3.489-3.549	4.187e+03
	3.605	3.575-3.635	4.451e+03
	3.795	3.765-3.825	4.697e+03
	3.824	3.794-3.854	5.389e+03

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd2a.i/122909.b/ECD2-B-8082-111209A.m

	Compound	RT	RT Window	RF
	6 Aroclor-1254	3.818	3.788-3.848	4.985e+03
		3.959	3.929-3.989	5.799e+03
		4.196	4.166-4.226	4.023e+03
		4.277	4.247-4.307	7.731e+03
		4.440	4.410-4.470	5.608e+03
	7 Aroclor-1260	4.414	4.384-4.444	5.767e+03
		4.565	4.535-4.595	7.124e+03
		4.677	4.647-4.707	4.819e+03
		4.874	4.844-4.904	5.632e+03
		5.500	5.470-5.530	9.038e+03
	8 Aroclor-1262	4.415	4.385-4.445	4.703e+03
		4.567	4.537-4.597	5.853e+03
		4.875	4.845-4.905	8.946e+03
		5.076	5.046-5.106	7.772e+03
		5.254	5.224-5.284	1.672e+04
	9 Aroclor-1268	5.498	5.468-5.528	2.032e+04
		5.531	5.501-5.561	2.018e+04
		5.703	5.673-5.733	1.496e+04
		5.903	5.873-5.933	6.438e+03
		6.127	6.097-6.157	4.409e+04
M	10 Aroclor-Total	1.000	0.980-1.020	
$	11 4cmx	2.068	2.038-2.098	1.293e+05
$	12 Decachlorobiphenyl	6.300	6.270-6.330	1.128e+05
	13 4,4'-DDT	4.814	4.794-4.834	8.705e+04
	14 4,4'-DDD	4.600	4.580-4.620	1.499e+05
	15 4,4'-DDE	4.195	4.175-4.215	1.504e+05

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 12-NOV-2009 11:00
End Cal Date : 14-DEC-2009 09:35
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd2a.i/122909.b/ECD2-F-8082-111209A.m
Cal Date : 29-Dec-2009 14:49 jen01212
Curve Type : Average

Calibration File Names:
Level 1: /chem/ecd2a.i/120209.b/008f0801.d
Level 2: /chem/ecd2a.i/120209.b/009f0901.d
Level 3: /chem/ecd2a.i/120209.b/010f1001.d
Level 4: /chem/ecd2a.i/113009a.b/014f1401.d
Level 5: /chem/ecd2a.i/120209.b/012f1201.d

Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
1 Aroclor-1016(1)	2466	2335	2250	2152	1986	2238	8.133
(2)	4869	4683	4664	4616	4594	4685	2.323
(3)	2072	1962	1892	1818	1764	1901	6.365
(4)	1061	990	984	930	915	976	5.885
(5)	1595	1490	1441	1389	1375	1458	6.121
2 Aroclor-1221(1)	+++++	+++++	+++++	464	+++++	464	0.000
(2)	+++++	+++++	+++++	657	+++++	657	0.000
(3)	+++++	+++++	+++++	347	+++++	347	0.000
3 Aroclor-1232(1)	+++++	+++++	+++++	1165	+++++	1165	0.000
(2)	+++++	+++++	+++++	931	+++++	931	0.000
(3)	+++++	+++++	+++++	800	+++++	800	0.000
(4)	+++++	+++++	+++++	510	+++++	510	0.000
(5)	+++++	+++++	+++++	584	+++++	584	0.000
4 Aroclor-1242(1)	1990	1799	1692	1619	1566	1733	9.686
(2)	1678	1536	1439	1387	1381	1484	8.410
(3)	1015	931	874	843	866	906	7.639
(4)	817	761	714	669	673	727	8.615
(5)	1272	1143	1059	1036	1087	1120	8.434
5 Aroclor-1248(1)	1738	1529	1527	1515	1325	1527	9.560
(2)	2238	2070	1990	2006	1832	2027	7.247
(3)	1706	1611	1571	1551	1415	1571	6.718
(4)	2322	2198	2161	2230	2178	2218	2.874
(5)	2083	1922	1902	1885	1770	1913	5.861
6 Aroclor-1254(1)	2304	2118	2048	2007	1924	2080	6.888
(2)	2981	2797	2739	2702	2642	2772	4.677
(3)	3870	3712	3711	3744	3675	3742	2.011
(4)	2886	2776	2725	2760	2767	2783	2.186
(5)	2994	2820	2741	2711	2533	2760	6.080

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 12-NOV-2009 11:00
End Cal Date : 14-DEC-2009 09:35
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd2a.i/122909.b/ECD2-F-8082-111209A.m
Cal Date : 29-Dec-2009 14:49 jen01212
Curve Type : Average

	Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	___ RRF	% RSD
	7 Aroclor-1260(1)	4187	4145	4185	4134	4175	4165	0.584
	(2)	2696	2603	2589	2529	2536	2591	2.593
	(3)	2699	2626	2625	2591	2614	2631	1.539
	(4)	5867	6003	6142	6129	6296	6088	2.650
	(5)	2925	2904	2929	2920	3034	2942	1.769
	8 Aroclor-1262(1)	2530	2266	2239	2239	2092	2273	6.993
	(2)	3295	3066	3031	3051	2917	3072	4.482
	(3)	4237	3997	3977	3997	3815	4004	3.763
	(4)	3754	3532	3556	3594	3430	3573	3.295
	(5)	2578	2453	2481	2538	2454	2501	2.217
	9 Aroclor-1268(1)	9077	9136	9272	9373	10103	9392	4.409
	(2)	9332	9272	9238	9197	9765	9361	2.470
	(3)	6985	6923	6953	6984	7523	7073	3.568
	(4)	3112	3015	2984	2964	3207	3056	3.331
	(5)	21397	21592	21760	21851	23464	22013	3.767
M	10 Aroclor-Total	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	13 4,4'-DDT	+++++	+++++	+++++	50063	+++++	50063	0.000
	14 4,4'-DDD	+++++	+++++	+++++	72978	+++++	72978	0.000
	15 4,4'-DDE	+++++	+++++	+++++	74262	+++++	74262	0.000
$	11 4cmx	61300	61246	62868	63075	62969	62292	1.498
$	12 Decachlorobiphenyl	55102	53352	54400	53360	54345	54112	1.389

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 12-NOV-2009 11:00
End Cal Date : 14-DEC-2009 09:35
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd2a.i/122909.b/ECD2-B-8082-111209A.m
Cal Date : 29-Dec-2009 14:47 jen01212
Curve Type : Average

Calibration File Names:
Level 1: /chem/ecd2a.i/120209.b/008b0801.d
Level 2: /chem/ecd2a.i/120209.b/009b0901.d
Level 3: /chem/ecd2a.i/120209.b/010b1001.d
Level 4: /chem/ecd2a.i/113009a.b/014b1401.d
Level 5: /chem/ecd2a.i/120209.b/012b1201.d

Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
1 Aroclor-1016(1)	4662	4582	4609	4551	4285	4538	3.244
(2)	3647	3696	3564	3575	3528	3602	1.886
(3)	2078	2044	2044	2059	2041	2053	0.760
(4)	2149	2125	2133	2140	2138	2137	0.428
(5)	2852	2832	2882	2908	2879	2871	1.025
2 Aroclor-1221(1)	+++++	+++++	+++++	1263	+++++	1263	0.000
(2)	+++++	+++++	+++++	774	+++++	774	0.000
(3)	+++++	+++++	+++++	3051	+++++	3051	0.000
3 Aroclor-1232(1)	+++++	+++++	+++++	2061	+++++	2061	0.000
(2)	+++++	+++++	+++++	1960	+++++	1960	0.000
(3)	+++++	+++++	+++++	1498	+++++	1498	0.000
(4)	+++++	+++++	+++++	931	+++++	931	0.000
(5)	+++++	+++++	+++++	1107	+++++	1107	0.000
4 Aroclor-1242(1)	3674	3489	3409	3384	3271	3445	4.346
(2)	2815	2677	2634	2637	2644	2681	2.863
(3)	1696	1624	1594	1606	1663	1637	2.599
(4)	1601	1513	1471	1467	1487	1508	3.655
(5)	2235	2100	2068	2141	2180	2145	3.068
5 Aroclor-1248(1)	3439	3315	3263	3296	3099	3282	3.723
(2)	4291	4205	4192	4250	3996	4187	2.717
(3)	4601	4495	4377	4484	4299	4451	2.609
(4)	4665	4612	4696	4831	4682	4697	1.733
(5)	5471	5399	5390	5477	5208	5389	2.022
6 Aroclor-1254(1)	5121	4955	4998	5025	4828	4985	2.145
(2)	5885	5693	5812	5852	5753	5799	1.330
(3)	4010	3906	3992	4126	4082	4023	2.109
(4)	7559	7611	7766	7925	7797	7731	1.909
(5)	5659	5569	5439	5821	5553	5608	2.538

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 12-NOV-2009 11:00
End Cal Date : 14-DEC-2009 09:35
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd2a.i/122909.b/ECD2-B-8082-111209A.m
Cal Date : 29-Dec-2009 14:47 jen01212
Curve Type : Average

Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
7 Aroclor-1260(1)	5735	5627	5779	5816	5877	5767	1.626
(2)	6687	7031	7243	7286	7372	7124	3.855
(3)	4572	4701	4890	4942	4988	4819	3.647
(4)	5377	5518	5714	5746	5803	5632	3.163
(5)	8369	8607	9231	9252	9728	9038	6.039
8 Aroclor-1262(1)	4855	4536	4634	4812	4677	4703	2.776
(2)	5760	5648	5834	6083	5942	5853	2.859
(3)	8687	8674	9001	9349	9021	8946	3.121
(4)	7559	7507	7790	8124	7880	7772	3.221
(5)	15890	16154	16824	17584	17141	16719	4.167
9 Aroclor-1268(1)	18829	19584	20101	20533	22559	20321	6.904
(2)	18822	19343	20333	20389	22025	20182	6.077
(3)	13874	14365	14864	15141	16565	14962	6.808
(4)	5734	6115	6404	6840	7097	6438	8.497
(5)	40707	42777	43856	44408	48724	44094	6.689
M 10 Aroclor-Total	+++++	+++++	+++++	+++++	+++++	+++++	+++++
13 4,4'-DDT	+++++	+++++	+++++	87046	+++++	87046	0.000
14 4,4'-DDD	+++++	+++++	+++++	149858	+++++	149858	0.000
15 4,4'-DDE	+++++	+++++	+++++	150414	+++++	150414	0.000
$ 11 4cmx	118604	126358	131414	133891	136323	129318	5.440
$ 12 Decachlorobiphenyl	109662	108705	113295	113170	119083	112783	3.614

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1057

Instrument ID: ECD2A Calibration Date: 12/29/09 Time: 0726

Lab File ID: 002F0201 Init. Calib. Date(s): 12/14/09 12/14/09

Heated Purge: (Y/N) N Init. Calib. Times: 0851 0935

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	2237.690	1979.810	0.01	-11.5	15.0
(2)	4685.268	4181.732	0.01	-10.7	15.0
(3)	1901.482	1665.482	0.01	-12.4	15.0
(4)	975.978	854.977	0.01	-12.4	15.0
(5)	1457.866	1264.967	0.01	-13.2	15.0
Aroclor-1260	4165.097	4064.277	0.01	-2.4	15.0
(2)	2590.571	2586.356	0.01	-0.2	15.0
(3)	2631.205	2655.669	0.01	0.9	15.0
(4)	6087.596	6276.714	0.01	3.1	15.0
(5)	2942.150	3010.974	0.01	2.3	15.0
4cmx	62291.660	63833.220	0.01	2.5	15.0
Decachlorobiphenyl	54111.563	60710.230	0.01	12.2	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1057

Instrument ID: ECD2A Calibration Date: 12/29/09 Time: 0726

Lab File ID: 002B0201 Init. Calib. Date(s): 12/14/09 12/14/09

Heated Purge: (Y/N) N Init. Calib. Times: 0851 0935

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	4537.819	4194.660	0.01	-7.6	15.0
(2)	3602.166	3292.312	0.01	-8.6	15.0
(3)	2053.230	1911.309	0.01	-6.9	15.0
(4)	2137.091	2011.780	0.01	-5.9	15.0
(5)	2870.516	2685.788	0.01	-6.4	15.0
Aroclor-1260	5766.921	5686.021	0.01	-1.4	15.0
(2)	7123.891	7269.875	0.01	2.0	15.0
(3)	4818.707	4996.379	0.01	3.7	15.0
(4)	5631.757	5755.064	0.01	2.2	15.0
(5)	9037.511	9498.759	0.01	5.1	15.0
4cmx	129318.03	138216.34	0.01	6.9	15.0
Decachlorobiphenyl	112782.99	128323.67	0.01	13.8	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1057

Instrument ID: ECD2A Calibration Date: 12/29/09 Time: 1117

Lab File ID: 022F2201 Init. Calib. Date(s): 12/14/09 12/14/09

Heated Purge: (Y/N) N Init. Calib. Times: 0851 0935

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	2237.690	2015.417	0.01	-9.9	15.0
(2)	4685.268	4292.741	0.01	-8.4	15.0
(3)	1901.482	1720.292	0.01	-9.5	15.0
(4)	975.978	868.251	0.01	-11.0	15.0
(5)	1457.866	1328.140	0.01	-8.9	15.0
Aroclor-1260	4165.097	4128.858	0.01	-0.9	15.0
(2)	2590.571	2595.442	0.01	0.2	15.0
(3)	2631.205	2674.422	0.01	1.6	15.0
(4)	6087.596	6344.394	0.01	4.2	15.0
(5)	2942.150	3057.700	0.01	3.9	15.0
4cmx	62291.660	64591.400	0.01	3.7	15.0
Decachlorobiphenyl	54111.563	59777.760	0.01	10.5	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1057

Instrument ID: ECD2A Calibration Date: 12/29/09 Time: 1117

Lab File ID: 022B2201 Init. Calib. Date(s): 12/14/09 12/14/09

Heated Purge: (Y/N) N Init. Calib. Times: 0851 0935

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	4537.819	4206.631	0.01	-7.3	15.0
(2)	3602.166	3357.192	0.01	-6.8	15.0
(3)	2053.230	1937.576	0.01	-5.6	15.0
(4)	2137.091	2015.700	0.01	-5.7	15.0
(5)	2870.516	2726.459	0.01	-5.0	15.0
Aroclor-1260	5766.921	5723.117	0.01	-0.8	15.0
(2)	7123.891	7231.224	0.01	1.5	15.0
(3)	4818.707	4952.700	0.01	2.8	15.0
(4)	5631.757	5709.014	0.01	1.4	15.0
(5)	9037.511	9420.244	0.01	4.2	15.0
4cmx	129318.03	138965.45	0.01	7.5	15.0
Decachlorobiphenyl	112782.99	126206.43	0.01	11.9	15.0

FORM VII PEST

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/122909.b/002f0201.d
Lab Smp Id: WAR091211-60 01 Client Smp ID: AR166001
Inj Date : 29-DEC-2009 07:26
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |WAR091211-60 01
Misc Info : |PCB_CVS|1660||CVS|
Comment :
Method : /chem/ecd2a.i/122909.b/ECD2-F-8082-111209A.m
Meth Date : 29-Dec-2009 13:37 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012f1201.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.771	1.771	0.000	6383322	100.000	102	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.607	5.607	0.000	6071023	100.000	112	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.273	2.273	0.000	1979809	1000.00	885	80.00- 120.00	100.00
2.597	2.597	0.000	4181731	1000.00	892	192.49- 232.49	211.22
2.688	2.688	0.000	1665482	1000.00	876	64.38- 104.38	84.12
2.823	2.823	0.000	854976	1000.00	876	22.92- 62.92	43.18
2.974	2.974	0.000	1264967	1000.00	868	43.84- 83.84	63.89
Average of Peak Amounts =					879		
7 Aroclor-1260					CAS #: 11096-82-5		
4.014	4.014	0.000	4064277	1000.00	976	80.00- 120.00	100.00
4.286	4.286	0.000	2586356	1000.00	998	42.56- 82.56	63.64
4.451	4.451	0.000	2655669	1000.00	1010	44.13- 84.13	65.34
4.664	4.664	0.000	6276714	1000.00	1030	133.57- 173.57	154.44
4.853	4.853	0.000	3010973	1000.00	1020	53.66- 93.66	74.08
Average of Peak Amounts =					1.01e+03		

Data File: /chem/ecd2a.i/122909.b/002f0201.d
Date : 29-DEC-2009 07:26
Client ID: AR166001
Sample Info: IWAR091211-60 01
Column phase: CLP1

Instrument: ecd2a.i
Operator: JAOC
Column diameter: 0.25

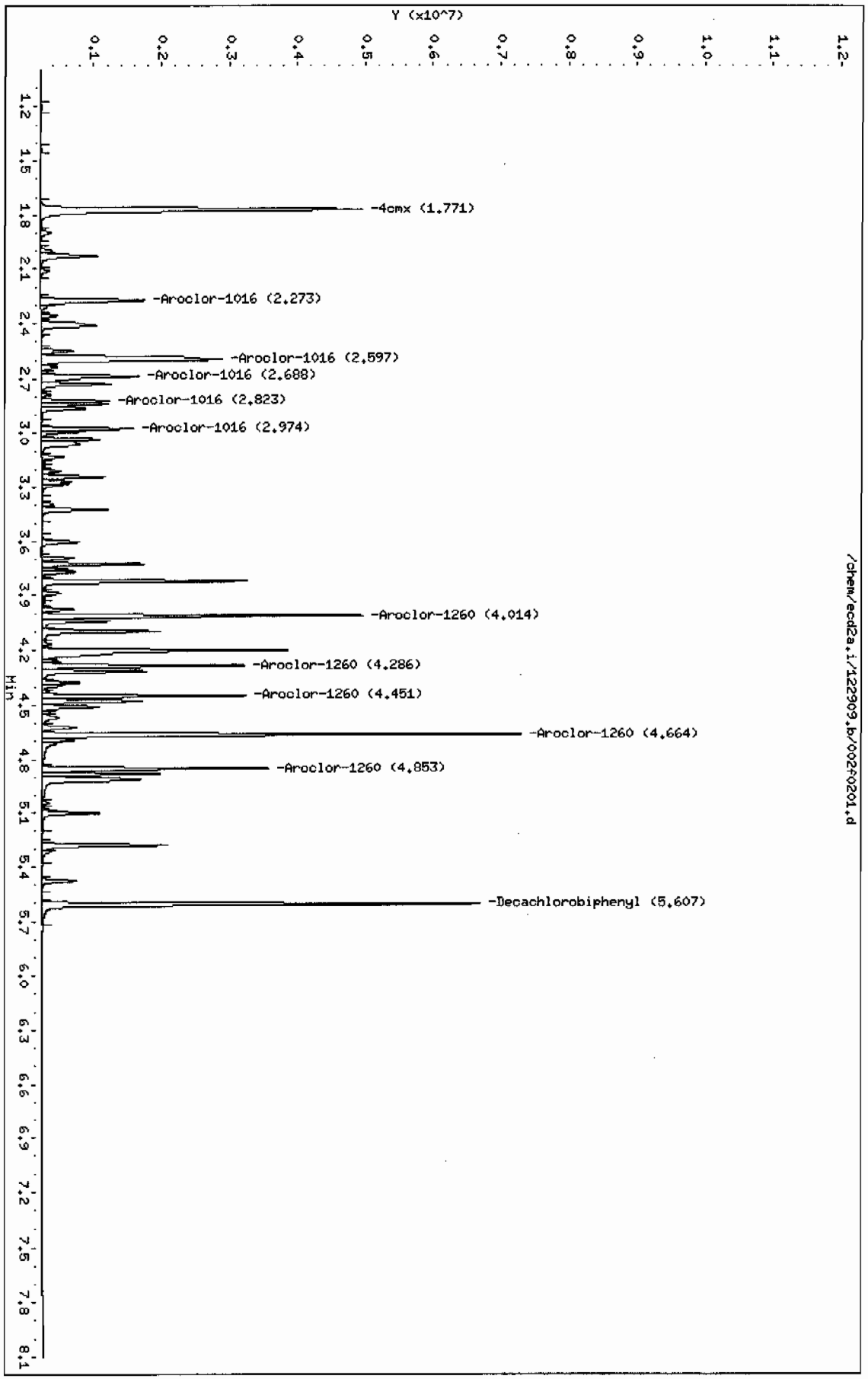

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RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/122909.b/002b0201.d
Lab Smp Id: WAR091211-60 01 Client Smp ID: AR166001
Inj Date : 29-DEC-2009 07:26
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |WAR091211-60 01
Misc Info : |PCB_CVS|1660||CVS|
Comment :
Method : /chem/ecd2a.i/122909.b/ECD2-B-8082-111209A.m
Meth Date : 29-Dec-2009 14:41 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012b1201.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
11 4cmx					CAS #: 877-09-8		
2.068	2.068	0.000	13821634	100.000	107	80.00- 120.00	100.00
12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.300	6.300	0.000	12832367	100.000	114	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.745	2.745	0.000	4194660	1000.00	924	80.00- 120.00	100.00
3.179	3.179	0.000	3292312	1000.00	914	58.49- 98.49	78.49
3.330	3.330	0.000	1911309	1000.00	931	25.57- 65.57	45.57
3.359	3.359	0.000	2011780	1000.00	941	27.96- 67.96	47.96
3.518	3.518	0.000	2685788	1000.00	936	44.03- 84.03	64.03
Average of Peak Amounts =					929		
7 Aroclor-1260					CAS #: 11096-82-5		
4.414	4.414	0.000	5686021	1000.00	986	80.00- 120.00	100.00
4.565	4.565	0.000	7269875	1000.00	1020	107.86- 147.86	127.86
4.677	4.677	0.000	4996379	1000.00	1040	67.87- 107.87	87.87
4.874	4.874	0.000	5755064	1000.00	1020	81.21- 121.21	101.21
5.500	5.500	0.000	9498759	1000.00	1050	147.05- 187.05	167.05
Average of Peak Amounts =					1.02e+03		

Data File: /chem/ecd2a.i/122909.b/002b0201.d
Date : 29-DEC-2009 07:26
Client ID: AR166001
Sample Info: IWAR091211-60 01

Column phase: CLP2

Instrument: ecd2a.i

Operator: JAOC
Column diameter: 0.25

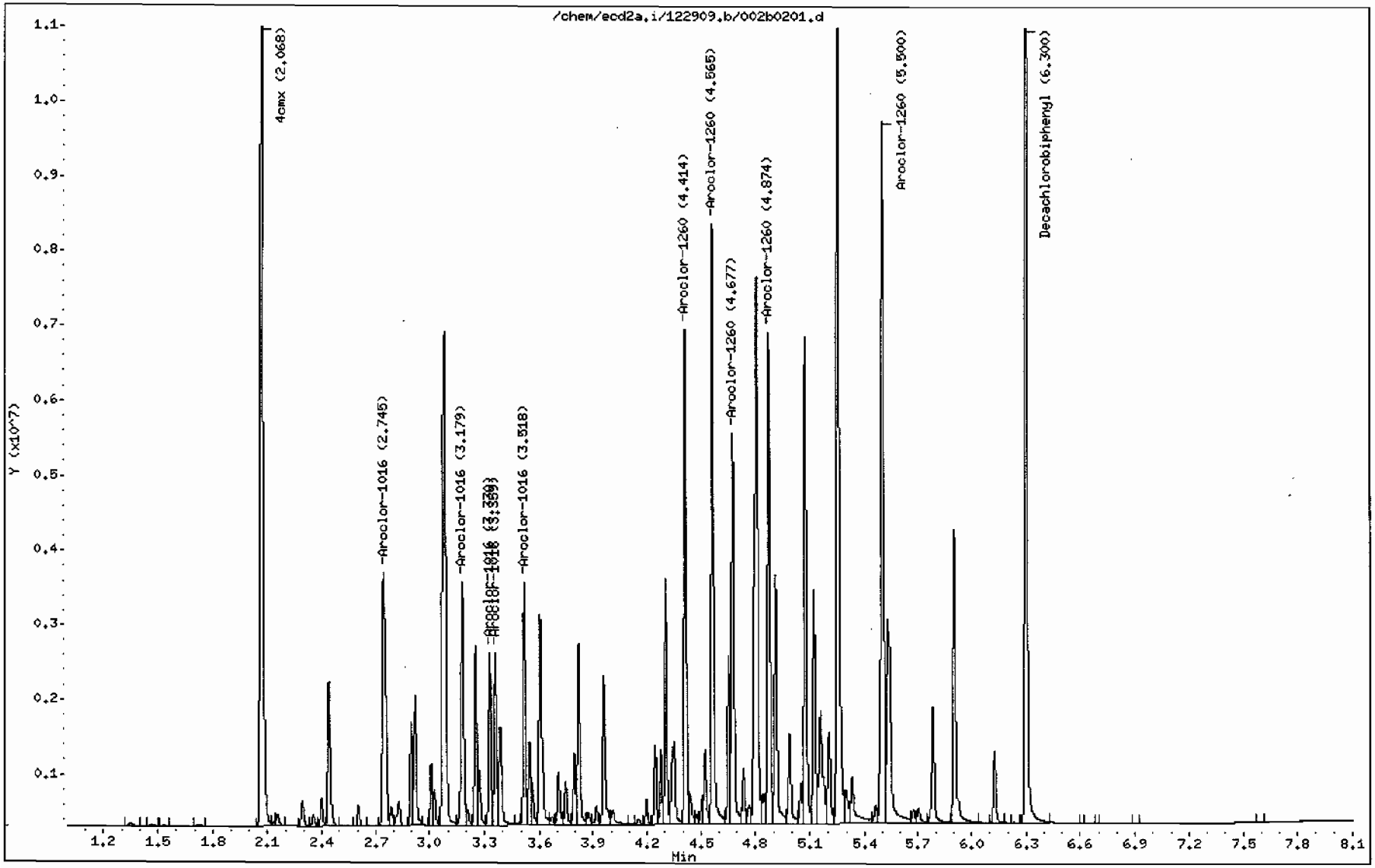

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RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/122909.b/003f0301.d
Lab Smp Id: WAR091216-54 Client Smp ID: AR125401
Inj Date : 29-DEC-2009 07:37
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |WAR091216-54
Misc Info : |PCB_CVS|1254||CVS|
Comment :
Method : /chem/ecd2a.i/122909.b/ECD2-F-8082-111209A.m
Meth Date : 29-Dec-2009 13:37 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012f1201.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1254.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.771	1.771	0.000	6744893	100.000	108	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.608	5.607	0.001	6435687	100.000	119	80.00- 120.00	100.00
6 Aroclor-1254					CAS #: 11097-69-1		
3.242	3.242	0.000	1956242	1000.00	940	80.00- 120.00	100.00
3.424	3.424	0.000	2598080	1000.00	937	112.81- 152.81	132.81
3.694	3.694	0.000	3579085	1000.00	956	162.96- 202.96	182.96
3.886	3.886	0.000	2609855	1000.00	938	113.41- 153.41	133.41
4.015	4.015	0.000	2682182	1000.00	972	117.11- 157.11	137.11
		Average of Peak Amounts =			949		

Data File: /chem/ecd2a.i/122909.b/003f0301.d
Date : 29-DEC-2009 07:37
Client ID: AR125401
Sample Info: IWAR091216-54

Column phase: CLP1

Instrument: ecd2a.i

Operator: JAOC
Column diameter: 0.25

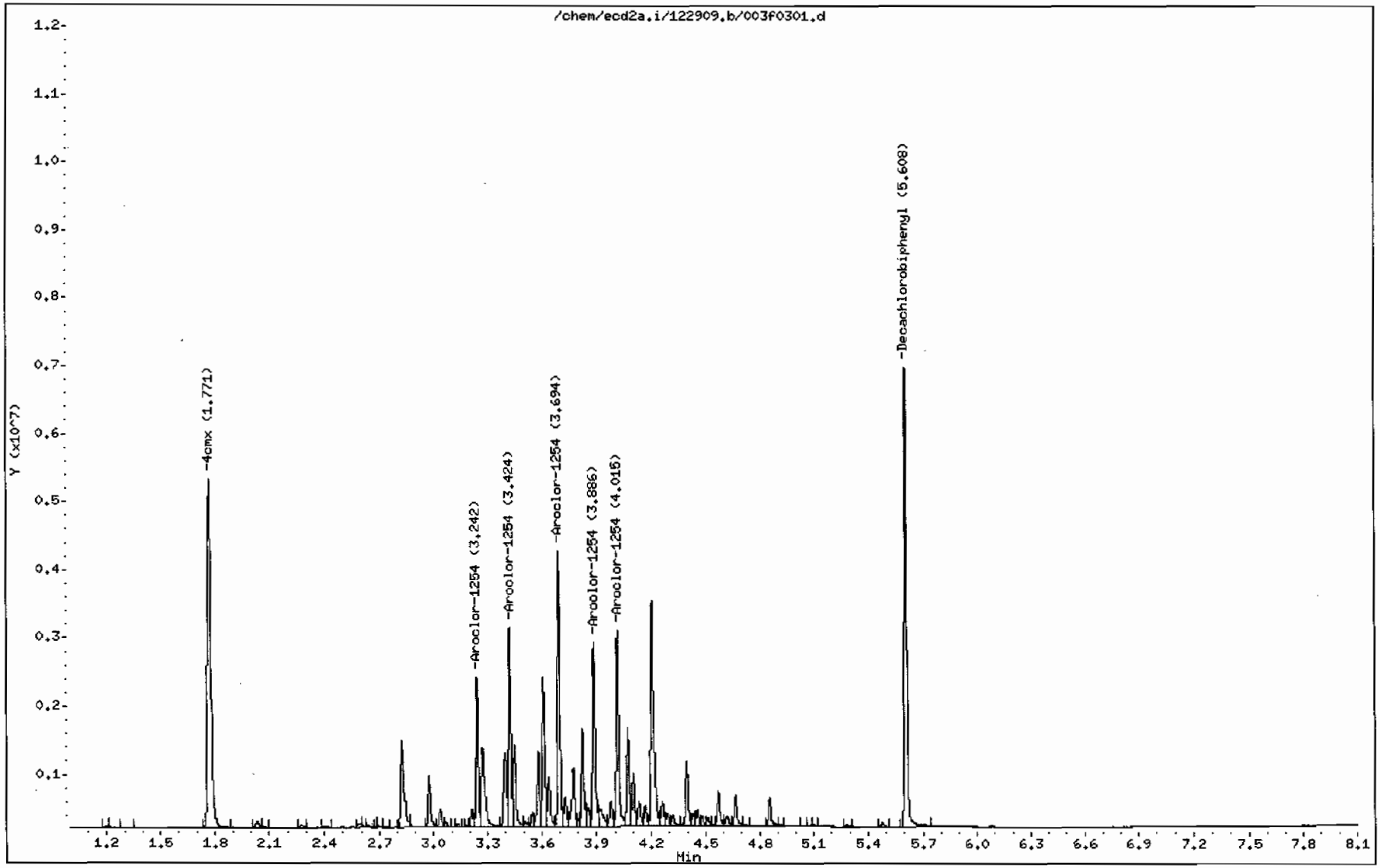

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RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/122909.b/003b0301.d
Lab Smp Id: WAR091216-54 Client Smp ID: AR125401
Inj Date : 29-DEC-2009 07:37
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |WAR091216-54
Misc Info : |PCB_CVS|1254||CVS|
Comment :
Method : /chem/ecd2a.i/122909.b/ECD2-B-8082-111209A.m
Meth Date : 29-Dec-2009 14:42 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012b1201.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1254.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.068	2.068	0.000	14704314	100.000	114	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.301	6.300	0.001	13560839	100.000	120	80.00- 120.00	100.00
6 Aroclor-1254					CAS #: 11097-69-1		
3.818	3.818	0.000	4876217	1000.00	978	80.00- 120.00	100.00
3.959	3.959	0.000	5566214	1000.00	960	94.15- 134.15	114.15
4.196	4.196	0.000	3977097	1000.00	988	61.56- 101.56	81.56
4.277	4.277	0.000	7608694	1000.00	984	136.04- 176.04	156.04
4.440	4.440	0.000	5544908	1000.00	989	93.71- 133.71	113.71
Average of Peak Amounts =					980		

Data File: /chem/ecd2a.i/122909.b/003b0301.d
Date : 29-DEC-2009 07:37
Client ID: AR125401
Sample Info: !WAR091216-54

Column phase: CLP2

Page 1

Instrument: ecd2a.i

Operator: JAOC
Column diameter: 0.25

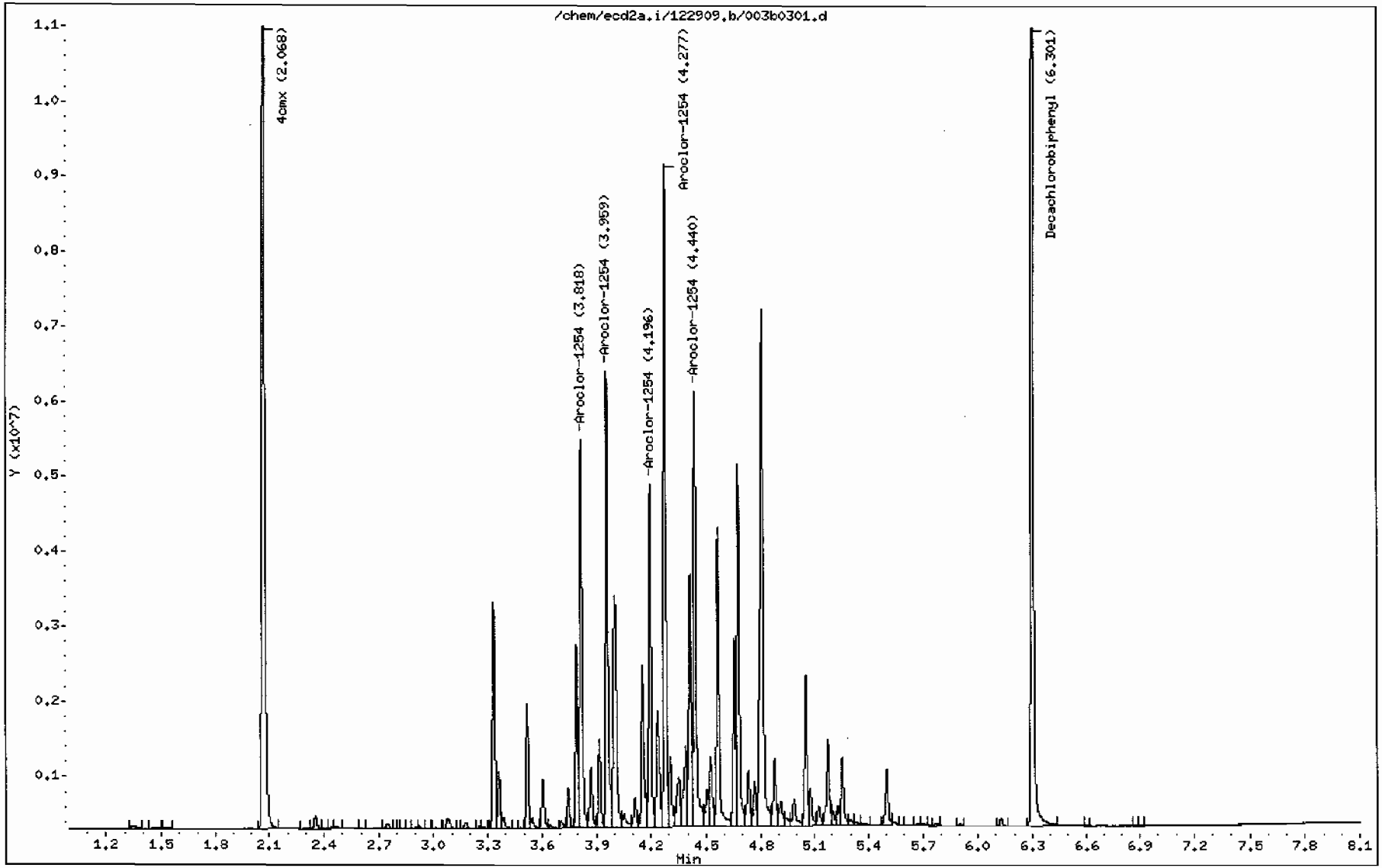

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RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/122909.b/004f0401.d
Lab Smp Id: WAR091217-42 Client Smp ID: AR124201
Inj Date : 29-DEC-2009 07:48
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |WAR091217-42
Misc Info : |PCB_CVS|1242||CVS|
Comment :
Method : /chem/ecd2a.i/122909.b/ECD2-F-8082-111209A.m
Meth Date : 29-Dec-2009 13:37 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012f1201.d
Als bottle: 4 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1242.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.771	1.771	0.000	6773785	100.000	109	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.609	5.607	0.002	6474825	100.000	120	80.00- 120.00	100.00
4 Aroclor-1242					CAS #: 53469-21-9		
2.274	2.274	0.000	1765815	1000.00	1020	80.00- 120.00	100.00
2.689	2.689	0.000	1458150	1000.00	982	62.58- 102.58	82.58
2.731	2.731	0.000	900745	1000.00	994	31.01- 71.01	51.01
2.824	2.824	0.000	710651	1000.00	978	20.24- 60.24	40.24
2.976	2.976	0.000	1119351	1000.00	1000	43.39- 83.39	63.39
Average of Peak Amounts =					995		

Data File: /chem/ecd2a.i/122909.b/004f0401.d
Date : 29-DEC-2009 07:48
Client ID: AR124201
Sample Info: IWAR091217-42

Column phase: CLP1

Instrument: ecd2a.i

Operator: JAOC
Column diameter: 0.25

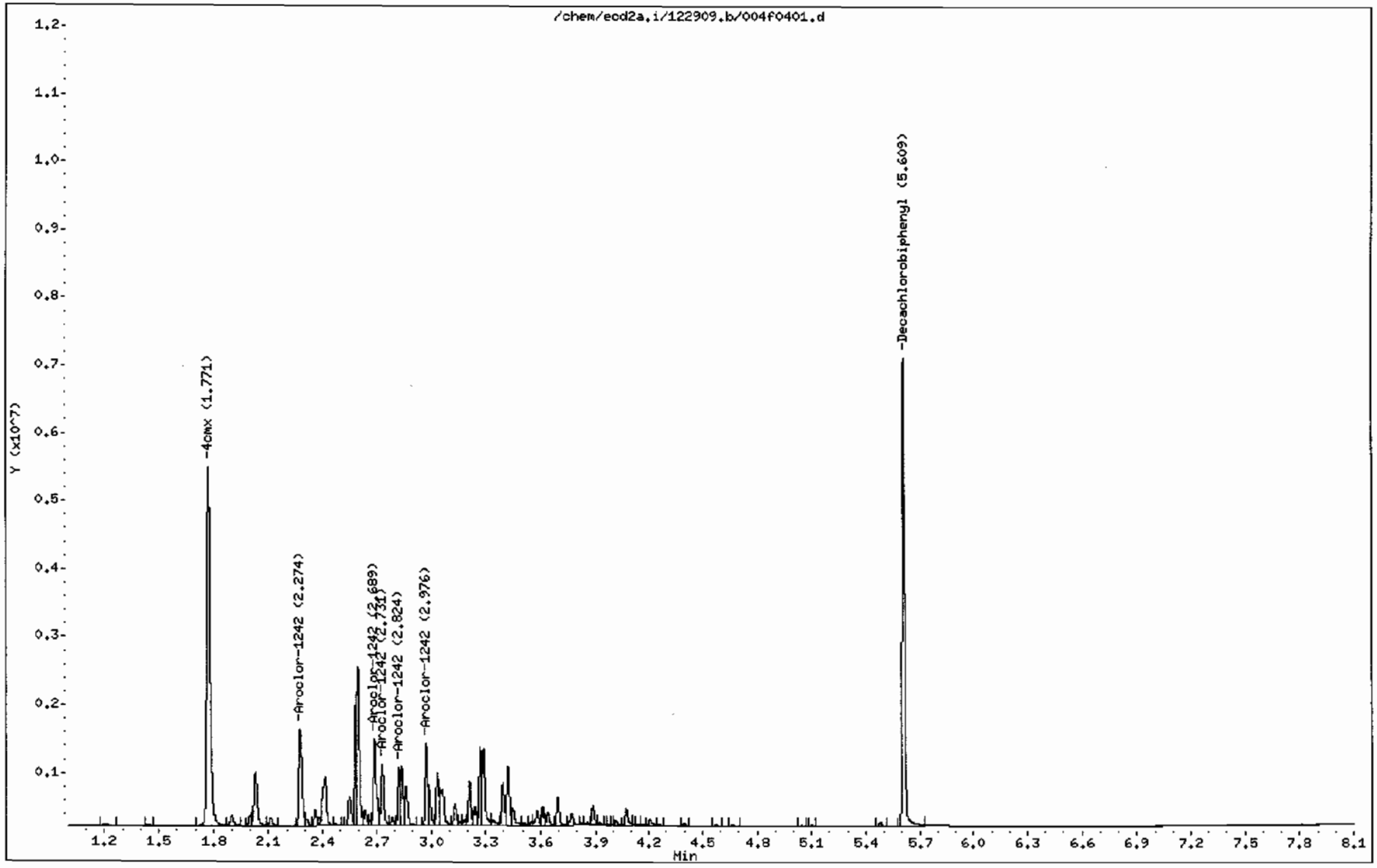

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/122909.b/004b0401.d
Lab Smp Id: WAR091217-42 Client Smp ID: AR124201
Inj Date : 29-DEC-2009 07:48
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |WAR091217-42
Misc Info : |PCB_CVS|1242||CVS|
Comment :
Method : /chem/ecd2a.i/122909.b/ECD2-B-8082-111209A.m
Meth Date : 29-Dec-2009 14:43 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012b1201.d
Als bottle: 4 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1242.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

AMOUNTS

RT	EXP RT	DLT RT	RESPONSE	CAL-AMT (ug/L)	ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.069	2.068	0.001	14696292	100.000	114	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.302	6.300	0.002	13702837	100.000	121	80.00- 120.00	100.00
4 Aroclor-1242					CAS #: 53469-21-9		
2.746	2.746	0.000	3718888	1000.00	1080	80.00- 120.00	100.00
3.181	3.181	0.000	2793608	1000.00	1040	55.12- 95.12	75.12
3.253	3.253	0.000	1669349	1000.00	1020	24.89- 64.89	44.89
3.331	3.331	0.000	1567550	1000.00	1040	22.15- 62.15	42.15
3.518	3.518	0.000	2299357	1000.00	1070	41.83- 81.83	61.83

Average of Peak Amounts = 1.05e+03

Data File: /chem/ecd2a.i/122909.b/004b0401.d

Date : 29-DEC-2009 07:48

Client ID: AR124201

Sample Info: IWAR091217-42

Column phase: CLP2

Instrument: ecd2a.i

Operator: JAOC

Column diameter: 0.25

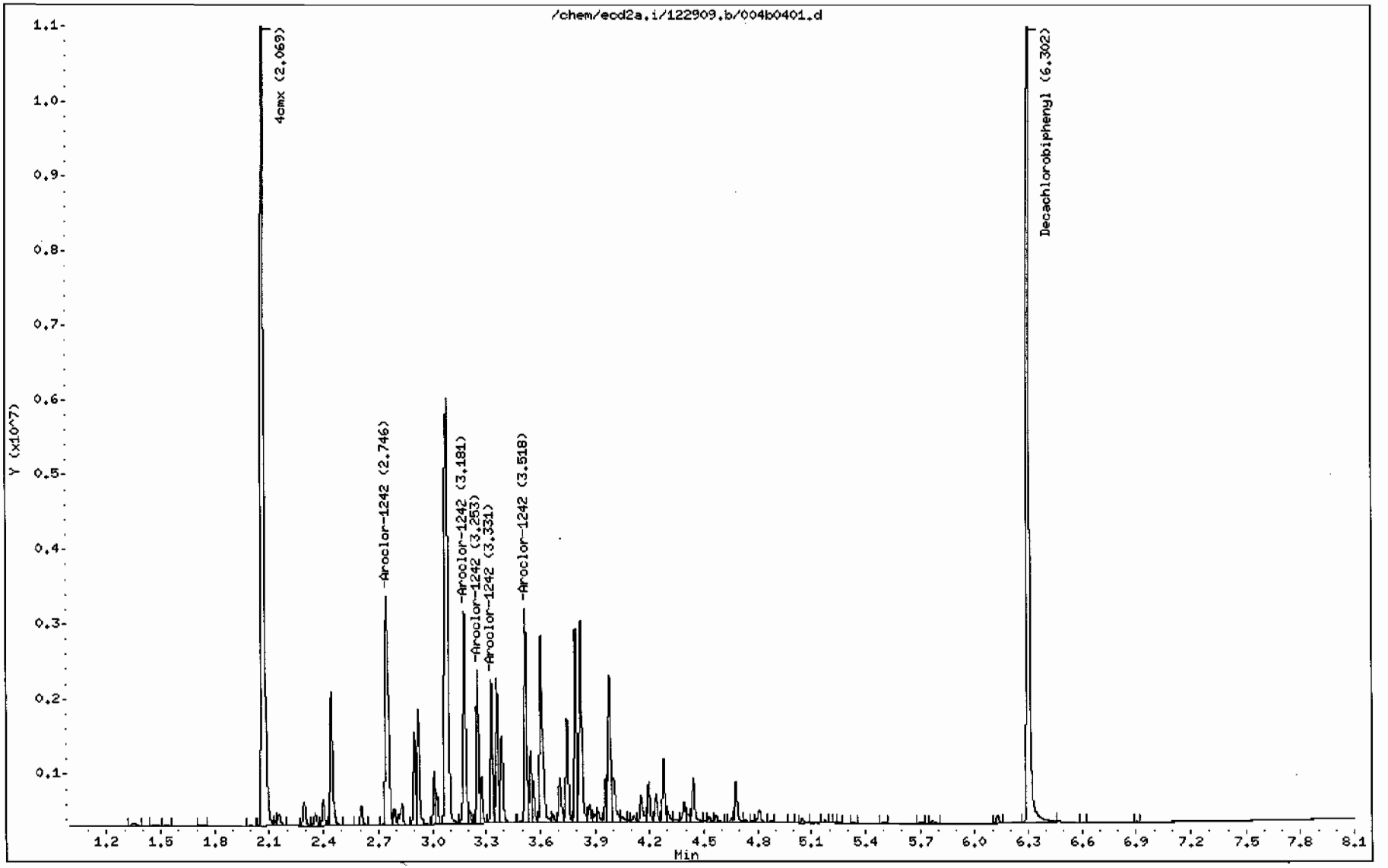

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/122909.b/005f0501.d
Lab Smp Id: WAR091217-48 Client Smp ID: AR124801
Inj Date : 29-DEC-2009 07:59
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |WAR091217-48
Misc Info : |PCB_CVS|1248||CVS|
Comment :
Method : /chem/ecd2a.i/122909.b/ECD2-F-8082-111209A.m
Meth Date : 29-Dec-2009 13:37 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012f1201.d
Als bottle: 5 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1248.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.770	1.771	-0.001	7360215	100.000	118	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.610	5.607	0.003	7090053	100.000	131	80.00- 120.00	100.00
5 Aroclor-1248					CAS #: 12672-29-6		
2.825	2.825	0.000	1468344	1000.00	962	80.00- 120.00	100.00
2.975	2.975	0.000	1982668	1000.00	978	115.03- 155.03	135.03
3.035	3.035	0.000	1519725	1000.00	967	83.50- 123.50	103.50
3.270	3.270	0.000	2078664	1000.00	937	121.57- 161.57	141.57
3.424	3.424	0.000	1799011	1000.00	940	102.52- 142.52	122.52
Average of Peak Amounts =					957		

Data File: /chem/ecd2a.i/122909.b/005f0501.d
Date : 29-DEC-2009 07:59
Client ID: AR124801
Sample Info: IWAR091217-48

Column phase: CLP1

Instrument: ecd2a.i

Operator: JAOC
Column diameter: 0.25

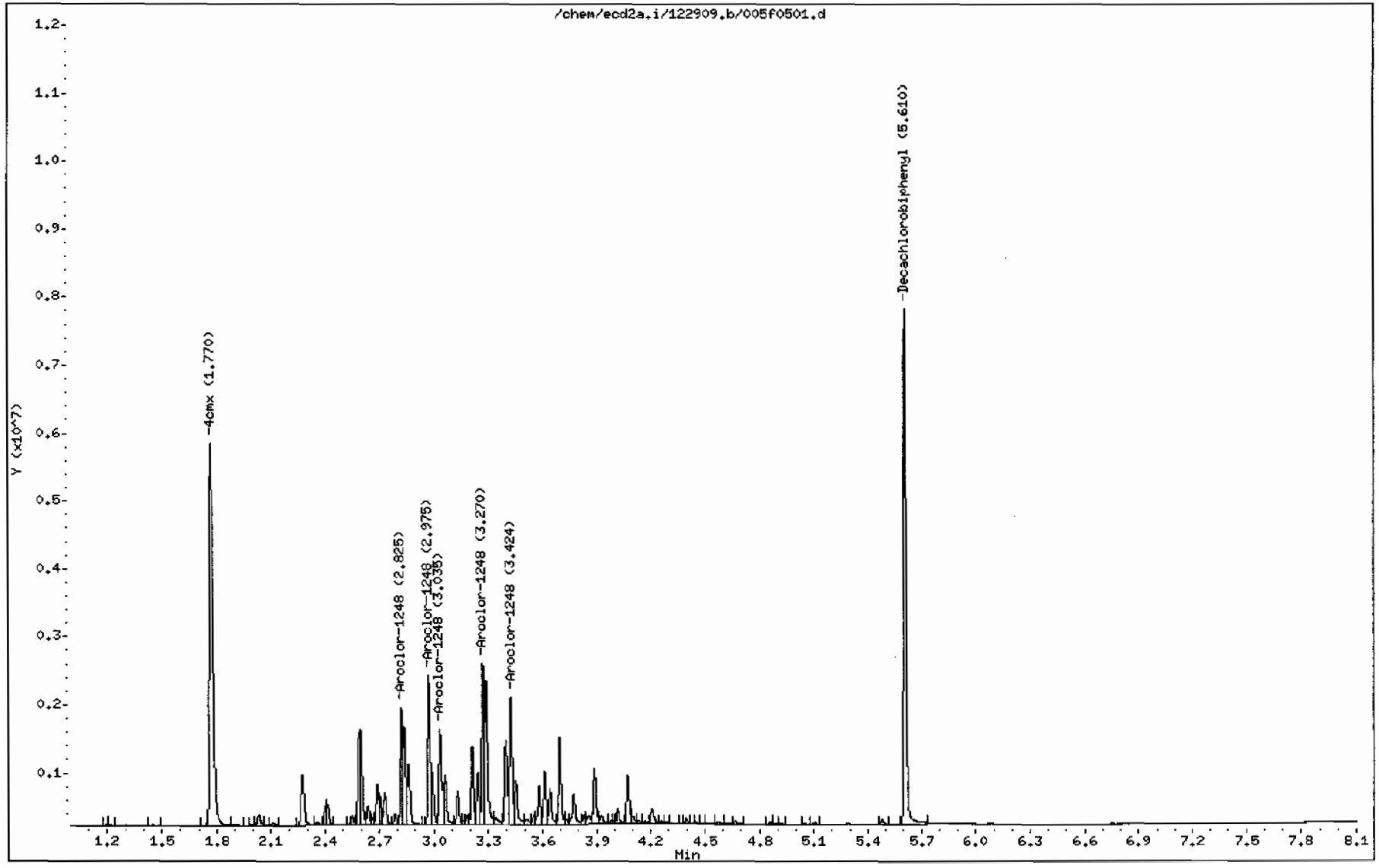

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/122909.b/005b0501.d
Lab Smp Id: WAR091217-48 Client Smp ID: AR124801
Inj Date : 29-DEC-2009 07:59
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |WAR091217-48
Misc Info : |PCB_CVS|1248||CVS|
Comment :
Method : /chem/ecd2a.i/122909.b/ECD2-B-8082-111209A.m
Meth Date : 29-Dec-2009 14:43 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012b1201.d
Als bottle: 5 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1248.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.069	2.068	0.001	16057466	100.000	124	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.302	6.300	0.002	14981334	100.000	133	80.00- 120.00	100.00
5 Aroclor-1248					CAS #: 12672-29-6		
3.332	3.332	0.000	3275090	1000.00	998	80.00- 120.00	100.00
3.519	3.519	0.000	4196280	1000.00	1000	108.13- 148.13	128.13
3.605	3.605	0.000	4475627	1000.00	1000	116.66- 156.66	136.66
3.795	3.795	0.000	4536185	1000.00	966	118.51- 158.51	138.51
3.824	3.824	0.000	5374355	1000.00	997	144.10- 184.10	164.10
Average of Peak Amounts =					994		

Data File: /chem/ecd2a.i/122909.b/005b0501.d

Date : 29-DEC-2009 07:59

Client ID: AR124801

Sample Info: iWAR091217-48

Column phase: CLP2

Instrument: ecd2a.i

Operator: JAOC

Column diameter: 0.25

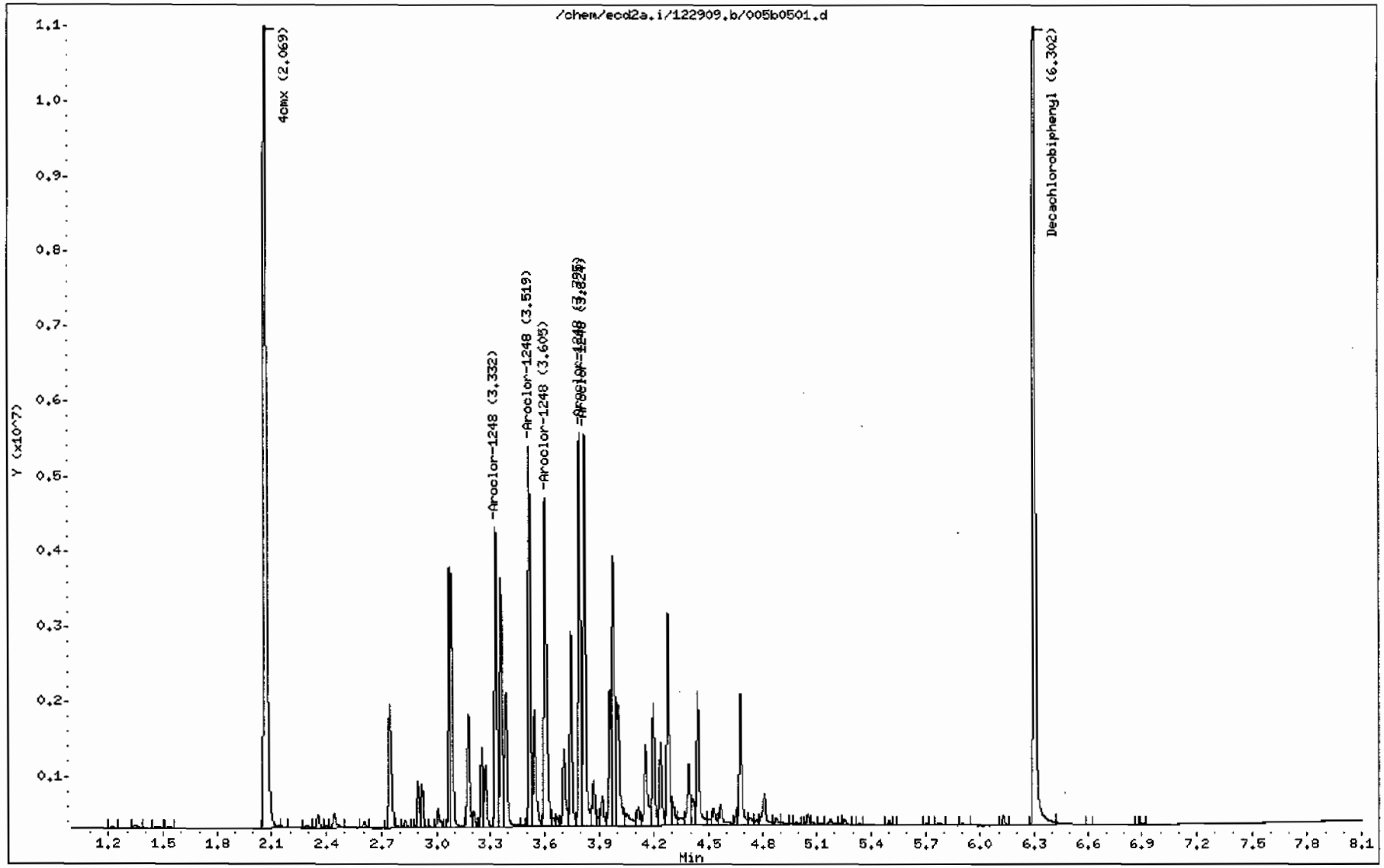

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/122909.b/006f0601.d
Lab Smp Id: WAR090930-32 Client Smp ID: AR123201
Inj Date : 29-DEC-2009 08:17
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |WAR090930-32
Misc Info : |PCB_CVS|1232||CVS|
Comment :
Method : /chem/ecd2a.i/122909.b/ECD2-F-8082-111209A.m
Meth Date : 29-Dec-2009 13:37 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012f1201.d
Als bottle: 6 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1232.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.772	1.771	0.001	10114890	100.000	162	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.616	5.607	0.009	9874511	100.000	182	80.00- 120.00	100.00
3 Aroclor-1232					CAS #: 11141-16-5		
2.027	2.027	0.000	1546440	1000.00	1330	80.00- 120.00	100.00
2.277	2.277	0.000	1232894	1000.00	1320	59.72- 99.72	79.72
2.693	2.693	0.000	1048268	1000.00	1310	47.79- 87.79	67.79
2.736	2.736	0.000	666971	1000.00	1310	23.13- 63.13	43.13
2.981	2.981	0.000	767292	1000.00	1310	29.62- 69.62	49.62

Average of Peak Amounts = 1.32e+03

Data File: /chem/ecd2a.i/122909.b/006f0601.d

Date : 29-DEC-2009 08:17

Client ID: AR123201

Sample Info: IWAR090930-32

Column phase: CLP1

Instrument: ecd2a.i

Operator: JAOC

Column diameter: 0.25

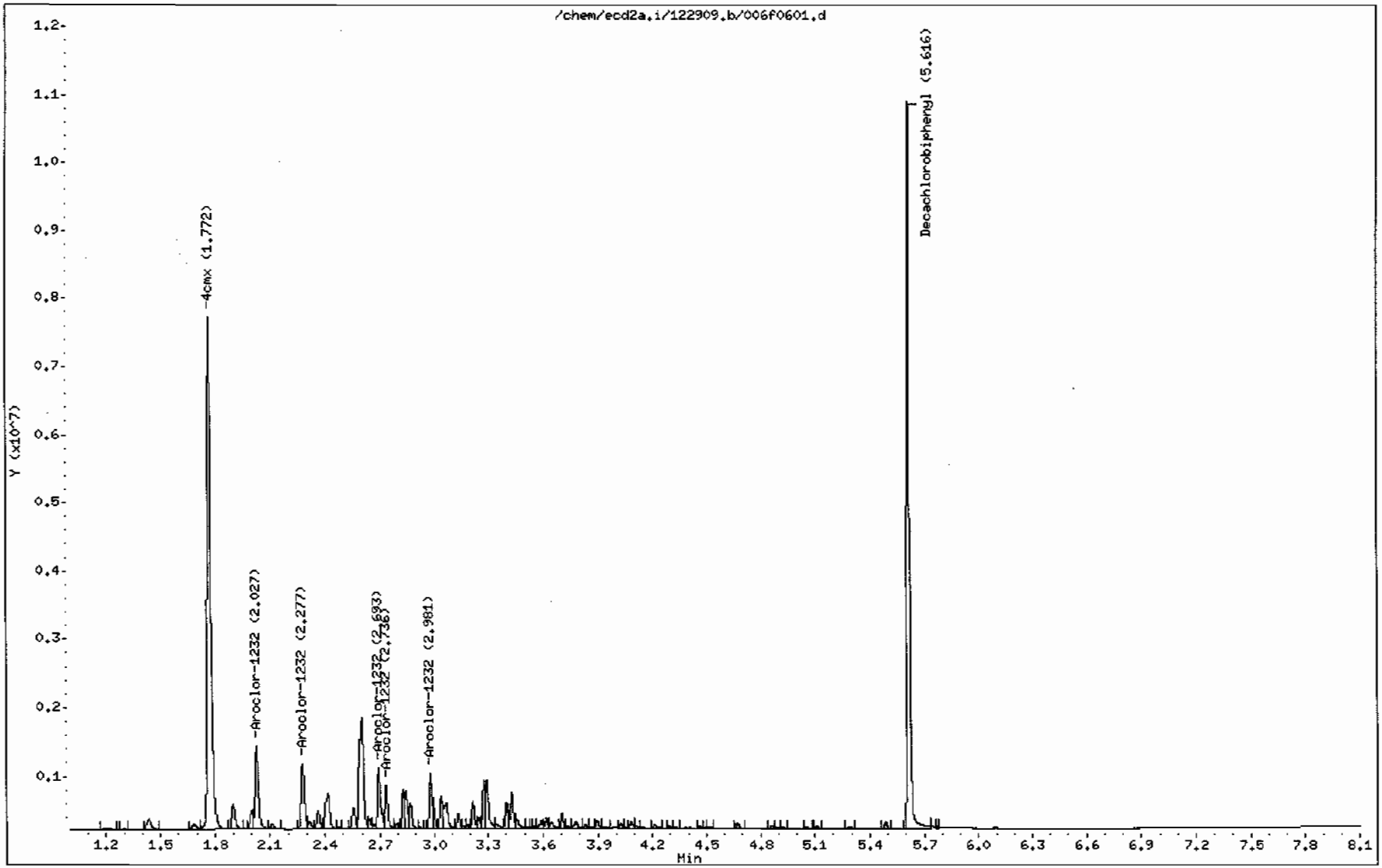

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/122909.b/006b0601.d
Lab Smp Id: WAR090930-32 Client Smp ID: AR123201
Inj Date : 29-DEC-2009 08:17
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |WAR090930-32
Misc Info : |PCB_CVS|1232||CVS|
Comment :
Method : /chem/ecd2a.i/122909.b/ECD2-B-8082-111209A.m
Meth Date : 29-Dec-2009 14:43 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012b1201.d
Als bottle: 6 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1232.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.069	2.068	0.001	22199517	100.000	172	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.304	6.300	0.004	21227910	100.000	188	80.00- 120.00	100.00
3 Aroclor-1232					CAS #: 11141-16-5		
2.442	2.442	0.000	2893358	1000.00	1400	80.00- 120.00	100.00
2.747	2.747	0.000	2666991	1000.00	1360	72.18- 112.18	92.18
3.183	3.183	0.000	1975790	1000.00	1320	48.29- 88.29	68.29
3.254	3.254	0.000	1214623	1000.00	1300	21.98- 61.98	41.98
3.521	3.521	0.000	1476417	1000.00	1330	31.03- 71.03	51.03

Average of Peak Amounts = 1.34e+03

Data File: /chem/ecd2a.i/122909.b/006b0601.d
Date : 29-DEC-2009 08:17
Client ID: AR123201
Sample Info: IWAR090930-32

Column phase: CLP2

Instrument: ecd2a.i

Operator: JAOC
Column diameter: 0.25

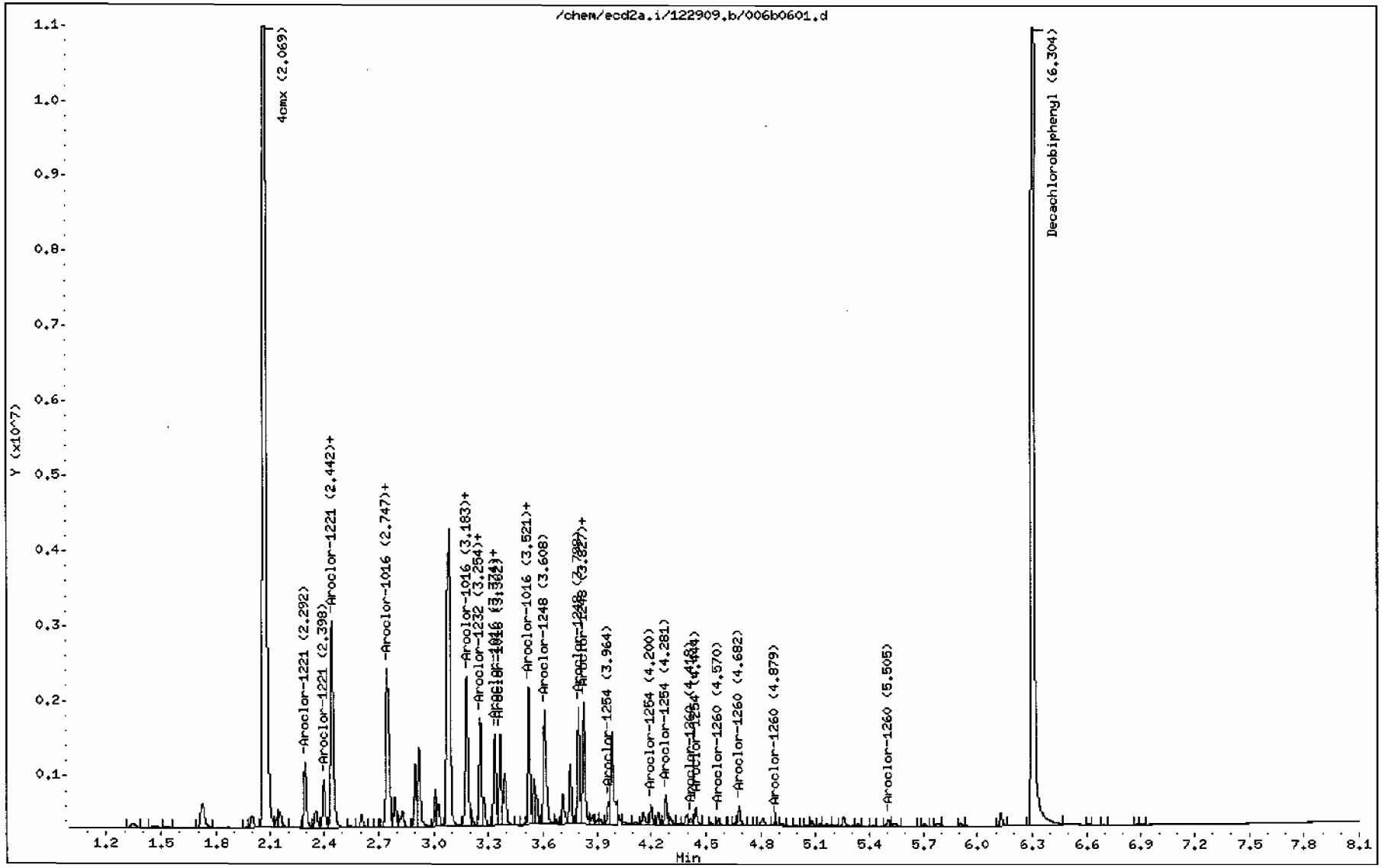

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/122909.b/007f0701.d
Lab Smp Id: WAR091111-21 Client Smp ID: AR122101
Inj Date : 29-DEC-2009 08:28
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |WAR091111-21
Misc Info : |PCB_CVS|1262||CVS|
Comment :
Method : /chem/ecd2a.i/122909.b/ECD2-F-8082-111209A.m
Meth Date : 29-Dec-2009 13:37 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012f1201.d
Als bottle: 7 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1221.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (uq/L)	AMOUNTS ON-COL (uq/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.770	1.771	-0.001	7024932	100.000	113	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.610	5.607	0.003	6697965	100.000	124	80.00- 120.00	100.00
2 Aroclor-1221					CAS #: 11104-28-2		
1.436	1.436	0.000	558071	1000.00	1200	80.00- 120.00	100.00
1.898	1.898	0.000	800768	1000.00	1220	123.49- 163.49	143.49
1.997	1.997	0.000	428834	1000.00	1240	56.84- 96.84	76.84

Average of Peak Amounts = 1.22e+03

Data File: /chem/ecd2a.i/122909.b/007f0701.d

Date : 29-DEC-2009 08:28

Client ID: AR122101

Sample Info: !WAR091111-21

Column phase: CLP1

Instrument: ecd2a.i

Operator: JAOC

Column diameter: 0.25

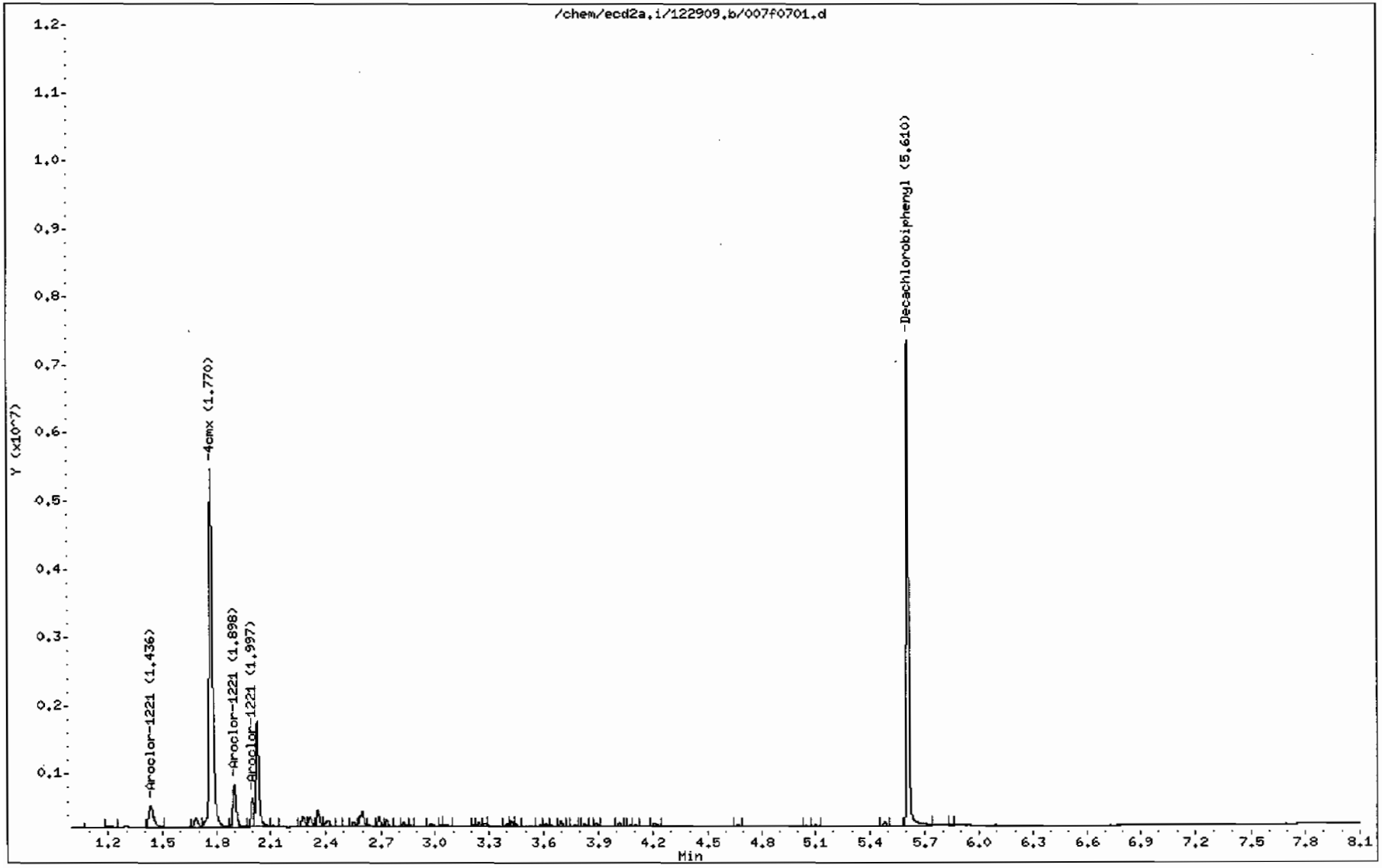

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/122909.b/007b0701.d
Lab Smp Id: WAR091111-21 Client Smp ID: AR122101
Inj Date : 29-DEC-2009 08:28
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |WAR091111-21
Misc Info : |PCB_CVS|1262||CVS|
Comment :
Method : /chem/ecd2a.i/122909.b/ECD2-B-8082-111209A.m
Meth Date : 29-Dec-2009 13:36 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012b1201.d
Als bottle: 7 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1221.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.068	2.068	0.000	14992798	100.000	116	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.302	6.300	0.002	14125451	100.000	125	80.00- 120.00	100.00
2 Aroclor-1221					CAS #: 11104-28-2		
2.292	2.292	0.000	1486678	1000.00	1180	80.00- 120.00	100.00
2.397	2.397	0.000	909190	1000.00	1170	41.16- 81.16	61.16
2.442	2.442	0.000	3573346	1000.00	1170	220.36- 260.36	240.36

Average of Peak Amounts = 1.17e+03

Data File: /chem/ecd2a.i/122909.b/007b0701.d

Date : 29-DEC-2009 08:28

Client ID: AR122101

Sample Info: IWAR091111-21

Column phase: CLP2

Instrument: ecd2a.i

Operator: JAOC

Column diameter: 0.25

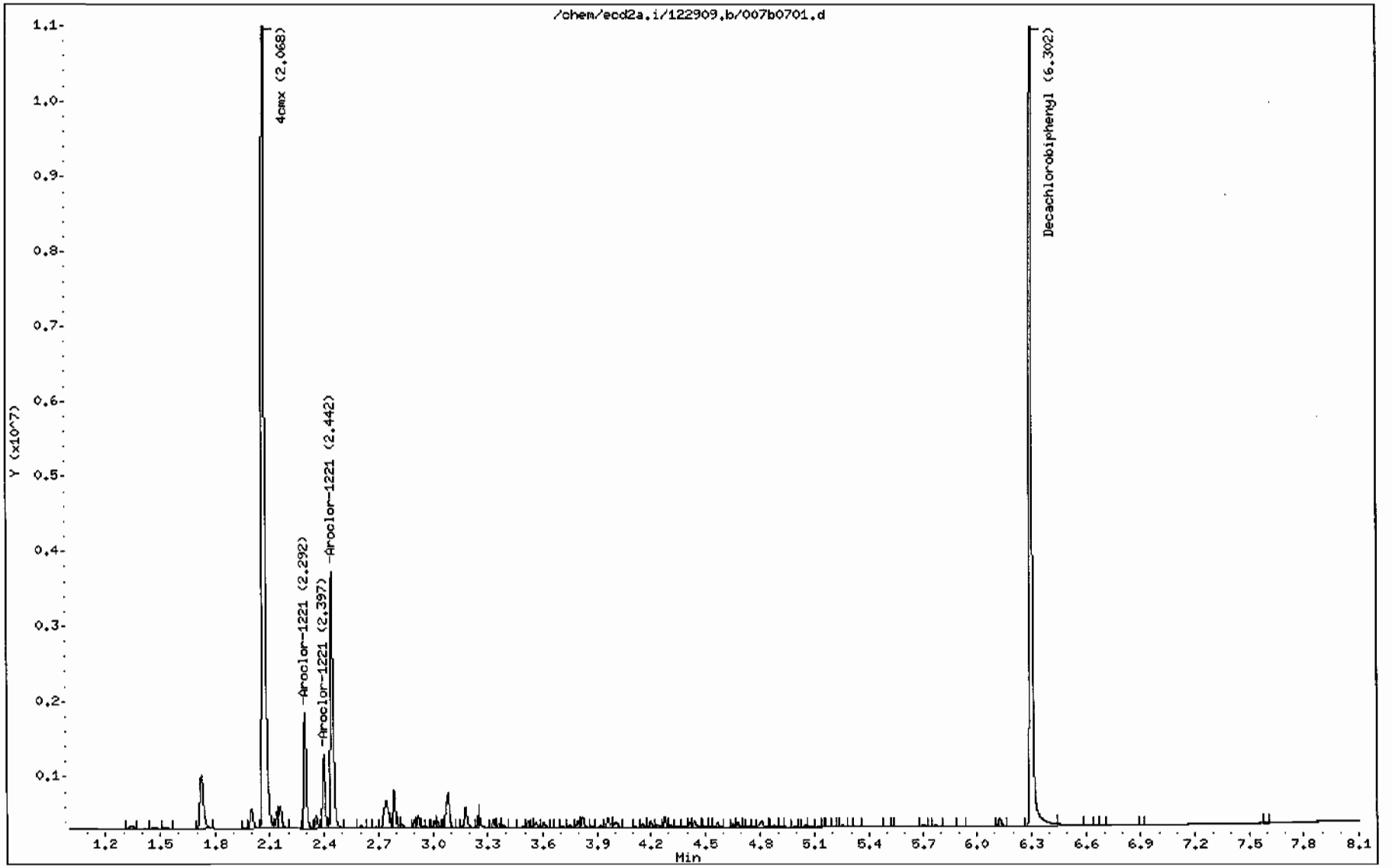

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/122909.b/022f2201.d
Lab Smp Id: WAR091211-60 02 Client Smp ID: AR166002
Inj Date : 29-DEC-2009 11:17
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |WAR091211-60 02
Misc Info : |PCB_CVS|1660||CVS|
Comment :
Method : /chem/ecd2a.i/122909.b/ECD2-F-8082-111209A.m
Meth Date : 29-Dec-2009 13:37 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012f1201.d
Als bottle: 22 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.775	1.771	0.004	6459140	100.000	104	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.610	5.607	0.003	5977776	100.000	110	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.276	2.273	0.003	2015417	1000.00	901	80.00- 120.00	100.00
2.600	2.597	0.003	4292741	1000.00	916	192.49- 232.49	213.00
2.691	2.688	0.003	1720292	1000.00	905	64.38- 104.38	85.36
2.826	2.823	0.003	868251	1000.00	890	22.92- 62.92	43.08
2.976	2.974	0.002	1328140	1000.00	911	43.84- 83.84	65.90
Average of Peak Amounts =					904		
7 Aroclor-1260					CAS #: 11096-82-5		
4.016	4.014	0.002	4128857	1000.00	991	80.00- 120.00	100.00
4.287	4.286	0.001	2595441	1000.00	1000	42.56- 82.56	62.86
4.453	4.451	0.002	2674421	1000.00	1020	44.13- 84.13	64.77
4.666	4.664	0.002	6344393	1000.00	1040	133.57- 173.57	153.66
4.855	4.853	0.002	3057700	1000.00	1040	53.66- 93.66	74.06
Average of Peak Amounts =					1.02e+03		

Data File: /chem/ecd2a.i/122909.b/022f2201.d
Date : 29-DEC-2009 11:17
Client ID: AR166002
Sample Info: WAR091211-60 02
Column phase: CLP1

Instrument: ecd2a.i
Operator: JAOC
Column diameter: 0.25

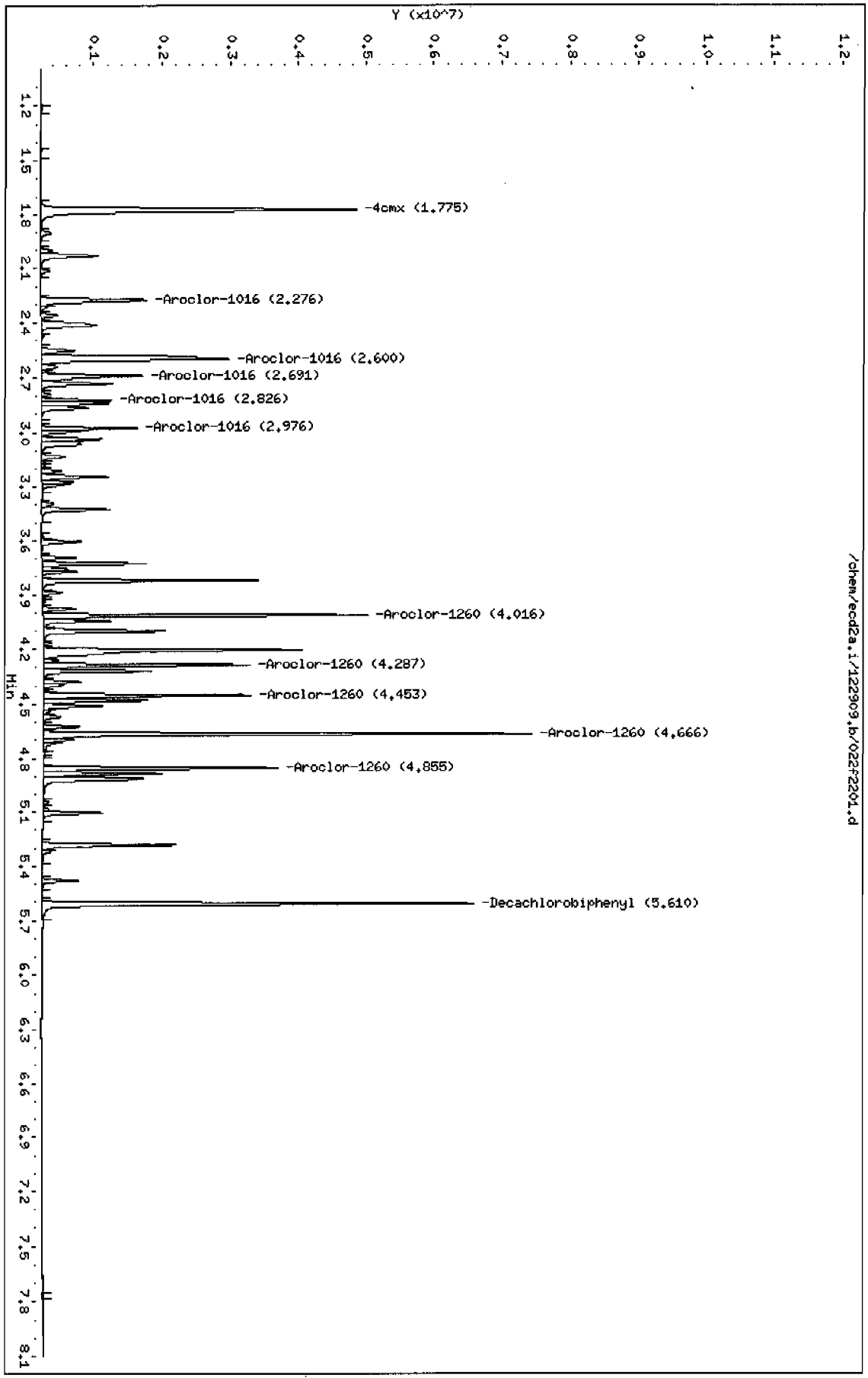

Page 1

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/122909.b/022b2201.d
Lab Smp Id: WAR091211-60 02 Client Smp ID: AR166002
Inj Date : 29-DEC-2009 11:17
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |WAR091211-60 02
Misc Info : |PCB_CVS|1660||CVS|
Comment :
Method : /chem/ecd2a.i/122909.b/ECD2-B-8082-111209A.m
Meth Date : 29-Dec-2009 14:45 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012b1201.d
Als bottle: 22 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.071	2.068	0.003	13896545	100.000	107	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.302	6.300	0.002	12620643	100.000	112	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.747	2.745	0.002	4206631	1000.00	927	80.00- 120.00	100.00
3.182	3.179	0.003	3357192	1000.00	932	59.81- 99.81	79.81
3.332	3.330	0.002	1937576	1000.00	944	26.06- 66.06	46.06
3.361	3.359	0.002	2015700	1000.00	943	27.92- 67.92	47.92
3.519	3.518	0.001	2726459	1000.00	950	44.81- 84.81	64.81
Average of Peak Amounts =					939		
7 Aroclor-1260					CAS #: 11096-82-5		
4.415	4.414	0.001	5723117	1000.00	992	80.00- 120.00	100.00
4.566	4.565	0.001	7231224	1000.00	1020	106.35- 146.35	126.35
4.678	4.677	0.001	4952700	1000.00	1030	66.54- 106.54	86.54
4.875	4.874	0.001	5709014	1000.00	1010	79.75- 119.75	99.75
5.501	5.500	0.001	9420244	1000.00	1040	144.60- 184.60	164.60
Average of Peak Amounts =					1.02e+03		

Data File: /chem/ecd2a.i/122909.b/022b2201.d

Date : 29-DEC-2009 11:17

Client ID: AR166002

Sample Info: IWAR091211-60 02

Column phase: CLP2

Instrument: ecd2a.i

Operator: JAOC

Column diameter: 0.25

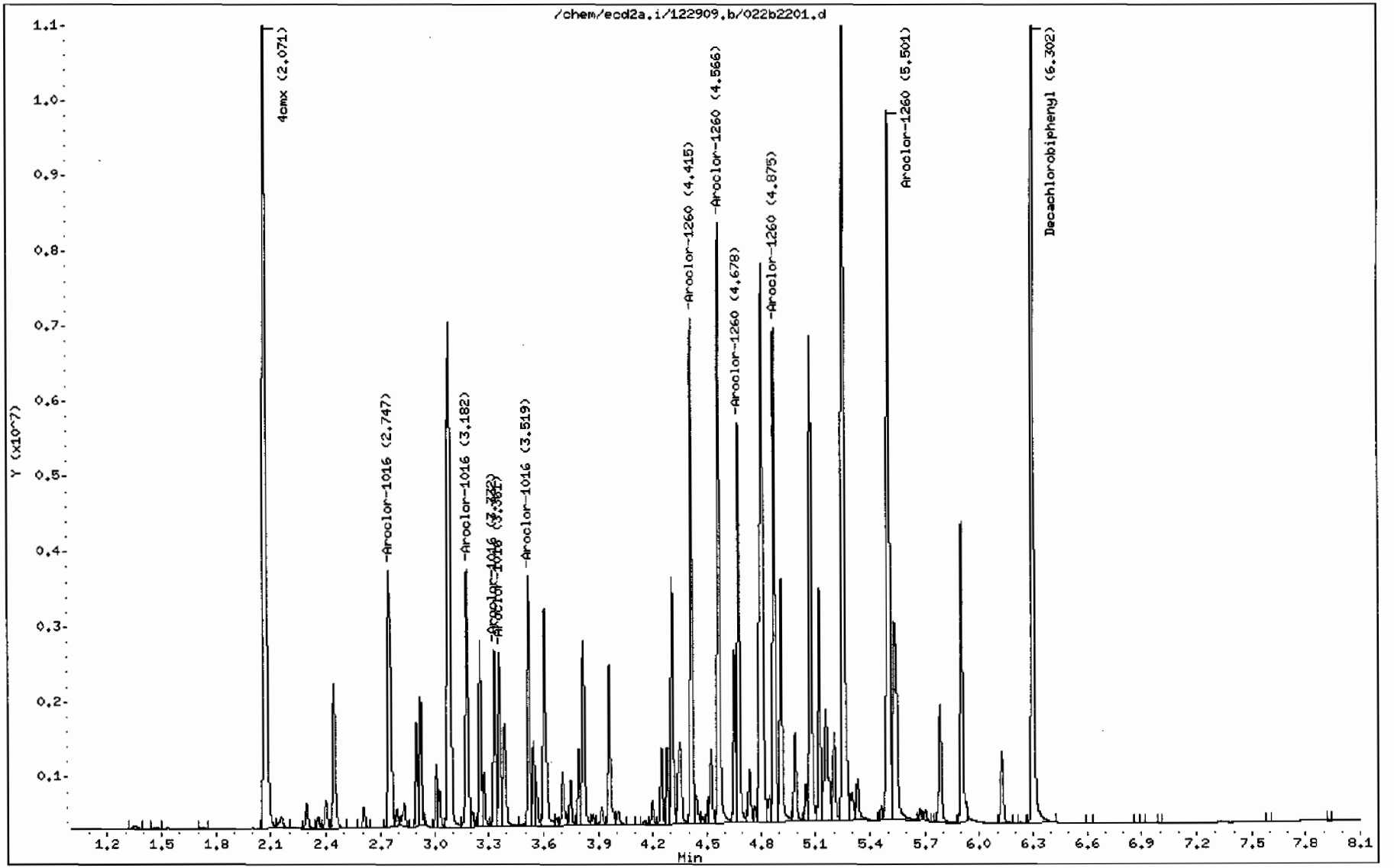

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1057

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 12/14/09 12/14/09

Instrument ID: ECD2A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 1.77 DCB: 5.61

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR091130-99	12/14/09	0700	1.77	5.61
02	ZZZZZ	ZZZZZ	12/14/09	0711	1.77	5.61
03	AR125401	WAR091102-54	12/14/09	0722	1.77	5.61
04	AR124201	WAR091102-42	12/14/09	0733	1.77	5.61
05	AR124801	WAR091027-48	12/14/09	0744	1.77	5.61
06	AR123201	WAR090930-32	12/14/09	0755	1.77	5.61
07	AR122101	WAR091111-21	12/14/09	0807	1.77	5.61
08	ZZZZZ	ZZZZZ	12/14/09	0818	1.77	5.61
09	AR126201	WAR091111-62	12/14/09	0829	1.77	5.61
10	AR126801	WAR091106-68	12/14/09	0840	1.77	5.61
11	AR166001	WAR091214-01	12/14/09	0851	1.77	5.61
12	AR166002	WAR091214-02	12/14/09	0902	1.77	5.61
13	AR166003	WAR091214-03	12/14/09	0913	1.77	5.61
14	AR166004	WAR091214-04	12/14/09	0924	1.77	5.61
15	AR166005	IAR091102-01	12/14/09	0935	1.77	5.61
16	AR166001	WAR091211-60	12/14/09	0946	1.77	5.61
17	DDTANALOGSTD	WAR091020-DD	12/14/09	0958		
18	PIBLK02	WAR091130-99	12/14/09	1009	1.77	5.61
19	ZZZZZ	ZZZZZ	12/14/09	1020	1.77	5.61
20	ZZZZZ	ZZZZZ	12/14/09	1031	1.77	5.61
21	ZZZZZ	ZZZZZ	12/14/09	1042	1.77	
22	ZZZZZ	ZZZZZ	12/14/09	1053	1.76	
23	ZZZZZ	ZZZZZ	12/14/09	1104	1.76	
24	ZZZZZ	ZZZZZ	12/14/09	1115	1.77	5.61
25	ZZZZZ	ZZZZZ	12/14/09	1126	1.77	5.61
26	ZZZZZ	ZZZZZ	12/14/09	1137	1.76	
27	ZZZZZ	ZZZZZ	12/14/09	1148	1.77	5.61
28	ZZZZZ	ZZZZZ	12/14/09	1159	1.76	5.62
29	AR166002	WAR091211-60	12/14/09	1211	1.77	5.61
30	PIBLK03	WAR091130-99	12/14/09	1222	1.77	5.61
31	ZZZZZ	ZZZZZ	12/14/09	1233	1.77	5.61
32	ZZZZZ	ZZZZZ	12/14/09	1244	1.76	

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1057

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 12/14/09 12/14/09

Instrument ID: ECD2A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.07 DCB: 6.30

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR091130-99	12/14/09	0700	2.07	6.31
02	ZZZZZ	ZZZZZ	12/14/09	0711	2.07	6.30
03	AR125401	WAR091102-54	12/14/09	0722	2.07	6.30
04	AR124201	WAR091102-42	12/14/09	0733	2.07	6.30
05	AR124801	WAR091027-48	12/14/09	0744	2.07	6.30
06	AR123201	WAR090930-32	12/14/09	0755	2.07	6.30
07	AR122101	WAR091111-21	12/14/09	0807	2.07	6.30
08	ZZZZZ	ZZZZZ	12/14/09	0818	2.07	6.30
09	AR166201	WAR091111-62	12/14/09	0829	2.07	6.30
10	AR126801	WAR091106-68	12/14/09	0840	2.07	6.30
11	AR166001	WAR091214-01	12/14/09	0851	2.07	6.30
12	AR166002	WAR091214-02	12/14/09	0902	2.07	6.30
13	AR166003	WAR091214-03	12/14/09	0913	2.07	6.30
14	AR166004	WAR091214-04	12/14/09	0924	2.07	6.30
15	AR166005	IAR091102-01	12/14/09	0935	2.07	6.30
16	AR166001	WAR091211-60	12/14/09	0946	2.07	6.30
17	DDTANALOGSTD	WAR091020-DD	12/14/09	0958		
18	PIBLK02	WAR091130-99	12/14/09	1009	2.07	6.30
19	ZZZZZ	ZZZZZ	12/14/09	1020	2.07	6.30
20	ZZZZZ	ZZZZZ	12/14/09	1031	2.07	6.30
21	ZZZZZ	ZZZZZ	12/14/09	1042	2.07	
22	ZZZZZ	ZZZZZ	12/14/09	1053	2.07	
23	ZZZZZ	ZZZZZ	12/14/09	1104	2.06	
24	ZZZZZ	ZZZZZ	12/14/09	1115	2.07	6.30
25	ZZZZZ	ZZZZZ	12/14/09	1126	2.07	6.31
26	ZZZZZ	ZZZZZ	12/14/09	1137	2.07	
27	ZZZZZ	ZZZZZ	12/14/09	1148	2.07	6.30
28	ZZZZZ	ZZZZZ	12/14/09	1159	2.06	6.30
29	AR166002	WAR091211-60	12/14/09	1211	2.07	6.30
30	PIBLK03	WAR091130-99	12/14/09	1222	2.07	6.30
31	ZZZZZ	ZZZZZ	12/14/09	1233	2.07	6.31
32	ZZZZZ	ZZZZZ	12/14/09	1244	2.07	

QC LIMITS
S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1057

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 12/14/09 12/14/09

Instrument ID: ECD2A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 1.77 DCB: 5.61

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR091130-99	12/29/09	0715	1.77	5.60
02	AR166001	WAR091211-60	12/29/09	0726	1.77	5.61
03	AR125401	WAR091216-54	12/29/09	0737	1.77	5.61
04	AR124201	WAR091217-42	12/29/09	0748	1.77	5.61
05	AR124801	WAR091217-48	12/29/09	0759	1.77	5.61
06	AR123201	WAR090930-32	12/29/09	0817	1.77	5.62
07	AR122101	WAR091111-21	12/29/09	0828	1.77	5.61
08	AR126201	WAR091111-62	12/29/09	0839	1.77	5.61
09	AR126801	WAR091106-68	12/29/09	0850	1.77	5.61
10	DDTANALOGSTD	WAR091219-DD	12/29/09	0901		
11	PIBLK02	WAR091130-99	12/29/09	0913	1.77	5.61
12	PBLK01	1202005226	12/29/09	0927	1.77	5.61
13	PBLK01LCS	1202005227	12/29/09	0938	1.77	5.61
14	ZZZZZ	ZZZZZ	12/29/09	0949	1.77	5.61
15	ZZZZZ	ZZZZZ	12/29/09	1000	1.77	5.61
16	RE03-09-14228	243472001	12/29/09	1011	1.77	5.61
17	RE03-09-14230	243472002	12/29/09	1022	1.77	5.61
18	RE03-09-14229	243472003	12/29/09	1033	1.77	5.61
19	ZZZZZ	ZZZZZ	12/29/09	1044	1.77	5.61
20	ZZZZZ	ZZZZZ	12/29/09	1055	1.77	5.61
21	ZZZZZ	ZZZZZ	12/29/09	1106	1.77	5.61
22	AR166002	WAR091211-60	12/29/09	1117	1.77	5.61
23	PIBLK03	WAR091130-99	12/29/09	1128	1.77	5.61
24	ZZZZZ	ZZZZZ	12/29/09	1140	1.77	5.61
25	ZZZZZ	ZZZZZ	12/29/09	1151	1.77	5.61
26	ZZZZZ	ZZZZZ	12/29/09	1202	1.77	5.61
27	ZZZZZ	ZZZZZ	12/29/09	1213	1.77	5.61
28	ZZZZZ	ZZZZZ	12/29/09	1224	1.77	5.61
29	ZZZZZ	ZZZZZ	12/29/09	1235	1.77	5.61
30	ZZZZZ	ZZZZZ	12/29/09	1246	1.77	5.61
31	ZZZZZ	ZZZZZ	12/29/09	1257	1.77	5.61
32	ZZZZZ	ZZZZZ	12/29/09	1308	1.77	5.61

QC LIMITS
S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1057

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 12/14/09 12/14/09

Instrument ID: ECD2A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.07 DCB: 6.30

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR091130-99	12/29/09	0715	2.07	6.30
02	AR166001	WAR091211-60	12/29/09	0726	2.07	6.30
03	AR125401	WAR091216-54	12/29/09	0737	2.07	6.30
04	AR124201	WAR091217-42	12/29/09	0748	2.07	6.30
05	AR124801	WAR091217-48	12/29/09	0759	2.07	6.30
06	AR123201	WAR090930-32	12/29/09	0817	2.07	6.30
07	AR122101	WAR091111-21	12/29/09	0828	2.07	6.30
08	AR126201	WAR091111-62	12/29/09	0839	2.07	6.30
09	AR126801	WAR091106-68	12/29/09	0850	2.07	6.30
10	DDTANALOGSTD	WAR091219-DD	12/29/09	0901		
11	PIBLK02	WAR091130-99	12/29/09	0913	2.07	6.30
12	PBLK01	1202005226	12/29/09	0927	2.07	6.30
13	PBLK01LCS	1202005227	12/29/09	0938	2.07	6.30
14	ZZZZZ	ZZZZZ	12/29/09	0949	2.07	6.30
15	ZZZZZ	ZZZZZ	12/29/09	1000	2.07	6.30
16	RE03-09-14228	243472001	12/29/09	1011	2.07	6.30
17	RE03-09-14230	243472002	12/29/09	1022	2.07	6.30
18	RE03-09-14229	243472003	12/29/09	1033	2.07	6.30
19	ZZZZZ	ZZZZZ	12/29/09	1044	2.07	6.30
20	ZZZZZ	ZZZZZ	12/29/09	1055	2.07	6.30
21	ZZZZZ	ZZZZZ	12/29/09	1106	2.07	6.30
22	AR166002	WAR091211-60	12/29/09	1117	2.07	6.30
23	PIBLK03	WAR091130-99	12/29/09	1128	2.07	6.30
24	ZZZZZ	ZZZZZ	12/29/09	1140	2.07	6.30
25	ZZZZZ	ZZZZZ	12/29/09	1151	2.07	6.30
26	ZZZZZ	ZZZZZ	12/29/09	1202	2.07	6.30
27	ZZZZZ	ZZZZZ	12/29/09	1213	2.07	6.30
28	ZZZZZ	ZZZZZ	12/29/09	1224	2.07	6.30
29	ZZZZZ	ZZZZZ	12/29/09	1235	2.07	6.30
30	ZZZZZ	ZZZZZ	12/29/09	1246	2.07	6.30
31	ZZZZZ	ZZZZZ	12/29/09	1257	2.07	6.30
32	ZZZZZ	ZZZZZ	12/29/09	1308	2.07	6.30

QC LIMITS
S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

Identification Summary

SDG Number: 10–1057 **Client ID:** LCS for batch 937092

Lab Sample ID: 1202005227

Data File:	013f1301.d	**Data File:**	013b1301.d
Inst:	ECD2A.I_1	**Inst:**	ECD2A.I_2
Column:	CLP1	**Column:**	CLP2
Analyzed:	29–DEC–09 09:38	**Analyzed:**	29–DEC–09 09:38

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor–1016							.673
Column 1	1	2.28	2.24 – 2.3	21.8		ug/kg	
	2	2.6	2.57 – 2.63	21.1		ug/kg	
	3	2.69	2.66 – 2.72	20.8		ug/kg	
	4	2.83	2.79 – 2.85	21.1		ug/kg	
	5	2.98	2.94 – 3	20.9		ug/kg	
					21.2		
Column 2	1	2.75	2.72 – 2.78	21.1		ug/kg	
	2	3.18	3.15 – 3.21	20.7		ug/kg	
	3	3.33	3.3 – 3.36	21.2		ug/kg	
	4	3.36	3.33 – 3.39	20.8		ug/kg	
	5	3.52	3.49 – 3.55	21.2		ug/kg	
					21		
Aroclor–1260							2.56
Column 1	1	4.02	3.98 – 4.04	25.4		ug/kg	
	2	4.29	4.26 – 4.32	25.9		ug/kg	
	3	4.45	4.42 – 4.48	26.3		ug/kg	
	4	4.67	4.63 – 4.69	27.5		ug/kg	
	5	4.86	4.82 – 4.88	26.3		ug/kg	
					26.3		
Column 2	1	4.42	4.38 – 4.44	24.4		ug/kg	
	2	4.57	4.54 – 4.6	25.5		ug/kg	
	3	4.68	4.65 – 4.71	25.2		ug/kg	
	4	4.88	4.84 – 4.9	25.6		ug/kg	
	5	5.5	5.47 – 5.53	27.3		ug/kg	
					25.6		

QUALITY CONTROL DATA

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10-1057**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202005226**				
Client Sample:	**QC for batch 937092**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 937092**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**937093**	**Inst:**	**ECD2A.I**	**Dilution:**	**1**
Run Date:	**12/29/2009 09:27**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**12/28/2009 20:43**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**012f1201-1.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	012b1201-1.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.33	ug/kg	1.11	3.33	1
11104-28-2	Aroclor-1221	U	3.33	ug/kg	1.11	3.33	1
11141-16-5	Aroclor-1232	U	3.33	ug/kg	1.11	3.33	1
53469-21-9	Aroclor-1242	U	3.33	ug/kg	1.11	3.33	1
12672-29-6	Aroclor-1248	U	3.33	ug/kg	1.11	3.33	1
11097-69-1	Aroclor-1254	U	3.33	ug/kg	1.11	3.33	1
11096-82-5	Aroclor-1260	U	3.33	ug/kg	1.11	3.33	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/122909.b/012f1201-2.d
Lab Smp Id: 1202005226 Client Smp ID: PBLK01
Inj Date : 29-DEC-2009 09:27
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |1202005226|1|
Misc Info : |ECD82P_1S|937093|SVA|QC A|SOIL|MB|||
Comment :
Method : /chem/ecd2a.i/122909.b/ECD2-F-8082-111209A.m
Meth Date : 29-Dec-2009 14:49 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012f1201.d
Als bottle: 12 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1057.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.770	1.771	-0.001	8143925	130.739	4.4	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.613	5.607	0.006	7671039	141.763	4.7	80.00- 120.00	100.00

Data File: /chem/ecd2a.i/122909.b/012f1201-2.d
Date : 29-DEC-2009 09:27
Client ID: PBLK01
Sample Info: |120200522611|
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecd2a.i

Operator: JAOC
Column diameter: 0.25

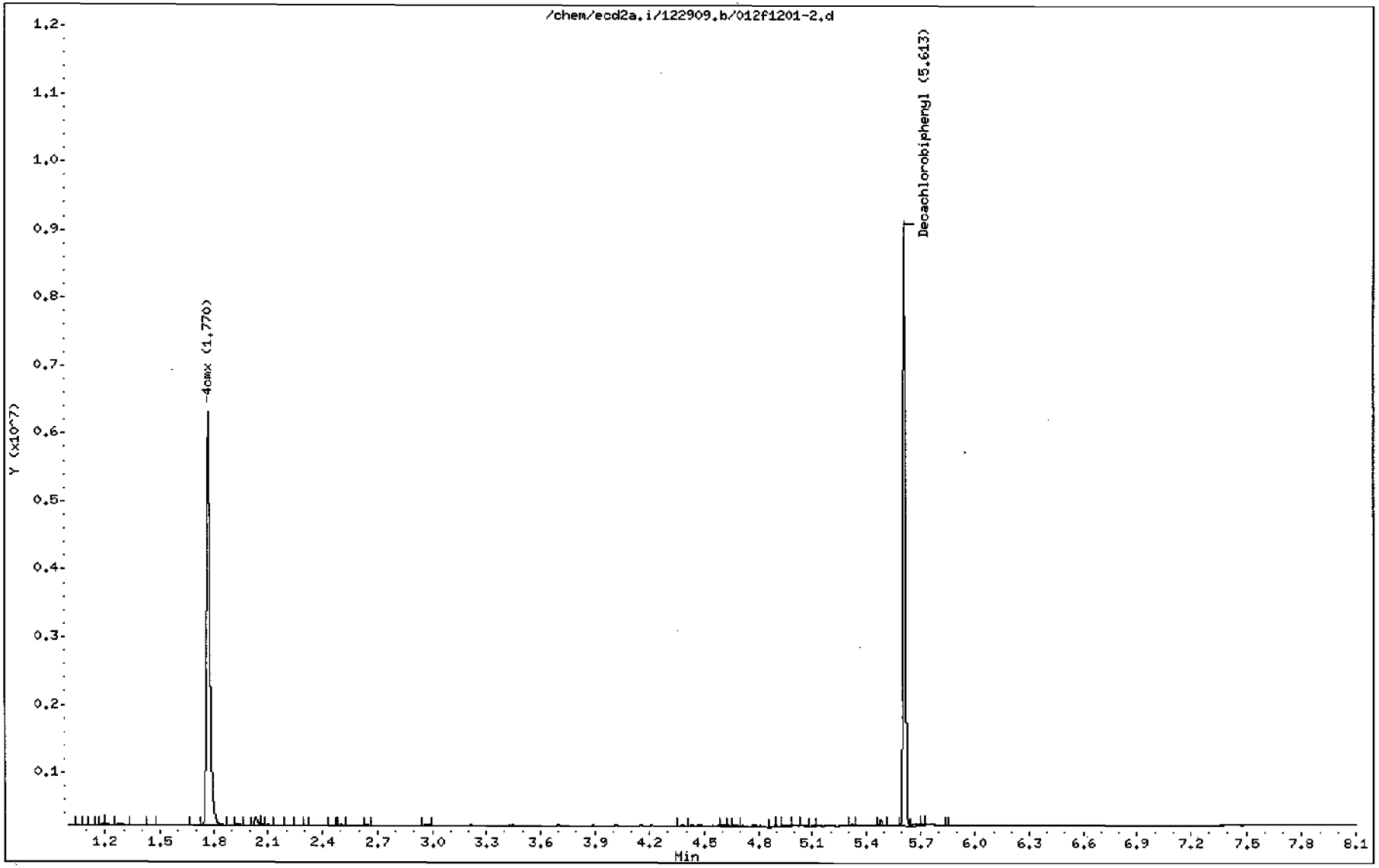

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/122909.b/012b1201-2.d
Lab Smp Id: 1202005226 Client Smp ID: PBLK01
Inj Date : 29-DEC-2009 09:27
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |1202005226|1|
Misc Info : |ECD82P_1S|937093|SVA|QC A|SOIL|MB|||
Comment :
Method : /chem/ecd2a.i/122909.b/ECD2-B-8082-111209A.m
Meth Date : 29-Dec-2009 14:47 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012b1201.d
Als bottle: 12 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1057.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.066	2.068	-0.002	17916708	138.548	4.6	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.303	6.300	0.003	18327481	162.502	5.4	80.00- 120.00	100.00

Data File: /chem/ecd2a.i/122909.b/012b1201-2.d
Date : 29-DEC-2009 09:27
Client ID: PBLK01
Sample Info: |1202005226|1|
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd2a.i

Operator: JAOC
Column diameter: 0.25

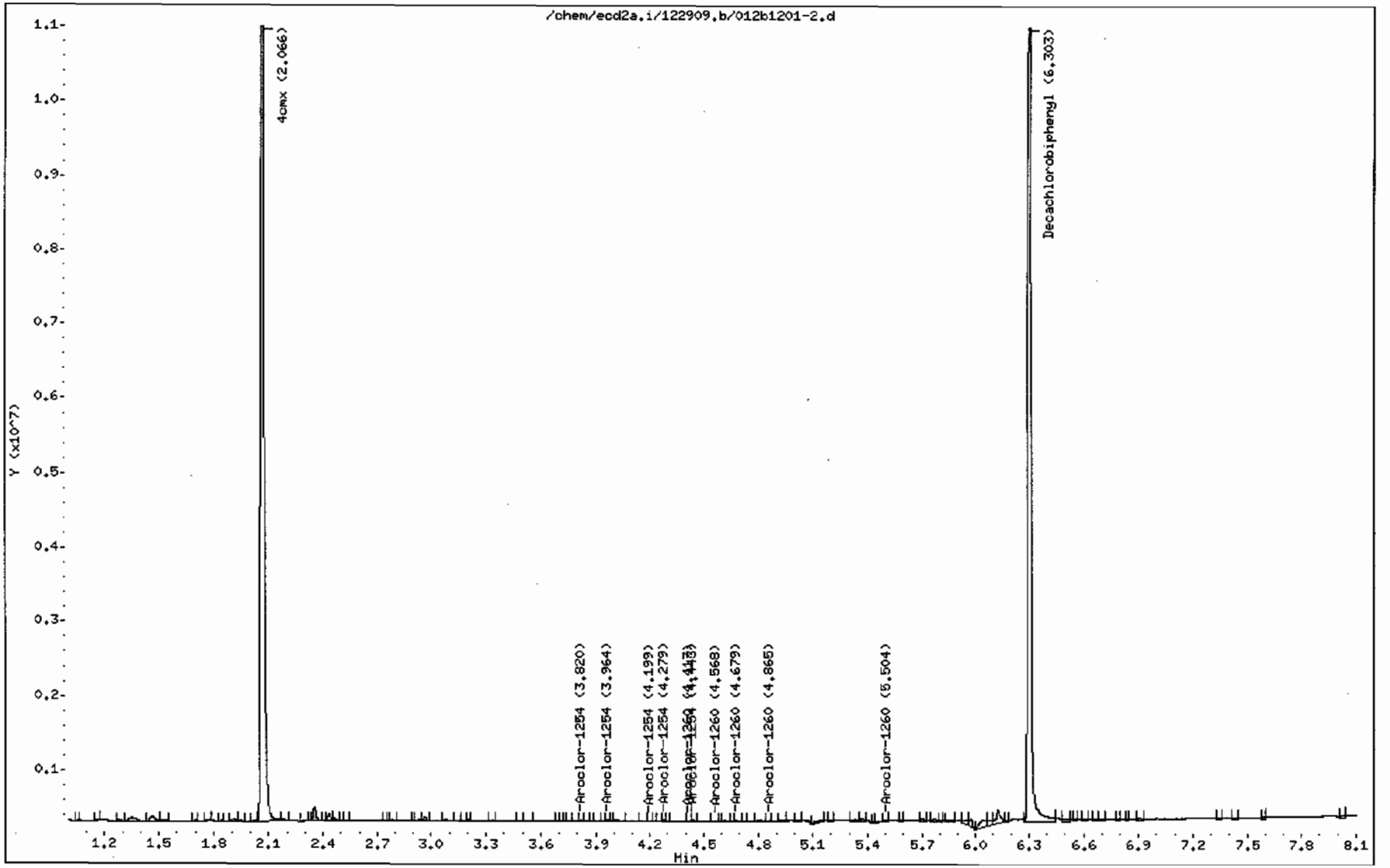

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10-1057**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202005227**				
Client Sample:	**QC for batch 937092**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 937092**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**937093**	**Inst:**	**ECD2A.I**	**Dilution:**	**1**
Run Date:	**12/29/2009 09:38**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**12/28/2009 20:43**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**013f1301-1.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	013b1301-1.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016		21.1	ug/kg	1.11	3.33	1
11104-28-2	Aroclor-1221	U	3.33	ug/kg	1.11	3.33	1
11141-16-5	Aroclor-1232	U	3.33	ug/kg	1.11	3.33	1
53469-21-9	Aroclor-1242	U	3.33	ug/kg	1.11	3.33	1
12672-29-6	Aroclor-1248	U	3.33	ug/kg	1.11	3.33	1
11097-69-1	Aroclor-1254	U	3.33	ug/kg	1.11	3.33	1
11096-82-5	Aroclor-1260		26.3	ug/kg	1.11	3.33	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/122909.b/013f1301-2.d
Lab Smp Id: 1202005227 Client Smp ID: PBLK01LCS
Inj Date : 29-DEC-2009 09:38
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |1202005227|1|
Misc Info : |ECD82P_1S|937093|SVA|QC A|SOIL|LCS|||
Comment :
Method : /chem/ecd2a.i/122909.b/ECD2-F-8082-111209A.m
Meth Date : 29-Dec-2009 14:49 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012f1201.d
Als bottle: 13 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1057.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.773	1.771	0.002	8184621	131.392	4.4	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.610	5.607	0.003	7531097	139.177	4.6	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.276	2.273	0.003	1464235	654.351	21.8	80.00- 120.00	100.00
2.599	2.597	0.002	2965794	633.004	21.1	191.82- 231.82	202.55
2.691	2.688	0.003	1186756	624.122	20.8	64.77- 104.77	81.05
2.826	2.823	0.003	618759	633.989	21.1	22.45- 62.45	42.26

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
1 Aroclor-1016 (continued)							
2.976	2.974	0.002	915257	627.806	20.9	43.69- 83.69	62.51
Average of Peak Concentrations =					21.2		
7 Aroclor-1260					CAS #: 11096-82-5		
4.016	4.014	0.002	3171930	761.550	25.4	80.00- 120.00	100.00
4.288	4.286	0.002	2014984	777.815	25.9	42.92- 82.92	63.53
4.454	4.451	0.003	2076929	789.345	26.3	46.15- 86.15	65.48
4.666	4.664	0.002	5017946	824.290	27.5	132.63- 172.63	158.20
4.856	4.853	0.003	2320195	788.605	26.3	53.77- 93.77	73.15
Average of Peak Concentrations =					26.3		

Data File: /chem/ecd2a.i/122909.b/013f1301-2.d
Date : 29-DEC-2009 09:38
Client ID: PBLK01LCS
Sample Info: |1202005227|1|
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecd2a.i

Operator: JAOC
Column diameter: 0.25

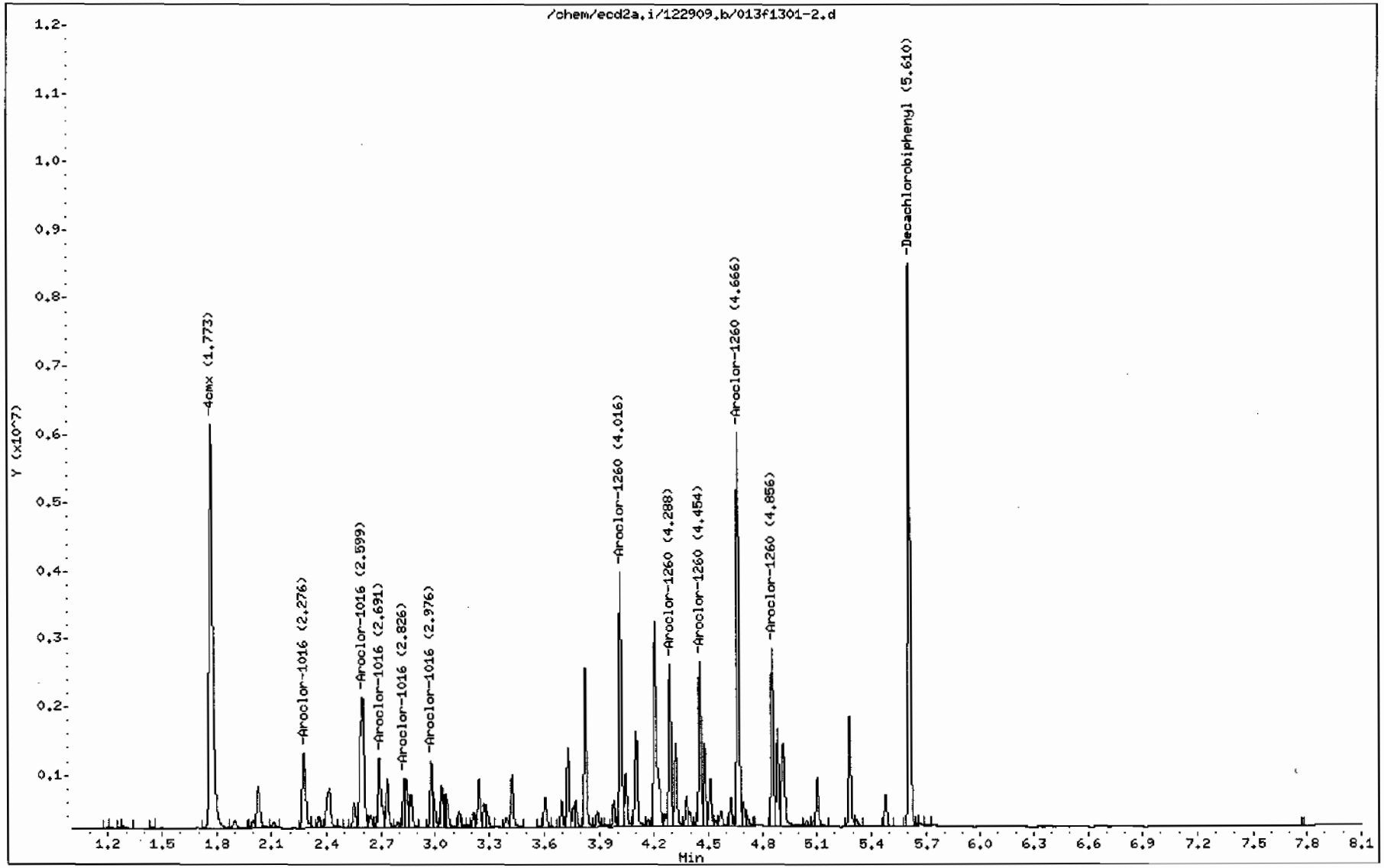

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/122909.b/013b1301-2.d
Lab Smp Id: 1202005227 Client Smp ID: PBLK01LCS
Inj Date : 29-DEC-2009 09:38
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |1202005227|1|
Misc Info : |ECD82P_1S|937093|SVA|QC A|SOIL|LCS|||
Comment :
Method : /chem/ecd2a.i/122909.b/ECD2-B-8082-111209A.m
Meth Date : 29-Dec-2009 14:47 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012b1201.d
Als bottle: 13 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1057.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpc1p1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.070	2.068	0.002	17898820	138.409	4.6	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.302	6.300	0.002	17817344	157.979	5.3	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.746	2.745	0.001	2879212	634.492	21.1	80.00- 120.00	100.00
3.181	3.179	0.002	2234760	620.393	20.7	58.34- 98.34	77.62
3.332	3.330	0.002	1305611	635.882	21.2	24.56- 64.56	45.35
3.361	3.359	0.002	1333055	623.771	20.8	26.71- 66.71	46.30

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
1 Aroclor-1016 (continued)							
3.519	3.518	0.001	1829775	637.438	21.2	43.42- 83.42	63.55
Average of Peak Concentrations =					21.0		
7 Aroclor-1260					CAS #: 11096-82-5		
4.415	4.414	0.001	4221981	732.103	24.4	80.00- 120.00	100.00
4.567	4.565	0.002	5453794	765.564	25.5	107.94- 147.94	129.18
4.678	4.677	0.001	3640930	755.582	25.2	67.11- 107.11	86.24
4.876	4.874	0.002	4331800	769.174	25.6	80.57- 120.57	102.60
5.502	5.500	0.002	7406477	819.526	27.3	146.62- 186.62	175.43
Average of Peak Concentrations =					25.6		

Data File: /chem/ecd2a.i/122909.b/013b1301-2.d
Date : 29-DEC-2009 09:38
Client ID: PBLK01LCS
Sample Info: |1202005227|1|
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd2a.i

Operator: JAOC
Column diameter: 0.25

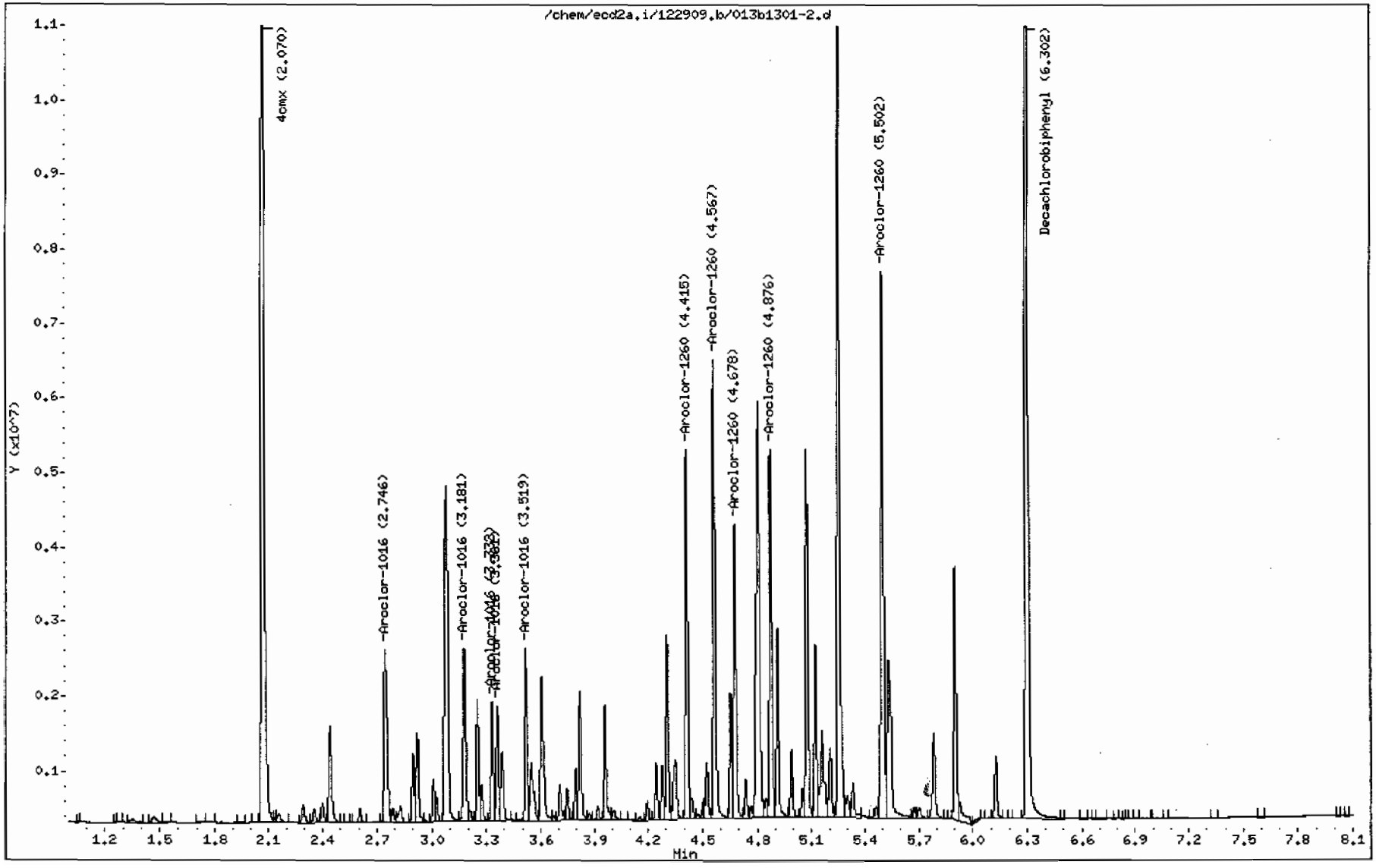

MISCELLANEOUS DATA

GEL ORGANIC RUN LOG INSTRUMENT ID: ECD2

DATE: 12/14/2009 METHOD: ECD2-F-8082-111209A.m OPERATOR:YS1 REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT:DA385
ALUMINA LOT:1230997-A
COPPER LOT:236547-A

Calibration & QC Information
Initial Calibration Dates: See Calibration History and Standards Log
Initial Calibration Std ID's: See Calibration History and Standards Log
GEL SOP GL-OA-E-040
EPA Method: 8082 Polychlorinated Biphenyls PCBs by Gas Chromatography
Sequence Number: Injection Volume: 1.0 uL

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001f0101.d	WAR091130-99 IB	YS1	14-DEC-2009 07:00		121409	1.0		CLEAN
002f0201.d	WAR091211-60 01	YS1	14-DEC-2009 07:11		121409	1.0		DUSE RE-I-CAL
003f0301.d	WAR091102-54	YS1	14-DEC-2009 07:22		121409	1.0		PASSED ON BOTH COLUMNS
004f0401.d	WAR091102-42	YS1	14-DEC-2009 07:33		121409	1.0		PASSED ON BOTH COLUMNS
005f0501.d	WAR091027-48	YS1	14-DEC-2009 07:44		121409	1.0		PASSED ON BOTH COLUMNS
006f0601.d	WAR090930-32	YS1	14-DEC-2009 07:55		121409	1.0		PATTERN ONLY
007f0701.d	WAR091111-21	YS1	14-DEC-2009 08:07		121409	1.0		PATTERN ONLY
008f0801.d	AR1660-4	YS1	14-DEC-2009 08:18		121409	1.0		DUSE SCREEN
009f0901.d	WAR091111-62	YS1	14-DEC-2009 08:29		121409	1.0		PATTERN ONLY
010f1001.d	WAR091106-68	YS1	14-DEC-2009 08:40		121409	1.0		PATTERN ONLY
011f1101.d	WAR091214-01 60	YS1	14-DEC-2009 08:51		121409	1.0		AR1660 I-CAL LEVEL 1
012f1201.d	WAR091214-02 60	YS1	14-DEC-2009 09:02		121409	1.0		AR1660 I-CAL LEVEL 2
013f1301.d	WAR091214-03 60	YS1	14-DEC-2009 09:13		121409	1.0		AR1660 I-CAL LEVEL 3
014f1401.d	WAR091214-04 60	YS1	14-DEC-2009 09:24		121409	1.0		AR1660 I-CAL LEVEL 4
015f1501.d	IAR091102-01	YS1	14-DEC-2009 09:35		121409	1.0		AR1660 I-CAL LEVEL 5

Instrument Batch: /chem/ecd2a.i/121409.b Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
016f1601.d	WAR091211-60 01	YS1	14-DEC-2009 09:46		121409	1.0		PASSED ON BOTH COLUMNS

017f1701.d	WAR091020-DDT	YS1	14-DEC-2009 09:58		121409		1.0		DDT ANALOG STANDARD
018f1801.d	WAR091130-99 02	YS1	14-DEC-2009 10:09	SOLV	121409		1.0	IB	CLEAN
019f1901.d	1201992205	YS1	14-DEC-2009 10:20	931371	241934		1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
020f2001.d	1201992206	YS1	14-DEC-2009 10:31	931371	241934		1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
021f2101.d	241934001	YS1	14-DEC-2009 10:42	931371	241934		10.0	NREA	UPLOAD BOTH COLUMNS, USE HIGHER
022f2201.d	1201992207	YS1	14-DEC-2009 10:53	931371	241934		10.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
023f2301.d	1201992208	YS1	14-DEC-2009 11:04	931371	241934		10.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
024f2401.d	241934002	YS1	14-DEC-2009 11:15	931371	241934		1.0	NREA	UPLOAD BOTH COLUMNS, USE HIGHER
025f2501.d	241934003	YS1	14-DEC-2009 11:26	931371	241934		1.0	NREA	UPLOAD BOTH COLUMNS, USE HIGHER
026f2601.d	241934004	YS1	14-DEC-2009 11:37	931371	241934		10.0	NREA	UPLOAD BOTH COLUMNS, USE HIGHER
027f2701.d	241934005	YS1	14-DEC-2009 11:48	931371	241934		1.0	NREA	UPLOAD BOTH COLUMNS, USE HIGHER
028f2801.d	241934006	YS1	14-DEC-2009 11:59	931371	241934		20.0	NREA	UPLOAD BOTH COLUMNS, USE HIGHER
029f2901.d	WAR091211-60 02	YS1	14-DEC-2009 12:11	1660	121409		1.0	CVS	PASSED ON BOTH COLUMNS
030f3001.d	WAR091130-99 03	YS1	14-DEC-2009 12:22	SOLV	121409		1.0	IB	CLEAN
031f3101.d	241934007	YS1	14-DEC-2009 12:33	931371	241934		1.0	NREA	UPLOAD BOTH COLUMNS, USE HIGHER
032f3201.d	241934008	YS1	14-DEC-2009 12:44	931371	241934		10.0	NREA	UPLOAD BOTH COLUMNS, USE HIGHER
033f3301.d	241934009	YS1	14-DEC-2009 13:00	931371	241934		1.0	NREA	DUSE RR5X AFTER MORE SULFUR CLEANED
034f3401.d	241934010	YS1	14-DEC-2009 13:11	931371	241934		10.0	NREA	UPLOAD BOTH COLUMNS, USE HIGHER
035f3501.d	241934011	YS1	14-DEC-2009 13:27	931371	241934		5.0	NREA	UPLOAD BOTH COLUMNS, USE HIGHER

Instrument Batch: /chem/ecd2a.i/121409.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
036f3601.d	241935001	YS1	14-DEC-2009 13:43	931371	241935	1.0	NREA	UPLOAD BOTH COLUMNS, USE HIGHER
037f3701.d	241935004	YS1	14-DEC-2009 13:54	931371	241935	5.0	NREA	UPLOAD BOTH COLUMNS, USE HIGHER
038f3801.d	241935005	YS1	14-DEC-2009 14:05	931371	241935	5.0	NREA	UPLOAD BOTH COLUMNS, USE HIGHER
039f3901.d	241935006	YS1	14-DEC-2009 14:21	931371	241935	50.0	NREA	UPLOAD BOTH COLUMNS, USE HIGHER
040f4001.d	241935007	YS1	14-DEC-2009 14:36	931371	241935	5.0	NREA	UPLOAD BOTH COLUMNS, USE HIGHER
041f4101.d	WAR091211-60 03	YS1	14-DEC-2009 14:52		121409	1.0		PASSED ON BOTH COLUMNS

042f4201.d	WAR091130-99 04	YS1	14-DEC-2009 15:03	SOLV	121409		1.0	IB	CLEAN
043f4301.d	241934009	YS1	14-DEC-2009 15:14	931371	241934		5.0	NREA	UPLOAD BOTH COLUMNS, USE HIGHER
044f4401.d	241935008	YS1	14-DEC-2009 15:30	931371	241935		20000.0	NREA	UPLOAD BOTH COLUMNS, USE HIGHER
045f4501.d	WAR091211-60 04	YS1	14-DEC-2009 15:45		121409		1.0		PASSED ON BOTH COLUMNS

GEL ORGANIC RUN LOG INSTRUMENT ID: ECD2

DATE: 12/30/2009 METHOD: ECD2-F-8082-111209A.m OPERATOR:JAOC REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT:DA385
ALUMINA LOT:1230997-A
COPPER LOT:236547-A

Calibration & QC Information
Initial Calibration Dates: See Calibration History and Standards Log
Initial Calibration Std ID's: See Calibration History and Standards Log
GEL SOP GL-OA-E-040
EPA Method: 8082 Polychlorinated Biphenyls PCBs by Gas Chromatography
Sequence Number:122909 Injection Volume: 1.0 uL

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001f0101.d	WAR091130-99 IB	JAOC	29-DEC-2009 07:15		122909	1.0		CLEAN
002f0201.d	WAR091211-60 01	JAOC	29-DEC-2009 07:26		122909	1.0		PASSES BOTH COLUMNS
003f0301.d	WAR091216-54	JAOC	29-DEC-2009 07:37		122909	1.0		PASSES BOTH COLUMNS
004f0401.d	WAR091217-42	JAOC	29-DEC-2009 07:48		122909	1.0		PASSES BOTH COLUMNS
005f0501.d	WAR091217-48	JAOC	29-DEC-2009 07:59		122909	1.0		PASSES BOTH COLUMNS
006f0601.d	WAR090930-32	JAOC	29-DEC-2009 08:17		122909	1.0		PATTERN ONLY
007f0701.d	WAR091111-21	JAOC	29-DEC-2009 08:28		122909	1.0		PATTERN ONLY
008f0801.d	WAR091111-62	JAOC	29-DEC-2009 08:39		122909	1.0		PATTERN ONLY
009f0901.d	WAR091106-68	JAOC	29-DEC-2009 08:50		122909	1.0		PATTERN ONLY
010f1001.d	WAR091219-DDT	JAOC	29-DEC-2009 09:01		122909	1.0		DDT
011f1101.d	WAR091130-99 02	JAOC	29-DEC-2009 09:13		122909	1.0		CLEAN
012f1201.d	1202005226	JAOC	29-DEC-2009 09:27	937093	10-1036	1.0	QC A	UPLOAD BOTH, USE HIGHER
013f1301.d	1202005227	JAOC	29-DEC-2009 09:38	937093	10-1036	1.0	QC A	UPLOAD BOTH, USE HIGHER
014f1401.d	243457003	JAOC	29-DEC-2009 09:49	937093	10-1038	1.0	LANL	UPLOAD BOTH, USE HIGHER
015f1501.d	243457004	JAOC	29-DEC-2009 10:00	937093	10-1038	1.0	LANL	UPLOAD BOTH, USE HIGHER

Instrument Batch: /chem/ecd2a.i/122909.b Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
016f1601.d	243472001	JAOC	29-DEC-2009 10:11	937093	10-1057	1.0	LANL	UPLOAD BOTH, USE HIGHER

017f1701.d	243472002	JAOC	29-DEC-2009 10:22	937093	10-1057	1.0	LANL	UPLOAD BOTH, USE HIGHER
018f1801.d	243472003	JAOC	29-DEC-2009 10:33	937093	10-1057	1.0	LANL	UPLOAD BOTH, USE HIGHER
019f1901.d	243490001	JAOC	29-DEC-2009 10:44	937093	10-1036	1.0	LANL	UPLOAD BOTH, USE HIGHER
020f2001.d	243490002	JAOC	29-DEC-2009 10:55	937093	10-1036	1.0	LANL	UPLOAD BOTH, USE HIGHER
021f2101.d	243490003	JAOC	29-DEC-2009 11:06	937093	10-1036	1.0	LANL	UPLOAD BOTH, USE HIGHER
022f2201.d	WAR091211-60 02	JAOC	29-DEC-2009 11:17		122909	1.0		PASSES BOTH COLUMNS
023f2301.d	WAR091130-99 03	JAOC	29-DEC-2009 11:28		122909	1.0		CLEAN
024f2401.d	243490004	JAOC	29-DEC-2009 11:40	937093	10-1036	1.0	LANL	UPLOAD BOTH, USE HIGHER
025f2501.d	243517007	JAOC	29-DEC-2009 11:51	937093	10-1073	1.0	LANL	UPLOAD BOTH, USE HIGHER
026f2601.d	243517008	JAOC	29-DEC-2009 12:02	937093	10-1073	1.0	LANL	UPLOAD BOTH, USE HIGHER
027f2701.d	243517009	JAOC	29-DEC-2009 12:13	937093	10-1073	1.0	LANL	UPLOAD BOTH, USE HIGHER
028f2801.d	243519001	JAOC	29-DEC-2009 12:24	937093	10-1074	1.0	LANL	UPLOAD BOTH, USE HIGHER
029f2901.d	243519002	JAOC	29-DEC-2009 12:35	937093	10-1074	1.0	LANL	UPLOAD BOTH, USE HIGHER
030f3001.d	243519003	JAOC	29-DEC-2009 12:46	937093	10-1074	1.0	LANL	UPLOAD BOTH, USE HIGHER
031f3101.d	243519004	JAOC	29-DEC-2009 12:57	937093	10-1074	1.0	LANL	UPLOAD BOTH, USE HIGHER
032f3201.d	243519005	JAOC	29-DEC-2009 13:08	937093	10-1074	1.0	LANL	UPLOAD BOTH, USE HIGHER
033f3301.d	WAR091211-60 03	JAOC	29-DEC-2009 13:19		122909	1.0		PASSES BOTH COLUMNS
034f3401.d	WAR091130-99 04	JAOC	29-DEC-2009 13:30		122909	1.0		CLEAN
035f3501.d	243547002	JAOC	29-DEC-2009 13:42	937093	10-1084	1.0	LANL	UPLOAD BOTH, USE HIGHER

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
036f3601.d	1202005228	JAOC	29-DEC-2009 13:53	937093	10-1084	1.0	QC A	UPLOAD BOTH, USE HIGHER
037f3701.d	1202005229	JAOC	29-DEC-2009 14:04	937093	10-1084	1.0	QC A	UPLOAD BOTH, USE HIGHER
038f3801.d	243547003	JAOC	29-DEC-2009 14:15	937093	10-1084	1.0	LANL	UPLOAD BOTH, USE HIGHER
039f3901.d	WAR091211-60 04	JAOC	29-DEC-2009 14:26		122909	1.0		PASSES BOTH COLUMNS
040f4001.d	WAR091130-99 05	JAOC	29-DEC-2009 14:37		122909	1.0		CLEAN

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/122909.b/036b3601.d
Lab Smp Id: 1202005228 Client Smp ID: WST54-10-9921MS
Inj Date : 29-DEC-2009 13:53
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |1202005228|1|
Misc Info : |ECD82P_1S|937093|SVA|QC A|SOIL|MS|||
Comment :
Method : /chem/ecd2a.i/122909.b/ECD2-B-8082-111209A.m
Meth Date : 29-Dec-2009 14:47 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012b1201.d
Als bottle: 36 QC Sample: MS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1084.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.14000	Weight of sample extracted (g)
M	11.09100	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.068	2.068	0.000	17126572	132.438	4.9	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.301	6.300	0.001	17171358	152.251	5.7	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.746	2.745	0.001	2830727	623.808	23.3	80.00- 120.00	100.00
3.180	3.179	0.001	2217386	615.570	23.0	58.34- 98.34	78.33
3.331	3.330	0.001	1337551	651.438	24.3	24.56- 64.56	47.25
3.359	3.359	0.000	1208015	565.261	21.1	26.71- 66.71	42.68
3.519	3.518	0.001	1875453	653.350	24.4	43.42- 83.42	66.25

Average of Peak Concentrations = 23.2

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
7 Aroclor-1260					CAS #: 11096-82-5		
4.414	4.414	0.000	4459338	773.261	28.8	80.00- 120.00	100.00
4.566	4.565	0.001	5860124	822.602	30.7	107.94- 147.94	131.41
4.678	4.677	0.001	3877434	804.663	30.0	67.11- 107.11	86.95
4.875	4.874	0.001	4545278	807.080	30.1	80.57- 120.57	101.93
5.501	5.500	0.001	7616995	842.820	31.4	146.62- 186.62	170.81

Average of Peak Concentrations = 30.2

Data File: /chem/ecd2a.i/122909.b/036b3601.d
Date : 29-DEC-2009 13:53
Client ID: WST54-10-9921MS
Sample Info: |1202005228|1|
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd2a.i

Operator: JADC
Column diameter: 0.25

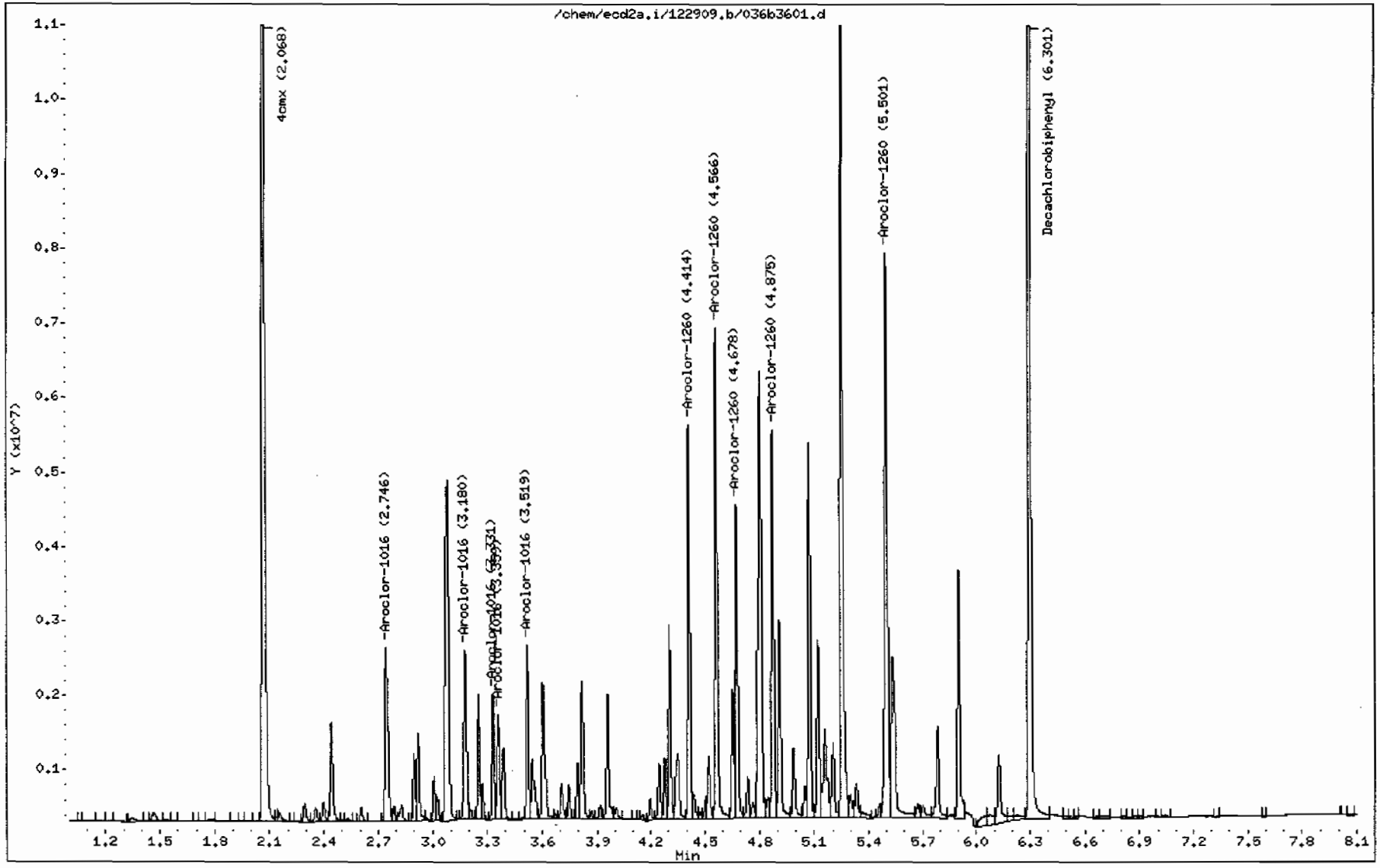

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/122909.b/036f3601.d
Lab Smp Id: 1202005228 Client Smp ID: WST54-10-9921MS
Inj Date : 29-DEC-2009 13:53
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |1202005228|1|
Misc Info : |ECD82P_1S|937093|SVA|QC A|SOIL|MS|||
Comment :
Method : /chem/ecd2a.i/122909.b/ECD2-F-8082-111209A.m
Meth Date : 29-Dec-2009 14:49 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012f1201.d
Als bottle: 36 QC Sample: MS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1084.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.14000	Weight of sample extracted (g)
M	11.09100	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.771	1.771	0.000	7821503	125.563	4.7	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.609	5.607	0.002	7461180	137.885	5.1	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.274	2.273	0.001	1358669	607.175	22.6	80.00- 120.00	100.00(M)
2.598	2.597	0.001	2913922	621.933	23.2	191.82- 231.82	214.47
2.688	2.688	0.000	1173723	617.268	23.0	64.77- 104.77	86.39
2.824	2.823	0.001	604102	618.971	23.1	22.45- 62.45	44.46
2.976	2.974	0.002	793559	544.329	20.3	43.69- 83.69	58.41

Average of Peak Concentrations = 22.4

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
7 Aroclor-1260					CAS #: 11096-82-5		
4.016	4.014	0.002	3324493	798.179	29.8	80.00- 120.00	100.00
4.287	4.286	0.001	2060507	795.387	29.7	42.92- 82.92	61.98
4.452	4.451	0.001	2108687	801.415	29.9	46.15- 86.15	63.43
4.665	4.664	0.001	5154171	846.668	31.6	132.63- 172.63	155.04
4.855	4.853	0.002	2180887	741.256	27.7	53.77- 93.77	65.60
		Average of Peak Concentrations =			29.7		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd2a.i/122909.b/036f3601.d
Date : 29-DEC-2009 13:53
Client ID: WST54-10-9921MS
Sample Info: |1202005228|1|
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecd2a.i

Operator: JAOC
Column diameter: 0.25

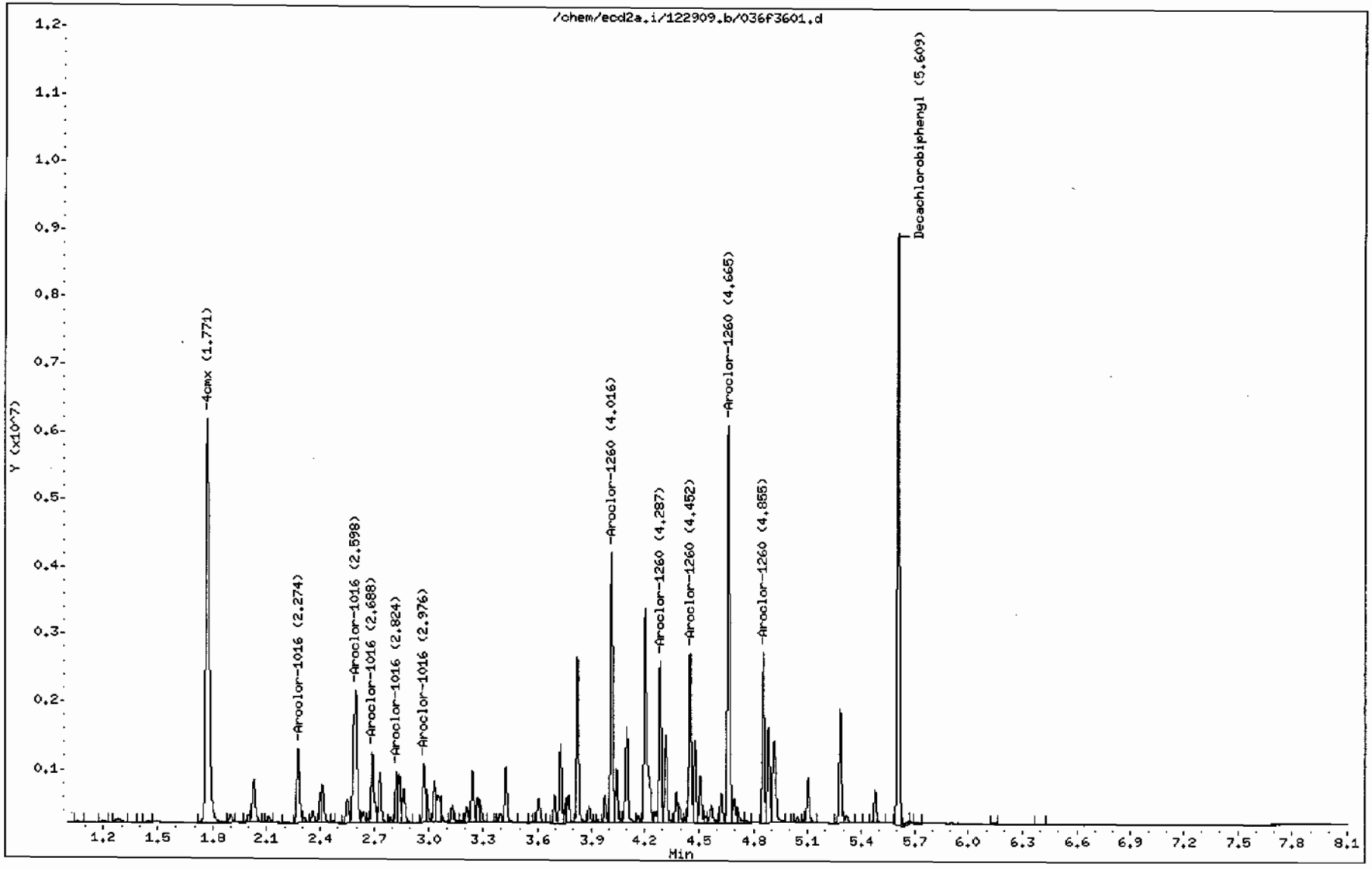

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/122909.b/037b3701.d
Lab Smp Id: 1202005229 Client Smp ID: WST54-10-9921MSD
Inj Date : 29-DEC-2009 14:04
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |1202005229|1|
Misc Info : |ECD82P_1S|937093|SVA|QC A|SOIL|MSD|||
Comment :
Method : /chem/ecd2a.i/122909.b/ECD2-B-8082-111209A.m
Meth Date : 29-Dec-2009 14:47 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012b1201.d
Als bottle: 37 QC Sample: MSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1084.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.17000	Weight of sample extracted (g)
M	11.09100	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.069	2.068	0.001	18247734	141.107	5.3	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.301	6.300	0.001	17814926	157.958	5.9	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.746	2.745	0.001	2912309	641.786	23.9	80.00- 120.00	100.00
3.181	3.179	0.002	2339521	649.476	24.2	58.34- 98.34	80.33
3.332	3.330	0.002	1388934	676.463	25.2	24.56- 64.56	47.69
3.360	3.359	0.001	1402698	656.359	24.5	26.71- 66.71	48.16
3.519	3.518	0.001	1933785	673.672	25.1	43.42- 83.42	66.40

Average of Peak Concentrations = 24.6

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
7 Aroclor-1260					CAS #: 11096-82-5		
4.414	4.414	0.000	4606360	798.755	29.8	80.00- 120.00	100.00
4.566	4.565	0.001	6012028	843.925	31.5	107.94- 147.94	130.52
4.677	4.677	0.000	3959627	821.720	30.6	67.11- 107.11	85.96
4.875	4.874	0.001	4649139	825.522	30.8	80.57- 120.57	100.93
5.500	5.500	0.000	7728487	855.157	31.9	146.62- 186.62	167.78
		Average of Peak Concentrations =			30.9		

Data File: /chem/ecd2a.i/122909.b/037b3701.d
Date : 29-DEC-2009 14:04
Client ID: WST54-10-9921MSD
Sample Info: |1202005229|1|
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd2a.i
Operator: JAOC
Column diameter: 0.25

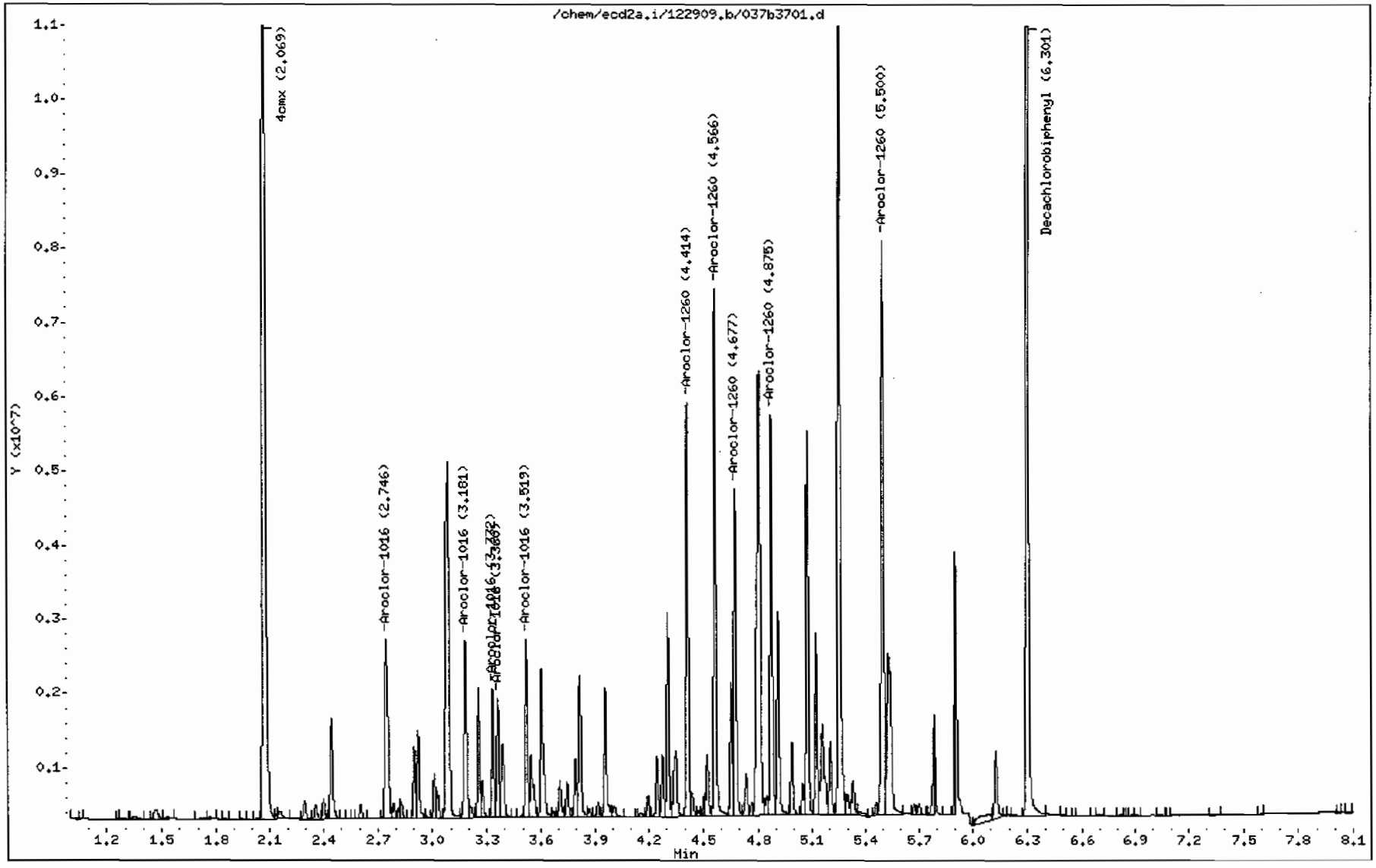

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/122909.b/037f3701.d
Lab Smp Id: 1202005229 Client Smp ID: WST54-10-9921MSD
Inj Date : 29-DEC-2009 14:04
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |1202005229|1|
Misc Info : |ECD82P_1S|937093|SVA|QC A|SOIL|MSD|||
Comment :
Method : /chem/ecd2a.i/122909.b/ECD2-F-8082-111209A.m
Meth Date : 29-Dec-2009 14:49 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012f1201.d
Als bottle: 37 QC Sample: MSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1084.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.17000	Weight of sample extracted (g)
M	11.09100	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.772	1.771	0.001	8299557	133.237	5.0	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.608	5.607	0.001	7807358	144.283	5.4	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.275	2.273	0.002	1410986	630.555	23.5	80.00- 120.00	100.00
2.599	2.597	0.002	3065472	654.279	24.4	191.82- 231.82	217.26
2.690	2.688	0.002	1214242	638.577	23.8	64.77- 104.77	86.06
2.825	2.823	0.002	632311	647.874	24.2	22.45- 62.45	44.81
2.977	2.974	0.003	960167	658.611	24.6	43.69- 83.69	68.05

Average of Peak Concentrations = 24.1

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
7 Aroclor-1260					CAS #: 11096-82-5		
4.015	4.014	0.001	3436575	825.089	30.8	80.00- 120.00	100.00
4.287	4.286	0.001	2150260	830.033	30.9	42.92- 82.92	62.57
4.452	4.451	0.001	2183682	829.917	30.9	46.15- 86.15	63.54
4.665	4.664	0.001	5313352	872.816	32.5	132.63- 172.63	154.61
4.854	4.853	0.001	2261311	768.591	28.6	53.77- 93.77	65.80
Average of Peak Concentrations =					30.7		

Data File: /chem/ecd2a.i/122909.b/037f3701.d
Date : 29-DEC-2009 14:04
Client ID: WST54-10-9921MSD
Sample Info: |120200522911|
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecd2a.i

Operator: JAOC
Column diameter: 0.25

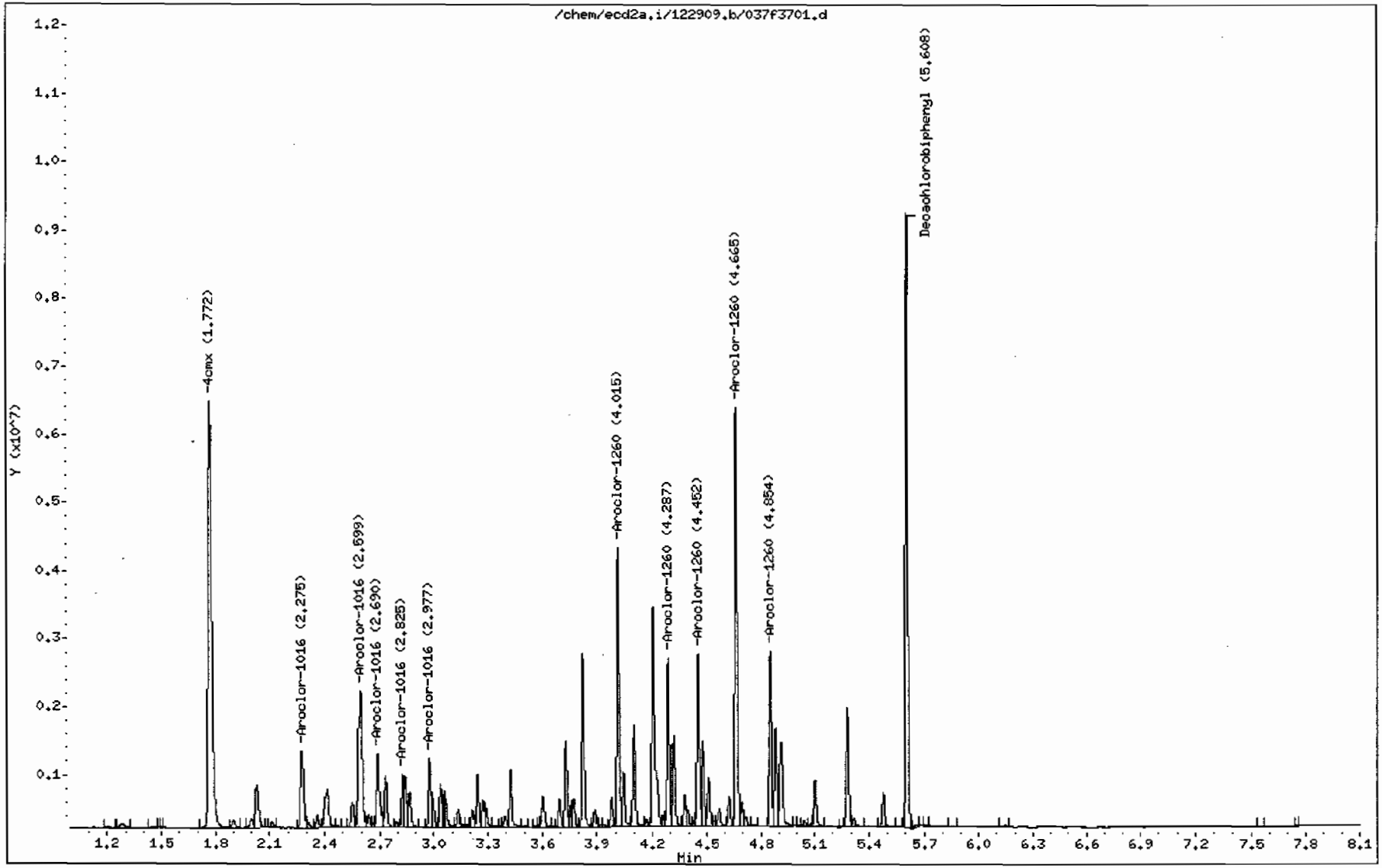

Prep Logbook

Extraction of Semivolatile and Nonvolatile Organic Compounds from Soil, Sludge, and Other Miscellaneous Solid Samples

Batch ID: 937092 **Verified by:** _____

Analyst: Andrew Schwemin

Method: SW846 3550B

Lab SOP: GL-OA-E-010 REV# 18

Instrument: Semi-Volatiles Manual

Sample ID	Run Date	Aliquot (g)	Clean Up	Prior to Clean up (mL)	Amount Cleaned (mL)	After Clean up (mL)	Prepped Aliquot (mL)	Prepped Factor (mL/g)
1202005226 MB	28-DEC-2009 20:43:58	30	H2SO4/KMn2		2	9	1	0.03333
1202005227 LCS	28-DEC-2009 20:43:58	30	H2SO4/KMn2		2	9	1	0.03333
243457003	28-DEC-2009 20:43:58	30.02	H2SO4/KMn2		2	9	1	0.03331
243457004	28-DEC-2009 20:43:58	30.19	H2SO4/KMn2		2	9	1	0.03312
243472001	28-DEC-2009 20:43:58	30.02	H2SO4/KMn2		2	9	1	0.03331
243472002	28-DEC-2009 20:43:58	30.03	H2SO4/KMn2		2	9	1	0.0333
243472003	28-DEC-2009 20:43:58	30.12	H2SO4/KMn2		2	9	1	0.0332
243490001	28-DEC-2009 20:43:58	30.08	H2SO4/KMn2		2	9	1	0.03324
243490002	28-DEC-2009 20:43:58	30.14	H2SO4/KMn2		2	9	1	0.03318
243490003	28-DEC-2009 20:43:58	30.05	H2SO4/KMn2		2	9	1	0.03328
243517007	28-DEC-2009 20:43:58	30.14	H2SO4/KMn2		2	9	1	0.03318
243517008	28-DEC-2009 20:43:58	30.15	H2SO4/KMn2		2	9	1	0.03317
243517009	28-DEC-2009 20:43:58	30.01	H2SO4/KMn2		2	9	1	0.03332
243519001	28-DEC-2009 20:43:58	30.17	H2SO4/KMn2		2	9	1	0.03315
243519002	28-DEC-2009 20:43:58	30.19	H2SO4/KMn2		2	9	1	0.03312
243519003	28-DEC-2009 20:43:58	30.04	H2SO4/KMn2		2	9	1	0.03329
243519004	28-DEC-2009 20:43:58	30.01	H2SO4/KMn2		2	9	1	0.03332
243519005	28-DEC-2009 20:43:58	30.11	H2SO4/KMn2		2	9	1	0.03321
243547002	28-DEC-2009 20:43:58	30.04	H2SO4/KMn2		2	9	1	0.03329
1202005228 MS (243547002)	28-DEC-2009 20:43:58	30.14	H2SO4/KMn2		2	9	1	0.03318
1202005229 MSD (243547002)	28-DEC-2009 20:43:58	30.17	H2SO4/KMn2		2	9	1	0.03315
243547003	28-DEC-2009 20:43:58	30.04	H2SO4/KMn2		2	9	1	0.03329

Type	Sample Id	Description	Serial Number	Spike Amt	Units
LCS	1202005227	PCB Laboratory Control	WE091210-07	1	mL
MS	1202005228	PCB Laboratory Control	WE091210-07	1	mL
MSD	1202005229	PCB Laboratory Control	WE091210-07	1	mL
SURR	All	PEST LOW LEVEL SURROGATE 200 UG/L	UE091130-15	1	mL
REGNT	All	1:1 sulfuric acid	1133264a	5	mL
REGNT	All	Acetone	1233927	150	mL
REGNT	All	Hexane	1241300-B2	150	mL
REGNT	All	5% Potassium Permanganate	B1202457-F	5	mL
SOURC	All	SODIUM SULFATE	1242582	30	g

Comments:

Clean up Date: 12/28/09

Clean up Initials: AJS

Verified By: AV

Final Solvent: Hexane

Clean Up SOP: GL-OA-E-037

Metals Analysis

Case Narrative

Metals Fractional Narrative
Los Alamos National Laboratory (LANL)
SDG 10-1057

Sample Analysis

Sample ID	Client ID
243472001	RE03-09-14228
243472002	RE03-09-14230
243472003	RE03-09-14229
1202004426	Method Blank (MB) **ICP**
1202014118	Method Blank (MB) **ICP**
1202004427	Laboratory Control Sample (LCS)
1202014119	Laboratory Control Sample (LCS)
1202004430	243549002(WST03-10-2148L) Serial Dilution (SD)
1202004428	243549002(WST03-10-2148D) Sample Duplicate (DUP)
1202004429	243549002(WST03-10-2148S) Matrix Spike (MS)
1202004431	243549002(WST03-10-2148SD) Matrix Spike Duplicate (MSD)
1202004420	Method Blank (MB) **ICP-MS**
1202004421	Laboratory Control Sample (LCS)
1202004424	243549002(WST03-10-2148L) Serial Dilution (SD)
1202004422	243549002(WST03-10-2148D) Sample Duplicate (DUP)
1202004423	243549002(WST03-10-2148S) Matrix Spike (MS)
1202004425	243549002(WST03-10-2148SD) Matrix Spike Duplicate (MSD)
1202006448	Method Blank (MB) **CVAA**
1202006453	Laboratory Control Sample (LCS)
1202006450	243457001(RE12-10-7553L) Serial Dilution (SD)
1202006449	243457001(RE12-10-7553D) Sample Duplicate (DUP)
1202006451	243457001(RE12-10-7553S) Matrix Spike (MS)
1202006452	243457001(RE12-10-7553SD) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on a "dry weight" basis.

Method/Analysis Information

Analytical Batch:	936808, 941050, 936805 and 937638
Prep Batch :	936807, 941049, 936804 and 937637
Standard Operating Procedures:	GL-MA-E-013 REV# 20, GL-MA-E-009 REV# 19, GL-MA-E-014 REV# 21 and GL-MA-E-010 REV# 23
Analytical Method:	SW846 3050B/6010B, SW846 3050B/6020 and SW846 7471A
Prep Method :	SW846 3050B and SW846 7471A Prep

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

System Configuration

The Metals analysis-ICP was performed on a P E 5300 Optima radial/axial-viewing inductively coupled plasma atomic emission spectrometer. The instrument is equipped with a Burgener nebulizer, cyclonic spray chamber, and yttrium or scandium internal standard. Operating conditions for the ICP are set at a power level of 1500 watts. The instrument has a peristaltic pump flow rate of 1.4L/min, argon gas flows of 15 L/min and 0.2 L/min for the torch and auxiliary gases, and a flow setting of 0.65L/min for the nebulizer.

The Metals analysis - ICPMS was performed on a Perkin Elmer ELAN 9000 inductively coupled plasma mass spectrometer (ICP-MS). The instrument is equipped with a cross-flow nebulizer, quadrupole mass spectrometer, and dual mode electron multiplier detector. Internal standards of scandium, germanium, indium, tantalum, and/or lutetium were utilized to cover the mass spectrum. Operating conditions are set at 1400W power and combined argon pressures of 360+/-7 kPa for the plasma and auxiliary gases, and 0.85 L/min carrier gas flow, and an initial lens voltage of 5.2.

The Metals analysis-Mercury was performed on a Perkin-Elmer Flow Injection Mercury System (FIMS-100) automated mercury analyzer. The instrument consists of a cold vapor atomic absorption spectrometer set to detect mercury at a wavelength of 253.7 nm. Sample introduction through the flow injection system is performed via a peristaltic pump at 9 mL/min and nitrogen carrier gas rate of 80 mL/min.

Calibration Information

Instrument Calibration
All initial calibration requirements have been met for this sample delivery group (SDG).

CRDL Requirements
All CRDL standard(s) met the referenced advisory control limits.

ICSA/ICSAB Statement
All interference check samples (ICSA and ICSAB) associated with this SDG met the established acceptance criteria.

Continuing Calibration Blank (CCB) Requirements
All continuing calibration blanks (CCB) bracketing this batch met the established acceptance criteria.

Continuing Calibration Verification (CCV) Requirements
All continuing calibration verifications (CCV) bracketing this SDG met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MBs analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS analyzed with this SDG met the acceptance criteria of percent recovery.

Quality Control (QC) Sample Statement
The following samples were selected as the quality control (QC) samples for this SDG: 243549002 (WST03-10-2148)-ICP and ICP-MS and 243457001 (RE12-10-7553)-CVAA.

Matrix Spike (MS) Recovery Statement
The percent recoveries (%R) obtained from the MS analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. The MS met the recommended quality control acceptance criteria for percent recoveries for all applicable analytes with the exceptions of calcium, magnesium, potassium and silicon as indicated by the "N" qualifiers.

Matrix Spike Duplicate (MSD) Recovery Statement
The percent recovery (%R) obtained from the MSD analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. The MSD met the recommended quality control acceptance criteria for percent recoveries for all applicable analytes with the exceptions of selenium, magnesium, potassium and silicon as indicated by the "N" qualifiers.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD(s) between the MS and MSD met the acceptance limits.

Duplicate Relative Percent Difference (RPD) Statement
The relative percent difference (RPD) obtained from the designated sample duplicate (DUP) is evaluated based on acceptance criteria of 20% when the sample is >5X the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the contract required detection limit (RL), a control of +/-RL is used to evaluate the DUP results. All applicable analytes met these requirements with the exceptions of beryllium, nickel, cobalt,

titanium and vanadium as indicated by the "*" qualifiers.

Serial Dilution % Difference Statement
The serial dilution is used to assess matrix suppression or enhancement. Raw element concentrations that are 25X the IDL/MDL for CVAA, 50X the IDL/MDL for ICP, and 100X the IDL/MDL for ICP-MS analyses are applicable for serial dilution assessment. All applicable analytes met the acceptance criteria of less than 10% difference (%D) with the exception of iron as indicated by the "E" qualifier.

Technical Information

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Sample Dilutions
Dilutions are performed to minimize matrix interferences resulting from elevated mineral element concentrations present in solid samples and/or to bring over range target analyte concentrations into the linear calibration range of the instrument. The samples in this SDG were diluted the standard 2x for solids on the ICPMS.

Preparation Information
The samples in this SDG were prepared exactly according to the cited SOP.

Miscellaneous Information

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. The following DER was generated for this SDG: DER ID 779262, 780456 and 780714. A copy is included in the Miscellaneous Data section of this package.

Additional Comments
Additional comments were not required for this SDG.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Nik-Cole A. Elmore **Date:** 1·19·10

Sample Data Summary

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1057 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 243472001 **BASIS:** Dry Weight **DATE COLLECTED** 21-DEC-09

CLIENT ID: RE03-09-14228 **LEVEL:** Low **DATE RECEIVED** 23-DEC-09

MATRIX: SOIL **%SOLIDS:** 90

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	663000	ug/Kg		7460	22000	22000	1	P	HSC	01/12/10 00:54	011110A-1	936808
7440-36-0	Antimony	1110	ug/Kg	U	366	1110	1110	1	P	HSC	01/14/10 21:45	011410-2	941050
7440-38-2	Arsenic	0.386	mg/kg	J	0.219	1.09	1.09	2	MS	RMJ	01/13/10 22:21	100113-4	936805
7440-39-3	Barium	10000	ug/Kg		110	549	549	1	P	HSC	01/12/10 00:54	011110A-1	936808
7440-41-7	Beryllium	0.378	mg/kg		0.0219	0.109	0.109	2	MS	RMJ	01/12/10 13:12	100111-3	936805
7440-42-8	Boron	5490	ug/Kg	U	1100	5490	5490	1	P	HSC	01/12/10 00:54	011110A-1	936808
7440-43-9	Cadmium	549	ug/Kg	U	110	549	549	1	P	HSC	01/12/10 00:54	011110A-1	936808
7440-70-2	Calcium	241000	ug/Kg		8780	27400	27400	1	P	HSC	01/12/10 00:54	011110A-1	936808
7440-47-3	Chromium	1090	ug/Kg		165	549	549	1	P	HSC	01/12/10 00:54	011110A-1	936808
7440-48-4	Cobalt	229	ug/Kg	J	165	549	549	1	P	HSC	01/12/10 00:54	011110A-1	936808
7440-50-8	Copper	1340	ug/Kg		329	1100	1100	1	P	HSC	01/12/10 00:54	011110A-1	936808
7439-89-6	Iron	6730000	ug/Kg		8780	27400	27400	1	P	HSC	01/12/10 00:54	011110A-1	936808
7439-92-1	Lead	2630	ug/Kg		274	1100	1100	1	P	HSC	01/12/10 00:54	011110A-1	936808
7439-93-2	Lithium	10	mg/kg		0.437	2.19	2.19	2	MS	RMJ	01/19/10 00:42	100118-7	936805
7439-95-4	Magnesium	121000	ug/Kg		9330	32900	32900	1	P	HSC	01/12/10 00:54	011110A-1	936808
7439-96-5	Manganese	245000	ug/Kg		220	1100	1100	1	P	HSC	01/12/10 00:54	011110A-1	936808
7439-97-6	Mercury	12.3	ug/kg	U	4.19	12.3	12.3	1	AV	JXL1	01/07/10 11:39	010710S2-8	937638
7440-02-0	Nickel	0.573	mg/kg		0.109	0.437	0.437	2	MS	RMJ	01/12/10 13:12	100111-3	936805
7440-09-7	Potassium	223000	ug/Kg		7020	27400	27400	1	P	HSC	01/12/10 00:54	011110A-1	936808
7782-49-2	Selenium	1.09	mg/kg	U	0.547	1.09	1.09	2	MS	RMJ	01/12/10 13:12	100111-3	936805
7440-21-3	Silicon	425000	ug/Kg		1660	11100	11100	1	P	HSC	01/14/10 21:45	011410-2	941050
7440-22-4	Silver	201	ug/Kg	J	110	549	549	1	P	HSC	01/12/10 00:54	011110A-1	936808
7440-23-5	Sodium	153000	ug/Kg		7680	27400	27400	1	P	HSC	01/12/10 00:54	011110A-1	936808
7440-28-0	Thallium	0.219	mg/kg	U	0.0656	0.219	0.219	2	MS	RMJ	01/13/10 22:21	100113-4	936805
7440-32-6	Titanium	158000	ug/Kg		110	549	549	1	P	HSC	01/12/10 00:54	011110A-1	936808
7440-61-1	Uranium	0.586	mg/kg		0.0144	0.0437	0.0437	2	MS	RMJ	01/13/10 22:21	100113-4	936805
7440-62-2	Vanadium	2240	ug/Kg		110	549	549	1	P	HSC	01/12/10 00:54	011110A-1	936808
7440-66-6	Zinc	31800	ug/Kg		362	1100	1100	1	P	HSC	01/12/10 00:54	011110A-1	936808

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
936805	936804	SW846 3050B	0.509	g	50	mL	12/29/09	FGA
936808	936807	SW846 3050B	0.507	g	50	mL	12/29/09	FGA
937638	937637	SW846 7471A Prep	0.542	g	30	mL	01/06/10	TXB3

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

941050	941049	SW846 3050B	0.502	g	50	mL	01/13/10	FGA

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1057 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 243472002 **BASIS:** Dry Weight **DATE COLLECTED** 21-DEC-09

CLIENT ID: RE03-09-14230 **LEVEL:** Low **DATE RECEIVED** 23-DEC-09

MATRIX: SOIL **%SOLIDS:** 92.9

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	871000	ug/Kg		7200	21200	21200	1	P	HSC	01/12/10 01:15	011110A-1	936808
7440-36-0	Antimony	987	ug/Kg	U	326	987	987	1	P	HSC	01/14/10 21:53	011410-2	941050
7440-38-2	Arsenic	0.210	mg/kg	J	0.21	1.05	1.05	2	MS	RMJ	01/13/10 22:25	100113-4	936805
7440-39-3	Barium	25800	ug/Kg		106	530	530	1	P	HSC	01/12/10 01:15	011110A-1	936808
7440-41-7	Beryllium	0.213	mg/kg		0.021	0.105	0.105	2	MS	RMJ	01/12/10 13:18	100111-3	936805
7440-42-8	Boron	5300	ug/Kg	U	1060	5300	5300	1	P	HSC	01/12/10 01:15	011110A-1	936808
7440-43-9	Cadmium	530	ug/Kg	U	106	530	530	1	P	HSC	01/12/10 01:15	011110A-1	936808
7440-70-2	Calcium	270000	ug/Kg		8470	26500	26500	1	P	HSC	01/12/10 01:15	011110A-1	936808
7440-47-3	Chromium	1040	ug/Kg		159	530	530	1	P	HSC	01/12/10 01:15	011110A-1	936808
7440-48-4	Cobalt	309	ug/Kg	J	159	530	530	1	P	HSC	01/12/10 01:15	011110A-1	936808
7440-50-8	Copper	1600	ug/Kg		318	1060	1060	1	P	HSC	01/12/10 01:15	011110A-1	936808
7439-89-6	Iron	8160000	ug/Kg		8470	26500	26500	1	P	HSC	01/12/10 01:15	011110A-1	936808
7439-92-1	Lead	3450	ug/Kg		265	1060	1060	1	P	HSC	01/12/10 01:15	011110A-1	936808
7439-93-2	Lithium	6.03	mg/kg		0.42	2.1	2.1	2	MS	RMJ	01/19/10 00:45	100118-7	936805
7439-95-4	Magnesium	143000	ug/Kg		9000	31800	31800	1	P	HSC	01/12/10 01:15	011110A-1	936808
7439-96-5	Manganese	336000	ug/Kg		212	1060	1060	1	P	HSC	01/12/10 01:15	011110A-1	936808
7439-97-6	Mercury	11.8	ug/kg	U	4	11.8	11.8	1	AV	JXL1	01/07/10 11:41	010710S2-8	937638
7440-02-0	Nickel	0.418	mg/kg	J	0.105	0.42	0.42	2	MS	RMJ	01/12/10 13:18	100111-3	936805
7440-09-7	Potassium	229000	ug/Kg		6780	26500	26500	1	P	HSC	01/12/10 01:15	011110A-1	936808
7782-49-2	Selenium	1.05	mg/kg	U	0.524	1.05	1.05	2	MS	RMJ	01/12/10 13:18	100111-3	936805
7440-21-3	Silicon	382000	ug/Kg		1480	9870	9870	1	P	HSC	01/14/10 21:53	011410-2	941050
7440-22-4	Silver	329	ug/Kg	J	106	530	530	1	P	HSC	01/12/10 01:15	011110A-1	936808
7440-23-5	Sodium	162000	ug/Kg		7410	26500	26500	1	P	HSC	01/12/10 01:15	011110A-1	936808
7440-28-0	Thallium	0.210	mg/kg	U	0.0629	0.21	0.21	2	MS	RMJ	01/13/10 22:25	100113-4	936805
7440-32-6	Titanium	157000	ug/Kg		106	530	530	1	P	HSC	01/12/10 01:15	011110A-1	936808
7440-61-1	Uranium	0.480	mg/kg		0.0138	0.042	0.042	2	MS	RMJ	01/13/10 22:25	100113-4	936805
7440-62-2	Vanadium	2910	ug/Kg		106	530	530	1	P	HSC	01/12/10 01:15	011110A-1	936808
7440-66-6	Zinc	40600	ug/Kg		350	1060	1060	1	P	HSC	01/12/10 01:15	011110A-1	936808

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
936805	936804	SW846 3050B	0.513	g	50	mL	12/29/09	FGA
936808	936807	SW846 3050B	0.508	g	50	mL	12/29/09	FGA
937638	937637	SW846 7471A Prep	0.549	g	30	mL	01/06/10	TXB3

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

941050	941049	SW846 3050B	0.545	g	50	mL	01/13/10	FGA

METALS
–1–
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10–1057 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 243472003 **BASIS:** Dry Weight **DATE COLLECTED** 21–DEC–09

CLIENT ID: RE03–09–14229 **LEVEL:** Low **DATE RECEIVED** 23–DEC–09

MATRIX: SOIL **%SOLIDS:** 91.4

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429–90–5	Aluminum	669000	ug/Kg		7280	21400	21400	1	P	HSC	01/12/10 01:22	011110A–1	936808
7440–36–0	Antimony	1060	ug/Kg	U	350	1060	1060	1	P	HSC	01/14/10 22:13	011410–2	941050
7440–38–2	Arsenic	0.371	mg/kg	J	0.216	1.08	1.08	2	MS	RMJ	01/13/10 22:29	100113–4	936805
7440–39–3	Barium	9150	ug/Kg		107	536	536	1	P	HSC	01/12/10 01:22	011110A–1	936808
7440–41–7	Beryllium	0.273	mg/kg		0.0216	0.108	0.108	2	MS	RMJ	01/12/10 13:24	100111–3	936805
7440–42–8	Boron	5360	ug/Kg	U	1070	5360	5360	1	P	HSC	01/12/10 01:22	011110A–1	936808
7440–43–9	Cadmium	536	ug/Kg	U	107	536	536	1	P	HSC	01/12/10 01:22	011110A–1	936808
7440–70–2	Calcium	213000	ug/Kg		8570	26800	26800	1	P	HSC	01/12/10 01:22	011110A–1	936808
7440–47–3	Chromium	1100	ug/Kg		161	536	536	1	P	HSC	01/12/10 01:22	011110A–1	936808
7440–48–4	Cobalt	203	ug/Kg	J	161	536	536	1	P	HSC	01/12/10 01:22	011110A–1	936808
7440–50–8	Copper	1450	ug/Kg		321	1070	1070	1	P	HSC	01/12/10 01:22	011110A–1	936808
7439–89–6	Iron	7260000	ug/Kg		8570	26800	26800	1	P	HSC	01/12/10 01:22	011110A–1	936808
7439–92–1	Lead	2630	ug/Kg		268	1070	1070	1	P	HSC	01/12/10 01:22	011110A–1	936808
7439–93–2	Lithium	10.4	mg/kg		0.432	2.16	2.16	2	MS	RMJ	01/19/10 00:48	100118–7	936805
7439–95–4	Magnesium	99000	ug/Kg		9100	32100	32100	1	P	HSC	01/12/10 01:22	011110A–1	936808
7439–96–5	Manganese	249000	ug/Kg		214	1070	1070	1	P	HSC	01/12/10 01:22	011110A–1	936808
7439–97–6	Mercury	12	ug/kg	U	4.07	12	12	1	AV	JXL1	01/07/10 11:43	010710S2–8	937638
7440–02–0	Nickel	0.577	mg/kg		0.108	0.432	0.432	2	MS	RMJ	01/12/10 13:24	100111–3	936805
7440–09–7	Potassium	242000	ug/Kg		6850	26800	26800	1	P	HSC	01/12/10 01:22	011110A–1	936808
7782–49–2	Selenium	1.08	mg/kg	U	0.54	1.08	1.08	2	MS	RMJ	01/12/10 13:24	100111–3	936805
7440–21–3	Silicon	403000	ug/Kg		1590	10600	10600	1	P	HSC	01/14/10 22:13	011410–2	941050
7440–22–4	Silver	250	ug/Kg	J	107	536	536	1	P	HSC	01/12/10 01:22	011110A–1	936808
7440–23–5	Sodium	180000	ug/Kg		7500	26800	26800	1	P	HSC	01/12/10 01:22	011110A–1	936808
7440–28–0	Thallium	0.216	mg/kg	U	0.0648	0.216	0.216	2	MS	RMJ	01/13/10 22:29	100113–4	936805
7440–32–6	Titanium	150000	ug/Kg		107	536	536	1	P	HSC	01/12/10 01:22	011110A–1	936808
7440–61–1	Uranium	0.557	mg/kg		0.0142	0.0432	0.0432	2	MS	RMJ	01/13/10 22:29	100113–4	936805
7440–62–2	Vanadium	2330	ug/Kg		107	536	536	1	P	HSC	01/12/10 01:22	011110A–1	936808
7440–66–6	Zinc	33600	ug/Kg		353	1070	1070	1	P	HSC	01/12/10 01:22	011110A–1	936808

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
936805	936804	SW846 3050B	0.507	g	50	mL	12/29/09	FGA
936808	936807	SW846 3050B	0.511	g	50	mL	12/29/09	FGA
937638	937637	SW846 7471A Prep	0.548	g	30	mL	01/06/10	TXB3

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

941050	941049	SW846 3050B	0.516	g	50	mL	01/13/10	FGA

Quality Control Summary

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–1057

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS6,MER536,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
ICV01										
	Mercury	5.05	ug/L	5	ug/L	101	90.0 – 110.0	AV	07–JAN–10 10:28	010710S2–8
	Aluminum	4810	ug/L	5000	ug/L	96.2	90.0 – 110.0	P	11–JAN–10 15:38	011110A–1
	Barium	499	ug/L	500	ug/L	99.8	90.0 – 110.0	P	11–JAN–10 15:38	011110A–1
	Boron	499	ug/L	500	ug/L	99.7	90.0 – 110.0	P	11–JAN–10 15:38	011110A–1
	Cadmium	487	ug/L	500	ug/L	97.4	90.0 – 110.0	P	11–JAN–10 15:38	011110A–1
	Calcium	4790	ug/L	5000	ug/L	95.8	90.0 – 110.0	P	11–JAN–10 15:38	011110A–1
	Chromium	478	ug/L	500	ug/L	95.6	90.0 – 110.0	P	11–JAN–10 15:38	011110A–1
	Cobalt	494	ug/L	500	ug/L	98.8	90.0 – 110.0	P	11–JAN–10 15:38	011110A–1
	Copper	494	ug/L	500	ug/L	98.8	90.0 – 110.0	P	11–JAN–10 15:38	011110A–1
	Iron	4860	ug/L	5000	ug/L	97.2	90.0 – 110.0	P	11–JAN–10 15:38	011110A–1
	Lead	495	ug/L	500	ug/L	99	90.0 – 110.0	P	11–JAN–10 15:38	011110A–1
	Magnesium	5100	ug/L	5000	ug/L	102	90.0 – 110.0	P	11–JAN–10 15:38	011110A–1
	Manganese	503	ug/L	500	ug/L	100.7	90.0 – 110.0	P	11–JAN–10 15:38	011110A–1
	Potassium	2380	ug/L	2500	ug/L	95	90.0 – 110.0	P	11–JAN–10 15:38	011110A–1
	Silver	257	ug/L	250	ug/L	102.7	90.0 – 110.0	P	11–JAN–10 15:38	011110A–1
	Sodium	2290	ug/L	2500	ug/L	91.6	90.0 – 110.0	P	11–JAN–10 15:38	011110A–1
	Titanium	489	ug/L	500	ug/L	97.9	90.0 – 110.0	P	11–JAN–10 15:38	011110A–1
	Vanadium	503	ug/L	500	ug/L	100.7	90.0 – 110.0	P	11–JAN–10 15:38	011110A–1
	Zinc	494	ug/L	500	ug/L	98.9	90.0 – 110.0	P	11–JAN–10 15:38	011110A–1
	Beryllium	49.2	ug/L	50	ug/L	98.5	90.0 – 110.0	MS	12–JAN–10 11:37	100111–3
	Nickel	49.9	ug/L	50	ug/L	99.8	90.0 – 110.0	MS	12–JAN–10 11:37	100111–3
	Selenium	48	ug/L	50	ug/L	95.9	90.0 – 110.0	MS	12–JAN–10 11:37	100111–3
	Arsenic	46.4	ug/L	50	ug/L	92.9	90.0 – 110.0	MS	13–JAN–10 21:16	100113–4
	Thallium	49.5	ug/L	50	ug/L	98.9	90.0 – 110.0	MS	13–JAN–10 21:16	100113–4
	Uranium	54.1	ug/L	50	ug/L	108.2	90.0 – 110.0	MS	13–JAN–10 21:16	100113–4
	Antimony	519	ug/L	500	ug/L	103.7	90.0 – 110.0	P	14–JAN–10 10:32	011410–2
	Silicon	4870	ug/L	5000	ug/L	97.4	90.0 – 110.0	P	14–JAN–10 10:32	011410–2
	Lithium	51.3	ug/L	50	ug/L	102.7	90.0 – 110.0	MS	16–JAN–10 03:05	100115–6
	Lithium	51	ug/L	50	ug/L	102	90.0 – 110.0	MS	19–JAN–10 00:15	100118–7

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–1057

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS6,MER536,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
CCV01										
	Mercury	5.01	ug/L	5	ug/L	100.3	80.0 – 120.0	AV	07–JAN–10 10:33	010710S2–8
	Aluminum	4920	ug/L	5000	ug/L	98.4	90.0 – 110.0	P	11–JAN–10 16:24	011110A–1
	Barium	510	ug/L	500	ug/L	102	90.0 – 110.0	P	11–JAN–10 16:24	011110A–1
	Boron	531	ug/L	500	ug/L	106.2	90.0 – 110.0	P	11–JAN–10 16:24	011110A–1
	Cadmium	511	ug/L	500	ug/L	102.1	90.0 – 110.0	P	11–JAN–10 16:24	011110A–1
	Calcium	5060	ug/L	5000	ug/L	101.3	90.0 – 110.0	P	11–JAN–10 16:24	011110A–1
	Chromium	512	ug/L	500	ug/L	102.3	90.0 – 110.0	P	11–JAN–10 16:24	011110A–1
	Cobalt	512	ug/L	500	ug/L	102.3	90.0 – 110.0	P	11–JAN–10 16:24	011110A–1
	Copper	504	ug/L	500	ug/L	100.9	90.0 – 110.0	P	11–JAN–10 16:24	011110A–1
	Iron	5200	ug/L	5000	ug/L	104.1	90.0 – 110.0	P	11–JAN–10 16:24	011110A–1
	Lead	512	ug/L	500	ug/L	102.5	90.0 – 110.0	P	11–JAN–10 16:24	011110A–1
	Magnesium	5250	ug/L	5000	ug/L	105	90.0 – 110.0	P	11–JAN–10 16:24	011110A–1
	Manganese	507	ug/L	500	ug/L	101.5	90.0 – 110.0	P	11–JAN–10 16:24	011110A–1
	Potassium	5250	ug/L	5000	ug/L	104.9	90.0 – 110.0	P	11–JAN–10 16:24	011110A–1
	Silver	517	ug/L	500	ug/L	103.5	90.0 – 110.0	P	11–JAN–10 16:24	011110A–1
	Sodium	10400	ug/L	10000	ug/L	104	90.0 – 110.0	P	11–JAN–10 16:24	011110A–1
	Titanium	504	ug/L	500	ug/L	100.7	90.0 – 110.0	P	11–JAN–10 16:24	011110A–1
	Vanadium	515	ug/L	500	ug/L	103	90.0 – 110.0	P	11–JAN–10 16:24	011110A–1
	Zinc	507	ug/L	500	ug/L	101.4	90.0 – 110.0	P	11–JAN–10 16:24	011110A–1
	Beryllium	46.6	ug/L	50	ug/L	93.2	90.0 – 110.0	MS	12–JAN–10 12:07	100111–3
	Nickel	50.2	ug/L	50	ug/L	100.3	90.0 – 110.0	MS	12–JAN–10 12:07	100111–3
	Selenium	47.6	ug/L	50	ug/L	95.1	90.0 – 110.0	MS	12–JAN–10 12:07	100111–3
	Arsenic	45.5	ug/L	50	ug/L	91	90.0 – 110.0	MS	13–JAN–10 21:36	100113–4
	Thallium	48.3	ug/L	50	ug/L	96.6	90.0 – 110.0	MS	13–JAN–10 21:36	100113–4
	Uranium	52.9	ug/L	50	ug/L	105.8	90.0 – 110.0	MS	13–JAN–10 21:36	100113–4
	Antimony	528	ug/L	500	ug/L	105.6	90.0 – 110.0	P	14–JAN–10 11:33	011410–2
	Silicon	2530	ug/L	2500	ug/L	101.3	90.0 – 110.0	P	14–JAN–10 11:33	011410–2
	Lithium	52.8	ug/L	50	ug/L	105.5	90.0 – 110.0	MS	16–JAN–10 03:21	100115–6
	Lithium	51.6	ug/L	50	ug/L	103.2	90.0 – 110.0	MS	19–JAN–10 00:30	100118–7

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–1057

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS6,MER536,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
CCV02										
	Mercury	5.28	ug/L	5	ug/L	105.7	80.0 – 120.0	AV	07–JAN–10 10:57	010710S2–8
	Aluminum	4990	ug/L	5000	ug/L	99.7	90.0 – 110.0	P	11–JAN–10 16:38	011110A–1
	Barium	503	ug/L	500	ug/L	100.5	90.0 – 110.0	P	11–JAN–10 16:38	011110A–1
	Boron	502	ug/L	500	ug/L	100.4	90.0 – 110.0	P	11–JAN–10 16:38	011110A–1
	Cadmium	503	ug/L	500	ug/L	100.6	90.0 – 110.0	P	11–JAN–10 16:38	011110A–1
	Calcium	5080	ug/L	5000	ug/L	101.6	90.0 – 110.0	P	11–JAN–10 16:38	011110A–1
	Chromium	504	ug/L	500	ug/L	100.8	90.0 – 110.0	P	11–JAN–10 16:38	011110A–1
	Cobalt	505	ug/L	500	ug/L	100.9	90.0 – 110.0	P	11–JAN–10 16:38	011110A–1
	Copper	496	ug/L	500	ug/L	99.2	90.0 – 110.0	P	11–JAN–10 16:38	011110A–1
	Iron	5170	ug/L	5000	ug/L	103.5	90.0 – 110.0	P	11–JAN–10 16:38	011110A–1
	Lead	505	ug/L	500	ug/L	101	90.0 – 110.0	P	11–JAN–10 16:38	011110A–1
	Magnesium	5260	ug/L	5000	ug/L	105.1	90.0 – 110.0	P	11–JAN–10 16:38	011110A–1
	Manganese	506	ug/L	500	ug/L	101.1	90.0 – 110.0	P	11–JAN–10 16:38	011110A–1
	Potassium	5120	ug/L	5000	ug/L	102.4	90.0 – 110.0	P	11–JAN–10 16:38	011110A–1
	Silver	509	ug/L	500	ug/L	101.9	90.0 – 110.0	P	11–JAN–10 16:38	011110A–1
	Sodium	10100	ug/L	10000	ug/L	101	90.0 – 110.0	P	11–JAN–10 16:38	011110A–1
	Titanium	496	ug/L	500	ug/L	99.2	90.0 – 110.0	P	11–JAN–10 16:38	011110A–1
	Vanadium	508	ug/L	500	ug/L	101.5	90.0 – 110.0	P	11–JAN–10 16:38	011110A–1
	Zinc	499	ug/L	500	ug/L	99.8	90.0 – 110.0	P	11–JAN–10 16:38	011110A–1
	Beryllium	45.9	ug/L	50	ug/L	91.8	90.0 – 110.0	MS	12–JAN–10 12:36	100111–3
	Nickel	49.6	ug/L	50	ug/L	99.1	90.0 – 110.0	MS	12–JAN–10 12:36	100111–3
	Selenium	45.7	ug/L	50	ug/L	91.5	90.0 – 110.0	MS	12–JAN–10 12:36	100111–3
	Arsenic	47.6	ug/L	50	ug/L	95.2	90.0 – 110.0	MS	13–JAN–10 21:57	100113–4
	Thallium	50.1	ug/L	50	ug/L	100.1	90.0 – 110.0	MS	13–JAN–10 21:57	100113–4
	Uranium	54	ug/L	50	ug/L	107.9	90.0 – 110.0	MS	13–JAN–10 21:57	100113–4
	Antimony	535	ug/L	500	ug/L	107	90.0 – 110.0	P	14–JAN–10 11:54	011410–2
	Silicon	2630	ug/L	2500	ug/L	105.3	90.0 – 110.0	P	14–JAN–10 11:54	011410–2
	Lithium	51.5	ug/L	50	ug/L	102.9	90.0 – 110.0	MS	16–JAN–10 03:30	100115–6
	Lithium	54.8	ug/L	50	ug/L	109.7	90.0 – 110.0	MS	19–JAN–10 00:51	100118–7

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1057

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS6,MER536,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
CCV03										
	Mercury	5.47	ug/L	5	ug/L	109.4	80.0 – 120.0	AV	07-JAN-10 11:21	010710S2-8
	Aluminum	4830	ug/L	5000	ug/L	96.7	90.0 – 110.0	P	11-JAN-10 16:59	011110A-1
	Barium	493	ug/L	500	ug/L	98.5	90.0 – 110.0	P	11-JAN-10 16:59	011110A-1
	Boron	487	ug/L	500	ug/L	97.5	90.0 – 110.0	P	11-JAN-10 16:59	011110A-1
	Cadmium	493	ug/L	500	ug/L	98.6	90.0 – 110.0	P	11-JAN-10 16:59	011110A-1
	Calcium	4860	ug/L	5000	ug/L	97.3	90.0 – 110.0	P	11-JAN-10 16:59	011110A-1
	Chromium	494	ug/L	500	ug/L	98.8	90.0 – 110.0	P	11-JAN-10 16:59	011110A-1
	Cobalt	494	ug/L	500	ug/L	98.8	90.0 – 110.0	P	11-JAN-10 16:59	011110A-1
	Copper	486	ug/L	500	ug/L	97.2	90.0 – 110.0	P	11-JAN-10 16:59	011110A-1
	Iron	4900	ug/L	5000	ug/L	98	90.0 – 110.0	P	11-JAN-10 16:59	011110A-1
	Lead	497	ug/L	500	ug/L	99.5	90.0 – 110.0	P	11-JAN-10 16:59	011110A-1
	Magnesium	5000	ug/L	5000	ug/L	100.1	90.0 – 110.0	P	11-JAN-10 16:59	011110A-1
	Manganese	494	ug/L	500	ug/L	98.8	90.0 – 110.0	P	11-JAN-10 16:59	011110A-1
	Potassium	4910	ug/L	5000	ug/L	98.3	90.0 – 110.0	P	11-JAN-10 16:59	011110A-1
	Silver	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	11-JAN-10 16:59	011110A-1
	Sodium	9470	ug/L	10000	ug/L	94.7	90.0 – 110.0	P	11-JAN-10 16:59	011110A-1
	Titanium	487	ug/L	500	ug/L	97.3	90.0 – 110.0	P	11-JAN-10 16:59	011110A-1
	Vanadium	498	ug/L	500	ug/L	99.6	90.0 – 110.0	P	11-JAN-10 16:59	011110A-1
	Zinc	489	ug/L	500	ug/L	97.8	90.0 – 110.0	P	11-JAN-10 16:59	011110A-1
	Beryllium	49.8	ug/L	50	ug/L	99.6	90.0 – 110.0	MS	12-JAN-10 13:36	100111-3
	Nickel	50.8	ug/L	50	ug/L	101.7	90.0 – 110.0	MS	12-JAN-10 13:36	100111-3
	Selenium	46.8	ug/L	50	ug/L	93.5	90.0 – 110.0	MS	12-JAN-10 13:36	100111-3
	Arsenic	46.4	ug/L	50	ug/L	92.8	90.0 – 110.0	MS	13-JAN-10 22:37	100113-4
	Thallium	48.7	ug/L	50	ug/L	97.4	90.0 – 110.0	MS	13-JAN-10 22:37	100113-4
	Uranium	53.8	ug/L	50	ug/L	107.7	90.0 – 110.0	MS	13-JAN-10 22:37	100113-4
	Antimony	524	ug/L	500	ug/L	104.9	90.0 – 110.0	P	14-JAN-10 12:56	011410-2
	Silicon	2590	ug/L	2500	ug/L	103.5	90.0 – 110.0	P	14-JAN-10 12:56	011410-2
	Lithium	52.7	ug/L	50	ug/L	105.3	90.0 – 110.0	MS	16-JAN-10 04:08	100115-6
CCV04										
	Mercury	5.48	ug/L	5	ug/L	109.6	80.0 – 120.0	AV	07-JAN-10 11:45	010710S2-8

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–1057

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS6,MER536,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Aluminum	4830	ug/L	5000	ug/L	96.6	90.0 – 110.0	P	11–JAN–10 17:54	011110A–1
	Barium	500	ug/L	500	ug/L	99.9	90.0 – 110.0	P	11–JAN–10 17:54	011110A–1
	Boron	494	ug/L	500	ug/L	98.9	90.0 – 110.0	P	11–JAN–10 17:54	011110A–1
	Cadmium	500	ug/L	500	ug/L	100	90.0 – 110.0	P	11–JAN–10 17:54	011110A–1
	Calcium	4940	ug/L	5000	ug/L	98.9	90.0 – 110.0	P	11–JAN–10 17:54	011110A–1
	Chromium	500	ug/L	500	ug/L	100.1	90.0 – 110.0	P	11–JAN–10 17:54	011110A–1
	Cobalt	502	ug/L	500	ug/L	100.4	90.0 – 110.0	P	11–JAN–10 17:54	011110A–1
	Copper	494	ug/L	500	ug/L	98.7	90.0 – 110.0	P	11–JAN–10 17:54	011110A–1
	Iron	5050	ug/L	5000	ug/L	101.1	90.0 – 110.0	P	11–JAN–10 17:54	011110A–1
	Lead	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	11–JAN–10 17:54	011110A–1
	Magnesium	5200	ug/L	5000	ug/L	104	90.0 – 110.0	P	11–JAN–10 17:54	011110A–1
	Manganese	498	ug/L	500	ug/L	99.7	90.0 – 110.0	P	11–JAN–10 17:54	011110A–1
	Potassium	4920	ug/L	5000	ug/L	98.4	90.0 – 110.0	P	11–JAN–10 17:54	011110A–1
	Silver	507	ug/L	500	ug/L	101.4	90.0 – 110.0	P	11–JAN–10 17:54	011110A–1
	Sodium	10100	ug/L	10000	ug/L	100.8	90.0 – 110.0	P	11–JAN–10 17:54	011110A–1
	Titanium	493	ug/L	500	ug/L	98.6	90.0 – 110.0	P	11–JAN–10 17:54	011110A–1
	Vanadium	505	ug/L	500	ug/L	100.9	90.0 – 110.0	P	11–JAN–10 17:54	011110A–1
	Zinc	496	ug/L	500	ug/L	99.3	90.0 – 110.0	P	11–JAN–10 17:54	011110A–1
	Beryllium	53.3	ug/L	50	ug/L	106.6	90.0 – 110.0	MS	12–JAN–10 14:35	100111–3
	Nickel	50.9	ug/L	50	ug/L	101.8	90.0 – 110.0	MS	12–JAN–10 14:35	100111–3
	Selenium	47.1	ug/L	50	ug/L	94.1	90.0 – 110.0	MS	12–JAN–10 14:35	100111–3
	Arsenic	47	ug/L	50	ug/L	94	90.0 – 110.0	MS	13–JAN–10 23:14	100113–4
	Thallium	48.5	ug/L	50	ug/L	97	90.0 – 110.0	MS	13–JAN–10 23:14	100113–4
	Uranium	53.3	ug/L	50	ug/L	106.6	90.0 – 110.0	MS	13–JAN–10 23:14	100113–4
	Antimony	508	ug/L	500	ug/L	101.6	90.0 – 110.0	P	14–JAN–10 14:19	011410–2
	Silicon	2490	ug/L	2500	ug/L	99.5	90.0 – 110.0	P	14–JAN–10 14:19	011410–2
CCV05										
	Aluminum	4850	ug/L	5000	ug/L	97.1	90.0 – 110.0	P	11–JAN–10 18:58	011110A–1
	Barium	503	ug/L	500	ug/L	100.6	90.0 – 110.0	P	11–JAN–10 18:58	011110A–1
	Boron	498	ug/L	500	ug/L	99.7	90.0 – 110.0	P	11–JAN–10 18:58	011110A–1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–1057

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS6,MER536,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Cadmium	504	ug/L	500	ug/L	100.9	90.0 – 110.0	P	11–JAN–10 18:58	011110A–1
	Calcium	4910	ug/L	5000	ug/L	98.2	90.0 – 110.0	P	11–JAN–10 18:58	011110A–1
	Chromium	504	ug/L	500	ug/L	100.8	90.0 – 110.0	P	11–JAN–10 18:58	011110A–1
	Cobalt	505	ug/L	500	ug/L	101.1	90.0 – 110.0	P	11–JAN–10 18:58	011110A–1
	Copper	500	ug/L	500	ug/L	99.9	90.0 – 110.0	P	11–JAN–10 18:58	011110A–1
	Iron	5030	ug/L	5000	ug/L	100.6	90.0 – 110.0	P	11–JAN–10 18:58	011110A–1
	Lead	505	ug/L	500	ug/L	100.9	90.0 – 110.0	P	11–JAN–10 18:58	011110A–1
	Magnesium	5110	ug/L	5000	ug/L	102.2	90.0 – 110.0	P	11–JAN–10 18:58	011110A–1
	Manganese	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	11–JAN–10 18:58	011110A–1
	Potassium	4900	ug/L	5000	ug/L	97.9	90.0 – 110.0	P	11–JAN–10 18:58	011110A–1
	Silver	511	ug/L	500	ug/L	102.2	90.0 – 110.0	P	11–JAN–10 18:58	011110A–1
	Sodium	10100	ug/L	10000	ug/L	100.7	90.0 – 110.0	P	11–JAN–10 18:58	011110A–1
	Titanium	497	ug/L	500	ug/L	99.4	90.0 – 110.0	P	11–JAN–10 18:58	011110A–1
	Vanadium	509	ug/L	500	ug/L	101.8	90.0 – 110.0	P	11–JAN–10 18:58	011110A–1
	Zinc	501	ug/L	500	ug/L	100.1	90.0 – 110.0	P	11–JAN–10 18:58	011110A–1
	Beryllium	53.1	ug/L	50	ug/L	106.3	90.0 – 110.0	MS	12–JAN–10 15:16	100111–3
	Nickel	49.4	ug/L	50	ug/L	98.7	90.0 – 110.0	MS	12–JAN–10 15:16	100111–3
	Selenium	46.2	ug/L	50	ug/L	92.4	90.0 – 110.0	MS	12–JAN–10 15:16	100111–3
	Arsenic	45.9	ug/L	50	ug/L	91.7	90.0 – 110.0	MS	13–JAN–10 23:46	100113–4
	Thallium	48.6	ug/L	50	ug/L	97.3	90.0 – 110.0	MS	13–JAN–10 23:46	100113–4
	Uranium	52.9	ug/L	50	ug/L	105.8	90.0 – 110.0	MS	13–JAN–10 23:46	100113–4
	Antimony	526	ug/L	500	ug/L	105.1	90.0 – 110.0	P	14–JAN–10 15:04	011410–2
	Silicon	2540	ug/L	2500	ug/L	101.4	90.0 – 110.0	P	14–JAN–10 15:04	011410–2
CCV06										
	Aluminum	4820	ug/L	5000	ug/L	96.4	90.0 – 110.0	P	11–JAN–10 20:14	011110A–1
	Barium	500	ug/L	500	ug/L	100	90.0 – 110.0	P	11–JAN–10 20:14	011110A–1
	Boron	498	ug/L	500	ug/L	99.5	90.0 – 110.0	P	11–JAN–10 20:14	011110A–1
	Cadmium	499	ug/L	500	ug/L	99.7	90.0 – 110.0	P	11–JAN–10 20:14	011110A–1
	Calcium	4930	ug/L	5000	ug/L	98.6	90.0 – 110.0	P	11–JAN–10 20:14	011110A–1
	Chromium	501	ug/L	500	ug/L	100.1	90.0 – 110.0	P	11–JAN–10 20:14	011110A–1

METALS
--2a--
Initial and Continuing Calibration Verification

SDG No: 10-1057

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS6,MER536,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Cobalt	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	11-JAN-10 20:14	011110A-1
	Copper	496	ug/L	500	ug/L	99.1	90.0 – 110.0	P	11-JAN-10 20:14	011110A-1
	Iron	5010	ug/L	5000	ug/L	100.2	90.0 – 110.0	P	11-JAN-10 20:14	011110A-1
	Lead	498	ug/L	500	ug/L	99.5	90.0 – 110.0	P	11-JAN-10 20:14	011110A-1
	Magnesium	5170	ug/L	5000	ug/L	103.5	90.0 – 110.0	P	11-JAN-10 20:14	011110A-1
	Manganese	500	ug/L	500	ug/L	100	90.0 – 110.0	P	11-JAN-10 20:14	011110A-1
	Potassium	4830	ug/L	5000	ug/L	96.6	90.0 – 110.0	P	11-JAN-10 20:14	011110A-1
	Silver	507	ug/L	500	ug/L	101.4	90.0 – 110.0	P	11-JAN-10 20:14	011110A-1
	Sodium	9780	ug/L	10000	ug/L	97.8	90.0 – 110.0	P	11-JAN-10 20:14	011110A-1
	Titanium	505	ug/L	500	ug/L	101	90.0 – 110.0	P	11-JAN-10 20:14	011110A-1
	Vanadium	506	ug/L	500	ug/L	101.3	90.0 – 110.0	P	11-JAN-10 20:14	011110A-1
	Zinc	497	ug/L	500	ug/L	99.3	90.0 – 110.0	P	11-JAN-10 20:14	011110A-1
	Antimony	505	ug/L	500	ug/L	101	90.0 – 110.0	P	14-JAN-10 15:45	011410-2
	Silicon	2470	ug/L	2500	ug/L	98.8	90.0 – 110.0	P	14-JAN-10 15:45	011410-2
CCV07										
	Aluminum	4850	ug/L	5000	ug/L	96.9	90.0 – 110.0	P	11-JAN-10 21:31	011110A-1
	Barium	502	ug/L	500	ug/L	100.4	90.0 – 110.0	P	11-JAN-10 21:31	011110A-1
	Boron	496	ug/L	500	ug/L	99.1	90.0 – 110.0	P	11-JAN-10 21:31	011110A-1
	Cadmium	501	ug/L	500	ug/L	100.1	90.0 – 110.0	P	11-JAN-10 21:31	011110A-1
	Calcium	4980	ug/L	5000	ug/L	99.7	90.0 – 110.0	P	11-JAN-10 21:31	011110A-1
	Chromium	503	ug/L	500	ug/L	100.6	90.0 – 110.0	P	11-JAN-10 21:31	011110A-1
	Cobalt	504	ug/L	500	ug/L	100.8	90.0 – 110.0	P	11-JAN-10 21:31	011110A-1
	Copper	497	ug/L	500	ug/L	99.5	90.0 – 110.0	P	11-JAN-10 21:31	011110A-1
	Iron	5100	ug/L	5000	ug/L	102	90.0 – 110.0	P	11-JAN-10 21:31	011110A-1
	Lead	504	ug/L	500	ug/L	100.8	90.0 – 110.0	P	11-JAN-10 21:31	011110A-1
	Magnesium	5180	ug/L	5000	ug/L	103.7	90.0 – 110.0	P	11-JAN-10 21:31	011110A-1
	Manganese	502	ug/L	500	ug/L	100.3	90.0 – 110.0	P	11-JAN-10 21:31	011110A-1
	Potassium	4860	ug/L	5000	ug/L	97.3	90.0 – 110.0	P	11-JAN-10 21:31	011110A-1
	Silver	509	ug/L	500	ug/L	101.8	90.0 – 110.0	P	11-JAN-10 21:31	011110A-1
	Sodium	9950	ug/L	10000	ug/L	99.5	90.0 – 110.0	P	11-JAN-10 21:31	011110A-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1057

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS6,MER536,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Titanium	496	ug/L	500	ug/L	99.3	90.0 – 110.0	P	11-JAN-10 21:31	011110A-1
	Vanadium	508	ug/L	500	ug/L	101.6	90.0 – 110.0	P	11-JAN-10 21:31	011110A-1
	Zinc	498	ug/L	500	ug/L	99.6	90.0 – 110.0	P	11-JAN-10 21:31	011110A-1
	Antimony	507	ug/L	500	ug/L	101.3	90.0 – 110.0	P	14-JAN-10 17:01	011410-2
	Silicon	2490	ug/L	2500	ug/L	99.6	90.0 – 110.0	P	14-JAN-10 17:01	011410-2
CCV08										
	Aluminum	4890	ug/L	5000	ug/L	97.8	90.0 – 110.0	P	11-JAN-10 22:48	011110A-1
	Barium	506	ug/L	500	ug/L	101.2	90.0 – 110.0	P	11-JAN-10 22:48	011110A-1
	Boron	496	ug/L	500	ug/L	99.2	90.0 – 110.0	P	11-JAN-10 22:48	011110A-1
	Cadmium	506	ug/L	500	ug/L	101.1	90.0 – 110.0	P	11-JAN-10 22:48	011110A-1
	Calcium	5070	ug/L	5000	ug/L	101.4	90.0 – 110.0	P	11-JAN-10 22:48	011110A-1
	Chromium	507	ug/L	500	ug/L	101.4	90.0 – 110.0	P	11-JAN-10 22:48	011110A-1
	Cobalt	508	ug/L	500	ug/L	101.5	90.0 – 110.0	P	11-JAN-10 22:48	011110A-1
	Copper	499	ug/L	500	ug/L	99.9	90.0 – 110.0	P	11-JAN-10 22:48	011110A-1
	Iron	5230	ug/L	5000	ug/L	104.6	90.0 – 110.0	P	11-JAN-10 22:48	011110A-1
	Lead	505	ug/L	500	ug/L	101.1	90.0 – 110.0	P	11-JAN-10 22:48	011110A-1
	Magnesium	5250	ug/L	5000	ug/L	105	90.0 – 110.0	P	11-JAN-10 22:48	011110A-1
	Manganese	504	ug/L	500	ug/L	100.8	90.0 – 110.0	P	11-JAN-10 22:48	011110A-1
	Potassium	4950	ug/L	5000	ug/L	99	90.0 – 110.0	P	11-JAN-10 22:48	011110A-1
	Silver	512	ug/L	500	ug/L	102.3	90.0 – 110.0	P	11-JAN-10 22:48	011110A-1
	Sodium	10200	ug/L	10000	ug/L	101.5	90.0 – 110.0	P	11-JAN-10 22:48	011110A-1
	Titanium	499	ug/L	500	ug/L	99.9	90.0 – 110.0	P	11-JAN-10 22:48	011110A-1
	Vanadium	512	ug/L	500	ug/L	102.4	90.0 – 110.0	P	11-JAN-10 22:48	011110A-1
	Zinc	502	ug/L	500	ug/L	100.4	90.0 – 110.0	P	11-JAN-10 22:48	011110A-1
	Antimony	508	ug/L	500	ug/L	101.7	90.0 – 110.0	P	14-JAN-10 18:23	011410-2
	Silicon	2510	ug/L	2500	ug/L	100.4	90.0 – 110.0	P	14-JAN-10 18:23	011410-2
CCV09										
	Aluminum	4860	ug/L	5000	ug/L	97.3	90.0 – 110.0	P	11-JAN-10 23:59	011110A-1
	Barium	505	ug/L	500	ug/L	100.9	90.0 – 110.0	P	11-JAN-10 23:59	011110A-1
	Boron	493	ug/L	500	ug/L	98.5	90.0 – 110.0	P	11-JAN-10 23:59	011110A-1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–1057

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS6,MER536,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Cadmium	506	ug/L	500	ug/L	101.2	90.0 – 110.0	P	11–JAN–10 23:59	011110A–1
	Calcium	5020	ug/L	5000	ug/L	100.4	90.0 – 110.0	P	11–JAN–10 23:59	011110A–1
	Chromium	506	ug/L	500	ug/L	101.1	90.0 – 110.0	P	11–JAN–10 23:59	011110A–1
	Cobalt	507	ug/L	500	ug/L	101.4	90.0 – 110.0	P	11–JAN–10 23:59	011110A–1
	Copper	497	ug/L	500	ug/L	99.4	90.0 – 110.0	P	11–JAN–10 23:59	011110A–1
	Iron	5200	ug/L	5000	ug/L	104.1	90.0 – 110.0	P	11–JAN–10 23:59	011110A–1
	Lead	506	ug/L	500	ug/L	101.2	90.0 – 110.0	P	11–JAN–10 23:59	011110A–1
	Magnesium	5290	ug/L	5000	ug/L	105.7	90.0 – 110.0	P	11–JAN–10 23:59	011110A–1
	Manganese	506	ug/L	500	ug/L	101.3	90.0 – 110.0	P	11–JAN–10 23:59	011110A–1
	Potassium	4920	ug/L	5000	ug/L	98.3	90.0 – 110.0	P	11–JAN–10 23:59	011110A–1
	Silver	510	ug/L	500	ug/L	101.9	90.0 – 110.0	P	11–JAN–10 23:59	011110A–1
	Sodium	10300	ug/L	10000	ug/L	103.1	90.0 – 110.0	P	11–JAN–10 23:59	011110A–1
	Titanium	510	ug/L	500	ug/L	102	90.0 – 110.0	P	11–JAN–10 23:59	011110A–1
	Vanadium	510	ug/L	500	ug/L	102.1	90.0 – 110.0	P	11–JAN–10 23:59	011110A–1
	Zinc	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	11–JAN–10 23:59	011110A–1
	Antimony	511	ug/L	500	ug/L	102.2	90.0 – 110.0	P	14–JAN–10 19:40	011410–2
	Silicon	2540	ug/L	2500	ug/L	101.8	90.0 – 110.0	P	14–JAN–10 19:40	011410–2
CCV10										
	Aluminum	5010	ug/L	5000	ug/L	100.2	90.0 – 110.0	P	12–JAN–10 01:01	011110A–1
	Barium	518	ug/L	500	ug/L	103.6	90.0 – 110.0	P	12–JAN–10 01:01	011110A–1
	Boron	508	ug/L	500	ug/L	101.6	90.0 – 110.0	P	12–JAN–10 01:01	011110A–1
	Cadmium	519	ug/L	500	ug/L	103.7	90.0 – 110.0	P	12–JAN–10 01:01	011110A–1
	Calcium	5080	ug/L	5000	ug/L	101.7	90.0 – 110.0	P	12–JAN–10 01:01	011110A–1
	Chromium	519	ug/L	500	ug/L	103.8	90.0 – 110.0	P	12–JAN–10 01:01	011110A–1
	Cobalt	520	ug/L	500	ug/L	104.1	90.0 – 110.0	P	12–JAN–10 01:01	011110A–1
	Copper	512	ug/L	500	ug/L	102.4	90.0 – 110.0	P	12–JAN–10 01:01	011110A–1
	Iron	5230	ug/L	5000	ug/L	104.6	90.0 – 110.0	P	12–JAN–10 01:01	011110A–1
	Lead	521	ug/L	500	ug/L	104.2	90.0 – 110.0	P	12–JAN–10 01:01	011110A–1
	Magnesium	5280	ug/L	5000	ug/L	105.7	90.0 – 110.0	P	12–JAN–10 01:01	011110A–1
	Manganese	520	ug/L	500	ug/L	104	90.0 – 110.0	P	12–JAN–10 01:01	011110A–1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–1057

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS6,MER536,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Potassium	5020	ug/L	5000	ug/L	100.5	90.0 – 110.0	P	12–JAN–10 01:01	011110A–1
	Silver	525	ug/L	500	ug/L	105	90.0 – 110.0	P	12–JAN–10 01:01	011110A–1
	Sodium	10200	ug/L	10000	ug/L	102.1	90.0 – 110.0	P	12–JAN–10 01:01	011110A–1
	Titanium	525	ug/L	500	ug/L	104.9	90.0 – 110.0	P	12–JAN–10 01:01	011110A–1
	Vanadium	524	ug/L	500	ug/L	104.8	90.0 – 110.0	P	12–JAN–10 01:01	011110A–1
	Zinc	514	ug/L	500	ug/L	102.8	90.0 – 110.0	P	12–JAN–10 01:01	011110A–1
	Antimony	527	ug/L	500	ug/L	105.4	90.0 – 110.0	P	14–JAN–10 20:50	011410–2
	Silicon	2570	ug/L	2500	ug/L	103	90.0 – 110.0	P	14–JAN–10 20:50	011410–2
CCV11										
	Aluminum	5050	ug/L	5000	ug/L	100.9	90.0 – 110.0	P	12–JAN–10 02:12	011110A–1
	Barium	517	ug/L	500	ug/L	103.4	90.0 – 110.0	P	12–JAN–10 02:12	011110A–1
	Boron	504	ug/L	500	ug/L	100.8	90.0 – 110.0	P	12–JAN–10 02:12	011110A–1
	Cadmium	517	ug/L	500	ug/L	103.5	90.0 – 110.0	P	12–JAN–10 02:12	011110A–1
	Calcium	5050	ug/L	5000	ug/L	101	90.0 – 110.0	P	12–JAN–10 02:12	011110A–1
	Chromium	518	ug/L	500	ug/L	103.6	90.0 – 110.0	P	12–JAN–10 02:12	011110A–1
	Cobalt	520	ug/L	500	ug/L	104	90.0 – 110.0	P	12–JAN–10 02:12	011110A–1
	Copper	510	ug/L	500	ug/L	102	90.0 – 110.0	P	12–JAN–10 02:12	011110A–1
	Iron	5180	ug/L	5000	ug/L	103.7	90.0 – 110.0	P	12–JAN–10 02:12	011110A–1
	Lead	517	ug/L	500	ug/L	103.4	90.0 – 110.0	P	12–JAN–10 02:12	011110A–1
	Magnesium	5220	ug/L	5000	ug/L	104.4	90.0 – 110.0	P	12–JAN–10 02:12	011110A–1
	Manganese	515	ug/L	500	ug/L	103	90.0 – 110.0	P	12–JAN–10 02:12	011110A–1
	Potassium	5040	ug/L	5000	ug/L	100.8	90.0 – 110.0	P	12–JAN–10 02:12	011110A–1
	Silver	524	ug/L	500	ug/L	104.9	90.0 – 110.0	P	12–JAN–10 02:12	011110A–1
	Sodium	10300	ug/L	10000	ug/L	102.8	90.0 – 110.0	P	12–JAN–10 02:12	011110A–1
	Titanium	520	ug/L	500	ug/L	104.1	90.0 – 110.0	P	12–JAN–10 02:12	011110A–1
	Vanadium	524	ug/L	500	ug/L	104.7	90.0 – 110.0	P	12–JAN–10 02:12	011110A–1
	Zinc	512	ug/L	500	ug/L	102.4	90.0 – 110.0	P	12–JAN–10 02:12	011110A–1
	Antimony	527	ug/L	500	ug/L	105.4	90.0 – 110.0	P	14–JAN–10 22:00	011410–2
	Silicon	2590	ug/L	2500	ug/L	103.4	90.0 – 110.0	P	14–JAN–10 22:00	011410–2

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–1057

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS6,MER536,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
CCV12										
	Aluminum	5080	ug/L	5000	ug/L	101.5	90.0 – 110.0	P	12–JAN–10 03:22	011110A–1
	Barium	525	ug/L	500	ug/L	105.1	90.0 – 110.0	P	12–JAN–10 03:22	011110A–1
	Boron	514	ug/L	500	ug/L	102.7	90.0 – 110.0	P	12–JAN–10 03:22	011110A–1
	Cadmium	526	ug/L	500	ug/L	105.2	90.0 – 110.0	P	12–JAN–10 03:22	011110A–1
	Calcium	5170	ug/L	5000	ug/L	103.3	90.0 – 110.0	P	12–JAN–10 03:22	011110A–1
	Chromium	527	ug/L	500	ug/L	105.5	90.0 – 110.0	P	12–JAN–10 03:22	011110A–1
	Cobalt	527	ug/L	500	ug/L	105.5	90.0 – 110.0	P	12–JAN–10 03:22	011110A–1
	Copper	518	ug/L	500	ug/L	103.6	90.0 – 110.0	P	12–JAN–10 03:22	011110A–1
	Iron	5300	ug/L	5000	ug/L	105.9	90.0 – 110.0	P	12–JAN–10 03:22	011110A–1
	Lead	527	ug/L	500	ug/L	105.4	90.0 – 110.0	P	12–JAN–10 03:22	011110A–1
	Magnesium	5410	ug/L	5000	ug/L	108.3	90.0 – 110.0	P	12–JAN–10 03:22	011110A–1
	Manganese	522	ug/L	500	ug/L	104.5	90.0 – 110.0	P	12–JAN–10 03:22	011110A–1
	Potassium	5080	ug/L	5000	ug/L	101.6	90.0 – 110.0	P	12–JAN–10 03:22	011110A–1
	Silver	532	ug/L	500	ug/L	106.4	90.0 – 110.0	P	12–JAN–10 03:22	011110A–1
	Sodium	10300	ug/L	10000	ug/L	102.7	90.0 – 110.0	P	12–JAN–10 03:22	011110A–1
	Titanium	519	ug/L	500	ug/L	103.8	90.0 – 110.0	P	12–JAN–10 03:22	011110A–1
	Vanadium	532	ug/L	500	ug/L	106.4	90.0 – 110.0	P	12–JAN–10 03:22	011110A–1
	Zinc	521	ug/L	500	ug/L	104.3	90.0 – 110.0	P	12–JAN–10 03:22	011110A–1
	Antimony	532	ug/L	500	ug/L	106.5	90.0 – 110.0	P	14–JAN–10 23:10	011410–2
	Silicon	2610	ug/L	2500	ug/L	104.4	90.0 – 110.0	P	14–JAN–10 23:10	011410–2
CCV13										
	Antimony	529	ug/L	500	ug/L	105.9	90.0 – 110.0	P	15–JAN–10 00:13	011410–2
	Silicon	2610	ug/L	2500	ug/L	104.4	90.0 – 110.0	P	15–JAN–10 00:13	011410–2

METALS
–2b–
CRDL Standard for AA & ICP

SDG No: 10–1057

Contract: LANL01004 **Lab Code:** GEL

AA CRDL Standard Source: SPEX

ICP CRDL Standard Source Solutions Plus

Instrument ID: ICPMS6,MER536,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Advisory Limits (%R)	M	Analysis Date/Time	Run Number
CRDL01										
	Mercury	.201	ug/L	.2	ug/L	100.5	70.0 – 130.0	AV	07–JAN–10 10:31	010710S2–8
	Beryllium	.528	ug/L	.5	ug/L	105.6	70.0 – 130.0	MS	12–JAN–10 11:49	100111–3
	Selenium	5.41	ug/L	5	ug/L	108.3	70.0 – 130.0	MS	12–JAN–10 11:49	100111–3
	Nickel	2.28	ug/L	2	ug/L	113.9	70.0 – 130.0	MS	12–JAN–10 11:49	100111–3
	Thallium	1.06	ug/L	1	ug/L	106.3	70.0 – 130.0	MS	13–JAN–10 21:24	100113–4
	Arsenic	5.57	ug/L	5	ug/L	111.5	70.0 – 130.0	MS	13–JAN–10 21:24	100113–4
	Uranium	.175	ug/L	.2	ug/L	87.5	70.0 – 130.0	MS	13–JAN–10 21:24	100113–4
	Lithium	11.3	ug/L	10	ug/L	112.7	70.0 – 130.0	MS	16–JAN–10 03:12	100115–6
	Lithium	11.4	ug/L	10	ug/L	113.5	70.0 – 130.0	MS	19–JAN–10 00:21	100118–7
PQL01										
	Aluminum	202	ug/L	200	ug/L	101	70.0 – 130.0	P	11–JAN–10 15:52	011110A–1
	Iron	116	ug/L	100	ug/L	116.4	70.0 – 130.0	P	11–JAN–10 15:52	011110A–1
	Chromium	4.72	ug/L	5	ug/L	94.4	70.0 – 130.0	P	11–JAN–10 15:52	011110A–1
	Cadmium	5.07	ug/L	5	ug/L	101.5	70.0 – 130.0	P	11–JAN–10 15:52	011110A–1
	Barium	5.02	ug/L	5	ug/L	100.4	70.0 – 130.0	P	11–JAN–10 15:52	011110A–1
	Sodium	291	ug/L	300	ug/L	97	70.0 – 130.0	P	11–JAN–10 15:52	011110A–1
	Silver	4.78	ug/L	5	ug/L	95.5	70.0 – 130.0	P	11–JAN–10 15:52	011110A–1
	Potassium	159	ug/L	150	ug/L	106.1	70.0 – 130.0	P	11–JAN–10 15:52	011110A–1
	Manganese	10.5	ug/L	10	ug/L	104.9	70.0 – 130.0	P	11–JAN–10 15:52	011110A–1
	Magnesium	343	ug/L	300	ug/L	114.4	70.0 – 130.0	P	11–JAN–10 15:52	011110A–1
	Lead	10.6	ug/L	10	ug/L	106.1	70.0 – 130.0	P	11–JAN–10 15:52	011110A–1
	Titanium	5.09	ug/L	5	ug/L	101.8	70.0 – 130.0	P	11–JAN–10 15:52	011110A–1
	Boron	49.1	ug/L	50	ug/L	98.3	70.0 – 130.0	P	11–JAN–10 15:52	011110A–1
	Calcium	209	ug/L	200	ug/L	104.7	70.0 – 130.0	P	11–JAN–10 15:52	011110A–1
	Zinc	10.5	ug/L	10	ug/L	104.8	70.0 – 130.0	P	11–JAN–10 15:52	011110A–1
	Vanadium	4.95	ug/L	5	ug/L	99	70.0 – 130.0	P	11–JAN–10 15:52	011110A–1
	Copper	9.9	ug/L	10	ug/L	99	70.0 – 130.0	P	11–JAN–10 15:52	011110A–1
	Cobalt	4.96	ug/L	5	ug/L	99.2	70.0 – 130.0	P	11–JAN–10 15:52	011110A–1
	Silicon	98.2	ug/L	100	ug/L	98.2	70.0 – 130.0	P	14–JAN–10 10:46	011410–2
	Antimony	9.49	ug/L	10	ug/L	94.9	70.0 – 130.0	P	14–JAN–10 10:46	011410–2

METALS
–2b–
CRDL Standard for AA & ICP

SDG No: 10–1057

Contract: LANL01004 **Lab Code:** GEL

AA CRDL Standard Source:

ICP CRDL Standard Source

Instrument ID: ICPMS6,MER536,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Advisory Limits (%R)	M	Analysis Date/Time	Run Number
PQL02										
	Antimony	11.5	ug/L	10	ug/L	115	70.0 – 130.0	P	14–JAN–10 14:26	011410–2
	Silicon	100	ug/L	100	ug/L	100.4	70.0 – 130.0	P	14–JAN–10 14:26	011410–2
PQL03										
	Antimony	11.7	ug/L	10	ug/L	117.1	70.0 – 130.0	P	14–JAN–10 15:52	011410–2
	Silicon	93.2	ug/L	100	ug/L	93.2	70.0 – 130.0	P	14–JAN–10 15:52	011410–2
PQL04										
	Antimony	10.2	ug/L	10	ug/L	102	70.0 – 130.0	P	14–JAN–10 17:08	011410–2
	Silicon	97.7	ug/L	100	ug/L	97.7	70.0 – 130.0	P	14–JAN–10 17:08	011410–2

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10-1057

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
ICB01										
	Mercury	-0.073	+/-.2	J	0.068	0.2	SOL	AV	07-JAN-10 10:29	010710S2-8
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	11-JAN-10 15:45	011110A-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	11-JAN-10 15:45	011110A-1
	Boron	10.0	+/-50	U	10.0	50.0	SOL	P	11-JAN-10 15:45	011110A-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	11-JAN-10 15:45	011110A-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	11-JAN-10 15:45	011110A-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	11-JAN-10 15:45	011110A-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	11-JAN-10 15:45	011110A-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	11-JAN-10 15:45	011110A-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	11-JAN-10 15:45	011110A-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	11-JAN-10 15:45	011110A-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	11-JAN-10 15:45	011110A-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	11-JAN-10 15:45	011110A-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	11-JAN-10 15:45	011110A-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	11-JAN-10 15:45	011110A-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	11-JAN-10 15:45	011110A-1
	Titanium	1.0	+/-5	U	1.0	5.0	SOL	P	11-JAN-10 15:45	011110A-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	11-JAN-10 15:45	011110A-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	11-JAN-10 15:45	011110A-1
	Beryllium	0.1	+/-.5	U	0.1	0.5	SOL	MS	12-JAN-10 11:43	100111-3
	Nickel	0.5	+/-2	U	0.5	2.0	SOL	MS	12-JAN-10 11:43	100111-3
	Selenium	2.5	+/-5	U	2.5	5.0	SOL	MS	12-JAN-10 11:43	100111-3
	Arsenic	1.0	+/-5	U	1.0	5.0	SOL	MS	13-JAN-10 21:20	100113-4
	Thallium	0.3	+/-1	U	0.3	1.0	SOL	MS	13-JAN-10 21:20	100113-4
	Uranium	0.066	+/-.2	U	0.066	0.2	SOL	MS	13-JAN-10 21:20	100113-4
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	14-JAN-10 10:39	011410-2
	Silicon	15.0	+/-100	U	15.0	100	SOL	P	14-JAN-10 10:39	011410-2
	Lithium	2.0	+/-10	U	2.0	10.0	SOL	MS	16-JAN-10 03:09	100115-6
	Lithium	2.0	+/-10	U	2.0	10.0	SOL	MS	19-JAN-10 00:18	100118-7
CCB01										
	Mercury	-0.077	+/-.2	J	0.068	0.2	SOL	AV	07-JAN-10 10:35	010710S2-8

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10–1057

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	11–JAN–10 16:31	011110A–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	11–JAN–10 16:31	011110A–1
	Boron	16.55	+/–50	J	10.0	50.0	SOL	P	11–JAN–10 16:31	011110A–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	11–JAN–10 16:31	011110A–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	11–JAN–10 16:31	011110A–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	11–JAN–10 16:31	011110A–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	11–JAN–10 16:31	011110A–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	11–JAN–10 16:31	011110A–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	11–JAN–10 16:31	011110A–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	11–JAN–10 16:31	011110A–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	11–JAN–10 16:31	011110A–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	11–JAN–10 16:31	011110A–1
	Potassium	128.97	+/–250	J	64.0	250	SOL	P	11–JAN–10 16:31	011110A–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	11–JAN–10 16:31	011110A–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	11–JAN–10 16:31	011110A–1
	Titanium	1.0	+/–5	U	1.0	5.0	SOL	P	11–JAN–10 16:31	011110A–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	11–JAN–10 16:31	011110A–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	11–JAN–10 16:31	011110A–1
	Beryllium	0.1	+/–.5	U	0.1	0.5	SOL	MS	12–JAN–10 12:13	100111–3
	Nickel	0.5	+/–2	U	0.5	2.0	SOL	MS	12–JAN–10 12:13	100111–3
	Selenium	2.5	+/–5	U	2.5	5.0	SOL	MS	12–JAN–10 12:13	100111–3
	Arsenic	1.0	+/–5	U	1.0	5.0	SOL	MS	13–JAN–10 21:40	100113–4
	Thallium	0.3	+/–1	U	0.3	1.0	SOL	MS	13–JAN–10 21:40	100113–4
	Uranium	0.066	+/–.2	U	0.066	0.2	SOL	MS	13–JAN–10 21:40	100113–4
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	14–JAN–10 11:40	011410–2
	Silicon	15.0	+/–100	U	15.0	100	SOL	P	14–JAN–10 11:40	011410–2
	Lithium	2.0	+/–10	U	2.0	10.0	SOL	MS	16–JAN–10 03:24	100115–6
	Lithium	2.0	+/–10	U	2.0	10.0	SOL	MS	19–JAN–10 00:33	100118–7
CCB02										
	Mercury	–0.119	+/–.2	J	0.068	0.2	SOL	AV	07–JAN–10 10:59	010710S2–8
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	11–JAN–10 16:45	011110A–1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10–1057

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	11–JAN–10 16:45	011110A–1
	Boron	10.0	+/–50	U	10.0	50.0	SOL	P	11–JAN–10 16:45	011110A–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	11–JAN–10 16:45	011110A–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	11–JAN–10 16:45	011110A–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	11–JAN–10 16:45	011110A–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	11–JAN–10 16:45	011110A–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	11–JAN–10 16:45	011110A–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	11–JAN–10 16:45	011110A–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	11–JAN–10 16:45	011110A–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	11–JAN–10 16:45	011110A–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	11–JAN–10 16:45	011110A–1
	Potassium	84.9	+/–250	J	64.0	250	SOL	P	11–JAN–10 16:45	011110A–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	11–JAN–10 16:45	011110A–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	11–JAN–10 16:45	011110A–1
	Titanium	1.0	+/–5	U	1.0	5.0	SOL	P	11–JAN–10 16:45	011110A–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	11–JAN–10 16:45	011110A–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	11–JAN–10 16:45	011110A–1
	Beryllium	0.1	+/–.5	U	0.1	0.5	SOL	MS	12–JAN–10 12:42	100111–3
	Nickel	0.5	+/–2	U	0.5	2.0	SOL	MS	12–JAN–10 12:42	100111–3
	Selenium	2.5	+/–5	U	2.5	5.0	SOL	MS	12–JAN–10 12:42	100111–3
	Arsenic	1.0	+/–5	U	1.0	5.0	SOL	MS	13–JAN–10 22:01	100113–4
	Thallium	0.312	+/–1	J	0.3	1.0	SOL	MS	13–JAN–10 22:01	100113–4
	Uranium	0.066	+/–.2	U	0.066	0.2	SOL	MS	13–JAN–10 22:01	100113–4
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	14–JAN–10 12:01	011410–2
	Silicon	15.0	+/–100	U	15.0	100	SOL	P	14–JAN–10 12:01	011410–2
	Lithium	2.0	+/–10	U	2.0	10.0	SOL	MS	16–JAN–10 03:34	100115–6
	Lithium	2.0	+/–10	U	2.0	10.0	SOL	MS	19–JAN–10 00:55	100118–7
CCB03										
	Mercury	–0.148	+/–.2	J	0.068	0.2	SOL	AV	07–JAN–10 11:23	010710S2–8
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	11–JAN–10 17:06	011110A–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	11–JAN–10 17:06	011110A–1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10–1057

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Boron	10.0	+/–50	U	10.0	50.0	SOL	P	11–JAN–10 17:06	011110A–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	11–JAN–10 17:06	011110A–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	11–JAN–10 17:06	011110A–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	11–JAN–10 17:06	011110A–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	11–JAN–10 17:06	011110A–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	11–JAN–10 17:06	011110A–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	11–JAN–10 17:06	011110A–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	11–JAN–10 17:06	011110A–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	11–JAN–10 17:06	011110A–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	11–JAN–10 17:06	011110A–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	11–JAN–10 17:06	011110A–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	11–JAN–10 17:06	011110A–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	11–JAN–10 17:06	011110A–1
	Titanium	1.0	+/–5	U	1.0	5.0	SOL	P	11–JAN–10 17:06	011110A–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	11–JAN–10 17:06	011110A–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	11–JAN–10 17:06	011110A–1
	Beryllium	0.1	+/–.5	U	0.1	0.5	SOL	MS	12–JAN–10 13:42	100111–3
	Nickel	0.5	+/–2	U	0.5	2.0	SOL	MS	12–JAN–10 13:42	100111–3
	Selenium	2.5	+/–5	U	2.5	5.0	SOL	MS	12–JAN–10 13:42	100111–3
	Arsenic	1.0	+/–5	U	1.0	5.0	SOL	MS	13–JAN–10 22:41	100113–4
	Thallium	0.3	+/–1	U	0.3	1.0	SOL	MS	13–JAN–10 22:41	100113–4
	Uranium	0.066	+/–.2	U	0.066	0.2	SOL	MS	13–JAN–10 22:41	100113–4
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	14–JAN–10 13:03	011410–2
	Silicon	15.0	+/–100	U	15.0	100	SOL	P	14–JAN–10 13:03	011410–2
	Lithium	2.0	+/–10	U	2.0	10.0	SOL	MS	16–JAN–10 04:11	100115–6
CCB04										
	Mercury	–0.164	+/–.2	J	0.068	0.2	SOL	AV	07–JAN–10 11:47	010710S2–8
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	11–JAN–10 18:01	011110A–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	11–JAN–10 18:01	011110A–1
	Boron	10.0	+/–50	U	10.0	50.0	SOL	P	11–JAN–10 18:01	011110A–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	11–JAN–10 18:01	011110A–1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10–1057

Contract: LANL01004 **Lab Code: GEL**

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	11–JAN–10 18:01	011110A–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	11–JAN–10 18:01	011110A–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	11–JAN–10 18:01	011110A–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	11–JAN–10 18:01	011110A–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	11–JAN–10 18:01	011110A–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	11–JAN–10 18:01	011110A–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	11–JAN–10 18:01	011110A–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	11–JAN–10 18:01	011110A–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	11–JAN–10 18:01	011110A–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	11–JAN–10 18:01	011110A–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	11–JAN–10 18:01	011110A–1
	Titanium	1.0	+/–5	U	1.0	5.0	SOL	P	11–JAN–10 18:01	011110A–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	11–JAN–10 18:01	011110A–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	11–JAN–10 18:01	011110A–1
	Beryllium	0.1	+/–.5	U	0.1	0.5	SOL	MS	12–JAN–10 14:41	100111–3
	Nickel	0.5	+/–2	U	0.5	2.0	SOL	MS	12–JAN–10 14:41	100111–3
	Selenium	2.5	+/–5	U	2.5	5.0	SOL	MS	12–JAN–10 14:41	100111–3
	Arsenic	1.0	+/–5	U	1.0	5.0	SOL	MS	13–JAN–10 23:18	100113–4
	Thallium	0.3	+/–1	U	0.3	1.0	SOL	MS	13–JAN–10 23:18	100113–4
	Uranium	0.066	+/–.2	U	0.066	0.2	SOL	MS	13–JAN–10 23:18	100113–4
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	14–JAN–10 14:33	011410–2
	Silicon	15.0	+/–100	U	15.0	100	SOL	P	14–JAN–10 14:33	011410–2
CCB05										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	11–JAN–10 19:05	011110A–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	11–JAN–10 19:05	011110A–1
	Boron	10.0	+/–50	U	10.0	50.0	SOL	P	11–JAN–10 19:05	011110A–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	11–JAN–10 19:05	011110A–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	11–JAN–10 19:05	011110A–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	11–JAN–10 19:05	011110A–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	11–JAN–10 19:05	011110A–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	11–JAN–10 19:05	011110A–1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10–1057

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Iron	80.0	+/–250	U	80.0	250	SOL	P	11–JAN–10 19:05	011110A–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	11–JAN–10 19:05	011110A–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	11–JAN–10 19:05	011110A–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	11–JAN–10 19:05	011110A–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	11–JAN–10 19:05	011110A–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	11–JAN–10 19:05	011110A–1
	Sodium	88.32	+/–250	J	70.0	250	SOL	P	11–JAN–10 19:05	011110A–1
	Titanium	1.0	+/–5	U	1.0	5.0	SOL	P	11–JAN–10 19:05	011110A–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	11–JAN–10 19:05	011110A–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	11–JAN–10 19:05	011110A–1
	Beryllium	0.1	+/–.5	U	0.1	0.5	SOL	MS	12–JAN–10 15:22	100111–3
	Nickel	0.5	+/–2	U	0.5	2.0	SOL	MS	12–JAN–10 15:22	100111–3
	Selenium	2.5	+/–5	U	2.5	5.0	SOL	MS	12–JAN–10 15:22	100111–3
	Arsenic	1.0	+/–5	U	1.0	5.0	SOL	MS	13–JAN–10 23:50	100113–4
	Thallium	0.3	+/–1	U	0.3	1.0	SOL	MS	13–JAN–10 23:50	100113–4
	Uranium	0.066	+/–.2	U	0.066	0.2	SOL	MS	13–JAN–10 23:50	100113–4
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	14–JAN–10 15:11	011410–2
	Silicon	15.0	+/–100	U	15.0	100	SOL	P	14–JAN–10 15:11	011410–2
CCB06										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	11–JAN–10 20:21	011110A–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	11–JAN–10 20:21	011110A–1
	Boron	10.0	+/–50	U	10.0	50.0	SOL	P	11–JAN–10 20:21	011110A–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	11–JAN–10 20:21	011110A–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	11–JAN–10 20:21	011110A–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	11–JAN–10 20:21	011110A–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	11–JAN–10 20:21	011110A–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	11–JAN–10 20:21	011110A–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	11–JAN–10 20:21	011110A–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	11–JAN–10 20:21	011110A–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	11–JAN–10 20:21	011110A–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	11–JAN–10 20:21	011110A–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–1057

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	11–JAN–10 20:21	011110A–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	11–JAN–10 20:21	011110A–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	11–JAN–10 20:21	011110A–1
	Titanium	1.0	+/–5	U	1.0	5.0	SOL	P	11–JAN–10 20:21	011110A–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	11–JAN–10 20:21	011110A–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	11–JAN–10 20:21	011110A–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	14–JAN–10 15:59	011410–2
	Silicon	15.0	+/–100	U	15.0	100	SOL	P	14–JAN–10 15:59	011410–2
CCB07										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	11–JAN–10 21:38	011110A–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	11–JAN–10 21:38	011110A–1
	Boron	10.0	+/–50	U	10.0	50.0	SOL	P	11–JAN–10 21:38	011110A–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	11–JAN–10 21:38	011110A–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	11–JAN–10 21:38	011110A–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	11–JAN–10 21:38	011110A–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	11–JAN–10 21:38	011110A–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	11–JAN–10 21:38	011110A–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	11–JAN–10 21:38	011110A–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	11–JAN–10 21:38	011110A–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	11–JAN–10 21:38	011110A–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	11–JAN–10 21:38	011110A–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	11–JAN–10 21:38	011110A–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	11–JAN–10 21:38	011110A–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	11–JAN–10 21:38	011110A–1
	Titanium	1.0	+/–5	U	1.0	5.0	SOL	P	11–JAN–10 21:38	011110A–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	11–JAN–10 21:38	011110A–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	11–JAN–10 21:38	011110A–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	14–JAN–10 17:15	011410–2
	Silicon	15.0	+/–100	U	15.0	100	SOL	P	14–JAN–10 17:15	011410–2
CCB08										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	11–JAN–10 22:55	011110A–1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10-1057

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	11-JAN-10 22:55	011110A-1
	Boron	10.0	+/-50	U	10.0	50.0	SOL	P	11-JAN-10 22:55	011110A-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	11-JAN-10 22:55	011110A-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	11-JAN-10 22:55	011110A-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	11-JAN-10 22:55	011110A-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	11-JAN-10 22:55	011110A-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	11-JAN-10 22:55	011110A-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	11-JAN-10 22:55	011110A-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	11-JAN-10 22:55	011110A-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	11-JAN-10 22:55	011110A-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	11-JAN-10 22:55	011110A-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	11-JAN-10 22:55	011110A-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	11-JAN-10 22:55	011110A-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	11-JAN-10 22:55	011110A-1
	Titanium	1.0	+/-5	U	1.0	5.0	SOL	P	11-JAN-10 22:55	011110A-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	11-JAN-10 22:55	011110A-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	11-JAN-10 22:55	011110A-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	14-JAN-10 18:30	011410-2
	Silicon	15.0	+/-100	U	15.0	100	SOL	P	14-JAN-10 18:30	011410-2
CCB09										
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	12-JAN-10 00:06	011110A-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	12-JAN-10 00:06	011110A-1
	Boron	10.0	+/-50	U	10.0	50.0	SOL	P	12-JAN-10 00:06	011110A-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	12-JAN-10 00:06	011110A-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	12-JAN-10 00:06	011110A-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	12-JAN-10 00:06	011110A-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	12-JAN-10 00:06	011110A-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	12-JAN-10 00:06	011110A-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	12-JAN-10 00:06	011110A-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	12-JAN-10 00:06	011110A-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	12-JAN-10 00:06	011110A-1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10–1057

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	12–JAN–10 00:06	011110A–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	12–JAN–10 00:06	011110A–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	12–JAN–10 00:06	011110A–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	12–JAN–10 00:06	011110A–1
	Titanium	1.0	+/–5	U	1.0	5.0	SOL	P	12–JAN–10 00:06	011110A–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	12–JAN–10 00:06	011110A–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	12–JAN–10 00:06	011110A–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	14–JAN–10 19:47	011410–2
	Silicon	15.0	+/–100	U	15.0	100	SOL	P	14–JAN–10 19:47	011410–2
CCB10										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	12–JAN–10 01:08	011110A–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	12–JAN–10 01:08	011110A–1
	Boron	10.0	+/–50	U	10.0	50.0	SOL	P	12–JAN–10 01:08	011110A–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	12–JAN–10 01:08	011110A–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	12–JAN–10 01:08	011110A–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	12–JAN–10 01:08	011110A–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	12–JAN–10 01:08	011110A–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	12–JAN–10 01:08	011110A–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	12–JAN–10 01:08	011110A–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	12–JAN–10 01:08	011110A–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	12–JAN–10 01:08	011110A–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	12–JAN–10 01:08	011110A–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	12–JAN–10 01:08	011110A–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	12–JAN–10 01:08	011110A–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	12–JAN–10 01:08	011110A–1
	Titanium	1.0	+/–5	U	1.0	5.0	SOL	P	12–JAN–10 01:08	011110A–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	12–JAN–10 01:08	011110A–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	12–JAN–10 01:08	011110A–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	14–JAN–10 20:57	011410–2
	Silicon	15.0	+/–100	U	15.0	100	SOL	P	14–JAN–10 20:57	011410–2

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10–1057

Contract: LANL01004 **Lab Code: GEL**

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
CCB11										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	12–JAN–10 02:19	011110A–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	12–JAN–10 02:19	011110A–1
	Boron	10.0	+/–50	U	10.0	50.0	SOL	P	12–JAN–10 02:19	011110A–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	12–JAN–10 02:19	011110A–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	12–JAN–10 02:19	011110A–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	12–JAN–10 02:19	011110A–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	12–JAN–10 02:19	011110A–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	12–JAN–10 02:19	011110A–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	12–JAN–10 02:19	011110A–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	12–JAN–10 02:19	011110A–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	12–JAN–10 02:19	011110A–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	12–JAN–10 02:19	011110A–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	12–JAN–10 02:19	011110A–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	12–JAN–10 02:19	011110A–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	12–JAN–10 02:19	011110A–1
	Titanium	1.0	+/–5	U	1.0	5.0	SOL	P	12–JAN–10 02:19	011110A–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	12–JAN–10 02:19	011110A–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	12–JAN–10 02:19	011110A–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	14–JAN–10 22:07	011410–2
	Silicon	15.0	+/–100	U	15.0	100	SOL	P	14–JAN–10 22:07	011410–2
CCB12										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	12–JAN–10 03:29	011110A–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	12–JAN–10 03:29	011110A–1
	Boron	10.0	+/–50	U	10.0	50.0	SOL	P	12–JAN–10 03:29	011110A–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	12–JAN–10 03:29	011110A–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	12–JAN–10 03:29	011110A–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	12–JAN–10 03:29	011110A–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	12–JAN–10 03:29	011110A–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	12–JAN–10 03:29	011110A–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	12–JAN–10 03:29	011110A–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	12–JAN–10 03:29	011110A–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–1057

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	12–JAN–10 03:29	011110A–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	12–JAN–10 03:29	011110A–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	12–JAN–10 03:29	011110A–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	12–JAN–10 03:29	011110A–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	12–JAN–10 03:29	011110A–1
	Titanium	1.0	+/–5	U	1.0	5.0	SOL	P	12–JAN–10 03:29	011110A–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	12–JAN–10 03:29	011110A–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	12–JAN–10 03:29	011110A–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	14–JAN–10 23:17	011410–2
	Silicon	15.0	+/–100	U	15.0	100	SOL	P	14–JAN–10 23:17	011410–2
CCB13										
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	15–JAN–10 00:20	011410–2
	Silicon	15.0	+/–100	U	15.0	100	SOL	P	15–JAN–10 00:20	011410–2

METALS
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PREPARATION BLANK SUMMARY

SDG NO. 10-1057

Contract: LANL01004

Matrix: SOIL

Sample ID	Analyte	Result	Units	Acceptance Window	Conc Qual	M	MDL	RDL
1202004420								
	Nickel	0.0994	mg/kg	+/-0.398	U	MS	0.0994	0.398
	Selenium	0.497	mg/kg	+/-0.994	U	MS	0.497	0.994
	Thallium	0.0596	mg/kg	+/-0.199	U	MS	0.0596	0.199
	Arsenic	0.199	mg/kg	+/-0.994	U	MS	0.199	0.994
	Uranium	0.0131	mg/kg	+/-0.0398	U	MS	0.0131	0.0398
	Beryllium	0.0199	mg/kg	+/-0.0994	U	MS	0.0199	0.0994
	Lithium	0.398	mg/kg	+/-1.99	U	MS	0.398	1.99
1202004426								
	Aluminum	6730	ug/Kg	+/-19800	U	P	6730	19800
	Barium	99	ug/Kg	+/-495	U	P	99	495
	Boron	990	ug/Kg	+/-4950	U	P	990	4950
	Cadmium	99	ug/Kg	+/-495	U	P	99	495
	Calcium	7920	ug/Kg	+/-24800	U	P	7920	24800
	Chromium	302	ug/Kg	+/-495	J	P	149	495
	Cobalt	149	ug/Kg	+/-495	U	P	149	495
	Copper	297	ug/Kg	+/-990	U	P	297	990
	Iron	7920	ug/Kg	+/-24800	U	P	7920	24800
	Lead	866	ug/Kg	+/-990	J	P	248	990
	Magnesium	8420	ug/Kg	+/-29700	U	P	8420	29700
	Manganese	198	ug/Kg	+/-990	U	P	198	990
	Potassium	6340	ug/Kg	+/-24800	U	P	6340	24800
	Silver	99	ug/Kg	+/-495	U	P	99	495
	Sodium	6930	ug/Kg	+/-24800	U	P	6930	24800
	Titanium	99	ug/Kg	+/-495	U	P	99	495
	Vanadium	99	ug/Kg	+/-495	U	P	99	495
	Zinc	327	ug/Kg	+/-990	U	P	327	990
1202006448								
	Mercury	4.02	ug/kg	+/-11.8	U	AV	4.02	11.8
1202014118								
	Antimony	330	ug/Kg	+/-1000	U	P	330	1000
	Silicon	1500	ug/Kg	+/-10000	U	P	1500	10000

METALS
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Interference Check Sample

SDG No: 10–1057

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Aluminum	514000	ug/L	500000	ug/L	103	80.0 – 120.0	11–JAN–10 15:59	011110A–1
	Barium	3.06	ug/L					11–JAN–10 15:59	011110A–1
	Boron	2.8	ug/L					11–JAN–10 15:59	011110A–1
	Cadmium	–0.409	ug/L					11–JAN–10 15:59	011110A–1
	Calcium	482000	ug/L	500000	ug/L	96.5	80.0 – 120.0	11–JAN–10 15:59	011110A–1
	Chromium	1.65	ug/L					11–JAN–10 15:59	011110A–1
	Cobalt	–1.58	ug/L					11–JAN–10 15:59	011110A–1
	Copper	4.62	ug/L					11–JAN–10 15:59	011110A–1
	Iron	189000	ug/L	200000	ug/L	94.5	80.0 – 120.0	11–JAN–10 15:59	011110A–1
	Lead	–0.0021	ug/L					11–JAN–10 15:59	011110A–1
	Magnesium	492000	ug/L	500000	ug/L	98.3	80.0 – 120.0	11–JAN–10 15:59	011110A–1
	Manganese	2.73	ug/L					11–JAN–10 15:59	011110A–1
	Potassium	–217.0	ug/L					11–JAN–10 15:59	011110A–1
	Silver	0.174	ug/L					11–JAN–10 15:59	011110A–1
	Sodium	8.11	ug/L					11–JAN–10 15:59	011110A–1
	Titanium	–9.01	ug/L					11–JAN–10 15:59	011110A–1
	Vanadium	–1.0	ug/L					11–JAN–10 15:59	011110A–1
	Zinc	7.89	ug/L					11–JAN–10 15:59	011110A–1
ICSAB01									
	Aluminum	509000	ug/L	500000	ug/L	102	80.0 – 120.0	11–JAN–10 16:05	011110A–1
	Barium	499	ug/L	500	ug/L	99.9	80.0 – 120.0	11–JAN–10 16:05	011110A–1
	Boron	516	ug/L	500	ug/L	103	80.0 – 120.0	11–JAN–10 16:05	011110A–1
	Cadmium	470	ug/L	500	ug/L	94	80.0 – 120.0	11–JAN–10 16:05	011110A–1
	Calcium	476000	ug/L	500000	ug/L	95.1	80.0 – 120.0	11–JAN–10 16:05	011110A–1
	Chromium	485	ug/L	500	ug/L	97	80.0 – 120.0	11–JAN–10 16:05	011110A–1
	Cobalt	448	ug/L	500	ug/L	89.7	80.0 – 120.0	11–JAN–10 16:05	011110A–1
	Copper	558	ug/L	500	ug/L	112	80.0 – 120.0	11–JAN–10 16:05	011110A–1
	Iron	187000	ug/L	200000	ug/L	93.3	80.0 – 120.0	11–JAN–10 16:05	011110A–1
	Lead	466	ug/L	500	ug/L	93.2	80.0 – 120.0	11–JAN–10 16:05	011110A–1

METALS
–4–
Interference Check Sample

SDG No: 10–1057

Contract: LANL01004 **Lab Code:** GEL

ICS:

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
	Magnesium	487000	ug/L	500000	ug/L	97.4	80.0 – 120.0	11–JAN–10 16:05	011110A–1
	Manganese	485	ug/L	500	ug/L	97.1	80.0 – 120.0	11–JAN–10 16:05	011110A–1
	Potassium	5310	ug/L	5000	ug/L	106	80.0 – 120.0	11–JAN–10 16:05	011110A–1
	Silver	275	ug/L	250	ug/L	110	80.0 – 120.0	11–JAN–10 16:05	011110A–1
	Sodium	5540	ug/L	5000	ug/L	111	80.0 – 120.0	11–JAN–10 16:05	011110A–1
	Titanium	506	ug/L	500	ug/L	101	80.0 – 120.0	11–JAN–10 16:05	011110A–1
	Vanadium	512	ug/L	500	ug/L	102	80.0 – 120.0	11–JAN–10 16:05	011110A–1
	Zinc	504	ug/L	500	ug/L	101	80.0 – 120.0	11–JAN–10 16:05	011110A–1

METALS
–4–
Interference Check Sample

SDG No: 10–1057

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Antimony	4.44	ug/L					14–JAN–10 10:53	011410–2
	Silicon	4.22	ug/L					14–JAN–10 10:53	011410–2
ICSAB01									
	Antimony	550	ug/L	500	ug/L	110	80.0 – 120.0	14–JAN–10 10:59	011410–2
	Silicon	5360	ug/L	5000	ug/L	107	80.0 – 120.0	14–JAN–10 10:59	011410–2

METALS
–4–
Interference Check Sample

SDG No: 10–1057

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: ICPMS6

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Beryllium	0.061	ug/L					12–JAN–10 11:55	100111–3
	Nickel	3.05	ug/L					12–JAN–10 11:55	100111–3
	Selenium	–1.46	ug/L					12–JAN–10 11:55	100111–3
ICSAB01									
	Beryllium	18.6	ug/L	20	ug/L	93.1	80.0 – 120.0	12–JAN–10 12:01	100111–3
	Nickel	22.5	ug/L	22.7	ug/L	98.9	80.0 – 120.0	12–JAN–10 12:01	100111–3
	Selenium	19.4	ug/L	20	ug/L	96.8	80.0 – 120.0	12–JAN–10 12:01	100111–3

METALS
–4–
Interference Check Sample

SDG No: 10–1057

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: ICPMS6

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Arsenic	–0.074	ug/L					13–JAN–10 21:28	100113–4
	Thallium	–0.001	ug/L					13–JAN–10 21:28	100113–4
	Uranium	–0.067	ug/L					13–JAN–10 21:28	100113–4
ICSAB01									
	Arsenic	19.6	ug/L	20	ug/L	98.1	80.0 – 120.0	13–JAN–10 21:32	100113–4
	Thallium	17.9	ug/L	20	ug/L	89.5	80.0 – 120.0	13–JAN–10 21:32	100113–4
	Uranium	20.9	ug/L	20	ug/L	104	80.0 – 120.0	13–JAN–10 21:32	100113–4

METALS
–4–
Interference Check Sample

SDG No: 10–1057

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: ICPMS6

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Lithium	0.129	ug/L					16–JAN–10 03:15	100115–6
ICSAB01									
	Lithium	20.4	ug/L	20	ug/L	102	80.0 – 120.0	16–JAN–10 03:18	100115–6

METALS
-4-
Interference Check Sample

SDG No: 10-1057

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: ICPMS6

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Lithium	0.119	ug/L					19-JAN-10 00:24	100118-7
ICSAB01									
	Lithium	21.2	ug/L	20	ug/L	106	80.0 - 120.0	19-JAN-10 00:27	100118-7

METALS
–5a–

Matrix Spike Summary

SDG NO. 10–1057 **Client ID** WST03–10–2148S

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 92.8

Sample ID: 243549002 **Spike ID:** 1202004423

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Arsenic	mg/kg	75–125	9.38		0.864	J	8.34	102		MS
Beryllium	mg/kg	75–125	6.28		0.542		5.21	110		MS
Lithium	mg/kg	75–125	12.3		6.16		5.21	119		MS
Nickel	mg/kg	75–125	8.5		2.95		5.21	107		MS
Selenium	mg/kg	75–125	1.72		0.536	U	2.08	77.8		MS
Thallium	mg/kg	75–125	9.87		0.0643	U	10.4	94.2		MS
Uranium	mg/kg	75–125	6.26		0.532		5.21	110		MS

METALS
–5a–

Matrix Spike Duplicate Summary

SDG NO. 10–1057 **Client ID** WST03–10–2148SD

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 92.8

Sample ID: 243549002 **Spike ID:** 1202004425

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Arsenic	mg/kg	75–125	8.5		0.864	J	8.5	89.9		MS
Beryllium	mg/kg	75–125	5.78		0.542		5.31	98.5		MS
Lithium	mg/kg	75–125	11.3		6.16		5.31	96.8		MS
Nickel	mg/kg	75–125	7.93		2.95		5.31	93.7		MS
Selenium	mg/kg	75–125	1.43		0.536	U	2.13	62.8	N	MS
Thallium	mg/kg	75–125	9.24		0.0643	U	10.6	86.4		MS
Uranium	mg/kg	75–125	5.92		0.532		5.31	101		MS

METALS
-5a-

Matrix Spike Summary

SDG NO. 10-1057 **Client ID** WST03-10-2148S

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 92.8

Sample ID: 243549002 **Spike ID:** 1202004429

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Antimony	ug/Kg	75-125	49100		333	U	53300	91.9		P
Barium	ug/Kg	75-125	94000		47200		52800	88.7		P
Boron	ug/Kg	75-125	50200		1260	J	52800	92.6		P
Cadmium	ug/Kg	75-125	49900		106	U	52800	94.4		P
Calcium	ug/Kg	75-125	1680000		816000		528000	164	N	P
Chromium	ug/Kg	75-125	70300		12200		52800	110		P
Cobalt	ug/Kg	75-125	51700		2510		52800	93.2		P
Copper	ug/Kg	75-125	58200		3480		52800	104		P
Iron	ug/Kg		11400000		8430000		528000	555	N/A	P
Lead	ug/Kg	75-125	60600		7570		52800	100		P
Magnesium	ug/Kg	75-125	1950000		750000		528000	227	N	P
Manganese	ug/Kg		330000		220000		52800	209	N/A	P
Potassium	ug/Kg	75-125	1500000		581000		528000	175	N	P
Silicon	ug/Kg	75-125	1020000		718000		533000	56.2	N	P
Aluminum	ug/Kg		10400000		3890000		528000	1230	N/A	P
Silver	ug/Kg	75-125	52300		106	U	52800	98.8		P
Sodium	ug/Kg	75-125	743000		174000		528000	108		P
Titanium	ug/Kg		327000		308000		52800	35.2	N/A	P
Vanadium	ug/Kg	75-125	63500		10700		52800	100		P
Zinc	ug/Kg	75-125	81400		26200		52800	105		P

METALS
–5a–

Matrix Spike Duplicate Summary

SDG NO. 10–1057 **Client ID** WST03–10–2148SD

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 92.8

Sample ID: 243549002 **Spike ID:** 1202004431

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Cobalt	ug/Kg	75–125	52100		2510		52900	93.7		P
Copper	ug/Kg	75–125	58400		3480		52900	104		P
Iron	ug/Kg		10200000		8430000		529000	337	N/A	P
Lead	ug/Kg	75–125	58700		7570		52900	96.6		P
Magnesium	ug/Kg	75–125	1670000		750000		529000	174	N	P
Manganese	ug/Kg		273000		220000		52900	101	N/A	P
Potassium	ug/Kg	75–125	1380000		581000		529000	150	N	P
Silicon	ug/Kg	75–125	1110000		718000		525000	74.7	N	P
Silver	ug/Kg	75–125	53100		106	U	52900	100		P
Sodium	ug/Kg	75–125	708000		174000		529000	101		P
Titanium	ug/Kg		327000		308000		52900	35.4	N/A	P
Vanadium	ug/Kg	75–125	62100		10700		52900	97.2		P
Zinc	ug/Kg	75–125	79300		26200		52900	100		P
Aluminum	ug/Kg		8640000		3890000		529000	897	N/A	P
Antimony	ug/Kg	75–125	48800		333	U	52500	92.7		P
Barium	ug/Kg	75–125	96500		47200		52900	93.2		P
Boron	ug/Kg	75–125	51500		1260	J	52900	94.9		P
Cadmium	ug/Kg	75–125	50900		106	U	52900	96.1		P
Calcium	ug/Kg	75–125	1430000		816000		529000	116		P
Chromium	ug/Kg	75–125	74100		12200		52900	117		P

METALS
–5a–

Matrix Spike Summary

SDG NO. 10–1057 **Client ID** RE12–10–7553S

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 79

Sample ID: 243457001 **Spike ID:** 1202006451

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Mercury	ug/kg	75–125	174		14		138	116		AV

METALS
-5a-

Matrix Spike Duplicate Summary

SDG NO. 10-1057 **Client ID** RE12-10-7553SD

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 79

Sample ID: 243457001 **Spike ID:** 1202006452

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Mercury	ug/kg	75-125	164		14		126	118		AV

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–1057

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** WST03–10–2148D

Sample ID: 243549002 **Duplicate ID:** 1202004422 **Percent Solids for Dup:** 92.8

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Arsenic	mg/kg	+/–1.05	0.864	J	1.03	J	17.7		MS
Beryllium	mg/kg	+/–20%	0.542		0.717		27.7	*	MS
Lithium	mg/kg	+/–2.09	6.16		6.17		.192		MS
Nickel	mg/kg	+/–20%	2.95		3.73		23.3	*	MS
Selenium	mg/kg		0.536	U	0.523	U			MS
Thallium	mg/kg		0.0643	U	0.0718	J	200		MS
Uranium	mg/kg	+/–20%	0.532		0.582		8.93		MS

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–1057

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** WST03–10–2148SD

Sample ID: 1202004423 **Duplicate ID:** 1202004425 **Percent Solids for Dup:** 92.8

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Arsenic	mg/kg	+/–20	9.38		8.5		9.85		MS
Beryllium	mg/kg	+/–20	6.28		5.78		8.41		MS
Lithium	mg/kg	+/–20	12.3		11.3		8.77		MS
Nickel	mg/kg	+/–20	8.5		7.93		7		MS
Selenium	mg/kg	+/–20	1.72		1.43		18.2		MS
Thallium	mg/kg	+/–20	9.87		9.24		6.64		MS
Uranium	mg/kg	+/–20	6.26		5.92		5.61		MS

Metals
-6-
Duplicate Sample Summary

SDG No.: 10-1057

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** WST03-10-2148D

Sample ID: 243549002 **Duplicate ID:** 1202004428 **Percent Solids for Dup:** 92.8

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	ug/Kg	+/-20%	3890000		3860000		.997		P
Antimony	ug/Kg		333	U	356	U			P
Barium	ug/Kg	+/-20%	47200		42200		11.1		P
Boron	ug/Kg	+/-5380	1260	J	1170	J	7.32		P
Cadmium	ug/Kg		106	U	108	U			P
Calcium	ug/Kg	+/-20%	816000		889000		8.57		P
Chromium	ug/Kg	+/-20%	12200		12500		2.15		P
Cobalt	ug/Kg	+/-538	2510		1550		47.4	*	P
Copper	ug/Kg	+/-1080	3480		3400		2.4		P
Iron	ug/Kg	+/-20%	8430000		8190000		2.88		P
Lead	ug/Kg	+/-20%	7570		6870		9.75		P
Magnesium	ug/Kg	+/-20%	750000		715000		4.68		P
Manganese	ug/Kg	+/-20%	220000		251000		13.1		P
Potassium	ug/Kg	+/-20%	581000		532000		8.93		P
Silicon	ug/Kg	+/-20%	718000		760000		5.71		P
Silver	ug/Kg		106	U	232	J	200		P
Sodium	ug/Kg	+/-20%	174000		172000		1.21		P
Titanium	ug/Kg	+/-20%	308000		233000		27.9	*	P
Vanadium	ug/Kg	+/-20%	10700		7980		29	*	P
Zinc	ug/Kg	+/-20%	26200		25800		1.24		P

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–1057

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** WST03–10–2148SD

Sample ID: 1202004429 **Duplicate ID:** 1202004431 **Percent Solids for Dup:** 92.8

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	ug/Kg	+/–20	10400000		8640000		18.5		P
Antimony	ug/Kg	+/–20	49100		48800		.705		P
Barium	ug/Kg	+/–20	94000		96500		2.58		P
Boron	ug/Kg	+/–20	50200		51500		2.58		P
Cadmium	ug/Kg	+/–20	49900		50900		2		P
Calcium	ug/Kg	+/–20	1680000		1430000		16.4		P
Chromium	ug/Kg	+/–20	70300		74100		5.36		P
Cobalt	ug/Kg	+/–20	51700		52100		.677		P
Copper	ug/Kg	+/–20	58200		58400		.439		P
Iron	ug/Kg	+/–20	11400000		10200000		10.6		P
Lead	ug/Kg	+/–20	60600		58700		3.17		P
Magnesium	ug/Kg	+/–20	1950000		1670000		15.4		P
Manganese	ug/Kg	+/–20	330000		273000		18.8		P
Potassium	ug/Kg	+/–20	1500000		1380000		8.81		P
Silicon	ug/Kg	+/–20	1020000		1110000		8.68		P
Silver	ug/Kg	+/–20	52300		53100		1.62		P
Sodium	ug/Kg	+/–20	743000		708000		4.91		P
Titanium	ug/Kg	+/–20	327000		327000		.0508		P
Vanadium	ug/Kg	+/–20	63500		62100		2.24		P
Zinc	ug/Kg	+/–20	81400		79300		2.6		P

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–1057

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE12–10–7553D

Sample ID: 243457001 **Duplicate ID:** 1202006449 **Percent Solids for Dup:** 79

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Mercury	ug/kg	+/–14.5	14		12.6	J	10.8		AV

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–1057

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE12–10–7553SD

Sample ID: 1202006451 **Duplicate ID:** 1202006452 **Percent Solids for Dup:** 79

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Mercury	ug/kg	+/–20	174		164		6.11		AV

METALS
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Laboratory Control Sample Summary

SDG NO. 10–1057

Contract: LANL01004

Aqueous LCS Source:

Solid LCS Source: ERA

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202004421								
	Arsenic	mg/kg	104	108		104	83–120	MS
	Beryllium	mg/kg	77.6	74.9		96.5	81.2–126.8	MS
	Lithium	mg/kg	10.6	12.3	J	116	66.7–133.7	MS
	Nickel	mg/kg	134	144		107	83.3–121.4	MS
	Selenium	mg/kg	286	271		94.7	80.2–125.9	MS
	Thallium	mg/kg	121	120		98.9	78–123.2	MS
	Uranium	mg/kg	2.13	1.98		92.8	61.9–130.7	MS

METALS
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Laboratory Control Sample Summary

SDG NO. 10–1057

Contract: LANL01004

Aqueous LCS Source: **Solid LCS Source:** ERA

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202004427								
	Barium	ug/Kg	198000	194000		97.7	80–120	P
	Boron	ug/Kg	141000	141000		100	75–125	P
	Cadmium	ug/Kg	60700	56100		92.4	81–120	P
	Calcium	ug/Kg	9870000	9470000		96	83–117	P
	Chromium	ug/Kg	236000	224000		95.1	80–120	P
	Cobalt	ug/Kg	91200	86900		95.2	81–120	P
	Copper	ug/Kg	174000	181000		104	81–118	P
	Iron	ug/Kg	18000000	18700000		104	51–149	P
	Lead	ug/Kg	86000	83200		96.7	79–121	P
	Magnesium	ug/Kg	4000000	3810000		95.3	79–122	P
	Manganese	ug/Kg	558000	524000		93.9	81–119	P
	Potassium	ug/Kg	4300000	3970000		92.3	74–127	P
	Silver	ug/Kg	30100	31700		105	66–134	P
	Sodium	ug/Kg	1020000	1040000		102	74–127	P
	Titanium	ug/Kg	462000	665000		144	39–161	P
	Vanadium	ug/Kg	115000	119000		104	79–121	P
	Zinc	ug/Kg	594000	598000		101	80–121	P
	Aluminum	ug/Kg	10500000	8580000		81.7	56–144	P

METALS
-7-
Laboratory Control Sample Summary

SDG NO. 10-1057

Contract: LANL01004

Aqueous LCS Source: **Solid LCS Source:** ERA

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202006453								
	Mercury	ug/kg	5150	6540		127	71.6-128.3	AV

METALS
-7-
Laboratory Control Sample Summary

SDG NO. 10-1057

Contract: LANL01004

Aqueous LCS Source: **Solid LCS Source:** ERA

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202014119								
	Antimony	ug/Kg	173000	174000		100	71-130	P
	Silicon	ug/Kg	1210000	1150000		95	10-190	P

METALS
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Serial Dilution Sample Summary

SDG NO. 10–1057 **Client ID** WST03–10–2148L

Contract: LANL01004

Matrix: SOLID **Level:** Low

Sample ID: 243549002 **Serial Dilution ID:** 1202004424

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Arsenic	4.03	J	5	U	100			MS
Beryllium	2.53		2.99		18.2			MS
Lithium	28.8		35.9	J	24.5			MS
Nickel	13.8		14.9		7.61			MS
Selenium	2.5	U	12.5	U				MS
Thallium	.3	U	2.91	J				MS
Uranium	2.48		2.28		8.27			MS

METALS
–9–
Serial Dilution Sample Summary

SDG NO. 10–1057 **Client ID** WST03–10–2148L

Contract: LANL01004

Matrix: SOLID **Level:** Low

Sample ID: 243549002 **Serial Dilution ID:** 1202004430

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Aluminum	36700		38700		5.31		10	P
Antimony	3.3	U	16.5	U				P
Barium	444		465		4.73		10	P
Boron	11.8	J	50	U	100			P
Cadmium	1	U	5	U				P
Calcium	7680		8350		8.72		10	P
Chromium	115		123		6.96		10	P
Cobalt	23.7		24.7	J	4.22			P
Copper	32.7		33.2	J	1.38			P
Iron	79300		87500		10.3	E	10	P
Lead	71.3		78.5		10.1			P
Magnesium	7060		7600		7.65		10	P
Manganese	2070		2200		6.04		10	P
Potassium	5470		5900		7.86		10	P
Silicon	7110		7600		6.89		10	P
Silver	1	U	5	U				P
Sodium	1640		1710		4.27			P
Titanium	2900		3000		3.45		10	P
Vanadium	101		103		1.49		10	P
Zinc	246		258		4.88		10	P

METALS
–9–
Serial Dilution Sample Summary

SDG NO. 10–1057 **Client ID** RE12–10–7553L

Contract: LANL01004

Matrix: SOLID **Level:** Low

Sample ID: 243457001 **Serial Dilution ID:** 1202006450

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Mercury	.205		.34	U	100			AV

METALS
-13-
SAMPLE PREPARATION SUMMARY

SDG No: 10-1057 **Method Type:** P

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number 936807							
1202004426	MB for batch 936807	MB	S	29-DEC-09	.505g	50mL	
1202004427	LCS for batch 936807	LCS	S	29-DEC-09	.503g	50mL	
1202004429	WST03-10-2148S	MS	S	29-DEC-09	.51g	50mL	
1202004431	WST03-10-2148SD	MSD	S	29-DEC-09	.509g	50mL	
1202004428	WST03-10-2148D	DUP	S	29-DEC-09	.501g	50mL	
243472001	RE03-09-14228	SAMPLE	S	29-DEC-09	.507g	50mL	
243472002	RE03-09-14230	SAMPLE	S	29-DEC-09	.508g	50mL	
243472003	RE03-09-14229	SAMPLE	S	29-DEC-09	.511g	50mL	
Batch Number 941049							
1202014118	MB for batch 941049	MB	S	13-JAN-10	.5g	50mL	
1202014119	LCS for batch 941049	LCS	S	13-JAN-10	.51g	50mL	
1202004429	WST03-10-2148S	MS	S	13-JAN-10	.505g	50mL	
1202004431	WST03-10-2148SD	MSD	S	13-JAN-10	.513g	50mL	
1202004428	WST03-10-2148D	DUP	S	13-JAN-10	.5g	50mL	
243472001	RE03-09-14228	SAMPLE	S	13-JAN-10	.502g	50mL	
243472002	RE03-09-14230	SAMPLE	S	13-JAN-10	.545g	50mL	
243472003	RE03-09-14229	SAMPLE	S	13-JAN-10	.516g	50mL	

METALS
-13-
SAMPLE PREPARATION SUMMARY

SDG No: 10-1057 **Method Type:** MS

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number	936804						
1202004420	MB for batch 936804	MB	S	29-DEC-09	.503g	50mL	
1202004421	LCS for batch 936804	LCS	S	29-DEC-09	.501g	50mL	
1202004423	WST03-10-2148S	MS	S	29-DEC-09	.517g	50mL	
1202004425	WST03-10-2148SD	MSD	S	29-DEC-09	.507g	50mL	
1202004422	WST03-10-2148D	DUP	S	29-DEC-09	.515g	50mL	
243472001	RE03-09-14228	SAMPLE	S	29-DEC-09	.509g	50mL	
243472002	RE03-09-14230	SAMPLE	S	29-DEC-09	.513g	50mL	
243472003	RE03-09-14229	SAMPLE	S	29-DEC-09	.507g	50mL	

METALS
–13–
SAMPLE PREPARATION SUMMARY

SDG No: 10–1057 **Method Type:** AV

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number 937637							
1202006448	MB for batch 937637	MB	S	06–JAN–10	.507g	30mL	
1202006453	LCS for batch 937637	LCS	S	06–JAN–10	.201g	30mL	
1202006451	RE12–10–7553S	MS	S	06–JAN–10	.55g	30mL	
1202006452	RE12–10–7553SD	MSD	S	06–JAN–10	.6g	30mL	
1202006449	RE12–10–7553D	DUP	S	06–JAN–10	.523g	30mL	
243472001	RE03–09–14228	SAMPLE	S	06–JAN–10	.542g	30mL	
243472002	RE03–09–14230	SAMPLE	S	06–JAN–10	.549g	30mL	
243472003	RE03–09–14229	SAMPLE	S	06–JAN–10	.548g	30mL	

Metals
–14–
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: ICPMS6
Start Date: 12–JAN–10 **End Date:** 12–JAN–10

Client Sdg: 10–1057
Method MS
Data File: 100111–3

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Li	Mg	Mn	Hg	Ni	K	Se	Si	Ag	Na	Tl	Ti	U	V	Zn
S0.0	1	11:19					X													X		X								
S10	1	11:25					X													X		X								
S100	1	11:31					X													X		X								
ICV01	1	11:37					X													X		X								
ICB01	1	11:43					X													X		X								
CRDL01	1	11:49					X													X		X								
ICSA01	1	11:55					X													X		X								
ICSAB01	1	12:01					X													X		X								
CCV01	1	12:07					X													X		X								
CCB01	1	12:13					X													X		X								
1202004420	2	12:18					X													X		X								
ZZZZZZ	20	12:24																												
1202004421	40	12:30					X													X		X								
CCV02	1	12:36					X													X		X								
CCB02	1	12:42					X													X		X								
ZZZZZZ	2	12:48																												
ZZZZZZ	2	12:54																												
ZZZZZZ	2	13:00																												
ZZZZZZ	2	13:06																												
243472001	2	13:12					X													X		X								
243472002	2	13:18					X													X		X								
243472003	2	13:24					X													X		X								
ZZZZZZ	2	13:30																												
CCV03	1	13:36					X													X		X								
CCB03	1	13:42					X													X		X								
ZZZZZZ	2	13:47																												
ZZZZZZ	2	13:53																												
ZZZZZZ	2	13:59																												
ZZZZZZ	2	14:05																												
ZZZZZZ	2	14:11																												
ZZZZZZ	2	14:17																												
ZZZZZZ	2	14:23																												
ZZZZZZ	2	14:29																												
CCV04	1	14:35					X													X		X								
CCB04	1	14:41					X													X		X								
ZZZZZZ	2	14:47																												
1202004422	2	14:53					X													X		X								
1202004423	2	14:58					X													X		X								
1202004425	2	15:04					X													X		X								
1202004424	10	15:10					X													X		X								

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time																											
CCV05	1	15:16					X												X		X								
CCB05	1	15:22					X												X		X								

Metals
–14–
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: ICPMS6
Start Date: 13–JAN–10 **End Date:** 13–JAN–10

Client Sdg: 10–1057
Method MS
Data File: 100113–4

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Li	Mg	Mn	Hg	Ni	K	Se	Si	Ag	Na	Tl	Ti	U	V	Zn
S0.0	1	21:04			X																					X		X		
S10	1	21:08			X																					X		X		
S100	1	21:12			X																					X		X		
ICV01	1	21:16			X																					X		X		
ICB01	1	21:20			X																					X		X		
CRDL01	1	21:24			X																					X		X		
ICSA01	1	21:28			X																					X		X		
ICSAB01	1	21:32			X																					X		X		
CCV01	1	21:36			X																					X		X		
CCB01	1	21:40			X																					X		X		
1202004420	2	21:44			X																					X		X		
ZZZZZZ	20	21:49																												
1202004421	40	21:53			X																					X		X		
CCV02	1	21:57			X																					X		X		
CCB02	1	22:01			X																					X		X		
ZZZZZZ	2	22:05																												
ZZZZZZ	2	22:09																												
ZZZZZZ	2	22:13																												
ZZZZZZ	2	22:17																												
243472001	2	22:21			X																					X		X		
243472002	2	22:25			X																					X		X		
243472003	2	22:29			X																					X		X		
ZZZZZZ	2	22:33																												
CCV03	1	22:37			X																					X		X		
CCB03	1	22:41			X																					X		X		
ZZZZZZ	2	22:45																												
ZZZZZZ	2	22:50																												
ZZZZZZ	2	22:54																												
ZZZZZZ	2	22:58																												
ZZZZZZ	2	23:02																												
ZZZZZZ	2	23:06																												
ZZZZZZ	2	23:10																												
CCV04	1	23:14			X																					X		X		
CCB04	1	23:18			X																					X		X		
ZZZZZZ	2	23:22																												
ZZZZZZ	2	23:26																												
1202004422	2	23:30			X																					X		X		
1202004423	2	23:34			X																					X		X		
1202004425	2	23:38			X																					X		X		
1202004424	10	23:42			X																					X		X		

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time																												
CCV05	1	23:46			X																				X		X			
CCB05	1	23:50			X																				X		X			

Metals
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Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: ICPMS6
Start Date: 16–JAN–10 **End Date:** 16–JAN–10

Client Sdg: 10–1057
Method MS
Data File: 100115–6

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Li	Mg	Mn	Hg	Ni	K	Se	Si	Ag	Na	Tl	Ti	U	V	Zn
S0.0	1	02:56														X														
S10	1	02:59														X														
S100	1	03:02														X														
ICV01	1	03:05														X														
ICB01	1	03:09														X														
CRDL01	1	03:12														X														
ICSA01	1	03:15														X														
ICSAB01	1	03:18														X														
CCV01	1	03:21														X														
CCB01	1	03:24														X														
LR01	1	03:27														X														
CCV02	1	03:30														X														
CCB02	1	03:34														X														
ZZZZZZ	2	03:37																												
ZZZZZZ	20	03:40																												
ZZZZZZ	40	03:43																												
ZZZZZZ	2	03:46																												
ZZZZZZ	2	03:52																												
1202004422	2	03:55														X														
1202004423	2	03:58														X														
1202004425	2	04:02														X														
1202004424	10	04:05														X														
CCV03	1	04:08														X														
CCB03	1	04:11														X														

Metals
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Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: ICPMS6
Start Date: 19–JAN–10 **End Date:** 19–JAN–10

Client Sdg: 10–1057
Method MS
Data File: 100118–7

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Li	Mg	Mn	Hg	Ni	K	Se	Si	Ag	Na	Tl	Ti	U	V	Zn
S0.0	1	00:05														X														
S10	1	00:08														X														
S100	1	00:11														X														
ICV01	1	00:15														X														
ICB01	1	00:18														X														
CRDL01	1	00:21														X														
ICSA01	1	00:24														X														
ICSAB01	1	00:27														X														
CCV01	1	00:30														X														
CCB01	1	00:33														X														
1202004420	2	00:36														X														
1202004421	20	00:39														X														
243472001	2	00:42														X														
243472002	2	00:45														X														
243472003	2	00:48														X														
CCV02	1	00:51														X														
CCB02	1	00:55														X														

Metals
–14–
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: OPTIMA3
Start Date: 11–JAN–10 **End Date:** 12–JAN–10

Client Sdg: 10–1057
Method P
Data File: 011110A–1

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Li	Mg	Mn	Hg	Ni	K	Se	Si	Ag	Na	Tl	Ti	U	V	Zn
S0.0	1	15:06	X			X		X	X	X	X	X	X	X	X		X	X			X			X	X		X		X	X
S0.1	1	15:13				X		X	X		X	X	X		X			X			X			X			X		X	X
S0.5	1	15:19	X			X		X	X	X	X	X	X		X		X	X			X			X			X		X	X
SCAL	1	15:26	X			X		X	X	X	X	X	X	X	X		X	X			X			X	X		X		X	X
S10	1	15:33	X							X				X			X								X					
ICV01	1	15:38	X			X		X	X	X	X	X	X	X	X		X	X			X			X	X		X		X	X
ICB01	1	15:45	X			X		X	X	X	X	X	X	X	X		X	X			X			X	X		X		X	X
PQL01	1	15:52	X			X		X	X	X	X	X	X	X	X		X	X			X			X	X		X		X	X
ICSA01	1	15:59	X			X		X	X	X	X	X	X	X	X		X	X			X			X	X		X		X	X
ICSAB01	1	16:05	X			X		X	X	X	X	X	X	X	X		X	X			X			X	X		X		X	X
LR01	1	16:11	X			X		X	X	X	X	X	X	X	X		X	X			X			X	X		X		X	X
LR02	1	16:17	X			X		X	X	X	X	X	X	X	X		X	X			X			X	X		X		X	X
CCV01	1	16:24	X			X		X	X	X	X	X	X	X	X		X	X			X			X	X		X		X	X
CCB01	1	16:31	X			X		X	X	X	X	X	X	X	X		X	X			X			X	X		X		X	X
CCV02	1	16:38	X			X		X	X	X	X	X	X	X	X		X	X			X			X	X		X		X	X
CCB02	1	16:45	X			X		X	X	X	X	X	X	X	X		X	X			X			X	X		X		X	X
LR03	1	16:52	X			X		X	X	X	X	X	X	X	X		X	X			X			X	X		X		X	X
CCV03	1	16:59	X			X		X	X	X	X	X	X	X	X		X	X			X			X	X		X		X	X
CCB03	1	17:06	X			X		X	X	X	X	X	X	X	X		X	X			X			X	X		X		X	X
ZZZZZZ	1	17:13																												
ZZZZZZ	1	17:19																												
ZZZZZZ	1	17:26																												
ZZZZZZ	1	17:33																												
ZZZZZZ	1	17:40																												
ZZZZZZ	5	17:48																												
CCV04	1	17:54	X			X		X	X	X	X	X	X	X	X		X	X			X			X	X		X		X	X
CCB04	1	18:01	X			X		X	X	X	X	X	X	X	X		X	X			X			X	X		X		X	X
ZZZZZZ	1	18:08																												
ZZZZZZ	1	18:15																												
ZZZZZZ	1	18:22																												
ZZZZZZ	1	18:29																												
ZZZZZZ	1	18:36																												
ZZZZZZ	1	18:43																												
ZZZZZZ	1	18:51																												
CCV05	1	18:58	X			X		X	X	X	X	X	X	X	X		X	X			X			X	X		X		X	X
CCB05	1	19:05	X			X		X	X	X	X	X	X	X	X		X	X			X			X	X		X		X	X
ZZZZZZ	1	19:11																												
ZZZZZZ	1	19:18																												
ZZZZZZ	1	19:25																												
ZZZZZZ	1	19:32																												

Metals
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Analysis Run Log

Samp No.	D/F	Run Time																												
ZZZZZZ	1	19:39																												
ZZZZZZ	1	19:46																												
ZZZZZZ	1	19:53																												
ZZZZZZ	1	20:00																												
ZZZZZZ	1	20:07																												
CCV06	1	20:14	X			X		X	X	X	X	X	X	X	X		X	X			X			X	X		X		X	X
CCB06	1	20:21	X			X		X	X	X	X	X	X	X	X		X	X			X			X	X		X		X	X
ZZZZZZ	5	20:28																												
ZZZZZZ	1	20:35																												
ZZZZZZ	1	20:42																												
ZZZZZZ	1	20:49																												
ZZZZZZ	1	20:56																												
ZZZZZZ	1	21:03																												
ZZZZZZ	1	21:10																												
ZZZZZZ	1	21:17																												
ZZZZZZ	1	21:24																												
CCV07	1	21:31	X			X		X	X	X	X	X	X	X	X		X	X			X			X	X		X		X	X
CCB07	1	21:38	X			X		X	X	X	X	X	X	X	X		X	X			X			X	X		X		X	X
ZZZZZZ	1	21:45																												
ZZZZZZ	1	21:52																												
ZZZZZZ	1	21:58																												
ZZZZZZ	1	22:05																												
ZZZZZZ	1	22:12																												
ZZZZZZ	1	22:20																												
ZZZZZZ	5	22:27																												
ZZZZZZ	1	22:34																												
ZZZZZZ	1	22:41																												
CCV08	1	22:48	X			X		X	X	X	X	X	X	X	X		X	X			X			X	X		X		X	X
CCB08	1	22:55	X			X		X	X	X	X	X	X	X	X		X	X			X			X	X		X		X	X
ZZZZZZ	1	23:02																												
ZZZZZZ	1	23:09																												
ZZZZZZ	1	23:16																												
ZZZZZZ	1	23:23																												
ZZZZZZ	1	23:30																												
ZZZZZZ	1	23:37																												
ZZZZZZ	1	23:44																												
ZZZZZZ	1	23:51																												
CCV09	1	23:59	X			X		X	X	X	X	X	X	X	X		X	X			X			X	X		X		X	X
CCB09	1	00:06	X			X		X	X	X	X	X	X	X	X		X	X			X			X	X		X		X	X
1202004426	1	00:13	X			X		X	X	X	X	X	X	X	X		X	X			X			X	X		X		X	X

Metals
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Analysis Run Log

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Li	Mg	Mn	Hg	Ni	K	Se	Si	Ag	Na	Tl	Ti	U	V	Zn
1202004427	1	00:19	X			X		X	X	X	X	X	X	X	X		X	X			X			X	X		X		X	X
ZZZZZZ	1	00:26																												
ZZZZZZ	1	00:33																												
ZZZZZZ	1	00:40																												
ZZZZZZ	1	00:47																												
243472001	1	00:54	X			X		X	X	X	X	X	X	X	X		X	X			X			X	X		X		X	X
CCV10	1	01:01	X			X		X	X	X	X	X	X	X	X		X	X			X			X	X		X		X	X
CCB10	1	01:08	X			X		X	X	X	X	X	X	X	X		X	X			X			X	X		X		X	X
243472002	1	01:15	X			X		X	X	X	X	X	X	X	X		X	X			X			X	X		X		X	X
243472003	1	01:22	X			X		X	X	X	X	X	X	X	X		X	X			X			X	X		X		X	X
ZZZZZZ	1	01:29																												
ZZZZZZ	1	01:37																												
ZZZZZZ	1	01:44																												
ZZZZZZ	1	01:51																												
ZZZZZZ	1	01:58																												
ZZZZZZ	1	02:05																												
CCV11	1	02:12	X			X		X	X	X	X	X	X	X	X		X	X			X			X	X		X		X	X
CCB11	1	02:19	X			X		X	X	X	X	X	X	X	X		X	X			X			X	X		X		X	X
ZZZZZZ	1	02:26																												
ZZZZZZ	1	02:33																												
ZZZZZZ	1	02:40																												
ZZZZZZ	1	02:47																												
1202004428	1	02:54	X			X		X	X	X	X	X	X	X	X		X	X			X			X	X		X		X	X
1202004429	1	03:01	X			X		X	X	X	X	X	X	X	X		X	X			X			X	X		X		X	X
1202004431	1	03:08	X			X		X	X	X	X	X	X	X	X		X	X			X			X	X		X		X	X
1202004430	5	03:15	X			X		X	X	X	X	X	X	X	X		X	X			X			X	X		X		X	X
CCV12	1	03:22	X			X		X	X	X	X	X	X	X	X		X	X			X			X	X		X		X	X
CCB12	1	03:29	X			X		X	X	X	X	X	X	X	X		X	X			X			X	X		X		X	X

Metals
–14–
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: OPTIMA3
Start Date: 14–JAN–10 **End Date:** 15–JAN–10

Client Sdg: 10–1057
Method P
Data File: 011410–2

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Li	Mg	Mn	Hg	Ni	K	Se	Si	Ag	Na	Tl	Ti	U	V	Zn
S0.0	1	10:00		X																			X							
S0.1	1	10:07		X																			X							
S0.5	1	10:13		X																			X							
SCAL	1	10:20		X																			X							
S10	1	10:27																												
ICV01	1	10:32		X																			X							
ICB01	1	10:39		X																			X							
PQL01	1	10:46		X																			X							
ICSA01	1	10:53		X																			X							
ICSAB01	1	10:59		X																			X							
LR01	1	11:05		X																			X							
LR02	1	11:11		X																			X							
ZZZZZZ	1	11:18																												
ZZZZZZ	1	11:25																												
CCV01	1	11:33		X																			X							
CCB01	1	11:40		X																			X							
LR03	1	11:47		X																			X							
CCV02	1	11:54		X																			X							
CCB02	1	12:01		X																			X							
ZZZZZZ	1	12:07																												
ZZZZZZ	1	12:14																												
ZZZZZZ	1	12:21																												
ZZZZZZ	1	12:28																												
ZZZZZZ	1	12:35																												
ZZZZZZ	1	12:42																												
ZZZZZZ	5	12:49																												
CCV03	1	12:56		X																			X							
CCB03	1	13:03		X																			X							
ZZZZZZ	1	13:15																												
ZZZZZZ	1	13:22																												
ZZZZZZ	1	13:28																												
ZZZZZZ	1	13:35																												
ZZZZZZ	1	13:42																												
ZZZZZZ	1	13:49																												
ZZZZZZ	5	13:56																												
ZZZZZZ	1	14:03																												
CCV04	1	14:19		X																			X							
PQL02	1	14:26		X																			X							
CCB04	1	14:33		X																			X							
CCV05	1	15:04		X																			X							

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time																											
CCB05	1	15:11		X																			X						
ZZZZZZ	1	15:18																											
ZZZZZZ	1	15:25																											
ZZZZZZ	1	15:32																											
ZZZZZZ	1	15:38																											
CCV06	1	15:45		X																			X						
PQL03	1	15:52		X																			X						
CCB06	1	15:59		X																			X						
ZZZZZZ	1	16:06																											
ZZZZZZ	1	16:13																											
ZZZZZZ	1	16:20																											
ZZZZZZ	1	16:27																											
ZZZZZZ	1	16:34																											
ZZZZZZ	1	16:40																											
ZZZZZZ	1	16:47																											
ZZZZZZ	5	16:54																											
CCV07	1	17:01		X																			X						
PQL04	1	17:08		X																			X						
CCB07	1	17:15		X																			X						
ZZZZZZ	1	17:21																											
ZZZZZZ	1	17:28																											
ZZZZZZ	1	17:35																											
ZZZZZZ	1	17:42																											
ZZZZZZ	1	17:49																											
ZZZZZZ	1	17:56																											
ZZZZZZ	5	18:03																											
ZZZZZZ	1	18:10																											
ZZZZZZ	1	18:16																											
CCV08	1	18:23		X																			X						
CCB08	1	18:30		X																			X						
ZZZZZZ	1	18:36																											
ZZZZZZ	1	18:43																											
ZZZZZZ	1	18:51																											
ZZZZZZ	1	18:58																											
ZZZZZZ	1	19:05																											
ZZZZZZ	1	19:12																											
ZZZZZZ	1	19:19																											
ZZZZZZ	1	19:26																											
ZZZZZZ	1	19:33																											
CCV09	1	19:40		X																			X						

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Li	Mg	Mn	Hg	Ni	K	Se	Si	Ag	Na	Tl	Ti	U	V	Zn
CCB09	1	19:47		X																			X							
ZZZZZZ	1	19:54																												
ZZZZZZ	1	20:01																												
ZZZZZZ	1	20:08																												
ZZZZZZ	1	20:15																												
ZZZZZZ	1	20:22																												
ZZZZZZ	1	20:29																												
ZZZZZZ	1	20:36																												
ZZZZZZ	1	20:44																												
CCV10	1	20:50		X																			X							
CCB10	1	20:57		X																			X							
1202014118	1	21:04		X																			X							
1202014119	1	21:11		X																			X							
ZZZZZZ	1	21:17																												
ZZZZZZ	1	21:24																												
ZZZZZZ	1	21:31																												
ZZZZZZ	1	21:38																												
243472001	1	21:45		X																			X							
243472002	1	21:53		X																			X							
CCV11	1	22:00		X																			X							
CCB11	1	22:07		X																			X							
243472003	1	22:13		X																			X							
ZZZZZZ	1	22:20																												
ZZZZZZ	1	22:27																												
ZZZZZZ	1	22:34																												
ZZZZZZ	1	22:41																												
ZZZZZZ	1	22:49																												
ZZZZZZ	1	22:56																												
ZZZZZZ	1	23:03																												
CCV12	1	23:10		X																			X							
CCB12	1	23:17		X																			X							
ZZZZZZ	1	23:24																												
ZZZZZZ	1	23:31																												
ZZZZZZ	1	23:38																												
1202004428	1	23:45		X																			X							
1202004429	1	23:52		X																			X							
1202004431	1	23:59		X																			X							
1202004430	5	00:06		X																			X							
CCV13	1	00:13		X																			X							
CCB13	1	00:20		X																			X							

Metals
-14-
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: MER536
Start Date: 07-JAN-10 **End Date:** 07-JAN-10

Client Sdg: 10-1057
Method AV
Data File: 010710S2-8

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Li	Mg	Mn	Hg	Ni	K	Se	Si	Ag	Na	Tl	Ti	U	V	Zn
S0.0	1	10:16																	X											
S0.2	1	10:17																	X											
S0.5	1	10:19																	X											
S2.0	1	10:21																	X											
S5.0	1	10:23																	X											
S10	1	10:25																	X											
ICV01	1	10:28																	X											
ICB01	1	10:29																	X											
CRDL01	1	10:31																	X											
CCV01	1	10:33																	X											
CCB01	1	10:35																	X											
ZZZZZZ	1	10:37																												
ZZZZZZ	10	10:39																												
ZZZZZZ	1	10:41																												
ZZZZZZ	1	10:44																												
ZZZZZZ	1	10:46																												
ZZZZZZ	1	10:48																												
ZZZZZZ	5	10:49																												
ZZZZZZ	1	10:51																												
ZZZZZZ	1	10:53																												
ZZZZZZ	1	10:55																												
CCV02	1	10:57																	X											
CCB02	1	10:59																	X											
ZZZZZZ	1	11:01																												
ZZZZZZ	1	11:03																												
ZZZZZZ	1	11:05																												
ZZZZZZ	1	11:07																												
ZZZZZZ	1	11:09																												
ZZZZZZ	1	11:11																												
ZZZZZZ	1	11:13																												
1202006448	1	11:15																	X											
1202006453	10	11:17																	X											
ZZZZZZ	1	11:19																												
CCV03	1	11:21																	X											
CCB03	1	11:23																	X											
1202006449	1	11:25																	X											
1202006451	1	11:27																	X											
1202006452	1	11:29																	X											
1202006450	5	11:31																	X											
ZZZZZZ	1	11:33																												

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time																												
ZZZZZZ	1	11:35																												
ZZZZZZ	1	11:37																												
243472001	1	11:39																X												
243472002	1	11:41																X												
243472003	1	11:43																X												
CCV04	1	11:45																X												
CCB04	1	11:47																X												

Standards

METALS
-10-
Instrument Detection Limits

SDG NO. 10-1057

Contract: LANL01004 **Lab Code: GEL** **MDL Effective Date:** 01-JUL-09

ICP/MS	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
SOLID	Aluminum		15.0	50
	Antimony		0.5	3
	Arsenic		1.0	5
	Barium		0.5	2
	Beryllium		0.1	.5
	Boron		4.0	15
	Cadmium		0.1	1
	Calcium		33.0	100
	Chromium		1.0	3
	Cobalt		0.3	1
	Copper		0.33	1
	Iron		25.0	100
	Lead		0.5	2
	Lithium		2.0	10
	Magnesium		7.5	25
	Manganese		1.0	5
	Nickel		0.5	2
	Potassium		80.0	300
	Selenium		2.5	5
	Silver		0.2	1
	Sodium		80.0	250
	Thallium		0.3	1
	Titanium		2.0	10
	Uranium		0.066	.2
	Vanadium		2.0	10
	Zinc		2.0	10

METALS
–10–
Instrument Detection Limits

SDG NO. 10–1057

Contract: LANL01004 **Lab Code: GEL** **MDL Effective Date:** 15–JUN–09

MERCURY	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
SOLID	Mercury		0.068	.2

METALS
–10–
Instrument Detection Limits

SDG NO. 10–1057

Contract: LANL01004 **Lab Code: GEL** **MDL Effective Date:** 01–JUL–09

ICP	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
SOLID	Aluminum	396.153	68.0	200
	Antimony	206.836	3.3	10
	Arsenic	188.979	5.0	30
	Barium	233.527	1.0	5
	Beryllium	313.107	1.0	5
	Boron	249.677	10.0	50
	Cadmium	226.502	1.0	5
	Calcium	317.933	80.0	250
	Chromium	267.716	1.5	5
	Cobalt	228.616	1.5	5
	Copper	324.752	3.0	10
	Iron	238.204	80.0	250
	Lead	220.353	2.5	10
	Magnesium	279.077	85.0	300
	Manganese	257.61	2.0	10
	Nickel	231.604	1.5	5
	Potassium	766.49	64.0	250
	Selenium	196.026	5.0	30
	Silicon	251.611	15.0	100
	Silver	328.068	1.0	5
	Sodium	589.592	70.0	250
	Thallium	190.801	5.0	20
	Titanium	334.94	1.0	5
	Uranium	409.014	10.0	50
	Vanadium	292.402	1.0	5
	Zinc	213.857	3.3	10

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
GEL Job No: 10-1057
Contract: LANL01004
Instrument: OPTIMA3
Effective Dates: 01-NOV-09
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Parmname	Wavelength	Aluminum	Antimony	Arsenic	Barium	Beryllium
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.02738	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	-0.44940	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	-0.22121	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	-0.33886	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	-0.13648	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	-0.05571	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.19671	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	-0.02739	0.00000	0.00000	0.00000	0.00000
Tin	189.927	-0.00058	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	0.00000

METALS
–11–
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA3
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10–1057
Effective Dates: 01–NOV–09

Parmname	Wavelength	Boron	Cadmium	Chromium	Cobalt	Copper
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	24.5549	0.00000	0.00000
Arsenic	188.979	0.52529	0.00000	–0.67113	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	2.54031	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.38952	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	–31.5465	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	0.78023
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.63859	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	160.41
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	5.22870	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.35099	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	1.93161	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.39273	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	1.19810

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA3
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-1057
Effective Dates: 01-NOV-09

Parmname	Wavelength	Iron	Lead	Magnesium	Manganese	Molybdenum
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	42.8126
Antimony	206.836	-0.01635	0.00000	0.00000	0.00000	-22.2146
Arsenic	188.979	-0.21271	0.00000	0.00000	0.00000	1.34645
Barium	233.527	-0.03709	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.13266	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.09998	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	-0.01788	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.01425	0.00000	0.00000	0.00000	-2.64232
Copper	324.752	-0.05101	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.09069	0.00000	0.00000	0.00000	-2.44485
Magnesium	279.077	0.85543	0.00000	0.00000	0.00000	-20.2401
Manganese	257.61	-0.09972	0.00000	0.01862	0.00000	0.00000
Molybdenum	202.031	-0.07094	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.80633	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	-0.03176	0.00000	0.01823	12.4291	-3.60863
Selenium	196.026	-3.00009	0.00000	0.00000	0.00000	-3.17982
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	17.4444
Silver	328.068	-0.31825	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	-5.85948	0.00000
Tin	189.927	-0.01337	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.12581	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.15211	0.00000	-0.02256	0.00000	-14.2921
Zinc	213.857	0.09548	0.00000	0.03423	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA3
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-1057
Effective Dates: 01-NOV-09

Parmname	Wavelength	Nickel	Phosphorous	Potassium	Selenium	Silicon
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	-0.64279	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	0.44040	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.33191	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	6.38465	0.00000	0.00000	0.00000	0.00000

METALS
–11–
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA3
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10–1057
Effective Dates: 01–NOV–09

Parmname	Wavelength	Silver	Strontium	Sulfur	Thallium	Tin
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	0.00000	–17.4077
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	–13.8713
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	3.10491
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
GEL Job No: 10-1057
Contract: LANL01004
Instrument: OPTIMA3
Effective Dates: 01-NOV-09
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Parmname	Wavelength	Titanium	Uranium	Vanadium	Zinc
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	2.73145	0.00000	-2.31857	0.00000
Arsenic	188.979	-8.38419	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	-2.24883	0.00000
Beryllium	313.107	-1.96555	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.32181	-1.76281	0.00000
Cobalt	228.616	2.12623	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.85359	-3.92851	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	-7.67419	0.00000	2.18873	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.44145	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	1.10141	-1.94183	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000

METALS
–12–
Linear Ranges

SDG NO. 10--1057

Contract: LANL01004 **Lab Code: GEL**

Instrument ID ICPMS6

Analyte	Integration Time (msec)	LDR	Units	Effective Date
Barium	1000	1000	ug/L	01–NOV–09
Beryllium	1000	1000	ug/L	01–NOV–09
Boron	1000	200	ug/L	01–NOV–09
Cadmium	1000	1000	ug/L	01–NOV–09
Calcium	500	50000	ug/L	01–NOV–09
Chromium	1000	1000	ug/L	01–NOV–09
Cobalt	1000	1000	ug/L	01–NOV–09
Copper	1000	1000	ug/L	01–NOV–09
Iron	500	50000	ug/L	01–NOV–09
Lead	1000	5000	ug/L	01–NOV–09
Lithium	1000	1000	ug/L	01–NOV–09
Magnesium	1	50000	ug/L	01–NOV–09
Manganese	1000	1000	ug/L	01–NOV–09
Nickel	1000	1000	ug/L	01–NOV–09
Potassium	1	50000	ug/L	01–NOV–09
Selenium	1000	500	ug/L	01–NOV–09
Silver	1000	250	ug/L	01–NOV–09
Sodium	1	50000	ug/L	01–NOV–09
Thallium	1000	500	ug/L	01–NOV–09
Titanium	1000	100	ug/L	01–NOV–09
Uranium	1000	5000	ug/L	01–NOV–09
Vanadium	1000	100	ug/L	01–NOV–09
Zinc	1000	2500	ug/L	01–NOV–09
Aluminum	1	50000	ug/L	01–NOV–09
Antimony	1000	250	ug/L	01–NOV–09
Arsenic	1000	1000	ug/L	01–NOV–09

METALS
–12–
Linear Ranges

SDG NO. 10–1057

Contract: LANL01004 **Lab Code: GEL**

Instrument ID OPTIMA3

Analyte	Integration Time (sec)	LDR	Units	Effective Date
Aluminum	20	500000	ug/L	01–NOV–09
Antimony	20	10000	ug/L	01–NOV–09
Arsenic	20	10000	ug/L	01–NOV–09
Barium	20	15000	ug/L	01–NOV–09
Beryllium	20	3000	ug/L	01–NOV–09
Boron	20	5000	ug/L	01–NOV–09
Cadmium	20	10000	ug/L	01–NOV–09
Calcium	20	500000	ug/L	01–NOV–09
Chromium	20	25000	ug/L	01–NOV–09
Cobalt	20	10000	ug/L	01–NOV–09
Copper	20	20000	ug/L	01–NOV–09
Iron	20	500000	ug/L	01–NOV–09
Lead	20	25000	ug/L	01–NOV–09
Magnesium	20	500000	ug/L	01–NOV–09
Manganese	20	10000	ug/L	01–NOV–09
Nickel	20	10000	ug/L	01–NOV–09
Potassium	20	300000	ug/L	01–NOV–09
Selenium	20	10000	ug/L	01–NOV–09
Silicon	20	50000	ug/L	01–NOV–09
Silver	20	1000	ug/L	01–NOV–09
Sodium	20	500000	ug/L	01–NOV–09
Thallium	20	10000	ug/L	01–NOV–09
Titanium	20	10000	ug/L	01–NOV–09
Uranium	20	15000	ug/L	01–NOV–09
Vanadium	20	10000	ug/L	01–NOV–09
Zinc	20	15000	ug/L	01–NOV–09

Raw Data

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Analysis Begun

Start Time: 1/11/2010 15:06:14 **Plasma On Time: 1/11/2010 06:15:31**
Logged In Analyst: Optima3 **Technique: ICP Continuous**
Spectrometer Model: Optima 5300 DV, S/N 077C7090601Autosampler Model: S10

Sample Information File: C:\pe\Optima3\Sample Information\011110.sif
Batch ID:
Results Data Set: 011110A
Results Library: C:\pe\Optima3\Results\Results.mdb

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Method Loaded
Method Name: General Eng.2AX **Method Last Saved: 1/11/2010 14:49:13**
IEC File: 011110.iec **MSF File:**
Method Description:

Analyte	Calibration Equation	Processing	View	Internal Standard	IEC
Ag 328.068	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Al 396.153Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
As 188.979	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
B 249.677	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ba 233.527	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Be 313.107	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ca 317.933Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	No
Cd 226.502	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Co 228.616	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cr 267.716	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cu 324.752	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Fe 238.204 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
K 766.490 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Mg 279.077 IEC	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Mn 257.610	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Mo 202.031	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Na 589.592 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	No
Ni 231.604	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
P 214.914	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Pb 220.353	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
S 181.975 Axial	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sb 206.836	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sc 361.383	Lin Thru 0	Peak Area	Axial	n/a	n/a
Sc Radial	Lin, Calc Int	Peak Area	Radial	n/a	n/a
Se 196.026	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Si 251.611	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sn 189.927	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sr 421.552	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Ti 334.940	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Tl 190.801	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
U 409.014	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
V 292.402	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y 371.029	Lin, Calc Int	Peak Area	Axial	n/a	n/a
Zn 213.857	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y RADIAL	Lin, Calc Int	Peak Area	Radial	n/a	n/a
SiO2	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes

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Sequence No.: 1 **Autosampler Location: 8**
Sample ID: S0 **Date Collected: 1/11/2010 15:06:16**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: S0

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc Radial	5078.5	5078.5	101	%	15:08:08
1	Y RADIAL	5435.8	5435.8	100.1	%	15:08:08
1	Al 396.153Radial†	-7.1	-7.0	[0.00]	ug/L	15:08:08

1	Ca 317.933Radial†	21.6	21.4	[0.00]	ug/L	15:08:28
1	Fe 238.204 Radial†	8.3	8.2	[0.00]	ug/L	15:08:28
1	K 766.490 Radial†	2604.4	2582.2	[0.00]	ug/L	15:08:08
1	Mg 279.077 IEC†	-1.2	-1.2	[0.00]	ug/L	15:08:28
1	Na 589.592 Radial†	-1261.5	-1250.7	[0.00]	ug/L	15:08:08
1	Sr 421.552†	-42.5	-42.2	[0.00]	ug/L	15:08:08
1	Sc 361.383	853575.6	853575.6	100.14	%	15:09:25
1	Y 371.029	723166.7	723166.7	100.07	%	15:09:25
1	Ag 328.068†	394.2	393.7	[0.00]	ug/L	15:09:25
1	As 188.979†	-21.8	-21.8	[0.00]	ug/L	15:09:45
1	B 249.677†	-619.1	-618.3	[0.00]	ug/L	15:09:45
1	Ba 233.527†	-8.3	-8.3	[0.00]	ug/L	15:09:45
1	Be 313.107†	-4622.0	-4615.7	[0.00]	ug/L	15:09:25
1	Cd 226.502†	-216.8	-216.5	[0.00]	ug/L	15:09:45
1	Co 228.616†	-73.5	-73.4	[0.00]	ug/L	15:09:45
1	Cr 267.716†	79.7	79.6	[0.00]	ug/L	15:09:45
1	Cu 324.752†	6433.7	6424.8	[0.00]	ug/L	15:09:25
1	Mn 257.610†	428.4	427.8	[0.00]	ug/L	15:09:45
1	Mo 202.031†	21.2	21.1	[0.00]	ug/L	15:09:45
1	Ni 231.604†	67.3	67.2	[0.00]	ug/L	15:09:45
1	P 214.914†	236.7	236.4	[0.00]	ug/L	15:09:45
1	Pb 220.353†	-70.4	-70.3	[0.00]	ug/L	15:09:45
1	S 181.975 Axial†	43.2	43.1	[0.00]	ug/L	15:09:45
1	Sb 206.836†	24.2	24.2	[0.00]	ug/L	15:09:45
1	Se 196.026†	-31.0	-31.0	[0.00]	ug/L	15:09:45
1	Si 251.611†	564.6	563.8	[0.00]	ug/L	15:09:45
1	Sn 189.927†	12.1	12.0	[0.00]	ug/L	15:09:45
1	Ti 334.940†	-1400.5	-1398.6	[0.00]	ug/L	15:09:25
1	Tl 190.801†	-32.9	-32.8	[0.00]	ug/L	15:09:45
1	U 409.014†	-2104.8	-2101.9	[0.00]	ug/L	15:09:25
1	V 292.402†	-1333.9	-1332.0	[0.00]	ug/L	15:09:25
1	Zn 213.857†	621.9	621.0	[0.00]	ug/L	15:09:45
1	SiO2†	583.8	583.0	[0.00]	ug/L	15:10:41
2	Sc Radial	4968.4	4968.4	98.7	%	15:08:33
2	Y RADIAL	5382.3	5382.3	99.13	%	15:08:33
2	Al 396.153Radial†	-8.9	-9.0	[0.00]	ug/L	15:08:33
2	Ca 317.933Radial†	20.3	20.5	[0.00]	ug/L	15:08:53
2	Fe 238.204 Radial†	8.7	8.8	[0.00]	ug/L	15:08:53
2	K 766.490 Radial†	2613.0	2648.2	[0.00]	ug/L	15:08:33
2	Mg 279.077 IEC†	5.2	5.2	[0.00]	ug/L	15:08:53
2	Na 589.592 Radial†	-1304.4	-1322.0	[0.00]	ug/L	15:08:33
2	Sr 421.552†	-17.3	-17.5	[0.00]	ug/L	15:08:33
2	Sc 361.383	852244.3	852244.3	99.982	%	15:09:50
2	Y 371.029	722709.0	722709.0	100.01	%	15:09:50
2	Ag 328.068†	314.2	314.3	[0.00]	ug/L	15:09:50
2	As 188.979†	-24.8	-24.8	[0.00]	ug/L	15:10:10
2	B 249.677†	-645.8	-645.9	[0.00]	ug/L	15:10:10
2	Ba 233.527†	-16.3	-16.3	[0.00]	ug/L	15:10:10
2	Be 313.107†	-4532.1	-4532.9	[0.00]	ug/L	15:09:50
2	Cd 226.502†	-209.4	-209.5	[0.00]	ug/L	15:10:10
2	Co 228.616†	-74.6	-74.6	[0.00]	ug/L	15:10:10
2	Cr 267.716†	98.0	98.0	[0.00]	ug/L	15:10:10
2	Cu 324.752†	6405.3	6406.5	[0.00]	ug/L	15:09:50
2	Mn 257.610†	452.6	452.6	[0.00]	ug/L	15:10:10
2	Mo 202.031†	28.6	28.6	[0.00]	ug/L	15:10:10
2	Ni 231.604†	70.7	70.7	[0.00]	ug/L	15:10:10
2	P 214.914†	232.8	232.8	[0.00]	ug/L	15:10:10
2	Pb 220.353†	-68.5	-68.5	[0.00]	ug/L	15:10:10
2	S 181.975 Axial†	38.4	38.4	[0.00]	ug/L	15:10:10
2	Sb 206.836†	31.7	31.7	[0.00]	ug/L	15:10:10
2	Se 196.026†	-33.9	-33.9	[0.00]	ug/L	15:10:10
2	Si 251.611†	536.5	536.6	[0.00]	ug/L	15:10:10
2	Sn 189.927†	9.3	9.3	[0.00]	ug/L	15:10:10
2	Ti 334.940†	-1340.5	-1340.7	[0.00]	ug/L	15:09:50
2	Tl 190.801†	-38.1	-38.1	[0.00]	ug/L	15:10:10
2	U 409.014†	-2081.0	-2081.4	[0.00]	ug/L	15:09:50
2	V 292.402†	-1291.8	-1292.0	[0.00]	ug/L	15:09:50
2	Zn 213.857†	614.2	614.3	[0.00]	ug/L	15:10:10
2	SiO2†	567.0	567.1	[0.00]	ug/L	15:10:46
3	Sc Radial	5058.9	5058.9	100	%	15:08:58
3	Y RADIAL	5470.3	5470.3	100.8	%	15:08:58

3	Al 396.153Radial†	14.1	14.1	[0.00]	ug/L	15:08:58
3	Ca 317.933Radial†	17.5	17.4	[0.00]	ug/L	15:09:18
3	Fe 238.204 Radial†	9.7	9.6	[0.00]	ug/L	15:09:18
3	K 766.490 Radial†	2552.0	2540.1	[0.00]	ug/L	15:08:58
3	Mg 279.077 IEC†	1.7	1.7	[0.00]	ug/L	15:09:18
3	Na 589.592 Radial†	-1274.6	-1268.7	[0.00]	ug/L	15:08:58
3	Sr 421.552†	1.2	1.2	[0.00]	ug/L	15:08:58
3	Sc 361.383	851374.2	851374.2	99.880	%	15:10:15
3	Y 371.029	722128.0	722128.0	99.925	%	15:10:15
3	Ag 328.068†	365.6	366.0	[0.00]	ug/L	15:10:15
3	As 188.979†	-24.2	-24.3	[0.00]	ug/L	15:10:35
3	B 249.677†	-630.6	-631.3	[0.00]	ug/L	15:10:35
3	Ba 233.527†	-9.6	-9.6	[0.00]	ug/L	15:10:35
3	Be 313.107†	-4602.0	-4607.5	[0.00]	ug/L	15:10:15
3	Cd 226.502†	-186.1	-186.3	[0.00]	ug/L	15:10:35
3	Co 228.616†	-75.9	-76.0	[0.00]	ug/L	15:10:35
3	Cr 267.716†	72.0	72.1	[0.00]	ug/L	15:10:35
3	Cu 324.752†	6397.6	6405.3	[0.00]	ug/L	15:10:15
3	Mn 257.610†	453.6	454.2	[0.00]	ug/L	15:10:35
3	Mo 202.031†	21.4	21.4	[0.00]	ug/L	15:10:35
3	Ni 231.604†	65.9	66.0	[0.00]	ug/L	15:10:35
3	P 214.914†	220.2	220.4	[0.00]	ug/L	15:10:35
3	Pb 220.353†	-51.3	-51.3	[0.00]	ug/L	15:10:35
3	S 181.975 Axial†	47.5	47.5	[0.00]	ug/L	15:10:35
3	Sb 206.836†	27.8	27.9	[0.00]	ug/L	15:10:35
3	Se 196.026†	-31.1	-31.1	[0.00]	ug/L	15:10:35
3	Si 251.611†	550.3	551.0	[0.00]	ug/L	15:10:35
3	Sn 189.927†	1.6	1.6	[0.00]	ug/L	15:10:35
3	Ti 334.940†	-1382.6	-1384.2	[0.00]	ug/L	15:10:15
3	Tl 190.801†	-27.6	-27.7	[0.00]	ug/L	15:10:35
3	U 409.014†	-1849.4	-1851.6	[0.00]	ug/L	15:10:15
3	V 292.402†	-1303.5	-1305.1	[0.00]	ug/L	15:10:15
3	Zn 213.857†	624.7	625.4	[0.00]	ug/L	15:10:35
3	SiO2†	564.2	564.9	[0.00]	ug/L	15:10:51

Mean Data: S0

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	852398.0	1108.71	0.13%	100.00	%
Sc Radial	5035.3	58.75	1.17%	100	%
Y 371.029	722667.9	520.58	0.07%	100.00	%
Y RADIAL	5429.4	44.32	0.82%	100.0	%
Ag 328.068†	358.0	40.31	11.26%	[0.00]	ug/L
Al 396.153Radial†	-0.7	12.78	>999.9%	[0.00]	ug/L
As 188.979†	-23.6	1.58	6.71%	[0.00]	ug/L
B 249.677†	-631.8	13.81	2.19%	[0.00]	ug/L
Ba 233.527†	-11.4	4.27	37.44%	[0.00]	ug/L
Be 313.107†	-4585.4	45.60	0.99%	[0.00]	ug/L
Ca 317.933Radial†	19.8	2.07	10.48%	[0.00]	ug/L
Cd 226.502†	-204.1	15.84	7.76%	[0.00]	ug/L
Co 228.616†	-74.7	1.33	1.79%	[0.00]	ug/L
Cr 267.716†	83.3	13.36	16.05%	[0.00]	ug/L
Cu 324.752†	6412.2	10.95	0.17%	[0.00]	ug/L
Fe 238.204 Radial†	8.9	0.72	8.07%	[0.00]	ug/L
K 766.490 Radial†	2590.2	54.49	2.10%	[0.00]	ug/L
Mg 279.077 IEC†	1.9	3.20	167.84%	[0.00]	ug/L
Mn 257.610†	444.9	14.79	3.32%	[0.00]	ug/L
Mo 202.031†	23.7	4.26	17.95%	[0.00]	ug/L
Na 589.592 Radial†	-1280.5	37.06	2.89%	[0.00]	ug/L
Ni 231.604†	68.0	2.43	3.58%	[0.00]	ug/L
P 214.914†	229.9	8.38	3.65%	[0.00]	ug/L
Pb 220.353†	-63.4	10.47	16.52%	[0.00]	ug/L
S 181.975 Axial†	43.0	4.57	10.63%	[0.00]	ug/L
Sb 206.836†	27.9	3.75	13.44%	[0.00]	ug/L
Se 196.026†	-32.0	1.65	5.16%	[0.00]	ug/L
Si 251.611†	550.5	13.62	2.47%	[0.00]	ug/L
Sn 189.927†	7.7	5.41	70.56%	[0.00]	ug/L
Sr 421.552†	-19.5	21.77	111.63%	[0.00]	ug/L
Ti 334.940†	-1374.5	30.15	2.19%	[0.00]	ug/L
Tl 190.801†	-32.9	5.22	15.89%	[0.00]	ug/L

U 409.014†	-2011.6	138.95	6.91%	[0.00] ug/L
V 292.402†	-1309.7	20.42	1.56%	[0.00] ug/L
Zn 213.857†	620.2	5.60	0.90%	[0.00] ug/L
SiO2†	571.7	9.89	1.73%	[0.00] ug/L

Sequence No.: 2
Sample ID: S0.1
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 2
Date Collected: 1/11/2010 15:13:01
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc Radial	5243.2	5243.2	104	%	15:14:59
1	Y RADIAL	5645.1	5645.1	104.0	%	15:14:59
1	K 766.490 Radial†	7958.3	5052.6	[1000]	ug/L	15:14:54
1	Sr 421.552†	15487.3	14892.7	[100]	ug/L	15:14:59
1	Sc 361.383	845537.2	845537.2	99.195	%	15:15:26
1	Y 371.029	712913.9	712913.9	98.650	%	15:15:26
1	Ag 328.068†	22404.9	22228.7	[100]	ug/L	15:15:26
1	As 188.979†	211.9	237.2	[100]	ug/L	15:15:46
1	B 249.677†	3739.8	4402.0	[100]	ug/L	15:15:26
1	Ba 233.527†	13104.0	13221.7	[100]	ug/L	15:15:26
1	Be 313.107†	263804.1	270530.0	[100]	ug/L	15:15:26
1	Cd 226.502†	9050.9	9328.5	[100]	ug/L	15:15:26
1	Co 228.616†	4811.3	4925.0	[100]	ug/L	15:15:46
1	Cr 267.716†	9220.9	9212.4	[100]	ug/L	15:15:26
1	Cu 324.752†	40147.8	34061.4	[100]	ug/L	15:15:26
1	Mn 257.610†	94290.9	94611.1	[100]	ug/L	15:15:26
1	Mo 202.031†	1452.1	1440.2	[100]	ug/L	15:15:46
1	Ni 231.604†	4065.7	4030.8	[100]	ug/L	15:15:46
1	P 214.914†	1044.2	822.9	[500]	ug/L	15:15:46
1	Pb 220.353†	767.6	837.2	[100]	ug/L	15:15:46
1	S 181.975 Axial†	184.4	142.9	[200]	ug/L	15:15:46
1	Sb 206.836†	314.8	289.4	[100]	ug/L	15:15:46
1	Se 196.026†	126.2	159.2	[100]	ug/L	15:15:46
1	Si 251.611†	16243.9	15825.3	[500]	ug/L	15:15:26
1	Sn 189.927†	570.7	567.7	[100]	ug/L	15:15:46
1	Ti 334.940†	61446.1	63319.2	[100]	ug/L	15:15:26
1	Tl 190.801†	296.9	332.2	[100]	ug/L	15:15:46
1	U 409.014†	1614.3	3639.0	[100]	ug/L	15:15:26
1	V 292.402†	13401.7	14820.2	[100]	ug/L	15:15:26
1	Zn 213.857†	11462.0	10934.7	[100]	ug/L	15:15:26
1	SiO2†	16191.9	15751.6	[1069.5]	ug/L	15:16:42
2	Sc Radial	5112.2	5112.2	102	%	15:15:09
2	Y RADIAL	5479.8	5479.8	100.9	%	15:15:09
2	K 766.490 Radial†	8010.3	5299.7	[1000]	ug/L	15:15:04
2	Sr 421.552†	15649.1	15433.2	[100]	ug/L	15:15:09
2	Sc 361.383	847214.4	847214.4	99.392	%	15:15:51
2	Y 371.029	714501.8	714501.8	98.870	%	15:15:51
2	Ag 328.068†	22517.5	22297.3	[100]	ug/L	15:15:51
2	As 188.979†	209.8	234.7	[100]	ug/L	15:16:11
2	B 249.677†	3743.0	4397.7	[100]	ug/L	15:15:51
2	Ba 233.527†	13157.6	13249.5	[100]	ug/L	15:15:51
2	Be 313.107†	264189.7	270391.5	[100]	ug/L	15:15:51
2	Cd 226.502†	9051.7	9311.2	[100]	ug/L	15:15:51
2	Co 228.616†	4816.9	4921.0	[100]	ug/L	15:16:11
2	Cr 267.716†	9245.5	9218.8	[100]	ug/L	15:15:51
2	Cu 324.752†	40344.7	34179.3	[100]	ug/L	15:15:51
2	Mn 257.610†	94292.9	94425.0	[100]	ug/L	15:15:51
2	Mo 202.031†	1447.2	1432.4	[100]	ug/L	15:16:11
2	Ni 231.604†	4054.5	4011.3	[100]	ug/L	15:16:11
2	P 214.914†	1042.0	818.5	[500]	ug/L	15:16:11
2	Pb 220.353†	764.4	832.4	[100]	ug/L	15:16:11
2	S 181.975 Axial†	186.1	144.2	[200]	ug/L	15:16:11
2	Sb 206.836†	311.6	285.5	[100]	ug/L	15:16:11
2	Se 196.026†	132.2	165.0	[100]	ug/L	15:16:11
2	Si 251.611†	16303.3	15852.6	[500]	ug/L	15:15:51
2	Sn 189.927†	570.5	566.4	[100]	ug/L	15:16:11
2	Ti 334.940†	61535.5	63286.5	[100]	ug/L	15:15:51
2	Tl 190.801†	298.8	333.5	[100]	ug/L	15:16:11
2	U 409.014†	1553.2	3574.4	[100]	ug/L	15:15:51

2	V 292.402†	13469.4	14861.5	[100]	ug/L	15:15:51
2	Zn 213.857†	11447.6	10897.4	[100]	ug/L	15:15:51
2	SiO2†	16377.9	15906.4	[1069.5]	ug/L	15:16:47
3	Sc Radial	5061.1	5061.1	101	%	15:15:19
3	Y RADIAL	5441.4	5441.4	100.2	%	15:15:19
3	K 766.490 Radial†	8046.2	5415.0	[1000]	ug/L	15:15:14
3	Sr 421.552†	15488.2	15428.7	[100]	ug/L	15:15:19
3	Sc 361.383	845493.3	845493.3	99.190	%	15:16:17
3	Y 371.029	714409.7	714409.7	98.857	%	15:16:17
3	Ag 328.068†	22151.1	21974.0	[100]	ug/L	15:16:17
3	As 188.979†	209.1	234.4	[100]	ug/L	15:16:37
3	B 249.677†	3689.4	4351.4	[100]	ug/L	15:16:17
3	Ba 233.527†	13021.0	13138.8	[100]	ug/L	15:16:17
3	Be 313.107†	260785.0	267500.1	[100]	ug/L	15:16:17
3	Cd 226.502†	8950.7	9227.9	[100]	ug/L	15:16:17
3	Co 228.616†	4819.9	4934.0	[100]	ug/L	15:16:37
3	Cr 267.716†	9117.0	9108.2	[100]	ug/L	15:16:17
3	Cu 324.752†	39795.5	33708.3	[100]	ug/L	15:16:17
3	Mn 257.610†	93083.9	93399.2	[100]	ug/L	15:16:17
3	Mo 202.031†	1447.2	1435.3	[100]	ug/L	15:16:37
3	Ni 231.604†	4084.9	4050.3	[100]	ug/L	15:16:37
3	P 214.914†	1047.1	825.8	[500]	ug/L	15:16:37
3	Pb 220.353†	794.2	864.0	[100]	ug/L	15:16:37
3	S 181.975 Axial†	187.0	145.5	[200]	ug/L	15:16:37
3	Sb 206.836†	308.9	283.5	[100]	ug/L	15:16:37
3	Se 196.026†	124.3	157.3	[100]	ug/L	15:16:37
3	Si 251.611†	16035.6	15616.1	[500]	ug/L	15:16:17
3	Sn 189.927†	570.5	567.5	[100]	ug/L	15:16:37
3	Ti 334.940†	60707.1	62577.4	[100]	ug/L	15:16:17
3	Tl 190.801†	301.9	337.2	[100]	ug/L	15:16:37
3	U 409.014†	1766.5	3792.6	[100]	ug/L	15:16:17
3	V 292.402†	13290.2	14708.4	[100]	ug/L	15:16:17
3	Zn 213.857†	11272.7	10744.5	[100]	ug/L	15:16:17
3	SiO2†	16213.8	15774.5	[1069.5]	ug/L	15:16:52

Mean Data: S0.1

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	846081.6	981.27	0.12%	99.259	%
Sc Radial	5138.8	93.93	1.83%	102	%
Y 371.029	713941.8	891.40	0.12%	98.793	%
Y RADIAL	5522.1	108.23	1.96%	101.7	%
Ag 328.068†	22166.7	170.33	0.77%	[100]	ug/L
As 188.979†	235.5	1.53	0.65%	[100]	ug/L
B 249.677†	4383.7	28.07	0.64%	[100]	ug/L
Ba 233.527†	13203.3	57.62	0.44%	[100]	ug/L
Be 313.107†	269473.9	1710.73	0.63%	[100]	ug/L
Cd 226.502†	9289.2	53.79	0.58%	[100]	ug/L
Co 228.616†	4926.7	6.64	0.13%	[100]	ug/L
Cr 267.716†	9179.8	62.12	0.68%	[100]	ug/L
Cu 324.752†	33983.0	245.13	0.72%	[100]	ug/L
K 766.490 Radial†	5255.8	185.15	3.52%	[1000]	ug/L
Mn 257.610†	94145.1	652.63	0.69%	[100]	ug/L
Mo 202.031†	1435.9	3.97	0.28%	[100]	ug/L
Ni 231.604†	4030.8	19.51	0.48%	[100]	ug/L
P 214.914†	822.4	3.69	0.45%	[500]	ug/L
Pb 220.353†	844.6	17.03	2.02%	[100]	ug/L
S 181.975 Axial†	144.2	1.30	0.90%	[200]	ug/L
Sb 206.836†	286.1	3.00	1.05%	[100]	ug/L
Se 196.026†	160.5	4.03	2.51%	[100]	ug/L
Si 251.611†	15764.7	129.35	0.82%	[500]	ug/L
Sn 189.927†	567.2	0.71	0.12%	[100]	ug/L
Sr 421.552†	15251.5	310.76	2.04%	[100]	ug/L
Ti 334.940†	63061.0	419.17	0.66%	[100]	ug/L
Tl 190.801†	334.3	2.60	0.78%	[100]	ug/L
U 409.014†	3668.6	112.08	3.05%	[100]	ug/L
V 292.402†	14796.7	79.21	0.54%	[100]	ug/L
Zn 213.857†	10858.9	100.82	0.93%	[100]	ug/L
SiO2†	15810.8	83.57	0.53%	[1069.5]	ug/L

Sequence No.: 3
Sample ID: S0.5
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 3
Date Collected: 1/11/2010 15:19:03
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc Radial	4947.4	4947.4	98.3	%	15:20:56
1	Y RADIAL	5332.9	5332.9	98.22	%	15:20:56
1	Al 396.153Radial†	6169.6	6279.9	[5000]	ug/L	15:20:56
1	Ca 317.933Radial†	3073.1	3107.9	[5000]	ug/L	15:21:16
1	K 766.490 Radial†	28495.3	26411.6	[5000]	ug/L	15:20:56
1	Mg 279.077 IEC†	153.2	154.0	[5000]	ug/L	15:21:16
1	Sr 421.552†	72590.6	73900.2	[500]	ug/L	15:20:56
1	Sc 361.383	845959.4	845959.4	99.245	%	15:22:13
1	Y 371.029	704574.1	704574.1	97.496	%	15:22:13
1	Ag 328.068†	109304.6	109778.5	[500]	ug/L	15:22:18
1	As 188.979†	1133.6	1165.9	[500]	ug/L	15:22:38
1	B 249.677†	21532.1	22327.8	[500]	ug/L	15:22:18
1	Ba 233.527†	63524.4	64019.3	[500]	ug/L	15:22:18
1	Be 313.107†	1282691.0	1297038.9	[500]	ug/L	15:22:13
1	Cd 226.502†	44542.3	45085.4	[500]	ug/L	15:22:18
1	Co 228.616†	24275.9	24535.4	[500]	ug/L	15:22:18
1	Cr 267.716†	44493.6	44749.0	[500]	ug/L	15:22:18
1	Cu 324.752†	171233.9	166125.0	[500]	ug/L	15:22:18
1	Mn 257.610†	441107.2	444019.6	[500]	ug/L	15:22:13
1	Mo 202.031†	7141.6	7172.2	[500]	ug/L	15:22:38
1	Ni 231.604†	20051.1	20135.7	[500]	ug/L	15:22:18
1	P 214.914†	4289.0	4091.7	[2500]	ug/L	15:22:38
1	Pb 220.353†	4017.0	4110.9	[500]	ug/L	15:22:38
1	S 181.975 Axial†	756.8	719.6	[1000]	ug/L	15:22:38
1	Sb 206.836†	1495.2	1478.6	[500]	ug/L	15:22:38
1	Se 196.026†	743.5	781.2	[500]	ug/L	15:22:38
1	Si 251.611†	79663.0	79718.8	[2500]	ug/L	15:22:18
1	Sn 189.927†	2851.9	2865.9	[500]	ug/L	15:22:38
1	Ti 334.940†	303997.7	307685.9	[500]	ug/L	15:22:18
1	Tl 190.801†	1584.4	1629.3	[500]	ug/L	15:22:38
1	U 409.014†	15168.3	17295.4	[500]	ug/L	15:22:18
1	V 292.402†	71188.8	73040.4	[500]	ug/L	15:22:18
1	Zn 213.857†	53175.8	52960.3	[500]	ug/L	15:22:18
1	SiO2†	78555.7	78581.9	[5347.5]	ug/L	15:23:46
2	Sc Radial	4915.6	4915.6	97.6	%	15:21:21
2	Y RADIAL	5252.9	5252.9	96.75	%	15:21:21
2	Al 396.153Radial†	6150.5	6300.9	[5000]	ug/L	15:21:21
2	Ca 317.933Radial†	3080.9	3136.1	[5000]	ug/L	15:21:41
2	K 766.490 Radial†	28478.4	26581.6	[5000]	ug/L	15:21:21
2	Mg 279.077 IEC†	155.6	157.5	[5000]	ug/L	15:21:41
2	Sr 421.552†	72234.7	74012.7	[500]	ug/L	15:21:21
2	Sc 361.383	844486.1	844486.1	99.072	%	15:22:44
2	Y 371.029	704049.9	704049.9	97.424	%	15:22:44
2	Ag 328.068†	109991.6	110664.1	[500]	ug/L	15:22:49
2	As 188.979†	1109.8	1143.8	[500]	ug/L	15:23:09
2	B 249.677†	21612.8	22447.2	[500]	ug/L	15:22:49
2	Ba 233.527†	63964.4	64575.0	[500]	ug/L	15:22:49
2	Be 313.107†	1307265.4	1324098.4	[500]	ug/L	15:22:44
2	Cd 226.502†	44958.3	45583.6	[500]	ug/L	15:22:49
2	Co 228.616†	24453.8	24757.6	[500]	ug/L	15:22:49
2	Cr 267.716†	44830.8	45167.6	[500]	ug/L	15:22:49
2	Cu 324.752†	172172.7	167373.5	[500]	ug/L	15:22:49
2	Mn 257.610†	449086.2	452848.8	[500]	ug/L	15:22:44
2	Mo 202.031†	7069.3	7111.8	[500]	ug/L	15:23:09
2	Ni 231.604†	20231.9	20353.5	[500]	ug/L	15:22:49
2	P 214.914†	4232.0	4041.7	[2500]	ug/L	15:23:09
2	Pb 220.353†	3962.1	4062.6	[500]	ug/L	15:23:09
2	S 181.975 Axial†	747.6	711.6	[1000]	ug/L	15:23:09
2	Sb 206.836†	1483.9	1469.9	[500]	ug/L	15:23:09

2	Se 196.026†	737.9	776.8	[500]	ug/L	15:23:09
2	Si 251.611†	80223.3	80424.5	[2500]	ug/L	15:22:49
2	Sn 189.927†	2827.8	2846.6	[500]	ug/L	15:23:09
2	Ti 334.940†	305730.8	309969.7	[500]	ug/L	15:22:49
2	Tl 190.801†	1570.4	1618.0	[500]	ug/L	15:23:09
2	U 409.014†	15243.5	17398.0	[500]	ug/L	15:22:49
2	V 292.402†	71765.1	73747.1	[500]	ug/L	15:22:49
2	Zn 213.857†	53614.1	53496.1	[500]	ug/L	15:22:49
2	SiO2†	78964.2	79132.3	[5347.5]	ug/L	15:23:51
3	Sc Radial	4989.2	4989.2	99.1	%	15:21:46
3	Y RADIAL	5321.5	5321.5	98.01	%	15:21:46
3	Al 396.153Radial†	6212.5	6270.6	[5000]	ug/L	15:21:46
3	Ca 317.933Radial†	3013.5	3021.6	[5000]	ug/L	15:22:06
3	K 766.490 Radial†	28728.7	26404.2	[5000]	ug/L	15:21:46
3	Mg 279.077 IEC†	154.9	154.5	[5000]	ug/L	15:22:06
3	Sr 421.552†	72818.3	73511.1	[500]	ug/L	15:21:46
3	Sc 361.383	851201.0	851201.0	99.860	%	15:23:15
3	Y 371.029	708627.2	708627.2	98.057	%	15:23:15
3	Ag 328.068†	109131.6	108927.1	[500]	ug/L	15:23:20
3	As 188.979†	1112.6	1137.8	[500]	ug/L	15:23:40
3	B 249.677†	21585.1	22247.3	[500]	ug/L	15:23:20
3	Ba 233.527†	63372.4	63472.9	[500]	ug/L	15:23:20
3	Be 313.107†	1297867.8	1304278.4	[500]	ug/L	15:23:15
3	Cd 226.502†	44539.8	44806.5	[500]	ug/L	15:23:20
3	Co 228.616†	24287.3	24396.1	[500]	ug/L	15:23:20
3	Cr 267.716†	44423.6	44402.8	[500]	ug/L	15:23:20
3	Cu 324.752†	170756.3	164584.3	[500]	ug/L	15:23:20
3	Mn 257.610†	446804.6	446988.0	[500]	ug/L	15:23:15
3	Mo 202.031†	7101.1	7087.4	[500]	ug/L	15:23:40
3	Ni 231.604†	20021.1	19981.2	[500]	ug/L	15:23:20
3	P 214.914†	4263.6	4039.7	[2500]	ug/L	15:23:40
3	Pb 220.353†	3986.8	4055.8	[500]	ug/L	15:23:40
3	S 181.975 Axial†	742.0	700.0	[1000]	ug/L	15:23:40
3	Sb 206.836†	1490.0	1464.2	[500]	ug/L	15:23:40
3	Se 196.026†	727.7	760.7	[500]	ug/L	15:23:40
3	Si 251.611†	79709.5	79271.1	[2500]	ug/L	15:23:20
3	Sn 189.927†	2843.9	2840.2	[500]	ug/L	15:23:40
3	Ti 334.940†	303580.5	305381.9	[500]	ug/L	15:23:20
3	Tl 190.801†	1582.4	1617.5	[500]	ug/L	15:23:40
3	U 409.014†	14959.5	16992.1	[500]	ug/L	15:23:20
3	V 292.402†	71100.6	72510.3	[500]	ug/L	15:23:20
3	Zn 213.857†	53189.5	52644.1	[500]	ug/L	15:23:20
3	SiO2†	80285.2	79826.4	[5347.5]	ug/L	15:23:56

Mean Data: S0.5

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	847215.5	3529.26	0.42%	99.392	%
Sc Radial	4950.7	36.89	0.75%	98.3	%
Y 371.029	705750.4	2505.10	0.35%	97.659	%
Y RADIAL	5302.5	43.29	0.82%	97.66	%
Ag 328.068†	109789.9	868.57	0.79%	[500]	ug/L
Al 396.153Radial†	6283.8	15.52	0.25%	[5000]	ug/L
As 188.979†	1149.1	14.79	1.29%	[500]	ug/L
B 249.677†	22340.8	100.54	0.45%	[500]	ug/L
Ba 233.527†	64022.4	551.06	0.86%	[500]	ug/L
Be 313.107†	1308471.9	14008.70	1.07%	[500]	ug/L
Ca 317.933Radial†	3088.5	59.66	1.93%	[5000]	ug/L
Cd 226.502†	45158.5	393.66	0.87%	[500]	ug/L
Co 228.616†	24563.0	182.33	0.74%	[500]	ug/L
Cr 267.716†	44773.1	382.95	0.86%	[500]	ug/L
Cu 324.752†	166027.6	1397.18	0.84%	[500]	ug/L
K 766.490 Radial†	26465.8	100.35	0.38%	[5000]	ug/L
Mg 279.077 IEC†	155.3	1.89	1.22%	[5000]	ug/L
Mn 257.610†	447952.2	4492.87	1.00%	[500]	ug/L
Mo 202.031†	7123.8	43.67	0.61%	[500]	ug/L
Ni 231.604†	20156.8	187.02	0.93%	[500]	ug/L
P 214.914†	4057.7	29.48	0.73%	[2500]	ug/L
Pb 220.353†	4076.4	30.05	0.74%	[500]	ug/L
S 181.975 Axial†	710.4	9.83	1.38%	[1000]	ug/L

Sb 206.836†	1470.9	7.27	0.49%	[500]	ug/L
Se 196.026†	772.9	10.74	1.39%	[500]	ug/L
Si 251.611†	79804.8	581.46	0.73%	[2500]	ug/L
Sn 189.927†	2850.9	13.39	0.47%	[500]	ug/L
Sr 421.552†	73808.0	263.22	0.36%	[500]	ug/L
Ti 334.940†	307679.2	2293.91	0.75%	[500]	ug/L
Tl 190.801†	1621.6	6.70	0.41%	[500]	ug/L
U 409.014†	17228.5	211.03	1.22%	[500]	ug/L
V 292.402†	73099.3	620.51	0.85%	[500]	ug/L
Zn 213.857†	53033.5	430.73	0.81%	[500]	ug/L
SiO2†	79180.2	623.61	0.79%	[5347.5]	ug/L

Sequence No.: 4
Sample ID: SCAL
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 4
Date Collected: 1/11/2010 15:26:06
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: SCAL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc Radial	4991.6	4991.6	99.1	%	15:27:59
1	Y RADIAL	5328.6	5328.6	98.14	%	15:27:59
1	Al 396.153Radial†	12660.1	12771.6	[10000]	ug/L	15:27:59
1	Ca 317.933Radial†	6320.0	6355.6	[10000]	ug/L	15:27:59
1	Fe 238.204 Radial†	1191.2	1192.7	[10000]	ug/L	15:28:19
1	K 766.490 Radial†	56635.2	54541.3	[10000]	ug/L	15:27:59
1	Mg 279.077 IEC†	311.3	312.1	[10000]	ug/L	15:28:19
1	Na 589.592 Radial†	32605.3	34171.4	[10000]	ug/L	15:27:59
1	Sr 421.552†	153973.9	155342.4	[1000]	ug/L	15:27:59
1	Sc 361.383	853558.2	853558.2	100.14	%	15:29:18
1	Y 371.029	708914.2	708914.2	98.097	%	15:29:18
1	Ag 328.068†	216775.3	216122.6	[1000]	ug/L	15:29:18
1	As 188.979†	2299.9	2320.4	[1000]	ug/L	15:29:38
1	B 249.677†	44323.4	44895.0	[1000]	ug/L	15:29:18
1	Ba 233.527†	128248.6	128085.7	[1000]	ug/L	15:29:18
1	Be 313.107†	2619791.8	2620816.1	[1000]	ug/L	15:29:18
1	Cd 226.502†	89888.6	89970.5	[1000]	ug/L	15:29:18
1	Co 228.616†	48773.3	48781.7	[1000]	ug/L	15:29:18
1	Cr 267.716†	89442.2	89237.4	[1000]	ug/L	15:29:18
1	Cu 324.752†	341095.7	334219.8	[1000]	ug/L	15:29:18
1	Mn 257.610†	904877.2	903202.3	[1000]	ug/L	15:29:18
1	Mo 202.031†	14130.5	14087.5	[1000]	ug/L	15:29:38
1	Ni 231.604†	40183.6	40061.1	[1000]	ug/L	15:29:18
1	P 214.914†	8404.6	8163.3	[5000]	ug/L	15:29:38
1	Pb 220.353†	8100.8	8153.2	[1000]	ug/L	15:29:38
1	S 181.975 Axial†	1452.9	1407.9	[2000]	ug/L	15:29:38
1	Sb 206.836†	2946.6	2914.7	[1000]	ug/L	15:29:38
1	Se 196.026†	1515.4	1545.4	[1000]	ug/L	15:29:38
1	Si 251.611†	157018.3	156254.4	[5000]	ug/L	15:29:18
1	Sn 189.927†	5642.6	5627.3	[1000]	ug/L	15:29:38
1	Ti 334.940†	620768.4	621299.2	[1000]	ug/L	15:29:18
1	Tl 190.801†	3227.0	3255.4	[1000]	ug/L	15:29:38
1	U 409.014†	31729.0	33697.5	[1000]	ug/L	15:29:18
1	V 292.402†	145175.5	146287.8	[1000]	ug/L	15:29:18
1	Zn 213.857†	106205.1	105440.5	[1000]	ug/L	15:29:18
1	SiO2†	157949.1	157162.7	[10695]	ug/L	15:30:39
2	Sc Radial	4736.3	4736.3	94.1	%	15:28:24
2	Y RADIAL	5085.9	5085.9	93.67	%	15:28:24
2	Al 396.153Radial†	12468.6	13256.4	[10000]	ug/L	15:28:24
2	Ca 317.933Radial†	6199.0	6570.6	[10000]	ug/L	15:28:24
2	Fe 238.204 Radial†	1184.0	1249.9	[10000]	ug/L	15:28:44
2	K 766.490 Radial†	55376.3	56282.3	[10000]	ug/L	15:28:24
2	Mg 279.077 IEC†	313.7	331.6	[10000]	ug/L	15:28:44
2	Na 589.592 Radial†	31980.7	35280.2	[10000]	ug/L	15:28:24
2	Sr 421.552†	150876.6	160421.5	[1000]	ug/L	15:28:24
2	Sc 361.383	856770.6	856770.6	100.51	%	15:29:46
2	Y 371.029	713390.2	713390.2	98.716	%	15:29:46
2	Ag 328.068†	217597.7	216129.2	[1000]	ug/L	15:29:46
2	As 188.979†	2277.6	2289.6	[1000]	ug/L	15:30:06
2	B 249.677†	44372.2	44777.6	[1000]	ug/L	15:29:46
2	Ba 233.527†	128252.4	127609.2	[1000]	ug/L	15:29:46
2	Be 313.107†	2630936.8	2622095.0	[1000]	ug/L	15:29:46
2	Cd 226.502†	90039.5	89784.1	[1000]	ug/L	15:29:46
2	Co 228.616†	48826.6	48652.1	[1000]	ug/L	15:29:46
2	Cr 267.716†	89756.8	89215.5	[1000]	ug/L	15:29:46
2	Cu 324.752†	342472.0	334312.0	[1000]	ug/L	15:29:46
2	Mn 257.610†	905292.8	900227.7	[1000]	ug/L	15:29:46
2	Mo 202.031†	14136.2	14040.3	[1000]	ug/L	15:30:06
2	Ni 231.604†	40315.0	40041.3	[1000]	ug/L	15:29:46

2	P 214.914†	8424.5	8151.6	[5000]	ug/L	15:30:06
2	Pb 220.353†	8088.8	8110.8	[1000]	ug/L	15:30:06
2	S 181.975 Axial†	1450.9	1400.5	[2000]	ug/L	15:30:06
2	Sb 206.836†	2931.6	2888.7	[1000]	ug/L	15:30:06
2	Se 196.026†	1521.6	1545.8	[1000]	ug/L	15:30:06
2	Si 251.611†	157269.3	155916.2	[5000]	ug/L	15:29:46
2	Sn 189.927†	5628.2	5591.8	[1000]	ug/L	15:30:06
2	Ti 334.940†	622229.7	620428.6	[1000]	ug/L	15:29:46
2	Tl 190.801†	3223.5	3239.9	[1000]	ug/L	15:30:06
2	U 409.014†	31853.1	33702.1	[1000]	ug/L	15:29:46
2	V 292.402†	145673.8	146240.0	[1000]	ug/L	15:29:46
2	Zn 213.857†	106459.8	105296.2	[1000]	ug/L	15:29:46
2	SiO2†	157350.0	155975.2	[10695]	ug/L	15:30:44
3	Sc Radial	5063.8	5063.8	101	%	15:28:49
3	Y RADIAL	5371.0	5371.0	98.92	%	15:28:49
3	Al 396.153Radial†	12735.9	12664.9	[10000]	ug/L	15:28:49
3	Ca 317.933Radial†	6335.3	6279.9	[10000]	ug/L	15:28:49
3	Fe 238.204 Radial†	1169.2	1153.7	[10000]	ug/L	15:29:09
3	K 766.490 Radial†	56959.1	54048.2	[10000]	ug/L	15:28:49
3	Mg 279.077 IEC†	305.4	301.7	[10000]	ug/L	15:29:09
3	Na 589.592 Radial†	32787.3	33883.0	[10000]	ug/L	15:28:49
3	Sr 421.552†	155040.2	154186.5	[1000]	ug/L	15:28:49
3	Sc 361.383	848587.0	848587.0	99.553	%	15:30:14
3	Y 371.029	705534.4	705534.4	97.629	%	15:30:14
3	Ag 328.068†	216529.3	217143.7	[1000]	ug/L	15:30:14
3	As 188.979†	2285.4	2319.2	[1000]	ug/L	15:30:34
3	B 249.677†	44227.4	45057.9	[1000]	ug/L	15:30:14
3	Ba 233.527†	127929.5	128515.5	[1000]	ug/L	15:30:14
3	Be 313.107†	2617713.7	2634055.2	[1000]	ug/L	15:30:14
3	Cd 226.502†	89763.7	90371.0	[1000]	ug/L	15:30:14
3	Co 228.616†	48665.0	48958.3	[1000]	ug/L	15:30:14
3	Cr 267.716†	89514.0	89832.7	[1000]	ug/L	15:30:14
3	Cu 324.752†	341213.1	336333.3	[1000]	ug/L	15:30:14
3	Mn 257.610†	902472.6	906080.8	[1000]	ug/L	15:30:14
3	Mo 202.031†	14199.9	14240.0	[1000]	ug/L	15:30:34
3	Ni 231.604†	40146.9	40259.3	[1000]	ug/L	15:30:14
3	P 214.914†	8453.8	8261.9	[5000]	ug/L	15:30:34
3	Pb 220.353†	8136.4	8236.3	[1000]	ug/L	15:30:34
3	S 181.975 Axial†	1461.3	1424.9	[2000]	ug/L	15:30:34
3	Sb 206.836†	2945.8	2931.1	[1000]	ug/L	15:30:34
3	Se 196.026†	1527.9	1566.8	[1000]	ug/L	15:30:34
3	Si 251.611†	156676.0	156829.2	[5000]	ug/L	15:30:14
3	Sn 189.927†	5652.9	5670.7	[1000]	ug/L	15:30:34
3	Ti 334.940†	619875.3	624033.7	[1000]	ug/L	15:30:14
3	Tl 190.801†	3235.2	3282.6	[1000]	ug/L	15:30:34
3	U 409.014†	31640.7	33794.4	[1000]	ug/L	15:30:14
3	V 292.402†	145180.3	147142.0	[1000]	ug/L	15:30:14
3	Zn 213.857†	106254.1	106111.0	[1000]	ug/L	15:30:14
3	SiO2†	155719.3	155847.0	[10695]	ug/L	15:30:50

Mean Data: SCAL

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	852972.0	4123.17	0.48%	100.07	%
Sc Radial	4930.6	172.08	3.49%	97.9	%
Y 371.029	709279.6	3940.67	0.56%	98.147	%
Y RADIAL	5261.9	153.82	2.92%	96.91	%
Ag 328.068†	216465.2	587.67	0.27%	[1000]	ug/L
Al 396.153Radial†	12897.6	315.27	2.44%	[10000]	ug/L
As 188.979†	2309.7	17.47	0.76%	[1000]	ug/L
B 249.677†	44910.1	140.76	0.31%	[1000]	ug/L
Ba 233.527†	128070.1	453.32	0.35%	[1000]	ug/L
Be 313.107†	2625655.5	7302.44	0.28%	[1000]	ug/L
Ca 317.933Radial†	6402.0	150.81	2.36%	[10000]	ug/L
Cd 226.502†	90041.9	299.87	0.33%	[1000]	ug/L
Co 228.616†	48797.3	153.69	0.31%	[1000]	ug/L
Cr 267.716†	89428.5	350.22	0.39%	[1000]	ug/L
Cu 324.752†	334955.0	1194.48	0.36%	[1000]	ug/L
Fe 238.204 Radial†	1198.8	48.37	4.04%	[10000]	ug/L
K 766.490 Radial†	54957.3	1173.72	2.14%	[10000]	ug/L

Mg 279.077 IEC†	315.2	15.17	4.81%	[10000]	ug/L
Mn 257.610†	903170.3	2926.65	0.32%	[1000]	ug/L
Mo 202.031†	14122.6	104.35	0.74%	[1000]	ug/L
Na 589.592 Radial†	34444.9	737.64	2.14%	[10000]	ug/L
Ni 231.604†	40120.5	120.56	0.30%	[1000]	ug/L
P 214.914†	8192.3	60.61	0.74%	[5000]	ug/L
Pb 220.353†	8166.8	63.83	0.78%	[1000]	ug/L
S 181.975 Axial†	1411.1	12.50	0.89%	[2000]	ug/L
Sb 206.836†	2911.5	21.35	0.73%	[1000]	ug/L
Se 196.026†	1552.7	12.21	0.79%	[1000]	ug/L
Si 251.611†	156333.3	461.59	0.30%	[5000]	ug/L
Sn 189.927†	5629.9	39.50	0.70%	[1000]	ug/L
Sr 421.552†	156650.1	3316.87	2.12%	[1000]	ug/L
Ti 334.940†	621920.5	1881.15	0.30%	[1000]	ug/L
Tl 190.801†	3259.3	21.61	0.66%	[1000]	ug/L
U 409.014†	33731.3	54.70	0.16%	[1000]	ug/L
V 292.402†	146556.6	507.53	0.35%	[1000]	ug/L
Zn 213.857†	105615.9	434.83	0.41%	[1000]	ug/L
SiO2†	156328.3	725.47	0.46%	[10695]	ug/L

Sequence No.: 5
Sample ID: S10
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 5
Date Collected: 1/11/2010 15:33:00
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S10

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc Radial	4878.1	4878.1	96.9	%	15:35:14
1	Y RADIAL	5191.4	5191.4	95.62	%	15:35:14
1	Al 396.153Radial†	63564.9	65614.4	[50000]	ug/L	15:34:54
1	Ca 317.933Radial†	30640.8	31608.6	[50000]	ug/L	15:34:54
1	Fe 238.204 Radial†	2222.4	2285.2	[20000]	ug/L	15:35:14
1	Mg 279.077 IEC†	1446.9	1491.6	[50000]	ug/L	15:35:14
1	Na 589.592 Radial†	63708.9	67042.8	[20000]	ug/L	15:34:54
1	Sc 361.383	828781.4	828781.4	97.229	%	15:36:11
1	Y 371.029	685978.7	685978.7	94.923	%	15:36:11
2	Sc Radial	4868.6	4868.6	96.7	%	15:35:39
2	Y RADIAL	5182.0	5182.0	95.44	%	15:35:39
2	Al 396.153Radial†	62506.8	64647.7	[50000]	ug/L	15:35:19
2	Ca 317.933Radial†	30109.2	31120.4	[50000]	ug/L	15:35:19
2	Fe 238.204 Radial†	2222.3	2289.5	[20000]	ug/L	15:35:39
2	Mg 279.077 IEC†	1450.4	1498.2	[50000]	ug/L	15:35:39
2	Na 589.592 Radial†	62672.0	66098.4	[20000]	ug/L	15:35:19
2	Sc 361.383	832642.6	832642.6	97.682	%	15:36:16
2	Y 371.029	689630.1	689630.1	95.428	%	15:36:16
3	Sc Radial	4821.9	4821.9	95.8	%	15:36:04
3	Y RADIAL	5146.9	5146.9	94.80	%	15:36:04
3	Al 396.153Radial†	61540.7	64265.6	[50000]	ug/L	15:35:44
3	Ca 317.933Radial†	29642.4	30934.8	[50000]	ug/L	15:35:44
3	Fe 238.204 Radial†	2204.8	2293.6	[20000]	ug/L	15:36:04
3	Mg 279.077 IEC†	1427.2	1488.4	[50000]	ug/L	15:36:04
3	Na 589.592 Radial†	61672.1	65682.5	[20000]	ug/L	15:35:44
3	Sc 361.383	833640.6	833640.6	97.799	%	15:36:22
3	Y 371.029	690643.4	690643.4	95.569	%	15:36:22

Mean Data: S10

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	831688.2	2566.33	0.31%	97.570	%
Sc Radial	4856.2	30.10	0.62%	96.4	%
Y 371.029	688750.7	2453.51	0.36%	95.307	%
Y RADIAL	5173.5	23.45	0.45%	95.29	%
Al 396.153Radial†	64842.6	695.21	1.07%	[50000]	ug/L
Ca 317.933Radial†	31221.3	348.06	1.11%	[50000]	ug/L
Fe 238.204 Radial†	2289.4	4.19	0.18%	[20000]	ug/L
Mg 279.077 IEC†	1492.7	4.98	0.33%	[50000]	ug/L
Na 589.592 Radial†	66274.6	697.04	1.05%	[20000]	ug/L

Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 328.068	3	Lin Thru 0	0.0	217.1	0.00000	0.999982	
Al 396.153Radial	3	Lin Thru 0	0.0	1.296	0.00000	0.999995	
As 188.979	3	Lin Thru 0	0.0	2.308	0.00000	0.999996	
B 249.677	3	Lin Thru 0	0.0	44.86	0.00000	0.999996	
Ba 233.527	3	Lin Thru 0	0.0	128.1	0.00000	0.999996	
Be 313.107	3	Lin Thru 0	0.0	2624	0.00000	0.999996	
Ca 317.933Radial	3	Lin Thru 0	0.0	0.6250	0.00000	0.999988	
Cd 226.502	3	Lin Thru 0	0.0	90.12	0.00000	0.999995	
Co 228.616	3	Lin Thru 0	0.0	48.87	0.00000	0.999996	
Cr 267.716	3	Lin Thru 0	0.0	89.47	0.00000	0.999997	
Cu 324.752	3	Lin Thru 0	0.0	334.4	0.00000	0.999993	
Fe 238.204 Radia	2	Lin Thru 0	0.0	0.1156	0.00000	0.999825	
K 766.490 Radial	3	Lin Thru 0	0.0	5.454	0.00000	0.999885	

Mg 279.077 IEC	3	Lin Thru 0	0.0	0.0299	0.00000	0.999937
Mn 257.610	3	Lin Thru 0	0.0	902.0	0.00000	0.999987
Mo 202.031	3	Lin Thru 0	0.0	14.15	0.00000	0.999993
Na 589.592 Radia	2	Lin Thru 0	0.0	3.340	0.00000	0.999877
Ni 231.604	3	Lin Thru 0	0.0	40.16	0.00000	0.999998
P 214.914	3	Lin Thru 0	0.0	1.635	0.00000	0.999993
Pb 220.353	3	Lin Thru 0	0.0	8.166	0.00000	0.999995
S 181.975 Axial	3	Lin Thru 0	0.0	0.7066	0.00000	0.999995
Sb 206.836	3	Lin Thru 0	0.0	2.917	0.00000	0.999990
Se 196.026	3	Lin Thru 0	0.0	1.552	0.00000	0.999994
Si 251.611	3	Lin Thru 0	0.0	31.40	0.00000	0.999965
Sn 189.927	3	Lin Thru 0	0.0	5.645	0.00000	0.999987
Sr 421.552	3	Lin Thru 0	0.0	154.8	0.00000	0.999729
Ti 334.940	3	Lin Thru 0	0.0	620.7	0.00000	0.999990
Tl 190.801	3	Lin Thru 0	0.0	3.257	0.00000	0.999995
U 409.014	3	Lin Thru 0	0.0	33.90	0.00000	0.999937
V 292.402	3	Lin Thru 0	0.0	146.5	0.00000	0.999999
Zn 213.857	3	Lin Thru 0	0.0	105.7	0.00000	0.999996
SiO2	3	Lin Thru 0	0.0	14.66	0.00000	0.999986

Sequence No.: 6
Sample ID: ICV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 9
Date Collected: 1/11/2010 15:38:33
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5131.5	5131.5	102	%			15:40:26
1	Y RADIAL	5471.6	5471.6	100.8	%			15:40:26
1	Al 396.153Radial†	6248.8	6132.3	4705.2	ug/L	4705.2	ppb	15:40:26
1	Ca 317.933Radial†	2971.0	2895.6	4633.2	ug/L	4633.2	ppb	15:40:46
1	Fe 238.204 Radial†	561.3	541.9	4703.9	ug/L	4703.9	ppb	15:40:46
1	K 766.490 Radial†	15549.6	12668.0	2309.3	ug/L	2309.3	ppb	15:40:26
1	Mg 279.077 IEC†	151.4	146.6	4900.0	ug/L	4900.0	ppb	15:40:46
1	Na 589.592 Radial†	6369.4	7530.5	2254.7	ug/L	2254.7	ppb	15:40:26
1	Sr 421.552†	75677.1	74278.0	479.72	ug/L	479.72	ppb	15:40:26
1	Sc 361.383	854284.7	854284.7	100.22	%			15:41:43
1	Y 371.029	716450.9	716450.9	99.140	%			15:41:43
1	Ag 328.068†	55272.7	54792.6	255.27	ug/L	255.27	ppb	15:41:43
1	As 188.979†	1051.6	1072.9	466.86	ug/L	466.86	ppb	15:42:03
1	B 249.677†	21779.4	22363.2	496.68	ug/L	496.68	ppb	15:41:43
1	Ba 233.527†	63648.1	63519.0	497.13	ug/L	497.13	ppb	15:41:43
1	Be 313.107†	668692.5	671801.0	257.08	ug/L	257.08	ppb	15:41:43
1	Cd 226.502†	43550.6	43658.5	484.37	ug/L	484.37	ppb	15:41:43
1	Co 228.616†	23970.1	23991.9	491.30	ug/L	491.30	ppb	15:42:03
1	Cr 267.716†	42651.6	42474.1	475.47	ug/L	475.47	ppb	15:41:43
1	Cu 324.752†	171273.9	164483.5	491.83	ug/L	491.83	ppb	15:41:43
1	Mn 257.610†	453042.6	451597.2	500.97	ug/L	500.97	ppb	15:41:43
1	Mo 202.031†	7574.9	7534.4	532.87	ug/L	532.87	ppb	15:42:03
1	Ni 231.604†	19737.9	19626.4	488.40	ug/L	488.40	ppb	15:42:03
1	P 214.914†	4248.6	4009.3	2346.6	ug/L	2346.6	ppb	15:42:03
1	Pb 220.353†	3961.8	4016.4	493.52	ug/L	493.52	ppb	15:42:03
1	S 181.975 Axial†	1763.5	1716.6	2428.5	ug/L	2428.5	ppb	15:42:03
1	Sb 206.836†	1468.6	1437.4	511.46	ug/L	511.46	ppb	15:42:03
1	Se 196.026†	3858.8	3882.2	2518.7	ug/L	2518.7	ppb	15:42:03
1	Si 251.611†	147035.3	146160.2	4648.4	ug/L	4648.4	ppb	15:41:43
1	Sn 189.927†	3018.0	3003.7	532.88	ug/L	532.88	ppb	15:42:03
1	Ti 334.940†	301910.2	302618.0	487.29	ug/L	487.29	ppb	15:41:43
1	Tl 190.801†	1659.9	1689.1	521.27	ug/L	521.27	ppb	15:42:03
1	U 409.014†	14510.6	16490.2	484.86	ug/L	484.86	ppb	15:41:43
1	V 292.402†	71245.3	72397.7	501.73	ug/L	501.73	ppb	15:41:43
1	Zn 213.857†	53239.2	52501.4	492.33	ug/L	492.33	ppb	15:41:43
1	SiO2†	146051.2	145157.0	9889.8	ug/L	9889.8	ppb	15:43:01
2	Sc Radial	4910.6	4910.6	97.5	%			15:40:51
2	Y RADIAL	5267.0	5267.0	97.01	%			15:40:51
2	Al 396.153Radial†	6145.3	6302.1	4835.9	ug/L	4835.9	ppb	15:40:51
2	Ca 317.933Radial†	2989.4	3045.6	4873.2	ug/L	4873.2	ppb	15:41:11
2	Fe 238.204 Radial†	563.2	568.7	4936.2	ug/L	4936.2	ppb	15:41:11
2	K 766.490 Radial†	15451.2	13253.5	2416.5	ug/L	2416.5	ppb	15:40:51
2	Mg 279.077 IEC†	155.9	157.9	5277.3	ug/L	5277.3	ppb	15:41:11
2	Na 589.592 Radial†	6286.5	7726.6	2313.4	ug/L	2313.4	ppb	15:40:51
2	Sr 421.552†	75331.0	77263.9	499.00	ug/L	499.00	ppb	15:40:51
2	Sc 361.383	845183.0	845183.0	99.154	%			15:42:09
2	Y 371.029	707487.5	707487.5	97.899	%			15:42:09
2	Ag 328.068†	55142.7	55255.5	257.48	ug/L	257.48	ppb	15:42:09
2	As 188.979†	1047.5	1080.0	469.98	ug/L	469.98	ppb	15:42:29
2	B 249.677†	21710.0	22527.2	500.29	ug/L	500.29	ppb	15:42:09
2	Ba 233.527†	63434.9	63987.8	500.80	ug/L	500.80	ppb	15:42:09
2	Be 313.107†	664512.9	674771.0	258.22	ug/L	258.22	ppb	15:42:09
2	Cd 226.502†	43551.7	44127.6	489.56	ug/L	489.56	ppb	15:42:09
2	Co 228.616†	23990.6	24270.1	496.99	ug/L	496.99	ppb	15:42:29
2	Cr 267.716†	42601.0	42881.4	480.03	ug/L	480.03	ppb	15:42:09
2	Cu 324.752†	170507.0	165550.4	495.03	ug/L	495.03	ppb	15:42:09
2	Mn 257.610†	451993.5	455407.1	505.20	ug/L	505.20	ppb	15:42:09
2	Mo 202.031†	7556.1	7596.9	537.30	ug/L	537.30	ppb	15:42:29
2	Ni 231.604†	19743.9	19844.5	493.83	ug/L	493.83	ppb	15:42:29

2	P 214.914†	4250.6	4057.0	2375.0 ug/L	2375.0 ppb	15:42:29
2	Pb 220.353†	3961.9	4059.1	498.76 ug/L	498.76 ppb	15:42:29
2	S 181.975 Axial†	1772.3	1744.5	2467.8 ug/L	2467.8 ppb	15:42:29
2	Sb 206.836†	1463.0	1447.6	515.12 ug/L	515.12 ppb	15:42:29
2	Se 196.026†	3853.6	3918.5	2542.9 ug/L	2542.9 ppb	15:42:29
2	Si 251.611†	146609.1	147310.2	4685.0 ug/L	4685.0 ppb	15:42:09
2	Sn 189.927†	3020.8	3039.0	539.17 ug/L	539.17 ppb	15:42:29
2	Ti 334.940†	300787.7	304729.9	490.69 ug/L	490.69 ppb	15:42:09
2	Tl 190.801†	1666.8	1713.9	528.90 ug/L	528.90 ppb	15:42:29
2	U 409.014†	14533.5	16669.2	490.10 ug/L	490.10 ppb	15:42:09
2	V 292.402†	70947.9	72863.2	504.95 ug/L	504.95 ppb	15:42:09
2	Zn 213.857†	53089.4	52922.4	496.25 ug/L	496.25 ppb	15:42:09
2	SiO2†	148214.6	148908.2	10146 ug/L	10146 ppb	15:43:06
3	Sc Radial	4926.9	4926.9	97.8 %		15:41:16
3	Y RADIAL	5294.5	5294.5	97.51 %		15:41:16
3	Al 396.153Radial†	6239.9	6377.8	4894.5 ug/L	4894.5 ppb	15:41:16
3	Ca 317.933Radial†	2993.0	3039.1	4862.8 ug/L	4862.8 ppb	15:41:36
3	Fe 238.204 Radial†	565.3	568.9	4938.0 ug/L	4938.0 ppb	15:41:36
3	K 766.490 Radial†	15428.2	13177.5	2402.6 ug/L	2402.6 ppb	15:41:16
3	Mg 279.077 IEC†	151.7	153.1	5116.5 ug/L	5116.5 ppb	15:41:36
3	Na 589.592 Radial†	6269.0	7687.4	2301.7 ug/L	2301.7 ppb	15:41:16
3	Sr 421.552†	75643.4	77327.0	499.41 ug/L	499.41 ppb	15:41:16
3	Sc 361.383	847906.9	847906.9	99.473 %		15:42:35
3	Y 371.029	709674.4	709674.4	98.202 %		15:42:35
3	Ag 328.068†	55242.3	55176.9	257.11 ug/L	257.11 ppb	15:42:35
3	As 188.979†	1055.7	1085.0	472.12 ug/L	472.12 ppb	15:42:55
3	B 249.677†	21722.1	22469.0	499.00 ug/L	499.00 ppb	15:42:35
3	Ba 233.527†	63420.9	63768.2	499.09 ug/L	499.09 ppb	15:42:35
3	Be 313.107†	664984.9	673092.5	257.58 ug/L	257.58 ppb	15:42:35
3	Cd 226.502†	43466.3	43900.6	487.04 ug/L	487.04 ppb	15:42:35
3	Co 228.616†	23912.7	24114.1	493.79 ug/L	493.79 ppb	15:42:55
3	Cr 267.716†	42637.0	42779.6	478.90 ug/L	478.90 ppb	15:42:35
3	Cu 324.752†	170928.9	165422.1	494.64 ug/L	494.64 ppb	15:42:35
3	Mn 257.610†	452358.0	454309.2	503.99 ug/L	503.99 ppb	15:42:35
3	Mo 202.031†	7539.0	7555.2	534.36 ug/L	534.36 ppb	15:42:55
3	Ni 231.604†	19632.7	19668.7	489.46 ug/L	489.46 ppb	15:42:55
3	P 214.914†	4233.5	4026.0	2356.0 ug/L	2356.0 ppb	15:42:55
3	Pb 220.353†	3930.9	4015.1	493.38 ug/L	493.38 ppb	15:42:55
3	S 181.975 Axial†	1780.9	1747.4	2471.9 ug/L	2471.9 ppb	15:42:55
3	Sb 206.836†	1458.8	1438.6	511.86 ug/L	511.86 ppb	15:42:55
3	Se 196.026†	3836.9	3889.2	2524.0 ug/L	2524.0 ppb	15:42:55
3	Si 251.611†	146961.9	147189.8	4681.2 ug/L	4681.2 ppb	15:42:35
3	Sn 189.927†	2986.9	2995.0	531.38 ug/L	531.38 ppb	15:42:55
3	Ti 334.940†	301442.1	304413.3	490.19 ug/L	490.19 ppb	15:42:35
3	Tl 190.801†	1662.1	1703.7	525.78 ug/L	525.78 ppb	15:42:55
3	U 409.014†	14584.1	16673.0	490.22 ug/L	490.22 ppb	15:42:35
3	V 292.402†	70996.2	72682.0	503.67 ug/L	503.67 ppb	15:42:35
3	Zn 213.857†	53081.7	52742.6	494.58 ug/L	494.58 ppb	15:42:35
3	SiO2†	146987.9	147194.8	10029 ug/L	10029 ppb	15:43:11

Mean Data: ICV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	849124.9	99.616	%	0.5480				0.55%
Sc Radial	4989.7	99.1	%	2.44				2.47%
Y 371.029	711204.2	98.414	%	0.6467				0.66%
Y RADIAL	5344.4	98.43	%	2.046				2.08%
Ag 328.068†	55075.0	256.62	ug/L	1.185	256.62	ppb	1.185	0.46%
QC value within limits for Ag 328.068 Recovery = 102.65%								
Al 396.153Radial†	6270.7	4811.9	ug/L	96.94	4811.9	ppb	96.94	2.01%
QC value within limits for Al 396.153Radial Recovery = 96.24%								
As 188.979†	1079.3	469.65	ug/L	2.649	469.65	ppb	2.649	0.56%
QC value within limits for As 188.979 Recovery = 93.93%								
B 249.677†	22453.1	498.66	ug/L	1.833	498.66	ppb	1.833	0.37%
QC value within limits for B 249.677 Recovery = 99.73%								
Ba 233.527†	63758.3	499.01	ug/L	1.839	499.01	ppb	1.839	0.37%
QC value within limits for Ba 233.527 Recovery = 99.80%								
Be 313.107†	673221.5	257.63	ug/L	0.571	257.63	ppb	0.571	0.22%
QC value within limits for Be 313.107 Recovery = 103.05%								
Ca 317.933Radial†	2993.4	4789.7	ug/L	135.68	4789.7	ppb	135.68	2.83%

QC value within limits for Ca 317.933Radial Recovery = 95.79%

Cd 226.502†	43895.6	486.99 ug/L	2.593	486.99 ppb	2.593	0.53%
QC value within limits for Cd 226.502 Recovery = 97.40%						
Co 228.616†	24125.3	494.03 ug/L	2.855	494.03 ppb	2.855	0.58%
QC value within limits for Co 228.616 Recovery = 98.81%						
Cr 267.716†	42711.7	478.13 ug/L	2.373	478.13 ppb	2.373	0.50%
QC value within limits for Cr 267.716 Recovery = 95.63%						
Cu 324.752†	165152.0	493.83 ug/L	1.747	493.83 ppb	1.747	0.35%
QC value within limits for Cu 324.752 Recovery = 98.77%						
Fe 238.204 Radial†	559.8	4859.4 ug/L	134.62	4859.4 ppb	134.62	2.77%
QC value within limits for Fe 238.204 Radial Recovery = 97.19%						
K 766.490 Radial†	13033.0	2376.1 ug/L	58.28	2376.1 ppb	58.28	2.45%
QC value within limits for K 766.490 Radial Recovery = 95.04%						
Mg 279.077 IEC†	152.6	5098.0 ug/L	189.35	5098.0 ppb	189.35	3.71%
QC value within limits for Mg 279.077 IEC Recovery = 101.96%						
Mn 257.610†	453771.2	503.39 ug/L	2.181	503.39 ppb	2.181	0.43%
QC value within limits for Mn 257.610 Recovery = 100.68%						
Mo 202.031†	7562.2	534.84 ug/L	2.257	534.84 ppb	2.257	0.42%
QC value within limits for Mo 202.031 Recovery = 106.97%						
Na 589.592 Radial†	7648.2	2289.9 ug/L	31.07	2289.9 ppb	31.07	1.36%
QC value within limits for Na 589.592 Radial Recovery = 91.60%						
Ni 231.604†	19713.2	490.56 ug/L	2.879	490.56 ppb	2.879	0.59%
QC value within limits for Ni 231.604 Recovery = 98.11%						
P 214.914†	4030.8	2359.2 ug/L	14.46	2359.2 ppb	14.46	0.61%
QC value within limits for P 214.914 Recovery = 94.37%						
Pb 220.353†	4030.2	495.22 ug/L	3.068	495.22 ppb	3.068	0.62%
QC value within limits for Pb 220.353 Recovery = 99.04%						
S 181.975 Axial†	1736.2	2456.1 ug/L	23.98	2456.1 ppb	23.98	0.98%
QC value within limits for S 181.975 Axial Recovery = 98.24%						
Sb 206.836†	1441.2	512.81 ug/L	2.011	512.81 ppb	2.011	0.39%
QC value within limits for Sb 206.836 Recovery = 102.56%						
Se 196.026†	3896.7	2528.5 ug/L	12.70	2528.5 ppb	12.70	0.50%
QC value within limits for Se 196.026 Recovery = 101.14%						
Si 251.611†	146886.7	4671.5 ug/L	20.11	4671.5 ppb	20.11	0.43%
QC value within limits for Si 251.611 Recovery = 93.43%						
Sn 189.927†	3012.6	534.48 ug/L	4.133	534.48 ppb	4.133	0.77%
QC value within limits for Sn 189.927 Recovery = 106.90%						
Sr 421.552†	76289.6	492.71 ug/L	11.253	492.71 ppb	11.253	2.28%
QC value within limits for Sr 421.552 Recovery = 98.54%						
Ti 334.940†	303920.4	489.39 ug/L	1.833	489.39 ppb	1.833	0.37%
QC value within limits for Ti 334.940 Recovery = 97.88%						
Tl 190.801†	1702.2	525.32 ug/L	3.836	525.32 ppb	3.836	0.73%
QC value within limits for Tl 190.801 Recovery = 105.06%						
U 409.014†	16610.8	488.39 ug/L	3.060	488.39 ppb	3.060	0.63%
QC value within limits for U 409.014 Recovery = 97.68%						
V 292.402†	72647.6	503.45 ug/L	1.621	503.45 ppb	1.621	0.32%
QC value within limits for V 292.402 Recovery = 100.69%						
Zn 213.857†	52722.1	494.39 ug/L	1.967	494.39 ppb	1.967	0.40%
QC value within limits for Zn 213.857 Recovery = 98.88%						
SiO2†	147086.7	10021 ug/L	128.1	10021 ppb	128.1	1.28%
QC value within limits for SiO2 Recovery = 93.70%						

All analyte(s) passed QC.

Sequence No.: 7
Sample ID: ICB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 10
Date Collected: 1/11/2010 15:45:22
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	5012.3	5012.3	99.5	%			15:47:15
1	Y RADIAL	5401.5	5401.5	99.49	%			15:47:15
1	Al 396.153Radial†	-18.5	-17.9	-13.801	ug/L	-13.801	ppb	15:47:15
1	Ca 317.933Radial†	14.3	-5.4	-8.6742	ug/L	-8.6742	ppb	15:47:35
1	Fe 238.204 Radial†	8.8	-0.0	-0.3309	ug/L	-0.3309	ppb	15:47:35
1	K 766.490 Radial†	2514.4	-64.3	-11.763	ug/L	-11.763	ppb	15:47:15
1	Mg 279.077 IEC†	0.7	-1.2	-41.240	ug/L	-41.240	ppb	15:47:35
1	Na 589.592 Radial†	-1330.5	-56.2	-16.826	ug/L	-16.826	ppb	15:47:15
1	Sr 421.552†	7.3	26.8	0.1731	ug/L	0.1731	ppb	15:47:15
1	Sc 361.383	860881.3	860881.3	101.00	%			15:48:32
1	Y 371.029	730069.0	730069.0	101.02	%			15:48:32
1	Ag 328.068†	307.3	-53.7	-0.2488	ug/L	-0.2488	ppb	15:48:37
1	As 188.979†	-15.0	8.7	3.7893	ug/L	3.7893	ppb	15:48:57
1	B 249.677†	-477.6	159.0	3.5441	ug/L	3.5441	ppb	15:48:57
1	Ba 233.527†	-5.4	6.0	0.0472	ug/L	0.0472	ppb	15:48:57
1	Be 313.107†	-4520.9	109.1	0.0415	ug/L	0.0415	ppb	15:48:37
1	Cd 226.502†	-216.3	-10.0	-0.1106	ug/L	-0.1106	ppb	15:48:57
1	Co 228.616†	-68.2	7.2	0.1444	ug/L	0.1444	ppb	15:48:57
1	Cr 267.716†	76.2	-7.8	-0.0883	ug/L	-0.0883	ppb	15:48:57
1	Cu 324.752†	6381.6	-93.5	-0.2806	ug/L	-0.2806	ppb	15:48:37
1	Mn 257.610†	420.3	-28.7	-0.0302	ug/L	-0.0302	ppb	15:48:57
1	Mo 202.031†	12.2	-11.6	-0.8207	ug/L	-0.8207	ppb	15:48:57
1	Ni 231.604†	89.2	20.3	0.5064	ug/L	0.5064	ppb	15:48:57
1	P 214.914†	220.2	-11.8	-7.1766	ug/L	-7.1766	ppb	15:48:57
1	Pb 220.353†	-66.2	-2.1	-0.2669	ug/L	-0.2669	ppb	15:48:57
1	S 181.975 Axial†	48.4	4.9	6.9158	ug/L	6.9158	ppb	15:48:57
1	Sb 206.836†	40.3	11.9	4.0820	ug/L	4.0820	ppb	15:48:57
1	Se 196.026†	-23.8	8.5	5.4449	ug/L	5.4449	ppb	15:48:57
1	Si 251.611†	525.5	-30.2	-0.9507	ug/L	-0.9507	ppb	15:48:57
1	Sn 189.927†	9.1	1.4	0.2404	ug/L	0.2404	ppb	15:48:57
1	Ti 334.940†	-1410.9	-22.5	-0.0347	ug/L	-0.0347	ppb	15:48:37
1	Tl 190.801†	-34.8	-1.6	-0.4960	ug/L	-0.4960	ppb	15:48:57
1	U 409.014†	-1963.9	67.1	1.9784	ug/L	1.9784	ppb	15:48:32
1	V 292.402†	-1313.5	9.2	0.0535	ug/L	0.0535	ppb	15:48:37
1	Zn 213.857†	612.4	-13.9	-0.1345	ug/L	-0.1345	ppb	15:48:57
1	SiO2†	539.9	-37.1	-2.5110	ug/L	-2.5110	ppb	15:50:03
2	Sc Radial	5026.4	5026.4	99.8	%			15:47:40
2	Y RADIAL	5421.1	5421.1	99.85	%			15:47:40
2	Al 396.153Radial†	-32.0	-31.4	-24.228	ug/L	-24.228	ppb	15:47:40
2	Ca 317.933Radial†	24.0	4.2	6.7766	ug/L	6.7766	ppb	15:48:00
2	Fe 238.204 Radial†	8.8	-0.1	-0.9622	ug/L	-0.9622	ppb	15:48:00
2	K 766.490 Radial†	2560.4	-25.2	-4.6285	ug/L	-4.6285	ppb	15:47:40
2	Mg 279.077 IEC†	0.9	-1.0	-32.020	ug/L	-32.020	ppb	15:48:00
2	Na 589.592 Radial†	-1298.3	-20.1	-6.0150	ug/L	-6.0150	ppb	15:47:40
2	Sr 421.552†	6.9	26.5	0.1709	ug/L	0.1709	ppb	15:47:40
2	Sc 361.383	871702.6	871702.6	102.26	%			15:49:02
2	Y 371.029	737843.8	737843.8	102.10	%			15:49:02
2	Ag 328.068†	330.1	-35.2	-0.1664	ug/L	-0.1664	ppb	15:49:07
2	As 188.979†	-20.9	3.2	1.3860	ug/L	1.3860	ppb	15:49:28
2	B 249.677†	-477.7	164.7	3.6709	ug/L	3.6709	ppb	15:49:28
2	Ba 233.527†	-14.1	-2.4	-0.0187	ug/L	-0.0187	ppb	15:49:28
2	Be 313.107†	-4633.4	54.6	0.0211	ug/L	0.0211	ppb	15:49:07
2	Cd 226.502†	-213.1	-4.3	-0.0464	ug/L	-0.0464	ppb	15:49:28
2	Co 228.616†	-66.1	10.0	0.2050	ug/L	0.2050	ppb	15:49:28
2	Cr 267.716†	89.3	4.0	0.0433	ug/L	0.0433	ppb	15:49:28
2	Cu 324.752†	6462.1	-93.2	-0.2819	ug/L	-0.2819	ppb	15:49:07
2	Mn 257.610†	452.5	-2.4	-0.0014	ug/L	-0.0014	ppb	15:49:28
2	Mo 202.031†	24.8	0.5	0.0384	ug/L	0.0384	ppb	15:49:28
2	Ni 231.604†	51.6	-17.5	-0.4349	ug/L	-0.4349	ppb	15:49:28

2	P 214.914†	209.8	-24.7	-15.078 ug/L	-15.078 ppb	15:49:28
2	Pb 220.353†	-63.2	1.5	0.1811 ug/L	0.1811 ppb	15:49:28
2	S 181.975 Axial†	43.8	-0.2	-0.2084 ug/L	-0.2084 ppb	15:49:28
2	Sb 206.836†	49.6	20.5	7.0387 ug/L	7.0387 ppb	15:49:28
2	Se 196.026†	-31.7	1.0	0.6611 ug/L	0.6611 ppb	15:49:28
2	Si 251.611†	538.3	-24.1	-0.7684 ug/L	-0.7684 ppb	15:49:28
2	Sn 189.927†	6.1	-1.7	-0.2989 ug/L	-0.2989 ppb	15:49:28
2	Ti 334.940†	-1328.7	75.3	0.1222 ug/L	0.1222 ppb	15:49:07
2	Tl 190.801†	-39.1	-5.4	-1.6562 ug/L	-1.6562 ppb	15:49:28
2	U 409.014†	-1867.4	185.6	5.4738 ug/L	5.4738 ppb	15:49:02
2	V 292.402†	-1321.6	17.4	0.1290 ug/L	0.1290 ppb	15:49:07
2	Zn 213.857†	629.1	-5.1	-0.0446 ug/L	-0.0446 ppb	15:49:28
2	SiO2†	557.1	-26.9	-1.8357 ug/L	-1.8357 ppb	15:50:08
3	Sc Radial	5086.8	5086.8	101 %		15:48:06
3	Y RADIAL	5459.8	5459.8	100.6 %		15:48:06
3	Al 396.153Radial†	5.7	6.3	4.8594 ug/L	4.8594 ppb	15:48:06
3	Ca 317.933Radial†	16.8	-3.2	-5.0566 ug/L	-5.0566 ppb	15:48:26
3	Fe 238.204 Radial†	9.5	0.5	4.4449 ug/L	4.4449 ppb	15:48:26
3	K 766.490 Radial†	2570.3	-45.9	-8.4024 ug/L	-8.4024 ppb	15:48:06
3	Mg 279.077 IEC†	0.6	-1.3	-44.641 ug/L	-44.641 ppb	15:48:26
3	Na 589.592 Radial†	-1346.6	-52.5	-15.723 ug/L	-15.723 ppb	15:48:06
3	Sr 421.552†	-5.4	14.1	0.0913 ug/L	0.0913 ppb	15:48:06
3	Sc 361.383	858140.5	858140.5	100.67 %		15:49:33
3	Y 371.029	727477.4	727477.4	100.67 %		15:49:33
3	Ag 328.068†	415.2	54.5	0.2481 ug/L	0.2481 ppb	15:49:38
3	As 188.979†	-20.0	3.7	1.6152 ug/L	1.6152 ppb	15:49:58
3	B 249.677†	-492.4	142.8	3.1820 ug/L	3.1820 ppb	15:49:58
3	Ba 233.527†	0.4	11.8	0.0911 ug/L	0.0911 ppb	15:49:58
3	Be 313.107†	-4611.3	4.9	0.0018 ug/L	0.0018 ppb	15:49:38
3	Cd 226.502†	-202.6	2.8	0.0316 ug/L	0.0316 ppb	15:49:58
3	Co 228.616†	-73.5	1.6	0.0332 ug/L	0.0332 ppb	15:49:58
3	Cr 267.716†	83.5	-0.3	-0.0056 ug/L	-0.0056 ppb	15:49:58
3	Cu 324.752†	6483.5	27.9	0.0823 ug/L	0.0823 ppb	15:49:38
3	Mn 257.610†	433.0	-14.7	-0.0140 ug/L	-0.0140 ppb	15:49:58
3	Mo 202.031†	21.3	-2.6	-0.1819 ug/L	-0.1819 ppb	15:49:58
3	Ni 231.604†	69.9	1.5	0.0363 ug/L	0.0363 ppb	15:49:58
3	P 214.914†	233.2	1.8	1.0622 ug/L	1.0622 ppb	15:49:58
3	Pb 220.353†	-57.3	6.4	0.7884 ug/L	0.7884 ppb	15:49:58
3	S 181.975 Axial†	43.6	0.3	0.4175 ug/L	0.4175 ppb	15:49:58
3	Sb 206.836†	27.8	-0.3	-0.0892 ug/L	-0.0892 ppb	15:49:58
3	Se 196.026†	-29.2	3.0	1.9237 ug/L	1.9237 ppb	15:49:58
3	Si 251.611†	553.1	-1.0	-0.0305 ug/L	-0.0305 ppb	15:49:58
3	Sn 189.927†	11.3	3.6	0.6343 ug/L	0.6343 ppb	15:49:58
3	Ti 334.940†	-1395.2	-11.4	-0.0163 ug/L	-0.0163 ppb	15:49:38
3	Tl 190.801†	-27.8	5.2	1.5966 ug/L	1.5966 ppb	15:49:58
3	U 409.014†	-1948.4	76.2	2.2480 ug/L	2.2480 ppb	15:49:33
3	V 292.402†	-1418.3	-99.1	-0.6765 ug/L	-0.6765 ppb	15:49:38
3	Zn 213.857†	610.9	-13.4	-0.1277 ug/L	-0.1277 ppb	15:49:58
3	SiO2†	517.4	-57.7	-3.9333 ug/L	-3.9333 ppb	15:50:13

Mean Data: ICB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	863574.8	101.31	%	0.841				0.83%
Sc Radial	5041.9	100	%	0.8				0.78%
Y 371.029	731796.7	101.26	%	0.747				0.74%
Y RADIAL	5427.5	99.96	%	0.546				0.55%
Ag 328.068†	-11.5	-0.0557	ug/L	0.26628	-0.0557	ppb	0.26628	477.91%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-14.4	-11.057	ug/L	14.7368	-11.057	ppb	14.7368	133.29%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	5.2	2.2635	ug/L	1.32637	2.2635	ppb	1.32637	58.60%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	155.5	3.4657	ug/L	0.25373	3.4657	ppb	0.25373	7.32%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	5.1	0.0399	ug/L	0.05524	0.0399	ppb	0.05524	138.56%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	56.2	0.0215	ug/L	0.01982	0.0215	ppb	0.01982	92.33%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-1.4	-2.3180	ug/L	8.08125	-2.3180	ppb	8.08125	348.63%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              -3.8     -0.0418 ug/L       0.07123     -0.0418 ppb        0.07123 170.43%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†               6.3      0.1275 ug/L       0.08713      0.1275 ppb        0.08713  68.33%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -1.4     -0.0169 ug/L       0.06653     -0.0169 ppb        0.06653 393.98%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -52.9     -0.1600 ug/L       0.20991     -0.1600 ppb        0.20991 131.16%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        0.1      1.0506 ug/L       2.95646      1.0506 ppb        2.95646 281.40%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       -45.1     -8.2647 ug/L       3.56936     -8.2647 ppb        3.56936  43.19%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          -1.2     -39.301 ug/L        6.5303     -39.301 ppb         6.5303  16.62%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†             -15.3     -0.0152 ug/L       0.01441     -0.0152 ppb        0.01441  94.82%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              -4.5     -0.3214 ug/L       0.44625     -0.3214 ppb        0.44625 138.84%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      -42.9     -12.854 ug/L        5.9488     -12.854 ppb         5.9488  46.28%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               1.4      0.0360 ug/L       0.47065      0.0360 ppb        0.47065 >999.9%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†              -11.6     -7.0640 ug/L       8.07047     -7.0640 ppb        8.07047 114.25%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               1.9      0.2342 ug/L       0.52966      0.2342 ppb        0.52966 226.16%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          1.7      2.3750 ug/L       3.94493      2.3750 ppb        3.94493 166.10%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              10.7      3.6772 ug/L       3.58112      3.6772 ppb        3.58112  97.39%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               4.2      2.6766 ug/L       2.47915      2.6766 ppb        2.47915  92.62%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†             -18.4     -0.5832 ug/L       0.48727     -0.5832 ppb        0.48727  83.55%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               1.1      0.1919 ug/L       0.46846      0.1919 ppb        0.46846 244.09%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              22.5      0.1451 ug/L       0.04658      0.1451 ppb        0.04658  32.10%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              13.8      0.0237 ug/L       0.08580      0.0237 ppb        0.08580 361.38%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -0.6     -0.1852 ug/L       1.64853     -0.1852 ppb        1.64853 890.01%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              109.6      3.2334 ug/L       1.94496      3.2334 ppb        1.94496  60.15%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              -24.2     -0.1647 ug/L       0.44484     -0.1647 ppb        0.44484 270.15%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†             -10.8     -0.1022 ug/L       0.05003     -0.1022 ppb        0.05003  48.93%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                   -40.6     -2.7600 ug/L       1.07077     -2.7600 ppb        1.07077  38.80%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
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Sequence No.: 8
Sample ID: PQL
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 11
Date Collected: 1/11/2010 15:52:25
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: PQL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5037.9	5037.9	100	%			15:54:18
1	Y RADIAL	5420.4	5420.4	99.83	%			15:54:18
1	Al 396.153Radial†	270.6	271.2	208.73	ug/L	208.73	ppb	15:54:18
1	Ca 317.933Radial†	149.7	129.9	207.82	ug/L	207.82	ppb	15:54:38
1	Fe 238.204 Radial†	23.6	14.7	127.71	ug/L	127.71	ppb	15:54:38
1	K 766.490 Radial†	3467.8	875.9	160.16	ug/L	160.16	ppb	15:54:18
1	Mg 279.077 IEC†	10.3	8.4	280.15	ug/L	280.15	ppb	15:54:38
1	Na 589.592 Radial†	-294.0	986.6	295.40	ug/L	295.40	ppb	15:54:18
1	Sr 421.552†	762.3	781.4	5.0453	ug/L	5.0453	ppb	15:54:18
1	Sc 361.383	860505.2	860505.2	100.95	%			15:55:34
1	Y 371.029	727613.9	727613.9	100.68	%			15:55:34
1	Ag 328.068†	1346.5	975.9	4.5059	ug/L	4.5059	ppb	15:55:39
1	As 188.979†	46.2	69.4	30.083	ug/L	30.083	ppb	15:55:59
1	B 249.677†	1593.6	2210.4	49.251	ug/L	49.251	ppb	15:55:39
1	Ba 233.527†	649.9	655.2	5.1295	ug/L	5.1295	ppb	15:55:59
1	Be 313.107†	8502.7	13007.9	4.9679	ug/L	4.9679	ppb	15:55:39
1	Cd 226.502†	243.6	445.4	4.9433	ug/L	4.9433	ppb	15:55:59
1	Co 228.616†	169.2	242.3	4.9701	ug/L	4.9701	ppb	15:55:59
1	Cr 267.716†	508.0	419.9	4.6825	ug/L	4.6825	ppb	15:55:59
1	Cu 324.752†	9837.7	3332.8	9.9426	ug/L	9.9426	ppb	15:55:39
1	Mn 257.610†	10001.8	9462.7	10.493	ug/L	10.493	ppb	15:55:39
1	Mo 202.031†	158.5	133.3	9.4306	ug/L	9.4306	ppb	15:55:59
1	Ni 231.604†	273.7	203.2	5.0568	ug/L	5.0568	ppb	15:55:59
1	P 214.914†	464.8	230.6	138.85	ug/L	138.85	ppb	15:55:59
1	Pb 220.353†	35.5	98.5	12.116	ug/L	12.116	ppb	15:55:59
1	S 181.975 Axial†	113.5	69.4	98.233	ug/L	98.233	ppb	15:55:59
1	Sb 206.836†	69.7	41.2	14.430	ug/L	14.430	ppb	15:55:59
1	Se 196.026†	13.1	45.0	29.445	ug/L	29.445	ppb	15:55:59
1	Si 251.611†	3647.5	3062.7	97.427	ug/L	97.427	ppb	15:55:39
1	Sn 189.927†	59.5	51.3	9.1131	ug/L	9.1131	ppb	15:55:59
1	Ti 334.940†	1779.2	3137.0	5.0291	ug/L	5.0291	ppb	15:55:39
1	Tl 190.801†	41.1	73.6	22.656	ug/L	22.656	ppb	15:55:59
1	U 409.014†	-169.6	1843.6	54.360	ug/L	54.360	ppb	15:55:34
1	V 292.402†	-641.0	674.8	4.8289	ug/L	4.8289	ppb	15:55:39
1	Zn 213.857†	1770.6	1133.7	10.665	ug/L	10.665	ppb	15:55:59
1	SiO2†	3695.3	3088.8	210.50	ug/L	210.50	ppb	15:57:05
2	Sc Radial	5010.4	5010.4	99.5	%			15:54:43
2	Y RADIAL	5391.1	5391.1	99.29	%			15:54:43
2	Al 396.153Radial†	259.0	261.0	200.90	ug/L	200.90	ppb	15:54:43
2	Ca 317.933Radial†	150.5	131.4	210.28	ug/L	210.28	ppb	15:55:03
2	Fe 238.204 Radial†	21.3	12.5	108.37	ug/L	108.37	ppb	15:55:03
2	K 766.490 Radial†	3431.6	858.5	156.97	ug/L	156.97	ppb	15:54:43
2	Mg 279.077 IEC†	12.2	10.3	344.37	ug/L	344.37	ppb	15:55:03
2	Na 589.592 Radial†	-298.5	980.4	293.56	ug/L	293.56	ppb	15:54:43
2	Sr 421.552†	763.2	786.5	5.0782	ug/L	5.0782	ppb	15:54:43
2	Sc 361.383	863273.7	863273.7	101.28	%			15:56:05
2	Y 371.029	729826.7	729826.7	100.99	%			15:56:05
2	Ag 328.068†	1491.5	1114.7	5.1419	ug/L	5.1419	ppb	15:56:10
2	As 188.979†	56.4	79.3	34.378	ug/L	34.378	ppb	15:56:30
2	B 249.677†	1532.7	2145.2	47.799	ug/L	47.799	ppb	15:56:10
2	Ba 233.527†	620.8	624.4	4.8885	ug/L	4.8885	ppb	15:56:30
2	Be 313.107†	8381.0	12860.8	4.9117	ug/L	4.9117	ppb	15:56:10
2	Cd 226.502†	267.7	468.4	5.1999	ug/L	5.1999	ppb	15:56:30
2	Co 228.616†	163.5	236.1	4.8445	ug/L	4.8445	ppb	15:56:30
2	Cr 267.716†	516.7	426.9	4.7615	ug/L	4.7615	ppb	15:56:30
2	Cu 324.752†	9777.8	3242.4	9.6727	ug/L	9.6727	ppb	15:56:10
2	Mn 257.610†	9961.1	9390.7	10.409	ug/L	10.409	ppb	15:56:10
2	Mo 202.031†	156.4	130.7	9.2479	ug/L	9.2479	ppb	15:56:30
2	Ni 231.604†	271.2	199.9	4.9735	ug/L	4.9735	ppb	15:56:30

2	P 214.914†	468.9	233.1	140.45 ug/L	140.45 ppb	15:56:30
2	Pb 220.353†	16.5	79.6	9.8040 ug/L	9.8040 ppb	15:56:30
2	S 181.975 Axial†	119.7	75.2	106.39 ug/L	106.39 ppb	15:56:30
2	Sb 206.836†	60.1	31.4	11.079 ug/L	11.079 ppb	15:56:30
2	Se 196.026†	16.9	48.7	31.777 ug/L	31.777 ppb	15:56:30
2	Si 251.611†	3636.4	3040.2	96.710 ug/L	96.710 ppb	15:56:10
2	Sn 189.927†	61.3	52.9	9.4050 ug/L	9.4050 ppb	15:56:30
2	Ti 334.940†	1760.6	3113.0	4.9865 ug/L	4.9865 ppb	15:56:10
2	Tl 190.801†	30.4	62.9	19.373 ug/L	19.373 ppb	15:56:30
2	U 409.014†	-258.3	1756.6	51.795 ug/L	51.795 ppb	15:56:05
2	V 292.402†	-620.8	696.8	4.9757 ug/L	4.9757 ppb	15:56:10
2	Zn 213.857†	1739.9	1097.8	10.327 ug/L	10.327 ppb	15:56:30
2	SiO2†	3663.0	3045.2	207.53 ug/L	207.53 ppb	15:57:11
3	Sc Radial	5096.0	5096.0	101 %		15:55:08
3	Y RADIAL	5494.9	5494.9	101.2 %		15:55:08
3	Al 396.153Radial†	257.4	255.0	196.26 ug/L	196.26 ppb	15:55:08
3	Ca 317.933Radial†	152.7	131.1	209.81 ug/L	209.81 ppb	15:55:28
3	Fe 238.204 Radial†	22.2	13.0	113.08 ug/L	113.08 ppb	15:55:28
3	K 766.490 Radial†	3509.4	877.4	160.45 ug/L	160.45 ppb	15:55:08
3	Mg 279.077 IEC†	14.2	12.1	405.35 ug/L	405.35 ppb	15:55:28
3	Na 589.592 Radial†	-336.1	948.3	283.95 ug/L	283.95 ppb	15:55:08
3	Sr 421.552†	768.2	778.5	5.0269 ug/L	5.0269 ppb	15:55:08
3	Sc 361.383	861164.6	861164.6	101.03 %		15:56:35
3	Y 371.029	729112.0	729112.0	100.89 %		15:56:35
3	Ag 328.068†	1387.3	1015.2	4.6835 ug/L	4.6835 ppb	15:56:40
3	As 188.979†	55.4	78.5	34.035 ug/L	34.035 ppb	15:57:00
3	B 249.677†	1643.5	2258.6	50.326 ug/L	50.326 ppb	15:56:40
3	Ba 233.527†	638.2	643.1	5.0353 ug/L	5.0353 ppb	15:57:00
3	Be 313.107†	8712.2	13208.9	5.0449 ug/L	5.0449 ppb	15:56:40
3	Cd 226.502†	255.5	457.0	5.0738 ug/L	5.0738 ppb	15:57:00
3	Co 228.616†	173.7	246.6	5.0596 ug/L	5.0596 ppb	15:57:00
3	Cr 267.716†	511.3	422.8	4.7150 ug/L	4.7150 ppb	15:57:00
3	Cu 324.752†	9895.0	3382.0	10.089 ug/L	10.089 ppb	15:56:40
3	Mn 257.610†	10072.8	9525.3	10.556 ug/L	10.556 ppb	15:56:40
3	Mo 202.031†	159.5	134.1	9.4889 ug/L	9.4889 ppb	15:57:00
3	Ni 231.604†	292.7	221.7	5.5183 ug/L	5.5183 ppb	15:57:00
3	P 214.914†	450.5	216.0	129.93 ug/L	129.93 ppb	15:57:00
3	Pb 220.353†	17.4	80.6	9.9220 ug/L	9.9220 ppb	15:57:00
3	S 181.975 Axial†	118.2	74.0	104.74 ug/L	104.74 ppb	15:57:00
3	Sb 206.836†	72.2	43.5	15.276 ug/L	15.276 ppb	15:57:00
3	Se 196.026†	25.2	56.9	37.088 ug/L	37.088 ppb	15:57:00
3	Si 251.611†	3690.4	3102.4	98.690 ug/L	98.690 ppb	15:56:40
3	Sn 189.927†	68.4	60.0	10.666 ug/L	10.666 ppb	15:57:00
3	Ti 334.940†	1925.1	3280.0	5.2497 ug/L	5.2497 ppb	15:56:40
3	Tl 190.801†	34.6	67.1	20.660 ug/L	20.660 ppb	15:57:00
3	U 409.014†	-183.2	1830.3	53.970 ug/L	53.970 ppb	15:56:35
3	V 292.402†	-609.9	706.0	5.0467 ug/L	5.0467 ppb	15:56:40
3	Zn 213.857†	1748.9	1110.8	10.447 ug/L	10.447 ppb	15:57:00
3	SiO2†	3709.4	3099.9	211.25 ug/L	211.25 ppb	15:57:16

Mean Data: PQL

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	861647.8	101.09	%	0.170				0.17%
Sc Radial	5048.1	100	%	0.9				0.87%
Y 371.029	728850.9	100.86	%	0.156				0.15%
Y RADIAL	5435.5	100.1	%	0.99				0.98%
Ag 328.068†	1035.3	4.7771	ug/L	0.32813	4.7771	ppb	0.32813	6.87%
QC value within limits for Ag 328.068 Recovery = 95.54%								
Al 396.153Radial†	262.4	201.97	ug/L	6.304	201.97	ppb	6.304	3.12%
QC value within limits for Al 396.153Radial Recovery = 100.98%								
As 188.979†	75.7	32.832	ug/L	2.3868	32.832	ppb	2.3868	7.27%
QC value within limits for As 188.979 Recovery = 109.44%								
B 249.677†	2204.7	49.125	ug/L	1.2678	49.125	ppb	1.2678	2.58%
QC value within limits for B 249.677 Recovery = 98.25%								
Ba 233.527†	640.9	5.0178	ug/L	0.12144	5.0178	ppb	0.12144	2.42%
QC value within limits for Ba 233.527 Recovery = 100.36%								
Be 313.107†	13025.9	4.9748	ug/L	0.06689	4.9748	ppb	0.06689	1.34%
QC value within limits for Be 313.107 Recovery = 99.50%								
Ca 317.933Radial†	130.8	209.31	ug/L	1.306	209.31	ppb	1.306	0.62%

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   QC value within limits for Ca 317.933Radial  Recovery = 104.65%
Cd 226.502†              457.0      5.0723 ug/L       0.12828      5.0723 ppb        0.12828   2.53%
   QC value within limits for Cd 226.502  Recovery = 101.45%
Co 228.616†              241.7      4.9581 ug/L       0.10803      4.9581 ppb        0.10803   2.18%
   QC value within limits for Co 228.616  Recovery = 99.16%
Cr 267.716†              423.2      4.7197 ug/L       0.03971      4.7197 ppb        0.03971   0.84%
   QC value within limits for Cr 267.716  Recovery = 94.39%
Cu 324.752†             3319.1      9.9015 ug/L       0.21130      9.9015 ppb        0.21130   2.13%
   QC value within limits for Cu 324.752  Recovery = 99.02%
Fe 238.204 Radial†        13.4      116.39 ug/L        10.087      116.39 ppb         10.087   8.67%
   QC value within limits for Fe 238.204 Radial  Recovery = 116.39%
K 766.490 Radial†        870.6      159.20 ug/L         1.930      159.20 ppb          1.930   1.21%
   QC value within limits for K 766.490 Radial  Recovery = 106.13%
Mg 279.077 IEC†           10.3      343.29 ug/L        62.606      343.29 ppb         62.606  18.24%
   QC value within limits for Mg 279.077 IEC  Recovery = 114.43%
Mn 257.610†             9459.6      10.486 ug/L        0.0739      10.486 ppb         0.0739   0.70%
   QC value within limits for Mn 257.610  Recovery = 104.86%
Mo 202.031†              132.7      9.3891 ug/L       0.12572      9.3891 ppb        0.12572   1.34%
   QC value within limits for Mo 202.031  Recovery = 93.89%
Na 589.592 Radial†       971.8      290.97 ug/L         6.150      290.97 ppb          6.150   2.11%
   QC value within limits for Na 589.592 Radial  Recovery = 96.99%
Ni 231.604†              208.3      5.1829 ug/L       0.29347      5.1829 ppb        0.29347   5.66%
   QC value within limits for Ni 231.604  Recovery = 103.66%
P 214.914†               226.6      136.41 ug/L         5.672      136.41 ppb          5.672   4.16%
   QC value within limits for P 214.914  Recovery = 90.94%
Pb 220.353†               86.2      10.614 ug/L        1.3021      10.614 ppb         1.3021  12.27%
   QC value within limits for Pb 220.353  Recovery = 106.14%
S 181.975 Axial†          72.9      103.12 ug/L         4.313      103.12 ppb          4.313   4.18%
   QC value within limits for S 181.975 Axial  Recovery = 103.12%
Sb 206.836†               38.7      13.595 ug/L        2.2199      13.595 ppb         2.2199  16.33%
   QC value greater than the upper limit for Sb 206.836  Recovery = 135.95%
Se 196.026†               50.2      32.770 ug/L        3.9170      32.770 ppb         3.9170  11.95%
   QC value within limits for Se 196.026  Recovery = 109.23%
Si 251.611†             3068.4      97.609 ug/L        1.0021      97.609 ppb         1.0021   1.03%
   QC value within limits for Si 251.611  Recovery = 97.61%
Sn 189.927†               54.7      9.7281 ug/L       0.82548      9.7281 ppb        0.82548   8.49%
   QC value within limits for Sn 189.927  Recovery = 97.28%
Sr 421.552†              782.1      5.0501 ug/L       0.02599      5.0501 ppb        0.02599   0.51%
   QC value within limits for Sr 421.552  Recovery = 101.00%
Ti 334.940†             3176.7      5.0884 ug/L       0.14130      5.0884 ppb        0.14130   2.78%
   QC value within limits for Ti 334.940  Recovery = 101.77%
Tl 190.801†               67.9      20.896 ug/L        1.6541      20.896 ppb         1.6541   7.92%
   QC value within limits for Tl 190.801  Recovery = 104.48%
U 409.014†              1810.1      53.375 ug/L        1.3821      53.375 ppb         1.3821   2.59%
   QC value within limits for U 409.014  Recovery = 106.75%
V 292.402†               692.5      4.9505 ug/L       0.11108      4.9505 ppb        0.11108   2.24%
   QC value within limits for V 292.402  Recovery = 99.01%
Zn 213.857†             1114.1      10.480 ug/L        0.1711      10.480 ppb         0.1711   1.63%
   QC value within limits for Zn 213.857  Recovery = 104.80%
SiO2†                   3078.0      209.76 ug/L         1.971      209.76 ppb          1.971   0.94%
   QC value within limits for SiO2  Recovery = 98.48%
QC Failed.  Continue with analysis.
```

Sequence No.: 9
Sample ID: ICSA
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 13
Date Collected: 1/11/2010 15:59:26
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSA

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4554.2	4554.2	90.4	%			16:01:25
1	Y RADIAL	4880.1	4880.1	89.88	%			16:01:25
1	Al 396.153Radial†	588273.1	650416.6	501790	ug/L	501790	ppb	16:01:20
1	Ca 317.933Radial†	266503.8	294636.4	471450	ug/L	471450	ppb	16:01:20
1	Fe 238.204 Radial†	19366.6	21403.5	185230	ug/L	185230	ppb	16:01:25
1	K 766.490 Radial†	1955.5	-428.1	-236.05	ug/L	-236.05	ppb	16:01:20
1	Mg 279.077 IEC†	13060.3	14438.0	482210	ug/L	482210	ppb	16:01:25
1	Na 589.592 Radial†	-1089.1	76.3	22.843	ug/L	22.843	ppb	16:01:25
1	Sr 421.552†	532.5	608.3	0.4087	ug/L	0.4087	ppb	16:01:25
1	Sc 361.383	713940.1	713940.1	83.757	%			16:01:52
1	Y 371.029	590028.4	590028.4	81.646	%			16:01:52
1	Ag 328.068†	-9732.7	-11978.2	-1.5459	ug/L	-1.5459	ppb	16:01:52
1	As 188.979†	-99.1	-94.7	-4.6533	ug/L	-4.6533	ppb	16:02:12
1	B 249.677†	290.9	979.1	3.0617	ug/L	3.0617	ppb	16:01:52
1	Ba 233.527†	-441.1	-515.2	2.7787	ug/L	2.7787	ppb	16:02:12
1	Be 313.107†	-4427.5	-700.8	-0.3201	ug/L	-0.3201	ppb	16:01:52
1	Cd 226.502†	1281.6	1734.3	0.1201	ug/L	0.1201	ppb	16:02:12
1	Co 228.616†	-24.7	45.2	-1.7518	ug/L	-1.7518	ppb	16:02:12
1	Cr 267.716†	-113.7	-219.0	1.1722	ug/L	1.1722	ppb	16:02:12
1	Cu 324.752†	3876.8	-1783.6	4.4537	ug/L	4.4537	ppb	16:01:52
1	Mn 257.610†	1798.9	1702.9	2.8489	ug/L	2.8489	ppb	16:01:52
1	Mo 202.031†	-203.7	-266.9	-0.5853	ug/L	-0.5853	ppb	16:02:12
1	Ni 231.604†	186.0	154.1	3.8375	ug/L	3.8375	ppb	16:02:12
1	P 214.914†	194.2	2.0	-22.430	ug/L	-22.430	ppb	16:02:12
1	Pb 220.353†	-739.6	-819.7	-2.6514	ug/L	-2.6514	ppb	16:02:12
1	S 181.975 Axial†	83.2	56.3	-14.356	ug/L	-14.356	ppb	16:02:12
1	Sb 206.836†	78.9	66.3	7.7109	ug/L	7.7109	ppb	16:02:12
1	Se 196.026†	-829.4	-958.3	-0.6276	ug/L	-0.6276	ppb	16:02:12
1	Si 251.611†	584.3	147.1	4.9185	ug/L	4.9185	ppb	16:02:12
1	Sn 189.927†	-363.0	-441.0	-7.6066	ug/L	-7.6066	ppb	16:02:12
1	Ti 334.940†	-13311.2	-14518.2	-9.4664	ug/L	-9.4664	ppb	16:01:52
1	Tl 190.801†	-92.5	-77.6	-24.029	ug/L	-24.029	ppb	16:02:12
1	U 409.014†	-806.7	1048.4	9.8177	ug/L	9.8177	ppb	16:01:52
1	V 292.402†	1193.8	2735.1	-0.5070	ug/L	-0.5070	ppb	16:02:12
1	Zn 213.857†	2889.7	2829.8	8.7795	ug/L	8.7795	ppb	16:02:12
1	SiO2†	582.1	123.3	8.9247	ug/L	8.9247	ppb	16:03:09
2	Sc Radial	4313.1	4313.1	85.7	%			16:01:35
2	Y RADIAL	4611.6	4611.6	84.94	%			16:01:35
2	Al 396.153Radial†	593425.0	692788.0	534480	ug/L	534480	ppb	16:01:30
2	Ca 317.933Radial†	268523.4	313464.8	501570	ug/L	501570	ppb	16:01:30
2	Fe 238.204 Radial†	19406.2	22646.7	195990	ug/L	195990	ppb	16:01:35
2	K 766.490 Radial†	1950.8	-312.8	-224.98	ug/L	-224.98	ppb	16:01:30
2	Mg 279.077 IEC†	13084.6	15273.5	510110	ug/L	510110	ppb	16:01:35
2	Na 589.592 Radial†	-1067.0	34.7	10.403	ug/L	10.403	ppb	16:01:35
2	Sr 421.552†	533.6	642.4	0.4040	ug/L	0.4040	ppb	16:01:35
2	Sc 361.383	737937.7	737937.7	86.572	%			16:02:18
2	Y 371.029	608079.9	608079.9	84.144	%			16:02:18
2	Ag 328.068†	-9892.3	-11784.6	2.4125	ug/L	2.4125	ppb	16:02:18
2	As 188.979†	-78.0	-66.5	9.6873	ug/L	9.6873	ppb	16:02:38
2	B 249.677†	338.9	1023.3	2.9566	ug/L	2.9566	ppb	16:02:18
2	Ba 233.527†	-429.0	-484.2	3.4139	ug/L	3.4139	ppb	16:02:38
2	Be 313.107†	-4496.9	-609.1	-0.2857	ug/L	-0.2857	ppb	16:02:18
2	Cd 226.502†	1277.3	1679.5	-1.5978	ug/L	-1.5978	ppb	16:02:38
2	Co 228.616†	-4.6	69.3	-1.4096	ug/L	-1.4096	ppb	16:02:38
2	Cr 267.716†	-75.1	-170.0	1.9249	ug/L	1.9249	ppb	16:02:38
2	Cu 324.752†	3960.7	-1837.1	4.8577	ug/L	4.8577	ppb	16:02:18
2	Mn 257.610†	1638.0	1447.2	2.6255	ug/L	2.6255	ppb	16:02:18
2	Mo 202.031†	-196.8	-251.0	1.6332	ug/L	1.6332	ppb	16:02:38
2	Ni 231.604†	182.7	143.0	3.5611	ug/L	3.5611	ppb	16:02:38

2	P 214.914†	149.2	-57.6	-59.270 ug/L	-59.270 ppb	16:02:38
2	Pb 220.353†	-766.6	-822.2	3.5310 ug/L	3.5310 ppb	16:02:38
2	S 181.975 Axial†	77.6	46.6	-34.230 ug/L	-34.230 ppb	16:02:38
2	Sb 206.836†	81.2	65.8	6.7812 ug/L	6.7812 ppb	16:02:38
2	Se 196.026†	-833.9	-931.2	52.847 ug/L	52.847 ppb	16:02:38
2	Si 251.611†	566.0	103.3	3.5085 ug/L	3.5085 ppb	16:02:38
2	Sn 189.927†	-349.6	-411.4	2.1266 ug/L	2.1266 ppb	16:02:38
2	Ti 334.940†	-13871.4	-14648.4	-8.5522 ug/L	-8.5522 ppb	16:02:18
2	Tl 190.801†	-88.7	-69.6	-21.566 ug/L	-21.566 ppb	16:02:38
2	U 409.014†	-550.7	1375.6	18.240 ug/L	18.240 ppb	16:02:18
2	V 292.402†	1235.3	2736.6	-1.5657 ug/L	-1.5657 ppb	16:02:38
2	Zn 213.857†	2899.2	2728.7	6.7812 ug/L	6.7812 ppb	16:02:38
2	SiO2†	581.9	100.4	7.3361 ug/L	7.3361 ppb	16:03:14
3	Sc Radial	4458.8	4458.8	88.6 %		16:01:46
3	Y RADIAL	4803.8	4803.8	88.48 %		16:01:46
3	Al 396.153Radial†	578946.6	653797.4	504400 ug/L	504400 ppb	16:01:41
3	Ca 317.933Radial†	262181.2	296058.0	473720 ug/L	473720 ppb	16:01:41
3	Fe 238.204 Radial†	19015.6	21465.1	185760 ug/L	185760 ppb	16:01:46
3	K 766.490 Radial†	2134.1	-180.1	-191.31 ug/L	-191.31 ppb	16:01:41
3	Mg 279.077 IEC†	12793.9	14446.1	482470 ug/L	482470 ppb	16:01:46
3	Na 589.592 Radial†	-1160.2	-29.7	-8.9041 ug/L	-8.9041 ppb	16:01:46
3	Sr 421.552†	507.6	592.7	0.2912 ug/L	0.2912 ppb	16:01:46
3	Sc 361.383	734225.6	734225.6	86.136 %		16:02:43
3	Y 371.029	605159.6	605159.6	83.740 %		16:02:43
3	Ag 328.068†	-9811.2	-11748.3	-0.3445 ug/L	-0.3445 ppb	16:02:43
3	As 188.979†	-59.0	-44.9	17.049 ug/L	17.049 ppb	16:03:03
3	B 249.677†	274.8	950.8	2.3769 ug/L	2.3769 ppb	16:02:43
3	Ba 233.527†	-432.5	-490.7	2.9891 ug/L	2.9891 ppb	16:03:03
3	Be 313.107†	-4458.8	-591.0	-0.2778 ug/L	-0.2778 ppb	16:02:43
3	Cd 226.502†	1332.5	1751.1	0.2507 ug/L	0.2507 ppb	16:03:03
3	Co 228.616†	-17.0	54.9	-1.5635 ug/L	-1.5635 ppb	16:03:03
3	Cr 267.716†	-65.1	-158.8	1.8559 ug/L	1.8559 ppb	16:03:03
3	Cu 324.752†	4004.3	-1763.4	4.5436 ug/L	4.5436 ppb	16:02:43
3	Mn 257.610†	1713.0	1543.9	2.7211 ug/L	2.7211 ppb	16:02:43
3	Mo 202.031†	-224.2	-284.0	-1.7335 ug/L	-1.7335 ppb	16:03:03
3	Ni 231.604†	181.0	142.1	3.5382 ug/L	3.5382 ppb	16:03:03
3	P 214.914†	146.4	-59.9	-60.032 ug/L	-60.032 ppb	16:03:03
3	Pb 220.353†	-752.0	-809.7	-0.8858 ug/L	-0.8858 ppb	16:03:03
3	S 181.975 Axial†	75.4	44.5	-31.507 ug/L	-31.507 ppb	16:03:03
3	Sb 206.836†	51.1	31.4	-4.2766 ug/L	-4.2766 ppb	16:03:03
3	Se 196.026†	-823.4	-923.9	23.370 ug/L	23.370 ppb	16:03:03
3	Si 251.611†	591.3	136.0	4.5784 ug/L	4.5784 ppb	16:03:03
3	Sn 189.927†	-357.4	-422.6	-4.0082 ug/L	-4.0082 ppb	16:03:03
3	Ti 334.940†	-13567.2	-14376.3	-9.0016 ug/L	-9.0016 ppb	16:02:43
3	Tl 190.801†	-92.5	-74.5	-23.072 ug/L	-23.072 ppb	16:03:03
3	U 409.014†	-897.2	970.0	7.4415 ug/L	7.4415 ppb	16:02:43
3	V 292.402†	1185.5	2686.0	-0.9411 ug/L	-0.9411 ppb	16:03:03
3	Zn 213.857†	2915.0	2763.9	8.1058 ug/L	8.1058 ppb	16:03:03
3	SiO2†	561.2	79.9	5.9978 ug/L	5.9978 ppb	16:03:19

Mean Data: ICSA

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	728701.1	85.488	%	1.5154				1.77%
Sc Radial	4442.1	88.2	%	2.41				2.73%
Y 371.029	601089.3	83.176	%	1.3408				1.61%
Y RADIAL	4765.2	87.77	%	2.548				2.90%
Ag 328.068†	-11837.0	0.1741	ug/L	2.02949	0.1741	ppb	2.02949	>999.9%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	665667.3	513550	ug/L	18166.9	513550	ppb	18166.9	3.54%
QC value within limits for Al 396.153Radial Recovery = 102.71%								
As 188.979†	-68.7	7.3611	ug/L	11.03681	7.3611	ppb	11.03681	149.93%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	984.4	2.7984	ug/L	0.36879	2.7984	ppb	0.36879	13.18%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-496.7	3.0606	ug/L	0.32361	3.0606	ppb	0.32361	10.57%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-633.6	-0.2945	ug/L	0.02251	-0.2945	ppb	0.02251	7.64%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	301386.4	482250	ug/L	16776.0	482250	ppb	16776.0	3.48%

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   QC value within limits for Ca 317.933Radial  Recovery = 96.45%
Cd 226.502†            1721.6     -0.4090 ug/L      1.03158     -0.4090 ppb       1.03158 252.21%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†              56.5     -1.5750 ug/L      0.17142     -1.5750 ppb       0.17142  10.88%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†            -182.6      1.6510 ug/L      0.41608      1.6510 ppb       0.41608  25.20%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†           -1794.7      4.6183 ug/L      0.21212      4.6183 ppb       0.21212   4.59%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†    21838.5     188990 ug/L       6063.4     188990 ppb        6063.4   3.21%
   QC value within limits for Fe 238.204 Radial  Recovery = 94.50%
K 766.490 Radial†      -307.0     -217.45 ug/L       23.302     -217.45 ppb        23.302  10.72%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†       14719.2     491600 ug/L      16033.9     491600 ppb       16033.9   3.26%
   QC value within limits for Mg 279.077 IEC  Recovery = 98.32%
Mn 257.610†            1564.6      2.7318 ug/L      0.11211      2.7318 ppb       0.11211   4.10%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†            -267.3     -0.2285 ug/L      1.71148     -0.2285 ppb       1.71148 748.88%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       27.1      8.1139 ug/L     15.99672      8.1139 ppb      15.99672 197.15%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†             146.4      3.6456 ug/L      0.16660      3.6456 ppb       0.16660   4.57%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†              -38.5     -47.244 ug/L      21.4927     -47.244 ppb       21.4927  45.49%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†            -817.2     -0.0021 ug/L      3.18456     -0.0021 ppb       3.18456 >999.9%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         49.1     -26.698 ug/L      10.7748     -26.698 ppb       10.7748  40.36%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              54.5      3.4051 ug/L      6.66881      3.4051 ppb       6.66881 195.85%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†            -937.8      25.196 ug/L      26.7838      25.196 ppb       26.7838 106.30%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†             128.8      4.3352 ug/L      0.73581      4.3352 ppb       0.73581  16.97%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†            -425.0     -3.1627 ug/L      4.92134     -3.1627 ppb       4.92134 155.60%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             614.5      0.3680 ug/L      0.06654      0.3680 ppb       0.06654  18.08%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†          -14514.3     -9.0067 ug/L      0.45711     -9.0067 ppb       0.45711   5.08%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†             -73.9     -22.889 ug/L       1.2413     -22.889 ppb        1.2413   5.42%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†             1131.3      11.833 ug/L       5.6743      11.833 ppb        5.6743  47.95%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†             2719.2     -1.0046 ug/L      0.53220     -1.0046 ppb       0.53220  52.98%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†            2774.1      7.8888 ug/L      1.01667      7.8888 ppb       1.01667  12.89%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                   101.2      7.4195 ug/L      1.46525      7.4195 ppb       1.46525  19.75%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 10
Sample ID: ICSAB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 14
Date Collected: 1/11/2010 16:05:30
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSAB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4469.6	4469.6	88.8	%			16:07:27
1	Y RADIAL	4809.0	4809.0	88.57	%			16:07:27
1	Al 396.153Radial†	589484.3	664101.1	512320	ug/L	512320	ppb	16:07:22
1	Ca 317.933Radial†	265752.0	299370.7	479020	ug/L	479020	ppb	16:07:22
1	Fe 238.204 Radial†	19164.5	21581.4	186780	ug/L	186780	ppb	16:07:27
1	K 766.490 Radial†	29032.3	30117.0	5349.0	ug/L	5349.0	ppb	16:07:22
1	Mg 279.077 IEC†	12958.7	14597.1	487520	ug/L	487520	ppb	16:07:27
1	Na 589.592 Radial†	15352.0	18575.7	5561.8	ug/L	5561.8	ppb	16:07:27
1	Sr 421.552†	69848.9	78709.8	504.80	ug/L	504.80	ppb	16:07:22
1	Sc 361.383	733242.9	733242.9	86.021	%			16:07:55
1	Y 371.029	603990.2	603990.2	83.578	%			16:07:55
1	Ag 328.068†	41150.7	47479.9	274.18	ug/L	274.18	ppb	16:07:55
1	As 188.979†	942.0	1118.8	522.69	ug/L	522.69	ppb	16:08:15
1	B 249.677†	20042.0	23930.7	513.29	ug/L	513.29	ppb	16:07:55
1	Ba 233.527†	54223.8	63046.9	500.15	ug/L	500.15	ppb	16:07:55
1	Be 313.107†	552945.6	647387.0	247.79	ug/L	247.79	ppb	16:07:55
1	Cd 226.502†	37791.5	44136.9	470.86	ug/L	470.86	ppb	16:07:55
1	Co 228.616†	18898.2	22043.9	448.66	ug/L	448.66	ppb	16:08:15
1	Cr 267.716†	37112.9	43060.7	485.60	ug/L	485.60	ppb	16:07:55
1	Cu 324.752†	163461.5	183612.5	558.64	ug/L	558.64	ppb	16:07:55
1	Mn 257.610†	377253.8	438114.2	486.61	ug/L	486.61	ppb	16:07:55
1	Mo 202.031†	5893.7	6827.7	501.02	ug/L	501.02	ppb	16:08:15
1	Ni 231.604†	15601.4	18068.8	449.64	ug/L	449.64	ppb	16:08:15
1	P 214.914†	3772.2	4155.3	2402.3	ug/L	2402.3	ppb	16:08:15
1	Pb 220.353†	2538.3	3014.1	469.98	ug/L	469.98	ppb	16:08:15
1	S 181.975 Axial†	1708.1	1942.6	2653.1	ug/L	2653.1	ppb	16:08:15
1	Sb 206.836†	1381.1	1577.6	543.20	ug/L	543.20	ppb	16:08:15
1	Se 196.026†	2597.7	3051.8	2590.6	ug/L	2590.6	ppb	16:08:15
1	Si 251.611†	143466.2	166229.6	5288.2	ug/L	5288.2	ppb	16:07:55
1	Sn 189.927†	2072.9	2402.1	497.21	ug/L	497.21	ppb	16:08:15
1	Ti 334.940†	261822.7	305744.6	506.54	ug/L	506.54	ppb	16:07:55
1	Tl 190.801†	1235.3	1469.0	453.76	ug/L	453.76	ppb	16:08:15
1	U 409.014†	13895.2	18164.8	513.49	ug/L	513.49	ppb	16:07:55
1	V 292.402†	64913.2	76771.6	512.44	ug/L	512.44	ppb	16:07:55
1	Zn 213.857†	48411.3	55658.1	504.70	ug/L	504.70	ppb	16:07:55
1	SiO2†	146220.1	169409.8	11546	ug/L	11546	ppb	16:09:13
2	Sc Radial	4482.5	4482.5	89.0	%			16:07:37
2	Y RADIAL	4833.9	4833.9	89.03	%			16:07:37
2	Al 396.153Radial†	596758.8	670353.8	517150	ug/L	517150	ppb	16:07:32
2	Ca 317.933Radial†	268788.3	301916.4	483100	ug/L	483100	ppb	16:07:32
2	Fe 238.204 Radial†	19305.8	21677.7	187620	ug/L	187620	ppb	16:07:37
2	K 766.490 Radial†	29387.3	30421.3	5403.4	ug/L	5403.4	ppb	16:07:32
2	Mg 279.077 IEC†	13078.8	14689.8	490620	ug/L	490620	ppb	16:07:37
2	Na 589.592 Radial†	15393.1	18571.9	5560.7	ug/L	5560.7	ppb	16:07:37
2	Sr 421.552†	70603.2	79329.8	508.78	ug/L	508.78	ppb	16:07:32
2	Sc 361.383	737995.2	737995.2	86.579	%			16:08:21
2	Y 371.029	608619.5	608619.5	84.218	%			16:08:21
2	Ag 328.068†	41527.3	47606.8	274.98	ug/L	274.98	ppb	16:08:21
2	As 188.979†	945.9	1116.1	521.71	ug/L	521.71	ppb	16:08:41
2	B 249.677†	20299.3	24077.9	516.49	ug/L	516.49	ppb	16:08:21
2	Ba 233.527†	54397.7	62841.8	498.58	ug/L	498.58	ppb	16:08:21
2	Be 313.107†	555552.7	646258.9	247.36	ug/L	247.36	ppb	16:08:21
2	Cd 226.502†	37861.3	43934.5	468.53	ug/L	468.53	ppb	16:08:21
2	Co 228.616†	18993.1	22012.0	447.99	ug/L	447.99	ppb	16:08:41
2	Cr 267.716†	37212.9	42898.3	483.80	ug/L	483.80	ppb	16:08:21
2	Cu 324.752†	164184.5	183223.9	557.53	ug/L	557.53	ppb	16:08:21
2	Mn 257.610†	377987.3	436137.4	484.39	ug/L	484.39	ppb	16:08:21
2	Mo 202.031†	5898.1	6788.7	498.37	ug/L	498.37	ppb	16:08:41
2	Ni 231.604†	15639.9	17996.4	447.84	ug/L	447.84	ppb	16:08:41

2	P 214.914†	3764.0	4117.6	2380.0 ug/L	2380.0 ppb	16:08:41
2	Pb 220.353†	2527.3	2982.4	467.12 ug/L	467.12 ppb	16:08:41
2	S 181.975 Axial†	1734.4	1960.2	2677.1 ug/L	2677.1 ppb	16:08:41
2	Sb 206.836†	1373.1	1558.1	536.24 ug/L	536.24 ppb	16:08:41
2	Se 196.026†	2597.7	3032.4	2581.0 ug/L	2581.0 ppb	16:08:41
2	Si 251.611†	144086.2	165871.8	5276.8 ug/L	5276.8 ppb	16:08:21
2	Sn 189.927†	2066.7	2379.4	493.77 ug/L	493.77 ppb	16:08:41
2	Ti 334.940†	262922.7	305055.0	505.64 ug/L	505.64 ppb	16:08:21
2	Tl 190.801†	1230.9	1454.6	449.33 ug/L	449.33 ppb	16:08:41
2	U 409.014†	13731.9	17872.2	504.76 ug/L	504.76 ppb	16:08:21
2	V 292.402†	65177.6	76591.0	511.08 ug/L	511.08 ppb	16:08:21
2	Zn 213.857†	48545.6	55450.8	502.67 ug/L	502.67 ppb	16:08:21
2	SiO2†	145974.6	168031.6	11452 ug/L	11452 ppb	16:09:18
3	Sc Radial	4634.8	4634.8	92.0 %		16:07:48
3	Y RADIAL	4938.0	4938.0	90.95 %		16:07:48
3	Al 396.153Radial†	592956.6	644189.1	496960 ug/L	496960 ppb	16:07:43
3	Ca 317.933Radial†	267381.8	290463.9	464770 ug/L	464770 ppb	16:07:43
3	Fe 238.204 Radial†	19723.7	21419.0	185380 ug/L	185380 ppb	16:07:48
3	K 766.490 Radial†	29237.8	29173.8	5180.8 ug/L	5180.8 ppb	16:07:43
3	Mg 279.077 IEC†	13294.3	14441.1	482310 ug/L	482310 ppb	16:07:48
3	Na 589.592 Radial†	15764.7	18407.2	5511.3 ug/L	5511.3 ppb	16:07:48
3	Sr 421.552†	70214.2	76300.3	489.35 ug/L	489.35 ppb	16:07:43
3	Sc 361.383	739056.4	739056.4	86.703 %		16:08:47
3	Y 371.029	609358.3	609358.3	84.321 %		16:08:47
3	Ag 328.068†	41608.9	47632.1	274.62 ug/L	274.62 ppb	16:08:47
3	As 188.979†	929.1	1095.3	512.22 ug/L	512.22 ppb	16:09:07
3	B 249.677†	20332.9	24083.0	516.83 ug/L	516.83 ppb	16:08:47
3	Ba 233.527†	54550.3	62927.6	499.17 ug/L	499.17 ppb	16:08:47
3	Be 313.107†	558331.1	648542.1	248.23 ug/L	248.23 ppb	16:08:47
3	Cd 226.502†	38038.4	44076.1	470.33 ug/L	470.33 ppb	16:08:47
3	Co 228.616†	19038.4	22032.7	448.46 ug/L	448.46 ppb	16:09:07
3	Cr 267.716†	37415.7	43070.5	485.69 ug/L	485.69 ppb	16:08:47
3	Cu 324.752†	164933.9	183816.0	559.18 ug/L	559.18 ppb	16:08:47
3	Mn 257.610†	379307.2	437032.8	485.47 ug/L	485.47 ppb	16:08:47
3	Mo 202.031†	5959.2	6849.4	502.29 ug/L	502.29 ppb	16:09:07
3	Ni 231.604†	15702.5	18042.6	448.99 ug/L	448.99 ppb	16:09:07
3	P 214.914†	3787.4	4138.4	2389.1 ug/L	2389.1 ppb	16:09:07
3	Pb 220.353†	2520.7	2970.7	461.27 ug/L	461.27 ppb	16:09:07
3	S 181.975 Axial†	1738.7	1962.3	2683.9 ug/L	2683.9 ppb	16:09:07
3	Sb 206.836†	1379.5	1563.1	538.63 ug/L	538.63 ppb	16:09:07
3	Se 196.026†	2613.4	3046.2	2581.7 ug/L	2581.7 ppb	16:09:07
3	Si 251.611†	144664.3	166299.5	5290.4 ug/L	5290.4 ppb	16:08:47
3	Sn 189.927†	2078.2	2389.2	492.86 ug/L	492.86 ppb	16:09:07
3	Ti 334.940†	263667.7	305478.3	504.93 ug/L	504.93 ppb	16:08:47
3	Tl 190.801†	1247.7	1471.8	454.64 ug/L	454.64 ppb	16:09:07
3	U 409.014†	13855.3	17991.8	508.54 ug/L	508.54 ppb	16:08:47
3	V 292.402†	65506.8	76862.6	513.19 ug/L	513.19 ppb	16:08:47
3	Zn 213.857†	48718.7	55569.9	504.00 ug/L	504.00 ppb	16:08:47
3	SiO2†	143683.8	165147.4	11255 ug/L	11255 ppb	16:09:23

Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	736764.8	86.434	%	0.3632				0.42%
Sc Radial	4529.0	89.9	%	1.83				2.03%
Y 371.029	607322.6	84.039	%	0.4026				0.48%
Y RADIAL	4860.3	89.52	%	1.261				1.41%
Ag 328.068†	47572.9	274.59	ug/L	0.401	274.59	ppb	0.401	0.15%
QC value within limits for Ag 328.068 Recovery = 109.84%								
Al 396.153Radial†	659548.0	508810	ug/L	10541.4	508810	ppb	10541.4	2.07%
QC value within limits for Al 396.153Radial Recovery = 101.76%								
As 188.979†	1110.0	518.87	ug/L	5.780	518.87	ppb	5.780	1.11%
QC value within limits for As 188.979 Recovery = 103.77%								
B 249.677†	24030.5	515.54	ug/L	1.951	515.54	ppb	1.951	0.38%
QC value within limits for B 249.677 Recovery = 103.11%								
Ba 233.527†	62938.7	499.30	ug/L	0.795	499.30	ppb	0.795	0.16%
QC value within limits for Ba 233.527 Recovery = 99.86%								
Be 313.107†	647396.0	247.79	ug/L	0.436	247.79	ppb	0.436	0.18%
QC value within limits for Be 313.107 Recovery = 99.12%								
Ca 317.933Radial†	297250.3	475630	ug/L	9622.1	475630	ppb	9622.1	2.02%

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   QC value within limits for Ca 317.933Radial  Recovery = 95.13%
Cd 226.502†            44049.2      469.91 ug/L         1.224      469.91 ppb          1.224   0.26%
   QC value within limits for Cd 226.502  Recovery = 93.98%
Co 228.616†            22029.6      448.37 ug/L         0.343      448.37 ppb          0.343   0.08%
   QC value within limits for Co 228.616  Recovery = 89.67%
Cr 267.716†            43009.8      485.03 ug/L         1.063      485.03 ppb          1.063   0.22%
   QC value within limits for Cr 267.716  Recovery = 97.01%
Cu 324.752†           183550.8      558.45 ug/L         0.842      558.45 ppb          0.842   0.15%
   QC value within limits for Cu 324.752  Recovery = 111.69%
Fe 238.204 Radial†     21559.4      186590 ug/L        1131.9      186590 ppb         1131.9   0.61%
   QC value within limits for Fe 238.204 Radial  Recovery = 93.30%
K 766.490 Radial†      29904.0      5311.1 ug/L        116.05      5311.1 ppb         116.05   2.19%
   QC value within limits for K 766.490 Radial  Recovery = 106.22%
Mg 279.077 IEC†        14576.0      486820 ug/L        4198.7      486820 ppb         4198.7   0.86%
   QC value within limits for Mg 279.077 IEC  Recovery = 97.36%
Mn 257.610†           437094.8      485.49 ug/L         1.113      485.49 ppb          1.113   0.23%
   QC value within limits for Mn 257.610  Recovery = 97.10%
Mo 202.031†             6821.9      500.56 ug/L         2.000      500.56 ppb          2.000   0.40%
   QC value within limits for Mo 202.031  Recovery = 100.11%
Na 589.592 Radial†     18518.3      5544.6 ug/L         28.80      5544.6 ppb          28.80   0.52%
   QC value within limits for Na 589.592 Radial  Recovery = 110.89%
Ni 231.604†            18035.9      448.83 ug/L         0.913      448.83 ppb          0.913   0.20%
   QC value within limits for Ni 231.604  Recovery = 89.77%
P 214.914†              4137.1      2390.4 ug/L         11.21      2390.4 ppb          11.21   0.47%
   QC value within limits for P 214.914  Recovery = 95.62%
Pb 220.353†             2989.1      466.12 ug/L         4.440      466.12 ppb          4.440   0.95%
   QC value within limits for Pb 220.353  Recovery = 93.22%
S 181.975 Axial†        1955.1      2671.4 ug/L         16.16      2671.4 ppb          16.16   0.61%
   QC value within limits for S 181.975 Axial  Recovery = 106.86%
Sb 206.836†             1566.3      539.36 ug/L         3.534      539.36 ppb          3.534   0.66%
   QC value within limits for Sb 206.836  Recovery = 107.87%
Se 196.026†             3043.4      2584.5 ug/L          5.36      2584.5 ppb           5.36   0.21%
   QC value within limits for Se 196.026  Recovery = 103.38%
Si 251.611†           166133.6      5285.2 ug/L          7.28      5285.2 ppb           7.28   0.14%
   QC value within limits for Si 251.611  Recovery = 105.70%
Sn 189.927†             2390.2      494.61 ug/L         2.289      494.61 ppb          2.289   0.46%
   QC value within limits for Sn 189.927  Recovery = 98.92%
Sr 421.552†            78113.3      500.98 ug/L        10.265      500.98 ppb         10.265   2.05%
   QC value within limits for Sr 421.552  Recovery = 100.20%
Ti 334.940†           305426.0      505.70 ug/L         0.808      505.70 ppb          0.808   0.16%
   QC value within limits for Ti 334.940  Recovery = 101.14%
Tl 190.801†             1465.1      452.58 ug/L         2.842      452.58 ppb          2.842   0.63%
   QC value within limits for Tl 190.801  Recovery = 90.52%
U 409.014†             18009.6      508.93 ug/L         4.374      508.93 ppb          4.374   0.86%
   QC value within limits for U 409.014  Recovery = 101.79%
V 292.402†             76741.8      512.24 ug/L         1.067      512.24 ppb          1.067   0.21%
   QC value within limits for V 292.402  Recovery = 102.45%
Zn 213.857†            55559.6      503.79 ug/L         1.031      503.79 ppb          1.031   0.20%
   QC value within limits for Zn 213.857  Recovery = 100.76%
SiO2†                 167529.6       11418 ug/L         148.4       11418 ppb          148.4   1.30%
   QC value within limits for SiO2  Recovery = 106.76%
All analyte(s) passed QC.
```

Sequence No.: 11
Sample ID: LR1
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 15
Date Collected: 1/11/2010 16:11:34
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4437.1	4437.1	88.1	%			16:13:31
1	Y RADIAL	4779.6	4779.6	88.03	%			16:13:31
1	Al 396.153Radial†	570573.2	647502.8	499540	ug/L	499540	ppb	16:13:26
1	Ca 317.933Radial†	256964.9	291591.1	466570	ug/L	466570	ppb	16:13:26
1	Fe 238.204 Radial†	43538.9	49400.2	427520	ug/L	427520	ppb	16:13:31
1	K 766.490 Radial†	3585.3	1478.6	-161.78	ug/L	-161.78	ppb	16:13:26
1	Mg 279.077 IEC†	12496.5	14179.5	473320	ug/L	473320	ppb	16:13:31
1	Na 589.592 Radial†	1462340.2	1660784.5	497260	ug/L	497260	ppb	16:13:26
1	Sr 421.552†	705.4	820.0	1.8125	ug/L	1.8125	ppb	16:13:31
1	Sc 361.383	717381.5	717381.5	84.160	%			16:13:59
1	Y 371.029	593191.9	593191.9	82.084	%			16:13:59
1	Ag 328.068†	-22544.0	-27144.9	-4.8683	ug/L	-4.8683	ppb	16:13:59
1	As 188.979†	-182.6	-193.3	0.3508	ug/L	0.3508	ppb	16:14:19
1	B 249.677†	1714.1	2668.6	16.167	ug/L	16.167	ppb	16:13:59
1	Ba 233.527†	-1281.5	-1511.3	3.8804	ug/L	3.8804	ppb	16:14:19
1	Be 313.107†	-11195.4	-8717.1	-3.3744	ug/L	-3.3744	ppb	16:13:59
1	Cd 226.502†	3286.5	4109.1	4.3236	ug/L	4.3236	ppb	16:14:19
1	Co 228.616†	204.3	317.5	0.2605	ug/L	0.2605	ppb	16:14:19
1	Cr 267.716†	-58.9	-153.2	0.7866	ug/L	0.7866	ppb	16:14:19
1	Cu 324.752†	1322.8	-4840.4	-0.0414	ug/L	-0.0414	ppb	16:13:59
1	Mn 257.610†	-18590.9	-22534.8	3.3888	ug/L	3.3888	ppb	16:13:59
1	Mo 202.031†	-460.9	-571.3	-5.5879	ug/L	-5.5879	ppb	16:14:19
1	Ni 231.604†	239.7	216.9	5.3963	ug/L	5.3963	ppb	16:14:19
1	P 214.914†	545.7	418.6	38.508	ug/L	38.508	ppb	16:14:19
1	Pb 220.353†	-536.8	-574.5	3.6095	ug/L	3.6095	ppb	16:14:19
1	S 181.975 Axial†	110.4	88.2	31.183	ug/L	31.183	ppb	16:14:19
1	Sb 206.836†	59.5	42.8	-0.8075	ug/L	-0.8075	ppb	16:14:19
1	Se 196.026†	-1922.8	-2252.6	-61.956	ug/L	-61.956	ppb	16:14:19
1	Si 251.611†	-256.1	-854.8	-26.726	ug/L	-26.726	ppb	16:14:19
1	Sn 189.927†	-404.2	-488.0	-12.538	ug/L	-12.538	ppb	16:14:19
1	Ti 334.940†	-13335.9	-14471.3	-15.725	ug/L	-15.725	ppb	16:13:59
1	Tl 190.801†	-102.1	-88.5	-27.535	ug/L	-27.535	ppb	16:14:19
1	U 409.014†	420670.5	501855.4	14756	ug/L	14756	ppb	16:13:59
1	V 292.402†	3161.2	5065.9	6.1761	ug/L	6.1761	ppb	16:14:19
1	Zn 213.857†	5617.3	6054.3	15.776	ug/L	15.776	ppb	16:14:19
1	SiO2†	-255.6	-875.3	-58.627	ug/L	-58.627	ppb	16:15:16
2	Sc Radial	4444.7	4444.7	88.3	%			16:13:42
2	Y RADIAL	4767.1	4767.1	87.80	%			16:13:42
2	Al 396.153Radial†	570446.8	646252.1	498580	ug/L	498580	ppb	16:13:37
2	Ca 317.933Radial†	257026.3	291161.8	465890	ug/L	465890	ppb	16:13:37
2	Fe 238.204 Radial†	43407.6	49166.9	425500	ug/L	425500	ppb	16:13:42
2	K 766.490 Radial†	3497.9	1372.5	-179.48	ug/L	-179.48	ppb	16:13:37
2	Mg 279.077 IEC†	12459.3	14113.1	471100	ug/L	471100	ppb	16:13:42
2	Na 589.592 Radial†	1456824.9	1651697.6	494540	ug/L	494540	ppb	16:13:37
2	Sr 421.552†	676.9	786.3	1.6000	ug/L	1.6000	ppb	16:13:42
2	Sc 361.383	714481.0	714481.0	83.820	%			16:14:25
2	Y 371.029	589648.5	589648.5	81.593	%			16:14:25
2	Ag 328.068†	-22728.5	-27473.7	-7.0546	ug/L	-7.0546	ppb	16:14:25
2	As 188.979†	-198.6	-213.3	-8.7227	ug/L	-8.7227	ppb	16:14:45
2	B 249.677†	1700.9	2661.1	16.205	ug/L	16.205	ppb	16:14:25
2	Ba 233.527†	-1334.4	-1580.5	3.2659	ug/L	3.2659	ppb	16:14:45
2	Be 313.107†	-11238.0	-8821.9	-3.4141	ug/L	-3.4141	ppb	16:14:25
2	Cd 226.502†	3283.9	4121.8	4.6798	ug/L	4.6798	ppb	16:14:45
2	Co 228.616†	210.5	325.8	0.4624	ug/L	0.4624	ppb	16:14:45
2	Cr 267.716†	13.0	-67.7	1.6900	ug/L	1.6900	ppb	16:14:45
2	Cu 324.752†	1337.1	-4817.0	-0.0968	ug/L	-0.0968	ppb	16:14:25
2	Mn 257.610†	-18508.4	-22525.9	3.2638	ug/L	3.2638	ppb	16:14:25
2	Mo 202.031†	-444.3	-553.8	-4.4944	ug/L	-4.4944	ppb	16:14:45
2	Ni 231.604†	242.8	221.7	5.5161	ug/L	5.5161	ppb	16:14:45

2	P 214.914†	534.8	408.1	33.511	ug/L	33.511 ppb	16:14:45
2	Pb 220.353†	-534.5	-574.3	3.6051	ug/L	3.6051 ppb	16:14:45
2	S 181.975 Axial†	118.3	98.1	45.374	ug/L	45.374 ppb	16:14:45
2	Sb 206.836†	36.9	16.1	-9.8346	ug/L	-9.8346 ppb	16:14:45
2	Se 196.026†	-1916.7	-2254.7	-69.767	ug/L	-69.767 ppb	16:14:45
2	Si 251.611†	-296.1	-903.7	-28.300	ug/L	-28.300 ppb	16:14:45
2	Sn 189.927†	-389.6	-472.5	-9.9307	ug/L	-9.9307 ppb	16:14:45
2	Ti 334.940†	-13239.2	-14420.3	-15.554	ug/L	-15.554 ppb	16:14:25
2	Tl 190.801†	-90.9	-75.6	-23.594	ug/L	-23.594 ppb	16:14:45
2	U 409.014†	419923.4	502993.3	14790	ug/L	14790 ppb	16:14:25
2	V 292.402†	3152.1	5070.3	6.5539	ug/L	6.5539 ppb	16:14:45
2	Zn 213.857†	5598.1	6058.5	16.011	ug/L	16.011 ppb	16:14:45
2	SiO2†	-335.2	-971.6	-65.230	ug/L	-65.230 ppb	16:15:21
3	Sc Radial	4407.6	4407.6	87.5	%		16:13:52
3	Y RADIAL	4705.1	4705.1	86.66	%		16:13:52
3	Al 396.153Radial†	570884.8	652181.5	503150	ug/L	503150 ppb	16:13:47
3	Ca 317.933Radial†	256834.6	293388.9	469450	ug/L	469450 ppb	16:13:47
3	Fe 238.204 Radial†	43209.0	49353.2	427110	ug/L	427110 ppb	16:13:52
3	K 766.490 Radial†	3501.2	1409.6	-176.86	ug/L	-176.86 ppb	16:13:47
3	Mg 279.077 IEC†	12409.5	14174.7	473160	ug/L	473160 ppb	16:13:52
3	Na 589.592 Radial†	1460322.3	1669557.9	499890	ug/L	499890 ppb	16:13:47
3	Sr 421.552†	734.4	858.5	2.0393	ug/L	2.0393 ppb	16:13:52
3	Sc 361.383	723948.7	723948.7	84.931	%		16:14:51
3	Y 371.029	598389.1	598389.1	82.803	%		16:14:51
3	Ag 328.068†	-22796.8	-27199.6	-5.3293	ug/L	-5.3293 ppb	16:14:51
3	As 188.979†	-194.3	-205.2	-4.8896	ug/L	-4.8896 ppb	16:15:11
3	B 249.677†	1601.8	2517.9	12.848	ug/L	12.848 ppb	16:14:51
3	Ba 233.527†	-1246.6	-1456.4	4.2918	ug/L	4.2918 ppb	16:15:11
3	Be 313.107†	-11266.6	-8680.3	-3.3605	ug/L	-3.3605 ppb	16:14:51
3	Cd 226.502†	3248.9	4029.4	3.4892	ug/L	3.4892 ppb	16:15:11
3	Co 228.616†	215.4	328.3	0.4945	ug/L	0.4945 ppb	16:15:11
3	Cr 267.716†	-24.2	-111.8	1.2233	ug/L	1.2233 ppb	16:15:11
3	Cu 324.752†	1265.0	-4922.7	-0.3325	ug/L	-0.3325 ppb	16:14:51
3	Mn 257.610†	-19046.2	-22870.4	2.9777	ug/L	2.9777 ppb	16:14:51
3	Mo 202.031†	-438.9	-540.5	-3.3985	ug/L	-3.3985 ppb	16:15:11
3	Ni 231.604†	244.9	220.4	5.4827	ug/L	5.4827 ppb	16:15:11
3	P 214.914†	544.0	410.7	35.003	ug/L	35.003 ppb	16:15:11
3	Pb 220.353†	-504.4	-530.5	9.8610	ug/L	9.8610 ppb	16:15:11
3	S 181.975 Axial†	96.5	70.6	5.6681	ug/L	5.6681 ppb	16:15:11
3	Sb 206.836†	56.2	38.2	-2.3405	ug/L	-2.3405 ppb	16:15:11
3	Se 196.026†	-1905.6	-2211.7	-36.677	ug/L	-36.677 ppb	16:15:11
3	Si 251.611†	-249.7	-844.5	-26.425	ug/L	-26.425 ppb	16:15:11
3	Sn 189.927†	-384.9	-460.9	-7.3345	ug/L	-7.3345 ppb	16:15:11
3	Ti 334.940†	-13496.1	-14516.1	-15.477	ug/L	-15.477 ppb	16:14:51
3	Tl 190.801†	-114.1	-101.5	-31.527	ug/L	-31.527 ppb	16:15:11
3	U 409.014†	425739.2	503289.2	14798	ug/L	14798 ppb	16:14:51
3	V 292.402†	3062.1	4915.1	5.3194	ug/L	5.3194 ppb	16:15:11
3	Zn 213.857†	5542.5	5905.6	14.409	ug/L	14.409 ppb	16:15:11
3	SiO2†	-361.9	-997.7	-67.037	ug/L	-67.037 ppb	16:15:26

Mean Data: LR1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	718603.7	84.304	%	0.5691				0.68%
Sc Radial	4429.8	88.0	%	0.39				0.44%
Y 371.029	593743.2	82.160	%	0.6083				0.74%
Y RADIAL	4750.6	87.50	%	0.735				0.84%
Ag 328.068†	-27272.7	-5.7507	ug/L	1.15246	-5.7507	ppb	1.15246	20.04%
Al 396.153Radial†	648645.5	500420	ug/L	2411.2	500420	ppb	2411.2	0.48%
QC value within limits for Al 396.153Radial Recovery = 100.08%								
As 188.979†	-203.9	-4.4205	ug/L	4.55488	-4.4205	ppb	4.55488	103.04%
B 249.677†	2615.9	15.073	ug/L	1.9270	15.073	ppb	1.9270	12.78%
Ba 233.527†	-1516.1	3.8127	ug/L	0.51630	3.8127	ppb	0.51630	13.54%
Be 313.107†	-8739.8	-3.3830	ug/L	0.02783	-3.3830	ppb	0.02783	0.82%
Ca 317.933Radial†	292047.3	467300	ug/L	1890.6	467300	ppb	1890.6	0.40%
QC value within limits for Ca 317.933Radial Recovery = 93.46%								
Cd 226.502†	4086.8	4.1642	ug/L	0.61107	4.1642	ppb	0.61107	14.67%
Co 228.616†	323.9	0.4058	ug/L	0.12683	0.4058	ppb	0.12683	31.26%
Cr 267.716†	-110.9	1.2333	ug/L	0.45181	1.2333	ppb	0.45181	36.63%
Cu 324.752†	-4860.0	-0.1569	ug/L	0.15457	-0.1569	ppb	0.15457	98.52%

Fe 238.204 Radial†	49306.8	426710	ug/L	1067.6	426710	ppb	1067.6	0.25%
QC value less than the lower limit for Fe 238.204 Radial Recovery = 85.34%								
K 766.490 Radial†	1420.2	-172.71	ug/L	9.554	-172.71	ppb	9.554	5.53%
Mg 279.077 IEC†	14155.8	472520	ug/L	1236.3	472520	ppb	1236.3	0.26%
QC value within limits for Mg 279.077 IEC Recovery = 94.50%								
Mn 257.610†	-22643.7	3.2101	ug/L	0.21071	3.2101	ppb	0.21071	6.56%
Mo 202.031†	-555.2	-4.4936	ug/L	1.09466	-4.4936	ppb	1.09466	24.36%
Na 589.592 Radial†	1660680.0	497230	ug/L	2673.9	497230	ppb	2673.9	0.54%
QC value within limits for Na 589.592 Radial Recovery = 99.45%								
Ni 231.604†	219.6	5.4650	ug/L	0.06185	5.4650	ppb	0.06185	1.13%
P 214.914†	412.5	35.674	ug/L	2.5652	35.674	ppb	2.5652	7.19%
Pb 220.353†	-559.8	5.6918	ug/L	3.61057	5.6918	ppb	3.61057	63.43%
S 181.975 Axial†	85.6	27.408	ug/L	20.1201	27.408	ppb	20.1201	73.41%
Sb 206.836†	32.4	-4.3275	ug/L	4.83044	-4.3275	ppb	4.83044	111.62%
Se 196.026†	-2239.7	-56.133	ug/L	17.2963	-56.133	ppb	17.2963	30.81%
Si 251.611†	-867.7	-27.150	ug/L	1.0073	-27.150	ppb	1.0073	3.71%
Sn 189.927†	-473.8	-9.9342	ug/L	2.60154	-9.9342	ppb	2.60154	26.19%
Sr 421.552†	821.6	1.8172	ug/L	0.21969	1.8172	ppb	0.21969	12.09%
Ti 334.940†	-14469.2	-15.585	ug/L	0.1267	-15.585	ppb	0.1267	0.81%
Tl 190.801†	-88.5	-27.552	ug/L	3.9664	-27.552	ppb	3.9664	14.40%
U 409.014†	502712.6	14781	ug/L	22.4	14781	ppb	22.4	0.15%
QC value within limits for U 409.014 Recovery = 98.54%								
V 292.402†	5017.1	6.0165	ug/L	0.63254	6.0165	ppb	0.63254	10.51%
Zn 213.857†	6006.1	15.399	ug/L	0.8650	15.399	ppb	0.8650	5.62%
SiO2†	-948.2	-63.631	ug/L	4.4273	-63.631	ppb	4.4273	6.96%

QC Failed. Continue with analysis.

Sequence No.: 12
Sample ID: LR2
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 16
Date Collected: 1/11/2010 16:17:37
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR2

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4991.9	4991.9	99.1	%			16:19:35
1	Y RADIAL	5291.5	5291.5	97.46	%			16:19:35
1	Al 396.153Radial†	559.9	565.4	-47.303	ug/L	-47.303	ppb	16:19:35
1	Ca 317.933Radial†	23.2	3.6	5.7610	ug/L	5.7610	ppb	16:19:55
1	Fe 238.204 Radial†	-23.5	-32.6	2.9771	ug/L	2.9771	ppb	16:19:55
1	K 766.490 Radial†	1585008.6	1596183.6	292480	ug/L	292480	ppb	16:19:30
1	Mg 279.077 IEC†	-3.6	-5.5	-79.004	ug/L	-79.004	ppb	16:19:55
1	Na 589.592 Radial†	-332.2	945.4	283.07	ug/L	283.07	ppb	16:19:35
1	Sr 421.552†	1498984.9	1512022.4	9766.0	ug/L	9766.0	ppb	16:19:30
1	Sc 361.383	804787.1	804787.1	94.414	%			16:21:12
1	Y 371.029	663375.9	663375.9	91.795	%			16:21:12
1	Ag 328.068†	-8134.3	-8973.6	-3.5960	ug/L	-3.5960	ppb	16:21:17
1	As 188.979†	22123.2	23455.6	10186	ug/L	10186	ppb	16:21:17
1	B 249.677†	211371.7	224508.2	4977.9	ug/L	4977.9	ppb	16:21:12
1	Ba 233.527†	1722642.5	1824564.7	14266	ug/L	14266	ppb	16:21:12
1	Be 313.107†	7247660.3	7681014.3	2949.2	ug/L	2949.2	ppb	16:21:06
1	Cd 226.502†	828330.1	877537.9	9743.8	ug/L	9743.8	ppb	16:21:12
1	Co 228.616†	438981.9	465026.6	9517.6	ug/L	9517.6	ppb	16:21:17
1	Cr 267.716†	2044395.3	2165257.6	24218	ug/L	24218	ppb	16:21:12
1	Cu 324.752†	6362228.7	6732203.4	20131	ug/L	20131	ppb	16:21:06
1	Mn 257.610†	8086158.8	8564087.8	9494.2	ug/L	9494.2	ppb	16:21:06
1	Mo 202.031†	133209.9	141066.8	9969.9	ug/L	9969.9	ppb	16:21:17
1	Ni 231.604†	368642.8	390383.6	9714.9	ug/L	9714.9	ppb	16:21:17
1	P 214.914†	30105.1	31656.2	15065	ug/L	15065	ppb	16:21:17
1	Pb 220.353†	189546.2	200823.0	24605	ug/L	24605	ppb	16:21:17
1	S 181.975 Axial†	35159.1	37196.1	52639	ug/L	52639	ppb	16:21:17
1	Sb 206.836†	29097.2	30790.6	10918	ug/L	10918	ppb	16:21:17
1	Se 196.026†	15056.3	15979.1	10327	ug/L	10327	ppb	16:21:17
1	Si 251.611†	1437742.2	1522247.9	48358	ug/L	48358	ppb	16:21:12
1	Sn 189.927†	56894.3	60252.5	10675	ug/L	10675	ppb	16:21:17
1	Ti 334.940†	5821832.8	6167624.7	9928.0	ug/L	9928.0	ppb	16:21:06
1	Tl 190.801†	30033.0	31842.5	9829.6	ug/L	9829.6	ppb	16:21:17
1	U 409.014†	-809.1	1154.7	-20.062	ug/L	-20.062	ppb	16:21:17
1	V 292.402†	1394534.0	1478343.7	10220	ug/L	10220	ppb	16:21:12
1	Zn 213.857†	1422944.5	1506505.1	14160	ug/L	14160	ppb	16:21:12
1	SiO2†	1433580.2	1517818.5	103290	ug/L	103290	ppb	16:22:03
2	Sc Radial	4952.1	4952.1	98.3	%			16:20:06
2	Y RADIAL	5240.7	5240.7	96.52	%			16:20:06
2	Al 396.153Radial†	559.5	569.6	-39.470	ug/L	-39.470	ppb	16:20:06
2	Ca 317.933Radial†	29.7	10.4	16.707	ug/L	16.707	ppb	16:20:26
2	Fe 238.204 Radial†	-20.8	-30.1	22.078	ug/L	22.078	ppb	16:20:26
2	K 766.490 Radial†	1571896.7	1595728.8	292400	ug/L	292400	ppb	16:20:01
2	Mg 279.077 IEC†	-5.7	-7.7	-154.53	ug/L	-154.53	ppb	16:20:26
2	Na 589.592 Radial†	-419.6	853.8	255.63	ug/L	255.63	ppb	16:20:06
2	Sr 421.552†	1477909.3	1502771.2	9706.3	ug/L	9706.3	ppb	16:20:01
2	Sc 361.383	809144.9	809144.9	94.926	%			16:21:32
2	Y 371.029	667135.6	667135.6	92.316	%			16:21:32
2	Ag 328.068†	-8079.8	-8869.7	-3.1377	ug/L	-3.1377	ppb	16:21:37
2	As 188.979†	22074.5	23278.1	10109	ug/L	10109	ppb	16:21:37
2	B 249.677†	212628.4	224626.4	4980.8	ug/L	4980.8	ppb	16:21:32
2	Ba 233.527†	1730278.2	1822782.3	14252	ug/L	14252	ppb	16:21:32
2	Be 313.107†	7131078.4	7516858.6	2886.2	ug/L	2886.2	ppb	16:21:26
2	Cd 226.502†	830186.7	874768.8	9713.0	ug/L	9713.0	ppb	16:21:32
2	Co 228.616†	437441.8	460900.1	9433.4	ug/L	9433.4	ppb	16:21:37
2	Cr 267.716†	2051622.2	2161209.3	24173	ug/L	24173	ppb	16:21:32
2	Cu 324.752†	6253182.6	6581036.8	19679	ug/L	19679	ppb	16:21:26
2	Mn 257.610†	7968353.2	8393859.9	9305.5	ug/L	9305.5	ppb	16:21:26
2	Mo 202.031†	132663.8	139731.7	9875.5	ug/L	9875.5	ppb	16:21:37
2	Ni 231.604†	366974.4	386523.2	9618.8	ug/L	9618.8	ppb	16:21:37

2	P 214.914†	29796.6	31159.5	14858	ug/L	14858	ppb	16:21:37
2	Pb 220.353†	188596.1	198740.9	24350	ug/L	24350	ppb	16:21:37
2	S 181.975 Axial†	34924.4	36748.3	52005	ug/L	52005	ppb	16:21:37
2	Sb 206.836†	28910.9	30428.4	10791	ug/L	10791	ppb	16:21:37
2	Se 196.026†	14969.6	15801.8	10213	ug/L	10213	ppb	16:21:37
2	Si 251.611†	1445521.3	1522241.7	48359	ug/L	48359	ppb	16:21:32
2	Sn 189.927†	56563.6	59579.6	10555	ug/L	10555	ppb	16:21:37
2	Ti 334.940†	5736371.6	6044386.2	9729.5	ug/L	9729.5	ppb	16:21:26
2	Tl 190.801†	29934.8	31567.9	9743.4	ug/L	9743.4	ppb	16:21:37
2	U 409.014†	-856.1	1109.8	-21.289	ug/L	-21.289	ppb	16:21:37
2	V 292.402†	1401052.3	1477255.8	10212	ug/L	10212	ppb	16:21:32
2	Zn 213.857†	1427087.7	1502753.0	14125	ug/L	14125	ppb	16:21:32
2	SiO2†	1423108.9	1498610.0	101980	ug/L	101980	ppb	16:22:09
3	Sc Radial	5028.1	5028.1	99.9	%			16:20:36
3	Y RADIAL	5309.4	5309.4	97.79	%			16:20:36
3	Al 396.153Radial†	563.8	565.3	-41.381	ug/L	-41.381	ppb	16:20:36
3	Ca 317.933Radial†	25.5	5.8	9.2464	ug/L	9.2464	ppb	16:20:56
3	Fe 238.204 Radial†	-19.9	-28.8	32.277	ug/L	32.277	ppb	16:20:56
3	K 766.490 Radial†	1561237.2	1560882.2	286010	ug/L	286010	ppb	16:20:31
3	Mg 279.077 IEC†	-6.7	-8.7	-186.07	ug/L	-186.07	ppb	16:20:56
3	Na 589.592 Radial†	-439.1	840.7	251.71	ug/L	251.71	ppb	16:20:36
3	Sr 421.552†	1470891.5	1473016.8	9514.1	ug/L	9514.1	ppb	16:20:31
3	Sc 361.383	806505.5	806505.5	94.616	%			16:21:52
3	Y 371.029	665096.9	665096.9	92.034	%			16:21:52
3	Ag 328.068†	-8025.0	-8839.6	-2.9981	ug/L	-2.9981	ppb	16:21:57
3	As 188.979†	21983.3	23257.8	10101	ug/L	10101	ppb	16:21:57
3	B 249.677†	211338.3	223995.9	4966.8	ug/L	4966.8	ppb	16:21:52
3	Ba 233.527†	1725269.5	1823453.8	14257	ug/L	14257	ppb	16:21:52
3	Be 313.107†	7253487.4	7670817.6	2945.4	ug/L	2945.4	ppb	16:21:45
3	Cd 226.502†	827943.0	875259.5	9718.4	ug/L	9718.4	ppb	16:21:52
3	Co 228.616†	435486.3	460341.5	9421.4	ug/L	9421.4	ppb	16:21:57
3	Cr 267.716†	2045813.6	2162143.1	24183	ug/L	24183	ppb	16:21:52
3	Cu 324.752†	6387520.1	6744576.6	20168	ug/L	20168	ppb	16:21:45
3	Mn 257.610†	8097220.6	8557531.4	9486.9	ug/L	9486.9	ppb	16:21:45
3	Mo 202.031†	131837.6	139315.9	9846.1	ug/L	9846.1	ppb	16:21:57
3	Ni 231.604†	364839.7	385532.2	9594.1	ug/L	9594.1	ppb	16:21:57
3	P 214.914†	29558.0	31010.1	14660	ug/L	14660	ppb	16:21:57
3	Pb 220.353†	187687.5	198430.8	24312	ug/L	24312	ppb	16:21:57
3	S 181.975 Axial†	34653.1	36582.0	51770	ug/L	51770	ppb	16:21:57
3	Sb 206.836†	28792.3	30402.7	10781	ug/L	10781	ppb	16:21:57
3	Se 196.026†	14875.5	15754.0	10182	ug/L	10182	ppb	16:21:57
3	Si 251.611†	1439625.9	1520994.4	48320	ug/L	48320	ppb	16:21:52
3	Sn 189.927†	56292.5	59488.0	10539	ug/L	10539	ppb	16:21:57
3	Ti 334.940†	5842211.5	6176025.1	9941.6	ug/L	9941.6	ppb	16:21:45
3	Tl 190.801†	29753.9	31479.9	9718.8	ug/L	9718.8	ppb	16:21:57
3	U 409.014†	-809.0	1156.5	-19.934	ug/L	-19.934	ppb	16:21:57
3	V 292.402†	1396430.5	1477201.2	10211	ug/L	10211	ppb	16:21:52
3	Zn 213.857†	1423384.7	1503759.2	14134	ug/L	14134	ppb	16:21:52
3	SiO2†	1392777.2	1471458.7	100130	ug/L	100130	ppb	16:22:15

Mean Data: LR2

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	806812.5	94.652	%	0.2575				0.27%
Sc Radial	4990.7	99.1	%	0.76				0.76%
Y 371.029	665202.8	92.048	%	0.2604				0.28%
Y RADIAL	5280.5	97.26	%	0.656				0.67%
Ag 328.068†	-8894.3	-3.2439	ug/L	0.31278	-3.2439	ppb	0.31278	9.64%
Al 396.153Radial†	566.8	-42.718	ug/L	4.0836	-42.718	ppb	4.0836	9.56%
As 188.979†	23330.5	10132	ug/L	47.2	10132	ppb	47.2	0.47%
QC value within limits for As 188.979 Recovery = 101.32%								
B 249.677†	224376.8	4975.2	ug/L	7.41	4975.2	ppb	7.41	0.15%
QC value within limits for B 249.677 Recovery = 99.50%								
Ba 233.527†	1823600.3	14258	ug/L	7.0	14258	ppb	7.0	0.05%
QC value within limits for Ba 233.527 Recovery = 95.06%								
Be 313.107†	7622896.8	2927.0	ug/L	35.31	2927.0	ppb	35.31	1.21%
QC value within limits for Be 313.107 Recovery = 97.57%								
Ca 317.933Radial†	6.6	10.572	ug/L	5.5922	10.572	ppb	5.5922	52.90%
Cd 226.502†	875855.4	9725.0	ug/L	16.44	9725.0	ppb	16.44	0.17%
QC value within limits for Cd 226.502 Recovery = 97.25%								

Co 228.616†	462089.4	9457.5 ug/L	52.44	9457.5 ppb	52.44	0.55%
QC value within limits for Co 228.616 Recovery = 94.57%						
Cr 267.716†	2162870.0	24191 ug/L	23.7	24191 ppb	23.7	0.10%
QC value within limits for Cr 267.716 Recovery = 96.77%						
Cu 324.752†	6685938.9	19993 ug/L	272.3	19993 ppb	272.3	1.36%
QC value within limits for Cu 324.752 Recovery = 99.96%						
Fe 238.204 Radial†	-30.5	19.111 ug/L	14.8738	19.111 ppb	14.8738	77.83%
K 766.490 Radial†	1584264.9	290300 ug/L	3713.4	290300 ppb	3713.4	1.28%
QC value within limits for K 766.490 Radial Recovery = 96.77%						
Mg 279.077 IEC†	-7.3	-139.87 ug/L	55.018	-139.87 ppb	55.018	39.34%
Mn 257.610†	8505159.7	9428.9 ug/L	106.92	9428.9 ppb	106.92	1.13%
QC value within limits for Mn 257.610 Recovery = 94.29%						
Mo 202.031†	140038.1	9897.2 ug/L	64.65	9897.2 ppb	64.65	0.65%
QC value within limits for Mo 202.031 Recovery = 98.97%						
Na 589.592 Radial†	880.0	263.47 ug/L	17.085	263.47 ppb	17.085	6.48%
Ni 231.604†	387479.7	9642.6 ug/L	63.79	9642.6 ppb	63.79	0.66%
QC value within limits for Ni 231.604 Recovery = 96.43%						
P 214.914†	31275.3	14861 ug/L	202.2	14861 ppb	202.2	1.36%
QC value within limits for P 214.914 Recovery = 99.07%						
Pb 220.353†	199331.6	24422 ug/L	159.4	24422 ppb	159.4	0.65%
QC value within limits for Pb 220.353 Recovery = 97.69%						
S 181.975 Axial†	36842.1	52138 ug/L	449.5	52138 ppb	449.5	0.86%
QC value within limits for S 181.975 Axial Recovery = 104.28%						
Sb 206.836†	30540.6	10830 ug/L	76.7	10830 ppb	76.7	0.71%
QC value within limits for Sb 206.836 Recovery = 108.30%						
Se 196.026†	15844.9	10241 ug/L	76.6	10241 ppb	76.6	0.75%
QC value within limits for Se 196.026 Recovery = 102.41%						
Si 251.611†	1521828.0	48346 ug/L	22.5	48346 ppb	22.5	0.05%
QC value within limits for Si 251.611 Recovery = 96.69%						
Sn 189.927†	59773.4	10590 ug/L	74.0	10590 ppb	74.0	0.70%
QC value within limits for Sn 189.927 Recovery = 105.90%						
Sr 421.552†	1495936.8	9662.1 ug/L	131.64	9662.1 ppb	131.64	1.36%
QC value within limits for Sr 421.552 Recovery = 96.62%						
Ti 334.940†	6129345.3	9866.4 ug/L	118.73	9866.4 ppb	118.73	1.20%
QC value within limits for Ti 334.940 Recovery = 98.66%						
Tl 190.801†	31630.1	9764.0 ug/L	58.21	9764.0 ppb	58.21	0.60%
QC value within limits for Tl 190.801 Recovery = 97.64%						
U 409.014†	1140.3	-20.429 ug/L	0.7484	-20.429 ppb	0.7484	3.66%
V 292.402†	1477600.2	10214 ug/L	5.3	10214 ppb	5.3	0.05%
QC value within limits for V 292.402 Recovery = 102.14%						
Zn 213.857†	1504339.1	14140 ug/L	17.8	14140 ppb	17.8	0.13%
QC value within limits for Zn 213.857 Recovery = 94.27%						
SiO2†	1495962.4	101800 ug/L	1587.7	101800 ppb	1587.7	1.56%
QC value within limits for SiO2 Recovery = 95.14%						

All analyte(s) passed QC.

Sequence No.: 13
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 1/11/2010 16:24:25
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4845.6	4845.6	96.2	%			16:26:17
1	Y RADIAL	5193.6	5193.6	95.66	%			16:26:17
1	Al 396.153Radial†	6165.4	6407.5	4918.6	ug/L	4918.6	ppb	16:26:17
1	Ca 317.933Radial†	3100.6	3202.2	5123.9	ug/L	5123.9	ppb	16:26:37
1	Fe 238.204 Radial†	590.6	604.9	5249.7	ug/L	5249.7	ppb	16:26:37
1	K 766.490 Radial†	30409.6	29010.2	5301.3	ug/L	5301.3	ppb	16:26:17
1	Mg 279.077 IEC†	154.9	159.1	5315.7	ug/L	5315.7	ppb	16:26:37
1	Na 589.592 Radial†	32452.7	35003.8	10481	ug/L	10481	ppb	16:26:17
1	Sr 421.552†	74696.1	77640.3	501.43	ug/L	501.43	ppb	16:26:17
1	Sc 361.383	847993.6	847993.6	99.483	%			16:27:34
1	Y 371.029	707266.0	707266.0	97.869	%			16:27:34
1	Ag 328.068†	110454.8	110670.5	512.81	ug/L	512.81	ppb	16:27:39
1	As 188.979†	1203.5	1233.4	536.61	ug/L	536.61	ppb	16:27:59
1	B 249.677†	22887.1	23637.9	524.99	ug/L	524.99	ppb	16:27:39
1	Ba 233.527†	64157.9	64502.5	504.85	ug/L	504.85	ppb	16:27:39
1	Be 313.107†	1328475.5	1339960.8	511.70	ug/L	511.70	ppb	16:27:34
1	Cd 226.502†	45264.0	45703.2	507.02	ug/L	507.02	ppb	16:27:39
1	Co 228.616†	24528.7	24730.8	506.32	ug/L	506.32	ppb	16:27:39
1	Cr 267.716†	45211.9	45363.5	507.79	ug/L	507.79	ppb	16:27:39
1	Cu 324.752†	172347.3	166830.3	498.86	ug/L	498.86	ppb	16:27:39
1	Mn 257.610†	456024.6	457948.2	508.05	ug/L	508.05	ppb	16:27:34
1	Mo 202.031†	7195.0	7208.7	509.89	ug/L	509.89	ppb	16:27:59
1	Ni 231.604†	20385.6	20423.5	508.24	ug/L	508.24	ppb	16:27:39
1	P 214.914†	4304.6	4097.1	2398.2	ug/L	2398.2	ppb	16:27:59
1	Pb 220.353†	4045.2	4129.6	507.32	ug/L	507.32	ppb	16:27:59
1	S 181.975 Axial†	762.6	723.6	1023.1	ug/L	1023.1	ppb	16:27:59
1	Sb 206.836†	1541.9	1521.9	539.64	ug/L	539.64	ppb	16:27:59
1	Se 196.026†	743.6	779.5	520.86	ug/L	520.86	ppb	16:27:59
1	Si 251.611†	80888.8	80758.5	2565.8	ug/L	2565.8	ppb	16:27:39
1	Sn 189.927†	2878.7	2886.0	512.12	ug/L	512.12	ppb	16:27:59
1	Ti 334.940†	306785.6	309753.5	498.79	ug/L	498.79	ppb	16:27:39
1	Tl 190.801†	1616.3	1657.5	511.60	ug/L	511.60	ppb	16:27:59
1	U 409.014†	15342.7	17434.0	512.57	ug/L	512.57	ppb	16:27:39
1	V 292.402†	72166.7	73851.2	511.26	ug/L	511.26	ppb	16:27:39
1	Zn 213.857†	54020.2	53680.6	503.30	ug/L	503.30	ppb	16:27:39
1	SiO2†	80682.3	80529.6	5480.8	ug/L	5480.8	ppb	16:29:07
2	Sc Radial	4995.5	4995.5	99.2	%			16:26:42
2	Y RADIAL	5295.4	5295.4	97.53	%			16:26:42
2	Al 396.153Radial†	6349.7	6400.9	4913.2	ug/L	4913.2	ppb	16:26:42
2	Ca 317.933Radial†	3100.9	3105.8	4969.5	ug/L	4969.5	ppb	16:27:02
2	Fe 238.204 Radial†	587.8	583.6	5066.1	ug/L	5066.1	ppb	16:27:02
2	K 766.490 Radial†	30840.1	28495.6	5207.0	ug/L	5207.0	ppb	16:26:42
2	Mg 279.077 IEC†	155.1	154.5	5161.0	ug/L	5161.0	ppb	16:27:02
2	Na 589.592 Radial†	33113.8	34658.0	10377	ug/L	10377	ppb	16:26:42
2	Sr 421.552†	76746.9	77377.8	499.74	ug/L	499.74	ppb	16:26:42
2	Sc 361.383	840766.4	840766.4	98.635	%			16:28:05
2	Y 371.029	701355.4	701355.4	97.051	%			16:28:05
2	Ag 328.068†	111103.1	112282.2	520.19	ug/L	520.19	ppb	16:28:10
2	As 188.979†	1187.9	1227.9	534.21	ug/L	534.21	ppb	16:28:30
2	B 249.677†	23113.9	24065.6	534.52	ug/L	534.52	ppb	16:28:10
2	Ba 233.527†	64650.7	65556.6	513.08	ug/L	513.08	ppb	16:28:10
2	Be 313.107†	1314415.4	1337185.2	510.66	ug/L	510.66	ppb	16:28:05
2	Cd 226.502†	45475.1	46308.4	513.77	ug/L	513.77	ppb	16:28:10
2	Co 228.616†	24763.0	25180.3	515.52	ug/L	515.52	ppb	16:28:10
2	Cr 267.716†	45371.7	45916.1	513.96	ug/L	513.96	ppb	16:28:10
2	Cu 324.752†	173614.1	169603.8	507.14	ug/L	507.14	ppb	16:28:10
2	Mn 257.610†	451698.8	457503.0	507.54	ug/L	507.54	ppb	16:28:05
2	Mo 202.031†	7217.1	7293.2	515.85	ug/L	515.85	ppb	16:28:30
2	Ni 231.604†	20534.4	20750.6	516.38	ug/L	516.38	ppb	16:28:10

2	P 214.914†	4326.1	4156.0	2432.6 ug/L	2432.6 ppb	16:28:30
2	Pb 220.353†	4093.9	4213.9	517.67 ug/L	517.67 ppb	16:28:30
2	S 181.975 Axial†	770.8	738.5	1044.2 ug/L	1044.2 ppb	16:28:30
2	Sb 206.836†	1548.8	1542.3	546.88 ug/L	546.88 ppb	16:28:30
2	Se 196.026†	752.4	794.8	530.15 ug/L	530.15 ppb	16:28:30
2	Si 251.611†	81405.9	81981.6	2604.6 ug/L	2604.6 ppb	16:28:10
2	Sn 189.927†	2906.1	2938.6	521.41 ug/L	521.41 ppb	16:28:30
2	Ti 334.940†	309064.2	314714.5	506.77 ug/L	506.77 ppb	16:28:10
2	Tl 190.801†	1613.7	1668.9	515.09 ug/L	515.09 ppb	16:28:30
2	U 409.014†	15570.1	17797.1	523.28 ug/L	523.28 ppb	16:28:10
2	V 292.402†	72422.8	74734.4	517.41 ug/L	517.41 ppb	16:28:10
2	Zn 213.857†	54316.6	54447.8	510.51 ug/L	510.51 ppb	16:28:10
2	SiO2†	80842.8	81389.6	5539.3 ug/L	5539.3 ppb	16:29:12
3	Sc Radial	4867.2	4867.2	96.7 %		16:27:07
3	Y RADIAL	5186.1	5186.1	95.52 %		16:27:07
3	Al 396.153Radial†	6211.2	6426.4	4932.9 ug/L	4932.9 ppb	16:27:07
3	Ca 317.933Radial†	3097.6	3184.8	5096.0 ug/L	5096.0 ppb	16:27:27
3	Fe 238.204 Radial†	598.7	610.5	5298.4 ug/L	5298.4 ppb	16:27:27
3	K 766.490 Radial†	30160.6	28611.9	5228.3 ug/L	5228.3 ppb	16:27:07
3	Mg 279.077 IEC†	154.4	157.9	5274.8 ug/L	5274.8 ppb	16:27:27
3	Na 589.592 Radial†	32127.1	34516.9	10335 ug/L	10335 ppb	16:27:07
3	Sr 421.552†	74900.1	77506.1	500.57 ug/L	500.57 ppb	16:27:07
3	Sc 361.383	837940.2	837940.2	98.304 %		16:28:36
3	Y 371.029	699451.1	699451.1	96.787 %		16:28:36
3	Ag 328.068†	110448.3	111996.0	518.94 ug/L	518.94 ppb	16:28:41
3	As 188.979†	1184.4	1228.4	534.49 ug/L	534.49 ppb	16:29:01
3	B 249.677†	22973.9	24002.1	533.09 ug/L	533.09 ppb	16:28:41
3	Ba 233.527†	64324.5	65445.8	512.22 ug/L	512.22 ppb	16:28:41
3	Be 313.107†	1306491.0	1333618.5	509.30 ug/L	509.30 ppb	16:28:36
3	Cd 226.502†	45097.9	46080.1	511.21 ug/L	511.21 ppb	16:28:41
3	Co 228.616†	24563.8	25062.3	513.10 ug/L	513.10 ppb	16:28:41
3	Cr 267.716†	45147.3	45843.0	513.15 ug/L	513.15 ppb	16:28:41
3	Cu 324.752†	172911.7	169482.9	506.79 ug/L	506.79 ppb	16:28:41
3	Mn 257.610†	449517.1	456828.2	506.82 ug/L	506.82 ppb	16:28:36
3	Mo 202.031†	7164.5	7264.4	513.83 ug/L	513.83 ppb	16:29:01
3	Ni 231.604†	20294.3	20576.4	512.05 ug/L	512.05 ppb	16:28:41
3	P 214.914†	4263.9	4107.6	2402.8 ug/L	2402.8 ppb	16:29:01
3	Pb 220.353†	4036.0	4169.0	512.15 ug/L	512.15 ppb	16:29:01
3	S 181.975 Axial†	751.6	721.5	1020.2 ug/L	1020.2 ppb	16:29:01
3	Sb 206.836†	1536.8	1535.4	544.40 ug/L	544.40 ppb	16:29:01
3	Se 196.026†	749.9	794.8	530.91 ug/L	530.91 ppb	16:29:01
3	Si 251.611†	80849.5	81694.0	2595.5 ug/L	2595.5 ppb	16:28:41
3	Sn 189.927†	2867.3	2909.1	516.20 ug/L	516.20 ppb	16:29:01
3	Ti 334.940†	307295.1	313971.7	505.58 ug/L	505.58 ppb	16:28:41
3	Tl 190.801†	1599.9	1660.3	512.46 ug/L	512.46 ppb	16:29:01
3	U 409.014†	15506.0	17785.2	522.91 ug/L	522.91 ppb	16:28:41
3	V 292.402†	72025.9	74578.3	516.29 ug/L	516.29 ppb	16:28:41
3	Zn 213.857†	53817.0	54125.4	507.46 ug/L	507.46 ppb	16:28:41
3	SiO2†	81333.2	82164.9	5592.3 ug/L	5592.3 ppb	16:29:17

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	842233.4	98.808	%	0.6083				0.62%
Sc Radial	4902.8	97.4	%	1.61				1.65%
Y 371.029	702690.8	97.236	%	0.5639				0.58%
Y RADIAL	5225.0	96.24	%	1.125				1.17%
Ag 328.068†	111649.6	517.31	ug/L	3.950	517.31	ppb	3.950	0.76%
QC value within limits for Ag 328.068 Recovery = 103.46%								
Al 396.153Radial†	6411.6	4921.6	ug/L	10.20	4921.6	ppb	10.20	0.21%
QC value within limits for Al 396.153Radial Recovery = 98.43%								
As 188.979†	1229.9	535.11	ug/L	1.313	535.11	ppb	1.313	0.25%
QC value within limits for As 188.979 Recovery = 107.02%								
B 249.677†	23901.8	530.87	ug/L	5.138	530.87	ppb	5.138	0.97%
QC value within limits for B 249.677 Recovery = 106.17%								
Ba 233.527†	65168.3	510.05	ug/L	4.527	510.05	ppb	4.527	0.89%
QC value within limits for Ba 233.527 Recovery = 102.01%								
Be 313.107†	1336921.5	510.55	ug/L	1.204	510.55	ppb	1.204	0.24%
QC value within limits for Be 313.107 Recovery = 102.11%								
Ca 317.933Radial†	3164.3	5063.1	ug/L	82.24	5063.1	ppb	82.24	1.62%

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   QC value within limits for Ca 317.933Radial  Recovery = 101.26%
Cd 226.502†            46030.6      510.67 ug/L         3.403      510.67 ppb          3.403   0.67%
   QC value within limits for Cd 226.502  Recovery = 102.13%
Co 228.616†            24991.1      511.64 ug/L         4.770      511.64 ppb          4.770   0.93%
   QC value within limits for Co 228.616  Recovery = 102.33%
Cr 267.716†            45707.5      511.63 ug/L         3.357      511.63 ppb          3.357   0.66%
   QC value within limits for Cr 267.716  Recovery = 102.33%
Cu 324.752†           168639.0      504.26 ug/L         4.682      504.26 ppb          4.682   0.93%
   QC value within limits for Cu 324.752  Recovery = 100.85%
Fe 238.204 Radial†       599.6      5204.7 ug/L        122.48      5204.7 ppb        122.48   2.35%
   QC value within limits for Fe 238.204 Radial  Recovery = 104.09%
K 766.490 Radial†      28705.9      5245.5 ug/L         49.45      5245.5 ppb         49.45   0.94%
   QC value within limits for K 766.490 Radial  Recovery = 104.91%
Mg 279.077 IEC†          157.1      5250.5 ug/L         80.16      5250.5 ppb         80.16   1.53%
   QC value within limits for Mg 279.077 IEC  Recovery = 105.01%
Mn 257.610†           457426.5      507.47 ug/L         0.621      507.47 ppb         0.621   0.12%
   QC value within limits for Mn 257.610  Recovery = 101.49%
Mo 202.031†             7255.4      513.19 ug/L         3.030      513.19 ppb         3.030   0.59%
   QC value within limits for Mo 202.031  Recovery = 102.64%
Na 589.592 Radial†     34726.2       10397 ug/L          75.0       10397 ppb          75.0   0.72%
   QC value within limits for Na 589.592 Radial  Recovery = 103.97%
Ni 231.604†            20583.5      512.22 ug/L         4.072      512.22 ppb         4.072   0.79%
   QC value within limits for Ni 231.604  Recovery = 102.44%
P 214.914†              4120.3      2411.2 ug/L         18.68      2411.2 ppb         18.68   0.77%
   QC value within limits for P 214.914  Recovery = 96.45%
Pb 220.353†             4170.8      512.38 ug/L         5.177      512.38 ppb         5.177   1.01%
   QC value within limits for Pb 220.353  Recovery = 102.48%
S 181.975 Axial†         727.9      1029.1 ug/L         13.10      1029.1 ppb         13.10   1.27%
   QC value within limits for S 181.975 Axial  Recovery = 102.91%
Sb 206.836†             1533.2      543.64 ug/L         3.678      543.64 ppb         3.678   0.68%
   QC value within limits for Sb 206.836  Recovery = 108.73%
Se 196.026†              789.7      527.31 ug/L         5.594      527.31 ppb         5.594   1.06%
   QC value within limits for Se 196.026  Recovery = 105.46%
Si 251.611†            81478.0      2588.6 ug/L         20.33      2588.6 ppb         20.33   0.79%
   QC value within limits for Si 251.611  Recovery = 103.55%
Sn 189.927†             2911.2      516.58 ug/L         4.655      516.58 ppb         4.655   0.90%
   QC value within limits for Sn 189.927  Recovery = 103.32%
Sr 421.552†            77508.0      500.58 ug/L         0.847      500.58 ppb         0.847   0.17%
   QC value within limits for Sr 421.552  Recovery = 100.12%
Ti 334.940†           312813.2      503.71 ug/L         4.305      503.71 ppb         4.305   0.85%
   QC value within limits for Ti 334.940  Recovery = 100.74%
Tl 190.801†             1662.2      513.05 ug/L         1.814      513.05 ppb         1.814   0.35%
   QC value within limits for Tl 190.801  Recovery = 102.61%
U 409.014†             17672.1      519.59 ug/L         6.082      519.59 ppb         6.082   1.17%
   QC value within limits for U 409.014  Recovery = 103.92%
V 292.402†             74388.0      514.99 ug/L         3.275      514.99 ppb         3.275   0.64%
   QC value within limits for V 292.402  Recovery = 103.00%
Zn 213.857†            54084.6      507.09 ug/L         3.620      507.09 ppb         3.620   0.71%
   QC value within limits for Zn 213.857  Recovery = 101.42%
SiO2†                  81361.4      5537.4 ug/L         55.76      5537.4 ppb         55.76   1.01%
   QC value within limits for SiO2  Recovery = 103.55%
All analyte(s) passed QC.
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Sequence No.: 14
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 1/11/2010 16:31:27
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4938.2	4938.2	98.1	%			16:33:19
1	Y RADIAL	5358.4	5358.4	98.69	%			16:33:19
1	Al 396.153Radial†	-7.9	-7.4	-5.7335	ug/L	-5.7335	ppb	16:33:19
1	Ca 317.933Radial†	10.0	-9.6	-15.283	ug/L	-15.283	ppb	16:33:39
1	Fe 238.204 Radial†	9.0	0.3	2.1671	ug/L	2.1671	ppb	16:33:39
1	K 766.490 Radial†	3304.7	779.5	142.91	ug/L	142.91	ppb	16:33:19
1	Mg 279.077 IEC†	1.5	-0.4	-13.724	ug/L	-13.724	ppb	16:33:39
1	Na 589.592 Radial†	-1067.3	192.1	57.530	ug/L	57.530	ppb	16:33:19
1	Sr 421.552†	12.7	32.4	0.2097	ug/L	0.2097	ppb	16:33:19
1	Sc 361.383	830550.2	830550.2	97.437	%			16:34:36
1	Y 371.029	705478.2	705478.2	97.621	%			16:34:36
1	Ag 328.068†	391.2	43.5	0.2013	ug/L	0.2013	ppb	16:34:36
1	As 188.979†	3.6	27.3	11.834	ug/L	11.834	ppb	16:34:56
1	B 249.677†	142.2	777.8	17.341	ug/L	17.341	ppb	16:34:56
1	Ba 233.527†	-10.2	0.9	0.0055	ug/L	0.0055	ppb	16:34:56
1	Be 313.107†	-4533.5	-67.4	-0.0260	ug/L	-0.0260	ppb	16:34:36
1	Cd 226.502†	-171.4	28.2	0.3122	ug/L	0.3122	ppb	16:34:56
1	Co 228.616†	-91.6	-19.3	-0.3939	ug/L	-0.3939	ppb	16:34:56
1	Cr 267.716†	79.4	-1.8	-0.0200	ug/L	-0.0200	ppb	16:34:56
1	Cu 324.752†	6362.6	117.8	0.3542	ug/L	0.3542	ppb	16:34:36
1	Mn 257.610†	432.1	-1.4	-0.0007	ug/L	-0.0007	ppb	16:34:56
1	Mo 202.031†	28.8	5.8	0.4111	ug/L	0.4111	ppb	16:34:56
1	Ni 231.604†	68.4	2.3	0.0570	ug/L	0.0570	ppb	16:34:56
1	P 214.914†	221.9	-2.1	-1.3602	ug/L	-1.3602	ppb	16:34:56
1	Pb 220.353†	-25.0	37.7	4.6186	ug/L	4.6186	ppb	16:34:56
1	S 181.975 Axial†	43.3	1.4	1.9669	ug/L	1.9669	ppb	16:34:56
1	Sb 206.836†	63.9	37.6	12.917	ug/L	12.917	ppb	16:34:56
1	Se 196.026†	-34.5	-3.4	-2.2073	ug/L	-2.2073	ppb	16:34:56
1	Si 251.611†	585.6	50.5	1.6034	ug/L	1.6034	ppb	16:34:56
1	Sn 189.927†	8.8	1.3	0.2337	ug/L	0.2337	ppb	16:34:56
1	Ti 334.940†	-1415.5	-78.3	-0.1252	ug/L	-0.1252	ppb	16:34:36
1	Tl 190.801†	-35.1	-3.1	-0.9555	ug/L	-0.9555	ppb	16:34:56
1	U 409.014†	-2070.6	-113.5	-3.3477	ug/L	-3.3477	ppb	16:34:36
1	V 292.402†	-1380.6	-107.2	-0.7326	ug/L	-0.7326	ppb	16:34:36
1	Zn 213.857†	695.8	93.8	0.8864	ug/L	0.8864	ppb	16:34:56
1	SiO2†	660.4	106.1	7.2291	ug/L	7.2291	ppb	16:35:52
2	Sc Radial	4977.1	4977.1	98.8	%			16:33:44
2	Y RADIAL	5379.5	5379.5	99.08	%			16:33:44
2	Al 396.153Radial†	16.4	17.3	13.346	ug/L	13.346	ppb	16:33:44
2	Ca 317.933Radial†	13.4	-6.2	-9.9695	ug/L	-9.9695	ppb	16:34:05
2	Fe 238.204 Radial†	9.2	0.4	3.5666	ug/L	3.5666	ppb	16:34:05
2	K 766.490 Radial†	3248.7	696.5	127.69	ug/L	127.69	ppb	16:33:44
2	Mg 279.077 IEC†	1.8	-0.1	-2.8814	ug/L	-2.8814	ppb	16:34:05
2	Na 589.592 Radial†	-1037.9	230.4	68.993	ug/L	68.993	ppb	16:33:44
2	Sr 421.552†	29.1	49.0	0.3163	ug/L	0.3163	ppb	16:33:44
2	Sc 361.383	846971.0	846971.0	99.363	%			16:35:02
2	Y 371.029	719409.4	719409.4	99.549	%			16:35:02
2	Ag 328.068†	221.3	-135.3	-0.6237	ug/L	-0.6237	ppb	16:35:02
2	As 188.979†	-11.7	11.8	5.1352	ug/L	5.1352	ppb	16:35:22
2	B 249.677†	108.6	741.1	16.522	ug/L	16.522	ppb	16:35:22
2	Ba 233.527†	-17.9	-6.6	-0.0524	ug/L	-0.0524	ppb	16:35:22
2	Be 313.107†	-4604.5	-48.6	-0.0186	ug/L	-0.0186	ppb	16:35:02
2	Cd 226.502†	-183.7	19.2	0.2130	ug/L	0.2130	ppb	16:35:22
2	Co 228.616†	-83.3	-9.2	-0.1902	ug/L	-0.1902	ppb	16:35:22
2	Cr 267.716†	104.3	21.7	0.2422	ug/L	0.2422	ppb	16:35:22
2	Cu 324.752†	6577.4	207.3	0.6197	ug/L	0.6197	ppb	16:35:02
2	Mn 257.610†	434.9	-7.1	-0.0074	ug/L	-0.0074	ppb	16:35:22
2	Mo 202.031†	13.5	-10.2	-0.7188	ug/L	-0.7188	ppb	16:35:22
2	Ni 231.604†	74.8	7.3	0.1816	ug/L	0.1816	ppb	16:35:22

2	P 214.914†	222.0	-6.4	-4.0468 ug/L	-4.0468 ppb	16:35:22
2	Pb 220.353†	-52.1	10.9	1.3325 ug/L	1.3325 ppb	16:35:22
2	S 181.975 Axial†	46.0	3.3	4.6311 ug/L	4.6311 ppb	16:35:22
2	Sb 206.836†	60.8	33.2	11.395 ug/L	11.395 ppb	16:35:22
2	Se 196.026†	-27.3	4.5	2.9119 ug/L	2.9119 ppb	16:35:22
2	Si 251.611†	593.5	46.8	1.5009 ug/L	1.5009 ppb	16:35:22
2	Sn 189.927†	12.7	5.1	0.9018 ug/L	0.9018 ppb	16:35:22
2	Ti 334.940†	-1383.5	-17.9	-0.0302 ug/L	-0.0302 ppb	16:35:02
2	Tl 190.801†	-42.6	-10.0	-3.0756 ug/L	-3.0756 ppb	16:35:22
2	U 409.014†	-1968.8	30.2	0.8911 ug/L	0.8911 ppb	16:35:02
2	V 292.402†	-1349.2	-48.1	-0.3383 ug/L	-0.3383 ppb	16:35:02
2	Zn 213.857†	694.8	79.0	0.7452 ug/L	0.7452 ppb	16:35:22
2	SiO2†	603.2	35.4	2.4352 ug/L	2.4352 ppb	16:35:57
3	Sc Radial	4936.5	4936.5	98.0 %		16:34:10
3	Y RADIAL	5325.3	5325.3	98.08 %		16:34:10
3	Al 396.153Radial†	2.6	3.3	2.5634 ug/L	2.5634 ppb	16:34:10
3	Ca 317.933Radial†	13.6	-5.9	-9.3960 ug/L	-9.3960 ppb	16:34:30
3	Fe 238.204 Radial†	8.6	-0.1	-1.1579 ug/L	-1.1579 ppb	16:34:30
3	K 766.490 Radial†	3161.3	634.5	116.32 ug/L	116.32 ppb	16:34:10
3	Mg 279.077 IEC†	-1.9	-3.9	-129.81 ug/L	-129.81 ppb	16:34:30
3	Na 589.592 Radial†	-1104.9	153.5	45.952 ug/L	45.952 ppb	16:34:10
3	Sr 421.552†	-31.9	-13.0	-0.0842 ug/L	-0.0842 ppb	16:34:10
3	Sc 361.383	840442.8	840442.8	98.597 %		16:35:27
3	Y 371.029	714287.5	714287.5	98.840 %		16:35:27
3	Ag 328.068†	305.1	-48.6	-0.2213 ug/L	-0.2213 ppb	16:35:27
3	As 188.979†	-10.0	13.5	5.8431 ug/L	5.8431 ppb	16:35:47
3	B 249.677†	74.6	707.5	15.773 ug/L	15.773 ppb	16:35:47
3	Ba 233.527†	-12.8	-1.6	-0.0126 ug/L	-0.0126 ppb	16:35:47
3	Be 313.107†	-4499.3	22.0	0.0083 ug/L	0.0083 ppb	16:35:27
3	Cd 226.502†	-176.2	25.4	0.2813 ug/L	0.2813 ppb	16:35:47
3	Co 228.616†	-88.4	-15.0	-0.3063 ug/L	-0.3063 ppb	16:35:47
3	Cr 267.716†	95.4	13.5	0.1525 ug/L	0.1525 ppb	16:35:47
3	Cu 324.752†	6418.3	97.4	0.2934 ug/L	0.2934 ppb	16:35:27
3	Mn 257.610†	440.8	2.2	0.0076 ug/L	0.0076 ppb	16:35:47
3	Mo 202.031†	23.3	-0.1	-0.0083 ug/L	-0.0083 ppb	16:35:47
3	Ni 231.604†	78.6	11.8	0.2929 ug/L	0.2929 ppb	16:35:47
3	P 214.914†	214.4	-12.4	-7.6292 ug/L	-7.6292 ppb	16:35:47
3	Pb 220.353†	-53.3	9.3	1.1359 ug/L	1.1359 ppb	16:35:47
3	S 181.975 Axial†	47.1	4.7	6.6920 ug/L	6.6920 ppb	16:35:47
3	Sb 206.836†	52.6	25.4	8.7048 ug/L	8.7048 ppb	16:35:47
3	Se 196.026†	-39.6	-8.2	-5.2896 ug/L	-5.2896 ppb	16:35:47
3	Si 251.611†	561.4	19.0	0.6040 ug/L	0.6040 ppb	16:35:47
3	Sn 189.927†	10.8	3.3	0.5891 ug/L	0.5891 ppb	16:35:47
3	Ti 334.940†	-1374.1	-19.1	-0.0195 ug/L	-0.0195 ppb	16:35:27
3	Tl 190.801†	-30.3	2.1	0.6498 ug/L	0.6498 ppb	16:35:47
3	U 409.014†	-2124.1	-142.7	-4.2104 ug/L	-4.2104 ppb	16:35:27
3	V 292.402†	-1316.1	-25.1	-0.1819 ug/L	-0.1819 ppb	16:35:27
3	Zn 213.857†	697.1	86.8	0.8190 ug/L	0.8190 ppb	16:35:47
3	SiO2†	583.7	20.4	1.3897 ug/L	1.3897 ppb	16:36:02

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	839321.3	98.466	%	0.9699				0.99%
Sc Radial	4950.6	98.3	%	0.46				0.46%
Y 371.029	713058.4	98.670	%	0.9751				0.99%
Y RADIAL	5354.4	98.62	%	0.504				0.51%
Ag 328.068†	-46.8	-0.2146	ug/L	0.41254	-0.2146	ppb	0.41254	192.26%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	4.4	3.3920	ug/L	9.56669	3.3920	ppb	9.56669	282.04%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	17.5	7.6040	ug/L	3.68017	7.6040	ppb	3.68017	48.40%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	742.1	16.545	ug/L	0.7845	16.545	ppb	0.7845	4.74%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-2.4	-0.0198	ug/L	0.02961	-0.0198	ppb	0.02961	149.50%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-31.3	-0.0121	ug/L	0.01804	-0.0121	ppb	0.01804	149.45%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-7.2	-11.549	ug/L	3.2460	-11.549	ppb	3.2460	28.10%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              24.3      0.2688 ug/L       0.05076      0.2688 ppb        0.05076  18.88%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†             -14.5     -0.2968 ug/L       0.10215     -0.2968 ppb        0.10215  34.42%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              11.2      0.1249 ug/L       0.13322      0.1249 ppb        0.13322 106.68%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             140.8      0.4225 ug/L       0.17351      0.4225 ppb        0.17351  41.07%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       0.2      1.5253 ug/L       2.42676      1.5253 ppb        2.42676 159.11%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       703.5      128.97 ug/L        13.341      128.97 ppb         13.341  10.34%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          -1.5     -48.807 ug/L       70.3643     -48.807 ppb        70.3643 144.17%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              -2.1     -0.0002 ug/L       0.00752     -0.0002 ppb        0.00752 >999.9%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              -1.5     -0.1053 ug/L       0.57117     -0.1053 ppb        0.57117 542.32%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      192.0      57.491 ug/L       11.5206      57.491 ppb        11.5206  20.04%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               7.1      0.1771 ug/L       0.11803      0.1771 ppb        0.11803  66.63%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -7.0     -4.3454 ug/L       3.14512     -4.3454 ppb        3.14512  72.38%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              19.3      2.3624 ug/L       1.95644      2.3624 ppb        1.95644  82.82%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          3.1      4.4300 ug/L       2.36900      4.4300 ppb        2.36900  53.48%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              32.1      11.006 ug/L        2.1330      11.006 ppb         2.1330  19.38%
   QC value greater than the upper limit for Sb 206.836  Recovery = Not calculated
Se 196.026†              -2.4     -1.5283 ug/L       4.14268     -1.5283 ppb        4.14268 271.06%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†              38.8      1.2361 ug/L       0.54983      1.2361 ppb        0.54983  44.48%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               3.3      0.5749 ug/L       0.33426      0.5749 ppb        0.33426  58.15%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              22.8      0.1473 ug/L       0.20740      0.1473 ppb        0.20740 140.84%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             -38.4     -0.0583 ug/L       0.05820     -0.0583 ppb        0.05820  99.84%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -3.7     -1.1271 ug/L       1.86864     -1.1271 ppb        1.86864 165.79%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              -75.3     -2.2223 ug/L       2.73056     -2.2223 ppb        2.73056 122.87%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              -60.2     -0.4176 ug/L       0.28376     -0.4176 ppb        0.28376  67.95%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              86.6      0.8169 ug/L       0.07064      0.8169 ppb        0.07064   8.65%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                    54.0      3.6847 ug/L       3.11377      3.6847 ppb        3.11377  84.51%
   QC value within limits for SiO2  Recovery = Not calculated
QC Failed.  Continue with analysis.
```

User canceled analysis.

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Analysis Begun

Start Time: 1/11/2010 16:38:46 **Plasma On Time: 1/11/2010 06:15:31**
Logged In Analyst: Optima3 **Technique: ICP Continuous**
Spectrometer Model: Optima 5300 DV, S/N 077C7090601Autosampler Model: S10

Sample Information File: C:\pe\Optima3\Sample Information\011110.sif
Batch ID:
Results Data Set: 011110A
Results Library: C:\pe\Optima3\Results\Results.mdb

==========

Sequence No.: 13 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 1/11/2010 16:38:48**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4882.6	4882.6	97.0	%			16:40:39
1	Y RADIAL	5223.2	5223.2	96.20	%			16:40:39
1	Al 396.153Radial†	6253.5	6449.7	4951.3	ug/L	4951.3	ppb	16:40:39
1	Ca 317.933Radial†	3059.0	3134.9	5016.2	ug/L	5016.2	ppb	16:40:59
1	Fe 238.204 Radial†	576.8	585.9	5085.4	ug/L	5085.4	ppb	16:40:59
1	K 766.490 Radial†	29412.0	27741.6	5069.0	ug/L	5069.0	ppb	16:40:39
1	Mg 279.077 IEC†	152.5	155.3	5189.7	ug/L	5189.7	ppb	16:40:59
1	Na 589.592 Radial†	31106.7	33359.8	9988.3	ug/L	9988.3	ppb	16:40:39
1	Sr 421.552†	73905.9	76236.5	492.37	ug/L	492.37	ppb	16:40:39
1	Sc 361.383	845780.1	845780.1	99.224	%			16:41:57
1	Y 371.029	705843.2	705843.2	97.672	%			16:41:57
1	Ag 328.068†	108502.2	108993.2	505.01	ug/L	505.01	ppb	16:42:02
1	As 188.979†	1129.0	1161.4	505.37	ug/L	505.37	ppb	16:42:22
1	B 249.677†	21566.4	22367.0	496.70	ug/L	496.70	ppb	16:42:02
1	Ba 233.527†	63263.6	63770.0	499.11	ug/L	499.11	ppb	16:42:02
1	Be 313.107†	1321061.2	1335983.3	510.17	ug/L	510.17	ppb	16:41:57
1	Cd 226.502†	44316.2	44867.1	497.76	ug/L	497.76	ppb	16:42:02
1	Co 228.616†	24190.7	24454.7	500.68	ug/L	500.68	ppb	16:42:02
1	Cr 267.716†	44404.7	44668.9	500.01	ug/L	500.01	ppb	16:42:02
1	Cu 324.752†	169480.5	164394.5	491.57	ug/L	491.57	ppb	16:42:02
1	Mn 257.610†	453830.1	456936.2	506.92	ug/L	506.92	ppb	16:41:57
1	Mo 202.031†	7137.7	7169.9	507.13	ug/L	507.13	ppb	16:42:22
1	Ni 231.604†	20031.9	20120.7	500.71	ug/L	500.71	ppb	16:42:02
1	P 214.914†	4274.5	4078.1	2388.2	ug/L	2388.2	ppb	16:42:22
1	Pb 220.353†	4005.5	4100.2	503.74	ug/L	503.74	ppb	16:42:22
1	S 181.975 Axial†	759.0	721.9	1020.7	ug/L	1020.7	ppb	16:42:22
1	Sb 206.836†	1494.6	1478.4	524.59	ug/L	524.59	ppb	16:42:22
1	Se 196.026†	743.3	781.1	521.36	ug/L	521.36	ppb	16:42:22
1	Si 251.611†	79232.2	79301.7	2519.4	ug/L	2519.4	ppb	16:42:02
1	Sn 189.927†	2850.0	2864.7	508.32	ug/L	508.32	ppb	16:42:22
1	Ti 334.940†	301952.2	305689.3	492.24	ug/L	492.24	ppb	16:42:02
1	Tl 190.801†	1587.5	1632.8	503.99	ug/L	503.99	ppb	16:42:22
1	U 409.014†	14919.9	17048.3	501.22	ug/L	501.22	ppb	16:42:02
1	V 292.402†	70898.2	72762.7	503.80	ug/L	503.80	ppb	16:42:02
1	Zn 213.857†	52974.0	52768.2	494.74	ug/L	494.74	ppb	16:42:02
1	SiO2†	80240.9	80297.0	5465.0	ug/L	5465.0	ppb	16:43:29
2	Sc Radial	4869.0	4869.0	96.7	%			16:41:04
2	Y RADIAL	5223.7	5223.7	96.21	%			16:41:04
2	Al 396.153Radial†	6219.1	6432.2	4937.9	ug/L	4937.9	ppb	16:41:04
2	Ca 317.933Radial†	3097.5	3183.6	5094.0	ug/L	5094.0	ppb	16:41:24
2	Fe 238.204 Radial†	583.9	595.0	5164.1	ug/L	5164.1	ppb	16:41:24
2	K 766.490 Radial†	29527.0	27945.4	5106.4	ug/L	5106.4	ppb	16:41:04
2	Mg 279.077 IEC†	150.3	153.5	5129.5	ug/L	5129.5	ppb	16:41:24
2	Na 589.592 Radial†	31283.3	33632.3	10070	ug/L	10070	ppb	16:41:04
2	Sr 421.552†	74177.7	76730.8	495.56	ug/L	495.56	ppb	16:41:04
2	Sc 361.383	857147.9	857147.9	100.56	%			16:42:28

2	Y 371.029	715084.0	715084.0	98.951 %		16:42:28
2	Ag 328.068†	110354.2	109384.7	506.84 ug/L	506.84 ppb	16:42:33
2	As 188.979†	1145.2	1162.5	505.84 ug/L	505.84 ppb	16:42:53
2	B 249.677†	21931.9	22442.2	498.36 ug/L	498.36 ppb	16:42:33
2	Ba 233.527†	64151.9	63807.8	499.41 ug/L	499.41 ppb	16:42:33
2	Be 313.107†	1333477.0	1330672.9	508.14 ug/L	508.14 ppb	16:42:28
2	Cd 226.502†	45190.4	45144.1	500.82 ug/L	500.82 ppb	16:42:33
2	Co 228.616†	24545.1	24483.7	501.26 ug/L	501.26 ppb	16:42:33
2	Cr 267.716†	45142.8	44809.4	501.58 ug/L	501.58 ppb	16:42:33
2	Cu 324.752†	172257.5	164890.7	493.06 ug/L	493.06 ppb	16:42:33
2	Mn 257.610†	457824.2	454842.3	504.61 ug/L	504.61 ppb	16:42:28
2	Mo 202.031†	7181.0	7117.5	503.44 ug/L	503.44 ppb	16:42:53
2	Ni 231.604†	20361.3	20180.5	502.20 ug/L	502.20 ppb	16:42:33
2	P 214.914†	4307.4	4053.6	2372.8 ug/L	2372.8 ppb	16:42:53
2	Pb 220.353†	4036.2	4077.2	500.90 ug/L	500.90 ppb	16:42:53
2	S 181.975 Axial†	759.0	711.8	1006.4 ug/L	1006.4 ppb	16:42:53
2	Sb 206.836†	1502.1	1465.8	520.15 ug/L	520.15 ppb	16:42:53
2	Se 196.026†	747.7	775.6	518.03 ug/L	518.03 ppb	16:42:53
2	Si 251.611†	80567.2	79570.2	2528.0 ug/L	2528.0 ppb	16:42:33
2	Sn 189.927†	2863.5	2839.9	503.95 ug/L	503.95 ppb	16:42:53
2	Ti 334.940†	306689.7	306364.7	493.34 ug/L	493.34 ppb	16:42:33
2	Tl 190.801†	1602.6	1626.5	502.07 ug/L	502.07 ppb	16:42:53
2	U 409.014†	15377.6	17304.0	508.75 ug/L	508.75 ppb	16:42:33
2	V 292.402†	71992.3	72903.1	504.70 ug/L	504.70 ppb	16:42:33
2	Zn 213.857†	53815.4	52897.0	495.94 ug/L	495.94 ppb	16:42:33
2	SiO2†	79728.2	78714.7	5357.1 ug/L	5357.1 ppb	16:43:34
3	Sc Radial	4810.3	4810.3	95.5 %		16:41:30
3	Y RADIAL	5124.6	5124.6	94.38 %		16:41:30
3	Al 396.153Radial†	6306.8	6602.6	5068.9 ug/L	5068.9 ppb	16:41:30
3	Ca 317.933Radial†	3080.5	3204.9	5128.1 ug/L	5128.1 ppb	16:41:50
3	Fe 238.204 Radial†	588.4	607.0	5268.5 ug/L	5268.5 ppb	16:41:50
3	K 766.490 Radial†	29544.2	28336.3	5177.8 ug/L	5177.8 ppb	16:41:30
3	Mg 279.077 IEC†	157.6	163.1	5449.4 ug/L	5449.4 ppb	16:41:50
3	Na 589.592 Radial†	31435.3	34186.5	10236 ug/L	10236 ppb	16:41:30
3	Sr 421.552†	74786.5	78305.0	505.73 ug/L	505.73 ppb	16:41:30
3	Sc 361.383	839569.1	839569.1	98.495 %		16:42:59
3	Y 371.029	700329.4	700329.4	96.909 %		16:42:59
3	Ag 328.068†	110088.2	111412.4	516.24 ug/L	516.24 ppb	16:43:04
3	As 188.979†	1138.0	1179.0	513.05 ug/L	513.05 ppb	16:43:24
3	B 249.677†	22005.5	22973.6	510.17 ug/L	510.17 ppb	16:43:04
3	Ba 233.527†	64098.3	65089.1	509.43 ug/L	509.43 ppb	16:43:04
3	Be 313.107†	1304992.4	1329518.6	507.73 ug/L	507.73 ppb	16:42:59
3	Cd 226.502†	45083.5	45976.5	510.06 ug/L	510.06 ppb	16:43:04
3	Co 228.616†	24559.1	25009.1	512.01 ug/L	512.01 ppb	16:43:04
3	Cr 267.716†	44972.2	45576.1	510.17 ug/L	510.17 ppb	16:43:04
3	Cu 324.752†	172089.4	168306.7	503.27 ug/L	503.27 ppb	16:43:04
3	Mn 257.610†	449125.2	455543.1	505.38 ug/L	505.38 ppb	16:42:59
3	Mo 202.031†	7174.4	7260.3	513.54 ug/L	513.54 ppb	16:43:24
3	Ni 231.604†	20313.7	20556.1	511.54 ug/L	511.54 ppb	16:43:04
3	P 214.914†	4293.6	4129.3	2416.9 ug/L	2416.9 ppb	16:43:24
3	Pb 220.353†	4030.2	4155.2	510.49 ug/L	510.49 ppb	16:43:24
3	S 181.975 Axial†	757.6	726.1	1026.6 ug/L	1026.6 ppb	16:43:24
3	Sb 206.836†	1500.4	1495.4	530.64 ug/L	530.64 ppb	16:43:24
3	Se 196.026†	746.7	790.1	527.77 ug/L	527.77 ppb	16:43:24
3	Si 251.611†	80487.4	81166.8	2578.7 ug/L	2578.7 ppb	16:43:04
3	Sn 189.927†	2857.0	2893.0	513.35 ug/L	513.35 ppb	16:43:24
3	Ti 334.940†	306093.6	312145.3	502.63 ug/L	502.63 ppb	16:43:04
3	Tl 190.801†	1601.4	1658.8	511.96 ug/L	511.96 ppb	16:43:24
3	U 409.014†	15311.6	17557.2	516.19 ug/L	516.19 ppb	16:43:04
3	V 292.402†	71844.9	74252.4	514.06 ug/L	514.06 ppb	16:43:04
3	Zn 213.857†	53742.9	53943.9	505.76 ug/L	505.76 ppb	16:43:04
3	SiO2†	80273.2	80928.1	5507.9 ug/L	5507.9 ppb	16:43:40

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	847499.0	99.425	%	1.0458				1.05%
Sc Radial	4854.0	96.4	%	0.76				0.79%
Y 371.029	707085.5	97.844	%	1.0316				1.05%
Y RADIAL	5190.5	95.60	%	1.052				1.10%

```
Ag 328.068†          109930.1      509.36 ug/L        6.024      509.36 ppb        6.024   1.18%
   QC value within limits for Ag 328.068  Recovery = 101.87%
Al 396.153Radial†      6494.8      4986.0 ug/L       72.07      4986.0 ppb       72.07   1.45%
   QC value within limits for Al 396.153Radial  Recovery = 99.72%
As 188.979†            1167.6      508.09 ug/L        4.305      508.09 ppb        4.305   0.85%
   QC value within limits for As 188.979  Recovery = 101.62%
B 249.677†            22594.3      501.74 ug/L        7.344      501.74 ppb        7.344   1.46%
   QC value within limits for B 249.677  Recovery = 100.35%
Ba 233.527†           64222.3      502.65 ug/L        5.877      502.65 ppb        5.877   1.17%
   QC value within limits for Ba 233.527  Recovery = 100.53%
Be 313.107†         1332058.3      508.68 ug/L        1.305      508.68 ppb        1.305   0.26%
   QC value within limits for Be 313.107  Recovery = 101.74%
Ca 317.933Radial†      3174.4      5079.4 ug/L       57.37      5079.4 ppb       57.37   1.13%
   QC value within limits for Ca 317.933Radial  Recovery = 101.59%
Cd 226.502†           45329.2      502.88 ug/L        6.403      502.88 ppb        6.403   1.27%
   QC value within limits for Cd 226.502  Recovery = 100.58%
Co 228.616†           24649.2      504.65 ug/L        6.385      504.65 ppb        6.385   1.27%
   QC value within limits for Co 228.616  Recovery = 100.93%
Cr 267.716†           45018.2      503.92 ug/L        5.466      503.92 ppb        5.466   1.08%
   QC value within limits for Cr 267.716  Recovery = 100.78%
Cu 324.752†          165864.0      495.97 ug/L        6.370      495.97 ppb        6.370   1.28%
   QC value within limits for Cu 324.752  Recovery = 99.19%
Fe 238.204 Radial†      596.0      5172.7 ug/L       91.84      5172.7 ppb       91.84   1.78%
   QC value within limits for Fe 238.204 Radial  Recovery = 103.45%
K 766.490 Radial†     28007.7      5117.7 ug/L       55.30      5117.7 ppb       55.30   1.08%
   QC value within limits for K 766.490 Radial  Recovery = 102.35%
Mg 279.077 IEC†         157.3      5256.2 ug/L      170.00      5256.2 ppb      170.00   3.23%
   QC value within limits for Mg 279.077 IEC  Recovery = 105.12%
Mn 257.610†          455773.9      505.64 ug/L        1.176      505.64 ppb        1.176   0.23%
   QC value within limits for Mn 257.610  Recovery = 101.13%
Mo 202.031†            7182.5      508.04 ug/L        5.112      508.04 ppb        5.112   1.01%
   QC value within limits for Mo 202.031  Recovery = 101.61%
Na 589.592 Radial†    33726.2       10098 ug/L      126.1        10098 ppb      126.1   1.25%
   QC value within limits for Na 589.592 Radial  Recovery = 100.98%
Ni 231.604†           20285.8      504.82 ug/L        5.873      504.82 ppb        5.873   1.16%
   QC value within limits for Ni 231.604  Recovery = 100.96%
P 214.914†             4087.0      2392.6 ug/L       22.36      2392.6 ppb       22.36   0.93%
   QC value within limits for P 214.914  Recovery = 95.71%
Pb 220.353†            4110.9      505.04 ug/L        4.924      505.04 ppb        4.924   0.98%
   QC value within limits for Pb 220.353  Recovery = 101.01%
S 181.975 Axial†        719.9      1017.9 ug/L       10.40      1017.9 ppb       10.40   1.02%
   QC value within limits for S 181.975 Axial  Recovery = 101.79%
Sb 206.836†            1479.9      525.12 ug/L        5.267      525.12 ppb        5.267   1.00%
   QC value within limits for Sb 206.836  Recovery = 105.02%
Se 196.026†             782.2      522.39 ug/L        4.947      522.39 ppb        4.947   0.95%
   QC value within limits for Se 196.026  Recovery = 104.48%
Si 251.611†           80012.9      2542.0 ug/L       32.06      2542.0 ppb       32.06   1.26%
   QC value within limits for Si 251.611  Recovery = 101.68%
Sn 189.927†            2865.9      508.54 ug/L        4.707      508.54 ppb        4.707   0.93%
   QC value within limits for Sn 189.927  Recovery = 101.71%
Sr 421.552†           77090.8      497.88 ug/L        6.976      497.88 ppb        6.976   1.40%
   QC value within limits for Sr 421.552  Recovery = 99.58%
Ti 334.940†          308066.5      496.07 ug/L        5.704      496.07 ppb        5.704   1.15%
   QC value within limits for Ti 334.940  Recovery = 99.21%
Tl 190.801†            1639.4      506.01 ug/L        5.246      506.01 ppb        5.246   1.04%
   QC value within limits for Tl 190.801  Recovery = 101.20%
U 409.014†            17303.2      508.72 ug/L        7.484      508.72 ppb        7.484   1.47%
   QC value within limits for U 409.014  Recovery = 101.74%
V 292.402†            73306.1      507.52 ug/L        5.678      507.52 ppb        5.678   1.12%
   QC value within limits for V 292.402  Recovery = 101.50%
Zn 213.857†           53203.0      498.81 ug/L        6.044      498.81 ppb        6.044   1.21%
   QC value within limits for Zn 213.857  Recovery = 99.76%
SiO2†                 79979.9      5443.3 ug/L       77.67      5443.3 ppb       77.67   1.43%
   QC value within limits for SiO2  Recovery = 101.79%
All analyte(s) passed QC.
```

Sequence No.: 14
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 1/11/2010 16:45:50
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4821.6	4821.6	95.8	%			16:47:42
1	Y RADIAL	5232.3	5232.3	96.37	%			16:47:42
1	Al 396.153Radial†	-11.8	-11.7	-8.9640	ug/L	-8.9640	ppb	16:47:42
1	Ca 317.933Radial†	17.7	-1.3	-2.0768	ug/L	-2.0768	ppb	16:48:02
1	Fe 238.204 Radial†	10.2	1.7	14.859	ug/L	14.859	ppb	16:48:02
1	K 766.490 Radial†	3051.9	597.0	109.49	ug/L	109.49	ppb	16:47:42
1	Mg 279.077 IEC†	1.3	-0.5	-18.276	ug/L	-18.276	ppb	16:48:02
1	Na 589.592 Radial†	-1271.9	-47.8	-14.311	ug/L	-14.311	ppb	16:47:42
1	Sr 421.552†	5.9	25.6	0.1655	ug/L	0.1655	ppb	16:47:42
1	Sc 361.383	841525.7	841525.7	98.724	%			16:48:59
1	Y 371.029	715554.7	715554.7	99.016	%			16:48:59
1	Ag 328.068†	323.2	-30.6	-0.1346	ug/L	-0.1346	ppb	16:48:59
1	As 188.979†	-18.8	4.6	2.0049	ug/L	2.0049	ppb	16:49:19
1	B 249.677†	-282.3	345.9	7.7098	ug/L	7.7098	ppb	16:49:19
1	Ba 233.527†	-12.7	-1.5	-0.0116	ug/L	-0.0116	ppb	16:49:19
1	Be 313.107†	-4552.1	-25.5	-0.0096	ug/L	-0.0096	ppb	16:48:59
1	Cd 226.502†	-186.4	15.3	0.1676	ug/L	0.1676	ppb	16:49:19
1	Co 228.616†	-84.8	-11.2	-0.2326	ug/L	-0.2326	ppb	16:49:19
1	Cr 267.716†	86.2	4.1	0.0467	ug/L	0.0467	ppb	16:49:19
1	Cu 324.752†	6436.7	107.6	0.3241	ug/L	0.3241	ppb	16:48:59
1	Mn 257.610†	416.7	-22.8	-0.0228	ug/L	-0.0228	ppb	16:49:19
1	Mo 202.031†	9.1	-14.5	-1.0240	ug/L	-1.0240	ppb	16:49:19
1	Ni 231.604†	63.7	-3.4	-0.0843	ug/L	-0.0843	ppb	16:49:19
1	P 214.914†	214.3	-12.8	-7.8928	ug/L	-7.8928	ppb	16:49:19
1	Pb 220.353†	-53.2	9.4	1.1493	ug/L	1.1493	ppb	16:49:19
1	S 181.975 Axial†	43.0	0.5	0.7238	ug/L	0.7238	ppb	16:49:19
1	Sb 206.836†	37.3	9.9	3.3534	ug/L	3.3534	ppb	16:49:19
1	Se 196.026†	-29.4	2.2	1.4795	ug/L	1.4795	ppb	16:49:19
1	Si 251.611†	537.7	-5.8	-0.1729	ug/L	-0.1729	ppb	16:49:19
1	Sn 189.927†	5.7	-1.9	-0.3300	ug/L	-0.3300	ppb	16:49:19
1	Ti 334.940†	-1328.3	29.0	0.0492	ug/L	0.0492	ppb	16:48:59
1	Tl 190.801†	-20.5	12.1	3.7103	ug/L	3.7103	ppb	16:49:19
1	U 409.014†	-2076.7	-91.9	-2.7131	ug/L	-2.7131	ppb	16:48:59
1	V 292.402†	-1322.2	-29.6	-0.2251	ug/L	-0.2251	ppb	16:48:59
1	Zn 213.857†	640.3	28.4	0.2671	ug/L	0.2671	ppb	16:49:19
1	SiO2†	524.6	-40.3	-2.7219	ug/L	-2.7219	ppb	16:50:15
2	Sc Radial	4944.4	4944.4	98.2	%			16:48:07
2	Y RADIAL	5363.5	5363.5	98.79	%			16:48:07
2	Al 396.153Radial†	-2.7	-2.1	-1.6010	ug/L	-1.6010	ppb	16:48:07
2	Ca 317.933Radial†	14.2	-5.3	-8.4304	ug/L	-8.4304	ppb	16:48:27
2	Fe 238.204 Radial†	9.3	0.6	4.8751	ug/L	4.8751	ppb	16:48:27
2	K 766.490 Radial†	2945.0	409.0	74.983	ug/L	74.983	ppb	16:48:07
2	Mg 279.077 IEC†	3.9	2.0	67.948	ug/L	67.948	ppb	16:48:27
2	Na 589.592 Radial†	-1212.0	46.2	13.819	ug/L	13.819	ppb	16:48:07
2	Sr 421.552†	0.7	20.2	0.1309	ug/L	0.1309	ppb	16:48:07
2	Sc 361.383	833346.4	833346.4	97.765	%			16:49:24
2	Y 371.029	708291.2	708291.2	98.011	%			16:49:24
2	Ag 328.068†	309.5	-41.5	-0.1903	ug/L	-0.1903	ppb	16:49:24
2	As 188.979†	-5.5	18.0	7.7871	ug/L	7.7871	ppb	16:49:44
2	B 249.677†	-299.8	325.2	7.2486	ug/L	7.2486	ppb	16:49:44
2	Ba 233.527†	-19.0	-8.0	-0.0637	ug/L	-0.0637	ppb	16:49:44
2	Be 313.107†	-4542.3	-60.8	-0.0233	ug/L	-0.0233	ppb	16:49:24
2	Cd 226.502†	-200.4	-0.9	-0.0103	ug/L	-0.0103	ppb	16:49:44
2	Co 228.616†	-78.0	-5.1	-0.1048	ug/L	-0.1048	ppb	16:49:44
2	Cr 267.716†	85.0	3.6	0.0404	ug/L	0.0404	ppb	16:49:44
2	Cu 324.752†	6402.2	136.4	0.4086	ug/L	0.4086	ppb	16:49:24
2	Mn 257.610†	421.6	-13.7	-0.0174	ug/L	-0.0174	ppb	16:49:44
2	Mo 202.031†	24.8	1.6	0.1158	ug/L	0.1158	ppb	16:49:44
2	Ni 231.604†	64.4	-2.1	-0.0527	ug/L	-0.0527	ppb	16:49:44

2	P 214.914†	234.2	9.7	5.8359 ug/L	5.8359 ppb	16:49:44
2	Pb 220.353†	-63.6	-1.7	-0.2065 ug/L	-0.2065 ppb	16:49:44
2	S 181.975 Axial†	53.0	11.2	15.884 ug/L	15.884 ppb	16:49:44
2	Sb 206.836†	37.6	10.5	3.6095 ug/L	3.6095 ppb	16:49:44
2	Se 196.026†	-27.3	4.1	2.6695 ug/L	2.6695 ppb	16:49:44
2	Si 251.611†	533.3	-4.9	-0.1584 ug/L	-0.1584 ppb	16:49:44
2	Sn 189.927†	9.7	2.2	0.3903 ug/L	0.3903 ppb	16:49:44
2	Ti 334.940†	-1379.2	-36.2	-0.0643 ug/L	-0.0643 ppb	16:49:24
2	Tl 190.801†	-43.6	-11.8	-3.6161 ug/L	-3.6161 ppb	16:49:44
2	U 409.014†	-2001.5	-35.7	-1.0528 ug/L	-1.0528 ppb	16:49:24
2	V 292.402†	-1354.0	-75.3	-0.5137 ug/L	-0.5137 ppb	16:49:24
2	Zn 213.857†	649.3	43.9	0.4145 ug/L	0.4145 ppb	16:49:44
2	SiO2†	532.3	-27.2	-1.8597 ug/L	-1.8597 ppb	16:50:20
3	Sc Radial	4889.1	4889.1	97.1 %		16:48:32
3	Y RADIAL	5263.1	5263.1	96.94 %		16:48:32
3	Al 396.153Radial†	2.7	3.5	2.6530 ug/L	2.6530 ppb	16:48:32
3	Ca 317.933Radial†	13.3	-6.1	-9.6929 ug/L	-9.6929 ppb	16:48:52
3	Fe 238.204 Radial†	10.5	1.9	16.443 ug/L	16.443 ppb	16:48:52
3	K 766.490 Radial†	2886.8	383.0	70.229 ug/L	70.229 ppb	16:48:32
3	Mg 279.077 IEC†	3.9	2.1	68.851 ug/L	68.851 ppb	16:48:52
3	Na 589.592 Radial†	-1260.2	-17.4	-5.2205 ug/L	-5.2205 ppb	16:48:32
3	Sr 421.552†	27.4	47.7	0.3082 ug/L	0.3082 ppb	16:48:32
3	Sc 361.383	840103.4	840103.4	98.558 %		16:49:50
3	Y 371.029	713031.9	713031.9	98.667 %		16:49:50
3	Ag 328.068†	251.5	-102.8	-0.4704 ug/L	-0.4704 ppb	16:49:50
3	As 188.979†	-20.0	3.4	1.4597 ug/L	1.4597 ppb	16:50:10
3	B 249.677†	-305.6	321.8	7.1715 ug/L	7.1715 ppb	16:50:10
3	Ba 233.527†	-15.5	-4.3	-0.0339 ug/L	-0.0339 ppb	16:50:10
3	Be 313.107†	-4547.9	-29.1	-0.0110 ug/L	-0.0110 ppb	16:49:50
3	Cd 226.502†	-184.4	17.0	0.1873 ug/L	0.1873 ppb	16:50:10
3	Co 228.616†	-66.0	7.7	0.1585 ug/L	0.1585 ppb	16:50:10
3	Cr 267.716†	75.0	-7.2	-0.0807 ug/L	-0.0807 ppb	16:50:10
3	Cu 324.752†	6412.0	93.7	0.2803 ug/L	0.2803 ppb	16:49:50
3	Mn 257.610†	417.7	-21.1	-0.0244 ug/L	-0.0244 ppb	16:50:10
3	Mo 202.031†	28.5	5.2	0.3676 ug/L	0.3676 ppb	16:50:10
3	Ni 231.604†	70.8	3.9	0.0977 ug/L	0.0977 ppb	16:50:10
3	P 214.914†	211.6	-15.2	-9.3652 ug/L	-9.3652 ppb	16:50:10
3	Pb 220.353†	-52.6	10.0	1.2274 ug/L	1.2274 ppb	16:50:10
3	S 181.975 Axial†	47.5	5.2	7.4133 ug/L	7.4133 ppb	16:50:10
3	Sb 206.836†	41.1	13.7	4.7078 ug/L	4.7078 ppb	16:50:10
3	Se 196.026†	-22.7	9.0	5.8487 ug/L	5.8487 ppb	16:50:10
3	Si 251.611†	539.2	-3.4	-0.1131 ug/L	-0.1131 ppb	16:50:10
3	Sn 189.927†	5.5	-2.1	-0.3663 ug/L	-0.3663 ppb	16:50:10
3	Ti 334.940†	-1325.3	29.8	0.0408 ug/L	0.0408 ppb	16:49:50
3	Tl 190.801†	-39.2	-6.9	-2.1238 ug/L	-2.1238 ppb	16:50:10
3	U 409.014†	-1943.8	39.4	1.1607 ug/L	1.1607 ppb	16:49:50
3	V 292.402†	-1337.5	-47.4	-0.3169 ug/L	-0.3169 ppb	16:49:50
3	Zn 213.857†	648.7	37.9	0.3562 ug/L	0.3562 ppb	16:50:10
3	SiO2†	528.8	-35.2	-2.4107 ug/L	-2.4107 ppb	16:50:25

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	838325.1	98.349	%	0.5127				0.52%
Sc Radial	4885.1	97.0	%	1.22				1.26%
Y 371.029	712292.6	98.564	%	0.5103				0.52%
Y RADIAL	5286.3	97.36	%	1.264				1.30%
Ag 328.068†	-58.3	-0.2651	ug/L	0.17994	-0.2651	ppb	0.17994	67.88%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-3.4	-2.6374	ug/L	5.87742	-2.6374	ppb	5.87742	222.85%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	8.6	3.7505	ug/L	3.50634	3.7505	ppb	3.50634	93.49%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	330.9	7.3766	ug/L	0.29109	7.3766	ppb	0.29109	3.95%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-4.6	-0.0364	ug/L	0.02618	-0.0364	ppb	0.02618	71.94%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-38.5	-0.0146	ug/L	0.00753	-0.0146	ppb	0.00753	51.48%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-4.2	-6.7334	ug/L	4.08178	-6.7334	ppb	4.08178	60.62%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              10.5      0.1149 ug/L       0.10883      0.1149 ppb        0.10883  94.73%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†              -2.9     -0.0596 ug/L       0.19944     -0.0596 ppb        0.19944 334.48%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†               0.2      0.0021 ug/L       0.07181      0.0021 ppb        0.07181 >999.9%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             112.5      0.3376 ug/L       0.06521      0.3376 ppb        0.06521  19.31%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        1.4     12.059 ug/L        6.2716     12.059 ppb         6.2716  52.01%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       463.0     84.900 ug/L       21.4263     84.900 ppb        21.4263  25.24%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           1.2     39.507 ug/L       50.0440     39.507 ppb        50.0440 126.67%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†             -19.2     -0.0215 ug/L       0.00367     -0.0215 ppb        0.00367  17.03%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              -2.6     -0.1802 ug/L       0.74151     -0.1802 ppb        0.74151 411.52%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       -6.4     -1.9044 ug/L      14.35517     -1.9044 ppb       14.35517 753.79%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              -0.5     -0.0131 ug/L       0.09724     -0.0131 ppb        0.09724 742.61%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -6.1     -3.8073 ug/L       8.38371     -3.8073 ppb        8.38371 220.20%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               5.9      0.7234 ug/L       0.80625      0.7234 ppb        0.80625 111.45%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          5.7      8.0070 ug/L       7.59738      8.0070 ppb        7.59738  94.88%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              11.4      3.8903 ug/L       0.71952      3.8903 ppb        0.71952  18.50%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               5.1      3.3326 ug/L       2.25879      3.3326 ppb        2.25879  67.78%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†              -4.7     -0.1481 ug/L       0.03119     -0.1481 ppb        0.03119  21.05%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†              -0.6     -0.1020 ug/L       0.42669     -0.1020 ppb        0.42669 418.38%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              31.2      0.2015 ug/L       0.09402      0.2015 ppb        0.09402  46.65%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               7.6      0.0086 ug/L       0.06327      0.0086 ppb        0.06327 738.97%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -2.2     -0.6765 ug/L       3.87170     -0.6765 ppb        3.87170 572.28%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              -29.4     -0.8684 ug/L       1.94345     -0.8684 ppb        1.94345 223.79%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              -50.8     -0.3519 ug/L       0.14743     -0.3519 ppb        0.14743  41.89%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              36.7      0.3459 ug/L       0.07426      0.3459 ppb        0.07426  21.47%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                   -34.2     -2.3307 ug/L       0.43664     -2.3307 ppb        0.43664  18.73%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 15
Sample ID: LR1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 37
Date Collected: 1/11/2010 16:52:35
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4777.8	4777.8	94.9	%			16:54:28
1	Y RADIAL	5095.9	5095.9	93.86	%			16:54:28
1	Al 396.153Radial†	-50.3	-52.3	-39.092	ug/L	-39.092	ppb	16:54:28
1	Ca 317.933Radial†	4.9	-14.7	-23.455	ug/L	-23.455	ppb	16:54:48
1	Fe 238.204 Radial†	40364.7	42530.9	368070	ug/L	368070	ppb	16:54:28
1	K 766.490 Radial†	2544.8	91.8	17.484	ug/L	17.484	ppb	16:54:28
1	Mg 279.077 IEC†	12.9	11.7	6.7228	ug/L	6.7228	ppb	16:54:48
1	Na 589.592 Radial†	-1204.3	11.3	3.3701	ug/L	3.3701	ppb	16:54:28
1	Sr 421.552†	54.9	77.3	0.4997	ug/L	0.4997	ppb	16:54:28
1	Sc 361.383	818966.7	818966.7	96.078	%			16:55:46
1	Y 371.029	688939.7	688939.7	95.333	%			16:55:46
1	Ag 328.068†	-24130.4	-25473.5	2.0432	ug/L	2.0432	ppb	16:55:46
1	As 188.979†	-200.7	-185.3	-7.8085	ug/L	-7.8085	ppb	16:56:06
1	B 249.677†	2067.2	2783.4	24.753	ug/L	24.753	ppb	16:55:46
1	Ba 233.527†	-1499.2	-1549.0	1.4702	ug/L	1.4702	ppb	16:55:46
1	Be 313.107†	-4472.3	-69.5	-0.0263	ug/L	-0.0263	ppb	16:55:46
1	Cd 226.502†	3072.4	3402.0	-0.2547	ug/L	-0.2547	ppb	16:55:46
1	Co 228.616†	165.2	246.6	-0.3410	ug/L	-0.3410	ppb	16:56:06
1	Cr 267.716†	-480.4	-583.2	0.7094	ug/L	0.7094	ppb	16:55:46
1	Cu 324.752†	1109.3	-5257.7	3.7230	ug/L	3.7230	ppb	16:55:46
1	Mn 257.610†	-30280.6	-31961.6	5.6541	ug/L	5.6541	ppb	16:55:46
1	Mo 202.031†	-335.3	-372.7	-1.1646	ug/L	-1.1646	ppb	16:55:46
1	Ni 231.604†	153.8	92.2	2.2920	ug/L	2.2920	ppb	16:56:06
1	P 214.914†	659.6	456.6	-13.871	ug/L	-13.871	ppb	16:56:06
1	Pb 220.353†	194.2	265.5	-2.7177	ug/L	-2.7177	ppb	16:56:06
1	S 181.975 Axial†	61.1	20.6	29.174	ug/L	29.174	ppb	16:56:06
1	Sb 206.836†	16.3	-10.9	-4.2280	ug/L	-4.2280	ppb	16:56:06
1	Se 196.026†	-1598.4	-1631.7	122.69	ug/L	122.69	ppb	16:56:06
1	Si 251.611†	-541.9	-1114.4	-35.169	ug/L	-35.169	ppb	16:55:46
1	Sn 189.927†	-22.0	-30.5	0.7785	ug/L	0.7785	ppb	16:56:06
1	Ti 334.940†	-1274.2	48.3	0.0161	ug/L	0.0161	ppb	16:55:46
1	Tl 190.801†	-46.2	-15.3	-4.9887	ug/L	-4.9887	ppb	16:56:06
1	U 409.014†	253.7	2275.6	25.185	ug/L	25.185	ppb	16:55:46
1	V 292.402†	7032.4	8629.2	2.4205	ug/L	2.4205	ppb	16:55:46
1	Zn 213.857†	4281.9	3836.4	0.5878	ug/L	0.5878	ppb	16:56:06
1	SiO2†	-450.1	-1040.2	-70.254	ug/L	-70.254	ppb	16:57:03
2	Sc Radial	4866.8	4866.8	96.7	%			16:54:53
2	Y RADIAL	5221.8	5221.8	96.18	%			16:54:53
2	Al 396.153Radial†	-37.8	-38.4	-28.382	ug/L	-28.382	ppb	16:54:53
2	Ca 317.933Radial†	0.8	-18.9	-30.269	ug/L	-30.269	ppb	16:55:13
2	Fe 238.204 Radial†	40766.9	42169.0	364940	ug/L	364940	ppb	16:54:53
2	K 766.490 Radial†	2544.0	41.9	8.3168	ug/L	8.3168	ppb	16:54:53
2	Mg 279.077 IEC†	10.6	9.1	-78.311	ug/L	-78.311	ppb	16:55:13
2	Na 589.592 Radial†	-1155.7	84.8	25.380	ug/L	25.380	ppb	16:54:53
2	Sr 421.552†	68.4	90.3	0.5833	ug/L	0.5833	ppb	16:54:53
2	Sc 361.383	829182.3	829182.3	97.276	%			16:56:12
2	Y 371.029	697004.5	697004.5	96.449	%			16:56:12
2	Ag 328.068†	-24523.8	-25568.4	0.5944	ug/L	0.5944	ppb	16:56:12
2	As 188.979†	-195.6	-177.5	-5.0286	ug/L	-5.0286	ppb	16:56:32
2	B 249.677†	2120.2	2811.4	25.694	ug/L	25.694	ppb	16:56:12
2	Ba 233.527†	-1466.1	-1495.7	1.7714	ug/L	1.7714	ppb	16:56:12
2	Be 313.107†	-4499.1	-39.7	-0.0153	ug/L	-0.0153	ppb	16:56:12
2	Cd 226.502†	3152.6	3445.0	0.5456	ug/L	0.5456	ppb	16:56:12
2	Co 228.616†	175.5	255.1	-0.1209	ug/L	-0.1209	ppb	16:56:32
2	Cr 267.716†	-487.2	-584.1	0.6397	ug/L	0.6397	ppb	16:56:12
2	Cu 324.752†	1142.3	-5237.9	3.6181	ug/L	3.6181	ppb	16:56:12
2	Mn 257.610†	-30582.1	-31883.2	5.3949	ug/L	5.3949	ppb	16:56:12
2	Mo 202.031†	-336.1	-369.3	-1.1378	ug/L	-1.1378	ppb	16:56:12
2	Ni 231.604†	131.9	67.6	1.6811	ug/L	1.6811	ppb	16:56:32

2	P 214.914†	676.9	465.9	-5.6765 ug/L	-5.6765 ppb	16:56:32
2	Pb 220.353†	220.9	290.4	0.6332 ug/L	0.6332 ppb	16:56:32
2	S 181.975 Axial†	62.0	20.8	29.382 ug/L	29.382 ppb	16:56:32
2	Sb 206.836†	15.4	-12.1	-4.6329 ug/L	-4.6329 ppb	16:56:32
2	Se 196.026†	-1598.1	-1610.8	126.14 ug/L	126.14 ppb	16:56:32
2	Si 251.611†	-519.6	-1084.6	-34.221 ug/L	-34.221 ppb	16:56:12
2	Sn 189.927†	-26.0	-34.3	0.0507 ug/L	0.0507 ppb	16:56:32
2	Ti 334.940†	-1370.9	-34.7	-0.1098 ug/L	-0.1098 ppb	16:56:12
2	Tl 190.801†	-59.8	-28.6	-9.0942 ug/L	-9.0942 ppb	16:56:32
2	U 409.014†	145.7	2161.4	22.173 ug/L	22.173 ppb	16:56:12
2	V 292.402†	7100.9	8609.4	2.7594 ug/L	2.7594 ppb	16:56:12
2	Zn 213.857†	4292.4	3792.4	0.4787 ug/L	0.4787 ppb	16:56:32
2	SiO2†	-566.8	-1154.3	-78.052 ug/L	-78.052 ppb	16:57:08
3	Sc Radial	4800.8	4800.8	95.3 %		16:55:18
3	Y RADIAL	5158.3	5158.3	95.01 %		16:55:18
3	Al 396.153Radial†	-18.9	-19.1	-13.529 ug/L	-13.529 ppb	16:55:18
3	Ca 317.933Radial†	1.3	-18.5	-29.528 ug/L	-29.528 ppb	16:55:38
3	Fe 238.204 Radial†	40311.5	42271.3	365820 ug/L	365820 ppb	16:55:18
3	K 766.490 Radial†	2604.4	141.5	26.583 ug/L	26.583 ppb	16:55:18
3	Mg 279.077 IEC†	12.7	11.4	-3.2079 ug/L	-3.2079 ppb	16:55:38
3	Na 589.592 Radial†	-1206.3	15.3	4.5686 ug/L	4.5686 ppb	16:55:18
3	Sr 421.552†	41.7	63.2	0.4085 ug/L	0.4085 ppb	16:55:18
3	Sc 361.383	829219.1	829219.1	97.281 %		16:56:38
3	Y 371.029	697536.2	697536.2	96.522 %		16:56:38
3	Ag 328.068†	-24469.1	-25511.1	1.1485 ug/L	1.1485 ppb	16:56:38
3	As 188.979†	-203.4	-185.4	-8.2984 ug/L	-8.2984 ppb	16:56:58
3	B 249.677†	2104.4	2795.1	25.241 ug/L	25.241 ppb	16:56:38
3	Ba 233.527†	-1455.6	-1484.9	1.8902 ug/L	1.8902 ppb	16:56:38
3	Be 313.107†	-4451.5	9.5	0.0035 ug/L	0.0035 ppb	16:56:38
3	Cd 226.502†	3124.6	3416.1	0.1330 ug/L	0.1330 ppb	16:56:38
3	Co 228.616†	169.2	248.6	-0.2640 ug/L	-0.2640 ppb	16:56:58
3	Cr 267.716†	-505.9	-603.2	0.4449 ug/L	0.4449 ppb	16:56:38
3	Cu 324.752†	1105.3	-5276.0	3.5514 ug/L	3.5514 ppb	16:56:38
3	Mn 257.610†	-30493.2	-31790.4	5.5936 ug/L	5.5936 ppb	16:56:38
3	Mo 202.031†	-326.2	-359.0	-0.3506 ug/L	-0.3506 ppb	16:56:38
3	Ni 231.604†	150.8	87.0	2.1641 ug/L	2.1641 ppb	16:56:58
3	P 214.914†	651.3	439.6	-22.474 ug/L	-22.474 ppb	16:56:58
3	Pb 220.353†	225.1	294.8	1.0868 ug/L	1.0868 ppb	16:56:58
3	S 181.975 Axial†	67.3	26.1	36.983 ug/L	36.983 ppb	16:56:58
3	Sb 206.836†	27.2	-0.0	-0.4637 ug/L	-0.4637 ppb	16:56:58
3	Se 196.026†	-1612.5	-1625.5	119.47 ug/L	119.47 ppb	16:56:58
3	Si 251.611†	-573.4	-1139.9	-35.992 ug/L	-35.992 ppb	16:56:38
3	Sn 189.927†	-23.8	-32.1	0.4652 ug/L	0.4652 ppb	16:56:58
3	Ti 334.940†	-1374.2	-38.1	-0.1212 ug/L	-0.1212 ppb	16:56:38
3	Tl 190.801†	-52.5	-21.1	-6.7740 ug/L	-6.7740 ppb	16:56:58
3	U 409.014†	135.7	2151.1	21.769 ug/L	21.769 ppb	16:56:38
3	V 292.402†	7232.4	8744.3	3.5566 ug/L	3.5566 ppb	16:56:38
3	Zn 213.857†	4297.9	3797.8	0.4413 ug/L	0.4413 ppb	16:56:58
3	SiO2†	-544.4	-1131.3	-76.497 ug/L	-76.497 ppb	16:57:13

Mean Data: LR1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	825789.4	96.878	%	0.6932				0.72%
Sc Radial	4815.2	95.6	%	0.92				0.96%
Y 371.029	694493.5	96.101	%	0.6666				0.69%
Y RADIAL	5158.7	95.01	%	1.160				1.22%
Ag 328.068†	-25517.6	1.2620	ug/L	0.73104	1.2620	ppb	0.73104	57.93%
Al 396.153Radial†	-36.6	-27.001	ug/L	12.8374	-27.001	ppb	12.8374	47.54%
As 188.979†	-182.7	-7.0452	ug/L	1.76352	-7.0452	ppb	1.76352	25.03%
B 249.677†	2796.6	25.229	ug/L	0.4711	25.229	ppb	0.4711	1.87%
Ba 233.527†	-1509.8	1.7106	ug/L	0.21652	1.7106	ppb	0.21652	12.66%
Be 313.107†	-33.2	-0.0127	ug/L	0.01504	-0.0127	ppb	0.01504	118.51%
Ca 317.933Radial†	-17.3	-27.751	ug/L	3.7384	-27.751	ppb	3.7384	13.47%
Cd 226.502†	3421.0	0.1413	ug/L	0.40020	0.1413	ppb	0.40020	283.23%
Co 228.616†	250.1	-0.2420	ug/L	0.11167	-0.2420	ppb	0.11167	46.15%
Cr 267.716†	-590.2	0.5980	ug/L	0.13708	0.5980	ppb	0.13708	22.92%
Cu 324.752†	-5257.2	3.6308	ug/L	0.08649	3.6308	ppb	0.08649	2.38%
Fe 238.204 Radial†	42323.7	366280	ug/L	1614.1	366280	ppb	1614.1	0.44%
K 766.490 Radial†	91.7	17.461	ug/L	9.1333	17.461	ppb	9.1333	52.31%

Mg 279.077 IEC†	10.7	-24.932	ug/L	46.4932	-24.932	ppb	46.4932 186.48%
Mn 257.610†	-31878.4	5.5475	ug/L	0.13558	5.5475	ppb	0.13558 2.44%
Mo 202.031†	-367.0	-0.8843	ug/L	0.46241	-0.8843	ppb	0.46241 52.29%
Na 589.592 Radial†	37.1	11.106	ug/L	12.3761	11.106	ppb	12.3761 111.43%
Ni 231.604†	82.3	2.0457	ug/L	0.32221	2.0457	ppb	0.32221 15.75%
P 214.914†	454.1	-14.007	ug/L	8.3993	-14.007	ppb	8.3993 59.97%
Pb 220.353†	283.6	-0.3325	ug/L	2.07800	-0.3325	ppb	2.07800 624.92%
S 181.975 Axial†	22.5	31.847	ug/L	4.4497	31.847	ppb	4.4497 13.97%
Sb 206.836†	-7.7	-3.1082	ug/L	2.29916	-3.1082	ppb	2.29916 73.97%
Se 196.026†	-1622.7	122.77	ug/L	3.335	122.77	ppb	3.335 2.72%
Si 251.611†	-1113.0	-35.127	ug/L	0.8860	-35.127	ppb	0.8860 2.52%
Sn 189.927†	-32.3	0.4315	ug/L	0.36508	0.4315	ppb	0.36508 84.61%
Sr 421.552†	76.9	0.4972	ug/L	0.08744	0.4972	ppb	0.08744 17.59%
Ti 334.940†	-8.2	-0.0717	ug/L	0.07619	-0.0717	ppb	0.07619 106.30%
Tl 190.801†	-21.7	-6.9523	ug/L	2.05856	-6.9523	ppb	2.05856 29.61%
U 409.014†	2196.1	23.042	ug/L	1.8667	23.042	ppb	1.8667 8.10%
V 292.402†	8661.0	2.9122	ug/L	0.58327	2.9122	ppb	0.58327 20.03%
Zn 213.857†	3808.9	0.5026	ug/L	0.07610	0.5026	ppb	0.07610 15.14%
SiO2†	-1108.6	-74.934	ug/L	4.1270	-74.934	ppb	4.1270 5.51%

Sequence No.: 16
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 1/11/2010 16:59:25
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4917.0	4917.0	97.7	%			17:01:17
1	Y RADIAL	5235.9	5235.9	96.43	%			17:01:17
1	Al 396.153Radial†	6169.6	6318.6	4850.2	ug/L	4850.2	ppb	17:01:17
1	Ca 317.933Radial†	3017.0	3069.8	4911.9	ug/L	4911.9	ppb	17:01:37
1	Fe 238.204 Radial†	566.0	570.7	4954.4	ug/L	4954.4	ppb	17:01:37
1	K 766.490 Radial†	28759.1	26860.8	4908.0	ug/L	4908.0	ppb	17:01:17
1	Mg 279.077 IEC†	147.7	149.3	4989.0	ug/L	4989.0	ppb	17:01:37
1	Na 589.592 Radial†	29743.6	31739.6	9503.2	ug/L	9503.2	ppb	17:01:17
1	Sr 421.552†	71970.1	73720.9	476.12	ug/L	476.12	ppb	17:01:17
1	Sc 361.383	838361.1	838361.1	98.353	%			17:02:34
1	Y 371.029	700105.7	700105.7	96.878	%			17:02:34
1	Ag 328.068†	108759.4	110222.4	510.64	ug/L	510.64	ppb	17:02:39
1	As 188.979†	1120.4	1162.8	505.94	ug/L	505.94	ppb	17:02:59
1	B 249.677†	21434.1	22424.8	497.99	ug/L	497.99	ppb	17:02:39
1	Ba 233.527†	63114.9	64183.1	502.33	ug/L	502.33	ppb	17:02:39
1	Be 313.107†	1277275.1	1303246.3	497.70	ug/L	497.70	ppb	17:02:34
1	Cd 226.502†	44324.9	45271.2	502.26	ug/L	502.26	ppb	17:02:39
1	Co 228.616†	24105.9	24584.2	503.32	ug/L	503.32	ppb	17:02:39
1	Cr 267.716†	44273.4	44931.5	502.95	ug/L	502.95	ppb	17:02:39
1	Cu 324.752†	169720.3	166149.8	496.81	ug/L	496.81	ppb	17:02:39
1	Mn 257.610†	438566.0	445464.1	494.19	ug/L	494.19	ppb	17:02:34
1	Mo 202.031†	7074.4	7169.1	507.07	ug/L	507.07	ppb	17:02:59
1	Ni 231.604†	20045.4	20313.1	505.50	ug/L	505.50	ppb	17:02:39
1	P 214.914†	4239.4	4080.5	2388.6	ug/L	2388.6	ppb	17:02:59
1	Pb 220.353†	3987.5	4117.6	505.85	ug/L	505.85	ppb	17:02:59
1	S 181.975 Axial†	751.3	720.9	1019.3	ug/L	1019.3	ppb	17:02:59
1	Sb 206.836†	1455.6	1452.0	515.57	ug/L	515.57	ppb	17:02:59
1	Se 196.026†	738.2	782.6	521.90	ug/L	521.90	ppb	17:02:59
1	Si 251.611†	79252.1	80028.6	2542.5	ug/L	2542.5	ppb	17:02:39
1	Sn 189.927†	2830.9	2870.6	509.35	ug/L	509.35	ppb	17:02:59
1	Ti 334.940†	301641.2	308066.2	496.07	ug/L	496.07	ppb	17:02:39
1	Tl 190.801†	1572.2	1631.4	503.52	ug/L	503.52	ppb	17:02:59
1	U 409.014†	15002.9	17265.8	507.65	ug/L	507.65	ppb	17:02:39
1	V 292.402†	70723.5	73217.4	506.93	ug/L	506.93	ppb	17:02:39
1	Zn 213.857†	52923.1	53189.0	498.70	ug/L	498.70	ppb	17:02:39
1	SiO2†	78526.7	79269.8	5394.9	ug/L	5394.9	ppb	17:04:07
2	Sc Radial	4995.4	4995.4	99.2	%			17:01:42
2	Y RADIAL	5325.1	5325.1	98.08	%			17:01:42
2	Al 396.153Radial†	6217.2	6267.6	4811.3	ug/L	4811.3	ppb	17:01:42
2	Ca 317.933Radial†	2980.8	2984.8	4776.0	ug/L	4776.0	ppb	17:02:02
2	Fe 238.204 Radial†	559.0	554.6	4814.1	ug/L	4814.1	ppb	17:02:02
2	K 766.490 Radial†	29154.8	26797.8	4896.6	ug/L	4896.6	ppb	17:01:42
2	Mg 279.077 IEC†	149.7	149.0	4977.5	ug/L	4977.5	ppb	17:02:02
2	Na 589.592 Radial†	30095.6	31616.7	9466.4	ug/L	9466.4	ppb	17:01:42
2	Sr 421.552†	73036.4	73639.8	475.60	ug/L	475.60	ppb	17:01:42
2	Sc 361.383	849459.0	849459.0	99.655	%			17:03:05
2	Y 371.029	708280.0	708280.0	98.009	%			17:03:05
2	Ag 328.068†	106948.3	106960.3	495.53	ug/L	495.53	ppb	17:03:10
2	As 188.979†	1106.1	1133.5	493.19	ug/L	493.19	ppb	17:03:30
2	B 249.677†	20943.1	21647.4	480.71	ug/L	480.71	ppb	17:03:10
2	Ba 233.527†	62014.2	62240.2	487.13	ug/L	487.13	ppb	17:03:10
2	Be 313.107†	1291972.2	1301027.6	496.82	ug/L	496.82	ppb	17:03:05
2	Cd 226.502†	43636.6	43991.7	488.06	ug/L	488.06	ppb	17:03:10
2	Co 228.616†	23754.8	23911.6	489.56	ug/L	489.56	ppb	17:03:10
2	Cr 267.716†	43616.9	43684.5	488.99	ug/L	488.99	ppb	17:03:10
2	Cu 324.752†	166097.1	160259.5	479.20	ug/L	479.20	ppb	17:03:10
2	Mn 257.610†	444472.6	445565.5	494.29	ug/L	494.29	ppb	17:03:05
2	Mo 202.031†	7023.4	7024.0	496.80	ug/L	496.80	ppb	17:03:30
2	Ni 231.604†	19633.6	19633.6	488.58	ug/L	488.58	ppb	17:03:10

2	P 214.914†	4212.9	3997.6	2341.7 ug/L	2341.7 ppb	17:03:30
2	Pb 220.353†	3957.3	4034.3	495.64 ug/L	495.64 ppb	17:03:30
2	S 181.975 Axial†	739.1	698.7	987.85 ug/L	987.85 ppb	17:03:30
2	Sb 206.836†	1462.2	1439.4	510.86 ug/L	510.86 ppb	17:03:30
2	Se 196.026†	727.7	762.2	508.29 ug/L	508.29 ppb	17:03:30
2	Si 251.611†	77732.2	77450.7	2460.6 ug/L	2460.6 ppb	17:03:10
2	Sn 189.927†	2800.8	2802.8	497.31 ug/L	497.31 ppb	17:03:30
2	Ti 334.940†	296140.6	298539.7	480.72 ug/L	480.72 ppb	17:03:10
2	Tl 190.801†	1564.5	1602.8	494.71 ug/L	494.71 ppb	17:03:30
2	U 409.014†	14725.2	16787.8	493.59 ug/L	493.59 ppb	17:03:10
2	V 292.402†	69532.2	71082.5	492.22 ug/L	492.22 ppb	17:03:10
2	Zn 213.857†	52101.8	51661.8	484.40 ug/L	484.40 ppb	17:03:10
2	SiO2†	78941.9	78643.3	5352.4 ug/L	5352.4 ppb	17:04:12
3	Sc Radial	4857.7	4857.7	96.5 %		17:02:07
3	Y RADIAL	5177.7	5177.7	95.36 %		17:02:07
3	Al 396.153Radial†	6085.9	6309.0	4843.4 ug/L	4843.4 ppb	17:02:07
3	Ca 317.933Radial†	2976.8	3065.8	4905.5 ug/L	4905.5 ppb	17:02:27
3	Fe 238.204 Radial†	556.5	567.9	4929.7 ug/L	4929.7 ppb	17:02:27
3	K 766.490 Radial†	28539.9	26992.9	4932.4 ug/L	4932.4 ppb	17:02:07
3	Mg 279.077 IEC†	147.6	151.1	5047.1 ug/L	5047.1 ppb	17:02:27
3	Na 589.592 Radial†	29197.5	31545.2	9445.0 ug/L	9445.0 ppb	17:02:07
3	Sr 421.552†	71175.3	73796.3	476.61 ug/L	476.61 ppb	17:02:07
3	Sc 361.383	847741.7	847741.7	99.454 %		17:03:36
3	Y 371.029	706758.6	706758.6	97.799 %		17:03:36
3	Ag 328.068†	106910.9	107140.2	496.40 ug/L	496.40 ppb	17:03:41
3	As 188.979†	1100.5	1130.1	491.76 ug/L	491.76 ppb	17:04:01
3	B 249.677†	21005.1	21752.3	483.04 ug/L	483.04 ppb	17:03:41
3	Ba 233.527†	62001.9	62353.8	488.02 ug/L	488.02 ppb	17:03:41
3	Be 313.107†	1288634.6	1300297.9	496.55 ug/L	496.55 ppb	17:03:36
3	Cd 226.502†	43589.9	44033.5	488.51 ug/L	488.51 ppb	17:03:41
3	Co 228.616†	23702.8	23907.7	489.47 ug/L	489.47 ppb	17:03:41
3	Cr 267.716†	43578.7	43734.8	489.55 ug/L	489.55 ppb	17:03:41
3	Cu 324.752†	166861.5	161365.8	482.51 ug/L	482.51 ppb	17:03:41
3	Mn 257.610†	443145.9	445135.1	493.82 ug/L	493.82 ppb	17:03:36
3	Mo 202.031†	6957.0	6971.5	493.10 ug/L	493.10 ppb	17:04:01
3	Ni 231.604†	19601.1	19640.8	488.76 ug/L	488.76 ppb	17:03:41
3	P 214.914†	4162.6	3955.6	2315.2 ug/L	2315.2 ppb	17:04:01
3	Pb 220.353†	3910.9	3995.8	490.91 ug/L	490.91 ppb	17:04:01
3	S 181.975 Axial†	717.5	678.4	959.20 ug/L	959.20 ppb	17:04:01
3	Sb 206.836†	1444.3	1424.3	505.54 ug/L	505.54 ppb	17:04:01
3	Se 196.026†	720.1	756.1	504.72 ug/L	504.72 ppb	17:04:01
3	Si 251.611†	77743.9	77620.5	2466.0 ug/L	2466.0 ppb	17:03:41
3	Sn 189.927†	2768.1	2775.6	492.52 ug/L	492.52 ppb	17:04:01
3	Ti 334.940†	296778.4	299783.0	482.73 ug/L	482.73 ppb	17:03:41
3	Tl 190.801†	1557.1	1598.5	493.41 ug/L	493.41 ppb	17:04:01
3	U 409.014†	14832.8	16925.9	497.65 ug/L	497.65 ppb	17:03:41
3	V 292.402†	69675.9	71368.3	494.10 ug/L	494.10 ppb	17:03:41
3	Zn 213.857†	51990.8	51656.1	484.33 ug/L	484.33 ppb	17:03:41
3	SiO2†	78042.5	77899.5	5301.8 ug/L	5301.8 ppb	17:04:17

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	845187.3	99.154	%	0.7008				0.71%
Sc Radial	4923.4	97.8	%	1.37				1.40%
Y 371.029	705048.1	97.562	%	0.6016				0.62%
Y RADIAL	5246.2	96.63	%	1.367				1.42%
Ag 328.068†	108107.6	500.85	ug/L	8.485	500.85	ppb	8.485	1.69%
QC value within limits for Ag 328.068 Recovery = 100.17%								
Al 396.153Radial†	6298.4	4834.9	ug/L	20.78	4834.9	ppb	20.78	0.43%
QC value within limits for Al 396.153Radial Recovery = 96.70%								
As 188.979†	1142.1	496.96	ug/L	7.805	496.96	ppb	7.805	1.57%
QC value within limits for As 188.979 Recovery = 99.39%								
B 249.677†	21941.5	487.25	ug/L	9.376	487.25	ppb	9.376	1.92%
QC value within limits for B 249.677 Recovery = 97.45%								
Ba 233.527†	62925.7	492.50	ug/L	8.532	492.50	ppb	8.532	1.73%
QC value within limits for Ba 233.527 Recovery = 98.50%								
Be 313.107†	1301524.0	497.02	ug/L	0.603	497.02	ppb	0.603	0.12%
QC value within limits for Be 313.107 Recovery = 99.40%								
Ca 317.933Radial†	3040.1	4864.5	ug/L	76.69	4864.5	ppb	76.69	1.58%

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   QC value within limits for Ca 317.933Radial  Recovery = 97.29%
Cd 226.502†            44432.1      492.95 ug/L         8.069      492.95 ppb          8.069   1.64%
   QC value within limits for Cd 226.502  Recovery = 98.59%
Co 228.616†            24134.5      494.12 ug/L         7.970      494.12 ppb          7.970   1.61%
   QC value within limits for Co 228.616  Recovery = 98.82%
Cr 267.716†            44116.9      493.83 ug/L         7.901      493.83 ppb          7.901   1.60%
   QC value within limits for Cr 267.716  Recovery = 98.77%
Cu 324.752†           162591.7      486.17 ug/L         9.360      486.17 ppb          9.360   1.93%
   QC value within limits for Cu 324.752  Recovery = 97.23%
Fe 238.204 Radial†       564.4      4899.4 ug/L         74.92      4899.4 ppb          74.92   1.53%
   QC value within limits for Fe 238.204 Radial  Recovery = 97.99%
K 766.490 Radial†      26883.8      4912.3 ug/L         18.28      4912.3 ppb          18.28   0.37%
   QC value within limits for K 766.490 Radial  Recovery = 98.25%
Mg 279.077 IEC†          149.8      5004.5 ug/L         37.33      5004.5 ppb          37.33   0.75%
   QC value within limits for Mg 279.077 IEC  Recovery = 100.09%
Mn 257.610†           445388.2      494.10 ug/L         0.246      494.10 ppb          0.246   0.05%
   QC value within limits for Mn 257.610  Recovery = 98.82%
Mo 202.031†             7054.9      498.99 ug/L         7.237      498.99 ppb          7.237   1.45%
   QC value within limits for Mo 202.031  Recovery = 99.80%
Na 589.592 Radial†     31633.8      9471.5 ug/L         29.45      9471.5 ppb          29.45   0.31%
   QC value within limits for Na 589.592 Radial  Recovery = 94.72%
Ni 231.604†            19862.5      494.28 ug/L         9.712      494.28 ppb          9.712   1.96%
   QC value within limits for Ni 231.604  Recovery = 98.86%
P 214.914†              4011.2      2348.5 ug/L         37.17      2348.5 ppb          37.17   1.58%
   QC value within limits for P 214.914  Recovery = 93.94%
Pb 220.353†             4049.2      497.47 ug/L         7.639      497.47 ppb          7.639   1.54%
   QC value within limits for Pb 220.353  Recovery = 99.49%
S 181.975 Axial†         699.3      988.77 ug/L        30.042      988.77 ppb         30.042   3.04%
   QC value within limits for S 181.975 Axial  Recovery = 98.88%
Sb 206.836†             1438.6      510.66 ug/L         5.019      510.66 ppb          5.019   0.98%
   QC value within limits for Sb 206.836  Recovery = 102.13%
Se 196.026†              767.0      511.63 ug/L         9.063      511.63 ppb          9.063   1.77%
   QC value within limits for Se 196.026  Recovery = 102.33%
Si 251.611†            78366.6      2489.7 ug/L         45.84      2489.7 ppb          45.84   1.84%
   QC value within limits for Si 251.611  Recovery = 99.59%
Sn 189.927†             2816.3      499.73 ug/L         8.672      499.73 ppb          8.672   1.74%
   QC value within limits for Sn 189.927  Recovery = 99.95%
Sr 421.552†            73719.0      476.11 ug/L         0.505      476.11 ppb          0.505   0.11%
   QC value within limits for Sr 421.552  Recovery = 95.22%
Ti 334.940†           302129.6      486.51 ug/L         8.344      486.51 ppb          8.344   1.72%
   QC value within limits for Ti 334.940  Recovery = 97.30%
Tl 190.801†             1610.9      497.21 ug/L         5.504      497.21 ppb          5.504   1.11%
   QC value within limits for Tl 190.801  Recovery = 99.44%
U 409.014†             16993.1      499.63 ug/L         7.233      499.63 ppb          7.233   1.45%
   QC value within limits for U 409.014  Recovery = 99.93%
V 292.402†             71889.4      497.75 ug/L         8.004      497.75 ppb          8.004   1.61%
   QC value within limits for V 292.402  Recovery = 99.55%
Zn 213.857†            52169.0      489.14 ug/L         8.276      489.14 ppb          8.276   1.69%
   QC value within limits for Zn 213.857  Recovery = 97.83%
SiO2†                  78604.2      5349.7 ug/L         46.62      5349.7 ppb          46.62   0.87%
   QC value within limits for SiO2  Recovery = 100.04%
All analyte(s) passed QC.
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Sequence No.: 17
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 1/11/2010 17:06:27
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Rep1#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4959.7	4959.7	98.5	%			17:08:18
1	Y RADIAL	5307.7	5307.7	97.76	%			17:08:18
1	Al 396.153Radial†	-4.9	-4.3	-3.3458	ug/L	-3.3458	ppb	17:08:18
1	Ca 317.933Radial†	19.8	0.3	0.4603	ug/L	0.4603	ppb	17:08:38
1	Fe 238.204 Radial†	9.5	0.7	6.1769	ug/L	6.1769	ppb	17:08:38
1	K 766.490 Radial†	2810.4	263.1	48.253	ug/L	48.253	ppb	17:08:18
1	Mg 279.077 IEC†	2.1	0.2	6.2400	ug/L	6.2400	ppb	17:08:38
1	Na 589.592 Radial†	-1295.3	-34.6	-10.370	ug/L	-10.370	ppb	17:08:18
1	Sr 421.552†	17.7	37.5	0.2423	ug/L	0.2423	ppb	17:08:18
1	Sc 361.383	837653.4	837653.4	98.270	%			17:09:35
1	Y 371.029	711362.6	711362.6	98.436	%			17:09:35
1	Ag 328.068†	346.0	-5.9	-0.0314	ug/L	-0.0314	ppb	17:09:35
1	As 188.979†	-19.8	3.5	1.5161	ug/L	1.5161	ppb	17:09:55
1	B 249.677†	-408.4	216.2	4.8206	ug/L	4.8206	ppb	17:09:55
1	Ba 233.527†	-26.8	-15.8	-0.1246	ug/L	-0.1246	ppb	17:09:55
1	Be 313.107†	-4542.8	-37.4	-0.0145	ug/L	-0.0145	ppb	17:09:35
1	Cd 226.502†	-183.5	17.4	0.1936	ug/L	0.1936	ppb	17:09:55
1	Co 228.616†	-86.9	-13.8	-0.2826	ug/L	-0.2826	ppb	17:09:55
1	Cr 267.716†	73.6	-8.4	-0.0963	ug/L	-0.0963	ppb	17:09:55
1	Cu 324.752†	6361.6	61.3	0.1808	ug/L	0.1808	ppb	17:09:35
1	Mn 257.610†	389.6	-48.4	-0.0533	ug/L	-0.0533	ppb	17:09:55
1	Mo 202.031†	22.1	-1.2	-0.0850	ug/L	-0.0850	ppb	17:09:55
1	Ni 231.604†	73.5	6.8	0.1706	ug/L	0.1706	ppb	17:09:55
1	P 214.914†	221.3	-4.7	-2.9009	ug/L	-2.9009	ppb	17:09:55
1	Pb 220.353†	-52.7	9.8	1.1934	ug/L	1.1934	ppb	17:09:55
1	S 181.975 Axial†	41.9	-0.4	-0.5198	ug/L	-0.5198	ppb	17:09:55
1	Sb 206.836†	32.4	5.1	1.7413	ug/L	1.7413	ppb	17:09:55
1	Se 196.026†	-31.4	0.0	0.0460	ug/L	0.0460	ppb	17:09:55
1	Si 251.611†	518.3	-23.0	-0.7330	ug/L	-0.7330	ppb	17:09:55
1	Sn 189.927†	11.8	4.4	0.7768	ug/L	0.7768	ppb	17:09:55
1	Ti 334.940†	-1421.1	-71.6	-0.1181	ug/L	-0.1181	ppb	17:09:35
1	Tl 190.801†	-34.6	-2.3	-0.7178	ug/L	-0.7178	ppb	17:09:55
1	U 409.014†	-1795.9	184.1	5.4311	ug/L	5.4311	ppb	17:09:35
1	V 292.402†	-1357.4	-71.5	-0.4799	ug/L	-0.4799	ppb	17:09:35
1	Zn 213.857†	621.8	12.5	0.1168	ug/L	0.1168	ppb	17:09:55
1	SiO2†	560.0	-1.9	-0.1242	ug/L	-0.1242	ppb	17:10:51
2	Sc Radial	4896.6	4896.6	97.2	%			17:08:43
2	Y RADIAL	5271.4	5271.4	97.09	%			17:08:43
2	Al 396.153Radial†	-10.4	-10.1	-7.7640	ug/L	-7.7640	ppb	17:08:43
2	Ca 317.933Radial†	15.3	-4.1	-6.5489	ug/L	-6.5489	ppb	17:09:03
2	Fe 238.204 Radial†	9.7	1.1	9.5272	ug/L	9.5272	ppb	17:09:03
2	K 766.490 Radial†	2927.0	419.8	76.971	ug/L	76.971	ppb	17:08:43
2	Mg 279.077 IEC†	2.3	0.5	16.572	ug/L	16.572	ppb	17:09:03
2	Na 589.592 Radial†	-1238.7	6.7	1.9955	ug/L	1.9955	ppb	17:08:43
2	Sr 421.552†	10.5	30.3	0.1958	ug/L	0.1958	ppb	17:08:43
2	Sc 361.383	843411.1	843411.1	98.946	%			17:10:00
2	Y 371.029	714722.4	714722.4	98.901	%			17:10:00
2	Ag 328.068†	311.8	-42.8	-0.1993	ug/L	-0.1993	ppb	17:10:00
2	As 188.979†	-15.2	8.2	3.5609	ug/L	3.5609	ppb	17:10:21
2	B 249.677†	-412.7	214.8	4.7872	ug/L	4.7872	ppb	17:10:21
2	Ba 233.527†	-17.4	-6.1	-0.0496	ug/L	-0.0496	ppb	17:10:21
2	Be 313.107†	-4553.8	-17.0	-0.0067	ug/L	-0.0067	ppb	17:10:00
2	Cd 226.502†	-193.1	8.9	0.0988	ug/L	0.0988	ppb	17:10:21
2	Co 228.616†	-73.3	0.6	0.0129	ug/L	0.0129	ppb	17:10:21
2	Cr 267.716†	74.6	-7.9	-0.0906	ug/L	-0.0906	ppb	17:10:21
2	Cu 324.752†	6431.1	87.4	0.2607	ug/L	0.2607	ppb	17:10:00
2	Mn 257.610†	398.2	-42.5	-0.0467	ug/L	-0.0467	ppb	17:10:21
2	Mo 202.031†	22.5	-1.0	-0.0689	ug/L	-0.0689	ppb	17:10:21
2	Ni 231.604†	83.4	16.4	0.4073	ug/L	0.4073	ppb	17:10:21

2	P 214.914†	224.9	-2.5	-1.6212 ug/L	-1.6212 ppb	17:10:21
2	Pb 220.353†	-60.9	1.8	0.2229 ug/L	0.2229 ppb	17:10:21
2	S 181.975 Axial†	44.0	1.5	2.0848 ug/L	2.0848 ppb	17:10:21
2	Sb 206.836†	38.1	10.6	3.6132 ug/L	3.6132 ppb	17:10:21
2	Se 196.026†	-33.3	-1.6	-1.0076 ug/L	-1.0076 ppb	17:10:21
2	Si 251.611†	524.7	-20.2	-0.6422 ug/L	-0.6422 ppb	17:10:21
2	Sn 189.927†	6.9	-0.7	-0.1207 ug/L	-0.1207 ppb	17:10:21
2	Ti 334.940†	-1414.5	-55.1	-0.0917 ug/L	-0.0917 ppb	17:10:00
2	Tl 190.801†	-31.9	0.6	0.1901 ug/L	0.1901 ppb	17:10:21
2	U 409.014†	-1916.5	74.7	2.2040 ug/L	2.2040 ppb	17:10:00
2	V 292.402†	-1430.0	-135.5	-0.9229 ug/L	-0.9229 ppb	17:10:00
2	Zn 213.857†	625.3	11.7	0.1068 ug/L	0.1068 ppb	17:10:21
2	SiO2†	536.0	-30.0	-2.0444 ug/L	-2.0444 ppb	17:10:56
3	Sc Radial	4974.8	4974.8	98.8 %		17:09:09
3	Y RADIAL	5378.8	5378.8	99.07 %		17:09:09
3	Al 396.153Radial†	-18.8	-18.4	-14.146 ug/L	-14.146 ppb	17:09:09
3	Ca 317.933Radial†	15.1	-4.5	-7.1798 ug/L	-7.1798 ppb	17:09:29
3	Fe 238.204 Radial†	9.7	1.0	8.2705 ug/L	8.2705 ppb	17:09:29
3	K 766.490 Radial†	2774.3	217.9	39.967 ug/L	39.967 ppb	17:09:09
3	Mg 279.077 IEC†	3.7	1.9	62.848 ug/L	62.848 ppb	17:09:29
3	Na 589.592 Radial†	-1258.0	7.2	2.1488 ug/L	2.1488 ppb	17:09:09
3	Sr 421.552†	-11.3	8.1	0.0522 ug/L	0.0522 ppb	17:09:09
3	Sc 361.383	844303.5	844303.5	99.050 %		17:10:26
3	Y 371.029	716237.9	716237.9	99.110 %		17:10:26
3	Ag 328.068†	314.4	-40.6	-0.1886 ug/L	-0.1886 ppb	17:10:26
3	As 188.979†	-17.9	5.5	2.3949 ug/L	2.3949 ppb	17:10:46
3	B 249.677†	-440.3	187.3	4.1753 ug/L	4.1753 ppb	17:10:46
3	Ba 233.527†	-21.7	-10.4	-0.0822 ug/L	-0.0822 ppb	17:10:46
3	Be 313.107†	-4533.0	8.9	0.0035 ug/L	0.0035 ppb	17:10:26
3	Cd 226.502†	-173.4	29.1	0.3224 ug/L	0.3224 ppb	17:10:46
3	Co 228.616†	-78.4	-4.4	-0.0930 ug/L	-0.0930 ppb	17:10:46
3	Cr 267.716†	76.4	-6.1	-0.0702 ug/L	-0.0702 ppb	17:10:46
3	Cu 324.752†	6457.0	106.7	0.3176 ug/L	0.3176 ppb	17:10:26
3	Mn 257.610†	394.1	-47.0	-0.0538 ug/L	-0.0538 ppb	17:10:46
3	Mo 202.031†	13.4	-10.1	-0.7159 ug/L	-0.7159 ppb	17:10:46
3	Ni 231.604†	73.8	6.5	0.1624 ug/L	0.1624 ppb	17:10:46
3	P 214.914†	212.3	-15.5	-9.5711 ug/L	-9.5711 ppb	17:10:46
3	Pb 220.353†	-51.4	11.5	1.3962 ug/L	1.3962 ppb	17:10:46
3	S 181.975 Axial†	45.6	3.0	4.3163 ug/L	4.3163 ppb	17:10:46
3	Sb 206.836†	32.2	4.6	1.5872 ug/L	1.5872 ppb	17:10:46
3	Se 196.026†	-37.1	-5.4	-3.4812 ug/L	-3.4812 ppb	17:10:46
3	Si 251.611†	531.5	-13.8	-0.4313 ug/L	-0.4313 ppb	17:10:46
3	Sn 189.927†	14.4	6.8	1.2111 ug/L	1.2111 ppb	17:10:46
3	Ti 334.940†	-1332.2	29.5	0.0401 ug/L	0.0401 ppb	17:10:26
3	Tl 190.801†	-43.1	-10.7	-3.2853 ug/L	-3.2853 ppb	17:10:46
3	U 409.014†	-1872.5	121.2	3.5749 ug/L	3.5749 ppb	17:10:26
3	V 292.402†	-1358.4	-61.7	-0.4250 ug/L	-0.4250 ppb	17:10:26
3	Zn 213.857†	635.8	21.7	0.2027 ug/L	0.2027 ppb	17:10:46
3	SiO2†	525.2	-41.4	-2.8052 ug/L	-2.8052 ppb	17:11:01

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	841789.4	98.755	%	0.4235				0.43%
Sc Radial	4943.7	98.2	%	0.82				0.84%
Y 371.029	714107.6	98.815	%	0.3453				0.35%
Y RADIAL	5319.3	97.97	%	1.006				1.03%
Ag 328.068†	-29.8	-0.1398	ug/L	0.09402	-0.1398	ppb	0.09402	67.27%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-10.9	-8.4184	ug/L	5.42955	-8.4184	ppb	5.42955	64.50%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	5.7	2.4906	ug/L	1.02573	2.4906	ppb	1.02573	41.18%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	206.1	4.5944	ug/L	0.36331	4.5944	ppb	0.36331	7.91%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-10.8	-0.0855	ug/L	0.03759	-0.0855	ppb	0.03759	43.98%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-15.2	-0.0059	ug/L	0.00903	-0.0059	ppb	0.00903	153.14%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-2.8	-4.4228	ug/L	4.24064	-4.4228	ppb	4.24064	95.88%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              18.5      0.2049 ug/L       0.11223      0.2049 ppb        0.11223  54.76%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†              -5.9     -0.1209 ug/L       0.14974     -0.1209 ppb        0.14974 123.85%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -7.5     -0.0857 ug/L       0.01374     -0.0857 ppb        0.01374  16.03%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              85.2      0.2530 ug/L       0.06875      0.2530 ppb        0.06875  27.17%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        0.9      7.9915 ug/L       1.69250      7.9915 ppb        1.69250  21.18%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       300.3      55.064 ug/L       19.4196      55.064 ppb        19.4196  35.27%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           0.9      28.553 ug/L       30.1458      28.553 ppb        30.1458 105.58%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†             -46.0     -0.0512 ug/L       0.00395     -0.0512 ppb        0.00395   7.72%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              -4.1     -0.2900 ug/L       0.36898     -0.2900 ppb        0.36898 127.25%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       -6.9     -2.0753 ug/L       7.18399     -2.0753 ppb        7.18399 346.16%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               9.9      0.2467 ug/L       0.13908      0.2467 ppb        0.13908  56.37%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -7.6     -4.6977 ug/L       4.26868     -4.6977 ppb        4.26868  90.87%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               7.7      0.9375 ug/L       0.62714      0.9375 ppb        0.62714  66.90%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          1.4      1.9604 ug/L       2.42045      1.9604 ppb        2.42045 123.46%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               6.7      2.3139 ug/L       1.12789      2.3139 ppb        1.12789  48.74%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              -2.3     -1.4809 ug/L       1.81058     -1.4809 ppb        1.81058 122.26%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†             -19.0     -0.6022 ug/L       0.15479     -0.6022 ppb        0.15479  25.71%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               3.5      0.6224 ug/L       0.67922      0.6224 ppb        0.67922 109.13%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              25.3      0.1634 ug/L       0.09908      0.1634 ppb        0.09908  60.62%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             -32.4     -0.0566 ug/L       0.08476     -0.0566 ppb        0.08476 149.73%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -4.1     -1.2710 ug/L       1.80250     -1.2710 ppb        1.80250 141.82%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              126.7      3.7367 ug/L       1.61963      3.7367 ppb        1.61963  43.34%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              -89.6     -0.6093 ug/L       0.27299     -0.6093 ppb        0.27299  44.81%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              15.3      0.1421 ug/L       0.05274      0.1421 ppb        0.05274  37.12%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                   -24.4     -1.6579 ug/L       1.38166     -1.6579 ppb        1.38166  83.34%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 24
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 1/11/2010 17:54:51
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4943.4	4943.4	98.2	%			17:56:43
1	Y RADIAL	5326.3	5326.3	98.10	%			17:56:43
1	Al 396.153Radial†	6221.6	6337.9	4865.1	ug/L	4865.1	ppb	17:56:43
1	Ca 317.933Radial†	3084.4	3121.9	4995.4	ug/L	4995.4	ppb	17:57:03
1	Fe 238.204 Radial†	585.8	587.8	5102.0	ug/L	5102.0	ppb	17:57:03
1	K 766.490 Radial†	29082.8	27033.0	4939.2	ug/L	4939.2	ppb	17:56:43
1	Mg 279.077 IEC†	154.5	155.5	5194.4	ug/L	5194.4	ppb	17:57:03
1	Na 589.592 Radial†	31924.6	33798.2	10120	ug/L	10120	ppb	17:56:43
1	Sr 421.552†	74675.0	76082.0	491.37	ug/L	491.37	ppb	17:56:43
1	Sc 361.383	845530.9	845530.9	99.194	%			17:58:00
1	Y 371.029	705679.4	705679.4	97.649	%			17:58:00
1	Ag 328.068†	110106.0	110642.2	512.63	ug/L	512.63	ppb	17:58:05
1	As 188.979†	1110.7	1143.3	497.56	ug/L	497.56	ppb	17:58:25
1	B 249.677†	21674.1	22482.0	499.24	ug/L	499.24	ppb	17:58:05
1	Ba 233.527†	63973.4	64504.3	504.85	ug/L	504.85	ppb	17:58:05
1	Be 313.107†	1297233.9	1312354.9	501.18	ug/L	501.18	ppb	17:58:00
1	Cd 226.502†	45043.4	45613.3	506.04	ug/L	506.04	ppb	17:58:05
1	Co 228.616†	24493.4	24767.0	507.05	ug/L	507.05	ppb	17:58:05
1	Cr 267.716†	44813.9	45094.7	504.78	ug/L	504.78	ppb	17:58:05
1	Cu 324.752†	172335.0	167322.5	500.32	ug/L	500.32	ppb	17:58:05
1	Mn 257.610†	444721.0	447888.0	496.89	ug/L	496.89	ppb	17:58:00
1	Mo 202.031†	7106.9	7141.0	505.09	ug/L	505.09	ppb	17:58:25
1	Ni 231.604†	20226.5	20322.8	505.74	ug/L	505.74	ppb	17:58:05
1	P 214.914†	4247.0	4051.7	2370.1	ug/L	2370.1	ppb	17:58:25
1	Pb 220.353†	3993.6	4089.4	502.39	ug/L	502.39	ppb	17:58:25
1	S 181.975 Axial†	773.7	736.9	1042.0	ug/L	1042.0	ppb	17:58:25
1	Sb 206.836†	1472.3	1456.4	516.97	ug/L	516.97	ppb	17:58:25
1	Se 196.026†	733.8	771.8	515.41	ug/L	515.41	ppb	17:58:25
1	Si 251.611†	80324.8	80426.7	2555.2	ug/L	2555.2	ppb	17:58:05
1	Sn 189.927†	2834.6	2849.9	505.70	ug/L	505.70	ppb	17:58:25
1	Ti 334.940†	305739.2	309596.8	498.53	ug/L	498.53	ppb	17:58:05
1	Tl 190.801†	1589.9	1635.7	504.84	ug/L	504.84	ppb	17:58:25
1	U 409.014†	15255.7	17391.2	511.33	ug/L	511.33	ppb	17:58:05
1	V 292.402†	71801.3	73694.1	510.14	ug/L	510.14	ppb	17:58:05
1	Zn 213.857†	53681.6	53497.4	501.59	ug/L	501.59	ppb	17:58:05
1	SiO2†	79690.8	79766.3	5428.8	ug/L	5428.8	ppb	17:59:33
2	Sc Radial	4980.6	4980.6	98.9	%			17:57:08
2	Y RADIAL	5296.3	5296.3	97.55	%			17:57:08
2	Al 396.153Radial†	6157.6	6225.8	4778.7	ug/L	4778.7	ppb	17:57:08
2	Ca 317.933Radial†	3058.1	3071.9	4915.3	ug/L	4915.3	ppb	17:57:28
2	Fe 238.204 Radial†	585.6	583.2	5061.8	ug/L	5061.8	ppb	17:57:28
2	K 766.490 Radial†	28944.9	26672.5	4873.1	ug/L	4873.1	ppb	17:57:08
2	Mg 279.077 IEC†	156.7	156.5	5228.2	ug/L	5228.2	ppb	17:57:28
2	Na 589.592 Radial†	31804.4	33434.0	10011	ug/L	10011	ppb	17:57:08
2	Sr 421.552†	74078.2	74911.0	483.81	ug/L	483.81	ppb	17:57:08
2	Sc 361.383	846831.5	846831.5	99.347	%			17:58:31
2	Y 371.029	705456.9	705456.9	97.618	%			17:58:31
2	Ag 328.068†	108118.4	108471.1	502.59	ug/L	502.59	ppb	17:58:36
2	As 188.979†	1117.1	1148.0	499.55	ug/L	499.55	ppb	17:58:56
2	B 249.677†	21349.6	22121.8	491.23	ug/L	491.23	ppb	17:58:36
2	Ba 233.527†	62954.3	63379.5	496.05	ug/L	496.05	ppb	17:58:36
2	Be 313.107†	1301692.7	1314834.6	502.10	ug/L	502.10	ppb	17:58:31
2	Cd 226.502†	44261.0	44756.0	496.52	ug/L	496.52	ppb	17:58:36
2	Co 228.616†	24150.7	24384.1	499.23	ug/L	499.23	ppb	17:58:36
2	Cr 267.716†	44168.1	44375.1	496.72	ug/L	496.72	ppb	17:58:36
2	Cu 324.752†	168771.4	163468.6	488.81	ug/L	488.81	ppb	17:58:36
2	Mn 257.610†	447518.7	450015.5	499.24	ug/L	499.24	ppb	17:58:31
2	Mo 202.031†	7101.8	7124.8	503.95	ug/L	503.95	ppb	17:58:56
2	Ni 231.604†	19954.2	20017.4	498.14	ug/L	498.14	ppb	17:58:36

2	P 214.914†	4241.2	4039.2	2365.0 ug/L	2365.0 ppb	17:58:56
2	Pb 220.353†	3977.7	4067.2	499.66 ug/L	499.66 ppb	17:58:56
2	S 181.975 Axial†	769.5	731.6	1034.4 ug/L	1034.4 ppb	17:58:56
2	Sb 206.836†	1481.5	1463.3	519.36 ug/L	519.36 ppb	17:58:56
2	Se 196.026†	733.7	770.5	514.46 ug/L	514.46 ppb	17:58:56
2	Si 251.611†	79005.7	78974.6	2509.0 ug/L	2509.0 ppb	17:58:36
2	Sn 189.927†	2847.3	2858.3	507.18 ug/L	507.18 ppb	17:58:56
2	Ti 334.940†	300290.7	303639.2	488.93 ug/L	488.93 ppb	17:58:36
2	Tl 190.801†	1587.8	1631.1	503.44 ug/L	503.44 ppb	17:58:56
2	U 409.014†	14775.6	16884.3	496.40 ug/L	496.40 ppb	17:58:36
2	V 292.402†	70573.4	72347.0	500.92 ug/L	500.92 ppb	17:58:36
2	Zn 213.857†	52831.6	52558.6	492.78 ug/L	492.78 ppb	17:58:36
2	SiO2†	79443.8	79394.3	5403.5 ug/L	5403.5 ppb	17:59:38
3	Sc Radial	4940.6	4940.6	98.1 %		17:57:33
3	Y RADIAL	5244.0	5244.0	96.59 %		17:57:33
3	Al 396.153Radial†	6201.9	6321.4	4852.6 ug/L	4852.6 ppb	17:57:33
3	Ca 317.933Radial†	3035.5	3074.0	4918.6 ug/L	4918.6 ppb	17:57:53
3	Fe 238.204 Radial†	573.3	575.4	4994.1 ug/L	4994.1 ppb	17:57:53
3	K 766.490 Radial†	29108.4	27076.3	4947.1 ug/L	4947.1 ppb	17:57:33
3	Mg 279.077 IEC†	153.8	154.8	5173.0 ug/L	5173.0 ppb	17:57:53
3	Na 589.592 Radial†	31837.3	33728.2	10099 ug/L	10099 ppb	17:57:33
3	Sr 421.552†	74383.3	75828.9	489.74 ug/L	489.74 ppb	17:57:33
3	Sc 361.383	845532.3	845532.3	99.195 %		17:59:02
3	Y 371.029	703814.3	703814.3	97.391 %		17:59:02
3	Ag 328.068†	108607.2	109131.1	505.61 ug/L	505.61 ppb	17:59:07
3	As 188.979†	1114.9	1147.6	499.35 ug/L	499.35 ppb	17:59:27
3	B 249.677†	21384.0	22189.5	492.75 ug/L	492.75 ppb	17:59:07
3	Ba 233.527†	63066.7	63590.2	497.70 ug/L	497.70 ppb	17:59:07
3	Be 313.107†	1297232.3	1312351.2	501.16 ug/L	501.16 ppb	17:59:02
3	Cd 226.502†	44292.5	44856.3	497.65 ug/L	497.65 ppb	17:59:07
3	Co 228.616†	24132.8	24403.4	499.62 ug/L	499.62 ppb	17:59:07
3	Cr 267.716†	44341.5	44618.3	499.44 ug/L	499.44 ppb	17:59:07
3	Cu 324.752†	169422.0	164385.5	491.54 ug/L	491.54 ppb	17:59:07
3	Mn 257.610†	446325.3	449504.7	498.67 ug/L	498.67 ppb	17:59:02
3	Mo 202.031†	7055.8	7089.4	501.44 ug/L	501.44 ppb	17:59:27
3	Ni 231.604†	19961.1	20055.2	499.08 ug/L	499.08 ppb	17:59:07
3	P 214.914†	4227.3	4031.7	2359.9 ug/L	2359.9 ppb	17:59:27
3	Pb 220.353†	3982.2	4077.9	500.98 ug/L	500.98 ppb	17:59:27
3	S 181.975 Axial†	762.9	726.1	1026.7 ug/L	1026.7 ppb	17:59:27
3	Sb 206.836†	1468.4	1452.4	515.48 ug/L	515.48 ppb	17:59:27
3	Se 196.026†	733.4	771.3	514.75 ug/L	514.75 ppb	17:59:27
3	Si 251.611†	79182.1	79274.6	2518.6 ug/L	2518.6 ppb	17:59:07
3	Sn 189.927†	2818.8	2834.0	502.87 ug/L	502.87 ppb	17:59:27
3	Ti 334.940†	301118.4	304938.0	491.02 ug/L	491.02 ppb	17:59:07
3	Tl 190.801†	1587.9	1633.6	504.21 ug/L	504.21 ppb	17:59:27
3	U 409.014†	15084.2	17218.3	506.25 ug/L	506.25 ppb	17:59:07
3	V 292.402†	70750.3	72634.5	502.87 ug/L	502.87 ppb	17:59:07
3	Zn 213.857†	52945.3	52755.0	494.64 ug/L	494.64 ppb	17:59:07
3	SiO2†	79380.6	79453.5	5407.6 ug/L	5407.6 ppb	17:59:43

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	845964.9	99.245	%	0.0880				0.09%
Sc Radial	4954.9	98.4	%	0.44				0.45%
Y 371.029	704983.6	97.553	%	0.1410				0.14%
Y RADIAL	5288.9	97.41	%	0.767				0.79%
Ag 328.068†	109414.8	506.94	ug/L	5.148	506.94	ppb	5.148	1.02%
QC value within limits for Ag 328.068 Recovery = 101.39%								
Al 396.153Radial†	6295.0	4832.1	ug/L	46.69	4832.1	ppb	46.69	0.97%
QC value within limits for Al 396.153Radial Recovery = 96.64%								
As 188.979†	1146.3	498.82	ug/L	1.096	498.82	ppb	1.096	0.22%
QC value within limits for As 188.979 Recovery = 99.76%								
B 249.677†	22264.4	494.41	ug/L	4.252	494.41	ppb	4.252	0.86%
QC value within limits for B 249.677 Recovery = 98.88%								
Ba 233.527†	63824.7	499.53	ug/L	4.680	499.53	ppb	4.680	0.94%
QC value within limits for Ba 233.527 Recovery = 99.91%								
Be 313.107†	1313180.3	501.48	ug/L	0.538	501.48	ppb	0.538	0.11%
QC value within limits for Be 313.107 Recovery = 100.30%								
Ca 317.933Radial†	3089.3	4943.1	ug/L	45.31	4943.1	ppb	45.31	0.92%

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   QC value within limits for Ca 317.933Radial  Recovery = 98.86%
Cd 226.502†          45075.2      500.07 ug/L        5.201      500.07 ppb        5.201   1.04%
   QC value within limits for Cd 226.502  Recovery = 100.01%
Co 228.616†          24518.2      501.97 ug/L        4.407      501.97 ppb        4.407   0.88%
   QC value within limits for Co 228.616  Recovery = 100.39%
Cr 267.716†          44696.0      500.31 ug/L        4.097      500.31 ppb        4.097   0.82%
   QC value within limits for Cr 267.716  Recovery = 100.06%
Cu 324.752†         165058.9      493.56 ug/L        6.018      493.56 ppb        6.018   1.22%
   QC value within limits for Cu 324.752  Recovery = 98.71%
Fe 238.204 Radial†     582.1      5052.6 ug/L        54.49      5052.6 ppb        54.49   1.08%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.05%
K 766.490 Radial†    26927.3      4919.8 ug/L        40.63      4919.8 ppb        40.63   0.83%
   QC value within limits for K 766.490 Radial  Recovery = 98.40%
Mg 279.077 IEC†        155.6      5198.5 ug/L        27.82      5198.5 ppb        27.82   0.54%
   QC value within limits for Mg 279.077 IEC  Recovery = 103.97%
Mn 257.610†         449136.1      498.27 ug/L        1.227      498.27 ppb        1.227   0.25%
   QC value within limits for Mn 257.610  Recovery = 99.65%
Mo 202.031†          7118.4      503.49 ug/L        1.868      503.49 ppb        1.868   0.37%
   QC value within limits for Mo 202.031  Recovery = 100.70%
Na 589.592 Radial†   33653.5       10076 ug/L         57.9       10076 ppb         57.9   0.57%
   QC value within limits for Na 589.592 Radial  Recovery = 100.76%
Ni 231.604†          20131.8      500.98 ug/L        4.143      500.98 ppb        4.143   0.83%
   QC value within limits for Ni 231.604  Recovery = 100.20%
P 214.914†            4040.9      2365.0 ug/L         5.11      2365.0 ppb         5.11   0.22%
   QC value within limits for P 214.914  Recovery = 94.60%
Pb 220.353†           4078.2      501.01 ug/L        1.365      501.01 ppb        1.365   0.27%
   QC value within limits for Pb 220.353  Recovery = 100.20%
S 181.975 Axial†       731.5      1034.4 ug/L         7.66      1034.4 ppb         7.66   0.74%
   QC value within limits for S 181.975 Axial  Recovery = 103.44%
Sb 206.836†           1457.3      517.27 ug/L        1.954      517.27 ppb        1.954   0.38%
   QC value within limits for Sb 206.836  Recovery = 103.45%
Se 196.026†            771.2      514.87 ug/L        0.489      514.87 ppb        0.489   0.09%
   QC value within limits for Se 196.026  Recovery = 102.97%
Si 251.611†          79558.6      2527.6 ug/L        24.40      2527.6 ppb        24.40   0.97%
   QC value within limits for Si 251.611  Recovery = 101.10%
Sn 189.927†           2847.4      505.25 ug/L        2.188      505.25 ppb        2.188   0.43%
   QC value within limits for Sn 189.927  Recovery = 101.05%
Sr 421.552†          75607.3      488.30 ug/L        3.980      488.30 ppb        3.980   0.81%
   QC value within limits for Sr 421.552  Recovery = 97.66%
Ti 334.940†         306058.0      492.83 ug/L        5.049      492.83 ppb        5.049   1.02%
   QC value within limits for Ti 334.940  Recovery = 98.57%
Tl 190.801†           1633.5      504.16 ug/L        0.698      504.16 ppb        0.698   0.14%
   QC value within limits for Tl 190.801  Recovery = 100.83%
U 409.014†           17164.6      504.66 ug/L        7.591      504.66 ppb        7.591   1.50%
   QC value within limits for U 409.014  Recovery = 100.93%
V 292.402†           72891.9      504.64 ug/L        4.860      504.64 ppb        4.860   0.96%
   QC value within limits for V 292.402  Recovery = 100.93%
Zn 213.857†          52937.0      496.34 ug/L        4.645      496.34 ppb        4.645   0.94%
   QC value within limits for Zn 213.857  Recovery = 99.27%
SiO2†                79538.0      5413.3 ug/L        13.61      5413.3 ppb        13.61   0.25%
   QC value within limits for SiO2  Recovery = 101.23%
All analyte(s) passed QC.
```

Sequence No.: 25
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 1/11/2010 18:01:52
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5032.1	5032.1	99.9	%			18:03:44
1	Y RADIAL	5414.0	5414.0	99.72	%			18:03:44
1	Al 396.153Radial†	-15.3	-14.6	-11.291	ug/L	-11.291	ppb	18:03:44
1	Ca 317.933Radial†	17.7	-2.0	-3.2800	ug/L	-3.2800	ppb	18:04:04
1	Fe 238.204 Radial†	13.6	4.7	40.999	ug/L	40.999	ppb	18:04:04
1	K 766.490 Radial†	2764.5	176.1	32.254	ug/L	32.254	ppb	18:03:44
1	Mg 279.077 IEC†	0.7	-1.2	-39.898	ug/L	-39.898	ppb	18:04:04
1	Na 589.592 Radial†	-1075.7	204.0	61.089	ug/L	61.089	ppb	18:03:44
1	Sr 421.552†	41.1	60.7	0.3919	ug/L	0.3919	ppb	18:03:44
1	Sc 361.383	841942.6	841942.6	98.773	%			18:05:01
1	Y 371.029	716299.6	716299.6	99.119	%			18:05:01
1	Ag 328.068†	292.4	-62.0	-0.2711	ug/L	-0.2711	ppb	18:05:01
1	As 188.979†	-20.6	2.8	1.2194	ug/L	1.2194	ppb	18:05:21
1	B 249.677†	-432.2	194.3	4.3267	ug/L	4.3267	ppb	18:05:21
1	Ba 233.527†	-14.5	-3.3	-0.0244	ug/L	-0.0244	ppb	18:05:21
1	Be 313.107†	-4496.2	33.3	0.0129	ug/L	0.0129	ppb	18:05:01
1	Cd 226.502†	-196.1	5.5	0.0567	ug/L	0.0567	ppb	18:05:21
1	Co 228.616†	-79.0	-5.3	-0.1085	ug/L	-0.1085	ppb	18:05:21
1	Cr 267.716†	100.0	18.0	0.2021	ug/L	0.2021	ppb	18:05:21
1	Cu 324.752†	6346.0	12.6	0.0408	ug/L	0.0408	ppb	18:05:01
1	Mn 257.610†	417.3	-22.4	-0.0186	ug/L	-0.0186	ppb	18:05:21
1	Mo 202.031†	29.3	6.0	0.4237	ug/L	0.4237	ppb	18:05:21
1	Ni 231.604†	62.8	-4.4	-0.1101	ug/L	-0.1101	ppb	18:05:21
1	P 214.914†	215.4	-11.8	-7.2505	ug/L	-7.2505	ppb	18:05:21
1	Pb 220.353†	-64.2	-1.7	-0.2107	ug/L	-0.2107	ppb	18:05:21
1	S 181.975 Axial†	67.7	25.5	36.124	ug/L	36.124	ppb	18:05:21
1	Sb 206.836†	39.0	11.6	3.9684	ug/L	3.9684	ppb	18:05:21
1	Se 196.026†	-29.3	2.3	1.6428	ug/L	1.6428	ppb	18:05:21
1	Si 251.611†	551.3	7.7	0.2410	ug/L	0.2410	ppb	18:05:21
1	Sn 189.927†	5.1	-2.5	-0.4355	ug/L	-0.4355	ppb	18:05:21
1	Ti 334.940†	-1301.9	56.5	0.0945	ug/L	0.0945	ppb	18:05:01
1	Tl 190.801†	-29.2	3.3	1.0204	ug/L	1.0204	ppb	18:05:21
1	U 409.014†	-2040.2	-54.0	-1.5967	ug/L	-1.5967	ppb	18:05:01
1	V 292.402†	-1301.0	-7.4	-0.0547	ug/L	-0.0547	ppb	18:05:01
1	Zn 213.857†	634.9	22.6	0.2102	ug/L	0.2102	ppb	18:05:21
1	SiO2†	552.6	-12.2	-0.8472	ug/L	-0.8472	ppb	18:06:17
2	Sc Radial	5088.6	5088.6	101	%			18:04:09
2	Y RADIAL	5460.6	5460.6	100.6	%			18:04:09
2	Al 396.153Radial†	16.4	16.9	13.046	ug/L	13.046	ppb	18:04:09
2	Ca 317.933Radial†	18.1	-1.9	-3.0157	ug/L	-3.0157	ppb	18:04:30
2	Fe 238.204 Radial†	7.1	-1.9	-16.122	ug/L	-16.122	ppb	18:04:30
2	K 766.490 Radial†	2599.4	-18.0	-3.3445	ug/L	-3.3445	ppb	18:04:09
2	Mg 279.077 IEC†	5.9	3.9	131.67	ug/L	131.67	ppb	18:04:30
2	Na 589.592 Radial†	-1059.8	231.8	69.392	ug/L	69.392	ppb	18:04:09
2	Sr 421.552†	36.0	55.1	0.3561	ug/L	0.3561	ppb	18:04:09
2	Sc 361.383	827958.1	827958.1	97.133	%			18:05:27
2	Y 371.029	703295.6	703295.6	97.319	%			18:05:27
2	Ag 328.068†	285.1	-64.4	-0.3026	ug/L	-0.3026	ppb	18:05:27
2	As 188.979†	-19.3	3.8	1.6437	ug/L	1.6437	ppb	18:05:47
2	B 249.677†	-436.4	182.6	4.0715	ug/L	4.0715	ppb	18:05:47
2	Ba 233.527†	-12.6	-1.6	-0.0145	ug/L	-0.0145	ppb	18:05:47
2	Be 313.107†	-4441.1	13.2	0.0053	ug/L	0.0053	ppb	18:05:27
2	Cd 226.502†	-197.9	0.4	0.0053	ug/L	0.0053	ppb	18:05:47
2	Co 228.616†	-69.3	3.3	0.0670	ug/L	0.0670	ppb	18:05:47
2	Cr 267.716†	93.6	13.2	0.1465	ug/L	0.1465	ppb	18:05:47
2	Cu 324.752†	6334.7	109.4	0.3276	ug/L	0.3276	ppb	18:05:27
2	Mn 257.610†	419.5	-13.0	-0.0216	ug/L	-0.0216	ppb	18:05:47
2	Mo 202.031†	20.6	-2.5	-0.1779	ug/L	-0.1779	ppb	18:05:47
2	Ni 231.604†	67.7	1.7	0.0432	ug/L	0.0432	ppb	18:05:47

2	P 214.914†	220.5	-2.9	-1.8284 ug/L	-1.8284 ppb	18:05:47
2	Pb 220.353†	-48.4	13.5	1.6580 ug/L	1.6580 ppb	18:05:47
2	S 181.975 Axial†	55.3	13.9	19.705 ug/L	19.705 ppb	18:05:47
2	Sb 206.836†	41.8	15.1	5.1298 ug/L	5.1298 ppb	18:05:47
2	Se 196.026†	-37.8	-6.9	-4.4783 ug/L	-4.4783 ppb	18:05:47
2	Si 251.611†	528.5	-6.3	-0.1991 ug/L	-0.1991 ppb	18:05:47
2	Sn 189.927†	-2.9	-10.7	-1.8935 ug/L	-1.8935 ppb	18:05:47
2	Ti 334.940†	-1255.1	82.4	0.1225 ug/L	0.1225 ppb	18:05:27
2	Tl 190.801†	-31.5	0.4	0.1292 ug/L	0.1292 ppb	18:05:47
2	U 409.014†	-2026.4	-74.6	-2.2002 ug/L	-2.2002 ppb	18:05:27
2	V 292.402†	-1364.1	-94.7	-0.6482 ug/L	-0.6482 ppb	18:05:27
2	Zn 213.857†	617.7	15.7	0.1494 ug/L	0.1494 ppb	18:05:47
2	SiO2†	544.4	-11.2	-0.7600 ug/L	-0.7600 ppb	18:06:22
3	Sc Radial	4992.2	4992.2	99.1 %		18:04:35
3	Y RADIAL	5397.0	5397.0	99.40 %		18:04:35
3	Al 396.153Radial†	-1.3	-0.6	-0.4769 ug/L	-0.4769 ppb	18:04:35
3	Ca 317.933Radial†	15.3	-4.3	-6.9230 ug/L	-6.9230 ppb	18:04:55
3	Fe 238.204 Radial†	10.3	1.5	12.892 ug/L	12.892 ppb	18:04:55
3	K 766.490 Radial†	2660.8	93.6	17.140 ug/L	17.140 ppb	18:04:35
3	Mg 279.077 IEC†	-0.4	-2.4	-78.673 ug/L	-78.673 ppb	18:04:55
3	Na 589.592 Radial†	-1117.2	153.6	45.990 ug/L	45.990 ppb	18:04:35
3	Sr 421.552†	19.3	39.0	0.2517 ug/L	0.2517 ppb	18:04:35
3	Sc 361.383	835723.6	835723.6	98.044 %		18:05:52
3	Y 371.029	710110.9	710110.9	98.262 %		18:05:52
3	Ag 328.068†	317.7	-33.9	-0.1524 ug/L	-0.1524 ppb	18:05:52
3	As 188.979†	-23.8	-0.7	-0.2952 ug/L	-0.2952 ppb	18:06:12
3	B 249.677†	-447.7	175.3	3.9063 ug/L	3.9063 ppb	18:06:12
3	Ba 233.527†	-20.4	-9.4	-0.0743 ug/L	-0.0743 ppb	18:06:12
3	Be 313.107†	-4511.7	-16.3	-0.0064 ug/L	-0.0064 ppb	18:05:52
3	Cd 226.502†	-186.3	14.1	0.1550 ug/L	0.1550 ppb	18:06:12
3	Co 228.616†	-80.5	-7.4	-0.1528 ug/L	-0.1528 ppb	18:06:12
3	Cr 267.716†	99.4	18.1	0.2029 ug/L	0.2029 ppb	18:06:12
3	Cu 324.752†	6417.0	132.8	0.3989 ug/L	0.3989 ppb	18:05:52
3	Mn 257.610†	430.8	-5.4	-0.0014 ug/L	-0.0014 ppb	18:06:12
3	Mo 202.031†	17.9	-5.4	-0.3814 ug/L	-0.3814 ppb	18:06:12
3	Ni 231.604†	70.0	3.4	0.0845 ug/L	0.0845 ppb	18:06:12
3	P 214.914†	221.2	-4.3	-2.7203 ug/L	-2.7203 ppb	18:06:12
3	Pb 220.353†	-45.2	17.3	2.1165 ug/L	2.1165 ppb	18:06:12
3	S 181.975 Axial†	58.7	16.9	23.929 ug/L	23.929 ppb	18:06:12
3	Sb 206.836†	42.6	15.6	5.3268 ug/L	5.3268 ppb	18:06:12
3	Se 196.026†	-27.5	4.0	2.6010 ug/L	2.6010 ppb	18:06:12
3	Si 251.611†	541.0	1.3	0.0463 ug/L	0.0463 ppb	18:06:12
3	Sn 189.927†	7.3	-0.2	-0.0419 ug/L	-0.0419 ppb	18:06:12
3	Ti 334.940†	-1399.4	-52.8	-0.0785 ug/L	-0.0785 ppb	18:05:52
3	Tl 190.801†	-37.9	-5.8	-1.7945 ug/L	-1.7945 ppb	18:06:12
3	U 409.014†	-2040.8	-69.9	-2.0643 ug/L	-2.0643 ppb	18:05:52
3	V 292.402†	-1360.6	-78.1	-0.5460 ug/L	-0.5460 ppb	18:05:52
3	Zn 213.857†	617.9	10.0	0.0924 ug/L	0.0924 ppb	18:06:12
3	SiO2†	570.9	10.6	0.7314 ug/L	0.7314 ppb	18:06:27

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	835208.1	97.983	%	0.8220				0.84%
Sc Radial	5037.7	100	%	1.0				0.96%
Y 371.029	709902.0	98.234	%	0.9001				0.92%
Y RADIAL	5423.9	99.90	%	0.606				0.61%
Ag 328.068†	-53.5	-0.2420	ug/L	0.07922	-0.2420	ppb	0.07922	32.73%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	0.5	0.4259	ug/L	12.19337	0.4259	ppb	12.19337	>999.9%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	2.0	0.8560	ug/L	1.01923	0.8560	ppb	1.01923	119.07%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	184.0	4.1015	ug/L	0.21183	4.1015	ppb	0.21183	5.16%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-4.8	-0.0377	ug/L	0.03202	-0.0377	ppb	0.03202	84.87%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	10.0	0.0039	ug/L	0.00973	0.0039	ppb	0.00973	247.36%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-2.8	-4.4062	ug/L	2.18357	-4.4062	ppb	2.18357	49.56%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                 6.7      0.0723 ug/L       0.07602      0.0723 ppb        0.07602 105.10%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                -3.1     -0.0648 ug/L       0.11624     -0.0648 ppb        0.11624 179.45%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                16.4      0.1838 ug/L       0.03237      0.1838 ppb        0.03237  17.61%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†                84.9      0.2558 ug/L       0.18958      0.2558 ppb        0.18958  74.12%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          1.5     12.590 ug/L       28.5613     12.590 ppb        28.5613 226.86%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          83.9     15.350 ug/L       17.8665     15.350 ppb        17.8665 116.40%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             0.1      4.3650 ug/L     111.93789      4.3650 ppb       111.93789 >999.9%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               -13.6     -0.0139 ug/L       0.01092     -0.0139 ppb        0.01092  78.75%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                -0.7     -0.0452 ug/L       0.41864     -0.0452 ppb        0.41864 927.03%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        196.5     58.823 ug/L       11.8639     58.823 ppb        11.8639  20.17%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                 0.2      0.0059 ug/L       0.10255      0.0059 ppb        0.10255 >999.9%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -6.3     -3.9331 ug/L       2.90736     -3.9331 ppb        2.90736  73.92%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                 9.7      1.1879 ug/L       1.23277      1.1879 ppb        1.23277 103.77%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           18.8     26.586 ug/L        8.5259     26.586 ppb         8.5259  32.07%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                14.1      4.8083 ug/L       0.73402      4.8083 ppb        0.73402  15.27%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -0.2     -0.0782 ug/L       3.84063     -0.0782 ppb        3.84063 >999.9%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                 0.9      0.0294 ug/L       0.22052      0.0294 ppb        0.22052 750.90%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                -4.5     -0.7903 ug/L       0.97541     -0.7903 ppb        0.97541 123.42%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                51.6      0.3332 ug/L       0.07283      0.3332 ppb        0.07283  21.85%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                28.7      0.0462 ug/L       0.10890      0.0462 ppb        0.10890 235.88%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                -0.7     -0.2150 ug/L       1.43867     -0.2150 ppb        1.43867 669.30%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                -66.2     -1.9537 ug/L       0.31659     -1.9537 ppb        0.31659  16.20%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                -60.1     -0.4163 ug/L       0.31725     -0.4163 ppb        0.31725  76.21%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                16.1      0.1507 ug/L       0.05891      0.1507 ppb        0.05891  39.10%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                      -4.3     -0.2919 ug/L       0.88728     -0.2919 ppb        0.88728 303.95%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 33
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 1/11/2010 18:58:03
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5144.6	5144.6	102	%			18:59:55
1	Y RADIAL	5507.0	5507.0	101.4	%			18:59:55
1	Al 396.153Radial†	6406.2	6270.7	4813.1	ug/L	4813.1	ppb	18:59:55
1	Ca 317.933Radial†	3114.2	3028.3	4845.5	ug/L	4845.5	ppb	19:00:15
1	Fe 238.204 Radial†	592.9	571.4	4960.0	ug/L	4960.0	ppb	19:00:15
1	K 766.490 Radial†	29692.5	26471.4	4836.2	ug/L	4836.2	ppb	18:59:55
1	Mg 279.077 IEC†	157.5	152.2	5085.6	ug/L	5085.6	ppb	19:00:15
1	Na 589.592 Radial†	32930.9	33511.6	10034	ug/L	10034	ppb	18:59:55
1	Sr 421.552†	76540.8	74933.9	483.95	ug/L	483.95	ppb	18:59:55
1	Sc 361.383	849883.4	849883.4	99.705	%			19:01:12
1	Y 371.029	708700.0	708700.0	98.067	%			19:01:12
1	Ag 328.068†	109742.0	109708.7	508.27	ug/L	508.27	ppb	19:01:17
1	As 188.979†	1136.7	1163.7	506.32	ug/L	506.32	ppb	19:01:38
1	B 249.677†	21497.9	22193.3	492.83	ug/L	492.83	ppb	19:01:17
1	Ba 233.527†	63727.5	63927.5	500.34	ug/L	500.34	ppb	19:01:17
1	Be 313.107†	1322793.7	1331292.9	508.38	ug/L	508.38	ppb	19:01:12
1	Cd 226.502†	44865.2	45202.1	501.49	ug/L	501.49	ppb	19:01:17
1	Co 228.616†	24369.9	24516.6	501.95	ug/L	501.95	ppb	19:01:17
1	Cr 267.716†	44675.4	44724.3	500.63	ug/L	500.63	ppb	19:01:17
1	Cu 324.752†	171998.3	166095.0	496.65	ug/L	496.65	ppb	19:01:17
1	Mn 257.610†	451883.5	452775.7	502.29	ug/L	502.29	ppb	19:01:12
1	Mo 202.031†	7199.3	7196.9	509.04	ug/L	509.04	ppb	19:01:38
1	Ni 231.604†	20128.7	20120.3	500.70	ug/L	500.70	ppb	19:01:17
1	P 214.914†	4345.1	4128.1	2417.8	ug/L	2417.8	ppb	19:01:38
1	Pb 220.353†	4038.4	4113.7	505.38	ug/L	505.38	ppb	19:01:38
1	S 181.975 Axial†	822.5	781.9	1105.7	ug/L	1105.7	ppb	19:01:38
1	Sb 206.836†	1510.2	1486.8	527.58	ug/L	527.58	ppb	19:01:38
1	Se 196.026†	758.2	792.4	528.28	ug/L	528.28	ppb	19:01:38
1	Si 251.611†	80267.6	79954.6	2540.2	ug/L	2540.2	ppb	19:01:17
1	Sn 189.927†	2889.1	2890.0	512.77	ug/L	512.77	ppb	19:01:38
1	Ti 334.940†	304788.1	307064.4	494.45	ug/L	494.45	ppb	19:01:17
1	Tl 190.801†	1606.7	1644.3	507.52	ug/L	507.52	ppb	19:01:38
1	U 409.014†	15207.6	17264.2	507.60	ug/L	507.60	ppb	19:01:17
1	V 292.402†	71520.5	73041.8	505.76	ug/L	505.76	ppb	19:01:17
1	Zn 213.857†	53506.3	53044.3	497.36	ug/L	497.36	ppb	19:01:17
1	SiO2†	81243.4	80912.1	5506.9	ug/L	5506.9	ppb	19:02:45
2	Sc Radial	5054.1	5054.1	100	%			19:00:20
2	Y RADIAL	5400.1	5400.1	99.46	%			19:00:20
2	Al 396.153Radial†	6372.3	6349.2	4873.4	ug/L	4873.4	ppb	19:00:20
2	Ca 317.933Radial†	3116.2	3084.9	4936.1	ug/L	4936.1	ppb	19:00:40
2	Fe 238.204 Radial†	597.5	586.4	5090.1	ug/L	5090.1	ppb	19:00:40
2	K 766.490 Radial†	29643.8	26943.4	4922.6	ug/L	4922.6	ppb	19:00:20
2	Mg 279.077 IEC†	155.6	153.1	5115.5	ug/L	5115.5	ppb	19:00:40
2	Na 589.592 Radial†	32617.7	33776.9	10113	ug/L	10113	ppb	19:00:20
2	Sr 421.552†	76232.5	75968.6	490.64	ug/L	490.64	ppb	19:00:20
2	Sc 361.383	841500.4	841500.4	98.722	%			19:01:43
2	Y 371.029	701064.2	701064.2	97.011	%			19:01:43
2	Ag 328.068†	111194.9	112276.9	520.18	ug/L	520.18	ppb	19:01:48
2	As 188.979†	1140.0	1178.3	512.74	ug/L	512.74	ppb	19:02:08
2	B 249.677†	22053.5	22971.0	510.12	ug/L	510.12	ppb	19:01:48
2	Ba 233.527†	64584.2	65432.0	512.11	ug/L	512.11	ppb	19:01:48
2	Be 313.107†	1302730.2	1324186.3	505.70	ug/L	505.70	ppb	19:01:43
2	Cd 226.502†	45568.8	46363.0	514.37	ug/L	514.37	ppb	19:01:48
2	Co 228.616†	24775.4	25170.9	515.32	ug/L	515.32	ppb	19:01:48
2	Cr 267.716†	45418.1	45923.0	514.05	ug/L	514.05	ppb	19:01:48
2	Cu 324.752†	174409.6	170256.0	509.09	ug/L	509.09	ppb	19:01:48
2	Mn 257.610†	446399.5	451735.6	501.16	ug/L	501.16	ppb	19:01:43
2	Mo 202.031†	7199.9	7269.4	514.17	ug/L	514.17	ppb	19:02:08
2	Ni 231.604†	20501.0	20698.6	515.09	ug/L	515.09	ppb	19:01:48

2	P 214.914†	4332.4	4158.7	2433.7 ug/L	2433.7 ppb	19:02:08
2	Pb 220.353†	4018.7	4134.1	507.87 ug/L	507.87 ppb	19:02:08
2	S 181.975 Axial†	824.6	792.3	1120.3 ug/L	1120.3 ppb	19:02:08
2	Sb 206.836†	1507.9	1499.5	532.04 ug/L	532.04 ppb	19:02:08
2	Se 196.026†	748.5	790.2	527.29 ug/L	527.29 ppb	19:02:08
2	Si 251.611†	81375.3	81878.6	2601.4 ug/L	2601.4 ppb	19:01:48
2	Sn 189.927†	2860.0	2889.4	512.69 ug/L	512.69 ppb	19:02:08
2	Ti 334.940†	308906.0	314280.9	506.07 ug/L	506.07 ppb	19:01:48
2	Tl 190.801†	1603.9	1657.5	511.56 ug/L	511.56 ppb	19:02:08
2	U 409.014†	15380.3	17591.1	517.20 ug/L	517.20 ppb	19:01:48
2	V 292.402†	72630.9	74881.2	518.38 ug/L	518.38 ppb	19:01:48
2	Zn 213.857†	54302.8	54385.8	509.92 ug/L	509.92 ppb	19:01:48
2	SiO2†	81061.5	81539.5	5549.6 ug/L	5549.6 ppb	19:02:50
3	Sc Radial	5031.9	5031.9	99.9 %		19:00:45
3	Y RADIAL	5396.5	5396.5	99.39 %		19:00:45
3	Al 396.153Radial†	6345.2	6350.2	4874.7 ug/L	4874.7 ppb	19:00:45
3	Ca 317.933Radial†	3113.6	3095.9	4953.8 ug/L	4953.8 ppb	19:01:05
3	Fe 238.204 Radial†	589.4	580.9	5041.8 ug/L	5041.8 ppb	19:01:05
3	K 766.490 Radial†	29541.1	26971.1	4927.8 ug/L	4927.8 ppb	19:00:45
3	Mg 279.077 IEC†	155.5	153.7	5135.4 ug/L	5135.4 ppb	19:01:05
3	Na 589.592 Radial†	32332.6	33635.2	10071 ug/L	10071 ppb	19:00:45
3	Sr 421.552†	75829.5	75900.8	490.20 ug/L	490.20 ppb	19:00:45
3	Sc 361.383	857935.6	857935.6	100.65 %		19:02:14
3	Y 371.029	715236.9	715236.9	98.972 %		19:02:14
3	Ag 328.068†	110051.9	108983.5	504.95 ug/L	504.95 ppb	19:02:19
3	As 188.979†	1139.0	1155.2	502.68 ug/L	502.68 ppb	19:02:39
3	B 249.677†	21674.8	22166.7	492.24 ug/L	492.24 ppb	19:02:19
3	Ba 233.527†	63825.4	63424.9	496.41 ug/L	496.41 ppb	19:02:19
3	Be 313.107†	1327030.1	1323050.1	505.23 ug/L	505.23 ppb	19:02:14
3	Cd 226.502†	44870.2	44784.7	496.85 ug/L	496.85 ppb	19:02:19
3	Co 228.616†	24430.9	24347.8	498.48 ug/L	498.48 ppb	19:02:19
3	Cr 267.716†	44855.9	44483.1	497.93 ug/L	497.93 ppb	19:02:19
3	Cu 324.752†	172448.3	164923.0	493.15 ug/L	493.15 ppb	19:02:19
3	Mn 257.610†	453941.4	450566.5	499.85 ug/L	499.85 ppb	19:02:14
3	Mo 202.031†	7182.9	7112.8	503.10 ug/L	503.10 ppb	19:02:39
3	Ni 231.604†	20189.2	19991.0	497.48 ug/L	497.48 ppb	19:02:19
3	P 214.914†	4314.1	4056.4	2374.6 ug/L	2374.6 ppb	19:02:39
3	Pb 220.353†	4039.8	4077.1	500.88 ug/L	500.88 ppb	19:02:39
3	S 181.975 Axial†	823.9	775.6	1096.7 ug/L	1096.7 ppb	19:02:39
3	Sb 206.836†	1502.9	1465.3	519.99 ug/L	519.99 ppb	19:02:39
3	Se 196.026†	739.8	767.0	512.15 ug/L	512.15 ppb	19:02:39
3	Si 251.611†	80305.3	79236.5	2517.4 ug/L	2517.4 ppb	19:02:19
3	Sn 189.927†	2871.7	2845.5	504.91 ug/L	504.91 ppb	19:02:39
3	Ti 334.940†	305241.9	304646.2	490.56 ug/L	490.56 ppb	19:02:19
3	Tl 190.801†	1617.4	1639.8	506.11 ug/L	506.11 ppb	19:02:39
3	U 409.014†	15197.1	17110.6	503.07 ug/L	503.07 ppb	19:02:19
3	V 292.402†	71738.1	72584.8	502.54 ug/L	502.54 ppb	19:02:19
3	Zn 213.857†	53694.1	52727.3	494.38 ug/L	494.38 ppb	19:02:19
3	SiO2†	80175.4	79086.2	5382.5 ug/L	5382.5 ppb	19:02:55

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	849773.1	99.692	%	0.9641				0.97%
Sc Radial	5076.9	101	%	1.2				1.18%
Y 371.029	708333.7	98.016	%	0.9816				1.00%
Y RADIAL	5434.5	100.1	%	1.16				1.16%
Ag 328.068†	110323.1	511.13	ug/L	8.009	511.13	ppb	8.009	1.57%
QC value within limits for Ag 328.068 Recovery = 102.23%								
Al 396.153Radial†	6323.4	4853.7	ug/L	35.21	4853.7	ppb	35.21	0.73%
QC value within limits for Al 396.153Radial Recovery = 97.07%								
As 188.979†	1165.8	507.25	ug/L	5.095	507.25	ppb	5.095	1.00%
QC value within limits for As 188.979 Recovery = 101.45%								
B 249.677†	22443.7	498.40	ug/L	10.155	498.40	ppb	10.155	2.04%
QC value within limits for B 249.677 Recovery = 99.68%								
Ba 233.527†	64261.5	502.95	ug/L	8.173	502.95	ppb	8.173	1.63%
QC value within limits for Ba 233.527 Recovery = 100.59%								
Be 313.107†	1326176.4	506.44	ug/L	1.699	506.44	ppb	1.699	0.34%
QC value within limits for Be 313.107 Recovery = 101.29%								
Ca 317.933Radial†	3069.7	4911.8	ug/L	58.07	4911.8	ppb	58.07	1.18%

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   QC value within limits for Ca 317.933Radial  Recovery = 98.24%
Cd 226.502†            45449.9      504.23 ug/L         9.079      504.23 ppb          9.079   1.80%
   QC value within limits for Cd 226.502  Recovery = 100.85%
Co 228.616†            24678.5      505.25 ug/L         8.893      505.25 ppb          8.893   1.76%
   QC value within limits for Co 228.616  Recovery = 101.05%
Cr 267.716†            45043.5      504.20 ug/L         8.631      504.20 ppb          8.631   1.71%
   QC value within limits for Cr 267.716  Recovery = 100.84%
Cu 324.752†           167091.3      499.63 ug/L         8.379      499.63 ppb          8.379   1.68%
   QC value within limits for Cu 324.752  Recovery = 99.93%
Fe 238.204 Radial†       579.6      5030.6 ug/L        65.79      5030.6 ppb          65.79   1.31%
   QC value within limits for Fe 238.204 Radial  Recovery = 100.61%
K 766.490 Radial†      26795.3      4895.5 ug/L        51.48      4895.5 ppb          51.48   1.05%
   QC value within limits for K 766.490 Radial  Recovery = 97.91%
Mg 279.077 IEC†          153.0      5112.2 ug/L        25.03      5112.2 ppb          25.03   0.49%
   QC value within limits for Mg 279.077 IEC  Recovery = 102.24%
Mn 257.610†           451692.6      501.10 ug/L         1.222      501.10 ppb          1.222   0.24%
   QC value within limits for Mn 257.610  Recovery = 100.22%
Mo 202.031†             7193.0      508.77 ug/L         5.539      508.77 ppb          5.539   1.09%
   QC value within limits for Mo 202.031  Recovery = 101.75%
Na 589.592 Radial†     33641.2       10073 ug/L          39.7       10073 ppb           39.7   0.39%
   QC value within limits for Na 589.592 Radial  Recovery = 100.73%
Ni 231.604†            20269.9      504.42 ug/L         9.377      504.42 ppb          9.377   1.86%
   QC value within limits for Ni 231.604  Recovery = 100.88%
P 214.914†              4114.4      2408.7 ug/L        30.57      2408.7 ppb          30.57   1.27%
   QC value within limits for P 214.914  Recovery = 96.35%
Pb 220.353†             4108.3      504.71 ug/L         3.545      504.71 ppb          3.545   0.70%
   QC value within limits for Pb 220.353  Recovery = 100.94%
S 181.975 Axial†         783.3      1107.6 ug/L        11.91      1107.6 ppb          11.91   1.08%
   QC value greater than the upper limit for S 181.975 Axial  Recovery = 110.76%
Sb 206.836†             1483.9      526.54 ug/L         6.094      526.54 ppb          6.094   1.16%
   QC value within limits for Sb 206.836  Recovery = 105.31%
Se 196.026†              783.2      522.57 ug/L         9.039      522.57 ppb          9.039   1.73%
   QC value within limits for Se 196.026  Recovery = 104.51%
Si 251.611†            80356.6      2553.0 ug/L        43.45      2553.0 ppb          43.45   1.70%
   QC value within limits for Si 251.611  Recovery = 102.12%
Sn 189.927†             2875.0      510.13 ug/L         4.515      510.13 ppb          4.515   0.89%
   QC value within limits for Sn 189.927  Recovery = 102.03%
Sr 421.552†            75601.1      488.26 ug/L         3.738      488.26 ppb          3.738   0.77%
   QC value within limits for Sr 421.552  Recovery = 97.65%
Ti 334.940†           308663.8      497.03 ug/L         8.071      497.03 ppb          8.071   1.62%
   QC value within limits for Ti 334.940  Recovery = 99.41%
Tl 190.801†             1647.2      508.40 ug/L         2.826      508.40 ppb          2.826   0.56%
   QC value within limits for Tl 190.801  Recovery = 101.68%
U 409.014†             17322.0      509.29 ug/L         7.216      509.29 ppb          7.216   1.42%
   QC value within limits for U 409.014  Recovery = 101.86%
V 292.402†             73502.6      508.89 ug/L         8.370      508.89 ppb          8.370   1.64%
   QC value within limits for V 292.402  Recovery = 101.78%
Zn 213.857†            53385.8      500.55 ug/L         8.252      500.55 ppb          8.252   1.65%
   QC value within limits for Zn 213.857  Recovery = 100.11%
SiO2†                  80512.6      5479.7 ug/L        86.82      5479.7 ppb          86.82   1.58%
   QC value within limits for SiO2  Recovery = 102.47%
QC Failed.  Continue with analysis.
```

Sequence No.: 34
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 1/11/2010 19:05:04
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	5140.9	5140.9	102	%			19:06:56
1	Y RADIAL	5525.1	5525.1	101.8	%			19:06:56
1	Al 396.153Radial†	-14.0	-13.1	-10.088	ug/L	-10.088	ppb	19:06:56
1	Ca 317.933Radial†	20.2	-0.0	-0.0067	ug/L	-0.0067	ppb	19:07:16
1	Fe 238.204 Radial†	8.6	-0.5	-4.3200	ug/L	-4.3200	ppb	19:07:16
1	K 766.490 Radial†	2641.6	-2.8	-0.5760	ug/L	-0.5760	ppb	19:06:56
1	Mg 279.077 IEC†	1.4	-0.6	-19.419	ug/L	-19.419	ppb	19:07:16
1	Na 589.592 Radial†	-966.2	334.1	100.04	ug/L	100.04	ppb	19:06:56
1	Sr 421.552†	9.0	28.3	0.1828	ug/L	0.1828	ppb	19:06:56
1	Sc 361.383	860728.5	860728.5	100.98	%			19:08:13
1	Y 371.029	729476.3	729476.3	100.94	%			19:08:13
1	Ag 328.068†	308.9	-52.1	-0.2434	ug/L	-0.2434	ppb	19:08:13
1	As 188.979†	-36.8	-12.9	-5.5758	ug/L	-5.5758	ppb	19:08:33
1	B 249.677†	-450.6	185.6	4.1364	ug/L	4.1364	ppb	19:08:33
1	Ba 233.527†	-23.0	-11.4	-0.0898	ug/L	-0.0898	ppb	19:08:33
1	Be 313.107†	-4540.4	88.9	0.0342	ug/L	0.0342	ppb	19:08:13
1	Cd 226.502†	-191.0	14.9	0.1665	ug/L	0.1665	ppb	19:08:33
1	Co 228.616†	-62.5	12.8	0.2617	ug/L	0.2617	ppb	19:08:33
1	Cr 267.716†	64.2	-19.7	-0.2208	ug/L	-0.2208	ppb	19:08:33
1	Cu 324.752†	6528.5	53.1	0.1579	ug/L	0.1579	ppb	19:08:13
1	Mn 257.610†	420.9	-28.0	-0.0308	ug/L	-0.0308	ppb	19:08:33
1	Mo 202.031†	24.0	0.1	0.0071	ug/L	0.0071	ppb	19:08:33
1	Ni 231.604†	72.4	3.7	0.0919	ug/L	0.0919	ppb	19:08:33
1	P 214.914†	227.2	-4.8	-2.9794	ug/L	-2.9794	ppb	19:08:33
1	Pb 220.353†	-63.9	0.1	0.0136	ug/L	0.0136	ppb	19:08:33
1	S 181.975 Axial†	93.5	49.6	70.188	ug/L	70.188	ppb	19:08:33
1	Sb 206.836†	42.4	14.1	4.8329	ug/L	4.8329	ppb	19:08:33
1	Se 196.026†	-31.3	1.0	0.6403	ug/L	0.6403	ppb	19:08:33
1	Si 251.611†	536.6	-19.1	-0.6071	ug/L	-0.6071	ppb	19:08:33
1	Sn 189.927†	10.7	2.9	0.5179	ug/L	0.5179	ppb	19:08:33
1	Ti 334.940†	-1306.8	80.4	0.1306	ug/L	0.1306	ppb	19:08:13
1	Tl 190.801†	-33.6	-0.4	-0.1358	ug/L	-0.1358	ppb	19:08:33
1	U 409.014†	-1988.7	42.1	1.2440	ug/L	1.2440	ppb	19:08:13
1	V 292.402†	-1366.9	-44.0	-0.2974	ug/L	-0.2974	ppb	19:08:13
1	Zn 213.857†	610.2	-15.9	-0.1509	ug/L	-0.1509	ppb	19:08:33
1	SiO2†	573.4	-3.8	-0.2598	ug/L	-0.2598	ppb	19:09:29
2	Sc Radial	5104.9	5104.9	101	%			19:07:21
2	Y RADIAL	5499.2	5499.2	101.3	%			19:07:21
2	Al 396.153Radial†	-21.9	-20.9	-16.126	ug/L	-16.126	ppb	19:07:21
2	Ca 317.933Radial†	18.2	-1.8	-2.9041	ug/L	-2.9041	ppb	19:07:41
2	Fe 238.204 Radial†	11.7	2.6	22.690	ug/L	22.690	ppb	19:07:41
2	K 766.490 Radial†	2658.0	31.6	5.7561	ug/L	5.7561	ppb	19:07:21
2	Mg 279.077 IEC†	5.0	3.0	100.96	ug/L	100.96	ppb	19:07:41
2	Na 589.592 Radial†	-1056.1	238.8	71.492	ug/L	71.492	ppb	19:07:21
2	Sr 421.552†	-9.0	10.6	0.0684	ug/L	0.0684	ppb	19:07:21
2	Sc 361.383	855326.4	855326.4	100.34	%			19:08:38
2	Y 371.029	724039.3	724039.3	100.19	%			19:08:38
2	Ag 328.068†	243.8	-115.0	-0.5270	ug/L	-0.5270	ppb	19:08:38
2	As 188.979†	-20.9	2.8	1.2258	ug/L	1.2258	ppb	19:08:58
2	B 249.677†	-448.2	185.2	4.1253	ug/L	4.1253	ppb	19:08:58
2	Ba 233.527†	-23.1	-11.6	-0.0913	ug/L	-0.0913	ppb	19:08:58
2	Be 313.107†	-4542.2	58.7	0.0224	ug/L	0.0224	ppb	19:08:38
2	Cd 226.502†	-202.2	2.6	0.0269	ug/L	0.0269	ppb	19:08:58
2	Co 228.616†	-64.2	10.7	0.2186	ug/L	0.2186	ppb	19:08:58
2	Cr 267.716†	72.9	-10.6	-0.1206	ug/L	-0.1206	ppb	19:08:58
2	Cu 324.752†	6447.0	12.7	0.0375	ug/L	0.0375	ppb	19:08:38
2	Mn 257.610†	408.7	-37.5	-0.0432	ug/L	-0.0432	ppb	19:08:58
2	Mo 202.031†	19.6	-4.2	-0.2942	ug/L	-0.2942	ppb	19:08:58
2	Ni 231.604†	84.0	15.8	0.3931	ug/L	0.3931	ppb	19:08:58

2	P 214.914†	225.8	-4.9	-3.0264 ug/L	-3.0264 ppb	19:08:58
2	Pb 220.353†	-77.8	-14.2	-1.7419 ug/L	-1.7419 ppb	19:08:58
2	S 181.975 Axial†	91.8	48.5	68.627 ug/L	68.627 ppb	19:08:58
2	Sb 206.836†	40.3	12.3	4.1838 ug/L	4.1838 ppb	19:08:58
2	Se 196.026†	-27.7	4.4	2.8931 ug/L	2.8931 ppb	19:08:58
2	Si 251.611†	508.7	-43.5	-1.3814 ug/L	-1.3814 ppb	19:08:58
2	Sn 189.927†	3.2	-4.5	-0.7906 ug/L	-0.7906 ppb	19:08:58
2	Ti 334.940†	-1386.3	-7.0	-0.0213 ug/L	-0.0213 ppb	19:08:38
2	Tl 190.801†	-34.3	-1.3	-0.4094 ug/L	-0.4094 ppb	19:08:58
2	U 409.014†	-1909.2	109.0	3.2133 ug/L	3.2133 ppb	19:08:38
2	V 292.402†	-1402.5	-88.0	-0.6001 ug/L	-0.6001 ppb	19:08:38
2	Zn 213.857†	610.6	-11.7	-0.1157 ug/L	-0.1157 ppb	19:08:58
2	SiO2†	574.0	0.3	0.0304 ug/L	0.0304 ppb	19:09:34
3	Sc Radial	5111.0	5111.0	102 %		19:07:46
3	Y RADIAL	5546.4	5546.4	102.2 %		19:07:46
3	Al 396.153Radial†	-15.3	-14.5	-11.128 ug/L	-11.128 ppb	19:07:46
3	Ca 317.933Radial†	14.0	-6.0	-9.6274 ug/L	-9.6274 ppb	19:08:06
3	Fe 238.204 Radial†	8.1	-1.0	-8.2299 ug/L	-8.2299 ppb	19:08:06
3	K 766.490 Radial†	2696.4	66.3	12.117 ug/L	12.117 ppb	19:07:46
3	Mg 279.077 IEC†	3.9	1.9	64.399 ug/L	64.399 ppb	19:08:06
3	Na 589.592 Radial†	-983.0	312.0	93.413 ug/L	93.413 ppb	19:07:46
3	Sr 421.552†	31.8	50.9	0.3287 ug/L	0.3287 ppb	19:07:46
3	Sc 361.383	844303.3	844303.3	99.050 %		19:09:03
3	Y 371.029	716469.9	716469.9	99.142 %		19:09:03
3	Ag 328.068†	416.8	62.8	0.2860 ug/L	0.2860 ppb	19:09:03
3	As 188.979†	-20.6	2.9	1.2376 ug/L	1.2376 ppb	19:09:23
3	B 249.677†	-487.9	139.3	3.1061 ug/L	3.1061 ppb	19:09:23
3	Ba 233.527†	-11.6	-0.3	-0.0033 ug/L	-0.0033 ppb	19:09:23
3	Be 313.107†	-4518.4	23.6	0.0094 ug/L	0.0094 ppb	19:09:03
3	Cd 226.502†	-187.4	14.9	0.1663 ug/L	0.1663 ppb	19:09:23
3	Co 228.616†	-74.8	-0.8	-0.0182 ug/L	-0.0182 ppb	19:09:23
3	Cr 267.716†	50.2	-32.6	-0.3646 ug/L	-0.3646 ppb	19:09:23
3	Cu 324.752†	6342.6	-8.8	-0.0264 ug/L	-0.0264 ppb	19:09:03
3	Mn 257.610†	421.8	-19.0	-0.0246 ug/L	-0.0246 ppb	19:09:23
3	Mo 202.031†	17.2	-6.3	-0.4465 ug/L	-0.4465 ppb	19:09:23
3	Ni 231.604†	78.5	11.3	0.2817 ug/L	0.2817 ppb	19:09:23
3	P 214.914†	201.2	-26.7	-16.326 ug/L	-16.326 ppb	19:09:23
3	Pb 220.353†	-43.1	19.8	2.4268 ug/L	2.4268 ppb	19:09:23
3	S 181.975 Axial†	86.7	44.6	63.063 ug/L	63.063 ppb	19:09:23
3	Sb 206.836†	41.3	13.8	4.7140 ug/L	4.7140 ppb	19:09:23
3	Se 196.026†	-35.7	-4.0	-2.6278 ug/L	-2.6278 ppb	19:09:23
3	Si 251.611†	527.6	-17.8	-0.5611 ug/L	-0.5611 ppb	19:09:23
3	Sn 189.927†	6.7	-0.9	-0.1535 ug/L	-0.1535 ppb	19:09:23
3	Ti 334.940†	-1253.1	109.4	0.1703 ug/L	0.1703 ppb	19:09:03
3	Tl 190.801†	-35.7	-3.2	-0.9833 ug/L	-0.9833 ppb	19:09:23
3	U 409.014†	-2013.6	-21.3	-0.6257 ug/L	-0.6257 ppb	19:09:03
3	V 292.402†	-1352.1	-55.3	-0.3831 ug/L	-0.3831 ppb	19:09:03
3	Zn 213.857†	607.1	-7.3	-0.0701 ug/L	-0.0701 ppb	19:09:23
3	SiO2†	563.6	-2.6	-0.1675 ug/L	-0.1675 ppb	19:09:39

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	853452.7	100.12	%	0.982				0.98%
Sc Radial	5118.9	102	%	0.4				0.38%
Y 371.029	723328.5	100.09	%	0.904				0.90%
Y RADIAL	5523.6	101.7	%	0.44				0.43%
Ag 328.068†	-34.7	-0.1615	ug/L	0.41266	-0.1615	ppb	0.41266	255.58%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-16.1	-12.447	ug/L	3.2278	-12.447	ppb	3.2278	25.93%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-2.4	-1.0375	ug/L	3.93034	-1.0375	ppb	3.93034	378.84%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	170.0	3.7893	ug/L	0.59168	3.7893	ppb	0.59168	15.61%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-7.8	-0.0615	ug/L	0.05038	-0.0615	ppb	0.05038	81.95%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	57.1	0.0220	ug/L	0.01238	0.0220	ppb	0.01238	56.33%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-2.6	-4.1794	ug/L	4.93552	-4.1794	ppb	4.93552	118.09%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              10.8      0.1199 ug/L       0.08057      0.1199 ppb        0.08057  67.20%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†               7.6      0.1540 ug/L       0.15071      0.1540 ppb        0.15071  97.85%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†             -20.9     -0.2353 ug/L       0.12266     -0.2353 ppb        0.12266  52.13%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              19.0      0.0563 ug/L       0.09362      0.0563 ppb        0.09362 166.19%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        0.4      3.3800 ug/L      16.83669      3.3800 ppb       16.83669 498.13%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        31.7      5.7658 ug/L       6.34665      5.7658 ppb        6.34665 110.07%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           1.5     48.647 ug/L       61.7173     48.647 ppb        61.7173 126.87%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†             -28.2     -0.0329 ug/L       0.00948     -0.0329 ppb        0.00948  28.85%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              -3.5     -0.2445 ug/L       0.23086     -0.2445 ppb        0.23086  94.41%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      295.0     88.317 ug/L       14.9431     88.317 ppb        14.9431  16.92%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              10.3      0.2556 ug/L       0.15228      0.2556 ppb        0.15228  59.59%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†              -12.1     -7.4439 ug/L       7.69203     -7.4439 ppb        7.69203 103.33%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               1.9      0.2329 ug/L       2.09299      0.2329 ppb        2.09299 898.85%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         47.5     67.293 ug/L        3.7453     67.293 ppb         3.7453   5.57%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              13.4      4.5769 ug/L       0.34560      4.5769 ppb        0.34560   7.55%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               0.5      0.3019 ug/L       2.77596      0.3019 ppb        2.77596 919.57%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†             -26.8     -0.8499 ug/L       0.46092     -0.8499 ppb        0.46092  54.23%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†              -0.8     -0.1421 ug/L       0.65432     -0.1421 ppb        0.65432 460.51%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              29.9      0.1933 ug/L       0.13045      0.1933 ppb        0.13045  67.49%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              60.9      0.0932 ug/L       0.10112      0.0932 ppb        0.10112 108.48%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -1.7     -0.5095 ug/L       0.43252     -0.5095 ppb        0.43252  84.89%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               43.3      1.2772 ug/L       1.91972      1.2772 ppb        1.91972 150.31%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              -62.4     -0.4269 ug/L       0.15602     -0.4269 ppb        0.15602  36.55%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†             -11.7     -0.1123 ug/L       0.04052     -0.1123 ppb        0.04052  36.09%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                    -2.0     -0.1323 ug/L       0.14825     -0.1323 ppb        0.14825 112.04%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 44
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 1/11/2010 20:14:46
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	5237.6	5237.6	104	%			20:16:38
1	Y RADIAL	5568.0	5568.0	102.6	%			20:16:38
1	Al 396.153Radial†	6326.0	6082.2	4668.0	ug/L	4668.0	ppb	20:16:38
1	Ca 317.933Radial†	3176.9	3034.4	4855.3	ug/L	4855.3	ppb	20:16:58
1	Fe 238.204 Radial†	596.5	564.6	4901.0	ug/L	4901.0	ppb	20:16:58
1	K 766.490 Radial†	29542.8	25811.4	4715.5	ug/L	4715.5	ppb	20:16:38
1	Mg 279.077 IEC†	163.7	155.4	5193.6	ug/L	5193.6	ppb	20:16:58
1	Na 589.592 Radial†	32100.0	32140.5	9623.2	ug/L	9623.2	ppb	20:16:38
1	Sr 421.552†	76092.0	73172.2	472.58	ug/L	472.58	ppb	20:16:38
1	Sc 361.383	867661.4	867661.4	101.79	%			20:17:55
1	Y 371.029	722396.9	722396.9	99.963	%			20:17:55
1	Ag 328.068†	112559.6	110221.6	510.63	ug/L	510.63	ppb	20:18:01
1	As 188.979†	1153.6	1157.0	503.46	ug/L	503.46	ppb	20:18:21
1	B 249.677†	22332.3	22571.3	501.25	ug/L	501.25	ppb	20:18:01
1	Ba 233.527†	65622.0	64479.0	504.65	ug/L	504.65	ppb	20:18:01
1	Be 313.107†	1343717.7	1324665.2	505.88	ug/L	505.88	ppb	20:17:55
1	Cd 226.502†	46013.6	45408.3	503.79	ug/L	503.79	ppb	20:18:01
1	Co 228.616†	25080.3	24713.8	505.95	ug/L	505.95	ppb	20:18:01
1	Cr 267.716†	45949.9	45058.4	504.37	ug/L	504.37	ppb	20:18:01
1	Cu 324.752†	176616.6	167097.5	499.64	ug/L	499.64	ppb	20:18:01
1	Mn 257.610†	460294.6	451752.5	501.15	ug/L	501.15	ppb	20:17:55
1	Mo 202.031†	7267.3	7115.7	503.29	ug/L	503.29	ppb	20:18:21
1	Ni 231.604†	20697.9	20265.8	504.32	ug/L	504.32	ppb	20:18:01
1	P 214.914†	4345.6	4039.3	2362.8	ug/L	2362.8	ppb	20:18:21
1	Pb 220.353†	4069.5	4061.2	498.90	ug/L	498.90	ppb	20:18:21
1	S 181.975 Axial†	768.1	711.6	1006.2	ug/L	1006.2	ppb	20:18:21
1	Sb 206.836†	1505.7	1451.3	515.15	ug/L	515.15	ppb	20:18:21
1	Se 196.026†	758.4	777.1	518.17	ug/L	518.17	ppb	20:18:21
1	Si 251.611†	83045.4	81034.0	2574.6	ug/L	2574.6	ppb	20:18:01
1	Sn 189.927†	2903.5	2844.8	504.77	ug/L	504.77	ppb	20:18:21
1	Ti 334.940†	318042.2	313821.9	505.32	ug/L	505.32	ppb	20:17:55
1	Tl 190.801†	1622.6	1626.9	502.20	ug/L	502.20	ppb	20:18:21
1	U 409.014†	15598.2	17335.5	509.71	ug/L	509.71	ppb	20:18:01
1	V 292.402†	73736.4	73749.0	510.51	ug/L	510.51	ppb	20:18:01
1	Zn 213.857†	55050.9	53462.2	501.29	ug/L	501.29	ppb	20:18:01
1	SiO2†	80857.2	78863.2	5367.3	ug/L	5367.3	ppb	20:19:28
2	Sc Radial	5100.6	5100.6	101	%			20:17:03
2	Y RADIAL	5471.6	5471.6	100.8	%			20:17:03
2	Al 396.153Radial†	6444.4	6362.6	4884.3	ug/L	4884.3	ppb	20:17:03
2	Ca 317.933Radial†	3213.8	3152.9	5045.0	ug/L	5045.0	ppb	20:17:23
2	Fe 238.204 Radial†	607.2	590.6	5125.7	ug/L	5125.7	ppb	20:17:23
2	K 766.490 Radial†	29669.9	26700.1	4878.2	ug/L	4878.2	ppb	20:17:03
2	Mg 279.077 IEC†	159.9	156.0	5210.7	ug/L	5210.7	ppb	20:17:23
2	Na 589.592 Radial†	32097.4	32967.2	9870.8	ug/L	9870.8	ppb	20:17:03
2	Sr 421.552†	76711.0	75748.9	489.22	ug/L	489.22	ppb	20:17:03
2	Sc 361.383	870941.8	870941.8	102.18	%			20:18:27
2	Y 371.029	726536.0	726536.0	100.54	%			20:18:27
2	Ag 328.068†	112058.8	109314.9	506.51	ug/L	506.51	ppb	20:18:32
2	As 188.979†	1154.9	1153.9	502.18	ug/L	502.18	ppb	20:18:52
2	B 249.677†	22133.4	22294.0	495.07	ug/L	495.07	ppb	20:18:32
2	Ba 233.527†	65126.9	63751.7	498.97	ug/L	498.97	ppb	20:18:32
2	Be 313.107†	1343579.8	1319558.2	503.93	ug/L	503.93	ppb	20:18:27
2	Cd 226.502†	45566.2	44800.1	497.01	ug/L	497.01	ppb	20:18:32
2	Co 228.616†	24857.4	24402.8	499.58	ug/L	499.58	ppb	20:18:32
2	Cr 267.716†	45745.5	44688.2	500.23	ug/L	500.23	ppb	20:18:32
2	Cu 324.752†	175848.4	165692.1	495.45	ug/L	495.45	ppb	20:18:32
2	Mn 257.610†	459636.9	449405.7	498.57	ug/L	498.57	ppb	20:18:27
2	Mo 202.031†	7284.2	7105.4	502.58	ug/L	502.58	ppb	20:18:52
2	Ni 231.604†	20535.3	20030.1	498.45	ug/L	498.45	ppb	20:18:32

2	P 214.914†	4369.0	4046.1	2367.7 ug/L	2367.7 ppb	20:18:52
2	Pb 220.353†	4094.4	4070.6	500.08 ug/L	500.08 ppb	20:18:52
2	S 181.975 Axial†	764.3	705.0	996.83 ug/L	996.83 ppb	20:18:52
2	Sb 206.836†	1517.5	1457.2	517.15 ug/L	517.15 ppb	20:18:52
2	Se 196.026†	746.7	762.8	509.69 ug/L	509.69 ppb	20:18:52
2	Si 251.611†	82414.0	80108.8	2545.2 ug/L	2545.2 ppb	20:18:32
2	Sn 189.927†	2910.4	2840.8	504.09 ug/L	504.09 ppb	20:18:52
2	Ti 334.940†	318495.5	313088.7	504.17 ug/L	504.17 ppb	20:18:27
2	Tl 190.801†	1612.4	1610.9	497.33 ug/L	497.33 ppb	20:18:52
2	U 409.014†	15408.1	17091.7	502.50 ug/L	502.50 ppb	20:18:32
2	V 292.402†	73264.0	73013.8	505.43 ug/L	505.43 ppb	20:18:32
2	Zn 213.857†	54613.2	52830.2	495.33 ug/L	495.33 ppb	20:18:32
2	SiO2†	81830.8	79516.8	5411.9 ug/L	5411.9 ppb	20:19:34
3	Sc Radial	5163.6	5163.6	103 %		20:17:28
3	Y RADIAL	5511.9	5511.9	101.5 %		20:17:28
3	Al 396.153Radial†	6562.2	6399.8	4913.2 ug/L	4913.2 ppb	20:17:28
3	Ca 317.933Radial†	3156.0	3057.8	4892.7 ug/L	4892.7 ppb	20:17:48
3	Fe 238.204 Radial†	599.8	576.0	5000.0 ug/L	5000.0 ppb	20:17:48
3	K 766.490 Radial†	30113.7	26775.4	4892.1 ug/L	4892.1 ppb	20:17:28
3	Mg 279.077 IEC†	159.1	153.2	5119.7 ug/L	5119.7 ppb	20:17:48
3	Na 589.592 Radial†	32409.5	32884.7	9846.1 ug/L	9846.1 ppb	20:17:28
3	Sr 421.552†	77800.5	75887.1	490.11 ug/L	490.11 ppb	20:17:28
3	Sc 361.383	876143.8	876143.8	102.79 %		20:18:58
3	Y 371.029	730772.1	730772.1	101.12 %		20:18:58
3	Ag 328.068†	112227.5	108827.8	504.22 ug/L	504.22 ppb	20:19:03
3	As 188.979†	1153.1	1145.5	498.52 ug/L	498.52 ppb	20:19:23
3	B 249.677†	22316.8	22343.8	496.20 ug/L	496.20 ppb	20:19:03
3	Ba 233.527†	65218.5	63462.3	496.70 ug/L	496.70 ppb	20:19:03
3	Be 313.107†	1358883.1	1326639.2	506.64 ug/L	506.64 ppb	20:18:58
3	Cd 226.502†	45661.0	44627.5	495.11 ug/L	495.11 ppb	20:19:03
3	Co 228.616†	24868.4	24269.1	496.83 ug/L	496.83 ppb	20:19:03
3	Cr 267.716†	45734.4	44411.6	497.13 ug/L	497.13 ppb	20:19:03
3	Cu 324.752†	175653.1	164480.3	491.82 ug/L	491.82 ppb	20:19:03
3	Mn 257.610†	463730.4	450717.2	500.02 ug/L	500.02 ppb	20:18:58
3	Mo 202.031†	7277.1	7056.2	499.10 ug/L	499.10 ppb	20:19:23
3	Ni 231.604†	20556.1	19931.0	495.99 ug/L	495.99 ppb	20:19:03
3	P 214.914†	4334.9	3987.6	2332.8 ug/L	2332.8 ppb	20:19:23
3	Pb 220.353†	4067.2	4020.4	493.94 ug/L	493.94 ppb	20:19:23
3	S 181.975 Axial†	769.1	705.3	997.17 ug/L	997.17 ppb	20:19:23
3	Sb 206.836†	1520.9	1451.8	515.11 ug/L	515.11 ppb	20:19:23
3	Se 196.026†	758.7	770.1	513.99 ug/L	513.99 ppb	20:19:23
3	Si 251.611†	82320.0	79538.4	2527.0 ug/L	2527.0 ppb	20:19:03
3	Sn 189.927†	2894.4	2808.3	498.31 ug/L	498.31 ppb	20:19:23
3	Ti 334.940†	321187.4	313856.9	505.39 ug/L	505.39 ppb	20:18:58
3	Tl 190.801†	1626.9	1615.7	498.82 ug/L	498.82 ppb	20:19:23
3	U 409.014†	15782.8	17366.6	510.63 ug/L	510.63 ppb	20:19:03
3	V 292.402†	73404.6	72724.8	503.44 ug/L	503.44 ppb	20:19:03
3	Zn 213.857†	54674.9	52572.9	492.93 ug/L	492.93 ppb	20:19:03
3	SiO2†	81900.4	79109.0	5384.1 ug/L	5384.1 ppb	20:19:39

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	871582.3	102.25	%	0.502				0.49%
Sc Radial	5167.3	103	%	1.4				1.33%
Y 371.029	726568.3	100.54	%	0.579				0.58%
Y RADIAL	5517.2	101.6	%	0.89				0.88%
Ag 328.068†	109454.8	507.12	ug/L	3.250	507.12	ppb	3.250	0.64%
QC value within limits for Ag 328.068 Recovery = 101.42%								
Al 396.153Radial†	6281.5	4821.8	ug/L	134.00	4821.8	ppb	134.00	2.78%
QC value within limits for Al 396.153Radial Recovery = 96.44%								
As 188.979†	1152.1	501.39	ug/L	2.564	501.39	ppb	2.564	0.51%
QC value within limits for As 188.979 Recovery = 100.28%								
B 249.677†	22403.0	497.51	ug/L	3.295	497.51	ppb	3.295	0.66%
QC value within limits for B 249.677 Recovery = 99.50%								
Ba 233.527†	63897.7	500.11	ug/L	4.095	500.11	ppb	4.095	0.82%
QC value within limits for Ba 233.527 Recovery = 100.02%								
Be 313.107†	1323620.8	505.48	ug/L	1.394	505.48	ppb	1.394	0.28%
QC value within limits for Be 313.107 Recovery = 101.10%								
Ca 317.933Radial†	3081.7	4931.0	ug/L	100.47	4931.0	ppb	100.47	2.04%

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   QC value within limits for Ca 317.933Radial  Recovery = 98.62%
Cd 226.502†            44945.3      498.63 ug/L         4.562      498.63 ppb          4.562   0.91%
   QC value within limits for Cd 226.502  Recovery = 99.73%
Co 228.616†            24461.9      500.79 ug/L         4.675      500.79 ppb          4.675   0.93%
   QC value within limits for Co 228.616  Recovery = 100.16%
Cr 267.716†            44719.4      500.58 ug/L         3.632      500.58 ppb          3.632   0.73%
   QC value within limits for Cr 267.716  Recovery = 100.12%
Cu 324.752†           165756.6      495.64 ug/L         3.914      495.64 ppb          3.914   0.79%
   QC value within limits for Cu 324.752  Recovery = 99.13%
Fe 238.204 Radial†       577.1      5008.9 ug/L        112.62      5008.9 ppb         112.62   2.25%
   QC value within limits for Fe 238.204 Radial  Recovery = 100.18%
K 766.490 Radial†      26429.0      4828.6 ug/L         98.24      4828.6 ppb          98.24   2.03%
   QC value within limits for K 766.490 Radial  Recovery = 96.57%
Mg 279.077 IEC†          154.9      5174.6 ug/L         48.39      5174.6 ppb          48.39   0.94%
   QC value within limits for Mg 279.077 IEC  Recovery = 103.49%
Mn 257.610†           450625.1      499.91 ug/L         1.292      499.91 ppb          1.292   0.26%
   QC value within limits for Mn 257.610  Recovery = 99.98%
Mo 202.031†             7092.4      501.66 ug/L         2.247      501.66 ppb          2.247   0.45%
   QC value within limits for Mo 202.031  Recovery = 100.33%
Na 589.592 Radial†     32664.1      9780.0 ug/L        136.34      9780.0 ppb         136.34   1.39%
   QC value within limits for Na 589.592 Radial  Recovery = 97.80%
Ni 231.604†            20075.6      499.58 ug/L         4.280      499.58 ppb          4.280   0.86%
   QC value within limits for Ni 231.604  Recovery = 99.92%
P 214.914†              4024.3      2354.4 ug/L         18.92      2354.4 ppb          18.92   0.80%
   QC value within limits for P 214.914  Recovery = 94.18%
Pb 220.353†             4050.7      497.64 ug/L         3.260      497.64 ppb          3.260   0.66%
   QC value within limits for Pb 220.353  Recovery = 99.53%
S 181.975 Axial†         707.3      1000.1 ug/L          5.29      1000.1 ppb           5.29   0.53%
   QC value within limits for S 181.975 Axial  Recovery = 100.01%
Sb 206.836†             1453.4      515.81 ug/L         1.168      515.81 ppb          1.168   0.23%
   QC value within limits for Sb 206.836  Recovery = 103.16%
Se 196.026†              770.0      513.95 ug/L         4.241      513.95 ppb          4.241   0.83%
   QC value within limits for Se 196.026  Recovery = 102.79%
Si 251.611†            80227.1      2548.9 ug/L         24.01      2548.9 ppb          24.01   0.94%
   QC value within limits for Si 251.611  Recovery = 101.96%
Sn 189.927†             2831.3      502.39 ug/L         3.552      502.39 ppb          3.552   0.71%
   QC value within limits for Sn 189.927  Recovery = 100.48%
Sr 421.552†            74936.1      483.97 ug/L         9.876      483.97 ppb          9.876   2.04%
   QC value within limits for Sr 421.552  Recovery = 96.79%
Ti 334.940†           313589.2      504.96 ug/L         0.688      504.96 ppb          0.688   0.14%
   QC value within limits for Ti 334.940  Recovery = 100.99%
Tl 190.801†             1617.8      499.45 ug/L         2.496      499.45 ppb          2.496   0.50%
   QC value within limits for Tl 190.801  Recovery = 99.89%
U 409.014†             17264.6      507.61 ug/L         4.452      507.61 ppb          4.452   0.88%
   QC value within limits for U 409.014  Recovery = 101.52%
V 292.402†             73162.5      506.46 ug/L         3.643      506.46 ppb          3.643   0.72%
   QC value within limits for V 292.402  Recovery = 101.29%
Zn 213.857†            52955.1      496.52 ug/L         4.303      496.52 ppb          4.303   0.87%
   QC value within limits for Zn 213.857  Recovery = 99.30%
SiO2†                  79163.0      5387.8 ug/L         22.53      5387.8 ppb          22.53   0.42%
   QC value within limits for SiO2  Recovery = 100.75%
All analyte(s) passed QC.
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Sequence No.: 45
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 1/11/2010 20:21:48
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4981.7	4981.7	98.9	%			20:23:40
1	Y RADIAL	5295.3	5295.3	97.53	%			20:23:40
1	Al 396.153Radial†	-4.9	-4.3	-3.2854	ug/L	-3.2854	ppb	20:23:40
1	Ca 317.933Radial†	19.6	0.1	0.0805	ug/L	0.0805	ppb	20:24:00
1	Fe 238.204 Radial†	13.4	4.7	40.430	ug/L	40.430	ppb	20:24:00
1	K 766.490 Radial†	2785.7	225.5	41.360	ug/L	41.360	ppb	20:23:40
1	Mg 279.077 IEC†	2.1	0.2	7.2814	ug/L	7.2814	ppb	20:24:00
1	Na 589.592 Radial†	-1289.9	-23.4	-6.9958	ug/L	-6.9958	ppb	20:23:40
1	Sr 421.552†	10.0	29.6	0.1915	ug/L	0.1915	ppb	20:23:40
1	Sc 361.383	853011.8	853011.8	100.07	%			20:24:57
1	Y 371.029	723886.8	723886.8	100.17	%			20:24:57
1	Ag 328.068†	282.6	-75.6	-0.3395	ug/L	-0.3395	ppb	20:24:57
1	As 188.979†	-21.7	1.9	0.8546	ug/L	0.8546	ppb	20:25:17
1	B 249.677†	-380.9	251.2	5.5967	ug/L	5.5967	ppb	20:25:17
1	Ba 233.527†	-25.7	-14.2	-0.1109	ug/L	-0.1109	ppb	20:25:17
1	Be 313.107†	-4509.8	78.8	0.0307	ug/L	0.0307	ppb	20:24:57
1	Cd 226.502†	-186.6	17.6	0.1918	ug/L	0.1918	ppb	20:25:17
1	Co 228.616†	-80.1	-5.3	-0.1117	ug/L	-0.1117	ppb	20:25:17
1	Cr 267.716†	87.4	4.1	0.0446	ug/L	0.0446	ppb	20:25:17
1	Cu 324.752†	6367.1	-49.7	-0.1478	ug/L	-0.1478	ppb	20:24:57
1	Mn 257.610†	476.5	31.3	0.0389	ug/L	0.0389	ppb	20:25:17
1	Mo 202.031†	16.0	-7.7	-0.5414	ug/L	-0.5414	ppb	20:25:17
1	Ni 231.604†	80.1	12.1	0.3006	ug/L	0.3006	ppb	20:25:17
1	P 214.914†	214.8	-15.2	-9.3120	ug/L	-9.3120	ppb	20:25:17
1	Pb 220.353†	-51.2	12.2	1.4860	ug/L	1.4860	ppb	20:25:17
1	S 181.975 Axial†	52.8	9.7	13.798	ug/L	13.798	ppb	20:25:17
1	Sb 206.836†	34.7	6.7	2.2837	ug/L	2.2837	ppb	20:25:17
1	Se 196.026†	-34.8	-2.8	-1.6559	ug/L	-1.6559	ppb	20:25:17
1	Si 251.611†	727.1	176.1	5.6142	ug/L	5.6142	ppb	20:25:17
1	Sn 189.927†	2.6	-5.1	-0.9025	ug/L	-0.9025	ppb	20:25:17
1	Ti 334.940†	-1201.4	174.0	0.2786	ug/L	0.2786	ppb	20:24:57
1	Tl 190.801†	-34.5	-1.6	-0.4844	ug/L	-0.4844	ppb	20:25:17
1	U 409.014†	-1933.6	79.4	2.3382	ug/L	2.3382	ppb	20:24:57
1	V 292.402†	-1403.3	-92.6	-0.6421	ug/L	-0.6421	ppb	20:24:57
1	Zn 213.857†	620.0	-0.7	-0.0121	ug/L	-0.0121	ppb	20:25:17
1	SiO2†	689.5	117.4	8.0227	ug/L	8.0227	ppb	20:26:13
2	Sc Radial	5227.5	5227.5	104	%			20:24:05
2	Y RADIAL	5639.0	5639.0	103.9	%			20:24:05
2	Al 396.153Radial†	-20.4	-19.0	-14.640	ug/L	-14.640	ppb	20:24:05
2	Ca 317.933Radial†	15.4	-4.9	-7.8400	ug/L	-7.8400	ppb	20:24:25
2	Fe 238.204 Radial†	9.4	0.1	1.2286	ug/L	1.2286	ppb	20:24:25
2	K 766.490 Radial†	2616.4	-70.0	-12.827	ug/L	-12.827	ppb	20:24:05
2	Mg 279.077 IEC†	-1.9	-3.8	-126.32	ug/L	-126.32	ppb	20:24:25
2	Na 589.592 Radial†	-1307.7	20.8	6.2401	ug/L	6.2401	ppb	20:24:05
2	Sr 421.552†	48.0	65.7	0.4245	ug/L	0.4245	ppb	20:24:05
2	Sc 361.383	864825.1	864825.1	101.46	%			20:25:22
2	Y 371.029	733859.7	733859.7	101.55	%			20:25:22
2	Ag 328.068†	374.8	11.4	0.0484	ug/L	0.0484	ppb	20:25:22
2	As 188.979†	-20.5	3.4	1.4687	ug/L	1.4687	ppb	20:25:42
2	B 249.677†	-382.8	254.6	5.6754	ug/L	5.6754	ppb	20:25:42
2	Ba 233.527†	0.6	12.0	0.0928	ug/L	0.0928	ppb	20:25:42
2	Be 313.107†	-4504.8	145.3	0.0557	ug/L	0.0557	ppb	20:25:22
2	Cd 226.502†	-187.1	19.7	0.2197	ug/L	0.2197	ppb	20:25:42
2	Co 228.616†	-78.9	-3.1	-0.0634	ug/L	-0.0634	ppb	20:25:42
2	Cr 267.716†	86.4	1.9	0.0190	ug/L	0.0190	ppb	20:25:42
2	Cu 324.752†	6350.3	-153.1	-0.4600	ug/L	-0.4600	ppb	20:25:22
2	Mn 257.610†	473.6	21.9	0.0296	ug/L	0.0296	ppb	20:25:42
2	Mo 202.031†	23.1	-0.9	-0.0637	ug/L	-0.0637	ppb	20:25:42
2	Ni 231.604†	77.5	8.5	0.2108	ug/L	0.2108	ppb	20:25:42

2	P 214.914†	218.5	-14.5	-8.7715 ug/L	-8.7715 ppb	20:25:42
2	Pb 220.353†	-60.3	3.9	0.4776 ug/L	0.4776 ppb	20:25:42
2	S 181.975 Axial†	51.2	7.5	10.617 ug/L	10.617 ppb	20:25:42
2	Sb 206.836†	30.5	2.1	0.7130 ug/L	0.7130 ppb	20:25:42
2	Se 196.026†	-27.5	4.9	3.1416 ug/L	3.1416 ppb	20:25:42
2	Si 251.611†	704.9	144.3	4.5957 ug/L	4.5957 ppb	20:25:42
2	Sn 189.927†	2.7	-5.0	-0.8897 ug/L	-0.8897 ppb	20:25:42
2	Ti 334.940†	-1294.8	98.3	0.1661 ug/L	0.1661 ppb	20:25:22
2	Tl 190.801†	-36.8	-3.4	-1.0369 ug/L	-1.0369 ppb	20:25:42
2	U 409.014†	-1905.9	133.1	3.9266 ug/L	3.9266 ppb	20:25:22
2	V 292.402†	-1383.5	-53.9	-0.3641 ug/L	-0.3641 ppb	20:25:22
2	Zn 213.857†	614.4	-14.7	-0.1399 ug/L	-0.1399 ppb	20:25:42
2	SiO2†	700.1	118.4	8.0796 ug/L	8.0796 ppb	20:26:18
3	Sc Radial	5262.0	5262.0	105 %		20:24:30
3	Y RADIAL	5649.7	5649.7	104.1 %		20:24:30
3	Al 396.153Radial†	-18.3	-16.9	-12.989 ug/L	-12.989 ppb	20:24:30
3	Ca 317.933Radial†	15.0	-5.5	-8.7462 ug/L	-8.7462 ppb	20:24:50
3	Fe 238.204 Radial†	8.9	-0.4	-3.1283 ug/L	-3.1283 ppb	20:24:50
3	K 766.490 Radial†	2725.7	18.1	3.3111 ug/L	3.3111 ppb	20:24:30
3	Mg 279.077 IEC†	-2.0	-3.8	-128.50 ug/L	-128.50 ppb	20:24:50
3	Na 589.592 Radial†	-1272.7	62.6	18.739 ug/L	18.739 ppb	20:24:30
3	Sr 421.552†	9.2	28.3	0.1832 ug/L	0.1832 ppb	20:24:30
3	Sc 361.383	855729.8	855729.8	100.39 %		20:25:47
3	Y 371.029	728817.4	728817.4	100.85 %		20:25:47
3	Ag 328.068†	295.2	-63.9	-0.2973 ug/L	-0.2973 ppb	20:25:47
3	As 188.979†	-13.8	9.9	4.2994 ug/L	4.2994 ppb	20:26:07
3	B 249.677†	-390.3	243.0	5.4171 ug/L	5.4171 ppb	20:26:07
3	Ba 233.527†	0.2	11.6	0.0898 ug/L	0.0898 ppb	20:26:07
3	Be 313.107†	-4415.2	187.3	0.0716 ug/L	0.0716 ppb	20:25:47
3	Cd 226.502†	-191.0	13.8	0.1541 ug/L	0.1541 ppb	20:26:07
3	Co 228.616†	-51.2	23.6	0.4829 ug/L	0.4829 ppb	20:26:07
3	Cr 267.716†	90.7	7.1	0.0785 ug/L	0.0785 ppb	20:26:07
3	Cu 324.752†	6404.0	-33.1	-0.0999 ug/L	-0.0999 ppb	20:25:47
3	Mn 257.610†	472.1	25.4	0.0330 ug/L	0.0330 ppb	20:26:07
3	Mo 202.031†	20.0	-3.7	-0.2653 ug/L	-0.2653 ppb	20:26:07
3	Ni 231.604†	90.0	21.7	0.5401 ug/L	0.5401 ppb	20:26:07
3	P 214.914†	221.6	-9.2	-5.5903 ug/L	-5.5903 ppb	20:26:07
3	Pb 220.353†	-58.9	4.7	0.5729 ug/L	0.5729 ppb	20:26:07
3	S 181.975 Axial†	49.2	6.0	8.4500 ug/L	8.4500 ppb	20:26:07
3	Sb 206.836†	40.1	12.0	4.1074 ug/L	4.1074 ppb	20:26:07
3	Se 196.026†	-28.5	3.6	2.2897 ug/L	2.2897 ppb	20:26:07
3	Si 251.611†	670.7	117.6	3.7486 ug/L	3.7486 ppb	20:26:07
3	Sn 189.927†	4.3	-3.4	-0.6029 ug/L	-0.6029 ppb	20:26:07
3	Ti 334.940†	-1330.3	49.4	0.0885 ug/L	0.0885 ppb	20:25:47
3	Tl 190.801†	-43.8	-10.8	-3.3221 ug/L	-3.3221 ppb	20:26:07
3	U 409.014†	-1976.6	42.7	1.2606 ug/L	1.2606 ppb	20:25:47
3	V 292.402†	-1350.4	-35.5	-0.2457 ug/L	-0.2457 ppb	20:25:47
3	Zn 213.857†	618.1	-4.6	-0.0463 ug/L	-0.0463 ppb	20:26:07
3	SiO2†	723.9	149.4	10.203 ug/L	10.203 ppb	20:26:23

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	857855.5	100.64	%	0.726				0.72%
Sc Radial	5157.1	102	%	3.0				2.96%
Y 371.029	728854.7	100.86	%	0.690				0.68%
Y RADIAL	5528.0	101.8	%	3.71				3.65%
Ag 328.068†	-42.7	-0.1961	ug/L	0.21281	-0.1961	ppb	0.21281	108.50%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-13.4	-10.305	ug/L	6.1349	-10.305	ppb	6.1349	59.53%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	5.1	2.2076	ug/L	1.83740	2.2076	ppb	1.83740	83.23%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	249.6	5.5631	ug/L	0.13240	5.5631	ppb	0.13240	2.38%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	3.1	0.0239	ug/L	0.11674	0.0239	ppb	0.11674	489.17%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	137.1	0.0526	ug/L	0.02061	0.0526	ppb	0.02061	39.15%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-3.4	-5.5019	ug/L	4.85568	-5.5019	ppb	4.85568	88.25%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                17.0      0.1885 ug/L       0.03294      0.1885 ppb        0.03294  17.47%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                 5.1      0.1026 ug/L       0.33023      0.1026 ppb        0.33023 321.83%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                 4.4      0.0474 ug/L       0.02986      0.0474 ppb        0.02986  63.03%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               -78.7     -0.2359 ug/L       0.19558     -0.2359 ppb        0.19558  82.91%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          1.5      12.843 ug/L       23.9896      12.843 ppb        23.9896 186.79%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          57.9      10.615 ug/L       27.8222      10.615 ppb        27.8222 262.11%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -2.5     -82.515 ug/L       77.7739     -82.515 ppb        77.7739  94.25%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                26.2      0.0338 ug/L       0.00474      0.0338 ppb        0.00474  14.01%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                -4.1     -0.2901 ug/L       0.23983     -0.2901 ppb        0.23983  82.66%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†         20.0      5.9945 ug/L      12.86916      5.9945 ppb       12.86916 214.68%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                14.1      0.3505 ug/L       0.17027      0.3505 ppb        0.17027  48.58%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -13.0     -7.8912 ug/L       2.01093     -7.8912 ppb        2.01093  25.48%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                 6.9      0.8455 ug/L       0.55672      0.8455 ppb        0.55672  65.84%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            7.7      10.955 ug/L        2.6900      10.955 ppb         2.6900  24.55%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 7.0      2.3680 ug/L       1.69880      2.3680 ppb        1.69880  71.74%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 1.9      1.2585 ug/L       2.55959      1.2585 ppb        2.55959 203.39%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†               146.0      4.6528 ug/L       0.93413      4.6528 ppb        0.93413  20.08%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                -4.5     -0.7984 ug/L       0.16938     -0.7984 ppb        0.16938  21.22%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                41.2      0.2664 ug/L       0.13700      0.2664 ppb        0.13700  51.43%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               107.2      0.1777 ug/L       0.09559      0.1777 ppb        0.09559  53.78%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                -5.3     -1.6145 ug/L       1.50442     -1.6145 ppb        1.50442  93.18%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 85.1      2.5085 ug/L       1.34114      2.5085 ppb        1.34114  53.46%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                -60.7     -0.4173 ug/L       0.20345     -0.4173 ppb        0.20345  48.75%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                -6.7     -0.0661 ug/L       0.06615     -0.0661 ppb        0.06615 100.13%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                     128.4      8.7686 ug/L       1.24294      8.7686 ppb        1.24294  14.17%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 55
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 1/11/2010 21:31:45
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5066.2	5066.2	101	%			21:33:37
1	Y RADIAL	5441.3	5441.3	100.2	%			21:33:37
1	Al 396.153Radial†	6383.7	6345.5	4871.0	ug/L	4871.0	ppb	21:33:37
1	Ca 317.933Radial†	3196.5	3157.3	5052.0	ug/L	5052.0	ppb	21:33:57
1	Fe 238.204 Radial†	606.4	593.8	5153.7	ug/L	5153.7	ppb	21:33:57
1	K 766.490 Radial†	29519.1	26749.0	4887.1	ug/L	4887.1	ppb	21:33:37
1	Mg 279.077 IEC†	159.7	156.8	5238.6	ug/L	5238.6	ppb	21:33:57
1	Na 589.592 Radial†	32360.9	33444.2	10014	ug/L	10014	ppb	21:33:37
1	Sr 421.552†	76677.6	76229.8	492.32	ug/L	492.32	ppb	21:33:37
1	Sc 361.383	875346.8	875346.8	102.69	%			21:34:55
1	Y 371.029	729099.0	729099.0	100.89	%			21:34:55
1	Ag 328.068†	112658.0	109346.5	506.66	ug/L	506.66	ppb	21:35:00
1	As 188.979†	1155.9	1149.2	500.10	ug/L	500.10	ppb	21:35:20
1	B 249.677†	22100.4	22152.9	491.91	ug/L	491.91	ppb	21:35:00
1	Ba 233.527†	65674.8	63964.4	500.63	ug/L	500.63	ppb	21:35:00
1	Be 313.107†	1358475.6	1327446.2	506.92	ug/L	506.92	ppb	21:34:55
1	Cd 226.502†	46031.0	45028.3	499.54	ug/L	499.54	ppb	21:35:00
1	Co 228.616†	25094.9	24511.7	501.83	ug/L	501.83	ppb	21:35:00
1	Cr 267.716†	46050.2	44759.7	501.03	ug/L	501.03	ppb	21:35:00
1	Cu 324.752†	176802.3	165754.9	495.64	ug/L	495.64	ppb	21:35:00
1	Mn 257.610†	464878.2	452245.7	501.72	ug/L	501.72	ppb	21:34:55
1	Mo 202.031†	7356.8	7140.2	505.04	ug/L	505.04	ppb	21:35:20
1	Ni 231.604†	20781.9	20169.1	501.91	ug/L	501.91	ppb	21:35:00
1	P 214.914†	4397.3	4052.2	2371.3	ug/L	2371.3	ppb	21:35:20
1	Pb 220.353†	4137.2	4092.1	502.72	ug/L	502.72	ppb	21:35:20
1	S 181.975 Axial†	783.5	720.0	1018.0	ug/L	1018.0	ppb	21:35:20
1	Sb 206.836†	1520.7	1452.9	515.75	ug/L	515.75	ppb	21:35:20
1	Se 196.026†	761.9	773.9	516.93	ug/L	516.93	ppb	21:35:20
1	Si 251.611†	82585.4	79869.8	2537.5	ug/L	2537.5	ppb	21:35:00
1	Sn 189.927†	2923.7	2839.3	503.84	ug/L	503.84	ppb	21:35:20
1	Ti 334.940†	314313.7	307447.9	495.07	ug/L	495.07	ppb	21:35:00
1	Tl 190.801†	1641.5	1631.3	503.54	ug/L	503.54	ppb	21:35:20
1	U 409.014†	15737.1	17336.2	509.70	ug/L	509.70	ppb	21:35:00
1	V 292.402†	73799.0	73174.0	506.58	ug/L	506.58	ppb	21:35:00
1	Zn 213.857†	54975.2	52913.7	496.10	ug/L	496.10	ppb	21:35:00
1	SiO2†	82106.4	79382.2	5402.6	ug/L	5402.6	ppb	21:36:27
2	Sc Radial	5209.2	5209.2	103	%			21:34:02
2	Y RADIAL	5586.2	5586.2	102.9	%			21:34:02
2	Al 396.153Radial†	6435.7	6221.5	4775.4	ug/L	4775.4	ppb	21:34:02
2	Ca 317.933Radial†	3194.7	3068.3	4909.6	ug/L	4909.6	ppb	21:34:22
2	Fe 238.204 Radial†	606.3	577.2	5009.9	ug/L	5009.9	ppb	21:34:22
2	K 766.490 Radial†	29846.0	26259.5	4797.5	ug/L	4797.5	ppb	21:34:02
2	Mg 279.077 IEC†	161.3	154.0	5145.9	ug/L	5145.9	ppb	21:34:22
2	Na 589.592 Radial†	32639.6	32830.4	9829.8	ug/L	9829.8	ppb	21:34:02
2	Sr 421.552†	77456.0	74889.6	483.67	ug/L	483.67	ppb	21:34:02
2	Sc 361.383	871437.5	871437.5	102.23	%			21:35:26
2	Y 371.029	726898.8	726898.8	100.59	%			21:35:26
2	Ag 328.068†	112636.2	109817.3	508.79	ug/L	508.79	ppb	21:35:31
2	As 188.979†	1165.3	1163.5	506.26	ug/L	506.26	ppb	21:35:51
2	B 249.677†	22161.1	22308.8	495.40	ug/L	495.40	ppb	21:35:31
2	Ba 233.527†	65521.6	64101.4	501.70	ug/L	501.70	ppb	21:35:31
2	Be 313.107†	1352406.9	1327444.5	506.92	ug/L	506.92	ppb	21:35:26
2	Cd 226.502†	45917.3	45118.2	500.55	ug/L	500.55	ppb	21:35:31
2	Co 228.616†	25042.2	24569.8	503.02	ug/L	503.02	ppb	21:35:31
2	Cr 267.716†	45965.9	44878.3	502.35	ug/L	502.35	ppb	21:35:31
2	Cu 324.752†	176633.0	166361.7	497.45	ug/L	497.45	ppb	21:35:31
2	Mn 257.610†	462563.7	452012.6	501.45	ug/L	501.45	ppb	21:35:26
2	Mo 202.031†	7318.1	7134.5	504.63	ug/L	504.63	ppb	21:35:51
2	Ni 231.604†	20700.4	20180.2	502.19	ug/L	502.19	ppb	21:35:31

2	P 214.914†	4371.4	4046.0	2367.3 ug/L	2367.3 ppb	21:35:51
2	Pb 220.353†	4092.2	4066.2	499.53 ug/L	499.53 ppb	21:35:51
2	S 181.975 Axial†	783.5	723.4	1022.8 ug/L	1022.8 ppb	21:35:51
2	Sb 206.836†	1502.5	1441.8	511.94 ug/L	511.94 ppb	21:35:51
2	Se 196.026†	760.7	776.1	517.90 ug/L	517.90 ppb	21:35:51
2	Si 251.611†	82471.6	80119.2	2545.5 ug/L	2545.5 ppb	21:35:31
2	Sn 189.927†	2912.3	2841.0	504.11 ug/L	504.11 ppb	21:35:51
2	Ti 334.940†	313626.5	308148.8	496.19 ug/L	496.19 ppb	21:35:31
2	Tl 190.801†	1627.1	1624.4	501.40 ug/L	501.40 ppb	21:35:51
2	U 409.014†	15756.8	17424.2	512.31 ug/L	512.31 ppb	21:35:31
2	V 292.402†	73580.2	73282.3	507.34 ug/L	507.34 ppb	21:35:31
2	Zn 213.857†	54868.9	53049.9	497.39 ug/L	497.39 ppb	21:35:31
2	SiO2†	81589.1	79234.8	5392.6 ug/L	5392.6 ppb	21:36:32
3	Sc Radial	5107.5	5107.5	101 %		21:34:27
3	Y RADIAL	5450.1	5450.1	100.4 %		21:34:27
3	Al 396.153Radial†	6461.6	6370.9	4890.3 ug/L	4890.3 ppb	21:34:27
3	Ca 317.933Radial†	3182.0	3117.3	4987.9 ug/L	4987.9 ppb	21:34:47
3	Fe 238.204 Radial†	609.7	592.2	5140.4 ug/L	5140.4 ppb	21:34:47
3	K 766.490 Radial†	29867.9	26855.4	4906.5 ug/L	4906.5 ppb	21:34:27
3	Mg 279.077 IEC†	158.8	154.6	5165.8 ug/L	5165.8 ppb	21:34:47
3	Na 589.592 Radial†	32598.1	33417.6	10006 ug/L	10006 ppb	21:34:27
3	Sr 421.552†	77241.7	76169.0	491.93 ug/L	491.93 ppb	21:34:27
3	Sc 361.383	862911.4	862911.4	101.23 %		21:35:57
3	Y 371.029	720012.6	720012.6	99.633 %		21:35:57
3	Ag 328.068†	111990.9	110268.5	510.92 ug/L	510.92 ppb	21:36:02
3	As 188.979†	1158.0	1167.5	508.03 ug/L	508.03 ppb	21:36:22
3	B 249.677†	22120.2	22482.5	499.25 ug/L	499.25 ppb	21:36:02
3	Ba 233.527†	65127.9	64345.8	503.62 ug/L	503.62 ppb	21:36:02
3	Be 313.107†	1339368.0	1327635.0	507.00 ug/L	507.00 ppb	21:35:57
3	Cd 226.502†	45605.2	45253.7	502.05 ug/L	502.05 ppb	21:36:02
3	Co 228.616†	24961.4	24732.0	506.35 ug/L	506.35 ppb	21:36:02
3	Cr 267.716†	45778.0	45137.0	505.25 ug/L	505.25 ppb	21:36:02
3	Cu 324.752†	175415.1	166865.7	498.96 ug/L	498.96 ppb	21:36:02
3	Mn 257.610†	458190.1	452162.8	501.63 ug/L	501.63 ppb	21:35:57
3	Mo 202.031†	7356.7	7243.3	512.33 ug/L	512.33 ppb	21:36:22
3	Ni 231.604†	20654.1	20334.5	506.03 ug/L	506.03 ppb	21:36:02
3	P 214.914†	4407.0	4123.4	2414.3 ug/L	2414.3 ppb	21:36:22
3	Pb 220.353†	4130.7	4143.7	509.06 ug/L	509.06 ppb	21:36:22
3	S 181.975 Axial†	778.8	726.3	1026.9 ug/L	1026.9 ppb	21:36:22
3	Sb 206.836†	1531.5	1484.9	527.05 ug/L	527.05 ppb	21:36:22
3	Se 196.026†	764.5	787.2	525.51 ug/L	525.51 ppb	21:36:22
3	Si 251.611†	81919.7	80371.2	2553.4 ug/L	2553.4 ppb	21:36:02
3	Sn 189.927†	2946.5	2903.0	515.10 ug/L	515.10 ppb	21:36:22
3	Ti 334.940†	311769.7	309345.7	498.13 ug/L	498.13 ppb	21:36:02
3	Tl 190.801†	1641.6	1654.5	510.64 ug/L	510.64 ppb	21:36:22
3	U 409.014†	15648.5	17469.4	513.63 ug/L	513.63 ppb	21:36:02
3	V 292.402†	73224.0	73641.5	509.89 ug/L	509.89 ppb	21:36:02
3	Zn 213.857†	54598.3	53312.9	499.84 ug/L	499.84 ppb	21:36:02
3	SiO2†	82326.4	80751.7	5495.9 ug/L	5495.9 ppb	21:36:37

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	869898.5	102.05	%	0.746				0.73%
Sc Radial	5127.6	102	%	1.5				1.44%
Y 371.029	725336.8	100.37	%	0.656				0.65%
Y RADIAL	5492.5	101.2	%	1.50				1.48%
Ag 328.068†	109810.7	508.79	ug/L	2.126	508.79	ppb	2.126	0.42%
QC value within limits for Ag 328.068 Recovery = 101.76%								
Al 396.153Radial†	6312.6	4845.5	ug/L	61.53	4845.5	ppb	61.53	1.27%
QC value within limits for Al 396.153Radial Recovery = 96.91%								
As 188.979†	1160.1	504.79	ug/L	4.162	504.79	ppb	4.162	0.82%
QC value within limits for As 188.979 Recovery = 100.96%								
B 249.677†	22314.7	495.52	ug/L	3.670	495.52	ppb	3.670	0.74%
QC value within limits for B 249.677 Recovery = 99.10%								
Ba 233.527†	64137.2	501.98	ug/L	1.512	501.98	ppb	1.512	0.30%
QC value within limits for Ba 233.527 Recovery = 100.40%								
Be 313.107†	1327508.5	506.95	ug/L	0.045	506.95	ppb	0.045	0.01%
QC value within limits for Be 313.107 Recovery = 101.39%								
Ca 317.933Radial†	3114.3	4983.1	ug/L	71.31	4983.1	ppb	71.31	1.43%

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   QC value within limits for Ca 317.933Radial  Recovery = 99.66%
Cd 226.502†            45133.4      500.71 ug/L         1.260      500.71 ppb          1.260   0.25%
   QC value within limits for Cd 226.502  Recovery = 100.14%
Co 228.616†            24604.5      503.73 ug/L         2.343      503.73 ppb          2.343   0.47%
   QC value within limits for Co 228.616  Recovery = 100.75%
Cr 267.716†            44925.0      502.88 ug/L         2.159      502.88 ppb          2.159   0.43%
   QC value within limits for Cr 267.716  Recovery = 100.58%
Cu 324.752†           166327.4      497.35 ug/L         1.661      497.35 ppb          1.661   0.33%
   QC value within limits for Cu 324.752  Recovery = 99.47%
Fe 238.204 Radial†       587.7      5101.3 ug/L        79.42      5101.3 ppb          79.42   1.56%
   QC value within limits for Fe 238.204 Radial  Recovery = 102.03%
K 766.490 Radial†      26621.3      4863.7 ug/L        58.18      4863.7 ppb          58.18   1.20%
   QC value within limits for K 766.490 Radial  Recovery = 97.27%
Mg 279.077 IEC†          155.1      5183.4 ug/L        48.79      5183.4 ppb          48.79   0.94%
   QC value within limits for Mg 279.077 IEC  Recovery = 103.67%
Mn 257.610†           452140.4      501.60 ug/L         0.138      501.60 ppb          0.138   0.03%
   QC value within limits for Mn 257.610  Recovery = 100.32%
Mo 202.031†             7172.7      507.34 ug/L         4.332      507.34 ppb          4.332   0.85%
   QC value within limits for Mo 202.031  Recovery = 101.47%
Na 589.592 Radial†     33230.7      9949.7 ug/L       103.88      9949.7 ppb         103.88   1.04%
   QC value within limits for Na 589.592 Radial  Recovery = 99.50%
Ni 231.604†            20227.9      503.37 ug/L         2.300      503.37 ppb          2.300   0.46%
   QC value within limits for Ni 231.604  Recovery = 100.67%
P 214.914†              4073.9      2384.3 ug/L        26.06      2384.3 ppb          26.06   1.09%
   QC value within limits for P 214.914  Recovery = 95.37%
Pb 220.353†             4100.7      503.77 ug/L         4.850      503.77 ppb          4.850   0.96%
   QC value within limits for Pb 220.353  Recovery = 100.75%
S 181.975 Axial†         723.2      1022.6 ug/L         4.48      1022.6 ppb           4.48   0.44%
   QC value within limits for S 181.975 Axial  Recovery = 102.26%
Sb 206.836†             1459.9      518.24 ug/L         7.859      518.24 ppb          7.859   1.52%
   QC value within limits for Sb 206.836  Recovery = 103.65%
Se 196.026†              779.1      520.11 ug/L         4.699      520.11 ppb          4.699   0.90%
   QC value within limits for Se 196.026  Recovery = 104.02%
Si 251.611†            80120.1      2545.5 ug/L         7.94      2545.5 ppb           7.94   0.31%
   QC value within limits for Si 251.611  Recovery = 101.82%
Sn 189.927†             2861.1      507.68 ug/L         6.424      507.68 ppb          6.424   1.27%
   QC value within limits for Sn 189.927  Recovery = 101.54%
Sr 421.552†            75762.8      489.31 ug/L         4.888      489.31 ppb          4.888   1.00%
   QC value within limits for Sr 421.552  Recovery = 97.86%
Ti 334.940†           308314.1      496.46 ug/L         1.545      496.46 ppb          1.545   0.31%
   QC value within limits for Ti 334.940  Recovery = 99.29%
Tl 190.801†             1636.7      505.19 ug/L         4.835      505.19 ppb          4.835   0.96%
   QC value within limits for Tl 190.801  Recovery = 101.04%
U 409.014†             17409.9      511.88 ug/L         1.997      511.88 ppb          1.997   0.39%
   QC value within limits for U 409.014  Recovery = 102.38%
V 292.402†             73366.0      507.94 ug/L         1.731      507.94 ppb          1.731   0.34%
   QC value within limits for V 292.402  Recovery = 101.59%
Zn 213.857†            53092.1      497.78 ug/L         1.902      497.78 ppb          1.902   0.38%
   QC value within limits for Zn 213.857  Recovery = 99.56%
SiO2†                  79789.6      5430.4 ug/L        56.96      5430.4 ppb          56.96   1.05%
   QC value within limits for SiO2  Recovery = 101.55%
All analyte(s) passed QC.
```

Sequence No.: 56
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 1/11/2010 21:38:47
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5036.0	5036.0	100	%			21:40:39
1	Y RADIAL	5431.9	5431.9	100.0	%			21:40:39
1	Al 396.153Radial†	-25.1	-24.4	-18.838	ug/L	-18.838	ppb	21:40:39
1	Ca 317.933Radial†	14.8	-5.0	-7.9749	ug/L	-7.9749	ppb	21:40:59
1	Fe 238.204 Radial†	10.4	1.5	13.342	ug/L	13.342	ppb	21:40:59
1	K 766.490 Radial†	2643.8	53.3	9.7766	ug/L	9.7766	ppb	21:40:39
1	Mg 279.077 IEC†	0.2	-1.7	-55.846	ug/L	-55.846	ppb	21:40:59
1	Na 589.592 Radial†	-1324.6	-44.0	-13.176	ug/L	-13.176	ppb	21:40:39
1	Sr 421.552†	9.8	29.3	0.1892	ug/L	0.1892	ppb	21:40:39
1	Sc 361.383	858553.8	858553.8	100.72	%			21:41:56
1	Y 371.029	729508.5	729508.5	100.95	%			21:41:56
1	Ag 328.068†	269.3	-90.6	-0.4159	ug/L	-0.4159	ppb	21:41:56
1	As 188.979†	-17.3	6.4	2.7976	ug/L	2.7976	ppb	21:42:16
1	B 249.677†	-478.0	157.3	3.5058	ug/L	3.5058	ppb	21:42:16
1	Ba 233.527†	-11.0	0.4	0.0038	ug/L	0.0038	ppb	21:42:16
1	Be 313.107†	-4505.6	112.1	0.0431	ug/L	0.0431	ppb	21:41:56
1	Cd 226.502†	-182.1	23.3	0.2576	ug/L	0.2576	ppb	21:42:16
1	Co 228.616†	-77.9	-2.6	-0.0542	ug/L	-0.0542	ppb	21:42:16
1	Cr 267.716†	78.4	-5.4	-0.0617	ug/L	-0.0617	ppb	21:42:16
1	Cu 324.752†	6455.0	-3.5	-0.0115	ug/L	-0.0115	ppb	21:41:56
1	Mn 257.610†	416.7	-31.2	-0.0308	ug/L	-0.0308	ppb	21:42:16
1	Mo 202.031†	23.6	-0.3	-0.0213	ug/L	-0.0213	ppb	21:42:16
1	Ni 231.604†	76.2	7.7	0.1912	ug/L	0.1912	ppb	21:42:16
1	P 214.914†	219.4	-12.0	-7.3778	ug/L	-7.3778	ppb	21:42:16
1	Pb 220.353†	-52.5	11.2	1.3690	ug/L	1.3690	ppb	21:42:16
1	S 181.975 Axial†	46.6	3.3	4.6507	ug/L	4.6507	ppb	21:42:16
1	Sb 206.836†	35.8	7.6	2.6108	ug/L	2.6108	ppb	21:42:16
1	Se 196.026†	-31.9	0.3	0.2340	ug/L	0.2340	ppb	21:42:16
1	Si 251.611†	551.4	-3.1	-0.0972	ug/L	-0.0972	ppb	21:42:16
1	Sn 189.927†	5.8	-1.9	-0.3375	ug/L	-0.3375	ppb	21:42:16
1	Ti 334.940†	-1272.6	111.0	0.1811	ug/L	0.1811	ppb	21:41:56
1	Tl 190.801†	-32.4	0.7	0.2110	ug/L	0.2110	ppb	21:42:16
1	U 409.014†	-1913.0	112.3	3.3118	ug/L	3.3118	ppb	21:41:56
1	V 292.402†	-1329.0	-9.8	-0.0639	ug/L	-0.0639	ppb	21:41:56
1	Zn 213.857†	601.6	-23.0	-0.2196	ug/L	-0.2196	ppb	21:42:16
1	SiO2†	583.4	7.5	0.5136	ug/L	0.5136	ppb	21:43:12
2	Sc Radial	5141.4	5141.4	102	%			21:41:04
2	Y RADIAL	5519.8	5519.8	101.7	%			21:41:04
2	Al 396.153Radial†	-16.9	-15.9	-12.212	ug/L	-12.212	ppb	21:41:04
2	Ca 317.933Radial†	15.3	-4.8	-7.7466	ug/L	-7.7466	ppb	21:41:24
2	Fe 238.204 Radial†	9.1	-0.0	-0.0300	ug/L	-0.0300	ppb	21:41:24
2	K 766.490 Radial†	2551.3	-91.5	-16.772	ug/L	-16.772	ppb	21:41:04
2	Mg 279.077 IEC†	0.9	-1.0	-33.471	ug/L	-33.471	ppb	21:41:24
2	Na 589.592 Radial†	-1307.5	-0.1	-0.0182	ug/L	-0.0182	ppb	21:41:04
2	Sr 421.552†	13.1	32.4	0.2092	ug/L	0.2092	ppb	21:41:04
2	Sc 361.383	896670.4	896670.4	105.19	%			21:42:21
2	Y 371.029	762390.0	762390.0	105.50	%			21:42:21
2	Ag 328.068†	330.5	-43.8	-0.2068	ug/L	-0.2068	ppb	21:42:21
2	As 188.979†	-16.9	7.6	3.2850	ug/L	3.2850	ppb	21:42:41
2	B 249.677†	-488.9	167.1	3.7232	ug/L	3.7232	ppb	21:42:41
2	Ba 233.527†	-10.9	1.1	0.0081	ug/L	0.0081	ppb	21:42:41
2	Be 313.107†	-4505.2	302.6	0.1157	ug/L	0.1157	ppb	21:42:21
2	Cd 226.502†	-207.8	6.6	0.0743	ug/L	0.0743	ppb	21:42:41
2	Co 228.616†	-60.9	16.8	0.3409	ug/L	0.3409	ppb	21:42:41
2	Cr 267.716†	94.2	6.3	0.0682	ug/L	0.0682	ppb	21:42:41
2	Cu 324.752†	6372.1	-354.7	-1.0640	ug/L	-1.0640	ppb	21:42:21
2	Mn 257.610†	411.7	-53.5	-0.0580	ug/L	-0.0580	ppb	21:42:41
2	Mo 202.031†	10.6	-13.7	-0.9656	ug/L	-0.9656	ppb	21:42:41
2	Ni 231.604†	74.7	3.0	0.0754	ug/L	0.0754	ppb	21:42:41

2	P 214.914†	209.1	-31.1	-18.822	ug/L	-18.822 ppb	21:42:41
2	Pb 220.353†	-59.8	6.5	0.7931	ug/L	0.7931 ppb	21:42:41
2	S 181.975 Axial†	48.2	2.8	3.9710	ug/L	3.9710 ppb	21:42:41
2	Sb 206.836†	38.0	8.2	2.7546	ug/L	2.7546 ppb	21:42:41
2	Se 196.026†	-29.1	4.4	2.8147	ug/L	2.8147 ppb	21:42:41
2	Si 251.611†	579.5	0.5	0.0265	ug/L	0.0265 ppb	21:42:41
2	Sn 189.927†	-1.9	-9.4	-1.6725	ug/L	-1.6725 ppb	21:42:41
2	Ti 334.940†	-1333.2	107.1	0.1718	ug/L	0.1718 ppb	21:42:21
2	Tl 190.801†	-27.4	6.8	2.1005	ug/L	2.1005 ppb	21:42:41
2	U 409.014†	-1904.9	200.8	5.9222	ug/L	5.9222 ppb	21:42:21
2	V 292.402†	-1385.1	-7.0	-0.0518	ug/L	-0.0518 ppb	21:42:21
2	Zn 213.857†	615.9	-34.7	-0.3274	ug/L	-0.3274 ppb	21:42:41
2	SiO2†	587.0	-13.7	-0.9059	ug/L	-0.9059 ppb	21:43:17
3	Sc Radial	5157.0	5157.0	102	%		21:41:29
3	Y RADIAL	5520.8	5520.8	101.7	%		21:41:29
3	Al 396.153Radial†	-10.6	-9.7	-7.5096	ug/L	-7.5096 ppb	21:41:29
3	Ca 317.933Radial†	18.5	-1.7	-2.7649	ug/L	-2.7649 ppb	21:41:49
3	Fe 238.204 Radial†	11.2	2.1	17.749	ug/L	17.749 ppb	21:41:49
3	K 766.490 Radial†	2676.0	22.7	4.1773	ug/L	4.1773 ppb	21:41:29
3	Mg 279.077 IEC†	5.8	3.7	123.88	ug/L	123.88 ppb	21:41:49
3	Na 589.592 Radial†	-1401.1	-87.6	-26.223	ug/L	-26.223 ppb	21:41:29
3	Sr 421.552†	-16.2	3.7	0.0241	ug/L	0.0241 ppb	21:41:29
3	Sc 361.383	850118.4	850118.4	99.733	%		21:42:46
3	Y 371.029	721245.4	721245.4	99.803	%		21:42:46
3	Ag 328.068†	281.8	-75.4	-0.3458	ug/L	-0.3458 ppb	21:42:46
3	As 188.979†	-16.6	7.0	3.0346	ug/L	3.0346 ppb	21:43:06
3	B 249.677†	-490.9	139.7	3.1121	ug/L	3.1121 ppb	21:43:06
3	Ba 233.527†	4.0	15.4	0.1193	ug/L	0.1193 ppb	21:43:06
3	Be 313.107†	-4454.2	119.2	0.0456	ug/L	0.0456 ppb	21:42:46
3	Cd 226.502†	-185.5	18.1	0.1995	ug/L	0.1995 ppb	21:43:06
3	Co 228.616†	-76.9	-2.5	-0.0501	ug/L	-0.0501 ppb	21:43:06
3	Cr 267.716†	82.0	-1.0	-0.0132	ug/L	-0.0132 ppb	21:43:06
3	Cu 324.752†	6398.6	3.5	0.0104	ug/L	0.0104 ppb	21:42:46
3	Mn 257.610†	440.0	-3.7	-0.0071	ug/L	-0.0071 ppb	21:43:06
3	Mo 202.031†	28.8	5.1	0.3645	ug/L	0.3645 ppb	21:43:06
3	Ni 231.604†	77.2	9.4	0.2344	ug/L	0.2344 ppb	21:43:06
3	P 214.914†	215.4	-13.8	-8.4896	ug/L	-8.4896 ppb	21:43:06
3	Pb 220.353†	-69.1	-5.9	-0.7282	ug/L	-0.7282 ppb	21:43:06
3	S 181.975 Axial†	48.0	5.2	7.3212	ug/L	7.3212 ppb	21:43:06
3	Sb 206.836†	44.2	16.4	5.6220	ug/L	5.6220 ppb	21:43:06
3	Se 196.026†	-40.8	-8.9	-5.6819	ug/L	-5.6819 ppb	21:43:06
3	Si 251.611†	570.1	21.2	0.6694	ug/L	0.6694 ppb	21:43:06
3	Sn 189.927†	4.5	-3.1	-0.5560	ug/L	-0.5560 ppb	21:43:06
3	Ti 334.940†	-1325.8	45.2	0.0616	ug/L	0.0616 ppb	21:42:46
3	Tl 190.801†	-37.8	-5.0	-1.5435	ug/L	-1.5435 ppb	21:43:06
3	U 409.014†	-1942.5	63.9	1.8840	ug/L	1.8840 ppb	21:42:46
3	V 292.402†	-1407.9	-102.0	-0.6875	ug/L	-0.6875 ppb	21:42:46
3	Zn 213.857†	625.0	6.4	0.0577	ug/L	0.0577 ppb	21:43:06
3	SiO2†	555.9	-14.3	-0.9848	ug/L	-0.9848 ppb	21:43:22

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	868447.5	101.88	%	2.910				2.86%
Sc Radial	5111.5	102	%	1.3				1.29%
Y 371.029	737714.6	102.08	%	3.012				2.95%
Y RADIAL	5490.8	101.1	%	0.94				0.93%
Ag 328.068†	-70.0	-0.3228	ug/L	0.10644	-0.3228	ppb	0.10644	32.97%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-16.7	-12.853	ug/L	5.6914	-12.853	ppb	5.6914	44.28%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	7.0	3.0391	ug/L	0.24372	3.0391	ppb	0.24372	8.02%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	154.7	3.4470	ug/L	0.30976	3.4470	ppb	0.30976	8.99%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	5.6	0.0438	ug/L	0.06550	0.0438	ppb	0.06550	149.68%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	178.0	0.0681	ug/L	0.04121	0.0681	ppb	0.04121	60.49%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-3.9	-6.1622	ug/L	2.94432	-6.1622	ppb	2.94432	47.78%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                16.0      0.1771 ug/L       0.09368      0.1771 ppb        0.09368  52.89%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                 3.9      0.0789 ug/L       0.22693      0.0789 ppb        0.22693 287.67%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                -0.0     -0.0022 ug/L       0.06563     -0.0022 ppb        0.06563 >999.9%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -118.2     -0.3550 ug/L       0.61409     -0.3550 ppb        0.61409 172.97%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          1.2      10.354 ug/L        9.2586      10.354 ppb         9.2586  89.42%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          -5.2     -0.9394 ug/L      13.99436     -0.9394 ppb       13.99436 >999.9%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             0.3      11.521 ug/L       97.9465      11.521 ppb        97.9465 850.15%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               -29.4     -0.0320 ug/L       0.02543     -0.0320 ppb        0.02543  79.57%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                -2.9     -0.2075 ug/L       0.68432     -0.2075 ppb        0.68432 329.86%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        -43.9     -13.139 ug/L       13.1026     -13.139 ppb        13.1026  99.72%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                 6.7      0.1670 ug/L       0.08223      0.1670 ppb        0.08223  49.24%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -19.0     -11.563 ug/L        6.3108     -11.563 ppb         6.3108  54.58%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                 3.9      0.4780 ug/L       1.08353      0.4780 ppb        1.08353 226.69%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            3.8      5.3143 ug/L       1.77095      5.3143 ppb        1.77095  33.32%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                10.7      3.6625 ug/L       1.69854      3.6625 ppb        1.69854  46.38%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -1.4     -0.8777 ug/L       4.35607     -0.8777 ppb        4.35607 496.28%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                 6.2      0.1995 ug/L       0.41157      0.1995 ppb        0.41157 206.25%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                -4.8     -0.8553 ug/L       0.71607     -0.8553 ppb        0.71607  83.72%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                21.8      0.1408 ug/L       0.10158      0.1408 ppb        0.10158  72.14%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                87.8      0.1382 ug/L       0.06650      0.1382 ppb        0.06650  48.13%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 0.8      0.2560 ug/L       1.82240      0.2560 ppb        1.82240 711.87%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                125.7      3.7060 ug/L       2.04774      3.7060 ppb        2.04774  55.25%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                -39.6     -0.2677 ug/L       0.36359     -0.2677 ppb        0.36359 135.80%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               -17.1     -0.1631 ug/L       0.19868     -0.1631 ppb        0.19868 121.84%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                      -6.8     -0.4590 ug/L       0.84325     -0.4590 ppb        0.84325 183.71%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
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Sequence No.: 66
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 1/11/2010 22:48:23
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5079.6	5079.6	101	%			22:50:15
1	Y RADIAL	5389.7	5389.7	99.27	%			22:50:15
1	Al 396.153Radial†	6424.9	6369.6	4889.6	ug/L	4889.6	ppb	22:50:15
1	Ca 317.933Radial†	3212.7	3165.0	5064.3	ug/L	5064.3	ppb	22:50:35
1	Fe 238.204 Radial†	616.0	601.8	5222.8	ug/L	5222.8	ppb	22:50:35
1	K 766.490 Radial†	29984.7	27133.3	4957.4	ug/L	4957.4	ppb	22:50:15
1	Mg 279.077 IEC†	159.7	156.4	5224.5	ug/L	5224.5	ppb	22:50:35
1	Na 589.592 Radial†	32827.0	33821.3	10127	ug/L	10127	ppb	22:50:15
1	Sr 421.552†	77561.5	76905.0	496.69	ug/L	496.69	ppb	22:50:15
1	Sc 361.383	869829.9	869829.9	102.05	%			22:51:33
1	Y 371.029	724813.4	724813.4	100.30	%			22:51:33
1	Ag 328.068†	112256.4	109648.7	508.08	ug/L	508.08	ppb	22:51:38
1	As 188.979†	1168.9	1169.1	508.75	ug/L	508.75	ppb	22:51:58
1	B 249.677†	21933.1	22125.4	491.29	ug/L	491.29	ppb	22:51:38
1	Ba 233.527†	65369.0	64070.4	501.47	ug/L	501.47	ppb	22:51:38
1	Be 313.107†	1354071.0	1331520.0	508.47	ug/L	508.47	ppb	22:51:33
1	Cd 226.502†	45934.7	45218.2	501.64	ug/L	501.64	ppb	22:51:38
1	Co 228.616†	25026.0	24599.2	503.62	ug/L	503.62	ppb	22:51:38
1	Cr 267.716†	45970.3	44965.7	503.33	ug/L	503.33	ppb	22:51:38
1	Cu 324.752†	175429.1	165501.2	494.88	ug/L	494.88	ppb	22:51:38
1	Mn 257.610†	463526.8	453792.6	503.45	ug/L	503.45	ppb	22:51:33
1	Mo 202.031†	7299.5	7129.5	504.29	ug/L	504.29	ppb	22:51:58
1	Ni 231.604†	20709.0	20226.1	503.33	ug/L	503.33	ppb	22:51:38
1	P 214.914†	4370.4	4053.0	2372.0	ug/L	2372.0	ppb	22:51:58
1	Pb 220.353†	4106.8	4087.9	502.19	ug/L	502.19	ppb	22:51:58
1	S 181.975 Axial†	768.6	710.2	1004.1	ug/L	1004.1	ppb	22:51:58
1	Sb 206.836†	1518.9	1460.5	518.37	ug/L	518.37	ppb	22:51:58
1	Se 196.026†	760.2	777.0	519.14	ug/L	519.14	ppb	22:51:58
1	Si 251.611†	82253.8	80054.9	2543.4	ug/L	2543.4	ppb	22:51:38
1	Sn 189.927†	2909.9	2843.9	504.65	ug/L	504.65	ppb	22:51:58
1	Ti 334.940†	312356.6	307471.3	495.11	ug/L	495.11	ppb	22:51:38
1	Tl 190.801†	1628.5	1628.7	502.72	ug/L	502.72	ppb	22:51:58
1	U 409.014†	15741.1	17437.2	512.67	ug/L	512.67	ppb	22:51:38
1	V 292.402†	73659.6	73493.1	508.74	ug/L	508.74	ppb	22:51:38
1	Zn 213.857†	54822.5	53103.5	497.88	ug/L	497.88	ppb	22:51:38
1	SiO2†	81679.8	79471.2	5408.7	ug/L	5408.7	ppb	22:53:05
2	Sc Radial	5126.2	5126.2	102	%			22:50:40
2	Y RADIAL	5453.9	5453.9	100.5	%			22:50:40
2	Al 396.153Radial†	6467.9	6353.8	4877.1	ug/L	4877.1	ppb	22:50:40
2	Ca 317.933Radial†	3210.7	3134.0	5014.6	ug/L	5014.6	ppb	22:51:00
2	Fe 238.204 Radial†	615.3	595.5	5168.6	ug/L	5168.6	ppb	22:51:00
2	K 766.490 Radial†	29977.3	26855.5	4906.5	ug/L	4906.5	ppb	22:50:40
2	Mg 279.077 IEC†	161.7	157.0	5244.3	ug/L	5244.3	ppb	22:51:00
2	Na 589.592 Radial†	33137.8	33830.6	10129	ug/L	10129	ppb	22:50:40
2	Sr 421.552†	77856.0	76494.8	494.04	ug/L	494.04	ppb	22:50:40
2	Sc 361.383	864920.1	864920.1	101.47	%			22:52:04
2	Y 371.029	721286.8	721286.8	99.809	%			22:52:04
2	Ag 328.068†	113153.8	111157.7	515.04	ug/L	515.04	ppb	22:52:09
2	As 188.979†	1176.2	1182.8	514.67	ug/L	514.67	ppb	22:52:29
2	B 249.677†	22081.8	22393.9	497.26	ug/L	497.26	ppb	22:52:09
2	Ba 233.527†	66001.5	65057.4	509.18	ug/L	509.18	ppb	22:52:09
2	Be 313.107†	1345862.7	1330963.1	508.28	ug/L	508.28	ppb	22:52:04
2	Cd 226.502†	46354.3	45887.3	509.08	ug/L	509.08	ppb	22:52:09
2	Co 228.616†	25269.5	24978.3	511.38	ug/L	511.38	ppb	22:52:09
2	Cr 267.716†	46342.6	45588.4	510.30	ug/L	510.30	ppb	22:52:09
2	Cu 324.752†	176991.5	168016.9	502.40	ug/L	502.40	ppb	22:52:09
2	Mn 257.610†	460670.0	453555.7	503.18	ug/L	503.18	ppb	22:52:04
2	Mo 202.031†	7347.9	7217.8	510.53	ug/L	510.53	ppb	22:52:29
2	Ni 231.604†	20861.9	20491.9	509.94	ug/L	509.94	ppb	22:52:09

2	P 214.914†	4411.4	4117.7	2410.0 ug/L	2410.0 ppb	22:52:29
2	Pb 220.353†	4134.5	4138.0	508.34 ug/L	508.34 ppb	22:52:29
2	S 181.975 Axial†	777.6	723.4	1022.8 ug/L	1022.8 ppb	22:52:29
2	Sb 206.836†	1524.0	1474.0	523.23 ug/L	523.23 ppb	22:52:29
2	Se 196.026†	772.7	793.5	529.65 ug/L	529.65 ppb	22:52:29
2	Si 251.611†	82963.5	81211.9	2580.2 ug/L	2580.2 ppb	22:52:09
2	Sn 189.927†	2939.7	2889.4	512.70 ug/L	512.70 ppb	22:52:29
2	Ti 334.940†	314944.4	311759.2	502.01 ug/L	502.01 ppb	22:52:09
2	Tl 190.801†	1647.8	1656.8	511.34 ug/L	511.34 ppb	22:52:29
2	U 409.014†	15606.3	17392.0	511.33 ug/L	511.33 ppb	22:52:09
2	V 292.402†	74135.2	74371.6	514.83 ug/L	514.83 ppb	22:52:09
2	Zn 213.857†	55314.7	53893.6	505.30 ug/L	505.30 ppb	22:52:09
2	SiO2†	82861.2	81089.9	5519.0 ug/L	5519.0 ppb	22:53:10
3	Sc Radial	4979.8	4979.8	98.9 %		22:51:05
3	Y RADIAL	5339.0	5339.0	98.33 %		22:51:05
3	Al 396.153Radial†	6320.0	6391.1	4906.0 ug/L	4906.0 ppb	22:51:05
3	Ca 317.933Radial†	3194.3	3210.1	5136.5 ug/L	5136.5 ppb	22:51:25
3	Fe 238.204 Radial†	611.6	609.6	5290.4 ug/L	5290.4 ppb	22:51:25
3	K 766.490 Radial†	29506.6	27245.4	4977.9 ug/L	4977.9 ppb	22:51:05
3	Mg 279.077 IEC†	158.4	158.2	5286.1 ug/L	5286.1 ppb	22:51:25
3	Na 589.592 Radial†	32402.2	34043.8	10193 ug/L	10193 ppb	22:51:05
3	Sr 421.552†	76218.3	77087.4	497.86 ug/L	497.86 ppb	22:51:05
3	Sc 361.383	869477.7	869477.7	102.00 %		22:52:35
3	Y 371.029	723745.4	723745.4	100.15 %		22:52:35
3	Ag 328.068†	113071.7	110492.6	512.00 ug/L	512.00 ppb	22:52:40
3	As 188.979†	1162.3	1163.1	506.17 ug/L	506.17 ppb	22:53:00
3	B 249.677†	22328.5	22521.7	500.10 ug/L	500.10 ppb	22:52:40
3	Ba 233.527†	66096.7	64809.7	507.25 ug/L	507.25 ppb	22:52:40
3	Be 313.107†	1354396.0	1332376.2	508.81 ug/L	508.81 ppb	22:52:35
3	Cd 226.502†	46314.7	45609.0	505.98 ug/L	505.98 ppb	22:52:40
3	Co 228.616†	25237.0	24815.9	508.05 ug/L	508.05 ppb	22:52:40
3	Cr 267.716†	46299.4	45306.6	507.15 ug/L	507.15 ppb	22:52:40
3	Cu 324.752†	177407.6	167510.5	500.89 ug/L	500.89 ppb	22:52:40
3	Mn 257.610†	464762.2	455187.8	505.00 ug/L	505.00 ppb	22:52:35
3	Mo 202.031†	7342.6	7174.7	507.49 ug/L	507.49 ppb	22:53:00
3	Ni 231.604†	20871.1	20393.2	507.49 ug/L	507.49 ppb	22:52:40
3	P 214.914†	4385.3	4069.3	2380.6 ug/L	2380.6 ppb	22:53:00
3	Pb 220.353†	4133.4	4115.5	505.58 ug/L	505.58 ppb	22:53:00
3	S 181.975 Axial†	777.3	719.0	1016.6 ug/L	1016.6 ppb	22:53:00
3	Sb 206.836†	1516.3	1458.6	517.85 ug/L	517.85 ppb	22:53:00
3	Se 196.026†	758.0	775.2	518.20 ug/L	518.20 ppb	22:53:00
3	Si 251.611†	83161.4	80977.3	2572.8 ug/L	2572.8 ppb	22:52:40
3	Sn 189.927†	2938.1	2872.7	509.76 ug/L	509.76 ppb	22:53:00
3	Ti 334.940†	315694.6	310867.8	500.58 ug/L	500.58 ppb	22:52:40
3	Tl 190.801†	1638.4	1639.1	505.94 ug/L	505.94 ppb	22:53:00
3	U 409.014†	15879.4	17579.0	516.84 ug/L	516.84 ppb	22:52:40
3	V 292.402†	74064.2	73919.0	511.69 ug/L	511.69 ppb	22:52:40
3	Zn 213.857†	55358.9	53651.2	503.02 ug/L	503.02 ppb	22:52:40
3	SiO2†	82943.0	80742.0	5495.3 ug/L	5495.3 ppb	22:53:15

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	868075.9	101.84	%	0.321				0.32%
Sc Radial	5061.9	101	%	1.5				1.48%
Y 371.029	723281.8	100.08	%	0.250				0.25%
Y RADIAL	5394.2	99.35	%	1.061				1.07%
Ag 328.068†	110433.0	511.71	ug/L	3.487	511.71	ppb	3.487	0.68%
QC value within limits for Ag 328.068 Recovery = 102.34%								
Al 396.153Radial†	6371.5	4890.9	ug/L	14.49	4890.9	ppb	14.49	0.30%
QC value within limits for Al 396.153Radial Recovery = 97.82%								
As 188.979†	1171.7	509.86	ug/L	4.360	509.86	ppb	4.360	0.86%
QC value within limits for As 188.979 Recovery = 101.97%								
B 249.677†	22347.0	496.21	ug/L	4.499	496.21	ppb	4.499	0.91%
QC value within limits for B 249.677 Recovery = 99.24%								
Ba 233.527†	64645.8	505.97	ug/L	4.014	505.97	ppb	4.014	0.79%
QC value within limits for Ba 233.527 Recovery = 101.19%								
Be 313.107†	1331619.7	508.52	ug/L	0.271	508.52	ppb	0.271	0.05%
QC value within limits for Be 313.107 Recovery = 101.70%								
Ca 317.933Radial†	3169.7	5071.8	ug/L	61.31	5071.8	ppb	61.31	1.21%

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   QC value within limits for Ca 317.933Radial  Recovery = 101.44%
Cd 226.502†            45571.5      505.57 ug/L         3.734      505.57 ppb          3.734   0.74%
   QC value within limits for Cd 226.502  Recovery = 101.11%
Co 228.616†            24797.8      507.68 ug/L         3.894      507.68 ppb          3.894   0.77%
   QC value within limits for Co 228.616  Recovery = 101.54%
Cr 267.716†            45286.9      506.93 ug/L         3.490      506.93 ppb          3.490   0.69%
   QC value within limits for Cr 267.716  Recovery = 101.39%
Cu 324.752†           167009.5      499.39 ug/L         3.978      499.39 ppb          3.978   0.80%
   QC value within limits for Cu 324.752  Recovery = 99.88%
Fe 238.204 Radial†       602.3      5227.3 ug/L        61.00      5227.3 ppb          61.00   1.17%
   QC value within limits for Fe 238.204 Radial  Recovery = 104.55%
K 766.490 Radial†      27078.1      4947.3 ug/L        36.78      4947.3 ppb          36.78   0.74%
   QC value within limits for K 766.490 Radial  Recovery = 98.95%
Mg 279.077 IEC†          157.2      5251.6 ug/L        31.44      5251.6 ppb          31.44   0.60%
   QC value within limits for Mg 279.077 IEC  Recovery = 105.03%
Mn 257.610†           454178.7      503.87 ug/L         0.983      503.87 ppb          0.983   0.20%
   QC value within limits for Mn 257.610  Recovery = 100.77%
Mo 202.031†             7174.0      507.44 ug/L         3.117      507.44 ppb          3.117   0.61%
   QC value within limits for Mo 202.031  Recovery = 101.49%
Na 589.592 Radial†     33898.6       10150 ug/L          37.7       10150 ppb           37.7   0.37%
   QC value within limits for Na 589.592 Radial  Recovery = 101.50%
Ni 231.604†            20370.4      506.92 ug/L         3.344      506.92 ppb          3.344   0.66%
   QC value within limits for Ni 231.604  Recovery = 101.38%
P 214.914†              4080.0      2387.5 ug/L        19.95      2387.5 ppb          19.95   0.84%
   QC value within limits for P 214.914  Recovery = 95.50%
Pb 220.353†             4113.8      505.37 ug/L         3.079      505.37 ppb          3.079   0.61%
   QC value within limits for Pb 220.353  Recovery = 101.07%
S 181.975 Axial†         717.5      1014.5 ug/L         9.50      1014.5 ppb           9.50   0.94%
   QC value within limits for S 181.975 Axial  Recovery = 101.45%
Sb 206.836†             1464.4      519.81 ug/L         2.969      519.81 ppb          2.969   0.57%
   QC value within limits for Sb 206.836  Recovery = 103.96%
Se 196.026†              781.9      522.33 ug/L         6.358      522.33 ppb          6.358   1.22%
   QC value within limits for Se 196.026  Recovery = 104.47%
Si 251.611†            80748.1      2565.5 ug/L        19.44      2565.5 ppb          19.44   0.76%
   QC value within limits for Si 251.611  Recovery = 102.62%
Sn 189.927†             2868.7      509.04 ug/L         4.076      509.04 ppb          4.076   0.80%
   QC value within limits for Sn 189.927  Recovery = 101.81%
Sr 421.552†            76829.1      496.19 ug/L         1.960      496.19 ppb          1.960   0.39%
   QC value within limits for Sr 421.552  Recovery = 99.24%
Ti 334.940†           310032.7      499.23 ug/L         3.642      499.23 ppb          3.642   0.73%
   QC value within limits for Ti 334.940  Recovery = 99.85%
Tl 190.801†             1641.5      506.67 ug/L         4.357      506.67 ppb          4.357   0.86%
   QC value within limits for Tl 190.801  Recovery = 101.33%
U 409.014†             17469.4      513.61 ug/L         2.874      513.61 ppb          2.874   0.56%
   QC value within limits for U 409.014  Recovery = 102.72%
V 292.402†             73927.9      511.75 ug/L         3.043      511.75 ppb          3.043   0.59%
   QC value within limits for V 292.402  Recovery = 102.35%
Zn 213.857†            53549.4      502.07 ug/L         3.803      502.07 ppb          3.803   0.76%
   QC value within limits for Zn 213.857  Recovery = 100.41%
SiO2†                  80434.4      5474.4 ug/L        58.06      5474.4 ppb          58.06   1.06%
   QC value within limits for SiO2  Recovery = 102.37%
All analyte(s) passed QC.
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Sequence No.: 67
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 1/11/2010 22:55:25
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	5176.0	5176.0	103	%			22:57:17
1	Y RADIAL	5549.0	5549.0	102.2	%			22:57:17
1	Al 396.153Radial†	-7.0	-6.1	-4.7088	ug/L	-4.7088	ppb	22:57:17
1	Ca 317.933Radial†	25.5	5.1	8.1193	ug/L	8.1193	ppb	22:57:37
1	Fe 238.204 Radial†	8.2	-0.9	-7.9800	ug/L	-7.9800	ppb	22:57:37
1	K 766.490 Radial†	2872.1	203.9	37.406	ug/L	37.406	ppb	22:57:17
1	Mg 279.077 IEC†	0.2	-1.7	-56.871	ug/L	-56.871	ppb	22:57:37
1	Na 589.592 Radial†	-1369.8	-52.1	-15.593	ug/L	-15.593	ppb	22:57:17
1	Sr 421.552†	25.8	44.6	0.2880	ug/L	0.2880	ppb	22:57:17
1	Sc 361.383	882577.1	882577.1	103.54	%			22:58:34
1	Y 371.029	747252.0	747252.0	103.40	%			22:58:34
1	Ag 328.068†	406.5	34.6	0.1559	ug/L	0.1559	ppb	22:58:39
1	As 188.979†	-18.0	6.2	2.6961	ug/L	2.6961	ppb	22:58:59
1	B 249.677†	-447.7	199.5	4.4490	ug/L	4.4490	ppb	22:58:59
1	Ba 233.527†	-0.4	11.0	0.0858	ug/L	0.0858	ppb	22:58:59
1	Be 313.107†	-4454.0	283.7	0.1085	ug/L	0.1085	ppb	22:58:39
1	Cd 226.502†	-177.9	32.3	0.3591	ug/L	0.3591	ppb	22:58:59
1	Co 228.616†	-88.7	-11.0	-0.2264	ug/L	-0.2264	ppb	22:58:59
1	Cr 267.716†	81.9	-4.2	-0.0473	ug/L	-0.0473	ppb	22:58:59
1	Cu 324.752†	6341.0	-288.0	-0.8625	ug/L	-0.8625	ppb	22:58:39
1	Mn 257.610†	490.3	28.6	0.0332	ug/L	0.0332	ppb	22:58:59
1	Mo 202.031†	15.3	-8.9	-0.6306	ug/L	-0.6306	ppb	22:58:59
1	Ni 231.604†	77.0	6.5	0.1608	ug/L	0.1608	ppb	22:58:59
1	P 214.914†	211.7	-25.4	-15.358	ug/L	-15.358	ppb	22:58:59
1	Pb 220.353†	-74.1	-8.2	-1.0056	ug/L	-1.0056	ppb	22:58:59
1	S 181.975 Axial†	46.6	2.0	2.8781	ug/L	2.8781	ppb	22:58:59
1	Sb 206.836†	33.2	4.1	1.3879	ug/L	1.3879	ppb	22:58:59
1	Se 196.026†	-30.6	2.4	1.5296	ug/L	1.5296	ppb	22:58:59
1	Si 251.611†	572.3	2.3	0.0814	ug/L	0.0814	ppb	22:58:59
1	Sn 189.927†	1.2	-6.5	-1.1515	ug/L	-1.1515	ppb	22:58:59
1	Ti 334.940†	-1307.4	111.8	0.1851	ug/L	0.1851	ppb	22:58:39
1	Tl 190.801†	-30.5	3.4	1.0374	ug/L	1.0374	ppb	22:58:59
1	U 409.014†	-2033.9	47.2	1.3945	ug/L	1.3945	ppb	22:58:34
1	V 292.402†	-1342.3	13.3	0.0837	ug/L	0.0837	ppb	22:58:39
1	Zn 213.857†	604.8	-36.2	-0.3412	ug/L	-0.3412	ppb	22:58:59
1	SiO2†	642.5	48.9	3.3509	ug/L	3.3509	ppb	23:00:05
2	Sc Radial	5278.9	5278.9	105	%			22:57:42
2	Y RADIAL	5667.0	5667.0	104.4	%			22:57:42
2	Al 396.153Radial†	-9.2	-8.1	-6.2517	ug/L	-6.2517	ppb	22:57:42
2	Ca 317.933Radial†	18.9	-1.8	-2.8339	ug/L	-2.8339	ppb	22:58:02
2	Fe 238.204 Radial†	14.4	4.9	42.006	ug/L	42.006	ppb	22:58:02
2	K 766.490 Radial†	2740.5	23.9	4.3928	ug/L	4.3928	ppb	22:57:42
2	Mg 279.077 IEC†	-2.0	-3.8	-127.27	ug/L	-127.27	ppb	22:58:02
2	Na 589.592 Radial†	-1361.1	-17.9	-5.3478	ug/L	-5.3478	ppb	22:57:42
2	Sr 421.552†	-9.2	10.8	0.0696	ug/L	0.0696	ppb	22:57:42
2	Sc 361.383	869443.9	869443.9	102.00	%			22:59:04
2	Y 371.029	736966.7	736966.7	101.98	%			22:59:04
2	Ag 328.068†	386.0	20.4	0.1054	ug/L	0.1054	ppb	22:59:09
2	As 188.979†	-12.8	11.1	4.8225	ug/L	4.8225	ppb	22:59:29
2	B 249.677†	-461.1	179.8	4.0034	ug/L	4.0034	ppb	22:59:29
2	Ba 233.527†	7.5	18.8	0.1480	ug/L	0.1480	ppb	22:59:29
2	Be 313.107†	-4488.7	184.7	0.0706	ug/L	0.0706	ppb	22:59:09
2	Cd 226.502†	-198.7	9.3	0.0990	ug/L	0.0990	ppb	22:59:29
2	Co 228.616†	-76.8	-0.6	-0.0142	ug/L	-0.0142	ppb	22:59:29
2	Cr 267.716†	98.6	13.4	0.1498	ug/L	0.1498	ppb	22:59:29
2	Cu 324.752†	6443.6	-94.9	-0.2827	ug/L	-0.2827	ppb	22:59:09
2	Mn 257.610†	492.6	38.1	0.0521	ug/L	0.0521	ppb	22:59:29
2	Mo 202.031†	20.2	-3.9	-0.2746	ug/L	-0.2746	ppb	22:59:29
2	Ni 231.604†	78.9	9.4	0.2348	ug/L	0.2348	ppb	22:59:29

2	P 214.914†	209.8	-24.2	-14.789	ug/L	-14.789 ppb	22:59:29
2	Pb 220.353†	-59.9	4.6	0.5563	ug/L	0.5563 ppb	22:59:29
2	S 181.975 Axial†	47.7	3.8	5.3736	ug/L	5.3736 ppb	22:59:29
2	Sb 206.836†	38.3	9.6	3.2680	ug/L	3.2680 ppb	22:59:29
2	Se 196.026†	-30.0	2.6	1.8303	ug/L	1.8303 ppb	22:59:29
2	Si 251.611†	581.4	19.5	0.6251	ug/L	0.6251 ppb	22:59:29
2	Sn 189.927†	4.4	-3.4	-0.5994	ug/L	-0.5994 ppb	22:59:29
2	Ti 334.940†	-1323.3	77.1	0.1334	ug/L	0.1334 ppb	22:59:09
2	Tl 190.801†	-39.1	-5.5	-1.6930	ug/L	-1.6930 ppb	22:59:29
2	U 409.014†	-1983.2	67.3	1.9794	ug/L	1.9794 ppb	22:59:04
2	V 292.402†	-1362.9	-26.5	-0.1900	ug/L	-0.1900 ppb	22:59:09
2	Zn 213.857†	618.2	-14.2	-0.1390	ug/L	-0.1390 ppb	22:59:29
2	SiO2†	596.3	12.9	0.8906	ug/L	0.8906 ppb	23:00:10
3	Sc Radial	5283.7	5283.7	105	%		22:58:07
3	Y RADIAL	5664.1	5664.1	104.3	%		22:58:07
3	Al 396.153Radial†	-26.5	-24.6	-18.945	ug/L	-18.945 ppb	22:58:07
3	Ca 317.933Radial†	11.0	-9.3	-14.855	ug/L	-14.855 ppb	22:58:27
3	Fe 238.204 Radial†	11.2	1.8	15.484	ug/L	15.484 ppb	22:58:27
3	K 766.490 Radial†	2750.3	30.9	5.6781	ug/L	5.6781 ppb	22:58:07
3	Mg 279.077 IEC†	5.4	3.2	107.93	ug/L	107.93 ppb	22:58:27
3	Na 589.592 Radial†	-1389.9	-44.1	-13.198	ug/L	-13.198 ppb	22:58:07
3	Sr 421.552†	-25.9	-5.2	-0.0334	ug/L	-0.0334 ppb	22:58:07
3	Sc 361.383	882211.9	882211.9	103.50	%		22:59:35
3	Y 371.029	746007.1	746007.1	103.23	%		22:59:35
3	Ag 328.068†	319.6	-49.2	-0.2222	ug/L	-0.2222 ppb	22:59:40
3	As 188.979†	-20.1	4.2	1.8464	ug/L	1.8464 ppb	23:00:00
3	B 249.677†	-468.9	178.8	3.9857	ug/L	3.9857 ppb	23:00:00
3	Ba 233.527†	-1.5	10.0	0.0792	ug/L	0.0792 ppb	23:00:00
3	Be 313.107†	-4449.7	286.0	0.1093	ug/L	0.1093 ppb	22:59:40
3	Cd 226.502†	-184.3	26.0	0.2875	ug/L	0.2875 ppb	23:00:00
3	Co 228.616†	-86.2	-8.6	-0.1781	ug/L	-0.1781 ppb	23:00:00
3	Cr 267.716†	108.9	22.0	0.2454	ug/L	0.2454 ppb	23:00:00
3	Cu 324.752†	6332.4	-293.9	-0.8793	ug/L	-0.8793 ppb	22:59:40
3	Mn 257.610†	502.4	40.5	0.0423	ug/L	0.0423 ppb	23:00:00
3	Mo 202.031†	13.0	-11.1	-0.7839	ug/L	-0.7839 ppb	23:00:00
3	Ni 231.604†	72.2	1.8	0.0441	ug/L	0.0441 ppb	23:00:00
3	P 214.914†	217.0	-20.3	-12.226	ug/L	-12.226 ppb	23:00:00
3	Pb 220.353†	-59.0	6.3	0.7700	ug/L	0.7700 ppb	23:00:00
3	S 181.975 Axial†	40.7	-3.6	-5.1486	ug/L	-5.1486 ppb	23:00:00
3	Sb 206.836†	38.5	9.3	3.1362	ug/L	3.1362 ppb	23:00:00
3	Se 196.026†	-24.7	8.1	5.2687	ug/L	5.2687 ppb	23:00:00
3	Si 251.611†	574.4	4.5	0.1531	ug/L	0.1531 ppb	23:00:00
3	Sn 189.927†	-2.3	-9.9	-1.7616	ug/L	-1.7616 ppb	23:00:00
3	Ti 334.940†	-1337.2	82.5	0.1212	ug/L	0.1212 ppb	22:59:40
3	Tl 190.801†	-40.6	-6.4	-1.9568	ug/L	-1.9568 ppb	23:00:00
3	U 409.014†	-1990.8	88.1	2.5956	ug/L	2.5956 ppb	22:59:35
3	V 292.402†	-1299.4	54.3	0.3632	ug/L	0.3632 ppb	22:59:40
3	Zn 213.857†	621.5	-19.8	-0.1877	ug/L	-0.1877 ppb	23:00:00
3	SiO2†	595.3	3.5	0.2626	ug/L	0.2626 ppb	23:00:15

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	878077.7	103.01	%	0.877				0.85%
Sc Radial	5246.2	104	%	1.2				1.16%
Y 371.029	743408.6	102.87	%	0.777				0.76%
Y RADIAL	5626.7	103.6	%	1.24				1.20%
Ag 328.068†	1.9	0.0130	ug/L	0.20529	0.0130	ppb	0.20529	>999.9%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-13.0	-9.9686	ug/L	7.81226	-9.9686	ppb	7.81226	78.37%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	7.2	3.1217	ug/L	1.53300	3.1217	ppb	1.53300	49.11%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	186.0	4.1460	ug/L	0.26249	4.1460	ppb	0.26249	6.33%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	13.3	0.1043	ug/L	0.03793	0.1043	ppb	0.03793	36.35%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	251.4	0.0961	ug/L	0.02208	0.0961	ppb	0.02208	22.97%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-2.0	-3.1898	ug/L	11.49121	-3.1898	ppb	11.49121	360.25%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              22.5      0.2485 ug/L       0.13437      0.2485 ppb        0.13437  54.07%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†              -6.7     -0.1396 ug/L       0.11120     -0.1396 ppb        0.11120  79.68%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              10.4      0.1160 ug/L       0.14926      0.1160 ppb        0.14926 128.68%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -225.6     -0.6748 ug/L       0.33974     -0.6748 ppb        0.33974  50.34%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        1.9      16.503 ug/L       25.0087      16.503 ppb        25.0087 151.54%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        86.2      15.826 ug/L       18.7001      15.826 ppb        18.7001 118.16%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          -0.8     -25.405 ug/L      120.7158     -25.405 ppb       120.7158 475.17%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              35.7      0.0425 ug/L       0.00947      0.0425 ppb        0.00947  22.27%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              -8.0     -0.5631 ug/L       0.26133     -0.5631 ppb        0.26133  46.41%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      -38.0     -11.380 ug/L        5.3591     -11.380 ppb         5.3591  47.09%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               5.9      0.1466 ug/L       0.09618      0.1466 ppb        0.09618  65.61%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†              -23.3     -14.124 ug/L        1.6683     -14.124 ppb         1.6683  11.81%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               0.9      0.1069 ug/L       0.96934      0.1069 ppb        0.96934 906.74%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          0.7      1.0344 ug/L       5.49808      1.0344 ppb        5.49808 531.54%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               7.7      2.5973 ug/L       1.04948      2.5973 ppb        1.04948  40.41%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               4.4      2.8762 ug/L       2.07738      2.8762 ppb        2.07738  72.23%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†               8.8      0.2865 ug/L       0.29536      0.2865 ppb        0.29536 103.08%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†              -6.6     -1.1708 ug/L       0.58132     -1.1708 ppb        0.58132  49.65%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              16.7      0.1080 ug/L       0.16414      0.1080 ppb        0.16414 151.93%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              90.5      0.1466 ug/L       0.03396      0.1466 ppb        0.03396  23.17%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -2.8     -0.8708 ug/L       1.65785     -0.8708 ppb        1.65785 190.38%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               67.5      1.9898 ug/L       0.60061      1.9898 ppb        0.60061  30.18%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               13.7      0.0857 ug/L       0.27657      0.0857 ppb        0.27657 322.90%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†             -23.4     -0.2226 ug/L       0.10550     -0.2226 ppb        0.10550  47.39%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                    21.8      1.5014 ug/L       1.63225      1.5014 ppb        1.63225 108.72%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 76
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 1/11/2010 23:59:01
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5171.4	5171.4	103	%			00:00:53
1	Y RADIAL	5504.9	5504.9	101.4	%			00:00:53
1	Al 396.153Radial†	6468.8	6299.2	4835.4	ug/L	4835.4	ppb	00:00:53
1	Ca 317.933Radial†	3277.9	3171.9	5075.3	ug/L	5075.3	ppb	00:01:13
1	Fe 238.204 Radial†	630.7	605.2	5252.3	ug/L	5252.3	ppb	00:01:13
1	K 766.490 Radial†	30222.9	26837.2	4903.0	ug/L	4903.0	ppb	00:00:53
1	Mg 279.077 IEC†	163.6	157.4	5257.8	ug/L	5257.8	ppb	00:01:13
1	Na 589.592 Radial†	34025.6	34410.4	10303	ug/L	10303	ppb	00:00:53
1	Sr 421.552†	78867.7	76811.2	496.08	ug/L	496.08	ppb	00:00:53
1	Sc 361.383	885814.6	885814.6	103.92	%			00:02:11
1	Y 371.029	736563.1	736563.1	101.92	%			00:02:11
1	Ag 328.068†	112966.0	108346.5	502.08	ug/L	502.08	ppb	00:02:16
1	As 188.979†	1170.9	1150.3	500.69	ug/L	500.69	ppb	00:02:36
1	B 249.677†	21966.9	21770.1	483.38	ug/L	483.38	ppb	00:02:16
1	Ba 233.527†	66106.4	63624.0	497.97	ug/L	497.97	ppb	00:02:16
1	Be 313.107†	1384368.1	1336729.4	510.49	ug/L	510.49	ppb	00:02:11
1	Cd 226.502†	46498.1	44948.1	498.64	ug/L	498.64	ppb	00:02:16
1	Co 228.616†	25255.0	24376.9	499.03	ug/L	499.03	ppb	00:02:16
1	Cr 267.716†	46300.8	44470.9	497.80	ug/L	497.80	ppb	00:02:16
1	Cu 324.752†	176249.6	163188.5	487.98	ug/L	487.98	ppb	00:02:16
1	Mn 257.610†	475068.5	456702.0	506.67	ug/L	506.67	ppb	00:02:11
1	Mo 202.031†	7401.7	7098.8	502.12	ug/L	502.12	ppb	00:02:36
1	Ni 231.604†	20860.6	20005.7	497.84	ug/L	497.84	ppb	00:02:16
1	P 214.914†	4468.2	4069.7	2383.7	ug/L	2383.7	ppb	00:02:36
1	Pb 220.353†	4173.0	4078.9	501.08	ug/L	501.08	ppb	00:02:36
1	S 181.975 Axial†	798.9	725.8	1026.2	ug/L	1026.2	ppb	00:02:36
1	Sb 206.836†	1542.5	1456.4	516.87	ug/L	516.87	ppb	00:02:36
1	Se 196.026†	775.0	777.8	519.74	ug/L	519.74	ppb	00:02:36
1	Si 251.611†	83038.7	79355.7	2521.2	ug/L	2521.2	ppb	00:02:16
1	Sn 189.927†	2972.1	2852.4	506.15	ug/L	506.15	ppb	00:02:36
1	Ti 334.940†	328133.2	317129.2	510.68	ug/L	510.68	ppb	00:02:11
1	Tl 190.801†	1656.5	1626.8	502.30	ug/L	502.30	ppb	00:02:36
1	U 409.014†	15652.4	17073.6	501.95	ug/L	501.95	ppb	00:02:16
1	V 292.402†	74171.3	72682.9	503.14	ug/L	503.14	ppb	00:02:16
1	Zn 213.857†	55289.5	52583.5	493.00	ug/L	493.00	ppb	00:02:16
1	SiO2†	82534.3	78849.1	5366.3	ug/L	5366.3	ppb	00:03:44
2	Sc Radial	5097.9	5097.9	101	%			00:01:18
2	Y RADIAL	5437.9	5437.9	100.2	%			00:01:18
2	Al 396.153Radial†	6436.9	6358.5	4880.7	ug/L	4880.7	ppb	00:01:18
2	Ca 317.933Radial†	3244.0	3184.4	5095.3	ug/L	5095.3	ppb	00:01:38
2	Fe 238.204 Radial†	623.9	607.4	5271.6	ug/L	5271.6	ppb	00:01:38
2	K 766.490 Radial†	29994.1	27035.7	4939.3	ug/L	4939.3	ppb	00:01:18
2	Mg 279.077 IEC†	165.0	161.1	5382.1	ug/L	5382.1	ppb	00:01:38
2	Na 589.592 Radial†	33544.4	34413.1	10304	ug/L	10304	ppb	00:01:18
2	Sr 421.552†	78187.3	77247.1	498.89	ug/L	498.89	ppb	00:01:18
2	Sc 361.383	869801.0	869801.0	102.04	%			00:02:42
2	Y 371.029	724270.0	724270.0	100.22	%			00:02:42
2	Ag 328.068†	113175.2	110552.8	512.28	ug/L	512.28	ppb	00:02:47
2	As 188.979†	1175.5	1175.6	511.60	ug/L	511.60	ppb	00:03:07
2	B 249.677†	22113.2	22302.6	495.22	ug/L	495.22	ppb	00:02:47
2	Ba 233.527†	66099.5	64788.4	507.08	ug/L	507.08	ppb	00:02:47
2	Be 313.107†	1357609.0	1335031.4	509.84	ug/L	509.84	ppb	00:02:42
2	Cd 226.502†	46619.3	45890.6	509.10	ug/L	509.10	ppb	00:02:47
2	Co 228.616†	25319.2	24887.3	509.50	ug/L	509.50	ppb	00:02:47
2	Cr 267.716†	46458.5	45445.7	508.71	ug/L	508.71	ppb	00:02:47
2	Cu 324.752†	176893.0	166941.5	499.19	ug/L	499.19	ppb	00:02:47
2	Mn 257.610†	466029.2	456260.0	506.18	ug/L	506.18	ppb	00:02:42
2	Mo 202.031†	7416.1	7244.0	512.39	ug/L	512.39	ppb	00:03:07
2	Ni 231.604†	20974.0	20486.4	509.81	ug/L	509.81	ppb	00:02:47

2	P 214.914†	4450.5	4131.6	2419.2 ug/L	2419.2 ppb	00:03:07
2	Pb 220.353†	4167.5	4147.5	509.51 ug/L	509.51 ppb	00:03:07
2	S 181.975 Axial†	786.9	728.2	1029.5 ug/L	1029.5 ppb	00:03:07
2	Sb 206.836†	1547.7	1488.8	528.34 ug/L	528.34 ppb	00:03:07
2	Se 196.026†	776.4	792.9	529.57 ug/L	529.57 ppb	00:03:07
2	Si 251.611†	83070.1	80857.6	2568.9 ug/L	2568.9 ppb	00:02:47
2	Sn 189.927†	2969.6	2902.5	515.03 ug/L	515.03 ppb	00:03:07
2	Ti 334.940†	321752.0	316688.9	509.95 ug/L	509.95 ppb	00:02:42
2	Tl 190.801†	1670.1	1669.5	515.34 ug/L	515.34 ppb	00:03:07
2	U 409.014†	15898.9	17592.5	517.23 ug/L	517.23 ppb	00:02:47
2	V 292.402†	74312.2	74135.1	513.23 ug/L	513.23 ppb	00:02:47
2	Zn 213.857†	55432.8	53703.4	503.50 ug/L	503.50 ppb	00:02:47
2	SiO2†	82790.6	80562.5	5483.0 ug/L	5483.0 ppb	00:03:49
3	Sc Radial	5270.9	5270.9	105 %		00:01:43
3	Y RADIAL	5614.5	5614.5	103.4 %		00:01:43
3	Al 396.153Radial†	6648.6	6352.1	4875.9 ug/L	4875.9 ppb	00:01:43
3	Ca 317.933Radial†	3221.5	3057.7	4892.7 ug/L	4892.7 ppb	00:02:03
3	Fe 238.204 Radial†	623.0	586.3	5089.3 ug/L	5089.3 ppb	00:02:03
3	K 766.490 Radial†	30804.9	26837.9	4903.2 ug/L	4903.2 ppb	00:01:43
3	Mg 279.077 IEC†	165.6	156.2	5220.6 ug/L	5220.6 ppb	00:02:03
3	Na 589.592 Radial†	34698.7	34428.3	10308 ug/L	10308 ppb	00:01:43
3	Sr 421.552†	80835.6	77242.2	498.86 ug/L	498.86 ppb	00:01:43
3	Sc 361.383	871664.6	871664.6	102.26 %		00:03:13
3	Y 371.029	726041.6	726041.6	100.47 %		00:03:13
3	Ag 328.068†	113985.2	111107.7	514.78 ug/L	514.78 ppb	00:03:18
3	As 188.979†	1172.4	1170.1	509.21 ug/L	509.21 ppb	00:03:38
3	B 249.677†	22353.4	22491.2	499.43 ug/L	499.43 ppb	00:03:18
3	Ba 233.527†	66445.0	64987.7	508.64 ug/L	508.64 ppb	00:03:18
3	Be 313.107†	1362122.5	1336600.7	510.44 ug/L	510.44 ppb	00:03:13
3	Cd 226.502†	46771.9	45942.2	509.70 ug/L	509.70 ppb	00:03:18
3	Co 228.616†	25498.7	25009.8	512.00 ug/L	512.00 ppb	00:03:18
3	Cr 267.716†	46716.4	45600.6	510.43 ug/L	510.43 ppb	00:03:18
3	Cu 324.752†	178604.5	168244.6	503.07 ug/L	503.07 ppb	00:03:18
3	Mn 257.610†	467051.8	456283.6	506.19 ug/L	506.19 ppb	00:03:13
3	Mo 202.031†	7377.6	7190.8	508.61 ug/L	508.61 ppb	00:03:38
3	Ni 231.604†	21019.8	20487.2	509.83 ug/L	509.83 ppb	00:03:18
3	P 214.914†	4440.1	4112.1	2406.5 ug/L	2406.5 ppb	00:03:38
3	Pb 220.353†	4152.4	4123.9	506.62 ug/L	506.62 ppb	00:03:38
3	S 181.975 Axial†	777.0	716.8	1013.5 ug/L	1013.5 ppb	00:03:38
3	Sb 206.836†	1549.0	1486.9	527.57 ug/L	527.57 ppb	00:03:38
3	Se 196.026†	771.4	786.4	524.77 ug/L	524.77 ppb	00:03:38
3	Si 251.611†	83713.6	81312.8	2583.4 ug/L	2583.4 ppb	00:03:18
3	Sn 189.927†	2960.7	2887.6	512.37 ug/L	512.37 ppb	00:03:38
3	Ti 334.940†	322420.5	316668.5	509.90 ug/L	509.90 ppb	00:03:13
3	Tl 190.801†	1649.6	1646.0	508.11 ug/L	508.11 ppb	00:03:38
3	U 409.014†	16116.1	17771.5	522.53 ug/L	522.53 ppb	00:03:18
3	V 292.402†	74729.8	74387.7	514.93 ug/L	514.93 ppb	00:03:18
3	Zn 213.857†	55793.4	53939.9	505.75 ug/L	505.75 ppb	00:03:18
3	SiO2†	84213.5	81780.4	5566.2 ug/L	5566.2 ppb	00:03:54

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	875760.1	102.74	%	1.027				1.00%
Sc Radial	5180.1	103	%	1.7				1.68%
Y 371.029	728958.3	100.87	%	0.920				0.91%
Y RADIAL	5519.1	101.7	%	1.64				1.62%
Ag 328.068†	110002.3	509.71	ug/L	6.724	509.71	ppb	6.724	1.32%
QC value within limits for Ag 328.068 Recovery = 101.94%								
Al 396.153Radial†	6336.6	4864.0	ug/L	24.87	4864.0	ppb	24.87	0.51%
QC value within limits for Al 396.153Radial Recovery = 97.28%								
As 188.979†	1165.3	507.16	ug/L	5.735	507.16	ppb	5.735	1.13%
QC value within limits for As 188.979 Recovery = 101.43%								
B 249.677†	22188.0	492.67	ug/L	8.324	492.67	ppb	8.324	1.69%
QC value within limits for B 249.677 Recovery = 98.53%								
Ba 233.527†	64466.7	504.56	ug/L	5.762	504.56	ppb	5.762	1.14%
QC value within limits for Ba 233.527 Recovery = 100.91%								
Be 313.107†	1336120.5	510.26	ug/L	0.361	510.26	ppb	0.361	0.07%
QC value within limits for Be 313.107 Recovery = 102.05%								
Ca 317.933Radial†	3138.0	5021.1	ug/L	111.68	5021.1	ppb	111.68	2.22%

```
   QC value within limits for Ca 317.933Radial  Recovery = 100.42%
Cd 226.502†            45593.7      505.81 ug/L         6.221      505.81 ppb          6.221   1.23%
   QC value within limits for Cd 226.502  Recovery = 101.16%
Co 228.616†            24758.0      506.85 ug/L         6.882      506.85 ppb          6.882   1.36%
   QC value within limits for Co 228.616  Recovery = 101.37%
Cr 267.716†            45172.4      505.65 ug/L         6.851      505.65 ppb          6.851   1.35%
   QC value within limits for Cr 267.716  Recovery = 101.13%
Cu 324.752†           166124.9      496.75 ug/L         7.840      496.75 ppb          7.840   1.58%
   QC value within limits for Cu 324.752  Recovery = 99.35%
Fe 238.204 Radial†       599.6      5204.4 ug/L        100.17      5204.4 ppb         100.17   1.92%
   QC value within limits for Fe 238.204 Radial  Recovery = 104.09%
K 766.490 Radial†      26903.6      4915.2 ug/L         20.92      4915.2 ppb          20.92   0.43%
   QC value within limits for K 766.490 Radial  Recovery = 98.30%
Mg 279.077 IEC†          158.2      5286.8 ug/L         84.58      5286.8 ppb          84.58   1.60%
   QC value within limits for Mg 279.077 IEC  Recovery = 105.74%
Mn 257.610†           456415.2      506.35 ug/L         0.281      506.35 ppb          0.281   0.06%
   QC value within limits for Mn 257.610  Recovery = 101.27%
Mo 202.031†             7177.8      507.71 ug/L         5.191      507.71 ppb          5.191   1.02%
   QC value within limits for Mo 202.031  Recovery = 101.54%
Na 589.592 Radial†     34417.2       10305 ug/L           2.9       10305 ppb            2.9   0.03%
   QC value within limits for Na 589.592 Radial  Recovery = 103.05%
Ni 231.604†            20326.4      505.83 ug/L         6.912      505.83 ppb          6.912   1.37%
   QC value within limits for Ni 231.604  Recovery = 101.17%
P 214.914†              4104.5      2403.1 ug/L         17.97      2403.1 ppb          17.97   0.75%
   QC value within limits for P 214.914  Recovery = 96.12%
Pb 220.353†             4116.8      505.74 ug/L         4.283      505.74 ppb          4.283   0.85%
   QC value within limits for Pb 220.353  Recovery = 101.15%
S 181.975 Axial†         723.6      1023.1 ug/L          8.46      1023.1 ppb           8.46   0.83%
   QC value within limits for S 181.975 Axial  Recovery = 102.31%
Sb 206.836†             1477.4      524.26 ug/L         6.409      524.26 ppb          6.409   1.22%
   QC value within limits for Sb 206.836  Recovery = 104.85%
Se 196.026†              785.7      524.69 ug/L         4.915      524.69 ppb          4.915   0.94%
   QC value within limits for Se 196.026  Recovery = 104.94%
Si 251.611†            80508.7      2557.8 ug/L         32.57      2557.8 ppb          32.57   1.27%
   QC value within limits for Si 251.611  Recovery = 102.31%
Sn 189.927†             2880.8      511.18 ug/L         4.560      511.18 ppb          4.560   0.89%
   QC value within limits for Sn 189.927  Recovery = 102.24%
Sr 421.552†            77100.1      497.95 ug/L         1.617      497.95 ppb          1.617   0.32%
   QC value within limits for Sr 421.552  Recovery = 99.59%
Ti 334.940†           316828.8      510.18 ug/L         0.434      510.18 ppb          0.434   0.09%
   QC value within limits for Ti 334.940  Recovery = 102.04%
Tl 190.801†             1647.5      508.58 ug/L         6.530      508.58 ppb          6.530   1.28%
   QC value within limits for Tl 190.801  Recovery = 101.72%
U 409.014†             17479.2      513.91 ug/L        10.685      513.91 ppb         10.685   2.08%
   QC value within limits for U 409.014  Recovery = 102.78%
V 292.402†             73735.2      510.44 ug/L         6.375      510.44 ppb          6.375   1.25%
   QC value within limits for V 292.402  Recovery = 102.09%
Zn 213.857†            53408.9      500.75 ug/L         6.805      500.75 ppb          6.805   1.36%
   QC value within limits for Zn 213.857  Recovery = 100.15%
SiO2†                  80397.3      5471.8 ug/L        100.38      5471.8 ppb         100.38   1.83%
   QC value within limits for SiO2  Recovery = 102.32%
All analyte(s) passed QC.
```

Sequence No.: 77
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 1/12/2010 00:06:03
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4856.1	4856.1	96.4	%			00:07:55
1	Y RADIAL	5198.1	5198.1	95.74	%			00:07:55
1	Al 396.153Radial†	2.4	3.2	2.4705	ug/L	2.4705	ppb	00:07:55
1	Ca 317.933Radial†	14.8	-4.5	-7.1219	ug/L	-7.1219	ppb	00:08:15
1	Fe 238.204 Radial†	14.5	6.1	53.223	ug/L	53.223	ppb	00:08:15
1	K 766.490 Radial†	2783.9	296.5	54.379	ug/L	54.379	ppb	00:07:55
1	Mg 279.077 IEC†	3.9	2.1	71.426	ug/L	71.426	ppb	00:08:15
1	Na 589.592 Radial†	-1291.8	-59.0	-17.677	ug/L	-17.677	ppb	00:07:55
1	Sr 421.552†	29.1	49.7	0.3209	ug/L	0.3209	ppb	00:07:55
1	Sc 361.383	894686.7	894686.7	104.96	%			00:09:12
1	Y 371.029	757293.5	757293.5	104.79	%			00:09:12
1	Ag 328.068†	396.2	19.5	0.1031	ug/L	0.1031	ppb	00:09:17
1	As 188.979†	-18.9	5.6	2.4376	ug/L	2.4376	ppb	00:09:37
1	B 249.677†	-498.0	157.4	3.5032	ug/L	3.5032	ppb	00:09:37
1	Ba 233.527†	-25.7	-13.1	-0.0999	ug/L	-0.0999	ppb	00:09:37
1	Be 313.107†	-4578.0	223.7	0.0858	ug/L	0.0858	ppb	00:09:17
1	Cd 226.502†	-185.3	27.6	0.3017	ug/L	0.3017	ppb	00:09:37
1	Co 228.616†	-61.7	15.9	0.3215	ug/L	0.3215	ppb	00:09:37
1	Cr 267.716†	95.8	8.0	0.0888	ug/L	0.0888	ppb	00:09:37
1	Cu 324.752†	6435.2	-281.2	-0.8414	ug/L	-0.8414	ppb	00:09:17
1	Mn 257.610†	471.8	4.6	0.0082	ug/L	0.0082	ppb	00:09:37
1	Mo 202.031†	14.8	-9.6	-0.6780	ug/L	-0.6780	ppb	00:09:37
1	Ni 231.604†	68.2	-3.0	-0.0741	ug/L	-0.0741	ppb	00:09:37
1	P 214.914†	215.3	-24.8	-15.019	ug/L	-15.019	ppb	00:09:37
1	Pb 220.353†	-60.4	5.8	0.7027	ug/L	0.7027	ppb	00:09:37
1	S 181.975 Axial†	47.9	2.6	3.7238	ug/L	3.7238	ppb	00:09:37
1	Sb 206.836†	37.4	7.7	2.6143	ug/L	2.6143	ppb	00:09:37
1	Se 196.026†	-33.3	0.3	0.3294	ug/L	0.3294	ppb	00:09:37
1	Si 251.611†	550.1	-26.4	-0.8309	ug/L	-0.8309	ppb	00:09:37
1	Sn 189.927†	3.2	-4.6	-0.8184	ug/L	-0.8184	ppb	00:09:37
1	Ti 334.940†	-1287.2	148.2	0.2293	ug/L	0.2293	ppb	00:09:17
1	Tl 190.801†	-31.9	2.4	0.7458	ug/L	0.7458	ppb	00:09:37
1	U 409.014†	-1889.2	211.7	6.2388	ug/L	6.2388	ppb	00:09:12
1	V 292.402†	-1336.2	36.7	0.2452	ug/L	0.2452	ppb	00:09:17
1	Zn 213.857†	625.3	-24.5	-0.2357	ug/L	-0.2357	ppb	00:09:37
1	SiO2†	554.3	-43.6	-2.9567	ug/L	-2.9567	ppb	00:10:43
2	Sc Radial	5145.7	5145.7	102	%			00:08:20
2	Y RADIAL	5534.4	5534.4	101.9	%			00:08:20
2	Al 396.153Radial†	-12.7	-11.8	-9.1278	ug/L	-9.1278	ppb	00:08:20
2	Ca 317.933Radial†	17.0	-3.2	-5.0466	ug/L	-5.0466	ppb	00:08:40
2	Fe 238.204 Radial†	13.0	3.8	33.312	ug/L	33.312	ppb	00:08:40
2	K 766.490 Radial†	2788.1	138.1	25.327	ug/L	25.327	ppb	00:08:20
2	Mg 279.077 IEC†	2.2	0.3	9.7783	ug/L	9.7783	ppb	00:08:40
2	Na 589.592 Radial†	-1375.4	-65.4	-19.594	ug/L	-19.594	ppb	00:08:20
2	Sr 421.552†	4.9	24.3	0.1570	ug/L	0.1570	ppb	00:08:20
2	Sc 361.383	877558.5	877558.5	102.95	%			00:09:42
2	Y 371.029	742412.1	742412.1	102.73	%			00:09:42
2	Ag 328.068†	416.9	47.0	0.2229	ug/L	0.2229	ppb	00:09:47
2	As 188.979†	-23.8	0.5	0.2213	ug/L	0.2213	ppb	00:10:07
2	B 249.677†	-511.3	135.2	3.0105	ug/L	3.0105	ppb	00:10:07
2	Ba 233.527†	-10.1	1.6	0.0131	ug/L	0.0131	ppb	00:10:07
2	Be 313.107†	-4609.7	107.8	0.0415	ug/L	0.0415	ppb	00:09:47
2	Cd 226.502†	-207.1	3.0	0.0302	ug/L	0.0302	ppb	00:10:07
2	Co 228.616†	-77.8	-0.9	-0.0188	ug/L	-0.0188	ppb	00:10:07
2	Cr 267.716†	70.6	-14.6	-0.1649	ug/L	-0.1649	ppb	00:10:07
2	Cu 324.752†	6486.9	-111.3	-0.3333	ug/L	-0.3333	ppb	00:09:47
2	Mn 257.610†	469.3	11.0	0.0155	ug/L	0.0155	ppb	00:10:07
2	Mo 202.031†	28.1	3.5	0.2527	ug/L	0.2527	ppb	00:10:07
2	Ni 231.604†	69.4	-0.6	-0.0146	ug/L	-0.0146	ppb	00:10:07

2	P 214.914†	213.5	-22.5	-13.714	ug/L	-13.714 ppb	00:10:07
2	Pb 220.353†	-64.0	1.2	0.1460	ug/L	0.1460 ppb	00:10:07
2	S 181.975 Axial†	53.1	8.5	12.086	ug/L	12.086 ppb	00:10:07
2	Sb 206.836†	38.8	9.7	3.3179	ug/L	3.3179 ppb	00:10:07
2	Se 196.026†	-31.2	1.8	1.2356	ug/L	1.2356 ppb	00:10:07
2	Si 251.611†	533.7	-32.1	-1.0244	ug/L	-1.0244 ppb	00:10:07
2	Sn 189.927†	1.2	-6.5	-1.1499	ug/L	-1.1499 ppb	00:10:07
2	Ti 334.940†	-1293.5	118.1	0.1871	ug/L	0.1871 ppb	00:09:47
2	Tl 190.801†	-37.2	-3.3	-1.0095	ug/L	-1.0095 ppb	00:10:07
2	U 409.014†	-1926.4	140.5	4.1407	ug/L	4.1407 ppb	00:09:42
2	V 292.402†	-1384.0	-34.6	-0.2296	ug/L	-0.2296 ppb	00:09:47
2	Zn 213.857†	622.6	-15.5	-0.1493	ug/L	-0.1493 ppb	00:10:07
2	SiO2†	560.9	-26.9	-1.8422	ug/L	-1.8422 ppb	00:10:48
3	Sc Radial	5153.8	5153.8	102	%		00:08:45
3	Y RADIAL	5526.8	5526.8	101.8	%		00:08:45
3	Al 396.153Radial†	-11.2	-10.3	-7.9427	ug/L	-7.9427 ppb	00:08:45
3	Ca 317.933Radial†	18.2	-2.0	-3.2424	ug/L	-3.2424 ppb	00:09:05
3	Fe 238.204 Radial†	9.6	0.5	4.5530	ug/L	4.5530 ppb	00:09:05
3	K 766.490 Radial†	2800.9	146.4	26.850	ug/L	26.850 ppb	00:08:45
3	Mg 279.077 IEC†	1.7	-0.2	-7.8287	ug/L	-7.8287 ppb	00:09:05
3	Na 589.592 Radial†	-1378.0	-65.8	-19.707	ug/L	-19.707 ppb	00:08:45
3	Sr 421.552†	25.4	44.3	0.2861	ug/L	0.2861 ppb	00:08:45
3	Sc 361.383	877479.9	877479.9	102.94	%		00:10:13
3	Y 371.029	743999.9	743999.9	102.95	%		00:10:13
3	Ag 328.068†	316.4	-50.6	-0.2330	ug/L	-0.2330 ppb	00:10:18
3	As 188.979†	-18.7	5.5	2.3747	ug/L	2.3747 ppb	00:10:38
3	B 249.677†	-524.9	121.9	2.7169	ug/L	2.7169 ppb	00:10:38
3	Ba 233.527†	-1.9	9.6	0.0752	ug/L	0.0752 ppb	00:10:38
3	Be 313.107†	-4567.3	148.6	0.0571	ug/L	0.0571 ppb	00:10:18
3	Cd 226.502†	-185.7	23.8	0.2633	ug/L	0.2633 ppb	00:10:38
3	Co 228.616†	-72.2	4.5	0.0925	ug/L	0.0925 ppb	00:10:38
3	Cr 267.716†	86.3	0.5	0.0054	ug/L	0.0054 ppb	00:10:38
3	Cu 324.752†	6508.6	-89.6	-0.2687	ug/L	-0.2687 ppb	00:10:18
3	Mn 257.610†	452.9	-4.9	-0.0047	ug/L	-0.0047 ppb	00:10:38
3	Mo 202.031†	25.2	0.8	0.0558	ug/L	0.0558 ppb	00:10:38
3	Ni 231.604†	63.6	-6.2	-0.1533	ug/L	-0.1533 ppb	00:10:38
3	P 214.914†	225.3	-11.0	-6.6683	ug/L	-6.6683 ppb	00:10:38
3	Pb 220.353†	-46.8	17.9	2.1910	ug/L	2.1910 ppb	00:10:38
3	S 181.975 Axial†	45.5	1.2	1.7422	ug/L	1.7422 ppb	00:10:38
3	Sb 206.836†	37.6	8.6	2.9519	ug/L	2.9519 ppb	00:10:38
3	Se 196.026†	-24.6	8.1	5.2503	ug/L	5.2503 ppb	00:10:38
3	Si 251.611†	550.7	-15.5	-0.4939	ug/L	-0.4939 ppb	00:10:38
3	Sn 189.927†	9.5	1.5	0.2723	ug/L	0.2723 ppb	00:10:38
3	Ti 334.940†	-1284.6	126.6	0.2035	ug/L	0.2035 ppb	00:10:18
3	Tl 190.801†	-34.4	-0.5	-0.1640	ug/L	-0.1640 ppb	00:10:38
3	U 409.014†	-2005.9	63.0	1.8583	ug/L	1.8583 ppb	00:10:13
3	V 292.402†	-1341.1	7.0	0.0510	ug/L	0.0510 ppb	00:10:18
3	Zn 213.857†	630.0	-8.2	-0.0767	ug/L	-0.0767 ppb	00:10:38
3	SiO2†	569.2	-18.7	-1.2790	ug/L	-1.2790 ppb	00:10:53

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	883241.7	103.62	%	1.163				1.12%
Sc Radial	5051.9	100	%	3.4				3.36%
Y 371.029	747901.8	103.49	%	1.131				1.09%
Y RADIAL	5419.7	99.82	%	3.536				3.54%
Ag 328.068†	5.3	0.0310	ug/L	0.23634	0.0310	ppb	0.23634	762.39%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-6.3	-4.8667	ug/L	6.38175	-4.8667	ppb	6.38175	131.13%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	3.9	1.6779	ug/L	1.26183	1.6779	ppb	1.26183	75.20%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	138.2	3.0769	ug/L	0.39729	3.0769	ppb	0.39729	12.91%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-0.6	-0.0039	ug/L	0.08877	-0.0039	ppb	0.08877	>999.9%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	160.1	0.0615	ug/L	0.02246	0.0615	ppb	0.02246	36.54%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-3.2	-5.1370	ug/L	1.94135	-5.1370	ppb	1.94135	37.79%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                18.1      0.1984 ug/L       0.14693      0.1984 ppb        0.14693  74.05%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                 6.5      0.1317 ug/L       0.17354      0.1317 ppb        0.17354 131.76%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                -2.0     -0.0235 ug/L       0.12932     -0.0235 ppb        0.12932 549.13%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -160.7     -0.4811 ug/L       0.31364     -0.4811 ppb        0.31364  65.19%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          3.5      30.363 ug/L       24.4687      30.363 ppb        24.4687  80.59%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         193.6      35.519 ug/L       16.3513      35.519 ppb        16.3513  46.04%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             0.7      24.459 ug/L       41.6168      24.459 ppb        41.6168 170.15%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                 3.6      0.0063 ug/L       0.01020      0.0063 ppb        0.01020 160.90%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                -1.8     -0.1232 ug/L       0.49044     -0.1232 ppb        0.49044 398.18%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        -63.4     -18.993 ug/L        1.1406     -18.993 ppb         1.1406   6.01%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                -3.2     -0.0807 ug/L       0.06957     -0.0807 ppb        0.06957  86.26%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -19.4     -11.800 ug/L        4.4921     -11.800 ppb         4.4921  38.07%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                 8.3      1.0132 ug/L       1.05727      1.0132 ppb        1.05727 104.35%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            4.1      5.8506 ug/L       5.49002      5.8506 ppb        5.49002  93.84%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 8.7      2.9614 ug/L       0.35191      2.9614 ppb        0.35191  11.88%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 3.4      2.2718 ug/L       2.61899      2.2718 ppb        2.61899 115.28%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†               -24.6     -0.7831 ug/L       0.26849     -0.7831 ppb        0.26849  34.29%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                -3.2     -0.5654 ug/L       0.74407     -0.5654 ppb        0.74407 131.61%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                39.4      0.2547 ug/L       0.08635      0.2547 ppb        0.08635  33.90%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               131.0      0.2066 ug/L       0.02128      0.2066 ppb        0.02128  10.30%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                -0.5     -0.1426 ug/L       0.87784     -0.1426 ppb        0.87784 615.62%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                138.4      4.0793 ug/L       2.19090      4.0793 ppb        2.19090  53.71%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                  3.0      0.0222 ug/L       0.23871      0.0222 ppb        0.23871 >999.9%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               -16.1     -0.1539 ug/L       0.07959     -0.1539 ppb        0.07959  51.71%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                     -29.7     -2.0260 ug/L       0.85383     -2.0260 ppb        0.85383  42.14%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 78
Sample ID: 1202004426|936808|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 86
Date Collected: 1/12/2010 00:13:03
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202004426|936808|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	5219.3	5219.3	104	%			00:14:57
1	Y RADIAL	5648.7	5648.7	104.0	%			00:14:57
1	Al 396.153Radial†	25.3	25.1	19.297	ug/L	19.297	ppb	00:14:57
1	Ca 317.933Radial†	23.6	2.9	4.7061	ug/L	4.7061	ppb	00:15:17
1	Fe 238.204 Radial†	16.9	7.4	64.115	ug/L	64.115	ppb	00:15:17
1	K 766.490 Radial†	2598.3	-83.5	-15.334	ug/L	-15.334	ppb	00:14:57
1	Mg 279.077 IEC†	-0.2	-2.1	-70.998	ug/L	-70.998	ppb	00:15:17
1	Na 589.592 Radial†	-1234.1	89.8	26.902	ug/L	26.902	ppb	00:14:57
1	Sr 421.552†	17.4	36.3	0.2346	ug/L	0.2346	ppb	00:14:57
1	Sc 361.383	857634.7	857634.7	100.61	%			00:16:13
1	Y 371.029	725814.9	725814.9	100.44	%			00:16:13
1	Ag 328.068†	283.8	-75.9	-0.3363	ug/L	-0.3363	ppb	00:16:13
1	As 188.979†	-20.2	3.5	1.5277	ug/L	1.5277	ppb	00:16:33
1	B 249.677†	-543.0	92.1	2.0474	ug/L	2.0474	ppb	00:16:33
1	Ba 233.527†	17.0	28.3	0.2226	ug/L	0.2226	ppb	00:16:33
1	Be 313.107†	-4524.7	88.3	0.0346	ug/L	0.0346	ppb	00:16:13
1	Cd 226.502†	-211.7	-6.3	-0.0744	ug/L	-0.0744	ppb	00:16:33
1	Co 228.616†	-82.6	-7.5	-0.1536	ug/L	-0.1536	ppb	00:16:33
1	Cr 267.716†	344.9	259.5	2.8979	ug/L	2.8979	ppb	00:16:33
1	Cu 324.752†	6421.4	-30.0	-0.0909	ug/L	-0.0909	ppb	00:16:13
1	Mn 257.610†	860.3	410.2	0.4648	ug/L	0.4648	ppb	00:16:33
1	Mo 202.031†	34.4	10.5	0.7462	ug/L	0.7462	ppb	00:16:33
1	Ni 231.604†	86.2	17.7	0.4412	ug/L	0.4412	ppb	00:16:33
1	P 214.914†	236.5	5.2	3.1415	ug/L	3.1415	ppb	00:16:33
1	Pb 220.353†	18.4	81.6	9.9942	ug/L	9.9942	ppb	00:16:33
1	S 181.975 Axial†	50.6	7.3	10.313	ug/L	10.313	ppb	00:16:33
1	Sb 206.836†	38.5	10.3	3.5452	ug/L	3.5452	ppb	00:16:33
1	Se 196.026†	-31.3	0.9	0.8085	ug/L	0.8085	ppb	00:16:33
1	Si 251.611†	1030.9	474.1	15.091	ug/L	15.091	ppb	00:16:33
1	Sn 189.927†	8.2	0.5	0.0953	ug/L	0.0953	ppb	00:16:33
1	Ti 334.940†	-1114.1	267.2	0.4321	ug/L	0.4321	ppb	00:16:13
1	Tl 190.801†	-37.0	-3.9	-1.1998	ug/L	-1.1998	ppb	00:16:33
1	U 409.014†	-1744.0	278.3	8.1952	ug/L	8.1952	ppb	00:16:13
1	V 292.402†	-1350.9	-33.0	-0.2110	ug/L	-0.2110	ppb	00:16:13
1	Zn 213.857†	848.8	223.4	2.1036	ug/L	2.1036	ppb	00:16:33
1	SiO2†	1063.7	485.5	33.109	ug/L	33.109	ppb	00:17:29
2	Sc Radial	5165.9	5165.9	103	%			00:15:22
2	Y RADIAL	5555.7	5555.7	102.3	%			00:15:22
2	Al 396.153Radial†	9.8	10.2	7.8020	ug/L	7.8020	ppb	00:15:22
2	Ca 317.933Radial†	27.1	6.6	10.634	ug/L	10.634	ppb	00:15:42
2	Fe 238.204 Radial†	15.2	5.9	50.905	ug/L	50.905	ppb	00:15:42
2	K 766.490 Radial†	2742.3	82.8	15.156	ug/L	15.156	ppb	00:15:22
2	Mg 279.077 IEC†	0.4	-1.5	-51.277	ug/L	-51.277	ppb	00:15:42
2	Na 589.592 Radial†	-1233.6	78.0	23.353	ug/L	23.353	ppb	00:15:22
2	Sr 421.552†	20.4	39.4	0.2545	ug/L	0.2545	ppb	00:15:22
2	Sc 361.383	869808.2	869808.2	102.04	%			00:16:39
2	Y 371.029	736453.0	736453.0	101.91	%			00:16:39
2	Ag 328.068†	227.8	-134.7	-0.6079	ug/L	-0.6079	ppb	00:16:39
2	As 188.979†	-34.6	-10.3	-4.4348	ug/L	-4.4348	ppb	00:16:59
2	B 249.677†	-521.0	121.3	2.6998	ug/L	2.6998	ppb	00:16:59
2	Ba 233.527†	11.2	22.3	0.1768	ug/L	0.1768	ppb	00:16:59
2	Be 313.107†	-4539.8	136.4	0.0532	ug/L	0.0532	ppb	00:16:39
2	Cd 226.502†	-196.8	11.2	0.1206	ug/L	0.1206	ppb	00:16:59
2	Co 228.616†	-87.0	-10.5	-0.2168	ug/L	-0.2168	ppb	00:16:59
2	Cr 267.716†	378.3	287.5	3.2121	ug/L	3.2121	ppb	00:16:59
2	Cu 324.752†	6413.6	-127.0	-0.3801	ug/L	-0.3801	ppb	00:16:39
2	Mn 257.610†	848.3	386.5	0.4362	ug/L	0.4362	ppb	00:16:59
2	Mo 202.031†	36.9	12.4	0.8811	ug/L	0.8811	ppb	00:16:59
2	Ni 231.604†	73.8	4.4	0.1098	ug/L	0.1098	ppb	00:16:59

2	P 214.914†	235.6	1.0	0.6689	ug/L	0.6689 ppb	00:16:59
2	Pb 220.353†	2.9	66.2	8.1013	ug/L	8.1013 ppb	00:16:59
2	S 181.975 Axial†	46.1	2.2	3.0833	ug/L	3.0833 ppb	00:16:59
2	Sb 206.836†	35.5	6.9	2.3955	ug/L	2.3955 ppb	00:16:59
2	Se 196.026†	-24.0	8.5	5.6149	ug/L	5.6149 ppb	00:16:59
2	Si 251.611†	1040.2	468.9	14.923	ug/L	14.923 ppb	00:16:59
2	Sn 189.927†	16.2	8.2	1.4497	ug/L	1.4497 ppb	00:16:59
2	Ti 334.940†	-1051.8	343.7	0.5556	ug/L	0.5556 ppb	00:16:39
2	Tl 190.801†	-35.6	-2.0	-0.6106	ug/L	-0.6106 ppb	00:16:59
2	U 409.014†	-1860.6	188.2	5.5401	ug/L	5.5401 ppb	00:16:39
2	V 292.402†	-1303.9	31.9	0.2312	ug/L	0.2312 ppb	00:16:39
2	Zn 213.857†	839.1	202.0	1.9056	ug/L	1.9056 ppb	00:16:59
2	SiO2†	1056.2	463.4	31.595	ug/L	31.595 ppb	00:17:34
3	Sc Radial	5217.4	5217.4	104	%		00:15:47
3	Y RADIAL	5599.3	5599.3	103.1	%		00:15:47
3	Al 396.153Radial†	3.5	4.0	3.0957	ug/L	3.0957 ppb	00:15:47
3	Ca 317.933Radial†	24.1	3.4	5.5019	ug/L	5.5019 ppb	00:16:07
3	Fe 238.204 Radial†	16.4	6.9	59.968	ug/L	59.968 ppb	00:16:07
3	K 766.490 Radial†	2787.5	100.0	18.320	ug/L	18.320 ppb	00:15:47
3	Mg 279.077 IEC†	2.8	0.8	27.945	ug/L	27.945 ppb	00:16:07
3	Na 589.592 Radial†	-1255.0	69.2	20.727	ug/L	20.727 ppb	00:15:47
3	Sr 421.552†	0.0	19.5	0.1261	ug/L	0.1261 ppb	00:15:47
3	Sc 361.383	867539.0	867539.0	101.78	%		00:17:04
3	Y 371.029	734746.2	734746.2	101.67	%		00:17:04
3	Ag 328.068†	298.5	-64.7	-0.2820	ug/L	-0.2820 ppb	00:17:04
3	As 188.979†	-19.8	4.2	1.8209	ug/L	1.8209 ppb	00:17:24
3	B 249.677†	-543.7	97.6	2.1707	ug/L	2.1707 ppb	00:17:24
3	Ba 233.527†	0.6	12.0	0.0947	ug/L	0.0947 ppb	00:17:24
3	Be 313.107†	-4527.2	137.2	0.0536	ug/L	0.0536 ppb	00:17:04
3	Cd 226.502†	-195.6	11.9	0.1262	ug/L	0.1262 ppb	00:17:24
3	Co 228.616†	-87.3	-11.1	-0.2304	ug/L	-0.2304 ppb	00:17:24
3	Cr 267.716†	362.1	272.5	3.0452	ug/L	3.0452 ppb	00:17:24
3	Cu 324.752†	6445.7	-79.0	-0.2339	ug/L	-0.2339 ppb	00:17:04
3	Mn 257.610†	865.9	405.9	0.4555	ug/L	0.4555 ppb	00:17:24
3	Mo 202.031†	28.1	3.9	0.2811	ug/L	0.2811 ppb	00:17:24
3	Ni 231.604†	69.0	-0.2	-0.0044	ug/L	-0.0044 ppb	00:17:24
3	P 214.914†	231.1	-2.8	-1.6836	ug/L	-1.6836 ppb	00:17:24
3	Pb 220.353†	3.2	66.6	8.1458	ug/L	8.1458 ppb	00:17:24
3	S 181.975 Axial†	58.6	14.5	20.586	ug/L	20.586 ppb	00:17:24
3	Sb 206.836†	34.2	5.7	1.9651	ug/L	1.9651 ppb	00:17:24
3	Se 196.026†	-27.2	5.3	3.6231	ug/L	3.6231 ppb	00:17:24
3	Si 251.611†	1025.1	456.7	14.542	ug/L	14.542 ppb	00:17:24
3	Sn 189.927†	9.1	1.3	0.2345	ug/L	0.2345 ppb	00:17:24
3	Ti 334.940†	-1021.8	370.6	0.5935	ug/L	0.5935 ppb	00:17:04
3	Tl 190.801†	-39.5	-6.0	-1.8338	ug/L	-1.8338 ppb	00:17:24
3	U 409.014†	-1989.9	56.4	1.6511	ug/L	1.6511 ppb	00:17:04
3	V 292.402†	-1411.0	-76.7	-0.5265	ug/L	-0.5265 ppb	00:17:04
3	Zn 213.857†	840.6	205.7	1.9403	ug/L	1.9403 ppb	00:17:24
3	SiO2†	1054.7	464.6	31.691	ug/L	31.691 ppb	00:17:39

Mean Data: 1202004426|936808|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	864994.0	101.48	%	0.759				0.75%
Sc Radial	5200.9	103	%	0.6				0.58%
Y 371.029	732338.0	101.34	%	0.791				0.78%
Y RADIAL	5601.2	103.2	%	0.86				0.83%
Ag 328.068†	-91.8	-0.4087	ug/L	0.17458	-0.4087	ppb	0.17458	42.72%
Al 396.153Radial†	13.1	10.065	ug/L	8.3342	10.065	ppb	8.3342	82.81%
As 188.979†	-0.9	-0.3621	ug/L	3.53013	-0.3621	ppb	3.53013	974.99%
B 249.677†	103.7	2.3060	ug/L	0.34657	2.3060	ppb	0.34657	15.03%
Ba 233.527†	20.9	0.1647	ug/L	0.06480	0.1647	ppb	0.06480	39.34%
Be 313.107†	120.6	0.0472	ug/L	0.01086	0.0472	ppb	0.01086	23.02%
Ca 317.933Radial†	4.3	6.9474	ug/L	3.21761	6.9474	ppb	3.21761	46.31%
Cd 226.502†	5.6	0.0575	ug/L	0.11426	0.0575	ppb	0.11426	198.88%
Co 228.616†	-9.7	-0.2003	ug/L	0.04096	-0.2003	ppb	0.04096	20.45%
Cr 267.716†	273.2	3.0518	ug/L	0.15719	3.0518	ppb	0.15719	5.15%
Cu 324.752†	-78.7	-0.2350	ug/L	0.14457	-0.2350	ppb	0.14457	61.53%
Fe 238.204 Radial†	6.7	58.329	ug/L	6.7555	58.329	ppb	6.7555	11.58%
K 766.490 Radial†	33.1	6.0477	ug/L	18.58428	6.0477	ppb	18.58428	307.29%

Mg 279.077 IEC†	-0.9	-31.443	ug/L	52.3687	-31.443	ppb	52.3687 166.55%
Mn 257.610†	400.8	0.4522	ug/L	0.01457	0.4522	ppb	0.01457 3.22%
Mo 202.031†	8.9	0.6361	ug/L	0.31480	0.6361	ppb	0.31480 49.49%
Na 589.592 Radial†	79.0	23.661	ug/L	3.0990	23.661	ppb	3.0990 13.10%
Ni 231.604†	7.3	0.1822	ug/L	0.23144	0.1822	ppb	0.23144 127.00%
P 214.914†	1.1	0.7089	ug/L	2.41283	0.7089	ppb	2.41283 340.35%
Pb 220.353†	71.4	8.7471	ug/L	1.08023	8.7471	ppb	1.08023 12.35%
S 181.975 Axial†	8.0	11.327	ug/L	8.7951	11.327	ppb	8.7951 77.64%
Sb 206.836†	7.6	2.6353	ug/L	0.81689	2.6353	ppb	0.81689 31.00%
Se 196.026†	4.9	3.3488	ug/L	2.41488	3.3488	ppb	2.41488 72.11%
Si 251.611†	466.6	14.852	ug/L	0.2810	14.852	ppb	0.2810 1.89%
Sn 189.927†	3.3	0.5932	ug/L	0.74507	0.5932	ppb	0.74507 125.61%
Sr 421.552†	31.8	0.2051	ug/L	0.06910	0.2051	ppb	0.06910 33.69%
Ti 334.940†	327.2	0.5271	ug/L	0.08439	0.5271	ppb	0.08439 16.01%
Tl 190.801†	-4.0	-1.2147	ug/L	0.61175	-1.2147	ppb	0.61175 50.36%
U 409.014†	174.3	5.1288	ug/L	3.29140	5.1288	ppb	3.29140 64.17%
V 292.402†	-25.9	-0.1688	ug/L	0.38064	-0.1688	ppb	0.38064 225.53%
Zn 213.857†	210.4	1.9832	ug/L	0.10573	1.9832	ppb	0.10573 5.33%
SiO2†	471.2	32.132	ug/L	0.8477	32.132	ppb	0.8477 2.64%

Sequence No.: 79
Sample ID: 1202004427|936808|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 87
Date Collected: 1/12/2010 00:19:51
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202004427|936808|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	5429.7	5429.7	108	%			00:22:05
1	Y RADIAL	6322.4	6322.4	116.4	%			00:22:05
1	Al 396.153Radial†	119799.4	111099.0	85688	ug/L	85688	ppb	00:21:45
1	Ca 317.933Radial†	63947.3	59283.0	94859	ug/L	94859	ppb	00:21:45
1	Fe 238.204 Radial†	23272.2	21573.1	186720	ug/L	186720	ppb	00:21:45
1	K 766.490 Radial†	236431.3	216669.2	39630	ug/L	39630	ppb	00:21:45
1	Mg 279.077 IEC†	1247.8	1155.3	38410	ug/L	38410	ppb	00:22:05
1	Na 589.592 Radial†	36207.0	34857.8	10437	ug/L	10437	ppb	00:21:45
1	Sr 421.552†	370861.9	343945.8	2220.8	ug/L	2220.8	ppb	00:21:45
1	Sc 361.383	889958.3	889958.3	104.41	%			00:23:07
1	Y 371.029	806857.2	806857.2	111.65	%			00:23:07
1	Ag 328.068†	58092.4	55282.7	318.52	ug/L	318.52	ppb	00:23:07
1	As 188.979†	2424.2	2345.5	1083.6	ug/L	1083.6	ppb	00:23:12
1	B 249.677†	67002.1	64806.2	1423.3	ug/L	1423.3	ppb	00:23:07
1	Ba 233.527†	259245.4	248315.5	1948.0	ug/L	1948.0	ppb	00:23:07
1	Be 313.107†	2096749.2	2012842.3	782.13	ug/L	782.13	ppb	00:23:07
1	Cd 226.502†	54999.8	52882.7	568.30	ug/L	568.30	ppb	00:23:12
1	Co 228.616†	45688.9	43835.2	881.54	ug/L	881.54	ppb	00:23:12
1	Cr 267.716†	210453.5	201488.2	2257.8	ug/L	2257.8	ppb	00:23:07
1	Cu 324.752†	639579.2	606173.8	1822.6	ug/L	1822.6	ppb	00:23:07
1	Mn 257.610†	4955476.6	4745888.3	5280.6	ug/L	5280.6	ppb	00:23:07
1	Mo 202.031†	7214.6	6886.4	500.59	ug/L	500.59	ppb	00:23:12
1	Ni 231.604†	52811.2	50514.4	1257.3	ug/L	1257.3	ppb	00:23:12
1	P 214.914†	14304.2	13470.6	7721.9	ug/L	7721.9	ppb	00:23:12
1	Pb 220.353†	7111.6	6874.8	844.18	ug/L	844.18	ppb	00:23:12
1	S 181.975 Axial†	3085.5	2912.3	4105.3	ug/L	4105.3	ppb	00:23:12
1	Sb 206.836†	3148.7	2987.9	1029.6	ug/L	1029.6	ppb	00:23:12
1	Se 196.026†	3959.2	3824.1	3066.0	ug/L	3066.0	ppb	00:23:12
1	Si 251.611†	1281765.8	1227119.1	39076	ug/L	39076	ppb	00:23:07
1	Sn 189.927†	6146.1	5879.1	1058.3	ug/L	1058.3	ppb	00:23:12
1	Ti 334.940†	4332928.2	4151433.7	6695.3	ug/L	6695.3	ppb	00:23:07
1	Tl 190.801†	3837.3	3708.2	1203.0	ug/L	1203.0	ppb	00:23:12
1	U 409.014†	-7344.3	-5022.7	-174.49	ug/L	-174.49	ppb	00:23:07
1	V 292.402†	186856.8	180280.3	1201.9	ug/L	1201.9	ppb	00:23:07
1	Zn 213.857†	668938.1	640085.6	6025.4	ug/L	6025.4	ppb	00:23:07
1	SiO2†	1283141.1	1228415.1	83803	ug/L	83803	ppb	00:23:46
2	Sc Radial	5472.1	5472.1	109	%			00:22:30
2	Y RADIAL	6379.5	6379.5	117.5	%			00:22:30
2	Al 396.153Radial†	120244.3	110646.9	85340	ug/L	85340	ppb	00:22:10
2	Ca 317.933Radial†	63998.6	58870.4	94198	ug/L	94198	ppb	00:22:10
2	Fe 238.204 Radial†	23335.1	21463.6	185770	ug/L	185770	ppb	00:22:10
2	K 766.490 Radial†	237092.7	215577.6	39430	ug/L	39430	ppb	00:22:10
2	Mg 279.077 IEC†	1252.9	1151.0	38267	ug/L	38267	ppb	00:22:30
2	Na 589.592 Radial†	36212.5	34602.5	10360	ug/L	10360	ppb	00:22:10
2	Sr 421.552†	371336.6	341715.7	2206.4	ug/L	2206.4	ppb	00:22:10
2	Sc 361.383	880514.5	880514.5	103.30	%			00:23:21
2	Y 371.029	800061.1	800061.1	110.71	%			00:23:21
2	Ag 328.068†	57440.1	55247.9	318.07	ug/L	318.07	ppb	00:23:21
2	As 188.979†	2282.1	2232.8	1034.6	ug/L	1034.6	ppb	00:23:26
2	B 249.677†	66193.0	64711.1	1421.3	ug/L	1421.3	ppb	00:23:21
2	Ba 233.527†	256349.3	248175.0	1946.9	ug/L	1946.9	ppb	00:23:21
2	Be 313.107†	2075918.1	2014215.5	782.64	ug/L	782.64	ppb	00:23:21
2	Cd 226.502†	53330.4	51831.5	556.71	ug/L	556.71	ppb	00:23:26
2	Co 228.616†	44122.1	42787.9	860.10	ug/L	860.10	ppb	00:23:26
2	Cr 267.716†	208382.3	201645.0	2259.5	ug/L	2259.5	ppb	00:23:21
2	Cu 324.752†	629941.4	603414.0	1814.3	ug/L	1814.3	ppb	00:23:21
2	Mn 257.610†	4896158.6	4739370.4	5273.3	ug/L	5273.3	ppb	00:23:21
2	Mo 202.031†	6948.5	6702.9	487.55	ug/L	487.55	ppb	00:23:26
2	Ni 231.604†	51046.4	49348.4	1228.3	ug/L	1228.3	ppb	00:23:26

2	P 214.914†	13756.9	13087.7	7490.0 ug/L	7490.0 ppb	00:23:26
2	Pb 220.353†	6858.2	6702.5	823.06 ug/L	823.06 ppb	00:23:26
2	S 181.975 Axial†	2975.1	2837.1	3999.0 ug/L	3999.0 ppb	00:23:26
2	Sb 206.836†	3012.3	2888.1	994.70 ug/L	994.70 ppb	00:23:26
2	Se 196.026†	3772.3	3683.8	2972.5 ug/L	2972.5 ppb	00:23:26
2	Si 251.611†	1265665.5	1224700.0	38999 ug/L	38999 ppb	00:23:21
2	Sn 189.927†	5917.4	5720.8	1030.1 ug/L	1030.1 ppb	00:23:26
2	Ti 334.940†	4280961.4	4145636.9	6685.9 ug/L	6685.9 ppb	00:23:21
2	Tl 190.801†	3722.9	3636.8	1181.1 ug/L	1181.1 ppb	00:23:26
2	U 409.014†	-7404.5	-5156.4	-178.33 ug/L	-178.33 ppb	00:23:21
2	V 292.402†	184898.9	180304.4	1202.0 ug/L	1202.0 ppb	00:23:21
2	Zn 213.857†	661207.4	639473.6	6019.9 ug/L	6019.9 ppb	00:23:21
2	SiO2†	1276274.8	1234949.3	84250 ug/L	84250 ppb	00:23:52
3	Sc Radial	5431.3	5431.3	108 %		00:22:56
3	Y RADIAL	6312.1	6312.1	116.3 %		00:22:56
3	Al 396.153Radial†	123015.6	114047.5	87963 ug/L	87963 ppb	00:22:36
3	Ca 317.933Radial†	65305.8	60524.8	96845 ug/L	96845 ppb	00:22:36
3	Fe 238.204 Radial†	23837.1	22090.3	191200 ug/L	191200 ppb	00:22:36
3	K 766.490 Radial†	242978.0	222672.9	40730 ug/L	40730 ppb	00:22:36
3	Mg 279.077 IEC†	1245.7	1152.9	38327 ug/L	38327 ppb	00:22:56
3	Na 589.592 Radial†	37207.0	35774.8	10711 ug/L	10711 ppb	00:22:36
3	Sr 421.552†	380979.8	353223.0	2280.7 ug/L	2280.7 ppb	00:22:36
3	Sc 361.383	891390.7	891390.7	104.57 %		00:23:35
3	Y 371.029	810302.3	810302.3	112.13 %		00:23:35
3	Ag 328.068†	58258.4	55352.0	320.27 ug/L	320.27 ppb	00:23:35
3	As 188.979†	2361.5	2281.8	1056.8 ug/L	1056.8 ppb	00:23:40
3	B 249.677†	67105.8	64802.2	1422.7 ug/L	1422.7 ppb	00:23:35
3	Ba 233.527†	259313.5	247981.5	1945.6 ug/L	1945.6 ppb	00:23:35
3	Be 313.107†	2102140.4	2014770.4	782.85 ug/L	782.85 ppb	00:23:35
3	Cd 226.502†	55035.2	52831.9	567.27 ug/L	567.27 ppb	00:23:40
3	Co 228.616†	45679.4	43755.9	879.86 ug/L	879.86 ppb	00:23:40
3	Cr 267.716†	210523.1	201230.8	2255.0 ug/L	2255.0 ppb	00:23:35
3	Cu 324.752†	639364.3	604983.9	1819.3 ug/L	1819.3 ppb	00:23:35
3	Mn 257.610†	4949901.4	4732929.6	5266.7 ug/L	5266.7 ppb	00:23:35
3	Mo 202.031†	7204.1	6865.2	499.43 ug/L	499.43 ppb	00:23:40
3	Ni 231.604†	52774.3	50397.8	1254.4 ug/L	1254.4 ppb	00:23:40
3	P 214.914†	14279.0	13424.5	7691.4 ug/L	7691.4 ppb	00:23:40
3	Pb 220.353†	7111.7	6863.9	842.94 ug/L	842.94 ppb	00:23:40
3	S 181.975 Axial†	3110.0	2930.9	4131.3 ug/L	4131.3 ppb	00:23:40
3	Sb 206.836†	3145.9	2980.4	1026.9 ug/L	1026.9 ppb	00:23:40
3	Se 196.026†	3933.3	3793.3	3060.6 ug/L	3060.6 ppb	00:23:40
3	Si 251.611†	1279134.5	1222630.0	38933 ug/L	38933 ppb	00:23:35
3	Sn 189.927†	6146.5	5870.0	1057.0 ug/L	1057.0 ppb	00:23:40
3	Ti 334.940†	4334466.3	4146235.3	6687.1 ug/L	6687.1 ppb	00:23:35
3	Tl 190.801†	3872.7	3736.1	1211.5 ug/L	1211.5 ppb	00:23:40
3	U 409.014†	-7325.3	-4993.2	-174.12 ug/L	-174.12 ppb	00:23:35
3	V 292.402†	187248.9	180367.7	1201.8 ug/L	1201.8 ppb	00:23:35
3	Zn 213.857†	667914.0	638076.8	6006.0 ug/L	6006.0 ppb	00:23:35
3	SiO2†	1285500.6	1228696.4	83823 ug/L	83823 ppb	00:23:58

Mean Data: 1202004427|936808|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	887287.8	104.09	%	0.693				0.67%
Sc Radial	5444.3	108	%	0.5				0.44%
Y 371.029	805740.2	111.50	%	0.721				0.65%
Y RADIAL	6338.0	116.7	%	0.67				0.57%
Ag 328.068†	55294.2	318.95	ug/L	1.160	318.95	ppb	1.160	0.36%
Al 396.153Radial†	111931.1	86330	ug/L	1424.5	86330	ppb	1424.5	1.65%
As 188.979†	2286.7	1058.3	ug/L	24.55	1058.3	ppb	24.55	2.32%
B 249.677†	64773.2	1422.4	ug/L	1.01	1422.4	ppb	1.01	0.07%
Ba 233.527†	248157.4	1946.8	ug/L	1.22	1946.8	ppb	1.22	0.06%
Be 313.107†	2013942.8	782.54	ug/L	0.367	782.54	ppb	0.367	0.05%
Ca 317.933Radial†	59559.4	95301	ug/L	1377.9	95301	ppb	1377.9	1.45%
Cd 226.502†	52515.4	564.09	ug/L	6.413	564.09	ppb	6.413	1.14%
Co 228.616†	43459.7	873.84	ug/L	11.921	873.84	ppb	11.921	1.36%
Cr 267.716†	201454.7	2257.5	ug/L	2.28	2257.5	ppb	2.28	0.10%
Cu 324.752†	604857.3	1818.7	ug/L	4.18	1818.7	ppb	4.18	0.23%
Fe 238.204 Radial†	21709.0	187900	ug/L	2897.1	187900	ppb	2897.1	1.54%
K 766.490 Radial†	218306.6	39930	ug/L	700.0	39930	ppb	700.0	1.75%

Mg 279.077 IEC†	1153.1	38335	ug/L	72.2	38335	ppb	72.2	0.19%
Mn 257.610†	4739396.1	5273.5	ug/L	6.94	5273.5	ppb	6.94	0.13%
Mo 202.031†	6818.2	495.86	ug/L	7.217	495.86	ppb	7.217	1.46%
Na 589.592 Radial†	35078.3	10503	ug/L	184.6	10503	ppb	184.6	1.76%
Ni 231.604†	50086.9	1246.6	ug/L	15.98	1246.6	ppb	15.98	1.28%
P 214.914†	13327.6	7634.4	ug/L	126.02	7634.4	ppb	126.02	1.65%
Pb 220.353†	6813.8	836.73	ug/L	11.853	836.73	ppb	11.853	1.42%
S 181.975 Axial†	2893.4	4078.5	ug/L	70.11	4078.5	ppb	70.11	1.72%
Sb 206.836†	2952.1	1017.1	ug/L	19.41	1017.1	ppb	19.41	1.91%
Se 196.026†	3767.1	3033.0	ug/L	52.46	3033.0	ppb	52.46	1.73%
Si 251.611†	1224816.3	39003	ug/L	71.5	39003	ppb	71.5	0.18%
Sn 189.927†	5823.3	1048.5	ug/L	15.90	1048.5	ppb	15.90	1.52%
Sr 421.552†	346294.8	2236.0	ug/L	39.41	2236.0	ppb	39.41	1.76%
Ti 334.940†	4147768.6	6689.4	ug/L	5.10	6689.4	ppb	5.10	0.08%
Tl 190.801†	3693.7	1198.5	ug/L	15.68	1198.5	ppb	15.68	1.31%
U 409.014†	-5057.4	-175.65	ug/L	2.331	-175.65	ppb	2.331	1.33%
V 292.402†	180317.5	1201.9	ug/L	0.11	1201.9	ppb	0.11	0.01%
Zn 213.857†	639212.0	6017.1	ug/L	10.00	6017.1	ppb	10.00	0.17%
SiO2†	1230686.9	83959	ug/L	252.2	83959	ppb	252.2	0.30%

Sequence No.: 84
Sample ID: 243472001|936808|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 92
Date Collected: 1/12/2010 00:54:43
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 243472001|936808|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5242.4	5242.4	104	%			00:56:37
1	Y RADIAL	7100.4	7100.4	130.8	%			00:56:37
1	Al 396.153Radial†	8216.4	7892.5	6088.8	ug/L	6088.8	ppb	00:56:37
1	Ca 317.933Radial†	1469.6	1391.8	2227.0	ug/L	2227.0	ppb	00:56:57
1	Fe 238.204 Radial†	7431.2	7128.7	61693	ug/L	61693	ppb	00:56:37
1	K 766.490 Radial†	14482.8	11320.6	2050.0	ug/L	2050.0	ppb	00:56:37
1	Mg 279.077 IEC†	38.8	35.4	1116.8	ug/L	1116.8	ppb	00:56:57
1	Na 589.592 Radial†	3589.2	4727.9	1415.6	ug/L	1415.6	ppb	00:56:37
1	Sr 421.552†	2068.5	2006.2	12.942	ug/L	12.942	ppb	00:56:37
1	Sc 361.383	890971.6	890971.6	104.53	%			00:57:55
1	Y 371.029	940163.5	940163.5	130.10	%			00:57:55
1	Ag 328.068†	-3860.9	-4051.7	1.6000	ug/L	1.6000	ppb	00:58:00
1	As 188.979†	-45.9	-20.3	10.175	ug/L	10.175	ppb	00:58:20
1	B 249.677†	-69.3	565.6	6.3424	ug/L	6.3424	ppb	00:58:00
1	Ba 233.527†	11969.4	11462.6	91.805	ug/L	91.805	ppb	00:58:00
1	Be 313.107†	-12460.8	-7336.0	0.4708	ug/L	0.4708	ppb	00:58:00
1	Cd 226.502†	360.9	549.4	-0.3188	ug/L	-0.3188	ppb	00:58:20
1	Co 228.616†	227.8	292.6	2.1299	ug/L	2.1299	ppb	00:58:20
1	Cr 267.716†	898.4	776.3	10.023	ug/L	10.023	ppb	00:58:00
1	Cu 324.752†	9801.9	2965.3	12.263	ug/L	12.263	ppb	00:58:00
1	Mn 257.610†	2093040.0	2001979.5	2226.3	ug/L	2226.3	ppb	00:57:55
1	Mo 202.031†	64.6	38.1	6.9370	ug/L	6.9370	ppb	00:58:20
1	Ni 231.604†	279.7	199.7	4.9678	ug/L	4.9678	ppb	00:58:20
1	P 214.914†	906.8	637.7	339.82	ug/L	339.82	ppb	00:58:20
1	Pb 220.353†	175.9	231.7	23.811	ug/L	23.811	ppb	00:58:20
1	S 181.975 Axial†	72.6	26.5	36.298	ug/L	36.298	ppb	00:58:20
1	Sb 206.836†	40.6	10.9	-1.0102	ug/L	-1.0102	ppb	00:58:20
1	Se 196.026†	-278.3	-234.3	46.189	ug/L	46.189	ppb	00:58:20
1	Si 251.611†	431105.1	411890.5	13118	ug/L	13118	ppb	00:57:55
1	Sn 189.927†	18.8	10.3	3.1801	ug/L	3.1801	ppb	00:58:20
1	Ti 334.940†	931902.0	892930.9	1438.9	ug/L	1438.9	ppb	00:57:55
1	Tl 190.801†	-121.4	-83.3	-5.2737	ug/L	-5.2737	ppb	00:58:20
1	U 409.014†	-10463.0	-7998.4	-243.00	ug/L	-243.00	ppb	00:57:55
1	V 292.402†	3493.3	4651.8	20.413	ug/L	20.413	ppb	00:58:00
1	Zn 213.857†	33470.9	31401.6	290.97	ug/L	290.97	ppb	00:58:00
1	SiO2†	429218.5	410064.3	27979	ug/L	27979	ppb	00:59:27
2	Sc Radial	5299.8	5299.8	105	%			00:57:02
2	Y RADIAL	7145.9	7145.9	131.6	%			00:57:02
2	Al 396.153Radial†	8198.1	7789.7	6009.4	ug/L	6009.4	ppb	00:57:02
2	Ca 317.933Radial†	1465.6	1372.7	2196.5	ug/L	2196.5	ppb	00:57:22
2	Fe 238.204 Radial†	7427.3	7047.7	60992	ug/L	60992	ppb	00:57:02
2	K 766.490 Radial†	14469.7	11157.5	2020.0	ug/L	2020.0	ppb	00:57:02
2	Mg 279.077 IEC†	39.6	35.7	1128.8	ug/L	1128.8	ppb	00:57:22
2	Na 589.592 Radial†	3511.6	4616.8	1382.3	ug/L	1382.3	ppb	00:57:02
2	Sr 421.552†	2068.2	1984.5	12.802	ug/L	12.802	ppb	00:57:02
2	Sc 361.383	889141.2	889141.2	104.31	%			00:58:26
2	Y 371.029	936043.6	936043.6	129.53	%			00:58:26
2	Ag 328.068†	-3753.7	-3956.6	1.8124	ug/L	1.8124	ppb	00:58:31
2	As 188.979†	-43.7	-18.3	10.916	ug/L	10.916	ppb	00:58:51
2	B 249.677†	-48.8	585.1	6.8489	ug/L	6.8489	ppb	00:58:31
2	Ba 233.527†	12011.8	11526.8	92.282	ug/L	92.282	ppb	00:58:31
2	Be 313.107†	-12289.9	-7196.7	0.5323	ug/L	0.5323	ppb	00:58:31
2	Cd 226.502†	360.0	549.2	-0.2484	ug/L	-0.2484	ppb	00:58:51
2	Co 228.616†	217.7	283.3	1.9445	ug/L	1.9445	ppb	00:58:51
2	Cr 267.716†	918.3	797.1	10.243	ug/L	10.243	ppb	00:58:31
2	Cu 324.752†	9829.5	3011.1	12.363	ug/L	12.363	ppb	00:58:31
2	Mn 257.610†	2094409.7	2007414.9	2232.2	ug/L	2232.2	ppb	00:58:26
2	Mo 202.031†	77.8	50.9	7.7951	ug/L	7.7951	ppb	00:58:51
2	Ni 231.604†	277.7	198.3	4.9343	ug/L	4.9343	ppb	00:58:51

2	P 214.914†	903.3	636.1	339.36 ug/L	339.36 ppb	00:58:51
2	Pb 220.353†	181.3	237.2	24.535 ug/L	24.535 ppb	00:58:51
2	S 181.975 Axial†	68.8	23.0	31.387 ug/L	31.387 ppb	00:58:51
2	Sb 206.836†	32.7	3.4	-3.6181 ug/L	-3.6181 ppb	00:58:51
2	Se 196.026†	-296.4	-252.2	32.414 ug/L	32.414 ppb	00:58:51
2	Si 251.611†	432400.5	413981.4	13185 ug/L	13185 ppb	00:58:26
2	Sn 189.927†	3.6	-4.2	0.5898 ug/L	0.5898 ppb	00:58:51
2	Ti 334.940†	932369.3	895214.3	1442.5 ug/L	1442.5 ppb	00:58:26
2	Tl 190.801†	-129.3	-91.1	-7.6167 ug/L	-7.6167 ppb	00:58:51
2	U 409.014†	-10463.2	-8019.2	-243.54 ug/L	-243.54 ppb	00:58:26
2	V 292.402†	3501.6	4666.6	20.629 ug/L	20.629 ppb	00:58:31
2	Zn 213.857†	33369.3	31370.1	290.74 ug/L	290.74 ppb	00:58:31
2	SiO2†	432297.2	413861.1	28238 ug/L	28238 ppb	00:59:33
3	Sc Radial	5331.6	5331.6	106 %		00:57:27
3	Y RADIAL	7171.9	7171.9	132.1 %		00:57:27
3	Al 396.153Radial†	8268.3	7809.5	6024.7 ug/L	6024.7 ppb	00:57:27
3	Ca 317.933Radial†	1460.6	1359.7	2175.6 ug/L	2175.6 ppb	00:57:47
3	Fe 238.204 Radial†	7494.0	7068.7	61174 ug/L	61174 ppb	00:57:27
3	K 766.490 Radial†	14574.7	11174.6	2023.2 ug/L	2023.2 ppb	00:57:27
3	Mg 279.077 IEC†	37.8	33.8	1066.4 ug/L	1066.4 ppb	00:57:47
3	Na 589.592 Radial†	3570.1	4652.2	1392.9 ug/L	1392.9 ppb	00:57:27
3	Sr 421.552†	2109.3	2011.6	12.977 ug/L	12.977 ppb	00:57:27
3	Sc 361.383	891673.3	891673.3	104.61 %		00:58:57
3	Y 371.029	937745.8	937745.8	129.76 %		00:58:57
3	Ag 328.068†	-3717.0	-3911.3	2.0770 ug/L	2.0770 ppb	00:59:02
3	As 188.979†	-41.8	-16.4	11.775 ug/L	11.775 ppb	00:59:22
3	B 249.677†	-75.0	560.2	6.2737 ug/L	6.2737 ppb	00:59:02
3	Ba 233.527†	11806.9	11298.3	90.503 ug/L	90.503 ppb	00:59:02
3	Be 313.107†	-12425.1	-7292.4	0.4944 ug/L	0.4944 ppb	00:59:02
3	Cd 226.502†	354.6	543.1	-0.3355 ug/L	-0.3355 ppb	00:59:22
3	Co 228.616†	230.3	294.8	2.1773 ug/L	2.1773 ppb	00:59:22
3	Cr 267.716†	864.4	743.1	9.6418 ug/L	9.6418 ppb	00:59:02
3	Cu 324.752†	9772.1	2929.5	12.128 ug/L	12.128 ppb	00:59:02
3	Mn 257.610†	2096250.3	2003472.5	2227.8 ug/L	2227.8 ppb	00:58:57
3	Mo 202.031†	74.2	47.2	7.5454 ug/L	7.5454 ppb	00:59:22
3	Ni 231.604†	273.2	193.2	4.8076 ug/L	4.8076 ppb	00:59:22
3	P 214.914†	895.8	626.5	333.39 ug/L	333.39 ppb	00:59:22
3	Pb 220.353†	173.4	229.1	23.539 ug/L	23.539 ppb	00:59:22
3	S 181.975 Axial†	69.0	23.0	31.385 ug/L	31.385 ppb	00:59:22
3	Sb 206.836†	38.6	9.0	-1.7002 ug/L	-1.7002 ppb	00:59:22
3	Se 196.026†	-285.7	-241.2	40.082 ug/L	40.082 ppb	00:59:22
3	Si 251.611†	432972.4	413350.9	13165 ug/L	13165 ppb	00:58:57
3	Sn 189.927†	10.6	2.5	1.7814 ug/L	1.7814 ppb	00:59:22
3	Ti 334.940†	934628.9	894836.1	1441.9 ug/L	1441.9 ppb	00:58:57
3	Tl 190.801†	-124.7	-86.4	-6.1746 ug/L	-6.1746 ppb	00:59:22
3	U 409.014†	-10423.4	-7952.7	-241.59 ug/L	-241.59 ppb	00:58:57
3	V 292.402†	3457.1	4614.5	20.246 ug/L	20.246 ppb	00:59:02
3	Zn 213.857†	33072.2	30995.2	287.18 ug/L	287.18 ppb	00:59:02
3	SiO2†	438142.5	418272.1	28539 ug/L	28539 ppb	00:59:38

Mean Data: 243472001|936808|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	890595.3	104.48	%	0.153				0.15%
Sc Radial	5291.2	105	%	0.9				0.85%
Y 371.029	937984.3	129.79	%	0.286				0.22%
Y RADIAL	7139.4	131.5	%	0.67				0.51%
Ag 328.068†	-3973.2	1.8298	ug/L	0.23897	1.8298	ppb	0.23897	13.06%
Al 396.153Radial†	7830.5	6041.0	ug/L	42.11	6041.0	ppb	42.11	0.70%
As 188.979†	-18.3	10.955	ug/L	0.8006	10.955	ppb	0.8006	7.31%
B 249.677†	570.3	6.4883	ug/L	0.31412	6.4883	ppb	0.31412	4.84%
Ba 233.527†	11429.2	91.530	ug/L	0.9205	91.530	ppb	0.9205	1.01%
Be 313.107†	-7275.0	0.4992	ug/L	0.03100	0.4992	ppb	0.03100	6.21%
Ca 317.933Radial†	1374.7	2199.7	ug/L	25.85	2199.7	ppb	25.85	1.17%
Cd 226.502†	547.2	-0.3009	ug/L	0.04619	-0.3009	ppb	0.04619	15.35%
Co 228.616†	290.3	2.0839	ug/L	0.12298	2.0839	ppb	0.12298	5.90%
Cr 267.716†	772.2	9.9694	ug/L	0.30420	9.9694	ppb	0.30420	3.05%
Cu 324.752†	2968.6	12.251	ug/L	0.1182	12.251	ppb	0.1182	0.96%
Fe 238.204 Radial†	7081.7	61286	ug/L	363.9	61286	ppb	363.9	0.59%
K 766.490 Radial†	11217.6	2031.1	ug/L	16.45	2031.1	ppb	16.45	0.81%

Mg 279.077 IEC†	35.0	1104.0	ug/L	33.14	1104.0	ppb	33.14	3.00%
Mn 257.610†	2004288.9	2228.8	ug/L	3.08	2228.8	ppb	3.08	0.14%
Mo 202.031†	45.4	7.4258	ug/L	0.44137	7.4258	ppb	0.44137	5.94%
Na 589.592 Radial†	4665.6	1396.9	ug/L	16.99	1396.9	ppb	16.99	1.22%
Ni 231.604†	197.1	4.9032	ug/L	0.08452	4.9032	ppb	0.08452	1.72%
P 214.914†	633.4	337.53	ug/L	3.585	337.53	ppb	3.585	1.06%
Pb 220.353†	232.7	23.962	ug/L	0.5148	23.962	ppb	0.5148	2.15%
S 181.975 Axial†	24.1	33.023	ug/L	2.8357	33.023	ppb	2.8357	8.59%
Sb 206.836†	7.8	-2.1095	ug/L	1.35127	-2.1095	ppb	1.35127	64.06%
Se 196.026†	-242.5	39.562	ug/L	6.9019	39.562	ppb	6.9019	17.45%
Si 251.611†	413074.3	13156	ug/L	34.2	13156	ppb	34.2	0.26%
Sn 189.927†	2.8	1.8504	ug/L	1.29653	1.8504	ppb	1.29653	70.07%
Sr 421.552†	2000.8	12.907	ug/L	0.0926	12.907	ppb	0.0926	0.72%
Ti 334.940†	894327.1	1441.1	ug/L	1.97	1441.1	ppb	1.97	0.14%
Tl 190.801†	-86.9	-6.3550	ug/L	1.18187	-6.3550	ppb	1.18187	18.60%
U 409.014†	-7990.1	-242.71	ug/L	1.004	-242.71	ppb	1.004	0.41%
V 292.402†	4644.3	20.429	ug/L	0.1924	20.429	ppb	0.1924	0.94%
Zn 213.857†	31255.6	289.63	ug/L	2.126	289.63	ppb	2.126	0.73%
SiO2†	414065.8	28252	ug/L	280.3	28252	ppb	280.3	0.99%

Sequence No.: 85
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 1/12/2010 01:01:49
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	5098.8	5098.8	101	%			01:03:42
1	Y RADIAL	5390.1	5390.1	99.28	%			01:03:42
1	Al 396.153Radial†	6567.4	6486.3	4978.6	ug/L	4978.6	ppb	01:03:42
1	Ca 317.933Radial†	3258.2	3197.8	5116.9	ug/L	5116.9	ppb	01:04:02
1	Fe 238.204 Radial†	624.2	607.6	5273.6	ug/L	5273.6	ppb	01:04:02
1	K 766.490 Radial†	30383.1	27414.4	5008.5	ug/L	5008.5	ppb	01:03:42
1	Mg 279.077 IEC†	161.6	157.7	5270.0	ug/L	5270.0	ppb	01:04:02
1	Na 589.592 Radial†	33325.7	34191.0	10237	ug/L	10237	ppb	01:03:42
1	Sr 421.552†	78757.5	77795.9	502.44	ug/L	502.44	ppb	01:03:42
1	Sc 361.383	861945.3	861945.3	101.12	%			01:04:59
1	Y 371.029	717319.5	717319.5	99.260	%			01:04:59
1	Ag 328.068†	115908.6	114266.8	529.42	ug/L	529.42	ppb	01:05:05
1	As 188.979†	1186.6	1197.0	520.93	ug/L	520.93	ppb	01:05:25
1	B 249.677†	22724.7	23104.8	513.05	ug/L	513.05	ppb	01:05:05
1	Ba 233.527†	67545.0	66808.2	522.88	ug/L	522.88	ppb	01:05:05
1	Be 313.107†	1377764.2	1367088.9	522.09	ug/L	522.09	ppb	01:04:59
1	Cd 226.502†	47488.6	47166.7	523.28	ug/L	523.28	ppb	01:05:05
1	Co 228.616†	25889.6	25677.5	525.68	ug/L	525.68	ppb	01:05:05
1	Cr 267.716†	47279.1	46672.2	522.43	ug/L	522.43	ppb	01:05:05
1	Cu 324.752†	181455.9	173033.8	517.40	ug/L	517.40	ppb	01:05:05
1	Mn 257.610†	474592.8	468891.1	520.19	ug/L	520.19	ppb	01:04:59
1	Mo 202.031†	7552.2	7444.9	526.59	ug/L	526.59	ppb	01:05:25
1	Ni 231.604†	21354.7	21050.2	523.84	ug/L	523.84	ppb	01:05:05
1	P 214.914†	4516.6	4236.7	2479.6	ug/L	2479.6	ppb	01:05:25
1	Pb 220.353†	4250.3	4266.6	524.14	ug/L	524.14	ppb	01:05:25
1	S 181.975 Axial†	807.0	755.1	1067.6	ug/L	1067.6	ppb	01:05:25
1	Sb 206.836†	1543.3	1498.3	532.07	ug/L	532.07	ppb	01:05:25
1	Se 196.026†	777.2	800.6	534.59	ug/L	534.59	ppb	01:05:25
1	Si 251.611†	85139.9	83646.4	2657.5	ug/L	2657.5	ppb	01:05:05
1	Sn 189.927†	3013.5	2972.4	527.42	ug/L	527.42	ppb	01:05:25
1	Ti 334.940†	327541.4	325287.9	523.80	ug/L	523.80	ppb	01:04:59
1	Tl 190.801†	1676.6	1690.9	521.97	ug/L	521.97	ppb	01:05:25
1	U 409.014†	16470.1	18299.3	538.06	ug/L	538.06	ppb	01:05:05
1	V 292.402†	75789.9	76260.2	527.97	ug/L	527.97	ppb	01:05:05
1	Zn 213.857†	56569.0	55322.2	518.70	ug/L	518.70	ppb	01:05:05
1	SiO2†	84309.7	82804.2	5635.5	ug/L	5635.5	ppb	01:06:32
2	Sc Radial	5118.7	5118.7	102	%			01:04:07
2	Y RADIAL	5463.1	5463.1	100.6	%			01:04:07
2	Al 396.153Radial†	6668.7	6560.7	5036.0	ug/L	5036.0	ppb	01:04:07
2	Ca 317.933Radial†	3278.9	3205.7	5129.4	ug/L	5129.4	ppb	01:04:27
2	Fe 238.204 Radial†	631.5	612.3	5314.8	ug/L	5314.8	ppb	01:04:27
2	K 766.490 Radial†	30706.8	27616.3	5045.5	ug/L	5045.5	ppb	01:04:07
2	Mg 279.077 IEC†	167.5	162.9	5443.0	ug/L	5443.0	ppb	01:04:27
2	Na 589.592 Radial†	33583.3	34316.5	10275	ug/L	10275	ppb	01:04:07
2	Sr 421.552†	79896.0	78613.5	507.72	ug/L	507.72	ppb	01:04:07
2	Sc 361.383	852215.9	852215.9	99.979	%			01:05:30
2	Y 371.029	708783.1	708783.1	98.079	%			01:05:30
2	Ag 328.068†	114006.4	113672.7	526.69	ug/L	526.69	ppb	01:05:36
2	As 188.979†	1180.2	1204.1	524.01	ug/L	524.01	ppb	01:05:56
2	B 249.677†	22310.5	22947.2	509.54	ug/L	509.54	ppb	01:05:36
2	Ba 233.527†	66411.8	66437.4	519.99	ug/L	519.99	ppb	01:05:36
2	Be 313.107†	1365750.7	1370628.0	523.44	ug/L	523.44	ppb	01:05:30
2	Cd 226.502†	46670.4	46884.5	520.14	ug/L	520.14	ppb	01:05:36
2	Co 228.616†	25433.1	25513.2	522.32	ug/L	522.32	ppb	01:05:36
2	Cr 267.716†	46589.2	46515.9	520.68	ug/L	520.68	ppb	01:05:36
2	Cu 324.752†	178160.9	171786.8	513.67	ug/L	513.67	ppb	01:05:36
2	Mn 257.610†	470958.8	470614.6	522.10	ug/L	522.10	ppb	01:05:30
2	Mo 202.031†	7469.1	7447.0	526.74	ug/L	526.74	ppb	01:05:56
2	Ni 231.604†	21007.7	20944.3	521.20	ug/L	521.20	ppb	01:05:36

2	P 214.914†	4498.5	4269.6	2500.5 ug/L	2500.5 ppb	01:05:56
2	Pb 220.353†	4205.7	4270.0	524.56 ug/L	524.56 ppb	01:05:56
2	S 181.975 Axial†	797.3	754.5	1066.7 ug/L	1066.7 ppb	01:05:56
2	Sb 206.836†	1528.8	1501.2	533.05 ug/L	533.05 ppb	01:05:56
2	Se 196.026†	780.8	813.0	542.71 ug/L	542.71 ppb	01:05:56
2	Si 251.611†	83531.4	82998.8	2636.9 ug/L	2636.9 ppb	01:05:36
2	Sn 189.927†	2975.7	2968.7	526.77 ug/L	526.77 ppb	01:05:56
2	Ti 334.940†	325116.6	326560.6	525.84 ug/L	525.84 ppb	01:05:30
2	Tl 190.801†	1675.0	1708.2	527.31 ug/L	527.31 ppb	01:05:56
2	U 409.014†	16151.4	18166.5	534.14 ug/L	534.14 ppb	01:05:36
2	V 292.402†	74626.6	75952.2	525.86 ug/L	525.86 ppb	01:05:36
2	Zn 213.857†	55618.5	55010.1	515.76 ug/L	515.76 ppb	01:05:36
2	SiO2†	83052.4	82498.4	5614.7 ug/L	5614.7 ppb	01:06:37
3	Sc Radial	5179.2	5179.2	103 %		01:04:32
3	Y RADIAL	5471.6	5471.6	100.8 %		01:04:32
3	Al 396.153Radial†	6718.8	6532.9	5015.0 ug/L	5015.0 ppb	01:04:32
3	Ca 317.933Radial†	3234.8	3125.2	5000.6 ug/L	5000.6 ppb	01:04:52
3	Fe 238.204 Radial†	613.9	587.9	5103.4 ug/L	5103.4 ppb	01:04:52
3	K 766.490 Radial†	30891.9	27443.7	5014.1 ug/L	5014.1 ppb	01:04:32
3	Mg 279.077 IEC†	160.1	153.7	5136.4 ug/L	5136.4 ppb	01:04:52
3	Na 589.592 Radial†	33482.3	33832.7	10130 ug/L	10130 ppb	01:04:32
3	Sr 421.552†	80010.0	77807.2	502.51 ug/L	502.51 ppb	01:04:32
3	Sc 361.383	870721.9	870721.9	102.15 %		01:06:02
3	Y 371.029	724682.4	724682.4	100.28 %		01:06:02
3	Ag 328.068†	114641.7	111871.1	518.30 ug/L	518.30 ppb	01:06:07
3	As 188.979†	1182.8	1181.5	514.19 ug/L	514.19 ppb	01:06:27
3	B 249.677†	22394.9	22555.4	500.86 ug/L	500.86 ppb	01:06:07
3	Ba 233.527†	66760.5	65367.0	511.61 ug/L	511.61 ppb	01:06:07
3	Be 313.107†	1389334.0	1364681.6	521.17 ug/L	521.17 ppb	01:06:02
3	Cd 226.502†	46969.1	46184.8	512.39 ug/L	512.39 ppb	01:06:07
3	Co 228.616†	25538.5	25075.7	513.35 ug/L	513.35 ppb	01:06:07
3	Cr 267.716†	47017.5	45944.8	514.29 ug/L	514.29 ppb	01:06:07
3	Cu 324.752†	179184.2	169001.2	505.34 ug/L	505.34 ppb	01:06:07
3	Mn 257.610†	477661.9	467164.9	518.26 ug/L	518.26 ppb	01:06:02
3	Mo 202.031†	7496.1	7314.6	517.37 ug/L	517.37 ppb	01:06:27
3	Ni 231.604†	21147.6	20634.6	513.50 ug/L	513.50 ppb	01:06:07
3	P 214.914†	4488.7	4164.3	2438.0 ug/L	2438.0 ppb	01:06:27
3	Pb 220.353†	4209.3	4184.1	514.04 ug/L	514.04 ppb	01:06:27
3	S 181.975 Axial†	796.9	737.1	1042.2 ug/L	1042.2 ppb	01:06:27
3	Sb 206.836†	1540.6	1480.2	525.53 ug/L	525.53 ppb	01:06:27
3	Se 196.026†	789.5	804.9	536.77 ug/L	536.77 ppb	01:06:27
3	Si 251.611†	84003.8	81685.5	2595.2 ug/L	2595.2 ppb	01:06:07
3	Sn 189.927†	2995.5	2924.8	518.96 ug/L	518.96 ppb	01:06:27
3	Ti 334.940†	330906.5	325317.3	523.85 ug/L	523.85 ppb	01:06:02
3	Tl 190.801†	1669.9	1667.6	514.86 ug/L	514.86 ppb	01:06:27
3	U 409.014†	16159.7	17831.2	524.28 ug/L	524.28 ppb	01:06:07
3	V 292.402†	75057.2	74787.3	517.78 ug/L	517.78 ppb	01:06:07
3	Zn 213.857†	55985.4	54186.9	508.06 ug/L	508.06 ppb	01:06:07
3	SiO2†	82319.9	80015.9	5445.5 ug/L	5445.5 ppb	01:06:43

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	861627.7	101.08	%	1.086				1.07%
Sc Radial	5132.2	102	%	0.8				0.82%
Y 371.029	716928.3	99.206	%	1.1010				1.11%
Y RADIAL	5441.6	100.2	%	0.82				0.82%
Ag 328.068†	113270.2	524.80	ug/L	5.792	524.80	ppb	5.792	1.10%
QC value within limits for Ag 328.068 Recovery = 104.96%								
Al 396.153Radial†	6526.6	5009.8	ug/L	29.05	5009.8	ppb	29.05	0.58%
QC value within limits for Al 396.153Radial Recovery = 100.20%								
As 188.979†	1194.2	519.71	ug/L	5.025	519.71	ppb	5.025	0.97%
QC value within limits for As 188.979 Recovery = 103.94%								
B 249.677†	22869.1	507.82	ug/L	6.278	507.82	ppb	6.278	1.24%
QC value within limits for B 249.677 Recovery = 101.56%								
Ba 233.527†	66204.2	518.16	ug/L	5.858	518.16	ppb	5.858	1.13%
QC value within limits for Ba 233.527 Recovery = 103.63%								
Be 313.107†	1367466.2	522.24	ug/L	1.142	522.24	ppb	1.142	0.22%
QC value within limits for Be 313.107 Recovery = 104.45%								
Ca 317.933Radial†	3176.2	5082.3	ug/L	71.04	5082.3	ppb	71.04	1.40%

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   QC value within limits for Ca 317.933Radial  Recovery = 101.65%
Cd 226.502†            46745.3      518.60 ug/L         5.604      518.60 ppb          5.604   1.08%
   QC value within limits for Cd 226.502  Recovery = 103.72%
Co 228.616†            25422.2      520.45 ug/L         6.378      520.45 ppb          6.378   1.23%
   QC value within limits for Co 228.616  Recovery = 104.09%
Cr 267.716†            46377.6      519.13 ug/L         4.288      519.13 ppb          4.288   0.83%
   QC value within limits for Cr 267.716  Recovery = 103.83%
Cu 324.752†           171273.9      512.14 ug/L         6.175      512.14 ppb          6.175   1.21%
   QC value within limits for Cu 324.752  Recovery = 102.43%
Fe 238.204 Radial†       602.6      5230.6 ug/L        112.07      5230.6 ppb         112.07   2.14%
   QC value within limits for Fe 238.204 Radial  Recovery = 104.61%
K 766.490 Radial†      27491.5      5022.7 ug/L         19.93      5022.7 ppb          19.93   0.40%
   QC value within limits for K 766.490 Radial  Recovery = 100.45%
Mg 279.077 IEC†          158.1      5283.1 ug/L        153.69      5283.1 ppb         153.69   2.91%
   QC value within limits for Mg 279.077 IEC  Recovery = 105.66%
Mn 257.610†           468890.2      520.18 ug/L         1.918      520.18 ppb          1.918   0.37%
   QC value within limits for Mn 257.610  Recovery = 104.04%
Mo 202.031†             7402.1      523.56 ug/L         5.367      523.56 ppb          5.367   1.03%
   QC value within limits for Mo 202.031  Recovery = 104.71%
Na 589.592 Radial†     34113.4       10214 ug/L          75.2       10214 ppb           75.2   0.74%
   QC value within limits for Na 589.592 Radial  Recovery = 102.14%
Ni 231.604†            20876.4      519.51 ug/L         5.374      519.51 ppb          5.374   1.03%
   QC value within limits for Ni 231.604  Recovery = 103.90%
P 214.914†              4223.5      2472.7 ug/L        31.78      2472.7 ppb          31.78   1.29%
   QC value within limits for P 214.914  Recovery = 98.91%
Pb 220.353†             4240.2      520.91 ug/L         5.955      520.91 ppb          5.955   1.14%
   QC value within limits for Pb 220.353  Recovery = 104.18%
S 181.975 Axial†         748.9      1058.9 ug/L        14.43      1058.9 ppb          14.43   1.36%
   QC value within limits for S 181.975 Axial  Recovery = 105.89%
Sb 206.836†             1493.2      530.22 ug/L         4.088      530.22 ppb          4.088   0.77%
   QC value within limits for Sb 206.836  Recovery = 106.04%
Se 196.026†              806.1      538.03 ug/L         4.201      538.03 ppb          4.201   0.78%
   QC value within limits for Se 196.026  Recovery = 107.61%
Si 251.611†            82776.9      2629.9 ug/L        31.76      2629.9 ppb          31.76   1.21%
   QC value within limits for Si 251.611  Recovery = 105.19%
Sn 189.927†             2955.3      524.38 ug/L         4.707      524.38 ppb          4.707   0.90%
   QC value within limits for Sn 189.927  Recovery = 104.88%
Sr 421.552†            78072.2      504.22 ug/L         3.028      504.22 ppb          3.028   0.60%
   QC value within limits for Sr 421.552  Recovery = 100.84%
Ti 334.940†           325721.9      524.50 ug/L         1.163      524.50 ppb          1.163   0.22%
   QC value within limits for Ti 334.940  Recovery = 104.90%
Tl 190.801†             1688.9      521.38 ug/L         6.246      521.38 ppb          6.246   1.20%
   QC value within limits for Tl 190.801  Recovery = 104.28%
U 409.014†             18099.0      532.16 ug/L         7.096      532.16 ppb          7.096   1.33%
   QC value within limits for U 409.014  Recovery = 106.43%
V 292.402†             75666.6      523.87 ug/L         5.379      523.87 ppb          5.379   1.03%
   QC value within limits for V 292.402  Recovery = 104.77%
Zn 213.857†            54839.8      514.17 ug/L         5.495      514.17 ppb          5.495   1.07%
   QC value within limits for Zn 213.857  Recovery = 102.83%
SiO2†                  81772.8      5565.2 ug/L        104.20      5565.2 ppb         104.20   1.87%
   QC value within limits for SiO2  Recovery = 104.07%
All analyte(s) passed QC.
```

Sequence No.: 86
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 1/12/2010 01:08:52
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5207.8	5207.8	103	%			01:10:45
1	Y RADIAL	5584.2	5584.2	102.9	%			01:10:45
1	Al 396.153Radial†	-26.1	-24.6	-18.985	ug/L	-18.985	ppb	01:10:45
1	Ca 317.933Radial†	16.2	-4.1	-6.6397	ug/L	-6.6397	ppb	01:11:05
1	Fe 238.204 Radial†	10.6	1.4	11.932	ug/L	11.932	ppb	01:11:05
1	K 766.490 Radial†	2825.0	141.3	25.912	ug/L	25.912	ppb	01:10:45
1	Mg 279.077 IEC†	3.2	1.1	38.325	ug/L	38.325	ppb	01:11:05
1	Na 589.592 Radial†	-1322.2	2.0	0.6057	ug/L	0.6057	ppb	01:10:45
1	Sr 421.552†	-22.9	-2.6	-0.0170	ug/L	-0.0170	ppb	01:10:45
1	Sc 361.383	853415.9	853415.9	100.12	%			01:12:02
1	Y 371.029	723372.1	723372.1	100.10	%			01:12:02
1	Ag 328.068†	217.9	-140.3	-0.6493	ug/L	-0.6493	ppb	01:12:02
1	As 188.979†	-31.3	-7.6	-3.2919	ug/L	-3.2919	ppb	01:12:22
1	B 249.677†	-466.5	165.9	3.6963	ug/L	3.6963	ppb	01:12:22
1	Ba 233.527†	-12.2	-0.8	-0.0060	ug/L	-0.0060	ppb	01:12:22
1	Be 313.107†	-4588.6	2.2	0.0008	ug/L	0.0008	ppb	01:12:02
1	Cd 226.502†	-186.8	17.6	0.1951	ug/L	0.1951	ppb	01:12:22
1	Co 228.616†	-73.5	1.3	0.0267	ug/L	0.0267	ppb	01:12:22
1	Cr 267.716†	77.3	-6.1	-0.0708	ug/L	-0.0708	ppb	01:12:22
1	Cu 324.752†	6420.1	0.2	-0.0032	ug/L	-0.0032	ppb	01:12:02
1	Mn 257.610†	445.9	0.5	0.0004	ug/L	0.0004	ppb	01:12:22
1	Mo 202.031†	24.4	0.7	0.0476	ug/L	0.0476	ppb	01:12:22
1	Ni 231.604†	66.5	-1.6	-0.0386	ug/L	-0.0386	ppb	01:12:22
1	P 214.914†	220.3	-9.8	-6.0089	ug/L	-6.0089	ppb	01:12:22
1	Pb 220.353†	-75.1	-11.7	-1.4354	ug/L	-1.4354	ppb	01:12:22
1	S 181.975 Axial†	45.4	2.4	3.3828	ug/L	3.3828	ppb	01:12:22
1	Sb 206.836†	40.5	12.5	4.2770	ug/L	4.2770	ppb	01:12:22
1	Se 196.026†	-32.0	0.1	0.0981	ug/L	0.0981	ppb	01:12:22
1	Si 251.611†	518.4	-32.6	-1.0399	ug/L	-1.0399	ppb	01:12:22
1	Sn 189.927†	4.3	-3.4	-0.6009	ug/L	-0.6009	ppb	01:12:22
1	Ti 334.940†	-1389.1	-12.9	-0.0281	ug/L	-0.0281	ppb	01:12:02
1	Tl 190.801†	-31.6	1.3	0.3840	ug/L	0.3840	ppb	01:12:22
1	U 409.014†	-1745.3	268.4	7.9161	ug/L	7.9161	ppb	01:12:02
1	V 292.402†	-1328.6	-17.3	-0.1033	ug/L	-0.1033	ppb	01:12:02
1	Zn 213.857†	611.9	-9.1	-0.0868	ug/L	-0.0868	ppb	01:12:22
1	SiO2†	541.0	-31.3	-2.1376	ug/L	-2.1376	ppb	01:13:18
2	Sc Radial	5095.7	5095.7	101	%			01:11:10
2	Y RADIAL	5489.5	5489.5	101.1	%			01:11:10
2	Al 396.153Radial†	-15.3	-14.5	-11.169	ug/L	-11.169	ppb	01:11:10
2	Ca 317.933Radial†	14.3	-5.7	-9.0539	ug/L	-9.0539	ppb	01:11:30
2	Fe 238.204 Radial†	10.9	1.8	15.932	ug/L	15.932	ppb	01:11:30
2	K 766.490 Radial†	2686.9	64.9	11.898	ug/L	11.898	ppb	01:11:10
2	Mg 279.077 IEC†	2.7	0.7	24.711	ug/L	24.711	ppb	01:11:30
2	Na 589.592 Radial†	-1291.2	4.5	1.3594	ug/L	1.3594	ppb	01:11:10
2	Sr 421.552†	2.8	22.3	0.1440	ug/L	0.1440	ppb	01:11:10
2	Sc 361.383	846618.4	846618.4	99.322	%			01:12:27
2	Y 371.029	719089.1	719089.1	99.505	%			01:12:27
2	Ag 328.068†	281.0	-75.1	-0.3392	ug/L	-0.3392	ppb	01:12:27
2	As 188.979†	-17.5	6.0	2.5986	ug/L	2.5986	ppb	01:12:47
2	B 249.677†	-471.5	157.2	3.5022	ug/L	3.5022	ppb	01:12:47
2	Ba 233.527†	-10.4	1.0	0.0079	ug/L	0.0079	ppb	01:12:47
2	Be 313.107†	-4476.6	78.2	0.0296	ug/L	0.0296	ppb	01:12:27
2	Cd 226.502†	-192.7	10.1	0.1093	ug/L	0.1093	ppb	01:12:47
2	Co 228.616†	-76.8	-2.7	-0.0539	ug/L	-0.0539	ppb	01:12:47
2	Cr 267.716†	100.5	17.9	0.2012	ug/L	0.2012	ppb	01:12:47
2	Cu 324.752†	6325.3	-43.7	-0.1285	ug/L	-0.1285	ppb	01:12:27
2	Mn 257.610†	446.6	4.8	0.0061	ug/L	0.0061	ppb	01:12:47
2	Mo 202.031†	27.7	4.2	0.2946	ug/L	0.2946	ppb	01:12:47
2	Ni 231.604†	59.1	-8.5	-0.2113	ug/L	-0.2113	ppb	01:12:47

2	P 214.914†	217.8	-10.6	-6.4877 ug/L	-6.4877 ppb	01:12:47
2	Pb 220.353†	-64.0	-1.0	-0.1306 ug/L	-0.1306 ppb	01:12:47
2	S 181.975 Axial†	44.4	1.7	2.3992 ug/L	2.3992 ppb	01:12:47
2	Sb 206.836†	35.5	7.8	2.6593 ug/L	2.6593 ppb	01:12:47
2	Se 196.026†	-31.5	0.3	0.2524 ug/L	0.2524 ppb	01:12:47
2	Si 251.611†	506.9	-40.1	-1.2794 ug/L	-1.2794 ppb	01:12:47
2	Sn 189.927†	0.1	-7.5	-1.3327 ug/L	-1.3327 ppb	01:12:47
2	Ti 334.940†	-1424.8	-60.0	-0.0986 ug/L	-0.0986 ppb	01:12:27
2	Tl 190.801†	-45.4	-12.8	-3.9386 ug/L	-3.9386 ppb	01:12:47
2	U 409.014†	-2086.8	-89.5	-2.6416 ug/L	-2.6416 ppb	01:12:27
2	V 292.402†	-1329.3	-28.7	-0.1984 ug/L	-0.1984 ppb	01:12:27
2	Zn 213.857†	622.5	6.5	0.0616 ug/L	0.0616 ppb	01:12:47
2	SiO2†	535.8	-32.2	-2.2041 ug/L	-2.2041 ppb	01:13:23
3	Sc Radial	5106.8	5106.8	101 %		01:11:35
3	Y RADIAL	5506.5	5506.5	101.4 %		01:11:35
3	Al 396.153Radial†	-7.2	-6.5	-4.9928 ug/L	-4.9928 ppb	01:11:35
3	Ca 317.933Radial†	11.5	-8.4	-13.501 ug/L	-13.501 ppb	01:11:55
3	Fe 238.204 Radial†	10.4	1.4	11.898 ug/L	11.898 ppb	01:11:55
3	K 766.490 Radial†	2748.8	120.2	22.042 ug/L	22.042 ppb	01:11:35
3	Mg 279.077 IEC†	2.7	0.7	24.638 ug/L	24.638 ppb	01:11:55
3	Na 589.592 Radial†	-1311.6	-12.7	-3.8156 ug/L	-3.8156 ppb	01:11:35
3	Sr 421.552†	-5.7	13.9	0.0900 ug/L	0.0900 ppb	01:11:35
3	Sc 361.383	850728.9	850728.9	99.804 %		01:12:53
3	Y 371.029	721907.6	721907.6	99.895 %		01:12:53
3	Ag 328.068†	302.4	-55.0	-0.2501 ug/L	-0.2501 ppb	01:12:53
3	As 188.979†	-18.4	5.2	2.2358 ug/L	2.2358 ppb	01:13:13
3	B 249.677†	-500.4	130.4	2.9058 ug/L	2.9058 ppb	01:13:13
3	Ba 233.527†	-39.9	-28.6	-0.2229 ug/L	-0.2229 ppb	01:13:13
3	Be 313.107†	-4505.8	70.7	0.0267 ug/L	0.0267 ppb	01:12:53
3	Cd 226.502†	-184.6	19.2	0.2117 ug/L	0.2117 ppb	01:13:13
3	Co 228.616†	-66.0	8.6	0.1754 ug/L	0.1754 ppb	01:13:13
3	Cr 267.716†	87.5	4.4	0.0495 ug/L	0.0495 ppb	01:13:13
3	Cu 324.752†	6286.8	-113.1	-0.3377 ug/L	-0.3377 ppb	01:12:53
3	Mn 257.610†	456.5	12.5	0.0142 ug/L	0.0142 ppb	01:13:13
3	Mo 202.031†	24.4	0.8	0.0550 ug/L	0.0550 ppb	01:13:13
3	Ni 231.604†	68.3	0.5	0.0126 ug/L	0.0126 ppb	01:13:13
3	P 214.914†	227.6	-1.9	-1.0697 ug/L	-1.0697 ppb	01:13:13
3	Pb 220.353†	-58.0	5.3	0.6455 ug/L	0.6455 ppb	01:13:13
3	S 181.975 Axial†	51.5	8.6	12.106 ug/L	12.106 ppb	01:13:13
3	Sb 206.836†	26.9	-1.0	-0.3141 ug/L	-0.3141 ppb	01:13:13
3	Se 196.026†	-29.8	2.2	1.4408 ug/L	1.4408 ppb	01:13:13
3	Si 251.611†	510.6	-38.9	-1.2393 ug/L	-1.2393 ppb	01:13:13
3	Sn 189.927†	12.3	4.7	0.8252 ug/L	0.8252 ppb	01:13:13
3	Ti 334.940†	-1429.3	-57.6	-0.0966 ug/L	-0.0966 ppb	01:12:53
3	Tl 190.801†	-38.3	-5.5	-1.6875 ug/L	-1.6875 ppb	01:13:13
3	U 409.014†	-1995.2	12.5	0.3680 ug/L	0.3680 ppb	01:12:53
3	V 292.402†	-1332.2	-25.1	-0.1713 ug/L	-0.1713 ppb	01:12:53
3	Zn 213.857†	633.2	14.2	0.1332 ug/L	0.1332 ppb	01:13:13
3	SiO2†	512.7	-58.0	-3.9599 ug/L	-3.9599 ppb	01:13:28

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	850254.4	99.749	%	0.4016				0.40%
Sc Radial	5136.8	102	%	1.2				1.20%
Y 371.029	721456.3	99.832	%	0.3012				0.30%
Y RADIAL	5526.7	101.8	%	0.93				0.91%
Ag 328.068†	-90.1	-0.4129	ug/L	0.20956	-0.4129	ppb	0.20956	50.76%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-15.2	-11.715	ug/L	7.0119	-11.715	ppb	7.0119	59.85%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	1.2	0.5142	ug/L	3.30113	0.5142	ppb	3.30113	641.99%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	151.1	3.3681	ug/L	0.41195	3.3681	ppb	0.41195	12.23%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-9.5	-0.0737	ug/L	0.12945	-0.0737	ppb	0.12945	175.72%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	50.4	0.0190	ug/L	0.01585	0.0190	ppb	0.01585	83.27%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-6.1	-9.7316	ug/L	3.48049	-9.7316	ppb	3.48049	35.76%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                15.6      0.1720 ug/L       0.05492      0.1720 ppb        0.05492  31.92%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                 2.4      0.0494 ug/L       0.11635      0.0494 ppb        0.11635 235.56%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                 5.4      0.0600 ug/L       0.13631      0.0600 ppb        0.13631 227.30%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               -52.2     -0.1565 ug/L       0.16902     -0.1565 ppb        0.16902 108.03%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          1.5     13.254 ug/L        2.3190      13.254 ppb         2.3190  17.50%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         108.8     19.951 ug/L        7.2371      19.951 ppb         7.2371  36.27%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             0.9     29.225 ug/L        7.8812      29.225 ppb         7.8812  26.97%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                 5.9      0.0069 ug/L       0.00694      0.0069 ppb        0.00694 101.11%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 1.9      0.1324 ug/L       0.14053      0.1324 ppb        0.14053 106.15%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†         -2.1     -0.6168 ug/L       2.79572     -0.6168 ppb        2.79572 453.25%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                -3.2     -0.0791 ug/L       0.11732     -0.0791 ppb        0.11732 148.29%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -7.4     -4.5221 ug/L       2.99940     -4.5221 ppb        2.99940  66.33%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -2.5     -0.3069 ug/L       1.05156     -0.3069 ppb        1.05156 342.70%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            4.2      5.9626 ug/L       5.34285      5.9626 ppb        5.34285  89.61%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 6.4      2.2074 ug/L       2.32868      2.2074 ppb        2.32868 105.49%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 0.9      0.5971 ug/L       0.73474      0.5971 ppb        0.73474 123.06%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†               -37.2     -1.1862 ug/L       0.12829     -1.1862 ppb        0.12829  10.82%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                -2.1     -0.3695 ug/L       1.09740     -0.3695 ppb        1.09740 297.02%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                11.2      0.0723 ug/L       0.08194      0.0723 ppb        0.08194 113.32%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               -43.5     -0.0744 ug/L       0.04012     -0.0744 ppb        0.04012  53.90%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                -5.7     -1.7474 ug/L       2.16194     -1.7474 ppb        2.16194 123.72%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 63.8      1.8808 ug/L       5.43897      1.8808 ppb        5.43897 289.18%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                -23.7     -0.1577 ug/L       0.04903     -0.1577 ppb        0.04903  31.10%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                 3.9      0.0360 ug/L       0.11225      0.0360 ppb        0.11225 311.83%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                     -40.5     -2.7672 ug/L       1.03341     -2.7672 ppb        1.03341  37.35%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 87
Sample ID: 243472002|936808|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 93
Date Collected: 1/12/2010 01:15:39
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 243472002|936808|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5304.8	5304.8	105	%			01:17:33
1	Y RADIAL	7378.6	7378.6	135.9	%			01:17:33
1	Al 396.153Radial†	11215.1	10646.0	8213.0	ug/L	8213.0	ppb	01:17:33
1	Ca 317.933Radial†	1696.9	1591.0	2545.7	ug/L	2545.7	ppb	01:17:53
1	Fe 238.204 Radial†	9396.2	8910.0	77109	ug/L	77109	ppb	01:17:33
1	K 766.490 Radial†	15402.8	12030.2	2169.5	ug/L	2169.5	ppb	01:17:33
1	Mg 279.077 IEC†	44.4	40.3	1265.3	ug/L	1265.3	ppb	01:17:53
1	Na 589.592 Radial†	4084.5	5157.5	1544.2	ug/L	1544.2	ppb	01:17:33
1	Sr 421.552†	2370.1	2269.2	14.638	ug/L	14.638	ppb	01:17:33
1	Sc 361.383	881361.9	881361.9	103.40	%			01:18:50
1	Y 371.029	964759.3	964759.3	133.50	%			01:18:50
1	Ag 328.068†	-4673.8	-4878.2	2.8489	ug/L	2.8489	ppb	01:18:56
1	As 188.979†	-45.7	-20.6	13.277	ug/L	13.277	ppb	01:19:16
1	B 249.677†	109.1	737.4	8.6076	ug/L	8.6076	ppb	01:18:56
1	Ba 233.527†	32077.1	31034.4	245.18	ug/L	245.18	ppb	01:18:56
1	Be 313.107†	-11947.5	-6969.5	0.7113	ug/L	0.7113	ppb	01:18:56
1	Cd 226.502†	515.7	702.9	-0.2129	ug/L	-0.2129	ppb	01:19:16
1	Co 228.616†	286.6	351.9	3.1066	ug/L	3.1066	ppb	01:19:16
1	Cr 267.716†	843.5	732.6	9.8663	ug/L	9.8663	ppb	01:19:16
1	Cu 324.752†	10450.8	3695.1	15.283	ug/L	15.283	ppb	01:18:56
1	Mn 257.610†	2957499.6	2859863.5	3179.0	ug/L	3179.0	ppb	01:18:50
1	Mo 202.031†	100.7	73.7	10.511	ug/L	10.511	ppb	01:19:16
1	Ni 231.604†	468.4	385.0	9.5830	ug/L	9.5830	ppb	01:19:16
1	P 214.914†	1123.6	856.8	461.47	ug/L	461.47	ppb	01:19:16
1	Pb 220.353†	258.0	312.9	32.744	ug/L	32.744	ppb	01:19:16
1	S 181.975 Axial†	88.8	42.8	59.100	ug/L	59.100	ppb	01:19:16
1	Sb 206.836†	35.6	6.5	-2.5979	ug/L	-2.5979	ppb	01:19:16
1	Se 196.026†	-343.5	-300.2	52.978	ug/L	52.978	ppb	01:19:16
1	Si 251.611†	490798.2	474118.9	15100	ug/L	15100	ppb	01:18:50
1	Sn 189.927†	42.1	33.0	7.5088	ug/L	7.5088	ppb	01:19:16
1	Ti 334.940†	950350.1	920493.6	1483.3	ug/L	1483.3	ppb	01:18:50
1	Tl 190.801†	-153.1	-115.2	-10.248	ug/L	-10.248	ppb	01:19:16
1	U 409.014†	-11709.1	-9312.7	-283.53	ug/L	-283.53	ppb	01:18:50
1	V 292.402†	4906.7	6055.2	27.557	ug/L	27.557	ppb	01:18:56
1	Zn 213.857†	43724.2	41667.0	386.54	ug/L	386.54	ppb	01:18:56
1	SiO2†	489576.0	472915.6	32268	ug/L	32268	ppb	01:20:24
2	Sc Radial	5326.8	5326.8	106	%			01:17:58
2	Y RADIAL	7497.2	7497.2	138.1	%			01:17:58
2	Al 396.153Radial†	11284.4	10667.5	8229.6	ug/L	8229.6	ppb	01:17:58
2	Ca 317.933Radial†	1691.6	1579.3	2527.0	ug/L	2527.0	ppb	01:18:18
2	Fe 238.204 Radial†	9437.3	8911.9	77125	ug/L	77125	ppb	01:17:58
2	K 766.490 Radial†	15488.6	12050.9	2173.4	ug/L	2173.4	ppb	01:17:58
2	Mg 279.077 IEC†	48.4	43.8	1382.8	ug/L	1382.8	ppb	01:18:18
2	Na 589.592 Radial†	4061.9	5120.0	1533.0	ug/L	1533.0	ppb	01:17:58
2	Sr 421.552†	2389.2	2278.0	14.694	ug/L	14.694	ppb	01:17:58
2	Sc 361.383	886053.6	886053.6	103.95	%			01:19:21
2	Y 371.029	970253.7	970253.7	134.26	%			01:19:21
2	Ag 328.068†	-4647.5	-4829.0	3.0846	ug/L	3.0846	ppb	01:19:27
2	As 188.979†	-32.3	-7.5	18.960	ug/L	18.960	ppb	01:19:47
2	B 249.677†	36.3	666.8	7.0332	ug/L	7.0332	ppb	01:19:27
2	Ba 233.527†	31817.8	30620.7	241.95	ug/L	241.95	ppb	01:19:27
2	Be 313.107†	-12008.1	-6966.7	0.7086	ug/L	0.7086	ppb	01:19:27
2	Cd 226.502†	520.1	704.4	-0.1985	ug/L	-0.1985	ppb	01:19:47
2	Co 228.616†	271.5	335.9	2.7806	ug/L	2.7806	ppb	01:19:47
2	Cr 267.716†	834.7	719.7	9.7251	ug/L	9.7251	ppb	01:19:47
2	Cu 324.752†	10403.1	3595.7	14.990	ug/L	14.990	ppb	01:19:27
2	Mn 257.610†	2963053.8	2850061.2	3168.2	ug/L	3168.2	ppb	01:19:21
2	Mo 202.031†	97.0	69.6	10.223	ug/L	10.223	ppb	01:19:47
2	Ni 231.604†	464.1	378.5	9.4203	ug/L	9.4203	ppb	01:19:47

2	P 214.914†	1132.4	859.5	463.17 ug/L	463.17 ppb	01:19:47
2	Pb 220.353†	245.1	299.2	31.069 ug/L	31.069 ppb	01:19:47
2	S 181.975 Axial†	86.7	40.4	55.619 ug/L	55.619 ppb	01:19:47
2	Sb 206.836†	45.0	15.4	0.3968 ug/L	0.3968 ppb	01:19:47
2	Se 196.026†	-349.5	-304.2	50.457 ug/L	50.457 ppb	01:19:47
2	Si 251.611†	493184.8	473901.3	15093 ug/L	15093 ppb	01:19:21
2	Sn 189.927†	23.2	14.7	4.2614 ug/L	4.2614 ppb	01:19:47
2	Ti 334.940†	954339.0	919464.2	1481.7 ug/L	1481.7 ppb	01:19:21
2	Tl 190.801†	-150.3	-111.8	-9.2431 ug/L	-9.2431 ppb	01:19:47
2	U 409.014†	-11980.8	-9514.1	-289.47 ug/L	-289.47 ppb	01:19:21
2	V 292.402†	4875.6	6000.1	27.167 ug/L	27.167 ppb	01:19:27
2	Zn 213.857†	43311.4	41046.0	380.66 ug/L	380.66 ppb	01:19:27
2	SiO2†	498148.9	478655.7	32659 ug/L	32659 ppb	01:20:29
3	Sc Radial	5225.7	5225.7	104 %		01:18:23
3	Y RADIAL	7341.8	7341.8	135.2 %		01:18:23
3	Al 396.153Radial†	11062.3	10660.0	8223.8 ug/L	8223.8 ppb	01:18:23
3	Ca 317.933Radial†	1692.6	1611.1	2577.9 ug/L	2577.9 ppb	01:18:43
3	Fe 238.204 Radial†	9229.2	8884.1	76885 ug/L	76885 ppb	01:18:23
3	K 766.490 Radial†	15088.0	11948.1	2154.6 ug/L	2154.6 ppb	01:18:23
3	Mg 279.077 IEC†	47.7	44.0	1391.1 ug/L	1391.1 ppb	01:18:43
3	Na 589.592 Radial†	3901.8	5040.1	1509.1 ug/L	1509.1 ppb	01:18:23
3	Sr 421.552†	2345.3	2279.3	14.703 ug/L	14.703 ppb	01:18:23
3	Sc 361.383	888231.3	888231.3	104.20 %		01:19:53
3	Y 371.029	972809.5	972809.5	134.61 %		01:19:53
3	Ag 328.068†	-4572.3	-4745.8	3.3853 ug/L	3.3853 ppb	01:19:58
3	As 188.979†	-35.0	-10.0	17.818 ug/L	17.818 ppb	01:20:18
3	B 249.677†	-20.4	612.2	5.8406 ug/L	5.8406 ppb	01:19:58
3	Ba 233.527†	32222.6	30934.1	244.39 ug/L	244.39 ppb	01:19:58
3	Be 313.107†	-12173.1	-7096.6	0.6634 ug/L	0.6634 ppb	01:19:58
3	Cd 226.502†	508.1	691.7	-0.3140 ug/L	-0.3140 ppb	01:20:18
3	Co 228.616†	277.1	340.6	2.8777 ug/L	2.8777 ppb	01:20:18
3	Cr 267.716†	840.7	723.6	9.7612 ug/L	9.7612 ppb	01:20:18
3	Cu 324.752†	10435.6	3602.4	14.993 ug/L	14.993 ppb	01:19:58
3	Mn 257.610†	2972830.8	2852455.0	3170.8 ug/L	3170.8 ppb	01:19:53
3	Mo 202.031†	97.4	69.7	10.217 ug/L	10.217 ppb	01:20:18
3	Ni 231.604†	441.3	355.6	8.8498 ug/L	8.8498 ppb	01:20:18
3	P 214.914†	1129.7	854.3	460.17 ug/L	460.17 ppb	01:20:18
3	Pb 220.353†	270.6	323.0	34.010 ug/L	34.010 ppb	01:20:18
3	S 181.975 Axial†	98.6	51.6	71.489 ug/L	71.489 ppb	01:20:18
3	Sb 206.836†	26.7	-2.3	-5.6358 ug/L	-5.6358 ppb	01:20:18
3	Se 196.026†	-335.5	-289.9	58.888 ug/L	58.888 ppb	01:20:18
3	Si 251.611†	494914.2	474397.8	15109 ug/L	15109 ppb	01:19:53
3	Sn 189.927†	34.4	25.4	6.1597 ug/L	6.1597 ppb	01:20:18
3	Ti 334.940†	957913.4	920643.5	1483.6 ug/L	1483.6 ppb	01:19:53
3	Tl 190.801†	-149.4	-110.5	-8.8297 ug/L	-8.8297 ppb	01:20:18
3	U 409.014†	-11748.7	-9263.1	-282.04 ug/L	-282.04 ppb	01:19:53
3	V 292.402†	4977.8	6086.7	27.807 ug/L	27.807 ppb	01:19:58
3	Zn 213.857†	43691.5	41308.7	383.17 ug/L	383.17 ppb	01:19:58
3	SiO2†	496100.2	475514.7	32445 ug/L	32445 ppb	01:20:34

Mean Data: 243472002|936808|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	885215.6	103.85	%	0.412				0.40%
Sc Radial	5285.8	105	%	1.1				1.01%
Y 371.029	969274.2	134.12	%	0.569				0.42%
Y RADIAL	7405.9	136.4	%	1.50				1.10%
Ag 328.068†	-4817.7	3.1063	ug/L	0.26888	3.1063	ppb	0.26888	8.66%
Al 396.153Radial†	10657.8	8222.1	ug/L	8.42	8222.1	ppb	8.42	0.10%
As 188.979†	-12.7	16.685	ug/L	3.0061	16.685	ppb	3.0061	18.02%
B 249.677†	672.1	7.1604	ug/L	1.38788	7.1604	ppb	1.38788	19.38%
Ba 233.527†	30863.0	243.84	ug/L	1.684	243.84	ppb	1.684	0.69%
Be 313.107†	-7010.9	0.6944	ug/L	0.02691	0.6944	ppb	0.02691	3.88%
Ca 317.933Radial†	1593.8	2550.2	ug/L	25.78	2550.2	ppb	25.78	1.01%
Cd 226.502†	699.7	-0.2418	ug/L	0.06290	-0.2418	ppb	0.06290	26.01%
Co 228.616†	342.8	2.9216	ug/L	0.16735	2.9216	ppb	0.16735	5.73%
Cr 267.716†	725.3	9.7842	ug/L	0.07337	9.7842	ppb	0.07337	0.75%
Cu 324.752†	3631.1	15.089	ug/L	0.1683	15.089	ppb	0.1683	1.12%
Fe 238.204 Radial†	8902.0	77039	ug/L	134.4	77039	ppb	134.4	0.17%
K 766.490 Radial†	12009.7	2165.8	ug/L	9.95	2165.8	ppb	9.95	0.46%

Mg 279.077 IEC†	42.7	1346.4	ug/L	70.37	1346.4	ppb	70.37	5.23%
Mn 257.610†	2854126.6	3172.7	ug/L	5.67	3172.7	ppb	5.67	0.18%
Mo 202.031†	71.0	10.317	ug/L	0.1680	10.317	ppb	0.1680	1.63%
Na 589.592 Radial†	5105.9	1528.8	ug/L	17.95	1528.8	ppb	17.95	1.17%
Ni 231.604†	373.0	9.2843	ug/L	0.38505	9.2843	ppb	0.38505	4.15%
P 214.914†	856.9	461.60	ug/L	1.504	461.60	ppb	1.504	0.33%
Pb 220.353†	311.7	32.608	ug/L	1.4753	32.608	ppb	1.4753	4.52%
S 181.975 Axial†	44.9	62.069	ug/L	8.3412	62.069	ppb	8.3412	13.44%
Sb 206.836†	6.5	-2.6123	ug/L	3.01631	-2.6123	ppb	3.01631	115.47%
Se 196.026†	-298.1	54.108	ug/L	4.3274	54.108	ppb	4.3274	8.00%
Si 251.611†	474139.3	15101	ug/L	7.9	15101	ppb	7.9	0.05%
Sn 189.927†	24.4	5.9767	ug/L	1.63144	5.9767	ppb	1.63144	27.30%
Sr 421.552†	2275.5	14.678	ug/L	0.0354	14.678	ppb	0.0354	0.24%
Ti 334.940†	920200.4	1482.8	ug/L	1.04	1482.8	ppb	1.04	0.07%
Tl 190.801†	-112.5	-9.4403	ug/L	0.72934	-9.4403	ppb	0.72934	7.73%
U 409.014†	-9363.3	-285.01	ug/L	3.932	-285.01	ppb	3.932	1.38%
V 292.402†	6047.3	27.510	ug/L	0.3225	27.510	ppb	0.3225	1.17%
Zn 213.857†	41340.6	383.46	ug/L	2.947	383.46	ppb	2.947	0.77%
SiO2†	475695.3	32457	ug/L	196.1	32457	ppb	196.1	0.60%

Sequence No.: 88
Sample ID: 243472003|936808|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 94
Date Collected: 1/12/2010 01:22:46
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 243472003|936808|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5072.0	5072.0	101	%			01:24:39
1	Y RADIAL	6976.5	6976.5	128.5	%			01:24:39
1	Al 396.153Radial†	8389.8	8329.7	6426.0	ug/L	6426.0	ppb	01:24:39
1	Ca 317.933Radial†	1310.5	1281.3	2050.2	ug/L	2050.2	ppb	01:24:59
1	Fe 238.204 Radial†	8146.8	8079.0	69917	ug/L	69917	ppb	01:24:39
1	K 766.490 Radial†	15535.8	12833.2	2326.1	ug/L	2326.1	ppb	01:24:39
1	Mg 279.077 IEC†	33.7	31.5	980.03	ug/L	980.03	ppb	01:24:59
1	Na 589.592 Radial†	4511.0	5758.8	1724.2	ug/L	1724.2	ppb	01:24:39
1	Sr 421.552†	1271.8	1282.1	8.2659	ug/L	8.2659	ppb	01:24:39
1	Sc 361.383	873454.0	873454.0	102.47	%			01:25:57
1	Y 371.029	930725.0	930725.0	128.79	%			01:25:57
1	Ag 328.068†	-4203.1	-4459.8	2.4157	ug/L	2.4157	ppb	01:26:02
1	As 188.979†	-41.3	-16.7	13.136	ug/L	13.136	ppb	01:26:22
1	B 249.677†	40.3	671.2	7.8647	ug/L	7.8647	ppb	01:26:02
1	Ba 233.527†	10964.7	10711.8	86.251	ug/L	86.251	ppb	01:26:02
1	Be 313.107†	-12612.6	-7723.2	0.2319	ug/L	0.2319	ppb	01:26:02
1	Cd 226.502†	396.8	591.3	-0.7074	ug/L	-0.7074	ppb	01:26:22
1	Co 228.616†	213.2	282.7	1.8953	ug/L	1.8953	ppb	01:26:22
1	Cr 267.716†	919.9	814.5	10.624	ug/L	10.624	ppb	01:26:02
1	Cu 324.752†	9928.6	3277.1	13.644	ug/L	13.644	ppb	01:26:02
1	Mn 257.610†	2143588.2	2091468.8	2326.4	ug/L	2326.4	ppb	01:25:57
1	Mo 202.031†	97.4	71.3	9.8458	ug/L	9.8458	ppb	01:26:22
1	Ni 231.604†	317.5	241.9	6.0198	ug/L	6.0198	ppb	01:26:22
1	P 214.914†	1324.1	1062.3	592.71	ug/L	592.71	ppb	01:26:22
1	Pb 220.353†	195.7	254.3	25.875	ug/L	25.875	ppb	01:26:22
1	S 181.975 Axial†	67.5	22.9	31.196	ug/L	31.196	ppb	01:26:22
1	Sb 206.836†	43.0	14.1	0.2535	ug/L	0.2535	ppb	01:26:22
1	Se 196.026†	-310.0	-270.5	49.059	ug/L	49.059	ppb	01:26:22
1	Si 251.611†	470622.9	458727.3	14610	ug/L	14610	ppb	01:25:57
1	Sn 189.927†	25.5	17.2	4.5209	ug/L	4.5209	ppb	01:26:22
1	Ti 334.940†	887965.6	867934.4	1398.6	ug/L	1398.6	ppb	01:25:57
1	Tl 190.801†	-123.6	-87.8	-6.4379	ug/L	-6.4379	ppb	01:26:22
1	U 409.014†	-11081.1	-8802.3	-267.66	ug/L	-267.66	ppb	01:25:57
1	V 292.402†	3833.5	5050.8	21.910	ug/L	21.910	ppb	01:26:02
1	Zn 213.857†	35682.2	34201.8	316.65	ug/L	316.65	ppb	01:26:02
1	SiO2†	473222.9	461243.5	31471	ug/L	31471	ppb	01:27:30
2	Sc Radial	5283.7	5283.7	105	%			01:25:04
2	Y RADIAL	7215.3	7215.3	132.9	%			01:25:04
2	Al 396.153Radial†	8366.7	7973.9	6151.5	ug/L	6151.5	ppb	01:25:04
2	Ca 317.933Radial†	1295.1	1214.4	1943.1	ug/L	1943.1	ppb	01:25:24
2	Fe 238.204 Radial†	8078.8	7690.1	66551	ug/L	66551	ppb	01:25:04
2	K 766.490 Radial†	15606.0	12282.0	2225.2	ug/L	2225.2	ppb	01:25:04
2	Mg 279.077 IEC†	32.9	29.4	913.22	ug/L	913.22	ppb	01:25:24
2	Na 589.592 Radial†	4507.7	5576.2	1669.6	ug/L	1669.6	ppb	01:25:04
2	Sr 421.552†	1297.4	1255.9	8.0969	ug/L	8.0969	ppb	01:25:04
2	Sc 361.383	881545.5	881545.5	103.42	%			01:26:28
2	Y 371.029	940943.3	940943.3	130.20	%			01:26:28
2	Ag 328.068†	-4011.1	-4236.5	2.3535	ug/L	2.3535	ppb	01:26:33
2	As 188.979†	-42.7	-17.6	12.065	ug/L	12.065	ppb	01:26:53
2	B 249.677†	-39.6	593.6	6.4752	ug/L	6.4752	ppb	01:26:33
2	Ba 233.527†	10938.3	10588.1	85.160	ug/L	85.160	ppb	01:26:33
2	Be 313.107†	-12667.5	-7663.3	0.2490	ug/L	0.2490	ppb	01:26:33
2	Cd 226.502†	405.4	596.1	-0.3061	ug/L	-0.3061	ppb	01:26:53
2	Co 228.616†	212.2	279.8	1.8908	ug/L	1.8908	ppb	01:26:53
2	Cr 267.716†	873.1	760.9	9.9597	ug/L	9.9597	ppb	01:26:33
2	Cu 324.752†	10020.6	3277.0	13.466	ug/L	13.466	ppb	01:26:33
2	Mn 257.610†	2155455.1	2083742.2	2317.4	ug/L	2317.4	ppb	01:26:28
2	Mo 202.031†	103.3	76.2	9.9602	ug/L	9.9602	ppb	01:26:53
2	Ni 231.604†	321.2	242.7	6.0390	ug/L	6.0390	ppb	01:26:53

2	P 214.914†	1301.7	1028.8	574.89	ug/L	574.89	ppb	01:26:53
2	Pb 220.353†	166.8	224.6	22.497	ug/L	22.497	ppb	01:26:53
2	S 181.975 Axial†	59.1	14.1	18.867	ug/L	18.867	ppb	01:26:53
2	Sb 206.836†	39.1	9.8	-1.1804	ug/L	-1.1804	ppb	01:26:53
2	Se 196.026†	-308.5	-266.3	41.068	ug/L	41.068	ppb	01:26:53
2	Si 251.611†	473584.1	457375.0	14567	ug/L	14567	ppb	01:26:28
2	Sn 189.927†	20.2	11.8	3.4933	ug/L	3.4933	ppb	01:26:53
2	Ti 334.940†	894584.3	866380.3	1396.1	ug/L	1396.1	ppb	01:26:28
2	Tl 190.801†	-131.9	-94.7	-8.6231	ug/L	-8.6231	ppb	01:26:53
2	U 409.014†	-11203.1	-8821.1	-267.82	ug/L	-267.82	ppb	01:26:28
2	V 292.402†	3770.7	4955.7	21.780	ug/L	21.780	ppb	01:26:33
2	Zn 213.857†	35618.0	33820.1	313.37	ug/L	313.37	ppb	01:26:33
2	SiO2†	473986.0	457742.4	31232	ug/L	31232	ppb	01:27:35
3	Sc Radial	5198.8	5198.8	103	%			01:25:29
3	Y RADIAL	7096.0	7096.0	130.7	%			01:25:29
3	Al 396.153Radial†	8235.2	7976.8	6153.8	ug/L	6153.8	ppb	01:25:29
3	Ca 317.933Radial†	1297.3	1236.7	1978.8	ug/L	1978.8	ppb	01:25:49
3	Fe 238.204 Radial†	8004.1	7743.5	67013	ug/L	67013	ppb	01:25:29
3	K 766.490 Radial†	15356.7	12283.5	2225.5	ug/L	2225.5	ppb	01:25:29
3	Mg 279.077 IEC†	31.3	28.4	879.57	ug/L	879.57	ppb	01:25:49
3	Na 589.592 Radial†	4403.7	5545.7	1660.4	ug/L	1660.4	ppb	01:25:29
3	Sr 421.552†	1273.7	1253.2	8.0792	ug/L	8.0792	ppb	01:25:29
3	Sc 361.383	884475.5	884475.5	103.76	%			01:26:59
3	Y 371.029	943574.0	943574.0	130.57	%			01:26:59
3	Ag 328.068†	-4086.0	-4295.8	2.2267	ug/L	2.2267	ppb	01:27:04
3	As 188.979†	-44.7	-19.5	11.359	ug/L	11.359	ppb	01:27:24
3	B 249.677†	-81.6	553.2	5.5287	ug/L	5.5287	ppb	01:27:04
3	Ba 233.527†	10952.4	10566.6	85.009	ug/L	85.009	ppb	01:27:04
3	Be 313.107†	-12559.2	-7518.3	0.3052	ug/L	0.3052	ppb	01:27:04
3	Cd 226.502†	389.5	579.4	-0.5388	ug/L	-0.5388	ppb	01:27:24
3	Co 228.616†	214.2	281.1	1.9070	ug/L	1.9070	ppb	01:27:24
3	Cr 267.716†	910.7	794.4	10.341	ug/L	10.341	ppb	01:27:04
3	Cu 324.752†	10036.7	3260.5	13.439	ug/L	13.439	ppb	01:27:04
3	Mn 257.610†	2162502.3	2083629.5	2317.4	ug/L	2317.4	ppb	01:26:59
3	Mo 202.031†	95.3	68.2	9.4245	ug/L	9.4245	ppb	01:27:24
3	Ni 231.604†	309.8	230.6	5.7386	ug/L	5.7386	ppb	01:27:24
3	P 214.914†	1326.4	1048.4	586.51	ug/L	586.51	ppb	01:27:24
3	Pb 220.353†	192.1	248.5	25.374	ug/L	25.374	ppb	01:27:24
3	S 181.975 Axial†	68.4	22.9	31.236	ug/L	31.236	ppb	01:27:24
3	Sb 206.836†	41.0	11.6	-0.5922	ug/L	-0.5922	ppb	01:27:24
3	Se 196.026†	-318.5	-274.9	36.982	ug/L	36.982	ppb	01:27:24
3	Si 251.611†	476797.3	458954.7	14617	ug/L	14617	ppb	01:26:59
3	Sn 189.927†	24.0	15.4	4.1472	ug/L	4.1472	ppb	01:27:24
3	Ti 334.940†	897843.3	866655.6	1396.5	ug/L	1396.5	ppb	01:26:59
3	Tl 190.801†	-136.2	-98.4	-9.7619	ug/L	-9.7619	ppb	01:27:24
3	U 409.014†	-11138.1	-8722.5	-264.97	ug/L	-264.97	ppb	01:26:59
3	V 292.402†	3767.3	4940.4	21.601	ug/L	21.601	ppb	01:27:04
3	Zn 213.857†	35537.3	33628.2	311.51	ug/L	311.51	ppb	01:27:04
3	SiO2†	475807.3	457979.4	31249	ug/L	31249	ppb	01:27:40

Mean Data: 243472003|936808|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	879825.0	103.22	%	0.670				0.65%
Sc Radial	5184.9	103	%	2.1				2.06%
Y 371.029	938414.1	129.85	%	0.939				0.72%
Y RADIAL	7095.9	130.7	%	2.20				1.68%
Ag 328.068†	-4330.7	2.3319	ug/L	0.09633	2.3319	ppb	0.09633	4.13%
Al 396.153Radial†	8093.5	6243.8	ug/L	157.82	6243.8	ppb	157.82	2.53%
As 188.979†	-17.9	12.187	ug/L	0.8948	12.187	ppb	0.8948	7.34%
B 249.677†	606.0	6.6229	ug/L	1.17498	6.6229	ppb	1.17498	17.74%
Ba 233.527†	10622.2	85.473	ug/L	0.6773	85.473	ppb	0.6773	0.79%
Be 313.107†	-7634.9	0.2620	ug/L	0.03838	0.2620	ppb	0.03838	14.65%
Ca 317.933Radial†	1244.1	1990.7	ug/L	54.49	1990.7	ppb	54.49	2.74%
Cd 226.502†	589.0	-0.5174	ug/L	0.20150	-0.5174	ppb	0.20150	38.94%
Co 228.616†	281.2	1.8977	ug/L	0.00837	1.8977	ppb	0.00837	0.44%
Cr 267.716†	789.9	10.308	ug/L	0.3335	10.308	ppb	0.3335	3.24%
Cu 324.752†	3271.5	13.516	ug/L	0.1112	13.516	ppb	0.1112	0.82%
Fe 238.204 Radial†	7837.5	67827	ug/L	1824.4	67827	ppb	1824.4	2.69%
K 766.490 Radial†	12466.3	2258.9	ug/L	58.19	2258.9	ppb	58.19	2.58%

Mg 279.077 IEC†	29.8	924.27	ug/L	51.136	924.27	ppb	51.136	5.53%
Mn 257.610†	2086280.2	2320.4	ug/L	5.18	2320.4	ppb	5.18	0.22%
Mo 202.031†	71.9	9.7435	ug/L	0.28213	9.7435	ppb	0.28213	2.90%
Na 589.592 Radial†	5626.9	1684.8	ug/L	34.50	1684.8	ppb	34.50	2.05%
Ni 231.604†	238.4	5.9325	ug/L	0.16821	5.9325	ppb	0.16821	2.84%
P 214.914†	1046.5	584.70	ug/L	9.050	584.70	ppb	9.050	1.55%
Pb 220.353†	242.5	24.582	ug/L	1.8230	24.582	ppb	1.8230	7.42%
S 181.975 Axial†	20.0	27.100	ug/L	7.1300	27.100	ppb	7.1300	26.31%
Sb 206.836†	11.8	-0.5064	ug/L	0.72081	-0.5064	ppb	0.72081	142.35%
Se 196.026†	-270.6	42.370	ug/L	6.1430	42.370	ppb	6.1430	14.50%
Si 251.611†	458352.4	14598	ug/L	27.2	14598	ppb	27.2	0.19%
Sn 189.927†	14.8	4.0538	ug/L	0.52010	4.0538	ppb	0.52010	12.83%
Sr 421.552†	1263.7	8.1473	ug/L	0.10302	8.1473	ppb	0.10302	1.26%
Ti 334.940†	866990.1	1397.1	ug/L	1.34	1397.1	ppb	1.34	0.10%
Tl 190.801†	-93.6	-8.2743	ug/L	1.68923	-8.2743	ppb	1.68923	20.42%
U 409.014†	-8782.0	-266.82	ug/L	1.601	-266.82	ppb	1.601	0.60%
V 292.402†	4982.3	21.763	ug/L	0.1551	21.763	ppb	0.1551	0.71%
Zn 213.857†	33883.4	313.84	ug/L	2.604	313.84	ppb	2.604	0.83%
SiO2†	458988.4	31317	ug/L	133.5	31317	ppb	133.5	0.43%

Sequence No.: 95
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 1/12/2010 02:12:15
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5217.5	5217.5	104	%			02:14:08
1	Y RADIAL	5548.4	5548.4	102.2	%			02:14:08
1	Al 396.153Radial†	6559.5	6331.0	4859.5	ug/L	4859.5	ppb	02:14:08
1	Ca 317.933Radial†	3238.1	3105.2	4968.6	ug/L	4968.6	ppb	02:14:28
1	Fe 238.204 Radial†	616.8	586.4	5090.0	ug/L	5090.0	ppb	02:14:28
1	K 766.490 Radial†	30193.7	26548.9	4850.4	ug/L	4850.4	ppb	02:14:08
1	Mg 279.077 IEC†	156.9	149.5	4995.4	ug/L	4995.4	ppb	02:14:28
1	Na 589.592 Radial†	32991.0	33119.2	9916.3	ug/L	9916.3	ppb	02:14:08
1	Sr 421.552†	78341.8	75625.0	488.42	ug/L	488.42	ppb	02:14:08
1	Sc 361.383	870004.3	870004.3	102.07	%			02:15:26
1	Y 371.029	725150.7	725150.7	100.34	%			02:15:26
1	Ag 328.068†	114337.2	111665.3	517.35	ug/L	517.35	ppb	02:15:31
1	As 188.979†	1175.7	1175.6	511.55	ug/L	511.55	ppb	02:15:51
1	B 249.677†	22233.4	22415.3	497.73	ug/L	497.73	ppb	02:15:31
1	Ba 233.527†	66454.0	65120.6	509.68	ug/L	509.68	ppb	02:15:31
1	Be 313.107†	1344233.2	1321615.4	504.73	ug/L	504.73	ppb	02:15:26
1	Cd 226.502†	46689.4	45948.6	509.77	ug/L	509.77	ppb	02:15:31
1	Co 228.616†	25518.1	25076.3	513.38	ug/L	513.38	ppb	02:15:31
1	Cr 267.716†	46620.8	45594.1	510.36	ug/L	510.36	ppb	02:15:31
1	Cu 324.752†	178726.7	168697.6	504.43	ug/L	504.43	ppb	02:15:31
1	Mn 257.610†	462415.3	452612.5	502.13	ug/L	502.13	ppb	02:15:26
1	Mo 202.031†	7425.2	7251.2	512.89	ug/L	512.89	ppb	02:15:51
1	Ni 231.604†	20990.4	20497.6	510.08	ug/L	510.08	ppb	02:15:31
1	P 214.914†	4455.4	4135.3	2420.4	ug/L	2420.4	ppb	02:15:51
1	Pb 220.353†	4161.3	4140.5	508.66	ug/L	508.66	ppb	02:15:51
1	S 181.975 Axial†	781.9	723.0	1022.3	ug/L	1022.3	ppb	02:15:51
1	Sb 206.836†	1534.9	1475.9	523.89	ug/L	523.89	ppb	02:15:51
1	Se 196.026†	769.8	786.2	524.67	ug/L	524.67	ppb	02:15:51
1	Si 251.611†	83773.1	81527.3	2590.2	ug/L	2590.2	ppb	02:15:31
1	Sn 189.927†	2946.8	2879.5	510.93	ug/L	510.93	ppb	02:15:51
1	Ti 334.940†	320190.3	315085.1	507.38	ug/L	507.38	ppb	02:15:26
1	Tl 190.801†	1640.6	1640.2	506.28	ug/L	506.28	ppb	02:15:51
1	U 409.014†	16204.4	17888.1	525.97	ug/L	525.97	ppb	02:15:31
1	V 292.402†	74841.2	74636.3	516.70	ug/L	516.70	ppb	02:15:31
1	Zn 213.857†	55604.3	53858.8	504.98	ug/L	504.98	ppb	02:15:31
1	SiO2†	83440.0	81179.7	5525.1	ug/L	5525.1	ppb	02:16:59
2	Sc Radial	5194.5	5194.5	103	%			02:14:33
2	Y RADIAL	5534.8	5534.8	101.9	%			02:14:33
2	Al 396.153Radial†	6700.8	6496.1	4986.6	ug/L	4986.6	ppb	02:14:33
2	Ca 317.933Radial†	3181.4	3064.1	4902.9	ug/L	4902.9	ppb	02:14:53
2	Fe 238.204 Radial†	609.4	581.8	5050.6	ug/L	5050.6	ppb	02:14:53
2	K 766.490 Radial†	30908.5	27371.0	5000.9	ug/L	5000.9	ppb	02:14:33
2	Mg 279.077 IEC†	160.9	154.1	5148.6	ug/L	5148.6	ppb	02:14:53
2	Na 589.592 Radial†	33672.3	33920.7	10156	ug/L	10156	ppb	02:14:33
2	Sr 421.552†	80208.7	77769.7	502.27	ug/L	502.27	ppb	02:14:33
2	Sc 361.383	870542.7	870542.7	102.13	%			02:15:57
2	Y 371.029	726980.3	726980.3	100.60	%			02:15:57
2	Ag 328.068†	114273.0	111533.2	516.73	ug/L	516.73	ppb	02:16:02
2	As 188.979†	1177.7	1176.8	512.10	ug/L	512.10	ppb	02:16:22
2	B 249.677†	22239.6	22407.9	497.58	ug/L	497.58	ppb	02:16:02
2	Ba 233.527†	66481.7	65107.5	509.57	ug/L	509.57	ppb	02:16:02
2	Be 313.107†	1370431.8	1346453.3	514.21	ug/L	514.21	ppb	02:15:57
2	Cd 226.502†	46753.9	45983.5	510.16	ug/L	510.16	ppb	02:16:02
2	Co 228.616†	25466.6	25010.4	512.03	ug/L	512.03	ppb	02:16:02
2	Cr 267.716†	46675.8	45619.6	510.65	ug/L	510.65	ppb	02:16:02
2	Cu 324.752†	178036.8	167913.7	502.08	ug/L	502.08	ppb	02:16:02
2	Mn 257.610†	469977.1	459736.5	510.02	ug/L	510.02	ppb	02:15:57
2	Mo 202.031†	7479.0	7299.4	516.29	ug/L	516.29	ppb	02:16:22
2	Ni 231.604†	20970.6	20465.5	509.29	ug/L	509.29	ppb	02:16:02

2	P 214.914†	4474.8	4151.6	2431.0	ug/L	2431.0 ppb	02:16:22
2	Pb 220.353†	4197.0	4172.9	512.66	ug/L	512.66 ppb	02:16:22
2	S 181.975 Axial†	785.9	726.5	1027.2	ug/L	1027.2 ppb	02:16:22
2	Sb 206.836†	1539.8	1479.8	525.33	ug/L	525.33 ppb	02:16:22
2	Se 196.026†	777.9	793.7	529.41	ug/L	529.41 ppb	02:16:22
2	Si 251.611†	83533.7	81242.1	2581.1	ug/L	2581.1 ppb	02:16:02
2	Sn 189.927†	2976.5	2906.8	515.76	ug/L	515.76 ppb	02:16:22
2	Ti 334.940†	325361.3	319954.4	515.20	ug/L	515.20 ppb	02:15:57
2	Tl 190.801†	1671.7	1669.7	515.43	ug/L	515.43 ppb	02:16:22
2	U 409.014†	16083.0	17759.4	522.18	ug/L	522.18 ppb	02:16:02
2	V 292.402†	74826.0	74576.1	516.33	ug/L	516.33 ppb	02:16:02
2	Zn 213.857†	55571.8	53793.3	504.37	ug/L	504.37 ppb	02:16:02
2	SiO2†	82668.6	80373.9	5470.0	ug/L	5470.0 ppb	02:17:04
3	Sc Radial	4911.2	4911.2	97.5	%		02:14:58
3	Y RADIAL	5174.6	5174.6	95.31	%		02:14:58
3	Al 396.153Radial†	6727.0	6897.6	5295.4	ug/L	5295.4 ppb	02:14:58
3	Ca 317.933Radial†	3238.8	3300.8	5281.6	ug/L	5281.6 ppb	02:15:18
3	Fe 238.204 Radial†	616.5	623.2	5409.4	ug/L	5409.4 ppb	02:15:18
3	K 766.490 Radial†	30674.7	28859.4	5272.9	ug/L	5272.9 ppb	02:14:58
3	Mg 279.077 IEC†	162.8	165.0	5511.8	ug/L	5511.8 ppb	02:15:18
3	Na 589.592 Radial†	33811.6	35946.2	10763	ug/L	10763 ppb	02:14:58
3	Sr 421.552†	80177.5	82222.4	531.03	ug/L	531.03 ppb	02:14:58
3	Sc 361.383	831435.7	831435.7	97.541	%		02:16:28
3	Y 371.029	693115.3	693115.3	95.911	%		02:16:28
3	Ag 328.068†	113756.4	116266.4	538.71	ug/L	538.71 ppb	02:16:33
3	As 188.979†	1172.3	1225.5	533.34	ug/L	533.34 ppb	02:16:53
3	B 249.677†	22075.8	23264.3	516.57	ug/L	516.57 ppb	02:16:33
3	Ba 233.527†	66288.7	67971.4	531.99	ug/L	531.99 ppb	02:16:33
3	Be 313.107†	1363291.6	1402248.5	535.52	ug/L	535.52 ppb	02:16:28
3	Cd 226.502†	46573.1	47951.5	531.98	ug/L	531.98 ppb	02:16:33
3	Co 228.616†	25376.3	26090.8	534.14	ug/L	534.14 ppb	02:16:33
3	Cr 267.716†	46566.3	47657.0	533.46	ug/L	533.46 ppb	02:16:33
3	Cu 324.752†	177178.0	175232.8	523.98	ug/L	523.98 ppb	02:16:33
3	Mn 257.610†	469128.0	480510.9	533.07	ug/L	533.07 ppb	02:16:28
3	Mo 202.031†	7426.7	7590.3	536.87	ug/L	536.87 ppb	02:16:53
3	Ni 231.604†	20983.0	21444.0	533.64	ug/L	533.64 ppb	02:16:33
3	P 214.914†	4440.3	4322.4	2530.6	ug/L	2530.6 ppb	02:16:53
3	Pb 220.353†	4148.1	4316.0	530.27	ug/L	530.27 ppb	02:16:53
3	S 181.975 Axial†	786.5	763.3	1079.2	ug/L	1079.2 ppb	02:16:53
3	Sb 206.836†	1522.3	1532.8	544.24	ug/L	544.24 ppb	02:16:53
3	Se 196.026†	775.6	827.2	552.20	ug/L	552.20 ppb	02:16:53
3	Si 251.611†	83135.4	84680.9	2690.3	ug/L	2690.3 ppb	02:16:33
3	Sn 189.927†	2968.6	3035.8	538.67	ug/L	538.67 ppb	02:16:53
3	Ti 334.940†	324795.9	334359.3	538.41	ug/L	538.41 ppb	02:16:28
3	Tl 190.801†	1642.0	1716.2	529.84	ug/L	529.84 ppb	02:16:53
3	U 409.014†	15913.4	18326.2	538.81	ug/L	538.81 ppb	02:16:33
3	V 292.402†	74505.6	77693.7	537.87	ug/L	537.87 ppb	02:16:33
3	Zn 213.857†	55436.1	56213.6	527.04	ug/L	527.04 ppb	02:16:33
3	SiO2†	84519.2	86078.4	5858.7	ug/L	5858.7 ppb	02:17:09

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	857327.5	100.58	%	2.631				2.62%
Sc Radial	5107.8	101	%	3.4				3.34%
Y 371.029	715082.1	98.950	%	2.6355				2.66%
Y RADIAL	5419.3	99.81	%	3.904				3.91%
Ag 328.068†	113155.0	524.26	ug/L	12.513	524.26	ppb	12.513	2.39%
QC value within limits for Ag 328.068 Recovery = 104.85%								
Al 396.153Radial†	6574.9	5047.2	ug/L	224.18	5047.2	ppb	224.18	4.44%
QC value within limits for Al 396.153Radial Recovery = 100.94%								
As 188.979†	1192.6	519.00	ug/L	12.426	519.00	ppb	12.426	2.39%
QC value within limits for As 188.979 Recovery = 103.80%								
B 249.677†	22695.8	503.96	ug/L	10.920	503.96	ppb	10.920	2.17%
QC value within limits for B 249.677 Recovery = 100.79%								
Ba 233.527†	66066.5	517.08	ug/L	12.913	517.08	ppb	12.913	2.50%
QC value within limits for Ba 233.527 Recovery = 103.42%								
Be 313.107†	1356772.4	518.15	ug/L	15.771	518.15	ppb	15.771	3.04%
QC value within limits for Be 313.107 Recovery = 103.63%								
Ca 317.933Radial†	3156.7	5051.0	ug/L	202.40	5051.0	ppb	202.40	4.01%

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   QC value within limits for Ca 317.933Radial  Recovery = 101.02%
Cd 226.502†            46627.9      517.30 ug/L        12.711      517.30 ppb        12.711   2.46%
   QC value within limits for Cd 226.502  Recovery = 103.46%
Co 228.616†            25392.5      519.85 ug/L        12.392      519.85 ppb        12.392   2.38%
   QC value within limits for Co 228.616  Recovery = 103.97%
Cr 267.716†            46290.3      518.16 ug/L        13.252      518.16 ppb        13.252   2.56%
   QC value within limits for Cr 267.716  Recovery = 103.63%
Cu 324.752†           170614.7      510.16 ug/L        12.022      510.16 ppb        12.022   2.36%
   QC value within limits for Cu 324.752  Recovery = 102.03%
Fe 238.204 Radial†       597.1      5183.3 ug/L        196.78      5183.3 ppb        196.78   3.80%
   QC value within limits for Fe 238.204 Radial  Recovery = 103.67%
K 766.490 Radial†      27593.1      5041.4 ug/L        214.15      5041.4 ppb        214.15   4.25%
   QC value within limits for K 766.490 Radial  Recovery = 100.83%
Mg 279.077 IEC†          156.2      5218.6 ug/L        265.19      5218.6 ppb        265.19   5.08%
   QC value within limits for Mg 279.077 IEC  Recovery = 104.37%
Mn 257.610†           464286.6      515.08 ug/L        16.079      515.08 ppb        16.079   3.12%
   QC value within limits for Mn 257.610  Recovery = 103.02%
Mo 202.031†             7380.3      522.02 ug/L        12.979      522.02 ppb        12.979   2.49%
   QC value within limits for Mo 202.031  Recovery = 104.40%
Na 589.592 Radial†     34328.7       10278 ug/L         436.3       10278 ppb         436.3   4.24%
   QC value within limits for Na 589.592 Radial  Recovery = 102.78%
Ni 231.604†            20802.4      517.67 ug/L        13.835      517.67 ppb        13.835   2.67%
   QC value within limits for Ni 231.604  Recovery = 103.53%
P 214.914†              4203.1      2460.7 ug/L         60.80      2460.7 ppb         60.80   2.47%
   QC value within limits for P 214.914  Recovery = 98.43%
Pb 220.353†             4209.8      517.20 ug/L        11.495      517.20 ppb        11.495   2.22%
   QC value within limits for Pb 220.353  Recovery = 103.44%
S 181.975 Axial†         737.6      1042.9 ug/L         31.55      1042.9 ppb         31.55   3.03%
   QC value within limits for S 181.975 Axial  Recovery = 104.29%
Sb 206.836†             1496.1      531.15 ug/L        11.360      531.15 ppb        11.360   2.14%
   QC value within limits for Sb 206.836  Recovery = 106.23%
Se 196.026†              802.4      535.43 ug/L        14.717      535.43 ppb        14.717   2.75%
   QC value within limits for Se 196.026  Recovery = 107.09%
Si 251.611†            82483.5      2620.5 ug/L         60.62      2620.5 ppb         60.62   2.31%
   QC value within limits for Si 251.611  Recovery = 104.82%
Sn 189.927†             2940.7      521.79 ug/L        14.819      521.79 ppb        14.819   2.84%
   QC value within limits for Sn 189.927  Recovery = 104.36%
Sr 421.552†            78539.0      507.24 ug/L        21.735      507.24 ppb        21.735   4.28%
   QC value within limits for Sr 421.552  Recovery = 101.45%
Ti 334.940†           323132.9      520.33 ug/L        16.139      520.33 ppb        16.139   3.10%
   QC value within limits for Ti 334.940  Recovery = 104.07%
Tl 190.801†             1675.4      517.18 ug/L        11.880      517.18 ppb        11.880   2.30%
   QC value within limits for Tl 190.801  Recovery = 103.44%
U 409.014†             17991.2      528.99 ug/L         8.715      528.99 ppb         8.715   1.65%
   QC value within limits for U 409.014  Recovery = 105.80%
V 292.402†             75635.4      523.63 ug/L        12.330      523.63 ppb        12.330   2.35%
   QC value within limits for V 292.402  Recovery = 104.73%
Zn 213.857†            54621.9      512.13 ug/L        12.918      512.13 ppb        12.918   2.52%
   QC value within limits for Zn 213.857  Recovery = 102.43%
SiO2†                  82544.0      5617.9 ug/L        210.31      5617.9 ppb        210.31   3.74%
   QC value within limits for SiO2  Recovery = 105.06%
All analyte(s) passed QC.
```

Sequence No.: 96
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 1/12/2010 02:19:19
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5083.1	5083.1	101	%			02:21:11
1	Y RADIAL	5456.5	5456.5	100.5	%			02:21:11
1	Al 396.153Radial†	-1.8	-1.2	-0.8923	ug/L	-0.8923	ppb	02:21:11
1	Ca 317.933Radial†	22.4	2.4	3.9101	ug/L	3.9101	ppb	02:21:31
1	Fe 238.204 Radial†	8.7	-0.2	-1.9018	ug/L	-1.9018	ppb	02:21:31
1	K 766.490 Radial†	2689.4	74.0	13.560	ug/L	13.560	ppb	02:21:11
1	Mg 279.077 IEC†	-1.2	-3.1	-104.58	ug/L	-104.58	ppb	02:21:31
1	Na 589.592 Radial†	-1285.9	6.6	1.9794	ug/L	1.9794	ppb	02:21:11
1	Sr 421.552†	17.3	36.7	0.2367	ug/L	0.2367	ppb	02:21:11
1	Sc 361.383	864412.7	864412.7	101.41	%			02:22:28
1	Y 371.029	732531.7	732531.7	101.36	%			02:22:28
1	Ag 328.068†	403.9	40.3	0.1765	ug/L	0.1765	ppb	02:22:33
1	As 188.979†	-20.7	3.2	1.3721	ug/L	1.3721	ppb	02:22:53
1	B 249.677†	-475.5	162.9	3.6319	ug/L	3.6319	ppb	02:22:53
1	Ba 233.527†	-14.0	-2.4	-0.0202	ug/L	-0.0202	ppb	02:22:53
1	Be 313.107†	-4469.5	178.0	0.0681	ug/L	0.0681	ppb	02:22:33
1	Cd 226.502†	-191.2	15.6	0.1748	ug/L	0.1748	ppb	02:22:53
1	Co 228.616†	-69.5	6.2	0.1259	ug/L	0.1259	ppb	02:22:53
1	Cr 267.716†	95.0	10.4	0.1127	ug/L	0.1127	ppb	02:22:53
1	Cu 324.752†	6260.9	-238.4	-0.7171	ug/L	-0.7171	ppb	02:22:33
1	Mn 257.610†	449.0	-2.1	0.0017	ug/L	0.0017	ppb	02:22:53
1	Mo 202.031†	23.8	-0.3	-0.0183	ug/L	-0.0183	ppb	02:22:53
1	Ni 231.604†	78.5	9.4	0.2342	ug/L	0.2342	ppb	02:22:53
1	P 214.914†	218.6	-14.4	-8.6190	ug/L	-8.6190	ppb	02:22:53
1	Pb 220.353†	-51.5	12.6	1.5434	ug/L	1.5434	ppb	02:22:53
1	S 181.975 Axial†	50.9	7.2	10.137	ug/L	10.137	ppb	02:22:53
1	Sb 206.836†	44.4	15.8	5.4221	ug/L	5.4221	ppb	02:22:53
1	Se 196.026†	-34.4	-1.9	-1.2107	ug/L	-1.2107	ppb	02:22:53
1	Si 251.611†	507.7	-49.8	-1.5855	ug/L	-1.5855	ppb	02:22:53
1	Sn 189.927†	7.9	0.1	0.0250	ug/L	0.0250	ppb	02:22:53
1	Ti 334.940†	-1316.6	76.2	0.1284	ug/L	0.1284	ppb	02:22:33
1	Tl 190.801†	-34.6	-1.3	-0.3832	ug/L	-0.3832	ppb	02:22:53
1	U 409.014†	-1779.3	257.1	7.5830	ug/L	7.5830	ppb	02:22:28
1	V 292.402†	-1415.6	-86.2	-0.5760	ug/L	-0.5760	ppb	02:22:33
1	Zn 213.857†	620.0	-8.8	-0.0837	ug/L	-0.0837	ppb	02:22:53
1	SiO2†	531.5	-47.6	-3.2465	ug/L	-3.2465	ppb	02:23:59
2	Sc Radial	4963.2	4963.2	98.6	%			02:21:36
2	Y RADIAL	5348.1	5348.1	98.50	%			02:21:36
2	Al 396.153Radial†	-22.7	-22.4	-17.290	ug/L	-17.290	ppb	02:21:36
2	Ca 317.933Radial†	13.3	-6.3	-10.104	ug/L	-10.104	ppb	02:21:57
2	Fe 238.204 Radial†	9.3	0.6	4.9482	ug/L	4.9482	ppb	02:21:57
2	K 766.490 Radial†	2746.9	196.7	36.073	ug/L	36.073	ppb	02:21:36
2	Mg 279.077 IEC†	1.7	-0.1	-4.9519	ug/L	-4.9519	ppb	02:21:57
2	Na 589.592 Radial†	-1288.3	-26.6	-7.9575	ug/L	-7.9575	ppb	02:21:36
2	Sr 421.552†	-3.4	16.1	0.1038	ug/L	0.1038	ppb	02:21:36
2	Sc 361.383	847934.4	847934.4	99.476	%			02:22:58
2	Y 371.029	719044.9	719044.9	99.499	%			02:22:58
2	Ag 328.068†	275.9	-80.6	-0.3736	ug/L	-0.3736	ppb	02:23:04
2	As 188.979†	-23.5	0.0	0.0053	ug/L	0.0053	ppb	02:23:24
2	B 249.677†	-500.8	128.4	2.8634	ug/L	2.8634	ppb	02:23:24
2	Ba 233.527†	-1.9	9.5	0.0726	ug/L	0.0726	ppb	02:23:24
2	Be 313.107†	-4554.8	6.6	0.0027	ug/L	0.0027	ppb	02:23:04
2	Cd 226.502†	-177.6	25.6	0.2840	ug/L	0.2840	ppb	02:23:24
2	Co 228.616†	-84.7	-10.5	-0.2151	ug/L	-0.2151	ppb	02:23:24
2	Cr 267.716†	88.0	5.2	0.0567	ug/L	0.0567	ppb	02:23:24
2	Cu 324.752†	6406.0	27.5	0.0813	ug/L	0.0813	ppb	02:23:04
2	Mn 257.610†	443.6	1.1	0.0020	ug/L	0.0020	ppb	02:23:24
2	Mo 202.031†	24.4	0.8	0.0579	ug/L	0.0579	ppb	02:23:24
2	Ni 231.604†	61.0	-6.6	-0.1649	ug/L	-0.1649	ppb	02:23:24

2	P 214.914†	221.0	-7.7	-4.7313 ug/L	-4.7313 ppb	02:23:24
2	Pb 220.353†	-42.5	20.7	2.5273 ug/L	2.5273 ppb	02:23:24
2	S 181.975 Axial†	48.4	5.6	7.9552 ug/L	7.9552 ppb	02:23:24
2	Sb 206.836†	46.7	19.0	6.5426 ug/L	6.5426 ppb	02:23:24
2	Se 196.026†	-21.7	10.2	6.5737 ug/L	6.5737 ppb	02:23:24
2	Si 251.611†	492.4	-55.5	-1.7668 ug/L	-1.7668 ppb	02:23:24
2	Sn 189.927†	14.9	7.3	1.2914 ug/L	1.2914 ppb	02:23:24
2	Ti 334.940†	-1314.5	53.1	0.0840 ug/L	0.0840 ppb	02:23:04
2	Tl 190.801†	-39.3	-6.7	-2.0436 ug/L	-2.0436 ppb	02:23:24
2	U 409.014†	-1933.1	68.4	2.0161 ug/L	2.0161 ppb	02:22:58
2	V 292.402†	-1393.0	-90.6	-0.6148 ug/L	-0.6148 ppb	02:23:04
2	Zn 213.857†	634.6	17.7	0.1674 ug/L	0.1674 ppb	02:23:24
2	SiO2†	526.7	-42.3	-2.8847 ug/L	-2.8847 ppb	02:24:04
3	Sc Radial	5196.4	5196.4	103 %		02:22:02
3	Y RADIAL	5564.7	5564.7	102.5 %		02:22:02
3	Al 396.153Radial†	-16.5	-15.3	-11.778 ug/L	-11.778 ppb	02:22:02
3	Ca 317.933Radial†	18.4	-2.0	-3.1831 ug/L	-3.1831 ppb	02:22:22
3	Fe 238.204 Radial†	7.6	-1.5	-12.841 ug/L	-12.841 ppb	02:22:22
3	K 766.490 Radial†	2747.7	72.4	13.271 ug/L	13.271 ppb	02:22:02
3	Mg 279.077 IEC†	1.9	-0.0	-0.6583 ug/L	-0.6583 ppb	02:22:22
3	Na 589.592 Radial†	-1281.5	38.7	11.593 ug/L	11.593 ppb	02:22:02
3	Sr 421.552†	-15.7	4.3	0.0278 ug/L	0.0278 ppb	02:22:02
3	Sc 361.383	867605.1	867605.1	101.78 %		02:23:29
3	Y 371.029	734643.5	734643.5	101.66 %		02:23:29
3	Ag 328.068†	364.4	-0.0	-0.0066 ug/L	-0.0066 ppb	02:23:34
3	As 188.979†	-21.8	2.2	0.9467 ug/L	0.9467 ppb	02:23:54
3	B 249.677†	-497.7	142.9	3.1875 ug/L	3.1875 ppb	02:23:54
3	Ba 233.527†	-18.6	-6.9	-0.0539 ug/L	-0.0539 ppb	02:23:54
3	Be 313.107†	-4545.5	119.6	0.0460 ug/L	0.0460 ppb	02:23:34
3	Cd 226.502†	-191.0	16.4	0.1843 ug/L	0.1843 ppb	02:23:54
3	Co 228.616†	-84.0	-7.8	-0.1610 ug/L	-0.1610 ppb	02:23:54
3	Cr 267.716†	60.7	-23.6	-0.2648 ug/L	-0.2648 ppb	02:23:54
3	Cu 324.752†	6397.7	-126.6	-0.3813 ug/L	-0.3813 ppb	02:23:34
3	Mn 257.610†	444.1	-8.5	-0.0109 ug/L	-0.0109 ppb	02:23:54
3	Mo 202.031†	19.2	-4.9	-0.3447 ug/L	-0.3447 ppb	02:23:54
3	Ni 231.604†	56.9	-12.1	-0.3004 ug/L	-0.3004 ppb	02:23:54
3	P 214.914†	219.7	-14.0	-8.4776 ug/L	-8.4776 ppb	02:23:54
3	Pb 220.353†	-68.4	-3.8	-0.4663 ug/L	-0.4663 ppb	02:23:54
3	S 181.975 Axial†	47.8	4.0	5.6180 ug/L	5.6180 ppb	02:23:54
3	Sb 206.836†	33.1	4.6	1.5856 ug/L	1.5856 ppb	02:23:54
3	Se 196.026†	-28.1	4.4	2.8237 ug/L	2.8237 ppb	02:23:54
3	Si 251.611†	508.0	-51.3	-1.6308 ug/L	-1.6308 ppb	02:23:54
3	Sn 189.927†	11.8	3.9	0.6988 ug/L	0.6988 ppb	02:23:54
3	Ti 334.940†	-1283.1	113.9	0.1817 ug/L	0.1817 ppb	02:23:34
3	Tl 190.801†	-43.0	-9.4	-2.8939 ug/L	-2.8939 ppb	02:23:54
3	U 409.014†	-1926.8	118.6	3.5004 ug/L	3.5004 ppb	02:23:29
3	V 292.402†	-1314.6	18.1	0.1272 ug/L	0.1272 ppb	02:23:34
3	Zn 213.857†	613.9	-17.1	-0.1585 ug/L	-0.1585 ppb	02:23:54
3	SiO2†	507.6	-73.0	-4.9717 ug/L	-4.9717 ppb	02:24:09

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	859984.0	100.89	%	1.238				1.23%
Sc Radial	5080.9	101	%	2.3				2.30%
Y 371.029	728740.0	100.84	%	1.171				1.16%
Y RADIAL	5456.4	100.5	%	2.00				1.99%
Ag 328.068†	-13.5	-0.0679	ug/L	0.28012	-0.0679	ppb	0.28012	412.50%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-13.0	-9.9868	ug/L	8.34448	-9.9868	ppb	8.34448	83.55%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	1.8	0.7747	ug/L	0.69945	0.7747	ppb	0.69945	90.29%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	144.8	3.2276	ug/L	0.38583	3.2276	ppb	0.38583	11.95%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	0.1	-0.0005	ug/L	0.06553	-0.0005	ppb	0.06553	>999.9%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	101.4	0.0389	ug/L	0.03326	0.0389	ppb	0.03326	85.43%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-2.0	-3.1258	ug/L	7.00741	-3.1258	ppb	7.00741	224.18%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              19.2      0.2144 ug/L       0.06046      0.2144 ppb        0.06046  28.20%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†              -4.1     -0.0834 ug/L       0.18328     -0.0834 ppb        0.18328 219.65%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -2.6     -0.0318 ug/L       0.20371     -0.0318 ppb        0.20371 639.92%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -112.5     -0.3390 ug/L       0.40088     -0.3390 ppb        0.40088 118.25%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       -0.4     -3.2649 ug/L       8.97274     -3.2649 ppb        8.97274 274.82%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       114.3      20.968 ug/L       13.0823      20.968 ppb        13.0823  62.39%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          -1.1     -36.730 ug/L       58.7988     -36.730 ppb        58.7988 160.08%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              -3.2     -0.0024 ug/L       0.00734     -0.0024 ppb        0.00734 308.89%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              -1.4     -0.1017 ug/L       0.21389     -0.1017 ppb        0.21389 210.32%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        6.3      1.8715 ug/L       9.77557      1.8715 ppb        9.77557 522.33%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              -3.1     -0.0770 ug/L       0.27791     -0.0770 ppb        0.27791 360.75%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†              -12.0     -7.2760 ug/L       2.20486     -7.2760 ppb        2.20486  30.30%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               9.8      1.2015 ug/L       1.52582      1.2015 ppb        1.52582 127.00%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          5.6      7.9035 ug/L       2.26015      7.9035 ppb        2.26015  28.60%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              13.2      4.5168 ug/L       2.59954      4.5168 ppb        2.59954  57.55%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               4.3      2.7289 ug/L       3.89304      2.7289 ppb        3.89304 142.66%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†             -52.2     -1.6610 ug/L       0.09436     -1.6610 ppb        0.09436   5.68%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               3.8      0.6717 ug/L       0.63363      0.6717 ppb        0.63363  94.33%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              19.0      0.1228 ug/L       0.10573      0.1228 ppb        0.10573  86.11%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              81.1      0.1314 ug/L       0.04894      0.1314 ppb        0.04894  37.26%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -5.8     -1.7736 ug/L       1.27695     -1.7736 ppb        1.27695  72.00%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              148.0      4.3665 ug/L       2.88273      4.3665 ppb        2.88273  66.02%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              -52.9     -0.3546 ug/L       0.41763     -0.3546 ppb        0.41763 117.79%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              -2.8     -0.0249 ug/L       0.17071     -0.0249 ppb        0.17071 685.27%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                   -54.3     -3.7010 ug/L       1.11525     -3.7010 ppb        1.11525  30.13%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 101
Sample ID: 1202004428|936808|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 105
Date Collected: 1/12/2010 02:54:49
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202004428|936808|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5237.4	5237.4	104	%			02:56:42
1	Y RADIAL	6924.7	6924.7	127.5	%			02:56:42
1	Al 396.153Radial†	48337.9	46473.6	35853	ug/L	35853	ppb	02:56:42
1	Ca 317.933Radial†	5382.7	5155.3	8248.9	ug/L	8248.9	ppb	02:56:42
1	Fe 238.204 Radial†	9157.2	8795.0	76114	ug/L	76114	ppb	02:56:42
1	K 766.490 Radial†	31005.4	27219.1	4961.9	ug/L	4961.9	ppb	02:56:42
1	Mg 279.077 IEC†	212.8	202.6	6691.0	ug/L	6691.0	ppb	02:57:02
1	Na 589.592 Radial†	4224.4	5341.8	1599.4	ug/L	1599.4	ppb	02:56:42
1	Sr 421.552†	9768.2	9410.8	60.722	ug/L	60.722	ppb	02:56:42
1	Sc 361.383	875178.5	875178.5	102.67	%			02:58:00
1	Y 371.029	907660.0	907660.0	125.60	%			02:58:00
1	Ag 328.068†	-4708.3	-4943.8	2.3156	ug/L	2.3156	ppb	02:58:05
1	As 188.979†	-27.4	-3.1	23.885	ug/L	23.885	ppb	02:58:25
1	B 249.677†	179.3	806.5	10.213	ug/L	10.213	ppb	02:58:05
1	Ba 233.527†	51151.9	49831.8	391.99	ug/L	391.99	ppb	02:58:05
1	Be 313.107†	-7631.5	-2847.5	3.8278	ug/L	3.8278	ppb	02:58:05
1	Cd 226.502†	515.2	705.9	-0.0614	ug/L	-0.0614	ppb	02:58:25
1	Co 228.616†	919.7	970.4	14.383	ug/L	14.383	ppb	02:58:25
1	Cr 267.716†	10595.2	10236.1	116.14	ug/L	116.14	ppb	02:58:05
1	Cu 324.752†	16116.0	9284.3	31.939	ug/L	31.939	ppb	02:58:05
1	Mn 257.610†	2152063.0	2095601.1	2331.4	ug/L	2331.4	ppb	02:58:00
1	Mo 202.031†	138.9	111.6	13.188	ug/L	13.188	ppb	02:58:25
1	Ni 231.604†	1366.5	1262.9	31.435	ug/L	31.435	ppb	02:58:25
1	P 214.914†	1243.0	980.7	541.17	ug/L	541.17	ppb	02:58:25
1	Pb 220.353†	469.9	521.1	64.306	ug/L	64.306	ppb	02:58:25
1	S 181.975 Axial†	243.5	194.1	267.99	ug/L	267.99	ppb	02:58:25
1	Sb 206.836†	43.4	14.3	-2.9726	ug/L	-2.9726	ppb	02:58:25
1	Se 196.026†	-353.8	-312.5	43.304	ug/L	43.304	ppb	02:58:25
1	Si 251.611†	867997.0	844853.1	26907	ug/L	26907	ppb	02:58:00
1	Sn 189.927†	-46.1	-52.5	-6.8477	ug/L	-6.8477	ppb	02:58:25
1	Ti 334.940†	1377639.5	1343154.8	2164.4	ug/L	2164.4	ppb	02:58:00
1	Tl 190.801†	-158.2	-121.2	-11.650	ug/L	-11.650	ppb	02:58:25
1	U 409.014†	-11377.5	-9069.7	-276.49	ug/L	-276.49	ppb	02:58:00
1	V 292.402†	11865.1	12866.0	73.598	ug/L	73.598	ppb	02:58:05
1	Zn 213.857†	27516.7	26180.2	240.00	ug/L	240.00	ppb	02:58:05
1	SiO2†	874925.1	851579.6	58104	ug/L	58104	ppb	02:59:34
2	Sc Radial	5259.1	5259.1	104	%			02:57:08
2	Y RADIAL	6945.2	6945.2	127.9	%			02:57:08
2	Al 396.153Radial†	48418.0	46358.1	35764	ug/L	35764	ppb	02:57:08
2	Ca 317.933Radial†	5395.1	5145.7	8233.7	ug/L	8233.7	ppb	02:57:08
2	Fe 238.204 Radial†	9172.2	8773.0	75924	ug/L	75924	ppb	02:57:08
2	K 766.490 Radial†	30907.9	27002.4	4922.2	ug/L	4922.2	ppb	02:57:08
2	Mg 279.077 IEC†	211.5	200.6	6623.8	ug/L	6623.8	ppb	02:57:28
2	Na 589.592 Radial†	4263.8	5362.8	1605.7	ug/L	1605.7	ppb	02:57:08
2	Sr 421.552†	9716.3	9322.3	60.151	ug/L	60.151	ppb	02:57:08
2	Sc 361.383	878051.5	878051.5	103.01	%			02:58:31
2	Y 371.029	909732.4	909732.4	125.89	%			02:58:31
2	Ag 328.068†	-4793.3	-5011.2	1.9460	ug/L	1.9460	ppb	02:58:36
2	As 188.979†	-41.3	-16.5	18.040	ug/L	18.040	ppb	02:58:56
2	B 249.677†	217.1	842.6	11.036	ug/L	11.036	ppb	02:58:36
2	Ba 233.527†	51611.5	50115.0	394.19	ug/L	394.19	ppb	02:58:36
2	Be 313.107†	-7584.6	-2777.6	3.8492	ug/L	3.8492	ppb	02:58:36
2	Cd 226.502†	515.4	704.5	-0.0568	ug/L	-0.0568	ppb	02:58:56
2	Co 228.616†	933.5	980.9	14.607	ug/L	14.607	ppb	02:58:56
2	Cr 267.716†	10638.1	10244.0	116.23	ug/L	116.23	ppb	02:58:36
2	Cu 324.752†	16025.0	9144.6	31.511	ug/L	31.511	ppb	02:58:36
2	Mn 257.610†	2156784.1	2093325.9	2328.9	ug/L	2328.9	ppb	02:58:31
2	Mo 202.031†	148.2	120.1	13.782	ug/L	13.782	ppb	02:58:56
2	Ni 231.604†	1391.8	1283.2	31.939	ug/L	31.939	ppb	02:58:56

2	P 214.914†	1265.2	998.3	552.17	ug/L	552.17 ppb	02:58:56
2	Pb 220.353†	468.4	518.1	63.946	ug/L	63.946 ppb	02:58:56
2	S 181.975 Axial†	248.6	198.3	273.97	ug/L	273.97 ppb	02:58:56
2	Sb 206.836†	65.5	35.7	4.3944	ug/L	4.3944 ppb	02:58:56
2	Se 196.026†	-362.1	-319.5	38.213	ug/L	38.213 ppb	02:58:56
2	Si 251.611†	870496.0	844512.8	26896	ug/L	26896 ppb	02:58:31
2	Sn 189.927†	-36.4	-43.0	-5.1621	ug/L	-5.1621 ppb	02:58:56
2	Ti 334.940†	1380670.8	1341707.1	2162.1	ug/L	2162.1 ppb	02:58:31
2	Tl 190.801†	-160.9	-123.3	-12.314	ug/L	-12.314 ppb	02:58:56
2	U 409.014†	-11375.2	-9031.2	-275.33	ug/L	-275.33 ppb	02:58:31
2	V 292.402†	12038.6	12996.6	74.531	ug/L	74.531 ppb	02:58:36
2	Zn 213.857†	27763.4	26332.0	241.45	ug/L	241.45 ppb	02:58:36
2	SiO2†	869717.1	843735.4	57569	ug/L	57569 ppb	02:59:39
3	Sc Radial	5181.2	5181.2	103	%		02:57:33
3	Y RADIAL	6905.4	6905.4	127.2	%		02:57:33
3	Al 396.153Radial†	47956.2	46606.8	35956	ug/L	35956 ppb	02:57:33
3	Ca 317.933Radial†	5369.2	5198.3	8317.8	ug/L	8317.8 ppb	02:57:33
3	Fe 238.204 Radial†	9102.6	8837.5	76481	ug/L	76481 ppb	02:57:33
3	K 766.490 Radial†	30602.2	27150.5	4949.3	ug/L	4949.3 ppb	02:57:33
3	Mg 279.077 IEC†	209.1	201.3	6644.7	ug/L	6644.7 ppb	02:57:53
3	Na 589.592 Radial†	4196.8	5359.1	1604.6	ug/L	1604.6 ppb	02:57:33
3	Sr 421.552†	9718.8	9464.7	61.070	ug/L	61.070 ppb	02:57:33
3	Sc 361.383	878093.9	878093.9	103.01	%		02:59:02
3	Y 371.029	907800.2	907800.2	125.62	%		02:59:02
3	Ag 328.068†	-4772.3	-4990.7	2.2224	ug/L	2.2224 ppb	02:59:07
3	As 188.979†	-35.8	-11.1	20.482	ug/L	20.482 ppb	02:59:27
3	B 249.677†	232.6	857.7	11.317	ug/L	11.317 ppb	02:59:07
3	Ba 233.527†	51285.7	49796.3	391.73	ug/L	391.73 ppb	02:59:07
3	Be 313.107†	-7484.8	-2680.4	3.8984	ug/L	3.8984 ppb	02:59:07
3	Cd 226.502†	533.3	721.8	0.0776	ug/L	0.0776 ppb	02:59:27
3	Co 228.616†	917.0	964.9	14.256	ug/L	14.256 ppb	02:59:27
3	Cr 267.716†	10537.8	10146.2	115.15	ug/L	115.15 ppb	02:59:07
3	Cu 324.752†	15943.7	9064.9	31.304	ug/L	31.304 ppb	02:59:07
3	Mn 257.610†	2161866.7	2098158.7	2334.3	ug/L	2334.3 ppb	02:59:02
3	Mo 202.031†	130.4	102.9	12.599	ug/L	12.599 ppb	02:59:27
3	Ni 231.604†	1375.3	1267.1	31.539	ug/L	31.539 ppb	02:59:27
3	P 214.914†	1257.4	990.7	547.16	ug/L	547.16 ppb	02:59:27
3	Pb 220.353†	464.1	513.9	63.411	ug/L	63.411 ppb	02:59:27
3	S 181.975 Axial†	246.3	196.1	270.73	ug/L	270.73 ppb	02:59:27
3	Sb 206.836†	47.0	17.7	-1.8440	ug/L	-1.8440 ppb	02:59:27
3	Se 196.026†	-343.5	-301.4	51.635	ug/L	51.635 ppb	02:59:27
3	Si 251.611†	873232.4	847128.3	26980	ug/L	26980 ppb	02:59:02
3	Sn 189.927†	-47.0	-53.3	-6.9704	ug/L	-6.9704 ppb	02:59:27
3	Ti 334.940†	1384177.8	1345046.8	2167.5	ug/L	2167.5 ppb	02:59:02
3	Tl 190.801†	-148.1	-110.9	-8.4398	ug/L	-8.4398 ppb	02:59:27
3	U 409.014†	-11466.9	-9119.7	-278.00	ug/L	-278.00 ppb	02:59:02
3	V 292.402†	12043.7	13001.0	74.447	ug/L	74.447 ppb	02:59:07
3	Zn 213.857†	27522.5	26096.9	239.17	ug/L	239.17 ppb	02:59:07
3	SiO2†	875122.9	848942.3	57924	ug/L	57924 ppb	02:59:45

Mean Data: 1202004428|936808|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	877107.9	102.90	%	0.196				0.19%
Sc Radial	5225.9	104	%	0.8				0.77%
Y 371.029	908397.5	125.70	%	0.160				0.13%
Y RADIAL	6925.1	127.5	%	0.37				0.29%
Ag 328.068†	-4981.9	2.1613	ug/L	0.19221	2.1613	ppb	0.19221	8.89%
Al 396.153Radial†	46479.5	35858	ug/L	96.0	35858	ppb	96.0	0.27%
As 188.979†	-10.2	20.802	ug/L	2.9357	20.802	ppb	2.9357	14.11%
B 249.677†	835.6	10.855	ug/L	0.5734	10.855	ppb	0.5734	5.28%
Ba 233.527†	49914.4	392.64	ug/L	1.355	392.64	ppb	1.355	0.35%
Be 313.107†	-2768.5	3.8585	ug/L	0.03620	3.8585	ppb	0.03620	0.94%
Ca 317.933Radial†	5166.4	8266.8	ug/L	44.80	8266.8	ppb	44.80	0.54%
Cd 226.502†	710.7	-0.0135	ug/L	0.07896	-0.0135	ppb	0.07896	584.37%
Co 228.616†	972.1	14.416	ug/L	0.1777	14.416	ppb	0.1777	1.23%
Cr 267.716†	10208.8	115.84	ug/L	0.601	115.84	ppb	0.601	0.52%
Cu 324.752†	9164.6	31.585	ug/L	0.3242	31.585	ppb	0.3242	1.03%
Fe 238.204 Radial†	8801.8	76173	ug/L	283.6	76173	ppb	283.6	0.37%
K 766.490 Radial†	27124.0	4944.5	ug/L	20.29	4944.5	ppb	20.29	0.41%

Mg 279.077 IEC†	201.5	6653.2	ug/L	34.41	6653.2	ppb	34.41	0.52%
Mn 257.610†	2095695.2	2331.5	ug/L	2.71	2331.5	ppb	2.71	0.12%
Mo 202.031†	111.5	13.190	ug/L	0.5913	13.190	ppb	0.5913	4.48%
Na 589.592 Radial†	5354.6	1603.2	ug/L	3.35	1603.2	ppb	3.35	0.21%
Ni 231.604†	1271.1	31.638	ug/L	0.2662	31.638	ppb	0.2662	0.84%
P 214.914†	989.9	546.83	ug/L	5.508	546.83	ppb	5.508	1.01%
Pb 220.353†	517.7	63.888	ug/L	0.4505	63.888	ppb	0.4505	0.71%
S 181.975 Axial†	196.2	270.90	ug/L	2.990	270.90	ppb	2.990	1.10%
Sb 206.836†	22.6	-0.1407	ug/L	3.96789	-0.1407	ppb	3.96789	>999.9%
Se 196.026†	-311.2	44.384	ug/L	6.7761	44.384	ppb	6.7761	15.27%
Si 251.611†	845498.1	26928	ug/L	45.3	26928	ppb	45.3	0.17%
Sn 189.927†	-49.6	-6.3268	ug/L	1.01048	-6.3268	ppb	1.01048	15.97%
Sr 421.552†	9399.3	60.647	ug/L	0.4641	60.647	ppb	0.4641	0.77%
Ti 334.940†	1343302.9	2164.7	ug/L	2.70	2164.7	ppb	2.70	0.12%
Tl 190.801†	-118.5	-10.802	ug/L	2.0721	-10.802	ppb	2.0721	19.18%
U 409.014†	-9073.6	-276.61	ug/L	1.340	-276.61	ppb	1.340	0.48%
V 292.402†	12954.5	74.192	ug/L	0.5164	74.192	ppb	0.5164	0.70%
Zn 213.857†	26203.0	240.20	ug/L	1.152	240.20	ppb	1.152	0.48%
SiO2†	848085.8	57866	ug/L	272.4	57866	ppb	272.4	0.47%

Sequence No.: 102
Sample ID: 1202004429|936808|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 106
Date Collected: 1/12/2010 03:01:57
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202004429|936808|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5211.6	5211.6	104	%			03:04:10
1	Y RADIAL	7006.6	7006.6	129.0	%			03:04:10
1	Al 396.153Radial†	131568.2	127119.0	98047	ug/L	98047	ppb	03:03:50
1	Ca 317.933Radial†	10312.3	9943.7	15911	ug/L	15911	ppb	03:03:50
1	Fe 238.204 Radial†	12848.1	12404.6	107370	ug/L	107370	ppb	03:03:50
1	K 766.490 Radial†	83187.3	77783.7	14215	ug/L	14215	ppb	03:03:50
1	Mg 279.077 IEC†	574.6	553.3	18378	ug/L	18378	ppb	03:04:10
1	Na 589.592 Radial†	23058.4	23559.0	7053.8	ug/L	7053.8	ppb	03:03:50
1	Sr 421.552†	90530.6	87488.2	564.96	ug/L	564.96	ppb	03:03:50
1	Sc 361.383	870685.3	870685.3	102.15	%			03:05:09
1	Y 371.029	923496.1	923496.1	127.79	%			03:05:09
1	Ag 328.068†	101990.7	99490.6	494.93	ug/L	494.93	ppb	03:05:09
1	As 188.979†	1071.1	1072.2	499.23	ug/L	499.23	ppb	03:05:30
1	B 249.677†	21633.5	21811.0	473.95	ug/L	473.95	ppb	03:05:09
1	Ba 233.527†	115748.9	113329.2	889.99	ug/L	889.99	ppb	03:05:09
1	Be 313.107†	1319653.5	1296521.9	501.03	ug/L	501.03	ppb	03:05:09
1	Cd 226.502†	44418.5	43689.7	474.08	ug/L	474.08	ppb	03:05:09
1	Co 228.616†	24737.8	24292.9	490.49	ug/L	490.49	ppb	03:05:30
1	Cr 267.716†	60581.9	59226.3	665.04	ug/L	665.04	ppb	03:05:09
1	Cu 324.752†	192475.5	182020.7	549.88	ug/L	549.88	ppb	03:05:09
1	Mn 257.610†	2870133.5	2809406.4	3125.8	ug/L	3125.8	ppb	03:05:09
1	Mo 202.031†	6993.3	6822.7	489.72	ug/L	489.72	ppb	03:05:30
1	Ni 231.604†	21392.8	20875.5	519.50	ug/L	519.50	ppb	03:05:30
1	P 214.914†	2407.6	2127.2	1124.4	ug/L	1124.4	ppb	03:05:30
1	Pb 220.353†	4613.2	4579.7	572.56	ug/L	572.56	ppb	03:05:30
1	S 181.975 Axial†	3867.2	3742.9	5278.5	ug/L	5278.5	ppb	03:05:30
1	Sb 206.836†	1114.9	1063.6	370.62	ug/L	370.62	ppb	03:05:30
1	Se 196.026†	285.2	311.2	549.61	ug/L	549.61	ppb	03:05:30
1	Si 251.611†	1084867.8	1061531.6	33802	ug/L	33802	ppb	03:05:09
1	Sn 189.927†	2761.2	2695.6	481.64	ug/L	481.64	ppb	03:05:30
1	Ti 334.940†	1959413.4	1919633.8	3092.7	ug/L	3092.7	ppb	03:05:09
1	Tl 190.801†	1405.7	1409.0	465.24	ug/L	465.24	ppb	03:05:30
1	U 409.014†	3970.9	5899.1	160.30	ug/L	160.30	ppb	03:05:09
1	V 292.402†	90545.5	89953.4	601.97	ug/L	601.97	ppb	03:05:09
1	Zn 213.857†	85448.4	83033.4	770.88	ug/L	770.88	ppb	03:05:09
1	SiO2†	1096667.1	1073061.8	73204	ug/L	73204	ppb	03:06:31
2	Sc Radial	5153.9	5153.9	102	%			03:04:35
2	Y RADIAL	6947.1	6947.1	128.0	%			03:04:35
2	Al 396.153Radial†	130906.7	127895.8	98646	ug/L	98646	ppb	03:04:15
2	Ca 317.933Radial†	10215.2	9960.5	15938	ug/L	15938	ppb	03:04:15
2	Fe 238.204 Radial†	12725.7	12424.1	107530	ug/L	107530	ppb	03:04:15
2	K 766.490 Radial†	82355.8	77871.0	14231	ug/L	14231	ppb	03:04:15
2	Mg 279.077 IEC†	572.4	557.3	18512	ug/L	18512	ppb	03:04:35
2	Na 589.592 Radial†	22714.5	23472.4	7027.9	ug/L	7027.9	ppb	03:04:15
2	Sr 421.552†	89804.1	87757.6	566.70	ug/L	566.70	ppb	03:04:15
2	Sc 361.383	873599.8	873599.8	102.49	%			03:05:37
2	Y 371.029	924304.0	924304.0	127.90	%			03:05:37
2	Ag 328.068†	102572.3	99724.9	496.06	ug/L	496.06	ppb	03:05:37
2	As 188.979†	1061.2	1059.1	493.59	ug/L	493.59	ppb	03:05:57
2	B 249.677†	21846.6	21948.2	477.00	ug/L	477.00	ppb	03:05:37
2	Ba 233.527†	116232.4	113422.9	890.72	ug/L	890.72	ppb	03:05:37
2	Be 313.107†	1323767.4	1296225.7	500.93	ug/L	500.93	ppb	03:05:37
2	Cd 226.502†	44368.9	43496.2	471.91	ug/L	471.91	ppb	03:05:37
2	Co 228.616†	24700.8	24176.0	488.09	ug/L	488.09	ppb	03:05:57
2	Cr 267.716†	60644.7	59089.7	663.51	ug/L	663.51	ppb	03:05:37
2	Cu 324.752†	193650.3	182538.3	551.43	ug/L	551.43	ppb	03:05:37
2	Mn 257.610†	2882390.3	2811991.5	3128.6	ug/L	3128.6	ppb	03:05:37
2	Mo 202.031†	7013.1	6819.1	489.49	ug/L	489.49	ppb	03:05:57
2	Ni 231.604†	21369.6	20783.0	517.20	ug/L	517.20	ppb	03:05:57

2	P 214.914†	2416.9	2128.4	1124.8	ug/L	1124.8 ppb	03:05:57
2	Pb 220.353†	4621.1	4572.3	571.76	ug/L	571.76 ppb	03:05:57
2	S 181.975 Axial†	3848.1	3711.7	5234.2	ug/L	5234.2 ppb	03:05:57
2	Sb 206.836†	1116.2	1061.2	369.70	ug/L	369.70 ppb	03:05:57
2	Se 196.026†	286.5	311.5	550.41	ug/L	550.41 ppb	03:05:57
2	Si 251.611†	1090145.4	1063137.7	33853	ug/L	33853 ppb	03:05:37
2	Sn 189.927†	2750.7	2676.3	478.23	ug/L	478.23 ppb	03:05:57
2	Ti 334.940†	1969275.9	1922857.2	3097.9	ug/L	3097.9 ppb	03:05:37
2	Tl 190.801†	1420.2	1418.6	468.24	ug/L	468.24 ppb	03:05:57
2	U 409.014†	3969.2	5884.5	159.85	ug/L	159.85 ppb	03:05:37
2	V 292.402†	90757.1	89864.2	601.33	ug/L	601.33 ppb	03:05:37
2	Zn 213.857†	85785.5	83083.3	771.35	ug/L	771.35 ppb	03:05:37
2	SiO2†	1086586.6	1059644.1	72288	ug/L	72288 ppb	03:06:37
3	Sc Radial	5133.7	5133.7	102	%		03:05:01
3	Y RADIAL	6905.5	6905.5	127.2	%		03:05:01
3	Al 396.153Radial†	130518.5	128017.8	98740	ug/L	98740 ppb	03:04:41
3	Ca 317.933Radial†	10211.5	9996.0	15995	ug/L	15995 ppb	03:04:41
3	Fe 238.204 Radial†	12699.6	12447.3	107740	ug/L	107740 ppb	03:04:41
3	K 766.490 Radial†	82295.8	78128.4	14278	ug/L	14278 ppb	03:04:41
3	Mg 279.077 IEC†	569.0	556.2	18477	ug/L	18477 ppb	03:05:01
3	Na 589.592 Radial†	22626.8	23473.6	7028.3	ug/L	7028.3 ppb	03:04:41
3	Sr 421.552†	89547.0	87850.3	567.30	ug/L	567.30 ppb	03:04:41
3	Sc 361.383	872773.1	872773.1	102.39	%		03:06:04
3	Y 371.029	924048.7	924048.7	127.87	%		03:06:04
3	Ag 328.068†	101996.9	99257.8	493.97	ug/L	493.97 ppb	03:06:04
3	As 188.979†	1072.5	1071.1	498.83	ug/L	498.83 ppb	03:06:24
3	B 249.677†	21662.0	21788.1	473.40	ug/L	473.40 ppb	03:06:04
3	Ba 233.527†	116050.0	113352.2	890.18	ug/L	890.18 ppb	03:06:04
3	Be 313.107†	1321071.7	1294816.3	500.39	ug/L	500.39 ppb	03:06:04
3	Cd 226.502†	44292.5	43462.6	471.52	ug/L	471.52 ppb	03:06:04
3	Co 228.616†	24802.3	24298.0	490.59	ug/L	490.59 ppb	03:06:24
3	Cr 267.716†	60873.9	59369.5	666.64	ug/L	666.64 ppb	03:06:04
3	Cu 324.752†	193151.5	182230.1	550.52	ug/L	550.52 ppb	03:06:04
3	Mn 257.610†	2875044.6	2807481.0	3123.7	ug/L	3123.7 ppb	03:06:04
3	Mo 202.031†	7036.4	6848.4	491.57	ug/L	491.57 ppb	03:06:24
3	Ni 231.604†	21436.3	20867.9	519.31	ug/L	519.31 ppb	03:06:24
3	P 214.914†	2425.0	2138.5	1131.0	ug/L	1131.0 ppb	03:06:24
3	Pb 220.353†	4652.4	4607.2	576.04	ug/L	576.04 ppb	03:06:24
3	S 181.975 Axial†	3885.3	3751.6	5290.7	ug/L	5290.7 ppb	03:06:24
3	Sb 206.836†	1114.4	1060.5	369.52	ug/L	369.52 ppb	03:06:24
3	Se 196.026†	291.0	316.2	554.06	ug/L	554.06 ppb	03:06:24
3	Si 251.611†	1086934.9	1061009.7	33785	ug/L	33785 ppb	03:06:04
3	Sn 189.927†	2754.2	2682.3	479.30	ug/L	479.30 ppb	03:06:24
3	Ti 334.940†	1965782.3	1921265.1	3095.4	ug/L	3095.4 ppb	03:06:04
3	Tl 190.801†	1427.5	1427.0	470.77	ug/L	470.77 ppb	03:06:24
3	U 409.014†	3995.4	5913.7	160.69	ug/L	160.69 ppb	03:06:04
3	V 292.402†	90551.1	89746.8	600.53	ug/L	600.53 ppb	03:06:04
3	Zn 213.857†	85419.5	82805.1	768.69	ug/L	768.69 ppb	03:06:04
3	SiO2†	1087775.7	1061809.6	72436	ug/L	72436 ppb	03:06:42

Mean Data: 1202004429|936808|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	872352.7	102.34	%	0.176				0.17%
Sc Radial	5166.4	103	%	0.8				0.78%
Y 371.029	923949.6	127.85	%	0.057				0.04%
Y RADIAL	6953.1	128.1	%	0.94				0.73%
Ag 328.068†	99491.1	494.99	ug/L	1.047	494.99	ppb	1.047	0.21%
Al 396.153Radial†	127677.6	98478	ug/L	376.1	98478	ppb	376.1	0.38%
As 188.979†	1067.5	497.22	ug/L	3.150	497.22	ppb	3.150	0.63%
B 249.677†	21849.1	474.78	ug/L	1.938	474.78	ppb	1.938	0.41%
Ba 233.527†	113368.1	890.30	ug/L	0.382	890.30	ppb	0.382	0.04%
Be 313.107†	1295854.6	500.78	ug/L	0.346	500.78	ppb	0.346	0.07%
Ca 317.933Radial†	9966.7	15948	ug/L	42.7	15948	ppb	42.7	0.27%
Cd 226.502†	43549.5	472.50	ug/L	1.378	472.50	ppb	1.378	0.29%
Co 228.616†	24255.6	489.72	ug/L	1.418	489.72	ppb	1.418	0.29%
Cr 267.716†	59228.5	665.06	ug/L	1.565	665.06	ppb	1.565	0.24%
Cu 324.752†	182263.0	550.61	ug/L	0.782	550.61	ppb	0.782	0.14%
Fe 238.204 Radial†	12425.3	107550	ug/L	184.9	107550	ppb	184.9	0.17%
K 766.490 Radial†	77927.7	14241	ug/L	32.9	14241	ppb	32.9	0.23%

Mg 279.077 IEC†	555.6	18456	ug/L	69.5	18456	ppb	69.5	0.38%
Mn 257.610†	2809626.3	3126.0	ug/L	2.50	3126.0	ppb	2.50	0.08%
Mo 202.031†	6830.1	490.26	ug/L	1.141	490.26	ppb	1.141	0.23%
Na 589.592 Radial†	23501.7	7036.7	ug/L	14.87	7036.7	ppb	14.87	0.21%
Ni 231.604†	20842.1	518.67	ug/L	1.278	518.67	ppb	1.278	0.25%
P 214.914†	2131.3	1126.7	ug/L	3.72	1126.7	ppb	3.72	0.33%
Pb 220.353†	4586.4	573.45	ug/L	2.275	573.45	ppb	2.275	0.40%
S 181.975 Axial†	3735.4	5267.8	ug/L	29.72	5267.8	ppb	29.72	0.56%
Sb 206.836†	1061.7	369.95	ug/L	0.592	369.95	ppb	0.592	0.16%
Se 196.026†	313.0	551.36	ug/L	2.372	551.36	ppb	2.372	0.43%
Si 251.611†	1061893.0	33814	ug/L	35.3	33814	ppb	35.3	0.10%
Sn 189.927†	2684.7	479.72	ug/L	1.740	479.72	ppb	1.740	0.36%
Sr 421.552†	87698.7	566.32	ug/L	1.214	566.32	ppb	1.214	0.21%
Ti 334.940†	1921252.0	3095.3	ug/L	2.59	3095.3	ppb	2.59	0.08%
Tl 190.801†	1418.2	468.08	ug/L	2.772	468.08	ppb	2.772	0.59%
U 409.014†	5899.1	160.28	ug/L	0.417	160.28	ppb	0.417	0.26%
V 292.402†	89854.8	601.28	ug/L	0.721	601.28	ppb	0.721	0.12%
Zn 213.857†	82973.9	770.31	ug/L	1.422	770.31	ppb	1.422	0.18%
SiO2†	1064838.5	72642	ug/L	491.5	72642	ppb	491.5	0.68%

Sequence No.: 103
Sample ID: 1202004431|936808|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 107
Date Collected: 1/12/2010 03:08:54
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202004431|936808|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4929.8	4929.8	97.9	%			03:11:07
1	Y RADIAL	6608.4	6608.4	121.7	%			03:11:07
1	Al 396.153Radial†	107553.2	109854.5	84728	ug/L	84728	ppb	03:10:47
1	Ca 317.933Radial†	8586.0	8749.9	14001	ug/L	14001	ppb	03:10:47
1	Fe 238.204 Radial†	11341.4	11575.1	100190	ug/L	100190	ppb	03:10:47
1	K 766.490 Radial†	74904.2	73916.3	13512	ug/L	13512	ppb	03:10:47
1	Mg 279.077 IEC†	476.1	484.4	16085	ug/L	16085	ppb	03:11:07
1	Na 589.592 Radial†	21457.1	23196.5	6945.3	ug/L	6945.3	ppb	03:10:47
1	Sr 421.552†	89705.4	91643.8	591.81	ug/L	591.81	ppb	03:10:47
1	Sc 361.383	876021.0	876021.0	102.77	%			03:12:06
1	Y 371.029	918427.8	918427.8	127.09	%			03:12:06
1	Ag 328.068†	104969.3	101780.6	503.09	ug/L	503.09	ppb	03:12:06
1	As 188.979†	1077.9	1072.5	497.91	ug/L	497.91	ppb	03:12:26
1	B 249.677†	22209.7	22242.7	484.29	ug/L	484.29	ppb	03:12:06
1	Ba 233.527†	119443.1	116233.5	912.36	ug/L	912.36	ppb	03:12:06
1	Be 313.107†	1344176.7	1312514.7	507.12	ug/L	507.12	ppb	03:12:06
1	Cd 226.502†	45301.0	44283.5	481.41	ug/L	481.41	ppb	03:12:06
1	Co 228.616†	24989.7	24390.4	492.60	ug/L	492.60	ppb	03:12:26
1	Cr 267.716†	64279.5	62462.9	701.03	ug/L	701.03	ppb	03:12:06
1	Cu 324.752†	194610.8	182950.6	552.26	ug/L	552.26	ppb	03:12:06
1	Mn 257.610†	2389111.1	2324240.9	2587.2	ug/L	2587.2	ppb	03:12:06
1	Mo 202.031†	7113.9	6898.3	494.56	ug/L	494.56	ppb	03:12:26
1	Ni 231.604†	21324.3	20681.3	514.67	ug/L	514.67	ppb	03:12:26
1	P 214.914†	2466.1	2169.8	1152.3	ug/L	1152.3	ppb	03:12:26
1	Pb 220.353†	4497.7	4439.8	553.26	ug/L	553.26	ppb	03:12:26
1	S 181.975 Axial†	3932.1	3783.1	5337.9	ug/L	5337.9	ppb	03:12:26
1	Sb 206.836†	1250.0	1188.3	413.94	ug/L	413.94	ppb	03:12:26
1	Se 196.026†	349.2	371.7	565.06	ug/L	565.06	ppb	03:12:26
1	Si 251.611†	1080747.5	1051053.4	33468	ug/L	33468	ppb	03:12:06
1	Sn 189.927†	2824.1	2740.3	489.17	ug/L	489.17	ppb	03:12:26
1	Ti 334.940†	1970308.2	1918550.9	3090.9	ug/L	3090.9	ppb	03:12:06
1	Tl 190.801†	1458.9	1452.4	476.01	ug/L	476.01	ppb	03:12:26
1	U 409.014†	5203.9	7075.2	195.73	ug/L	195.73	ppb	03:12:06
1	V 292.402†	88514.7	87437.5	585.98	ug/L	585.98	ppb	03:12:06
1	Zn 213.857†	83516.6	80644.2	749.01	ug/L	749.01	ppb	03:12:06
1	SiO2†	1074552.3	1045004.0	71289	ug/L	71289	ppb	03:13:28
2	Sc Radial	5185.2	5185.2	103	%			03:11:32
2	Y RADIAL	6908.9	6908.9	127.2	%			03:11:32
2	Al 396.153Radial†	108429.4	105296.0	81211	ug/L	81211	ppb	03:11:12
2	Ca 317.933Radial†	8647.3	8377.6	13405	ug/L	13405	ppb	03:11:12
2	Fe 238.204 Radial†	11450.9	11111.0	96171	ug/L	96171	ppb	03:11:12
2	K 766.490 Radial†	75598.9	70823.7	12945	ug/L	12945	ppb	03:11:12
2	Mg 279.077 IEC†	487.6	471.6	15660	ug/L	15660	ppb	03:11:32
2	Na 589.592 Radial†	21614.0	22269.7	6667.8	ug/L	6667.8	ppb	03:11:12
2	Sr 421.552†	90634.4	88034.2	568.51	ug/L	568.51	ppb	03:11:12
2	Sc 361.383	877623.1	877623.1	102.96	%			03:12:34
2	Y 371.029	921439.1	921439.1	127.51	%			03:12:34
2	Ag 328.068†	105252.9	101869.6	502.20	ug/L	502.20	ppb	03:12:34
2	As 188.979†	1076.2	1068.9	495.57	ug/L	495.57	ppb	03:12:54
2	B 249.677†	22302.6	22293.4	485.83	ug/L	485.83	ppb	03:12:34
2	Ba 233.527†	119776.2	116344.9	913.09	ug/L	913.09	ppb	03:12:34
2	Be 313.107†	1347180.6	1313044.6	507.32	ug/L	507.32	ppb	03:12:34
2	Cd 226.502†	45382.4	44282.1	481.81	ug/L	481.81	ppb	03:12:34
2	Co 228.616†	24960.5	24317.7	491.17	ug/L	491.17	ppb	03:12:54
2	Cr 267.716†	64351.7	62418.8	700.46	ug/L	700.46	ppb	03:12:34
2	Cu 324.752†	194739.1	182729.6	551.38	ug/L	551.38	ppb	03:12:34
2	Mn 257.610†	2390007.9	2320868.2	2583.0	ug/L	2583.0	ppb	03:12:34
2	Mo 202.031†	7123.1	6894.7	494.02	ug/L	494.02	ppb	03:12:54
2	Ni 231.604†	21335.5	20654.3	514.00	ug/L	514.00	ppb	03:12:54

2	P 214.914†	2460.0	2159.4	1148.5	ug/L	1148.5 ppb	03:12:54
2	Pb 220.353†	4528.4	4461.6	555.56	ug/L	555.56 ppb	03:12:54
2	S 181.975 Axial†	3946.4	3789.9	5348.2	ug/L	5348.2 ppb	03:12:54
2	Sb 206.836†	1246.3	1182.6	412.03	ug/L	412.03 ppb	03:12:54
2	Se 196.026†	352.9	374.7	553.99	ug/L	553.99 ppb	03:12:54
2	Si 251.611†	1081376.0	1049744.0	33427	ug/L	33427 ppb	03:12:34
2	Sn 189.927†	2818.9	2730.3	487.23	ug/L	487.23 ppb	03:12:54
2	Ti 334.940†	1973697.1	1918342.6	3090.6	ug/L	3090.6 ppb	03:12:34
2	Tl 190.801†	1451.6	1442.7	473.02	ug/L	473.02 ppb	03:12:54
2	U 409.014†	5370.4	7227.7	200.69	ug/L	200.69 ppb	03:12:34
2	V 292.402†	88794.0	87551.5	587.37	ug/L	587.37 ppb	03:12:34
2	Zn 213.857†	83754.9	80727.3	750.19	ug/L	750.19 ppb	03:12:34
2	SiO2†	1074074.8	1042631.5	71127	ug/L	71127 ppb	03:13:33
3	Sc Radial	5228.2	5228.2	104	%		03:11:58
3	Y RADIAL	6976.9	6976.9	128.5	%		03:11:58
3	Al 396.153Radial†	106359.4	102435.6	79004	ug/L	79004 ppb	03:11:38
3	Ca 317.933Radial†	8520.6	8186.4	13099	ug/L	13099 ppb	03:11:38
3	Fe 238.204 Radial†	11180.1	10758.7	93122	ug/L	93122 ppb	03:11:38
3	K 766.490 Radial†	74177.8	68850.7	12584	ug/L	12584 ppb	03:11:38
3	Mg 279.077 IEC†	490.2	470.2	15619	ug/L	15619 ppb	03:11:58
3	Na 589.592 Radial†	21025.2	21529.9	6446.3	ug/L	6446.3 ppb	03:11:38
3	Sr 421.552†	88336.9	85097.0	549.54	ug/L	549.54 ppb	03:11:38
3	Sc 361.383	873831.8	873831.8	102.51	%		03:13:01
3	Y 371.029	918411.9	918411.9	127.09	%		03:13:01
3	Ag 328.068†	104742.2	101815.0	500.97	ug/L	500.97 ppb	03:13:01
3	As 188.979†	1073.1	1070.4	495.63	ug/L	495.63 ppb	03:13:21
3	B 249.677†	22317.1	22401.6	488.55	ug/L	488.55 ppb	03:13:01
3	Ba 233.527†	118869.7	115965.4	910.01	ug/L	910.01 ppb	03:13:01
3	Be 313.107†	1342001.0	1313669.0	507.56	ug/L	507.56 ppb	03:13:01
3	Cd 226.502†	44998.1	44098.5	480.09	ug/L	480.09 ppb	03:13:01
3	Co 228.616†	24914.6	24378.1	492.45	ug/L	492.45 ppb	03:13:21
3	Cr 267.716†	63983.6	62330.9	699.42	ug/L	699.42 ppb	03:13:01
3	Cu 324.752†	194232.6	183056.2	552.20	ug/L	552.20 ppb	03:13:01
3	Mn 257.610†	2377485.4	2318724.3	2580.3	ug/L	2580.3 ppb	03:13:01
3	Mo 202.031†	7108.4	6910.3	494.91	ug/L	494.91 ppb	03:13:21
3	Ni 231.604†	21287.5	20697.4	515.07	ug/L	515.07 ppb	03:13:21
3	P 214.914†	2440.3	2150.6	1144.8	ug/L	1144.8 ppb	03:13:21
3	Pb 220.353†	4502.0	4455.0	554.57	ug/L	554.57 ppb	03:13:21
3	S 181.975 Axial†	3937.8	3798.2	5360.3	ug/L	5360.3 ppb	03:13:21
3	Sb 206.836†	1249.6	1191.0	415.01	ug/L	415.01 ppb	03:13:21
3	Se 196.026†	349.8	373.3	543.21	ug/L	543.21 ppb	03:13:21
3	Si 251.611†	1076503.0	1049547.5	33420	ug/L	33420 ppb	03:13:01
3	Sn 189.927†	2811.7	2735.1	488.00	ug/L	488.00 ppb	03:13:21
3	Ti 334.940†	1965386.8	1918553.2	3090.9	ug/L	3090.9 ppb	03:13:01
3	Tl 190.801†	1453.4	1450.6	475.43	ug/L	475.43 ppb	03:13:21
3	U 409.014†	5143.2	7028.6	195.17	ug/L	195.17 ppb	03:13:01
3	V 292.402†	88300.9	87444.7	587.11	ug/L	587.11 ppb	03:13:01
3	Zn 213.857†	83131.8	80472.4	748.06	ug/L	748.06 ppb	03:13:01
3	SiO2†	1077544.9	1050542.6	71667	ug/L	71667 ppb	03:13:39

Mean Data: 1202004431|936808|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	875825.3	102.75	%	0.223				0.22%
Sc Radial	5114.4	102	%	3.2				3.15%
Y 371.029	919426.3	127.23	%	0.241				0.19%
Y RADIAL	6831.4	125.8	%	3.61				2.87%
Ag 328.068†	101821.8	502.09	ug/L	1.063	502.09	ppb	1.063	0.21%
Al 396.153Radial†	105862.1	81647	ug/L	2886.7	81647	ppb	2886.7	3.54%
As 188.979†	1070.6	496.37	ug/L	1.332	496.37	ppb	1.332	0.27%
B 249.677†	22312.5	486.23	ug/L	2.157	486.23	ppb	2.157	0.44%
Ba 233.527†	116181.3	911.82	ug/L	1.608	911.82	ppb	1.608	0.18%
Be 313.107†	1313076.1	507.34	ug/L	0.220	507.34	ppb	0.220	0.04%
Ca 317.933Radial†	8438.0	13502	ug/L	458.5	13502	ppb	458.5	3.40%
Cd 226.502†	44221.4	481.10	ug/L	0.902	481.10	ppb	0.902	0.19%
Co 228.616†	24362.1	492.08	ug/L	0.786	492.08	ppb	0.786	0.16%
Cr 267.716†	62404.2	700.30	ug/L	0.817	700.30	ppb	0.817	0.12%
Cu 324.752†	182912.1	551.95	ug/L	0.490	551.95	ppb	0.490	0.09%
Fe 238.204 Radial†	11148.3	96493	ug/L	3543.6	96493	ppb	3543.6	3.67%
K 766.490 Radial†	71196.9	13014	ug/L	467.9	13014	ppb	467.9	3.60%

Mg 279.077 IEC†	475.4	15788	ug/L	257.9	15788	ppb	257.9	1.63%
Mn 257.610†	2321277.8	2583.5	ug/L	3.47	2583.5	ppb	3.47	0.13%
Mo 202.031†	6901.1	494.49	ug/L	0.448	494.49	ppb	0.448	0.09%
Na 589.592 Radial†	22332.0	6686.5	ug/L	250.03	6686.5	ppb	250.03	3.74%
Ni 231.604†	20677.7	514.58	ug/L	0.541	514.58	ppb	0.541	0.11%
P 214.914†	2159.9	1148.5	ug/L	3.77	1148.5	ppb	3.77	0.33%
Pb 220.353†	4452.1	554.46	ug/L	1.152	554.46	ppb	1.152	0.21%
S 181.975 Axial†	3790.4	5348.8	ug/L	11.21	5348.8	ppb	11.21	0.21%
Sb 206.836†	1187.3	413.66	ug/L	1.510	413.66	ppb	1.510	0.37%
Se 196.026†	373.3	554.09	ug/L	10.928	554.09	ppb	10.928	1.97%
Si 251.611†	1050115.0	33438	ug/L	26.1	33438	ppb	26.1	0.08%
Sn 189.927†	2735.2	488.13	ug/L	0.974	488.13	ppb	0.974	0.20%
Sr 421.552†	88258.3	569.95	ug/L	21.176	569.95	ppb	21.176	3.72%
Ti 334.940†	1918482.2	3090.8	ug/L	0.20	3090.8	ppb	0.20	0.01%
Tl 190.801†	1448.6	474.82	ug/L	1.587	474.82	ppb	1.587	0.33%
U 409.014†	7110.5	197.20	ug/L	3.038	197.20	ppb	3.038	1.54%
V 292.402†	87477.9	586.82	ug/L	0.739	586.82	ppb	0.739	0.13%
Zn 213.857†	80614.7	749.09	ug/L	1.064	749.09	ppb	1.064	0.14%
SiO2†	1046059.4	71361	ug/L	277.0	71361	ppb	277.0	0.39%

Sequence No.: 104
Sample ID: 1202004430|936808|5
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 108
Date Collected: 1/12/2010 03:15:51
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202004430|936808|5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5037.7	5037.7	100	%			03:17:45
1	Y RADIAL	5614.2	5614.2	103.4	%			03:17:45
1	Al 396.153Radial†	10082.1	10078.0	7775.0	ug/L	7775.0	ppb	03:17:45
1	Ca 317.933Radial†	1071.6	1051.3	1682.2	ug/L	1682.2	ppb	03:18:05
1	Fe 238.204 Radial†	2045.4	2035.6	17616	ug/L	17616	ppb	03:18:05
1	K 766.490 Radial†	9186.3	6591.8	1203.2	ug/L	1203.2	ppb	03:17:45
1	Mg 279.077 IEC†	48.8	46.8	1546.8	ug/L	1546.8	ppb	03:18:05
1	Na 589.592 Radial†	-136.8	1143.8	342.45	ug/L	342.45	ppb	03:17:45
1	Sr 421.552†	2238.4	2256.8	14.564	ug/L	14.564	ppb	03:17:45
1	Sc 361.383	851704.5	851704.5	99.919	%			03:19:02
1	Y 371.029	747861.5	747861.5	103.49	%			03:19:02
1	Ag 328.068†	-807.2	-1165.8	0.4456	ug/L	0.4456	ppb	03:19:02
1	As 188.979†	-28.4	-4.8	4.2131	ug/L	4.2131	ppb	03:19:22
1	B 249.677†	-267.2	364.4	6.3214	ug/L	6.3214	ppb	03:19:02
1	Ba 233.527†	11797.0	11818.0	92.954	ug/L	92.954	ppb	03:19:02
1	Be 313.107†	-6037.2	-1456.8	0.8073	ug/L	0.8073	ppb	03:19:02
1	Cd 226.502†	-27.4	176.6	0.1355	ug/L	0.1355	ppb	03:19:22
1	Co 228.616†	246.7	321.6	5.1066	ug/L	5.1066	ppb	03:19:22
1	Cr 267.716†	2217.2	2135.7	24.275	ug/L	24.275	ppb	03:19:02
1	Cu 324.752†	8348.8	1943.4	6.7729	ug/L	6.7729	ppb	03:19:02
1	Mn 257.610†	394869.8	394746.4	439.52	ug/L	439.52	ppb	03:19:02
1	Mo 202.031†	39.2	15.6	2.3252	ug/L	2.3252	ppb	03:19:22
1	Ni 231.604†	405.1	337.5	8.3996	ug/L	8.3996	ppb	03:19:22
1	P 214.914†	518.9	289.5	163.46	ug/L	163.46	ppb	03:19:22
1	Pb 220.353†	60.7	124.1	15.199	ug/L	15.199	ppb	03:19:22
1	S 181.975 Axial†	109.8	66.8	93.136	ug/L	93.136	ppb	03:19:22
1	Sb 206.836†	46.4	18.5	4.1972	ug/L	4.1972	ppb	03:19:22
1	Se 196.026†	-93.3	-61.4	17.066	ug/L	17.066	ppb	03:19:22
1	Si 251.611†	173297.6	172888.3	5506.2	ug/L	5506.2	ppb	03:19:02
1	Sn 189.927†	-4.4	-12.0	-1.5932	ug/L	-1.5932	ppb	03:19:22
1	Ti 334.940†	370807.6	372484.0	600.19	ug/L	600.19	ppb	03:19:02
1	Tl 190.801†	-65.8	-33.0	-4.0309	ug/L	-4.0309	ppb	03:19:22
1	U 409.014†	-3805.6	-1797.1	-55.075	ug/L	-55.075	ppb	03:19:02
1	V 292.402†	2196.7	3508.2	20.556	ug/L	20.556	ppb	03:19:02
1	Zn 213.857†	6239.0	5623.9	51.421	ug/L	51.421	ppb	03:19:02
1	SiO2†	174557.5	174128.0	11881	ug/L	11881	ppb	03:20:19
2	Sc Radial	5200.0	5200.0	103	%			03:18:10
2	Y RADIAL	5801.0	5801.0	106.8	%			03:18:10
2	Al 396.153Radial†	10294.2	9968.7	7690.7	ug/L	7690.7	ppb	03:18:10
2	Ca 317.933Radial†	1077.7	1023.8	1638.1	ug/L	1638.1	ppb	03:18:30
2	Fe 238.204 Radial†	2061.6	1987.4	17199	ug/L	17199	ppb	03:18:30
2	K 766.490 Radial†	9226.8	6344.4	1157.8	ug/L	1157.8	ppb	03:18:10
2	Mg 279.077 IEC†	48.5	45.0	1487.0	ug/L	1487.0	ppb	03:18:30
2	Na 589.592 Radial†	-113.5	1170.6	350.48	ug/L	350.48	ppb	03:18:10
2	Sr 421.552†	2265.8	2213.6	14.285	ug/L	14.285	ppb	03:18:10
2	Sc 361.383	855769.3	855769.3	100.40	%			03:19:28
2	Y 371.029	751894.0	751894.0	104.04	%			03:19:28
2	Ag 328.068†	-883.9	-1238.4	-0.0227	ug/L	-0.0227	ppb	03:19:28
2	As 188.979†	-26.3	-2.6	5.1108	ug/L	5.1108	ppb	03:19:48
2	B 249.677†	-362.1	271.2	4.2859	ug/L	4.2859	ppb	03:19:28
2	Ba 233.527†	11872.4	11837.0	93.087	ug/L	93.087	ppb	03:19:28
2	Be 313.107†	-5994.9	-1385.9	0.8330	ug/L	0.8330	ppb	03:19:28
2	Cd 226.502†	-25.1	179.1	0.2058	ug/L	0.2058	ppb	03:19:48
2	Co 228.616†	235.5	309.2	4.8610	ug/L	4.8610	ppb	03:19:48
2	Cr 267.716†	2245.9	2153.8	24.469	ug/L	24.469	ppb	03:19:28
2	Cu 324.752†	8302.0	1857.1	6.4932	ug/L	6.4932	ppb	03:19:28
2	Mn 257.610†	396440.3	394433.7	439.13	ug/L	439.13	ppb	03:19:28
2	Mo 202.031†	44.1	20.2	2.6218	ug/L	2.6218	ppb	03:19:48
2	Ni 231.604†	393.6	324.1	8.0651	ug/L	8.0651	ppb	03:19:48

2	P 214.914†	534.0	302.1	171.53	ug/L	171.53 ppb	03:19:48
2	Pb 220.353†	75.8	138.8	17.020	ug/L	17.020 ppb	03:19:48
2	S 181.975 Axial†	105.2	61.8	86.039	ug/L	86.039 ppb	03:19:48
2	Sb 206.836†	41.4	13.3	2.4145	ug/L	2.4145 ppb	03:19:48
2	Se 196.026†	-93.1	-60.7	16.133	ug/L	16.133 ppb	03:19:48
2	Si 251.611†	174077.6	172841.4	5504.7	ug/L	5504.7 ppb	03:19:28
2	Sn 189.927†	-5.1	-12.7	-1.7330	ug/L	-1.7330 ppb	03:19:48
2	Ti 334.940†	372211.9	372120.1	599.61	ug/L	599.61 ppb	03:19:28
2	Tl 190.801†	-61.1	-28.0	-2.5134	ug/L	-2.5134 ppb	03:19:48
2	U 409.014†	-3839.0	-1812.2	-55.474	ug/L	-55.474 ppb	03:19:28
2	V 292.402†	2198.2	3499.3	20.563	ug/L	20.563 ppb	03:19:28
2	Zn 213.857†	6310.6	5665.5	51.858	ug/L	51.858 ppb	03:19:28
2	SiO2†	172931.7	171678.8	11714	ug/L	11714 ppb	03:20:24
3	Sc Radial	4996.8	4996.8	99.2	%		03:18:35
3	Y RADIAL	5610.1	5610.1	103.3	%		03:18:35
3	Al 396.153Radial†	9942.2	10019.4	7729.8	ug/L	7729.8 ppb	03:18:35
3	Ca 317.933Radial†	1071.1	1059.6	1695.5	ug/L	1695.5 ppb	03:18:55
3	Fe 238.204 Radial†	2044.4	2051.2	17752	ug/L	17752 ppb	03:18:55
3	K 766.490 Radial†	9043.5	6523.0	1190.6	ug/L	1190.6 ppb	03:18:35
3	Mg 279.077 IEC†	47.4	45.8	1512.2	ug/L	1512.2 ppb	03:18:55
3	Na 589.592 Radial†	-171.3	1107.8	331.70	ug/L	331.70 ppb	03:18:35
3	Sr 421.552†	2187.1	2223.5	14.349	ug/L	14.349 ppb	03:18:35
3	Sc 361.383	858004.5	858004.5	100.66	%		03:19:53
3	Y 371.029	754877.1	754877.1	104.46	%		03:19:53
3	Ag 328.068†	-844.0	-1196.4	0.3426	ug/L	0.3426 ppb	03:19:53
3	As 188.979†	-32.3	-8.5	2.6425	ug/L	2.6425 ppb	03:20:13
3	B 249.677†	-374.7	259.5	3.9699	ug/L	3.9699 ppb	03:19:53
3	Ba 233.527†	11877.2	11811.0	92.904	ug/L	92.904 ppb	03:19:53
3	Be 313.107†	-6024.3	-1399.6	0.8270	ug/L	0.8270 ppb	03:19:53
3	Cd 226.502†	-33.9	170.4	0.0531	ug/L	0.0531 ppb	03:20:13
3	Co 228.616†	236.7	309.8	4.8655	ug/L	4.8655 ppb	03:20:13
3	Cr 267.716†	2316.6	2218.2	25.197	ug/L	25.197 ppb	03:19:53
3	Cu 324.752†	8362.8	1895.9	6.6345	ug/L	6.6345 ppb	03:19:53
3	Mn 257.610†	396861.5	393823.4	438.52	ug/L	438.52 ppb	03:19:53
3	Mo 202.031†	44.0	20.0	2.6478	ug/L	2.6478 ppb	03:20:13
3	Ni 231.604†	382.9	312.4	7.7750	ug/L	7.7750 ppb	03:20:13
3	P 214.914†	519.9	286.7	161.66	ug/L	161.66 ppb	03:20:13
3	Pb 220.353†	59.6	122.6	14.992	ug/L	14.992 ppb	03:20:13
3	S 181.975 Axial†	112.1	68.4	95.281	ug/L	95.281 ppb	03:20:13
3	Sb 206.836†	41.5	13.3	2.4198	ug/L	2.4198 ppb	03:20:13
3	Se 196.026†	-102.3	-69.6	12.168	ug/L	12.168 ppb	03:20:13
3	Si 251.611†	174193.1	172504.4	5494.0	ug/L	5494.0 ppb	03:19:53
3	Sn 189.927†	-3.6	-11.3	-1.4582	ug/L	-1.4582 ppb	03:20:13
3	Ti 334.940†	372954.3	371891.8	599.24	ug/L	599.24 ppb	03:19:53
3	Tl 190.801†	-60.3	-27.0	-2.2075	ug/L	-2.2075 ppb	03:20:13
3	U 409.014†	-3605.7	-1570.5	-48.408	ug/L	-48.408 ppb	03:19:53
3	V 292.402†	2192.7	3488.1	20.416	ug/L	20.416 ppb	03:19:53
3	Zn 213.857†	6292.2	5630.9	51.478	ug/L	51.478 ppb	03:19:53
3	SiO2†	172358.3	170660.3	11644	ug/L	11644 ppb	03:20:29

Mean Data: 1202004430|936808|5

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	855159.4	100.32	%	0.375				0.37%
Sc Radial	5078.2	101	%	2.1				2.12%
Y 371.029	751544.2	104.00	%	0.487				0.47%
Y RADIAL	5675.1	104.5	%	2.01				1.92%
Ag 328.068†	-1200.2	0.2552	ug/L	0.24611	0.2552	ppb	0.24611	96.44%
Al 396.153Radial†	10022.0	7731.8	ug/L	42.18	7731.8	ppb	42.18	0.55%
As 188.979†	-5.3	3.9888	ug/L	1.24935	3.9888	ppb	1.24935	31.32%
B 249.677†	298.4	4.8590	ug/L	1.27622	4.8590	ppb	1.27622	26.26%
Ba 233.527†	11822.0	92.982	ug/L	0.0946	92.982	ppb	0.0946	0.10%
Be 313.107†	-1414.1	0.8225	ug/L	0.01343	0.8225	ppb	0.01343	1.63%
Ca 317.933Radial†	1044.9	1671.9	ug/L	30.03	1671.9	ppb	30.03	1.80%
Cd 226.502†	175.4	0.1315	ug/L	0.07642	0.1315	ppb	0.07642	58.12%
Co 228.616†	313.6	4.9444	ug/L	0.14050	4.9444	ppb	0.14050	2.84%
Cr 267.716†	2169.2	24.647	ug/L	0.4860	24.647	ppb	0.4860	1.97%
Cu 324.752†	1898.8	6.6336	ug/L	0.13984	6.6336	ppb	0.13984	2.11%
Fe 238.204 Radial†	2024.7	17522	ug/L	288.0	17522	ppb	288.0	1.64%
K 766.490 Radial†	6486.4	1183.8	ug/L	23.41	1183.8	ppb	23.41	1.98%

Mg 279.077 IEC†	45.9	1515.3	ug/L	30.01	1515.3	ppb	30.01	1.98%
Mn 257.610†	394334.5	439.06	ug/L	0.508	439.06	ppb	0.508	0.12%
Mo 202.031†	18.6	2.5316	ug/L	0.17921	2.5316	ppb	0.17921	7.08%
Na 589.592 Radial†	1140.7	341.54	ug/L	9.423	341.54	ppb	9.423	2.76%
Ni 231.604†	324.6	8.0799	ug/L	0.31259	8.0799	ppb	0.31259	3.87%
P 214.914†	292.7	165.55	ug/L	5.257	165.55	ppb	5.257	3.18%
Pb 220.353†	128.5	15.737	ug/L	1.1160	15.737	ppb	1.1160	7.09%
S 181.975 Axial†	65.7	91.485	ug/L	4.8374	91.485	ppb	4.8374	5.29%
Sb 206.836†	15.0	3.0105	ug/L	1.02769	3.0105	ppb	1.02769	34.14%
Se 196.026†	-63.9	15.122	ug/L	2.6008	15.122	ppb	2.6008	17.20%
Si 251.611†	172744.7	5501.6	ug/L	6.67	5501.6	ppb	6.67	0.12%
Sn 189.927†	-12.0	-1.5948	ug/L	0.13738	-1.5948	ppb	0.13738	8.61%
Sr 421.552†	2231.3	14.399	ug/L	0.1463	14.399	ppb	0.1463	1.02%
Ti 334.940†	372165.3	599.68	ug/L	0.481	599.68	ppb	0.481	0.08%
Tl 190.801†	-29.4	-2.9173	ug/L	0.97652	-2.9173	ppb	0.97652	33.47%
U 409.014†	-1726.6	-52.986	ug/L	3.9696	-52.986	ppb	3.9696	7.49%
V 292.402†	3498.5	20.512	ug/L	0.0829	20.512	ppb	0.0829	0.40%
Zn 213.857†	5640.1	51.586	ug/L	0.2375	51.586	ppb	0.2375	0.46%
SiO2†	172155.7	11746	ug/L	121.6	11746	ppb	121.6	1.04%

Sequence No.: 105
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 1/12/2010 03:22:41
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	5045.3	5045.3	100	%			03:24:33
1	Y RADIAL	5404.9	5404.9	99.55	%			03:24:33
1	Al 396.153Radial†	6601.7	6589.3	5057.7	ug/L	5057.7	ppb	03:24:33
1	Ca 317.933Radial†	3228.4	3202.2	5123.8	ug/L	5123.8	ppb	03:24:53
1	Fe 238.204 Radial†	615.0	604.9	5250.6	ug/L	5250.6	ppb	03:24:53
1	K 766.490 Radial†	30514.5	27863.8	5090.8	ug/L	5090.8	ppb	03:24:33
1	Mg 279.077 IEC†	162.4	160.2	5352.3	ug/L	5352.3	ppb	03:24:53
1	Na 589.592 Radial†	33213.8	34428.4	10308	ug/L	10308	ppb	03:24:33
1	Sr 421.552†	79031.3	78894.1	509.53	ug/L	509.53	ppb	03:24:33
1	Sc 361.383	844293.8	844293.8	99.049	%			03:25:51
1	Y 371.029	703084.9	703084.9	97.290	%			03:25:51
1	Ag 328.068†	114065.7	114802.6	531.89	ug/L	531.89	ppb	03:25:56
1	As 188.979†	1182.2	1217.2	529.62	ug/L	529.62	ppb	03:26:16
1	B 249.677†	22197.9	23042.8	511.67	ug/L	511.67	ppb	03:25:56
1	Ba 233.527†	66436.9	67086.1	525.06	ug/L	525.06	ppb	03:25:56
1	Be 313.107†	1357961.2	1375581.3	525.31	ug/L	525.31	ppb	03:25:51
1	Cd 226.502†	46737.3	47390.0	525.76	ug/L	525.76	ppb	03:25:56
1	Co 228.616†	25424.1	25742.9	527.05	ug/L	527.05	ppb	03:25:56
1	Cr 267.716†	46688.6	47053.5	526.70	ug/L	526.70	ppb	03:25:56
1	Cu 324.752†	177541.6	172833.6	516.80	ug/L	516.80	ppb	03:25:56
1	Mn 257.610†	467865.7	471911.7	523.53	ug/L	523.53	ppb	03:25:51
1	Mo 202.031†	7491.8	7540.0	533.31	ug/L	533.31	ppb	03:26:16
1	Ni 231.604†	21063.3	21197.5	527.50	ug/L	527.50	ppb	03:25:56
1	P 214.914†	4476.2	4289.3	2512.0	ug/L	2512.0	ppb	03:26:16
1	Pb 220.353†	4191.4	4295.0	527.65	ug/L	527.65	ppb	03:26:16
1	S 181.975 Axial†	796.9	761.6	1076.8	ug/L	1076.8	ppb	03:26:16
1	Sb 206.836†	1534.5	1521.3	540.20	ug/L	540.20	ppb	03:26:16
1	Se 196.026†	779.1	818.6	546.12	ug/L	546.12	ppb	03:26:16
1	Si 251.611†	83702.1	83955.1	2667.3	ug/L	2667.3	ppb	03:25:56
1	Sn 189.927†	2984.1	3005.1	533.22	ug/L	533.22	ppb	03:26:16
1	Ti 334.940†	317254.4	321674.2	517.97	ug/L	517.97	ppb	03:25:56
1	Tl 190.801†	1664.4	1713.2	528.78	ug/L	528.78	ppb	03:26:16
1	U 409.014†	15973.3	18138.2	533.30	ug/L	533.30	ppb	03:25:56
1	V 292.402†	74624.7	76650.7	530.73	ug/L	530.73	ppb	03:25:56
1	Zn 213.857†	55623.0	55536.7	520.70	ug/L	520.70	ppb	03:25:56
1	SiO2†	84458.4	84697.4	5764.5	ug/L	5764.5	ppb	03:27:23
2	Sc Radial	5011.9	5011.9	99.5	%			03:24:58
2	Y RADIAL	5374.7	5374.7	98.99	%			03:24:58
2	Al 396.153Radial†	6591.3	6622.6	5083.5	ug/L	5083.5	ppb	03:24:58
2	Ca 317.933Radial†	3244.9	3240.3	5184.7	ug/L	5184.7	ppb	03:25:18
2	Fe 238.204 Radial†	620.7	614.7	5335.5	ug/L	5335.5	ppb	03:25:18
2	K 766.490 Radial†	30246.6	27797.4	5078.6	ug/L	5078.6	ppb	03:24:58
2	Mg 279.077 IEC†	166.3	165.1	5517.3	ug/L	5517.3	ppb	03:25:18
2	Na 589.592 Radial†	32954.0	34388.0	10296	ug/L	10296	ppb	03:24:58
2	Sr 421.552†	78787.7	79174.3	511.34	ug/L	511.34	ppb	03:24:58
2	Sc 361.383	846990.3	846990.3	99.366	%			03:26:22
2	Y 371.029	706257.1	706257.1	97.729	%			03:26:22
2	Ag 328.068†	114761.2	115135.9	533.46	ug/L	533.46	ppb	03:26:27
2	As 188.979†	1176.2	1207.3	525.35	ug/L	525.35	ppb	03:26:47
2	B 249.677†	22471.2	23246.5	516.20	ug/L	516.20	ppb	03:26:27
2	Ba 233.527†	66784.3	67222.1	526.13	ug/L	526.13	ppb	03:26:27
2	Be 313.107†	1362260.1	1375543.0	525.30	ug/L	525.30	ppb	03:26:22
2	Cd 226.502†	46938.5	47442.3	526.33	ug/L	526.33	ppb	03:26:27
2	Co 228.616†	25567.0	25804.9	528.31	ug/L	528.31	ppb	03:26:27
2	Cr 267.716†	46930.5	47146.9	527.75	ug/L	527.75	ppb	03:26:27
2	Cu 324.752†	179084.2	173815.3	519.74	ug/L	519.74	ppb	03:26:27
2	Mn 257.610†	468520.5	471067.0	522.60	ug/L	522.60	ppb	03:26:22
2	Mo 202.031†	7487.9	7512.0	531.33	ug/L	531.33	ppb	03:26:47
2	Ni 231.604†	21100.2	21167.0	526.74	ug/L	526.74	ppb	03:26:27

2	P 214.914†	4482.2	4281.0	2506.2 ug/L	2506.2 ppb	03:26:47
2	Pb 220.353†	4196.1	4286.3	526.57 ug/L	526.57 ppb	03:26:47
2	S 181.975 Axial†	788.5	750.5	1061.1 ug/L	1061.1 ppb	03:26:47
2	Sb 206.836†	1533.0	1514.8	537.94 ug/L	537.94 ppb	03:26:47
2	Se 196.026†	785.4	822.4	548.87 ug/L	548.87 ppb	03:26:47
2	Si 251.611†	84198.0	84185.1	2674.6 ug/L	2674.6 ppb	03:26:27
2	Sn 189.927†	2988.9	3000.3	532.37 ug/L	532.37 ppb	03:26:47
2	Ti 334.940†	319431.3	322845.2	519.85 ug/L	519.85 ppb	03:26:27
2	Tl 190.801†	1677.0	1720.6	531.04 ug/L	531.04 ppb	03:26:47
2	U 409.014†	16221.5	18336.7	539.14 ug/L	539.14 ppb	03:26:27
2	V 292.402†	75200.3	76990.2	533.02 ug/L	533.02 ppb	03:26:27
2	Zn 213.857†	56062.3	55800.0	523.19 ug/L	523.19 ppb	03:26:27
2	SiO2†	84912.8	84883.3	5777.3 ug/L	5777.3 ppb	03:27:28
3	Sc Radial	4987.5	4987.5	99.1 %		03:25:24
3	Y RADIAL	5294.0	5294.0	97.51 %		03:25:24
3	Al 396.153Radial†	6560.7	6624.2	5084.9 ug/L	5084.9 ppb	03:25:24
3	Ca 317.933Radial†	3230.4	3241.6	5186.9 ug/L	5186.9 ppb	03:25:44
3	Fe 238.204 Radial†	613.6	610.6	5300.0 ug/L	5300.0 ppb	03:25:44
3	K 766.490 Radial†	30082.8	27780.9	5075.7 ug/L	5075.7 ppb	03:25:24
3	Mg 279.077 IEC†	161.2	160.8	5373.9 ug/L	5373.9 ppb	03:25:44
3	Na 589.592 Radial†	32527.3	34119.5	10216 ug/L	10216 ppb	03:25:24
3	Sr 421.552†	77652.9	78416.5	506.45 ug/L	506.45 ppb	03:25:24
3	Sc 361.383	849291.1	849291.1	99.636 %		03:26:53
3	Y 371.029	709062.9	709062.9	98.117 %		03:26:53
3	Ag 328.068†	114591.9	114653.1	531.22 ug/L	531.22 ppb	03:26:58
3	As 188.979†	1173.6	1201.6	522.87 ug/L	522.87 ppb	03:27:18
3	B 249.677†	22399.3	23113.1	513.23 ug/L	513.23 ppb	03:26:58
3	Ba 233.527†	66820.7	67076.5	524.99 ug/L	524.99 ppb	03:26:58
3	Be 313.107†	1367681.3	1377270.0	525.96 ug/L	525.96 ppb	03:26:53
3	Cd 226.502†	47009.7	47385.8	525.71 ug/L	525.71 ppb	03:26:58
3	Co 228.616†	25566.8	25735.0	526.87 ug/L	526.87 ppb	03:26:58
3	Cr 267.716†	47028.9	47117.7	527.42 ug/L	527.42 ppb	03:26:58
3	Cu 324.752†	178831.3	173073.3	517.52 ug/L	517.52 ppb	03:26:58
3	Mn 257.610†	468389.9	469658.5	521.04 ug/L	521.04 ppb	03:26:53
3	Mo 202.031†	7473.9	7477.5	528.89 ug/L	528.89 ppb	03:27:18
3	Ni 231.604†	21134.5	21143.9	526.17 ug/L	526.17 ppb	03:26:58
3	P 214.914†	4474.9	4261.4	2494.7 ug/L	2494.7 ppb	03:27:18
3	Pb 220.353†	4207.1	4285.9	526.52 ug/L	526.52 ppb	03:27:18
3	S 181.975 Axial†	788.6	748.5	1058.3 ug/L	1058.3 ppb	03:27:18
3	Sb 206.836†	1529.9	1507.5	535.37 ug/L	535.37 ppb	03:27:18
3	Se 196.026†	781.3	816.1	544.69 ug/L	544.69 ppb	03:27:18
3	Si 251.611†	84226.6	83984.3	2668.3 ug/L	2668.3 ppb	03:26:58
3	Sn 189.927†	2990.8	2994.0	531.26 ug/L	531.26 ppb	03:27:18
3	Ti 334.940†	319686.3	322230.3	518.87 ug/L	518.87 ppb	03:26:58
3	Tl 190.801†	1674.3	1713.3	528.80 ug/L	528.80 ppb	03:27:18
3	U 409.014†	16237.4	18308.4	538.31 ug/L	538.31 ppb	03:26:58
3	V 292.402†	75263.4	76848.4	532.02 ug/L	532.02 ppb	03:26:58
3	Zn 213.857†	55879.4	55463.6	520.02 ug/L	520.02 ppb	03:26:58
3	SiO2†	83080.1	82812.3	5636.0 ug/L	5636.0 ppb	03:27:34

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	846858.4	99.350	%	0.2934				0.30%
Sc Radial	5014.9	99.6	%	0.58				0.58%
Y 371.029	706135.0	97.712	%	0.4139				0.42%
Y RADIAL	5357.9	98.68	%	1.055				1.07%
Ag 328.068†	114863.9	532.19	ug/L	1.148	532.19	ppb	1.148	0.22%
QC value within limits for Ag 328.068 Recovery = 106.44%								
Al 396.153Radial†	6612.0	5075.4	ug/L	15.32	5075.4	ppb	15.32	0.30%
QC value within limits for Al 396.153Radial Recovery = 101.51%								
As 188.979†	1208.7	525.95	ug/L	3.417	525.95	ppb	3.417	0.65%
QC value within limits for As 188.979 Recovery = 105.19%								
B 249.677†	23134.1	513.70	ug/L	2.300	513.70	ppb	2.300	0.45%
QC value within limits for B 249.677 Recovery = 102.74%								
Ba 233.527†	67128.2	525.39	ug/L	0.639	525.39	ppb	0.639	0.12%
QC value within limits for Ba 233.527 Recovery = 105.08%								
Be 313.107†	1376131.4	525.52	ug/L	0.376	525.52	ppb	0.376	0.07%
QC value within limits for Be 313.107 Recovery = 105.10%								
Ca 317.933Radial†	3228.0	5165.1	ug/L	35.79	5165.1	ppb	35.79	0.69%

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   QC value within limits for Ca 317.933Radial  Recovery = 103.30%
Cd 226.502†            47406.0      525.93 ug/L        0.346      525.93 ppb          0.346   0.07%
   QC value within limits for Cd 226.502  Recovery = 105.19%
Co 228.616†            25760.9      527.41 ug/L        0.783      527.41 ppb          0.783   0.15%
   QC value within limits for Co 228.616  Recovery = 105.48%
Cr 267.716†            47106.0      527.29 ug/L        0.535      527.29 ppb          0.535   0.10%
   QC value within limits for Cr 267.716  Recovery = 105.46%
Cu 324.752†           173240.7      518.02 ug/L        1.531      518.02 ppb          1.531   0.30%
   QC value within limits for Cu 324.752  Recovery = 103.60%
Fe 238.204 Radial†       610.1      5295.4 ug/L       42.65      5295.4 ppb          42.65   0.81%
   QC value within limits for Fe 238.204 Radial  Recovery = 105.91%
K 766.490 Radial†      27814.0      5081.7 ug/L        8.01      5081.7 ppb           8.01   0.16%
   QC value within limits for K 766.490 Radial  Recovery = 101.63%
Mg 279.077 IEC†          162.1      5414.5 ug/L       89.69      5414.5 ppb          89.69   1.66%
   QC value within limits for Mg 279.077 IEC  Recovery = 108.29%
Mn 257.610†           470879.1      522.39 ug/L        1.260      522.39 ppb          1.260   0.24%
   QC value within limits for Mn 257.610  Recovery = 104.48%
Mo 202.031†             7509.8      531.18 ug/L        2.211      531.18 ppb          2.211   0.42%
   QC value within limits for Mo 202.031  Recovery = 106.24%
Na 589.592 Radial†     34311.9       10273 ug/L       50.3        10273 ppb          50.3    0.49%
   QC value within limits for Na 589.592 Radial  Recovery = 102.73%
Ni 231.604†            21169.4      526.80 ug/L        0.670      526.80 ppb          0.670   0.13%
   QC value within limits for Ni 231.604  Recovery = 105.36%
P 214.914†              4277.2      2504.3 ug/L        8.80      2504.3 ppb           8.80   0.35%
   QC value within limits for P 214.914  Recovery = 100.17%
Pb 220.353†             4289.1      526.92 ug/L        0.639      526.92 ppb          0.639   0.12%
   QC value within limits for Pb 220.353  Recovery = 105.38%
S 181.975 Axial†         753.5      1065.4 ug/L        9.95      1065.4 ppb           9.95   0.93%
   QC value within limits for S 181.975 Axial  Recovery = 106.54%
Sb 206.836†             1514.5      537.84 ug/L        2.416      537.84 ppb          2.416   0.45%
   QC value within limits for Sb 206.836  Recovery = 107.57%
Se 196.026†              819.0      546.56 ug/L        2.123      546.56 ppb          2.123   0.39%
   QC value within limits for Se 196.026  Recovery = 109.31%
Si 251.611†            84041.5      2670.1 ug/L        3.99      2670.1 ppb           3.99   0.15%
   QC value within limits for Si 251.611  Recovery = 106.80%
Sn 189.927†             2999.8      532.28 ug/L        0.980      532.28 ppb          0.980   0.18%
   QC value within limits for Sn 189.927  Recovery = 106.46%
Sr 421.552†            78828.3      509.11 ug/L        2.475      509.11 ppb          2.475   0.49%
   QC value within limits for Sr 421.552  Recovery = 101.82%
Ti 334.940†           322249.9      518.90 ug/L        0.939      518.90 ppb          0.939   0.18%
   QC value within limits for Ti 334.940  Recovery = 103.78%
Tl 190.801†             1715.7      529.54 ug/L        1.301      529.54 ppb          1.301   0.25%
   QC value within limits for Tl 190.801  Recovery = 105.91%
U 409.014†             18261.1      536.92 ug/L        3.161      536.92 ppb          3.161   0.59%
   QC value within limits for U 409.014  Recovery = 107.38%
V 292.402†             76829.7      531.92 ug/L        1.146      531.92 ppb          1.146   0.22%
   QC value within limits for V 292.402  Recovery = 106.38%
Zn 213.857†            55600.1      521.30 ug/L        1.668      521.30 ppb          1.668   0.32%
   QC value within limits for Zn 213.857  Recovery = 104.26%
SiO2†                  84131.0      5725.9 ug/L       78.13      5725.9 ppb          78.13   1.36%
   QC value within limits for SiO2  Recovery = 107.08%
All analyte(s) passed QC.
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Sequence No.: 106
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 1/12/2010 03:29:43
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5068.8	5068.8	101	%			03:31:36
1	Y RADIAL	5413.4	5413.4	99.70	%			03:31:36
1	Al 396.153Radial†	-16.4	-15.6	-12.006	ug/L	-12.006	ppb	03:31:36
1	Ca 317.933Radial†	12.5	-7.4	-11.831	ug/L	-11.831	ppb	03:31:56
1	Fe 238.204 Radial†	12.0	3.0	26.099	ug/L	26.099	ppb	03:31:56
1	K 766.490 Radial†	2793.1	184.5	33.844	ug/L	33.844	ppb	03:31:36
1	Mg 279.077 IEC†	2.9	1.0	34.003	ug/L	34.003	ppb	03:31:56
1	Na 589.592 Radial†	-1297.2	-8.1	-2.4374	ug/L	-2.4374	ppb	03:31:36
1	Sr 421.552†	32.4	51.7	0.3340	ug/L	0.3340	ppb	03:31:36
1	Sc 361.383	841433.7	841433.7	98.714	%			03:32:53
1	Y 371.029	713597.1	713597.1	98.745	%			03:32:53
1	Ag 328.068†	385.1	32.1	0.1548	ug/L	0.1548	ppb	03:32:53
1	As 188.979†	-19.2	4.2	1.8278	ug/L	1.8278	ppb	03:33:13
1	B 249.677†	-418.3	208.1	4.6370	ug/L	4.6370	ppb	03:33:13
1	Ba 233.527†	-6.5	4.8	0.0385	ug/L	0.0385	ppb	03:33:13
1	Be 313.107†	-4511.9	14.7	0.0057	ug/L	0.0057	ppb	03:32:53
1	Cd 226.502†	-195.3	6.3	0.0677	ug/L	0.0677	ppb	03:33:13
1	Co 228.616†	-76.2	-2.5	-0.0529	ug/L	-0.0529	ppb	03:33:13
1	Cr 267.716†	76.9	-5.3	-0.0597	ug/L	-0.0597	ppb	03:33:13
1	Cu 324.752†	6355.7	26.3	0.0787	ug/L	0.0787	ppb	03:32:53
1	Mn 257.610†	424.0	-15.3	-0.0155	ug/L	-0.0155	ppb	03:33:13
1	Mo 202.031†	13.9	-9.6	-0.6802	ug/L	-0.6802	ppb	03:33:13
1	Ni 231.604†	73.6	6.6	0.1636	ug/L	0.1636	ppb	03:33:13
1	P 214.914†	219.8	-7.2	-4.4456	ug/L	-4.4456	ppb	03:33:13
1	Pb 220.353†	-66.9	-4.4	-0.5464	ug/L	-0.5464	ppb	03:33:13
1	S 181.975 Axial†	43.7	1.2	1.7418	ug/L	1.7418	ppb	03:33:13
1	Sb 206.836†	39.0	11.6	3.9592	ug/L	3.9592	ppb	03:33:13
1	Se 196.026†	-19.9	11.8	7.7146	ug/L	7.7146	ppb	03:33:13
1	Si 251.611†	623.2	80.8	2.5823	ug/L	2.5823	ppb	03:33:13
1	Sn 189.927†	7.7	0.1	0.0161	ug/L	0.0161	ppb	03:33:13
1	Ti 334.940†	-1336.4	20.7	0.0283	ug/L	0.0283	ppb	03:32:53
1	Tl 190.801†	-43.2	-10.9	-3.3366	ug/L	-3.3366	ppb	03:33:13
1	U 409.014†	-1908.4	78.4	2.3100	ug/L	2.3100	ppb	03:32:53
1	V 292.402†	-1292.3	0.6	-0.0050	ug/L	-0.0050	ppb	03:32:53
1	Zn 213.857†	628.2	16.2	0.1492	ug/L	0.1492	ppb	03:33:13
1	SiO2†	618.9	55.3	3.7920	ug/L	3.7920	ppb	03:34:09
2	Sc Radial	5079.4	5079.4	101	%			03:32:01
2	Y RADIAL	5459.4	5459.4	100.6	%			03:32:01
2	Al 396.153Radial†	-12.5	-11.7	-9.0396	ug/L	-9.0396	ppb	03:32:01
2	Ca 317.933Radial†	15.5	-4.4	-7.0327	ug/L	-7.0327	ppb	03:32:21
2	Fe 238.204 Radial†	6.8	-2.1	-18.189	ug/L	-18.189	ppb	03:32:21
2	K 766.490 Radial†	2745.2	131.2	24.065	ug/L	24.065	ppb	03:32:01
2	Mg 279.077 IEC†	1.0	-0.9	-29.856	ug/L	-29.856	ppb	03:32:21
2	Na 589.592 Radial†	-1314.4	-22.6	-6.7659	ug/L	-6.7659	ppb	03:32:01
2	Sr 421.552†	-7.4	12.1	0.0785	ug/L	0.0785	ppb	03:32:01
2	Sc 361.383	843036.6	843036.6	98.902	%			03:33:18
2	Y 371.029	716130.9	716130.9	99.095	%			03:33:18
2	Ag 328.068†	297.8	-56.9	-0.2692	ug/L	-0.2692	ppb	03:33:18
2	As 188.979†	-28.9	-5.6	-2.4371	ug/L	-2.4371	ppb	03:33:38
2	B 249.677†	-421.8	205.4	4.5807	ug/L	4.5807	ppb	03:33:38
2	Ba 233.527†	-5.8	5.6	0.0426	ug/L	0.0426	ppb	03:33:38
2	Be 313.107†	-4522.1	13.0	0.0049	ug/L	0.0049	ppb	03:33:18
2	Cd 226.502†	-170.6	31.6	0.3531	ug/L	0.3531	ppb	03:33:38
2	Co 228.616†	-77.0	-3.2	-0.0654	ug/L	-0.0654	ppb	03:33:38
2	Cr 267.716†	94.4	12.2	0.1357	ug/L	0.1357	ppb	03:33:38
2	Cu 324.752†	6267.5	-75.1	-0.2262	ug/L	-0.2262	ppb	03:33:18
2	Mn 257.610†	421.3	-18.9	-0.0217	ug/L	-0.0217	ppb	03:33:38
2	Mo 202.031†	20.6	-2.9	-0.2031	ug/L	-0.2031	ppb	03:33:38
2	Ni 231.604†	61.0	-6.2	-0.1554	ug/L	-0.1554	ppb	03:33:38

2	P 214.914†	219.2	-8.2	-4.9482 ug/L	-4.9482 ppb	03:33:38
2	Pb 220.353†	-57.0	5.7	0.6952 ug/L	0.6952 ppb	03:33:38
2	S 181.975 Axial†	51.1	8.7	12.268 ug/L	12.268 ppb	03:33:38
2	Sb 206.836†	39.0	11.5	3.9219 ug/L	3.9219 ppb	03:33:38
2	Se 196.026†	-28.5	3.2	1.9967 ug/L	1.9967 ppb	03:33:38
2	Si 251.611†	619.0	75.4	2.4028 ug/L	2.4028 ppb	03:33:38
2	Sn 189.927†	6.7	-0.9	-0.1672 ug/L	-0.1672 ppb	03:33:38
2	Ti 334.940†	-1364.6	-5.3	-0.0075 ug/L	-0.0075 ppb	03:33:18
2	Tl 190.801†	-27.7	4.9	1.4898 ug/L	1.4898 ppb	03:33:38
2	U 409.014†	-1945.4	44.6	1.3181 ug/L	1.3181 ppb	03:33:18
2	V 292.402†	-1308.0	-12.8	-0.0858 ug/L	-0.0858 ppb	03:33:18
2	Zn 213.857†	620.3	6.9	0.0686 ug/L	0.0686 ppb	03:33:38
2	SiO2†	671.8	107.6	7.3477 ug/L	7.3477 ppb	03:34:14
3	Sc Radial	5032.9	5032.9	100.0 %		03:32:26
3	Y RADIAL	5432.7	5432.7	100.1 %		03:32:26
3	Al 396.153Radial†	14.3	15.0	11.534 ug/L	11.534 ppb	03:32:26
3	Ca 317.933Radial†	16.6	-3.2	-5.0511 ug/L	-5.0511 ppb	03:32:46
3	Fe 238.204 Radial†	9.0	0.1	1.2048 ug/L	1.2048 ppb	03:32:46
3	K 766.490 Radial†	2645.7	56.9	10.430 ug/L	10.430 ppb	03:32:26
3	Mg 279.077 IEC†	2.9	1.0	32.475 ug/L	32.475 ppb	03:32:46
3	Na 589.592 Radial†	-1321.2	-41.3	-12.379 ug/L	-12.379 ppb	03:32:26
3	Sr 421.552†	12.3	31.8	0.2053 ug/L	0.2053 ppb	03:32:26
3	Sc 361.383	841037.1	841037.1	98.667 %		03:33:44
3	Y 371.029	715401.7	715401.7	98.995 %		03:33:44
3	Ag 328.068†	314.3	-39.4	-0.1866 ug/L	-0.1866 ppb	03:33:44
3	As 188.979†	-18.9	4.5	1.9384 ug/L	1.9384 ppb	03:34:04
3	B 249.677†	-419.8	206.4	4.6014 ug/L	4.6014 ppb	03:34:04
3	Ba 233.527†	-17.5	-6.3	-0.0513 ug/L	-0.0513 ppb	03:34:04
3	Be 313.107†	-4437.9	87.5	0.0337 ug/L	0.0337 ppb	03:33:44
3	Cd 226.502†	-177.8	23.9	0.2661 ug/L	0.2661 ppb	03:34:04
3	Co 228.616†	-83.6	-10.1	-0.2052 ug/L	-0.2052 ppb	03:34:04
3	Cr 267.716†	96.4	14.4	0.1588 ug/L	0.1588 ppb	03:34:04
3	Cu 324.752†	6258.1	-69.6	-0.2094 ug/L	-0.2094 ppb	03:33:44
3	Mn 257.610†	435.1	-3.9	-0.0055 ug/L	-0.0055 ppb	03:34:04
3	Mo 202.031†	30.8	7.5	0.5310 ug/L	0.5310 ppb	03:34:04
3	Ni 231.604†	71.3	4.3	0.1080 ug/L	0.1080 ppb	03:34:04
3	P 214.914†	237.8	11.2	6.8783 ug/L	6.8783 ppb	03:34:04
3	Pb 220.353†	-63.0	-0.5	-0.0601 ug/L	-0.0601 ppb	03:34:04
3	S 181.975 Axial†	49.3	7.0	9.8506 ug/L	9.8506 ppb	03:34:04
3	Sb 206.836†	34.3	6.8	2.3337 ug/L	2.3337 ppb	03:34:04
3	Se 196.026†	-26.0	5.6	3.6377 ug/L	3.6377 ppb	03:34:04
3	Si 251.611†	617.7	75.6	2.4003 ug/L	2.4003 ppb	03:34:04
3	Sn 189.927†	7.1	-0.5	-0.0880 ug/L	-0.0880 ppb	03:34:04
3	Ti 334.940†	-1253.5	104.1	0.1634 ug/L	0.1634 ppb	03:33:44
3	Tl 190.801†	-35.1	-2.7	-0.8337 ug/L	-0.8337 ppb	03:34:04
3	U 409.014†	-1902.2	83.7	2.4698 ug/L	2.4698 ppb	03:33:44
3	V 292.402†	-1429.9	-139.5	-0.9393 ug/L	-0.9393 ppb	03:33:44
3	Zn 213.857†	634.8	23.2	0.2187 ug/L	0.2187 ppb	03:34:04
3	SiO2†	662.0	99.2	6.7554 ug/L	6.7554 ppb	03:34:19

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	841835.8	98.761	%	0.1242				0.13%
Sc Radial	5060.4	100	%	0.5				0.48%
Y 371.029	715043.2	98.945	%	0.1805				0.18%
Y RADIAL	5435.1	100.1	%	0.43				0.42%
Ag 328.068†	-21.4	-0.1003	ug/L	0.22477	-0.1003	ppb	0.22477	224.07%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-4.1	-3.1706	ug/L	12.82070	-3.1706	ppb	12.82070	404.37%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	1.0	0.4430	ug/L	2.49490	0.4430	ppb	2.49490	563.16%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	206.6	4.6064	ug/L	0.02847	4.6064	ppb	0.02847	0.62%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	1.4	0.0099	ug/L	0.05304	0.0099	ppb	0.05304	533.68%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	38.4	0.0148	ug/L	0.01642	0.0148	ppb	0.01642	111.10%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-5.0	-7.9715	ug/L	3.48585	-7.9715	ppb	3.48585	43.73%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                20.6      0.2290 ug/L       0.14627      0.2290 ppb        0.14627  63.88%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                -5.2     -0.1079 ug/L       0.08453     -0.1079 ppb        0.08453  78.38%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                 7.1      0.0783 ug/L       0.12002      0.0783 ppb        0.12002 153.34%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               -39.5     -0.1190 ug/L       0.17142     -0.1190 ppb        0.17142 144.10%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          0.4      3.0383 ug/L      22.20094      3.0383 ppb       22.20094 730.70%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         124.2      22.779 ug/L       11.7595      22.779 ppb        11.7595  51.62%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             0.4      12.207 ug/L       36.4361      12.207 ppb        36.4361 298.48%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               -12.7     -0.0142 ug/L       0.00820     -0.0142 ppb        0.00820  57.69%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                -1.7     -0.1175 ug/L       0.61014     -0.1175 ppb        0.61014 519.45%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        -24.0     -7.1942 ug/L       4.98484     -7.1942 ppb        4.98484  69.29%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                 1.6      0.0387 ug/L       0.17038      0.0387 ppb        0.17038 439.84%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -1.4     -0.8385 ug/L       6.68764     -0.8385 ppb        6.68764 797.57%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                 0.3      0.0296 ug/L       0.62564      0.0296 ppb        0.62564 >999.9%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            5.6      7.9535 ug/L       5.51358      7.9535 ppb        5.51358  69.32%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 9.9      3.4049 ug/L       0.92791      3.4049 ppb        0.92791  27.25%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 6.9      4.4497 ug/L       2.94418      4.4497 ppb        2.94418  66.17%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                77.3      2.4618 ug/L       0.10438      2.4618 ppb        0.10438   4.24%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                -0.4     -0.0797 ug/L       0.09195     -0.0797 ppb        0.09195 115.37%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                31.9      0.2060 ug/L       0.12777      0.2060 ppb        0.12777  62.04%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                39.9      0.0614 ug/L       0.09012      0.0614 ppb        0.09012 146.81%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                -2.9     -0.8935 ug/L       2.41377     -0.8935 ppb        2.41377 270.14%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 68.9      2.0326 ug/L       0.62393      2.0326 ppb        0.62393  30.70%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                -50.6     -0.3434 ug/L       0.51766     -0.3434 ppb        0.51766 150.75%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                15.4      0.1455 ug/L       0.07515      0.1455 ppb        0.07515  51.65%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                      87.4      5.9650 ug/L       1.90506      5.9650 ppb        1.90506  31.94%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

1/14/2010 09:58:48 Hg ReAlign... Actual peak offset (nm): -0.009
Drift (nm): -0.000 Slit adjustment: 5

Analysis Begun

Start Time: 1/14/2010 10:00:33 **Plasma On Time: 1/11/2010 06:15:31**
Logged In Analyst: Optima3 **Technique: ICP Continuous**
Spectrometer Model: Optima 5300 DV, S/N 077C7090601Autosampler Model: S10

Sample Information File: C:\pe\Optima3\Sample Information\011410.sif
Batch ID:
Results Data Set: 011410
Results Library: C:\pe\Optima3\Results\Results.mdb

Method Loaded
Method Name: General Eng.2AX **Method Last Saved: 1/13/2010 13:20:34**
IEC File: 011110.iec **MSF File:**
Method Description:

Analyte	Calibration Equation	Processing	View	Internal Standard	IEC
Ag 328.068	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Al 396.153Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
As 188.979	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
B 249.677	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ba 233.527	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Be 313.107	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ca 317.933Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	No
Cd 226.502	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Co 228.616	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cr 267.716	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cu 324.752	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Fe 238.204 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
K 766.490 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Mg 279.077 IEC	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Mn 257.610	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Mo 202.031	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Na 589.592 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	No
Ni 231.604	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
P 214.914	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Pb 220.353	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
S 181.975 Axial	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sb 206.836	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sc 361.383	Lin Thru 0	Peak Area	Axial	n/a	n/a
Sc Radial	Lin, Calc Int	Peak Area	Radial	n/a	n/a
Se 196.026	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Si 251.611	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sn 189.927	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sr 421.552	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Ti 334.940	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Tl 190.801	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
U 409.014	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
V 292.402	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y 371.029	Lin, Calc Int	Peak Area	Axial	n/a	n/a
Zn 213.857	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y RADIAL	Lin, Calc Int	Peak Area	Radial	n/a	n/a
SiO2	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes

Sequence No.: 1 **Autosampler Location: 8**
Sample ID: S0 **Date Collected: 1/14/2010 10:00:35**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: S0

	Net	Corrected	Calib.	Analysis

Repl#	Analyte	Intensity	Intensity	Conc.	Units	Time
1	Sc Radial	4932.2	4932.2	103	%	10:02:28
1	Y RADIAL	5261.2	5261.2	102.6	%	10:02:28
1	Al 396.153Radial†	-7.8	-7.6	[0.00]	ug/L	10:02:28
1	Ca 317.933Radial†	16.3	15.8	[0.00]	ug/L	10:02:48
1	Fe 238.204 Radial†	8.9	8.6	[0.00]	ug/L	10:02:48
1	K 766.490 Radial†	2718.4	2640.8	[0.00]	ug/L	10:02:28
1	Mg 279.077 IEC†	-0.9	-0.9	[0.00]	ug/L	10:02:48
1	Na 589.592 Radial†	-1571.2	-1526.4	[0.00]	ug/L	10:02:28
1	Sr 421.552†	12.7	12.4	[0.00]	ug/L	10:02:28
1	Sc 361.383	832827.7	832827.7	102.33	%	10:03:44
1	Y 371.029	701724.3	701724.3	102.30	%	10:03:44
1	Ag 328.068†	297.6	290.8	[0.00]	ug/L	10:03:44
1	As 188.979†	-17.5	-17.1	[0.00]	ug/L	10:04:04
1	B 249.677†	-522.9	-511.0	[0.00]	ug/L	10:04:04
1	Ba 233.527†	-2.6	-2.6	[0.00]	ug/L	10:04:04
1	Be 313.107†	-4305.8	-4207.8	[0.00]	ug/L	10:03:44
1	Cd 226.502†	-196.0	-191.6	[0.00]	ug/L	10:04:04
1	Co 228.616†	-70.4	-68.8	[0.00]	ug/L	10:04:04
1	Cr 267.716†	98.2	95.9	[0.00]	ug/L	10:04:04
1	Cu 324.752†	6282.2	6139.2	[0.00]	ug/L	10:03:44
1	Mn 257.610†	401.9	392.7	[0.00]	ug/L	10:04:04
1	Mo 202.031†	18.7	18.2	[0.00]	ug/L	10:04:04
1	Ni 231.604†	81.1	79.3	[0.00]	ug/L	10:04:04
1	P 214.914†	234.2	228.9	[0.00]	ug/L	10:04:04
1	Pb 220.353†	-63.3	-61.9	[0.00]	ug/L	10:04:04
1	S 181.975 Axial†	44.1	43.1	[0.00]	ug/L	10:04:04
1	Sb 206.836†	38.8	37.9	[0.00]	ug/L	10:04:04
1	Se 196.026†	-37.7	-36.8	[0.00]	ug/L	10:04:04
1	Si 251.611†	455.1	444.7	[0.00]	ug/L	10:04:04
1	Sn 189.927†	8.2	8.0	[0.00]	ug/L	10:04:04
1	Ti 334.940†	-1420.0	-1387.7	[0.00]	ug/L	10:03:44
1	Tl 190.801†	-42.9	-41.9	[0.00]	ug/L	10:04:04
1	U 409.014†	-1985.4	-1940.2	[0.00]	ug/L	10:03:44
1	V 292.402†	-1388.2	-1356.6	[0.00]	ug/L	10:03:44
1	Zn 213.857†	840.0	820.9	[0.00]	ug/L	10:04:04
1	SiO2†	437.7	427.7	[0.00]	ug/L	10:05:00
2	Sc Radial	4791.8	4791.8	100	%	10:02:53
2	Y RADIAL	5129.8	5129.8	100.0	%	10:02:53
2	Al 396.153Radial†	9.0	9.0	[0.00]	ug/L	10:02:53
2	Ca 317.933Radial†	16.0	16.0	[0.00]	ug/L	10:03:13
2	Fe 238.204 Radial†	9.4	9.4	[0.00]	ug/L	10:03:13
2	K 766.490 Radial†	2747.3	2747.0	[0.00]	ug/L	10:02:53
2	Mg 279.077 IEC†	2.9	2.9	[0.00]	ug/L	10:03:13
2	Na 589.592 Radial†	-1583.6	-1583.4	[0.00]	ug/L	10:02:53
2	Sr 421.552†	39.6	39.6	[0.00]	ug/L	10:02:53
2	Sc 361.383	807814.0	807814.0	99.256	%	10:04:10
2	Y 371.029	680196.8	680196.8	99.160	%	10:04:10
2	Ag 328.068†	231.7	233.4	[0.00]	ug/L	10:04:10
2	As 188.979†	-24.5	-24.7	[0.00]	ug/L	10:04:30
2	B 249.677†	-502.7	-506.4	[0.00]	ug/L	10:04:30
2	Ba 233.527†	17.5	17.6	[0.00]	ug/L	10:04:30
2	Be 313.107†	-4286.9	-4319.0	[0.00]	ug/L	10:04:10
2	Cd 226.502†	-195.2	-196.7	[0.00]	ug/L	10:04:30
2	Co 228.616†	-74.9	-75.5	[0.00]	ug/L	10:04:30
2	Cr 267.716†	93.2	93.9	[0.00]	ug/L	10:04:30
2	Cu 324.752†	6375.5	6423.2	[0.00]	ug/L	10:04:10
2	Mn 257.610†	403.8	406.9	[0.00]	ug/L	10:04:30
2	Mo 202.031†	21.5	21.7	[0.00]	ug/L	10:04:30
2	Ni 231.604†	65.5	66.0	[0.00]	ug/L	10:04:30
2	P 214.914†	226.7	228.4	[0.00]	ug/L	10:04:30
2	Pb 220.353†	-71.2	-71.7	[0.00]	ug/L	10:04:30
2	S 181.975 Axial†	46.3	46.6	[0.00]	ug/L	10:04:30
2	Sb 206.836†	31.8	32.0	[0.00]	ug/L	10:04:30
2	Se 196.026†	-27.8	-28.0	[0.00]	ug/L	10:04:30
2	Si 251.611†	443.7	447.0	[0.00]	ug/L	10:04:30
2	Sn 189.927†	3.7	3.7	[0.00]	ug/L	10:04:30
2	Ti 334.940†	-1403.0	-1413.5	[0.00]	ug/L	10:04:10
2	Tl 190.801†	-49.5	-49.8	[0.00]	ug/L	10:04:30
2	U 409.014†	-2107.3	-2123.1	[0.00]	ug/L	10:04:10
2	V 292.402†	-1387.8	-1398.2	[0.00]	ug/L	10:04:10

2	Zn 213.857†	866.0	872.4	[0.00]	ug/L	10:04:30
2	SiO2†	456.3	459.8	[0.00]	ug/L	10:05:05
3	Sc Radial	4649.9	4649.9	97.0	%	10:03:18
3	Y RADIAL	4997.5	4997.5	97.43	%	10:03:18
3	Al 396.153Radial†	-10.8	-11.1	[0.00]	ug/L	10:03:18
3	Ca 317.933Radial†	13.2	13.6	[0.00]	ug/L	10:03:38
3	Fe 238.204 Radial†	11.3	11.7	[0.00]	ug/L	10:03:38
3	K 766.490 Radial†	2886.7	2974.5	[0.00]	ug/L	10:03:18
3	Mg 279.077 IEC†	2.4	2.5	[0.00]	ug/L	10:03:38
3	Na 589.592 Radial†	-1544.0	-1591.0	[0.00]	ug/L	10:03:18
3	Sr 421.552†	-0.3	-0.3	[0.00]	ug/L	10:03:18
3	Sc 361.383	800955.3	800955.3	98.414	%	10:04:35
3	Y 371.029	675961.5	675961.5	98.542	%	10:04:35
3	Ag 328.068†	315.4	320.5	[0.00]	ug/L	10:04:35
3	As 188.979†	-14.5	-14.7	[0.00]	ug/L	10:04:55
3	B 249.677†	-529.6	-538.2	[0.00]	ug/L	10:04:55
3	Ba 233.527†	-10.4	-10.6	[0.00]	ug/L	10:04:55
3	Be 313.107†	-4340.0	-4410.0	[0.00]	ug/L	10:04:35
3	Cd 226.502†	-201.2	-204.4	[0.00]	ug/L	10:04:55
3	Co 228.616†	-72.6	-73.8	[0.00]	ug/L	10:04:55
3	Cr 267.716†	95.8	97.4	[0.00]	ug/L	10:04:55
3	Cu 324.752†	6231.4	6331.8	[0.00]	ug/L	10:04:35
3	Mn 257.610†	406.7	413.3	[0.00]	ug/L	10:04:55
3	Mo 202.031†	17.8	18.1	[0.00]	ug/L	10:04:55
3	Ni 231.604†	78.9	80.1	[0.00]	ug/L	10:04:55
3	P 214.914†	222.8	226.4	[0.00]	ug/L	10:04:55
3	Pb 220.353†	-59.2	-60.1	[0.00]	ug/L	10:04:55
3	S 181.975 Axial†	48.8	49.6	[0.00]	ug/L	10:04:55
3	Sb 206.836†	27.8	28.2	[0.00]	ug/L	10:04:55
3	Se 196.026†	-25.8	-26.3	[0.00]	ug/L	10:04:55
3	Si 251.611†	438.8	445.9	[0.00]	ug/L	10:04:55
3	Sn 189.927†	6.6	6.7	[0.00]	ug/L	10:04:55
3	Ti 334.940†	-1338.3	-1359.8	[0.00]	ug/L	10:04:35
3	Tl 190.801†	-39.3	-39.9	[0.00]	ug/L	10:04:55
3	U 409.014†	-2026.9	-2059.5	[0.00]	ug/L	10:04:35
3	V 292.402†	-1443.4	-1466.7	[0.00]	ug/L	10:04:35
3	Zn 213.857†	873.6	887.7	[0.00]	ug/L	10:04:55
3	SiO2†	473.6	481.2	[0.00]	ug/L	10:05:10

Mean Data: S0

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	813865.7	16775.85	2.06%	100.00	%
Sc Radial	4791.3	141.16	2.95%	100	%
Y 371.029	685960.9	13814.83	2.01%	100.00	%
Y RADIAL	5129.5	131.87	2.57%	100.0	%
Ag 328.068†	281.6	44.28	15.72%	[0.00]	ug/L
Al 396.153Radial†	-3.2	10.73	330.84%	[0.00]	ug/L
As 188.979†	-18.8	5.17	27.44%	[0.00]	ug/L
B 249.677†	-518.5	17.16	3.31%	[0.00]	ug/L
Ba 233.527†	1.5	14.54	984.68%	[0.00]	ug/L
Be 313.107†	-4312.2	101.26	2.35%	[0.00]	ug/L
Ca 317.933Radial†	15.1	1.36	8.95%	[0.00]	ug/L
Cd 226.502†	-197.6	6.48	3.28%	[0.00]	ug/L
Co 228.616†	-72.7	3.45	4.75%	[0.00]	ug/L
Cr 267.716†	95.7	1.76	1.83%	[0.00]	ug/L
Cu 324.752†	6298.1	145.00	2.30%	[0.00]	ug/L
Fe 238.204 Radial†	9.9	1.58	16.03%	[0.00]	ug/L
K 766.490 Radial†	2787.4	170.52	6.12%	[0.00]	ug/L
Mg 279.077 IEC†	1.5	2.09	138.88%	[0.00]	ug/L
Mn 257.610†	404.3	10.52	2.60%	[0.00]	ug/L
Mo 202.031†	19.3	2.03	10.49%	[0.00]	ug/L
Na 589.592 Radial†	-1566.9	35.34	2.26%	[0.00]	ug/L
Ni 231.604†	75.1	7.95	10.58%	[0.00]	ug/L
P 214.914†	227.9	1.33	0.58%	[0.00]	ug/L
Pb 220.353†	-64.6	6.25	9.67%	[0.00]	ug/L
S 181.975 Axial†	46.5	3.27	7.03%	[0.00]	ug/L
Sb 206.836†	32.7	4.88	14.92%	[0.00]	ug/L
Se 196.026†	-30.4	5.67	18.67%	[0.00]	ug/L
Si 251.611†	445.9	1.12	0.25%	[0.00]	ug/L

Sn 189.927†	6.1	2.19	35.85%	[0.00] ug/L
Sr 421.552†	17.2	20.42	118.60%	[0.00] ug/L
Ti 334.940†	-1387.0	26.86	1.94%	[0.00] ug/L
Tl 190.801†	-43.9	5.24	11.95%	[0.00] ug/L
U 409.014†	-2041.0	92.87	4.55%	[0.00] ug/L
V 292.402†	-1407.1	55.58	3.95%	[0.00] ug/L
Zn 213.857†	860.3	35.02	4.07%	[0.00] ug/L
SiO2†	456.2	26.92	5.90%	[0.00] ug/L

Sequence No.: 2
Sample ID: S0.1
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 2
Date Collected: 1/14/2010 10:07:21
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc Radial	4980.0	4980.0	104	%	10:09:19
1	Y RADIAL	5307.1	5307.1	103.5	%	10:09:19
1	K 766.490 Radial†	7918.1	4830.8	[1000]	ug/L	10:09:13
1	Sr 421.552†	14610.2	14039.5	[100]	ug/L	10:09:19
1	Sc 361.383	837270.7	837270.7	102.88	%	10:09:45
1	Y 371.029	701767.9	701767.9	102.30	%	10:09:45
1	Ag 328.068†	21370.5	20491.6	[100]	ug/L	10:09:45
1	As 188.979†	194.1	207.6	[100]	ug/L	10:10:06
1	B 249.677†	3466.3	3887.9	[100]	ug/L	10:09:45
1	Ba 233.527†	12482.1	12131.7	[100]	ug/L	10:09:45
1	Be 313.107†	252539.9	249792.7	[100]	ug/L	10:09:45
1	Cd 226.502†	8609.2	8566.1	[100]	ug/L	10:09:45
1	Co 228.616†	4577.8	4522.5	[100]	ug/L	10:10:06
1	Cr 267.716†	8714.4	8375.1	[100]	ug/L	10:09:45
1	Cu 324.752†	37947.5	30588.7	[100]	ug/L	10:09:45
1	Mn 257.610†	89195.1	86297.5	[100]	ug/L	10:09:45
1	Mo 202.031†	1376.9	1319.1	[100]	ug/L	10:10:06
1	Ni 231.604†	3914.8	3730.2	[100]	ug/L	10:10:06
1	P 214.914†	1011.4	755.2	[500]	ug/L	10:10:06
1	Pb 220.353†	733.9	778.0	[100]	ug/L	10:10:06
1	S 181.975 Axial†	175.5	124.2	[200]	ug/L	10:10:06
1	Sb 206.836†	305.9	264.6	[100]	ug/L	10:10:06
1	Se 196.026†	120.0	147.0	[100]	ug/L	10:10:06
1	Si 251.611†	15372.6	14497.0	[500]	ug/L	10:09:45
1	Sn 189.927†	556.5	534.8	[100]	ug/L	10:10:06
1	Ti 334.940†	57611.8	57388.3	[100]	ug/L	10:09:45
1	Tl 190.801†	289.2	325.0	[100]	ug/L	10:10:06
1	U 409.014†	1383.3	3385.6	[100]	ug/L	10:09:45
1	V 292.402†	12484.9	13543.0	[100]	ug/L	10:09:45
1	Zn 213.857†	11245.7	10071.0	[100]	ug/L	10:09:45
1	SiO2†	15354.0	14468.6	[1069.5]	ug/L	10:11:02
2	Sc Radial	5529.1	5529.1	115	%	10:09:29
2	Y RADIAL	5928.0	5928.0	115.6	%	10:09:29
2	K 766.490 Radial†	8050.8	4189.1	[1000]	ug/L	10:09:24
2	Sr 421.552†	14313.1	12385.9	[100]	ug/L	10:09:29
2	Sc 361.383	832734.2	832734.2	102.32	%	10:10:11
2	Y 371.029	698577.3	698577.3	101.84	%	10:10:11
2	Ag 328.068†	21291.7	20527.7	[100]	ug/L	10:10:11
2	As 188.979†	197.2	211.6	[100]	ug/L	10:10:31
2	B 249.677†	3455.5	3895.8	[100]	ug/L	10:10:11
2	Ba 233.527†	12395.8	12113.5	[100]	ug/L	10:10:11
2	Be 313.107†	251821.6	250427.9	[100]	ug/L	10:10:11
2	Cd 226.502†	8631.5	8633.5	[100]	ug/L	10:10:11
2	Co 228.616†	4599.0	4567.4	[100]	ug/L	10:10:31
2	Cr 267.716†	8700.5	8407.7	[100]	ug/L	10:10:11
2	Cu 324.752†	37968.5	30810.1	[100]	ug/L	10:10:11
2	Mn 257.610†	88708.7	86294.4	[100]	ug/L	10:10:11
2	Mo 202.031†	1391.7	1340.9	[100]	ug/L	10:10:31
2	Ni 231.604†	3938.1	3773.8	[100]	ug/L	10:10:31
2	P 214.914†	1007.6	756.9	[500]	ug/L	10:10:31
2	Pb 220.353†	742.9	790.6	[100]	ug/L	10:10:31
2	S 181.975 Axial†	176.2	125.8	[200]	ug/L	10:10:31
2	Sb 206.836†	312.7	272.9	[100]	ug/L	10:10:31
2	Se 196.026†	119.4	147.1	[100]	ug/L	10:10:31
2	Si 251.611†	15342.8	14549.2	[500]	ug/L	10:10:11
2	Sn 189.927†	551.0	532.4	[100]	ug/L	10:10:31
2	Ti 334.940†	57404.7	57491.0	[100]	ug/L	10:10:11
2	Tl 190.801†	283.1	320.6	[100]	ug/L	10:10:31
2	U 409.014†	1102.9	3118.9	[100]	ug/L	10:10:11

2	V 292.402†	12557.3	13679.9	[100]	ug/L	10:10:11
2	Zn 213.857†	11200.1	10086.0	[100]	ug/L	10:10:11
2	SiO2†	15330.9	14527.3	[1069.5]	ug/L	10:11:07
3	Sc Radial	5123.1	5123.1	107	%	10:09:39
3	Y RADIAL	5481.5	5481.5	106.9	%	10:09:39
3	K 766.490 Radial†	7885.8	4587.7	[1000]	ug/L	10:09:34
3	Sr 421.552†	14844.1	13865.4	[100]	ug/L	10:09:39
3	Sc 361.383	816241.6	816241.6	100.29	%	10:10:37
3	Y 371.029	685532.0	685532.0	99.937	%	10:10:37
3	Ag 328.068†	20944.5	20601.9	[100]	ug/L	10:10:37
3	As 188.979†	204.6	222.8	[100]	ug/L	10:10:57
3	B 249.677†	3451.3	3959.8	[100]	ug/L	10:10:37
3	Ba 233.527†	12220.9	12183.9	[100]	ug/L	10:10:37
3	Be 313.107†	247937.0	251527.5	[100]	ug/L	10:10:37
3	Cd 226.502†	8450.9	8623.9	[100]	ug/L	10:10:37
3	Co 228.616†	4528.4	4587.9	[100]	ug/L	10:10:57
3	Cr 267.716†	8574.0	8453.3	[100]	ug/L	10:10:37
3	Cu 324.752†	37299.3	30892.6	[100]	ug/L	10:10:37
3	Mn 257.610†	87464.8	86806.0	[100]	ug/L	10:10:37
3	Mo 202.031†	1376.5	1353.2	[100]	ug/L	10:10:57
3	Ni 231.604†	3869.5	3783.1	[100]	ug/L	10:10:57
3	P 214.914†	985.0	754.3	[500]	ug/L	10:10:57
3	Pb 220.353†	739.1	801.6	[100]	ug/L	10:10:57
3	S 181.975 Axial†	183.5	136.5	[200]	ug/L	10:10:57
3	Sb 206.836†	305.3	271.7	[100]	ug/L	10:10:57
3	Se 196.026†	122.2	152.3	[100]	ug/L	10:10:57
3	Si 251.611†	15075.9	14586.2	[500]	ug/L	10:10:37
3	Sn 189.927†	550.4	542.7	[100]	ug/L	10:10:57
3	Ti 334.940†	56613.6	57835.9	[100]	ug/L	10:10:37
3	Tl 190.801†	282.8	325.9	[100]	ug/L	10:10:57
3	U 409.014†	1143.5	3181.1	[100]	ug/L	10:10:37
3	V 292.402†	12363.5	13734.6	[100]	ug/L	10:10:37
3	Zn 213.857†	11042.7	10150.2	[100]	ug/L	10:10:37
3	SiO2†	15409.6	14908.5	[1069.5]	ug/L	10:11:12

Mean Data: S0.1

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	828748.8	11066.56	1.34%	101.83	%
Sc Radial	5210.7	284.87	5.47%	109	%
Y 371.029	695292.4	8602.01	1.24%	101.36	%
Y RADIAL	5572.2	320.23	5.75%	108.6	%
Ag 328.068†	20540.4	56.27	0.27%	[100]	ug/L
As 188.979†	214.0	7.90	3.69%	[100]	ug/L
B 249.677†	3914.5	39.44	1.01%	[100]	ug/L
Ba 233.527†	12143.0	36.54	0.30%	[100]	ug/L
Be 313.107†	250582.7	877.71	0.35%	[100]	ug/L
Cd 226.502†	8607.8	36.48	0.42%	[100]	ug/L
Co 228.616†	4559.3	33.47	0.73%	[100]	ug/L
Cr 267.716†	8412.0	39.30	0.47%	[100]	ug/L
Cu 324.752†	30763.8	157.19	0.51%	[100]	ug/L
K 766.490 Radial†	4535.8	323.96	7.14%	[1000]	ug/L
Mn 257.610†	86466.0	294.45	0.34%	[100]	ug/L
Mo 202.031†	1337.7	17.25	1.29%	[100]	ug/L
Ni 231.604†	3762.4	28.22	0.75%	[100]	ug/L
P 214.914†	755.5	1.32	0.18%	[500]	ug/L
Pb 220.353†	790.1	11.80	1.49%	[100]	ug/L
S 181.975 Axial†	128.8	6.71	5.21%	[200]	ug/L
Sb 206.836†	269.7	4.47	1.66%	[100]	ug/L
Se 196.026†	148.8	3.00	2.02%	[100]	ug/L
Si 251.611†	14544.1	44.82	0.31%	[500]	ug/L
Sn 189.927†	536.6	5.40	1.01%	[100]	ug/L
Sr 421.552†	13430.3	908.65	6.77%	[100]	ug/L
Ti 334.940†	57571.7	234.43	0.41%	[100]	ug/L
Tl 190.801†	323.9	2.85	0.88%	[100]	ug/L
U 409.014†	3228.5	139.51	4.32%	[100]	ug/L
V 292.402†	13652.5	98.69	0.72%	[100]	ug/L
Zn 213.857†	10102.4	42.08	0.42%	[100]	ug/L
SiO2†	14634.8	238.87	1.63%	[1069.5]	ug/L

Sequence No.: 3
Sample ID: S0.5
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 3
Date Collected: 1/14/2010 10:13:22
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc Radial	4929.8	4929.8	103	%	10:15:14
1	Y RADIAL	5190.6	5190.6	101.2	%	10:15:14
1	Al 396.153Radial†	6303.0	6129.1	[5000]	ug/L	10:15:14
1	Ca 317.933Radial†	2996.8	2897.4	[5000]	ug/L	10:15:34
1	K 766.490 Radial†	28647.2	25054.8	[5000]	ug/L	10:15:14
1	Mg 279.077 IEC†	152.8	147.0	[5000]	ug/L	10:15:34
1	Sr 421.552†	73885.3	71791.9	[500]	ug/L	10:15:14
1	Sc 361.383	830892.7	830892.7	102.09	%	10:16:32
1	Y 371.029	689236.5	689236.5	100.48	%	10:16:32
1	Ag 328.068†	104357.3	101937.2	[500]	ug/L	10:16:37
1	As 188.979†	1102.7	1099.0	[500]	ug/L	10:16:57
1	B 249.677†	20425.2	20525.2	[500]	ug/L	10:16:37
1	Ba 233.527†	61818.7	60550.4	[500]	ug/L	10:16:37
1	Be 313.107†	1294357.2	1272144.9	[500]	ug/L	10:16:32
1	Cd 226.502†	44022.9	43318.4	[500]	ug/L	10:16:37
1	Co 228.616†	23705.0	23291.9	[500]	ug/L	10:16:37
1	Cr 267.716†	43629.2	42639.4	[500]	ug/L	10:16:37
1	Cu 324.752†	165248.6	155564.2	[500]	ug/L	10:16:37
1	Mn 257.610†	438168.5	428785.1	[500]	ug/L	10:16:32
1	Mo 202.031†	6899.3	6738.6	[500]	ug/L	10:16:57
1	Ni 231.604†	19726.4	19247.0	[500]	ug/L	10:16:37
1	P 214.914†	4192.8	3879.0	[2500]	ug/L	10:16:57
1	Pb 220.353†	3922.4	3906.6	[500]	ug/L	10:16:57
1	S 181.975 Axial†	745.0	683.3	[1000]	ug/L	10:16:57
1	Sb 206.836†	1412.1	1350.4	[500]	ug/L	10:16:57
1	Se 196.026†	735.8	751.1	[500]	ug/L	10:16:57
1	Si 251.611†	77658.3	75621.0	[2500]	ug/L	10:16:37
1	Sn 189.927†	2793.3	2730.0	[500]	ug/L	10:16:57
1	Ti 334.940†	294381.6	289736.0	[500]	ug/L	10:16:37
1	Tl 190.801†	1567.8	1579.6	[500]	ug/L	10:16:57
1	U 409.014†	14121.0	15872.6	[500]	ug/L	10:16:37
1	V 292.402†	69514.8	69497.4	[500]	ug/L	10:16:37
1	Zn 213.857†	53133.5	51184.4	[500]	ug/L	10:16:37
1	SiO2†	77763.0	75713.2	[5347.5]	ug/L	10:18:04
2	Sc Radial	4777.1	4777.1	99.7	%	10:15:39
2	Y RADIAL	5100.6	5100.6	99.44	%	10:15:39
2	Al 396.153Radial†	6154.2	6175.7	[5000]	ug/L	10:15:39
2	Ca 317.933Radial†	3002.0	2995.8	[5000]	ug/L	10:15:59
2	K 766.490 Radial†	27999.5	25295.4	[5000]	ug/L	10:15:39
2	Mg 279.077 IEC†	150.9	149.8	[5000]	ug/L	10:15:59
2	Sr 421.552†	72148.4	72345.9	[500]	ug/L	10:15:39
2	Sc 361.383	813390.3	813390.3	99.942	%	10:17:03
2	Y 371.029	674675.2	674675.2	98.355	%	10:17:03
2	Ag 328.068†	101748.0	101525.9	[500]	ug/L	10:17:08
2	As 188.979†	1119.8	1139.3	[500]	ug/L	10:17:28
2	B 249.677†	20227.6	20757.9	[500]	ug/L	10:17:08
2	Ba 233.527†	61227.8	61262.1	[500]	ug/L	10:17:08
2	Be 313.107†	1262980.3	1268030.8	[500]	ug/L	10:17:03
2	Cd 226.502†	43477.3	43700.3	[500]	ug/L	10:17:08
2	Co 228.616†	23499.6	23586.0	[500]	ug/L	10:17:08
2	Cr 267.716†	43151.2	43080.7	[500]	ug/L	10:17:08
2	Cu 324.752†	163492.3	157289.8	[500]	ug/L	10:17:08
2	Mn 257.610†	428858.8	428705.2	[500]	ug/L	10:17:03
2	Mo 202.031†	6898.6	6883.3	[500]	ug/L	10:17:28
2	Ni 231.604†	19540.8	19477.1	[500]	ug/L	10:17:08
2	P 214.914†	4206.1	3980.7	[2500]	ug/L	10:17:28
2	Pb 220.353†	3897.2	3964.0	[500]	ug/L	10:17:28
2	S 181.975 Axial†	731.7	685.6	[1000]	ug/L	10:17:28
2	Sb 206.836†	1417.2	1385.3	[500]	ug/L	10:17:28

2	Se 196.026†	749.8	780.6	[500]	ug/L	10:17:28
2	Si 251.611†	76540.6	76139.4	[2500]	ug/L	10:17:08
2	Sn 189.927†	2789.8	2785.3	[500]	ug/L	10:17:28
2	Ti 334.940†	291309.0	292866.3	[500]	ug/L	10:17:08
2	Tl 190.801†	1556.7	1601.5	[500]	ug/L	10:17:28
2	U 409.014†	14027.3	16076.5	[500]	ug/L	10:17:08
2	V 292.402†	68775.6	70223.0	[500]	ug/L	10:17:08
2	Zn 213.857†	52288.1	51458.4	[500]	ug/L	10:17:08
2	SiO2†	77113.5	76702.4	[5347.5]	ug/L	10:18:09
3	Sc Radial	4874.5	4874.5	102	%	10:16:04
3	Y RADIAL	5184.3	5184.3	101.1	%	10:16:04
3	Al 396.153Radial†	6210.4	6107.7	[5000]	ug/L	10:16:04
3	Ca 317.933Radial†	3057.7	2990.4	[5000]	ug/L	10:16:24
3	K 766.490 Radial†	28049.8	24783.6	[5000]	ug/L	10:16:04
3	Mg 279.077 IEC†	155.0	150.9	[5000]	ug/L	10:16:24
3	Sr 421.552†	72713.9	71455.6	[500]	ug/L	10:16:04
3	Sc 361.383	826948.9	826948.9	101.61	%	10:17:33
3	Y 371.029	686247.5	686247.5	100.04	%	10:17:33
3	Ag 328.068†	102096.8	100200.0	[500]	ug/L	10:17:39
3	As 188.979†	1110.1	1111.4	[500]	ug/L	10:17:59
3	B 249.677†	20441.9	20637.0	[500]	ug/L	10:17:39
3	Ba 233.527†	61754.6	60776.1	[500]	ug/L	10:17:39
3	Be 313.107†	1286750.3	1270704.7	[500]	ug/L	10:17:33
3	Cd 226.502†	43825.7	43329.9	[500]	ug/L	10:17:39
3	Co 228.616†	23631.5	23330.3	[500]	ug/L	10:17:39
3	Cr 267.716†	43486.2	42702.4	[500]	ug/L	10:17:39
3	Cu 324.752†	165207.2	156295.4	[500]	ug/L	10:17:39
3	Mn 257.610†	435511.7	428217.1	[500]	ug/L	10:17:33
3	Mo 202.031†	6888.2	6759.9	[500]	ug/L	10:17:59
3	Ni 231.604†	19679.5	19293.0	[500]	ug/L	10:17:39
3	P 214.914†	4189.0	3894.9	[2500]	ug/L	10:17:59
3	Pb 220.353†	3901.8	3904.6	[500]	ug/L	10:17:59
3	S 181.975 Axial†	731.1	673.1	[1000]	ug/L	10:17:59
3	Sb 206.836†	1422.3	1367.1	[500]	ug/L	10:17:59
3	Se 196.026†	737.7	756.4	[500]	ug/L	10:17:59
3	Si 251.611†	77299.4	75630.6	[2500]	ug/L	10:17:39
3	Sn 189.927†	2784.4	2734.2	[500]	ug/L	10:17:59
3	Ti 334.940†	293777.6	290516.7	[500]	ug/L	10:17:39
3	Tl 190.801†	1550.5	1569.9	[500]	ug/L	10:17:59
3	U 409.014†	14287.5	16102.4	[500]	ug/L	10:17:39
3	V 292.402†	69478.9	69786.9	[500]	ug/L	10:17:39
3	Zn 213.857†	52806.6	51110.8	[500]	ug/L	10:17:39
3	SiO2†	76942.4	75268.9	[5347.5]	ug/L	10:18:14

Mean Data: S0.5

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	823744.0	9180.84	1.11%	101.21	%
Sc Radial	4860.5	77.33	1.59%	101	%
Y 371.029	683386.4	7690.73	1.13%	99.625	%
Y RADIAL	5158.5	50.27	0.97%	100.6	%
Ag 328.068†	101221.0	907.86	0.90%	[500]	ug/L
Al 396.153Radial†	6137.5	34.81	0.57%	[5000]	ug/L
As 188.979†	1116.6	20.66	1.85%	[500]	ug/L
B 249.677†	20640.0	116.42	0.56%	[500]	ug/L
Ba 233.527†	60862.9	363.69	0.60%	[500]	ug/L
Be 313.107†	1270293.5	2087.65	0.16%	[500]	ug/L
Ca 317.933Radial†	2961.2	55.30	1.87%	[5000]	ug/L
Cd 226.502†	43449.5	217.26	0.50%	[500]	ug/L
Co 228.616†	23402.8	159.89	0.68%	[500]	ug/L
Cr 267.716†	42807.5	238.67	0.56%	[500]	ug/L
Cu 324.752†	156383.1	866.17	0.55%	[500]	ug/L
K 766.490 Radial†	25044.6	256.04	1.02%	[5000]	ug/L
Mg 279.077 IEC†	149.2	2.01	1.35%	[5000]	ug/L
Mn 257.610†	428569.1	307.43	0.07%	[500]	ug/L
Mo 202.031†	6794.0	78.11	1.15%	[500]	ug/L
Ni 231.604†	19339.0	121.75	0.63%	[500]	ug/L
P 214.914†	3918.2	54.72	1.40%	[2500]	ug/L
Pb 220.353†	3925.1	33.72	0.86%	[500]	ug/L
S 181.975 Axial†	680.7	6.68	0.98%	[1000]	ug/L

Sb 206.836†	1367.6	17.44	1.27%	[500]	ug/L
Se 196.026†	762.7	15.73	2.06%	[500]	ug/L
Si 251.611†	75797.0	296.59	0.39%	[2500]	ug/L
Sn 189.927†	2749.8	30.78	1.12%	[500]	ug/L
Sr 421.552†	71864.4	449.59	0.63%	[500]	ug/L
Ti 334.940†	291039.6	1629.36	0.56%	[500]	ug/L
Tl 190.801†	1583.7	16.20	1.02%	[500]	ug/L
U 409.014†	16017.2	125.86	0.79%	[500]	ug/L
V 292.402†	69835.8	365.24	0.52%	[500]	ug/L
Zn 213.857†	51251.2	183.16	0.36%	[500]	ug/L
SiO2†	75894.8	733.81	0.97%	[5347.5]	ug/L

Sequence No.: 4
Sample ID: SCAL
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 4
Date Collected: 1/14/2010 10:20:25
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: SCAL

Rep1#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc Radial	4690.2	4690.2	97.9	%	10:22:18
1	Y RADIAL	4982.5	4982.5	97.13	%	10:22:18
1	Al 396.153Radial†	11982.9	12244.5	[10000]	ug/L	10:22:18
1	Ca 317.933Radial†	5870.5	5982.0	[10000]	ug/L	10:22:18
1	Fe 238.204 Radial†	1078.9	1092.3	[10000]	ug/L	10:22:38
1	K 766.490 Radial†	51623.6	49949.3	[10000]	ug/L	10:22:18
1	Mg 279.077 IEC†	297.8	302.7	[10000]	ug/L	10:22:38
1	Na 589.592 Radial†	27020.8	29170.4	[10000]	ug/L	10:22:18
1	Sr 421.552†	136168.3	139087.2	[1000]	ug/L	10:22:18
1	Sc 361.383	814439.6	814439.6	100.07	%	10:23:37
1	Y 371.029	673675.1	673675.1	98.209	%	10:23:37
1	Ag 328.068†	204177.8	203752.3	[1000]	ug/L	10:23:37
1	As 188.979†	2200.8	2218.1	[1000]	ug/L	10:23:57
1	B 249.677†	40456.6	40946.7	[1000]	ug/L	10:23:37
1	Ba 233.527†	120600.9	120514.5	[1000]	ug/L	10:23:37
1	Be 313.107†	2508196.4	2510741.4	[1000]	ug/L	10:23:37
1	Cd 226.502†	84759.2	84897.1	[1000]	ug/L	10:23:37
1	Co 228.616†	45819.2	45859.6	[1000]	ug/L	10:23:37
1	Cr 267.716†	84726.1	84570.6	[1000]	ug/L	10:23:37
1	Cu 324.752†	319831.2	313307.8	[1000]	ug/L	10:23:37
1	Mn 257.610†	852948.2	851942.9	[1000]	ug/L	10:23:37
1	Mo 202.031†	13413.0	13384.3	[1000]	ug/L	10:23:57
1	Ni 231.604†	37945.9	37844.1	[1000]	ug/L	10:23:37
1	P 214.914†	8055.5	7822.0	[5000]	ug/L	10:23:57
1	Pb 220.353†	7685.7	7744.8	[1000]	ug/L	10:23:57
1	S 181.975 Axial†	1371.1	1323.7	[2000]	ug/L	10:23:57
1	Sb 206.836†	2764.6	2729.9	[1000]	ug/L	10:23:57
1	Se 196.026†	1460.7	1490.0	[1000]	ug/L	10:23:57
1	Si 251.611†	148140.7	147590.4	[5000]	ug/L	10:23:37
1	Sn 189.927†	5374.6	5364.6	[1000]	ug/L	10:23:57
1	Ti 334.940†	582360.0	583336.7	[1000]	ug/L	10:23:37
1	Tl 190.801†	3076.8	3118.6	[1000]	ug/L	10:23:57
1	U 409.014†	29281.6	31301.9	[1000]	ug/L	10:23:37
1	V 292.402†	137033.4	138344.0	[1000]	ug/L	10:23:37
1	Zn 213.857†	100708.8	99777.5	[1000]	ug/L	10:23:37
1	SiO2†	148537.3	147976.4	[10695]	ug/L	10:24:58
2	Sc Radial	4873.3	4873.3	102	%	10:22:43
2	Y RADIAL	5174.4	5174.4	100.9	%	10:22:43
2	Al 396.153Radial†	12498.1	12291.1	[10000]	ug/L	10:22:43
2	Ca 317.933Radial†	6084.7	5967.1	[10000]	ug/L	10:22:43
2	Fe 238.204 Radial†	1069.3	1041.4	[10000]	ug/L	10:23:03
2	K 766.490 Radial†	53520.3	49832.4	[10000]	ug/L	10:22:43
2	Mg 279.077 IEC†	295.9	289.4	[10000]	ug/L	10:23:03
2	Na 589.592 Radial†	28231.5	29323.4	[10000]	ug/L	10:22:43
2	Sr 421.552†	142182.7	139773.2	[1000]	ug/L	10:22:43
2	Sc 361.383	813929.7	813929.7	100.01	%	10:24:05
2	Y 371.029	672867.5	672867.5	98.091	%	10:24:05
2	Ag 328.068†	204607.6	204309.9	[1000]	ug/L	10:24:05
2	As 188.979†	2208.4	2227.1	[1000]	ug/L	10:24:25
2	B 249.677†	40698.6	41214.0	[1000]	ug/L	10:24:05
2	Ba 233.527†	120544.6	120533.6	[1000]	ug/L	10:24:05
2	Be 313.107†	2508154.4	2512269.3	[1000]	ug/L	10:24:05
2	Cd 226.502†	84839.9	85030.8	[1000]	ug/L	10:24:05
2	Co 228.616†	45918.6	45987.7	[1000]	ug/L	10:24:05
2	Cr 267.716†	84754.0	84651.6	[1000]	ug/L	10:24:05
2	Cu 324.752†	320965.6	314642.3	[1000]	ug/L	10:24:05
2	Mn 257.610†	854103.8	853632.3	[1000]	ug/L	10:24:05
2	Mo 202.031†	13509.4	13489.0	[1000]	ug/L	10:24:25
2	Ni 231.604†	37906.7	37828.6	[1000]	ug/L	10:24:05

2	P 214.914†	8100.6	7872.1	[5000]	ug/L	10:24:25
2	Pb 220.353†	7779.2	7843.2	[1000]	ug/L	10:24:25
2	S 181.975 Axial†	1390.3	1343.8	[2000]	ug/L	10:24:25
2	Sb 206.836†	2780.7	2747.8	[1000]	ug/L	10:24:25
2	Se 196.026†	1464.7	1495.0	[1000]	ug/L	10:24:25
2	Si 251.611†	148405.5	147948.0	[5000]	ug/L	10:24:05
2	Sn 189.927†	5409.7	5403.1	[1000]	ug/L	10:24:25
2	Ti 334.940†	583495.0	584836.1	[1000]	ug/L	10:24:05
2	Tl 190.801†	3089.7	3133.3	[1000]	ug/L	10:24:25
2	U 409.014†	29091.9	31130.6	[1000]	ug/L	10:24:05
2	V 292.402†	137117.4	138513.7	[1000]	ug/L	10:24:05
2	Zn 213.857†	100718.8	99850.6	[1000]	ug/L	10:24:05
2	SiO2†	150196.0	149728.0	[10695]	ug/L	10:25:04
3	Sc Radial	4785.6	4785.6	99.9	%	10:23:08
3	Y RADIAL	5070.7	5070.7	98.85	%	10:23:08
3	Al 396.153Radial†	12308.5	12326.3	[10000]	ug/L	10:23:08
3	Ca 317.933Radial†	5970.0	5961.9	[10000]	ug/L	10:23:08
3	Fe 238.204 Radial†	1075.4	1066.8	[10000]	ug/L	10:23:28
3	K 766.490 Radial†	52691.3	49966.3	[10000]	ug/L	10:23:08
3	Mg 279.077 IEC†	296.6	295.5	[10000]	ug/L	10:23:28
3	Na 589.592 Radial†	27587.6	29187.2	[10000]	ug/L	10:23:08
3	Sr 421.552†	139476.2	139624.1	[1000]	ug/L	10:23:08
3	Sc 361.383	814815.0	814815.0	100.12	%	10:24:33
3	Y 371.029	675692.6	675692.6	98.503	%	10:24:33
3	Ag 328.068†	203870.0	203350.9	[1000]	ug/L	10:24:33
3	As 188.979†	2198.1	2214.4	[1000]	ug/L	10:24:53
3	B 249.677†	40542.1	41013.4	[1000]	ug/L	10:24:33
3	Ba 233.527†	120022.4	119881.1	[1000]	ug/L	10:24:33
3	Be 313.107†	2512305.1	2513690.1	[1000]	ug/L	10:24:33
3	Cd 226.502†	84731.6	84830.4	[1000]	ug/L	10:24:33
3	Co 228.616†	45717.8	45737.2	[1000]	ug/L	10:24:33
3	Cr 267.716†	84637.7	84443.3	[1000]	ug/L	10:24:33
3	Cu 324.752†	319021.3	312351.6	[1000]	ug/L	10:24:33
3	Mn 257.610†	850524.5	849129.2	[1000]	ug/L	10:24:33
3	Mo 202.031†	13491.7	13456.6	[1000]	ug/L	10:24:53
3	Ni 231.604†	37903.0	37783.7	[1000]	ug/L	10:24:33
3	P 214.914†	8053.5	7816.2	[5000]	ug/L	10:24:53
3	Pb 220.353†	7743.1	7798.6	[1000]	ug/L	10:24:53
3	S 181.975 Axial†	1386.7	1338.6	[2000]	ug/L	10:24:53
3	Sb 206.836†	2769.6	2733.7	[1000]	ug/L	10:24:53
3	Se 196.026†	1449.6	1478.3	[1000]	ug/L	10:24:53
3	Si 251.611†	147574.4	146956.5	[5000]	ug/L	10:24:33
3	Sn 189.927†	5398.5	5386.1	[1000]	ug/L	10:24:53
3	Ti 334.940†	580657.5	581368.0	[1000]	ug/L	10:24:33
3	Tl 190.801†	3051.7	3092.1	[1000]	ug/L	10:24:53
3	U 409.014†	28922.5	30929.8	[1000]	ug/L	10:24:33
3	V 292.402†	137028.9	138276.4	[1000]	ug/L	10:24:33
3	Zn 213.857†	100453.4	99476.1	[1000]	ug/L	10:24:33
3	SiO2†	148591.1	147961.7	[10695]	ug/L	10:25:09

Mean Data: SCAL

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	814394.8	444.37	0.05%	100.07	%
Sc Radial	4783.0	91.59	1.91%	99.8	%
Y 371.029	674078.4	1455.09	0.22%	98.268	%
Y RADIAL	5075.9	96.06	1.89%	98.95	%
Ag 328.068†	203804.4	481.64	0.24%	[1000]	ug/L
Al 396.153Radial†	12287.3	41.01	0.33%	[10000]	ug/L
As 188.979†	2219.9	6.54	0.29%	[1000]	ug/L
B 249.677†	41058.0	139.12	0.34%	[1000]	ug/L
Ba 233.527†	120309.7	371.35	0.31%	[1000]	ug/L
Be 313.107†	2512233.6	1474.72	0.06%	[1000]	ug/L
Ca 317.933Radial†	5970.3	10.42	0.17%	[10000]	ug/L
Cd 226.502†	84919.4	102.02	0.12%	[1000]	ug/L
Co 228.616†	45861.5	125.26	0.27%	[1000]	ug/L
Cr 267.716†	84555.2	104.97	0.12%	[1000]	ug/L
Cu 324.752†	313433.9	1150.59	0.37%	[1000]	ug/L
Fe 238.204 Radial†	1066.8	25.42	2.38%	[10000]	ug/L
K 766.490 Radial†	49916.0	72.91	0.15%	[10000]	ug/L

Mg 279.077 IEC†	295.8	6.68	2.26%	[10000]	ug/L
Mn 257.610†	851568.1	2274.80	0.27%	[1000]	ug/L
Mo 202.031†	13443.3	53.63	0.40%	[1000]	ug/L
Na 589.592 Radial†	29227.0	83.93	0.29%	[10000]	ug/L
Ni 231.604†	37818.8	31.32	0.08%	[1000]	ug/L
P 214.914†	7836.7	30.71	0.39%	[5000]	ug/L
Pb 220.353†	7795.5	49.25	0.63%	[1000]	ug/L
S 181.975 Axial†	1335.4	10.40	0.78%	[2000]	ug/L
Sb 206.836†	2737.1	9.40	0.34%	[1000]	ug/L
Se 196.026†	1487.8	8.58	0.58%	[1000]	ug/L
Si 251.611†	147498.3	502.08	0.34%	[5000]	ug/L
Sn 189.927†	5384.6	19.28	0.36%	[1000]	ug/L
Sr 421.552†	139494.8	360.84	0.26%	[1000]	ug/L
Ti 334.940†	583180.3	1739.35	0.30%	[1000]	ug/L
Tl 190.801†	3114.7	20.89	0.67%	[1000]	ug/L
U 409.014†	31120.8	186.24	0.60%	[1000]	ug/L
V 292.402†	138378.0	122.30	0.09%	[1000]	ug/L
Zn 213.857†	99701.4	198.51	0.20%	[1000]	ug/L
SiO2†	148555.4	1015.55	0.68%	[10695]	ug/L

Sequence No.: 5
Sample ID: S10
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 5
Date Collected: 1/14/2010 10:27:20
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S10

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc Radial	4711.4	4711.4	98.3	%	10:29:33
1	Y RADIAL	5017.2	5017.2	97.81	%	10:29:33
1	Al 396.153Radial†	61120.5	62159.8	[50000]	ug/L	10:29:13
1	Ca 317.933Radial†	29136.2	29615.0	[50000]	ug/L	10:29:13
1	Fe 238.204 Radial†	2111.7	2137.6	[20000]	ug/L	10:29:33
1	Mg 279.077 IEC†	1405.9	1428.2	[50000]	ug/L	10:29:33
1	Na 589.592 Radial†	60084.1	62669.5	[20000]	ug/L	10:29:13
1	Sc 361.383	788766.2	788766.2	96.916	%	10:30:30
1	Y 371.029	651054.6	651054.6	94.911	%	10:30:30
2	Sc Radial	4718.6	4718.6	98.5	%	10:29:58
2	Y RADIAL	4988.8	4988.8	97.26	%	10:29:58
2	Al 396.153Radial†	62059.7	63019.7	[50000]	ug/L	10:29:38
2	Ca 317.933Radial†	29491.9	29931.4	[50000]	ug/L	10:29:38
2	Fe 238.204 Radial†	2105.7	2128.3	[20000]	ug/L	10:29:58
2	Mg 279.077 IEC†	1402.5	1422.6	[50000]	ug/L	10:29:58
2	Na 589.592 Radial†	60640.6	63142.4	[20000]	ug/L	10:29:38
2	Sc 361.383	796056.9	796056.9	97.812	%	10:30:36
2	Y 371.029	656001.4	656001.4	95.632	%	10:30:36
3	Sc Radial	4726.9	4726.9	98.7	%	10:30:23
3	Y RADIAL	5015.9	5015.9	97.79	%	10:30:23
3	Al 396.153Radial†	61091.2	61927.3	[50000]	ug/L	10:30:03
3	Ca 317.933Radial†	29131.3	29513.3	[50000]	ug/L	10:30:03
3	Fe 238.204 Radial†	2093.3	2112.0	[20000]	ug/L	10:30:23
3	Mg 279.077 IEC†	1395.7	1413.3	[50000]	ug/L	10:30:23
3	Na 589.592 Radial†	59447.9	61825.3	[20000]	ug/L	10:30:03
3	Sc 361.383	821640.9	821640.9	100.96	%	10:30:42
3	Y 371.029	678212.4	678212.4	98.870	%	10:30:42

Mean Data: S10

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	802154.7	17264.79	2.15%	98.561	%
Sc Radial	4719.0	7.72	0.16%	98.5	%
Y 371.029	661756.2	14464.60	2.19%	96.471	%
Y RADIAL	5007.3	16.01	0.32%	97.62	%
Al 396.153Radial†	62368.9	575.46	0.92%	[50000]	ug/L
Ca 317.933Radial†	29686.5	218.08	0.73%	[50000]	ug/L
Fe 238.204 Radial†	2126.0	12.97	0.61%	[20000]	ug/L
Mg 279.077 IEC†	1421.3	7.54	0.53%	[50000]	ug/L
Na 589.592 Radial†	62545.7	667.22	1.07%	[20000]	ug/L

Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 328.068	3	Lin Thru 0	0.0	203.5	0.00000	0.999996	
Al 396.153Radial	3	Lin Thru 0	0.0	1.246	0.00000	0.999995	
As 188.979	3	Lin Thru 0	0.0	2.222	0.00000	0.999992	
B 249.677	3	Lin Thru 0	0.0	41.09	0.00000	0.999989	
Ba 233.527	3	Lin Thru 0	0.0	120.6	0.00000	0.999989	
Be 313.107	3	Lin Thru 0	0.0	2518	0.00000	0.999990	
Ca 317.933Radial	3	Lin Thru 0	0.0	0.5938	0.00000	0.999999	
Cd 226.502	3	Lin Thru 0	0.0	85.32	0.00000	0.999957	
Co 228.616	3	Lin Thru 0	0.0	46.05	0.00000	0.999966	
Cr 267.716	3	Lin Thru 0	0.0	84.76	0.00000	0.999987	
Cu 324.752	3	Lin Thru 0	0.0	313.3	0.00000	0.999998	
Fe 238.204 Radia	2	Lin Thru 0	0.0	0.1064	0.00000	0.999999	
K 766.490 Radial	3	Lin Thru 0	0.0	4.991	0.00000	0.999966	

Mg 279.077 IEC	3	Lin Thru 0	0.0	0.0285	0.00000	0.999959
Mn 257.610	3	Lin Thru 0	0.0	852.8	0.00000	0.999996
Mo 202.031	3	Lin Thru 0	0.0	13.47	0.00000	0.999991
Na 589.592 Radia	2	Lin Thru 0	0.0	3.086	0.00000	0.999649
Ni 231.604	3	Lin Thru 0	0.0	37.99	0.00000	0.999959
P 214.914	3	Lin Thru 0	0.0	1.567	0.00000	0.999995
Pb 220.353	3	Lin Thru 0	0.0	7.807	0.00000	0.999996
S 181.975 Axial	3	Lin Thru 0	0.0	0.6701	0.00000	0.999964
Sb 206.836	3	Lin Thru 0	0.0	2.736	0.00000	0.999999
Se 196.026	3	Lin Thru 0	0.0	1.495	0.00000	0.999950
Si 251.611	3	Lin Thru 0	0.0	29.66	0.00000	0.999938
Sn 189.927	3	Lin Thru 0	0.0	5.407	0.00000	0.999964
Sr 421.552	3	Lin Thru 0	0.0	140.3	0.00000	0.999920
Ti 334.940	3	Lin Thru 0	0.0	582.9	0.00000	0.999999
Tl 190.801	3	Lin Thru 0	0.0	3.126	0.00000	0.999972
U 409.014	3	Lin Thru 0	0.0	31.31	0.00000	0.999929
V 292.402	3	Lin Thru 0	0.0	138.6	0.00000	0.999992
Zn 213.857	3	Lin Thru 0	0.0	100.3	0.00000	0.999938
SiO2	3	Lin Thru 0	0.0	13.95	0.00000	0.999961

Sequence No.: 6
Sample ID: ICV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 9
Date Collected: 1/14/2010 10:32:53
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4815.0	4815.0	100	%			10:34:46
1	Y RADIAL	5123.2	5123.2	99.88	%			10:34:46
1	Al 396.153Radial†	6201.2	6173.9	4927.0	ug/L	4927.0	ppb	10:34:46
1	Ca 317.933Radial†	2992.4	2962.6	4988.8	ug/L	4988.8	ppb	10:35:06
1	Fe 238.204 Radial†	563.9	551.3	5197.5	ug/L	5197.5	ppb	10:35:06
1	K 766.490 Radial†	15365.7	12502.7	2501.4	ug/L	2501.4	ppb	10:34:46
1	Mg 279.077 IEC†	155.1	152.8	5364.9	ug/L	5364.9	ppb	10:35:06
1	Na 589.592 Radial†	5981.5	7519.0	2436.2	ug/L	2436.2	ppb	10:34:46
1	Sr 421.552†	74307.3	73924.6	526.89	ug/L	526.89	ppb	10:34:46
1	Sc 361.383	821629.7	821629.7	100.95	%			10:36:03
1	Y 371.029	684525.5	684525.5	99.791	%			10:36:03
1	Ag 328.068†	53958.2	53166.7	264.45	ug/L	264.45	ppb	10:36:03
1	As 188.979†	1037.2	1046.3	475.17	ug/L	475.17	ppb	10:36:23
1	B 249.677†	21021.2	21341.1	517.13	ug/L	517.13	ppb	10:36:03
1	Ba 233.527†	62441.8	61850.3	514.13	ug/L	514.13	ppb	10:36:03
1	Be 313.107†	663319.7	661363.9	263.81	ug/L	263.81	ppb	10:36:03
1	Cd 226.502†	42106.2	41905.9	491.03	ug/L	491.03	ppb	10:36:23
1	Co 228.616†	23380.0	23231.8	504.68	ug/L	504.68	ppb	10:36:23
1	Cr 267.716†	42161.7	41667.6	492.20	ug/L	492.20	ppb	10:36:03
1	Cu 324.752†	167293.5	159414.6	508.89	ug/L	508.89	ppb	10:36:03
1	Mn 257.610†	443801.3	439203.3	515.32	ug/L	515.32	ppb	10:36:03
1	Mo 202.031†	7324.0	7235.4	537.56	ug/L	537.56	ppb	10:36:23
1	Ni 231.604†	19277.3	19020.0	500.38	ug/L	500.38	ppb	10:36:23
1	P 214.914†	4198.8	3931.2	2410.0	ug/L	2410.0	ppb	10:36:23
1	Pb 220.353†	3896.5	3924.3	504.35	ug/L	504.35	ppb	10:36:23
1	S 181.975 Axial†	1723.6	1660.9	2477.7	ug/L	2477.7	ppb	10:36:23
1	Sb 206.836†	1409.8	1363.7	517.88	ug/L	517.88	ppb	10:36:23
1	Se 196.026†	3835.0	3829.2	2579.8	ug/L	2579.8	ppb	10:36:23
1	Si 251.611†	146847.9	145014.4	4882.8	ug/L	4882.8	ppb	10:36:03
1	Sn 189.927†	2934.2	2900.4	537.23	ug/L	537.23	ppb	10:36:23
1	Ti 334.940†	293673.7	292285.6	501.26	ug/L	501.26	ppb	10:36:03
1	Tl 190.801†	1605.4	1634.2	526.20	ug/L	526.20	ppb	10:36:23
1	U 409.014†	13827.4	15737.6	500.93	ug/L	500.93	ppb	10:36:03
1	V 292.402†	69615.6	70364.9	514.80	ug/L	514.80	ppb	10:36:03
1	Zn 213.857†	53394.7	52029.8	514.53	ug/L	514.53	ppb	10:36:03
1	SiO2†	144889.8	143064.5	10242	ug/L	10242	ppb	10:37:21
2	Sc Radial	4796.4	4796.4	100	%			10:35:11
2	Y RADIAL	5108.2	5108.2	99.59	%			10:35:11
2	Al 396.153Radial†	6173.7	6170.4	4923.8	ug/L	4923.8	ppb	10:35:11
2	Ca 317.933Radial†	2983.3	2964.9	4992.8	ug/L	4992.8	ppb	10:35:31
2	Fe 238.204 Radial†	559.1	548.6	5172.3	ug/L	5172.3	ppb	10:35:31
2	K 766.490 Radial†	15422.2	12618.4	2524.6	ug/L	2524.6	ppb	10:35:11
2	Mg 279.077 IEC†	154.5	152.9	5366.6	ug/L	5366.6	ppb	10:35:31
2	Na 589.592 Radial†	5918.6	7479.2	2423.3	ug/L	2423.3	ppb	10:35:11
2	Sr 421.552†	74132.7	74036.6	527.69	ug/L	527.69	ppb	10:35:11
2	Sc 361.383	812833.2	812833.2	99.873	%			10:36:29
2	Y 371.029	678506.5	678506.5	98.913	%			10:36:29
2	Ag 328.068†	53088.5	52874.4	263.01	ug/L	263.01	ppb	10:36:29
2	As 188.979†	1049.4	1069.6	485.61	ug/L	485.61	ppb	10:36:49
2	B 249.677†	20678.3	21223.1	514.25	ug/L	514.25	ppb	10:36:29
2	Ba 233.527†	61481.3	61557.9	511.71	ug/L	511.71	ppb	10:36:29
2	Be 313.107†	654550.4	659694.1	263.15	ug/L	263.15	ppb	10:36:29
2	Cd 226.502†	42140.4	42391.5	496.73	ug/L	496.73	ppb	10:36:49
2	Co 228.616†	23395.2	23497.6	510.48	ug/L	510.48	ppb	10:36:49
2	Cr 267.716†	41649.1	41606.3	491.48	ug/L	491.48	ppb	10:36:29
2	Cu 324.752†	164944.5	158856.0	507.11	ug/L	507.11	ppb	10:36:29
2	Mn 257.610†	436789.7	436940.2	512.66	ug/L	512.66	ppb	10:36:29
2	Mo 202.031†	7363.5	7353.5	546.32	ug/L	546.32	ppb	10:36:49
2	Ni 231.604†	19297.8	19247.2	506.36	ug/L	506.36	ppb	10:36:49

2	P 214.914†	4179.6	3957.0	2426.8	ug/L	2426.8	ppb	10:36:49
2	Pb 220.353†	3868.1	3937.6	506.08	ug/L	506.08	ppb	10:36:49
2	S 181.975 Axial†	1731.6	1687.3	2517.2	ug/L	2517.2	ppb	10:36:49
2	Sb 206.836†	1407.8	1376.8	522.93	ug/L	522.93	ppb	10:36:49
2	Se 196.026†	3840.6	3875.8	2610.9	ug/L	2610.9	ppb	10:36:49
2	Si 251.611†	144552.0	144289.7	4858.2	ug/L	4858.2	ppb	10:36:29
2	Sn 189.927†	2928.3	2925.9	541.95	ug/L	541.95	ppb	10:36:49
2	Ti 334.940†	289483.7	291238.5	499.47	ug/L	499.47	ppb	10:36:29
2	Tl 190.801†	1615.7	1661.7	534.95	ug/L	534.95	ppb	10:36:49
2	U 409.014†	13556.5	15614.7	497.01	ug/L	497.01	ppb	10:36:29
2	V 292.402†	68818.7	70313.2	514.55	ug/L	514.55	ppb	10:36:29
2	Zn 213.857†	52539.5	51745.9	511.66	ug/L	511.66	ppb	10:36:29
2	SiO2†	148430.1	148162.4	10607	ug/L	10607	ppb	10:37:26
3	Sc Radial	4795.3	4795.3	100	%			10:35:36
3	Y RADIAL	5103.0	5103.0	99.48	%			10:35:36
3	Al 396.153Radial†	6222.3	6220.3	4964.3	ug/L	4964.3	ppb	10:35:36
3	Ca 317.933Radial†	2977.1	2959.5	4983.6	ug/L	4983.6	ppb	10:35:56
3	Fe 238.204 Radial†	560.6	550.3	5187.9	ug/L	5187.9	ppb	10:35:56
3	K 766.490 Radial†	15391.5	12591.3	2519.1	ug/L	2519.1	ppb	10:35:36
3	Mg 279.077 IEC†	153.3	151.7	5324.7	ug/L	5324.7	ppb	10:35:56
3	Na 589.592 Radial†	6003.2	7565.1	2451.1	ug/L	2451.1	ppb	10:35:36
3	Sr 421.552†	74362.8	74283.5	529.45	ug/L	529.45	ppb	10:35:36
3	Sc 361.383	822630.3	822630.3	101.08	%			10:36:55
3	Y 371.029	686689.9	686689.9	100.11	%			10:36:55
3	Ag 328.068†	53835.1	52979.9	263.53	ug/L	263.53	ppb	10:36:55
3	As 188.979†	1034.0	1041.9	473.16	ug/L	473.16	ppb	10:37:15
3	B 249.677†	21054.6	21348.8	517.33	ug/L	517.33	ppb	10:36:55
3	Ba 233.527†	62372.3	61706.3	512.94	ug/L	512.94	ppb	10:36:55
3	Be 313.107†	664062.4	661299.4	263.78	ug/L	263.78	ppb	10:36:55
3	Cd 226.502†	41973.5	41723.8	488.90	ug/L	488.90	ppb	10:37:15
3	Co 228.616†	23287.6	23112.2	502.09	ug/L	502.09	ppb	10:37:15
3	Cr 267.716†	42087.5	41543.4	490.74	ug/L	490.74	ppb	10:36:55
3	Cu 324.752†	167329.5	159248.6	508.36	ug/L	508.36	ppb	10:36:55
3	Mn 257.610†	442831.7	437709.3	513.57	ug/L	513.57	ppb	10:36:55
3	Mo 202.031†	7322.5	7225.2	536.80	ug/L	536.80	ppb	10:37:15
3	Ni 231.604†	19216.7	18936.9	498.20	ug/L	498.20	ppb	10:37:15
3	P 214.914†	4176.0	3903.7	2392.5	ug/L	2392.5	ppb	10:37:15
3	Pb 220.353†	3872.9	3896.2	500.76	ug/L	500.76	ppb	10:37:15
3	S 181.975 Axial†	1716.8	1652.0	2464.5	ug/L	2464.5	ppb	10:37:15
3	Sb 206.836†	1404.0	1356.3	515.12	ug/L	515.12	ppb	10:37:15
3	Se 196.026†	3813.7	3803.4	2562.5	ug/L	2562.5	ppb	10:37:15
3	Si 251.611†	146562.0	144554.6	4867.3	ug/L	4867.3	ppb	10:36:55
3	Sn 189.927†	2934.5	2897.1	536.62	ug/L	536.62	ppb	10:37:15
3	Ti 334.940†	293171.3	291434.7	499.81	ug/L	499.81	ppb	10:36:55
3	Tl 190.801†	1613.1	1639.8	528.00	ug/L	528.00	ppb	10:37:15
3	U 409.014†	13894.9	15787.8	502.53	ug/L	502.53	ppb	10:36:55
3	V 292.402†	69647.6	70312.7	514.42	ug/L	514.42	ppb	10:36:55
3	Zn 213.857†	53211.7	51784.4	512.10	ug/L	512.10	ppb	10:36:55
3	SiO2†	146388.9	144373.0	10336	ug/L	10336	ppb	10:37:31

Mean Data: ICV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	819031.1	100.63	%	0.662				0.66%
Sc Radial	4802.2	100	%	0.2				0.23%
Y 371.029	683240.6	99.603	%	0.6182				0.62%
Y RADIAL	5111.5	99.65	%	0.204				0.21%
Ag 328.068†	53007.0	263.67	ug/L	0.731	263.67	ppb	0.731	0.28%
QC value within limits for Ag 328.068 Recovery = 105.47%								
Al 396.153Radial†	6188.2	4938.4	ug/L	22.54	4938.4	ppb	22.54	0.46%
QC value within limits for Al 396.153Radial Recovery = 98.77%								
As 188.979†	1052.6	477.98	ug/L	6.682	477.98	ppb	6.682	1.40%
QC value within limits for As 188.979 Recovery = 95.60%								
B 249.677†	21304.3	516.23	ug/L	1.725	516.23	ppb	1.725	0.33%
QC value within limits for B 249.677 Recovery = 103.25%								
Ba 233.527†	61704.8	512.93	ug/L	1.213	512.93	ppb	1.213	0.24%
QC value within limits for Ba 233.527 Recovery = 102.59%								
Be 313.107†	660785.8	263.58	ug/L	0.377	263.58	ppb	0.377	0.14%
QC value within limits for Be 313.107 Recovery = 105.43%								
Ca 317.933Radial†	2962.3	4988.4	ug/L	4.60	4988.4	ppb	4.60	0.09%

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   QC value within limits for Ca 317.933Radial  Recovery = 99.77%
Cd 226.502†            42007.1      492.22 ug/L        4.048      492.22 ppb          4.048   0.82%
   QC value within limits for Cd 226.502  Recovery = 98.44%
Co 228.616†            23280.5      505.75 ug/L        4.297      505.75 ppb          4.297   0.85%
   QC value within limits for Co 228.616  Recovery = 101.15%
Cr 267.716†            41605.7      491.47 ug/L        0.733      491.47 ppb          0.733   0.15%
   QC value within limits for Cr 267.716  Recovery = 98.29%
Cu 324.752†           159173.1      508.12 ug/L        0.915      508.12 ppb          0.915   0.18%
   QC value within limits for Cu 324.752  Recovery = 101.62%
Fe 238.204 Radial†       550.0      5185.9 ug/L        12.69      5185.9 ppb          12.69   0.24%
   QC value within limits for Fe 238.204 Radial  Recovery = 103.72%
K 766.490 Radial†      12570.8      2515.0 ug/L        12.12      2515.0 ppb          12.12   0.48%
   QC value within limits for K 766.490 Radial  Recovery = 100.60%
Mg 279.077 IEC†          152.4      5352.1 ug/L        23.70      5352.1 ppb          23.70   0.44%
   QC value within limits for Mg 279.077 IEC  Recovery = 107.04%
Mn 257.610†           437950.9      513.85 ug/L        1.350      513.85 ppb          1.350   0.26%
   QC value within limits for Mn 257.610  Recovery = 102.77%
Mo 202.031†             7271.4      540.22 ug/L        5.292      540.22 ppb          5.292   0.98%
   QC value within limits for Mo 202.031  Recovery = 108.04%
Na 589.592 Radial†      7521.1      2436.9 ug/L        13.92      2436.9 ppb          13.92   0.57%
   QC value within limits for Na 589.592 Radial  Recovery = 97.48%
Ni 231.604†            19068.0      501.65 ug/L        4.226      501.65 ppb          4.226   0.84%
   QC value within limits for Ni 231.604  Recovery = 100.33%
P 214.914†              3930.6      2409.8 ug/L        17.17      2409.8 ppb          17.17   0.71%
   QC value within limits for P 214.914  Recovery = 96.39%
Pb 220.353†             3919.4      503.73 ug/L        2.711      503.73 ppb          2.711   0.54%
   QC value within limits for Pb 220.353  Recovery = 100.75%
S 181.975 Axial†        1666.7      2486.5 ug/L        27.42      2486.5 ppb          27.42   1.10%
   QC value within limits for S 181.975 Axial  Recovery = 99.46%
Sb 206.836†             1365.6      518.65 ug/L        3.961      518.65 ppb          3.961   0.76%
   QC value within limits for Sb 206.836  Recovery = 103.73%
Se 196.026†             3836.1      2584.4 ug/L        24.52      2584.4 ppb          24.52   0.95%
   QC value within limits for Se 196.026  Recovery = 103.38%
Si 251.611†           144619.6      4869.4 ug/L        12.41      4869.4 ppb          12.41   0.25%
   QC value within limits for Si 251.611  Recovery = 97.39%
Sn 189.927†             2907.8      538.60 ug/L        2.920      538.60 ppb          2.920   0.54%
   QC value within limits for Sn 189.927  Recovery = 107.72%
Sr 421.552†            74081.6      528.01 ug/L        1.309      528.01 ppb          1.309   0.25%
   QC value within limits for Sr 421.552  Recovery = 105.60%
Ti 334.940†           291652.9      500.18 ug/L        0.954      500.18 ppb          0.954   0.19%
   QC value within limits for Ti 334.940  Recovery = 100.04%
Tl 190.801†             1645.2      529.72 ug/L        4.619      529.72 ppb          4.619   0.87%
   QC value within limits for Tl 190.801  Recovery = 105.94%
U 409.014†             15713.4      500.16 ug/L        2.843      500.16 ppb          2.843   0.57%
   QC value within limits for U 409.014  Recovery = 100.03%
V 292.402†             70330.3      514.59 ug/L        0.194      514.59 ppb          0.194   0.04%
   QC value within limits for V 292.402  Recovery = 102.92%
Zn 213.857†            51853.4      512.76 ug/L        1.544      512.76 ppb          1.544   0.30%
   QC value within limits for Zn 213.857  Recovery = 102.55%
SiO2†                 145200.0       10395 ug/L        189.7       10395 ppb          189.7   1.82%
   QC value within limits for SiO2  Recovery = 97.19%
All analyte(s) passed QC.
```

Sequence No.: 7
Sample ID: ICB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 10
Date Collected: 1/14/2010 10:39:42
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4602.3	4602.3	96.1	%			10:41:35
1	Y RADIAL	4941.5	4941.5	96.33	%			10:41:35
1	Al 396.153Radial†	6.0	9.5	7.5623	ug/L	7.5623	ppb	10:41:35
1	Ca 317.933Radial†	13.6	-1.0	-1.6550	ug/L	-1.6550	ppb	10:41:55
1	Fe 238.204 Radial†	9.6	0.1	0.8017	ug/L	0.8017	ppb	10:41:55
1	K 766.490 Radial†	2972.8	307.4	61.606	ug/L	61.606	ppb	10:41:35
1	Mg 279.077 IEC†	2.0	0.6	19.859	ug/L	19.859	ppb	10:41:55
1	Na 589.592 Radial†	-1615.1	-114.5	-37.113	ug/L	-37.113	ppb	10:41:35
1	Sr 421.552†	46.5	31.2	0.2221	ug/L	0.2221	ppb	10:41:35
1	Sc 361.383	806946.5	806946.5	99.150	%			10:42:52
1	Y 371.029	679464.3	679464.3	99.053	%			10:42:52
1	Ag 328.068†	417.5	139.6	0.6813	ug/L	0.6813	ppb	10:42:52
1	As 188.979†	-26.5	-7.9	-3.5520	ug/L	-3.5520	ppb	10:43:12
1	B 249.677†	-221.0	295.6	7.1947	ug/L	7.1947	ppb	10:43:12
1	Ba 233.527†	6.0	4.6	0.0379	ug/L	0.0379	ppb	10:43:12
1	Be 313.107†	-4255.5	20.2	0.0087	ug/L	0.0087	ppb	10:42:52
1	Cd 226.502†	-181.9	14.1	0.1661	ug/L	0.1661	ppb	10:43:12
1	Co 228.616†	-64.5	7.6	0.1671	ug/L	0.1671	ppb	10:43:12
1	Cr 267.716†	108.1	13.3	0.1547	ug/L	0.1547	ppb	10:43:12
1	Cu 324.752†	6348.0	104.4	0.3303	ug/L	0.3303	ppb	10:42:52
1	Mn 257.610†	485.8	85.6	0.0997	ug/L	0.0997	ppb	10:43:12
1	Mo 202.031†	34.6	15.5	1.1537	ug/L	1.1537	ppb	10:43:12
1	Ni 231.604†	94.1	19.8	0.5213	ug/L	0.5213	ppb	10:43:12
1	P 214.914†	227.4	1.5	0.8962	ug/L	0.8962	ppb	10:43:12
1	Pb 220.353†	-78.7	-14.8	-1.8947	ug/L	-1.8947	ppb	10:43:12
1	S 181.975 Axial†	45.4	-0.7	-0.9831	ug/L	-0.9831	ppb	10:43:12
1	Sb 206.836†	45.7	13.3	4.9037	ug/L	4.9037	ppb	10:43:12
1	Se 196.026†	-29.7	0.4	0.3016	ug/L	0.3016	ppb	10:43:12
1	Si 251.611†	488.3	46.6	1.5571	ug/L	1.5571	ppb	10:43:12
1	Sn 189.927†	8.3	2.3	0.4242	ug/L	0.4242	ppb	10:43:12
1	Ti 334.940†	-1207.0	169.7	0.2869	ug/L	0.2869	ppb	10:42:52
1	Tl 190.801†	-40.7	2.8	0.9053	ug/L	0.9053	ppb	10:43:12
1	U 409.014†	-1859.0	166.0	5.3014	ug/L	5.3014	ppb	10:42:52
1	V 292.402†	-1405.5	-10.4	-0.0489	ug/L	-0.0489	ppb	10:42:52
1	Zn 213.857†	936.6	84.3	0.8364	ug/L	0.8364	ppb	10:43:12
1	SiO2†	479.1	27.0	1.9051	ug/L	1.9051	ppb	10:44:08
2	Sc Radial	4831.4	4831.4	101	%			10:42:00
2	Y RADIAL	5186.3	5186.3	101.1	%			10:42:00
2	Al 396.153Radial†	7.7	10.9	8.6975	ug/L	8.6975	ppb	10:42:00
2	Ca 317.933Radial†	12.7	-2.6	-4.3546	ug/L	-4.3546	ppb	10:42:20
2	Fe 238.204 Radial†	9.2	-0.8	-7.0680	ug/L	-7.0680	ppb	10:42:20
2	K 766.490 Radial†	2722.7	-87.3	-17.483	ug/L	-17.483	ppb	10:42:00
2	Mg 279.077 IEC†	1.3	-0.2	-6.4266	ug/L	-6.4266	ppb	10:42:20
2	Na 589.592 Radial†	-1600.0	-19.8	-6.4098	ug/L	-6.4098	ppb	10:42:00
2	Sr 421.552†	-2.7	-19.8	-0.1415	ug/L	-0.1415	ppb	10:42:00
2	Sc 361.383	824688.3	824688.3	101.33	%			10:43:17
2	Y 371.029	694557.0	694557.0	101.25	%			10:43:17
2	Ag 328.068†	291.1	5.7	0.0301	ug/L	0.0301	ppb	10:43:17
2	As 188.979†	-21.7	-2.6	-1.1639	ug/L	-1.1639	ppb	10:43:37
2	B 249.677†	-232.9	288.7	7.0280	ug/L	7.0280	ppb	10:43:37
2	Ba 233.527†	7.4	5.9	0.0492	ug/L	0.0492	ppb	10:43:37
2	Be 313.107†	-4308.5	60.3	0.0246	ug/L	0.0246	ppb	10:43:17
2	Cd 226.502†	-186.8	13.2	0.1556	ug/L	0.1556	ppb	10:43:37
2	Co 228.616†	-71.6	2.0	0.0439	ug/L	0.0439	ppb	10:43:37
2	Cr 267.716†	94.2	-2.8	-0.0314	ug/L	-0.0314	ppb	10:43:37
2	Cu 324.752†	6393.4	11.5	0.0382	ug/L	0.0382	ppb	10:43:17
2	Mn 257.610†	479.8	69.2	0.0807	ug/L	0.0807	ppb	10:43:37
2	Mo 202.031†	24.4	4.7	0.3499	ug/L	0.3499	ppb	10:43:37
2	Ni 231.604†	115.9	39.3	1.0343	ug/L	1.0343	ppb	10:43:37

2	P 214.914†	209.3	-21.3	-13.587	ug/L	-13.587 ppb	10:43:37
2	Pb 220.353†	-63.2	2.2	0.2803	ug/L	0.2803 ppb	10:43:37
2	S 181.975 Axial†	51.5	4.4	6.5482	ug/L	6.5482 ppb	10:43:37
2	Sb 206.836†	35.6	2.4	0.8931	ug/L	0.8931 ppb	10:43:37
2	Se 196.026†	-30.1	0.6	0.4062	ug/L	0.4062 ppb	10:43:37
2	Si 251.611†	490.3	38.0	1.2772	ug/L	1.2772 ppb	10:43:37
2	Sn 189.927†	12.0	5.7	1.0617	ug/L	1.0617 ppb	10:43:37
2	Ti 334.940†	-1229.2	174.0	0.2999	ug/L	0.2999 ppb	10:43:17
2	Tl 190.801†	-35.2	9.1	2.9247	ug/L	2.9247 ppb	10:43:37
2	U 409.014†	-2176.7	-107.1	-3.4212	ug/L	-3.4212 ppb	10:43:17
2	V 292.402†	-1372.2	53.0	0.3811	ug/L	0.3811 ppb	10:43:17
2	Zn 213.857†	935.6	63.0	0.6222	ug/L	0.6222 ppb	10:43:37
2	SiO2†	483.7	21.1	1.5052	ug/L	1.5052 ppb	10:44:13
3	Sc Radial	4845.4	4845.4	101	%		10:42:25
3	Y RADIAL	5156.5	5156.5	100.5	%		10:42:25
3	Al 396.153Radial†	-4.6	-1.3	-1.0698	ug/L	-1.0698 ppb	10:42:25
3	Ca 317.933Radial†	18.5	3.1	5.2827	ug/L	5.2827 ppb	10:42:45
3	Fe 238.204 Radial†	7.5	-2.5	-23.449	ug/L	-23.449 ppb	10:42:45
3	K 766.490 Radial†	2823.8	4.9	0.9772	ug/L	0.9772 ppb	10:42:25
3	Mg 279.077 IEC†	1.8	0.3	10.499	ug/L	10.499 ppb	10:42:45
3	Na 589.592 Radial†	-1635.8	-50.6	-16.386	ug/L	-16.386 ppb	10:42:25
3	Sr 421.552†	19.4	1.9	0.0137	ug/L	0.0137 ppb	10:42:25
3	Sc 361.383	806645.9	806645.9	99.113	%		10:43:42
3	Y 371.029	680613.7	680613.7	99.220	%		10:43:42
3	Ag 328.068†	360.6	82.2	0.3989	ug/L	0.3989 ppb	10:43:42
3	As 188.979†	-17.6	1.1	0.4757	ug/L	0.4757 ppb	10:44:02
3	B 249.677†	-274.2	241.9	5.8920	ug/L	5.8920 ppb	10:44:02
3	Ba 233.527†	6.0	4.6	0.0376	ug/L	0.0376 ppb	10:44:02
3	Be 313.107†	-4173.3	101.6	0.0408	ug/L	0.0408 ppb	10:43:42
3	Cd 226.502†	-189.9	6.0	0.0722	ug/L	0.0722 ppb	10:44:02
3	Co 228.616†	-79.5	-7.5	-0.1616	ug/L	-0.1616 ppb	10:44:02
3	Cr 267.716†	95.2	0.3	0.0047	ug/L	0.0047 ppb	10:44:02
3	Cu 324.752†	6354.4	113.2	0.3615	ug/L	0.3615 ppb	10:43:42
3	Mn 257.610†	484.0	84.0	0.0958	ug/L	0.0958 ppb	10:44:02
3	Mo 202.031†	26.1	7.0	0.5168	ug/L	0.5168 ppb	10:44:02
3	Ni 231.604†	96.0	21.7	0.5713	ug/L	0.5713 ppb	10:44:02
3	P 214.914†	223.2	-2.7	-1.7710	ug/L	-1.7710 ppb	10:44:02
3	Pb 220.353†	-71.1	-7.1	-0.9086	ug/L	-0.9086 ppb	10:44:02
3	S 181.975 Axial†	44.3	-1.8	-2.6532	ug/L	-2.6532 ppb	10:44:02
3	Sb 206.836†	38.0	5.6	2.0666	ug/L	2.0666 ppb	10:44:02
3	Se 196.026†	-31.5	-1.4	-1.0284	ug/L	-1.0284 ppb	10:44:02
3	Si 251.611†	478.0	36.4	1.2221	ug/L	1.2221 ppb	10:44:02
3	Sn 189.927†	13.0	7.0	1.3021	ug/L	1.3021 ppb	10:44:02
3	Ti 334.940†	-1271.4	104.2	0.1797	ug/L	0.1797 ppb	10:43:42
3	Tl 190.801†	-34.9	8.7	2.7887	ug/L	2.7887 ppb	10:44:02
3	U 409.014†	-2100.1	-77.9	-2.4860	ug/L	-2.4860 ppb	10:43:42
3	V 292.402†	-1377.1	17.7	0.1337	ug/L	0.1337 ppb	10:43:42
3	Zn 213.857†	942.3	90.4	0.8999	ug/L	0.8999 ppb	10:44:02
3	SiO2†	468.3	16.2	1.1503	ug/L	1.1503 ppb	10:44:18

Mean Data: ICB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	812760.2	99.864	%	1.2694				1.27%
Sc Radial	4759.7	99.3	%	2.85				2.87%
Y 371.029	684878.3	99.842	%	1.2248				1.23%
Y RADIAL	5094.8	99.32	%	2.604				2.62%
Ag 328.068†	75.8	0.3701	ug/L	0.32653	0.3701	ppb	0.32653	88.23%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	6.4	5.0633	ug/L	5.34168	5.0633	ppb	5.34168	105.50%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-3.1	-1.4134	ug/L	2.02542	-1.4134	ppb	2.02542	143.30%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	275.4	6.7049	ug/L	0.70891	6.7049	ppb	0.70891	10.57%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	5.0	0.0415	ug/L	0.00663	0.0415	ppb	0.00663	15.96%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	60.7	0.0247	ug/L	0.01604	0.0247	ppb	0.01604	64.93%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-0.1	-0.2423	ug/L	4.97151	-0.2423	ppb	4.97151	>999.9%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                11.1      0.1313 ug/L       0.05146      0.1313 ppb        0.05146  39.20%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                 0.7      0.0165 ug/L       0.16611      0.0165 ppb        0.16611 >999.9%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                 3.6      0.0426 ug/L       0.09868      0.0426 ppb        0.09868 231.44%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†                76.4      0.2433 ug/L       0.17836      0.2433 ppb        0.17836  73.30%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -1.1     -9.9050 ug/L      12.37172     -9.9050 ppb       12.37172 124.90%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          75.0      15.033 ug/L       41.3757      15.033 ppb        41.3757 275.22%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             0.2      7.9770 ug/L      13.32295      7.9770 ppb       13.32295 167.02%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                79.6      0.0921 ug/L       0.01001      0.0921 ppb        0.01001  10.87%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 9.1      0.6735 ug/L       0.42418      0.6735 ppb        0.42418  62.98%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        -61.6     -19.970 ug/L       15.6622     -19.970 ppb        15.6622  78.43%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                26.9      0.7090 ug/L       0.28285      0.7090 ppb        0.28285  39.90%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -7.5     -4.8205 ug/L       7.70810     -4.8205 ppb        7.70810 159.90%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -6.6     -0.8410 ug/L       1.08907     -0.8410 ppb        1.08907 129.50%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            0.7      0.9706 ug/L       4.90199      0.9706 ppb        4.90199 505.03%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 7.1      2.6212 ug/L       2.06200      2.6212 ppb        2.06200  78.67%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -0.1     -0.1069 ug/L       0.79981     -0.1069 ppb        0.79981 748.33%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                40.3      1.3522 ug/L       0.17965      1.3522 ppb        0.17965  13.29%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 5.0      0.9293 ug/L       0.45364      0.9293 ppb        0.45364  48.81%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                 4.4      0.0315 ug/L       0.18244      0.0315 ppb        0.18244 579.65%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               149.3      0.2555 ug/L       0.06594      0.2555 ppb        0.06594  25.81%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 6.9      2.2062 ug/L       1.12868      2.2062 ppb        1.12868  51.16%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 -6.4     -0.2019 ug/L       4.78889     -0.2019 ppb        4.78889 >999.9%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 20.1      0.1553 ug/L       0.21582      0.1553 ppb        0.21582 139.00%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                79.2      0.7861 ug/L       0.14551      0.7861 ppb        0.14551  18.51%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                      21.5      1.5202 ug/L       0.37763      1.5202 ppb        0.37763  24.84%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 8
Sample ID: PQL
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 11
Date Collected: 1/14/2010 10:46:28
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: PQL

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4881.8	4881.8	102	%			10:48:21
1	Y RADIAL	5210.0	5210.0	101.6	%			10:48:21
1	Al 396.153Radial†	256.4	254.9	203.98	ug/L	203.98	ppb	10:48:21
1	Ca 317.933Radial†	146.0	128.1	215.78	ug/L	215.78	ppb	10:48:41
1	Fe 238.204 Radial†	24.0	13.7	128.51	ug/L	128.51	ppb	10:48:41
1	K 766.490 Radial†	3515.7	663.1	132.64	ug/L	132.64	ppb	10:48:21
1	Mg 279.077 IEC†	8.5	6.8	239.93	ug/L	239.93	ppb	10:48:41
1	Na 589.592 Radial†	-641.7	937.2	303.64	ug/L	303.64	ppb	10:48:21
1	Sr 421.552†	763.9	732.5	5.2197	ug/L	5.2197	ppb	10:48:21
1	Sc 361.383	818126.7	818126.7	100.52	%			10:49:38
1	Y 371.029	689868.0	689868.0	100.57	%			10:49:38
1	Ag 328.068†	1399.9	1111.0	5.4695	ug/L	5.4695	ppb	10:49:38
1	As 188.979†	46.6	65.2	29.413	ug/L	29.413	ppb	10:49:58
1	B 249.677†	1643.7	2153.7	52.382	ug/L	52.382	ppb	10:49:38
1	Ba 233.527†	623.8	619.0	5.1469	ug/L	5.1469	ppb	10:49:58
1	Be 313.107†	8600.7	12868.2	5.1227	ug/L	5.1227	ppb	10:49:38
1	Cd 226.502†	244.8	441.1	5.1712	ug/L	5.1712	ppb	10:49:58
1	Co 228.616†	169.4	241.3	5.2500	ug/L	5.2500	ppb	10:49:58
1	Cr 267.716†	486.6	388.3	4.5682	ug/L	4.5682	ppb	10:49:58
1	Cu 324.752†	9634.5	3286.3	10.466	ug/L	10.466	ppb	10:49:38
1	Mn 257.610†	9544.9	9090.9	10.663	ug/L	10.663	ppb	10:49:38
1	Mo 202.031†	152.9	132.8	9.8720	ug/L	9.8720	ppb	10:49:58
1	Ni 231.604†	281.4	204.8	5.3891	ug/L	5.3891	ppb	10:49:58
1	P 214.914†	451.4	221.1	139.10	ug/L	139.10	ppb	10:49:58
1	Pb 220.353†	18.7	83.2	10.710	ug/L	10.710	ppb	10:49:58
1	S 181.975 Axial†	116.6	69.5	103.70	ug/L	103.70	ppb	10:49:58
1	Sb 206.836†	58.1	25.1	9.5169	ug/L	9.5169	ppb	10:49:58
1	Se 196.026†	27.1	57.3	38.804	ug/L	38.804	ppb	10:49:58
1	Si 251.611†	3398.0	2934.4	98.817	ug/L	98.817	ppb	10:49:58
1	Sn 189.927†	61.5	55.1	10.226	ug/L	10.226	ppb	10:49:58
1	Ti 334.940†	1649.6	3028.0	5.1778	ug/L	5.1778	ppb	10:49:38
1	Tl 190.801†	27.9	71.6	22.971	ug/L	22.971	ppb	10:49:58
1	U 409.014†	-282.7	1759.8	56.177	ug/L	56.177	ppb	10:49:38
1	V 292.402†	-782.2	629.0	4.7630	ug/L	4.7630	ppb	10:49:38
1	Zn 213.857†	1720.4	851.1	8.4274	ug/L	8.4274	ppb	10:49:58
1	SiO2†	3565.2	3090.4	221.29	ug/L	221.29	ppb	10:50:54
2	Sc Radial	4889.2	4889.2	102	%			10:48:46
2	Y RADIAL	5225.5	5225.5	101.9	%			10:48:46
2	Al 396.153Radial†	245.6	244.0	195.24	ug/L	195.24	ppb	10:48:46
2	Ca 317.933Radial†	142.8	124.7	210.06	ug/L	210.06	ppb	10:49:06
2	Fe 238.204 Radial†	21.4	11.1	104.51	ug/L	104.51	ppb	10:49:06
2	K 766.490 Radial†	3646.8	786.3	157.33	ug/L	157.33	ppb	10:48:46
2	Mg 279.077 IEC†	13.8	12.0	420.84	ug/L	420.84	ppb	10:49:06
2	Na 589.592 Radial†	-636.9	942.8	305.46	ug/L	305.46	ppb	10:48:46
2	Sr 421.552†	756.0	723.6	5.1564	ug/L	5.1564	ppb	10:48:46
2	Sc 361.383	817289.1	817289.1	100.42	%			10:50:04
2	Y 371.029	689757.6	689757.6	100.55	%			10:50:04
2	Ag 328.068†	1340.4	1053.3	5.1810	ug/L	5.1810	ppb	10:50:04
2	As 188.979†	39.6	58.3	26.276	ug/L	26.276	ppb	10:50:24
2	B 249.677†	1635.6	2147.2	52.229	ug/L	52.229	ppb	10:50:04
2	Ba 233.527†	625.8	621.7	5.1695	ug/L	5.1695	ppb	10:50:24
2	Be 313.107†	8674.3	12950.2	5.1553	ug/L	5.1553	ppb	10:50:04
2	Cd 226.502†	246.2	442.7	5.1923	ug/L	5.1923	ppb	10:50:24
2	Co 228.616†	166.5	238.5	5.1901	ug/L	5.1901	ppb	10:50:24
2	Cr 267.716†	507.0	409.2	4.8145	ug/L	4.8145	ppb	10:50:24
2	Cu 324.752†	9595.7	3257.5	10.374	ug/L	10.374	ppb	10:50:04
2	Mn 257.610†	9494.4	9050.3	10.606	ug/L	10.606	ppb	10:50:04
2	Mo 202.031†	153.0	133.0	9.8844	ug/L	9.8844	ppb	10:50:24
2	Ni 231.604†	281.6	205.3	5.4002	ug/L	5.4002	ppb	10:50:24

2	P 214.914†	437.5	207.8	130.58 ug/L	130.58 ppb	10:50:24
2	Pb 220.353†	19.2	83.7	10.778 ug/L	10.778 ppb	10:50:24
2	S 181.975 Axial†	109.7	62.7	93.602 ug/L	93.602 ppb	10:50:24
2	Sb 206.836†	58.5	25.5	9.6630 ug/L	9.6630 ppb	10:50:24
2	Se 196.026†	15.0	45.3	30.654 ug/L	30.654 ppb	10:50:24
2	Si 251.611†	3371.3	2911.3	98.038 ug/L	98.038 ppb	10:50:24
2	Sn 189.927†	54.1	47.8	8.8647 ug/L	8.8647 ppb	10:50:24
2	Ti 334.940†	1670.8	3050.8	5.2018 ug/L	5.2018 ppb	10:50:04
2	Tl 190.801†	30.1	73.9	23.699 ug/L	23.699 ppb	10:50:24
2	U 409.014†	-323.3	1719.0	54.878 ug/L	54.878 ppb	10:50:04
2	V 292.402†	-711.6	698.5	5.2694 ug/L	5.2694 ppb	10:50:04
2	Zn 213.857†	1689.6	822.2	8.1415 ug/L	8.1415 ppb	10:50:24
2	SiO2†	3521.6	3050.6	218.44 ug/L	218.44 ppb	10:50:59
3	Sc Radial	4955.8	4955.8	103 %		10:49:12
3	Y RADIAL	5308.9	5308.9	103.5 %		10:49:12
3	Al 396.153Radial†	240.4	235.6	188.54 ug/L	188.54 ppb	10:49:12
3	Ca 317.933Radial†	135.6	116.0	195.30 ug/L	195.30 ppb	10:49:32
3	Fe 238.204 Radial†	22.3	11.7	109.68 ug/L	109.68 ppb	10:49:32
3	K 766.490 Radial†	3467.9	565.4	113.06 ug/L	113.06 ppb	10:49:12
3	Mg 279.077 IEC†	11.2	9.4	328.53 ug/L	328.53 ppb	10:49:32
3	Na 589.592 Radial†	-600.8	986.0	319.48 ug/L	319.48 ppb	10:49:12
3	Sr 421.552†	765.0	722.4	5.1476 ug/L	5.1476 ppb	10:49:12
3	Sc 361.383	821831.7	821831.7	100.98 %		10:50:29
3	Y 371.029	694000.9	694000.9	101.17 %		10:50:29
3	Ag 328.068†	1461.9	1166.1	5.7418 ug/L	5.7418 ppb	10:50:29
3	As 188.979†	53.8	72.1	32.488 ug/L	32.488 ppb	10:50:49
3	B 249.677†	1682.9	2185.1	53.150 ug/L	53.150 ppb	10:50:29
3	Ba 233.527†	624.7	617.2	5.1324 ug/L	5.1324 ppb	10:50:49
3	Be 313.107†	8653.4	12881.7	5.1281 ug/L	5.1281 ppb	10:50:29
3	Cd 226.502†	250.1	445.2	5.2199 ug/L	5.2199 ppb	10:50:49
3	Co 228.616†	151.0	222.2	4.8365 ug/L	4.8365 ppb	10:50:49
3	Cr 267.716†	527.4	426.6	5.0222 ug/L	5.0222 ppb	10:50:49
3	Cu 324.752†	9733.0	3340.6	10.642 ug/L	10.642 ppb	10:50:29
3	Mn 257.610†	9529.7	9033.1	10.590 ug/L	10.590 ppb	10:50:29
3	Mo 202.031†	157.8	136.9	10.175 ug/L	10.175 ppb	10:50:49
3	Ni 231.604†	279.3	201.5	5.3013 ug/L	5.3013 ppb	10:50:49
3	P 214.914†	434.4	202.4	127.07 ug/L	127.07 ppb	10:50:49
3	Pb 220.353†	6.9	71.4	9.1949 ug/L	9.1949 ppb	10:50:49
3	S 181.975 Axial†	112.5	64.9	96.894 ug/L	96.894 ppb	10:50:49
3	Sb 206.836†	57.7	24.4	9.2859 ug/L	9.2859 ppb	10:50:49
3	Se 196.026†	21.4	51.6	34.891 ug/L	34.891 ppb	10:50:49
3	Si 251.611†	3381.6	2902.9	97.752 ug/L	97.752 ppb	10:50:49
3	Sn 189.927†	60.0	53.3	9.8883 ug/L	9.8883 ppb	10:50:49
3	Ti 334.940†	1665.6	3036.5	5.1845 ug/L	5.1845 ppb	10:50:29
3	Tl 190.801†	27.4	71.1	22.791 ug/L	22.791 ppb	10:50:49
3	U 409.014†	-454.0	1591.3	50.800 ug/L	50.800 ppb	10:50:29
3	V 292.402†	-677.6	736.1	5.5343 ug/L	5.5343 ppb	10:50:29
3	Zn 213.857†	1706.0	829.2	8.2108 ug/L	8.2108 ppb	10:50:49
3	SiO2†	3498.3	3008.2	215.39 ug/L	215.39 ppb	10:51:05

Mean Data: PQL

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	819082.5	100.64	%	0.297				0.30%
Sc Radial	4908.9	102	%	0.9				0.83%
Y 371.029	691208.9	100.77	%	0.353				0.35%
Y RADIAL	5248.1	102.3	%	1.04				1.01%
Ag 328.068†	1110.1	5.4641	ug/L	0.28046	5.4641	ppb	0.28046	5.13%
QC value within limits for Ag 328.068 Recovery = 109.28%								
Al 396.153Radial†	244.8	195.92	ug/L	7.742	195.92	ppb	7.742	3.95%
QC value within limits for Al 396.153Radial Recovery = 97.96%								
As 188.979†	65.2	29.392	ug/L	3.1061	29.392	ppb	3.1061	10.57%
QC value within limits for As 188.979 Recovery = 97.97%								
B 249.677†	2162.0	52.587	ug/L	0.4938	52.587	ppb	0.4938	0.94%
QC value within limits for B 249.677 Recovery = 105.17%								
Ba 233.527†	619.3	5.1496	ug/L	0.01869	5.1496	ppb	0.01869	0.36%
QC value within limits for Ba 233.527 Recovery = 102.99%								
Be 313.107†	12900.0	5.1354	ug/L	0.01750	5.1354	ppb	0.01750	0.34%
QC value within limits for Be 313.107 Recovery = 102.71%								
Ca 317.933Radial†	123.0	207.05	ug/L	10.567	207.05	ppb	10.567	5.10%

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   QC value within limits for Ca 317.933Radial  Recovery = 103.52%
Cd 226.502†              443.0      5.1945 ug/L       0.02445      5.1945 ppb        0.02445   0.47%
   QC value within limits for Cd 226.502  Recovery = 103.89%
Co 228.616†              234.0      5.0922 ug/L       0.22346      5.0922 ppb        0.22346   4.39%
   QC value within limits for Co 228.616  Recovery = 101.84%
Cr 267.716†              408.0      4.8017 ug/L       0.22727      4.8017 ppb        0.22727   4.73%
   QC value within limits for Cr 267.716  Recovery = 96.03%
Cu 324.752†             3294.8      10.494 ug/L        0.1360      10.494 ppb         0.1360   1.30%
   QC value within limits for Cu 324.752  Recovery = 104.94%
Fe 238.204 Radial†       12.1       114.23 ug/L        12.635      114.23 ppb         12.635  11.06%
   QC value within limits for Fe 238.204 Radial  Recovery = 114.23%
K 766.490 Radial†        671.6      134.35 ug/L        22.181      134.35 ppb         22.181  16.51%
   QC value within limits for K 766.490 Radial  Recovery = 89.56%
Mg 279.077 IEC†           9.4       329.77 ug/L        90.465      329.77 ppb         90.465  27.43%
   QC value within limits for Mg 279.077 IEC  Recovery = 109.92%
Mn 257.610†             9058.1      10.620 ug/L        0.0385      10.620 ppb         0.0385   0.36%
   QC value within limits for Mn 257.610  Recovery = 106.20%
Mo 202.031†              134.3      9.9772 ug/L       0.17155      9.9772 ppb        0.17155   1.72%
   QC value within limits for Mo 202.031  Recovery = 99.77%
Na 589.592 Radial†       955.3      309.53 ug/L         8.667      309.53 ppb          8.667   2.80%
   QC value within limits for Na 589.592 Radial  Recovery = 103.18%
Ni 231.604†              203.9      5.3635 ug/L       0.05419      5.3635 ppb        0.05419   1.01%
   QC value within limits for Ni 231.604  Recovery = 107.27%
P 214.914†               210.4      132.25 ug/L         6.182      132.25 ppb          6.182   4.67%
   QC value within limits for P 214.914  Recovery = 88.17%
Pb 220.353†               79.4      10.228 ug/L        0.8952      10.228 ppb         0.8952   8.75%
   QC value within limits for Pb 220.353  Recovery = 102.28%
S 181.975 Axial†          65.7      98.065 ug/L        5.1497      98.065 ppb         5.1497   5.25%
   QC value within limits for S 181.975 Axial  Recovery = 98.07%
Sb 206.836†               25.0      9.4886 ug/L       0.19010      9.4886 ppb        0.19010   2.00%
   QC value within limits for Sb 206.836  Recovery = 94.89%
Se 196.026†               51.4      34.783 ug/L        4.0762      34.783 ppb         4.0762  11.72%
   QC value within limits for Se 196.026  Recovery = 115.94%
Si 251.611†             2916.2      98.202 ug/L        0.5515      98.202 ppb         0.5515   0.56%
   QC value within limits for Si 251.611  Recovery = 98.20%
Sn 189.927†               52.1      9.6596 ug/L       0.70884      9.6596 ppb        0.70884   7.34%
   QC value within limits for Sn 189.927  Recovery = 96.60%
Sr 421.552†              726.2      5.1746 ug/L       0.03928      5.1746 ppb        0.03928   0.76%
   QC value within limits for Sr 421.552  Recovery = 103.49%
Ti 334.940†             3038.5      5.1880 ug/L       0.01240      5.1880 ppb        0.01240   0.24%
   QC value within limits for Ti 334.940  Recovery = 103.76%
Tl 190.801†               72.2      23.154 ug/L        0.4809      23.154 ppb         0.4809   2.08%
   QC value within limits for Tl 190.801  Recovery = 115.77%
U 409.014†              1690.0      53.952 ug/L        2.8057      53.952 ppb         2.8057   5.20%
   QC value within limits for U 409.014  Recovery = 107.90%
V 292.402†               687.9      5.1889 ug/L       0.39186      5.1889 ppb        0.39186   7.55%
   QC value within limits for V 292.402  Recovery = 103.78%
Zn 213.857†              834.2      8.2599 ug/L       0.14914      8.2599 ppb        0.14914   1.81%
   QC value within limits for Zn 213.857  Recovery = 82.60%
SiO2†                   3049.7      218.37 ug/L         2.952      218.37 ppb          2.952   1.35%
   QC value within limits for SiO2  Recovery = 102.52%
All analyte(s) passed QC.
```

Sequence No.: 9
Sample ID: ICSA
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 13
Date Collected: 1/14/2010 10:53:16
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSA

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4366.7	4366.7	91.1	%			10:55:14
1	Y RADIAL	4625.6	4625.6	90.18	%			10:55:14
1	Al 396.153Radial†	574461.5	630327.7	505690	ug/L	505690	ppb	10:55:09
1	Ca 317.933Radial†	256832.4	281792.6	474520	ug/L	474520	ppb	10:55:09
1	Fe 238.204 Radial†	18550.9	20345.0	191260	ug/L	191260	ppb	10:55:14
1	K 766.490 Radial†	2355.5	-202.9	-199.36	ug/L	-199.36	ppb	10:55:09
1	Mg 279.077 IEC†	12742.9	13980.5	490610	ug/L	490610	ppb	10:55:14
1	Na 589.592 Radial†	-1387.6	44.4	14.384	ug/L	14.384	ppb	10:55:14
1	Sr 421.552†	506.2	538.2	0.2927	ug/L	0.2927	ppb	10:55:14
1	Sc 361.383	698776.5	698776.5	85.859	%			10:55:42
1	Y 371.029	575182.3	575182.3	83.851	%			10:55:42
1	Ag 328.068†	-9042.5	-10813.4	2.4098	ug/L	2.4098	ppb	10:55:42
1	As 188.979†	-82.7	-77.5	9.7499	ug/L	9.7499	ppb	10:56:02
1	B 249.677†	313.5	883.6	-9.5557	ug/L	-9.5557	ppb	10:55:42
1	Ba 233.527†	-474.0	-553.5	1.2676	ug/L	1.2676	ppb	10:56:02
1	Be 313.107†	-3983.9	-327.9	-0.1843	ug/L	-0.1843	ppb	10:55:42
1	Cd 226.502†	1230.3	1630.5	-0.6369	ug/L	-0.6369	ppb	10:56:02
1	Co 228.616†	-20.1	49.2	-1.6919	ug/L	-1.6919	ppb	10:56:02
1	Cr 267.716†	-58.6	-164.0	1.7952	ug/L	1.7952	ppb	10:56:02
1	Cu 324.752†	3675.8	-2016.8	3.6692	ug/L	3.6692	ppb	10:55:42
1	Mn 257.610†	848.2	583.6	-0.4937	ug/L	-0.4937	ppb	10:55:42
1	Mo 202.031†	-217.1	-272.2	0.2876	ug/L	0.2876	ppb	10:56:02
1	Ni 231.604†	207.8	166.9	4.3920	ug/L	4.3920	ppb	10:56:02
1	P 214.914†	160.8	-40.6	-53.371	ug/L	-53.371	ppb	10:56:02
1	Pb 220.353†	-756.7	-816.7	-5.9433	ug/L	-5.9433	ppb	10:56:02
1	S 181.975 Axial†	68.0	32.8	-45.830	ug/L	-45.830	ppb	10:56:02
1	Sb 206.836†	77.6	57.6	10.694	ug/L	10.694	ppb	10:56:02
1	Se 196.026†	-849.2	-958.7	11.376	ug/L	11.376	ppb	10:56:02
1	Si 251.611†	477.6	110.4	3.9716	ug/L	3.9716	ppb	10:56:02
1	Sn 189.927†	-367.5	-434.2	-4.9656	ug/L	-4.9656	ppb	10:56:02
1	Ti 334.940†	-13124.2	-13898.7	-0.2982	ug/L	-0.2982	ppb	10:55:42
1	Tl 190.801†	-79.4	-48.6	-15.780	ug/L	-15.780	ppb	10:56:02
1	U 409.014†	-983.1	895.9	6.8149	ug/L	6.8149	ppb	10:55:42
1	V 292.402†	874.5	2425.7	-1.0820	ug/L	-1.0820	ppb	10:56:02
1	Zn 213.857†	2891.5	2507.5	6.4355	ug/L	6.4355	ppb	10:56:02
1	SiO2†	475.5	97.5	7.5434	ug/L	7.5434	ppb	10:56:58
2	Sc Radial	4319.9	4319.9	90.2	%			10:55:25
2	Y RADIAL	4632.0	4632.0	90.30	%			10:55:25
2	Al 396.153Radial†	572941.8	635472.8	509820	ug/L	509820	ppb	10:55:20
2	Ca 317.933Radial†	256332.4	284291.9	478730	ug/L	478730	ppb	10:55:20
2	Fe 238.204 Radial†	18371.7	20366.8	191460	ug/L	191460	ppb	10:55:25
2	K 766.490 Radial†	2331.6	-201.3	-200.46	ug/L	-200.46	ppb	10:55:20
2	Mg 279.077 IEC†	12673.0	14054.5	493210	ug/L	493210	ppb	10:55:25
2	Na 589.592 Radial†	-1411.7	1.2	0.3903	ug/L	0.3903	ppb	10:55:25
2	Sr 421.552†	480.3	515.5	0.0999	ug/L	0.0999	ppb	10:55:25
2	Sc 361.383	703297.6	703297.6	86.414	%			10:56:07
2	Y 371.029	577230.9	577230.9	84.149	%			10:56:07
2	Ag 328.068†	-9262.6	-11000.4	1.5012	ug/L	1.5012	ppb	10:56:07
2	As 188.979†	-74.9	-67.8	14.163	ug/L	14.163	ppb	10:56:27
2	B 249.677†	215.8	768.2	-12.398	ug/L	-12.398	ppb	10:56:07
2	Ba 233.527†	-449.7	-521.9	1.5370	ug/L	1.5370	ppb	10:56:27
2	Be 313.107†	-4076.4	-405.0	-0.2146	ug/L	-0.2146	ppb	10:56:07
2	Cd 226.502†	1236.4	1628.4	-0.6835	ug/L	-0.6835	ppb	10:56:27
2	Co 228.616†	-12.5	58.3	-1.4914	ug/L	-1.4914	ppb	10:56:27
2	Cr 267.716†	-55.5	-159.9	1.8483	ug/L	1.8483	ppb	10:56:27
2	Cu 324.752†	3698.5	-2018.1	3.6759	ug/L	3.6759	ppb	10:56:07
2	Mn 257.610†	1064.3	827.3	-0.2938	ug/L	-0.2938	ppb	10:56:07
2	Mo 202.031†	-180.8	-228.6	3.5929	ug/L	3.5929	ppb	10:56:27
2	Ni 231.604†	185.5	139.5	3.6715	ug/L	3.6715	ppb	10:56:27

2	P 214.914†	185.9	-12.8	-34.707 ug/L	-34.707 ppb	10:56:27
2	Pb 220.353†	-766.8	-822.8	-5.7744 ug/L	-5.7744 ppb	10:56:27
2	S 181.975 Axial†	72.4	37.4	-39.791 ug/L	-39.791 ppb	10:56:27
2	Sb 206.836†	45.2	19.6	-3.2091 ug/L	-3.2091 ppb	10:56:27
2	Se 196.026†	-860.9	-965.9	7.4821 ug/L	7.4821 ppb	10:56:27
2	Si 251.611†	479.3	108.8	3.8760 ug/L	3.8760 ppb	10:56:27
2	Sn 189.927†	-362.3	-425.4	-2.6994 ug/L	-2.6994 ppb	10:56:27
2	Ti 334.940†	-13134.5	-13812.4	0.2021 ug/L	0.2021 ppb	10:56:07
2	Tl 190.801†	-85.9	-55.5	-17.994 ug/L	-17.994 ppb	10:56:27
2	U 409.014†	-985.7	900.3	6.9290 ug/L	6.9290 ppb	10:56:07
2	V 292.402†	916.7	2468.0	-0.7111 ug/L	-0.7111 ppb	10:56:27
2	Zn 213.857†	2867.9	2458.5	5.9318 ug/L	5.9318 ppb	10:56:27
2	SiO2†	444.3	58.0	4.6197 ug/L	4.6197 ppb	10:57:03
3	Sc Radial	4408.3	4408.3	92.0 %		10:55:35
3	Y RADIAL	4696.8	4696.8	91.57 %		10:55:35
3	Al 396.153Radial†	579777.9	630148.8	505540 ug/L	505540 ppb	10:55:30
3	Ca 317.933Radial†	258804.1	281272.3	473650 ug/L	473650 ppb	10:55:30
3	Fe 238.204 Radial†	18540.1	20140.9	189340 ug/L	189340 ppb	10:55:35
3	K 766.490 Radial†	2323.8	-261.8	-210.87 ug/L	-210.87 ppb	10:55:30
3	Mg 279.077 IEC†	12823.0	13935.5	489030 ug/L	489030 ppb	10:55:35
3	Na 589.592 Radial†	-1415.0	29.0	9.3941 ug/L	9.3941 ppb	10:55:35
3	Sr 421.552†	517.5	545.2	0.3495 ug/L	0.3495 ppb	10:55:35
3	Sc 361.383	705583.6	705583.6	86.695 %		10:56:33
3	Y 371.029	579570.7	579570.7	84.490 %		10:56:33
3	Ag 328.068†	-9249.1	-10950.1	1.1250 ug/L	1.1250 ppb	10:56:33
3	As 188.979†	-66.7	-58.1	18.048 ug/L	18.048 ppb	10:56:53
3	B 249.677†	403.6	984.1	-6.7994 ug/L	-6.7994 ppb	10:56:33
3	Ba 233.527†	-463.9	-536.6	1.3493 ug/L	1.3493 ppb	10:56:53
3	Be 313.107†	-4109.2	-427.6	-0.2238 ug/L	-0.2238 ppb	10:56:33
3	Cd 226.502†	1235.8	1623.1	-0.5265 ug/L	-0.5265 ppb	10:56:53
3	Co 228.616†	-7.6	63.9	-1.3446 ug/L	-1.3446 ppb	10:56:53
3	Cr 267.716†	-88.9	-198.3	1.3516 ug/L	1.3516 ppb	10:56:53
3	Cu 324.752†	3729.8	-1995.8	3.6328 ug/L	3.6328 ppb	10:56:33
3	Mn 257.610†	861.2	589.0	-0.6122 ug/L	-0.6122 ppb	10:56:33
3	Mo 202.031†	-214.2	-266.3	0.5636 ug/L	0.5636 ppb	10:56:53
3	Ni 231.604†	150.1	98.0	2.5785 ug/L	2.5785 ppb	10:56:53
3	P 214.914†	182.3	-17.5	-37.132 ug/L	-37.132 ppb	10:56:53
3	Pb 220.353†	-749.9	-800.4	-3.7086 ug/L	-3.7086 ppb	10:56:53
3	S 181.975 Axial†	62.5	25.6	-56.542 ug/L	-56.542 ppb	10:56:53
3	Sb 206.836†	66.9	44.4	5.8282 ug/L	5.8282 ppb	10:56:53
3	Se 196.026†	-883.0	-988.1	-14.597 ug/L	-14.597 ppb	10:56:53
3	Si 251.611†	504.3	135.8	4.8235 ug/L	4.8235 ppb	10:56:53
3	Sn 189.927†	-369.5	-432.3	-4.7871 ug/L	-4.7871 ppb	10:56:53
3	Ti 334.940†	-13209.7	-13849.9	-0.2044 ug/L	-0.2044 ppb	10:56:33
3	Tl 190.801†	-62.8	-28.6	-9.3744 ug/L	-9.3744 ppb	10:56:53
3	U 409.014†	-899.6	1003.3	10.462 ug/L	10.462 ppb	10:56:33
3	V 292.402†	852.2	2390.1	-1.0771 ug/L	-1.0771 ppb	10:56:53
3	Zn 213.857†	2896.0	2480.1	6.3604 ug/L	6.3604 ppb	10:56:53
3	SiO2†	480.4	97.9	7.5578 ug/L	7.5578 ppb	10:57:08

Mean Data: ICSA

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	702552.5	86.323	%	0.4256				0.49%
Sc Radial	4365.0	91.1	%	0.92				1.01%
Y 371.029	577328.0	84.163	%	0.3201				0.38%
Y RADIAL	4651.5	90.68	%	0.768				0.85%
Ag 328.068†	-10921.3	1.6787	ug/L	0.66053	1.6787	ppb	0.66053	39.35%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	631983.1	507020	ug/L	2425.5	507020	ppb	2425.5	0.48%
QC value within limits for Al 396.153Radial Recovery = 101.40%								
As 188.979†	-67.8	13.987	ug/L	4.1518	13.987	ppb	4.1518	29.68%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	878.7	-9.5844	ug/L	2.79937	-9.5844	ppb	2.79937	29.21%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-537.3	1.3847	ug/L	0.13812	1.3847	ppb	0.13812	9.98%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-386.8	-0.2076	ug/L	0.02063	-0.2076	ppb	0.02063	9.94%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	282452.3	475640	ug/L	2718.4	475640	ppb	2718.4	0.57%

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   QC value within limits for Ca 317.933Radial  Recovery = 95.13%
Cd 226.502†            1627.3     -0.6156 ug/L      0.08065     -0.6156 ppb       0.08065  13.10%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†              57.1     -1.5093 ug/L      0.17432     -1.5093 ppb       0.17432  11.55%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†            -174.1      1.6651 ug/L      0.27273      1.6651 ppb       0.27273  16.38%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†           -2010.2      3.6593 ug/L      0.02318      3.6593 ppb       0.02318   0.63%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†    20284.2      190690 ug/L       1171.5      190690 ppb        1171.5   0.61%
   QC value within limits for Fe 238.204 Radial  Recovery = 95.34%
K 766.490 Radial†      -222.0     -203.56 ug/L        6.355     -203.56 ppb        6.355   3.12%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†       13990.2      490950 ug/L       2108.6      490950 ppb        2108.6   0.43%
   QC value within limits for Mg 279.077 IEC  Recovery = 98.19%
Mn 257.610†              666.6     -0.4666 ug/L      0.16090     -0.4666 ppb       0.16090  34.48%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†            -255.7      1.4814 ug/L      1.83384      1.4814 ppb       1.83384 123.79%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       24.9      8.0560 ug/L      7.09195      8.0560 ppb       7.09195  88.03%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†             134.8      3.5473 ug/L      0.91310      3.5473 ppb       0.91310  25.74%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†              -23.7     -41.737 ug/L      10.1485     -41.737 ppb       10.1485  24.32%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†            -813.3     -5.1421 ug/L      1.24434     -5.1421 ppb       1.24434  24.20%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         31.9     -47.388 ug/L       8.4834     -47.388 ppb        8.4834  17.90%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              40.5      4.4378 ug/L      7.05519      4.4378 ppb       7.05519 158.98%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†            -970.9      1.4203 ug/L     14.00713      1.4203 ppb      14.00713 986.19%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†             118.3      4.2237 ug/L      0.52167      4.2237 ppb       0.52167  12.35%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†            -430.6     -4.1507 ug/L      1.26003     -4.1507 ppb       1.26003  30.36%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             533.0      0.2474 ug/L      0.13080      0.2474 ppb       0.13080  52.88%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†          -13853.7     -0.1002 ug/L      0.26592     -0.1002 ppb       0.26592 265.45%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -44.2    -14.383 ug/L       4.4765     -14.383 ppb        4.4765  31.12%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              933.2      8.0686 ug/L      2.07336      8.0686 ppb       2.07336  25.70%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†             2427.9     -0.9567 ug/L      0.21274     -0.9567 ppb       0.21274  22.24%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†            2482.0      6.2425 ug/L      0.27174      6.2425 ppb       0.27174   4.35%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                   84.5      6.5736 ug/L      1.69219      6.5736 ppb       1.69219  25.74%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 10
Sample ID: ICSAB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 14
Date Collected: 1/14/2010 10:59:19
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSAB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4460.9	4460.9	93.1	%			11:01:17
1	Y RADIAL	4775.6	4775.6	93.10	%			11:01:17
1	Al 396.153Radial†	585220.9	628572.4	504250	ug/L	504250	ppb	11:01:12
1	Ca 317.933Radial†	262712.9	282157.3	475140	ug/L	475140	ppb	11:01:12
1	Fe 238.204 Radial†	19382.3	20808.1	195620	ug/L	195620	ppb	11:01:17
1	K 766.490 Radial†	28032.5	27321.5	5311.7	ug/L	5311.7	ppb	11:01:12
1	Mg 279.077 IEC†	13268.2	14249.5	500050	ug/L	500050	ppb	11:01:17
1	Na 589.592 Radial†	15710.1	18440.7	5974.9	ug/L	5974.9	ppb	11:01:17
1	Sr 421.552†	69506.1	74637.3	528.46	ug/L	528.46	ppb	11:01:12
1	Sc 361.383	707414.6	707414.6	86.920	%			11:01:45
1	Y 371.029	579258.3	579258.3	84.445	%			11:01:45
1	Ag 328.068†	39878.4	45597.7	282.60	ug/L	282.60	ppb	11:01:45
1	As 188.979†	927.4	1085.8	537.65	ug/L	537.65	ppb	11:02:05
1	B 249.677†	19301.2	22724.1	520.00	ug/L	520.00	ppb	11:01:45
1	Ba 233.527†	52370.3	60249.5	506.70	ug/L	506.70	ppb	11:01:45
1	Be 313.107†	543489.6	629585.6	251.19	ug/L	251.19	ppb	11:01:45
1	Cd 226.502†	36003.4	41618.7	467.98	ug/L	467.98	ppb	11:02:05
1	Co 228.616†	18289.4	21114.3	455.83	ug/L	455.83	ppb	11:02:05
1	Cr 267.716†	36065.7	41397.1	492.73	ug/L	492.73	ppb	11:01:45
1	Cu 324.752†	156888.0	174198.3	566.15	ug/L	566.15	ppb	11:01:45
1	Mn 257.610†	364441.9	418878.5	490.06	ug/L	490.06	ppb	11:01:45
1	Mo 202.031†	5707.5	6547.1	506.83	ug/L	506.83	ppb	11:02:05
1	Ni 231.604†	15193.2	17404.4	457.88	ug/L	457.88	ppb	11:02:05
1	P 214.914†	3694.0	4022.0	2428.6	ug/L	2428.6	ppb	11:02:05
1	Pb 220.353†	2418.8	2847.4	463.61	ug/L	463.61	ppb	11:02:05
1	S 181.975 Axial†	1670.9	1875.8	2705.0	ug/L	2705.0	ppb	11:02:05
1	Sb 206.836†	1326.4	1493.3	553.76	ug/L	553.76	ppb	11:02:05
1	Se 196.026†	2481.9	2885.7	2598.2	ug/L	2598.2	ppb	11:02:05
1	Si 251.611†	138667.6	159088.3	5357.9	ug/L	5357.9	ppb	11:01:45
1	Sn 189.927†	1989.0	2282.1	497.54	ug/L	497.54	ppb	11:02:05
1	Ti 334.940†	251423.8	290644.8	521.07	ug/L	521.07	ppb	11:01:45
1	Tl 190.801†	1200.8	1425.4	459.43	ug/L	459.43	ppb	11:02:05
1	U 409.014†	12896.9	16878.5	515.66	ug/L	515.66	ppb	11:01:45
1	V 292.402†	62529.6	73346.2	517.48	ug/L	517.48	ppb	11:01:45
1	Zn 213.857†	46968.8	53176.3	507.70	ug/L	507.70	ppb	11:01:45
1	SiO2†	140558.6	161253.5	11547	ug/L	11547	ppb	11:03:02
2	Sc Radial	4360.5	4360.5	91.0	%			11:01:27
2	Y RADIAL	4660.4	4660.4	90.86	%			11:01:27
2	Al 396.153Radial†	589026.8	647223.0	519220	ug/L	519220	ppb	11:01:22
2	Ca 317.933Radial†	264513.5	290631.0	489410	ug/L	489410	ppb	11:01:22
2	Fe 238.204 Radial†	18934.4	20795.2	195500	ug/L	195500	ppb	11:01:27
2	K 766.490 Radial†	28175.2	28171.4	5477.2	ug/L	5477.2	ppb	11:01:22
2	Mg 279.077 IEC†	12927.9	14203.6	498440	ug/L	498440	ppb	11:01:27
2	Na 589.592 Radial†	15140.5	18203.2	5897.9	ug/L	5897.9	ppb	11:01:27
2	Sr 421.552†	69837.7	76720.1	543.20	ug/L	543.20	ppb	11:01:22
2	Sc 361.383	717232.5	717232.5	88.127	%			11:02:11
2	Y 371.029	587543.3	587543.3	85.653	%			11:02:11
2	Ag 328.068†	40543.4	45724.3	282.99	ug/L	282.99	ppb	11:02:11
2	As 188.979†	921.2	1064.2	527.92	ug/L	527.92	ppb	11:02:31
2	B 249.677†	19451.9	22591.3	516.80	ug/L	516.80	ppb	11:02:11
2	Ba 233.527†	53020.9	60163.0	505.98	ug/L	505.98	ppb	11:02:11
2	Be 313.107†	552046.9	630736.8	251.64	ug/L	251.64	ppb	11:02:11
2	Cd 226.502†	35940.8	40980.7	460.51	ug/L	460.51	ppb	11:02:31
2	Co 228.616†	18294.9	20832.4	449.69	ug/L	449.69	ppb	11:02:31
2	Cr 267.716†	36631.5	41471.1	493.60	ug/L	493.60	ppb	11:02:11
2	Cu 324.752†	159307.1	174472.6	567.01	ug/L	567.01	ppb	11:02:11
2	Mn 257.610†	369695.0	419099.9	490.37	ug/L	490.37	ppb	11:02:11
2	Mo 202.031†	5685.2	6431.8	498.44	ug/L	498.44	ppb	11:02:31
2	Ni 231.604†	15200.8	17173.7	451.81	ug/L	451.81	ppb	11:02:31

2	P 214.914†	3686.0	3954.8	2389.3 ug/L	2389.3 ppb	11:02:31
2	Pb 220.353†	2411.9	2801.5	461.18 ug/L	461.18 ppb	11:02:31
2	S 181.975 Axial†	1678.3	1857.9	2675.5 ug/L	2675.5 ppb	11:02:31
2	Sb 206.836†	1344.2	1492.6	552.84 ug/L	552.84 ppb	11:02:31
2	Se 196.026†	2474.0	2837.6	2566.4 ug/L	2566.4 ppb	11:02:31
2	Si 251.611†	140703.5	159214.6	5362.3 ug/L	5362.3 ppb	11:02:11
2	Sn 189.927†	1990.7	2252.8	494.29 ug/L	494.29 ppb	11:02:31
2	Ti 334.940†	255073.5	290826.7	523.43 ug/L	523.43 ppb	11:02:11
2	Tl 190.801†	1208.7	1415.4	456.28 ug/L	456.28 ppb	11:02:31
2	U 409.014†	13231.4	17055.0	521.31 ug/L	521.31 ppb	11:02:11
2	V 292.402†	63547.3	73516.2	518.58 ug/L	518.58 ppb	11:02:11
2	Zn 213.857†	47600.3	53153.2	507.52 ug/L	507.52 ppb	11:02:11
2	SiO2†	139548.6	157893.8	11307 ug/L	11307 ppb	11:03:07
3	Sc Radial	4483.3	4483.3	93.6 %		11:01:37
3	Y RADIAL	4768.3	4768.3	92.96 %		11:01:37
3	Al 396.153Radial†	578241.7	617976.6	495750 ug/L	495750 ppb	11:01:32
3	Ca 317.933Radial†	259443.2	277254.7	466880 ug/L	466880 ppb	11:01:32
3	Fe 238.204 Radial†	19333.8	20652.3	194160 ug/L	194160 ppb	11:01:37
3	K 766.490 Radial†	27684.1	26798.9	5209.8 ug/L	5209.8 ppb	11:01:32
3	Mg 279.077 IEC†	13193.1	14098.1	494740 ug/L	494740 ppb	11:01:37
3	Na 589.592 Radial†	15495.3	18126.9	5873.2 ug/L	5873.2 ppb	11:01:37
3	Sr 421.552†	68428.1	73112.7	517.65 ug/L	517.65 ppb	11:01:32
3	Sc 361.383	714085.4	714085.4	87.740 %		11:02:37
3	Y 371.029	586060.1	586060.1	85.436 %		11:02:37
3	Ag 328.068†	40371.8	45731.4	282.92 ug/L	282.92 ppb	11:02:37
3	As 188.979†	925.5	1073.6	531.85 ug/L	531.85 ppb	11:02:57
3	B 249.677†	19408.9	22639.4	518.18 ug/L	518.18 ppb	11:02:37
3	Ba 233.527†	52966.5	60366.1	507.63 ug/L	507.63 ppb	11:02:37
3	Be 313.107†	552868.3	634433.7	253.11 ug/L	253.11 ppb	11:02:37
3	Cd 226.502†	36232.3	41492.7	466.65 ug/L	466.65 ppb	11:02:57
3	Co 228.616†	18383.5	21025.0	453.90 ug/L	453.90 ppb	11:02:57
3	Cr 267.716†	36579.0	41594.5	495.03 ug/L	495.03 ppb	11:02:37
3	Cu 324.752†	158681.3	174556.0	567.21 ug/L	567.21 ppb	11:02:37
3	Mn 257.610†	369046.1	420209.2	491.69 ug/L	491.69 ppb	11:02:37
3	Mo 202.031†	5711.2	6489.9	502.38 ug/L	502.38 ppb	11:02:57
3	Ni 231.604†	15311.6	17376.0	457.13 ug/L	457.13 ppb	11:02:57
3	P 214.914†	3733.5	4027.3	2430.8 ug/L	2430.8 ppb	11:02:57
3	Pb 220.353†	2456.4	2864.2	463.92 ug/L	463.92 ppb	11:02:57
3	S 181.975 Axial†	1674.7	1862.2	2686.2 ug/L	2686.2 ppb	11:02:57
3	Sb 206.836†	1316.4	1467.6	544.54 ug/L	544.54 ppb	11:02:57
3	Se 196.026†	2505.0	2885.4	2592.7 ug/L	2592.7 ppb	11:02:57
3	Si 251.611†	140307.7	159467.2	5370.8 ug/L	5370.8 ppb	11:02:37
3	Sn 189.927†	2022.0	2298.4	499.27 ug/L	499.27 ppb	11:02:57
3	Ti 334.940†	254318.1	291241.3	521.42 ug/L	521.42 ppb	11:02:37
3	Tl 190.801†	1209.4	1422.3	458.46 ug/L	458.46 ppb	11:02:57
3	U 409.014†	12930.2	16777.9	512.61 ug/L	512.61 ppb	11:02:37
3	V 292.402†	63542.6	73828.6	521.00 ug/L	521.00 ppb	11:02:37
3	Zn 213.857†	47567.1	53353.4	509.61 ug/L	509.61 ppb	11:02:37
3	SiO2†	140776.2	159990.8	11457 ug/L	11457 ppb	11:03:13

Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	712910.8	87.596	%	0.6160				0.70%
Sc Radial	4434.9	92.6	%	1.36				1.47%
Y 371.029	584287.3	85.178	%	0.6440				0.76%
Y RADIAL	4734.8	92.31	%	1.257				1.36%
Ag 328.068†	45684.5	282.84	ug/L	0.206	282.84	ppb	0.206	0.07%
QC value within limits for Ag 328.068 Recovery = 113.14%								
Al 396.153Radial†	631257.3	506410	ug/L	11879.1	506410	ppb	11879.1	2.35%
QC value within limits for Al 396.153Radial Recovery = 101.28%								
As 188.979†	1074.5	532.48	ug/L	4.895	532.48	ppb	4.895	0.92%
QC value within limits for As 188.979 Recovery = 106.50%								
B 249.677†	22651.6	518.33	ug/L	1.603	518.33	ppb	1.603	0.31%
QC value within limits for B 249.677 Recovery = 103.67%								
Ba 233.527†	60259.5	506.77	ug/L	0.826	506.77	ppb	0.826	0.16%
QC value within limits for Ba 233.527 Recovery = 101.35%								
Be 313.107†	631585.4	251.98	ug/L	1.007	251.98	ppb	1.007	0.40%
QC value within limits for Be 313.107 Recovery = 100.79%								
Ca 317.933Radial†	283347.7	477140	ug/L	11395.5	477140	ppb	11395.5	2.39%

```
   QC value within limits for Ca 317.933Radial  Recovery = 95.43%
Cd 226.502†            41364.0      465.05 ug/L         3.984      465.05 ppb          3.984   0.86%
   QC value within limits for Cd 226.502  Recovery = 93.01%
Co 228.616†            20990.6      453.14 ug/L         3.140      453.14 ppb          3.140   0.69%
   QC value within limits for Co 228.616  Recovery = 90.63%
Cr 267.716†            41487.6      493.79 ug/L         1.165      493.79 ppb          1.165   0.24%
   QC value within limits for Cr 267.716  Recovery = 98.76%
Cu 324.752†           174409.0      566.79 ug/L         0.567      566.79 ppb          0.567   0.10%
   QC value within limits for Cu 324.752  Recovery = 113.36%
Fe 238.204 Radial†     20751.9      195100 ug/L         812.5      195100 ppb          812.5   0.42%
   QC value within limits for Fe 238.204 Radial  Recovery = 97.55%
K 766.490 Radial†      27430.6      5332.9 ug/L        134.97      5332.9 ppb         134.97   2.53%
   QC value within limits for K 766.490 Radial  Recovery = 106.66%
Mg 279.077 IEC†        14183.7      497740 ug/L        2724.5      497740 ppb         2724.5   0.55%
   QC value within limits for Mg 279.077 IEC  Recovery = 99.55%
Mn 257.610†           419395.8      490.71 ug/L         0.867      490.71 ppb          0.867   0.18%
   QC value within limits for Mn 257.610  Recovery = 98.14%
Mo 202.031†             6489.6      502.55 ug/L         4.199      502.55 ppb          4.199   0.84%
   QC value within limits for Mo 202.031  Recovery = 100.51%
Na 589.592 Radial†     18257.0      5915.4 ug/L         53.02      5915.4 ppb          53.02   0.90%
   QC value within limits for Na 589.592 Radial  Recovery = 118.31%
Ni 231.604†            17318.0      455.61 ug/L         3.309      455.61 ppb          3.309   0.73%
   QC value within limits for Ni 231.604  Recovery = 91.12%
P 214.914†              4001.4      2416.2 ug/L         23.36      2416.2 ppb          23.36   0.97%
   QC value within limits for P 214.914  Recovery = 96.65%
Pb 220.353†             2837.7      462.91 ug/L         1.499      462.91 ppb          1.499   0.32%
   QC value within limits for Pb 220.353  Recovery = 92.58%
S 181.975 Axial†        1865.3      2688.9 ug/L         14.94      2688.9 ppb          14.94   0.56%
   QC value within limits for S 181.975 Axial  Recovery = 107.56%
Sb 206.836†             1484.5      550.38 ug/L         5.077      550.38 ppb          5.077   0.92%
   QC value within limits for Sb 206.836  Recovery = 110.08%
Se 196.026†             2869.6      2585.8 ug/L         17.00      2585.8 ppb          17.00   0.66%
   QC value within limits for Se 196.026  Recovery = 103.43%
Si 251.611†           159256.7      5363.7 ug/L          6.52      5363.7 ppb           6.52   0.12%
   QC value within limits for Si 251.611  Recovery = 107.27%
Sn 189.927†             2277.8      497.03 ug/L         2.533      497.03 ppb          2.533   0.51%
   QC value within limits for Sn 189.927  Recovery = 99.41%
Sr 421.552†            74823.4      529.77 ug/L        12.823      529.77 ppb         12.823   2.42%
   QC value within limits for Sr 421.552  Recovery = 105.95%
Ti 334.940†           290904.3      521.97 ug/L         1.270      521.97 ppb          1.270   0.24%
   QC value within limits for Ti 334.940  Recovery = 104.39%
Tl 190.801†             1421.0      458.06 ug/L         1.612      458.06 ppb          1.612   0.35%
   QC value within limits for Tl 190.801  Recovery = 91.61%
U 409.014†             16903.8      516.53 ug/L         4.414      516.53 ppb          4.414   0.85%
   QC value within limits for U 409.014  Recovery = 103.31%
V 292.402†             73563.7      519.02 ug/L         1.802      519.02 ppb          1.802   0.35%
   QC value within limits for V 292.402  Recovery = 103.80%
Zn 213.857†            53227.6      508.27 ug/L         1.159      508.27 ppb          1.159   0.23%
   QC value within limits for Zn 213.857  Recovery = 101.65%
SiO2†                 159712.7       11437 ug/L         121.5       11437 ppb          121.5   1.06%
   QC value within limits for SiO2  Recovery = 106.94%
All analyte(s) passed QC.
```

Sequence No.: 11
Sample ID: LR1
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 15
Date Collected: 1/14/2010 11:05:22
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4325.4	4325.4	90.3	%			11:07:20
1	Y RADIAL	4609.2	4609.2	89.86	%			11:07:20
1	Al 396.153Radial†	559046.9	619270.0	496820	ug/L	496820	ppb	11:07:15
1	Ca 317.933Radial†	249788.9	276680.8	465920	ug/L	465920	ppb	11:07:15
1	Fe 238.204 Radial†	41978.5	46490.5	437040	ug/L	437040	ppb	11:07:20
1	K 766.490 Radial†	2824.3	341.1	-287.48	ug/L	-287.48	ppb	11:07:15
1	Mg 279.077 IEC†	12241.7	13558.9	475550	ug/L	475550	ppb	11:07:20
1	Na 589.592 Radial†	1427323.1	1582639.6	512780	ug/L	512780	ppb	11:07:15
1	Sr 421.552†	724.6	785.4	2.1193	ug/L	2.1193	ppb	11:07:20
1	Sc 361.383	690936.1	690936.1	84.896	%			11:07:48
1	Y 371.029	567787.9	567787.9	82.773	%			11:07:48
1	Ag 328.068†	-21540.8	-25654.9	-2.9059	ug/L	-2.9059	ppb	11:07:48
1	As 188.979†	-193.5	-209.1	8.1587	ug/L	8.1587	ppb	11:08:08
1	B 249.677†	1388.5	2154.1	-18.563	ug/L	-18.563	ppb	11:07:48
1	Ba 233.527†	-1359.0	-1602.3	0.0791	ug/L	0.0791	ppb	11:08:08
1	Be 313.107†	-10412.7	-7953.1	-3.2138	ug/L	-3.2138	ppb	11:07:48
1	Cd 226.502†	3121.5	3874.4	3.1787	ug/L	3.1787	ppb	11:08:08
1	Co 228.616†	175.4	279.3	-0.3000	ug/L	-0.3000	ppb	11:08:08
1	Cr 267.716†	24.7	-66.6	1.8297	ug/L	1.8297	ppb	11:08:08
1	Cu 324.752†	1105.4	-4996.0	-1.0854	ug/L	-1.0854	ppb	11:07:48
1	Mn 257.610†	-19920.2	-23868.6	-4.2867	ug/L	-4.2867	ppb	11:07:48
1	Mo 202.031†	-469.3	-572.1	-3.0002	ug/L	-3.0002	ppb	11:08:08
1	Ni 231.604†	277.5	251.7	6.6221	ug/L	6.6221	ppb	11:08:08
1	P 214.914†	517.5	381.6	17.781	ug/L	17.781	ppb	11:08:08
1	Pb 220.353†	-517.5	-545.0	3.2731	ug/L	3.2731	ppb	11:08:08
1	S 181.975 Axial†	94.8	65.3	4.2973	ug/L	4.2973	ppb	11:08:08
1	Sb 206.836†	41.5	16.1	1.4223	ug/L	1.4223	ppb	11:08:08
1	Se 196.026†	-1984.5	-2307.2	-86.069	ug/L	-86.069	ppb	11:08:08
1	Si 251.611†	-420.3	-941.0	-31.205	ug/L	-31.205	ppb	11:08:08
1	Sn 189.927†	-397.0	-473.7	-9.4483	ug/L	-9.4483	ppb	11:08:08
1	Ti 334.940†	-13182.8	-14141.2	-7.2072	ug/L	-7.2072	ppb	11:07:48
1	Tl 190.801†	-109.5	-85.1	-27.634	ug/L	-27.634	ppb	11:08:08
1	U 409.014†	395335.8	467713.8	14888	ug/L	14888	ppb	11:07:48
1	V 292.402†	2458.6	4303.2	4.5976	ug/L	4.5976	ppb	11:08:08
1	Zn 213.857†	5470.3	5583.2	13.267	ug/L	13.267	ppb	11:08:08
1	SiO2†	-339.0	-855.5	-60.175	ug/L	-60.175	ppb	11:09:05
2	Sc Radial	4318.7	4318.7	90.1	%			11:07:31
2	Y RADIAL	4643.3	4643.3	90.52	%			11:07:31
2	Al 396.153Radial†	553258.3	613799.2	492430	ug/L	492430	ppb	11:07:26
2	Ca 317.933Radial†	246625.0	273595.6	460720	ug/L	460720	ppb	11:07:26
2	Fe 238.204 Radial†	42397.6	47026.8	442090	ug/L	442090	ppb	11:07:31
2	K 766.490 Radial†	2838.6	361.8	-278.50	ug/L	-278.50	ppb	11:07:26
2	Mg 279.077 IEC†	12382.8	13736.2	481770	ug/L	481770	ppb	11:07:31
2	Na 589.592 Radial†	1402980.3	1558061.8	504820	ug/L	504820	ppb	11:07:26
2	Sr 421.552†	722.4	784.2	2.1494	ug/L	2.1494	ppb	11:07:31
2	Sc 361.383	699514.9	699514.9	85.950	%			11:08:14
2	Y 371.029	574789.6	574789.6	83.793	%			11:08:14
2	Ag 328.068†	-21766.2	-25605.9	-0.9759	ug/L	-0.9759	ppb	11:08:14
2	As 188.979†	-183.5	-194.6	15.858	ug/L	15.858	ppb	11:08:34
2	B 249.677†	1369.5	2111.9	-20.406	ug/L	-20.406	ppb	11:08:14
2	Ba 233.527†	-1327.8	-1546.3	0.6956	ug/L	0.6956	ppb	11:08:34
2	Be 313.107†	-10552.1	-7964.8	-3.2176	ug/L	-3.2176	ppb	11:08:14
2	Cd 226.502†	3113.3	3819.8	2.0207	ug/L	2.0207	ppb	11:08:34
2	Co 228.616†	155.1	253.2	-0.9391	ug/L	-0.9391	ppb	11:08:34
2	Cr 267.716†	20.2	-72.2	1.8556	ug/L	1.8556	ppb	11:08:34
2	Cu 324.752†	1029.4	-5100.4	-1.1593	ug/L	-1.1593	ppb	11:08:14
2	Mn 257.610†	-19969.7	-23638.4	-3.7733	ug/L	-3.7733	ppb	11:08:14
2	Mo 202.031†	-460.8	-555.5	-1.4325	ug/L	-1.4325	ppb	11:08:34
2	Ni 231.604†	265.1	233.3	6.1394	ug/L	6.1394	ppb	11:08:34

2	P 214.914†	521.1	378.4	10.605 ug/L	10.605 ppb	11:08:34
2	Pb 220.353†	-522.5	-543.4	1.9640 ug/L	1.9640 ppb	11:08:34
2	S 181.975 Axial†	80.2	46.9	-22.321 ug/L	-22.321 ppb	11:08:34
2	Sb 206.836†	62.0	39.4	10.219 ug/L	10.219 ppb	11:08:34
2	Se 196.026†	-1968.2	-2259.6	-37.933 ug/L	-37.933 ppb	11:08:34
2	Si 251.611†	-414.3	-927.9	-30.778 ug/L	-30.778 ppb	11:08:34
2	Sn 189.927†	-395.5	-466.3	-8.7798 ug/L	-8.7798 ppb	11:08:34
2	Ti 334.940†	-13153.0	-13916.1	-8.0325 ug/L	-8.0325 ppb	11:08:14
2	Tl 190.801†	-95.7	-67.5	-22.001 ug/L	-22.001 ppb	11:08:34
2	U 409.014†	400616.1	468146.5	14901 ug/L	14901 ppb	11:08:14
2	V 292.402†	2407.1	4207.8	3.3387 ug/L	3.3387 ppb	11:08:34
2	Zn 213.857†	5411.1	5435.3	11.306 ug/L	11.306 ppb	11:08:34
2	SiO2†	-427.2	-953.3	-67.222 ug/L	-67.222 ppb	11:09:10
3	Sc Radial	4365.1	4365.1	91.1 %		11:07:41
3	Y RADIAL	4692.6	4692.6	91.48 %		11:07:41
3	Al 396.153Radial†	557491.9	611933.7	490930 ug/L	490930 ppb	11:07:36
3	Ca 317.933Radial†	248919.6	273211.2	460070 ug/L	460070 ppb	11:07:36
3	Fe 238.204 Radial†	42954.3	47138.9	443140 ug/L	443140 ppb	11:07:41
3	K 766.490 Radial†	2995.6	500.7	-250.02 ug/L	-250.02 ppb	11:07:36
3	Mg 279.077 IEC†	12537.6	13760.4	482620 ug/L	482620 ppb	11:07:41
3	Na 589.592 Radial†	1414898.3	1554628.6	503710 ug/L	503710 ppb	11:07:36
3	Sr 421.552†	728.9	782.8	2.1444 ug/L	2.1444 ppb	11:07:41
3	Sc 361.383	693608.2	693608.2	85.224 %		11:08:40
3	Y 371.029	569680.0	569680.0	83.048 %		11:08:40
3	Ag 328.068†	-21486.9	-25493.9	-0.0219 ug/L	-0.0219 ppb	11:08:40
3	As 188.979†	-180.9	-193.5	16.620 ug/L	16.620 ppb	11:09:00
3	B 249.677†	1331.4	2080.7	-21.338 ug/L	-21.338 ppb	11:08:40
3	Ba 233.527†	-1333.0	-1565.6	0.5674 ug/L	0.5674 ppb	11:09:00
3	Be 313.107†	-10495.9	-8003.4	-3.2329 ug/L	-3.2329 ppb	11:08:40
3	Cd 226.502†	3110.9	3847.9	2.2279 ug/L	2.2279 ppb	11:09:00
3	Co 228.616†	161.1	261.7	-0.7697 ug/L	-0.7697 ppb	11:09:00
3	Cr 267.716†	64.9	-19.5	2.5236 ug/L	2.5236 ppb	11:09:00
3	Cu 324.752†	1112.1	-4993.2	-0.7250 ug/L	-0.7250 ppb	11:08:40
3	Mn 257.610†	-19946.5	-23809.1	-3.9041 ug/L	-3.9041 ppb	11:08:40
3	Mo 202.031†	-462.5	-562.0	-1.8397 ug/L	-1.8397 ppb	11:09:00
3	Ni 231.604†	258.9	228.7	6.0174 ug/L	6.0174 ppb	11:09:00
3	P 214.914†	507.1	367.1	2.1257 ug/L	2.1257 ppb	11:09:00
3	Pb 220.353†	-535.2	-563.4	-1.0297 ug/L	-1.0297 ppb	11:09:00
3	S 181.975 Axial†	79.4	46.7	-22.358 ug/L	-22.358 ppb	11:09:00
3	Sb 206.836†	69.5	48.8	13.661 ug/L	13.661 ppb	11:09:00
3	Se 196.026†	-1976.4	-2288.7	-53.994 ug/L	-53.994 ppb	11:09:00
3	Si 251.611†	-414.9	-932.7	-30.934 ug/L	-30.934 ppb	11:09:00
3	Sn 189.927†	-404.3	-480.5	-11.490 ug/L	-11.490 ppb	11:09:00
3	Ti 334.940†	-13027.3	-13898.9	-8.1307 ug/L	-8.1307 ppb	11:08:40
3	Tl 190.801†	-106.5	-81.1	-26.365 ug/L	-26.365 ppb	11:09:00
3	U 409.014†	395488.0	466098.4	14835 ug/L	14835 ppb	11:08:40
3	V 292.402†	2400.5	4223.9	3.1857 ug/L	3.1857 ppb	11:09:00
3	Zn 213.857†	5425.3	5505.6	11.906 ug/L	11.906 ppb	11:09:00
3	SiO2†	-431.3	-962.3	-67.854 ug/L	-67.854 ppb	11:09:15

Mean Data: LR1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	694686.4	85.356	%	0.5394				0.63%
Sc Radial	4336.4	90.5	%	0.52				0.58%
Y 371.029	570752.5	83.205	%	0.5280				0.63%
Y RADIAL	4648.4	90.62	%	0.818				0.90%
Ag 328.068†	-25584.9	-1.3012	ug/L	1.46931	-1.3012	ppb	1.46931	112.92%
Al 396.153Radial†	615001.0	493390	ug/L	3059.0	493390	ppb	3059.0	0.62%
QC value within limits for Al 396.153Radial Recovery = 98.68%								
As 188.979†	-199.1	13.545	ug/L	4.6806	13.545	ppb	4.6806	34.55%
B 249.677†	2115.6	-20.102	ug/L	1.4121	-20.102	ppb	1.4121	7.02%
Ba 233.527†	-1571.4	0.4474	ug/L	0.32531	0.4474	ppb	0.32531	72.71%
Be 313.107†	-7973.8	-3.2214	ug/L	0.01008	-3.2214	ppb	0.01008	0.31%
Ca 317.933Radial†	274495.9	462240	ug/L	3202.8	462240	ppb	3202.8	0.69%
QC value within limits for Ca 317.933Radial Recovery = 92.45%								
Cd 226.502†	3847.3	2.4758	ug/L	0.61749	2.4758	ppb	0.61749	24.94%
Co 228.616†	264.7	-0.6696	ug/L	0.33111	-0.6696	ppb	0.33111	49.45%
Cr 267.716†	-52.8	2.0696	ug/L	0.39339	2.0696	ppb	0.39339	19.01%
Cu 324.752†	-5029.9	-0.9899	ug/L	0.23234	-0.9899	ppb	0.23234	23.47%

Fe 238.204 Radial†	46885.4	440760	ug/L	3257.9	440760	ppb	3257.9	0.74%
QC value less than the lower limit for Fe 238.204 Radial Recovery = 88.15%								
K 766.490 Radial†	401.2	-272.00	ug/L	19.557	-272.00	ppb	19.557	7.19%
Mg 279.077 IEC†	13685.2	479980	ug/L	3859.9	479980	ppb	3859.9	0.80%
QC value within limits for Mg 279.077 IEC Recovery = 96.00%								
Mn 257.610†	-23772.0	-3.9880	ug/L	0.26676	-3.9880	ppb	0.26676	6.69%
Mo 202.031†	-563.2	-2.0908	ug/L	0.81349	-2.0908	ppb	0.81349	38.91%
Na 589.592 Radial†	1565110.0	507100	ug/L	4950.1	507100	ppb	4950.1	0.98%
QC value within limits for Na 589.592 Radial Recovery = 101.42%								
Ni 231.604†	237.9	6.2596	ug/L	0.31974	6.2596	ppb	0.31974	5.11%
P 214.914†	375.7	10.171	ug/L	7.8368	10.171	ppb	7.8368	77.05%
Pb 220.353†	-550.6	1.4024	ug/L	2.20569	1.4024	ppb	2.20569	157.27%
S 181.975 Axial†	52.9	-13.460	ug/L	15.3787	-13.460	ppb	15.3787	114.25%
Sb 206.836†	34.8	8.4341	ug/L	6.31147	8.4341	ppb	6.31147	74.83%
Se 196.026†	-2285.2	-59.332	ug/L	24.5082	-59.332	ppb	24.5082	41.31%
Si 251.611†	-933.9	-30.972	ug/L	0.2160	-30.972	ppb	0.2160	0.70%
Sn 189.927†	-473.5	-9.9059	ug/L	1.41175	-9.9059	ppb	1.41175	14.25%
Sr 421.552†	784.1	2.1377	ug/L	0.01615	2.1377	ppb	0.01615	0.76%
Ti 334.940†	-13985.4	-7.7901	ug/L	0.50720	-7.7901	ppb	0.50720	6.51%
Tl 190.801†	-77.9	-25.334	ug/L	2.9548	-25.334	ppb	2.9548	11.66%
U 409.014†	467319.6	14875	ug/L	34.6	14875	ppb	34.6	0.23%
QC value within limits for U 409.014 Recovery = 99.16%								
V 292.402†	4244.9	3.7073	ug/L	0.77478	3.7073	ppb	0.77478	20.90%
Zn 213.857†	5508.0	12.160	ug/L	1.0048	12.160	ppb	1.0048	8.26%
SiO2†	-923.7	-65.083	ug/L	4.2626	-65.083	ppb	4.2626	6.55%

QC Failed. Continue with analysis.

Sequence No.: 12
Sample ID: LR2
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 16
Date Collected: 1/14/2010 11:11:26
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR2

Rep1#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4833.5	4833.5	101	%			11:13:24
1	Y RADIAL	5126.8	5126.8	99.95	%			11:13:24
1	Al 396.153Radial†	548.9	547.4	-42.692	ug/L	-42.692	ppb	11:13:24
1	Ca 317.933Radial†	26.7	11.4	19.131	ug/L	19.131	ppb	11:13:44
1	Fe 238.204 Radial†	-15.6	-25.4	50.089	ug/L	50.089	ppb	11:13:44
1	K 766.490 Radial†	1467235.0	1451652.4	290810	ug/L	290810	ppb	11:13:19
1	Mg 279.077 IEC†	-6.3	-7.8	-168.60	ug/L	-168.60	ppb	11:13:44
1	Na 589.592 Radial†	-679.2	893.6	289.54	ug/L	289.54	ppb	11:13:24
1	Sr 421.552†	1386069.3	1373964.8	9793.5	ug/L	9793.5	ppb	11:13:19
1	Sc 361.383	796153.9	796153.9	97.824	%			11:15:01
1	Y 371.029	651907.6	651907.6	95.036	%			11:15:01
1	Ag 328.068†	-7670.8	-8123.0	0.5984	ug/L	0.5984	ppb	11:15:06
1	As 188.979†	22203.8	22716.6	10286	ug/L	10286	ppb	11:15:06
1	B 249.677†	203325.9	208367.8	5043.9	ug/L	5043.9	ppb	11:15:01
1	Ba 233.527†	1697903.5	1735674.8	14414	ug/L	14414	ppb	11:15:01
1	Be 313.107†	7215609.0	7380444.5	2953.9	ug/L	2953.9	ppb	11:14:55
1	Cd 226.502†	810860.2	829096.7	9723.6	ug/L	9723.6	ppb	11:15:01
1	Co 228.616†	434202.7	443935.0	9639.4	ug/L	9639.4	ppb	11:15:06
1	Cr 267.716†	1998704.4	2043073.2	24118	ug/L	24118	ppb	11:15:01
1	Cu 324.752†	6226475.9	6358696.2	20299	ug/L	20299	ppb	11:14:55
1	Mn 257.610†	7962178.6	8138906.2	9544.0	ug/L	9544.0	ppb	11:14:55
1	Mo 202.031†	130960.8	133854.9	9936.2	ug/L	9936.2	ppb	11:15:06
1	Ni 231.604†	363867.2	371886.9	9783.8	ug/L	9783.8	ppb	11:15:06
1	P 214.914†	29181.4	29602.7	14960	ug/L	14960	ppb	11:15:06
1	Pb 220.353†	187396.7	191630.2	24558	ug/L	24558	ppb	11:15:06
1	S 181.975 Axial†	34708.0	35433.7	52881	ug/L	52881	ppb	11:15:06
1	Sb 206.836†	28463.5	29064.0	10993	ug/L	10993	ppb	11:15:06
1	Se 196.026†	15102.4	15468.7	10375	ug/L	10375	ppb	11:15:06
1	Si 251.611†	1410028.2	1440950.7	48462	ug/L	48462	ppb	11:15:01
1	Sn 189.927†	56050.8	57291.7	10595	ug/L	10595	ppb	11:15:06
1	Ti 334.940†	5687630.8	5815548.7	9968.2	ug/L	9968.2	ppb	11:14:55
1	Tl 190.801†	29649.5	30353.0	9776.8	ug/L	9776.8	ppb	11:15:06
1	U 409.014†	-1035.8	982.1	-22.548	ug/L	-22.548	ppb	11:15:06
1	V 292.402†	1360318.8	1391988.6	10163	ug/L	10163	ppb	11:15:01
1	Zn 213.857†	1401405.8	1431722.1	14189	ug/L	14189	ppb	11:15:01
1	SiO2†	1448559.9	1480329.4	105860	ug/L	105860	ppb	11:15:52
2	Sc Radial	4588.2	4588.2	95.8	%			11:13:54
2	Y RADIAL	4864.5	4864.5	94.83	%			11:13:54
2	Al 396.153Radial†	540.8	568.0	-17.243	ug/L	-17.243	ppb	11:13:54
2	Ca 317.933Radial†	24.7	10.7	17.993	ug/L	17.993	ppb	11:14:14
2	Fe 238.204 Radial†	-18.9	-29.6	5.1614	ug/L	5.1614	ppb	11:14:14
2	K 766.490 Radial†	1468925.8	1531153.5	306740	ug/L	306740	ppb	11:13:49
2	Mg 279.077 IEC†	-3.0	-4.7	-62.016	ug/L	-62.016	ppb	11:14:14
2	Na 589.592 Radial†	-709.9	825.6	267.51	ug/L	267.51	ppb	11:13:54
2	Sr 421.552†	1382801.8	1443987.9	10293	ug/L	10293	ppb	11:13:49
2	Sc 361.383	813805.6	813805.6	99.993	%			11:15:21
2	Y 371.029	665730.3	665730.3	97.051	%			11:15:21
2	Ag 328.068†	-7720.5	-8002.6	1.1554	ug/L	1.1554	ppb	11:15:26
2	As 188.979†	22291.8	22312.3	10103	ug/L	10103	ppb	11:15:26
2	B 249.677†	208484.5	209018.4	5060.2	ug/L	5060.2	ppb	11:15:21
2	Ba 233.527†	1732440.2	1732566.6	14388	ug/L	14388	ppb	11:15:21
2	Be 313.107†	7222926.3	7227771.7	2892.9	ug/L	2892.9	ppb	11:15:14
2	Cd 226.502†	828294.4	828553.1	9717.1	ug/L	9717.1	ppb	11:15:21
2	Co 228.616†	436065.1	436170.0	9470.8	ug/L	9470.8	ppb	11:15:26
2	Cr 267.716†	2039566.6	2039621.4	24077	ug/L	24077	ppb	11:15:21
2	Cu 324.752†	6241955.9	6236118.6	19907	ug/L	19907	ppb	11:15:14
2	Mn 257.610†	7969154.5	7969338.4	9345.1	ug/L	9345.1	ppb	11:15:14
2	Mo 202.031†	131385.1	131375.5	9752.1	ug/L	9752.1	ppb	11:15:26
2	Ni 231.604†	365837.9	365789.8	9623.4	ug/L	9623.4	ppb	11:15:26

2	P 214.914†	29367.9	29142.2	14743	ug/L	14743	ppb	11:15:26
2	Pb 220.353†	188598.2	188676.7	24180	ug/L	24180	ppb	11:15:26
2	S 181.975 Axial†	34984.4	34940.5	52145	ug/L	52145	ppb	11:15:26
2	Sb 206.836†	28586.7	28556.0	10801	ug/L	10801	ppb	11:15:26
2	Se 196.026†	15149.6	15181.0	10182	ug/L	10182	ppb	11:15:26
2	Si 251.611†	1443549.2	1443209.9	48540	ug/L	48540	ppb	11:15:21
2	Sn 189.927†	56442.9	56441.0	10438	ug/L	10438	ppb	11:15:26
2	Ti 334.940†	5699387.1	5701194.8	9772.0	ug/L	9772.0	ppb	11:15:14
2	Tl 190.801†	29827.4	29873.5	9621.6	ug/L	9621.6	ppb	11:15:26
2	U 409.014†	-967.2	1073.7	-19.525	ug/L	-19.525	ppb	11:15:26
2	V 292.402†	1389817.1	1391326.8	10156	ug/L	10156	ppb	11:15:21
2	Zn 213.857†	1427537.8	1426782.8	14142	ug/L	14142	ppb	11:15:21
2	SiO2†	1466183.4	1465835.4	104820	ug/L	104820	ppb	11:15:58
3	Sc Radial	4781.1	4781.1	99.8	%			11:14:25
3	Y RADIAL	5052.2	5052.2	98.49	%			11:14:25
3	Al 396.153Radial†	555.2	559.6	-30.859	ug/L	-30.859	ppb	11:14:25
3	Ca 317.933Radial†	25.3	10.2	17.197	ug/L	17.197	ppb	11:14:45
3	Fe 238.204 Radial†	-21.5	-31.4	-8.6483	ug/L	-8.6483	ppb	11:14:45
3	K 766.490 Radial†	1464717.0	1465046.9	293500	ug/L	293500	ppb	11:14:20
3	Mg 279.077 IEC†	-4.1	-5.6	-92.186	ug/L	-92.186	ppb	11:14:45
3	Na 589.592 Radial†	-715.7	849.7	275.30	ug/L	275.30	ppb	11:14:25
3	Sr 421.552†	1376656.2	1379568.9	9833.4	ug/L	9833.4	ppb	11:14:20
3	Sc 361.383	808471.7	808471.7	99.337	%			11:15:41
3	Y 371.029	662634.1	662634.1	96.599	%			11:15:41
3	Ag 328.068†	-7577.4	-7909.5	1.6246	ug/L	1.6246	ppb	11:15:46
3	As 188.979†	22420.3	22588.7	10228	ug/L	10228	ppb	11:15:46
3	B 249.677†	206693.8	208591.4	5049.5	ug/L	5049.5	ppb	11:15:41
3	Ba 233.527†	1719540.9	1731011.9	14375	ug/L	14375	ppb	11:15:41
3	Be 313.107†	7278978.3	7331855.0	2934.5	ug/L	2934.5	ppb	11:15:34
3	Cd 226.502†	821978.0	827659.7	9706.7	ug/L	9706.7	ppb	11:15:41
3	Co 228.616†	438152.9	441148.9	9579.0	ug/L	9579.0	ppb	11:15:46
3	Cr 267.716†	2026596.9	2040022.4	24082	ug/L	24082	ppb	11:15:41
3	Cu 324.752†	6277520.3	6313105.0	20153	ug/L	20153	ppb	11:15:34
3	Mn 257.610†	8010463.9	8063504.4	9455.6	ug/L	9455.6	ppb	11:15:34
3	Mo 202.031†	132428.4	133292.7	9894.4	ug/L	9894.4	ppb	11:15:46
3	Ni 231.604†	367354.5	369730.3	9727.1	ug/L	9727.1	ppb	11:15:46
3	P 214.914†	29388.7	29356.9	14832	ug/L	14832	ppb	11:15:46
3	Pb 220.353†	189199.8	190526.7	24417	ug/L	24417	ppb	11:15:46
3	S 181.975 Axial†	35264.6	35453.5	52910	ug/L	52910	ppb	11:15:46
3	Sb 206.836†	28749.5	28908.6	10934	ug/L	10934	ppb	11:15:46
3	Se 196.026†	15188.3	15320.0	10275	ug/L	10275	ppb	11:15:46
3	Si 251.611†	1429840.0	1438933.8	48394	ug/L	48394	ppb	11:15:41
3	Sn 189.927†	56596.7	56968.2	10535	ug/L	10535	ppb	11:15:46
3	Ti 334.940†	5728567.8	5768175.0	9886.9	ug/L	9886.9	ppb	11:15:34
3	Tl 190.801†	30059.5	30303.9	9760.3	ug/L	9760.3	ppb	11:15:46
3	U 409.014†	-841.9	1193.4	-15.712	ug/L	-15.712	ppb	11:15:46
3	V 292.402†	1381399.1	1392022.8	10163	ug/L	10163	ppb	11:15:41
3	Zn 213.857†	1417945.8	1426545.8	14138	ug/L	14138	ppb	11:15:41
3	SiO2†	1451848.1	1461078.4	104480	ug/L	104480	ppb	11:16:04

Mean Data: LR2

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	806143.7	99.051	%	1.1124				1.12%
Sc Radial	4734.3	98.8	%	2.70				2.73%
Y 371.029	660090.6	96.229	%	1.0575				1.10%
Y RADIAL	5014.5	97.76	%	2.634				2.69%
Ag 328.068†	-8011.7	1.1261	ug/L	0.51372	1.1261	ppb	0.51372	45.62%
Al 396.153Radial†	558.3	-30.265	ug/L	12.7351	-30.265	ppb	12.7351	42.08%
As 188.979†	22539.2	10206	ug/L	93.6	10206	ppb	93.6	0.92%
QC value within limits for As 188.979 Recovery = 102.06%								
B 249.677†	208659.2	5051.2	ug/L	8.29	5051.2	ppb	8.29	0.16%
QC value within limits for B 249.677 Recovery = 101.02%								
Ba 233.527†	1733084.4	14393	ug/L	19.7	14393	ppb	19.7	0.14%
QC value within limits for Ba 233.527 Recovery = 95.95%								
Be 313.107†	7313357.1	2927.1	ug/L	31.20	2927.1	ppb	31.20	1.07%
QC value within limits for Be 313.107 Recovery = 97.57%								
Ca 317.933Radial†	10.8	18.107	ug/L	0.9722	18.107	ppb	0.9722	5.37%
Cd 226.502†	828436.5	9715.8	ug/L	8.51	9715.8	ppb	8.51	0.09%
QC value within limits for Cd 226.502 Recovery = 97.16%								

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Co 228.616†          440417.9      9563.1 ug/L        85.44      9563.1 ppb        85.44   0.89%
   QC value within limits for Co 228.616  Recovery = 95.63%
Cr 267.716†         2040905.7       24092 ug/L         22.3       24092 ppb         22.3   0.09%
   QC value within limits for Cr 267.716  Recovery = 96.37%
Cu 324.752†         6302639.9       20120 ug/L        197.8       20120 ppb        197.8   0.98%
   QC value within limits for Cu 324.752  Recovery = 100.60%
Fe 238.204 Radial†       -28.8      15.534 ug/L      30.7117      15.534 ppb      30.7117 197.71%
K 766.490 Radial†    1482617.6      297020 ug/L       8527.5      297020 ppb       8527.5   2.87%
   QC value within limits for K 766.490 Radial  Recovery = 99.01%
Mg 279.077 IEC†          -6.0     -107.60 ug/L       54.938     -107.60 ppb       54.938  51.06%
Mn 257.610†          8057249.7      9448.2 ug/L        99.63      9448.2 ppb        99.63   1.05%
   QC value within limits for Mn 257.610  Recovery = 94.48%
Mo 202.031†           132841.0      9860.9 ug/L        96.50      9860.9 ppb        96.50   0.98%
   QC value within limits for Mo 202.031  Recovery = 98.61%
Na 589.592 Radial†       856.3      277.45 ug/L       11.175      277.45 ppb       11.175   4.03%
Ni 231.604†           369135.7      9711.5 ug/L        81.34      9711.5 ppb        81.34   0.84%
   QC value within limits for Ni 231.604  Recovery = 97.11%
P 214.914†             29367.2       14845 ug/L        109.4       14845 ppb        109.4   0.74%
   QC value within limits for P 214.914  Recovery = 98.97%
Pb 220.353†           190277.9       24385 ug/L        191.3       24385 ppb        191.3   0.78%
   QC value within limits for Pb 220.353  Recovery = 97.54%
S 181.975 Axial†       35275.9       52645 ug/L        433.7       52645 ppb        433.7   0.82%
   QC value within limits for S 181.975 Axial  Recovery = 105.29%
Sb 206.836†            28842.9       10909 ug/L         98.1       10909 ppb         98.1   0.90%
   QC value within limits for Sb 206.836  Recovery = 109.09%
Se 196.026†            15323.3       10277 ug/L         96.6       10277 ppb         96.6   0.94%
   QC value within limits for Se 196.026  Recovery = 102.77%
Si 251.611†          1441031.5       48465 ug/L         73.0       48465 ppb         73.0   0.15%
   QC value within limits for Si 251.611  Recovery = 96.93%
Sn 189.927†            56900.3       10523 ug/L         79.4       10523 ppb         79.4   0.75%
   QC value within limits for Sn 189.927  Recovery = 105.23%
Sr 421.552†          1399173.8      9973.2 ug/L       277.35      9973.2 ppb       277.35   2.78%
   QC value within limits for Sr 421.552  Recovery = 99.73%
Ti 334.940†          5761639.5      9875.7 ug/L        98.57      9875.7 ppb        98.57   1.00%
   QC value within limits for Ti 334.940  Recovery = 98.76%
Tl 190.801†            30176.8      9719.6 ug/L        85.25      9719.6 ppb        85.25   0.88%
   QC value within limits for Tl 190.801  Recovery = 97.20%
U 409.014†              1083.1     -19.262 ug/L       3.4255     -19.262 ppb       3.4255  17.78%
V 292.402†           1391779.4       10160 ug/L          4.1       10160 ppb          4.1   0.04%
   QC value within limits for V 292.402  Recovery = 101.60%
Zn 213.857†          1428350.2       14156 ug/L         28.6       14156 ppb         28.6   0.20%
   QC value within limits for Zn 213.857  Recovery = 94.38%
SiO2†                1469081.1      105050 ug/L        717.6      105050 ppb        717.6   0.68%
   QC value within limits for SiO2  Recovery = 98.18%
All analyte(s) passed QC.
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Analysis Begun

Start Time: 1/14/2010 11:33:29 **Plasma On Time: 1/11/2010 06:15:31**
Logged In Analyst: Optima3 **Technique: ICP Continuous**
Spectrometer Model: Optima 5300 DV, S/N 077C7090601Autosampler Model: S10

Sample Information File: C:\pe\Optima3\Sample Information\011410.sif
Batch ID:
Results Data Set: 011410
Results Library: C:\pe\Optima3\Results\Results.mdb

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Method Loaded
Method Name: General Eng.2AX **Method Last Saved: 1/14/2010 10:05:12**
IEC File: 011110.iec **MSF File:**
Method Description:

Analyte	Calibration Equation	Processing	View	Internal Standard	IEC
Ag 328.068	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Al 396.153Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
As 188.979	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
B 249.677	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ba 233.527	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Be 313.107	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ca 317.933Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	No
Cd 226.502	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Co 228.616	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cr 267.716	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cu 324.752	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Fe 238.204 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
K 766.490 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Mg 279.077 IEC	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Mn 257.610	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Mo 202.031	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Na 589.592 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	No
Ni 231.604	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
P 214.914	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Pb 220.353	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
S 181.975 Axial	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sb 206.836	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sc 361.383	Lin Thru 0	Peak Area	Axial	n/a	n/a
Sc Radial	Lin, Calc Int	Peak Area	Radial	n/a	n/a
Se 196.026	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Si 251.611	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sn 189.927	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sr 421.552	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Ti 334.940	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Tl 190.801	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
U 409.014	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
V 292.402	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y 371.029	Lin, Calc Int	Peak Area	Axial	n/a	n/a
Zn 213.857	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y RADIAL	Lin, Calc Int	Peak Area	Radial	n/a	n/a
SiO2	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes

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Sequence No.: 1 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 1/14/2010 11:33:30**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4918.2	4918.2	103	%			11:35:22
1	Y RADIAL	5241.8	5241.8	102.2	%			11:35:22
1	Al 396.153Radial†	6325.5	6165.5	4921.9	ug/L	4921.9	ppb	11:35:22

1	Ca 317.933Radial†	3138.9	3042.7	5123.8 ug/L	5123.8 ppb	11:35:42
1	Fe 238.204 Radial†	593.8	568.6	5360.5 ug/L	5360.5 ppb	11:35:42
1	K 766.490 Radial†	29392.8	25846.9	5171.7 ug/L	5171.7 ppb	11:35:22
1	Mg 279.077 IEC†	160.5	154.9	5436.4 ug/L	5436.4 ppb	11:35:42
1	Na 589.592 Radial†	31648.7	32398.9	10497 ug/L	10497 ppb	11:35:22
1	Sr 421.552†	74493.4	72553.9	517.12 ug/L	517.12 ppb	11:35:22
1	Sc 361.383	844802.9	844802.9	103.80 %		11:36:40
1	Y 371.029	699607.3	699607.3	101.99 %		11:36:40
1	Ag 328.068†	103672.1	99594.0	492.56 ug/L	492.56 ppb	11:36:45
1	As 188.979†	1157.0	1133.5	514.48 ug/L	514.48 ppb	11:37:05
1	B 249.677†	21404.9	21139.6	512.19 ug/L	512.19 ppb	11:36:45
1	Ba 233.527†	63034.7	60724.9	504.79 ug/L	504.79 ppb	11:36:45
1	Be 313.107†	1322500.6	1278382.0	508.86 ug/L	508.86 ppb	11:36:40
1	Cd 226.502†	44770.3	43328.4	507.69 ug/L	507.69 ppb	11:36:45
1	Co 228.616†	24163.1	23350.9	507.19 ug/L	507.19 ppb	11:36:45
1	Cr 267.716†	44245.7	42529.6	502.36 ug/L	502.36 ppb	11:36:45
1	Cu 324.752†	167986.8	155537.0	496.52 ug/L	496.52 ppb	11:36:45
1	Mn 257.610†	447547.4	430753.6	505.42 ug/L	505.42 ppb	11:36:40
1	Mo 202.031†	7075.6	6797.2	505.04 ug/L	505.04 ppb	11:37:05
1	Ni 231.604†	20015.1	19207.0	505.30 ug/L	505.30 ppb	11:36:45
1	P 214.914†	4340.4	3953.5	2426.3 ug/L	2426.3 ppb	11:37:05
1	Pb 220.353†	4008.2	3926.0	504.49 ug/L	504.49 ppb	11:37:05
1	S 181.975 Axial†	768.1	693.5	1034.0 ug/L	1034.0 ppb	11:37:05
1	Sb 206.836†	1468.8	1382.3	523.61 ug/L	523.61 ppb	11:37:05
1	Se 196.026†	769.5	771.7	535.43 ug/L	535.43 ppb	11:37:05
1	Si 251.611†	78797.2	75465.8	2538.2 ug/L	2538.2 ppb	11:36:45
1	Sn 189.927†	2875.2	2763.8	512.00 ug/L	512.00 ppb	11:37:05
1	Ti 334.940†	299002.1	289439.4	496.39 ug/L	496.39 ppb	11:36:45
1	Tl 190.801†	1595.7	1581.2	509.17 ug/L	509.17 ppb	11:37:05
1	U 409.014†	14455.8	15967.4	508.22 ug/L	508.22 ppb	11:36:45
1	V 292.402†	70575.4	69398.0	507.36 ug/L	507.36 ppb	11:36:45
1	Zn 213.857†	54075.5	51234.9	506.57 ug/L	506.57 ppb	11:36:45
1	SiO2†	79133.3	75779.2	5419.0 ug/L	5419.0 ppb	11:38:12
2	Sc Radial	5043.4	5043.4	105 %		11:35:47
2	Y RADIAL	5344.9	5344.9	104.2 %		11:35:47
2	Al 396.153Radial†	6382.8	6067.0	4842.5 ug/L	4842.5 ppb	11:35:47
2	Ca 317.933Radial†	3123.9	2952.6	4972.0 ug/L	4972.0 ppb	11:36:07
2	Fe 238.204 Radial†	587.6	548.4	5170.3 ug/L	5170.3 ppb	11:36:07
2	K 766.490 Radial†	29923.4	25640.1	5130.3 ug/L	5130.3 ppb	11:35:47
2	Mg 279.077 IEC†	159.1	149.7	5253.7 ug/L	5253.7 ppb	11:36:07
2	Na 589.592 Radial†	32154.8	32114.3	10405 ug/L	10405 ppb	11:35:47
2	Sr 421.552†	75781.2	71975.6	513.00 ug/L	513.00 ppb	11:35:47
2	Sc 361.383	829636.7	829636.7	101.94 %		11:37:11
2	Y 371.029	686474.6	686474.6	100.07 %		11:37:11
2	Ag 328.068†	103869.7	101613.6	502.43 ug/L	502.43 ppb	11:37:16
2	As 188.979†	1147.3	1144.3	519.35 ug/L	519.35 ppb	11:37:36
2	B 249.677†	21136.5	21253.2	514.98 ug/L	514.98 ppb	11:37:16
2	Ba 233.527†	62365.4	61178.4	508.55 ug/L	508.55 ppb	11:37:16
2	Be 313.107†	1294277.8	1273986.5	507.13 ug/L	507.13 ppb	11:37:11
2	Cd 226.502†	44300.5	43656.0	511.56 ug/L	511.56 ppb	11:37:16
2	Co 228.616†	23880.7	23499.5	510.43 ug/L	510.43 ppb	11:37:16
2	Cr 267.716†	43856.9	42927.5	507.05 ug/L	507.05 ppb	11:37:16
2	Cu 324.752†	166247.1	156788.8	500.50 ug/L	500.50 ppb	11:37:16
2	Mn 257.610†	439774.8	431010.6	505.71 ug/L	505.71 ppb	11:37:11
2	Mo 202.031†	7041.3	6888.1	511.77 ug/L	511.77 ppb	11:37:36
2	Ni 231.604†	19846.2	19393.8	510.22 ug/L	510.22 ppb	11:37:16
2	P 214.914†	4307.8	3998.1	2454.1 ug/L	2454.1 ppb	11:37:36
2	Pb 220.353†	4002.0	3990.5	512.75 ug/L	512.75 ppb	11:37:36
2	S 181.975 Axial†	755.2	694.4	1035.4 ug/L	1035.4 ppb	11:37:36
2	Sb 206.836†	1473.8	1413.1	535.01 ug/L	535.01 ppb	11:37:36
2	Se 196.026†	762.7	778.6	539.40 ug/L	539.40 ppb	11:37:36
2	Si 251.611†	78029.0	76099.8	2559.5 ug/L	2559.5 ppb	11:37:16
2	Sn 189.927†	2830.3	2770.4	513.19 ug/L	513.19 ppb	11:37:36
2	Ti 334.940†	296376.5	292129.5	500.99 ug/L	500.99 ppb	11:37:16
2	Tl 190.801†	1599.9	1613.4	519.50 ug/L	519.50 ppb	11:37:36
2	U 409.014†	14501.1	16266.4	517.78 ug/L	517.78 ppb	11:37:16
2	V 292.402†	69862.3	69941.4	511.41 ug/L	511.41 ppb	11:37:16
2	Zn 213.857†	53368.7	51493.9	509.14 ug/L	509.14 ppb	11:37:16
2	SiO2†	78809.6	76855.3	5496.0 ug/L	5496.0 ppb	11:38:17
3	Sc Radial	4885.7	4885.7	102 %		11:36:12
3	Y RADIAL	5228.6	5228.6	101.9 %		11:36:12

3	Al 396.153Radial†	6273.0	6155.1	4913.6 ug/L	4913.6 ppb	11:36:12
3	Ca 317.933Radial†	3131.5	3055.8	5145.9 ug/L	5145.9 ppb	11:36:32
3	Fe 238.204 Radial†	596.8	575.4	5424.1 ug/L	5424.1 ppb	11:36:32
3	K 766.490 Radial†	29306.7	25953.2	5193.0 ug/L	5193.0 ppb	11:36:12
3	Mg 279.077 IEC†	160.0	155.4	5455.6 ug/L	5455.6 ppb	11:36:32
3	Na 589.592 Radial†	31242.6	32206.0	10435 ug/L	10435 ppb	11:36:12
3	Sr 421.552†	73882.8	72438.4	516.30 ug/L	516.30 ppb	11:36:12
3	Sc 361.383	851135.9	851135.9	104.58 %		11:37:42
3	Y 371.029	704218.2	704218.2	102.66 %		11:37:42
3	Ag 328.068†	103264.1	98460.7	486.99 ug/L	486.99 ppb	11:37:47
3	As 188.979†	1148.8	1117.3	507.18 ug/L	507.18 ppb	11:38:07
3	B 249.677†	21215.1	20804.6	504.06 ug/L	504.06 ppb	11:37:47
3	Ba 233.527†	62428.3	59693.2	496.22 ug/L	496.22 ppb	11:37:47
3	Be 313.107†	1332401.1	1278369.0	508.84 ug/L	508.84 ppb	11:37:42
3	Cd 226.502†	44406.1	42659.2	499.84 ug/L	499.84 ppb	11:37:47
3	Co 228.616†	23893.4	22919.8	497.84 ug/L	497.84 ppb	11:37:47
3	Cr 267.716†	43954.7	41934.3	495.33 ug/L	495.33 ppb	11:37:47
3	Cu 324.752†	167040.1	153427.5	489.79 ug/L	489.79 ppb	11:37:47
3	Mn 257.610†	450850.9	430704.4	505.37 ug/L	505.37 ppb	11:37:42
3	Mo 202.031†	7105.1	6774.7	503.37 ug/L	503.37 ppb	11:38:07
3	Ni 231.604†	19870.1	18924.9	497.88 ug/L	497.88 ppb	11:37:47
3	P 214.914†	4323.5	3906.3	2397.4 ug/L	2397.4 ppb	11:38:07
3	Pb 220.353†	4024.1	3912.5	502.74 ug/L	502.74 ppb	11:38:07
3	S 181.975 Axial†	761.5	681.7	1016.4 ug/L	1016.4 ppb	11:38:07
3	Sb 206.836†	1483.5	1385.8	524.81 ug/L	524.81 ppb	11:38:07
3	Se 196.026†	771.4	768.0	533.16 ug/L	533.16 ppb	11:38:07
3	Si 251.611†	78231.6	74360.1	2501.0 ug/L	2501.0 ppb	11:37:47
3	Sn 189.927†	2880.3	2748.1	509.09 ug/L	509.09 ppb	11:38:07
3	Ti 334.940†	297363.4	285729.2	490.03 ug/L	490.03 ppb	11:37:47
3	Tl 190.801†	1595.3	1569.4	505.39 ug/L	505.39 ppb	11:38:07
3	U 409.014†	14445.7	15854.1	504.61 ug/L	504.61 ppb	11:37:47
3	V 292.402†	70178.9	68513.0	500.94 ug/L	500.94 ppb	11:37:47
3	Zn 213.857†	53539.4	50334.6	497.64 ug/L	497.64 ppb	11:37:47
3	SiO2†	78908.0	74996.5	5363.0 ug/L	5363.0 ppb	11:38:22

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	841858.5	103.44	%	1.357				1.31%
Sc Radial	4949.1	103	%	1.7				1.68%
Y 371.029	696766.7	101.58	%	1.342				1.32%
Y RADIAL	5271.8	102.8	%	1.24				1.21%
Ag 328.068†	99889.5	494.00	ug/L	7.820	494.00	ppb	7.820	1.58%
QC value within limits for Ag 328.068 Recovery = 98.80%								
Al 396.153Radial†	6129.2	4892.6	ug/L	43.63	4892.6	ppb	43.63	0.89%
QC value within limits for Al 396.153Radial Recovery = 97.85%								
As 188.979†	1131.7	513.67	ug/L	6.127	513.67	ppb	6.127	1.19%
QC value within limits for As 188.979 Recovery = 102.73%								
B 249.677†	21065.8	510.41	ug/L	5.675	510.41	ppb	5.675	1.11%
QC value within limits for B 249.677 Recovery = 102.08%								
Ba 233.527†	60532.1	503.19	ug/L	6.319	503.19	ppb	6.319	1.26%
QC value within limits for Ba 233.527 Recovery = 100.64%								
Be 313.107†	1276912.5	508.28	ug/L	0.996	508.28	ppb	0.996	0.20%
QC value within limits for Be 313.107 Recovery = 101.66%								
Ca 317.933Radial†	3017.0	5080.5	ug/L	94.65	5080.5	ppb	94.65	1.86%
QC value within limits for Ca 317.933Radial Recovery = 101.61%								
Cd 226.502†	43214.5	506.36	ug/L	5.972	506.36	ppb	5.972	1.18%
QC value within limits for Cd 226.502 Recovery = 101.27%								
Co 228.616†	23256.7	505.15	ug/L	6.537	505.15	ppb	6.537	1.29%
QC value within limits for Co 228.616 Recovery = 101.03%								
Cr 267.716†	42463.8	501.58	ug/L	5.900	501.58	ppb	5.900	1.18%
QC value within limits for Cr 267.716 Recovery = 100.32%								
Cu 324.752†	155251.1	495.60	ug/L	5.413	495.60	ppb	5.413	1.09%
QC value within limits for Cu 324.752 Recovery = 99.12%								
Fe 238.204 Radial†	564.1	5318.3	ug/L	132.08	5318.3	ppb	132.08	2.48%
QC value within limits for Fe 238.204 Radial Recovery = 106.37%								
K 766.490 Radial†	25813.4	5165.0	ug/L	31.86	5165.0	ppb	31.86	0.62%
QC value within limits for K 766.490 Radial Recovery = 103.30%								
Mg 279.077 IEC†	153.3	5381.9	ug/L	111.44	5381.9	ppb	111.44	2.07%
QC value within limits for Mg 279.077 IEC Recovery = 107.64%								

Mn 257.610†	430822.9	505.50 ug/L	0.184	505.50 ppb	0.184	0.04%
QC value within limits for Mn 257.610 Recovery = 101.10%						
Mo 202.031†	6820.0	506.73 ug/L	4.447	506.73 ppb	4.447	0.88%
QC value within limits for Mo 202.031 Recovery = 101.35%						
Na 589.592 Radial†	32239.7	10446 ug/L	47.1	10446 ppb	47.1	0.45%
QC value within limits for Na 589.592 Radial Recovery = 104.46%						
Ni 231.604†	19175.2	504.47 ug/L	6.211	504.47 ppb	6.211	1.23%
QC value within limits for Ni 231.604 Recovery = 100.89%						
P 214.914†	3952.6	2425.9 ug/L	28.34	2425.9 ppb	28.34	1.17%
QC value within limits for P 214.914 Recovery = 97.04%						
Pb 220.353†	3943.0	506.66 ug/L	5.348	506.66 ppb	5.348	1.06%
QC value within limits for Pb 220.353 Recovery = 101.33%						
S 181.975 Axial†	689.8	1028.6 ug/L	10.57	1028.6 ppb	10.57	1.03%
QC value within limits for S 181.975 Axial Recovery = 102.86%						
Sb 206.836†	1393.7	527.81 ug/L	6.263	527.81 ppb	6.263	1.19%
QC value within limits for Sb 206.836 Recovery = 105.56%						
Se 196.026†	772.8	536.00 ug/L	3.159	536.00 ppb	3.159	0.59%
QC value within limits for Se 196.026 Recovery = 107.20%						
Si 251.611†	75308.5	2532.9 ug/L	29.64	2532.9 ppb	29.64	1.17%
QC value within limits for Si 251.611 Recovery = 101.32%						
Sn 189.927†	2760.8	511.43 ug/L	2.109	511.43 ppb	2.109	0.41%
QC value within limits for Sn 189.927 Recovery = 102.29%						
Sr 421.552†	72322.6	515.47 ug/L	2.181	515.47 ppb	2.181	0.42%
QC value within limits for Sr 421.552 Recovery = 103.09%						
Ti 334.940†	289099.4	495.80 ug/L	5.505	495.80 ppb	5.505	1.11%
QC value within limits for Ti 334.940 Recovery = 99.16%						
Tl 190.801†	1588.0	511.35 ug/L	7.304	511.35 ppb	7.304	1.43%
QC value within limits for Tl 190.801 Recovery = 102.27%						
U 409.014†	16029.3	510.21 ug/L	6.806	510.21 ppb	6.806	1.33%
QC value within limits for U 409.014 Recovery = 102.04%						
V 292.402†	69284.1	506.57 ug/L	5.277	506.57 ppb	5.277	1.04%
QC value within limits for V 292.402 Recovery = 101.31%						
Zn 213.857†	51021.1	504.45 ug/L	6.033	504.45 ppb	6.033	1.20%
QC value within limits for Zn 213.857 Recovery = 100.89%						
SiO2†	75877.0	5426.0 ug/L	66.79	5426.0 ppb	66.79	1.23%
QC value within limits for SiO2 Recovery = 101.47%						

All analyte(s) passed QC.

Sequence No.: 2
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 1/14/2010 11:40:33
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5114.8	5114.8	107	%			11:42:25
1	Y RADIAL	5501.5	5501.5	107.3	%			11:42:25
1	Al 396.153Radial†	-4.3	-0.8	-0.6493	ug/L	-0.6493	ppb	11:42:25
1	Ca 317.933Radial†	12.0	-3.9	-6.5561	ug/L	-6.5561	ppb	11:42:45
1	Fe 238.204 Radial†	8.9	-1.5	-14.331	ug/L	-14.331	ppb	11:42:45
1	K 766.490 Radial†	3206.1	215.9	43.230	ug/L	43.230	ppb	11:42:25
1	Mg 279.077 IEC†	1.9	0.3	10.676	ug/L	10.676	ppb	11:42:45
1	Na 589.592 Radial†	-1467.1	192.6	62.393	ug/L	62.393	ppb	11:42:25
1	Sr 421.552†	-34.8	-49.8	-0.3550	ug/L	-0.3550	ppb	11:42:25
1	Sc 361.383	837733.1	837733.1	102.93	%			11:43:42
1	Y 371.029	704879.0	704879.0	102.76	%			11:43:42
1	Ag 328.068†	444.1	149.9	0.7307	ug/L	0.7307	ppb	11:43:42
1	As 188.979†	-11.5	7.7	3.4441	ug/L	3.4441	ppb	11:44:02
1	B 249.677†	25.9	543.7	13.234	ug/L	13.234	ppb	11:44:02
1	Ba 233.527†	-7.1	-8.4	-0.0685	ug/L	-0.0685	ppb	11:44:02
1	Be 313.107†	-4320.6	114.7	0.0460	ug/L	0.0460	ppb	11:43:42
1	Cd 226.502†	-163.4	38.8	0.4576	ug/L	0.4576	ppb	11:44:02
1	Co 228.616†	-68.0	6.6	0.1455	ug/L	0.1455	ppb	11:44:02
1	Cr 267.716†	72.0	-25.8	-0.3056	ug/L	-0.3056	ppb	11:44:02
1	Cu 324.752†	6404.5	-76.1	-0.2460	ug/L	-0.2460	ppb	11:43:42
1	Mn 257.610†	401.4	-14.3	-0.0187	ug/L	-0.0187	ppb	11:44:02
1	Mo 202.031†	32.0	11.7	0.8700	ug/L	0.8700	ppb	11:44:02
1	Ni 231.604†	87.5	9.9	0.2609	ug/L	0.2609	ppb	11:44:02
1	P 214.914†	217.4	-16.7	-10.579	ug/L	-10.579	ppb	11:44:02
1	Pb 220.353†	-61.0	5.3	0.6785	ug/L	0.6785	ppb	11:44:02
1	S 181.975 Axial†	45.0	-2.7	-4.0114	ug/L	-4.0114	ppb	11:44:02
1	Sb 206.836†	36.5	2.7	1.0110	ug/L	1.0110	ppb	11:44:02
1	Se 196.026†	-23.6	7.5	4.9609	ug/L	4.9609	ppb	11:44:02
1	Si 251.611†	485.5	25.8	0.8602	ug/L	0.8602	ppb	11:44:02
1	Sn 189.927†	8.7	2.3	0.4291	ug/L	0.4291	ppb	11:44:02
1	Ti 334.940†	-1310.7	113.6	0.1913	ug/L	0.1913	ppb	11:43:42
1	Tl 190.801†	-30.8	14.0	4.4715	ug/L	4.4715	ppb	11:44:02
1	U 409.014†	-1958.0	138.8	4.4347	ug/L	4.4347	ppb	11:43:42
1	V 292.402†	-1357.2	88.6	0.6624	ug/L	0.6624	ppb	11:43:42
1	Zn 213.857†	916.5	30.0	0.2995	ug/L	0.2995	ppb	11:44:02
1	SiO2†	477.0	7.2	0.4943	ug/L	0.4943	ppb	11:44:58
2	Sc Radial	5112.9	5112.9	107	%			11:42:51
2	Y RADIAL	5482.4	5482.4	106.9	%			11:42:51
2	Al 396.153Radial†	-16.1	-11.8	-9.5320	ug/L	-9.5320	ppb	11:42:51
2	Ca 317.933Radial†	14.3	-1.7	-2.8738	ug/L	-2.8738	ppb	11:43:11
2	Fe 238.204 Radial†	10.0	-0.5	-4.7665	ug/L	-4.7665	ppb	11:43:11
2	K 766.490 Radial†	3300.3	305.3	61.140	ug/L	61.140	ppb	11:42:51
2	Mg 279.077 IEC†	3.2	1.5	52.817	ug/L	52.817	ppb	11:43:11
2	Na 589.592 Radial†	-1484.4	175.9	56.996	ug/L	56.996	ppb	11:42:51
2	Sr 421.552†	-12.0	-28.5	-0.2029	ug/L	-0.2029	ppb	11:42:51
2	Sc 361.383	828673.0	828673.0	101.82	%			11:44:08
2	Y 371.029	698218.2	698218.2	101.79	%			11:44:08
2	Ag 328.068†	492.3	202.0	0.9890	ug/L	0.9890	ppb	11:44:08
2	As 188.979†	-18.9	0.3	0.1233	ug/L	0.1233	ppb	11:44:28
2	B 249.677†	46.9	564.6	13.743	ug/L	13.743	ppb	11:44:28
2	Ba 233.527†	-0.6	-2.1	-0.0170	ug/L	-0.0170	ppb	11:44:28
2	Be 313.107†	-4261.3	127.1	0.0504	ug/L	0.0504	ppb	11:44:08
2	Cd 226.502†	-158.8	41.6	0.4887	ug/L	0.4887	ppb	11:44:28
2	Co 228.616†	-78.6	-4.5	-0.0959	ug/L	-0.0959	ppb	11:44:28
2	Cr 267.716†	95.1	-2.4	-0.0289	ug/L	-0.0289	ppb	11:44:28
2	Cu 324.752†	6418.7	6.0	0.0175	ug/L	0.0175	ppb	11:44:08
2	Mn 257.610†	438.1	26.0	0.0278	ug/L	0.0278	ppb	11:44:28
2	Mo 202.031†	28.5	8.7	0.6432	ug/L	0.6432	ppb	11:44:28
2	Ni 231.604†	89.8	13.1	0.3452	ug/L	0.3452	ppb	11:44:28

2	P 214.914†	205.7	-25.9	-16.504	ug/L	-16.504 ppb	11:44:28
2	Pb 220.353†	-71.6	-5.7	-0.7326	ug/L	-0.7326 ppb	11:44:28
2	S 181.975 Axial†	47.2	-0.1	-0.0801	ug/L	-0.0801 ppb	11:44:28
2	Sb 206.836†	44.0	10.5	3.8510	ug/L	3.8510 ppb	11:44:28
2	Se 196.026†	-21.4	9.3	6.2301	ug/L	6.2301 ppb	11:44:28
2	Si 251.611†	467.4	13.1	0.4352	ug/L	0.4352 ppb	11:44:28
2	Sn 189.927†	8.3	2.1	0.3793	ug/L	0.3793 ppb	11:44:28
2	Ti 334.940†	-1444.6	-31.8	-0.0602	ug/L	-0.0602 ppb	11:44:08
2	Tl 190.801†	-21.9	22.3	7.1458	ug/L	7.1458 ppb	11:44:28
2	U 409.014†	-2001.4	75.3	2.4059	ug/L	2.4059 ppb	11:44:08
2	V 292.402†	-1423.0	9.5	0.0843	ug/L	0.0843 ppb	11:44:08
2	Zn 213.857†	908.8	32.3	0.3200	ug/L	0.3200 ppb	11:44:28
2	SiO2†	485.8	20.9	1.4797	ug/L	1.4797 ppb	11:45:03
3	Sc Radial	5028.6	5028.6	105	%		11:43:16
3	Y RADIAL	5399.2	5399.2	105.3	%		11:43:16
3	Al 396.153Radial†	-13.1	-9.2	-7.4088	ug/L	-7.4088 ppb	11:43:16
3	Ca 317.933Radial†	13.5	-2.3	-3.8875	ug/L	-3.8875 ppb	11:43:36
3	Fe 238.204 Radial†	10.4	0.1	0.5238	ug/L	0.5238 ppb	11:43:36
3	K 766.490 Radial†	3289.9	347.2	69.544	ug/L	69.544 ppb	11:43:16
3	Mg 279.077 IEC†	2.0	0.4	14.575	ug/L	14.575 ppb	11:43:36
3	Na 589.592 Radial†	-1440.1	194.8	63.122	ug/L	63.122 ppb	11:43:16
3	Sr 421.552†	-19.8	-36.0	-0.2569	ug/L	-0.2569 ppb	11:43:16
3	Sc 361.383	839676.6	839676.6	103.17	%		11:44:33
3	Y 371.029	706695.5	706695.5	103.02	%		11:44:33
3	Ag 328.068†	317.2	25.8	0.1293	ug/L	0.1293 ppb	11:44:33
3	As 188.979†	-7.2	11.8	5.3241	ug/L	5.3241 ppb	11:44:53
3	B 249.677†	1.5	520.0	12.655	ug/L	12.655 ppb	11:44:53
3	Ba 233.527†	-10.6	-11.8	-0.0957	ug/L	-0.0957 ppb	11:44:53
3	Be 313.107†	-4308.3	136.3	0.0543	ug/L	0.0543 ppb	11:44:33
3	Cd 226.502†	-173.3	29.6	0.3471	ug/L	0.3471 ppb	11:44:53
3	Co 228.616†	-82.5	-7.3	-0.1565	ug/L	-0.1565 ppb	11:44:53
3	Cr 267.716†	88.0	-10.4	-0.1225	ug/L	-0.1225 ppb	11:44:53
3	Cu 324.752†	6518.2	19.8	0.0623	ug/L	0.0623 ppb	11:44:33
3	Mn 257.610†	387.1	-29.1	-0.0347	ug/L	-0.0347 ppb	11:44:53
3	Mo 202.031†	29.3	9.1	0.6768	ug/L	0.6768 ppb	11:44:53
3	Ni 231.604†	79.0	1.4	0.0381	ug/L	0.0381 ppb	11:44:53
3	P 214.914†	220.4	-14.3	-9.1245	ug/L	-9.1245 ppb	11:44:53
3	Pb 220.353†	-49.8	16.3	2.0932	ug/L	2.0932 ppb	11:44:53
3	S 181.975 Axial†	46.7	-1.2	-1.8190	ug/L	-1.8190 ppb	11:44:53
3	Sb 206.836†	44.8	10.7	3.8832	ug/L	3.8832 ppb	11:44:53
3	Se 196.026†	-27.5	3.7	2.4623	ug/L	2.4623 ppb	11:44:53
3	Si 251.611†	504.5	43.1	1.4459	ug/L	1.4459 ppb	11:44:53
3	Sn 189.927†	-2.7	-8.8	-1.6205	ug/L	-1.6205 ppb	11:44:53
3	Ti 334.940†	-1383.3	46.2	0.0770	ug/L	0.0770 ppb	11:44:33
3	Tl 190.801†	-37.0	8.1	2.5833	ug/L	2.5833 ppb	11:44:53
3	U 409.014†	-2061.1	43.2	1.3801	ug/L	1.3801 ppb	11:44:33
3	V 292.402†	-1335.2	113.0	0.8276	ug/L	0.8276 ppb	11:44:33
3	Zn 213.857†	905.8	17.6	0.1754	ug/L	0.1754 ppb	11:44:53
3	SiO2†	514.6	42.5	3.0319	ug/L	3.0319 ppb	11:45:08

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	835360.9	102.64	%	0.722				0.70%
Sc Radial	5085.4	106	%	1.0				0.97%
Y 371.029	703264.2	102.52	%	0.651				0.63%
Y RADIAL	5461.0	106.5	%	1.06				1.00%
Ag 328.068†	125.9	0.6163	ug/L	0.44110	0.6163	ppb	0.44110	71.57%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-7.3	-5.8633	ug/L	4.63863	-5.8633	ppb	4.63863	79.11%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	6.6	2.9638	ug/L	2.63342	2.9638	ppb	2.63342	88.85%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	542.7	13.211	ug/L	0.5440	13.211	ppb	0.5440	4.12%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-7.4	-0.0604	ug/L	0.03995	-0.0604	ppb	0.03995	66.11%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	126.1	0.0502	ug/L	0.00416	0.0502	ppb	0.00416	8.28%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-2.6	-4.4391	ug/L	1.90215	-4.4391	ppb	1.90215	42.85%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              36.7      0.4311 ug/L       0.07444      0.4311 ppb        0.07444  17.27%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†              -1.7     -0.0356 ug/L       0.15973     -0.0356 ppb        0.15973 448.20%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†             -12.9     -0.1523 ug/L       0.14073     -0.1523 ppb        0.14073  92.39%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -16.8     -0.0554 ug/L       0.16661     -0.0554 ppb        0.16661 300.75%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       -0.7     -6.1911 ug/L       7.52903     -6.1911 ppb        7.52903 121.61%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       289.5      57.971 ug/L      13.4403      57.971 ppb        13.4403  23.18%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           0.7      26.023 ug/L      23.2864      26.023 ppb        23.2864  89.49%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              -5.8     -0.0085 ug/L       0.03248     -0.0085 ppb        0.03248 381.65%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               9.8      0.7300 ug/L       0.12243      0.7300 ppb        0.12243  16.77%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      187.8      60.837 ug/L       3.3460      60.837 ppb         3.3460   5.50%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               8.2      0.2147 ug/L       0.15866      0.2147 ppb        0.15866  73.89%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†              -18.9     -12.069 ug/L       3.9088     -12.069 ppb         3.9088  32.39%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               5.3      0.6797 ug/L       1.41289      0.6797 ppb        1.41289 207.87%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         -1.3     -1.9702 ug/L       1.96999     -1.9702 ppb        1.96999  99.99%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               7.9      2.9151 ug/L       1.64901      2.9151 ppb        1.64901  56.57%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               6.8      4.5511 ug/L       1.91699      4.5511 ppb        1.91699  42.12%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†              27.4      0.9138 ug/L       0.50744      0.9138 ppb        0.50744  55.53%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†              -1.5     -0.2707 ug/L       1.16922     -0.2707 ppb        1.16922 431.92%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             -38.1     -0.2716 ug/L       0.07710     -0.2716 ppb        0.07710  28.39%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              42.7      0.0694 ug/L       0.12596      0.0694 ppb        0.12596 181.56%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              14.8      4.7335 ug/L       2.29247      4.7335 ppb        2.29247  48.43%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               85.8      2.7403 ug/L       1.55453      2.7403 ppb        1.55453  56.73%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               70.4      0.5248 ug/L       0.39030      0.5248 ppb        0.39030  74.37%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              26.6      0.2650 ug/L       0.07826      0.2650 ppb        0.07826  29.53%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                    23.6      1.6686 ug/L       1.27928      1.6686 ppb        1.27928  76.67%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 3
Sample ID: LR1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 37
Date Collected: 1/14/2010 11:47:19
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR1

Rep1#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4966.1	4966.1	104	%			11:49:12
1	Y RADIAL	5321.4	5321.4	103.7	%			11:49:12
1	Al 396.153Radial†	-42.3	-37.5	-28.874	ug/L	-28.874	ppb	11:49:12
1	Ca 317.933Radial†	11.4	-4.2	-7.0398	ug/L	-7.0398	ppb	11:49:32
1	Fe 238.204 Radial†	41146.6	39688.1	373100	ug/L	373100	ppb	11:49:12
1	K 766.490 Radial†	2902.3	12.7	2.5651	ug/L	2.5651	ppb	11:49:12
1	Mg 279.077 IEC†	13.2	11.2	3.9784	ug/L	3.9784	ppb	11:49:32
1	Na 589.592 Radial†	-1371.4	243.9	79.009	ug/L	79.009	ppb	11:49:12
1	Sr 421.552†	32.2	13.8	0.0985	ug/L	0.0985	ppb	11:49:12
1	Sc 361.383	841285.3	841285.3	103.37	%			11:50:30
1	Y 371.029	700674.3	700674.3	102.14	%			11:50:30
1	Ag 328.068†	-25045.8	-24511.1	0.5890	ug/L	0.5890	ppb	11:50:30
1	As 188.979†	-200.0	-174.6	8.8681	ug/L	8.8681	ppb	11:50:50
1	B 249.677†	2257.2	2702.2	5.1608	ug/L	5.1608	ppb	11:50:30
1	Ba 233.527†	-1720.2	-1665.6	-2.3305	ug/L	-2.3305	ppb	11:50:30
1	Be 313.107†	-4217.1	232.6	0.0926	ug/L	0.0926	ppb	11:50:30
1	Cd 226.502†	3186.6	3280.3	-0.0773	ug/L	-0.0773	ppb	11:50:30
1	Co 228.616†	209.1	275.0	0.5197	ug/L	0.5197	ppb	11:50:50
1	Cr 267.716†	-551.2	-629.0	-0.1131	ug/L	-0.1131	ppb	11:50:30
1	Cu 324.752†	367.2	-5942.8	0.7397	ug/L	0.7397	ppb	11:50:30
1	Mn 257.610†	-33094.8	-32420.5	-1.1843	ug/L	-1.1843	ppb	11:50:30
1	Mo 202.031†	-333.9	-342.4	3.5484	ug/L	3.5484	ppb	11:50:30
1	Ni 231.604†	182.7	101.6	2.6707	ug/L	2.6707	ppb	11:50:50
1	P 214.914†	678.4	428.5	-23.357	ug/L	-23.357	ppb	11:50:50
1	Pb 220.353†	224.5	281.8	0.3842	ug/L	0.3842	ppb	11:50:50
1	S 181.975 Axial†	59.9	11.5	17.177	ug/L	17.177	ppb	11:50:50
1	Sb 206.836†	30.4	-3.3	7.7399	ug/L	7.7399	ppb	11:50:50
1	Se 196.026†	-1774.0	-1685.8	94.375	ug/L	94.375	ppb	11:50:50
1	Si 251.611†	-654.3	-1078.9	-36.064	ug/L	-36.064	ppb	11:50:30
1	Sn 189.927†	-26.3	-31.5	0.4478	ug/L	0.4478	ppb	11:50:50
1	Ti 334.940†	-1366.7	64.8	0.0513	ug/L	0.0513	ppb	11:50:30
1	Tl 190.801†	-40.6	4.6	1.1696	ug/L	1.1696	ppb	11:50:50
1	U 409.014†	60.9	2099.8	24.546	ug/L	24.546	ppb	11:50:30
1	V 292.402†	6929.4	8110.7	3.9513	ug/L	3.9513	ppb	11:50:30
1	Zn 213.857†	4503.8	3496.7	-1.3099	ug/L	-1.3099	ppb	11:50:50
1	SiO2†	-618.3	-1054.4	-74.900	ug/L	-74.900	ppb	11:51:47
2	Sc Radial	4950.1	4950.1	103	%			11:49:37
2	Y RADIAL	5306.0	5306.0	103.4	%			11:49:37
2	Al 396.153Radial†	0.9	4.1	4.5442	ug/L	4.5442	ppb	11:49:37
2	Ca 317.933Radial†	11.1	-4.4	-7.4159	ug/L	-7.4159	ppb	11:49:57
2	Fe 238.204 Radial†	40949.7	39626.4	372520	ug/L	372520	ppb	11:49:37
2	K 766.490 Radial†	2879.0	-0.8	-0.1406	ug/L	-0.1406	ppb	11:49:37
2	Mg 279.077 IEC†	11.5	9.6	-52.343	ug/L	-52.343	ppb	11:49:57
2	Na 589.592 Radial†	-1389.2	222.3	72.017	ug/L	72.017	ppb	11:49:37
2	Sr 421.552†	89.3	69.2	0.4936	ug/L	0.4936	ppb	11:49:37
2	Sc 361.383	829050.3	829050.3	101.87	%			11:50:56
2	Y 371.029	691272.5	691272.5	100.77	%			11:50:56
2	Ag 328.068†	-24770.8	-24598.7	-0.0302	ug/L	-0.0302	ppb	11:50:56
2	As 188.979†	-207.0	-184.4	4.3291	ug/L	4.3291	ppb	11:51:16
2	B 249.677†	2090.6	2570.8	2.0612	ug/L	2.0612	ppb	11:50:56
2	Ba 233.527†	-1650.0	-1621.3	-1.9797	ug/L	-1.9797	ppb	11:50:56
2	Be 313.107†	-4244.7	145.2	0.0577	ug/L	0.0577	ppb	11:50:56
2	Cd 226.502†	3109.4	3250.0	-0.3710	ug/L	-0.3710	ppb	11:50:56
2	Co 228.616†	165.0	234.6	-0.3497	ug/L	-0.3497	ppb	11:51:16
2	Cr 267.716†	-505.0	-591.5	0.3164	ug/L	0.3164	ppb	11:50:56
2	Cu 324.752†	297.5	-6006.0	0.5051	ug/L	0.5051	ppb	11:50:56
2	Mn 257.610†	-32936.4	-32737.5	-1.6110	ug/L	-1.6110	ppb	11:50:56
2	Mo 202.031†	-342.2	-355.3	2.5456	ug/L	2.5456	ppb	11:50:56
2	Ni 231.604†	187.6	109.0	2.8668	ug/L	2.8668	ppb	11:51:16

2	P 214.914†	666.9	426.8	-23.898	ug/L	-23.898 ppb	11:51:16
2	Pb 220.353†	229.9	290.2	1.5301	ug/L	1.5301 ppb	11:51:16
2	S 181.975 Axial†	68.0	20.3	30.347	ug/L	30.347 ppb	11:51:16
2	Sb 206.836†	38.6	5.2	10.750	ug/L	10.750 ppb	11:51:16
2	Se 196.026†	-1764.2	-1701.5	81.968	ug/L	81.968 ppb	11:51:16
2	Si 251.611†	-621.1	-1055.6	-35.268	ug/L	-35.268 ppb	11:50:56
2	Sn 189.927†	-40.0	-45.4	-2.1314	ug/L	-2.1314 ppb	11:51:16
2	Ti 334.940†	-1420.2	-7.1	-0.0696	ug/L	-0.0696 ppb	11:50:56
2	Tl 190.801†	-49.8	-5.0	-1.9241	ug/L	-1.9241 ppb	11:51:16
2	U 409.014†	196.5	2233.9	28.893	ug/L	28.893 ppb	11:50:56
2	V 292.402†	6910.1	8190.7	4.6062	ug/L	4.6062 ppb	11:50:56
2	Zn 213.857†	4489.8	3547.3	-0.7502	ug/L	-0.7502 ppb	11:51:16
2	SiO2†	-697.7	-1141.1	-81.091	ug/L	-81.091 ppb	11:51:52
3	Sc Radial	5015.9	5015.9	105	%		11:50:02
3	Y RADIAL	5373.2	5373.2	104.8	%		11:50:02
3	Al 396.153Radial†	-22.9	-18.6	-13.710	ug/L	-13.710 ppb	11:50:02
3	Ca 317.933Radial†	5.7	-9.7	-16.363	ug/L	-16.363 ppb	11:50:22
3	Fe 238.204 Radial†	41422.1	39557.6	371870	ug/L	371870 ppb	11:50:02
3	K 766.490 Radial†	2915.2	-2.7	-0.5205	ug/L	-0.5205 ppb	11:50:02
3	Mg 279.077 IEC†	11.5	9.5	-56.564	ug/L	-56.564 ppb	11:50:22
3	Na 589.592 Radial†	-1424.8	206.0	66.729	ug/L	66.729 ppb	11:50:02
3	Sr 421.552†	124.0	101.3	0.7220	ug/L	0.7220 ppb	11:50:02
3	Sc 361.383	825054.9	825054.9	101.37	%		11:51:22
3	Y 371.029	690074.2	690074.2	100.60	%		11:51:22
3	Ag 328.068†	-24681.2	-24628.1	-0.3821	ug/L	-0.3821 ppb	11:51:22
3	As 188.979†	-197.5	-176.0	7.9699	ug/L	7.9699 ppb	11:51:42
3	B 249.677†	2166.4	2655.5	4.2284	ug/L	4.2284 ppb	11:51:22
3	Ba 233.527†	-1598.1	-1577.9	-1.6418	ug/L	-1.6418 ppb	11:51:22
3	Be 313.107†	-4258.6	111.4	0.0443	ug/L	0.0443 ppb	11:51:22
3	Cd 226.502†	3165.4	3320.0	0.5146	ug/L	0.5146 ppb	11:51:22
3	Co 228.616†	154.3	224.9	-0.5484	ug/L	-0.5484 ppb	11:51:42
3	Cr 267.716†	-623.7	-711.0	-1.1038	ug/L	-1.1038 ppb	11:51:22
3	Cu 324.752†	275.5	-6026.3	0.4104	ug/L	0.4104 ppb	11:51:22
3	Mn 257.610†	-32921.8	-32879.6	-1.8414	ug/L	-1.8414 ppb	11:51:22
3	Mo 202.031†	-322.6	-337.5	3.8129	ug/L	3.8129 ppb	11:51:22
3	Ni 231.604†	193.4	115.7	3.0425	ug/L	3.0425 ppb	11:51:42
3	P 214.914†	696.4	459.1	-2.7333	ug/L	-2.7333 ppb	11:51:42
3	Pb 220.353†	199.3	261.2	-2.1312	ug/L	-2.1312 ppb	11:51:42
3	S 181.975 Axial†	65.3	18.0	26.824	ug/L	26.824 ppb	11:51:42
3	Sb 206.836†	17.5	-15.5	3.2538	ug/L	3.2538 ppb	11:51:42
3	Se 196.026†	-1765.8	-1711.4	73.232	ug/L	73.232 ppb	11:51:42
3	Si 251.611†	-693.7	-1130.2	-37.797	ug/L	-37.797 ppb	11:51:22
3	Sn 189.927†	-24.2	-30.0	0.7046	ug/L	0.7046 ppb	11:51:42
3	Ti 334.940†	-1388.5	17.3	-0.0244	ug/L	-0.0244 ppb	11:51:22
3	Tl 190.801†	-56.8	-12.1	-4.1884	ug/L	-4.1884 ppb	11:51:42
3	U 409.014†	-56.6	1985.1	21.025	ug/L	21.025 ppb	11:51:22
3	V 292.402†	6720.4	8036.4	3.5913	ug/L	3.5913 ppb	11:51:22
3	Zn 213.857†	4485.1	3564.0	-0.5221	ug/L	-0.5221 ppb	11:51:42
3	SiO2†	-653.8	-1101.1	-78.261	ug/L	-78.261 ppb	11:51:57

Mean Data: LR1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	831796.8	102.20	%	1.039				1.02%
Sc Radial	4977.4	104	%	0.7				0.69%
Y 371.029	694007.0	101.17	%	0.846				0.84%
Y RADIAL	5333.6	104.0	%	0.69				0.66%
Ag 328.068†	-24579.3	0.0589	ug/L	0.49165	0.0589	ppb	0.49165	834.52%
Al 396.153Radial†	-17.4	-12.680	ug/L	16.7329	-12.680	ppb	16.7329	131.96%
As 188.979†	-178.3	7.0557	ug/L	2.40359	7.0557	ppb	2.40359	34.07%
B 249.677†	2642.8	3.8168	ug/L	1.59028	3.8168	ppb	1.59028	41.67%
Ba 233.527†	-1621.6	-1.9840	ug/L	0.34438	-1.9840	ppb	0.34438	17.36%
Be 313.107†	163.1	0.0649	ug/L	0.02495	0.0649	ppb	0.02495	38.46%
Ca 317.933Radial†	-6.1	-10.273	ug/L	5.2774	-10.273	ppb	5.2774	51.37%
Cd 226.502†	3283.4	0.0221	ug/L	0.45108	0.0221	ppb	0.45108	>999.9%
Co 228.616†	244.8	-0.1262	ug/L	0.56807	-0.1262	ppb	0.56807	450.28%
Cr 267.716†	-643.8	-0.3002	ug/L	0.72835	-0.3002	ppb	0.72835	242.65%
Cu 324.752†	-5991.7	0.5518	ug/L	0.16951	0.5518	ppb	0.16951	30.72%
Fe 238.204 Radial†	39624.0	372490	ug/L	613.8	372490	ppb	613.8	0.16%
K 766.490 Radial†	3.1	0.6347	ug/L	1.68256	0.6347	ppb	1.68256	265.10%

Mg 279.077 IEC†	10.1	-34.976	ug/L	33.8016	-34.976	ppb	33.8016	96.64%
Mn 257.610†	-32679.2	-1.5456	ug/L	0.33339	-1.5456	ppb	0.33339	21.57%
Mo 202.031†	-345.1	3.3023	ug/L	0.66850	3.3023	ppb	0.66850	20.24%
Na 589.592 Radial†	224.0	72.585	ug/L	6.1595	72.585	ppb	6.1595	8.49%
Ni 231.604†	108.8	2.8600	ug/L	0.18602	2.8600	ppb	0.18602	6.50%
P 214.914†	438.1	-16.663	ug/L	12.0663	-16.663	ppb	12.0663	72.41%
Pb 220.353†	277.7	-0.0723	ug/L	1.87287	-0.0723	ppb	1.87287	>999.9%
S 181.975 Axial†	16.6	24.783	ug/L	6.8181	24.783	ppb	6.8181	27.51%
Sb 206.836†	-4.5	7.2479	ug/L	3.77233	7.2479	ppb	3.77233	52.05%
Se 196.026†	-1699.6	83.192	ug/L	10.6240	83.192	ppb	10.6240	12.77%
Si 251.611†	-1088.2	-36.376	ug/L	1.2930	-36.376	ppb	1.2930	3.55%
Sn 189.927†	-35.6	-0.3264	ug/L	1.56849	-0.3264	ppb	1.56849	480.60%
Sr 421.552†	61.4	0.4380	ug/L	0.31547	0.4380	ppb	0.31547	72.02%
Ti 334.940†	25.0	-0.0143	ug/L	0.06110	-0.0143	ppb	0.06110	428.68%
Tl 190.801†	-4.2	-1.6476	ug/L	2.68971	-1.6476	ppb	2.68971	163.25%
U 409.014†	2106.3	24.821	ug/L	3.9413	24.821	ppb	3.9413	15.88%
V 292.402†	8112.6	4.0496	ug/L	0.51453	4.0496	ppb	0.51453	12.71%
Zn 213.857†	3536.0	-0.8607	ug/L	0.40538	-0.8607	ppb	0.40538	47.10%
SiO2†	-1098.9	-78.084	ug/L	3.0992	-78.084	ppb	3.0992	3.97%

Sequence No.: 4
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 1/14/2010 11:54:10
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5063.6	5063.6	106	%			11:56:02
1	Y RADIAL	5366.5	5366.5	104.6	%			11:56:02
1	Al 396.153Radial†	6391.3	6050.9	4829.5	ug/L	4829.5	ppb	11:56:02
1	Ca 317.933Radial†	3109.2	2926.8	4928.6	ug/L	4928.6	ppb	11:56:22
1	Fe 238.204 Radial†	587.5	546.0	5148.7	ug/L	5148.7	ppb	11:56:22
1	K 766.490 Radial†	29400.0	25031.8	5008.6	ug/L	5008.6	ppb	11:56:02
1	Mg 279.077 IEC†	159.9	149.8	5258.6	ug/L	5258.6	ppb	11:56:22
1	Na 589.592 Radial†	31342.3	31224.0	10117	ug/L	10117	ppb	11:56:02
1	Sr 421.552†	75150.4	71092.5	506.70	ug/L	506.70	ppb	11:56:02
1	Sc 361.383	829412.1	829412.1	101.91	%			11:57:20
1	Y 371.029	686324.3	686324.3	100.05	%			11:57:20
1	Ag 328.068†	104712.6	102468.3	506.66	ug/L	506.66	ppb	11:57:25
1	As 188.979†	1143.1	1140.5	517.70	ug/L	517.70	ppb	11:57:45
1	B 249.677†	21543.9	21658.6	524.82	ug/L	524.82	ppb	11:57:25
1	Ba 233.527†	63387.8	62198.1	517.03	ug/L	517.03	ppb	11:57:25
1	Be 313.107†	1329417.5	1308811.2	520.98	ug/L	520.98	ppb	11:57:20
1	Cd 226.502†	45026.5	44380.1	520.05	ug/L	520.05	ppb	11:57:25
1	Co 228.616†	24316.1	23933.0	519.83	ug/L	519.83	ppb	11:57:25
1	Cr 267.716†	44647.4	43714.8	516.35	ug/L	516.35	ppb	11:57:25
1	Cu 324.752†	169781.3	160300.9	511.70	ug/L	511.70	ppb	11:57:25
1	Mn 257.610†	450884.7	442029.0	518.63	ug/L	518.63	ppb	11:57:20
1	Mo 202.031†	7064.0	6912.3	513.56	ug/L	513.56	ppb	11:57:45
1	Ni 231.604†	20174.0	19720.7	518.82	ug/L	518.82	ppb	11:57:25
1	P 214.914†	4328.6	4019.6	2465.7	ug/L	2465.7	ppb	11:57:45
1	Pb 220.353†	3989.0	3978.8	511.25	ug/L	511.25	ppb	11:57:45
1	S 181.975 Axial†	753.3	692.7	1032.9	ug/L	1032.9	ppb	11:57:45
1	Sb 206.836†	1461.3	1401.2	530.86	ug/L	530.86	ppb	11:57:45
1	Se 196.026†	770.0	785.9	544.26	ug/L	544.26	ppb	11:57:45
1	Si 251.611†	79580.9	77643.3	2611.6	ug/L	2611.6	ppb	11:57:25
1	Sn 189.927†	2880.2	2820.1	522.36	ug/L	522.36	ppb	11:57:45
1	Ti 334.940†	301886.2	297614.7	510.39	ug/L	510.39	ppb	11:57:25
1	Tl 190.801†	1591.3	1605.4	517.01	ug/L	517.01	ppb	11:57:45
1	U 409.014†	14801.7	16565.2	527.31	ug/L	527.31	ppb	11:57:25
1	V 292.402†	71289.6	71360.5	521.68	ug/L	521.68	ppb	11:57:25
1	Zn 213.857†	54385.9	52506.2	519.16	ug/L	519.16	ppb	11:57:25
1	SiO2†	79256.1	77314.3	5528.9	ug/L	5528.9	ppb	11:58:52
2	Sc Radial	5076.8	5076.8	106	%			11:56:28
2	Y RADIAL	5367.0	5367.0	104.6	%			11:56:28
2	Al 396.153Radial†	6432.4	6073.8	4847.4	ug/L	4847.4	ppb	11:56:28
2	Ca 317.933Radial†	3104.7	2915.0	4908.7	ug/L	4908.7	ppb	11:56:48
2	Fe 238.204 Radial†	585.1	542.3	5114.1	ug/L	5114.1	ppb	11:56:48
2	K 766.490 Radial†	29439.1	24995.9	5001.3	ug/L	5001.3	ppb	11:56:28
2	Mg 279.077 IEC†	157.2	146.8	5154.3	ug/L	5154.3	ppb	11:56:48
2	Na 589.592 Radial†	31544.3	31337.1	10153	ug/L	10153	ppb	11:56:28
2	Sr 421.552†	75470.2	71208.4	507.53	ug/L	507.53	ppb	11:56:28
2	Sc 361.383	816006.9	816006.9	100.26	%			11:57:51
2	Y 371.029	676270.6	676270.6	98.587	%			11:57:51
2	Ag 328.068†	105307.0	104749.1	517.89	ug/L	517.89	ppb	11:57:56
2	As 188.979†	1153.3	1169.2	530.67	ug/L	530.67	ppb	11:58:16
2	B 249.677†	21570.3	22032.3	533.88	ug/L	533.88	ppb	11:57:56
2	Ba 233.527†	63871.3	63702.3	529.53	ug/L	529.53	ppb	11:57:56
2	Be 313.107†	1317518.4	1318373.4	524.81	ug/L	524.81	ppb	11:57:51
2	Cd 226.502†	45359.6	45438.1	532.47	ug/L	532.47	ppb	11:57:56
2	Co 228.616†	24558.5	24566.7	533.59	ug/L	533.59	ppb	11:57:56
2	Cr 267.716†	44919.3	44705.7	528.05	ug/L	528.05	ppb	11:57:56
2	Cu 324.752†	171225.1	164477.7	525.03	ug/L	525.03	ppb	11:57:56
2	Mn 257.610†	446327.9	444752.5	521.83	ug/L	521.83	ppb	11:57:51
2	Mo 202.031†	7099.3	7061.4	524.63	ug/L	524.63	ppb	11:58:16
2	Ni 231.604†	20336.5	20208.0	531.64	ug/L	531.64	ppb	11:57:56

2	P 214.914†	4342.3	4103.0	2516.4 ug/L	2516.4 ppb	11:58:16
2	Pb 220.353†	4041.4	4095.3	526.21 ug/L	526.21 ppb	11:58:16
2	S 181.975 Axial†	766.8	718.4	1071.2 ug/L	1071.2 ppb	11:58:16
2	Sb 206.836†	1457.6	1421.0	538.43 ug/L	538.43 ppb	11:58:16
2	Se 196.026†	769.8	798.1	552.32 ug/L	552.32 ppb	11:58:16
2	Si 251.611†	80113.1	79457.0	2672.6 ug/L	2672.6 ppb	11:57:56
2	Sn 189.927†	2869.9	2856.2	529.05 ug/L	529.05 ppb	11:58:16
2	Ti 334.940†	304552.1	305140.0	523.29 ug/L	523.29 ppb	11:57:56
2	Tl 190.801†	1605.9	1645.6	529.92 ug/L	529.92 ppb	11:58:16
2	U 409.014†	14953.5	16955.3	539.75 ug/L	539.75 ppb	11:57:56
2	V 292.402†	71732.5	72951.4	533.32 ug/L	533.32 ppb	11:57:56
2	Zn 213.857†	54658.0	53654.3	530.52 ug/L	530.52 ppb	11:57:56
2	SiO2†	79169.7	78505.8	5614.0 ug/L	5614.0 ppb	11:58:58
3	Sc Radial	4980.1	4980.1	104 %		11:56:53
3	Y RADIAL	5323.0	5323.0	103.8 %		11:56:53
3	Al 396.153Radial†	6516.6	6272.8	5007.3 ug/L	5007.3 ppb	11:56:53
3	Ca 317.933Radial†	3120.0	2986.6	5029.2 ug/L	5029.2 ppb	11:57:13
3	Fe 238.204 Radial†	592.7	560.4	5283.7 ug/L	5283.7 ppb	11:57:13
3	K 766.490 Radial†	29329.6	25430.3	5088.3 ug/L	5088.3 ppb	11:56:53
3	Mg 279.077 IEC†	161.6	154.0	5405.7 ug/L	5405.7 ppb	11:57:13
3	Na 589.592 Radial†	31354.6	31732.9	10282 ug/L	10282 ppb	11:56:53
3	Sr 421.552†	75478.3	72599.8	517.45 ug/L	517.45 ppb	11:56:53
3	Sc 361.383	828986.7	828986.7	101.86 %		11:58:22
3	Y 371.029	686727.3	686727.3	100.11 %		11:58:22
3	Ag 328.068†	105256.9	103055.4	509.59 ug/L	509.59 ppb	11:58:27
3	As 188.979†	1153.3	1151.1	522.52 ug/L	522.52 ppb	11:58:47
3	B 249.677†	21536.4	21662.1	524.88 ug/L	524.88 ppb	11:58:27
3	Ba 233.527†	63394.3	62236.5	517.35 ug/L	517.35 ppb	11:58:27
3	Be 313.107†	1330915.8	1310951.7	521.83 ug/L	521.83 ppb	11:58:22
3	Cd 226.502†	45036.4	44412.5	520.42 ug/L	520.42 ppb	11:58:27
3	Co 228.616†	24372.8	24000.9	521.31 ug/L	521.31 ppb	11:58:27
3	Cr 267.716†	44643.7	43733.7	516.58 ug/L	516.58 ppb	11:58:27
3	Cu 324.752†	170254.1	160850.6	513.47 ug/L	513.47 ppb	11:58:27
3	Mn 257.610†	450413.7	441793.7	518.36 ug/L	518.36 ppb	11:58:22
3	Mo 202.031†	7125.0	6975.7	518.28 ug/L	518.28 ppb	11:58:47
3	Ni 231.604†	20224.9	19780.8	520.40 ug/L	520.40 ppb	11:58:27
3	P 214.914†	4365.6	4058.1	2489.8 ug/L	2489.8 ppb	11:58:47
3	Pb 220.353†	4024.3	4015.5	515.99 ug/L	515.99 ppb	11:58:47
3	S 181.975 Axial†	761.9	701.5	1046.0 ug/L	1046.0 ppb	11:58:47
3	Sb 206.836†	1472.5	1412.9	535.25 ug/L	535.25 ppb	11:58:47
3	Se 196.026†	782.8	798.9	553.39 ug/L	553.39 ppb	11:58:47
3	Si 251.611†	79617.4	77719.3	2614.1 ug/L	2614.1 ppb	11:58:27
3	Sn 189.927†	2886.8	2828.0	523.86 ug/L	523.86 ppb	11:58:47
3	Ti 334.940†	302504.8	298374.0	511.69 ug/L	511.69 ppb	11:58:27
3	Tl 190.801†	1589.5	1604.4	516.71 ug/L	516.71 ppb	11:58:47
3	U 409.014†	14741.2	16513.2	525.63 ug/L	525.63 ppb	11:58:27
3	V 292.402†	71354.7	71460.3	522.44 ug/L	522.44 ppb	11:58:27
3	Zn 213.857†	54398.7	52546.1	519.54 ug/L	519.54 ppb	11:58:27
3	SiO2†	80775.7	78846.1	5638.5 ug/L	5638.5 ppb	11:59:03

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	824801.9	101.34	%	0.936				0.92%
Sc Radial	5040.2	105	%	1.1				1.04%
Y 371.029	683107.4	99.584	%	0.8636				0.87%
Y RADIAL	5352.2	104.3	%	0.49				0.47%
Ag 328.068†	103424.3	511.38	ug/L	5.825	511.38	ppb	5.825	1.14%
QC value within limits for Ag 328.068 Recovery = 102.28%								
Al 396.153Radial†	6132.5	4894.7	ug/L	97.89	4894.7	ppb	97.89	2.00%
QC value within limits for Al 396.153Radial Recovery = 97.89%								
As 188.979†	1153.6	523.63	ug/L	6.553	523.63	ppb	6.553	1.25%
QC value within limits for As 188.979 Recovery = 104.73%								
B 249.677†	21784.3	527.86	ug/L	5.214	527.86	ppb	5.214	0.99%
QC value within limits for B 249.677 Recovery = 105.57%								
Ba 233.527†	62712.3	521.30	ug/L	7.123	521.30	ppb	7.123	1.37%
QC value within limits for Ba 233.527 Recovery = 104.26%								
Be 313.107†	1312712.1	522.54	ug/L	2.009	522.54	ppb	2.009	0.38%
QC value within limits for Be 313.107 Recovery = 104.51%								
Ca 317.933Radial†	2942.8	4955.5	ug/L	64.62	4955.5	ppb	64.62	1.30%

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   QC value within limits for Ca 317.933Radial  Recovery = 99.11%
Cd 226.502†            44743.6      524.31 ug/L        7.064      524.31 ppb          7.064   1.35%
   QC value within limits for Cd 226.502  Recovery = 104.86%
Co 228.616†            24166.9      524.91 ug/L        7.555      524.91 ppb          7.555   1.44%
   QC value within limits for Co 228.616  Recovery = 104.98%
Cr 267.716†            44051.4      520.33 ug/L        6.691      520.33 ppb          6.691   1.29%
   QC value within limits for Cr 267.716  Recovery = 104.07%
Cu 324.752†           161876.4      516.73 ug/L        7.238      516.73 ppb          7.238   1.40%
   QC value within limits for Cu 324.752  Recovery = 103.35%
Fe 238.204 Radial†       549.6      5182.1 ug/L       89.63      5182.1 ppb         89.63   1.73%
   QC value within limits for Fe 238.204 Radial  Recovery = 103.64%
K 766.490 Radial†      25152.7      5032.7 ug/L       48.25      5032.7 ppb         48.25   0.96%
   QC value within limits for K 766.490 Radial  Recovery = 100.65%
Mg 279.077 IEC†          150.2      5272.9 ug/L      126.32      5272.9 ppb        126.32   2.40%
   QC value within limits for Mg 279.077 IEC  Recovery = 105.46%
Mn 257.610†           442858.4      519.61 ug/L        1.927      519.61 ppb          1.927   0.37%
   QC value within limits for Mn 257.610  Recovery = 103.92%
Mo 202.031†            6983.1      518.82 ug/L        5.553      518.82 ppb          5.553   1.07%
   QC value within limits for Mo 202.031  Recovery = 103.76%
Na 589.592 Radial†     31431.3       10184 ug/L         86.6       10184 ppb           86.6   0.85%
   QC value within limits for Na 589.592 Radial  Recovery = 101.84%
Ni 231.604†            19903.2      523.62 ug/L        6.990      523.62 ppb          6.990   1.33%
   QC value within limits for Ni 231.604  Recovery = 104.72%
P 214.914†              4060.2      2490.6 ug/L       25.35      2490.6 ppb         25.35   1.02%
   QC value within limits for P 214.914  Recovery = 99.62%
Pb 220.353†             4029.9      517.82 ug/L        7.642      517.82 ppb          7.642   1.48%
   QC value within limits for Pb 220.353  Recovery = 103.56%
S 181.975 Axial†         704.2      1050.0 ug/L       19.44      1050.0 ppb         19.44   1.85%
   QC value within limits for S 181.975 Axial  Recovery = 105.00%
Sb 206.836†             1411.7      534.85 ug/L        3.802      534.85 ppb          3.802   0.71%
   QC value within limits for Sb 206.836  Recovery = 106.97%
Se 196.026†              794.3      549.99 ug/L        4.993      549.99 ppb          4.993   0.91%
   QC value within limits for Se 196.026  Recovery = 110.00%
Si 251.611†            78273.2      2632.7 ug/L       34.53      2632.7 ppb         34.53   1.31%
   QC value within limits for Si 251.611  Recovery = 105.31%
Sn 189.927†             2834.8      525.09 ug/L        3.510      525.09 ppb          3.510   0.67%
   QC value within limits for Sn 189.927  Recovery = 105.02%
Sr 421.552†            71633.5      510.56 ug/L        5.978      510.56 ppb          5.978   1.17%
   QC value within limits for Sr 421.552  Recovery = 102.11%
Ti 334.940†           300376.2      515.12 ug/L        7.105      515.12 ppb          7.105   1.38%
   QC value within limits for Ti 334.940  Recovery = 103.02%
Tl 190.801†             1618.5      521.22 ug/L        7.543      521.22 ppb          7.543   1.45%
   QC value within limits for Tl 190.801  Recovery = 104.24%
U 409.014†             16677.9      530.90 ug/L        7.709      530.90 ppb          7.709   1.45%
   QC value within limits for U 409.014  Recovery = 106.18%
V 292.402†             71924.1      525.81 ug/L        6.512      525.81 ppb          6.512   1.24%
   QC value within limits for V 292.402  Recovery = 105.16%
Zn 213.857†            52902.2      523.07 ug/L        6.450      523.07 ppb          6.450   1.23%
   QC value within limits for Zn 213.857  Recovery = 104.61%
SiO2†                  78222.1      5593.8 ug/L       57.56      5593.8 ppb         57.56   1.03%
   QC value within limits for SiO2  Recovery = 104.61%
All analyte(s) passed QC.
```

Sequence No.: 5
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 1/14/2010 12:01:12
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5039.4	5039.4	105	%			12:03:05
1	Y RADIAL	5419.9	5419.9	105.7	%			12:03:05
1	Al 396.153Radial†	-11.5	-7.7	-6.1915	ug/L	-6.1915	ppb	12:03:05
1	Ca 317.933Radial†	9.8	-5.8	-9.8013	ug/L	-9.8013	ppb	12:03:25
1	Fe 238.204 Radial†	9.2	-1.1	-10.382	ug/L	-10.382	ppb	12:03:25
1	K 766.490 Radial†	3143.6	201.4	40.348	ug/L	40.348	ppb	12:03:05
1	Mg 279.077 IEC†	3.0	1.4	47.818	ug/L	47.818	ppb	12:03:25
1	Na 589.592 Radial†	-1559.3	84.4	27.336	ug/L	27.336	ppb	12:03:05
1	Sr 421.552†	-14.7	-31.2	-0.2225	ug/L	-0.2225	ppb	12:03:05
1	Sc 361.383	845694.0	845694.0	103.91	%			12:04:22
1	Y 371.029	711161.0	711161.0	103.67	%			12:04:22
1	Ag 328.068†	460.5	161.6	0.7921	ug/L	0.7921	ppb	12:04:22
1	As 188.979†	-13.7	5.7	2.5626	ug/L	2.5626	ppb	12:04:42
1	B 249.677†	-146.1	378.0	9.2006	ug/L	9.2006	ppb	12:04:42
1	Ba 233.527†	-10.9	-11.9	-0.0975	ug/L	-0.0975	ppb	12:04:42
1	Be 313.107†	-4349.8	126.1	0.0504	ug/L	0.0504	ppb	12:04:22
1	Cd 226.502†	-191.2	13.6	0.1611	ug/L	0.1611	ppb	12:04:42
1	Co 228.616†	-75.8	-0.2	-0.0033	ug/L	-0.0033	ppb	12:04:42
1	Cr 267.716†	59.3	-38.7	-0.4567	ug/L	-0.4567	ppb	12:04:42
1	Cu 324.752†	6533.8	-10.2	-0.0345	ug/L	-0.0345	ppb	12:04:22
1	Mn 257.610†	400.8	-18.6	-0.0248	ug/L	-0.0248	ppb	12:04:42
1	Mo 202.031†	28.1	7.8	0.5762	ug/L	0.5762	ppb	12:04:42
1	Ni 231.604†	88.0	9.5	0.2505	ug/L	0.2505	ppb	12:04:42
1	P 214.914†	217.2	-18.9	-12.037	ug/L	-12.037	ppb	12:04:42
1	Pb 220.353†	-61.4	5.5	0.7057	ug/L	0.7057	ppb	12:04:42
1	S 181.975 Axial†	54.8	6.2	9.3139	ug/L	9.3139	ppb	12:04:42
1	Sb 206.836†	36.9	2.8	1.0282	ug/L	1.0282	ppb	12:04:42
1	Se 196.026†	-31.7	-0.2	-0.1402	ug/L	-0.1402	ppb	12:04:42
1	Si 251.611†	458.3	-4.8	-0.1684	ug/L	-0.1684	ppb	12:04:42
1	Sn 189.927†	7.3	0.9	0.1705	ug/L	0.1705	ppb	12:04:42
1	Ti 334.940†	-1362.7	75.6	0.1236	ug/L	0.1236	ppb	12:04:22
1	Tl 190.801†	-32.5	12.6	4.0332	ug/L	4.0332	ppb	12:04:42
1	U 409.014†	-2040.3	77.4	2.4755	ug/L	2.4755	ppb	12:04:22
1	V 292.402†	-1347.0	110.8	0.8147	ug/L	0.8147	ppb	12:04:22
1	Zn 213.857†	869.2	-23.9	-0.2385	ug/L	-0.2385	ppb	12:04:42
1	SiO2†	451.8	-21.4	-1.5516	ug/L	-1.5516	ppb	12:05:38
2	Sc Radial	5125.1	5125.1	107	%			12:03:30
2	Y RADIAL	5468.2	5468.2	106.6	%			12:03:30
2	Al 396.153Radial†	11.4	13.9	11.122	ug/L	11.122	ppb	12:03:30
2	Ca 317.933Radial†	17.8	1.5	2.5212	ug/L	2.5212	ppb	12:03:50
2	Fe 238.204 Radial†	9.3	-1.2	-11.076	ug/L	-11.076	ppb	12:03:50
2	K 766.490 Radial†	3017.8	33.8	6.7504	ug/L	6.7504	ppb	12:03:30
2	Mg 279.077 IEC†	2.6	0.9	31.858	ug/L	31.858	ppb	12:03:50
2	Na 589.592 Radial†	-1486.0	177.7	57.578	ug/L	57.578	ppb	12:03:30
2	Sr 421.552†	9.6	-8.3	-0.0589	ug/L	-0.0589	ppb	12:03:30
2	Sc 361.383	839886.4	839886.4	103.20	%			12:04:47
2	Y 371.029	707032.6	707032.6	103.07	%			12:04:47
2	Ag 328.068†	330.6	38.8	0.1871	ug/L	0.1871	ppb	12:04:47
2	As 188.979†	-18.1	1.3	0.5708	ug/L	0.5708	ppb	12:05:07
2	B 249.677†	-105.3	416.5	10.139	ug/L	10.139	ppb	12:05:07
2	Ba 233.527†	-6.6	-7.8	-0.0646	ug/L	-0.0646	ppb	12:05:07
2	Be 313.107†	-4336.2	110.4	0.0440	ug/L	0.0440	ppb	12:04:47
2	Cd 226.502†	-179.2	23.9	0.2816	ug/L	0.2816	ppb	12:05:07
2	Co 228.616†	-70.3	4.6	0.1011	ug/L	0.1011	ppb	12:05:07
2	Cr 267.716†	92.3	-6.3	-0.0752	ug/L	-0.0752	ppb	12:05:07
2	Cu 324.752†	6568.7	67.1	0.2127	ug/L	0.2127	ppb	12:04:47
2	Mn 257.610†	389.4	-27.0	-0.0340	ug/L	-0.0340	ppb	12:05:07
2	Mo 202.031†	25.5	5.4	0.4020	ug/L	0.4020	ppb	12:05:07
2	Ni 231.604†	94.2	16.1	0.4248	ug/L	0.4248	ppb	12:05:07

2	P 214.914†	224.8	-10.0	-6.4222	ug/L	-6.4222 ppb	12:05:07
2	Pb 220.353†	-53.2	13.1	1.6766	ug/L	1.6766 ppb	12:05:07
2	S 181.975 Axial†	43.6	-4.2	-6.2772	ug/L	-6.2772 ppb	12:05:07
2	Sb 206.836†	39.0	5.0	1.8512	ug/L	1.8512 ppb	12:05:07
2	Se 196.026†	-24.1	7.0	4.6470	ug/L	4.6470 ppb	12:05:07
2	Si 251.611†	448.7	-11.1	-0.3785	ug/L	-0.3785 ppb	12:05:07
2	Sn 189.927†	10.1	3.7	0.6831	ug/L	0.6831 ppb	12:05:07
2	Ti 334.940†	-1388.1	41.9	0.0689	ug/L	0.0689 ppb	12:04:47
2	Tl 190.801†	-39.4	5.7	1.8298	ug/L	1.8298 ppb	12:05:07
2	U 409.014†	-2053.7	50.9	1.6263	ug/L	1.6263 ppb	12:04:47
2	V 292.402†	-1406.4	44.3	0.3305	ug/L	0.3305 ppb	12:04:47
2	Zn 213.857†	886.0	-1.8	-0.0196	ug/L	-0.0196 ppb	12:05:07
2	SiO2†	440.4	-29.5	-2.1241	ug/L	-2.1241 ppb	12:05:43
3	Sc Radial	5037.6	5037.6	105	%		12:03:55
3	Y RADIAL	5418.8	5418.8	105.6	%		12:03:55
3	Al 396.153Radial†	-20.1	-15.8	-12.742	ug/L	-12.742 ppb	12:03:55
3	Ca 317.933Radial†	14.2	-1.6	-2.7610	ug/L	-2.7610 ppb	12:04:15
3	Fe 238.204 Radial†	10.5	0.1	1.4058	ug/L	1.4058 ppb	12:04:15
3	K 766.490 Radial†	3036.4	100.5	20.115	ug/L	20.115 ppb	12:03:55
3	Mg 279.077 IEC†	0.5	-1.0	-36.847	ug/L	-36.847 ppb	12:04:15
3	Na 589.592 Radial†	-1529.1	112.6	36.494	ug/L	36.494 ppb	12:03:55
3	Sr 421.552†	-4.6	-21.6	-0.1537	ug/L	-0.1537 ppb	12:03:55
3	Sc 361.383	837886.7	837886.7	102.95	%		12:05:12
3	Y 371.029	706163.9	706163.9	102.95	%		12:05:12
3	Ag 328.068†	480.5	185.1	0.9167	ug/L	0.9167 ppb	12:05:12
3	As 188.979†	-17.3	2.1	0.9314	ug/L	0.9314 ppb	12:05:32
3	B 249.677†	-84.3	436.6	10.627	ug/L	10.627 ppb	12:05:32
3	Ba 233.527†	3.5	1.9	0.0188	ug/L	0.0188 ppb	12:05:32
3	Be 313.107†	-4269.0	165.6	0.0656	ug/L	0.0656 ppb	12:05:12
3	Cd 226.502†	-190.1	13.0	0.1513	ug/L	0.1513 ppb	12:05:32
3	Co 228.616†	-72.4	2.4	0.0540	ug/L	0.0540 ppb	12:05:32
3	Cr 267.716†	66.2	-31.5	-0.3686	ug/L	-0.3686 ppb	12:05:32
3	Cu 324.752†	6403.3	-78.3	-0.2489	ug/L	-0.2489 ppb	12:05:12
3	Mn 257.610†	382.4	-32.9	-0.0369	ug/L	-0.0369 ppb	12:05:32
3	Mo 202.031†	31.6	11.4	0.8458	ug/L	0.8458 ppb	12:05:32
3	Ni 231.604†	80.2	2.8	0.0725	ug/L	0.0725 ppb	12:05:32
3	P 214.914†	227.9	-6.5	-4.1238	ug/L	-4.1238 ppb	12:05:32
3	Pb 220.353†	-83.5	-16.5	-2.1149	ug/L	-2.1149 ppb	12:05:32
3	S 181.975 Axial†	51.7	3.7	5.5824	ug/L	5.5824 ppb	12:05:32
3	Sb 206.836†	45.9	11.9	4.3542	ug/L	4.3542 ppb	12:05:32
3	Se 196.026†	-25.0	6.1	4.0962	ug/L	4.0962 ppb	12:05:32
3	Si 251.611†	459.1	0.1	-0.0076	ug/L	-0.0076 ppb	12:05:32
3	Sn 189.927†	3.2	-3.0	-0.5496	ug/L	-0.5496 ppb	12:05:32
3	Ti 334.940†	-1473.7	-44.4	-0.0725	ug/L	-0.0725 ppb	12:05:12
3	Tl 190.801†	-31.4	13.4	4.2913	ug/L	4.2913 ppb	12:05:32
3	U 409.014†	-2165.7	-62.6	-1.9994	ug/L	-1.9994 ppb	12:05:12
3	V 292.402†	-1273.2	170.5	1.2371	ug/L	1.2371 ppb	12:05:12
3	Zn 213.857†	884.9	-0.8	-0.0079	ug/L	-0.0079 ppb	12:05:32
3	SiO2†	460.7	-8.7	-0.6465	ug/L	-0.6465 ppb	12:05:48

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	841155.7	103.35	%	0.498				0.48%
Sc Radial	5067.4	106	%	1.0				0.99%
Y 371.029	708119.2	103.23	%	0.389				0.38%
Y RADIAL	5435.6	106.0	%	0.55				0.52%
Ag 328.068†	128.5	0.6319	ug/L	0.39026	0.6319	ppb	0.39026	61.76%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-3.2	-2.6040	ug/L	12.33005	-2.6040	ppb	12.33005	473.51%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	3.0	1.3549	ug/L	1.06130	1.3549	ppb	1.06130	78.33%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	410.4	9.9888	ug/L	0.72480	9.9888	ppb	0.72480	7.26%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-5.9	-0.0478	ug/L	0.05992	-0.0478	ppb	0.05992	125.44%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	134.0	0.0533	ug/L	0.01111	0.0533	ppb	0.01111	20.83%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-2.0	-3.3471	ug/L	6.18211	-3.3471	ppb	6.18211	184.70%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              16.8      0.1980 ug/L       0.07254      0.1980 ppb        0.07254  36.63%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†               2.3      0.0506 ug/L       0.05225      0.0506 ppb        0.05225 103.30%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†             -25.5     -0.3002 ug/L       0.19976     -0.3002 ppb        0.19976  66.55%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -7.1     -0.0235 ug/L       0.23099     -0.0235 ppb        0.23099 981.03%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       -0.7     -6.6840 ug/L       7.01461     -6.6840 ppb        7.01461 104.95%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       111.9     22.405 ug/L       16.9156      22.405 ppb        16.9156  75.50%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           0.4     14.276 ug/L       44.9872      14.276 ppb        44.9872 315.12%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†             -26.1     -0.0319 ug/L       0.00630     -0.0319 ppb        0.00630  19.76%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               8.2      0.6080 ug/L       0.22359      0.6080 ppb        0.22359  36.78%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      124.9     40.469 ug/L       15.5080      40.469 ppb        15.5080  38.32%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               9.5      0.2493 ug/L       0.17612      0.2493 ppb        0.17612  70.65%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†              -11.8     -7.5276 ug/L       4.07075     -7.5276 ppb        4.07075  54.08%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               0.7      0.0891 ug/L       1.96951      0.0891 ppb        1.96951 >999.9%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          1.9      2.8730 ug/L       8.14105      2.8730 ppb        8.14105 283.36%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               6.6      2.4112 ug/L       1.73227      2.4112 ppb        1.73227  71.84%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               4.3      2.8677 ug/L       2.61939      2.8677 ppb        2.61939  91.34%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†              -5.3     -0.1848 ug/L       0.18602     -0.1848 ppb        0.18602 100.65%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               0.6      0.1013 ug/L       0.61928      0.1013 ppb        0.61928 611.23%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             -20.4     -0.1450 ug/L       0.08214     -0.1450 ppb        0.08214  56.63%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              24.4      0.0400 ug/L       0.10118      0.0400 ppb        0.10118 253.00%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              10.6      3.3848 ug/L       1.35283      3.3848 ppb        1.35283  39.97%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               21.9      0.7008 ug/L       2.37669      0.7008 ppb        2.37669 339.14%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              108.5      0.7941 ug/L       0.45365      0.7941 ppb        0.45365  57.13%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              -8.8     -0.0886 ug/L       0.12988     -0.0886 ppb        0.12988 146.52%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                   -19.9     -1.4407 ug/L       0.74504     -1.4407 ppb        0.74504  51.71%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 13
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 1/14/2010 12:56:37
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	5080.6	5080.6	106	%			12:58:29
1	Y RADIAL	5380.4	5380.4	104.9	%			12:58:29
1	Al 396.153Radial†	6507.0	6139.8	4901.0	ug/L	4901.0	ppb	12:58:29
1	Ca 317.933Radial†	3156.1	2961.3	4986.6	ug/L	4986.6	ppb	12:58:49
1	Fe 238.204 Radial†	597.4	553.5	5218.4	ug/L	5218.4	ppb	12:58:49
1	K 766.490 Radial†	29634.5	25159.8	5034.1	ug/L	5034.1	ppb	12:58:29
1	Mg 279.077 IEC†	159.2	148.6	5216.5	ug/L	5216.5	ppb	12:58:49
1	Na 589.592 Radial†	32363.8	32088.0	10397	ug/L	10397	ppb	12:58:29
1	Sr 421.552†	76641.7	72260.7	515.03	ug/L	515.03	ppb	12:58:29
1	Sc 361.383	849249.7	849249.7	104.35	%			12:59:46
1	Y 371.029	702077.5	702077.5	102.35	%			12:59:46
1	Ag 328.068†	105680.6	100995.8	499.42	ug/L	499.42	ppb	12:59:52
1	As 188.979†	1158.5	1129.1	512.54	ug/L	512.54	ppb	13:00:12
1	B 249.677†	21496.9	21119.8	511.71	ug/L	511.71	ppb	12:59:52
1	Ba 233.527†	64066.6	61395.8	510.36	ug/L	510.36	ppb	12:59:52
1	Be 313.107†	1328516.2	1277475.7	508.52	ug/L	508.52	ppb	12:59:46
1	Cd 226.502†	45474.6	43777.4	512.98	ug/L	512.98	ppb	12:59:52
1	Co 228.616†	24661.8	23707.0	514.92	ug/L	514.92	ppb	12:59:52
1	Cr 267.716†	44904.7	42938.0	507.18	ug/L	507.18	ppb	12:59:52
1	Cu 324.752†	172012.6	158547.6	506.11	ug/L	506.11	ppb	12:59:52
1	Mn 257.610†	451814.7	432585.5	507.57	ug/L	507.57	ppb	12:59:46
1	Mo 202.031†	7168.7	6850.7	509.00	ug/L	509.00	ppb	13:00:12
1	Ni 231.604†	20328.4	19406.3	510.55	ug/L	510.55	ppb	12:59:52
1	P 214.914†	4426.4	4014.1	2463.1	ug/L	2463.1	ppb	13:00:12
1	Pb 220.353†	4085.9	3980.2	511.43	ug/L	511.43	ppb	13:00:12
1	S 181.975 Axial†	760.9	682.7	1018.0	ug/L	1018.0	ppb	13:00:12
1	Sb 206.836†	1483.8	1389.2	526.22	ug/L	526.22	ppb	13:00:12
1	Se 196.026†	802.3	799.2	553.36	ug/L	553.36	ppb	13:00:12
1	Si 251.611†	80538.0	76736.5	2581.0	ug/L	2581.0	ppb	12:59:52
1	Sn 189.927†	2891.9	2765.3	512.24	ug/L	512.24	ppb	13:00:12
1	Ti 334.940†	305591.4	294245.9	504.62	ug/L	504.62	ppb	12:59:52
1	Tl 190.801†	1621.2	1597.5	514.42	ug/L	514.42	ppb	13:00:12
1	U 409.014†	14944.0	16362.3	520.84	ug/L	520.84	ppb	12:59:52
1	V 292.402†	71858.1	70271.3	513.74	ug/L	513.74	ppb	12:59:52
1	Zn 213.857†	54888.1	51740.8	511.58	ug/L	511.58	ppb	12:59:52
1	SiO2†	79966.4	76178.4	5447.5	ug/L	5447.5	ppb	13:01:19
2	Sc Radial	5092.3	5092.3	106	%			12:58:54
2	Y RADIAL	5383.9	5383.9	105.0	%			12:58:54
2	Al 396.153Radial†	6534.5	6151.5	4910.5	ug/L	4910.5	ppb	12:58:54
2	Ca 317.933Radial†	3190.1	2986.4	5028.9	ug/L	5028.9	ppb	12:59:14
2	Fe 238.204 Radial†	599.8	554.5	5228.2	ug/L	5228.2	ppb	12:59:14
2	K 766.490 Radial†	29776.8	25229.3	5048.0	ug/L	5048.0	ppb	12:58:54
2	Mg 279.077 IEC†	160.4	149.4	5244.6	ug/L	5244.6	ppb	12:59:14
2	Na 589.592 Radial†	32318.8	31975.4	10360	ug/L	10360	ppb	12:58:54
2	Sr 421.552†	76821.6	72263.4	515.05	ug/L	515.05	ppb	12:58:54
2	Sc 361.383	853746.4	853746.4	104.90	%			13:00:17
2	Y 371.029	704533.1	704533.1	102.71	%			13:00:17
2	Ag 328.068†	106314.8	101066.9	499.78	ug/L	499.78	ppb	13:00:23
2	As 188.979†	1162.7	1127.2	511.73	ug/L	511.73	ppb	13:00:43
2	B 249.677†	21883.9	21380.2	518.04	ug/L	518.04	ppb	13:00:23
2	Ba 233.527†	64755.6	61729.2	513.13	ug/L	513.13	ppb	13:00:23
2	Be 313.107†	1327782.3	1270070.3	505.59	ug/L	505.59	ppb	13:00:17
2	Cd 226.502†	45921.1	43973.6	515.28	ug/L	515.28	ppb	13:00:23
2	Co 228.616†	24876.5	23787.2	516.65	ug/L	516.65	ppb	13:00:23
2	Cr 267.716†	45315.6	43103.1	509.13	ug/L	509.13	ppb	13:00:23
2	Cu 324.752†	174499.0	160049.6	510.91	ug/L	510.91	ppb	13:00:23
2	Mn 257.610†	452811.9	431255.5	506.01	ug/L	506.01	ppb	13:00:17
2	Mo 202.031†	7169.8	6815.6	506.39	ug/L	506.39	ppb	13:00:43
2	Ni 231.604†	20527.6	19493.5	512.84	ug/L	512.84	ppb	13:00:23

2	P 214.914†	4389.3	3956.4	2425.3 ug/L	2425.3 ppb	13:00:43
2	Pb 220.353†	4045.7	3921.3	503.88 ug/L	503.88 ppb	13:00:43
2	S 181.975 Axial†	781.7	698.7	1041.9 ug/L	1041.9 ppb	13:00:43
2	Sb 206.836†	1482.1	1380.1	522.77 ug/L	522.77 ppb	13:00:43
2	Se 196.026†	782.4	776.3	538.04 ug/L	538.04 ppb	13:00:43
2	Si 251.611†	81597.1	77339.6	2601.4 ug/L	2601.4 ppb	13:00:23
2	Sn 189.927†	2887.0	2746.0	508.69 ug/L	508.69 ppb	13:00:43
2	Ti 334.940†	309321.3	296259.1	508.08 ug/L	508.08 ppb	13:00:23
2	Tl 190.801†	1621.9	1590.0	512.04 ug/L	512.04 ppb	13:00:43
2	U 409.014†	15111.5	16446.5	523.53 ug/L	523.53 ppb	13:00:23
2	V 292.402†	72592.8	70608.9	516.14 ug/L	516.14 ppb	13:00:23
2	Zn 213.857†	55389.3	51941.6	513.56 ug/L	513.56 ppb	13:00:23
2	SiO2†	80432.2	76218.8	5450.5 ug/L	5450.5 ppb	13:01:24
3	Sc Radial	5142.0	5142.0	107 %		12:59:19
3	Y RADIAL	5465.4	5465.4	106.5 %		12:59:19
3	Al 396.153Radial†	6633.0	6183.8	4936.6 ug/L	4936.6 ppb	12:59:19
3	Ca 317.933Radial†	3165.0	2934.0	4940.7 ug/L	4940.7 ppb	12:59:39
3	Fe 238.204 Radial†	594.2	543.8	5127.6 ug/L	5127.6 ppb	12:59:39
3	K 766.490 Radial†	30044.7	25208.2	5043.8 ug/L	5043.8 ppb	12:59:19
3	Mg 279.077 IEC†	163.3	150.7	5289.9 ug/L	5289.9 ppb	12:59:39
3	Na 589.592 Radial†	32594.9	31938.9	10348 ug/L	10348 ppb	12:59:19
3	Sr 421.552†	77620.7	72309.7	515.38 ug/L	515.38 ppb	12:59:19
3	Sc 361.383	856662.7	856662.7	105.26 %		13:00:48
3	Y 371.029	708557.2	708557.2	103.29 %		13:00:48
3	Ag 328.068†	107652.8	101993.2	504.30 ug/L	504.30 ppb	13:00:53
3	As 188.979†	1159.2	1120.1	508.50 ug/L	508.50 ppb	13:01:14
3	B 249.677†	21767.1	21198.2	513.63 ug/L	513.63 ppb	13:00:53
3	Ba 233.527†	64600.5	61371.7	510.16 ug/L	510.16 ppb	13:00:53
3	Be 313.107†	1335950.0	1273521.1	506.95 ug/L	506.95 ppb	13:00:48
3	Cd 226.502†	45973.1	43874.0	514.12 ug/L	514.12 ppb	13:00:53
3	Co 228.616†	24867.3	23697.7	514.71 ug/L	514.71 ppb	13:00:53
3	Cr 267.716†	45301.7	42942.8	507.24 ug/L	507.24 ppb	13:00:53
3	Cu 324.752†	173686.9	158711.8	506.64 ug/L	506.64 ppb	13:00:53
3	Mn 257.610†	453916.2	430835.3	505.50 ug/L	505.50 ppb	13:00:48
3	Mo 202.031†	7171.4	6793.8	504.77 ug/L	504.77 ppb	13:01:14
3	Ni 231.604†	20545.3	19443.8	511.53 ug/L	511.53 ppb	13:00:53
3	P 214.914†	4394.1	3946.7	2420.1 ug/L	2420.1 ppb	13:01:14
3	Pb 220.353†	4055.2	3917.2	503.37 ug/L	503.37 ppb	13:01:14
3	S 181.975 Axial†	770.4	685.5	1022.1 ug/L	1022.1 ppb	13:01:14
3	Sb 206.836†	1490.2	1383.0	523.78 ug/L	523.78 ppb	13:01:14
3	Se 196.026†	792.3	783.0	542.24 ug/L	542.24 ppb	13:01:14
3	Si 251.611†	81272.0	76765.9	2582.1 ug/L	2582.1 ppb	13:00:53
3	Sn 189.927†	2894.7	2743.9	508.29 ug/L	508.29 ppb	13:01:14
3	Ti 334.940†	308645.2	294613.0	505.24 ug/L	505.24 ppb	13:00:53
3	Tl 190.801†	1610.6	1574.1	506.92 ug/L	506.92 ppb	13:01:14
3	U 409.014†	14887.3	16184.6	515.18 ug/L	515.18 ppb	13:00:53
3	V 292.402†	72649.4	70427.2	514.81 ug/L	514.81 ppb	13:00:53
3	Zn 213.857†	55308.3	51684.9	511.03 ug/L	511.03 ppb	13:00:53
3	SiO2†	79701.5	75263.6	5382.1 ug/L	5382.1 ppb	13:01:29

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	853219.6	104.84	%	0.459				0.44%
Sc Radial	5105.0	107	%	0.7				0.64%
Y 371.029	705055.9	102.78	%	0.477				0.46%
Y RADIAL	5409.9	105.5	%	0.94				0.89%
Ag 328.068†	101352.0	501.17	ug/L	2.720	501.17	ppb	2.720	0.54%
QC value within limits for Ag 328.068 Recovery = 100.23%								
Al 396.153Radial†	6158.4	4916.1	ug/L	18.40	4916.1	ppb	18.40	0.37%
QC value within limits for Al 396.153Radial Recovery = 98.32%								
As 188.979†	1125.5	510.92	ug/L	2.139	510.92	ppb	2.139	0.42%
QC value within limits for As 188.979 Recovery = 102.18%								
B 249.677†	21232.7	514.46	ug/L	3.246	514.46	ppb	3.246	0.63%
QC value within limits for B 249.677 Recovery = 102.89%								
Ba 233.527†	61498.9	511.22	ug/L	1.660	511.22	ppb	1.660	0.32%
QC value within limits for Ba 233.527 Recovery = 102.24%								
Be 313.107†	1273689.0	507.02	ug/L	1.468	507.02	ppb	1.468	0.29%
QC value within limits for Be 313.107 Recovery = 101.40%								
Ca 317.933Radial†	2960.6	4985.4	ug/L	44.12	4985.4	ppb	44.12	0.89%

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   QC value within limits for Ca 317.933Radial  Recovery = 99.71%
Cd 226.502†            43875.0      514.12 ug/L         1.150      514.12 ppb          1.150   0.22%
   QC value within limits for Cd 226.502  Recovery = 102.82%
Co 228.616†            23730.6      515.42 ug/L         1.064      515.42 ppb          1.064   0.21%
   QC value within limits for Co 228.616  Recovery = 103.08%
Cr 267.716†            42994.6      507.85 ug/L         1.109      507.85 ppb          1.109   0.22%
   QC value within limits for Cr 267.716  Recovery = 101.57%
Cu 324.752†           159103.0      507.89 ug/L         2.630      507.89 ppb          2.630   0.52%
   QC value within limits for Cu 324.752  Recovery = 101.58%
Fe 238.204 Radial†       550.6      5191.4 ug/L        55.45      5191.4 ppb          55.45   1.07%
   QC value within limits for Fe 238.204 Radial  Recovery = 103.83%
K 766.490 Radial†      25199.1      5042.0 ug/L         7.15      5042.0 ppb           7.15   0.14%
   QC value within limits for K 766.490 Radial  Recovery = 100.84%
Mg 279.077 IEC†          149.6      5250.3 ug/L        37.00      5250.3 ppb          37.00   0.70%
   QC value within limits for Mg 279.077 IEC  Recovery = 105.01%
Mn 257.610†           431558.8      506.36 ug/L         1.076      506.36 ppb          1.076   0.21%
   QC value within limits for Mn 257.610  Recovery = 101.27%
Mo 202.031†            6820.0      506.72 ug/L         2.134      506.72 ppb          2.134   0.42%
   QC value within limits for Mo 202.031  Recovery = 101.34%
Na 589.592 Radial†     32000.8       10368 ug/L          25.2       10368 ppb           25.2   0.24%
   QC value within limits for Na 589.592 Radial  Recovery = 103.68%
Ni 231.604†            19447.9      511.64 ug/L         1.152      511.64 ppb          1.152   0.23%
   QC value within limits for Ni 231.604  Recovery = 102.33%
P 214.914†              3972.4      2436.2 ug/L        23.49      2436.2 ppb          23.49   0.96%
   QC value within limits for P 214.914  Recovery = 97.45%
Pb 220.353†             3939.5      506.22 ug/L         4.518      506.22 ppb          4.518   0.89%
   QC value within limits for Pb 220.353  Recovery = 101.24%
S 181.975 Axial†         689.0      1027.3 ug/L        12.78      1027.3 ppb          12.78   1.24%
   QC value within limits for S 181.975 Axial  Recovery = 102.73%
Sb 206.836†             1384.1      524.26 ug/L         1.769      524.26 ppb          1.769   0.34%
   QC value within limits for Sb 206.836  Recovery = 104.85%
Se 196.026†              786.2      544.55 ug/L         7.919      544.55 ppb          7.919   1.45%
   QC value within limits for Se 196.026  Recovery = 108.91%
Si 251.611†            76947.3      2588.2 ug/L        11.47      2588.2 ppb          11.47   0.44%
   QC value within limits for Si 251.611  Recovery = 103.53%
Sn 189.927†             2751.7      509.74 ug/L         2.174      509.74 ppb          2.174   0.43%
   QC value within limits for Sn 189.927  Recovery = 101.95%
Sr 421.552†            72277.9      515.15 ug/L         0.197      515.15 ppb          0.197   0.04%
   QC value within limits for Sr 421.552  Recovery = 103.03%
Ti 334.940†           295039.3      505.98 ug/L         1.842      505.98 ppb          1.842   0.36%
   QC value within limits for Ti 334.940  Recovery = 101.20%
Tl 190.801†             1587.2      511.13 ug/L         3.833      511.13 ppb          3.833   0.75%
   QC value within limits for Tl 190.801  Recovery = 102.23%
U 409.014†             16331.1      519.85 ug/L         4.263      519.85 ppb          4.263   0.82%
   QC value within limits for U 409.014  Recovery = 103.97%
V 292.402†             70435.8      514.90 ug/L         1.202      514.90 ppb          1.202   0.23%
   QC value within limits for V 292.402  Recovery = 102.98%
Zn 213.857†            51789.1      512.06 ug/L         1.333      512.06 ppb          1.333   0.26%
   QC value within limits for Zn 213.857  Recovery = 102.41%
SiO2†                  75886.9      5426.7 ug/L        38.68      5426.7 ppb          38.68   0.71%
   QC value within limits for SiO2  Recovery = 101.48%
All analyte(s) passed QC.
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Sequence No.: 14
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 1/14/2010 13:03:39
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4987.0	4987.0	104	%			13:05:32
1	Y RADIAL	5370.5	5370.5	104.7	%			13:05:32
1	Al 396.153Radial†	8.8	11.7	9.3202	ug/L	9.3202	ppb	13:05:32
1	Ca 317.933Radial†	14.3	-1.4	-2.3378	ug/L	-2.3378	ppb	13:05:52
1	Fe 238.204 Radial†	10:0	-0.3	-2.9480	ug/L	-2.9480	ppb	13:05:52
1	K 766.490 Radial†	3048.2	141.1	28.234	ug/L	28.234	ppb	13:05:32
1	Mg 279.077 IEC†	2.6	0.9	33.258	ug/L	33.258	ppb	13:05:52
1	Na 589.592 Radial†	-1312.7	305.7	99.050	ug/L	99.050	ppb	13:05:32
1	Sr 421.552†	19.4	1.4	0.0101	ug/L	0.0101	ppb	13:05:32
1	Sc 361.383	827537.7	827537.7	101.68	%			13:06:49
1	Y 371.029	696029.9	696029.9	101.47	%			13:06:49
1	Ag 328.068†	481.6	192.1	0.9458	ug/L	0.9458	ppb	13:06:49
1	As 188.979†	-21.3	-2.1	-0.9391	ug/L	-0.9391	ppb	13:07:09
1	B 249.677†	-247.9	274.7	6.6860	ug/L	6.6860	ppb	13:07:09
1	Ba 233.527†	-7.7	-9.0	-0.0739	ug/L	-0.0739	ppb	13:07:09
1	Be 313.107†	-4347.7	36.4	0.0150	ug/L	0.0150	ppb	13:06:49
1	Cd 226.502†	-175.2	25.3	0.2965	ug/L	0.2965	ppb	13:07:09
1	Co 228.616†	-74.1	-0.2	-0.0022	ug/L	-0.0022	ppb	13:07:09
1	Cr 267.716†	69.8	-27.1	-0.3183	ug/L	-0.3183	ppb	13:07:09
1	Cu 324.752†	6445.9	41.4	0.1325	ug/L	0.1325	ppb	13:06:49
1	Mn 257.610†	380.2	-30.4	-0.0373	ug/L	-0.0373	ppb	13:07:09
1	Mo 202.031†	31.9	12.1	0.8965	ug/L	0.8965	ppb	13:07:09
1	Ni 231.604†	88.1	11.5	0.3039	ug/L	0.3039	ppb	13:07:09
1	P 214.914†	221.7	-9.8	-6.2871	ug/L	-6.2871	ppb	13:07:09
1	Pb 220.353†	-68.7	-3.0	-0.3809	ug/L	-0.3809	ppb	13:07:09
1	S 181.975 Axial†	43.7	-3.5	-5.1640	ug/L	-5.1640	ppb	13:07:09
1	Sb 206.836†	37.9	4.5	1.6848	ug/L	1.6848	ppb	13:07:09
1	Se 196.026†	-31.4	-0.5	-0.3561	ug/L	-0.3561	ppb	13:07:09
1	Si 251.611†	436.3	-16.8	-0.5763	ug/L	-0.5763	ppb	13:07:09
1	Sn 189.927†	7.7	1.5	0.2716	ug/L	0.2716	ppb	13:07:09
1	Ti 334.940†	-1259.2	148.6	0.2525	ug/L	0.2525	ppb	13:06:49
1	Tl 190.801†	-26.9	17.4	5.5829	ug/L	5.5829	ppb	13:07:09
1	U 409.014†	-2107.1	-31.4	-1.0007	ug/L	-1.0007	ppb	13:06:49
1	V 292.402†	-1352.1	77.4	0.5701	ug/L	0.5701	ppb	13:06:49
1	Zn 213.857†	852.9	-21.5	-0.2164	ug/L	-0.2164	ppb	13:07:09
1	SiO2†	447.0	-16.6	-1.2124	ug/L	-1.2124	ppb	13:08:05
2	Sc Radial	5127.0	5127.0	107	%			13:05:57
2	Y RADIAL	5537.0	5537.0	107.9	%			13:05:57
2	Al 396.153Radial†	10.7	13.3	10.608	ug/L	10.608	ppb	13:05:57
2	Ca 317.933Radial†	12.9	-3.1	-5.2095	ug/L	-5.2095	ppb	13:06:17
2	Fe 238.204 Radial†	11.9	1.2	11.585	ug/L	11.585	ppb	13:06:17
2	K 766.490 Radial†	2916.5	-61.9	-12.438	ug/L	-12.438	ppb	13:05:57
2	Mg 279.077 IEC†	4.1	2.3	81.643	ug/L	81.643	ppb	13:06:17
2	Na 589.592 Radial†	-1370.2	286.5	92.818	ug/L	92.818	ppb	13:05:57
2	Sr 421.552†	4.5	-13.0	-0.0924	ug/L	-0.0924	ppb	13:05:57
2	Sc 361.383	850529.5	850529.5	104.50	%			13:07:14
2	Y 371.029	714886.0	714886.0	104.22	%			13:07:14
2	Ag 328.068†	392.9	94.4	0.4665	ug/L	0.4665	ppb	13:07:14
2	As 188.979†	-22.0	-2.2	-0.9730	ug/L	-0.9730	ppb	13:07:34
2	B 249.677†	-232.7	295.9	7.1993	ug/L	7.1993	ppb	13:07:34
2	Ba 233.527†	-13.3	-14.2	-0.1155	ug/L	-0.1155	ppb	13:07:34
2	Be 313.107†	-4394.5	107.2	0.0429	ug/L	0.0429	ppb	13:07:14
2	Cd 226.502†	-170.2	34.7	0.4064	ug/L	0.4064	ppb	13:07:34
2	Co 228.616†	-77.6	-1.6	-0.0323	ug/L	-0.0323	ppb	13:07:34
2	Cr 267.716†	87.4	-12.1	-0.1431	ug/L	-0.1431	ppb	13:07:34
2	Cu 324.752†	6299.7	-269.9	-0.8644	ug/L	-0.8644	ppb	13:07:14
2	Mn 257.610†	436.2	13.1	0.0132	ug/L	0.0132	ppb	13:07:34
2	Mo 202.031†	32.6	11.9	0.8820	ug/L	0.8820	ppb	13:07:34
2	Ni 231.604†	82.1	3.4	0.0894	ug/L	0.0894	ppb	13:07:34

2	P 214.914†	231.5	-6.4	-3.9080	ug/L	-3.9080 ppb	13:07:34
2	Pb 220.353†	-64.5	2.8	0.3673	ug/L	0.3673 ppb	13:07:34
2	S 181.975 Axial†	51.0	2.4	3.5500	ug/L	3.5500 ppb	13:07:34
2	Sb 206.836†	45.1	10.4	3.8114	ug/L	3.8114 ppb	13:07:34
2	Se 196.026†	-32.6	-0.9	-0.5380	ug/L	-0.5380 ppb	13:07:34
2	Si 251.611†	454.4	-11.1	-0.3854	ug/L	-0.3854 ppb	13:07:34
2	Sn 189.927†	3.1	-3.2	-0.5836	ug/L	-0.5836 ppb	13:07:34
2	Ti 334.940†	-1368.4	77.6	0.1232	ug/L	0.1232 ppb	13:07:14
2	Tl 190.801†	-30.8	14.4	4.6029	ug/L	4.6029 ppb	13:07:34
2	U 409.014†	-1932.3	191.9	6.1290	ug/L	6.1290 ppb	13:07:14
2	V 292.402†	-1328.5	135.9	1.0044	ug/L	1.0044 ppb	13:07:14
2	Zn 213.857†	860.7	-36.7	-0.3666	ug/L	-0.3666 ppb	13:07:34
2	SiO2†	483.1	6.1	0.4101	ug/L	0.4101 ppb	13:08:10
3	Sc Radial	5101.5	5101.5	106	%		13:06:22
3	Y RADIAL	5480.6	5480.6	106.8	%		13:06:22
3	Al 396.153Radial†	-4.9	-1.4	-1.0971	ug/L	-1.0971 ppb	13:06:22
3	Ca 317.933Radial†	16.0	-0.1	-0.1339	ug/L	-0.1339 ppb	13:06:42
3	Fe 238.204 Radial†	9.7	-0.8	-7.4898	ug/L	-7.4898 ppb	13:06:42
3	K 766.490 Radial†	2946.3	-20.3	-4.1110	ug/L	-4.1110 ppb	13:06:22
3	Mg 279.077 IEC†	3.2	1.5	53.318	ug/L	53.318 ppb	13:06:42
3	Na 589.592 Radial†	-1243.5	399.1	129.30	ug/L	129.30 ppb	13:06:22
3	Sr 421.552†	16.0	-2.2	-0.0155	ug/L	-0.0155 ppb	13:06:22
3	Sc 361.383	854914.3	854914.3	105.04	%		13:07:39
3	Y 371.029	718778.0	718778.0	104.78	%		13:07:39
3	Ag 328.068†	370.7	71.3	0.3440	ug/L	0.3440 ppb	13:07:39
3	As 188.979†	-17.3	2.4	1.0608	ug/L	1.0608 ppb	13:07:59
3	B 249.677†	-237.0	292.9	7.1295	ug/L	7.1295 ppb	13:07:59
3	Ba 233.527†	-10.5	-11.5	-0.0946	ug/L	-0.0946 ppb	13:07:59
3	Be 313.107†	-4327.1	192.9	0.0773	ug/L	0.0773 ppb	13:07:39
3	Cd 226.502†	-179.8	26.4	0.3113	ug/L	0.3113 ppb	13:07:59
3	Co 228.616†	-76.0	0.3	0.0068	ug/L	0.0068 ppb	13:07:59
3	Cr 267.716†	83.6	-16.2	-0.1929	ug/L	-0.1929 ppb	13:07:59
3	Cu 324.752†	6412.3	-193.6	-0.6222	ug/L	-0.6222 ppb	13:07:39
3	Mn 257.610†	407.8	-16.0	-0.0217	ug/L	-0.0217 ppb	13:07:59
3	Mo 202.031†	18.8	-1.4	-0.1081	ug/L	-0.1081 ppb	13:07:59
3	Ni 231.604†	84.6	5.4	0.1431	ug/L	0.1431 ppb	13:07:59
3	P 214.914†	218.0	-20.4	-12.856	ug/L	-12.856 ppb	13:07:59
3	Pb 220.353†	-56.3	11.0	1.4107	ug/L	1.4107 ppb	13:07:59
3	S 181.975 Axial†	41.3	-7.1	-10.600	ug/L	-10.600 ppb	13:07:59
3	Sb 206.836†	39.9	5.3	1.9291	ug/L	1.9291 ppb	13:07:59
3	Se 196.026†	-25.8	5.8	3.8715	ug/L	3.8715 ppb	13:07:59
3	Si 251.611†	444.8	-22.4	-0.7545	ug/L	-0.7545 ppb	13:07:59
3	Sn 189.927†	9.8	3.2	0.5928	ug/L	0.5928 ppb	13:07:59
3	Ti 334.940†	-1283.1	165.5	0.2766	ug/L	0.2766 ppb	13:07:39
3	Tl 190.801†	-35.3	10.3	3.3075	ug/L	3.3075 ppb	13:07:59
3	U 409.014†	-1918.3	214.8	6.8610	ug/L	6.8610 ppb	13:07:39
3	V 292.402†	-1424.5	51.0	0.3814	ug/L	0.3814 ppb	13:07:39
3	Zn 213.857†	870.7	-31.4	-0.3126	ug/L	-0.3126 ppb	13:07:59
3	SiO2†	467.5	-11.2	-0.7987	ug/L	-0.7987 ppb	13:08:15

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	844327.2	103.74	%	1.807				1.74%
Sc Radial	5071.8	106	%	1.6				1.47%
Y 371.029	709898.0	103.49	%	1.774				1.71%
Y RADIAL	5462.7	106.5	%	1.65				1.55%
Ag 328.068†	119.3	0.5854	ug/L	0.31803	0.5854	ppb	0.31803	54.33%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	7.9	6.2771	ug/L	6.41864	6.2771	ppb	6.41864	102.26%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-0.6	-0.2838	ug/L	1.16453	-0.2838	ppb	1.16453	410.36%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	287.8	7.0049	ug/L	0.27842	7.0049	ppb	0.27842	3.97%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-11.6	-0.0947	ug/L	0.02083	-0.0947	ppb	0.02083	22.01%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	112.2	0.0451	ug/L	0.03118	0.0451	ppb	0.03118	69.19%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-1.5	-2.5604	ug/L	2.54515	-2.5604	ppb	2.54515	99.40%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              28.8      0.3381 ug/L       0.05966      0.3381 ppb        0.05966  17.65%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†              -0.5     -0.0093 ug/L       0.02048     -0.0093 ppb        0.02048 220.99%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†             -18.4     -0.2181 ug/L       0.09028     -0.2181 ppb        0.09028  41.39%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -140.7     -0.4513 ug/L       0.51994     -0.4513 ppb        0.51994 115.20%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        0.0      0.3822 ug/L       9.96375      0.3822 ppb        9.96375 >999.9%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        19.6      3.8950 ug/L      21.48524      3.8950 ppb       21.48524 551.61%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           1.6      56.073 ug/L       24.3103      56.073 ppb        24.3103  43.35%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†             -11.1     -0.0153 ug/L       0.02586     -0.0153 ppb        0.02586 169.23%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               7.5      0.5568 ug/L       0.57588      0.5568 ppb        0.57588 103.43%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      330.4      107.06 ug/L        19.514      107.06 ppb         19.514  18.23%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               6.8      0.1788 ug/L       0.11161      0.1788 ppb        0.11161  62.42%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†              -12.2     -7.6838 ug/L       4.63482     -7.6838 ppb        4.63482  60.32%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               3.6      0.4657 ug/L       0.89983      0.4657 ppb        0.89983 193.21%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         -2.7     -4.0713 ug/L       7.13795     -4.0713 ppb        7.13795 175.32%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               6.7      2.4751 ug/L       1.16372      2.4751 ppb        1.16372  47.02%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               1.5      0.9925 ug/L       2.49497      0.9925 ppb        2.49497 251.38%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†             -16.8     -0.5721 ug/L       0.18458     -0.5721 ppb        0.18458  32.26%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               0.5      0.0936 ug/L       0.60806      0.0936 ppb        0.60806 649.65%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              -4.6     -0.0326 ug/L       0.05335     -0.0326 ppb        0.05335 163.58%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             130.6      0.2174 ug/L       0.08252      0.2174 ppb        0.08252  37.96%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              14.1      4.4978 ug/L       1.14135      4.4978 ppb        1.14135  25.38%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              125.1      3.9964 ug/L       4.34310      3.9964 ppb        4.34310 108.67%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               88.1      0.6520 ug/L       0.31950      0.6520 ppb        0.31950  49.01%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†             -29.9     -0.2985 ug/L       0.07610     -0.2985 ppb        0.07610  25.49%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                    -7.2     -0.5336 ug/L       0.84312     -0.5336 ppb        0.84312 157.99%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

User canceled analysis.

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Analysis Begun

Start Time: 1/14/2010 14:19:45 **Plasma On Time: 1/11/2010 06:15:31**
Logged In Analyst: Optima3 **Technique: ICP Continuous**
Spectrometer Model: Optima 5300 DV, S/N 077C7090601Autosampler Model: S10

Sample Information File: C:\pe\Optima3\Sample Information\011410.sif
Batch ID:
Results Data Set: 011410
Results Library: C:\pe\Optima3\Results\Results.mdb

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Sequence No.: 8 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 1/14/2010 14:19:46**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5299.2	5299.2	111	%			14:21:38
1	Y RADIAL	5597.1	5597.1	109.1	%			14:21:38
1	Al 396.153Radial†	6499.8	5880.1	4693.7	ug/L	4693.7	ppb	14:21:38
1	Ca 317.933Radial†	3184.5	2864.2	4823.1	ug/L	4823.1	ppb	14:21:58
1	Fe 238.204 Radial†	593.9	527.1	4969.9	ug/L	4969.9	ppb	14:21:58
1	K 766.490 Radial†	29695.7	24062.2	4814.5	ug/L	4814.5	ppb	14:21:38
1	Mg 279.077 IEC†	157.3	140.7	4938.7	ug/L	4938.7	ppb	14:21:58
1	Na 589.592 Radial†	32039.0	30535.3	9893.6	ug/L	9893.6	ppb	14:21:38
1	Sr 421.552†	76899.3	69512.1	495.44	ug/L	495.44	ppb	14:21:38
1	Sc 361.383	884305.8	884305.8	108.66	%			14:22:56
1	Y 371.029	730225.6	730225.6	106.45	%			14:22:56
1	Ag 328.068†	107664.7	98807.0	488.53	ug/L	488.53	ppb	14:23:01
1	As 188.979†	1165.5	1091.5	495.49	ug/L	495.49	ppb	14:23:21
1	B 249.677†	21705.0	20494.6	496.58	ug/L	496.58	ppb	14:23:01
1	Ba 233.527†	64479.2	59341.5	493.29	ug/L	493.29	ppb	14:23:01
1	Be 313.107†	1339129.0	1236771.8	492.33	ug/L	492.33	ppb	14:22:56
1	Cd 226.502†	45442.1	42019.9	492.39	ug/L	492.39	ppb	14:23:01
1	Co 228.616†	24864.3	22956.4	498.60	ug/L	498.60	ppb	14:23:01
1	Cr 267.716†	45240.4	41541.0	490.67	ug/L	490.67	ppb	14:23:01
1	Cu 324.752†	174942.6	154709.3	493.85	ug/L	493.85	ppb	14:23:01
1	Mn 257.610†	455171.9	418510.5	491.05	ug/L	491.05	ppb	14:22:56
1	Mo 202.031†	7167.4	6577.1	488.67	ug/L	488.67	ppb	14:23:21
1	Ni 231.604†	20482.3	18775.6	493.95	ug/L	493.95	ppb	14:23:01
1	P 214.914†	4382.8	3805.8	2332.6	ug/L	2332.6	ppb	14:23:21
1	Pb 220.353†	4040.8	3783.5	486.17	ug/L	486.17	ppb	14:23:21
1	S 181.975 Axial†	773.6	665.6	992.41	ug/L	992.41	ppb	14:23:21
1	Sb 206.836†	1494.5	1342.7	508.43	ug/L	508.43	ppb	14:23:21
1	Se 196.026†	776.2	744.8	516.07	ug/L	516.07	ppb	14:23:21
1	Si 251.611†	81310.2	74387.5	2502.1	ug/L	2502.1	ppb	14:23:01
1	Sn 189.927†	2879.1	2643.6	489.72	ug/L	489.72	ppb	14:23:21
1	Ti 334.940†	309731.8	286446.9	491.25	ug/L	491.25	ppb	14:23:01
1	Tl 190.801†	1627.8	1542.0	496.58	ug/L	496.58	ppb	14:23:21
1	U 409.014†	15387.1	16202.4	515.80	ug/L	515.80	ppb	14:23:01
1	V 292.402†	72457.5	68093.0	497.78	ug/L	497.78	ppb	14:23:01
1	Zn 213.857†	55167.2	49912.5	493.50	ug/L	493.50	ppb	14:23:01
1	SiO2†	80213.4	73367.7	5246.6	ug/L	5246.6	ppb	14:24:28
2	Sc Radial	5320.4	5320.4	111	%			14:22:03
2	Y RADIAL	5674.7	5674.7	110.6	%			14:22:03
2	Al 396.153Radial†	6540.6	5893.4	4704.2	ug/L	4704.2	ppb	14:22:03
2	Ca 317.933Radial†	3169.2	2838.8	4780.4	ug/L	4780.4	ppb	14:22:23
2	Fe 238.204 Radial†	592.6	523.8	4939.0	ug/L	4939.0	ppb	14:22:23
2	K 766.490 Radial†	29566.9	23839.0	4769.8	ug/L	4769.8	ppb	14:22:03
2	Mg 279.077 IEC†	160.0	142.6	5006.0	ug/L	5006.0	ppb	14:22:23
2	Na 589.592 Radial†	31893.6	30288.7	9813.7	ug/L	9813.7	ppb	14:22:03
2	Sr 421.552†	76846.6	69186.9	493.12	ug/L	493.12	ppb	14:22:03
2	Sc 361.383	878170.1	878170.1	107.90	%			14:23:26

2	Y 371.029	725074.6	725074.6	105.70 %		14:23:26
2	Ag 328.068†	107229.6	99096.1	489.95 ug/L	489.95 ppb	14:23:32
2	As 188.979†	1144.6	1079.6	490.15 ug/L	490.15 ppb	14:23:52
2	B 249.677†	21655.4	20588.2	498.87 ug/L	498.87 ppb	14:23:32
2	Ba 233.527†	64349.9	59636.4	495.74 ug/L	495.74 ppb	14:23:32
2	Be 313.107†	1333400.6	1240074.0	493.64 ug/L	493.64 ppb	14:23:26
2	Cd 226.502†	45296.2	42176.9	494.24 ug/L	494.24 ppb	14:23:32
2	Co 228.616†	24699.3	22963.4	498.76 ug/L	498.76 ppb	14:23:32
2	Cr 267.716†	45139.9	41738.7	493.01 ug/L	493.01 ppb	14:23:32
2	Cu 324.752†	174556.7	155476.7	496.30 ug/L	496.30 ppb	14:23:32
2	Mn 257.610†	453256.0	419661.8	492.39 ug/L	492.39 ppb	14:23:26
2	Mo 202.031†	7167.5	6623.3	492.09 ug/L	492.09 ppb	14:23:52
2	Ni 231.604†	20442.3	18870.3	496.45 ug/L	496.45 ppb	14:23:32
2	P 214.914†	4363.0	3815.6	2338.4 ug/L	2338.4 ppb	14:23:52
2	Pb 220.353†	4028.9	3798.5	488.10 ug/L	488.10 ppb	14:23:52
2	S 181.975 Axial†	763.6	661.3	985.97 ug/L	985.97 ppb	14:23:52
2	Sb 206.836†	1487.5	1345.8	509.66 ug/L	509.66 ppb	14:23:52
2	Se 196.026†	782.5	755.6	523.23 ug/L	523.23 ppb	14:23:52
2	Si 251.611†	81051.1	74670.2	2511.6 ug/L	2511.6 ppb	14:23:32
2	Sn 189.927†	2868.8	2652.6	491.37 ug/L	491.37 ppb	14:23:52
2	Ti 334.940†	309374.9	288107.8	494.09 ug/L	494.09 ppb	14:23:32
2	Tl 190.801†	1614.0	1539.7	495.87 ug/L	495.87 ppb	14:23:52
2	U 409.014†	15395.7	16309.3	519.21 ug/L	519.21 ppb	14:23:32
2	V 292.402†	72461.6	68562.7	501.23 ug/L	501.23 ppb	14:23:32
2	Zn 213.857†	55040.1	50149.5	495.84 ug/L	495.84 ppb	14:23:32
2	SiO2†	81544.2	75116.9	5371.9 ug/L	5371.9 ppb	14:24:33
3	Sc Radial	5241.9	5241.9	109 %		14:22:28
3	Y RADIAL	5584.5	5584.5	108.9 %		14:22:28
3	Al 396.153Radial†	6452.4	5901.1	4710.6 ug/L	4710.6 ppb	14:22:28
3	Ca 317.933Radial†	3122.3	2838.7	4780.3 ug/L	4780.3 ppb	14:22:48
3	Fe 238.204 Radial†	583.8	523.8	4938.4 ug/L	4938.4 ppb	14:22:48
3	K 766.490 Radial†	29233.5	23933.3	4788.7 ug/L	4788.7 ppb	14:22:28
3	Mg 279.077 IEC†	157.3	142.3	4995.7 ug/L	4995.7 ppb	14:22:48
3	Na 589.592 Radial†	31557.7	30412.1	9853.7 ug/L	9853.7 ppb	14:22:28
3	Sr 421.552†	76113.8	69554.3	495.74 ug/L	495.74 ppb	14:22:28
3	Sc 361.383	883226.4	883226.4	108.52 %		14:23:57
3	Y 371.029	730246.7	730246.7	106.46 %		14:23:57
3	Ag 328.068†	104918.0	96397.1	476.66 ug/L	476.66 ppb	14:24:03
3	As 188.979†	1150.8	1079.3	489.92 ug/L	489.92 ppb	14:24:23
3	B 249.677†	21313.1	20157.9	488.42 ug/L	488.42 ppb	14:24:03
3	Ba 233.527†	63364.8	58387.2	485.36 ug/L	485.36 ppb	14:24:03
3	Be 313.107†	1343105.2	1241942.0	494.36 ug/L	494.36 ppb	14:23:57
3	Cd 226.502†	44641.6	41333.4	484.34 ug/L	484.34 ppb	14:24:03
3	Co 228.616†	24372.0	22530.7	489.37 ug/L	489.37 ppb	14:24:03
3	Cr 267.716†	44452.4	40865.7	482.70 ug/L	482.70 ppb	14:24:03
3	Cu 324.752†	170965.7	151241.5	482.78 ug/L	482.78 ppb	14:24:03
3	Mn 257.610†	454989.9	418854.8	491.45 ug/L	491.45 ppb	14:23:57
3	Mo 202.031†	7141.6	6561.5	487.50 ug/L	487.50 ppb	14:24:23
3	Ni 231.604†	20126.9	18471.2	485.95 ug/L	485.95 ppb	14:24:03
3	P 214.914†	4313.7	3747.1	2297.3 ug/L	2297.3 ppb	14:24:23
3	Pb 220.353†	4020.0	3768.9	484.31 ug/L	484.31 ppb	14:24:23
3	S 181.975 Axial†	766.0	659.4	983.17 ug/L	983.17 ppb	14:24:23
3	Sb 206.836†	1483.2	1334.0	505.15 ug/L	505.15 ppb	14:24:23
3	Se 196.026†	769.7	739.6	512.52 ug/L	512.52 ppb	14:24:23
3	Si 251.611†	79525.8	72834.7	2449.7 ug/L	2449.7 ppb	14:24:03
3	Sn 189.927†	2844.2	2614.7	484.36 ug/L	484.36 ppb	14:24:23
3	Ti 334.940†	303939.9	281458.2	482.69 ug/L	482.69 ppb	14:24:03
3	Tl 190.801†	1608.8	1526.3	491.56 ug/L	491.56 ppb	14:24:23
3	U 409.014†	15089.8	15945.7	507.62 ug/L	507.62 ppb	14:24:03
3	V 292.402†	71260.8	67071.8	490.40 ug/L	490.40 ppb	14:24:03
3	Zn 213.857†	54067.4	48961.1	484.08 ug/L	484.08 ppb	14:24:03
3	SiO2†	80978.6	74163.0	5303.6 ug/L	5303.6 ppb	14:24:38

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	881900.8	108.36	%	0.402				0.37%
Sc Radial	5287.2	110	%	0.8				0.77%
Y 371.029	728515.6	106.20	%	0.434				0.41%
Y RADIAL	5618.8	109.5	%	0.95				0.87%

```
Ag 328.068†            98100.1      485.05 ug/L        7.299      485.05 ppb        7.299   1.50%
   QC value within limits for Ag 328.068  Recovery = 97.01%
Al 396.153Radial†       5891.5      4702.8 ug/L         8.53      4702.8 ppb         8.53   0.18%
   QC value within limits for Al 396.153Radial  Recovery = 94.06%
As 188.979†             1083.5      491.85 ug/L        3.152      491.85 ppb        3.152   0.64%
   QC value within limits for As 188.979  Recovery = 98.37%
B 249.677†             20413.6      494.62 ug/L        5.492      494.62 ppb        5.492   1.11%
   QC value within limits for B 249.677  Recovery = 98.92%
Ba 233.527†            59121.7      491.46 ug/L        5.426      491.46 ppb        5.426   1.10%
   QC value within limits for Ba 233.527  Recovery = 98.29%
Be 313.107†          1239595.9      493.44 ug/L        1.032      493.44 ppb        1.032   0.21%
   QC value within limits for Be 313.107  Recovery = 98.69%
Ca 317.933Radial†       2847.2      4794.6 ug/L        24.69      4794.6 ppb        24.69   0.51%
   QC value within limits for Ca 317.933Radial  Recovery = 95.89%
Cd 226.502†            41843.4      490.32 ug/L        5.262      490.32 ppb        5.262   1.07%
   QC value within limits for Cd 226.502  Recovery = 98.06%
Co 228.616†            22816.9      495.58 ug/L        5.374      495.58 ppb        5.374   1.08%
   QC value within limits for Co 228.616  Recovery = 99.12%
Cr 267.716†            41381.8      488.80 ug/L        5.406      488.80 ppb        5.406   1.11%
   QC value within limits for Cr 267.716  Recovery = 97.76%
Cu 324.752†           153809.2      490.98 ug/L        7.200      490.98 ppb        7.200   1.47%
   QC value within limits for Cu 324.752  Recovery = 98.20%
Fe 238.204 Radial†       524.9      4949.1 ug/L        18.04      4949.1 ppb        18.04   0.36%
   QC value within limits for Fe 238.204 Radial  Recovery = 98.98%
K 766.490 Radial†      23944.9      4791.0 ug/L        22.43      4791.0 ppb        22.43   0.47%
   QC value within limits for K 766.490 Radial  Recovery = 95.82%
Mg 279.077 IEC†          141.9      4980.1 ug/L        36.25      4980.1 ppb        36.25   0.73%
   QC value within limits for Mg 279.077 IEC  Recovery = 99.60%
Mn 257.610†           419009.0      491.63 ug/L        0.690      491.63 ppb        0.690   0.14%
   QC value within limits for Mn 257.610  Recovery = 98.33%
Mo 202.031†             6587.3      489.42 ug/L        2.387      489.42 ppb        2.387   0.49%
   QC value within limits for Mo 202.031  Recovery = 97.88%
Na 589.592 Radial†     30412.0      9853.7 ug/L        39.95      9853.7 ppb        39.95   0.41%
   QC value within limits for Na 589.592 Radial  Recovery = 98.54%
Ni 231.604†            18705.7      492.12 ug/L        5.486      492.12 ppb        5.486   1.11%
   QC value within limits for Ni 231.604  Recovery = 98.42%
P 214.914†              3789.5      2322.8 ug/L        22.25      2322.8 ppb        22.25   0.96%
   QC value within limits for P 214.914  Recovery = 92.91%
Pb 220.353†             3783.6      486.20 ug/L        1.896      486.20 ppb        1.896   0.39%
   QC value within limits for Pb 220.353  Recovery = 97.24%
S 181.975 Axial†         662.1      987.18 ug/L        4.737      987.18 ppb        4.737   0.48%
   QC value within limits for S 181.975 Axial  Recovery = 98.72%
Sb 206.836†             1340.8      507.75 ug/L        2.331      507.75 ppb        2.331   0.46%
   QC value within limits for Sb 206.836  Recovery = 101.55%
Se 196.026†              746.7      517.27 ug/L        5.455      517.27 ppb        5.455   1.05%
   QC value within limits for Se 196.026  Recovery = 103.45%
Si 251.611†            73964.1      2487.8 ug/L        33.30      2487.8 ppb        33.30   1.34%
   QC value within limits for Si 251.611  Recovery = 99.51%
Sn 189.927†             2637.0      488.48 ug/L        3.663      488.48 ppb        3.663   0.75%
   QC value within limits for Sn 189.927  Recovery = 97.70%
Sr 421.552†            69417.8      494.77 ug/L        1.433      494.77 ppb        1.433   0.29%
   QC value within limits for Sr 421.552  Recovery = 98.95%
Ti 334.940†           285337.6      489.34 ug/L        5.934      489.34 ppb        5.934   1.21%
   QC value within limits for Ti 334.940  Recovery = 97.87%
Tl 190.801†             1536.0      494.67 ug/L        2.721      494.67 ppb        2.721   0.55%
   QC value within limits for Tl 190.801  Recovery = 98.93%
U 409.014†             16152.5      514.21 ug/L        5.955      514.21 ppb        5.955   1.16%
   QC value within limits for U 409.014  Recovery = 102.84%
V 292.402†             67909.2      496.47 ug/L        5.531      496.47 ppb        5.531   1.11%
   QC value within limits for V 292.402  Recovery = 99.29%
Zn 213.857†            49674.4      491.14 ug/L        6.227      491.14 ppb        6.227   1.27%
   QC value within limits for Zn 213.857  Recovery = 98.23%
SiO2†                  74215.9      5307.4 ug/L        62.74      5307.4 ppb        62.74   1.18%
   QC value within limits for SiO2  Recovery = 99.25%
All analyte(s) passed QC.
```

Sequence No.: 9
Sample ID: PQL
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 11
Date Collected: 1/14/2010 14:26:49
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: PQL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5329.2	5329.2	111	%			14:28:42
1	Y RADIAL	5698.1	5698.1	111.1	%			14:28:42
1	Al 396.153Radial†	240.3	219.3	175.46	ug/L	175.46	ppb	14:28:42
1	Ca 317.933Radial†	150.4	120.1	202.23	ug/L	202.23	ppb	14:29:02
1	Fe 238.204 Radial†	22.9	10.7	100.45	ug/L	100.45	ppb	14:29:02
1	K 766.490 Radial†	3645.3	490.0	97.913	ug/L	97.913	ppb	14:28:42
1	Mg 279.077 IEC†	11.0	8.4	293.54	ug/L	293.54	ppb	14:29:02
1	Na 589.592 Radial†	-282.0	1313.4	425.55	ug/L	425.55	ppb	14:28:42
1	Sr 421.552†	779.6	683.7	4.8717	ug/L	4.8717	ppb	14:28:42
1	Sc 361.383	895366.8	895366.8	110.01	%			14:29:59
1	Y 371.029	752624.5	752624.5	109.72	%			14:29:59
1	Ag 328.068†	1493.2	1075.7	5.2877	ug/L	5.2877	ppb	14:29:59
1	As 188.979†	49.4	63.8	28.757	ug/L	28.757	ppb	14:30:19
1	B 249.677†	1914.9	2259.1	54.953	ug/L	54.953	ppb	14:29:59
1	Ba 233.527†	646.5	586.2	4.8766	ug/L	4.8766	ppb	14:30:19
1	Be 313.107†	9192.6	12668.1	5.0435	ug/L	5.0435	ppb	14:29:59
1	Cd 226.502†	269.8	442.8	5.1954	ug/L	5.1954	ppb	14:30:19
1	Co 228.616†	175.9	232.5	5.0605	ug/L	5.0605	ppb	14:30:19
1	Cr 267.716†	537.4	392.7	4.6188	ug/L	4.6188	ppb	14:30:19
1	Cu 324.752†	9904.8	2705.1	8.6063	ug/L	8.6063	ppb	14:29:59
1	Mn 257.610†	9996.7	8682.5	10.179	ug/L	10.179	ppb	14:29:59
1	Mo 202.031†	165.9	131.5	9.7716	ug/L	9.7716	ppb	14:30:19
1	Ni 231.604†	300.9	198.4	5.2204	ug/L	5.2204	ppb	14:30:19
1	P 214.914†	452.5	183.5	115.42	ug/L	115.42	ppb	14:30:19
1	Pb 220.353†	17.0	80.0	10.298	ug/L	10.298	ppb	14:30:19
1	S 181.975 Axial†	119.1	61.8	92.150	ug/L	92.150	ppb	14:30:19
1	Sb 206.836†	66.5	27.7	10.481	ug/L	10.481	ppb	14:30:19
1	Se 196.026†	25.8	53.8	36.351	ug/L	36.351	ppb	14:30:19
1	Si 251.611†	3781.1	2991.0	100.73	ug/L	100.73	ppb	14:29:59
1	Sn 189.927†	65.5	53.5	9.9195	ug/L	9.9195	ppb	14:30:19
1	Ti 334.940†	1893.3	3108.0	5.3060	ug/L	5.3060	ppb	14:29:59
1	Tl 190.801†	36.6	77.2	24.757	ug/L	24.757	ppb	14:30:19
1	U 409.014†	-98.8	1951.1	62.292	ug/L	62.292	ppb	14:29:59
1	V 292.402†	-648.3	817.8	6.1406	ug/L	6.1406	ppb	14:29:59
1	Zn 213.857†	1763.3	742.5	7.3506	ug/L	7.3506	ppb	14:30:19
1	SiO2†	3717.7	2923.1	209.30	ug/L	209.30	ppb	14:31:15
2	Sc Radial	5330.3	5330.3	111	%			14:29:07
2	Y RADIAL	5708.1	5708.1	111.3	%			14:29:07
2	Al 396.153Radial†	279.2	254.2	203.47	ug/L	203.47	ppb	14:29:07
2	Ca 317.933Radial†	153.2	122.6	206.38	ug/L	206.38	ppb	14:29:27
2	Fe 238.204 Radial†	20.6	8.7	81.470	ug/L	81.470	ppb	14:29:27
2	K 766.490 Radial†	3635.8	480.7	96.065	ug/L	96.065	ppb	14:29:07
2	Mg 279.077 IEC†	11.7	9.0	316.87	ug/L	316.87	ppb	14:29:27
2	Na 589.592 Radial†	-354.0	1248.8	404.61	ug/L	404.61	ppb	14:29:07
2	Sr 421.552†	819.2	719.1	5.1243	ug/L	5.1243	ppb	14:29:07
2	Sc 361.383	901922.6	901922.6	110.82	%			14:30:24
2	Y 371.029	757947.1	757947.1	110.49	%			14:30:24
2	Ag 328.068†	1464.9	1040.3	5.1020	ug/L	5.1020	ppb	14:30:24
2	As 188.979†	50.8	64.7	29.150	ug/L	29.150	ppb	14:30:44
2	B 249.677†	1929.5	2259.6	54.970	ug/L	54.970	ppb	14:30:24
2	Ba 233.527†	643.9	579.6	4.8209	ug/L	4.8209	ppb	14:30:44
2	Be 313.107†	9291.8	12696.9	5.0548	ug/L	5.0548	ppb	14:30:24
2	Cd 226.502†	264.2	436.0	5.1176	ug/L	5.1176	ppb	14:30:44
2	Co 228.616†	165.7	222.2	4.8360	ug/L	4.8360	ppb	14:30:44
2	Cr 267.716†	525.9	378.9	4.4523	ug/L	4.4523	ppb	14:30:44
2	Cu 324.752†	9988.7	2715.5	8.6352	ug/L	8.6352	ppb	14:30:24
2	Mn 257.610†	10022.9	8640.1	10.127	ug/L	10.127	ppb	14:30:24
2	Mo 202.031†	168.7	132.9	9.8737	ug/L	9.8737	ppb	14:30:44
2	Ni 231.604†	285.7	182.7	4.8071	ug/L	4.8071	ppb	14:30:44

2	P 214.914†	464.3	191.1	120.33 ug/L	120.33 ppb	14:30:44
2	Pb 220.353†	31.8	93.2	12.001 ug/L	12.001 ppb	14:30:44
2	S 181.975 Axial†	121.1	62.8	93.711 ug/L	93.711 ppb	14:30:44
2	Sb 206.836†	72.3	32.5	12.225 ug/L	12.225 ppb	14:30:44
2	Se 196.026†	17.5	46.2	31.191 ug/L	31.191 ppb	14:30:44
2	Si 251.611†	3803.9	2986.6	100.58 ug/L	100.58 ppb	14:30:24
2	Sn 189.927†	62.7	50.4	9.3625 ug/L	9.3625 ppb	14:30:44
2	Ti 334.940†	1859.4	3064.9	5.2284 ug/L	5.2284 ppb	14:30:24
2	Tl 190.801†	35.6	76.0	24.375 ug/L	24.375 ppb	14:30:44
2	U 409.014†	96.2	2127.8	67.936 ug/L	67.936 ppb	14:30:24
2	V 292.402†	-681.6	792.1	5.9706 ug/L	5.9706 ppb	14:30:24
2	Zn 213.857†	1760.1	727.9	7.2096 ug/L	7.2096 ppb	14:30:44
2	SiO2†	3774.6	2949.8	211.21 ug/L	211.21 ppb	14:31:20
3	Sc Radial	5441.1	5441.1	114 %		14:29:32
3	Y RADIAL	5814.8	5814.8	113.4 %		14:29:32
3	Al 396.153Radial†	251.2	224.5	179.60 ug/L	179.60 ppb	14:29:32
3	Ca 317.933Radial†	153.3	119.9	201.87 ug/L	201.87 ppb	14:29:52
3	Fe 238.204 Radial†	24.1	11.3	106.61 ug/L	106.61 ppb	14:29:52
3	K 766.490 Radial†	3596.7	379.8	75.840 ug/L	75.840 ppb	14:29:32
3	Mg 279.077 IEC†	12.4	9.4	331.64 ug/L	331.64 ppb	14:29:52
3	Na 589.592 Radial†	-317.2	1287.6	417.19 ug/L	417.19 ppb	14:29:32
3	Sr 421.552†	825.9	710.0	5.0596 ug/L	5.0596 ppb	14:29:32
3	Sc 361.383	889612.0	889612.0	109.31 %		14:30:50
3	Y 371.029	749218.6	749218.6	109.22 %		14:30:50
3	Ag 328.068†	1511.4	1101.1	5.4175 ug/L	5.4175 ppb	14:30:50
3	As 188.979†	50.3	64.9	29.250 ug/L	29.250 ppb	14:31:10
3	B 249.677†	1941.2	2294.5	55.813 ug/L	55.813 ppb	14:30:50
3	Ba 233.527†	648.6	591.9	4.9251 ug/L	4.9251 ppb	14:31:10
3	Be 313.107†	9118.5	12654.3	5.0381 ug/L	5.0381 ppb	14:30:50
3	Cd 226.502†	260.7	436.0	5.1142 ug/L	5.1142 ppb	14:31:10
3	Co 228.616†	175.4	233.2	5.0759 ug/L	5.0759 ppb	14:31:10
3	Cr 267.716†	525.7	385.2	4.5316 ug/L	4.5316 ppb	14:31:10
3	Cu 324.752†	9952.2	2806.8	8.9319 ug/L	8.9319 ppb	14:30:50
3	Mn 257.610†	9864.1	8619.9	10.105 ug/L	10.105 ppb	14:30:50
3	Mo 202.031†	172.1	138.1	10.262 ug/L	10.262 ppb	14:31:10
3	Ni 231.604†	279.1	180.2	4.7410 ug/L	4.7410 ppb	14:31:10
3	P 214.914†	468.7	200.9	126.51 ug/L	126.51 ppb	14:31:10
3	Pb 220.353†	14.1	77.5	9.9782 ug/L	9.9782 ppb	14:31:10
3	S 181.975 Axial†	122.7	65.8	98.131 ug/L	98.131 ppb	14:31:10
3	Sb 206.836†	70.0	31.3	11.791 ug/L	11.791 ppb	14:31:10
3	Se 196.026†	18.5	47.3	32.048 ug/L	32.048 ppb	14:31:10
3	Si 251.611†	3726.9	2963.7	99.799 ug/L	99.799 ppb	14:30:50
3	Sn 189.927†	60.8	49.5	9.1832 ug/L	9.1832 ppb	14:31:10
3	Ti 334.940†	1891.6	3117.5	5.3198 ug/L	5.3198 ppb	14:30:50
3	Tl 190.801†	32.2	73.3	23.520 ug/L	23.520 ppb	14:31:10
3	U 409.014†	-139.6	1913.3	61.083 ug/L	61.083 ppb	14:30:50
3	V 292.402†	-560.1	894.7	6.6999 ug/L	6.6999 ppb	14:30:50
3	Zn 213.857†	1769.7	758.6	7.5135 ug/L	7.5135 ppb	14:31:10
3	SiO2†	3764.1	2987.3	213.89 ug/L	213.89 ppb	14:31:25

Mean Data: PQL

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	895633.8	110.05	%	0.757				0.69%
Sc Radial	5366.9	112	%	1.3				1.20%
Y 371.029	753263.4	109.81	%	0.641				0.58%
Y RADIAL	5740.4	111.9	%	1.26				1.13%
Ag 328.068†	1072.4	5.2691	ug/L	0.15855	5.2691	ppb	0.15855	3.01%
QC value within limits for Ag 328.068 Recovery = 105.38%								
Al 396.153Radial†	232.7	186.18	ug/L	15.116	186.18	ppb	15.116	8.12%
QC value within limits for Al 396.153Radial Recovery = 93.09%								
As 188.979†	64.5	29.052	ug/L	0.2608	29.052	ppb	0.2608	0.90%
QC value within limits for As 188.979 Recovery = 96.84%								
B 249.677†	2271.1	55.245	ug/L	0.4916	55.245	ppb	0.4916	0.89%
QC value within limits for B 249.677 Recovery = 110.49%								
Ba 233.527†	585.9	4.8742	ug/L	0.05214	4.8742	ppb	0.05214	1.07%
QC value within limits for Ba 233.527 Recovery = 97.48%								
Be 313.107†	12673.1	5.0455	ug/L	0.00851	5.0455	ppb	0.00851	0.17%
QC value within limits for Be 313.107 Recovery = 100.91%								
Ca 317.933Radial†	120.8	203.49	ug/L	2.507	203.49	ppb	2.507	1.23%

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   QC value within limits for Ca 317.933Radial  Recovery = 101.75%
Cd 226.502†              438.3      5.1424 ug/L       0.04591      5.1424 ppb        0.04591   0.89%
   QC value within limits for Cd 226.502  Recovery = 102.85%
Co 228.616†              229.3      4.9908 ug/L       0.13429      4.9908 ppb        0.13429   2.69%
   QC value within limits for Co 228.616  Recovery = 99.82%
Cr 267.716†              385.6      4.5342 ug/L       0.08326      4.5342 ppb        0.08326   1.84%
   QC value within limits for Cr 267.716  Recovery = 90.68%
Cu 324.752†             2742.5      8.7245 ug/L       0.18020      8.7245 ppb        0.18020   2.07%
   QC value within limits for Cu 324.752  Recovery = 87.24%
Fe 238.204 Radial†        10.2      96.175 ug/L       13.1019      96.175 ppb        13.1019  13.62%
   QC value within limits for Fe 238.204 Radial  Recovery = 96.18%
K 766.490 Radial†        450.2      89.939 ug/L       12.2455      89.939 ppb        12.2455  13.62%
   QC value less than the lower limit for K 766.490 Radial  Recovery = 59.96%
Mg 279.077 IEC†           8.9      314.01 ug/L        19.211      314.01 ppb         19.211   6.12%
   QC value within limits for Mg 279.077 IEC  Recovery = 104.67%
Mn 257.610†             8647.5      10.137 ug/L        0.0382      10.137 ppb         0.0382   0.38%
   QC value within limits for Mn 257.610  Recovery = 101.37%
Mo 202.031†              134.2      9.9690 ug/L       0.25857      9.9690 ppb        0.25857   2.59%
   QC value within limits for Mo 202.031  Recovery = 99.69%
Na 589.592 Radial†      1283.3      415.78 ug/L        10.542      415.78 ppb         10.542   2.54%
   QC value greater than the upper limit for Na 589.592 Radial  Recovery = 138.59%
Ni 231.604†              187.1      4.9228 ug/L       0.25981      4.9228 ppb        0.25981   5.28%
   QC value within limits for Ni 231.604  Recovery = 98.46%
P 214.914†               191.8      120.75 ug/L         5.558      120.75 ppb          5.558   4.60%
   QC value within limits for P 214.914  Recovery = 80.50%
Pb 220.353†               83.6      10.759 ug/L        1.0873      10.759 ppb         1.0873  10.11%
   QC value within limits for Pb 220.353  Recovery = 107.59%
S 181.975 Axial†          63.5      94.664 ug/L        3.1024      94.664 ppb         3.1024   3.28%
   QC value within limits for S 181.975 Axial  Recovery = 94.66%
Sb 206.836†               30.5      11.499 ug/L        0.9079      11.499 ppb         0.9079   7.90%
   QC value within limits for Sb 206.836  Recovery = 114.99%
Se 196.026†               49.1      33.197 ug/L        2.7652      33.197 ppb         2.7652   8.33%
   QC value within limits for Se 196.026  Recovery = 110.66%
Si 251.611†             2980.4      100.37 ug/L         0.498      100.37 ppb          0.498   0.50%
   QC value within limits for Si 251.611  Recovery = 100.37%
Sn 189.927†               51.1      9.4884 ug/L       0.38393      9.4884 ppb        0.38393   4.05%
   QC value within limits for Sn 189.927  Recovery = 94.88%
Sr 421.552†              704.3      5.0185 ug/L       0.13121      5.0185 ppb        0.13121   2.61%
   QC value within limits for Sr 421.552  Recovery = 100.37%
Ti 334.940†             3096.8      5.2847 ug/L       0.04929      5.2847 ppb        0.04929   0.93%
   QC value within limits for Ti 334.940  Recovery = 105.69%
Tl 190.801†               75.5      24.217 ug/L        0.6333      24.217 ppb         0.6333   2.61%
   QC value within limits for Tl 190.801  Recovery = 121.09%
U 409.014†              1997.4      63.770 ug/L        3.6579      63.770 ppb         3.6579   5.74%
   QC value within limits for U 409.014  Recovery = 127.54%
V 292.402†               834.9      6.2704 ug/L       0.38158      6.2704 ppb        0.38158   6.09%
   QC value within limits for V 292.402  Recovery = 125.41%
Zn 213.857†              743.0      7.3579 ug/L       0.15211      7.3579 ppb        0.15211   2.07%
   QC value within limits for Zn 213.857  Recovery = 73.58%
SiO2†                   2953.4      211.47 ug/L         2.306      211.47 ppb          2.306   1.09%
   QC value within limits for SiO2  Recovery = 99.28%
QC Failed.  Continue with analysis.
```

Sequence No.: 10
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 1/14/2010 14:33:36
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5495.7	5495.7	115	%			14:35:28
1	Y RADIAL	5892.5	5892.5	114.9	%			14:35:28
1	Al 396.153Radial†	6.9	9.2	7.4120	ug/L	7.4120	ppb	14:35:28
1	Ca 317.933Radial†	24.3	6.1	10.189	ug/L	10.189	ppb	14:35:48
1	Fe 238.204 Radial†	12.4	1.0	9.0056	ug/L	9.0056	ppb	14:35:48
1	K 766.490 Radial†	2767.1	-375.0	-75.179	ug/L	-75.179	ppb	14:35:28
1	Mg 279.077 IEC†	1.5	-0.2	-6.2703	ug/L	-6.2703	ppb	14:35:48
1	Na 589.592 Radial†	-1355.8	384.9	124.71	ug/L	124.71	ppb	14:35:28
1	Sr 421.552†	21.1	1.2	0.0085	ug/L	0.0085	ppb	14:35:28
1	Sc 361.383	888911.9	888911.9	109.22	%			14:36:45
1	Y 371.029	747538.3	747538.3	108.98	%			14:36:45
1	Ag 328.068†	341.1	30.7	0.1491	ug/L	0.1491	ppb	14:36:45
1	As 188.979†	-24.0	-3.1	-1.3881	ug/L	-1.3881	ppb	14:37:05
1	B 249.677†	-347.1	200.7	4.8832	ug/L	4.8832	ppb	14:37:05
1	Ba 233.527†	5.9	3.9	0.0348	ug/L	0.0348	ppb	14:37:05
1	Be 313.107†	-4319.9	357.1	0.1426	ug/L	0.1426	ppb	14:36:45
1	Cd 226.502†	-176.2	36.2	0.4258	ug/L	0.4258	ppb	14:37:05
1	Co 228.616†	-67.5	10.9	0.2358	ug/L	0.2358	ppb	14:37:05
1	Cr 267.716†	69.3	-32.2	-0.3829	ug/L	-0.3829	ppb	14:37:05
1	Cu 324.752†	6464.9	-379.0	-1.2151	ug/L	-1.2151	ppb	14:36:45
1	Mn 257.610†	414.4	-24.9	-0.0281	ug/L	-0.0281	ppb	14:37:05
1	Mo 202.031†	22.1	0.9	0.0681	ug/L	0.0681	ppb	14:37:05
1	Ni 231.604†	76.0	-5.6	-0.1469	ug/L	-0.1469	ppb	14:37:05
1	P 214.914†	215.0	-31.0	-19.547	ug/L	-19.547	ppb	14:37:05
1	Pb 220.353†	-73.5	-2.8	-0.3510	ug/L	-0.3510	ppb	14:37:05
1	S 181.975 Axial†	46.9	-3.5	-5.2386	ug/L	-5.2386	ppb	14:37:05
1	Sb 206.836†	50.4	13.4	4.9078	ug/L	4.9078	ppb	14:37:05
1	Se 196.026†	-29.0	3.8	2.5919	ug/L	2.5919	ppb	14:37:05
1	Si 251.611†	534.2	43.2	1.4572	ug/L	1.4572	ppb	14:37:05
1	Sn 189.927†	6.9	0.2	0.0315	ug/L	0.0315	ppb	14:37:05
1	Ti 334.940†	-1296.3	200.2	0.3409	ug/L	0.3409	ppb	14:36:45
1	Tl 190.801†	-38.1	9.0	2.8908	ug/L	2.8908	ppb	14:37:05
1	U 409.014†	-1875.5	323.8	10.342	ug/L	10.342	ppb	14:36:45
1	V 292.402†	-1385.6	138.6	1.0187	ug/L	1.0187	ppb	14:36:45
1	Zn 213.857†	818.8	-110.7	-1.1019	ug/L	-1.1019	ppb	14:37:05
1	SiO2†	544.1	42.0	3.0079	ug/L	3.0079	ppb	14:38:01
2	Sc Radial	5532.6	5532.6	115	%			14:35:53
2	Y RADIAL	5901.3	5901.3	115.0	%			14:35:53
2	Al 396.153Radial†	-0.9	2.5	1.9305	ug/L	1.9305	ppb	14:35:53
2	Ca 317.933Radial†	25.0	6.5	10.971	ug/L	10.971	ppb	14:36:13
2	Fe 238.204 Radial†	9.1	-2.0	-18.491	ug/L	-18.491	ppb	14:36:13
2	K 766.490 Radial†	2687.7	-459.8	-92.173	ug/L	-92.173	ppb	14:35:53
2	Mg 279.077 IEC†	3.4	1.4	50.720	ug/L	50.720	ppb	14:36:13
2	Na 589.592 Radial†	-1361.4	387.9	125.69	ug/L	125.69	ppb	14:35:53
2	Sr 421.552†	-14.1	-29.4	-0.2096	ug/L	-0.2096	ppb	14:35:53
2	Sc 361.383	899671.4	899671.4	110.54	%			14:37:11
2	Y 371.029	756888.9	756888.9	110.34	%			14:37:11
2	Ag 328.068†	359.7	43.8	0.2031	ug/L	0.2031	ppb	14:37:11
2	As 188.979†	-14.4	5.8	2.6007	ug/L	2.6007	ppb	14:37:31
2	B 249.677†	-325.5	224.1	5.4567	ug/L	5.4567	ppb	14:37:31
2	Ba 233.527†	-11.7	-12.1	-0.0978	ug/L	-0.0978	ppb	14:37:31
2	Be 313.107†	-4373.3	356.0	0.1423	ug/L	0.1423	ppb	14:37:11
2	Cd 226.502†	-181.3	33.6	0.3979	ug/L	0.3979	ppb	14:37:31
2	Co 228.616†	-78.7	1.5	0.0345	ug/L	0.0345	ppb	14:37:31
2	Cr 267.716†	74.2	-28.6	-0.3411	ug/L	-0.3411	ppb	14:37:31
2	Cu 324.752†	6494.7	-422.8	-1.3584	ug/L	-1.3584	ppb	14:37:11
2	Mn 257.610†	435.3	-10.5	-0.0162	ug/L	-0.0162	ppb	14:37:31
2	Mo 202.031†	32.7	10.3	0.7634	ug/L	0.7634	ppb	14:37:31
2	Ni 231.604†	84.3	1.1	0.0298	ug/L	0.0298	ppb	14:37:31

2	P 214.914†	210.3	-37.6	-23.739 ug/L	-23.739 ppb	14:37:31
2	Pb 220.353†	-59.6	10.7	1.3708 ug/L	1.3708 ppb	14:37:31
2	S 181.975 Axial†	50.5	-0.8	-1.1940 ug/L	-1.1940 ppb	14:37:31
2	Sb 206.836†	38.4	2.0	0.7503 ug/L	0.7503 ppb	14:37:31
2	Se 196.026†	-23.9	8.7	5.7643 ug/L	5.7643 ppb	14:37:31
2	Si 251.611†	513.2	18.4	0.6111 ug/L	0.6111 ppb	14:37:31
2	Sn 189.927†	10.1	3.0	0.5631 ug/L	0.5631 ppb	14:37:31
2	Ti 334.940†	-1275.3	233.3	0.3915 ug/L	0.3915 ppb	14:37:11
2	Tl 190.801†	-33.5	13.6	4.3422 ug/L	4.3422 ppb	14:37:31
2	U 409.014†	-1768.3	441.3	14.096 ug/L	14.096 ppb	14:37:11
2	V 292.402†	-1345.0	190.4	1.4147 ug/L	1.4147 ppb	14:37:11
2	Zn 213.857†	813.1	-124.8	-1.2410 ug/L	-1.2410 ppb	14:37:31
2	SiO2†	550.5	41.8	2.9755 ug/L	2.9755 ppb	14:38:06
3	Sc Radial	5506.7	5506.7	115 %		14:36:19
3	Y RADIAL	5927.1	5927.1	115.5 %		14:36:19
3	Al 396.153Radial†	0.5	3.7	2.9593 ug/L	2.9593 ppb	14:36:19
3	Ca 317.933Radial†	23.1	4.9	8.3156 ug/L	8.3156 ppb	14:36:39
3	Fe 238.204 Radial†	10.8	-0.5	-4.3327 ug/L	-4.3327 ppb	14:36:39
3	K 766.490 Radial†	2831.9	-323.4	-64.847 ug/L	-64.847 ppb	14:36:19
3	Mg 279.077 IEC†	0.7	-0.9	-30.126 ug/L	-30.126 ppb	14:36:39
3	Na 589.592 Radial†	-1387.6	359.6	116.52 ug/L	116.52 ppb	14:36:19
3	Sr 421.552†	-2.6	-19.4	-0.1387 ug/L	-0.1387 ppb	14:36:19
3	Sc 361.383	896520.6	896520.6	110.16 %		14:37:36
3	Y 371.029	755611.4	755611.4	110.15 %		14:37:36
3	Ag 328.068†	263.1	-42.8	-0.2154 ug/L	-0.2154 ppb	14:37:36
3	As 188.979†	-20.9	-0.1	-0.0519 ug/L	-0.0519 ppb	14:37:56
3	B 249.677†	-338.4	211.3	5.1430 ug/L	5.1430 ppb	14:37:56
3	Ba 233.527†	6.7	4.6	0.0410 ug/L	0.0410 ppb	14:37:56
3	Be 313.107†	-4401.6	316.4	0.1265 ug/L	0.1265 ppb	14:37:36
3	Cd 226.502†	-182.5	31.9	0.3762 ug/L	0.3762 ppb	14:37:56
3	Co 228.616†	-70.1	9.0	0.1956 ug/L	0.1956 ppb	14:37:56
3	Cr 267.716†	76.7	-26.1	-0.3106 ug/L	-0.3106 ppb	14:37:56
3	Cu 324.752†	6518.4	-380.6	-1.2210 ug/L	-1.2210 ppb	14:37:36
3	Mn 257.610†	429.5	-14.3	-0.0160 ug/L	-0.0160 ppb	14:37:56
3	Mo 202.031†	21.7	0.3	0.0251 ug/L	0.0251 ppb	14:37:56
3	Ni 231.604†	91.3	7.7	0.2036 ug/L	0.2036 ppb	14:37:56
3	P 214.914†	210.4	-36.9	-23.274 ug/L	-23.274 ppb	14:37:56
3	Pb 220.353†	-66.9	3.9	0.4972 ug/L	0.4972 ppb	14:37:56
3	S 181.975 Axial†	45.1	-5.5	-8.2040 ug/L	-8.2040 ppb	14:37:56
3	Sb 206.836†	35.3	-0.7	-0.2547 ug/L	-0.2547 ppb	14:37:56
3	Se 196.026†	-26.5	6.3	4.2218 ug/L	4.2218 ppb	14:37:56
3	Si 251.611†	512.6	19.5	0.6565 ug/L	0.6565 ppb	14:37:56
3	Sn 189.927†	8.8	1.8	0.3394 ug/L	0.3394 ppb	14:37:56
3	Ti 334.940†	-1301.2	205.8	0.3520 ug/L	0.3520 ppb	14:37:36
3	Tl 190.801†	-27.6	18.8	6.0197 ug/L	6.0197 ppb	14:37:56
3	U 409.014†	-1881.1	333.3	10.646 ug/L	10.646 ppb	14:37:36
3	V 292.402†	-1364.3	168.6	1.2370 ug/L	1.2370 ppb	14:37:36
3	Zn 213.857†	819.9	-116.0	-1.1561 ug/L	-1.1561 ppb	14:37:56
3	SiO2†	560.8	52.8	3.7878 ug/L	3.7878 ppb	14:38:11

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	895034.6	109.97	%	0.680				0.62%
Sc Radial	5511.7	115	%	0.4				0.34%
Y 371.029	753346.2	109.82	%	0.739				0.67%
Y RADIAL	5907.0	115.2	%	0.35				0.30%
Ag 328.068†	10.6	0.0456	ug/L	0.22763	0.0456	ppb	0.22763	498.93%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	5.1	4.1006	ug/L	2.91352	4.1006	ppb	2.91352	71.05%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	0.9	0.3869	ug/L	2.03028	0.3869	ppb	2.03028	524.74%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	212.0	5.1610	ug/L	0.28717	5.1610	ppb	0.28717	5.56%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-1.2	-0.0073	ug/L	0.07844	-0.0073	ppb	0.07844	>999.9%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	343.2	0.1371	ug/L	0.00923	0.1371	ppb	0.00923	6.73%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	5.8	9.8252	ug/L	1.36458	9.8252	ppb	1.36458	13.89%

```
   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              33.9      0.4000 ug/L       0.02484      0.4000 ppb        0.02484   6.21%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†               7.1      0.1553 ug/L       0.10654      0.1553 ppb        0.10654  68.60%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†             -29.0     -0.3448 ug/L       0.03626     -0.3448 ppb        0.03626  10.52%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -394.1     -1.2649 ug/L       0.08109     -1.2649 ppb        0.08109   6.41%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       -0.5     -4.6061 ug/L      13.75039     -4.6061 ppb       13.75039 298.53%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†      -386.1     -77.400 ug/L       13.7979     -77.400 ppb        13.7979  17.83%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           0.1      4.7744 ug/L      41.53913      4.7744 ppb       41.53913 870.03%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†             -16.6     -0.0201 ug/L       0.00691     -0.0201 ppb        0.00691  34.38%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               3.9      0.2856 ug/L       0.41440      0.2856 ppb        0.41440 145.12%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       377.5      122.31 ug/L         5.034      122.31 ppb          5.034   4.12%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               1.1      0.0288 ug/L       0.17527      0.0288 ppb        0.17527 608.16%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†              -35.2     -22.187 ug/L        2.2975     -22.187 ppb         2.2975  10.36%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               3.9      0.5057 ug/L       0.86094      0.5057 ppb        0.86094 170.25%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         -3.3     -4.8788 ug/L       3.51881     -4.8788 ppb        3.51881  72.12%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               4.9      1.8011 ug/L       2.73701      1.8011 ppb        2.73701 151.96%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               6.3      4.1927 ug/L       1.58640      4.1927 ppb        1.58640  37.84%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†              27.0      0.9082 ug/L       0.47594      0.9082 ppb        0.47594  52.40%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               1.7      0.3113 ug/L       0.26688      0.3113 ppb        0.26688  85.73%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             -15.9     -0.1133 ug/L       0.11123     -0.1133 ppb        0.11123  98.20%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             213.1      0.3615 ug/L       0.02662      0.3615 ppb        0.02662   7.36%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              13.8      4.4176 ug/L       1.56582      4.4176 ppb        1.56582  35.45%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               366.1      11.694 ug/L        2.0851      11.694 ppb         2.0851  17.83%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               165.9      1.2234 ug/L       0.19835      1.2234 ppb        0.19835  16.21%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†             -117.1     -1.1663 ug/L       0.07009     -1.1663 ppb        0.07009   6.01%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                    45.5      3.2571 ug/L       0.45991      3.2571 ppb        0.45991  14.12%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

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Analysis Begun

Start Time: 1/14/2010 15:04:17 **Plasma On Time: 1/11/2010 06:15:31**
Logged In Analyst: Optima3 **Technique: ICP Continuous**
Spectrometer Model: Optima 5300 DV, S/N 077C7090601Autosampler Model: S10

Sample Information File: C:\pe\Optima3\Sample Information\011410A.sif
Batch ID:
Results Data Set: 011410
Results Library: C:\pe\Optima3\Results\Results.mdb

==========

Sequence No.: 1 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 1/14/2010 15:04:18**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5393.2	5393.2	113	%			15:06:10
1	Y RADIAL	5721.8	5721.8	111.5	%			15:06:10
1	Al 396.153Radial†	6562.4	5833.2	4653.8	ug/L	4653.8	ppb	15:06:10
1	Ca 317.933Radial†	3162.3	2794.2	4705.3	ug/L	4705.3	ppb	15:06:30
1	Fe 238.204 Radial†	587.8	512.3	4831.9	ug/L	4831.9	ppb	15:06:30
1	K 766.490 Radial†	29827.7	23711.4	4744.3	ug/L	4744.3	ppb	15:06:10
1	Mg 279.077 IEC†	161.7	142.2	4991.7	ug/L	4991.7	ppb	15:06:30
1	Na 589.592 Radial†	31619.5	29657.7	9609.2	ug/L	9609.2	ppb	15:06:10
1	Sr 421.552†	76700.1	68123.0	485.54	ug/L	485.54	ppb	15:06:10
1	Sc 361.383	808099.6	808099.6	99.292	%			15:07:28
1	Y 371.029	670449.2	670449.2	97.739	%			15:07:28
1	Ag 328.068†	105432.3	105903.0	523.49	ug/L	523.49	ppb	15:07:33
1	As 188.979†	1172.2	1199.4	544.26	ug/L	544.26	ppb	15:07:53
1	B 249.677†	20952.6	21620.6	523.90	ug/L	523.90	ppb	15:07:33
1	Ba 233.527†	64121.9	64578.0	536.79	ug/L	536.79	ppb	15:07:33
1	Be 313.107†	1226025.1	1239085.5	493.33	ug/L	493.33	ppb	15:07:28
1	Cd 226.502†	45122.5	45642.0	534.89	ug/L	534.89	ppb	15:07:33
1	Co 228.616†	24563.6	24811.6	538.92	ug/L	538.92	ppb	15:07:33
1	Cr 267.716†	44927.0	45151.8	533.32	ug/L	533.32	ppb	15:07:33
1	Cu 324.752†	172001.4	166930.6	532.84	ug/L	532.84	ppb	15:07:33
1	Mn 257.610†	418840.5	421424.8	494.45	ug/L	494.45	ppb	15:07:28
1	Mo 202.031†	7181.6	7213.6	535.90	ug/L	535.90	ppb	15:07:53
1	Ni 231.604†	20360.1	20430.3	537.49	ug/L	537.49	ppb	15:07:33
1	P 214.914†	4387.0	4190.4	2570.8	ug/L	2570.8	ppb	15:07:53
1	Pb 220.353†	4058.4	4151.9	533.46	ug/L	533.46	ppb	15:07:53
1	S 181.975 Axial†	760.2	719.1	1072.3	ug/L	1072.3	ppb	15:07:53
1	Sb 206.836†	1505.9	1484.0	561.80	ug/L	561.80	ppb	15:07:53
1	Se 196.026†	781.7	817.7	564.52	ug/L	564.52	ppb	15:07:53
1	Si 251.611†	79955.2	80079.8	2693.4	ug/L	2693.4	ppb	15:07:33
1	Sn 189.927†	2894.8	2909.3	538.84	ug/L	538.84	ppb	15:07:53
1	Ti 334.940†	306032.4	309603.1	530.93	ug/L	530.93	ppb	15:07:33
1	Tl 190.801†	1624.3	1679.8	540.74	ug/L	540.74	ppb	15:07:53
1	U 409.014†	14978.4	17126.3	545.23	ug/L	545.23	ppb	15:07:33
1	V 292.402†	71889.2	73809.4	539.71	ug/L	539.71	ppb	15:07:33
1	Zn 213.857†	54122.9	53648.8	530.44	ug/L	530.44	ppb	15:07:33
1	SiO2†	80124.7	80240.2	5738.0	ug/L	5738.0	ppb	15:09:01
2	Sc Radial	5242.8	5242.8	109	%			15:06:35
2	Y RADIAL	5583.5	5583.5	108.9	%			15:06:35
2	Al 396.153Radial†	6394.1	5846.7	4666.9	ug/L	4666.9	ppb	15:06:35
2	Ca 317.933Radial†	3166.7	2878.8	4847.8	ug/L	4847.8	ppb	15:06:55
2	Fe 238.204 Radial†	582.0	522.0	4922.1	ug/L	4922.1	ppb	15:06:55
2	K 766.490 Radial†	29139.7	23842.8	4770.6	ug/L	4770.6	ppb	15:06:35
2	Mg 279.077 IEC†	157.8	142.7	5010.2	ug/L	5010.2	ppb	15:06:55
2	Na 589.592 Radial†	30721.0	29642.3	9604.3	ug/L	9604.3	ppb	15:06:35
2	Sr 421.552†	74654.8	68208.4	486.15	ug/L	486.15	ppb	15:06:35
2	Sc 361.383	884833.7	884833.7	108.72	%			15:07:59
2	Y 371.029	732103.3	732103.3	106.73	%			15:07:59

2	Ag 328.068†	106254.5	97450.8	481.84 ug/L	481.84 ppb	15:08:04
2	As 188.979†	1153.6	1079.9	490.23 ug/L	490.23 ppb	15:08:24
2	B 249.677†	21428.1	20228.0	490.11 ug/L	490.11 ppb	15:08:04
2	Ba 233.527†	64131.9	58986.7	490.34 ug/L	490.34 ppb	15:08:04
2	Be 313.107†	1323294.0	1221471.6	486.24 ug/L	486.24 ppb	15:07:59
2	Cd 226.502†	45304.5	41868.4	490.62 ug/L	490.62 ppb	15:08:04
2	Co 228.616†	24637.7	22734.3	493.79 ug/L	493.79 ppb	15:08:04
2	Cr 267.716†	44882.9	41187.3	486.50 ug/L	486.50 ppb	15:08:04
2	Cu 324.752†	173248.5	153055.0	488.57 ug/L	488.57 ppb	15:08:04
2	Mn 257.610†	449754.3	413277.5	484.91 ug/L	484.91 ppb	15:07:59
2	Mo 202.031†	7168.9	6574.6	488.48 ug/L	488.48 ppb	15:08:24
2	Ni 231.604†	20325.1	18619.8	489.86 ug/L	489.86 ppb	15:08:04
2	P 214.914†	4362.2	3784.4	2320.0 ug/L	2320.0 ppb	15:08:24
2	Pb 220.353†	4015.6	3758.1	482.92 ug/L	482.92 ppb	15:08:24
2	S 181.975 Axial†	762.4	654.8	976.40 ug/L	976.40 ppb	15:08:24
2	Sb 206.836†	1496.8	1344.0	508.90 ug/L	508.90 ppb	15:08:24
2	Se 196.026†	787.7	754.9	522.70 ug/L	522.70 ppb	15:08:24
2	Si 251.611†	80602.5	73691.9	2478.6 ug/L	2478.6 ppb	15:08:04
2	Sn 189.927†	2880.3	2643.2	489.63 ug/L	489.63 ppb	15:08:24
2	Ti 334.940†	306954.2	283721.9	486.58 ug/L	486.58 ppb	15:08:04
2	Tl 190.801†	1619.7	1533.7	493.88 ug/L	493.88 ppb	15:08:24
2	U 409.014†	15055.0	15888.5	505.79 ug/L	505.79 ppb	15:08:04
2	V 292.402†	71936.1	67573.6	494.03 ug/L	494.03 ppb	15:08:04
2	Zn 213.857†	54877.4	49615.7	490.57 ug/L	490.57 ppb	15:08:04
2	SiO2†	80616.9	73694.9	5270.0 ug/L	5270.0 ppb	15:09:06
3	Sc Radial	5517.4	5517.4	115 %		15:07:01
3	Y RADIAL	5866.5	5866.5	114.4 %		15:07:01
3	Al 396.153Radial†	6573.8	5711.9	4559.0 ug/L	4559.0 ppb	15:07:01
3	Ca 317.933Radial†	3161.4	2730.2	4597.5 ug/L	4597.5 ppb	15:07:21
3	Fe 238.204 Radial†	581.8	495.4	4671.2 ug/L	4671.2 ppb	15:07:21
3	K 766.490 Radial†	30144.4	23390.1	4680.1 ug/L	4680.1 ppb	15:07:01
3	Mg 279.077 IEC†	159.7	137.1	4814.7 ug/L	4814.7 ppb	15:07:21
3	Na 589.592 Radial†	31672.7	29071.6	9419.4 ug/L	9419.4 ppb	15:07:01
3	Sr 421.552†	76866.2	66733.7	475.64 ug/L	475.64 ppb	15:07:01
3	Sc 361.383	894749.4	894749.4	109.94 %		15:08:30
3	Y 371.029	741475.5	741475.5	108.09 %		15:08:30
3	Ag 328.068†	106229.4	96344.9	476.31 ug/L	476.31 ppb	15:08:35
3	As 188.979†	1157.1	1071.3	486.23 ug/L	486.23 ppb	15:08:55
3	B 249.677†	21235.6	19834.4	480.60 ug/L	480.60 ppb	15:08:35
3	Ba 233.527†	63719.7	57958.0	481.78 ug/L	481.78 ppb	15:08:35
3	Be 313.107†	1337354.0	1220771.9	485.94 ug/L	485.94 ppb	15:08:30
3	Cd 226.502†	45133.7	41251.3	483.40 ug/L	483.40 ppb	15:08:35
3	Co 228.616†	24473.5	22333.8	485.10 ug/L	485.10 ppb	15:08:35
3	Cr 267.716†	44805.8	40659.7	480.26 ug/L	480.26 ppb	15:08:35
3	Cu 324.752†	171478.0	149678.7	477.79 ug/L	477.79 ppb	15:08:35
3	Mn 257.610†	452644.7	411322.2	482.60 ug/L	482.60 ppb	15:08:30
3	Mo 202.031†	7182.5	6513.9	483.95 ug/L	483.95 ppb	15:08:55
3	Ni 231.604†	20205.6	18303.9	481.54 ug/L	481.54 ppb	15:08:35
3	P 214.914†	4368.5	3745.7	2297.6 ug/L	2297.6 ppb	15:08:55
3	Pb 220.353†	4043.1	3742.2	480.87 ug/L	480.87 ppb	15:08:55
3	S 181.975 Axial†	774.7	658.2	981.41 ug/L	981.41 ppb	15:08:55
3	Sb 206.836†	1505.7	1336.9	506.13 ug/L	506.13 ppb	15:08:55
3	Se 196.026†	777.7	737.8	510.38 ug/L	510.38 ppb	15:08:55
3	Si 251.611†	80022.1	72342.3	2433.2 ug/L	2433.2 ppb	15:08:35
3	Sn 189.927†	2880.8	2614.3	484.24 ug/L	484.24 ppb	15:08:55
3	Ti 334.940†	304810.7	278643.4	477.86 ug/L	477.86 ppb	15:08:35
3	Tl 190.801†	1621.6	1518.9	489.12 ug/L	489.12 ppb	15:08:55
3	U 409.014†	15032.7	15714.7	500.28 ug/L	500.28 ppb	15:08:35
3	V 292.402†	71664.0	66592.9	486.92 ug/L	486.92 ppb	15:08:35
3	Zn 213.857†	54487.1	48701.2	481.54 ug/L	481.54 ppb	15:08:35
3	SiO2†	79818.6	72146.9	5159.2 ug/L	5159.2 ppb	15:09:11

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	862560.9	105.98	%	5.827				5.50%
Sc Radial	5384.5	112	%	2.9				2.55%
Y 371.029	714676.0	104.19	%	5.625				5.40%
Y RADIAL	5723.9	111.6	%	2.76				2.47%
Ag 328.068†	99899.6	493.88	ug/L	25.791	493.88	ppb	25.791	5.22%

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   QC value within limits for Ag 328.068  Recovery = 98.78%
Al 396.153Radial†       5797.3      4626.6 ug/L        58.87      4626.6 ppb        58.87   1.27%
   QC value within limits for Al 396.153Radial  Recovery = 92.53%
As 188.979†             1116.9      506.91 ug/L       32.414      506.91 ppb       32.414   6.39%
   QC value within limits for As 188.979  Recovery = 101.38%
B 249.677†             20561.0      498.20 ug/L       22.752      498.20 ppb       22.752   4.57%
   QC value within limits for B 249.677  Recovery = 99.64%
Ba 233.527†            60507.6      502.97 ug/L       29.602      502.97 ppb       29.602   5.89%
   QC value within limits for Ba 233.527  Recovery = 100.59%
Be 313.107†          1227109.7      488.50 ug/L        4.186      488.50 ppb        4.186   0.86%
   QC value within limits for Be 313.107  Recovery = 97.70%
Ca 317.933Radial†       2801.1      4716.9 ug/L       125.53      4716.9 ppb       125.53   2.66%
   QC value within limits for Ca 317.933Radial  Recovery = 94.34%
Cd 226.502†            42920.5      502.97 ug/L       27.879      502.97 ppb       27.879   5.54%
   QC value within limits for Cd 226.502  Recovery = 100.59%
Co 228.616†            23293.3      505.94 ug/L       28.894      505.94 ppb       28.894   5.71%
   QC value within limits for Co 228.616  Recovery = 101.19%
Cr 267.716†            42333.0      500.03 ug/L       28.999      500.03 ppb       28.999   5.80%
   QC value within limits for Cr 267.716  Recovery = 100.01%
Cu 324.752†           156554.8      499.73 ug/L       29.175      499.73 ppb       29.175   5.84%
   QC value within limits for Cu 324.752  Recovery = 99.95%
Fe 238.204 Radial†       509.9      4808.4 ug/L       127.09      4808.4 ppb       127.09   2.64%
   QC value within limits for Fe 238.204 Radial  Recovery = 96.17%
K 766.490 Radial†      23648.1      4731.7 ug/L        46.57      4731.7 ppb        46.57   0.98%
   QC value within limits for K 766.490 Radial  Recovery = 94.63%
Mg 279.077 IEC†          140.7      4938.9 ug/L       107.94      4938.9 ppb       107.94   2.19%
   QC value within limits for Mg 279.077 IEC  Recovery = 98.78%
Mn 257.610†           415341.5      487.32 ug/L        6.285      487.32 ppb        6.285   1.29%
   QC value within limits for Mn 257.610  Recovery = 97.46%
Mo 202.031†             6767.4      502.78 ug/L       28.775      502.78 ppb       28.775   5.72%
   QC value within limits for Mo 202.031  Recovery = 100.56%
Na 589.592 Radial†     29457.2      9544.3 ug/L       108.21      9544.3 ppb       108.21   1.13%
   QC value within limits for Na 589.592 Radial  Recovery = 95.44%
Ni 231.604†            19118.0      502.96 ug/L       30.187      502.96 ppb       30.187   6.00%
   QC value within limits for Ni 231.604  Recovery = 100.59%
P 214.914†              3906.9      2396.1 ug/L       151.71      2396.1 ppb       151.71   6.33%
   QC value within limits for P 214.914  Recovery = 95.85%
Pb 220.353†             3884.1      499.08 ug/L       29.787      499.08 ppb       29.787   5.97%
   QC value within limits for Pb 220.353  Recovery = 99.82%
S 181.975 Axial†         677.4      1010.0 ug/L        54.00      1010.0 ppb        54.00   5.35%
   QC value within limits for S 181.975 Axial  Recovery = 101.00%
Sb 206.836†             1388.3      525.61 ug/L       31.376      525.61 ppb       31.376   5.97%
   QC value within limits for Sb 206.836  Recovery = 105.12%
Se 196.026†              770.1      532.53 ug/L       28.379      532.53 ppb       28.379   5.33%
   QC value within limits for Se 196.026  Recovery = 106.51%
Si 251.611†            75371.4      2535.1 ug/L       139.00      2535.1 ppb       139.00   5.48%
   QC value within limits for Si 251.611  Recovery = 101.40%
Sn 189.927†             2722.3      504.24 ug/L       30.084      504.24 ppb       30.084   5.97%
   QC value within limits for Sn 189.927  Recovery = 100.85%
Sr 421.552†            67688.4      482.44 ug/L        5.900      482.44 ppb        5.900   1.22%
   QC value within limits for Sr 421.552  Recovery = 96.49%
Ti 334.940†           290656.2      498.46 ug/L       28.460      498.46 ppb       28.460   5.71%
   QC value within limits for Ti 334.940  Recovery = 99.69%
Tl 190.801†             1577.5      507.92 ug/L       28.525      507.92 ppb       28.525   5.62%
   QC value within limits for Tl 190.801  Recovery = 101.58%
U 409.014†             16243.2      517.10 ug/L       24.514      517.10 ppb       24.514   4.74%
   QC value within limits for U 409.014  Recovery = 103.42%
V 292.402†             69325.3      506.89 ug/L       28.645      506.89 ppb       28.645   5.65%
   QC value within limits for V 292.402  Recovery = 101.38%
Zn 213.857†            50655.2      500.85 ug/L       26.019      500.85 ppb       26.019   5.19%
   QC value within limits for Zn 213.857  Recovery = 100.17%
SiO2†                  75360.7      5389.1 ug/L       307.22      5389.1 ppb       307.22   5.70%
   QC value within limits for SiO2  Recovery = 100.78%
All analyte(s) passed QC.
```

Sequence No.: 2
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 1/14/2010 15:11:20
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	5318.2	5318.2	111	%			15:13:13
1	Y RADIAL	5716.9	5716.9	111.5	%			15:13:13
1	Al 396.153Radial†	-11.2	-6.9	-5.5406	ug/L	-5.5406	ppb	15:13:13
1	Ca 317.933Radial†	21.4	4.1	6.9170	ug/L	6.9170	ppb	15:13:33
1	Fe 238.204 Radial†	7.0	-3.6	-33.607	ug/L	-33.607	ppb	15:13:33
1	K 766.490 Radial†	2747.4	-312.2	-62.601	ug/L	-62.601	ppb	15:13:13
1	Mg 279.077 IEC†	-0.6	-2.0	-70.813	ug/L	-70.813	ppb	15:13:33
1	Na 589.592 Radial†	-1368.4	334.1	108.27	ug/L	108.27	ppb	15:13:13
1	Sr 421.552†	-2.4	-19.4	-0.1380	ug/L	-0.1380	ppb	15:13:13
1	Sc 361.383	879394.6	879394.6	108.05	%			15:14:30
1	Y 371.029	738335.7	738335.7	107.64	%			15:14:30
1	Ag 328.068†	391.1	80.4	0.3801	ug/L	0.3801	ppb	15:14:30
1	As 188.979†	-27.2	-6.3	-2.8418	ug/L	-2.8418	ppb	15:14:50
1	B 249.677†	-394.9	153.0	3.7300	ug/L	3.7300	ppb	15:14:50
1	Ba 233.527†	-16.7	-16.9	-0.1391	ug/L	-0.1391	ppb	15:14:50
1	Be 313.107†	-4379.7	258.9	0.1038	ug/L	0.1038	ppb	15:14:30
1	Cd 226.502†	-192.8	19.2	0.2298	ug/L	0.2298	ppb	15:14:50
1	Co 228.616†	-79.2	-0.7	-0.0126	ug/L	-0.0126	ppb	15:14:50
1	Cr 267.716†	81.3	-20.5	-0.2447	ug/L	-0.2447	ppb	15:14:50
1	Cu 324.752†	6453.8	-325.2	-1.0451	ug/L	-1.0451	ppb	15:14:30
1	Mn 257.610†	395.4	-38.3	-0.0454	ug/L	-0.0454	ppb	15:14:50
1	Mo 202.031†	33.0	11.2	0.8283	ug/L	0.8283	ppb	15:14:50
1	Ni 231.604†	84.9	3.4	0.0897	ug/L	0.0897	ppb	15:14:50
1	P 214.914†	213.1	-30.7	-19.356	ug/L	-19.356	ppb	15:14:50
1	Pb 220.353†	-71.0	-1.1	-0.1369	ug/L	-0.1369	ppb	15:14:50
1	S 181.975 Axial†	48.7	-1.4	-2.0725	ug/L	-2.0725	ppb	15:14:50
1	Sb 206.836†	48.1	11.8	4.3197	ug/L	4.3197	ppb	15:14:50
1	Se 196.026†	-31.9	0.8	0.4529	ug/L	0.4529	ppb	15:14:50
1	Si 251.611†	477.5	-3.9	-0.1428	ug/L	-0.1428	ppb	15:14:50
1	Sn 189.927†	3.6	-2.7	-0.5074	ug/L	-0.5074	ppb	15:14:50
1	Ti 334.940†	-1227.9	250.6	0.4326	ug/L	0.4326	ppb	15:14:30
1	Tl 190.801†	-31.6	14.7	4.6887	ug/L	4.6887	ppb	15:14:50
1	U 409.014†	-1887.2	294.4	9.4068	ug/L	9.4068	ppb	15:14:30
1	V 292.402†	-1381.5	128.6	0.9607	ug/L	0.9607	ppb	15:14:30
1	Zn 213.857†	817.2	-104.0	-1.0331	ug/L	-1.0331	ppb	15:14:50
1	SiO2†	478.0	-13.8	-1.0118	ug/L	-1.0118	ppb	15:15:46
2	Sc Radial	5371.2	5371.2	112	%			15:13:38
2	Y RADIAL	5762.4	5762.4	112.3	%			15:13:38
2	Al 396.153Radial†	3.0	5.9	4.7564	ug/L	4.7564	ppb	15:13:38
2	Ca 317.933Radial†	23.7	6.0	10.076	ug/L	10.076	ppb	15:13:58
2	Fe 238.204 Radial†	9.1	-1.8	-16.554	ug/L	-16.554	ppb	15:13:58
2	K 766.490 Radial†	2756.1	-328.9	-65.938	ug/L	-65.938	ppb	15:13:38
2	Mg 279.077 IEC†	1.0	-0.6	-20.917	ug/L	-20.917	ppb	15:13:58
2	Na 589.592 Radial†	-1376.1	339.4	109.95	ug/L	109.95	ppb	15:13:38
2	Sr 421.552†	-12.0	-27.9	-0.1989	ug/L	-0.1989	ppb	15:13:38
2	Sc 361.383	885556.4	885556.4	108.81	%			15:14:55
2	Y 371.029	743465.9	743465.9	108.38	%			15:14:55
2	Ag 328.068†	343.8	34.4	0.1636	ug/L	0.1636	ppb	15:14:55
2	As 188.979†	-21.0	-0.5	-0.2131	ug/L	-0.2131	ppb	15:15:15
2	B 249.677†	-375.1	173.8	4.2313	ug/L	4.2313	ppb	15:15:15
2	Ba 233.527†	-1.5	-2.9	-0.0226	ug/L	-0.0226	ppb	15:15:15
2	Be 313.107†	-4524.5	154.0	0.0619	ug/L	0.0619	ppb	15:14:55
2	Cd 226.502†	-186.8	25.9	0.3057	ug/L	0.3057	ppb	15:15:15
2	Co 228.616†	-70.3	8.1	0.1757	ug/L	0.1757	ppb	15:15:15
2	Cr 267.716†	60.4	-40.2	-0.4748	ug/L	-0.4748	ppb	15:15:15
2	Cu 324.752†	6467.6	-354.1	-1.1337	ug/L	-1.1337	ppb	15:14:55
2	Mn 257.610†	415.9	-22.1	-0.0266	ug/L	-0.0266	ppb	15:15:15
2	Mo 202.031†	23.5	2.3	0.1666	ug/L	0.1666	ppb	15:15:15
2	Ni 231.604†	85.3	3.3	0.0870	ug/L	0.0870	ppb	15:15:15

2	P 214.914†	209.5	-35.4	-22.333 ug/L	-22.333 ppb	15:15:15
2	Pb 220.353†	-64.2	5.6	0.7169 ug/L	0.7169 ppb	15:15:15
2	S 181.975 Axial†	41.0	-8.8	-13.100 ug/L	-13.100 ppb	15:15:15
2	Sb 206.836†	37.9	2.1	0.7644 ug/L	0.7644 ppb	15:15:15
2	Se 196.026†	-23.7	8.6	5.7101 ug/L	5.7101 ppb	15:15:15
2	Si 251.611†	491.1	5.5	0.1837 ug/L	0.1837 ppb	15:15:15
2	Sn 189.927†	6.0	-0.6	-0.1129 ug/L	-0.1129 ppb	15:15:15
2	Ti 334.940†	-1313.1	180.2	0.3105 ug/L	0.3105 ppb	15:14:55
2	Tl 190.801†	-34.0	12.7	4.0549 ug/L	4.0549 ppb	15:15:15
2	U 409.014†	-2069.7	138.8	4.4371 ug/L	4.4371 ppb	15:14:55
2	V 292.402†	-1399.0	121.4	0.8887 ug/L	0.8887 ppb	15:14:55
2	Zn 213.857†	831.0	-96.6	-0.9611 ug/L	-0.9611 ppb	15:15:15
2	SiO2†	518.7	20.5	1.4672 ug/L	1.4672 ppb	15:15:51
3	Sc Radial	5368.5	5368.5	112 %		15:14:03
3	Y RADIAL	5754.2	5754.2	112.2 %		15:14:03
3	Al 396.153Radial†	-14.0	-9.2	-7.4208 ug/L	-7.4208 ppb	15:14:03
3	Ca 317.933Radial†	21.1	3.7	6.2056 ug/L	6.2056 ppb	15:14:23
3	Fe 238.204 Radial†	12.0	0.8	7.4565 ug/L	7.4565 ppb	15:14:23
3	K 766.490 Radial†	2746.9	-335.9	-67.340 ug/L	-67.340 ppb	15:14:03
3	Mg 279.077 IEC†	0.6	-1.0	-35.658 ug/L	-35.658 ppb	15:14:23
3	Na 589.592 Radial†	-1346.0	365.7	118.48 ug/L	118.48 ppb	15:14:03
3	Sr 421.552†	51.9	29.1	0.2076 ug/L	0.2076 ppb	15:14:03
3	Sc 361.383	875213.3	875213.3	107.54 %		15:15:20
3	Y 371.029	735677.8	735677.8	107.25 %		15:15:20
3	Ag 328.068†	340.9	35.5	0.1711 ug/L	0.1711 ppb	15:15:20
3	As 188.979†	-20.3	-0.0	-0.0177 ug/L	-0.0177 ppb	15:15:40
3	B 249.677†	-423.9	124.3	3.0243 ug/L	3.0243 ppb	15:15:40
3	Ba 233.527†	11.9	9.6	0.0818 ug/L	0.0818 ppb	15:15:40
3	Be 313.107†	-4427.3	195.3	0.0781 ug/L	0.0781 ppb	15:15:20
3	Cd 226.502†	-189.9	21.0	0.2477 ug/L	0.2477 ppb	15:15:40
3	Co 228.616†	-68.2	9.3	0.2020 ug/L	0.2020 ppb	15:15:40
3	Cr 267.716†	77.9	-23.3	-0.2779 ug/L	-0.2779 ppb	15:15:40
3	Cu 324.752†	6534.7	-221.4	-0.7128 ug/L	-0.7128 ppb	15:15:20
3	Mn 257.610†	436.5	1.6	0.0041 ug/L	0.0041 ppb	15:15:40
3	Mo 202.031†	29.9	8.5	0.6284 ug/L	0.6284 ppb	15:15:40
3	Ni 231.604†	79.9	-0.8	-0.0217 ug/L	-0.0217 ppb	15:15:40
3	P 214.914†	205.3	-37.0	-23.488 ug/L	-23.488 ppb	15:15:40
3	Pb 220.353†	-84.0	-13.5	-1.7296 ug/L	-1.7296 ppb	15:15:40
3	S 181.975 Axial†	46.2	-3.4	-5.1468 ug/L	-5.1468 ppb	15:15:40
3	Sb 206.836†	47.4	11.3	4.1576 ug/L	4.1576 ppb	15:15:40
3	Se 196.026†	-32.8	-0.1	-0.0402 ug/L	-0.0402 ppb	15:15:40
3	Si 251.611†	483.5	3.7	0.1183 ug/L	0.1183 ppb	15:15:40
3	Sn 189.927†	5.8	-0.7	-0.1280 ug/L	-0.1280 ppb	15:15:40
3	Ti 334.940†	-1334.2	146.3	0.2499 ug/L	0.2499 ppb	15:15:20
3	Tl 190.801†	-30.4	15.6	4.9983 ug/L	4.9983 ppb	15:15:40
3	U 409.014†	-1812.5	355.5	11.355 ug/L	11.355 ppb	15:15:20
3	V 292.402†	-1371.4	131.9	0.9802 ug/L	0.9802 ppb	15:15:20
3	Zn 213.857†	815.9	-101.7	-1.0135 ug/L	-1.0135 ppb	15:15:40
3	SiO2†	494.2	3.3	0.2216 ug/L	0.2216 ppb	15:15:56

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	880054.8	108.13	%	0.639				0.59%
Sc Radial	5352.6	112	%	0.6				0.56%
Y 371.029	739159.8	107.76	%	0.577				0.54%
Y RADIAL	5744.5	112.0	%	0.47				0.42%
Ag 328.068†	50.1	0.2382	ug/L	0.12289	0.2382	ppb	0.12289	51.58%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-3.4	-2.7350	ug/L	6.55551	-2.7350	ppb	6.55551	239.69%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-2.3	-1.0242	ug/L	1.57716	-1.0242	ppb	1.57716	153.99%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	150.4	3.6618	ug/L	0.60636	3.6618	ppb	0.60636	16.56%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-3.4	-0.0267	ug/L	0.11051	-0.0267	ppb	0.11051	414.48%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	202.7	0.0813	ug/L	0.02113	0.0813	ppb	0.02113	26.01%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	4.6	7.7329	ug/L	2.06014	7.7329	ppb	2.06014	26.64%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              22.0      0.2611 ug/L       0.03968      0.2611 ppb        0.03968  15.20%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†               5.6      0.1217 ug/L       0.11701      0.1217 ppb        0.11701  96.16%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†             -28.0     -0.3325 ug/L       0.12441     -0.3325 ppb        0.12441  37.42%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -300.2     -0.9638 ug/L       0.22190     -0.9638 ppb        0.22190  23.02%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       -1.5     -14.235 ug/L       20.6296     -14.235 ppb        20.6296 144.93%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†      -325.7     -65.293 ug/L        2.4345     -65.293 ppb         2.4345   3.73%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          -1.2     -42.462 ug/L       25.6345     -42.462 ppb        25.6345  60.37%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†             -19.6     -0.0226 ug/L       0.02498     -0.0226 ppb        0.02498 110.31%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              7.3      0.5411 ug/L       0.33939      0.5411 ppb        0.33939  62.72%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†     346.4      112.23 ug/L         5.476      112.23 ppb          5.476   4.88%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              2.0      0.0516 ug/L       0.06356      0.0516 ppb        0.06356 123.09%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†              -34.4     -21.726 ug/L        2.1317     -21.726 ppb         2.1317   9.81%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -3.0     -0.3832 ug/L       1.24170     -0.3832 ppb        1.24170 324.05%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         -4.5     -6.7732 ug/L       5.69095     -6.7732 ppb        5.69095  84.02%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              8.4      3.0806 ug/L       2.00751      3.0806 ppb        2.00751  65.17%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              3.1      2.0409 ug/L       3.18715      2.0409 ppb        3.18715 156.16%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†              1.8      0.0531 ug/L       0.17273      0.0531 ppb        0.17273 325.44%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†              -1.4     -0.2494 ug/L       0.22351     -0.2494 ppb        0.22351  89.60%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              -6.0     -0.0431 ug/L       0.21922     -0.0431 ppb        0.21922 508.65%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             192.4      0.3310 ug/L       0.09307      0.3310 ppb        0.09307  28.12%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              14.3      4.5806 ug/L       0.48087      4.5806 ppb        0.48087  10.50%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              262.9      8.3995 ug/L       3.56711      8.3995 ppb        3.56711  42.47%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              127.3      0.9432 ug/L       0.04820      0.9432 ppb        0.04820   5.11%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†            -100.8     -1.0026 ug/L       0.03722     -1.0026 ppb        0.03722   3.71%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                     3.4      0.2257 ug/L       1.23948      0.2257 ppb        1.23948 549.25%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 7
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 1/14/2010 15:45:46
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5272.2	5272.2	110	%			15:47:38
1	Y RADIAL	5550.7	5550.7	108.2	%			15:47:38
1	Al 396.153Radial†	6480.8	5892.9	4703.9	ug/L	4703.9	ppb	15:47:38
1	Ca 317.933Radial†	3088.7	2791.8	4701.2	ug/L	4701.2	ppb	15:47:58
1	Fe 238.204 Radial†	576.6	514.1	4847.6	ug/L	4847.6	ppb	15:47:58
1	K 766.490 Radial†	29458.3	23983.9	4798.9	ug/L	4798.9	ppb	15:47:38
1	Mg 279.077 IEC†	155.1	139.4	4894.6	ug/L	4894.6	ppb	15:47:58
1	Na 589.592 Radial†	30855.3	29607.9	9593.1	ug/L	9593.1	ppb	15:47:38
1	Sr 421.552†	75525.1	68619.2	489.08	ug/L	489.08	ppb	15:47:38
1	Sc 361.383	877672.9	877672.9	107.84	%			15:48:55
1	Y 371.029	726579.4	726579.4	105.92	%			15:48:55
1	Ag 328.068†	105009.5	97093.7	480.06	ug/L	480.06	ppb	15:49:00
1	As 188.979†	1149.7	1084.9	492.47	ug/L	492.47	ppb	15:49:20
1	B 249.677†	21211.8	20188.2	489.16	ug/L	489.16	ppb	15:49:00
1	Ba 233.527†	63505.5	58887.2	489.51	ug/L	489.51	ppb	15:49:00
1	Be 313.107†	1320423.8	1228740.6	489.12	ug/L	489.12	ppb	15:48:55
1	Cd 226.502†	44725.9	41671.9	488.32	ug/L	488.32	ppb	15:49:00
1	Co 228.616†	24392.2	22691.6	492.87	ug/L	492.87	ppb	15:49:00
1	Cr 267.716†	44466.6	41138.1	485.92	ug/L	485.92	ppb	15:49:00
1	Cu 324.752†	171314.2	152561.5	486.99	ug/L	486.99	ppb	15:49:00
1	Mn 257.610†	450224.8	417089.0	489.37	ug/L	489.37	ppb	15:48:55
1	Mo 202.031†	7122.9	6585.7	489.30	ug/L	489.30	ppb	15:49:20
1	Ni 231.604†	20086.4	18551.0	488.04	ug/L	488.04	ppb	15:49:00
1	P 214.914†	4344.4	3800.7	2330.8	ug/L	2330.8	ppb	15:49:20
1	Pb 220.353†	4030.2	3801.8	488.53	ug/L	488.53	ppb	15:49:20
1	S 181.975 Axial†	759.1	657.5	980.36	ug/L	980.36	ppb	15:49:20
1	Sb 206.836†	1479.5	1339.2	507.23	ug/L	507.23	ppb	15:49:20
1	Se 196.026†	777.3	751.1	519.93	ug/L	519.93	ppb	15:49:20
1	Si 251.611†	79738.0	73495.1	2472.0	ug/L	2472.0	ppb	15:49:00
1	Sn 189.927†	2876.7	2661.5	493.00	ug/L	493.00	ppb	15:49:20
1	Ti 334.940†	304335.3	283597.0	486.36	ug/L	486.36	ppb	15:49:00
1	Tl 190.801†	1613.6	1540.2	495.98	ug/L	495.98	ppb	15:49:20
1	U 409.014†	15059.4	16005.5	509.54	ug/L	509.54	ppb	15:49:00
1	V 292.402†	71363.9	67582.9	494.12	ug/L	494.12	ppb	15:49:00
1	Zn 213.857†	54149.8	49352.8	487.97	ug/L	487.97	ppb	15:49:00
1	SiO2†	78960.5	72763.9	5203.3	ug/L	5203.3	ppb	15:50:28
2	Sc Radial	5184.5	5184.5	108	%			15:48:03
2	Y RADIAL	5528.7	5528.7	107.8	%			15:48:03
2	Al 396.153Radial†	6290.1	5816.4	4642.7	ug/L	4642.7	ppb	15:48:03
2	Ca 317.933Radial†	3112.1	2860.9	4817.7	ug/L	4817.7	ppb	15:48:23
2	Fe 238.204 Radial†	575.8	522.2	4924.0	ug/L	4924.0	ppb	15:48:23
2	K 766.490 Radial†	28705.0	23740.6	4750.2	ug/L	4750.2	ppb	15:48:03
2	Mg 279.077 IEC†	156.8	143.4	5033.6	ug/L	5033.6	ppb	15:48:23
2	Na 589.592 Radial†	29979.7	29273.0	9484.6	ug/L	9484.6	ppb	15:48:03
2	Sr 421.552†	73397.4	67813.7	483.33	ug/L	483.33	ppb	15:48:03
2	Sc 361.383	876326.5	876326.5	107.67	%			15:49:26
2	Y 371.029	726682.4	726682.4	105.94	%			15:49:26
2	Ag 328.068†	104067.0	96367.9	476.52	ug/L	476.52	ppb	15:49:31
2	As 188.979†	1127.9	1066.4	484.10	ug/L	484.10	ppb	15:49:51
2	B 249.677†	21078.3	20094.5	486.87	ug/L	486.87	ppb	15:49:31
2	Ba 233.527†	63232.7	58724.3	488.15	ug/L	488.15	ppb	15:49:31
2	Be 313.107†	1322048.1	1232130.4	490.46	ug/L	490.46	ppb	15:49:26
2	Cd 226.502†	44766.4	41773.2	489.50	ug/L	489.50	ppb	15:49:31
2	Co 228.616†	24254.1	22598.0	490.83	ug/L	490.83	ppb	15:49:31
2	Cr 267.716†	44305.7	41052.0	484.90	ug/L	484.90	ppb	15:49:31
2	Cu 324.752†	169384.0	151012.9	482.06	ug/L	482.06	ppb	15:49:31
2	Mn 257.610†	448400.1	416035.7	488.14	ug/L	488.14	ppb	15:49:26
2	Mo 202.031†	7067.8	6544.7	486.26	ug/L	486.26	ppb	15:49:51
2	Ni 231.604†	20032.7	18529.7	487.49	ug/L	487.49	ppb	15:49:31

2	P 214.914†	4312.8	3777.6	2316.9 ug/L	2316.9 ppb	15:49:51
2	Pb 220.353†	4004.6	3783.8	486.20 ug/L	486.20 ppb	15:49:51
2	S 181.975 Axial†	749.3	649.4	968.33 ug/L	968.33 ppb	15:49:51
2	Sb 206.836†	1470.6	1333.1	504.85 ug/L	504.85 ppb	15:49:51
2	Se 196.026†	775.6	750.7	519.84 ug/L	519.84 ppb	15:49:51
2	Si 251.611†	79033.3	72954.3	2453.8 ug/L	2453.8 ppb	15:49:31
2	Sn 189.927†	2843.7	2634.8	488.09 ug/L	488.09 ppb	15:49:51
2	Ti 334.940†	301938.5	281804.6	483.29 ug/L	483.29 ppb	15:49:31
2	Tl 190.801†	1586.9	1517.7	488.77 ug/L	488.77 ppb	15:49:51
2	U 409.014†	14835.5	15819.0	503.57 ug/L	503.57 ppb	15:49:31
2	V 292.402†	70966.2	67315.2	492.13 ug/L	492.13 ppb	15:49:31
2	Zn 213.857†	53937.1	49232.4	486.77 ug/L	486.77 ppb	15:49:31
2	SiO2†	79254.7	73149.5	5231.0 ug/L	5231.0 ppb	15:50:33
3	Sc Radial	5184.0	5184.0	108 %		15:48:28
3	Y RADIAL	5521.1	5521.1	107.6 %		15:48:28
3	Al 396.153Radial†	6410.0	5927.6	4732.0 ug/L	4732.0 ppb	15:48:28
3	Ca 317.933Radial†	3121.6	2870.0	4832.9 ug/L	4832.9 ppb	15:48:48
3	Fe 238.204 Radial†	579.8	526.0	4959.7 ug/L	4959.7 ppb	15:48:48
3	K 766.490 Radial†	29139.4	24144.3	4831.0 ug/L	4831.0 ppb	15:48:28
3	Mg 279.077 IEC†	158.8	145.3	5100.2 ug/L	5100.2 ppb	15:48:48
3	Na 589.592 Radial†	30320.3	29590.1	9587.4 ug/L	9587.4 ppb	15:48:28
3	Sr 421.552†	74504.0	68842.2	490.66 ug/L	490.66 ppb	15:48:28
3	Sc 361.383	876646.0	876646.0	107.71 %		15:49:57
3	Y 371.029	727449.0	727449.0	106.05 %		15:49:57
3	Ag 328.068†	105114.4	97305.1	481.14 ug/L	481.14 ppb	15:50:02
3	As 188.979†	1126.9	1065.1	483.57 ug/L	483.57 ppb	15:50:22
3	B 249.677†	21397.1	20383.3	493.88 ug/L	493.88 ppb	15:50:02
3	Ba 233.527†	63848.6	59274.6	492.73 ug/L	492.73 ppb	15:50:02
3	Be 313.107†	1317962.7	1227890.0	488.79 ug/L	488.79 ppb	15:49:57
3	Cd 226.502†	45198.9	42159.6	494.03 ug/L	494.03 ppb	15:50:02
3	Co 228.616†	24546.4	22861.3	496.54 ug/L	496.54 ppb	15:50:02
3	Cr 267.716†	44734.9	41435.6	489.43 ug/L	489.43 ppb	15:50:02
3	Cu 324.752†	171681.8	153088.8	488.68 ug/L	488.68 ppb	15:50:02
3	Mn 257.610†	447503.0	415051.1	486.99 ug/L	486.99 ppb	15:49:57
3	Mo 202.031†	7063.8	6538.6	485.81 ug/L	485.81 ppb	15:50:22
3	Ni 231.604†	20267.2	18740.7	493.04 ug/L	493.04 ppb	15:50:02
3	P 214.914†	4311.8	3775.1	2314.0 ug/L	2314.0 ppb	15:50:22
3	Pb 220.353†	3999.8	3778.0	485.47 ug/L	485.47 ppb	15:50:22
3	S 181.975 Axial†	756.8	656.1	978.34 ug/L	978.34 ppb	15:50:22
3	Sb 206.836†	1465.0	1327.4	502.76 ug/L	502.76 ppb	15:50:22
3	Se 196.026†	769.3	744.6	515.89 ug/L	515.89 ppb	15:50:22
3	Si 251.611†	80033.1	73855.7	2484.2 ug/L	2484.2 ppb	15:50:02
3	Sn 189.927†	2845.2	2635.4	488.19 ug/L	488.19 ppb	15:50:22
3	Ti 334.940†	305155.5	284689.1	488.23 ug/L	488.23 ppb	15:50:02
3	Tl 190.801†	1601.7	1530.9	492.98 ug/L	492.98 ppb	15:50:22
3	U 409.014†	15148.3	16104.5	512.68 ug/L	512.68 ppb	15:50:02
3	V 292.402†	71614.7	67893.2	496.30 ug/L	496.30 ppb	15:50:02
3	Zn 213.857†	54416.7	49659.3	490.98 ug/L	490.98 ppb	15:50:02
3	SiO2†	78801.3	72701.8	5198.9 ug/L	5198.9 ppb	15:50:38

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	876881.8	107.74	%	0.086				0.08%
Sc Radial	5213.6	109	%	1.1				0.97%
Y 371.029	726903.6	105.97	%	0.069				0.07%
Y RADIAL	5533.5	107.9	%	0.30				0.28%
Ag 328.068†	96922.2	479.24	ug/L	2.419	479.24	ppb	2.419	0.50%
QC value within limits for Ag 328.068 Recovery = 95.85%								
Al 396.153Radial†	5879.0	4692.9	ug/L	45.67	4692.9	ppb	45.67	0.97%
QC value within limits for Al 396.153Radial Recovery = 93.86%								
As 188.979†	1072.1	486.71	ug/L	4.988	486.71	ppb	4.988	1.02%
QC value within limits for As 188.979 Recovery = 97.34%								
B 249.677†	20222.0	489.97	ug/L	3.574	489.97	ppb	3.574	0.73%
QC value within limits for B 249.677 Recovery = 97.99%								
Ba 233.527†	58962.0	490.13	ug/L	2.350	490.13	ppb	2.350	0.48%
QC value within limits for Ba 233.527 Recovery = 98.03%								
Be 313.107†	1229587.0	489.46	ug/L	0.885	489.46	ppb	0.885	0.18%
QC value within limits for Be 313.107 Recovery = 97.89%								
Ca 317.933Radial†	2840.9	4783.9	ug/L	72.03	4783.9	ppb	72.03	1.51%

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   QC value within limits for Ca 317.933Radial  Recovery = 95.68%
Cd 226.502†            41868.2      490.62 ug/L         3.014      490.62 ppb          3.014   0.61%
   QC value within limits for Cd 226.502  Recovery = 98.12%
Co 228.616†            22717.0      493.41 ug/L         2.891      493.41 ppb          2.891   0.59%
   QC value within limits for Co 228.616  Recovery = 98.68%
Cr 267.716†            41208.6      486.75 ug/L         2.376      486.75 ppb          2.376   0.49%
   QC value within limits for Cr 267.716  Recovery = 97.35%
Cu 324.752†           152221.1      485.91 ug/L         3.442      485.91 ppb          3.442   0.71%
   QC value within limits for Cu 324.752  Recovery = 97.18%
Fe 238.204 Radial†       520.8      4910.4 ug/L        57.28      4910.4 ppb         57.28   1.17%
   QC value within limits for Fe 238.204 Radial  Recovery = 98.21%
K 766.490 Radial†      23956.3      4793.4 ug/L        40.71      4793.4 ppb         40.71   0.85%
   QC value within limits for K 766.490 Radial  Recovery = 95.87%
Mg 279.077 IEC†          142.7      5009.5 ug/L       104.86      5009.5 ppb        104.86   2.09%
   QC value within limits for Mg 279.077 IEC  Recovery = 100.19%
Mn 257.610†           416058.6      488.17 ug/L         1.194      488.17 ppb          1.194   0.24%
   QC value within limits for Mn 257.610  Recovery = 97.63%
Mo 202.031†             6556.4      487.12 ug/L         1.897      487.12 ppb          1.897   0.39%
   QC value within limits for Mo 202.031  Recovery = 97.42%
Na 589.592 Radial†     29490.3      9555.0 ug/L        61.04      9555.0 ppb         61.04   0.64%
   QC value within limits for Na 589.592 Radial  Recovery = 95.55%
Ni 231.604†            18607.1      489.52 ug/L         3.056      489.52 ppb          3.056   0.62%
   QC value within limits for Ni 231.604  Recovery = 97.90%
P 214.914†              3784.5      2320.6 ug/L         8.99      2320.6 ppb          8.99   0.39%
   QC value within limits for P 214.914  Recovery = 92.82%
Pb 220.353†             3787.8      486.73 ug/L         1.598      486.73 ppb          1.598   0.33%
   QC value within limits for Pb 220.353  Recovery = 97.35%
S 181.975 Axial†         654.4      975.68 ug/L         6.440      975.68 ppb          6.440   0.66%
   QC value within limits for S 181.975 Axial  Recovery = 97.57%
Sb 206.836†             1333.2      504.95 ug/L         2.237      504.95 ppb          2.237   0.44%
   QC value within limits for Sb 206.836  Recovery = 100.99%
Se 196.026†              748.8      518.56 ug/L         2.306      518.56 ppb          2.306   0.44%
   QC value within limits for Se 196.026  Recovery = 103.71%
Si 251.611†            73435.0      2470.0 ug/L        15.30      2470.0 ppb         15.30   0.62%
   QC value within limits for Si 251.611  Recovery = 98.80%
Sn 189.927†             2643.9      489.76 ug/L         2.803      489.76 ppb          2.803   0.57%
   QC value within limits for Sn 189.927  Recovery = 97.95%
Sr 421.552†            68425.1      487.69 ug/L         3.857      487.69 ppb          3.857   0.79%
   QC value within limits for Sr 421.552  Recovery = 97.54%
Ti 334.940†           283363.6      485.96 ug/L         2.494      485.96 ppb          2.494   0.51%
   QC value within limits for Ti 334.940  Recovery = 97.19%
Tl 190.801†             1529.6      492.58 ug/L         3.623      492.58 ppb          3.623   0.74%
   QC value within limits for Tl 190.801  Recovery = 98.52%
U 409.014†             15976.3      508.60 ug/L         4.623      508.60 ppb          4.623   0.91%
   QC value within limits for U 409.014  Recovery = 101.72%
V 292.402†             67597.1      494.19 ug/L         2.086      494.19 ppb          2.086   0.42%
   QC value within limits for V 292.402  Recovery = 98.84%
Zn 213.857†            49414.8      488.58 ug/L         2.169      488.58 ppb          2.169   0.44%
   QC value within limits for Zn 213.857  Recovery = 97.72%
SiO2†                  72871.7      5211.1 ug/L        17.40      5211.1 ppb         17.40   0.33%
   QC value within limits for SiO2  Recovery = 97.45%
All analyte(s) passed QC.
```

Sequence No.: 8
Sample ID: PQL
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 11
Date Collected: 1/14/2010 15:52:47
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: PQL

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	5145.5	5145.5	107	%			15:54:40
1	Y RADIAL	5509.8	5509.8	107.4	%			15:54:40
1	Al 396.153Radial†	247.8	233.9	187.24	ug/L	187.24	ppb	15:54:40
1	Ca 317.933Radial†	141.2	116.3	195.84	ug/L	195.84	ppb	15:55:01
1	Fe 238.204 Radial†	21.1	9.7	91.581	ug/L	91.581	ppb	15:55:01
1	K 766.490 Radial†	3478.4	451.6	90.232	ug/L	90.232	ppb	15:54:40
1	Mg 279.077 IEC†	13.2	10.8	379.23	ug/L	379.23	ppb	15:55:01
1	Na 589.592 Radial†	-342.4	1248.1	404.39	ug/L	404.39	ppb	15:54:40
1	Sr 421.552†	740.4	672.3	4.7903	ug/L	4.7903	ppb	15:54:40
1	Sc 361.383	860600.3	860600.3	105.74	%			15:55:57
1	Y 371.029	723958.9	723958.9	105.54	%			15:55:57
1	Ag 328.068†	1422.6	1063.8	5.2241	ug/L	5.2241	ppb	15:55:57
1	As 188.979†	53.5	69.4	31.286	ug/L	31.286	ppb	15:56:17
1	B 249.677†	1662.1	2090.4	50.849	ug/L	50.849	ppb	15:55:57
1	Ba 233.527†	636.6	600.6	4.9943	ug/L	4.9943	ppb	15:56:17
1	Be 313.107†	8564.5	12411.6	4.9413	ug/L	4.9413	ppb	15:55:57
1	Cd 226.502†	251.3	435.2	5.1069	ug/L	5.1069	ppb	15:56:17
1	Co 228.616†	153.8	218.2	4.7480	ug/L	4.7480	ppb	15:56:17
1	Cr 267.716†	484.5	362.5	4.2614	ug/L	4.2614	ppb	15:56:17
1	Cu 324.752†	9710.8	2885.4	9.1817	ug/L	9.1817	ppb	15:55:57
1	Mn 257.610†	9589.7	8664.6	10.154	ug/L	10.154	ppb	15:55:57
1	Mo 202.031†	151.9	124.3	9.2359	ug/L	9.2359	ppb	15:56:17
1	Ni 231.604†	272.1	182.2	4.7922	ug/L	4.7922	ppb	15:56:17
1	P 214.914†	459.9	207.0	130.36	ug/L	130.36	ppb	15:56:17
1	Pb 220.353†	39.6	102.0	13.115	ug/L	13.115	ppb	15:56:17
1	S 181.975 Axial†	114.8	62.1	92.662	ug/L	92.662	ppb	15:56:17
1	Sb 206.836†	67.6	31.2	11.722	ug/L	11.722	ppb	15:56:17
1	Se 196.026†	22.2	51.4	34.683	ug/L	34.683	ppb	15:56:17
1	Si 251.611†	3449.4	2816.2	94.840	ug/L	94.840	ppb	15:56:17
1	Sn 189.927†	61.6	52.1	9.6680	ug/L	9.6680	ppb	15:56:17
1	Ti 334.940†	1733.9	3026.8	5.1592	ug/L	5.1592	ppb	15:55:57
1	Tl 190.801†	27.6	70.0	22.462	ug/L	22.462	ppb	15:56:17
1	U 409.014†	-108.2	1938.7	61.896	ug/L	61.896	ppb	15:55:57
1	V 292.402†	-708.5	737.1	5.5532	ug/L	5.5532	ppb	15:55:57
1	Zn 213.857†	1722.3	768.4	7.6115	ug/L	7.6115	ppb	15:56:17
1	SiO2†	3581.7	2931.0	209.88	ug/L	209.88	ppb	15:57:14
2	Sc Radial	5275.4	5275.4	110	%			15:55:06
2	Y RADIAL	5650.5	5650.5	110.2	%			15:55:06
2	Al 396.153Radial†	260.8	240.1	192.14	ug/L	192.14	ppb	15:55:06
2	Ca 317.933Radial†	145.2	116.7	196.53	ug/L	196.53	ppb	15:55:26
2	Fe 238.204 Radial†	21.7	9.9	92.939	ug/L	92.939	ppb	15:55:26
2	K 766.490 Radial†	3509.6	400.1	79.917	ug/L	79.917	ppb	15:55:06
2	Mg 279.077 IEC†	11.1	8.6	302.17	ug/L	302.17	ppb	15:55:26
2	Na 589.592 Radial†	-389.6	1213.1	393.04	ug/L	393.04	ppb	15:55:06
2	Sr 421.552†	743.9	658.4	4.6916	ug/L	4.6916	ppb	15:55:06
2	Sc 361.383	884317.2	884317.2	108.66	%			15:56:23
2	Y 371.029	743753.6	743753.6	108.43	%			15:56:23
2	Ag 328.068†	1414.1	1019.9	5.0117	ug/L	5.0117	ppb	15:56:23
2	As 188.979†	39.0	54.7	24.674	ug/L	24.674	ppb	15:56:43
2	B 249.677†	1706.2	2088.8	50.810	ug/L	50.810	ppb	15:56:23
2	Ba 233.527†	631.2	579.5	4.8210	ug/L	4.8210	ppb	15:56:43
2	Be 313.107†	8669.1	12290.7	4.8934	ug/L	4.8934	ppb	15:56:23
2	Cd 226.502†	251.3	428.9	5.0321	ug/L	5.0321	ppb	15:56:43
2	Co 228.616†	157.7	217.9	4.7429	ug/L	4.7429	ppb	15:56:43
2	Cr 267.716†	498.2	362.8	4.2660	ug/L	4.2660	ppb	15:56:43
2	Cu 324.752†	9844.5	2762.1	8.7882	ug/L	8.7882	ppb	15:56:23
2	Mn 257.610†	9742.3	8561.9	10.037	ug/L	10.037	ppb	15:56:23
2	Mo 202.031†	168.8	136.0	10.106	ug/L	10.106	ppb	15:56:43
2	Ni 231.604†	285.8	187.9	4.9424	ug/L	4.9424	ppb	15:56:43

2	P 214.914†	450.8	187.0	117.66 ug/L	117.66 ppb	15:56:43
2	Pb 220.353†	20.4	83.4	10.735 ug/L	10.735 ppb	15:56:43
2	S 181.975 Axial†	113.9	58.4	87.087 ug/L	87.087 ppb	15:56:43
2	Sb 206.836†	66.6	28.5	10.774 ug/L	10.774 ppb	15:56:43
2	Se 196.026†	27.7	55.9	37.705 ug/L	37.705 ppb	15:56:43
2	Si 251.611†	3419.1	2700.9	90.940 ug/L	90.940 ppb	15:56:43
2	Sn 189.927†	57.3	46.6	8.6452 ug/L	8.6452 ppb	15:56:43
2	Ti 334.940†	1799.2	3042.9	5.1932 ug/L	5.1932 ppb	15:56:23
2	Tl 190.801†	32.6	73.9	23.695 ug/L	23.695 ppb	15:56:43
2	U 409.014†	-110.3	1939.5	61.921 ug/L	61.921 ppb	15:56:23
2	V 292.402†	-619.7	836.8	6.2833 ug/L	6.2833 ppb	15:56:23
2	Zn 213.857†	1688.9	694.0	6.8691 ug/L	6.8691 ppb	15:56:43
2	SiO2†	3529.5	2792.1	199.90 ug/L	199.90 ppb	15:57:19
3	Sc Radial	5273.9	5273.9	110 %		15:55:31
3	Y RADIAL	5677.7	5677.7	110.7 %		15:55:31
3	Al 396.153Radial†	258.3	238.0	190.39 ug/L	190.39 ppb	15:55:31
3	Ca 317.933Radial†	145.3	116.8	196.75 ug/L	196.75 ppb	15:55:51
3	Fe 238.204 Radial†	23.8	11.7	110.56 ug/L	110.56 ppb	15:55:51
3	K 766.490 Radial†	3552.8	440.3	87.971 ug/L	87.971 ppb	15:55:31
3	Mg 279.077 IEC†	11.9	9.3	326.13 ug/L	326.13 ppb	15:55:51
3	Na 589.592 Radial†	-343.9	1254.5	406.48 ug/L	406.48 ppb	15:55:31
3	Sr 421.552†	753.8	667.6	4.7568 ug/L	4.7568 ppb	15:55:31
3	Sc 361.383	869022.1	869022.1	106.78 %		15:56:48
3	Y 371.029	731616.2	731616.2	106.66 %		15:56:48
3	Ag 328.068†	1414.6	1043.2	5.1289 ug/L	5.1289 ppb	15:56:48
3	As 188.979†	52.2	67.8	30.552 ug/L	30.552 ppb	15:57:08
3	B 249.677†	1655.0	2068.5	50.312 ug/L	50.312 ppb	15:56:48
3	Ba 233.527†	615.4	574.9	4.7826 ug/L	4.7826 ppb	15:57:08
3	Be 313.107†	8597.2	12363.8	4.9225 ug/L	4.9225 ppb	15:56:48
3	Cd 226.502†	249.2	431.0	5.0551 ug/L	5.0551 ppb	15:57:08
3	Co 228.616†	160.8	223.3	4.8603 ug/L	4.8603 ppb	15:57:08
3	Cr 267.716†	525.9	396.8	4.6661 ug/L	4.6661 ppb	15:57:08
3	Cu 324.752†	9786.0	2866.8	9.1219 ug/L	9.1219 ppb	15:56:48
3	Mn 257.610†	9672.0	8653.8	10.145 ug/L	10.145 ppb	15:56:48
3	Mo 202.031†	170.9	140.8	10.461 ug/L	10.461 ppb	15:57:08
3	Ni 231.604†	277.7	185.0	4.8664 ug/L	4.8664 ppb	15:57:08
3	P 214.914†	459.9	202.8	127.68 ug/L	127.68 ppb	15:57:08
3	Pb 220.353†	18.9	82.3	10.591 ug/L	10.591 ppb	15:57:08
3	S 181.975 Axial†	114.8	61.1	91.099 ug/L	91.099 ppb	15:57:08
3	Sb 206.836†	70.8	33.6	12.627 ug/L	12.627 ppb	15:57:08
3	Se 196.026†	25.8	54.5	36.875 ug/L	36.875 ppb	15:57:08
3	Si 251.611†	3448.5	2783.8	93.731 ug/L	93.731 ppb	15:57:08
3	Sn 189.927†	61.6	51.5	9.5605 ug/L	9.5605 ppb	15:57:08
3	Ti 334.940†	1808.1	3080.4	5.2544 ug/L	5.2544 ppb	15:56:48
3	Tl 190.801†	38.5	80.0	25.636 ug/L	25.636 ppb	15:57:08
3	U 409.014†	-30.4	2012.5	64.252 ug/L	64.252 ppb	15:56:48
3	V 292.402†	-658.9	790.1	5.9533 ug/L	5.9533 ppb	15:56:48
3	Zn 213.857†	1719.7	750.2	7.4283 ug/L	7.4283 ppb	15:57:08
3	SiO2†	3550.8	2869.2	205.41 ug/L	205.41 ppb	15:57:24

Mean Data: PQL

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	871313.2	107.06	%	1.477				1.38%
Sc Radial	5231.6	109	%	1.6				1.43%
Y 371.029	733109.5	106.87	%	1.455				1.36%
Y RADIAL	5612.7	109.4	%	1.76				1.61%
Ag 328.068†	1042.3	5.1216	ug/L	0.10639	5.1216	ppb	0.10639	2.08%
QC value within limits for Ag 328.068 Recovery = 102.43%								
Al 396.153Radial†	237.3	189.92	ug/L	2.483	189.92	ppb	2.483	1.31%
QC value within limits for Al 396.153Radial Recovery = 94.96%								
As 188.979†	64.0	28.837	ug/L	3.6241	28.837	ppb	3.6241	12.57%
QC value within limits for As 188.979 Recovery = 96.12%								
B 249.677†	2082.6	50.657	ug/L	0.2992	50.657	ppb	0.2992	0.59%
QC value within limits for B 249.677 Recovery = 101.31%								
Ba 233.527†	585.0	4.8660	ug/L	0.11280	4.8660	ppb	0.11280	2.32%
QC value within limits for Ba 233.527 Recovery = 97.32%								
Be 313.107†	12355.4	4.9191	ug/L	0.02416	4.9191	ppb	0.02416	0.49%
QC value within limits for Be 313.107 Recovery = 98.38%								
Ca 317.933Radial†	116.6	196.37	ug/L	0.478	196.37	ppb	0.478	0.24%

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   QC value within limits for Ca 317.933Radial  Recovery = 98.19%
Cd 226.502†              431.7      5.0647 ug/L       0.03832      5.0647 ppb        0.03832   0.76%
   QC value within limits for Cd 226.502  Recovery = 101.29%
Co 228.616†              219.8      4.7837 ug/L       0.06633      4.7837 ppb        0.06633   1.39%
   QC value within limits for Co 228.616  Recovery = 95.67%
Cr 267.716†              374.0      4.3978 ug/L       0.23233      4.3978 ppb        0.23233   5.28%
   QC value within limits for Cr 267.716  Recovery = 87.96%
Cu 324.752†             2838.1      9.0306 ug/L       0.21204      9.0306 ppb        0.21204   2.35%
   QC value within limits for Cu 324.752  Recovery = 90.31%
Fe 238.204 Radial†        10.4      98.361 ug/L       10.5880      98.361 ppb        10.5880  10.76%
   QC value within limits for Fe 238.204 Radial  Recovery = 98.36%
K 766.490 Radial†        430.7      86.040 ug/L        5.4214      86.040 ppb         5.4214   6.30%
   QC value less than the lower limit for K 766.490 Radial  Recovery = 57.36%
Mg 279.077 IEC†            9.6      335.84 ug/L        39.435      335.84 ppb         39.435  11.74%
   QC value within limits for Mg 279.077 IEC  Recovery = 111.95%
Mn 257.610†             8626.8      10.112 ug/L        0.0653      10.112 ppb         0.0653   0.65%
   QC value within limits for Mn 257.610  Recovery = 101.12%
Mo 202.031†              133.7      9.9345 ug/L       0.63052      9.9345 ppb        0.63052   6.35%
   QC value within limits for Mo 202.031  Recovery = 99.34%
Na 589.592 Radial†      1238.6      401.30 ug/L         7.231      401.30 ppb          7.231   1.80%
   QC value greater than the upper limit for Na 589.592 Radial  Recovery = 133.77%
Ni 231.604†              185.0      4.8670 ug/L       0.07506      4.8670 ppb        0.07506   1.54%
   QC value within limits for Ni 231.604  Recovery = 97.34%
P 214.914†               199.0      125.24 ug/L         6.692      125.24 ppb          6.692   5.34%
   QC value within limits for P 214.914  Recovery = 83.49%
Pb 220.353†               89.2      11.480 ug/L        1.4178      11.480 ppb         1.4178  12.35%
   QC value within limits for Pb 220.353  Recovery = 114.80%
S 181.975 Axial†          60.5      90.283 ug/L        2.8758      90.283 ppb         2.8758   3.19%
   QC value within limits for S 181.975 Axial  Recovery = 90.28%
Sb 206.836†               31.1      11.708 ug/L        0.9266      11.708 ppb         0.9266   7.91%
   QC value within limits for Sb 206.836  Recovery = 117.08%
Se 196.026†               53.9      36.421 ug/L        1.5614      36.421 ppb         1.5614   4.29%
   QC value within limits for Se 196.026  Recovery = 121.40%
Si 251.611†             2767.0      93.170 ug/L        2.0097      93.170 ppb         2.0097   2.16%
   QC value within limits for Si 251.611  Recovery = 93.17%
Sn 189.927†               50.1      9.2912 ug/L       0.56207      9.2912 ppb        0.56207   6.05%
   QC value within limits for Sn 189.927  Recovery = 92.91%
Sr 421.552†              666.1      4.7462 ug/L       0.05021      4.7462 ppb        0.05021   1.06%
   QC value within limits for Sr 421.552  Recovery = 94.92%
Ti 334.940†             3050.0      5.2023 ug/L       0.04826      5.2023 ppb        0.04826   0.93%
   QC value within limits for Ti 334.940  Recovery = 104.05%
Tl 190.801†               74.6      23.931 ug/L        1.6002      23.931 ppb         1.6002   6.69%
   QC value within limits for Tl 190.801  Recovery = 119.66%
U 409.014†              1963.6      62.690 ug/L        1.3527      62.690 ppb         1.3527   2.16%
   QC value within limits for U 409.014  Recovery = 125.38%
V 292.402†               788.0      5.9300 ug/L       0.36561      5.9300 ppb        0.36561   6.17%
   QC value within limits for V 292.402  Recovery = 118.60%
Zn 213.857†              737.5      7.3030 ug/L       0.38678      7.3030 ppb        0.38678   5.30%
   QC value within limits for Zn 213.857  Recovery = 73.03%
SiO2†                   2864.1      205.06 ug/L         4.999      205.06 ppb          4.999   2.44%
   QC value within limits for SiO2  Recovery = 96.27%
QC Failed.  Continue with analysis.
```

Sequence No.: 9
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 1/14/2010 15:59:35
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4659.4	4659.4	97.2	%			16:01:27
1	Y RADIAL	5007.5	5007.5	97.62	%			16:01:27
1	Al 396.153Radial†	-10.2	-7.2	-5.8051	ug/L	-5.8051	ppb	16:01:27
1	Ca 317.933Radial†	18.9	4.3	7.2543	ug/L	7.2543	ppb	16:01:47
1	Fe 238.204 Radial†	8.0	-1.7	-15.719	ug/L	-15.719	ppb	16:01:47
1	K 766.490 Radial†	2779.1	70.3	14.065	ug/L	14.065	ppb	16:01:27
1	Mg 279.077 IEC†	0.7	-0.8	-29.417	ug/L	-29.417	ppb	16:01:47
1	Na 589.592 Radial†	-1362.2	166.1	53.833	ug/L	53.833	ppb	16:01:27
1	Sr 421.552†	11.4	-5.5	-0.0392	ug/L	-0.0392	ppb	16:01:27
1	Sc 361.383	866021.4	866021.4	106.41	%			16:02:44
1	Y 371.029	728495.4	728495.4	106.20	%			16:02:44
1	Ag 328.068†	339.5	37.5	0.1786	ug/L	0.1786	ppb	16:02:44
1	As 188.979†	-20.8	-0.7	-0.2960	ug/L	-0.2960	ppb	16:03:04
1	B 249.677†	-450.9	94.8	2.3095	ug/L	2.3095	ppb	16:03:04
1	Ba 233.527†	5.6	3.8	0.0326	ug/L	0.0326	ppb	16:03:04
1	Be 313.107†	-4421.1	157.4	0.0632	ug/L	0.0632	ppb	16:02:44
1	Cd 226.502†	-169.1	38.6	0.4554	ug/L	0.4554	ppb	16:03:04
1	Co 228.616†	-71.8	5.2	0.1147	ug/L	0.1147	ppb	16:03:04
1	Cr 267.716†	67.2	-32.6	-0.3853	ug/L	-0.3853	ppb	16:03:04
1	Cu 324.752†	6477.5	-210.7	-0.6758	ug/L	-0.6758	ppb	16:02:44
1	Mn 257.610†	415.1	-14.2	-0.0170	ug/L	-0.0170	ppb	16:03:04
1	Mo 202.031†	26.2	5.3	0.3956	ug/L	0.3956	ppb	16:03:04
1	Ni 231.604†	91.0	10.4	0.2745	ug/L	0.2745	ppb	16:03:04
1	P 214.914†	227.7	-13.9	-8.7010	ug/L	-8.7010	ppb	16:03:04
1	Pb 220.353†	-69.8	-1.0	-0.1272	ug/L	-0.1272	ppb	16:03:04
1	S 181.975 Axial†	45.0	-4.2	-6.2508	ug/L	-6.2508	ppb	16:03:04
1	Sb 206.836†	38.6	3.6	1.3250	ug/L	1.3250	ppb	16:03:04
1	Se 196.026†	-27.4	4.7	3.0652	ug/L	3.0652	ppb	16:03:04
1	Si 251.611†	475.4	0.9	0.0257	ug/L	0.0257	ppb	16:03:04
1	Sn 189.927†	10.4	3.6	0.6747	ug/L	0.6747	ppb	16:03:04
1	Ti 334.940†	-1301.9	163.5	0.2821	ug/L	0.2821	ppb	16:02:44
1	Tl 190.801†	-36.6	9.5	3.0463	ug/L	3.0463	ppb	16:03:04
1	U 409.014†	-2023.1	139.7	4.4642	ug/L	4.4642	ppb	16:02:44
1	V 292.402†	-1377.0	113.1	0.8317	ug/L	0.8317	ppb	16:02:44
1	Zn 213.857†	767.1	-139.4	-1.3898	ug/L	-1.3898	ppb	16:03:04
1	SiO2†	472.9	-11.8	-0.8576	ug/L	-0.8576	ppb	16:04:00
2	Sc Radial	5392.2	5392.2	113	%			16:01:52
2	Y RADIAL	5770.9	5770.9	112.5	%			16:01:52
2	Al 396.153Radial†	-1.0	2.3	1.8315	ug/L	1.8315	ppb	16:01:52
2	Ca 317.933Radial†	21.4	3.8	6.4600	ug/L	6.4600	ppb	16:02:12
2	Fe 238.204 Radial†	8.7	-2.1	-20.074	ug/L	-20.074	ppb	16:02:12
2	K 766.490 Radial†	2800.6	-298.9	-59.923	ug/L	-59.923	ppb	16:01:52
2	Mg 279.077 IEC†	1.8	0.1	2.9598	ug/L	2.9598	ppb	16:02:12
2	Na 589.592 Radial†	-1400.6	322.4	104.46	ug/L	104.46	ppb	16:01:52
2	Sr 421.552†	28.1	7.8	0.0552	ug/L	0.0552	ppb	16:01:52
2	Sc 361.383	861825.1	861825.1	105.89	%			16:03:09
2	Y 371.029	726215.3	726215.3	105.87	%			16:03:09
2	Ag 328.068†	319.1	19.8	0.0856	ug/L	0.0856	ppb	16:03:09
2	As 188.979†	-23.7	-3.6	-1.6058	ug/L	-1.6058	ppb	16:03:29
2	B 249.677†	-462.9	81.3	1.9827	ug/L	1.9827	ppb	16:03:29
2	Ba 233.527†	-16.6	-17.2	-0.1409	ug/L	-0.1409	ppb	16:03:29
2	Be 313.107†	-4400.2	156.9	0.0631	ug/L	0.0631	ppb	16:03:09
2	Cd 226.502†	-179.0	28.5	0.3387	ug/L	0.3387	ppb	16:03:29
2	Co 228.616†	-68.8	7.7	0.1694	ug/L	0.1694	ppb	16:03:29
2	Cr 267.716†	76.2	-23.8	-0.2841	ug/L	-0.2841	ppb	16:03:29
2	Cu 324.752†	6433.2	-222.9	-0.7188	ug/L	-0.7188	ppb	16:03:09
2	Mn 257.610†	418.4	-9.1	-0.0128	ug/L	-0.0128	ppb	16:03:29
2	Mo 202.031†	29.6	8.6	0.6392	ug/L	0.6392	ppb	16:03:29
2	Ni 231.604†	81.4	1.8	0.0462	ug/L	0.0462	ppb	16:03:29

2	P 214.914†	214.8	-25.0	-15.847 ug/L	-15.847 ppb	16:03:29
2	Pb 220.353†	-51.3	16.2	2.0754 ug/L	2.0754 ppb	16:03:29
2	S 181.975 Axial†	48.0	-1.2	-1.7421 ug/L	-1.7421 ppb	16:03:29
2	Sb 206.836†	31.6	-2.9	-1.0694 ug/L	-1.0694 ppb	16:03:29
2	Se 196.026†	-28.7	3.2	2.0994 ug/L	2.0994 ppb	16:03:29
2	Si 251.611†	479.3	6.7	0.2194 ug/L	0.2194 ppb	16:03:29
2	Sn 189.927†	-5.5	-11.4	-2.0993 ug/L	-2.0993 ppb	16:03:29
2	Ti 334.940†	-1264.5	192.9	0.3266 ug/L	0.3266 ppb	16:03:09
2	Tl 190.801†	-30.5	15.1	4.8186 ug/L	4.8186 ppb	16:03:29
2	U 409.014†	-1784.7	355.6	11.359 ug/L	11.359 ppb	16:03:09
2	V 292.402†	-1334.2	147.2	1.0953 ug/L	1.0953 ppb	16:03:09
2	Zn 213.857†	781.4	-122.4	-1.2179 ug/L	-1.2179 ppb	16:03:29
2	SiO2†	487.9	4.5	0.3057 ug/L	0.3057 ppb	16:04:05
3	Sc Radial	5260.1	5260.1	110 %		16:02:17
3	Y RADIAL	5637.3	5637.3	109.9 %		16:02:17
3	Al 396.153Radial†	-15.6	-10.9	-8.7458 ug/L	-8.7458 ppb	16:02:17
3	Ca 317.933Radial†	24.1	6.8	11.428 ug/L	11.428 ppb	16:02:37
3	Fe 238.204 Radial†	10.6	-0.2	-2.0976 ug/L	-2.0976 ppb	16:02:37
3	K 766.490 Radial†	2639.1	-383.5	-76.889 ug/L	-76.889 ppb	16:02:17
3	Mg 279.077 IEC†	-0.4	-1.9	-65.704 ug/L	-65.704 ppb	16:02:37
3	Na 589.592 Radial†	-1327.1	358.1	116.02 ug/L	116.02 ppb	16:02:17
3	Sr 421.552†	-6.5	-23.1	-0.1647 ug/L	-0.1647 ppb	16:02:17
3	Sc 361.383	868535.1	868535.1	106.72 %		16:03:34
3	Y 371.029	730952.8	730952.8	106.56 %		16:03:34
3	Ag 328.068†	391.0	84.8	0.4121 ug/L	0.4121 ppb	16:03:34
3	As 188.979†	-21.7	-1.5	-0.6640 ug/L	-0.6640 ppb	16:03:54
3	B 249.677†	-462.0	85.6	2.0843 ug/L	2.0843 ppb	16:03:54
3	Ba 233.527†	6.0	4.1	0.0359 ug/L	0.0359 ppb	16:03:54
3	Be 313.107†	-4385.5	202.8	0.0812 ug/L	0.0812 ppb	16:03:34
3	Cd 226.502†	-186.4	22.9	0.2699 ug/L	0.2699 ppb	16:03:54
3	Co 228.616†	-80.9	-3.1	-0.0688 ug/L	-0.0688 ppb	16:03:54
3	Cr 267.716†	68.6	-31.5	-0.3733 ug/L	-0.3733 ppb	16:03:54
3	Cu 324.752†	6325.9	-370.3	-1.1867 ug/L	-1.1867 ppb	16:03:34
3	Mn 257.610†	399.4	-30.1	-0.0328 ug/L	-0.0328 ppb	16:03:54
3	Mo 202.031†	13.9	-6.3	-0.4644 ug/L	-0.4644 ppb	16:03:54
3	Ni 231.604†	72.1	-7.6	-0.1992 ug/L	-0.1992 ppb	16:03:54
3	P 214.914†	235.3	-7.4	-4.4881 ug/L	-4.4881 ppb	16:03:54
3	Pb 220.353†	-51.9	15.9	2.0393 ug/L	2.0393 ppb	16:03:54
3	S 181.975 Axial†	39.9	-9.1	-13.569 ug/L	-13.569 ppb	16:03:54
3	Sb 206.836†	30.5	-4.1	-1.5002 ug/L	-1.5002 ppb	16:03:54
3	Se 196.026†	-37.4	-4.7	-3.1537 ug/L	-3.1537 ppb	16:03:54
3	Si 251.611†	490.4	13.6	0.4650 ug/L	0.4650 ppb	16:03:54
3	Sn 189.927†	14.8	7.8	1.4382 ug/L	1.4382 ppb	16:03:54
3	Ti 334.940†	-1308.7	160.6	0.2791 ug/L	0.2791 ppb	16:03:34
3	Tl 190.801†	-34.9	11.2	3.5679 ug/L	3.5679 ppb	16:03:54
3	U 409.014†	-1907.5	253.6	8.0989 ug/L	8.0989 ppb	16:03:34
3	V 292.402†	-1398.1	97.0	0.7078 ug/L	0.7078 ppb	16:03:34
3	Zn 213.857†	788.6	-121.3	-1.2070 ug/L	-1.2070 ppb	16:03:54
3	SiO2†	490.1	3.0	0.2286 ug/L	0.2286 ppb	16:04:10

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	865460.5	106.34	%	0.417				0.39%
Sc Radial	5103.9	107	%	8.2				7.65%
Y 371.029	728554.5	106.21	%	0.345				0.33%
Y RADIAL	5471.9	106.7	%	7.95				7.45%
Ag 328.068†	47.4	0.2254	ug/L	0.16820	0.2254	ppb	0.16820	74.62%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-5.3	-4.2398	ug/L	5.45962	-4.2398	ppb	5.45962	128.77%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-1.9	-0.8552	ug/L	0.67551	-0.8552	ppb	0.67551	78.99%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	87.3	2.1255	ug/L	0.16723	2.1255	ppb	0.16723	7.87%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-3.1	-0.0241	ug/L	0.10113	-0.0241	ppb	0.10113	418.94%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	172.4	0.0691	ug/L	0.01042	0.0691	ppb	0.01042	15.07%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	5.0	8.3806	ug/L	2.66843	8.3806	ppb	2.66843	31.84%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              30.0      0.3546 ug/L       0.09376      0.3546 ppb        0.09376  26.44%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†               3.3      0.0718 ug/L       0.12478      0.0718 ppb        0.12478 173.87%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†             -29.3     -0.3476 ug/L       0.05531     -0.3476 ppb        0.05531  15.91%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -267.9     -0.8604 ug/L       0.28339     -0.8604 ppb        0.28339  32.94%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       -1.3     -12.630 ug/L        9.3780     -12.630 ppb         9.3780  74.25%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†      -204.0     -40.916 ug/L       48.3645     -40.916 ppb        48.3645 118.21%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          -0.9     -30.721 ug/L       34.3506     -30.721 ppb        34.3506 111.82%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†             -17.8     -0.0209 ug/L       0.01053     -0.0209 ppb        0.01053  50.44%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              2.6      0.1901 ug/L       0.57975      0.1901 ppb        0.57975 304.91%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†     282.2      91.438 ug/L       33.0764      91.438 ppb        33.0764  36.17%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              1.5      0.0405 ug/L       0.23689      0.0405 ppb        0.23689 584.90%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†              -15.4     -9.6788 ug/L       5.74231     -9.6788 ppb        5.74231  59.33%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†             10.4      1.3292 ug/L       1.26137      1.3292 ppb        1.26137  94.90%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         -4.8     -7.1872 ug/L       5.96870     -7.1872 ppb        5.96870  83.05%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -1.1     -0.4149 ug/L       1.52209     -0.4149 ppb        1.52209 366.85%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               1.1      0.6703 ug/L       3.34674      0.6703 ppb        3.34674 499.29%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†               7.1      0.2367 ug/L       0.22015      0.2367 ppb        0.22015  93.01%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               0.0      0.0045 ug/L       1.86154      0.0045 ppb        1.86154 >999.9%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              -6.9     -0.0496 ug/L       0.11033     -0.0496 ppb        0.11033 222.65%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             172.3      0.2959 ug/L       0.02661      0.2959 ppb        0.02661   8.99%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              11.9      3.8110 ug/L       0.91080      3.8110 ppb        0.91080  23.90%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              249.6      7.9740 ug/L       3.44894      7.9740 ppb        3.44894  43.25%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              119.1      0.8783 ug/L       0.19795      0.8783 ppb        0.19795  22.54%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†            -127.7     -1.2716 ug/L       0.10252     -1.2716 ppb        0.10252   8.06%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                    -1.4     -0.1077 ug/L       0.65051     -0.1077 ppb        0.65051 603.75%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 18
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 1/14/2010 17:01:21
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5210.5	5210.5	109	%			17:03:13
1	Y RADIAL	5523.1	5523.1	107.7	%			17:03:13
1	Al 396.153Radial†	6451.1	5935.4	4737.9	ug/L	4737.9	ppb	17:03:13
1	Ca 317.933Radial†	3091.3	2827.4	4761.2	ug/L	4761.2	ppb	17:03:33
1	Fe 238.204 Radial†	568.7	513.0	4838.1	ug/L	4838.1	ppb	17:03:33
1	K 766.490 Radial†	29286.1	24142.5	4830.7	ug/L	4830.7	ppb	17:03:13
1	Mg 279.077 IEC†	153.7	139.9	4909.8	ug/L	4909.8	ppb	17:03:33
1	Na 589.592 Radial†	30090.7	29236.7	9472.8	ug/L	9472.8	ppb	17:03:13
1	Sr 421.552†	74178.7	68193.5	486.04	ug/L	486.04	ppb	17:03:13
1	Sc 361.383	863186.9	863186.9	106.06	%			17:04:30
1	Y 371.029	716352.1	716352.1	104.43	%			17:04:30
1	Ag 328.068†	105650.3	99332.0	491.10	ug/L	491.10	ppb	17:04:35
1	As 188.979†	1136.3	1090.2	494.92	ug/L	494.92	ppb	17:04:55
1	B 249.677†	21404.2	20699.7	501.58	ug/L	501.58	ppb	17:04:35
1	Ba 233.527†	64025.4	60365.6	501.80	ug/L	501.80	ppb	17:04:35
1	Be 313.107†	1311167.7	1240561.8	493.85	ug/L	493.85	ppb	17:04:30
1	Cd 226.502†	45211.3	42825.6	501.86	ug/L	501.86	ppb	17:04:35
1	Co 228.616†	24534.3	23205.1	504.00	ug/L	504.00	ppb	17:04:35
1	Cr 267.716†	44829.8	42172.6	498.13	ug/L	498.13	ppb	17:04:35
1	Cu 324.752†	172907.8	156730.1	500.29	ug/L	500.29	ppb	17:04:35
1	Mn 257.610†	445099.9	419263.3	491.92	ug/L	491.92	ppb	17:04:30
1	Mo 202.031†	7040.2	6618.6	491.74	ug/L	491.74	ppb	17:04:55
1	Ni 231.604†	20293.1	19058.4	501.40	ug/L	501.40	ppb	17:04:35
1	P 214.914†	4302.9	3829.2	2346.3	ug/L	2346.3	ppb	17:04:55
1	Pb 220.353†	3982.8	3819.8	490.85	ug/L	490.85	ppb	17:04:55
1	S 181.975 Axial†	749.4	660.1	984.21	ug/L	984.21	ppb	17:04:55
1	Sb 206.836†	1459.5	1343.4	508.80	ug/L	508.80	ppb	17:04:55
1	Se 196.026†	784.6	770.1	532.62	ug/L	532.62	ppb	17:04:55
1	Si 251.611†	80354.8	75317.6	2533.4	ug/L	2533.4	ppb	17:04:35
1	Sn 189.927†	2827.0	2659.3	492.61	ug/L	492.61	ppb	17:04:55
1	Ti 334.940†	306556.7	290427.5	498.07	ug/L	498.07	ppb	17:04:35
1	Tl 190.801†	1568.2	1522.5	490.37	ug/L	490.37	ppb	17:04:55
1	U 409.014†	15300.1	16466.9	524.25	ug/L	524.25	ppb	17:04:35
1	V 292.402†	72085.3	69373.6	507.09	ug/L	507.09	ppb	17:04:35
1	Zn 213.857†	54651.9	50668.8	501.00	ug/L	501.00	ppb	17:04:35
1	SiO2†	79267.8	74282.4	5312.1	ug/L	5312.1	ppb	17:06:03
2	Sc Radial	5329.7	5329.7	111	%			17:03:38
2	Y RADIAL	5727.5	5727.5	111.7	%			17:03:38
2	Al 396.153Radial†	6423.0	5777.5	4611.3	ug/L	4611.3	ppb	17:03:38
2	Ca 317.933Radial†	3033.4	2711.8	4566.6	ug/L	4566.6	ppb	17:03:58
2	Fe 238.204 Radial†	558.9	492.6	4645.6	ug/L	4645.6	ppb	17:03:58
2	K 766.490 Radial†	29412.1	23653.7	4732.9	ug/L	4732.9	ppb	17:03:38
2	Mg 279.077 IEC†	151.8	134.9	4737.4	ug/L	4737.4	ppb	17:03:58
2	Na 589.592 Radial†	30314.8	28819.5	9337.7	ug/L	9337.7	ppb	17:03:38
2	Sr 421.552†	74656.1	67097.6	478.23	ug/L	478.23	ppb	17:03:38
2	Sc 361.383	862358.1	862358.1	105.96	%			17:05:01
2	Y 371.029	714611.9	714611.9	104.18	%			17:05:01
2	Ag 328.068†	104039.6	97907.6	484.02	ug/L	484.02	ppb	17:05:06
2	As 188.979†	1128.0	1083.5	491.78	ug/L	491.78	ppb	17:05:26
2	B 249.677†	21027.9	20364.0	493.46	ug/L	493.46	ppb	17:05:06
2	Ba 233.527†	62788.0	59255.8	492.57	ug/L	492.57	ppb	17:05:06
2	Be 313.107†	1304703.2	1235648.9	491.88	ug/L	491.88	ppb	17:05:01
2	Cd 226.502†	44458.8	42156.3	494.02	ug/L	494.02	ppb	17:05:06
2	Co 228.616†	24131.3	22847.1	496.24	ug/L	496.24	ppb	17:05:06
2	Cr 267.716†	43932.3	41366.2	488.61	ug/L	488.61	ppb	17:05:06
2	Cu 324.752†	169255.3	153439.6	489.78	ug/L	489.78	ppb	17:05:06
2	Mn 257.610†	444607.9	419202.3	491.84	ug/L	491.84	ppb	17:05:01
2	Mo 202.031†	7020.1	6606.0	490.79	ug/L	490.79	ppb	17:05:26
2	Ni 231.604†	19936.4	18740.2	493.02	ug/L	493.02	ppb	17:05:06

2	P 214.914†	4270.3	3802.3	2331.4 ug/L	2331.4 ppb	17:05:26
2	Pb 220.353†	3957.8	3799.8	488.27 ug/L	488.27 ppb	17:05:26
2	S 181.975 Axial†	760.2	671.0	1000.6 ug/L	1000.6 ppb	17:05:26
2	Sb 206.836†	1451.4	1337.0	506.45 ug/L	506.45 ppb	17:05:26
2	Se 196.026†	752.5	740.5	512.18 ug/L	512.18 ppb	17:05:26
2	Si 251.611†	78888.5	74006.5	2489.2 ug/L	2489.2 ppb	17:05:06
2	Sn 189.927†	2828.0	2662.9	493.23 ug/L	493.23 ppb	17:05:26
2	Ti 334.940†	300878.0	285346.0	489.35 ug/L	489.35 ppb	17:05:06
2	Tl 190.801†	1576.9	1532.2	493.43 ug/L	493.43 ppb	17:05:26
2	U 409.014†	14883.9	16087.9	512.19 ug/L	512.19 ppb	17:05:06
2	V 292.402†	70748.8	68177.6	498.46 ug/L	498.46 ppb	17:05:06
2	Zn 213.857†	53625.7	49749.9	491.92 ug/L	491.92 ppb	17:05:06
2	SiO2†	78450.4	73582.7	5261.9 ug/L	5261.9 ppb	17:06:08
3	Sc Radial	5234.3	5234.3	109 %		17:04:03
3	Y RADIAL	5582.3	5582.3	108.8 %		17:04:03
3	Al 396.153Radial†	6348.8	5814.7	4641.4 ug/L	4641.4 ppb	17:04:03
3	Ca 317.933Radial†	3112.5	2833.9	4772.2 ug/L	4772.2 ppb	17:04:23
3	Fe 238.204 Radial†	573.8	515.4	4859.7 ug/L	4859.7 ppb	17:04:23
3	K 766.490 Radial†	29151.9	23897.0	4781.6 ug/L	4781.6 ppb	17:04:03
3	Mg 279.077 IEC†	159.0	144.0	5056.9 ug/L	5056.9 ppb	17:04:23
3	Na 589.592 Radial†	29562.5	28627.2	9275.4 ug/L	9275.4 ppb	17:04:03
3	Sr 421.552†	73455.8	67221.2	479.11 ug/L	479.11 ppb	17:04:03
3	Sc 361.383	870366.0	870366.0	106.94 %		17:05:32
3	Y 371.029	720440.4	720440.4	105.03 %		17:05:32
3	Ag 328.068†	102646.8	95701.8	473.22 ug/L	473.22 ppb	17:05:37
3	As 188.979†	1115.7	1062.1	482.16 ug/L	482.16 ppb	17:05:57
3	B 249.677†	20849.1	20014.2	484.94 ug/L	484.94 ppb	17:05:37
3	Ba 233.527†	62547.3	58485.5	486.17 ug/L	486.17 ppb	17:05:37
3	Be 313.107†	1311841.7	1230995.0	490.01 ug/L	490.01 ppb	17:05:32
3	Cd 226.502†	44165.8	41496.3	486.26 ug/L	486.26 ppb	17:05:37
3	Co 228.616†	23962.7	22479.8	488.27 ug/L	488.27 ppb	17:05:37
3	Cr 267.716†	43786.4	40848.2	482.49 ug/L	482.49 ppb	17:05:37
3	Cu 324.752†	168056.1	150848.6	481.52 ug/L	481.52 ppb	17:05:37
3	Mn 257.610†	446514.2	417124.2	489.41 ug/L	489.41 ppb	17:05:32
3	Mo 202.031†	7005.8	6531.7	485.29 ug/L	485.29 ppb	17:05:57
3	Ni 231.604†	19852.5	18488.6	486.41 ug/L	486.41 ppb	17:05:37
3	P 214.914†	4253.4	3749.4	2299.1 ug/L	2299.1 ppb	17:05:57
3	Pb 220.353†	3970.7	3777.5	485.41 ug/L	485.41 ppb	17:05:57
3	S 181.975 Axial†	753.7	658.3	981.58 ug/L	981.58 ppb	17:05:57
3	Sb 206.836†	1460.0	1332.5	504.60 ug/L	504.60 ppb	17:05:57
3	Se 196.026†	759.9	740.9	513.11 ug/L	513.11 ppb	17:05:57
3	Si 251.611†	78320.8	72790.7	2448.3 ug/L	2448.3 ppb	17:05:37
3	Sn 189.927†	2824.3	2634.8	488.08 ug/L	488.08 ppb	17:05:57
3	Ti 334.940†	299153.6	281120.9	482.11 ug/L	482.11 ppb	17:05:37
3	Tl 190.801†	1577.4	1518.9	489.17 ug/L	489.17 ppb	17:05:57
3	U 409.014†	14944.2	16015.0	509.85 ug/L	509.85 ppb	17:05:37
3	V 292.402†	70402.1	67239.1	491.59 ug/L	491.59 ppb	17:05:37
3	Zn 213.857†	53355.1	49031.2	484.78 ug/L	484.78 ppb	17:05:37
3	SiO2†	79182.0	73585.6	5262.3 ug/L	5262.3 ppb	17:06:13

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	865303.7	106.32	%	0.541				0.51%
Sc Radial	5258.2	110	%	1.3				1.20%
Y 371.029	717134.8	104.54	%	0.436				0.42%
Y RADIAL	5611.0	109.4	%	2.05				1.87%
Ag 328.068†	97647.1	482.78	ug/L	9.003	482.78	ppb	9.003	1.86%
QC value within limits for Ag 328.068 Recovery = 96.56%								
Al 396.153Radial†	5842.5	4663.5	ug/L	66.15	4663.5	ppb	66.15	1.42%
QC value within limits for Al 396.153Radial Recovery = 93.27%								
As 188.979†	1078.6	489.62	ug/L	6.648	489.62	ppb	6.648	1.36%
QC value within limits for As 188.979 Recovery = 97.92%								
B 249.677†	20359.3	493.33	ug/L	8.322	493.33	ppb	8.322	1.69%
QC value within limits for B 249.677 Recovery = 98.67%								
Ba 233.527†	59369.0	493.51	ug/L	7.854	493.51	ppb	7.854	1.59%
QC value within limits for Ba 233.527 Recovery = 98.70%								
Be 313.107†	1235735.2	491.91	ug/L	1.918	491.91	ppb	1.918	0.39%
QC value within limits for Be 313.107 Recovery = 98.38%								
Ca 317.933Radial†	2791.1	4700.0	ug/L	115.65	4700.0	ppb	115.65	2.46%

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   QC value within limits for Ca 317.933Radial  Recovery = 94.00%
Cd 226.502†            42159.4      494.05 ug/L        7.797      494.05 ppb        7.797   1.58%
   QC value within limits for Cd 226.502  Recovery = 98.81%
Co 228.616†            22844.0      496.17 ug/L        7.867      496.17 ppb        7.867   1.59%
   QC value within limits for Co 228.616  Recovery = 99.23%
Cr 267.716†            41462.3      489.75 ug/L        7.882      489.75 ppb        7.882   1.61%
   QC value within limits for Cr 267.716  Recovery = 97.95%
Cu 324.752†           153672.8      490.53 ug/L        9.406      490.53 ppb        9.406   1.92%
   QC value within limits for Cu 324.752  Recovery = 98.11%
Fe 238.204 Radial†       507.0      4781.1 ug/L      117.86      4781.1 ppb      117.86   2.47%
   QC value within limits for Fe 238.204 Radial  Recovery = 95.62%
K 766.490 Radial†      23897.7      4781.8 ug/L       48.90      4781.8 ppb       48.90   1.02%
   QC value within limits for K 766.490 Radial  Recovery = 95.64%
Mg 279.077 IEC†          139.6      4901.4 ug/L      159.93      4901.4 ppb      159.93   3.26%
   QC value within limits for Mg 279.077 IEC  Recovery = 98.03%
Mn 257.610†           418529.9      491.05 ug/L        1.427      491.05 ppb        1.427   0.29%
   QC value within limits for Mn 257.610  Recovery = 98.21%
Mo 202.031†             6585.4      489.27 ug/L        3.482      489.27 ppb        3.482   0.71%
   QC value within limits for Mo 202.031  Recovery = 97.85%
Na 589.592 Radial†     28894.5      9362.0 ug/L      100.95      9362.0 ppb      100.95   1.08%
   QC value within limits for Na 589.592 Radial  Recovery = 93.62%
Ni 231.604†            18762.4      493.61 ug/L        7.512      493.61 ppb        7.512   1.52%
   QC value within limits for Ni 231.604  Recovery = 98.72%
P 214.914†              3793.6      2325.6 ug/L       24.17      2325.6 ppb       24.17   1.04%
   QC value within limits for P 214.914  Recovery = 93.02%
Pb 220.353†             3799.0      488.18 ug/L        2.722      488.18 ppb        2.722   0.56%
   QC value within limits for Pb 220.353  Recovery = 97.64%
S 181.975 Axial†         663.1      988.79 ug/L       10.299      988.79 ppb       10.299   1.04%
   QC value within limits for S 181.975 Axial  Recovery = 98.88%
Sb 206.836†             1337.6      506.62 ug/L        2.104      506.62 ppb        2.104   0.42%
   QC value within limits for Sb 206.836  Recovery = 101.32%
Se 196.026†              750.5      519.30 ug/L       11.541      519.30 ppb       11.541   2.22%
   QC value within limits for Se 196.026  Recovery = 103.86%
Si 251.611†            74038.3      2490.3 ug/L       42.57      2490.3 ppb       42.57   1.71%
   QC value within limits for Si 251.611  Recovery = 99.61%
Sn 189.927†             2652.3      491.31 ug/L        2.810      491.31 ppb        2.810   0.57%
   QC value within limits for Sn 189.927  Recovery = 98.26%
Sr 421.552†            67504.1      481.13 ug/L        4.278      481.13 ppb        4.278   0.89%
   QC value within limits for Sr 421.552  Recovery = 96.23%
Ti 334.940†           285631.4      489.84 ug/L        7.994      489.84 ppb        7.994   1.63%
   QC value within limits for Ti 334.940  Recovery = 97.97%
Tl 190.801†             1524.5      490.99 ug/L        2.197      490.99 ppb        2.197   0.45%
   QC value within limits for Tl 190.801  Recovery = 98.20%
U 409.014†             16189.9      515.43 ug/L        7.726      515.43 ppb        7.726   1.50%
   QC value within limits for U 409.014  Recovery = 103.09%
V 292.402†             68263.4      499.05 ug/L        7.764      499.05 ppb        7.764   1.56%
   QC value within limits for V 292.402  Recovery = 99.81%
Zn 213.857†            49816.6      492.56 ug/L        8.126      492.56 ppb        8.126   1.65%
   QC value within limits for Zn 213.857  Recovery = 98.51%
SiO2†                  73816.9      5278.8 ug/L       28.84      5278.8 ppb       28.84   0.55%
   QC value within limits for SiO2  Recovery = 98.71%
All analyte(s) passed QC.
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Sequence No.: 19
Sample ID: PQL
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 11
Date Collected: 1/14/2010 17:08:23
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: PQL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5205.9	5205.9	109	%			17:10:16
1	Y RADIAL	5551.4	5551.4	108.2	%			17:10:16
1	Al 396.153Radial†	244.4	228.1	182.53	ug/L	182.53	ppb	17:10:16
1	Ca 317.933Radial†	144.8	118.1	198.88	ug/L	198.88	ppb	17:10:36
1	Fe 238.204 Radial†	21.4	9.8	92.655	ug/L	92.655	ppb	17:10:36
1	K 766.490 Radial†	3578.2	505.8	101.09	ug/L	101.09	ppb	17:10:16
1	Mg 279.077 IEC†	12.6	10.1	354.07	ug/L	354.07	ppb	17:10:36
1	Na 589.592 Radial†	-309.7	1281.9	415.35	ug/L	415.35	ppb	17:10:16
1	Sr 421.552†	756.1	678.7	4.8361	ug/L	4.8361	ppb	17:10:16
1	Sc 361.383	864686.2	864686.2	106.24	%			17:11:33
1	Y 371.029	727912.6	727912.6	106.12	%			17:11:33
1	Ag 328.068†	1500.8	1131.0	5.5575	ug/L	5.5575	ppb	17:11:33
1	As 188.979†	46.5	62.6	28.239	ug/L	28.239	ppb	17:11:53
1	B 249.677†	1792.6	2205.8	53.656	ug/L	53.656	ppb	17:11:33
1	Ba 233.527†	622.8	584.7	4.8638	ug/L	4.8638	ppb	17:11:53
1	Be 313.107†	8726.9	12526.3	4.9869	ug/L	4.9869	ppb	17:11:33
1	Cd 226.502†	262.8	444.9	5.2201	ug/L	5.2201	ppb	17:11:53
1	Co 228.616†	165.0	228.0	4.9640	ug/L	4.9640	ppb	17:11:53
1	Cr 267.716†	517.9	391.7	4.6072	ug/L	4.6072	ppb	17:11:53
1	Cu 324.752†	9883.1	3004.1	9.5614	ug/L	9.5614	ppb	17:11:33
1	Mn 257.610†	9666.9	8694.4	10.190	ug/L	10.190	ppb	17:11:33
1	Mo 202.031†	166.7	137.6	10.222	ug/L	10.222	ppb	17:11:53
1	Ni 231.604†	283.1	191.4	5.0345	ug/L	5.0345	ppb	17:11:53
1	P 214.914†	456.6	201.9	126.99	ug/L	126.99	ppb	17:11:53
1	Pb 220.353†	14.1	77.8	10.022	ug/L	10.022	ppb	17:11:53
1	S 181.975 Axial†	120.5	66.9	99.862	ug/L	99.862	ppb	17:11:53
1	Sb 206.836†	66.4	29.8	11.223	ug/L	11.223	ppb	17:11:53
1	Se 196.026†	19.5	48.7	32.934	ug/L	32.934	ppb	17:11:53
1	Si 251.611†	3541.5	2887.5	97.231	ug/L	97.231	ppb	17:11:33
1	Sn 189.927†	53.9	44.6	8.2756	ug/L	8.2756	ppb	17:11:53
1	Ti 334.940†	1749.2	3033.5	5.1735	ug/L	5.1735	ppb	17:11:33
1	Tl 190.801†	38.2	79.9	25.608	ug/L	25.608	ppb	17:11:53
1	U 409.014†	-149.7	1900.0	60.661	ug/L	60.661	ppb	17:11:33
1	V 292.402†	-644.3	800.7	6.0232	ug/L	6.0232	ppb	17:11:33
1	Zn 213.857†	1740.1	777.5	7.7002	ug/L	7.7002	ppb	17:11:53
1	SiO2†	3553.7	2888.7	206.82	ug/L	206.82	ppb	17:12:49
2	Sc Radial	5301.1	5301.1	111	%			17:10:41
2	Y RADIAL	5651.3	5651.3	110.2	%			17:10:41
2	Al 396.153Radial†	274.6	251.4	201.20	ug/L	201.20	ppb	17:10:41
2	Ca 317.933Radial†	145.6	116.4	196.02	ug/L	196.02	ppb	17:11:01
2	Fe 238.204 Radial†	22.6	10.6	99.458	ug/L	99.458	ppb	17:11:01
2	K 766.490 Radial†	3616.5	481.3	96.185	ug/L	96.185	ppb	17:10:41
2	Mg 279.077 IEC†	15.5	12.5	437.73	ug/L	437.73	ppb	17:11:01
2	Na 589.592 Radial†	-340.9	1258.8	407.86	ug/L	407.86	ppb	17:10:41
2	Sr 421.552†	769.5	678.3	4.8335	ug/L	4.8335	ppb	17:10:41
2	Sc 361.383	866616.2	866616.2	106.48	%			17:11:58
2	Y 371.029	729585.0	729585.0	106.36	%			17:11:58
2	Ag 328.068†	1506.6	1133.3	5.5700	ug/L	5.5700	ppb	17:11:58
2	As 188.979†	41.6	57.9	26.107	ug/L	26.107	ppb	17:12:18
2	B 249.677†	1782.9	2192.9	53.344	ug/L	53.344	ppb	17:11:58
2	Ba 233.527†	636.2	596.0	4.9568	ug/L	4.9568	ppb	17:12:18
2	Be 313.107†	8730.1	12511.0	4.9809	ug/L	4.9809	ppb	17:11:58
2	Cd 226.502†	279.8	460.4	5.4003	ug/L	5.4003	ppb	17:12:18
2	Co 228.616†	145.5	209.3	4.5570	ug/L	4.5570	ppb	17:12:18
2	Cr 267.716†	507.6	380.9	4.4799	ug/L	4.4799	ppb	17:12:18
2	Cu 324.752†	9752.8	2861.1	9.1050	ug/L	9.1050	ppb	17:11:58
2	Mn 257.610†	9682.0	8688.4	10.180	ug/L	10.180	ppb	17:11:58
2	Mo 202.031†	166.6	137.2	10.191	ug/L	10.191	ppb	17:12:18
2	Ni 231.604†	282.7	190.4	5.0081	ug/L	5.0081	ppb	17:12:18

2	P 214.914†	460.1	204.2	128.58 ug/L	128.58 ppb	17:12:18
2	Pb 220.353†	14.8	78.5	10.109 ug/L	10.109 ppb	17:12:18
2	S 181.975 Axial†	122.5	68.6	102.29 ug/L	102.29 ppb	17:12:18
2	Sb 206.836†	65.1	28.4	10.737 ug/L	10.737 ppb	17:12:18
2	Se 196.026†	14.9	44.4	30.039 ug/L	30.039 ppb	17:12:18
2	Si 251.611†	3569.0	2905.9	97.852 ug/L	97.852 ppb	17:11:58
2	Sn 189.927†	65.0	54.9	10.191 ug/L	10.191 ppb	17:12:18
2	Ti 334.940†	1774.1	3053.1	5.2001 ug/L	5.2001 ppb	17:11:58
2	Tl 190.801†	36.5	78.1	25.057 ug/L	25.057 ppb	17:12:18
2	U 409.014†	-151.1	1899.1	60.629 ug/L	60.629 ppb	17:11:58
2	V 292.402†	-689.6	759.5	5.7257 ug/L	5.7257 ppb	17:11:58
2	Zn 213.857†	1740.0	773.8	7.6631 ug/L	7.6631 ppb	17:12:18
2	SiO2†	3596.2	2921.0	209.14 ug/L	209.14 ppb	17:12:54
3	Sc Radial	5246.6	5246.6	110 %		17:11:06
3	Y RADIAL	5626.2	5626.2	109.7 %		17:11:06
3	Al 396.153Radial†	246.0	227.9	182.35 ug/L	182.35 ppb	17:11:06
3	Ca 317.933Radial†	140.6	113.2	190.71 ug/L	190.71 ppb	17:11:26
3	Fe 238.204 Radial†	22.1	10.3	96.788 ug/L	96.788 ppb	17:11:26
3	K 766.490 Radial†	3554.9	458.9	91.713 ug/L	91.713 ppb	17:11:06
3	Mg 279.077 IEC†	9.2	6.9	241.60 ug/L	241.60 ppb	17:11:26
3	Na 589.592 Radial†	-394.7	1206.5	390.90 ug/L	390.90 ppb	17:11:06
3	Sr 421.552†	723.7	643.7	4.5866 ug/L	4.5866 ppb	17:11:06
3	Sc 361.383	875140.8	875140.8	107.53 %		17:12:24
3	Y 371.029	734809.4	734809.4	107.12 %		17:12:24
3	Ag 328.068†	1517.2	1129.4	5.5490 ug/L	5.5490 ppb	17:12:24
3	As 188.979†	50.0	65.3	29.450 ug/L	29.450 ppb	17:12:44
3	B 249.677†	1753.5	2149.2	52.280 ug/L	52.280 ppb	17:12:24
3	Ba 233.527†	632.5	586.8	4.8822 ug/L	4.8822 ppb	17:12:44
3	Be 313.107†	8655.0	12361.3	4.9213 ug/L	4.9213 ppb	17:12:24
3	Cd 226.502†	266.0	445.0	5.2211 ug/L	5.2211 ppb	17:12:44
3	Co 228.616†	157.5	219.2	4.7713 ug/L	4.7713 ppb	17:12:44
3	Cr 267.716†	508.2	376.9	4.4311 ug/L	4.4311 ppb	17:12:44
3	Cu 324.752†	9855.5	2867.4	9.1225 ug/L	9.1225 ppb	17:12:24
3	Mn 257.610†	9715.9	8631.4	10.121 ug/L	10.121 ppb	17:12:24
3	Mo 202.031†	168.0	136.9	10.172 ug/L	10.172 ppb	17:12:44
3	Ni 231.604†	293.1	197.4	5.1938 ug/L	5.1938 ppb	17:12:44
3	P 214.914†	452.8	193.2	121.55 ug/L	121.55 ppb	17:12:44
3	Pb 220.353†	17.5	80.9	10.411 ug/L	10.411 ppb	17:12:44
3	S 181.975 Axial†	114.7	60.2	89.840 ug/L	89.840 ppb	17:12:44
3	Sb 206.836†	59.6	22.7	8.6320 ug/L	8.6320 ppb	17:12:44
3	Se 196.026†	24.1	52.8	35.643 ug/L	35.643 ppb	17:12:44
3	Si 251.611†	3610.4	2911.7	98.049 ug/L	98.049 ppb	17:12:24
3	Sn 189.927†	58.5	48.3	8.9633 ug/L	8.9633 ppb	17:12:44
3	Ti 334.940†	1747.3	3012.0	5.1427 ug/L	5.1427 ppb	17:12:24
3	Tl 190.801†	23.3	65.5	21.018 ug/L	21.018 ppb	17:12:44
3	U 409.014†	10.2	2050.4	65.465 ug/L	65.465 ppb	17:12:24
3	V 292.402†	-577.3	870.3	6.5304 ug/L	6.5304 ppb	17:12:24
3	Zn 213.857†	1732.2	750.6	7.4313 ug/L	7.4313 ppb	17:12:44
3	SiO2†	3511.2	2809.1	201.12 ug/L	201.12 ppb	17:12:59

Mean Data: PQL

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	868814.4	106.75	%	0.684				0.64%
Sc Radial	5251.2	110	%	1.0				0.91%
Y 371.029	730769.0	106.53	%	0.524				0.49%
Y RADIAL	5609.7	109.4	%	1.01				0.93%
Ag 328.068†	1131.2	5.5589	ug/L	0.01055	5.5589	ppb	0.01055	0.19%
QC value within limits for Ag 328.068 Recovery = 111.18%								
Al 396.153Radial†	235.8	188.70	ug/L	10.831	188.70	ppb	10.831	5.74%
QC value within limits for Al 396.153Radial Recovery = 94.35%								
As 188.979†	62.0	27.932	ug/L	1.6925	27.932	ppb	1.6925	6.06%
QC value within limits for As 188.979 Recovery = 93.11%								
B 249.677†	2182.6	53.093	ug/L	0.7216	53.093	ppb	0.7216	1.36%
QC value within limits for B 249.677 Recovery = 106.19%								
Ba 233.527†	589.1	4.9009	ug/L	0.04927	4.9009	ppb	0.04927	1.01%
QC value within limits for Ba 233.527 Recovery = 98.02%								
Be 313.107†	12466.2	4.9630	ug/L	0.03627	4.9630	ppb	0.03627	0.73%
QC value within limits for Be 313.107 Recovery = 99.26%								
Ca 317.933Radial†	115.9	195.20	ug/L	4.149	195.20	ppb	4.149	2.13%

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   QC value within limits for Ca 317.933Radial  Recovery = 97.60%
Cd 226.502†              450.1      5.2805 ug/L       0.10375      5.2805 ppb        0.10375   1.96%
   QC value within limits for Cd 226.502  Recovery = 105.61%
Co 228.616†              218.8      4.7641 ug/L       0.20355      4.7641 ppb        0.20355   4.27%
   QC value within limits for Co 228.616  Recovery = 95.28%
Cr 267.716†              383.2      4.5061 ug/L       0.09090      4.5061 ppb        0.09090   2.02%
   QC value within limits for Cr 267.716  Recovery = 90.12%
Cu 324.752†             2910.9      9.2630 ug/L       0.25857      9.2630 ppb        0.25857   2.79%
   QC value within limits for Cu 324.752  Recovery = 92.63%
Fe 238.204 Radial†       10.2       96.300 ug/L        3.4275      96.300 ppb         3.4275   3.56%
   QC value within limits for Fe 238.204 Radial  Recovery = 96.30%
K 766.490 Radial†        482.0      96.329 ug/L        4.6887      96.329 ppb         4.6887   4.87%
   QC value less than the lower limit for K 766.490 Radial  Recovery = 64.22%
Mg 279.077 IEC†           9.8       344.47 ug/L        98.414      344.47 ppb         98.414  28.57%
   QC value within limits for Mg 279.077 IEC  Recovery = 114.82%
Mn 257.610†             8671.4      10.164 ug/L        0.0373      10.164 ppb         0.0373   0.37%
   QC value within limits for Mn 257.610  Recovery = 101.64%
Mo 202.031†              137.2      10.195 ug/L        0.0251      10.195 ppb         0.0251   0.25%
   QC value within limits for Mo 202.031  Recovery = 101.95%
Na 589.592 Radial†      1249.1      404.70 ug/L        12.526      404.70 ppb         12.526   3.10%
   QC value greater than the upper limit for Na 589.592 Radial  Recovery = 134.90%
Ni 231.604†              193.0      5.0788 ug/L       0.10046      5.0788 ppb        0.10046   1.98%
   QC value within limits for Ni 231.604  Recovery = 101.58%
P 214.914†               199.8      125.71 ug/L         3.690      125.71 ppb          3.690   2.94%
   QC value within limits for P 214.914  Recovery = 83.80%
Pb 220.353†               79.1      10.181 ug/L        0.2039      10.181 ppb         0.2039   2.00%
   QC value within limits for Pb 220.353  Recovery = 101.81%
S 181.975 Axial†          65.2      97.330 ug/L        6.5993      97.330 ppb         6.5993   6.78%
   QC value within limits for S 181.975 Axial  Recovery = 97.33%
Sb 206.836†               26.9      10.197 ug/L        1.3773      10.197 ppb         1.3773  13.51%
   QC value within limits for Sb 206.836  Recovery = 101.97%
Se 196.026†               48.6      32.872 ug/L        2.8025      32.872 ppb         2.8025   8.53%
   QC value within limits for Se 196.026  Recovery = 109.57%
Si 251.611†             2901.7      97.711 ug/L        0.4269      97.711 ppb         0.4269   0.44%
   QC value within limits for Si 251.611  Recovery = 97.71%
Sn 189.927†               49.3      9.1435 ug/L       0.97052      9.1435 ppb        0.97052  10.61%
   QC value within limits for Sn 189.927  Recovery = 91.43%
Sr 421.552†              666.9      4.7521 ug/L       0.14333      4.7521 ppb        0.14333   3.02%
   QC value within limits for Sr 421.552  Recovery = 95.04%
Ti 334.940†             3032.9      5.1721 ug/L       0.02872      5.1721 ppb        0.02872   0.56%
   QC value within limits for Ti 334.940  Recovery = 103.44%
Tl 190.801†               74.5      23.894 ug/L        2.5065      23.894 ppb         2.5065  10.49%
   QC value within limits for Tl 190.801  Recovery = 119.47%
U 409.014†              1949.8      62.252 ug/L        2.7827      62.252 ppb         2.7827   4.47%
   QC value within limits for U 409.014  Recovery = 124.50%
V 292.402†               810.2      6.0931 ug/L       0.40685      6.0931 ppb        0.40685   6.68%
   QC value within limits for V 292.402  Recovery = 121.86%
Zn 213.857†              767.3      7.5982 ug/L       0.14572      7.5982 ppb        0.14572   1.92%
   QC value within limits for Zn 213.857  Recovery = 75.98%
SiO2†                   2872.9      205.69 ug/L         4.128      205.69 ppb          4.128   2.01%
   QC value within limits for SiO2  Recovery = 96.57%
QC Failed.  Continue with analysis.
```

Sequence No.: 20
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 1/14/2010 17:15:09
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5426.6	5426.6	113	%			17:17:02
1	Y RADIAL	5825.5	5825.5	113.6	%			17:17:02
1	Al 396.153Radial†	9.2	11.3	9.0757	ug/L	9.0757	ppb	17:17:02
1	Ca 317.933Radial†	24.7	6.7	11.231	ug/L	11.231	ppb	17:17:22
1	Fe 238.204 Radial†	9.1	-1.8	-16.993	ug/L	-16.993	ppb	17:17:22
1	K 766.490 Radial†	2777.4	-335.2	-67.204	ug/L	-67.204	ppb	17:17:02
1	Mg 279.077 IEC†	3.4	1.5	52.155	ug/L	52.155	ppb	17:17:22
1	Na 589.592 Radial†	-1346.9	377.7	122.39	ug/L	122.39	ppb	17:17:02
1	Sr 421.552†	-33.6	-46.9	-0.3342	ug/L	-0.3342	ppb	17:17:02
1	Sc 361.383	863368.4	863368.4	106.08	%			17:18:19
1	Y 371.029	726742.2	726742.2	105.95	%			17:18:19
1	Ag 328.068†	426.4	120.4	0.5834	ug/L	0.5834	ppb	17:18:19
1	As 188.979†	-22.5	-2.3	-1.0546	ug/L	-1.0546	ppb	17:18:39
1	B 249.677†	-378.4	161.8	3.9412	ug/L	3.9412	ppb	17:18:39
1	Ba 233.527†	-13.9	-14.6	-0.1189	ug/L	-0.1189	ppb	17:18:39
1	Be 313.107†	-4316.1	243.6	0.0974	ug/L	0.0974	ppb	17:18:19
1	Cd 226.502†	-171.5	35.9	0.4239	ug/L	0.4239	ppb	17:18:39
1	Co 228.616†	-75.3	1.7	0.0373	ug/L	0.0373	ppb	17:18:39
1	Cr 267.716†	72.4	-27.5	-0.3268	ug/L	-0.3268	ppb	17:18:39
1	Cu 324.752†	6507.0	-164.2	-0.5296	ug/L	-0.5296	ppb	17:18:19
1	Mn 257.610†	421.3	-7.2	-0.0122	ug/L	-0.0122	ppb	17:18:39
1	Mo 202.031†	27.4	6.5	0.4841	ug/L	0.4841	ppb	17:18:39
1	Ni 231.604†	83.3	3.4	0.0882	ug/L	0.0882	ppb	17:18:39
1	P 214.914†	225.8	-15.0	-9.4595	ug/L	-9.4595	ppb	17:18:39
1	Pb 220.353†	-72.3	-3.5	-0.4474	ug/L	-0.4474	ppb	17:18:39
1	S 181.975 Axial†	51.2	1.9	2.7657	ug/L	2.7657	ppb	17:18:39
1	Sb 206.836†	38.8	3.8	1.4300	ug/L	1.4300	ppb	17:18:39
1	Se 196.026†	-28.3	3.7	2.3912	ug/L	2.3912	ppb	17:18:39
1	Si 251.611†	493.3	19.1	0.6381	ug/L	0.6381	ppb	17:18:39
1	Sn 189.927†	11.3	4.5	0.8328	ug/L	0.8328	ppb	17:18:39
1	Ti 334.940†	-1294.2	167.0	0.2801	ug/L	0.2801	ppb	17:18:19
1	Tl 190.801†	-35.2	10.7	3.4250	ug/L	3.4250	ppb	17:18:39
1	U 409.014†	-1885.9	263.1	8.4070	ug/L	8.4070	ppb	17:18:19
1	V 292.402†	-1325.6	157.5	1.1628	ug/L	1.1628	ppb	17:18:19
1	Zn 213.857†	791.4	-114.3	-1.1379	ug/L	-1.1379	ppb	17:18:39
1	SiO2†	492.9	8.5	0.5927	ug/L	0.5927	ppb	17:19:35
2	Sc Radial	5116.3	5116.3	107	%			17:17:27
2	Y RADIAL	5514.6	5514.6	107.5	%			17:17:27
2	Al 396.153Radial†	12.7	15.1	12.133	ug/L	12.133	ppb	17:17:27
2	Ca 317.933Radial†	16.8	0.6	1.0399	ug/L	1.0399	ppb	17:17:47
2	Fe 238.204 Radial†	12.8	2.1	19.640	ug/L	19.640	ppb	17:17:47
2	K 766.490 Radial†	2769.7	-193.7	-38.835	ug/L	-38.835	ppb	17:17:27
2	Mg 279.077 IEC†	5.0	3.2	111.73	ug/L	111.73	ppb	17:17:47
2	Na 589.592 Radial†	-1369.3	284.6	92.206	ug/L	92.206	ppb	17:17:27
2	Sr 421.552†	9.4	-8.4	-0.0597	ug/L	-0.0597	ppb	17:17:27
2	Sc 361.383	859149.6	859149.6	105.56	%			17:18:44
2	Y 371.029	723438.0	723438.0	105.46	%			17:18:44
2	Ag 328.068†	308.9	11.0	0.0602	ug/L	0.0602	ppb	17:18:44
2	As 188.979†	-23.8	-3.7	-1.6442	ug/L	-1.6442	ppb	17:19:04
2	B 249.677†	-404.9	135.0	3.2825	ug/L	3.2825	ppb	17:19:04
2	Ba 233.527†	12.0	9.9	0.0845	ug/L	0.0845	ppb	17:19:04
2	Be 313.107†	-4374.3	168.5	0.0671	ug/L	0.0671	ppb	17:18:44
2	Cd 226.502†	-189.5	18.0	0.2101	ug/L	0.2101	ppb	17:19:04
2	Co 228.616†	-74.9	1.7	0.0360	ug/L	0.0360	ppb	17:19:04
2	Cr 267.716†	80.2	-19.8	-0.2334	ug/L	-0.2334	ppb	17:19:04
2	Cu 324.752†	6455.2	-183.1	-0.5859	ug/L	-0.5859	ppb	17:18:44
2	Mn 257.610†	445.1	17.4	0.0177	ug/L	0.0177	ppb	17:19:04
2	Mo 202.031†	16.2	-3.9	-0.2906	ug/L	-0.2906	ppb	17:19:04
2	Ni 231.604†	83.6	4.0	0.1063	ug/L	0.1063	ppb	17:19:04

2	P 214.914†	222.0	-17.6	-11.135 ug/L	-11.135 ppb	17:19:04
2	Pb 220.353†	-64.8	3.2	0.4077 ug/L	0.4077 ppb	17:19:04
2	S 181.975 Axial†	42.0	-6.7	-9.9916 ug/L	-9.9916 ppb	17:19:04
2	Sb 206.836†	45.8	10.6	3.8791 ug/L	3.8791 ppb	17:19:04
2	Se 196.026†	-28.6	3.3	2.2567 ug/L	2.2567 ppb	17:19:04
2	Si 251.611†	470.1	-0.5	-0.0149 ug/L	-0.0149 ppb	17:19:04
2	Sn 189.927†	7.8	1.3	0.2349 ug/L	0.2349 ppb	17:19:04
2	Ti 334.940†	-1415.4	46.2	0.0685 ug/L	0.0685 ppb	17:18:44
2	Tl 190.801†	-38.7	7.2	2.3153 ug/L	2.3153 ppb	17:19:04
2	U 409.014†	-2015.3	131.9	4.2112 ug/L	4.2112 ppb	17:18:44
2	V 292.402†	-1370.8	108.6	0.7869 ug/L	0.7869 ppb	17:18:44
2	Zn 213.857†	807.3	-95.6	-0.9554 ug/L	-0.9554 ppb	17:19:04
2	SiO2†	502.5	19.8	1.4304 ug/L	1.4304 ppb	17:19:40
3	Sc Radial	5117.3	5117.3	107 %		17:17:52
3	Y RADIAL	5495.2	5495.2	107.1 %		17:17:52
3	Al 396.153Radial†	-4.8	-1.2	-0.9730 ug/L	-0.9730 ppb	17:17:52
3	Ca 317.933Radial†	23.0	6.3	10.679 ug/L	10.679 ppb	17:18:12
3	Fe 238.204 Radial†	11.6	1.0	9.1162 ug/L	9.1162 ppb	17:18:12
3	K 766.490 Radial†	2796.4	-169.2	-33.929 ug/L	-33.929 ppb	17:17:52
3	Mg 279.077 IEC†	4.4	2.7	93.131 ug/L	93.131 ppb	17:18:12
3	Na 589.592 Radial†	-1416.5	240.7	77.984 ug/L	77.984 ppb	17:17:52
3	Sr 421.552†	-13.0	-29.3	-0.2092 ug/L	-0.2092 ppb	17:17:52
3	Sc 361.383	851964.8	851964.8	104.68 %		17:19:09
3	Y 371.029	716804.3	716804.3	104.50 %		17:19:09
3	Ag 328.068†	318.6	22.7	0.1140 ug/L	0.1140 ppb	17:19:09
3	As 188.979†	-25.2	-5.3	-2.3686 ug/L	-2.3686 ppb	17:19:29
3	B 249.677†	-378.1	157.4	3.8273 ug/L	3.8273 ppb	17:19:29
3	Ba 233.527†	-4.1	-5.4	-0.0423 ug/L	-0.0423 ppb	17:19:29
3	Be 313.107†	-4376.5	131.4	0.0528 ug/L	0.0528 ppb	17:19:09
3	Cd 226.502†	-158.2	46.4	0.5439 ug/L	0.5439 ppb	17:19:29
3	Co 228.616†	-60.7	14.7	0.3183 ug/L	0.3183 ppb	17:19:29
3	Cr 267.716†	74.3	-24.8	-0.2931 ug/L	-0.2931 ppb	17:19:29
3	Cu 324.752†	6346.7	-235.2	-0.7531 ug/L	-0.7531 ppb	17:19:09
3	Mn 257.610†	423.6	0.3	-0.0025 ug/L	-0.0025 ppb	17:19:29
3	Mo 202.031†	20.7	0.5	0.0370 ug/L	0.0370 ppb	17:19:29
3	Ni 231.604†	76.4	-2.1	-0.0556 ug/L	-0.0556 ppb	17:19:29
3	P 214.914†	229.8	-8.3	-5.1628 ug/L	-5.1628 ppb	17:19:29
3	Pb 220.353†	-70.1	-2.4	-0.3094 ug/L	-0.3094 ppb	17:19:29
3	S 181.975 Axial†	45.4	-3.1	-4.6162 ug/L	-4.6162 ppb	17:19:29
3	Sb 206.836†	26.4	-7.5	-2.7281 ug/L	-2.7281 ppb	17:19:29
3	Se 196.026†	-31.2	0.5	0.3892 ug/L	0.3892 ppb	17:19:29
3	Si 251.611†	474.5	7.4	0.2506 ug/L	0.2506 ppb	17:19:29
3	Sn 189.927†	9.0	2.5	0.4627 ug/L	0.4627 ppb	17:19:29
3	Ti 334.940†	-1301.8	143.4	0.2377 ug/L	0.2377 ppb	17:19:09
3	Tl 190.801†	-36.2	9.3	2.9842 ug/L	2.9842 ppb	17:19:29
3	U 409.014†	-1967.4	161.5	5.1577 ug/L	5.1577 ppb	17:19:09
3	V 292.402†	-1342.8	124.4	0.9079 ug/L	0.9079 ppb	17:19:09
3	Zn 213.857†	791.5	-104.2	-1.0390 ug/L	-1.0390 ppb	17:19:29
3	SiO2†	523.4	43.8	3.1362 ug/L	3.1362 ppb	17:19:45

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	858161.0	105.44	%	0.708				0.67%
Sc Radial	5220.1	109	%	3.7				3.43%
Y 371.029	722328.2	105.30	%	0.738				0.70%
Y RADIAL	5611.7	109.4	%	3.61				3.30%
Ag 328.068†	51.4	0.2525	ug/L	0.28785	0.2525	ppb	0.28785	113.99%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	8.4	6.7452	ug/L	6.85671	6.7452	ppb	6.85671	101.65%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-3.8	-1.6891	ug/L	0.65811	-1.6891	ppb	0.65811	38.96%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	151.4	3.6837	ug/L	0.35208	3.6837	ppb	0.35208	9.56%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-3.3	-0.0256	ug/L	0.10272	-0.0256	ppb	0.10272	401.49%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	181.2	0.0724	ug/L	0.02280	0.0724	ppb	0.02280	31.47%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	4.5	7.6500	ug/L	5.73121	7.6500	ppb	5.73121	74.92%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              33.4      0.3926 ug/L       0.16907      0.3926 ppb        0.16907  43.06%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†               6.0      0.1305 ug/L       0.16264      0.1305 ppb        0.16264 124.60%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†             -24.0     -0.2845 ug/L       0.04731     -0.2845 ppb        0.04731  16.63%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -194.2     -0.6229 ug/L       0.11624     -0.6229 ppb        0.11624  18.66%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        0.4      3.9211 ug/L      18.86072      3.9211 ppb       18.86072 481.00%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       -232.7    -46.656 ug/L       17.9634     -46.656 ppb        17.9634  38.50%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           2.4      85.674 ug/L       30.4816      85.674 ppb        30.4816  35.58%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               3.5      0.0010 ug/L       0.01527      0.0010 ppb        0.01527 >999.9%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               1.0      0.0768 ug/L       0.38885      0.0768 ppb        0.38885 506.15%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      301.0      97.526 ug/L       22.6760      97.526 ppb        22.6760  23.25%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               1.8      0.0463 ug/L       0.08872      0.0463 ppb        0.08872 191.55%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†              -13.7     -8.5859 ug/L       3.08061     -8.5859 ppb        3.08061  35.88%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -0.9     -0.1164 ug/L       0.45907     -0.1164 ppb        0.45907 394.46%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         -2.6     -3.9474 ug/L       6.40491     -3.9474 ppb        6.40491 162.26%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               2.3      0.8603 ug/L       3.34021      0.8603 ppb        3.34021 388.24%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               2.5      1.6790 ug/L       1.11901      1.6790 ppb        1.11901  66.65%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†               8.7      0.2912 ug/L       0.32839      0.2912 ppb        0.32839 112.76%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               2.8      0.5101 ug/L       0.30174      0.5101 ppb        0.30174  59.15%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             -28.2     -0.2010 ug/L       0.13741     -0.2010 ppb        0.13741  68.35%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             118.9      0.1954 ug/L       0.11196      0.1954 ppb        0.11196  57.29%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               9.1      2.9082 ug/L       0.55875      2.9082 ppb        0.55875  19.21%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              185.5      5.9253 ug/L       2.20071      5.9253 ppb        2.20071  37.14%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              130.2      0.9525 ug/L       0.19186      0.9525 ppb        0.19186  20.14%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†             -104.7     -1.0441 ug/L       0.09132     -1.0441 ppb        0.09132   8.75%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                    24.0      1.7198 ug/L       1.29619      1.7198 ppb        1.29619  75.37%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 30
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 1/14/2010 18:23:01
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5122.8	5122.8	107	%			18:24:54
1	Y RADIAL	5442.9	5442.9	106.1	%			18:24:54
1	Al 396.153Radial†	6220.4	5821.2	4646.6	ug/L	4646.6	ppb	18:24:54
1	Ca 317.933Radial†	3149.3	2930.3	4934.5	ug/L	4934.5	ppb	18:25:14
1	Fe 238.204 Radial†	585.1	537.4	5066.5	ug/L	5066.5	ppb	18:25:14
1	K 766.490 Radial†	28535.2	23901.2	4782.3	ug/L	4782.3	ppb	18:24:54
1	Mg 279.077 IEC†	162.5	150.5	5282.3	ug/L	5282.3	ppb	18:25:14
1	Na 589.592 Radial†	29547.8	29202.6	9461.8	ug/L	9461.8	ppb	18:24:54
1	Sr 421.552†	72128.9	67444.1	480.70	ug/L	480.70	ppb	18:24:54
1	Sc 361.383	874426.5	874426.5	107.44	%			18:26:11
1	Y 371.029	725162.4	725162.4	105.71	%			18:26:11
1	Ag 328.068†	103788.6	96318.9	476.33	ug/L	476.33	ppb	18:26:16
1	As 188.979†	1136.1	1076.3	488.62	ug/L	488.62	ppb	18:26:36
1	B 249.677†	21126.1	20181.5	488.96	ug/L	488.96	ppb	18:26:16
1	Ba 233.527†	63441.8	59046.5	490.84	ug/L	490.84	ppb	18:26:16
1	Be 313.107†	1326970.9	1239380.0	493.35	ug/L	493.35	ppb	18:26:11
1	Cd 226.502†	44978.5	42060.9	492.86	ug/L	492.86	ppb	18:26:16
1	Co 228.616†	24276.3	22667.7	492.34	ug/L	492.34	ppb	18:26:16
1	Cr 267.716†	44415.0	41243.2	487.16	ug/L	487.16	ppb	18:26:16
1	Cu 324.752†	170304.9	152211.9	485.89	ug/L	485.89	ppb	18:26:16
1	Mn 257.610†	450103.7	418526.2	491.06	ug/L	491.06	ppb	18:26:11
1	Mo 202.031†	7043.7	6536.6	485.67	ug/L	485.67	ppb	18:26:36
1	Ni 231.604†	20093.6	18626.9	490.04	ug/L	490.04	ppb	18:26:16
1	P 214.914†	4309.0	3782.7	2319.3	ug/L	2319.3	ppb	18:26:36
1	Pb 220.353†	3967.8	3757.6	482.83	ug/L	482.83	ppb	18:26:36
1	S 181.975 Axial†	753.5	654.9	976.47	ug/L	976.47	ppb	18:26:36
1	Sb 206.836†	1457.9	1324.2	501.59	ug/L	501.59	ppb	18:26:36
1	Se 196.026†	773.0	749.9	519.77	ug/L	519.77	ppb	18:26:36
1	Si 251.611†	79497.0	73545.3	2473.7	ug/L	2473.7	ppb	18:26:16
1	Sn 189.927†	2836.8	2634.2	488.00	ug/L	488.00	ppb	18:26:36
1	Ti 334.940†	303027.9	283427.9	486.07	ug/L	486.07	ppb	18:26:16
1	Tl 190.801†	1584.3	1518.5	489.04	ug/L	489.04	ppb	18:26:36
1	U 409.014†	14884.7	15894.8	505.97	ug/L	505.97	ppb	18:26:16
1	V 292.402†	71330.9	67797.8	495.59	ug/L	495.59	ppb	18:26:16
1	Zn 213.857†	54153.2	49542.3	489.83	ug/L	489.83	ppb	18:26:16
1	SiO2†	78300.0	72420.9	5178.8	ug/L	5178.8	ppb	18:27:44
2	Sc Radial	5125.9	5125.9	107	%			18:25:19
2	Y RADIAL	5478.7	5478.7	106.8	%			18:25:19
2	Al 396.153Radial†	6458.8	6040.4	4822.0	ug/L	4822.0	ppb	18:25:19
2	Ca 317.933Radial†	3072.4	2856.7	4810.5	ug/L	4810.5	ppb	18:25:39
2	Fe 238.204 Radial†	572.6	525.3	4953.3	ug/L	4953.3	ppb	18:25:39
2	K 766.490 Radial†	29406.6	24699.4	4942.2	ug/L	4942.2	ppb	18:25:19
2	Mg 279.077 IEC†	153.5	142.0	4984.0	ug/L	4984.0	ppb	18:25:39
2	Na 589.592 Radial†	30667.9	30232.7	9795.6	ug/L	9795.6	ppb	18:25:19
2	Sr 421.552†	74897.8	69990.9	498.85	ug/L	498.85	ppb	18:25:19
2	Sc 361.383	862187.1	862187.1	105.94	%			18:26:42
2	Y 371.029	714944.2	714944.2	104.23	%			18:26:42
2	Ag 328.068†	106755.4	100490.7	496.83	ug/L	496.83	ppb	18:26:47
2	As 188.979†	1149.0	1103.4	500.92	ug/L	500.92	ppb	18:27:07
2	B 249.677†	21515.9	20828.6	504.69	ug/L	504.69	ppb	18:26:47
2	Ba 233.527†	64166.5	60568.8	503.49	ug/L	503.49	ppb	18:26:47
2	Be 313.107†	1306570.2	1237655.5	492.70	ug/L	492.70	ppb	18:26:42
2	Cd 226.502†	45517.2	43163.8	505.81	ug/L	505.81	ppb	18:26:47
2	Co 228.616†	24623.0	23315.7	506.40	ug/L	506.40	ppb	18:26:47
2	Cr 267.716†	44905.7	42293.2	499.56	ug/L	499.56	ppb	18:26:47
2	Cu 324.752†	173056.2	157059.2	501.35	ug/L	501.35	ppb	18:26:47
2	Mn 257.610†	444509.0	419192.2	491.85	ug/L	491.85	ppb	18:26:42
2	Mo 202.031†	7057.4	6642.5	493.52	ug/L	493.52	ppb	18:27:07
2	Ni 231.604†	20386.1	19168.4	504.29	ug/L	504.29	ppb	18:26:47

2	P 214.914†	4283.6	3815.6	2337.5 ug/L	2337.5 ppb	18:27:07
2	Pb 220.353†	3985.3	3826.5	491.72 ug/L	491.72 ppb	18:27:07
2	S 181.975 Axial†	759.5	670.5	999.77 ug/L	999.77 ppb	18:27:07
2	Sb 206.836†	1467.1	1352.2	512.12 ug/L	512.12 ppb	18:27:07
2	Se 196.026†	766.9	754.3	522.39 ug/L	522.39 ppb	18:27:07
2	Si 251.611†	80552.6	75592.1	2542.6 ug/L	2542.6 ppb	18:26:47
2	Sn 189.927†	2852.6	2686.6	497.66 ug/L	497.66 ppb	18:27:07
2	Ti 334.940†	307131.5	291305.3	499.58 ug/L	499.58 ppb	18:26:47
2	Tl 190.801†	1593.0	1547.6	498.39 ug/L	498.39 ppb	18:27:07
2	U 409.014†	15198.8	16387.9	521.71 ug/L	521.71 ppb	18:26:47
2	V 292.402†	72138.9	69503.0	508.02 ug/L	508.02 ppb	18:26:47
2	Zn 213.857†	54912.4	50974.5	504.01 ug/L	504.01 ppb	18:26:47
2	SiO2†	78752.0	73882.1	5283.3 ug/L	5283.3 ppb	18:27:49
3	Sc Radial	5017.1	5017.1	105 %		18:25:44
3	Y RADIAL	5313.9	5313.9	103.6 %		18:25:44
3	Al 396.153Radial†	6276.0	5996.7	4787.2 ug/L	4787.2 ppb	18:25:44
3	Ca 317.933Radial†	3084.4	2930.4	4934.6 ug/L	4934.6 ppb	18:26:04
3	Fe 238.204 Radial†	572.5	536.9	5062.1 ug/L	5062.1 ppb	18:26:04
3	K 766.490 Radial†	28753.5	24671.7	4936.6 ug/L	4936.6 ppb	18:25:44
3	Mg 279.077 IEC†	161.0	152.3	5346.2 ug/L	5346.2 ppb	18:26:04
3	Na 589.592 Radial†	29698.4	29928.5	9697.0 ug/L	9697.0 ppb	18:25:44
3	Sr 421.552†	72956.4	69655.1	496.46 ug/L	496.46 ppb	18:25:44
3	Sc 361.383	865484.7	865484.7	106.34 %		18:27:13
3	Y 371.029	717838.0	717838.0	104.65 %		18:27:13
3	Ag 328.068†	104635.4	98113.2	485.17 ug/L	485.17 ppb	18:27:18
3	As 188.979†	1126.7	1078.4	489.64 ug/L	489.64 ppb	18:27:38
3	B 249.677†	21378.1	20621.6	499.66 ug/L	499.66 ppb	18:27:18
3	Ba 233.527†	63663.2	59864.8	497.64 ug/L	497.64 ppb	18:27:18
3	Be 313.107†	1308976.4	1235219.1	491.72 ug/L	491.72 ppb	18:27:13
3	Cd 226.502†	45072.6	42581.9	498.97 ug/L	498.97 ppb	18:27:18
3	Co 228.616†	24380.1	22998.7	499.52 ug/L	499.52 ppb	18:27:18
3	Cr 267.716†	44641.0	41882.8	494.72 ug/L	494.72 ppb	18:27:18
3	Cu 324.752†	171861.3	155313.1	495.78 ug/L	495.78 ppb	18:27:18
3	Mn 257.610†	445285.0	418323.1	490.82 ug/L	490.82 ppb	18:27:13
3	Mo 202.031†	7038.4	6599.3	490.33 ug/L	490.33 ppb	18:27:38
3	Ni 231.604†	20265.0	18981.3	499.37 ug/L	499.37 ppb	18:27:18
3	P 214.914†	4305.8	3821.2	2341.9 ug/L	2341.9 ppb	18:27:38
3	Pb 220.353†	3964.9	3793.0	487.40 ug/L	487.40 ppb	18:27:38
3	S 181.975 Axial†	763.7	671.7	1001.6 ug/L	1001.6 ppb	18:27:38
3	Sb 206.836†	1470.7	1350.3	511.28 ug/L	511.28 ppb	18:27:38
3	Se 196.026†	757.5	742.7	514.97 ug/L	514.97 ppb	18:27:38
3	Si 251.611†	79948.4	74734.2	2513.8 ug/L	2513.8 ppb	18:27:18
3	Sn 189.927†	2831.2	2656.2	492.07 ug/L	492.07 ppb	18:27:38
3	Ti 334.940†	305279.9	288459.5	494.68 ug/L	494.68 ppb	18:27:18
3	Tl 190.801†	1581.8	1531.3	493.19 ug/L	493.19 ppb	18:27:38
3	U 409.014†	15203.6	16337.8	520.10 ug/L	520.10 ppb	18:27:18
3	V 292.402†	71689.1	68820.6	503.05 ug/L	503.05 ppb	18:27:18
3	Zn 213.857†	54416.5	50310.7	497.42 ug/L	497.42 ppb	18:27:18
3	SiO2†	77978.3	72871.4	5211.0 ug/L	5211.0 ppb	18:27:54

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	867366.1	106.57	%	0.778				0.73%
Sc Radial	5088.6	106	%	1.3				1.22%
Y 371.029	719314.8	104.86	%	0.768				0.73%
Y RADIAL	5411.8	105.5	%	1.69				1.60%
Ag 328.068†	98307.6	486.11	ug/L	10.281	486.11	ppb	10.281	2.12%
QC value within limits for Ag 328.068 Recovery = 97.22%								
Al 396.153Radial†	5952.7	4751.9	ug/L	92.90	4751.9	ppb	92.90	1.96%
QC value within limits for Al 396.153Radial Recovery = 95.04%								
As 188.979†	1086.0	493.06	ug/L	6.828	493.06	ppb	6.828	1.38%
QC value within limits for As 188.979 Recovery = 98.61%								
B 249.677†	20543.9	497.77	ug/L	8.031	497.77	ppb	8.031	1.61%
QC value within limits for B 249.677 Recovery = 99.55%								
Ba 233.527†	59826.7	497.32	ug/L	6.329	497.32	ppb	6.329	1.27%
QC value within limits for Ba 233.527 Recovery = 99.46%								
Be 313.107†	1237418.2	492.59	ug/L	0.822	492.59	ppb	0.822	0.17%
QC value within limits for Be 313.107 Recovery = 98.52%								
Ca 317.933Radial†	2905.8	4893.2	ug/L	71.63	4893.2	ppb	71.63	1.46%

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   QC value within limits for Ca 317.933Radial  Recovery = 97.86%
Cd 226.502†            42602.2      499.21 ug/L        6.478      499.21 ppb         6.478   1.30%
   QC value within limits for Cd 226.502  Recovery = 99.84%
Co 228.616†            22994.0      499.42 ug/L        7.033      499.42 ppb         7.033   1.41%
   QC value within limits for Co 228.616  Recovery = 99.88%
Cr 267.716†            41806.4      493.81 ug/L        6.247      493.81 ppb         6.247   1.27%
   QC value within limits for Cr 267.716  Recovery = 98.76%
Cu 324.752†           154861.4      494.34 ug/L        7.830      494.34 ppb         7.830   1.58%
   QC value within limits for Cu 324.752  Recovery = 98.87%
Fe 238.204 Radial†       533.2      5027.3 ug/L       64.11      5027.3 ppb        64.11   1.28%
   QC value within limits for Fe 238.204 Radial  Recovery = 100.55%
K 766.490 Radial†      24424.1      4887.0 ug/L       90.71      4887.0 ppb        90.71   1.86%
   QC value within limits for K 766.490 Radial  Recovery = 97.74%
Mg 279.077 IEC†          148.2      5204.2 ug/L      193.36      5204.2 ppb       193.36   3.72%
   QC value within limits for Mg 279.077 IEC  Recovery = 104.08%
Mn 257.610†           418680.5      491.24 ug/L        0.535      491.24 ppb         0.535   0.11%
   QC value within limits for Mn 257.610  Recovery = 98.25%
Mo 202.031†            6592.8      489.84 ug/L        3.950      489.84 ppb         3.950   0.81%
   QC value within limits for Mo 202.031  Recovery = 97.97%
Na 589.592 Radial†     29787.9      9651.4 ug/L      171.47      9651.4 ppb       171.47   1.78%
   QC value within limits for Na 589.592 Radial  Recovery = 96.51%
Ni 231.604†            18925.5      497.90 ug/L        7.236      497.90 ppb         7.236   1.45%
   QC value within limits for Ni 231.604  Recovery = 99.58%
P 214.914†              3806.5      2332.9 ug/L       12.00      2332.9 ppb        12.00   0.51%
   QC value within limits for P 214.914  Recovery = 93.32%
Pb 220.353†             3792.4      487.32 ug/L        4.446      487.32 ppb         4.446   0.91%
   QC value within limits for Pb 220.353  Recovery = 97.46%
S 181.975 Axial†         665.7      992.61 ug/L       14.000      992.61 ppb        14.000   1.41%
   QC value within limits for S 181.975 Axial  Recovery = 99.26%
Sb 206.836†             1342.2      508.33 ug/L        5.851      508.33 ppb         5.851   1.15%
   QC value within limits for Sb 206.836  Recovery = 101.67%
Se 196.026†              748.9      519.04 ug/L        3.767      519.04 ppb         3.767   0.73%
   QC value within limits for Se 196.026  Recovery = 103.81%
Si 251.611†            74623.9      2510.0 ug/L       34.61      2510.0 ppb        34.61   1.38%
   QC value within limits for Si 251.611  Recovery = 100.40%
Sn 189.927†             2659.0      492.57 ug/L        4.851      492.57 ppb         4.851   0.98%
   QC value within limits for Sn 189.927  Recovery = 98.51%
Sr 421.552†            69030.0      492.00 ug/L        9.863      492.00 ppb         9.863   2.00%
   QC value within limits for Sr 421.552  Recovery = 98.40%
Ti 334.940†           287730.9      493.44 ug/L        6.840      493.44 ppb         6.840   1.39%
   QC value within limits for Ti 334.940  Recovery = 98.69%
Tl 190.801†             1532.5      493.54 ug/L        4.686      493.54 ppb         4.686   0.95%
   QC value within limits for Tl 190.801  Recovery = 98.71%
U 409.014†             16206.8      515.93 ug/L        8.658      515.93 ppb         8.658   1.68%
   QC value within limits for U 409.014  Recovery = 103.19%
V 292.402†             68707.1      502.22 ug/L        6.258      502.22 ppb         6.258   1.25%
   QC value within limits for V 292.402  Recovery = 100.44%
Zn 213.857†            50275.8      497.09 ug/L        7.097      497.09 ppb         7.097   1.43%
   QC value within limits for Zn 213.857  Recovery = 99.42%
SiO2†                  73058.1      5224.4 ug/L       53.54      5224.4 ppb        53.54   1.02%
   QC value within limits for SiO2  Recovery = 97.70%
All analyte(s) passed QC.
```

Sequence No.: 31
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 1/14/2010 18:30:04
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5180.7	5180.7	108	%			18:31:56
1	Y RADIAL	5555.6	5555.6	108.3	%			18:31:56
1	Al 396.153Radial†	-2.6	0.8	0.6239	ug/L	0.6239	ppb	18:31:56
1	Ca 317.933Radial†	19.4	2.8	4.7177	ug/L	4.7177	ppb	18:32:16
1	Fe 238.204 Radial†	9.3	-1.3	-12.106	ug/L	-12.106	ppb	18:32:16
1	K 766.490 Radial†	2881.1	-122.9	-24.677	ug/L	-24.677	ppb	18:31:56
1	Mg 279.077 IEC†	0.2	-1.3	-45.550	ug/L	-45.550	ppb	18:32:16
1	Na 589.592 Radial†	-1277.6	385.4	124.87	ug/L	124.87	ppb	18:31:56
1	Sr 421.552†	23.3	4.3	0.0310	ug/L	0.0310	ppb	18:31:56
1	Sc 361.383	859008.3	859008.3	105.55	%			18:33:13
1	Y 371.029	724046.7	724046.7	105.55	%			18:33:13
1	Ag 328.068†	374.9	73.6	0.3547	ug/L	0.3547	ppb	18:33:13
1	As 188.979†	-18.9	1.0	0.4375	ug/L	0.4375	ppb	18:33:33
1	B 249.677†	-310.3	224.6	5.4667	ug/L	5.4667	ppb	18:33:33
1	Ba 233.527†	-13.2	-14.0	-0.1147	ug/L	-0.1147	ppb	18:33:33
1	Be 313.107†	-4302.2	236.2	0.0942	ug/L	0.0942	ppb	18:33:13
1	Cd 226.502†	-186.1	21.3	0.2518	ug/L	0.2518	ppb	18:33:33
1	Co 228.616†	-65.7	10.4	0.2278	ug/L	0.2278	ppb	18:33:33
1	Cr 267.716†	93.7	-6.9	-0.0839	ug/L	-0.0839	ppb	18:33:33
1	Cu 324.752†	6499.0	-140.6	-0.4540	ug/L	-0.4540	ppb	18:33:13
1	Mn 257.610†	420.9	-5.5	-0.0058	ug/L	-0.0058	ppb	18:33:33
1	Mo 202.031†	28.7	7.9	0.5855	ug/L	0.5855	ppb	18:33:33
1	Ni 231.604†	70.4	-8.4	-0.2212	ug/L	-0.2212	ppb	18:33:33
1	P 214.914†	215.7	-23.5	-14.886	ug/L	-14.886	ppb	18:33:33
1	Pb 220.353†	-79.1	-10.4	-1.3265	ug/L	-1.3265	ppb	18:33:33
1	S 181.975 Axial†	48.6	-0.4	-0.6586	ug/L	-0.6586	ppb	18:33:33
1	Sb 206.836†	47.5	12.3	4.5082	ug/L	4.5082	ppb	18:33:33
1	Se 196.026†	-26.8	5.0	3.2904	ug/L	3.2904	ppb	18:33:33
1	Si 251.611†	476.9	5.9	0.1923	ug/L	0.1923	ppb	18:33:33
1	Sn 189.927†	12.5	5.8	1.0647	ug/L	1.0647	ppb	18:33:33
1	Ti 334.940†	-1351.6	106.4	0.1834	ug/L	0.1834	ppb	18:33:13
1	Tl 190.801†	-26.1	19.1	6.1170	ug/L	6.1170	ppb	18:33:33
1	U 409.014†	-1887.1	253.1	8.0834	ug/L	8.0834	ppb	18:33:13
1	V 292.402†	-1354.1	124.2	0.9203	ug/L	0.9203	ppb	18:33:13
1	Zn 213.857†	832.9	-71.2	-0.7072	ug/L	-0.7072	ppb	18:33:33
1	SiO2†	492.5	10.4	0.7296	ug/L	0.7296	ppb	18:34:29
2	Sc Radial	4960.7	4960.7	104	%			18:32:21
2	Y RADIAL	5331.3	5331.3	103.9	%			18:32:21
2	Al 396.153Radial†	15.0	17.7	14.197	ug/L	14.197	ppb	18:32:21
2	Ca 317.933Radial†	27.0	10.9	18.384	ug/L	18.384	ppb	18:32:41
2	Fe 238.204 Radial†	8.1	-2.0	-19.001	ug/L	-19.001	ppb	18:32:41
2	K 766.490 Radial†	2885.8	-0.2	-0.0788	ug/L	-0.0788	ppb	18:32:21
2	Mg 279.077 IEC†	2.8	1.2	42.014	ug/L	42.014	ppb	18:32:41
2	Na 589.592 Radial†	-1289.7	321.3	104.09	ug/L	104.09	ppb	18:32:21
2	Sr 421.552†	4.2	-13.1	-0.0937	ug/L	-0.0937	ppb	18:32:21
2	Sc 361.383	858682.7	858682.7	105.51	%			18:33:38
2	Y 371.029	722636.1	722636.1	105.35	%			18:33:38
2	Ag 328.068†	399.3	96.9	0.4678	ug/L	0.4678	ppb	18:33:38
2	As 188.979†	-27.7	-7.4	-3.3175	ug/L	-3.3175	ppb	18:33:58
2	B 249.677†	-320.9	214.4	5.2217	ug/L	5.2217	ppb	18:33:58
2	Ba 233.527†	-5.1	-6.3	-0.0507	ug/L	-0.0507	ppb	18:33:58
2	Be 313.107†	-4351.1	188.2	0.0752	ug/L	0.0752	ppb	18:33:38
2	Cd 226.502†	-174.3	32.4	0.3829	ug/L	0.3829	ppb	18:33:58
2	Co 228.616†	-72.4	4.1	0.0900	ug/L	0.0900	ppb	18:33:58
2	Cr 267.716†	98.5	-2.4	-0.0295	ug/L	-0.0295	ppb	18:33:58
2	Cu 324.752†	6443.8	-190.6	-0.6129	ug/L	-0.6129	ppb	18:33:38
2	Mn 257.610†	437.2	10.1	0.0082	ug/L	0.0082	ppb	18:33:58
2	Mo 202.031†	27.7	7.0	0.5169	ug/L	0.5169	ppb	18:33:58
2	Ni 231.604†	84.8	5.2	0.1372	ug/L	0.1372	ppb	18:33:58

2	P 214.914†	213.2	-25.8	-16.304	ug/L	-16.304 ppb	18:33:58
2	Pb 220.353†	-68.7	-0.6	-0.0646	ug/L	-0.0646 ppb	18:33:58
2	S 181.975 Axial†	51.0	1.9	2.8228	ug/L	2.8228 ppb	18:33:58
2	Sb 206.836†	44.5	9.5	3.4732	ug/L	3.4732 ppb	18:33:58
2	Se 196.026†	-25.9	5.9	3.8569	ug/L	3.8569 ppb	18:33:58
2	Si 251.611†	483.7	12.6	0.4180	ug/L	0.4180 ppb	18:33:58
2	Sn 189.927†	5.7	-0.7	-0.1221	ug/L	-0.1221 ppb	18:33:58
2	Ti 334.940†	-1337.1	119.7	0.2015	ug/L	0.2015 ppb	18:33:38
2	Tl 190.801†	-27.2	18.1	5.7938	ug/L	5.7938 ppb	18:33:58
2	U 409.014†	-1942.8	199.6	6.3757	ug/L	6.3757 ppb	18:33:38
2	V 292.402†	-1360.8	117.4	0.8698	ug/L	0.8698 ppb	18:33:38
2	Zn 213.857†	833.3	-70.5	-0.7015	ug/L	-0.7015 ppb	18:33:58
2	SiO2†	493.8	11.9	0.8356	ug/L	0.8356 ppb	18:34:34
3	Sc Radial	5139.3	5139.3	107	%		18:32:46
3	Y RADIAL	5523.7	5523.7	107.7	%		18:32:46
3	Al 396.153Radial†	-3.8	-0.3	-0.2771	ug/L	-0.2771 ppb	18:32:46
3	Ca 317.933Radial†	19.8	3.3	5.6098	ug/L	5.6098 ppb	18:33:06
3	Fe 238.204 Radial†	9.1	-1.4	-13.220	ug/L	-13.220 ppb	18:33:06
3	K 766.490 Radial†	3015.8	24.2	4.8016	ug/L	4.8016 ppb	18:32:46
3	Mg 279.077 IEC†	2.3	0.7	23.752	ug/L	23.752 ppb	18:33:06
3	Na 589.592 Radial†	-1309.7	345.9	112.08	ug/L	112.08 ppb	18:32:46
3	Sr 421.552†	13.8	-4.4	-0.0314	ug/L	-0.0314 ppb	18:32:46
3	Sc 361.383	859526.1	859526.1	105.61	%		18:34:04
3	Y 371.029	723946.5	723946.5	105.54	%		18:34:04
3	Ag 328.068†	476.9	170.0	0.8295	ug/L	0.8295 ppb	18:34:04
3	As 188.979†	-33.4	-12.8	-5.7482	ug/L	-5.7482 ppb	18:34:24
3	B 249.677†	-354.2	183.1	4.4595	ug/L	4.4595 ppb	18:34:24
3	Ba 233.527†	-9.7	-10.7	-0.0864	ug/L	-0.0864 ppb	18:34:24
3	Be 313.107†	-4375.9	168.8	0.0676	ug/L	0.0676 ppb	18:34:04
3	Cd 226.502†	-164.3	42.0	0.4957	ug/L	0.4957 ppb	18:34:24
3	Co 228.616†	-74.1	2.5	0.0543	ug/L	0.0543 ppb	18:34:24
3	Cr 267.716†	80.8	-19.2	-0.2280	ug/L	-0.2280 ppb	18:34:24
3	Cu 324.752†	6429.6	-210.0	-0.6753	ug/L	-0.6753 ppb	18:34:04
3	Mn 257.610†	421.8	-4.9	-0.0080	ug/L	-0.0080 ppb	18:34:24
3	Mo 202.031†	24.3	3.7	0.2745	ug/L	0.2745 ppb	18:34:24
3	Ni 231.604†	89.8	9.9	0.2600	ug/L	0.2600 ppb	18:34:24
3	P 214.914†	221.0	-18.6	-11.716	ug/L	-11.716 ppb	18:34:24
3	Pb 220.353†	-66.4	1.7	0.2238	ug/L	0.2238 ppb	18:34:24
3	S 181.975 Axial†	45.8	-3.1	-4.5587	ug/L	-4.5587 ppb	18:34:24
3	Sb 206.836†	36.7	2.0	0.7688	ug/L	0.7688 ppb	18:34:24
3	Se 196.026†	-24.1	7.6	5.0223	ug/L	5.0223 ppb	18:34:24
3	Si 251.611†	465.7	-5.0	-0.1705	ug/L	-0.1705 ppb	18:34:24
3	Sn 189.927†	12.3	5.5	1.0191	ug/L	1.0191 ppb	18:34:24
3	Ti 334.940†	-1303.0	153.2	0.2583	ug/L	0.2583 ppb	18:34:04
3	Tl 190.801†	-36.6	9.3	2.9626	ug/L	2.9626 ppb	18:34:24
3	U 409.014†	-1901.3	240.7	7.6891	ug/L	7.6891 ppb	18:34:04
3	V 292.402†	-1312.5	164.4	1.2065	ug/L	1.2065 ppb	18:34:04
3	Zn 213.857†	811.4	-92.0	-0.9169	ug/L	-0.9169 ppb	18:34:24
3	SiO2†	506.8	23.6	1.6863	ug/L	1.6863 ppb	18:34:39

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	859072.4	105.55	%	0.052				0.05%
Sc Radial	5093.6	106	%	2.4				2.30%
Y 371.029	723543.1	105.48	%	0.115				0.11%
Y RADIAL	5470.2	106.6	%	2.37				2.22%
Ag 328.068†	113.5	0.5507	ug/L	0.24797	0.5507	ppb	0.24797	45.03%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	6.1	4.8478	ug/L	8.10883	4.8478	ppb	8.10883	167.27%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-6.4	-2.8761	ug/L	3.11637	-2.8761	ppb	3.11637	108.36%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	207.4	5.0493	ug/L	0.52530	5.0493	ppb	0.52530	10.40%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-10.3	-0.0839	ug/L	0.03204	-0.0839	ppb	0.03204	38.18%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	197.7	0.0790	ug/L	0.01369	0.0790	ppb	0.01369	17.32%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	5.7	9.5704	ug/L	7.64551	9.5704	ppb	7.64551	79.89%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                31.9      0.3768 ug/L       0.12205      0.3768 ppb        0.12205  32.39%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                 5.7      0.1240 ug/L       0.09161      0.1240 ppb        0.09161  73.85%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                -9.5     -0.1138 ug/L       0.10261     -0.1138 ppb        0.10261  90.16%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -180.4     -0.5807 ug/L       0.11415     -0.5807 ppb        0.11415  19.66%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -1.6     -14.776 ug/L        3.7011     -14.776 ppb         3.7011  25.05%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         -33.0     -6.6514 ug/L      15.80024     -6.6514 ppb       15.80024 237.55%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            0.2      6.7388 ug/L      46.19459      6.7388 ppb       46.19459 685.50%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               -0.1     -0.0019 ug/L       0.00880     -0.0019 ppb        0.00880 472.96%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                6.2      0.4590 ug/L       0.16340      0.4590 ppb        0.16340  35.60%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       350.9      113.68 ug/L        10.481      113.68 ppb         10.481   9.22%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                2.2      0.0587 ug/L       0.25003      0.0587 ppb        0.25003 425.96%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -22.6     -14.302 ug/L        2.3495     -14.302 ppb         2.3495  16.43%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               -3.1     -0.3891 ug/L       0.82454     -0.3891 ppb        0.82454 211.90%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          -0.5     -0.7982 ug/L       3.69270     -0.7982 ppb        3.69270 462.63%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                7.9      2.9167 ug/L       1.93083      2.9167 ppb        1.93083  66.20%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                6.1      4.0565 ug/L       0.88305      4.0565 ppb        0.88305  21.77%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                4.5      0.1466 ug/L       0.29691      0.1466 ppb        0.29691 202.54%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                3.5      0.6539 ug/L       0.67244      0.6539 ppb        0.67244 102.83%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               -4.4     -0.0314 ug/L       0.06235     -0.0314 ppb        0.06235 198.62%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              126.4      0.2144 ug/L       0.03910      0.2144 ppb        0.03910  18.23%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               15.5      4.9578 ug/L       1.73541      4.9578 ppb        1.73541  35.00%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               231.1      7.3827 ug/L       0.89411      7.3827 ppb        0.89411  12.11%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               135.3      0.9989 ug/L       0.18156      0.9989 ppb        0.18156  18.18%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              -77.9     -0.7752 ug/L       0.12275     -0.7752 ppb        0.12275  15.83%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                     15.3      1.0838 ug/L       0.52444      1.0838 ppb        0.52444  48.39%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 41
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 1/14/2010 19:40:44
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	5325.3	5325.3	111	%			19:42:36
1	Y RADIAL	5682.8	5682.8	110.8	%			19:42:36
1	Al 396.153Radial†	6403.7	5764.8	4601.4	ug/L	4601.4	ppb	19:42:36
1	Ca 317.933Radial†	3136.9	2807.2	4727.2	ug/L	4727.2	ppb	19:42:56
1	Fe 238.204 Radial†	584.2	515.8	4863.3	ug/L	4863.3	ppb	19:42:56
1	K 766.490 Radial†	29044.0	23344.2	4670.8	ug/L	4670.8	ppb	19:42:36
1	Mg 279.077 IEC†	155.8	138.7	4868.4	ug/L	4868.4	ppb	19:42:56
1	Na 589.592 Radial†	30595.6	29094.6	9426.8	ug/L	9426.8	ppb	19:42:36
1	Sr 421.552†	74527.5	67037.1	477.80	ug/L	477.80	ppb	19:42:36
1	Sc 361.383	884922.0	884922.0	108.73	%			19:43:54
1	Y 371.029	733826.4	733826.4	106.98	%			19:43:54
1	Ag 328.068†	107120.2	98237.2	485.71	ug/L	485.71	ppb	19:43:59
1	As 188.979†	1128.6	1056.9	479.90	ug/L	479.90	ppb	19:44:19
1	B 249.677†	21367.2	20170.0	488.70	ug/L	488.70	ppb	19:43:59
1	Ba 233.527†	64870.7	59660.3	495.94	ug/L	495.94	ppb	19:43:59
1	Be 313.107†	1331984.8	1229343.1	489.38	ug/L	489.38	ppb	19:43:54
1	Cd 226.502†	45805.4	42325.0	495.98	ug/L	495.98	ppb	19:43:59
1	Co 228.616†	24806.5	22887.3	497.09	ug/L	497.09	ppb	19:43:59
1	Cr 267.716†	45480.4	41732.8	492.94	ug/L	492.94	ppb	19:43:59
1	Cu 324.752†	175093.5	154736.0	493.93	ug/L	493.93	ppb	19:43:59
1	Mn 257.610†	451225.1	414588.9	486.44	ug/L	486.44	ppb	19:43:54
1	Mo 202.031†	7101.1	6511.6	483.80	ug/L	483.80	ppb	19:44:19
1	Ni 231.604†	20544.7	18819.9	495.12	ug/L	495.12	ppb	19:43:59
1	P 214.914†	4317.7	3743.1	2292.6	ug/L	2292.6	ppb	19:44:19
1	Pb 220.353†	3992.7	3736.7	480.15	ug/L	480.15	ppb	19:44:19
1	S 181.975 Axial†	764.5	656.6	979.10	ug/L	979.10	ppb	19:44:19
1	Sb 206.836†	1459.0	1309.2	495.98	ug/L	495.98	ppb	19:44:19
1	Se 196.026†	762.2	731.4	506.75	ug/L	506.75	ppb	19:44:19
1	Si 251.611†	81499.0	74509.0	2506.2	ug/L	2506.2	ppb	19:43:59
1	Sn 189.927†	2840.9	2606.7	482.87	ug/L	482.87	ppb	19:44:19
1	Ti 334.940†	311116.9	287522.2	493.09	ug/L	493.09	ppb	19:43:59
1	Tl 190.801†	1583.3	1500.0	483.15	ug/L	483.15	ppb	19:44:19
1	U 409.014†	15585.7	16375.2	521.33	ug/L	521.33	ppb	19:43:59
1	V 292.402†	73269.9	68793.7	502.79	ug/L	502.79	ppb	19:43:59
1	Zn 213.857†	55477.7	50162.7	495.99	ug/L	495.99	ppb	19:43:59
1	SiO2†	79319.4	72494.1	5184.1	ug/L	5184.1	ppb	19:45:26
2	Sc Radial	5097.2	5097.2	106	%			19:43:01
2	Y RADIAL	5456.3	5456.3	106.4	%			19:43:01
2	Al 396.153Radial†	6382.9	6003.1	4791.2	ug/L	4791.2	ppb	19:43:01
2	Ca 317.933Radial†	3125.1	2922.4	4921.2	ug/L	4921.2	ppb	19:43:21
2	Fe 238.204 Radial†	585.4	540.4	5095.6	ug/L	5095.6	ppb	19:43:21
2	K 766.490 Radial†	28938.3	24414.2	4884.9	ug/L	4884.9	ppb	19:43:01
2	Mg 279.077 IEC†	159.4	148.3	5206.1	ug/L	5206.1	ppb	19:43:21
2	Na 589.592 Radial†	30649.6	30377.2	9842.4	ug/L	9842.4	ppb	19:43:01
2	Sr 421.552†	74180.9	69712.0	496.86	ug/L	496.86	ppb	19:43:01
2	Sc 361.383	833860.0	833860.0	102.46	%			19:44:25
2	Y 371.029	692653.7	692653.7	100.98	%			19:44:25
2	Ag 328.068†	105357.2	102549.3	507.04	ug/L	507.04	ppb	19:44:30
2	As 188.979†	1140.8	1132.3	513.99	ug/L	513.99	ppb	19:44:50
2	B 249.677†	20989.0	21004.2	508.91	ug/L	508.91	ppb	19:44:30
2	Ba 233.527†	63713.7	62184.5	516.92	ug/L	516.92	ppb	19:44:30
2	Be 313.107†	1339709.7	1311898.3	522.21	ug/L	522.21	ppb	19:44:25
2	Cd 226.502†	44989.5	44108.3	516.87	ug/L	516.87	ppb	19:44:30
2	Co 228.616†	24408.7	23896.1	519.02	ug/L	519.02	ppb	19:44:30
2	Cr 267.716†	44826.7	43656.1	515.66	ug/L	515.66	ppb	19:44:30
2	Cu 324.752†	171028.1	160629.1	512.75	ug/L	512.75	ppb	19:44:30
2	Mn 257.610†	452904.7	441640.7	518.17	ug/L	518.17	ppb	19:44:25
2	Mo 202.031†	7096.6	6907.1	513.17	ug/L	513.17	ppb	19:44:50
2	Ni 231.604†	20193.9	19634.6	516.55	ug/L	516.55	ppb	19:44:30

2	P 214.914†	4317.3	3985.9	2443.9 ug/L	2443.9 ppb	19:44:50
2	Pb 220.353†	4014.9	3983.2	511.82 ug/L	511.82 ppb	19:44:50
2	S 181.975 Axial†	758.7	694.1	1035.0 ug/L	1035.0 ppb	19:44:50
2	Sb 206.836†	1456.7	1389.1	526.26 ug/L	526.26 ppb	19:44:50
2	Se 196.026†	764.5	776.5	537.81 ug/L	537.81 ppb	19:44:50
2	Si 251.611†	79775.4	77416.7	2603.9 ug/L	2603.9 ppb	19:44:30
2	Sn 189.927†	2844.6	2770.2	513.15 ug/L	513.15 ppb	19:44:50
2	Ti 334.940†	304307.6	298397.9	511.73 ug/L	511.73 ppb	19:44:30
2	Tl 190.801†	1597.1	1602.7	516.16 ug/L	516.16 ppb	19:44:50
2	U 409.014†	14953.5	16635.9	529.57 ug/L	529.57 ppb	19:44:30
2	V 292.402†	71712.9	71400.5	521.97 ug/L	521.97 ppb	19:44:30
2	Zn 213.857†	54462.1	52295.9	517.08 ug/L	517.08 ppb	19:44:30
2	SiO2†	79715.8	77348.2	5531.3 ug/L	5531.3 ppb	19:45:31
3	Sc Radial	4784.1	4784.1	99.8 %		19:43:26
3	Y RADIAL	5092.0	5092.0	99.27 %		19:43:26
3	Al 396.153Radial†	6504.9	6518.0	5205.2 ug/L	5205.2 ppb	19:43:26
3	Ca 317.933Radial†	3112.5	3102.1	5223.7 ug/L	5223.7 ppb	19:43:46
3	Fe 238.204 Radial†	578.9	569.9	5372.4 ug/L	5372.4 ppb	19:43:46
3	K 766.490 Radial†	29304.3	26561.1	5314.7 ug/L	5314.7 ppb	19:43:26
3	Mg 279.077 IEC†	157.2	155.9	5472.9 ug/L	5472.9 ppb	19:43:46
3	Na 589.592 Radial†	31229.5	32843.5	10641 ug/L	10641 ppb	19:43:26
3	Sr 421.552†	75847.4	75944.6	541.29 ug/L	541.29 ppb	19:43:26
3	Sc 361.383	866538.3	866538.3	106.47 %		19:44:55
3	Y 371.029	719364.3	719364.3	104.87 %		19:44:55
3	Ag 328.068†	104626.1	97984.9	484.64 ug/L	484.64 ppb	19:45:01
3	As 188.979†	1152.9	1101.6	500.17 ug/L	500.17 ppb	19:45:21
3	B 249.677†	21134.6	20368.4	493.44 ug/L	493.44 ppb	19:45:01
3	Ba 233.527†	63912.3	60025.9	498.99 ug/L	498.99 ppb	19:45:01
3	Be 313.107†	1345815.8	1268322.5	504.87 ug/L	504.87 ppb	19:44:55
3	Cd 226.502†	45244.4	42691.8	500.23 ug/L	500.23 ppb	19:45:01
3	Co 228.616†	24486.1	23070.4	501.08 ug/L	501.08 ppb	19:45:01
3	Cr 267.716†	44865.9	42043.0	496.61 ug/L	496.61 ppb	19:45:01
3	Cu 324.752†	172213.2	155447.1	496.23 ug/L	496.23 ppb	19:45:01
3	Mn 257.610†	455480.8	427390.1	501.48 ug/L	501.48 ppb	19:44:55
3	Mo 202.031†	7098.0	6647.2	493.91 ug/L	493.91 ppb	19:45:21
3	Ni 231.604†	20289.9	18981.5	499.37 ug/L	499.37 ppb	19:45:01
3	P 214.914†	4319.7	3829.2	2346.9 ug/L	2346.9 ppb	19:45:21
3	Pb 220.353†	4016.9	3837.3	493.15 ug/L	493.15 ppb	19:45:21
3	S 181.975 Axial†	761.3	668.6	996.86 ug/L	996.86 ppb	19:45:21
3	Sb 206.836†	1470.3	1348.2	510.66 ug/L	510.66 ppb	19:45:21
3	Se 196.026†	765.8	749.6	520.66 ug/L	520.66 ppb	19:45:21
3	Si 251.611†	80336.4	75007.3	2522.9 ug/L	2522.9 ppb	19:45:01
3	Sn 189.927†	2857.2	2677.4	496.03 ug/L	496.03 ppb	19:45:21
3	Ti 334.940†	306200.8	288975.4	495.60 ug/L	495.60 ppb	19:45:01
3	Tl 190.801†	1591.0	1538.2	495.42 ug/L	495.42 ppb	19:45:21
3	U 409.014†	15156.8	16276.5	518.11 ug/L	518.11 ppb	19:45:01
3	V 292.402†	72059.2	69086.2	504.97 ug/L	504.97 ppb	19:45:01
3	Zn 213.857†	54727.7	50540.7	499.68 ug/L	499.68 ppb	19:45:01
3	SiO2†	78655.1	73417.8	5250.0 ug/L	5250.0 ppb	19:45:36

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	861773.4	105.89	%	3.178				3.00%
Sc Radial	5068.9	106	%	5.7				5.36%
Y 371.029	715281.5	104.27	%	3.045				2.92%
Y RADIAL	5410.4	105.5	%	5.81				5.51%
Ag 328.068†	99590.5	492.47	ug/L	12.633	492.47	ppb	12.633	2.57%
QC value within limits for Ag 328.068 Recovery = 98.49%								
Al 396.153Radial†	6095.3	4865.9	ug/L	308.73	4865.9	ppb	308.73	6.34%
QC value within limits for Al 396.153Radial Recovery = 97.32%								
As 188.979†	1096.9	498.02	ug/L	17.143	498.02	ppb	17.143	3.44%
QC value within limits for As 188.979 Recovery = 99.60%								
B 249.677†	20514.2	497.02	ug/L	10.566	497.02	ppb	10.566	2.13%
QC value within limits for B 249.677 Recovery = 99.40%								
Ba 233.527†	60623.6	503.95	ug/L	11.334	503.95	ppb	11.334	2.25%
QC value within limits for Ba 233.527 Recovery = 100.79%								
Be 313.107†	1269854.6	505.49	ug/L	16.424	505.49	ppb	16.424	3.25%
QC value within limits for Be 313.107 Recovery = 101.10%								
Ca 317.933Radial†	2943.9	4957.4	ug/L	250.22	4957.4	ppb	250.22	5.05%

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   QC value within limits for Ca 317.933Radial  Recovery = 99.15%
Cd 226.502†            43041.7      504.36 ug/L        11.042      504.36 ppb        11.042   2.19%
   QC value within limits for Cd 226.502  Recovery = 100.87%
Co 228.616†            23284.6      505.73 ug/L        11.684      505.73 ppb        11.684   2.31%
   QC value within limits for Co 228.616  Recovery = 101.15%
Cr 267.716†            42477.3      501.74 ug/L        12.195      501.74 ppb        12.195   2.43%
   QC value within limits for Cr 267.716  Recovery = 100.35%
Cu 324.752†           156937.4      500.97 ug/L        10.267      500.97 ppb        10.267   2.05%
   QC value within limits for Cu 324.752  Recovery = 100.19%
Fe 238.204 Radial†       542.0      5110.5 ug/L       254.88      5110.5 ppb       254.88   4.99%
   QC value within limits for Fe 238.204 Radial  Recovery = 102.21%
K 766.490 Radial†      24773.2      4956.8 ug/L       327.87      4956.8 ppb       327.87   6.61%
   QC value within limits for K 766.490 Radial  Recovery = 99.14%
Mg 279.077 IEC†          147.6      5182.5 ug/L       302.97      5182.5 ppb       302.97   5.85%
   QC value within limits for Mg 279.077 IEC  Recovery = 103.65%
Mn 257.610†           427873.2      502.03 ug/L        15.873      502.03 ppb        15.873   3.16%
   QC value within limits for Mn 257.610  Recovery = 100.41%
Mo 202.031†             6688.7      496.96 ug/L        14.925      496.96 ppb        14.925   3.00%
   QC value within limits for Mo 202.031  Recovery = 99.39%
Na 589.592 Radial†     30771.8      9970.2 ug/L       617.34      9970.2 ppb       617.34   6.19%
   QC value within limits for Na 589.592 Radial  Recovery = 99.70%
Ni 231.604†            19145.3      503.68 ug/L        11.348      503.68 ppb        11.348   2.25%
   QC value within limits for Ni 231.604  Recovery = 100.74%
P 214.914†              3852.8      2361.1 ug/L         76.68      2361.1 ppb         76.68   3.25%
   QC value within limits for P 214.914  Recovery = 94.44%
Pb 220.353†             3852.4      495.04 ug/L        15.918      495.04 ppb        15.918   3.22%
   QC value within limits for Pb 220.353  Recovery = 99.01%
S 181.975 Axial†         673.1      1003.6 ug/L         28.55      1003.6 ppb         28.55   2.84%
   QC value within limits for S 181.975 Axial  Recovery = 100.36%
Sb 206.836†             1348.8      510.97 ug/L        15.143      510.97 ppb        15.143   2.96%
   QC value within limits for Sb 206.836  Recovery = 102.19%
Se 196.026†              752.5      521.74 ug/L        15.559      521.74 ppb        15.559   2.98%
   QC value within limits for Se 196.026  Recovery = 104.35%
Si 251.611†            75644.3      2544.4 ug/L         52.25      2544.4 ppb         52.25   2.05%
   QC value within limits for Si 251.611  Recovery = 101.77%
Sn 189.927†             2684.8      497.35 ug/L        15.183      497.35 ppb        15.183   3.05%
   QC value within limits for Sn 189.927  Recovery = 99.47%
Sr 421.552†            70897.9      505.32 ug/L        32.577      505.32 ppb        32.577   6.45%
   QC value within limits for Sr 421.552  Recovery = 101.06%
Ti 334.940†           291631.8      500.14 ug/L        10.118      500.14 ppb        10.118   2.02%
   QC value within limits for Ti 334.940  Recovery = 100.03%
Tl 190.801†             1547.0      498.24 ug/L        16.688      498.24 ppb        16.688   3.35%
   QC value within limits for Tl 190.801  Recovery = 99.65%
U 409.014†             16429.2      523.00 ug/L         5.915      523.00 ppb         5.915   1.13%
   QC value within limits for U 409.014  Recovery = 104.60%
V 292.402†             69760.1      509.91 ug/L        10.502      509.91 ppb        10.502   2.06%
   QC value within limits for V 292.402  Recovery = 101.98%
Zn 213.857†            50999.8      504.25 ug/L        11.264      504.25 ppb        11.264   2.23%
   QC value within limits for Zn 213.857  Recovery = 100.85%
SiO2†                  74420.0      5321.8 ug/L       184.39      5321.8 ppb       184.39   3.46%
   QC value within limits for SiO2  Recovery = 99.52%
All analyte(s) passed QC.
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Sequence No.: 42
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 1/14/2010 19:47:47
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5077.1	5077.1	106	%			19:49:39
1	Y RADIAL	5453.2	5453.2	106.3	%			19:49:39
1	Al 396.153Radial†	-11.7	-7.8	-6.2491	ug/L	-6.2491	ppb	19:49:39
1	Ca 317.933Radial†	22.0	5.6	9.4228	ug/L	9.4228	ppb	19:50:00
1	Fe 238.204 Radial†	11.3	0.7	6.9516	ug/L	6.9516	ppb	19:50:00
1	K 766.490 Radial†	2811.1	-134.6	-26.994	ug/L	-26.994	ppb	19:49:39
1	Mg 279.077 IEC†	2.3	0.6	22.347	ug/L	22.347	ppb	19:50:00
1	Na 589.592 Radial†	-1437.5	210.3	68.154	ug/L	68.154	ppb	19:49:39
1	Sr 421.552†	-7.2	-24.0	-0.1711	ug/L	-0.1711	ppb	19:49:39
1	Sc 361.383	852089.0	852089.0	104.70	%			19:50:56
1	Y 371.029	722835.8	722835.8	105.38	%			19:50:56
1	Ag 328.068†	407.3	107.4	0.5246	ug/L	0.5246	ppb	19:50:56
1	As 188.979†	-24.0	-4.1	-1.8492	ug/L	-1.8492	ppb	19:51:16
1	B 249.677†	-458.6	80.5	1.9581	ug/L	1.9581	ppb	19:51:16
1	Ba 233.527†	6.2	4.4	0.0382	ug/L	0.0382	ppb	19:51:16
1	Be 313.107†	-4343.2	163.9	0.0657	ug/L	0.0657	ppb	19:50:56
1	Cd 226.502†	-191.2	15.0	0.1767	ug/L	0.1767	ppb	19:51:16
1	Co 228.616†	-88.3	-11.6	-0.2515	ug/L	-0.2515	ppb	19:51:16
1	Cr 267.716†	80.0	-19.3	-0.2308	ug/L	-0.2308	ppb	19:51:16
1	Cu 324.752†	6464.0	-124.0	-0.4011	ug/L	-0.4011	ppb	19:50:56
1	Mn 257.610†	469.9	44.5	0.0520	ug/L	0.0520	ppb	19:51:16
1	Mo 202.031†	28.0	7.4	0.5506	ug/L	0.5506	ppb	19:51:16
1	Ni 231.604†	93.5	14.2	0.3732	ug/L	0.3732	ppb	19:51:16
1	P 214.914†	217.3	-20.3	-12.899	ug/L	-12.899	ppb	19:51:16
1	Pb 220.353†	-73.0	-5.1	-0.6594	ug/L	-0.6594	ppb	19:51:16
1	S 181.975 Axial†	46.4	-2.2	-3.2184	ug/L	-3.2184	ppb	19:51:16
1	Sb 206.836†	35.8	1.4	0.5329	ug/L	0.5329	ppb	19:51:16
1	Se 196.026†	-24.2	7.2	4.8630	ug/L	4.8630	ppb	19:51:16
1	Si 251.611†	496.2	28.1	0.9403	ug/L	0.9403	ppb	19:51:16
1	Sn 189.927†	5.6	-0.8	-0.1491	ug/L	-0.1491	ppb	19:51:16
1	Ti 334.940†	-1285.3	159.3	0.2685	ug/L	0.2685	ppb	19:50:56
1	Tl 190.801†	-36.3	9.2	2.9503	ug/L	2.9503	ppb	19:51:16
1	U 409.014†	-1807.0	315.0	10.061	ug/L	10.061	ppb	19:50:56
1	V 292.402†	-1373.1	95.6	0.7159	ug/L	0.7159	ppb	19:50:56
1	Zn 213.857†	834.8	-62.9	-0.6302	ug/L	-0.6302	ppb	19:51:16
1	SiO2†	514.6	35.3	2.5180	ug/L	2.5180	ppb	19:52:12
2	Sc Radial	5109.3	5109.3	107	%			19:50:05
2	Y RADIAL	5477.6	5477.6	106.8	%			19:50:05
2	Al 396.153Radial†	-25.5	-20.7	-16.654	ug/L	-16.654	ppb	19:50:05
2	Ca 317.933Radial†	22.6	6.0	10.178	ug/L	10.178	ppb	19:50:25
2	Fe 238.204 Radial†	8.6	-1.8	-17.138	ug/L	-17.138	ppb	19:50:25
2	K 766.490 Radial†	2971.0	-1.4	-0.3101	ug/L	-0.3101	ppb	19:50:05
2	Mg 279.077 IEC†	3.6	1.9	66.641	ug/L	66.641	ppb	19:50:25
2	Na 589.592 Radial†	-1432.8	223.3	72.343	ug/L	72.343	ppb	19:50:05
2	Sr 421.552†	-12.4	-28.8	-0.2057	ug/L	-0.2057	ppb	19:50:05
2	Sc 361.383	854522.3	854522.3	105.00	%			19:51:22
2	Y 371.029	725851.8	725851.8	105.82	%			19:51:22
2	Ag 328.068†	423.0	121.3	0.5901	ug/L	0.5901	ppb	19:51:22
2	As 188.979†	-20.9	-1.0	-0.4669	ug/L	-0.4669	ppb	19:51:42
2	B 249.677†	-468.4	72.4	1.7655	ug/L	1.7655	ppb	19:51:42
2	Ba 233.527†	-11.4	-12.3	-0.1011	ug/L	-0.1011	ppb	19:51:42
2	Be 313.107†	-4353.4	165.9	0.0668	ug/L	0.0668	ppb	19:51:22
2	Cd 226.502†	-190.8	15.8	0.1880	ug/L	0.1880	ppb	19:51:42
2	Co 228.616†	-81.1	-4.5	-0.0966	ug/L	-0.0966	ppb	19:51:42
2	Cr 267.716†	89.4	-10.6	-0.1261	ug/L	-0.1261	ppb	19:51:42
2	Cu 324.752†	6509.1	-98.6	-0.3178	ug/L	-0.3178	ppb	19:51:22
2	Mn 257.610†	454.8	28.8	0.0294	ug/L	0.0294	ppb	19:51:42
2	Mo 202.031†	34.5	13.6	1.0074	ug/L	1.0074	ppb	19:51:42
2	Ni 231.604†	103.4	23.4	0.6148	ug/L	0.6148	ppb	19:51:42

2	P 214.914†	217.8	-20.4	-12.978	ug/L	-12.978 ppb	19:51:42
2	Pb 220.353†	-56.5	10.8	1.3797	ug/L	1.3797 ppb	19:51:42
2	S 181.975 Axial†	45.5	-3.2	-4.7150	ug/L	-4.7150 ppb	19:51:42
2	Sb 206.836†	39.9	5.2	1.9270	ug/L	1.9270 ppb	19:51:42
2	Se 196.026†	-25.1	6.4	4.2389	ug/L	4.2389 ppb	19:51:42
2	Si 251.611†	501.7	31.9	1.0635	ug/L	1.0635 ppb	19:51:42
2	Sn 189.927†	1.9	-4.3	-0.7913	ug/L	-0.7913 ppb	19:51:42
2	Ti 334.940†	-1208.7	235.8	0.3990	ug/L	0.3990 ppb	19:51:22
2	Tl 190.801†	-33.9	11.6	3.7009	ug/L	3.7009 ppb	19:51:42
2	U 409.014†	-2022.2	115.0	3.6739	ug/L	3.6739 ppb	19:51:22
2	V 292.402†	-1368.7	103.5	0.7716	ug/L	0.7716 ppb	19:51:22
2	Zn 213.857†	815.9	-83.2	-0.8317	ug/L	-0.8317 ppb	19:51:42
2	SiO2†	566.3	83.2	5.9364	ug/L	5.9364 ppb	19:52:17
3	Sc Radial	5086.3	5086.3	106	%		19:50:30
3	Y RADIAL	5471.4	5471.4	106.7	%		19:50:30
3	Al 396.153Radial†	20.6	22.6	18.154	ug/L	18.154 ppb	19:50:30
3	Ca 317.933Radial†	23.5	7.0	11.748	ug/L	11.748 ppb	19:50:50
3	Fe 238.204 Radial†	10.3	-0.2	-1.5915	ug/L	-1.5915 ppb	19:50:50
3	K 766.490 Radial†	2863.1	-90.4	-18.142	ug/L	-18.142 ppb	19:50:30
3	Mg 279.077 IEC†	3.3	1.6	56.683	ug/L	56.683 ppb	19:50:50
3	Na 589.592 Radial†	-1473.6	178.8	57.926	ug/L	57.926 ppb	19:50:30
3	Sr 421.552†	0.2	-17.0	-0.1216	ug/L	-0.1216 ppb	19:50:30
3	Sc 361.383	855272.4	855272.4	105.09	%		19:51:47
3	Y 371.029	725851.5	725851.5	105.82	%		19:51:47
3	Ag 328.068†	377.5	77.7	0.3801	ug/L	0.3801 ppb	19:51:47
3	As 188.979†	-28.4	-8.2	-3.6858	ug/L	-3.6858 ppb	19:52:07
3	B 249.677†	-467.1	74.0	1.8026	ug/L	1.8026 ppb	19:52:07
3	Ba 233.527†	-4.1	-5.3	-0.0430	ug/L	-0.0430 ppb	19:52:07
3	Be 313.107†	-4339.0	183.3	0.0737	ug/L	0.0737 ppb	19:51:47
3	Cd 226.502†	-180.8	25.5	0.3001	ug/L	0.3001 ppb	19:52:07
3	Co 228.616†	-92.1	-14.9	-0.3239	ug/L	-0.3239 ppb	19:52:07
3	Cr 267.716†	74.3	-25.0	-0.2963	ug/L	-0.2963 ppb	19:52:07
3	Cu 324.752†	6493.9	-118.6	-0.3809	ug/L	-0.3809 ppb	19:51:47
3	Mn 257.610†	463.2	36.5	0.0403	ug/L	0.0403 ppb	19:52:07
3	Mo 202.031†	25.3	4.7	0.3516	ug/L	0.3516 ppb	19:52:07
3	Ni 231.604†	83.1	3.9	0.1040	ug/L	0.1040 ppb	19:52:07
3	P 214.914†	214.2	-24.1	-15.281	ug/L	-15.281 ppb	19:52:07
3	Pb 220.353†	-69.1	-1.2	-0.1421	ug/L	-0.1421 ppb	19:52:07
3	S 181.975 Axial†	43.5	-5.1	-7.6003	ug/L	-7.6003 ppb	19:52:07
3	Sb 206.836†	32.8	-1.6	-0.5613	ug/L	-0.5613 ppb	19:52:07
3	Se 196.026†	-25.1	6.5	4.3567	ug/L	4.3567 ppb	19:52:07
3	Si 251.611†	505.4	35.0	1.1765	ug/L	1.1765 ppb	19:52:07
3	Sn 189.927†	7.7	1.2	0.2328	ug/L	0.2328 ppb	19:52:07
3	Ti 334.940†	-1216.4	229.5	0.3889	ug/L	0.3889 ppb	19:51:47
3	Tl 190.801†	-30.8	14.6	4.6700	ug/L	4.6700 ppb	19:52:07
3	U 409.014†	-2004.1	133.9	4.2774	ug/L	4.2774 ppb	19:51:47
3	V 292.402†	-1385.6	88.7	0.6538	ug/L	0.6538 ppb	19:51:47
3	Zn 213.857†	821.2	-78.9	-0.7870	ug/L	-0.7870 ppb	19:52:07
3	SiO2†	512.0	31.0	2.2102	ug/L	2.2102 ppb	19:52:22

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	853961.2	104.93	%	0.204				0.19%
Sc Radial	5090.9	106	%	0.3				0.33%
Y 371.029	724846.4	105.67	%	0.254				0.24%
Y RADIAL	5467.4	106.6	%	0.25				0.23%
Ag 328.068†	102.1	0.4983	ug/L	0.10744	0.4983	ppb	0.10744	21.56%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-1.9	-1.5832	ug/L	17.86686	-1.5832	ppb	17.86686	>999.9%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-4.4	-2.0006	ug/L	1.61474	-2.0006	ppb	1.61474	80.71%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	75.6	1.8420	ug/L	0.10218	1.8420	ppb	0.10218	5.55%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-4.4	-0.0353	ug/L	0.07000	-0.0353	ppb	0.07000	198.33%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	171.1	0.0688	ug/L	0.00433	0.0688	ppb	0.00433	6.29%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	6.2	10.450	ug/L	1.1864	10.450	ppb	1.1864	11.35%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              18.8      0.2216 ug/L       0.06819      0.2216 ppb        0.06819  30.77%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†             -10.4     -0.2240 ug/L       0.11615     -0.2240 ppb        0.11615  51.86%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†             -18.3     -0.2177 ug/L       0.08584     -0.2177 ppb        0.08584  39.43%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -113.7     -0.3666 ug/L       0.04344     -0.3666 ppb        0.04344  11.85%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       -0.4     -3.9258 ug/L      12.21303     -3.9258 ppb       12.21303 311.10%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       -75.5    -15.149 ug/L       13.5916     -15.149 ppb        13.5916  89.72%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           1.4      48.557 ug/L      23.2378      48.557 ppb        23.2378  47.86%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              36.6      0.0406 ug/L       0.01127      0.0406 ppb        0.01127  27.79%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               8.6      0.6365 ug/L       0.33621      0.6365 ppb        0.33621  52.82%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      204.1      66.141 ug/L       7.4165      66.141 ppb         7.4165  11.21%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              13.8      0.3640 ug/L       0.25554      0.3640 ppb        0.25554  70.21%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†              -21.6     -13.719 ug/L       1.3529     -13.719 ppb         1.3529   9.86%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               1.5      0.1927 ug/L       1.05998      0.1927 ppb        1.05998 549.98%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         -3.5     -5.1779 ug/L       2.22732     -5.1779 ppb        2.22732  43.02%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               1.7      0.6329 ug/L       1.24716      0.6329 ppb        1.24716 197.07%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               6.7      4.4862 ug/L       0.33159      4.4862 ppb        0.33159   7.39%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†              31.7      1.0601 ug/L       0.11813      1.0601 ppb        0.11813  11.14%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†              -1.3     -0.2359 ug/L       0.51753     -0.2359 ppb        0.51753 219.40%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             -23.3     -0.1661 ug/L       0.04228     -0.1661 ppb        0.04228  25.46%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             208.2      0.3521 ug/L       0.07261      0.3521 ppb        0.07261  20.62%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              11.8      3.7737 ug/L       0.86217      3.7737 ppb        0.86217  22.85%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              188.0      6.0040 ug/L       3.52617      6.0040 ppb        3.52617  58.73%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               95.9      0.7138 ug/L       0.05894      0.7138 ppb        0.05894   8.26%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†             -75.0     -0.7496 ug/L       0.10579     -0.7496 ppb        0.10579  14.11%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                    49.8      3.5549 ug/L       2.06818      3.5549 ppb        2.06818  58.18%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 51
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 1/14/2010 20:50:52
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4980.6	4980.6	104	%			20:52:44
1	Y RADIAL	5319.8	5319.8	103.7	%			20:52:44
1	Al 396.153Radial†	6541.7	6296.2	5026.2	ug/L	5026.2	ppb	20:52:44
1	Ca 317.933Radial†	3177.7	3041.7	5122.1	ug/L	5122.1	ppb	20:53:04
1	Fe 238.204 Radial†	593.8	561.4	5292.9	ug/L	5292.9	ppb	20:53:04
1	K 766.490 Radial†	29562.9	25651.6	5132.6	ug/L	5132.6	ppb	20:52:44
1	Mg 279.077 IEC†	159.8	152.2	5344.2	ug/L	5344.2	ppb	20:53:04
1	Na 589.592 Radial†	31339.9	31715.4	10276	ug/L	10276	ppb	20:52:44
1	Sr 421.552†	76457.3	73533.4	524.10	ug/L	524.10	ppb	20:52:44
1	Sc 361.383	846924.0	846924.0	104.06	%			20:54:02
1	Y 371.029	703196.0	703196.0	102.51	%			20:54:02
1	Ag 328.068†	104645.2	100278.9	495.96	ug/L	495.96	ppb	20:54:07
1	As 188.979†	1160.4	1134.0	514.86	ug/L	514.86	ppb	20:54:27
1	B 249.677†	21417.1	21099.7	511.19	ug/L	511.19	ppb	20:54:07
1	Ba 233.527†	65082.9	62541.0	519.89	ug/L	519.89	ppb	20:54:07
1	Be 313.107†	1349422.3	1301061.9	517.92	ug/L	517.92	ppb	20:54:02
1	Cd 226.502†	46112.0	44509.7	521.56	ug/L	521.56	ppb	20:54:07
1	Co 228.616†	24926.0	24025.7	521.83	ug/L	521.83	ppb	20:54:07
1	Cr 267.716†	45729.5	43848.8	517.94	ug/L	517.94	ppb	20:54:07
1	Cu 324.752†	174383.4	161278.6	514.83	ug/L	514.83	ppb	20:54:07
1	Mn 257.610†	455789.5	437594.2	513.44	ug/L	513.44	ppb	20:54:02
1	Mo 202.031†	7257.0	6954.4	516.70	ug/L	516.70	ppb	20:54:27
1	Ni 231.604†	20629.9	19749.5	519.58	ug/L	519.58	ppb	20:54:07
1	P 214.914†	4416.9	4016.6	2463.1	ug/L	2463.1	ppb	20:54:27
1	Pb 220.353†	4102.9	4007.3	514.94	ug/L	514.94	ppb	20:54:27
1	S 181.975 Axial†	780.9	703.9	1049.6	ug/L	1049.6	ppb	20:54:27
1	Sb 206.836†	1507.3	1415.7	536.13	ug/L	536.13	ppb	20:54:27
1	Se 196.026†	787.9	787.5	545.79	ug/L	545.79	ppb	20:54:27
1	Si 251.611†	81527.3	77899.1	2620.1	ug/L	2620.1	ppb	20:54:07
1	Sn 189.927†	2920.1	2800.0	518.69	ug/L	518.69	ppb	20:54:27
1	Ti 334.940†	314065.7	303193.7	519.97	ug/L	519.97	ppb	20:54:02
1	Tl 190.801†	1628.9	1609.2	518.28	ug/L	518.28	ppb	20:54:27
1	U 409.014†	15381.1	16821.7	535.48	ug/L	535.48	ppb	20:54:07
1	V 292.402†	73454.6	71994.6	526.28	ug/L	526.28	ppb	20:54:07
1	Zn 213.857†	55622.5	52591.0	519.99	ug/L	519.99	ppb	20:54:07
1	SiO2†	81812.6	78163.0	5589.6	ug/L	5589.6	ppb	20:55:35
2	Sc Radial	5033.0	5033.0	105	%			20:53:09
2	Y RADIAL	5346.0	5346.0	104.2	%			20:53:09
2	Al 396.153Radial†	6561.5	6249.7	4989.3	ug/L	4989.3	ppb	20:53:09
2	Ca 317.933Radial†	3173.4	3005.9	5061.7	ug/L	5061.7	ppb	20:53:29
2	Fe 238.204 Radial†	591.2	552.9	5212.8	ug/L	5212.8	ppb	20:53:29
2	K 766.490 Radial†	29821.9	25602.6	5122.8	ug/L	5122.8	ppb	20:53:09
2	Mg 279.077 IEC†	159.7	150.5	5284.2	ug/L	5284.2	ppb	20:53:29
2	Na 589.592 Radial†	31459.4	31515.9	10211	ug/L	10211	ppb	20:53:09
2	Sr 421.552†	76746.4	73044.3	520.61	ug/L	520.61	ppb	20:53:09
2	Sc 361.383	857036.0	857036.0	105.30	%			20:54:33
2	Y 371.029	711389.6	711389.6	103.71	%			20:54:33
2	Ag 328.068†	103850.7	98337.9	486.35	ug/L	486.35	ppb	20:54:38
2	As 188.979†	1164.8	1124.9	510.79	ug/L	510.79	ppb	20:54:58
2	B 249.677†	20969.0	20431.3	494.99	ug/L	494.99	ppb	20:54:38
2	Ba 233.527†	63719.1	60508.0	502.99	ug/L	502.99	ppb	20:54:38
2	Be 313.107†	1361539.7	1297268.9	516.42	ug/L	516.42	ppb	20:54:33
2	Cd 226.502†	45161.9	43084.6	504.85	ug/L	504.85	ppb	20:54:38
2	Co 228.616†	24358.8	23204.5	503.97	ug/L	503.97	ppb	20:54:38
2	Cr 267.716†	44937.1	42577.8	502.93	ug/L	502.93	ppb	20:54:38
2	Cu 324.752†	171138.4	156219.8	498.69	ug/L	498.69	ppb	20:54:38
2	Mn 257.610†	459708.9	436148.3	511.74	ug/L	511.74	ppb	20:54:33
2	Mo 202.031†	7215.6	6832.8	507.67	ug/L	507.67	ppb	20:54:58
2	Ni 231.604†	20262.6	19166.8	504.25	ug/L	504.25	ppb	20:54:38

2	P 214.914†	4375.3	3927.0	2409.0 ug/L	2409.0 ppb	20:54:58
2	Pb 220.353†	4061.3	3921.3	503.91 ug/L	503.91 ppb	20:54:58
2	S 181.975 Axial†	766.3	681.2	1015.7 ug/L	1015.7 ppb	20:54:58
2	Sb 206.836†	1487.8	1380.2	522.70 ug/L	522.70 ppb	20:54:58
2	Se 196.026†	782.8	773.7	536.28 ug/L	536.28 ppb	20:54:58
2	Si 251.611†	79908.3	75437.3	2537.3 ug/L	2537.3 ppb	20:54:38
2	Sn 189.927†	2879.4	2728.3	505.41 ug/L	505.41 ppb	20:54:58
2	Ti 334.940†	317056.5	302472.9	518.75 ug/L	518.75 ppb	20:54:33
2	Tl 190.801†	1617.2	1579.6	508.90 ug/L	508.90 ppb	20:54:58
2	U 409.014†	14979.2	16265.7	517.77 ug/L	517.77 ppb	20:54:38
2	V 292.402†	71908.5	69693.5	509.54 ug/L	509.54 ppb	20:54:38
2	Zn 213.857†	54634.2	51021.9	504.46 ug/L	504.46 ppb	20:54:38
2	SiO2†	80185.5	75690.2	5412.6 ug/L	5412.6 ppb	20:55:40
3	Sc Radial	5008.4	5008.4	105 %		20:53:34
3	Y RADIAL	5353.9	5353.9	104.4 %		20:53:34
3	Al 396.153Radial†	6605.3	6322.2	5047.3 ug/L	5047.3 ppb	20:53:34
3	Ca 317.933Radial†	3184.2	3031.1	5104.2 ug/L	5104.2 ppb	20:53:54
3	Fe 238.204 Radial†	589.7	554.3	5225.9 ug/L	5225.9 ppb	20:53:54
3	K 766.490 Radial†	29638.1	25565.9	5115.5 ug/L	5115.5 ppb	20:53:34
3	Mg 279.077 IEC†	161.7	153.2	5378.0 ug/L	5378.0 ppb	20:53:54
3	Na 589.592 Radial†	31323.2	31532.3	10217 ug/L	10217 ppb	20:53:34
3	Sr 421.552†	76663.2	73322.6	522.60 ug/L	522.60 ppb	20:53:34
3	Sc 361.383	850254.0	850254.0	104.47 %		20:55:04
3	Y 371.029	705411.6	705411.6	102.84 %		20:55:04
3	Ag 328.068†	103502.0	98790.8	488.59 ug/L	488.59 ppb	20:55:09
3	As 188.979†	1145.1	1114.9	506.27 ug/L	506.27 ppb	20:55:29
3	B 249.677†	21045.8	20663.7	500.62 ug/L	500.62 ppb	20:55:09
3	Ba 233.527†	64084.3	61340.2	509.90 ug/L	509.90 ppb	20:55:09
3	Be 313.107†	1345388.5	1292122.1	514.37 ug/L	514.37 ppb	20:55:04
3	Cd 226.502†	45162.9	43427.6	508.88 ug/L	508.88 ppb	20:55:09
3	Co 228.616†	24455.8	23481.8	510.00 ug/L	510.00 ppb	20:55:09
3	Cr 267.716†	45068.5	43044.0	508.43 ug/L	508.43 ppb	20:55:09
3	Cu 324.752†	171419.4	157785.1	503.68 ug/L	503.68 ppb	20:55:09
3	Mn 257.610†	454861.0	434990.0	510.38 ug/L	510.38 ppb	20:55:04
3	Mo 202.031†	7190.2	6863.1	509.92 ug/L	509.92 ppb	20:55:29
3	Ni 231.604†	20316.5	19371.9	509.64 ug/L	509.64 ppb	20:55:09
3	P 214.914†	4360.2	3945.7	2420.0 ug/L	2420.0 ppb	20:55:29
3	Pb 220.353†	4065.0	3955.6	508.32 ug/L	508.32 ppb	20:55:29
3	S 181.975 Axial†	768.8	689.4	1027.9 ug/L	1027.9 ppb	20:55:29
3	Sb 206.836†	1474.6	1378.7	522.34 ug/L	522.34 ppb	20:55:29
3	Se 196.026†	778.3	775.4	537.45 ug/L	537.45 ppb	20:55:29
3	Si 251.611†	80109.5	76235.1	2564.1 ug/L	2564.1 ppb	20:55:09
3	Sn 189.927†	2887.0	2757.3	510.78 ug/L	510.78 ppb	20:55:29
3	Ti 334.940†	313861.7	301816.3	517.61 ug/L	517.61 ppb	20:55:04
3	Tl 190.801†	1603.7	1579.0	508.65 ug/L	508.65 ppb	20:55:29
3	U 409.014†	15019.7	16417.9	522.61 ug/L	522.61 ppb	20:55:09
3	V 292.402†	72107.1	70428.3	514.88 ug/L	514.88 ppb	20:55:09
3	Zn 213.857†	54625.3	51427.2	508.46 ug/L	508.46 ppb	20:55:09
3	SiO2†	81154.3	77224.9	5522.5 ug/L	5522.5 ppb	20:55:45

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	851404.7	104.61	%	0.633				0.61%
Sc Radial	5007.3	105	%	0.5				0.52%
Y 371.029	706665.7	103.02	%	0.618				0.60%
Y RADIAL	5339.9	104.1	%	0.35				0.33%
Ag 328.068†	99135.9	490.30	ug/L	5.029	490.30	ppb	5.029	1.03%
QC value within limits for Ag 328.068 Recovery = 98.06%								
Al 396.153Radial†	6289.4	5020.9	ug/L	29.38	5020.9	ppb	29.38	0.59%
QC value within limits for Al 396.153Radial Recovery = 100.42%								
As 188.979†	1124.6	510.64	ug/L	4.297	510.64	ppb	4.297	0.84%
QC value within limits for As 188.979 Recovery = 102.13%								
B 249.677†	20731.6	502.27	ug/L	8.226	502.27	ppb	8.226	1.64%
QC value within limits for B 249.677 Recovery = 100.45%								
Ba 233.527†	61463.1	510.93	ug/L	8.495	510.93	ppb	8.495	1.66%
QC value within limits for Ba 233.527 Recovery = 102.19%								
Be 313.107†	1296817.6	516.24	ug/L	1.785	516.24	ppb	1.785	0.35%
QC value within limits for Be 313.107 Recovery = 103.25%								
Ca 317.933Radial†	3026.2	5096.0	ug/L	30.99	5096.0	ppb	30.99	0.61%

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   QC value within limits for Ca 317.933Radial  Recovery = 101.92%
Cd 226.502†            43674.0      511.76 ug/L         8.720      511.76 ppb          8.720   1.70%
   QC value within limits for Cd 226.502  Recovery = 102.35%
Co 228.616†            23570.7      511.93 ug/L         9.081      511.93 ppb          9.081   1.77%
   QC value within limits for Co 228.616  Recovery = 102.39%
Cr 267.716†            43156.9      509.77 ug/L         7.594      509.77 ppb          7.594   1.49%
   QC value within limits for Cr 267.716  Recovery = 101.95%
Cu 324.752†           158427.8      505.73 ug/L         8.265      505.73 ppb          8.265   1.63%
   QC value within limits for Cu 324.752  Recovery = 101.15%
Fe 238.204 Radial†       556.2      5243.9 ug/L        42.96      5243.9 ppb         42.96   0.82%
   QC value within limits for Fe 238.204 Radial  Recovery = 104.88%
K 766.490 Radial†      25606.7      5123.6 ug/L         8.60      5123.6 ppb          8.60   0.17%
   QC value within limits for K 766.490 Radial  Recovery = 102.47%
Mg 279.077 IEC†          152.0      5335.4 ug/L        47.51      5335.4 ppb         47.51   0.89%
   QC value within limits for Mg 279.077 IEC  Recovery = 106.71%
Mn 257.610†           436244.1      511.86 ug/L         1.534      511.86 ppb          1.534   0.30%
   QC value within limits for Mn 257.610  Recovery = 102.37%
Mo 202.031†            6883.4      511.43 ug/L         4.701      511.43 ppb          4.701   0.92%
   QC value within limits for Mo 202.031  Recovery = 102.29%
Na 589.592 Radial†     31587.9       10235 ug/L        35.9       10235 ppb         35.9   0.35%
   QC value within limits for Na 589.592 Radial  Recovery = 102.35%
Ni 231.604†            19429.4      511.16 ug/L         7.776      511.16 ppb          7.776   1.52%
   QC value within limits for Ni 231.604  Recovery = 102.23%
P 214.914†              3963.1      2430.7 ug/L        28.57      2430.7 ppb         28.57   1.18%
   QC value within limits for P 214.914  Recovery = 97.23%
Pb 220.353†             3961.4      509.06 ug/L         5.552      509.06 ppb          5.552   1.09%
   QC value within limits for Pb 220.353  Recovery = 101.81%
S 181.975 Axial†         691.5      1031.1 ug/L        17.16      1031.1 ppb         17.16   1.66%
   QC value within limits for S 181.975 Axial  Recovery = 103.11%
Sb 206.836†             1391.5      527.06 ug/L         7.861      527.06 ppb          7.861   1.49%
   QC value within limits for Sb 206.836  Recovery = 105.41%
Se 196.026†              778.8      539.84 ug/L         5.184      539.84 ppb          5.184   0.96%
   QC value within limits for Se 196.026  Recovery = 107.97%
Si 251.611†            76523.9      2573.8 ug/L        42.29      2573.8 ppb         42.29   1.64%
   QC value within limits for Si 251.611  Recovery = 102.95%
Sn 189.927†             2761.9      511.63 ug/L         6.682      511.63 ppb          6.682   1.31%
   QC value within limits for Sn 189.927  Recovery = 102.33%
Sr 421.552†            73300.1      522.44 ug/L         1.749      522.44 ppb          1.749   0.33%
   QC value within limits for Sr 421.552  Recovery = 104.49%
Ti 334.940†           302494.3      518.78 ug/L         1.180      518.78 ppb          1.180   0.23%
   QC value within limits for Ti 334.940  Recovery = 103.76%
Tl 190.801†             1589.3      511.94 ug/L         5.489      511.94 ppb          5.489   1.07%
   QC value within limits for Tl 190.801  Recovery = 102.39%
U 409.014†             16501.8      525.29 ug/L         9.155      525.29 ppb          9.155   1.74%
   QC value within limits for U 409.014  Recovery = 105.06%
V 292.402†             70705.5      516.90 ug/L         8.553      516.90 ppb          8.553   1.65%
   QC value within limits for V 292.402  Recovery = 103.38%
Zn 213.857†            51680.0      510.97 ug/L         8.059      510.97 ppb          8.059   1.58%
   QC value within limits for Zn 213.857  Recovery = 102.19%
SiO2†                  77026.0      5508.2 ug/L        89.38      5508.2 ppb         89.38   1.62%
   QC value within limits for SiO2  Recovery = 103.01%
All analyte(s) passed QC.
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Sequence No.: 52
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 1/14/2010 20:57:54
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Rep1#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5110.9	5110.9	107	%			20:59:46
1	Y RADIAL	5467.2	5467.2	106.6	%			20:59:46
1	Al 396.153Radial†	-6.4	-2.7	-2.1821	ug/L	-2.1821	ppb	20:59:46
1	Ca 317.933Radial†	14.6	-1.5	-2.5042	ug/L	-2.5042	ppb	21:00:06
1	Fe 238.204 Radial†	12.6	1.9	17.784	ug/L	17.784	ppb	21:00:06
1	K 766.490 Radial†	2848.3	-117.2	-23.501	ug/L	-23.501	ppb	20:59:46
1	Mg 279.077 IEC†	1.5	-0.1	-4.8809	ug/L	-4.8809	ppb	21:00:06
1	Na 589.592 Radial†	-1544.9	118.6	38.443	ug/L	38.443	ppb	20:59:46
1	Sr 421.552†	-16.5	-32.7	-0.2331	ug/L	-0.2331	ppb	20:59:46
1	Sc 361.383	852111.4	852111.4	104.70	%			21:01:03
1	Y 371.029	717851.2	717851.2	104.65	%			21:01:03
1	Ag 328.068†	481.2	178.0	0.8822	ug/L	0.8822	ppb	21:01:03
1	As 188.979†	-23.5	-3.6	-1.6013	ug/L	-1.6013	ppb	21:01:23
1	B 249.677†	-447.9	90.7	2.2047	ug/L	2.2047	ppb	21:01:23
1	Ba 233.527†	8.5	6.7	0.0586	ug/L	0.0586	ppb	21:01:23
1	Be 313.107†	-4380.5	128.3	0.0514	ug/L	0.0514	ppb	21:01:03
1	Cd 226.502†	-181.6	24.1	0.2821	ug/L	0.2821	ppb	21:01:23
1	Co 228.616†	-80.1	-3.9	-0.0845	ug/L	-0.0845	ppb	21:01:23
1	Cr 267.716†	72.5	-26.5	-0.3117	ug/L	-0.3117	ppb	21:01:23
1	Cu 324.752†	6398.9	-186.4	-0.5964	ug/L	-0.5964	ppb	21:01:03
1	Mn 257.610†	423.0	-0.3	0.0016	ug/L	0.0016	ppb	21:01:23
1	Mo 202.031†	18.6	-1.5	-0.1113	ug/L	-0.1113	ppb	21:01:23
1	Ni 231.604†	90.1	11.0	0.2889	ug/L	0.2889	ppb	21:01:23
1	P 214.914†	221.7	-16.1	-10.179	ug/L	-10.179	ppb	21:01:23
1	Pb 220.353†	-73.0	-5.2	-0.6643	ug/L	-0.6643	ppb	21:01:23
1	S 181.975 Axial†	37.9	-10.3	-15.300	ug/L	-15.300	ppb	21:01:23
1	Sb 206.836†	44.0	9.3	3.3862	ug/L	3.3862	ppb	21:01:23
1	Se 196.026†	-23.3	8.1	5.4933	ug/L	5.4933	ppb	21:01:23
1	Si 251.611†	453.9	-12.4	-0.4154	ug/L	-0.4154	ppb	21:01:23
1	Sn 189.927†	6.4	-0.0	-0.0034	ug/L	-0.0034	ppb	21:01:23
1	Ti 334.940†	-1337.9	109.1	0.1856	ug/L	0.1856	ppb	21:01:03
1	Tl 190.801†	-29.0	16.2	5.1755	ug/L	5.1755	ppb	21:01:23
1	U 409.014†	-2000.0	130.7	4.1727	ug/L	4.1727	ppb	21:01:03
1	V 292.402†	-1281.3	183.4	1.3266	ug/L	1.3266	ppb	21:01:03
1	Zn 213.857†	853.8	-44.8	-0.4498	ug/L	-0.4498	ppb	21:01:23
1	SiO2†	486.0	8.0	0.5779	ug/L	0.5779	ppb	21:02:19
2	Sc Radial	5058.5	5058.5	106	%			21:00:11
2	Y RADIAL	5443.7	5443.7	106.1	%			21:00:11
2	Al 396.153Radial†	-10.3	-6.6	-5.3000	ug/L	-5.3000	ppb	21:00:11
2	Ca 317.933Radial†	19.3	3.2	5.3166	ug/L	5.3166	ppb	21:00:31
2	Fe 238.204 Radial†	9.3	-1.1	-10.389	ug/L	-10.389	ppb	21:00:31
2	K 766.490 Radial†	2857.1	-81.2	-16.300	ug/L	-16.300	ppb	21:00:11
2	Mg 279.077 IEC†	1.3	-0.3	-9.6980	ug/L	-9.6980	ppb	21:00:31
2	Na 589.592 Radial†	-1439.1	203.9	66.059	ug/L	66.059	ppb	21:00:11
2	Sr 421.552†	-5.2	-22.1	-0.1579	ug/L	-0.1579	ppb	21:00:11
2	Sc 361.383	847762.9	847762.9	104.16	%			21:01:28
2	Y 371.029	715284.0	715284.0	104.27	%			21:01:28
2	Ag 328.068†	443.2	143.9	0.7025	ug/L	0.7025	ppb	21:01:28
2	As 188.979†	-23.3	-3.6	-1.6086	ug/L	-1.6086	ppb	21:01:48
2	B 249.677†	-443.4	92.9	2.2623	ug/L	2.2623	ppb	21:01:48
2	Ba 233.527†	-8.4	-9.6	-0.0775	ug/L	-0.0775	ppb	21:01:48
2	Be 313.107†	-4319.1	165.9	0.0663	ug/L	0.0663	ppb	21:01:28
2	Cd 226.502†	-205.4	0.3	0.0067	ug/L	0.0067	ppb	21:01:48
2	Co 228.616†	-72.2	3.3	0.0746	ug/L	0.0746	ppb	21:01:48
2	Cr 267.716†	96.1	-3.5	-0.0422	ug/L	-0.0422	ppb	21:01:48
2	Cu 324.752†	6428.7	-126.4	-0.4075	ug/L	-0.4075	ppb	21:01:28
2	Mn 257.610†	418.9	-2.1	-0.0031	ug/L	-0.0031	ppb	21:01:48
2	Mo 202.031†	33.0	12.4	0.9191	ug/L	0.9191	ppb	21:01:48
2	Ni 231.604†	97.8	18.8	0.4946	ug/L	0.4946	ppb	21:01:48

2	P 214.914†	207.4	-28.8	-18.290	ug/L	-18.290 ppb	21:01:48
2	Pb 220.353†	-52.2	14.5	1.8548	ug/L	1.8548 ppb	21:01:48
2	S 181.975 Axial†	37.9	-10.1	-15.044	ug/L	-15.044 ppb	21:01:48
2	Sb 206.836†	41.6	7.2	2.6671	ug/L	2.6671 ppb	21:01:48
2	Se 196.026†	-26.3	5.1	3.4066	ug/L	3.4066 ppb	21:01:48
2	Si 251.611†	461.2	-3.1	-0.1154	ug/L	-0.1154 ppb	21:01:48
2	Sn 189.927†	5.9	-0.4	-0.0819	ug/L	-0.0819 ppb	21:01:48
2	Ti 334.940†	-1337.4	103.1	0.1756	ug/L	0.1756 ppb	21:01:28
2	Tl 190.801†	-38.3	7.1	2.2675	ug/L	2.2675 ppb	21:01:48
2	U 409.014†	-1916.5	201.1	6.4225	ug/L	6.4225 ppb	21:01:28
2	V 292.402†	-1320.5	139.4	1.0321	ug/L	1.0321 ppb	21:01:28
2	Zn 213.857†	853.0	-41.4	-0.4147	ug/L	-0.4147 ppb	21:01:48
2	SiO2†	496.9	20.8	1.4693	ug/L	1.4693 ppb	21:02:24
3	Sc Radial	5074.9	5074.9	106	%		21:00:36
3	Y RADIAL	5443.4	5443.4	106.1	%		21:00:36
3	Al 396.153Radial†	-15.2	-11.1	-8.9224	ug/L	-8.9224 ppb	21:00:36
3	Ca 317.933Radial†	15.1	-0.9	-1.4533	ug/L	-1.4533 ppb	21:00:56
3	Fe 238.204 Radial†	13.0	2.4	22.804	ug/L	22.804 ppb	21:00:56
3	K 766.490 Radial†	2940.9	-10.9	-2.1914	ug/L	-2.1914 ppb	21:00:36
3	Mg 279.077 IEC†	3.6	1.9	67.462	ug/L	67.462 ppb	21:00:56
3	Na 589.592 Radial†	-1588.0	67.7	21.923	ug/L	21.923 ppb	21:00:36
3	Sr 421.552†	35.5	16.3	0.1161	ug/L	0.1161 ppb	21:00:36
3	Sc 361.383	858263.2	858263.2	105.46	%		21:01:53
3	Y 371.029	724020.8	724020.8	105.55	%		21:01:53
3	Ag 328.068†	409.8	107.0	0.5337	ug/L	0.5337 ppb	21:01:53
3	As 188.979†	-26.4	-6.2	-2.8006	ug/L	-2.8006 ppb	21:02:14
3	B 249.677†	-454.3	87.7	2.1307	ug/L	2.1307 ppb	21:02:14
3	Ba 233.527†	-2.2	-3.5	-0.0259	ug/L	-0.0259 ppb	21:02:14
3	Be 313.107†	-4313.7	221.7	0.0885	ug/L	0.0885 ppb	21:01:53
3	Cd 226.502†	-191.2	16.3	0.1899	ug/L	0.1899 ppb	21:02:14
3	Co 228.616†	-79.3	-2.5	-0.0526	ug/L	-0.0526 ppb	21:02:14
3	Cr 267.716†	91.5	-9.0	-0.1057	ug/L	-0.1057 ppb	21:02:14
3	Cu 324.752†	6362.3	-264.9	-0.8473	ug/L	-0.8473 ppb	21:01:53
3	Mn 257.610†	411.5	-14.1	-0.0170	ug/L	-0.0170 ppb	21:02:14
3	Mo 202.031†	34.2	13.1	0.9738	ug/L	0.9738 ppb	21:02:14
3	Ni 231.604†	98.0	17.8	0.4697	ug/L	0.4697 ppb	21:02:14
3	P 214.914†	211.8	-27.1	-17.110	ug/L	-17.110 ppb	21:02:14
3	Pb 220.353†	-73.6	-5.2	-0.6723	ug/L	-0.6723 ppb	21:02:14
3	S 181.975 Axial†	41.4	-7.2	-10.744	ug/L	-10.744 ppb	21:02:14
3	Sb 206.836†	34.8	0.3	0.1390	ug/L	0.1390 ppb	21:02:14
3	Se 196.026†	-17.0	14.2	9.5829	ug/L	9.5829 ppb	21:02:14
3	Si 251.611†	460.0	-9.7	-0.3374	ug/L	-0.3374 ppb	21:02:14
3	Sn 189.927†	11.2	4.5	0.8322	ug/L	0.8322 ppb	21:02:14
3	Ti 334.940†	-1344.5	112.1	0.1843	ug/L	0.1843 ppb	21:01:53
3	Tl 190.801†	-40.3	5.6	1.8050	ug/L	1.8050 ppb	21:02:14
3	U 409.014†	-1980.9	162.5	5.1883	ug/L	5.1883 ppb	21:01:53
3	V 292.402†	-1311.7	163.3	1.1997	ug/L	1.1997 ppb	21:01:53
3	Zn 213.857†	849.0	-55.3	-0.5554	ug/L	-0.5554 ppb	21:02:14
3	SiO2†	438.0	-40.8	-2.9542	ug/L	-2.9542 ppb	21:02:29

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	852712.5	104.77	%	0.648				0.62%
Sc Radial	5081.4	106	%	0.6				0.53%
Y 371.029	719052.0	104.82	%	0.655				0.62%
Y RADIAL	5451.4	106.3	%	0.27				0.25%
Ag 328.068†	143.0	0.7061	ug/L	0.17428	0.7061	ppb	0.17428	24.68%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-6.8	-5.4682	ug/L	3.37329	-5.4682	ppb	3.37329	61.69%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-4.5	-2.0035	ug/L	0.69031	-2.0035	ppb	0.69031	34.46%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	90.4	2.1992	ug/L	0.06597	2.1992	ppb	0.06597	3.00%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-2.1	-0.0149	ug/L	0.06869	-0.0149	ppb	0.06869	460.16%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	172.0	0.0687	ug/L	0.01866	0.0687	ppb	0.01866	27.16%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	0.3	0.4530	ug/L	4.24461	0.4530	ppb	4.24461	937.00%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              13.6      0.1596 ug/L       0.14020      0.1596 ppb        0.14020  87.87%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†              -1.0     -0.0208 ug/L       0.08421     -0.0208 ppb        0.08421 404.29%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†             -13.0     -0.1532 ug/L       0.14090     -0.1532 ppb        0.14090  91.98%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -192.6     -0.6171 ug/L       0.22066     -0.6171 ppb        0.22066  35.76%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        1.1      10.066 ug/L       17.8916      10.066 ppb        17.8916 177.74%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       -69.8     -13.997 ug/L       10.8397     -13.997 ppb        10.8397  77.44%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           0.5      17.628 ug/L       43.2247      17.628 ppb        43.2247 245.21%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              -5.5     -0.0062 ug/L       0.00969     -0.0062 ppb        0.00969 156.62%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               8.0      0.5939 ug/L       0.61130      0.5939 ppb        0.61130 102.94%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      130.1      42.142 ug/L       22.2996      42.142 ppb        22.2996  52.92%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              15.9      0.4177 ug/L       0.11229      0.4177 ppb        0.11229  26.88%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†              -24.0     -15.193 ug/L        4.3821     -15.193 ppb         4.3821  28.84%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               1.4      0.1727 ug/L       1.45671      0.1727 ppb        1.45671 843.44%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         -9.2     -13.696 ug/L        2.5594     -13.696 ppb         2.5594  18.69%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               5.6      2.0641 ug/L       1.70553      2.0641 ppb        1.70553  82.63%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               9.2      6.1610 ug/L       3.14181      6.1610 ppb        3.14181  51.00%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†              -8.4     -0.2894 ug/L       0.15567     -0.2894 ppb        0.15567  53.79%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               1.3      0.2490 ug/L       0.50663      0.2490 ppb        0.50663 203.48%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             -12.9     -0.0916 ug/L       0.18381     -0.0916 ppb        0.18381 200.61%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             108.1      0.1818 ug/L       0.00543      0.1818 ppb        0.00543   2.99%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               9.6      3.0827 ug/L       1.82713      3.0827 ppb        1.82713  59.27%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              164.8      5.2612 ug/L       1.12667      5.2612 ppb        1.12667  21.41%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              162.0      1.1861 ug/L       0.14771      1.1861 ppb        0.14771  12.45%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†             -47.2     -0.4733 ug/L       0.07325     -0.4733 ppb        0.07325  15.47%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                    -4.0     -0.3023 ug/L       2.33945     -0.3023 ppb        2.33945 773.86%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 53
Sample ID: 1202014118|941050|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 64
Date Collected: 1/14/2010 21:04:38
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202014118|941050|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5075.2	5075.2	106	%			21:06:31
1	Y RADIAL	5459.8	5459.8	106.4	%			21:06:31
1	Al 396.153Radial†	42.1	43.0	34.475	ug/L	34.475	ppb	21:06:31
1	Ca 317.933Radial†	24.3	7.8	13.093	ug/L	13.093	ppb	21:06:51
1	Fe 238.204 Radial†	14.0	3.3	31.327	ug/L	31.327	ppb	21:06:51
1	K 766.490 Radial†	2794.8	-148.9	-29.870	ug/L	-29.870	ppb	21:06:31
1	Mg 279.077 IEC†	2.9	1.3	44.436	ug/L	44.436	ppb	21:06:51
1	Na 589.592 Radial†	-1430.5	216.4	70.128	ug/L	70.128	ppb	21:06:31
1	Sr 421.552†	40.4	20.9	0.1488	ug/L	0.1488	ppb	21:06:31
1	Sc 361.383	854683.9	854683.9	105.02	%			21:07:48
1	Y 371.029	720814.5	720814.5	105.08	%			21:07:48
1	Ag 328.068†	352.8	54.3	0.2756	ug/L	0.2756	ppb	21:07:48
1	As 188.979†	-19.1	0.6	0.2976	ug/L	0.2976	ppb	21:08:08
1	B 249.677†	-504.1	38.5	0.9332	ug/L	0.9332	ppb	21:08:08
1	Ba 233.527†	-5.0	-6.2	-0.0488	ug/L	-0.0488	ppb	21:08:08
1	Be 313.107†	-4391.6	130.4	0.0528	ug/L	0.0528	ppb	21:07:48
1	Cd 226.502†	-201.0	6.2	0.0706	ug/L	0.0706	ppb	21:08:08
1	Co 228.616†	-78.1	-1.7	-0.0379	ug/L	-0.0379	ppb	21:08:08
1	Cr 267.716†	128.6	26.7	0.3150	ug/L	0.3150	ppb	21:08:08
1	Cu 324.752†	6549.6	-61.2	-0.1970	ug/L	-0.1970	ppb	21:07:48
1	Mn 257.610†	938.9	489.7	0.5756	ug/L	0.5756	ppb	21:08:08
1	Mo 202.031†	21.3	1.0	0.0756	ug/L	0.0756	ppb	21:08:08
1	Ni 231.604†	81.2	2.2	0.0582	ug/L	0.0582	ppb	21:08:08
1	P 214.914†	208.9	-28.9	-18.455	ug/L	-18.455	ppb	21:08:08
1	Pb 220.353†	-54.5	12.7	1.6277	ug/L	1.6277	ppb	21:08:08
1	S 181.975 Axial†	52.8	3.8	5.7236	ug/L	5.7236	ppb	21:08:08
1	Sb 206.836†	27.2	-6.8	-2.5081	ug/L	-2.5081	ppb	21:08:08
1	Se 196.026†	-29.9	1.9	1.3884	ug/L	1.3884	ppb	21:08:08
1	Si 251.611†	691.2	212.3	7.1578	ug/L	7.1578	ppb	21:08:08
1	Sn 189.927†	3.3	-3.0	-0.5565	ug/L	-0.5565	ppb	21:08:08
1	Ti 334.940†	-1179.5	263.8	0.4481	ug/L	0.4481	ppb	21:07:48
1	Tl 190.801†	-46.8	-0.7	-0.2056	ug/L	-0.2056	ppb	21:08:08
1	U 409.014†	-1952.6	181.6	5.7968	ug/L	5.7968	ppb	21:07:48
1	V 292.402†	-1355.5	116.4	0.8475	ug/L	0.8475	ppb	21:07:48
1	Zn 213.857†	785.7	-112.2	-1.1218	ug/L	-1.1218	ppb	21:08:08
1	SiO2†	677.7	189.1	13.553	ug/L	13.553	ppb	21:09:04
2	Sc Radial	5084.4	5084.4	106	%			21:06:56
2	Y RADIAL	5449.7	5449.7	106.2	%			21:06:56
2	Al 396.153Radial†	64.0	63.5	50.952	ug/L	50.952	ppb	21:06:56
2	Ca 317.933Radial†	22.8	6.4	10.733	ug/L	10.733	ppb	21:07:16
2	Fe 238.204 Radial†	13.2	2.6	24.172	ug/L	24.172	ppb	21:07:16
2	K 766.490 Radial†	2836.9	-114.1	-22.882	ug/L	-22.882	ppb	21:06:56
2	Mg 279.077 IEC†	3.4	1.7	60.509	ug/L	60.509	ppb	21:07:16
2	Na 589.592 Radial†	-1472.4	179.4	58.127	ug/L	58.127	ppb	21:06:56
2	Sr 421.552†	25.6	6.9	0.0489	ug/L	0.0489	ppb	21:06:56
2	Sc 361.383	857305.8	857305.8	105.34	%			21:08:13
2	Y 371.029	723608.8	723608.8	105.49	%			21:08:13
2	Ag 328.068†	316.8	19.2	0.0970	ug/L	0.0970	ppb	21:08:13
2	As 188.979†	-25.3	-5.1	-2.2990	ug/L	-2.2990	ppb	21:08:33
2	B 249.677†	-494.0	49.5	1.2021	ug/L	1.2021	ppb	21:08:33
2	Ba 233.527†	-1.1	-2.6	-0.0180	ug/L	-0.0180	ppb	21:08:33
2	Be 313.107†	-4344.4	187.9	0.0760	ug/L	0.0760	ppb	21:08:13
2	Cd 226.502†	-200.7	7.1	0.0829	ug/L	0.0829	ppb	21:08:33
2	Co 228.616†	-88.4	-11.2	-0.2453	ug/L	-0.2453	ppb	21:08:33
2	Cr 267.716†	138.4	35.7	0.4182	ug/L	0.4182	ppb	21:08:33
2	Cu 324.752†	6574.9	-56.3	-0.1849	ug/L	-0.1849	ppb	21:08:13
2	Mn 257.610†	945.1	493.0	0.5780	ug/L	0.5780	ppb	21:08:33
2	Mo 202.031†	20.1	-0.2	-0.0155	ug/L	-0.0155	ppb	21:08:33
2	Ni 231.604†	102.7	22.4	0.5892	ug/L	0.5892	ppb	21:08:33

2	P 214.914†	223.7	-15.5	-9.8725	ug/L	-9.8725 ppb	21:08:33
2	Pb 220.353†	-59.7	7.9	1.0234	ug/L	1.0234 ppb	21:08:33
2	S 181.975 Axial†	49.4	0.5	0.6781	ug/L	0.6781 ppb	21:08:33
2	Sb 206.836†	38.7	4.0	1.4597	ug/L	1.4597 ppb	21:08:33
2	Se 196.026†	-30.0	1.9	1.3618	ug/L	1.3618 ppb	21:08:33
2	Si 251.611†	663.0	183.5	6.1870	ug/L	6.1870 ppb	21:08:33
2	Sn 189.927†	7.1	0.7	0.1246	ug/L	0.1246 ppb	21:08:33
2	Ti 334.940†	-1094.8	347.7	0.5877	ug/L	0.5877 ppb	21:08:13
2	Tl 190.801†	-42.1	4.0	1.2762	ug/L	1.2762 ppb	21:08:33
2	U 409.014†	-1764.0	366.4	11.697	ug/L	11.697 ppb	21:08:13
2	V 292.402†	-1317.6	156.3	1.1464	ug/L	1.1464 ppb	21:08:13
2	Zn 213.857†	779.4	-120.4	-1.2070	ug/L	-1.2070 ppb	21:08:33
2	SiO2†	677.0	186.4	13.366	ug/L	13.366 ppb	21:09:09
3	Sc Radial	5078.9	5078.9	106	%		21:07:21
3	Y RADIAL	5409.6	5409.6	105.5	%		21:07:21
3	Al 396.153Radial†	45.2	45.8	36.770	ug/L	36.770 ppb	21:07:21
3	Ca 317.933Radial†	28.7	12.0	20.132	ug/L	20.132 ppb	21:07:41
3	Fe 238.204 Radial†	14.2	3.5	33.055	ug/L	33.055 ppb	21:07:41
3	K 766.490 Radial†	2772.7	-171.7	-34.434	ug/L	-34.434 ppb	21:07:21
3	Mg 279.077 IEC†	-2.1	-3.4	-121.14	ug/L	-121.14 ppb	21:07:41
3	Na 589.592 Radial†	-1449.0	199.9	64.777	ug/L	64.777 ppb	21:07:21
3	Sr 421.552†	-7.5	-24.3	-0.1733	ug/L	-0.1733 ppb	21:07:21
3	Sc 361.383	843421.8	843421.8	103.63	%		21:08:38
3	Y 371.029	711890.5	711890.5	103.78	%		21:08:38
3	Ag 328.068†	317.0	24.4	0.1288	ug/L	0.1288 ppb	21:08:38
3	As 188.979†	-13.2	6.1	2.7702	ug/L	2.7702 ppb	21:08:58
3	B 249.677†	-517.4	19.2	0.4628	ug/L	0.4628 ppb	21:08:58
3	Ba 233.527†	12.0	10.1	0.0861	ug/L	0.0861 ppb	21:08:58
3	Be 313.107†	-4283.1	179.3	0.0725	ug/L	0.0725 ppb	21:08:38
3	Cd 226.502†	-184.3	19.7	0.2282	ug/L	0.2282 ppb	21:08:58
3	Co 228.616†	-70.2	4.9	0.1050	ug/L	0.1050 ppb	21:08:58
3	Cr 267.716†	151.6	50.5	0.5960	ug/L	0.5960 ppb	21:08:58
3	Cu 324.752†	6392.1	-129.9	-0.4152	ug/L	-0.4152 ppb	21:08:38
3	Mn 257.610†	957.3	519.5	0.6174	ug/L	0.6174 ppb	21:08:58
3	Mo 202.031†	21.9	1.8	0.1388	ug/L	0.1388 ppb	21:08:58
3	Ni 231.604†	97.4	18.9	0.4973	ug/L	0.4973 ppb	21:08:58
3	P 214.914†	228.5	-7.4	-4.6653	ug/L	-4.6653 ppb	21:08:58
3	Pb 220.353†	-57.9	8.7	1.1158	ug/L	1.1158 ppb	21:08:58
3	S 181.975 Axial†	45.1	-2.9	-4.3397	ug/L	-4.3397 ppb	21:08:58
3	Sb 206.836†	39.1	5.0	1.8541	ug/L	1.8541 ppb	21:08:58
3	Se 196.026†	-39.0	-7.2	-4.7177	ug/L	-4.7177 ppb	21:08:58
3	Si 251.611†	670.0	200.6	6.7631	ug/L	6.7631 ppb	21:08:58
3	Sn 189.927†	12.4	5.9	1.0862	ug/L	1.0862 ppb	21:08:58
3	Ti 334.940†	-1102.7	322.9	0.5647	ug/L	0.5647 ppb	21:08:38
3	Tl 190.801†	-39.0	6.3	2.0118	ug/L	2.0118 ppb	21:08:58
3	U 409.014†	-1989.3	121.4	3.8713	ug/L	3.8713 ppb	21:08:38
3	V 292.402†	-1390.8	65.1	0.4707	ug/L	0.4707 ppb	21:08:38
3	Zn 213.857†	767.6	-119.6	-1.1987	ug/L	-1.1987 ppb	21:08:58
3	SiO2†	706.4	225.4	16.159	ug/L	16.159 ppb	21:09:14

Mean Data: 1202014118|941050|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	851803.8	104.66	%	0.906				0.87%
Sc Radial	5079.5	106	%	0.1				0.09%
Y 371.029	718771.3	104.78	%	0.892				0.85%
Y RADIAL	5439.7	106.0	%	0.52				0.49%
Ag 328.068†	32.6	0.1671	ug/L	0.09527	0.1671	ppb	0.09527	57.00%
Al 396.153Radial†	50.8	40.732	ug/L	8.9244	40.732	ppb	8.9244	21.91%
As 188.979†	0.5	0.2563	ug/L	2.53485	0.2563	ppb	2.53485	989.05%
B 249.677†	35.8	0.8660	ug/L	0.37421	0.8660	ppb	0.37421	43.21%
Ba 233.527†	0.4	0.0064	ug/L	0.07070	0.0064	ppb	0.07070	>999.9%
Be 313.107†	165.9	0.0671	ug/L	0.01249	0.0671	ppb	0.01249	18.61%
Ca 317.933Radial†	8.7	14.652	ug/L	4.8897	14.652	ppb	4.8897	33.37%
Cd 226.502†	11.0	0.1273	ug/L	0.08766	0.1273	ppb	0.08766	68.88%
Co 228.616†	-2.7	-0.0594	ug/L	0.17612	-0.0594	ppb	0.17612	296.53%
Cr 267.716†	37.6	0.4431	ug/L	0.14216	0.4431	ppb	0.14216	32.08%
Cu 324.752†	-82.5	-0.2657	ug/L	0.12962	-0.2657	ppb	0.12962	48.79%
Fe 238.204 Radial†	3.1	29.518	ug/L	4.7098	29.518	ppb	4.7098	15.96%
K 766.490 Radial†	-144.9	-29.062	ug/L	5.8183	-29.062	ppb	5.8183	20.02%

Mg 279.077 IEC†	-0.2	-5.3974	ug/L	100.55483	-5.3974	ppb	100.55483 >999.9%
Mn 257.610†	500.7	0.5903	ug/L	0.02347	0.5903	ppb	0.02347 3.98%
Mo 202.031†	0.9	0.0663	ug/L	0.07756	0.0663	ppb	0.07756 116.97%
Na 589.592 Radial†	198.6	64.344	ug/L	6.0121	64.344	ppb	6.0121 9.34%
Ni 231.604†	14.5	0.3816	ug/L	0.28382	0.3816	ppb	0.28382 74.38%
P 214.914†	-17.3	-10.998	ug/L	6.9632	-10.998	ppb	6.9632 63.32%
Pb 220.353†	9.8	1.2557	ug/L	0.32551	1.2557	ppb	0.32551 25.92%
S 181.975 Axial†	0.5	0.6873	ug/L	5.03166	0.6873	ppb	5.03166 732.05%
Sb 206.836†	0.7	0.2686	ug/L	2.41278	0.2686	ppb	2.41278 898.41%
Se 196.026†	-1.1	-0.6558	ug/L	3.51768	-0.6558	ppb	3.51768 536.37%
Si 251.611†	198.8	6.7026	ug/L	0.48820	6.7026	ppb	0.48820 7.28%
Sn 189.927†	1.2	0.2181	ug/L	0.82531	0.2181	ppb	0.82531 378.36%
Sr 421.552†	1.2	0.0081	ug/L	0.16487	0.0081	ppb	0.16487 >999.9%
Ti 334.940†	311.5	0.5335	ug/L	0.07487	0.5335	ppb	0.07487 14.03%
Tl 190.801†	3.2	1.0275	ug/L	1.12943	1.0275	ppb	1.12943 109.92%
U 409.014†	223.1	7.1216	ug/L	4.07742	7.1216	ppb	4.07742 57.25%
V 292.402†	112.6	0.8215	ug/L	0.33861	0.8215	ppb	0.33861 41.22%
Zn 213.857†	-117.4	-1.1758	ug/L	0.04697	-1.1758	ppb	0.04697 3.99%
SiO2†	200.3	14.359	ug/L	1.5609	14.359	ppb	1.5609 10.87%

Sequence No.: 54
Sample ID: 1202014119|941050|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 65
Date Collected: 1/14/2010 21:11:24
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202014119|941050|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5237.7	5237.7	109	%			21:13:38
1	Y RADIAL	6136.5	6136.5	119.6	%			21:13:38
1	Al 396.153Radial†	111383.4	101894.1	81721	ug/L	81721	ppb	21:13:18
1	Ca 317.933Radial†	61963.0	56667.1	95425	ug/L	95425	ppb	21:13:18
1	Fe 238.204 Radial†	21270.0	19447.4	182850	ug/L	182850	ppb	21:13:18
1	K 766.490 Radial†	226924.7	204797.6	40992	ug/L	40992	ppb	21:13:18
1	Mg 279.077 IEC†	1164.1	1063.3	37144	ug/L	37144	ppb	21:13:38
1	Na 589.592 Radial†	31448.4	30335.2	9828.8	ug/L	9828.8	ppb	21:13:18
1	Sr 421.552†	348530.5	318809.8	2271.7	ug/L	2271.7	ppb	21:13:18
1	Sc 361.383	869683.0	869683.0	106.86	%			21:14:39
1	Y 371.029	788130.7	788130.7	114.89	%			21:14:39
1	Ag 328.068†	57235.6	53280.6	324.81	ug/L	324.81	ppb	21:14:39
1	As 188.979†	2382.2	2248.1	1102.6	ug/L	1102.6	ppb	21:14:44
1	B 249.677†	63788.6	60213.1	1433.2	ug/L	1433.2	ppb	21:14:39
1	Ba 233.527†	243251.6	227638.0	1895.8	ug/L	1895.8	ppb	21:14:39
1	Be 313.107†	2057959.6	1930189.5	779.49	ug/L	779.49	ppb	21:14:39
1	Cd 226.502†	52809.9	49618.0	563.43	ug/L	563.43	ppb	21:14:44
1	Co 228.616†	44681.1	41886.1	896.18	ug/L	896.18	ppb	21:14:44
1	Cr 267.716†	204463.7	191245.2	2261.6	ug/L	2261.6	ppb	21:14:39
1	Cu 324.752†	610809.2	565308.7	1814.4	ug/L	1814.4	ppb	21:14:39
1	Mn 257.610†	4821515.9	4511660.7	5307.1	ug/L	5307.1	ppb	21:14:39
1	Mo 202.031†	7155.9	6677.3	510.99	ug/L	510.99	ppb	21:14:44
1	Ni 231.604†	51171.0	47811.7	1258.1	ug/L	1258.1	ppb	21:14:44
1	P 214.914†	14431.2	13277.1	7998.1	ug/L	7998.1	ppb	21:14:44
1	Pb 220.353†	6860.3	6484.6	832.58	ug/L	832.58	ppb	21:14:44
1	S 181.975 Axial†	2788.7	2563.3	3810.1	ug/L	3810.1	ppb	21:14:44
1	Sb 206.836†	5198.7	4832.3	1780.6	ug/L	1780.6	ppb	21:14:44
1	Se 196.026†	3823.6	3608.5	3017.8	ug/L	3017.8	ppb	21:14:44
1	Si 251.611†	373545.4	349124.9	11765	ug/L	11765	ppb	21:14:39
1	Sn 189.927†	6090.2	5693.2	1070.5	ug/L	1070.5	ppb	21:14:44
1	Ti 334.940†	3530695.0	3305477.7	5679.7	ug/L	5679.7	ppb	21:14:39
1	Tl 190.801†	3747.2	3550.6	1201.8	ug/L	1201.8	ppb	21:14:44
1	U 409.014†	-7494.6	-4972.6	-184.70	ug/L	-184.70	ppb	21:14:39
1	V 292.402†	181986.3	171713.3	1212.7	ug/L	1212.7	ppb	21:14:39
1	Zn 213.857†	612102.3	571956.5	5676.1	ug/L	5676.1	ppb	21:14:39
1	SiO2†	375228.5	350689.6	25128	ug/L	25128	ppb	21:15:18
2	Sc Radial	5256.8	5256.8	110	%			21:14:03
2	Y RADIAL	6138.8	6138.8	119.7	%			21:14:03
2	Al 396.153Radial†	111063.7	101231.9	81191	ug/L	81191	ppb	21:13:43
2	Ca 317.933Radial†	61688.1	56210.3	94655	ug/L	94655	ppb	21:13:43
2	Fe 238.204 Radial†	21127.4	19246.7	180960	ug/L	180960	ppb	21:13:43
2	K 766.490 Radial†	226183.1	203366.6	40705	ug/L	40705	ppb	21:13:43
2	Mg 279.077 IEC†	1159.9	1055.7	36878	ug/L	36878	ppb	21:14:03
2	Na 589.592 Radial†	31149.4	29957.9	9706.5	ug/L	9706.5	ppb	21:13:43
2	Sr 421.552†	346069.6	315407.0	2247.5	ug/L	2247.5	ppb	21:13:43
2	Sc 361.383	875856.4	875856.4	107.62	%			21:14:53
2	Y 371.029	794170.2	794170.2	115.77	%			21:14:53
2	Ag 328.068†	57429.8	53083.5	323.22	ug/L	323.22	ppb	21:14:53
2	As 188.979†	2354.8	2207.0	1083.6	ug/L	1083.6	ppb	21:14:58
2	B 249.677†	64308.4	60275.4	1435.1	ug/L	1435.1	ppb	21:14:53
2	Ba 233.527†	244426.2	227124.9	1891.5	ug/L	1891.5	ppb	21:14:53
2	Be 313.107†	2070607.7	1928368.0	778.75	ug/L	778.75	ppb	21:14:53
2	Cd 226.502†	52250.6	48750.0	553.44	ug/L	553.44	ppb	21:14:58
2	Co 228.616†	44226.9	41169.3	880.64	ug/L	880.64	ppb	21:14:58
2	Cr 267.716†	205355.1	190724.9	2255.4	ug/L	2255.4	ppb	21:14:53
2	Cu 324.752†	614546.7	564752.7	1812.5	ug/L	1812.5	ppb	21:14:53
2	Mn 257.610†	4843439.9	4500230.2	5293.5	ug/L	5293.5	ppb	21:14:53
2	Mo 202.031†	7057.1	6538.3	500.52	ug/L	500.52	ppb	21:14:58
2	Ni 231.604†	50591.0	46935.2	1235.0	ug/L	1235.0	ppb	21:14:58

2	P 214.914†	14318.3	13077.1	7871.9	ug/L	7871.9 ppb	21:14:58
2	Pb 220.353†	6819.5	6401.4	821.96	ug/L	821.96 ppb	21:14:58
2	S 181.975 Axial†	2755.6	2514.1	3736.8	ug/L	3736.8 ppb	21:14:58
2	Sb 206.836†	5167.9	4769.4	1757.0	ug/L	1757.0 ppb	21:14:58
2	Se 196.026†	3792.4	3554.4	2975.4	ug/L	2975.4 ppb	21:14:58
2	Si 251.611†	374507.8	347555.3	11712	ug/L	11712 ppb	21:14:53
2	Sn 189.927†	5981.5	5552.0	1044.2	ug/L	1044.2 ppb	21:14:58
2	Ti 334.940†	3550846.0	3300913.9	5671.8	ug/L	5671.8 ppb	21:14:53
2	Tl 190.801†	3763.7	3541.2	1198.8	ug/L	1198.8 ppb	21:14:58
2	U 409.014†	-7339.2	-4778.8	-178.28	ug/L	-178.28 ppb	21:14:53
2	V 292.402†	182650.7	171130.3	1208.6	ug/L	1208.6 ppb	21:14:53
2	Zn 213.857†	614248.5	569913.4	5656.1	ug/L	5656.1 ppb	21:14:53
2	SiO2†	370819.6	344117.8	24657	ug/L	24657 ppb	21:15:24
3	Sc Radial	5269.7	5269.7	110	%		21:14:28
3	Y RADIAL	6155.7	6155.7	120.0	%		21:14:28
3	Al 396.153Radial†	110456.9	100432.9	80549	ug/L	80549 ppb	21:14:08
3	Ca 317.933Radial†	61418.5	55827.8	94011	ug/L	94011 ppb	21:14:08
3	Fe 238.204 Radial†	21112.6	19186.1	180390	ug/L	180390 ppb	21:14:08
3	K 766.490 Radial†	224571.2	201397.3	40311	ug/L	40311 ppb	21:14:08
3	Mg 279.077 IEC†	1170.1	1062.4	37114	ug/L	37114 ppb	21:14:28
3	Na 589.592 Radial†	31026.6	29777.0	9647.9	ug/L	9647.9 ppb	21:14:08
3	Sr 421.552†	344074.0	312821.9	2229.1	ug/L	2229.1 ppb	21:14:08
3	Sc 361.383	865899.0	865899.0	106.39	%		21:15:07
3	Y 371.029	787149.4	787149.4	114.75	%		21:15:07
3	Ag 328.068†	57081.6	53369.9	324.46	ug/L	324.46 ppb	21:15:07
3	As 188.979†	2367.7	2244.3	1100.3	ug/L	1100.3 ppb	21:15:12
3	B 249.677†	63504.8	60207.2	1433.5	ug/L	1433.5 ppb	21:15:07
3	Ba 233.527†	241800.5	227268.8	1892.7	ug/L	1892.7 ppb	21:15:07
3	Be 313.107†	2052866.2	1933818.3	780.93	ug/L	780.93 ppb	21:15:07
3	Cd 226.502†	52539.7	49580.0	563.24	ug/L	563.24 ppb	21:15:12
3	Co 228.616†	44357.7	41764.9	893.58	ug/L	893.58 ppb	21:15:12
3	Cr 267.716†	203591.2	191261.3	2261.8	ug/L	2261.8 ppb	21:15:07
3	Cu 324.752†	607980.4	565147.8	1813.7	ug/L	1813.7 ppb	21:15:07
3	Mn 257.610†	4794095.5	4505605.9	5299.7	ug/L	5299.7 ppb	21:15:07
3	Mo 202.031†	7073.2	6628.8	507.18	ug/L	507.18 ppb	21:15:12
3	Ni 231.604†	50979.4	47840.8	1258.8	ug/L	1258.8 ppb	21:15:12
3	P 214.914†	14337.2	13247.8	7981.2	ug/L	7981.2 ppb	21:15:12
3	Pb 220.353†	6869.1	6520.9	837.18	ug/L	837.18 ppb	21:15:12
3	S 181.975 Axial†	2757.1	2544.9	3782.9	ug/L	3782.9 ppb	21:15:12
3	Sb 206.836†	5167.1	4823.8	1777.4	ug/L	1777.4 ppb	21:15:12
3	Se 196.026†	3791.7	3594.2	3000.1	ug/L	3000.1 ppb	21:15:12
3	Si 251.611†	370785.0	348058.0	11729	ug/L	11729 ppb	21:15:07
3	Sn 189.927†	6052.8	5683.0	1068.3	ug/L	1068.3 ppb	21:15:12
3	Ti 334.940†	3514493.0	3304688.2	5678.2	ug/L	5678.2 ppb	21:15:07
3	Tl 190.801†	3740.1	3559.3	1204.6	ug/L	1204.6 ppb	21:15:12
3	U 409.014†	-7356.4	-4873.4	-181.25	ug/L	-181.25 ppb	21:15:07
3	V 292.402†	181032.5	171561.1	1211.9	ug/L	1211.9 ppb	21:15:07
3	Zn 213.857†	608490.3	571064.8	5667.4	ug/L	5667.4 ppb	21:15:07
3	SiO2†	374388.0	351434.2	25182	ug/L	25182 ppb	21:15:29

Mean Data: 1202014119|941050|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	870479.5	106.96	%	0.618				0.58%
Sc Radial	5254.7	110	%	0.3				0.31%
Y 371.029	789816.8	115.14	%	0.554				0.48%
Y RADIAL	6143.7	119.8	%	0.20				0.17%
Ag 328.068†	53244.7	324.16	ug/L	0.837	324.16	ppb	0.837	0.26%
Al 396.153Radial†	101186.3	81154	ug/L	586.9	81154	ppb	586.9	0.72%
As 188.979†	2233.1	1095.5	ug/L	10.37	1095.5	ppb	10.37	0.95%
B 249.677†	60231.9	1433.9	ug/L	1.01	1433.9	ppb	1.01	0.07%
Ba 233.527†	227343.9	1893.4	ug/L	2.23	1893.4	ppb	2.23	0.12%
Be 313.107†	1930791.9	779.72	ug/L	1.108	779.72	ppb	1.108	0.14%
Ca 317.933Radial†	56235.1	94697	ug/L	707.6	94697	ppb	707.6	0.75%
Cd 226.502†	49316.0	560.03	ug/L	5.715	560.03	ppb	5.715	1.02%
Co 228.616†	41606.8	890.13	ug/L	8.326	890.13	ppb	8.326	0.94%
Cr 267.716†	191077.1	2259.6	ug/L	3.61	2259.6	ppb	3.61	0.16%
Cu 324.752†	565069.7	1813.5	ug/L	0.95	1813.5	ppb	0.95	0.05%
Fe 238.204 Radial†	19293.4	181400	ug/L	1285.8	181400	ppb	1285.8	0.71%
K 766.490 Radial†	203187.2	40669	ug/L	341.8	40669	ppb	341.8	0.84%

Mg 279.077 IEC†	1060.5	37045	ug/L	145.7	37045	ppb	145.7	0.39%
Mn 257.610†	4505832.3	5300.1	ug/L	6.80	5300.1	ppb	6.80	0.13%
Mo 202.031†	6614.8	506.23	ug/L	5.300	506.23	ppb	5.300	1.05%
Na 589.592 Radial†	30023.4	9727.7	ug/L	92.28	9727.7	ppb	92.28	0.95%
Ni 231.604†	47529.2	1250.6	ug/L	13.54	1250.6	ppb	13.54	1.08%
P 214.914†	13200.7	7950.4	ug/L	68.49	7950.4	ppb	68.49	0.86%
Pb 220.353†	6469.0	830.57	ug/L	7.807	830.57	ppb	7.807	0.94%
S 181.975 Axial†	2540.8	3776.6	ug/L	37.08	3776.6	ppb	37.08	0.98%
Sb 206.836†	4808.5	1771.6	ug/L	12.82	1771.6	ppb	12.82	0.72%
Se 196.026†	3585.7	2997.8	ug/L	21.33	2997.8	ppb	21.33	0.71%
Si 251.611†	348246.1	11736	ug/L	27.0	11736	ppb	27.0	0.23%
Sn 189.927†	5642.7	1061.0	ug/L	14.58	1061.0	ppb	14.58	1.37%
Sr 421.552†	315679.6	2249.4	ug/L	21.40	2249.4	ppb	21.40	0.95%
Ti 334.940†	3303693.3	5676.6	ug/L	4.19	5676.6	ppb	4.19	0.07%
Tl 190.801†	3550.4	1201.7	ug/L	2.89	1201.7	ppb	2.89	0.24%
U 409.014†	-4874.9	-181.41	ug/L	3.213	-181.41	ppb	3.213	1.77%
V 292.402†	171468.2	1211.1	ug/L	2.15	1211.1	ppb	2.15	0.18%
Zn 213.857†	570978.2	5666.5	ug/L	10.05	5666.5	ppb	10.05	0.18%
SiO2†	348747.2	24989	ug/L	288.5	24989	ppb	288.5	1.15%

Sequence No.: 59
Sample ID: 243472001|941050|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 70
Date Collected: 1/14/2010 21:45:58
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 243472001|941050|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5314.2	5314.2	111	%			21:47:51
1	Y RADIAL	6925.7	6925.7	135.0	%			21:47:51
1	Al 396.153Radial†	5028.0	4536.5	3639.3	ug/L	3639.3	ppb	21:47:51
1	Ca 317.933Radial†	1201.3	1067.9	1798.4	ug/L	1798.4	ppb	21:48:11
1	Fe 238.204 Radial†	5828.1	5244.8	49305	ug/L	49305	ppb	21:47:51
1	K 766.490 Radial†	8067.8	4486.5	897.29	ug/L	897.29	ppb	21:47:51
1	Mg 279.077 IEC†	30.5	26.0	859.86	ug/L	859.86	ppb	21:48:11
1	Na 589.592 Radial†	473.7	1994.1	646.09	ug/L	646.09	ppb	21:47:51
1	Sr 421.552†	1640.6	1462.0	10.407	ug/L	10.407	ppb	21:47:51
1	Sc 361.383	866395.0	866395.0	106.45	%			21:49:08
1	Y 371.029	893782.3	893782.3	130.30	%			21:49:08
1	Ag 328.068†	-3012.4	-3111.4	0.9268	ug/L	0.9268	ppb	21:49:14
1	As 188.979†	-37.8	-16.7	12.978	ug/L	12.978	ppb	21:49:34
1	B 249.677†	-172.4	356.6	0.6582	ug/L	0.6582	ppb	21:49:14
1	Ba 233.527†	10961.3	10295.3	86.924	ug/L	86.924	ppb	21:49:14
1	Be 313.107†	-6939.3	-2206.3	1.4665	ug/L	1.4665	ppb	21:49:14
1	Cd 226.502†	253.0	435.2	-0.0283	ug/L	-0.0283	ppb	21:49:34
1	Co 228.616†	160.3	223.2	2.0212	ug/L	2.0212	ppb	21:49:34
1	Cr 267.716†	416.5	295.5	4.5610	ug/L	4.5610	ppb	21:49:14
1	Cu 324.752†	8996.9	2153.4	9.5967	ug/L	9.5967	ppb	21:49:14
1	Mn 257.610†	1615295.4	1516956.1	1783.7	ug/L	1783.7	ppb	21:49:08
1	Mo 202.031†	67.9	44.4	7.1468	ug/L	7.1468	ppb	21:49:34
1	Ni 231.604†	274.6	182.8	4.8086	ug/L	4.8086	ppb	21:49:34
1	P 214.914†	766.6	492.3	274.00	ug/L	274.00	ppb	21:49:34
1	Pb 220.353†	84.4	143.9	14.535	ug/L	14.535	ppb	21:49:34
1	S 181.975 Axial†	65.1	14.7	21.284	ug/L	21.284	ppb	21:49:34
1	Sb 206.836†	39.1	4.0	-0.6710	ug/L	-0.6710	ppb	21:49:34
1	Se 196.026†	-257.0	-211.1	20.527	ug/L	20.527	ppb	21:49:34
1	Si 251.611†	122164.5	114311.9	3854.2	ug/L	3854.2	ppb	21:49:14
1	Sn 189.927†	7.5	0.9	1.2782	ug/L	1.2782	ppb	21:49:34
1	Ti 334.940†	638874.0	601526.3	1032.2	ug/L	1032.2	ppb	21:49:08
1	Tl 190.801†	-99.3	-49.4	1.2047	ug/L	1.2047	ppb	21:49:34
1	U 409.014†	-8961.2	-6376.9	-209.29	ug/L	-209.29	ppb	21:49:08
1	V 292.402†	2277.1	3546.2	16.981	ug/L	16.981	ppb	21:49:14
1	Zn 213.857†	28012.0	25453.3	249.03	ug/L	249.03	ppb	21:49:14
1	SiO2†	123813.5	115850.5	8305.5	ug/L	8305.5	ppb	21:50:41
2	Sc Radial	5031.8	5031.8	105	%			21:48:16
2	Y RADIAL	6658.7	6658.7	129.8	%			21:48:16
2	Al 396.153Radial†	5098.6	4858.2	3897.4	ug/L	3897.4	ppb	21:48:16
2	Ca 317.933Radial†	1208.5	1135.6	1912.3	ug/L	1912.3	ppb	21:48:36
2	Fe 238.204 Radial†	5915.6	5623.0	52860	ug/L	52860	ppb	21:48:16
2	K 766.490 Radial†	8099.1	4924.6	985.00	ug/L	985.00	ppb	21:48:16
2	Mg 279.077 IEC†	28.3	25.4	837.33	ug/L	837.33	ppb	21:48:36
2	Na 589.592 Radial†	579.8	2119.0	686.58	ug/L	686.58	ppb	21:48:16
2	Sr 421.552†	1709.0	1610.1	11.463	ug/L	11.463	ppb	21:48:16
2	Sc 361.383	875924.7	875924.7	107.63	%			21:49:39
2	Y 371.029	902674.2	902674.2	131.59	%			21:49:39
2	Ag 328.068†	-3011.4	-3079.6	2.2328	ug/L	2.2328	ppb	21:49:44
2	As 188.979†	-31.8	-10.7	16.553	ug/L	16.553	ppb	21:50:05
2	B 249.677†	-181.0	350.3	-0.0708	ug/L	-0.0708	ppb	21:49:44
2	Ba 233.527†	11022.7	10240.2	86.576	ug/L	86.576	ppb	21:49:44
2	Be 313.107†	-6964.1	-2158.5	1.4964	ug/L	1.4964	ppb	21:49:44
2	Cd 226.502†	240.6	421.1	-0.5617	ug/L	-0.5617	ppb	21:50:05
2	Co 228.616†	143.2	205.8	1.5798	ug/L	1.5798	ppb	21:50:05
2	Cr 267.716†	445.3	318.0	4.8957	ug/L	4.8957	ppb	21:49:44
2	Cu 324.752†	9043.2	2104.4	9.6282	ug/L	9.6282	ppb	21:49:44
2	Mn 257.610†	1642129.5	1525380.8	1793.9	ug/L	1793.9	ppb	21:49:39
2	Mo 202.031†	65.5	41.6	7.2107	ug/L	7.2107	ppb	21:50:05
2	Ni 231.604†	250.6	157.7	4.1495	ug/L	4.1495	ppb	21:50:05

2	P 214.914†	769.3	486.9	267.81 ug/L	267.81 ppb	21:50:05
2	Pb 220.353†	92.4	150.4	15.088 ug/L	15.088 ppb	21:50:05
2	S 181.975 Axial†	54.3	4.0	5.2330 ug/L	5.2330 ppb	21:50:05
2	Sb 206.836†	34.8	-0.4	-2.2122 ug/L	-2.2122 ppb	21:50:05
2	Se 196.026†	-254.7	-206.3	35.378 ug/L	35.378 ppb	21:50:05
2	Si 251.611†	121888.2	112806.6	3803.4 ug/L	3803.4 ppb	21:49:44
2	Sn 189.927†	9.1	2.4	1.6162 ug/L	1.6162 ppb	21:50:05
2	Ti 334.940†	648905.9	604318.1	1037.0 ug/L	1037.0 ppb	21:49:39
2	Tl 190.801†	-104.6	-53.3	0.0323 ug/L	0.0323 ppb	21:50:05
2	U 409.014†	-9038.6	-6357.3	-209.07 ug/L	-209.07 ppb	21:49:39
2	V 292.402†	2326.9	3569.2	16.622 ug/L	16.622 ppb	21:49:44
2	Zn 213.857†	28133.5	25279.9	246.96 ug/L	246.96 ppb	21:49:44
2	SiO2†	124619.2	115333.7	8268.4 ug/L	8268.4 ppb	21:50:46
3	Sc Radial	5317.7	5317.7	111 %		21:48:41
3	Y RADIAL	6998.4	6998.4	136.4 %		21:48:41
3	Al 396.153Radial†	4986.9	4496.5	3607.2 ug/L	3607.2 ppb	21:48:41
3	Ca 317.933Radial†	1153.1	1023.8	1724.1 ug/L	1724.1 ppb	21:49:01
3	Fe 238.204 Radial†	5769.6	5188.6	48776 ug/L	48776 ppb	21:48:41
3	K 766.490 Radial†	7963.2	4387.5	877.47 ug/L	877.47 ppb	21:48:41
3	Mg 279.077 IEC†	28.5	24.1	796.63 ug/L	796.63 ppb	21:49:01
3	Na 589.592 Radial†	439.7	1963.1	636.05 ug/L	636.05 ppb	21:48:41
3	Sr 421.552†	1632.2	1453.5	10.347 ug/L	10.347 ppb	21:48:41
3	Sc 361.383	863230.6	863230.6	106.07 %		21:50:10
3	Y 371.029	891163.3	891163.3	129.91 %		21:50:10
3	Ag 328.068†	-2992.8	-3103.2	0.8033 ug/L	0.8033 ppb	21:50:15
3	As 188.979†	-29.1	-8.6	16.514 ug/L	16.514 ppb	21:50:35
3	B 249.677†	-274.1	260.1	-1.6026 ug/L	-1.6026 ppb	21:50:15
3	Ba 233.527†	10892.5	10268.1	86.684 ug/L	86.684 ppb	21:50:15
3	Be 313.107†	-7024.4	-2310.5	1.4326 ug/L	1.4326 ppb	21:50:15
3	Cd 226.502†	263.4	445.9	0.1501 ug/L	0.1501 ppb	21:50:35
3	Co 228.616†	148.6	212.8	1.7944 ug/L	1.7944 ppb	21:50:35
3	Cr 267.716†	408.9	289.8	4.4870 ug/L	4.4870 ppb	21:50:15
3	Cu 324.752†	8981.7	2170.0	9.6251 ug/L	9.6251 ppb	21:50:15
3	Mn 257.610†	1614770.6	1522023.5	1789.6 ug/L	1789.6 ppb	21:50:10
3	Mo 202.031†	66.4	43.3	7.0210 ug/L	7.0210 ppb	21:50:35
3	Ni 231.604†	258.6	168.7	4.4369 ug/L	4.4369 ppb	21:50:35
3	P 214.914†	774.6	502.5	280.92 ug/L	280.92 ppb	21:50:35
3	Pb 220.353†	84.9	144.6	14.669 ug/L	14.669 ppb	21:50:35
3	S 181.975 Axial†	70.5	20.0	29.149 ug/L	29.149 ppb	21:50:35
3	Sb 206.836†	39.4	4.4	-0.5207 ug/L	-0.5207 ppb	21:50:35
3	Se 196.026†	-252.7	-207.9	20.925 ug/L	20.925 ppb	21:50:35
3	Si 251.611†	121168.7	113793.6	3836.7 ug/L	3836.7 ppb	21:50:15
3	Sn 189.927†	10.4	3.7	1.7593 ug/L	1.7593 ppb	21:50:35
3	Ti 334.940†	638556.8	603427.1	1035.5 ug/L	1035.5 ppb	21:50:10
3	Tl 190.801†	-110.9	-60.6	-2.3483 ug/L	-2.3483 ppb	21:50:35
3	U 409.014†	-9119.1	-6556.6	-214.97 ug/L	-214.97 ppb	21:50:10
3	V 292.402†	2332.7	3606.4	17.476 ug/L	17.476 ppb	21:50:15
3	Zn 213.857†	27908.5	25452.2	249.07 ug/L	249.07 ppb	21:50:15
3	SiO2†	123878.1	116337.7	8340.4 ug/L	8340.4 ppb	21:50:51

Mean Data: 243472001|941050|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	868516.8	106.72	%	0.812				0.76%
Sc Radial	5221.2	109	%	3.4				3.14%
Y 371.029	895873.3	130.60	%	0.880				0.67%
Y RADIAL	6860.9	133.8	%	3.49				2.61%
Ag 328.068†	-3098.1	1.3210	ug/L	0.79205	1.3210	ppb	0.79205	59.96%
Al 396.153Radial†	4630.4	3714.6	ug/L	159.08	3714.6	ppb	159.08	4.28%
As 188.979†	-12.0	15.348	ug/L	2.0527	15.348	ppb	2.0527	13.37%
B 249.677†	322.3	-0.3384	ug/L	1.15394	-0.3384	ppb	1.15394	341.01%
Ba 233.527†	10267.9	86.728	ug/L	0.1780	86.728	ppb	0.1780	0.21%
Be 313.107†	-2225.1	1.4652	ug/L	0.03195	1.4652	ppb	0.03195	2.18%
Ca 317.933Radial†	1075.8	1811.6	ug/L	94.80	1811.6	ppb	94.80	5.23%
Cd 226.502†	434.1	-0.1466	ug/L	0.37037	-0.1466	ppb	0.37037	252.59%
Co 228.616†	213.9	1.7985	ug/L	0.22074	1.7985	ppb	0.22074	12.27%
Cr 267.716†	301.1	4.6479	ug/L	0.21776	4.6479	ppb	0.21776	4.69%
Cu 324.752†	2142.6	9.6166	ug/L	0.01737	9.6166	ppb	0.01737	0.18%
Fe 238.204 Radial†	5352.1	50314	ug/L	2221.1	50314	ppb	2221.1	4.41%
K 766.490 Radial†	4599.5	919.92	ug/L	57.227	919.92	ppb	57.227	6.22%

Mg 279.077 IEC†	25.2	831.27	ug/L	32.049	831.27	ppb	32.049	3.86%
Mn 257.610†	1521453.5	1789.0	ug/L	5.14	1789.0	ppb	5.14	0.29%
Mo 202.031†	43.1	7.1262	ug/L	0.09653	7.1262	ppb	0.09653	1.35%
Na 589.592 Radial†	2025.4	656.24	ug/L	26.754	656.24	ppb	26.754	4.08%
Ni 231.604†	169.7	4.4650	ug/L	0.33046	4.4650	ppb	0.33046	7.40%
P 214.914†	493.9	274.24	ug/L	6.558	274.24	ppb	6.558	2.39%
Pb 220.353†	146.3	14.764	ug/L	0.2887	14.764	ppb	0.2887	1.96%
S 181.975 Axial†	12.9	18.555	ug/L	12.1890	18.555	ppb	12.1890	65.69%
Sb 206.836†	2.7	-1.1347	ug/L	0.93621	-1.1347	ppb	0.93621	82.51%
Se 196.026†	-208.4	25.610	ug/L	8.4616	25.610	ppb	8.4616	33.04%
Si 251.611†	113637.3	3831.4	ug/L	25.78	3831.4	ppb	25.78	0.67%
Sn 189.927†	2.3	1.5512	ug/L	0.24706	1.5512	ppb	0.24706	15.93%
Sr 421.552†	1508.5	10.739	ug/L	0.6273	10.739	ppb	0.6273	5.84%
Ti 334.940†	603090.5	1034.9	ug/L	2.45	1034.9	ppb	2.45	0.24%
Tl 190.801†	-54.4	-0.3704	ug/L	1.81043	-0.3704	ppb	1.81043	488.74%
U 409.014†	-6430.3	-211.11	ug/L	3.344	-211.11	ppb	3.344	1.58%
V 292.402†	3573.9	17.026	ug/L	0.4287	17.026	ppb	0.4287	2.52%
Zn 213.857†	25395.2	248.36	ug/L	1.207	248.36	ppb	1.207	0.49%
SiO2†	115840.6	8304.8	ug/L	35.99	8304.8	ppb	35.99	0.43%

Sequence No.: 60
Sample ID: 243472002|941050|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 71
Date Collected: 1/14/2010 21:53:01
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 243472002|941050|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5082.0	5082.0	106	%			21:54:54
1	Y RADIAL	7002.4	7002.4	136.5	%			21:54:54
1	Al 396.153Radial†	5251.7	4954.5	3974.6	ug/L	3974.6	ppb	21:54:54
1	Ca 317.933Radial†	1212.2	1127.8	1899.1	ug/L	1899.1	ppb	21:55:14
1	Fe 238.204 Radial†	7708.0	7257.2	68223	ug/L	68223	ppb	21:54:54
1	K 766.490 Radial†	8060.6	4812.1	962.15	ug/L	962.15	ppb	21:54:54
1	Mg 279.077 IEC†	27.8	24.7	795.47	ug/L	795.47	ppb	21:55:14
1	Na 589.592 Radial†	793.9	2315.4	750.20	ug/L	750.20	ppb	21:54:54
1	Sr 421.552†	1773.7	1655.0	11.783	ug/L	11.783	ppb	21:54:54
1	Sc 361.383	863183.3	863183.3	106.06	%			21:56:12
1	Y 371.029	927236.8	927236.8	135.17	%			21:56:12
1	Ag 328.068†	-4080.7	-4129.2	2.1253	ug/L	2.1253	ppb	21:56:17
1	As 188.979†	-48.2	-26.6	13.603	ug/L	13.603	ppb	21:56:37
1	B 249.677†	-69.2	453.3	-0.0633	ug/L	-0.0633	ppb	21:56:17
1	Ba 233.527†	26201.5	24703.0	206.99	ug/L	206.99	ppb	21:56:17
1	Be 313.107†	-7443.7	-2706.2	1.4423	ug/L	1.4423	ppb	21:56:17
1	Cd 226.502†	388.9	564.2	-0.4790	ug/L	-0.4790	ppb	21:56:37
1	Co 228.616†	199.2	260.5	2.4555	ug/L	2.4555	ppb	21:56:37
1	Cr 267.716†	545.7	418.8	6.4147	ug/L	6.4147	ppb	21:56:17
1	Cu 324.752†	8708.9	1913.3	9.8566	ug/L	9.8566	ppb	21:56:17
1	Mn 257.610†	2265180.3	2135355.8	2510.7	ug/L	2510.7	ppb	21:56:12
1	Mo 202.031†	78.5	54.7	9.3792	ug/L	9.3792	ppb	21:56:37
1	Ni 231.604†	308.6	215.8	5.6780	ug/L	5.6780	ppb	21:56:37
1	P 214.914†	1051.3	763.4	432.04	ug/L	432.04	ppb	21:56:37
1	Pb 220.353†	178.8	233.1	24.237	ug/L	24.237	ppb	21:56:37
1	S 181.975 Axial†	87.9	36.4	53.640	ug/L	53.640	ppb	21:56:37
1	Sb 206.836†	30.9	-3.6	-3.1329	ug/L	-3.1329	ppb	21:56:37
1	Se 196.026†	-327.2	-278.2	37.625	ug/L	37.625	ppb	21:56:37
1	Si 251.611†	123147.6	115665.7	3899.8	ug/L	3899.8	ppb	21:56:17
1	Sn 189.927†	22.7	15.2	4.2542	ug/L	4.2542	ppb	21:56:37
1	Ti 334.940†	683979.8	646287.9	1109.0	ug/L	1109.0	ppb	21:56:12
1	Tl 190.801†	-116.2	-65.7	0.0602	ug/L	0.0602	ppb	21:56:37
1	U 409.014†	-10427.1	-7790.4	-256.59	ug/L	-256.59	ppb	21:56:12
1	V 292.402†	3600.3	4801.8	23.125	ug/L	23.125	ppb	21:56:17
1	Zn 213.857†	37020.1	34044.7	332.88	ug/L	332.88	ppb	21:56:17
1	SiO2†	123961.9	116423.1	8346.5	ug/L	8346.5	ppb	21:57:44
2	Sc Radial	5062.0	5062.0	106	%			21:55:20
2	Y RADIAL	6940.1	6940.1	135.3	%			21:55:20
2	Al 396.153Radial†	5233.0	4956.3	3976.0	ug/L	3976.0	ppb	21:55:20
2	Ca 317.933Radial†	1192.3	1113.3	1874.8	ug/L	1874.8	ppb	21:55:40
2	Fe 238.204 Radial†	7661.0	7241.4	68074	ug/L	68074	ppb	21:55:20
2	K 766.490 Radial†	8085.2	4865.4	972.83	ug/L	972.83	ppb	21:55:20
2	Mg 279.077 IEC†	28.5	25.5	824.15	ug/L	824.15	ppb	21:55:40
2	Na 589.592 Radial†	791.4	2316.0	750.39	ug/L	750.39	ppb	21:55:20
2	Sr 421.552†	1750.6	1639.8	11.674	ug/L	11.674	ppb	21:55:20
2	Sc 361.383	867755.9	867755.9	106.62	%			21:56:43
2	Y 371.029	929099.2	929099.2	135.44	%			21:56:43
2	Ag 328.068†	-3994.3	-4027.8	2.5697	ug/L	2.5697	ppb	21:56:48
2	As 188.979†	-35.6	-14.5	19.013	ug/L	19.013	ppb	21:57:08
2	B 249.677†	-108.5	416.7	-0.9285	ug/L	-0.9285	ppb	21:56:48
2	Ba 233.527†	26082.6	24461.4	204.98	ug/L	204.98	ppb	21:56:48
2	Be 313.107†	-7442.8	-2668.3	1.4616	ug/L	1.4616	ppb	21:56:48
2	Cd 226.502†	399.7	572.4	-0.3666	ug/L	-0.3666	ppb	21:57:08
2	Co 228.616†	204.7	264.6	2.5443	ug/L	2.5443	ppb	21:57:08
2	Cr 267.716†	530.0	401.4	6.2035	ug/L	6.2035	ppb	21:56:48
2	Cu 324.752†	8751.7	1910.1	9.8369	ug/L	9.8369	ppb	21:56:48
2	Mn 257.610†	2280180.2	2138170.0	2514.0	ug/L	2514.0	ppb	21:56:43
2	Mo 202.031†	89.9	65.0	10.131	ug/L	10.131	ppb	21:57:08
2	Ni 231.604†	334.4	238.5	6.2758	ug/L	6.2758	ppb	21:57:08

2	P 214.914†	1060.4	766.6	434.26	ug/L	434.26 ppb	21:57:08
2	Pb 220.353†	171.9	225.8	23.316	ug/L	23.316 ppb	21:57:08
2	S 181.975 Axial†	92.4	40.2	59.267	ug/L	59.267 ppb	21:57:08
2	Sb 206.836†	35.6	0.6	-1.5846	ug/L	-1.5846 ppb	21:57:08
2	Se 196.026†	-324.3	-273.8	40.071	ug/L	40.071 ppb	21:57:08
2	Si 251.611†	120983.4	113024.1	3810.7	ug/L	3810.7 ppb	21:56:48
2	Sn 189.927†	25.1	17.4	4.6549	ug/L	4.6549 ppb	21:57:08
2	Ti 334.940†	688757.5	647370.6	1110.9	ug/L	1110.9 ppb	21:56:43
2	Tl 190.801†	-125.0	-73.3	-2.3420	ug/L	-2.3420 ppb	21:57:08
2	U 409.014†	-10380.5	-7694.9	-253.53	ug/L	-253.53 ppb	21:56:43
2	V 292.402†	3500.1	4689.9	22.355	ug/L	22.355 ppb	21:56:48
2	Zn 213.857†	36780.8	33636.2	328.81	ug/L	328.81 ppb	21:56:48
2	SiO2†	121269.2	113281.9	8121.3	ug/L	8121.3 ppb	21:57:49
3	Sc Radial	5135.1	5135.1	107	%		21:55:45
3	Y RADIAL	7033.1	7033.1	137.1	%		21:55:45
3	Al 396.153Radial†	5317.1	4964.4	3982.5	ug/L	3982.5 ppb	21:55:45
3	Ca 317.933Radial†	1219.1	1122.3	1889.9	ug/L	1889.9 ppb	21:56:05
3	Fe 238.204 Radial†	7740.1	7212.0	67798	ug/L	67798 ppb	21:55:45
3	K 766.490 Radial†	8192.3	4856.4	971.02	ug/L	971.02 ppb	21:55:45
3	Mg 279.077 IEC†	27.8	24.4	787.30	ug/L	787.30 ppb	21:56:05
3	Na 589.592 Radial†	837.0	2347.9	760.74	ug/L	760.74 ppb	21:55:45
3	Sr 421.552†	1788.0	1651.1	11.754	ug/L	11.754 ppb	21:55:45
3	Sc 361.383	858719.5	858719.5	105.51	%		21:57:14
3	Y 371.029	919138.8	919138.8	133.99	%		21:57:14
3	Ag 328.068†	-4112.1	-4178.9	1.7453	ug/L	1.7453 ppb	21:57:19
3	As 188.979†	-37.8	-17.0	17.823	ug/L	17.823 ppb	21:57:39
3	B 249.677†	-88.6	434.6	-0.4489	ug/L	-0.4489 ppb	21:57:19
3	Ba 233.527†	26335.4	24958.3	209.09	ug/L	209.09 ppb	21:57:19
3	Be 313.107†	-7426.8	-2726.6	1.4361	ug/L	1.4361 ppb	21:57:19
3	Cd 226.502†	388.0	565.3	-0.4221	ug/L	-0.4221 ppb	21:57:39
3	Co 228.616†	188.8	251.7	2.2714	ug/L	2.2714 ppb	21:57:39
3	Cr 267.716†	515.1	392.5	6.0965	ug/L	6.0965 ppb	21:57:19
3	Cu 324.752†	8738.2	1983.8	10.059	ug/L	10.059 ppb	21:57:19
3	Mn 257.610†	2255777.9	2137546.6	2513.2	ug/L	2513.2 ppb	21:57:14
3	Mo 202.031†	94.5	70.2	10.498	ug/L	10.498 ppb	21:57:39
3	Ni 231.604†	343.9	250.8	6.5999	ug/L	6.5999 ppb	21:57:39
3	P 214.914†	1065.1	781.6	444.01	ug/L	444.01 ppb	21:57:39
3	Pb 220.353†	145.7	202.7	20.377	ug/L	20.377 ppb	21:57:39
3	S 181.975 Axial†	92.0	40.8	60.110	ug/L	60.110 ppb	21:57:39
3	Sb 206.836†	30.9	-3.4	-3.0228	ug/L	-3.0228 ppb	21:57:39
3	Se 196.026†	-323.2	-275.9	37.722	ug/L	37.722 ppb	21:57:39
3	Si 251.611†	122732.3	115875.7	3906.9	ug/L	3906.9 ppb	21:57:19
3	Sn 189.927†	37.5	29.5	6.8765	ug/L	6.8765 ppb	21:57:39
3	Ti 334.940†	680966.7	646784.5	1109.9	ug/L	1109.9 ppb	21:57:14
3	Tl 190.801†	-115.9	-66.0	-0.0023	ug/L	-0.0023 ppb	21:57:39
3	U 409.014†	-10358.2	-7776.2	-256.09	ug/L	-256.09 ppb	21:57:14
3	V 292.402†	3672.3	4887.6	23.823	ug/L	23.823 ppb	21:57:19
3	Zn 213.857†	37028.8	34234.3	334.80	ug/L	334.80 ppb	21:57:19
3	SiO2†	122794.7	115924.5	8310.7	ug/L	8310.7 ppb	21:57:55

Mean Data: 243472002|941050|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	863219.6	106.06	%	0.555				0.52%
Sc Radial	5093.1	106	%	0.8				0.74%
Y 371.029	925158.3	134.87	%	0.772				0.57%
Y RADIAL	6991.9	136.3	%	0.92				0.68%
Ag 328.068†	-4112.0	2.1468	ug/L	0.41262	2.1468	ppb	0.41262	19.22%
Al 396.153Radial†	4958.4	3977.7	ug/L	4.18	3977.7	ppb	4.18	0.11%
As 188.979†	-19.4	16.813	ug/L	2.8426	16.813	ppb	2.8426	16.91%
B 249.677†	434.9	-0.4802	ug/L	0.43347	-0.4802	ppb	0.43347	90.26%
Ba 233.527†	24707.6	207.02	ug/L	2.058	207.02	ppb	2.058	0.99%
Be 313.107†	-2700.4	1.4467	ug/L	0.01326	1.4467	ppb	0.01326	0.92%
Ca 317.933Radial†	1121.1	1887.9	ug/L	12.25	1887.9	ppb	12.25	0.65%
Cd 226.502†	567.3	-0.4226	ug/L	0.05618	-0.4226	ppb	0.05618	13.29%
Co 228.616†	258.9	2.4237	ug/L	0.13916	2.4237	ppb	0.13916	5.74%
Cr 267.716†	404.2	6.2382	ug/L	0.16193	6.2382	ppb	0.16193	2.60%
Cu 324.752†	1935.7	9.9174	ug/L	0.12279	9.9174	ppb	0.12279	1.24%
Fe 238.204 Radial†	7236.8	68032	ug/L	215.9	68032	ppb	215.9	0.32%
K 766.490 Radial†	4844.6	968.67	ug/L	5.718	968.67	ppb	5.718	0.59%

Mg 279.077 IEC†	24.9	802.31 ug/L	19.352	802.31 ppb	19.352	2.41%
Mn 257.610†	2137024.1	2512.6 ug/L	1.72	2512.6 ppb	1.72	0.07%
Mo 202.031†	63.3	10.003 ug/L	0.5704	10.003 ppb	0.5704	5.70%
Na 589.592 Radial†	2326.4	753.78 ug/L	6.031	753.78 ppb	6.031	0.80%
Ni 231.604†	235.1	6.1846 ug/L	0.46769	6.1846 ppb	0.46769	7.56%
P 214.914†	770.5	436.77 ug/L	6.366	436.77 ppb	6.366	1.46%
Pb 220.353†	220.6	22.643 ug/L	2.0159	22.643 ppb	2.0159	8.90%
S 181.975 Axial†	39.1	57.673 ug/L	3.5173	57.673 ppb	3.5173	6.10%
Sb 206.836†	-2.1	-2.5801 ug/L	0.86388	-2.5801 ppb	0.86388	33.48%
Se 196.026†	-276.0	38.473 ug/L	1.3854	38.473 ppb	1.3854	3.60%
Si 251.611†	114855.2	3872.5 ug/L	53.59	3872.5 ppb	53.59	1.38%
Sn 189.927†	20.7	5.2619 ug/L	1.41261	5.2619 ppb	1.41261	26.85%
Sr 421.552†	1648.6	11.737 ug/L	0.0563	11.737 ppb	0.0563	0.48%
Ti 334.940†	646814.4	1109.9 ug/L	0.93	1109.9 ppb	0.93	0.08%
Tl 190.801†	-68.3	-0.7614 ug/L	1.36920	-0.7614 ppb	1.36920	179.84%
U 409.014†	-7753.8	-255.40 ug/L	1.645	-255.40 ppb	1.645	0.64%
V 292.402†	4793.1	23.101 ug/L	0.7340	23.101 ppb	0.7340	3.18%
Zn 213.857†	33971.7	332.16 ug/L	3.057	332.16 ppb	3.057	0.92%
SiO2†	115209.8	8259.5 ug/L	121.03	8259.5 ppb	121.03	1.47%

Sequence No.: 61
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 1/14/2010 22:00:06
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	5011.8	5011.8	105	%			22:01:58
1	Y RADIAL	5315.2	5315.2	103.6	%			22:01:58
1	Al 396.153Radial†	6549.5	6264.6	5001.2	ug/L	5001.2	ppb	22:01:58
1	Ca 317.933Radial†	3178.6	3023.6	5091.6	ug/L	5091.6	ppb	22:02:18
1	Fe 238.204 Radial†	604.2	567.7	5352.5	ug/L	5352.5	ppb	22:02:18
1	K 766.490 Radial†	29719.9	25625.0	5127.0	ug/L	5127.0	ppb	22:01:58
1	Mg 279.077 IEC†	159.6	151.0	5301.9	ug/L	5301.9	ppb	22:02:18
1	Na 589.592 Radial†	33642.6	33729.6	10929	ug/L	10929	ppb	22:01:58
1	Sr 421.552†	78402.9	74936.7	534.10	ug/L	534.10	ppb	22:01:58
1	Sc 361.383	846375.7	846375.7	103.99	%			22:03:16
1	Y 371.029	702990.8	702990.8	102.48	%			22:03:16
1	Ag 328.068†	104725.2	100421.0	496.65	ug/L	496.65	ppb	22:03:21
1	As 188.979†	1151.0	1125.7	511.06	ug/L	511.06	ppb	22:03:41
1	B 249.677†	21206.0	20910.0	506.58	ug/L	506.58	ppb	22:03:21
1	Ba 233.527†	64286.9	61816.1	513.86	ug/L	513.86	ppb	22:03:21
1	Be 313.107†	1361620.9	1313632.0	522.89	ug/L	522.89	ppb	22:03:16
1	Cd 226.502†	45490.7	43940.9	514.88	ug/L	514.88	ppb	22:03:21
1	Co 228.616†	24626.5	23753.2	515.91	ug/L	515.91	ppb	22:03:21
1	Cr 267.716†	45144.2	43314.4	511.63	ug/L	511.63	ppb	22:03:21
1	Cu 324.752†	172541.3	159615.7	509.53	ug/L	509.53	ppb	22:03:21
1	Mn 257.610†	459954.1	441882.6	518.48	ug/L	518.48	ppb	22:03:16
1	Mo 202.031†	7139.2	6845.7	508.64	ug/L	508.64	ppb	22:03:41
1	Ni 231.604†	20390.5	19532.2	513.86	ug/L	513.86	ppb	22:03:21
1	P 214.914†	4368.4	3972.8	2436.0	ug/L	2436.0	ppb	22:03:41
1	Pb 220.353†	4044.9	3954.1	508.10	ug/L	508.10	ppb	22:03:41
1	S 181.975 Axial†	765.1	689.3	1027.7	ug/L	1027.7	ppb	22:03:41
1	Sb 206.836†	1464.8	1375.8	521.25	ug/L	521.25	ppb	22:03:41
1	Se 196.026†	776.2	776.8	538.81	ug/L	538.81	ppb	22:03:41
1	Si 251.611†	80580.1	77039.1	2591.2	ug/L	2591.2	ppb	22:03:21
1	Sn 189.927†	2859.3	2743.4	508.21	ug/L	508.21	ppb	22:03:41
1	Ti 334.940†	306829.2	296430.6	508.37	ug/L	508.37	ppb	22:03:21
1	Tl 190.801†	1608.9	1591.0	512.42	ug/L	512.42	ppb	22:03:41
1	U 409.014†	15113.0	16573.4	527.56	ug/L	527.56	ppb	22:03:21
1	V 292.402†	72394.1	71020.5	519.13	ug/L	519.13	ppb	22:03:21
1	Zn 213.857†	54988.8	52016.3	514.29	ug/L	514.29	ppb	22:03:21
1	SiO2†	80593.9	77042.0	5509.5	ug/L	5509.5	ppb	22:04:48
2	Sc Radial	5493.1	5493.1	115	%			22:02:23
2	Y RADIAL	5856.8	5856.8	114.2	%			22:02:23
2	Al 396.153Radial†	6445.5	5625.3	4487.8	ug/L	4487.8	ppb	22:02:23
2	Ca 317.933Radial†	3188.7	2766.2	4658.1	ug/L	4658.1	ppb	22:02:43
2	Fe 238.204 Radial†	605.3	518.1	4885.3	ug/L	4885.3	ppb	22:02:43
2	K 766.490 Radial†	29684.4	23104.6	4622.6	ug/L	4622.6	ppb	22:02:23
2	Mg 279.077 IEC†	164.0	141.5	4968.6	ug/L	4968.6	ppb	22:02:43
2	Na 589.592 Radial†	33565.0	30843.8	9993.6	ug/L	9993.6	ppb	22:02:23
2	Sr 421.552†	77885.4	67917.9	484.08	ug/L	484.08	ppb	22:02:23
2	Sc 361.383	843201.9	843201.9	103.60	%			22:03:47
2	Y 371.029	698608.9	698608.9	101.84	%			22:03:47
2	Ag 328.068†	102571.9	98721.7	488.13	ug/L	488.13	ppb	22:03:52
2	As 188.979†	1168.2	1146.4	520.17	ug/L	520.17	ppb	22:04:12
2	B 249.677†	20632.1	20432.8	495.07	ug/L	495.07	ppb	22:03:52
2	Ba 233.527†	62777.9	60592.3	503.68	ug/L	503.68	ppb	22:03:52
2	Be 313.107†	1358816.2	1315853.4	523.75	ug/L	523.75	ppb	22:03:47
2	Cd 226.502†	44659.7	43303.5	507.45	ug/L	507.45	ppb	22:03:52
2	Co 228.616†	24104.8	23338.9	506.96	ug/L	506.96	ppb	22:03:52
2	Cr 267.716†	44332.2	42694.0	504.29	ug/L	504.29	ppb	22:03:52
2	Cu 324.752†	167623.5	155493.6	496.35	ug/L	496.35	ppb	22:03:52
2	Mn 257.610†	460454.0	444029.9	520.96	ug/L	520.96	ppb	22:03:47
2	Mo 202.031†	7241.7	6970.4	517.85	ug/L	517.85	ppb	22:04:12
2	Ni 231.604†	20029.5	19257.5	506.63	ug/L	506.63	ppb	22:03:52

2	P 214.914†	4406.4	4025.2	2472.4 ug/L	2472.4 ppb	22:04:12
2	Pb 220.353†	4109.7	4031.3	517.95 ug/L	517.95 ppb	22:04:12
2	S 181.975 Axial†	758.6	685.8	1022.6 ug/L	1022.6 ppb	22:04:12
2	Sb 206.836†	1494.1	1409.4	533.89 ug/L	533.89 ppb	22:04:12
2	Se 196.026†	786.0	789.1	545.48 ug/L	545.48 ppb	22:04:12
2	Si 251.611†	78596.1	75415.8	2536.4 ug/L	2536.4 ppb	22:03:52
2	Sn 189.927†	2908.7	2801.4	518.87 ug/L	518.87 ppb	22:04:12
2	Ti 334.940†	299385.5	290356.5	497.93 ug/L	497.93 ppb	22:03:52
2	Tl 190.801†	1648.1	1634.6	526.36 ug/L	526.36 ppb	22:04:12
2	U 409.014†	14645.4	16176.8	514.96 ug/L	514.96 ppb	22:03:52
2	V 292.402†	70792.4	69736.5	510.05 ug/L	510.05 ppb	22:03:52
2	Zn 213.857†	53713.9	50984.8	504.11 ug/L	504.11 ppb	22:03:52
2	SiO2†	80853.1	77583.9	5548.1 ug/L	5548.1 ppb	22:04:53
3	Sc Radial	4958.4	4958.4	103 %		22:02:49
3	Y RADIAL	5273.9	5273.9	102.8 %		22:02:49
3	Al 396.153Radial†	6455.2	6240.9	4981.9 ug/L	4981.9 ppb	22:02:49
3	Ca 317.933Radial†	3182.2	3059.8	5152.6 ug/L	5152.6 ppb	22:03:09
3	Fe 238.204 Radial†	612.9	582.4	5490.7 ug/L	5490.7 ppb	22:03:09
3	K 766.490 Radial†	29324.1	25548.5	5111.7 ug/L	5111.7 ppb	22:02:49
3	Mg 279.077 IEC†	161.4	154.4	5420.9 ug/L	5420.9 ppb	22:03:09
3	Na 589.592 Radial†	32990.5	33445.8	10837 ug/L	10837 ppb	22:02:49
3	Sr 421.552†	77290.7	74669.0	532.20 ug/L	532.20 ppb	22:02:49
3	Sc 361.383	843191.6	843191.6	103.60 %		22:04:18
3	Y 371.029	700291.7	700291.7	102.09 %		22:04:18
3	Ag 328.068†	104923.2	100992.4	499.53 ug/L	499.53 ppb	22:04:23
3	As 188.979†	1155.9	1134.5	515.12 ug/L	515.12 ppb	22:04:43
3	B 249.677†	21567.6	21336.0	516.91 ug/L	516.91 ppb	22:04:23
3	Ba 233.527†	64889.9	62631.6	520.65 ug/L	520.65 ppb	22:04:23
3	Be 313.107†	1340082.2	1297786.8	516.61 ug/L	516.61 ppb	22:04:18
3	Cd 226.502†	45984.0	44582.2	522.39 ug/L	522.39 ppb	22:04:23
3	Co 228.616†	24866.3	24074.1	522.88 ug/L	522.88 ppb	22:04:23
3	Cr 267.716†	45718.9	44033.1	520.12 ug/L	520.12 ppb	22:04:23
3	Cu 324.752†	173978.8	161629.8	515.96 ug/L	515.96 ppb	22:04:23
3	Mn 257.610†	453135.1	436970.9	512.73 ug/L	512.73 ppb	22:04:18
3	Mo 202.031†	7179.6	6910.6	513.46 ug/L	513.46 ppb	22:04:43
3	Ni 231.604†	20612.4	19820.4	521.44 ug/L	521.44 ppb	22:04:23
3	P 214.914†	4348.0	3968.9	2432.1 ug/L	2432.1 ppb	22:04:43
3	Pb 220.353†	4088.7	4011.1	515.39 ug/L	515.39 ppb	22:04:43
3	S 181.975 Axial†	758.2	685.4	1021.9 ug/L	1021.9 ppb	22:04:43
3	Sb 206.836†	1473.1	1389.1	526.29 ug/L	526.29 ppb	22:04:43
3	Se 196.026†	783.4	786.5	545.77 ug/L	545.77 ppb	22:04:43
3	Si 251.611†	81480.9	78201.1	2630.4 ug/L	2630.4 ppb	22:04:23
3	Sn 189.927†	2872.3	2766.2	512.45 ug/L	512.45 ppb	22:04:43
3	Ti 334.940†	309809.3	300421.3	515.21 ug/L	515.21 ppb	22:04:23
3	Tl 190.801†	1611.2	1599.1	514.97 ug/L	514.97 ppb	22:04:43
3	U 409.014†	15413.7	16918.6	538.55 ug/L	538.55 ppb	22:04:23
3	V 292.402†	73247.5	72107.1	527.03 ug/L	527.03 ppb	22:04:23
3	Zn 213.857†	55464.2	52674.9	520.79 ug/L	520.79 ppb	22:04:23
3	SiO2†	81247.1	77965.1	5575.5 ug/L	5575.5 ppb	22:04:59

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	844256.4	103.73	%	0.226				0.22%
Sc Radial	5154.4	108	%	6.1				5.71%
Y 371.029	700630.5	102.14	%	0.322				0.32%
Y RADIAL	5482.0	106.9	%	6.34				5.93%
Ag 328.068†	100045.0	494.77	ug/L	5.926	494.77	ppb	5.926	1.20%
QC value within limits for Ag 328.068 Recovery = 98.95%								
Al 396.153Radial†	6043.6	4823.7	ug/L	290.99	4823.7	ppb	290.99	6.03%
QC value within limits for Al 396.153Radial Recovery = 96.47%								
As 188.979†	1135.5	515.45	ug/L	4.566	515.45	ppb	4.566	0.89%
QC value within limits for As 188.979 Recovery = 103.09%								
B 249.677†	20892.9	506.19	ug/L	10.924	506.19	ppb	10.924	2.16%
QC value within limits for B 249.677 Recovery = 101.24%								
Ba 233.527†	61680.0	512.73	ug/L	8.540	512.73	ppb	8.540	1.67%
QC value within limits for Ba 233.527 Recovery = 102.55%								
Be 313.107†	1309090.7	521.08	ug/L	3.896	521.08	ppb	3.896	0.75%
QC value within limits for Be 313.107 Recovery = 104.22%								
Ca 317.933Radial†	2949.9	4967.4	ug/L	269.60	4967.4	ppb	269.60	5.43%

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   QC value within limits for Ca 317.933Radial  Recovery = 99.35%
Cd 226.502†            43942.2      514.91 ug/L         7.469      514.91 ppb          7.469   1.45%
   QC value within limits for Cd 226.502  Recovery = 102.98%
Co 228.616†            23722.1      515.25 ug/L         7.977      515.25 ppb          7.977   1.55%
   QC value within limits for Co 228.616  Recovery = 103.05%
Cr 267.716†            43347.2      512.01 ug/L         7.919      512.01 ppb          7.919   1.55%
   QC value within limits for Cr 267.716  Recovery = 102.40%
Cu 324.752†           158913.0      507.28 ug/L         9.995      507.28 ppb          9.995   1.97%
   QC value within limits for Cu 324.752  Recovery = 101.46%
Fe 238.204 Radial†       556.1      5242.8 ug/L        317.28      5242.8 ppb         317.28   6.05%
   QC value within limits for Fe 238.204 Radial  Recovery = 104.86%
K 766.490 Radial†      24759.4      4953.8 ug/L        286.93      4953.8 ppb         286.93   5.79%
   QC value within limits for K 766.490 Radial  Recovery = 99.08%
Mg 279.077 IEC†          149.0      5230.5 ug/L        234.47      5230.5 ppb         234.47   4.48%
   QC value within limits for Mg 279.077 IEC  Recovery = 104.61%
Mn 257.610†           440961.1      517.39 ug/L         4.225      517.39 ppb          4.225   0.82%
   QC value within limits for Mn 257.610  Recovery = 103.48%
Mo 202.031†             6908.9      513.32 ug/L         4.610      513.32 ppb          4.610   0.90%
   QC value within limits for Mo 202.031  Recovery = 102.66%
Na 589.592 Radial†     32673.1       10586 ug/L         515.3       10586 ppb          515.3   4.87%
   QC value within limits for Na 589.592 Radial  Recovery = 105.86%
Ni 231.604†            19536.7      513.98 ug/L         7.405      513.98 ppb          7.405   1.44%
   QC value within limits for Ni 231.604  Recovery = 102.80%
P 214.914†              3988.9      2446.8 ug/L        22.22      2446.8 ppb         22.22   0.91%
   QC value within limits for P 214.914  Recovery = 97.87%
Pb 220.353†             3998.8      513.81 ug/L         5.113      513.81 ppb          5.113   1.00%
   QC value within limits for Pb 220.353  Recovery = 102.76%
S 181.975 Axial†         686.8      1024.1 ug/L         3.20      1024.1 ppb          3.20   0.31%
   QC value within limits for S 181.975 Axial  Recovery = 102.41%
Sb 206.836†             1391.5      527.14 ug/L         6.359      527.14 ppb          6.359   1.21%
   QC value within limits for Sb 206.836  Recovery = 105.43%
Se 196.026†              784.1      543.35 ug/L         3.939      543.35 ppb          3.939   0.73%
   QC value within limits for Se 196.026  Recovery = 108.67%
Si 251.611†            76885.3      2586.0 ug/L        47.20      2586.0 ppb         47.20   1.83%
   QC value within limits for Si 251.611  Recovery = 103.44%
Sn 189.927†             2770.3      513.18 ug/L         5.363      513.18 ppb          5.363   1.05%
   QC value within limits for Sn 189.927  Recovery = 102.64%
Sr 421.552†            72507.9      516.79 ug/L        28.348      516.79 ppb         28.348   5.49%
   QC value within limits for Sr 421.552  Recovery = 103.36%
Ti 334.940†           295736.1      507.17 ug/L         8.702      507.17 ppb          8.702   1.72%
   QC value within limits for Ti 334.940  Recovery = 101.43%
Tl 190.801†             1608.2      517.92 ug/L         7.419      517.92 ppb          7.419   1.43%
   QC value within limits for Tl 190.801  Recovery = 103.58%
U 409.014†             16556.3      527.02 ug/L        11.802      527.02 ppb         11.802   2.24%
   QC value within limits for U 409.014  Recovery = 105.40%
V 292.402†             70954.7      518.74 ug/L         8.497      518.74 ppb          8.497   1.64%
   QC value within limits for V 292.402  Recovery = 103.75%
Zn 213.857†            51892.0      513.07 ug/L         8.405      513.07 ppb          8.405   1.64%
   QC value within limits for Zn 213.857  Recovery = 102.61%
SiO2†                  77530.3      5544.3 ug/L        33.18      5544.3 ppb         33.18   0.60%
   QC value within limits for SiO2  Recovery = 103.68%
All analyte(s) passed QC.
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Sequence No.: 62
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 1/14/2010 22:07:09
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4710.9	4710.9	98.3	%			22:09:00
1	Y RADIAL	5083.1	5083.1	99.10	%			22:09:00
1	Al 396.153Radial†	-26.7	-23.9	-19.246	ug/L	-19.246	ppb	22:09:00
1	Ca 317.933Radial†	16.8	1.9	3.2821	ug/L	3.2821	ppb	22:09:20
1	Fe 238.204 Radial†	9.5	-0.2	-1.9292	ug/L	-1.9292	ppb	22:09:20
1	K 766.490 Radial†	2963.1	226.3	45.326	ug/L	45.326	ppb	22:09:00
1	Mg 279.077 IEC†	-0.0	-1.5	-54.203	ug/L	-54.203	ppb	22:09:20
1	Na 589.592 Radial†	-1492.0	49.5	16.024	ug/L	16.024	ppb	22:09:00
1	Sr 421.552†	18.0	1.1	0.0079	ug/L	0.0079	ppb	22:09:00
1	Sc 361.383	845770.8	845770.8	103.92	%			22:10:17
1	Y 371.029	713609.8	713609.8	104.03	%			22:10:17
1	Ag 328.068†	417.2	119.9	0.5877	ug/L	0.5877	ppb	22:10:17
1	As 188.979†	-25.3	-5.5	-2.4641	ug/L	-2.4641	ppb	22:10:37
1	B 249.677†	-425.6	109.0	2.6533	ug/L	2.6533	ppb	22:10:37
1	Ba 233.527†	3.6	2.0	0.0173	ug/L	0.0173	ppb	22:10:37
1	Be 313.107†	-4298.6	175.8	0.0701	ug/L	0.0701	ppb	22:10:17
1	Cd 226.502†	-194.7	10.2	0.1211	ug/L	0.1211	ppb	22:10:37
1	Co 228.616†	-72.1	3.3	0.0756	ug/L	0.0756	ppb	22:10:37
1	Cr 267.716†	68.1	-30.2	-0.3571	ug/L	-0.3571	ppb	22:10:37
1	Cu 324.752†	6308.8	-227.3	-0.7275	ug/L	-0.7275	ppb	22:10:17
1	Mn 257.610†	408.6	-11.1	-0.0110	ug/L	-0.0110	ppb	22:10:37
1	Mo 202.031†	37.4	16.7	1.2402	ug/L	1.2402	ppb	22:10:37
1	Ni 231.604†	96.2	17.5	0.4602	ug/L	0.4602	ppb	22:10:37
1	P 214.914†	206.4	-29.3	-18.543	ug/L	-18.543	ppb	22:10:37
1	Pb 220.353†	-72.2	-4.9	-0.6323	ug/L	-0.6323	ppb	22:10:37
1	S 181.975 Axial†	41.9	-6.2	-9.1888	ug/L	-9.1888	ppb	22:10:37
1	Sb 206.836†	50.4	15.7	5.7695	ug/L	5.7695	ppb	22:10:37
1	Se 196.026†	-25.7	5.6	3.7482	ug/L	3.7482	ppb	22:10:37
1	Si 251.611†	493.0	28.5	0.9464	ug/L	0.9464	ppb	22:10:37
1	Sn 189.927†	4.4	-1.9	-0.3477	ug/L	-0.3477	ppb	22:10:37
1	Ti 334.940†	-1372.7	66.1	0.1170	ug/L	0.1170	ppb	22:10:17
1	Tl 190.801†	-37.8	7.6	2.4173	ug/L	2.4173	ppb	22:10:37
1	U 409.014†	-2013.0	103.9	3.3197	ug/L	3.3197	ppb	22:10:17
1	V 292.402†	-1383.9	75.5	0.5677	ug/L	0.5677	ppb	22:10:17
1	Zn 213.857†	854.5	-38.0	-0.3810	ug/L	-0.3810	ppb	22:10:37
1	SiO2†	513.1	37.5	2.6557	ug/L	2.6557	ppb	22:11:33
2	Sc Radial	4868.0	4868.0	102	%			22:09:25
2	Y RADIAL	5211.9	5211.9	101.6	%			22:09:25
2	Al 396.153Radial†	7.9	11.0	8.7877	ug/L	8.7877	ppb	22:09:25
2	Ca 317.933Radial†	17.1	1.6	2.7493	ug/L	2.7493	ppb	22:09:45
2	Fe 238.204 Radial†	12.5	2.4	22.855	ug/L	22.855	ppb	22:09:45
2	K 766.490 Radial†	2913.0	79.6	15.939	ug/L	15.939	ppb	22:09:25
2	Mg 279.077 IEC†	1.5	-0.0	-0.3618	ug/L	-0.3618	ppb	22:09:45
2	Na 589.592 Radial†	-1498.2	92.3	29.912	ug/L	29.912	ppb	22:09:25
2	Sr 421.552†	-16.8	-33.8	-0.2410	ug/L	-0.2410	ppb	22:09:25
2	Sc 361.383	853964.1	853964.1	104.93	%			22:10:42
2	Y 371.029	720217.9	720217.9	104.99	%			22:10:42
2	Ag 328.068†	439.2	137.0	0.6820	ug/L	0.6820	ppb	22:10:42
2	As 188.979†	-24.4	-4.4	-1.9732	ug/L	-1.9732	ppb	22:11:02
2	B 249.677†	-411.1	126.7	3.0810	ug/L	3.0810	ppb	22:11:02
2	Ba 233.527†	-17.2	-17.9	-0.1467	ug/L	-0.1467	ppb	22:11:02
2	Be 313.107†	-4336.9	179.0	0.0717	ug/L	0.0717	ppb	22:10:42
2	Cd 226.502†	-195.6	11.1	0.1282	ug/L	0.1282	ppb	22:11:02
2	Co 228.616†	-76.2	0.0	0.0005	ug/L	0.0005	ppb	22:11:02
2	Cr 267.716†	89.6	-10.3	-0.1210	ug/L	-0.1210	ppb	22:11:02
2	Cu 324.752†	6274.6	-318.1	-1.0144	ug/L	-1.0144	ppb	22:10:42
2	Mn 257.610†	434.6	9.9	0.0139	ug/L	0.0139	ppb	22:11:02
2	Mo 202.031†	25.7	5.2	0.3865	ug/L	0.3865	ppb	22:11:02
2	Ni 231.604†	88.4	9.1	0.2404	ug/L	0.2404	ppb	22:11:02

2	P 214.914†	214.4	-23.5	-14.825 ug/L	-14.825 ppb	22:11:02
2	Pb 220.353†	-66.7	1.0	0.1252 ug/L	0.1252 ppb	22:11:02
2	S 181.975 Axial†	40.8	-7.5	-11.243 ug/L	-11.243 ppb	22:11:02
2	Sb 206.836†	41.3	6.6	2.4158 ug/L	2.4158 ppb	22:11:02
2	Se 196.026†	-24.9	6.7	4.5472 ug/L	4.5472 ppb	22:11:02
2	Si 251.611†	460.9	-6.6	-0.2272 ug/L	-0.2272 ppb	22:11:02
2	Sn 189.927†	4.5	-1.8	-0.3326 ug/L	-0.3326 ppb	22:11:02
2	Ti 334.940†	-1290.8	156.8	0.2693 ug/L	0.2693 ppb	22:10:42
2	Tl 190.801†	-26.6	18.5	5.9203 ug/L	5.9203 ppb	22:11:02
2	U 409.014†	-2127.4	13.4	0.4258 ug/L	0.4258 ppb	22:10:42
2	V 292.402†	-1413.8	59.7	0.4333 ug/L	0.4333 ppb	22:10:42
2	Zn 213.857†	865.5	-35.5	-0.3563 ug/L	-0.3563 ppb	22:11:02
2	SiO2†	482.2	3.3	0.2282 ug/L	0.2282 ppb	22:11:38
3	Sc Radial	5012.4	5012.4	105 %		22:09:50
3	Y RADIAL	5403.8	5403.8	105.3 %		22:09:50
3	Al 396.153Radial†	-11.9	-8.1	-6.5114 ug/L	-6.5114 ppb	22:09:50
3	Ca 317.933Radial†	16.6	0.7	1.2170 ug/L	1.2170 ppb	22:10:10
3	Fe 238.204 Radial†	11.6	1.2	11.179 ug/L	11.179 ppb	22:10:10
3	K 766.490 Radial†	2845.2	-67.7	-13.580 ug/L	-13.580 ppb	22:09:50
3	Mg 279.077 IEC†	2.7	1.1	38.420 ug/L	38.420 ppb	22:10:10
3	Na 589.592 Radial†	-1553.5	81.9	26.551 ug/L	26.551 ppb	22:09:50
3	Sr 421.552†	28.6	10.2	0.0723 ug/L	0.0723 ppb	22:09:50
3	Sc 361.383	871233.0	871233.0	107.05 %		22:11:08
3	Y 371.029	735842.2	735842.2	107.27 %		22:11:08
3	Ag 328.068†	369.7	63.8	0.3153 ug/L	0.3153 ppb	22:11:08
3	As 188.979†	-25.1	-4.6	-2.0669 ug/L	-2.0669 ppb	22:11:28
3	B 249.677†	-383.3	160.5	3.9040 ug/L	3.9040 ppb	22:11:28
3	Ba 233.527†	-11.1	-11.9	-0.0959 ug/L	-0.0959 ppb	22:11:28
3	Be 313.107†	-4314.1	282.2	0.1126 ug/L	0.1126 ppb	22:11:08
3	Cd 226.502†	-188.0	22.0	0.2577 ug/L	0.2577 ppb	22:11:28
3	Co 228.616†	-77.7	0.1	0.0032 ug/L	0.0032 ppb	22:11:28
3	Cr 267.716†	89.9	-11.8	-0.1398 ug/L	-0.1398 ppb	22:11:28
3	Cu 324.752†	6280.2	-431.3	-1.3804 ug/L	-1.3804 ppb	22:11:08
3	Mn 257.610†	435.0	2.1	0.0020 ug/L	0.0020 ppb	22:11:28
3	Mo 202.031†	27.2	6.1	0.4551 ug/L	0.4551 ppb	22:11:28
3	Ni 231.604†	78.1	-2.2	-0.0582 ug/L	-0.0582 ppb	22:11:28
3	P 214.914†	219.7	-22.6	-14.187 ug/L	-14.187 ppb	22:11:28
3	Pb 220.353†	-66.6	2.4	0.3059 ug/L	0.3059 ppb	22:11:28
3	S 181.975 Axial†	42.8	-6.5	-9.6372 ug/L	-9.6372 ppb	22:11:28
3	Sb 206.836†	29.9	-4.8	-1.7366 ug/L	-1.7366 ppb	22:11:28
3	Se 196.026†	-30.5	1.9	1.2903 ug/L	1.2903 ppb	22:11:28
3	Si 251.611†	466.0	-10.6	-0.3623 ug/L	-0.3623 ppb	22:11:28
3	Sn 189.927†	4.2	-2.2	-0.4057 ug/L	-0.4057 ppb	22:11:28
3	Ti 334.940†	-1334.5	140.4	0.2348 ug/L	0.2348 ppb	22:11:08
3	Tl 190.801†	-41.1	5.5	1.7465 ug/L	1.7465 ppb	22:11:28
3	U 409.014†	-1945.0	224.0	7.1540 ug/L	7.1540 ppb	22:11:08
3	V 292.402†	-1354.2	142.1	1.0445 ug/L	1.0445 ppb	22:11:08
3	Zn 213.857†	853.6	-63.0	-0.6268 ug/L	-0.6268 ppb	22:11:28
3	SiO2†	470.8	-16.4	-1.1862 ug/L	-1.1862 ppb	22:11:43

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	856989.3	105.30	%	1.597				1.52%
Sc Radial	4863.8	102	%	3.1				3.10%
Y 371.029	723223.3	105.43	%	1.664				1.58%
Y RADIAL	5232.9	102.0	%	3.15				3.08%
Ag 328.068†	106.9	0.5283	ug/L	0.19045	0.5283	ppb	0.19045	36.05%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-7.0	-5.6566	ug/L	14.03647	-5.6566	ppb	14.03647	248.14%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-4.8	-2.1681	ug/L	0.26059	-2.1681	ppb	0.26059	12.02%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	132.1	3.2128	ug/L	0.63566	3.2128	ppb	0.63566	19.79%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-9.3	-0.0751	ug/L	0.08398	-0.0751	ppb	0.08398	111.83%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	212.3	0.0848	ug/L	0.02412	0.0848	ppb	0.02412	28.44%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	1.4	2.4161	ug/L	1.07209	2.4161	ppb	1.07209	44.37%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              14.4      0.1690 ug/L       0.07693      0.1690 ppb        0.07693  45.52%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†               1.2      0.0264 ug/L       0.04261      0.0264 ppb        0.04261 161.33%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†             -17.4     -0.2060 ug/L       0.13123     -0.2060 ppb        0.13123  63.71%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -325.6     -1.0407 ug/L       0.32724     -1.0407 ppb        0.32724  31.44%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        1.1      10.702 ug/L       12.3989      10.702 ppb        12.3989 115.86%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        79.4      15.895 ug/L       29.4530      15.895 ppb        29.4530 185.30%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          -0.2     -5.3815 ug/L      46.51529     -5.3815 ppb       46.51529 864.36%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               0.3      0.0016 ug/L       0.01245      0.0016 ppb        0.01245 769.55%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               9.3      0.6940 ug/L       0.47430      0.6940 ppb        0.47430  68.35%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       74.6      24.163 ug/L        7.2455      24.163 ppb         7.2455  29.99%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               8.1      0.2142 ug/L       0.26022      0.2142 ppb        0.26022 121.51%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†              -25.1     -15.851 ug/L        2.3527     -15.851 ppb         2.3527  14.84%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -0.5     -0.0671 ug/L       0.49781     -0.0671 ppb        0.49781 742.29%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         -6.7     -10.023 ug/L        1.0801     -10.023 ppb         1.0801  10.78%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               5.9      2.1496 ug/L       3.76012      2.1496 ppb        3.76012 174.92%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               4.7      3.1953 ug/L       1.69741      3.1953 ppb        1.69741  53.12%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†               3.8      0.1190 ug/L       0.71978      0.1190 ppb        0.71978 604.99%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†              -2.0     -0.3620 ug/L       0.03857     -0.3620 ppb        0.03857  10.66%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              -7.5     -0.0536 ug/L       0.16545     -0.0536 ppb        0.16545 308.80%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             121.1      0.2071 ug/L       0.07986      0.2071 ppb        0.07986  38.57%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              10.5      3.3614 ug/L       2.24131      3.3614 ppb        2.24131  66.68%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              113.8      3.6332 ug/L       3.37502      3.6332 ppb        3.37502  92.90%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               92.4      0.6818 ug/L       0.32115      0.6818 ppb        0.32115  47.10%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†             -45.5     -0.4547 ug/L       0.14956     -0.4547 ppb        0.14956  32.90%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                     8.2      0.5659 ug/L       1.94307      0.5659 ppb        1.94307 343.37%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
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Sequence No.: 63
Sample ID: 243472003|941050|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 72
Date Collected: 1/14/2010 22:13:52
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 243472003|941050|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5090.7	5090.7	106	%			22:15:45
1	Y RADIAL	6741.7	6741.7	131.4	%			22:15:45
1	Al 396.153Radial†	5192.5	4890.3	3923.1	ug/L	3923.1	ppb	22:15:45
1	Ca 317.933Radial†	768.4	708.1	1192.3	ug/L	1192.3	ppb	22:16:05
1	Fe 238.204 Radial†	6172.5	5799.6	54520	ug/L	54520	ppb	22:15:45
1	K 766.490 Radial†	8038.2	4778.0	955.81	ug/L	955.81	ppb	22:15:45
1	Mg 279.077 IEC†	26.2	23.2	757.04	ug/L	757.04	ppb	22:16:05
1	Na 589.592 Radial†	539.7	2074.9	672.28	ug/L	672.28	ppb	22:15:45
1	Sr 421.552†	939.6	867.1	6.1718	ug/L	6.1718	ppb	22:15:45
1	Sc 361.383	859533.6	859533.6	105.61	%			22:17:03
1	Y 371.029	887204.9	887204.9	129.34	%			22:17:03
1	Ag 328.068†	-3048.9	-3168.5	2.3656	ug/L	2.3656	ppb	22:17:08
1	As 188.979†	-35.0	-14.3	15.076	ug/L	15.076	ppb	22:17:28
1	B 249.677†	-167.5	360.0	-0.1067	ug/L	-0.1067	ppb	22:17:08
1	Ba 233.527†	8825.2	8354.8	70.998	ug/L	70.998	ppb	22:17:08
1	Be 313.107†	-7345.3	-2642.8	1.2421	ug/L	1.2421	ppb	22:17:08
1	Cd 226.502†	280.0	462.7	-0.2479	ug/L	-0.2479	ppb	22:17:28
1	Co 228.616†	155.7	220.1	1.9162	ug/L	1.9162	ppb	22:17:28
1	Cr 267.716†	784.1	646.7	8.8158	ug/L	8.8158	ppb	22:17:08
1	Cu 324.752†	9062.3	2282.7	10.294	ug/L	10.294	ppb	22:17:08
1	Mn 257.610†	1759896.5	1665987.1	1959.0	ug/L	1959.0	ppb	22:17:03
1	Mo 202.031†	72.9	49.8	7.9397	ug/L	7.9397	ppb	22:17:28
1	Ni 231.604†	277.0	187.2	4.9247	ug/L	4.9247	ppb	22:17:28
1	P 214.914†	814.6	543.4	302.48	ug/L	302.48	ppb	22:17:28
1	Pb 220.353†	113.8	172.3	17.730	ug/L	17.730	ppb	22:17:28
1	S 181.975 Axial†	62.2	12.4	17.806	ug/L	17.806	ppb	22:17:28
1	Sb 206.836†	32.8	-1.6	-2.4563	ug/L	-2.4563	ppb	22:17:28
1	Se 196.026†	-270.8	-226.0	27.599	ug/L	27.599	ppb	22:17:28
1	Si 251.611†	119851.5	113037.8	3811.2	ug/L	3811.2	ppb	22:17:08
1	Sn 189.927†	27.2	19.6	4.7286	ug/L	4.7286	ppb	22:17:28
1	Ti 334.940†	619985.0	588431.6	1009.7	ug/L	1009.7	ppb	22:17:03
1	Tl 190.801†	-106.1	-56.6	-0.4583	ug/L	-0.4583	ppb	22:17:28
1	U 409.014†	-9375.6	-6836.5	-224.57	ug/L	-224.57	ppb	22:17:03
1	V 292.402†	2620.9	3888.8	18.691	ug/L	18.691	ppb	22:17:08
1	Zn 213.857†	30366.3	27892.6	272.85	ug/L	272.85	ppb	22:17:08
1	SiO2†	120432.5	113577.6	8142.5	ug/L	8142.5	ppb	22:18:35
2	Sc Radial	5081.8	5081.8	106	%			22:16:10
2	Y RADIAL	6728.5	6728.5	131.2	%			22:16:10
2	Al 396.153Radial†	5198.4	4904.5	3934.5	ug/L	3934.5	ppb	22:16:10
2	Ca 317.933Radial†	771.9	712.6	1200.0	ug/L	1200.0	ppb	22:16:31
2	Fe 238.204 Radial†	6224.9	5859.3	55081	ug/L	55081	ppb	22:16:10
2	K 766.490 Radial†	8275.3	5014.9	1003.3	ug/L	1003.3	ppb	22:16:10
2	Mg 279.077 IEC†	25.3	22.3	726.68	ug/L	726.68	ppb	22:16:31
2	Na 589.592 Radial†	520.2	2057.4	666.61	ug/L	666.61	ppb	22:16:10
2	Sr 421.552†	981.2	907.8	6.4621	ug/L	6.4621	ppb	22:16:10
2	Sc 361.383	861357.6	861357.6	105.84	%			22:17:34
2	Y 371.029	887638.0	887638.0	129.40	%			22:17:34
2	Ag 328.068†	-3262.1	-3363.8	1.5845	ug/L	1.5845	ppb	22:17:39
2	As 188.979†	-28.1	-7.7	18.196	ug/L	18.196	ppb	22:17:59
2	B 249.677†	-95.0	428.8	1.4776	ug/L	1.4776	ppb	22:17:39
2	Ba 233.527†	8912.5	8419.6	71.552	ug/L	71.552	ppb	22:17:39
2	Be 313.107†	-7469.0	-2745.0	1.2023	ug/L	1.2023	ppb	22:17:39
2	Cd 226.502†	272.3	454.8	-0.3969	ug/L	-0.3969	ppb	22:17:59
2	Co 228.616†	144.4	209.1	1.6694	ug/L	1.6694	ppb	22:17:59
2	Cr 267.716†	810.8	670.4	9.1039	ug/L	9.1039	ppb	22:17:39
2	Cu 324.752†	9056.1	2258.8	10.245	ug/L	10.245	ppb	22:17:39
2	Mn 257.610†	1762720.2	1665126.4	1958.0	ug/L	1958.0	ppb	22:17:34
2	Mo 202.031†	71.7	48.5	7.8887	ug/L	7.8887	ppb	22:17:59
2	Ni 231.604†	301.2	209.4	5.5100	ug/L	5.5100	ppb	22:17:59

2	P 214.914†	826.1	552.7	307.94	ug/L	307.94 ppb	22:17:59
2	Pb 220.353†	98.1	157.2	15.746	ug/L	15.746 ppb	22:17:59
2	S 181.975 Axial†	67.0	16.9	24.471	ug/L	24.471 ppb	22:17:59
2	Sb 206.836†	40.7	5.7	0.2357	ug/L	0.2357 ppb	22:17:59
2	Se 196.026†	-259.1	-214.5	37.177	ug/L	37.177 ppb	22:17:59
2	Si 251.611†	120988.1	113871.4	3839.3	ug/L	3839.3 ppb	22:17:39
2	Sn 189.927†	27.8	20.2	4.8406	ug/L	4.8406 ppb	22:17:59
2	Ti 334.940†	621485.5	588606.2	1010.0	ug/L	1010.0 ppb	22:17:34
2	Tl 190.801†	-110.1	-60.2	-1.6079	ug/L	-1.6079 ppb	22:17:59
2	U 409.014†	-9267.4	-6715.5	-220.77	ug/L	-220.77 ppb	22:17:34
2	V 292.402†	2631.0	3893.1	18.645	ug/L	18.645 ppb	22:17:39
2	Zn 213.857†	30601.3	28053.7	274.40	ug/L	274.40 ppb	22:17:39
2	SiO2†	121705.8	114539.2	8211.5	ug/L	8211.5 ppb	22:18:40
3	Sc Radial	5018.1	5018.1	105	%		22:16:36
3	Y RADIAL	6675.0	6675.0	130.1	%		22:16:36
3	Al 396.153Radial†	5142.0	4912.9	3941.2	ug/L	3941.2 ppb	22:16:36
3	Ca 317.933Radial†	777.4	727.1	1224.5	ug/L	1224.5 ppb	22:16:56
3	Fe 238.204 Radial†	6098.6	5813.1	54647	ug/L	54647 ppb	22:16:36
3	K 766.490 Radial†	8084.8	4932.0	986.66	ug/L	986.66 ppb	22:16:36
3	Mg 279.077 IEC†	29.2	26.4	870.06	ug/L	870.06 ppb	22:16:56
3	Na 589.592 Radial†	458.1	2004.3	649.40	ug/L	649.40 ppb	22:16:36
3	Sr 421.552†	979.2	917.7	6.5324	ug/L	6.5324 ppb	22:16:36
3	Sc 361.383	858490.5	858490.5	105.48	%		22:18:05
3	Y 371.029	886070.6	886070.6	129.17	%		22:18:05
3	Ag 328.068†	-3228.2	-3341.9	1.5434	ug/L	1.5434 ppb	22:18:10
3	As 188.979†	-23.9	-3.8	19.808	ug/L	19.808 ppb	22:18:30
3	B 249.677†	-94.1	429.3	1.5610	ug/L	1.5610 ppb	22:18:10
3	Ba 233.527†	8644.1	8193.3	69.662	ug/L	69.662 ppb	22:18:10
3	Be 313.107†	-7378.6	-2682.8	1.2258	ug/L	1.2258 ppb	22:18:10
3	Cd 226.502†	267.9	451.5	-0.3899	ug/L	-0.3899 ppb	22:18:30
3	Co 228.616†	144.2	209.4	1.6806	ug/L	1.6806 ppb	22:18:30
3	Cr 267.716†	770.7	634.9	8.6733	ug/L	8.6733 ppb	22:18:10
3	Cu 324.752†	8992.5	2227.0	10.117	ug/L	10.117 ppb	22:18:10
3	Mn 257.610†	1753106.6	1661574.8	1953.8	ug/L	1953.8 ppb	22:18:05
3	Mo 202.031†	70.6	47.6	7.7918	ug/L	7.7918 ppb	22:18:30
3	Ni 231.604†	308.0	216.8	5.7054	ug/L	5.7054 ppb	22:18:30
3	P 214.914†	811.9	541.8	301.37	ug/L	301.37 ppb	22:18:30
3	Pb 220.353†	102.4	161.7	16.358	ug/L	16.358 ppb	22:18:30
3	S 181.975 Axial†	67.2	17.3	25.076	ug/L	25.076 ppb	22:18:30
3	Sb 206.836†	35.3	0.7	-1.5870	ug/L	-1.5870 ppb	22:18:30
3	Se 196.026†	-276.2	-231.5	24.387	ug/L	24.387 ppb	22:18:30
3	Si 251.611†	117602.0	111043.1	3744.0	ug/L	3744.0 ppb	22:18:10
3	Sn 189.927†	31.3	23.5	5.4552	ug/L	5.4552 ppb	22:18:30
3	Ti 334.940†	619101.8	588307.6	1009.4	ug/L	1009.4 ppb	22:18:05
3	Tl 190.801†	-111.7	-62.0	-2.2039	ug/L	-2.2039 ppb	22:18:30
3	U 409.014†	-9014.8	-6505.3	-214.01	ug/L	-214.01 ppb	22:18:05
3	V 292.402†	2546.9	3821.7	18.209	ug/L	18.209 ppb	22:18:10
3	Zn 213.857†	29685.1	27281.7	266.74	ug/L	266.74 ppb	22:18:10
3	SiO2†	118964.1	112324.1	8052.7	ug/L	8052.7 ppb	22:18:45

Mean Data: 243472003|941050|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	859793.9	105.64	%	0.178				0.17%
Sc Radial	5063.5	106	%	0.8				0.78%
Y 371.029	886971.2	129.30	%	0.118				0.09%
Y RADIAL	6715.1	130.9	%	0.69				0.53%
Ag 328.068†	-3291.4	1.8311	ug/L	0.46329	1.8311	ppb	0.46329	25.30%
Al 396.153Radial†	4902.5	3932.9	ug/L	9.17	3932.9	ppb	9.17	0.23%
As 188.979†	-8.6	17.693	ug/L	2.4056	17.693	ppb	2.4056	13.60%
B 249.677†	406.0	0.9773	ug/L	0.93967	0.9773	ppb	0.93967	96.15%
Ba 233.527†	8322.6	70.737	ug/L	0.9720	70.737	ppb	0.9720	1.37%
Be 313.107†	-2690.2	1.2234	ug/L	0.02005	1.2234	ppb	0.02005	1.64%
Ca 317.933Radial†	715.9	1205.6	ug/L	16.79	1205.6	ppb	16.79	1.39%
Cd 226.502†	456.3	-0.3449	ug/L	0.08405	-0.3449	ppb	0.08405	24.37%
Co 228.616†	212.9	1.7554	ug/L	0.13938	1.7554	ppb	0.13938	7.94%
Cr 267.716†	650.7	8.8643	ug/L	0.21938	8.8643	ppb	0.21938	2.47%
Cu 324.752†	2256.2	10.218	ug/L	0.0915	10.218	ppb	0.0915	0.90%
Fe 238.204 Radial†	5824.0	54750	ug/L	294.1	54750	ppb	294.1	0.54%
K 766.490 Radial†	4908.3	981.91	ug/L	24.081	981.91	ppb	24.081	2.45%

Mg 279.077 IEC†	24.0	784.59	ug/L	75.556	784.59	ppb	75.556	9.63%
Mn 257.610†	1664229.4	1956.9	ug/L	2.75	1956.9	ppb	2.75	0.14%
Mo 202.031†	48.6	7.8734	ug/L	0.07513	7.8734	ppb	0.07513	0.95%
Na 589.592 Radial†	2045.5	662.76	ug/L	11.916	662.76	ppb	11.916	1.80%
Ni 231.604†	204.5	5.3801	ug/L	0.40626	5.3801	ppb	0.40626	7.55%
P 214.914†	546.0	303.93	ug/L	3.515	303.93	ppb	3.515	1.16%
Pb 220.353†	163.8	16.611	ug/L	1.0160	16.611	ppb	1.0160	6.12%
S 181.975 Axial†	15.5	22.451	ug/L	4.0338	22.451	ppb	4.0338	17.97%
Sb 206.836†	1.6	-1.2692	ug/L	1.37384	-1.2692	ppb	1.37384	108.25%
Se 196.026†	-224.0	29.721	ug/L	6.6535	29.721	ppb	6.6535	22.39%
Si 251.611†	112650.8	3798.2	ug/L	49.00	3798.2	ppb	49.00	1.29%
Sn 189.927†	21.1	5.0081	ug/L	0.39121	5.0081	ppb	0.39121	7.81%
Sr 421.552†	897.6	6.3888	ug/L	0.19117	6.3888	ppb	0.19117	2.99%
Ti 334.940†	588448.5	1009.7	ug/L	0.26	1009.7	ppb	0.26	0.03%
Tl 190.801†	-59.6	-1.4234	ug/L	0.88731	-1.4234	ppb	0.88731	62.34%
U 409.014†	-6685.8	-219.78	ug/L	5.352	-219.78	ppb	5.352	2.43%
V 292.402†	3867.9	18.515	ug/L	0.2661	18.515	ppb	0.2661	1.44%
Zn 213.857†	27742.7	271.33	ug/L	4.049	271.33	ppb	4.049	1.49%
SiO2†	113480.3	8135.5	ug/L	79.63	8135.5	ppb	79.63	0.98%

Sequence No.: 71
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 1/14/2010 23:10:18
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5027.5	5027.5	105	%			23:12:10
1	Y RADIAL	5334.7	5334.7	104.0	%			23:12:10
1	Al 396.153Radial†	6615.1	6307.6	5035.1	ug/L	5035.1	ppb	23:12:10
1	Ca 317.933Radial†	3141.5	2978.8	5016.1	ug/L	5016.1	ppb	23:12:30
1	Fe 238.204 Radial†	572.7	535.9	5053.4	ug/L	5053.4	ppb	23:12:30
1	K 766.490 Radial†	29887.0	25695.6	5141.6	ug/L	5141.6	ppb	23:12:10
1	Mg 279.077 IEC†	157.6	148.7	5219.3	ug/L	5219.3	ppb	23:12:30
1	Na 589.592 Radial†	30035.5	30191.4	9782.2	ug/L	9782.2	ppb	23:12:10
1	Sr 421.552†	75282.2	71728.5	511.24	ug/L	511.24	ppb	23:12:10
1	Sc 361.383	844385.1	844385.1	103.75	%			23:13:28
1	Y 371.029	700071.8	700071.8	102.06	%			23:13:28
1	Ag 328.068†	106365.7	102239.7	505.52	ug/L	505.52	ppb	23:13:33
1	As 188.979†	1177.5	1153.8	523.72	ug/L	523.72	ppb	23:13:53
1	B 249.677†	21637.4	21373.9	517.89	ug/L	517.89	ppb	23:13:33
1	Ba 233.527†	65391.2	63026.2	523.91	ug/L	523.91	ppb	23:13:33
1	Be 313.107†	1349385.5	1304925.5	519.46	ug/L	519.46	ppb	23:13:28
1	Cd 226.502†	46320.6	44844.0	525.51	ug/L	525.51	ppb	23:13:33
1	Co 228.616†	25045.2	24212.7	525.90	ug/L	525.90	ppb	23:13:33
1	Cr 267.716†	45893.2	44138.7	521.36	ug/L	521.36	ppb	23:13:33
1	Cu 324.752†	175507.7	162866.1	519.88	ug/L	519.88	ppb	23:13:33
1	Mn 257.610†	457790.2	440839.5	517.23	ug/L	517.23	ppb	23:13:28
1	Mo 202.031†	7301.5	7018.3	521.42	ug/L	521.42	ppb	23:13:53
1	Ni 231.604†	20775.1	19949.1	524.83	ug/L	524.83	ppb	23:13:33
1	P 214.914†	4459.7	4070.7	2496.8	ug/L	2496.8	ppb	23:13:53
1	Pb 220.353†	4126.2	4041.7	519.37	ug/L	519.37	ppb	23:13:53
1	S 181.975 Axial†	773.0	698.6	1041.6	ug/L	1041.6	ppb	23:13:53
1	Sb 206.836†	1508.4	1421.1	538.26	ug/L	538.26	ppb	23:13:53
1	Se 196.026†	790.9	792.6	548.47	ug/L	548.47	ppb	23:13:53
1	Si 251.611†	82257.2	78838.2	2651.8	ug/L	2651.8	ppb	23:13:33
1	Sn 189.927†	2926.4	2814.5	521.35	ug/L	521.35	ppb	23:13:53
1	Ti 334.940†	314331.2	304357.0	521.96	ug/L	521.96	ppb	23:13:28
1	Tl 190.801†	1643.0	1627.5	524.13	ug/L	524.13	ppb	23:13:53
1	U 409.014†	15479.4	16960.9	539.95	ug/L	539.95	ppb	23:13:33
1	V 292.402†	73608.1	72354.7	528.98	ug/L	528.98	ppb	23:13:33
1	Zn 213.857†	55862.1	52982.7	523.88	ug/L	523.88	ppb	23:13:33
1	SiO2†	80952.7	77570.5	5547.0	ug/L	5547.0	ppb	23:15:01
2	Sc Radial	5019.4	5019.4	105	%			23:12:35
2	Y RADIAL	5351.5	5351.5	104.3	%			23:12:35
2	Al 396.153Radial†	6637.1	6338.8	5060.4	ug/L	5060.4	ppb	23:12:35
2	Ca 317.933Radial†	3145.2	2987.1	5030.2	ug/L	5030.2	ppb	23:12:55
2	Fe 238.204 Radial†	574.6	538.6	5078.8	ug/L	5078.8	ppb	23:12:55
2	K 766.490 Radial†	30089.9	25935.3	5189.6	ug/L	5189.6	ppb	23:12:35
2	Mg 279.077 IEC†	155.8	147.2	5167.7	ug/L	5167.7	ppb	23:12:55
2	Na 589.592 Radial†	30101.9	30301.1	9817.7	ug/L	9817.7	ppb	23:12:35
2	Sr 421.552†	75623.5	72170.0	514.38	ug/L	514.38	ppb	23:12:35
2	Sc 361.383	849923.7	849923.7	104.43	%			23:13:59
2	Y 371.029	704076.3	704076.3	102.64	%			23:13:59
2	Ag 328.068†	104758.5	100032.6	494.66	ug/L	494.66	ppb	23:14:04
2	As 188.979†	1159.7	1129.3	512.74	ug/L	512.74	ppb	23:14:24
2	B 249.677†	21455.7	21063.9	510.37	ug/L	510.37	ppb	23:14:04
2	Ba 233.527†	64573.2	61832.2	513.99	ug/L	513.99	ppb	23:14:04
2	Be 313.107†	1354705.8	1301544.6	518.12	ug/L	518.12	ppb	23:13:59
2	Cd 226.502†	45721.5	43979.4	515.36	ug/L	515.36	ppb	23:14:04
2	Co 228.616†	24775.2	23796.8	516.85	ug/L	516.85	ppb	23:14:04
2	Cr 267.716†	45437.0	43413.6	512.80	ug/L	512.80	ppb	23:14:04
2	Cu 324.752†	173991.5	160311.8	511.73	ug/L	511.73	ppb	23:14:04
2	Mn 257.610†	460251.1	440320.6	516.63	ug/L	516.63	ppb	23:13:59
2	Mo 202.031†	7245.9	6919.2	514.07	ug/L	514.07	ppb	23:14:24
2	Ni 231.604†	20490.5	19546.1	514.23	ug/L	514.23	ppb	23:14:04

2	P 214.914†	4405.2	3990.4	2447.1 ug/L	2447.1 ppb	23:14:24
2	Pb 220.353†	4093.6	3984.5	512.05 ug/L	512.05 ppb	23:14:24
2	S 181.975 Axial†	760.6	681.9	1016.7 ug/L	1016.7 ppb	23:14:24
2	Sb 206.836†	1485.5	1389.8	526.50 ug/L	526.50 ppb	23:14:24
2	Se 196.026†	789.9	786.8	544.62 ug/L	544.62 ppb	23:14:24
2	Si 251.611†	81310.7	77415.2	2603.9 ug/L	2603.9 ppb	23:14:04
2	Sn 189.927†	2905.1	2775.7	514.18 ug/L	514.18 ppb	23:14:24
2	Ti 334.940†	316446.1	304407.9	522.06 ug/L	522.06 ppb	23:13:59
2	Tl 190.801†	1641.9	1616.2	520.56 ug/L	520.56 ppb	23:14:24
2	U 409.014†	15244.3	16638.5	529.67 ug/L	529.67 ppb	23:14:04
2	V 292.402†	72841.7	71158.5	520.23 ug/L	520.23 ppb	23:14:04
2	Zn 213.857†	55284.5	52078.7	514.94 ug/L	514.94 ppb	23:14:04
2	SiO2†	81595.4	77677.5	5554.9 ug/L	5554.9 ppb	23:15:06
3	Sc Radial	4972.8	4972.8	104 %		23:13:00
3	Y RADIAL	5306.9	5306.9	103.5 %		23:13:00
3	Al 396.153Radial†	6586.9	6349.7	5069.1 ug/L	5069.1 ppb	23:13:00
3	Ca 317.933Radial†	3115.8	2987.0	5029.9 ug/L	5029.9 ppb	23:13:20
3	Fe 238.204 Radial†	571.9	541.1	5102.2 ug/L	5102.2 ppb	23:13:20
3	K 766.490 Radial†	29840.7	25964.3	5195.5 ug/L	5195.5 ppb	23:13:00
3	Mg 279.077 IEC†	157.5	150.3	5275.0 ug/L	5275.0 ppb	23:13:20
3	Na 589.592 Radial†	29604.6	30091.1	9749.7 ug/L	9749.7 ppb	23:13:00
3	Sr 421.552†	74628.5	71887.7	512.37 ug/L	512.37 ppb	23:13:00
3	Sc 361.383	850186.0	850186.0	104.46 %		23:14:30
3	Y 371.029	705312.6	705312.6	102.82 %		23:14:30
3	Ag 328.068†	104771.4	100014.0	494.57 ug/L	494.57 ppb	23:14:35
3	As 188.979†	1175.1	1143.7	519.23 ug/L	519.23 ppb	23:14:55
3	B 249.677†	21182.6	20796.2	503.86 ug/L	503.86 ppb	23:14:35
3	Ba 233.527†	64155.0	61412.8	510.51 ug/L	510.51 ppb	23:14:35
3	Be 313.107†	1354658.7	1301099.3	517.94 ug/L	517.94 ppb	23:14:30
3	Cd 226.502†	45532.8	43785.2	513.08 ug/L	513.08 ppb	23:14:35
3	Co 228.616†	24591.2	23613.4	512.87 ug/L	512.87 ppb	23:14:35
3	Cr 267.716†	45152.7	43128.0	509.42 ug/L	509.42 ppb	23:14:35
3	Cu 324.752†	171483.6	157859.7	503.91 ug/L	503.91 ppb	23:14:35
3	Mn 257.610†	459221.3	439198.9	515.31 ug/L	515.31 ppb	23:14:30
3	Mo 202.031†	7273.7	6943.6	515.89 ug/L	515.89 ppb	23:14:55
3	Ni 231.604†	20457.4	19508.3	513.23 ug/L	513.23 ppb	23:14:35
3	P 214.914†	4411.4	3995.1	2451.6 ug/L	2451.6 ppb	23:14:55
3	Pb 220.353†	4111.6	4000.5	514.10 ug/L	514.10 ppb	23:14:55
3	S 181.975 Axial†	771.6	692.2	1032.1 ug/L	1032.1 ppb	23:14:55
3	Sb 206.836†	1501.6	1404.7	532.05 ug/L	532.05 ppb	23:14:55
3	Se 196.026†	783.7	780.6	540.56 ug/L	540.56 ppb	23:14:55
3	Si 251.611†	80523.9	76638.0	2577.6 ug/L	2577.6 ppb	23:14:35
3	Sn 189.927†	2926.8	2795.6	517.86 ug/L	517.86 ppb	23:14:55
3	Ti 334.940†	316161.6	304042.0	521.43 ug/L	521.43 ppb	23:14:30
3	Tl 190.801†	1632.9	1607.1	517.67 ug/L	517.67 ppb	23:14:55
3	U 409.014†	15011.3	16411.0	522.41 ug/L	522.41 ppb	23:14:35
3	V 292.402†	72313.9	70631.7	516.44 ug/L	516.44 ppb	23:14:35
3	Zn 213.857†	54781.4	51580.8	509.98 ug/L	509.98 ppb	23:14:35
3	SiO2†	81202.6	77277.3	5526.1 ug/L	5526.1 ppb	23:15:11

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	848165.0	104.21	%	0.403				0.39%
Sc Radial	5006.5	104	%	0.6				0.59%
Y 371.029	703153.6	102.51	%	0.399				0.39%
Y RADIAL	5331.0	103.9	%	0.44				0.42%
Ag 328.068†	100762.1	498.25	ug/L	6.298	498.25	ppb	6.298	1.26%
QC value within limits for Ag 328.068 Recovery = 99.65%								
Al 396.153Radial†	6332.0	5054.9	ug/L	17.70	5054.9	ppb	17.70	0.35%
QC value within limits for Al 396.153Radial Recovery = 101.10%								
As 188.979†	1142.3	518.56	ug/L	5.523	518.56	ppb	5.523	1.07%
QC value within limits for As 188.979 Recovery = 103.71%								
B 249.677†	21078.0	510.71	ug/L	7.022	510.71	ppb	7.022	1.37%
QC value within limits for B 249.677 Recovery = 102.14%								
Ba 233.527†	62090.4	516.14	ug/L	6.955	516.14	ppb	6.955	1.35%
QC value within limits for Ba 233.527 Recovery = 103.23%								
Be 313.107†	1302523.1	518.51	ug/L	0.831	518.51	ppb	0.831	0.16%
QC value within limits for Be 313.107 Recovery = 103.70%								
Ca 317.933Radial†	2984.3	5025.4	ug/L	8.05	5025.4	ppb	8.05	0.16%

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   QC value within limits for Ca 317.933Radial  Recovery = 100.51%
Cd 226.502†            44202.8      517.98 ug/L         6.615      517.98 ppb          6.615   1.28%
   QC value within limits for Cd 226.502  Recovery = 103.60%
Co 228.616†            23874.3      518.54 ug/L         6.677      518.54 ppb          6.677   1.29%
   QC value within limits for Co 228.616  Recovery = 103.71%
Cr 267.716†            43560.1      514.53 ug/L         6.152      514.53 ppb          6.152   1.20%
   QC value within limits for Cr 267.716  Recovery = 102.91%
Cu 324.752†           160345.9      511.84 ug/L         7.985      511.84 ppb          7.985   1.56%
   QC value within limits for Cu 324.752  Recovery = 102.37%
Fe 238.204 Radial†       538.5      5078.1 ug/L        24.43      5078.1 ppb          24.43   0.48%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.56%
K 766.490 Radial†      25865.0      5175.6 ug/L        29.55      5175.6 ppb          29.55   0.57%
   QC value within limits for K 766.490 Radial  Recovery = 103.51%
Mg 279.077 IEC†          148.7      5220.6 ug/L        53.67      5220.6 ppb          53.67   1.03%
   QC value within limits for Mg 279.077 IEC  Recovery = 104.41%
Mn 257.610†           440119.7      516.39 ug/L         0.982      516.39 ppb          0.982   0.19%
   QC value within limits for Mn 257.610  Recovery = 103.28%
Mo 202.031†             6960.4      517.13 ug/L         3.831      517.13 ppb          3.831   0.74%
   QC value within limits for Mo 202.031  Recovery = 103.43%
Na 589.592 Radial†     30194.5      9783.2 ug/L        34.03      9783.2 ppb          34.03   0.35%
   QC value within limits for Na 589.592 Radial  Recovery = 97.83%
Ni 231.604†            19667.8      517.43 ug/L         6.428      517.43 ppb          6.428   1.24%
   QC value within limits for Ni 231.604  Recovery = 103.49%
P 214.914†              4018.7      2465.2 ug/L        27.46      2465.2 ppb          27.46   1.11%
   QC value within limits for P 214.914  Recovery = 98.61%
Pb 220.353†             4008.9      515.17 ug/L         3.779      515.17 ppb          3.779   0.73%
   QC value within limits for Pb 220.353  Recovery = 103.03%
S 181.975 Axial†         690.9      1030.2 ug/L        12.58      1030.2 ppb          12.58   1.22%
   QC value within limits for S 181.975 Axial  Recovery = 103.02%
Sb 206.836†             1405.2      532.27 ug/L         5.884      532.27 ppb          5.884   1.11%
   QC value within limits for Sb 206.836  Recovery = 106.45%
Se 196.026†              786.7      544.55 ug/L         3.958      544.55 ppb          3.958   0.73%
   QC value within limits for Se 196.026  Recovery = 108.91%
Si 251.611†            77630.5      2611.1 ug/L        37.58      2611.1 ppb          37.58   1.44%
   QC value within limits for Si 251.611  Recovery = 104.44%
Sn 189.927†             2795.3      517.79 ug/L         3.586      517.79 ppb          3.586   0.69%
   QC value within limits for Sn 189.927  Recovery = 103.56%
Sr 421.552†            71928.7      512.66 ug/L         1.594      512.66 ppb          1.594   0.31%
   QC value within limits for Sr 421.552  Recovery = 102.53%
Ti 334.940†           304269.0      521.82 ug/L         0.340      521.82 ppb          0.340   0.07%
   QC value within limits for Ti 334.940  Recovery = 104.36%
Tl 190.801†             1616.9      520.79 ug/L         3.236      520.79 ppb          3.236   0.62%
   QC value within limits for Tl 190.801  Recovery = 104.16%
U 409.014†             16670.1      530.67 ug/L         8.813      530.67 ppb          8.813   1.66%
   QC value within limits for U 409.014  Recovery = 106.13%
V 292.402†             71381.7      521.89 ug/L         6.433      521.89 ppb          6.433   1.23%
   QC value within limits for V 292.402  Recovery = 104.38%
Zn 213.857†            52214.1      516.27 ug/L         7.040      516.27 ppb          7.040   1.36%
   QC value within limits for Zn 213.857  Recovery = 103.25%
SiO2†                  77508.4      5542.7 ug/L        14.85      5542.7 ppb          14.85   0.27%
   QC value within limits for SiO2  Recovery = 103.65%
All analyte(s) passed QC.
```

Sequence No.: 72
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 1/14/2010 23:17:20
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5102.1	5102.1	106	%			23:19:12
1	Y RADIAL	5459.0	5459.0	106.4	%			23:19:12
1	Al 396.153Radial†	-4.4	-0.9	-0.7835	ug/L	-0.7835	ppb	23:19:12
1	Ca 317.933Radial†	19.4	3.1	5.1661	ug/L	5.1661	ppb	23:19:32
1	Fe 238.204 Radial†	10.6	0.1	1.0961	ug/L	1.0961	ppb	23:19:32
1	K 766.490 Radial†	2757.6	-197.8	-39.647	ug/L	-39.647	ppb	23:19:12
1	Mg 279.077 IEC†	3.1	1.4	49.341	ug/L	49.341	ppb	23:19:32
1	Na 589.592 Radial†	-1504.7	153.9	49.871	ug/L	49.871	ppb	23:19:12
1	Sr 421.552†	-6.9	-23.7	-0.1691	ug/L	-0.1691	ppb	23:19:12
1	Sc 361.383	837691.9	837691.9	102.93	%			23:20:29
1	Y 371.029	707536.8	707536.8	103.15	%			23:20:29
1	Ag 328.068†	280.2	-9.3	-0.0463	ug/L	-0.0463	ppb	23:20:29
1	As 188.979†	-25.6	-6.0	-2.7001	ug/L	-2.7001	ppb	23:20:49
1	B 249.677†	-439.1	91.9	2.2379	ug/L	2.2379	ppb	23:20:49
1	Ba 233.527†	5.8	4.2	0.0367	ug/L	0.0367	ppb	23:20:49
1	Be 313.107†	-4428.1	10.1	0.0044	ug/L	0.0044	ppb	23:20:29
1	Cd 226.502†	-187.0	15.9	0.1868	ug/L	0.1868	ppb	23:20:49
1	Co 228.616†	-84.0	-8.9	-0.1926	ug/L	-0.1926	ppb	23:20:49
1	Cr 267.716†	96.2	-2.2	-0.0271	ug/L	-0.0271	ppb	23:20:49
1	Cu 324.752†	6232.0	-243.3	-0.7796	ug/L	-0.7796	ppb	23:20:29
1	Mn 257.610†	433.8	17.1	0.0182	ug/L	0.0182	ppb	23:20:49
1	Mo 202.031†	32.1	11.8	0.8782	ug/L	0.8782	ppb	23:20:49
1	Ni 231.604†	81.9	4.5	0.1182	ug/L	0.1182	ppb	23:20:49
1	P 214.914†	206.3	-27.4	-17.341	ug/L	-17.341	ppb	23:20:49
1	Pb 220.353†	-61.3	5.0	0.6450	ug/L	0.6450	ppb	23:20:49
1	S 181.975 Axial†	48.5	0.7	0.9899	ug/L	0.9899	ppb	23:20:49
1	Sb 206.836†	38.7	4.9	1.8363	ug/L	1.8363	ppb	23:20:49
1	Se 196.026†	-26.0	5.1	3.4053	ug/L	3.4053	ppb	23:20:49
1	Si 251.611†	470.7	11.4	0.3735	ug/L	0.3735	ppb	23:20:49
1	Sn 189.927†	15.4	8.8	1.6273	ug/L	1.6273	ppb	23:20:49
1	Ti 334.940†	-1320.1	104.5	0.1736	ug/L	0.1736	ppb	23:20:29
1	Tl 190.801†	-42.7	2.4	0.7617	ug/L	0.7617	ppb	23:20:49
1	U 409.014†	-1934.1	161.8	5.1681	ug/L	5.1681	ppb	23:20:29
1	V 292.402†	-1325.6	119.3	0.8833	ug/L	0.8833	ppb	23:20:29
1	Zn 213.857†	828.1	-55.8	-0.5563	ug/L	-0.5563	ppb	23:20:49
1	SiO2†	461.9	-7.5	-0.5590	ug/L	-0.5590	ppb	23:21:45
2	Sc Radial	4998.4	4998.4	104	%			23:19:37
2	Y RADIAL	5400.1	5400.1	105.3	%			23:19:37
2	Al 396.153Radial†	8.5	11.4	9.1402	ug/L	9.1402	ppb	23:19:37
2	Ca 317.933Radial†	15.9	0.1	0.1589	ug/L	0.1589	ppb	23:19:57
2	Fe 238.204 Radial†	9.7	-0.6	-5.3208	ug/L	-5.3208	ppb	23:19:57
2	K 766.490 Radial†	2849.6	-55.9	-11.224	ug/L	-11.224	ppb	23:19:37
2	Mg 279.077 IEC†	1.2	-0.3	-11.481	ug/L	-11.481	ppb	23:19:57
2	Na 589.592 Radial†	-1444.0	182.8	59.224	ug/L	59.224	ppb	23:19:37
2	Sr 421.552†	-10.3	-27.1	-0.1930	ug/L	-0.1930	ppb	23:19:37
2	Sc 361.383	838309.2	838309.2	103.00	%			23:20:54
2	Y 371.029	707533.6	707533.6	103.14	%			23:20:54
2	Ag 328.068†	392.3	99.3	0.4870	ug/L	0.4870	ppb	23:20:54
2	As 188.979†	-16.2	3.1	1.4072	ug/L	1.4072	ppb	23:21:14
2	B 249.677†	-441.6	89.8	2.1877	ug/L	2.1877	ppb	23:21:14
2	Ba 233.527†	-4.1	-5.4	-0.0430	ug/L	-0.0430	ppb	23:21:14
2	Be 313.107†	-4346.5	92.5	0.0372	ug/L	0.0372	ppb	23:20:54
2	Cd 226.502†	-179.4	23.4	0.2758	ug/L	0.2758	ppb	23:21:14
2	Co 228.616†	-78.2	-3.2	-0.0686	ug/L	-0.0686	ppb	23:21:14
2	Cr 267.716†	87.1	-11.1	-0.1315	ug/L	-0.1315	ppb	23:21:14
2	Cu 324.752†	6410.7	-74.3	-0.2395	ug/L	-0.2395	ppb	23:20:54
2	Mn 257.610†	414.7	-1.7	-0.0020	ug/L	-0.0020	ppb	23:21:14
2	Mo 202.031†	25.4	5.3	0.3939	ug/L	0.3939	ppb	23:21:14
2	Ni 231.604†	67.6	-9.5	-0.2513	ug/L	-0.2513	ppb	23:21:14

2	P 214.914†	222.3	-12.0	-7.6153	ug/L	-7.6153 ppb	23:21:14
2	Pb 220.353†	-66.2	0.4	0.0490	ug/L	0.0490 ppb	23:21:14
2	S 181.975 Axial†	49.1	1.3	1.8777	ug/L	1.8777 ppb	23:21:14
2	Sb 206.836†	39.3	5.4	1.9855	ug/L	1.9855 ppb	23:21:14
2	Se 196.026†	-32.5	-1.1	-0.7797	ug/L	-0.7797 ppb	23:21:14
2	Si 251.611†	483.9	23.9	0.8019	ug/L	0.8019 ppb	23:21:14
2	Sn 189.927†	7.1	0.8	0.1511	ug/L	0.1511 ppb	23:21:14
2	Ti 334.940†	-1308.4	116.8	0.1998	ug/L	0.1998 ppb	23:20:54
2	Tl 190.801†	-41.1	4.0	1.2645	ug/L	1.2645 ppb	23:21:14
2	U 409.014†	-1987.9	111.1	3.5477	ug/L	3.5477 ppb	23:20:54
2	V 292.402†	-1309.9	135.4	0.9897	ug/L	0.9897 ppb	23:20:54
2	Zn 213.857†	851.8	-33.3	-0.3300	ug/L	-0.3300 ppb	23:21:14
2	SiO2†	507.4	36.4	2.5957	ug/L	2.5957 ppb	23:21:50
3	Sc Radial	5045.7	5045.7	105	%		23:20:02
3	Y RADIAL	5431.7	5431.7	105.9	%		23:20:02
3	Al 396.153Radial†	-8.7	-5.0	-4.0522	ug/L	-4.0522 ppb	23:20:02
3	Ca 317.933Radial†	16.5	0.5	0.8831	ug/L	0.8831 ppb	23:20:22
3	Fe 238.204 Radial†	9.6	-0.8	-7.2634	ug/L	-7.2634 ppb	23:20:22
3	K 766.490 Radial†	2718.3	-206.2	-41.326	ug/L	-41.326 ppb	23:20:02
3	Mg 279.077 IEC†	0.8	-0.7	-24.992	ug/L	-24.992 ppb	23:20:22
3	Na 589.592 Radial†	-1469.3	171.7	55.631	ug/L	55.631 ppb	23:20:02
3	Sr 421.552†	23.1	4.8	0.0339	ug/L	0.0339 ppb	23:20:02
3	Sc 361.383	832681.4	832681.4	102.31	%		23:21:19
3	Y 371.029	702592.1	702592.1	102.42	%		23:21:19
3	Ag 328.068†	480.2	187.8	0.9196	ug/L	0.9196 ppb	23:21:19
3	As 188.979†	-21.9	-2.6	-1.1700	ug/L	-1.1700 ppb	23:21:40
3	B 249.677†	-439.5	88.9	2.1655	ug/L	2.1655 ppb	23:21:40
3	Ba 233.527†	1.4	-0.1	0.0006	ug/L	0.0006 ppb	23:21:40
3	Be 313.107†	-4355.3	55.4	0.0225	ug/L	0.0225 ppb	23:21:19
3	Cd 226.502†	-181.0	20.7	0.2436	ug/L	0.2436 ppb	23:21:40
3	Co 228.616†	-76.1	-1.7	-0.0357	ug/L	-0.0357 ppb	23:21:40
3	Cr 267.716†	77.2	-20.3	-0.2400	ug/L	-0.2400 ppb	23:21:40
3	Cu 324.752†	6388.5	-54.0	-0.1751	ug/L	-0.1751 ppb	23:21:19
3	Mn 257.610†	425.1	11.2	0.0135	ug/L	0.0135 ppb	23:21:40
3	Mo 202.031†	27.8	7.8	0.5817	ug/L	0.5817 ppb	23:21:40
3	Ni 231.604†	68.5	-8.2	-0.2153	ug/L	-0.2153 ppb	23:21:40
3	P 214.914†	227.8	-5.2	-3.2724	ug/L	-3.2724 ppb	23:21:40
3	Pb 220.353†	-74.8	-8.5	-1.0891	ug/L	-1.0891 ppb	23:21:40
3	S 181.975 Axial†	41.2	-6.2	-9.2224	ug/L	-9.2224 ppb	23:21:40
3	Sb 206.836†	36.2	2.6	0.9687	ug/L	0.9687 ppb	23:21:40
3	Se 196.026†	-28.0	3.0	1.9552	ug/L	1.9552 ppb	23:21:40
3	Si 251.611†	478.3	21.6	0.7223	ug/L	0.7223 ppb	23:21:40
3	Sn 189.927†	6.4	0.1	0.0267	ug/L	0.0267 ppb	23:21:40
3	Ti 334.940†	-1279.3	136.6	0.2347	ug/L	0.2347 ppb	23:21:19
3	Tl 190.801†	-34.7	9.9	3.1824	ug/L	3.1824 ppb	23:21:40
3	U 409.014†	-1947.2	137.7	4.4006	ug/L	4.4006 ppb	23:21:19
3	V 292.402†	-1334.6	102.7	0.7576	ug/L	0.7576 ppb	23:21:19
3	Zn 213.857†	844.1	-35.3	-0.3502	ug/L	-0.3502 ppb	23:21:40
3	SiO2†	516.5	48.6	3.4712	ug/L	3.4712 ppb	23:21:55

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	836227.5	102.75	%	0.379				0.37%
Sc Radial	5048.7	105	%	1.1				1.03%
Y 371.029	705887.5	102.90	%	0.416				0.40%
Y RADIAL	5430.3	105.9	%	0.57				0.54%
Ag 328.068†	92.6	0.4535	ug/L	0.48382	0.4535	ppb	0.48382	106.70%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	1.8	1.4348	ug/L	6.87028	1.4348	ppb	6.87028	478.82%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-1.8	-0.8210	ug/L	2.07573	-0.8210	ppb	2.07573	252.84%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	90.2	2.1971	ug/L	0.03709	2.1971	ppb	0.03709	1.69%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-0.4	-0.0019	ug/L	0.03991	-0.0019	ppb	0.03991	>999.9%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	52.6	0.0214	ug/L	0.01642	0.0214	ppb	0.01642	76.85%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	1.2	2.0694	ug/L	2.70621	2.0694	ppb	2.70621	130.77%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              20.0      0.2354 ug/L       0.04503      0.2354 ppb        0.04503  19.13%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†              -4.6     -0.0990 ug/L       0.08276     -0.0990 ppb        0.08276  83.61%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†             -11.2     -0.1328 ug/L       0.10646     -0.1328 ppb        0.10646  80.15%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -123.9     -0.3981 ug/L       0.33199     -0.3981 ppb        0.33199  83.40%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       -0.4     -3.8294 ug/L       4.37476     -3.8294 ppb        4.37476 114.24%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†      -153.3     -30.733 ug/L       16.9155     -30.733 ppb        16.9155  55.04%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           0.1      4.2893 ug/L      39.59659      4.2893 ppb       39.59659 923.15%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               8.9      0.0099 ug/L       0.01059      0.0099 ppb        0.01059 107.22%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               8.3      0.6179 ug/L       0.24418      0.6179 ppb        0.24418  39.52%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      169.5     54.909 ug/L        4.7179     54.909 ppb         4.7179   8.59%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              -4.4     -0.1161 ug/L       0.20372     -0.1161 ppb        0.20372 175.40%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†              -14.9     -9.4096 ug/L       7.20392     -9.4096 ppb        7.20392  76.56%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -1.0     -0.1317 ug/L       0.88104     -0.1317 ppb        0.88104 669.14%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         -1.4     -2.1183 ug/L       6.16833     -2.1183 ppb        6.16833 291.20%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               4.3      1.5968 ug/L       0.54906      1.5968 ppb        0.54906  34.38%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               2.3      1.5269 ug/L       2.12510      1.5269 ppb        2.12510 139.17%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†              19.0      0.6326 ug/L       0.22786      0.6326 ppb        0.22786  36.02%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               3.3      0.6017 ug/L       0.89040      0.6017 ppb        0.89040 147.98%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             -15.3     -0.1094 ug/L       0.12467     -0.1094 ppb        0.12467 113.98%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             119.3      0.2027 ug/L       0.03065      0.2027 ppb        0.03065  15.12%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               5.4      1.7362 ug/L       1.27741      1.7362 ppb        1.27741  73.57%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              136.9      4.3722 ug/L       0.81056      4.3722 ppb        0.81056  18.54%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              119.1      0.8769 ug/L       0.11618      0.8769 ppb        0.11618  13.25%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†             -41.5     -0.4121 ug/L       0.12523     -0.4121 ppb        0.12523  30.38%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                    25.8      1.8360 ug/L       2.11982      1.8360 ppb        2.11982 115.46%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 76
Sample ID: 1202004428|941050|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 83
Date Collected: 1/14/2010 23:45:18
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202004428|941050|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5170.1	5170.1	108	%			23:47:12
1	Y RADIAL	6693.0	6693.0	130.5	%			23:47:12
1	Al 396.153Radial†	40092.2	37157.8	29810	ug/L	29810	ppb	23:47:12
1	Ca 317.933Radial†	4646.0	4290.5	7224.9	ug/L	7224.9	ppb	23:47:12
1	Fe 238.204 Radial†	8133.6	7527.7	70767	ug/L	70767	ppb	23:47:12
1	K 766.490 Radial†	27096.7	22323.9	4468.7	ug/L	4468.7	ppb	23:47:12
1	Mg 279.077 IEC†	172.9	158.7	5498.8	ug/L	5498.8	ppb	23:47:32
1	Na 589.592 Radial†	3022.4	4367.9	1415.2	ug/L	1415.2	ppb	23:47:12
1	Sr 421.552†	8481.2	7842.6	55.847	ug/L	55.847	ppb	23:47:12
1	Sc 361.383	867783.1	867783.1	106.62	%			23:48:29
1	Y 371.029	875848.2	875848.2	127.68	%			23:48:29
1	Ag 328.068†	-4387.6	-4396.5	1.7732	ug/L	1.7732	ppb	23:48:34
1	As 188.979†	-25.3	-4.8	27.440	ug/L	27.440	ppb	23:48:54
1	B 249.677†	59.5	574.4	2.4313	ug/L	2.4313	ppb	23:48:34
1	Ba 233.527†	41392.0	38818.7	324.23	ug/L	324.23	ppb	23:48:34
1	Be 313.107†	-1107.5	3273.5	4.7248	ug/L	4.7248	ppb	23:48:34
1	Cd 226.502†	440.2	610.4	-0.1840	ug/L	-0.1840	ppb	23:48:54
1	Co 228.616†	882.9	900.7	15.489	ug/L	15.489	ppb	23:48:54
1	Cr 267.716†	13886.8	12928.2	154.12	ug/L	154.12	ppb	23:48:34
1	Cu 324.752†	14276.0	7091.0	26.516	ug/L	26.516	ppb	23:48:34
1	Mn 257.610†	1800130.0	1687879.3	1986.0	ug/L	1986.0	ppb	23:48:29
1	Mo 202.031†	163.7	134.2	15.545	ug/L	15.545	ppb	23:48:54
1	Ni 231.604†	1270.5	1116.4	29.377	ug/L	29.377	ppb	23:48:54
1	P 214.914†	1523.5	1201.0	712.36	ug/L	712.36	ppb	23:48:54
1	Pb 220.353†	395.8	435.8	55.574	ug/L	55.574	ppb	23:48:54
1	S 181.975 Axial†	246.3	184.5	269.79	ug/L	269.79	ppb	23:48:54
1	Sb 206.836†	50.6	14.7	1.7441	ug/L	1.7441	ppb	23:48:54
1	Se 196.026†	-335.1	-283.9	43.451	ug/L	43.451	ppb	23:48:54
1	Si 251.611†	224617.8	210215.9	7087.7	ug/L	7087.7	ppb	23:48:34
1	Sn 189.927†	-35.1	-39.0	-4.9278	ug/L	-4.9278	ppb	23:48:54
1	Ti 334.940†	936066.4	879293.3	1509.0	ug/L	1509.0	ppb	23:48:29
1	Tl 190.801†	-136.8	-84.4	-5.2678	ug/L	-5.2678	ppb	23:48:54
1	U 409.014†	-10232.6	-7555.9	-249.72	ug/L	-249.72	ppb	23:48:29
1	V 292.402†	11530.0	12220.7	75.986	ug/L	75.986	ppb	23:48:34
1	Zn 213.857†	24979.3	22567.0	217.99	ug/L	217.99	ppb	23:48:34
1	SiO2†	224182.6	209797.4	15041	ug/L	15041	ppb	23:50:02
2	Sc Radial	5016.7	5016.7	105	%			23:47:37
2	Y RADIAL	6523.9	6523.9	127.2	%			23:47:37
2	Al 396.153Radial†	39098.3	37344.7	29960	ug/L	29960	ppb	23:47:37
2	Ca 317.933Radial†	4542.9	4323.6	7280.8	ug/L	7280.8	ppb	23:47:37
2	Fe 238.204 Radial†	7861.7	7498.6	70493	ug/L	70493	ppb	23:47:37
2	K 766.490 Radial†	26245.4	22278.7	4459.6	ug/L	4459.6	ppb	23:47:37
2	Mg 279.077 IEC†	173.1	163.8	5678.1	ug/L	5678.1	ppb	23:47:57
2	Na 589.592 Radial†	2942.2	4376.9	1418.1	ug/L	1418.1	ppb	23:47:37
2	Sr 421.552†	8216.8	7830.4	55.760	ug/L	55.760	ppb	23:47:37
2	Sc 361.383	875496.9	875496.9	107.57	%			23:49:00
2	Y 371.029	880951.0	880951.0	128.43	%			23:49:00
2	Ag 328.068†	-4252.4	-4234.6	2.4803	ug/L	2.4803	ppb	23:49:05
2	As 188.979†	-17.6	2.5	30.686	ug/L	30.686	ppb	23:49:25
2	B 249.677†	56.6	571.2	2.3994	ug/L	2.3994	ppb	23:49:05
2	Ba 233.527†	41675.6	38740.4	323.57	ug/L	323.57	ppb	23:49:05
2	Be 313.107†	-1034.9	3350.2	4.7621	ug/L	4.7621	ppb	23:49:05
2	Cd 226.502†	437.0	603.8	-0.2335	ug/L	-0.2335	ppb	23:49:25
2	Co 228.616†	873.9	885.0	15.148	ug/L	15.148	ppb	23:49:25
2	Cr 267.716†	13943.8	12866.5	153.39	ug/L	153.39	ppb	23:49:05
2	Cu 324.752†	14378.6	7068.3	26.431	ug/L	26.431	ppb	23:49:05
2	Mn 257.610†	1819922.8	1691403.7	1990.1	ug/L	1990.1	ppb	23:49:00
2	Mo 202.031†	174.8	143.2	16.188	ug/L	16.188	ppb	23:49:25
2	Ni 231.604†	1302.5	1135.7	29.885	ug/L	29.885	ppb	23:49:25

2	P 214.914†	1527.2	1191.9	706.78 ug/L	706.78 ppb	23:49:25
2	Pb 220.353†	403.8	440.0	56.170 ug/L	56.170 ppb	23:49:25
2	S 181.975 Axial†	243.5	179.9	262.89 ug/L	262.89 ppb	23:49:25
2	Sb 206.836†	50.6	14.3	1.5679 ug/L	1.5679 ppb	23:49:25
2	Se 196.026†	-342.3	-287.8	39.976 ug/L	39.976 ppb	23:49:25
2	Si 251.611†	225808.5	209466.6	7062.4 ug/L	7062.4 ppb	23:49:05
2	Sn 189.927†	-40.3	-43.6	-5.7735 ug/L	-5.7735 ppb	23:49:25
2	Ti 334.940†	946270.5	881044.1	1512.0 ug/L	1512.0 ppb	23:49:00
2	Tl 190.801†	-122.3	-69.8	-0.5535 ug/L	-0.5535 ppb	23:49:25
2	U 409.014†	-10438.4	-7662.7	-253.10 ug/L	-253.10 ppb	23:49:00
2	V 292.402†	11577.3	12169.5	75.659 ug/L	75.659 ppb	23:49:05
2	Zn 213.857†	25286.7	22646.3	218.80 ug/L	218.80 ppb	23:49:05
2	SiO2†	225657.2	209315.6	15006 ug/L	15006 ppb	23:50:07
3	Sc Radial	5139.1	5139.1	107 %		23:48:02
3	Y RADIAL	6690.8	6690.8	130.4 %		23:48:02
3	Al 396.153Radial†	39938.9	37239.0	29875 ug/L	29875 ppb	23:48:02
3	Ca 317.933Radial†	4583.3	4258.0	7170.2 ug/L	7170.2 ppb	23:48:02
3	Fe 238.204 Radial†	8060.7	7505.3	70556 ug/L	70556 ppb	23:48:02
3	K 766.490 Radial†	26914.7	22305.6	4465.1 ug/L	4465.1 ppb	23:48:02
3	Mg 279.077 IEC†	169.1	156.2	5408.9 ug/L	5408.9 ppb	23:48:22
3	Na 589.592 Radial†	3013.7	4376.7	1418.1 ug/L	1418.1 ppb	23:48:02
3	Sr 421.552†	8396.9	7811.3	55.625 ug/L	55.625 ppb	23:48:02
3	Sc 361.383	865226.5	865226.5	106.31 %		23:49:31
3	Y 371.029	871649.7	871649.7	127.07 %		23:49:31
3	Ag 328.068†	-4323.8	-4348.7	1.9359 ug/L	1.9359 ppb	23:49:36
3	As 188.979†	-27.4	-7.0	26.438 ug/L	26.438 ppb	23:49:56
3	B 249.677†	79.6	593.4	2.9293 ug/L	2.9293 ppb	23:49:36
3	Ba 233.527†	41050.4	38612.2	322.51 ug/L	322.51 ppb	23:49:36
3	Be 313.107†	-1182.9	3199.5	4.6945 ug/L	4.6945 ppb	23:49:36
3	Cd 226.502†	442.0	613.3	-0.1273 ug/L	-0.1273 ppb	23:49:56
3	Co 228.616†	883.3	903.6	15.556 ug/L	15.556 ppb	23:49:56
3	Cr 267.716†	13763.2	12850.4	153.20 ug/L	153.20 ppb	23:49:36
3	Cu 324.752†	14206.8	7065.4	26.422 ug/L	26.422 ppb	23:49:36
3	Mn 257.610†	1794601.1	1687667.2	1985.8 ug/L	1985.8 ppb	23:49:31
3	Mo 202.031†	170.9	141.5	16.063 ug/L	16.063 ppb	23:49:56
3	Ni 231.604†	1296.1	1144.0	30.104 ug/L	30.104 ppb	23:49:56
3	P 214.914†	1528.1	1209.5	717.98 ug/L	717.98 ppb	23:49:56
3	Pb 220.353†	394.6	435.7	55.601 ug/L	55.601 ppb	23:49:56
3	S 181.975 Axial†	237.9	177.3	259.05 ug/L	259.05 ppb	23:49:56
3	Sb 206.836†	53.8	17.8	2.8905 ug/L	2.8905 ppb	23:49:56
3	Se 196.026†	-342.6	-291.9	37.448 ug/L	37.448 ppb	23:49:56
3	Si 251.611†	221428.7	207838.6	7007.5 ug/L	7007.5 ppb	23:49:36
3	Sn 189.927†	-30.8	-35.1	-4.2203 ug/L	-4.2203 ppb	23:49:56
3	Ti 334.940†	933063.6	879062.9	1508.6 ug/L	1508.6 ppb	23:49:31
3	Tl 190.801†	-120.5	-69.5	-0.4962 ug/L	-0.4962 ppb	23:49:56
3	U 409.014†	-10182.3	-7536.9	-249.09 ug/L	-249.09 ppb	23:49:31
3	V 292.402†	11348.5	12082.0	75.023 ug/L	75.023 ppb	23:49:36
3	Zn 213.857†	24830.6	22496.3	217.30 ug/L	217.30 ppb	23:49:36
3	SiO2†	225817.6	211956.6	15195 ug/L	15195 ppb	23:50:12

Mean Data: 1202004428|941050|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	869502.2	106.84	%	0.657				0.61%
Sc Radial	5108.7	107	%	1.7				1.59%
Y 371.029	876149.7	127.73	%	0.679				0.53%
Y RADIAL	6635.9	129.4	%	1.89				1.46%
Ag 328.068†	-4326.6	2.0631	ug/L	0.37035	2.0631	ppb	0.37035	17.95%
Al 396.153Radial†	37247.2	29881	ug/L	75.2	29881	ppb	75.2	0.25%
As 188.979†	-3.1	28.188	ug/L	2.2208	28.188	ppb	2.2208	7.88%
B 249.677†	579.7	2.5867	ug/L	0.29718	2.5867	ppb	0.29718	11.49%
Ba 233.527†	38723.8	323.43	ug/L	0.869	323.43	ppb	0.869	0.27%
Be 313.107†	3274.4	4.7271	ug/L	0.03384	4.7271	ppb	0.03384	0.72%
Ca 317.933Radial†	4290.7	7225.3	ug/L	55.28	7225.3	ppb	55.28	0.77%
Cd 226.502†	609.2	-0.1816	ug/L	0.05314	-0.1816	ppb	0.05314	29.26%
Co 228.616†	896.4	15.398	ug/L	0.2190	15.398	ppb	0.2190	1.42%
Cr 267.716†	12881.7	153.57	ug/L	0.488	153.57	ppb	0.488	0.32%
Cu 324.752†	7074.9	26.456	ug/L	0.0516	26.456	ppb	0.0516	0.19%
Fe 238.204 Radial†	7510.5	70605	ug/L	143.6	70605	ppb	143.6	0.20%
K 766.490 Radial†	22302.7	4464.5	ug/L	4.56	4464.5	ppb	4.56	0.10%

Mg 279.077 IEC†	159.6	5528.6	ug/L	137.06	5528.6	ppb	137.06	2.48%
Mn 257.610†	1688983.4	1987.3	ug/L	2.45	1987.3	ppb	2.45	0.12%
Mo 202.031†	139.6	15.932	ug/L	0.3412	15.932	ppb	0.3412	2.14%
Na 589.592 Radial†	4373.8	1417.1	ug/L	1.67	1417.1	ppb	1.67	0.12%
Ni 231.604†	1132.1	29.789	ug/L	0.3731	29.789	ppb	0.3731	1.25%
P 214.914†	1200.8	712.37	ug/L	5.596	712.37	ppb	5.596	0.79%
Pb 220.353†	437.2	55.782	ug/L	0.3363	55.782	ppb	0.3363	0.60%
S 181.975 Axial†	180.6	263.91	ug/L	5.446	263.91	ppb	5.446	2.06%
Sb 206.836†	15.6	2.0675	ug/L	0.71814	2.0675	ppb	0.71814	34.73%
Se 196.026†	-287.9	40.292	ug/L	3.0135	40.292	ppb	3.0135	7.48%
Si 251.611†	209173.7	7052.5	ug/L	40.98	7052.5	ppb	40.98	0.58%
Sn 189.927†	-39.3	-4.9739	ug/L	0.77761	-4.9739	ppb	0.77761	15.63%
Sr 421.552†	7828.1	55.744	ug/L	0.1120	55.744	ppb	0.1120	0.20%
Ti 334.940†	879800.1	1509.9	ug/L	1.86	1509.9	ppb	1.86	0.12%
Tl 190.801†	-74.5	-2.1058	ug/L	2.73847	-2.1058	ppb	2.73847	130.04%
U 409.014†	-7585.2	-250.64	ug/L	2.155	-250.64	ppb	2.155	0.86%
V 292.402†	12157.4	75.556	ug/L	0.4894	75.556	ppb	0.4894	0.65%
Zn 213.857†	22569.8	218.03	ug/L	0.753	218.03	ppb	0.753	0.35%
SiO2†	210356.5	15081	ug/L	100.8	15081	ppb	100.8	0.67%

Sequence No.: 77
Sample ID: 1202004429|941050|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 84
Date Collected: 1/14/2010 23:52:24
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202004429|941050|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5091.0	5091.0	106	%			23:54:37
1	Y RADIAL	6942.0	6942.0	135.3	%			23:54:37
1	Al 396.153Radial†	72448.0	68185.8	54680	ug/L	54680	ppb	23:54:17
1	Ca 317.933Radial†	6837.1	6419.4	10810	ug/L	10810	ppb	23:54:37
1	Fe 238.204 Radial†	8648.3	8129.2	76434	ug/L	76434	ppb	23:54:17
1	K 766.490 Radial†	57264.1	51105.1	10231	ug/L	10231	ppb	23:54:17
1	Mg 279.077 IEC†	366.1	343.0	11967	ug/L	11967	ppb	23:54:37
1	Na 589.592 Radial†	18429.6	18911.5	6127.4	ug/L	6127.4	ppb	23:54:17
1	Sr 421.552†	80807.4	76032.5	541.87	ug/L	541.87	ppb	23:54:17
1	Sc 361.383	883865.0	883865.0	108.60	%			23:55:36
1	Y 371.029	940381.8	940381.8	137.09	%			23:55:36
1	Ag 328.068†	100180.8	91965.2	478.40	ug/L	478.40	ppb	23:55:36
1	As 188.979†	1084.0	1017.0	491.19	ug/L	491.19	ppb	23:55:56
1	B 249.677†	20304.7	19215.2	453.93	ug/L	453.93	ppb	23:55:36
1	Ba 233.527†	98752.5	90930.2	757.49	ug/L	757.49	ppb	23:55:36
1	Be 313.107†	1294617.3	1196399.9	479.55	ug/L	479.55	ppb	23:55:36
1	Cd 226.502†	42210.9	39065.5	450.32	ug/L	450.32	ppb	23:55:56
1	Co 228.616†	23291.4	21519.5	463.38	ug/L	463.38	ppb	23:55:56
1	Cr 267.716†	52740.3	48467.7	573.96	ug/L	573.96	ppb	23:55:36
1	Cu 324.752†	179800.5	159262.8	512.33	ug/L	512.33	ppb	23:55:36
1	Mn 257.610†	2365377.1	2177642.3	2560.6	ug/L	2560.6	ppb	23:55:36
1	Mo 202.031†	6778.3	6222.2	467.94	ug/L	467.94	ppb	23:55:56
1	Ni 231.604†	20219.5	18543.1	487.85	ug/L	487.85	ppb	23:55:56
1	P 214.914†	2136.3	1739.3	965.50	ug/L	965.50	ppb	23:55:56
1	Pb 220.353†	4225.2	3955.2	512.05	ug/L	512.05	ppb	23:55:56
1	S 181.975 Axial†	3692.4	3353.5	4994.5	ug/L	4994.5	ppb	23:55:56
1	Sb 206.836†	1354.0	1214.1	456.38	ug/L	456.38	ppb	23:55:56
1	Se 196.026†	400.3	399.0	521.35	ug/L	521.35	ppb	23:55:56
1	Si 251.611†	302431.4	278033.9	9368.7	ug/L	9368.7	ppb	23:55:36
1	Sn 189.927†	2754.2	2530.0	470.81	ug/L	470.81	ppb	23:55:56
1	Ti 334.940†	1219007.5	1123852.9	1928.2	ug/L	1928.2	ppb	23:55:36
1	Tl 190.801†	1432.1	1362.6	461.01	ug/L	461.01	ppb	23:55:56
1	U 409.014†	5412.3	7024.6	214.36	ug/L	214.36	ppb	23:55:36
1	V 292.402†	79221.0	74354.1	530.19	ug/L	530.19	ppb	23:55:36
1	Zn 213.857†	77442.1	70448.6	691.40	ug/L	691.40	ppb	23:55:36
1	SiO2†	306793.3	282040.0	20207	ug/L	20207	ppb	23:56:56
2	Sc Radial	5050.4	5050.4	105	%			23:55:02
2	Y RADIAL	6886.2	6886.2	134.2	%			23:55:02
2	Al 396.153Radial†	70871.0	67238.5	53920	ug/L	53920	ppb	23:54:42
2	Ca 317.933Radial†	6758.3	6396.5	10771	ug/L	10771	ppb	23:55:02
2	Fe 238.204 Radial†	8456.8	8013.1	75343	ug/L	75343	ppb	23:54:42
2	K 766.490 Radial†	56222.2	50550.6	10120	ug/L	10120	ppb	23:54:42
2	Mg 279.077 IEC†	361.8	341.7	11922	ug/L	11922	ppb	23:55:02
2	Na 589.592 Radial†	18009.0	18652.0	6043.4	ug/L	6043.4	ppb	23:54:42
2	Sr 421.552†	79214.7	75133.7	535.47	ug/L	535.47	ppb	23:54:42
2	Sc 361.383	865610.1	865610.1	106.36	%			23:56:03
2	Y 371.029	924063.0	924063.0	134.71	%			23:56:03
2	Ag 328.068†	100371.8	94090.2	488.54	ug/L	488.54	ppb	23:56:03
2	As 188.979†	1084.0	1038.0	500.85	ug/L	500.85	ppb	23:56:23
2	B 249.677†	20322.1	19625.8	464.08	ug/L	464.08	ppb	23:56:03
2	Ba 233.527†	99299.5	93362.1	777.65	ug/L	777.65	ppb	23:56:03
2	Be 313.107†	1298853.1	1225522.6	491.23	ug/L	491.23	ppb	23:56:03
2	Cd 226.502†	41710.0	39414.2	454.53	ug/L	454.53	ppb	23:56:23
2	Co 228.616†	23076.1	21769.4	468.73	ug/L	468.73	ppb	23:56:23
2	Cr 267.716†	52981.2	49718.4	588.71	ug/L	588.71	ppb	23:56:03
2	Cu 324.752†	180332.3	163254.4	525.01	ug/L	525.01	ppb	23:56:03
2	Mn 257.610†	2379558.2	2236908.7	2630.0	ug/L	2630.0	ppb	23:56:03
2	Mo 202.031†	6707.3	6287.0	472.67	ug/L	472.67	ppb	23:56:23
2	Ni 231.604†	19992.5	18722.3	492.57	ug/L	492.57	ppb	23:56:23

2	P 214.914†	2116.2	1761.8	978.07 ug/L	978.07 ppb	23:56:23
2	Pb 220.353†	4192.2	4006.1	518.52 ug/L	518.52 ppb	23:56:23
2	S 181.975 Axial†	3651.5	3386.7	5044.2 ug/L	5044.2 ppb	23:56:23
2	Sb 206.836†	1339.7	1226.9	461.10 ug/L	461.10 ppb	23:56:23
2	Se 196.026†	391.0	398.0	517.08 ug/L	517.08 ppb	23:56:23
2	Si 251.611†	303486.6	284898.9	9600.1 ug/L	9600.1 ppb	23:56:03
2	Sn 189.927†	2717.2	2548.6	474.23 ug/L	474.23 ppb	23:56:23
2	Ti 334.940†	1225103.6	1153256.4	1978.6 ug/L	1978.6 ppb	23:56:03
2	Tl 190.801†	1413.7	1373.0	465.07 ug/L	465.07 ppb	23:56:23
2	U 409.014†	5499.5	7211.7	220.42 ug/L	220.42 ppb	23:56:03
2	V 292.402†	79596.4	76245.5	544.02 ug/L	544.02 ppb	23:56:03
2	Zn 213.857†	77756.2	72247.8	709.40 ug/L	709.40 ppb	23:56:03
2	SiO2†	305593.5	286869.5	20554 ug/L	20554 ppb	23:57:01
3	Sc Radial	5076.6	5076.6	106 %		23:55:27
3	Y RADIAL	6942.9	6942.9	135.4 %		23:55:27
3	Al 396.153Radial†	70978.7	66993.0	53723 ug/L	53723 ppb	23:55:07
3	Ca 317.933Radial†	6779.8	6383.7	10750 ug/L	10750 ppb	23:55:27
3	Fe 238.204 Radial†	8456.6	7971.4	74951 ug/L	74951 ppb	23:55:07
3	K 766.490 Radial†	56507.9	50544.8	10119 ug/L	10119 ppb	23:55:07
3	Mg 279.077 IEC†	367.2	345.1	12042 ug/L	12042 ppb	23:55:27
3	Na 589.592 Radial†	18071.1	18622.4	6033.8 ug/L	6033.8 ppb	23:55:07
3	Sr 421.552†	79420.9	74940.3	534.09 ug/L	534.09 ppb	23:55:07
3	Sc 361.383	866701.0	866701.0	106.49 %		23:56:30
3	Y 371.029	925522.6	925522.6	134.92 %		23:56:30
3	Ag 328.068†	100504.6	94096.2	488.43 ug/L	488.43 ppb	23:56:30
3	As 188.979†	1081.9	1034.8	499.28 ug/L	499.28 ppb	23:56:50
3	B 249.677†	20453.0	19724.7	466.55 ug/L	466.55 ppb	23:56:30
3	Ba 233.527†	99389.7	93329.3	777.37 ug/L	777.37 ppb	23:56:30
3	Be 313.107†	1300093.5	1225150.2	491.09 ug/L	491.09 ppb	23:56:30
3	Cd 226.502†	41962.7	39602.1	456.77 ug/L	456.77 ppb	23:56:50
3	Co 228.616†	23223.4	21880.3	471.16 ug/L	471.16 ppb	23:56:50
3	Cr 267.716†	52950.4	49626.7	587.62 ug/L	587.62 ppb	23:56:30
3	Cu 324.752†	180840.2	163517.9	525.83 ug/L	525.83 ppb	23:56:30
3	Mn 257.610†	2379966.3	2234476.0	2627.1 ug/L	2627.1 ppb	23:56:30
3	Mo 202.031†	6761.5	6330.0	475.83 ug/L	475.83 ppb	23:56:50
3	Ni 231.604†	20089.5	18789.7	494.34 ug/L	494.34 ppb	23:56:50
3	P 214.914†	2108.2	1751.8	971.85 ug/L	971.85 ppb	23:56:50
3	Pb 220.353†	4206.9	4015.0	519.66 ug/L	519.66 ppb	23:56:50
3	S 181.975 Axial†	3668.2	3398.1	5061.3 ug/L	5061.3 ppb	23:56:50
3	Sb 206.836†	1350.5	1235.5	464.36 ug/L	464.36 ppb	23:56:50
3	Se 196.026†	392.5	398.9	516.44 ug/L	516.44 ppb	23:56:50
3	Si 251.611†	305299.7	286242.3	9645.4 ug/L	9645.4 ppb	23:56:30
3	Sn 189.927†	2746.6	2573.1	478.75 ug/L	478.75 ppb	23:56:50
3	Ti 334.940†	1226856.4	1153452.6	1978.9 ug/L	1978.9 ppb	23:56:30
3	Tl 190.801†	1425.0	1382.0	467.93 ug/L	467.93 ppb	23:56:50
3	U 409.014†	5697.2	7390.8	226.19 ug/L	226.19 ppb	23:56:30
3	V 292.402†	79624.9	76178.0	543.64 ug/L	543.64 ppb	23:56:30
3	Zn 213.857†	77803.7	72200.4	708.95 ug/L	708.95 ppb	23:56:30
3	SiO2†	311054.1	291635.6	20895 ug/L	20895 ppb	23:57:06

Mean Data: 1202004429|941050|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	872058.7	107.15	%	1.258				1.17%
Sc Radial	5072.7	106	%	0.4				0.41%
Y 371.029	929989.1	135.57	%	1.316				0.97%
Y RADIAL	6923.7	135.0	%	0.63				0.47%
Ag 328.068†	93383.8	485.12	ug/L	5.823	485.12	ppb	5.823	1.20%
Al 396.153Radial†	67472.5	54108	ug/L	505.5	54108	ppb	505.5	0.93%
As 188.979†	1029.9	497.11	ug/L	5.183	497.11	ppb	5.183	1.04%
B 249.677†	19521.9	461.52	ug/L	6.689	461.52	ppb	6.689	1.45%
Ba 233.527†	92540.5	770.84	ug/L	11.559	770.84	ppb	11.559	1.50%
Be 313.107†	1215690.9	487.29	ug/L	6.702	487.29	ppb	6.702	1.38%
Ca 317.933Radial†	6399.8	10777	ug/L	30.5	10777	ppb	30.5	0.28%
Cd 226.502†	39360.6	453.87	ug/L	3.274	453.87	ppb	3.274	0.72%
Co 228.616†	21723.1	467.76	ug/L	3.978	467.76	ppb	3.978	0.85%
Cr 267.716†	49270.9	583.43	ug/L	8.219	583.43	ppb	8.219	1.41%
Cu 324.752†	162011.7	521.06	ug/L	7.568	521.06	ppb	7.568	1.45%
Fe 238.204 Radial†	8037.9	75576	ug/L	768.5	75576	ppb	768.5	1.02%
K 766.490 Radial†	50733.5	10157	ug/L	64.5	10157	ppb	64.5	0.63%

Mg 279.077 IEC†	343.3	11977	ug/L	60.7	11977	ppb	60.7	0.51%
Mn 257.610†	2216342.3	2605.9	ug/L	39.25	2605.9	ppb	39.25	1.51%
Mo 202.031†	6279.7	472.14	ug/L	3.971	472.14	ppb	3.971	0.84%
Na 589.592 Radial†	18728.7	6068.2	ug/L	51.53	6068.2	ppb	51.53	0.85%
Ni 231.604†	18685.0	491.59	ug/L	3.353	491.59	ppb	3.353	0.68%
P 214.914†	1751.0	971.80	ug/L	6.287	971.80	ppb	6.287	0.65%
Pb 220.353†	3992.1	516.74	ug/L	4.105	516.74	ppb	4.105	0.79%
S 181.975 Axial†	3379.5	5033.3	ug/L	34.68	5033.3	ppb	34.68	0.69%
Sb 206.836†	1225.5	460.61	ug/L	4.011	460.61	ppb	4.011	0.87%
Se 196.026†	398.6	518.29	ug/L	2.669	518.29	ppb	2.669	0.52%
Si 251.611†	283058.4	9538.0	ug/L	148.40	9538.0	ppb	148.40	1.56%
Sn 189.927†	2550.6	474.60	ug/L	3.981	474.60	ppb	3.981	0.84%
Sr 421.552†	75368.8	537.14	ug/L	4.154	537.14	ppb	4.154	0.77%
Ti 334.940†	1143520.6	1961.9	ug/L	29.21	1961.9	ppb	29.21	1.49%
Tl 190.801†	1372.5	464.67	ug/L	3.475	464.67	ppb	3.475	0.75%
U 409.014†	7209.1	220.32	ug/L	5.918	220.32	ppb	5.918	2.69%
V 292.402†	75592.5	539.28	ug/L	7.876	539.28	ppb	7.876	1.46%
Zn 213.857†	71632.2	703.25	ug/L	10.267	703.25	ppb	10.267	1.46%
SiO2†	286848.4	20552	ug/L	343.9	20552	ppb	343.9	1.67%

Sequence No.: 78
Sample ID: 1202004431|941050|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 85
Date Collected: 1/14/2010 23:59:18
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202004431|941050|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5056.1	5056.1	106	%			00:01:31
1	Y RADIAL	6699.3	6699.3	130.6	%			00:01:31
1	Al 396.153Radial†	83480.2	79111.5	63445	ug/L	63445	ppb	00:01:11
1	Ca 317.933Radial†	7676.7	7259.5	12225	ug/L	12225	ppb	00:01:31
1	Fe 238.204 Radial†	9455.7	8950.6	84157	ug/L	84157	ppb	00:01:11
1	K 766.490 Radial†	60992.0	55010.4	11013	ug/L	11013	ppb	00:01:11
1	Mg 279.077 IEC†	410.7	387.7	13526	ug/L	13526	ppb	00:01:31
1	Na 589.592 Radial†	18634.5	19225.5	6229.2	ug/L	6229.2	ppb	00:01:11
1	Sr 421.552†	80680.9	76438.4	544.75	ug/L	544.75	ppb	00:01:11
1	Sc 361.383	861826.7	861826.7	105.89	%			00:02:30
1	Y 371.029	894712.6	894712.6	130.43	%			00:02:30
1	Ag 328.068†	100886.9	94990.9	495.87	ug/L	495.87	ppb	00:02:30
1	As 188.979†	1079.7	1038.4	505.29	ug/L	505.29	ppb	00:02:51
1	B 249.677†	20697.2	20063.9	473.29	ug/L	473.29	ppb	00:02:30
1	Ba 233.527†	102652.4	96938.3	807.62	ug/L	807.62	ppb	00:02:30
1	Be 313.107†	1312767.6	1244023.7	499.16	ug/L	499.16	ppb	00:02:30
1	Cd 226.502†	43232.4	41024.1	472.49	ug/L	472.49	ppb	00:02:30
1	Co 228.616†	23386.7	22157.9	476.54	ug/L	476.54	ppb	00:02:51
1	Cr 267.716†	52533.1	49513.9	586.50	ug/L	586.50	ppb	00:02:30
1	Cu 324.752†	182788.0	166317.7	535.26	ug/L	535.26	ppb	00:02:30
1	Mn 257.610†	2213080.8	2089517.5	2458.0	ug/L	2458.0	ppb	00:02:30
1	Mo 202.031†	6736.5	6342.3	477.47	ug/L	477.47	ppb	00:02:51
1	Ni 231.604†	20244.2	19042.5	500.99	ug/L	500.99	ppb	00:02:51
1	P 214.914†	2304.1	1948.0	1090.3	ug/L	1090.3	ppb	00:02:51
1	Pb 220.353†	4240.2	4068.8	527.78	ug/L	527.78	ppb	00:02:51
1	S 181.975 Axial†	3688.7	3437.0	5117.4	ug/L	5117.4	ppb	00:02:51
1	Sb 206.836†	1344.2	1236.7	464.03	ug/L	464.03	ppb	00:02:51
1	Se 196.026†	372.5	382.1	535.88	ug/L	535.88	ppb	00:02:51
1	Si 251.611†	331822.7	312910.7	10545	ug/L	10545	ppb	00:02:30
1	Sn 189.927†	2745.6	2586.7	481.65	ug/L	481.65	ppb	00:02:51
1	Ti 334.940†	1377156.1	1301903.7	2233.7	ug/L	2233.7	ppb	00:02:30
1	Tl 190.801†	1421.8	1386.6	470.61	ug/L	470.61	ppb	00:02:51
1	U 409.014†	5598.3	7327.7	223.13	ug/L	223.13	ppb	00:02:30
1	V 292.402†	81936.0	78783.3	560.87	ug/L	560.87	ppb	00:02:30
1	Zn 213.857†	78686.3	73447.0	720.44	ug/L	720.44	ppb	00:02:30
1	SiO2†	332056.4	313121.1	22435	ug/L	22435	ppb	00:03:51
2	Sc Radial	5051.2	5051.2	105	%			00:01:56
2	Y RADIAL	6695.7	6695.7	130.5	%			00:01:56
2	Al 396.153Radial†	83472.7	79180.7	63501	ug/L	63501	ppb	00:01:36
2	Ca 317.933Radial†	7637.7	7229.6	12174	ug/L	12174	ppb	00:01:56
2	Fe 238.204 Radial†	9439.7	8944.1	84095	ug/L	84095	ppb	00:01:36
2	K 766.490 Radial†	60826.8	54909.4	10993	ug/L	10993	ppb	00:01:36
2	Mg 279.077 IEC†	407.4	385.0	13432	ug/L	13432	ppb	00:01:56
2	Na 589.592 Radial†	18463.3	19080.1	6182.1	ug/L	6182.1	ppb	00:01:36
2	Sr 421.552†	80633.3	76467.0	544.96	ug/L	544.96	ppb	00:01:36
2	Sc 361.383	870830.9	870830.9	107.00	%			00:02:58
2	Y 371.029	903023.0	903023.0	131.64	%			00:02:58
2	Ag 328.068†	101847.1	94903.3	495.42	ug/L	495.42	ppb	00:02:58
2	As 188.979†	1072.4	1021.1	497.51	ug/L	497.51	ppb	00:03:18
2	B 249.677†	20874.9	20027.9	472.45	ug/L	472.45	ppb	00:02:58
2	Ba 233.527†	103736.7	96949.3	807.71	ug/L	807.71	ppb	00:02:58
2	Be 313.107†	1326008.6	1243580.2	498.99	ug/L	498.99	ppb	00:02:58
2	Cd 226.502†	43611.0	40955.7	471.69	ug/L	471.69	ppb	00:02:58
2	Co 228.616†	23241.3	21793.7	468.60	ug/L	468.60	ppb	00:03:18
2	Cr 267.716†	52949.3	49389.9	585.03	ug/L	585.03	ppb	00:02:58
2	Cu 324.752†	184966.4	166568.8	536.06	ug/L	536.06	ppb	00:02:58
2	Mn 257.610†	2236771.4	2090049.1	2458.6	ug/L	2458.6	ppb	00:02:58
2	Mo 202.031†	6672.7	6216.9	468.16	ug/L	468.16	ppb	00:03:18
2	Ni 231.604†	20126.5	18734.8	492.89	ug/L	492.89	ppb	00:03:18

2	P 214.914†	2300.5	1922.1	1073.6 ug/L	1073.6 ppb	00:03:18
2	Pb 220.353†	4241.3	4028.4	522.59 ug/L	522.59 ppb	00:03:18
2	S 181.975 Axial†	3679.8	3392.6	5051.2 ug/L	5051.2 ppb	00:03:18
2	Sb 206.836†	1345.3	1224.6	459.25 ug/L	459.25 ppb	00:03:18
2	Se 196.026†	357.6	364.5	523.88 ug/L	523.88 ppb	00:03:18
2	Si 251.611†	336328.0	313881.3	10577 ug/L	10577 ppb	00:02:58
2	Sn 189.927†	2711.1	2527.6	470.71 ug/L	470.71 ppb	00:03:18
2	Ti 334.940†	1393765.1	1303979.2	2237.3 ug/L	2237.3 ppb	00:02:58
2	Tl 190.801†	1425.2	1375.8	467.24 ug/L	467.24 ppb	00:03:18
2	U 409.014†	5669.9	7340.0	223.53 ug/L	223.53 ppb	00:02:58
2	V 292.402†	82885.4	78870.6	561.37 ug/L	561.37 ppb	00:02:58
2	Zn 213.857†	79424.7	73368.8	719.71 ug/L	719.71 ppb	00:02:58
2	SiO2†	333913.0	311613.9	22328 ug/L	22328 ppb	00:03:56
3	Sc Radial	5046.0	5046.0	105 %		00:02:22
3	Y RADIAL	6702.4	6702.4	130.7 %		00:02:22
3	Al 396.153Radial†	83869.8	79639.7	63869 ug/L	63869 ppb	00:02:02
3	Ca 317.933Radial†	7663.4	7261.5	12228 ug/L	12228 ppb	00:02:22
3	Fe 238.204 Radial†	9427.2	8941.4	84070 ug/L	84070 ppb	00:02:02
3	K 766.490 Radial†	61254.1	55374.8	11086 ug/L	11086 ppb	00:02:02
3	Mg 279.077 IEC†	410.4	388.2	13546 ug/L	13546 ppb	00:02:22
3	Na 589.592 Radial†	18500.0	19133.2	6199.3 ug/L	6199.3 ppb	00:02:02
3	Sr 421.552†	80981.9	76877.1	547.88 ug/L	547.88 ppb	00:02:02
3	Sc 361.383	852288.7	852288.7	104.72 %		00:03:25
3	Y 371.029	884559.0	884559.0	128.95 %		00:03:25
3	Ag 328.068†	99617.3	94844.7	495.12 ug/L	495.12 ppb	00:03:25
3	As 188.979†	1063.1	1034.0	503.26 ug/L	503.26 ppb	00:03:45
3	B 249.677†	20427.2	20024.9	472.34 ug/L	472.34 ppb	00:03:25
3	Ba 233.527†	101416.5	96842.9	806.82 ug/L	806.82 ppb	00:03:25
3	Be 313.107†	1293867.4	1239849.4	497.50 ug/L	497.50 ppb	00:03:25
3	Cd 226.502†	42553.8	40832.9	470.26 ug/L	470.26 ppb	00:03:25
3	Co 228.616†	23323.6	22344.8	480.61 ug/L	480.61 ppb	00:03:45
3	Cr 267.716†	51778.1	49348.1	584.54 ug/L	584.54 ppb	00:03:25
3	Cu 324.752†	180609.8	166169.5	534.78 ug/L	534.78 ppb	00:03:25
3	Mn 257.610†	2184586.1	2085696.0	2453.5 ug/L	2453.5 ppb	00:03:25
3	Mo 202.031†	6732.2	6409.4	482.45 ug/L	482.45 ppb	00:03:45
3	Ni 231.604†	20248.2	19260.3	506.72 ug/L	506.72 ppb	00:03:45
3	P 214.914†	2284.8	1953.9	1094.4 ug/L	1094.4 ppb	00:03:45
3	Pb 220.353†	4210.2	4085.0	529.96 ug/L	529.96 ppb	00:03:45
3	S 181.975 Axial†	3693.1	3480.1	5181.7 ug/L	5181.7 ppb	00:03:45
3	Sb 206.836†	1347.7	1254.2	470.58 ug/L	470.58 ppb	00:03:45
3	Se 196.026†	352.9	367.4	525.75 ug/L	525.75 ppb	00:03:45
3	Si 251.611†	329320.5	314028.2	10582 ug/L	10582 ppb	00:03:25
3	Sn 189.927†	2724.8	2595.8	483.33 ug/L	483.33 ppb	00:03:45
3	Ti 334.940†	1360661.0	1300706.5	2231.6 ug/L	2231.6 ppb	00:03:25
3	Tl 190.801†	1418.4	1398.3	474.32 ug/L	474.32 ppb	00:03:45
3	U 409.014†	5474.4	7268.6	221.25 ug/L	221.25 ppb	00:03:25
3	V 292.402†	80896.0	78656.2	560.03 ug/L	560.03 ppb	00:03:25
3	Zn 213.857†	77516.3	73161.4	717.56 ug/L	717.56 ppb	00:03:25
3	SiO2†	332272.9	316837.1	22702 ug/L	22702 ppb	00:04:01

Mean Data: 1202004431|941050|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	861648.8	105.87	%	1.139				1.08%
Sc Radial	5051.1	105	%	0.1				0.10%
Y 371.029	894098.2	130.34	%	1.348				1.03%
Y RADIAL	6699.1	130.6	%	0.07				0.05%
Ag 328.068†	94913.0	495.47	ug/L	0.377	495.47	ppb	0.377	0.08%
Al 396.153Radial†	79310.7	63605	ug/L	230.1	63605	ppb	230.1	0.36%
As 188.979†	1031.2	502.02	ug/L	4.033	502.02	ppb	4.033	0.80%
B 249.677†	20038.9	472.69	ug/L	0.520	472.69	ppb	0.520	0.11%
Ba 233.527†	96910.2	807.38	ug/L	0.487	807.38	ppb	0.487	0.06%
Be 313.107†	1242484.4	498.55	ug/L	0.915	498.55	ppb	0.915	0.18%
Ca 317.933Radial†	7250.2	12209	ug/L	30.1	12209	ppb	30.1	0.25%
Cd 226.502†	40937.6	471.48	ug/L	1.129	471.48	ppb	1.129	0.24%
Co 228.616†	22098.8	475.25	ug/L	6.109	475.25	ppb	6.109	1.29%
Cr 267.716†	49417.3	585.36	ug/L	1.018	585.36	ppb	1.018	0.17%
Cu 324.752†	166352.0	535.36	ug/L	0.644	535.36	ppb	0.644	0.12%
Fe 238.204 Radial†	8945.4	84107	ug/L	44.4	84107	ppb	44.4	0.05%
K 766.490 Radial†	55098.2	11031	ug/L	49.0	11031	ppb	49.0	0.44%

Mg 279.077 IEC†	386.9	13501	ug/L	60.9	13501	ppb	60.9	0.45%
Mn 257.610†	2088420.8	2456.7	ug/L	2.79	2456.7	ppb	2.79	0.11%
Mo 202.031†	6322.9	476.03	ug/L	7.253	476.03	ppb	7.253	1.52%
Na 589.592 Radial†	19146.3	6203.5	ug/L	23.84	6203.5	ppb	23.84	0.38%
Ni 231.604†	19012.5	500.20	ug/L	6.947	500.20	ppb	6.947	1.39%
P 214.914†	1941.4	1086.1	ug/L	11.03	1086.1	ppb	11.03	1.02%
Pb 220.353†	4060.8	526.78	ug/L	3.781	526.78	ppb	3.781	0.72%
S 181.975 Axial†	3436.6	5116.8	ug/L	65.29	5116.8	ppb	65.29	1.28%
Sb 206.836†	1238.5	464.62	ug/L	5.689	464.62	ppb	5.689	1.22%
Se 196.026†	371.3	528.50	ug/L	6.453	528.50	ppb	6.453	1.22%
Si 251.611†	313606.7	10568	ug/L	20.5	10568	ppb	20.5	0.19%
Sn 189.927†	2570.0	478.56	ug/L	6.854	478.56	ppb	6.854	1.43%
Sr 421.552†	76594.1	545.86	ug/L	1.749	545.86	ppb	1.749	0.32%
Ti 334.940†	1302196.5	2234.2	ug/L	2.84	2234.2	ppb	2.84	0.13%
Tl 190.801†	1386.9	470.72	ug/L	3.538	470.72	ppb	3.538	0.75%
U 409.014†	7312.1	222.64	ug/L	1.215	222.64	ppb	1.215	0.55%
V 292.402†	78770.1	560.76	ug/L	0.675	560.76	ppb	0.675	0.12%
Zn 213.857†	73325.7	719.24	ug/L	1.496	719.24	ppb	1.496	0.21%
SiO2†	313857.4	22488	ug/L	192.5	22488	ppb	192.5	0.86%

Sequence No.: 79
Sample ID: 1202004430|941050|5
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 86
Date Collected: 1/15/2010 00:06:13
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202004430|941050|5

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	5071.1	5071.1	106	%			00:08:07
1	Y RADIAL	5677.8	5677.8	110.7	%			00:08:07
1	Al 396.153Radial†	8633.4	8160.4	6546.7	ug/L	6546.7	ppb	00:08:07
1	Ca 317.933Radial†	1031.0	959.0	1614.9	ug/L	1614.9	ppb	00:08:27
1	Fe 238.204 Radial†	1682.0	1579.4	14847	ug/L	14847	ppb	00:08:27
1	K 766.490 Radial†	8008.6	4779.4	956.68	ug/L	956.68	ppb	00:08:07
1	Mg 279.077 IEC†	41.6	37.8	1311.8	ug/L	1311.8	ppb	00:08:27
1	Na 589.592 Radial†	-471.0	1121.9	363.51	ug/L	363.51	ppb	00:08:07
1	Sr 421.552†	1796.9	1680.5	11.967	ug/L	11.967	ppb	00:08:07
1	Sc 361.383	856137.4	856137.4	105.19	%			00:09:24
1	Y 371.029	748163.1	748163.1	109.07	%			00:09:24
1	Ag 328.068†	-594.7	-847.0	0.7392	ug/L	0.7392	ppb	00:09:24
1	As 188.979†	-26.8	-6.6	3.1246	ug/L	3.1246	ppb	00:09:44
1	B 249.677†	-288.8	244.0	3.5156	ug/L	3.5156	ppb	00:09:24
1	Ba 233.527†	9504.3	9033.6	75.398	ug/L	75.398	ppb	00:09:24
1	Be 313.107†	-3582.2	906.9	1.0499	ug/L	1.0499	ppb	00:09:24
1	Cd 226.502†	-54.2	146.1	0.1728	ug/L	0.1728	ppb	00:09:44
1	Co 228.616†	126.0	192.5	3.3600	ug/L	3.3600	ppb	00:09:44
1	Cr 267.716†	1948.6	1756.7	21.058	ug/L	21.058	ppb	00:09:24
1	Cu 324.752†	8088.6	1391.1	5.2535	ug/L	5.2535	ppb	00:09:24
1	Mn 257.610†	363777.5	345411.7	406.46	ug/L	406.46	ppb	00:09:24
1	Mo 202.031†	41.0	19.7	2.6325	ug/L	2.6325	ppb	00:09:44
1	Ni 231.604†	330.2	238.8	6.2829	ug/L	6.2829	ppb	00:09:44
1	P 214.914†	446.6	196.7	114.31	ug/L	114.31	ppb	00:09:44
1	Pb 220.353†	34.3	97.1	12.455	ug/L	12.455	ppb	00:09:44
1	S 181.975 Axial†	88.5	37.7	55.000	ug/L	55.000	ppb	00:09:44
1	Sb 206.836†	34.6	0.1	-0.7050	ug/L	-0.7050	ppb	00:09:44
1	Se 196.026†	-93.1	-58.1	10.081	ug/L	10.081	ppb	00:09:44
1	Si 251.611†	47969.8	45155.4	1522.5	ug/L	1522.5	ppb	00:09:24
1	Sn 189.927†	-7.1	-12.8	-1.8782	ug/L	-1.8782	ppb	00:09:44
1	Ti 334.940†	184816.5	177078.2	303.91	ug/L	303.91	ppb	00:09:24
1	Tl 190.801†	-55.4	-8.8	1.5933	ug/L	1.5933	ppb	00:09:44
1	U 409.014†	-3739.3	-1513.8	-50.084	ug/L	-50.084	ppb	00:09:24
1	V 292.402†	1202.7	2550.4	15.861	ug/L	15.861	ppb	00:09:24
1	Zn 213.857†	6041.6	4883.0	47.213	ug/L	47.213	ppb	00:09:24
1	SiO2†	46572.7	43817.0	3141.3	ug/L	3141.3	ppb	00:10:40
2	Sc Radial	5093.4	5093.4	106	%			00:08:32
2	Y RADIAL	5691.1	5691.1	110.9	%			00:08:32
2	Al 396.153Radial†	8611.6	8104.1	6501.5	ug/L	6501.5	ppb	00:08:32
2	Ca 317.933Radial†	1034.0	957.5	1612.3	ug/L	1612.3	ppb	00:08:52
2	Fe 238.204 Radial†	1680.9	1571.3	14771	ug/L	14771	ppb	00:08:52
2	K 766.490 Radial†	7890.9	4635.4	927.84	ug/L	927.84	ppb	00:08:32
2	Mg 279.077 IEC†	41.9	37.9	1314.4	ug/L	1314.4	ppb	00:08:52
2	Na 589.592 Radial†	-467.9	1126.7	365.07	ug/L	365.07	ppb	00:08:32
2	Sr 421.552†	1821.9	1696.6	12.081	ug/L	12.081	ppb	00:08:32
2	Sc 361.383	852203.7	852203.7	104.71	%			00:09:49
2	Y 371.029	745007.4	745007.4	108.61	%			00:09:49
2	Ag 328.068†	-637.7	-890.6	0.4970	ug/L	0.4970	ppb	00:09:49
2	As 188.979†	-22.5	-2.6	4.9179	ug/L	4.9179	ppb	00:10:09
2	B 249.677†	-267.7	262.9	3.9878	ug/L	3.9878	ppb	00:09:49
2	Ba 233.527†	9485.1	9056.9	75.588	ug/L	75.588	ppb	00:09:49
2	Be 313.107†	-3646.1	830.2	1.0196	ug/L	1.0196	ppb	00:09:49
2	Cd 226.502†	-53.4	146.5	0.1868	ug/L	0.1868	ppb	00:10:09
2	Co 228.616†	110.8	178.5	3.0572	ug/L	3.0572	ppb	00:10:09
2	Cr 267.716†	1930.5	1747.9	20.952	ug/L	20.952	ppb	00:09:49
2	Cu 324.752†	8104.1	1441.5	5.4089	ug/L	5.4089	ppb	00:09:49
2	Mn 257.610†	362275.2	345573.3	406.64	ug/L	406.64	ppb	00:09:49
2	Mo 202.031†	38.4	17.4	2.4577	ug/L	2.4577	ppb	00:10:09
2	Ni 231.604†	329.5	239.5	6.3034	ug/L	6.3034	ppb	00:10:09

2	P 214.914†	452.7	204.4	119.27	ug/L	119.27 ppb	00:10:09
2	Pb 220.353†	21.4	85.0	10.893	ug/L	10.893 ppb	00:10:09
2	S 181.975 Axial†	94.2	43.5	63.672	ug/L	63.672 ppb	00:10:09
2	Sb 206.836†	37.8	3.4	0.4893	ug/L	0.4893 ppb	00:10:09
2	Se 196.026†	-97.3	-62.6	6.8540	ug/L	6.8540 ppb	00:10:09
2	Si 251.611†	47970.1	45366.1	1529.6	ug/L	1529.6 ppb	00:09:49
2	Sn 189.927†	-2.4	-8.4	-1.0679	ug/L	-1.0679 ppb	00:10:09
2	Ti 334.940†	184016.7	177125.4	303.99	ug/L	303.99 ppb	00:09:49
2	Tl 190.801†	-47.9	-1.8	3.8263	ug/L	3.8263 ppb	00:10:09
2	U 409.014†	-3650.6	-1445.4	-47.894	ug/L	-47.894 ppb	00:09:49
2	V 292.402†	1146.4	2502.0	15.524	ug/L	15.524 ppb	00:09:49
2	Zn 213.857†	6073.5	4939.9	47.788	ug/L	47.788 ppb	00:09:49
2	SiO2†	47582.4	44985.6	3225.1	ug/L	3225.1 ppb	00:10:45
3	Sc Radial	5145.6	5145.6	107	%		00:08:57
3	Y RADIAL	5766.6	5766.6	112.4	%		00:08:57
3	Al 396.153Radial†	8652.0	8059.5	6465.8	ug/L	6465.8 ppb	00:08:57
3	Ca 317.933Radial†	1037.5	950.9	1601.2	ug/L	1601.2 ppb	00:09:17
3	Fe 238.204 Radial†	1680.5	1554.9	14617	ug/L	14617 ppb	00:09:17
3	K 766.490 Radial†	7935.1	4601.3	921.01	ug/L	921.01 ppb	00:08:57
3	Mg 279.077 IEC†	39.1	34.9	1209.9	ug/L	1209.9 ppb	00:09:17
3	Na 589.592 Radial†	-496.3	1104.8	357.96	ug/L	357.96 ppb	00:08:57
3	Sr 421.552†	1752.6	1614.7	11.498	ug/L	11.498 ppb	00:08:57
3	Sc 361.383	844202.9	844202.9	103.73	%		00:10:15
3	Y 371.029	739351.6	739351.6	107.78	%		00:10:15
3	Ag 328.068†	-688.9	-945.7	0.1752	ug/L	0.1752 ppb	00:10:15
3	As 188.979†	-17.9	1.6	6.7572	ug/L	6.7572 ppb	00:10:35
3	B 249.677†	-308.8	220.8	2.9891	ug/L	2.9891 ppb	00:10:15
3	Ba 233.527†	9361.5	9023.6	75.308	ug/L	75.308 ppb	00:10:15
3	Be 313.107†	-3465.6	971.2	1.0736	ug/L	1.0736 ppb	00:10:15
3	Cd 226.502†	-42.9	156.2	0.3167	ug/L	0.3167 ppb	00:10:35
3	Co 228.616†	108.6	177.4	3.0351	ug/L	3.0351 ppb	00:10:35
3	Cr 267.716†	1934.7	1769.4	21.202	ug/L	21.202 ppb	00:10:15
3	Cu 324.752†	7932.5	1349.4	5.1056	ug/L	5.1056 ppb	00:10:15
3	Mn 257.610†	357677.4	344419.7	405.27	ug/L	405.27 ppb	00:10:15
3	Mo 202.031†	36.2	15.6	2.3134	ug/L	2.3134 ppb	00:10:35
3	Ni 231.604†	342.0	254.5	6.6984	ug/L	6.6984 ppb	00:10:35
3	P 214.914†	430.0	186.7	108.10	ug/L	108.10 ppb	00:10:35
3	Pb 220.353†	26.3	89.9	11.533	ug/L	11.533 ppb	00:10:35
3	S 181.975 Axial†	89.4	39.7	58.017	ug/L	58.017 ppb	00:10:35
3	Sb 206.836†	30.8	-3.0	-1.8723	ug/L	-1.8723 ppb	00:10:35
3	Se 196.026†	-101.3	-67.3	3.2103	ug/L	3.2103 ppb	00:10:35
3	Si 251.611†	46973.2	44839.3	1511.8	ug/L	1511.8 ppb	00:10:15
3	Sn 189.927†	-8.7	-14.5	-2.1928	ug/L	-2.1928 ppb	00:10:35
3	Ti 334.940†	181759.5	176614.8	303.12	ug/L	303.12 ppb	00:10:15
3	Tl 190.801†	-52.0	-6.2	2.3999	ug/L	2.3999 ppb	00:10:35
3	U 409.014†	-3536.4	-1368.4	-45.415	ug/L	-45.415 ppb	00:10:15
3	V 292.402†	1162.2	2527.6	15.733	ug/L	15.733 ppb	00:10:15
3	Zn 213.857†	5942.8	4868.9	47.093	ug/L	47.093 ppb	00:10:15
3	SiO2†	47080.6	44932.5	3221.3	ug/L	3221.3 ppb	00:10:50

Mean Data: 1202004430|941050|5

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	850848.0	104.54	%	0.747				0.71%
Sc Radial	5103.4	107	%	0.8				0.75%
Y 371.029	744174.0	108.49	%	0.651				0.60%
Y RADIAL	5711.8	111.4	%	0.93				0.84%
Ag 328.068†	-894.4	0.4705	ug/L	0.28292	0.4705	ppb	0.28292	60.14%
Al 396.153Radial†	8108.0	6504.7	ug/L	40.54	6504.7	ppb	40.54	0.62%
As 188.979†	-2.5	4.9332	ug/L	1.81636	4.9332	ppb	1.81636	36.82%
B 249.677†	242.6	3.4975	ug/L	0.49962	3.4975	ppb	0.49962	14.29%
Ba 233.527†	9038.0	75.431	ug/L	0.1430	75.431	ppb	0.1430	0.19%
Be 313.107†	902.8	1.0477	ug/L	0.02707	1.0477	ppb	0.02707	2.58%
Ca 317.933Radial†	955.8	1609.5	ug/L	7.27	1609.5	ppb	7.27	0.45%
Cd 226.502†	149.6	0.2254	ug/L	0.07932	0.2254	ppb	0.07932	35.19%
Co 228.616†	182.8	3.1508	ug/L	0.18152	3.1508	ppb	0.18152	5.76%
Cr 267.716†	1758.0	21.071	ug/L	0.1257	21.071	ppb	0.1257	0.60%
Cu 324.752†	1394.0	5.2560	ug/L	0.15170	5.2560	ppb	0.15170	2.89%
Fe 238.204 Radial†	1568.5	14745	ug/L	117.2	14745	ppb	117.2	0.80%
K 766.490 Radial†	4672.0	935.17	ug/L	18.935	935.17	ppb	18.935	2.02%

Mg 279.077 IEC†	36.9	1278.7	ug/L	59.62	1278.7	ppb	59.62	4.66%
Mn 257.610†	345134.9	406.12	ug/L	0.740	406.12	ppb	0.740	0.18%
Mo 202.031†	17.6	2.4679	ug/L	0.15976	2.4679	ppb	0.15976	6.47%
Na 589.592 Radial†	1117.8	362.18	ug/L	3.738	362.18	ppb	3.738	1.03%
Ni 231.604†	244.3	6.4282	ug/L	0.23419	6.4282	ppb	0.23419	3.64%
P 214.914†	195.9	113.89	ug/L	5.600	113.89	ppb	5.600	4.92%
Pb 220.353†	90.7	11.627	ug/L	0.7852	11.627	ppb	0.7852	6.75%
S 181.975 Axial†	40.3	58.896	ug/L	4.4021	58.896	ppb	4.4021	7.47%
Sb 206.836†	0.2	-0.6960	ug/L	1.18083	-0.6960	ppb	1.18083	169.66%
Se 196.026†	-62.7	6.7151	ug/L	3.43743	6.7151	ppb	3.43743	51.19%
Si 251.611†	45120.3	1521.3	ug/L	8.94	1521.3	ppb	8.94	0.59%
Sn 189.927†	-11.9	-1.7130	ug/L	0.58038	-1.7130	ppb	0.58038	33.88%
Sr 421.552†	1664.0	11.849	ug/L	0.3092	11.849	ppb	0.3092	2.61%
Ti 334.940†	176939.5	303.67	ug/L	0.481	303.67	ppb	0.481	0.16%
Tl 190.801†	-5.6	2.6065	ug/L	1.13070	2.6065	ppb	1.13070	43.38%
U 409.014†	-1442.5	-47.798	ug/L	2.3363	-47.798	ppb	2.3363	4.89%
V 292.402†	2526.7	15.706	ug/L	0.1699	15.706	ppb	0.1699	1.08%
Zn 213.857†	4897.3	47.365	ug/L	0.3717	47.365	ppb	0.3717	0.78%
SiO2†	44578.4	3195.9	ug/L	47.31	3195.9	ppb	47.31	1.48%

Sequence No.: 80
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 1/15/2010 00:13:02
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5001.0	5001.0	104	%			00:14:53
1	Y RADIAL	5344.0	5344.0	104.2	%			00:14:53
1	Al 396.153Radial†	6503.4	6234.0	4976.4	ug/L	4976.4	ppb	00:14:53
1	Ca 317.933Radial†	3177.6	3029.2	5101.1	ug/L	5101.1	ppb	00:15:13
1	Fe 238.204 Radial†	591.9	557.2	5253.9	ug/L	5253.9	ppb	00:15:13
1	K 766.490 Radial†	29677.3	25645.4	5131.4	ug/L	5131.4	ppb	00:14:53
1	Mg 279.077 IEC†	158.8	150.6	5286.7	ug/L	5286.7	ppb	00:15:13
1	Na 589.592 Radial†	31026.7	31292.7	10139	ug/L	10139	ppb	00:14:53
1	Sr 421.552†	75515.3	72331.7	515.53	ug/L	515.53	ppb	00:14:53
1	Sc 361.383	852356.1	852356.1	104.73	%			00:16:11
1	Y 371.029	708980.7	708980.7	103.36	%			00:16:11
1	Ag 328.068†	107431.3	102298.4	505.86	ug/L	505.86	ppb	00:16:16
1	As 188.979†	1171.1	1137.0	516.16	ug/L	516.16	ppb	00:16:36
1	B 249.677†	21641.3	21182.5	513.22	ug/L	513.22	ppb	00:16:16
1	Ba 233.527†	65122.3	62180.0	516.89	ug/L	516.89	ppb	00:16:16
1	Be 313.107†	1364223.1	1306930.1	520.24	ug/L	520.24	ppb	00:16:11
1	Cd 226.502†	46379.4	44482.6	521.25	ug/L	521.25	ppb	00:16:16
1	Co 228.616†	24971.7	23916.7	519.47	ug/L	519.47	ppb	00:16:16
1	Cr 267.716†	45866.1	43699.2	516.17	ug/L	516.17	ppb	00:16:16
1	Cu 324.752†	174525.9	160346.6	511.85	ug/L	511.85	ppb	00:16:16
1	Mn 257.610†	460004.1	438827.1	514.89	ug/L	514.89	ppb	00:16:11
1	Mo 202.031†	7272.6	6924.9	514.51	ug/L	514.51	ppb	00:16:36
1	Ni 231.604†	20809.4	19794.5	520.76	ug/L	520.76	ppb	00:16:16
1	P 214.914†	4439.1	4010.8	2459.9	ug/L	2459.9	ppb	00:16:36
1	Pb 220.353†	4117.7	3996.4	513.53	ug/L	513.53	ppb	00:16:36
1	S 181.975 Axial†	781.1	699.3	1042.7	ug/L	1042.7	ppb	00:16:36
1	Sb 206.836†	1497.9	1397.5	529.43	ug/L	529.43	ppb	00:16:36
1	Se 196.026†	786.2	781.1	541.38	ug/L	541.38	ppb	00:16:36
1	Si 251.611†	82660.1	78481.5	2639.8	ug/L	2639.8	ppb	00:16:16
1	Sn 189.927†	2928.7	2790.3	516.88	ug/L	516.88	ppb	00:16:36
1	Ti 334.940†	310814.3	298165.7	511.35	ug/L	511.35	ppb	00:16:16
1	Tl 190.801†	1632.3	1602.4	516.06	ug/L	516.06	ppb	00:16:36
1	U 409.014†	15279.7	16630.7	529.39	ug/L	529.39	ppb	00:16:16
1	V 292.402†	73628.8	71711.1	524.21	ug/L	524.21	ppb	00:16:16
1	Zn 213.857†	55801.0	52420.8	518.29	ug/L	518.29	ppb	00:16:16
1	SiO2†	81906.6	77751.7	5560.2	ug/L	5560.2	ppb	00:17:43
2	Sc Radial	5013.9	5013.9	105	%			00:15:18
2	Y RADIAL	5357.1	5357.1	104.4	%			00:15:18
2	Al 396.153Radial†	6568.3	6279.9	5013.3	ug/L	5013.3	ppb	00:15:18
2	Ca 317.933Radial†	3146.1	2991.3	5037.1	ug/L	5037.1	ppb	00:15:39
2	Fe 238.204 Radial†	581.9	546.2	5149.7	ug/L	5149.7	ppb	00:15:39
2	K 766.490 Radial†	29759.9	25651.0	5132.6	ug/L	5132.6	ppb	00:15:18
2	Mg 279.077 IEC†	156.6	148.2	5202.1	ug/L	5202.1	ppb	00:15:39
2	Na 589.592 Radial†	31176.4	31358.9	10160	ug/L	10160	ppb	00:15:18
2	Sr 421.552†	75895.1	72507.8	516.79	ug/L	516.79	ppb	00:15:18
2	Sc 361.383	854416.6	854416.6	104.98	%			00:16:42
2	Y 371.029	708353.8	708353.8	103.26	%			00:16:42
2	Ag 328.068†	104210.9	98983.5	489.52	ug/L	489.52	ppb	00:16:47
2	As 188.979†	1167.5	1130.9	513.32	ug/L	513.32	ppb	00:17:07
2	B 249.677†	21270.2	20779.2	503.44	ug/L	503.44	ppb	00:16:47
2	Ba 233.527†	64331.2	61276.5	509.37	ug/L	509.37	ppb	00:16:47
2	Be 313.107†	1361579.0	1301270.2	517.97	ug/L	517.97	ppb	00:16:42
2	Cd 226.502†	45659.1	43689.7	511.96	ug/L	511.96	ppb	00:16:47
2	Co 228.616†	24656.6	23559.1	511.71	ug/L	511.71	ppb	00:16:47
2	Cr 267.716†	45210.9	42969.5	507.55	ug/L	507.55	ppb	00:16:47
2	Cu 324.752†	171792.4	157341.0	502.26	ug/L	502.26	ppb	00:16:47
2	Mn 257.610†	461881.8	439556.4	515.74	ug/L	515.74	ppb	00:16:42
2	Mo 202.031†	7245.9	6882.7	511.36	ug/L	511.36	ppb	00:17:07
2	Ni 231.604†	20441.6	19396.3	510.29	ug/L	510.29	ppb	00:16:47

2	P 214.914†	4433.1	3994.8	2451.6 ug/L	2451.6 ppb	00:17:07
2	Pb 220.353†	4087.4	3958.0	508.62 ug/L	508.62 ppb	00:17:07
2	S 181.975 Axial†	778.9	695.5	1036.9 ug/L	1036.9 ppb	00:17:07
2	Sb 206.836†	1502.4	1398.3	529.56 ug/L	529.56 ppb	00:17:07
2	Se 196.026†	785.1	778.2	539.09 ug/L	539.09 ppb	00:17:07
2	Si 251.611†	81270.5	76967.5	2588.8 ug/L	2588.8 ppb	00:16:47
2	Sn 189.927†	2897.7	2754.1	510.17 ug/L	510.17 ppb	00:17:07
2	Ti 334.940†	306906.3	293727.4	503.74 ug/L	503.74 ppb	00:16:47
2	Tl 190.801†	1636.6	1602.8	516.17 ug/L	516.17 ppb	00:17:07
2	U 409.014†	15021.3	16349.3	520.43 ug/L	520.43 ppb	00:16:47
2	V 292.402†	72420.4	70390.4	514.64 ug/L	514.64 ppb	00:16:47
2	Zn 213.857†	55038.5	51566.0	509.85 ug/L	509.85 ppb	00:16:47
2	SiO2†	82668.2	78288.5	5598.8 ug/L	5598.8 ppb	00:17:49
3	Sc Radial	5039.0	5039.0	105 %		00:15:44
3	Y RADIAL	5393.4	5393.4	105.1 %		00:15:44
3	Al 396.153Radial†	6589.5	6268.8	5004.2 ug/L	5004.2 ppb	00:15:44
3	Ca 317.933Radial†	3181.6	3010.1	5068.8 ug/L	5068.8 ppb	00:16:04
3	Fe 238.204 Radial†	591.1	552.2	5206.2 ug/L	5206.2 ppb	00:16:04
3	K 766.490 Radial†	29863.9	25608.3	5124.0 ug/L	5124.0 ppb	00:15:44
3	Mg 279.077 IEC†	160.2	150.8	5293.3 ug/L	5293.3 ppb	00:16:04
3	Na 589.592 Radial†	31147.2	31182.9	10103 ug/L	10103 ppb	00:15:44
3	Sr 421.552†	76320.7	72551.5	517.10 ug/L	517.10 ppb	00:15:44
3	Sc 361.383	851042.9	851042.9	104.57 %		00:17:13
3	Y 371.029	706610.8	706610.8	103.01 %		00:17:13
3	Ag 328.068†	104238.6	99403.4	491.60 ug/L	491.60 ppb	00:17:18
3	As 188.979†	1171.9	1139.5	517.24 ug/L	517.24 ppb	00:17:38
3	B 249.677†	21316.1	20903.4	506.45 ug/L	506.45 ppb	00:17:18
3	Ba 233.527†	64522.7	61702.6	512.92 ug/L	512.92 ppb	00:17:18
3	Be 313.107†	1354547.6	1299687.4	517.35 ug/L	517.35 ppb	00:17:13
3	Cd 226.502†	45686.4	43888.2	514.28 ug/L	514.28 ppb	00:17:18
3	Co 228.616†	24668.1	23663.1	513.98 ug/L	513.98 ppb	00:17:18
3	Cr 267.716†	45378.1	43300.1	511.46 ug/L	511.46 ppb	00:17:18
3	Cu 324.752†	171904.9	158097.3	504.67 ug/L	504.67 ppb	00:17:18
3	Mn 257.610†	459202.2	438738.0	514.78 ug/L	514.78 ppb	00:17:13
3	Mo 202.031†	7276.9	6939.7	515.61 ug/L	515.61 ppb	00:17:38
3	Ni 231.604†	20511.8	19540.6	514.08 ug/L	514.08 ppb	00:17:18
3	P 214.914†	4434.1	4012.6	2462.5 ug/L	2462.5 ppb	00:17:38
3	Pb 220.353†	4122.4	4006.9	514.90 ug/L	514.90 ppb	00:17:38
3	S 181.975 Axial†	776.1	695.7	1037.4 ug/L	1037.4 ppb	00:17:38
3	Sb 206.836†	1494.1	1396.1	528.94 ug/L	528.94 ppb	00:17:38
3	Se 196.026†	787.7	783.7	542.97 ug/L	542.97 ppb	00:17:38
3	Si 251.611†	81327.6	77329.0	2600.9 ug/L	2600.9 ppb	00:17:18
3	Sn 189.927†	2925.3	2791.4	517.08 ug/L	517.08 ppb	00:17:38
3	Ti 334.940†	307297.2	295260.2	506.37 ug/L	506.37 ppb	00:17:18
3	Tl 190.801†	1641.9	1614.0	519.76 ug/L	519.76 ppb	00:17:38
3	U 409.014†	15107.6	16488.6	524.87 ug/L	524.87 ppb	00:17:18
3	V 292.402†	72574.5	70811.3	517.74 ug/L	517.74 ppb	00:17:18
3	Zn 213.857†	55071.2	51805.1	512.21 ug/L	512.21 ppb	00:17:18
3	SiO2†	81509.4	77492.5	5541.6 ug/L	5541.6 ppb	00:17:54

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	852605.2	104.76	%	0.209				0.20%
Sc Radial	5018.0	105	%	0.4				0.39%
Y 371.029	707981.8	103.21	%	0.179				0.17%
Y RADIAL	5364.8	104.6	%	0.50				0.48%
Ag 328.068†	100228.4	495.66	ug/L	8.898	495.66	ppb	8.898	1.80%
QC value within limits for Ag 328.068 Recovery = 99.13%								
Al 396.153Radial†	6260.9	4998.0	ug/L	19.27	4998.0	ppb	19.27	0.39%
QC value within limits for Al 396.153Radial Recovery = 99.96%								
As 188.979†	1135.8	515.57	ug/L	2.025	515.57	ppb	2.025	0.39%
QC value within limits for As 188.979 Recovery = 103.11%								
B 249.677†	20955.1	507.70	ug/L	5.008	507.70	ppb	5.008	0.99%
QC value within limits for B 249.677 Recovery = 101.54%								
Ba 233.527†	61719.7	513.06	ug/L	3.760	513.06	ppb	3.760	0.73%
QC value within limits for Ba 233.527 Recovery = 102.61%								
Be 313.107†	1302629.2	518.52	ug/L	1.520	518.52	ppb	1.520	0.29%
QC value within limits for Be 313.107 Recovery = 103.70%								
Ca 317.933Radial†	3010.2	5069.0	ug/L	31.96	5069.0	ppb	31.96	0.63%

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   QC value within limits for Ca 317.933Radial  Recovery = 101.38%
Cd 226.502†            44020.2      515.83 ug/L         4.835      515.83 ppb          4.835   0.94%
   QC value within limits for Cd 226.502  Recovery = 103.17%
Co 228.616†            23713.0      515.05 ug/L         3.989      515.05 ppb          3.989   0.77%
   QC value within limits for Co 228.616  Recovery = 103.01%
Cr 267.716†            43322.9      511.73 ug/L         4.317      511.73 ppb          4.317   0.84%
   QC value within limits for Cr 267.716  Recovery = 102.35%
Cu 324.752†           158595.0      506.26 ug/L         4.991      506.26 ppb          4.991   0.99%
   QC value within limits for Cu 324.752  Recovery = 101.25%
Fe 238.204 Radial†       551.9      5203.3 ug/L        52.13      5203.3 ppb          52.13   1.00%
   QC value within limits for Fe 238.204 Radial  Recovery = 104.07%
K 766.490 Radial†      25634.9      5129.3 ug/L         4.64      5129.3 ppb           4.64   0.09%
   QC value within limits for K 766.490 Radial  Recovery = 102.59%
Mg 279.077 IEC†          149.9      5260.7 ug/L        50.85      5260.7 ppb          50.85   0.97%
   QC value within limits for Mg 279.077 IEC  Recovery = 105.21%
Mn 257.610†           439040.5      515.13 ug/L         0.524      515.13 ppb          0.524   0.10%
   QC value within limits for Mn 257.610  Recovery = 103.03%
Mo 202.031†            6915.8      513.83 ug/L         2.201      513.83 ppb          2.201   0.43%
   QC value within limits for Mo 202.031  Recovery = 102.77%
Na 589.592 Radial†     31278.2       10134 ug/L         28.8       10134 ppb           28.8   0.28%
   QC value within limits for Na 589.592 Radial  Recovery = 101.34%
Ni 231.604†            19577.2      515.04 ug/L         5.305      515.04 ppb          5.305   1.03%
   QC value within limits for Ni 231.604  Recovery = 103.01%
P 214.914†              4006.0      2458.0 ug/L         5.68      2458.0 ppb           5.68   0.23%
   QC value within limits for P 214.914  Recovery = 98.32%
Pb 220.353†             3987.1      512.35 ug/L         3.299      512.35 ppb          3.299   0.64%
   QC value within limits for Pb 220.353  Recovery = 102.47%
S 181.975 Axial†         696.8      1039.0 ug/L         3.23      1039.0 ppb           3.23   0.31%
   QC value within limits for S 181.975 Axial  Recovery = 103.90%
Sb 206.836†             1397.3      529.31 ug/L         0.329      529.31 ppb          0.329   0.06%
   QC value within limits for Sb 206.836  Recovery = 105.86%
Se 196.026†              781.0      541.15 ug/L         1.952      541.15 ppb          1.952   0.36%
   QC value within limits for Se 196.026  Recovery = 108.23%
Si 251.611†            77592.7      2609.8 ug/L        26.65      2609.8 ppb          26.65   1.02%
   QC value within limits for Si 251.611  Recovery = 104.39%
Sn 189.927†             2778.6      514.71 ug/L         3.932      514.71 ppb          3.932   0.76%
   QC value within limits for Sn 189.927  Recovery = 102.94%
Sr 421.552†            72463.6      516.48 ug/L         0.830      516.48 ppb          0.830   0.16%
   QC value within limits for Sr 421.552  Recovery = 103.30%
Ti 334.940†           295717.8      507.15 ug/L         3.865      507.15 ppb          3.865   0.76%
   QC value within limits for Ti 334.940  Recovery = 101.43%
Tl 190.801†             1606.4      517.33 ug/L         2.107      517.33 ppb          2.107   0.41%
   QC value within limits for Tl 190.801  Recovery = 103.47%
U 409.014†             16489.5      524.90 ug/L         4.477      524.90 ppb          4.477   0.85%
   QC value within limits for U 409.014  Recovery = 104.98%
V 292.402†             70970.9      518.86 ug/L         4.880      518.86 ppb          4.880   0.94%
   QC value within limits for V 292.402  Recovery = 103.77%
Zn 213.857†            51930.6      513.45 ug/L         4.353      513.45 ppb          4.353   0.85%
   QC value within limits for Zn 213.857  Recovery = 102.69%
SiO2†                  77844.3      5566.8 ug/L        29.17      5566.8 ppb          29.17   0.52%
   QC value within limits for SiO2  Recovery = 104.10%
All analyte(s) passed QC.
```

Sequence No.: 81
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 1/15/2010 00:20:04
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4957.9	4957.9	103	%			00:21:55
1	Y RADIAL	5303.2	5303.2	103.4	%			00:21:55
1	Al 396.153Radial†	-18.7	-14.9	-11.942	ug/L	-11.942	ppb	00:21:55
1	Ca 317.933Radial†	19.5	3.7	6.2363	ug/L	6.2363	ppb	00:22:15
1	Fe 238.204 Radial†	11.5	1.2	11.412	ug/L	11.412	ppb	00:22:15
1	K 766.490 Radial†	2826.4	-56.0	-11.240	ug/L	-11.240	ppb	00:21:55
1	Mg 279.077 IEC†	-0.0	-1.6	-54.605	ug/L	-54.605	ppb	00:22:15
1	Na 589.592 Radial†	-1511.8	106.0	34.335	ug/L	34.335	ppb	00:21:55
1	Sr 421.552†	65.2	45.8	0.3264	ug/L	0.3264	ppb	00:21:55
1	Sc 361.383	829467.5	829467.5	101.92	%			00:23:12
1	Y 371.029	700108.1	700108.1	102.06	%			00:23:12
1	Ag 328.068†	356.1	67.8	0.3375	ug/L	0.3375	ppb	00:23:12
1	As 188.979†	-28.6	-9.2	-4.1371	ug/L	-4.1371	ppb	00:23:32
1	B 249.677†	-386.5	139.3	3.3889	ug/L	3.3889	ppb	00:23:32
1	Ba 233.527†	-2.8	-4.3	-0.0334	ug/L	-0.0334	ppb	00:23:32
1	Be 313.107†	-4367.9	26.5	0.0108	ug/L	0.0108	ppb	00:23:12
1	Cd 226.502†	-173.7	27.2	0.3178	ug/L	0.3178	ppb	00:23:32
1	Co 228.616†	-77.1	-2.9	-0.0628	ug/L	-0.0628	ppb	00:23:32
1	Cr 267.716†	70.1	-26.9	-0.3177	ug/L	-0.3177	ppb	00:23:32
1	Cu 324.752†	6299.4	-117.1	-0.3747	ug/L	-0.3747	ppb	00:23:12
1	Mn 257.610†	425.5	13.2	0.0189	ug/L	0.0189	ppb	00:23:32
1	Mo 202.031†	25.4	5.6	0.4141	ug/L	0.4141	ppb	00:23:32
1	Ni 231.604†	88.6	11.8	0.3114	ug/L	0.3114	ppb	00:23:32
1	P 214.914†	220.2	-11.8	-7.5054	ug/L	-7.5054	ppb	00:23:32
1	Pb 220.353†	-50.8	14.7	1.8850	ug/L	1.8850	ppb	00:23:32
1	S 181.975 Axial†	34.7	-12.4	-18.481	ug/L	-18.481	ppb	00:23:32
1	Sb 206.836†	39.1	5.7	2.0635	ug/L	2.0635	ppb	00:23:32
1	Se 196.026†	-40.5	-9.4	-6.2467	ug/L	-6.2467	ppb	00:23:32
1	Si 251.611†	626.2	168.5	5.6776	ug/L	5.6776	ppb	00:23:32
1	Sn 189.927†	-1.8	-7.9	-1.4542	ug/L	-1.4542	ppb	00:23:32
1	Ti 334.940†	-1348.2	64.2	0.1143	ug/L	0.1143	ppb	00:23:12
1	Tl 190.801†	-42.3	2.4	0.7726	ug/L	0.7726	ppb	00:23:32
1	U 409.014†	-1994.7	83.7	2.6739	ug/L	2.6739	ppb	00:23:12
1	V 292.402†	-1337.4	94.9	0.6928	ug/L	0.6928	ppb	00:23:12
1	Zn 213.857†	856.6	-19.9	-0.2009	ug/L	-0.2009	ppb	00:23:32
1	SiO2†	640.3	172.0	12.319	ug/L	12.319	ppb	00:24:28
2	Sc Radial	5004.1	5004.1	104	%			00:22:21
2	Y RADIAL	5390.2	5390.2	105.1	%			00:22:21
2	Al 396.153Radial†	-6.2	-2.7	-2.2166	ug/L	-2.2166	ppb	00:22:21
2	Ca 317.933Radial†	19.3	3.3	5.6296	ug/L	5.6296	ppb	00:22:41
2	Fe 238.204 Radial†	13.5	3.1	29.028	ug/L	29.028	ppb	00:22:41
2	K 766.490 Radial†	2864.1	-45.1	-9.0552	ug/L	-9.0552	ppb	00:22:21
2	Mg 279.077 IEC†	2.5	0.9	30.757	ug/L	30.757	ppb	00:22:41
2	Na 589.592 Radial†	-1494.7	135.8	43.995	ug/L	43.995	ppb	00:22:21
2	Sr 421.552†	-9.7	-26.5	-0.1888	ug/L	-0.1888	ppb	00:22:21
2	Sc 361.383	819793.9	819793.9	100.73	%			00:23:38
2	Y 371.029	692279.2	692279.2	100.92	%			00:23:38
2	Ag 328.068†	310.1	26.3	0.1401	ug/L	0.1401	ppb	00:23:38
2	As 188.979†	-15.5	3.5	1.5716	ug/L	1.5716	ppb	00:23:58
2	B 249.677†	-371.3	149.9	3.6453	ug/L	3.6453	ppb	00:23:58
2	Ba 233.527†	-8.3	-9.7	-0.0785	ug/L	-0.0785	ppb	00:23:58
2	Be 313.107†	-4282.0	61.2	0.0251	ug/L	0.0251	ppb	00:23:38
2	Cd 226.502†	-170.0	28.8	0.3354	ug/L	0.3354	ppb	00:23:58
2	Co 228.616†	-80.6	-7.3	-0.1575	ug/L	-0.1575	ppb	00:23:58
2	Cr 267.716†	99.9	3.5	0.0422	ug/L	0.0422	ppb	00:23:58
2	Cu 324.752†	6194.4	-148.5	-0.4725	ug/L	-0.4725	ppb	00:23:38
2	Mn 257.610†	428.0	20.6	0.0258	ug/L	0.0258	ppb	00:23:58
2	Mo 202.031†	29.6	10.1	0.7535	ug/L	0.7535	ppb	00:23:58
2	Ni 231.604†	103.7	27.9	0.7338	ug/L	0.7338	ppb	00:23:58

2	P 214.914†	217.0	-12.4	-7.8387 ug/L	-7.8387 ppb	00:23:58
2	Pb 220.353†	-45.9	19.1	2.4401 ug/L	2.4401 ppb	00:23:58
2	S 181.975 Axial†	43.2	-3.6	-5.3403 ug/L	-5.3403 ppb	00:23:58
2	Sb 206.836†	30.4	-2.6	-0.9174 ug/L	-0.9174 ppb	00:23:58
2	Se 196.026†	-38.7	-8.0	-5.2777 ug/L	-5.2777 ppb	00:23:58
2	Si 251.611†	638.5	188.0	6.3312 ug/L	6.3312 ppb	00:23:58
2	Sn 189.927†	7.3	1.1	0.2110 ug/L	0.2110 ppb	00:23:58
2	Ti 334.940†	-1191.4	204.2	0.3486 ug/L	0.3486 ppb	00:23:38
2	Tl 190.801†	-33.4	10.8	3.4491 ug/L	3.4491 ppb	00:23:58
2	U 409.014†	-2054.6	1.2	0.0355 ug/L	0.0355 ppb	00:23:38
2	V 292.402†	-1357.8	59.2	0.4338 ug/L	0.4338 ppb	00:23:38
2	Zn 213.857†	829.8	-36.6	-0.3717 ug/L	-0.3717 ppb	00:23:58
2	SiO2†	636.4	175.5	12.564 ug/L	12.564 ppb	00:24:33
3	Sc Radial	4943.3	4943.3	103 %		00:22:46
3	Y RADIAL	5298.4	5298.4	103.3 %		00:22:46
3	Al 396.153Radial†	-22.4	-18.5	-14.822 ug/L	-14.822 ppb	00:22:46
3	Ca 317.933Radial†	12.7	-2.9	-4.8025 ug/L	-4.8025 ppb	00:23:06
3	Fe 238.204 Radial†	11.3	1.1	10.047 ug/L	10.047 ppb	00:23:06
3	K 766.490 Radial†	2875.5	-0.4	-0.0766 ug/L	-0.0766 ppb	00:22:46
3	Mg 279.077 IEC†	1.5	-0.1	-2.6843 ug/L	-2.6843 ppb	00:23:06
3	Na 589.592 Radial†	-1557.1	57.7	18.693 ug/L	18.693 ppb	00:22:46
3	Sr 421.552†	-10.7	-27.6	-0.1965 ug/L	-0.1965 ppb	00:22:46
3	Sc 361.383	830742.8	830742.8	102.07 %		00:24:03
3	Y 371.029	702703.1	702703.1	102.44 %		00:24:03
3	Ag 328.068†	355.9	67.1	0.3361 ug/L	0.3361 ppb	00:24:03
3	As 188.979†	-33.6	-14.1	-6.3221 ug/L	-6.3221 ppb	00:24:23
3	B 249.677†	-351.9	173.8	4.2296 ug/L	4.2296 ppb	00:24:23
3	Ba 233.527†	-8.0	-9.3	-0.0743 ug/L	-0.0743 ppb	00:24:23
3	Be 313.107†	-4294.5	104.9	0.0418 ug/L	0.0418 ppb	00:24:03
3	Cd 226.502†	-187.4	14.0	0.1637 ug/L	0.1637 ppb	00:24:23
3	Co 228.616†	-86.5	-12.1	-0.2626 ug/L	-0.2626 ppb	00:24:23
3	Cr 267.716†	83.1	-14.3	-0.1677 ug/L	-0.1677 ppb	00:24:23
3	Cu 324.752†	6274.0	-151.5	-0.4838 ug/L	-0.4838 ppb	00:24:03
3	Mn 257.610†	418.2	5.4	0.0074 ug/L	0.0074 ppb	00:24:23
3	Mo 202.031†	21.9	2.2	0.1633 ug/L	0.1633 ppb	00:24:23
3	Ni 231.604†	102.0	24.8	0.6536 ug/L	0.6536 ppb	00:24:23
3	P 214.914†	208.3	-23.8	-15.089 ug/L	-15.089 ppb	00:24:23
3	Pb 220.353†	-54.3	11.4	1.4562 ug/L	1.4562 ppb	00:24:23
3	S 181.975 Axial†	39.5	-7.8	-11.601 ug/L	-11.601 ppb	00:24:23
3	Sb 206.836†	40.9	7.4	2.7134 ug/L	2.7134 ppb	00:24:23
3	Se 196.026†	-24.7	6.2	4.1906 ug/L	4.1906 ppb	00:24:23
3	Si 251.611†	616.2	157.8	5.3182 ug/L	5.3182 ppb	00:24:23
3	Sn 189.927†	9.4	3.1	0.5669 ug/L	0.5669 ppb	00:24:23
3	Ti 334.940†	-1395.0	20.4	0.0340 ug/L	0.0340 ppb	00:24:03
3	Tl 190.801†	-36.8	7.8	2.5083 ug/L	2.5083 ppb	00:24:23
3	U 409.014†	-2039.7	42.7	1.3627 ug/L	1.3627 ppb	00:24:03
3	V 292.402†	-1292.3	141.1	1.0213 ug/L	1.0213 ppb	00:24:03
3	Zn 213.857†	866.3	-11.7	-0.1209 ug/L	-0.1209 ppb	00:24:23
3	SiO2†	634.5	165.4	11.856 ug/L	11.856 ppb	00:24:38

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	826668.1	101.57	%	0.736				0.72%
Sc Radial	4968.4	104	%	0.7				0.64%
Y 371.029	698363.5	101.81	%	0.791				0.78%
Y RADIAL	5330.6	103.9	%	1.01				0.97%
Ag 328.068†	53.8	0.2713	ug/L	0.11356	0.2713	ppb	0.11356	41.87%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-12.0	-9.6599	ug/L	6.60498	-9.6599	ppb	6.60498	68.38%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-6.6	-2.9625	ug/L	4.07581	-2.9625	ppb	4.07581	137.58%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	154.4	3.7546	ug/L	0.43087	3.7546	ppb	0.43087	11.48%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-7.7	-0.0621	ug/L	0.02490	-0.0621	ppb	0.02490	40.11%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	64.2	0.0259	ug/L	0.01550	0.0259	ppb	0.01550	59.89%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	1.4	2.3545	ug/L	6.20555	2.3545	ppb	6.20555	263.57%

```
   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              23.3      0.2723 ug/L       0.09447      0.2723 ppb        0.09447  34.69%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†              -7.4     -0.1610 ug/L       0.09996     -0.1610 ppb        0.09996  62.09%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†             -12.6     -0.1478 ug/L       0.18078     -0.1478 ppb        0.18078 122.35%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -139.0     -0.4437 ug/L       0.05998     -0.4437 ppb        0.05998  13.52%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        1.8      16.829 ug/L       10.5866      16.829 ppb       10.5866  62.91%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       -33.8     -6.7905 ug/L       5.91615     -6.7905 ppb        5.91615  87.12%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          -0.3     -8.8438 ug/L      43.01307     -8.8438 ppb       43.01307 486.36%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              13.1      0.0174 ug/L       0.00927      0.0174 ppb        0.00927  53.38%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               6.0      0.4436 ug/L       0.29622      0.4436 ppb        0.29622  66.78%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       99.8      32.341 ug/L       12.7684      32.341 ppb       12.7684  39.48%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              21.5      0.5662 ug/L       0.22432      0.5662 ppb        0.22432  39.62%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†              -16.0     -10.144 ug/L        4.2855     -10.144 ppb        4.2855  42.24%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              15.1      1.9271 ug/L       0.49332      1.9271 ppb        0.49332  25.60%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         -7.9     -11.808 ug/L        6.5730     -11.808 ppb        6.5730  55.67%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               3.5      1.2865 ug/L       1.93610      1.2865 ppb        1.93610 150.50%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              -3.7     -2.4446 ug/L       5.76662     -2.4446 ppb        5.76662 235.89%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†             171.5      5.7757 ug/L       0.51355      5.7757 ppb        0.51355   8.89%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†              -1.2     -0.2254 ug/L       1.07893     -0.2254 ppb        1.07893 478.61%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              -2.7     -0.0196 ug/L       0.29969     -0.0196 ppb        0.29969 >999.9%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              96.3      0.1656 ug/L       0.16346      0.1656 ppb        0.16346  98.68%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               7.0      2.2433 ug/L       1.35777      2.2433 ppb        1.35777  60.52%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               42.6      1.3574 ug/L       1.31918      1.3574 ppb        1.31918  97.19%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               98.4      0.7160 ug/L       0.29444      0.7160 ppb        0.29444  41.12%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†             -22.7     -0.2312 ug/L       0.12809     -0.2312 ppb        0.12809  55.42%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                   171.0      12.246 ug/L        0.3599      12.246 ppb         0.3599   2.94%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

ICPMS #6 Daily Performance Report

Sample ID: Sample
Sample Date/Time: Monday, January 11, 2010 23:20:35
Sample Description:
Method File: C:\elandata\Method\Daily2.mth
Dataset File: c:\elandata\Dataset\091212\Sample.251
Tuning File: c:\elandata\Tuning\default2.tun
Optimization File: c:\elandata\Optimize\default.dac
Dual Detector Mode: Pulse

Acq. Dead Time(ns): 35
Current Dead Time (ns): 35

Number of Replicates: 5

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Be	9.0	2768.1	2768.068	71.036	2.6
	Mg	24.0	69802.7	69802.742	915.546	1.3
	Co	58.9	48113.1	48113.089	408.939	0.8
	Rh	102.9	83606.7	83606.743	372.541	0.4
	In	114.9	99581.9	99581.885	627.615	0.6
	Pb	208.0	61853.2	61853.224	599.487	1.0
⌈>	Ba	137.9	96105.6	96105.580	872.981	0.9
⌊	Ba++	69.0	2358.6	0.025	0.000	1.1
⌈>	Ce	139.9	118452.7	118452.685	971.257	0.8
⌊	CeO	155.9	2554.5	0.022	0.000	1.6
	Bkgd	220.0	25.6	25.600	2.275	8.9

Current Optimization File Data

Current Value	Description
0.83	Nebulizer Gas Flow
13.25	Lens Voltage
1450.00	ICP RF Power
-1781.25	Analog Stage Voltage
900.00	Pulse Stage Voltage
30.00	Discriminator Threshold
-6.00	AC Rod Offset

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	17	9.8	4729.4
Co	59	17	10.5	70359.8
In	115	17	11.8	118105.5

ICPMS #6 Instrument Tuning Report

File Name: default2.tun
File Path: c:\elandata\Tuning

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Pk. Width
He	3.0	3.0	578	2080	0.651
Be	9.0	9.0	2028	2080	0.663
Mg	24.0	24.0	5686	2120	0.623
Mg	25.0	24.9	5905	2080	0.697
Mg	26.0	26.0	6162	2120	0.691
Co	58.9	59.0	14181	2170	0.632
Rh	102.9	102.8	24853	2230	0.695
In	114.9	114.8	27774	2260	0.682
Ce	139.9	139.9	33843	2280	0.733
Pb	206.0	206.0	49948	2430	0.679
Pb	207.0	207.0	50135	2385	0.643
Pb	208.0	208.0	50451	2430	0.689
U	238.1	238.0	57731	2470	0.673

Report Date/Time: Monday, January 11, 2010 23:19:39

ICPMS#6 - Summary Report

Sample ID: Blank
Sample Date/Time: Tuesday, January 12, 2010 11:19:58
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 noirs thtimozr.mth
Dataset File: C:\elandata\Dataset\100111\Blank.113

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7		ug/L		106	
	Be	9		ug/L		12	
	B	11		ug/L		791	
	Na	23		ug/L		20682	
	Mg	24		ug/L		3334	
	Al	27		ug/L		7335	
	P	31		ug/L		6990	
	K	39		ug/L		618456	
	Ca	43		ug/L		473	
>	Sc	45		ug/L		1187102	
	V	51		ug/L		1868	
	Cr	52		ug/L		2071	
	Cr	53		ug/L		115098	
	Mn	55		ug/L		1646	
	Fe	57		ug/L		4399	
	Co	59		ug/L		193	
	Ni	60		ug/L		73	
	Cu	63		ug/L		349	
	Cu	65		ug/L		96	
	Zn	66		ug/L		184	
	Zn	67		ug/L		10133	
	Zn	68		ug/L		924	
>	Ge	74		ug/L		260902	
	As	75		ug/L		366	
	Se	77		ug/L		5122	
	Se	82		ug/L		-23	
	Kr	83		ug/L		93	
	Sr	88		ug/L		162	
	Y	89		ug/L		84	
	Ag	107		ug/L		55	
	Cd	111		ug/L		22	
	Cd	114		ug/L		31	
>	In	115		ug/L		135688	
	Sn	120		ug/L		217	
	Sb	121		ug/L		360	
	Sb	123		ug/L		297	
	Ba	135		ug/L		32	
	Ba	137		ug/L		50	
	Ho	165		ug/L		17	
>	Lu	175		ug/L		195997	
	Tl	205		ug/L		649	
	Pb	208		ug/L		516	
	Bi	209		ug/L		18	
	U	238		ug/L		171	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	0.9999
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	0.9999
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115					
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175					
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Tuesday, January 12, 2010 11:25:52
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 nolrs thtimozr.mth
Dataset File: C:\elandata\Dataset\100111\Standard 1.114

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	10.000	ug/L	0.957	13060	0.011
	Be	9	10.000	ug/L	1.492	4958	0.004
	B	11	20.000	ug/L	1.280	9061	0.007
	Na	23	1000.000	ug/L	5.635	4865431	4.058
	Mg	24	1000.000	ug/L	6.867	3173090	2.654
	Al	27	1000.000	ug/L	6.859	4307709	3.601
	P	31	1000.000	ug/L	0.972	219306	0.178
	K	39	1000.000	ug/L	2.975	5923646	4.440
	Ca	43	1000.000	ug/L	2.769	11198	0.009
>	Sc	45		ug/L		1194003	1194003.004
	V	51	10.000	ug/L	2.027	44708	0.036
	Cr	52	10.000	ug/L	0.806	40664	0.032
	Cr	53		ug/L		100158	-0.013
	Mn	55	10.000	ug/L	0.189	63469	0.052
	Fe	57	1000.000	ug/L	1.260	126731	0.102
	Co	59	10.000	ug/L	0.404	45240	0.038
	Ni	60	10.000	ug/L	0.673	9476	0.008
	Cu	63		ug/L		21996	0.018
	Cu	65	10.000	ug/L	1.331	10357	0.009
	Zn	66	10.000	ug/L	0.492	7181	0.027
	Zn	67		ug/L		8733	-0.005
	Zn	68		ug/L		5633	0.018
>	Ge	74		ug/L		257434	257434.138
	As	75	10.000	ug/L	3.745	7842	0.029
	Se	77		ug/L		4602	-0.002
	Se	82	10.000	ug/L	0.638	655	0.003
	Kr	83		ug/L		92	0.000
	Sr	88	10.000	ug/L	0.127	85888	0.628
	Y	89		ug/L		75	-0.000
	Ag	107	10.000	ug/L	2.072	31778	0.233
	Cd	111	10.000	ug/L	1.912	7582	0.055
	Cd	114		ug/L		17638	0.129
>	In	115		ug/L		136427	136427.297
	Sn	120	10.000	ug/L	1.172	31202	0.227
	Sb	121	10.000	ug/L	12.039	24313	0.176
	Sb	123		ug/L		19048	0.137
	Ba	135		ug/L		7675	0.039
	Ba	137	10.000	ug/L	0.744	13510	0.069
	Ho	165		ug/L		14	-0.000
>	Lu	175		ug/L		193768	193768.251
	Tl	205	10.000	ug/L	1.052	67358	0.344
	Pb	208	10.000	ug/L	0.162	102482	0.526
	Bi	209		ug/L		56	0.000
	U	238	10.000	ug/L	1.383	102749	0.529

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115					
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175					
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Tuesday, January 12, 2010 11:31:44
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 nolrs thtimozr.mth
Dataset File: C:\elandata\Dataset\100111\Standard 2.115

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**99.964**	**ug/L**	2.001	120305	0.105
	Be	9	**99.993**	**ug/L**	0.337	47246	0.041
	B	11	**200.033**	**ug/L**	1.571	81615	0.070
	Na	23	**9999.518**	**ug/L**	2.151	46414989	40.385
	Mg	24	**9998.827**	**ug/L**	3.853	30136326	26.231
	Al	27	**9998.664**	**ug/L**	9.289	40830540	35.531
	P	31	**10002.139**	**ug/L**	4.136	2094378	1.817
	K	39	**10008.168**	**ug/L**	6.611	56178716	48.387
	Ca	43	**10001.746**	**ug/L**	0.613	105461	0.091
>	Sc	45		**ug/L**		1148663	1148663.372
	V	51	**100.059**	**ug/L**	0.406	439841	0.381
	Cr	52	**100.029**	**ug/L**	1.968	384134	0.333
	Cr	53		**ug/L**		139049	0.024
	Mn	55	**100.005**	**ug/L**	1.509	599497	0.521
	Fe	57	**9996.812**	**ug/L**	0.859	1144123	0.992
	Co	59	**99.996**	**ug/L**	0.928	431832	0.376
	Ni	60	**99.999**	**ug/L**	1.780	90392	0.079
	Cu	63		**ug/L**		208815	0.182
	Cu	65	**100.006**	**ug/L**	2.260	99428	0.086
	Zn	66	**100.004**	**ug/L**	0.642	68541	0.273
	Zn	67		**ug/L**		17900	0.033
	Zn	68		**ug/L**		49060	0.193
>	Ge	74		**ug/L**		250317	250316.774
	As	75	**100.012**	**ug/L**	2.660	74006	0.294
	Se	77		**ug/L**		9426	0.018
	Se	82	**100.053**	**ug/L**	3.528	6939	0.028
	Kr	83		**ug/L**		130	0.000
	Sr	88	**100.002**	**ug/L**	1.142	824533	6.296
	Y	89		**ug/L**		145	0.000
	Ag	107	**100.013**	**ug/L**	1.000	308784	2.358
	Cd	111	**100.020**	**ug/L**	1.314	74101	0.566
	Cd	114		**ug/L**		170540	1.302
>	In	115		**ug/L**		130947	130946.869
	Sn	120	**100.020**	**ug/L**	2.192	303771	2.319
	Sb	121	**100.129**	**ug/L**	4.869	264441	2.017
	Sb	123		**ug/L**		206304	1.574
	Ba	135		**ug/L**		75938	0.405
	Ba	137	**100.024**	**ug/L**	2.559	133524	0.712
	Ho	165		**ug/L**		26	0.000
>	Lu	175		**ug/L**		187561	187561.454
	Tl	205	**99.993**	**ug/L**	0.667	641814	3.419
	Pb	208	**99.988**	**ug/L**	1.910	975853	5.200
	Bi	209		**ug/L**		305	0.002
	U	238	**99.982**	**ug/L**	1.260	975913	5.202

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	0.9999
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115					
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175					
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Tuesday, January 12, 2010 11:37:37
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 noirs thtimozr.mth
Dataset File: C:\elandata\Dataset\100111\QC Std 1.116

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**47.604**	**ug/L**	1.320	58259	0.050
	Be	9	**49.223**	**ug/L**	0.490	23634	0.020
	B	11	**100.125**	**ug/L**	3.189	41888	0.035
	Na	23	**4394.238**	**ug/L**	7.927	20723885	17.747
	Mg	24	**4996.178**	**ug/L**	4.524	15295577	13.107
	Al	27	**4744.259**	**ug/L**	4.539	19679142	16.859
	P	31	**4724.570**	**ug/L**	1.140	1008491	0.858
	K	39	**4178.677**	**ug/L**	1.680	24182891	20.203
	Ca	43	**4726.275**	**ug/L**	2.064	50875	0.043
>	Sc	45		**ug/L**		1166977	1166977.181
	V	51	**48.959**	**ug/L**	1.146	219601	0.187
	Cr	52	**49.841**	**ug/L**	1.113	195498	0.166
	Cr	53		**ug/L**		131387	0.016
	Mn	55	**49.571**	**ug/L**	0.650	302734	0.258
	Fe	57	**4908.803**	**ug/L**	1.670	572969	0.487
	Co	59	**48.139**	**ug/L**	0.373	211315	0.181
	Ni	60	**49.905**	**ug/L**	0.697	45871	0.039
	Cu	63		**ug/L**		105121	0.090
	Cu	65	**49.706**	**ug/L**	0.376	50259	0.043
	Zn	66	**49.511**	**ug/L**	2.109	34302	0.135
	Zn	67		**ug/L**		13766	0.016
	Zn	68		**ug/L**		24604	0.094
>	Ge	74		**ug/L**		252364	252364.128
	As	75	**46.175**	**ug/L**	1.274	34651	0.136
	Se	77		**ug/L**		8037	0.012
	Se	82	**47.956**	**ug/L**	3.879	3344	0.013
	Kr	83		**ug/L**		104	0.000
	Sr	88	**50.393**	**ug/L**	1.065	424337	3.173
	Y	89		**ug/L**		82	-0.000
	Ag	107	**48.002**	**ug/L**	0.889	151355	1.132
	Cd	111	**48.546**	**ug/L**	0.648	36735	0.275
	Cd	114		**ug/L**		85402	0.639
>	In	115		**ug/L**		133696	133696.149
	Sn	120	**49.171**	**ug/L**	0.368	152602	1.140
	Sb	121	**49.575**	**ug/L**	5.481	133878	0.999
	Sb	123		**ug/L**		104646	0.781
	Ba	135		**ug/L**		37895	0.199
	Ba	137	**49.212**	**ug/L**	2.616	66733	0.350
	Ho	165		**ug/L**		24	0.000
>	Lu	175		**ug/L**		190544	190544.372
	Tl	205	**46.805**	**ug/L**	2.603	305369	1.600
	Pb	208	**49.255**	**ug/L**	3.669	488278	2.562
	Bi	209		**ug/L**		115	0.001
	U	238	**52.168**	**ug/L**	2.814	517120	2.714

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	0.9999
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7	95.209				
	Be	9	98.446				
	B	11	100.125				
	Na	23	87.885				
	Mg	24	99.924				
	Al	27	93.946				
	P	31	94.491				
	K	39	83.574				
	Ca	43	94.526				
>	Sc	45		98.3			
	V	51	97.919				
	Cr	52	99.681				
	Cr	53					
	Mn	55	99.143				
	Fe	57	98.176				
	Co	59	96.278				
	Ni	60	99.810				
	Cu	63					
	Cu	65	99.413				
	Zn	66	99.022				
	Zn	67					
	Zn	68					
>	Ge	74		96.7			
	As	75	92.350				
	Se	77					
	Se	82	95.911				
	Kr	83					
	Sr	88	100.786				
	Y	89					
	Ag	107	96.003				
	Cd	111	97.093				
	Cd	114					
>	In	115		98.5			
	Sn	120	98.342				
	Sb	121	99.150				
	Sb	123					
	Ba	135					
	Ba	137	98.425				
	Ho	165					
>	Lu	175		97.2			
	Tl	205	93.610				
	Pb	208	98.511				
	Bi	209					
	U	238	104.336				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 1	Na	23	ICV is out of limits (+/- 10%)
QC Std 1	K	39	ICV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Tuesday, January 12, 2010 11:43:32
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 nolrs thtimozr.mth
Dataset File: C:\elandata\Dataset\100111\QC Std 2.117

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	-0.004	ug/L	60.170	103	-0.000
	Be	9	0.002	ug/L	108.179	13	0.000
	B	11	2.102	ug/L	22.384	1691	0.001
	Na	23	1.256	ug/L	91.902	27026	0.005
	Mg	24	0.624	ug/L	147.955	5335	0.002
	Al	27	-0.335	ug/L	251.151	6002	-0.001
	P	31	-1.015	ug/L	188.726	6859	-0.000
	K	39	-7.924	ug/L	98.297	580606	-0.038
	Ca	43	-2.690	ug/L	97.485	450	-0.000
>	Sc	45		ug/L		1203147	1203147.454
	V	51	-0.205	ug/L	172.463	943	-0.001
	Cr	52	0.589	ug/L	2.247	4456	0.002
	Cr	53		ug/L		123796	0.006
	Mn	55	-0.039	ug/L	22.408	1425	-0.000
	Fe	57	5.207	ug/L	41.551	5079	0.001
	Co	59	0.007	ug/L	47.631	226	0.000
	Ni	60	0.002	ug/L	281.268	76	0.000
	Cu	63		ug/L		362	0.000
	Cu	65	0.006	ug/L	41.419	104	0.000
	Zn	66	-0.001	ug/L	1118.168	186	-0.000
	Zn	67		ug/L		9742	-0.002
	Zn	68		ug/L		897	-0.000
>	Ge	74		ug/L		265322	265321.914
	As	75	-0.440	ug/L	26.493	28	-0.001
	Se	77		ug/L		6422	0.005
	Se	82	0.015	ug/L	998.557	-22	0.000
	Kr	83		ug/L		87	-0.000
	Sr	88	0.002	ug/L	71.523	186	0.000
	Y	89		ug/L		57	-0.000
	Ag	107	-0.001	ug/L	139.348	52	-0.000
	Cd	111	-0.001	ug/L	2781.754	22	-0.000
	Cd	114		ug/L		41	0.000
>	In	115		ug/L		140571	140570.953
	Sn	120	0.092	ug/L	11.819	524	0.002
	Sb	121	0.937	ug/L	21.441	3029	0.019
	Sb	123		ug/L		2443	0.015
	Ba	135		ug/L		28	-0.000
	Ba	137	-0.003	ug/L	87.758	47	-0.000
	Ho	165		ug/L		18	0.000
>	Lu	175		ug/L		199711	199711.060
	Tl	205	0.232	ug/L	15.049	2241	0.008
	Pb	208	-0.001	ug/L	195.980	512	-0.000
	Bi	209		ug/L		18	-0.000
	U	238	0.065	ug/L	26.405	847	0.003

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	0.9999
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		101.4			
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		101.7			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		103.6			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		101.9			
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Tuesday, January 12, 2010 11:49:27
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 noirs thtimozr.mth
Dataset File: C:\elandata\Dataset\100111\QC Std 3.118

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**10.917**	**ug/L**	1.548	13524	0.011
	Be	9	**0.528**	**ug/L**	6.214	267	0.000
	B	11	**16.601**	**ug/L**	1.217	7643	0.006
	Na	23	**269.611**	**ug/L**	6.294	1298940	1.089
	Mg	24	**17.689**	**ug/L**	11.268	57784	0.046
	Al	27	**32.774**	**ug/L**	16.031	144068	0.116
	P	31	**49.337**	**ug/L**	1.693	17439	0.009
	K	39	**298.743**	**ug/L**	4.575	2307838	1.444
	Ca	43	**209.698**	**ug/L**	1.419	2719	0.002
>	Sc	45		**ug/L**		1174276	1174276.068
	V	51	**10.888**	**ug/L**	0.553	50577	0.041
	Cr	52	**11.246**	**ug/L**	1.171	45974	0.037
	Cr	53		**ug/L**		105839	-0.007
	Mn	55	**5.697**	**ug/L**	0.843	36451	0.030
	Fe	57	**115.752**	**ug/L**	2.361	17846	0.011
	Co	59	**1.121**	**ug/L**	2.198	5136	0.004
	Ni	60	**2.277**	**ug/L**	3.738	2175	0.002
	Cu	63		**ug/L**		2861	0.002
	Cu	65	**1.232**	**ug/L**	2.405	1346	0.001
	Zn	66	**11.278**	**ug/L**	1.053	8075	0.031
	Zn	67		**ug/L**		8500	-0.006
	Zn	68		**ug/L**		6288	0.021
>	Ge	74		**ug/L**		256309	256309.466
	As	75	**5.339**	**ug/L**	10.027	4388	0.016
	Se	77		**ug/L**		4997	-0.000
	Se	82	**5.414**	**ug/L**	7.674	363	0.002
	Kr	83		**ug/L**		89	-0.000
	Sr	88	**11.513**	**ug/L**	1.484	99088	0.725
	Y	89		**ug/L**		53	-0.000
	Ag	107	**1.018**	**ug/L**	1.483	3330	0.024
	Cd	111	**1.119**	**ug/L**	3.824	886	0.006
	Cd	114		**ug/L**		1960	0.014
>	In	115		**ug/L**		136492	136491.799
	Sn	120	**5.133**	**ug/L**	1.481	16458	0.119
	Sb	121	**2.697**	**ug/L**	12.405	7776	0.054
	Sb	123		**ug/L**		5912	0.041
	Ba	135		**ug/L**		1721	0.009
	Ba	137	**2.162**	**ug/L**	2.782	3007	0.015
	Ho	165		**ug/L**		18	0.000
>	Lu	175		**ug/L**		192363	192363.071
	Tl	205	**1.134**	**ug/L**	0.966	8097	0.039
	Pb	208	**2.221**	**ug/L**	0.837	22727	0.116
	Bi	209		**ug/L**		26	0.000
	U	238	**0.237**	**ug/L**	2.102	2545	0.012

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	0.9999
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7	109.167				
	Be	9	105.514				
	B	11	110.675				
	Na	23	107.844				
	Mg	24	117.925				
	Al	27	109.245				
	P	31	98.673				
	K	39	99.581				
	Ca	43	104.849				
>	Sc	45		98.9			
	V	51	108.880				
	Cr	52	112.464				
	Cr	53					
	Mn	55	113.936				
	Fe	57	115.752				
	Co	59	112.051				
	Ni	60	113.852				
	Cu	63					
	Cu	65	123.205				
	Zn	66	112.777				
	Zn	67					
	Zn	68					
>	Ge	74		98.2			
	As	75	106.786				
	Se	77					
	Se	82	108.282				
	Kr	83					
	Sr	88	115.126				
	Y	89					
	Ag	107	101.777				
	Cd	111	111.927				
	Cd	114					
>	In	115		100.6			
	Sn	120	102.657				
	Sb	121	89.891				
	Sb	123					
	Ba	135					
	Ba	137	108.088				
	Ho	165					
>	Lu	175		98.1			
	Tl	205	113.433				
	Pb	208	111.050				
	Bi	209					
	U	238	118.720				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Tuesday, January 12, 2010 11:55:20
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 noirs thtimozr.mth
Dataset File: C:\elandata\Dataset\100111\QC Std 4.119

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.208**	ug/L	5.965	342	0.000
	Be	9	**0.061**	ug/L	17.987	39	0.000
	B	11	**0.843**	ug/L	9.726	1071	0.000
	Na	23	**89556.240**	ug/L	1.548	402100375	361.687
	Mg	24	**99503.451**	ug/L	2.238	290233366	261.039
	Al	27	**95157.848**	ug/L	5.522	375850355	338.152
	P	31	**95373.888**	ug/L	2.218	19267668	17.327
	K	39	**83428.559**	ug/L	5.774	448871661	403.353
	Ca	43	**88252.325**	ug/L	1.210	897191	0.807
>	Sc	45		ug/L		1111747	1111747.407
	V	51	**0.104**	ug/L	267.185	2190	0.000
	Cr	52	**2.760**	ug/L	1.833	12148	0.009
	Cr	53		ug/L		84601	-0.021
	Mn	55	**5.534**	ug/L	2.370	33569	0.029
	Fe	57	**92073.055**	ug/L	1.006	10165595	9.140
	Co	59	**0.295**	ug/L	3.424	1415	0.001
	Ni	60	**3.052**	ug/L	2.305	2736	0.002
	Cu	63		ug/L		5500	0.005
	Cu	65	**3.500**	ug/L	2.254	3455	0.003
	Zn	66	**4.053**	ug/L	2.732	2812	0.011
	Zn	67		ug/L		6811	-0.010
	Zn	68		ug/L		1119	0.001
>	Ge	74		ug/L		238791	238790.640
	As	75	**-0.611**	ug/L	54.335	-95	-0.002
	Se	77		ug/L		6166	0.006
	Se	82	**-1.463**	ug/L	8.887	-118	-0.000
	Kr	83		ug/L		236	0.001
	Sr	88	**1.121**	ug/L	2.059	9184	0.071
	Y	89		ug/L		300	0.002
	Ag	107	**0.256**	ug/L	36.396	825	0.006
	Cd	111	**1.071**	ug/L	36.936	798	0.006
	Cd	114		ug/L		5072	0.039
>	In	115		ug/L		127915	127915.499
	Sn	120	**0.115**	ug/L	1.827	546	0.003
	Sb	121	**0.226**	ug/L	26.507	922	0.005
	Sb	123		ug/L		726	0.003
	Ba	135		ug/L		611	0.003
	Ba	137	**0.757**	ug/L	4.512	1011	0.005
	Ho	165		ug/L		447	0.002
>	Lu	175		ug/L		179109	179108.758
	Tl	205	**0.024**	ug/L	11.065	737	0.001
	Pb	208	**0.176**	ug/L	3.918	2109	0.009
	Bi	209		ug/L		300	0.002
	U	238	**-0.005**	ug/L	23.332	112	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	0.9999
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23	89.556				
	Mg	24	99.503				
	Al	27	95.158				
	P	31	95.374				
	K	39	83.429				
	Ca	43	88.252				
>	Sc	45			93.7		
	V	51					
	Cr	52	74.607				
	Cr	53					
	Mn	55	95.420				
	Fe	57	92.073				
	Co	59	118.135				
	Ni	60	113.031				
	Cu	63					
	Cu	65	120.694				
	Zn	66	112.579				
	Zn	67					
	Zn	68					
>	Ge	74			91.5		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88	93.445				
	Y	89					
	Ag	107					
	Cd	111	267.862				
	Cd	114					
>	In	115			94.3		
	Sn	120					
	Sb	121	225.713				
	Sb	123					
	Ba	135					
	Ba	137	113.048				
	Ho	165					
>	Lu	175			91.4		
	Tl	205					
	Pb	208	87.893				
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Tuesday, January 12, 2010 12:01:14
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 noirs thtimozr.mth
Dataset File: C:\elandata\Dataset\100111\QC Std 5.120

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**18.165**	**ug/L**	0.990	20795	0.019
	Be	9	**18.614**	**ug/L**	1.086	8344	0.008
	B	11	**18.637**	**ug/L**	2.805	7864	0.007
	Na	23	**88774.817**	**ug/L**	2.939	390374483	358.531
	Mg	24	**99736.947**	**ug/L**	4.762	284754034	261.651
	Al	27	**93618.042**	**ug/L**	3.835	362065686	332.680
	P	31	**97094.749**	**ug/L**	0.923	19207237	17.639
	K	39	**84186.030**	**ug/L**	6.794	443663039	407.015
	Ca	43	**89401.314**	**ug/L**	0.855	889872	0.817
>	Sc	45		**ug/L**		1088563	1088563.402
	V	51	**20.606**	**ug/L**	0.539	87200	0.079
	Cr	52	**22.716**	**ug/L**	0.622	84144	0.076
	Cr	53		**ug/L**		88587	-0.016
	Mn	55	**25.345**	**ug/L**	0.542	145118	0.132
	Fe	57	**94516.573**	**ug/L**	3.778	10215425	9.383
	Co	59	**19.867**	**ug/L**	2.303	81442	0.075
	Ni	60	**22.450**	**ug/L**	2.440	19283	0.018
	Cu	63		**ug/L**		41581	0.038
	Cu	65	**22.632**	**ug/L**	1.647	21393	0.020
	Zn	66	**22.987**	**ug/L**	1.471	14845	0.063
	Zn	67		**ug/L**		8619	-0.002
	Zn	68		**ug/L**		9644	0.038
>	Ge	74		**ug/L**		233841	233840.891
	As	75	**20.752**	**ug/L**	1.959	14613	0.061
	Se	77		**ug/L**		6772	0.009
	Se	82	**19.368**	**ug/L**	3.423	1239	0.005
	Kr	83		**ug/L**		218	0.001
	Sr	88	**21.524**	**ug/L**	0.821	170654	1.355
	Y	89		**ug/L**		287	0.002
	Ag	107	**19.066**	**ug/L**	1.237	56604	0.449
	Cd	111	**19.224**	**ug/L**	1.499	13703	0.109
	Cd	114		**ug/L**		35856	0.285
>	In	115		**ug/L**		125818	125818.331
	Sn	120	**19.984**	**ug/L**	0.459	58483	0.463
	Sb	121	**20.873**	**ug/L**	0.431	53243	0.421
	Sb	123		**ug/L**		41404	0.327
	Ba	135		**ug/L**		14822	0.083
	Ba	137	**20.563**	**ug/L**	1.506	25998	0.146
	Ho	165		**ug/L**		437	0.002
>	Lu	175		**ug/L**		177409	177408.986
	Tl	205	**17.325**	**ug/L**	2.489	105683	0.592
	Pb	208	**19.072**	**ug/L**	1.230	176432	0.992
	Bi	209		**ug/L**		416	0.002
	U	238	**21.448**	**ug/L**	1.566	198128	1.116

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	0.9999
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7	90.826				
	Be	9	93.070				
	B	11	93.184				
	Na	23	88.775				
	Mg	24	99.737				
	Al	27	93.618				
	P	31	97.095				
	K	39	84.186				
	Ca	43	89.401				
>	Sc	45		91.7			
	V	51	103.028				
	Cr	52	95.847				
	Cr	53					
	Mn	55	98.235				
	Fe	57	94.517				
	Co	59	98.107				
	Ni	60	98.899				
	Cu	63					
	Cu	65	98.832				
	Zn	66	97.404				
	Zn	67					
	Zn	68					
>	Ge	74		89.6			
	As	75	103.758				
	Se	77					
	Se	82	96.839				
	Kr	83					
	Sr	88	101.530				
	Y	89					
	Ag	107	95.328				
	Cd	111	94.237				
	Cd	114					
>	In	115		92.7			
	Sn	120	99.918				
	Sb	121	103.844				
	Sb	123					
	Ba	135					
	Ba	137	99.481				
	Ho	165					
>	Lu	175		90.5			
	Tl	205	86.624				
	Pb	208	94.417				
	Bi	209					
	U	238	107.241				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Tuesday, January 12, 2010 12:07:08
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 noirs thtimozr.mth
Dataset File: C:\elandata\Dataset\100111\QC Std 6.121

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**44.341**	**ug/L**	2.474	53670	0.046
	Be	9	**46.622**	**ug/L**	0.969	22138	0.019
	B	11	**91.597**	**ug/L**	0.266	37968	0.032
	Na	23	**4373.197**	**ug/L**	17.548	20400711	17.662
	Mg	24	**4850.085**	**ug/L**	2.351	14688248	12.724
	Al	27	**4620.320**	**ug/L**	2.805	18956647	16.419
	P	31	**4743.946**	**ug/L**	0.297	1001453	0.862
	K	39	**3997.264**	**ug/L**	6.337	22906895	19.326
	Ca	43	**4696.906**	**ug/L**	1.537	50005	0.043
>	Sc	45		**ug/L**		1154101	1154100.799
	V	51	**49.703**	**ug/L**	2.287	220441	0.189
	Cr	52	**50.181**	**ug/L**	1.432	194646	0.167
	Cr	53		**ug/L**		128807	0.015
	Mn	55	**49.351**	**ug/L**	0.687	298076	0.257
	Fe	57	**4949.525**	**ug/L**	1.774	571333	0.491
	Co	59	**48.731**	**ug/L**	0.768	211552	0.183
	Ni	60	**50.152**	**ug/L**	0.738	45588	0.039
	Cu	63		**ug/L**		104278	0.090
	Cu	65	**50.105**	**ug/L**	0.410	50103	0.043
	Zn	66	**48.744**	**ug/L**	0.643	33738	0.133
	Zn	67		**ug/L**		13297	0.014
	Zn	68		**ug/L**		24263	0.093
>	Ge	74		**ug/L**		252087	252086.897
	As	75	**46.240**	**ug/L**	1.921	34664	0.136
	Se	77		**ug/L**		8584	0.014
	Se	82	**47.547**	**ug/L**	2.123	3311	0.013
	Kr	83		**ug/L**		82	-0.000
	Sr	88	**50.151**	**ug/L**	2.190	418647	3.157
	Y	89		**ug/L**		84	0.000
	Ag	107	**48.923**	**ug/L**	0.196	152933	1.153
	Cd	111	**47.732**	**ug/L**	0.935	35809	0.270
	Cd	114		**ug/L**		83323	0.628
>	In	115		**ug/L**		132547	132547.343
	Sn	120	**49.187**	**ug/L**	1.968	151339	1.140
	Sb	121	**48.206**	**ug/L**	5.981	129069	0.971
	Sb	123		**ug/L**		101073	0.760
	Ba	135		**ug/L**		37637	0.203
	Ba	137	**50.639**	**ug/L**	2.260	66676	0.360
	Ho	165		**ug/L**		22	0.000
>	Lu	175		**ug/L**		184958	184957.589
	Tl	205	**47.616**	**ug/L**	1.657	301663	1.628
	Pb	208	**49.762**	**ug/L**	1.051	479133	2.588
	Bi	209		**ug/L**		107	0.000
	U	238	**52.564**	**ug/L**	1.838	505939	2.735

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	0.9999
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7	88.682				
	Be	9	93.243				
	B	11	91.597				
	Na	23	87.464				
	Mg	24	97.002				
	Al	27	91.491				
	P	31	94.879				
	K	39	79.945				
	Ca	43	93.938				
>	Sc	45		97.2			
	V	51	99.405				
	Cr	52	100.361				
	Cr	53					
	Mn	55	98.702				
	Fe	57	98.991				
	Co	59	97.463				
	Ni	60	100.303				
	Cu	63					
	Cu	65	100.210				
	Zn	66	97.488				
	Zn	67					
	Zn	68					
>	Ge	74		96.6			
	As	75	92.481				
	Se	77					
	Se	82	95.094				
	Kr	83					
	Sr	88	100.302				
	Y	89					
	Ag	107	97.846				
	Cd	111	95.465				
	Cd	114					
>	In	115		97.7			
	Sn	120	98.375				
	Sb	121	96.412				
	Sb	123					
	Ba	135					
	Ba	137	101.277				
	Ho	165					
>	Lu	175		94.4			
	Tl	205	95.233				
	Pb	208	99.525				
	Bi	209					
	U	238	105.128				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 6	Li	7	CCV is out of limits (+/- 10%)
QC Std 6	Na	23	CCV is out of limits (+/- 10%)
QC Std 6	K	39	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Tuesday, January 12, 2010 12:13:03
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 noirs thtimozr.mth
Dataset File: C:\elandata\Dataset\100111\QC Std 7.122

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.040**	ug/L	35.888	157	0.000
	Be	9	**0.004**	ug/L	53.352	14	0.000
	B	11	**1.256**	ug/L	35.686	1330	0.000
	Na	23	**2.921**	ug/L	28.361	35043	0.012
	Mg	24	**0.731**	ug/L	50.411	5668	0.002
	Al	27	**0.530**	ug/L	128.137	9670	0.002
	P	31	**-2.011**	ug/L	53.828	6624	-0.000
	K	39	**2.084**	ug/L	367.027	636934	0.010
	Ca	43	**-1.661**	ug/L	69.219	460	-0.000
>	Sc	45		ug/L		1199294	1199293.648
	V	51	**-0.353**	ug/L	85.293	275	-0.001
	Cr	52	**0.304**	ug/L	8.229	3303	0.001
	Cr	53		ug/L		125572	0.008
	Mn	55	**-0.068**	ug/L	8.115	1238	-0.000
	Fe	57	**10.980**	ug/L	7.504	5752	0.001
	Co	59	**0.002**	ug/L	112.149	203	0.000
	Ni	60	**0.009**	ug/L	34.578	82	0.000
	Cu	63		ug/L		308	-0.000
	Cu	65	**0.023**	ug/L	10.954	121	0.000
	Zn	66	**-0.016**	ug/L	123.050	176	-0.000
	Zn	67		ug/L		8947	-0.005
	Zn	68		ug/L		824	-0.000
>	Ge	74		ug/L		267511	267511.234
	As	75	**-0.417**	ug/L	75.776	48	-0.001
	Se	77		ug/L		7417	0.008
	Se	82	**0.070**	ug/L	456.610	-18	0.000
	Kr	83		ug/L		86	-0.000
	Sr	88	**-0.001**	ug/L	102.113	156	-0.000
	Y	89		ug/L		50	-0.000
	Ag	107	**0.003**	ug/L	41.549	64	0.000
	Cd	111	**-0.008**	ug/L	72.653	16	-0.000
	Cd	114		ug/L		43	0.000
>	In	115		ug/L		138831	138831.097
	Sn	120	**0.067**	ug/L	9.240	438	0.002
	Sb	121	**0.722**	ug/L	26.006	2391	0.015
	Sb	123		ug/L		1946	0.012
	Ba	135		ug/L		39	0.000
	Ba	137	**0.007**	ug/L	100.712	59	0.000
	Ho	165		ug/L		20	0.000
>	Lu	175		ug/L		196177	196177.411
	Tl	205	**0.253**	ug/L	15.048	2347	0.009
	Pb	208	**-0.003**	ug/L	61.892	485	-0.000
	Bi	209		ug/L		26	0.000
	U	238	**0.048**	ug/L	17.027	665	0.003

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	0.9999
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		101.0			
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		102.5			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		102.3			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		100.1			
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202004420
Sample Date/Time: Tuesday, January 12, 2010 12:18:59
Sample Type:
Sample Description: LANL 6020 MB
Number of Replicates: 3
Batch ID: 936805|2|rmj
Method File: c:\elandata\Method\6020 nolrs thtimozr.mth
Dataset File: C:\elandata\Dataset\100111\1202004420.123

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**-0.019**	**ug/L**	39.427	93	-0.000
	Be	9	**-0.002**	**ug/L**	324.920	12	-0.000
	B	11	**0.012**	**ug/L**	816.647	901	0.000
	Na	23	**6.089**	**ug/L**	8.330	56445	0.025
	Mg	24	**1.581**	**ug/L**	42.214	9337	0.004
	Al	27	**2.037**	**ug/L**	45.784	18012	0.007
	P	31	**21.662**	**ug/L**	10.508	13199	0.004
	K	39	**-15.176**	**ug/L**	39.565	601077	-0.073
	Ca	43	**-0.651**	**ug/L**	859.096	527	-0.000
>	Sc	45		**ug/L**		1343330	1343329.559
	V	51	**0.204**	**ug/L**	110.147	3160	0.001
	Cr	52	**0.464**	**ug/L**	9.081	4416	0.002
	Cr	53		**ug/L**		96320	-0.025
	Mn	55	**0.127**	**ug/L**	5.574	2750	0.001
	Fe	57	**17.175**	**ug/L**	11.723	7267	0.002
	Co	59	**-0.004**	**ug/L**	88.239	201	-0.000
	Ni	60	**0.128**	**ug/L**	9.842	218	0.000
	Cu	63		**ug/L**		592	0.000
	Cu	65	**0.143**	**ug/L**	3.861	275	0.000
	Zn	66	**0.960**	**ug/L**	3.653	966	0.003
	Zn	67		**ug/L**		7037	-0.015
	Zn	68		**ug/L**		1265	0.001
>	Ge	74		**ug/L**		290427	290427.104
	As	75	**-0.646**	**ug/L**	55.248	-146	-0.002
	Se	77		**ug/L**		5053	-0.002
	Se	82	**0.216**	**ug/L**	47.609	-8	0.000
	Kr	83		**ug/L**		73	-0.000
	Sr	88	**0.021**	**ug/L**	11.289	390	0.001
	Y	89		**ug/L**		69	-0.000
	Ag	107	**0.023**	**ug/L**	20.703	147	0.001
	Cd	111	**0.086**	**ug/L**	45.495	101	0.000
	Cd	114		**ug/L**		28	-0.000
>	In	115		**ug/L**		156316	156315.806
	Sn	120	**0.088**	**ug/L**	11.560	568	0.002
	Sb	121	**0.071**	**ug/L**	44.290	638	0.001
	Sb	123		**ug/L**		506	0.001
	Ba	135		**ug/L**		253	0.001
	Ba	137	**0.248**	**ug/L**	5.546	437	0.002
	Ho	165		**ug/L**		18	-0.000
>	Lu	175		**ug/L**		216644	216643.889
	Tl	205	**0.171**	**ug/L**	25.014	1983	0.006
	Pb	208	**0.035**	**ug/L**	5.918	965	0.002
	Bi	209		**ug/L**		46	0.000
	U	238	**0.006**	**ug/L**	32.283	252	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	0.9999
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		113.2			
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		111.3			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		115.2			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		110.5			
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202004421
Sample Date/Time: Tuesday, January 12, 2010 12:30:51
Sample Type:
Sample Description: LANL 6020 LCS
Number of Replicates: 3
Batch ID: 936805|40|rmj
Method File: c:\elandata\Method\6020 nolrs thtimozr.mth
Dataset File: C:\elandata\Dataset\100111\1202004421.125

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**2.272**	**ug/L**	1.163	2960	0.002
	Be	9	**18.754**	**ug/L**	0.659	9261	0.008
	B	11	**38.728**	**ug/L**	3.192	17144	0.014
	Na	23	**230.464**	**ug/L**	4.208	1137259	0.931
	Mg	24	**1113.832**	**ug/L**	3.056	3507522	2.922
	Al	27	**3014.261**	**ug/L**	5.387	12854968	10.711
	P	31	**197.526**	**ug/L**	1.574	50098	0.036
	K	39	**991.067**	**ug/L**	10.183	6371262	4.792
	Ca	43	**2455.795**	**ug/L**	0.928	27396	0.022
>	Sc	45		**ug/L**		1199238	1199238.300
	V	51	**27.739**	**ug/L**	0.093	128670	0.106
	Cr	52	**62.757**	**ug/L**	0.730	252417	0.209
	Cr	53		**ug/L**		148785	0.027
	Mn	55	**137.459**	**ug/L**	1.526	859713	0.716
	Fe	57	**4190.036**	**ug/L**	0.477	503262	0.416
	Co	59	**24.137**	**ug/L**	0.763	108979	0.091
	Ni	60	**35.955**	**ug/L**	2.358	33979	0.028
	Cu	63		**ug/L**		96579	0.080
	Cu	65	**44.238**	**ug/L**	2.585	45973	0.038
	Zn	66	**145.235**	**ug/L**	1.754	103991	0.397
	Zn	67		**ug/L**		24506	0.055
	Zn	68		**ug/L**		73503	0.277
>	Ge	74		**ug/L**		261698	261697.653
	As	75	**25.349**	**ug/L**	3.501	19892	0.075
	Se	77		**ug/L**		10469	0.020
	Se	82	**67.867**	**ug/L**	2.070	4916	0.019
	Kr	83		**ug/L**		88	-0.000
	Sr	88	**58.585**	**ug/L**	0.266	507781	3.688
	Y	89		**ug/L**		27976	0.203
	Ag	107	**5.149**	**ug/L**	1.834	16762	0.121
	Cd	111	**14.950**	**ug/L**	2.037	11660	0.085
	Cd	114		**ug/L**		27278	0.198
>	In	115		**ug/L**		137622	137622.306
	Sn	120	**8.141**	**ug/L**	0.373	26192	0.189
	Sb	121	**16.893**	**ug/L**	0.957	47204	0.340
	Sb	123		**ug/L**		36403	0.262
	Ba	135		**ug/L**		38621	0.196
	Ba	137	**48.856**	**ug/L**	1.732	68396	0.348
	Ho	165		**ug/L**		1397	0.007
>	Lu	175		**ug/L**		196609	196608.970
	Tl	205	**27.593**	**ug/L**	3.336	186114	0.943
	Pb	208	**20.517**	**ug/L**	0.692	210318	1.067
	Bi	209		**ug/L**		1729	0.009
	U	238	**0.500**	**ug/L**	3.102	5283	0.026

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	0.9999
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		101.0			
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		100.3			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		101.4			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		100.3			
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Tuesday, January 12, 2010 12:36:46
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 nolrs thtimozr.mth
Dataset File: C:\elandata\Dataset\100111\QC Std 6.126

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**43.431**	**ug/L**	1.219	54469	0.045
	Be	9	**45.882**	**ug/L**	2.211	22573	0.019
	B	11	**93.786**	**ug/L**	3.538	40254	0.033
	Na	23	**4471.712**	**ug/L**	10.354	21604345	18.060
	Mg	24	**4854.918**	**ug/L**	0.409	15234041	12.736
	Al	27	**4685.487**	**ug/L**	0.888	19919066	16.650
	P	31	**4579.902**	**ug/L**	0.868	1002030	0.832
	K	39	**4332.219**	**ug/L**	4.188	25671069	20.945
	Ca	43	**4547.905**	**ug/L**	1.495	50183	0.042
>	Sc	45		**ug/L**		1195851	1195850.933
	V	51	**47.984**	**ug/L**	0.378	220573	0.183
	Cr	52	**48.545**	**ug/L**	1.245	195166	0.161
	Cr	53		**ug/L**		133996	0.015
	Mn	55	**47.840**	**ug/L**	1.445	299464	0.249
	Fe	57	**4867.292**	**ug/L**	0.230	582248	0.483
	Co	59	**47.769**	**ug/L**	0.433	214875	0.180
	Ni	60	**49.549**	**ug/L**	1.509	46668	0.039
	Cu	63		**ug/L**		104615	0.087
	Cu	65	**47.953**	**ug/L**	1.467	49687	0.041
	Zn	66	**47.303**	**ug/L**	0.507	33754	0.129
	Zn	67		**ug/L**		13536	0.013
	Zn	68		**ug/L**		24344	0.090
>	Ge	74		**ug/L**		259847	259846.685
	As	75	**45.936**	**ug/L**	2.404	35491	0.135
	Se	77		**ug/L**		8697	0.014
	Se	82	**45.741**	**ug/L**	1.559	3282	0.013
	Kr	83		**ug/L**		91	-0.000
	Sr	88	**47.163**	**ug/L**	0.979	413526	2.969
	Y	89		**ug/L**		77	-0.000
	Ag	107	**46.500**	**ug/L**	2.037	152659	1.096
	Cd	111	**45.031**	**ug/L**	1.398	35482	0.255
	Cd	114		**ug/L**		83546	0.600
>	In	115		**ug/L**		139215	139215.046
	Sn	120	**46.448**	**ug/L**	1.270	150104	1.077
	Sb	121	**47.313**	**ug/L**	6.739	133075	0.953
	Sb	123		**ug/L**		102991	0.738
	Ba	135		**ug/L**		37347	0.191
	Ba	137	**47.108**	**ug/L**	1.322	65471	0.335
	Ho	165		**ug/L**		29	0.000
>	Lu	175		**ug/L**		195200	195199.981
	Tl	205	**45.700**	**ug/L**	1.627	305587	1.562
	Pb	208	**46.582**	**ug/L**	2.544	473338	2.423
	Bi	209		**ug/L**		104	0.000
	U	238	**49.267**	**ug/L**	1.988	500475	2.563

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	0.9999
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7	86.861				
	Be	9	91.765				
	B	11	93.786				
	Na	23	89.434				
	Mg	24	97.098				
	Al	27	92.782				
	P	31	91.598				
	K	39	86.644				
	Ca	43	90.958				
>	Sc	45		100.7			
	V	51	95.968				
	Cr	52	97.090				
	Cr	53					
	Mn	55	95.681				
	Fe	57	97.346				
	Co	59	95.538				
	Ni	60	99.099				
	Cu	63					
	Cu	65	95.907				
	Zn	66	94.606				
	Zn	67					
	Zn	68					
>	Ge	74		99.6			
	As	75	91.871				
	Se	77					
	Se	82	91.482				
	Kr	83					
	Sr	88	94.326				
	Y	89					
	Ag	107	93.001				
	Cd	111	90.062				
	Cd	114					
>	In	115		102.6			
	Sn	120	92.895				
	Sb	121	94.627				
	Sb	123					
	Ba	135					
	Ba	137	94.217				
	Ho	165					
>	Lu	175		99.6			
	Tl	205	91.400				
	Pb	208	93.164				
	Bi	209					
	U	238	98.534				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 6	Li	7	CCV is out of limits (+/- 10%)
QC Std 6	Na	23	CCV is out of limits (+/- 10%)
QC Std 6	K	39	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Tuesday, January 12, 2010 12:42:40
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 nolrs thtimozr.mth
Dataset File: C:\elandata\Dataset\100111\QC Std 7.127

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	-0.009	ug/L	72.532	99	-0.000
	Be	9	0.005	ug/L	165.642	15	0.000
	B	11	1.392	ug/L	37.685	1434	0.000
	Na	23	0.080	ug/L	882.628	22017	0.000
	Mg	24	0.876	ug/L	21.317	6335	0.002
	Al	27	0.981	ug/L	79.152	12005	0.003
	P	31	-2.568	ug/L	10.817	6729	-0.000
	K	39	-9.905	ug/L	8.736	587157	-0.048
	Ca	43	-4.350	ug/L	82.847	445	-0.000
>	Sc	45		ug/L		1241149	1241148.836
	V	51	0.022	ug/L	2279.535	2064	0.000
	Cr	52	0.537	ug/L	4.079	4383	0.002
	Cr	53		ug/L		126388	0.005
	Mn	55	-0.073	ug/L	2.883	1250	-0.000
	Fe	57	3.331	ug/L	55.403	5009	0.000
	Co	59	0.001	ug/L	173.836	207	0.000
	Ni	60	0.002	ug/L	341.058	78	0.000
	Cu	63		ug/L		256	-0.000
	Cu	65	0.009	ug/L	85.161	110	0.000
	Zn	66	-0.031	ug/L	6.778	167	-0.000
	Zn	67		ug/L		9032	-0.005
	Zn	68		ug/L		810	-0.001
>	Ge	74		ug/L		270038	270037.729
	As	75	-0.715	ug/L	23.637	-189	-0.002
	Se	77		ug/L		7516	0.008
	Se	82	0.435	ug/L	56.788	9	0.000
	Kr	83		ug/L		74	-0.000
	Sr	88	0.000	ug/L	181.507	171	0.000
	Y	89		ug/L		48	-0.000
	Ag	107	0.001	ug/L	706.899	59	0.000
	Cd	111	-0.003	ug/L	400.600	21	-0.000
	Cd	114		ug/L		39	0.000
>	In	115		ug/L		142231	142231.295
	Sn	120	0.053	ug/L	21.811	403	0.001
	Sb	121	0.477	ug/L	33.077	1741	0.010
	Sb	123		ug/L		1342	0.007
	Ba	135		ug/L		36	0.000
	Ba	137	0.001	ug/L	961.775	52	0.000
	Ho	165		ug/L		21	0.000
>	Lu	175		ug/L		196854	196853.554
	Tl	205	0.556	ug/L	10.915	4390	0.019
	Pb	208	-0.006	ug/L	48.816	457	-0.000
	Bi	209		ug/L		25	0.000
	U	238	0.046	ug/L	30.127	640	0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	0.9999
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		104.6			
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		103.5			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		104.8			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		100.4			
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 243472001
Sample Date/Time: Tuesday, January 12, 2010 13:12:22
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 936805|2|rmj
Method File: c:\elandata\Method\6020 noirs thtimozr.mth
Dataset File: C:\elandata\Dataset\100111\243472001.132

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**41.862**	**ug/L**	1.201	58873	0.044
	Be	9	**1.729**	**ug/L**	4.802	967	0.001
	B	11	**1.268**	**ug/L**	5.413	1492	0.000
	Na	23	**897.930**	**ug/L**	2.164	4885788	3.626
	Mg	24	**873.884**	**ug/L**	12.563	3076773	2.293
	Al	27	**5455.481**	**ug/L**	8.333	25998934	19.387
	P	31	**234.132**	**ug/L**	1.648	64924	0.043
	K	39	**1475.752**	**ug/L**	6.406	10263196	7.135
	Ca	43	**1261.025**	**ug/L**	1.706	15988	0.012
>	Sc	45		**ug/L**		1340822	1340822.347
	V	51	**9.717**	**ug/L**	1.619	51763	0.037
	Cr	52	**4.012**	**ug/L**	1.933	20230	0.013
	Cr	53		**ug/L**		72991	-0.043
	Mn	55	**917.992**	**ug/L**	1.661	6408686	4.779
	Fe	57	**13953.245**	**ug/L**	0.912	1862207	1.385
	Co	59	**1.327**	**ug/L**	2.040	6904	0.005
	Ni	60	**2.622**	**ug/L**	3.902	2847	0.002
	Cu	63		**ug/L**		14901	0.011
	Cu	65	**5.995**	**ug/L**	3.506	7060	0.005
	Zn	66	**87.800**	**ug/L**	0.173	67501	0.240
	Zn	67		**ug/L**		16544	0.020
	Zn	68		**ug/L**		48560	0.169
>	Ge	74		**ug/L**		280660	280660.297
	As	75	**2.260**	**ug/L**	6.169	2261	0.007
	Se	77		**ug/L**		3115	-0.009
	Se	82	**0.773**	**ug/L**	6.299	35	0.000
	Kr	83		**ug/L**		182	0.000
	Sr	88	**8.207**	**ug/L**	0.938	77586	0.517
	Y	89		**ug/L**		1104507	7.372
	Ag	107	**0.158**	**ug/L**	6.538	619	0.004
	Cd	111	**1.044**	**ug/L**	7.474	909	0.006
	Cd	114		**ug/L**		208	0.001
>	In	115		**ug/L**		149815	149814.989
	Sn	120	**1.997**	**ug/L**	1.598	7175	0.046
	Sb	121	**0.199**	**ug/L**	5.330	998	0.004
	Sb	123		**ug/L**		783	0.003
	Ba	135		**ug/L**		44870	0.195
	Ba	137	**47.412**	**ug/L**	0.879	77504	0.337
	Ho	165		**ug/L**		53939	0.235
>	Lu	175		**ug/L**		229577	229576.946
	Tl	205	**0.173**	**ug/L**	10.093	2117	0.006
	Pb	208	**6.065**	**ug/L**	0.132	73018	0.315
	Bi	209		**ug/L**		223	0.001
	U	238	**2.445**	**ug/L**	1.566	29402	0.127

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	0.9999
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		112.9			
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		107.6			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		110.4			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		117.1			
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 243472002
Sample Date/Time: Tuesday, January 12, 2010 13:18:18
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 936805|2|rmj
Method File: c:\elandata\Method\6020 nolrs thtimozr.mth
Dataset File: C:\elandata\Dataset\100111\243472002.133

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**29.664**	**ug/L**	2.793	41837	0.031
	Be	9	**1.014**	**ug/L**	3.127	574	0.000
	B	11	**0.545**	**ug/L**	3.179	1153	0.000
	Na	23	**891.296**	**ug/L**	11.322	4860341	3.600
	Mg	24	**556.828**	**ug/L**	10.474	1966461	1.461
	Al	27	**3640.418**	**ug/L**	1.554	17388968	12.937
	P	31	**184.546**	**ug/L**	3.223	52954	0.034
	K	39	**1282.169**	**ug/L**	2.452	9027892	6.199
	Ca	43	**808.976**	**ug/L**	2.028	10470	0.007
>	Sc	45		**ug/L**		1343497	1343497.005
	V	51	**5.633**	**ug/L**	1.939	30960	0.021
	Cr	52	**2.061**	**ug/L**	1.442	11555	0.007
	Cr	53		**ug/L**		75131	-0.041
	Mn	55	**733.745**	**ug/L**	0.949	5133338	3.819
	Fe	57	**10617.628**	**ug/L**	1.159	1421085	1.054
	Co	59	**1.069**	**ug/L**	1.197	5618	0.004
	Ni	60	**1.992**	**ug/L**	2.839	2187	0.002
	Cu	63		**ug/L**		9278	0.007
	Cu	65	**3.688**	**ug/L**	0.203	4394	0.003
	Zn	66	**78.639**	**ug/L**	2.522	59706	0.215
	Zn	67		**ug/L**		15489	0.017
	Zn	68		**ug/L**		42582	0.150
>	Ge	74		**ug/L**		277134	277133.665
	As	75	**1.295**	**ug/L**	12.941	1444	0.004
	Se	77		**ug/L**		3276	-0.008
	Se	82	**0.805**	**ug/L**	15.826	37	0.000
	Kr	83		**ug/L**		149	0.000
	Sr	88	**4.907**	**ug/L**	3.297	45857	0.309
	Y	89		**ug/L**		931596	6.298
	Ag	107	**0.132**	**ug/L**	6.176	521	0.003
	Cd	111	**0.867**	**ug/L**	8.497	749	0.005
	Cd	114		**ug/L**		138	0.001
>	In	115		**ug/L**		147925	147924.717
	Sn	120	**2.381**	**ug/L**	2.096	8398	0.055
	Sb	121	**0.110**	**ug/L**	3.622	720	0.002
	Sb	123		**ug/L**		582	0.002
	Ba	135		**ug/L**		39086	0.175
	Ba	137	**43.542**	**ug/L**	1.957	69219	0.310
	Ho	165		**ug/L**		45476	0.204
>	Lu	175		**ug/L**		223265	223265.074
	Tl	205	**0.124**	**ug/L**	7.560	1687	0.004
	Pb	208	**6.580**	**ug/L**	1.436	76993	0.342
	Bi	209		**ug/L**		160	0.001
	U	238	**2.191**	**ug/L**	0.204	25648	0.114

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	0.9999
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		113.2			
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		106.2			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		109.0			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		113.9			
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 243472003
Sample Date/Time: Tuesday, January 12, 2010 13:24:15
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 936805|2|rmj
Method File: c:\elandata\Method\6020 noirs thtimozr.mth
Dataset File: C:\elandata\Dataset\100111\243472003.134

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**44.701**	**ug/L**	1.474	63384	0.047
	Be	9	**1.266**	**ug/L**	6.416	717	0.001
	B	11	**0.774**	**ug/L**	7.147	1269	0.000
	Na	23	**1329.885**	**ug/L**	3.866	7285423	5.371
	Mg	24	**817.295**	**ug/L**	1.489	2902869	2.144
	Al	27	**5122.318**	**ug/L**	8.530	24603018	18.203
	P	31	**229.194**	**ug/L**	2.105	64247	0.042
	K	39	**2401.772**	**ug/L**	1.625	16404836	11.612
	Ca	43	**732.458**	**ug/L**	3.655	9588	0.007
>	Sc	45		**ug/L**		1352015	1352015.353
	V	51	**6.983**	**ug/L**	2.243	38103	0.027
	Cr	52	**3.694**	**ug/L**	1.769	18970	0.012
	Cr	53		**ug/L**		74092	-0.042
	Mn	55	**873.016**	**ug/L**	3.749	6144228	4.544
	Fe	57	**11320.500**	**ug/L**	2.706	1524111	1.124
	Co	59	**1.182**	**ug/L**	1.593	6224	0.004
	Ni	60	**2.673**	**ug/L**	1.231	2925	0.002
	Cu	63		**ug/L**		11410	0.008
	Cu	65	**4.640**	**ug/L**	1.751	5534	0.004
	Zn	66	**79.998**	**ug/L**	1.419	60434	0.218
	Zn	67		**ug/L**		15688	0.018
	Zn	68		**ug/L**		42750	0.152
>	Ge	74		**ug/L**		275704	275703.793
	As	75	**2.113**	**ug/L**	12.530	2101	0.006
	Se	77		**ug/L**		3135	-0.008
	Se	82	**0.816**	**ug/L**	18.869	38	0.000
	Kr	83		**ug/L**		184	0.000
	Sr	88	**4.710**	**ug/L**	0.648	44005	0.297
	Y	89		**ug/L**		1007381	6.816
	Ag	107	**0.177**	**ug/L**	3.913	677	0.004
	Cd	111	**0.981**	**ug/L**	4.066	844	0.006
	Cd	114		**ug/L**		154	0.001
>	In	115		**ug/L**		147784	147783.545
	Sn	120	**2.303**	**ug/L**	1.878	8126	0.053
	Sb	121	**0.168**	**ug/L**	4.482	891	0.003
	Sb	123		**ug/L**		694	0.003
	Ba	135		**ug/L**		43482	0.193
	Ba	137	**48.178**	**ug/L**	1.104	77212	0.343
	Ho	165		**ug/L**		50904	0.226
>	Lu	175		**ug/L**		225086	225085.690
	Tl	205	**0.119**	**ug/L**	8.052	1658	0.004
	Pb	208	**6.857**	**ug/L**	1.600	80854	0.357
	Bi	209		**ug/L**		202	0.001
	U	238	**2.473**	**ug/L**	1.118	29155	0.129

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	0.9999
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		113.9			
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		105.7			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		108.9			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		114.8			
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Tuesday, January 12, 2010 13:36:07
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 noirs thtimozr.mth
Dataset File: C:\elandata\Dataset\100111\QC Std 6.136

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**49.379**	**ug/L**	3.202	60987	0.052
	Be	9	**49.803**	**ug/L**	1.097	24132	0.020
	B	11	**98.899**	**ug/L**	1.428	41767	0.035
	Na	23	**4865.003**	**ug/L**	8.386	23146422	19.648
	Mg	24	**5009.716**	**ug/L**	1.893	15480183	13.143
	Al	27	**5106.414**	**ug/L**	3.771	21374962	18.146
	P	31	**4735.820**	**ug/L**	0.989	1020103	0.860
	K	39	**4369.646**	**ug/L**	7.706	25485047	21.126
	Ca	43	**4693.277**	**ug/L**	0.234	50986	0.043
>	Sc	45		**ug/L**		1177638	1177638.214
	V	51	**49.684**	**ug/L**	0.754	224853	0.189
	Cr	52	**50.616**	**ug/L**	0.629	200317	0.168
	Cr	53		**ug/L**		123613	0.008
	Mn	55	**49.870**	**ug/L**	1.171	307342	0.260
	Fe	57	**4978.289**	**ug/L**	1.703	586297	0.494
	Co	59	**49.270**	**ug/L**	2.360	218218	0.185
	Ni	60	**50.844**	**ug/L**	1.519	47155	0.040
	Cu	63		**ug/L**		105735	0.089
	Cu	65	**49.065**	**ug/L**	1.142	50065	0.042
	Zn	66	**49.025**	**ug/L**	2.045	34714	0.134
	Zn	67		**ug/L**		13736	0.014
	Zn	68		**ug/L**		25000	0.093
>	Ge	74		**ug/L**		257922	257922.150
	As	75	**47.309**	**ug/L**	1.297	36275	0.139
	Se	77		**ug/L**		7351	0.009
	Se	82	**46.751**	**ug/L**	1.313	3331	0.013
	Kr	83		**ug/L**		128	0.000
	Sr	88	**49.885**	**ug/L**	2.231	419510	3.141
	Y	89		**ug/L**		152	0.001
	Ag	107	**48.445**	**ug/L**	0.466	152569	1.142
	Cd	111	**48.101**	**ug/L**	0.539	36357	0.272
	Cd	114		**ug/L**		84610	0.633
>	In	115		**ug/L**		133542	133542.476
	Sn	120	**48.653**	**ug/L**	1.232	150814	1.128
	Sb	121	**50.360**	**ug/L**	6.596	135777	1.015
	Sb	123		**ug/L**		104947	0.784
	Ba	135		**ug/L**		37441	0.199
	Ba	137	**49.297**	**ug/L**	1.947	65856	0.351
	Ho	165		**ug/L**		28	0.000
>	Lu	175		**ug/L**		187651	187651.440
	Tl	205	**46.862**	**ug/L**	1.984	301240	1.602
	Pb	208	**48.739**	**ug/L**	1.121	476160	2.535
	Bi	209		**ug/L**		124	0.001
	U	238	**51.816**	**ug/L**	1.969	506047	2.696

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	0.9999
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7	98.758				
	Be	9	99.605				
	B	11	98.899				
	Na	23	97.300				
	Mg	24	100.194				
	Al	27	101.117				
	P	31	94.716				
	K	39	87.393				
	Ca	43	93.866				
>	Sc	45		99.2			
	V	51	99.367				
	Cr	52	101.232				
	Cr	53					
	Mn	55	99.739				
	Fe	57	99.566				
	Co	59	98.540				
	Ni	60	101.688				
	Cu	63					
	Cu	65	98.131				
	Zn	66	98.050				
	Zn	67					
	Zn	68					
>	Ge	74		98.9			
	As	75	94.619				
	Se	77					
	Se	82	93.503				
	Kr	83					
	Sr	88	99.770				
	Y	89					
	Ag	107	96.890				
	Cd	111	96.202				
	Cd	114					
>	In	115		98.4			
	Sn	120	97.307				
	Sb	121	100.720				
	Sb	123					
	Ba	135					
	Ba	137	98.593				
	Ho	165					
>	Lu	175		95.7			
	Tl	205	93.724				
	Pb	208	97.477				
	Bi	209					
	U	238	103.632				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 6	K	39	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Tuesday, January 12, 2010 13:42:02
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 nolrs thtimozr.mth
Dataset File: C:\elandata\Dataset\100111\QC Std 7.137

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.046**	**ug/L**	11.846	164	0.000
	Be	9	**0.005**	**ug/L**	160.812	14	0.000
	B	11	**1.312**	**ug/L**	26.396	1344	0.000
	Na	23	**0.675**	**ug/L**	129.417	24021	0.003
	Mg	24	**0.322**	**ug/L**	256.163	4334	0.001
	Al	27	**0.777**	**ug/L**	73.031	10671	0.003
	P	31	**-0.154**	**ug/L**	331.001	6982	-0.000
	K	39	**5.562**	**ug/L**	79.536	652579	0.027
	Ca	43	**0.876**	**ug/L**	442.494	485	0.000
>	Sc	45		**ug/L**		1191505	1191504.696
	V	51	**-0.547**	**ug/L**	16.610	-612	-0.002
	Cr	52	**0.432**	**ug/L**	4.551	3790	0.001
	Cr	53		**ug/L**		116972	0.001
	Mn	55	**0.080**	**ug/L**	15.976	2150	0.000
	Fe	57	**9.380**	**ug/L**	17.224	5524	0.001
	Co	59	**0.001**	**ug/L**	312.559	200	0.000
	Ni	60	**0.001**	**ug/L**	2000.622	74	0.000
	Cu	63		**ug/L**		501	0.000
	Cu	65	**0.008**	**ug/L**	197.842	105	0.000
	Zn	66	**0.022**	**ug/L**	191.846	198	0.000
	Zn	67		**ug/L**		9761	-0.001
	Zn	68		**ug/L**		881	-0.000
>	Ge	74		**ug/L**		259668	259668.102
	As	75	**-0.436**	**ug/L**	140.194	33	-0.001
	Se	77		**ug/L**		5690	0.002
	Se	82	**0.200**	**ug/L**	109.614	-9	0.000
	Kr	83		**ug/L**		98	0.000
	Sr	88	**0.004**	**ug/L**	40.476	194	0.000
	Y	89		**ug/L**		84	0.000
	Ag	107	**0.003**	**ug/L**	126.507	65	0.000
	Cd	111	**0.024**	**ug/L**	21.935	40	0.000
	Cd	114		**ug/L**		32	0.000
>	In	115		**ug/L**		134374	134373.566
	Sn	120	**0.057**	**ug/L**	26.183	392	0.001
	Sb	121	**0.471**	**ug/L**	29.314	1630	0.009
	Sb	123		**ug/L**		1247	0.007
	Ba	135		**ug/L**		34	0.000
	Ba	137	**-0.001**	**ug/L**	193.934	46	-0.000
	Ho	165		**ug/L**		20	0.000
>	Lu	175		**ug/L**		188692	188691.594
	Tl	205	**0.206**	**ug/L**	20.750	1952	0.007
	Pb	208	**-0.000**	**ug/L**	634.842	496	-0.000
	Bi	209		**ug/L**		23	0.000
	U	238	**0.043**	**ug/L**	38.046	588	0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	0.9999
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		100.4			
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		99.5			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		99.0			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		96.3			
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Tuesday, January 12, 2010 14:35:22
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 noirs thtimozr.mth
Dataset File: C:\elandata\Dataset\100111\QC Std 6.146

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**54.503**	**ug/L**	1.583	65615	0.057
	Be	9	**53.312**	**ug/L**	1.923	25185	0.022
	B	11	**103.791**	**ug/L**	1.735	42703	0.037
	Na	23	**4701.779**	**ug/L**	3.002	21823188	18.989
	Mg	24	**5306.178**	**ug/L**	1.288	15988519	13.920
	Al	27	**5103.325**	**ug/L**	6.101	20832409	18.135
	P	31	**4769.153**	**ug/L**	0.231	1001678	0.866
	K	39	**5152.109**	**ug/L**	7.598	29205491	24.909
	Ca	43	**4926.888**	**ug/L**	0.814	52166	0.045
>	Sc	45		**ug/L**		1148303	1148303.429
	V	51	**50.018**	**ug/L**	1.463	220712	0.191
	Cr	52	**50.788**	**ug/L**	0.899	195985	0.169
	Cr	53		**ug/L**		115769	0.004
	Mn	55	**51.703**	**ug/L**	1.097	310630	0.269
	Fe	57	**5137.370**	**ug/L**	1.462	589865	0.510
	Co	59	**49.943**	**ug/L**	0.610	215711	0.188
	Ni	60	**50.875**	**ug/L**	1.594	46010	0.040
	Cu	63		**ug/L**		103247	0.090
	Cu	65	**49.676**	**ug/L**	1.028	49426	0.043
	Zn	66	**49.520**	**ug/L**	1.140	33950	0.135
	Zn	67		**ug/L**		13291	0.014
	Zn	68		**ug/L**		24779	0.096
>	Ge	74		**ug/L**		249715	249715.222
	As	75	**47.421**	**ug/L**	1.132	35203	0.140
	Se	77		**ug/L**		6833	0.008
	Se	82	**47.055**	**ug/L**	2.909	3245	0.013
	Kr	83		**ug/L**		120	0.000
	Sr	88	**51.189**	**ug/L**	1.017	419770	3.223
	Y	89		**ug/L**		238	0.001
	Ag	107	**48.946**	**ug/L**	0.489	150300	1.154
	Cd	111	**49.587**	**ug/L**	1.608	36540	0.280
	Cd	114		**ug/L**		84116	0.646
>	In	115		**ug/L**		130205	130204.635
	Sn	120	**50.272**	**ug/L**	1.645	151930	1.165
	Sb	121	**50.654**	**ug/L**	6.241	133185	1.021
	Sb	123		**ug/L**		104633	0.802
	Ba	135		**ug/L**		36728	0.196
	Ba	137	**48.625**	**ug/L**	1.264	64715	0.346
	Ho	165		**ug/L**		40	0.000
>	Lu	175		**ug/L**		186929	186929.024
	Tl	205	**46.753**	**ug/L**	0.276	299406	1.598
	Pb	208	**49.410**	**ug/L**	0.879	480834	2.570
	Bi	209		**ug/L**		102	0.000
	U	238	**51.969**	**ug/L**	2.368	505551	2.704

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	0.9999
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7	109.007				
	Be	9	106.623				
	B	11	103.791				
	Na	23	94.036				
	Mg	24	106.124				
	Al	27	101.056				
	P	31	95.383				
	K	39	103.042				
	Ca	43	98.538				
>	Sc	45		96.7			
	V	51	100.036				
	Cr	52	101.576				
	Cr	53					
	Mn	55	103.406				
	Fe	57	102.747				
	Co	59	99.885				
	Ni	60	101.749				
	Cu	63					
	Cu	65	99.352				
	Zn	66	99.041				
	Zn	67					
	Zn	68					
>	Ge	74		95.7			
	As	75	94.842				
	Se	77					
	Se	82	94.110				
	Kr	83					
	Sr	88	102.377				
	Y	89					
	Ag	107	97.893				
	Cd	111	99.174				
	Cd	114					
>	In	115		96.0			
	Sn	120	100.544				
	Sb	121	101.308				
	Sb	123					
	Ba	135					
	Ba	137	97.250				
	Ho	165					
>	Lu	175		95.4			
	Tl	205	93.506				
	Pb	208	98.821				
	Bi	209					
	U	238	103.939				

QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Tuesday, January 12, 2010 14:41:17
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 noirs thtimozr.mth
Dataset File: C:\elandata\Dataset\100111\QC Std 7.147

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	0.070	ug/L	20.607	197	0.000
	Be	9	0.007	ug/L	84.124	16	0.000
	B	11	1.151	ug/L	34.736	1300	0.000
	Na	23	0.248	ug/L	263.258	22351	0.001
	Mg	24	1.336	ug/L	118.021	7669	0.004
	Al	27	1.511	ug/L	41.060	14007	0.005
	P	31	-1.959	ug/L	73.505	6712	-0.000
	K	39	-14.607	ug/L	51.307	546290	-0.071
	Ca	43	-7.553	ug/L	38.579	400	-0.000
>	Sc	45		ug/L		1213114	1213113.997
	V	51	-0.705	ug/L	70.672	-1345	-0.003
	Cr	52	0.224	ug/L	17.159	3019	0.001
	Cr	53		ug/L		107970	-0.008
	Mn	55	0.033	ug/L	22.532	1889	0.000
	Fe	57	3.370	ug/L	38.969	4902	0.000
	Co	59	0.002	ug/L	154.231	207	0.000
	Ni	60	0.001	ug/L	397.783	76	0.000
	Cu	63		ug/L		391	0.000
	Cu	65	0.007	ug/L	214.310	106	0.000
	Zn	66	-0.008	ug/L	159.912	181	-0.000
	Zn	67		ug/L		9435	-0.003
	Zn	68		ug/L		813	-0.000
>	Ge	74		ug/L		265000	265000.058
	As	75	-0.295	ug/L	131.579	142	-0.001
	Se	77		ug/L		5265	0.000
	Se	82	0.156	ug/L	142.244	-12	0.000
	Kr	83		ug/L		84	-0.000
	Sr	88	0.002	ug/L	21.382	182	0.000
	Y	89		ug/L		91	0.000
	Ag	107	-0.001	ug/L	228.838	53	-0.000
	Cd	111	-0.006	ug/L	274.898	18	-0.000
	Cd	114		ug/L		36	0.000
>	In	115		ug/L		138382	138381.719
	Sn	120	0.048	ug/L	23.840	376	0.001
	Sb	121	0.523	ug/L	37.170	1819	0.011
	Sb	123		ug/L		1403	0.008
	Ba	135		ug/L		36	0.000
	Ba	137	0.001	ug/L	205.115	51	0.000
	Ho	165		ug/L		17	0.000
>	Lu	175		ug/L		196655	196655.142
	Tl	205	0.142	ug/L	28.106	1600	0.005
	Pb	208	-0.003	ug/L	109.445	486	-0.000
	Bi	209		ug/L		27	0.000
	U	238	0.042	ug/L	21.767	606	0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	0.9999
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		102.2			
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		101.6			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		102.0			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		100.3			
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202004422
Sample Date/Time: Tuesday, January 12, 2010 14:53:05
Sample Type:
Sample Description: LANL 6020 DUP
Number of Replicates: 3
Batch ID: 936805|2|rmj
Method File: c:\elandata\Method\6020 noirs thtimozr.mth
Dataset File: C:\elandata\Dataset\100111\1202004422.149

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**37.134**	**ug/L**	1.314	51030	0.039
	Be	9	**3.426**	**ug/L**	1.697	1858	0.001
	B	11	**8.635**	**ug/L**	2.812	4853	0.003
	Na	23	**994.257**	**ug/L**	7.007	5282759	4.015
	Mg	24	**5529.701**	**ug/L**	5.551	19003757	14.507
	Al	27	**37181.088**	**ug/L**	5.109	173093571	132.126
	P	31	**272.217**	**ug/L**	1.960	72487	0.049
	K	39	**3652.546**	**ug/L**	13.405	23810847	17.659
	Ca	43	**4080.599**	**ug/L**	1.276	49373	0.037
>	Sc	45		**ug/L**		1309834	1309834.483
	V	51	**38.365**	**ug/L**	1.410	193581	0.146
	Cr	52	**37.539**	**ug/L**	1.521	165830	0.125
	Cr	53		**ug/L**		83840	-0.033
	Mn	55	**771.846**	**ug/L**	0.476	5264394	4.018
	Fe	57	**26342.833**	**ug/L**	0.878	3430176	2.615
	Co	59	**8.169**	**ug/L**	0.498	40425	0.031
	Ni	60	**17.813**	**ug/L**	0.864	18429	0.014
	Cu	63		**ug/L**		35320	0.027
	Cu	65	**15.061**	**ug/L**	1.146	17167	0.013
	Zn	66	**98.003**	**ug/L**	2.569	70250	0.268
	Zn	67		**ug/L**		17432	0.028
	Zn	68		**ug/L**		51609	0.194
>	Ge	74		**ug/L**		261809	261809.416
	As	75	**4.989**	**ug/L**	4.979	4213	0.015
	Se	77		**ug/L**		2681	-0.009
	Se	82	**-0.183**	**ug/L**	71.066	-36	-0.000
	Kr	83		**ug/L**		209	0.000
	Sr	88	**31.986**	**ug/L**	1.027	290279	2.014
	Y	89		**ug/L**		808559	5.612
	Ag	107	**0.186**	**ug/L**	4.829	688	0.004
	Cd	111	**0.858**	**ug/L**	6.822	722	0.005
	Cd	114		**ug/L**		192	0.001
>	In	115		**ug/L**		144061	144060.647
	Sn	120	**0.733**	**ug/L**	3.250	2680	0.017
	Sb	121	**0.181**	**ug/L**	3.756	908	0.004
	Sb	123		**ug/L**		738	0.003
	Ba	135		**ug/L**		150358	0.678
	Ba	137	**166.448**	**ug/L**	1.825	262619	1.184
	Ho	165		**ug/L**		41390	0.187
>	Lu	175		**ug/L**		221737	221736.675
	Tl	205	**0.344**	**ug/L**	1.672	3343	0.012
	Pb	208	**23.558**	**ug/L**	0.836	272246	1.225
	Bi	209		**ug/L**		2895	0.013
	U	238	**2.594**	**ug/L**	1.389	30113	0.135

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	0.9999
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		110.3			
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		100.3			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		106.2			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		113.1			
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202004423
Sample Date/Time: Tuesday, January 12, 2010 14:58:59
Sample Type:
Sample Description: LANL 6020 MS
Number of Replicates: 3
Batch ID: 936805|2|rmj
Method File: c:\elandata\Method\6020 noirs thtimozr.mth
Dataset File: C:\elandata\Dataset\100111\1202004423.150

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**72.047**	**ug/L**	2.445	98485	0.075
	Be	9	**30.147**	**ug/L**	0.604	16186	0.012
	B	11	**64.013**	**ug/L**	2.090	30251	0.023
	Na	23	**1904.537**	**ug/L**	0.805	10056581	7.692
	Mg	24	**6077.558**	**ug/L**	5.023	20809690	15.944
	Al	27	**38201.254**	**ug/L**	2.185	177106829	135.751
	P	31	**1281.651**	**ug/L**	0.491	311429	0.233
	K	39	**5173.842**	**ug/L**	7.347	33297981	25.014
	Ca	43	**4614.193**	**ug/L**	1.162	55533	0.042
>	Sc	45		**ug/L**		1304542	1304541.998
	V	51	**65.794**	**ug/L**	1.039	329198	0.251
	Cr	52	**70.154**	**ug/L**	0.375	306687	0.233
	Cr	53		**ug/L**		98460	-0.021
	Mn	55	**1008.028**	**ug/L**	1.385	6846522	5.247
	Fe	57	**26479.419**	**ug/L**	1.109	3433781	2.629
	Co	59	**33.097**	**ug/L**	0.524	162471	0.124
	Ni	60	**40.797**	**ug/L**	0.316	41933	0.032
	Cu	63		**ug/L**		87134	0.067
	Cu	65	**36.801**	**ug/L**	0.597	41623	0.032
	Zn	66	**125.654**	**ug/L**	0.461	89059	0.343
	Zn	67		**ug/L**		21035	0.042
	Zn	68		**ug/L**		66776	0.254
>	Ge	74		**ug/L**		258968	258968.101
	As	75	**41.660**	**ug/L**	1.581	32118	0.123
	Se	77		**ug/L**		2959	-0.008
	Se	82	**8.257**	**ug/L**	3.657	572	0.002
	Kr	83		**ug/L**		225	0.001
	Sr	88	**59.171**	**ug/L**	0.920	537994	3.725
	Y	89		**ug/L**		843912	5.845
	Ag	107	**23.510**	**ug/L**	1.728	80074	0.554
	Cd	111	**6.490**	**ug/L**	4.274	5325	0.037
	Cd	114		**ug/L**		9297	0.064
>	In	115		**ug/L**		144375	144374.777
	Sn	120	**13.592**	**ug/L**	1.065	45717	0.315
	Sb	121	**54.327**	**ug/L**	0.654	158402	1.095
	Sb	123		**ug/L**		124310	0.859
	Ba	135		**ug/L**		280666	1.266
	Ba	137	**306.479**	**ug/L**	0.877	483294	2.181
	Ho	165		**ug/L**		43326	0.195
>	Lu	175		**ug/L**		221603	221602.764
	Tl	205	**42.510**	**ug/L**	3.175	322767	1.453
	Pb	208	**115.484**	**ug/L**	0.722	1331564	6.006
	Bi	209		**ug/L**		2942	0.013
	U	238	**27.519**	**ug/L**	1.627	317483	1.432

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	0.9999
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		109.9			
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		99.3			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		106.4			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		113.1			
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Mn 55 Upper, S, EEI	Mn	55	Sample is out of limits (over linear range)

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: 1202004425
Sample Date/Time: Tuesday, January 12, 2010 15:04:53
Sample Type:
Sample Description: LANL 6020 MSD
Number of Replicates: 3
Batch ID: 936805|2|rmj
Method File: c:\elandata\Method\6020 nolrs thtimozr.mth
Dataset File: C:\elandata\Dataset\100111\1202004425.151

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**62.920**	**ug/L**	1.656	84026	0.066
	Be	9	**27.178**	**ug/L**	0.924	14253	0.011
	B	11	**60.368**	**ug/L**	3.322	27916	0.021
	Na	23	**1552.832**	**ug/L**	14.095	8013202	6.271
	Mg	24	**5962.483**	**ug/L**	1.557	19932140	15.642
	Al	27	**40112.278**	**ug/L**	7.675	181643556	142.542
	P	31	**1175.728**	**ug/L**	0.978	279648	0.214
	K	39	**4784.133**	**ug/L**	3.418	30135603	23.130
	Ca	43	**4093.572**	**ug/L**	1.247	48178	0.037
>	Sc	45		**ug/L**		1274083	1274083.328
	V	51	**63.611**	**ug/L**	1.195	310885	0.242
	Cr	52	**55.157**	**ug/L**	1.379	235968	0.183
	Cr	53		**ug/L**		91236	-0.025
	Mn	55	**632.497**	**ug/L**	0.256	4196570	3.292
	Fe	57	**24383.478**	**ug/L**	0.287	3088752	2.421
	Co	59	**31.883**	**ug/L**	1.399	152875	0.120
	Ni	60	**37.303**	**ug/L**	0.456	37454	0.029
	Cu	63		**ug/L**		78466	0.061
	Cu	65	**33.693**	**ug/L**	1.629	37226	0.029
	Zn	66	**103.952**	**ug/L**	0.658	74179	0.284
	Zn	67		**ug/L**		18292	0.031
	Zn	68		**ug/L**		54698	0.206
>	Ge	74		**ug/L**		260628	260627.911
	As	75	**36.653**	**ug/L**	0.976	28482	0.108
	Se	77		**ug/L**		3013	-0.008
	Se	82	**6.744**	**ug/L**	2.003	466	0.002
	Kr	83		**ug/L**		227	0.001
	Sr	88	**55.927**	**ug/L**	0.405	498099	3.521
	Y	89		**ug/L**		663039	4.688
	Ag	107	**21.854**	**ug/L**	2.214	72905	0.515
	Cd	111	**5.560**	**ug/L**	1.613	4470	0.031
	Cd	114		**ug/L**		8421	0.059
>	In	115		**ug/L**		141413	141413.454
	Sn	120	**12.221**	**ug/L**	0.541	40286	0.283
	Sb	121	**46.691**	**ug/L**	1.423	133384	0.941
	Sb	123		**ug/L**		105400	0.743
	Ba	135		**ug/L**		182419	0.833
	Ba	137	**204.117**	**ug/L**	0.697	318003	1.452
	Ho	165		**ug/L**		34572	0.158
>	Lu	175		**ug/L**		218923	218923.212
	Tl	205	**38.814**	**ug/L**	2.564	291234	1.327
	Pb	208	**105.814**	**ug/L**	1.268	1205396	5.503
	Bi	209		**ug/L**		2889	0.013
	U	238	**24.883**	**ug/L**	0.167	283630	1.295

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	0.9999
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		107.3			
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		99.9			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		104.2			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		111.7			
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202004424
Sample Date/Time: Tuesday, January 12, 2010 15:10:47
Sample Type:
Sample Description: LANL 6020 SDILT
Number of Replicates: 3
Batch ID: 936805|10|rmj
Method File: c:\elandata\Method\6020 noirs thtimozr.mth
Dataset File: C:\elandata\Dataset\100111\1202004424.152

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**8.044**	ug/L	0.605	9876	0.008
	Be	9	**0.598**	ug/L	11.021	297	0.000
	B	11	**2.135**	ug/L	9.534	1646	0.001
	Na	23	**168.420**	ug/L	2.021	809653	0.680
	Mg	24	**912.761**	ug/L	4.096	2782473	2.395
	Al	27	**5258.253**	ug/L	8.426	21702130	18.686
	P	31	**64.774**	ug/L	1.067	20491	0.012
	K	39	**612.941**	ug/L	4.336	4043077	2.963
	Ca	43	**602.717**	ug/L	3.286	6855	0.006
>	Sc	45		ug/L		1160567	1160567.441
	V	51	**5.844**	ug/L	12.344	27665	0.022
	Cr	52	**7.913**	ug/L	0.339	32570	0.026
	Cr	53		ug/L		87052	-0.022
	Mn	55	**186.201**	ug/L	0.139	1126496	0.969
	Fe	57	**4498.015**	ug/L	0.932	522536	0.447
	Co	59	**1.130**	ug/L	1.393	5118	0.004
	Ni	60	**2.968**	ug/L	2.794	2780	0.002
	Cu	63		ug/L		5906	0.005
	Cu	65	**2.676**	ug/L	1.436	2781	0.002
	Zn	66	**26.417**	ug/L	0.585	18275	0.072
	Zn	67		ug/L		10984	0.005
	Zn	68		ug/L		13642	0.051
>	Ge	74		ug/L		250829	250828.686
	As	75	**0.705**	ug/L	33.659	872	0.002
	Se	77		ug/L		3406	-0.006
	Se	82	**-0.144**	ug/L	165.701	-32	-0.000
	Kr	83		ug/L		111	0.000
	Sr	88	**4.635**	ug/L	0.792	39670	0.292
	Y	89		ug/L		159753	1.179
	Ag	107	**0.026**	ug/L	15.305	138	0.001
	Cd	111	**0.111**	ug/L	17.139	106	0.001
	Cd	114		ug/L		42	0.000
>	In	115		ug/L		135384	135384.182
	Sn	120	**0.185**	ug/L	8.413	798	0.004
	Sb	121	**0.025**	ug/L	30.280	427	0.001
	Sb	123		ug/L		360	0.000
	Ba	135		ug/L		20769	0.105
	Ba	137	**25.513**	ug/L	2.139	36056	0.182
	Ho	165		ug/L		7977	0.040
>	Lu	175		ug/L		198385	198385.098
	Tl	205	**0.786**	ug/L	16.562	5990	0.027
	Pb	208	**4.301**	ug/L	1.611	44896	0.224
	Bi	209		ug/L		376	0.002
	U	238	**0.483**	ug/L	2.139	5163	0.025

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	0.9999
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		97.8			
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		96.1			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		99.8			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		101.2			
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Tuesday, January 12, 2010 15:16:38
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 nolrs thtimozr.mth
Dataset File: C:\elandata\Dataset\100111\QC Std 6.153

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**54.688**	**ug/L**	1.883	64367	0.057
	Be	9	**53.142**	**ug/L**	1.417	24546	0.022
	B	11	**102.116**	**ug/L**	0.580	41095	0.036
	Na	23	**4813.144**	**ug/L**	1.571	21843545	19.439
	Mg	24	**5257.160**	**ug/L**	1.474	15488209	13.792
	Al	27	**4719.780**	**ug/L**	4.604	18844865	16.772
	P	31	**4641.138**	**ug/L**	1.283	953230	0.843
	K	39	**4210.019**	**ug/L**	2.139	23438802	20.354
	Ca	43	**4732.492**	**ug/L**	1.147	49010	0.043
>	Sc	45		**ug/L**		1122801	1122800.715
	V	51	**48.172**	**ug/L**	0.369	207912	0.184
	Cr	52	**48.744**	**ug/L**	0.422	184004	0.162
	Cr	53		**ug/L**		108582	-0.000
	Mn	55	**48.918**	**ug/L**	0.633	287456	0.255
	Fe	57	**4901.436**	**ug/L**	1.226	550461	0.487
	Co	59	**48.086**	**ug/L**	1.056	203081	0.181
	Ni	60	**49.348**	**ug/L**	0.545	43643	0.039
	Cu	63		**ug/L**		99116	0.088
	Cu	65	**47.651**	**ug/L**	0.644	46362	0.041
	Zn	66	**46.799**	**ug/L**	1.553	31958	0.128
	Zn	67		**ug/L**		12909	0.013
	Zn	68		**ug/L**		23551	0.091
>	Ge	74		**ug/L**		248659	248659.066
	As	75	**44.591**	**ug/L**	1.676	32982	0.131
	Se	77		**ug/L**		6057	0.005
	Se	82	**46.184**	**ug/L**	3.006	3171	0.013
	Kr	83		**ug/L**		115	0.000
	Sr	88	**49.081**	**ug/L**	1.098	397526	3.090
	Y	89		**ug/L**		187	0.001
	Ag	107	**47.630**	**ug/L**	0.788	144451	1.123
	Cd	111	**48.221**	**ug/L**	0.836	35098	0.273
	Cd	114		**ug/L**		80487	0.626
>	In	115		**ug/L**		128597	128596.775
	Sn	120	**48.778**	**ug/L**	1.405	145602	1.131
	Sb	121	**48.492**	**ug/L**	6.246	125943	0.977
	Sb	123		**ug/L**		97471	0.756
	Ba	135		**ug/L**		36377	0.194
	Ba	137	**47.543**	**ug/L**	1.469	63483	0.338
	Ho	165		**ug/L**		31	0.000
>	Lu	175		**ug/L**		187535	187535.464
	Tl	205	**45.581**	**ug/L**	1.878	292848	1.558
	Pb	208	**48.484**	**ug/L**	0.913	473373	2.522
	Bi	209		**ug/L**		96	0.000
	U	238	**50.732**	**ug/L**	0.748	495181	2.640

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	0.9999
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7	109.375				
	Be	9	106.284				
	B	11	102.116				
	Na	23	96.263				
	Mg	24	105.143				
	Al	27	93.461				
	P	31	92.823				
	K	39	84.200				
	Ca	43	94.650				
>	Sc	45		94.6			
	V	51	96.344				
	Cr	52	97.488				
	Cr	53					
	Mn	55	97.837				
	Fe	57	98.029				
	Co	59	96.173				
	Ni	60	98.696				
	Cu	63					
	Cu	65	95.301				
	Zn	66	93.598				
	Zn	67					
	Zn	68					
>	Ge	74		95.3			
	As	75	89.181				
	Se	77					
	Se	82	92.369				
	Kr	83					
	Sr	88	98.163				
	Y	89					
	Ag	107	95.259				
	Cd	111	96.443				
	Cd	114					
>	In	115		94.8			
	Sn	120	97.557				
	Sb	121	96.985				
	Sb	123					
	Ba	135					
	Ba	137	95.086				
	Ho	165					
>	Lu	175		95.7			
	Tl	205	91.161				
	Pb	208	96.968				
	Bi	209					
	U	238	101.464				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 6	K	39	CCV is out of limits (+/- 10%)
QC Std 6	As	75	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Tuesday, January 12, 2010 15:22:33
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 nolrs thtimozr.mth
Dataset File: C:\elandata\Dataset\100111\QC Std 7.154

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.033**	**ug/L**	34.671	142	0.000
	Be	9	**0.011**	**ug/L**	40.946	17	0.000
	B	11	**1.467**	**ug/L**	28.855	1357	0.001
	Na	23	**-0.065**	**ug/L**	2213.643	19681	-0.000
	Mg	24	**0.812**	**ug/L**	46.530	5668	0.002
	Al	27	**0.388**	**ug/L**	71.488	8669	0.001
	P	31	**0.284**	**ug/L**	693.680	6812	0.000
	K	39	**-6.677**	**ug/L**	189.224	560563	-0.032
	Ca	43	**-7.062**	**ug/L**	33.276	383	-0.000
>	Sc	45		**ug/L**		1146956	1146955.730
	V	51	**0.115**	**ug/L**	358.140	2305	0.000
	Cr	52	**0.199**	**ug/L**	38.236	2762	0.001
	Cr	53		**ug/L**		97981	-0.012
	Mn	55	**0.010**	**ug/L**	82.259	1648	0.000
	Fe	57	**1.641**	**ug/L**	56.923	4437	0.000
	Co	59	**0.003**	**ug/L**	73.573	200	0.000
	Ni	60	**-0.004**	**ug/L**	207.311	67	-0.000
	Cu	63		**ug/L**		351	0.000
	Cu	65	**-0.004**	**ug/L**	181.222	89	-0.000
	Zn	66	**-0.007**	**ug/L**	50.876	171	-0.000
	Zn	67		**ug/L**		9208	-0.002
	Zn	68		**ug/L**		815	-0.000
>	Ge	74		**ug/L**		249258	249257.916
	As	75	**0.073**	**ug/L**	698.456	402	0.000
	Se	77		**ug/L**		4408	-0.002
	Se	82	**0.059**	**ug/L**	308.016	-18	0.000
	Kr	83		**ug/L**		84	-0.000
	Sr	88	**0.004**	**ug/L**	31.638	194	0.000
	Y	89		**ug/L**		76	-0.000
	Ag	107	**0.000**	**ug/L**	810.754	54	0.000
	Cd	111	**-0.001**	**ug/L**	2722.216	21	-0.000
	Cd	114		**ug/L**		38	0.000
>	In	115		**ug/L**		132035	132035.497
	Sn	120	**0.053**	**ug/L**	28.320	373	0.001
	Sb	121	**0.595**	**ug/L**	22.792	1937	0.012
	Sb	123		**ug/L**		1514	0.009
	Ba	135		**ug/L**		34	0.000
	Ba	137	**0.005**	**ug/L**	165.824	56	0.000
	Ho	165		**ug/L**		13	-0.000
>	Lu	175		**ug/L**		193171	193170.996
	Tl	205	**0.306**	**ug/L**	11.274	2661	0.010
	Pb	208	**-0.002**	**ug/L**	75.434	492	-0.000
	Bi	209		**ug/L**		24	0.000
	U	238	**0.041**	**ug/L**	31.020	580	0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	0.9999
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45			96.6		
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74			95.5		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115			97.3		
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175			98.6		
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS #6 Daily Performance Report

Sample ID: Sample
Sample Date/Time: Wednesday, January 13, 2010 20:57:07
Sample Description:
Method File: C:\elandata\Method\Daily2.mth
Dataset File: c:\elandata\Dataset\091212\Sample.253
Tuning File: c:\elandata\Tuning\default2.tun
Optimization File: c:\elandata\Optimize\default.dac
Dual Detector Mode: Pulse

Acq. Dead Time(ns): 35
Current Dead Time (ns): 35

Number of Replicates: 5

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Be	9.0	1350.3	1350.264	59.715	4.4
	Mg	24.0	21710.1	21710.085	198.441	0.9
	Co	58.9	35532.9	35532.939	346.878	1.0
	Rh	102.9	71212.3	71212.257	487.557	0.7
	In	114.9	79251.2	79251.233	730.355	0.9
	Pb	208.0	47871.9	47871.877	217.644	0.5
⌈>	Ba	137.9	74019.4	74019.382	314.317	0.4
⌊	Ba++	69.0	2339.2	0.032	0.000	1.0
⌈>	Ce	139.9	94879.4	94879.437	473.097	0.5
⌊	CeO	155.9	1513.3	0.016	0.000	1.5
	Bkgd	220.0	23.1	23.100	1.517	6.6

Current Optimization File Data

Current Value	Description
0.84	Nebulizer Gas Flow
13.25	Lens Voltage
1450.00	ICP RF Power
-1781.25	Analog Stage Voltage
900.00	Pulse Stage Voltage
30.00	Discriminator Threshold
-6.00	AC Rod Offset

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	25	11.3	2876.6
Co	59	25	12.5	34989.5
In	115	25	14.0	76766.4

ICPMS #6 Instrument Tuning Report

File Name: default2.tun
File Path: c:\elandata\Tuning

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Pk. Width
He	3.0	3.0	588	2080	0.658
Be	9.0	9.0	2039	2080	0.673
Mg	24.0	24.0	5686	2120	0.635
Mg	25.0	25.0	5929	2080	0.698
Mg	26.0	26.0	6162	2120	0.689
Co	58.9	59.0	14181	2170	0.640
Rh	102.9	102.8	24853	2230	0.702
In	114.9	114.9	27786	2260	0.690
Ce	139.9	139.9	33855	2280	0.747
Pb	206.0	206.0	49948	2430	0.693
Pb	207.0	207.0	50135	2385	0.676
Pb	208.0	208.0	50463	2430	0.715
U	238.1	238.0	57731	2470	0.711

Report Date/Time: Wednesday, January 13, 2010 20:56:04

ICPMS#6 - Summary Report

Sample ID: Blank
Sample Date/Time: Wednesday, January 13, 2010 21:04:36
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\936805.mth
Dataset File: C:\elandata\Dataset\100113\Blank.001

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7		ug/L		107	
>	Sc	45		ug/L		1244138	
>	Ge	74		ug/L		311061	
	As	75		ug/L		900	
	Se	77		ug/L		6448	
	Se	82		ug/L		-20	
	Kr	83		ug/L		114	
>	Lu	175		ug/L		213630	
	Tl	205		ug/L		740	
	U	238		ug/L		977	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Simple Linear	
Sc	45	Simple Linear	
Ge	74	Simple Linear	
As	75	Simple Linear	
Se	77	Simple Linear	
Se	82	Simple Linear	
Kr	83	Simple Linear	
Lu	175	Simple Linear	
Tl	205	Simple Linear	
U	238	Simple Linear	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
>	Sc	45					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175					
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Wednesday, January 13, 2010 21:08:38
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\936805.mth
Dataset File: C:\elandata\Dataset\100113\Standard 1.002

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	10.000	ug/L	6.334	7134	0.006
>	Sc	45		ug/L		1269930	1269929.783
>	Ge	74		ug/L		327042	327042.387
	As	75	10.000	ug/L	4.522	9644	0.027
	Se	77		ug/L		6905	0.000
	Se	82	10.000	ug/L	2.762	703	0.002
	Kr	83		ug/L		113	-0.000
>	Lu	175		ug/L		221759	221758.845
	Tl	205	10.000	ug/L	0.981	66470	0.296
	U	238	10.000	ug/L	1.403	114801	0.513

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
>	Sc	45					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175					
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Wednesday, January 13, 2010 21:12:38
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\936805.mth
Dataset File: C:\elandata\Dataset\100113\Standard 2.003

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	99.978	ug/L	4.404	72714	0.054
>	Sc	45		ug/L		1340170	1340169.764
>	Ge	74		ug/L		327000	326999.807
	As	75	99.981	ug/L	1.312	86311	0.261
	Se	77		ug/L		11689	0.015
	Se	82	99.994	ug/L	1.050	7176	0.022
	Kr	83		ug/L		135	0.000
>	Lu	175		ug/L		220314	220313.691
	Tl	205	99.979	ug/L	1.056	639922	2.901
	U	238	99.943	ug/L	1.875	1070038	4.853

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
>	Sc	45					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175					
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Wednesday, January 13, 2010 21:16:39
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\936805.mth
Dataset File: C:\elandata\Dataset\100113\QC Std 1.004

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**51.970**	**ug/L**	6.913	37733	0.028
>	Sc	45		**ug/L**		1337586	1337585.616
>	Ge	74		**ug/L**		326070	326069.928
	As	75	**46.431**	**ug/L**	0.289	40474	0.121
	Se	77		**ug/L**		9208	0.008
	Se	82	**50.393**	**ug/L**	1.102	3595	0.011
	Kr	83		**ug/L**		125	0.000
>	Lu	175		**ug/L**		219508	219508.438
	Tl	205	**49.446**	**ug/L**	1.338	315737	1.435
	U	238	**54.095**	**ug/L**	3.403	577542	2.627

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7	103.940				
>	Sc	45		107.5			
>	Ge	74		104.8			
	As	75	92.862				
	Se	77					
	Se	82	100.785				
	Kr	83					
>	Lu	175		102.8			
	Tl	205	98.893				
	U	238	108.191				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Wednesday, January 13, 2010 21:20:42
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\936805.mth
Dataset File: C:\elandata\Dataset\100113\QC Std 2.005

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**-0.043**	**ug/L**	30.644	87	-0.000
>	Sc	45		**ug/L**		1385670	1385669.946
>	Ge	74		**ug/L**		332328	332328.334
	As	75	**0.214**	**ug/L**	253.235	1149	0.001
	Se	77		**ug/L**		7346	0.001
	Se	82	**-0.257**	**ug/L**	58.493	-41	-0.000
	Kr	83		**ug/L**		134	0.000
>	Lu	175		**ug/L**		224163	224163.432
	Tl	205	**0.096**	**ug/L**	5.380	1398	0.003
	U	238	**-0.000**	**ug/L**	1681.503	1022	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
>	Sc	45		111.4			
>	Ge	74		106.8			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		104.9			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Wednesday, January 13, 2010 21:24:45
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\936805.mth
Dataset File: C:\elandata\Dataset\100113\QC Std 3.006

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**10.960**	**ug/L**	4.821	8289	0.006
>	Sc	45		**ug/L**		1376511	1376510.611
>	Ge	74		**ug/L**		329375	329374.593
	As	75	**5.574**	**ug/L**	5.628	5749	0.015
	Se	77		**ug/L**		7314	0.001
	Se	82	**5.440**	**ug/L**	6.303	373	0.001
	Kr	83		**ug/L**		127	0.000
>	Lu	175		**ug/L**		218470	218469.827
	Tl	205	**1.063**	**ug/L**	3.792	7499	0.031
	U	238	**0.175**	**ug/L**	4.822	2853	0.008

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7	109.604				
>	Sc	45		110.6			
>	Ge	74		105.9			
	As	75	111.479				
	Se	77					
	Se	82	108.796				
	Kr	83					
>	Lu	175		102.3			
	Tl	205	106.339				
	U	238	87.417				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Wednesday, January 13, 2010 21:28:46
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\936805.mth
Dataset File: C:\elandata\Dataset\100113\QC Std 4.007

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.367**	**ug/L**	3.747	397	0.000
>	Sc	45		**ug/L**		1396175	1396175.131
>	Ge	74		**ug/L**		315800	315800.414
	As	75	**-0.074**	**ug/L**	418.489	854	-0.000
	Se	77		**ug/L**		6837	0.001
	Se	82	**-1.489**	**ug/L**	12.412	-124	-0.000
	Kr	83		**ug/L**		254	0.000
>	Lu	175		**ug/L**		217203	217203.050
	Tl	205	**-0.001**	**ug/L**	54.328	743	-0.000
	U	238	**-0.067**	**ug/L**	3.176	286	-0.003

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
>	Sc	45		112.2			
>	Ge	74		101.5			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		101.7			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Wednesday, January 13, 2010 21:32:48
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\936805.mth
Dataset File: C:\elandata\Dataset\100113\QC Std 5.008

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**22.634**	**ug/L**	2.036	17206	0.012
>	Sc	45		**ug/L**		1394265	1394265.362
>	Ge	74		**ug/L**		313041	313040.732
	As	75	**19.627**	**ug/L**	3.664	16948	0.051
	Se	77		**ug/L**		7718	0.004
	Se	82	**18.417**	**ug/L**	3.823	1249	0.004
	Kr	83		**ug/L**		249	0.000
>	Lu	175		**ug/L**		215632	215632.092
	Tl	205	**17.901**	**ug/L**	0.384	112765	0.519
	U	238	**20.879**	**ug/L**	2.307	219572	1.014

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7	113.171				
>	Sc	45		112.1			
>	Ge	74		100.6			
	As	75	98.134				
	Se	77					
	Se	82	92.084				
	Kr	83					
>	Lu	175		100.9			
	Tl	205	89.505				
	U	238	104.394				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Wednesday, January 13, 2010 21:36:49
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\936805.mth
Dataset File: C:\elandata\Dataset\100113\QC Std 6.009

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**52.050**	**ug/L**	3.890	41178	0.028
>	Sc	45		**ug/L**		1456247	1456247.116
>	Ge	74		**ug/L**		327225	327225.208
	As	75	**45.481**	**ug/L**	2.725	39800	0.119
	Se	77		**ug/L**		8932	0.007
	Se	82	**50.525**	**ug/L**	0.224	3618	0.011
	Kr	83		**ug/L**		121	0.000
>	Lu	175		**ug/L**		215715	215714.607
	Tl	205	**48.286**	**ug/L**	1.795	302965	1.401
	U	238	**52.917**	**ug/L**	3.195	555042	2.569

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7	104.100				
>	Sc	45		117.0			
>	Ge	74		105.2			
	As	75	90.962				
	Se	77					
	Se	82	101.051				
	Kr	83					
>	Lu	175		101.0			
	Tl	205	96.573				
	U	238	105.834				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Wednesday, January 13, 2010 21:40:52
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\936805.mth
Dataset File: C:\elandata\Dataset\100113\QC Std 7.010

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**-0.048**	**ug/L**	22.569	90	-0.000
>	Sc	45		**ug/L**		1512322	1512322.247
>	Ge	74		**ug/L**		335466	335466.258
	As	75	**0.029**	**ug/L**	2037.103	994	0.000
	Se	77		**ug/L**		7348	0.001
	Se	82	**-0.663**	**ug/L**	160.386	-71	-0.000
	Kr	83		**ug/L**		160	0.000
>	Lu	175		**ug/L**		221381	221381.360
	Tl	205	**0.061**	**ug/L**	3.924	1156	0.002
	U	238	**-0.025**	**ug/L**	17.641	745	-0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
>	Sc	45		121.6			
>	Ge	74		107.8			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		103.6			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Sc 45 Int Std for QC	Sc	45	

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: 1202004420
Sample Date/Time: Wednesday, January 13, 2010 21:44:56
Sample Type:
Sample Description: LANL 6020 MB
Number of Replicates: 3
Batch ID: 936805|2|rm|
Method File: c:\elandata\Method\936805.mth
Dataset File: C:\elandata\Dataset\100113\1202004420.011

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	-0.076	ug/L	11.877	72	-0.000
>	Sc	45		ug/L		1628251	1628251.353
>	Ge	74		ug/L		351418	351417.913
	As	75	-0.377	ug/L	93.174	673	-0.001
	Se	77		ug/L		5551	-0.005
	Se	82	0.041	ug/L	600.561	-20	0.000
	Kr	83		ug/L		113	-0.000
>	Lu	175		ug/L		237573	237572.511
	Tl	205	0.075	ug/L	11.457	1340	0.002
	U	238	-0.031	ug/L	3.668	734	-0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
>	Sc	45		130.9			
>	Ge	74		113.0			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		111.2			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Sc 45 Int Std for sam	Sc	45	

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: 1202004421
Sample Date/Time: Wednesday, January 13, 2010 21:53:05
Sample Type:
Sample Description: LANL 6020 LCS
Number of Replicates: 3
Batch ID: 936805|40|rm|
Method File: c:\elandata\Method\936805.mth
Dataset File: C:\elandata\Dataset\100113\1202004421.013

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**2.631**	**ug/L**	5.112	2341	0.001
>	Sc	45		**ug/L**		1550093	1550093.242
>	Ge	74		**ug/L**		334221	334221.204
	As	75	**27.172**	**ug/L**	0.429	24678	0.071
	Se	77		**ug/L**		11786	0.015
	Se	82	**75.970**	**ug/L**	2.537	5566	0.017
	Kr	83		**ug/L**		128	0.000
>	Lu	175		**ug/L**		219829	219828.991
	Tl	205	**29.974**	**ug/L**	3.374	191910	0.870
	U	238	**0.495**	**ug/L**	1.993	6286	0.024

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
>	Sc	45		124.6			
>	Ge	74		107.4			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		102.9			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Sc 45 Int Std for sarr	Sc	45	

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Wednesday, January 13, 2010 21:57:07
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\936805.mth
Dataset File: C:\elandata\Dataset\100113\QC Std 6.014

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**52.667**	**ug/L**	3.758	43105	0.029
>	Sc	45		**ug/L**		1506154	1506154.012
>	Ge	74		**ug/L**		326972	326971.559
	As	75	**47.609**	**ug/L**	1.956	41593	0.124
	Se	77		**ug/L**		9489	0.008
	Se	82	**51.358**	**ug/L**	2.834	3675	0.011
	Kr	83		**ug/L**		111	-0.000
>	Lu	175		**ug/L**		215418	215418.100
	Tl	205	**50.045**	**ug/L**	1.664	313572	1.452
	U	238	**53.971**	**ug/L**	1.349	565446	2.621

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7	105.334				
>	Sc	45		121.1			
>	Ge	74		105.1			
	As	75	95.217				
	Se	77					
	Se	82	102.716				
	Kr	83					
>	Lu	175		100.8			
	Tl	205	100.089				
	U	238	107.941				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Sc 45 Int Std for QC Sc		45	

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Wednesday, January 13, 2010 22:01:10
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\936805.mth
Dataset File: C:\elandata\Dataset\100113\QC Std 7.015

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**-0.071**	**ug/L**	4.147	75	-0.000
>	Sc	45		**ug/L**		1574534	1574533.639
>	Ge	74		**ug/L**		336734	336733.777
	As	75	**-0.430**	**ug/L**	27.183	597	-0.001
	Se	77		**ug/L**		7716	0.002
	Se	82	**-0.062**	**ug/L**	357.047	-27	-0.000
	Kr	83		**ug/L**		123	-0.000
>	Lu	175		**ug/L**		221932	221931.725
	Tl	205	**0.312**	**ug/L**	2.673	2778	0.009
	U	238	**-0.031**	**ug/L**	17.127	676	-0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
>	Sc	45		126.6			
>	Ge	74		108.3			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		103.9			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Sc 45 Int Std for QC Sc		45	

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: 243472001
Sample Date/Time: Wednesday, January 13, 2010 22:21:33
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 936805|2|rmj
Method File: c:\elandata\Method\936805.mth
Dataset File: C:\elandata\Dataset\100113\243472001.020

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**49.131**	**ug/L**	3.761	44212	0.027
>	Sc	45		**ug/L**		1655282	1655281.712
>	Ge	74		**ug/L**		330899	330898.743
	As	75	**1.766**	**ug/L**	8.475	2483	0.005
	Se	77		**ug/L**		3973	-0.009
	Se	82	**1.360**	**ug/L**	13.331	78	0.000
	Kr	83		**ug/L**		211	0.000
>	Lu	175		**ug/L**		240967	240967.001
	Tl	205	**0.103**	**ug/L**	9.497	1553	0.003
	U	238	**2.678**	**ug/L**	1.343	32426	0.130

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
>	Sc	45		133.0			
>	Ge	74		106.4			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		112.8			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Sc 45 Int Std for sarr	Sc	45	

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: 243472002
Sample Date/Time: Wednesday, January 13, 2010 22:25:38
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 936805|2|rmj
Method File: c:\elandata\Method\936805.mth
Dataset File: C:\elandata\Dataset\100113\243472002.021

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**34.512**	**ug/L**	8.267	31628	0.019
>	Sc	45		**ug/L**		1686274	1686274.042
>	Ge	74		**ug/L**		335600	335599.786
	As	75	**1.003**	**ug/L**	27.623	1847	0.003
	Se	77		**ug/L**		4129	-0.008
	Se	82	**1.081**	**ug/L**	18.172	58	0.000
	Kr	83		**ug/L**		183	0.000
>	Lu	175		**ug/L**		239124	239124.217
	Tl	205	**0.058**	**ug/L**	16.404	1227	0.002
	U	238	**2.290**	**ug/L**	2.785	27679	0.111

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
>	Sc	45		135.5			
>	Ge	74		107.9			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		111.9			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Sc 45 Int Std for sam	Sc	45	

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: 243472003
Sample Date/Time: Wednesday, January 13, 2010 22:29:43
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 936805|2|rmj
Method File: c:\elandata\Method\936805.mth
Dataset File: C:\elandata\Dataset\100113\243472003.022

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**52.167**	**ug/L**	6.113	48266	0.028
>	Sc	45		**ug/L**		1703706	1703706.138
>	Ge	74		**ug/L**		333077	333077.368
	As	75	**1.717**	**ug/L**	7.400	2458	0.004
	Se	77		**ug/L**		4066	-0.009
	Se	82	**1.231**	**ug/L**	25.725	68	0.000
	Kr	83		**ug/L**		200	0.000
>	Lu	175		**ug/L**		241196	241196.014
	Tl	205	**0.058**	**ug/L**	9.032	1241	0.002
	U	238	**2.581**	**ug/L**	1.129	31324	0.125

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
>	Sc	45		136.9			
>	Ge	74		107.1			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		112.9			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Sc 45 Int Std for san	Sc	45	

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Wednesday, January 13, 2010 22:37:50
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\936805.mth
Dataset File: C:\elandata\Dataset\100113\QC Std 6.024

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**56.829**	**ug/L**	1.873	48166	0.031
>	Sc	45		**ug/L**		1560264	1560264.145
>	Ge	74		**ug/L**		323821	323820.851
	As	75	**46.388**	**ug/L**	2.707	40158	0.121
	Se	77		**ug/L**		8477	0.005
	Se	82	**51.039**	**ug/L**	3.875	3617	0.011
	Kr	83		**ug/L**		131	0.000
>	Lu	175		**ug/L**		211394	211393.508
	Tl	205	**48.718**	**ug/L**	0.940	299567	1.414
	U	238	**53.835**	**ug/L**	1.870	553404	2.614

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7	113.659				
>	Sc	45		125.4			
>	Ge	74		104.1			
	As	75	92.775				
	Se	77					
	Se	82	102.078				
	Kr	83					
>	Lu	175		99.0			
	Tl	205	97.435				
	U	238	107.670				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 6	Li	7	CCV is out of limits (+/- 10%)
Sc 45 Int Std for QC	Sc	45	

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Wednesday, January 13, 2010 22:41:53
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\936805.mth
Dataset File: C:\elandata\Dataset\100113\QC Std 7.025

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**-0.003**	**ug/L**	352.396	133	-0.000
>	Sc	45		**ug/L**		1586082	1586082.366
>	Ge	74		**ug/L**		334249	334249.273
	As	75	**-0.565**	**ug/L**	50.820	473	-0.001
	Se	77		**ug/L**		6641	-0.001
	Se	82	**-0.017**	**ug/L**	954.753	-23	-0.000
	Kr	83		**ug/L**		119	-0.000
>	Lu	175		**ug/L**		218570	218569.540
	Tl	205	**0.024**	**ug/L**	1.700	907	0.001
	U	238	**-0.044**	**ug/L**	11.214	537	-0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
>	Sc	45		127.5			
>	Ge	74		107.5			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		102.3			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Sc 45 Int Std for QC Sc		45	

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Wednesday, January 13, 2010 23:14:26
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\936805.mth
Dataset File: C:\elandata\Dataset\100113\QC Std 6.033

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**61.350**	**ug/L**	5.999	50740	0.033
>	Sc	45		**ug/L**		1523592	1523591.922
>	Ge	74		**ug/L**		311484	311484.123
	As	75	**47.020**	**ug/L**	1.338	39139	0.123
	Se	77		**ug/L**		8002	0.005
	Se	82	**51.325**	**ug/L**	3.599	3500	0.011
	Kr	83		**ug/L**		126	0.000
>	Lu	175		**ug/L**		207084	207084.416
	Tl	205	**48.479**	**ug/L**	1.529	292020	1.407
	U	238	**53.303**	**ug/L**	2.228	536803	2.588

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7	122.699				
>	Sc	45		122.5			
>	Ge	74		100.1			
	As	75	94.041				
	Se	77					
	Se	82	102.650				
	Kr	83					
>	Lu	175		96.9			
	Tl	205	96.957				
	U	238	106.605				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 6	Li	7	CCV is out of limits (+/- 10%)
Sc 45 Int Std for QC	Sc	45	

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Wednesday, January 13, 2010 23:18:29
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\936805.mth
Dataset File: C:\elandata\Dataset\100113\QC Std 7.034

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.013**	**ug/L**	125.113	145	0.000
>	Sc	45		**ug/L**		1568889	1568888.628
>	Ge	74		**ug/L**		322341	322340.982
	As	75	**-0.468**	**ug/L**	56.145	539	-0.001
	Se	77		**ug/L**		5958	-0.002
	Se	82	**0.071**	**ug/L**	280.400	-16	0.000
	Kr	83		**ug/L**		110	-0.000
>	Lu	175		**ug/L**		209245	209244.769
	Tl	205	**0.019**	**ug/L**	28.032	842	0.001
	U	238	**-0.038**	**ug/L**	5.315	566	-0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
>	Sc	45		126.1			
>	Ge	74		103.6			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		97.9			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Sc 45 Int Std for QC Sc		45	

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: 1202004422
Sample Date/Time: Wednesday, January 13, 2010 23:30:35
Sample Type:
Sample Description: LANL 6020 DUP
Number of Replicates: 3
Batch ID: 936805|2|rmj
Method File: c:\elandata\Method\936805.mth
Dataset File: C:\elandata\Dataset\100113\1202004422.037

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**42.117**	**ug/L**	4.341	39625	0.023
>	Sc	45		**ug/L**		1731289	1731288.789
>	Ge	74		**ug/L**		321355	321354.936
	As	75	**4.933**	**ug/L**	5.903	5068	0.013
	Se	77		**ug/L**		3705	-0.009
	Se	82	**0.294**	**ug/L**	150.007	-0	0.000
	Kr	83		**ug/L**		225	0.000
>	Lu	175		**ug/L**		226928	226927.515
	Tl	205	**0.343**	**ug/L**	1.274	3041	0.010
	U	238	**2.780**	**ug/L**	2.871	31669	0.135

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
>	Sc	45		139.2			
>	Ge	74		103.3			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		106.2			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Sc 45 Int Std for sam	Sc	45	

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: 1202004423
Sample Date/Time: Wednesday, January 13, 2010 23:34:37
Sample Type:
Sample Description: LANL 6020 MS
Number of Replicates: 3
Batch ID: 936805|2|rmj
Method File: c:\elandata\Method\936805.mth
Dataset File: C:\elandata\Dataset\100113\1202004423.038

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**83.154**	**ug/L**	3.670	77330	0.045
>	Sc	45		**ug/L**		1713168	1713167.781
>	Ge	74		**ug/L**		317769	317769.020
	As	75	**45.030**	**ug/L**	1.111	38279	0.118
	Se	77		**ug/L**		4062	-0.008
	Se	82	**9.754**	**ug/L**	5.910	661	0.002
	Kr	83		**ug/L**		241	0.000
>	Lu	175		**ug/L**		226977	226977.096
	Tl	205	**47.368**	**ug/L**	0.960	312808	1.375
	U	238	**30.047**	**ug/L**	1.695	332163	1.459

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
>	Sc	45		137.7			
>	Ge	74		102.2			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		106.2			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Sc 45 Int Std for sam	Sc	45	

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: 1202004425
Sample Date/Time: Wednesday, January 13, 2010 23:38:39
Sample Type:
Sample Description: LANL 6020 MSD
Number of Replicates: 3
Batch ID: 936805|2|rmj
Method File: c:\elandata\Method\936805.mth
Dataset File: C:\elandata\Dataset\100113\1202004425.039

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**76.414**	**ug/L**	3.730	70035	0.041
>	Sc	45		**ug/L**		1688538	1688538.442
>	Ge	74		**ug/L**		317704	317704.044
	As	75	**40.013**	**ug/L**	0.687	34111	0.104
	Se	77		**ug/L**		4189	-0.008
	Se	82	**8.923**	**ug/L**	3.421	603	0.002
	Kr	83		**ug/L**		214	0.000
>	Lu	175		**ug/L**		224292	224292.476
	Tl	205	**43.465**	**ug/L**	2.194	283682	1.261
	U	238	**27.859**	**ug/L**	2.881	304359	1.353

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
>	Sc	45		135.7			
>	Ge	74		102.1			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		105.0			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Sc 45 Int Std for sam	Sc	45	

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: 1202004424
Sample Date/Time: Wednesday, January 13, 2010 23:42:41
Sample Type:
Sample Description: LANL 6020 SDILT
Number of Replicates: 3
Batch ID: 936805|10|rmj
Method File: c:\elandata\Method\936805.mth
Dataset File: C:\elandata\Dataset\100113\1202004424.040

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**9.330**	**ug/L**	5.475	7968	0.005
>	Sc	45		**ug/L**		1551347	1551347.211
>	Ge	74		**ug/L**		310211	310210.808
	As	75	**0.271**	**ug/L**	113.490	1120	0.001
	Se	77		**ug/L**		5028	-0.005
	Se	82	**-0.004**	**ug/L**	7078.913	-20	-0.000
	Kr	83		**ug/L**		131	0.000
>	Lu	175		**ug/L**		209282	209282.407
	Tl	205	**0.581**	**ug/L**	8.345	4256	0.017
	U	238	**0.455**	**ug/L**	3.262	5577	0.022

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
>	Sc	45		124.7			
>	Ge	74		99.7			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		98.0			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Sc 45 Int Std for sam	Sc	45	

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Wednesday, January 13, 2010 23:46:42
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\936805.mth
Dataset File: C:\elandata\Dataset\100113\QC Std 6.041

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**64.921**	**ug/L**	5.851	52900	0.035
>	Sc	45		**ug/L**		1501387	1501386.856
>	Ge	74		**ug/L**		304339	304338.929
	As	75	**45.871**	**ug/L**	0.843	37334	0.120
	Se	77		**ug/L**		7450	0.004
	Se	82	**51.487**	**ug/L**	3.481	3428	0.011
	Kr	83		**ug/L**		115	0.000
>	Lu	175		**ug/L**		200410	200410.067
	Tl	205	**48.623**	**ug/L**	1.088	283471	1.411
	U	238	**52.903**	**ug/L**	2.436	515636	2.569

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7	129.841				
>	Sc	45		120.7			
>	Ge	74		97.8			
	As	75	91.741				
	Se	77					
	Se	82	102.973				
	Kr	83					
>	Lu	175		93.8			
	Tl	205	97.247				
	U	238	105.805				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 6	Li	7	CCV is out of limits (+/- 10%)
Sc 45 Int Std for QC	Sc	45	

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Wednesday, January 13, 2010 23:50:44
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\936805.mth
Dataset File: C:\elandata\Dataset\100113\QC Std 7.042

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.010**	**ug/L**	46.713	140	0.000
>	Sc	45		**ug/L**		1534583	1534582.543
>	Ge	74		**ug/L**		311057	311056.993
	As	75	**-0.384**	**ug/L**	84.094	587	-0.001
	Se	77		**ug/L**		5528	-0.003
	Se	82	**-0.131**	**ug/L**	32.782	-29	-0.000
	Kr	83		**ug/L**		111	-0.000
>	Lu	175		**ug/L**		204010	204009.854
	Tl	205	**0.128**	**ug/L**	3.132	1465	0.004
	U	238	**-0.035**	**ug/L**	16.701	585	-0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
>	Sc	45		123.3			
>	Ge	74		100.0			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		95.5			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Sc 45 Int Std for QC Sc		45	

QC Action

QC Action Line: Continue

ICPMS #6 Daily Performance Report

Sample ID: Sample
Sample Date/Time: Friday, January 15, 2010 23:34:07
Sample Description:
Method File: C:\elandata\Method\Daily2.mth
Dataset File: c:\elandata\Dataset\091212\Sample.255
Tuning File: c:\elandata\Tuning\default2.tun
Optimization File: c:\elandata\Optimize\default.dac
Dual Detector Mode: Pulse
Acq. Dead Time(ns): 35
Current Dead Time (ns): 35
Number of Replicates: 5

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Be	9.0	1798.3	1798.313	74.522	4.1
	Mg	24.0	22465.5	22465.457	489.213	2.2
	Co	58.9	34520.7	34520.662	386.104	1.1
	Rh	102.9	68325.0	68325.013	651.900	1.0
	In	114.9	76064.2	76064.170	453.325	0.6
	Pb	208.0	45597.7	45597.655	216.888	0.5
⌈>	Ba	137.9	70330.7	70330.696	178.418	0.3
⌊	Ba++	69.0	1852.8	0.026	0.001	2.4
⌈>	Ce	139.9	90202.9	90202.891	531.819	0.6
⌊	CeO	155.9	1524.2	0.017	0.000	2.5
	Bkgd	220.0	19.7	19.700	2.439	12.4

Current Optimization File Data

Current Value	Description
0.82	Nebulizer Gas Flow
13.25	Lens Voltage
1450.00	ICP RF Power
-1781.25	Analog Stage Voltage
900.00	Pulse Stage Voltage
30.00	Discriminator Threshold
-6.00	AC Rod Offset

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	19	12.3	3023.0
Co	59	19	13.0	34010.4
In	115	19	14.8	73040.2

ICPMS #6 Instrument Tuning Report

File Name: default2.tun
File Path: c:\elandata\Tuning

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Pk. Width
He	3.0	3.0	582	2080	0.656
Be	9.0	9.1	2045	2080	0.677
Mg	24.0	24.0	5682	2120	0.620
Mg	25.0	24.9	5901	2080	0.665
Mg	26.0	25.9	6158	2120	0.710
Co	58.9	58.9	14165	2170	0.644
Rh	102.9	102.8	24851	2230	0.709
In	114.9	114.9	27784	2260	0.696
Ce	139.9	139.9	33853	2280	0.752
Pb	206.0	206.0	49948	2430	0.732
Pb	207.0	207.0	50135	2385	0.694
Pb	208.0	208.0	50451	2430	0.719
U	238.1	238.0	57731	2470	0.716

Report Date/Time: Friday, January 15, 2010 23:33:21

ICPMS#6 - Summary Report

Sample ID: Blank
Sample Date/Time: Saturday, January 16, 2010 02:56:40
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beli.mth
Dataset File: C:\elandata\Dataset\100115\Blank.059

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7		ug/L		74	
Be	9		ug/L		13	
Sc	45		ug/L		999339	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	
Be	9	Simple Linear	
Sc	45	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
Li	7					
Be	9					
Sc	45					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Saturday, January 16, 2010 02:59:48
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beli.mth
Dataset File: C:\elandata\Dataset\100115\Standard 1.060

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	10.000	ug/L	1.719	15680	0.018
Be	9	10.000	ug/L	2.022	4212	0.005
Sc	45		ug/L		860147	860147.218

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
Li	7					
Be	9					
Sc	45					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Saturday, January 16, 2010 03:02:53
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\bell.mth
Dataset File: C:\elandata\Dataset\100115\Standard 2.061

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	99.969	ug/L	1.243	154471	0.176
Be	9	99.969	ug/L	1.235	41522	0.047
Sc	45		ug/L		876980	876980.083

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
Li	7					
Be	9					
Sc	45					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Saturday, January 16, 2010 03:05:59
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beli.mth
Dataset File: C:\elandata\Dataset\100115\QC Std 1.062

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	51.341	ug/L	1.324	78882	0.090
Be	9	51.710	ug/L	1.412	21353	0.024
Sc	45		ug/L		871712	871711.558

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
Li	7	102.681				
Be	9	103.419				
Sc	45		87.2			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Saturday, January 16, 2010 03:09:07
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beli.mth
Dataset File: C:\elandata\Dataset\100115\QC Std 2.063

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Li	7	**0.020**	**ug/L**	19.027	111	0.000
|	Be	9	**-0.000**	**ug/L**	3874.845	13	-0.000
⌊>	Sc	45		**ug/L**		1018537	1018537.423

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈	Li	7					
|	Be	9					
⌊>	Sc	45		101.9			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Saturday, January 16, 2010 03:12:15
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beli.mth
Dataset File: C:\elandata\Dataset\100115\QC Std 3.064

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	**11.274**	**ug/L**	1.494	17403	0.020
Be	9	**0.557**	**ug/L**	3.157	241	0.000
Sc	45		**ug/L**		873117	873117.327

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
Li	7	112.736				
Be	9	111.385				
Sc	45		87.4			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Saturday, January 16, 2010 03:15:22
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beli.mth
Dataset File: C:\elandata\Dataset\100115\QC Std 4.065

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	0.129	ug/L	7.211	256	0.000
Be	9	0.063	ug/L	19.175	36	0.000
Sc	45		ug/L		849525	849524.682

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
Li	7					
Be	9					
Sc	45		85.0			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Saturday, January 16, 2010 03:18:29
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beli.mth
Dataset File: C:\elandata\Dataset\100115\QC Std 5.066

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	**20.394**	**ug/L**	0.328	30066	0.036
Be	9	**19.995**	**ug/L**	1.076	7919	0.009
Sc	45		**ug/L**		835236	835235.943

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
Li	7	101.971				
Be	9	99.973				
Sc	45		83.6			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Saturday, January 16, 2010 03:21:35
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beli.mth
Dataset File: C:\elandata\Dataset\100115\QC Std 6.067

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	**52.746**	**ug/L**	0.778	80281	0.093
Be	9	**52.087**	**ug/L**	2.669	21299	0.025
Sc	45		**ug/L**		863545	863544.531

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
Li	7	105.492				
Be	9	104.175				
Sc	45		86.4			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Saturday, January 16, 2010 03:24:43
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\bell.mth
Dataset File: C:\elandata\Dataset\100115\QC Std 7.068

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Li	7	0.025	ug/L	37.131	120	0.000
|	Be	9	0.004	ug/L	76.111	15	0.000
⌊>	Sc	45		ug/L		1012406	1012406.418

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈	Li	7					
|	Be	9					
⌊>	Sc	45		101.3			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 10
Sample Date/Time: Saturday, January 16, 2010 03:27:51
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beli.mth
Dataset File: C:\elandata\Dataset\100115\QC Std 10.069

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Li	7	**1016.557**	**ug/L**	1.195	1468313	1.791
|	Be	9	**1027.612**	**ug/L**	0.759	399061	0.487
⌊>	Sc	45		**ug/L**		820032	820031.850

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈	Li	7	101.656				
|	Be	9	102.761				
⌊>	Sc	45		82.1			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 11
Sample Date/Time: Saturday, January 16, 2010 03:30:56
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beli.mth
Dataset File: C:\elandata\Dataset\100115\QC Std 11.070

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Li	7	51.450	ug/L	1.422	81284	0.091
|	Be	9	51.364	ug/L	1.300	21811	0.024
⌊>	Sc	45		ug/L		896376	896375.848

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈	Li	7	102.899				
|	Be	9	102.728				
⌊>	Sc	45		89.7			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 12
Sample Date/Time: Saturday, January 16, 2010 03:34:05
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beli.mth
Dataset File: C:\elandata\Dataset\100115\QC Std 12.071

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	0.088	ug/L	6.788	241	0.000
Be	9	0.013	ug/L	79.289	20	0.000
Sc	45		ug/L		1049823	1049823.020

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
Li	7					
Be	9					
Sc	45		105.1			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202004422
Sample Date/Time: Saturday, January 16, 2010 03:55:44
Sample Type:
Sample Description: LANL 6020 DUP
Number of Replicates: 3
Batch ID: 936805|2|rmj
Method File: c:\elandata\Method\beli.mth
Dataset File: C:\elandata\Dataset\100115\1202004422.077

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	**29.512**	**ug/L**	2.136	57080	0.052
Be	9	**2.247**	**ug/L**	4.424	1180	0.001
Sc	45		**ug/L**		1096998	1096997.518

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
Li	7					
Be	9					
Sc	45		109.8			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202004423
Sample Date/Time: Saturday, January 16, 2010 03:58:52
Sample Type:
Sample Description: LANL 6020 MS
Number of Replicates: 3
Batch ID: 936805|2|rm|
Method File: c:\elandata\Method\beli.mth
Dataset File: C:\elandata\Dataset\100115\1202004423.078

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	**59.216**	**ug/L**	1.216	118472	0.104
Be	9	**27.178**	**ug/L**	0.810	14624	0.013
Sc	45		**ug/L**		1135234	1135233.540

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
Li	7					
Be	9					
Sc	45		113.6			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202004425
Sample Date/Time: Saturday, January 16, 2010 04:02:01
Sample Type:
Sample Description: LANL 6020 MSD
Number of Replicates: 3
Batch ID: 936805|2|rmj
Method File: c:\elandata\Method\beli.mth
Dataset File: C:\elandata\Dataset\100115\1202004425.079

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Li	7	**53.193**	**ug/L**	0.574	104608	0.094
|	Be	9	**24.608**	**ug/L**	2.207	13014	0.012
⌊>	Sc	45		**ug/L**		1115603	1115602.955

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈	Li	7					
|	Be	9					
⌊>	Sc	45		111.6			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202004424
Sample Date/Time: Saturday, January 16, 2010 04:05:09
Sample Type:
Sample Description: LANL 6020 SDILT
Number of Replicates: 3
Batch ID: 936805|10|rmj
Method File: c:\elandata\Method\beli.mth
Dataset File: C:\elandata\Dataset\100115\1202004424.080

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Li	7	**7.166**	**ug/L**	1.583	12459	0.013
|	Be	9	**0.584**	**ug/L**	13.109	284	0.000
⌊>	Sc	45		**ug/L**		981422	981421.708

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈	Li	7					
|	Be	9					
⌊>	Sc	45		98.2			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Saturday, January 16, 2010 04:08:16
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\bell.mth
Dataset File: C:\elandata\Dataset\100115\QC Std 6.081

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	**52.648**	**ug/L**	0.753	81078	0.093
Be	9	**52.455**	**ug/L**	0.499	21713	0.025
Sc	45		**ug/L**		873672	873671.657

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
Li	7	105.297				
Be	9	104.911				
Sc	45		87.4			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Saturday, January 16, 2010 04:11:24
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beli.mth
Dataset File: C:\elandata\Dataset\100115\QC Std 7.082

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.034**	**ug/L**	23.709	139	0.000
	Be	9	**0.001**	**ug/L**	1343.079	14	0.000
>	Sc	45		**ug/L**		1032656	1032656.312

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
>	Sc	45		103.3			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS #6 Daily Performance Report

Sample ID: Sample
Sample Date/Time: Monday, January 18, 2010 22:33:36
Sample Description:
Method File: C:\elandata\Method\Daily2.mth
Dataset File: c:\elandata\Dataset\091212\Sample.256
Tuning File: c:\elandata\Tuning\default2.tun
Optimization File: c:\elandata\Optimize\default.dac
Dual Detector Mode: Pulse

Acq. Dead Time(ns): 35
Current Dead Time (ns): 35

Number of Replicates: 5

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Be	9.0	1160.0	1160.047	29.114	2.5
	Mg	24.0	14005.5	14005.469	511.874	3.7
	Co	58.9	33361.3	33361.313	394.657	1.2
	Rh	102.9	69513.3	69513.320	492.411	0.7
	In	114.9	75344.2	75344.193	1028.454	1.4
	Pb	208.0	45000.2	45000.177	674.818	1.5
⌈>	Ba	137.9	72086.2	72086.200	627.169	0.9
⌊	Ba++	69.0	1748.9	0.024	0.001	2.5
⌈>	Ce	139.9	91646.2	91646.232	470.642	0.5
⌊	CeO	155.9	1555.2	0.017	0.000	2.8
	Bkgd	220.0	15.7	15.700	4.368	27.8

Current Optimization File Data

Current Value	Description
0.82	Nebulizer Gas Flow
13.25	Lens Voltage
1450.00	ICP RF Power
-1781.25	Analog Stage Voltage
900.00	Pulse Stage Voltage
30.00	Discriminator Threshold
-6.00	AC Rod Offset

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	21	11.0	3488.1
Co	59	21	12.0	36407.3
In	115	21	14.3	78058.0

ICPMS #6 Instrument Tuning Report

File Name: default2.tun
File Path: c:\elandata\Tuning

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Pk. Width
He	3.0	3.0	584	2080	0.651
Be	9.0	9.0	2048	2080	0.671
Mg	24.0	24.0	5692	2120	0.644
Mg	25.0	25.1	5923	2080	0.718
Mg	26.0	26.0	6168	2120	0.692
Co	58.9	58.9	14163	2170	0.638
Rh	102.9	102.9	24856	2230	0.691
In	114.9	114.9	27789	2260	0.680
Ce	139.9	139.9	33846	2280	0.741
Pb	206.0	206.0	49948	2430	0.708
Pb	207.0	207.0	50135	2385	0.671
Pb	208.0	208.0	50451	2430	0.704
U	238.1	238.0	57725	2470	0.702

Report Date/Time: Monday, January 18, 2010 22:07:26

ICPMS#6 - Summary Report

Sample ID: Blank
Sample Date/Time: Tuesday, January 19, 2010 00:05:52
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li.mth
Dataset File: C:\elandata\Dataset\100118\Blank.023

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Li	7		ug/L		103	
⌊>	Sc	45		ug/L		1168518	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈	Li	7					
⌊>	Sc	45					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Tuesday, January 19, 2010 00:08:56
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li.mth
Dataset File: C:\elandata\Dataset\100118\Standard 1.024

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Li	7	10.000	ug/L	4.791	13072	0.011
⌊>	Sc	45		ug/L		1202653	1202652.982

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈	Li	7					
⌊>	Sc	45					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Tuesday, January 19, 2010 00:11:59
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li.mth
Dataset File: C:\elandata\Dataset\100118\Standard 2.025

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Li	7	99.966	ug/L	5.214	123933	0.104
⌊>	Sc	45		ug/L		1187685	1187685.451

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈	Li	7					
⌊>	Sc	45					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Tuesday, January 19, 2010 00:15:01
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li.mth
Dataset File: C:\elandata\Dataset\100118\QC Std 1.026

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	50.995	ug/L	4.179	63350	0.053
Sc	45		ug/L		1189329	1189328.990

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
Li	7	101.990				
Sc	45		101.8			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Tuesday, January 19, 2010 00:18:06
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li.mth
Dataset File: C:\elandata\Dataset\100118\QC Std 2.027

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Li	7	0.008	ug/L	123.150	111	0.000
⌊>	Sc	45		ug/L		1157009	1157008.622

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈	Li	7					
⌊>	Sc	45		99.0			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Tuesday, January 19, 2010 00:21:12
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li.mth
Dataset File: C:\elandata\Dataset\100118\QC Std 3.028

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Li	7	11.346	ug/L	5.980	14300	0.012
⌊>	Sc	45		ug/L		1199562	1199562.119

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈	Li	7	113.464				
⌊>	Sc	45		102.7			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Tuesday, January 19, 2010 00:24:15
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li.mth
Dataset File: C:\elandata\Dataset\100118\QC Std 4.029

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Li	7	0.119	ug/L	9.290	239	0.000
⌊>	Sc	45		ug/L		1125356	1125355.627

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈	Li	7					
⌊>	Sc	45		96.3			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Tuesday, January 19, 2010 00:27:19
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li.mth
Dataset File: C:\elandata\Dataset\100118\QC Std 5.030

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	21.166	ug/L	4.055	24947	0.022
Sc	45		ug/L		1125590	1125590.348

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
Li	7	105.831				
Sc	45		96.3			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Tuesday, January 19, 2010 00:30:23
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li.mth
Dataset File: C:\elandata\Dataset\100118\QC Std 6.031

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Li	7	51.587	ug/L	4.492	63099	0.054
⌊>	Sc	45		ug/L		1171125	1171125.158

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈	Li	7	103.174				
⌊>	Sc	45		100.2			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Tuesday, January 19, 2010 00:33:28
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li.mth
Dataset File: C:\elandata\Dataset\100118\QC Std 7.032

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	0.036	ug/L	39.558	144	0.000
Sc	45		ug/L		1147902	1147902.423

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
Li	7					
Sc	45		98.2			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202004420
Sample Date/Time: Tuesday, January 19, 2010 00:36:34
Sample Type:
Sample Description: LANL 6020 MB
Number of Replicates: 3
Batch ID: 936805|2|rmj
Method File: c:\elandata\Method\li.mth
Dataset File: C:\elandata\Dataset\100118\1202004420.033

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	-0.020	ug/L	24.813	80	-0.000
>	Sc	45		ug/L		1190227	1190227.069

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
>	Sc	45		101.9			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202004421
Sample Date/Time: Tuesday, January 19, 2010 00:39:39
Sample Type:
Sample Description: LANL 6020 LCS
Number of Replicates: 3
Batch ID: 936805|20|rmj
Method File: c:\elandata\Method\li.mth
Dataset File: C:\elandata\Dataset\100118\1202004421.034

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Li	7	6.182	ug/L	4.767	7840	0.006
⌊>	Sc	45		ug/L		1199519	1199519.245

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈	Li	7					
⌊>	Sc	45		102.7			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 243472001
Sample Date/Time: Tuesday, January 19, 2010 00:42:44
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 936805|2|rmj
Method File: c:\elandata\Method\li.mth
Dataset File: C:\elandata\Dataset\100118\243472001.035

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Li	7	45.936	ug/L	5.571	58393	0.048
⌊>	Sc	45		ug/L		1217000	1217000.278

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈	Li	7					
⌊>	Sc	45		104.1			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 243472002
Sample Date/Time: Tuesday, January 19, 2010 00:45:49
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 936805|2|rmj
Method File: c:\elandata\Method\li.mth
Dataset File: C:\elandata\Dataset\100118\243472002.036

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	**28.764**	**ug/L**	4.724	36222	0.030
Sc	45		**ug/L**		1204203	1204203.395

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
Li	7					
Sc	45		103.1			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 243472003
Sample Date/Time: Tuesday, January 19, 2010 00:48:53
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 936805|2|rmj
Method File: c:\elandata\Method\li.mth
Dataset File: C:\elandata\Dataset\100118\243472003.037

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	48.153	ug/L	4.619	61500	0.050
Sc	45		ug/L		1222618	1222618.416

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
Li	7					
Sc	45		104.6			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Tuesday, January 19, 2010 00:51:57
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li.mth
Dataset File: C:\elandata\Dataset\100118\QC Std 6.038

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	54.831	ug/L	4.770	67958	0.057
Sc	45		ug/L		1186992	1186991.804

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
Li	7	109.662				
Sc	45		101.6			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Tuesday, January 19, 2010 00:55:02
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li.mth
Dataset File: C:\elandata\Dataset\100118\QC Std 7.039

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	0.014	ug/L	111.049	118	0.000
>	Sc	45		ug/L		1145506	1145505.871

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
>	Sc	45		98.0			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

==========
Method Name: SOIL
Method Description: 7471A, ILM04 ANALYST JXL1
Element: Hg

Date: 01/07/2010
Technique:FI-MHS
Calibration Type:
Hg, Calc. Intercept : Linear
Wavelength: 253.7 nm
Sample Info Name: 010710S1.SIF Results Data Set Name: 010710S2

==========
Element: Hg Seq. No.: 1 AS Loc.: 1 Date: 01/07/2010
Sample ID: Calib Blank

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1			0.0034	0.0034	10:15:26	No
2			0.0035	0.0035	10:16:01	No
Mean:			0.0034			
SD :			0.0000			
%RSD:			1.1933			

Auto-zero performed.

==========
Element: Hg Seq. No.: 2 AS Loc.: 2 Date: 01/07/2010
Sample ID: S0.2

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1			0.0024	0.0058	10:17:24	No
2			0.0021	0.0055	10:17:59	No
Mean:			0.0023			
SD :			0.0002			
%RSD:			10.1161			

[Hg] Standard number 1 applied. [0.200]
Correlation Coefficient: 1.00000 Slope: 0.01126
Intercept : 0.00000

==========
Element: Hg Seq. No.: 3 AS Loc.: 3 Date: 01/07/2010
Sample ID: S0.5

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1			0.0050	0.0084	10:19:22	No
2			0.0040	0.0074	10:19:58	No
Mean:			0.0045			
SD :			0.0007			
%RSD:			16.5462			

[Hg] Standard number 2 applied. [0.500]
Correlation Coefficient: 0.99318 Slope: 0.00886
Intercept : 0.00018

==========
Element: Hg Seq. No.: 4 AS Loc.: 4 Date: 01/07/2010
Sample ID: S2.0

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1			0.0188	0.0222	10:21:22	No
2			0.0195	0.0229	10:21:57	No
Mean:			0.0191			
SD :			0.0005			
%RSD:			2.5139			

[Hg] Standard number 3 applied. [2.000]

Correlation Coefficient: 0.99956 Slope: 0.00952
Intercept : 0.00004

==========

Element: Hg Seq. No.: 5 AS Loc.: 5 Date: 01/07/2010
Sample ID: S5.0

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1			0.0478	0.0512	10:23:22	No
2			0.0466	0.0500	10:23:57	No
Mean:			0.0472			
SD :			0.0008			
%RSD:			1.7801			

[Hg] Standard number 4 applied. [5.000]
Correlation Coefficient: 0.99993 Slope: 0.00942
Intercept : 0.00009

==========

Element: Hg Seq. No.: 6 AS Loc.: 6 Date: 01/07/2010
Sample ID: S10

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1			0.0897	0.0931	10:25:23	No
2			0.0899	0.0933	10:25:58	No
Mean:			0.0898			
SD :			0.0001			
%RSD:			0.1097			

[Hg] Standard number 5 applied. [10.00]
Correlation Coefficient: 0.99967 Slope: 0.00901
Intercept : 0.00056

Calibration data for Hg

Standard ID	Mean Signal (Pk Height)	Entered Concentration (µg/L)	Calculated Concentration (µg/L)	Standard Deviation	%RSD
Calib Blank	0.0034	---	----	----	----
S0.2	0.0023	0.200	0.188	0.0002	10.1
S0.5	0.0045	0.500	0.436	0.0007	16.5
S2.0	0.0191	2.000	2.061	0.0005	2.5
S5.0	0.0472	5.000	5.173	0.0008	1.8
S10	0.0898	10.000	9.905	0.0001	0.1

Correlation Coefficient: 0.99967 Slope: 0.00901 Intercept: 0.0006

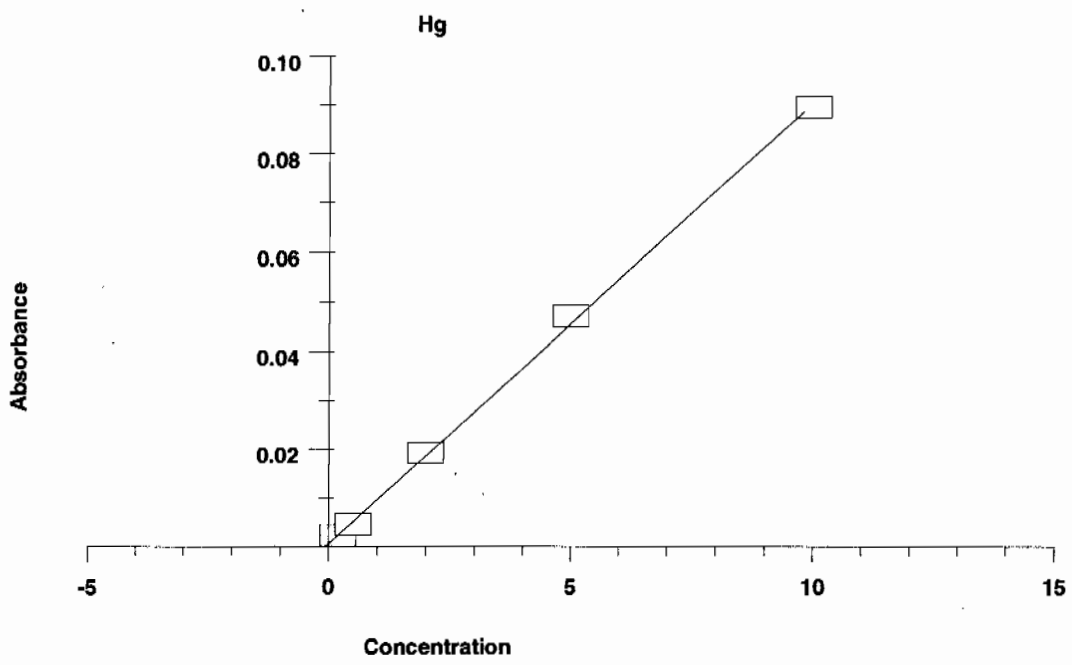

==========

Element: Hg Seq. No.: 7 AS Loc.: 9 Date: 01/07/2010
Sample ID: ICV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	5.017	5.017	0.0458	0.0492	10:27:27	No
2	5.079	5.079	0.0463	0.0497	10:28:02	No
Mean:	5.048	5.048	0.0460			
SD :	0.0436	0.0436	0.0004			
%RSD:	0.9	0.9	0.8525			

QC value within specified limits.

==========

Element: Hg Seq. No.: 8 AS Loc.: 10 Date: 01/07/2010
Sample ID: ICB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.077	-0.077	-0.0001	0.0033	10:29:24	No
2	-0.069	-0.069	-0.0001	0.0034	10:29:58	No
Mean:	-0.073	-0.073	-0.0001			
SD :	0.0061	0.0061	0.0001			
%RSD:	8.4	8.4	57.6697			

QC value within specified limits.

==========

Element: Hg Seq. No.: 9 AS Loc.: 11 Date: 01/07/2010
Sample ID: CRDL

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.212	0.212	0.0025	0.0059	10:31:21	No
2	0.190	0.190	0.0023	0.0057	10:31:56	No
Mean:	0.201	0.201	0.0024			
SD :	0.0158	0.0158	0.0001			
%RSD:	7.8	7.8	5.9868			

QC value within specified limits.

Element: Hg Seq. No.: 10 AS Loc.: 7 Date: 01/07/2010
Sample ID: CCV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	5.068	5.068	0.0462	0.0496	10:33:21	No
2	4.958	4.958	0.0452	0.0486	10:33:55	No
Mean:	5.013	5.013	0.0457			
SD :	0.0782	0.0782	0.0007			
%RSD:	1.6	1.6	1.5400			

QC value within specified limits.

Element: Hg Seq. No.: 11 AS Loc.: 8 Date: 01/07/2010
Sample ID: CCB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.081	-0.081	-0.0002	0.0033	10:35:23	No
2	-0.073	-0.073	-0.0001	0.0033	10:35:58	No
Mean:	-0.077	-0.077	-0.0001			
SD :	0.0058	0.0058	0.0001			
%RSD:	7.5	7.5	39.2466			

QC value within specified limits.

Element: Hg Seq. No.: 12 AS Loc.: 12 Date: 01/07/2010
Sample ID: 1202006434|i||937632|MB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.015	0.015	0.0007	0.0041	10:37:24	No
2	0.012	0.012	0.0007	0.0041	10:37:59	No
Mean:	0.014	0.014	0.0007			
SD :	0.0017	0.0017	0.0000			
%RSD:	12.2	12.2	2.1895			

Element: Hg Seq. No.: 13 AS Loc.: 13 Date: 01/07/2010
Sample ID: 1202006439|i|10||LCS

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	2.964	2.964	0.0273	0.0307	10:39:23	No
2	3.060	3.060	0.0281	0.0315	10:39:58	No
Mean:	3.012	3.012	0.0277			
SD :	0.0677	0.0677	0.0006			
%RSD:	2.2	2.2	2.2031			

Element: Hg Seq. No.: 14 AS Loc.: 14 Date: 01/07/2010
Sample ID: 243385001|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.280	0.280	0.0031	0.0065	10:41:24	No
2	0.269	0.269	0.0030	0.0064	10:41:59	No
Mean:	0.274	0.274	0.0030			
SD :	0.0081	0.0081	0.0001			
%RSD:	2.9	2.9	2.3995			

Element: Hg Seq. No.: 15 AS Loc.: 15 Date: 01/07/2010
Sample ID: 1202006435|i|||DUP

%RSD: 3.5 3.5 3.0607

==========

Element: Hg Seq. No.: 21 AS Loc.: 21 Date: 01/07/2010
Sample ID: 243385004|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.513	0.513	0.0052	0.0086	10:55:13	No
2	0.349	0.349	0.0037	0.0071	10:55:48	No
Mean:	0.431	0.431	0.0044			
SD :	0.1163	0.1163	0.0010			
%RSD:	27.0	27.0	23.5798			

==========

Element: Hg Seq. No.: 22 AS Loc.: 7 Date: 01/07/2010
Sample ID: CCV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	5.266	5.266	0.0480	0.0514	10:57:12	No
2	5.299	5.299	0.0483	0.0517	10:57:47	No
Mean:	5.283	5.283	0.0481			
SD :	0.0232	0.0232	0.0002			
%RSD:	0.4	0.4	0.4345			

QC value within specified limits.

==========

Element: Hg Seq. No.: 23 AS Loc.: 8 Date: 01/07/2010
Sample ID: CCB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.121	-0.121	-0.0005	0.0029	10:59:14	No
2	-0.118	-0.118	-0.0005	0.0029	10:59:49	No
Mean:	-0.119	-0.119	-0.0005			
SD :	0.0023	0.0023	0.0000			
%RSD:	1.9	1.9	4.0037			

QC value within specified limits.

==========

Element: Hg Seq. No.: 24 AS Loc.: 22 Date: 01/07/2010
Sample ID: 243385005|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.496	0.496	0.0050	0.0084	11:01:14	No
2	0.355	0.355	0.0038	0.0072	11:01:49	No
Mean:	0.425	0.425	0.0044			
SD :	0.0993	0.0993	0.0009			
%RSD:	23.4	23.4	20.3771			

==========

Element: Hg Seq. No.: 25 AS Loc.: 23 Date: 01/07/2010
Sample ID: 243385006|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.297	0.297	0.0032	0.0067	11:03:12	No
2	0.239	0.239	0.0027	0.0061	11:03:47	No
Mean:	0.268	0.268	0.0030			
SD :	0.0412	0.0412	0.0004			
%RSD:	15.4	15.4	12.4851			

==========

Element: Hg Seq. No.: 26 AS Loc.: 24 Date: 01/07/2010
Sample ID: 243385007|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.471	0.471	0.0048	0.0082	11:05:12	No
2	0.466	0.466	0.0048	0.0082	11:05:47	No
Mean:	0.468	0.468	0.0048			
SD :	0.0034	0.0034	0.0000			
%RSD:	0.7	0.7	0.6406			

Element: Hg Seq. No.: 27 AS Loc.: 25 Date: 01/07/2010
Sample ID: 243385008|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.264	0.264	0.0029	0.0064	11:07:11	No
2	0.247	0.247	0.0028	0.0062	11:07:46	No
Mean:	0.255	0.255	0.0029			
SD :	0.0119	0.0119	0.0001			
%RSD:	4.7	4.7	3.7399			

Element: Hg Seq. No.: 28 AS Loc.: 26 Date: 01/07/2010
Sample ID: 243385009|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.169	0.169	0.0021	0.0055	11:09:11	No
2	0.186	0.186	0.0022	0.0057	11:09:46	No
Mean:	0.178	0.178	0.0022			
SD :	0.0115	0.0115	0.0001			
%RSD:	6.5	6.5	4.8151			

Element: Hg Seq. No.: 29 AS Loc.: 27 Date: 01/07/2010
Sample ID: 243385010|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.165	0.165	0.0020	0.0055	11:11:10	No
2	0.177	0.177	0.0022	0.0056	11:11:45	No
Mean:	0.171	0.171	0.0021			
SD :	0.0085	0.0085	0.0001			
%RSD:	5.0	5.0	3.6475			

Element: Hg Seq. No.: 30 AS Loc.: 28 Date: 01/07/2010
Sample ID: 243385011|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.320	0.320	0.0034	0.0069	11:13:10	No
2	0.291	0.291	0.0032	0.0066	11:13:45	No
Mean:	0.306	0.306	0.0033			
SD :	0.0207	0.0207	0.0002			
%RSD:	6.8	6.8	5.6384			

Element: Hg Seq. No.: 31 AS Loc.: 29 Date: 01/07/2010
Sample ID: 1202006448|i||937638|MB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.041	-0.041	0.0002	0.0036	11:15:11	No
2	-0.048	-0.048	0.0001	0.0035	11:15:46	No
Mean:	-0.045	-0.045	0.0002			
SD :	0.0050	0.0050	0.0000			

%RSD: 11.1 11.1 28.9448

==========

Element: Hg Seq. No.: 32 AS Loc.: 30 Date: 01/07/2010
Sample ID: 1202006453|i|10||LCS

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	4.321	4.321	0.0395	0.0429	11:17:13	No
2	4.436	4.436	0.0405	0.0439	11:17:49	No
Mean:	4.379	4.379	0.0400			
SD :	0.0814	0.0814	0.0007			
%RSD:	1.9	1.9	1.8329			

==========

Element: Hg Seq. No.: 33 AS Loc.: 31 Date: 01/07/2010
Sample ID: 243457001|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.216	0.216	0.0025	0.0059	11:19:16	No
2	0.194	0.194	0.0023	0.0057	11:19:51	No
Mean:	0.205	0.205	0.0024			
SD :	0.0157	0.0157	0.0001			
%RSD:	7.7	7.7	5.8916			

==========

Element: Hg Seq. No.: 34 AS Loc.: 7 Date: 01/07/2010
Sample ID: CCV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	5.476	5.476	0.0499	0.0533	11:21:18	No
2	5.459	5.459	0.0497	0.0532	11:21:53	No
Mean:	5.468	5.468	0.0498			
SD :	0.0118	0.0118	0.0001			
%RSD:	0.2	0.2	0.2141			

QC value within specified limits.

==========

Element: Hg Seq. No.: 35 AS Loc.: 8 Date: 01/07/2010
Sample ID: CCB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.150	-0.150	-0.0008	0.0026	11:23:21	No
2	-0.146	-0.146	-0.0008	0.0027	11:23:56	No
Mean:	-0.148	-0.148	-0.0008			
SD :	0.0031	0.0031	0.0000			
%RSD:	2.1	2.1	3.6014			

QC value within specified limits.

==========

Element: Hg Seq. No.: 36 AS Loc.: 32 Date: 01/07/2010
Sample ID: 1202006449|i|||DUP

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.188	0.188	0.0023	0.0057	11:25:20	No
2	0.160	0.160	0.0020	0.0054	11:25:55	No
Mean:	0.174	0.174	0.0021			
SD :	0.0196	0.0196	0.0002			
%RSD:	11.2	11.2	8.2869			

==========

Element: Hg Seq. No.: 37 AS Loc.: 33 Date: 01/07/2010
Sample ID: 1202006451|i|||MS

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	2.575	2.575	0.0238	0.0272	11:27:16	No
2	2.478	2.478	0.0229	0.0263	11:27:51	No
Mean:	2.526	2.526	0.0233			
SD :	0.0685	0.0685	0.0006			
%RSD:	2.7	2.7	2.6467			

Element: Hg Seq. No.: 38 AS Loc.: 34 Date: 01/07/2010
Sample ID: 1202006452|i|||MSD

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	2.600	2.600	0.0240	0.0274	11:29:11	No
2	2.585	2.585	0.0238	0.0273	11:29:46	No
Mean:	2.593	2.593	0.0239			
SD :	0.0106	0.0106	0.0001			
%RSD:	0.4	0.4	0.3982			

Element: Hg Seq. No.: 39 AS Loc.: 35 Date: 01/07/2010
Sample ID: 1202006450|i|5||SDILT

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.142	-0.142	-0.0007	0.0027	11:31:08	No
2	-0.154	-0.154	-0.0008	0.0026	11:31:43	No
Mean:	-0.148	-0.148	-0.0008			
SD :	0.0085	0.0085	0.0001			
%RSD:	5.7	5.7	9.8499			

Element: Hg Seq. No.: 40 AS Loc.: 36 Date: 01/07/2010
Sample ID: 243457002|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.489	0.489	0.0050	0.0084	11:33:05	No
2	0.474	0.474	0.0048	0.0083	11:33:40	No
Mean:	0.482	0.482	0.0049			
SD :	0.0103	0.0103	0.0001			
%RSD:	2.1	2.1	1.8967			

Element: Hg Seq. No.: 41 AS Loc.: 37 Date: 01/07/2010
Sample ID: 243457003|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.280	0.280	0.0031	0.0065	11:35:02	No
2	0.247	0.247	0.0028	0.0062	11:35:37	No
Mean:	0.263	0.263	0.0029			
SD :	0.0231	0.0231	0.0002			
%RSD:	8.8	8.8	7.1080			

Element: Hg Seq. No.: 42 AS Loc.: 38 Date: 01/07/2010
Sample ID: 243457004|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.223	0.223	0.0026	0.0060	11:36:58	No
2	0.212	0.212	0.0025	0.0059	11:37:33	No
Mean:	0.218	0.218	0.0025			
SD :	0.0078	0.0078	0.0001			

%RSD: 3.6 3.6 2.7838

==========

Element: Hg Seq. No.: 43 AS Loc.: 39 Date: 01/07/2010
Sample ID: 243472001|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.005	0.005	0.0006	0.0040	11:38:56	No
2	0.016	0.016	0.0007	0.0041	11:39:31	No
Mean:	0.010	0.010	0.0007			
SD :	0.0079	0.0079	0.0001			
%RSD:	75.7	75.7	10.9212			

==========

Element: Hg Seq. No.: 44 AS Loc.: 40 Date: 01/07/2010
Sample ID: 243472002|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.006	-0.006	0.0005	0.0039	11:40:55	No
2	-0.020	-0.020	0.0004	0.0038	11:41:29	No
Mean:	-0.013	-0.013	0.0004			
SD :	0.0097	0.0097	0.0001			
%RSD:	75.8	75.8	19.5298			

==========

Element: Hg Seq. No.: 45 AS Loc.: 41 Date: 01/07/2010
Sample ID: 243472003|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.018	-0.018	0.0004	0.0038	11:42:53	No
2	-0.029	-0.029	0.0003	0.0037	11:43:28	No
Mean:	-0.024	-0.024	0.0003			
SD :	0.0076	0.0076	0.0001			
%RSD:	31.9	31.9	19.8760			

==========

Element: Hg Seq. No.: 46 AS Loc.: 7 Date: 01/07/2010
Sample ID: CCV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	5.455	5.455	0.0497	0.0531	11:44:53	No
2	5.509	5.509	0.0502	0.0536	11:45:28	No
Mean:	5.482	5.482	0.0499			
SD :	0.0377	0.0377	0.0003			
%RSD:	0.7	0.7	0.6795			

QC value within specified limits.

==========

Element: Hg Seq. No.: 47 AS Loc.: 8 Date: 01/07/2010
Sample ID: CCB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.165	-0.165	-0.0009	0.0025	11:46:56	No
2	-0.162	-0.162	-0.0009	0.0025	11:47:31	No
Mean:	-0.164	-0.164	-0.0009			
SD :	0.0023	0.0023	0.0000			
%RSD:	1.4	1.4	2.3130			

QC value within specified limits.

==========

Element: Hg Seq. No.: 48 AS Loc.: 42 Date: 01/07/2010
Sample ID: 243521001|i|||

Miscellaneous

Prep LogBook

Analyst: FGA Verified by:_____

Batch: 936804

Lab SOP: GL-MA-E-009 REV# 19

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1202004421	UI062540-MS	.501	g
MS	1202004423	UI091015-A	.5	mL
MS	1202004423	UI091015-B	.5	mL
MSD	1202004425	UI091015-A	.5	mL
MSD	1202004425	UI091015-B	.5	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1202004420		SW846 3050B	29-DEC-2009 13:00	0.503 g	50 mL	99.40358	SOIL
LCS	1202004421		SW846 3050B	29-DEC-2009 13:00	0.501 g	50 mL	99.8004	SOIL
SAMPLE	243457001		SW846 3050B	29-DEC-2009 13:00	0.5 g	50 mL	100	SOIL
SAMPLE	243457002		SW846 3050B	29-DEC-2009 13:00	0.51 g	50 mL	98.03922	SOIL
SAMPLE	243457003		SW846 3050B	29-DEC-2009 13:00	0.506 g	50 mL	98.81423	SOIL
SAMPLE	243457004		SW846 3050B	29-DEC-2009 13:00	0.51 g	50 mL	98.03922	SOIL
SAMPLE	243472001		SW846 3050B	29-DEC-2009 13:00	0.509 g	50 mL	98.23183	SOIL
SAMPLE	243472002		SW846 3050B	29-DEC-2009 13:00	0.513 g	50 mL	97.46589	SOIL
SAMPLE	243472003		SW846 3050B	29-DEC-2009 13:00	0.507 g	50 mL	98.61933	SOIL
SAMPLE	243492001		SW846 3050B	29-DEC-2009 13:00	0.509 g	50 mL	98.23183	SOIL
SAMPLE	243492002		SW846 3050B	29-DEC-2009 13:00	0.5 g	50 mL	100	SOIL
SAMPLE	243492003		SW846 3050B	29-DEC-2009 13:00	0.507 g	50 mL	98.61933	SOIL
SAMPLE	243492004		SW846 3050B	29-DEC-2009 13:00	0.5 g	50 mL	100	SOIL
SAMPLE	243492005		SW846 3050B	29-DEC-2009 13:00	0.516 g	50 mL	96.89922	SOIL
SAMPLE	243492006		SW846 3050B	29-DEC-2009 13:00	0.507 g	50 mL	98.61933	SOIL
SAMPLE	243492007		SW846 3050B	29-DEC-2009 13:00	0.509 g	50 mL	98.23183	SOIL
SAMPLE	243547002		SW846 3050B	29-DEC-2009 13:00	0.521 g	50 mL	95.96929	SOIL
SAMPLE	243547003		SW846 3050B	29-DEC-2009 13:00	0.507 g	50 mL	98.61933	SOIL
SAMPLE	243549002		SW846 3050B	29-DEC-2009 13:00	0.503 g	50 mL	99.40358	SOIL
DUP	1202004422	243549002	SW846 3050B	29-DEC-2009 13:00	0.515 g	50 mL	97.08738	SOIL
MS	1202004423	243549002	SW846 3050B	29-DEC-2009 13:00	0.517 g	50 mL	96.7118	SOIL
MSD	1202004425	243549002	SW846 3050B	29-DEC-2009 13:00	0.507 g	50 mL	98.61933	SOIL
SDILT	1202004424	243549002	SW846 3050B	29-DEC-2009 13:00	0.503 g	50 mL	99.40358	SOIL

Reagent/Solvent Lot ID	Amount	Description
1203655-02	1.5 mL	Hydrogen Peroxide 30%
1234886	5 mL	Nitric Acid CONC.

Comments Clumpy,gray soil.

Prep LogBook

Analyst: FGA Verified by:_____

Batch: 936807

Lab SOP: GL-MA-E-009 REV# 19

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1202004427	UI062540-I	.503	g
MS	1202004429	UI091124-01	.25	mL
MS	1202004429	UI091124-06	.25	mL
MSD	1202004431	UI091124-01	.25	mL
MSD	1202004431	UI091124-06	.25	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1202004426		SW846 3050B	29-DEC-2009 13:00	0.505 g	50 mL	99.0099	SOIL
LCS	1202004427		SW846 3050B	29-DEC-2009 13:00	0.503 g	50 mL	99.40358	SOIL
SAMPLE	243457001		SW846 3050B	29-DEC-2009 13:00	0.503 g	50 mL	99.40358	SOIL
SAMPLE	243457002		SW846 3050B	29-DEC-2009 13:00	0.501 g	50 mL	99.8004	SOIL
SAMPLE	243457003		SW846 3050B	29-DEC-2009 13:00	0.501 g	50 mL	99.8004	SOIL
SAMPLE	243457004		SW846 3050B	29-DEC-2009 13:00	0.505 g	50 mL	99.0099	SOIL
SAMPLE	243472001		SW846 3050B	29-DEC-2009 13:00	0.507 g	50 mL	98.61933	SOIL
SAMPLE	243472002		SW846 3050B	29-DEC-2009 13:00	0.508 g	50 mL	98.4252	SOIL
SAMPLE	243472003		SW846 3050B	29-DEC-2009 13:00	0.511 g	50 mL	97.84736	SOIL
SAMPLE	243492001		SW846 3050B	29-DEC-2009 13:00	0.525 g	50 mL	95.2381	SOIL
SAMPLE	243492002		SW846 3050B	29-DEC-2009 13:00	0.5 g	50 mL	100	SOIL
SAMPLE	243492003		SW846 3050B	29-DEC-2009 13:00	0.521 g	50 mL	95.96929	SOIL
SAMPLE	243492004		SW846 3050B	29-DEC-2009 13:00	0.501 g	50 mL	99.8004	SOIL
SAMPLE	243492005		SW846 3050B	29-DEC-2009 13:00	0.503 g	50 mL	99.40358	SOIL
SAMPLE	243492006		SW846 3050B	29-DEC-2009 13:00	0.516 g	50 mL	96.89922	SOIL
SAMPLE	243492007		SW846 3050B	29-DEC-2009 13:00	0.503 g	50 mL	99.40358	SOIL
SAMPLE	243547002		SW846 3050B	29-DEC-2009 13:00	0.512 g	50 mL	97.65625	SOIL
SAMPLE	243547003		SW846 3050B	29-DEC-2009 13:00	0.5 g	50 mL	100	SOIL
SAMPLE	243549002		SW846 3050B	29-DEC-2009 13:00	0.507 g	50 mL	98.61933	SOIL
DUP	1202004428	243549002	SW846 3050B	29-DEC-2009 13:00	0.501 g	50 mL	99.8004	SOIL
MS	1202004429	243549002	SW846 3050B	29-DEC-2009 13:00	0.51 g	50 mL	98.03922	SOIL
MSD	1202004431	243549002	SW846 3050B	29-DEC-2009 13:00	0.509 g	50 mL	98.23183	SOIL
SDILT	1202004430	243549002	SW846 3050B	29-DEC-2009 13:00	0.507 g	50 mL	98.61933	SOIL

Reagent/Solvent Lot ID	Amount	Description
1244970	10 mL	HYDROCHLORIC ACID
1234886	1.25 mL	Nitric Acid CONC.

Comments Clumpy,gray soil.

Prep LogBook

Analyst: FGA Verified by:_____

Batch: 941049

Lab SOP: GL-MA-E-009 REV# 19

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1202014119	UI062540-I	.51	g
MS	1202004429	UI091216-01	.25	mL
MS	1202004429	UI091216-06	.25	mL
MSD	1202004431	UI091216-01	.25	mL
MSD	1202004431	UI091216-06	.25	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1202014118		SW846 3050B	13-JAN-2010 12:45	0.5 g	50 mL	100	SOIL
LCS	1202014119		SW846 3050B	13-JAN-2010 12:45	0.51 g	50 mL	98.03922	SOIL
SAMPLE	243457001		SW846 3050B	13-JAN-2010 12:45	0.505 g	50 mL	99.0099	SOIL
SAMPLE	243457002		SW846 3050B	13-JAN-2010 12:45	0.503 g	50 mL	99.40358	SOIL
SAMPLE	243457003		SW846 3050B	13-JAN-2010 12:45	0.523 g	50 mL	95.60229	SOIL
SAMPLE	243457004		SW846 3050B	13-JAN-2010 12:45	0.504 g	50 mL	99.20635	SOIL
SAMPLE	243472001		SW846 3050B	13-JAN-2010 12:45	0.502 g	50 mL	99.60159	SOIL
SAMPLE	243472002		SW846 3050B	13-JAN-2010 12:45	0.545 g	50 mL	91.74312	SOIL
SAMPLE	243472003		SW846 3050B	13-JAN-2010 12:45	0.516 g	50 mL	96.89922	SOIL
SAMPLE	243492001		SW846 3050B	13-JAN-2010 12:45	0.525 g	50 mL	95.2381	SOIL
SAMPLE	243492002		SW846 3050B	13-JAN-2010 12:45	0.516 g	50 mL	96.89922	SOIL
SAMPLE	243492003		SW846 3050B	13-JAN-2010 12:45	0.542 g	50 mL	92.25092	SOIL
SAMPLE	243492004		SW846 3050B	13-JAN-2010 12:45	0.52 g	50 mL	96.15385	SOIL
SAMPLE	243492005		SW846 3050B	13-JAN-2010 12:45	0.52 g	50 mL	96.15385	SOIL
SAMPLE	243492006		SW846 3050B	13-JAN-2010 12:45	0.546 g	50 mL	91.57509	SOIL
SAMPLE	243492007		SW846 3050B	13-JAN-2010 12:45	0.509 g	50 mL	98.23183	SOIL
SAMPLE	243547002		SW846 3050B	13-JAN-2010 12:45	0.517 g	50 mL	96.7118	SOIL
SAMPLE	243547003		SW846 3050B	13-JAN-2010 12:45	0.53 g	50 mL	94.33962	SOIL
SAMPLE	243549002		SW846 3050B	13-JAN-2010 12:45	0.534 g	50 mL	93.63296	SOIL
DUP	1202004428	243549002	SW846 3050B	13-JAN-2010 12:45	0.5 g	50 mL	100	SOIL
MS	1202004429	243549002	SW846 3050B	13-JAN-2010 12:45	0.505 g	50 mL	99.0099	SOIL
MSD	1202004431	243549002	SW846 3050B	13-JAN-2010 12:45	0.513 g	50 mL	97.46589	SOIL
SDILT	1202004430	243549002	SW846 3050B	13-JAN-2010 12:45	0.534 g	50 mL	93.63296	SOIL

Reagent/Solvent Lot ID	Amount	Description
1252838	10 mL	HYDROCHLORIC ACID
1252836	1.25 mL	Nitric Acid CONC.

Comments: Brown,medium soil.

Prep LogBook

Analyst: TXB3 Verified by:_____

Batch: 937637

Lab SOP: GL-MA-E-010 REV# 23

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1202006453	UI031809A	.201	g
MS	1202006451	WHG100106-14	.3	mL
MSD	1202006452	WHG100106-14	.3	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1202006448		SW846 7471A Prep	06-JAN-2010 13:05	0.507 g	30 mL	59.1716	SOIL
LCS	1202006453		SW846 7471A Prep	06-JAN-2010 13:05	0.201 g	30 mL	149.25373	SOIL
SAMPLE	243457001		SW846 7471A Prep	06-JAN-2010 13:05	0.552 g	30 mL	54.34783	SOIL
DUP	1202006449	243457001	SW846 7471A Prep	06-JAN-2010 13:05	0.523 g	30 mL	57.36138	SOIL
SDILT	1202006450	243457001	SW846 7471A Prep	06-JAN-2010 13:05	0.552 g	30 mL	54.34783	SOIL
MS	1202006451	243457001	SW846 7471A Prep	06-JAN-2010 13:05	0.55 g	30 mL	54.54545	SOIL
MSD	1202006452	243457001	SW846 7471A Prep	06-JAN-2010 13:05	0.6 g	30 mL	50	SOIL
SAMPLE	243457002		SW846 7471A Prep	06-JAN-2010 13:05	0.5 g	30 mL	60	SOIL
SAMPLE	243457003		SW846 7471A Prep	06-JAN-2010 13:05	0.548 g	30 mL	54.74453	SOIL
SAMPLE	243457004		SW846 7471A Prep	06-JAN-2010 13:05	0.575 g	30 mL	52.17391	SOIL
SAMPLE	243472001		SW846 7471A Prep	06-JAN-2010 13:05	0.542 g	30 mL	55.35055	SOIL
SAMPLE	243472002		SW846 7471A Prep	06-JAN-2010 13:05	0.549 g	30 mL	54.64481	SOIL
SAMPLE	243472003		SW846 7471A Prep	06-JAN-2010 13:05	0.548 g	30 mL	54.74453	SOIL
SAMPLE	243521001		SW846 7471A Prep	06-JAN-2010 13:05	0.527 g	30 mL	56.926	SOIL
SAMPLE	243521002		SW846 7471A Prep	06-JAN-2010 13:05	0.516 g	30 mL	58.13953	SOIL
SAMPLE	243521003		SW846 7471A Prep	06-JAN-2010 13:05	0.584 g	30 mL	51.36986	SOIL
SAMPLE	243521004		SW846 7471A Prep	06-JAN-2010 13:05	0.56 g	30 mL	53.57143	SOIL
SAMPLE	243521005		SW846 7471A Prep	06-JAN-2010 13:05	0.505 g	30 mL	59.40594	SOIL
SAMPLE	243521006		SW846 7471A Prep	06-JAN-2010 13:05	0.547 g	30 mL	54.84461	SOIL
SAMPLE	243521007		SW846 7471A Prep	06-JAN-2010 13:05	0.532 g	30 mL	56.39098	SOIL
SAMPLE	243521008		SW846 7471A Prep	06-JAN-2010 13:05	0.596 g	30 mL	50.33557	SOIL
SAMPLE	243521009		SW846 7471A Prep	06-JAN-2010 13:05	0.523 g	30 mL	57.36138	SOIL
SAMPLE	243521010		SW846 7471A Prep	06-JAN-2010 13:05	0.502 g	30 mL	59.76096	SOIL
SAMPLE	243521011		SW846 7471A Prep	06-JAN-2010 13:05	0.526 g	30 mL	57.03422	SOIL

Reagent/Solvent Lot ID	Amount	Description
1236355-A	1.125 mL	Hydrochloric Acid Conc.
1240182-1	.375 mL	NITRIC ACID
1244904-C	7.5 mL	5% KMnO4 solution
1206350-C	2 mL	Hg reducing agent
WHG100106-07	30 uL	Mercury Working Standard 1st Source CAL S 0.2/CRA
WHG100106-08	75 uL	Mercury Working Standard 1st Source CAL S 0.5

Comments: Sample 243457001 is a clumpy brown soil.
Digestion Start Date: 06-JAN-10 13:05
Digestion End Date: 06-JAN-10 13:35

Prep LogBook

WHG100106-11	1.5 mL	Mercury Working 1st Source CAL S 10.0
WHG100106-09	300 uL	Mercury Working 1st Source CAL S 2.0
WHG100106-10	750 uL	Mercury Working 1st Source CAL S 5.0/CCV
WHG100106-12	750 uL	Mercury Working 2nd Source S 5.0/ICV

DER Report No.: 779262
Revision No.:

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
12-JAN-10	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
ICP	SW846 3050B/6010B	Solid	LANL
Batch ID:	**Sample Numbers:**		
936808	See Below		

Potentially affected work order(s)(SDG): 243457(10-1038),243472(10-1057),243492(10-1037),243547(10-1084),243549(10-1085)

Application Issues:

Failed Recovery for MS/PS

Failed RPD for DUP

Failed Recovery for MSD/PSD

Specification and Requirements Exception Description:	DER Disposition:
1. Failed Recovery for MS/PS: QC 1202004429MS 2. Failed RPD for DUP: QC 1202004428DUP 3. Failed Recovery for MSD/PSD: QC 1202004431MSD	1. The matrix spike recovery failed outside of the control limits for calcium,magnesium and potassium due to possible matrix interferences and/or non-homogeneity. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported. 2. The sample and sample duplicate % RPD failed outside the control limits for cobalt,titanium and vanadium due to possible sample non-homogeneity and/or matrix interference. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported. 3. The matrix spike duplicate recovery failed outside of the control limits for magnesium and potassium due to possible matrix interferences and/or non-homogeneity. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported.

Originator's Name:

Helen Camello 13-JAN-10

Data Validator/Group Leader:

Bryan Davis 14-JAN-10

DER Report No.: 780456
Revision No.:

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
15-JAN-10	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
ICP	SW846 3050B/6010B	Solid	LANL
Batch ID:	**Sample Numbers:**		
941050	See Below		

Potentially affected work order(s)(SDG): 243457(10-1038),243472(10-1057),243492(10-1037),243547(10-1084),243549(10-1085)

Application Issues:

Failed Recovery for MS/PS

Failed Recovery for MSD/PSD

Specification and Requirements Exception Description:	DER Disposition:
1. Failed Recovery for MS/PS: QC 1202004429MS 2. Failed Recovery for MSD/PSD: QC 1202004431MSD	1./2. The matrix spike and matrix spike duplicate recovery failed outside of the control limits for silicon due to possible matrix interferences and/or non-homogeneity. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported.

Originator's Name:
Helen Camello 15-JAN-10

Data Validator/Group Leader:
Eric Lawson 18-JAN-10

DER Report No.: 780714
Revision No.:

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
16-JAN-10	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
ICP/MS	SW846 3050B/6020	Solid	LANL
Batch ID:	**Sample Numbers:**		
936805	See Below		

Potentially affected work order(s)(SDG): 243457(10-1038),243472(10-1057),243492(10-1037),243547(10-1084),243549(10-1085)

Application Issues:

Failed RPD for DUP

Failed Recovery for MSD/PSD

Specification and Requirements Exception Description:	DER Disposition:
1. Failed RPD for DUP: QC 1202004422DUP 2. Failed Recovery for MSD/PSD: QC 1202004425MSD	The matrix spike duplicate failed outside of the control limits for Se due to possible matrix interferences and/or sample non-homogeneity. Per GEL's accredited methods and SOP's, a corrective action is not required and the data is qualified and reported. The sample and sample duplicate %RPD failed outside the control limits for Be and Ni due to possible sample homogeneity and/or matrix interference. Per GEL's accredited methods and SOP's, a corrective action is not required and the data is qualified and reported.

Originator's Name:

Rose Jenkins 16-JAN-10

Data Validator/Group Leader:

Samantha Jacobs 18-JAN-10

Standard Logbook

Serial ID: UHG1167639-01 **Opened:** 13-AUG-09 **Amount :** 125 mL
Name: MHGSTOCK1 **Received:** 13-AUG-09 **Catalog Number :** PLHG4-2Y
Type: Source Material **Expires:** 13-AUG-10 **Lot Number :** 15-37HG
Employee: Bryan Davis **Solvent :** 10% HNO3
Supplier: Spex
Description: Mercury Source Standard #1 1,000 mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Mercury	1000 mg/L		

Serial ID: UHG1167641-02 **Opened:** 13-AUG-09 **Amount :** 100 mL
Name: MHGSTOCK2 **Received:** 13-AUG-09 **Catalog Number :** AHG1KN-100
Type: Source Material **Expires:** 13-AUG-10 **Lot Number :** 4905530
Employee: Bryan Davis **Solvent :** 3% HNO3
Supplier: Ricca Chemical Company
Description: Mercury Source Standard #2 1,000 mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Mercury	999.7 mg/L		

Serial ID: UI031809A **Opened:** 18-MAR-09 **Catalog Number :** 540
Name: METALSOILSRM **Received:** 18-MAR-09 **Lot Number :** D061-540
Type: Source Material **Expires:** 10-OCT-10
Employee: Jamie Johnson
Supplier: ERA
Description: Metals LCS Soil SRM
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	10600 mg/kg	Antimony	126 mg/kg
Arsenic	225 mg/kg	Barium	565 mg/kg
Beryllium	162 mg/kg	Boron	107 mg/kg
Cadmium	69.1 mg/kg	Calcium	10000 mg/kg
Chromium	124 mg/kg	Cobalt	115 mg/kg
Copper	66.7 mg/kg	Iron	17600 mg/kg
Lead	223 mg/kg	Magnesium	4260 mg/kg
Manganese	368 mg/kg	Mercury	5.15 mg/kg
Molybdenum	107 mg/kg	Nickel	172 mg/kg
Potassium	4090 mg/kg	Selenium	147 mg/kg
Silver	35.2 mg/kg	Sodium	538 mg/kg
Strontium	117 mg/kg	Thallium	173 mg/kg
Tin	164 mg/kg	Titanium	381 mg/kg
Vanadium	93.9 mg/kg	Zinc	349 mg/kg

Standard Logbook

Serial ID: UI062540-I **Opened:** 12-JUN-09 **Amount :** 80 g
Name: ICP SOIL SRM **Received:** 12-JUN-09 **Lot Number :** D062-540
Type: Source Material **Expires:** 31-JAN-12
Employee: Bryan Davis
Supplier: ERA
Description: Metals Soil LCS SRM ICP/Hg
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	10500 mg/kg	Antimony	173 mg/kg
Arsenic	104 mg/kg	Barium	198 mg/kg
Beryllium	77.6 mg/kg	Boron	141 mg/kg
Cadmium	60.7 mg/kg	Calcium	9870 mg/kg
Chromium	236 mg/kg	Cobalt	91.2 mg/kg
Copper	174 mg/kg	Iron	18000 mg/kg
Lead	86 mg/kg	Magnesium	4000 mg/kg
Manganese	558 mg/kg	Mercury	8.46 mg/kg
Molybdenum	48.6 mg/kg	Nickel	134 mg/kg
Phosphorous	736 mg/kg	Potassium	4300 mg/kg
Selenium	286 mg/kg	Silica	2591 mg/kg
Silicon	1211 mg/kg	Silver	30.1 mg/kg
Sodium	1020 mg/kg	Strontium	227 mg/kg
Sulfur	385 mg/kg	Thallium	121 mg/kg
Tin	104 mg/kg	Titanium	462 mg/kg
Vanadium	115 mg/kg	Zinc	594 mg/kg

Serial ID: UI062540-MS **Opened:** 12-JUN-09 **Lot Number :** D062-540
Name: ICPMS SOIL SRM **Received:** 12-JUN-09
Type: Source Material **Expires:** 31-JAN-12
Employee: Bryan Davis
Supplier: ERA
Description: Metals Soil LCS SRM ICPMS
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	10500 mg/kg	Antimony	67.4 mg/kg
Arsenic	104 mg/kg	Barium	198 mg/kg
Beryllium	77.6 mg/kg	Boron	141 mg/kg
Cadmium	60.6 mg/kg	Calcium	9870 mg/kg
Chromium	236 mg/kg	Cobalt	91.2 mg/kg
Copper	174 mg/kg	Iron	18000 mg/kg
Lead	86 mg/kg	Lithium	10.6 mg/kg
Magnesium	4000 mg/kg	Manganese	558 mg/kg
Mercury	8.46 mg/kg	Molybdenum	48.6 mg/kg
Nickel	134 mg/kg	Phosphorous	755 mg/kg
Potassium	4300 mg/kg	Selenium	286 mg/kg
Silver	30.1 mg/kg	Sodium	1020 mg/kg

Analyte	Concentration	Analyte	Concentration
Strontium	227 mg/kg	Thallium	121 mg/kg
Thorium	9.84 mg/kg	Tin	104 mg/kg
Titanium	462 mg/kg	Uranium	2.13 mg/kg
Uranium-235	.0153 mg/kg	Uranium-238	2.11 mg/kg
Vanadium	92.4 mg/kg	Zinc	594 mg/kg
Zirconium	10.6 mg/kg		

Serial ID: UI090422-40 **Opened:** 04-MAY-09 **Amount :** 500 mL
Name: TRACE ICP ICSA SOLN A **Received:** 22-APR-09 **Catalog Number :** 160005-01-03
Type: Source Material **Expires:** 04-MAY-10 **Lot Number :** 1013357
Employee: Helen Camello **Solvent :** 5%HNO3
Supplier: o2si
Description: TRACE ICP ICSA SOLN A mg/L+/-0.5%IN5%HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	5000 mg/L	Calcium	5000 mg/L
Iron	2000 mg/L	Magnesium	5000 mg/L

Serial ID: UI090610-03 **Opened:** 10-JUN-09 **Catalog Number :** 060074-06-01
Name: ICPMS Tungsten - 10mg/L S **Received:** 10-JUN-09 **Lot Number :** 1016338
Type: Source Material **Expires:** 10-JUN-10 **Solvent :** 2% HNO3
Employee: Paul Boyd
Supplier: O2SI
Description: ICPMS Tungsten standard SPIKE - 10mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Tungsten	10 mg/L		

Serial ID: UI090701-09 **Opened:** 01-JUL-09 **Amount :** 250 mL
Name: ICP-MS CRDL Master #1 **Received:** 01-JUL-09 **Catalog Number :** 160044-09-02
Type: Source Material **Expires:** 01-JUL-10 **Lot Number :** 1016477
Employee: Paul Boyd **Solvent :** +/- 0.5% IN 2% HNO3
Supplier: 02SI
Description: ICPMS CRDL Master Soln #1
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	15 mg/L	Arsenic	5 mg/L
Barium	2 mg/L	Beryllium	.5 mg/L
Boron	15 mg/L	Cadmium	1 mg/L
Calcium	100 mg/L	Chromium	3 mg/L
Cobalt	1 mg/L	Copper	1 mg/L

Analyte	Concentration	Analyte	Concentration
Iron	25 mg/L	Lead	2 mg/L
Lithium	10 mg/L	Magnesium	15 mg/L
Manganese	5 mg/L	Nickel	2 mg/L
Phosphorous	50 mg/L	Potassium	300 mg/L
Selenium	5 mg/L	Sodium	250 mg/L
Strontium	10 mg/L	Thallium	1 mg/L
Thorium	1 mg/L	Uranium	.2 mg/L
Vanadium	10 mg/L	Zinc	10 mg/L

Serial ID: UI090701-10 **Opened:** 01-JUL-09 **Amount :** 250 mL
Name: ICP-MS CRDL Master #2 **Received:** 01-JUL-09 **Catalog Number :** 160044-08-02
Type: Source Material **Expires:** 01-JUL-10 **Lot Number :** 1016476
Employee: Paul Boyd **Solvent :** +/- 0.5% IN 2% HNO3
Supplier: 02SI
Description: ICPMS CRDL Soln #2
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	2 mg/L	Molybdenum	.5 mg/L
Silver	1 mg/L	Tin	2 mg/L
Titanium	10 mg/L	Tungsten	5 mg/L
Zirconium	2 mg/L		

Serial ID: UI090701-40 **Opened:** 01-JUL-09 **Amount :** 500 mL
Name: TRACE ICP Stock PQL St **Received:** 30-JUN-09 **Catalog Number :** 160543-01-03
Type: Source Material **Expires:** 01-JUL-10 **Lot Number :** 1016475
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3+TrHF
Supplier: 02si
Description: TRACE ICP Stock PQL Standard
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	100 mg/L	Antimony	5 mg/L
Arsenic	15 mg/L	Barium	2.5 mg/L
Beryllium	2.5 mg/L	Boron	25 mg/L
Cadmium	2.5 mg/L	Calcium	100 mg/L
Chromium	2.5 mg/L	Cobalt	2.5 mg/L
Copper	5 mg/L	Iron	50 mg/L
Lead	5 mg/L	Magnesium	150 mg/L
Manganese	5 mg/L	Molybdenum	5 mg/L
Nickel	2.5 mg/L	Phosphorous	75 mg/L
Potassium	75 mg/L	Selenium	15 mg/L
Silicon	50 mg/L	Silver	2.5 mg/L
Sodium	150 mg/L	Strontium	2.5 mg/L
Sulfur	50 mg/L	Thallium	10 mg/L

Analyte	Concentration	Analyte	Concentration
Tin	5 mg/L	Titanium	2.5 mg/L
Uranium	25 mg/L	Vanadium	2.5 mg/L
Zinc	5 mg/L		

Serial ID: UI090828-42 **Opened:** 16-SEP-09 **Amount :** 500 mL
Name: TRACE ICP Na-1000SOUR **Received:** 27-AUG-09 **Catalog Number :** 060011-02-03
Type: Source Material **Expires:** 16-SEP-10 **Lot Number :** 1017098
Employee: Helen Camello **Solvent :** 1%HNO3
Supplier: 02SI
Description: Sodium 1000 +/- 3 ug/mL in 1% HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Sodium	1000 ug/mL		

Serial ID: UI090925-40 **Opened:** 23-OCT-09 **Amount :** 500 mL
Name: SECOND SOURCE STD -1 **Received:** 25-SEP-09 **Catalog Number :** SGELMX38-500N
Type: Source Material **Expires:** 30-SEP-10 **Lot Number :** 4909129
Employee: Helen Camello **Solvent :** 5%HNO3
Supplier: SPECTRO PURE
Description: SECOND SOURCE STD #1A 5%HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Arsenic	100 mg/L
Barium	100 mg/L	Boron	100 mg/L
Cadmium	100 mg/L	Calcium	1000 mg/L
Chromium	100 mg/L	Cobalt	100 mg/L
Copper	100 mg/L	Iron	1000 mg/L
Lead	100 mg/L	Phosphorous	500 mg/L
Potassium	500 mg/L	Selenium	500 mg/L
Sodium	500 mg/L	Strontium	100 mg/L

Serial ID: UI090925-41 **Opened:** 23-OCT-09 **Amount :** 500 mL
Name: SECOND SOURCE STD -1 **Received:** 25-SEP-09 **Catalog Number :** SGELMX39-500B
Type: Source Material **Expires:** 30-SEP-10 **Lot Number :** 4909130
Employee: Helen Camello **Solvent :** 5%HNO3,TR.HF
Supplier: SPECTRO PURE
Description: SECOND SOURCE STD #1B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	100 mg/L	Beryllium	50 mg/L
Magnesium	1000 mg/L	Manganese	100 mg/L

Analyte	Concentration	Analyte	Concentration
Molybdenum	100 mg/L	Nickel	100 mg/L
Silver	50 mg/L	Sulfur	500 mg/L
Thallium	100 mg/L	Tin	100 mg/L
Titanium	100 mg/L	Uranium	100 mg/L
Vanadium	100 mg/L	Zinc	100 mg/L

Serial ID: UI091015-42 **Opened:** 28-OCT-09 **Amount :** 500 mL
Name: SI 1000mg/L **Received:** 15-OCT-09 **Catalog Number :** 060014-02-03
Type: Source Material **Expires:** 28-OCT-10 **Lot Number :** 1017581
Employee: Helen Camello **Solvent :** 0.3%H2O(NH4)2SiF6
Supplier: o2si
Description: Silicon 1000mg/L+/-0.3%in H2O(NH4)2SiF6
Comments: None

Analyte	Concentration	Analyte	Concentration
Silica	2139 mg/L	Silicon	1000 mg/L

Serial ID: UI091015-A **Opened:** 15-OCT-09 **Catalog Number :** 160067-03
Name: ICP-MS DOE SOIL SPIKE **Received:** 15-OCT-09 **Lot Number :** 1017142
Type: Source Material **Expires:** 15-OCT-10
Employee: Francena Armstrong
Supplier: 02si
Description: ICP-MS Spike for soil products.
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	200 mg/L	Arsenic	8 mg/L
Barium	5 mg/L	Beryllium	5 mg/L
Boron	10 mg/L	Cadmium	1 mg/L
Calcium	200 mg/L	Chromium	5 mg/L
Cobalt	5 mg/L	Copper	5 mg/L
Iron	200 mg/L	Lead	20 mg/L
Lithium	5 mg/L	Magnesium	200 mg/L
Manganese	5 mg/L	Nickel	5 mg/L
Phosphorus, Total as P	200 mg/L	Potassium	200 mg/L
Selenium	2 mg/L	Sodium	200 mg/L
Strontium	5 mg/L	Thallium	10 mg/L
Thorium	5 mg/L	Uranium	5 mg/L
Uranium-235	.036 mg/L	Uranium-238	4.964 mg/L
Vanadium	5 mg/L	Zinc	5 mg/L

Standard Logbook

Serial ID: UI091015-B **Opened:** 15-OCT-09 **Catalog Number :** 160067-03
Name: ICP-MS DOE SOIL SPIKE **Received:** 15-OCT-09 **Lot Number :** 1017142
Type: Source Material **Expires:** 15-OCT-10
Employee: Francena Armstrong
Supplier: 02si
Description: ICP-MS Spike for Soil Products
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	20 mg/L	Molybdenum	5 mg/L
Silicon	200 mg/L	Silver	5 mg/L
Tin	5 mg/L	Zirconium	5 mg/L

Serial ID: UI091102-40 **Opened:** 16-NOV-09 **Amount :** 500 mL
Name: TRACE CALSTD#1A SOUF **Received:** 02-NOV-09 **Catalog Number :** HP2270-1-500
Type: Source Material **Expires:** 31-OCT-10 **Lot Number :** 0930215
Employee: Helen Camello **Solvent :** HNO3
Supplier: Environmental Express
Description: Trace Calibration Std #1A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	2000 mg/L	Arsenic	200 mg/L
Barium	200 mg/L	Beryllium	200 mg/L
Boron	200 mg/L	Cadmium	200 mg/L
Calcium	2000 mg/L	Chromium	200 mg/L
Cobalt	200 mg/L	Copper	200 mg/L
Iron	2000 mg/L	Lead	200 mg/L
Magnesium	2000 mg/L	Manganese	200 mg/L
Nickel	200 mg/L	Phosphorous	1000 mg/L
Potassium	2000 mg/L	Selenium	200 mg/L
Sodium	2000 mg/L	Strontium	200 mg/L
Thallium	200 mg/L	Uranium	200 mg/L
Vanadium	200 mg/L	Zinc	200 mg/L

Serial ID: UI091102-41 **Opened:** 16-NOV-09 **Amount :** 500 mL
Name: TRACE CALSTD#1B SOUF **Received:** 02-NOV-09 **Catalog Number :** HP2270-2-500
Type: Source Material **Expires:** 31-OCT-10 **Lot Number :** 0930216
Employee: Helen Camello **Solvent :** HNO3
Supplier: Environmental Express
Description: Trace Calibration Standard #1B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	200 mg/L	Molybdenum	200 mg/L
Silver	200 mg/L	Sulfur	400 mg/L

Analyte	Concentration	Analyte	Concentration
Tin	200 mg/L	Titanium	200 mg/L

Serial ID: UI091102-42 **Opened:** 17-NOV-09 **Amount :** 200 mL
Name: SILICON **Received:** 02-NOV-09 **Catalog Number :** HP100050-4F
Type: Source Material **Expires:** 17-NOV-10 **Lot Number :** 0921924
Employee: Helen Camello **Solvent :** H20/tr HF
Supplier: ENVIRNMENTAL EXPRESS
Description: SILICON 1000mg/L H20/tr HF
Comments: None

Analyte	Concentration	Analyte	Concentration
Silica	2139 mg/L	Silicon	1000 mg/L

Serial ID: UI091124-01 **Opened:** 24-NOV-09 **Lot Number :** 1017642
Name: METALSPIKE-1 **Received:** 24-NOV-09
Type: Source Material **Expires:** 24-NOV-10
Employee: Francena Armstrong
Supplier: OS2I
Description: Metals Spike Mix I
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 ug/mL	Arsenic	100 ug/mL
Barium	100 ug/mL	Beryllium	100 ug/mL
Boron	100 ug/mL	Cadmium	100 ug/mL
Calcium	1000 ug/mL	Cobalt	100 ug/mL
Iron	1000 ug/mL	Lead	100 ug/mL
Magnesium	1000 ug/mL	Phosphorous	100 ug/mL
Potassium	1000 ug/mL	Silver	100 ug/mL
Sodium	1000 ug/mL	Strontium	100 ug/mL

Serial ID: UI091124-06 **Opened:** 24-NOV-09 **Lot Number :** 1017643
Name: METALSPIKE-2 **Received:** 24-NOV-09
Type: Source Material **Expires:** 24-NOV-10
Employee: Francena Armstrong
Supplier: OS2I
Description: Metals Spike Mix II
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	100 ug/mL	Chromium	100 ug/mL
Copper	100 ug/mL	Manganese	100 ug/mL
Molybdenum	100 ug/mL	Nickel	100 ug/mL
Selenium	100 ug/mL	Silica	2141 ug/mL

Analyte	Concentration	Analyte	Concentration
Silicon	1000 ug/mL	Sulfur	1000 ug/mL
Thallium	100 ug/mL	Tin	100 ug/mL
Titanium	100 ug/mL	Uranium	100 ug/mL
Vanadium	100 ug/mL	Zinc	100 ug/mL

Serial ID: UI091212-11 **Opened:** 12-DEC-09 **Amount :** 1000 mL
Name: ICP-MS ICSA Master A **Received:** 12-DEC-09 **Catalog Number :** 160013-01-01L
Type: Source Material **Expires:** 12-DEC-10 **Lot Number :** 1015303
Employee: Paul Boyd **Solvent :** 2% HNO3
Supplier: 02SI
Description: ICP-MS ICSA Master A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Calcium	1000 mg/L
Carbon	2000 mg/L	Chloride	10000 mg/L
Iron	1000 mg/L	Magnesium	1000 mg/L
Molybdenum	20 mg/L	Phosphorous	1000 mg/L
Potassium	1000 mg/L	Sodium	1000 mg/L
Sulfur	1000 mg/L	Titanium	20 mg/L

Serial ID: UI091212-60 **Opened:** 12-DEC-09 **Amount :** .5 mL
Name: ICPMS High Range Standa **Received:** 12-DEC-09 **Catalog Number :** 160212-02-01
Type: Source Material **Expires:** 12-DEC-10 **Lot Number :** 1018064
Employee: Paul Boyd **Solvent :** 2%HNO3 + Tr HF
Supplier: O2SI
Description: Linear Range Standard A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	5000 mg/L	Arsenic	100 mg/L
Barium	250 mg/L	Beryllium	100 mg/L
Cadmium	100 mg/L	Calcium	5000 mg/L
Chromium	100 mg/L	Cobalt	100 mg/L
Copper	100 mg/L	Iron	5000 mg/L
Lead	500 mg/L	Lithium	100 mg/L
Magnesium	5000 mg/L	Manganese	100 mg/L
Nickel	100 mg/L	Phosphorous	2500 mg/L
Potassium	5000 mg/L	Selenium	50 mg/L
Sodium	5000 mg/L	Strontium	100 mg/L
Thallium	50 mg/L	Thorium	250 mg/L
Uranium	500 mg/L	Vanadium	100 mg/L
Zinc	250 mg/L		

Standard Logbook

Serial ID: UI091212-61 **Opened:** 12-DEC-09 **Amount :** .5 mL
Name: ICPMS High Range Standa **Received:** 12-DEC-09 **Catalog Number :** 160212-02-01
Type: Source Material **Expires:** 12-DEC-10 **Lot Number :** 1018064
Employee: Paul Boyd **Solvent :** 2%HNO3 + Tr HF
Supplier: O2SI
Description: Linear Range Standard B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	25 mg/L	Molybdenum	100 mg/L
Silver	25 mg/L	Tin	100 mg/L
Tungsten	100 mg/L	Zirconium	50 mg/L

Serial ID: UI091215-48 **Opened:** 04-JAN-10 **Amount :** 1000 mL
Name: Trace ICP ICSA **Received:** 18-DEC-09 **Catalog Number :** 160005-02
Type: Source Material **Expires:** 04-JAN-11 **Lot Number :** 1018219
Employee: Helen Camello **Solvent :** 3% HCl + 1% HNO3
Supplier: o2si
Description: Trace ICP Interferent Check Standard A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 UG/L	Calcium	500000 UG/L
Iron	200000 UG/L	Magnesium	500000 UG/L

Serial ID: UI091216-01 **Opened:** 16-DEC-09 **Lot Number :** 1018095
Name: METALSPIKE-1 **Received:** 16-DEC-09
Type: Source Material **Expires:** 16-DEC-10
Employee: Francena Armstrong
Supplier: OS2I
Description: Metals Spike Mix I
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 ug/mL	Arsenic	100 ug/mL
Barium	100 ug/mL	Beryllium	100 ug/mL
Boron	100 ug/mL	Cadmium	100 ug/mL
Calcium	1000 ug/mL	Cobalt	100 ug/mL
Iron	1000 ug/mL	Lead	100 ug/mL
Magnesium	1000 ug/mL	Phosphorous	100 ug/mL
Potassium	1000 ug/mL	Silver	100 ug/mL
Sodium	1000 ug/mL	Strontium	100 ug/mL

Standard Logbook

Serial ID: UI091216-06 **Opened:** 16-DEC-09 **Lot Number :** 1018096
Name: METALSPIKE-2 **Received:** 16-DEC-09
Type: Source Material **Expires:** 16-DEC-10
Employee: Francena Armstrong
Supplier: OS2I
Description: Metals Spike Mix II
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	100 ug/mL	Chromium	100 ug/mL
Copper	100 ug/mL	Manganese	100 ug/mL
Molybdenum	100 ug/mL	Nickel	100 ug/mL
Selenium	100 ug/mL	Silica	2141 ug/mL
Silicon	1000 ug/mL	Sulfur	1000 ug/mL
Thallium	100 ug/mL	Tin	100 ug/mL
Titanium	100 ug/mL	Uranium	100 ug/mL
Vanadium	100 ug/mL	Zinc	100 ug/mL

Serial ID: UI091217-06 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master A **Received:** 17-DEC-09 **Catalog Number :** 160055-01
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018209
Employee: Paul Boyd **Solvent :** +/- 0.5% in 5% HNO3 100 cm2
Supplier: 02SI
Description: ICPMS ICV/CCV SOLN A - 10ppm
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	2020 mg/L	Calcium	2000 mg/L
Iron	2000 mg/L	Magnesium	2000 mg/L
Phosphorous	2000 mg/L	Potassium	2000 mg/L
Sodium	2000 mg/L		

Serial ID: UI091217-07 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master B **Received:** 17-DEC-09 **Catalog Number :** 160054-02
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018210
Employee: Paul Boyd **Solvent :** +/- 0.5% in 5% HNO3 100 cm2
Supplier: 02SI
Description: ICPMS ICV/CCV Soln B - 10ppm
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	20 mg/L	Barium	20 mg/L
Beryllium	20 mg/L	Boron	40 mg/L
Cadmium	20 mg/L	Chromium	20 mg/L
Cobalt	20 mg/L	Copper	20 mg/L
Lead	20 mg/L	Lithium	20 mg/L

Analyte	Concentration	Analyte	Concentration
Manganese	20 mg/L	Nickel	20 mg/L
Selenium	20 mg/L	Strontium	20 mg/L
Thallium	20 mg/L	Thorium	20 mg/L
Uranium	20 mg/L	Vanadium	20 mg/L
Zinc	20 mg/L		

Serial ID: UI091217-08 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master C **Received:** 17-DEC-09 **Catalog Number :** 160054-03
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018211
Employee: Paul Boyd **Solvent :** +/- 0.5% in 5% HNO3 100 cm2
Supplier: 02SI
Description: ICPMS ICV/CCV Soln C - 10ppm
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	20 mg/L	Molybdenum	20 mg/L
Silver	20 mg/L	Tin	20 mg/L
Titanium	20 mg/L	Tungsten	20 mg/L
Zirconium	20 mg/L		

Serial ID: UI091217-12 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICSAB Master B **Received:** 17-DEC-09 **Catalog Number :** 160033-02
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018212
Employee: Paul Boyd **Solvent :** +/- 0.5% in 2% HNO3
Supplier: 02SI
Description: ICPMS ICSAB Master B
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	2 mg/L	Barium	2 mg/L
Beryllium	2 mg/L	Boron	2 mg/L
Cadmium	2 mg/L	Chromium	2 mg/L
Cobalt	2 mg/L	Copper	2 mg/L
Lead	2 mg/L	Lithium	2 mg/L
Manganese	2 mg/L	Nickel	2 mg/L
Selenium	2 mg/L	Strontium	2 mg/L
Thallium	2 mg/L	Thorium	2 mg/L
Uranium	2 mg/L	Vanadium	2 mg/L
Zinc	2 mg/L		

Standard Logbook

Serial ID: UI091217-13 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICSAB Master C **Received:** 17-DEC-09 **Catalog Number :** 160033-03
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1016926
Employee: Paul Boyd **Solvent :** +/- 0.5% in 2% HNO3
Supplier: 02SI
Description: ICPMS ICSAB Master C
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	2 mg/L	Silver	2 mg/L
Tin	2 mg/L	Tungsten	2 mg/L
Zirconium	2 mg/L		

Serial ID: UI091228-40 **Opened:** 28-DEC-09 **Amount :** 500 mL
Name: ICP HIGH RANGE STD-A **Received:** 21-DEC-09 **Catalog Number :** 160211-05-03
Type: Source Material **Expires:** 28-DEC-10 **Lot Number :** 1018160
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3
Supplier: 02SI
Description: ICP HIGH RANGE STD SOLUTION A
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	10000 ug/L	Arsenic	10000 ug/L
Barium	15000 ug/L	Beryllium	3000 ug/L
Boron	5000 ug/L	Cadmium	10000 ug/L
Chromium	25000 ug/L	Cobalt	10000 ug/L
Copper	20000 ug/L	Lead	25000 ug/L
Manganese	10000 ug/L	Molybdenum	10000 ug/L
Nickel	10000 ug/L	Phosphorous	15000 ug/L
Potassium	300000 ug/L	Selenium	10000 ug/L
Silica	107000 ug/L	Silicon	50000 ug/L
Silver	1000 ug/L	Strontium	10000 ug/L
Sulfur	50000 ug/L	Thallium	10000 ug/L
Tin	10000 ug/L	Titanium	10000 ug/L
Vanadium	10000 ug/L	Zinc	15000 ug/L

Serial ID: UI091228-41 **Opened:** 28-DEC-09 **Amount :** 500 mL
Name: ICP HIGH RANGE STD B **Received:** 21-DEC-09 **Catalog Number :** 160211-05-03
Type: Source Material **Expires:** 28-DEC-10 **Lot Number :** 1018160
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3
Supplier: 02SI
Description: ICP HIGH RANGE STD SOLUTION B
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 ug/L	Calcium	500000 ug/L

Analyte	Concentration	Analyte	Concentration
Iron	500000 ug/L	Magnesium	500000 ug/L
Sodium	500000 ug/L	Uranium	15000 ug/L

Serial ID: UI100114-40 **Opened:** 14-JAN-10 **Amount :** 500 mL
Name: ICP HIGH RANGE STD-A **Received:** 14-JAN-10 **Catalog Number :** 160211-05-03
Type: Source Material **Expires:** 14-JAN-11 **Lot Number :** 1018160
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3
Supplier: 02SI
Description: ICP HIGH RANGE STD SOLUTION A
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	10000 ug/L	Arsenic	10000 ug/L
Barium	15000 ug/L	Beryllium	3000 ug/L
Boron	5000 ug/L	Cadmium	10000 ug/L
Chromium	25000 ug/L	Cobalt	10000 ug/L
Copper	20000 ug/L	Lead	25000 ug/L
Manganese	10000 ug/L	Molybdenum	10000 ug/L
Nickel	10000 ug/L	Phosphorous	15000 ug/L
Potassium	300000 ug/L	Selenium	10000 ug/L
Silica	107000 ug/L	Silicon	50000 ug/L
Silver	1000 ug/L	Strontium	10000 ug/L
Sulfur	50000 ug/L	Thallium	10000 ug/L
Tin	10000 ug/L	Titanium	10000 ug/L
Vanadium	10000 ug/L	Zinc	15000 ug/L

Serial ID: UI100114-41 **Opened:** 14-JAN-10 **Amount :** 500 mL
Name: ICP HIGH RANGE STD B **Received:** 14-JAN-10 **Catalog Number :** 160211-05-03
Type: Source Material **Expires:** 14-JAN-11 **Lot Number :** 1018160
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3
Supplier: 02SI
Description: ICP HIGH RANGE STD SOLUTION B
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 ug/L	Calcium	500000 ug/L
Iron	500000 ug/L	Magnesium	500000 ug/L
Sodium	500000 ug/L	Uranium	15000 ug/L

Serial ID: UMS090303-01 **Opened:** 03-MAR-09 **Amount :** 250 mL
Name: ICPMSCalSPIKEB **Received:** 03-MAR-09 **Catalog Number :** ZGEL-100-250
Type: Source Material **Expires:** 28-FEB-10 **Lot Number :** 14-81JB
Employee: Paul Boyd
Supplier: SPEX

Description: ICPMS Calibration Standard Solution B
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	10 mg/L	Barium	10 mg/L
Beryllium	10 mg/L	Boron	20 mg/L
Cadmium	10 mg/L	Chromium	10 mg/L
Cobalt	10 mg/L	Copper	10 mg/L
Lead	10 mg/L	Lithium	10 mg/L
Manganese	10 mg/L	Nickel	10 mg/L
Selenium	10 mg/L	Silver	10 mg/L
Strontium	10 mg/L	Thallium	10 mg/L
Thorium	10 mg/L	Uranium	10 mg/L
Vanadium	10 mg/L	Zinc	10 mg/L

Serial ID: UMS090303-02 **Opened:** 03-MAR-09 **Catalog Number :** ZGEL-102-250
Name: ICPMSCalSPIKEA **Received:** 03-MAR-09 **Lot Number :** 14-83JB
Type: Source Material **Expires:** 28-FEB-10
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Calcium	1000 mg/L
Iron	1000 mg/L	Magnesium	1000 mg/L
Phosphorous	1000 mg/L	Potassium	1000 mg/L
Sodium	1000 mg/L		

Serial ID: UMS090303-03 **Opened:** 03-MAR-09 **Amount :** 250 ml
Name: ICPMSCalSPIKEC **Received:** 03-MAR-09 **Catalog Number :** ZGEL-101-250
Type: Source Material **Expires:** 28-FEB-10 **Lot Number :** 15-199JB
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution C
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	10 mg/L	Molybdenum	10 mg/L
Tin	10 mg/L	Titanium	10 mg/L
Zirconium	10 mg/L		

Standard Logbook

Serial ID: IHG100106-01 **Opened:** 06-JAN-10 **Instrument Id :** Mercury
Name: MHGINTER1 **Received:** 06-JAN-10 **Pipet Id :** Minou1
Type: Intermediate **Expires:** 07-JAN-10 **Solvent :** 1mL HNO3 + Typel H2O
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Intermediate 1st Source 200 ug/L
Comments: Prepare fresh daily

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167639-01	Mercury	1000 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: IHG100106-02 **Opened:** 06-JAN-10 **Pipet Id :** Minou1
Name: MHGINTER2 **Received:** 06-JAN-10 **Solvent :** 2% HNO3-1240182
Type: Intermediate **Expires:** 07-JAN-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Intermediate 2nd Source 200 ug/L
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167641-02	Mercury	999.7 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: WHG100106-07 **Opened:** 06-JAN-10 **Pipet Id :** Hg1289245
Name: MHGWORKCALS0.2CRA **Received:** 06-JAN-10 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 13-JAN-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working Standard 1st Source CAL S 0.2/CRA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100106-01	Mercury	200 ug/L	30 uL	30 mL	.2 ug/L

Serial ID: WHG100106-08 **Opened:** 06-JAN-10 **Pipet Id :** Hg1289245
Name: MHGWORKCALS0.5 **Received:** 06-JAN-10 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 13-JAN-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working Standard 1st Source CAL S 0.5
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100106-01	Mercury	200 ug/L	75 uL	30 mL	.5 ug/L

Standard Logbook

Serial ID: WHG100106-09 **Opened:** 06-JAN-10 **Pipet Id :** Hg1289245
Name: MHGWORKCALS2.0 **Received:** 06-JAN-10 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 13-JAN-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL S 2.0
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100106-01	Mercury	200 ug/L	300 uL	30 mL	2 ug/L

Serial ID: WHG100106-10 **Opened:** 06-JAN-10 **Pipet Id :** Hg1289245
Name: MHGWORKCALS5.0CCV **Received:** 06-JAN-10 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 13-JAN-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL S 5.0/CCV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100106-01	Mercury	200 ug/L	750 uL	30 mL	5 ug/L

Serial ID: WHG100106-11 **Opened:** 06-JAN-10 **Pipet Id :** Hg1289245
Name: MHGWORKCALS10.0 **Received:** 06-JAN-10 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 13-JAN-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working 1st Source CAL S 10.0
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100106-01	Mercury	200 ug/L	1.5 mL	30 mL	10 ug/L

Serial ID: WHG100106-12 **Opened:** 06-JAN-10 **Pipet Id :** Hg1289245
Name: MHGWORKS5.0ICV **Received:** 06-JAN-10 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 13-JAN-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 2nd Source S 5.0/ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100106-02	Mercury	200 ug/L	750 uL	30 mL	5 ug/L

Standard Logbook

Serial ID: WHG100106-14 **Opened:** 06-JAN-10 **Pipet Id :** Hg1289245
Name: MHGSOILMSSPIKE **Received:** 06-JAN-10 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 07-JAN-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury soil working intermediate standard for MS
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167639-01	Mercury	1000 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: WI100111-42 **Opened:** 11-JAN-10 **Balance Id :** 216
Name: TRACE ICP 0.1 PPM STD. **Received:** 02-NOV-09 **Pipet Id :** 1099667
Type: Working **Expires:** 12-JAN-10 **Solvent :** 3%HCL and 1%HNO3 -1253514
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP 0.1 PPM CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WI100111-44	Aluminum	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100111-44	Antimony	1000 ug/L	10 mL	100 mL	100 ug/L
WI100111-44	Arsenic	1000 ug/L	10 mL	100 mL	100 ug/L
WI100111-44	Barium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100111-44	Beryllium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100111-44	Boron	1000 ug/L	10 mL	100 mL	100 ug/L
WI100111-44	Cadmium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100111-44	Calcium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100111-44	Chromium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100111-44	Cobalt	1000 ug/L	10 mL	100 mL	100 ug/L
WI100111-44	Copper	1000 ug/L	10 mL	100 mL	100 ug/L
WI100111-44	Iron	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100111-44	Lead	1000 ug/L	10 mL	100 mL	100 ug/L
WI100111-44	Magnesium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100111-44	Manganese	1000 ug/L	10 mL	100 mL	100 ug/L
WI100111-44	Molybdenum	1000 ug/L	10 mL	100 mL	100 ug/L
WI100111-44	Nickel	1000 ug/L	10 mL	100 mL	100 ug/L
WI100111-44	Phosphorous	5000 ug/L	10 mL	100 mL	500 ug/L
WI100111-44	Potassium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100111-44	Selenium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100111-44	Silica	10698 ug/L	10 mL	100 mL	1069 ug/L
WI100111-44	Silicon	5000 ug/L	10 mL	100 mL	500 ug/L
WI100111-44	Silver	1000 ug/L	10 mL	100 mL	100 ug/L
WI100111-44	Sodium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100111-44	Strontium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100111-44	Sulfur	2000 ug/L	10 mL	100 mL	200 ug/L
WI100111-44	Thallium	1000 ug/L	10 mL	100 mL	100 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WI100111-44	Tin	1000 ug/L	10 mL	100 mL	100 ug/L
WI100111-44	Titanium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100111-44	Uranium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100111-44	Vanadium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100111-44	Zinc	1000 ug/L	10 mL	100 mL	100 ug/L

Serial ID: WI100111-43 **Opened:** 11-JAN-10 **Balance Id :** 216

Name: TRACE ICP 0.5/CCV STD. **Received:** 02-NOV-09 **Pipet Id :** 1099667

Type: Working **Expires:** 12-JAN-10 **Solvent :** 3%HCL and 1%HNO3 -1253514

Employee: Helen Camello

Supplier: GEL

Description: TRACE ICP O.5/CCV CALIBRATION STD.

Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090828-42	Sodium	1000 ug/mL	5 mL	1000 mL	5000 UG/L
UI091015-42	Silica	2139 mg/L	2.5 mL	1000 mL	5348.25 UG/L
UI091015-42	Silicon	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI091102-40	Aluminum	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Arsenic	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Barium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Beryllium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Boron	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Cadmium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Calcium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Chromium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Cobalt	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Copper	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Iron	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Lead	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Magnesium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Manganese	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Nickel	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Phosphorous	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI091102-40	Potassium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Selenium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Sodium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Strontium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Thallium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Uranium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Vanadium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Zinc	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Antimony	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Molybdenum	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Silver	200 mg/L	2.5 mL	1000 mL	500 UG/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091102-41	Sulfur	400 mg/L	2.5 mL	1000 mL	1000 UG/L
UI091102-41	Tin	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Titanium	200 mg/L	2.5 mL	1000 mL	500 UG/L

Serial ID: WI100111-44 **Opened:** 11-JAN-10 **Balance Id :** 216
Name: TRACE ICP SCAL 1.0 **Received:** 02-NOV-09 **Pipet Id :** 1099667
Type: Working **Expires:** 12-JAN-10 **Solvent :** 3%HCL and 1 %HNO3-1253514
Employee: Helen Camello
Supplier: o2si
Description: Trace ICP Calibration Standard 1.0ppm
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091015-42	Silica	2139 mg/L	2.5 mL	500 mL	10698 ug/L
UI091015-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI091102-40	Aluminum	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Arsenic	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Barium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Beryllium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Boron	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Cadmium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Calcium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Chromium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Cobalt	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Copper	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Iron	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Lead	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Magnesium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Manganese	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Nickel	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Phosphorous	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI091102-40	Potassium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Selenium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Sodium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Strontium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Thallium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Uranium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Vanadium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Zinc	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Antimony	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Molybdenum	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Silver	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Sulfur	400 mg/L	2.5 mL	500 mL	2000 ug/L
UI091102-41	Tin	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Titanium	200 mg/L	2.5 mL	500 mL	1000 ug/L

Standard Logbook

Serial ID: WI100111-45 **Opened:** 11-JAN-10 **Balance Id :** 216
Name: TRACE ICP S-10 STD **Received:** 22-APR-09 **Pipet Id :** 1099667
Type: Working **Expires:** 12-JAN-10 **Solvent :** 3%HCL and 1%HNO3 -1253514
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP S-10 CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090422-40	Aluminum	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Calcium	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Iron	2000 mg/L	5 mL	500 mL	20000 UG/L
UI090422-40	Magnesium	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090828-42	Sodium	1000 ug/mL	10 mL	500 mL	20000 UG/L

Serial ID: WI100111-46 **Opened:** 11-JAN-10 **Balance Id :** 216
Name: ICP TRACE ICV **Received:** 25-SEP-09 **Pipet Id :** 1099667
Type: Working **Expires:** 12-JAN-10 **Solvent :** 3%HCL AND 1%HNO3-1253514
Employee: Helen Camello
Supplier: GEL
Description: Initial Calibration Verification ICP Trace Metals
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090925-40	Aluminum	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Arsenic	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Barium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Boron	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cadmium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Calcium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Chromium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cobalt	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Copper	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Iron	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Lead	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Phosphorous	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Potassium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Selenium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Sodium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Strontium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Antimony	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Beryllium	50 mg/L	2.5 mL	500 mL	250 ug/L
UI090925-41	Magnesium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-41	Manganese	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Molybdenum	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Nickel	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Silver	50 mg/L	2.5 mL	500 mL	250 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090925-41	Sulfur	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-41	Thallium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Tin	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Titanium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Uranium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Vanadium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Zinc	100 mg/L	2.5 mL	500 mL	500 ug/L
UI091102-42	Silica	2139 mg/L	2.5 mL	500 mL	10695 ug/L
UI091102-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L

Serial ID: WI100111-47 **Opened:** 11-JAN-10 **Balance Id :** 216
Name: PQL Working Standard **Received:** 30-JUN-09 **Pipet Id :** 1099667
Type: Working **Expires:** 12-JAN-10 **Solvent :** 3%HCL &1%HNO3-1253514
Employee: Helen Camello
Supplier: 02si
Description: PQL Working Standard
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-40	Aluminum	100 mg/L	2 mL	1000 mL	200 ug/L
UI090701-40	Antimony	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Arsenic	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Barium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Beryllium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Boron	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Cadmium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Calcium	100 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Chromium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Cobalt	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Copper	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Iron	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Lead	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Magnesium	150 mg/L	2 mL	1000 mL	300 ug/L
UI090701-40	Manganese	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Molybdenum	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Nickel	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Phosphorous	75 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Potassium	75 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Selenium	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Silicon	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Silver	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sodium	150 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Strontium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sulfur	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Thallium	10 mg/L	2 mL	1000 mL	20 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-40	Tin	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Titanium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Uranium	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Vanadium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Zinc	5 mg/L	2 mL	1000 mL	10 ug/L

Serial ID: WI100114-42 **Opened:** 14-JAN-10 **Balance Id :** 216
Name: TRACE ICP 0.1 PPM STD. **Received:** 02-NOV-09 **Pipet Id :** 1099667
Type: Working **Expires:** 15-JAN-10 **Solvent :** 3%HCL and 1%HNO3 -1253514
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP 0.1 PPM CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WI100114-44	Aluminum	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100114-44	Antimony	1000 ug/L	10 mL	100 mL	100 ug/L
WI100114-44	Arsenic	1000 ug/L	10 mL	100 mL	100 ug/L
WI100114-44	Barium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100114-44	Beryllium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100114-44	Boron	1000 ug/L	10 mL	100 mL	100 ug/L
WI100114-44	Cadmium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100114-44	Calcium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100114-44	Chromium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100114-44	Cobalt	1000 ug/L	10 mL	100 mL	100 ug/L
WI100114-44	Copper	1000 ug/L	10 mL	100 mL	100 ug/L
WI100114-44	Iron	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100114-44	Lead	1000 ug/L	10 mL	100 mL	100 ug/L
WI100114-44	Magnesium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100114-44	Manganese	1000 ug/L	10 mL	100 mL	100 ug/L
WI100114-44	Molybdenum	1000 ug/L	10 mL	100 mL	100 ug/L
WI100114-44	Nickel	1000 ug/L	10 mL	100 mL	100 ug/L
WI100114-44	Phosphorous	5000 ug/L	10 mL	100 mL	500 ug/L
WI100114-44	Potassium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100114-44	Selenium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100114-44	Silica	10698 ug/L	10 mL	100 mL	1069 ug/L
WI100114-44	Silicon	5000 ug/L	10 mL	100 mL	500 ug/L
WI100114-44	Silver	1000 ug/L	10 mL	100 mL	100 ug/L
WI100114-44	Sodium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100114-44	Strontium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100114-44	Sulfur	2000 ug/L	10 mL	100 mL	200 ug/L
WI100114-44	Thallium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100114-44	Tin	1000 ug/L	10 mL	100 mL	100 ug/L
WI100114-44	Titanium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100114-44	Uranium	1000 ug/L	10 mL	100 mL	100 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WI100114-44	Vanadium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100114-44	Zinc	1000 ug/L	10 mL	100 mL	100 ug/L

Serial ID: WI100114-43 **Opened:** 14-JAN-10 **Balance Id :** 216
Name: TRACE ICP 0.5/CCV STD. **Received:** 02-NOV-09 **Pipet Id :** 1099667
Type: Working **Expires:** 15-JAN-10 **Solvent :** 3%HCL and 1%HNO3 -1253514
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP O.5/CCV CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090828-42	Sodium	1000 ug/mL	5 mL	1000 mL	5000 UG/L
UI091015-42	Silica	2139 mg/L	2.5 mL	1000 mL	5348.25 UG/L
UI091015-42	Silicon	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI091102-40	Aluminum	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Arsenic	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Barium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Beryllium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Boron	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Cadmium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Calcium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Chromium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Cobalt	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Copper	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Iron	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Lead	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Magnesium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Manganese	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Nickel	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Phosphorous	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI091102-40	Potassium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Selenium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Sodium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Strontium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Thallium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Uranium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Vanadium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Zinc	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Antimony	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Molybdenum	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Silver	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Sulfur	400 mg/L	2.5 mL	1000 mL	1000 UG/L
UI091102-41	Tin	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Titanium	200 mg/L	2.5 mL	1000 mL	500 UG/L

Standard Logbook

Serial ID: WI100114-44 **Opened:** 14-JAN-10 **Balance Id :** 216
Name: TRACE ICP SCAL 1.0 **Received:** 02-NOV-09 **Pipet Id :** 1099667
Type: Working **Expires:** 15-JAN-10 **Solvent :** 3%HCL and 1 %HNO3-1253514
Employee: Helen Camello
Supplier: o2si
Description: Trace ICP Calibration Standard 1.0ppm
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091015-42	Silica	2139 mg/L	2.5 mL	500 mL	10698 ug/L
UI091015-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI091102-40	Aluminum	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Arsenic	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Barium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Beryllium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Boron	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Cadmium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Calcium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Chromium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Cobalt	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Copper	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Iron	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Lead	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Magnesium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Manganese	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Nickel	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Phosphorous	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI091102-40	Potassium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Selenium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Sodium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Strontium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Thallium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Uranium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Vanadium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Zinc	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Antimony	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Molybdenum	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Silver	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Sulfur	400 mg/L	2.5 mL	500 mL	2000 ug/L
UI091102-41	Tin	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Titanium	200 mg/L	2.5 mL	500 mL	1000 ug/L

Standard Logbook

Serial ID: WI100114-45 **Opened:** 14-JAN-10 **Balance Id :** 216
Name: TRACE ICP S-10 STD **Received:** 22-APR-09 **Pipet Id :** 1099667
Type: Working **Expires:** 15-JAN-10 **Solvent :** 3%HCL and 1%HNO3 -1253514
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP S-10 CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090422-40	Aluminum	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Calcium	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Iron	2000 mg/L	5 mL	500 mL	20000 UG/L
UI090422-40	Magnesium	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090828-42	Sodium	1000 ug/mL	10 mL	500 mL	20000 UG/L

Serial ID: WI100114-46 **Opened:** 14-JAN-10 **Balance Id :** 216
Name: ICP TRACE ICV **Received:** 25-SEP-09 **Pipet Id :** 1099667
Type: Working **Expires:** 15-JAN-10 **Solvent :** 3%HCL AND 1%HNO3-1253514
Employee: Helen Camello
Supplier: GEL
Description: Initial Calibration Verification ICP Trace Metals
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090925-40	Aluminum	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Arsenic	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Barium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Boron	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cadmium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Calcium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Chromium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cobalt	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Copper	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Iron	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Lead	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Phosphorous	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Potassium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Selenium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Sodium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Strontium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Antimony	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Beryllium	50 mg/L	2.5 mL	500 mL	250 ug/L
UI090925-41	Magnesium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-41	Manganese	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Molybdenum	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Nickel	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Silver	50 mg/L	2.5 mL	500 mL	250 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090925-41	Sulfur	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-41	Thallium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Tin	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Titanium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Uranium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Vanadium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Zinc	100 mg/L	2.5 mL	500 mL	500 ug/L
UI091102-42	Silica	2139 mg/L	2.5 mL	500 mL	10695 ug/L
UI091102-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L

Serial ID: WI100114-47 **Opened:** 14-JAN-10 **Balance Id :** 216
Name: PQL Working Standard **Received:** 30-JUN-09 **Pipet Id :** 1099667
Type: Working **Expires:** 15-JAN-10 **Solvent :** 3%HCL &1%HNO3-1253514
Employee: Helen Camello
Supplier: 02si
Description: PQL Working Standard
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-40	Aluminum	100 mg/L	2 mL	1000 mL	200 ug/L
UI090701-40	Antimony	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Arsenic	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Barium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Beryllium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Boron	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Cadmium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Calcium	100 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Chromium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Cobalt	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Copper	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Iron	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Lead	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Magnesium	150 mg/L	2 mL	1000 mL	300 ug/L
UI090701-40	Manganese	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Molybdenum	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Nickel	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Phosphorous	75 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Potassium	75 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Selenium	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Silicon	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Silver	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sodium	150 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Strontium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sulfur	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Thallium	10 mg/L	2 mL	1000 mL	20 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-40	Tin	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Titanium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Uranium	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Vanadium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Zinc	5 mg/L	2 mL	1000 mL	10 ug/L

Serial ID: WMS100111-04AB **Opened:** 11-JAN-10 **Balance Id :** 40245216

Name: ICPMS Cal Standard 10 **Received:** 11-JAN-10 **Pipet Id :** 3541598

Type: Working **Expires:** 12-JAN-10 **Solvent :** 2%HNO3/1%HCl - 1238829

Employee: Rose Jenkins

Supplier: GEL

Description: ICPMS Calibration Standard (10 ppb)

Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100111-04B	Aluminum	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100111-04B	Antimony	100 ug/l	5 mL	50 mL	10 ug/l
WMS100111-04B	Arsenic	100 ug/l	5 mL	50 mL	10 ug/l
WMS100111-04B	Barium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100111-04B	Beryllium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100111-04B	Boron	200 ug/l	5 mL	50 mL	20 ug/l
WMS100111-04B	Cadmium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100111-04B	Calcium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100111-04B	Chromium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100111-04B	Cobalt	100 ug/l	5 mL	50 mL	10 ug/l
WMS100111-04B	Copper	100 ug/l	5 mL	50 mL	10 ug/l
WMS100111-04B	Iron	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100111-04B	Lead	100 ug/l	5 mL	50 mL	10 ug/l
WMS100111-04B	Lithium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100111-04B	Magnesium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100111-04B	Manganese	100 ug/l	5 mL	50 mL	10 ug/l
WMS100111-04B	Molybdenum	100 ug/l	5 mL	50 mL	10 ug/l
WMS100111-04B	Nickel	100 ug/l	5 mL	50 mL	10 ug/l
WMS100111-04B	Phosphorous	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100111-04B	Potassium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100111-04B	Selenium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100111-04B	Silver	100 ug/l	5 mL	50 mL	10 ug/l
WMS100111-04B	Sodium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100111-04B	Strontium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100111-04B	Thallium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100111-04B	Thorium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100111-04B	Tin	100 ug/l	5 mL	50 mL	10 ug/l
WMS100111-04B	Titanium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100111-04B	Tungsten	100 ug/L	5 mL	50 mL	10 ug/L
WMS100111-04B	Uranium	100 ug/l	5 mL	50 mL	10 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100111-04B	Vanadium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100111-04B	Zinc	100 ug/l	5 mL	50 mL	10 ug/l
WMS100111-04B	Zirconium	100 ug/l	5 mL	50 mL	10 ug/l

Serial ID: WMS100111-04B **Opened:** 11-JAN-10 **Amount :** 50 mL
Name: ICPMS Cal Standard 100 **Received:** 11-JAN-10 **Balance Id :** 40245216
Type: Working **Expires:** 12-JAN-10 **Pipet Id :** 1758088
Employee: Rose Jenkins **Solvent :** 2%HNO3/1%HCl- 1238829
Supplier: GEL
Description: ICPMS Calibration Standard (100 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090610-03	Tungsten	10 mg/L	.5 mL	50 mL	100 ug/L
UMS090303-01	Arsenic	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Barium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Beryllium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Boron	20 mg/L	.5	50 mL	200 ug/l
UMS090303-01	Cadmium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Chromium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Cobalt	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Copper	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Lead	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Lithium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Manganese	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Nickel	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Selenium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Silver	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Strontium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Thallium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Thorium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Uranium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Vanadium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Zinc	10 mg/L	.5	50 mL	100 ug/l
UMS090303-02	Aluminum	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Calcium	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Iron	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Magnesium	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Phosphorous	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Potassium	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Sodium	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-03	Antimony	10 mg/L	.5	50 mL	100 ug/l
UMS090303-03	Molybdenum	10 mg/L	.5	50 mL	100 ug/l
UMS090303-03	Tin	10 mg/L	.5	50 mL	100 ug/l
UMS090303-03	Titanium	10 mg/L	.5	50 mL	100 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UMS090303-03	Zirconium	10 mg/L	.5	50 mL	100 ug/l

Serial ID: WMS100111-05B
Name: ICPMS ICV
Type: Working
Employee: Rose Jenkins
Supplier: GEL
Description: ICPMS ICV
Comments: None

Opened: 11-JAN-10
Received: 11-JAN-10
Expires: 12-JAN-10

Balance Id : 40245216
Pipet Id : 1758088
Solvent : 2%HNO3/1%HCl - 1238829

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-06	Aluminum	2020 mg/L	.125 mL	50 mL	5050 ug/L
UI091217-06	Calcium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Iron	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Magnesium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Phosphorous	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Potassium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Sodium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-07	Arsenic	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Barium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Beryllium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Boron	40 mg/L	.125 mL	50 mL	100 ug/L
UI091217-07	Cadmium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Chromium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Cobalt	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Copper	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lead	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lithium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Manganese	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Nickel	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Selenium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Strontium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thallium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thorium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Uranium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Vanadium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Zinc	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Antimony	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Molybdenum	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Silver	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tin	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Titanium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tungsten	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Zirconium	20 mg/L	.125 mL	50 mL	50 ug/L

Standard Logbook

Serial ID: WMS100111-06B
Name: ICPMS CRDL
Type: Working
Employee: Rose Jenkins
Supplier: GEL
Description: ICPMS CRDL
Comments: None

Opened: 11-JAN-10
Received: 11-JAN-10
Expires: 12-JAN-10

Balance Id : 40245216
Pipet Id : 3820544
Solvent : 2%HNO3/1%HCl - 1238829

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Aluminum	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Arsenic	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Barium	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Beryllium	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-09	Boron	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Cadmium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Calcium	100 mg/L	.05 mL	50 mL	100 ug/L
UI090701-09	Chromium	3 mg/L	.05 mL	50 mL	3 ug/L
UI090701-09	Cobalt	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Copper	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Iron	25 mg/L	.05 mL	50 mL	25 ug/L
UI090701-09	Lead	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Lithium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Magnesium	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Manganese	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Nickel	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Phosphorous	50 mg/L	.05 mL	50 mL	50 ug/L
UI090701-09	Potassium	300 mg/L	.05 mL	50 mL	300 ug/L
UI090701-09	Selenium	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Sodium	250 mg/L	.05 mL	50 mL	250 ug/L
UI090701-09	Strontium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Thallium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Thorium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Uranium	.2 mg/L	.05 mL	50 mL	.2 ug/L
UI090701-09	Vanadium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Zinc	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Antimony	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-10	Molybdenum	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-10	Silver	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-10	Tin	2 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Titanium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Tungsten	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Zirconium	2 mg/L	.05 mL	50 mL	2 ug/L

Standard Logbook

Serial ID: WMS100111-07B
Name: ICPMS ICSA
Type: Working
Employee: Rose Jenkins
Supplier: GEL
Description: ICPMS ICSA
Comments: None

Opened: 11-JAN-10
Received: 11-JAN-10
Expires: 12-JAN-10

Balance Id : 40245216
Lot Number : 1010773
Pipet Id : 3541598
Solvent : 2%HNO3/1%HCl - 1238829

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI091212-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI091212-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: WMS100111-08B
Name: ICPMS ICSAB
Type: Working
Employee: Rose Jenkins
Supplier: GEL
Description: ICPMS ICSAB
Comments: None

Opened: 11-JAN-10
Received: 11-JAN-10
Expires: 12-JAN-10

Balance Id : 40245216
Pipet Id : 3541598/1758088
Solvent : 2%HNO3/1%HCl - 1238829

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI091212-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI091212-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L
UI091217-12	Arsenic	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Barium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Beryllium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Boron	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Cadmium	2 mg/L	.5 mL	50 mL	20.2 ug/L
UI091217-12	Chromium	2 mg/L	.5 mL	50 mL	22.2 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-12	Cobalt	2 mg/L	.5 mL	50 mL	20.4 ug/L
UI091217-12	Copper	2 mg/L	.5 mL	50 mL	23.4 ug/L
UI091217-12	Lead	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Lithium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Manganese	2 mg/L	.5 mL	50 mL	22.7 ug/L
UI091217-12	Nickel	2 mg/L	.5 mL	50 mL	22.4 ug/L
UI091217-12	Selenium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Strontium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thallium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thorium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Uranium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Vanadium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Zinc	2 mg/L	.5 mL	50 mL	27 ug/L
UI091217-13	Antimony	2 mg/L	.5 mL	50 mL	20.5 ug/L
UI091217-13	Silver	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tin	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tungsten	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Zirconium	2 mg/L	.5 mL	50 mL	20 ug/L

Serial ID: WMS100113-04AB **Opened:** 13-JAN-10 **Balance Id :** 40245216
Name: ICPMS Cal Standard 10 **Received:** 13-JAN-10 **Pipet Id :** 3541598
Type: Working **Expires:** 14-JAN-10 **Solvent :** 2%HNO3/1%HCl - 1238829
Employee: Rose Jenkins
Supplier: GEL
Description: ICPMS Calibration Standard (10 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100113-04B	Aluminum	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100113-04B	Antimony	100 ug/l	5 mL	50 mL	10 ug/l
WMS100113-04B	Arsenic	100 ug/l	5 mL	50 mL	10 ug/l
WMS100113-04B	Barium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100113-04B	Beryllium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100113-04B	Boron	200 ug/l	5 mL	50 mL	20 ug/l
WMS100113-04B	Cadmium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100113-04B	Calcium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100113-04B	Chromium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100113-04B	Cobalt	100 ug/l	5 mL	50 mL	10 ug/l
WMS100113-04B	Copper	100 ug/l	5 mL	50 mL	10 ug/l
WMS100113-04B	Iron	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100113-04B	Lead	100 ug/l	5 mL	50 mL	10 ug/l
WMS100113-04B	Lithium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100113-04B	Magnesium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100113-04B	Manganese	100 ug/l	5 mL	50 mL	10 ug/l
WMS100113-04B	Molybdenum	100 ug/l	5 mL	50 mL	10 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100113-04B	Nickel	100 ug/l	5 mL	50 mL	10 ug/l
WMS100113-04B	Phosphorous	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100113-04B	Potassium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100113-04B	Selenium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100113-04B	Silver	100 ug/l	5 mL	50 mL	10 ug/l
WMS100113-04B	Sodium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100113-04B	Strontium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100113-04B	Thallium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100113-04B	Thorium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100113-04B	Tin	100 ug/l	5 mL	50 mL	10 ug/l
WMS100113-04B	Titanium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100113-04B	Tungsten	100 ug/L	5 mL	50 mL	10 ug/L
WMS100113-04B	Uranium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100113-04B	Vanadium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100113-04B	Zinc	100 ug/l	5 mL	50 mL	10 ug/l
WMS100113-04B	Zirconium	100 ug/l	5 mL	50 mL	10 ug/l

Serial ID: WMS100113-04B **Opened:** 13-JAN-10 **Amount :** 50 mL
Name: ICPMS Cal Standard 100 **Received:** 13-JAN-10 **Balance Id :** 40245216
Type: Working **Expires:** 14-JAN-10 **Pipet Id :** 1758088
Employee: Rose Jenkins **Solvent :** 2%HNO3/1%HCl- 1238829
Supplier: GEL
Description: ICPMS Calibration Standard (100 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090610-03	Tungsten	10 mg/L	.5 mL	50 mL	100 ug/L
UMS090303-01	Arsenic	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Barium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Beryllium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Boron	20 mg/L	.5	50 mL	200 ug/l
UMS090303-01	Cadmium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Chromium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Cobalt	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Copper	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Lead	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Lithium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Manganese	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Nickel	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Selenium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Silver	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Strontium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Thallium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Thorium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Uranium	10 mg/L	.5	50 mL	100 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UMS090303-01	Vanadium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Zinc	10 mg/L	.5	50 mL	100 ug/l
UMS090303-02	Aluminum	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Calcium	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Iron	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Magnesium	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Phosphorous	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Potassium	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Sodium	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-03	Antimony	10 mg/L	.5	50 mL	100 ug/l
UMS090303-03	Molybdenum	10 mg/L	.5	50 mL	100 ug/l
UMS090303-03	Tin	10 mg/L	.5	50 mL	100 ug/l
UMS090303-03	Titanium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-03	Zirconium	10 mg/L	.5	50 mL	100 ug/l

Serial ID: WMS100113-05B **Opened:** 13-JAN-10 **Balance Id :** 40245216
Name: ICPMS ICV **Received:** 13-JAN-10 **Pipet Id :** 1758088
Type: Working **Expires:** 14-JAN-10 **Solvent :** 2%HNO3/1%HCl - 1238829
Employee: Rose Jenkins
Supplier: GEL
Description: ICPMS ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-06	Aluminum	2020 mg/L	.125 mL	50 mL	5050 ug/L
UI091217-06	Calcium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Iron	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Magnesium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Phosphorous	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Potassium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Sodium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-07	Arsenic	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Barium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Beryllium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Boron	40 mg/L	.125 mL	50 mL	100 ug/L
UI091217-07	Cadmium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Chromium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Cobalt	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Copper	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lead	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lithium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Manganese	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Nickel	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Selenium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Strontium	20 mg/L	.125 mL	50 mL	50 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-07	Thallium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thorium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Uranium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Vanadium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Zinc	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Antimony	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Molybdenum	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Silver	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tin	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Titanium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tungsten	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Zirconium	20 mg/L	.125 mL	50 mL	50 ug/L

Serial ID: WMS100113-06B **Opened:** 13-JAN-10 **Balance Id :** 40245216
Name: ICPMS CRDL **Received:** 13-JAN-10 **Pipet Id :** 3820544
Type: Working **Expires:** 14-JAN-10 **Solvent :** 2%HNO3/1%HCl - 1238829
Employee: Rose Jenkins
Supplier: GEL
Description: ICPMS CRDL
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Aluminum	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Arsenic	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Barium	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Beryllium	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-09	Boron	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Cadmium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Calcium	100 mg/L	.05 mL	50 mL	100 ug/L
UI090701-09	Chromium	3 mg/L	.05 mL	50 mL	3 ug/L
UI090701-09	Cobalt	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Copper	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Iron	25 mg/L	.05 mL	50 mL	25 ug/L
UI090701-09	Lead	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Lithium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Magnesium	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Manganese	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Nickel	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Phosphorous	50 mg/L	.05 mL	50 mL	50 ug/L
UI090701-09	Potassium	300 mg/L	.05 mL	50 mL	300 ug/L
UI090701-09	Selenium	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Sodium	250 mg/L	.05 mL	50 mL	250 ug/L
UI090701-09	Strontium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Thallium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Thorium	1 mg/L	.05 mL	50 mL	1 ug/L

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Uranium	.2 mg/L	.05 mL	50 mL	.2 ug/L
UI090701-09	Vanadium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Zinc	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Antimony	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-10	Molybdenum	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-10	Silver	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-10	Tin	2 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Titanium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Tungsten	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Zirconium	2 mg/L	.05 mL	50 mL	2 ug/L

Serial ID: WMS100113-07B **Opened:** 13-JAN-10 **Balance Id :** 40245216
Name: ICPMS ICSA **Received:** 13-JAN-10 **Lot Number :** 1010773
Type: Working **Expires:** 14-JAN-10 **Pipet Id :** 3541598
Employee: Rose Jenkins **Solvent :** 2%HNO3/1%HCl - 1238829
Supplier: GEL
Description: ICPMS ICSA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI091212-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI091212-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: WMS100113-08B **Opened:** 13-JAN-10 **Balance Id :** 40245216
Name: ICPMS ICSAB **Received:** 13-JAN-10 **Pipet Id :** 3541598/1758088
Type: Working **Expires:** 14-JAN-10 **Solvent :** 2%HNO3/1%HCl - 1238829
Employee: Rose Jenkins
Supplier: GEL
Description: ICPMS ICSAB
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI091212-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI091212-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L
UI091217-12	Arsenic	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Barium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Beryllium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Boron	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Cadmium	2 mg/L	.5 mL	50 mL	20.2 ug/L
UI091217-12	Chromium	2 mg/L	.5 mL	50 mL	22.2 ug/L
UI091217-12	Cobalt	2 mg/L	.5 mL	50 mL	20.4 ug/L
UI091217-12	Copper	2 mg/L	.5 mL	50 mL	23.4 ug/L
UI091217-12	Lead	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Lithium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Manganese	2 mg/L	.5 mL	50 mL	22.7 ug/L
UI091217-12	Nickel	2 mg/L	.5 mL	50 mL	22.4 ug/L
UI091217-12	Selenium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Strontium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thallium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thorium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Uranium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Vanadium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Zinc	2 mg/L	.5 mL	50 mL	27 ug/L
UI091217-13	Antimony	2 mg/L	.5 mL	50 mL	20.5 ug/L
UI091217-13	Silver	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tin	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tungsten	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Zirconium	2 mg/L	.5 mL	50 mL	20 ug/L

Serial ID: WMS100115-04AB **Opened:** 15-JAN-10 **Balance Id :** 40245216
Name: ICPMS Cal Standard 10 **Received:** 15-JAN-10 **Pipet Id :** 3541598
Type: Working **Expires:** 16-JAN-10 **Solvent :** 2%HNO3/1%HCl - 1238829
Employee: Rose Jenkins
Supplier: GEL
Description: ICPMS Calibration Standard (10 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100115-04B	Aluminum	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100115-04B	Antimony	100 ug/l	5 mL	50 mL	10 ug/l
WMS100115-04B	Arsenic	100 ug/l	5 mL	50 mL	10 ug/l
WMS100115-04B	Barium	100 ug/l	5 mL	50 mL	10 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100115-04B	Beryllium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100115-04B	Boron	200 ug/l	5 mL	50 mL	20 ug/l
WMS100115-04B	Cadmium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100115-04B	Calcium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100115-04B	Chromium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100115-04B	Cobalt	100 ug/l	5 mL	50 mL	10 ug/l
WMS100115-04B	Copper	100 ug/l	5 mL	50 mL	10 ug/l
WMS100115-04B	Iron	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100115-04B	Lead	100 ug/l	5 mL	50 mL	10 ug/l
WMS100115-04B	Lithium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100115-04B	Magnesium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100115-04B	Manganese	100 ug/l	5 mL	50 mL	10 ug/l
WMS100115-04B	Molybdenum	100 ug/l	5 mL	50 mL	10 ug/l
WMS100115-04B	Nickel	100 ug/l	5 mL	50 mL	10 ug/l
WMS100115-04B	Phosphorous	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100115-04B	Potassium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100115-04B	Selenium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100115-04B	Silver	100 ug/l	5 mL	50 mL	10 ug/l
WMS100115-04B	Sodium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100115-04B	Strontium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100115-04B	Thallium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100115-04B	Thorium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100115-04B	Tin	100 ug/l	5 mL	50 mL	10 ug/l
WMS100115-04B	Titanium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100115-04B	Tungsten	100 ug/L	5 mL	50 mL	10 ug/L
WMS100115-04B	Uranium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100115-04B	Vanadium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100115-04B	Zinc	100 ug/l	5 mL	50 mL	10 ug/l
WMS100115-04B	Zirconium	100 ug/l	5 mL	50 mL	10 ug/l

Serial ID: WMS100115-04B **Opened:** 15-JAN-10 **Amount :** 50 mL
Name: ICPMS Cal Standard 100 **Received:** 15-JAN-10 **Balance Id :** 40245216
Type: Working **Expires:** 16-JAN-10 **Pipet Id :** 1758088
Employee: Rose Jenkins **Solvent :** 2%HNO3/1%HCl- 1238829
Supplier: GEL
Description: ICPMS Calibration Standard (100 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090610-03	Tungsten	10 mg/L	.5 mL	50 mL	100 ug/L
UMS090303-01	Arsenic	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Barium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Beryllium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Boron	20 mg/L	.5	50 mL	200 ug/l
UMS090303-01	Cadmium	10 mg/L	.5	50 mL	100 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UMS090303-01	Chromium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Cobalt	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Copper	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Lead	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Lithium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Manganese	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Nickel	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Selenium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Silver	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Strontium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Thallium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Thorium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Uranium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Vanadium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Zinc	10 mg/L	.5	50 mL	100 ug/l
UMS090303-02	Aluminum	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Calcium	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Iron	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Magnesium	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Phosphorous	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Potassium	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Sodium	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-03	Antimony	10 mg/L	.5	50 mL	100 ug/l
UMS090303-03	Molybdenum	10 mg/L	.5	50 mL	100 ug/l
UMS090303-03	Tin	10 mg/L	.5	50 mL	100 ug/l
UMS090303-03	Titanium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-03	Zirconium	10 mg/L	.5	50 mL	100 ug/l

Serial ID: WMS100115-05B **Opened:** 15-JAN-10 **Balance Id :** 40245216
Name: ICPMS ICV **Received:** 15-JAN-10 **Pipet Id :** 1758088
Type: Working **Expires:** 16-JAN-10 **Solvent :** 2%HNO3/1%HCl - 1238829
Employee: Rose Jenkins
Supplier: GEL
Description: ICPMS ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-06	Aluminum	2020 mg/L	.125 mL	50 mL	5050 ug/L
UI091217-06	Calcium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Iron	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Magnesium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Phosphorous	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Potassium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Sodium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-07	Arsenic	20 mg/L	.125 mL	50 mL	50 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-07	Barium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Beryllium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Boron	40 mg/L	.125 mL	50 mL	100 ug/L
UI091217-07	Cadmium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Chromium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Cobalt	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Copper	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lead	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lithium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Manganese	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Nickel	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Selenium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Strontium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thallium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thorium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Uranium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Vanadium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Zinc	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Antimony	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Molybdenum	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Silver	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tin	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Titanium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tungsten	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Zirconium	20 mg/L	.125 mL	50 mL	50 ug/L

Serial ID: WMS100115-06B **Opened:** 15-JAN-10 **Balance Id :** 40245216
Name: ICPMS CRDL **Received:** 15-JAN-10 **Pipet Id :** 3820544
Type: Working **Expires:** 16-JAN-10 **Solvent :** 2%HNO3/1%HCl - 1238829
Employee: Rose Jenkins
Supplier: GEL
Description: ICPMS CRDL
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Aluminum	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Arsenic	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Barium	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Beryllium	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-09	Boron	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Cadmium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Calcium	100 mg/L	.05 mL	50 mL	100 ug/L
UI090701-09	Chromium	3 mg/L	.05 mL	50 mL	3 ug/L
UI090701-09	Cobalt	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Copper	1 mg/L	.05 mL	50 mL	1 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Iron	25 mg/L	.05 mL	50 mL	25 ug/L
UI090701-09	Lead	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Lithium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Magnesium	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Manganese	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Nickel	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Phosphorous	50 mg/L	.05 mL	50 mL	50 ug/L
UI090701-09	Potassium	300 mg/L	.05 mL	50 mL	300 ug/L
UI090701-09	Selenium	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Sodium	250 mg/L	.05 mL	50 mL	250 ug/L
UI090701-09	Strontium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Thallium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Thorium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Uranium	.2 mg/L	.05 mL	50 mL	.2 ug/L
UI090701-09	Vanadium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Zinc	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Antimony	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-10	Molybdenum	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-10	Silver	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-10	Tin	2 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Titanium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Tungsten	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Zirconium	2 mg/L	.05 mL	50 mL	2 ug/L

Serial ID: WMS100115-07B **Opened:** 15-JAN-10 **Balance Id :** 40245216
Name: ICPMS ICSA **Received:** 15-JAN-10 **Lot Number :** 1010773
Type: Working **Expires:** 16-JAN-10 **Pipet Id :** 3541598
Employee: Rose Jenkins **Solvent :** 2%HNO3/1%HCl - 1238829
Supplier: GEL
Description: ICPMS ICSA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI091212-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI091212-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Standard Logbook

Serial ID: WMS100115-08B
Name: ICPMS ICSAB
Type: Working
Employee: Rose Jenkins
Supplier: GEL
Description: ICPMS ICSAB
Comments: None

Opened: 15-JAN-10
Received: 15-JAN-10
Expires: 16-JAN-10

Balance Id : 40245216
Pipet Id : 3541598/1758088
Solvent : 2%HNO3/1%HCl - 1238829

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI091212-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI091212-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L
UI091217-12	Arsenic	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Barium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Beryllium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Boron	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Cadmium	2 mg/L	.5 mL	50 mL	20.2 ug/L
UI091217-12	Chromium	2 mg/L	.5 mL	50 mL	22.2 ug/L
UI091217-12	Cobalt	2 mg/L	.5 mL	50 mL	20.4 ug/L
UI091217-12	Copper	2 mg/L	.5 mL	50 mL	23.4 ug/L
UI091217-12	Lead	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Lithium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Manganese	2 mg/L	.5 mL	50 mL	22.7 ug/L
UI091217-12	Nickel	2 mg/L	.5 mL	50 mL	22.4 ug/L
UI091217-12	Selenium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Strontium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thallium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thorium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Uranium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Vanadium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Zinc	2 mg/L	.5 mL	50 mL	27 ug/L
UI091217-13	Antimony	2 mg/L	.5 mL	50 mL	20.5 ug/L
UI091217-13	Silver	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tin	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tungsten	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Zirconium	2 mg/L	.5 mL	50 mL	20 ug/L

Standard Logbook

Serial ID: WMS100115-70B **Opened:** 15-JAN-10 **Balance Id :** 40245216
Name: ICPMS LINEAR RANGE ST **Received:** 15-JAN-10 **Pipet Id :** 3541598
Type: Working **Expires:** 16-JAN-10 **Solvent :** 2%HNO3/1%HCl - 1238829
Employee: Rose Jenkins
Supplier: 02SI
Description: ICPMS LINEAR RANGE STANDARD
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-60	Aluminum	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Arsenic	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Barium	250 mg/L	.5 mL	50 mL	2500 ug/L
UI091212-60	Beryllium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Cadmium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Calcium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Chromium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Cobalt	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Copper	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Iron	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Lead	500 mg/L	.5 mL	50 mL	5000 ug/L
UI091212-60	Lithium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Magnesium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Manganese	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Nickel	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Phosphorous	2500 mg/L	.5 mL	50 mL	25000 ug/L
UI091212-60	Potassium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Selenium	50 mg/L	.5 mL	50 mL	500 ug/L
UI091212-60	Sodium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Strontium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Thallium	50 mg/L	.5 mL	50 mL	500 ug/L
UI091212-60	Thorium	250 mg/L	.5 mL	50 mL	2500 ug/L
UI091212-60	Uranium	500 mg/L	.5 mL	50 mL	5000 ug/L
UI091212-60	Vanadium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Zinc	250 mg/L	.5 mL	50 mL	2500 ug/L
UI091212-61	Antimony	25 mg/L	.5 mL	50 mL	250 ug/L
UI091212-61	Molybdenum	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-61	Silver	25 mg/L	.5 mL	50 mL	250 ug/L
UI091212-61	Tin	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-61	Tungsten	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-61	Zirconium	50 mg/L	.5 mL	50 mL	500 ug/L

Serial ID: WMS100118-04AB **Opened:** 18-JAN-10 **Balance Id :** 40245216
Name: ICPMS Cal Standard 10 **Received:** 18-JAN-10 **Pipet Id :** 3541598
Type: Working **Expires:** 19-JAN-10 **Solvent :** 2%HNO3/1%HCl - 1256053
Employee: Rose Jenkins
Supplier: GEL

Standard Logbook

Description: ICPMS Calibration Standard (10 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100118-04B	Aluminum	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100118-04B	Antimony	100 ug/l	5 mL	50 mL	10 ug/l
WMS100118-04B	Arsenic	100 ug/l	5 mL	50 mL	10 ug/l
WMS100118-04B	Barium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100118-04B	Beryllium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100118-04B	Boron	200 ug/l	5 mL	50 mL	20 ug/l
WMS100118-04B	Cadmium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100118-04B	Calcium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100118-04B	Chromium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100118-04B	Cobalt	100 ug/l	5 mL	50 mL	10 ug/l
WMS100118-04B	Copper	100 ug/l	5 mL	50 mL	10 ug/l
WMS100118-04B	Iron	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100118-04B	Lead	100 ug/l	5 mL	50 mL	10 ug/l
WMS100118-04B	Lithium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100118-04B	Magnesium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100118-04B	Manganese	100 ug/l	5 mL	50 mL	10 ug/l
WMS100118-04B	Molybdenum	100 ug/l	5 mL	50 mL	10 ug/l
WMS100118-04B	Nickel	100 ug/l	5 mL	50 mL	10 ug/l
WMS100118-04B	Phosphorous	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100118-04B	Potassium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100118-04B	Selenium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100118-04B	Silver	100 ug/l	5 mL	50 mL	10 ug/l
WMS100118-04B	Sodium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100118-04B	Strontium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100118-04B	Thallium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100118-04B	Thorium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100118-04B	Tin	100 ug/l	5 mL	50 mL	10 ug/l
WMS100118-04B	Titanium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100118-04B	Tungsten	100 ug/L	5 mL	50 mL	10 ug/L
WMS100118-04B	Uranium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100118-04B	Vanadium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100118-04B	Zinc	100 ug/l	5 mL	50 mL	10 ug/l
WMS100118-04B	Zirconium	100 ug/l	5 mL	50 mL	10 ug/l

Serial ID: WMS100118-04B **Opened:** 18-JAN-10 **Amount :** 50 mL
Name: ICPMS Cal Standard 100 **Received:** 18-JAN-10 **Balance Id :** 40245216
Type: Working **Expires:** 19-JAN-10 **Pipet Id :** 1758088
Employee: Rose Jenkins **Solvent :** 2%HNO3/1%HCl- 1256053
Supplier: GEL
Description: ICPMS Calibration Standard (100 ppb)
Comments: None

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090610-03	Tungsten	10 mg/L	.5 mL	50 mL	100 ug/L
UMS090303-01	Arsenic	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Barium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Beryllium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Boron	20 mg/L	.5	50 mL	200 ug/l
UMS090303-01	Cadmium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Chromium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Cobalt	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Copper	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Lead	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Lithium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Manganese	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Nickel	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Selenium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Silver	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Strontium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Thallium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Thorium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Uranium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Vanadium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Zinc	10 mg/L	.5	50 mL	100 ug/l
UMS090303-02	Aluminum	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Calcium	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Iron	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Magnesium	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Phosphorous	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Potassium	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Sodium	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-03	Antimony	10 mg/L	.5	50 mL	100 ug/l
UMS090303-03	Molybdenum	10 mg/L	.5	50 mL	100 ug/l
UMS090303-03	Tin	10 mg/L	.5	50 mL	100 ug/l
UMS090303-03	Titanium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-03	Zirconium	10 mg/L	.5	50 mL	100 ug/l

Serial ID: WMS100118-05B **Opened:** 18-JAN-10 **Balance Id :** 40245216
Name: ICPMS ICV **Received:** 18-JAN-10 **Pipet Id :** 1758088
Type: Working **Expires:** 19-JAN-10 **Solvent :** 2%HNO3/1%HCl - 1256053
Employee: Rose Jenkins
Supplier: GEL
Description: ICPMS ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-06	Aluminum	2020 mg/L	.125 mL	50 mL	5050 ug/L
UI091217-06	Calcium	2000 mg/L	.125 mL	50 mL	5000 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-06	Iron	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Magnesium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Phosphorous	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Potassium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Sodium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-07	Arsenic	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Barium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Beryllium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Boron	40 mg/L	.125 mL	50 mL	100 ug/L
UI091217-07	Cadmium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Chromium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Cobalt	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Copper	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lead	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lithium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Manganese	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Nickel	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Selenium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Strontium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thallium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thorium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Uranium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Vanadium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Zinc	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Antimony	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Molybdenum	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Silver	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tin	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Titanium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tungsten	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Zirconium	20 mg/L	.125 mL	50 mL	50 ug/L

Serial ID: WMS100118-06B **Opened:** 18-JAN-10 **Balance Id :** 40245216
Name: ICPMS CRDL **Received:** 18-JAN-10 **Pipet Id :** 3820544
Type: Working **Expires:** 19-JAN-10 **Solvent :** 2%HNO3/1%HCl - 1256053
Employee: Rose Jenkins
Supplier: GEL
Description: ICPMS CRDL
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Aluminum	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Arsenic	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Barium	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Beryllium	.5 mg/L	.05 mL	50 mL	.5 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Boron	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Cadmium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Calcium	100 mg/L	.05 mL	50 mL	100 ug/L
UI090701-09	Chromium	3 mg/L	.05 mL	50 mL	3 ug/L
UI090701-09	Cobalt	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Copper	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Iron	25 mg/L	.05 mL	50 mL	25 ug/L
UI090701-09	Lead	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Lithium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Magnesium	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Manganese	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Nickel	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Phosphorous	50 mg/L	.05 mL	50 mL	50 ug/L
UI090701-09	Potassium	300 mg/L	.05 mL	50 mL	300 ug/L
UI090701-09	Selenium	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Sodium	250 mg/L	.05 mL	50 mL	250 ug/L
UI090701-09	Strontium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Thallium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Thorium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Uranium	.2 mg/L	.05 mL	50 mL	.2 ug/L
UI090701-09	Vanadium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Zinc	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Antimony	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-10	Molybdenum	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-10	Silver	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-10	Tin	2 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Titanium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Tungsten	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Zirconium	2 mg/L	.05 mL	50 mL	2 ug/L

Serial ID: WMS100118-07B **Opened:** 18-JAN-10 **Balance Id :** 40245216
Name: ICPMS ICSA **Received:** 18-JAN-10 **Lot Number :** 1010773
Type: Working **Expires:** 19-JAN-10 **Pipet Id :** 3541598
Employee: Rose Jenkins **Solvent :** 2%HNO3/1%HCl - 1256053
Supplier: GEL
Description: ICPMS ICSA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI091212-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: WMS100118-08B **Opened:** 18-JAN-10 **Balance Id :** 40245216
Name: ICPMS ICSAB **Received:** 18-JAN-10 **Pipet Id :** 3541598/1758088
Type: Working **Expires:** 19-JAN-10 **Solvent :** 2%HNO3/1%HCl - 1256053
Employee: Rose Jenkins
Supplier: GEL
Description: ICPMS ICSAB
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI091212-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI091212-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L
UI091217-12	Arsenic	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Barium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Beryllium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Boron	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Cadmium	2 mg/L	.5 mL	50 mL	20.2 ug/L
UI091217-12	Chromium	2 mg/L	.5 mL	50 mL	22.2 ug/L
UI091217-12	Cobalt	2 mg/L	.5 mL	50 mL	20.4 ug/L
UI091217-12	Copper	2 mg/L	.5 mL	50 mL	23.4 ug/L
UI091217-12	Lead	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Lithium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Manganese	2 mg/L	.5 mL	50 mL	22.7 ug/L
UI091217-12	Nickel	2 mg/L	.5 mL	50 mL	22.4 ug/L
UI091217-12	Selenium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Strontium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thallium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thorium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Uranium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Vanadium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Zinc	2 mg/L	.5 mL	50 mL	27 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-13	Antimony	2 mg/L	.5 mL	50 mL	20.5 ug/L
UI091217-13	Silver	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tin	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tungsten	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Zirconium	2 mg/L	.5 mL	50 mL	20 ug/L

Serial ID: 1156689-A **Opened:** 20-JUL-09 **Lot Number :** 41226920
Name: B-KMnO4(VWR)-MER **Received:** 20-JUL-09
Type: Reagent/Solvent **Expires:** 20-JUL-10
Employee: Tara Griffin **Verified:** 07-AUG-07
Supplier: VWR
Description: Potassium Permanganate
Comments: None

Serial ID: 1164796-A **Opened:** 06-AUG-09 **Lot Number :** 49149927
Name: B-NH2OH.HCl-MER **Received:** 06-AUG-09
Type: Reagent/Solvent **Expires:** 06-AUG-10
Employee: Tara Griffin
Supplier: Fisher Scientific
Description: Hydroxlyamine Hydrochloride
Comments: None

Serial ID: 1203655-02 **Opened:** 15-OCT-09 **Lot Number :** ZU74081198 mL
Name: B-H2O2 **Received:** 15-OCT-09
Type: Reagent/Solvent **Expires:** 15-OCT-10
Employee: Francena Armstrong
Supplier: EM SCIENCE
Description: Hydrogen Peroxide 30%
Comments: None

Serial ID: 1206350-C **Opened:** 22-OCT-09 **Balance Id :** BAL-002
Name: B-NaCl.NH2OH.HCl-MER **Received:** 22-OCT-09
Type: Reagent/Solvent **Expires:** 15-JAN-10
Employee: Tara Griffin
Supplier: GEL
Description: Hg reducing agent
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1164796-A	B-NH2OH.HCl-MER	N/A	120 g	1000 mL	N/A

Standard Logbook

Serial ID: 1234886 **Opened:** 27-NOV-09 **Lot Number :** H20053 L
Name: I-HNO3 **Received:** 27-NOV-09
Type: Reagent/Solvent **Expires:** 27-NOV-10
Employee: Bryan Davis
Supplier: BAKER
Description: Nitric Acid CONC.
Comments: None

Serial ID: 1236355-A **Opened:** 01-DEC-09 **Lot Number :** 200930201
Name: B-HCl-MER **Received:** 01-DEC-09
Type: Reagent/Solvent **Expires:** 01-DEC-10
Employee: Tara Griffin
Supplier: Aristar
Description: Hydrochloric Acid Conc.
Comments: None

Serial ID: 1238345 **Opened:** 04-DEC-09 **Lot Number :** H20053 L
Name: I-HNO3 **Received:** 04-DEC-09
Type: Reagent/Solvent **Expires:** 04-DEC-10
Employee: Francena Armstrong
Supplier: BAKER
Description: Nitric Acid CONC.
Comments: None

Serial ID: 1240182-1 **Opened:** 09-DEC-09 **Instrument Id :** MERCURY
Name: B-HNO3-MER **Received:** 09-DEC-09 **Lot Number :** H34040
Type: Reagent/Solvent **Expires:** 09-DEC-10
Employee: Tara Griffin
Supplier: Mallinckrodt Chemicals
Description: NITRIC ACID
Comments: None

Serial ID: 1244904-C **Opened:** 18-DEC-09 **Balance Id :** BAL-002
Name: B-KMnO4-MER **Received:** 18-DEC-09
Type: Reagent/Solvent **Expires:** 18-JUN-10
Employee: Tara Griffin
Supplier: GEL
Description: 5% KMnO4 solution
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1156689-A	B-KMnO4(VWR)-MER	Crystals	50 g	1000 mL	3%

Standard Logbook

Serial ID: 1244970 **Opened:** 18-DEC-09 **Lot Number :** H41032
Name: I-HCL **Received:** 18-DEC-09 **Preservative_Id :** 5 none
Type: Reagent/Solvent **Expires:** 18-DEC-10
Employee: Francena Armstrong
Supplier: J.T. BAKER
Description: HYDROCHLORIC ACID
Comments: None

Serial ID: 1252836 **Opened:** 08-JAN-10 **Lot Number :** H20053 L
Name: I-HNO3 **Received:** 08-JAN-10
Type: Reagent/Solvent **Expires:** 08-JAN-11
Employee: Francena Armstrong
Supplier: BAKER
Description: Nitric Acid CONC.
Comments: None

Serial ID: 1252838 **Opened:** 08-JAN-10 **Lot Number :** H41032
Name: I-HCL **Received:** 08-JAN-10 **Preservative_Id :** 5 none
Type: Reagent/Solvent **Expires:** 08-JAN-11
Employee: Francena Armstrong
Supplier: J.T. BAKER
Description: HYDROCHLORIC ACID
Comments: None

Serial ID: 1253206 **Opened:** 11-JAN-10 **Solvent :** Type I Water
Name: B-2%HNO3/1%HCl-ICPMS **Received:** 11-JAN-10
Type: Reagent/Solvent **Expires:** 18-JAN-10
Employee: Paul Boyd
Supplier: GEL
Description: 2%HNO3/1%HCl Solution (Type I Water)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1238345	I-HNO3	69.0-70.0	180 mL	9 l	N/A
1244970	I-HCL	36.5-38.0	90 mL	9 l	N/A

Serial ID: 1253514 **Opened:** 11-JAN-10 **Amount :** 20 L
Name: B-ICP-RINSE SOLN **Received:** 11-JAN-10 **Lot Number :** H04040+G34050
Type: Reagent/Solvent **Expires:** 17-JAN-10 **Solvent :** 3%HCL+1%HNO3
Employee: Helen Camello
Supplier: GEL
Description: 3%HCL+1%HNO3 RINSE SOLN.
Comments: None

Standard Logbook

Serial ID: 1256053 **Opened:** 18-JAN-10 **Solvent :** Type I Water
Name: B-2%HNO3/1%HCl-ICPMS **Received:** 18-JAN-10
Type: Reagent/Solvent **Expires:** 25-JAN-10
Employee: Paul Boyd
Supplier: GEL
Description: 2%HNO3/1%HCl Solution (Type I Water)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1238345	I-HNO3	69.0-70.0	180 mL	9 l	N/A
1244970	I-HCL	36.5-38.0	90 mL	9 l	N/A

General Chemistry Analysis

Case Narrative

General Chemistry Narrative
Los Alamos National Laboratory (LANL)
SDG 10-1057

Method/Analysis Information

Product: **pH**

Analytical Batch: 936616 **Method:** SW846 9045C/9045D

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 9045C/9045D:

Sample ID	Client ID
243472001	RE03-09-14228
243472002	RE03-09-14230
243472003	RE03-09-14229
1202004052	Laboratory Control Sample (LCS)
1202004053	243393002(WST12-10-8879) Sample Duplicate (DUP)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-008 REV# 17.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

The Electrode analysis was performed on a PerpHecT LogR pH/ISE.

Initial Calibration

All initial calibration requirements have been met for this SDG.

Calibration Verification Information (CCV)

All continuing calibration verification standards (CCVs) associated with reported data from this batch were within acceptance limits.

Quality Control (QC) Information

Laboratory Control Sample (LCS) Recovery

The LCS spike recovery met the acceptance limits.

Quality Control (QC) Designation
The following sample was selected for QC analysis: 243393002 (WST12-10-8879).

Duplicate Relative Percent Difference (RPD) Statement
The RPD between the sample and its duplicate met the acceptance limits.

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times
The following samples from this sample group were received by the lab outside of the method specified holding time: 1202004053 (WST12-10-8879), 243472001 (RE03-09-14228), 243472002 (RE03-09-14230) and 243472003 (RE03-09-14229).

Sample Re-analysis
The samples in this SDG did not require re-analysis.

Miscellaneous Information

Nonconformance (NCR) Documentation
An NCR was not required for this SDG.

Additional Comments
Additional comments were not required for this SDG.

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:
Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Method/Analysis Information

Product:	**Cyanide, Total**		
Analytical Batch:	936400	**Method:**	SW846 9012A
Prep Batch :	936399	**Method:**	SW846 9010B Prep

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 9012A:

Sample ID	Client ID
243472001	RE03-09-14228
243472002	RE03-09-14230
243472003	RE03-09-14229
1202003577	Method Blank (MB)
1202003578	243385008(RE12-10-7585) Sample Duplicate (DUP)
1202003579	243385008(RE12-10-7585) Matrix Spike (MS)
1202003580	243385008(RE12-10-7585) Matrix Spike Duplicate (MSD)
1202003581	Laboratory Control Sample (LCS)
1202004486	243505001(RE16-10-2853) Sample Duplicate (DUP)
1202004487	243505001(RE16-10-2853) Matrix Spike (MS)
1202004488	243505001(RE16-10-2853) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on a "dry weight" basis.

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-095 REV# 12.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

The Flow Injection analysis was performed on a Lachat QuickChem FIA+ 8000 Series.

Initial Calibration

All initial calibration requirements have been met for this SDG.

Continuing Calibration Blanks

All continuing calibration blanks (CCBs) associated with reported data from this batch were within acceptance limits.

Calibration Verification Information (CCV)
All continuing calibration verification standards (CCVs) associated with reported data from this batch were within acceptance limits.

Y Intercept Rule
The absolute value of the intercept is less than 3 times the MDL.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recovery met the acceptance limits.

Quality Control (QC) Designation
The following samples were selected for QC analysis: 243385008 (RE12-10-7585) and 243505001 (RE16-10-2853).

Matrix Spike (MS)/Post Spike (PS) Recovery Statement
The MS/PS recoveries for this sample set were within the required acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recoveries for this sample set were within the required acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPDs between the spike and spike duplicate met the acceptance limits.

Duplicate Relative Percent Difference (RPD) Statement
The values for the sample and duplicate are less than the Practical Quantitation Limit (PQL); therefore, the RPD is not applicable. 1202003578 (RE12-10-7585) and 1202004486 (RE16-10-2853).

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times
All samples in this SDG met the specified holding time.

Sample Preservation/Integrity
All the samples from this sample group met the preservation and integrity requirements of the method.

Sample Dilutions
The following sample in this sample group was diluted due to high concentration: 1202003581 (LCS).

Sample Re-analysis
The samples in this SDG did not require re-analysis.

Miscellaneous Information

Nonconformance (NCR) Documentation
An NCR was not required for this SDG.

Additional Comments
Additional comments were not required for this SDG.

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:
Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Method/Analysis Information

Product:	**Ion Chromatography**		
Analytical Batch:	936627	**Method:**	EPA 300.0
Prep Batch :	936626	**Method:**	EPA 300.0 PREP

Sample Analysis

The following samples were analyzed using the analytical protocol as established in EPA 300.0:

Sample ID	Client ID
243472001	RE03-09-14228
243472002	RE03-09-14230
243472003	RE03-09-14229
1202004081	Method Blank (MB)
1202004082	243472001(RE03-09-14228) Sample Duplicate (DUP)
1202004083	243472001(RE03-09-14228) Matrix Spike (MS)
1202004084	243472001(RE03-09-14228) Matrix Spike Duplicate (MSD)
1202004085	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on a "dry weight" basis.

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-086 REV# 17.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

The Ion Chromatography analysis was performed on a Dionex ICS-3000 Ion Chromatograph.

Initial Calibration

All initial calibration requirements have been met for this SDG.

Continuing Calibration Blanks

All continuing calibration blanks (CCBs) associated with reported data from this batch were within acceptance limits.

Calibration Verification Information (CCV)

All continuing calibration verification standards (CCVs) associated with reported data from this batch were within acceptance limits.

Y Intercept Rule
The absolute value of the intercept is less than 3 times the MDL.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recovery met the acceptance limits.

Quality Control (QC) Designation
The following sample was selected for QC analysis: 243472001 (RE03-09-14228).

Matrix Spike (MS)/Post Spike (PS) Recovery Statement
The MS/PS recovery for this sample set was within the required acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recovery for this sample set was within the required acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD between the spike and spike duplicate met the acceptance limits.

Duplicate Relative Percent Difference (RPD) Statement
The RPD between the sample and its duplicate met the acceptance limits.

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times
All samples in this SDG met the specified holding time.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-analysis
The samples in this SDG did not require re-analysis.

Miscellaneous Information

Nonconformance (NCR) Documentation
An NCR was not required for this SDG.

Manual Integrations
The following samples from this sample group had to be manually integrated due to errors in the instrument software peak integration: 1202004082 (RE03-09-14228), 243472001 (RE03-09-14228), 243472002 (RE03-09-14230) and 243472003 (RE03-09-14229).

Additional Comments
Additional comments were not required for this SDG.

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:
Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Tom Lewis, Jr. **Date:** 19Jan10

Sample Data Summary

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis Report
for

LANL010 Los Alamos National Laboratory (72733-001-09)

Client SDG: 10-1057 GEL Work Order: 243472

The Qualifiers in this report are defined as follows:

* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.

** Indicates the analyte is a surrogate compound.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the detection limit.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Valerie Davis.

Reviewed by _____

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: January 6, 2010

Client SDG: 10-1057

Client Sample ID:	RE03-09-14228	Project:	LANL01004
Sample ID:	243472001	Client ID:	LANL010
Matrix:	S		
Collect Date:	21-DEC-09 12:00		
Receive Date:	23-DEC-09		
Collector:	Client		
Moisture:	10.2%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Electrode Analysis										
SW9045C pH Federal "As Received"										
pH at Temp 19.2C	H	8.57	0.010	0.100	SU	1	TXT1 12/24/09	1256	936616	1
Flow Injection Analysis										
SW9012A Cyanide, Total Federal "Dry Weight Corrected"										
Cyanide, Total	U	ND	75.7	278	ug/kg	1	AXC2 12/31/09	1021	936400	2
Ion Chromatography										
EPA 300.0 Nitrate in Soil "Dry Weight Corrected"										
Nitrate-N		1.26	0.334	1.11	mg/kg	1	GXM 01/01/10 3	0151	936627	3

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 300.0 PREP	EPA 300.0 Total Anions in Soil	VH1	12/30/09	1350	936626
SW846 9010B Prep	SW846 9010B Prep	AXS5	12/30/09	1520	936399

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9045C/9045D	
2	SW846 9012A	
3	EPA 300.0	

GEL LABORATORIES LLC

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: January 6, 2010

Client SDG: 10-1057

Client Sample ID:	RE03-09-14230	Project:	LANL01004
Sample ID:	243472002	Client ID:	LANL010
Matrix:	S		
Collect Date:	21-DEC-09 12:00		
Receive Date:	23-DEC-09		
Collector:	Client		
Moisture:	7.08%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Electrode Analysis										
SW9045C pH Federal "As Received"										
pH at Temp 19.3C	H	7.71	0.010	0.100	SU	1	TXT1 12/24/09	1259	936616	1
Flow Injection Analysis										
SW9012A Cyanide, Total Federal "Dry Weight Corrected"										
Cyanide, Total	U	ND	69.0	254	ug/kg	1	AXC2 12/31/09	1022	936400	2
Ion Chromatography										
EPA 300.0 Nitrate in Soil "Dry Weight Corrected"										
Nitrate-N		1.23	0.323	1.08	mg/kg	1	GXM 01/01/10 3	0350	936627	3

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 300.0 PREP	EPA 300.0 Total Anions in Soil	VH1	12/30/09	1350	936626
SW846 9010B Prep	SW846 9010B Prep	AXS5	12/30/09	1520	936399

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9045C/9045D	
2	SW846 9012A	
3	EPA 300.0	

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: January 6, 2010

Client SDG: 10-1057

Client Sample ID:	RE03-09-14229	Project:	LANL01004
Sample ID:	243472003	Client ID:	LANL010
Matrix:	S		
Collect Date:	21-DEC-09 12:00		
Receive Date:	23-DEC-09		
Collector:	Client		
Moisture:	8.64%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Electrode Analysis										
SW9045C pH Federal "As Received"										
pH at Temp 19.3C	H	6.65	0.010	0.100	SU	1	TXT1 12/24/09	1302	936616	1
Flow Injection Analysis										
SW9012A Cyanide, Total Federal "Dry Weight Corrected"										
Cyanide, Total	U	ND	74.4	274	ug/kg	1	AXC2 12/31/09	1023	936400	2
Ion Chromatography										
EPA 300.0 Nitrate in Soil "Dry Weight Corrected"										
Nitrate-N		1.21	0.328	1.09	mg/kg	1	GXM 01/01/10 3	0420	936627	3

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 300.0 PREP	EPA 300.0 Total Anions in Soil	VH1	12/30/09	1350	936626
SW846 9010B Prep	SW846 9010B Prep	AXS5	12/30/09	1520	936399

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9045C/9045D	
2	SW846 9012A	
3	EPA 300.0	

Quality Control Summary

GEL LABORATORIES LLC

2040 Savage Road Charleston, SC 29407 - (843) 556-8171 - www.gel.com

QC Summary

Report Date: January 6, 2010
Page 1 of 2

Los Alamos National Laboratory
PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico

Contact: Ms. Joylene Valdez

Workorder: 243472

Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Electrode Analysis											
Batch 936616											
QC1202004053 243393002 DUP											
pH		H	7.32	H	7.33	SU	0.137		(0%-10%)	TXT1	12/24/09 12:47
QC1202004052 LCS											
pH	7.00				7.04	SU		101	(95%-105%)		12/24/09 12:34
Flow Injection Analysis											
Batch 936400											
QC1202003578 243385008 DUP											
Cyanide, Total		U	ND	U	ND	ug/kg	N/A			AXC2	12/31/09 10:09
QC1202004486 243505001 DUP											
Cyanide, Total		U	ND	U	ND	ug/kg	N/A				12/31/09 10:35
QC1202003581 LCS											
Cyanide, Total	67900				63300	ug/kg		93.2	(46%-145%)		12/31/09 10:07
QC1202003577 MB											
Cyanide, Total				U	250	ug/kg					12/31/09 10:06
QC1202003579 243385008 MS											
Cyanide, Total	4960	U	ND		4960	ug/kg		100	(50%-130%)		12/31/09 10:10
QC1202004487 243505001 MS											
Cyanide, Total	4890	U	ND		5380	ug/kg		109	(50%-130%)		12/31/09 10:36
QC1202003580 243385008 MSD											
Cyanide, Total	5250	U	ND		4890	ug/kg	1.43	93.2	(0%-30%)		12/31/09 10:11
QC1202004488 243505001 MSD											
Cyanide, Total	5560	U	ND		5950	ug/kg	10.1	106	(0%-30%)		12/31/09 10:36
Ion Chromatography											
Batch 936627											
QC1202004082 243472001 DUP											
Nitrate-N			1.26		1.27	mg/kg	0.527 ^		(+/-1.11)	GXM3	01/01/10 02:21
QC1202004085 LCS											
Nitrate-N	50.0				49.6	mg/kg		99.3	(90%-110%)		01/01/10 00:21
QC1202004081 MB											
Nitrate-N				U	1.00	mg/kg					12/31/09 23:51
QC1202004083 243472001 MS											
Nitrate-N	55.7		1.26		57.8	mg/kg		102	(90%-110%)		01/01/10 02:51
QC1202004084 243472001 MSD											
Nitrate-N	55.7		1.26		57.6	mg/kg	0.430	101	(0%-20%)		01/01/10 03:20

Notes:
RER is calculated at the 95% confidence level (2-sigma).
The Qualifiers in this report are defined as follows:

** Analyte is a surrogate compound

< Result is less than value reported

> Result is greater than value reported

QC Summary

Workorder: 243472

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time

A	The TIC is a suspected aldol-condensation product
B	For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD	Results are either below the MDC or tracer recovery is low
C	Analyte has been confirmed by GC/MS analysis
D	Results are reported from a diluted aliquot of the sample
E	Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
E	Organics--Concentration of the target analyte exceeds the instrument calibration range
F	Estimated Value
H	Analytical holding time was exceeded
J	Value is estimated
M	M if above MDC and less than LLD
M	Matrix Related Failure
N	Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A	RPD or %Recovery limits do not apply.
ND	Analyte concentration is not detected above the detection limit
NJ	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
P	Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%
R	Sample results are rejected
U	Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI	Gamma Spectroscopy--Uncertain identification
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
Z	Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d	5-day BOD--The 2:1 depletion requirement was not met for this sample
h	Preparation or preservation holding time was exceeded

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more.
^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.
* Indicates that a Quality Control parameter was not within specifications.
For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

Instrument QC Data Summary

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Report Run On: 06-JAN-2010 08:56

GEL Laboratories LLC

Contract: LANL01004

SDG #: 10-1057

Flow Injection Analysis

Method: SW846 9012A Concentration Units:ug/L

Instrument: Lachat QuickChem FIA+ 8000 Series

Parmname: Cyanide, Total

Sample Type	Run Date	Data File	Result	Nominal	Recovery	Limits	Within Limits
ICV	**31-DEC-2009 10:01:18**	**OM_12-31-2009_09-50-50**	**150**	**150**	**100**	**(90%-110%)**	**Yes**
CCV	31-DEC-2009 10:15:36	OM_12-31-2009_09-50-50	105	100	105	(90%-110%)	Yes
CCV	31-DEC-2009 10:28:01	OM_12-31-2009_09-50-50	106	100	106	(90%-110%)	Yes
CCV	31-DEC-2009 10:40:23	OM_12-31-2009_09-50-50	106	100	106	(90%-110%)	Yes

Sample Type	Run Date	Data File	Result	Limits	Within Limits
ICB	**31-DEC-2009 10:03:08**	**OM_12-31-2009_09-50-50**	**-1.31**	**5**	**Yes**
CCB	31-DEC-2009 10:17:26	OM_12-31-2009_09-50-50	-1.68	5	Yes
CCB	31-DEC-2009 10:29:51	OM_12-31-2009_09-50-50	-1.39	5	Yes
CCB	31-DEC-2009 10:42:13	OM_12-31-2009_09-50-50	-1.45	5	Yes

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Report Run On: 06-JAN-2010 08:56

GEL Laboratories LLC

Contract: LANL01004

SDG #: 10-1057

Ion Chromatography

Method: EPA 300.0 Concentration Units:mg/L

Instrument: Dionex ICS-3000 Ion Chromatograph

Parmname: Nitrate-N

Sample Type	Run Date	Data File	Result	Nominal	Recovery	Limits	Within Limits
ICV	**30-DEC-2009 09:41:00**	**091230**	**4.8244**	**5**	**97**	**(90%-110%)**	**Yes**
CCV	31-DEC-2009 22:51:00	091230	4.9613	5	99	(90%-110%)	Yes
CCV	01-JAN-2010 04:50:00	091230	7.467	7.5	100	(90%-110%)	Yes

Sample Type	Run Date	Data File	Result	Limits	Within Limits
ICB	**30-DEC-2009 10:10:00**	**091230**	**0**	**0.1**	**Yes**
CCB	31-DEC-2009 23:21:00	091230	0	0.1	Yes
CCB	01-JAN-2010 05:20:00	091230	0	0.1	Yes

Cyanide, Total

Prep LogBook

Analyst: AXS5 Verified by:_____

Batch: 936399

Lab SOP: GL-GC-E-067 REV# 13

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1202003581	URF1200957-01	.25	g
MS	1202003579	URF1184831-02	.025	mL
MS	1202004487	URF1184831-02	.025	mL
MSD	1202003580	URF1184831-02	.025	mL
MSD	1202004488	URF1184831-02	.025	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Ph	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1202003577		SW846 9010B Prep	30-DEC-2009 15:20	>12	0.5 g	25 mL	50	SOIL
LCS	1202003581		SW846 9010B Prep	30-DEC-2009 15:20	>12	0.25 g	25 mL	100	SOIL
SAMPLE	243385008		SW846 9010B Prep	30-DEC-2009 15:20	>12	0.52 g	25 mL	48.07692	SOIL
DUP	1202003578	243385008	SW846 9010B Prep	30-DEC-2009 15:20	>12	0.57 g	25 mL	43.85965	SOIL
MS	1202003579	243385008	SW846 9010B Prep	30-DEC-2009 15:20	>12	0.55 g	25 mL	45.45455	SOIL
MSD	1202003580	243385008	SW846 9010B Prep	30-DEC-2009 15:20	>12	0.52 g	25 mL	48.07692	SOIL
SAMPLE	243385009		SW846 9010B Prep	30-DEC-2009 15:20	>12	0.55 g	25 mL	45.45455	SOIL
SAMPLE	243385010		SW846 9010B Prep	30-DEC-2009 15:20	>12	0.58 g	25 mL	43.10345	SOIL
SAMPLE	243385011		SW846 9010B Prep	30-DEC-2009 15:20	>12	0.57 g	25 mL	43.85965	SOIL
SAMPLE	243457001		SW846 9010B Prep	30-DEC-2009 15:20	>12	0.57 g	25 mL	43.85965	SOIL
SAMPLE	243457002		SW846 9010B Prep	30-DEC-2009 15:20	>12	0.54 g	25 mL	46.2963	SOIL
SAMPLE	243457003		SW846 9010B Prep	30-DEC-2009 15:20	>12	0.52 g	25 mL	48.07692	SOIL
SAMPLE	243457004		SW846 9010B Prep	30-DEC-2009 15:20	>12	0.5 g	25 mL	50	SOIL
SAMPLE	243472001		SW846 9010B Prep	30-DEC-2009 15:20	>12	0.5 g	25 mL	50	SOIL
SAMPLE	243472002		SW846 9010B Prep	30-DEC-2009 15:20	>12	0.53 g	25 mL	47.16981	SOIL
SAMPLE	243472003		SW846 9010B Prep	30-DEC-2009 15:20	>12	0.5 g	25 mL	50	SOIL
SAMPLE	243492001		SW846 9010B Prep	30-DEC-2009 15:20	>12	0.54 g	25 mL	46.2963	SOIL
SAMPLE	243492002		SW846 9010B Prep	30-DEC-2009 15:20	>12	0.54 g	25 mL	46.2963	SOIL
SAMPLE	243492003		SW846 9010B Prep	30-DEC-2009 15:20	>12	0.53 g	25 mL	47.16981	SOIL
SAMPLE	243492004		SW846 9010B Prep	30-DEC-2009 15:20	>12	0.52 g	25 mL	48.07692	SOIL
SAMPLE	243492005		SW846 9010B Prep	30-DEC-2009 15:20	>12	0.52 g	25 mL	48.07692	SOIL
SAMPLE	243492006		SW846 9010B Prep	30-DEC-2009 15:20	>12	0.52 g	25 mL	48.07692	SOIL
SAMPLE	243492007		SW846 9010B Prep	30-DEC-2009 15:20	>12	0.5 g	25 mL	50	SOIL
SAMPLE	243505001		SW846 9010B Prep	30-DEC-2009 15:20	>12	0.51 g	25 mL	49.01961	SOIL
DUP	1202004486	243505001	SW846 9010B Prep	30-DEC-2009 15:20	>12	0.55 g	25 mL	45.45455	SOIL
MS	1202004487	243505001	SW846 9010B Prep	30-DEC-2009 15:20	>12	0.58 g	25 mL	43.10345	SOIL
MSD	1202004488	243505001	SW846 9010B Prep	30-DEC-2009 15:20	>12	0.51 g	25 mL	49.01961	SOIL
SAMPLE	243505002		SW846 9010B Prep	30-DEC-2009 15:20	>12	0.54 g	25 mL	46.2963	SOIL

Prep LogBook

Reagent/Solvent Lot ID	Amount	Description
091211-C	25 mL	0.25N Sodium Hydroxide Solution
WCN091230-07	.0375 mL	150 ppb CN Distilled ICV Standard
1176724-C	1.25 mL	0.8N H3NO3S
1238146-C	2.5 mL	50% H2SO4 CN Prep
1176778-C	1 mL	51% MgCl2 Soln
1238142-C	1.25 mL	Bismuth Nitrate Solution

Comments

This is runlog Lachat1

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
200 ppb		1	axc2	12/31/2009 9:54:09	OM_12-31-2009_09-50-50
150 ppb		1	axc2	12/31/2009 9:55:01	OM_12-31-2009_09-50-50
100 ppb		1	axc2	12/31/2009 9:55:53	OM_12-31-2009_09-50-50
50 ppb		1	axc2	12/31/2009 9:56:46	OM_12-31-2009_09-50-50
10 ppb		1	axc2	12/31/2009 9:57:39	OM_12-31-2009_09-50-50
CRDL 5.0 ppb		1	axc2	12/31/2009 9:58:33	OM_12-31-2009_09-50-50
ICAL-00		1	axc2	12/31/2009 9:59:28	OM_12-31-2009_09-50-50
ICV		1	axc2	12/31/2009 10:01:18	OM_12-31-2009_09-50-50
ICB		1	axc2	12/31/2009 10:03:08	OM_12-31-2009_09-50-50
CRDL		1	axc2	12/31/2009 10:04:58	OM_12-31-2009_09-50-50
1202003577	936400	1	axc2	12/31/2009 10:06:47	OM_12-31-2009_09-50-50
1202003581	936400	25	axc2	12/31/2009 10:07:41	OM_12-31-2009_09-50-50
243385008	936400	1	axc2	12/31/2009 10:08:34	OM_12-31-2009_09-50-50
1202003578	936400	1	axc2	12/31/2009 10:09:27	OM_12-31-2009_09-50-50
1202003579	936400	1	axc2	12/31/2009 10:10:20	OM_12-31-2009_09-50-50
1202003580	936400	1	axc2	12/31/2009 10:11:13	OM_12-31-2009_09-50-50
243385009	936400	1	axc2	12/31/2009 10:12:05	OM_12-31-2009_09-50-50
243385010	936400	1	axc2	12/31/2009 10:12:58	OM_12-31-2009_09-50-50
243385011	936400	1	axc2	12/31/2009 10:13:51	OM_12-31-2009_09-50-50
243457001	936400	1	axc2	12/31/2009 10:14:43	OM_12-31-2009_09-50-50
CCV		1	axc2	12/31/2009 10:15:36	OM_12-31-2009_09-50-50
CCB		1	axc2	12/31/2009 10:17:26	OM_12-31-2009_09-50-50
243457002	936400	1	axc2	12/31/2009 10:19:14	OM_12-31-2009_09-50-50
243457003	936400	1	axc2	12/31/2009 10:20:06	OM_12-31-2009_09-50-50
243457004	936400	1	axc2	12/31/2009 10:20:58	OM_12-31-2009_09-50-50
243472001	936400	1	axc2	12/31/2009 10:21:50	OM_12-31-2009_09-50-50
243472002	936400	1	axc2	12/31/2009 10:22:41	OM_12-31-2009_09-50-50
243472003	936400	1	axc2	12/31/2009 10:23:35	OM_12-31-2009_09-50-50
243492001	936400	1	axc2	12/31/2009 10:24:29	OM_12-31-2009_09-50-50
243492002	936400	1	axc2	12/31/2009 10:25:22	OM_12-31-2009_09-50-50
243492003	936400	1	axc2	12/31/2009 10:26:15	OM_12-31-2009_09-50-50
243492004	936400	1	axc2	12/31/2009 10:27:09	OM_12-31-2009_09-50-50
CCV		1	axc2	12/31/2009 10:28:01	OM_12-31-2009_09-50-50
CCB		1	axc2	12/31/2009 10:29:51	OM_12-31-2009_09-50-50
243492005	936400	1	axc2	12/31/2009 10:31:40	OM_12-31-2009_09-50-50
243492006	936400	1	axc2	12/31/2009 10:32:33	OM_12-31-2009_09-50-50
243492007	936400	1	axc2	12/31/2009 10:33:26	OM_12-31-2009_09-50-50
243505001	936400	1	axc2	12/31/2009 10:34:18	OM_12-31-2009_09-50-50
1202004486	936400	1	axc2	12/31/2009 10:35:11	OM_12-31-2009_09-50-50
1202004487	936400	1	axc2	12/31/2009 10:36:03	OM_12-31-2009_09-50-50
1202004488	936400	1	axc2	12/31/2009 10:36:55	OM_12-31-2009_09-50-50
243505002	936400	1	axc2	12/31/2009 10:37:48	OM_12-31-2009_09-50-50
1202004505	936845	1	axc2	12/31/2009 10:38:39	OM_12-31-2009_09-50-50
1202004509	936845	25	axc2	12/31/2009 10:39:31	OM_12-31-2009_09-50-50
CCV		1	axc2	12/31/2009 10:40:23	OM_12-31-2009_09-50-50
CCB		1	axc2	12/31/2009 10:42:13	OM_12-31-2009_09-50-50
243358001	936845	1	axc2	12/31/2009 10:44:04	OM_12-31-2009_09-50-50
243550005	936845	1	axc2	12/31/2009 10:44:58	OM_12-31-2009_09-50-50
1202004506	936845	1	axc2	12/31/2009 10:45:52	OM_12-31-2009_09-50-50
1202004507	936845	1	axc2	12/31/2009 10:46:44	OM_12-31-2009_09-50-50
1202004508	936845	1	axc2	12/31/2009 10:47:38	OM_12-31-2009_09-50-50
243550006	936845	1	axc2	12/31/2009 10:48:31	OM_12-31-2009_09-50-50
243550007	936845	1	axc2	12/31/2009 10:49:24	OM_12-31-2009_09-50-50
243550008	936845	1	axc2	12/31/2009 10:50:17	OM_12-31-2009_09-50-50
243550009	936845	1	axc2	12/31/2009 10:51:10	OM_12-31-2009_09-50-50
243550010	936845	1	axc2	12/31/2009 10:52:02	OM_12-31-2009_09-50-50
CCV		1	axc2	12/31/2009 10:52:55	OM_12-31-2009_09-50-50
CCB		1	axc2	12/31/2009 10:54:45	OM_12-31-2009_09-50-50

243550011	936845	1	axc2	12/31/2009	10:56:33	OM_12-31-2009_09-50-50
243550012	936845	1	axc2	12/31/2009	10:57:27	OM_12-31-2009_09-50-50
243550013	936845	1	axc2	12/31/2009	10:58:18	OM_12-31-2009_09-50-50
243602001	936845	1	axc2	12/31/2009	10:59:11	OM_12-31-2009_09-50-50
1202006206	936845	1	axc2	12/31/2009	11:00:03	OM_12-31-2009_09-50-50
1202006207	936845	1	axc2	12/31/2009	11:00:56	OM_12-31-2009_09-50-50
1202006208	936845	1	axc2	12/31/2009	11:01:51	OM_12-31-2009_09-50-50
243602002	936845	1	axc2	12/31/2009	11:02:44	OM_12-31-2009_09-50-50
243602003	936845	1	axc2	12/31/2009	11:03:37	OM_12-31-2009_09-50-50
243602004	936845	1	axc2	12/31/2009	11:04:31	OM_12-31-2009_09-50-50
CCV		1	axc2	12/31/2009	11:05:24	OM_12-31-2009_09-50-50
CCB		1	axc2	12/31/2009	11:07:15	OM_12-31-2009_09-50-50
243602005	936845	1	axc2	12/31/2009	11:09:04	OM_12-31-2009_09-50-50
243611001	936845	1	axc2	12/31/2009	11:09:58	OM_12-31-2009_09-50-50
243611002	936845	1	axc2	12/31/2009	11:10:50	OM_12-31-2009_09-50-50
243611003	936845	1	axc2	12/31/2009	11:11:43	OM_12-31-2009_09-50-50
CCV		1	axc2	12/31/2009	11:12:35	OM_12-31-2009_09-50-50
CCB		1	axc2	12/31/2009	11:14:26	OM_12-31-2009_09-50-50
CCB		1	axc2	12/31/2009	11:14:26	OM_12-31-2009_09-50-50
CCB		1	axc2	12/31/2009	11:14:26	OM_12-31-2009_09-50-50
CCB		1	axc2	12/31/2009	11:14:26	OM_12-31-2009_09-50-50
CCB		1	axc2	12/31/2009	11:14:26	OM_12-31-2009_09-50-50
CCB		1	axc2	12/31/2009	11:14:26	OM_12-31-2009_09-50-50
CCB		1	axc2	12/31/2009	11:14:26	OM_12-31-2009_09-50-50
CCB		1	axc2	12/31/2009	11:14:26	OM_12-31-2009_09-50-50
CCB		1	axc2	12/31/2009	11:14:26	OM_12-31-2009_09-50-50
CCB		1	axc2	12/31/2009	11:14:26	OM_12-31-2009_09-50-50
CCB		1	axc2	12/31/2009	11:14:26	OM_12-31-2009_09-50-50

Author: axc2 Date : 12/31/2009

Original Run Filename: OM_12-31-2009_09-50-50.OMN created 12/31/2009 09:50:50
Original Run Author's Signature: [axc2]
Current Run Filename: OM_12-31-2009_09-50-50.OMN last modified 12/31/2009 11:15:32
Current Run Author's Signature: [axc2]
Description: GL-GC-E-095 EPA 335.1, 335.3, 335.4, 9012A, CLP335.2-M
Liquid LCS nominal 50 ug/L

Sample	Rep.	Cup No.	Channel 1 TCYANIDE Conc. (ug/L)	Area (Vs)	Detection Time	ADF	MDF	Description
WCN091231-01	1	S1	200	7.27	12/31/2009@09:54:09			200 ppb
WCN091231-02	1	S2	150	5.46	12/31/2009@09:55:01			150 ppb
WCN091231-03	1	S3	100	3.56	12/31/2009@09:55:53			100 ppb
WCN091231-04	1	S4	50.0	1.96	12/31/2009@09:56:46			50 ppb
WCN091231-05	1	S5	10.0	0.454	12/31/2009@09:57:39			10 ppb
WCN091231-06	1	S6	5.00	0.263	12/31/2009@09:58:33			CRDL 5.0 ppb
WCN091231-08	1	S7	0.00	0.0241	12/31/2009@09:59:28			0.0 ppb
DQM Test: Minimum Correlation Coefficient								
		Result:	0.99975 > 0.99500					
		Message	Pass					
		Action	Continue					
WCN091231-07	1	S8	150	5.44	12/31/2009@10:01:18			ICV
		Known Conc:	150					
DQM Test: > + Percent Relative Difference								
		Result:	-0.2 < 10.0					
		Message	ICV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	-0.2 < 10.0					
		Message	ICV Passed					
		Action	Continue					
		Calibration:	Table/Fig. 1					
WCN091231-08	1	S7	-1.31	0.0268	12/31/2009@10:03:08			ICB/CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.31 < 5.01					
		Message	ICB/CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.31 > -5.01					
		Message	ICB/CCB Passed					
		Action	Continue					
WCN091231-06	1	S6	5.65	0.276	12/31/2009@10:04:58			CRDL
		Known Conc:	5.00					
DQM Test: > + Concentration Limit								
		Result:	5.65 < 7.50					
		Message	CRDL Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	5.65 > 2.50					
		Message	Pass					
		Action	None					
1202003577|936400|MB	1	1	-2.06	-1.84e-4	12/31/2009@10:06:47			
1202003581||LCS	1	2	25.3	0.980	12/31/2009@10:07:41		25.00	
243385008	1	3	-0.828	0.0442	12/31/2009@10:08:34			
1202003578||DUP	1	4	-0.559	0.0538	12/31/2009@10:09:27			
1202003579||MS	1	5	100	3.68	12/31/2009@10:10:20			
1202003580||MSD	1	6	93.2	3.42	12/31/2009@10:11:13			
243385009	1	7	1.70	0.135	12/31/2009@10:12:05			
243385010	1	8	-0.0222	0.0731	12/31/2009@10:12:58			
243385011	1	9	1.56	0.130	12/31/2009@10:13:51			
243457001	1	10	0.0568	0.0759	12/31/2009@10:14:43			
WCN091231-03	1	S3	105	3.84	12/31/2009@10:15:36			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	5.0 < 10.0					

		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Percent Relative Difference					
		Result:	5.0 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN091231-08	1	S7	-1.68	0.0135	12/31/2009@10:17:26			CCB
		Known Conc:	0.00					
			DQM Test: > + Concentration Limit					
		Result:	-1.68 < 5.00					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	-1.68 > -5.00					
		Message	CCB Passed					
		Action	Continue					
243457002	1	11	-2.06	-1.40e-4	12/31/2009@10:19:14			
243457003	1	12	-0.480	0.0566	12/31/2009@10:20:06			
243457004	1	13	-0.817	0.0445	12/31/2009@10:20:58			
243472001	1	14	-1.24	0.0295	12/31/2009@10:21:50			
243472002	1	15	-1.53	0.0189	12/31/2009@10:22:41			
243472003	1	16	-0.958	0.0395	12/31/2009@10:23:35			
243492001	1	17	-0.475	0.0568	12/31/2009@10:24:29			
243492002	1	18	-2.06	-1.97e-4	12/31/2009@10:25:22			
243492003	1	19	-0.650	0.0505	12/31/2009@10:26:15			
243492004	1	20	0.203	0.0811	12/31/2009@10:27:09			
WCN091231-03	1	S3	106	3.86	12/31/2009@10:28:01			CCV
		Known Conc:	100					
			DQM Test: > + Percent Relative Difference					
		Result:	5.6 < 10.0					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Percent Relative Difference					
		Result:	5.6 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN091231-08	1	S7	-1.39	0.0240	12/31/2009@10:29:51			CCB
		Known Conc:	0.00					
			DQM Test: > + Concentration Limit					
		Result:	-1.39 < 5.00					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	-1.39 > -5.00					
		Message	CCB Passed					
		Action	Continue					
243492005	1	21	-0.535	0.0547	12/31/2009@10:31:40			
243492006	1	22	-0.999	0.0380	12/31/2009@10:32:33			
243492007	1	23	0.130	0.0785	12/31/2009@10:33:26			
243505001	1	24	0.927	0.107	12/31/2009@10:34:18			
1202004486||DUP	1	25	0.725	0.0998	12/31/2009@10:35:11			
1202004487||MS	1	26	110	4.01	12/31/2009@10:36:03			
1202004488||MSD	1	27	107	3.91	12/31/2009@10:36:55			
243505002	1	28	-0.444	0.0579	12/31/2009@10:37:48			
1202004505|936845|MB	1	29	-1.09	0.0347	12/31/2009@10:38:39			
1202004509||LCS	1	30	33.1	1.26	12/31/2009@10:39:31		25.00	
WCN091231-03	1	S3	106	3.88	12/31/2009@10:40:23			CCV
		Known Conc:	100					
			DQM Test: > + Percent Relative Difference					
		Result:	6.1 < 10.0					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Percent Relative Difference					
		Result:	6.1 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN091231-08	1	S7	-1.45	0.0217	12/31/2009@10:42:13			CCB
		Known Conc:	0.00					

DQM Test: > + Concentration Limit								
Result:			-1.45 < 5.00					
Message			CCB Passed					
Action			Continue					
DQM Test: < - Concentration Limit								
Result:			-1.45 > -5.00					
Message			CCB Passed					
Action			Continue					
243358001	1	31	14.1	0.579	12/31/2009@10:44:04			
243550005	1	32	-1.04	0.0364	12/31/2009@10:44:58			
1202004506||DUP	1	33	-2.16	-0.00355	12/31/2009@10:45:52			
1202004507||MS	1	34	107	3.91	12/31/2009@10:46:44			
1202004508||MSD	1	35	111	4.04	12/31/2009@10:47:38			
243550006	1	36	-1.12	0.0337	12/31/2009@10:48:31			
243550007	1	37	-2.06	-1.33e-4	12/31/2009@10:49:24			
243550008	1	38	-2.06	-1.26e-4	12/31/2009@10:50:17			
243550009	1	39	-0.957	0.0395	12/31/2009@10:51:10			
243550010	1	40	-0.882	0.0422	12/31/2009@10:52:02			
WCN091231-03	1	S3	106	3.86	12/31/2009@10:52:55			CCV
Known Conc:			100					
DQM Test: > + Percent Relative Difference								
Result:			5.7 < 10.0					
Message			CCV Passed					
Action			Continue					
DQM Test: < - Percent Relative Difference								
Result:			5.7 < 10.0					
Message			CCV Passed					
Action			Continue					
WCN091231-08	1	S7	-2.16	-0.00350	12/31/2009@10:54:45			CCB
Known Conc:			0.00					
DQM Test: > + Concentration Limit								
Result:			-2.16 < 5.00					
Message			CCB Passed					
Action			Continue					
DQM Test: < - Concentration Limit								
Result:			-2.16 > -5.00					
Message			CCB Passed					
Action			Continue					
243550011	1	41	0.158	0.0795	12/31/2009@10:56:33			
243550012	1	42	-1.24	0.0294	12/31/2009@10:57:27			
243550013	1	43	6.74	0.316	12/31/2009@10:58:18			
243602001	1	44	-0.152	0.0684	12/31/2009@10:59:11			
1202006206||DUP	1	45	1.40	0.124	12/31/2009@11:00:03			
1202006207||MS	1	46	104	3.80	12/31/2009@11:00:56			
1202006208||MSD	1	47	105	3.84	12/31/2009@11:01:51			
243602002	1	48	0.279	0.0839	12/31/2009@11:02:44			
243602003	1	49	-1.02	0.0371	12/31/2009@11:03:37			
243602004	1	50	-0.548	0.0542	12/31/2009@11:04:31			
WCN091231-03	1	S3	106	3.88	12/31/2009@11:05:24			CCV
Known Conc:			100					
DQM Test: > + Percent Relative Difference								
Result:			6.0 < 10.0					
Message			CCV Passed					
Action			Continue					
DQM Test: < - Percent Relative Difference								
Result:			6.0 < 10.0					
Message			CCV Passed					
Action			Continue					
WCN091231-08	1	S7	-1.35	0.0255	12/31/2009@11:07:15			CCB
Known Conc:			0.00					
DQM Test: > + Concentration Limit								
Result:			-1.35 < 5.00					
Message			CCB Passed					
Action			Continue					
DQM Test: < - Concentration Limit								
Result:			-1.35 > -5.00					
Message			CCB Passed					
Action			Continue					

243602005	1	51	-1.28	0.0280	12/31/2009@11:09:04			
243611001	1	52	4.33	0.229	12/31/2009@11:09:58			
243611002	1	53	2.36	0.158	12/31/2009@11:10:50			
243611003	1	54	1.05	0.112	12/31/2009@11:11:43			
WCN091231-03	1	S3	106	3.87	12/31/2009@11:12:35			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	6.0 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	6.0 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN091231-08	1	S7	-1.37	0.0246	12/31/2009@11:14:26			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.37 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.37 > -5.00					
		Message	CCB Passed					
		Action	Continue					

Analyte Properties Table for OM_12-31-2009_09-50-50.OMN

Property	Channel 1
	TCYANIDE
Concentration Units	ug/L
Callibration Fit Type	First Order
Clear Calibration	True
Force Through Zero	False
Calibration Weighting	None
Auto Dilution Trigger	True
% of High Standard	100
Quik Chem Method	10-204-00-1-A
Chemistry	Direct/Bipolar
Calibration by Height	False
Inject to Peak Start	22
Peak Base Width	39

Author: axc2 Date : 12/31/2009

Channel 1: Current View

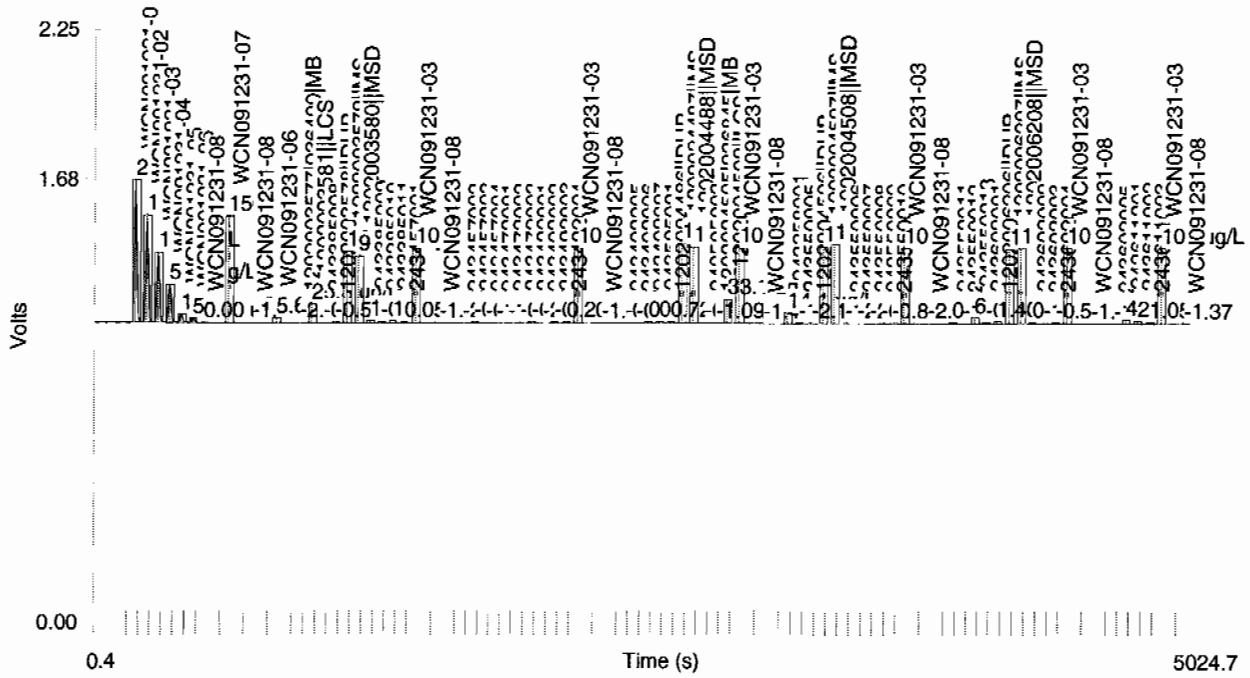

Table 1: TCYANIDE

	Conc. (ug/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	200	1	7.27	0.534	-0.3	12/31/2009	09:55:12
2	150	1	5.46	0.402	-0.1	12/31/2009	09:56:04
3	100	1	3.56	0.263	2.8	12/31/2009	09:56:56
4	50.0	1	1.96	0.143	-5.2	12/31/2009	09:57:49
5	10.0	1	0.454	0.0322	-4.7	12/31/2009	09:58:42
6	5.00	1	0.263	0.0177	-3.4	12/31/2009	09:59:36
7	0.00	1	0.0241	0.00158		12/31/2009	10:00:30

Figure 1: TCYANIDE

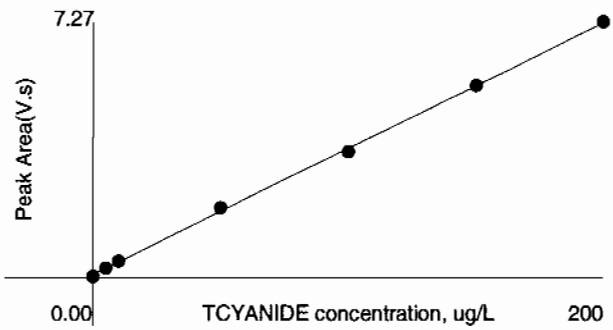

Area = 0.0358 * Conc + 0.0751
Conc = 27.9 * Area - 2.06
Correlation Coefficient (r) = 0.99975

No Weighting

Ion Chromatography

Prep LogBook

Analyst: VH1 Verified by:_____

Batch: 936626

Lab SOP: GL-GC-E-086 REV# 17

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1202004085	UIC091223SPK-1	.8	mL
MS	1202004083	UIC091223SPK-1	.8	mL
MSD	1202004084	UIC091223SPK-1	.8	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1202004081		EPA 300.0 PREP	30-DEC-2009 13:50	4 g	40 mL	10	SOIL
LCS	1202004085		EPA 300.0 PREP	30-DEC-2009 13:50	4 g	40 mL	10	SOIL
SAMPLE	243092002		EPA 300.0 PREP	30-DEC-2009 13:50	4 g	40 mL	10	SOIL
SAMPLE	243092003		EPA 300.0 PREP	30-DEC-2009 13:50	4 g	40 mL	10	SOIL
SAMPLE	243472001		EPA 300.0 PREP	30-DEC-2009 13:50	4 g	40 mL	10	SOIL
DUP	1202004082	243472001	EPA 300.0 PREP	30-DEC-2009 13:50	4 g	40 mL	10	SOIL
MS	1202004083	243472001	EPA 300.0 PREP	30-DEC-2009 13:50	4 g	40 mL	10	SOIL
MSD	1202004084	243472001	EPA 300.0 PREP	30-DEC-2009 13:50	4 g	40 mL	10	SOIL
SAMPLE	243472002		EPA 300.0 PREP	30-DEC-2009 13:50	4 g	40 mL	10	SOIL
SAMPLE	243472003		EPA 300.0 PREP	30-DEC-2009 13:50	4 g	40 mL	10	SOIL

Comments

This is runlog for Sequence 100105.seq for IC7

Sample ID	Run Time	Batch	Dilution	Dataset	Analyst
ICAL-07	12/02/09 18:35		1	100105	GXM3
ICAL-06	12/02/09 19:04		1	100105	GXM3
ICAL-05	12/02/09 19:34		1	100105	GXM3
ICAL-04	12/02/09 20:04		1	100105	GXM3
ICAL-03	12/02/09 20:34		1	100105	GXM3
ICAL-02	12/02/09 21:04		1	100105	GXM3
ICAL-01	12/02/09 21:33		1	100105	GXM3
ICAL-07	12/02/09 18:35		1	100105	GXM3
ICAL-06	12/02/09 19:04		1	100105	GXM3
ICAL-05	12/02/09 19:34		1	100105	GXM3
ICAL-04	12/02/09 20:04		1	100105	GXM3
ICAL-03	12/02/09 20:34		1	100105	GXM3
ICAL-02	12/02/09 21:04		1	100105	GXM3
ICAL-01	12/02/09 21:33		1	100105	GXM3

8 AUTOCAL7

Sample Name:	AUTOCAL7	*Injection Volume:*	50.0
Vial Number:	4	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 18:35	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GLGCB086;300;9056

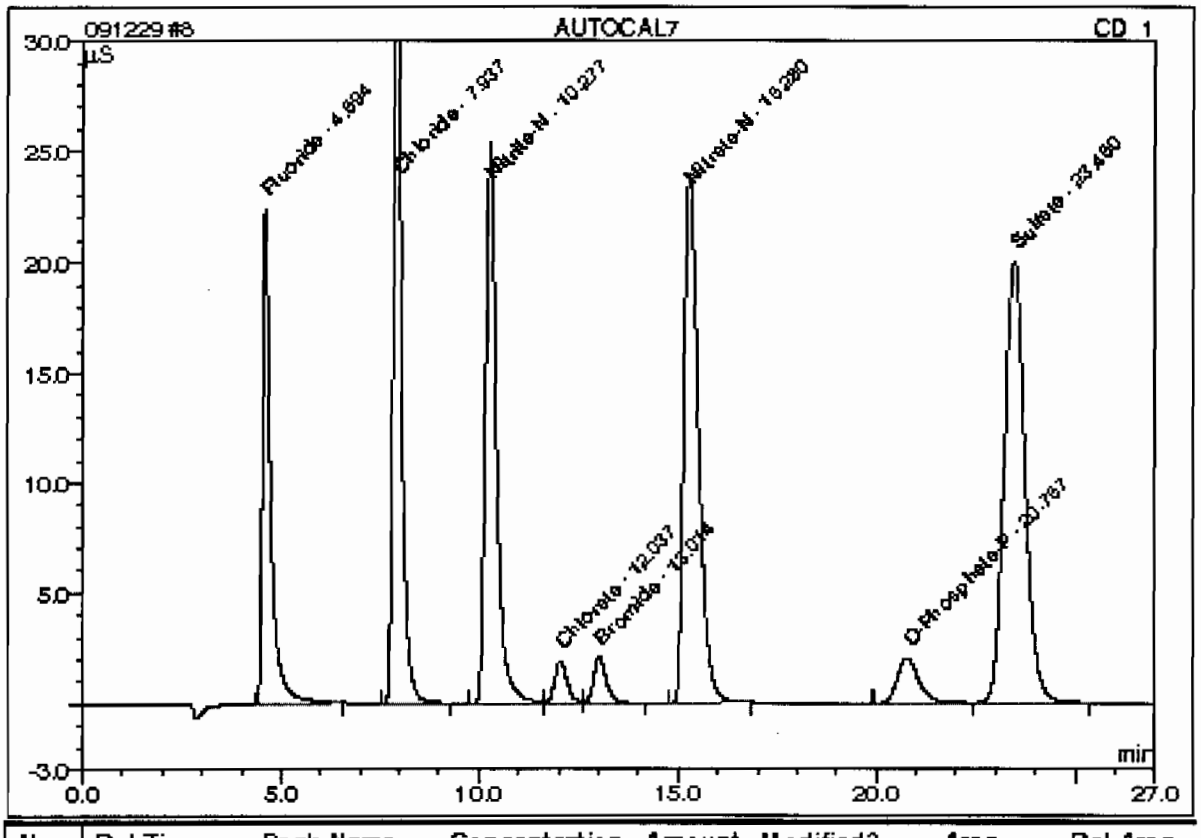

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.59	Fluoride	10.0000	10.1577		5.35634	11.49
2	7.94	Chloride	20.0000	20.4728		8.55118	18.34
3	10.28	Nitrite-N	10.0000	10.1488		7.97425	17.10
4	12.04	Chlorate	5.0000	5.0509		0.69150	1.48
5	13.01	Bromide	5.0000	5.0291		0.76494	1.64
6	15.28	Nitrate-N	10.0000	10.2042		10.06854	21.59
7	20.76	O-Phosphate-P	5.0000	5.0829		1.26723	2.72
8	23.46	Sulfate	40.0000	40.7635		11.96232	25.65
Total:				106.9098	0.000	46.636	100.00

1 AUTOCAL7

Sample Name:	AUTOCAL7	*Injection Volume:*	50.0
Vial Number:	4	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202b	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 18:35	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

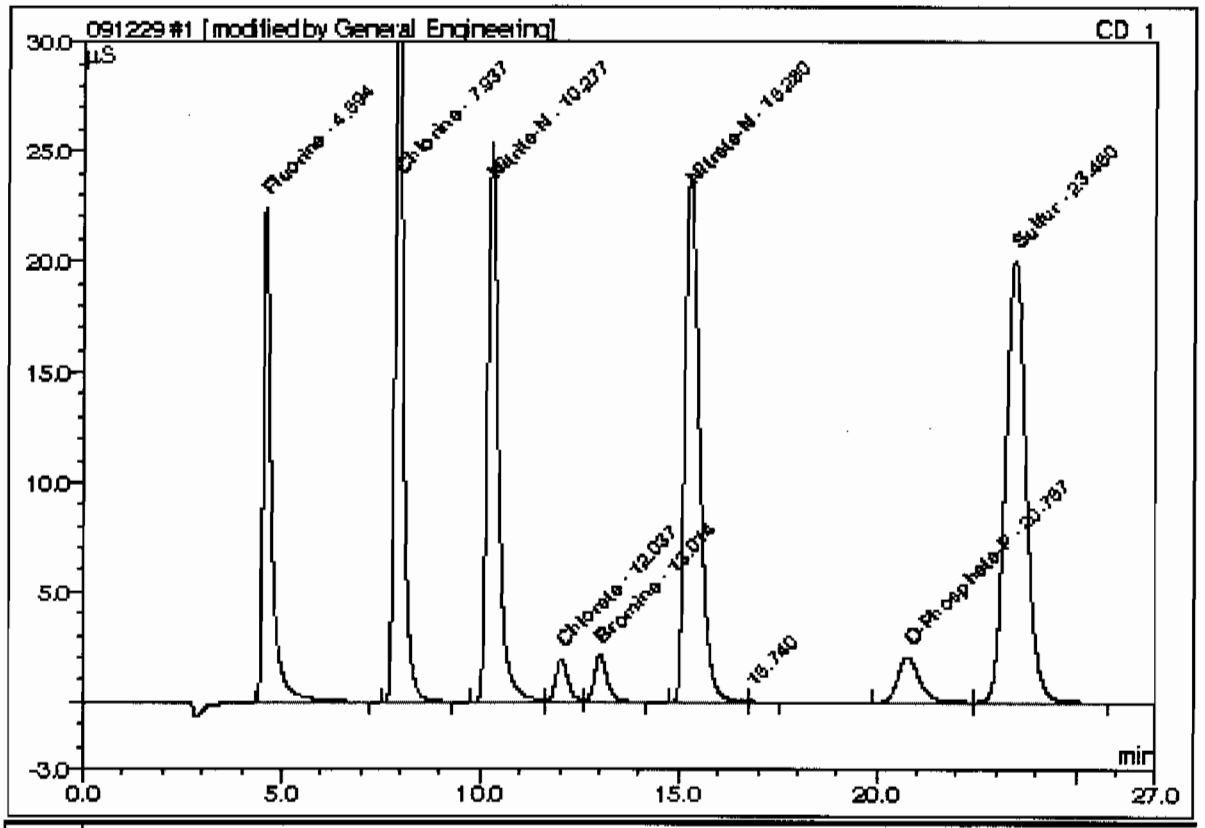

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.59	Fluorine	10.0000	10.1570	*	5.40485	11.57
2	7.94	Chlorine	20.0000	20.4728		8.55118	18.30
3	10.28	Nitrite-N	10.0000	10.1490		7.97425	17.06
4	12.04	Chlorate	5.0000	5.0509		0.69150	1.48
5	13.01	Bromine	5.0000	5.0291		0.76494	1.64
6	15.28	Nitrate-N	10.0000	10.2057	*	10.09120	21.59
8	20.76	O-Phosphate-P	5.0000	5.0838	*	1.28268	2.74
9	23.46	Sulfur	13.3332	13.5815	*	11.96208	25.60
Total:				79.7299	0.000	46.723	99.98

1 AUTOCAL7

Sample Name:	AUTOCAL7	*Injection Volume:*	50.0
Vial Number:	4	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202b	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 18:35	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GLGCE086;300;9056

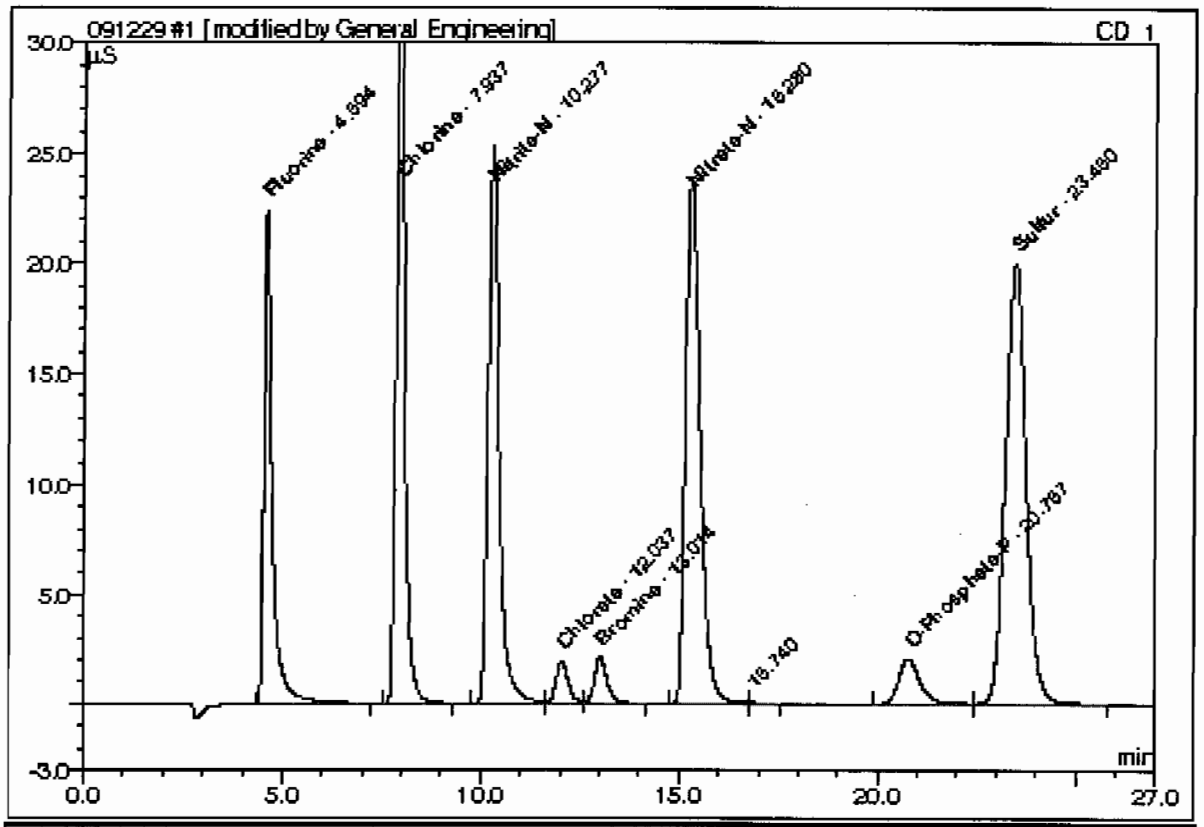

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.59	Fluorine	10.0000	10.1570	*	5.40485	11.57
2	7.94	Chlorine	20.0000	20.4728		8.55118	18.30
3	10.28	Nitrite-N	10.0000	10.1490		7.97425	17.06
4	12.04	Chlorate	5.0000	5.0509		0.69150	1.48
5	13.01	Bromine	5.0000	5.0291		0.76494	1.64
6	15.28	Nitrate-N	10.0000	10.2057	*	10.09120	21.59
8	20.76	O-Phosphate-P	5.0000	5.0838	*	1.28268	2.74
9	23.46	Sulfur	13.3332	13.5815	*	11.96208	25.60
Total:				79.7299	0.000	46.723	99.98

1 AUTOCAL7

Sample Name:	AUTOCAL7	*Injection Volume:*	50.0
Vial Number:	4	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202b	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 18:35	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCB086;300;9056

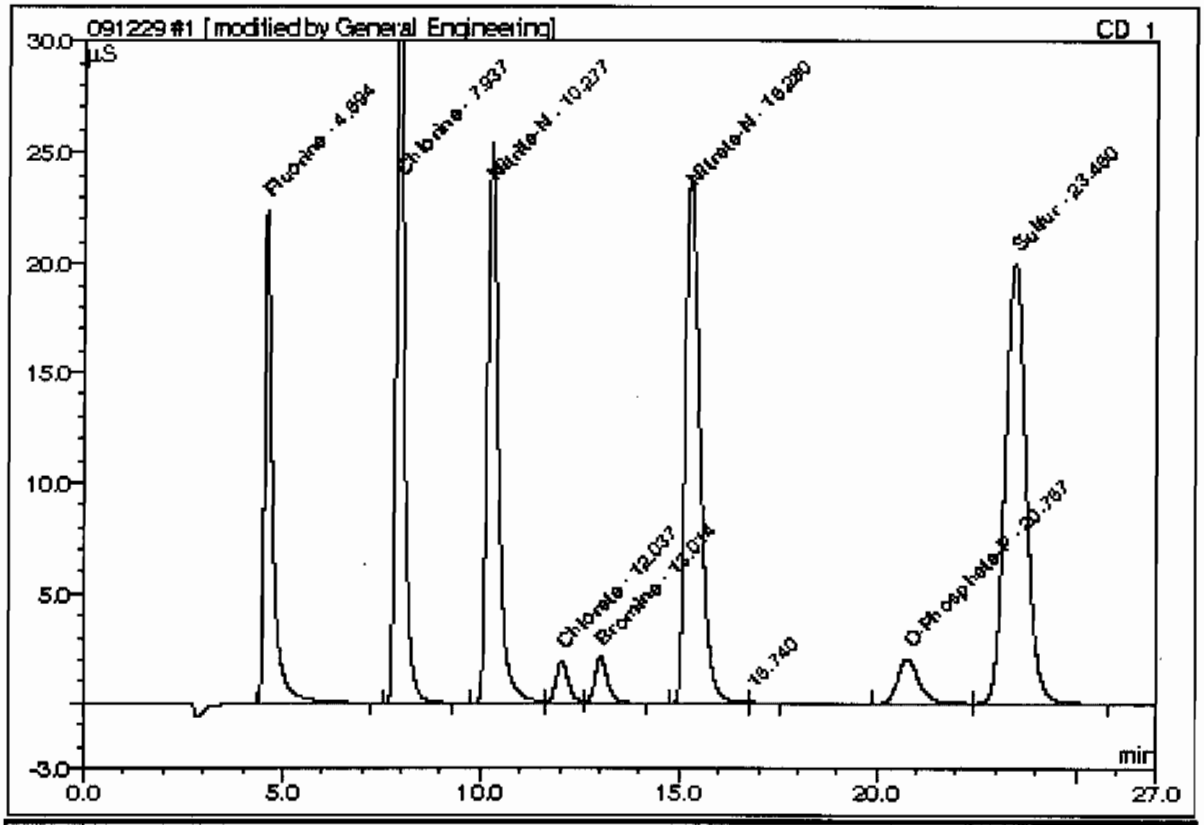

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.59	Fluorine	10.0000	10.1570	*	5.40485	11.57
2	7.94	Chlorine	20.0000	20.4728		8.55118	18.30
3	10.28	Nitrite-N	10.0000	10.1490		7.97425	17.06
4	12.04	Chlorate	5.0000	5.0509		0.69150	1.48
5	13.01	Bromine	5.0000	5.0291		0.76494	1.64
6	15.28	Nitrate-N	10.0000	10.2057	*	10.09120	21.59
8	20.76	O-Phosphate-P	5.0000	5.0838	*	1.28268	2.74
9	23.46	Sulfur	13.3332	13.5815	*	11.96208	25.60
Total:				79.7299	0.000	46.723	99.98

4 AUTOCAL7

Sample Name:	AUTOCAL7	*Injection Volume:*	50.0
Vial Number:	4	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 18:35	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GLGCE086;300;9056

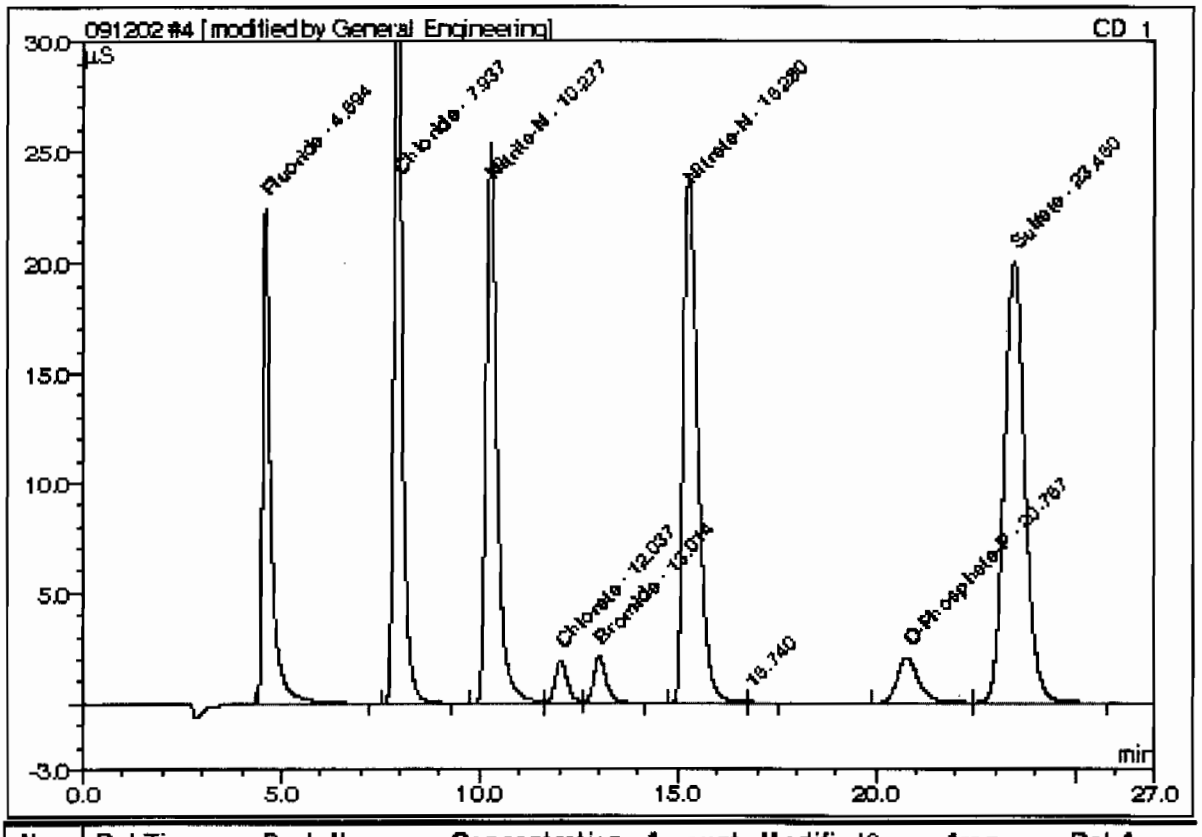

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.59	Fluoride	10.0000	10.1570	*	5.40485	11.57
2	7.94	Chloride	20.0000	20.4728		8.55118	18.30
3	10.28	Nitrite-N	10.0000	10.1490		7.97425	17.06
4	12.04	Chlorate	5.0000	5.0509		0.69150	1.48
5	13.01	Bromide	5.0000	5.0291		0.76494	1.64
6	15.28	Nitrate-N	10.0000	10.2057	*	10.09120	21.59
8	20.76	O-Phosphate-P	5.0000	5.0838	*	1.28268	2.74
9	23.46	Sulfate	40.0000	40.7450	*	11.96208	25.60
Total:				106.8933	0.000	46.723	99.98

4 AUTOCAL7

Sample Name:	AUTOCAL7	*Injection Volume:*	50.0
Vial Number:	4	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202b	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 18:35	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

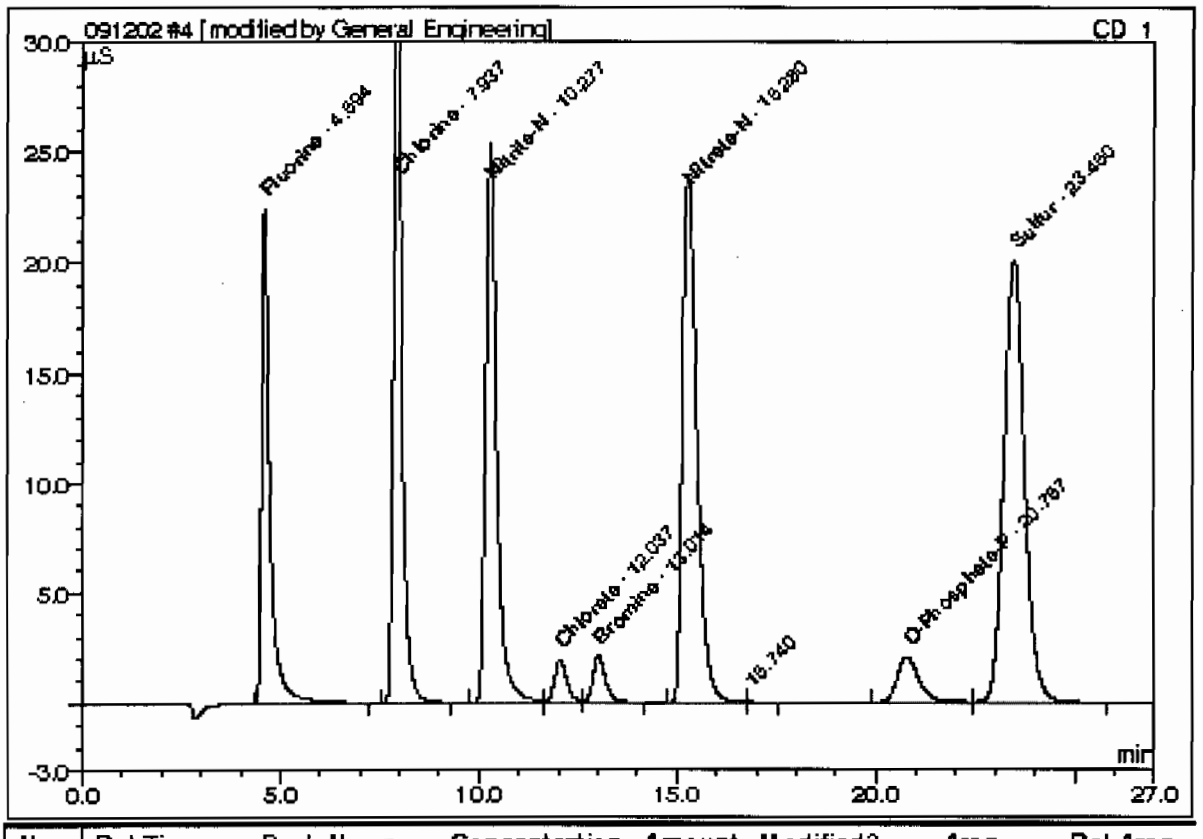

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.59	Fluorine	10.0000	10.1570	*	5.40485	11.57
2	7.94	Chlorine	20.0000	20.4728		8.55118	18.30
3	10.28	Nitrite-N	10.0000	10.1490		7.97425	17.06
4	12.04	Chlorate	5.0000	5.0509		0.69150	1.48
5	13.01	Bromine	5.0000	5.0291		0.76494	1.64
6	15.28	Nitrate-N	10.0000	10.2057	*	10.09120	21.59
8	20.76	O-Phosphate-P	5.0000	5.0838	*	1.28268	2.74
9	23.46	Sulfur	13.3332	13.5815	*	11.96208	25.60
Total:				79.7299	0.000	46.723	99.98

4 AUTOCAL7

Sample Name:	AUTOCAL7	*Injection Volume:*	50.0
Vial Number:	4	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 18:35	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GLGCB086;300;9056

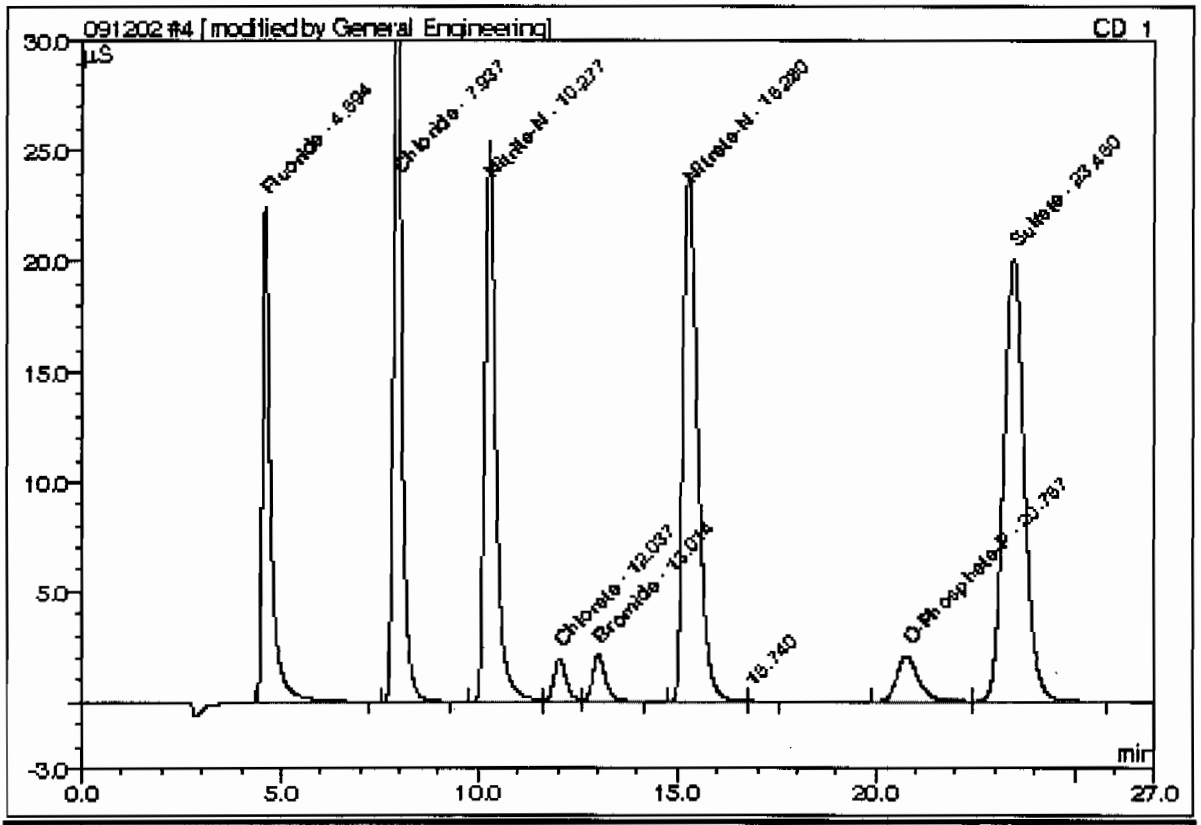

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.59	Fluoride	10.0000	10.1570	*	5.40485	11.57
2	7.94	Chloride	20.0000	20.4728		8.55118	18.30
3	10.28	Nitrite-N	10.0000	10.1490		7.97425	17.06
4	12.04	Chlorate	5.0000	5.0509		0.69150	1.48
5	13.01	Bromide	5.0000	5.0291		0.76494	1.64
6	15.28	Nitrate-N	10.0000	10.2057	*	10.09120	21.59
8	20.76	O-Phosphate-P	5.0000	5.0838	*	1.28268	2.74
9	23.46	Sulfate	40.0000	40.7450	*	11.96208	25.60
Total:				106.8933	0.000	46.723	99.98

4 AUTOCAL7

Sample Name:	AUTOCAL7	*Injection Volume:*	50.0
Vial Number:	4	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 18:35	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GLGCB086;300;9056

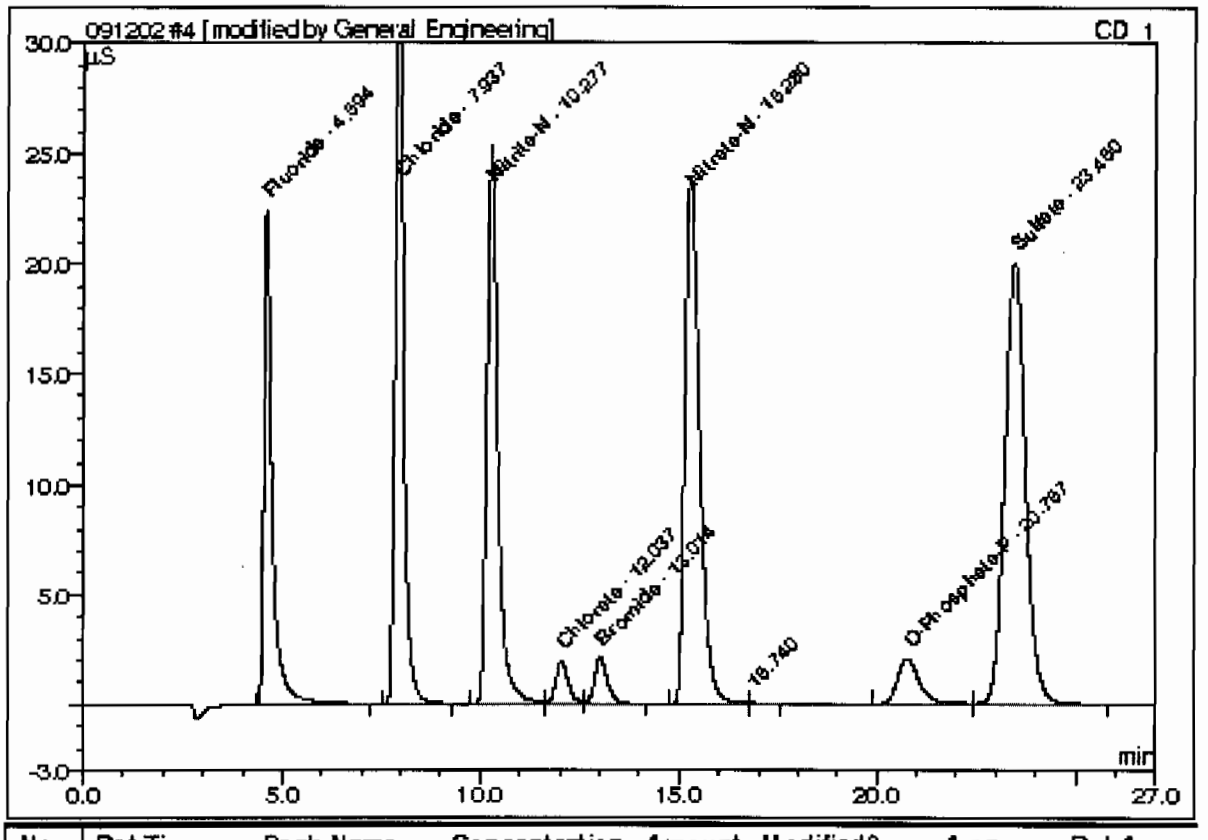

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.59	Fluoride	10.0000	10.1570	*	5.40485	11.57
2	7.94	Chloride	20.0000	20.4728		8.55118	18.30
3	10.28	Nitrite-N	10.0000	10.1490		7.97425	17.06
4	12.04	Chlorate	5.0000	5.0509		0.69150	1.48
5	13.01	Bromide	5.0000	5.0291		0.76494	1.64
6	15.28	Nitrate-N	10.0000	10.2057	*	10.09120	21.59
8	20.76	O-Phosphate-P	5.0000	5.0838	*	1.28268	2.74
9	23.46	Sulfate	40.0000	40.7450	*	11.96208	25.60
Total:				106.8933	0.000	46.723	99.98

4 AUTOCAL7

Sample Name:	AUTOCAL7	*Injection Volume:*	50.0
Vial Number:	4	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 18:35	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCB086;300;9056

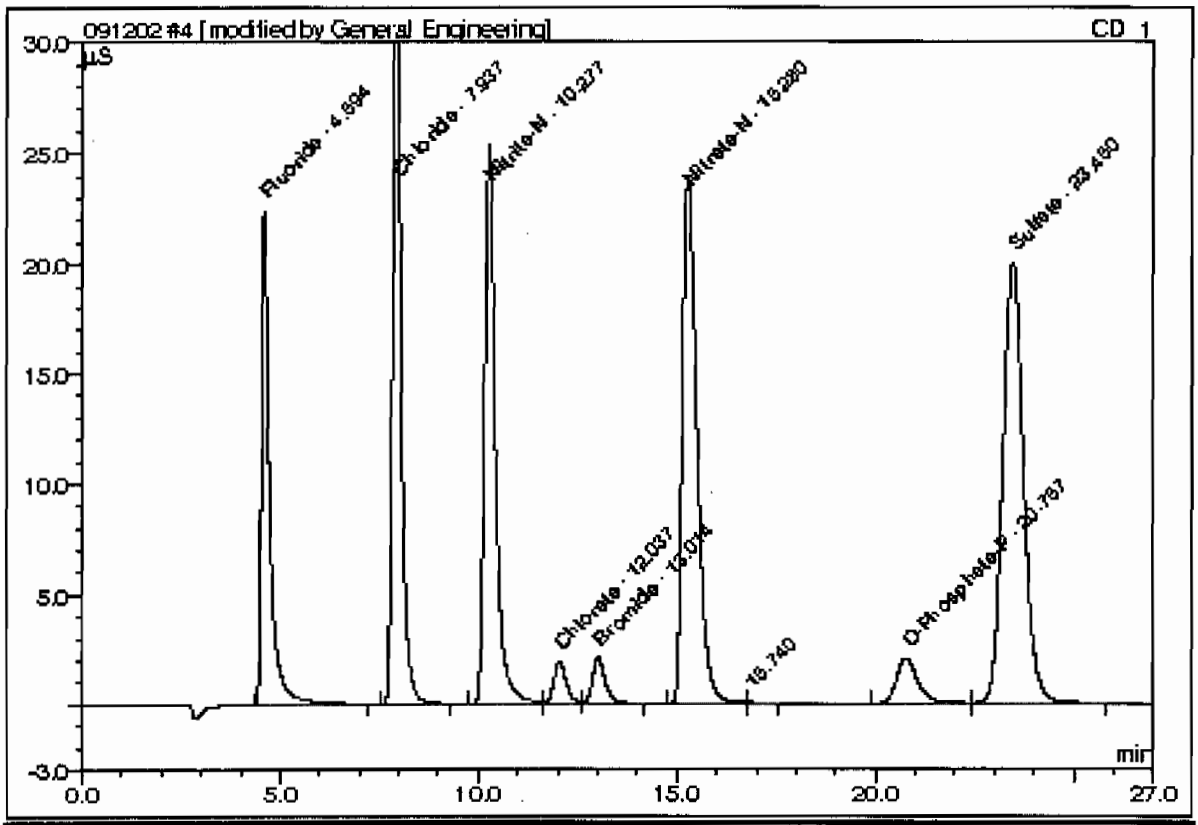

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.59	Fluoride	10.0000	10.1570	*	5.40485	11.57
2	7.94	Chloride	20.0000	20.4728		8.55118	18.30
3	10.28	Nitrite-N	10.0000	10.1490		7.97425	17.06
4	12.04	Chlorate	5.0000	5.0509		0.69150	1.48
5	13.01	Bromide	5.0000	5.0291		0.76494	1.64
6	15.28	Nitrate-N	10.0000	10.2057	*	10.09120	21.59
8	20.76	O-Phosphate-P	5.0000	5.0838	*	1.28268	2.74
9	23.46	Sulfate	40.0000	40.7450	*	11.96208	25.60
Total:				106.8933	0.000	46.723	99.98

9 AUTOCAL6

Sample Name:	AUTOCAL6	*Injection Volume:*	50.0
Vial Number:	5	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 19:04	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCB086;300;9056

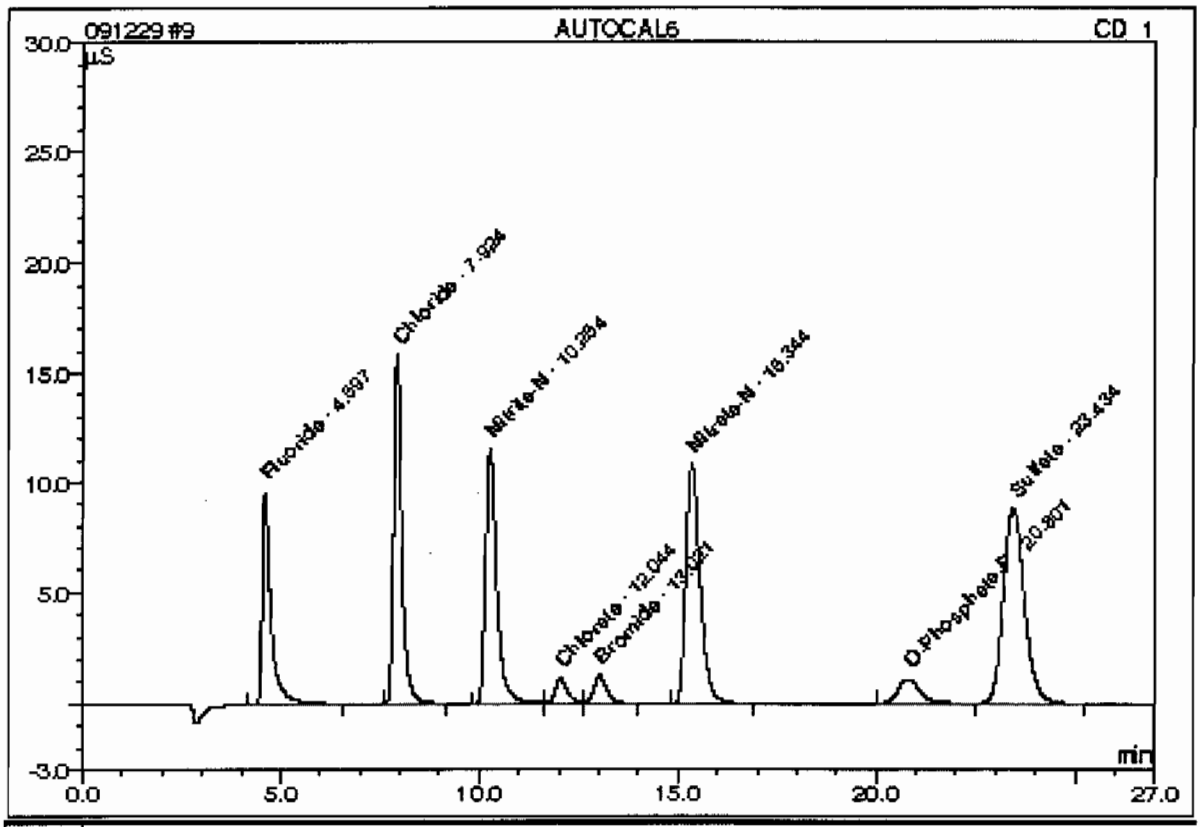

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.60	Fluoride	5.0000	4.6845		2.45967	11.55
2	7.92	Chloride	10.0000	9.0643		3.76891	17.70
3	10.26	Nitrite-N	5.0000	4.7100		3.66436	17.21
4	12.04	Chlorate	3.0000	2.9627		0.40341	1.89
5	13.02	Bromide	3.0000	2.9614		0.44868	2.11
6	15.34	Nitrate-N	5.0000	4.5981		4.48040	21.04
7	20.80	O-Phosphate-P	3.0000	2.8969		0.69988	3.29
8	23.43	Sulfate	20.0000	18.4844		5.36918	25.21
Total:				50.3622	0.000	21.294	100.00

2 AUTOCAL6

Sample Name:	AUTOCAL6	*Injection Volume:*	50.0
Vial Number:	5	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	091202b	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 19:04	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GLGCB086;300;9056

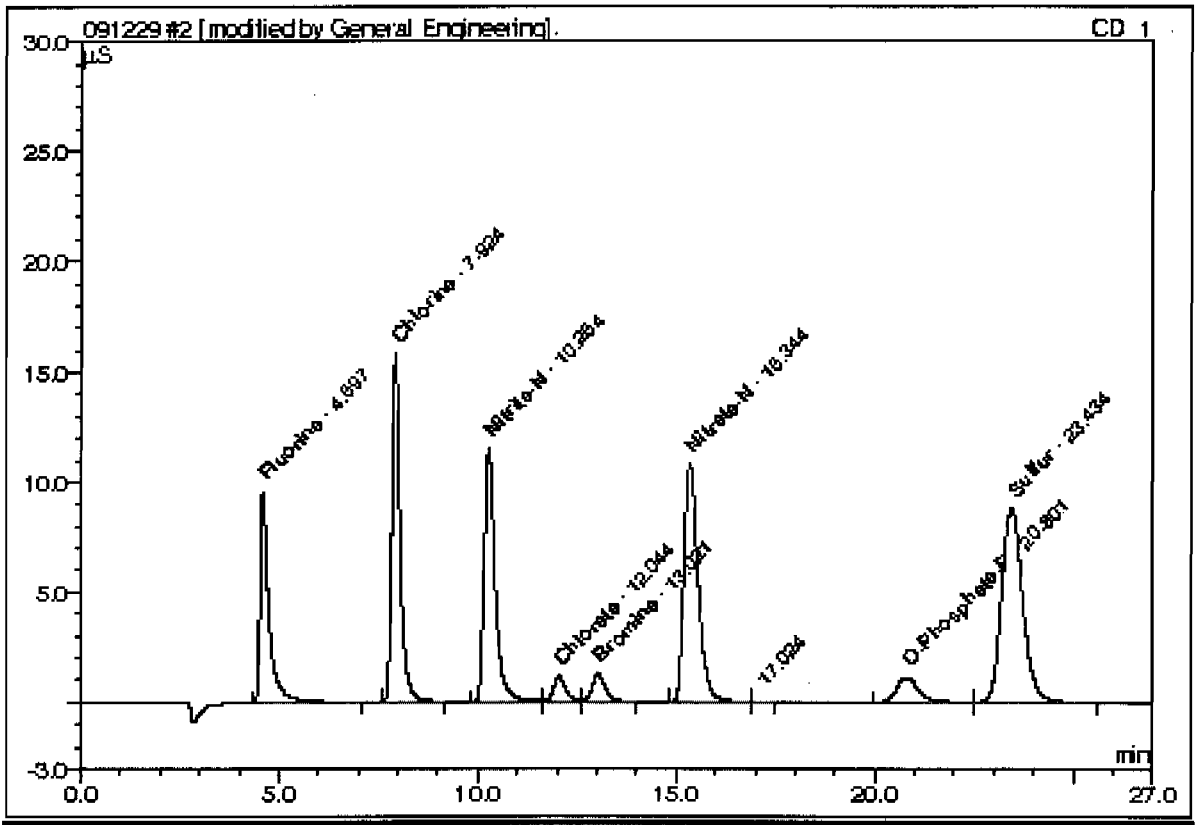

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.60	Fluorine	5.0000	4.6867	*	2.48163	11.62
2	7.92	Chlorine	10.0000	9.0643		3.76891	17.65
3	10.26	Nitrite-N	5.0000	4.7094		3.66436	17.16
4	12.04	Chlorate	3.0000	2.9627		0.40341	1.89
5	13.02	Bromine	3.0000	2.9614		0.44868	2.10
6	15.34	Nitrate-N	5.0000	4.5952	*	4.48662	21.01
8	20.80	O-Phosphate-P	3.0000	2.9011	*	0.71066	3.33
9	23.43	Sulfur	6.6666	6.1723	*	5.38507	25.22
Total:				38.0531	0.000	21.349	99.99

2 AUTOCAL6

Sample Name:	AUTOCAL6	*Injection Volume:*	50.0
Vial Number:	5	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202b	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 19:04	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GLGCB086;300;9056

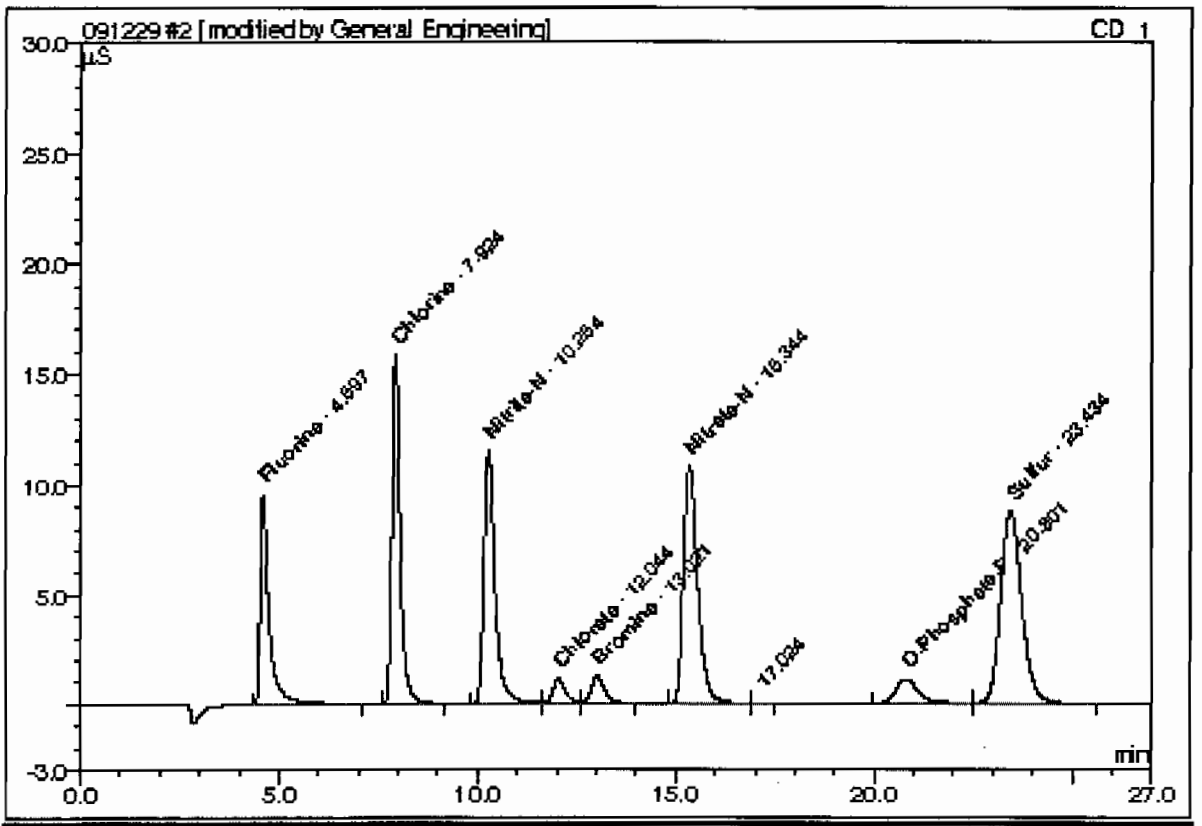

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.60	Fluorine	5.0000	4.6867	*	2.48163	11.62
2	7.92	Chlorine	10.0000	9.0643		3.76891	17.65
3	10.26	Nitrite-N	5.0000	4.7094		3.66436	17.16
4	12.04	Chlorate	3.0000	2.9627		0.40341	1.89
5	13.02	Bromine	3.0000	2.9614		0.44868	2.10
6	15.34	Nitrate-N	5.0000	4.5952	*	4.48662	21.01
8	20.80	O-Phosphate-P	3.0000	2.9011	*	0.71066	3.33
9	23.43	Sulfur	6.6666	6.1723	*	5.38507	25.22
Total:				38.0531	0.000	21.349	99.99

2 AUTOCAL6

Sample Name:	AUTOCAL6	*Injection Volume:*	50.0
Vial Number:	5	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202b	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 19:04	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCB086;300;9056

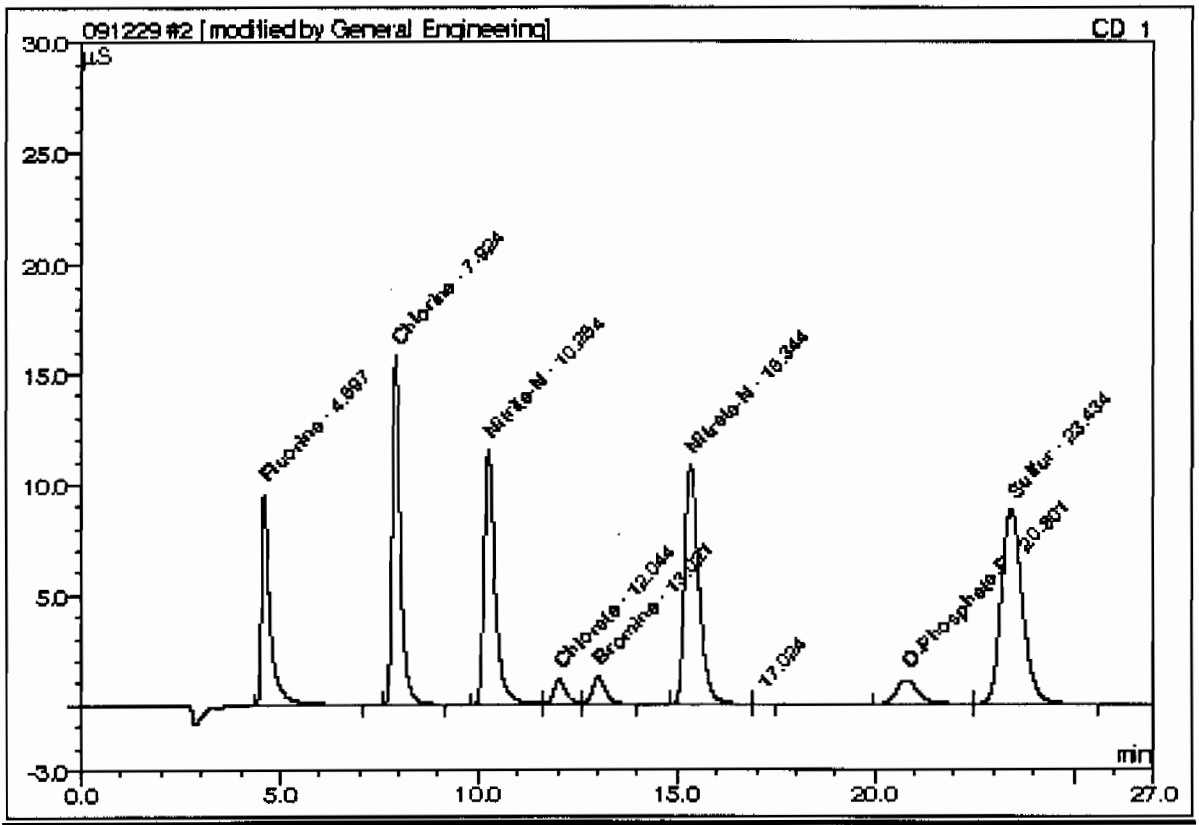

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.60	Fluorine	5.0000	4.6867	*	2.48163	11.62
2	7.92	Chlorine	10.0000	9.0643		3.76891	17.65
3	10.26	Nitrite-N	5.0000	4.7094		3.66436	17.16
4	12.04	Chlorate	3.0000	2.9627		0.40341	1.89
5	13.02	Bromine	3.0000	2.9614		0.44868	2.10
6	15.34	Nitrate-N	5.0000	4.5952	*	4.48662	21.01
8	20.80	O-Phosphate-P	3.0000	2.9011	*	0.71066	3.33
9	23.43	Sulfur	6.6666	6.1723	*	5.38507	25.22
Total:				38.0531	0.000	21.349	99.99

5 AUTOCAL6

Sample Name:	AUTOCAL6	*Injection Volume:*	50.0
Vial Number:	5	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 19:04	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

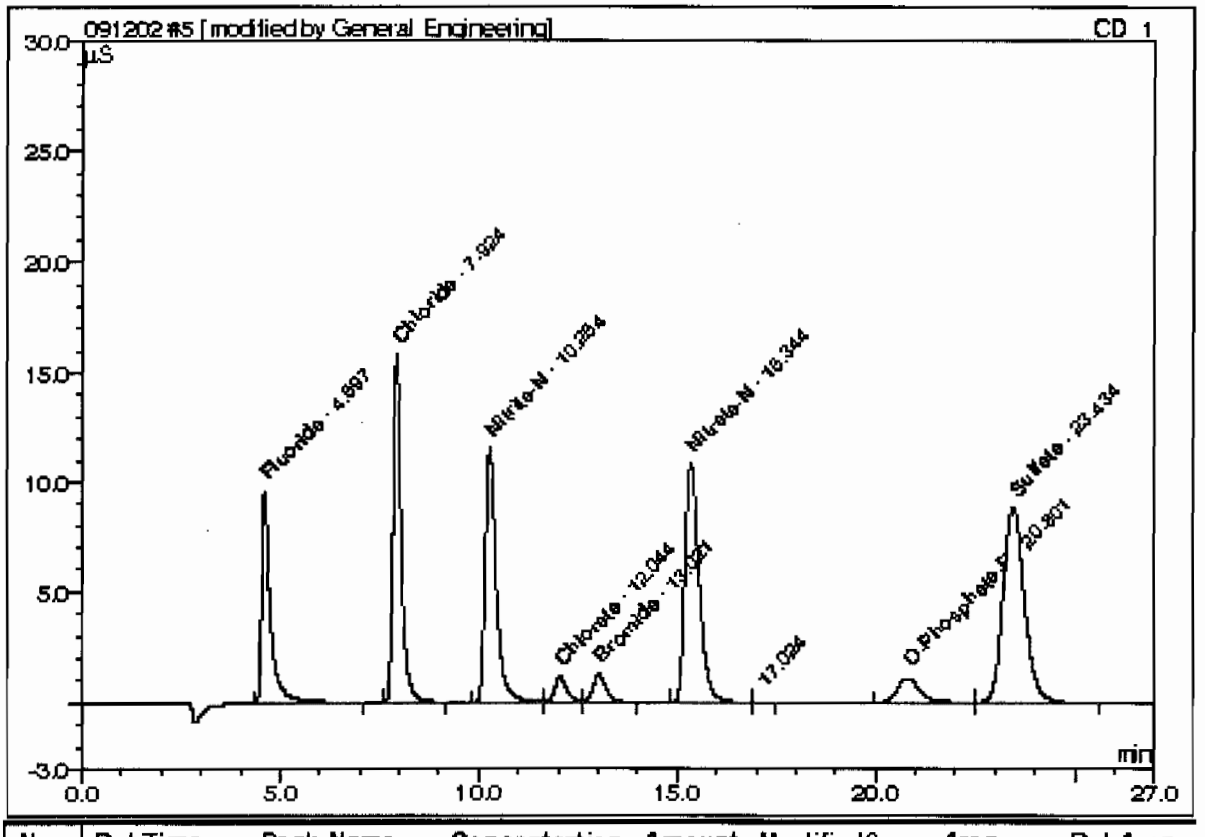

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.60	Fluoride	5.0000	4.6867	*	2.48163	11.62
2	7.92	Chloride	10.0000	9.0643		3.76891	17.65
3	10.26	Nitrite-N	5.0000	4.7094		3.66436	17.16
4	12.04	Chlorate	3.0000	2.9627		0.40341	1.89
5	13.02	Bromide	3.0000	2.9614		0.44868	2.10
6	15.34	Nitrate-N	5.0000	4.5952	*	4.48662	21.01
8	20.80	O-Phosphate-P	3.0000	2.9011	*	0.71066	3.33
9	23.43	Sulfate	20.0000	18.5172	*	5.38507	25.22
Total:				50.3979	0.000	21.349	99.99

5 AUTOCAL6

Sample Name:	AUTOCAL6	*Injection Volume:*	50.0
Vial Number:	5	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202b	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 19:04	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCB086;300;9056

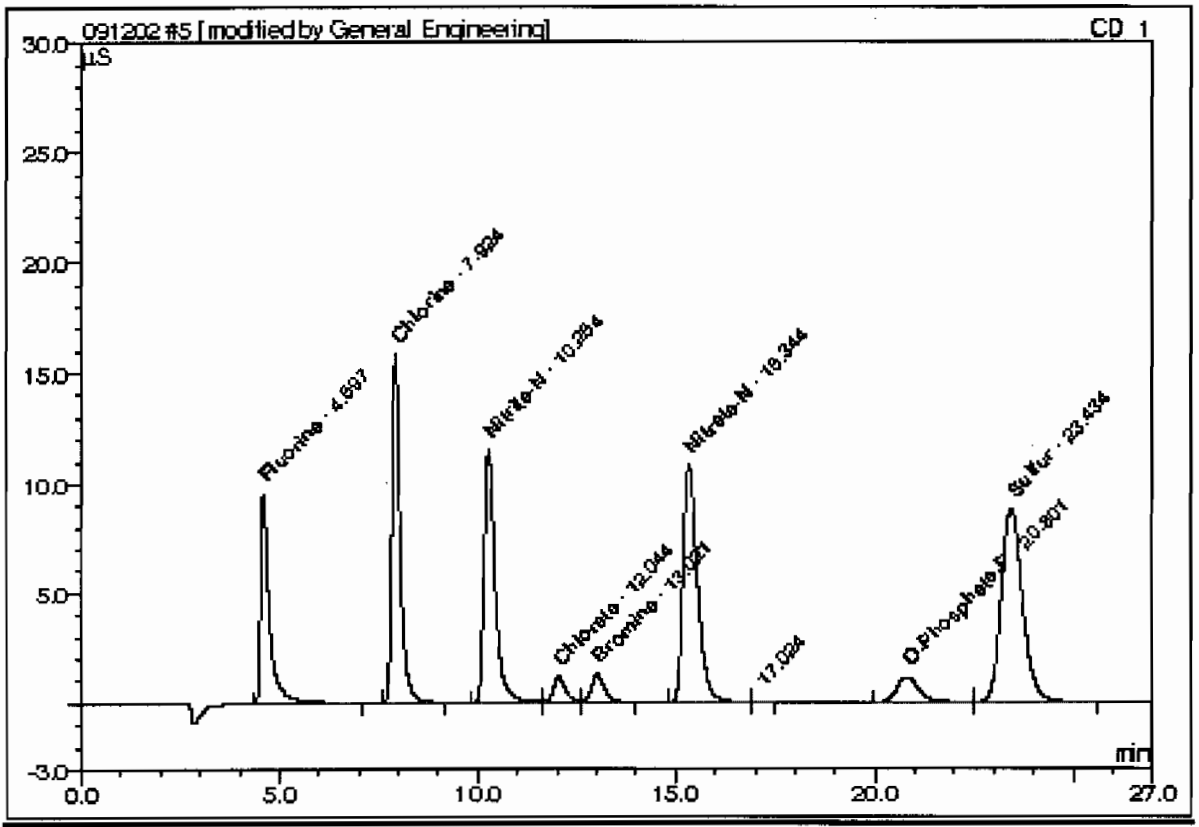

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.60	Fluorine	5.0000	4.6867	*	2.48163	11.62
2	7.92	Chlorine	10.0000	9.0643		3.76891	17.65
3	10.26	Nitrite-N	5.0000	4.7094		3.66436	17.16
4	12.04	Chlorate	3.0000	2.9627		0.40341	1.89
5	13.02	Bromine	3.0000	2.9614		0.44868	2.10
6	15.34	Nitrate-N	5.0000	4.5952	*	4.48662	21.01
8	20.80	O-Phosphate-P	3.0000	2.9011	*	0.71066	3.33
9	23.43	Sulfur	6.6666	6.1723	*	5.38507	25.22
Total:				38.0531	0.000	21.349	99.99

5 AUTOCAL6

Sample Name:	AUTOCAL6	*Injection Volume:*	50.0
Vial Number:	5	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 19:04	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

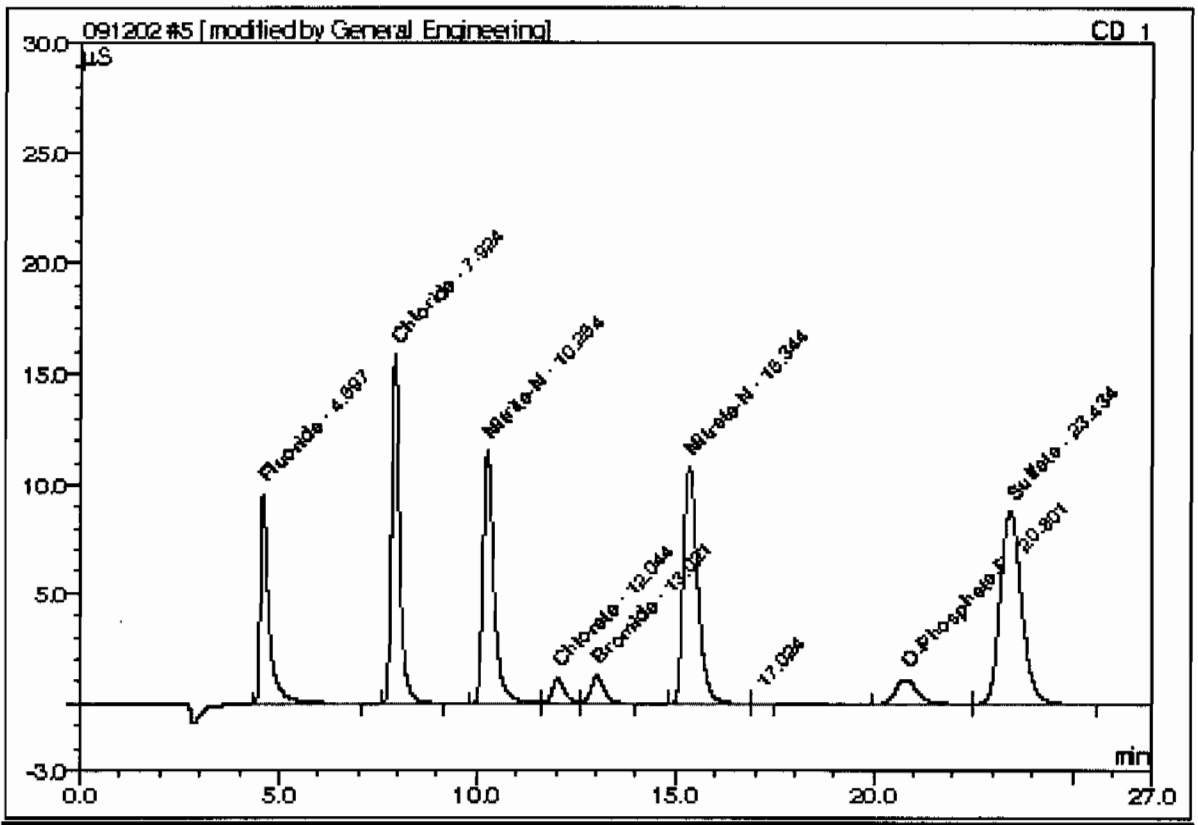

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.60	Fluoride	5.0000	4.6867	*	2.48163	11.62
2	7.92	Chloride	10.0000	9.0643		3.76891	17.65
3	10.26	Nitrite-N	5.0000	4.7094		3.66436	17.16
4	12.04	Chlorate	3.0000	2.9627		0.40341	1.89
5	13.02	Bromide	3.0000	2.9614		0.44868	2.10
6	15.34	Nitrate-N	5.0000	4.5952	*	4.48662	21.01
8	20.80	O-Phosphate-P	3.0000	2.9011	*	0.71066	3.33
9	23.43	Sulfate	20.0000	18.5172	*	5.38507	25.22
Total:				50.3979	0.000	21.349	99.99

5 AUTOCAL6

Sample Name:	AUTOCAL6	*Injection Volume:*	50.0
Vial Number:	5	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 19:04	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

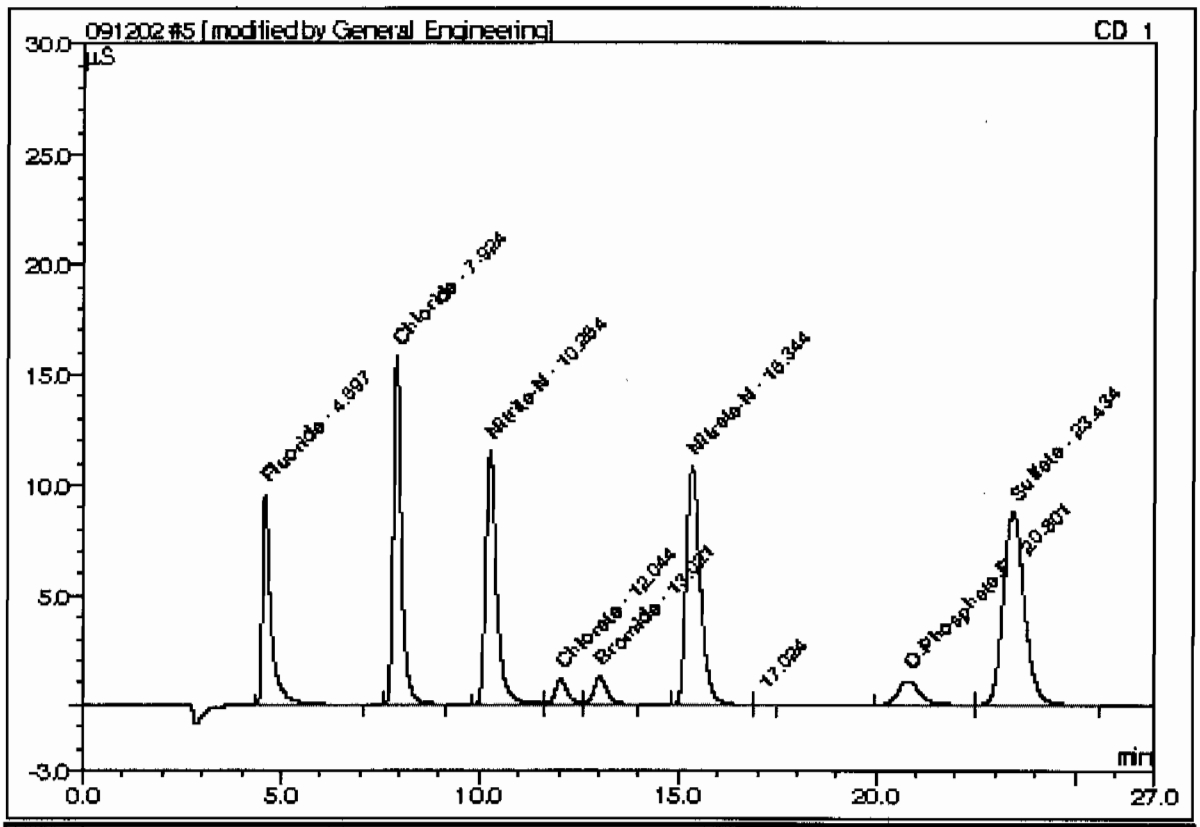

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.60	Fluoride	5.0000	4.6867	*	2.48163	11.62
2	7.92	Chloride	10.0000	9.0643		3.76891	17.65
3	10.26	Nitrite-N	5.0000	4.7094		3.66436	17.16
4	12.04	Chlorate	3.0000	2.9627		0.40341	1.89
5	13.02	Bromide	3.0000	2.9614		0.44868	2.10
6	15.34	Nitrate-N	5.0000	4.5952	*	4.48662	21.01
8	20.80	O-Phosphate-P	3.0000	2.9011	*	0.71066	3.33
9	23.43	Sulfate	20.0000	18.5172	*	5.38507	25.22
Total:				50.3979	0.000	21.349	99.99

5 AUTOCAL6

Sample Name:	AUTOCAL6	*Injection Volume:*	50.0
Vial Number:	5	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 19:04	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCB086;300;9056

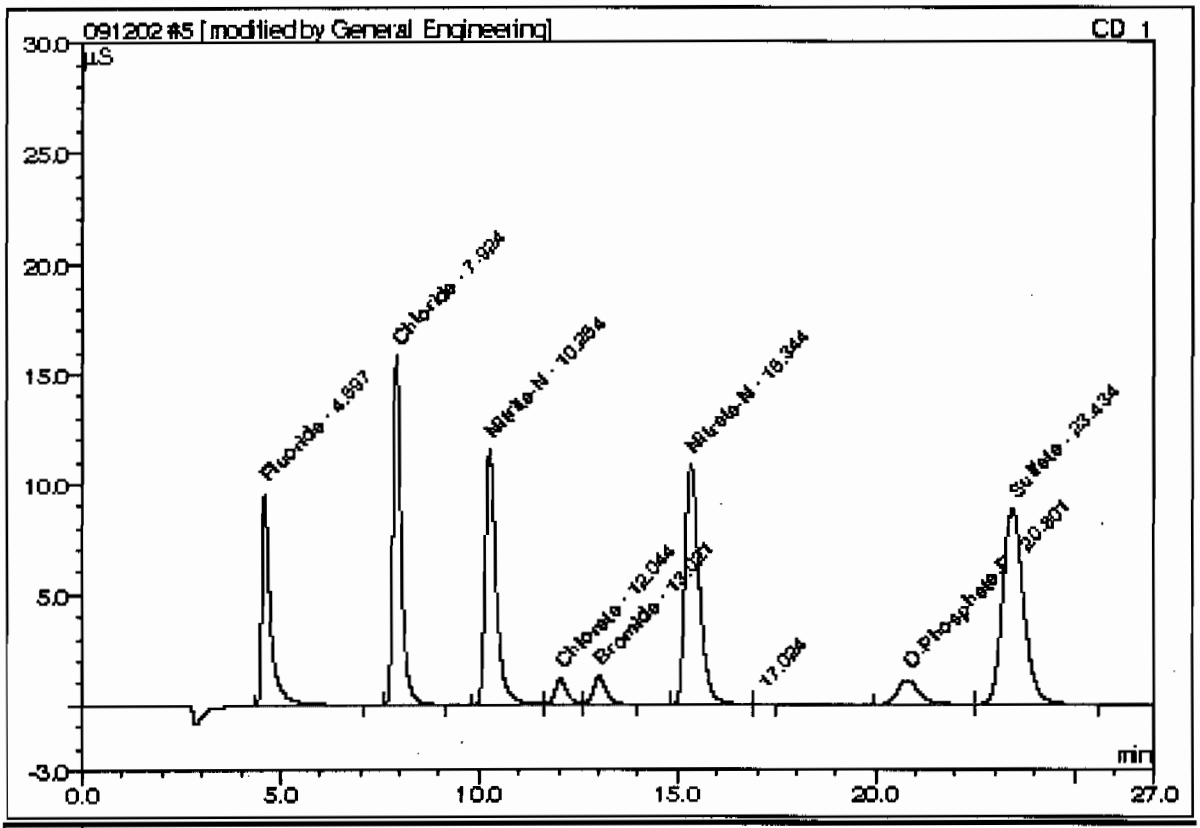

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.60	Fluoride	5.0000	4.6867	*	2.48163	11.62
2	7.92	Chloride	10.0000	9.0643		3.76891	17.65
3	10.26	Nitrite-N	5.0000	4.7094		3.66436	17.16
4	12.04	Chlorate	3.0000	2.9627		0.40341	1.89
5	13.02	Bromide	3.0000	2.9614		0.44868	2.10
6	15.34	Nitrate-N	5.0000	4.5952	*	4.48662	21.01
8	20.80	O-Phosphate-P	3.0000	2.9011	*	0.71066	3.33
9	23.43	Sulfate	20.0000	18.5172	*	5.38507	25.22
Total:				50.3979	0.000	21.349	99.99

10 AUTOCAL5

Sample Name:	AUTOCAL5	*Injection Volume:*	50.0
Vial Number:	6	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 19:34	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

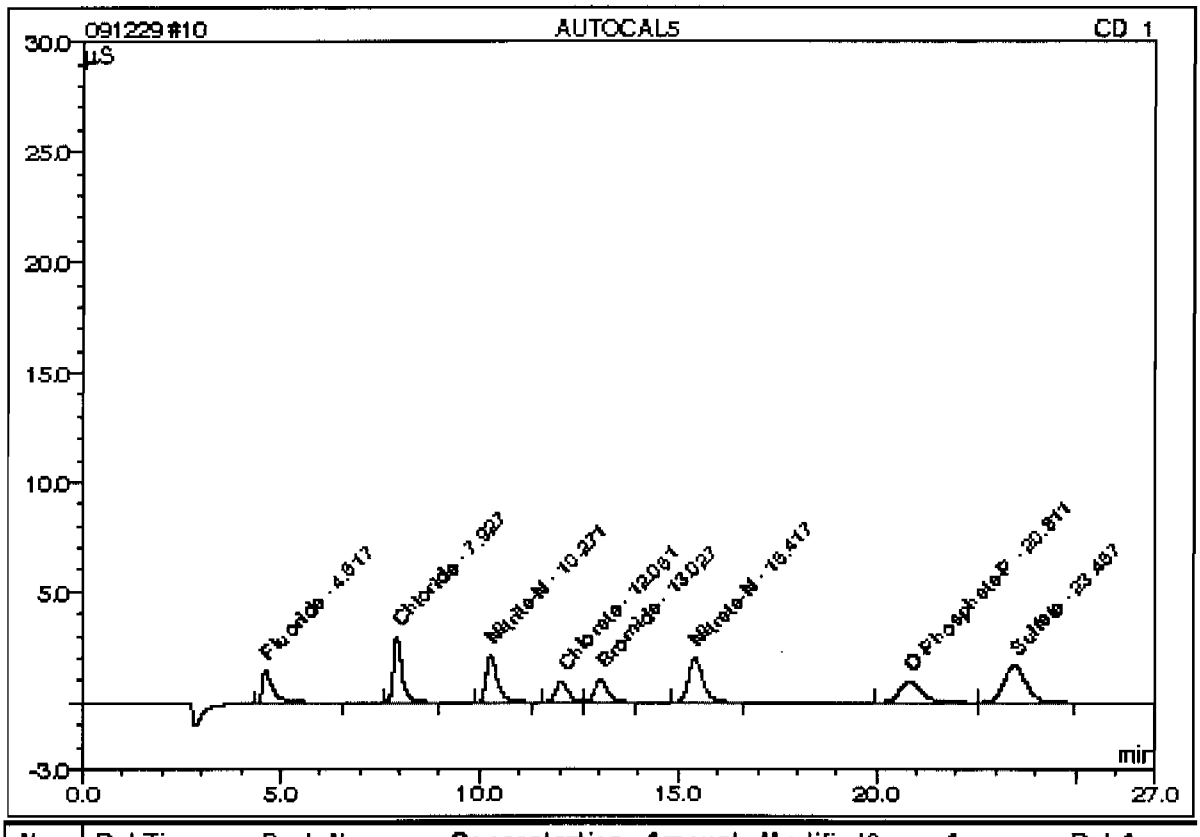

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.62	Fluoride	1.0000	0.9708		0.49415	9.72
2	7.93	Chloride	2.0000	1.8340		0.73808	14.51
3	10.27	Nitrite-N	1.0000	0.9410		0.67762	13.32
4	12.05	Chlorate	2.5000	2.4535		0.33316	6.55
5	13.03	Bromide	2.5000	2.4949		0.37733	7.42
6	15.42	Nitrate-N	1.0000	0.9364		0.83040	16.33
7	20.81	O-Phosphate-P	2.5000	2.5263		0.60370	11.87
8	23.46	Sulfate	4.0000	3.8252		1.03106	20.27
Total:				15.9820	0.000	5.086	100.00

3 AUTOCAL5

Sample Name:	AUTOCAL5	*Injection Volume:*	50.0
Vial Number:	6	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202b	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 19:34	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

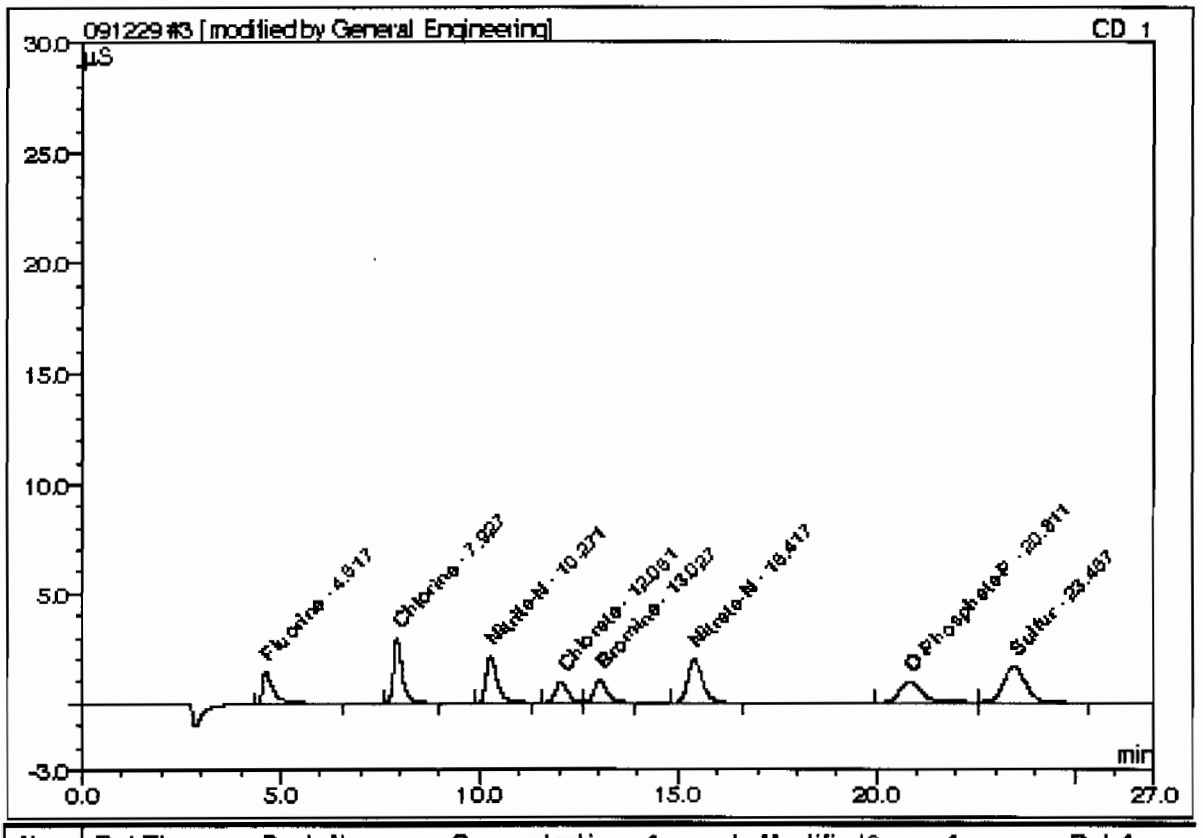

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.62	Fluorine	1.0000	0.9675		0.49415	9.68
2	7.93	Chlorine	2.0000	1.8340		0.73808	14.45
3	10.27	Nitrite-N	1.0000	0.9398		0.67762	13.27
4	12.05	Chlorate	2.5000	2.4535		0.33316	6.52
5	13.03	Bromine	2.5000	2.4949		0.37733	7.39
6	15.42	Nitrate-N	1.0000	0.9351		0.83040	16.26
7	20.81	O-Phosphate-P	2.5000	2.5129		0.60894	11.93
8	23.46	Sulfur	1.3332	1.2847		1.04645	20.49
Total:				13.4224	0.000	5.106	100.00

3 AUTOCAL5

Sample Name:	AUTOCAL5	*Injection Volume:*	50.0
Vial Number:	6	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202b	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 19:34	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCB086;300;9056

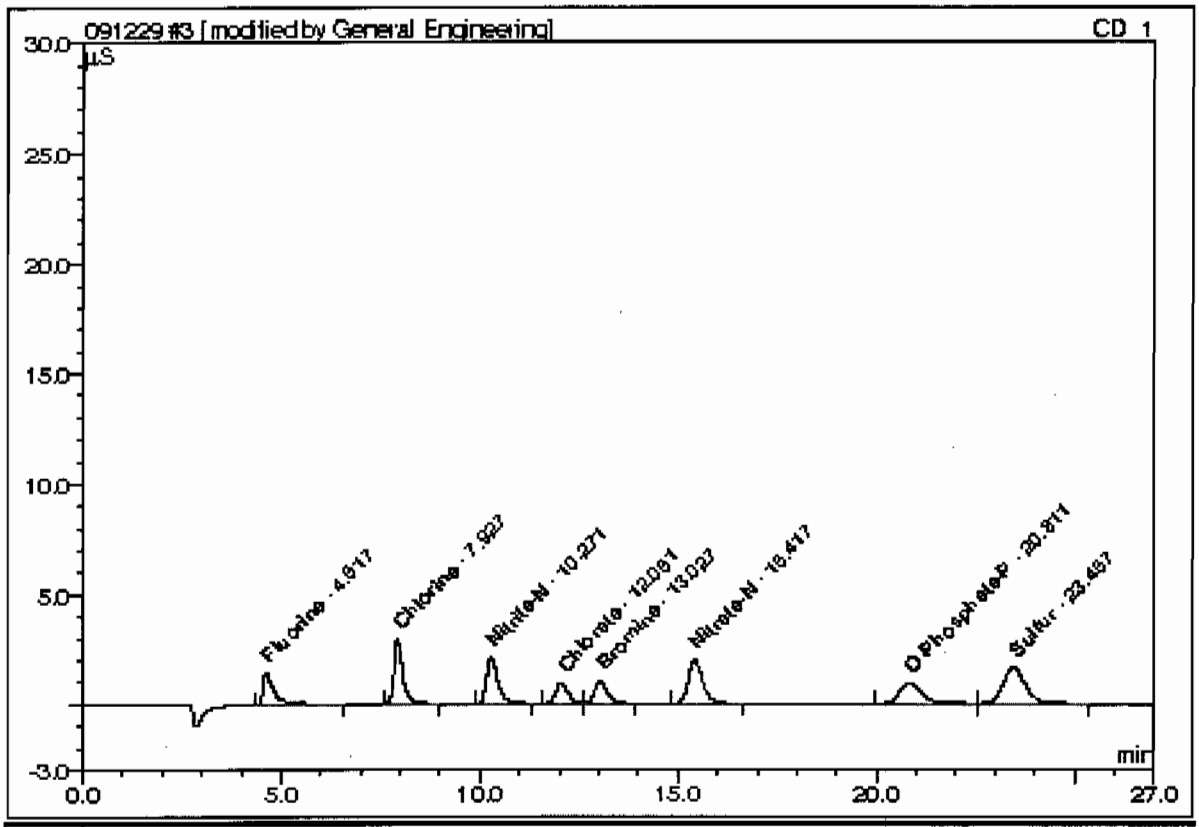

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.62	Fluorine	1.0000	0.9675		0.49415	9.68
2	7.93	Chlorine	2.0000	1.8340		0.73808	14.45
3	10.27	Nitrite-N	1.0000	0.9398		0.67762	13.27
4	12.05	Chlorate	2.5000	2.4535		0.33316	6.52
5	13.03	Bromine	2.5000	2.4949		0.37733	7.39
6	15.42	Nitrate-N	1.0000	0.9351		0.83040	16.26
7	20.81	O-Phosphate-P	2.5000	2.5129	*	0.60894	11.93
8	23.46	Sulfur	1.3332	1.2847	*	1.04645	20.49
Total:				13.4224	0.000	5.106	100.00

3 AUTOCAL5

Sample Name:	AUTOCAL5	*Injection Volume:*	50.0
Vial Number:	6	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202b	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 19:34	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

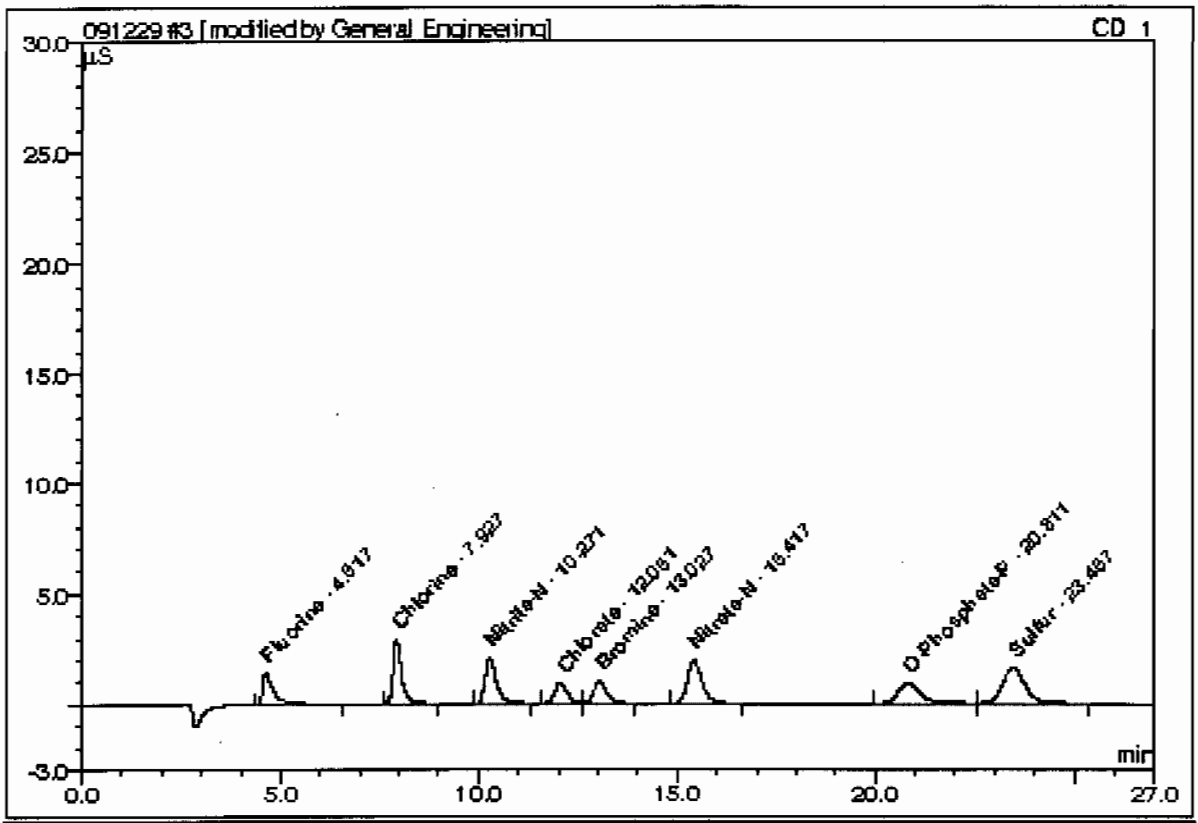

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.62	Fluorine	1.0000	0.9675		0.49415	9.68
2	7.93	Chlorine	2.0000	1.8340		0.73808	14.45
3	10.27	Nitrite-N	1.0000	0.9398		0.67762	13.27
4	12.05	Chlorate	2.5000	2.4535		0.33316	6.52
5	13.03	Bromine	2.5000	2.4949		0.37733	7.39
6	15.42	Nitrate-N	1.0000	0.9351		0.83040	16.26
7	20.81	O-Phosphate-P	2.5000	2.5129	*	0.60894	11.93
8	23.46	Sulfur	1.3332	1.2847	*	1.04645	20.49
Total:				13.4224	0.000	5.106	100.00

6 AUTOCAL5

Sample Name:	AUTOCAL5	*Injection Volume:*	50.0
Vial Number:	6	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 19:34	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

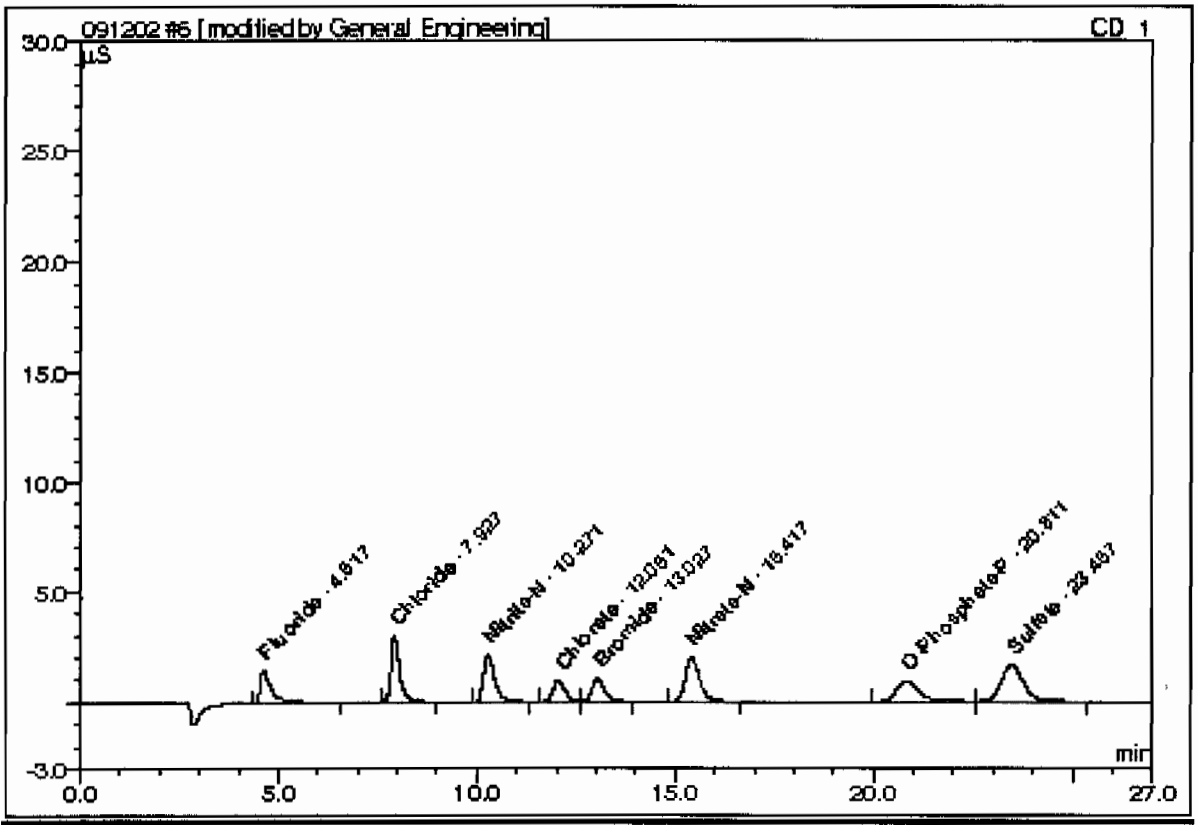

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.62	Fluoride	1.0000	0.9675		0.49415	9.68
2	7.93	Chloride	2.0000	1.8340		0.73808	14.45
3	10.27	Nitrite-N	1.0000	0.9398		0.67762	13.27
4	12.05	Chlorate	2.5000	2.4535		0.33316	6.52
5	13.03	Bromide	2.5000	2.4949		0.37733	7.39
6	15.42	Nitrate-N	1.0000	0.9351		0.83040	16.26
7	20.81	O-Phosphate-P	2.5000	2.5129	*	0.60894	11.93
8	23.46	Sulfate	4.0000	3.8543	*	1.04645	20.49
Total:				15.9920	0.000	5.106	100.00

6 AUTOCAL5

Sample Name:	AUTOCAL5	*Injection Volume:*	50.0
Vial Number:	6	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202b	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 19:34	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCB086;300;9056

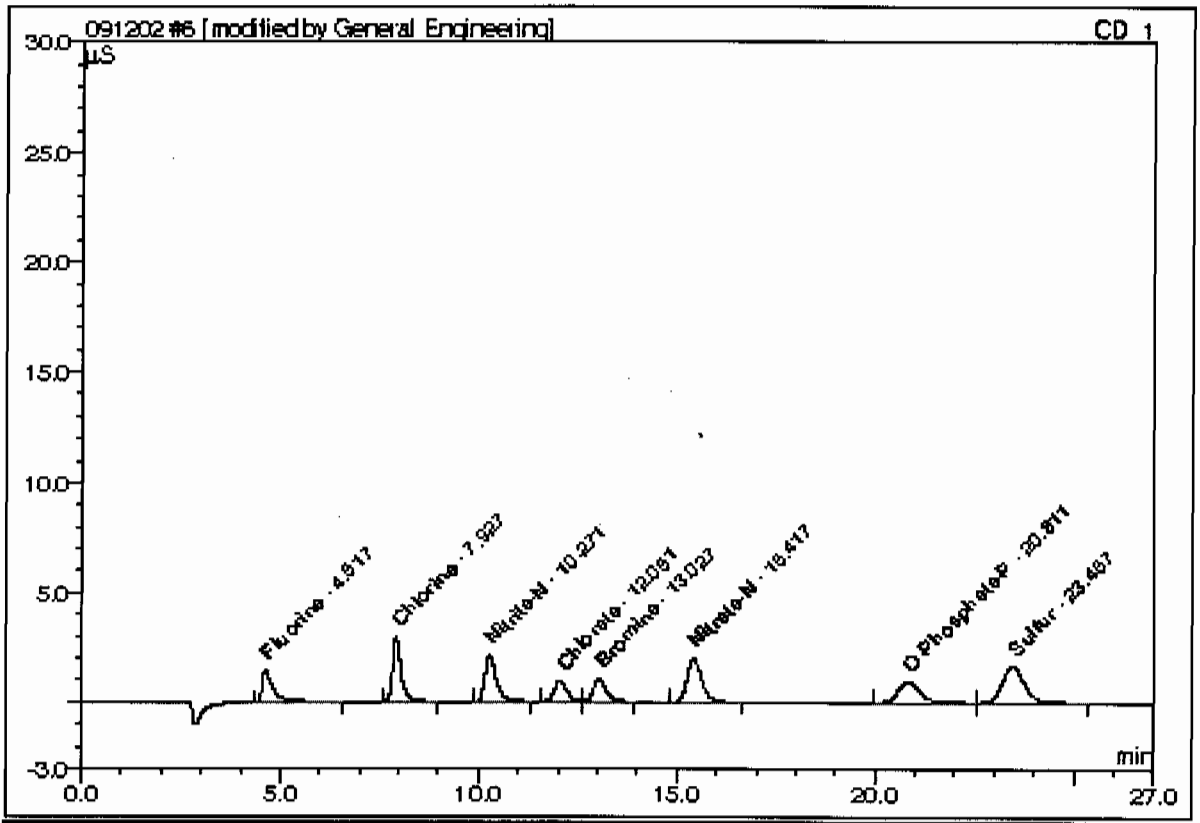

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.62	Fluorine	1.0000	0.9675		0.49415	9.68
2	7.93	Chlorine	2.0000	1.8340		0.73808	14.45
3	10.27	Nitrite-N	1.0000	0.9398		0.67762	13.27
4	12.05	Chlorate	2.5000	2.4535		0.33316	6.52
5	13.03	Bromine	2.5000	2.4949		0.37733	7.39
6	15.42	Nitrate-N	1.0000	0.9351		0.83040	16.26
7	20.81	O-Phosphate-P	2.5000	2.5129		0.60894	11.93
8	23.46	Sulfur	1.3332	1.2847		1.04645	20.49
Total:				13.4224	0.000	5.106	100.00

6 AUTOCAL5

Sample Name:	AUTOCAL5	*Injection Volume:*	50.0
Vial Number:	6	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 19:34	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

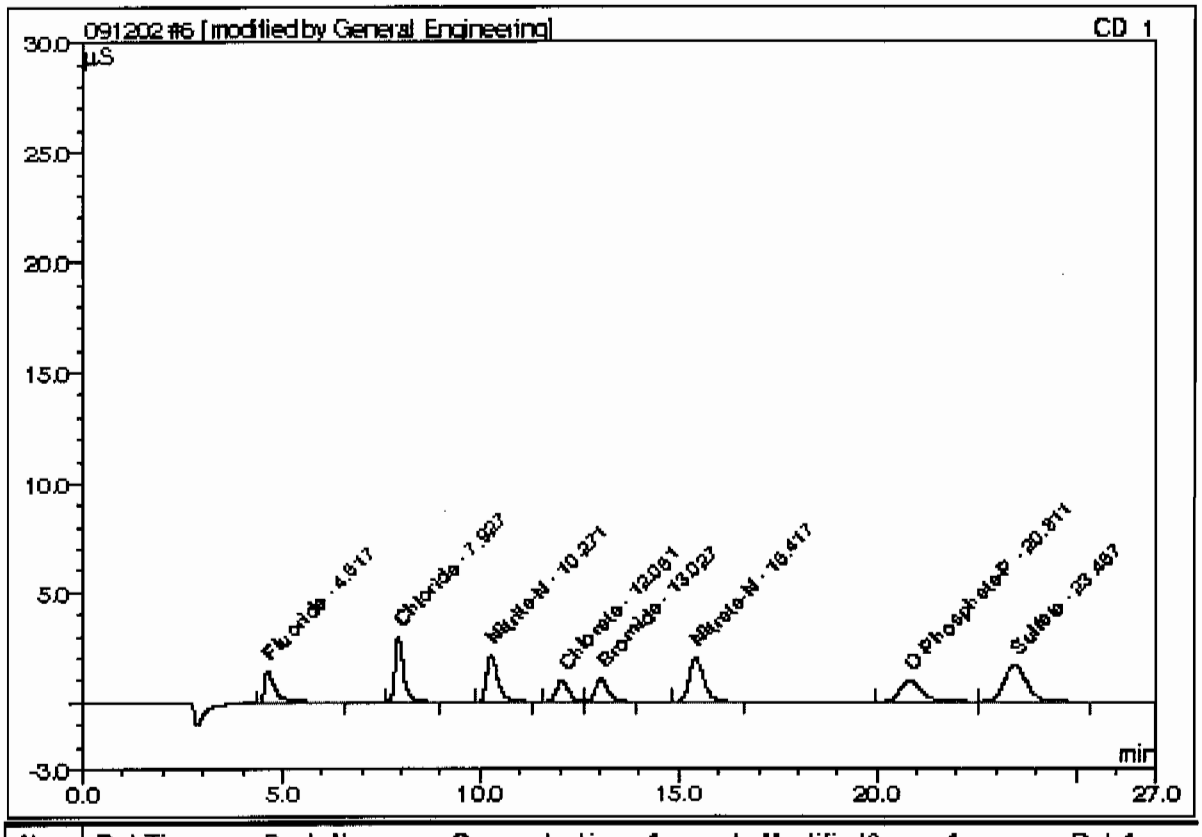

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.62	Fluoride	1.0000	0.9675		0.49415	9.68
2	7.93	Chloride	2.0000	1.8340		0.73808	14.45
3	10.27	Nitrite-N	1.0000	0.9398		0.67762	13.27
4	12.05	Chlorate	2.5000	2.4535		0.33316	6.52
5	13.03	Bromide	2.5000	2.4949		0.37733	7.39
6	15.42	Nitrate-N	1.0000	0.9351		0.83040	16.26
7	20.81	O-Phosphate-P	2.5000	2.5129	*	0.60894	11.93
8	23.46	Sulfate	4.0000	3.8543	*	1.04645	20.49
Total:				15.9920	0.000	5.106	100.00

6 AUTOCAL5

Sample Name:	AUTOCAL5	*Injection Volume:*	50.0
Vial Number:	6	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 19:34	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

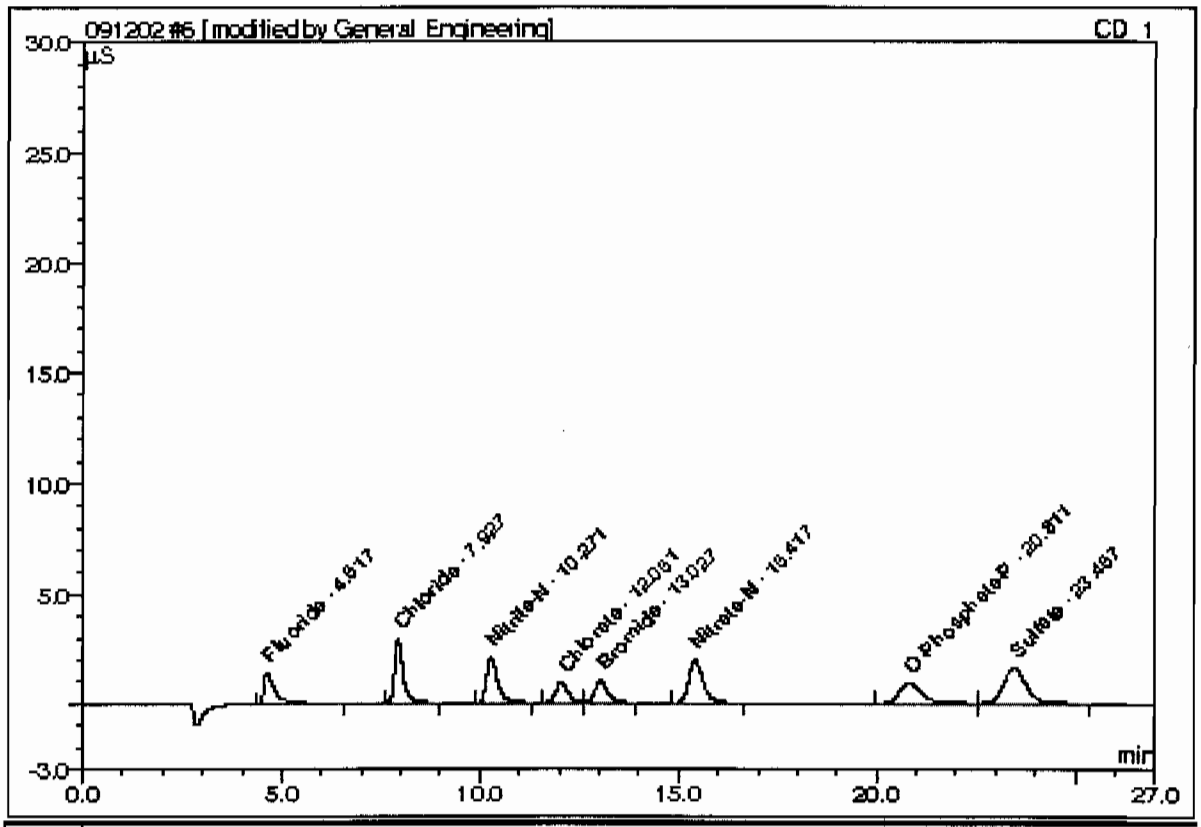

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.62	Fluoride	1.0000	0.9675		0.49415	9.68
2	7.93	Chloride	2.0000	1.8340		0.73808	14.45
3	10.27	Nitrite-N	1.0000	0.9398		0.67762	13.27
4	12.05	Chlorate	2.5000	2.4535		0.33316	6.52
5	13.03	Bromide	2.5000	2.4949		0.37733	7.39
6	15.42	Nitrate-N	1.0000	0.9351		0.83040	16.26
7	20.81	O-Phosphate-P	2.5000	2.5129		0.60894	11.93
8	23.46	Sulfate	4.0000	3.8543		1.04645	20.49
Total:				15.9920	0.000	5.106	100.00

6 AUTOCAL5

Sample Name:	AUTOCAL5	*Injection Volume:*	50.0
Vial Number:	6	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 19:34	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

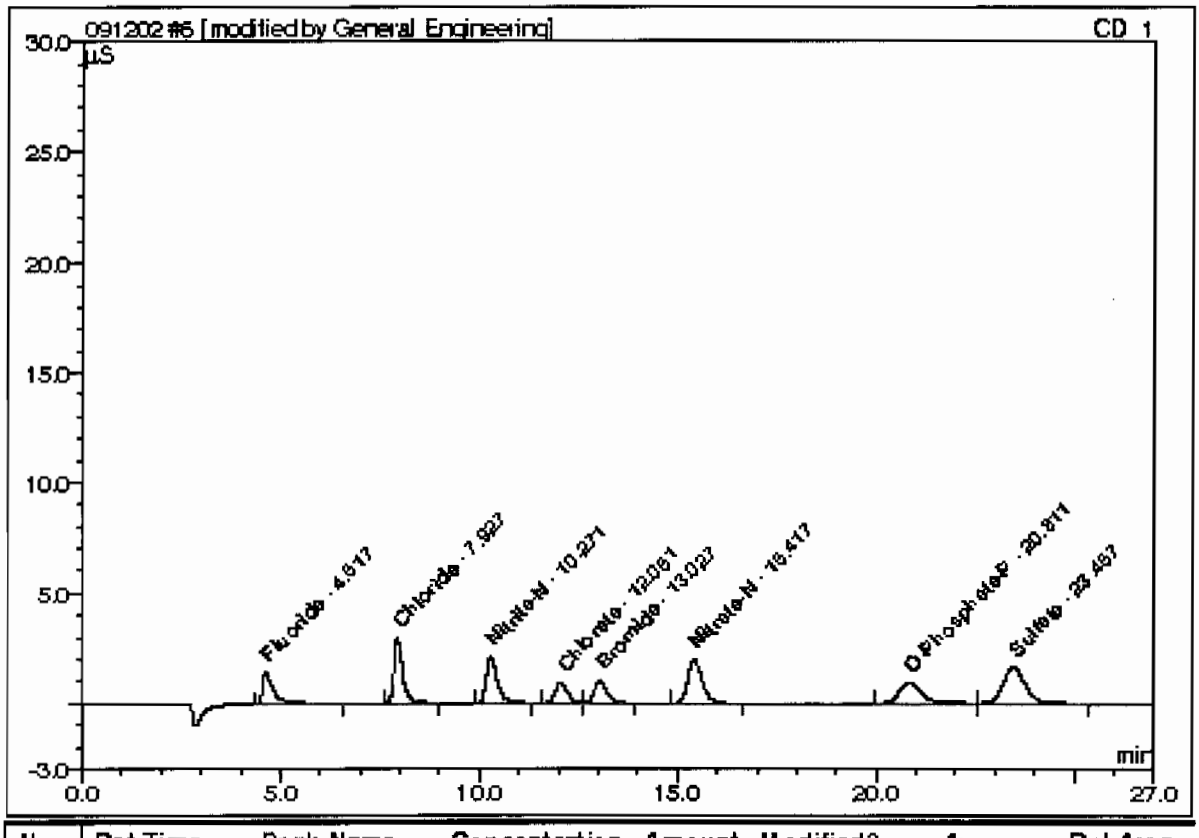

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.62	Fluoride	1.0000	0.9675		0.49415	9.68
2	7.93	Chloride	2.0000	1.8340		0.73808	14.45
3	10.27	Nitrite-N	1.0000	0.9398		0.67762	13.27
4	12.05	Chlorate	2.5000	2.4535		0.33316	6.52
5	13.03	Bromide	2.5000	2.4949		0.37733	7.39
6	15.42	Nitrate-N	1.0000	0.9351		0.83040	16.26
7	20.81	O-Phosphate-P	2.5000	2.5129	*	0.60894	11.93
8	23.46	Sulfate	4.0000	3.8543	*	1.04645	20.49
Total:				15.9920	0.000	5.106	100.00

11 AUTOCAL4

Sample Name:	AUTOCAL4	*Injection Volume:*	50.0
Vial Number:	7	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 20:04	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCB086;300;9056

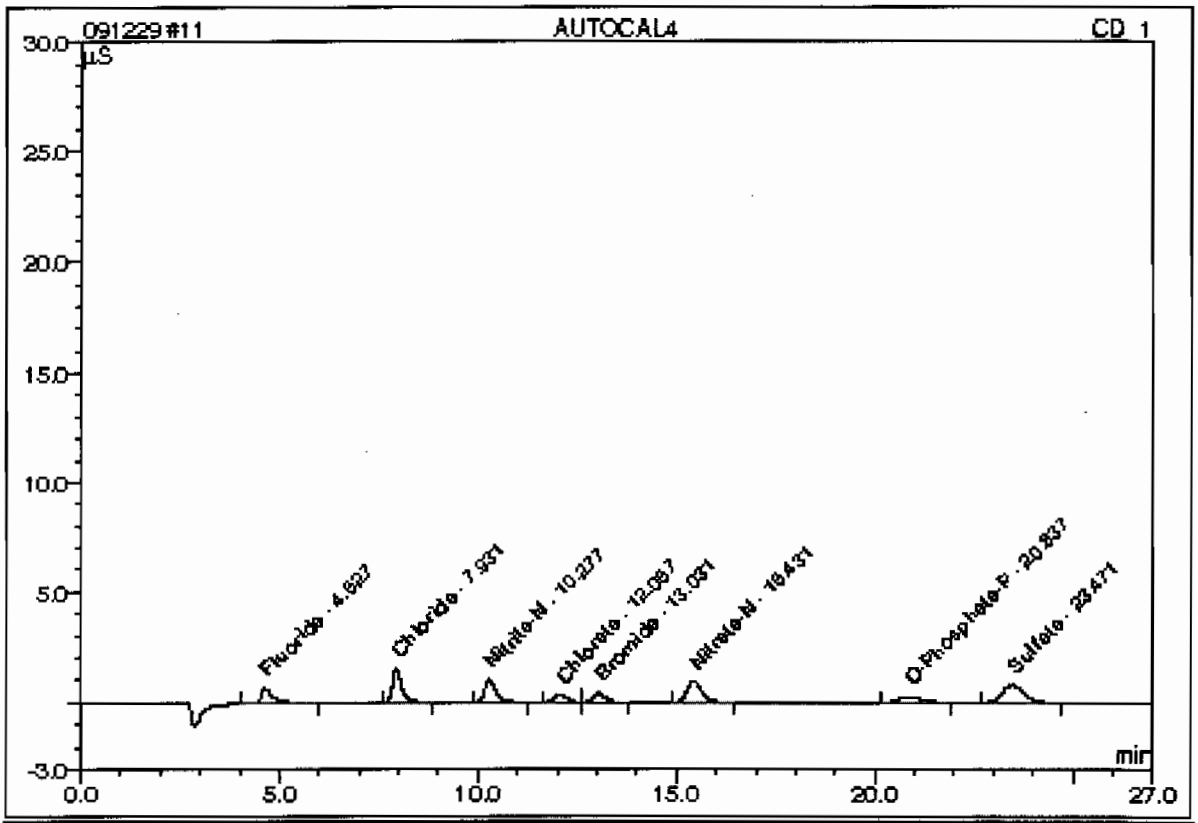

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.63	Fluoride	0.5000	0.4981		0.24398	10.42
2	7.93	Chloride	1.0000	1.0142		0.39444	16.84
3	10.28	Nitrite-N	0.5000	0.5083		0.33470	14.29
4	12.06	Chlorate	1.0000	0.9697		0.12846	5.49
5	13.03	Bromide	1.0000	0.9854		0.14645	6.25
6	15.43	Nitrate-N	0.5000	0.5157		0.41101	17.55
7	20.84	O-Phosphate-P	1.0000	0.8683		0.17338	7.40
8	23.47	Sulfate	2.0000	2.0626		0.50944	21.75
Total:				7.4221	0.000	2.342	100.00

4 AUTOCAL4

Sample Name:	AUTOCAL4	*Injection Volume:*	50.0
Vial Number:	7	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202b	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 20:04	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

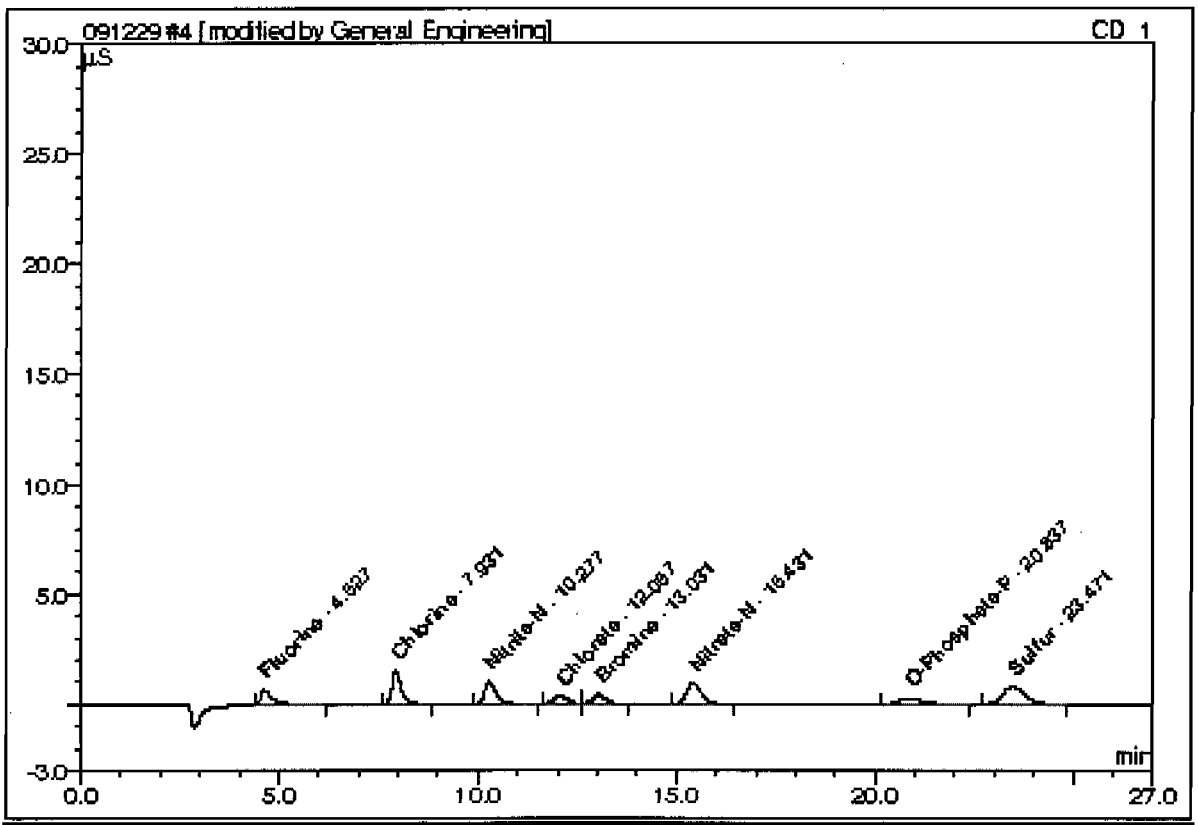

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.63	Fluorine	0.5000	0.4948	*	0.24155	10.26
2	7.93	Chlorine	1.0000	1.0142		0.39444	16.75
3	10.28	Nitrite-N	0.5000	0.5129	*	0.33937	14.41
4	12.06	Chlorate	1.0000	0.9697		0.12846	5.46
5	13.03	Bromine	1.0000	0.9854		0.14645	6.22
6	15.43	Nitrate-N	0.5000	0.5153		0.41101	17.46
7	20.84	O-Phosphate-P	1.0000	0.8835	*	0.18192	7.73
8	23.47	Sulfur	0.6666	0.6819	*	0.51134	21.72
Total:				6.0576	0.000	2.355	100.00

4 AUTOCAL4

Sample Name:	AUTOCAL4	*Injection Volume:*	50.0
Vial Number:	7	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	091202b	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 20:04	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCB086;300;9056

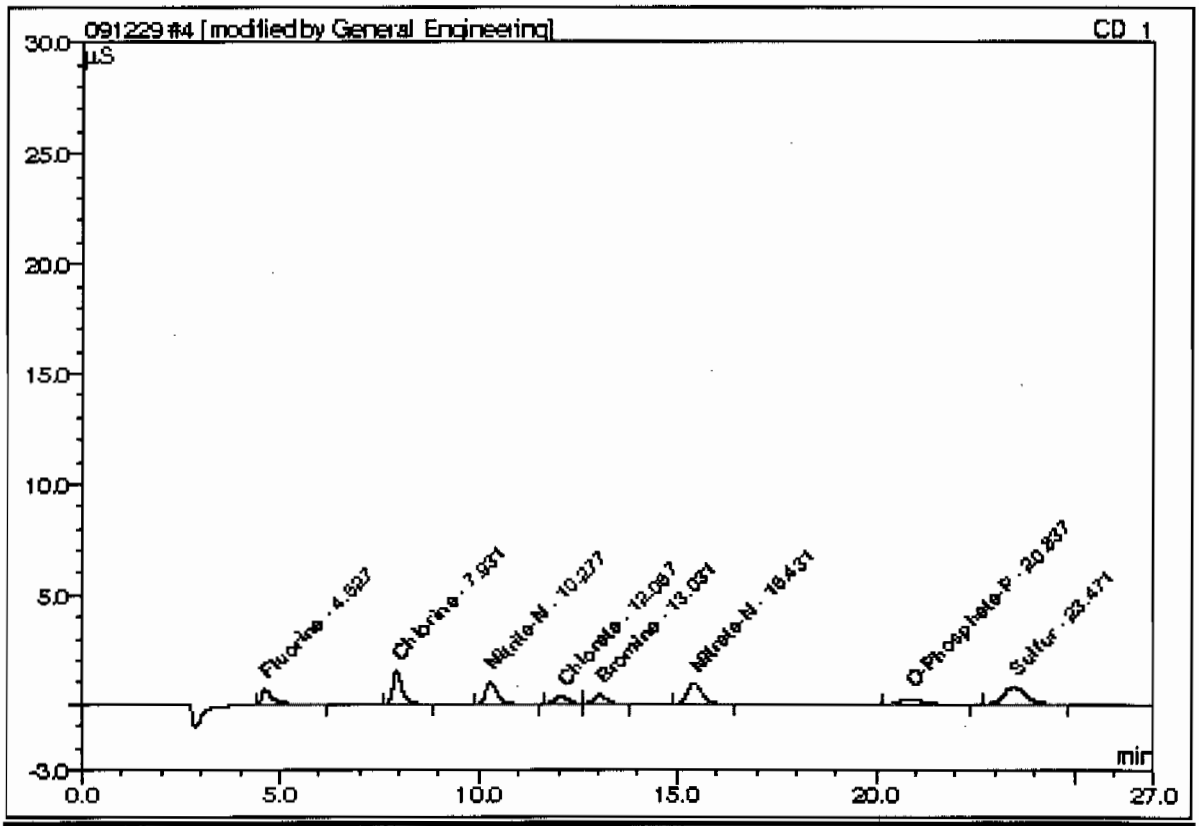

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.63	Fluorine	0.5000	0.4948	*	0.24155	10.26
2	7.93	Chlorine	1.0000	1.0142		0.39444	16.75
3	10.28	Nitrite-N	0.5000	0.5129	*	0.33937	14.41
4	12.06	Chlorate	1.0000	0.9697		0.12846	5.46
5	13.03	Bromine	1.0000	0.9854		0.14645	6.22
6	15.43	Nitrate-N	0.5000	0.5153		0.41101	17.46
7	20.84	O-Phosphate-P	1.0000	0.8835	*	0.18192	7.73
8	23.47	Sulfur	0.6666	0.6819	*	0.51134	21.72
Total:				6.0576	0.000	2.355	100.00

4 AUTOCAL4

Sample Name:	AUTOCAL4	*Injection Volume:*	50.0
Vial Number:	7	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	091202b	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 20:04	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

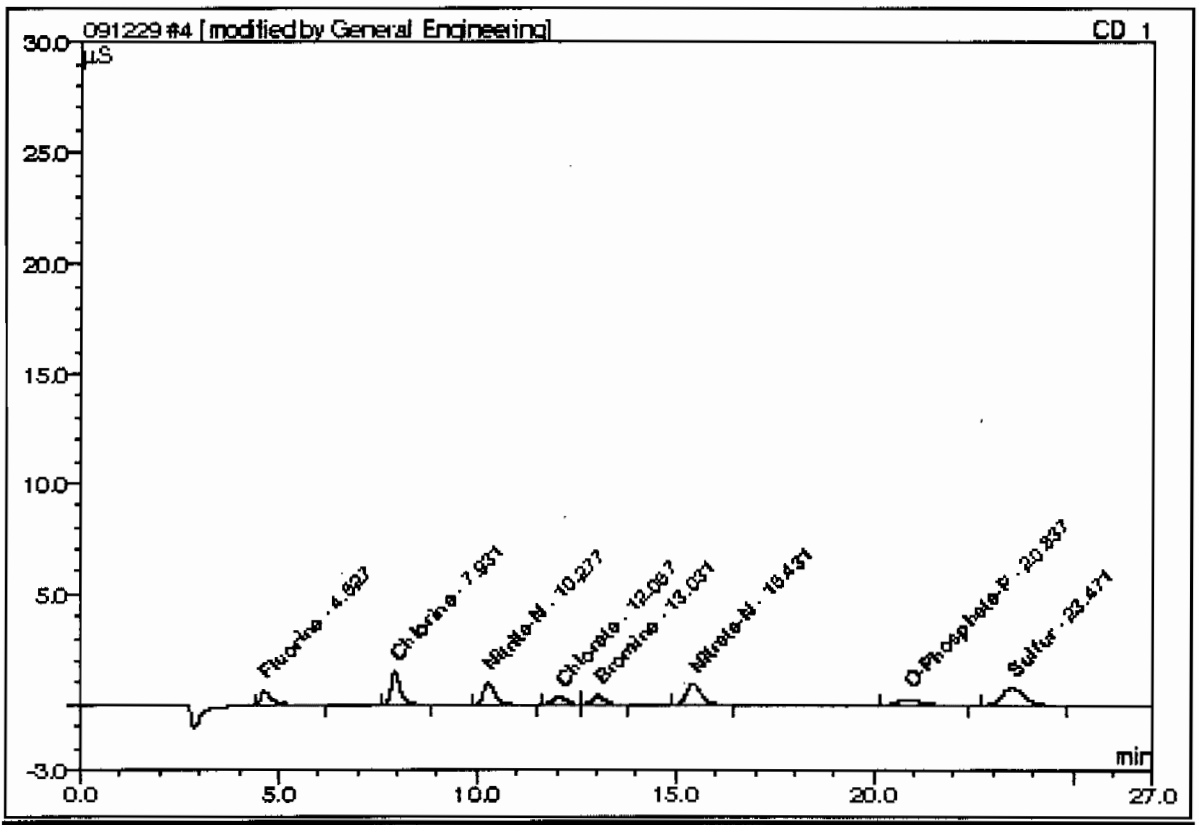

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.63	Fluorine	0.5000	0.4948	*	0.24155	10.26
2	7.93	Chlorine	1.0000	1.0142		0.39444	16.75
3	10.28	Nitrite-N	0.5000	0.5129	*	0.33937	14.41
4	12.06	Chlorate	1.0000	0.9697		0.12846	5.46
5	13.03	Bromine	1.0000	0.9854		0.14645	6.22
6	15.43	Nitrate-N	0.5000	0.5153		0.41101	17.46
7	20.84	O-Phosphate-P	1.0000	0.8835	*	0.18192	7.73
8	23.47	Sulfur	0.6666	0.6819	*	0.51134	21.72
Total:				6.0576	0.000	2.355	100.00

7 AUTOCAL4

Sample Name:	AUTOCAL4	*Injection Volume:*	50.0
Vial Number:	7	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 20:04	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

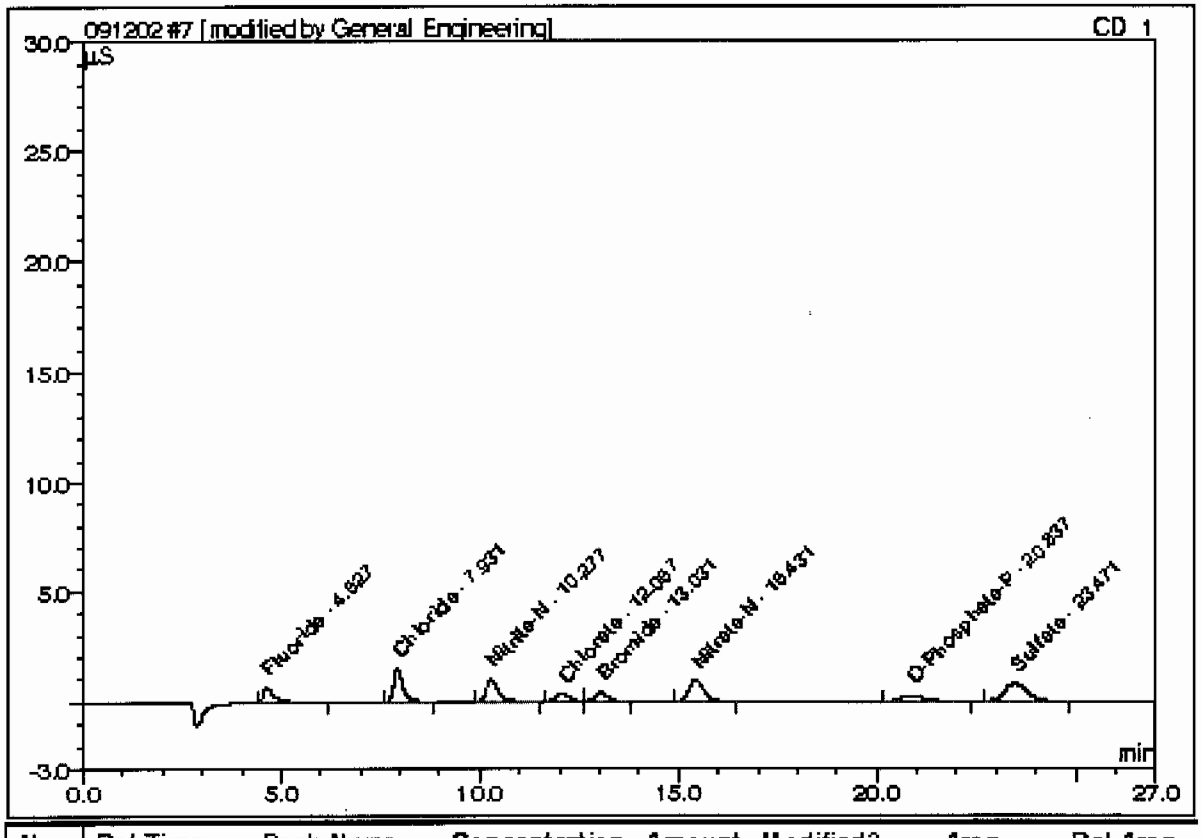

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.63	Fluoride	0.5000	0.4948	`	0.24155	10.26
2	7.93	Chloride	1.0000	1.0142		0.39444	16.75
3	10.28	Nitrite-N	0.5000	0.5129	`	0.33937	14.41
4	12.06	Chlorate	1.0000	0.9697		0.12846	5.46
5	13.03	Bromide	1.0000	0.9854		0.14645	6.22
6	15.43	Nitrate-N	0.5000	0.5153		0.41101	17.46
7	20.84	O-Phosphate-P	1.0000	0.8835	`	0.18192	7.73
8	23.47	Sulfate	2.0000	2.0458	`	0.51134	21.72
Total:				7.4215	0.000	2.355	100.00

7 AUTOCAL4

Sample Name:	AUTOCAL4	*Injection Volume:*	50.0
Vial Number:	7	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202b	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 20:04	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCB086;300;9056

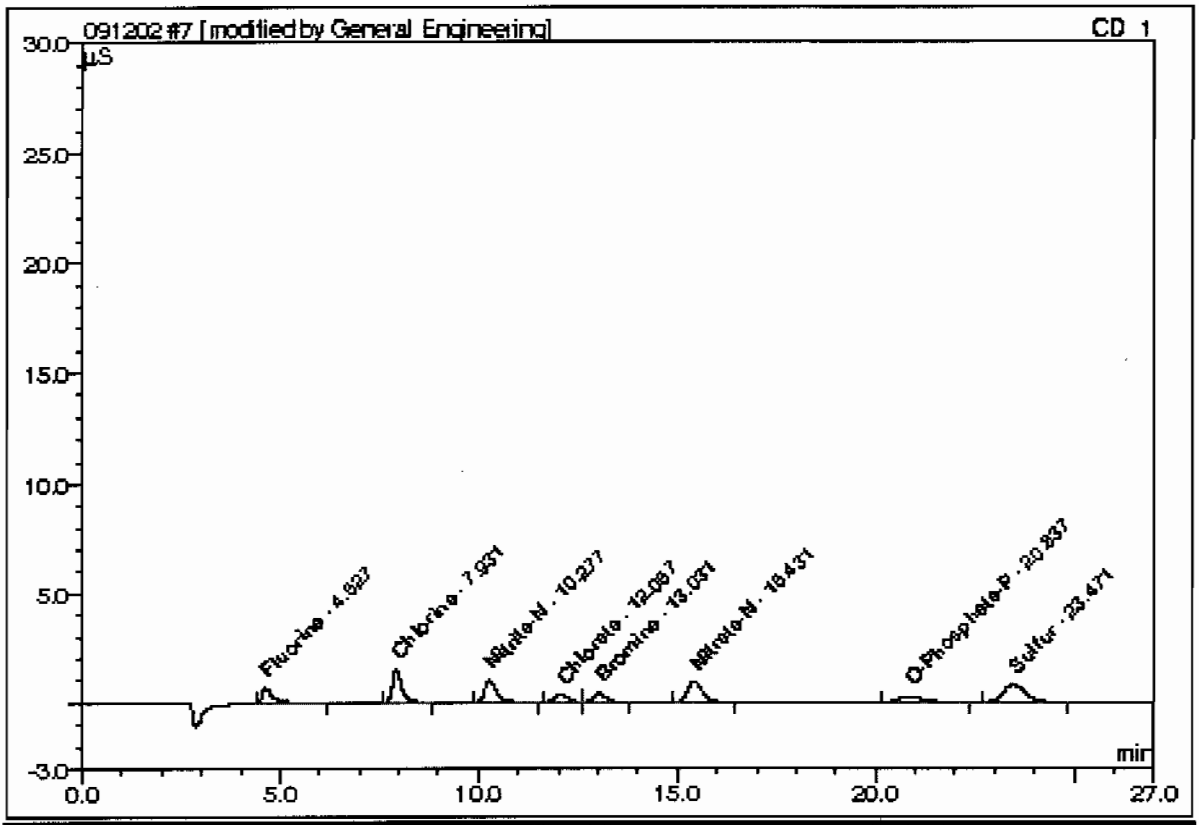

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.63	Fluorine	0.5000	0.4948	*	0.24155	10.26
2	7.93	Chlorine	1.0000	1.0142		0.39444	16.75
3	10.28	Nitrite-N	0.5000	0.5129	*	0.33937	14.41
4	12.06	Chlorate	1.0000	0.9697		0.12846	5.46
5	13.03	Bromine	1.0000	0.9854		0.14645	6.22
6	15.43	Nitrate-N	0.5000	0.5153		0.41101	17.46
7	20.84	O-Phosphate-P	1.0000	0.8835	*	0.18192	7.73
8	23.47	Sulfur	0.6666	0.6819	*	0.51134	21.72
Total:				6.0576	0.000	2.355	100.00

7 AUTOCAL4

Sample Name:	AUTOCAL4	*Injection Volume:*	50.0
Vial Number:	7	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 20:04	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCB086;300;9056

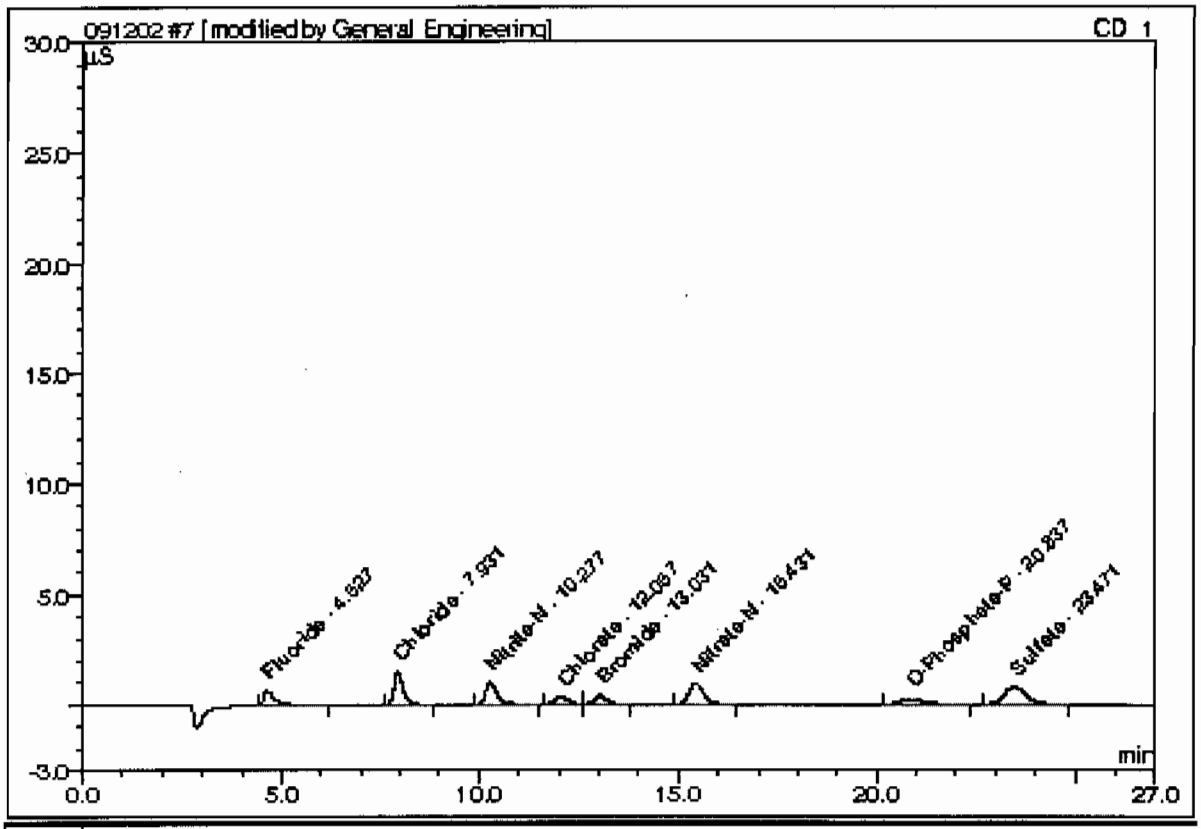

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.63	Fluoride	0.5000	0.4948	*	0.24155	10.26
2	7.93	Chloride	1.0000	1.0142		0.39444	16.75
3	10.28	Nitrite-N	0.5000	0.5129	*	0.33937	14.41
4	12.06	Chlorate	1.0000	0.9697		0.12846	5.46
5	13.03	Bromide	1.0000	0.9854		0.14645	6.22
6	15.43	Nitrate-N	0.5000	0.5153		0.41101	17.46
7	20.84	O-Phosphate-P	1.0000	0.8835	*	0.18192	7.73
8	23.47	Sulfate	2.0000	2.0458	*	0.51134	21.72
Total:				7.4215	0.000	2.355	100.00

7 AUTOCAL4

Sample Name:	AUTOCAL4	*Injection Volume:*	50.0
Vial Number:	7	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 20:04	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

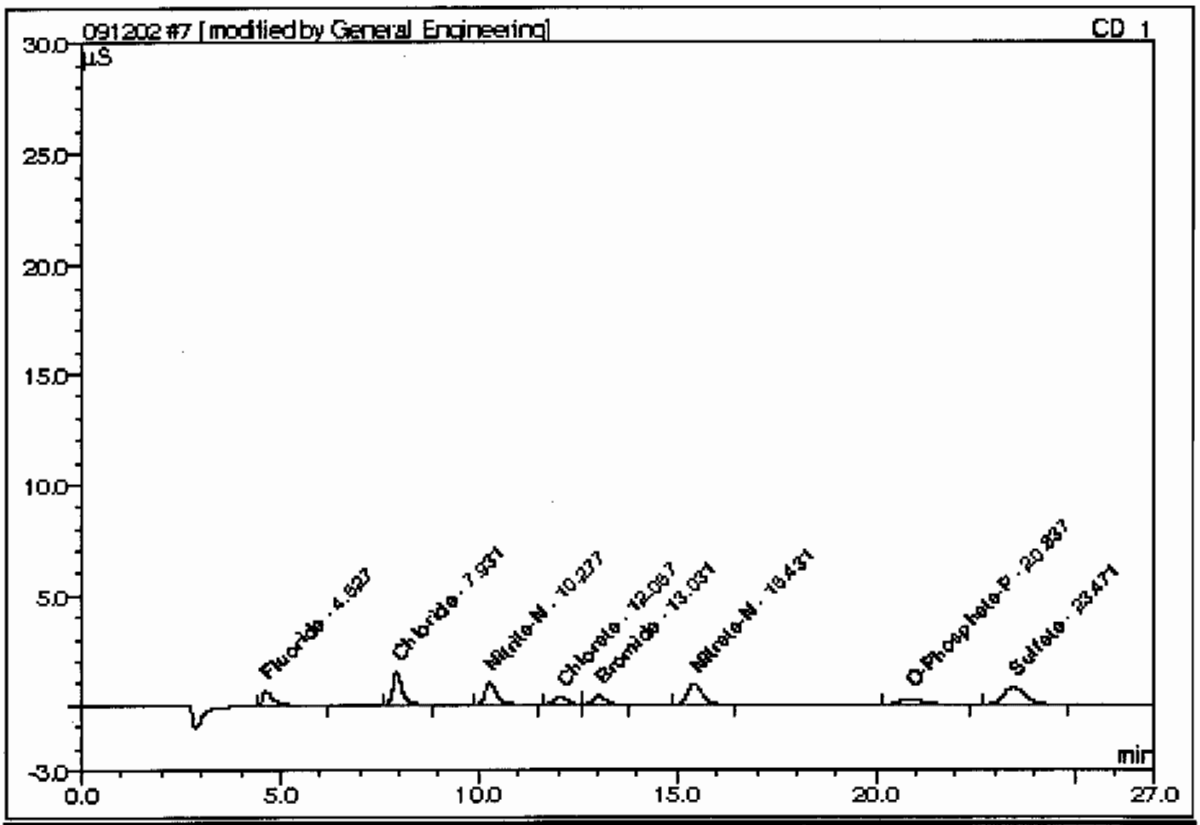

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.63	Fluoride	0.5000	0.4948	*	0.24155	10.26
2	7.93	Chloride	1.0000	1.0142		0.39444	16.75
3	10.28	Nitrite-N	0.5000	0.5129	*	0.33937	14.41
4	12.06	Chlorate	1.0000	0.9697		0.12846	5.46
5	13.03	Bromide	1.0000	0.9854		0.14645	6.22
6	15.43	Nitrate-N	0.5000	0.5153		0.41101	17.46
7	20.84	O-Phosphate-P	1.0000	0.8835	*	0.18192	7.73
8	23.47	Sulfate	2.0000	2.0458	*	0.51134	21.72
Total:				7.4215	0.000	2.355	100.00

7 AUTOCAL4

Sample Name:	AUTOCAL4	*Injection Volume:*	50.0
Vial Number:	7	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 20:04	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

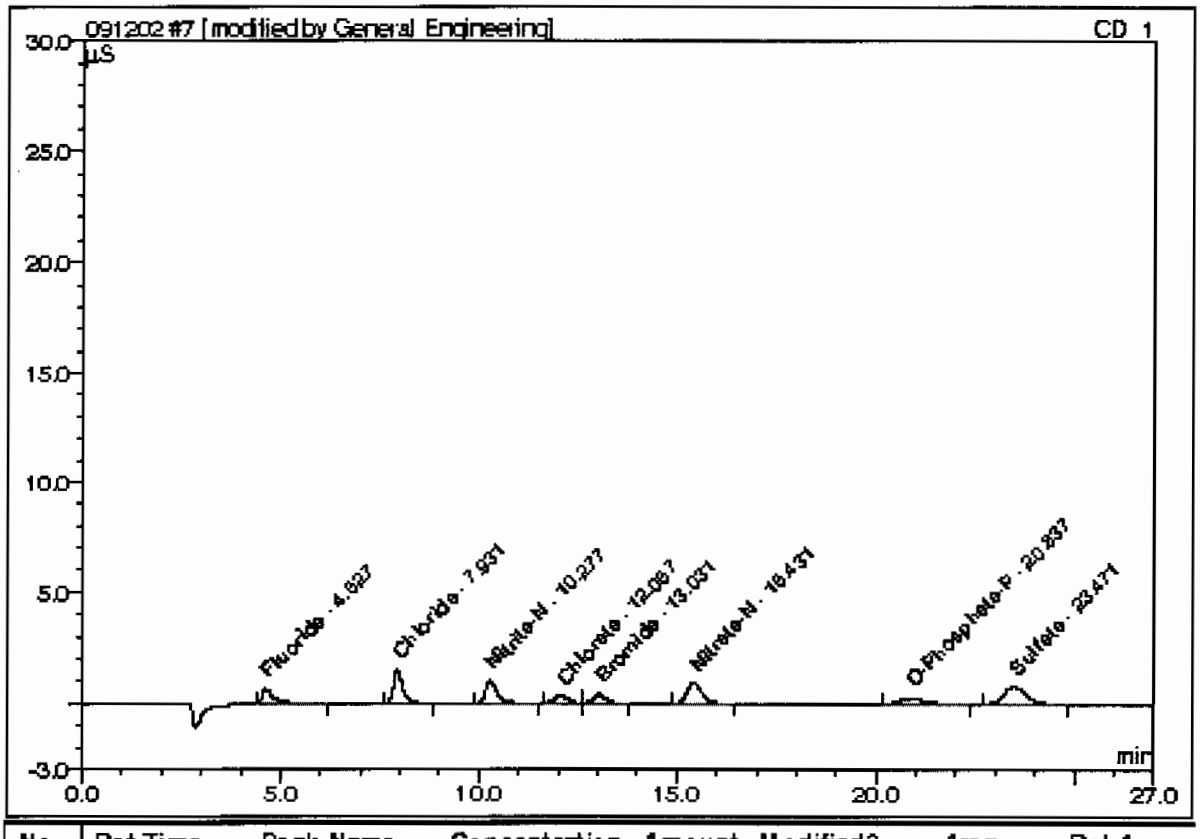

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.63	Fluoride	0.5000	0.4948	*	0.24155	10.26
2	7.93	Chloride	1.0000	1.0142		0.39444	16.75
3	10.28	Nitrite-N	0.5000	0.5129	*	0.33937	14.41
4	12.06	Chlorate	1.0000	0.9697		0.12846	5.46
5	13.03	Bromide	1.0000	0.9854		0.14645	6.22
6	15.43	Nitrate-N	0.5000	0.5153		0.41101	17.46
7	20.84	O-Phosphate-P	1.0000	0.8835	*	0.18192	7.73
8	23.47	Sulfate	2.0000	2.0458	*	0.51134	21.72
Total:				7.4215	0.000	2.355	100.00

12 AUTOCAL3

Sample Name:	AUTOCAL3	*Injection Volume:*	50.0
Vial Number:	8	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 20:34	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

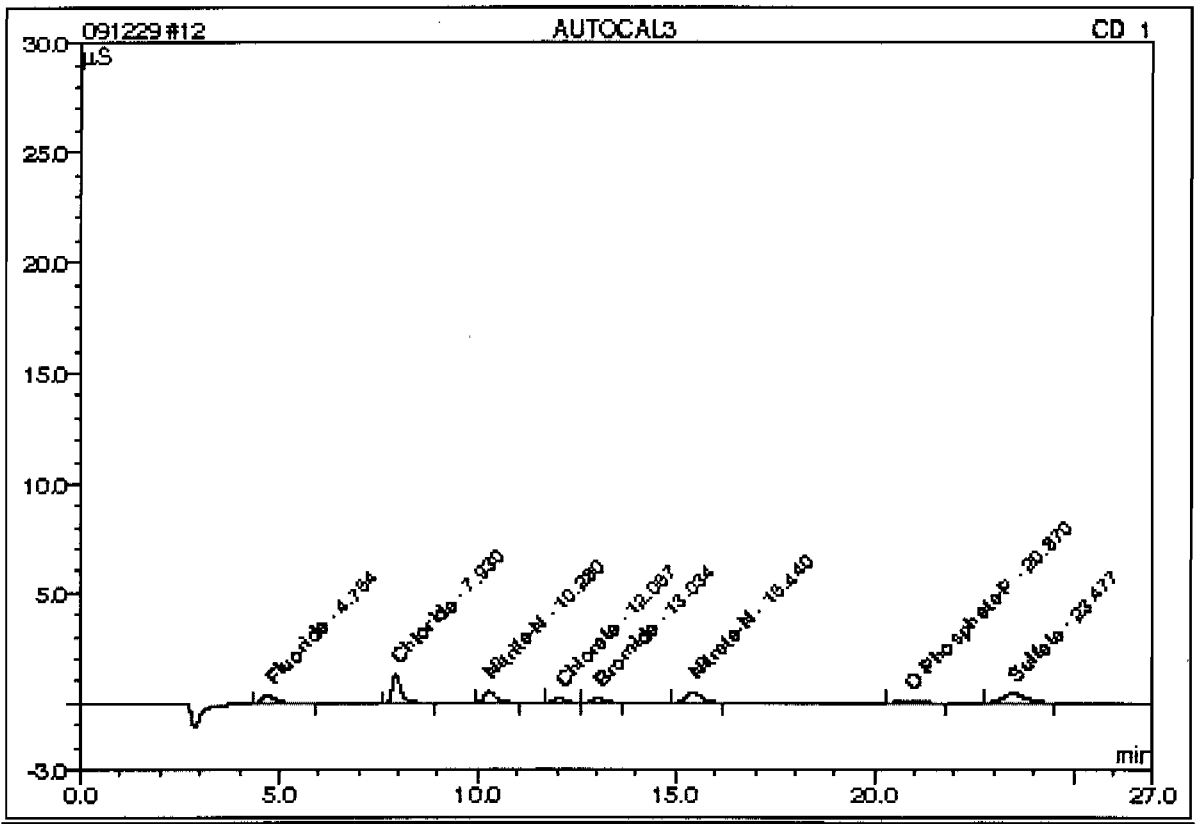

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.76	Fluoride	0.2500	0.3529		0.16713	12.64
2	7.93	Chloride	0.5000	0.8672		0.33283	25.17
3	10.28	Nitrite-N	0.2500	0.2920		0.16336	12.35
4	12.06	Chlorate	0.5000	0.4977		0.06334	4.79
5	13.03	Bromide	0.5000	0.4916		0.07093	5.36
6	15.44	Nitrate-N	0.2500	0.3094		0.20536	15.53
7	20.87	O-Phosphate-P	0.5000	0.4202		0.05708	4.32
8	23.48	Sulfate	1.0000	1.2280		0.26247	19.85
Total:				4.4590	0.000	1.322	100.00

5 AUTOCAL3

Sample Name:	AUTOCAL3	*Injection Volume:*	50.0
Vial Number:	8	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202b	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 20:34	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

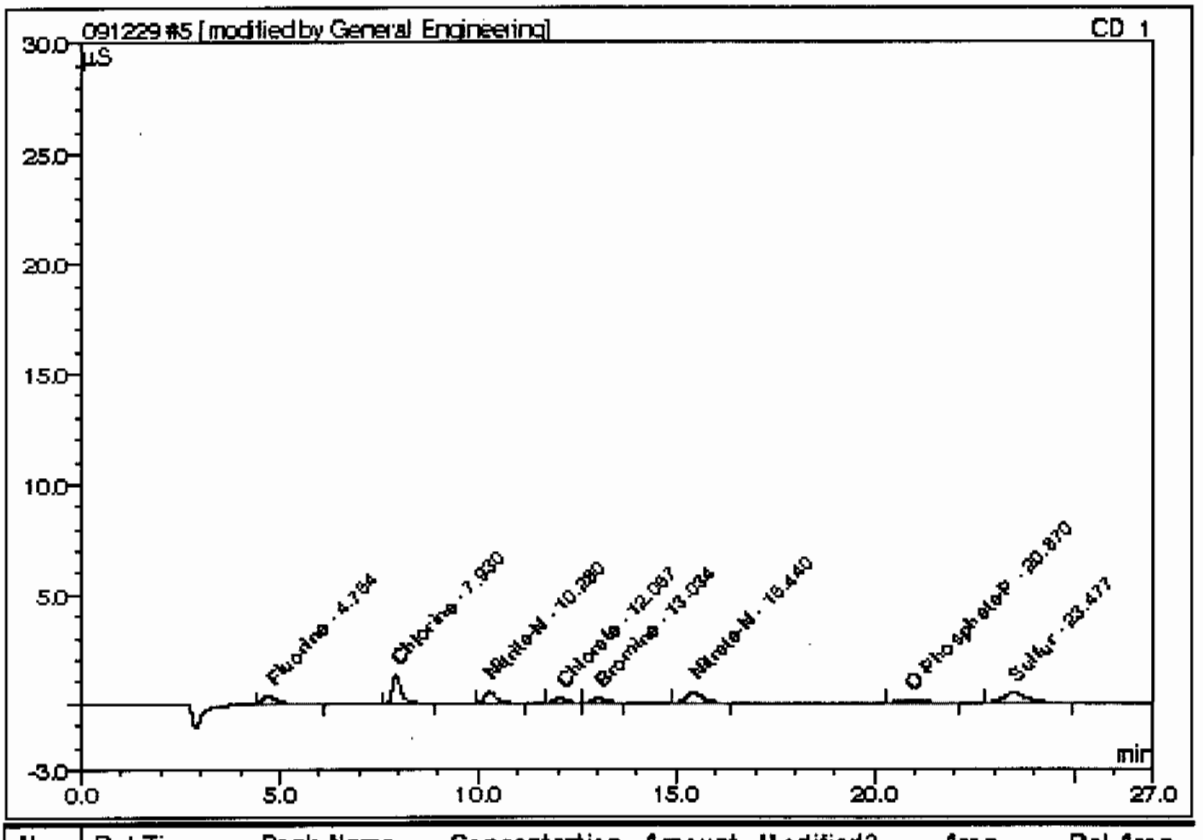

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.76	Fluorine	0.2500	0.3554	*	0.16704	12.48
2	7.93	Chlorine	0.5000	0.8672		0.33283	24.87
3	10.28	Nitrite-N	0.2500	0.2917	*	0.16415	12.27
4	12.06	Chlorate	0.5000	0.4977		0.06334	4.73
5	13.03	Bromine	0.5000	0.4916		0.07093	5.30
6	15.44	Nitrate-N	0.2500	0.3116	*	0.20759	15.51
7	20.87	O-Phosphate-P	0.5000	0.4213	*	0.06081	4.54
8	23.48	Sulfur	0.3333	0.4118	*	0.27160	20.29
Total:				3.6484	0.000	1.338	100.00

5 AUTOCAL3

Sample Name:	AUTOCAL3	*Injection Volume:*	50.0
Vial Number:	8	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202b	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 20:34	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

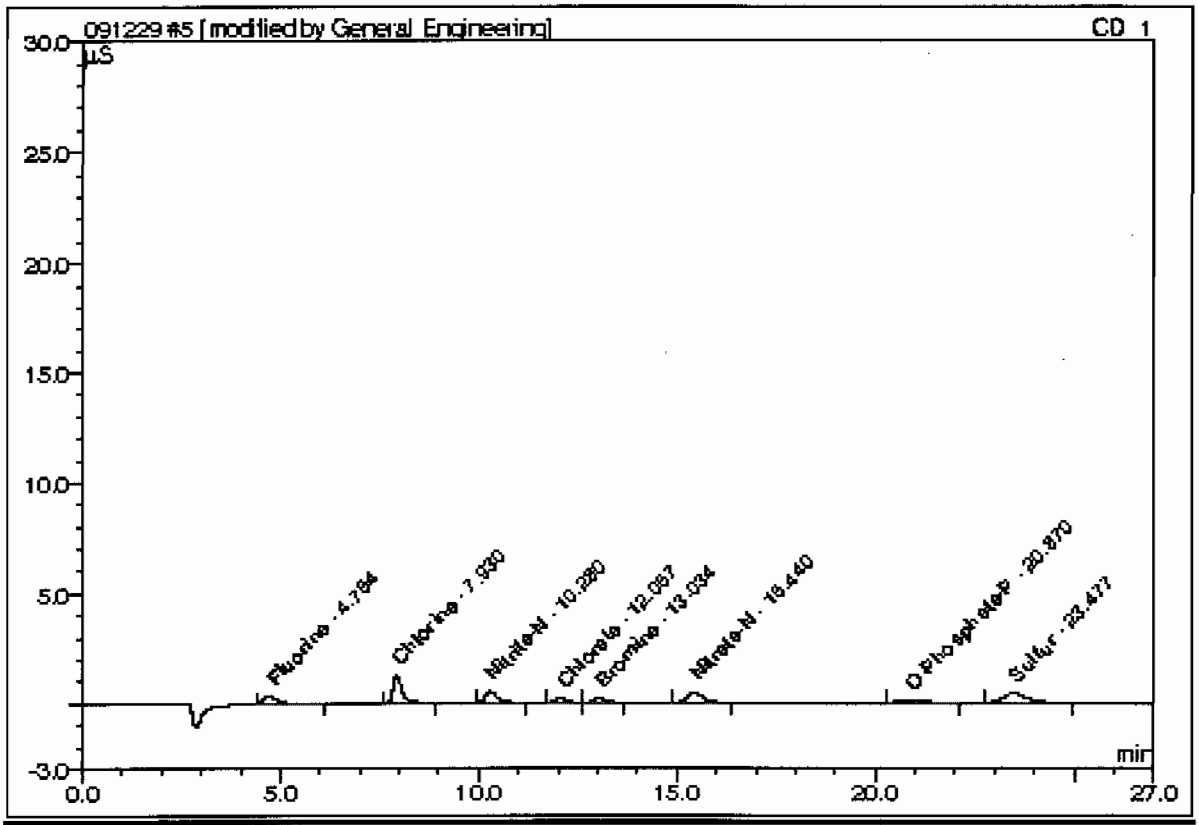

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.76	Fluorine	0.2500	0.3554	*	0.16704	12.48
2	7.93	Chlorine	0.5000	0.8672		0.33283	24.87
3	10.28	Nitrite-N	0.2500	0.2917	*	0.16415	12.27
4	12.06	Chlorate	0.5000	0.4977		0.06334	4.73
5	13.03	Bromine	0.5000	0.4916		0.07093	5.30
6	15.44	Nitrate-N	0.2500	0.3116	*	0.20759	15.51
7	20.87	O-Phosphate-P	0.5000	0.4213	*	0.06081	4.54
8	23.48	Sulfur	0.3333	0.4118	*	0.27160	20.29
Total:				3.6484	0.000	1.338	100.00

5 AUTOCAL3

Sample Name:	AUTOCAL3	*Injection Volume:*	50.0
Vial Number:	8	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	091202b	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 20:34	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

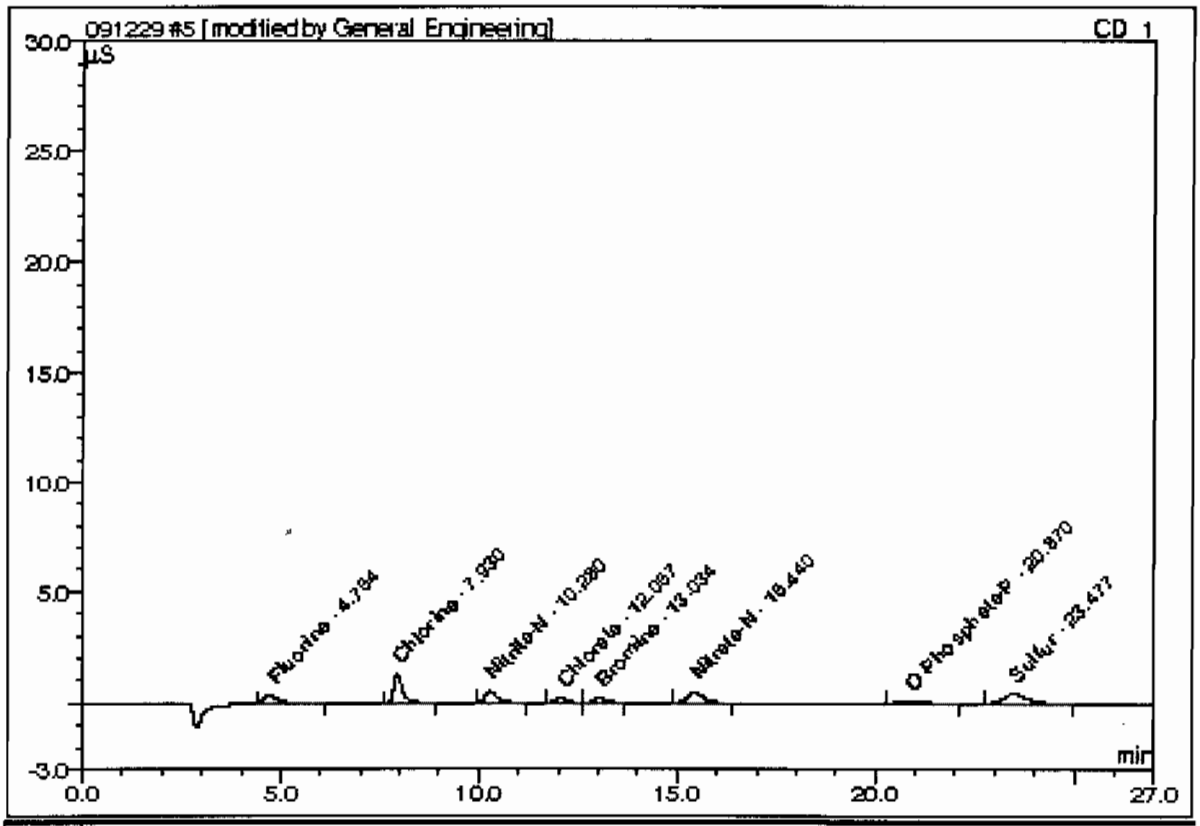

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.76	Fluorine	0.2500	0.3554	*	0.16704	12.48
2	7.93	Chlorine	0.5000	0.8672		0.33283	24.87
3	10.28	Nitrite-N	0.2500	0.2917	*	0.16415	12.27
4	12.06	Chlorate	0.5000	0.4977		0.06334	4.73
5	13.03	Bromine	0.5000	0.4916		0.07093	5.30
6	15.44	Nitrate-N	0.2500	0.3116	*	0.20759	15.51
7	20.87	O-Phosphate-P	0.5000	0.4213	*	0.06081	4.54
8	23.48	Sulfur	0.3333	0.4118	*	0.27160	20.29
Total:				3.6484	0.000	1.338	100.00

8 AUTOCAL3

Sample Name:	AUTOCAL3	*Injection Volume:*	50.0
Vial Number:	8	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 20:34	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

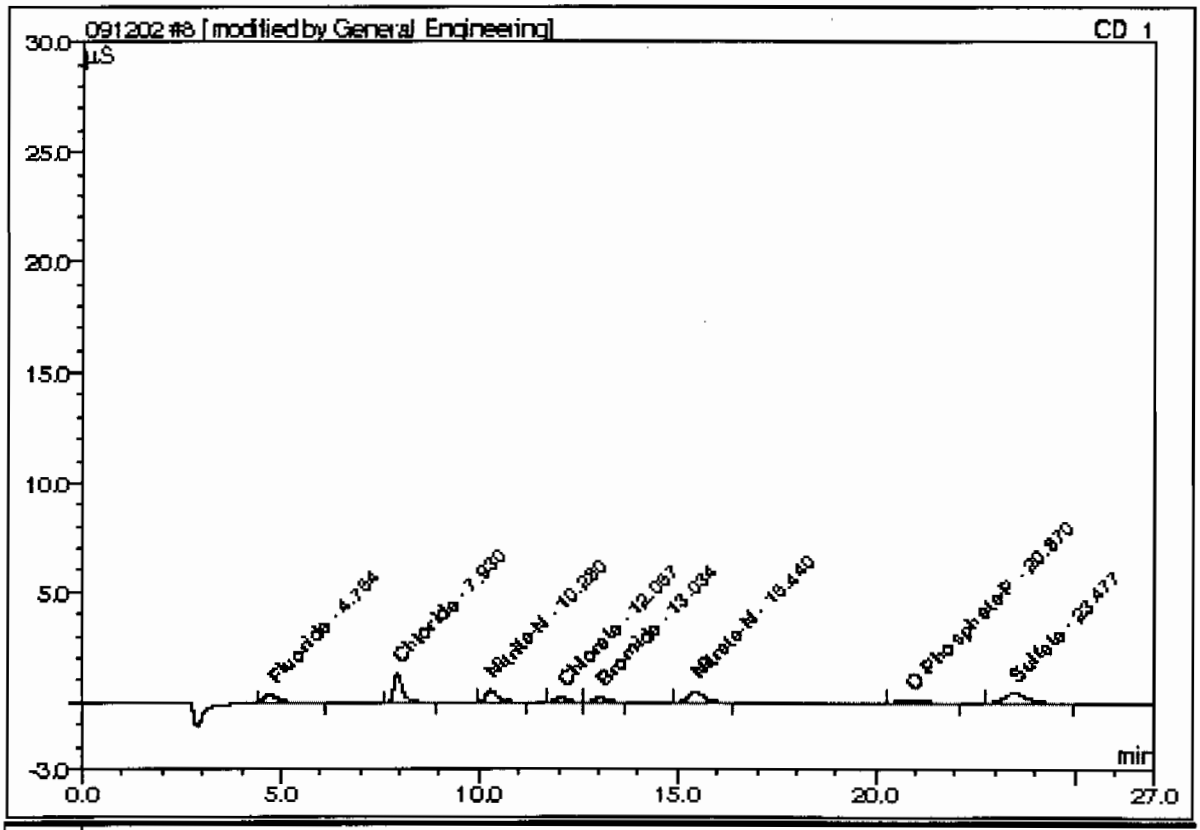

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.76	Fluoride	0.2500	0.3554	*	0.16704	12.48
2	7.93	Chloride	0.5000	0.8672		0.33283	24.87
3	10.28	Nitrite-N	0.2500	0.2917	*	0.16415	12.27
4	12.06	Chlorate	0.5000	0.4977		0.06334	4.73
5	13.03	Bromide	0.5000	0.4916		0.07093	5.30
6	15.44	Nitrate-N	0.2500	0.3116	*	0.20759	15.51
7	20.87	O-Phosphate-P	0.5000	0.4213	*	0.06081	4.54
8	23.48	Sulfate	1.0000	1.2356	*	0.27160	20.29
Total:				4.4722	0.000	1.338	100.00

8 AUTOCAL3

Sample Name:	AUTOCAL3	*Injection Volume:*	50.0
Vial Number:	8	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202b	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 20:34	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GLGCE086;300;9056

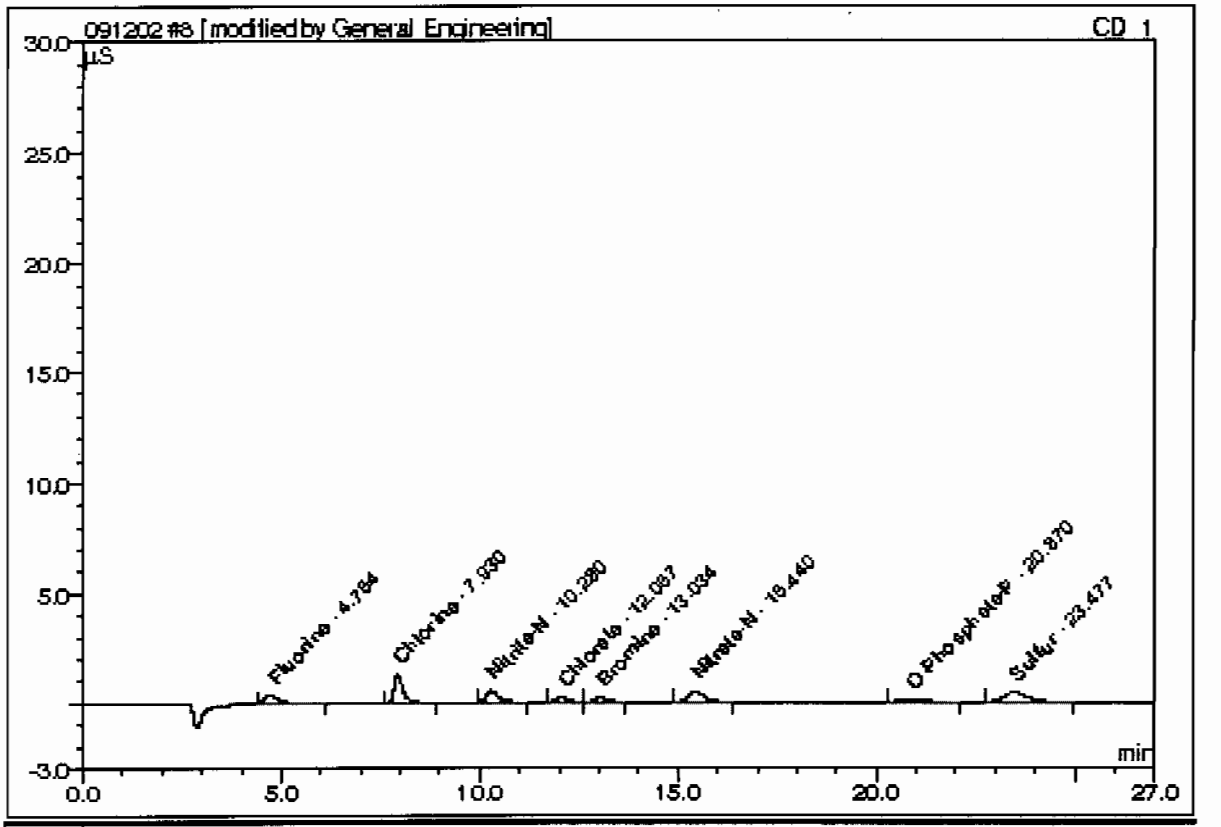

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.76	Fluorine	0.2500	0.3554	*	0.16704	12.48
2	7.93	Chlorine	0.5000	0.8672		0.33283	24.87
3	10.28	Nitrite-N	0.2500	0.2917	*	0.16415	12.27
4	12.06	Chlorate	0.5000	0.4977		0.06334	4.73
5	13.03	Bromine	0.5000	0.4916		0.07093	5.30
6	15.44	Nitrate-N	0.2500	0.3116	*	0.20759	15.51
7	20.87	O-Phosphate-P	0.5000	0.4213	*	0.06081	4.54
8	23.48	Sulfur	0.3333	0.4118	*	0.27160	20.29
Total:				3.6484	0.000	1.338	100.00

8 AUTOCAL3

Sample Name:	AUTOCAL3	*Injection Volume:*	50.0
Vial Number:	8	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 20:34	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

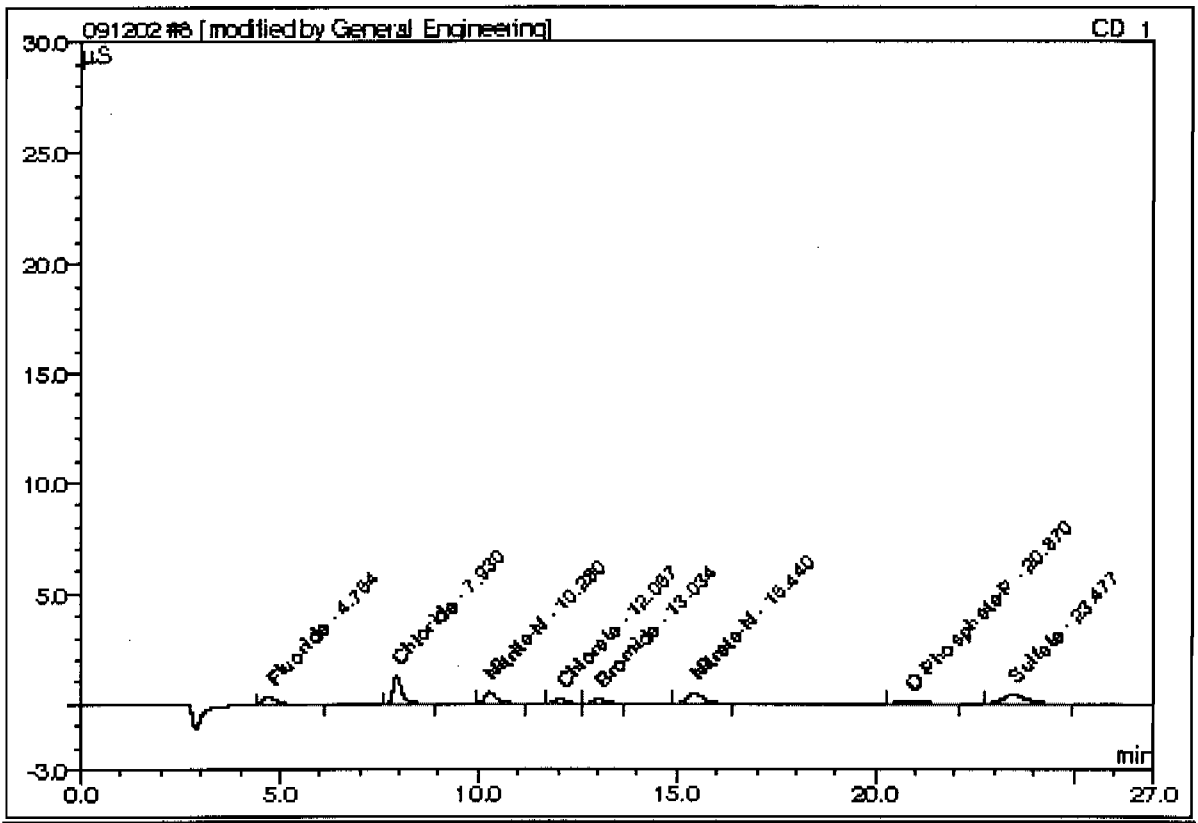

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.76	Fluoride	0.2500	0.3554	*	0.16704	12.48
2	7.93	Chloride	0.5000	0.8672		0.33283	24.87
3	10.28	Nitrite-N	0.2500	0.2917	*	0.16415	12.27
4	12.06	Chlorate	0.5000	0.4977		0.06334	4.73
5	13.03	Bromide	0.5000	0.4916		0.07093	5.30
6	15.44	Nitrate-N	0.2500	0.3116	*	0.20759	15.51
7	20.87	O-Phosphate-P	0.5000	0.4213	*	0.06081	4.54
8	23.48	Sulfate	1.0000	1.2356	*	0.27160	20.29
Total:				4.4722	0.000	1.338	100.00

8 AUTOCAL3

Sample Name:	AUTOCAL3	*Injection Volume:*	50.0
Vial Number:	8	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 20:34	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

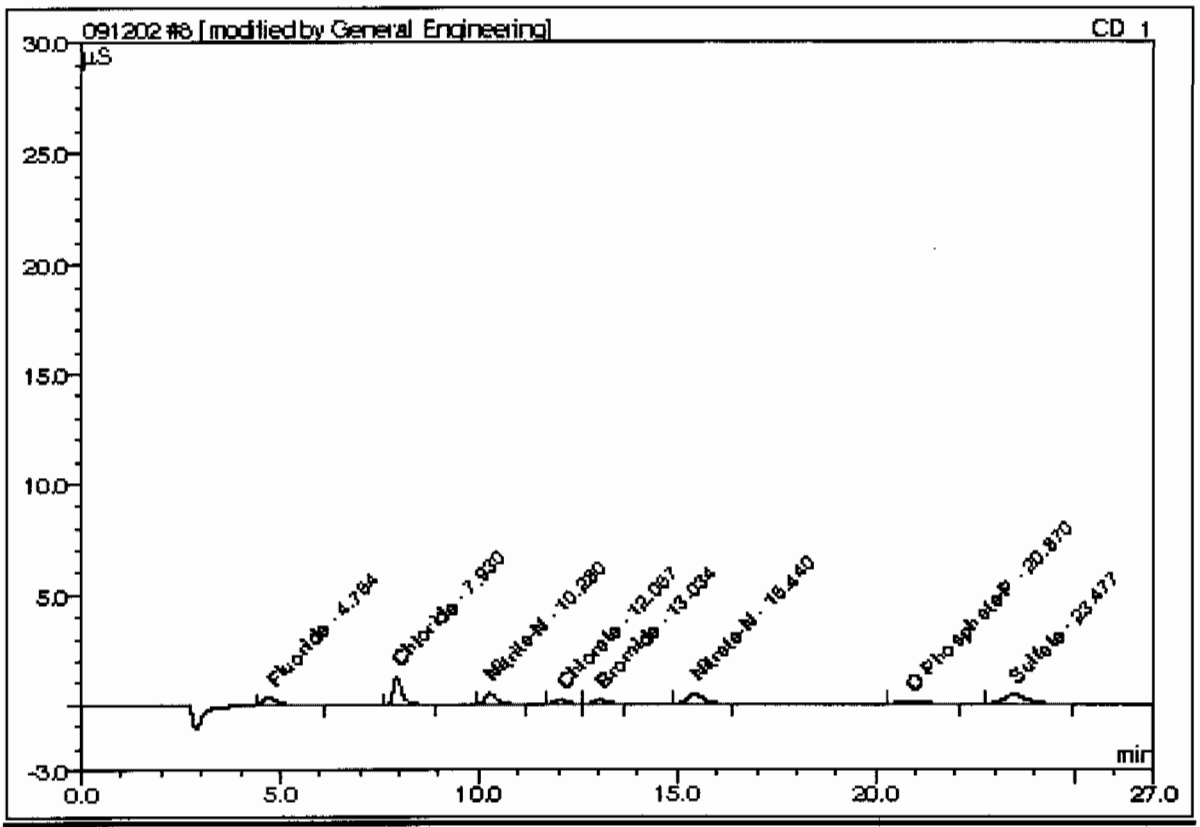

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.76	Fluoride	0.2500	0.3554	*	0.16704	12.48
2	7.93	Chloride	0.5000	0.8672		0.33283	24.87
3	10.28	Nitrite-N	0.2500	0.2917	*	0.16415	12.27
4	12.06	Chlorate	0.5000	0.4977		0.06334	4.73
5	13.03	Bromide	0.5000	0.4916		0.07093	5.30
6	15.44	Nitrate-N	0.2500	0.3116	*	0.20759	15.51
7	20.87	O-Phosphate-P	0.5000	0.4213	*	0.06081	4.54
8	23.48	Sulfate	1.0000	1.2356	*	0.27160	20.29
Total:				4.4722	0.000	1.338	100.00

8 AUTOCAL3

Sample Name:	AUTOCAL3	*Injection Volume:*	50.0
Vial Number:	8	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 20:34	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

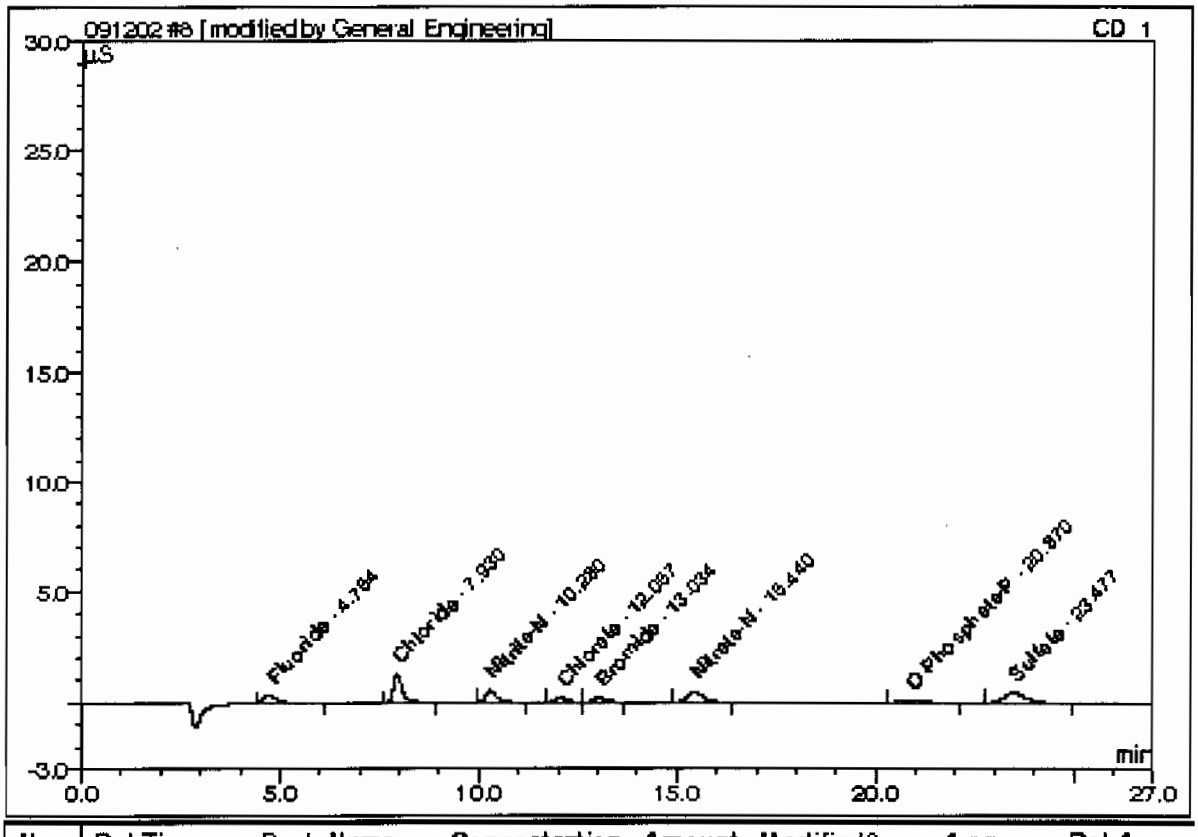

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.76	Fluoride	0.2500	0.3554	*	0.16704	12.48
2	7.93	Chloride	0.5000	0.8872		0.33283	24.87
3	10.28	Nitrite-N	0.2500	0.2917	*	0.16415	12.27
4	12.06	Chlorate	0.5000	0.4977		0.06334	4.73
5	13.03	Bromide	0.5000	0.4916		0.07093	5.30
6	15.44	Nitrate-N	0.2500	0.3116	*	0.20759	15.51
7	20.87	O-Phosphate-P	0.5000	0.4213	*	0.06081	4.54
8	23.48	Sulfate	1.0000	1.2356	*	0.27160	20.29
Total:				4.4722	0.000	1.338	100.00

6 AUTOCAL2

Sample Name:	AUTOCAL2	*Injection Volume:*	50.0
Vial Number:	9	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 21:04	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCB086;300;9056

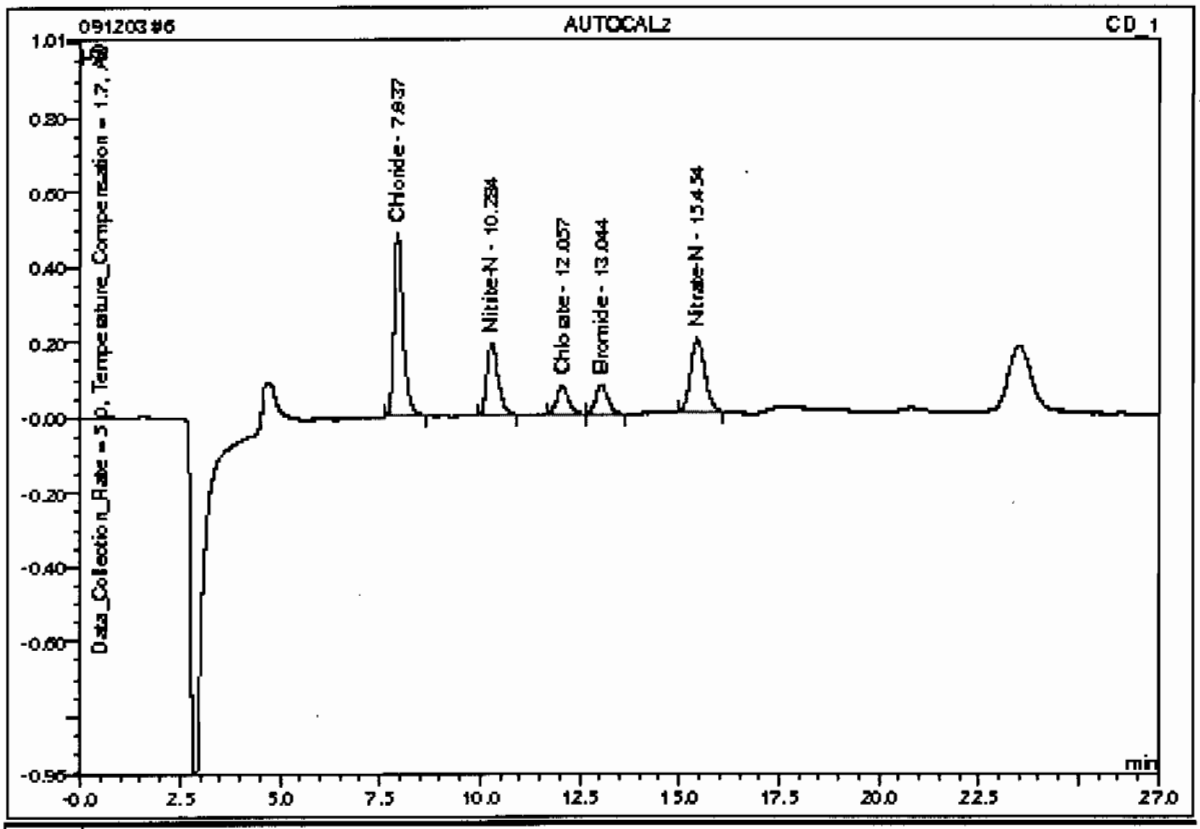

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	0.1000	n.a.	n.a.	n.a.	n.a.
1	7.94	Chloride	0.2000	0.3743		0.12619	39.29
2	10.28	Nitrite-N	0.1000	0.1640		0.06188	19.26
3	12.06	Chlorate	0.2000	0.2270		0.02599	8.09
4	13.04	Bromide	0.2000	0.2098		0.02783	8.66
5	15.45	Nitrate-N	0.1000	0.1829		0.07931	24.69
n.a.	n.a.	O-Phosphate-P	0.2000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	0.4000	n.a.	n.a.	n.a.	n.a.
Total:				1.1579	0.000	0.321	100.00

6 AUTOCAL2

Sample Name:	AUTOCAL2	*Injection Volume:*	50.0
Vial Number:	9	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202b	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 21:04	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

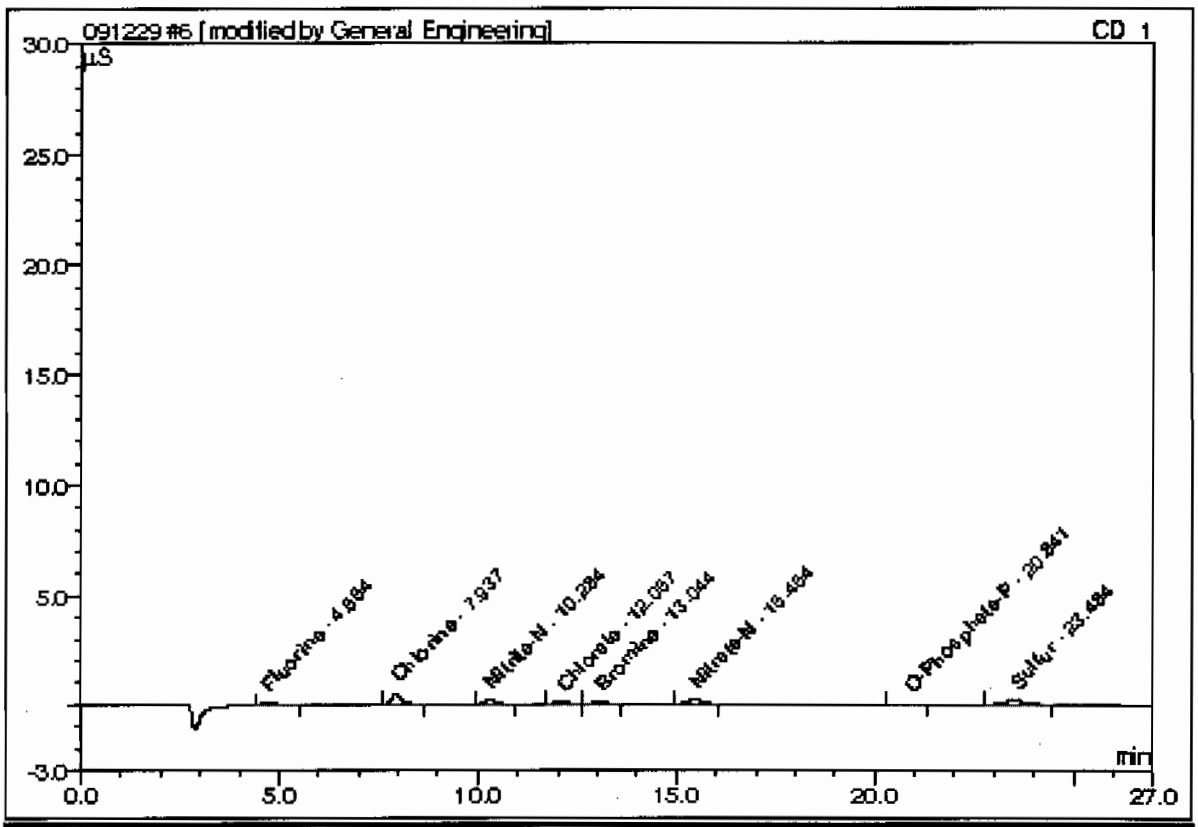

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.65	Fluorine	0.1000	0.1456	*	0.05494	11.22
2	7.94	Chlorine	0.2000	0.3743		0.12619	25.77
3	10.28	Nitrite-N	0.1000	0.1626		0.06188	12.64
4	12.06	Chlorate	0.2000	0.2270		0.02599	5.31
5	13.04	Bromine	0.2000	0.2098		0.02783	5.68
6	15.45	Nitrate-N	0.1000	0.1832		0.07931	16.20
7	20.84	O-Phosphate-P	0.2000	0.2082	*	0.00496	1.01
8	23.48	Sulfur	0.1333	0.2281	*	0.10850	22.16
Total:				1.7389	0.000	0.490	100.00

6 AUTOCAL2

Sample Name:	AUTOCAL2	*Injection Volume:*	50.0
Vial Number:	9	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	091202b	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 21:04	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

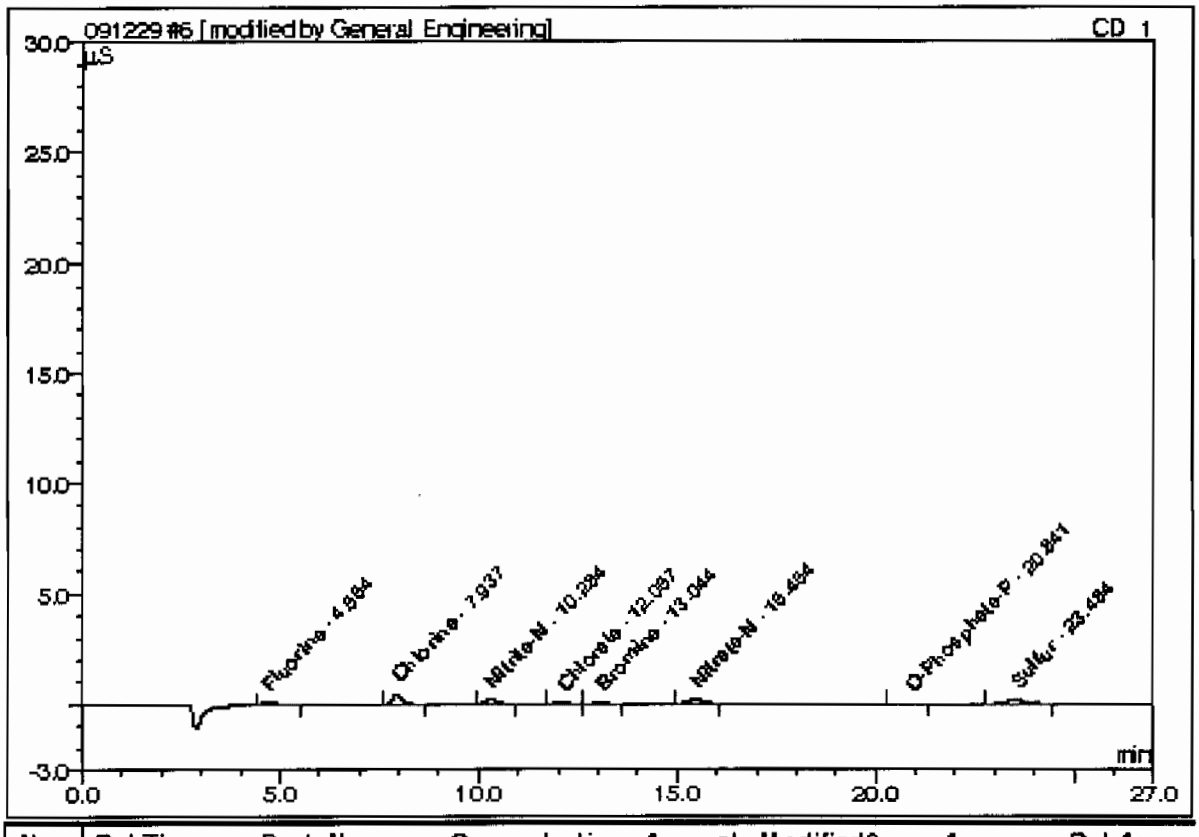

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.65	Fluorine	0.1000	0.1456	*	0.05494	11.22
2	7.94	Chlorine	0.2000	0.3743		0.12619	25.77
3	10.28	Nitrite-N	0.1000	0.1626		0.06188	12.64
4	12.06	Chlorate	0.2000	0.2270		0.02599	5.31
5	13.04	Bromine	0.2000	0.2098		0.02783	5.68
6	15.45	Nitrate-N	0.1000	0.1832		0.07931	16.20
7	20.84	O-Phosphate-P	0.2000	0.2082	*	0.00496	1.01
8	23.48	Sulfur	0.1333	0.2281	*	0.10850	22.16
Total:				1.7389	0.000	0.490	100.00

6 AUTOCAL2

Sample Name:	AUTOCAL2	*Injection Volume:*	50.0
Vial Number:	9	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202b	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 21:04	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GLGCB086;300;9056

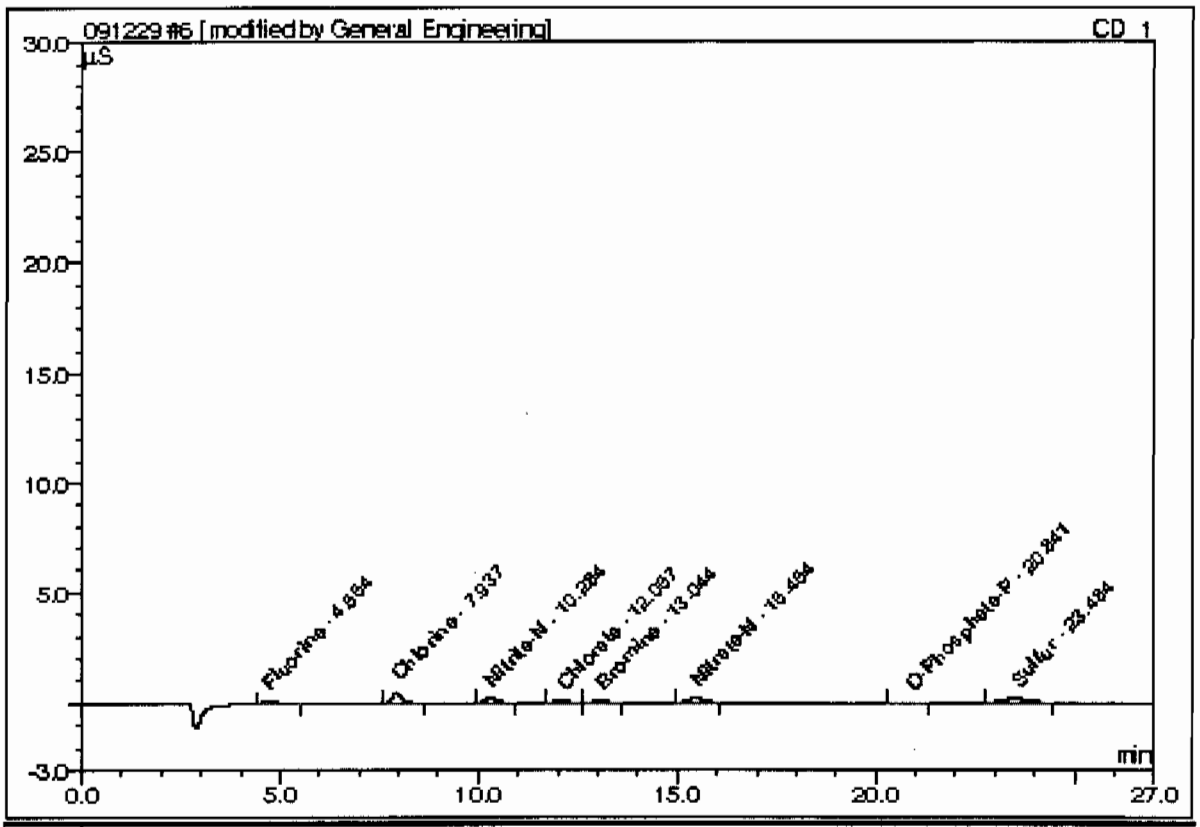

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.65	Fluorine	0.1000	0.1456	*	0.05494	11.22
2	7.94	Chlorine	0.2000	0.3743		0.12619	25.77
3	10.28	Nitrite-N	0.1000	0.1626		0.06188	12.64
4	12.06	Chlorate	0.2000	0.2270		0.02599	5.31
5	13.04	Bromine	0.2000	0.2098		0.02783	5.68
6	15.45	Nitrate-N	0.1000	0.1832		0.07931	16.20
7	20.84	O-Phosphate-P	0.2000	0.2082	*	0.00496	1.01
8	23.48	Sulfur	0.1333	0.2281	*	0.10850	22.16
Total:				1.7389	0.000	0.490	100.00

9 AUTOCAL2

Sample Name:	AUTOCAL2	*Injection Volume:*	50.0
Vial Number:	9	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight*	1.0000
Quantit. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 21:04	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

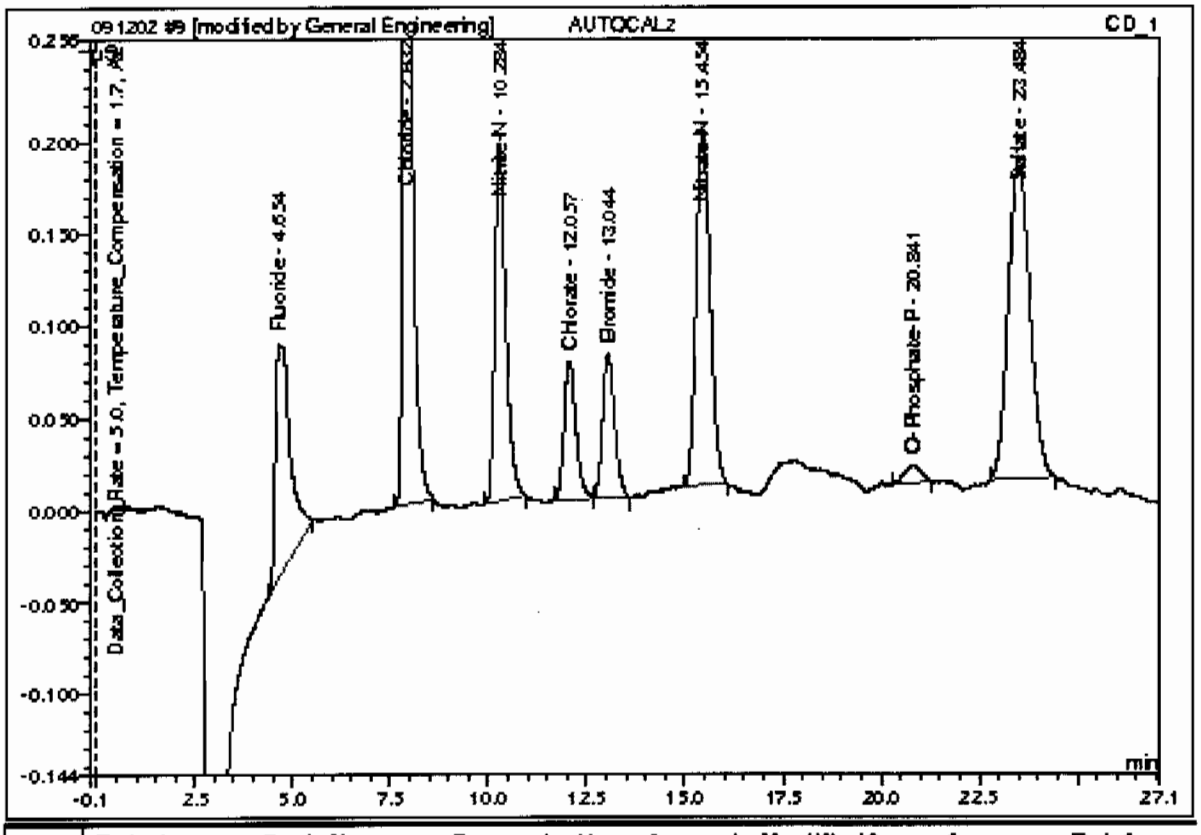

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.65	Fluoride	0.1000	0.1456	*	0.05494	11.22
2	7.94	Chloride	0.2000	0.3743		0.12619	25.77
3	10.28	Nitrite-N	0.1000	0.1626		0.06188	12.64
4	12.06	Chlorate	0.2000	0.2270		0.02599	5.31
5	13.04	Bromide	0.2000	0.2098		0.02783	5.68
6	15.45	Nitrate-N	0.1000	0.1832		0.07931	16.20
7	20.84	O-Phosphate-P	0.2000	0.2082	*	0.00496	1.01
8	23.48	Sulfate	0.4000	0.6844	*	0.10850	22.16
Total:				2.1952	0.000	0.490	100.00

9 AUTOCAL2

Sample Name:	AUTOCAL2	*Injection Volume:*	50.0
Vial Number:	9	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 21:04	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCB086;300;9056

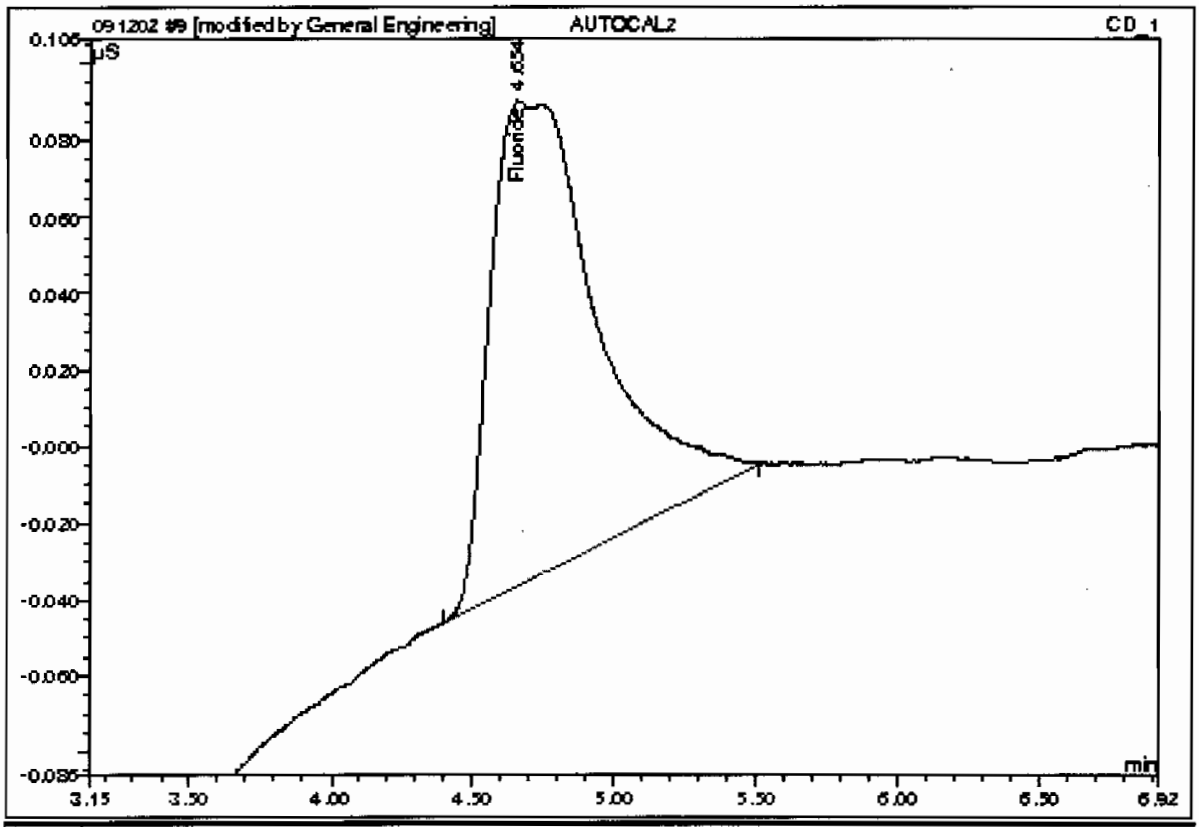

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.65	Fluoride	0.1000	0.1456	*	0.05494	11.22
2	7.94	Chloride	0.2000	0.3743		0.12619	25.77
3	10.28	Nitrite-N	0.1000	0.1626		0.06188	12.64
4	12.06	Chlorate	0.2000	0.2270		0.02599	5.31
5	13.04	Bromide	0.2000	0.2098		0.02783	5.68
6	15.45	Nitrate-N	0.1000	0.1832		0.07931	16.20
7	20.84	O-Phosphate-P	0.2000	0.2082	*	0.00496	1.01
8	23.48	Sulfate	0.4000	0.6844	*	0.10850	22.16
Total:				2.1952	0.000	0.490	100.00

9 AUTOCAL2

Sample Name:	AUTOCAL2	*Injection Volume:*	50.0
Vial Number:	9	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 21:04	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCB086;300;9056

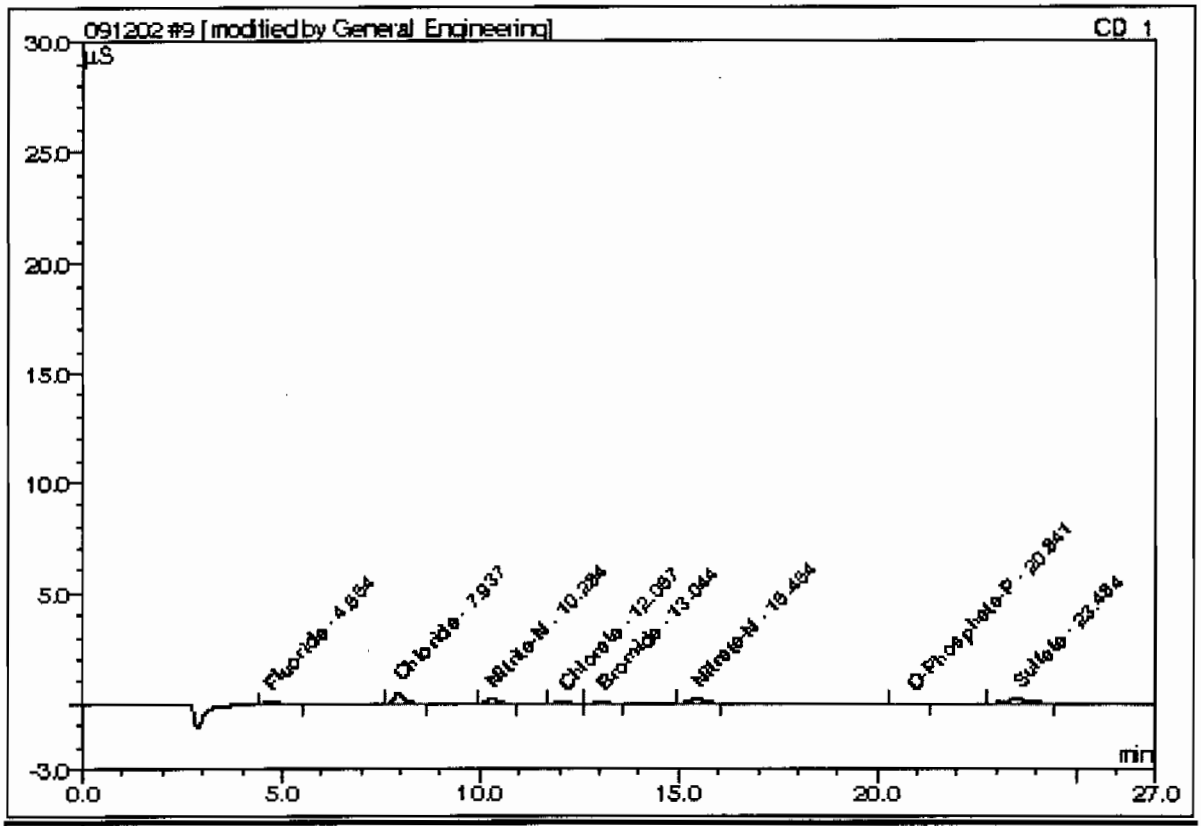

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.65	Fluoride	0.1000	0.1456	*	0.05494	11.22
2	7.94	Chloride	0.2000	0.3743		0.12619	25.77
3	10.28	Nitrite-N	0.1000	0.1626		0.06188	12.64
4	12.06	Chlorate	0.2000	0.2270		0.02599	5.31
5	13.04	Bromide	0.2000	0.2098		0.02783	5.68
6	15.45	Nitrate-N	0.1000	0.1832		0.07931	16.20
7	20.84	O-Phosphate-P	0.2000	0.2082	*	0.00496	1.01
8	23.48	Sulfate	0.4000	0.6844	*	0.10850	22.16
Total:				2.1952	0.000	0.490	100.00

9 AUTOCAL2

Sample Name:	AUTOCAL2	*Injection Volume:*	50.0
Vial Number:	9	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	091202b	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 21:04	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

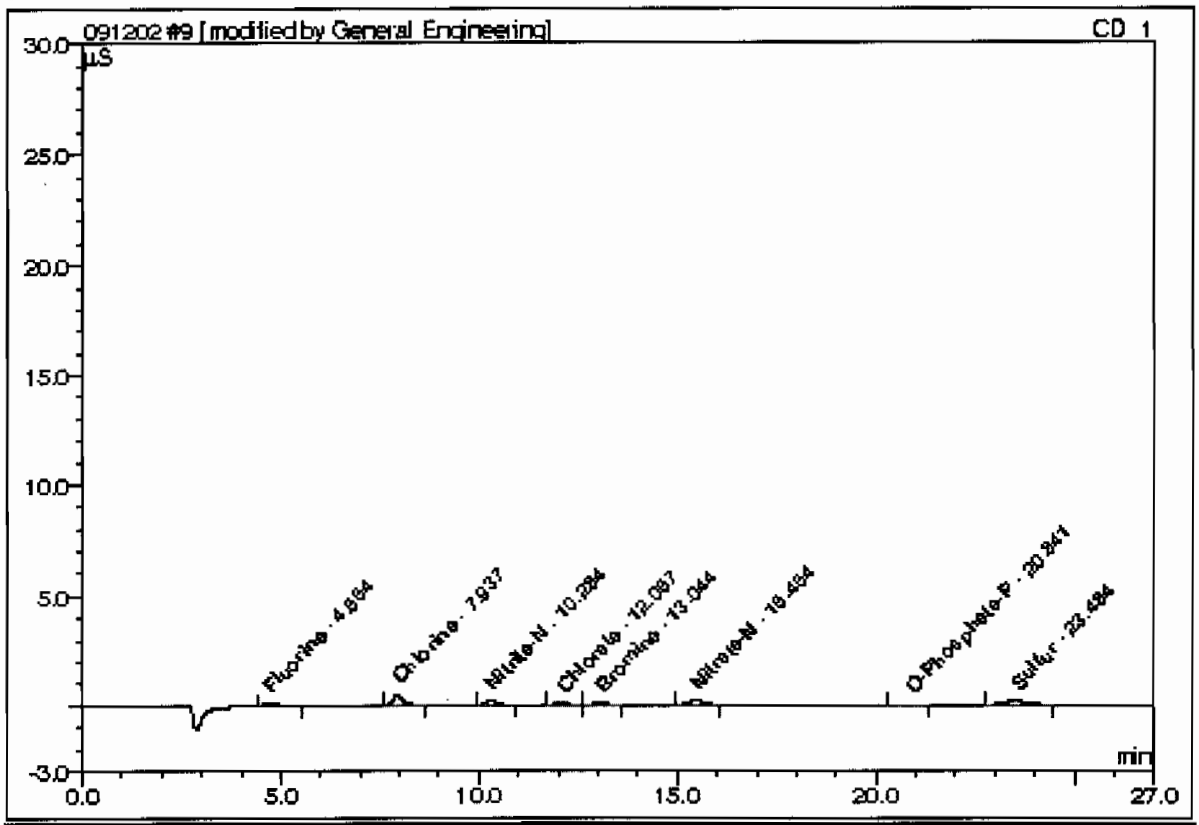

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.65	Fluorine	0.1000	0.1456	*	0.05494	11.22
2	7.94	Chlorine	0.2000	0.3743		0.12619	25.77
3	10.28	Nitrite-N	0.1000	0.1626		0.06188	12.64
4	12.06	Chlorate	0.2000	0.2270		0.02599	5.31
5	13.04	Bromine	0.2000	0.2098		0.02783	5.68
6	15.45	Nitrate-N	0.1000	0.1832		0.07931	16.20
7	20.84	O-Phosphate-P	0.2000	0.2082	*	0.00496	1.01
8	23.48	Sulfur	0.1333	0.2281	*	0.10850	22.16
Total:				1.7389	0.000	0.490	100.00

9 AUTOCAL2

Sample Name:	AUTOCAL2	*Injection Volume:*	50.0
Vial Number:	9	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 21:04	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GLGCE086;300;9056

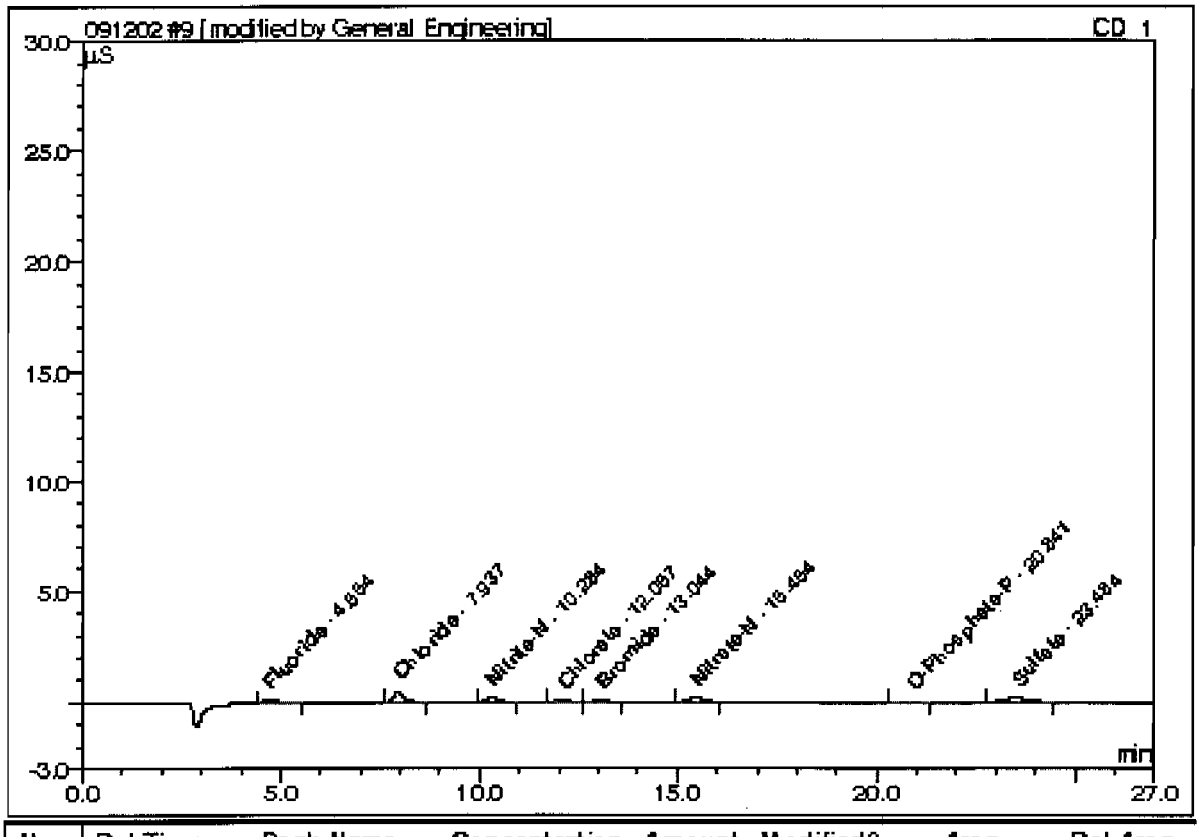

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.65	Fluoride	0.1000	0.1456	*	0.05494	11.22
2	7.94	Chloride	0.2000	0.3743		0.12619	25.77
3	10.28	Nitrite-N	0.1000	0.1626		0.06188	12.64
4	12.06	Chlorate	0.2000	0.2270		0.02599	5.31
5	13.04	Bromide	0.2000	0.2098		0.02783	5.68
6	15.45	Nitrate-N	0.1000	0.1832		0.07931	16.20
7	20.84	O-Phosphate-P	0.2000	0.2082	*	0.00496	1.01
8	23.48	Sulfate	0.4000	0.6844	*	0.10850	22.16
Total:				2.1952	0.000	0.490	100.00

13 AUTOCAL2

Sample Name:	AUTOCAL2	*Injection Volume:*	50.0
Vial Number:	9	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 21:04	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCB086;300;9056

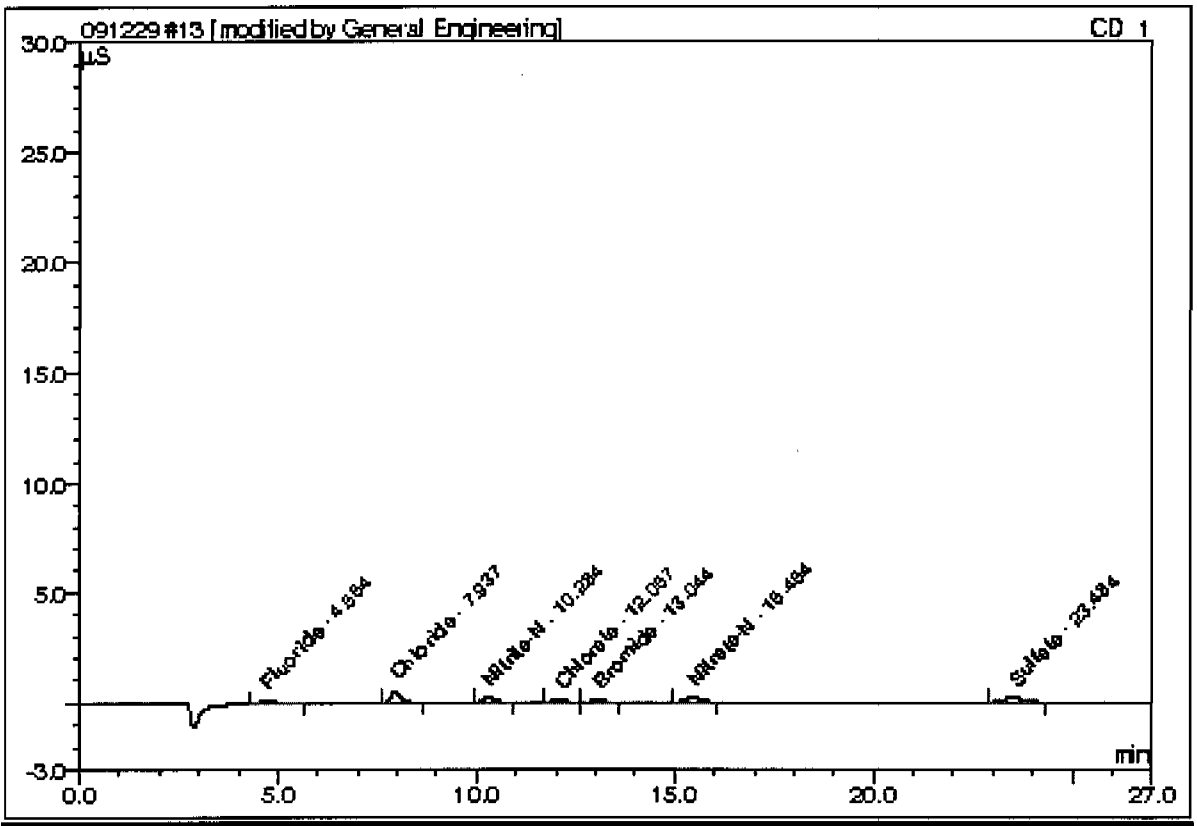

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.65	Fluoride	0.1000	0.1490	*	0.05925	12.21
2	7.94	Chloride	0.2000	0.3743		0.12619	26.01
3	10.28	Nitrite-N	0.1000	0.1640		0.06188	12.75
4	12.06	Chlorate	0.2000	0.2270		0.02599	5.36
5	13.04	Bromide	0.2000	0.2098		0.02783	5.73
6	15.45	Nitrate-N	0.1000	0.1829		0.07931	16.34
n.a.	n.a.	O-Phosphate-P	0.2000	n.a.	n.a.	n.a.	n.a.
7	23.48	Sulfate	0.4000	0.6952	*	0.10479	21.60
Total:				2.0022	0.000	0.485	100.00

13 AUTOCAL2

Sample Name:	AUTOCAL2	*Injection Volume:*	50.0
Vial Number:	9	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 21:04	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GLGCE086;300;9056

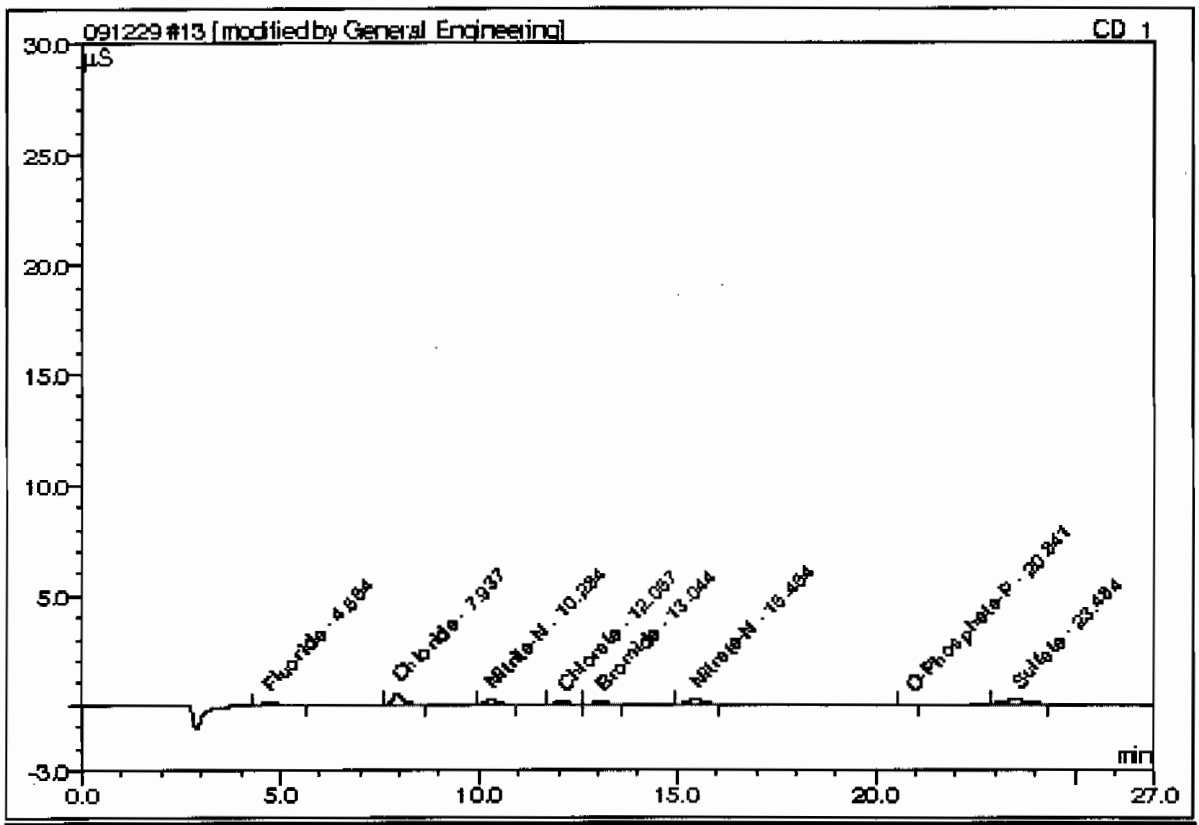

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.65	Fluoride	0.1000	0.1490	*	0.05925	12.18
2	7.94	Chloride	0.2000	0.3743		0.12619	25.93
3	10.28	Nitrite-N	0.1000	0.1640		0.06188	12.72
4	12.06	Chlorate	0.2000	0.2270		0.02599	5.34
5	13.04	Bromide	0.2000	0.2098		0.02783	5.72
6	15.45	Nitrate-N	0.1000	0.1829		0.07931	16.30
7	20.84	O-Phosphate-P	0.2000	0.2053	*	0.00133	0.27
8	23.48	Sulfate	0.4000	0.6952	*	0.10479	21.54
Total:				2.2075	0.000	0.487	100.00

13 AUTOCAL2

Sample Name:	AUTOCAL2	*Injection Volume:*	50.0
Vial Number:	9	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091221b	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 21:04	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

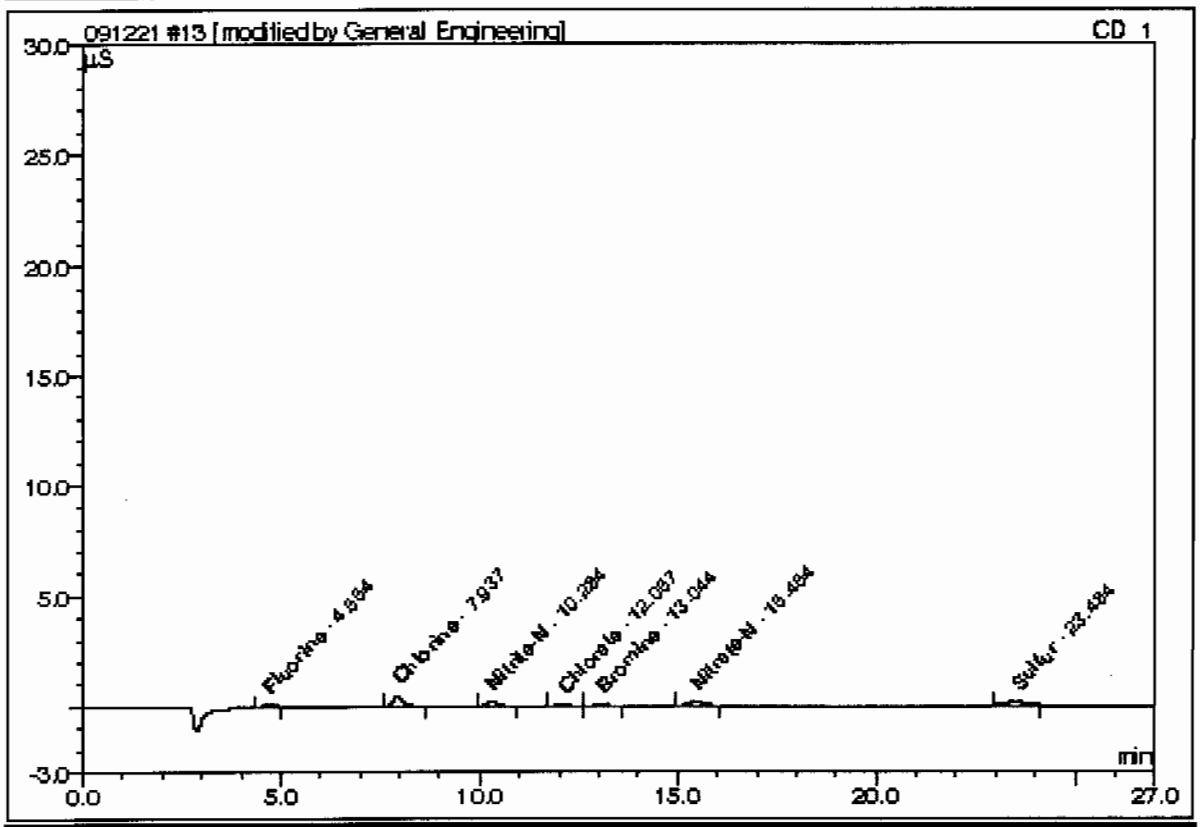

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.65	Fluorine	0.1000	0.1094	*	0.03286	7.37
2	7.94	Chlorine	0.2000	0.3743		0.12619	28.31
3	10.28	Nitrite-N	0.1000	0.1640		0.06188	13.88
4	12.06	Chlorate	0.2000	0.2270		0.02599	5.83
5	13.04	Bromine	0.2000	0.2098		0.02783	6.24
6	15.45	Nitrate-N	0.1000	0.1829		0.07931	17.79
n.a.	n.a.	O-Phosphate-P	0.2000	n.a.	n.a.	n.a.	n.a.
7	23.48	Sulfur	0.1333	0.5100	*	0.09173	20.58
Total:				1.7773	0.000	0.446	100.00

6 AUTOCAL2

Sample Name:	AUTOCAL2	*Injection Volume:*	50.0
Vial Number:	9	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 21:04	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

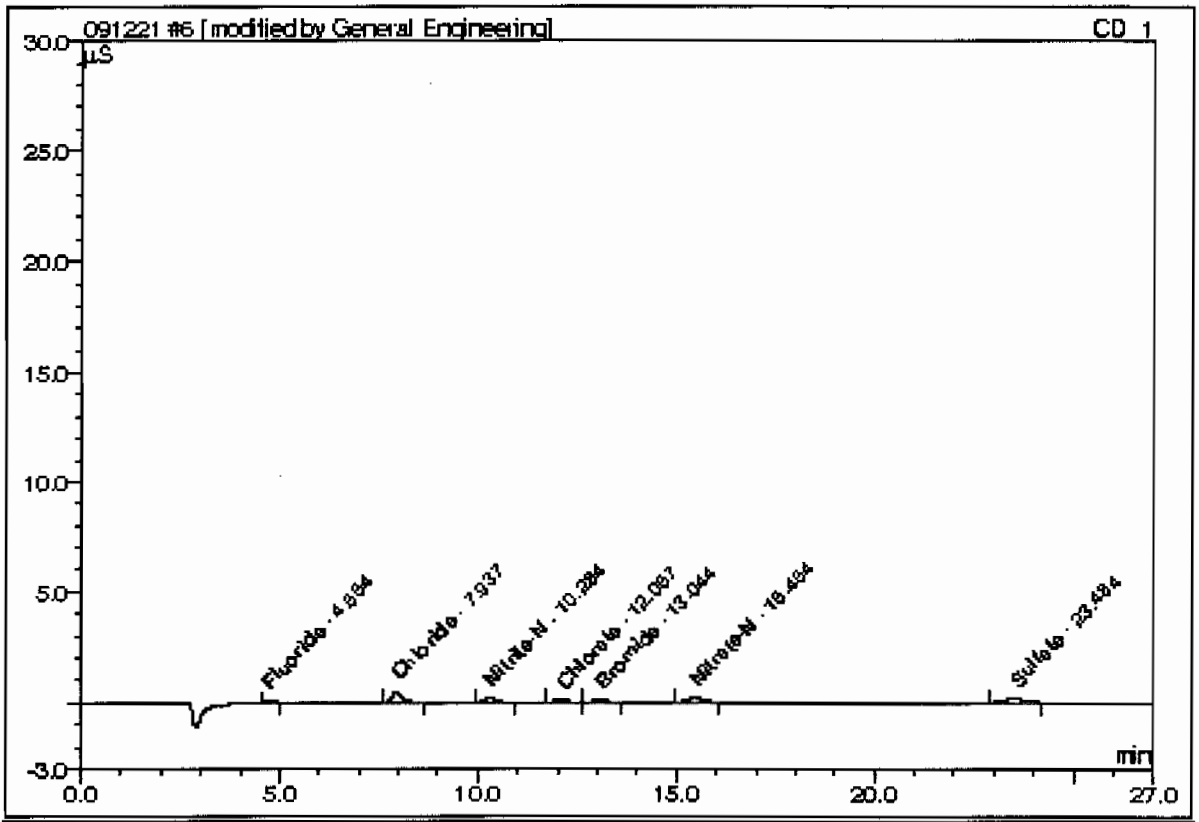

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.65	Fluoride	0.1000	0.0989	*	0.02588	5.82
2	7.94	Chloride	0.2000	0.3743		0.12619	28.38
3	10.28	Nitrite-N	0.1000	0.1640		0.06188	13.91
4	12.06	Chlorate	0.2000	0.2270		0.02599	5.85
5	13.04	Bromide	0.2000	0.2098		0.02783	6.26
6	15.45	Nitrate-N	0.1000	0.1829		0.07931	17.83
n.a.	n.a.	O-Phosphate-P	0.2000	n.a.	n.a.	n.a.	n.a.
7	23.48	Sulfate	0.4000	0.6760	*	0.09764	21.96
Total:				1.9328	0.000	0.445	100.00

9 AUTOCAL2

Sample Name:	AUTOCAL2	*Injection Volume:*	50.0
Vial Number:	9	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 21:04	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCB086;300;9056

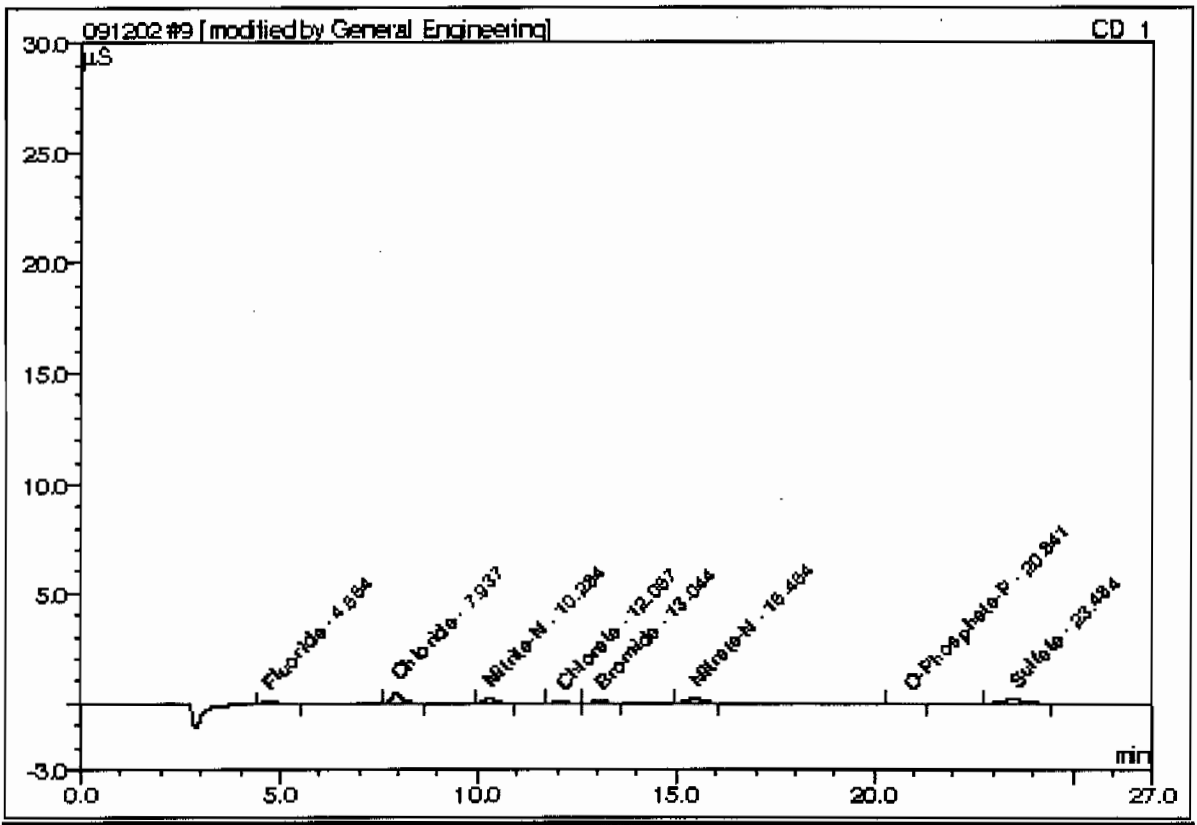

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.65	Fluoride	0.1000	0.1456	*	0.05494	11.22
2	7.94	Chloride	0.2000	0.3743		0.12619	25.77
3	10.28	Nitrite-N	0.1000	0.1626		0.06188	12.64
4	12.06	Chlorate	0.2000	0.2270		0.02599	5.31
5	13.04	Bromide	0.2000	0.2098		0.02783	5.68
6	15.45	Nitrate-N	0.1000	0.1832		0.07931	16.20
7	20.84	O-Phosphate-P	0.2000	0.2082	*	0.00496	1.01
8	23.48	Sulfate	0.4000	0.6844	*	0.10850	22.16
Total:				2.1952	0.000	0.490	100.00

74 AUTOCAL2

Sample Name:	AUTOCAL2	*Injection Volume:*	50.0
Vial Number:	9	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	091202b	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 21:04	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

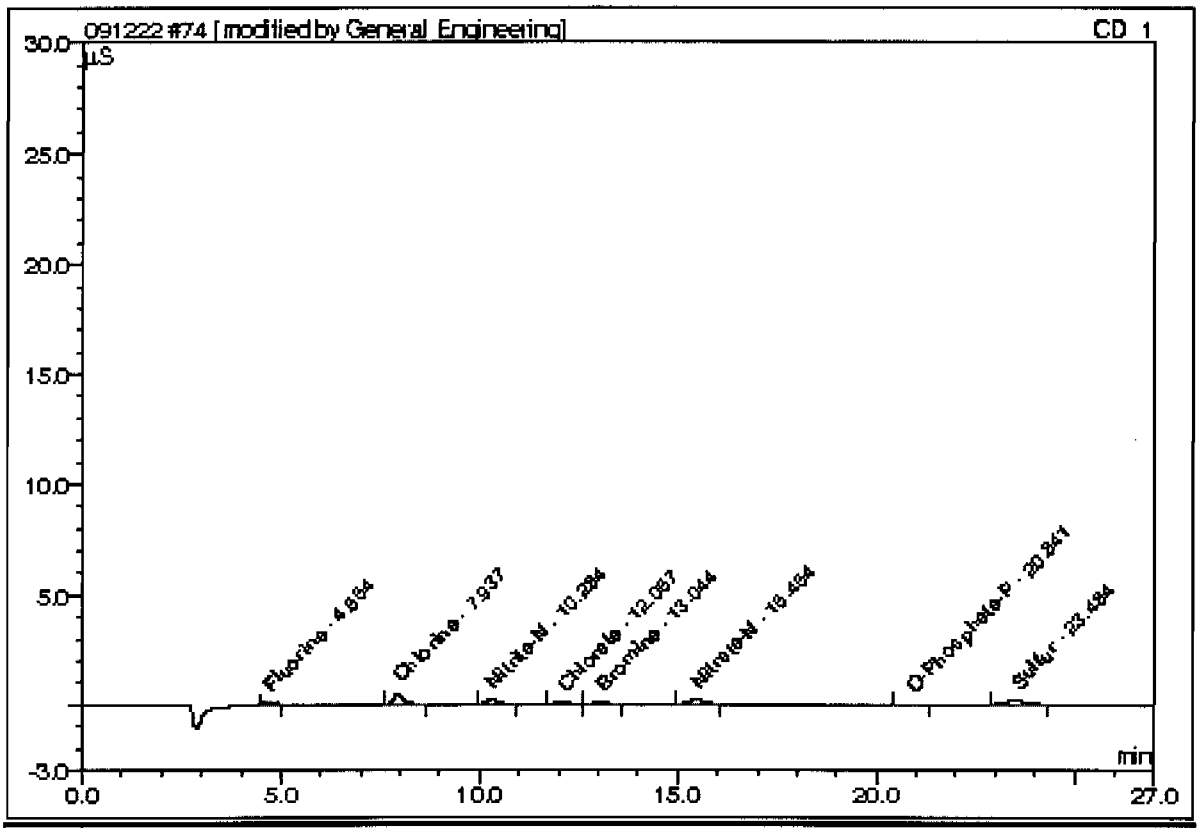

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.65	Fluorine	0.1000	0.1034	*	0.02890	6.30
2	7.94	Chlorine	0.2000	0.3743		0.12619	27.50
3	10.28	Nitrite-N	0.1000	0.1640		0.06188	13.48
4	12.06	Chlorate	0.2000	0.2270		0.02599	5.66
5	13.04	Bromine	0.2000	0.2098		0.02783	6.06
6	15.45	Nitrate-N	0.1000	0.1829		0.07931	17.28
7	20.84	O-Phosphate-P	0.2000	0.2135	*	0.00418	0.91
8	23.48	Sulfur	0.1333	0.6513	*	0.10462	22.80
Total:				2.1262	0.000	0.459	100.00

9 AUTOCAL2

Sample Name:	AUTOCAL2	*Injection Volume:*	50.0
Vial Number:	9	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 21:04	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

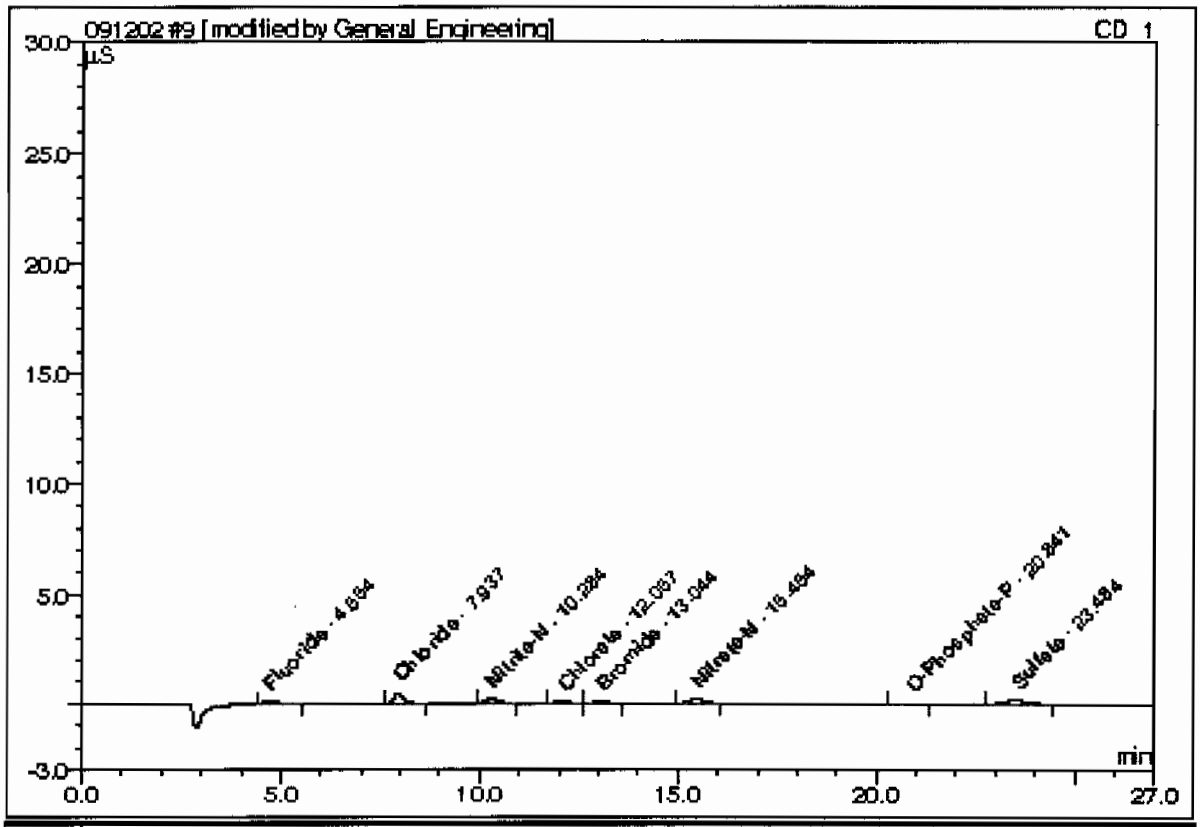

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.65	Fluoride	0.1000	0.1456	*	0.05494	11.22
2	7.94	Chloride	0.2000	0.3743		0.12619	25.77
3	10.28	Nitrite-N	0.1000	0.1626		0.06188	12.64
4	12.06	Chlorate	0.2000	0.2270		0.02599	5.31
5	13.04	Bromide	0.2000	0.2098		0.02783	5.68
6	15.45	Nitrate-N	0.1000	0.1832		0.07931	16.20
7	20.84	O-Phosphate-P	0.2000	0.2082	*	0.00496	1.01
8	23.48	Sulfate	0.4000	0.6844	*	0.10850	22.16
Total:				2.1952	0.000	0.490	100.00

9 AUTOCAL2

Sample Name:	AUTOCAL2	*Injection Volume:*	50.0
Vial Number:	9	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 21:04	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCB086;300;9056

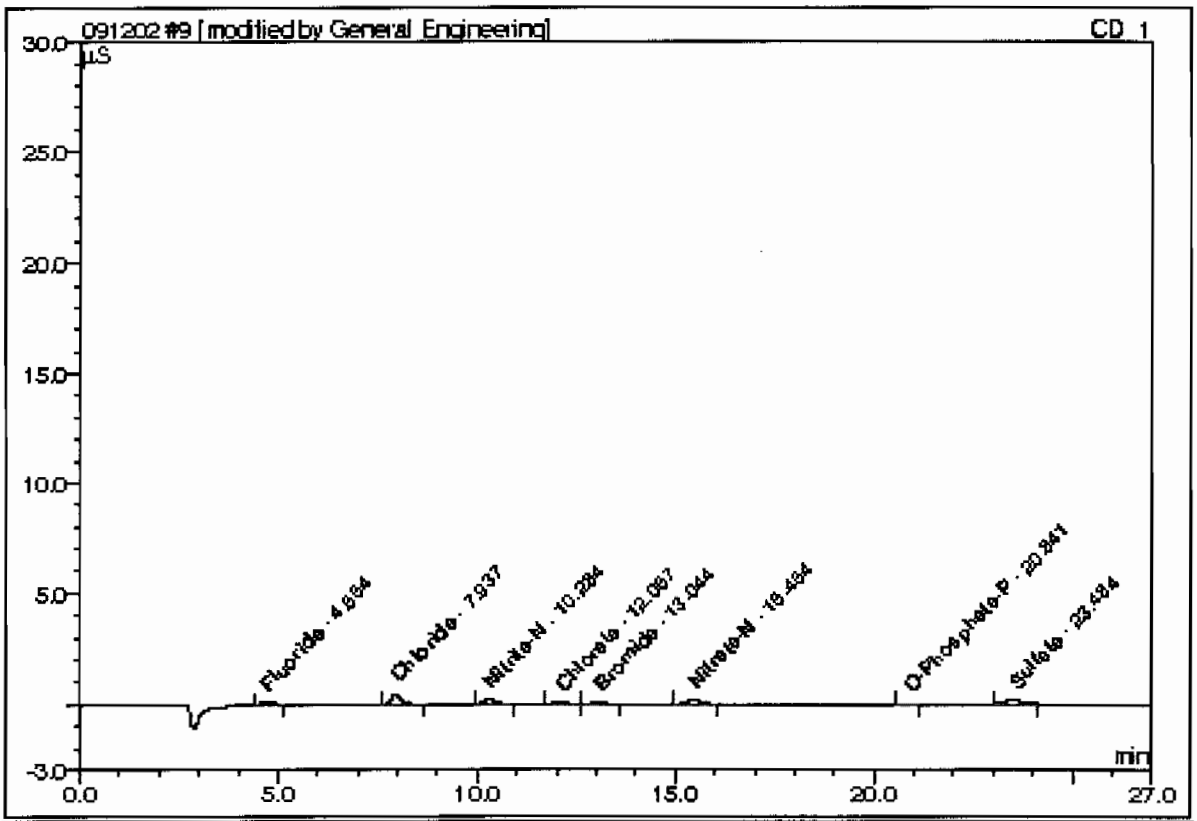

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.65	Fluoride	0.1000	0.1231	*	0.04201	9.23
2	7.94	Chloride	0.2000	0.3743		0.12619	27.73
3	10.28	Nitrite-N	0.1000	0.1640		0.06188	13.60
4	12.06	Chlorate	0.2000	0.2270		0.02599	5.71
5	13.04	Bromide	0.2000	0.2098		0.02783	6.12
6	15.45	Nitrate-N	0.1000	0.1829		0.07931	17.43
7	20.84	O-Phosphate-P	0.2000	0.2070	*	0.00191	0.42
8	23.48	Sulfate	0.4000	0.6551	*	0.08988	19.75
Total:				2.1431	0.000	0.455	100.00

9 AUTOCAL2

Sample Name:	AUTOCAL2	*Injection Volume:*	50.0
Vial Number:	9	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 21:04	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCB086;300;9056

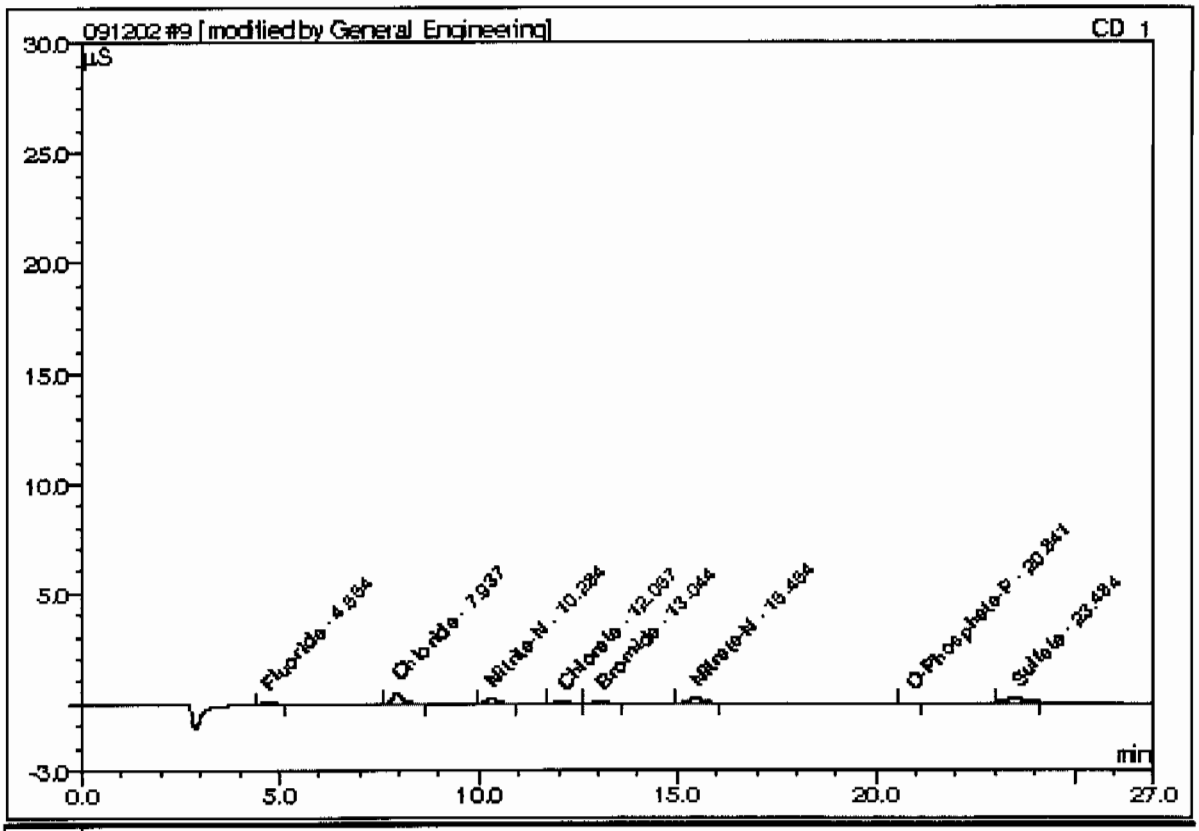

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.65	Fluoride	0.1000	0.1251	*	0.04330	9.49
2	7.94	Chloride	0.2000	0.3743		0.12619	27.66
3	10.28	Nitrite-N	0.1000	0.1640		0.06188	13.56
4	12.06	Chlorate	0.2000	0.2270		0.02599	5.70
5	13.04	Bromide	0.2000	0.2098		0.02783	6.10
6	15.45	Nitrate-N	0.1000	0.1829		0.07931	17.38
7	20.84	O-Phosphate-P	0.2000	0.2070	*	0.00191	0.42
8	23.48	Sulfate	0.4000	0.6551	*	0.08988	19.70
Total:				2.1451	0.000	0.456	100.00

9 AUTOCAL2

Sample Name:	AUTOCAL2	*Injection Volume:*	50.0
Vial Number:	9	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 21:04	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

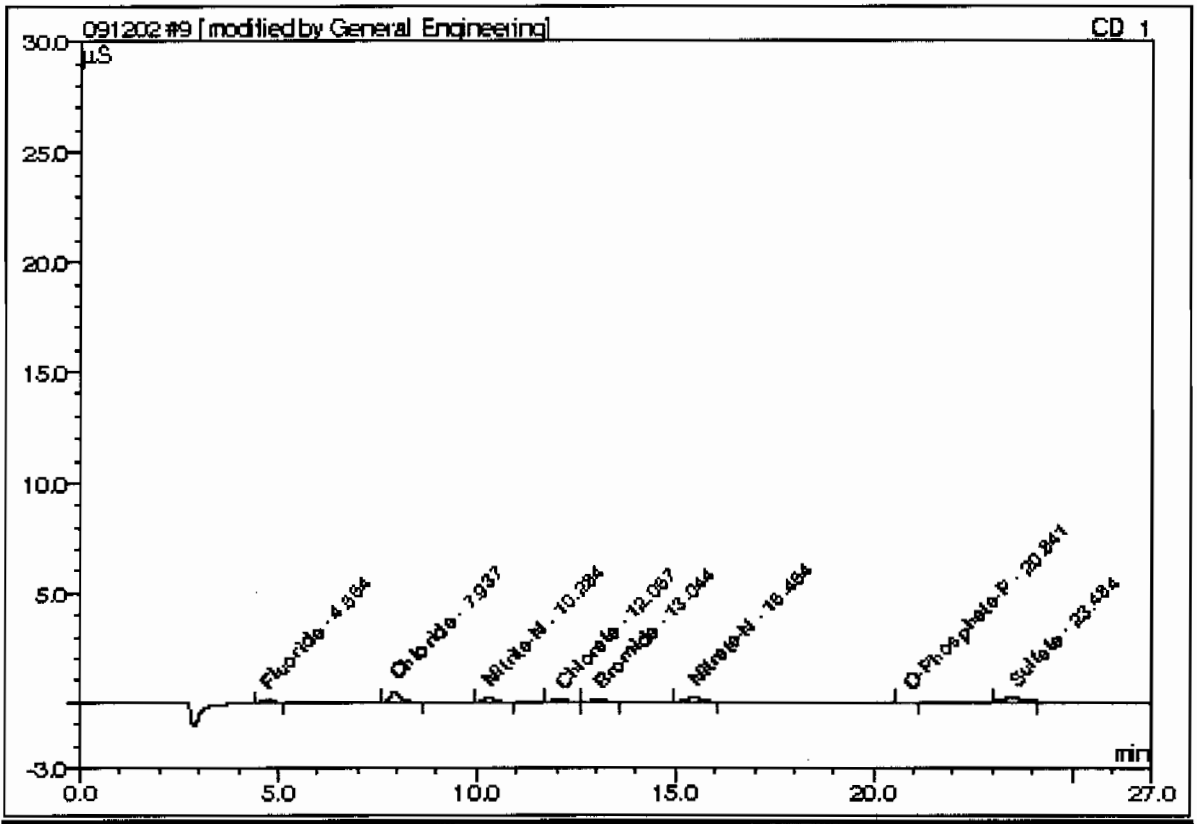

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.65	Fluoride	0.1000	0.1251	*	0.04330	9.49
2	7.94	Chloride	0.2000	0.3743		0.12619	27.66
3	10.28	Nitrite-N	0.1000	0.1640		0.06188	13.56
4	12.06	Chlorate	0.2000	0.2270		0.02599	5.70
5	13.04	Bromide	0.2000	0.2098		0.02783	6.10
6	15.45	Nitrate-N	0.1000	0.1829		0.07931	17.38
7	20.84	O-Phosphate-P	0.2000	0.2070	*	0.00191	0.42
8	23.48	Sulfate	0.4000	0.6551	*	0.08988	19.70
Total:				2.1451	0.000	0.456	100.00

7 AUTOCAL1

Sample Name:	AUTOCAL1	*Injection Volume:*	50.0
Vial Number:	10	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202b	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 21:33	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GLGCB086;300;9056

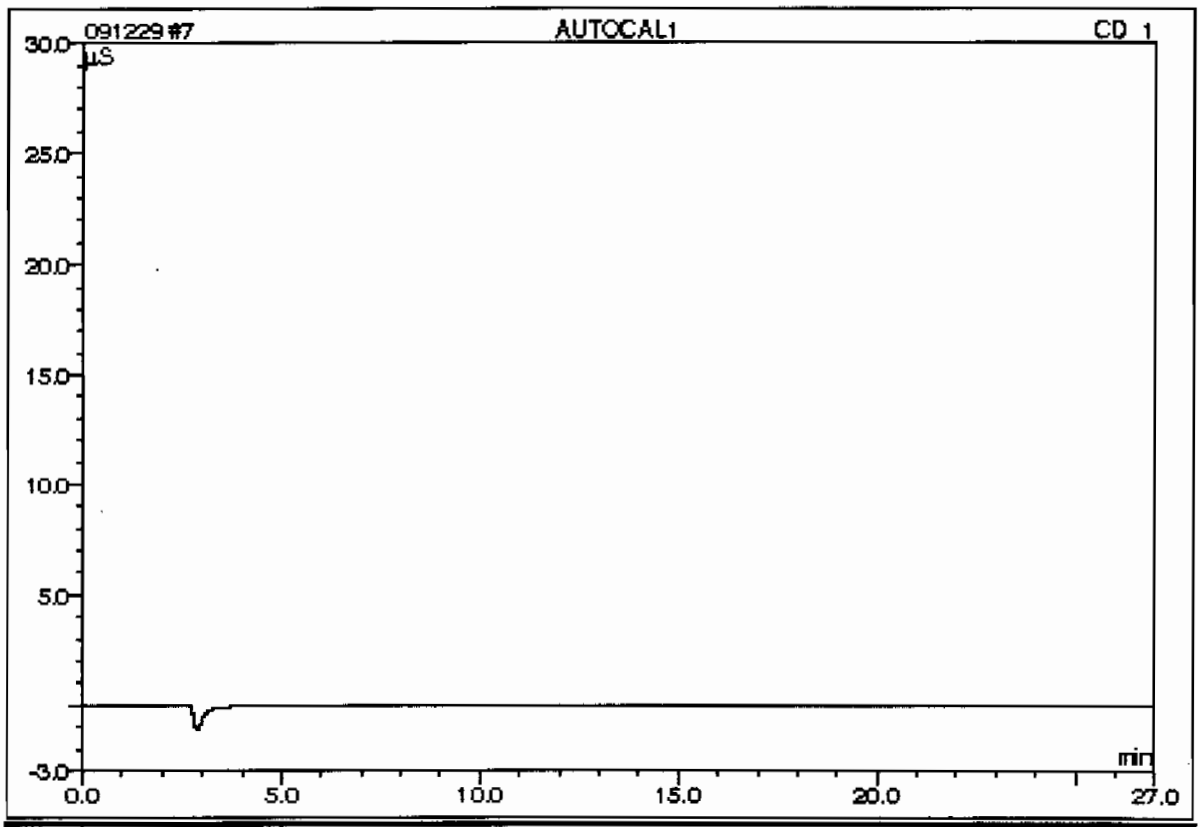

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluorine	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorine	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromine	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfur	0.0000	n.a.	n.a.	n.a.	n.a.
Total:				0.0000	0.000	0.000	0.00

10 AUTOCAL1

Sample Name:	**AUTOCAL1**	*Injection Volume:*	**50.0**
Vial Number:	**10**	*Channel:*	**CD_1**
Sample Type:	**standard**	*Dilution Factor:*	**1.0000**
Control Program:	**AS23**	*Sample Weight:*	**1.0000**
Quantif. Method:	**091202an**	*Sample Amount:*	**1.0000**
Recording Time:	**12/2/2009 21:33**	Analyst:	**GXM3**
Run Time (min):	**27.00**	Column:	**AS23-002593;GLGCE086;300;9056**

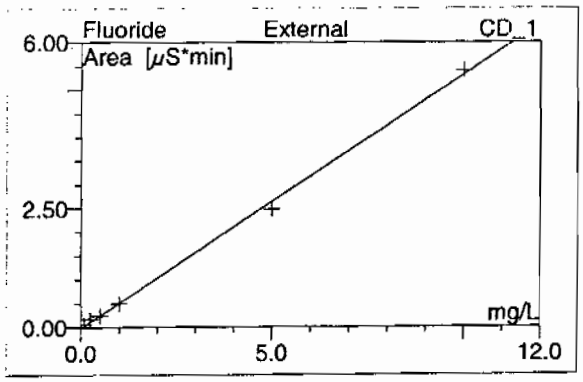

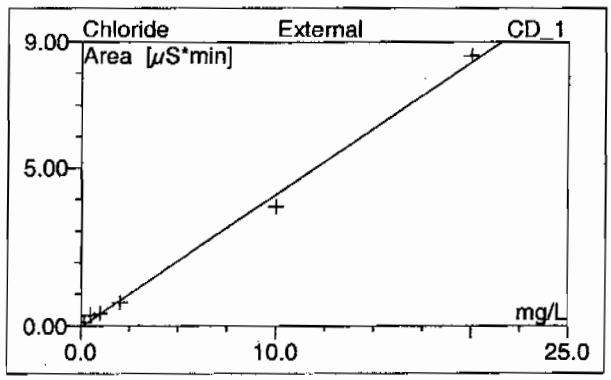

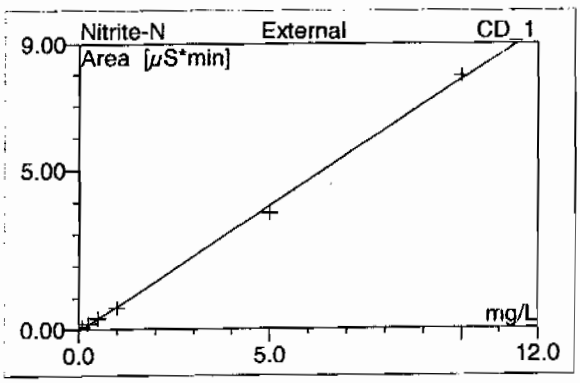

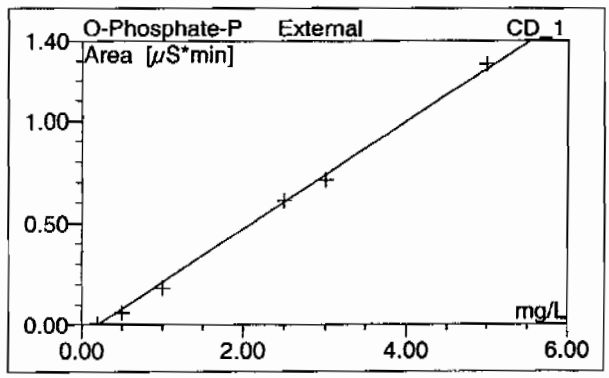

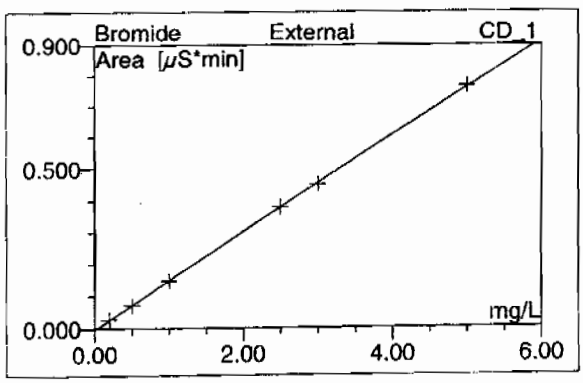

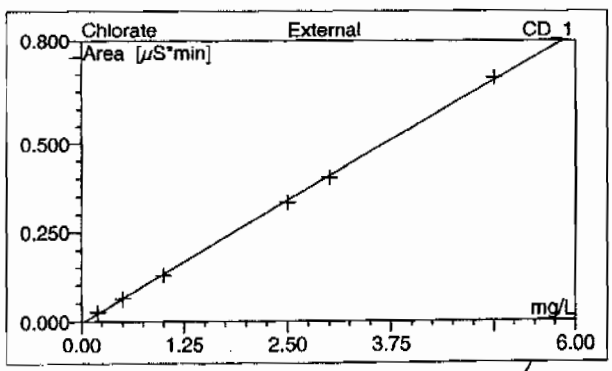

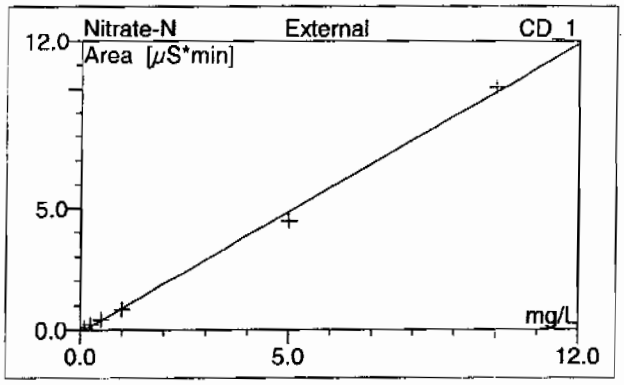

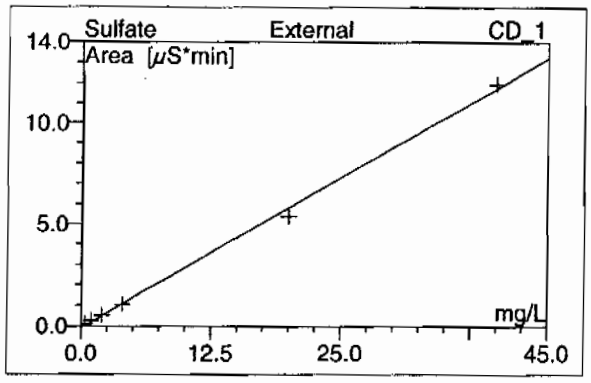

No. CD_1	Ret.Time CD_1 min	Peak Name CD_1	Cal.Type CD_1	Coeff.Det. CD_1 %	Offset CD_1	Slope CD_1	Curve CD_1
n.a.	n.a.	Fluoride	0LOff	99.8273	-0.0229	0.5344	0.0000
n.a.	n.a.	Chloride	0LOff	99.5938	-0.0307	0.4192	0.0000
n.a.	n.a.	Nitrite-N	0LOff	99.8541	-0.0670	0.7923	0.0000
n.a.	n.a.	Chlorate	0LOff	99.9539	-0.0053	0.1380	0.0000
n.a.	n.a.	Bromide	0LOff	99.9837	-0.0043	0.1529	0.0000
n.a.	n.a.	Nitrate-N	0LOff	99.7226	-0.1037	0.9989	0.0000
n.a.	n.a.	O-Phosphate-P	0LOff	99.7900	-0.0496	0.2621	0.0000
n.a.	n.a.	Sulfate	0LOff	99.7713	-0.0940	0.2959	0.0000
Average:				99.8121	-0.0472	0.4492	0.0000

12/10/09

11 WIC091202-02ICV

Sample Name:	WIC091202-02ICV	*Injection Volume:*	50.0
Vial Number:	11	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 22:03	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GLGCED86;300;9056

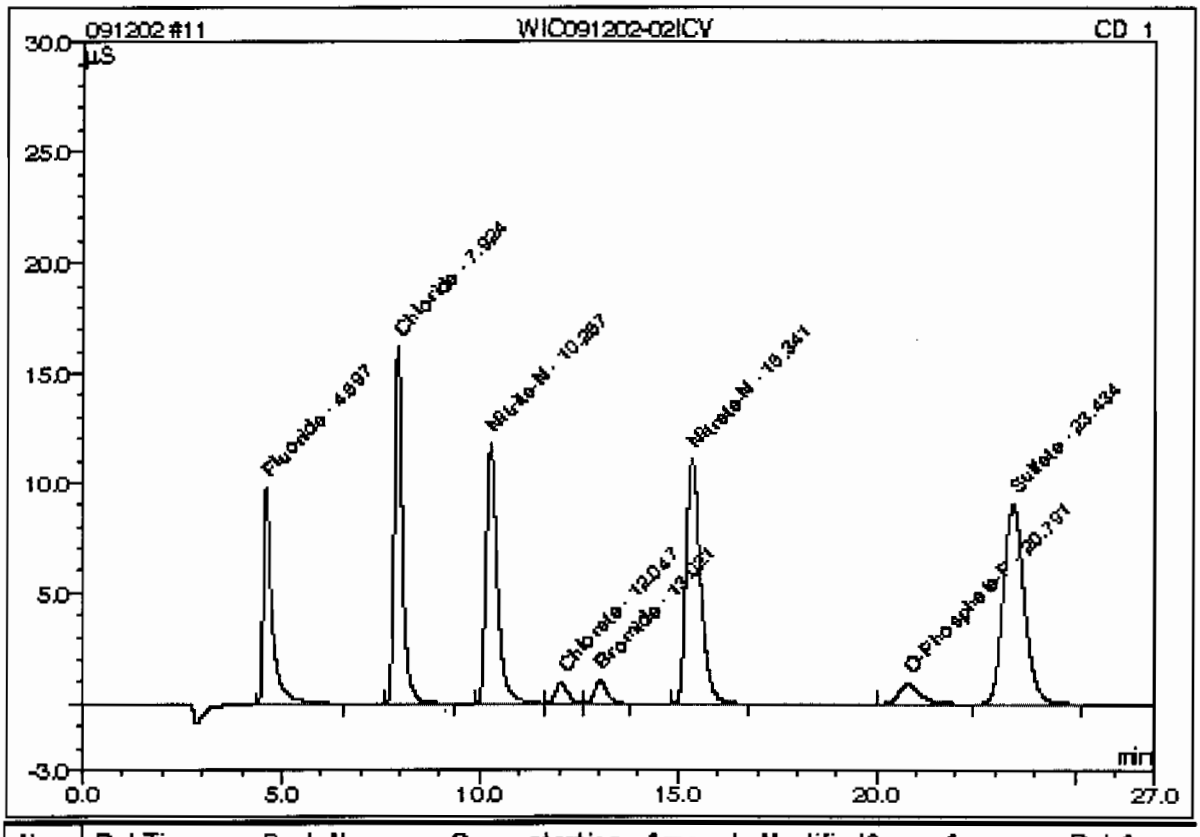

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.60	Fluoride	n.a.	4.7181		2.49838	11.68
2	7.92	Chloride	n.a.	9.2590		3.85054	18.00
3	10.27	Nitrite-N	n.a.	4.7805		3.72071	17.39
4	12.05	Chlorate	n.a.	2.4809		0.33694	1.57
5	13.02	Bromide	n.a.	2.4387		0.36874	1.72
6	15.34	Nitrate-N	n.a.	4.6791		4.57041	21.36
7	20.79	O-Phosphate-P	n.a.	2.4024		0.57999	2.71
8	23.43	Sulfate	n.a.	18.7982		5.46821	25.56
Total:				49.5569	0.000	21.394	100.00

12 ICB

Sample Name:	ICB	*Injection Volume:*	50.0
Vial Number:	12	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 22:33	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCB086;300;9056

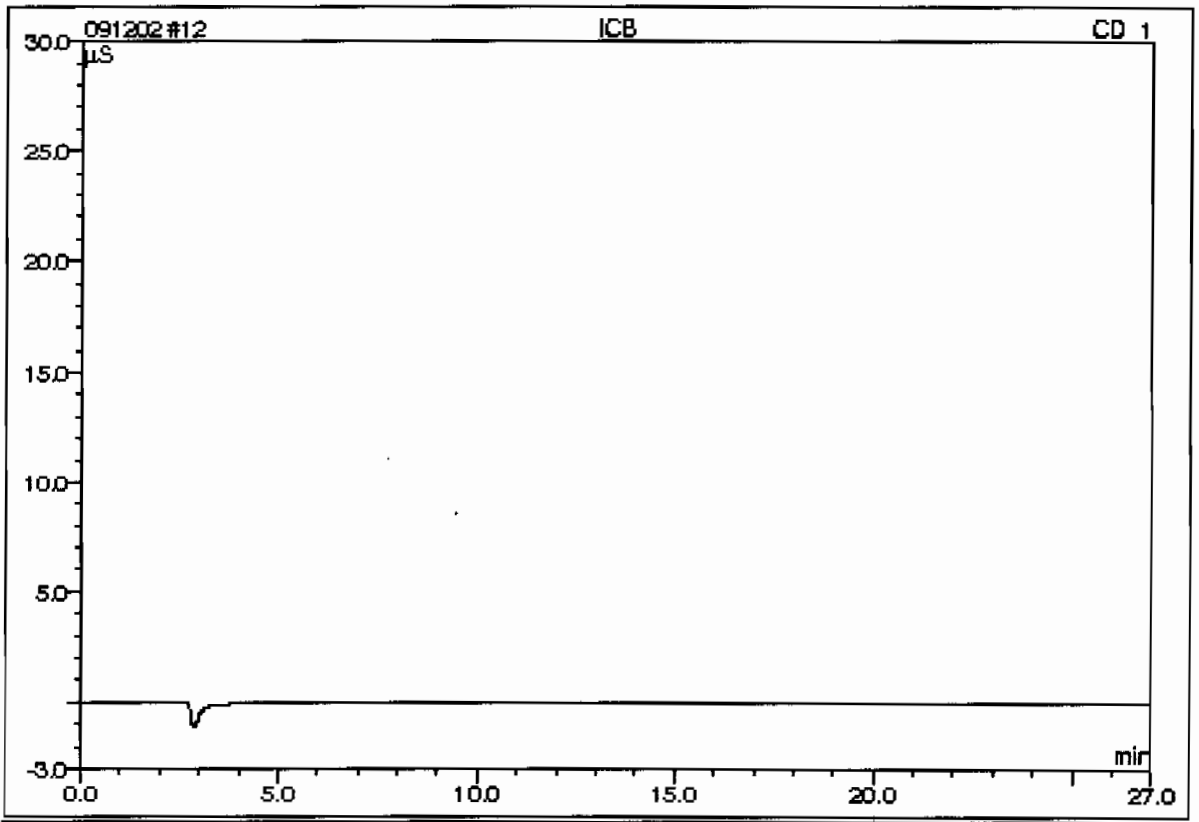

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.
Total:				0.0000	0.000	0.000	0.00

This is runlog for Sequence 091230.seq for IC7

Sample ID	Run Time	Batch	Dilution	Dataset	Analyst
BLK	12/30/09 09:12		1	091230	GXM3
ICV	12/30/09 09:41		1	091230	GXM3
ICB	12/30/09 10:10		1	091230	GXM3
1202006405	12/30/09 10:55	937622	1	091230	GXM3
1202006406	12/30/09 11:24	937622	1	091230	GXM3
243608001	12/30/09 11:55	937622	1	091230	GXM3
243621001	12/30/09 12:28	937622	1	091230	GXM3
1202006407	12/30/09 14:29	937622	1	091230	GXM3
1202006408	12/30/09 14:58	937622	1	091230	GXM3
CCV	12/30/09 15:28		1	091230	GXM3
CCB	12/30/09 15:58		1	091230	GXM3
1202006799	12/30/09 16:28	937795	1	091230	GXM3
1202006800	12/30/09 16:58	937795	1	091230	GXM3
242475001	12/30/09 17:28	937795	1	091230	GXM3
1202006801	12/30/09 17:57	937795	1	091230	GXM3
1202007236	12/30/09 18:27	937795	1	091230	GXM3
CCV	12/30/09 18:57		1	091230	GXM3
CCB	12/30/09 19:27		1	091230	GXM3
1202005650	12/30/09 19:57	937289	1	091230	GXM3
1202005654	12/30/09 20:27	937289	1	091230	GXM3
1202005655	12/30/09 20:57	937289	1	091230	GXM3
243476001	12/30/09 21:27	937289	200	091230	GXM3
CVH	12/30/09 21:57		1	091230	GXM3
CCB	12/30/09 22:27		1	091230	GXM3
1201996196	12/30/09 22:57	932802	1	091230	GXM3
1201996200	12/30/09 23:26	932802	1	091230	GXM3
242743002	12/30/09 23:56	932802	1	091230	GXM3

16 WIC091230-02ICV

Sample Name:	WIC091230-02ICV	*Injection Volume:*	50.0
Vial Number:	2	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/30/2009 9:41	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCB086;300;9056

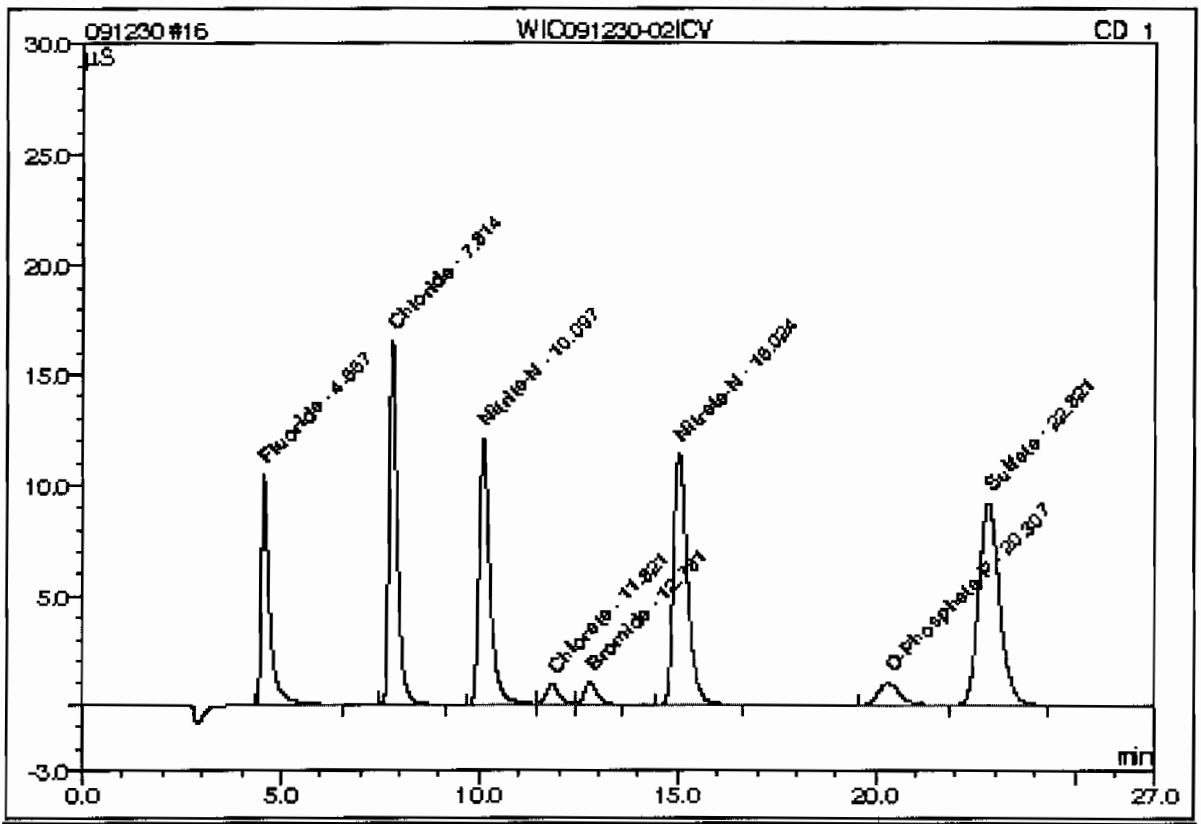

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.57	Fluoride	n.a.	4.8285		2.53586	11.58
2	7.81	Chloride	n.a.	9.4070		3.91255	17.86
3	10.10	Nitrite-N	n.a.	4.8938		3.80996	17.39
4	11.82	Chlorate	n.a.	2.4697		0.33540	1.53
5	12.78	Bromide	n.a.	2.4073		0.36393	1.66
6	15.02	Nitrate-N	n.a.	4.8244		4.70596	21.49
7	20.31	O-Phosphate-P	n.a.	2.7527		0.66246	3.02
8	22.82	Sulfate	n.a.	19.1866		5.57700	25.46
Total:				50.7699	0.000	21.903	100.00

17 ICB

Sample Name:	ICB	*Injection Volume:*	50.0
Vial Number:	3	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/30/2009 10:10	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCB086;300;9056

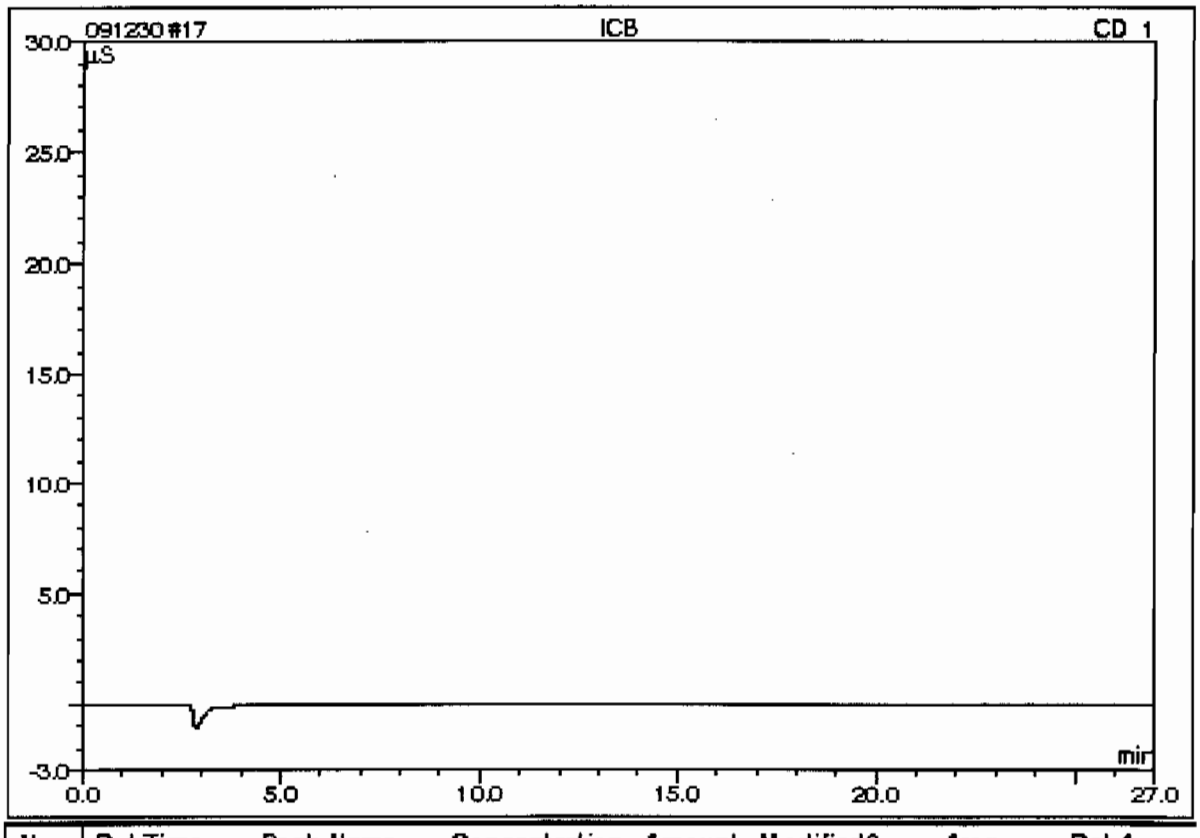

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.
Total:				0.0000	0.000	0.000	0.00

This is runlog for Sequence 091230.seq for IC7

Sample ID	Run Time	Batch	Dilution	Dataset	Analyst
1201996197	12/31/09 00:26	932802	1	091230	GXM3
1201996198	12/31/09 00:56	932802	1	091230	GXM3
1201996199	12/31/09 01:26	932802	1	091230	GXM3
242748001	12/31/09 01:56	932802	1	091230	GXM3
242748002	12/31/09 02:26	932802	1	091230	GXM3
242791001	12/31/09 02:56	932802	1	091230	GXM3
242791002	12/31/09 03:26	932802	1	091230	GXM3
CCV	12/31/09 03:56		1	091230	GXM3
CCB	12/31/09 04:25		1	091230	GXM3
242792001	12/31/09 04:55	932802	1	091230	GXM3
242792002	12/31/09 05:25	932802	1	091230	GXM3
CVH	12/31/09 05:55		1	091230	GXM3
CCB	12/31/09 06:25		1	091230	GXM3
1202002223	12/31/09 06:55	935749	1	091230	GXM3
1202002230	12/31/09 07:25	935749	1	091230	GXM3
243031001	12/31/09 07:55	935749	1	091230	GXM3
1202002224	12/31/09 08:25	935749	1	091230	GXM3
1202002226	12/31/09 08:55	935749	1	091230	GXM3
1202002228	12/31/09 09:25	935749	1	091230	GXM3
243031002	12/31/09 09:54	935749	1	091230	GXM3
243031003	12/31/09 10:24	935749	1	091230	GXM3
243031004	12/31/09 10:54	935749	1	091230	GXM3
243031005	12/31/09 11:24	935749	1	091230	GXM3
CCV	12/31/09 11:54		1	091230	GXM3
CCB	12/31/09 12:23		1	091230	GXM3
243031006	12/31/09 12:53	935749	1	091230	GXM3
243031007	12/31/09 13:23	935749	1	091230	GXM3
243031008	12/31/09 13:53	935749	1	091230	GXM3

243031009	12/31/09	14:23	935749	1	091230	GXM3
243031010	12/31/09	14:53	935749	1	091230	GXM3
243031011	12/31/09	15:23	935749	1	091230	GXM3
243031012	12/31/09	15:53	935749	1	091230	GXM3
243031013	12/31/09	16:23	935749	1	091230	GXM3
243031014	12/31/09	16:53	935749	1	091230	GXM3
CVH	12/31/09	17:22		1	091230	GXM3
CCB	12/31/09	17:52		1	091230	GXM3
243031015	12/31/09	18:22	935749	1	091230	GXM3
243031016	12/31/09	18:52	935749	1	091230	GXM3
243031017	12/31/09	19:22	935749	1	091230	GXM3
243031018	12/31/09	19:52	935749	1	091230	GXM3
243031019	12/31/09	20:22	935749	1	091230	GXM3
243031020	12/31/09	20:52	935749	1	091230	GXM3
1202002225	12/31/09	21:22	935749	1	091230	GXM3
1202002227	12/31/09	21:52	935749	1	091230	GXM3
1202002229	12/31/09	22:21	935749	1	091230	GXM3
CCV	12/31/09	22:51		1	091230	GXM3
CCB	12/31/09	23:21		1	091230	GXM3
1202004081	12/31/09	23:51	936627	1	091230	GXM3

87 WIC091230-02CCV

Sample Name:	WIC091230-02CCV	*Injection Volume:*	50.0
Vial Number:	16	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/31/2009 22:51	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

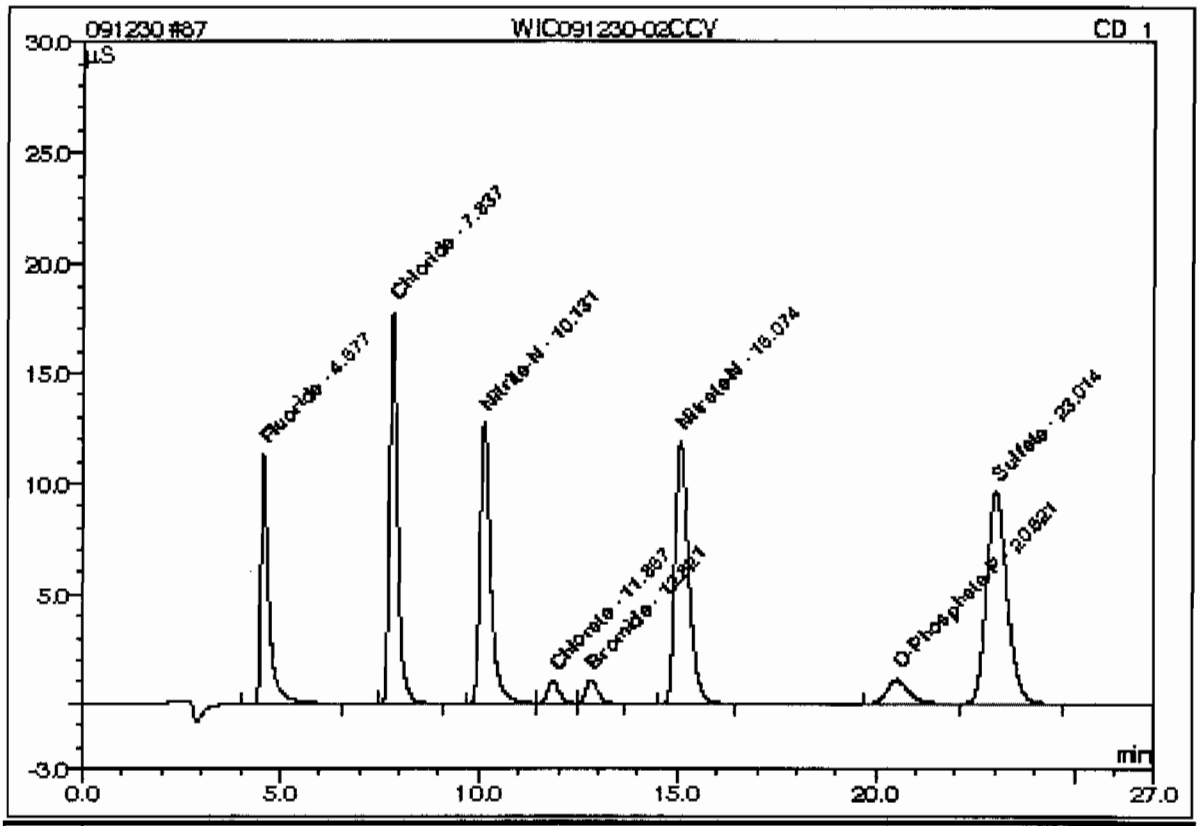

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.58	Fluoride	n.a.	5.0281		2.64150	11.61
2	7.84	Chloride	n.a.	9.8409		4.09444	18.00
3	10.13	Nitrite-N	n.a.	5.0567		3.93904	17.31
4	11.86	Chlorate	n.a.	2.5707		0.34934	1.54
5	12.82	Bromide	n.a.	2.5436		0.38478	1.69
6	15.07	Nitrate-N	n.a.	4.9613		4.84241	21.28
7	20.52	O-Phosphate-P	n.a.	2.9015		0.70108	3.08
8	23.01	Sulfate	n.a.	19.9364		5.79889	25.49
Total:				52.8391	0.000	22.751	100.00

88 CCB

Sample Name:	CCB	*Injection Volume:*	50.0
Vial Number:	17	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/31/2009 23:21	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

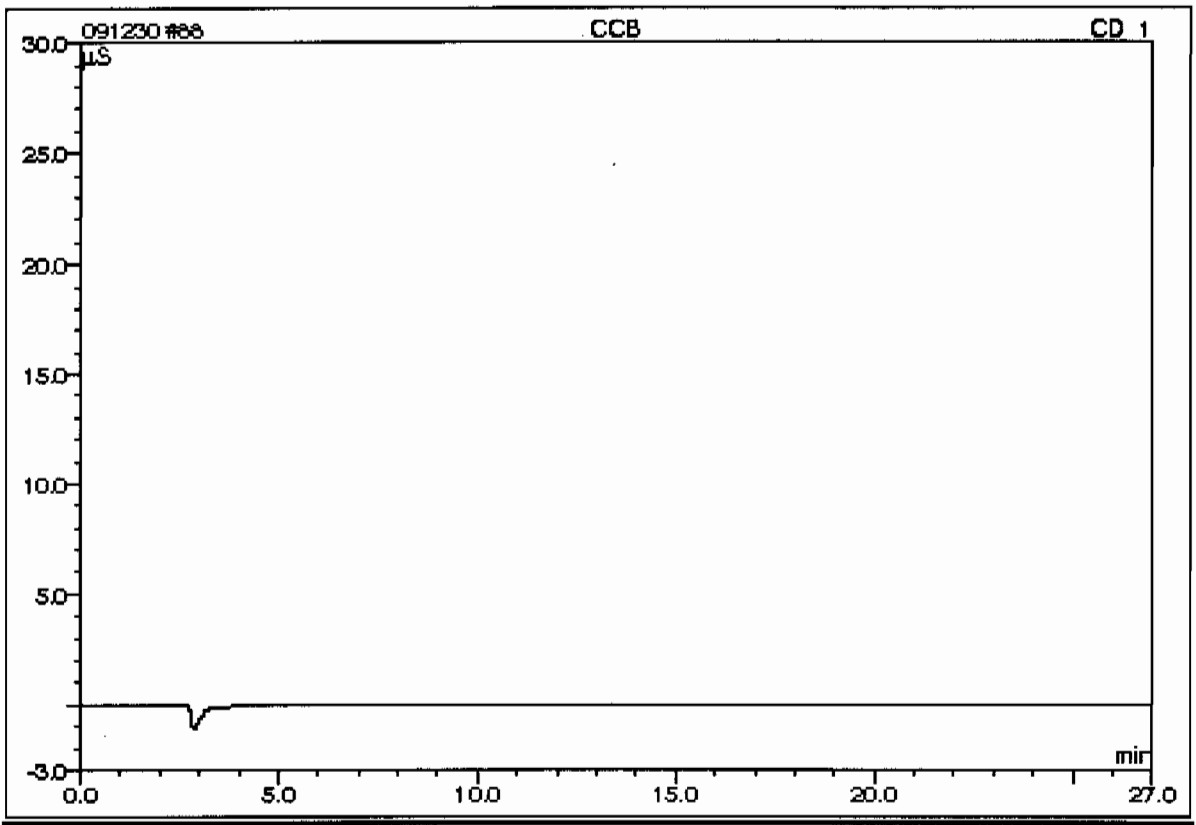

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.
Total:				0.0000	0.000	0.000	0.00

89 1202004081/936627/1/1/MB

Sample Name:	1202004081/936627/1/1/MB	*Injection Volume:*	50.0
Vial Number:	18	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/31/2009 23:51	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCB086;300;9056

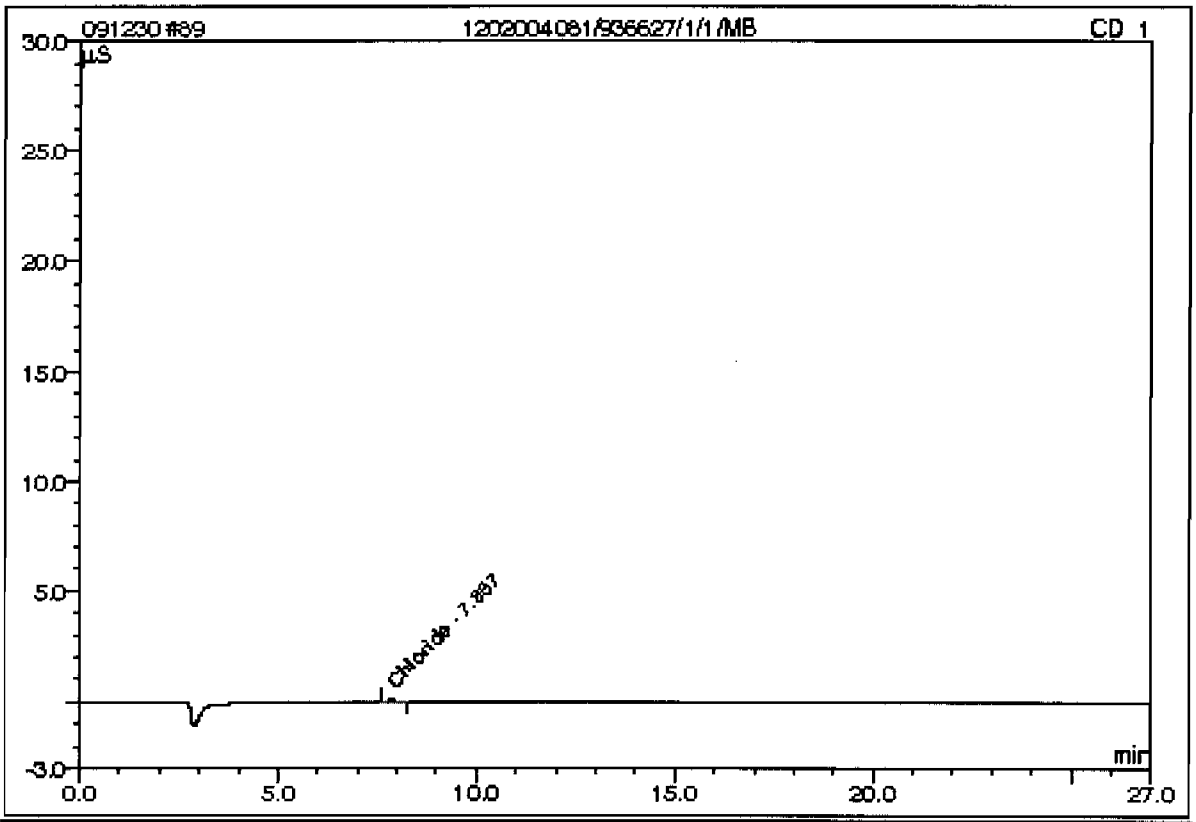

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
1	7.86	Chloride	n.a.	0.0979		0.01035	100.00
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.
Total:				0.0979	0.000	0.010	100.00

This is runlog for Sequence 091230.seq for IC7

Sample ID	Run Time	Batch	Dilution	Dataset	Analyst
1202004085	01/01/10 00:21	936627	1	091230	GXM3
243092002	01/01/10 00:51	936627	1	091230	GXM3
243092003	01/01/10 01:21	936627	1	091230	GXM3
243472001	01/01/10 01:51	936627	1	091230	GXM3
1202004082	01/01/10 02:21	936627	1	091230	GXM3
1202004083	01/01/10 02:51	936627	1	091230	GXM3
1202004084	01/01/10 03:20	936627	1	091230	GXM3
243472002	01/01/10 03:50	936627	1	091230	GXM3
243472003	01/01/10 04:20	936627	1	091230	GXM3
CVH	01/01/10 04:50		1	091230	GXM3
CCB	01/01/10 05:20		1	091230	GXM3

90 1202004085/936627/1/1/LCS

Sample Name:	1202004085/936627/1/1/LCS	*Injection Volume:*	50.0
Vial Number:	19	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	1/1/2010 0:21	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GLGCE086;300;9056

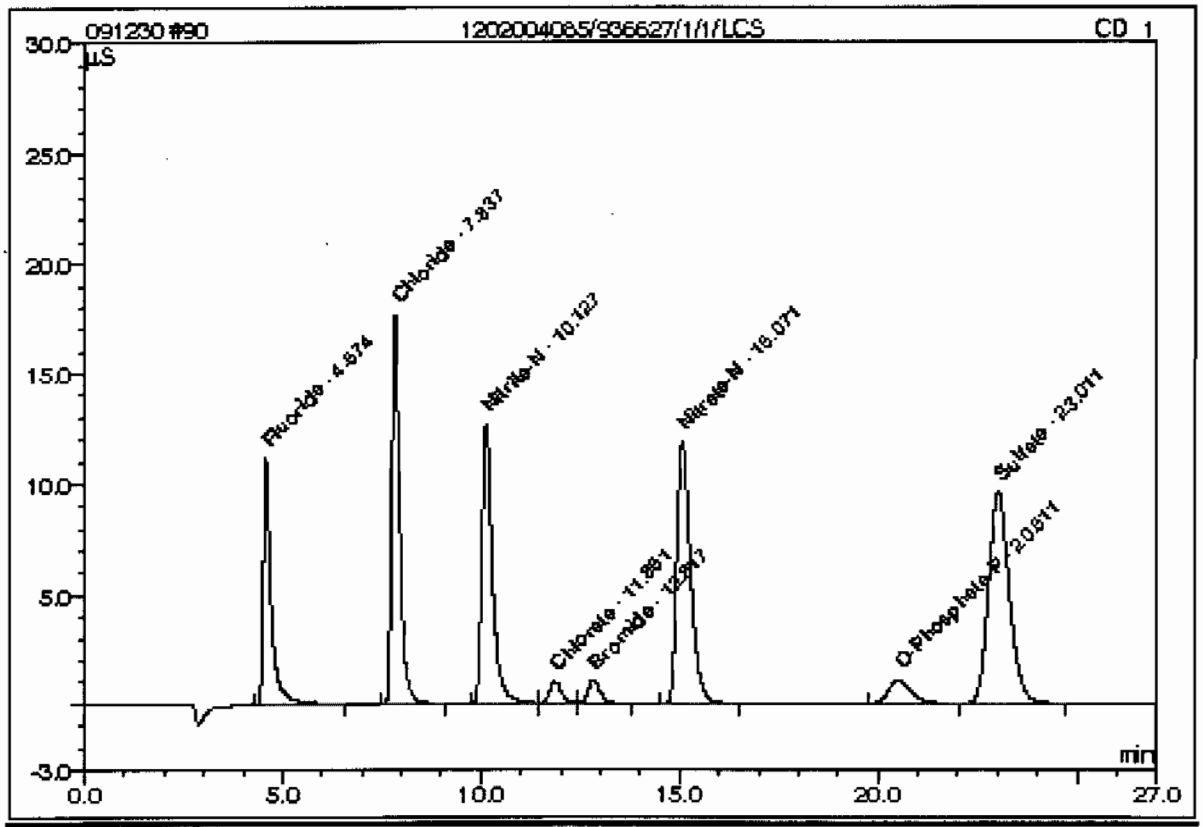

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.57	Fluoride	n.a.	5.0061		2.62986	11.59
2	7.84	Chloride	n.a.	9.8033		4.07867	17.97
3	10.13	Nitrite-N	n.a.	5.0324		3.91984	17.27
4	11.85	Chlorate	n.a.	2.6401		0.35891	1.58
5	12.82	Bromide	n.a.	2.5911		0.39205	1.73
6	15.07	Nitrate-N	n.a.	4.9627		4.84377	21.35
7	20.51	O-Phosphate-P	n.a.	2.8830		0.69628	3.07
8	23.01	Sulfate	n.a.	19.8442		5.77162	25.44
Total:				52.7630	0.000	22.691	100.00

93 243472001/936627/1/1/

Sample Name:	243472001/936627/1/1/	*Injection Volume:*	50.0
Vial Number:	22	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	1/1/2010 1:51	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCB086;300;9056

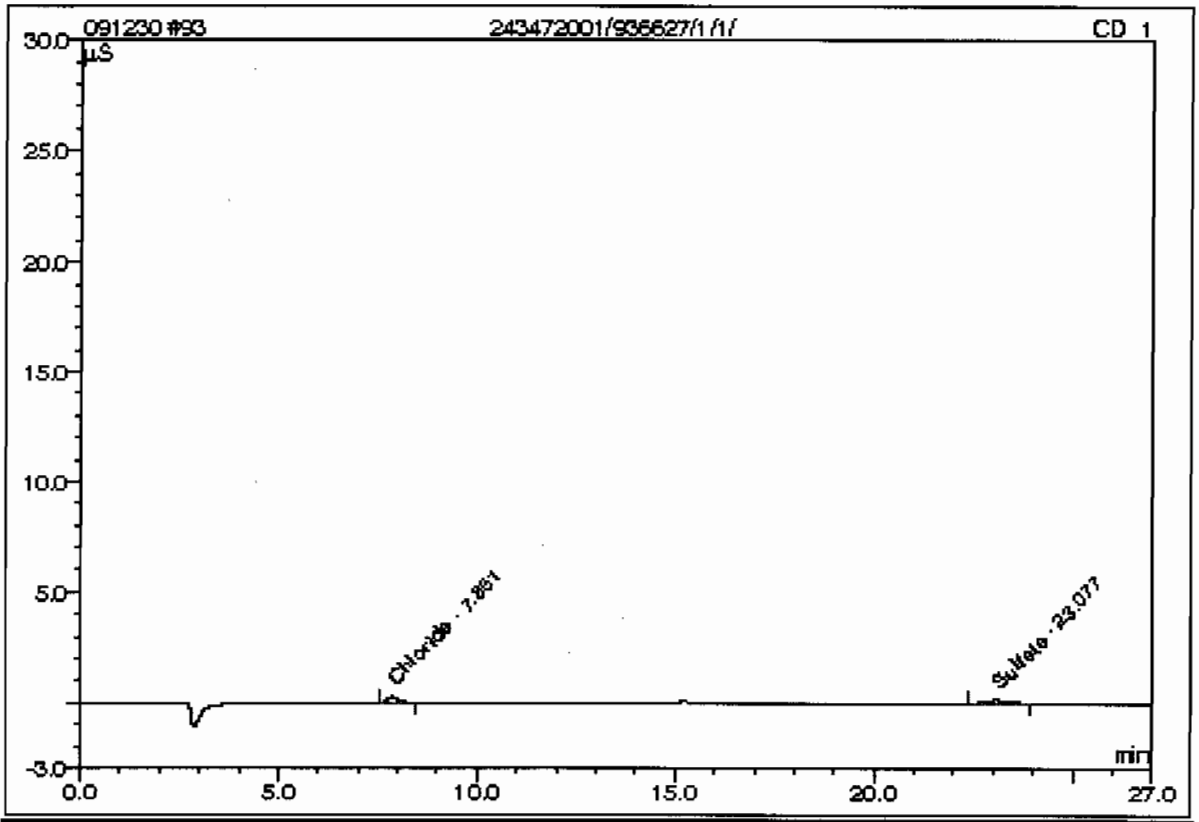

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
1	7.86	Chloride	n.a.	0.2421		0.07078	44.11
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
2	23.08	Sulfate	n.a.	0.6442		0.08969	55.89
Total:				0.8863	0.000	0.160	100.00

93 243472001/936627/1/1/

Sample Name:	243472001/936627/1/1/	*Injection Volume:*	50.0
Vial Number:	22	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	1/1/2010 1:51	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCB086;300;9056

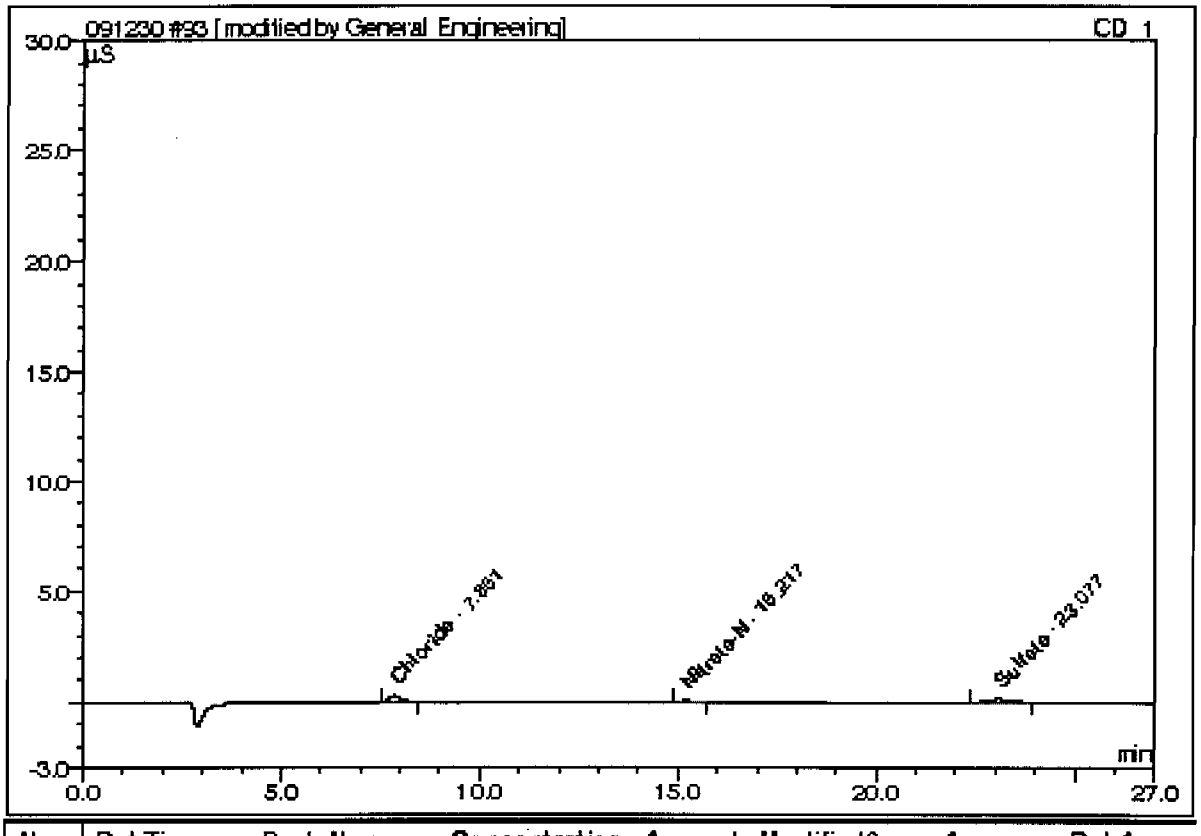

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
1	7.86	Chloride	n.a.	0.2421		0.07078	41.48
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
2	15.22	Nitrate-N	n.a.	0.1135		0.01016	5.95
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
3	23.08	Sulfate	n.a.	0.6442		0.08969	52.57
Total:				0.9998	0.000	0.171	100.00

94 1202004082/936627/1/1/DUP

Sample Name:	1202004082/936627/1/1/DUP	*Injection Volume:*	50.0
Vial Number:	23	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	1/1/2010 2:21	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GLGCE086;300;9056

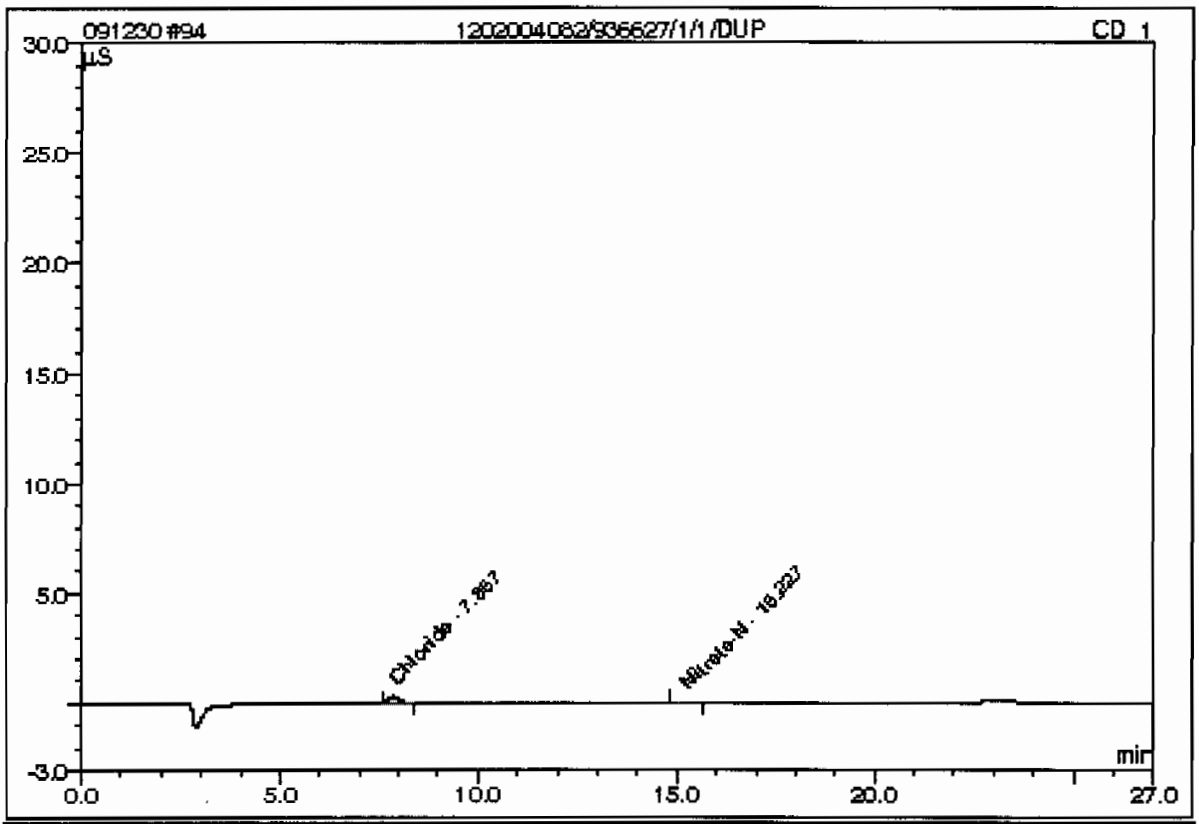

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
1	7.86	Chloride	n.a.	0.2486		0.07353	87.31
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
2	15.23	Nitrate-N	n.a.	0.1141		0.01069	12.69
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.
Total:				0.3627	0.000	0.084	100.00

94 1202004082/936627/1/1/DUP

Sample Name:	1202004082/936627/1/1/DUP	*Injection Volume:*	50.0
Vial Number:	23	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	1/1/2010 2:21	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

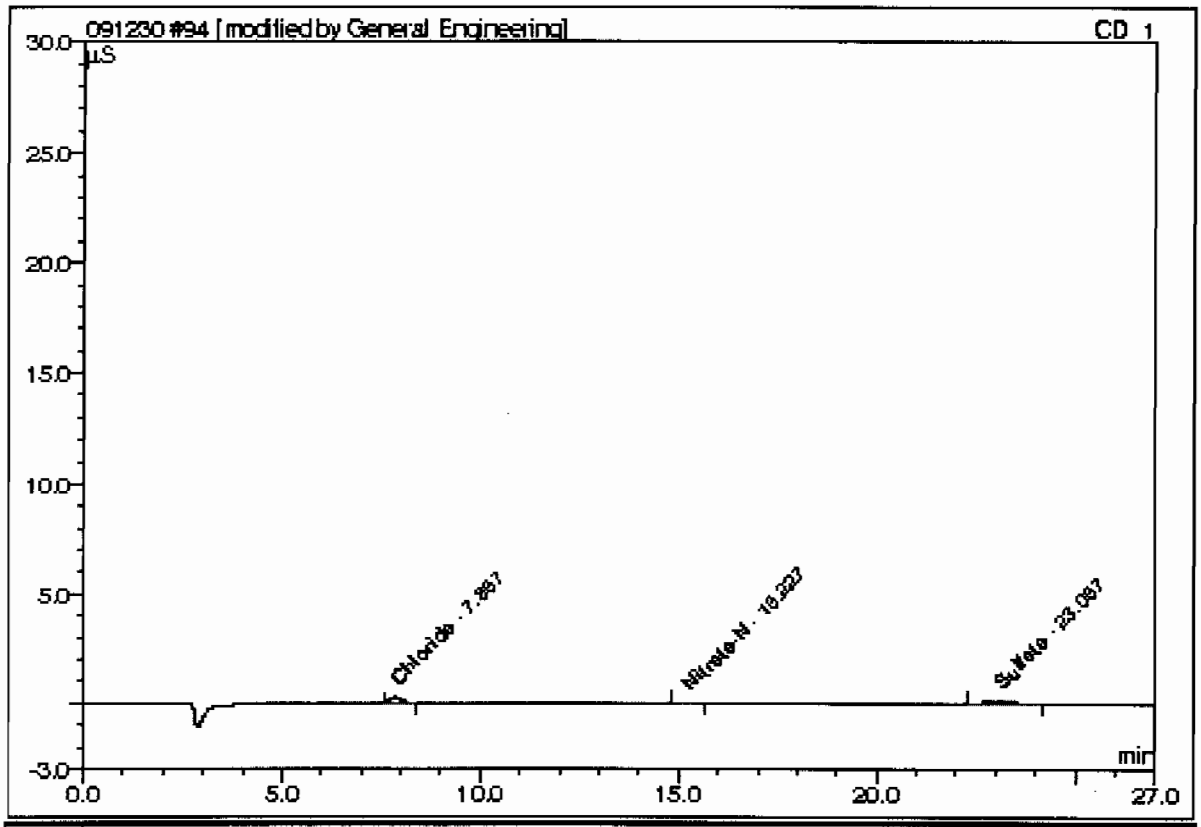

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
1	7.86	Chloride	n.a.	0.2486		0.07353	42.04
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
2	15.23	Nitrate-N	n.a.	0.1141		0.01069	6.11
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
3	23.06	Sulfate	n.a.	0.6475		0.09069	51.85
Total:				1.0102	0.000	0.175	100.00

95 1202004083/936627/1/1/MS

Sample Name:	1202004083/936627/1/1/MS	*Injection Volume:*	50.0
Vial Number:	24	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	1/1/2010 2:51	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GC B086;300;9056

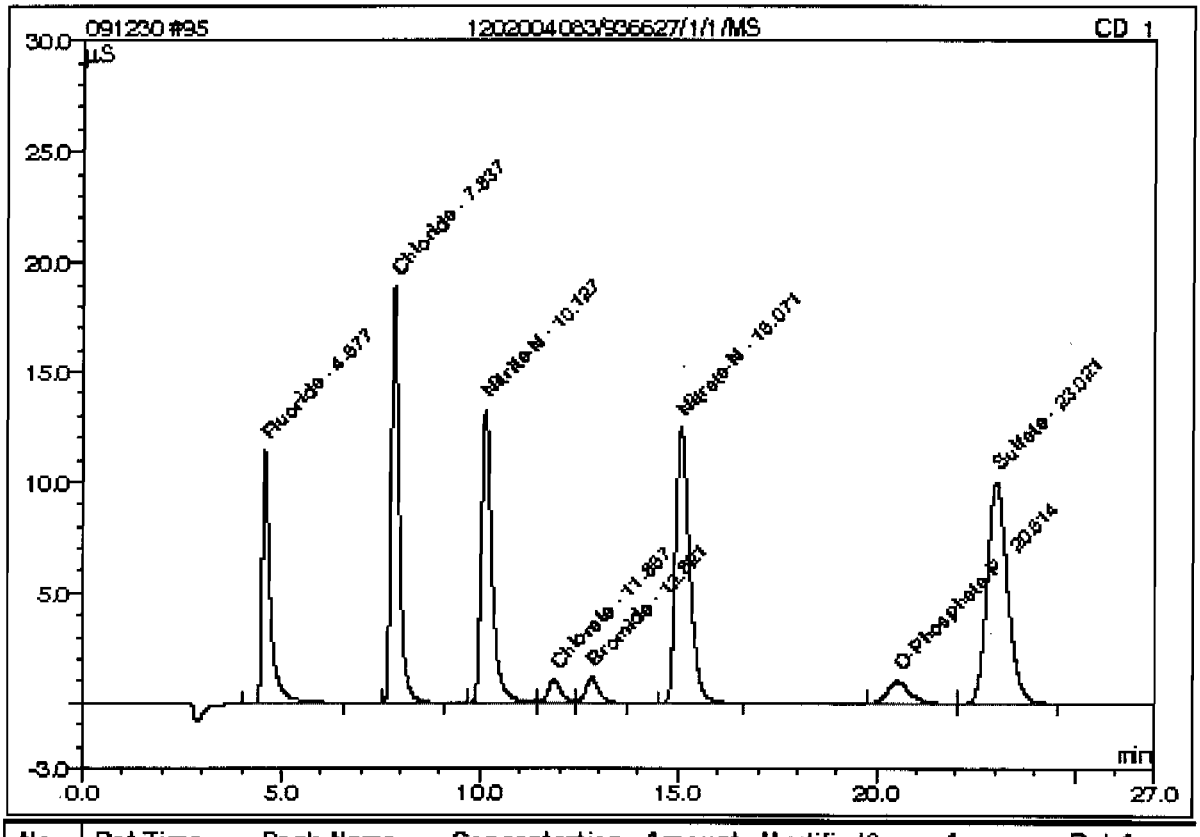

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.58	Fluoride	n.a.	5.1310		2.69597	11.40
2	7.84	Chloride	n.a.	10.4725		4.35921	18.43
3	10.13	Nitrite-N	n.a.	5.2550		4.09621	17.32
4	11.86	Chlorate	n.a.	2.6867		0.36533	1.54
5	12.82	Bromide	n.a.	2.6649		0.40333	1.71
6	15.07	Nitrate-N	n.a.	5.1973		5.07761	21.47
7	20.51	O-Phosphate-P	n.a.	2.6449		0.63448	2.68
8	23.02	Sulfate	n.a.	20.6928		6.02275	25.46
Total:				54.7450	0.000	23.655	100.00

96 1202004084/936627/1/1/MSD

Sample Name:	1202004084/936627/1/1/MSD	*Injection Volume:*	50.0
Vial Number:	25	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	1/1/2010 3:20	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GLGCE086;300;9056

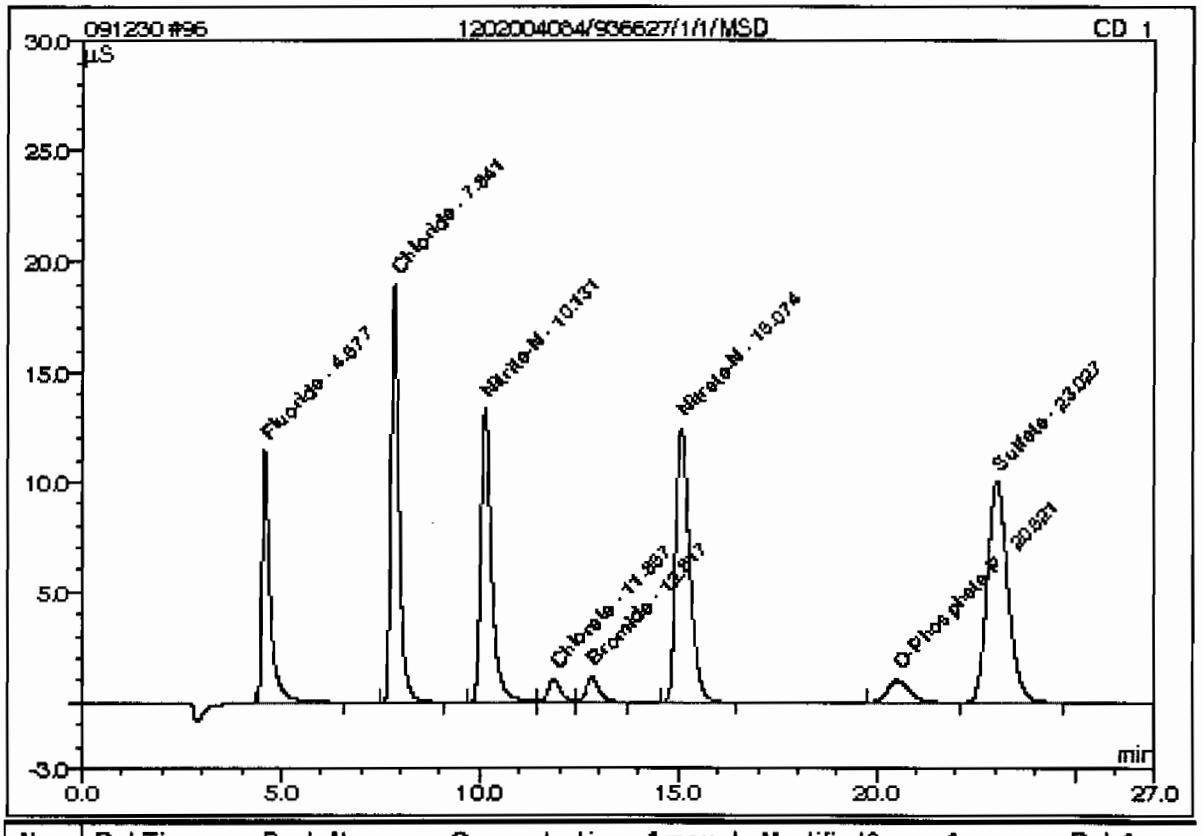

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.58	Fluoride	n.a.	5.1043		2.68182	11.36
2	7.84	Chloride	n.a.	10.4645		4.35584	18.44
3	10.13	Nitrite-N	n.a.	5.2549		4.09613	17.34
4	11.86	Chlorate	n.a.	2.6540		0.36083	1.53
5	12.82	Bromide	n.a.	2.6475		0.40067	1.70
6	15.07	Nitrate-N	n.a.	5.1750		5.05545	21.41
7	20.52	O-Phosphate-P	n.a.	2.6670		0.64021	2.71
8	23.03	Sulfate	n.a.	20.7019		6.02543	25.51
Total:				54.6690	0.000	23.616	100.00

97 243472002/936627/1/1/

Sample Name:	243472002/936627/1/1/	*Injection Volume:*	50.0
Vial Number:	26	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	1/1/2010 3:50	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GC B086;300;9056

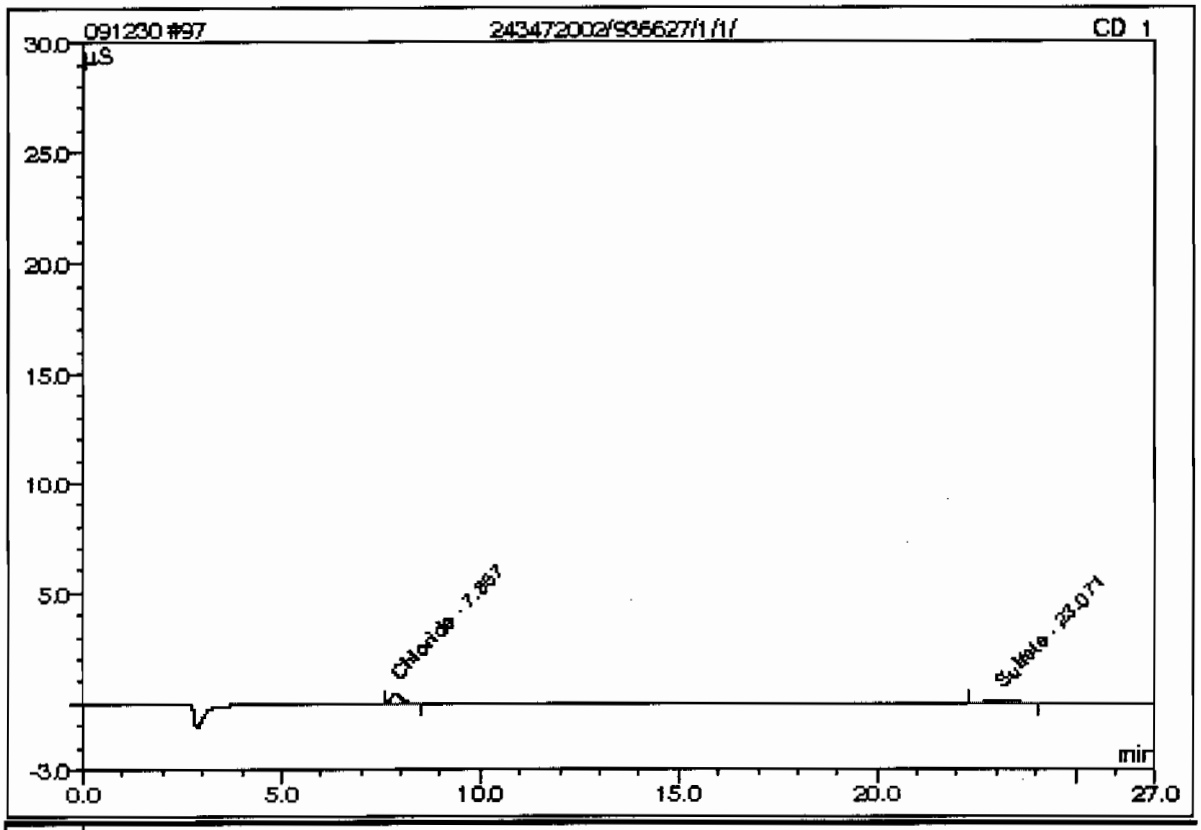

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
1	7.86	Chloride	n.a.	0.3709		0.12480	59.02
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
2	23.07	Sulfate	n.a.	0.6339		0.08664	40.98
Total:				1.0048	0.000	0.211	100.00

97 243472002/936627/1/1/

Sample Name:	243472002/936627/1/1/	*Injection Volume:*	50.0
Vial Number:	26	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	1/1/2010 3:50	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GC E086;300;9056

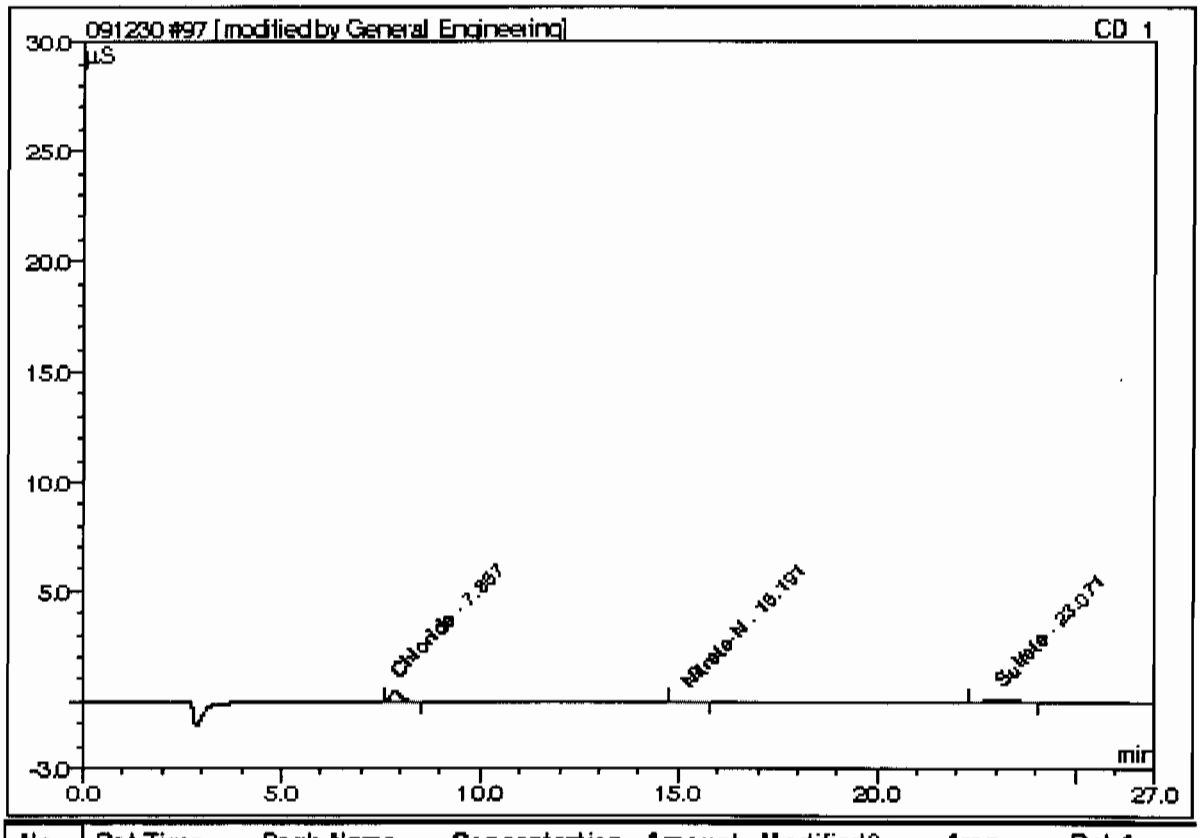

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
1	7.86	Chloride	n.a.	0.3709		0.12480	56.23
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
2	15.19	Nitrate-N	n.a.	0.1139		0.01051	4.73
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
3	23.07	Sulfate	n.a.	0.6339		0.08664	39.04
Total:				1.1187	0.000	0.222	100.00

98 243472003/936627/1/1/

Sample Name:	243472003/936627/1/1/	*Injection Volume:*	50.0
Vial Number:	27	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	1/1/2010 4:20	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCB086;300;9056

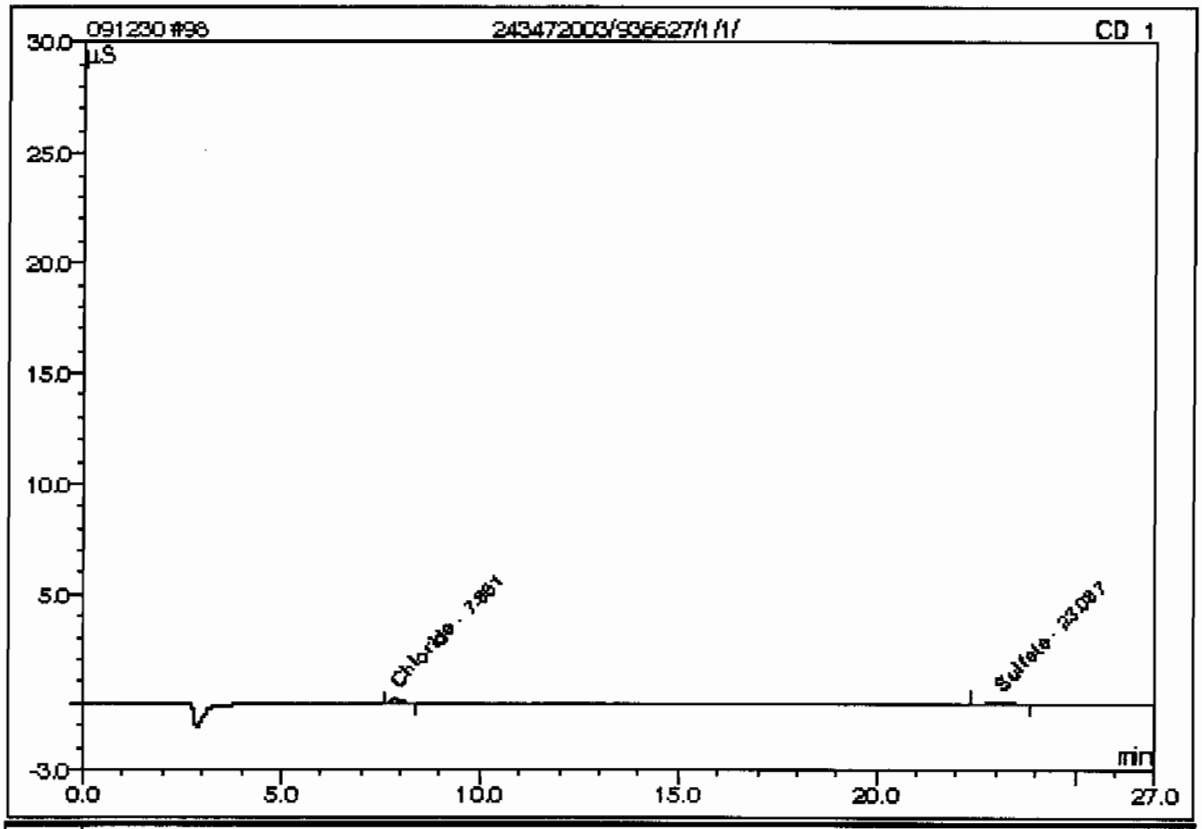

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
1	7.86	Chloride	n.a.	0.2122		0.05826	54.64
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
2	23.09	Sulfate	n.a.	0.5045		0.04837	45.36
Total:				0.7168	0.000	0.107	100.00

98 243472003/936627/1/1/

Sample Name:	243472003/936627/1/1/	*Injection Volume:*	50.0
Vial Number:	27	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	1/1/2010 4:20	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCB086;300;9056

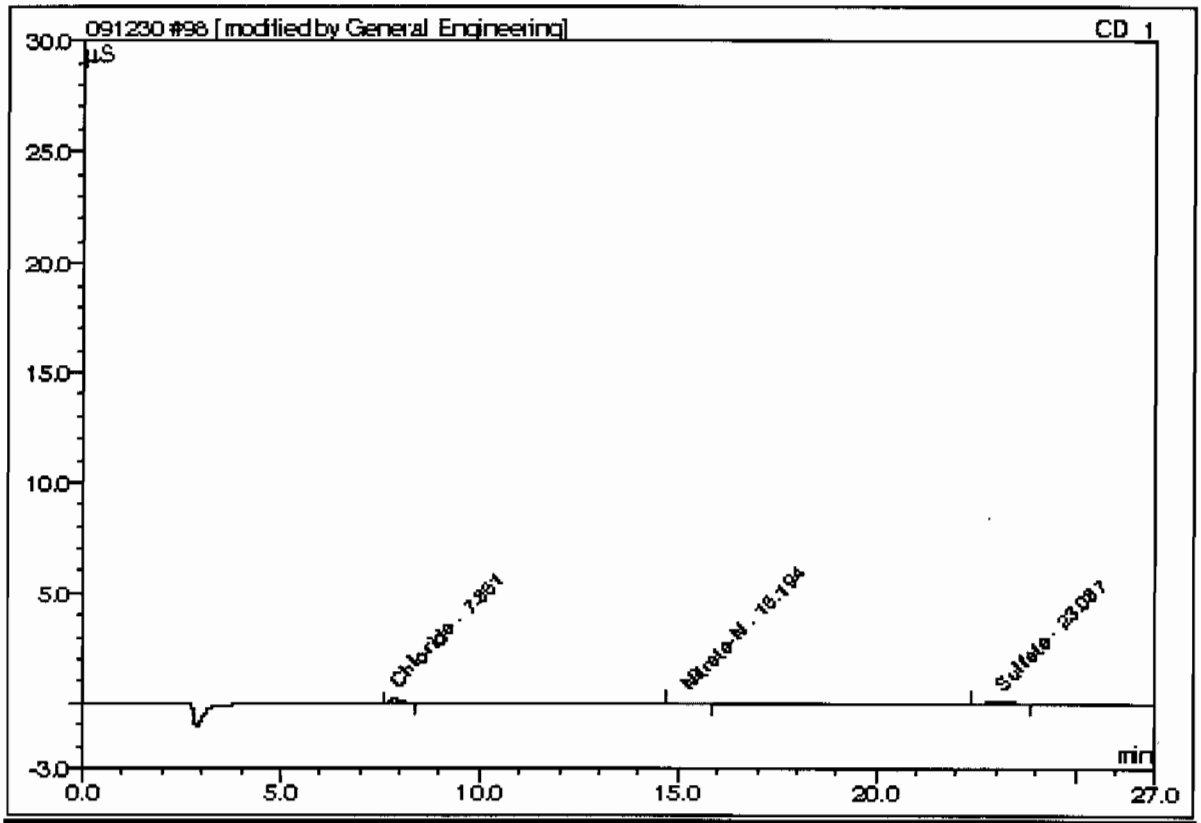

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
1	7.86	Chloride	n.a.	0.2122		0.05826	51.02
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
2	15.19	Nitrate-N	n.a.	0.1109		0.00756	6.62
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
3	23.09	Sulfate	n.a.	0.5045		0.04837	42.36
Total:				0.8277	0.000	0.114	100.00

99 WIC091230-02CVH

Sample Name:	WIC091230-02CVH	*Injection Volume:*	50.0
Vial Number:	28	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	1/1/2010 4:50	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCB086;300;9056

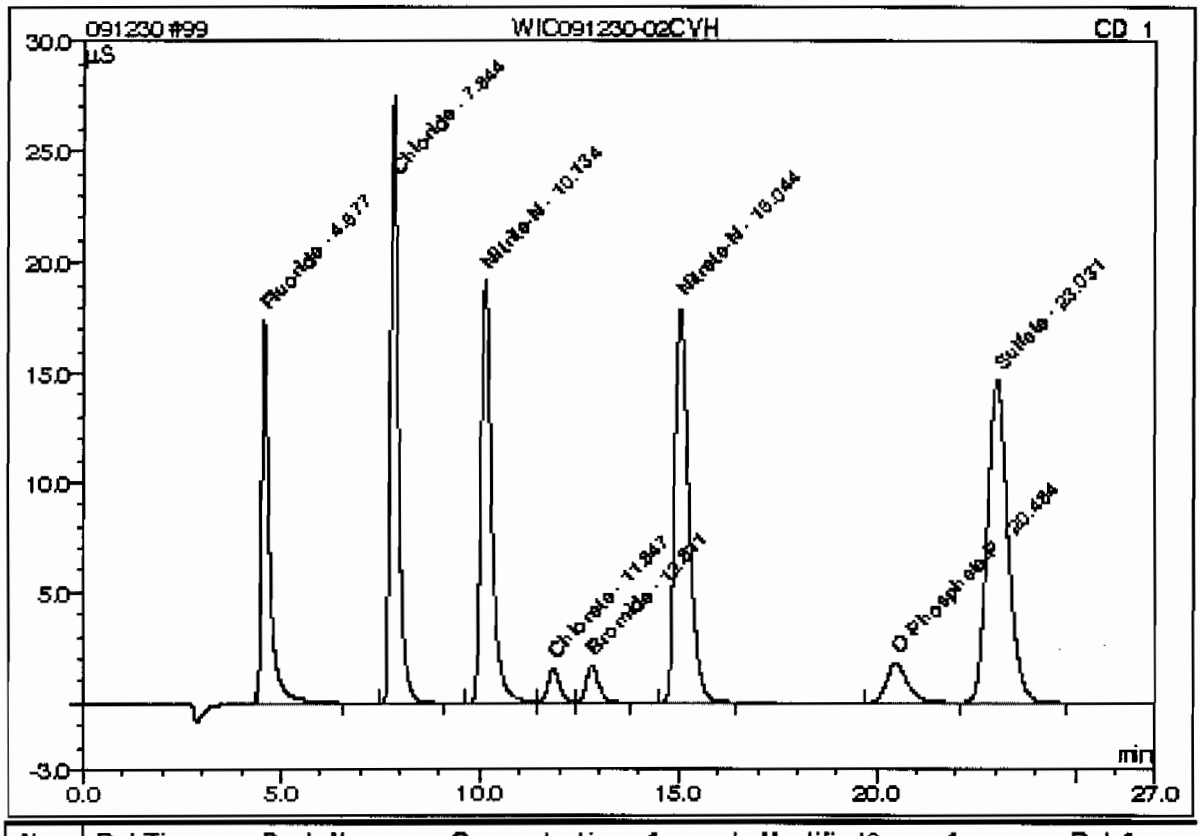

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.58	Fluoride	n.a.	7.4856		3.94212	11.49
2	7.84	Chloride	n.a.	14.9168		6.22220	18.14
3	10.13	Nitrite-N	n.a.	7.5069		5.88067	17.15
4	11.85	Chlorate	n.a.	3.9021		0.53302	1.55
5	12.81	Bromide	n.a.	3.8450		0.58382	1.70
6	15.04	Nitrate-N	n.a.	7.4670		7.34008	21.40
7	20.48	O-Phosphate-P	n.a.	4.4105		1.09272	3.19
8	23.03	Sulfate	n.a.	29.7434		8.70110	25.37
Total:				79.2772	0.000	34.296	100.00

100 CCB

Sample Name:	CCB	*Injection Volume:*	50.0
Vial Number:	29	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	1/1/2010 5:20	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCB086;300;9056

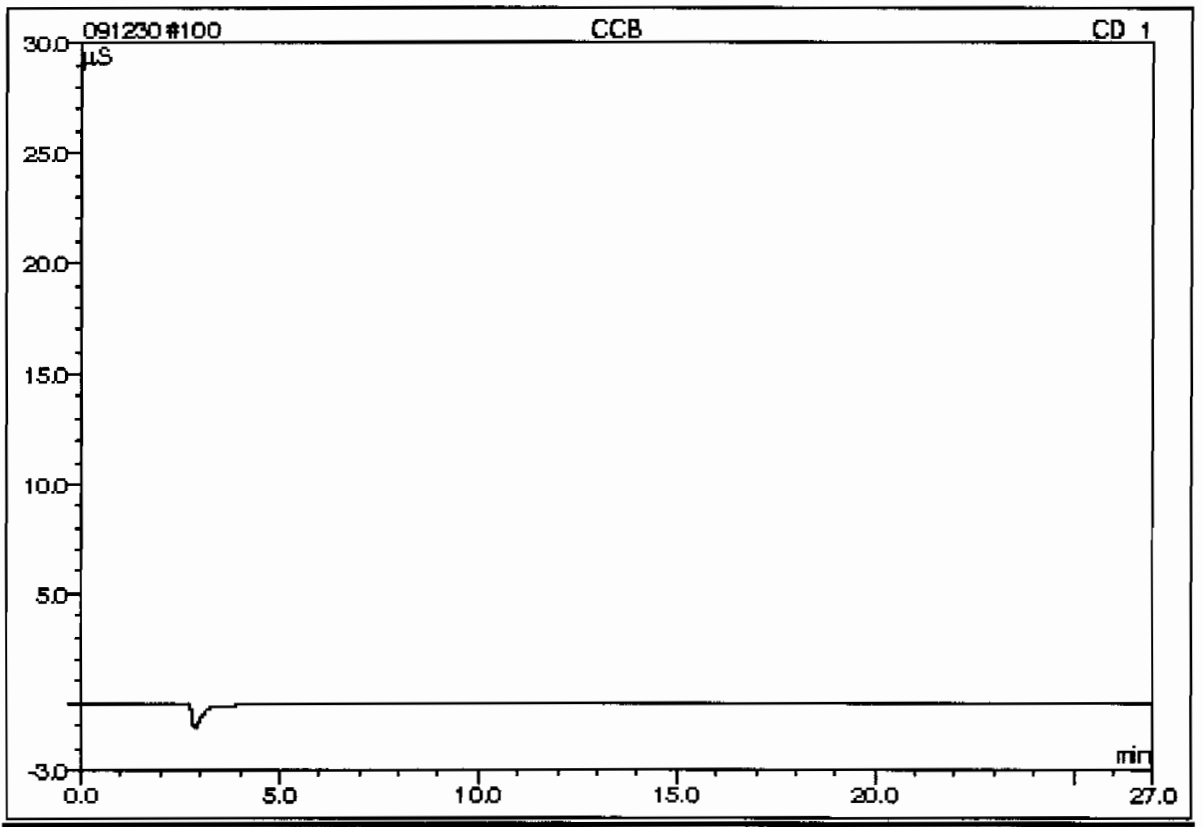

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.
Total:				0.0000	0.000	0.000	0.00

pH

pH / Corrosivity LogBook

Analyst: TXT1
Batch: 936616
Lab SOP: GL-GC-E-008 REV# 17
Description: pH
Method: SW846 9045D

Type	Sample Id	Serial Number	Description
CCV	240	IMM091029-PH	PH 7 BUFFER FOR PH
LCS	1202004052	IMM090728-01	LCS BUFFER SOLUTION

Sample id	Parent Sample Id	Matrix	Start Time	Stop Time	Run Date	Parmname	Initial Wt(g)	Final Vol(mL)	Ph	Temp	Nc(mg/L)	Recovery(%)	Rpd(%)
1202004052 LCS		Misc Solid	12:25	12:30	24-DEC-09 12:34	pH	20	20	7.04	19.3'C	7	100.571	
1202004052 LCS		Misc Solid	12:25	12:30	24-DEC-09 12:34	pH 2	20	20	7.04	19.3'C	7	100.571	
243278003		Misc Solid	12:25	12:30	24-DEC-09 12:41	pH	20	20	5.7	19.5'C			
243278003		Misc Solid	12:25	12:30	24-DEC-09 12:41	pH 2	20	20	5.7	19.4'C			
243361001		Solid	12:25	12:30	24-DEC-09 12:43	pH	20	20	9.67	19.3'C			
243361001		Solid	12:25	12:30	24-DEC-09 12:43	pH 2	20	20	9.67	19.3'C			
243393002		Soil	12:25	12:30	24-DEC-09 12:45	pH	20	20	7.32	19.3'C			
243393002		Soil	12:25	12:30	24-DEC-09 12:45	pH 2	20	20	7.31	19.4'C			
1202004053 DUP	243393002	Soil	12:25	12:30	24-DEC-09 12:47	pH	20	20	7.33	19.4'C			.137
1202004053 DUP	243393002	Soil	12:25	12:30	24-DEC-09 12:47	pH 2	20	20	7.32	19.4'C			.137
CCV			12:25	12:30	24-DEC-09 12:48	pH	20	20	7.04	18.8'C	7	100.571	
CCV			12:25	12:30	24-DEC-09 12:48	pH 2	20	20	7.04	18.8'C	7	100.571	
243472001		Soil	12:25	12:30	24-DEC-09 12:56	pH	20	20	8.57	19.2'C			
243472001		Soil	12:25	12:30	24-DEC-09 12:56	pH 2	20	20	8.57	19.2'C			
243472002		Soil	12:25	12:30	24-DEC-09 12:59	pH	20	20	7.71	19.3'C			
243472002		Soil	12:25	12:30	24-DEC-09 12:59	pH 2	20	20	7.7	19.4'C			
243472003		Soil	12:25	12:30	24-DEC-09 13:02	pH	20	20	6.65	19.3'C			
243472003		Soil	12:25	12:30	24-DEC-09 13:02	pH 2	20	20	6.64	19.3'C			
CCV			12:25	12:30	24-DEC-09 13:04	pH	20	20	7.04	18.9'C	7	100.571	
CCV			12:25	12:30	24-DEC-09 13:04	pH 2	20	20	7.04	18.9'C	7	100.571	

Calibration Information:
Run Date: 24-DEC-09 09:50
Instrument: PHX742
Analyst: LXA1

	Standard	Observed	Theoretical		C	%Recovery
09:50	IMM091224-PH1	4.01	4	SU	20.9	100.25
09:50	IMM091224-PH-	7.01	7	SU	20.9	100.14
09:50	UPH091224-b	10.02	10	SU	20.9	100.2
09:50	UPH091224-02c-	2.08	2	SU	20.9	104
09:50	091224-b	12.01	12	SU	20.9	100.08
09:50	IMM091224-01b	7	7	SU	20.9	100

Comments:

RADIOLOGICAL ANALYSIS

Radiochemistry Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-1057
Work Order 243472

Method/Analysis Information

Procedure:	**Dry Weight-Percent Moisture**
Analytical Method:	
Analytical Batch Number:	936634

Sample ID	Client ID
243472001	RE03-09-14228
243472002	RE03-09-14230
243472003	RE03-09-14229
1202004099	243472001(RE03-09-14228) Sample Duplicate (DUP)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-020 REV# 9.

Calibration Information:

Quality Control (QC) Information:

Designated QC
The following sample was used for QC: 243472001 (RE03-09-14228). The QC was from LANL work order 243472.

QC Information
All of the QC samples met the required acceptance limits.

CSU
Not Applicable. The blank result is less than 1.65 times the CSU.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A nonconformance report (NCR) was not generated for this SDG.

Additional Comments
Additional comments were not required for this sample set.

Blank Decision Level
Not Applicable. The blank result is less than the decision level.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**AM241**
Analytical Method:	DOE EML HASL-300, Am-05-RC Modified
Prep Method:	Dry Soil Prep
Analytical Batch Number:	936962
Prep Batch Number:	936641

Sample ID	Client ID
243472001	RE03-09-14228
243472002	RE03-09-14230
243472003	RE03-09-14229
1202004879	Method Blank (MB)
1202004880	243397005(RE16-10-2844) Sample Duplicate (DUP)
1202004881	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on a "dry weight" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-011 REV# 18.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. Calibrations are performed monthly using mixed alpha standards comprised of the following: Gd-148, Np-237, and Cm-244.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
Aliquot for sample 1202004879 (MB) was changed to 1.0 per client request.

Designated QC
The following sample was used for QC: 243397005 (RE16-10-2844). The QC was from LANL work order 243397.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The blank result is less than 1.65 times the CSU.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A nonconformance report (NCR) was not generated for this SDG.

Manual Integration
No manual integrations were performed on data in this batch.

Additional Comments
The MDCs are calculated using a blank population.

Blank Decision Level
The blank result is less than the decision level.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**ISOPU**
Analytical Method:	DOE EML HASL-300, Pu-11-RC Modified
Prep Method:	Dry Soil Prep
Analytical Batch Number:	939255
Prep Batch Number:	936641

Sample ID	Client ID
243472001	RE03-09-14228
243472002	RE03-09-14230
243472003	RE03-09-14229
1202009994	Method Blank (MB)
1202009995	243397005(RE16-10-2844) Sample Duplicate (DUP)
1202009996	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on a "dry weight" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-011 REV# 18.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. Calibrations are performed monthly using mixed alpha standards comprised of the following: Gd-148, Np-237, and Cm-244.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
Aliquot for sample 1202009994 (MB) was changed to 1.0 per client request.

Designated QC
The following sample was used for QC: 243397005 (RE16-10-2844). The QC was from LANL work order 243397.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The blank result is less than 1.65 times the CSU.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
Samples were reprepped due to high blank activity.

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A nonconformance report (NCR) was not generated for this SDG.

Manual Integration
No manual integrations were performed on data in this batch.

Additional Comments
The MDCs are calculated using a blank population.

Blank Decision Level
The blank result is less than the decision level.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**ISOU**
Analytical Method:	DOE EML HASL-300, U-02-RC Modified
Prep Method:	Dry Soil Prep
Analytical Batch Number:	936975
Prep Batch Number:	936641

Sample ID	Client ID
243472001	RE03-09-14228
243472002	RE03-09-14230
243472003	RE03-09-14229
1202004921	Method Blank (MB)
1202004922	243397005(RE16-10-2844) Sample Duplicate (DUP)
1202004923	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on a "dry weight" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-011 REV# 18.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. Calibrations are performed monthly using mixed alpha standards comprised of the following: Gd-148, Np-237, and Cm-244.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
Aliquot for sample 1202004921 (MB) was changed to 1.0 per client request.

Designated QC
The following sample was used for QC: 243397005 (RE16-10-2844). The QC was from LANL work order 243397.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The blank result is less than 1.65 times the CSU.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis

None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A nonconformance report (NCR) was not generated for this SDG.

Manual Integration
No manual integrations were performed on data in this batch.

Additional Comments
The MDCs are calculated using a blank population.

Blank Decision Level
The blank result is less than the decision level.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**H3**
Analytical Method:	GL-RAD-A-002
Analytical Batch Number:	936900

Sample ID	Client ID
243472001	RE03-09-14228
243472002	RE03-09-14230
243472003	RE03-09-14229
1202004654	Method Blank (MB)
1202004655	243555001(WST21-10-9933) Sample Duplicate (DUP)
1202004656	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-002 REV# 18.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. The initial Calibrations were performed in August 2009 and September 2009.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
The blank volume is representative of the sample volume in this batch.

Designated QC
The following sample was used for QC: 243555001 (WST21-10-9933). The QC was from LANL work order 243555.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The blank result is less than 1.65 times the CSU.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
Sample 243472003 (RE03-09-14229) was recounted due to the quench number being outside the calibration range. Recount is being reported.

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A nonconformance report (NCR) was not generated for this SDG.

Additional Comments
Additional comments were not required for this sample set.

Blank Decision Level
The blank result is less than the decision level.

Qualifier information

Manual qualifiers were not required.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer/Date: 1/12/10

SAMPLE DATA SUMMARY

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis Report
for

LANL010 Los Alamos National Laboratory (72733-001-09)

Client SDG: 10-1057 GEL Work Order: 243472

The Qualifiers in this report are defined as follows:

* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.

** Indicates the analyte is a surrogate compound.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the detection limit.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Valerie Davis.

Reviewed by _____

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: January 12, 2010

Client Sample ID:	RE03-09-14228	Project:	LANL01004
Sample ID:	243472001	Client ID:	LANL010
Matrix:	S		
Collect Date:	21-DEC-09		
Receive Date:	23-DEC-09		
Collector:	Client		
Moisture:	10.2%		

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids												
"As Received"												
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	-0.000286	0.026	+/-0.00153	0.050	pCi/g		MXE1	01/06/10	1820	936962	2
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	-0.00826	0.0227	+/-0.00826	0.050	pCi/g		MXE1	01/09/10	1201	939255	3
Plutonium-239/240	U	-0.00275	0.026	+/-0.00389	0.050	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		0.860	0.112	+/-0.0825	0.100	pCi/g		MXE1	01/06/10	1352	936975	5
Uranium-235/236	U	0.0314	0.0698	+/-0.0121	0.100	pCi/g						
Uranium-238		0.835	0.0652	+/-0.0807	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium	U	142	227	+/-70.4	250	pCi/L		KXK2	01/05/10	1023	936900	6

The following Analytical Methods were performed

Method	Description
1	ASTM D 2216 (Modified)
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, Pu-11-RC Modified
5	DOE EML HASL-300, U-02-RC Modified
6	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery %	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	60.6	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	82.7	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	94.0	(50%-105%)

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: January 12, 2010

Client Sample ID: RE03-09-14228
Sample ID: 243472001
Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
E Organics--Concentration of the target analyte exceeds the instrument calibration range
F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
P Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
Z Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d 5-day BOD--The 2:1 depletion requirement was not met for this sample
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

GEL LABORATORIES LLC

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: January 12, 2010

Client Sample ID:	RE03-09-14230	Project:	LANL01004
Sample ID:	243472002	Client ID:	LANL010
Matrix:	S		
Collect Date:	21-DEC-09		
Receive Date:	23-DEC-09		
Collector:	Client		
Moisture:	7.08%		

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids												
"As Received"												
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	-0.000669	0.0194	+/-0.00114	0.050	pCi/g		MXE1	01/06/10	1820	936962	2
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	-0.00968	0.0228	+/-0.0077	0.050	pCi/g		MXE1	01/09/10	1201	939255	3
Plutonium-239/240	U	0.00415	0.0261	+/-0.00415	0.050	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		0.829	0.116	+/-0.0809	0.100	pCi/g		MXE1	01/06/10	1352	936975	5
Uranium-235/236	U	0.0464	0.0722	+/-0.015	0.100	pCi/g						
Uranium-238		0.893	0.0675	+/-0.0858	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium	U	172	218	+/-69.1	250	pCi/L		KXK2	01/05/10	1116	936900	6

The following Analytical Methods were performed

Method	Description
1	ASTM D 2216 (Modified)
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, Pu-11-RC Modified
5	DOE EML HASL-300, U-02-RC Modified
6	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	84.9	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	87.8	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	97.3	(50%-105%)

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: January 12, 2010

Client Sample ID: RE03-09-14230
Sample ID: 243472002
Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
E Organics--Concentration of the target analyte exceeds the instrument calibration range
F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
P Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
Z Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d 5-day BOD--The 2:1 depletion requirement was not met for this sample
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: January 12, 2010

Client Sample ID:	RE03-09-14229	Project:	LANL01004
Sample ID:	243472003	Client ID:	LANL010
Matrix:	S		
Collect Date:	21-DEC-09		
Receive Date:	23-DEC-09		
Collector:	Client		
Moisture:	8.64%		

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids												
"As Received"												
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	-0.00078	0.0176	+/-0.00104	0.050	pCi/g		MXE1	01/06/10	1820	936962	2
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	-0.00127	0.0209	+/-0.00727	0.050	pCi/g		MXE1	01/09/10	1201	939255	3
Plutonium-239/240	U	0.00127	0.0239	+/-0.00127	0.050	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		0.882	0.111	+/-0.0839	0.100	pCi/g		MXE1	01/06/10	1352	936975	5
Uranium-235/236	U	0.0266	0.069	+/-0.0127	0.100	pCi/g						
Uranium-238		0.911	0.0645	+/-0.0861	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium	U	103	244	+/-73.7	250	pCi/L		KXK2	01/07/10	0240	936900	6

The following Analytical Methods were performed

Method	Description
1	ASTM D 2216 (Modified)
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, Pu-11-RC Modified
5	DOE EML HASL-300, U-02-RC Modified
6	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	90.8	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	95.1	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	99.3	(50%-105%)

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: January 12, 2010

Client Sample ID: RE03-09-14229
Sample ID: 243472003
Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
E Organics--Concentration of the target analyte exceeds the instrument calibration range
F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
P Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
Z Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d 5-day BOD--The 2:1 depletion requirement was not met for this sample
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

QUALITY CONTROL DATA

GEL LABORATORIES LLC

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QC Summary

Report Date: January 12, 2010

Client : Los Alamos National Laboratory
PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico

Contact: Ms. Joylene Valdez

Workorder: 243472

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Alpha Spec										
Batch 936962										
QC1202004880 243397005 DUP										
Americium-241	U	0.0012	U	-0.000796	pCi/g	0.393		(0-1)	MXE1	01/06/1018:21
	TPU:	+/-0.0011		+/-0.00144						
	Yield:	95.5		94.6						
QC1202004881 LCS										
Americium-241	33.2			29.2	pCi/g		88.1	(75%-125%)		01/06/1018:21
	TPU:			+/-1.95						
	Yield:			104						
QC1202004879 MB										
Americium-241			U	0.00155	pCi/g					01/06/1018:21
	TPU:			+/-0.00141						
	Yield:			92.5						
Batch 936975										
QC1202004922 243397005 DUP										
Uranium-233/234		0.406		0.332	pCi/g	0.438		(0-1)	MXE1	01/06/1010:36
	TPU:	+/-0.0483		+/-0.0361						
	Yield:	97.5		97.7						
Uranium-235/236	U	0.0271	U	0.0233	pCi/g	0.0834		(0-1)		
	TPU:	+/-0.0144		+/-0.00838						
	Yield:	97.5		97.7						
Uranium-238		0.406		0.339	pCi/g	0.394		(0-1)		
	TPU:	+/-0.0483		+/-0.0368						
	Yield:	97.5		97.7						
QC1202004923 LCS										
Uranium-233/234				6.27	pCi/g			(75%-125%)		01/06/1010:35
	TPU:			+/-0.540						
	Yield:			98.7						
Uranium-235/236				0.372	pCi/g			(75%-125%)		
	TPU:			+/-0.0781						
	Yield:			98.7						
Uranium-238	5.75			5.51	pCi/g		95.8	(75%-125%)		
	TPU:			+/-0.484						
	Yield:			98.7						
QC1202004921 MB										
Uranium-233/234			U	0.00598	pCi/g					01/06/1010:36
	TPU:			+/-0.00419						
	Yield:			102						
Uranium-235/236			U	0.00284	pCi/g					
	TPU:			+/-0.00284						
	Yield:			102						
Uranium-238			U	0.00574	pCi/g					
	TPU:			+/-0.00383						
	Yield:			102						
Batch 939255										

QC Summary

Workorder: 243472

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Alpha Spec										
Batch 939255										
QC1202009995 243397005 DUP										
Plutonium-238	U	0.00	U	-0.00276	pCi/g	0.198		(0-1)	MXE1	01/09/1012:01
	TPU:	+/-0.0011		+/-0.00584						
	Yield:	102		90.8						
Plutonium-239/240	U	0.0011	U	0.00275	pCi/g	0.215		(0-1)		
	TPU:	+/-0.0019		+/-0.00195						
	Yield:	102		90.8						
QC1202009996 LCS										
Plutonium-238				6.86	pCi/g			(75%-125%)		
	TPU:			+/-0.510						
	Yield:			89.0						
Plutonium-239/240	41.8			39.5	pCi/g		94.5	(75%-125%)		
	TPU:			+/-2.43						
	Yield:			89.0						
QC1202009994 MB										
Plutonium-238			U	-0.0103	pCi/g					01/09/1012:01
	TPU:			+/-0.00685						
	Yield:			83.1						
Plutonium-239/240			U	-0.00685	pCi/g					
	TPU:			+/-0.00419						
	Yield:			83.1						
Rad Liquid Scintillation										
Batch 936900										
QC1202004655 243555001 DUP										
Tritium		60500	U	67.2	pCi/L	0.132		(0-1)	KXK2	01/06/1012:05
	TPU:	+/-4250		+/-64.7						
QC1202004656 LCS										
Tritium	5600			5930	pCi/L		106	(75%-125%)		01/05/1008:04
	TPU:			+/-516						
QC1202004654 MB										
Tritium			U	28.1	pCi/L					01/06/1011:13
	TPU:			+/-63.2						

Notes:
The Qualifiers in this report are defined as follows:

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<	Result is less than value reported
>	Result is greater than value reported
A	The TIC is a suspected aldol-condensation product
B	For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD	Results are either below the MDC or tracer recovery is low
C	Analyte has been confirmed by GC/MS analysis
D	Results are reported from a diluted aliquot of the sample
E	Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
E	Organics--Concentration of the target analyte exceeds the instrument calibration range
F	Estimated Value

QC Summary

Workorder: 243472

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time

H	Analytical holding time was exceeded
J	Value is estimated
M	M if above MDC and less than LLD
M	Matrix Related Failure
N	Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A	RPD or %Recovery limits do not apply.
ND	Analyte concentration is not detected above the detection limit
NJ	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
P	Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%
R	Sample results are rejected
U	Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI	Gamma Spectroscopy--Uncertain identification
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
Z	Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d	5-day BOD--The 2:1 depletion requirement was not met for this sample
h	Preparation or preservation holding time was exceeded

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more.
** Indicates analyte is a surrogate compound.
^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptence criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.
For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

RAW DATA

Radiochemistry Batch Checklist, Rev 9

Batch# 9369962 Product: AM Date: 1/7/10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			N/A
Samples have been blank corrected (if required)	✓		
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125%. Carrier yield 25-125%. Or meets the client's contract acceptance criteria.	✓		
Method blank is less than the RDL/ LLD. (If rad samples. < 5% of lowest activity)	✓		
Sample was run within hold time.	✓		
Sample was correctly preserved if required.			N/A
Smears Taken for Radioactive batches.			N/A
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initiated and dated. No transcription errors are apparent.	✓		
Aux data is correct.			N/A
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)			N/A
Batch entered into Case Narrative.	✓		
Batch non-conformances completed. if applicable.			N/A
Batch non-conformances second reviewed and disposition verified to be completed.			N/A
Aliquot Correction completed if required.			N/A
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analyses.)	✓		

GEL Laboratories, LLC

revised 8/1/08

Primary Review Performed By: Denise Green 1/7/10

Secondary Review Performed By: [illegible] 1/7/10

1/14
LANL

Am/Cm Que Sheet

04-JAN-10

Batch #: 936962 | Analyst: MXE1 | First Client Due Date: 14-JAN-10 | Internal Due Date 04-JAN-10 | Comments:

Tracer(s): Am243/Cm244 | Tracer Code: 445-96-2-SS | Expiration Date: 5/11/10 | Vol: 0.1

LCS Isotope(s): Am241/Cm244 | LCS Code(s): 0244-B / NA | Expiration Date: 4/30/10 / NA | Vol(s): 1SCM / NA

Spike Isotope(s): Am241/Cm244 | Spike Code(s): NA / NA | Expiration Date: NA / NA | Vol(s): NA / NA

Prep Date: 1/4/10 | Initials: VW | Pipet ID: 2971058 | Balance ID: 50410272 | Witness: Me 1/4/10

Sample ID	Client Description	Type	Hazard Code	Min CRDL	Matrix	Client	Collection Date	Pos.	Label #	Wet/Dry Aliquot (g) / l / f)	Am/Cm Det #
243397001-1	RE16-10-2842	SAMPLE		.05 pCi/g	SOIL	LANL010	17-DEC-09	1	1	1.251	18
243397002-1	RE16-10-2843	SAMPLE		.05 pCi/g	SOIL	LANL010	17-DEC-09	2	2	1.253	223
243397003-1	RE16-10-2841	SAMPLE		.05 pCi/g	SOIL	LANL010	17-DEC-09	3	3	1.252	224
243397004-1	RE16-10-2845	SAMPLE		.05 pCi/g	SOIL	LANL010	17-DEC-09	4	4	1.250	225
243397005-1	RE16-10-2844	SAMPLE		.05 pCi/g	SOIL	LANL010	17-DEC-09	5	5	1.255	226
243457001-1	RE12-10-7553	SAMPLE		.05 pCi/g	SOIL	LANL010	18-DEC-09	6	6	1.252	227
243457002-1	RE12-10-7554	SAMPLE		.05 pCi/g	SOIL	LANL010	18-DEC-09	7	7	1.252	228
243457003-1	RE12-10-7551	SAMPLE		.05 pCi/g	SOIL	LANL010	18-DEC-09	8	8	1.251	229
243457004-1	RE12-10-7552	SAMPLE		.05 pCi/g	SOIL	LANL010	18-DEC-09	9	9	1.259	230
243472001-1	RE03-09-14228	SAMPLE		.05 pCi/g	SOIL	LANL010	21-DEC-09	10	10	1.256	231
243472002-1	RE03-09-14230	SAMPLE		.05 pCi/g	SOIL	LANL010	21-DEC-09	11	11	1.260	232
243472003-1	RE03-09-14229	SAMPLE		.05 pCi/g	SOIL	LANL010	21-DEC-09	12	12	1.258	233
243509001-1	RE16-10-2837	SAMPLE		.05 pCi/g	SOIL	LANL010	18-DEC-09	13	13	1.254	234
243509002-1	RE16-10-2835	SAMPLE		.05 pCi/g	SOIL	LANL010	18-DEC-09	14	14	1.264	235
243509003-1	RE16-10-2838	SAMPLE		.05 pCi/g	SOIL	LANL010	18-DEC-09	15	15	1.250	236
243555001-1	WST21-10-9933	SAMPLE		.05 pCi/g	SOIL	LANL010	23-DEC-09	16	16	1.252	237
243555002-1	WST21-10-9931	SAMPLE		.05 pCi/g	SOIL	LANL010	23-DEC-09	17	17	1.256	238
243611001-1	RE16-10-2858	SAMPLE		.05 pCi/g	SOIL	LANL010	22-DEC-09	18	18	1.259	239
243611002-1	RE16-10-2852	SAMPLE		.05 pCi/g	SOIL	LANL010	22-DEC-09	19	19	1.258	240
243611003-1	RE16-10-2857	SAMPLE		.05 pCi/g	SOIL	LANL010	22-DEC-09	20	20	1.261	241
1202004879-1	MB for batch 936962	MB		.05 pCi/g	SOIL	QC ACCOUNT		21	21	1.0 ~~1.261~~	242
1202004880-1	RE16-10-2844(243397005DUP)	DUP		.05 pCi/g	SOIL	QC ACCOUNT	17-DEC-09	22	22	1.260	243
1202004881-1	LCS for batch 936962	LCS		.05 pCi/g	SOIL	QC ACCOUNT		23	23	0.113	244

+ 8SCM

Choose SOP Used: GL-RAD-A-011
GL-RAD-A-036

Solid Sample Dissolution by: LEACH or DIGESTION
Circle One

Data Reviewed By: 1/7/10

Blank Correction Report

Batch ID 936962

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
1202004880	DUP	Americium-241	1.26 g	-0.000796	0.00144	0.0173	.001230159	pCi/g	YES
1202004881	LCS	Americium-241	0.113 g	29.2	1.95	0.174	.013716814	pCi/g	NO
1202004879	MB	Americium-241	1.00 g	0.00155	0.00141	0.0217	.00155	pCi/g	YES
243397001	RE16-10-2842	Americium-241	1.25 g	-0.000566	0.00557	0.0214	.00124	pCi/g	YES
243397002	RE16-10-2843	Americium-241	1.25 g	-0.000793	0.00103	0.0175	.00124	pCi/g	YES
243397003	RE16-10-2841	Americium-241	1.25 g	0.0132	0.00384	0.0182	.00124	pCi/g	NO
243397004	RE16-10-2845	Americium-241	1.25 g	0.0123	0.00372	0.0184	.00124	pCi/g	NO
243397005	RE16-10-2844	Americium-241	1.26 g	0.0012	0.0011	0.0171	.001230159	pCi/g	YES
243457001	RE12-10-7553	Americium-241	1.25 g	0.00492	0.00237	0.0191	.00124	pCi/g	YES
243457002	RE12-10-7554	Americium-241	1.25 g	0.00385	0.0021	0.0193	.00124	pCi/g	YES
243457003	RE12-10-7551	Americium-241	1.25 g	0.000378	0.0011	0.0187	.00124	pCi/g	YES
243457004	RE12-10-7552	Americium-241	1.26 g	0.000268	0.00104	0.0177	.001230159	pCi/g	YES
243472001	RE03-09-14228	Americium-241	1.26 g	-0.000286	0.00153	0.026	.001230159	pCi/g	YES
243472002	RE03-09-14230	Americium-241	1.26 g	-0.000669	0.00114	0.0194	.001230159	pCi/g	YES
243472003	RE03-09-14229	Americium-241	1.26 g	-0.00078	0.00104	0.0176	.001230159	pCi/g	YES
243509001	RE16-10-2837	Americium-241	1.25 g	0.00835	0.00311	0.0192	.00124	pCi/g	NO
243509002	RE16-10-2835	Americium-241	1.26 g	0.00867	0.00306	0.0178	.001230159	pCi/g	NO
243509003	RE16-10-2838	Americium-241	1.25 g	0.000209	0.00102	0.0173	.00124	pCi/g	YES
243555001	WST21-10-9933	Americium-241	1.25 g	-0.000648	0.00321	0.020	.00124	pCi/g	YES
243555002	WST21-10-9931	Americium-241	1.26 g	0.0572	0.00874	0.0186	.001230159	pCi/g	NO
243611001	RE16-10-2858	Americium-241	1.26 g	0.000287	0.00105	0.0179	.001230159	pCi/g	YES
243611002	RE16-10-2852	Americium-241	1.26 g	0.00972	0.00324	0.0178	.001230159	pCi/g	NO
243611003	RE16-10-2857	Americium-241	1.26 g	0.00357	0.00197	0.0183	.001230159	pCi/g	YES

Alpha Spectroscopy Software Version 2.0
effective date: 09-Mar-1997

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 936962
SAMPLE DATE : 17-DEC-2009 00:00:00

SAMPLE ID : S0243397005_AM
SAMPLE QTY: 1.255 G

DETECTOR NUMBER :79419
AVERAGE %EFFICIENCY :37.3342
% YIELD : 95.537

COUNT DATE: 6-JAN-2010 18:20:28
ELAPSED LIVE TIME(SEC): 60000.00
ANALYST :MXE1

MS/MSD	LCS/LCSD	TRACER	
ID : 0244-B	ID : 0244-B	ID : 445-96-2-SS	LIB FILE : ENV_ALPHA_AM.N
ISOTOPE : AM-241	ISOTOPE : AM-241	ISOTOPE : AM243	BKG FILE : B226.CNF;66
PCI/G : 3.316E+01	PCI/G : 3.316E+01	NOMINAL : 2.91660 dpm	BKG DATE : 3-JAN-2010
		RESULTS : 2.78644 dpm	EFF FILE : W226.CNF;24
			CAL DATE : 28-DEC-2009

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
CM-3/4	5795.020	5.000	5.000	0.000	5.2338	100.0000	5.04E-03	2.27E-03	1.23E-02	2.72E-02	2.26E-03
CM-5/6	5386.000	23.000	23.000	0.000	19.8463	86.09000	2.69E-02	5.82E-03	5.40E-02	1.11E-01	5.61E-03
AM-241	5479.150	3.000	1.193	0.000	3.0704	99.94000	1.20E-03	1.10E-03	7.19E-03	1.71E-02	1.10E-03
CM-242	6102.000	4.000	4.000	0.000	4.3186	100.0000	4.40E-03	2.22E-03	1.01E-02	2.29E-02	2.20E-03
AM243	5270.000	1038.000	1038.000	0.000	0.0000	99.78000	1.05E+00	6.90E-02	0.00E+00	2.73E-03	3.25E-02
CM-247	4946.000	15.000	13.000	2.000	15.3366	79.30000	1.65E-02	5.32E-03	4.53E-02	9.40E-02	5.23E-03
CM-248	5078.600	16.000	16.000	0.000	22.1555	91.00000	1.77E-02	4.54E-03	5.70E-02	1.17E-01	4.42E-03

NOTE: Sg calculated via blank population (updated 5-JAN-2010)
NOTE: Sg of AM243 calculated as sqrt(BKG AREA)
NOTE: Corrections made to AM-241 net area due to tracer impurity

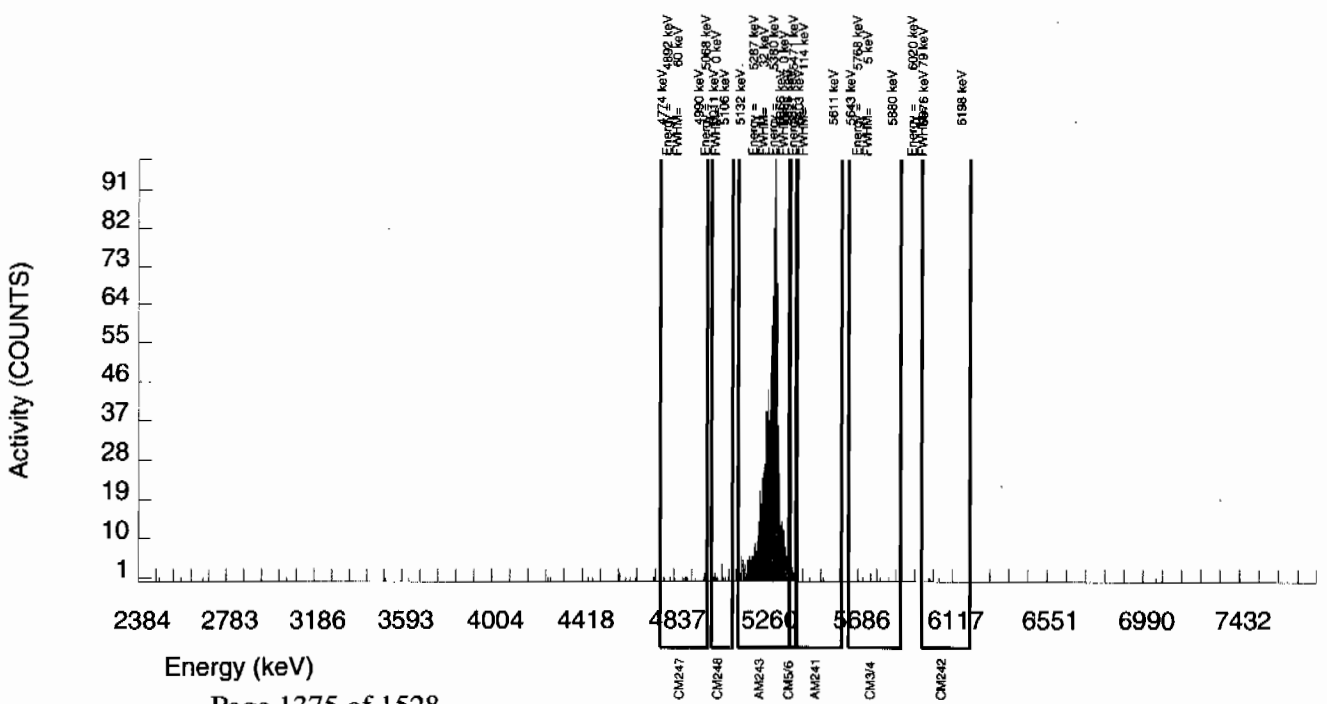

Alpha Spectroscopy Software Version 2.0
effective date: 08-Mar-1997

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 936962
SAMPLE DATE : 21-DEC-2009 00:00:00

SAMPLE ID : S0243472001_AM
SAMPLE QTY: 1.256 G

DETECTOR NUMBER :79424
AVERAGE %EFFICIENCY :38.6663
% YIELD : 60.608

COUNT DATE: 6-JAN-2010 18:20:41
ELAPSED LIVE TIME(SEC): 60000.00
ANALYST :MXE1

MS/MSD	LCS/LCSD	TRACER	
ID : 0244-B	ID : 0244-B	ID : 445-96-2-SS	LIB FILE : ENV_ALPHA_AM.N
ISOTOPE : AM-241	ISOTOPE : AM-241	ISOTOPE : AM243	BKG FILE : B231.CNF;66
PCI/G : 3.316E+01	PCI/G : 3.316E+01	NOMINAL : 2.91660 dpm	BKG DATE : 3-JAN-2010
		RESULTS : 1.76770 dpm	EFF FILE : W231.CNF;24
			CAL DATE : 28-DEC-2009

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
CM-3/4	5795.020	2.000	2.000	0.000	5.2338	100.0000	3.07E-03	2.18E-03	1.86E-02	4.14E-02	2.17E-03
CM-5/6	5386.000	7.000	7.000	0.000	19.8463	86.09000	1.24E-02	4.77E-03	8.21E-02	1.69E-01	4.70E-03
AM-241	5479.150	1.000	-0.187	0.000	3.0704	99.94000	-2.86E-04	1.53E-03	1.09E-02	2.60E-02	1.53E-03
CM-242	6102.000	0.000	0.000	0.000	4.3186	100.0000	0.00E+00	1.65E-03	1.54E-02	3.49E-02	1.65E-03
AM243	5270.000	683.000	682.000	1.000	1.0000	99.78000	1.05E+00	7.65E-02	3.57E-03	1.13E-02	4.01E-02
CM-247	4946.000	6.000	5.000	1.000	15.3366	79.30000	9.65E-03	5.14E-03	6.89E-02	1.43E-01	5.11E-03
CM-248	5078.600	13.000	13.000	0.000	22.1555	91.00000	2.19E-02	6.21E-03	8.67E-02	1.78E-01	6.06E-03

NOTE: Sg calculated via blank population (updated 5-JAN-2010)
NOTE: Sg of AM243 calculated as sqrt(BKG AREA)
NOTE: Corrections made to AM-241 net area due to tracer impurity

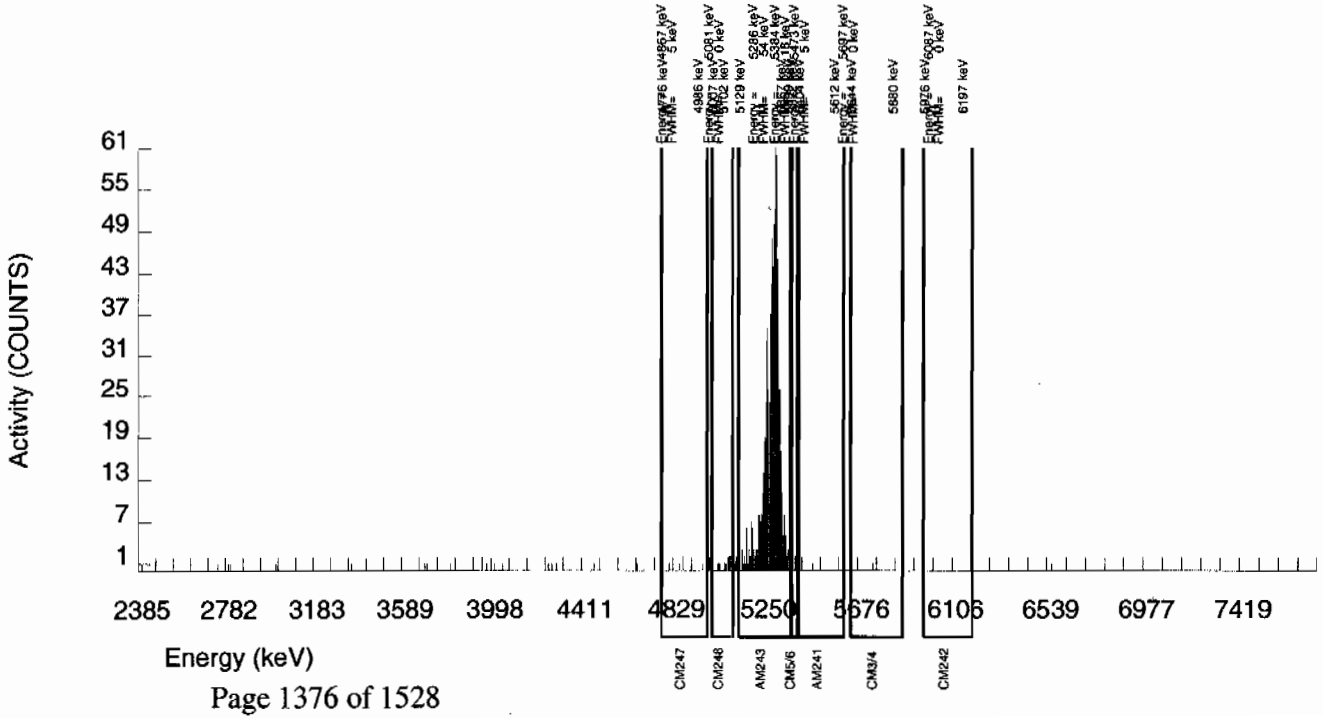

Alpha Spectroscopy Software Version 2.0
effective date: 09-Mar-1997

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 936962
SAMPLE DATE : 21-DEC-2009 00:00:00

SAMPLE ID : S0243472002_AM
SAMPLE QTY: 1.260 G

DETECTOR NUMBER :79425
AVERAGE %EFFICIENCY :36.8787
% YIELD : 84.884

COUNT DATE: 6-JAN-2010 18:20:44
ELAPSED LIVE TIME(SEC): 60000.00
ANALYST :MXE1

MS/MSD	LCS/LCSD	TRACER	
ID : 0244-B	ID : 0244-B	ID : 445-96-2-SS	LIB FILE : ENV_ALPHA_AM.N
ISOTOPE : AM-241	ISOTOPE : AM-241	ISOTOPE : AM243	BKG FILE : B232.CNF;68
PCI/G : 3.316E+01	PCI/G : 3.316E+01	NOMINAL : 2.91660 dpm	BKG DATE : 3-JAN-2010
		RESULTS : 2.47571 dpm	EFF FILE : W232.CNF;24
			CAL DATE : 28-DEC-2009

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
CM-3/4	5795.020	4.000	4.000	0.000	5.2338	100.0000	4.58E-03	2.30E-03	1.39E-02	3.09E-02	2.29E-03
CM-5/6	5386.000	23.000	23.000	0.000	19.8463	86.09000	3.05E-02	6.61E-03	6.12E-02	1.26E-01	6.36E-03
AM-241	5479.150	1.000	-0.586	0.000	3.0704	99.94000	-6.69E-04	1.14E-03	8.16E-03	1.94E-02	1.14E-03
CM-242	6102.000	4.000	4.000	0.000	4.3186	100.0000	4.91E-03	2.47E-03	1.15E-02	2.60E-02	2.46E-03
AM243	5270.000	912.000	911.000	1.000	1.0000	99.78000	1.04E+00	7.08E-02	2.66E-03	8.43E-03	3.46E-02
CM-247	4946.000	6.000	6.000	0.000	15.3366	79.30000	8.64E-03	3.56E-03	5.14E-02	1.07E-01	3.53E-03
CM-248	5078.600	10.000	10.000	0.000	22.1555	91.00000	1.25E-02	4.04E-03	6.47E-02	1.33E-01	3.97E-03

NOTE: Sg calculated via blank population (updated 5-JAN-2010)
NOTE: Sg of AM243 calculated as sqrt(BKG AREA)
NOTE: Corrections made to AM-241 net area due to tracer impurity

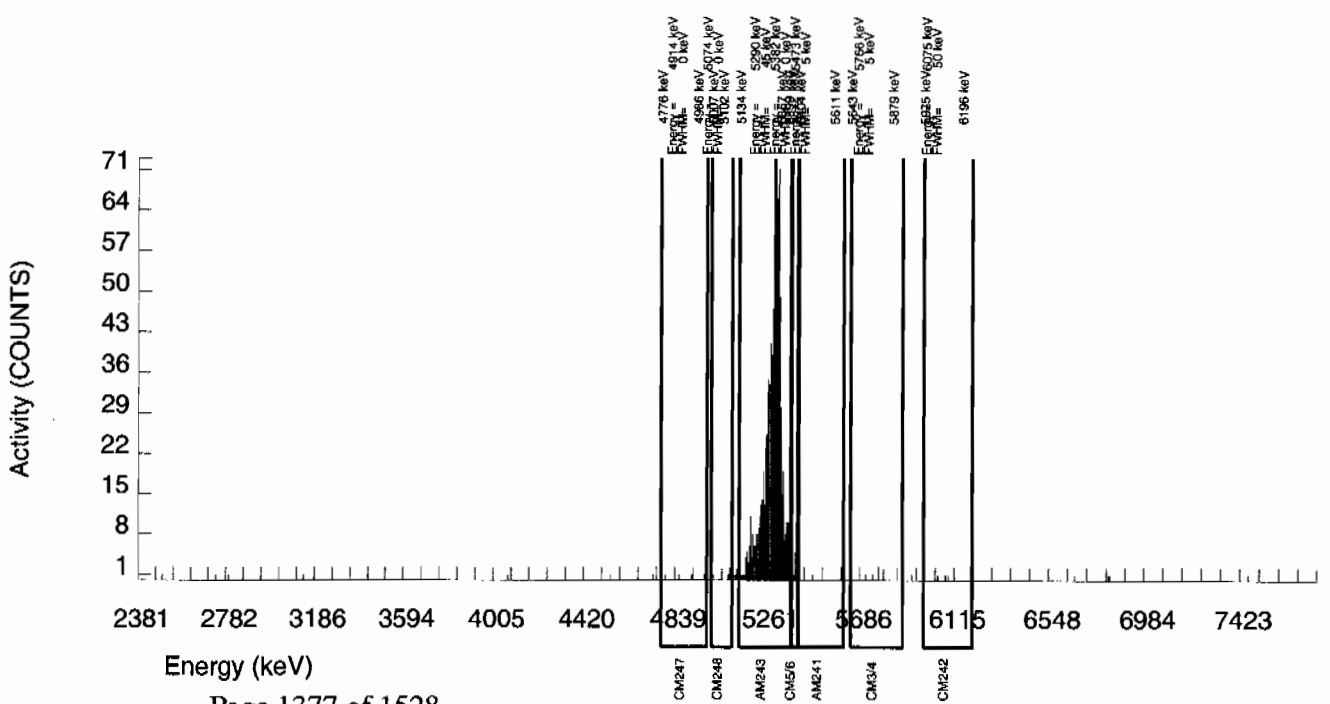

Alpha Spectroscopy Software Version 2.0
effective date: 09-Mar-1997

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 936962
SAMPLE DATE : 21-DEC-2009 00:00:00

SAMPLE ID : S0243472003_AM
SAMPLE QTY: 1.258 G

DETECTOR NUMBER :SAMPLE
AVERAGE %EFFICIENCY :38.1505
% YIELD : 90.791

COUNT DATE: 6-JAN-2010 18:20:47
ELAPSED LIVE TIME(SEC): 60000.00
ANALYST :MXE1

MS/MSD	LCS/LCSD	TRACER	
ID : 0244-B	ID : 0244-B	ID : 445-96-2-SS	LIB FILE : ENV_ALPHA_AM.N
ISOTOPE : AM-241	ISOTOPE : AM-241	ISOTOPE : AM243	BKG FILE : B233.CNF;66
PCI/G : 3.316E+01	PCI/G : 3.316E+01	NOMINAL : 2.91660 dpm	BKG DATE : 3-JAN-2010
		RESULTS : 2.64800 dpm	EFF FILE : W233.CNF;24
			CAL DATE : 28-DEC-2009

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
CM-3/4	5795.020	3.000	3.000	0.000	5.2338	100.0000	3.11E-03	1.80E-03	1.26E-02	2.80E-02	1.79E-03
CM-5/6	5386.000	13.000	13.000	0.000	19.8463	86.09000	1.56E-02	4.42E-03	5.54E-02	1.14E-01	4.33E-03
AM-241	5479.150	1.000	-0.754	0.000	3.0704	99.94000	-7.80E-04	1.04E-03	7.39E-03	1.76E-02	1.03E-03
CM-242	6102.000	4.000	3.000	1.000	4.3186	100.0000	3.34E-03	2.49E-03	1.04E-02	2.36E-02	2.49E-03
AM243	5270.000	1008.000	1008.000	0.000	0.0000	99.78000	1.04E+00	6.93E-02	0.00E+00	2.81E-03	3.29E-02
CM-247	4946.000	8.000	8.000	0.000	15.3366	79.30000	1.04E-02	3.74E-03	4.65E-02	9.66E-02	3.69E-03
CM-248	5078.600	14.000	14.000	0.000	22.1555	91.00000	1.59E-02	4.35E-03	5.86E-02	1.20E-01	4.25E-03

NOTE: Sg calculated via blank population (updated 5-JAN-2010)
NOTE: Sg of AM243 calculated as sqrt(BKG AREA)
NOTE: Corrections made to AM-241 net area due to tracer impurity

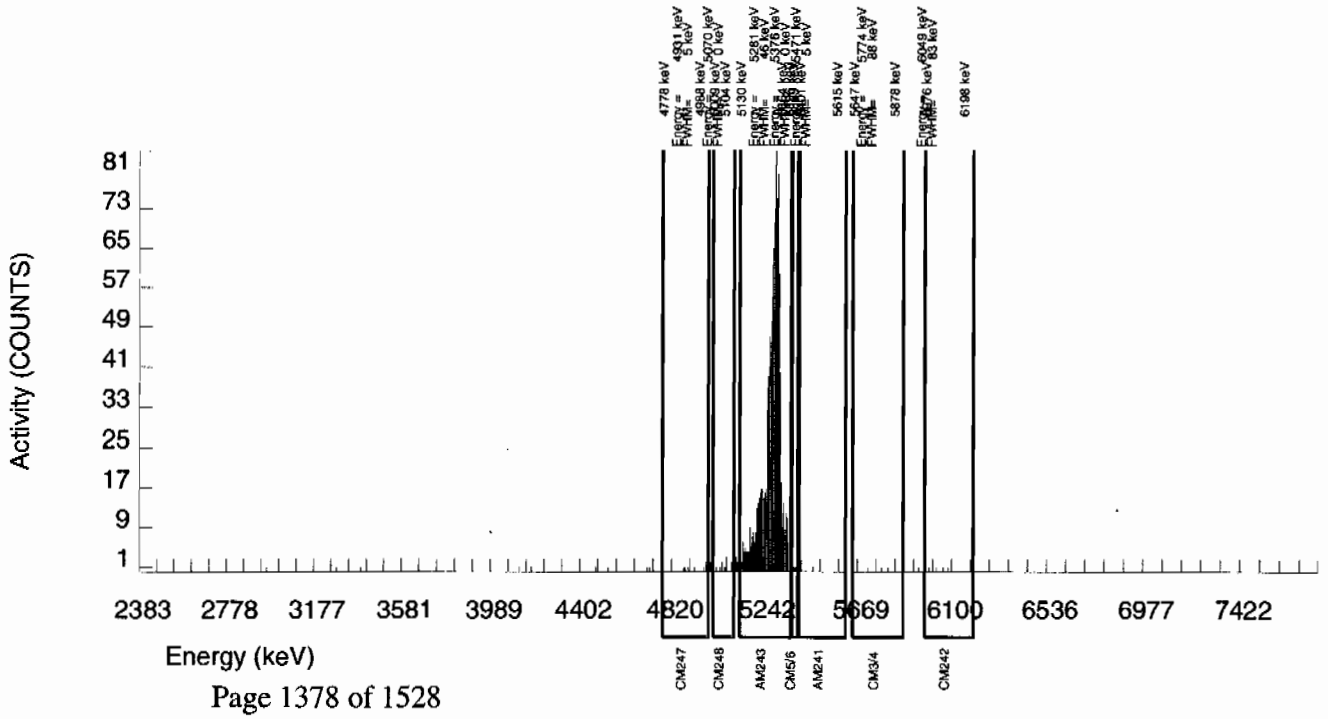

Alpha Spectroscopy Software Version 2.0
effective date: 09-Mar-1997

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 936962
SAMPLE DATE : 4-JAN-2010 00:00:00.

SAMPLE ID : S1202004879_AM
SAMPLE QTY: 1.000 G

DETECTOR NUMBER :79435
AVERAGE %EFFICIENCY :38.1437
% YIELD : 92.519

COUNT DATE: 6-JAN-2010 18:21:13
ELAPSED LIVE TIME(SEC): 60000.00
ANALYST :MXE1

MS/MSD	LCS/LCSD	TRACER	
ID : 0244-B	ID : 0244-B	ID : 445-96-2-SS	LIB FILE : ENV_ALPHA_AM.N
ISOTOPE : AM-241	ISOTOPE : AM-241	ISOTOPE : AM243	BKG FILE : B242.CNF;66
PCI/G : 3.316E+01	PCI/G : 3.316E+01	NOMINAL : 2.91659 dpm	BKG DATE : 3-JAN-2010
		RESULTS : 2.69839 dpm	EFF FILE : W242.CNF;24
			CAL DATE : 28-DEC-2009

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
CM-3/4	5795.020	1.000	0.000	1.000	5.2338	100.0000	0.00E+00	1.81E-03	1.55E-02	3.45E-02	1.81E-03
CM-5/6	5386.000	16.000	16.000	0.000	19.8463	86.09000	2.37E-02	6.09E-03	6.85E-02	1.41E-01	5.93E-03
AM-241	5479.150	3.000	1.213	0.000	3.0704	99.94000	1.55E-03	1.41E-03	9.12E-03	2.17E-02	1.41E-03
CM-242	6102.000	6.000	6.000	0.000	4.3186	100.0000	7.76E-03	3.20E-03	1.28E-02	2.91E-02	3.17E-03
AM243	5270.000	1028.000	1027.000	1.000	1.0000	99.78000	1.31E+00	8.69E-02	2.98E-03	9.42E-03	4.10E-02
CM-247	4946.000	6.000	6.000	0.000	15.3366	79.30000	9.66E-03	3.98E-03	5.74E-02	1.19E-01	3.94E-03
CM-248	5078.600	15.000	15.000	0.000	22.1555	91.00000	2.10E-02	5.57E-03	7.23E-02	1.48E-01	5.43E-03

NOTE: Sg calculated via blank population (updated 5-JAN-2010)
NOTE: Sg of AM243 calculated as sqrt(BKG AREA)
NOTE: Corrections made to AM-241 net area due to tracer impurity

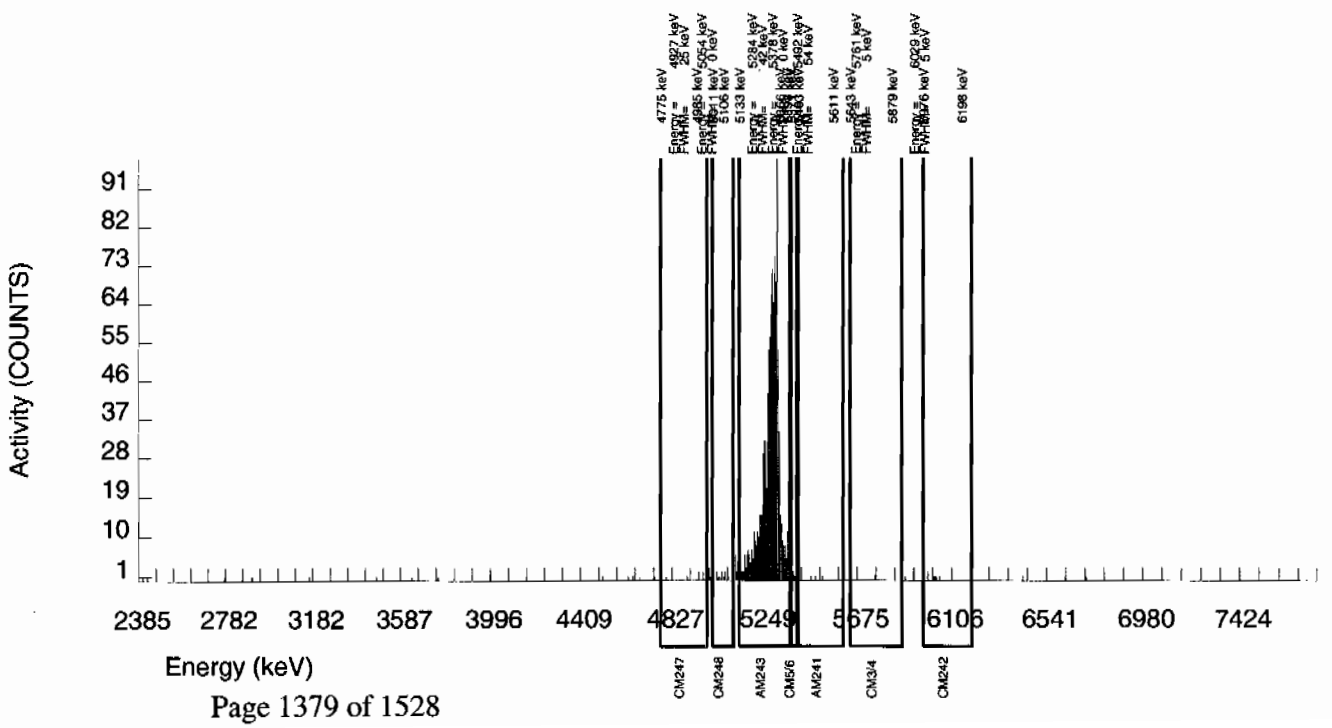

Alpha Spectroscopy Software Version 2.0
effective date: 09-Mar-1997

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 936962 SAMPLE DATE : 17-DEC-2009 00:00:00	SAMPLE ID : S1202004880_AM SAMPLE QTY: 1.260 G
DETECTOR NUMBER :79436 AVERAGE %EFFICIENCY :37.2411 % YIELD : 94.576	COUNT DATE: 6-JAN-2010 18:21:15 ELAPSED LIVE TIME(SEC): 60000.00 ANALYST :MXE1

MS/MSD	LCS/LCSD	TRACER	
ID : 0244-B	ID : 0244-B	ID : 445-96-2-SS	LIB FILE : ENV_ALPHA_AM.N
ISOTOPE : AM-241	ISOTOPE : AM-241	ISOTOPE : AM243	BKG FILE : B243.CNF;66
PCI/G : 3.316E+01	PCI/G : 3.316E+01	NOMINAL : 2.91660 dpm	BKG DATE : 3-JAN-2010
		RESULTS : 2.75841 dpm	EFF FILE : W243.CNF;24
			CAL DATE : 28-DEC-2009

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
CM-3/4	5795.020	1.000	0.000	1.000	5.2338	100.0000	0.00E+00	1.44E-03	1.24E-02	2.75E-02	1.44E-03
CM-5/6	5386.000	20.000	20.000	0.000	19.8463	86.09000	2.36E-02	5.46E-03	5.44E-02	1.12E-01	5.27E-03
AM-241	5479.150	2.000	-0.784	1.000	3.0704	99.94000	-7.96E-04	1.44E-03	7.25E-03	1.73E-02	1.44E-03
CM-242	6102.000	3.000	3.000	0.000	4.3186	100.0000	3.33E-03	1.93E-03	1.02E-02	2.31E-02	1.92E-03
AM243	5270.000	1027.000	1025.000	2.000	1.4142	99.78000	1.04E+00	7.05E-02	3.35E-03	9.45E-03	3.26E-02
CM-247	4946.000	9.000	7.000	2.000	15.3366	79.30000	8.96E-03	4.28E-03	4.57E-02	9.48E-02	4.25E-03
CM-248	5078.600	14.000	14.000	0.000	22.1555	91.00000	1.56E-02	4.28E-03	5.75E-02	1.18E-01	4.17E-03

NOTE: Sg calculated via blank population (updated 5-JAN-2010)
NOTE: Sg of AM243 calculated as sqrt(BKG AREA)
NOTE: Corrections made to AM-241 net area due to tracer impurity

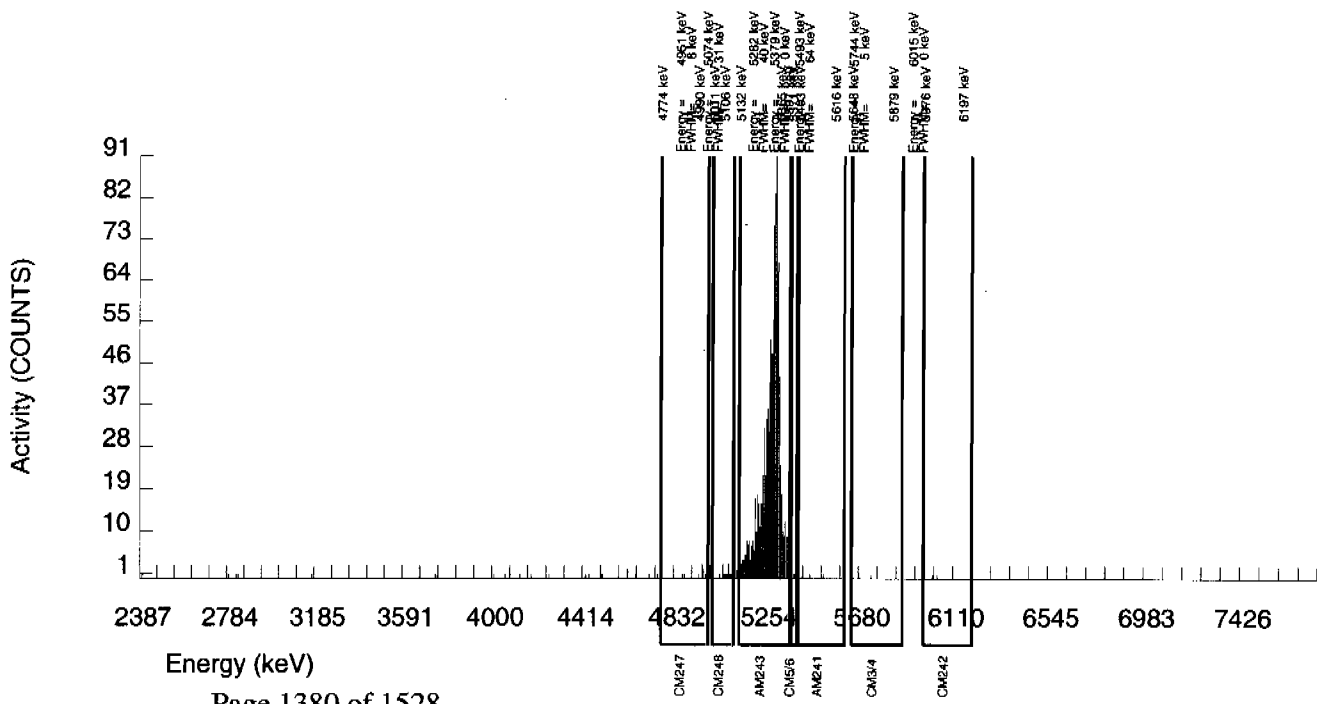

Alpha Spectroscopy Software Version 2.0
effective date: 09-Mar-1997

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 936962
SAMPLE DATE : 4-JAN-2010 00:00:00.

SAMPLE ID : S1202004881_AM
SAMPLE QTY: 0.113 G

DETECTOR NUMBER :79437
AVERAGE %EFFICIENCY :37.3769
% YIELD : 103.978

COUNT DATE: 6-JAN-2010 18:21:18
ELAPSED LIVE TIME(SEC): 60000.00
ANALYST :MXE1

MS/MSD	LCS/LCSD	TRACER	
ID : 0244-B	ID : 0244-B	ID : 445-96-2-SS	LIB FILE : ENV_ALPHA_AM.N
ISOTOPE : AM-241	ISOTOPE : AM-241	ISOTOPE : AM243	BKG FILE : B244.CNF;66
PCI/G : 3.316E+01	PCI/G : 3.316E+01	NOMINAL : 2.91659 dpm	BKG DATE : 3-JAN-2010
		RESULTS : 3.03260 dpm	EFF FILE : W244.CNF;24
			CAL DATE : 28-DEC-2009

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
CM-3/4	5795.020	4.000	4.000	0.000	5.2338	100.0000	4.10E-02	2.07E-02	1.25E-01	2.78E-01	2.05E-02
CM-5/6	5386.000	87.000	87.000	0.000	19.8463	86.09000	1.04E+00	1.29E-01	5.50E-01	1.13E+00	1.11E-01
AM-241	5479.150	2850.000	2847.031	1.000	3.0704	99.94000	2.92E+01	1.95E+00	7.33E-02	1.74E-01	5.48E-01
CM-242	6102.000	7.000	7.000	0.000	4.3186	100.0000	7.28E-02	2.79E-02	1.03E-01	2.34E-01	2.75E-02
AM243	5270.000	1131.000	1131.000	0.000	0.0000	99.78000	1.16E+01	8.22E-01	0.00E+00	2.79E-02	3.46E-01
CM-247	4946.000	16.000	16.000	0.000	15.3366	79.30000	2.07E-01	5.34E-02	4.61E-01	9.58E-01	5.17E-02
CM-248	5078.600	24.000	24.000	0.000	22.1555	91.00000	2.71E-01	5.79E-02	5.81E-01	1.19E+00	5.52E-02

NOTE: Sg calculated via blank population (updated 5-JAN-2010)
NOTE: Sg of AM243 calculated as sqrt(BKG AREA)
NOTE: Corrections made to AM-241 net area due to tracer impurity

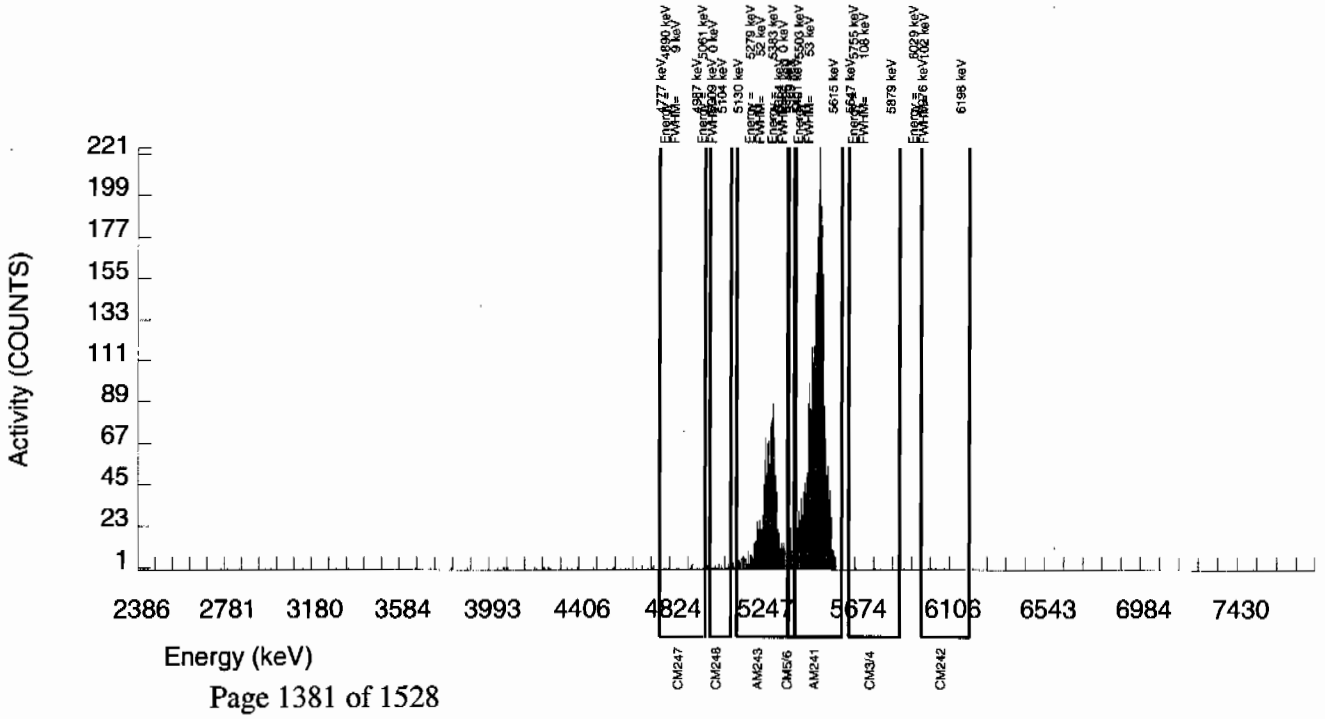

Radiochemistry Batch Checklist, Rev 9

Batch# 936975 Product: U Date: 1/7/10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			N/A
Samples have been blank corrected (if required)	✓		
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.	✓		
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	✓		
Sample was run within hold time.	✓		
Sample was correctly preserved if required.			N/A
Smears Taken for Radioactive batches.			N/A
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initiated and dated. No transcription errors are apparent.	✓		
Aux data is correct.			N/A
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)			N/A
Batch entered into Case Narrative.	✓		
Batch non-conformances completed. If applicable.			N/A
Batch non-conformances second reviewed and disposition verified to be completed.			N/A
Aliquot Correction completed if required.			N/A
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analyze.)	✓		

GEL Laboratories, LLC

revised 8/1/08

Primary Review Performed By: JoLM 1/7/10

Secondary Review Performed By: [illegible] 1/7/10

1/4 1/14

LANL

Uranium Que Sheet

04-JAN-10

Batch #: 936975 Analyst: MXE1 First Client Due Date: 14-JAN-10 Internal Due Date: 04-JAN-10

Tracer Isotope: U-232/U-236 Tracer Code: 1288-H Expiration Date: 12/9/10 Vol: 0.1

LCS Isotope: U-238 LCS Code: 0244-H Expiration Date: 10/31/10 Vol: 0.8mL

Spike Isotope: U-238 Spike Code: NA Expiration Date: NA Vol: NA

Prep Date: 1/4/10 Initials: WW Pipet ID: 19310058 Balance ID: 20410027 Witness: 1/4/10 MC

Sample ID	Client Description	Type	Hazard Code	Min CRDL	Matrix	Client	Collection Date	Pos.	Label #	Wet/Dry Aliquot (g) 1/f)	U Det #
243397001-1	RE16-10-2842	SAMPLE		.1 pCi/g	SOIL	LANL010	17-DEC-09	1	1	0.515	114
243397002-1	RE16-10-2843	SAMPLE		.1 pCi/g	SOIL	LANL010	17-DEC-09	2	2	0.502	115
243397003-1	RE16-10-2841	SAMPLE		.1 pCi/g	SOIL	LANL010	17-DEC-09	3	3	0.511	117
243397004-1	RE16-10-2845	SAMPLE		.1 pCi/g	SOIL	LANL010	17-DEC-09	4	4	0.514	118
243397005-1	RE16-10-2844	SAMPLE		.1 pCi/g	SOIL	LANL010	17-DEC-09	5	5	0.511	121
243457001-1	RE12-10-7553	SAMPLE		.1 pCi/g	SOIL	LANL010	18-DEC-09	6	6	0.505	122
243457002-1	RE12-10-7554	SAMPLE		.1 pCi/g	SOIL	LANL010	18-DEC-09	7	7	0.501	123
243457003-1	RE12-10-7551	SAMPLE		.1 pCi/g	SOIL	LANL010	18-DEC-09	8	8	0.510	124
243457004-1	RE12-10-7552	SAMPLE		.1 pCi/g	SOIL	LANL010	18-DEC-09	9	9	0.512	128
243472001-1	RE03-09-14228	SAMPLE		.1 pCi/g	SOIL	LANL010	21-DEC-09	10	10	0.501	129
243472002-1	RE03-09-14230	SAMPLE		.1 pCi/g	SOIL	LANL010	21-DEC-09	11	11	0.500	130
243472003-1	RE03-09-14229	SAMPLE		.1 pCi/g	SOIL	LANL010	21-DEC-09	12	12	0.507	132
243509001-1	RE16-10-2837	SAMPLE		.1 pCi/g	SOIL	LANL010	18-DEC-09	13	13	0.506	133
243509002-1	RE16-10-2835	SAMPLE		.1 pCi/g	SOIL	LANL010	18-DEC-09	14	14	0.511	134
243509003-1	RE16-10-2838	SAMPLE		.1 pCi/g	SOIL	LANL010	18-DEC-09	15	15	0.502	152
243555001-1	WST21-10-9933	SAMPLE		.1 pCi/g	SOIL	LANL010	23-DEC-09	16	16	0.502	153
243555002-1	WST21-10-9931	SAMPLE		.1 pCi/g	SOIL	LANL010	23-DEC-09	17	17	0.505	154
243611001-1	RE16-10-2858	SAMPLE		.1 pCi/g	SOIL	LANL010	22-DEC-09	18	18	0.512	168
243611002-1	RE16-10-2852	SAMPLE		.1 pCi/g	SOIL	LANL010	22-DEC-09	19	19	0.514	169
243611003-1	RE16-10-2857	SAMPLE		.1 pCi/g	SOIL	LANL010	22-DEC-09	20	20	0.508	170
1202004921-1	MB for batch 936975	MB		.1 pCi/g	SOIL	QC ACCOUNT		21	21	100.515	171
1202004912-1	RE16-10-2844(243397005DUP)	DUP		.1 pCi/g	SOIL	QC ACCOUNT	17-DEC-09	22	22	0.510	172
1202004923-1	LCS for batch 936975	LCS		.1 pCi/g	SOIL	QC ACCOUNT		23	23	0.102	167

QD 1/12/10
QD 1/12/10
1/7/10
*SRM

Choose SOP used: GL-RAD-A-011

Solid Sample Dissolution by: LEACH or DIGESTION (Circle One)

Data Reviewed By: JL ML 1/7/10

Blank Correction Report

Batch ID 936975

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
1202004922	DUP	Uranium-233/234	0.510 g	0.332	0.0361	0.0729	.011725490	pCi/g	NO
		Uranium-235/236	0.510 g	0.0233	0.00838	0.0453	.005568627	pCi/g	YES
		Uranium-238	0.510 g	0.339	0.0368	0.0423	.011254902	pCi/g	NO
1202004923	LCS	Uranium-233/234	0.102 g	6.27	0.540	0.359	.058627451	pCi/g	NO
		Uranium-235/236	0.102 g	0.372	0.0781	0.223	.027843137	pCi/g	NO
		Uranium-238	0.102 g	5.51	0.484	0.208	.056274510	pCi/g	NO
1202004921	MB	Uranium-233/234	1.00 g	0.00598	0.00419	0.0356	.00598	pCi/g	YES
		Uranium-235/236	1.00 g	0.00284	0.00284	0.0221	.00284	pCi/g	YES
		Uranium-238	1.00 g	0.00574	0.00383	0.0206	.00574	pCi/g	YES
243397001	RE16-10-2842	Uranium-233/234	0.515 g	0.242	0.0344	0.111	.011611650	pCi/g	NO
		Uranium-235/236	0.515 g	0.0221	0.0118	0.0687	.005514563	pCi/g	YES
		Uranium-238	0.515 g	0.286	0.0381	0.0642	.011145631	pCi/g	NO
243397002	RE16-10-2843	Uranium-233/234	0.502 g	0.307	0.0399	0.111	.011912351	pCi/g	NO
		Uranium-235/236	0.502 g	0.0177	0.0109	0.0689	.005657371	pCi/g	YES
		Uranium-238	0.502 g	0.286	0.0382	0.0644	.011434263	pCi/g	NO
243397003	RE16-10-2841	Uranium-233/234	0.511 g	0.681	0.0698	0.115	.011702544	pCi/g	NO
		Uranium-235/236	0.511 g	0.0366	0.0147	0.0712	.005557730	pCi/g	NO
		Uranium-238	0.511 g	0.740	0.0744	0.0665	.011232877	pCi/g	NO
243397004	RE16-10-2845	Uranium-233/234	0.514 g	0.814	0.0849	0.141	.011634241	pCi/g	NO
		Uranium-235/236	0.514 g	0.0506	0.0173	0.0675	.005525292	pCi/g	NO
		Uranium-238	0.514 g	0.764	0.081	0.0617	.011167315	pCi/g	NO
243397005	RE16-10-2844	Uranium-233/234	0.511 g	0.406	0.0483	0.113	.011702544	pCi/g	NO
		Uranium-235/236	0.511 g	0.0271	0.0144	0.0703	.005557730	pCi/g	YES
		Uranium-238	0.511 g	0.406	0.0483	0.0657	.011232877	pCi/g	NO
243457001	RE12-10-7553	Uranium-233/234	0.505 g	1.52	0.131	0.113	.011841584	pCi/g	NO
		Uranium-235/236	0.505 g	0.0994	0.0223	0.0703	.005623762	pCi/g	NO
		Uranium-238	0.505 g	1.98	0.164	0.0657	.011386337	pCi/g	NO
243457002	RE12-10-7554	Uranium-233/234	0.501 g	0.332	0.0428	0.115	.011936128	pCi/g	NO
		Uranium-235/236	0.501 g	0.0137	0.00797	0.0711	.005688663	pCi/g	YES
		Uranium-238	0.501 g	0.355	0.044	0.0664	.011457086	pCi/g	NO
243457003	RE12-10-7551	Uranium-233/234	0.510 g	1.43	0.125	0.115	.011725490	pCi/g	NO
		Uranium-235/236	0.510 g	0.0414	0.0141	0.0716	.005568627	pCi/g	NO
		Uranium-238	0.510 g	1.47	0.128	0.0669	.011254902	pCi/g	NO
243457004	RE12-10-7552	Uranium-233/234	0.512 g	0.452	0.0525	0.117	.011679688	pCi/g	NO
		Uranium-235/236	0.512 g	0.0186	0.00941	0.0725	.005546875	pCi/g	YES
		Uranium-238	0.512 g	0.550	0.0601	0.0677	.011210938	pCi/g	NO
243472001	RE03-09-14228	Uranium-233/234	0.501 g	0.860	0.0825	0.112	.011936128	pCi/g	NO
		Uranium-235/236	0.501 g	0.0314	0.0121	0.0698	.005688663	pCi/g	NO
		Uranium-238	0.501 g	0.835	0.0807	0.0652	.011457086	pCi/g	NO
243472002	RE03-09-14230	Uranium-233/234	0.500 g	0.829	0.0809	0.116	.01196	pCi/g	NO
		Uranium-235/236	0.500 g	0.0464	0.015	0.0722	.00568	pCi/g	NO

Blank Correction Report

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
243472002	RE03-09-14230	Uranium-238	0.500 g	0.893	0.0858	0.0675	.01148	pCi/g	NO
243472003	RE03-09-14229	Uranium-233/234	0.507 g	0.882	0.0839	0.111	.011794872	pCi/g	NO
		Uranium-235/236	0.507 g	0.0266	0.0127	0.069	.005601578	pCi/g	YES
		Uranium-238	0.507 g	0.911	0.0861	0.0646	.011321499	pCi/g	NO
243509001	RE16-10-2837	Uranium-233/234	0.506 g	0.763	0.0781	0.127	.011818182	pCi/g	NO
		Uranium-235/236	0.506 g	0.0457	0.0156	0.079	.005612648	pCi/g	NO
		Uranium-238	0.506 g	0.932	0.091	0.0738	.011343874	pCi/g	NO
243509002	RE16-10-2835	Uranium-233/234	0.511 g	0.763	0.0794	0.134	.011702544	pCi/g	NO
		Uranium-235/236	0.511 g	0.0639	0.0205	0.0829	.005557730	pCi/g	NO
		Uranium-238	0.511 g	0.879	0.0886	0.0775	.011232877	pCi/g	NO
243509003	RE16-10-2838	Uranium-233/234	0.502 g	0.453	0.0541	0.127	.011912351	pCi/g	NO
		Uranium-235/236	0.502 g	0.0151	0.00881	0.0785	.005657371	pCi/g	YES
		Uranium-238	0.502 g	0.486	0.0564	0.0734	.011434263	pCi/g	NO
243611001	RE16-10-2858	Uranium-233/234	0.512 g	0.619	0.0587	0.0815	.011679688	pCi/g	NO
		Uranium-235/236	0.512 g	0.026	0.00937	0.0506	.005546875	pCi/g	YES
		Uranium-238	0.512 g	0.579	0.0559	0.0473	.011210938	pCi/g	NO
243611002	RE16-10-2852	Uranium-233/234	0.514 g	0.913	0.0791	0.0794	.011634241	pCi/g	NO
		Uranium-235/236	0.514 g	0.0696	0.0156	0.0493	.005525292	pCi/g	NO
		Uranium-238	0.514 g	0.940	0.081	0.046	.011167315	pCi/g	NO
243611003	RE16-10-2857	Uranium-233/234	0.508 g	0.878	0.0776	0.0834	.011771654	pCi/g	NO
		Uranium-235/236	0.508 g	0.0432	0.0124	0.0518	.005590551	pCi/g	NO
		Uranium-238	0.508 g	1.04	0.089	0.0484	.011299213	pCi/g	NO

Alpha Spectroscopy Software Version 2.0
effective date: 09-Mar-1997

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 936975 SAMPLE DATE : 17-DEC-2009 00:00:00	SAMPLE ID : S0243397005_UU SAMPLE QTY: 0.511 G
DETECTOR NUMBER :75545 AVERAGE %EFFICIENCY :24.7171 % YIELD : 97.537	COUNT DATE: 6-JAN-2010 13:51:42 ELAPSED LIVE TIME(SEC): 60000.00 ANALYST :MXE1

MS/MSD	LCS/LCSD	TRACER	
ID : 0244-A	ID : 0244-A	ID : 1283-H	LIB FILE : ENV_ALPHA_UU.N
ISOTOPE : U-238	ISOTOPE : U-238	ISOTOPE : U232	BKG FILE : B121.CNF;427
PCI/G : 5.750E+00	PCI/G : 5.750E+00	NOMINAL : 4.51139 dpm	BKG DATE : 3-JAN-2010
		RESULTS : 4.40029 dpm	EFF FILE : W121.CNF;115
			CAL DATE : 15-DEC-2009

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U-3/4	4763.020	113.000	110.901	1.000	6.0782	100.0000	4.06E-01	4.83E-02	5.17E-02	1.13E-01	3.89E-02
U232	5302.100	1088.000	1087.000	1.000	1.0000	100.0000	3.98E+00	3.06E-01	8.51E-03	2.69E-02	1.21E-01
U-235	4391.000	8.000	6.000	2.000	2.7628	80.90000	2.71E-02	1.44E-02	2.90E-02	7.03E-02	1.43E-02
U-238	4184.730	112.000	111.000	1.000	3.2810	100.0000	4.06E-01	4.83E-02	2.79E-02	6.57E-02	3.89E-02

NOTE: Sg calculated via blank population (updated 5-JAN-2010)
NOTE: Sg of U232 calculated as sqrt(BKG AREA)
NOTE: Corrections made to U-3/4 net area due to tracer impurity

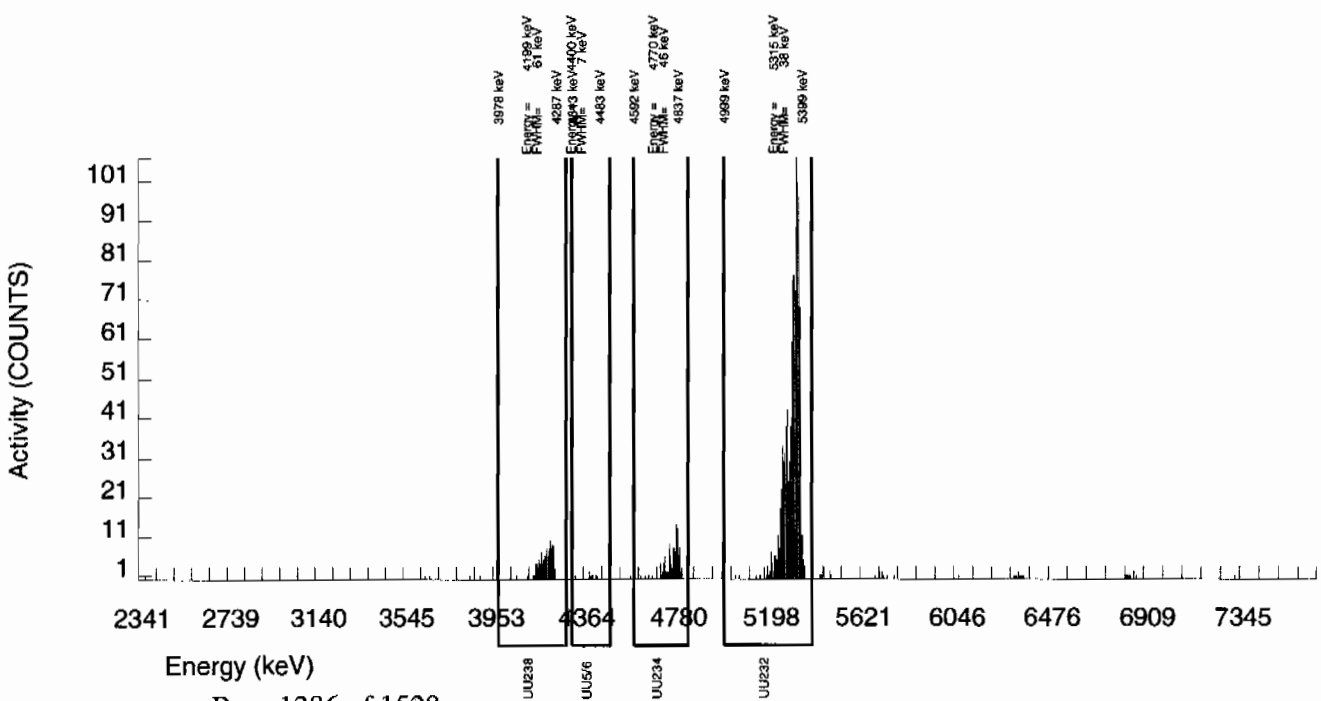

Alpha Spectroscopy Software Version 2.0
effective date: 09-Mar-1997

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 936975
SAMPLE DATE : 21-DEC-2009 00:00:00

SAMPLE ID : S0243472001_UU
SAMPLE QTY: 0.501 G

DETECTOR NUMBER :76227
AVERAGE %EFFICIENCY :26.3585
% YIELD : 93.988

COUNT DATE: 6-JAN-2010 13:52:00
ELAPSED LIVE TIME(SEC): 60000.00
ANALYST :MXE1

MS/MSD	LCS/LCSD	TRACER	
ID : 0244-A	ID : 0244-A	ID : 1283-H	LIB FILE : ENV_ALPHA_UU.N
ISOTOPE : U-238	ISOTOPE : U-238	ISOTOPE : U232	BKG FILE : B129.CNF;431
PCI/G : 5.750E+00	PCI/G : 5.750E+00	NOMINAL : 4.51089 dpm	BKG DATE : 3-JAN-2010
		RESULTS : 4.23969 dpm	EFF FILE : W129.CNF;126
			CAL DATE : 15-DEC-2009

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U-3/4	4763.020	239.000	236.871	1.000	6.0782	100.0000	8.60E-01	8.25E-02	5.13E-02	1.12E-01	5.61E-02
U232	5302.100	1121.000	1117.000	4.000	2.0000	100.0000	4.06E+00	3.11E-01	1.69E-02	4.36E-02	1.22E-01
U-235	4391.000	7.000	7.000	0.000	2.7628	80.90000	3.14E-02	1.21E-02	2.88E-02	6.98E-02	1.19E-02
U-238	4184.730	231.000	230.000	1.000	3.2810	100.0000	8.35E-01	8.07E-02	2.77E-02	6.52E-02	5.53E-02

NOTE: Sg calculated via blank population (updated 5-JAN-2010)
NOTE: Sg of U232 calculated as sqrt(BKG AREA)
NOTE: Corrections made to U-3/4 net area due to tracer impurity

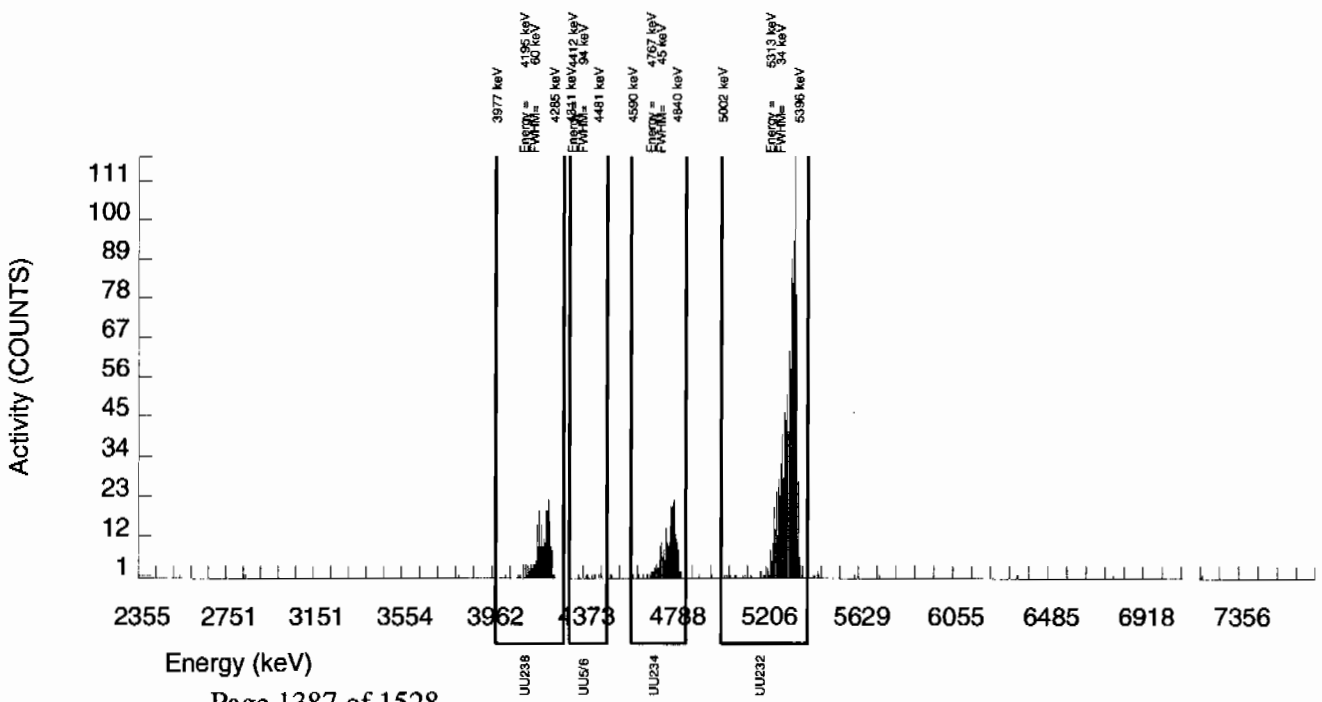

Alpha Spectroscopy Software Version 2.0
effective date: 09-Mar-1997

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 936975
SAMPLE DATE : 21-DEC-2009 00:00:00

SAMPLE ID : S0243472002_UU
SAMPLE QTY: 0.500 G

DETECTOR NUMBER :76228
AVERAGE %EFFICIENCY :24.6671
% YIELD : 97.286

COUNT DATE: 6-JAN-2010 13:52:03
ELAPSED LIVE TIME(SEC): 60000.00
ANALYST :MXE1

MS/MSD	LCS/LCSD	TRACER	
ID : 0244-A	ID : 0244-A	ID : 1283-H	LIB FILE : ENV_ALPHA_UU.N
ISOTOPE : U-238	ISOTOPE : U-238	ISOTOPE : U232	BKG FILE : B130.CNF;431
PCI/G : 5.750E+00	PCI/G : 5.750E+00	NOMINAL : 4.51090 dpm	BKG DATE : 3-JAN-2010
		RESULTS : 4.38845 dpm	EFF FILE : W130.CNF;128
			CAL DATE : 15-DEC-2009

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U-3/4	4763.020	222.000	220.906	0.000	6.0782	100.0000	8.29E-01	8.09E-02	5.31E-02	1.16E-01	5.58E-02
U232	5302.100	1084.000	1082.000	2.000	1.4142	100.0000	4.06E+00	3.13E-01	1.24E-02	3.49E-02	1.24E-01
U-235	4391.000	10.000	10.000	0.000	2.7628	80.90000	4.64E-02	1.50E-02	2.98E-02	7.22E-02	1.47E-02
U-238	4184.730	239.000	238.000	1.000	3.2810	100.0000	8.93E-01	8.58E-02	2.87E-02	6.75E-02	5.82E-02

NOTE: Sg calculated via blank population (updated 5-JAN-2010)
NOTE: Sg of U232 calculated as sqrt(BKG AREA)
NOTE: Corrections made to U-3/4 net area due to tracer impurity

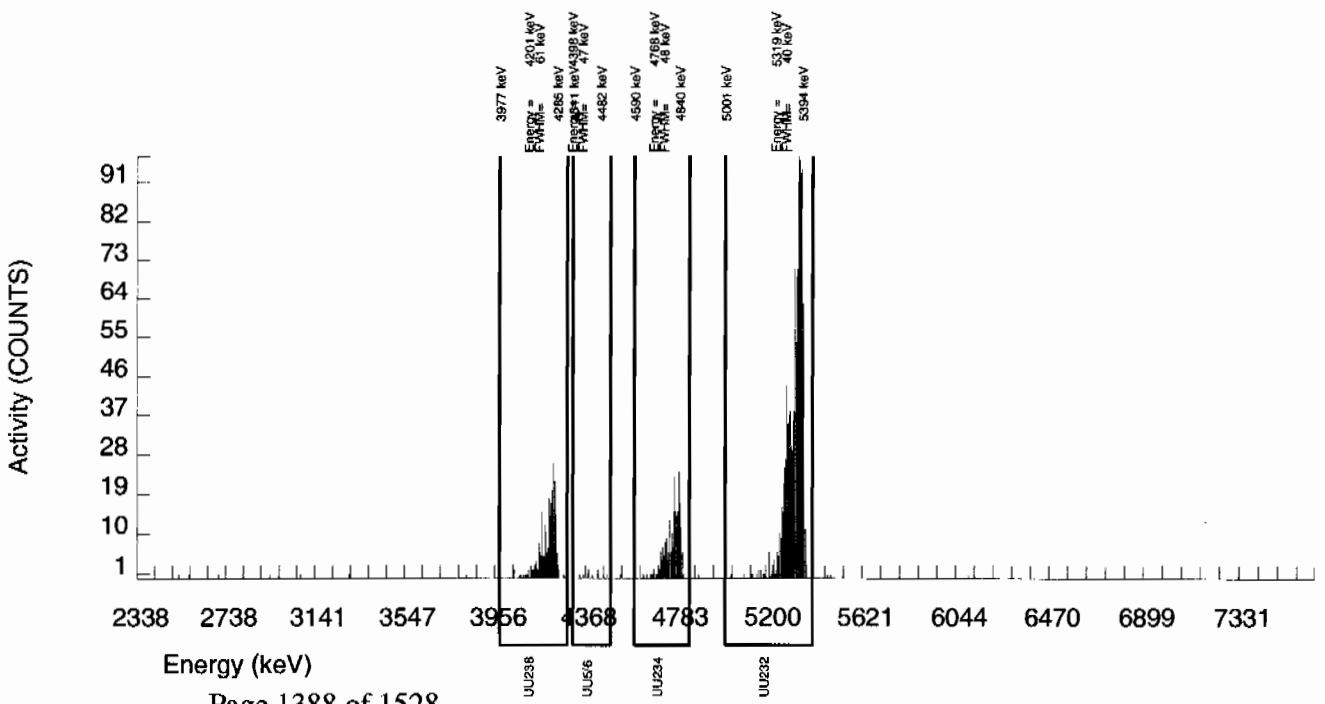

Alpha Spectroscopy Software Version 2.0
effective date: 09-Mar-1997

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 936975
SAMPLE DATE : 21-DEC-2009 00:00:00

SAMPLE ID : S0243472003_UU
SAMPLE QTY: 0.507 G

DETECTOR NUMBER :67579
AVERAGE %EFFICIENCY :24.9541
% YIELD : 99.277

COUNT DATE: 6-JAN-2010 13:52:07
ELAPSED LIVE TIME(SEC): 60000.00
ANALYST :MXE1

MS/MSD	LCS/LCSD	TRACER	
ID : 0244-A	ID : 0244-A	ID : 1283-H	LIB FILE : ENV_ALPHA_UU.N
ISOTOPE : U-238	ISOTOPE : U-238	ISOTOPE : U232	BKG FILE : B132.CNF;423
PCI/G : 5.750E+00	PCI/G : 5.750E+00	NOMINAL : 4.51089 dpm	BKG DATE : 3-JAN-2010
		RESULTS : 4.47830 dpm	EFF FILE : W132.CNF;128
			CAL DATE : 15-DEC-2009

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U-3/4	4763.020	248.000	245.871	1.000	6.0782	100.0000	8.82E-01	8.39E-02	5.07E-02	1.11E-01	5.65E-02
U232	5302.100	1121.000	1117.000	4.000	2.0000	100.0000	4.01E+00	3.07E-01	1.67E-02	4.31E-02	1.20E-01
U-235	4391.000	7.000	6.000	1.000	2.7628	80.90000	2.66E-02	1.27E-02	2.85E-02	6.90E-02	1.25E-02
U-238	4184.730	255.000	254.000	1.000	3.2810	100.0000	9.11E-01	8.61E-02	2.74E-02	6.45E-02	5.74E-02

NOTE: Sg calculated via blank population (updated 5-JAN-2010)
NOTE: Sg of U232 calculated as sqrt(BKG AREA)
NOTE: Corrections made to U-3/4 net area due to tracer impurity

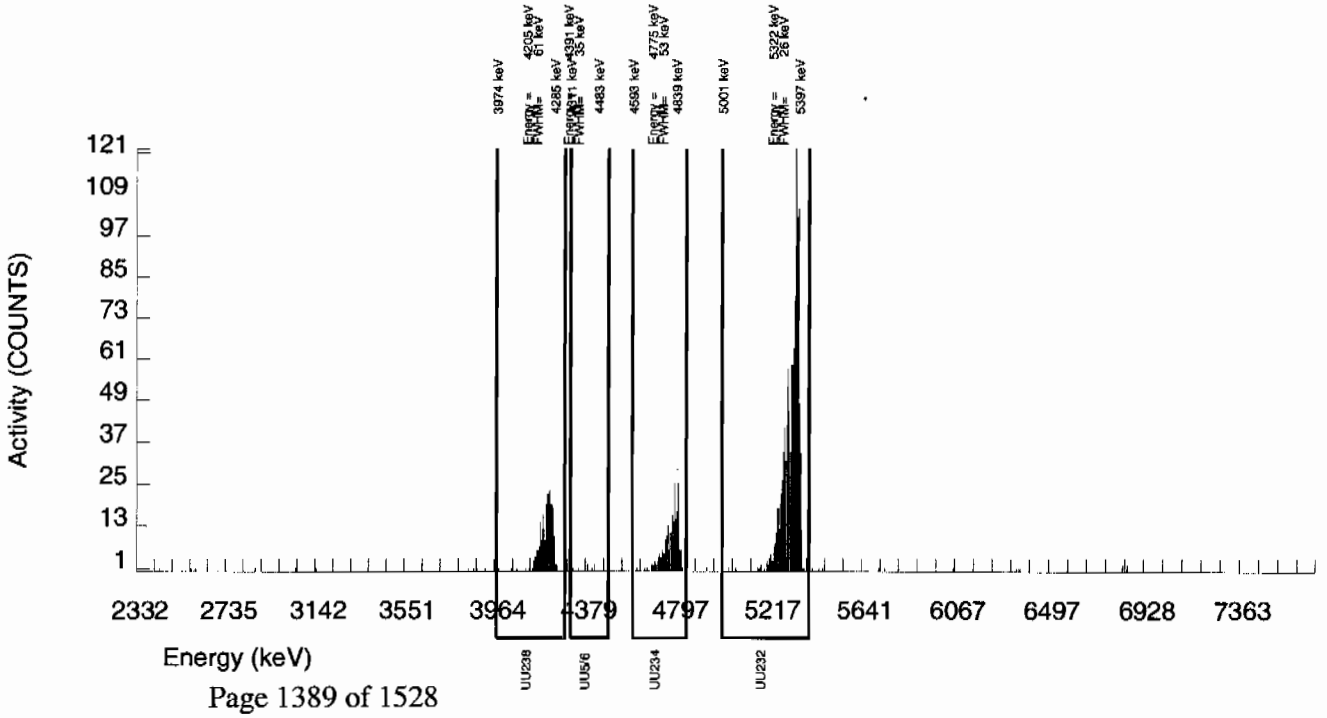

Alpha Spectroscopy Software Version 2.0
effective date: 08-Mar-1997

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 936975
SAMPLE DATE : 4-JAN-2010 00:00:00.

SAMPLE ID : S1202004921_UU
SAMPLE QTY: 1.000 G

DETECTOR NUMBER :78260
AVERAGE %EFFICIENCY :38.3524
% YIELD : 102.299

COUNT DATE: 6-JAN-2010 10:36:02
ELAPSED LIVE TIME(SEC): 60000.00
ANALYST :MXE1

MS/MSD	LCS/LCSD	TRACER	
ID : 0244-A	ID : 0244-A	ID : 1283-H	LIB FILE : ENV_ALPHA_UU.N
ISOTOPE : U-238	ISOTOPE : U-238	ISOTOPE : U232	BKG FILE : B171.CNF;163
PCI/G : 5.750E+00	PCI/G : 5.750E+00	NOMINAL : 4.50915 dpm	BKG DATE : 3-JAN-2010
		RESULTS : 4.61284 dpm	EFF FILE : W171.CNF;69
			CAL DATE : 21-DEC-2009

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U-3/4	4763.020	11.000	5.212	4.000	6.0782	100.0000	5.98E-03	4.19E-03	1.62E-02	3.56E-02	4.17E-03
U232	5302.100	1777.000	1769.000	8.000	2.8284	100.0000	2.03E+00	1.46E-01	7.55E-03	1.82E-02	4.85E-02
U-235	4391.000	3.000	2.000	1.000	2.7628	80.90000	2.84E-03	2.84E-03	9.12E-03	2.21E-02	2.84E-03
U-238	4184.730	8.000	5.000	3.000	3.2810	100.0000	5.74E-03	3.83E-03	8.76E-03	2.06E-02	3.81E-03

NOTE: Sg calculated via blank population (updated 5-JAN-2010)
NOTE: Sg of U232 calculated as sqrt(BKG AREA)
NOTE: Corrections made to U-3/4 net area due to tracer impurity

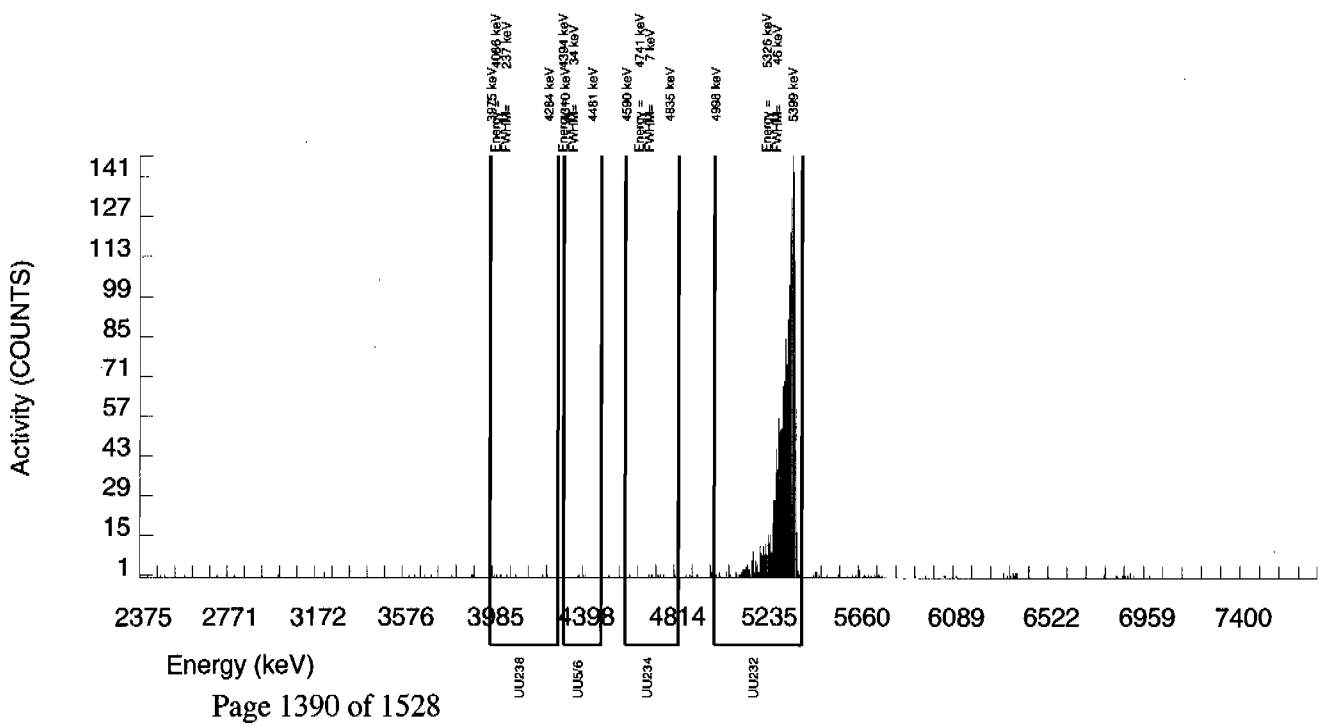

Alpha Spectroscopy Software Version 2.0
effective date: 09-Mar-1997

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 936975 SAMPLE DATE : 17-DEC-2009 00:00:00	SAMPLE ID : S1202004922_UU SAMPLE QTY: 0.510 G
DETECTOR NUMBER :78772 AVERAGE %EFFICIENCY :38.4140 % YIELD : 97.747	COUNT DATE: 6-JAN-2010 10:36:03 ELAPSED LIVE TIME(SEC): 60000.00 ANALYST :MXE1

MS/MSD	LCS/LCSD	TRACER	
ID : 0244-A ISOTOPE : U-238 PCI/G : 5.750E+00	ID : 0244-A ISOTOPE : U-238 PCI/G : 5.750E+00	ID : 1283-H ISOTOPE : U232 NOMINAL : 4.51139 dpm RESULTS : 4.40976 dpm	LIB FILE : ENV_ALPHA_UU.N BKG FILE : B172.CNF;161 BKG DATE : 3-JAN-2010 EFF FILE : W172.CNF;62 CAL DATE : 21-DEC-2009

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U-3/4	4763.020	144.000	141.289	1.000	6.0782	100.0000	3.32E-01	3.61E-02	3.33E-02	7.29E-02	2.82E-02
U232	5302.100	1698.000	1693.000	5.000	2.2361	100.0000	3.98E+00	2.88E-01	1.22E-02	3.08E-02	9.71E-02
U-235	4391.000	8.000	8.000	0.000	2.7628	80.90000	2.33E-02	8.38E-03	1.87E-02	4.53E-02	8.22E-03
U-238	4184.730	146.000	144.000	2.000	3.2810	100.0000	3.39E-01	3.68E-02	1.80E-02	4.23E-02	2.86E-02

NOTE: Sg calculated via blank population (updated 5-JAN-2010)
NOTE: Sg of U232 calculated as sqrt(BKG AREA)
NOTE: Corrections made to U-3/4 net area due to tracer impurity

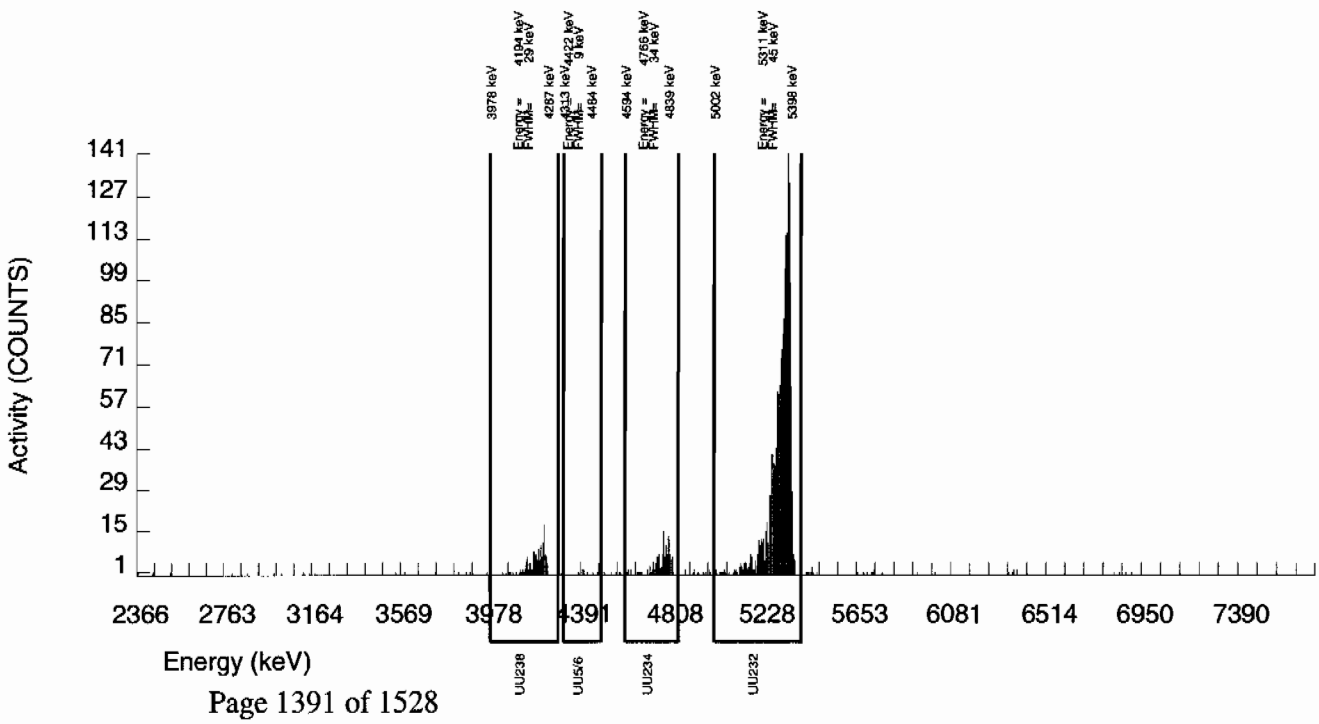

Alpha Spectroscopy Software Version 2.0
effective date: 09-Mar-1997

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 936975
SAMPLE DATE : 4-JAN-2010 00:00:00.

SAMPLE ID : S1202004923_UU
SAMPLE QTY: 0.102 G

DETECTOR NUMBER :72546
AVERAGE %EFFICIENCY :38.6386
% YIELD : 98.729

COUNT DATE: 6-JAN-2010 10:35:52
ELAPSED LIVE TIME(SEC): 60000.00
ANALYST :MXE1

MS/MSD	LCS/LCSD	TRACER	
ID : 0244-A	ID : 0244-A	ID : 1283-H	LIB FILE : ENV_ALPHA_UU.N
ISOTOPE : U-238	ISOTOPE : U-238	ISOTOPE : U232	BKG FILE : B167.CNF;157
PCI/G : 5.750E+00	PCI/G : 5.750E+00	NOMINAL : 4.50915 dpm	BKG DATE : 3-JAN-2010
		RESULTS : 4.45185 dpm	EFF FILE : W167.CNF;52
			CAL DATE : 21-DEC-2009

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U-3/4	4763.020	543.000	541.261	0.000	6.0782	100.0000	6.27E+00	5.40E-01	1.64E-01	3.59E-01	2.69E-01
U232	5302.100	1724.000	1720.000	4.000	2.0000	100.0000	1.99E+01	1.56E+00	5.39E-02	1.39E-01	4.81E-01
U-235	4391.000	26.000	26.000	0.000	2.7628	80.90000	3.72E-01	7.81E-02	9.20E-02	2.23E-01	7.30E-02
U-238	4184.730	479.000	476.000	3.000	3.2810	100.0000	5.51E+00	4.84E-01	8.84E-02	2.08E-01	2.54E-01

NOTE: Sg calculated via blank population (updated 5-JAN-2010)
NOTE: Sg of U232 calculated as sqrt(BKG AREA)
NOTE: Corrections made to U-3/4 net area due to tracer impurity

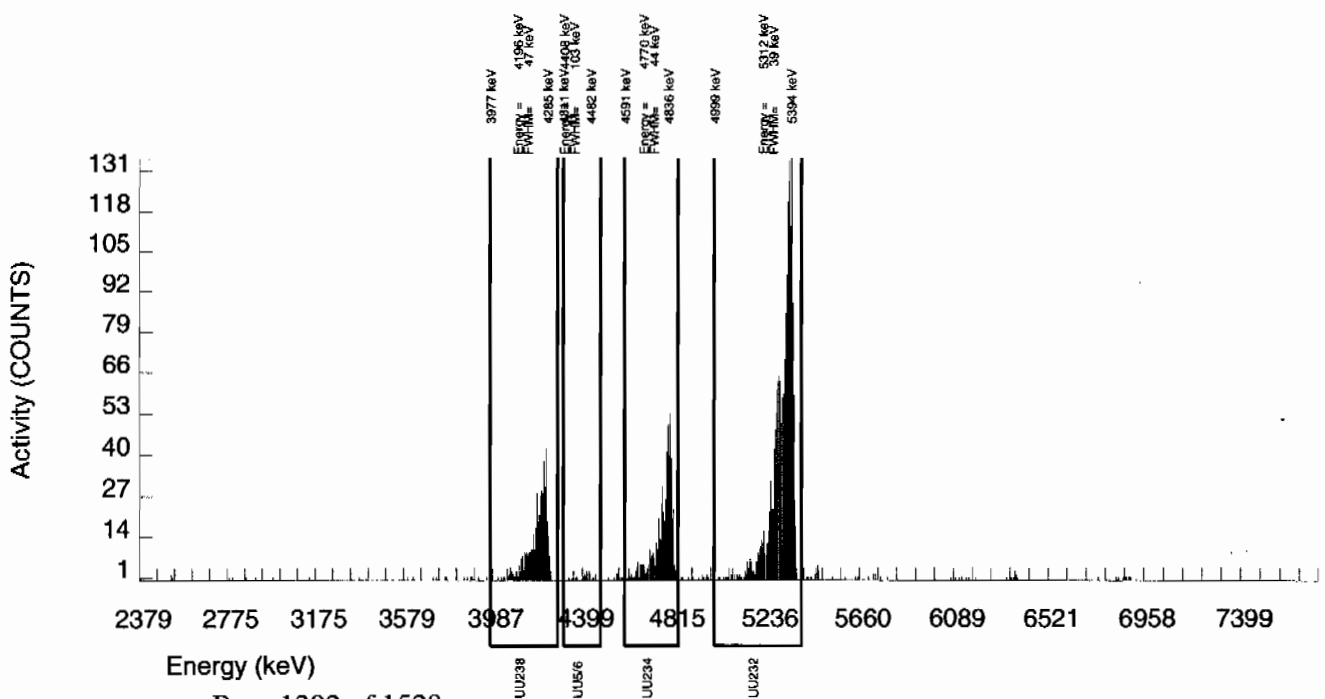

Radiochemistry Batch Checklist, Rev 9

Batch# 939255 Product: Pu Date: 1/12/10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			N/A
Samples have been blank corrected (if required)	✓		
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.	✓		
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	✓		
Sample was run within hold time.	✓		
Sample was correctly preserved if required.			N/A
Smears Taken for Radioactive batches.			N/A
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	✓		
Aux data is correct.			N/A
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)			N/A
Batch entered into Case Narrative.	✓		
Batch non-conformances completed, if applicable.			N/A
Batch non-conformances second reviewed and disposition verified to be completed.			N/A
Aliquot Correction completed if required.			N/A
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

GEL Laboratories, LLC

revised 8/1/08

Primary Review Performed By: [signature] 1/12/10

Secondary Review Performed By: [signature] 1/12/10

1/14

LANL

Plutonium Que Sheet

07-JAN-10

Batch #: 939255 Analyst: MXE1 First Client Due Date:14-JAN-10 Internal Due Date:09-JAN-10

Tracer Isotope(s): Pu-242/Pu-238 Tracer Code: 1374-A Expiration Date: 12/8/10 Vol: 0.1

LCS Isotope(s): Pu-239/Pu-238 LCS Code: / 1/12/10 Expiration Date: / 1/12/10 Vol: / 1/12/10

Spike Isotope(s): Pu-239/Pu-238 Spike Code: / Expiration Date: Vol: /

Prep Date: 1/7/10 Initials: ME Pipet ID: 29710658 Balance ID: 50410272 Witness: 1/7/10

Sample ID	Client Description	Type	Hazard Code	Min CRDL	Matrix	Client	Collection Date	Pos.	Label #	Wet/Dry Aliquot (g/l/l)	Pu Det #
243397001-2	RE16-10-2842	SAMPLE		.05 pCi/g	SOIL	LANL010	17-DEC-09	1	1	1.271	1
243397002-2	RE16-10-2843	SAMPLE		.05 pCi/g	SOIL	LANL010	17-DEC-09	2	2	1.253	2
243397003-2	RE16-10-2841	SAMPLE		.05 pCi/g	SOIL	LANL010	17-DEC-09	3	3	1.257	3
243397004-2	RE16-10-2845	SAMPLE		.05 pCi/g	SOIL	LANL010	17-DEC-09	4	4	1.262	209 ~~4~~
243397005-2	RE16-10-2844	SAMPLE		.05 pCi/g	SOIL	LANL010	17-DEC-09	5	5	1.260	5
243457001-2	RE12-10-7553	SAMPLE		.05 pCi/g	SOIL	LANL010	18-DEC-09	6	6	1.263	6
243457002-2	RE12-10-7554	SAMPLE		.05 pCi/g	SOIL	LANL010	18-DEC-09	7	7	1.252	7
~~243457003-2~~	~~RE12-10-7551~~	~~SAMPLE~~		~~.05 pCi/g~~	~~SOIL~~	~~LANL010~~	~~18-DEC-09~~	~~8~~	~~8~~	~~1.268~~	~~8~~
243457004-2	RE12-10-7552	SAMPLE		.05 pCi/g	SOIL	LANL010	18-DEC-09	9	9	1.255	9
243472001-2	RE03-09-14228	SAMPLE		.05 pCi/g	SOIL	LANL010	21-DEC-09	10	10	1.261	10
243472002-2	RE03-09-14230	SAMPLE		.05 pCi/g	SOIL	LANL010	21-DEC-09	11	11	1.255	11
243472003-2	RE03-09-14229	SAMPLE		.05 pCi/g	SOIL	LANL010	21-DEC-09	12	12	1.255	12
243509001-2	RE16-10-2837	SAMPLE		.05 pCi/g	SOIL	LANL010	18-DEC-09	13	13	1.265	13
243509002-2	RE16-10-2835	SAMPLE		.05 pCi/g	SOIL	LANL010	18-DEC-09	14	14	1.253	14
243509003-2	RE16-10-2838	SAMPLE		.05 pCi/g	SOIL	LANL010	18-DEC-09	15	15	1.259	16
~~243555001-2~~	~~WST21-10-9935~~	~~SAMPLE~~		~~.05 pCi/g~~	~~SOIL~~	~~LANL010~~	~~23-DEC-09~~	~~16~~	16	1.276	~~17~~
~~243555002-2~~	~~WST31-10-9931~~	~~SAMPLE~~		~~.05 pCi/g~~	~~SOIL~~	~~LANL010~~	~~23-DEC-09~~	~~17~~	~~17~~	~~1.252~~	~~241~~
243611001-2	RE16-10-2858	SAMPLE		.05 pCi/g	SOIL	LANL010	22-DEC-09	18	18	1.252	242
243611002-2	RE16-10-2852	SAMPLE		.05 pCi/g	SOIL	LANL010	22-DEC-09	19	19	1.260	243
243611003-2	RE16-10-2857	SAMPLE		.05 pCi/g	SOIL	LANL010	22-DEC-09	20	20	1.268	244
1202009994-1	MB for batch 939255	MB		UCF pCi/g to pCi/g	SOIL	QC ACCOUNT		21	21	1.00	18
1202009995-2	RE16-10-2844(243397005DUP)	DUP		.05 pCi/g	SOIL	QC ACCOUNT	17-DEC-09	22	22	1.250	19
1202009996-1	LCS for batch 939255	LCS		UCF pCi/g to pCi/g	SOIL	QC ACCOUNT		23	23	0.109	20

SRM ★ 0244-B exp 4/30/20

Choose SOP Used: GL-RAD-A-011, GL-RAD-A-036, GL-RAD-A-045, GL-RAD-A-043

Solid Sample Dissolution by: LEACH or DIGESTION (Circle One)

Data Reviewed By: 1/12/10

Blank Correction Report

Batch ID 939255

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
1202009995	DUP	Plutonium-238	1.25 g	-0.00276	0.00584	0.0227	-.00824	pCi/g	NO
		Plutonium-239/240	1.25 g	0.00275	0.00195	0.026	-.00548	pCi/g	NO
1202009996	LCS	Plutonium-238	0.109 g	6.86	0.510	0.229	-.09449541	pCi/g	NO
		Plutonium-239/240	0.109 g	39.5	2.43	0.262	-.06284404	pCi/g	NO
1202009994	MB	Plutonium-238	1.00 g	-0.0103	0.00685	0.0283	-.0103	pCi/g	NO
		Plutonium-239/240	1.00 g	-0.00685	0.00419	0.0323	-.00685	pCi/g	NO
243397001	RE16-10-2842	Plutonium-238	1.27 g	-1.47E-10	0.00175	0.0204	-.00811024	pCi/g	NO
		Plutonium-239/240	1.27 g	-0.00247	0.0039	0.0233	-.00539370	pCi/g	NO
243397002	RE16-10-2843	Plutonium-238	1.25 g	-1.64E-10	0.00195	0.0227	-.00824	pCi/g	NO
		Plutonium-239/240	1.25 g	0.00275	0.00275	0.026	-.00548	pCi/g	NO
243397003	RE16-10-2841	Plutonium-238	1.26 g	0.00131	0.00394	0.0217	-.00817460	pCi/g	NO
		Plutonium-239/240	1.26 g	0.021	0.00567	0.0248	-.00543651	pCi/g	NO
243397004	RE16-10-2845	Plutonium-238	1.26 g	0.00206	0.00146	0.017	-.00817460	pCi/g	NO
		Plutonium-239/240	1.26 g	0.0206	0.00494	0.0195	-.00543651	pCi/g	NO
243397005	RE16-10-2844	Plutonium-238	1.26 g	0.00	0.0011	0.0181	-.00817460	pCi/g	NO
		Plutonium-239/240	1.26 g	0.0011	0.0019	0.0207	-.00543651	pCi/g	NO
243457001	RE12-10-7553	Plutonium-238	1.26 g	0.00451	0.00261	0.0248	-.00817460	pCi/g	NO
		Plutonium-239/240	1.26 g	0.015	0.00567	0.0284	-.00543651	pCi/g	NO
243457002	RE12-10-7554	Plutonium-238	1.25 g	-0.00149	0.00904	0.0245	-.00824	pCi/g	NO
		Plutonium-239/240	1.25 g	-0.00149	0.00647	0.0281	-.00548	pCi/g	NO
243457004	RE12-10-7552	Plutonium-238	1.26 g	0.0104	0.00689	0.0214	-.00817460	pCi/g	NO
		Plutonium-239/240	1.26 g	0.0013	0.0013	0.0245	-.00543651	pCi/g	NO
243472001	RE03-09-14228	Plutonium-238	1.26 g	-0.00826	0.00826	0.0227	-.00817460	pCi/g	NO
		Plutonium-239/240	1.26 g	-0.00275	0.00389	0.026	-.00543651	pCi/g	NO
243472002	RE03-09-14230	Plutonium-238	1.26 g	-0.00968	0.0077	0.0228	-.00817460	pCi/g	NO
		Plutonium-239/240	1.26 g	0.00415	0.00415	0.0261	-.00543651	pCi/g	NO
243472003	RE03-09-14229	Plutonium-238	1.26 g	-0.00127	0.00727	0.0209	-.00817460	pCi/g	NO
		Plutonium-239/240	1.26 g	0.00127	0.00127	0.0239	-.00543651	pCi/g	NO
243509001	RE16-10-2837	Plutonium-238	1.27 g	0.00115	0.00447	0.0191	-.00811024	pCi/g	NO
		Plutonium-239/240	1.27 g	0.0173	0.0051	0.0218	-.00539370	pCi/g	NO
243509002	RE16-10-2835	Plutonium-238	1.25 g	-0.00964	0.0114	0.0265	-.00824	pCi/g	NO
		Plutonium-239/240	1.25 g	0.0273	0.00847	0.0303	-.00548	pCi/g	NO
243509003	RE16-10-2838	Plutonium-238	1.26 g	-0.00921	0.00543	0.0217	-.00817460	pCi/g	NO
		Plutonium-239/240	1.26 g	0.00658	0.00296	0.0249	-.00543651	pCi/g	NO
243611001	RE16-10-2858	Plutonium-238	1.25 g	0.00	0.00114	0.0188	-.00824	pCi/g	NO
		Plutonium-239/240	1.25 g	0.00227	0.00228	0.0215	-.00548	pCi/g	NO
243611002	RE16-10-2852	Plutonium-238	1.26 g	0.00	0.00166	0.0193	-.00817460	pCi/g	NO
		Plutonium-239/240	1.26 g	0.0176	0.00491	0.0221	-.00543651	pCi/g	NO
243611003	RE16-10-2857	Plutonium-238	1.27 g	0.00135	0.00233	0.0222	-.00811024	pCi/g	NO

Blank Correction Report

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
243611003	RE16-10-2857	Plutonium-239/240	1.27 g	0.0108	0.00385	0.0255	-.00539370	pCi/g	NO

Alpha Spectroscopy Software Version 2.0
effective date: 09-Mar-1997

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 939255 SAMPLE DATE : 17-DEC-2009 00:00:00	SAMPLE ID : S0243397005_PU SAMPLE QTY: 1.260 G
DETECTOR NUMBER :79454 AVERAGE %EFFICIENCY :32.0695 % YIELD : 101.778	COUNT DATE: 9-JAN-2010 12:01:38 ELAPSED LIVE TIME(SEC): 60000.00 ANALYST :MXE1

MS/MSD	LCS/LCSD	TRACER	
ID : 0244-B ISOTOPE : PU-9/0 PCI/G : 4.178E+01	ID : 0244-B ISOTOPE : PU-9/0 PCI/G : 4.178E+01	ID : 1374-A ISOTOPE : PU242 NOMINAL : 3.38543 dpm RESULTS : 3.44564 dpm	LIB FILE : ENV_ALPHA_PU.N BKG FILE : B005.CNF;1091 BKG DATE : 3-JAN-2010 EFF FILE : W005.CNF;335 CAL DATE : 4-JAN-2010

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-9/0	5155.000	2.000	1.000	1.000	3.4797	99.90000	1.10E-03	1.90E-03	8.88E-03	2.07E-02	1.90E-03
PU-236	5749.000	0.000	0.000	0.000	2.1286	100.0000	0.00E+00	1.11E-03	5.42E-03	1.38E-02	1.11E-03
PU-238	5499.000	0.000	0.000	0.000	2.9680	99.90000	0.00E+00	1.10E-03	7.57E-03	1.81E-02	1.10E-03
PU242	4890.000	1107.000	1105.000	2.000	1.4142	100.0000	1.21E+00	7.05E-02	3.60E-03	1.02E-02	3.65E-02
PU-244	4589.000	4.000	4.000	0.000	5.2050	99.90000	4.39E-03	2.20E-03	1.33E-02	2.95E-02	2.19E-03

NOTE: Sg calculated via blank population (updated 5-JAN-2010)
NOTE: Sg of PU242 calculated as sqrt(BKG AREA)

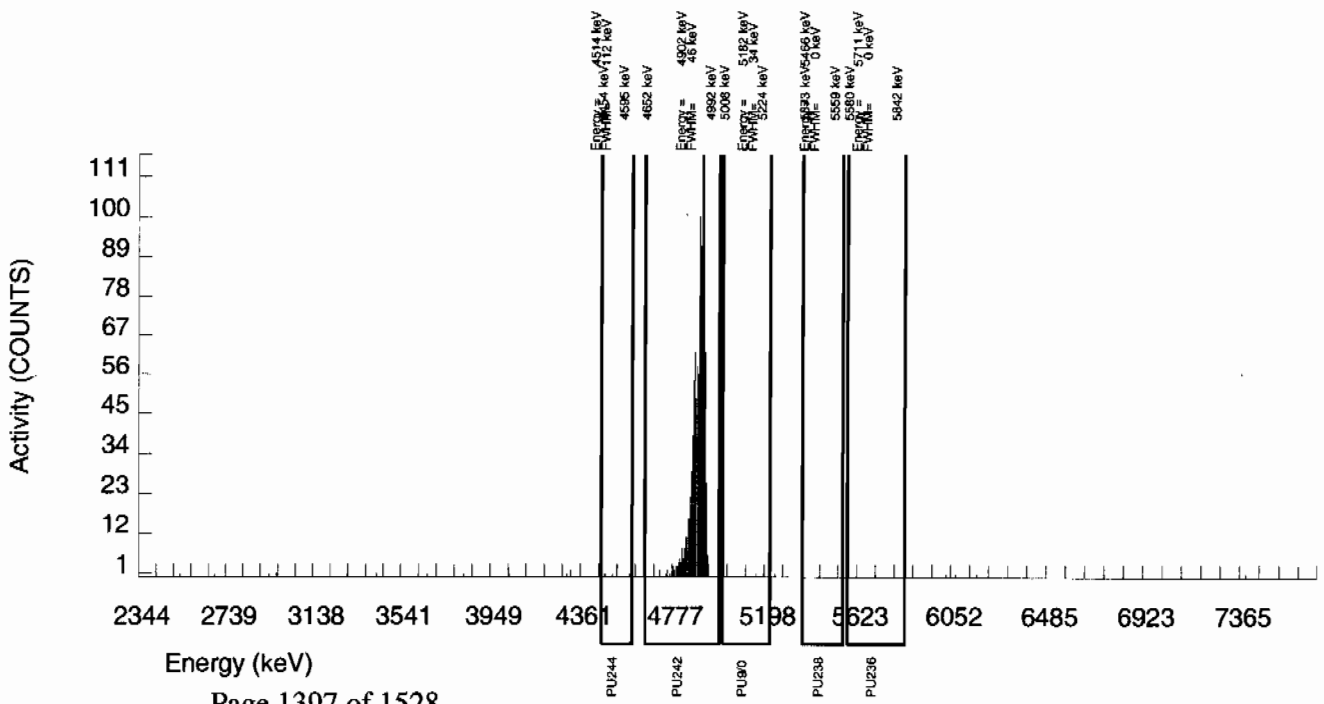

Alpha Spectroscopy Software Version 2.0
effective date: 09-Mar-1997

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 939255
SAMPLE DATE : 21-DEC-2009 00:00:00

SAMPLE ID : S0243472001_PU
SAMPLE QTY: 1.261 G

DETECTOR NUMBER :72529
AVERAGE %EFFICIENCY :31.4316
% YIELD : 82.699

COUNT DATE: 9-JAN-2010 12:01:40
ELAPSED LIVE TIME(SEC): 59999.99
ANALYST :MXE1

MS/MSD	LCS/LCSD	TRACER	
ID : 0244-B	ID : 0244-B	ID : 1374-A	LIB FILE : ENV_ALPHA_PU.N
ISOTOPE : PU-9/0	ISOTOPE : PU-9/0	ISOTOPE : PU242	BKG FILE : B010.CNF;1110
PCI/G : 4.178E+01	PCI/G : 4.178E+01	NOMINAL : 3.38543 dpm	BKG DATE : 3-JAN-2010
		RESULTS : 2.79973 dpm	EFF FILE : W010.CNF;333
			CAL DATE : 4-JAN-2010

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-9/0	5155.000	3.000	-2.000	5.000	3.4797	99.90000	-2.75E-03	3.89E-03	1.11E-02	2.60E-02	3.89E-03
PU-236	5749.000	18.000	1.000	17.000	2.1286	100.0000	1.39E-03	8.24E-03	6.81E-03	1.73E-02	8.24E-03
PU-238	5499.000	15.000	-6.000	21.000	2.9680	99.90000	-8.26E-03	8.26E-03	9.50E-03	2.27E-02	8.26E-03
PU242	4890.000	884.000	880.000	4.000	2.0000	100.0000	1.21E+00	7.53E-02	6.39E-03	1.65E-02	4.10E-02
PU-244	4589.000	2.000	1.000	1.000	5.2050	99.90000	1.38E-03	2.38E-03	1.67E-02	3.70E-02	2.38E-03

NOTE: Sg calculated via blank population (updated 5-JAN-2010)
NOTE: Sg of PU242 calculated as sqrt(BKG AREA)

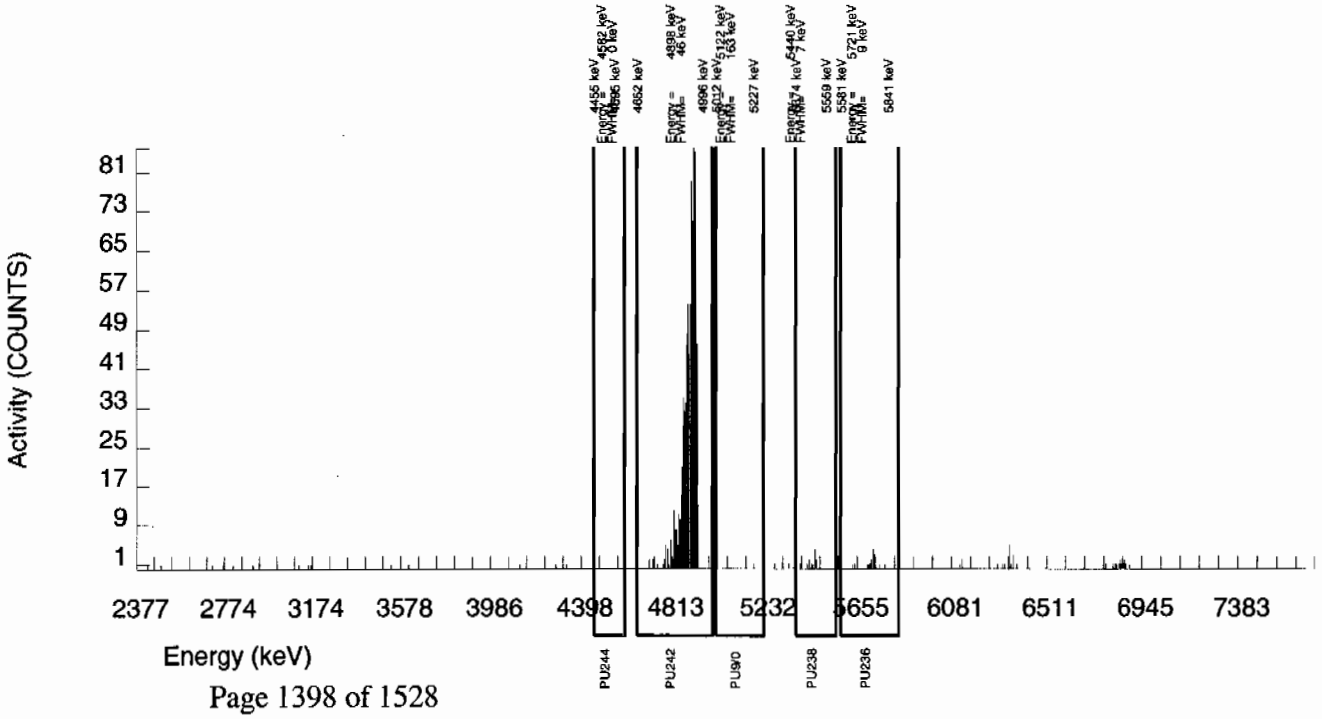

Alpha Spectroscopy Software Version 2.0
effective date: 09-Mar-1997

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 939255 SAMPLE DATE : 21-DEC-2009 00:00:00	SAMPLE ID : S0243472002_PU SAMPLE QTY: 1.255 G
DETECTOR NUMBER :72531 AVERAGE %EFFICIENCY :29.5906 % YIELD : 87.845	COUNT DATE: 9-JAN-2010 12:01:40 ELAPSED LIVE TIME(SEC): 59999.99 ANALYST :MXE1

MS/MSD	LCS/LCSD	TRACER	
ID : 0244-B ISOTOPE : PU-9/0 PCI/G : 4.178E+01	ID : 0244-B ISOTOPE : PU-9/0 PCI/G : 4.178E+01	ID : 1374-A ISOTOPE : PU242 NOMINAL : 3.38543 dpm RESULTS : 2.97392 dpm	LIB FILE : ENV_ALPHA_PU.N BKG FILE : B011.CNF;1102 BKG DATE : 3-JAN-2010 EFF FILE : W011.CNF;311 CAL DATE : 4-JAN-2010

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-9/0	5155.000	6.000	3.000	3.000	3.4797	99.90000	4.15E-03	4.15E-03	1.12E-02	2.61E-02	4.15E-03
PU-236	5749.000	8.000	-1.000	9.000	2.1286	100.0000	-1.40E-03	5.77E-03	6.84E-03	1.74E-02	5.77E-03
PU-238	5499.000	12.000	-7.000	19.000	2.9680	99.90000	-9.68E-03	7.70E-03	9.54E-03	2.28E-02	7.70E-03
PU242	4890.000	882.000	880.000	2.000	1.4142	100.0000	1.22E+00	7.55E-02	4.54E-03	1.28E-02	4.11E-02
PU-244	4589.000	1.000	0.000	1.000	5.2050	99.90000	0.00E+00	1.96E-03	1.67E-02	3.72E-02	1.95E-03

NOTE: Sg calculated via blank population (updated 5-JAN-2010)
NOTE: Sg of PU242 calculated as sqrt(BKG AREA)

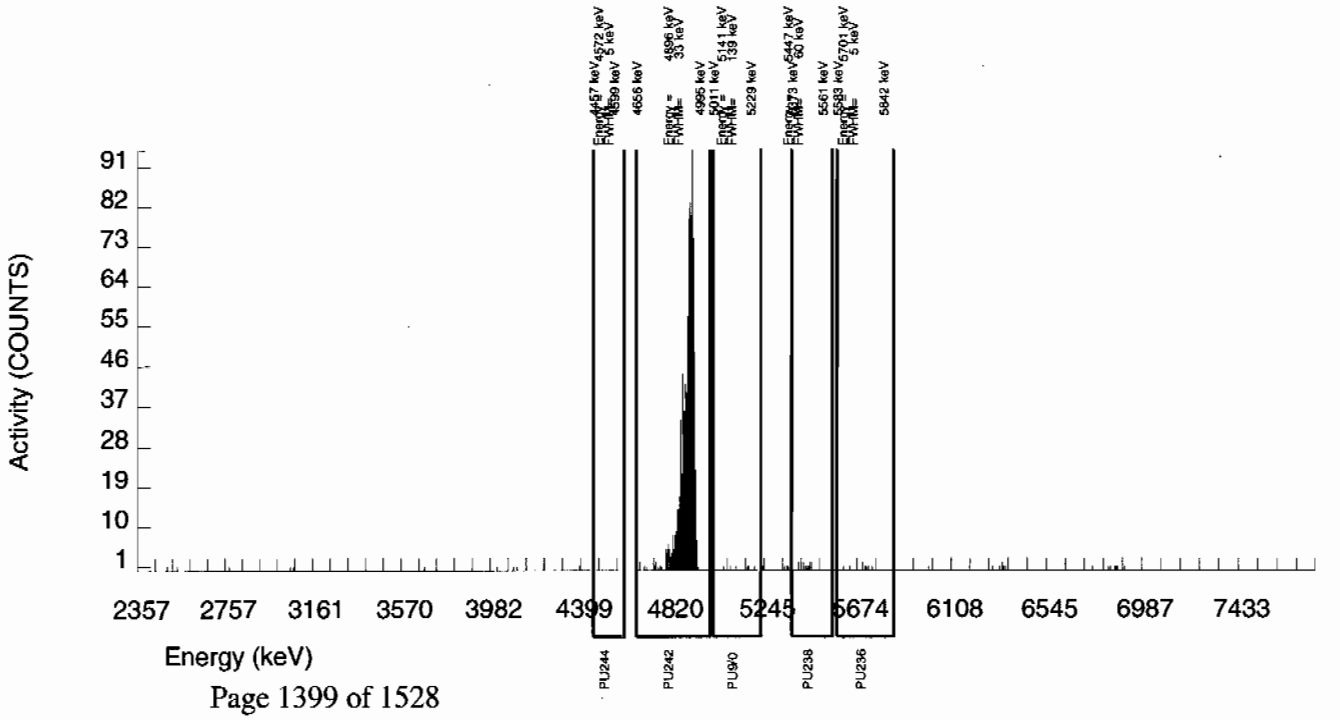

Alpha Spectroscopy Software Version 2.0
effective date: 09-Mar-1997

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 939255
SAMPLE DATE : 21-DEC-2009 00:00:00

SAMPLE ID : S0243472003_PU
SAMPLE QTY: 1.255 G

DETECTOR NUMBER :67594
AVERAGE %EFFICIENCY :29.8562
% YIELD : 95.077

COUNT DATE: 9-JAN-2010 12:01:40
ELAPSED LIVE TIME(SEC): 59999.99
ANALYST :MXE1

MS/MSD	LCS/LCSD	TRACER	
ID : 0244-B	ID : 0244-B	ID : 1374-A	LIB FILE : ENV_ALPHA_PU.N
ISOTOPE : PU-9/0	ISOTOPE : PU-9/0	ISOTOPE : PU242	BKG FILE : B012.CNF;1104
PCI/G : 4.178E+01	PCI/G : 4.178E+01	NOMINAL : 3.38543 dpm	BKG DATE : 3-JAN-2010
		RESULTS : 3.21876 dpm	EFF FILE : W012.CNF;312
			CAL DATE : 4-JAN-2010

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-9/0	5155.000	1.000	1.000	0.000	3.4797	99.90000	1.27E-03	1.27E-03	1.02E-02	2.39E-02	1.27E-03
PU-236	5749.000	10.000	-12.000	22.000	2.1286	100.0000	-1.54E-02	7.25E-03	6.26E-03	1.59E-02	7.25E-03
PU-238	5499.000	16.000	-1.000	17.000	2.9680	99.90000	-1.27E-03	7.27E-03	8.74E-03	2.09E-02	7.27E-03
PU242	4890.000	964.000	961.000	3.000	1.7321	100.0000	1.22E+00	7.37E-02	5.09E-03	1.36E-02	3.93E-02
PU-244	4589.000	6.000	6.000	0.000	5.2050	99.90000	7.59E-03	3.12E-03	1.53E-02	3.41E-02	3.10E-03

NOTE: Sg calculated via blank population (updated 5-JAN-2010)
NOTE: Sg of PU242 calculated as sqrt(BKG AREA)

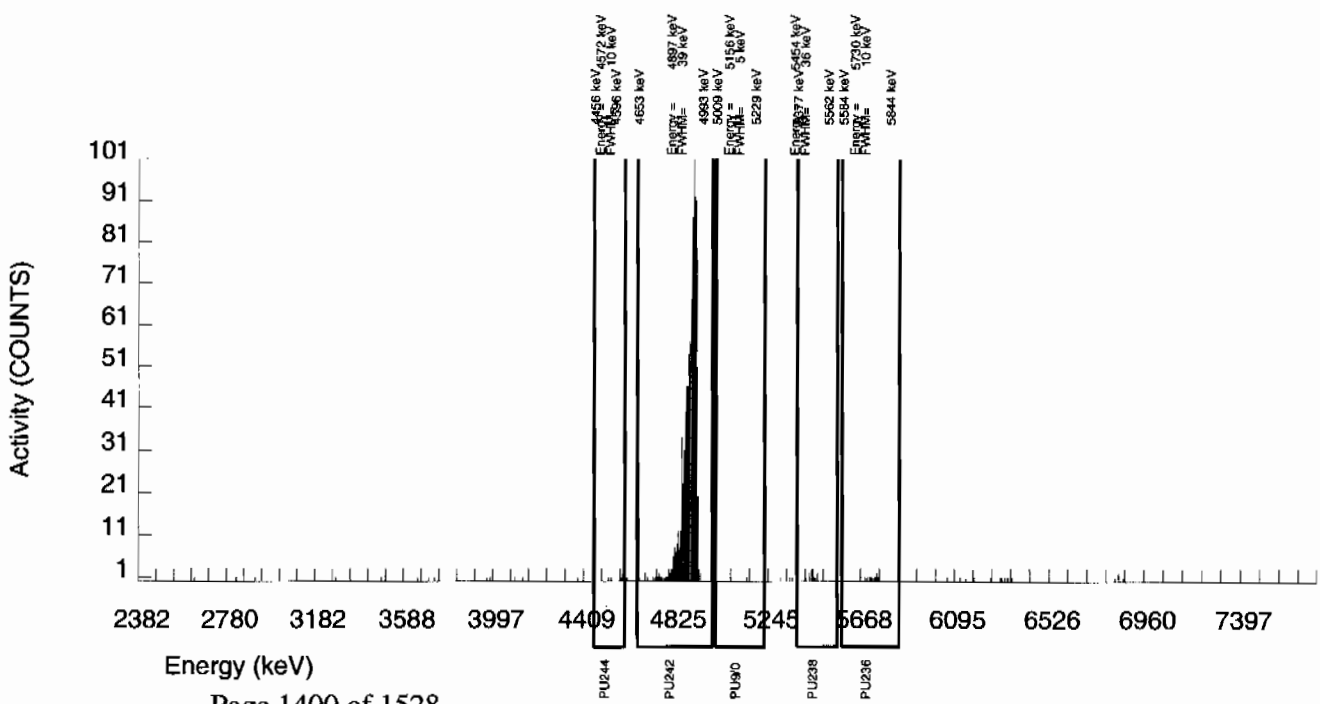

Alpha Spectroscopy Software Version 2.0
effective date: 09-Mar-1997

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 939255 SAMPLE DATE : 7-JAN-2010 00:00:00.	SAMPLE ID : S1202009994_PU SAMPLE QTY: 1.000 G
DETECTOR NUMBER :78782 AVERAGE %EFFICIENCY :31.6882 % YIELD : 83.148	COUNT DATE: 9-JAN-2010 12:01:41 ELAPSED LIVE TIME(SEC): 59999.99 ANALYST :MXE1

MS/MSD	LCS/LCSD	TRACER	
ID : 0244-B ISOTOPE : PU-9/0 PCI/G : 4.178E+01	ID : 0244-B ISOTOPE : PU-9/0 PCI/G : 4.178E+01	ID : 1374-A ISOTOPE : PU242 NOMINAL : 3.38543 dpm RESULTS : 2.81493 dpm	LIB FILE : ENV_ALPHA_PU.N BKG FILE : B018.CNF;1076 BKG DATE : 3-JAN-2010 EFF FILE : W018.CNF;304 CAL DATE : 4-JAN-2010

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-9/0	5155.000	1.000	-4.000	5.000	3.4797	99.90000	-6.85E-03	4.19E-03	1.39E-02	3.23E-02	4.19E-03
PU-236	5749.000	5.000	-4.000	9.000	2.1286	100.0000	-6.85E-03	6.41E-03	8.47E-03	2.16E-02	6.41E-03
PU-238	5499.000	5.000	-6.000	11.000	2.9680	99.90000	-1.03E-02	6.85E-03	1.18E-02	2.83E-02	6.85E-03
PU242	4890.000	895.000	892.000	3.000	1.7321	100.0000	1.52E+00	9.45E-02	6.89E-03	1.84E-02	5.12E-02
PU-244	4589.000	0.000	-1.000	1.000	5.2050	99.90000	-1.71E-03	2.42E-03	2.07E-02	4.61E-02	2.42E-03

NOTE: Sg calculated via blank population (updated 5-JAN-2010)
NOTE: Sg of PU242 calculated as sqrt(BKG AREA)

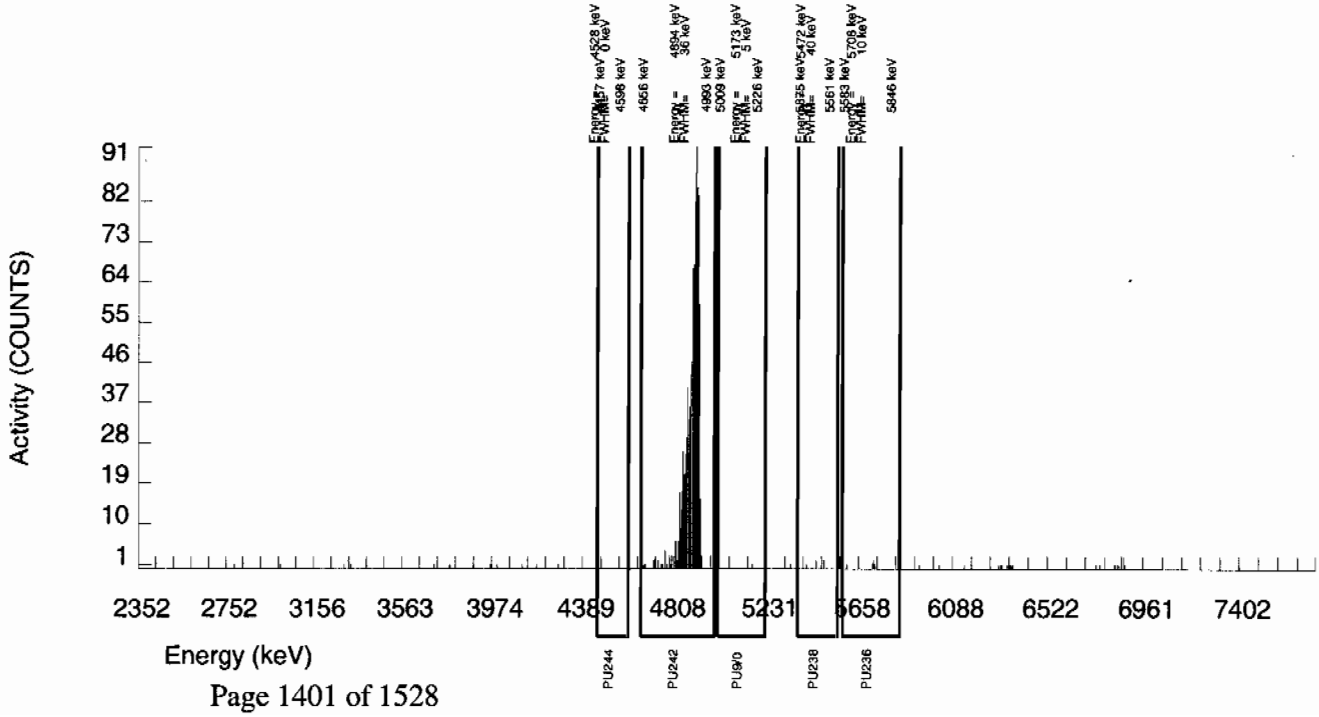

Alpha Spectroscopy Software Version 2.0
effective date: 09-Mar-1997

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 939255 SAMPLE DATE : 17-DEC-2009 00:00:00	SAMPLE ID : S1202009995_PU SAMPLE QTY: 1.250 G
DETECTOR NUMBER :78786 AVERAGE %EFFICIENCY :28.8706 % YIELD : 90.751	COUNT DATE: 9-JAN-2010 12:01:42 ELAPSED LIVE TIME(SEC): 59999.99 ANALYST :MXE1

MS/MSD	LCS/LCSD	TRACER	
ID : 0244-B ISOTOPE : PU-9/0 PCI/G : 4.178E+01	ID : 0244-B ISOTOPE : PU-9/0 PCI/G : 4.178E+01	ID : 1374-A ISOTOPE : PU242 NOMINAL : 3.38543 dpm RESULTS : 3.07233 dpm	LIB FILE : ENV_ALPHA_PU.N BKG FILE : B019.CNF;1090 BKG DATE : 3-JAN-2010 EFF FILE : W019.CNF;305 CAL DATE : 4-JAN-2010

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-9/0	5155.000	2.000	2.000	0.000	3.4797	99.90000	2.75E-03	1.95E-03	1.11E-02	2.60E-02	1.95E-03
PU-236	5749.000	4.000	0.000	4.000	2.1286	100.0000	3.33E-10	3.95E-03	6.81E-03	1.73E-02	3.95E-03
PU-238	5499.000	8.000	-2.000	10.000	2.9680	99.90000	-2.75E-03	5.84E-03	9.51E-03	2.27E-02	5.84E-03
PU242	4890.000	888.000	887.000	1.000	1.0000	100.0000	1.22E+00	7.56E-02	3.20E-03	1.01E-02	4.10E-02
PU-244	4589.000	2.000	2.000	0.000	5.2050	99.90000	2.75E-03	1.95E-03	1.67E-02	3.71E-02	1.95E-03

NOTE: Sg calculated via blank population (updated 5-JAN-2010)
NOTE: Sg of PU242 calculated as sqrt(BKG AREA)

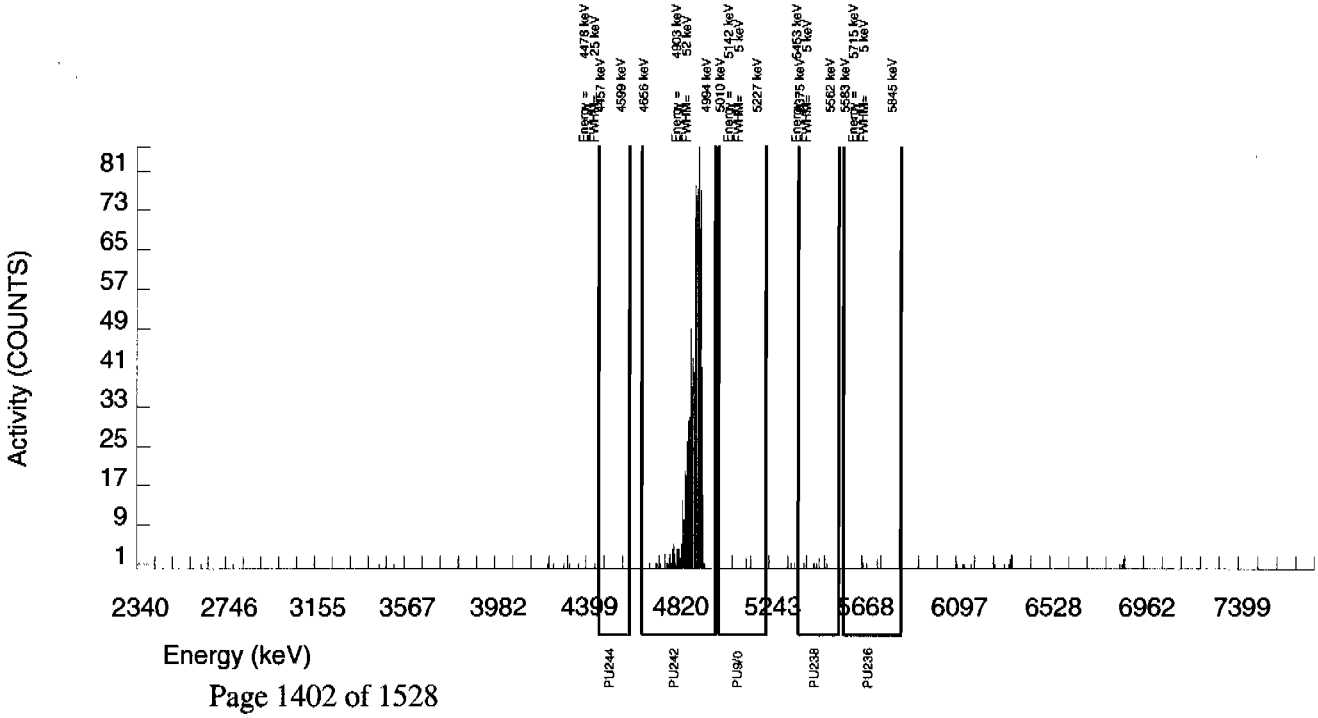

Alpha Spectroscopy Software Version 2.0
effective date: 09-Mar-1997

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 939255
SAMPLE DATE : 7-JAN-2010 00:00:00.

SAMPLE ID : S1202009996_PU
SAMPLE QTY: 0.109 G

DETECTOR NUMBER :78787
AVERAGE %EFFICIENCY :33.6054
% YIELD : 88.952

COUNT DATE: 9-JAN-2010 12:01:42
ELAPSED LIVE TIME(SEC): 59999.99
ANALYST :MXE1

MS/MSD	LCS/LCSD	TRACER	
ID : 0244-B	ID : 0244-B	ID : 1374-A	LIB FILE : ENV_ALPHA_PU.N
ISOTOPE : PU-9/0	ISOTOPE : PU-9/0	ISOTOPE : PU242	BKG FILE : B020.CNF;1085
PCI/G : 4.178E+01	PCI/G : 4.178E+01	NOMINAL : 3.38543 dpm	BKG DATE : 3-JAN-2010
		RESULTS : 3.01142 dpm	EFF FILE : W020.CNF;318
			CAL DATE : 4-JAN-2010

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-9/0	5155.000	2857.000	2856.000	1.000	3.4797	99.90000	3.95E+01	2.43E+00	1.12E-01	2.62E-01	7.40E-01
PU-236	5749.000	10.000	7.000	3.000	2.1286	100.0000	9.70E-02	5.03E-02	6.85E-02	1.74E-01	4.99E-02
PU-238	5499.000	504.000	496.000	8.000	2.9680	99.90000	6.86E+00	5.10E-01	9.56E-02	2.29E-01	3.13E-01
PU242	4890.000	1014.000	1012.000	2.000	1.4142	100.0000	1.40E+01	9.31E-01	4.55E-02	1.28E-01	4.41E-01
PU-244	4589.000	3.000	3.000	0.000	5.2050	99.90000	4.15E-02	2.41E-02	1.68E-01	3.73E-01	2.40E-02

NOTE: Sg calculated via blank population (updated 5-JAN-2010)
NOTE: Sg of PU242 calculated as sqrt(BKG AREA)

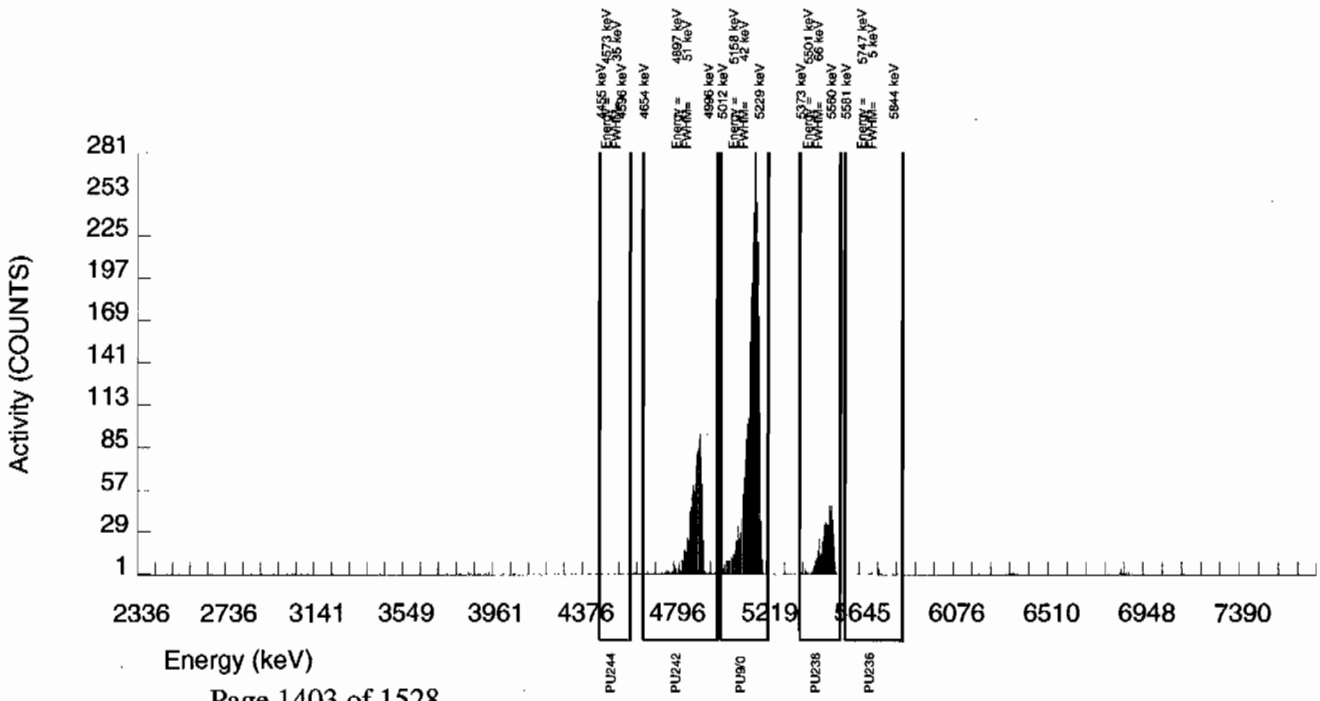

Radiochemistry Batch Checklist, Rev 9

Batch# 936900 Product: H3 Date: 1/7/2010

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			N/A
Samples have been blank corrected (if required)			N/A
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.	✓		
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	✓		
Sample was run within hold time.	✓		
Sample was correctly preserved if required.	✓		
Smears Taken for Radioactive batches.			N/A
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	✓		
Aux data is correct.			N/A
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)			N/A
Batch entered into Case Narrative.	✓		
Batch non-conformances completed, if applicable.			N/A
Batch non-conformances second reviewed and disposition verified to be completed.			N/A
Aliquot Correction completed if required.			N/A
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

GEL Laboratories, LLC

revised 8/1/08

Primary Review Performed By: Nana Manetfrict

Secondary Review Performed By: L Lind 1/7/10

Tritium Que Sheet

Vacuum

28-DEC-09

Batch #: 936900 **Analyst:** KXK2 **First Client Due Date** 11-JAN-10 **Internal Due Date:** 01-JAN-10

Spike Isotope: Hydrogen-3 **Spike Code:** — **Expiration Date:** — **Vol:** —

LCS Isotope: Hydrogen-3 **LCS Code:** 0134-K **Expiration Date:** 3/27/10 **Vol:** 0.1

Prep Date: 12/30/09 **Initials:** KKJ **Pipet ID:** 29709168 **Witness:** SL 12/31/09

Sample ID	Client Samp ID	Type	Hazard Code	Min CRDL	Matrix	Client	Sample Date	Aliquot in vial (g/mL)	LSC Rack #	Dist Rig #	Vol added for Dist (mL)	Initial Sample Aliquot (g/mL)	Final Wt (g)	Total moisture Dist Vol (mL) KKJ 12/30/09
243393002-1	WST12-10-8879	SAMPLE		.25 pCi/mL	SOIL	LANL010	18-DEC-09	10	28-2	1		520.57	457.58	62.99
243472001-1	RE03-09-14228	SAMPLE		.25 pCi/mL	SOIL	LANL010	21-DEC-09	10	28-3	2		533.99	480.06	53.93
243472002-1	RE03-09-14230	SAMPLE		.25 pCi/mL	SOIL	LANL010	21-DEC-09	10	28-4	3		537.88	500.23	37.65
243472003-1	RE03-09-14229	SAMPLE		.25 pCi/mL	SOIL	LANL010	21-DEC-09	10	28-5	4		503.98	460.64	43.34
243547002-1	WST54-10-9921	SAMPLE		.25 pCi/mL	SOIL	LANL010	22-DEC-09	10	28-6	5	KKJ 12/30/09	437.08	389.00	48.08
243547003-1	WST54-10-9922	SAMPLE		.25 pCi/mL	SOIL	LANL010	22-DEC-09	10	28-7	6		431.92	384.84	47.08
243549002-1	WST03-10-2148	SAMPLE		.25 pCi/mL	SOIL	LANL010	22-DEC-09	10	28-8	7		489.07	454.35	34.72
243555001-1	WST21-10-9933	SAMPLE		.25 pCi/mL	SOIL	LANL010	23-DEC-09	9	28-9	8		69.93	61.40	8.53
243555002-1	WST21-10-9931	SAMPLE		.25 pCi/mL	SOIL	LANL010	23-DEC-09	10	28-10	9		141.56	122.45	19.11
1202004654-1	MB for batch 936900	MB		.25 pCi/mL	SOIL	QC ACCOUNT		10	28-11	10		20.00	0	20.00
1202004655-1	~~WST21-10-9933(243555001DUP)~~ WST12-10-8879(243393002DUP)	DUP		.25 pCi/mL	SOIL	QC ACCOUNT	23-DEC-09	10	28-12	1		520.57	457.58	62.99
1202004656-1	LCS for batch 936900	LCS		.25 pCi/mL	SOIL	QC ACCOUNT		10	41-1	11		20.00	0	20.00

Bkg Rack #: 28-1

Comments:

Instrument Used (circle as appropriate): *LS6000 (Red) 7065155, LS6500 (Blue) 7067083, LS6500 (Gold) 7070506, LS6500 (Green) 7067404, Wallac (Yellow) 4040127, LS6000 (Brown) 7060655, Wallac (Pink) 2200082, Wallac (White) 4140299, Purple 7069123, Silver 7060656*

Bkg prepared with dead water? Yes/No

Calibration Used : *Ultima Gold LLT (10 mL sample/13 mL LLT) poly vial; Ecoscint Ultra (10 mL sample/13 mL Ecoscint Ultra)*

Data Reviewed By: Nana Manetting

GEL Laboratories LLC, Radiochemistry Division

DATE	12/30/2009	INITIALS	KXK2		BATCH NUMBER	936900

Sample #	Sample Wet (g)	% Moisture of Sample (Balance Interface using % Moisture Batch)	Total Moisture in Sample (mL)	Sample Dry (g)	mLs aliquoted into LSC vial	Collection Tube Number
243393002	520.57	0.121	62.99	457.58	10	11
243472001	533.99	0.101	53.93	480.06	10	55
243472002	537.88	0.070	37.65	500.23	10	151
243472003	503.98	0.086	43.34	460.64	10	602
243547002	437.08	0.110	48.08	389.00	10	408
243547003	431.92	0.109	47.08	384.84	10	601
243549002	489.07	0.071	34.72	454.35	10	701
243555001	69.93	0.122	8.53	61.40	10	801
243555002	141.56	0.135	19.11	122.45	10	912
MB	20.00	1.000	20.00	0.00	10	
LCS	20.00	1.000	20.00	0.00	10	

T936900R

Tritium Solid

Filename :	H3VAC.XLS	Spike S/N :	N/A	LCS S/N :	0134-K
File type :	Excel	Spike Exp Date :	N/A	LCS Exp Date :	3/27/2010
Version # :	1.2.5	Spike Activity (dpm/ml):	N/A	LCS Activity (dpm/ml):	2484.60
		Spike Volume Added:	N/A	LCS Volume Added:	0.10
Batch :	936900				
Analyst :	KXK2				
Prep Date :	12/30/2009				

					Procedure Code :	LSC_VH3S	
H-3 Abundance :	1	Pipet, 0.1 ml Stdev : +/-	0.000701	ml	Parmname :	Tritium	
Method Uncertainty :	0.0691	Pipet, 0.5 ml Stdev : +/-	0.002564	ml	Required MDC :	250	pCi/L
Geometry:	10mL DW/13mL Ecoscint Ultra	Pipet, 1.0 ml Stdev : +/-	0.005480	ml	Halflife of Tritium :	12.28	years
		Pipet, 5.0 ml Stdev : +/-	0.025729	ml			

Sample Characteristics

Pos.	Sample ID	Wet Sample Weight (g)	Total Moisture L	Sample Aliquot in Vial L	Sample Aliquot Stdev. L	Dry Sample Weight (g)	% Moisture of Sample	Rig number	Sample Date/Time
1	243393002.1	520.57	0.0630	0.0100	2.5729E-05	457.58	12.10%	1	12/18/2009 12:00
2	243472001.1	533.99	0.0539	0.0100	2.5729E-05	480.06	10.10%	2	12/21/2009 12:00
3	243472002.1	537.88	0.0377	0.0100	2.5729E-05	500.23	7.00%	3	12/21/2009 12:00
4	243472003.1	503.98	0.0433	0.0100	2.5729E-05	460.64	8.60%	4	12/21/2009 12:00
5	243547002.1	437.08	0.0481	0.0100	2.5729E-05	389.00	11.00%	5	12/22/2009 12:00
6	243547003.1	431.92	0.0471	0.0100	2.5729E-05	384.84	10.90%	6	12/22/2009 12:00
7	243549002.1	489.07	0.0347	0.0100	2.5729E-05	454.35	7.10%	7	12/22/2009 12:00
8	243555001.1	69.93	0.0085	0.0090	2.5729E-05	61.40	12.20%	8	12/23/2009 12:00
9	243555002.1	141.56	0.0191	0.0100	2.5729E-05	122.45	13.50%	9	12/23/2009 12:00
10	1202004654.1	20.00	0.0200	0.0100	2.5729E-05	0.00	100.00%	10	12/30/2009 0:00
11	1202004655.1	520.57	0.0630	0.0100	2.5729E-05	457.58	12.10%	1	12/23/2009 12:00
12	1202004656.1	20.00	0.0200	0.0100	2.5729E-05	0.00	100.00%	11	12/30/2009 0:00

Count raw Data					Background				Calibration Data					Backgrounds	
Pos.	Rack Position #	Counting Time (min.)	Quench#	Gross cpm	cpm	Count Time (min.)	Count Start Date/Time	Sample Decay	Counted on	Calibration Date	Calibration Due Date	Detector Efficiency (cpm/dpm)	Detector Efficiency Error (cpm/dpm)	Rack Position #	Count Start Date/Time
1	28-2	50	113.5	3.38	2.91	120	1/5/2010 9:31	0.997	LSCRED	8/21/2009	8/31/2010	0.2064	0.00792	28-1	1/5/2010 5:49
2	28-3	50	127.4	3.54	2.91	120	1/5/2010 10:23	0.998	LSCRED	8/21/2009	8/31/2010	0.1996	0.00792	28-1	1/5/2010 5:49
3	28-4	50	114.6	3.7	2.91	120	1/5/2010 11:16	0.998	LSCRED	8/21/2009	8/31/2010	0.2079	0.00792	28-1	1/5/2010 5:49
4	29-2	50	110	3.96	3.42	50	1/7/2010 2:40	0.997	LSCBROWN	9/9/2009	9/30/2010	0.2366	0.00792	29-1	1/7/2010 1:48
5	28-6	50	117.7	3.7	2.91	120	1/6/2010 6:52	0.998	LSCRED	8/21/2009	8/31/2010	0.2064	0.00792	28-1	1/5/2010 5:49
6	28-7	50	113.3	3.56	2.91	120	1/6/2010 7:44	0.998	LSCRED	8/21/2009	8/31/2010	0.2084	0.00792	28-1	1/5/2010 5:49
7	28-8	50	113.6	3.3	2.91	120	1/6/2010 8:36	0.998	LSCRED	8/21/2009	8/31/2010	0.2083	0.00792	28-1	1/5/2010 5:49
8	28-9	50	113.6	254	2.91	120	1/6/2010 9:28	0.998	LSCRED	8/21/2009	8/31/2010	0.2083	0.00792	28-1	1/5/2010 5:49
9	28-10	50	125.3	323.42	2.91	120	1/6/2010 10:21	0.998	LSCRED	8/21/2009	8/31/2010	0.2013	0.00792	28-1	1/5/2010 5:49
10	28-11	50	113.6	3.04	2.91	120	1/6/2010 11:13	0.999	LSCRED	8/21/2009	8/31/2010	0.2083	0.00792	28-1	1/5/2010 5:49
11	28-12	50	114	3.22	2.91	120	1/6/2010 12:05	0.998	LSCRED	8/21/2009	8/31/2010	0.2082	0.00792	28-1	1/5/2010 5:49
12	61-1	15	113	30.33	2.91	120	1/5/2010 8:04	0.999	LSCRED	8/21/2009	8/31/2010	0.2086	0.00792	28-1	1/5/2010 5:49

Notes:
1 - Results are decay corrected to Sample Date/Time
2 - Reference date for Spike Activity (dpm/ml) is the batch Prep Date
3 - Spike Nominals are decay corrected to Sample Date/Time

* - RPD changed to 0% due to activity below MDC for 1202004655.1

Results Pos.	Decision Level pCi/L	Critical Level pCi/L	Required MDC pCi/L	MDC pCi/L	Sample Act. Conc. pCi/L	Sample Act. Error pCi/L	Net Count Rate CPM	Net Count Rate Error CPM	1 SIGMA Counting Uncertainty pCi/L	1 SIGMA Total Prop. Uncertainty pCi/L	Sample QC	Sample Type	RPD	RER	Nominal pCi/L	Recovery
1	145.0369	102.3973	250	217.8017	**101.8885**	0.645	0.470	0.303	65.7002	66.0824		SAMPLE				
2	151.3021	106.8206	250	227.2101	**142.4736**	0.489	0.630	0.308	69.7220	70.4246		SAMPLE				
3	145.2850	102.5725	250	218.1743	**171.5524**	0.397	0.790	0.313	68.0669	69.1076		SAMPLE				
4	164.5131	116.1477	250	243.7492	**103.0850**	0.712	0.540	0.384	73.3406	73.6912		SAMPLE				
5	146.3433	103.3196	250	219.7634	**172.8019**	0.397	0.790	0.313	68.5627	69.6110		SAMPLE				
6	144.9146	102.3110	250	217.6180	**140.7908**	0.475	0.650	0.309	66.9189	67.6335		SAMPLE				
7	144.9960	102.3684	250	217.7402	**84.5219**	0.770	0.390	0.300	65.1071	65.3727		SAMPLE				
8	161.0826	113.7257	250	241.8975	**60454.2585**	0.013	251.090	2.259	543.9556	4246.8168		SAMPLE				
9	150.0011	105.9021	250	225.2564	**71859.5964**	0.012	320.510	2.548	571.2868	5037.3419		SAMPLE				
10	144.8304	102.2515	250	217.4916	**28.1418**	2.243	0.130	0.292	63.1315	63.1619		MB				
11	145.0881	102.4334	250	217.8785	**67.2268**	0.960	0.310	0.298	64.5684	64.7379	243393002.1	DUP	0.0%	0.1325		
12	235.3367	166.1498	250	375.5396	**5928.2175**	0.053	27.420	1.430	309.2687	515.8698		LCS			5595.9550	105.9%

USER:13 COMMENT:BROWN 7 Jan. 2010

PRESET TIME :	50.00						
DATA CALC :	CPM	H#	:YES	SAMPLE REPEATS:	1	PRINTER	: STD
COUNT BLANK :	NO	IC#	: NO	REPLICATES :	1	RS232	:EDIT
TWO PHASE :	NO	AQC	: NO	CYCLE REPEATS :	1	DISK	: OFF
SCINTILLATOR:	LIQUID	LUMEX	:YES	LOW SAMPLE REJ:	0		
LOW LEVEL :	NO	HALF LIFE CORRECTION DATE:				none	

CHAN: 0.0 - 240.0 %ERROR: 2.00 FACTOR: 1.000000 BKG. SUB: 0
CHAN: 0.0 - 900.0 %ERROR: 2.00 FACTOR: 1.000000 BKG. SUB: 0

SAM NO	POS	TIME MIN	H#	WIND1 CPM	WIND1 %ERROR	LUMEX %	ELAPSED TIME
BKG 1	29-1	50.00	108.5	3.42	15.69	0.45	51.54
4 2	29-2	50.00	110.0	3.96	14.53	0.47	103.59

Sample Count Start Time:	7 Jan 2010 01:48:06		
Data Capture Date	07 Jan 2010 02:38:29		
User Filename	S13010729-1A.XLS		
	U13010729-1A.XLS		
Spectrum Type	Log Counts		
User Number	13		
User Id	TRITIUM		
User Comment	BROWN		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	1	29-1	50.00
H#, Total Counts:	108.5	1784	
Win1: Tritium - Start, End, Counts:	0	240	171
Win2: - Start, End, Counts:	0	990	1784

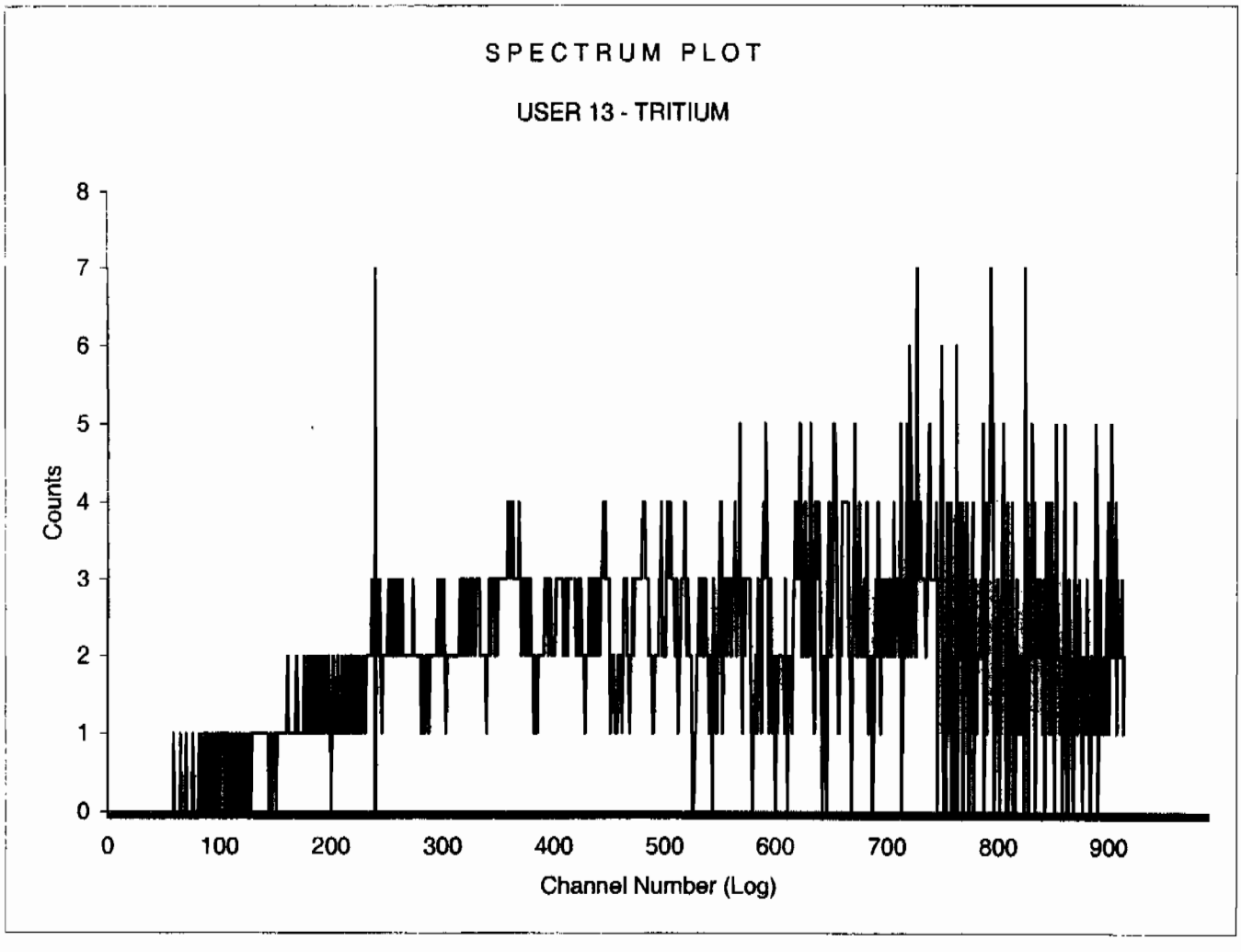

Sample Count Start Time:	7 Jan 2010 02:40:09		
Data Capture Date	07 Jan 2010 03:30:31		
User Filename	S13010729-2A.XLS		
	U13010729-1A.XLS		
Spectrum Type	Log Counts		
User Number	13		
User Id	TRITIUM		
User Comment	BROWN		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	2	29-2	50.00
H#, Total Counts:	110.0	1843	
Win1: Tritium - Start, End, Counts:	0	240	198
Win2: - Start, End, Counts:	0	990	1843

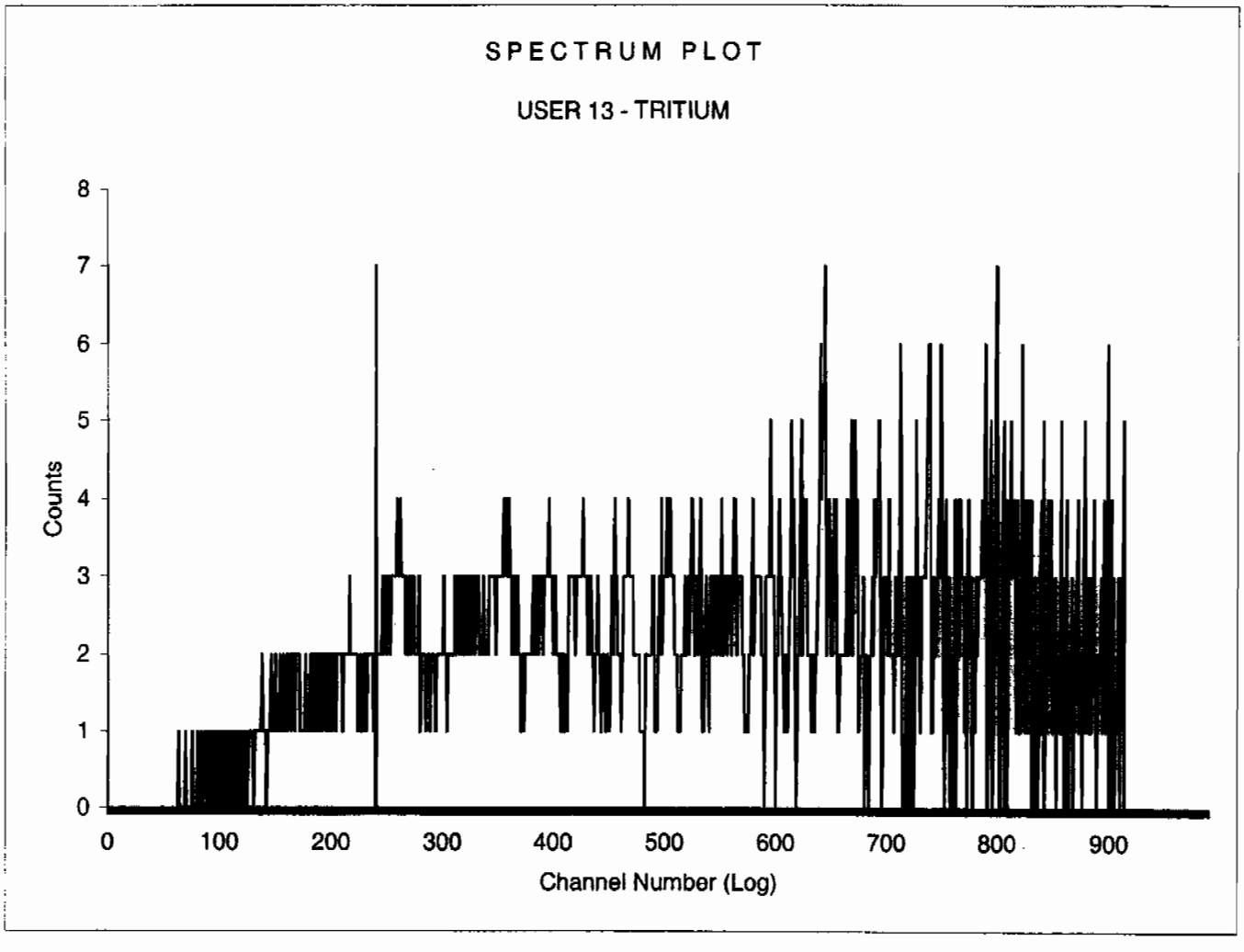

Filename: 3:37 PMab

Instrument Type	LS 6000
Data Capture Date	05 Jan 2010 05:45:59
User Filename	C:\LSCCAPTURE\RED\USER02\UN010501.BSF
User Number	2
User Id	TRITIUM
User Comments	RED
Scintillator Choice:	LIQUID

Sam	Rack	Time	H#	Raw CPM1	Raw CPM2	CPM Iso1	%Err1	CPM Iso2	%Err2	LumEx	ElTime
1	28-1	120.00	112.4	3.33	43.33	2.91	11.45	42.91	2.80	0.94	123.32
~~2~~	~~28-2~~	~~3.35~~	~~113.3~~	~~2.39~~	~~43.28~~	~~2.09~~	~~80.81~~	~~42.99~~	~~16.72~~	~~1.90~~	~~127.75~~
3	28-3	0.05	112.2	20.00	20.00	20.00	200.00	20.00	200.00	6.81	128.53
4	28-4	0.05	114.8	0.00	60.00	0.00	0.00	60.00	115.47	2.58	129.47
5	28-5	0.05	113.4	40.00	80.00	40.00	141.42	80.00	100.00	2.36	130.37
6	28-6	0.05	117.6	0.00	40.00	0.00	0.00	40.00	141.42	6.18	131.28
7	28-7	0.05	114.6	20.00	40.00	20.00	200.00	40.00	141.42	5.58	132.18
8	28-8	0.05	113.3	0.00	20.00	0.00	0.00	20.00	200.00	7.34	133.08
9	28-9	0.05	113.7	180.00	320.00	180.00	66.67	320.00	50.00	0.95	133.98
10	28-10	0.05	123.3	320.00	540.00	320.00	50.00	540.00	38.49	0.83	134.93
11	28-11	0.05	113.7	0.00	140.00	0.00	0.00	140.00	75.59	1.67	135.85
~~12~~	~~28-12~~	~~0.05~~	~~114.3~~	~~0.00~~	~~20.00~~	~~0.00~~	~~0.00~~	~~20.00~~	~~200.00~~	~~14.59~~	~~136.77~~

1-6-10

USER: 2 COMMENT:RED

PRESET TIME :	50.00						
DATA CALC :	CPM	H#	:YES	SAMPLE REPEATS:	1	PRINTER	:EDIT
COUNT BLANK :	NO	IC#	: NO	REPLICATES :	1	RS232	:EDIT
TWO PHASE :	NO	AQC	: NO	CYCLE REPEATS :	1	DISK	: OFF
SCINTILLATOR:	LIQUID	LUMEX	:YES	LOW SAMPLE REJ:	0		
LOW LEVEL :	NO	HALF LIFE CORRECTION DATE:				none	

CHAN: 65.0 - 225.0 %ERROR: 0.00 FACTOR: 1.000000 BKG. SUB: 0
CHAN: 0.0 - 990.0 %ERROR: 0.00 FACTOR: 1.000000 BKG. SUB: 0

ALPHA-BETA DISCRIMINATION: NO

SAM NO	POS	TIME MIN	H#	WIND1 CPM	WIND1 %ERROR	WIND2 CPM	WIND2 %ERROR	LUMEX %	ELAPSED TIME
MISSING SAMPLE									
2	28-2	50.00	113.5	3.38	16.57	44.40	4.27	1.17	51.72
3	28-3	50.00	127.4	3.54	15.98	44.14	4.28	1.04	103.93
4	28-4	50.00	114.6	3.70	15.89	44.88	4.25	1.33	156.19
~~5~~	~~28-5~~	~~50.00~~	~~112.9~~	~~3.56~~	~~16.09~~	~~43.88~~	~~4.31~~	~~1.23~~	~~208.43~~
6	28-6	SAMPLE TERMINATED:							
7	28-7	SAMPLE TERMINATED:							
8	28-8	SAMPLE TERMINATED:							
9	28-9	SAMPLE TERMINATED:							
10	28-10	SAMPLE TERMINATED:							
11	28-11	SAMPLE TERMINATED:							
12	28-12	SAMPLE TERMINATED:							

dah 1/31/2010

ID: TRITIUM 6 JAN 2010 06:58

USER: 2 COMMENT:RED

PRESET TIME :	50.00						
DATA CALC :	CPM	H#	:YES	SAMPLE REPEATS:	1	PRINTER	:EDIT
COUNT BLANK :	NO	IC#	: NO	REPLICATES :	1	RS232	:EDIT
TWO PHASE :	NO	AQC	: NO	CYCLE REPEATS :	1	DISK	: OFF
SCINTILLATOR:	LIQUID	LUMEX	:YES	LOW SAMPLE REJ:	0		
LOW LEVEL :	NO	HALF LIFE CORRECTION DATE:				none	

CHAN: 65.0 - 225.0 %ERROR: 0.00 FACTOR: 1.000000 BKG. SUB: 0
CHAN: 0.0 - 990.0 %ERROR: 0.00 FACTOR: 1.000000 BKG. SUB: 0

ALPHA-BETA DISCRIMINATION: NO

SAM NO	POS	TIME MIN	H#	WIND1 CPM	WIND1 %ERROR	WIND2 CPM	WIND2 %ERROR	LUMEX %	ELAPSED TIME
MISSING SAMPLE									
6	28-6	50.00	117.7	3.70	15.44	45.64	4.20	0.85	51.72
7	28-7	50.00	113.3	3.56	15.69	45.14	4.23	0.74	103.88
8	28-8	50.00	113.6	3.30	16.66	42.76	4.35	1.13	156.11
9	28-9	50.00	113.6	254.00	1.78	407.24	1.40	0.15	208.35
10	28-10	50.00	125.3	323.42	1.58	487.40	1.28	0.21	260.69
11	28-11	50.00	113.6	3.04	17.56	42.68	4.36	1.20	312.93
12	28-12	50.00	114.0	3.22	17.03	43.84	4.30	1.24	365.17

Filename: 2:37 PMab

Instrument Type	LS 6000
Data Capture Date	05 Jan 2010 08:03:46
User Filename	C:\LSCCAPTURE\RED\USER03\UN010501.BSF
User Number	3
User Id	TRITIUM
User Comments	RED
Scintillator Choice:	LIQUID

Sam	Rack	Time	H#	Raw CPM1	Raw CPM2	CPM Iso1	%Err1	CPM Iso2	%Err2	LumEx	ElTime
1	61-1	15.00	113.0	30.87	82.40	30.33	9.46	81.87	5.73	0.82	15.86

Sample Count Start Time:	5 Jan 2010 05:49:18		
Data Capture Date	05 Jan 2010 07:49:40		
User Filename	S02010528-1A.XLS		
	U02010528-1A.XLS		
Spectrum Type	Log Counts		
User Number	02		
User Id	TRITIUM		
User Comment	RED		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	1	28-1	120.00
H#, Total Counts:	112.4	6014	
Win1: Tritium - Start, End, Counts:	65	225	349
Win2: - Start, End, Counts:	0	990	5149

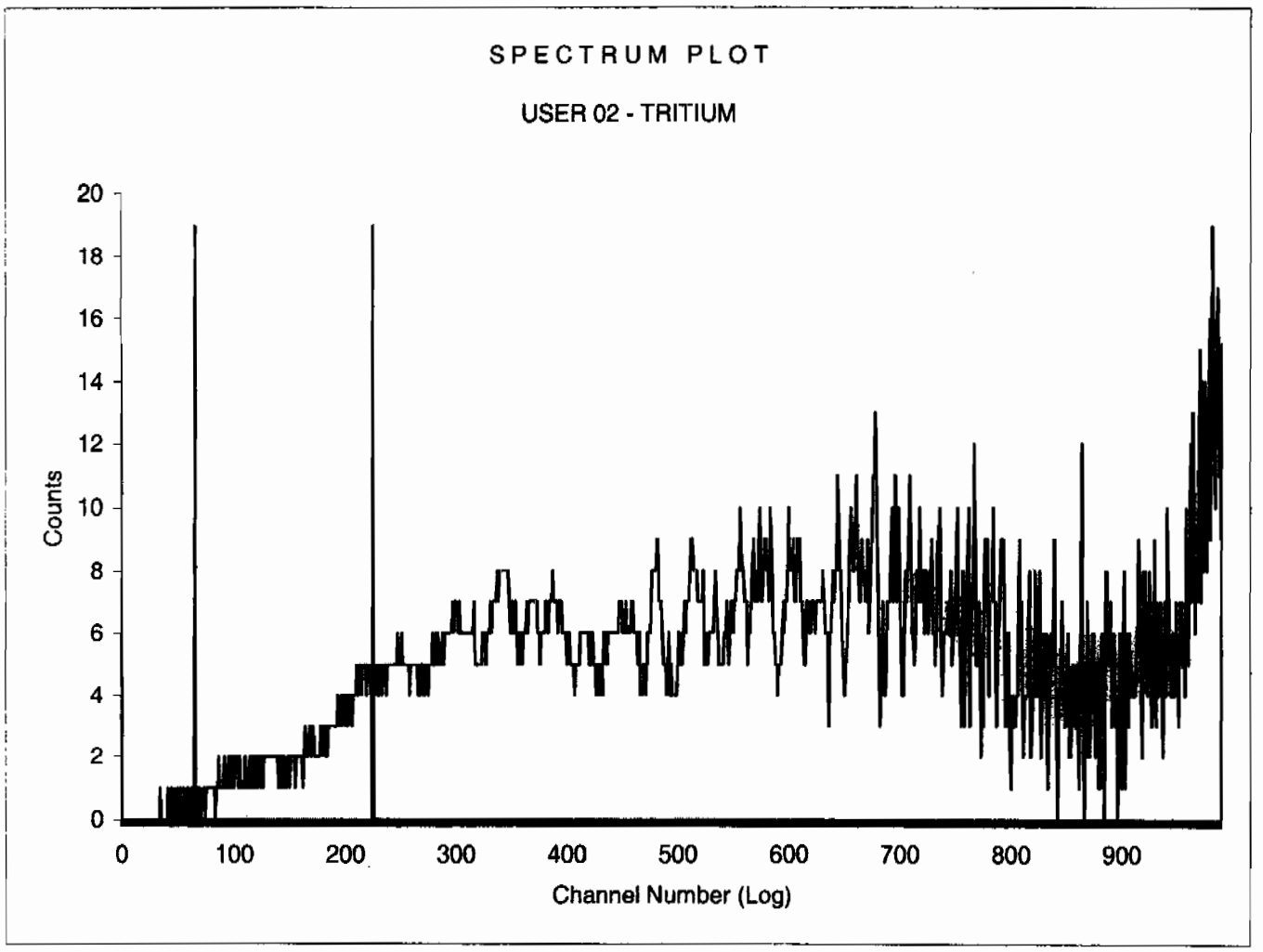

Sample Count Start Time:	5 Jan 2010 09:31:36		
Data Capture Date	05 Jan 2010 10:21:46		
User Filename	S02010528-2B.XLS		
	U02010528-2A.XLS		
Spectrum Type	Log Counts		
User Number	02		
User Id	TRITIUM		
User Comment	RED		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	2	28-2	50.00
H#, Total Counts:	113.5	2581	
Win1: Tritium - Start, End, Counts:	65	225	169
Win2: - Start, End, Counts:	0	990	2220

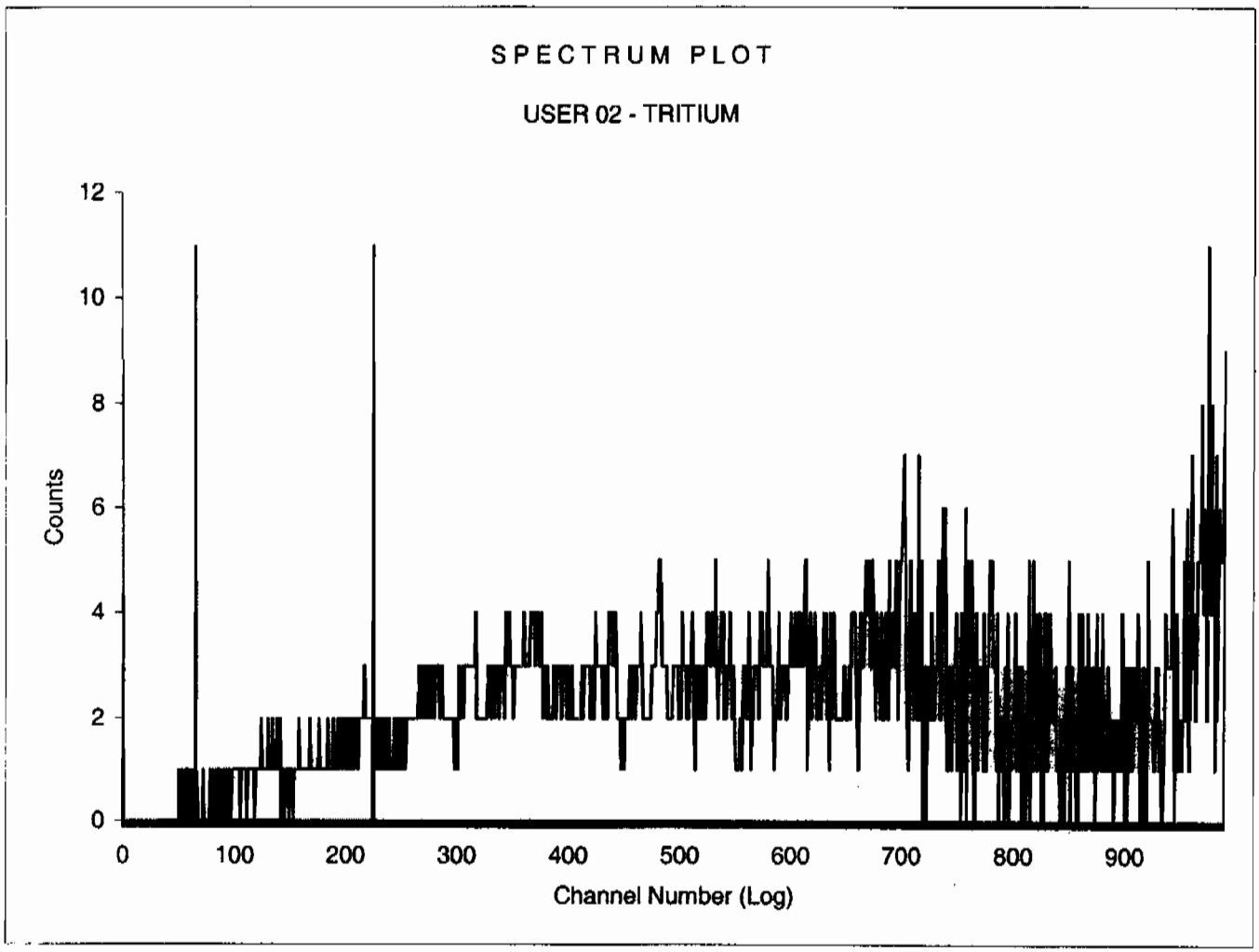

Sample Count Start Time:	5 Jan 2010 10:23:49		
Data Capture Date	05 Jan 2010 11:13:59		
User Filename	S02010528-3B.XLS		
	U02010528-2A.XLS		
Spectrum Type	Log Counts		
User Number	02		
User Id	TRITIUM		
User Comment	RED		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	3	28-3	50.00
H#, Total Counts:	127.4	2619	
Win1: Tritium - Start, End, Counts:	65	225	177
Win2: - Start, End, Counts:	0	990	2207

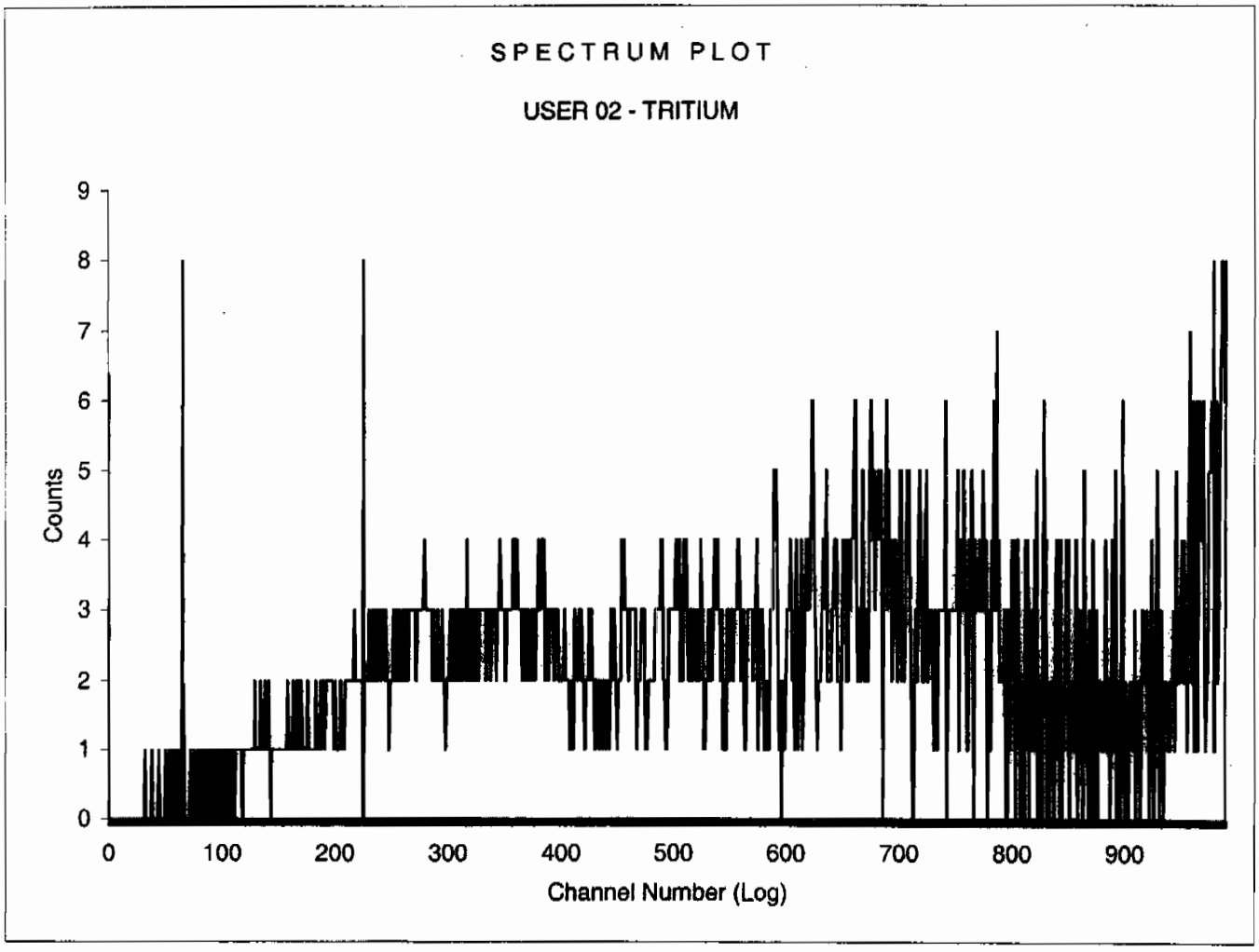

Sample Count Start Time:	5 Jan 2010 11:16:04		
Data Capture Date	05 Jan 2010 12:06:14		
User Filename	S02010528-4B.XLS		
	U02010528-2A.XLS		
Spectrum Type	Log Counts		
User Number	02		
User Id	TRITIUM		
User Comment	RED		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	4	28-4	50.00
H#, Total Counts:	114.6	2651	
Win1: Tritium - Start, End, Counts:	65	225	185
Win2: - Start, End, Counts:	0	990	2244

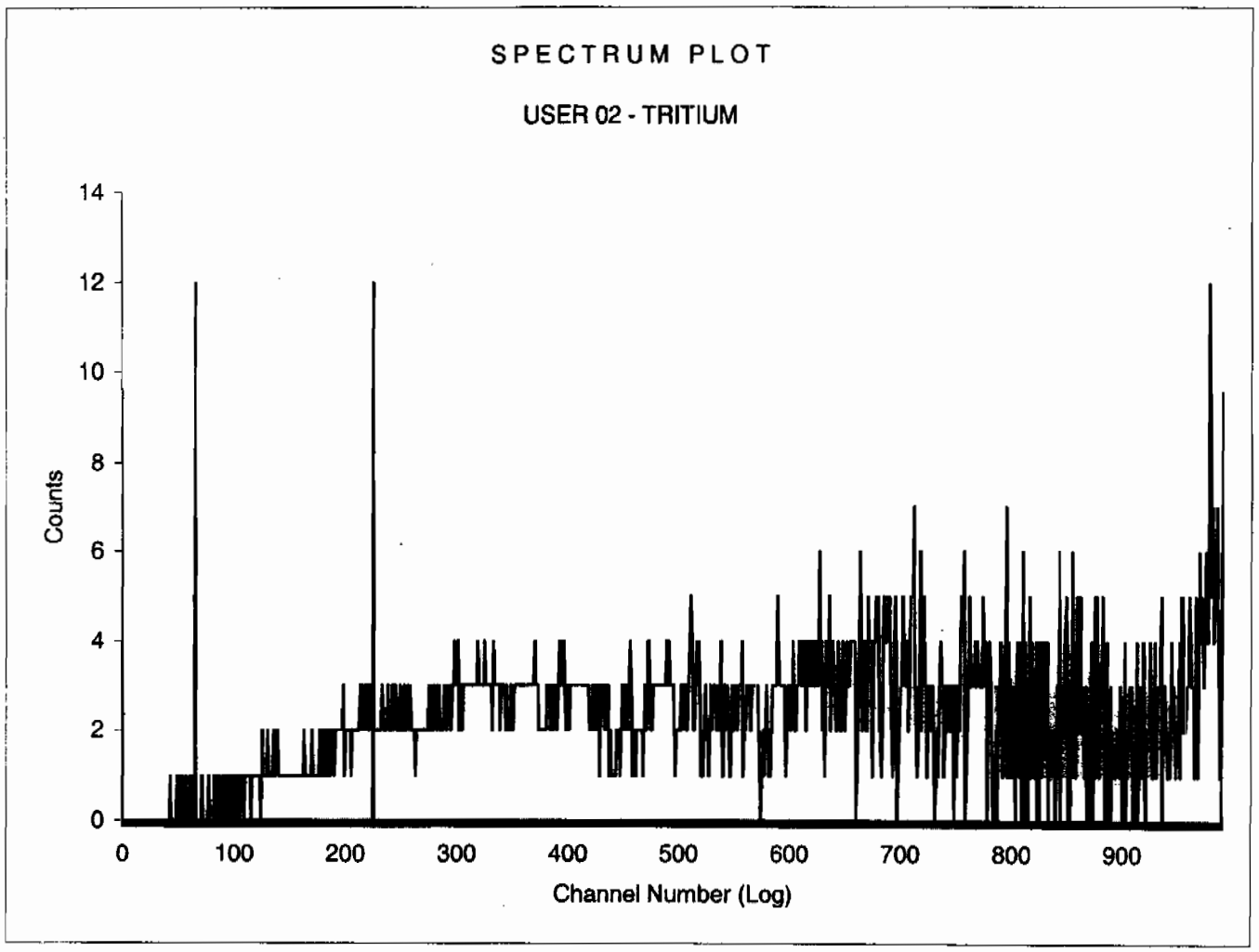

Sample Count Start Time:	6 Jan 2010 06:52:12		
Data Capture Date	06 Jan 2010 07:42:38		
User Filename	S02010628-6A.XLS		
	U02010628-6A.XLS		
Spectrum Type	Log Counts		
User Number	02		
User Id	TRITIUM		
User Comment	RED		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	6	28-6	50.00
H#, Total Counts:	117.7	2672	
Win1: Tritium - Start, End, Counts:	65	225	185
Win2: - Start, End, Counts:	0	990	2282

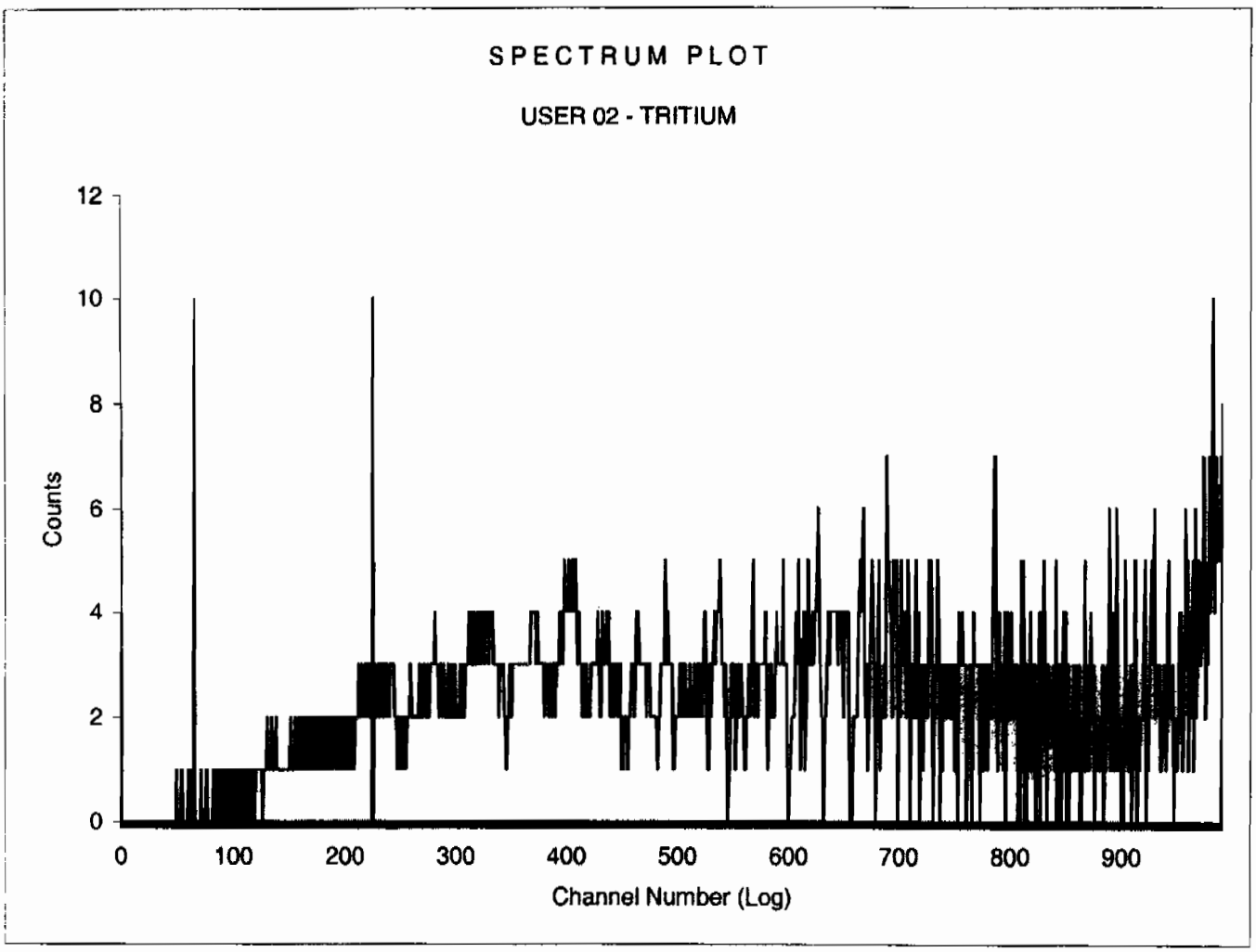

Sample Count Start Time:	6 Jan 2010 07:44:22		
Data Capture Date	06 Jan 2010 08:34:48		
User Filename	S02010628-7A.XLS		
	U02010628-6A.XLS		
Spectrum Type	Log Counts		
User Number	02		
User Id	TRITIUM		
User Comment	RED		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	7	28-7	50.00
H#, Total Counts:	113.3	2629	
Win1: Tritium - Start, End, Counts:	65	225	178
Win2: - Start, End, Counts:	0	990	2257

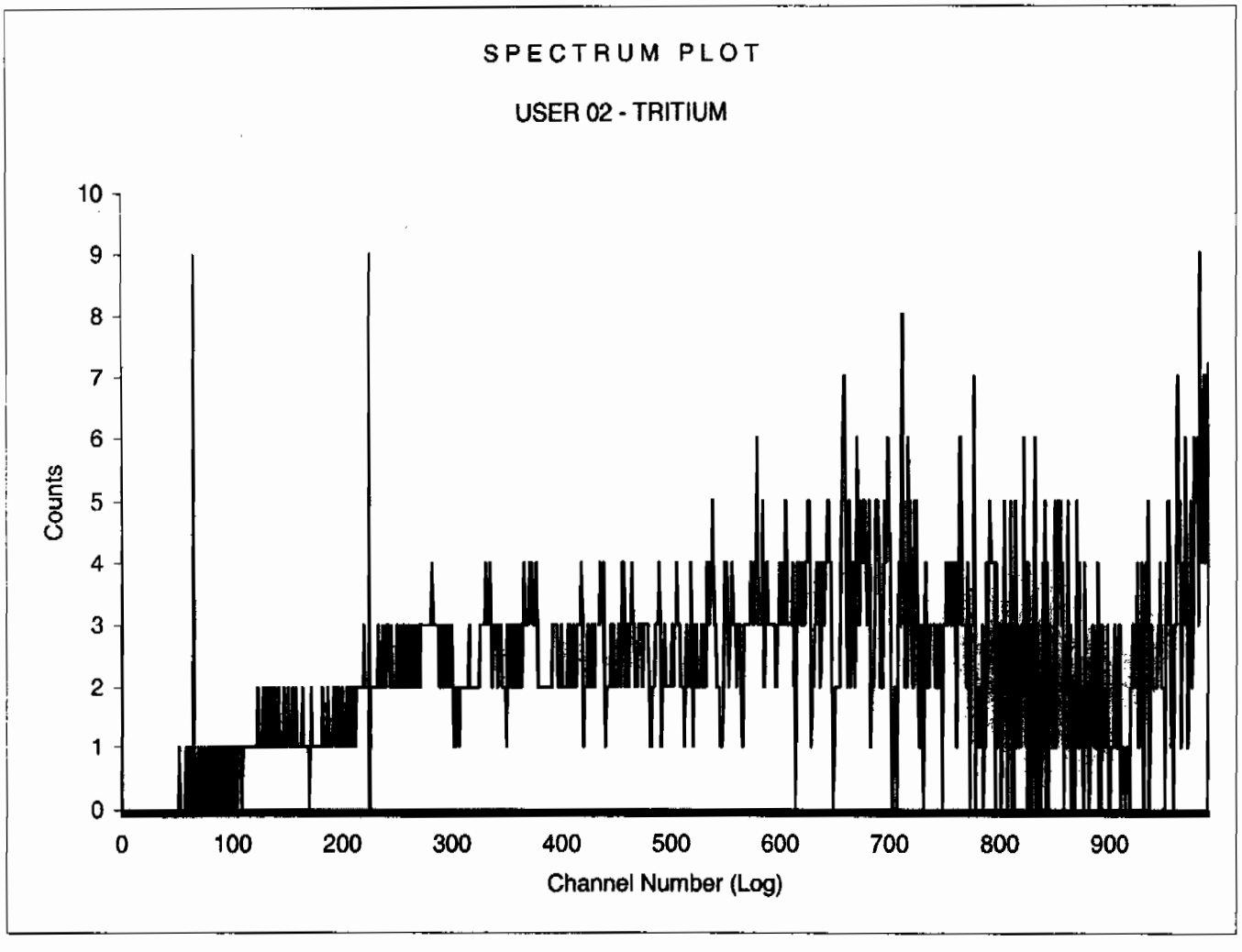

Sample Count Start Time:	6 Jan 2010 08:36:36		
Data Capture Date	06 Jan 2010 09:27:01		
User Filename	S02010628-8A.XLS		
	U02010628-6A.XLS		
Spectrum Type	Log Counts		
User Number	02		
User Id	TRITIUM		
User Comment	RED		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	8	28-8	50.00
H#, Total Counts:	113.6	2555	
Win1: Tritium - Start, End, Counts:	65	225	165
Win2: - Start, End, Counts:	0	990	2138

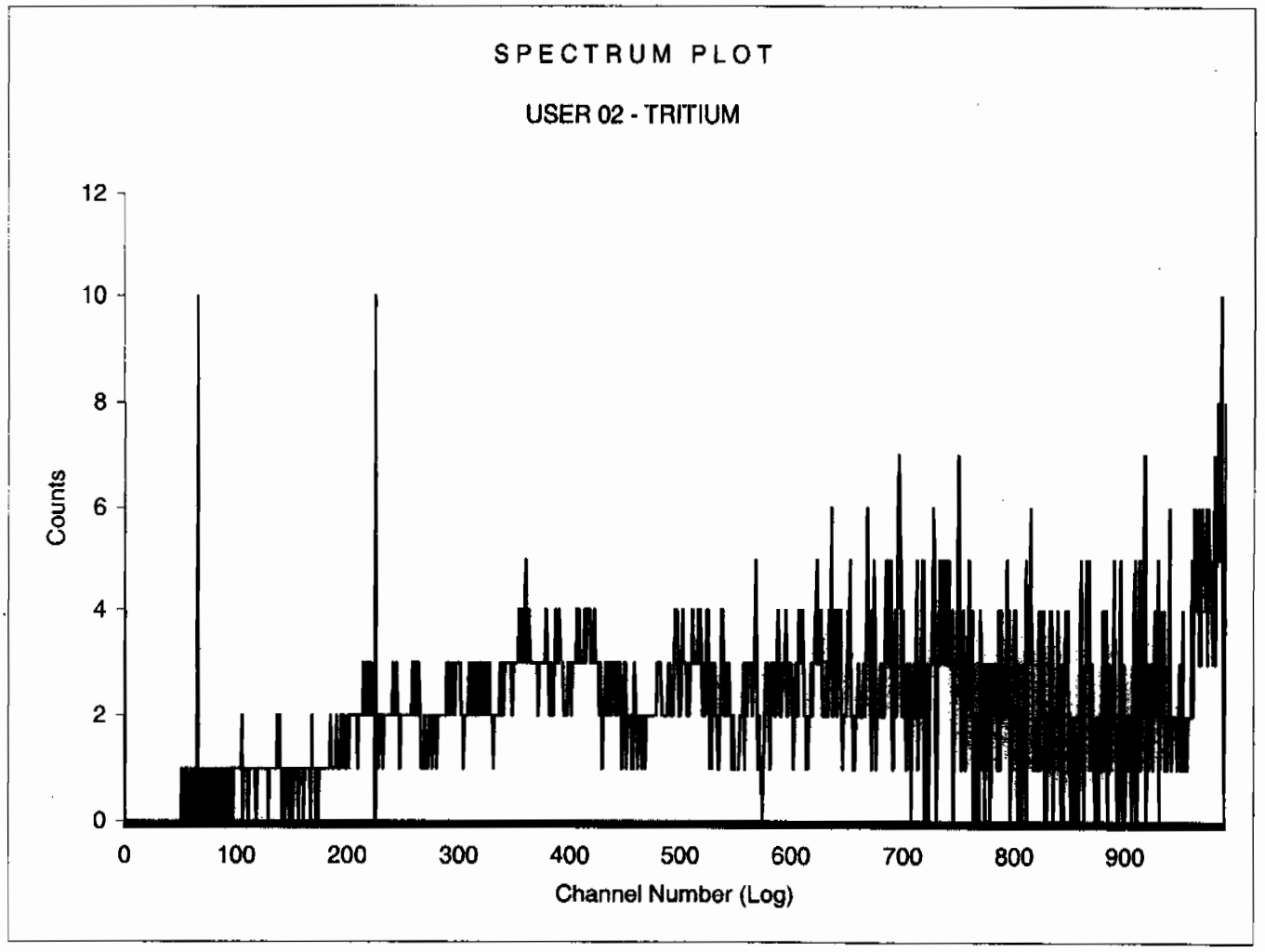

Sample Count Start Time:	6 Jan 2010 09:28:50		
Data Capture Date	06 Jan 2010 10:19:16		
User Filename	S02010628-9A.XLS		
	U02010628-6A.XLS		
Spectrum Type	Log Counts		
User Number	02		
User Id	TRITIUM		
User Comment	RED		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	9	28-9	50.00
H#, Total Counts:	113.6	20720	
Win1: Tritium - Start, End, Counts:	65	225	12700
Win2: - Start, End, Counts:	0	990	20362

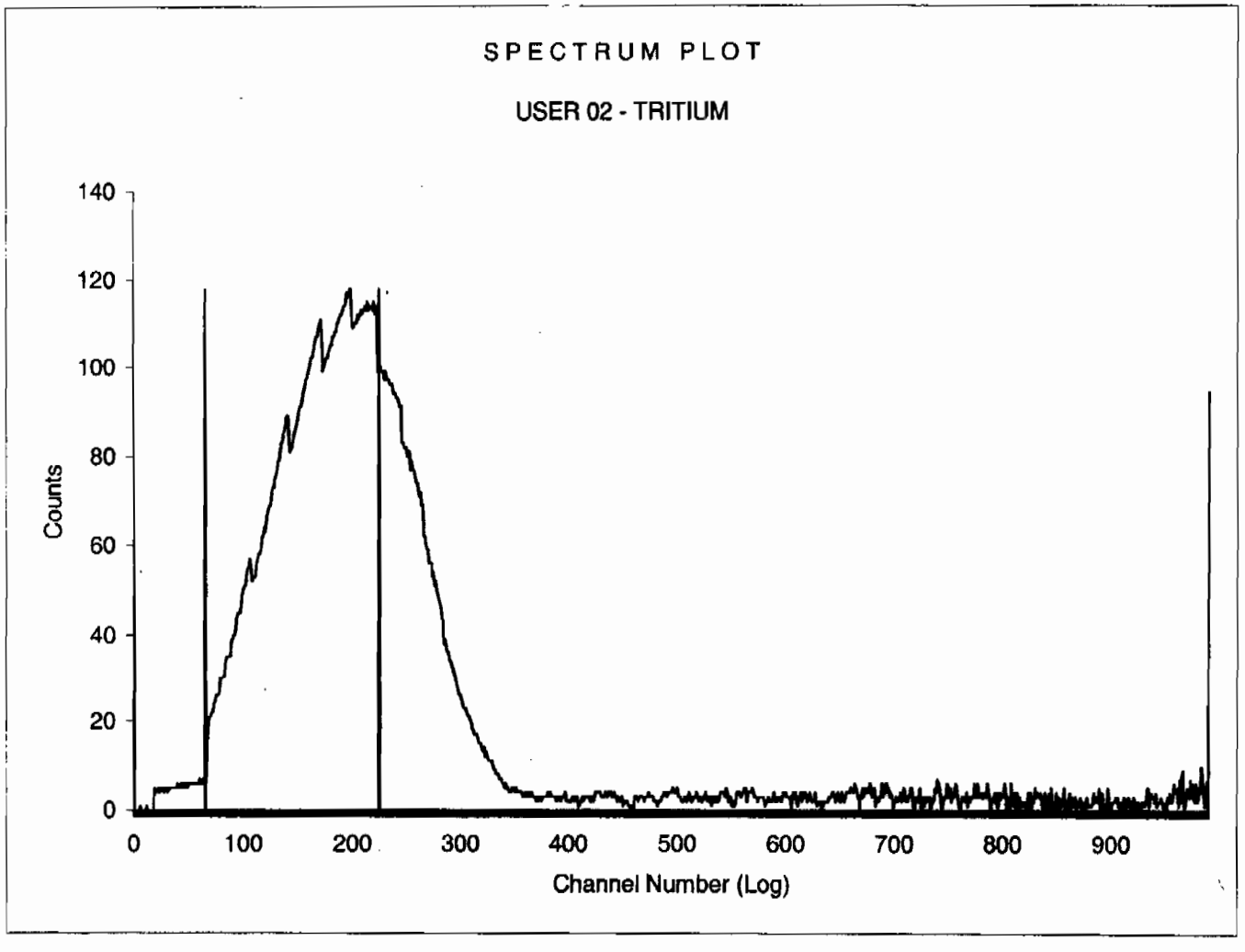

Sample Count Start Time:	6 Jan 2010 10:21:10		
Data Capture Date	06 Jan 2010 11:11:37		
User Filename	S02010628-10A.XLS		
	U02010628-6A.XLS		
Spectrum Type	Log Counts		
User Number	02		
User Id	TRITIUM		
User Comment	RED		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	10	28-10	50.00
H#, Total Counts:	125.3	24654	
Win1: Tritium - Start, End, Counts:	65	225	16171
Win2: - Start, End, Counts:	0	990	24370

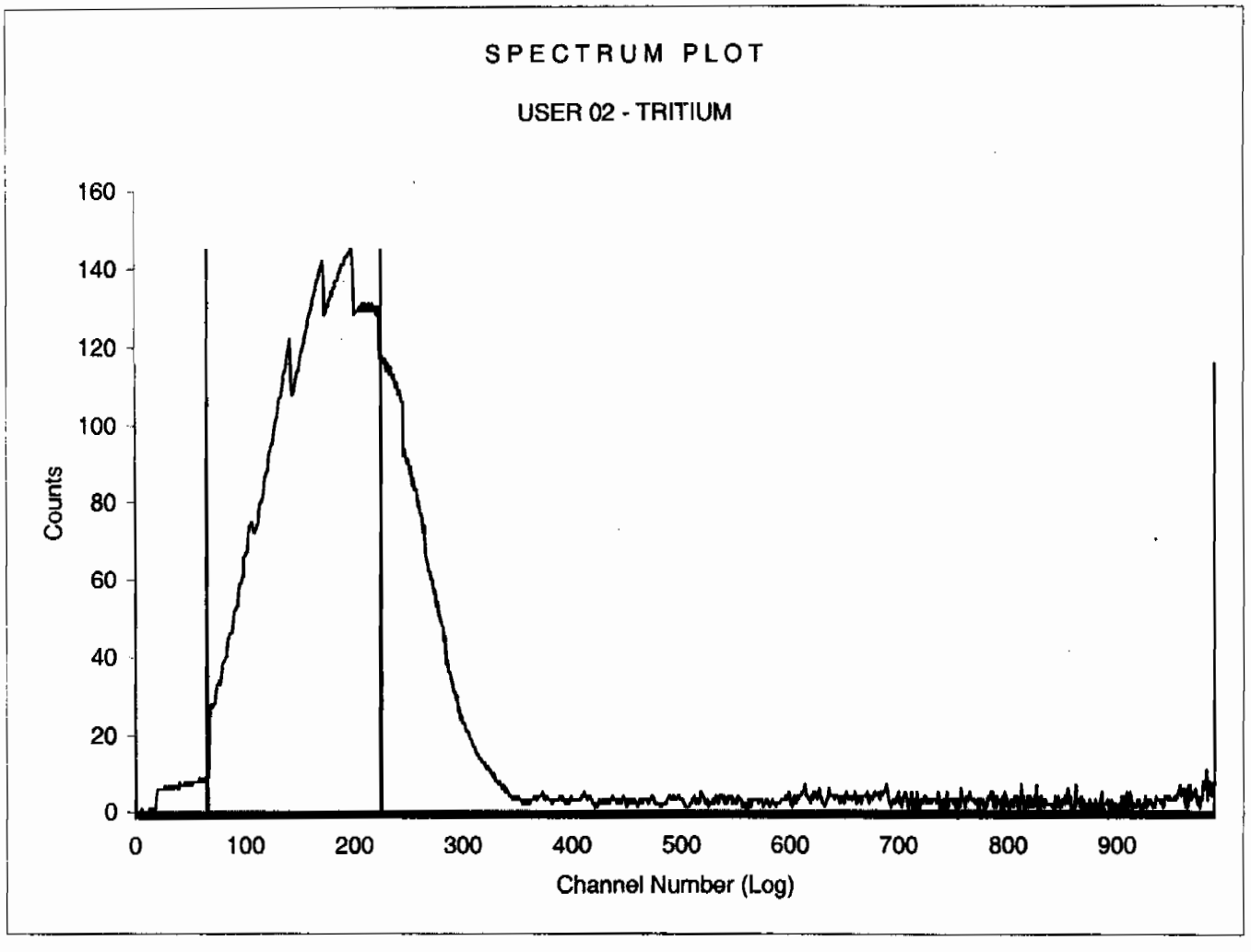

Sample Count Start Time:	6 Jan 2010 11:13:25		
Data Capture Date	06 Jan 2010 12:03:51		
User Filename	S02010628-11A.XLS		
	U02010628-6A.XLS		
Spectrum Type	Log Counts		
User Number	02		
User Id	TRITIUM		
User Comment	RED		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	11	28-11	50.00
H#, Total Counts:	113.6	2498	
Win1: Tritium - Start, End, Counts:	65	225	152
Win2: - Start, End, Counts:	0	990	2134

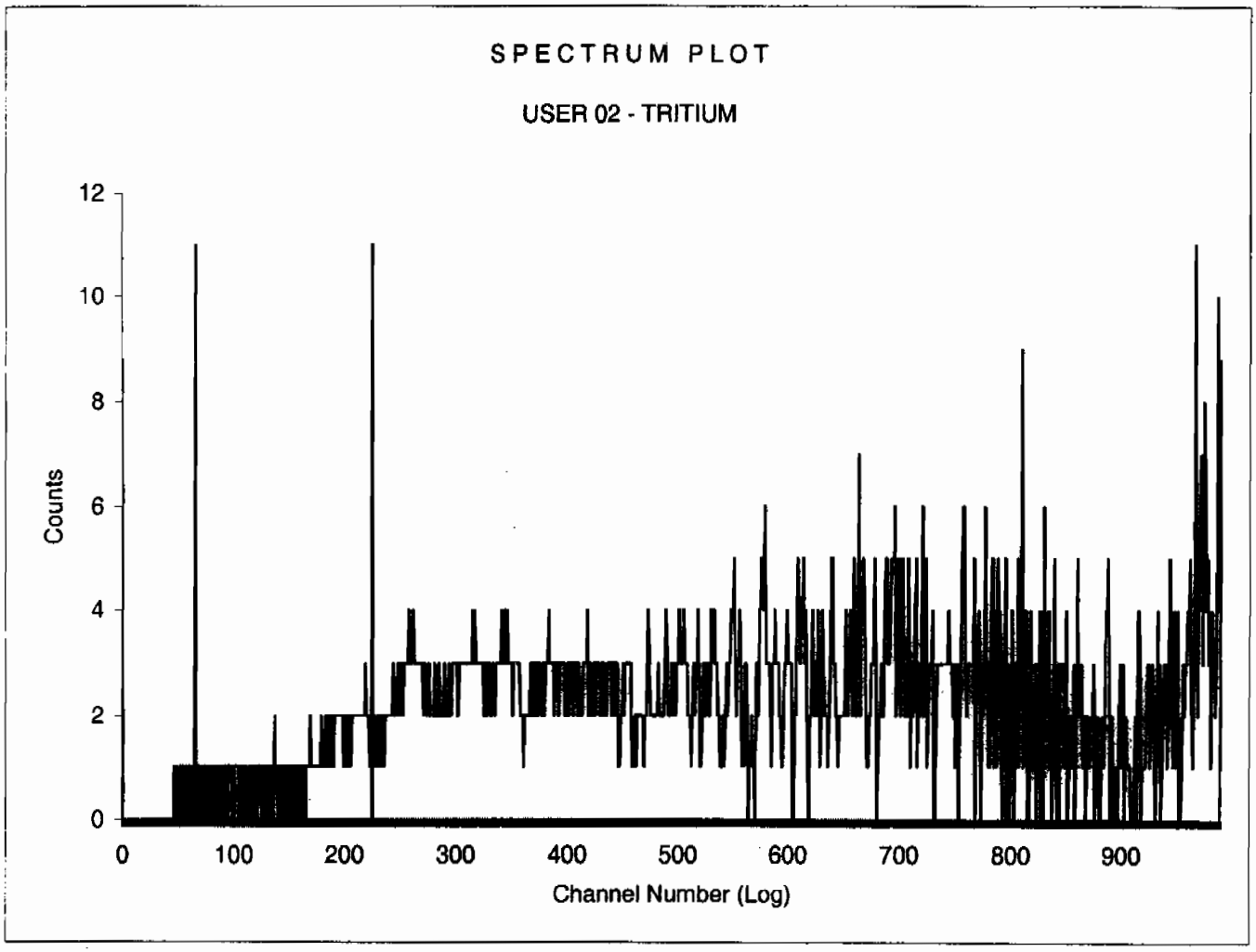

Sample Count Start Time:	6 Jan 2010 12:05:39		
Data Capture Date	06 Jan 2010 12:56:05		
User Filename	S02010628-12A.XLS		
	U02010628-6A.XLS		
Spectrum Type	Log Counts		
User Number	02		
User Id	TRITIUM		
User Comment	RED		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	12	28-12	50.00
H#, Total Counts:	114.0	2620	
Win1: Tritium - Start, End, Counts:	65	225	161
Win2: - Start, End, Counts:	0	990	2192

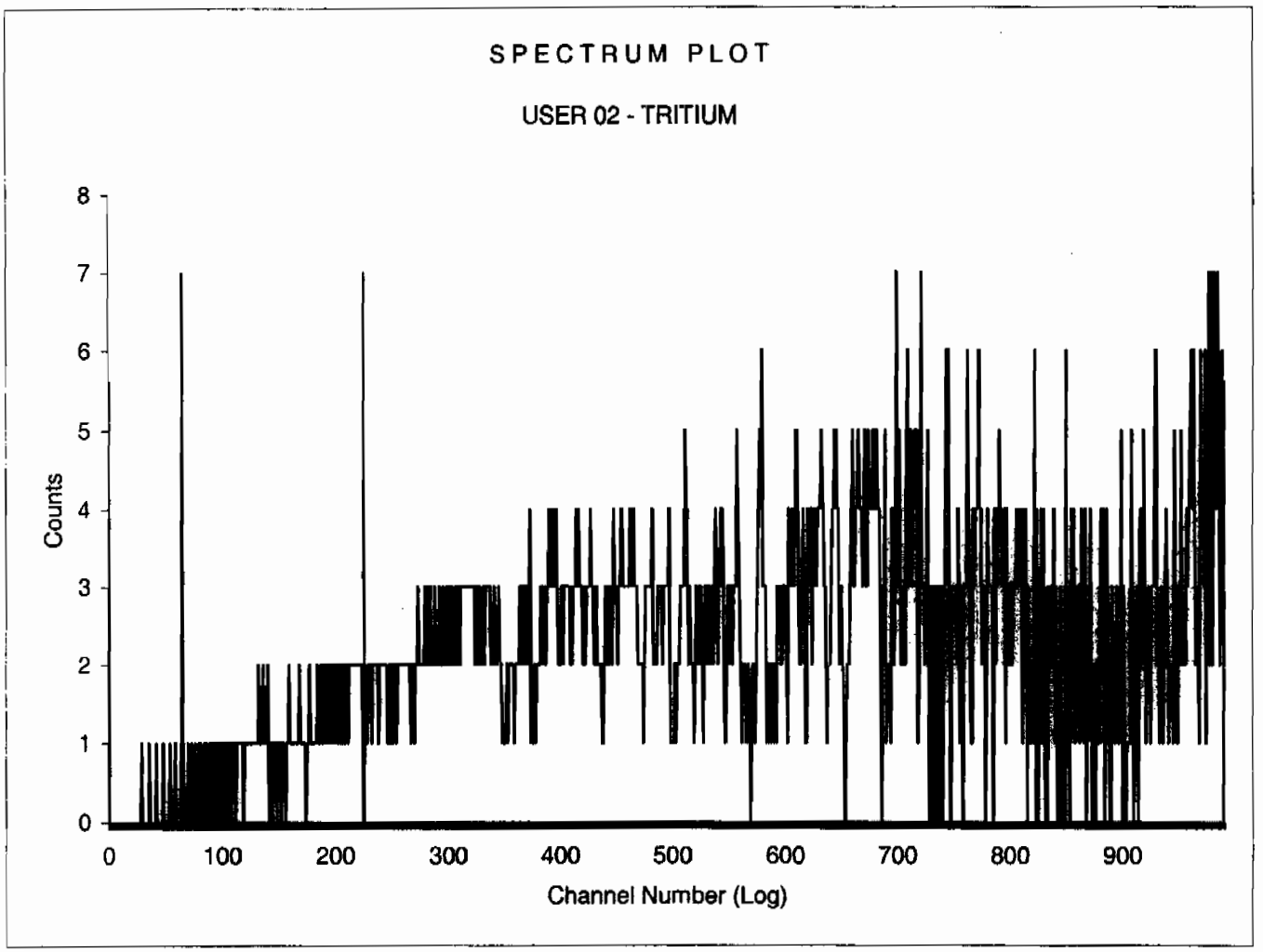

Sample Count Start Time:	5 Jan 2010 08:04:38		
Data Capture Date	05 Jan 2010 08:19:41		
User Filename	S03010561-1A.XLS		
	U03010561-1A.XLS		
Spectrum Type	Log Counts		
User Number	03		
User Id	TRITIUM		
User Comment	RED		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	1	61-1	15.00
H#, Total Counts:	113.0	1319	
Win1: Tritium - Start, End, Counts:	65	225	455
Win2: - Start, End, Counts:	0	990	1228

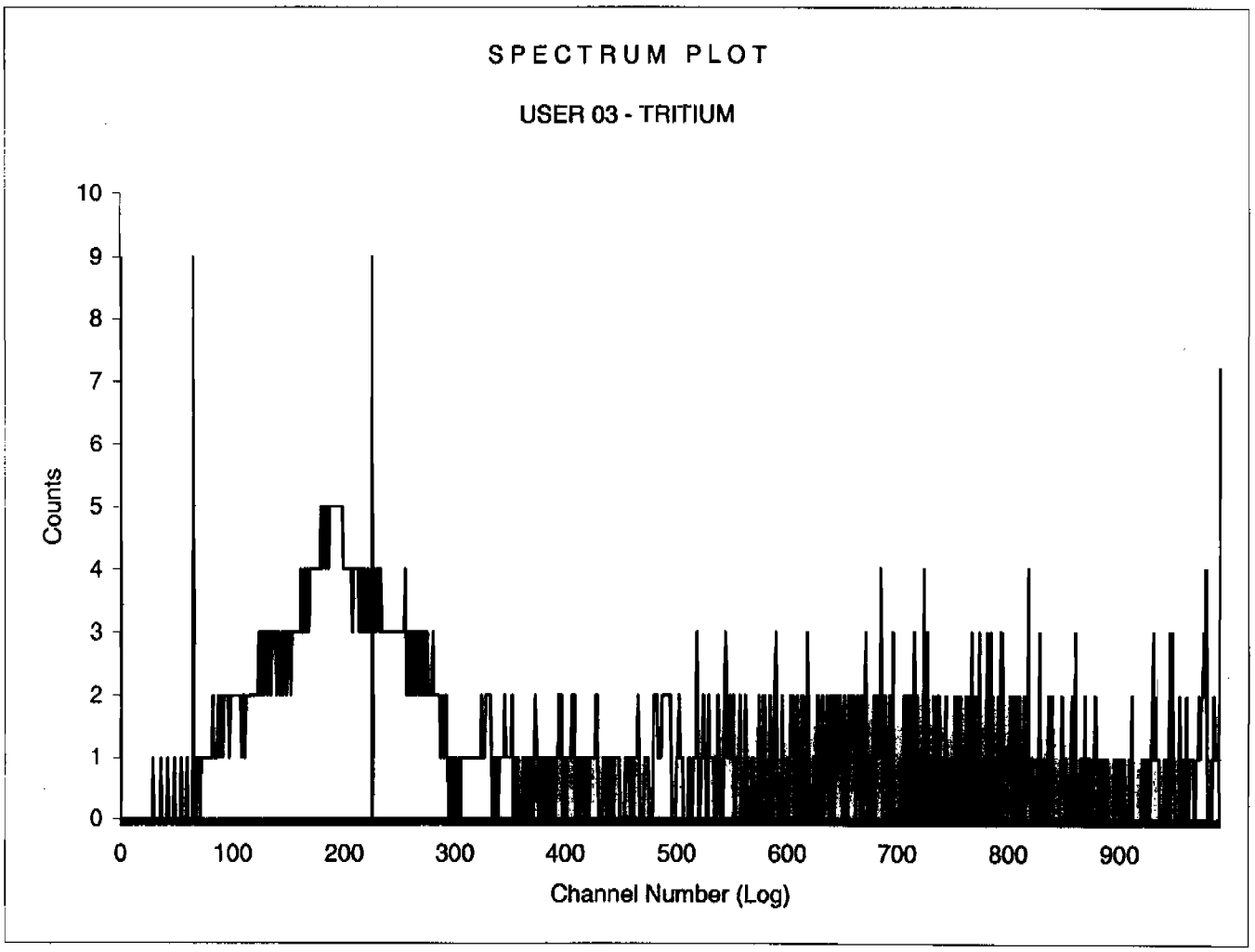

BACKGROUND AND EFFICIENCY DATA

QA filename : DKA100:[ENV_ALPHA.QA.W]W005.QAF;6
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 15-DEC-2009 14:48:34 through 5-JAN-2010 12:00:00
Lower/Upper Lmts: 0.310305 through 0.330305

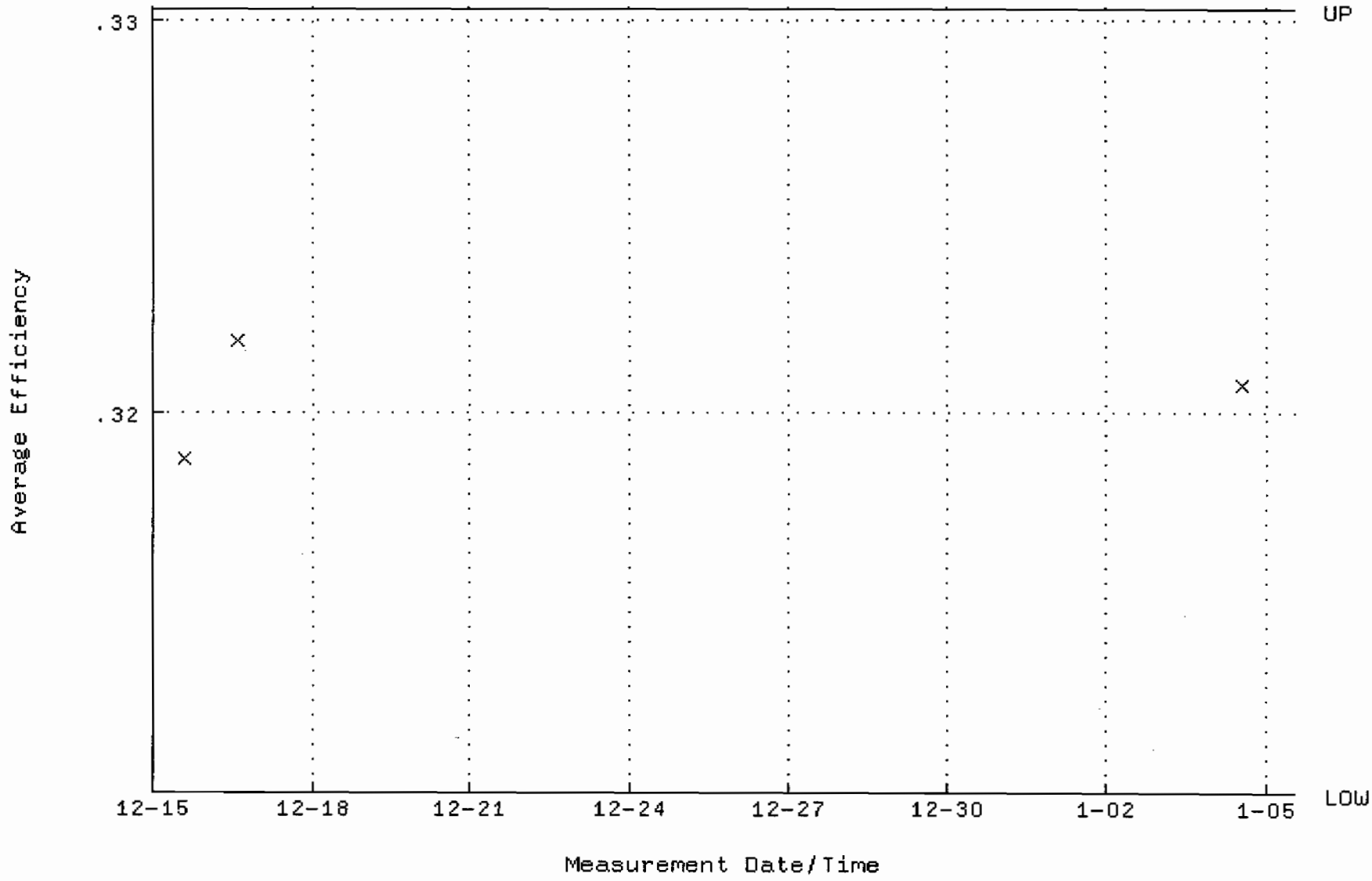

QA filename : DKA100:[ENV_ALPHA.QA.W]W005.QAF;6
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 15-DEC-2009 14:48:34 through 5-JAN-2010 12:00:00
Lower/Upper Lmts: 89.0042 through 98.3730

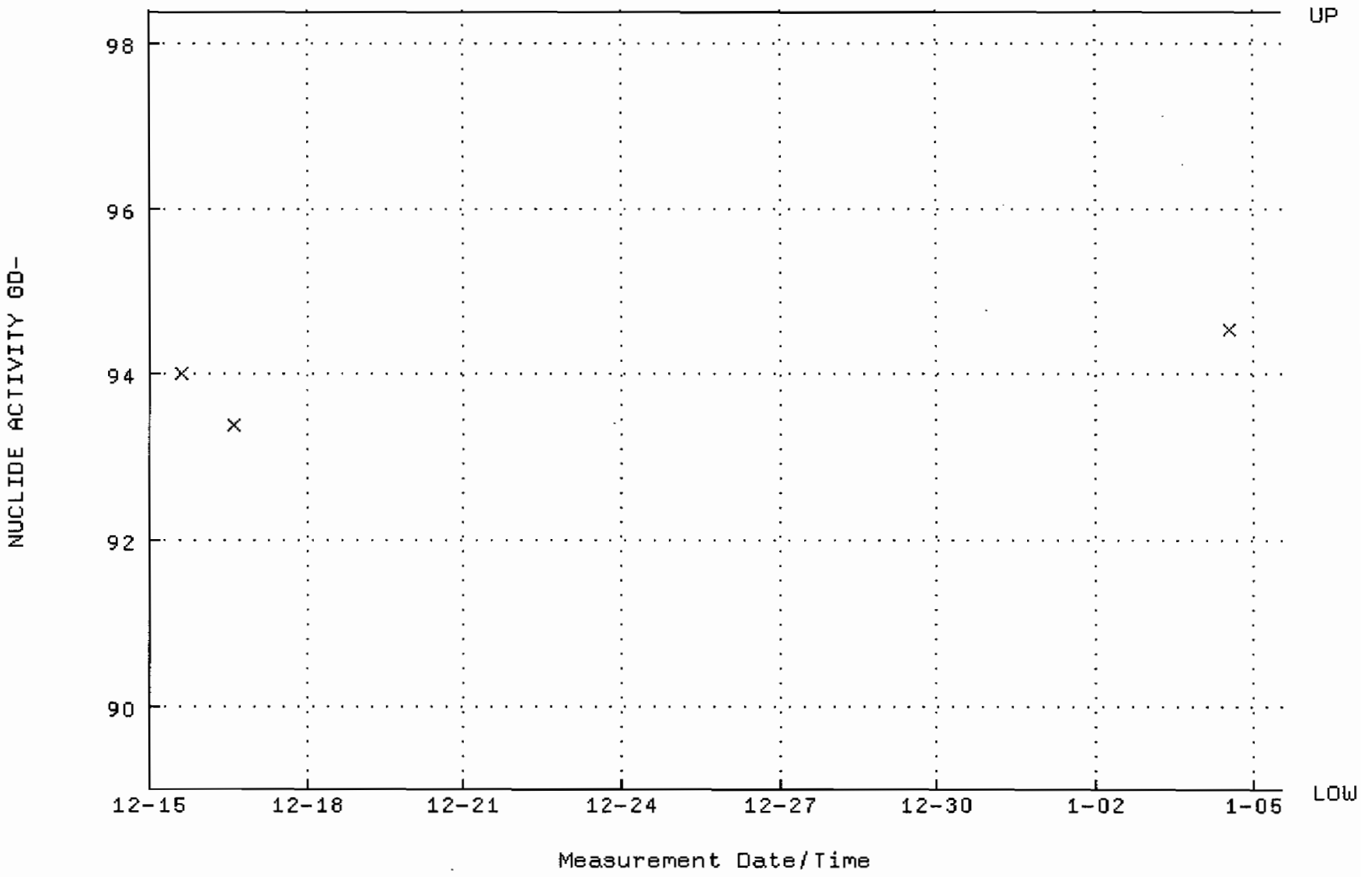

QA filename : DKA100:[ENV_ALPHA.QA.B]B005.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 5-JUL-2009 15:11:54 through 5-JAN-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

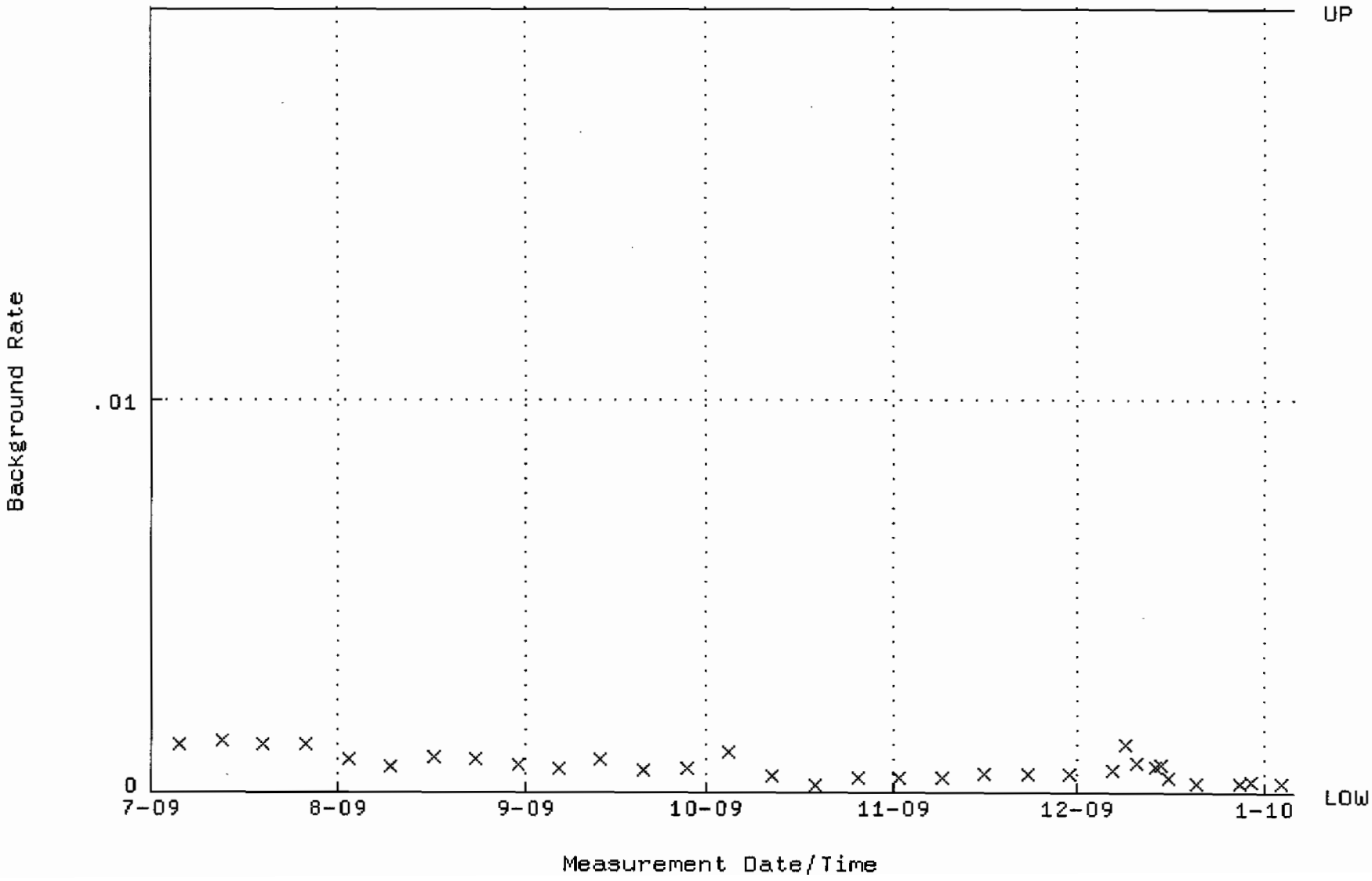

QA filename : DKA100:[ENV_ALPHA.QA.W]W010.QAF;5
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 6-JUL-2009 09:46:11 through 5-JAN-2010 12:00:00
Lower/Upper Lmts: 0.303169 through 0.323169

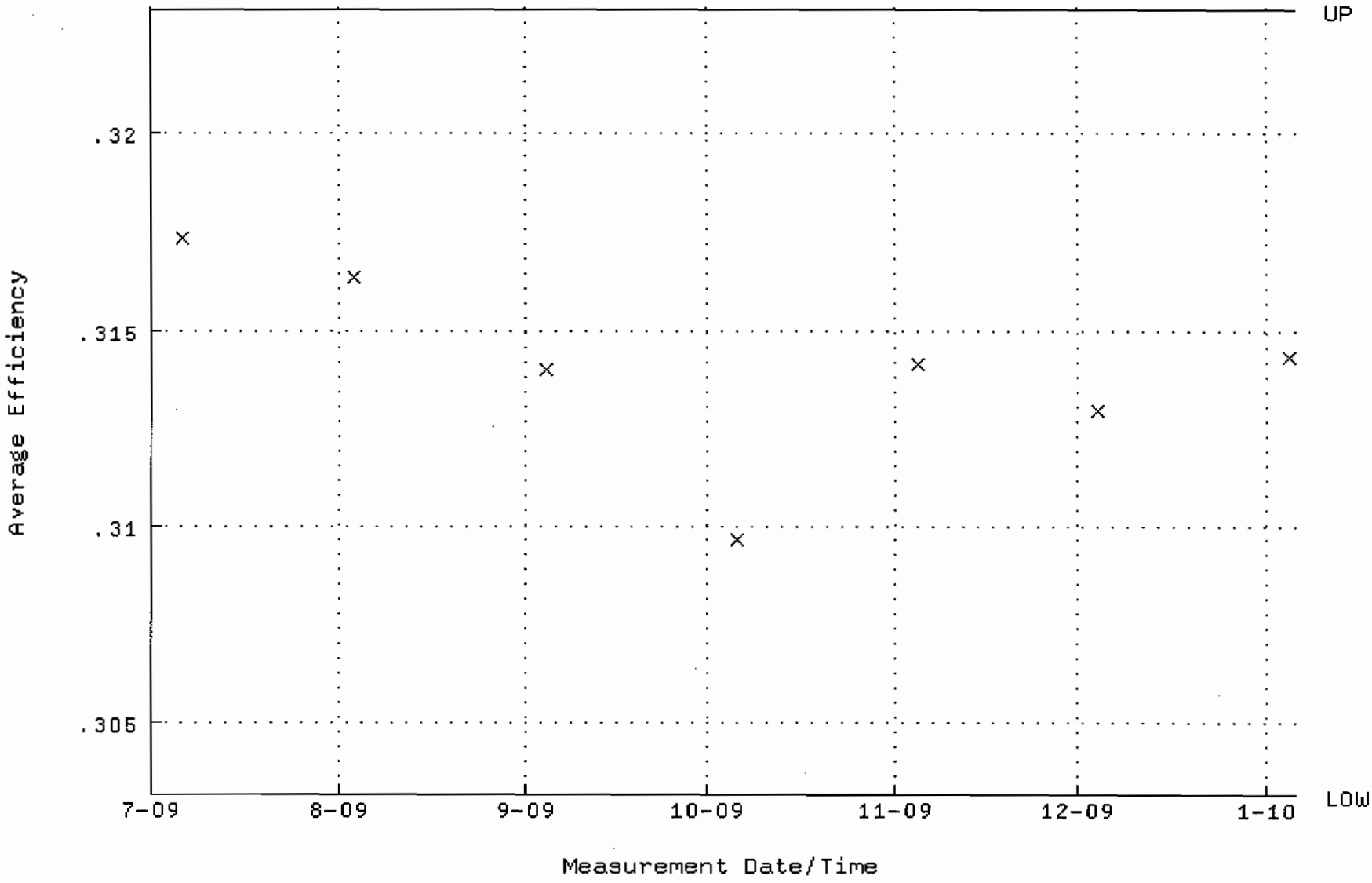

QA filename : DKA100:[ENV_ALPHA.QA.W]W010.QAF;5
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 6-JUL-2009 09:46:11 through 5-JAN-2010 12:00:00
Lower/Upper Lmts: 85.3273 through 94.3091

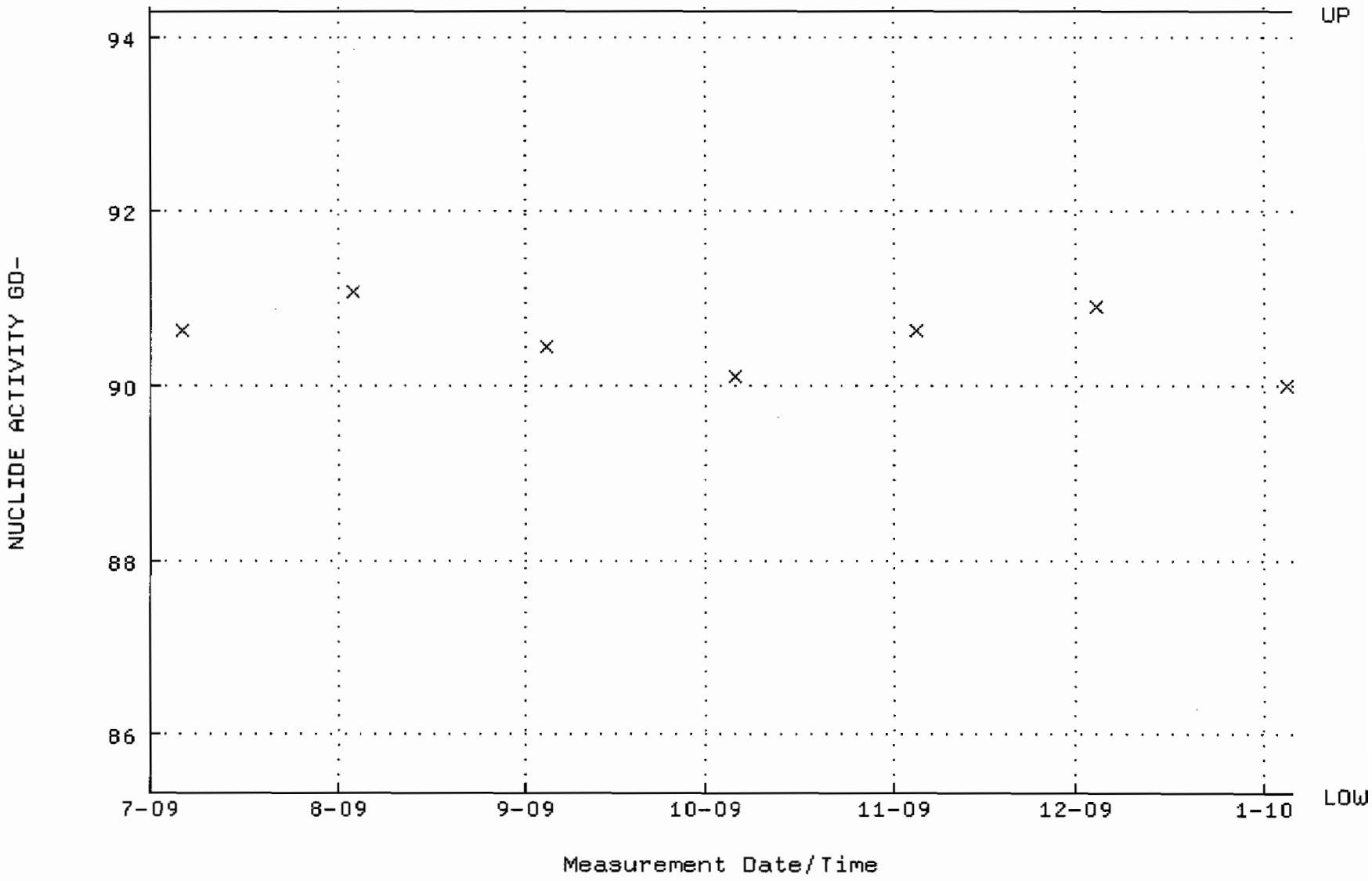

QA filename : DKA100:[ENV_ALPHA.QA.B]B010.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 5-JUL-2009 15:11:55 through 5-JAN-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

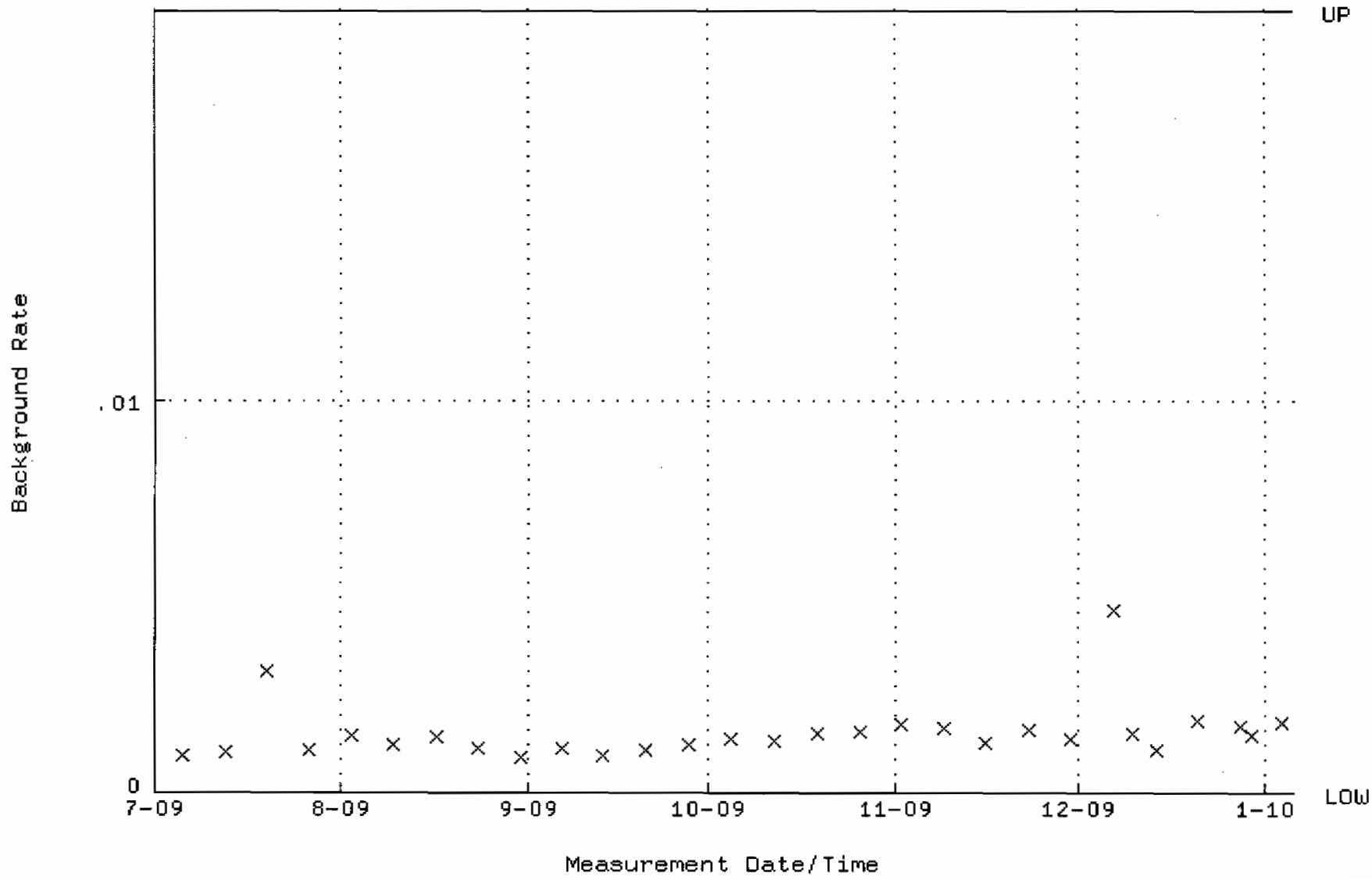

QA filename : DKA100:[ENV_ALPHA.QA.W]W011.QAF;4
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 6-JUL-2009 09:46:11 through 5-JAN-2010 12:00:00
Lower/Upper Lmts: 0.287129 through 0.307129

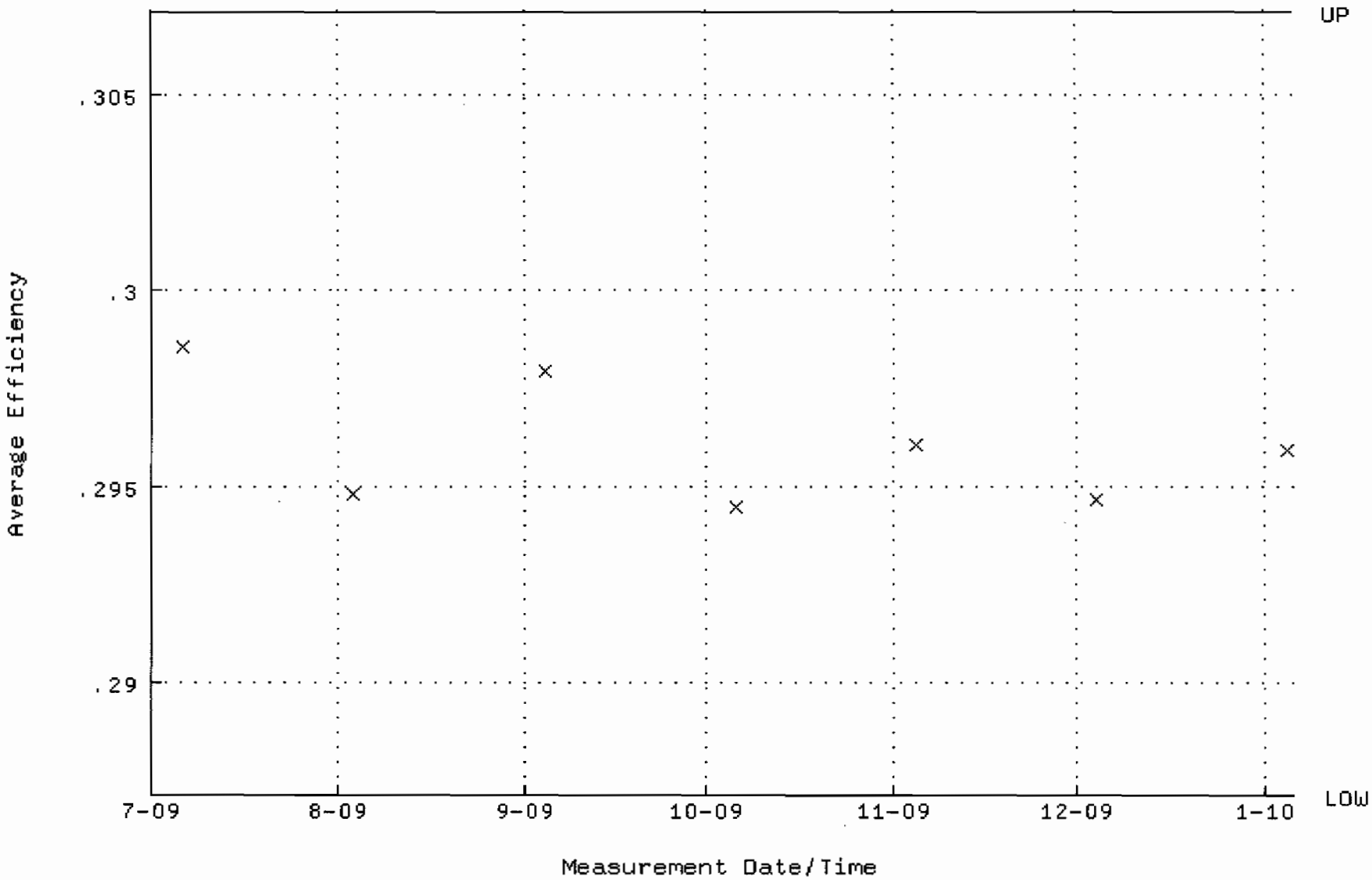

QA filename : DKA100:[ENV_ALPHA.QA.W]W011.QAF;4
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 6-JUL-2009 09:46:11 through 5-JAN-2010 12:00:00
Lower/Upper Lmts: 90.7092 through 100.258

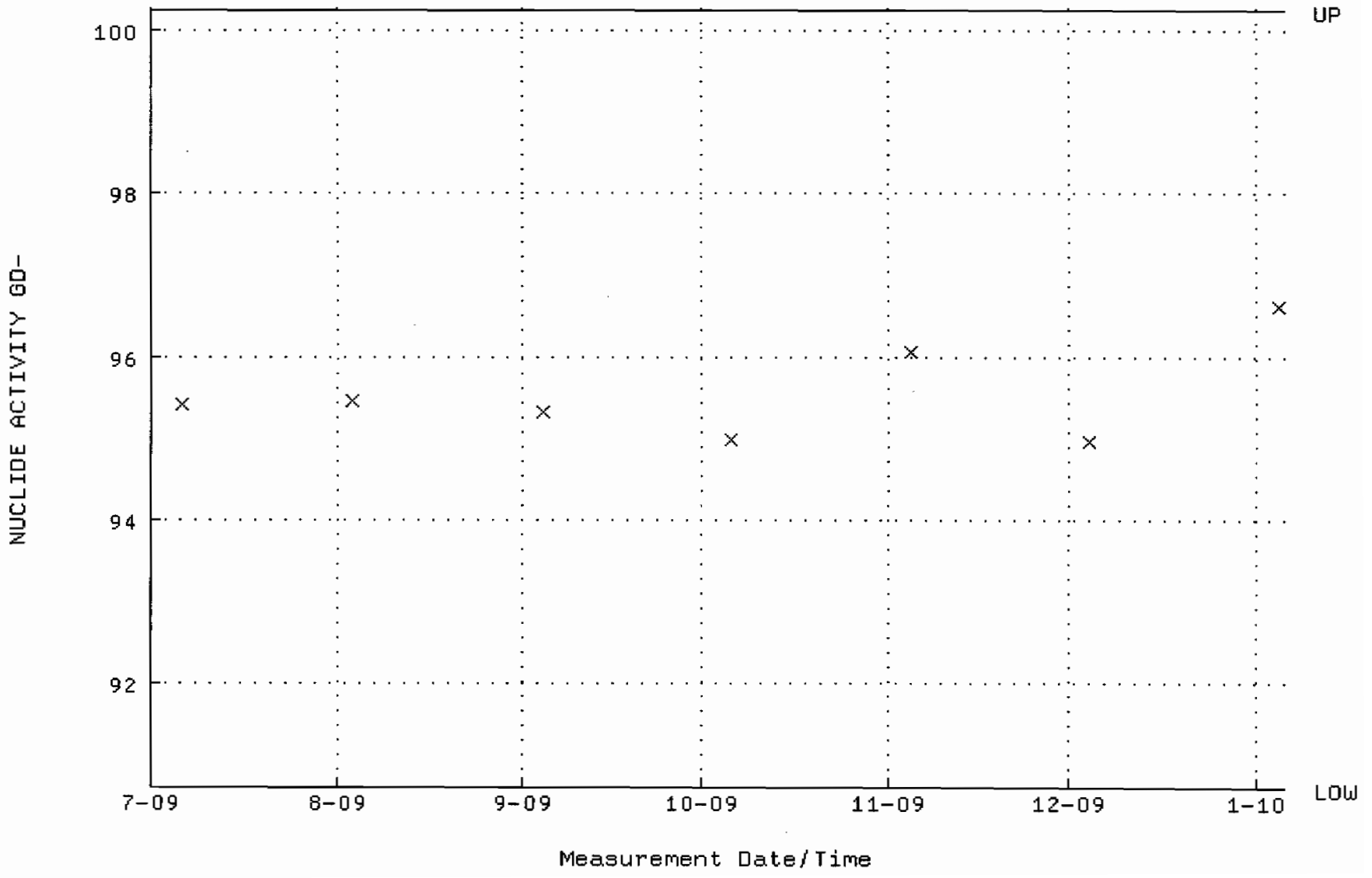

QA filename : DKA100:[ENV_ALPHA.QA.B]B011.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 5-JUL-2009 15:11:55 through 5-JAN-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

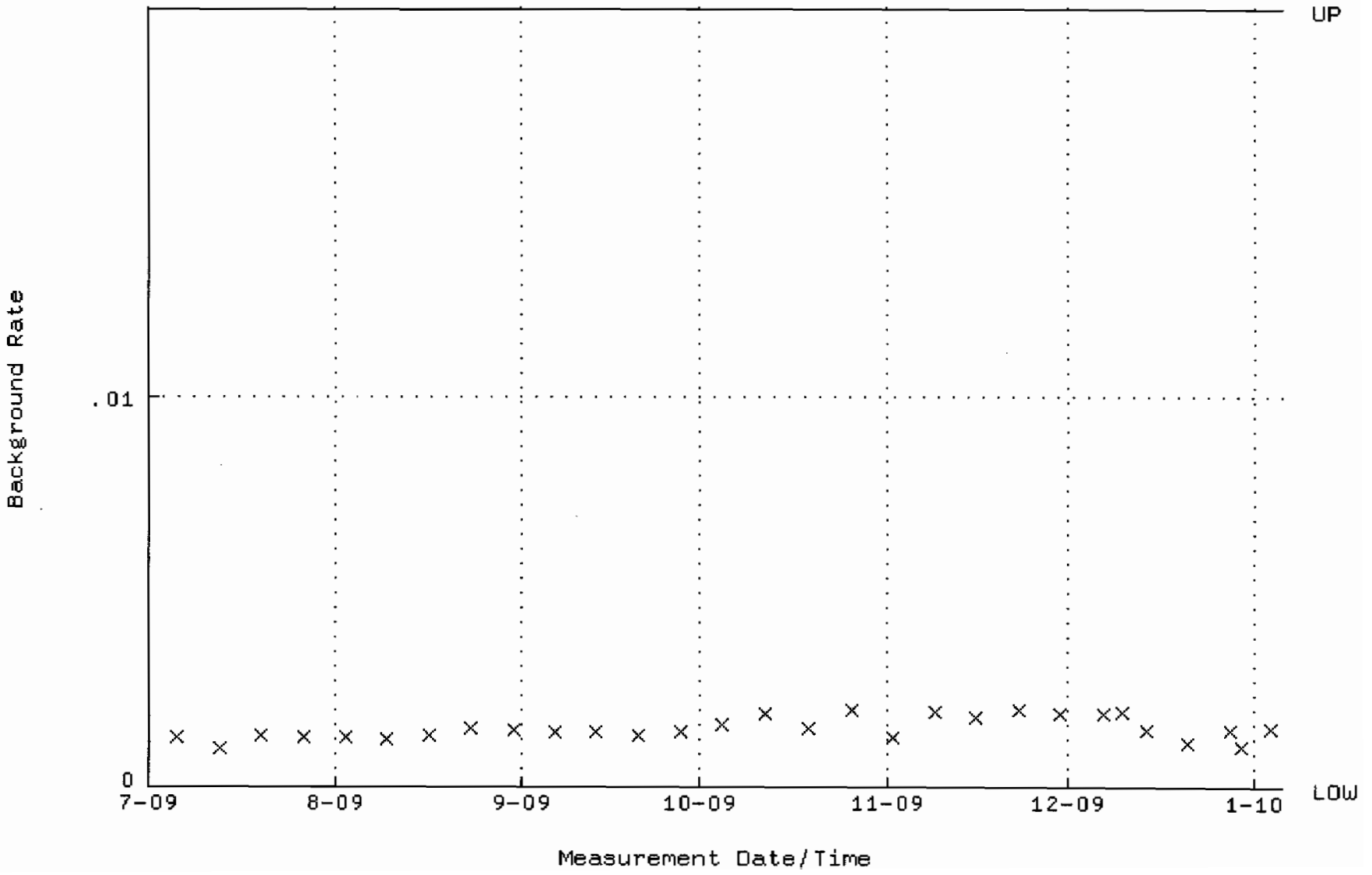

QA filename : DKA100:[ENV_ALPHA.QA.W]W012.QAF;4
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 6-JUL-2009 09:46:11 through 5-JAN-2010 12:00:00
Lower/Upper Lmts: 0.285730 through 0.305730

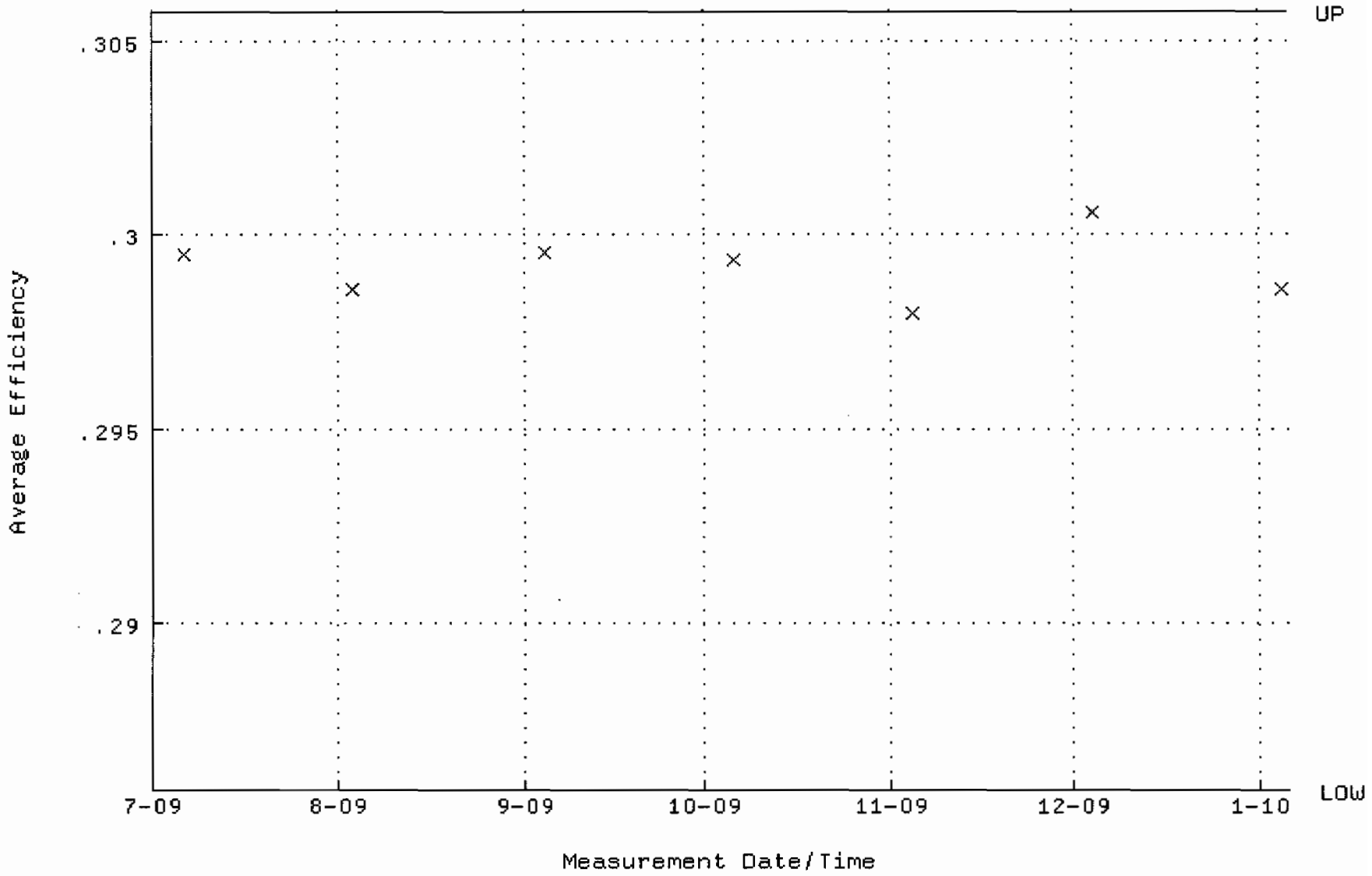

QA filename : DKA100:[ENV_ALPHA.QA.W]W012.QAF;4
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 6-JUL-2009 09:46:11 through 5-JAN-2010 12:00:00
Lower/Upper Lmts: 88.0678 through 97.3382

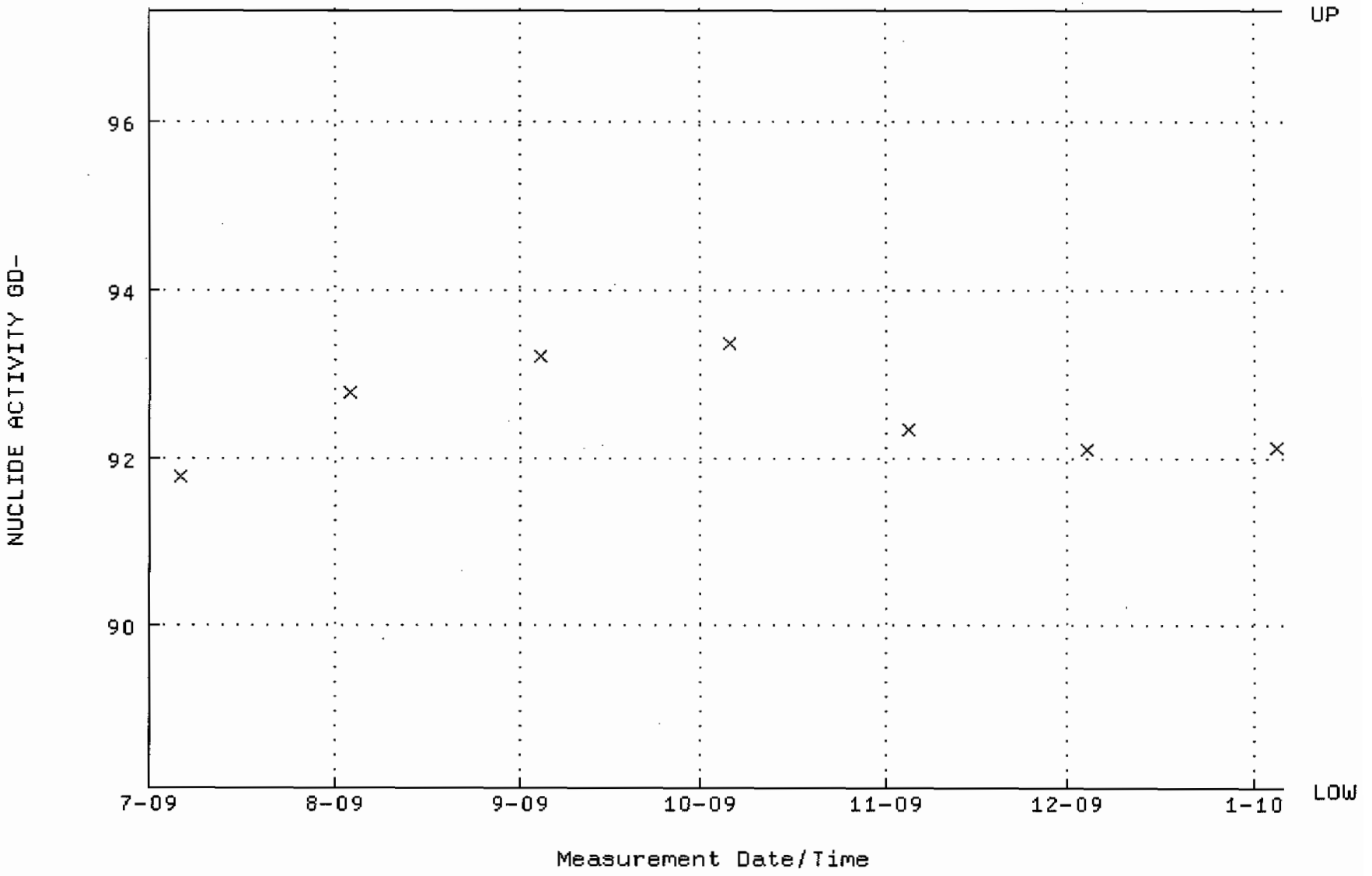

QA filename : DKA100:[ENV_ALPHA.QA.B]B012.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 5-JUL-2009 15:11:55 through 5-JAN-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

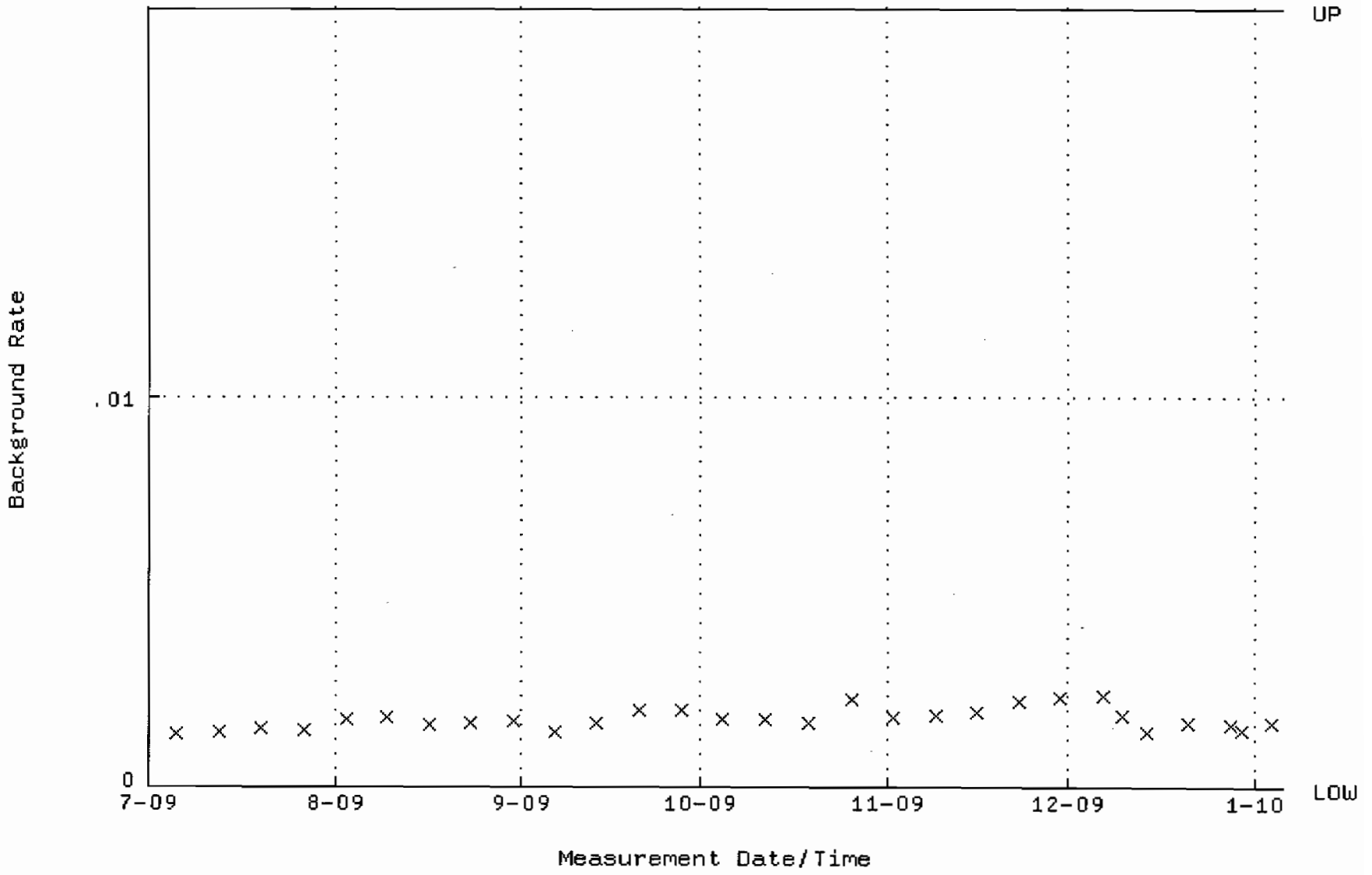

QA filename : DKA100:[ENV_ALPHA.QA.W]W018.QAF;3
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 6-JUL-2009 09:46:12 through 5-JAN-2010 12:00:00
Lower/Upper Lmts: 0.310950 through 0.330950

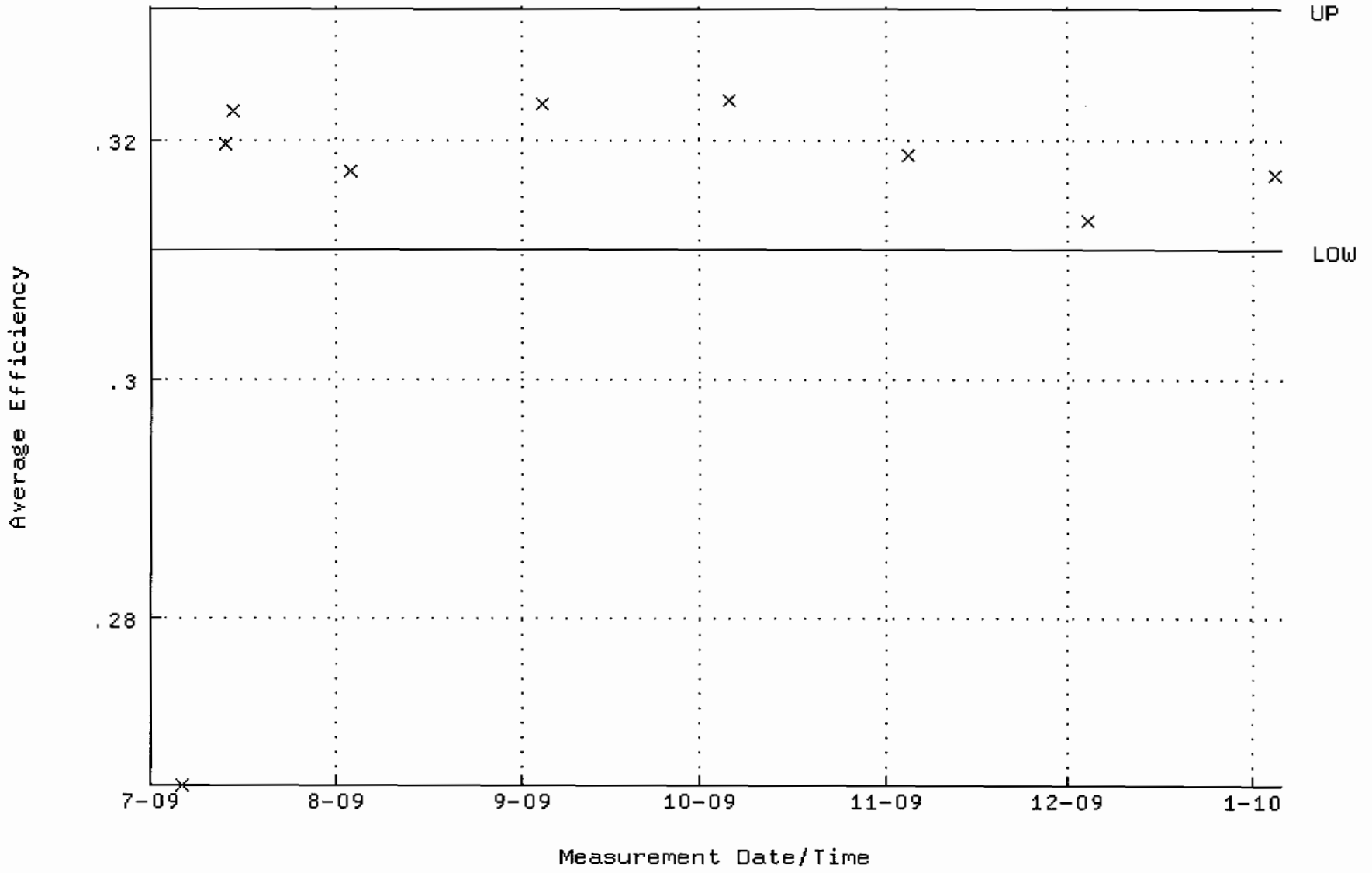

QA filename : DKA100:[ENV_ALPHA.QA.W]W018.QAF;3
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 6-JUL-2009 09:46:12 through 5-JAN-2010 12:00:00
Lower/Upper Lmts: 86.3167 through 95.4027

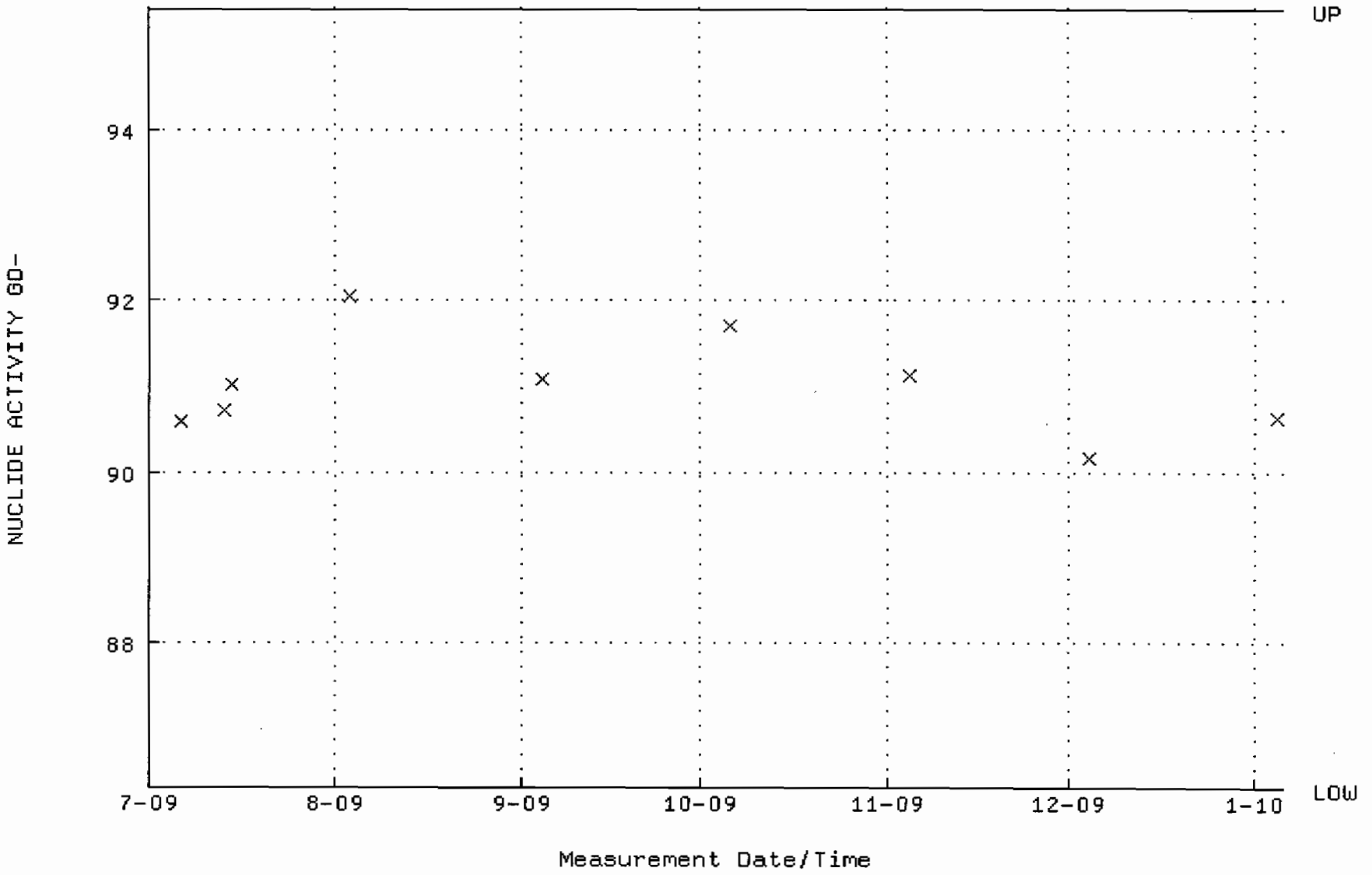

QA filename : DKA100:[ENV_ALPHA.QA.B]B018.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 5-JUL-2009 15:11:56 through 5-JAN-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

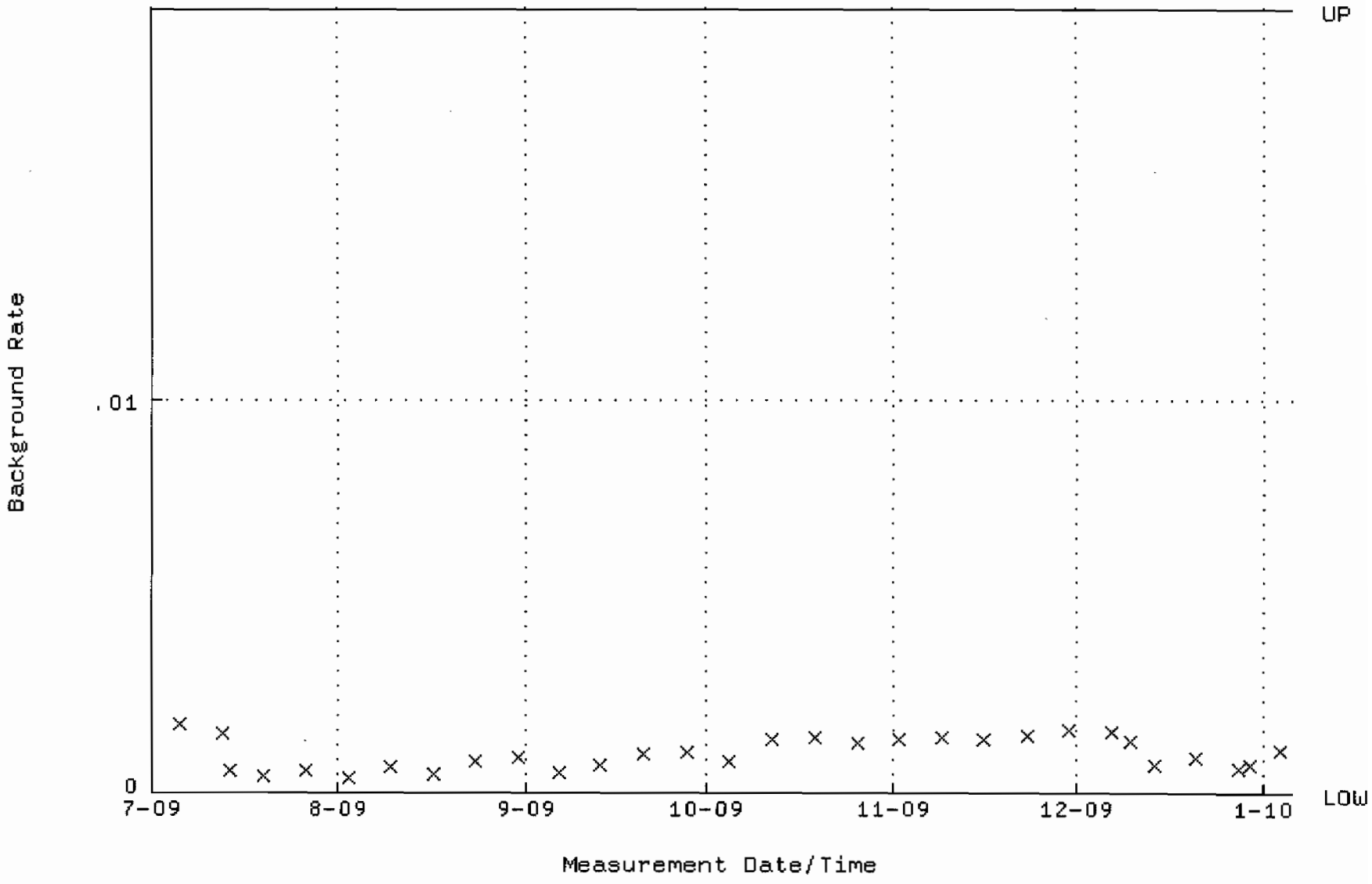

QA filename : DKA100:[ENV_ALPHA.QA.W]W019.QAF;3
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 6-JUL-2009 09:46:13 through 5-JAN-2010 12:00:00
Lower/Upper Lmts: 0.275780 through 0.309420

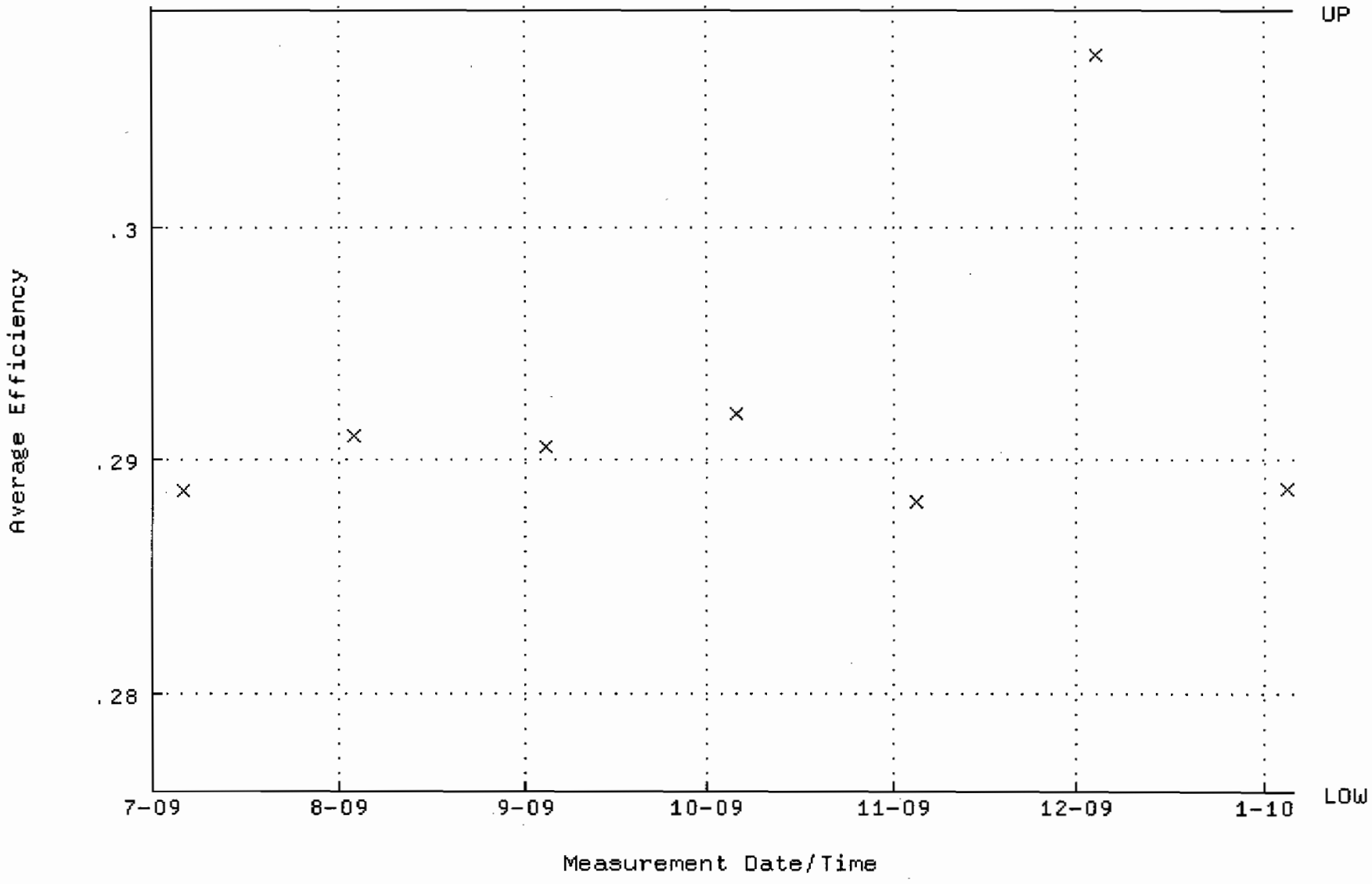

QA filename : DKA100:[ENV_ALPHA.QA.W]W019.QAF;3
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 6-JUL-2009 09:46:13 through 5-JAN-2010 12:00:00
Lower/Upper Lmts: 87.4952 through 91.6516

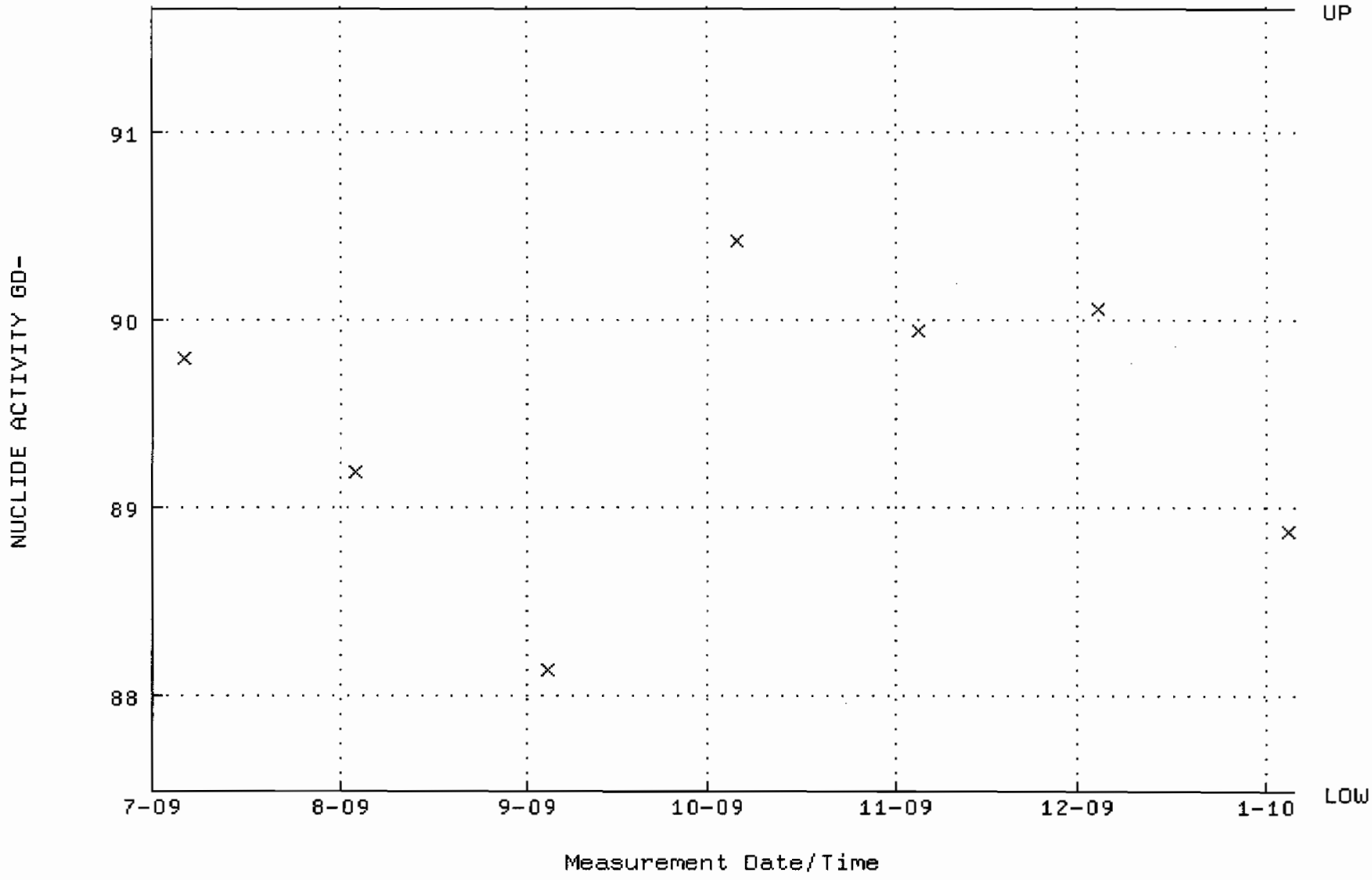

QA filename : DKA100:[ENV_ALPHA.QA.B]B019.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 5-JUL-2009 15:11:57 through 5-JAN-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

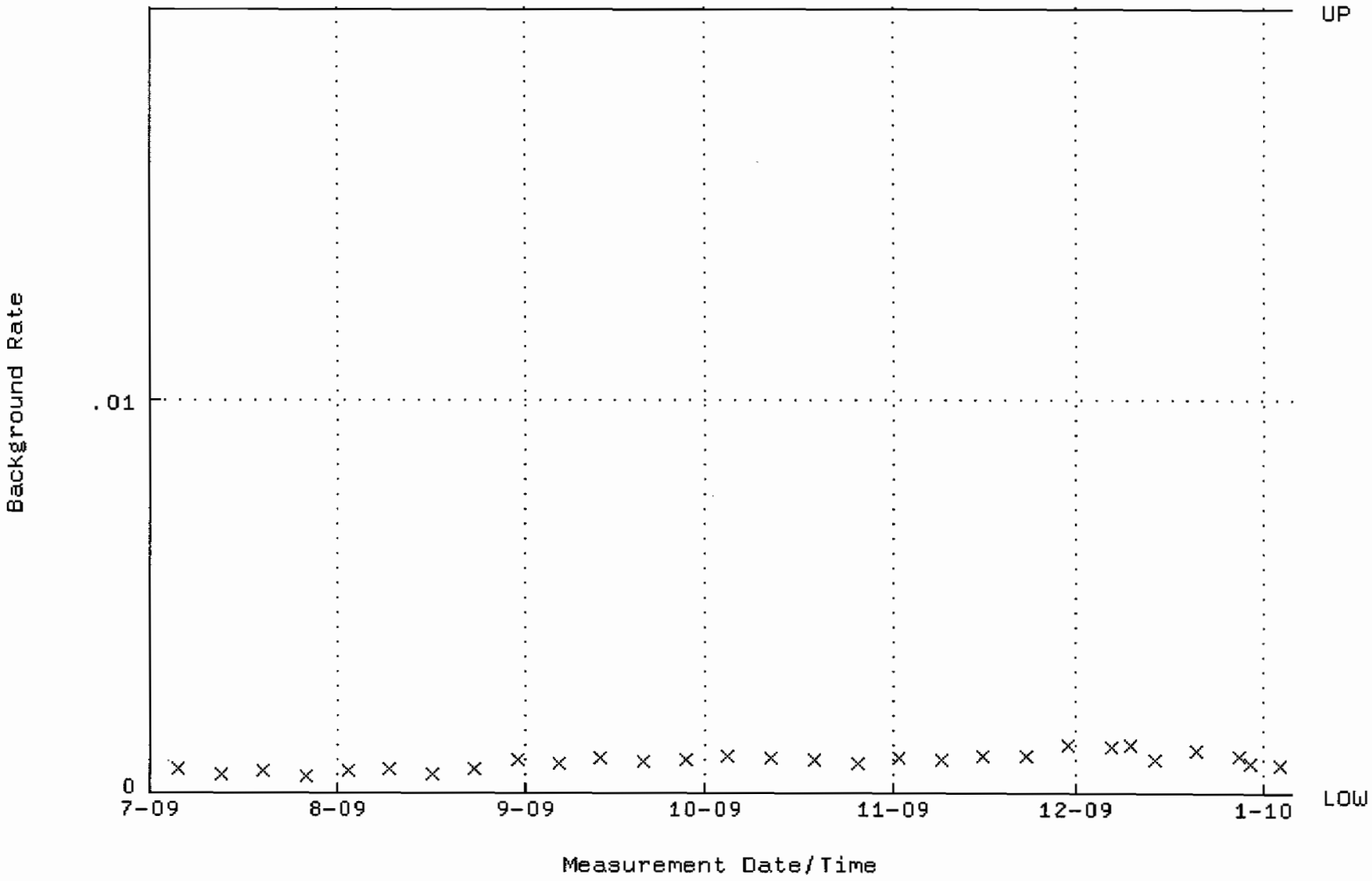

QA filename : DKA100:[ENV_ALPHA.QA.W]W020.QAF;3
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 6-JUL-2009 09:46:13 through 5-JAN-2010 12:00:00
Lower/Upper Lmts: 0.332991 through 0.357265

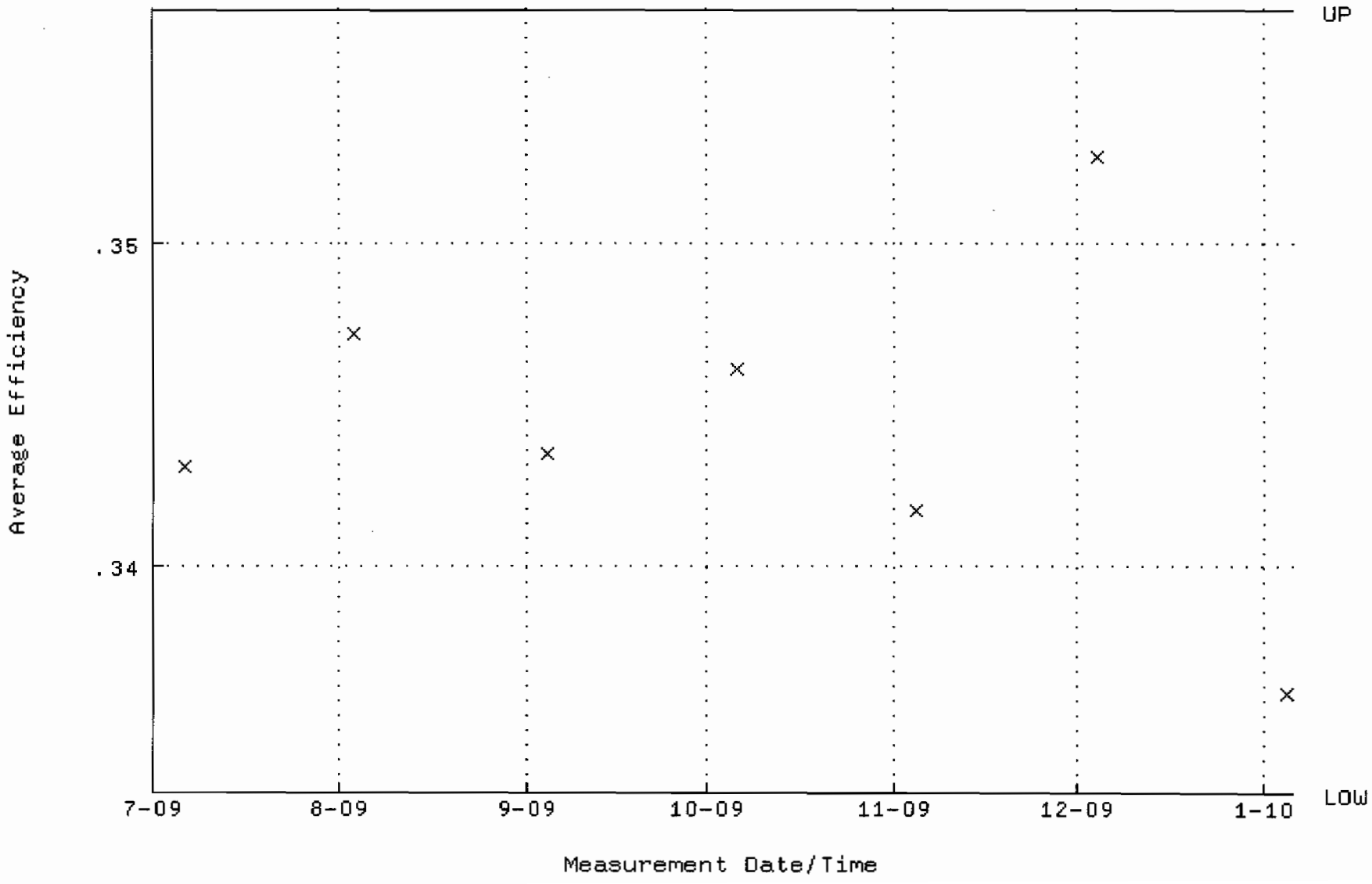

QA filename : DKA100:[ENV_ALPHA.QA.W]W020.QAF;3
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 6-JUL-2009 09:46:13 through 5-JAN-2010 12:00:00
Lower/Upper Lmts: 88.6996 through 91.6996

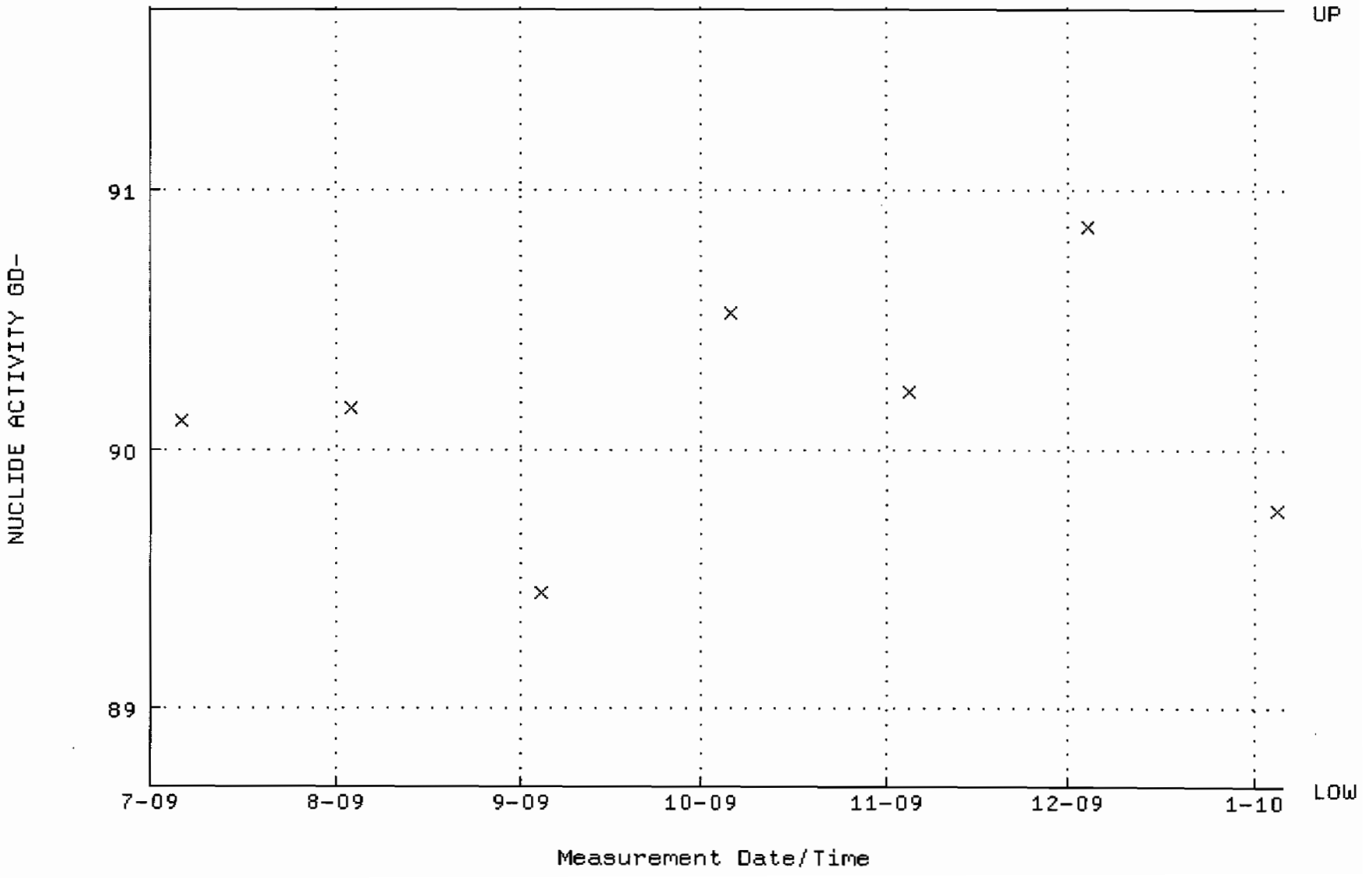

QA filename : DKA100:[ENV_ALPHA.QA.B]B020.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 5-JUL-2009 15:11:57 through 5-JAN-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

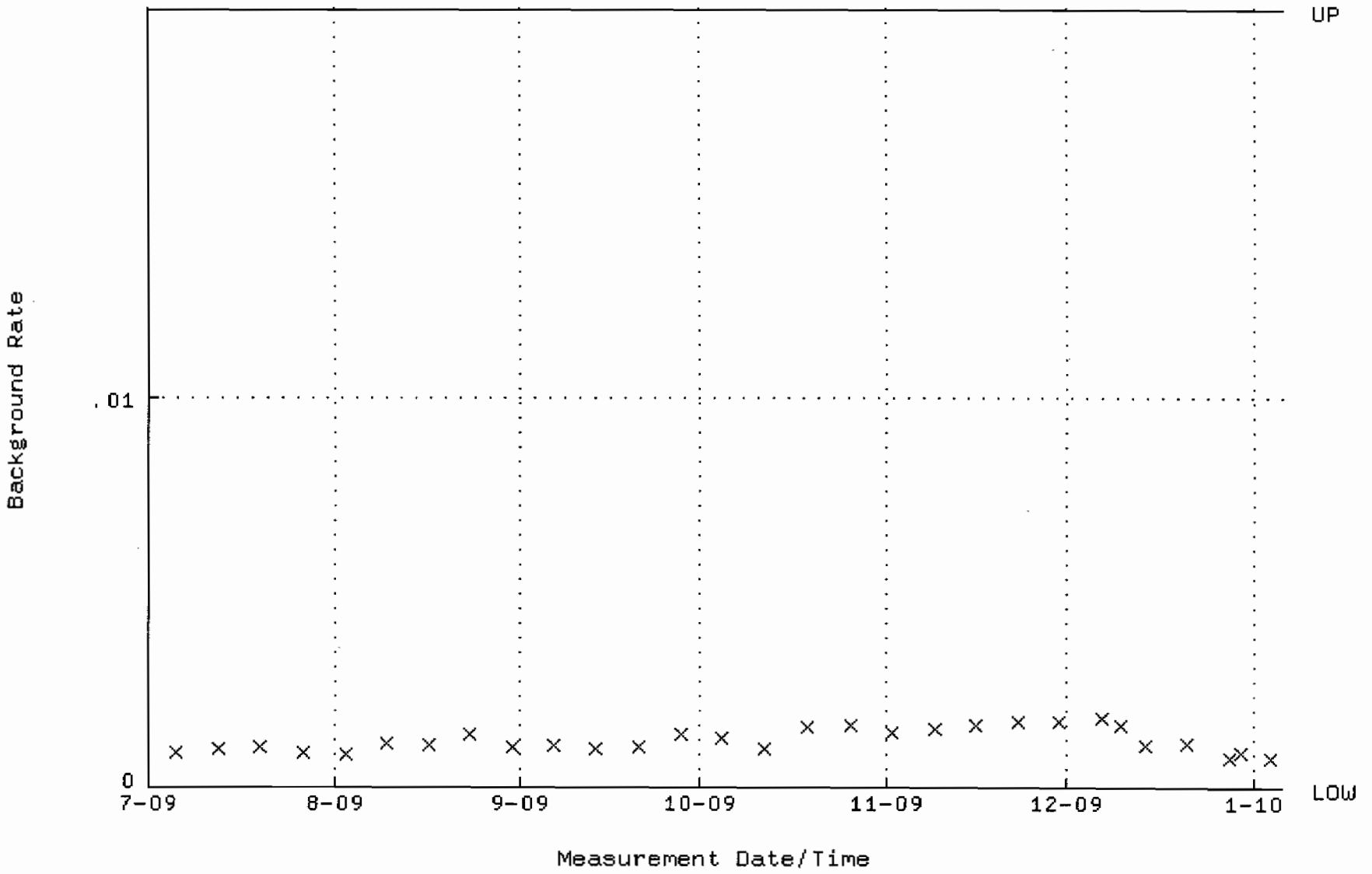

QA filename : DKA100:[ENV_ALPHA.QA.W]W121.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 15-JUN-2009 10:34:51 through 16-DEC-2009 12:00:00
Lower/Upper Lmts: 0.237686 through 0.257686

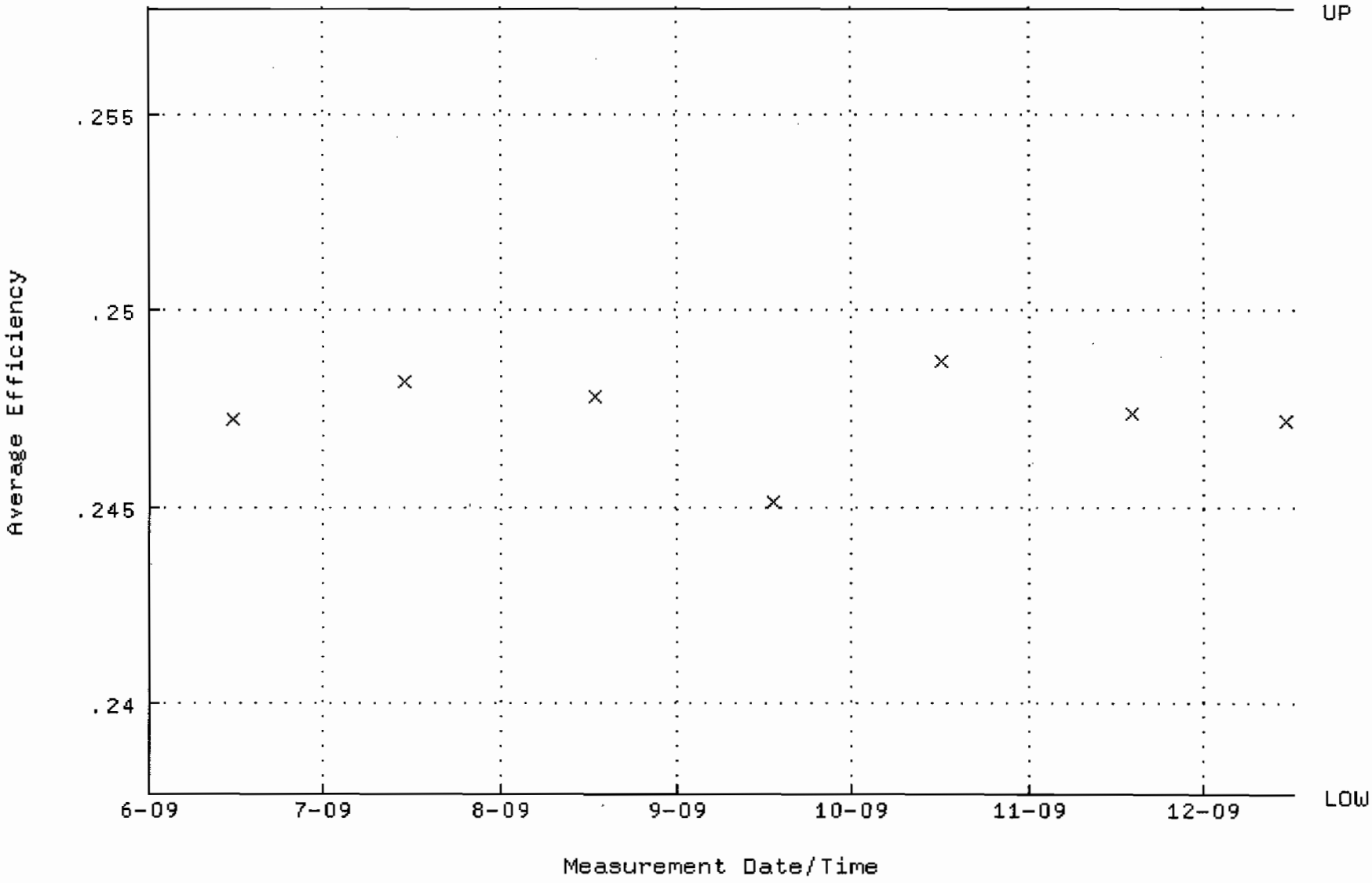

QA filename : DKA100:[ENV_ALPHA.QA.W]W121.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 15-JUN-2009 10:34:51 through 16-DEC-2009 12:00:00
Lower/Upper Lmts: 89.4263 through 98.8395

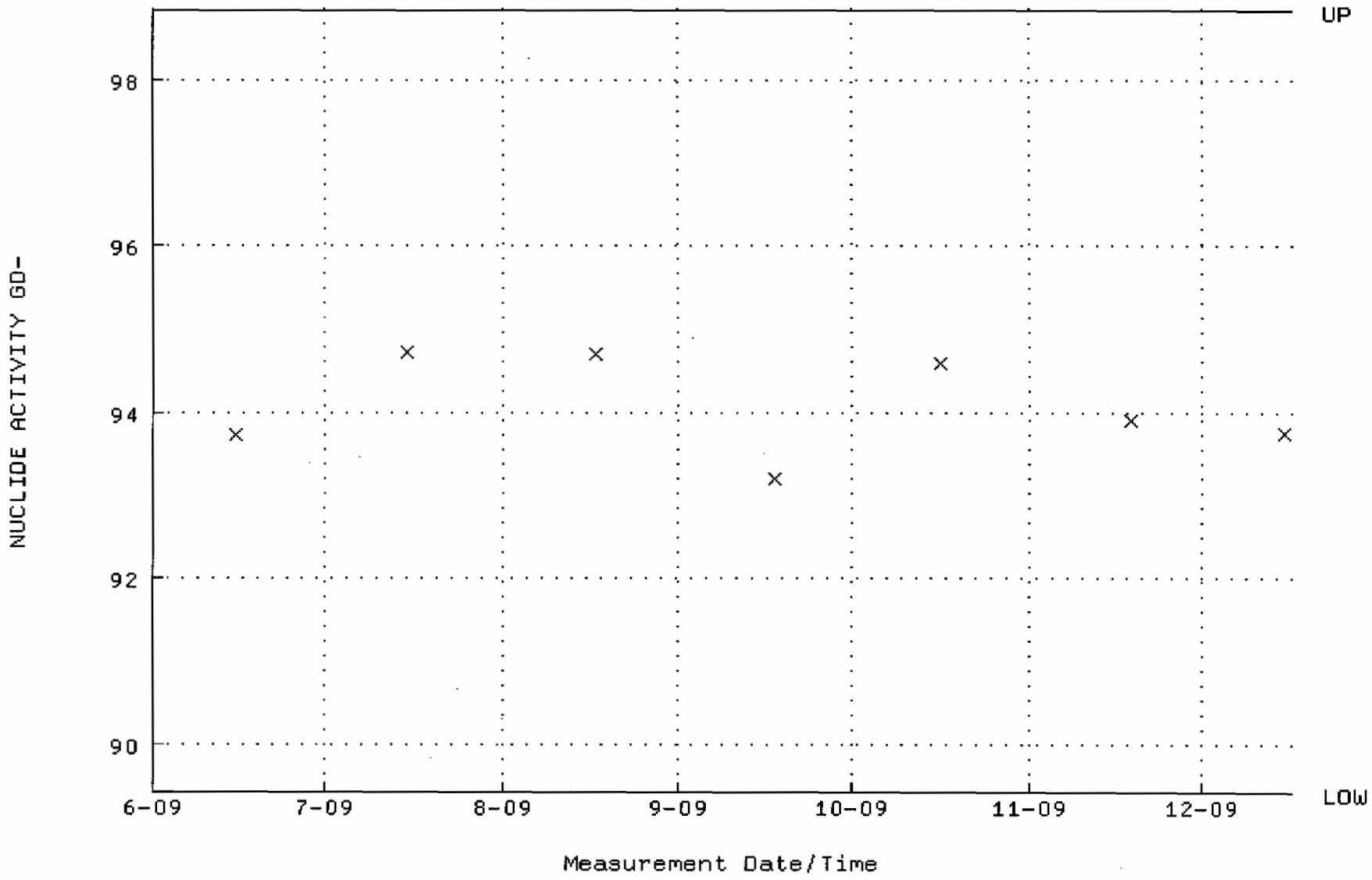

QA filename : DKA100:[ENV_ALPHA.QA.B]B121.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 7-JUN-2009 17:09:14 through 16-DEC-2009 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

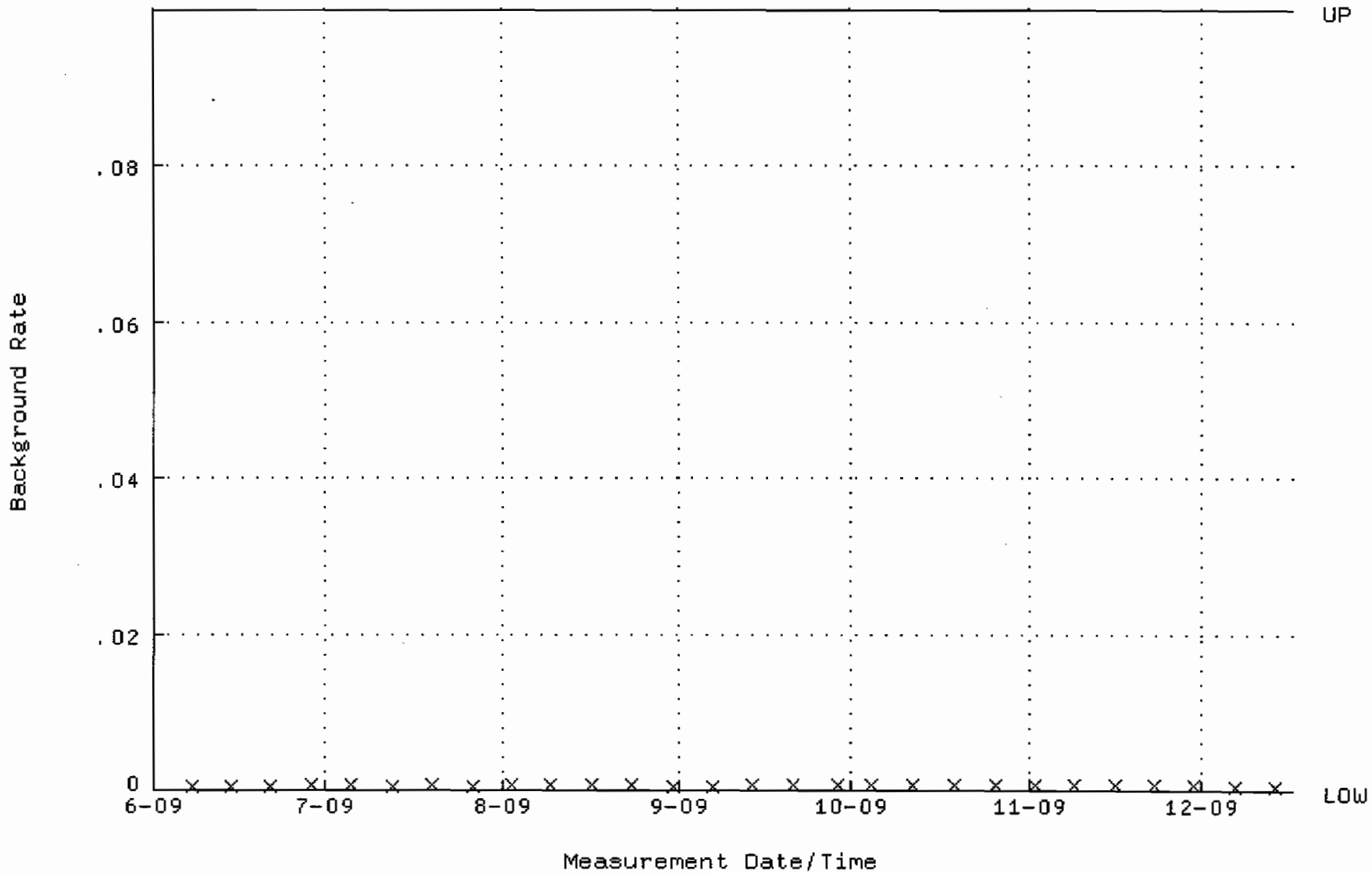

QA filename : DKA100:[ENV_ALPHA.QA.W]W129.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 15-JUN-2009 10:35:37 through 16-DEC-2009 12:00:00
Lower/Upper Lmts: 0.256741 through 0.276741

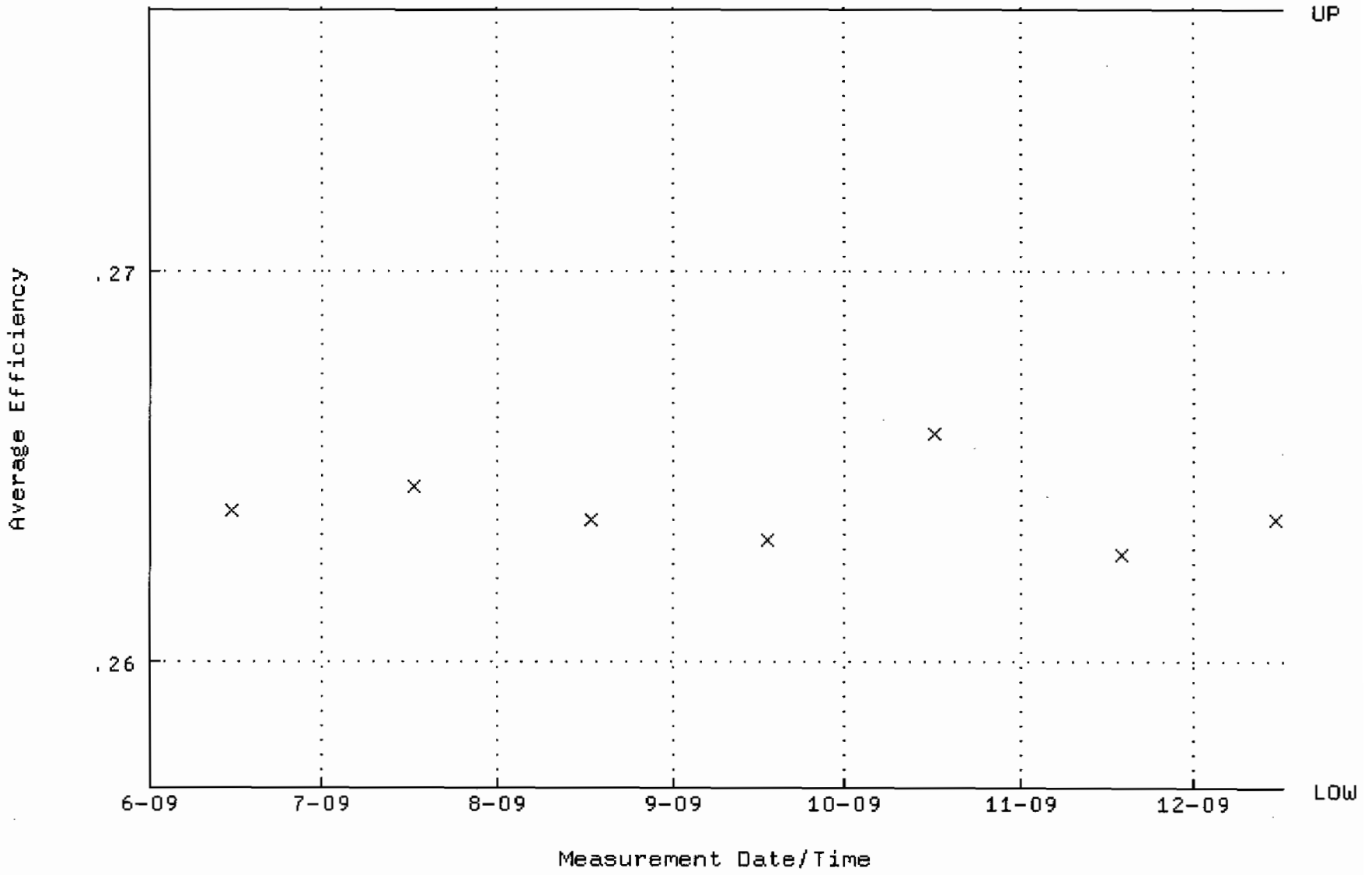

QA filename : DKA100:[ENV_ALPHA.QA.W]W129.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 15-JUN-2009 10:35:37 through 16-DEC-2009 12:00:00
Lower/Upper Lmts: 86.3646 through 95.4556

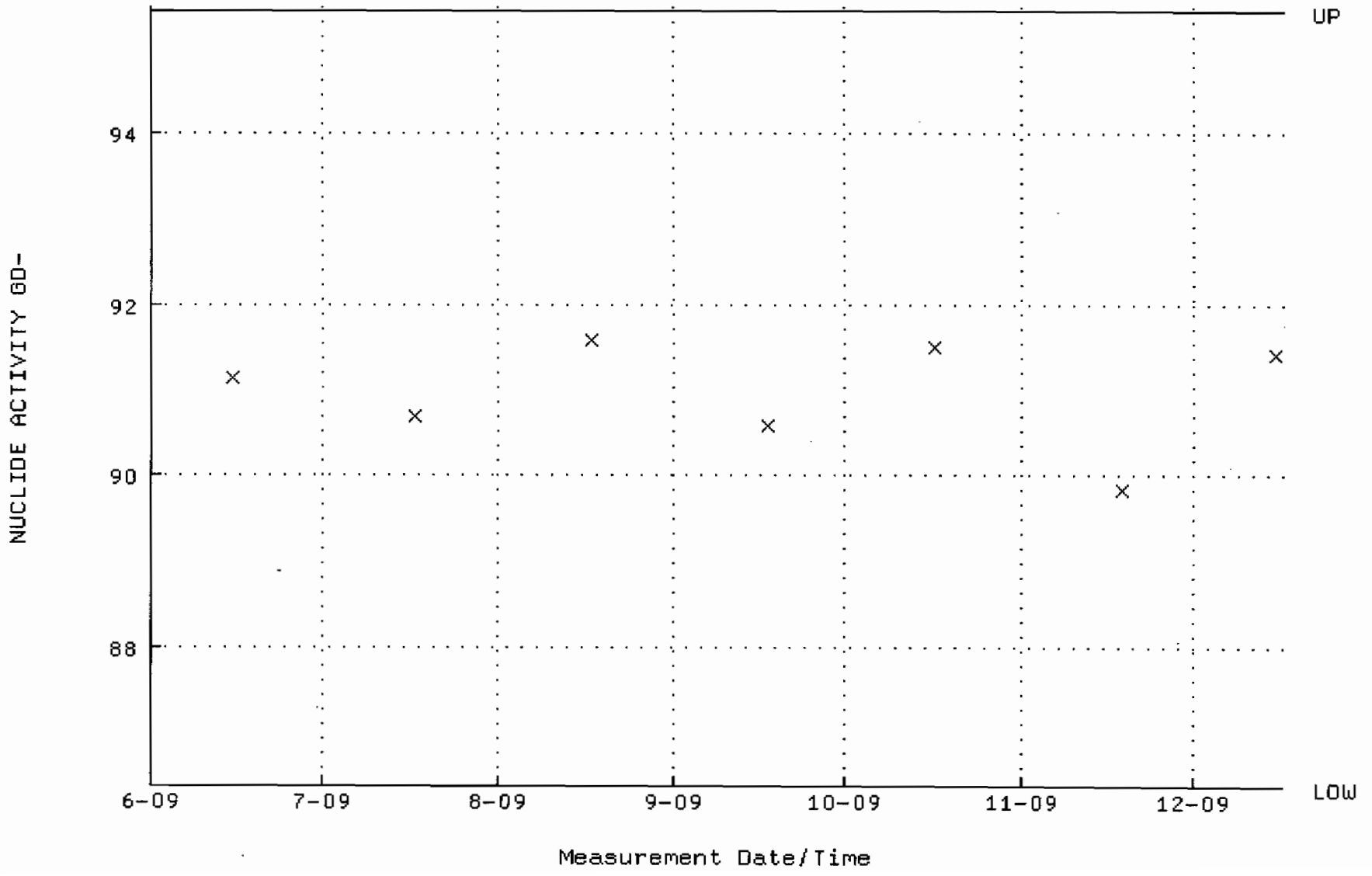

QA filename : DKA100:[ENV_ALPHA.QA.B]B129.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 7-JUN-2009 17:09:48 through 16-DEC-2009 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

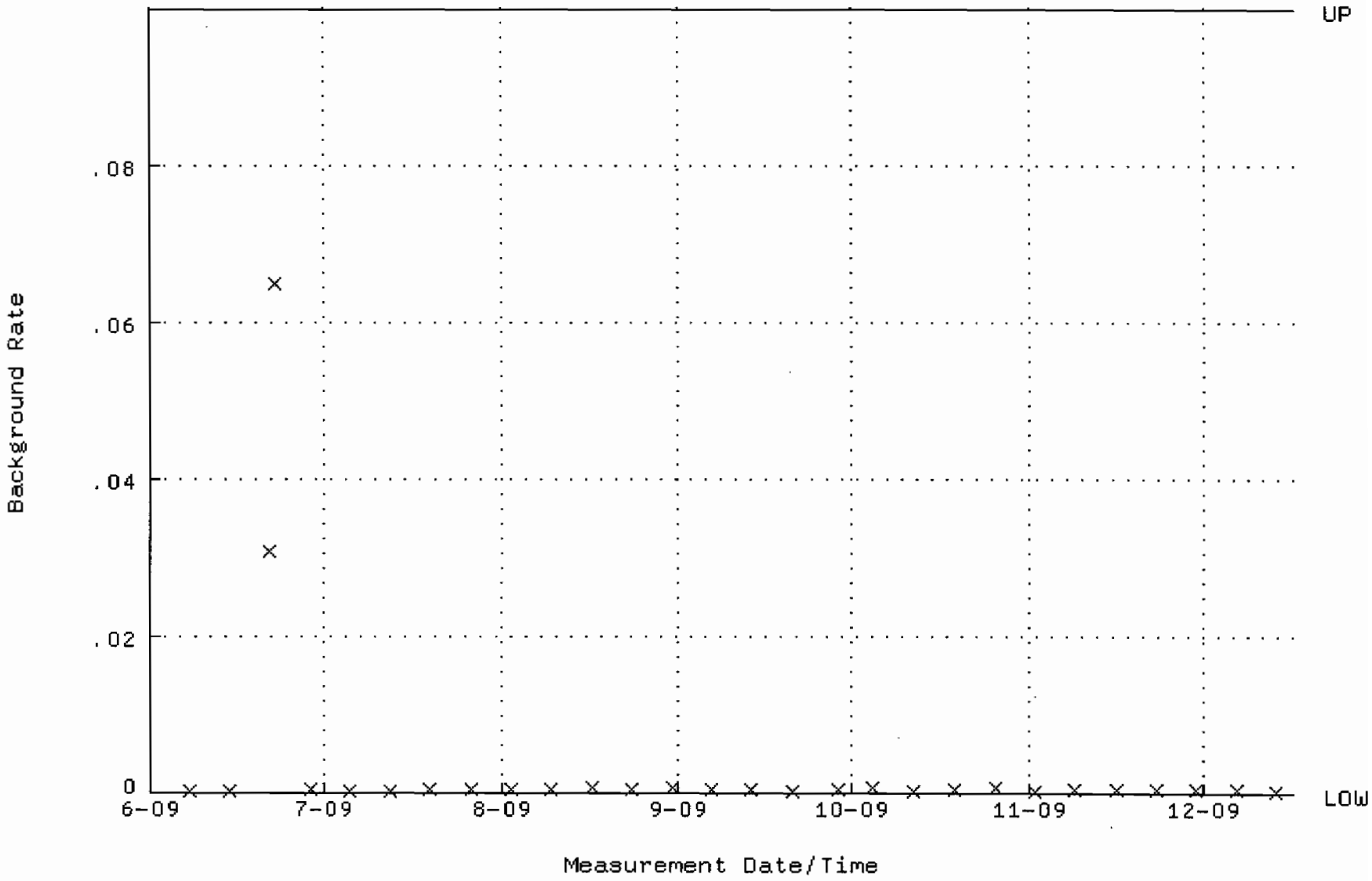

QA filename : DKA100:[ENV_ALPHA.QA.W]W130.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 15-JUN-2009 10:35:42 through 16-DEC-2009 12:00:00
Lower/Upper Lmts: 0.239131 through 0.259131

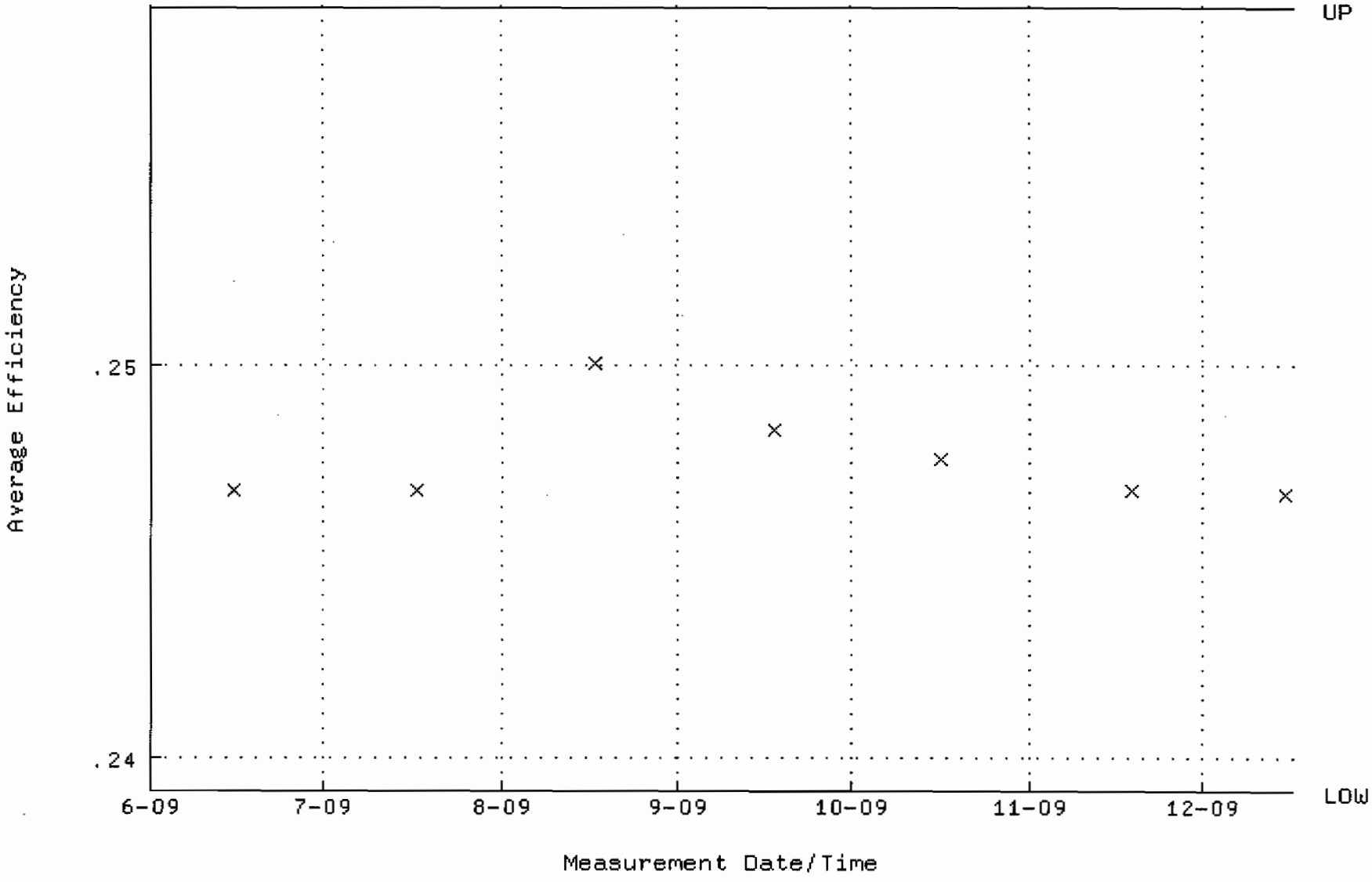

QA filename : DKA100:[ENV_ALPHA.QA.W]W130.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 15-JUN-2009 10:35:42 through 16-DEC-2009 12:00:00
Lower/Upper Lmts: 88.1614 through 97.4416

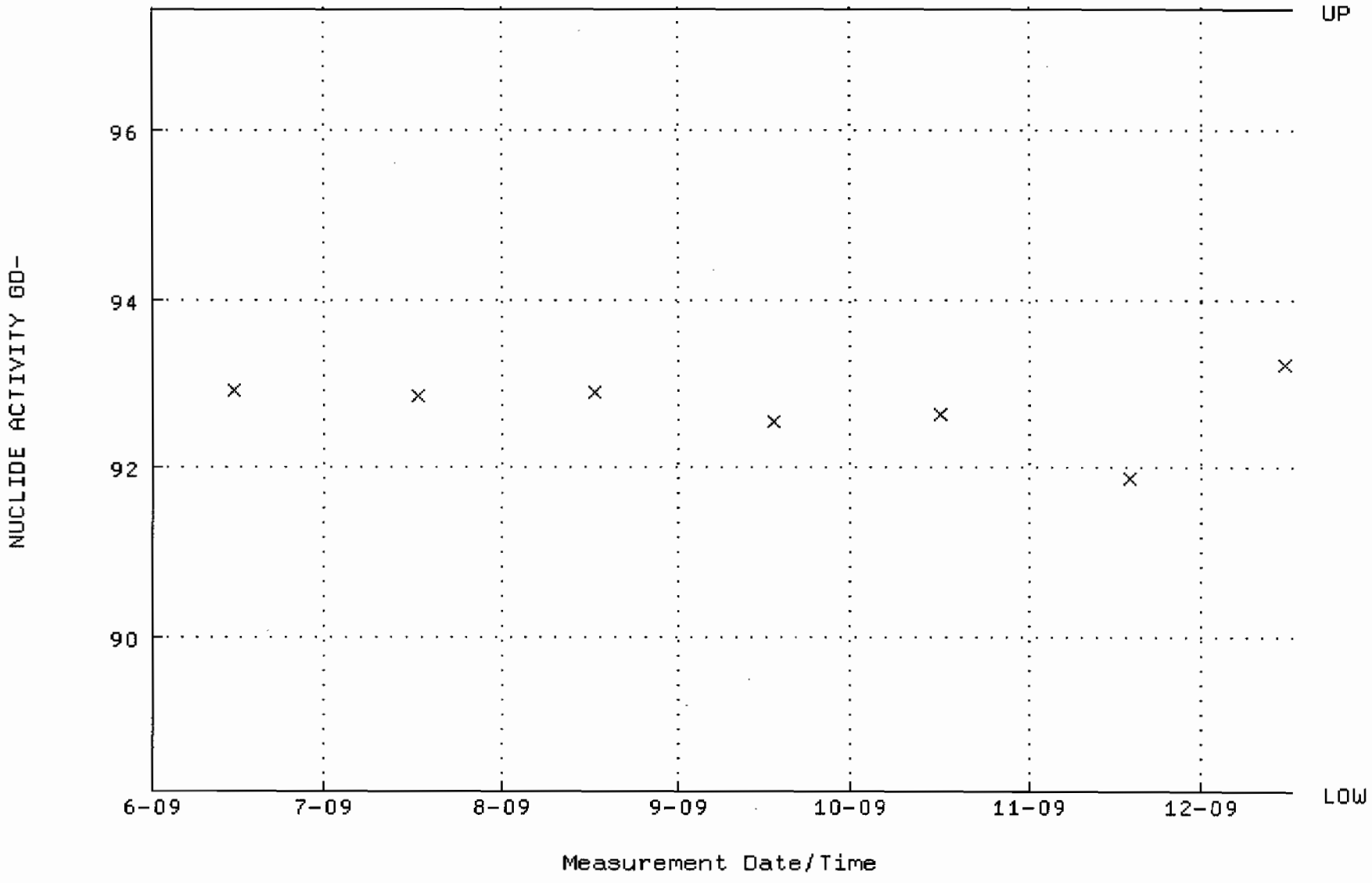

QA filename : DKA100:[ENV_ALPHA.QA.B]B130.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 7-JUN-2009 17:09:52 through 16-DEC-2009 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

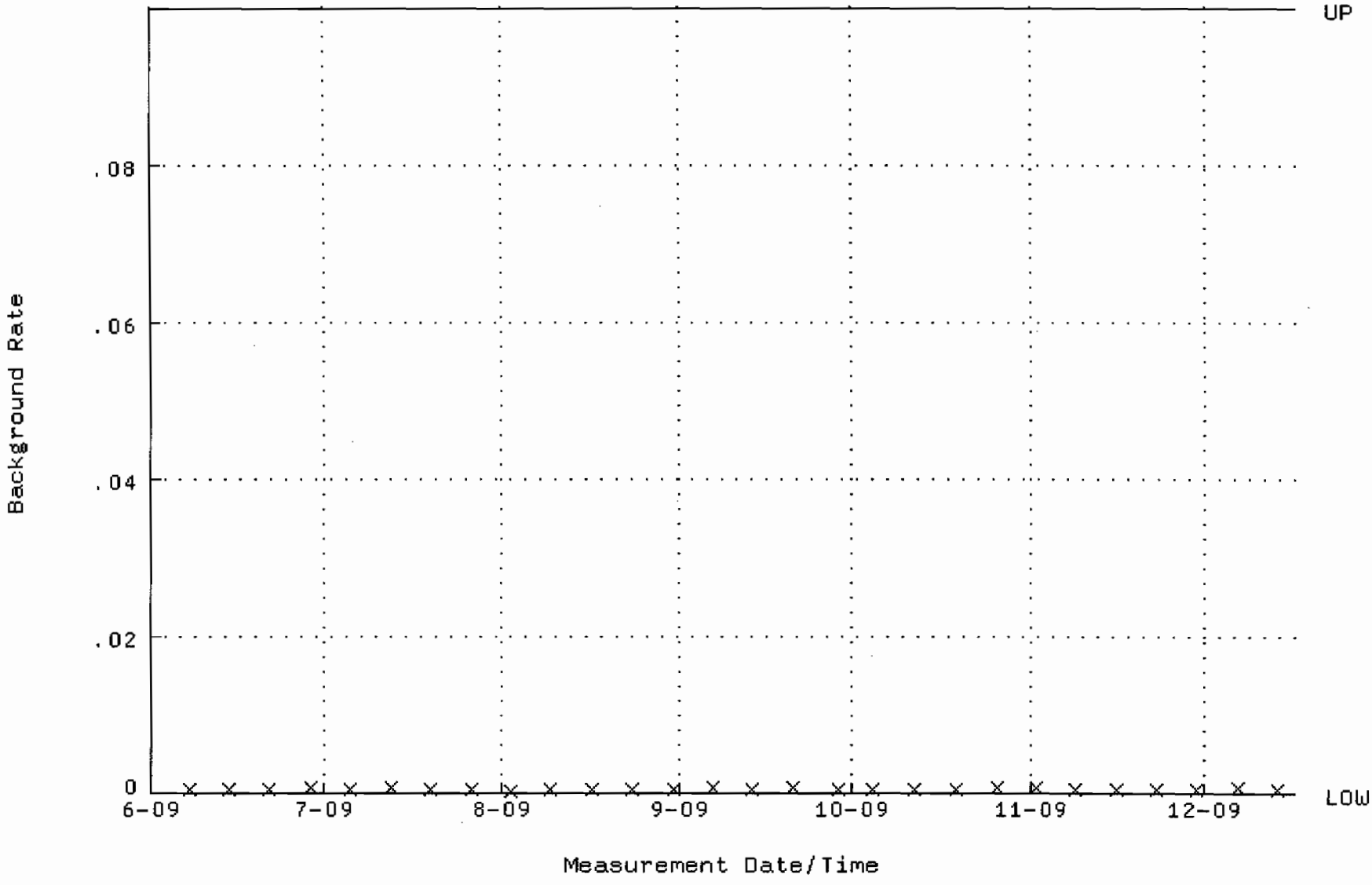

QA filename : DKA100:[ENV_ALPHA.QA.W]W132.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 15-JUN-2009 10:35:54 through 16-DEC-2009 12:00:00
Lower/Upper Lmts: 0.240573 through 0.260573

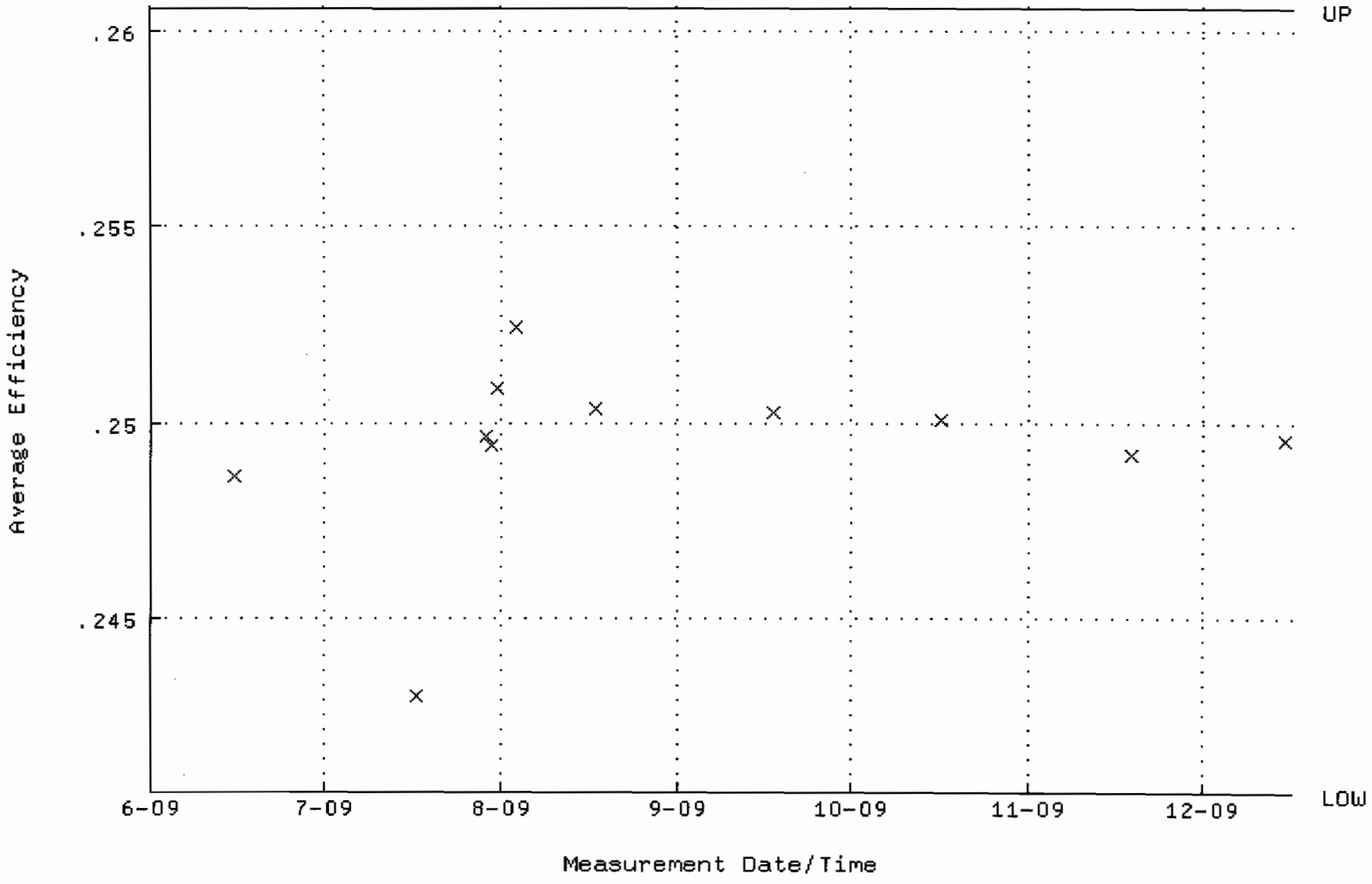

QA filename : DKA100:[ENV_ALPHA.QA.W]W132.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 15-JUN-2009 10:35:54 through 16-DEC-2009 12:00:00
Lower/Upper Lmts: 87.9674 through 97.2272

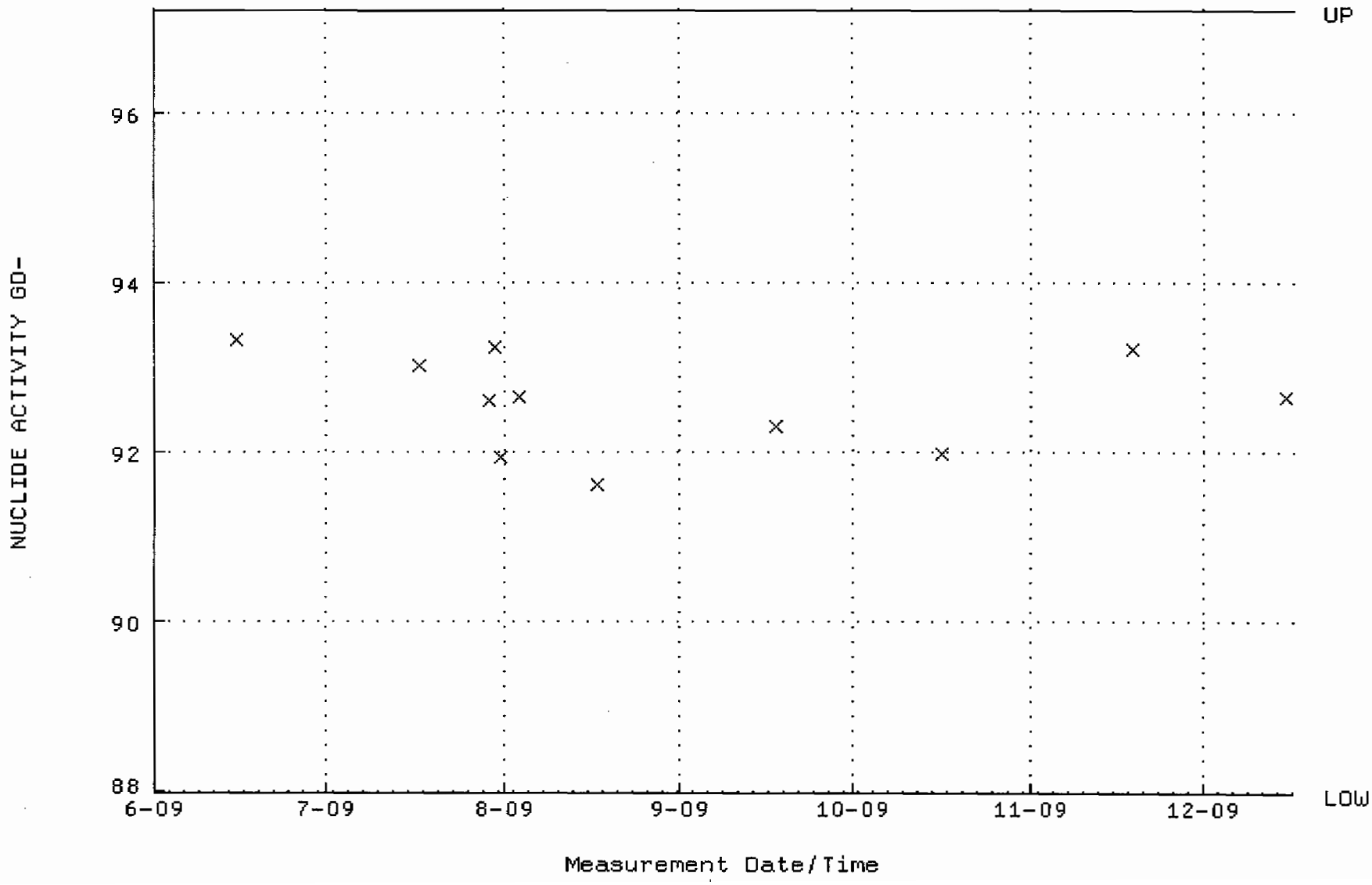

QA filename : DKA100:[ENV_ALPHA.QA.B]B132.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 7-JUN-2009 17:10:01 through 16-DEC-2009 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

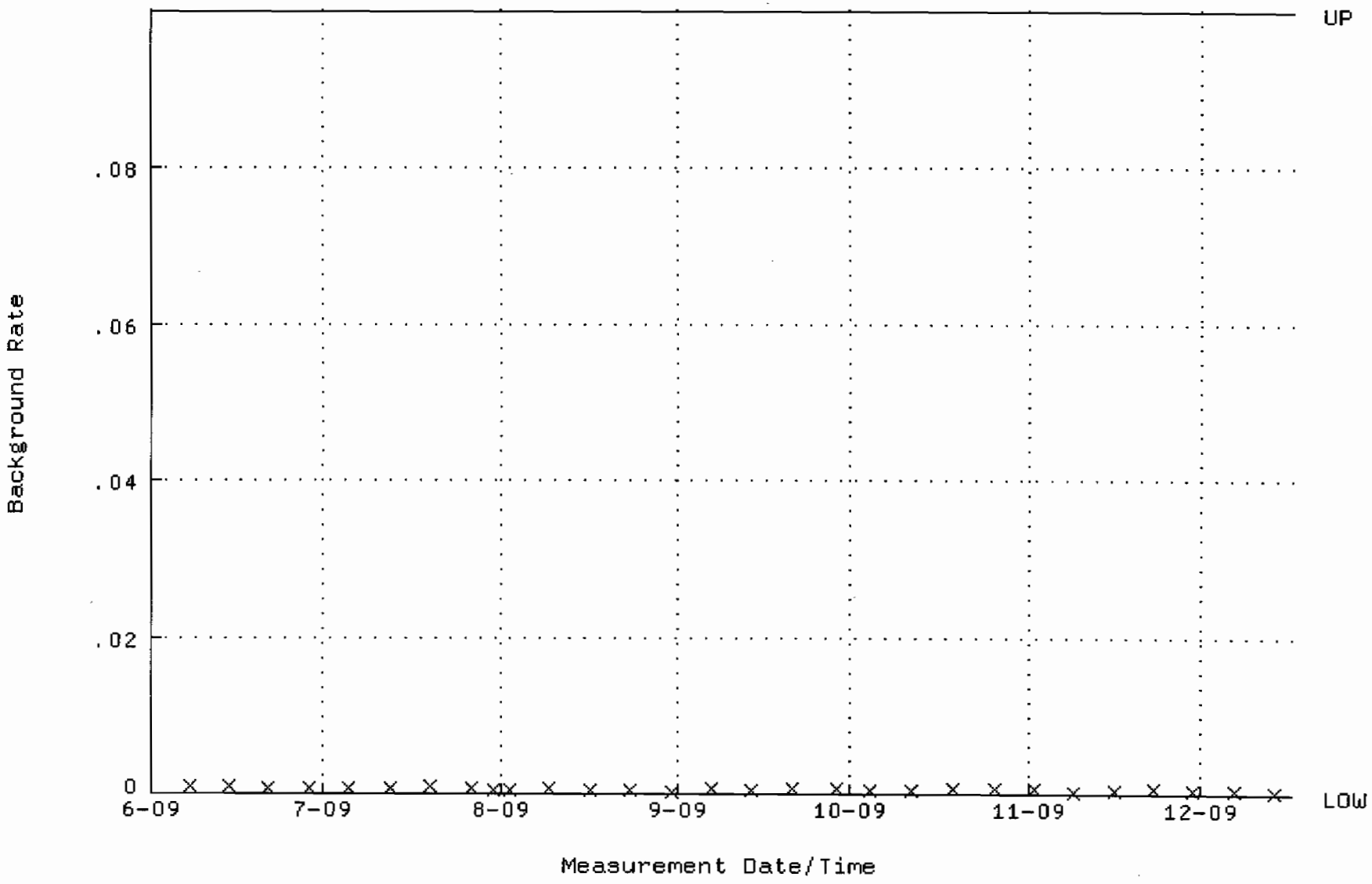

QA filename : DKA100:[ENV_ALPHA.QA.W]W167.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 22-JUN-2009 09:49:28 through 22-DEC-2009 12:00:00
Lower/Upper Lmts: 0.384285 through 0.404285

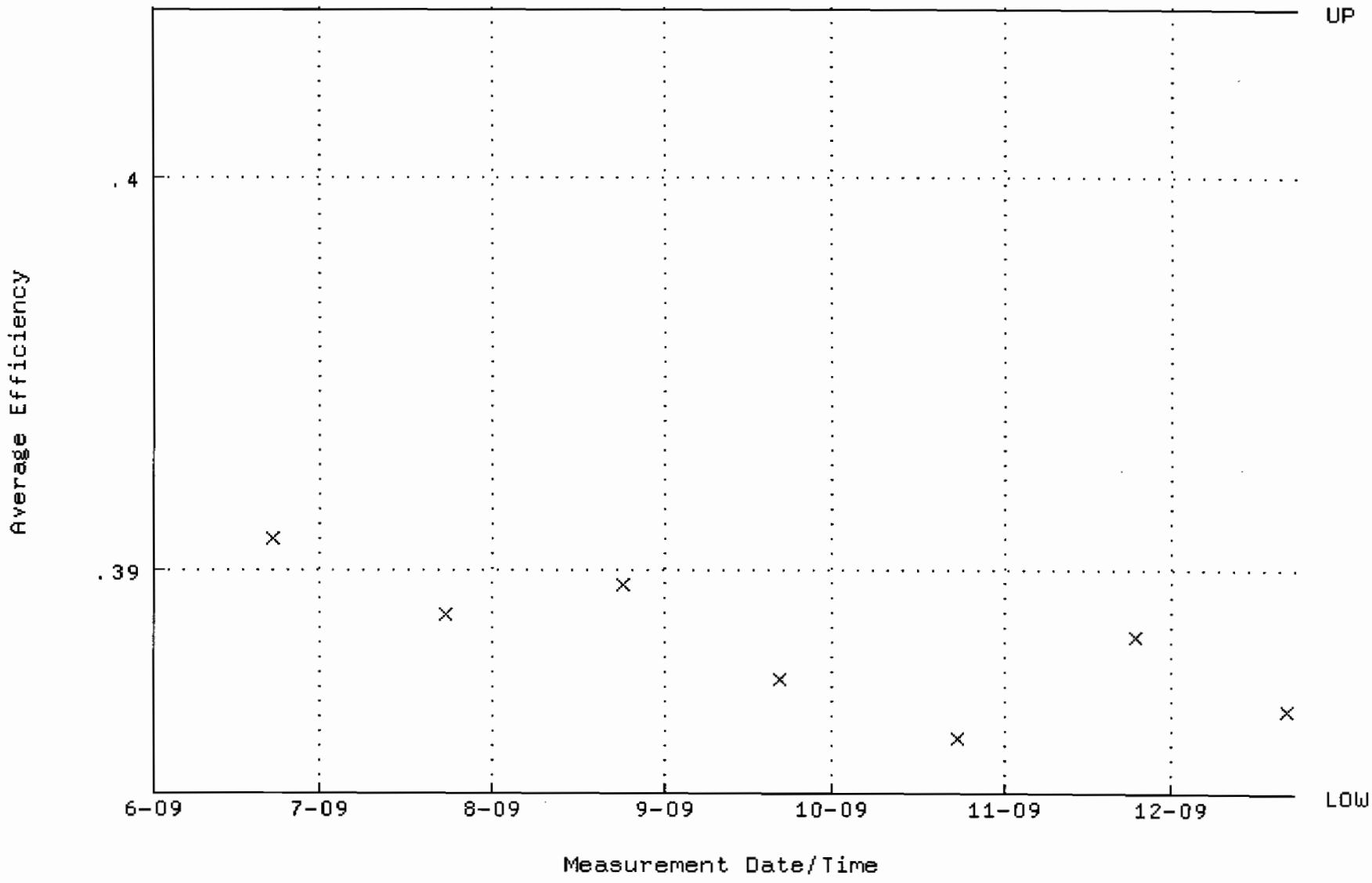

QA filename : DKA100:[ENV_ALPHA.QA.W]W167.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 22-JUN-2009 09:49:28 through 22-DEC-2009 12:00:00
Lower/Upper Lmts: 86.7740 through 95.9082

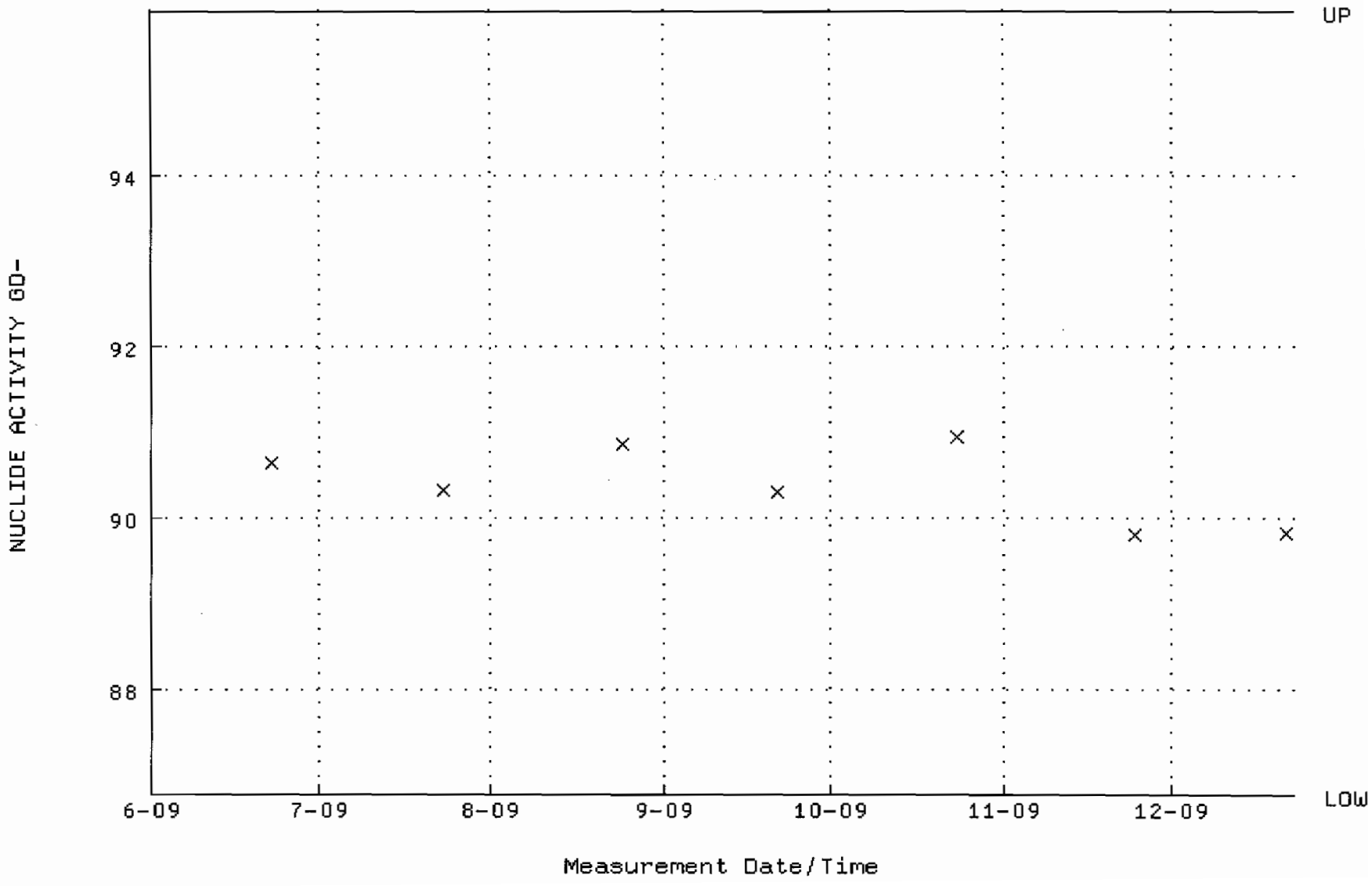

QA filename : DKA100:[ENV_ALPHA.QA.B]B167.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 7-JUN-2009 17:12:24 through 22-DEC-2009 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

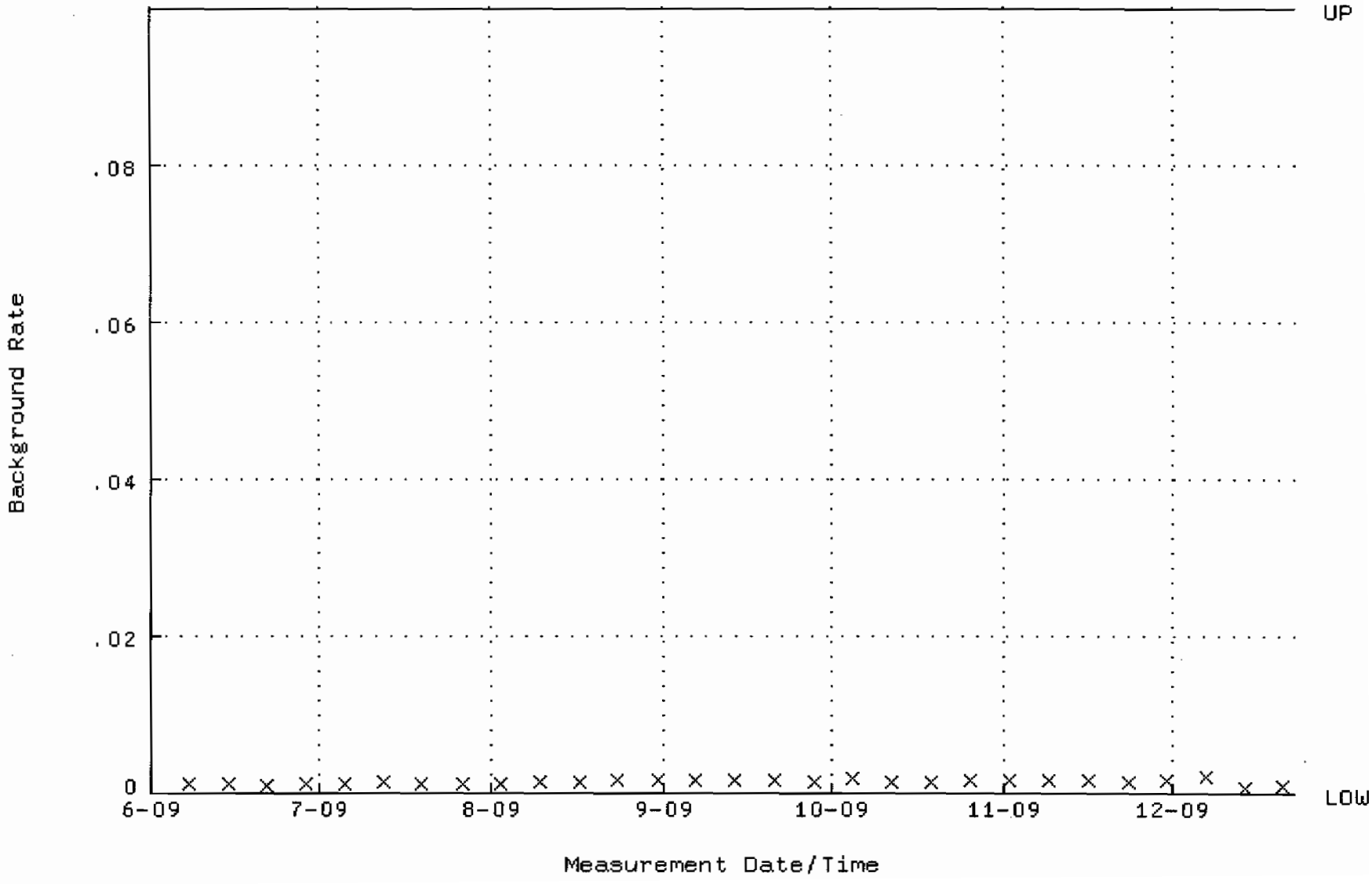

QA filename : DKA100:[ENV_ALPHA.QA.W]W171.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 22-JUN-2009 09:49:50 through 22-DEC-2009 12:00:00
Lower/Upper Lmts: 0.375364 through 0.395364

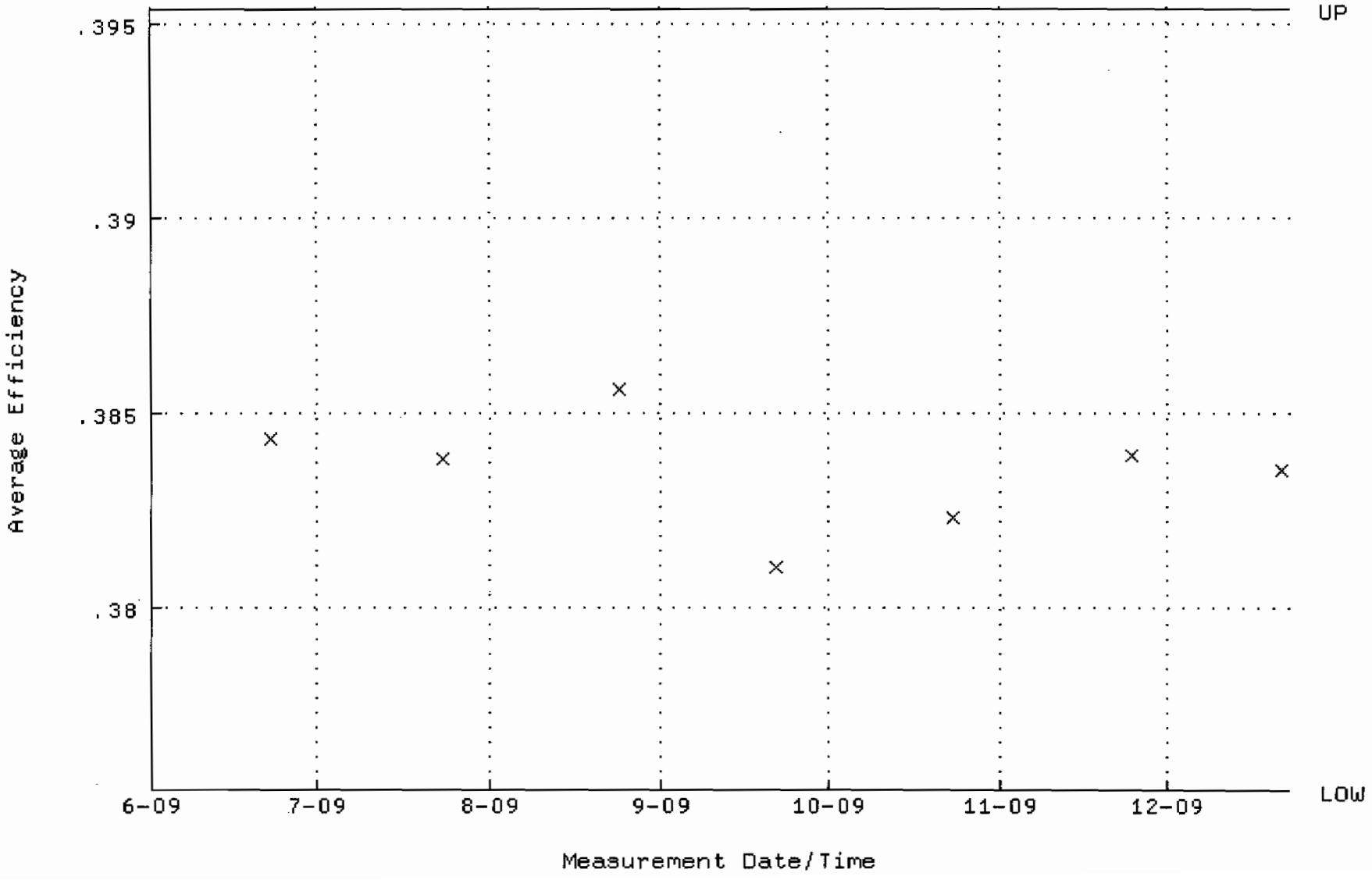

QA filename : DKA100:[ENV_ALPHA.QA.W]W171.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 22-JUN-2009 09:49:50 through 22-DEC-2009 12:00:00
Lower/Upper Lmts: 84.7539 through 93.6753

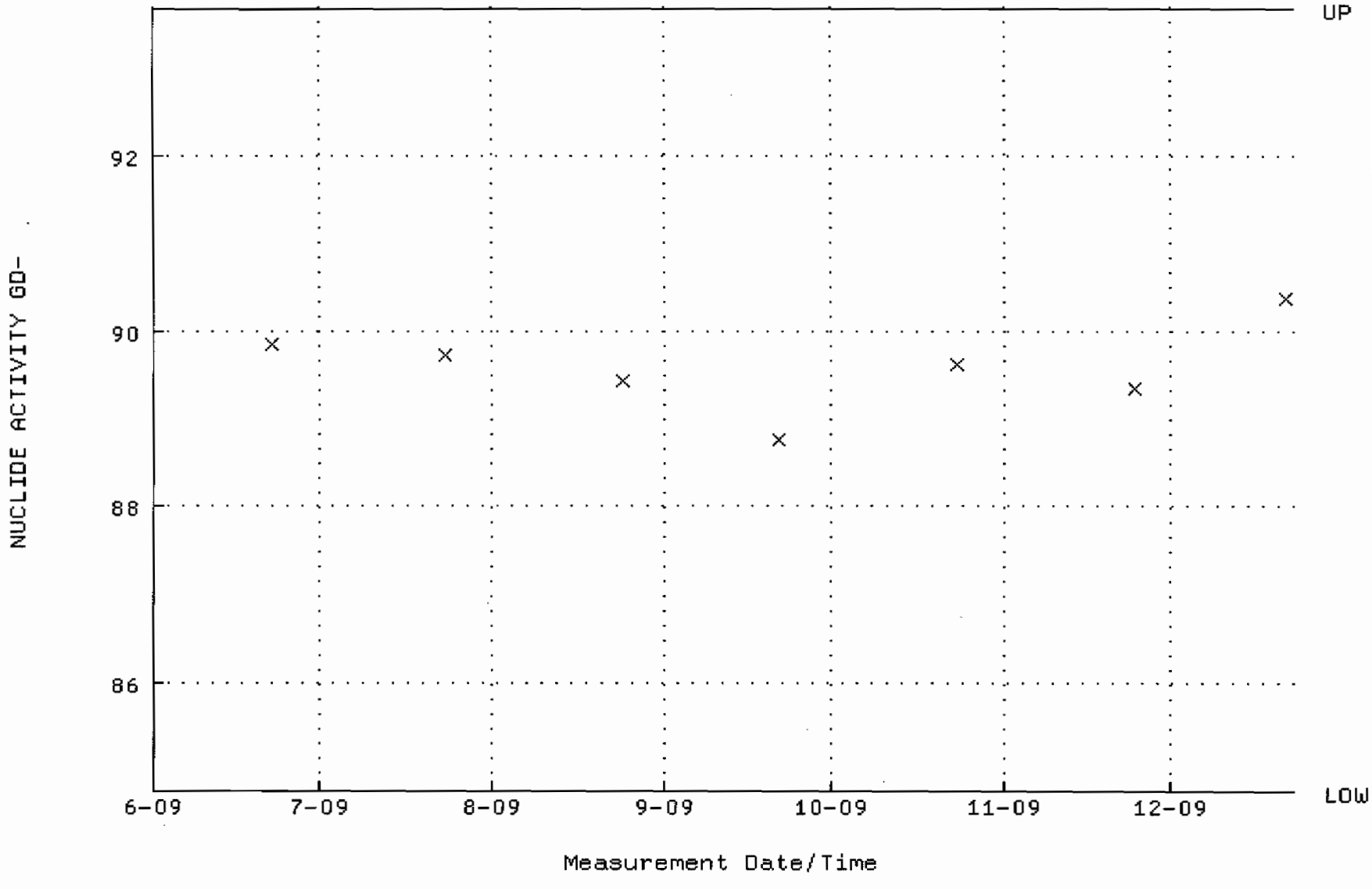

QA filename : DKA100:[ENV_ALPHA.QA.B]B171.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 7-JUN-2009 17:12:40 through 22-DEC-2009 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

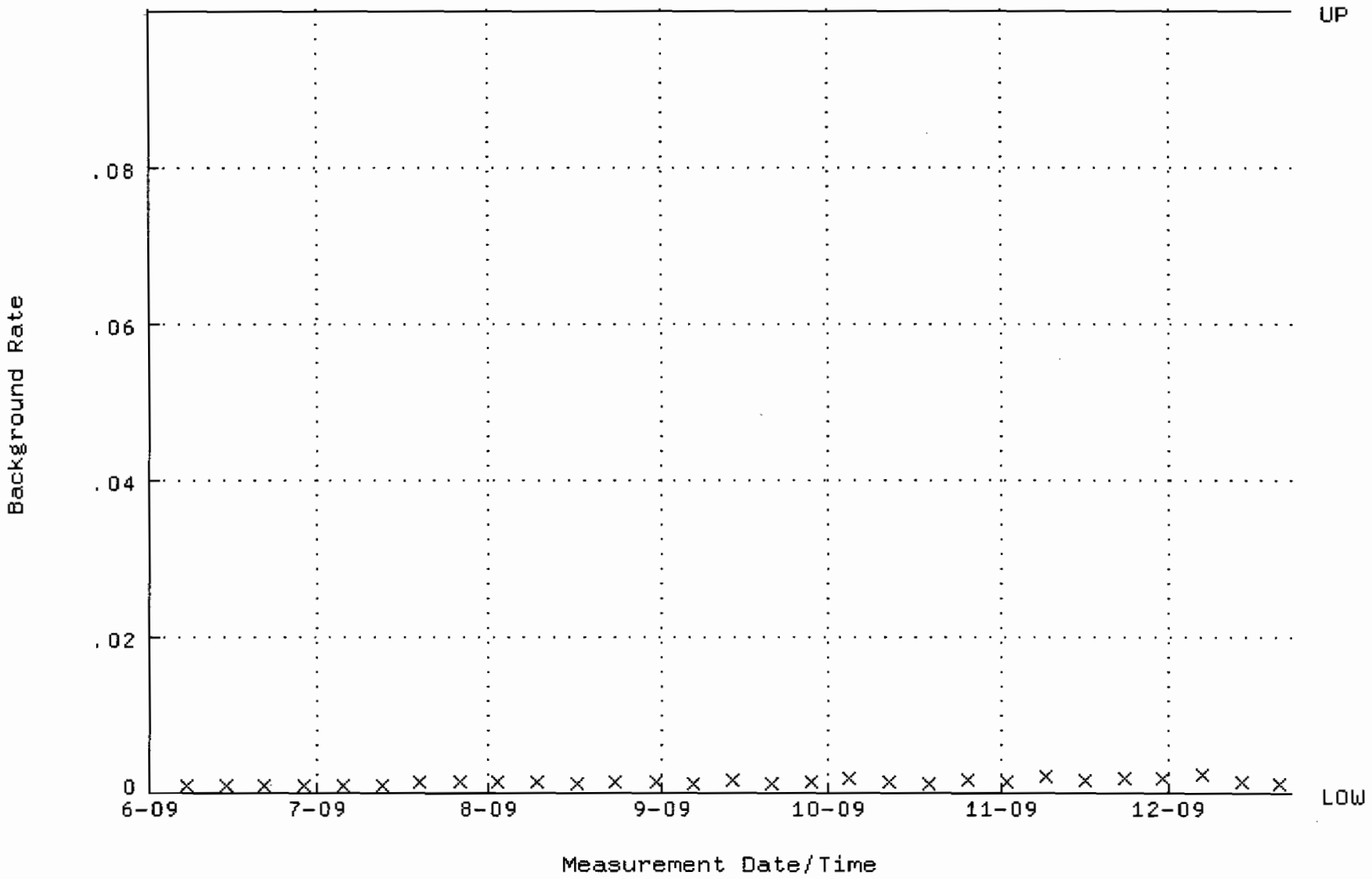

QA filename : DKA100:[ENV_ALPHA.QA.W]W172.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 22-JUN-2009 09:49:55 through 22-DEC-2009 12:00:00
Lower/Upper Lmts: 0.373575 through 0.393575

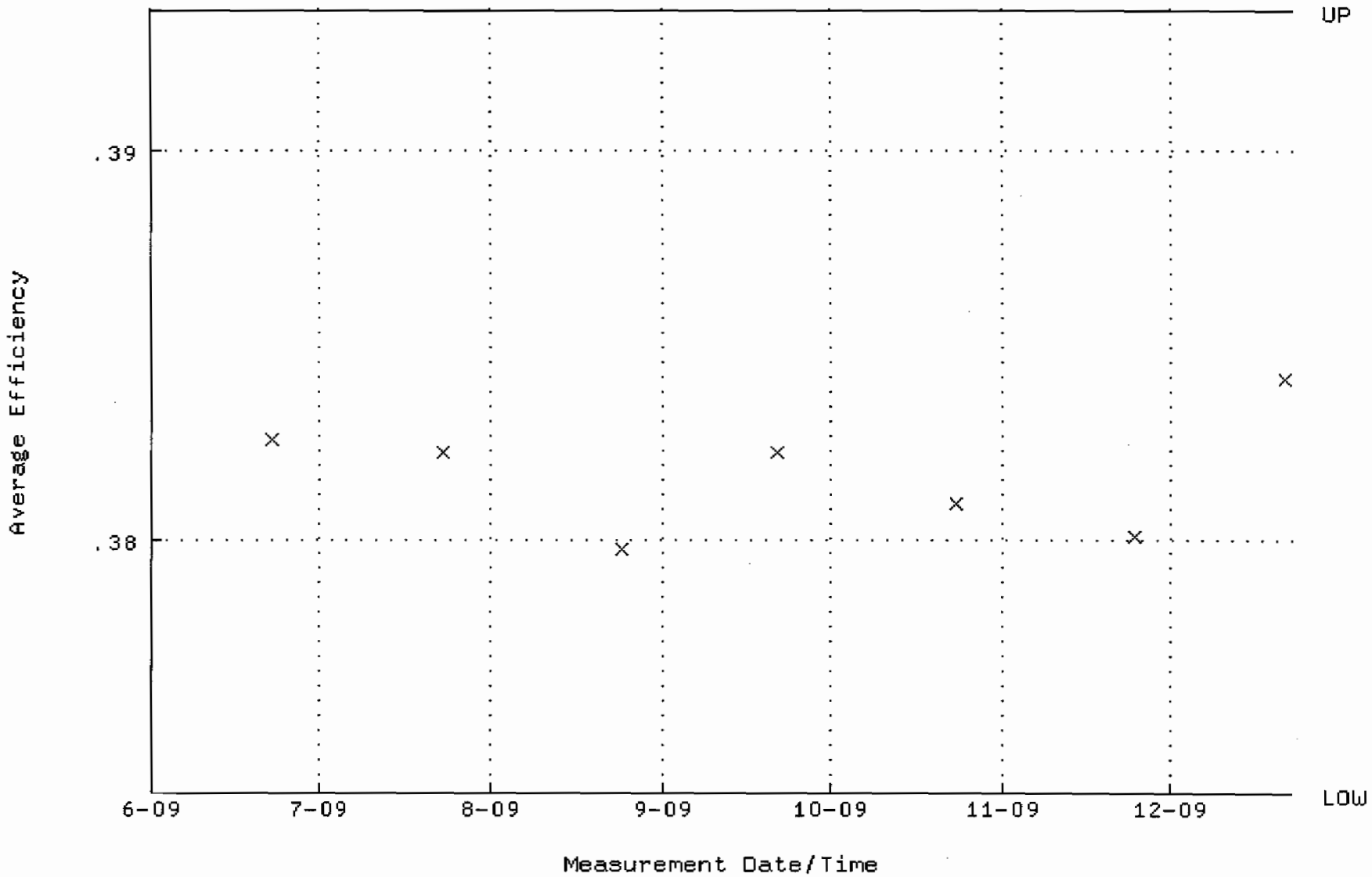

QA filename : DKA100:[ENV_ALPHA.QA.W]W172.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 22-JUN-2009 09:49:55 through 22-DEC-2009 12:00:00
Lower/Upper Lmts: 86.5089 through 95.6151

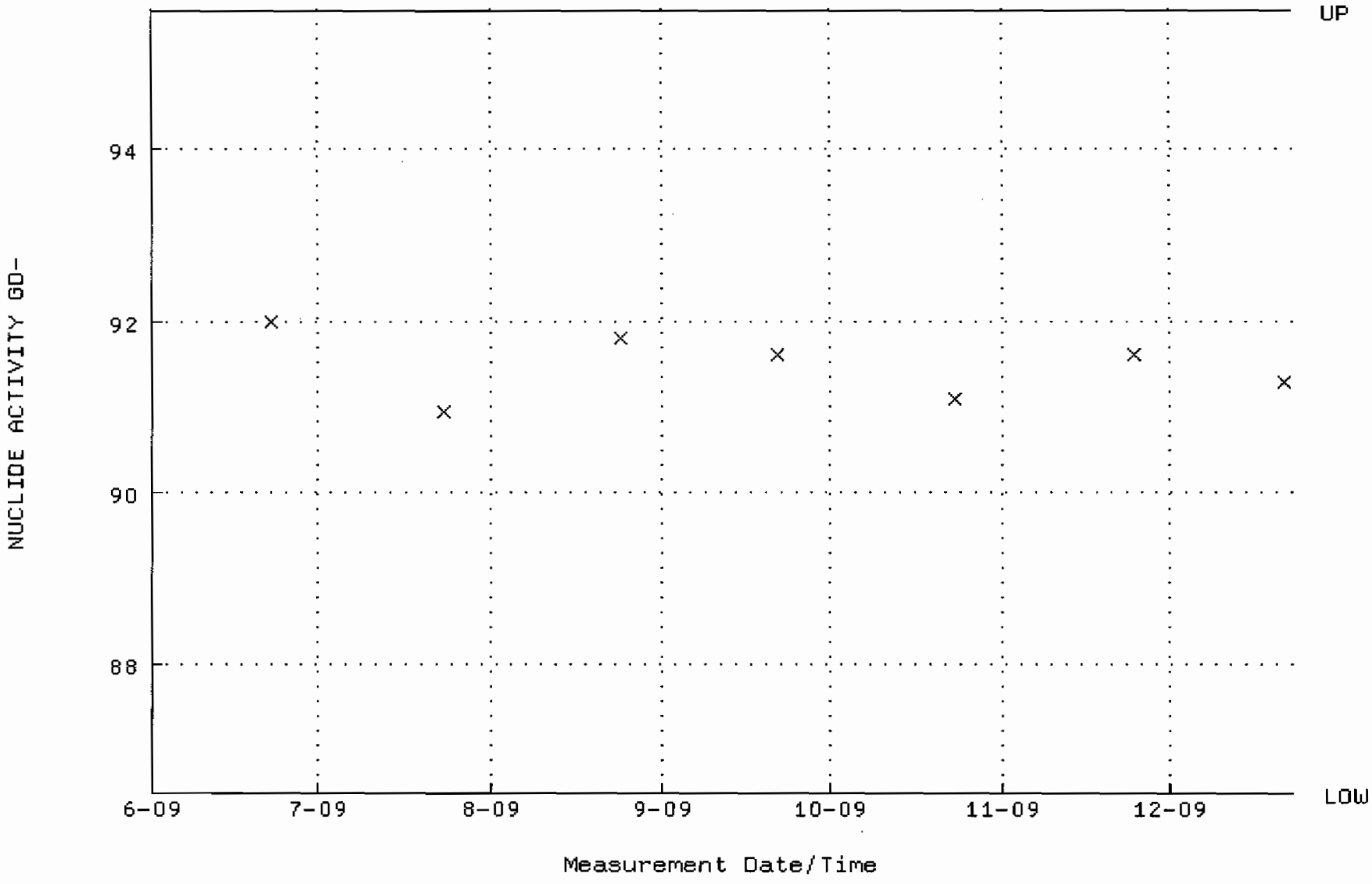

QA filename : DKA100:[ENV_ALPHA.QA.B]B172.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 7-JUN-2009 17:12:44 through 22-DEC-2009 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

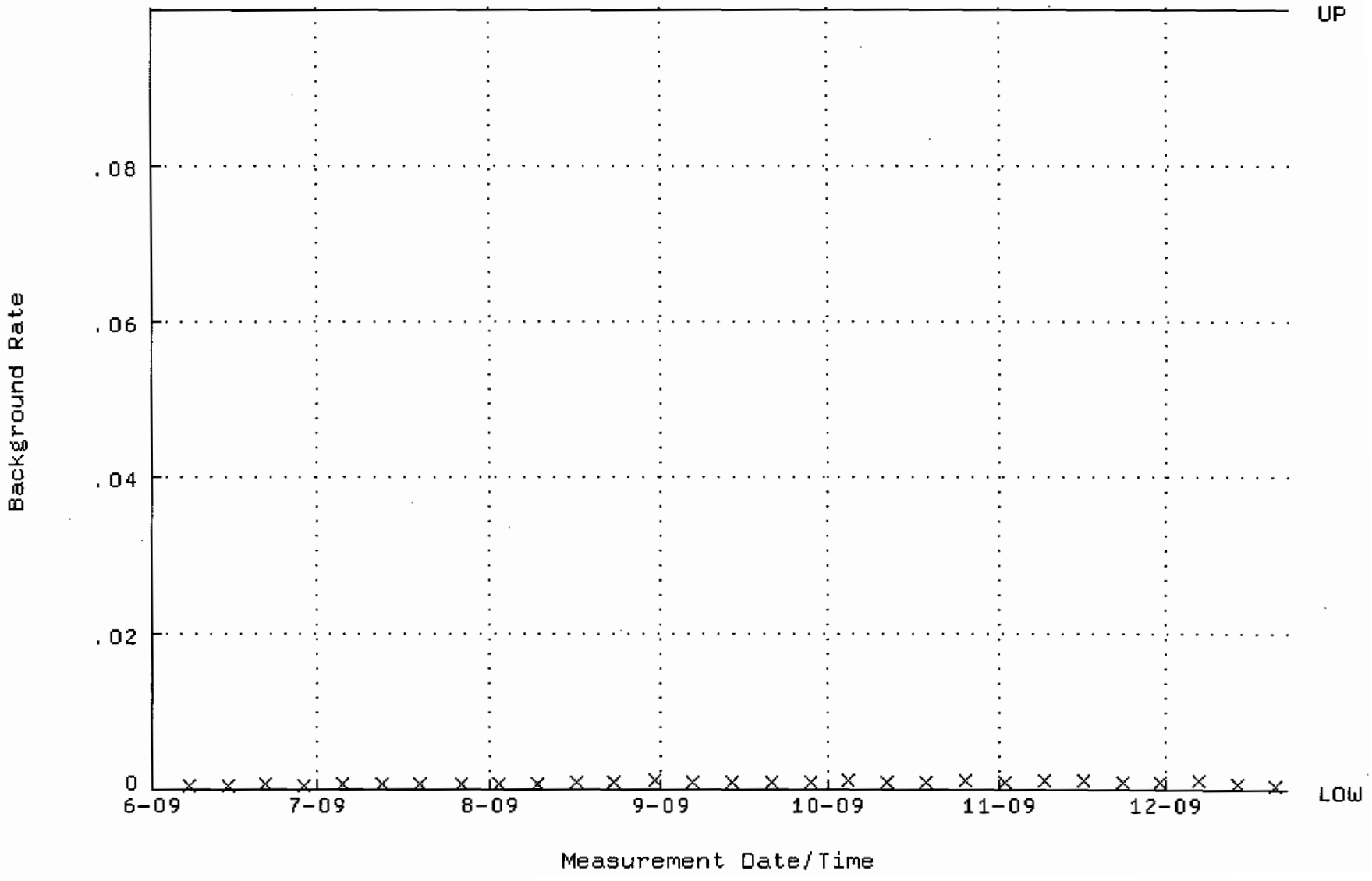

QA filename : DKA100:[ENV_ALPHA.QA.W]W226.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 2-JUN-2009 11:18:36 through 29-DEC-2009 12:00:00
Lower/Upper Lmts: 0.363285 through 0.383285

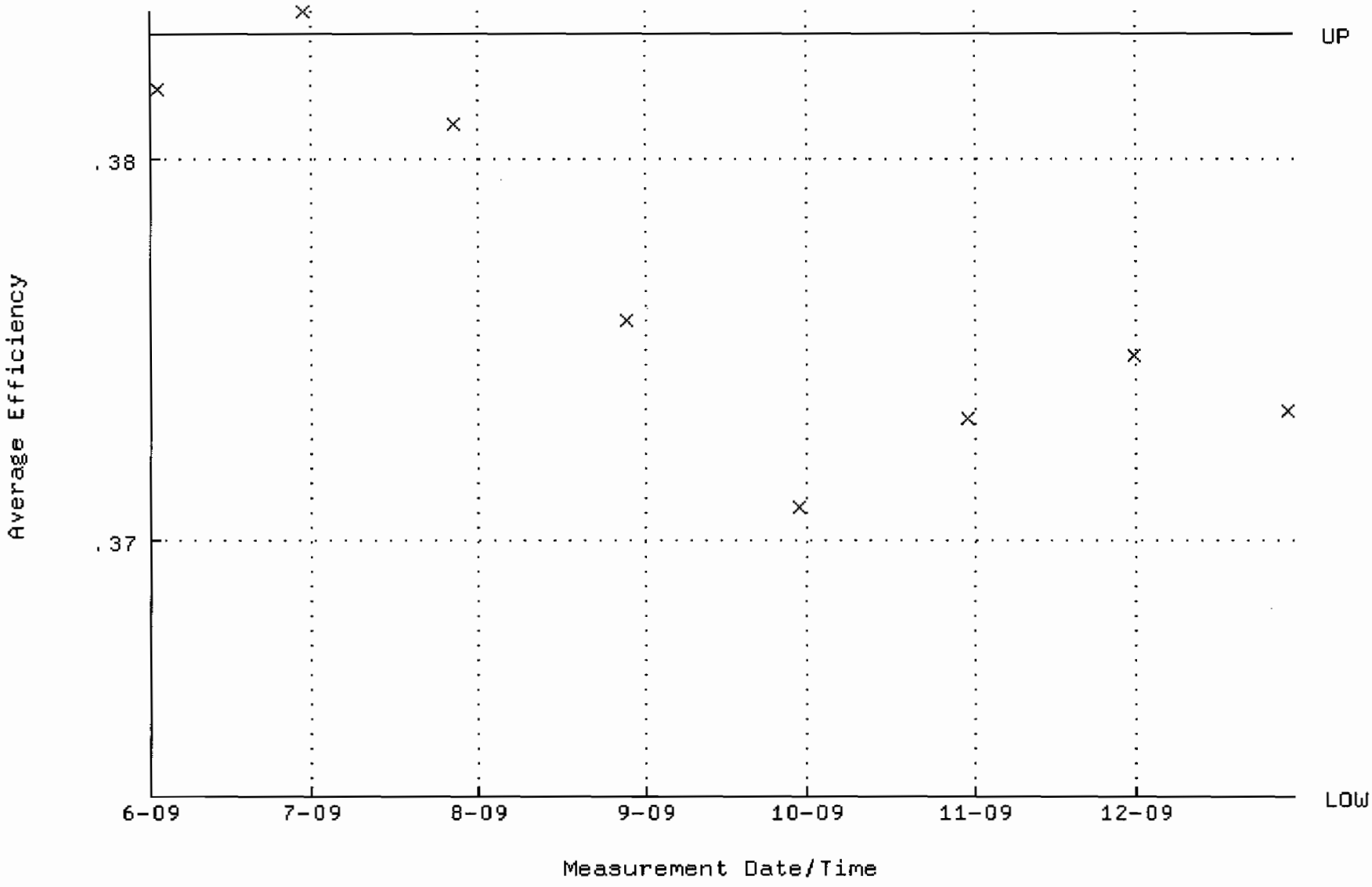

QA filename : DKA100:[ENV_ALPHA.QA.W]W226.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 2-JUN-2009 11:18:36 through 29-DEC-2009 12:00:00
Lower/Upper Lmts: 86.4888 through 95.5928

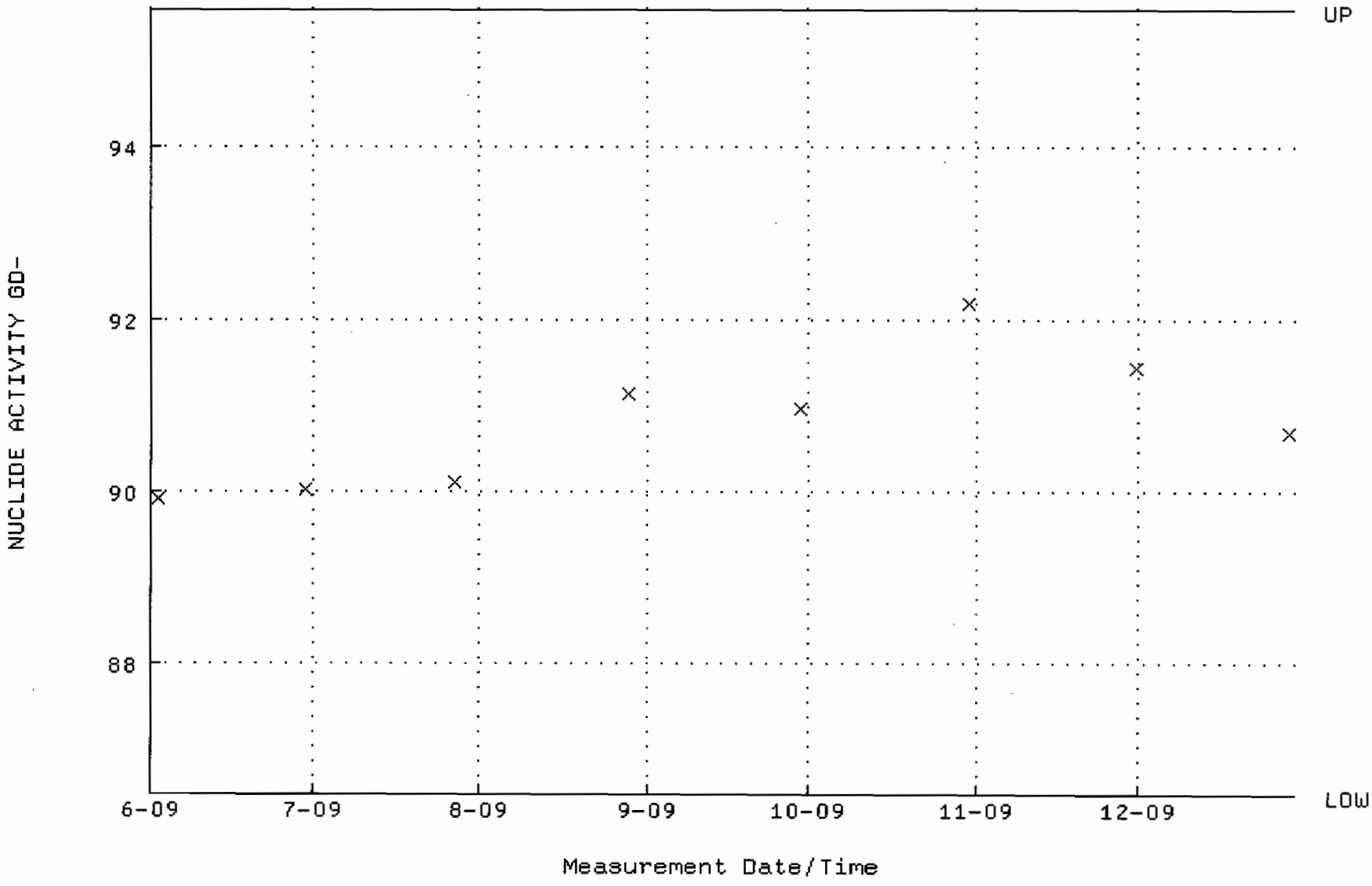

QA filename : DKA100:[ENV_ALPHA.QA.B]B226.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 1-JUN-2009 17:44:47 through 29-DEC-2009 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

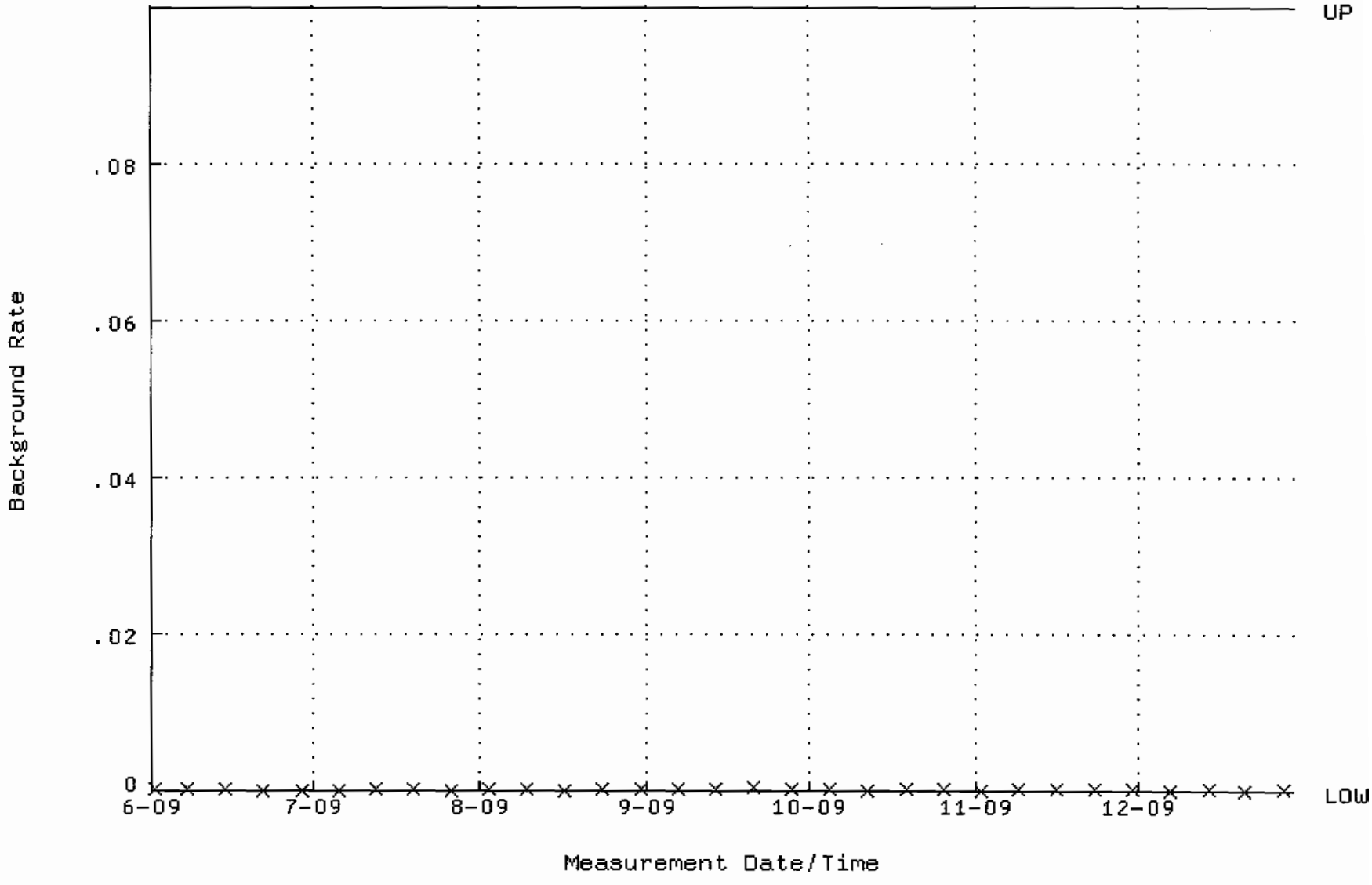

QA filename : DKA100:[ENV_ALPHA.QA.W]W231.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 2-JUN-2009 11:19:04 through 29-DEC-2009 12:00:00
Lower/Upper Lmts: 0.378748 through 0.398748

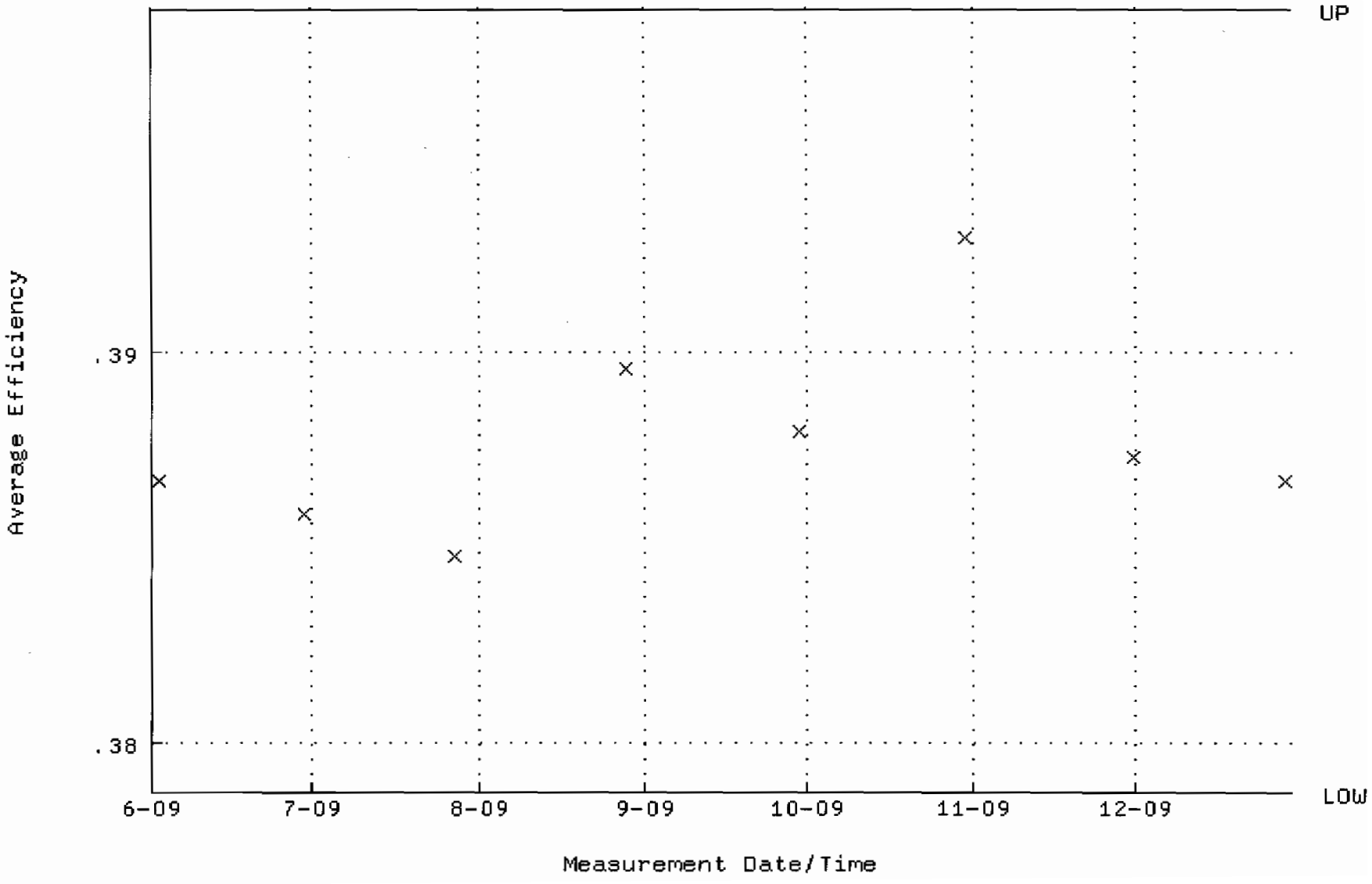

QA filename : DKA100:[ENV_ALPHA.QA.W]W231.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 2-JUN-2009 11:19:04 through 29-DEC-2009 12:00:00
Lower/Upper Lmts: 85.6783 through 94.6971

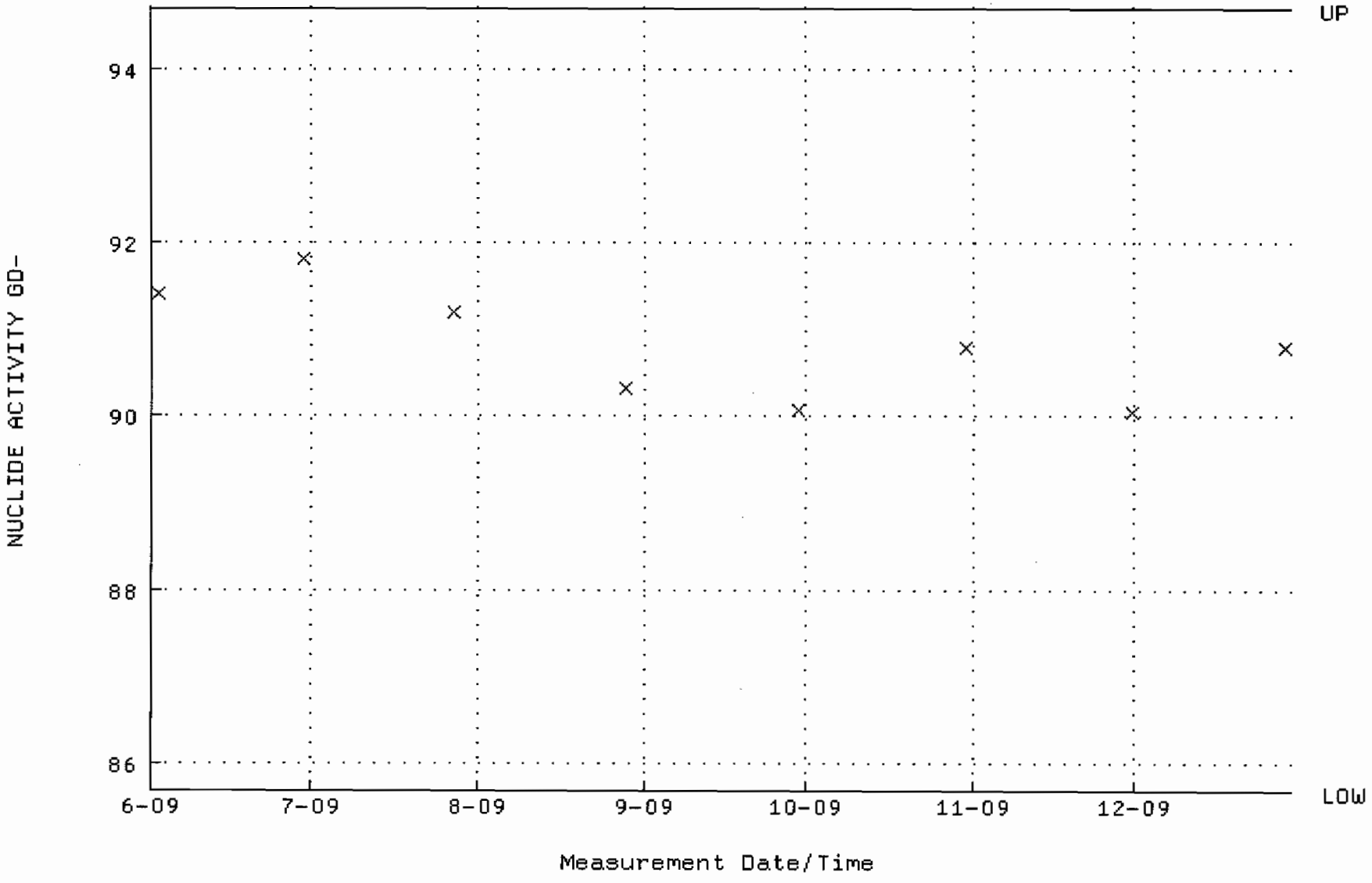

QA filename : DKA100:[ENV_ALPHA.QA.B]B231.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 1-JUN-2009 17:45:10 through 29-DEC-2009 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

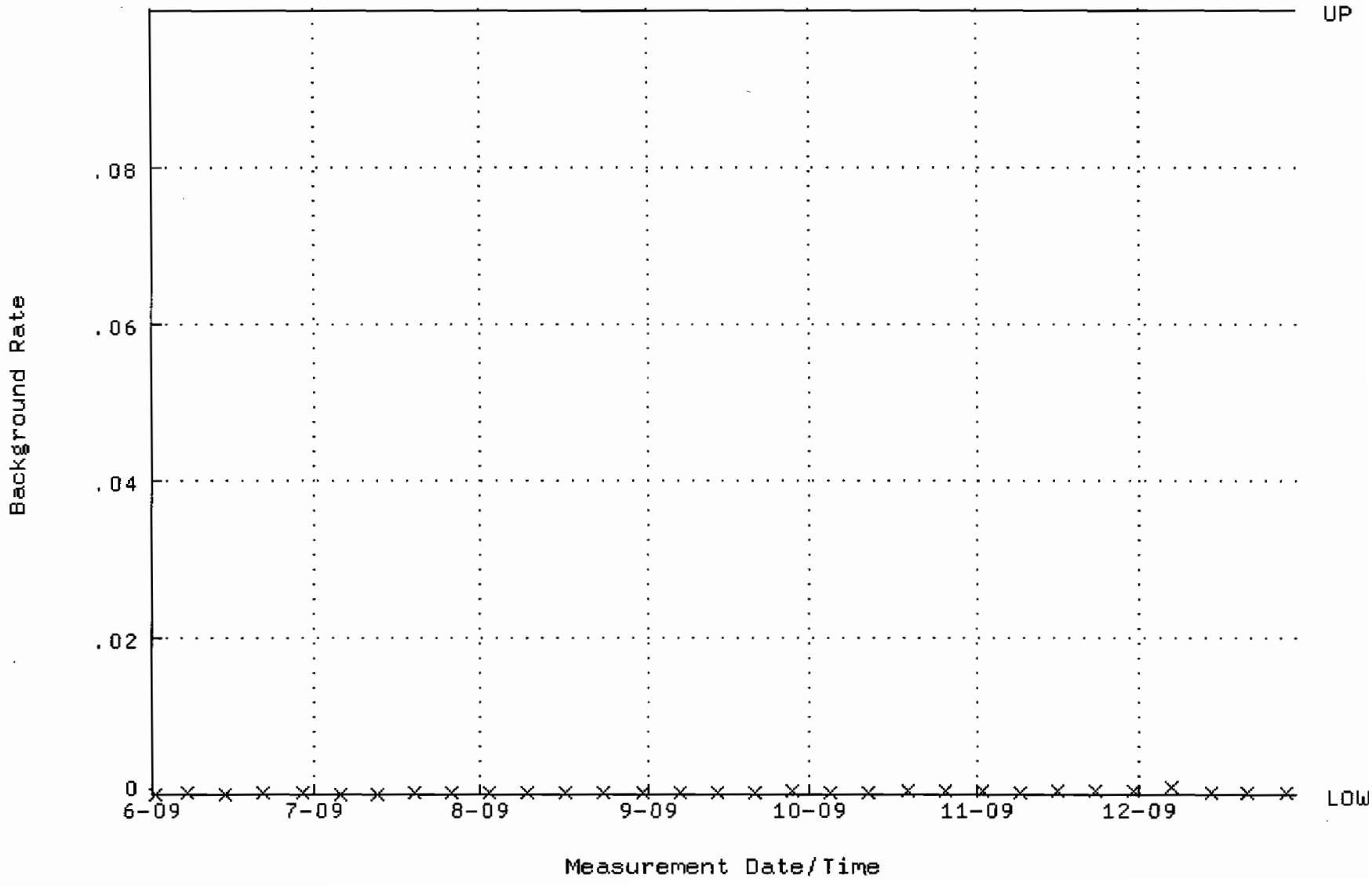

QA filename : DKA100:[ENV_ALPHA.QA.W]W232.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 2-JUN-2009 11:19:09 through 29-DEC-2009 12:00:00
Lower/Upper Lmts: 0.364210 through 0.384210

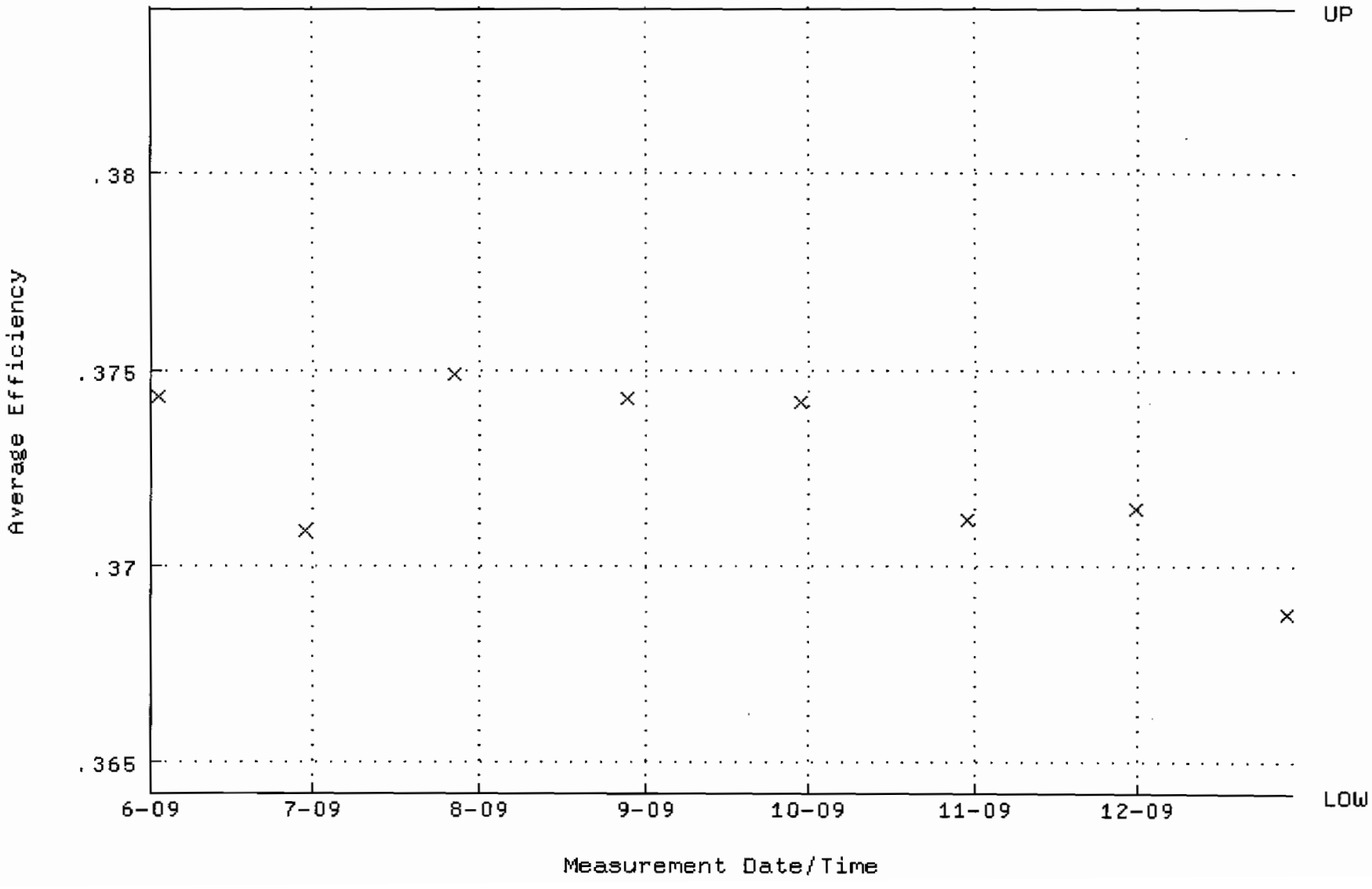

QA filename : DKA100:[ENV_ALPHA.QA.W]W232.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 2-JUN-2009 11:19:09 through 29-DEC-2009 12:00:00
Lower/Upper Lmts: 84.1819 through 93.0431

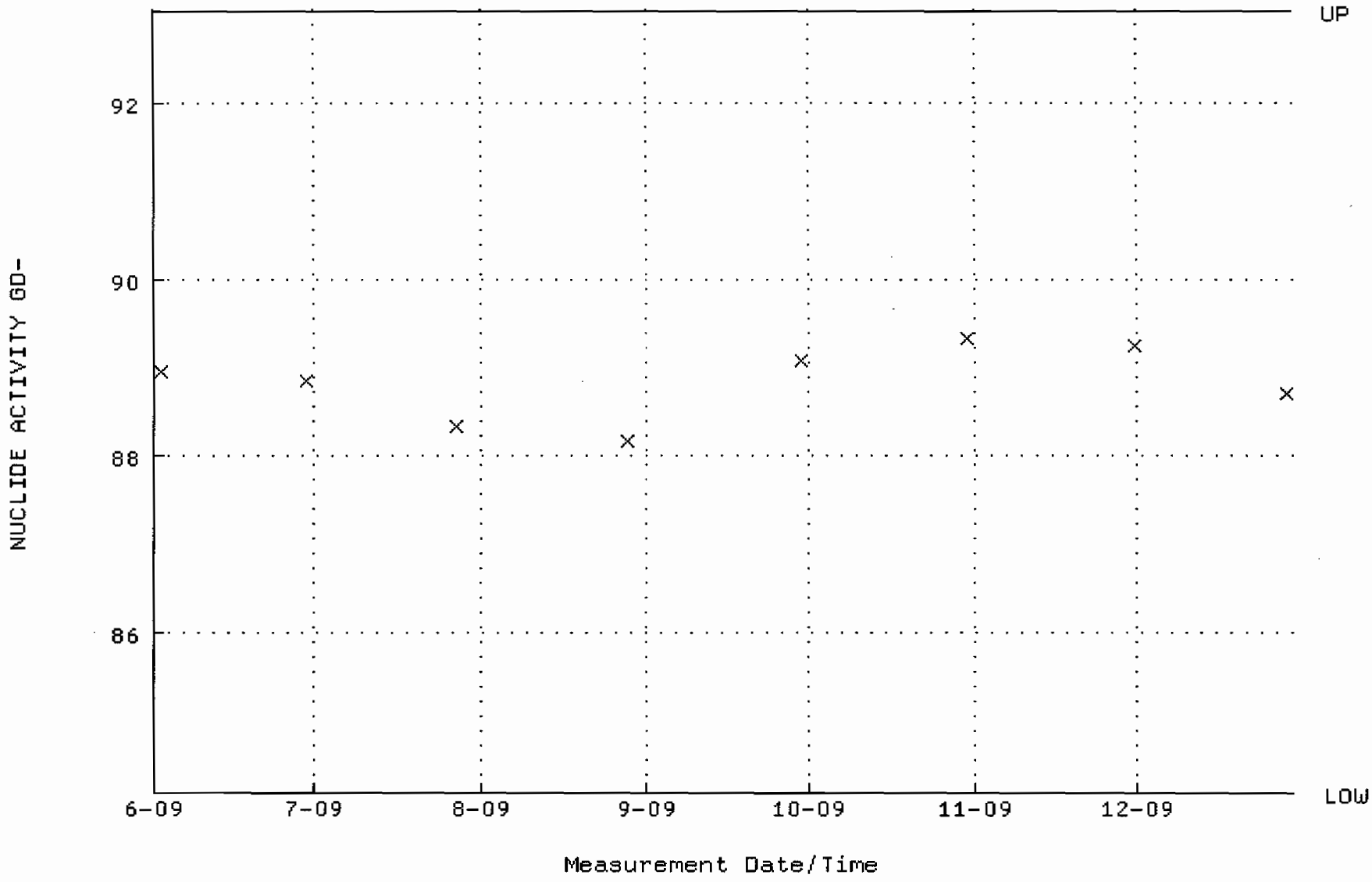

QA filename : DKA100:[ENV_ALPHA.QA.B]B232.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 1-JUN-2009 17:45:14 through 29-DEC-2009 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

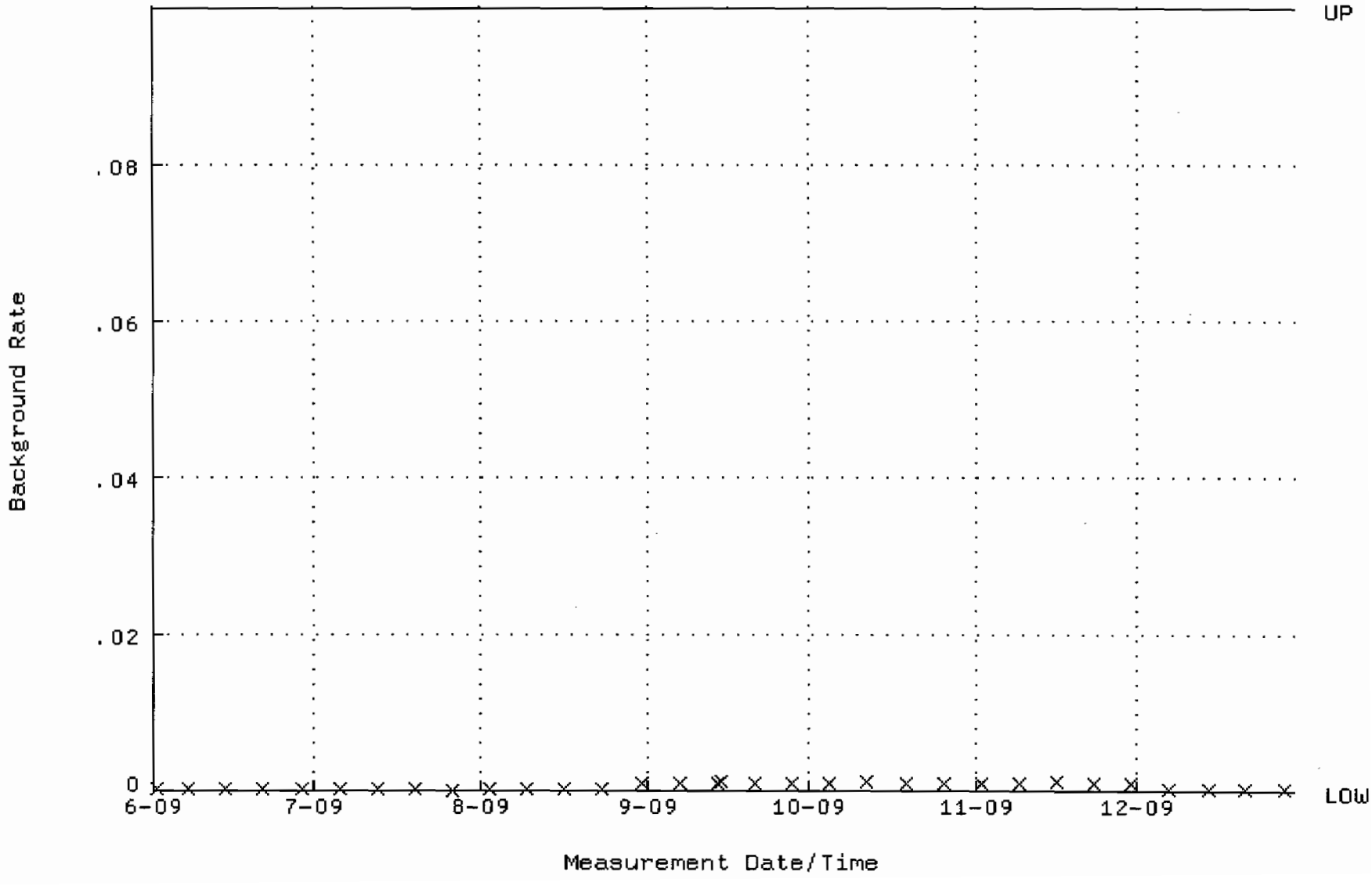

QA filename : DKA100:[ENV_ALPHA.QA.W]W233.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 29-JUN-2009 11:08:39 through 29-DEC-2009 12:00:00
Lower/Upper Lmts: 0.372001 through 0.392001

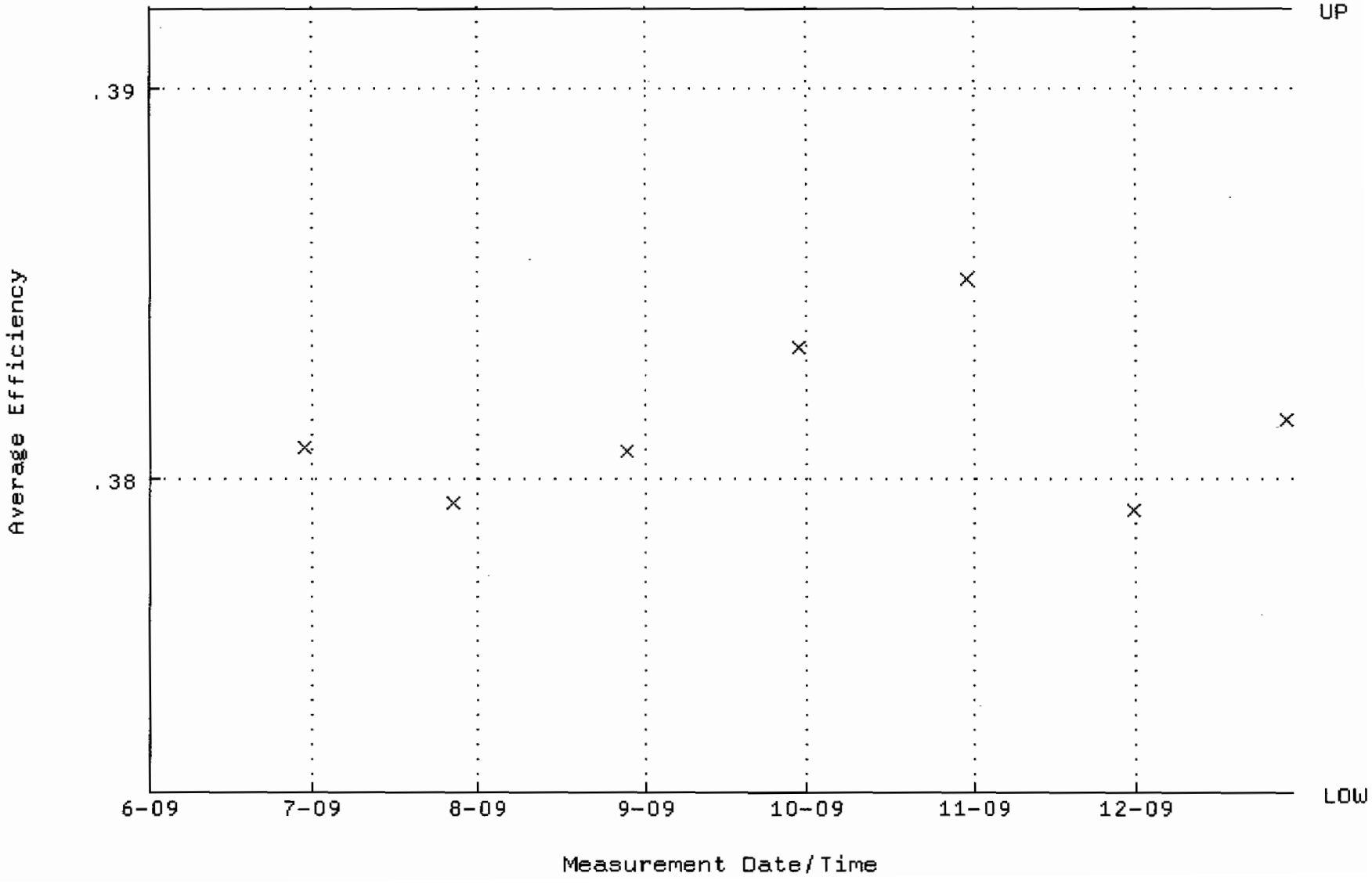

QA filename : DKA100:[ENV_ALPHA.QA.W]W233.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 29-JUN-2009 11:08:39 through 29-DEC-2009 12:00:00
Lower/Upper Lmts: 82.9652 through 91.6984

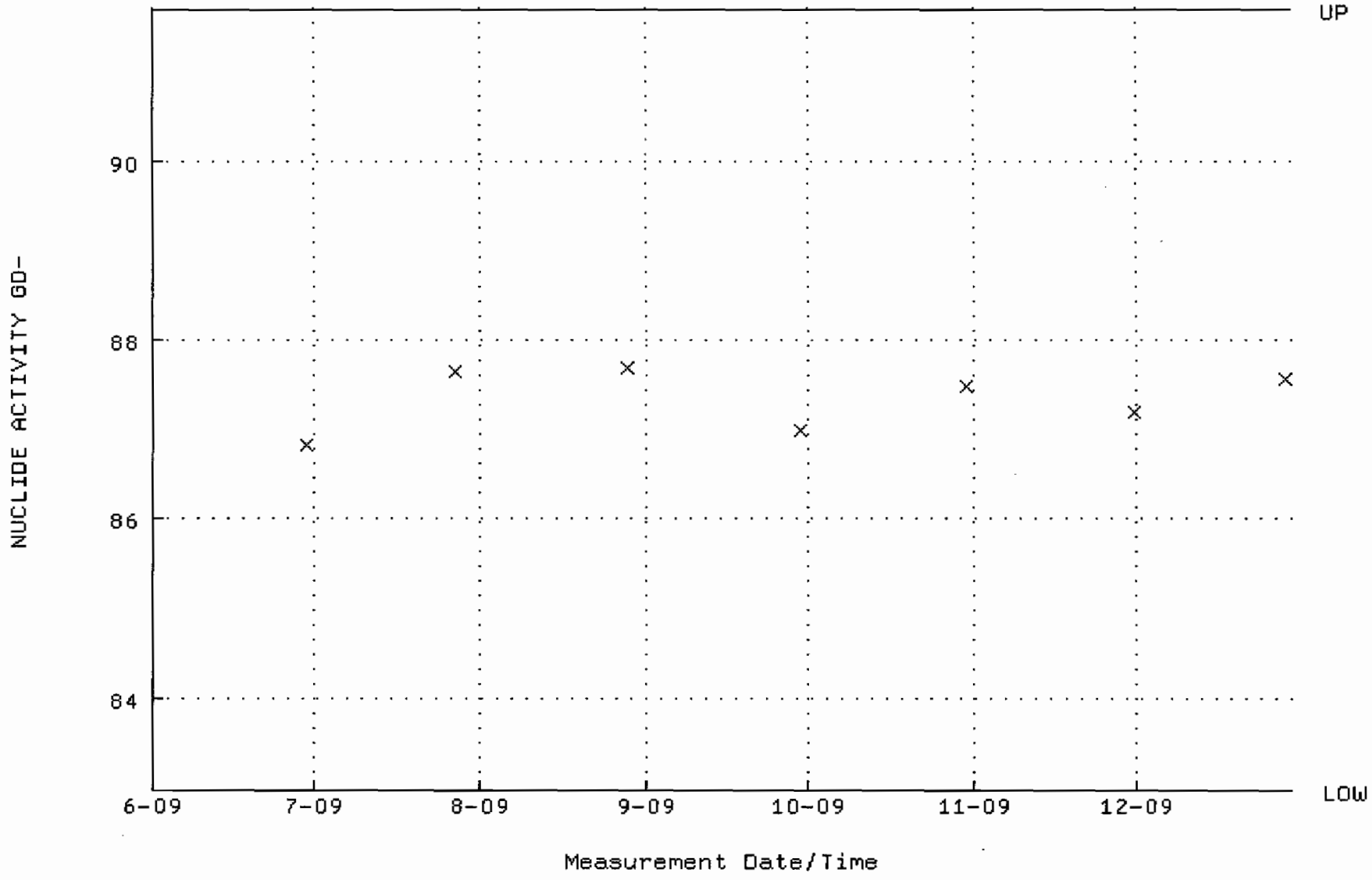

QA filename : DKA100:[ENV_ALPHA.QA.B]B233.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 7-JUN-2009 17:16:56 through 29-DEC-2009 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

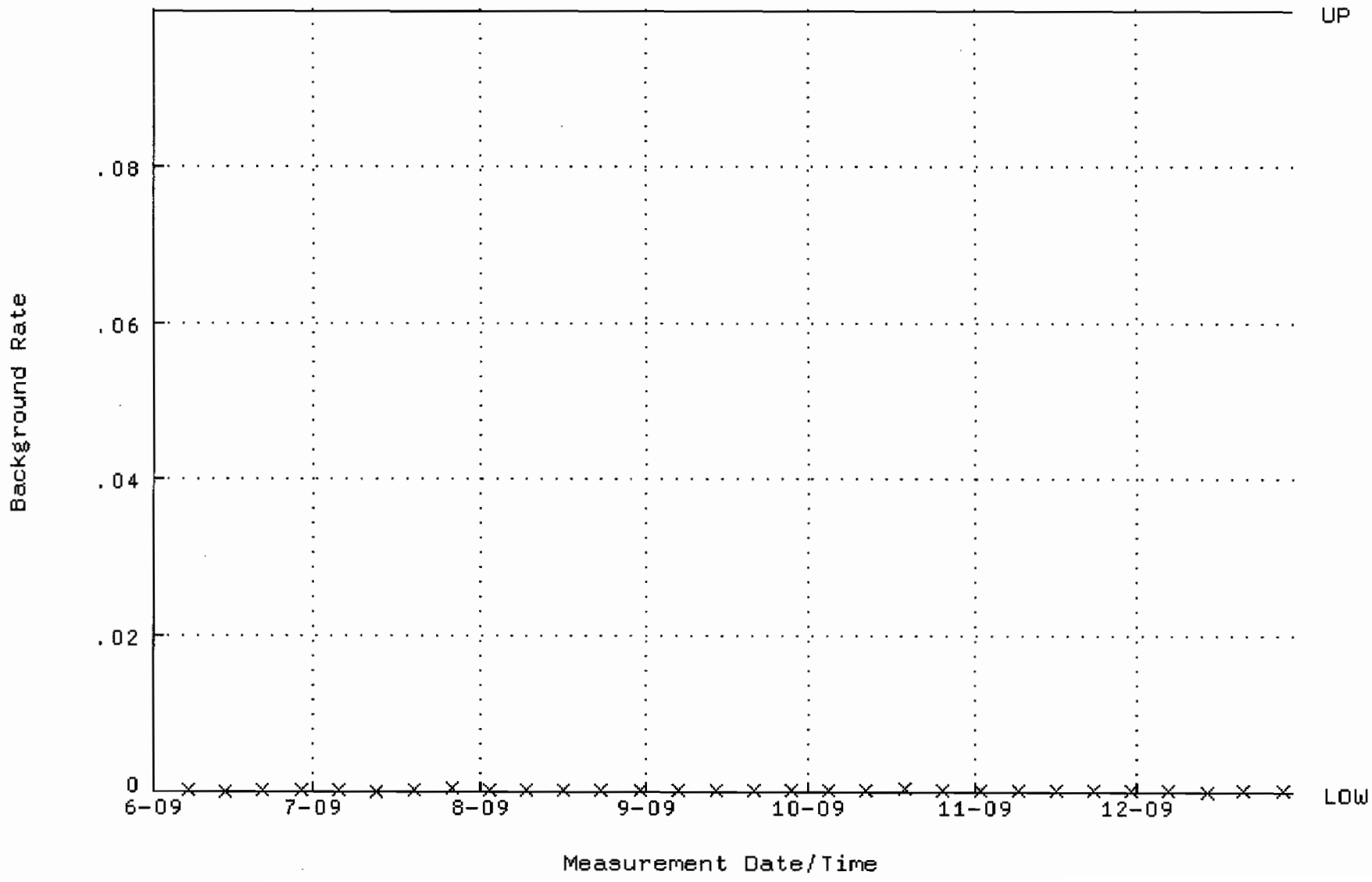

QA filename : DKA100:[ENV_ALPHA.QA.W]W242.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 2-JUN-2009 11:19:56 through 29-DEC-2009 12:00:00
Lower/Upper Lmts: 0.374815 through 0.394815

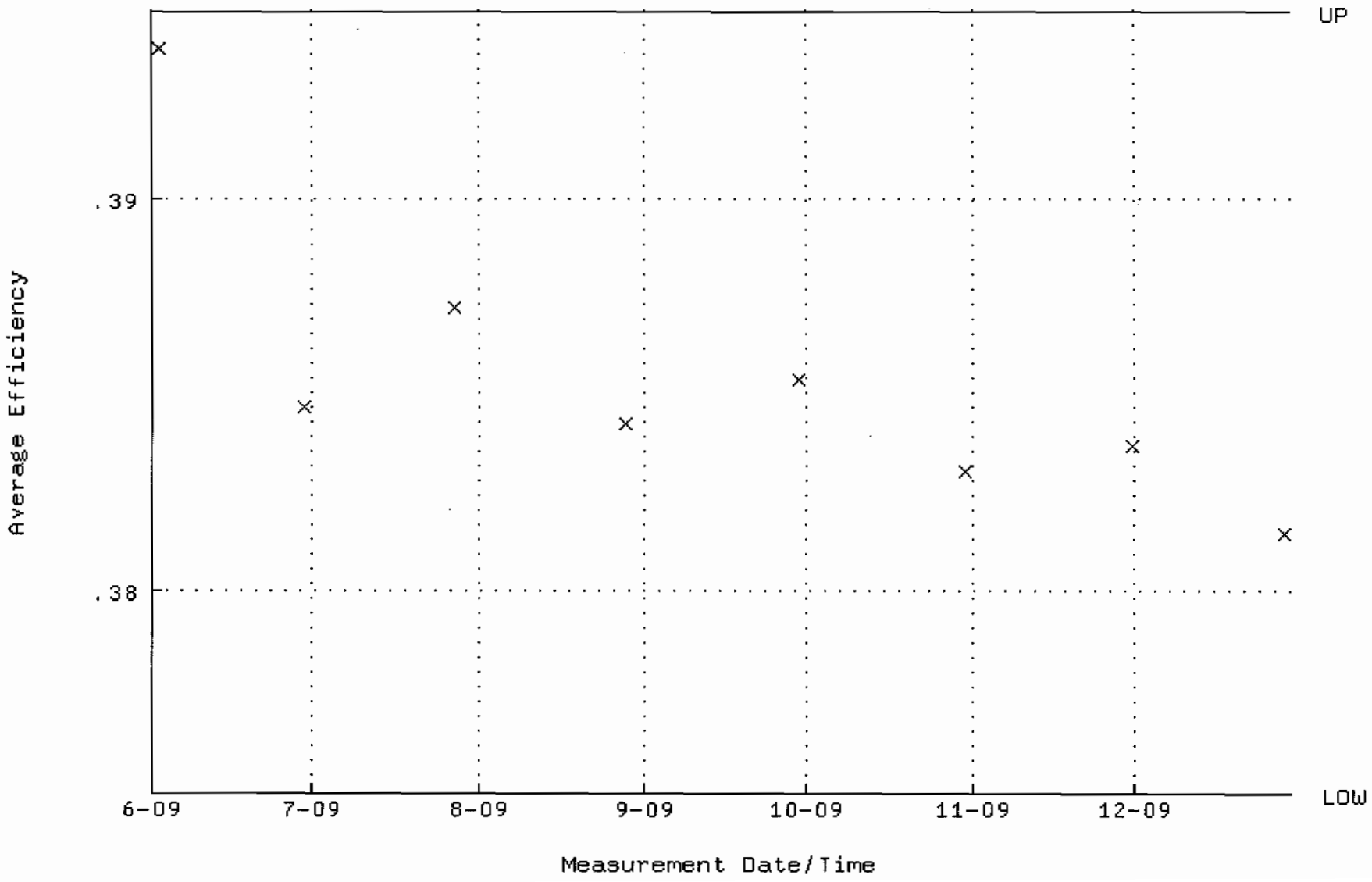

QA filename : DKA100:[ENV_ALPHA.QA.W]W242.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 2-JUN-2009 11:19:56 through 29-DEC-2009 12:00:00
Lower/Upper Lmts: 83.9949 through 92.8365

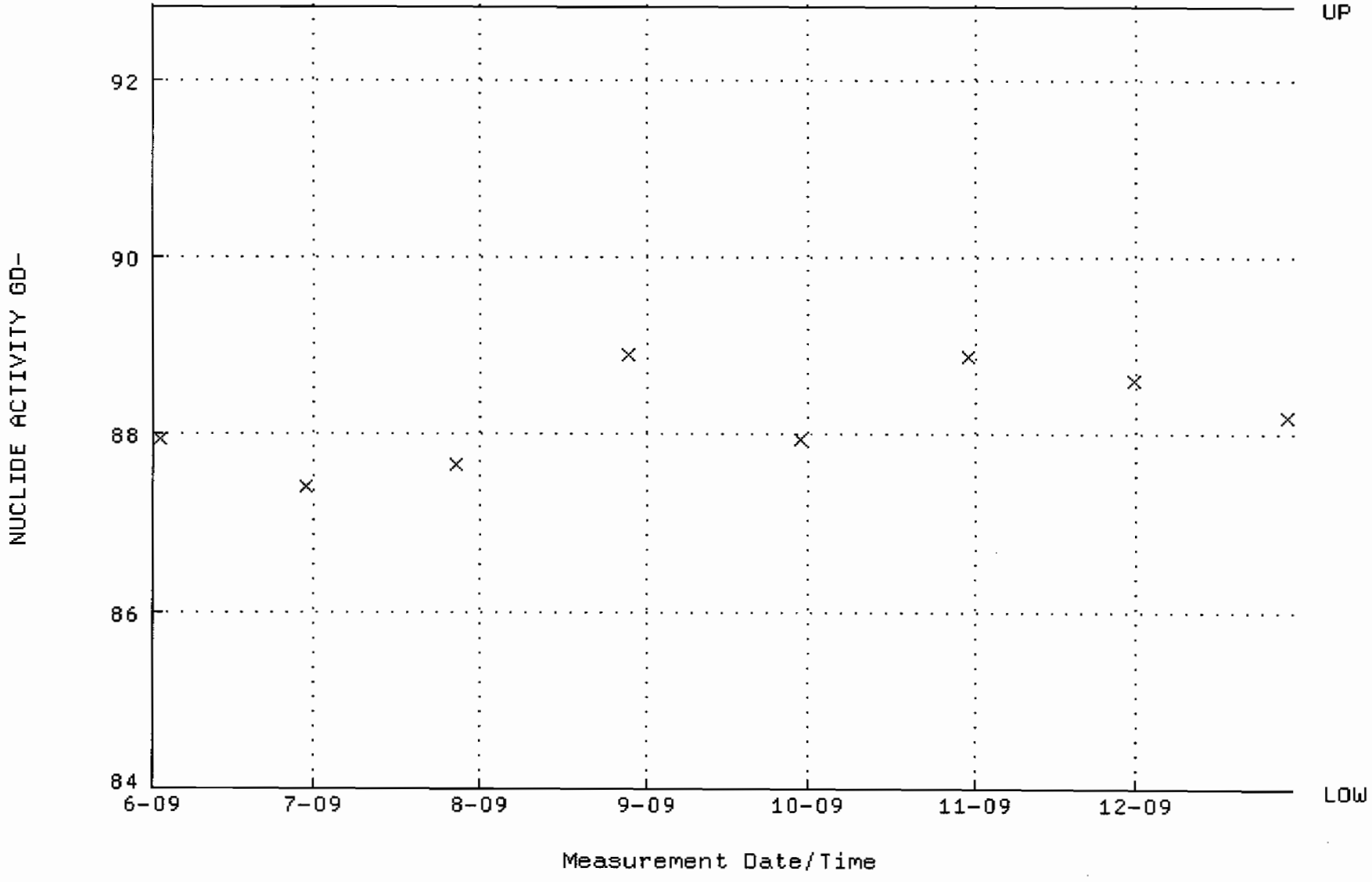

QA filename : DKA100:[ENV_ALPHA.QA.B]B242.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 1-JUN-2009 17:46:32 through 29-DEC-2009 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

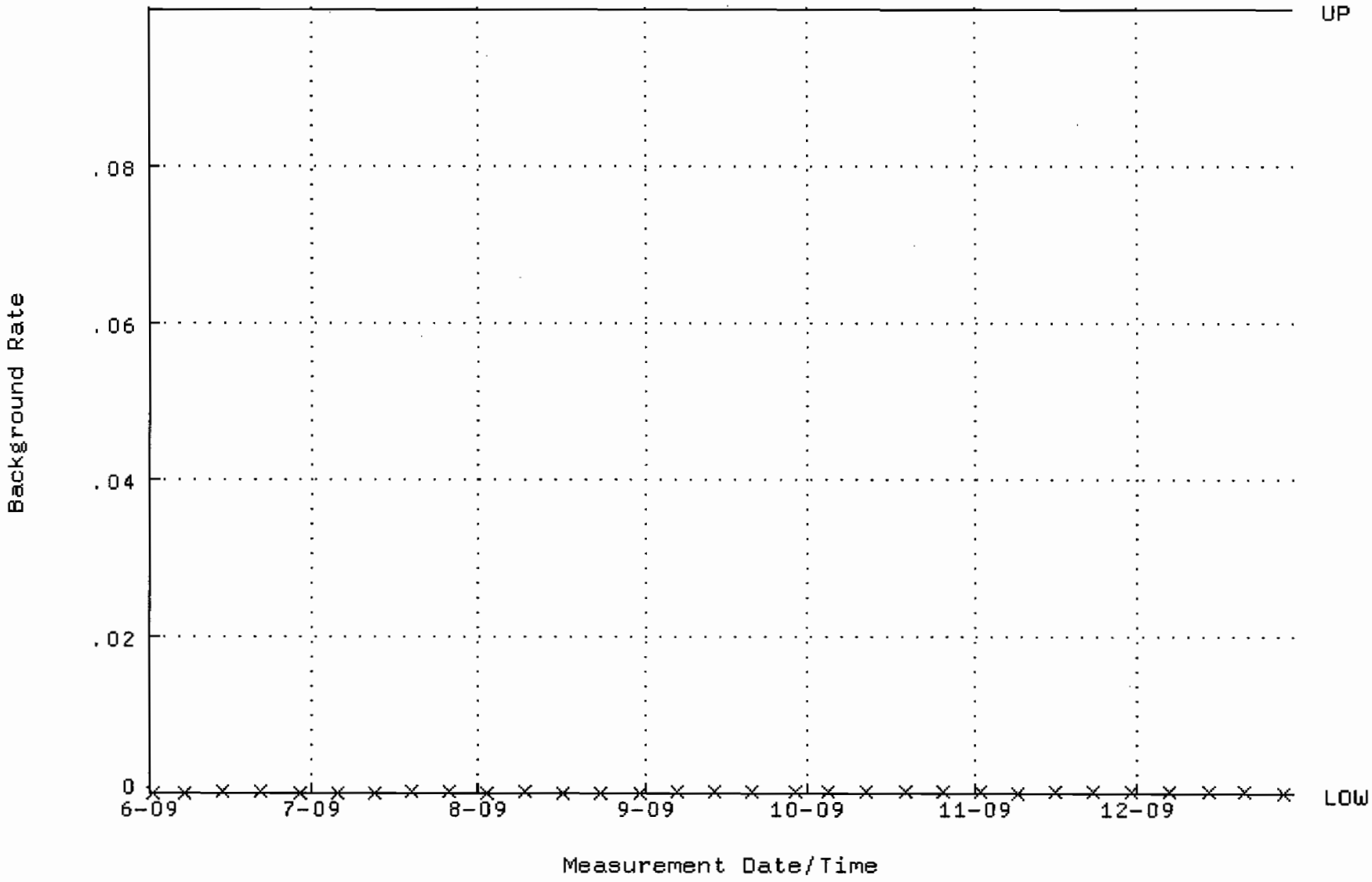

QA filename : DKA100:[ENV_ALPHA.QA.W]W243.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 2-JUN-2009 11:20:01 through 29-DEC-2009 12:00:00
Lower/Upper Lmts: 0.362914 through 0.382914

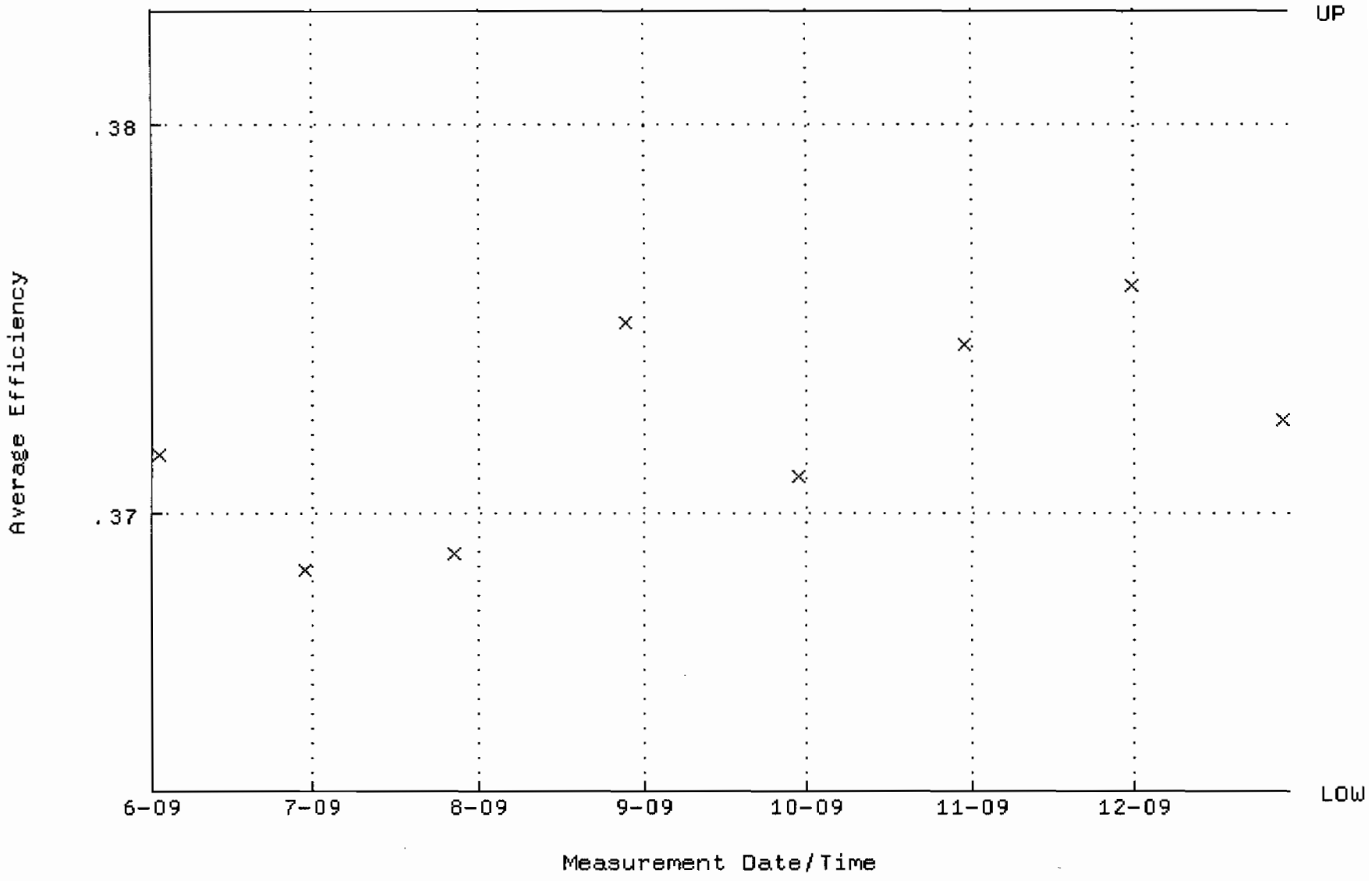

QA filename : DKA100:[ENV_ALPHA.QA.W]W243.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 2-JUN-2009 11:20:01 through 29-DEC-2009 12:00:00
Lower/Upper Lmts: 82.6788 through 91.3818

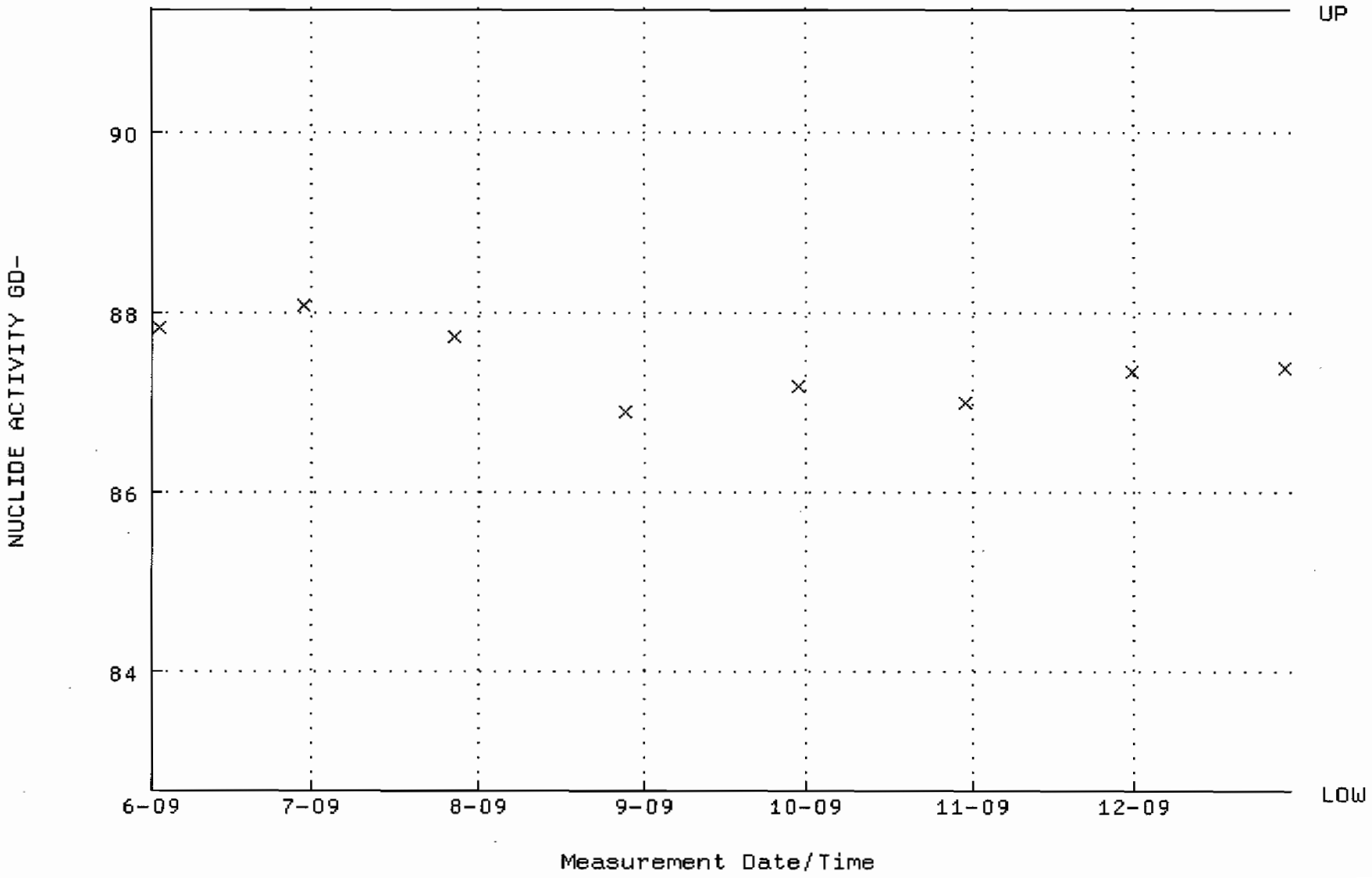

QA filename : DKA100:[ENV_ALPHA.QA.B]B243.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 1-JUN-2009 17:46:38 through 29-DEC-2009 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

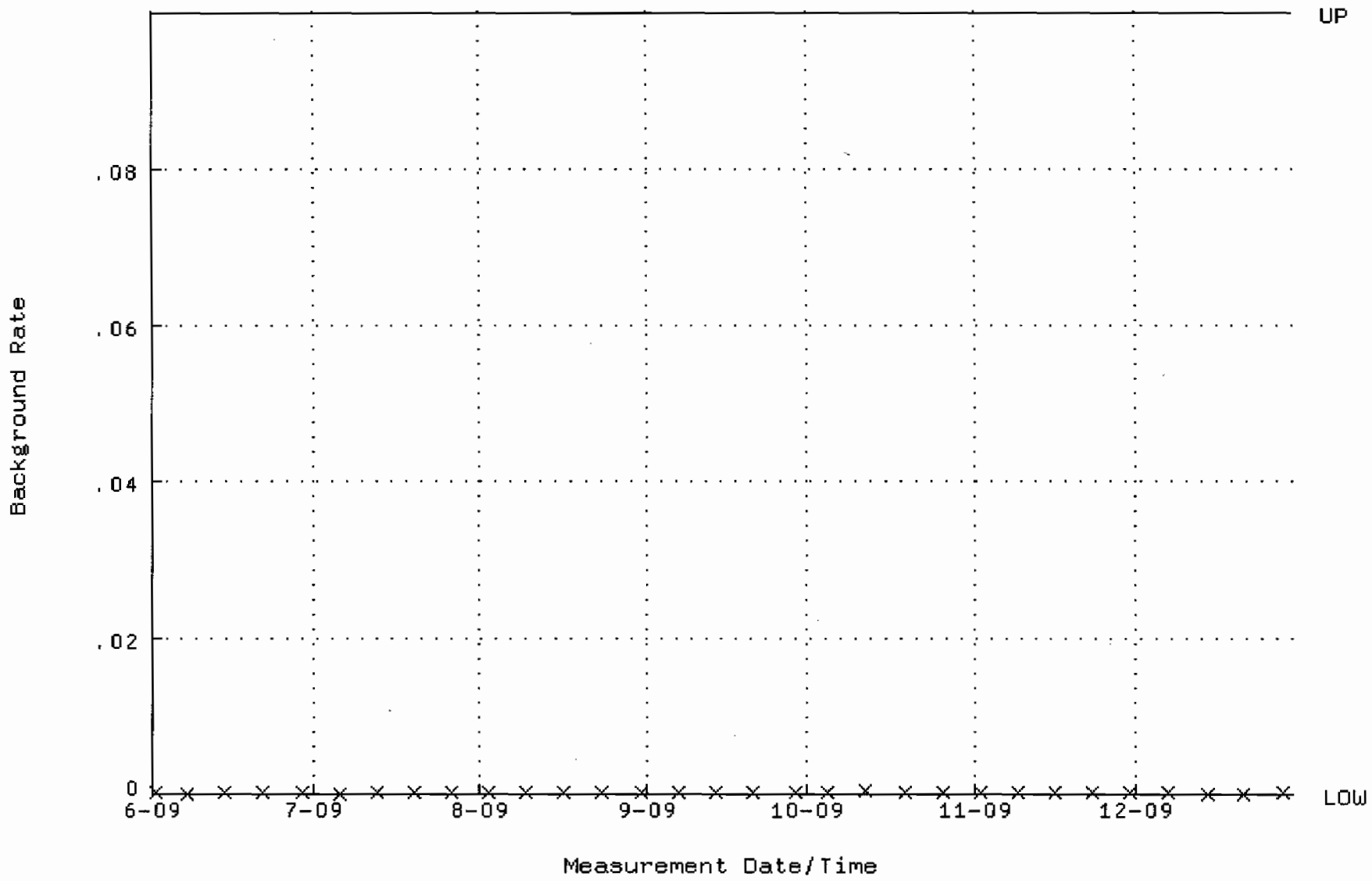

QA filename : DKA100:[ENV_ALPHA.QA.W]W244.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 2-JUN-2009 11:20:06 through 29-DEC-2009 12:00:00
Lower/Upper Lmts: 0.361192 through 0.381192

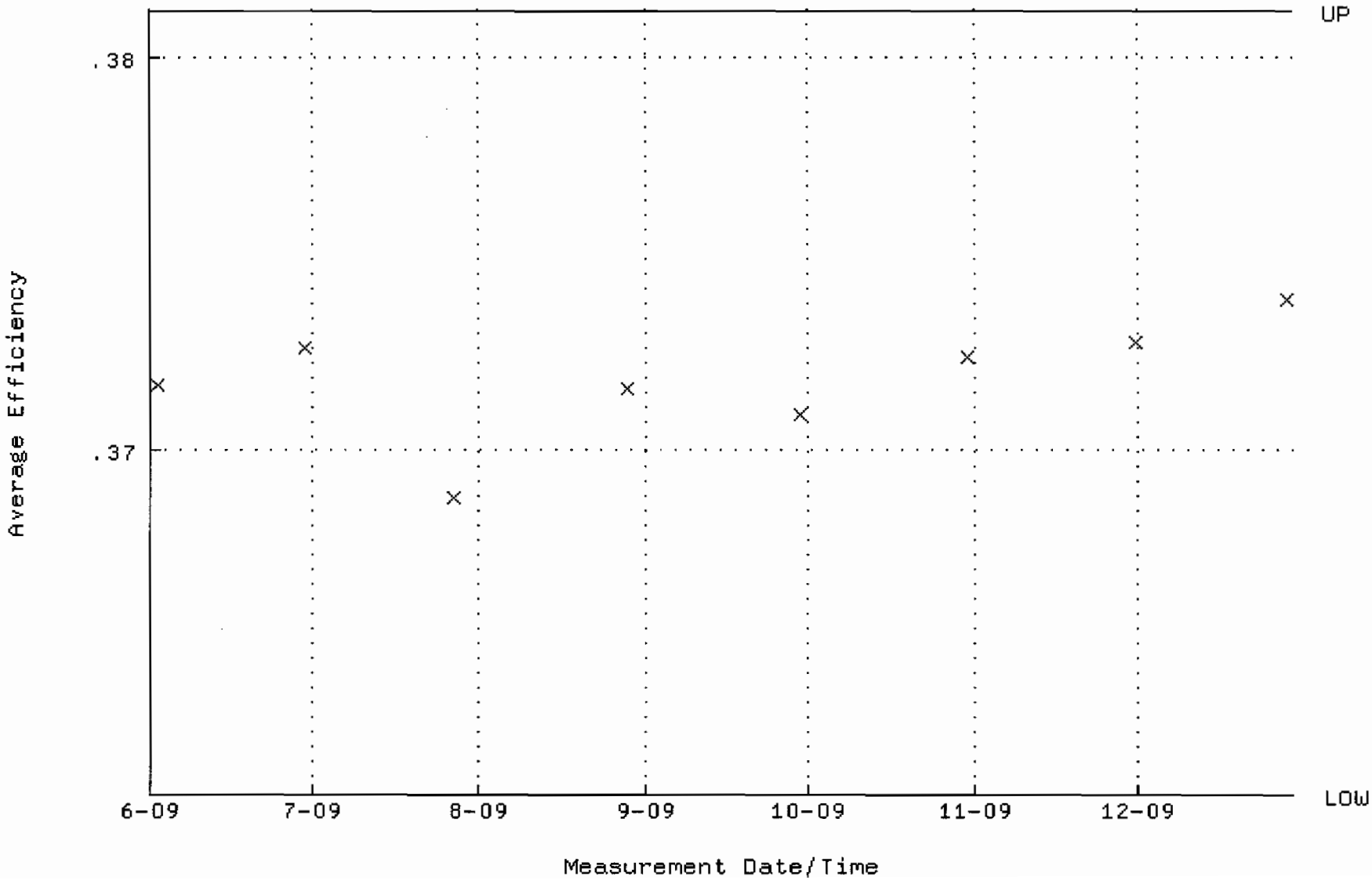

QA filename : DKA100:[ENV_ALPHA.QA.W]W244.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 2-JUN-2009 11:20:06 through 29-DEC-2009 12:00:00
Lower/Upper Lmts: 83.7473 through 92.5629

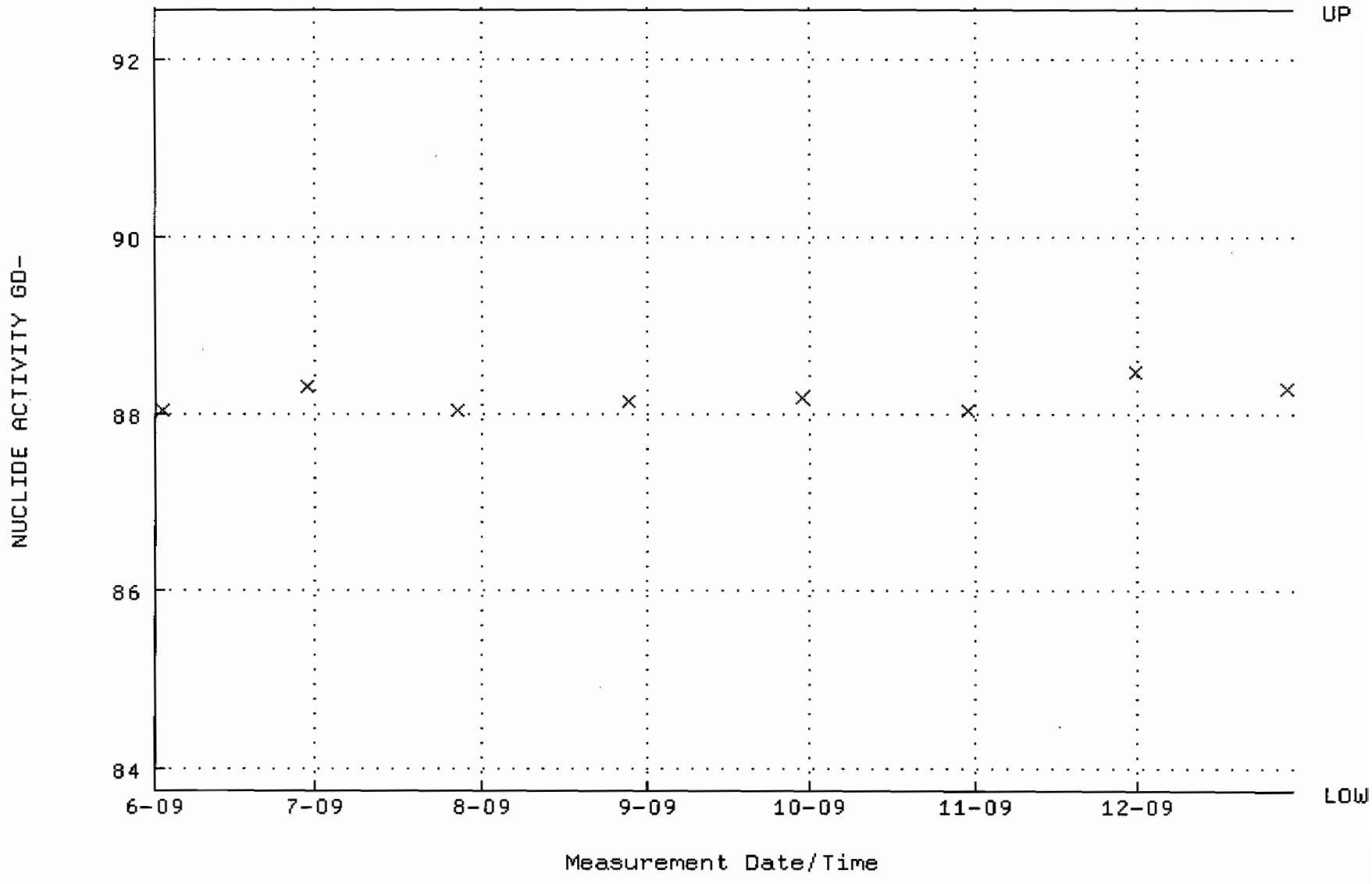

QA filename : DKA100:[ENV_ALPHA.QA.B]B244.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 1-JUN-2009 17:46:44 through 29-DEC-2009 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

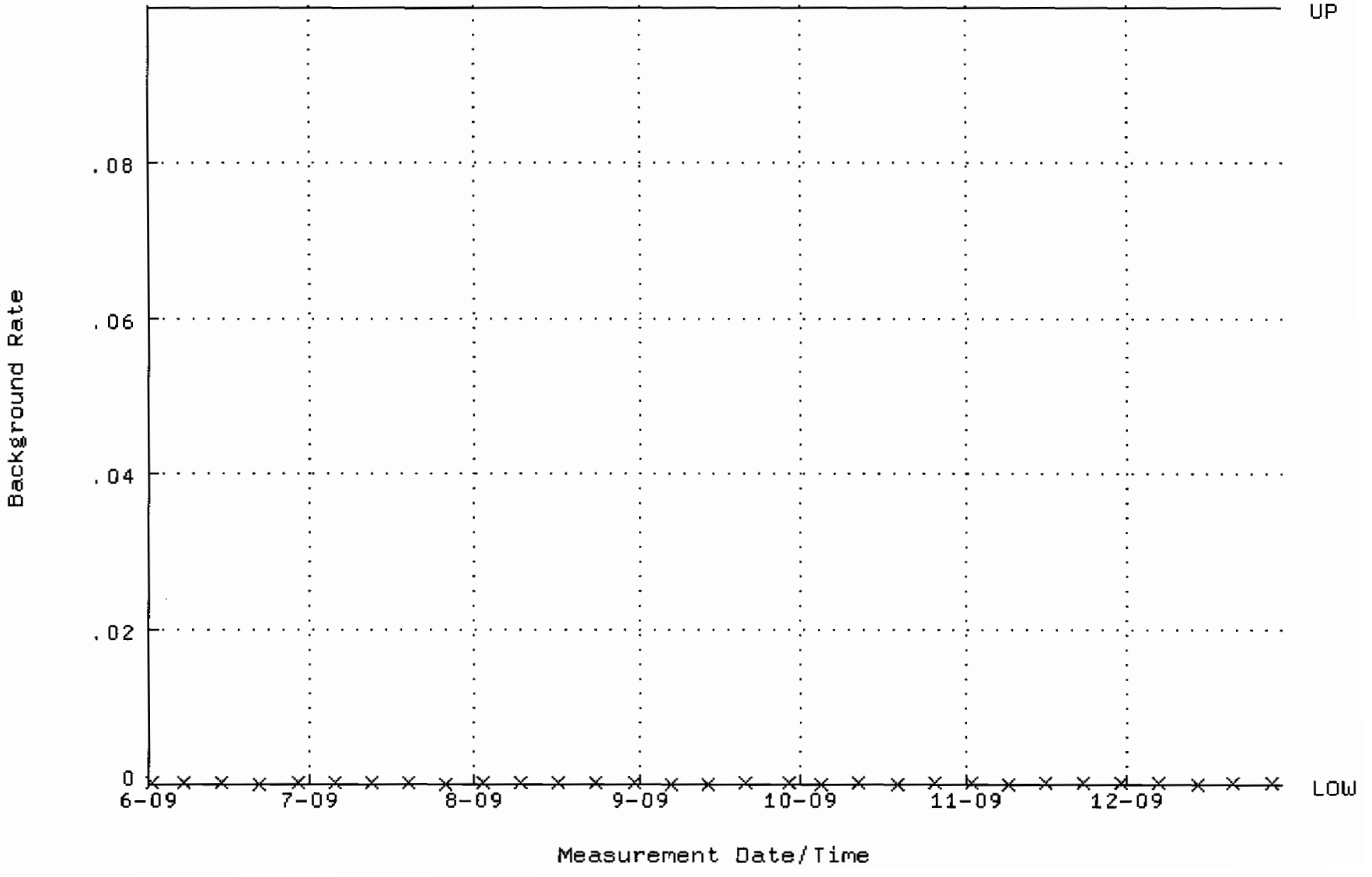

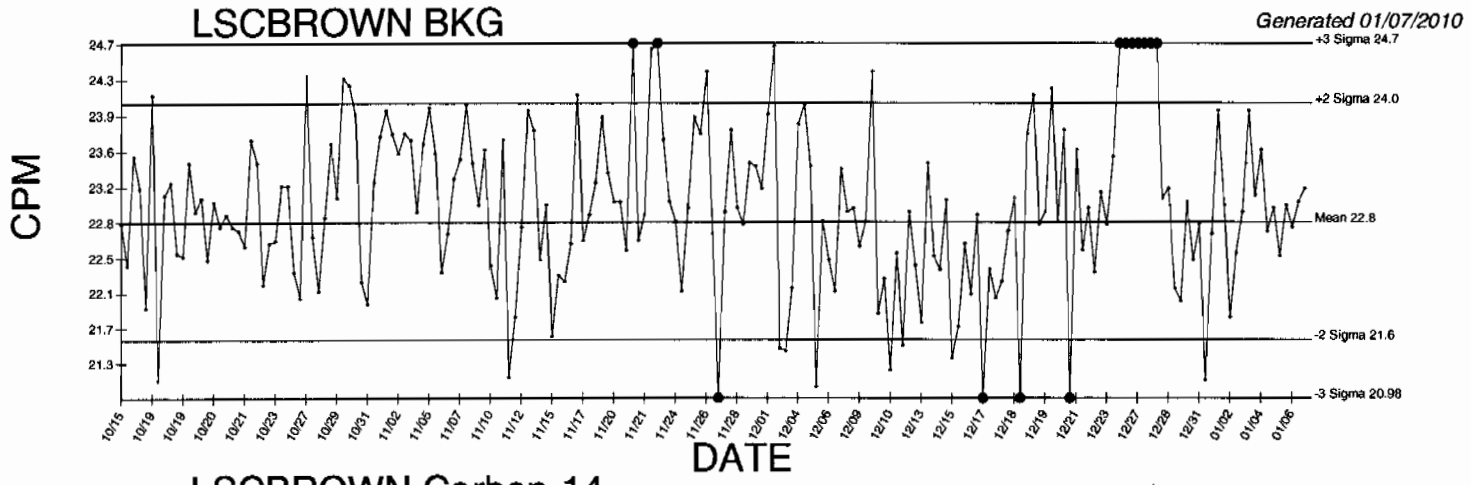

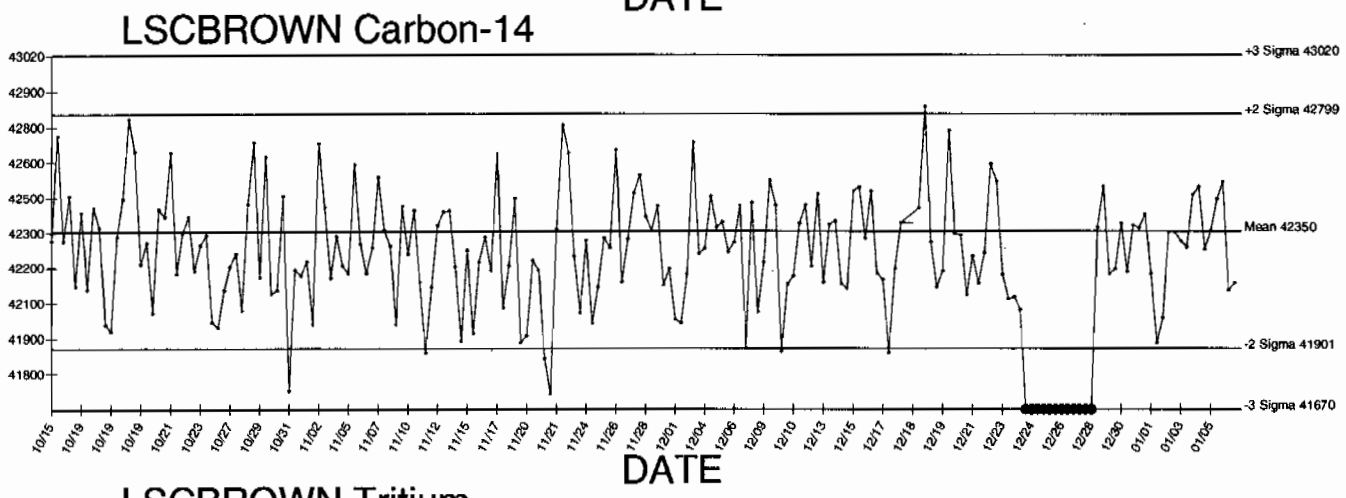

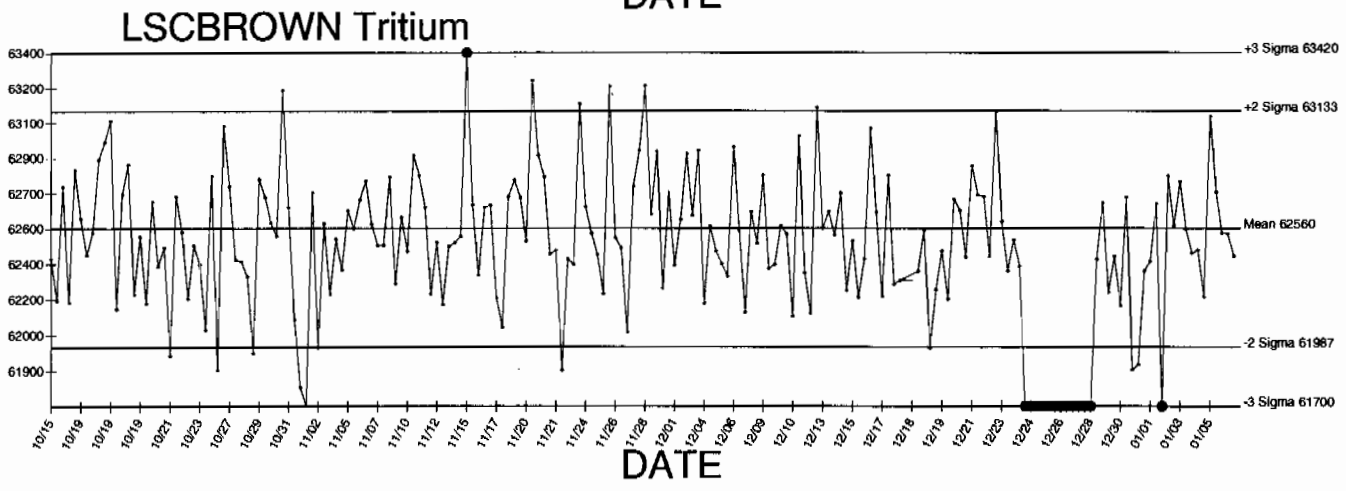

● Denotes Outlier

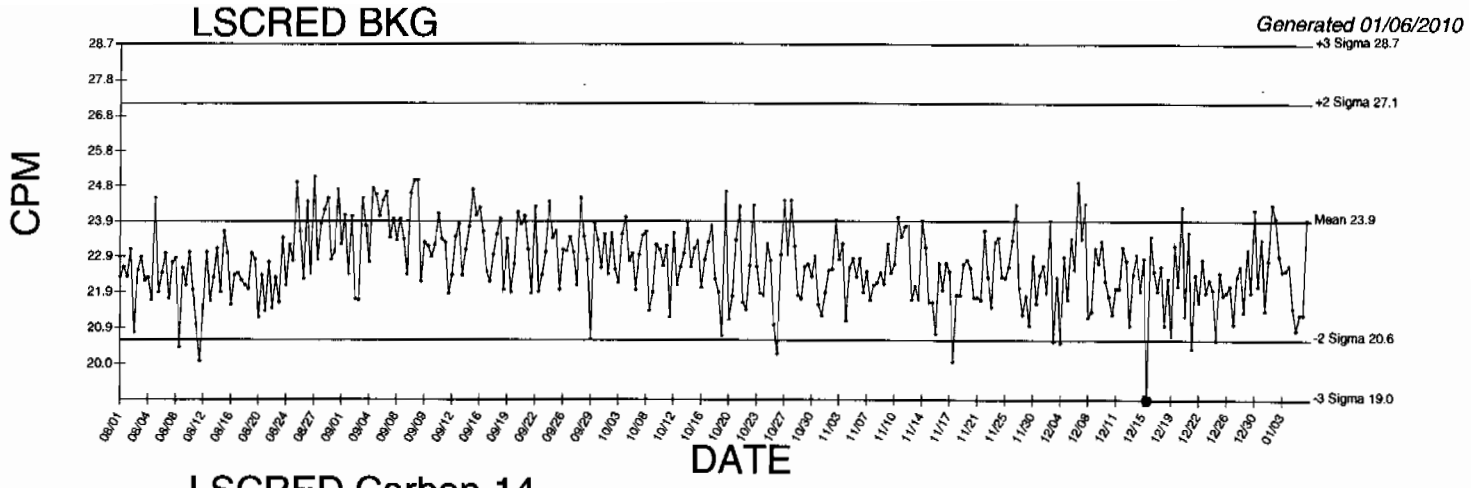

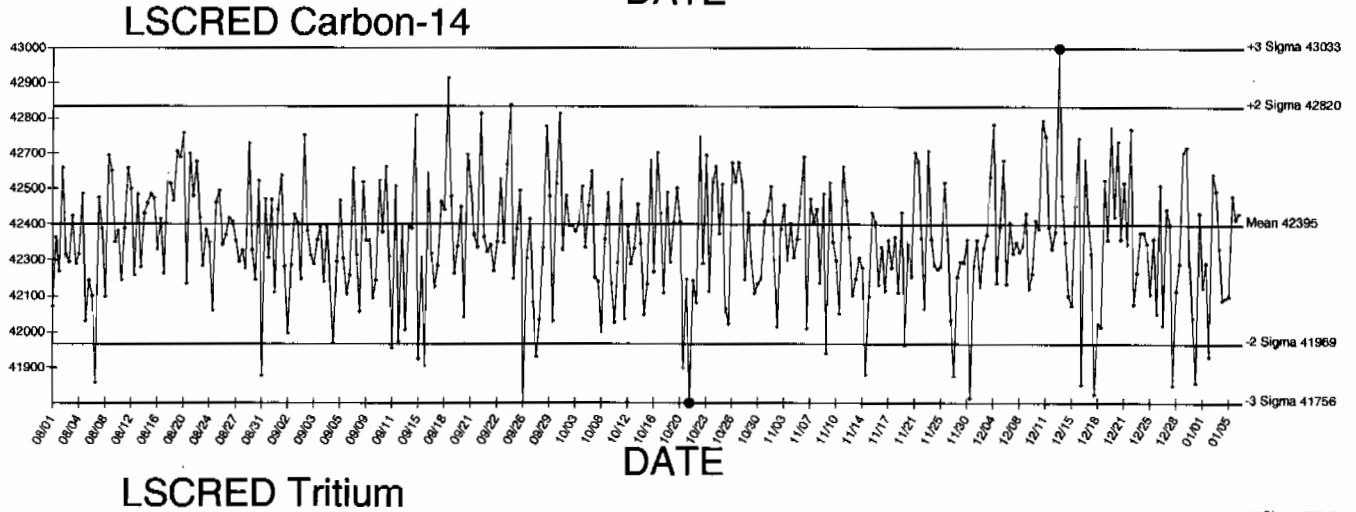

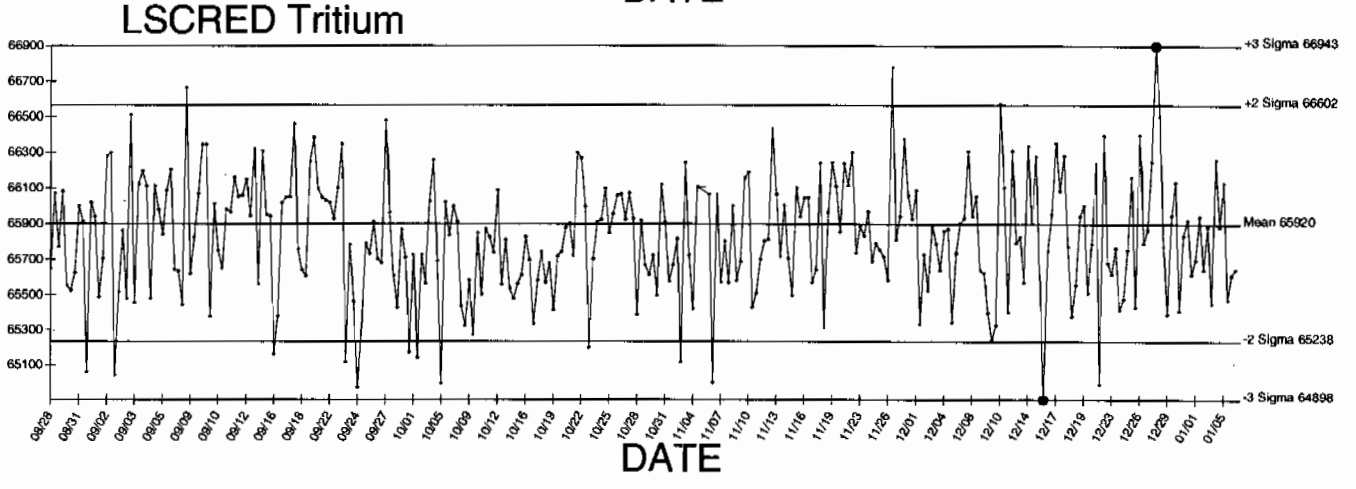

● Denotes Outlier

STANDARDS DATA

Amersham International plc
Amersham Laboratories

0134

NAMAS
CALIBRATION
No. 0146

Certificate of calibration of standardised tritium labelled water

Description

Radionuclide: TRITIUM (HYDROGEN-3) Product code: TRY·64

Chemical form: water Batch: 111

Measurement

Reference time: 1200 GMT on 1 March 1996

Radioactive concentration of tritium: 488.0 kilobecquerels per gram of water

which is equivalent to: 13.19 microcuries per gram of water

or: 2.93×10^7 disintegrations per minute per gram of water

Method of Measurement
This reference material was calibrated by direct comparison with a standard of tritium-labelled water obtained from the National Institute of Standards and Technology, USA.

Accuracy

The OVERALL UNCERTAINTY of the result quoted above is estimated to be less than ±2.5%

This estimate of uncertainty was calculated in accordance with the recommendations of the International Commission on Radiation Units and Measurements (ICRU Report 12). The limits of uncertainty were taken as the arithmetic sum of the uncertainty due to random variations, calculated at the 99·7% confidence level, and the estimated systematic uncertainties.

Purity

No radioactive impurities were detected. (Impurities with total activity greater than 0.001% of the activity of the tritium would have been detected).

Physical Data

Half-life of tritium: 12·43 ± 0·11 years

Maximum beta energy of tritium: 18·6 keV

Remarks:

The S.I. unit of radioactivity is the becquerel.

1 becquerel (Bq) = 1 nuclear transformation per second, therefore
1 curie (Ci) = $3{\cdot}7 \times 10^{10}$ becquerels exactly.

Useful conversion factors are:

1 microcurie (μCi) = $3{\cdot}7 \times 10^4$ Bq = 37 kilobecquerels (kBq)

1 kilobecquerel (kBq) = 27·027 nanocuries (nCi)

This product meets the quality assurance requirements of NRC Regulatory Guide 4.15 for achieving implicit NIST (NBS) traceability as defined in NCRP58 (1985).

Approved signatory

RC-5-024-061

W.F. Case

Amersham
The Health Science Group

Standard Traceability Log Rad

Source Material Info	
Parent Code:	0134
Prepared By:	Angela Johnson
Carrier Conc:	DI WATER
Reference Date:	03/01/1996
Ampoule Mass (g):	5 g
Uncertainty:	+/- 2.5 %
LogBook No:	RC S 023 061

A Solution Material Info	
Isotope:	Tritium
Prepared By:	Angela Johnson
Prep Date:	02/21/2001
Verification Date:	09/10/2008
Expiration Date:	03/27/2010
Primary Code:	0134-A
Dilution(mL):	100 mL
Mass of Parent(g):	3.3659 g
Density(g/mL):	1.0004
Balance ID:	38080204

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (kBq/g)) * (conversion dpm to kBq) / (Dilution Vol) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (kBq/g)) * (conversion dpm to kBq) / Density (g/mL)/ (Dilution Vol) = Parent Activity (dpm/g)
(3.3659 g) * (488 kBq/g) * (60000 dpm/kBq) / (100 mL) = 985535.5200 dpm/mL
(3.3659 g) * (488 kBq/g) * (60000 dpm/kBq) / (1.0004 g/mL) / (100 mL) = 985180.3116 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date
07/20/2004	Amanda Fehr	5.86	1000	0134-H	5773.1566 dpm/mL	07/25/2006	07/25/2007
12/20/2005	Amanda Fehr	5.5451	1000	0134-I	5462.92 dpm/mL	12/20/2006	12/20/2007
07/11/2007	Daniel Roy	5.5863	1000	0134-J	5503.5128 dpm/ml	07/29/2008	07/29/2009
03/25/2009	Mary Aders	5.4917	1000	0134-K	5410.3147 dpm/ml	03/27/2009	03/27/2010

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for H-3 Standard 0134-K

M. Aders	Isotope	Detector CPM	BKG CPM	NET CPM	Detector Eff	Standard Mass. Used (mL)	Source DPM/mL
4/9/2009	0134-K N1	1097.2000	54.0000	1043.2000	0.380548	1.0000	2741.3099
	0134-K N2	1073.2000	54.0000	1019.2000	0.380548	1.0000	2678.242955
	0134-K N3	1085.2000	54.0000	1031.2000	0.380548	1.0000	2709.776428
						Average =	2709.776428
Mean Value (Counting) =	2709.776428		**104.954429**	**Pass**			
Stdev =	31.53347278		0.01163693	**Rule 3 (Pass/Fail)**			

Certificate Value =	2581.86	dpm/mL
Lower Limit =	2646.709482	dpm/mL
Upper Limit =	2772.843373	dpm/mL
Rule 1 Pass/Fail	**Fail**	***exception taken due to full recovery of standard**
Two sigma =	63.06694556	dpm/mL
10 % of Mean =	270.9776428	dpm/mL
Rule 2 (Pass/Fail)	**Pass**	

Verification Rules

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 10% of the certificate value.

The analyst prepared three standard verification sources for H-3 source 0134-K by transferring 0.1 mL portions of the standard into glass liquid scintillation vials. Ten mL of Ecoscint Ultra liquid scintillation cocktail was added to each vial and the vials were shaken to mix. A Blank vial was prepared in a similar fashion using 1 mL of DI water and 10 mL of Ecoscint Ultra liquid scintillation cocktail. The standard verification vials and Background source were dark adapted for two hours and counted on Silver for H-3 source standard verification. The H-3 efficiency calibration which was used for verification calculations was performed on 4/9/09 using 0020-A (H-3). Calibration data is recorded in this logbook under H-3 0020. Each verification source calculation was performed as follows:

Source dpm/g = (A - B)/(C)(D)
where:
A = Ver. source cpm,
B = BKG cpm,
C = System efficiency, (cpm/dpm), and
D = mass used for standard verification.

Reference RAD SOP M-001

Mary L. Aders 4/9/09
Amanda L. Tech 4/9/09

0244-A Characterization

Sample #	Uranium-233/234 Result (pCi/g)	Uranium-238 Result (pCi/g)	Thorium-230 Result (pCi/g)
0244-A 1	6.59	6.12	25.3
0244-A 2	6.36	6.07	28.5
0244-A 3	5.78	5.53	26.5
0244-A 4	6.48	5.97	25.5
0244-A 5	5.65	5.59	26.2
0244-A 6	6.96	5.78	27.0
0244-A 7	5.95	5.75	24.2
0244-A 8	5.29	5.67	27.2
0244-A 9	5.51	6.05	24.3
0244-A 10	6.37	5.57	25.6
0244-A 11	6.50	5.80	25.8
0244-A 12	6.13	5.42	22.4
0244-A 13	5.49	5.24	24.7
0244-A 14	6.19	5.21	26.9
0244-A 15	6.50	6.27	27.6
0244-A 16	6.50	5.24	24.9
0244-A 17	6.25	6.05	24.7
0244-A 18	6.14	6.00	25.4
0244-A 19	6.19	6.14	26.4
0244-A 20	5.67	5.61	23.2
Mean Value	6.13	5.75	25.62
1 sigma	0.439	0.325	1.493
2 sigma	0.878	0.650	2.986
75% Limit	4.60	4.31	19.22
125% Limit	7.66	7.19	32.03
Expected Result	6.2 +/- 4.0	6.0 +/- 4.0	24.5 +/- 0.6
Achieved Results	6.13 +/- 0.439	5.75 +/- 0.325	25.62 +/- 1.493

REFERENCE DATA 4/14/2000 [illegible] 12/1/04

Angela L. Johnson 12/3/04

TRM

Invoice:

5 boxes of TRM-1
10 " " TRM-2 and 3
5 " each of NRM-1 through 6
7 " baghouse dirt

Use 1/4 gm x 10 Samples WITH Together for TRM-2

Table 7. Recommended Concentrations of Tailings Reference Materials (pCi/g)

	TRM–1	TRM–2	TRM–3	TRM–4
U–238	99 ± 6	6.0 ± 4.0	19.6 ± 1.4	44.9 ± 1.6
U–234	105 ± 6	6.2 ± 4.0	19.6 ± 1.9	44.6 ± 1.2
Th–230	471 ± 11	24.5 ± 0.6	58.5 ± 2.1	44.0 ± 1.6
Ra–226	489 ± 17	25.4 ± 0.9	60.3 ± 2.3	42.9 ± 1.2
Pb–210	425 ± 24	22.1 ± 1.2	56.0 ± 2.1	38.9 ± 2.0

Attention Nancy Slater At GEL
Not For Log-In

9911627-01->0

SF 2001-COC (10-97)
Supersedes (5-97) issue

Internal Lab Batch No.

ANALYSIS REQUEST AND CHAIN OF CUSTODY

SAR/WR No. N/A

Press F1 for instructions for each field.

AR/COC- 602945

Dept. No./Mail Stop: 7132 / 1042
Project/Task Manager: PAM PUISSANT
Project Name:
Record Center Code: N/A
Logbook Ref. No.: N/A
Service Order No.:

Date Samples Shipped: 11-16-99 (SMO USE)
Carrier/Waybill No.: 726494
Lab Contact: EDIE KENT
Lab Destination: G.E.L.
SMO Contact/Phone: Doug Salmi / 844-3110
Send Report to SMO: Suzi Jensen/844-3184

Contract No.: AJ-2480A
Case No.: 10204 1.3
SMO Authorization: Doug Salmi
Bill to: Sandia National Laboratories
Supplier Services, Dept.
P.O. Box 5800 MS 0154

Location — Tech Area VI — Building N/A — Room N/A

Sample No. - Fraction	ER Sample ID or Sample Location Detail	Beginning Depth in Ft.	ER Site No.	Date/Time Collected	Sample Matrix	Container Type	Container Volume	Preservative	Sample Collection Method	Sample Type	Parameter & Method Requested	Lab Sample ID (LAB USE)
050484 - 001	PEM-1	N/A	N/A	11/15/9 1100	S	P	1 L	4 C	G	SA	See Special	
050485 - 001	TRM-2	N/A	N/A	11/15/9 1100	S	G	1 L	4 C	G	SA	Instructions	
050486 - 001	~~NRM-2~~ NBHD	N/A	N/A	11/15/9 1100	S	G	1 L	4 C	G	SA	Below	
-												
-												
-												
-												
-												
-												
-												

Reference LOV (available at SMO)

RMMA ☐Yes ☒No Ref. No.
Sample Disposal ☐Return to Client ☒Disposal by lab

Sample Tracking (SMO USE): Date Entered (mm/dd/yy): Entered by:

Turnaround Time ☒Normal ☐Rush Required Report Date

QC Initials

Special Instructions/QC Requirements
EDD ☐Yes ☒No
Raw data package ☐Yes ☒No
These "samples" are well characterized and materials being sent to GEL on behalf of Hank Hinton
Please list as separate report.

Abnormal Conditions on Receipt (LAB USE)

Sample Team Members	Name	Signature	Init	Company/Organization/Phone
	Douglas E. Perry		DP	Weston / 7577 / 845-0867

1. Relinquished by	Org.	Date	Time	4. Relinquished by	Org.	Date
1. Received by	Org.	Date	Time	4. Received by	Org.	Date
2. Relinquished by	Org.	Date	Time	5. Relinquished by	Org.	Date
2. Received by	Org.	Date	Time	5. Received by	Org.	Date
3. Relinquished by	Org.	Date	Time	6. Relinquished by	Org.	Date
3. Received by	Org.	Date	Time	6. Received by	Org.	Date

1. Relinquished by: Org. 7577 Date 11-16-99 Time 0900

Original — To Accompany Samples, Laboratory Copy (White)
1st Copy — To Accompany Samples, Return to SMO (Blue)
2nd Copy — SMO Suspense Copy (Yellow)
3rd Copy — Field Copy (Pink)

0244-B Characterization

Sample #	Plutonium-239 Result (pCi/g)	Plutonium-238 Result (pCi/g)	Americium-241 Result (pCi/g)
0244-B 1	39.9	7.88	38.4
0244-B 2	44.1	7.97	40.6
0244-B 3	45.8	6.56	31.8
0244-B 4	43.6	7.69	31.5
0244-B 5	43	7.9	40.2
0244-B 6	43.5	7.84	29.4
0244-B 7	41.3	7.67	36
0244-B 8	44.3	6.95	33.2
0244-B 9	42.7	7.2	29.2
0244-B 10	44.9	7.69	30
0244-B 11	41.4	7.22	30.2
0244-B 12	41.3	7.74	36
0244-B 13	39.2	6.65	33.8
0244-B 14	39.6	7.78	31.1
0244-B 15	45.3	8.41	37.3
0244-B 16	38.1	6.74	33.6
0244-B 17	48.5	8.51	30.5
0244-B 18	36.5	7.23	38.6
0244-B 19	35.3	6.98	30.9
0244-B 20	37.4	8.55	31.3
Mean Value	41.79	7.56	33.68
1 sigma	3.418	0.596	3.724
2 sigma	6.835	1.193	7.448
75% Limit	30.75	6.02	24.38
125% Limit	51.25	10.04	40.63
Expected Result	41.0 +/- 3.0	8.03 +/- 0.37	32.5 +/- 1.1
Achieved Results	41.79 +/- 3.418	7.56 +/- .596	33.68 +/- 3.724

REFERENCE DATA 4/14/2000

Amanda L. Fehr 4/30/04
Matt L. Ackel 5/1/04

PEM-1

PREPARATION AND CHARACTERIZATION OF THE PERFORMANCE EVALUATION SOIL SAMPLE PEM-1

INTRODUCTION

Rust Geotech (Rust) was contracted by Los Alamos National Laboratory (LANL) to prepare and characterize a soil performance evaluation sample designated PEM-1. This report describes sample preparation, homogeneity assessment, and determination of the concentrations of 28 elements and radioactive isotopes in the sample.

SAMPLE PREPARATION

Rust received nine five-gallon buckets of soil from LANL. The soils were dried overnight in ovens at 103 °C. The large pieces of leaves and sticks were removed and the soils were ground with ceramic-plate grinders to a particle size that passed through a 325 mesh screen. The samples were blended at the proportions specified by LANL for 48 hours in a 3-cubic-foot cross-flow blender. The sample identifications and the amounts used are listed in Table 1.

Table 1. Sample Identifications and Amounts Used to Prepare PEM-1

LANL Sample ID	Amount Used (kg)
AAA 1592	1.7
AAA 2505-1	10.9
AAA 2505-2	12.8
AAA 2750-1	8.4
AAA 2750-2	8.4
AAA 3205	12.6
AAA 8581	4.2
AAB 3417	12.8
AAB 3475	12.6

The blended sample was transferred to three five-gallon plastic containers. While the sample was being transferred, 10 samples were taken at pre-determined time intervals to be used for homogeneity assessment and sample characterization. These samples are believed to be representative of the bulk material.

Attention Nancy Slater At GEL
Not For Log In

9911627-01 -> 0

SF 2001-COC (10-97)
Supersedes (5-97) issue

Internal Lab Batch No.

ANALYSIS REQUEST AND CHAIN OF CUSTODY

SAR/WR No. N/A

Press F1 for instructions for each field.

AR/COC- 602945

Dept. No./Mail Stop: 7132 / 1042
Project/Task Manager: PAM PUISSANT
Project Name:
Record Center Code: N/A
Logbook Ref. No.: N/A
Service Order No.:

Date Samples Shipped: 11-16-99 SMO USE
Carrier/Waybill No.: 726794
Lab Contact: EDIE KENT
Lab Destination: G.E.L.
SMO Contact/Phone: Doug Salmi / 844-3110
Send Report to SMO: Suzi Jensen/844-3184

Contract No.: AJ-2480A
Case No.: 10204 13
SMO Authorization: Doug Salmi
Bill to: Sandia National Laboratories
Supplier Services, Dept.
P.O. Box 5800 MS 0154

Location — Tech Area VI — Building N/A — Room N/A

Reference LOV (available at SMO)

Sample No. - Fraction	ER Sample ID or Sample Location Detail	Beginning Depth in Ft.	ER Site No.	Date/Time Collected	Sample Matrix	Container Type	Container Volume	Preservative	Sample Collection Method	Sample Type	Parameter & Method Requested	LAB USE Lab Sample ID
050484 - 001	PEM-1	N/A	N/A	11/15/9 1100	S	P	1 L	4 C	G	SA	See Special Instructions Below	
050485 - 001	TRM-2	N/A	N/A	11/15/9 1100	S	G	1 L	4 C	G	SA		
050486 - 001	~~NRM-1~~ NBHD	N/A	N/A	11/15/9 1100	S	G	1 L	4 C	G	SA		
-												
-												
-												
-												
-												
-												
-												

RMMA ☐Yes ☒No Ref. No.
Sample Disposal ☐Return to Client ☒Disposal by lab

Sample Tracking SMO USE
Date Entered (mm/dd/yy)
Entered by

Special Instructions/QC Requirements
EDD ☐Yes ☒No
Raw data package ☐Yes ☒No
These "samples" are well characterized and materials being sent to GEL on behalf of Hank Mistaen
Please list as separate report.

Abnormal Conditions on Receipt LAB USE

Turnaround Time ☒Normal ☐Rush Required Report Date
QC Limits

Sample Team Members	Name	Signature	Init	Company/Organization/Phone
	Douglas E. Perry	Douglas E. Perry	DEP	Weston / 7577 / 845-0867

1. Relinquished by	Douglas E. Perry	Org. 7577	Date 11-16-99	Time 0900	4. Relinquished by	Org.	Date
1. Received by		Org.	Date	Time	4. Received by	Org.	Date
2. Relinquished by		Org.	Date	Time	5. Relinquished by	Org.	Date
2. Received by		Org.	Date	Time	5. Received by	Org.	Date
3. Relinquished by		Org.	Date	Time	6. Relinquished by	Org.	Date
3. Received by		Org.	Date	Time	6. Received by	Org.	Date

Original — To Accompany Samples, Laboratory Copy (White)
1st Copy — To Accompany Samples, Return to SMO (Blue)
2nd Copy — SMO Suspense Copy (Yellow)
3rd Copy — Field Copy (Pink)

CERTIFICATE OF CALIBRATION
ALPHA STANDARD SOLUTION

Radionuclide	Am-243	Customer:	GENERAL ENGINEERING LABS
Half Life:	7380 ± 40 years	P.O.No.:	9290-RAD
Catalog No.:	7243	Reference Date:	January 1 1994 12:00 PST.
Source No.:	445-96-2	Contained Radioactivity:	(Am-243) 101.2 μCi
		Contained Radioactivity:	(Am-243) 3750 kBq

Description of Solution

a. Mass of solution: 5.3739 g (in a 5 ml Flame Sealed Ampoule)

b. Chemical form: Am(NO3)3 in 2N HNO3

c. Carrier content: None added

d. Density: 1.0651 g/ml @ 20°C.

Radioimpurities None detected

Radioactive Daughters

Np-239 (beta active) in equilibrium

Radionuclide Concentration

(Am-243) 18.84 μCi/g

Method of Calibration

Weighed aliquots of the solution were assayed using gamma spectrometry for Np-239:

Energy peak(s) intergrated under: 228, 278 keV.

Branching ratio(s) used: 0.108, 0.1420 gamma rays per decay.

Uncertainty of Measurement

a. Systematic uncertainty in instrument calibration: ±3.0%

b. Random uncertainty in assay: ±0.4%

c. Random uncertainty in weighing(s): ±0.0%

d. Total uncertainty at the 99% confidence level: ±3.0%

NIST Traceability

This calibration is implicitly traceable to the National Institute of Standards and Technology.

Leak Test(s)

See reverse side for Leak Test(s) applied to this source.

Notes

1. Nuclear data were taken from "Table of Radioactive Isotopes", edited by Virginia S. Shirley, 1986.
2. IPL participates in an NIST measurement assurance program to establish and maintain implicit traceability for a number of nuclides, based on the blind assay (and later NIST certification) of Standard Reference Materials (As in NRC Regulatory Guide 4.15).

Anna K. Kuen
QUALITY CONTROL

Jan 3, 1994
Date Signed

ISOTOPE PRODUCTS LABORATORIES
1800 North Keystone Street
Burbank, California 91504
(818) 843 - 7000

RC-S-005-32

THE LEAK TEST(S) INDICATED BY THE CHECKED BOX(ES) WAS(WERE) APPLIED TO DETERMINE THE INTEGRITY OF THE SOURCE DESCRIBED ON THE FRONT SIDE

☑ **1. STANDARD WIPE TEST**

The source is wiped over its entire surface with a moistened filter paper disk. After drying, the disk is checked for activity using a windowless proportional counter or end-window G.M. tube. Activity levels exceeding 0.001 μCi beta-gamma or 0.0001 μCi alpha are cause for rejection of the source.

☐ **2. SOAK TEST**

The source is immersed in distilled water and maintained at 50 ± 10° C for a minimum of four hours. After removal of the source, the liquid is a) checked for activity using a liquid scintillation counter, or b) evaporated in a planchet and the residue is checked for activity using a windowless proportional counter or end-window G.M. tube. Activity levels exceeding 0.001 μCi beta-gamma or 0.0001 μCi alpha are cause for rejection of the source.

☐ **3. SOAK TEST -- BERYLLIUM WINDOW**

The source is immersed in distilled water and maintained at 50 ± 10° C for 20 minutes. The entire surface of the source is then wiped with a moistened cotton swab or filter paper disk. After drying, the swab or disk is checked for activity using a windowless proportional counter or end-window G.M. tube. Activity levels exceeding 0.001 μCi beta-gamma or 0.0001 μCi alpha are cause for rejection of the source.

☐ **4. GAS SOURCE TEST (Radioactive Gas)**

The source is placed in a vacuum desiccator and maintained at a pressure of less than 1 mm Hg for not less than 12 hours. The activity is checked by introducing air into the desiccator and monitoring the air with an end-window G.M. tube. Activity levels exceeding 1000 cpm are cause for rejection of the source.

☑ **5. OTHER LEAK TEST**

The ampoule is kept in an inverted position on a filter paper disk for a minimum of 16 hours. The filter paper disk is then checked for activity using a windowless proportional counter or end-window G.M. tube. Activity levels exceeding 0.001 μCi beta-gamma or 0.0001 μCi alpha are cause for rejection of the source.

☐ **6. LEAK TEST NOT APPLICABLE**

The active area of this source is uncovered or is protected by a very thin coating. Although the deposit is adherent, it is not designed or certified to pass a standard leak test. The inactive portions of the source have been checked using the standard wipe test. Levels of removable activity did not exceed 0.001 μCi beta-gamma or 0.0001 μCi alpha at the time of shipment.

Standard Traceability Log Rad

Source Material Info	
Parent Code:	445-96-2
Prepared By:	Genie Bost
Carrier Conc:	2M HNO3
Reference Date:	01/01/1994
Ampoule Mass (g):	5.3739 g
Uncertainty:	+/- 3 %
LogBook No:	RC S 005 032

A Solution Material Info	
Isotope:	Americium-243
Prepared By:	Angela Johnson
Prep Date:	01/05/1994
Verification Date:	05/11/2009
Expiration Date:	05/11/2010
Primary Code:	445-96-2-A
Dilution(mL):	100 mL
Mass of Parent(g):	5.3419 g
Density(g/mL):	1.0785
Balance ID:	38080204

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (uCi/g)) * (conversion dpm to uCi) / (Dilution Vol) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (uCi/g)) * (conversion dpm to uCi) / Density (g/mL)/ (Dilution Vol) = Parent Activity (dpm/g)
(5.3419 g) * (18.84 uCi/g) * (2220000 dpm/uCi) / (100 mL) = 2234238.9912 dpm/mL
(5.3419 g) * (18.84 uCi/g) * (2220000 dpm/uCi) / (1.0785 g/mL) / (100 mL) = 2071617.0528 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date
01/05/1994	Genie Bost	.0058	100	445-96-2-B	120.1 dpm/ml	01/05/1995	01/05/1996
09/10/2004	Amanda Fehr	.0325	1000	445-96-2-BB	67.328 dpm/mL	09/10/2005	09/10/2006
01/05/1994	Genie Bost	.0025	100	445-96-2-C	51.77 dpm/ml	01/05/1995	01/05/1996
05/27/2005	Brenda Burke	.000246	100	445-96-2-CC	5.10613 dpm/mL	05/31/2005	05/31/2006
03/25/1994	Genie Bost	.0064	100	445-96-2-D	132.53 dpm/ml	01/05/1995	01/05/1996
08/16/2005	Brenda Burke	.001224	500	445-96-2-DD	5.07144 dpm/mL	08/18/2007	08/18/2008
08/04/1994	Genie Bost	.0094	100	445-96-2-E	194.65 dpm/ml	01/05/1995	01/05/1996
10/13/2005	Brenda Burke	.0017	500	445-96-2-EE	7.0435 dpm/mL	11/15/2005	11/15/2006
08/04/1994	Genie Bost	.0046	100	445-96-2-F	95.25 dpm/ml	01/05/1995	01/05/1996
10/14/2005	Mary Aders	.0141	500	445-96-2-FF	58.4196 dpm/mL	10/14/2005	10/14/2006
09/01/1994	Genie Bost	.0031	100	445-96-2-G	64.19 dpm/ml	01/05/1995	01/05/1996
05/10/2006	Mary Aders	2.0753	1000	445-96-2-GG	4299.227 dpm/mL	09/30/2008	09/30/2009
10/17/1994	Genie Bost	.0969	100	445-96-2-H	2006.52 dpm/ml	01/05/1995	01/05/1996
06/07/2006	Mary Aders	.0365	1000	445-96-2-HH	75.614 dpm/mL	06/19/2006	06/19/2007
02/06/1995	Genie Bost	.0043	100	445-96-2-I	89.04 dpm/ml	01/05/1995	01/05/1996
05/11/2006	Brenda Burke	.000009739	100	445-96-2-II	.201761 dpm/mL	07/26/2006	07/26/2007
07/20/1995	Theresa Austin	.0041	100	445-96-2-J	84.9 dpm/ml	01/05/1995	01/05/1996
05/01/2007	Daniel Roy	.0352	1000	445-96-2-JJ	72.9209 dpm/ml	04/30/2008	04/30/2009
08/10/1995	Garret Ray	.0952	100	445-96-2-K	1971.32 dpm/ml	01/05/1995	01/05/1996
06/12/2007	Julie Strock	.01038	250	445-96-2-KK	22.1496 dpm/mL	05/28/2008	05/28/2009

09/11/1995	Theresa Austin	1.0525	100	445-96-2-L	21794.23 dpm/ml	01/05/1995	01/05/1996
09/11/1995	Theresa Austin	.5107	100	445-96-2-L-1	111.3 dpm/ml	01/05/1995	01/05/1996
04/28/1998	Richard Kinney	.1264	100	445-96-2-M	2617.4 dpm/ml	04/28/1998	04/28/1999
11/01/2007	Eric Williamson	.001274	500	445-96-2-MM	5.27945 dpm/mL	04/06/2008	04/06/2010
10/12/1998	Gregory Smith	.1348	100	445-96-2-N	2791.32 dpm/mL	01/05/1995	01/05/1996
01/25/1999	Gregory Smith	1.9382	100	445-96-2-N-1	50.16 dpm/ml	01/05/1995	01/05/1996
04/19/2008	Daniel Roy	.0424	1000	445-96-2-NN	87.8366 dpm/ml	04/16/2009	04/16/2010
04/21/1999	Greg Smith	.1645	100	445-96-2-O	3406.32 dpm/mL	04/21/1999	04/21/2000
07/27/1999	Gregory Smith	1.567	100	445-96-2-O-2	50.56 dpm/ml	05/13/1999	05/13/2000
10/12/1999	Richard Kinney	1.5589	100	445-96-2-O-3	50.31 dpm/mL	05/13/1999	05/13/2000
04/21/1999	Greg Smith	1.5309	100	445-96-2-O-1	49.4 dpm/mL	04/21/1999	04/21/2000
11/10/1999	Joe Davis	.1809	100	445-96-2-P	3745.92 dpm/mL	05/13/1999	05/13/2000
01/04/2008	Julie Strock	.00001005	100	445-96-2-PP	.20819 dpm/mL	12/29/2008	12/29/2009
01/28/2000	Angela Johnson	.0354	1000	445-96-2-Q	73.3 dpm/mL	02/08/2001	02/08/2002
09/29/2008	Julie Strock	.0025219	250	445-96-2-QQ	20.8977 dpm/mL	09/30/2008	09/29/2009
04/18/2000	Robert Timm	.429	250	445-96-2-R	3553.34 dpm/mL	04/18/2000	04/18/2001
04/23/2009	Tina Schoneman	.001251	500	445-96-2-RR	4.8075 dpm/mL	04/23/2009	04/23/2010
04/13/2001	Angela Johnson	.1869	100	445-96-2-S	3870.16 dpm/mL	04/13/2001	04/13/2002
05/08/2009	Mary Aders	.0141	1000	445-96-2-SS	29.2098 dpm/ml	05/11/2009	05/11/2010
07/03/2001	Lonnie Morris	2.0057	1000	445-96-2-T-103	4153.225 dpm/mL	07/03/2002	07/03/2003
07/03/2001	Lonnie Morris	2.0057	1000	445-96-2-T-203	4153.225 dpm/mL	07/03/2002	07/03/2003

07/03/2001	Lonnie Morris	2.0057	1000	445-96-2-T-303	4153.225 dpm/mL	07/03/2002	07/03/2003
06/03/2009	Julie Strock	.00000927	100	445-96-2-TT	.1923 dpm/mL	06/05/2009	06/03/2010
08/23/2001	Angela Johnson	.0194	500	445-96-2-U-103	80.34 dpm/mL	08/23/2001	08/23/2002
08/23/2001	Angela Johnson	.0194	500	445-96-2-U-203	80.34 dpm/mL	08/23/2001	08/23/2002
08/23/2001	Angela Johnson	.0194	500	445-96-2-U-303	80.34 dpm/ml	08/23/2001	08/23/2002
06/02/2009	Mary Aders	2.1177	1000	445-96-2-UU	4385.1449 dpm/ml	06/04/2009	06/04/2010
08/27/2001	Angela Johnson	.0394	1000	445-96-2-V-103	81.586 dpm/mL	08/27/2002	08/27/2003
08/27/2001	Angela Johnson	.0394	1000	445-96-2-V-203	81.586 dpm/mL	08/27/2002	08/27/2003
08/27/2001	Angela Johnson	.0394	1000	445-96-2-V-303	81.586 dpm/mL	08/27/2002	08/27/2003
03/17/2003	Angela Johnson	2.1108	1000	445-96-2-W	4370.857 dpm/mL	03/14/2006	03/14/2007
04/14/2003	Lonnie Morris	.0315	1000	445-96-2-X	65.2559 dpm/mL	04/14/2004	04/14/2005
05/03/2003	Tim Chandler	.0103	1000	445-96-2-Y	21.3376 dpm/mL	05/05/2003	05/05/2004
05/05/2003	Eric Williamson	.011	1000	445-96-2-Z	22.7877 dpm/mL	04/03/2007	04/03/2008

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for Am-243 Standard *445-96-2-SS*

M. Aders	Isotope	Value	Uncertainty
5/15/2009	445-96-2-SS #1	1.360	0.1690
	445-96-2-SS #2	1.370	0.1690
	445-96-2-SS #3	1.290	0.1590

Mean Value (Counting) =	1.340	101.99	**Pass**
Stdev =	0.043588989		**Rule 3 (Pass/Fail)**

Target =	1.314
Lower Limit =	1.252822021
Upper Limit =	1.427177979
Rule 1 Pass/Fail	**Pass**
Two sigma =	0.087177979
10 % of Mean =	0.134
Rule 2 (Pass/Fail)	**Pass**

The analyst prepared three standard verification sources for standard ***445-96-2-SS*** using 0.1 mL for each source. Each standard was combined with 0.1 mL of ***Cm-244*** standard ***0533-O*** and 50 micrograms of neodymium carrier in a disposable centrifuge tube. Each standard was diluted with 4 mL of 2 M HCl and 6 mL of DI Water. Two mL of 48% HF was added to precipitate Nd(and Americium) fluoride. After 30 minutes, each sample was filtered following routine procedures for alpha spectroscopy source preparation. Each source was counted using routine alpha spec procedures. DPM values for Am-243 were calculated by comparison to Am-241certified values.

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 5% of the certificate value.

Mary Fridean 5/15/09
Rob Abrin 007509

1374

National Institute of Standards & Technology
Certificate

Standard Reference Material 4334H
Plutonium-242 Radioactivity Standard

This Standard Reference Material (SRM) consists of radioactive plutonium-242 nitrate and nitric acid dissolved in 5 mL of distilled water. The solution is contained in a flame-sealed NIST borosilicate-glass ampoule. The SRM is intended for the calibration of alpha-particle counting instruments and for the monitoring of radiochemical procedures.

Radiological Hazard: The SRM ampoule contains plutonium-242 with a total activity of approximately 150 Bq. Plutonium-242 decays by alpha-particle emission. None of the alpha particles escape from the SRM ampoule. During the decay process, X-rays and gamma rays with energies from 10 keV to 160 keV are also emitted. Most of these photons escape from the SRM ampoule but their intensities are so small that they do not represent a radiation hazard. Approximate unshielded dose rates at several distances (as of the reference time) are given in note [a]*. The SRM should be used only by persons qualified to handle radioactive material.

Chemical Hazard: The SRM ampoule contains nitric acid (HNO_3) with a concentration of 3 moles per liter of water. The solution is corrosive and represents a health hazard if it comes in contact with eyes or skin. If the ampoule is to be opened to transfer the solution, the recommended procedure is given on page 2. The ampoule should be opened only by persons qualified to handle both radioactive material and strong acid solution.

Storage and Handling: The SRM should be stored and used at a temperature between 5 °C and 65 °C. The solution in an unopened ampoule should remain stable and homogeneous until at least January 2015. The ampoule (or any subsequent container) should always be clearly marked as containing radioactive material. If the ampoule is transported it should be packed, marked, labeled, and shipped in accordance with the applicable national, international, and carrier regulations. The solution in the ampoule is a dangerous good (hazardous material) both because of the radioactivity and because of the strong acid.

Preparation: This Standard Reference Material was prepared in the Physics Laboratory, Ionizing Radiation Division, Radioactivity Group, M.P. Unterweger, Acting Group Leader. The overall technical direction and physical measurements leading to certification were provided by L.L. Lucas of the Radioactivity Group. The support aspects involved in the preparation, certification, and issuance of this SRM were coordinated through the Standard Reference Materials Program.

RECEIVED 2/2/04

Lisa R. Karam, Acting Chief
Ionizing Radiation Division

Gaithersburg, Maryland 20899
January 2005

Robert L. Watters, Jr., Chief
Measurement Services Division

*Notes and references are on pages 5 to 7.

DC-5-051-013

Recommended Procedure for Opening the SRM Ampoule

1) If the SRM solution is to be diluted, it is recommended that the diluting solution have a composition comparable to that of the SRM solution.

2) Wear eye protection, gloves, and protective clothing and work over a tray with absorbent paper in it. Work in a fume hood. In addition to the radioactive material, the solution contains strong acid and is corrosive.

3) Shake the ampoule to wet all of the inside surface of the ampoule. Return the ampoule to the upright position.

4) Check that all of the liquid has drained out of the neck of the ampoule. If necessary, gently tap the neck to speed the process.

5) Holding the ampoule upright, score the narrowest part of the neck with a scribe or diamond pencil.

6) Lightly wet the scored line. This reduces the crack propagation velocity and makes for a cleaner break.

7) Hold the ampoule upright with a paper towel, a wiper, or a support jig. Position the scored line away from you. Using a paper towel or wiper to avoid contamination, snap off the top of the ampoule by pressing the narrowest part of the neck away from you while pulling the tip of the ampoule towards you.

8) Transfer the solution from the ampoule using a pycnometer or a pipet with dispenser handle. NEVER PIPETTE BY MOUTH.

9) Seal any unused SRM solution in a flame-sealed glass ampoule, if possible, to minimize the evaporation loss.

See also reference [4]*.

*Notes and references are on pages 5 to 7.

PROPERTIES OF SRM 4334H

Certified values

Radionuclide	**Plutonium-242**
Reference time	**1200 EST, 07 June 1994 [b]***
Massic activity of the solution [c]	**26.31 Bq·g^{-1}**
Relative expanded uncertainty (k=2)	**0.72%** [d] [e]
Solution density	**(1.105 ± 0.002) g·mL^{-1} at 20 °C** [f]

Uncertified values

Physical Properties:			
Source description	Liquid in flame-sealed NIST borosilicate-glass ampoule		
Ampoule specifications	Body outside diameter Wall thickness Barium content Lead-oxide content Other heavy elements	(16.5 ± 0.5) mm (0.60 ± 0.04) mm Less than 2.5% Less than 0.02% Trace quantities	
Solution mass	Approximately 5.5 g		
Chemical Properties:			
Solution composition	Chemical Formula	Concentration (mol·L^{-1})	Mass Fraction (g·g^{-1})
	H_2O HNO_3 $^{242}Pu^{+6}$	50 3.2 8×10^{-7}	0.81 0.19 2×10^{-7}
Radiological Properties:			
Alpha-particle-emitting impurities	None detected [g] [h]. See table on page 5.		
Beta-particle-emitting impurities	Plutonium-241: (0.092 ± 0.018) Bq·g^{-1} [f] [h]		
Photon-emitting impurities	None detected [i]		
Half lives used	Plutonium-242: (373 500 ± 1100) a [j] [5] Plutonium-241: (14.35 ± 0.10) a [j] [5] Americium-241: (432.2 ± 0.7) a [j] [5]		
Calibration method and measuring instrument(s)	Three 4πα liquid-scintillation counters, a calibrated germanium detector system, and a silicon surface-barrier detector		

*Notes and references are on pages 5 to 7.

EVALUATION OF THE UNCERTAINTY OF THE MASSIC ACTIVITY [d] [e]*

Input Quantity x_i, the source of uncertainty (and individual uncertainty components where appropriate)	Method Used To Evaluate $u(x_i)$, the standard uncertainty of x_i (A) denotes evaluation by statistical methods (B) denotes evaluation by other methods	Relative Uncertainty Of Input Quantity, $u(x_i)/x_i$, (%) [k]	Relative Sensitivity Factor, $\lvert\partial y/\partial x_i\rvert \cdot (x_i/y)$ [m]	Relative Uncertainty Of Output Quantity, $u_i(y)/y$, (%) [n]
Massic alpha-particle emission rate, corrected for background and decay	Standard deviation of the mean for 80 sets of $4\pi\alpha$ liquid-scintillation measurements (A)	0.05	1.0	0.05
Half life of Pu-242	Standard uncertainty of the half life (A)	0.32 [p]	0.00001 [q]	0.000003
Decay-scheme data	Standard uncertainty of the probability of decay by alpha-particle emission (A)	0.001	1.0	0.001
Extrapolation of alpha-particle-count-rate-versus-energy to zero energy	Estimated (B)	0.25	1.0	0.25
Gravimetric measurements	Estimated (B)	0.10	1.0	0.10
Live time [r]	Estimated (B)	0.10	1.0	0.10
Alpha-particle detection efficiency of scintillators	Estimated (B)	0.15	1.0	0.15
Alpha-particle-emitting impurities	Limit of detection (B) [s]	100.	0.001	0.10
Photon-emitting impurities	Limit of detection (B) [s]	100.	0.001	0.10
Relative Combined Standard Uncertainty of the Output Quantity, $u_c(y)/y$, (%)				0.36
Coverage Factor, k				x 2
Relative Expanded Uncertainty of the Output Quantity, U/y, (%)				0.72

*Notes and references are on pages 5 to 7.

RELATIVE ACTIVITIES OF RADIONUCLIDIC IMPURITIES AT THE REFERENCE TIME [b]

Radionuclide	Half Life (years) [j] [5]	Relative Activity As Determined By	
		LLNL	NIST
Plutonium-242	373 500 ± 1100	1.000 000	1.000 000
Plutonium-241	14.35 ± 0.10	- -	0.0035 ± 0.0004 [t]
Plutonium-240	6 564 ± 11	^{239}Pu + ^{240}Pu <0.000 001 [u]	^{239}Pu + ^{240}Pu 0.000 020 ± 0.000 021 [v]
Plutonium-239	24 110 ± 30		
Plutonium-238	87.7 ± 0.1	^{238}Pu + ^{241}Am <0.000 016 [u]	0.000 009 ± 0.000 016 [v]
Americium-241	432.2 ± 0.7		0.000 000 assumed [t]

NOTES

[a] The Sievert is the SI unit for dose equivalent. See reference [1]. One µSv is equal to 0.1 mrem.

Distance from Ampoule (cm):	1	30	100
Approximate Dose Rate (µSv/h):	<0.1	-	-

[b] The plutonium-242 master solution was chemically purified at 1200 EST, 07 June 1994.

[c] **Massic activity** is the preferred name for the quantity activity divided by the total mass of the sample. See reference [1].

[d] The reported value, y, of massic activity (activity per unit mass) at the reference time was not measured directly but was derived from measurements and calculations of other quantities. This can be expressed as $y = f(x_1, x_2, x_3, \ldots x_n)$, where f is a mathematical function derived from the assumed model of the measurement process. The value, x_i, used for each input quantity i has a **standard uncertainty**, $u(x_i)$, that generates a corresponding uncertainty in y, $u_i(y) \equiv |\partial y/\partial x_i| \cdot u(x_i)$, called a **component of combined standard uncertainty** of y. The **combined standard uncertainty** of y, $u_c(y)$, is the positive square root of the sum of the squares of the components of combined standard uncertainty. The combined standard uncertainty is multiplied by a **coverage factor** of $k = 2$ to obtain U, the **expanded uncertainty** of y.

Since it can be assumed that the possible estimated values of the massic activity are approximately normally distributed with approximate standard deviation $u_c(y)$, the unknown value of the massic activity is believed to lie in the interval $y \pm U$ with a level of confidence of approximately 95 percent.

For further information on the expression of uncertainties, see references [2] and [3].

[e] The value of each component of combined standard uncertainty, and hence the value of the expanded uncertainty itself, is a best estimate based upon all available information, but is only approximately known. That is to say, the "uncertainty of the uncertainty" is large and not well known. This is true for uncertainties evaluated by statistical methods (e.g., the relative standard deviation of the standard deviation of the mean for the massic response is approximately 50%) and for uncertainties evaluated by other methods (which could easily be over estimated or under estimated by substantial amounts). The unknown value of the expanded uncertainty is believed to lie in the interval $U/2$ to $2U$ (i.e., within a factor of 2 of the estimated value).

[f] The stated uncertainty is two times the standard uncertainty.

[g] Estimated limits of detection for alpha-particle-emitting impurities, expressed as massic alpha-particle emission rates (numbers of alpha particles per second per gram), are:
0.003 $s^{-1} \cdot g^{-1}$ for energies less than 3.1 MeV,
0.03 $s^{-1} \cdot g^{-1}$ for energies between 3.1 and 4.4 MeV, and
0.003 $s^{-1} \cdot g^{-1}$ for energies greater than 5.0 MeV.

[h] The plutonium-242 master solution was chemically purified at 1200 EST, 07 June 1994. Americium-241, the daughter of plutonium-241, was removed but has been growing in since that time.

[i] Estimated limits of detection for photon-emitting impurities, expressed as massic photon emission rates (numbers of photons per second per gram), are:
5×10^{-5} $s^{-1} \cdot g^{-1}$ for energies between 19 and 39 keV,
7×10^{-5} $s^{-1} \cdot g^{-1}$ for energies between 49 and 92 keV,
2×10^{-5} $s^{-1} \cdot g^{-1}$ for energies between 106 and 507 keV,
1×10^{-5} $s^{-1} \cdot g^{-1}$ for energies between 515 and 1456 keV, and
5×10^{-6} $s^{-1} \cdot g^{-1}$ for energies between 1465 and 2750 keV,
provided that the photons are separated in energy by 4 keV or more from photons emitted in the decay of plutonium-242, plutonium-241, or americium-241.

[j] The stated uncertainty is the standard uncertainty.

[k] Relative standard uncertainty of the input quantity x_i.

[m] The relative change in the output quantity y divided by the relative change in the input quantity x_i. If $|\partial y/\partial x_i| \cdot (x_i/y) = 1.0$, then a 1% change in x_i results in a 1% change in y. If $|\partial y/\partial x_i| \cdot (x_i/y) = 0.05$, then a 1% change in x_i results in a 0.05% change in y.

[n] Relative component of combined standard uncertainty of output quantity y, rounded to two significant figures or less. The relative component of combined standard uncertainty of y is given by $u_i(y)/y \equiv |\partial y/\partial x_i| \cdot u(x_i)/y = |\partial y/\partial x_i| \cdot (x_i/y) \cdot u(x_i)/x_i$. The numerical values of $u(x_i)/x_i$, $|\partial y/\partial x_i| \cdot (x_i/y)$, and $u_i(y)/y$, all dimensionless quantities, are listed in columns 3, 4, and 5, respectively. Thus, the value in column 5 is equal to the value in column 4 multiplied by the value in column 3. The input quantities are independent, or very nearly so. Hence the covariances are zero or negligible.

[p] The relative standard uncertainty of $\lambda \cdot t$ is determined by the relative standard uncertainty of λ (i.e., of the half life). The relative standard uncertainty of t is negligible.

[q] $|\partial y/\partial x_i| \cdot (x_i/y) = |\lambda \cdot t|$

[r] The live time is determined by counting the pulses from a gated crystal-controlled oscillator.

[s] The standard uncertainty for each undetected impurity that might reasonably be expected to be present is estimated to be equal to the estimated limit of detection for that impurity, i.e. $u(x_i)/x_i$ = 100%. $|\partial y/\partial x_i| \cdot (x_i/y)$ = {(response per Bq of impurity)/(response per Bq of Pu-242)}•{(Bq of impurity)/(Bq of Pu-242)}. Thus $u_i(y)/y$ is the relative change in y if the impurity were present with a massic activity equal to the estimated limit of detection.

[t] The stated uncertainty is the standard uncertainty. The plutonium-241 activity was calculated from a gamma-ray measurement of the americium-241 ingrowth as of 25 November 1998, assuming that americium-241 was completely removed at the time of chemical purification.

[u] Using alpha-particle spectrometry, no alpha-particle emission was detected that could reliably be ascribed to these radionuclides. The value shown is an estimated upper limit based upon background and counting statistics. Measurements were made at the Lawrence Livermore National Laboratory (LLNL) in July of 1994.

[v] Using alpha-particle spectrometry, no alpha-particle emission was detected that could reliably be ascribed to these radionuclides. The stated uncertainty is the standard uncertainty. Measurements were made at the National Institute of Standards and Technology (NIST) in June and July of 1999.

REFERENCES

[1] International Organization for Standardization (ISO), *ISO Standards Handbook - Quantities and Units*, 1993. Available from Global Engineering Documents, 12 Inverness Way East, Englewood, CO 80112, U.S.A. Telephone 1-800-854-7179.

[2] International Organization for Standardization (ISO), *Guide to the Expression of Uncertainty in Measurement*, 1993 (corrected and reprinted, 1995). Available from Global Engineering Documents, 12 Inverness Way East, Englewood, CO 80112, U.S.A. Telephone 1-800-854-7179.

[3] B.N. Taylor and C.E. Kuyatt, *Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Results*, NIST Technical Note 1297, 1994. Available from the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20407, U.S.A.

[4] National Council on Radiation Protection and Measurements Report No. 58, *A Handbook of Radioactivity Measurements Procedures*, Second Edition, 1985. Available from the National Council on Radiation Protection and Measurements, 7910 Woodmont Avenue, Bethesda, MD 20814 U.S.A.

[5] Evaluated Nuclear Structure Data File (ENSDF), January 2005.

Standard Traceability Log Rad

Source Material Info	
Parent Code:	1374
Prepared By:	Mary Aders
Carrier Conc:	0.5M HNO3
Reference Date:	06/07/1994
Ampoule Mass (g):	5.5 g
Uncertainty:	+/- .72 %
LogBook No:	RC-S-051-093

A Solution Material Info	
Isotope:	Plutonium-242
Prepared By:	Ashley Drochter
Prep Date:	12/02/2009
Verification Date:	12/08/2009
Expiration Date:	12/08/2010
Primary Code:	1374-A
Dilution(mL):	250 mL
Mass of Parent(g):	5.3616 g
Density(g/mL):	1.0136
Balance ID:	38080204

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (Bq/g)) * (conversion dpm to Bq) / (Dilution Vol) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (Bq/g)) * (conversion dpm to Bq) / Density (g/mL)/ (Dilution Vol) = Parent Activity (dpm/g)
(5.3616 g) * (26.31 Bq/g) * (60 dpm/Bq) / (250 mL) = 33.8553 dpm/mL
(5.3616 g) * (26.31 Bq/g) * (60 dpm/Bq) / (1.0136 g/mL) / (250 mL) = 33.4010 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for Pu-242 Standard 1374-*A*

A.Drochter	Isotope	Value	Uncertainty
12/8/2009	1374-A	1.610	0.2480
	1374-A	1.580	0.2510
	1374-A	1.530	0.2440

Mean Value (Counting) =	1.573	103.17	**Pass**
Stdev =	0.040414519		**Rule 3 (Pass/Fail)**

Target =	1.52
Lower Limit =	1.492504296
Upper Limit =	1.654162371
Rule 1 Pass/Fail	**Pass**
Two sigma =	0.080829038
10 % of Mean =	0.157333333
Rule 2 (Pass/Fail)	**Pass**

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 5% of the certificate value.

The analyst prepared three standard verification sources for standard 1374-A using 0.1 mL for each source. Each standard was combined with 0.1 mL of Pu239 standard 0338-BB and 50 micrograms of neodymium carrier in a disposable centrifuge tube containing 4 mL of 2 M HCl and 6 mL of DI water. Four drops of 25% Hydrazine dihydrochloride were added to each centrifuge tube and swirled. Two mL of 49% HF was added to precipitate neodymium(and plutonium) fluoride. After 30 minutes, each sample was filtered following routine procedures for alpha spectroscopy source preparation. Each source was counted using routine alpha spec procedures. DPM values for Pu-242 were calculated by comparison to Pu-239 certified values.

12/9/09

Eckert & Ziegler
Analytics

1380 Seaboard Industrial Blvd.
Atlanta, Georgia 30318
Tel 404-352-8677
Fax 404-352-2837
www.analyticsinc.com

CERTIFICATE OF CALIBRATION

Standard Radionuclide Source

1283

78747-278

U-232 5 mL Liquid in Flame Sealed Vial

Customer: GEL Laboratories, LLC
P.O. No.: 7319 RD, Item 1

This standard radionuclide source was prepared gravimetrically from a calibrated master solution. The master solution was calibrated using a germanium gamma spectrometer system.

Radionuclide purity and calibration were checked using a germanium gamma spectrometer system. The nuclear decay rate and assay date for this source are given below.

ANALYTICS maintains traceability to the National Institute of Standards and Technology through Measurements Assurance Programs as described in USNRC Reg. Guide 4.15, Revision 1.

Isotope:	U-232
Activity (Bq):	3.754 E3
Half-Life:	68.9 years
Calibration Date:	December 9, 2008 12:00 EST
Relative Expanded Uncertainty (k=2):	5.0%

Comments:
Impurities: U-233 <0.3%, Am-241 <0.15%
5.20453 grams 1M HNO_3 solution.

Source Prepared By: W. Mao
W. Mao, Radiochemist

QA Approved: D M Mont
D. M. Montgomery, QA Manager

Date: 12-11-08

End of Certificate

RECEIVED 12/15/08
RC-S'-OE

Standard Traceability Log Rad

Source Material Info	
Parent Code:	1283
Prepared By:	Daniel Roy
Carrier Conc:	1M HNO3
Reference Date:	12/09/2008
Ampoule Mass (g):	5.20453 g
Uncertainty:	+/- 5 %
LogBook No:	RC-S-051-002

A Solution Material Info	
Isotope:	Uranium-232
Prepared By:	Daniel Roy
Prep Date:	12/16/2008
Verification Date:	12/30/2008
Expiration Date:	12/30/2009
Primary Code:	1283-A
Dilution(mL):	100 mL
Mass of Parent(g):	5.0245 g
Density(g/mL):	1.0285
Balance ID:	

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (Bq)) * (conversion dpm to Bq) / (Ampoule Mass(g) *(Dilution Vol)) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (Bq)) * (conversion dpm to Bq) / Density / (Ampoule Mass (g) * (Dilution Vol)) = Parent Activity (dpm/g)
(5.0245 g) * (3754 Bq) * (60 dpm/Bq) / (5.20453 g * 100 mL) = 2174.4872 dpm/mL
(5.0245 g) * (3754 Bq) * (60 dpm/Bq) / (1.0285 g/mL)/ (5.20453 g * 100 mL) = 2114.1700 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date
12/16/2008	Daniel Roy	25.1813	1000	1283-B	53.2375 dpm/ml	12/16/2008	12/16/2009
12/30/2008	Tina Schoneman	2.05	250	1283-C	17.336 dpm/mL	12/30/2008	12/30/2009
12/30/2008	Tina Schoneman	.49	250	1283-D	4.1438 dpm/mL	01/09/2009	01/09/2010
01/14/2009	Mary Aders	25.0528	1000	1283-E	52.9659 dpm/ml	01/15/2009	01/15/2010
12/02/2009	Julie Strock	2.076	250	1283-F	17.5561 dpm/mL	01/09/2009	12/30/2009
12/02/2009	Julie Strock	.517	250	1283-G	4.3721 dpm/mL	01/09/2009	12/30/2009
12/09/2009	Ashley Drochter	21.56	1000	1283-H	45.58 dpm/mL	12/09/2009	12/09/2010

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for Uranium-232 Standard *1283-H*

	Serial #	Value		Uncertainty	
Analyst: A. Drochter					
Date: 12/10/09	1283-H N1	2.020	pCi/L	0.238	pCi/L
	1283-H N2	2.000	pCi/L	0.234	pCi/L
	1283-H N3	2.060	pCi/L	0.242	pCi/L
Mean Value (Counting) =	2.027	pCi/L		**99.66904**	**Pass**
Stdev =	0.030550505	pCi/L			**Rule 3 (Pass/Fail)**
Target =	2.033	pCi/L			
Lower Limit =	1.965565657	pCi/L			
Upper Limit =	2.087767676	pCi/L			
Rule 1 Pass/Fail	**Pass**				
Two sigma =	0.061101009				
10 % of Mean =	0.202666667				
Rule 2 (Pass/Fail)	**Pass**				

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 10% of the certificate value.

The analyst prepared three standard verification sources for standard **1283-H** using 0.1 mL for each source. Each standard was combined with 0.1 mL of **U-238** standard **1163-G** and was diluted to 10 mL with DI water. 50 micrograms of neodymium carrier and 1ml of Titanium Chloride were added. The solution was allowed to sit for 30 seconds. One mL of 49% HF was then added to precipitate neodymium (and uranium) fluoride. After 30 minutes, each sample was filtered following routine procedures for alpha spectroscopy source preparation. Each source was counted using routine alpha spec procedures. DPM values for U-238 were calculated by comparison to U-232 certified values.

A Drochter AMD 12/14/09

RUNLOGS

Instrument Run Log

Instrument Type: LSC **Batch ID: 936900**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
1202004656	LCS	KXK2	LSCRED	05-JAN-10 08:04	DONE	10mL DW/13mL Ecoscint Ultra	21-AUG-09 00:00
243393002	SAMPLE	KXK2	LSCRED	05-JAN-10 09:31	DONE	10mL DW/13mL Ecoscint Ultra	21-AUG-09 00:00
243472001	SAMPLE	KXK2	LSCRED	05-JAN-10 10:23	DONE	10mL DW/13mL Ecoscint Ultra	21-AUG-09 00:00
243472002	SAMPLE	KXK2	LSCRED	05-JAN-10 11:16	DONE	10mL DW/13mL Ecoscint Ultra	21-AUG-09 00:00
243547002	SAMPLE	KXK2	LSCRED	06-JAN-10 06:52	DONE	10mL DW/13mL Ecoscint Ultra	21-AUG-09 00:00
243547003	SAMPLE	KXK2	LSCRED	06-JAN-10 07:44	DONE	10mL DW/13mL Ecoscint Ultra	21-AUG-09 00:00
243549002	SAMPLE	KXK2	LSCRED	06-JAN-10 08:36	DONE	10mL DW/13mL Ecoscint Ultra	21-AUG-09 00:00
243555001	SAMPLE	KXK2	LSCRED	06-JAN-10 09:28	DONE	10mL DW/13mL Ecoscint Ultra	21-AUG-09 00:00
243555002	SAMPLE	KXK2	LSCRED	06-JAN-10 10:21	DONE	10mL DW/13mL Ecoscint Ultra	21-AUG-09 00:00
1202004654	MB	KXK2	LSCRED	06-JAN-10 11:13	DONE	10mL DW/13mL Ecoscint Ultra	21-AUG-09 00:00
1202004655	DUP	KXK2	LSCRED	06-JAN-10 12:05	DONE	10mL DW/13mL Ecoscint Ultra	21-AUG-09 00:00
243472003	SAMPLE	KXK2	LSCBROWN	07-JAN-10 02:40	DONE	10mL DW/13mL Ecoscint Ultra	09-SEP-09 00:00

Instrument Run Log

Instrument Type: ALPHA SPECTROMETER **Batch ID: 936962**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
243397001	SAMPLE	MXE1	1018	06-JAN-10 18:09	DONE		
243397002	SAMPLE	MXE1	1223	06-JAN-10 18:20	DONE		
243397003	SAMPLE	MXE1	1224	06-JAN-10 18:20	DONE		
243397004	SAMPLE	MXE1	1225	06-JAN-10 18:20	DONE		
243397005	SAMPLE	MXE1	1226	06-JAN-10 18:20	DONE		
243457001	SAMPLE	MXE1	1227	06-JAN-10 18:20	DONE		
243457002	SAMPLE	MXE1	1228	06-JAN-10 18:20	DONE		
243457003	SAMPLE	MXE1	1229	06-JAN-10 18:20	DONE		
243457004	SAMPLE	MXE1	1230	06-JAN-10 18:20	DONE		
243472001	SAMPLE	MXE1	1231	06-JAN-10 18:20	DONE		
243472002	SAMPLE	MXE1	1232	06-JAN-10 18:20	DONE		
243472003	SAMPLE	MXE1	1233	06-JAN-10 18:20	DONE		
243509001	SAMPLE	MXE1	1234	06-JAN-10 18:20	DONE		
243509002	SAMPLE	MXE1	1235	06-JAN-10 18:20	DONE		
243509003	SAMPLE	MXE1	1236	06-JAN-10 18:20	DONE		
243555001	SAMPLE	MXE1	1237	06-JAN-10 18:20	DONE		
243555002	SAMPLE	MXE1	1238	06-JAN-10 18:21	DONE		
243611001	SAMPLE	MXE1	1239	06-JAN-10 18:21	DONE		
243611002	SAMPLE	MXE1	1240	06-JAN-10 18:21	DONE		
243611003	SAMPLE	MXE1	1241	06-JAN-10 18:21	DONE		
1202004879	MB	MXE1	1242	06-JAN-10 18:21	DONE		
1202004880	DUP	MXE1	1243	06-JAN-10 18:21	DONE		
1202004881	LCS	MXE1	1244	06-JAN-10 18:21	DONE		

Instrument Run Log

Instrument Type: ALPHA SPECTROMETER **Batch ID:936975**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
1202004923	LCS	MXE1	1167	06-JAN-10 10:35	DONE		
243611001	SAMPLE	MXE1	1168	06-JAN-10 10:35	DONE		
243611002	SAMPLE	MXE1	1169	06-JAN-10 10:35	DONE		
243611003	SAMPLE	MXE1	1170	06-JAN-10 10:35	DONE		
1202004921	MB	MXE1	1171	06-JAN-10 10:36	DONE		
1202004922	DUP	MXE1	1172	06-JAN-10 10:36	DONE		
243397001	SAMPLE	MXE1	1114	06-JAN-10 13:51	DONE		
243397002	SAMPLE	MXE1	1115	06-JAN-10 13:51	DONE		
243397003	SAMPLE	MXE1	1117	06-JAN-10 13:51	DONE		
243397004	SAMPLE	MXE1	1118	06-JAN-10 13:51	DONE		
243397005	SAMPLE	MXE1	1121	06-JAN-10 13:51	DONE		
243457001	SAMPLE	MXE1	1122	06-JAN-10 13:51	DONE		
243457002	SAMPLE	MXE1	1123	06-JAN-10 13:51	DONE		
243457003	SAMPLE	MXE1	1124	06-JAN-10 13:51	DONE		
243457004	SAMPLE	MXE1	1128	06-JAN-10 13:51	DONE		
243472001	SAMPLE	MXE1	1129	06-JAN-10 13:52	DONE		
243472002	SAMPLE	MXE1	1130	06-JAN-10 13:52	DONE		
243472003	SAMPLE	MXE1	1132	06-JAN-10 13:52	DONE		
243509001	SAMPLE	MXE1	1133	06-JAN-10 13:52	DONE		
243509002	SAMPLE	MXE1	1134	06-JAN-10 13:52	DONE		
243509003	SAMPLE	MXE1	1152	06-JAN-10 13:52	DONE		
243555001	SAMPLE	MXE1	1153	06-JAN-10 13:52	DUSE		
243555002	SAMPLE	MXE1	1154	06-JAN-10 13:52	DUSE		

Instrument Run Log

Instrument Type: ALPHA SPECTROMETER **Batch ID: 939255**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
243555002	SAMPLE	MXE1	1241	09-JAN-10 10:06	DUSE		
243611001	SAMPLE	MXE1	1242	09-JAN-10 10:06	DONE		
243611002	SAMPLE	MXE1	1243	09-JAN-10 10:06	DONE		
243611003	SAMPLE	MXE1	1244	09-JAN-10 10:06	DONE		
243397001	SAMPLE	MXE1	1001	09-JAN-10 12:01	DONE		
243397002	SAMPLE	MXE1	1002	09-JAN-10 12:01	DONE		
243397003	SAMPLE	MXE1	1003	09-JAN-10 12:01	DONE		
243397004	SAMPLE	MXE1	1004	09-JAN-10 12:01	DUSE		
243397005	SAMPLE	MXE1	1005	09-JAN-10 12:01	DONE		
243457001	SAMPLE	MXE1	1006	09-JAN-10 12:01	DONE		
243457002	SAMPLE	MXE1	1007	09-JAN-10 12:01	DONE		
243457003	SAMPLE	MXE1	1008	09-JAN-10 12:01	DUSE		
243457004	SAMPLE	MXE1	1009	09-JAN-10 12:01	DONE		
243472001	SAMPLE	MXE1	1010	09-JAN-10 12:01	DONE		
243472002	SAMPLE	MXE1	1011	09-JAN-10 12:01	DONE		
243472003	SAMPLE	MXE1	1012	09-JAN-10 12:01	DONE		
243509001	SAMPLE	MXE1	1013	09-JAN-10 12:01	DONE		
243509002	SAMPLE	MXE1	1014	09-JAN-10 12:01	DONE		
243509003	SAMPLE	MXE1	1016	09-JAN-10 12:01	DONE		
243555001	SAMPLE	MXE1	1017	09-JAN-10 12:01	DUSE		
1202009994	MB	MXE1	1018	09-JAN-10 12:01	DONE		
1202009995	DUP	MXE1	1019	09-JAN-10 12:01	DONE		
1202009996	LCS	MXE1	1020	09-JAN-10 12:01	DONE		
243397004	SAMPLE	MXE1	1209	11-JAN-10 11:55	DONE		
243457003	SAMPLE	MXE1	1210	11-JAN-10 11:55	DUSE		
243555001	SAMPLE	MXE1	1211	11-JAN-10 11:56	DUSE		
243555002	SAMPLE	MXE1	1212	11-JAN-10 11:56	DUSE		

Tuesday, May 3, 2005

REQUEST NUMBER: 3194S

Los Alamos
NATIONAL LABORATORY

ANALYSIS TYPE: ORGANIC

ATTN: Stacy Griffin
General Engineering Laboratories, Inc., Historical
2040 Savage Road
Charleston, SC 29407

Please analyze the enclosed samples according to the schedule indicated:

SHIP DATE: 05/03/2005
REPORT DUE: 05/13/2005
TURN AROUND REQ'D: 10

RAD SCREENING: NOT REQ
COMMENTS:

These samples are on:

LANL Request Number: 3194S
Per Agreement Number: 126310011
Project Cost Code: MR0R00FC6800

LANL ER SMO CONTACT:
Signature:

METHOD CODE	SAMPLE ID	CONT ID	SAMPLE MATRIX	DATE SAMPLED	COMMENTS
SW-846:8015M_EXTRACTABLE	RE03-05-59531	3	S	05/02/2005	
SW-846:8082	RE03-05-59531	3	S	05/02/2005	
SW-846:8270C	RE03-05-59531	3	S	05/02/2005	
SW-846:8015M_PURGEABLE	RE03-05-59531	4	S	05/02/2005	
SW-846:8260B	RE03-05-59532	1	S	05/03/2005	
SW-846:8260B	RE03-05-59532	2	S	05/03/2005	
SW-846:8015M_EXTRACTABLE	RE03-05-59532	3	S	05/03/2005	
SW-846:8082	RE03-05-59532	3	S	05/03/2005	
SW-846:8270C	RE03-05-59532	3	S	05/03/2005	
SW-846:8015M_PURGEABLE	RE03-05-59532	4	S	05/03/2005	
SW-846:8015M_EXTRACTABLE	RE03-05-59541	3	S	05/03/2005	
SW-846:8082	RE03-05-59541	3	S	05/03/2005	
SW-846:8270C	RE03-05-59541	3	S	05/03/2005	
SW-846:8015M_PURGEABLE	RE03-05-59541	4	S	05/03/2005	
SW-846:8260B	RE03-05-59542	1	S	05/03/2005	
SW-846:8260B	RE03-05-59542	2	S	05/03/2005	
SW-846:8015M_EXTRACTABLE	RE03-05-59542	3	S	05/03/2005	
SW-846:8082	RE03-05-59542	3	S	05/03/2005	
SW-846:8270C	RE03-05-59542	3	S	05/03/2005	
SW-846:8015M_PURGEABLE	RE03-05-59542	4	S	05/03/2005	
SW-846:8260B	RE03-05-59546	1	S	05/03/2005	

Final Page of REQUEST NUMBER 3194S

Tuesday, May 3, 2005

CHAIN OF CUSTODY DOCUMENT NUMBER: 3194SC

Los Alamos
NATIONAL LABORATORY

REQUEST NUMBER: 3194S

ANALYSIS TYPE: ORGANIC

ATTN: Stacy Griffin
General Engineering Laboratories, Inc., Historical
2040 Savage Road
Charleston, SC 29407

SAMPLE ID	CONT ID	CONTAINER DESCRIPTION	ORDER TEMPLATE CODE	PRESERVATIVE	MATRIX
RE03-05-59531	3	500 ML GLASS	8270C+8082+TPH-DRO	ICE	S
RE03-05-59531	4	125 SEPTUM AMBER GLASS	TPH-GRO	ICE	S
RE03-05-59532	1	5 G ENCORE	8260BENCORE	ICE	S
RE03-05-59532	2	5 G ENCORE	8260BENCORE	ICE	S
RE03-05-59532	3	500 ML GLASS	8270C+8082+TPH-DRO	ICE	S
RE03-05-59532	4	125 SEPTUM AMBER GLASS	TPH-GRO	ICE	S
RE03-05-59541	3	500 ML GLASS	8270C+8082+TPH-DRO	ICE	S
RE03-05-59541	4	125 SEPTUM AMBER GLASS	TPH-GRO	ICE	S
RE03-05-59542	1	5 G ENCORE	8260BENCORE	ICE	S
RE03-05-59542	2	5 G ENCORE	8260BENCORE	ICE	S
RE03-05-59542	3	500 ML GLASS	8270C+8082+TPH-DRO	ICE	S
RE03-05-59542	4	125 SEPTUM AMBER GLASS	TPH-GRO	ICE	S
RE03-05-59546	1	125 SEPTUM AMBER GLASS	8260B	ICE	S

Final Page of CHAIN OF CUSTODY DOCUMENT FOR REQUEST NUMBER 3194S

Relinquished By:		Date	Time	Received By:		Date	Time
J Pacilla	[signature]	5/3/05	1400				
PRINTED NAME	SIGNATURE			PRINTED NAME	SIGNATURE		
PRINTED NAME	SIGNATURE			PRINTED NAME	SIGNATURE		
PRINTED NAME	SIGNATURE			PRINTED NAME	SIGNATURE		

Received for DISPOSAL By:		Date	Time	Remarks:
PRINTED NAME	SIGNATURE			

Los Alamos National Laboratory
Environmental Restoration Project
Los Alamos, NM 87545

FIELD CHAIN OF CUSTODY

EVENT NAME: TA-3 03-013(i)

COC ID: 226612 Event ID:4932

SAMPLE ID: RE03-05-59532

SAMPLE ORDER MATRIX: Soil

ER TEAM LEADER: Roy Bohn

FIELD TEAM LEADER: Daniel Thompson

DESTINATION: SMO

DEST. POC:

ANALYSES REQUESTED

CONT. ID	ORDER	CONTAINER DESCRIPTION	PRESERVATIVE	COLLECTED Y / N	REASON	SPECIAL INSTRUCTIONS
1	8260BENCORE	5 G ENCORE	Ice	Y		
2	8260BENCORE	5 G ENCORE	Ice	Y		
3	8270C+8082+TPH-DRO	500 ML GLASS	Ice	Y		
5	METALS-GEL	125 ML POLY	Ice	Y		
4	TPH-GRO	125 SEPTUM AMBER GLASS	Ice	Y		

RELINQUISHED BY (printed name): (signature):	Date/Time: 5/3/05 1305	RELINQUISHED BY (printed name): (signature):	Date/Time:
RECEIVED BY (printed name): (signature):	Date/Time: 5/3/05 1305	RECEIVED BY (printed name): (signature):	Date/Time:

Los Alamos National Laboratory
Environmental Restoration Project
Los Alamos, NM 87545

EVENT NAME: TA-3 03-013(i)

FIELD CHAIN OF CUSTODY

COC ID: 226702 Event ID:4932

SAMPLE ID: RE03-05-59541
ER TEAM LEADER: Roy Bohn
DESTINATION: SMO
SAMPLE ORDER MATRIX: Soil
FIELD TEAM LEADER: Daniel Thompson
DEST. POC:

ANALYSES REQUESTED

CONT. ID	ORDER	CONTAINER DESCRIPTION	PRESERVATIVE	COLLECTED Y / N	REASON	SPECIAL INSTRUCTIONS
1	8260BENCORE	5 G ENCORE	Ice	N	Not req	
2	8260BENCORE	5 G ENCORE	Ice	N	Not req	
3	8270C+8082+TPH-DRO	500 ML GLASS	Ice	Y		
5	METALS-GEL	125 ML POLY	Ice	Y		
4	TPH-GRO	125 SEPTUM AMBER GLASS	Ice	Y		

RELINQUISHED BY (printed name): (signature):	Date/Time: 5/3/05 1305	RELINQUISHED BY (printed name): (signature):	Date/Time:
RECEIVED BY (printed name): (signature):	Date/Time: 5/3/05 1305	RECEIVED BY (printed name): (signature):	Date/Time:

Los Alamos National Laboratory
Environmental Restoration Project
Los Alamos, NM 87545

FIELD CHAIN OF CUSTODY

EVENT NAME: TA-3 03-013(i)

COC ID: 226772 Event ID:4932

SAMPLE ID: RE03-05-59548 ER TEAM LEADER: Roy Bohn DESTINATION: SMO

SAMPLE ORDER MATRIX: Water FIELD TEAM LEADER: Daniel Thompson DEST. POC:

ANALYSES REQUESTED

CONT. ID	ORDER	CONTAINER DESCRIPTION	PRESERVATIVE	COLLECTED Y / N	REASON	SPECIAL INSTRUCTIONS
1	METALS-GEL	~~1 L~~ POLY 500mL	Nitric Acid	Y		

RELINQUISHED BY (printed name): (signature):	Date/Time: 5/3/05 1305	RELINQUISHED BY (printed name): (signature):	Date/Time:
RECEIVED BY (printed name): (signature):	Date/Time: 5-3-05 1305	RECEIVED BY (printed name): (signature):	Date/Time:

Los Alamos National Laboratory
Environmental Restoration Project
Los Alamos, NM 87545

EVENT NAME: TA-3 03-013(i)

FIELD CHAIN OF CUSTODY

COC ID: 226712 Event ID:4932

SAMPLE ID: RE03-05-59542
ER TEAM LEADER: Roy Bohn
DESTINATION: SMO
SAMPLE ORDER MATRIX: Soil
FIELD TEAM LEADER: Daniel Thompson
DEST. POC:

ANALYSES REQUESTED

CONT. ID	ORDER	CONTAINER DESCRIPTION	PRESERVATIVE	COLLECTED Y / N	REASON	SPECIAL INSTRUCTIONS
1	8260BENCORE	5 G ENCORE	Ice	Y		
2	8260BENCORE	5 G ENCORE	Ice	Y		
3	8270C+8082+TPH-DRO	500 ML GLASS	Ice	Y		
5	METALS-GEL	125 ML POLY	Ice	Y		
4	TPH-GRO	125 SEPTUM AMBER GLASS	Ice	Y		

RELINQUISHED BY (printed name): (signature): Paul Alari	Date/Time: 5/3/05 1305	RELINQUISHED BY (printed name): (signature):	Date/Time:
RECEIVED BY (printed name): (signature):	Date/Time: 5/3/05 1305	RECEIVED BY (printed name): (signature):	Date/Time:

Los Alamos National Laboratory
Environmental Restoration Project
Los Alamos, NM 87545

FIELD CHAIN OF CUSTODY

EVENT NAME: TA-3 03-013(i)

COC ID: 226752 Event ID:4932

SAMPLE ID: RE03-05-59546

SAMPLE ORDER MATRIX: Soil

ER TEAM LEADER: Roy Bohn

FIELD TEAM LEADER: Daniel Thompson

DESTINATION: SMO

DEST. POC:

ANALYSES REQUESTED

CONT. ID	ORDER	CONTAINER DESCRIPTION	PRESERVATIVE	COLLECTED Y / N	REASON	SPECIAL INSTRUCTIONS
1	8260B	125 SEPTUM AMBER GLASS	Ice	Y		

RELINQUISHED BY (printed name): (signature):	Date/Time: 5/3/05 1305	RELINQUISHED BY (printed name): (signature):	Date/Time:
RECEIVED BY (printed name): (signature):	Date/Time: 5-3-05 1305	RECEIVED BY (printed name): (signature):	Date/Time:

Los Alamos National Laboratory
Environmental Restoration Project
Los Alamos, NM 87545

FIELD CHAIN OF CUSTODY

EVENT NAME: TA-3 03-013(i)

COC ID: 226602 Event ID:4932

SAMPLE ID: RE03-05-59531

SAMPLE ORDER MATRIX: Soil

ER TEAM LEADER: Roy Bohn

FIELD TEAM LEADER: Daniel Thompson

DESTINATION: SMO

DEST. POC:

ANALYSES REQUESTED

CONT. ID	ORDER	CONTAINER DESCRIPTION	PRESERVATIVE	COLLECTED Y / N	REASON	SPECIAL INSTRUCTIONS
1	8260BENCORE	5 G ENCORE	Ice	N	Not required	
2	8260BENCORE	5 G ENCORE	Ice	N	Not required	
3	8270C+8082+TPH-DRO	500 ML GLASS	Ice	Y		
5	METALS-GEL	125 ML POLY	Ice	Y		
4	TPH-GRO	125 SEPTUM AMBER GLASS	Ice	Y		

RELINQUISHED BY (printed name): (signature):	Date/Time: 5/2/05 1634	RELINQUISHED BY (printed name): (signature):	Date/Time:
RECEIVED BY (printed name): (signature):	Date/Time: 5/2/05 16:34	RECEIVED BY (printed name): (signature):	Date/Time:

Data Validation Cover Sheet

Section I. Data Record Package Identification

Request Number: 3194S Validation Date: 01-Jul-05 Lab Code: GEL

Contract Laboratory Name: General Engineering Laboratories

Validator: John A. Wilcox Organization: EES-9

Analytical Suite(s): (check all that apply)

- ☒ Volatile Organics
- ☒ Semivolatile Organics
- ☒ Organochlorine Pesticides/Polychlorinated Biphenyls
- ☐ Other: _____ (describe)
- ☐ High Explosives
- ☐ Inorganics
- ☐ Radiochemistry

Section II. Completeness Check

Yes	No	n/a	(check one)	Yes	No	n/a	(check one)
☒	☐	☐	1. Chain-of-custody form(s)	☒	☐	☐	6. Raw/BSS data
☒	☐	☐	2. Case narrative	☒	☐	☐	7. Quality control forms
☒	☐	☐	3. Sample result forms	☒	☐	☐	8. Quantitation reports
☒	☐	☐	4. Sample chromatograms	☐	☒	☐	9. TICs forms
☒	☐	☐	5. Standard chromatograms	☐	☒	☐	10. TICs mass spectra

Identify any samples in the assigned Request Number that are missing:

_____ _____ _____ _____ _____ _____ _____ _____

_____ _____ _____ _____ _____ _____ _____ _____

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed upon date of resolution and contract laboratory point of contact):

VOC analyses: All QC results were within limits. False positives were determined to be present, qualified U, V8.

SVOC analyses: The 10x rule was applied to bis (2-Ethylhexyl) phthalate, which showed blank contamination. All QC results were within limits.

TPH analyses: All LANL-specified QC results were within limits.

PCB analyses: All LANL-specified QC results were within limits.

Due to dilutions, some of the surrogate recoveries were outside method limits - no qualifiers were assigned.

(Attach additional comment sheets as necessary)

Validator's signature: John A Wilcox Date: _____

Attachment D: SVOC Data-Validation Checklist

Yes	No	(check one)	Assign qualifier listed below if criteria = Yes	
			Detected analyte	Undetected analyte
☐	☒	1. The Sample was extracted >1 to ≤2 times the appropriate hold time requirement.	J-, SV9	UJ, SV9
☐	☒	2. The Sample was extracted >2 times the appropriate holding time requirement.	R, SV9a	R, SV9a
☐	☒	3. The Sample was analyzed outside the analytical holding time requirement.	R, SV9b	R, SV9b
☐	☒	4. The instrument performance check (DFTPP) is not present or fails acceptance criteria.	R, SV16A	R, SV16A
☐	☒	5. The initial calibration is not present.	R, SV16	R, SV16
☐	☒	6. The initial calibration does not have either 5 calibration points or a low standard at the reporting limit.	R, SV7	R, SV7
☐	☒	7. The initial calibration analyte %RSD is >30%.	J, SV7a	UJ, SV7a
☐	☒	8. The analyte minimum RRF is <0.05 in the initial calibration.	J, SV7b	R, SV7b
☐	☒	9. CCV is not present.	R, SV16	R, SV16
☐	☒	10. The continuing calibration analyte %D is >25%.	J, SV7a	UJ, SV7a
☐	☒	11. The analyte minimum RRF is <0.05 in the continuing calibration.	J, SV7b	R, SV7b
☐	☒	12. The method blank information is not present.	R, SV4b	R, SV4b
☒	☐	13. The analyte detected in the method blank and sample result for analyte is ≤5x/10x the amount in blank.	U, SV4	N/A
☐	☒	14. The analyte detected in the method blank and sample result for analyte is >5x/10x the amount in method blank	J, SV4a	N/A
☐	☒	15. IS information is not present.	R, SV2a	R, SV2a
☐	☒	16. The IS area in the CCV is <50%R or >200%R.	J, SV1	UJ, SV1
☐	☒	17. The IS retention times have shifted by more 30 s.	J, SV0	R, SV0
☐	☒	18. The sample IS area is >200%R.	J, SV1b	N/A
☐	☒	19. The sample IS area is <50%R but ≥10%R.The s	J, SV1a	UJ, SV1a
☐	☒	20. The Sample IS area is <10%R.	J, SV2	R, SV2
☐	☒	21. The surrogate information is not present.	R, SV3f	R, SV3f
☐	☒	22. The surrogate %R is greater than the UAL.	J+, SV3	N/A
☐	☒	23. The surrogate %R is lower than the LAL but ≥10%.	J-, SV3a	UJ, SV3c
☐	☒	24. The surrogate %R is <10%.	J-, SV3b	R, SV3d
☐	☒	25. There is one surrogate %R <LAL and one surrogate %R >UAL.	J, SV3e	UJ, SV3e
☐	☒	26. LCS information is not present.	R, SV12	R, SV12
☐	☒	27. The LCS %R is >UAL.	J+, SV12d	N/A
☐	☒	28. The LCS %R is <LAL but ≥10%.	J-, SV12b	UJ, SV12c
☐	☒	29. The LCS %R is <10%	J-, SV12a	R, SV12a
☐	☒	30. Mass spectral information is missing.	R, SV8a	R, SV8a
☐	☒	31. The mass spectrum does not meet method specifications.	U, SV8	N/A
☐	☒	32. TICs were requested but not reported.	none	none
☐	☒	33. The sample was diluted inappropriately.	N/A	UJ, V10
☐	☒	34. Other obvious data quality issues were identified.	__, SV19	__, SV19

Attachment D: VOC Data-Validation Checklist

Yes	No	n/a	(check one)	Assign qualifier listed below if criteria = Yes: Detected analyte	Undetected analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	J, V9	UJ, V9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, V9a	R, V9a
☐	☒	☐	3. The instrument performance check was not present or fails acceptance criteria.	R, V16a	R, V16a
☐	☒	☐	4. The initial calibration was not present.	R, V16	R, V16
☐	☒	☐	5. The initial calibration did not have 5 calibration points and a low standard at the reporting limit.	R, V7	R, V7
☐	☒	☐	6. The initial calibration analyte %RSD was >30% .	J, V7a	UJ, V7a
☐	☒	☐	7. The analyte minimum RRF was <0.05.	J, V7b	R, V7b
☐	☒	☐	8. The CCV was not present.	R, V16	R, V16
☐	☒	☐	9. The continuing calibration analyte %D was >25%.	J, V7a	UJ, V7a
☐	☒	☐	10. The analyte minimum RRF was <0.05.	J, V7b	R, V7b
☐	☒	☐	11. The method blank was not reported.	R, V4b	R, V4b
☐	☒	☐	12. The analyte detected in the method blank and sample result for analyte was < 5x/10x the amount in the blank.	U, V4	N/A
☐	☒	☐	13. The analyte detected in the method blank and sample result for analyte was >5x/10x the amount in the method blank.	J, V4a	N/A
☐	☒	☐	14. The IS information was not present.	R, V2a	R, V2a
☐	☒	☐	15. The IS areas in CCV were <50% or >200% of the previous days' IS areas.	J, V1	UJ, V1
☐	☒	☐	16. The IS retention times had shifted by >30 s.	J, V0	UJ, V0
☐	☒	☐	17. The sample IS areas were >200% of the daily CCV IS areas.	J, V1b	N/A
☐	☒	☐	18. The sample IS areas were <50% but are ≥10% of the daily CCV IS areas.	J, V1a	UJ, V1a
☐	☒	☐	19. The sample IS areas were <10% of the daily CCV IS areas.	J, V2	R, V2
☐	☒	☐	20. The surrogate information was not present.	R, V3f	R, V3f
☐	☒	☐	21. The surrogate %R was >UAL.	J+, V3	N/A
☐	☒	☐	22. The surrogate %R was <LAL but ≥10%.	J-, V3a	UJ, V3c
☐	☒	☐	23. The surrogate %R was <10%.	J-, V3b	R, V3d
☐	☒	☐	24. The surrogate recoveries were (1) <LAL and (1) >UAL.	J, V3e	UJ, V3e
☐	☒	☐	25. The LCS information was not present.	R, V12	R, V12
☐	☒	☐	26. The LCS %R was >UAL.	J+, V12d	N/A
☐	☒	☐	27. The LCS %R was <LAL but ≥10%.	J-, V12b	UJ, V12c
☐	☒	☐	28. The LCS %R was <10%.	J-, V12a	R, V12a
☐	☒	☐	29. The mass spectral information was missing.	R, V8a	R, V8a
☒	☐	☐	30. The mass spectrum did not meet method specifications.	U, V8	N/A
☐	☒	☐	31. The TICs were requested but not reported.	R, V11	R, V11
☐	☒	☐	32. The sample was diluted inappropriately.	N/A	U, V10
☐	☒	☐	33. Other obvious data-quality issues were identified.	__, V19	__, V19

Attachment D: PEST/PCB Data-Validation Checklist

Yes	No	n/a	(check one)	Assign qualifier listed below if criteria = Yes: Detected analyte	Undetected analyte
☐	☒	☐	1. The breakdown performance check is not present.	R, P10b	R, P10b
☐	☒	☐	2. The breakdown performance exceeds criteria for individual or combined.	J-, P10	---[a], P10
☐	☒	☐	3. The Breakdown performance exceeds criteria and the associated breakdown products are present in sample.	J+, P10a	UJ, P10a
☐	☒	☐	4. Initial calibration is not present.	R, P16	R, P16
☐	☒	☐	5. Initial calibration does not have 5 calibration points and/or low standard at or below the reporting limit.	J, P7	R, P7
☐	☒	☐	6. Initial calibration analyte %RSD is >20% or RSD is <0.995.	J, P7a	UJ, P7a
☐	☒	☐	7. The CCV is not present or analyzed at proper frequency.	R, P16	R, P16
☐	☒	☐	8. Continuing calibration analyte %D is >15%.	J, P7a	UJ, P7a
☐	☒	☐	9. A multicomponent analyte is reported with no standard being analyzed within 72 h of the initial analysis.	J, P7b	N/A
☐	☒	☐	10. The RT window information is not present.	R, P11	R, P11
☐	☒	☐	11. RT window for individual analytes in the CCV have shifted more than 0.05 minutes from the RT window from the initial calibration.	---[b], P11a	---[c], P11a
☐	☒	☐	12. The method blank is not reported.	R, P4b	R, P4b
☐	☒	☐	13. The analyte detected in blank <u>and</u> sample result for analyte < 5x the amount in blank.	UJ, P4	N/A
☐	☒	☐	14. The analyte detected in blank <u>and</u> sample result for analyte > 5x the amount in blank.	J, P4a	N/A
☐	☒	☐	15. The confirmation information is not present for positive results.	R, P8a	R, P8a
☐	☒	☐	16. The analyte reported was not confirmed on a second dissimilar column or detector.	UJ, P8	N/A
☐	☒	☐	17. The analyte reported exceeds the RT window but was confirmed.	J, P11b	N/A
☐	☒	☐	18. The multicomponent analyte is reported but does not match the pattern for the analyte in the associated standard.	J, P7b	N/A
☐	☒	☐	19. Surrogate information is not present.	R, P3f	R, P3f
☐	☒	☐	20. Surrogate % recovery is > the UAL.	J+, P3	N/A
☐	☒	☐	21. Surrogate % recovery is < LAL but ≥10%.	J-, P3a	UJ, P3c
☐	☒	☐	22. Surrogate % recovery is < 10%.	J-, P3b	R, P3d
☐	☒	☐	23. One surrogate recovery is < LAL and one surrogate recovery is > UAL.	J, P3e	UJ, P3e
☐	☒	☐	24. The LCS information is not present.	R, P12	R, P12
☐	☒	☐	25. LCS % recovery is >130%.	J+, P12d	N/A
☐	☒	☐	26. LCS % recovery is < 70% but ≥10%.	J-, P12b	UJ, P12c
☐	☒	☐	27. LCS % recovery is < 10%.	J-, P12a	R, P12a
☐	☒	☐	28. The sample was extracted outside of the appropriate hold time.	J-, P9	UJ, P9
☐	☒	☐	29. The sample was extracted 2 times the appropriate holding time.	R, P9a	R, P9a
☐	☒	☐	30. The sample was analyzed outside the analytical holding time.	R, P9b	R, P9b
☐	☒	☐	31. The sample was diluted inappropriately.	N/A	U, P10c
☐	☒	☐	32. The other obvious data quality issues identified.	__, P19	__, P19

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-59532

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

Matrix: (soil/water) SOIL Lab Sample ID: 135805003

Sample wt/vol: 4.4 (g/mL) G Lab File ID: 1J517

Level: (low/med) LOW Date Received: 05/04/05

% Moisture: not dec. 14 Date Analyzed: 05/13/05

GC Column: RTX-VOLATILES ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-71-8	Dichlorodifluoromethane	1.3	U
74-87-3	Chloromethane	1.3	U
75-01-4	Vinyl chloride	1.3	U
74-83-9	Bromomethane	1.3	U
75-00-3	Chloroethane	1.3	U
75-69-4	Trichlorofluoromethane	1.3	U
75-35-4	1,1-Dichloroethylene	1.3	U
67-64-1	Acetone	9.1	
76-13-1	Trichlorotrifluoroethane	6.6	U
74-88-4	Iodomethane	6.6	U
75-15-0	Carbon disulfide	6.6	U
75-09-2	Methylene chloride	6.6	U
156-60-5	trans-1,2-Dichloroethylene	1.3	U
75-34-3	1,1-Dichloroethane	1.3	U
78-93-3	2-Butanone	6.6	U
156-59-2	cis-1,2-Dichloroethylene	1.3	U
594-20-7	2,2-Dichloropropane	1.3	U
74-97-5	Bromochloromethane	1.3	U
67-66-3	Chloroform	1.3	U
71-55-6	1,1,1-Trichloroethane	1.3	U
563-58-6	1,1-Dichloropropene	1.3	U
56-23-5	Carbon tetrachloride	1.3	U
107-06-2	1,2-Dichloroethane	1.3	U
71-43-2	Benzene	1.3	U
79-01-6	Trichloroethylene	1.3	U
78-87-5	1,2-Dichloropropane	1.3	U
74-95-3	Dibromomethane	1.3	U
75-27-4	Bromodichloromethane	1.3	U
10061-01-5	cis-1,3-Dichloropropylene	1.3	U
108-10-1	4-Methyl-2-pentanone	6.6	U
108-88-3	Toluene	1.3	U
10061-02-6	trans-1,3-Dichloropropylene	1.3	U
79-00-5	1,1,2-Trichloroethane	1.3	U

FORM I VOA OLM03.0

JAW 7/1/05

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-59532

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

Matrix: (soil/water) SOIL Lab Sample ID: 135805003

Sample wt/vol: 4.4 (g/mL) G Lab File ID: 1J517

Level: (low/med) LOW Date Received: 05/04/05

% Moisture: not dec. 14 Date Analyzed: 05/13/05

GC Column: RTX-VOLATILES ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
142-28-9	1,3-Dichloropropane	1.3	U
591-78-6	2-Hexanone	6.6	U
127-18-4	Tetrachloroethylene	1.3	U
124-48-1	Dibromochloromethane	1.3	U
106-93-4	1,2-Dibromoethane	1.3	U
108-90-7	Chlorobenzene	1.3	U
630-20-6	1,1,1,2-Tetrachloroethane	1.3	U
100-41-4	Ethylbenzene	1.3	U
95-47-6	o-Xylene	1.3	U
	m,p-Xylenes	2.6	U
100-42-5	Styrene	1.3	U
75-25-2	Bromoform	1.3	U
98-82-8	Isopropylbenzene	1.3	U
79-34-5	1,1,2,2-Tetrachloroethane	1.3	U
96-18-4	1,2,3-Trichloropropane	1.3	U
108-86-1	Bromobenzene	1.3	U
103-65-1	n-Propylbenzene	1.3	U
95-49-8	2-Chlorotoluene	1.3	U
108-67-8	1,3,5-Trimethylbenzene	1.3	U
95-63-6	1,2,4-Trimethylbenzene	1.3	U
106-43-4	4-Chlorotoluene	1.3	U
98-06-6	tert-Butylbenzene	1.3	U
135-98-8	sec-Butylbenzene	1.3	U
99-87-6	4-Isopropyltoluene	1.3	U
541-73-1	1,3-Dichlorobenzene	1.3	U
106-46-7	1,4-Dichlorobenzene	1.3	U
104-51-8	n-Butylbenzene	1.3	U
95-50-1	1,2-Dichlorobenzene	1.3	U
96-12-8	1,2-Dibromo-3-chloropropane	1.3	U

JAW 7/1/05

FORM I VOA OLM03.0

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

RE03-05-59532

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

Matrix: (soil/water) SOIL Lab Sample ID: 135805003

Sample wt/vol: 4.4 (g/mL) G Lab File ID: 1J517

Level: (low/med) LOW Date Received: 05/04/05

% Moisture: not dec. 14 Date Analyzed: 05/13/05

GC Column: RTX-VOLATILES ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 3

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	4.86	27.1	J
2. 80-56-8	.ALPHA.-PINENE	9.29	7.5	J
3. 13466-78-9	3-CARENE	10.52	15.3	J
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FORM I VOA-TIC OLM03.0

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-59542

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

Matrix: (soil/water) SOIL Lab Sample ID: 135805004

Sample wt/vol: 4.8 (g/mL) G Lab File ID: 1J518

Level: (low/med) LOW Date Received: 05/04/05

% Moisture: not dec. 14 Date Analyzed: 05/13/05

GC Column: RTX-VOLATILES ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-71-8	Dichlorodifluoromethane	1.2	U
74-87-3	Chloromethane	1.2	U
75-01-4	Vinyl chloride	1.2	U
74-83-9	Bromomethane	1.2	U
75-00-3	Chloroethane	1.2	U
75-69-4	Trichlorofluoromethane	1.2	U
75-35-4	1,1-Dichloroethylene	1.2	U
67-64-1	Acetone	6.1	U
76-13-1	Trichlorotrifluoroethane	6.1	U
74-88-4	Iodomethane	6.1	U
75-15-0	Carbon disulfide	6.1	U
75-09-2	Methylene chloride	6.1	U
156-60-5	trans-1,2-Dichloroethylene	1.2	U
75-34-3	1,1-Dichloroethane	1.2	U
78-93-3	2-Butanone	6.1	U
156-59-2	cis-1,2-Dichloroethylene	1.2	U
594-20-7	2,2-Dichloropropane	1.2	U
74-97-5	Bromochloromethane	1.2	U
67-66-3	Chloroform	1.2	U
71-55-6	1,1,1-Trichloroethane	1.2	U
563-58-6	1,1-Dichloropropene	1.2	U
56-23-5	Carbon tetrachloride	1.2	U
107-06-2	1,2-Dichloroethane	1.2	U
71-43-2	Benzene	1.2	U
79-01-6	Trichloroethylene	1.2	U
78-87-5	1,2-Dichloropropane	1.2	U
74-95-3	Dibromomethane	1.2	U
75-27-4	Bromodichloromethane	1.2	U
10061-01-5	cis-1,3-Dichloropropylene	1.2	U
108-10-1	4-Methyl-2-pentanone	6.1	U
108-88-3	Toluene	1.2	U
10061-02-6	trans-1,3-Dichloropropylene	1.2	U
79-00-5	1,1,2-Trichloroethane	1.2	U

JAW 7/1/05

FORM I VOA OLM03.0

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-59542

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

Matrix: (soil/water) SOIL Lab Sample ID: 135805004

Sample wt/vol: 4.8 (g/mL) G Lab File ID: 1J518

Level: (low/med) LOW Date Received: 05/04/05

% Moisture: not dec. 14 Date Analyzed: 05/13/05

GC Column: RTX-VOLATILES ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
142-28-9	1,3-Dichloropropane	1.2	U
591-78-6	2-Hexanone	6.1	U
127-18-4	Tetrachloroethylene	1.2	U
124-48-1	Dibromochloromethane	1.2	U
106-93-4	1,2-Dibromoethane	1.2	U
108-90-7	Chlorobenzene	1.2	U
630-20-6	1,1,1,2-Tetrachloroethane	1.2	U
100-41-4	Ethylbenzene	1.2	U
95-47-6	o-Xylene	1.2	U
----------	m,p-Xylenes	2.4	U
100-42-5	Styrene	1.2	U
75-25-2	Bromoform	1.2	U
98-82-8	Isopropylbenzene	1.2	U
79-34-5	1,1,2,2-Tetrachloroethane	1.2	U
96-18-4	1,2,3-Trichloropropane	1.2	U
108-86-1	Bromobenzene	1.2	U
103-65-1	n-Propylbenzene	1.2	U
95-49-8	2-Chlorotoluene	1.2	U
108-67-8	1,3,5-Trimethylbenzene	1.2	U
95-63-6	1,2,4-Trimethylbenzene	1.2	U
106-43-4	4-Chlorotoluene	1.2	U
98-06-6	tert-Butylbenzene	1.2	U
135-98-8	sec-Butylbenzene	1.2	U
99-87-6	4-Isopropyltoluene	1.2	U
541-73-1	1,3-Dichlorobenzene	1.2	U
106-46-7	1,4-Dichlorobenzene	1.2	U
104-51-8	n-Butylbenzene	1.2	U
95-50-1	1,2-Dichlorobenzene	1.2	U
96-12-8	1,2-Dibromo-3-chloropropane	1.2	U

JAW 7/1/05

FORM I VOA OLM03.0

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

RE03-05-59542

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

Matrix: (soil/water) SOIL Lab Sample ID: 135805004

Sample wt/vol: 4.8 (g/mL) G Lab File ID: 1J518

Level: (low/med) LOW Date Received: 05/04/05

% Moisture: not dec. 14 Date Analyzed: 05/13/05

GC Column: RTX-VOLATILES ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 1

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		UNKNOWN	4.86	26.6	J
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FORM I VOA-TIC OLM03.0

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-59546

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

Matrix: (soil/water) SOIL Lab Sample ID: 135805005

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 1J513

Level: (low/med) LOW Date Received: 05/04/05

% Moisture: not dec. 0 Date Analyzed: 05/13/05

GC Column: RTX-VOLATILES ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-71-8	Dichlorodifluoromethane	1.0	U
74-87-3	Chloromethane	1.0	U
75-01-4	Vinyl chloride	1.0	U
74-83-9	Bromomethane	1.0	U
75-00-3	Chloroethane	1.0	U
75-69-4	Trichlorofluoromethane	2.8	
75-35-4	1,1-Dichloroethylene	3.8	
67-64-1	Acetone	79.8	
76-13-1	Trichlorotrifluoroethane	5.0	U
74-88-4	Iodomethane	5.0	U
75-15-0	Carbon disulfide	5.0	U
75-09-2	Methylene chloride	4.1	J
156-60-5	trans-1,2-Dichloroethylene	1.0	U
75-34-3	1,1-Dichloroethane	1.0	U
78-93-3	2-Butanone	7.0	
156-59-2	cis-1,2-Dichloroethylene	1.0	U
594-20-7	2,2-Dichloropropane	1.0	U
74-97-5	Bromochloromethane	1.0	U
67-66-3	Chloroform	1.0	U
71-55-6	1,1,1-Trichloroethane	1.0	U
563-58-6	1,1-Dichloropropene	1.0	U
56-23-5	Carbon tetrachloride	1.0	U
107-06-2	1,2-Dichloroethane	1.0	U
71-43-2	Benzene	1.0	U
79-01-6	Trichloroethylene	1.0	U
78-87-5	1,2-Dichloropropane	1.0	U
74-95-3	Dibromomethane	1.0	U
75-27-4	Bromodichloromethane	1.0	U
10061-01-5	cis-1,3-Dichloropropylene	1.0	U
108-10-1	4-Methyl-2-pentanone	5.0	U
108-88-3	Toluene	5.0	
10061-02-6	trans-1,3-Dichloropropylene	1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	U

FORM I VOA OLM03.0

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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-59546

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

Matrix: (soil/water) SOIL Lab Sample ID: 135805005

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 1J513

Level: (low/med) LOW Date Received: 05/04/05

% Moisture: not dec. 0 Date Analyzed: 05/13/05

GC Column: RTX-VOLATILES ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG		Q
142-28-9	1,3-Dichloropropane		1.0	U
591-78-6	2-Hexanone		2.1	J
127-18-4	Tetrachloroethylene		1.0	U
124-48-1	Dibromochloromethane		1.0	U
106-93-4	1,2-Dibromoethane		1.0	U
108-90-7	Chlorobenzene		1.0	U
630-20-6	1,1,1,2-Tetrachloroethane		1.0	U
100-41-4	Ethylbenzene		1.4	
95-47-6	o-Xylene		1.2	
	m,p-Xylenes		4.3	
100-42-5	Styrene	U, V8	0.51	J
75-25-2	Bromoform		1.0	U
98-82-8	Isopropylbenzene		0.22	J
79-34-5	1,1,2,2-Tetrachloroethane		1.0	U
96-18-4	1,2,3-Trichloropropane		1.0	U
108-86-1	Bromobenzene		1.0	U
103-65-1	n-Propylbenzene		0.26	J
95-49-8	2-Chlorotoluene		1.0	U
108-67-8	1,3,5-Trimethylbenzene		0.28	J
95-63-6	1,2,4-Trimethylbenzene	U, V8	1.1	
106-43-4	4-Chlorotoluene		1.0	U
98-06-6	tert-Butylbenzene		1.0	U
135-98-8	sec-Butylbenzene		1.0	U
99-87-6	4-Isopropyltoluene		1.6	
541-73-1	1,3-Dichlorobenzene		1.0	U
106-46-7	1,4-Dichlorobenzene	U, V8	0.60	J
104-51-8	n-Butylbenzene		1.0	U
95-50-1	1,2-Dichlorobenzene		1.0	U
96-12-8	1,2-Dibromo-3-chloropropane		1.0	U

FORM I VOA

JAW 7/1/05

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1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

RE03-05-59546

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

Matrix: (soil/water) SOIL Lab Sample ID: 135805005

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 1J513

Level: (low/med) LOW Date Received: 05/04/05

% Moisture: not dec. 0 Date Analyzed: 05/13/05

GC Column: RTX-VOLATILES ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 3

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	4.87	19.7	J
2.	UNKNOWN	10.76	7.1	J
3.	UNKNOWN	11.91	6.6	J
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FORM I VOA-TIC OLM03.0

1B
SVOA ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-59531

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

Matrix: (soil/water) SOIL Lab Sample ID: 135805001

Sample wt/vol: 30.0 (g/mL) G Lab File ID: S8E1906

Level: (low/med) LOW Date Received: 05/04/05

% Moisture: 16 decanted: (Y/N) N Date Extracted: 05/10/05

Concentrated Extract Volume: 1.00(mL) Date Analyzed: 05/19/05

Injection Volume: 0.5(uL) Dilution Factor: 4.0

GPC Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
62-75-9	N-Methyl-N-nitrosomethylamin	1590	U
110-86-1	Pyridine	1590	U
62-53-3	Aniline	1590	U
108-95-2	Phenol	1590	U
111-44-4	bis(2-Chloroethyl) ether	1590	U
95-57-8	2-Chlorophenol	1590	U
541-73-1	1,3-Dichlorobenzene	1590	U
106-46-7	1,4-Dichlorobenzene	1590	U
100-51-6	Benzyl alcohol	1590	U
95-50-1	1,2-Dichlorobenzene	1590	U
108-60-1	bis(2-Chloroisopropyl)ether	1590	U
95-48-7	o-Cresol	1590	U
621-64-7	N-Nitrosodipropylamine	1590	U
65794-96-9	m,p-Cresols	1590	U
67-72-1	Hexachloroethane	1590	U
78-59-1	Isophorone	1590	U
88-75-5	2-Nitrophenol	1590	U
105-67-9	2,4-Dimethylphenol	1590	U
111-91-1	bis(2-Chloroethoxy)methane	1590	U
120-83-2	2,4-Dichlorophenol	1590	U
65-85-0	Benzoic acid	3170	U
120-82-1	1,2,4-Trichlorobenzene	1590	U
91-20-3	Naphthalene	159	U
106-47-8	4-Chloroaniline	1590	U
87-68-3	Hexachlorobutadiene	1590	U
59-50-7	4-Chloro-3-methylphenol	1590	U
91-57-6	2-Methylnaphthalene	159	U
77-47-4	Hexachlorocyclopentadiene	1590	U
88-06-2	2,4,6-Trichlorophenol	1590	U
95-95-4	2,4,5-Trichlorophenol	1590	U
91-58-7	2-Chloronaphthalene	159	U
88-74-4	o-Nitroaniline	1590	U
99-09-2	m-Nitroaniline	1590	U

JEW 7/1/05

FORM I SV-1 OLM03.0

1C
SVOA ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-59531

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

Matrix: (soil/water) SOIL Lab Sample ID: 135805001

Sample wt/vol: 30.0 (g/mL) G Lab File ID: S8E1906

Level: (low/med) LOW Date Received: 05/04/05

% Moisture: 16 decanted: (Y/N) N Date Extracted:05/10/05

Concentrated Extract Volume: 1.00(mL) Date Analyzed: 05/19/05

Injection Volume: 0.5(uL) Dilution Factor: 4.0

GPC Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
131-11-3	Dimethylphthalate	1590	U
606-20-2	2,6-Dinitrotoluene	1590	U
208-96-8	Acenaphthylene	159	U
83-32-9	Acenaphthene	159	U
51-28-5	2,4-Dinitrophenol	3170	U
132-64-9	Dibenzofuran	1590	U
121-14-2	2,4-Dinitrotoluene	1590	U
84-66-2	Diethylphthalate	1590	U
100-02-7	4-Nitrophenol	1590	U
86-73-7	Fluorene	159	U
7005-72-3	4-Chlorophenylphenylether	1590	U
534-52-1	2-Methyl-4,6-dinitrophenol	1590	U
100-01-6	p-Nitroaniline	1590	U
122-39-4	Diphenylamine	1590	U
122-66-7	1,2-Diphenylhydrazine	1590	U
101-55-3	4-Bromophenylphenylether	1590	U
118-74-1	Hexachlorobenzene	1590	U
87-86-5	Pentachlorophenol	1590	U
85-01-8	Phenanthrene	159	U
120-12-7	Anthracene	159	U
84-74-2	Di-n-butylphthalate	1590	U
206-44-0	Fluoranthene	159	U
129-00-0	Pyrene	159	U
85-68-7	Butylbenzylphthalate	1590	U
56-55-3	Benzo(a)anthracene	159	U
91-94-1	3,3'-Dichlorobenzidine	1590	U
218-01-9	Chrysene	159	U
117-81-7	bis(2-Ethylhexyl)phthalate	1590	U
117-84-0	Di-n-octylphthalate	1590	U
205-99-2	Benzo(b)fluoranthene	159	U
207-08-9	Benzo(k)fluoranthene	159	U
50-32-8	Benzo(a)pyrene	159	U
193-39-5	Indeno(1,2,3-cd)pyrene	159	U

FORM I SV-2 OLM03.0

JAW 7/1/05

1C
SVOA ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-59531

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

Matrix: (soil/water) SOIL Lab Sample ID: 135805001

Sample wt/vol: 30.0 (g/mL) G Lab File ID: S8E1906

Level: (low/med) LOW Date Received: 05/04/05

% Moisture: 16 decanted: (Y/N) N Date Extracted:05/10/05

Concentrated Extract Volume: 1.00(mL) Date Analyzed: 05/19/05

Injection Volume: 0.5(uL) Dilution Factor: 4.0

GPC Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
53-70-3	Dibenzo(a,h)anthracene	159	U
191-24-2	Benzo(ghi)perylene	159	U

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7/1/05

FORM I SV-3 OLM03.0

1F
SVOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

RE03-05-59531

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

Matrix: (soil/water) SOIL Lab Sample ID: 135805001

Sample wt/vol: 30.0 (g/mL) G Lab File ID: S8E1906

Level: (low/med) LOW Date Received: 05/04/05

% Moisture: 16 decanted: (Y/N) N Date Extracted:05/10/05

Concentrated Extract Volume: 1.00(mL) Date Analyzed: 05/19/05

Injection Volume: 0.5(uL) Dilution Factor: 4.0

GPC Cleanup: (Y/N) N

Number TICs found: 6

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 1786-12-5	CYCLOTETRADECANE, 1,7,11-TRI	7.91	3300	NJ
2. 3386-33-2	OCTADECANE, 1-CHLORO-	7.96	3190	NJ
3. 19780-11-1	2-DODECEN-1-YL(-)SUCCINIC AN	8.02	3290	NJ
4.	UNKNOWN	8.04	3460	J
5. 20175-84-2	[1,2'-BINAPHTHALENE]-5,5',8,	8.74	3160	NJ
6. 54482-31-4	D-HOMOANDROSTANE, (5.ALPHA.,	8.98	5530	NJ
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FORM I SV-TIC OLM03.0

1B
SVOA ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-59532

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

Matrix: (soil/water) SOIL Lab Sample ID: 135805003

Sample wt/vol: 30.0 (g/mL) G Lab File ID: S8E1908

Level: (low/med) LOW Date Received: 05/04/05

% Moisture: 14 decanted: (Y/N) N Date Extracted: 05/10/05

Concentrated Extract Volume: 1.00(mL) Date Analyzed: 05/19/05

Injection Volume: 0.5(uL) Dilution Factor: 4.0

GPC Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
62-75-9	N-Methyl-N-nitrosomethylamin	1550	U
110-86-1	Pyridine	1550	U
62-53-3	Aniline	1550	U
108-95-2	Phenol	1550	U
111-44-4	bis(2-Chloroethyl) ether	1550	U
95-57-8	2-Chlorophenol	1550	U
541-73-1	1,3-Dichlorobenzene	1550	U
106-46-7	1,4-Dichlorobenzene	1550	U
100-51-6	Benzyl alcohol	1550	U
95-50-1	1,2-Dichlorobenzene	1550	U
108-60-1	bis(2-Chloroisopropyl)ether	1550	U
95-48-7	o-Cresol	1550	U
621-64-7	N-Nitrosodipropylamine	1550	U
65794-96-9	m,p-Cresols	1550	U
67-72-1	Hexachloroethane	1550	U
78-59-1	Isophorone	1550	U
88-75-5	2-Nitrophenol	1550	U
105-67-9	2,4-Dimethylphenol	1550	U
111-91-1	bis(2-Chloroethoxy)methane	1550	U
120-83-2	2,4-Dichlorophenol	1550	U
65-85-0	Benzoic acid	3100	U
120-82-1	1,2,4-Trichlorobenzene	1550	U
91-20-3	Naphthalene	155	U
106-47-8	4-Chloroaniline	1550	U
87-68-3	Hexachlorobutadiene	1550	U
59-50-7	4-Chloro-3-methylphenol	1550	U
91-57-6	2-Methylnaphthalene	155	U
77-47-4	Hexachlorocyclopentadiene	1550	U
88-06-2	2,4,6-Trichlorophenol	1550	U
95-95-4	2,4,5-Trichlorophenol	1550	U
91-58-7	2-Chloronaphthalene	155	U
88-74-4	o-Nitroaniline	1550	U
99-09-2	m-Nitroaniline	1550	U

JAW 7/1/05

FORM I SV-1 OLM03.0

1C
SVOA ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-59532

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

Matrix: (soil/water) SOIL Lab Sample ID: 135805003

Sample wt/vol: 30.0 (g/mL) G Lab File ID: S8E1908

Level: (low/med) LOW Date Received: 05/04/05

% Moisture: 14 decanted: (Y/N) N Date Extracted: 05/10/05

Concentrated Extract Volume: 1.00 (mL) Date Analyzed: 05/19/05

Injection Volume: 0.5 (uL) Dilution Factor: 4.0

GPC Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
131-11-3	Dimethylphthalate	1550	U
606-20-2	2,6-Dinitrotoluene	1550	U
208-96-8	Acenaphthylene	155	U
83-32-9	Acenaphthene	155	U
51-28-5	2,4-Dinitrophenol	3100	U
132-64-9	Dibenzofuran	1550	U
121-14-2	2,4-Dinitrotoluene	1550	U
84-66-2	Diethylphthalate	1550	U
100-02-7	4-Nitrophenol	1550	U
86-73-7	Fluorene	155	U
7005-72-3	4-Chlorophenylphenylether	1550	U
534-52-1	2-Methyl-4,6-dinitrophenol	1550	U
100-01-6	p-Nitroaniline	1550	U
122-39-4	Diphenylamine	1550	U
122-66-7	1,2-Diphenylhydrazine	1550	U
101-55-3	4-Bromophenylphenylether	1550	U
118-74-1	Hexachlorobenzene	1550	U
87-86-5	Pentachlorophenol	1550	U
85-01-8	Phenanthrene	155	U
120-12-7	Anthracene	155	U
84-74-2	Di-n-butylphthalate	1550	U
206-44-0	Fluoranthene	155	U
129-00-0	Pyrene	155	U
85-68-7	Butylbenzylphthalate	1550	U
56-55-3	Benzo(a)anthracene	155	U
91-94-1	3,3'-Dichlorobenzidine	1550	U
218-01-9	Chrysene	155	U
117-81-7	bis(2-Ethylhexyl)phthalate	691	JB
117-84-0	Di-n-octylphthalate	1550	U
205-99-2	Benzo(b)fluoranthene	155	U
207-08-9	Benzo(k)fluoranthene	155	U
50-32-8	Benzo(a)pyrene	155	U
193-39-5	Indeno(1,2,3-cd)pyrene	155	U

U, SV4

JAW 7/1/05

FORM I SV-2 OLM03.0

1C
SVOA ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-59532

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

Matrix: (soil/water) SOIL Lab Sample ID: 135805003

Sample wt/vol: 30.0 (g/mL) G Lab File ID: S8E1908

Level: (low/med) LOW Date Received: 05/04/05

% Moisture: 14 decanted: (Y/N) N Date Extracted: 05/10/05

Concentrated Extract Volume: 1.00(mL) Date Analyzed: 05/19/05

Injection Volume: 0.5(uL) Dilution Factor: 4.0

GPC Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
53-70-3	Dibenzo(a,h)anthracene	155	U
191-24-2	Benzo(ghi)perylene	155	U

JAW
7/1/05

FORM I SV-3 OLM03.0

1F
SVOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

RE03-05-59532

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

Matrix: (soil/water) SOIL Lab Sample ID: 135805003

Sample wt/vol: 30.0 (g/mL) G Lab File ID: S8E1908

Level: (low/med) LOW Date Received: 05/04/05

% Moisture: 14 decanted: (Y/N) N Date Extracted:05/10/05

Concentrated Extract Volume: 1.00(mL) Date Analyzed: 05/19/05

Injection Volume: 0.5(uL) Dilution Factor: 4.0

GPC Cleanup: (Y/N) N

Number TICs found: 9

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 19780-11-1	2-DODECEN-1-YL(-)SUCCINIC AN	7.91	2980	NJ
2.	UNKNOWN HYDROCARBON	8.07	3480	J
3. 1786-12-5	CYCLOTETRADECANE, 1,7,11-TRI	8.12	2330	NJ
4. 1000130-81-0	E-11,13-DIMETHYL-12-TETRADEC	8.16	2820	NJ
5. 20175-84-2	[1,2'-BINAPHTHALENE]-5,5',8,	8.21	2110	NJ
6. 55044-36-5	1H-INDENE, 5-BUTYL-6-HEXYLOC	8.24	2560	NJ
7. 18835-33-1	1-HEXACOSENE	8.72	4360	NJ
8.	UNKNOWN	8.94	1750	J
9. 54482-31-4	D-HOMOANDROSTANE, (5.ALPHA.,	8.97	2370	NJ
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FORM I SV-TIC OLM03.0

1B
SVOA ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-59541

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

Matrix: (soil/water) SOIL Lab Sample ID: 135805002

Sample wt/vol: 30.0 (g/mL) G Lab File ID: S8E1907

Level: (low/med) LOW Date Received: 05/04/05

% Moisture: 13 decanted: (Y/N) N Date Extracted: 05/10/05

Concentrated Extract Volume: 1.00(mL) Date Analyzed: 05/19/05

Injection Volume: 0.5(uL) Dilution Factor: 4.0

GPC Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
62-75-9	N-Methyl-N-nitrosomethylamin	1540	U
110-86-1	Pyridine	1540	U
62-53-3	Aniline	1540	U
108-95-2	Phenol	1540	U
111-44-4	bis(2-Chloroethyl) ether	1540	U
95-57-8	2-Chlorophenol	1540	U
541-73-1	1,3-Dichlorobenzene	1540	U
106-46-7	1,4-Dichlorobenzene	1540	U
100-51-6	Benzyl alcohol	1540	U
95-50-1	1,2-Dichlorobenzene	1540	U
108-60-1	bis(2-Chloroisopropyl)ether	1540	U
95-48-7	o-Cresol	1540	U
621-64-7	N-Nitrosodipropylamine	1540	U
65794-96-9	m,p-Cresols	1540	U
67-72-1	Hexachloroethane	1540	U
78-59-1	Isophorone	1540	U
88-75-5	2-Nitrophenol	1540	U
105-67-9	2,4-Dimethylphenol	1540	U
111-91-1	bis(2-Chloroethoxy)methane	1540	U
120-83-2	2,4-Dichlorophenol	1540	U
65-85-0	Benzoic acid	3080	U
120-82-1	1,2,4-Trichlorobenzene	1540	U
91-20-3	Naphthalene	154	U
106-47-8	4-Chloroaniline	1540	U
87-68-3	Hexachlorobutadiene	1540	U
59-50-7	4-Chloro-3-methylphenol	1540	U
91-57-6	2-Methylnaphthalene	154	U
77-47-4	Hexachlorocyclopentadiene	1540	U
88-06-2	2,4,6-Trichlorophenol	1540	U
95-95-4	2,4,5-Trichlorophenol	1540	U
91-58-7	2-Chloronaphthalene	154	U
88-74-4	o-Nitroaniline	1540	U
99-09-2	m-Nitroaniline	1540	U

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FORM I SV-1 OLM03.0

1C
SVOA ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-59541

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

Matrix: (soil/water) SOIL Lab Sample ID: 135805002

Sample wt/vol: 30.0 (g/mL) G Lab File ID: S8E1907

Level: (low/med) LOW Date Received: 05/04/05

% Moisture: 13 decanted: (Y/N) N Date Extracted: 05/10/05

Concentrated Extract Volume: 1.00 (mL) Date Analyzed: 05/19/05

Injection Volume: 0.5 (uL) Dilution Factor: 4.0

GPC Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG		Q
131-11-3	Dimethylphthalate		1540	U
606-20-2	2,6-Dinitrotoluene		1540	U
208-96-8	Acenaphthylene		154	U
83-32-9	Acenaphthene		154	U
51-28-5	2,4-Dinitrophenol		3080	U
132-64-9	Dibenzofuran		1540	U
121-14-2	2,4-Dinitrotoluene		1540	U
84-66-2	Diethylphthalate		1540	U
100-02-7	4-Nitrophenol		1540	U
86-73-7	Fluorene		154	U
7005-72-3	4-Chlorophenylphenylether		1540	U
534-52-1	2-Methyl-4,6-dinitrophenol		1540	U
100-01-6	p-Nitroaniline		1540	U
122-39-4	Diphenylamine		1540	U
122-66-7	1,2-Diphenylhydrazine		1540	U
101-55-3	4-Bromophenylphenylether		1540	U
118-74-1	Hexachlorobenzene		1540	U
87-86-5	Pentachlorophenol		1540	U
85-01-8	Phenanthrene		154	U
120-12-7	Anthracene		154	U
84-74-2	Di-n-butylphthalate		1540	U
206-44-0	Fluoranthene		154	U
129-00-0	Pyrene		154	U
85-68-7	Butylbenzylphthalate		1540	U
56-55-3	Benzo(a)anthracene		154	U
91-94-1	3,3'-Dichlorobenzidine		1540	U
218-01-9	Chrysene		154	U
117-81-7	bis(2-Ethylhexyl)phthalate	U, SVB	697	JB
117-84-0	Di-n-octylphthalate		1540	U
205-99-2	Benzo(b)fluoranthene		154	U
207-08-9	Benzo(k)fluoranthene		154	U
50-32-8	Benzo(a)pyrene		154	U
193-39-5	Indeno(1,2,3-cd)pyrene		154	U

FORM I SV-2 OLM03.0

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1C
SVOA ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-59541

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

Matrix: (soil/water) SOIL Lab Sample ID: 135805002

Sample wt/vol: 30.0 (g/mL) G Lab File ID: S8E1907

Level: (low/med) LOW Date Received: 05/04/05

% Moisture: 13 decanted: (Y/N) N Date Extracted: 05/10/05

Concentrated Extract Volume: 1.00(mL) Date Analyzed: 05/19/05

Injection Volume: 0.5(uL) Dilution Factor: 4.0

GPC Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
53-70-3	Dibenzo(a,h)anthracene	154	U
191-24-2	Benzo(ghi)perylene	154	U

JAW 7/1/05

FORM I SV-3 OLM03.0

1F
SVOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

RE03-05-59541

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

Matrix: (soil/water) SOIL Lab Sample ID: 135805002

Sample wt/vol: 30.0 (g/mL) G Lab File ID: S8E1907

Level: (low/med) LOW Date Received: 05/04/05

% Moisture: 13 decanted: (Y/N) N Date Extracted:05/10/05

Concentrated Extract Volume: 1.00(mL) Date Analyzed: 05/19/05

Injection Volume: 0.5(uL) Dilution Factor: 4.0

GPC Cleanup: (Y/N) N

Number TICs found: 12

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN HYDROCARBON	8.53	4110	J
2. 20175-84-2	[1,2'-BINAPHTHALENE]-5,5',8,	8.59	1650	NJ
3. 19780-11-1	2-DODECEN-1-YL(-)SUCCINIC AN	8.61	1620	NJ
4.	UNKNOWN HYDROCARBON	8.63	2760	J
5.	UNKNOWN HYDROCARBON	8.83	1610	J
6.	UNKNOWN	8.84	1510	J
7.	UNKNOWN	8.97	2750	J
8.	UNKNOWN	9.06	2360	J
9.	UNKNOWN	9.12	1020	J
10.	UNKNOWN	9.35	1120	J
11.	UNKNOWN	9.36	914	J
12. 1000130-81-0	E-11,13-DIMETHYL-12-TETRADEC	9.47	811	NJ
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FORM I SV-TIC OLM03.0

1B
SVOA ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-59542

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

Matrix: (soil/water) SOIL Lab Sample ID: 135805004

Sample wt/vol: 30.0 (g/mL) G Lab File ID: S8E1909

Level: (low/med) LOW Date Received: 05/04/05

% Moisture: 14 decanted: (Y/N) N Date Extracted:05/10/05

Concentrated Extract Volume: 1.00(mL) Date Analyzed: 05/19/05

Injection Volume: 0.5(uL) Dilution Factor: 4.0

GPC Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
62-75-9	N-Methyl-N-nitrosomethylamin	1560	U
110-86-1	Pyridine	1560	U
62-53-3	Aniline	1560	U
108-95-2	Phenol	1560	U
111-44-4	bis(2-Chloroethyl) ether	1560	U
95-57-8	2-Chlorophenol	1560	U
541-73-1	1,3-Dichlorobenzene	1560	U
106-46-7	1,4-Dichlorobenzene	1560	U
100-51-6	Benzyl alcohol	1560	U
95-50-1	1,2-Dichlorobenzene	1560	U
108-60-1	bis(2-Chloroisopropyl)ether	1560	U
95-48-7	o-Cresol	1560	U
621-64-7	N-Nitrosodipropylamine	1560	U
65794-96-9	m,p-Cresols	1560	U
67-72-1	Hexachloroethane	1560	U
78-59-1	Isophorone	1560	U
88-75-5	2-Nitrophenol	1560	U
105-67-9	2,4-Dimethylphenol	1560	U
111-91-1	bis(2-Chloroethoxy)methane	1560	U
120-83-2	2,4-Dichlorophenol	1560	U
65-85-0	Benzoic acid	3110	U
120-82-1	1,2,4-Trichlorobenzene	1560	U
91-20-3	Naphthalene	156	U
106-47-8	4-Chloroaniline	1560	U
87-68-3	Hexachlorobutadiene	1560	U
59-50-7	4-Chloro-3-methylphenol	1560	U
91-57-6	2-Methylnaphthalene	156	U
77-47-4	Hexachlorocyclopentadiene	1560	U
88-06-2	2,4,6-Trichlorophenol	1560	U
95-95-4	2,4,5-Trichlorophenol	1560	U
91-58-7	2-Chloronaphthalene	156	U
88-74-4	o-Nitroaniline	1560	U
99-09-2	m-Nitroaniline	1560	U

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FORM I SV-1 OLM03.0

1C
SVOA ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-59542

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

Matrix: (soil/water) SOIL Lab Sample ID: 135805004

Sample wt/vol: 30.0 (g/mL) G Lab File ID: S8E1909

Level: (low/med) LOW Date Received: 05/04/05

% Moisture: 14 decanted: (Y/N) N Date Extracted:05/10/05

Concentrated Extract Volume: 1.00(mL) Date Analyzed: 05/19/05

Injection Volume: 0.5(uL) Dilution Factor: 4.0

GPC Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
131-11-3	Dimethylphthalate	1560	U
606-20-2	2,6-Dinitrotoluene	1560	U
208-96-8	Acenaphthylene	156	U
83-32-9	Acenaphthene	156	U
51-28-5	2,4-Dinitrophenol	3110	U
132-64-9	Dibenzofuran	1560	U
121-14-2	2,4-Dinitrotoluene	1560	U
84-66-2	Diethylphthalate	1560	U
100-02-7	4-Nitrophenol	1560	U
86-73-7	Fluorene	156	U
7005-72-3	4-Chlorophenylphenylether	1560	U
534-52-1	2-Methyl-4,6-dinitrophenol	1560	U
100-01-6	p-Nitroaniline	1560	U
122-39-4	Diphenylamine	1560	U
122-66-7	1,2-Diphenylhydrazine	1560	U
101-55-3	4-Bromophenylphenylether	1560	U
118-74-1	Hexachlorobenzene	1560	U
87-86-5	Pentachlorophenol	1560	U
85-01-8	Phenanthrene	156	U
120-12-7	Anthracene	156	U
84-74-2	Di-n-butylphthalate	1560	U
206-44-0	Fluoranthene	156	U
129-00-0	Pyrene	156	U
85-68-7	Butylbenzylphthalate	1560	U
56-55-3	Benzo(a)anthracene	156	U
91-94-1	3,3'-Dichlorobenzidine	1560	U
218-01-9	Chrysene	156	U
117-81-7	bis(2-Ethylhexyl)phthalate	1190	JB
117-84-0	Di-n-octylphthalate	1560	U
205-99-2	Benzo(b)fluoranthene	156	U
207-08-9	Benzo(k)fluoranthene	156	U
50-32-8	Benzo(a)pyrene	156	U
193-39-5	Indeno(1,2,3-cd)pyrene	156	U

FORM I SV-2 OLM03.0

JAW 7/1/05

1C
SVOA ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-59542

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

Matrix: (soil/water) SOIL Lab Sample ID: 135805004

Sample wt/vol: 30.0 (g/mL) G Lab File ID: S8E1909

Level: (low/med) LOW Date Received: 05/04/05

% Moisture: 14 decanted: (Y/N) N Date Extracted: 05/10/05

Concentrated Extract Volume: 1.00(mL) Date Analyzed: 05/19/05

Injection Volume: 0.5(uL) Dilution Factor: 4.0

GPC Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
53-70-3	Dibenzo(a,h)anthracene	156	U
191-24-2	Benzo(ghi)perylene	156	U

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FORM I SV-3 OLM03.0

1F
SVOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

RE03-05-59542

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

Matrix: (soil/water) SOIL Lab Sample ID: 135805004

Sample wt/vol: 30.0 (g/mL) G Lab File ID: S8E1909

Level: (low/med) LOW Date Received: 05/04/05

% Moisture: 14 decanted: (Y/N) N Date Extracted:05/10/05

Concentrated Extract Volume: 1.00(mL) Date Analyzed: 05/19/05

Injection Volume: 0.5(uL) Dilution Factor: 4.0

GPC Cleanup: (Y/N) N

Number TICs found: 15

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 1599-67-3	1-DOCOSENE	7.96	1270	NJ
2.	UNKNOWN HYDROCARBON	8.16	1120	J
3. 638-36-8	HEXADECANE, 2,6,10,14-TETRAM	8.27	1120	NJ
4.	UNKNOWN HYDROCARBON	8.53	4910	J
5. 4452-45-3	1,14-DOCOSANEDIOL	8.56	3650	NJ
6. 55044-36-5	1H-INDENE, 5-BUTYL-6-HEXYLOC	8.59	2740	NJ
7. 20175-84-2	[1,2'-BINAPHTHALENE]-5,5',8,	8.92	1440	NJ
8.	UNKNOWN ANHYDRIDE	8.98	3860	J
9.	UNKNOWN	9.03	2020	J
10.	UNKNOWN	9.06	3530	J
11. 7683-64-9	SQUALENE	9.16	1730	NJ
12.	UNKNOWN	9.17	1520	J
13.	UNKNOWN	9.19	2440	J
14.	UNKNOWN	9.34	2070	J
15.	UNKNOWN	9.39	1430	J
16.				
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				

FORM I SV-TIC OLM03.0

1B
DRO ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-59532

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

Matrix: (soil/water) SOIL Lab Sample ID: 135805003

Sample wt/vol: 30.0 (g/mL) G Lab File ID: 021F2101

Level: (low/med) LOW Date Received: 05/04/05

% Moisture: 14 decanted: (Y/N) N Date Extracted: 05/11/05

Concentrated Extract Volume: 1.00(mL) Date Analyzed: 05/16/05

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) MG/KG	Q
	----------Diesel Range Organics	88.0	

JAW 7/1/05

FORM I SV-1 OLM03.0

1B
DRO ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-59531

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

Matrix: (soil/water) SOIL Lab Sample ID: 135805001

Sample wt/vol: 30.0 (g/mL) G Lab File ID: 019F1901

Level: (low/med) LOW Date Received: 05/04/05

% Moisture: 16 decanted: (Y/N) N Date Extracted: 05/11/05

Concentrated Extract Volume: 1.00(mL) Date Analyzed: 05/16/05

Injection Volume: 1.0(uL) Dilution Factor: 10.0

GPC Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) MG/KG	Q
	----------Diesel Range Organics	398	

JAW 7/16/05

FORM I SV-1 OLM03.0

1B
DRO ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-59541

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

Matrix: (soil/water) SOIL Lab Sample ID: 135805002

Sample wt/vol: 30.0 (g/mL) G Lab File ID: 020F2001

Level: (low/med) LOW Date Received: 05/04/05

% Moisture: 13 decanted: (Y/N) N Date Extracted:05/11/05

Concentrated Extract Volume: 1.00(mL) Date Analyzed: 05/16/05

Injection Volume: 1.0(uL) Dilution Factor: 10.0

GPC Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) MG/KG	Q
	----------Diesel Range Organics	99.9	

JAW
7/1/05

FORM I SV-1 OLM03.0

1B
DRO ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-59542

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

Matrix: (soil/water) SOIL Lab Sample ID: 135805004

Sample wt/vol: 30.0 (g/mL) G Lab File ID: 022F2201

Level: (low/med) LOW Date Received: 05/04/05

% Moisture: 14 decanted: (Y/N) N Date Extracted:05/11/05

Concentrated Extract Volume: 1.00(mL) Date Analyzed: 05/16/05

Injection Volume: 1.0(uL) Dilution Factor: 10.0

GPC Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) MG/KG	Q
	Diesel Range Organics	230	

JAW
7/1/05

FORM I SV-1 OLM03.0

1A
GRO ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-59532

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

Matrix: (soil/water) SOIL Lab Sample ID: 135805003

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 1J6011

Level: (low/med) LOW Date Received: 05/04/05

% Moisture: not dec. 14 Date Analyzed: 05/14/05

GC Column: RTX-VOLATILES ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
	----------Gasoline Range Organics_____	58.1	U

JAW
7/1/05

FORM I VOA OLM03.0

1A
GRO ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-59531

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

Matrix: (soil/water) SOIL Lab Sample ID: 135805001

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 1J609

Level: (low/med) LOW Date Received: 05/04/05

% Moisture: not dec. 16 Date Analyzed: 05/14/05

GC Column: RTX-VOLATILES ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
	----------Gasoline Range Organics_____	29.2	J

JAW
7/1/05

FORM I VOA OLM03.0

1A
GRO ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-59541

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

Matrix: (soil/water) SOIL Lab Sample ID: 135805002

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 1J6010

Level: (low/med) LOW Date Received: 05/04/05

% Moisture: not dec. 13 Date Analyzed: 05/14/05

GC Column: RTX-VOLATILES ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
	Gasoline Range Organics	57.7	U

JAW
7/1/05

FORM I VOA OLM03.0

1A
GRO ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-59542

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

Matrix: (soil/water) SOIL Lab Sample ID: 135805004

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 1J6012

Level: (low/med) LOW Date Received: 05/04/05

% Moisture: not dec. 14 Date Analyzed: 05/14/05

GC Column: RTX-VOLATILES ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
	----------Gasoline Range Organics_____	34.1	J

JAW
7/1/05

FORM I VOA OLM03.0

1D
PCB ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-59532

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

Matrix: (soil/water) SOIL Lab Sample ID: 135805003

Sample wt/vol: 30.0 (g/mL) G Lab File ID: 060F6001

% Moisture: 14 decanted: (Y/N) N Date Received: 05/04/05

Extraction: (SepF/Cont/Sonc) SONC Date Extracted:05/11/05

Concentrated Extract Volume: 1.00(mL) Date Analyzed: 05/13/05

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
12674-11-2	Aroclor-1016	3.9	U
11104-28-2	Aroclor-1221	3.9	U
11141-16-5	Aroclor-1232	3.9	U
53469-21-9	Aroclor-1242	3.9	U
12672-29-6	Aroclor-1248	3.9	U
11097-69-1	Aroclor-1254	3.9	U
11096-82-5	Aroclor-1260	3.9	U

JAW 7/1/05

1D
PCB ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-59531

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

Matrix: (soil/water) SOIL Lab Sample ID: 135805001

Sample wt/vol: 30.0 (g/mL) G Lab File ID: 056F5601

% Moisture: 16 decanted: (Y/N) N Date Received: 05/04/05

Extraction: (SepF/Cont/Sonc) SONC Date Extracted:05/11/05

Concentrated Extract Volume: 1.00(mL) Date Analyzed: 05/13/05

Injection Volume: 1.0(uL) Dilution Factor: 10.0

GPC Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
12674-11-2	Aroclor-1016	39.6	U
11104-28-2	Aroclor-1221	39.6	U
11141-16-5	Aroclor-1232	39.6	U
53469-21-9	Aroclor-1242	39.6	U
12672-29-6	Aroclor-1248	39.6	U
11097-69-1	Aroclor-1254	18.4	J
11096-82-5	Aroclor-1260	39.6	U

JAW
7/1/05

FORM I PEST OLM03.0

1D
PCB ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-59541

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

Matrix: (soil/water) SOIL Lab Sample ID: 135805002

Sample wt/vol: 30.0 (g/mL) G Lab File ID: 059F5901

% Moisture: 13 decanted: (Y/N) N Date Received: 05/04/05

Extraction: (SepF/Cont/Sonc) SONC Date Extracted:05/11/05

Concentrated Extract Volume: 1.00(mL) Date Analyzed: 05/13/05

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
12674-11-2	Aroclor-1016	3.8	U
11104-28-2	Aroclor-1221	3.8	U
11141-16-5	Aroclor-1232	3.8	U
53469-21-9	Aroclor-1242	3.8	U
12672-29-6	Aroclor-1248	3.8	U
11097-69-1	Aroclor-1254	2.5	JP
11096-82-5	Aroclor-1260	1.3	J

JAW 7/1/05

FORM I PEST OLM03.0

1D
PCB ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-59542

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

Matrix: (soil/water) SOIL Lab Sample ID: 135805004

Sample wt/vol: 30.0 (g/mL) G Lab File ID: 061F6101

% Moisture: 14 decanted: (Y/N) N Date Received: 05/04/05

Extraction: (SepF/Cont/Sonc) SONC Date Extracted:05/11/05

Concentrated Extract Volume: 1.00(mL) Date Analyzed: 05/13/05

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
12674-11-2	Aroclor-1016	3.9	U
11104-28-2	Aroclor-1221	3.9	U
11141-16-5	Aroclor-1232	3.9	U
53469-21-9	Aroclor-1242	3.9	U
12672-29-6	Aroclor-1248	3.9	U
11097-69-1	Aroclor-1254	2.4	JP
11096-82-5	Aroclor-1260	1.4	J

JAW
7/1/05

FORM I PEST OLM03.0

DATA VALIDATION COVER SHEET (Example)

SECTION I.

REQUEST NUMBER: 31945 COST CODE: _____

VALIDATION DATE: _____

LAB NAME: Gel LAB CODE: _____

VALIDATOR: _____ ORGANIZATION: _____

ANALYTICAL SUITE: ___ VOLATILES ___ HIGH EXPLOSIVES

___ SEMIVOLATILES ___ INORGANICS

___ PESTICIDES/AROCLORS ___ RADIOCHEMISTRY

OTHER (describe) _____

SECTION II. COMPLETENESS CHECKLIST

Item	Present? (Y/N/NA)	Item	Present? (Y/N/NA)
1. COC form(s)		2. Case Narrative	
3. Sample Results		4. Sample Chromatograms	
5. Standard Chromatograms		6. Quantitation Reports	
7. QC Forms			

Identify any samples in the assigned Request Number that are missing:

_____ _____ _____ _____ _____ _____

_____ _____ _____ _____ _____ _____

Comments: include information about requests to the laboratory and agreed upon date of resolution and lab contact: (Attach additional comment sheets as necessary)

_____

_____

_____

Signature/1st validation: _____ Date/1st validation: _____

Signature/2nd validation: _____ Date/2nd validation: _____

GENERAL ENGINEERING LABORATORIES, LLC
a Member of THE GEL GROUP, INC.
Meeting Today's Needs with a Vision for Tomorrow

May 30, 2005

Ms. Joylene Valdez, MS-M707
Los Alamos National Laboratory
TA-3, Bldg. 1237, Drop Pt. 03U
Los Alamos, NM 87544

Re: Contract No. 12631-0011 2P

Dear Ms. Valdez:

I am sending you the data package for the soil samples for release # 3194S that were analyzed for Organic parameters.

General Engineering Laboratories appreciates this opportunity to provide you with analytical results, and trusts that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 769-7391.

Yours very truly,

Valerie S. Davis
Project Manager

enclosure

P.O. Box 30712 • Charleston, SC 29417 • 2040 Savage Road (29407)
Phone (843) 556-8171 • Fax (843) 766-1178 • www.gel.com

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Miscellaneous Data 708

GENERAL NARRATIVE

CASE NARRATIVE
for
Los Alamos National Laboratory
Contract No. 12631-0011 2P
Release # 3194S

May 30, 2005

Laboratory Identification:

General Engineering Laboratories, LLC.

Mailing Address:

P.O. Box 30712
Charleston, South Carolina 29417

Express Mail Delivery and Shipping Address:

2040 Savage Road
Charleston, South Carolina 29407

Telephone Number:

(843) 556-8171

Summary:

Sample receipt

The samples for Los Alamos National Laboratory SMO release #3194S arrived at General Engineering Laboratories, LLC., (GEL) Charleston, South Carolina on May 4, 2005 for environmental analyses. The sample containers arrived without any visible signs of tampering or breakage. The sample containers were received at 6°C temperature.

The laboratory received the following samples:

Laboratory Identification	Sample Description
135805001	RE03-05-59531
135805002	RE03-05-59541
135805003	RE03-05-59432
135805004	RE03-05-59542
135805005	RE03-05-59546

Internal Chain of Custody:

Custody was maintained for the samples.

Data Package:

The enclosed data package contains the following sections: Case Narrative, Chain of Custody, Cooler Receipt Checklist, Data Qualifier Review Sheet, Volatile Analysis, Semivolatile Analysis, FID Analysis, PCB Analysis, and TPH-GRO Analysis.

I certify that this data report is in compliance with the terms and conditions of the subcontract and task order, both technically and for completeness, for other than the conditions detailed in the attached case narrative.

Valerie S. Davis

Project Manager

CHAIN OF CUSTODY

Tuesday, May 3, 2005

CHAIN OF CUSTODY DOCUMENT NUMBER: 3194SC

Los Alamos
NATIONAL LABORATORY

REQUEST NUMBER: 3194S

ANALYSIS TYPE: ORGANIC

ATTN: Stacy Griffin
General Engineering Laboratories, Inc., Historical
2040 Savage Road
Charleston, SC 29407

1358057

SAMPLE ID	CONT ID	CONTAINER DESCRIPTION	ORDER TEMPLATE CODE	PRESERVATIVE	MATRIX
RE03-05-59531 1311	3	500 ML GLASS	8270C+8082+TPH-DRO .1	ICE	S
RE03-05-59531 ↓	4	125 SEPTUM AMBER GLASS	TPH-GRO	ICE	S
RE03-05-59532 1038	1	5 G ENCORE	8260BENCORE	ICE	S
RE03-05-59532 ↓	2	5 G ENCORE	8260BENCORE .2	ICE	S
RE03-05-59532 ↓	3	500 ML GLASS	8270C+8082+TPH-DRO	ICE	S
RE03-05-59532 ↓	4	125 SEPTUM AMBER GLASS	TPH-GRO	ICE	S
RE03-05-59541 1318	3	500 ML GLASS	8270C+8082+TPH-DRO	ICE	S
RE03-05-59541 ↓	4	125 SEPTUM AMBER GLASS	TPH-GRO .1	ICE	S
RE03-05-59542 1045	1	5 G ENCORE	8260BENCORE	ICE	S
RE03-05-59542 ↓	2	5 G ENCORE	8260BENCORE	ICE	S
RE03-05-59542 1045	3	500 ML GLASS	8270C+8082+TPH-DRO .2	ICE	S
RE03-05-59542 ↓	4	125 SEPTUM AMBER GLASS	TPH-GRO	ICE	S
RE03-05-59546 NA	1	125 SEPTUM AMBER GLASS	8260B .3	ICE	S

Final Page of CHAIN OF CUSTODY DOCUMENT FOR REQUEST NUMBER 3194S

Relinquished By: PRINTED NAME	SIGNATURE	Date	Time	Received By: PRINTED NAME	SIGNATURE	Date	Time
A Padilla	A Padilla	5/3/05	1480	C Grase	C Grase	5/4/05	9:45
PRINTED NAME	SIGNATURE			PRINTED NAME	SIGNATURE		
PRINTED NAME	SIGNATURE			PRINTED NAME	SIGNATURE		

Received for DISPOSAL By: PRINTED NAME	SIGNATURE	Date	Time	Remarks:

5

Tuesday, May 3, 2005

REQUEST NUMBER: 3194S

Los Alamos
NATIONAL LABORATORY

ANALYSIS TYPE: ORGANIC

ATTN: Stacy Griffin
General Engineering Laboratories, Inc., Historical
2040 Savage Road
Charleston, SC 29407

Please analyze the enclosed samples according to the schedule indicated:

SHIP DATE: 05/03/2005
REPORT DUE: 05/13/2005
TURN AROUND REQ'D: 10

RAD SCREENING: NOT REQ
COMMENTS:

These samples are on:

LANL Request Number: 3194S
Per Agreement Number: 126310011
Project Cost Code: MR0R00FC6800

LANL ER SMO CONTACT:
135805%
Signature:

Page 1

METHOD CODE	SAMPLE ID	CONT ID	SAMPLE MATRIX	DATE SAMPLED	COMMENTS
SW-846:8015M_EXTRACTABLE	RE03-05-59531	3	S	05/02/2005	
SW-846:8082	RE03-05-59531	3	S	05/02/2005	
SW-846:8270C	RE03-05-59531	3	S	05/02/2005	
SW-846:8015M_PURGEABLE	RE03-05-59531	4	S	05/02/2005	
SW-846:8260B	RE03-05-59532	1	S	05/03/2005	
SW-846:8260B	RE03-05-59532	2	S	05/03/2005	
SW-846:8015M_EXTRACTABLE	RE03-05-59532	3	S	05/03/2005	
SW-846:8082	RE03-05-59532	3	S	05/03/2005	
SW-846:8270C	RE03-05-59532	3	S	05/03/2005	
SW-846:8015M_PURGEABLE	RE03-05-59532	4	S	05/03/2005	
SW-846:8015M_EXTRACTABLE	RE03-05-59541	3	S	05/03/2005	
SW-846:8082	RE03-05-59541	3	S	05/03/2005	
SW-846:8270C	RE03-05-59541	3	S	05/03/2005	
SW-846:8015M_PURGEABLE	RE03-05-59541	4	S	05/03/2005	
SW-846:8260B	RE03-05-59542	1	S	05/03/2005	
SW-846:8260B	RE03-05-59542	2	S	05/03/2005	
SW-846:8015M_EXTRACTABLE	RE03-05-59542	3	S	05/03/2005	
SW-846:8082	RE03-05-59542	3	S	05/03/2005	
SW-846:8270C	RE03-05-59542	3	S	05/03/2005	
SW-846:8015M_PURGEABLE	RE03-05-59542	4	S	05/03/2005	
SW-846:8260B	RE03-05-59546	1	S	05/03/2005	

Final Page of REQUEST NUMBER 3194S

COOLER RECEIPT CHECKLIST

SAMPLE RECEIPT & REVIEW FORM

GENERAL ENGINEERING LABORATORIES, LLC

PM use only

Client: Los Alamos	SDG/ARCOC/Work Order: 31945
Date Received: 5/4/05	PM(A) Review (ensure non-conforming items are resolved prior to signing):
Received By:	

	Sample Receipt Criteria	Conforming	NA	Non-Conforming	Comments/Qualifiers (Required for Non-Conforming Items).
1	Shipping containers received intact and sealed?	✓			Circle Applicable: seals broken damaged container leaking container other (describe)
2	Samples requiring cold preservation within (4 +/- 2 C): Record preservation method.	✓			Circle Coolant # ice bags blue ice dry ice none other(describe) 6°
3	Chain of custody documents included with shipment?	✓			
4	Sample containers intact and sealed?	~~✓~~ X		✓	Circle Applicable: seals broken damaged container leaking container other (describe) Broken 59535 - 500 ambers loss 59529 - 500 ambers
5	Samples requiring chemical preservation at proper pH?		✓		Sample ID's, containers affected and observed pH:
6	VOA vials free of headspace (defined as < 6mm bubble)?		✓		Sample ID's and containers affected:
7	Samples received within holding time?	✓			Id's and tests affected:
8	Sample ID's on COC match ID's on bottles?	✓			Sample ID's and containers affected:
9	Date & time on COC match date & time on bottles?			✓	Sample ID's affected: no date & time on samples
10	Number of containers received match number indicated on COC?	~~✓~~ X		✓	Sample ID's affected: missing 59529-1+2 59537-1+2 - Encore
11	COC form is properly signed in relinquished/received sections?	✓			
12	Air Bill ,Tracking #'s, & Additional Comments	Fed Ex 6954 7789 4081 6954 7789 4107			

Radiological Information	Non-RAD	RAD	RADII	RSO RAD Receipt #
What is the radiological classification of the samples?	✓			Comments:
Radioactivity Screening Results (maximum observed CPM)	30CPM			*If > x2 area background is observed on a non-radioactive sample, contact the RSO to investigate.

PM (or PMA) review of Receiving Rad classification: VSO Initials 5/4/05 Date:

DATA REVIEW QUALIFIER FLAG DEFINITION SHEET

General Engineering Laboratories, LLC

DATA QUALIFIERS FOR ORGANIC ANALYSES

Data Qualifiers used on Form 1s or Certificates of Analysis (COA) follow the specifications set forth in the technical specifications of the most current CLP Statement of Work and are defined as follows:

Section	Explanation	Location
A	The TIC is suspected aldol-condensation product.	COA, Form 1, and EDD
B	Analyte was detected in the associated method blank as well as in the sample.	COA, Form 1, and EDD
C	Pesticide analyte has been confirmed by GC/MS.	COA, Form 1, and EDD
D	Analyte(s) quantified in an analysis performed at a secondary dilution factor.	COA, Form 1, and EDD
E	Identifies compounds whose concentrations exceed the upper level of the calibration range of the instrument for that specific analysis.	COA, Form 1, and EDD
J	This flag indicates an estimated value concerning either, (1) estimating a concentration for tentatively identified compounds (TICs), or (2) analyte detected at a level less than the RDL or PQL and greater than or equal to the MDL.	COA, Form 1, and EDD
N	Presumptive evidence based upon a mass spectral library search to make a tentative identification of the analyte.	COA, Form 1, and EDD
NJ	Analyte has been tentatively identified and the associated numerical value is estimated based upon 1:1 response factor to the nearest eluting internal standard.	COA, Form 1, and EDD
P	- Pesticide/PCB target analyte that is greater than 25% difference for the detected concentrations between the two GC columns. - HPLC target analyte that is greater than 40% difference for the detected concentrations between detectors or columns.	Form 1 and EDD
U	Compound analyzed for but not detected (sample quantitation limit has been adjusted to reflect dilutions and percent moisture).	COA, Form 1, and EDD
X	Other reporting flag as defined in report narrative.	COA, Form 1, and EDD
**	Laboratory Control Sample recovery outside of acceptance limit.	QC Summary Report

All surrogate recoveries and acceptance ranges are reported at the bottom of Form 2 or COA.

GC/MS VOLATILE ANALYSIS

GC/MS Volatile Organics
Los Alamos National Laboratory (LANL)
SDG 3194S

Method/Analysis Information

Procedure:	Volatile Organic Compounds (VOC) by Gas Chromatography/Mass Spectrometer
Analytical Method:	SW846 8260B
Prep Method:	SW846 5030A
Analytical Batch Number:	425470
Prep Batch Number:	425465

Due to client sampling procedures, samples were prepared according to EPA SW-846 Third Edition, Method 5030A, Revision 1, July 1992, Sampling Preparation and Extraction for the Analysis of Volatile Organics by a Purge and Trap Procedure . This procedure is no longer referenced in the most recent update for volatile organic analysis by EPA SW-846, Method 8260B.

Sample Analysis

The following client and quality control samples were analyzed to complete this SDG using the methods referenced in the Analysis Information section:

Sample ID	Client ID
135805003	RE03-05-59532
135805004	RE03-05-59542
135805005	RE03-05-59546
1200846374	Method Blank (MB)
1200846375	Laboratory Control Sample (LCS)
1200846405	Laboratory Control Sample (LCS)
1200846406	Laboratory Control Sample Duplicate (LCSD)

Preparation/Analytical Method Verification

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by General Engineering Laboratories, LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-038 REV# 9.

Calibration Information
Due to the limited capacity of software all of the current initial calibration files are not displayed here. If necessary, a calibration history will be inserted in the package prior to the appropriate Form 6.

Initial Calibration
All initial calibration requirements have been met for this sample delivery groups (SDG). A second source initial calibration verification (ICV) was included in the standard section directly behind the initial calibration.

Continuing Calibration Verification Requirements
All associated calibration verification standard(s) (ICV or CCV) met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Surrogate Recoveries
Surrogate recoveries, in all samples and quality control samples were within the acceptance limits.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

Laboratory Control Sample Duplicate (LCSD) Recovery
The LCSD recoveries were not all within the required acceptance limits. The failures were less than 5% of the requested analyte list. This satisfies the client criteria. Please see the Form III in the deliverable for a complete list of failures and the recovery limits. See NCR 202717.

LCS/LCSD Relative Percent Difference (RPD) Statement
The RPD(s) between the LCS and LCSD met the acceptance limits.

Internal Standard (ISTD) Acceptance
The internal standard responses, in all samples and quality control samples, met the required acceptance criteria.

Technical Information

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection or sample receipt. Those holding times expressed in hours are calculated in the ALPHALIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Sample Preservation and Integrity
All samples met the sample preservation and integrity requirements.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-extraction/Re-analysis
Re-analyses were not required for samples in this SDG except for dilutions and/or confirmations.

Miscellaneous Information

Electronic Package Comment
The following package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory is developing systems to eventually generate all data packages electronically. The following change from traditional packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. An electronic signature page inserted after the case narrative of each electronic package will indicate the analyst, reviewer, and report specialist names associated with the generation of the data and package. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Nonconformance (NCR) Documentation
Nonconformance report (NCR) 202717 was generated for this SDG.

Manual Integrations
Data files associated with the initial calibration, continuing calibration check, and samples did not require manual integrations.

TIC Comment
Tentatively identified compounds (TIC) were required for this SDG.

Additional Comments

The laboratory is in the process of adding an additional surrogate compound. Currently the compound appears as a tentatively identified compound (TIC) in the sample library search at 10 minutes. The laboratory eliminated this peak as a TIC from the Form 1.

System Configuration
The Volatile-GC/MS analysis was performed on a Volatile Organic Analysis by Gas Chromatography/Mass Spectroscopy.

Instrument ID	System Configuration	Column ID	Column Description	P & T Trap
VOA1.I	HP6890/HP5973	RESTEK	RTX-Volatiles, 30m x 0.25 mm, 1.0um	Trap 10

Certification Statement

When the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Erin Lambert Date: 6/1/05

SAMPLE DATA SUMMARY

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-59532

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

Matrix: (soil/water) SOIL Lab Sample ID: 135805003

Sample wt/vol: 4.4 (g/mL) G Lab File ID: 1J517

Level: (low/med) LOW Date Received: 05/04/05

% Moisture: not dec. 14 Date Analyzed: 05/13/05

GC Column: RTX-VOLATILES ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-71-8	Dichlorodifluoromethane	1.3	U
74-87-3	Chloromethane	1.3	U
75-01-4	Vinyl chloride	1.3	U
74-83-9	Bromomethane	1.3	U
75-00-3	Chloroethane	1.3	U
75-69-4	Trichlorofluoromethane	1.3	U
75-35-4	1,1-Dichloroethylene	1.3	U
67-64-1	Acetone	9.1	
76-13-1	Trichlorotrifluoroethane	6.6	U
74-88-4	Iodomethane	6.6	U
75-15-0	Carbon disulfide	6.6	U
75-09-2	Methylene chloride	6.6	U
156-60-5	trans-1,2-Dichloroethylene	1.3	U
75-34-3	1,1-Dichloroethane	1.3	U
78-93-3	2-Butanone	6.6	U
156-59-2	cis-1,2-Dichloroethylene	1.3	U
594-20-7	2,2-Dichloropropane	1.3	U
74-97-5	Bromochloromethane	1.3	U
67-66-3	Chloroform	1.3	U
71-55-6	1,1,1-Trichloroethane	1.3	U
563-58-6	1,1-Dichloropropene	1.3	U
56-23-5	Carbon tetrachloride	1.3	U
107-06-2	1,2-Dichloroethane	1.3	U
71-43-2	Benzene	1.3	U
79-01-6	Trichloroethylene	1.3	U
78-87-5	1,2-Dichloropropane	1.3	U
74-95-3	Dibromomethane	1.3	U
75-27-4	Bromodichloromethane	1.3	U
10061-01-5	cis-1,3-Dichloropropylene	1.3	U
108-10-1	4-Methyl-2-pentanone	6.6	U
108-88-3	Toluene	1.3	U
10061-02-6	trans-1,3-Dichloropropylene	1.3	U
79-00-5	1,1,2-Trichloroethane	1.3	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-59532

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

Matrix: (soil/water) SOIL Lab Sample ID: 135805003

Sample wt/vol: 4.4 (g/mL) G Lab File ID: 1J517

Level: (low/med) LOW Date Received: 05/04/05

% Moisture: not dec. 14 Date Analyzed: 05/13/05

GC Column: RTX-VOLATILES ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
142-28-9	1,3-Dichloropropane	1.3	U
591-78-6	2-Hexanone	6.6	U
127-18-4	Tetrachloroethylene	1.3	U
124-48-1	Dibromochloromethane	1.3	U
106-93-4	1,2-Dibromoethane	1.3	U
108-90-7	Chlorobenzene	1.3	U
630-20-6	1,1,1,2-Tetrachloroethane	1.3	U
100-41-4	Ethylbenzene	1.3	U
95-47-6	o-Xylene	1.3	U
	m,p-Xylenes	2.6	U
100-42-5	Styrene	1.3	U
75-25-2	Bromoform	1.3	U
98-82-8	Isopropylbenzene	1.3	U
79-34-5	1,1,2,2-Tetrachloroethane	1.3	U
96-18-4	1,2,3-Trichloropropane	1.3	U
108-86-1	Bromobenzene	1.3	U
103-65-1	n-Propylbenzene	1.3	U
95-49-8	2-Chlorotoluene	1.3	U
108-67-8	1,3,5-Trimethylbenzene	1.3	U
95-63-6	1,2,4-Trimethylbenzene	1.3	U
106-43-4	4-Chlorotoluene	1.3	U
98-06-6	tert-Butylbenzene	1.3	U
135-98-8	sec-Butylbenzene	1.3	U
99-87-6	4-Isopropyltoluene	1.3	U
541-73-1	1,3-Dichlorobenzene	1.3	U
106-46-7	1,4-Dichlorobenzene	1.3	U
104-51-8	n-Butylbenzene	1.3	U
95-50-1	1,2-Dichlorobenzene	1.3	U
96-12-8	1,2-Dibromo-3-chloropropane	1.3	U

FORM I VOA OLM03.0

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
RE03-05-59532

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

Matrix: (soil/water) SOIL Lab Sample ID: 135805003

Sample wt/vol: 4.4 (g/mL) G Lab File ID: 1J517

Level: (low/med) LOW Date Received: 05/04/05

% Moisture: not dec. 14 Date Analyzed: 05/13/05

GC Column: RTX-VOLATILES ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 3

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	4.86	27.1	J
2. 80-56-8	.ALPHA.-PINENE	9.29	7.5	J
3. 13466-78-9	3-CARENE	10.52	15.3	J
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FORM I VOA-TIC OLM03.0

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-59542

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

Matrix: (soil/water) SOIL Lab Sample ID: 135805004

Sample wt/vol: 4.8 (g/mL) G Lab File ID: 1J518

Level: (low/med) LOW Date Received: 05/04/05

% Moisture: not dec. 14 Date Analyzed: 05/13/05

GC Column: RTX-VOLATILES ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-71-8	Dichlorodifluoromethane	1.2	U
74-87-3	Chloromethane	1.2	U
75-01-4	Vinyl chloride	1.2	U
74-83-9	Bromomethane	1.2	U
75-00-3	Chloroethane	1.2	U
75-69-4	Trichlorofluoromethane	1.2	U
75-35-4	1,1-Dichloroethylene	1.2	U
67-64-1	Acetone	6.1	U
76-13-1	Trichlorotrifluoroethane	6.1	U
74-88-4	Iodomethane	6.1	U
75-15-0	Carbon disulfide	6.1	U
75-09-2	Methylene chloride	6.1	U
156-60-5	trans-1,2-Dichloroethylene	1.2	U
75-34-3	1,1-Dichloroethane	1.2	U
78-93-3	2-Butanone	6.1	U
156-59-2	cis-1,2-Dichloroethylene	1.2	U
594-20-7	2,2-Dichloropropane	1.2	U
74-97-5	Bromochloromethane	1.2	U
67-66-3	Chloroform	1.2	U
71-55-6	1,1,1-Trichloroethane	1.2	U
563-58-6	1,1-Dichloropropene	1.2	U
56-23-5	Carbon tetrachloride	1.2	U
107-06-2	1,2-Dichloroethane	1.2	U
71-43-2	Benzene	1.2	U
79-01-6	Trichloroethylene	1.2	U
78-87-5	1,2-Dichloropropane	1.2	U
74-95-3	Dibromomethane	1.2	U
75-27-4	Bromodichloromethane	1.2	U
10061-01-5	cis-1,3-Dichloropropylene	1.2	U
108-10-1	4-Methyl-2-pentanone	6.1	U
108-88-3	Toluene	1.2	U
10061-02-6	trans-1,3-Dichloropropylene	1.2	U
79-00-5	1,1,2-Trichloroethane	1.2	U

FORM I VOA OLM03.0

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-59542

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

Matrix: (soil/water) SOIL Lab Sample ID: 135805004

Sample wt/vol: 4.8 (g/mL) G Lab File ID: 1J518

Level: (low/med) LOW Date Received: 05/04/05

% Moisture: not dec. 14 Date Analyzed: 05/13/05

GC Column: RTX-VOLATILES ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
142-28-9	1,3-Dichloropropane	1.2	U
591-78-6	2-Hexanone	6.1	U
127-18-4	Tetrachloroethylene	1.2	U
124-48-1	Dibromochloromethane	1.2	U
106-93-4	1,2-Dibromoethane	1.2	U
108-90-7	Chlorobenzene	1.2	U
630-20-6	1,1,1,2-Tetrachloroethane	1.2	U
100-41-4	Ethylbenzene	1.2	U
95-47-6	o-Xylene	1.2	U
	m,p-Xylenes	2.4	U
100-42-5	Styrene	1.2	U
75-25-2	Bromoform	1.2	U
98-82-8	Isopropylbenzene	1.2	U
79-34-5	1,1,2,2-Tetrachloroethane	1.2	U
96-18-4	1,2,3-Trichloropropane	1.2	U
108-86-1	Bromobenzene	1.2	U
103-65-1	n-Propylbenzene	1.2	U
95-49-8	2-Chlorotoluene	1.2	U
108-67-8	1,3,5-Trimethylbenzene	1.2	U
95-63-6	1,2,4-Trimethylbenzene	1.2	U
106-43-4	4-Chlorotoluene	1.2	U
98-06-6	tert-Butylbenzene	1.2	U
135-98-8	sec-Butylbenzene	1.2	U
99-87-6	4-Isopropyltoluene	1.2	U
541-73-1	1,3-Dichlorobenzene	1.2	U
106-46-7	1,4-Dichlorobenzene	1.2	U
104-51-8	n-Butylbenzene	1.2	U
95-50-1	1,2-Dichlorobenzene	1.2	U
96-12-8	1,2-Dibromo-3-chloropropane	1.2	U

FORM I VOA OLM03.0

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

RE03-05-59542

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

Matrix: (soil/water) SOIL Lab Sample ID: 135805004

Sample wt/vol: 4.8 (g/mL) G Lab File ID: 1J518

Level: (low/med) LOW Date Received: 05/04/05

% Moisture: not dec. 14 Date Analyzed: 05/13/05

GC Column: RTX-VOLATILES ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 1

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	4.86	26.6	J
2.				
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FORM I VOA-TIC OLM03.0

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-59546

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

Matrix: (soil/water) SOIL Lab Sample ID: 135805005

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 1J513

Level: (low/med) LOW Date Received: 05/04/05

% Moisture: not dec. 0 Date Analyzed: 05/13/05

GC Column: RTX-VOLATILES ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-71-8	Dichlorodifluoromethane	1.0	U
74-87-3	Chloromethane	1.0	U
75-01-4	Vinyl chloride	1.0	U
74-83-9	Bromomethane	1.0	U
75-00-3	Chloroethane	1.0	U
75-69-4	Trichlorofluoromethane	2.8	
75-35-4	1,1-Dichloroethylene	3.8	
67-64-1	Acetone	79.8	
76-13-1	Trichlorotrifluoroethane	5.0	U
74-88-4	Iodomethane	5.0	U
75-15-0	Carbon disulfide	5.0	U
75-09-2	Methylene chloride	4.1	J
156-60-5	trans-1,2-Dichloroethylene	1.0	U
75-34-3	1,1-Dichloroethane	1.0	U
78-93-3	2-Butanone	7.0	
156-59-2	cis-1,2-Dichloroethylene	1.0	U
594-20-7	2,2-Dichloropropane	1.0	U
74-97-5	Bromochloromethane	1.0	U
67-66-3	Chloroform	1.0	U
71-55-6	1,1,1-Trichloroethane	1.0	U
563-58-6	1,1-Dichloropropene	1.0	U
56-23-5	Carbon tetrachloride	1.0	U
107-06-2	1,2-Dichloroethane	1.0	U
71-43-2	Benzene	1.0	U
79-01-6	Trichloroethylene	1.0	U
78-87-5	1,2-Dichloropropane	1.0	U
74-95-3	Dibromomethane	1.0	U
75-27-4	Bromodichloromethane	1.0	U
10061-01-5	cis-1,3-Dichloropropylene	1.0	U
108-10-1	4-Methyl-2-pentanone	5.0	U
108-88-3	Toluene	5.0	
10061-02-6	trans-1,3-Dichloropropylene	1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	U

FORM I VOA OLM03.0

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-59546

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

Matrix: (soil/water) SOIL Lab Sample ID: 135805005

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 1J513

Level: (low/med) LOW Date Received: 05/04/05

% Moisture: not dec. 0 Date Analyzed: 05/13/05

GC Column: RTX-VOLATILES ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
142-28-9	1,3-Dichloropropane	1.0	U
591-78-6	2-Hexanone	2.1	J
127-18-4	Tetrachloroethylene	1.0	U
124-48-1	Dibromochloromethane	1.0	U
106-93-4	1,2-Dibromoethane	1.0	U
108-90-7	Chlorobenzene	1.0	U
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U
100-41-4	Ethylbenzene	1.4	
95-47-6	o-Xylene	1.2	
	m,p-Xylenes	4.3	
100-42-5	Styrene	0.51	J
75-25-2	Bromoform	1.0	U
98-82-8	Isopropylbenzene	0.22	J
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U
96-18-4	1,2,3-Trichloropropane	1.0	U
108-86-1	Bromobenzene	1.0	U
103-65-1	n-Propylbenzene	0.26	J
95-49-8	2-Chlorotoluene	1.0	U
108-67-8	1,3,5-Trimethylbenzene	0.28	J
95-63-6	1,2,4-Trimethylbenzene	1.1	
106-43-4	4-Chlorotoluene	1.0	U
98-06-6	tert-Butylbenzene	1.0	U
135-98-8	sec-Butylbenzene	1.0	U
99-87-6	4-Isopropyltoluene	1.6	
541-73-1	1,3-Dichlorobenzene	1.0	U
106-46-7	1,4-Dichlorobenzene	0.60	J
104-51-8	n-Butylbenzene	1.0	U
95-50-1	1,2-Dichlorobenzene	1.0	U
96-12-8	1,2-Dibromo-3-chloropropane	1.0	U

FORM I VOA OLM03.0

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

RE03-05-59546

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

Matrix: (soil/water) SOIL Lab Sample ID: 135805005

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 1J513

Level: (low/med) LOW Date Received: 05/04/05

% Moisture: not dec. 0 Date Analyzed: 05/13/05

GC Column: RTX-VOLATILES ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 3

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	4.87	19.7	J
2.	UNKNOWN	10.76	7.1	J
3.	UNKNOWN	11.91	6.6	J
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FORM I VOA-TIC OLM03.0

QUALITY CONTROL SUMMARY

2B
SOIL VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

Level:(low/med) LOW

	EPA SAMPLE NO.	SMC1 (DBF)#	SMC2 (TOL)#	SMC3 (BFB)#	OTHER	TOT OUT
01	VBLK01LCS	97	90	86		0
02	VBLK01SLCS	104	98	95		0
03	VBLK01LCSD	106	99	94		0
04	VBLK01	96	93	88		0
05	RE03-05-59546	105	90	88		0
06	RE03-05-59532	98	105	92		0
07	RE03-05-59542	115	105	103		0
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		QC LIMITS
SMC1 (DBF)	= Dibromofluoromethane	(74-121)
SMC2 (TOL)	= Toluene-d8	(76-121)
SMC3 (BFB)	= Bromofluorobenzene	(62-124)

Column to be used to flag recovery values

* Values outside of contract required QC limits

3B
SOIL VOLATILE LAB CONTROL SAMPLE

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

Matrix Spike - EPA Sample No.: VBLK01 Level:(low/med) LOW

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC #	QC. LIMITS REC.
Dichlorodifluoromethane	50.0	0.0	44.2	88	48-138
Chloromethane	50.0	0.0	36.4	73	50-130
Vinyl chloride	50.0	0.0	40.9	82	58-134
Bromomethane	50.0	0.0	59.0	118	59-125
Chloroethane	50.0	0.0	53.8	108	69-135
Trichlorofluoromethane	50.0	0.0	48.3	97	62-139
1,1-Dichloroethylene	50.0	0.0	51.3	103	73-120
Acetone	250	0.0	322	129	62-129
Iodomethane	250	0.0	293	117	78-138
Carbon disulfide	250	0.0	216	86	78-143
Methylene chloride	50.0	0.0	48.3	97	75-130
trans-1,2-Dichloroethyl	50.0	0.0	57.6	115	80-129
1,1-Dichloroethane	50.0	0.0	52.4	105	75-125
2-Butanone	250	0.0	252	101	61-133
cis-1,2-Dichloroethylen	50.0	0.0	57.5	115	81-122
2,2-Dichloropropane	50.0	0.0	65.7	131	76-135
Bromochloromethane	50.0	0.0	54.6	109	79-125
Chloroform	50.0	0.0	54.6	109	80-120
1,1,1-Trichloroethane	50.0	0.0	61.2	122	71-124
1,1-Dichloropropene	50.0	0.0	57.5	115	78-123
Carbon tetrachloride	50.0	0.0	65.1	130	75-134
1,2-Dichloroethane	50.0	0.0	50.9	102	73-124
Benzene	50.0	0.0	52.0	104	75-125
Trichloroethylene	50.0	0.0	57.2	114	79-125
1,2-Dichloropropane	50.0	0.0	48.2	96	75-120
Dibromomethane	50.0	0.0	50.7	101	81-123
Bromodichloromethane	50.0	0.0	50.6	101	87-130
cis-1,3-Dichloropropyle	50.0	0.0	51.9	104	80-124

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

COMMENTS: _____

3B
SOIL VOLATILE LAB CONTROL SAMPLE

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

Matrix Spike - EPA Sample No.: VBLK01 Level:(low/med) LOW

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC #	QC. LIMITS REC.
4-Methyl-2-pentanone	250	0.0	184	74	63-136
Toluene	50.0	0.0	50.1	100	78-125
trans-1,3-Dichloropropy	50.0	0.0	46.6	93	74-122
1,1,2-Trichloroethane	50.0	0.0	46.0	92	78-120
1,3-Dichloropropane	50.0	0.0	47.6	95	77-120
2-Hexanone	250	0.0	228	91	62-141
Tetrachloroethylene	50.0	0.0	63.4	127	69-127
Dibromochloromethane	50.0	0.0	48.6	97	75-130
1,2-Dibromoethane	50.0	0.0	47.5	95	78-121
Chlorobenzene	50.0	0.0	51.0	102	80-125
1,1,1,2-Tetrachloroetha	50.0	0.0	53.8	108	82-124
Ethylbenzene	50.0	0.0	50.8	102	79-125
o-Xylene	50.0	0.0	55.3	111	80-122
m,p-Xylenes	100	0.0	117	117	80-119
Styrene	50.0	0.0	56.2	112	79-119
Bromoform	50.0	0.0	50.2	100	67-135
Isopropylbenzene	50.0	0.0	48.4	97	72-125
1,1,2,2-Tetrachloroetha	50.0	0.0	46.7	93	73-126
1,2,3-Trichloropropane	50.0	0.0	50.1	100	69-124
Bromobenzene	50.0	0.0	53.4	107	80-121
n-Propylbenzene	50.0	0.0	53.6	107	76-124
2-Chlorotoluene	50.0	0.0	51.8	104	74-118
1,3,5-Trimethylbenzene	50.0	0.0	52.6	105	74-118
1,2,4-Trimethylbenzene	50.0	0.0	51.5	103	75-118
4-Chlorotoluene	50.0	0.0	51.2	102	75-120
tert-Butylbenzene	50.0	0.0	54.7	109	76-122
sec-Butylbenzene	50.0	0.0	53.5	107	76-124
4-Isopropyltoluene	50.0	0.0	55.0	110	77-126

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

COMMENTS: _____

3B
SOIL VOLATILE LAB CONTROL SAMPLE

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

Matrix Spike - EPA Sample No.: VBLK01 Level:(low/med) LOW

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC #	QC. LIMITS REC.
1,3-Dichlorobenzene	50.0	0.0	53.7	107	77-121
1,4-Dichlorobenzene	50.0	0.0	52.8	106	77-121
n-Butylbenzene	50.0	0.0	55.1	110	75-130
1,2-Dichlorobenzene	50.0	0.0	50.5	101	79-119
1,2-Dibromo-3-chloropro	50.0	0.0	42.5	85	60-133

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

COMMENTS: _____

3B
SOIL VOLATILE LAB CONTROL SAMPLE

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

Matrix Spike - EPA Sample No.: VBLK01 Level:(low/med) LOW

COMPOUND	SPIKE ADDED (ug/Kg)	LCSD CONCENTRATION (ug/Kg)	LCSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Dichlorodifluoromethane	50.0	42.2	84	5	20	48-138
Chloromethane	50.0	34.7	69	6	20	50-130
Vinyl chloride	50.0	38.1	76	8	20	58-134
Bromomethane	50.0	61.2	122	3	20	59-125
Chloroethane	50.0	53.8	108	0	20	69-135
Trichlorofluoromethane	50.0	47.1	94	3	20	62-139
1,1-Dichloroethylene	50.0	50.9	102	1	20	73-120
Acetone	250	324	130*	1	20	62-129
Iodomethane	250	293	117	0	20	78-138
Carbon disulfide	250	219	88	2	20	78-143
Methylene chloride	50.0	47.6	95	2	20	75-130
trans-1,2-Dichloroethyl	50.0	58.0	116	1	20	80-129
1,1-Dichloroethane	50.0	51.4	103	2	20	75-125
2-Butanone	250	252	101	0	20	61-133
cis-1,2-Dichloroethylen	50.0	55.9	112	3	20	81-122
2,2-Dichloropropane	50.0	64.4	129	2	20	76-135
Bromochloromethane	50.0	54.1	108	1	20	79-125
Chloroform	50.0	54.7	109	0	20	80-120
1,1,1-Trichloroethane	50.0	61.0	122	0	20	71-124
1,1-Dichloropropene	50.0	57.9	116	1	20	78-123
Carbon tetrachloride	50.0	65.0	130	0	20	75-134
1,2-Dichloroethane	50.0	52.3	105	3	20	73-124
Benzene	50.0	52.8	106	2	20	75-125
Trichloroethylene	50.0	59.7	119	4	20	79-125
1,2-Dichloropropane	50.0	50.1	100	4	20	75-120
Dibromomethane	50.0	51.7	103	2	20	81-123
Bromodichloromethane	50.0	50.9	102	1	20	87-130
cis-1,3-Dichloropropyle	50.0	53.5	107	3	20	80-124

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

COMMENTS: _____

3B
SOIL VOLATILE LAB CONTROL SAMPLE

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

Matrix Spike - EPA Sample No.: VBLK01 Level:(low/med) LOW

COMPOUND	SPIKE ADDED (ug/Kg)	LCSD CONCENTRATION (ug/Kg)	LCSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
4-Methyl-2-pentanone	250	175	70	6	20	63-136
Toluene	50.0	49.8	100	0	20	78-125
trans-1,3-Dichloropropy	50.0	45.7	91	2	20	74-122
1,1,2-Trichloroethane	50.0	44.7	89	3	20	78-120
1,3-Dichloropropane	50.0	50.2	100	5	20	77-120
2-Hexanone	250	217	87	4	20	62-141
Tetrachloroethylene	50.0	64.9	130*	2	20	69-127
Dibromochloromethane	50.0	50.4	101	4	20	75-130
1,2-Dibromoethane	50.0	50.3	101	6	20	78-121
Chlorobenzene	50.0	53.6	107	5	20	80-125
1,1,1,2-Tetrachloroetha	50.0	57.7	115	6	20	82-124
Ethylbenzene	50.0	53.9	108	6	20	79-125
o-Xylene	50.0	53.6	107	4	20	80-122
m,p-Xylenes	100	110	110	6	20	80-119
Styrene	50.0	53.9	108	4	20	79-119
Bromoform	50.0	50.7	101	1	20	67-135
Isopropylbenzene	50.0	48.4	97	0	20	72-125
1,1,2,2-Tetrachloroetha	50.0	46.7	93	0	20	73-126
1,2,3-Trichloropropane	50.0	50.8	102	2	20	69-124
Bromobenzene	50.0	54.0	108	1	20	80-121
n-Propylbenzene	50.0	52.7	105	2	20	76-124
2-Chlorotoluene	50.0	51.6	103	1	20	74-118
1,3,5-Trimethylbenzene	50.0	52.5	105	0	20	74-118
1,2,4-Trimethylbenzene	50.0	52.1	104	1	20	75-118
4-Chlorotoluene	50.0	51.0	102	0	20	75-120
tert-Butylbenzene	50.0	54.3	109	0	20	76-122
sec-Butylbenzene	50.0	53.1	106	1	20	76-124
4-Isopropyltoluene	50.0	56.5	113	3	20	77-126

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

COMMENTS: _____

3B
SOIL VOLATILE LAB CONTROL SAMPLE

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

Matrix Spike - EPA Sample No.: VBLK01 Level:(low/med) LOW

COMPOUND	SPIKE ADDED (ug/Kg)	LCSD CONCENTRATION (ug/Kg)	LCSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
1,3-Dichlorobenzene	50.0	53.4	107	0	20	77-121
1,4-Dichlorobenzene	50.0	53.3	107	1	20	77-121
n-Butylbenzene	50.0	55.0	110	0	20	75-130
1,2-Dichlorobenzene	50.0	51.5	103	2	20	79-119
1,2-Dibromo-3-chloropro	50.0	42.9	86	1	20	60-133

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 61 outside limits
Spike Recovery: 2 out of 122 outside limits

COMMENTS:

3B
SOIL VOLATILE LAB CONTROL SAMPLE

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

Matrix Spike - EPA Sample No.: VBLK01 Level:(low/med) LOW

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC #	QC. LIMITS REC.
Trichlorotrifluoroethan	250	0.0	249	100	58-138

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 0 outside limits
Spike Recovery: 0 out of 1 outside limits

COMMENTS: _____

FORM III VOA-2 OLM03.0

4A
VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBLK01

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

Lab File ID: 1J508LA Lab Sample ID: 1200846374

Date Analyzed: 05/13/05 Time Analyzed: 1921

GC Column: RTX-VOLATILESID: 0.25 (mm) Heated Purge: (Y/N) Y

Instrument ID: VOA1

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	VBLK01LCS	1200846405	1J502LCSLA	1600
02	VBLK01SLCS	1200846375	1J504SLCSLA	1650
03	VBLK01LCSD	1200846406	1J505LCSDLA	1806
04	RE03-05-59546	135805005	1J513	2126
05	RE03-05-59532	135805003	1J517	2307
06	RE03-05-59542	135805004	1J518	2332
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5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

Lab File ID: 1G216 BFB Injection Date: 04/19/05

Instrument ID: VOA1 BFB Injection Time: 2352

GC Column: RTX-VOLATILES ID: 0.25 (mm) Heated Purge: (Y/N) Y

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	20.3
75	30.0 - 60.0% of mass 95	46.6
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.6
173	Less than 2.0% of mass 174	0.4 (0.5)1
174	50.0 - 100.0% of mass 95	74.3
175	5.0 - 9.0% of mass 174	5.5 (7.4)1
176	95.0 - 101.0% of mass 174	71.2 (95.8)1
177	5.0 - 9.0% of mass 176	4.9 (6.9)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD0005	UVM050216-01C	1G218	04/20/05	0044
02	VSTD001	W1VM050419-01	1G219	04/20/05	0109
03	VSTD002	W1VM050419-02	1G221	04/20/05	0201
04	VSTD005	W1VM050419-03	1G222	04/20/05	0227
05	VSTD010	W1VM050419-04	1G223	04/20/05	0253
06	VSTD020	W1VM050419-05	1G224	04/20/05	0318
07	VSTD050	W1VM050419-06	1G225	04/20/05	0344
08	VSTD100	W1VM050419-07	1G226	04/20/05	0410
09	VSTD005S	UVM050408-01A	1G228	04/20/05	0501
10	VSTD010S	UVM050408-02A	1G229	04/20/05	0527
11	VSTD025S	UVM050408-03A	1G230	04/20/05	0553
12	VSTD050S	UVM050408-04A	1G231	04/20/05	0619
13	VSTD100S	UVM050408-05A	1G232	04/20/05	0645
14	VSTD250S	UVM050408-06A	1G233	04/20/05	0710
15	VSTD500S	UVM050408-07A	1G234	04/20/05	0736
16	VSTD050	UVM050323-01D	1G237	04/20/05	0853
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5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

Lab File ID: 1J501 BFB Injection Date: 05/13/05

Instrument ID: VOA1 BFB Injection Time: 1547

GC Column: RTX-VOLATILES ID: 0.25 (mm) Heated Purge: (Y/N) Y

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	18.9
75	30.0 - 60.0% of mass 95	45.0
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	7.0
173	Less than 2.0% of mass 174	0.5 (0.6)1
174	50.0 - 100.0% of mass 95	78.4
175	5.0 - 9.0% of mass 174	6.3 (8.0)1
176	95.0 - 101.0% of mass 174	77.2 (98.5)1
177	5.0 - 9.0% of mass 176	5.4 (7.0)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD050	W1VM050513-01	1J502	05/13/05	1600
02	VBLK01LCS	1200846405	1J502LCSLA	05/13/05	1600
03	VSTD250S	UVM050309-01B	1J504	05/13/05	1650
04	VBLK01SLCS	1200846375	1J504SLCSLA	05/13/05	1650
05	VBLK01LCSD	1200846406	1J505LCSDLA	05/13/05	1806
06	VBLK01	1200846374	1J508LA	05/13/05	1921
07	RE03-05-59546	135805005	1J513	05/13/05	2126
08	RE03-05-59532	135805003	1J517	05/13/05	2307
09	RE03-05-59542	135805004	1J518	05/13/05	2332
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8A
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

Lab File ID (Standard): 1J502 Date Analyzed: 05/13/05

Instrument ID: VOA1 Time Analyzed: 1600

GC Column: RTX-VOLATILES ID: 0.25 (mm) Heated Purge: (Y/N) Y

		IS1(FLB) AREA #	RT #	IS2(CBZ) AREA #	RT #	IS3(DCB) AREA #	RT #
	12 HOUR STD	783577	5.18	577925	8.21	303756	10.90
	UPPER LIMIT	1567154	5.68	1155850	8.71	607512	11.40
	LOWER LIMIT	391788	4.68	288962	7.71	151878	10.40
	EPA SAMPLE NO.						
01	VBLK01LCS	783577	5.18	577925	8.21	303756	10.90
02	VBLK01SLCS	833330	5.18	583999	8.21	271020	10.90
03	VBLK01LCSD	713840	5.18	549160	8.21	282161	10.90
04	VBLK01	779007	5.18	570598	8.21	252696	10.91
05	RE03-05-59546	764639	5.18	582107	8.21	279158	10.91
06	RE03-05-59532	787373	5.18	527741	8.21	255414	10.90
07	RE03-05-59542	672596	5.18	515438	8.21	217414	10.90
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IS1 (FLB) = Fluorobenzene
IS2 (CBZ) = Chlorobenzene-d5
IS3 (DCB) = 1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = + 0.50 minutes of internal standard RT
RT LOWER LIMIT = - 0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

SAMPLE DATA

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-59532

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

Matrix: (soil/water) SOIL Lab Sample ID: 135805003

Sample wt/vol: 4.4 (g/mL) G Lab File ID: 1J517

Level: (low/med) LOW Date Received: 05/04/05

% Moisture: not dec. 14 Date Analyzed: 05/13/05

GC Column: RTX-VOLATILES ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-71-8	Dichlorodifluoromethane	1.3	U
74-87-3	Chloromethane	1.3	U
75-01-4	Vinyl chloride	1.3	U
74-83-9	Bromomethane	1.3	U
75-00-3	Chloroethane	1.3	U
75-69-4	Trichlorofluoromethane	1.3	U
75-35-4	1,1-Dichloroethylene	1.3	U
67-64-1	Acetone	9.1	
76-13-1	Trichlorotrifluoroethane	6.6	U
74-88-4	Iodomethane	6.6	U
75-15-0	Carbon disulfide	6.6	U
75-09-2	Methylene chloride	6.6	U
156-60-5	trans-1,2-Dichloroethylene	1.3	U
75-34-3	1,1-Dichloroethane	1.3	U
78-93-3	2-Butanone	6.6	U
156-59-2	cis-1,2-Dichloroethylene	1.3	U
594-20-7	2,2-Dichloropropane	1.3	U
74-97-5	Bromochloromethane	1.3	U
67-66-3	Chloroform	1.3	U
71-55-6	1,1,1-Trichloroethane	1.3	U
563-58-6	1,1-Dichloropropene	1.3	U
56-23-5	Carbon tetrachloride	1.3	U
107-06-2	1,2-Dichloroethane	1.3	U
71-43-2	Benzene	1.3	U
79-01-6	Trichloroethylene	1.3	U
78-87-5	1,2-Dichloropropane	1.3	U
74-95-3	Dibromomethane	1.3	U
75-27-4	Bromodichloromethane	1.3	U
10061-01-5	cis-1,3-Dichloropropylene	1.3	U
108-10-1	4-Methyl-2-pentanone	6.6	U
108-88-3	Toluene	1.3	U
10061-02-6	trans-1,3-Dichloropropylene	1.3	U
79-00-5	1,1,2-Trichloroethane	1.3	U

FORM I VOA OLM03.0

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-59532

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

Matrix: (soil/water) SOIL Lab Sample ID: 135805003

Sample wt/vol: 4.4 (g/mL) G Lab File ID: 1J517

Level: (low/med) LOW Date Received: 05/04/05

% Moisture: not dec. 14 Date Analyzed: 05/13/05

GC Column: RTX-VOLATILES ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
142-28-9	1,3-Dichloropropane	1.3	U
591-78-6	2-Hexanone	6.6	U
127-18-4	Tetrachloroethylene	1.3	U
124-48-1	Dibromochloromethane	1.3	U
106-93-4	1,2-Dibromoethane	1.3	U
108-90-7	Chlorobenzene	1.3	U
630-20-6	1,1,1,2-Tetrachloroethane	1.3	U
100-41-4	Ethylbenzene	1.3	U
95-47-6	o-Xylene	1.3	U
	m,p-Xylenes	2.6	U
100-42-5	Styrene	1.3	U
75-25-2	Bromoform	1.3	U
98-82-8	Isopropylbenzene	1.3	U
79-34-5	1,1,2,2-Tetrachloroethane	1.3	U
96-18-4	1,2,3-Trichloropropane	1.3	U
108-86-1	Bromobenzene	1.3	U
103-65-1	n-Propylbenzene	1.3	U
95-49-8	2-Chlorotoluene	1.3	U
108-67-8	1,3,5-Trimethylbenzene	1.3	U
95-63-6	1,2,4-Trimethylbenzene	1.3	U
106-43-4	4-Chlorotoluene	1.3	U
98-06-6	tert-Butylbenzene	1.3	U
135-98-8	sec-Butylbenzene	1.3	U
99-87-6	4-Isopropyltoluene	1.3	U
541-73-1	1,3-Dichlorobenzene	1.3	U
106-46-7	1,4-Dichlorobenzene	1.3	U
104-51-8	n-Butylbenzene	1.3	U
95-50-1	1,2-Dichlorobenzene	1.3	U
96-12-8	1,2-Dibromo-3-chloropropane	1.3	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

RE03-05-59532

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

Matrix: (soil/water) SOIL Lab Sample ID: 135805003

Sample wt/vol: 4.4 (g/mL) G Lab File ID: 1J517

Level: (low/med) LOW Date Received: 05/04/05

% Moisture: not dec. 14 Date Analyzed: 05/13/05

GC Column: RTX-VOLATILES ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 3

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	4.86	27.1	J
2. 80-56-8	.ALPHA.-PINENE	9.29	7.5	J
3. 13466-78-9	3-CARENE	10.52	15.3	J
4.				
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FORM I VOA-TIC OLM03.0

General Engineering Laboratories, LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/051305v1.b/1j517.d
Lab Smp Id: 135805003 Client Smp ID: RE03-05-59532
Inj Date : 13-MAY-2005 23:07
Operator : PAM Inst ID: VOA1.i
Smp Info : |135805003|425470|1|VOAF|1|
Misc Info : LANL 4.4G N/A
Comment :
Method : /chem/VOA1.i/051305v1.b/VOA1-8260B-041905.m
Meth Date : 17-May-2005 22:45 tcl Quant Type: ISTD
Cal Date : 20-APR-2005 05:01 Cal File: 1g228.d
Als bottle: 16
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 3194S.sub
Target Version: 3.50
Processing Host: kilroy

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	13.99250	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	4.40000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
* 40 Fluorobenzene	96	5.179	5.179	(1.000)	787373	50.0000	
* 61 Chlorobenzene-d5	117	8.208	8.213	(1.000)	527741	50.0000	
* 86 1,4-Dichlorobenzene-d4	152	10.900	10.900	(1.000)	255414	50.0000	
$ 35 Dibromofluoromethane	113	4.479	4.473	(0.865)	208387	49.0991	64.9
$ 47 Toluene-d8	98	6.658	6.658	(0.811)	838012	52.7234	69.7
$ 71 Bromofluorobenzene	95	9.570	9.570	(0.878)	299583	46.2686	61.1
10 Acetone	43	2.833	2.828	(0.547)	10401	6.88199	9.1

General Engineering Laboratories, LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/051305v1.b/1j517.d
Lab Smp Id: 135805003 Client Smp ID: RE03-05-59532
Inj Date : 13-MAY-2005 23:07
Operator : PAM Inst ID: VOA1.i
Smp Info : |135805003|425470|1|VOAF|1|
Misc Info : LANL 4.4G N/A
Comment :
Method : /chem/VOA1.i/051305v1.b/VOA1-8260B-041905.m
Meth Date : 17-May-2005 22:45 tcl Quant Type: ISTD
Cal Date : 20-APR-2005 05:01 Cal File: 1g228.d
Als bottle: 16
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 3194S.sub
Target Version: 3.50
Processing Host: kilroy

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	13.99250	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	4.40000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 40 Fluorobenzene	5.179	1657583	50.000
* 61 Chlorobenzene-d5	8.208	1567803	50.000
* 86 1,4-Dichlorobenzene-d4	10.900	1565291	50.000

CONCENTRATIONS					QUANT		
RT	AREA	ON-COL(ug/l)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #

RT	AREA	CONCENTRATIONS ON-COL(ug/l)	FINAL(ug/Kg)	QUAL	QUANT LIBRARY	LIB ENTRY	CPND #
Unknown				CAS #:			
4.863	679347	20.4920905	27.1	0		0	40
.alpha.-Pinene				CAS #: 80-56-8			
9.292	178537	5.69385765	7.5	95	Nist98.1	40169	61(L)
3-Carene				CAS #: 13466-78-9			
10.515	361640	11.5518521	15.3	93	Nist98.1	40142	86(L)

QC Flag Legend

L - Operator selected an alternate library search match.

Data File: /chem/VOA1.i/051305v1.b/1j517.d
Date : 13-MAY-2005 23:07
Client ID: RE03-05-59532
Sample Info: |1358050031425470|1|VOAF|1|

Column phase: RTX-Volatiles

Instrument: VOA1.i

Operator: PAM
Column diameter: 0.25

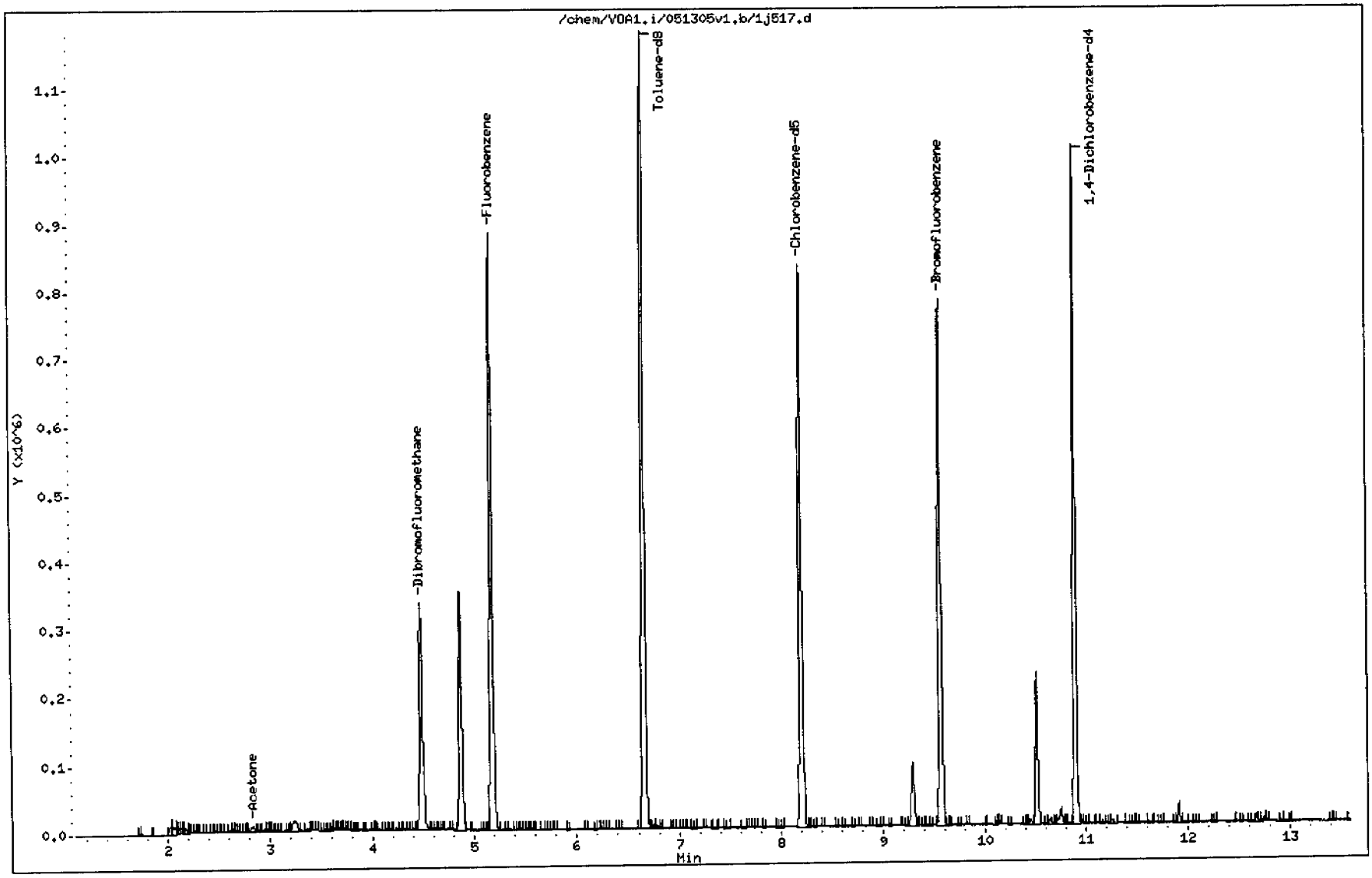

Data File: /chem/VOA1.i/051305v1.b/1j517.d

Date : 13-MAY-2005 23:07

Client ID: RE03-05-59532

Instrument: VOA1.i

Sample Info: 1135805003142547011|VOAF|1|

Operator: PAM

Column phase: RTX-Volatiles

Column diameter: 0.25

10 Acetone

Concentration: 9.1 ug/Kg

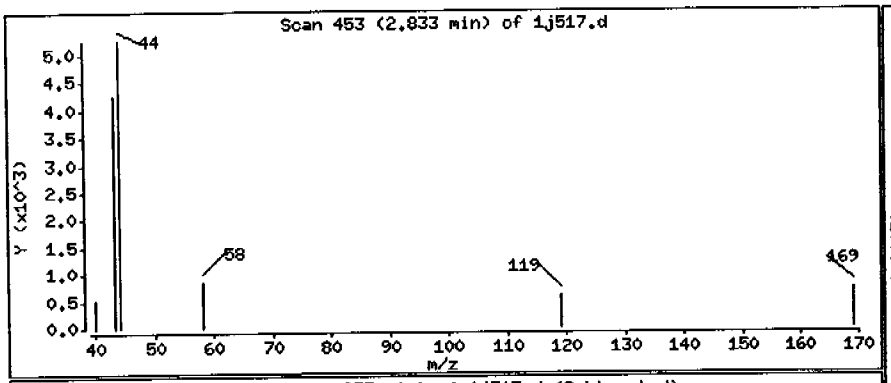

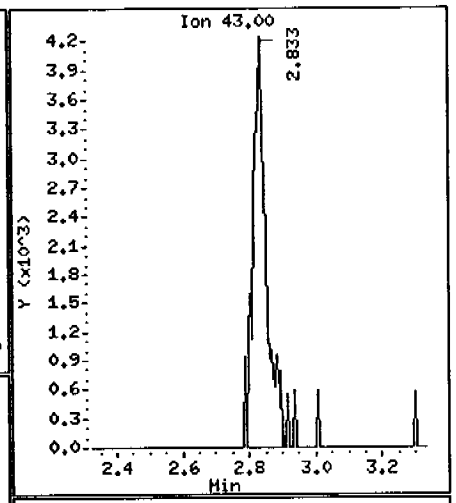

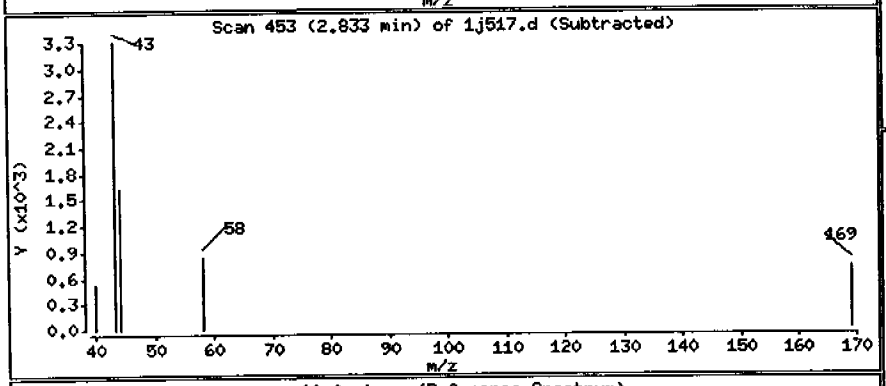

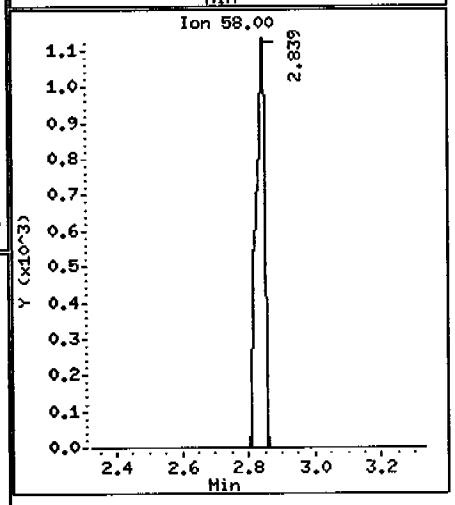

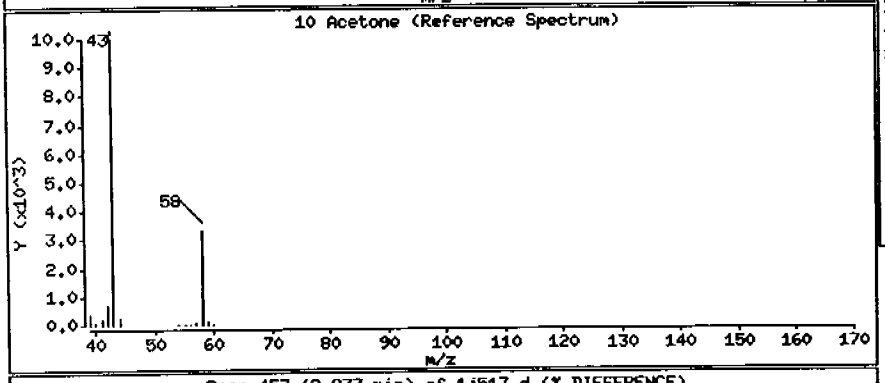

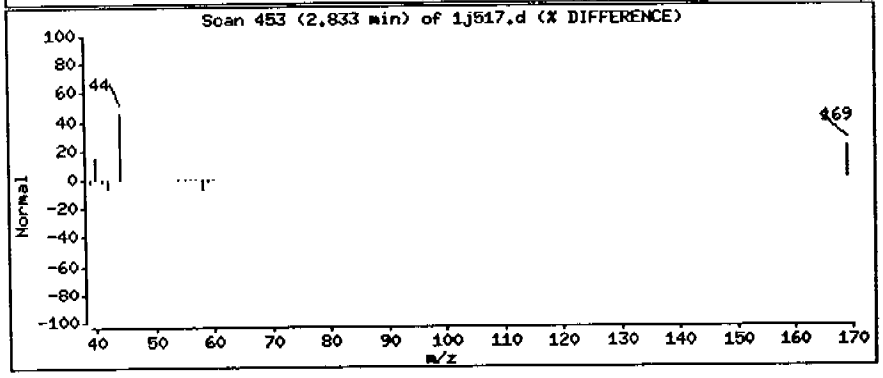

Data File: /chem/VOA1.i/051305v1.b/1j517.d

Date : 13-MAY-2005 23:07

Client ID: RE03-05-59532

Instrument: VOA1.i

Sample Info: |135805003|425470|1|VOAF|1|

Operator: PAM

Column phase: RTX-Volatiles

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0

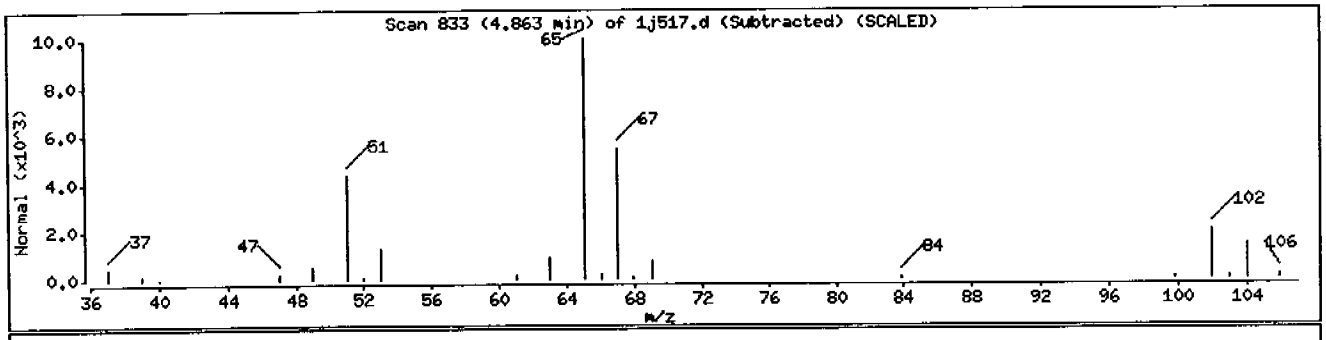

Data File: /chem/VOA1.i/051305v1.b/1j517.d

Date : 13-MAY-2005 23:07

Client ID: RE03-05-59532

Instrument: VOA1.i

Sample Info: |1358050031425470|1|VOAF|1|

Operator: PAH

Column phase: RTX-Volatiles

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
.alpha.-Pinene	80-56-8	Nist98.l	40169	95	C10H16	136
Unknown			0	0		0
1R-.alpha.-Pinene	7785-70-8	Nist98.l	40147	96	C10H16	136

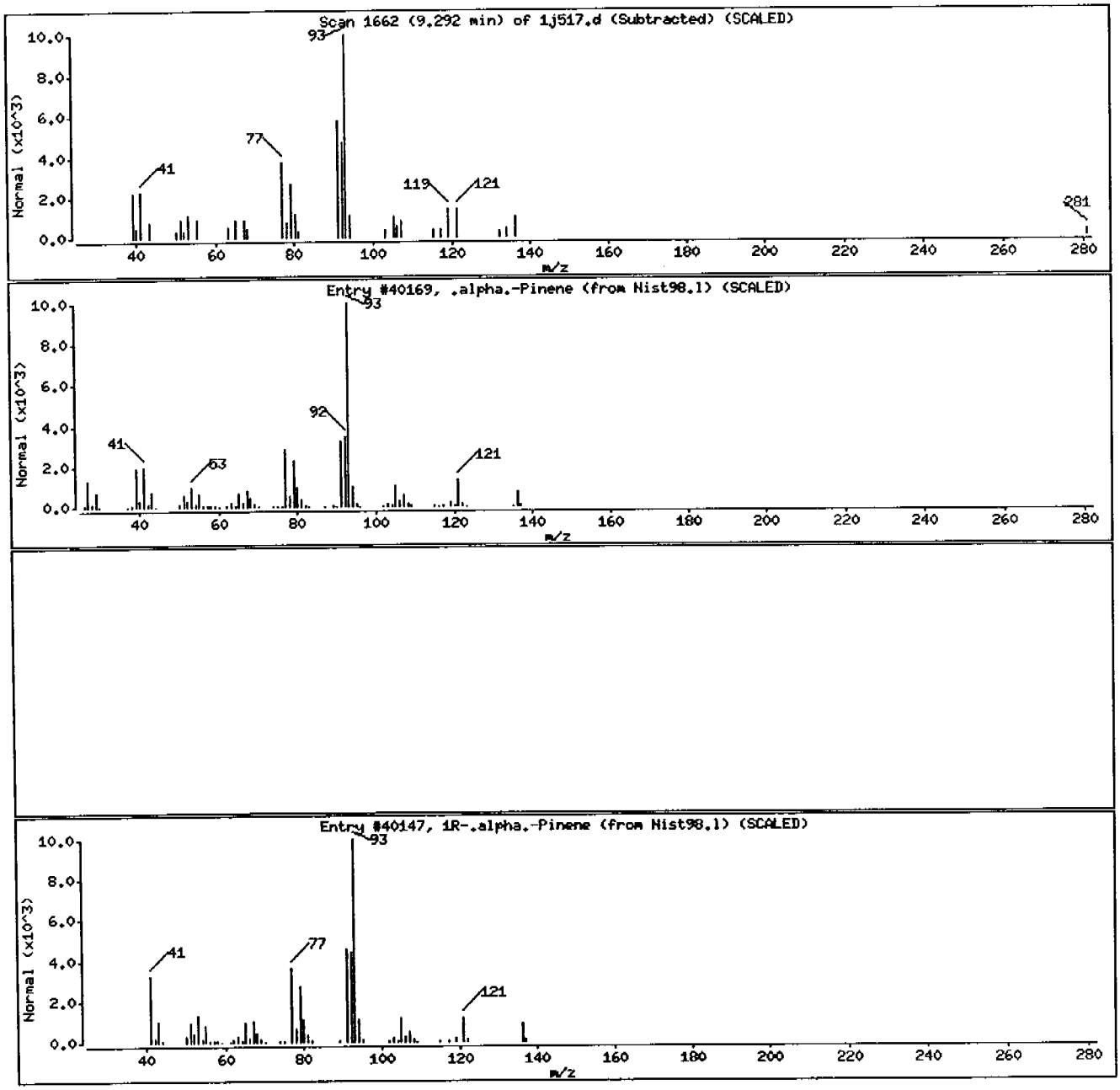

Data File: /chem/VOA1.i/051305v1.b/1j517.d

Date : 13-MAY-2005 23:07

Client ID: RE03-05-59532

Instrument: VOA1.i

Sample Info: |135805003|425470|1|VOAF|1|

Operator: PAM

Column phase: RTX-Volatiles

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
3-Carene	13466-78-9	Nist98.l	40142	93	C10H16	136
Unknown			0	0		0
3-Carene	13466-78-9	Nist98.l	117793	87	C10H16	136

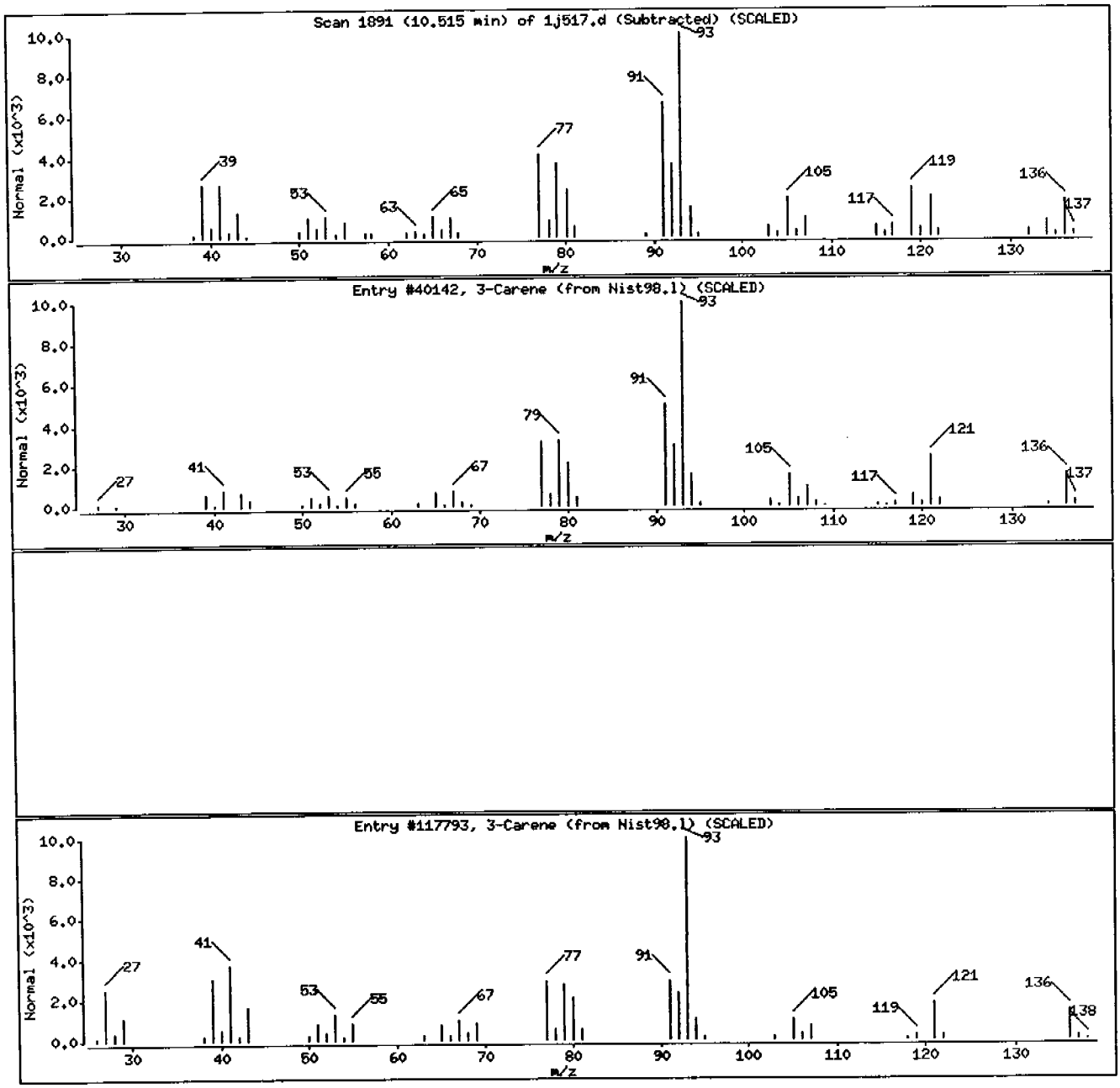

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-59542

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

Matrix: (soil/water) SOIL Lab Sample ID: 135805004

Sample wt/vol: 4.8 (g/mL) G Lab File ID: 1J518

Level: (low/med) LOW Date Received: 05/04/05

% Moisture: not dec. 14 Date Analyzed: 05/13/05

GC Column: RTX-VOLATILES ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-71-8	Dichlorodifluoromethane	1.2	U
74-87-3	Chloromethane	1.2	U
75-01-4	Vinyl chloride	1.2	U
74-83-9	Bromomethane	1.2	U
75-00-3	Chloroethane	1.2	U
75-69-4	Trichlorofluoromethane	1.2	U
75-35-4	1,1-Dichloroethylene	1.2	U
67-64-1	Acetone	6.1	U
76-13-1	Trichlorotrifluoroethane	6.1	U
74-88-4	Iodomethane	6.1	U
75-15-0	Carbon disulfide	6.1	U
75-09-2	Methylene chloride	6.1	U
156-60-5	trans-1,2-Dichloroethylene	1.2	U
75-34-3	1,1-Dichloroethane	1.2	U
78-93-3	2-Butanone	6.1	U
156-59-2	cis-1,2-Dichloroethylene	1.2	U
594-20-7	2,2-Dichloropropane	1.2	U
74-97-5	Bromochloromethane	1.2	U
67-66-3	Chloroform	1.2	U
71-55-6	1,1,1-Trichloroethane	1.2	U
563-58-6	1,1-Dichloropropene	1.2	U
56-23-5	Carbon tetrachloride	1.2	U
107-06-2	1,2-Dichloroethane	1.2	U
71-43-2	Benzene	1.2	U
79-01-6	Trichloroethylene	1.2	U
78-87-5	1,2-Dichloropropane	1.2	U
74-95-3	Dibromomethane	1.2	U
75-27-4	Bromodichloromethane	1.2	U
10061-01-5	cis-1,3-Dichloropropylene	1.2	U
108-10-1	4-Methyl-2-pentanone	6.1	U
108-88-3	Toluene	1.2	U
10061-02-6	trans-1,3-Dichloropropylene	1.2	U
79-00-5	1,1,2-Trichloroethane	1.2	U

FORM I VOA OLM03.0

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-59542

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

Matrix: (soil/water) SOIL Lab Sample ID: 135805004

Sample wt/vol: 4.8 (g/mL) G Lab File ID: 1J518

Level: (low/med) LOW Date Received: 05/04/05

% Moisture: not dec. 14 Date Analyzed: 05/13/05

GC Column: RTX-VOLATILES ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
142-28-9	1,3-Dichloropropane	1.2	U
591-78-6	2-Hexanone	6.1	U
127-18-4	Tetrachloroethylene	1.2	U
124-48-1	Dibromochloromethane	1.2	U
106-93-4	1,2-Dibromoethane	1.2	U
108-90-7	Chlorobenzene	1.2	U
630-20-6	1,1,1,2-Tetrachloroethane	1.2	U
100-41-4	Ethylbenzene	1.2	U
95-47-6	o-Xylene	1.2	U
	m,p-Xylenes	2.4	U
100-42-5	Styrene	1.2	U
75-25-2	Bromoform	1.2	U
98-82-8	Isopropylbenzene	1.2	U
79-34-5	1,1,2,2-Tetrachloroethane	1.2	U
96-18-4	1,2,3-Trichloropropane	1.2	U
108-86-1	Bromobenzene	1.2	U
103-65-1	n-Propylbenzene	1.2	U
95-49-8	2-Chlorotoluene	1.2	U
108-67-8	1,3,5-Trimethylbenzene	1.2	U
95-63-6	1,2,4-Trimethylbenzene	1.2	U
106-43-4	4-Chlorotoluene	1.2	U
98-06-6	tert-Butylbenzene	1.2	U
135-98-8	sec-Butylbenzene	1.2	U
99-87-6	4-Isopropyltoluene	1.2	U
541-73-1	1,3-Dichlorobenzene	1.2	U
106-46-7	1,4-Dichlorobenzene	1.2	U
104-51-8	n-Butylbenzene	1.2	U
95-50-1	1,2-Dichlorobenzene	1.2	U
96-12-8	1,2-Dibromo-3-chloropropane	1.2	U

FORM I VOA OLM03.0

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

RE03-05-59542

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

Matrix: (soil/water) SOIL Lab Sample ID: 135805004

Sample wt/vol: 4.8 (g/mL) G Lab File ID: 1J518

Level: (low/med) LOW Date Received: 05/04/05

% Moisture: not dec. 14 Date Analyzed: 05/13/05

GC Column: RTX-VOLATILES ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 1

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	4.86	26.6	J
2.				
3.				
4.				
5.				
6.				
7.				
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FORM I VOA-TIC OLM03.0

General Engineering Laboratories, LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/051305v1.b/1j518.d
Lab Smp Id: 135805004 Client Smp ID: RE03-05-59542
Inj Date : 13-MAY-2005 23:32
Operator : PAM Inst ID: VOA1.i
Smp Info : |135805004|425470|1|VOAF|1|
Misc Info : LANL 4.8G N/A
Comment :
Method : /chem/VOA1.i/051305v1.b/VOA1-8260B-041905.m
Meth Date : 16-May-2005 17:01 tcl Quant Type: ISTD
Cal Date : 20-APR-2005 05:01 Cal File: 1g228.d
Als bottle: 17
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 3194S.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	14.32480	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	4.80000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
* 40 Fluorobenzene	96	5.179	5.179	(1.000)	672596	50.0000	
* 61 Chlorobenzene-d5	117	8.208	8.213	(1.000)	515438	50.0000	
* 86 1,4-Dichlorobenzene-d4	152	10.900	10.900	(1.000)	217414	50.0000	
$ 35 Dibromofluoromethane	113	4.474	4.473	(0.864)	209017	57.6515	70.1
$ 47 Toluene-d8	98	6.659	6.658	(0.811)	813528	52.4047	63.7
$ 71 Bromofluorobenzene	95	9.570	9.570	(0.878)	284831	51.6790	62.8

General Engineering Laboratories, LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/051305v1.b/1j518.d
Lab Smp Id: 135805004 Client Smp ID: RE03-05-59542
Inj Date : 13-MAY-2005 23:32
Operator : PAM Inst ID: VOA1.i
Smp Info : |135805004|425470|1|VOAF|1|
Misc Info : LANL 4.8G N/A
Comment :
Method : /chem/VOA1.i/051305v1.b/VOA1-8260B-041905.m
Meth Date : 16-May-2005 17:01 tcl Quant Type: ISTD
Cal Date : 20-APR-2005 05:01 Cal File: 1g228.d
Als bottle: 17
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 3194S.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	14.32480	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	4.80000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 40 Fluorobenzene	5.179	1460060	50.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ug/l)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown				CAS #:			
4.864	638484	21.8650027	26.6	0		0	40

Data File: /chem/VOA1.i/051305v1.b/1j518.d
Date : 13-MAY-2005 23:32
Client ID: RE03-05-59542
Sample Info: |135805004|425470|1|VOAF|1|

Column phase: RTX-Volatiles

Instrument: VOA1.i

Operator: PAM
Column diameter: 0.25

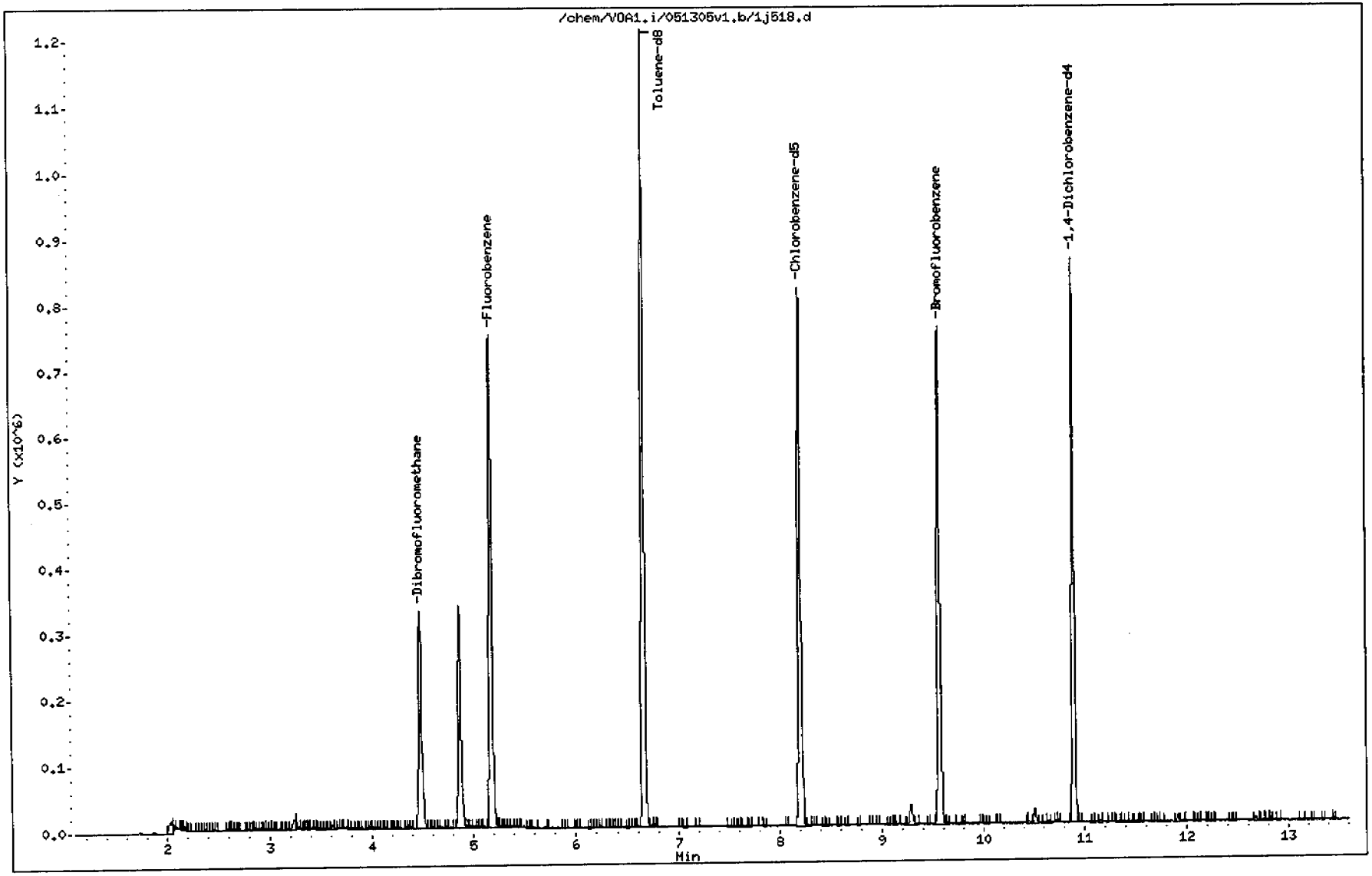

Data File: /chem/VOA1.i/051305v1.b/1j518.d

Date : 13-MAY-2005 23:32

Client ID: RE03-05-59542

Instrument: VOA1.i

Sample Info: |135805004|425470|1|VOAF|1|

Operator: PAH

Column phase: RTX-Volatiles

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0

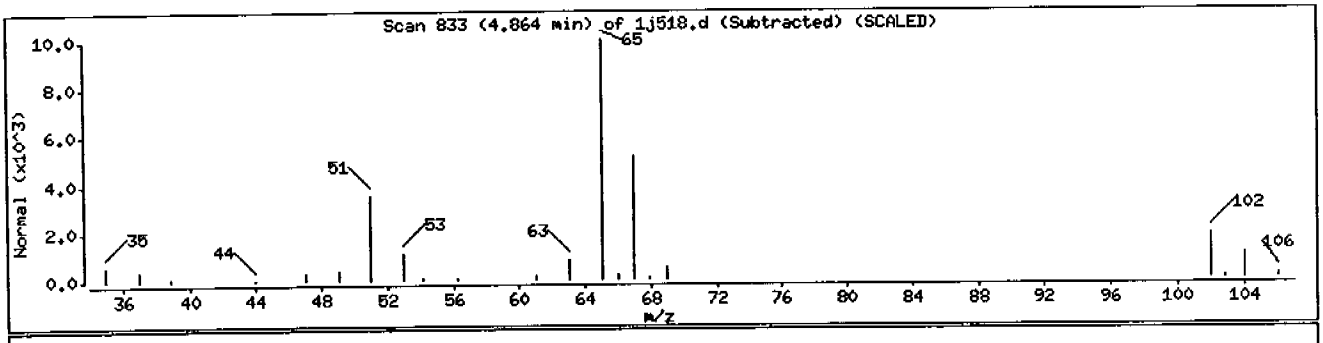

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-59546

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

Matrix: (soil/water) SOIL Lab Sample ID: 135805005

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 1J513

Level: (low/med) LOW Date Received: 05/04/05

% Moisture: not dec. 0 Date Analyzed: 05/13/05

GC Column: RTX-VOLATILES ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-71-8	Dichlorodifluoromethane	1.0	U
74-87-3	Chloromethane	1.0	U
75-01-4	Vinyl chloride	1.0	U
74-83-9	Bromomethane	1.0	U
75-00-3	Chloroethane	1.0	U
75-69-4	Trichlorofluoromethane	2.8	
75-35-4	1,1-Dichloroethylene	3.8	
67-64-1	Acetone	79.8	
76-13-1	Trichlorotrifluoroethane	5.0	U
74-88-4	Iodomethane	5.0	U
75-15-0	Carbon disulfide	5.0	U
75-09-2	Methylene chloride	4.1	J
156-60-5	trans-1,2-Dichloroethylene	1.0	U
75-34-3	1,1-Dichloroethane	1.0	U
78-93-3	2-Butanone	7.0	
156-59-2	cis-1,2-Dichloroethylene	1.0	U
594-20-7	2,2-Dichloropropane	1.0	U
74-97-5	Bromochloromethane	1.0	U
67-66-3	Chloroform	1.0	U
71-55-6	1,1,1-Trichloroethane	1.0	U
563-58-6	1,1-Dichloropropene	1.0	U
56-23-5	Carbon tetrachloride	1.0	U
107-06-2	1,2-Dichloroethane	1.0	U
71-43-2	Benzene	1.0	U
79-01-6	Trichloroethylene	1.0	U
78-87-5	1,2-Dichloropropane	1.0	U
74-95-3	Dibromomethane	1.0	U
75-27-4	Bromodichloromethane	1.0	U
10061-01-5	cis-1,3-Dichloropropylene	1.0	U
108-10-1	4-Methyl-2-pentanone	5.0	U
108-88-3	Toluene	5.0	
10061-02-6	trans-1,3-Dichloropropylene	1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	U

FORM I VOA OLM03.0

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-59546

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

Matrix: (soil/water) SOIL Lab Sample ID: 135805005

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 1J513

Level: (low/med) LOW Date Received: 05/04/05

% Moisture: not dec. 0 Date Analyzed: 05/13/05

GC Column: RTX-VOLATILES ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
142-28-9	1,3-Dichloropropane	1.0	U
591-78-6	2-Hexanone	2.1	J
127-18-4	Tetrachloroethylene	1.0	U
124-48-1	Dibromochloromethane	1.0	U
106-93-4	1,2-Dibromoethane	1.0	U
108-90-7	Chlorobenzene	1.0	U
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U
100-41-4	Ethylbenzene	1.4	
95-47-6	o-Xylene	1.2	
	m,p-Xylenes	4.3	
100-42-5	Styrene	0.51	J
75-25-2	Bromoform	1.0	U
98-82-8	Isopropylbenzene	0.22	J
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U
96-18-4	1,2,3-Trichloropropane	1.0	U
108-86-1	Bromobenzene	1.0	U
103-65-1	n-Propylbenzene	0.26	J
95-49-8	2-Chlorotoluene	1.0	U
108-67-8	1,3,5-Trimethylbenzene	0.28	J
95-63-6	1,2,4-Trimethylbenzene	1.1	
106-43-4	4-Chlorotoluene	1.0	U
98-06-6	tert-Butylbenzene	1.0	U
135-98-8	sec-Butylbenzene	1.0	U
99-87-6	4-Isopropyltoluene	1.6	
541-73-1	1,3-Dichlorobenzene	1.0	U
106-46-7	1,4-Dichlorobenzene	0.60	J
104-51-8	n-Butylbenzene	1.0	U
95-50-1	1,2-Dichlorobenzene	1.0	U
96-12-8	1,2-Dibromo-3-chloropropane	1.0	U

FORM I VOA OLM03.0

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

RE03-05-59546

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

Matrix: (soil/water) SOIL Lab Sample ID: 135805005

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 1J513

Level: (low/med) LOW Date Received: 05/04/05

% Moisture: not dec. 0 Date Analyzed: 05/13/05

GC Column: RTX-VOLATILES ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 3

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	4.87	19.7	J
2.	UNKNOWN	10.76	7.1	J
3.	UNKNOWN	11.91	6.6	J
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FORM I VOA-TIC OLM03.0

General Engineering Laboratories, LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/051305v1.b/1j513.d
Lab Smp Id: 135805005 Client Smp ID: RE03-05-59546
Inj Date : 13-MAY-2005 21:26
Operator : PAM Inst ID: VOA1.i
Smp Info : |135805005|425470|1|VOAF|1|
Misc Info : LANL 5.0G N/A
Comment :
Method : /chem/VOA1.i/051305v1.b/VOA1-8260B-041905.m
Meth Date : 16-May-2005 17:01 tcl Quant Type: ISTD
Cal Date : 20-APR-2005 05:01 Cal File: 1g228.d
Als bottle: 12
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 3194S.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	0.20580	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
* 40 Fluorobenzene	96	5.179	5.179	(1.000)	764639	50.0000	
* 61 Chlorobenzene-d5	117	8.213	8.213	(1.000)	582107	50.0000	
* 86 1,4-Dichlorobenzene-d4	152	10.905	10.900	(1.000)	279158	50.0000	
$ 35 Dibromofluoromethane	113	4.479	4.473	(0.865)	216794	52.5986	52.7
$ 47 Toluene-d8	98	6.658	6.658	(0.811)	785927	44.8284	44.9
$ 71 Bromofluorobenzene	95	9.570	9.570	(0.878)	311707	44.0464	44.1
8 Trichlorofluoromethane	101	2.636	2.636	(0.509)	15891	2.81578	2.8
11 1,1-Dichloroethylene	61	2.999	3.010	(0.579)	25060	3.75428	3.8
10 Acetone	43	2.828	2.828	(0.546)	116938	79.6743	79.8
17 Methylene chloride	84	3.250	3.261	(0.628)	17949	4.06407	4.1(aQ)
30 2-Butanone	43	4.035	4.030	(0.779)	17617	6.94763	7.0
87 1,4-Dichlorobenzene	146	10.932	10.932	(1.002)	5682	0.59988	0.60(aQ)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
50 Toluene	92	6.738	6.739	(0.820)	58572	4.95908	5.0
55 2-Hexanone	43	7.070	7.064	(0.861)	8775	2.06561	2.1(a)
58 Ethylbenzene	91	8.346	8.341	(1.016)	30185	1.37668	1.4
63 m,p-Xylenes	106	8.443	8.437	(1.028)	36257	4.29012	4.3
65 Styrene	104	8.923	8.929	(1.087)	7171	0.51278	0.51(a)
64 o-Xylene	106	8.913	8.913	(1.085)	10113	1.24838	1.2
67 Isopropylbenzene	105	9.335	9.340	(0.856)	4181	0.21580	0.22(a)
76 n-Propylbenzene	91	9.805	9.810	(0.899)	6303	0.25855	0.26(a)
84 4-Isopropyltoluene	119	10.798	10.799	(0.990)	27361	1.54772	1.6
78 1,3,5-Trimethylbenzene	105	10.003	10.003	(0.917)	4750	0.28123	0.28(a)
79 1,2,4-Trimethylbenzene	105	10.446	10.446	(0.958)	18617	1.07514	1.1

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.

General Engineering Laboratories, LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/051305v1.b/1j513.d
Lab Smp Id: 135805005 Client Smp ID: RE03-05-59546
Inj Date : 13-MAY-2005 21:26
Operator : PAM Inst ID: VOA1.i
Smp Info : |135805005|425470|1|VOAF|1|
Misc Info : LANL 5.0G N/A
Comment :
Method : /chem/VOA1.i/051305v1.b/VOA1-8260B-041905.m
Meth Date : 16-May-2005 17:01 tcl Quant Type: ISTD
Cal Date : 20-APR-2005 05:01 Cal File: 1g228.d
Als bottle: 12
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 3194S.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	0.20580	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 40 Fluorobenzene	5.179	1665612	50.000
* 86 1,4-Dichlorobenzene-d4	10.905	1792803	50.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ug/l)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown				CAS #:			
4.869	655810	19.6867512	19.7	0		0	40

RT	AREA	CONCENTRATIONS ON-COL(ug/l)	FINAL(ug/Kg)	QUAL	QUANT LIBRARY	LIB ENTRY	CPND #
Unknown				CAS #:			
10.756	253911	7.08139026	7.1	0		0	86(L)
Unknown				CAS #:			
11.915	237354	6.61962164	6.6	0		0	86

QC Flag Legend

L - Operator selected an alternate library search match.

Data File: /chem/VOA1.i/051305v1.b/1j513.d
Date : 13-MAY-2005 21:26
Client ID: RE03-05-59546
Sample Info: 1135805005|425470|1|VOAF1|
Column phase: RTX-Volatiles

Instrument: VOA1.i
Operator: PAM
Column diameter: 0.25

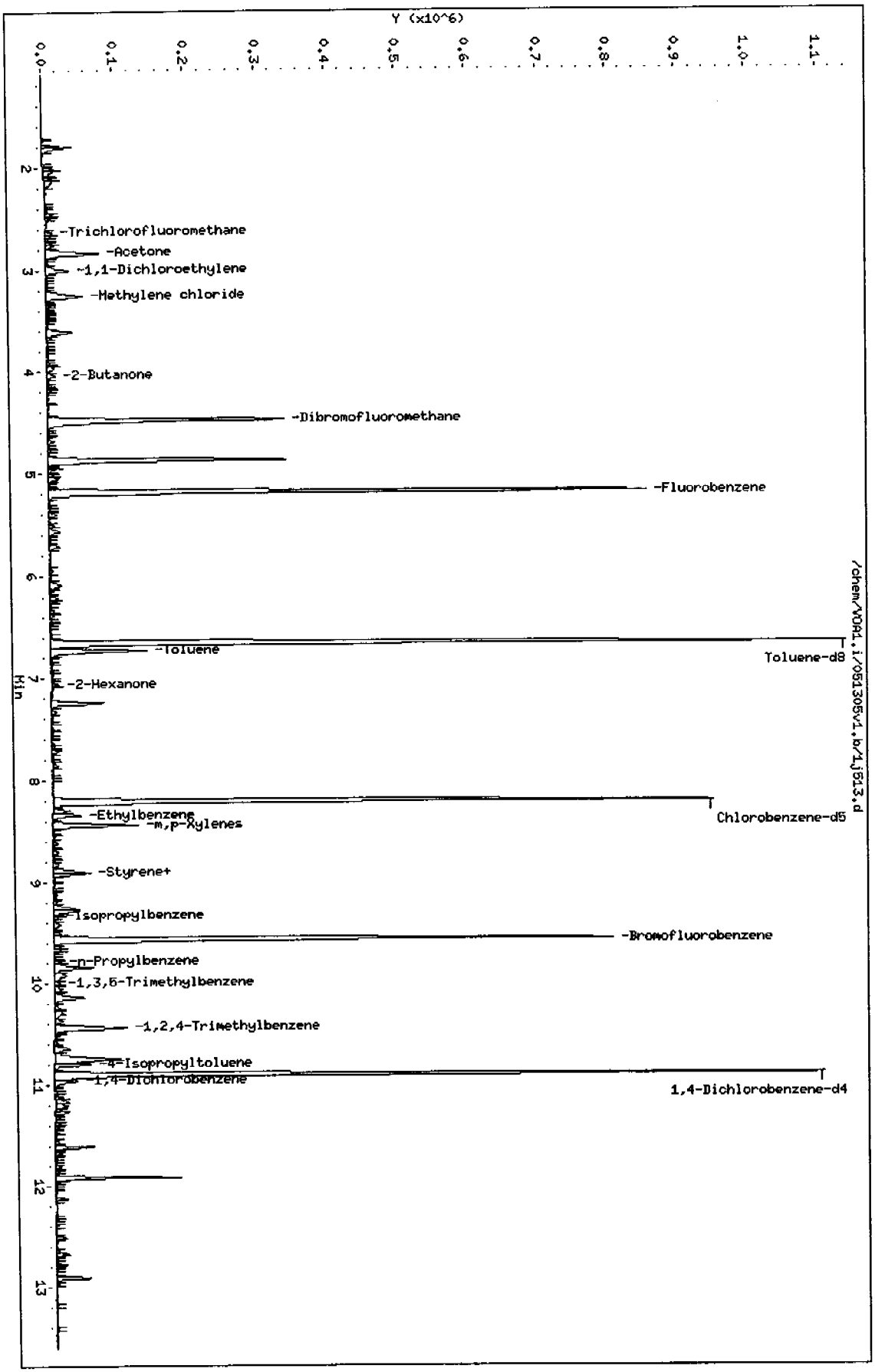

Page 1

Data File: /chem/VOA1.i/051305v1.b/1j513.d

Date : 13-MAY-2005 21:26

Client ID: RE03-05-59546

Instrument: VOA1.i

Sample Info: |1358050051425470|1|VOAF|1|

Operator: PAM

Column phase: RTX-Volatiles

Column diameter: 0.25

8 Trichlorofluoromethane

Concentration: 2.8 ug/Kg

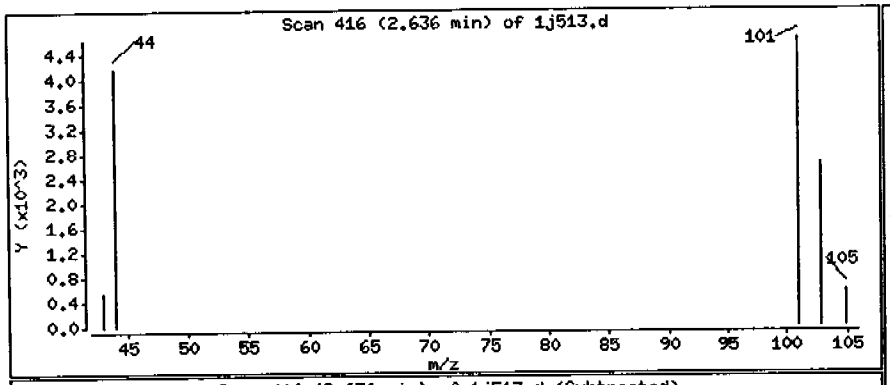

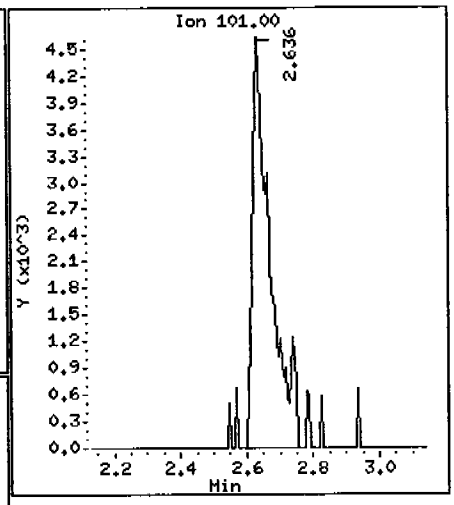

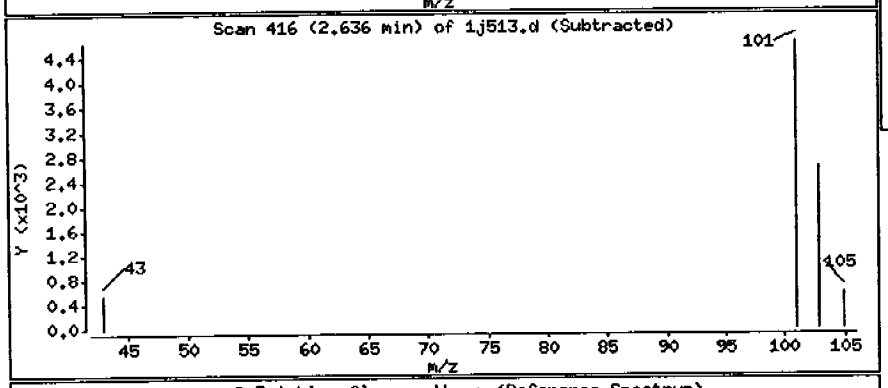

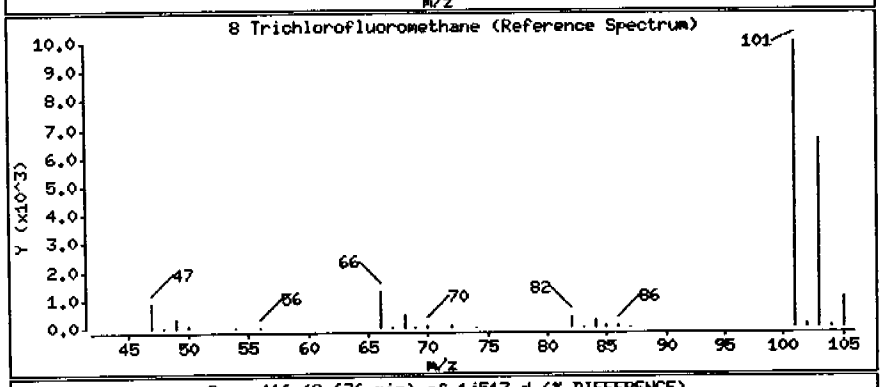

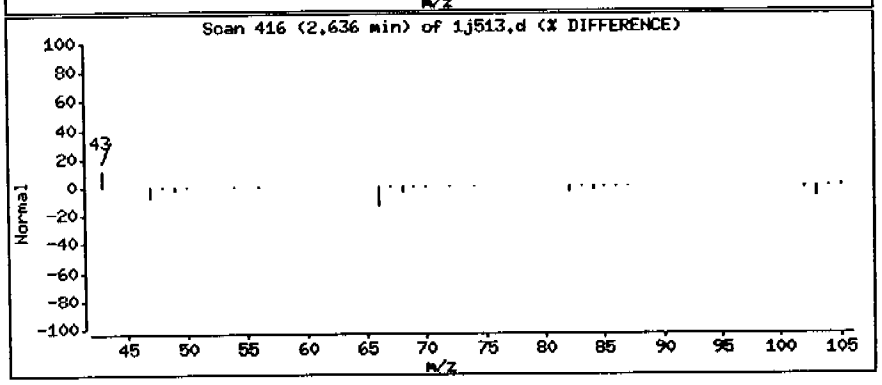

Data File: /chem/VOA1.i/051305v1.b/1j513.d

Date : 13-MAY-2005 21:26

Client ID: RE03-05-59546

Instrument: VOA1.i

Sample Info: |1358050051425470|1|VOAF|1|

Operator: PAM

Column phase: RTX-Volatiles

Column diameter: 0.25

11 1,1-Dichloroethylene

Concentration: 3.8 ug/Kg

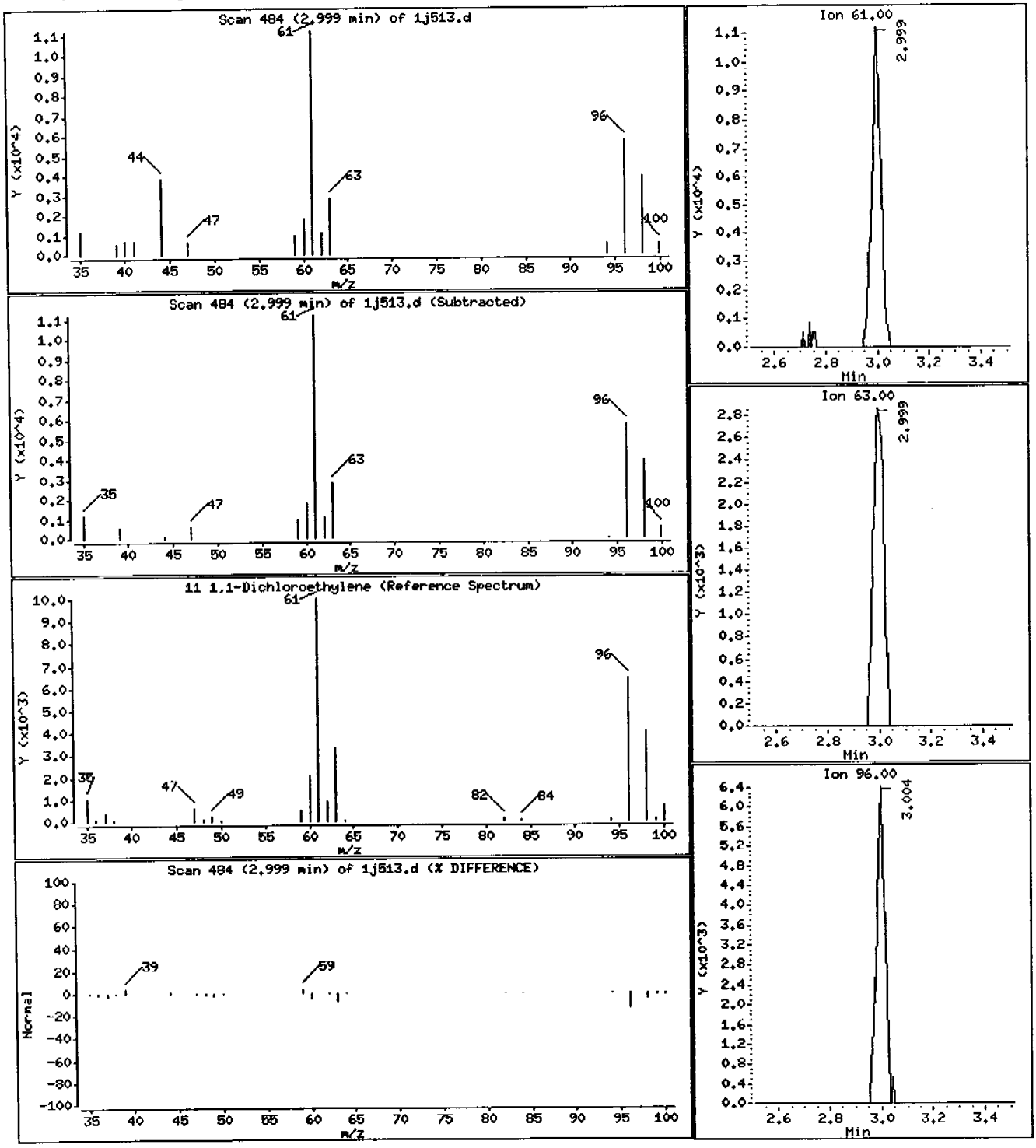

Data File: /chem/VOA1.i/051305v1.b/1j513.d

Date : 13-MAY-2005 21:26

Client ID: RE03-05-59546

Instrument: VOA1.i

Sample Info: |1358050051425470|1|VOAF|1|

Operator: PAM

Column phase: RTX-Volatiles

Column diameter: 0.25

10 Acetone

Concentration: 79.8 ug/Kg

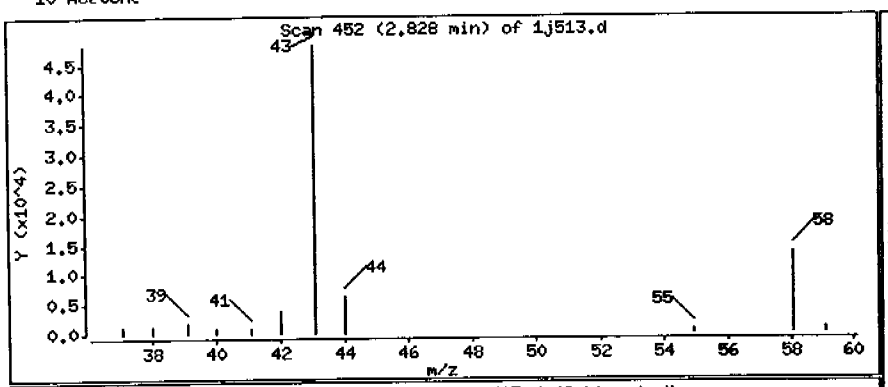

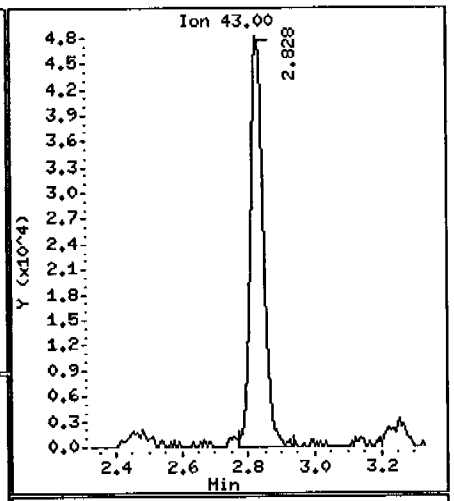

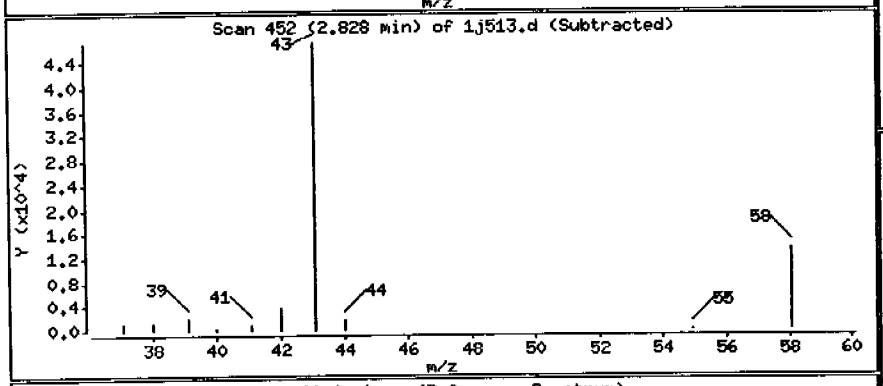

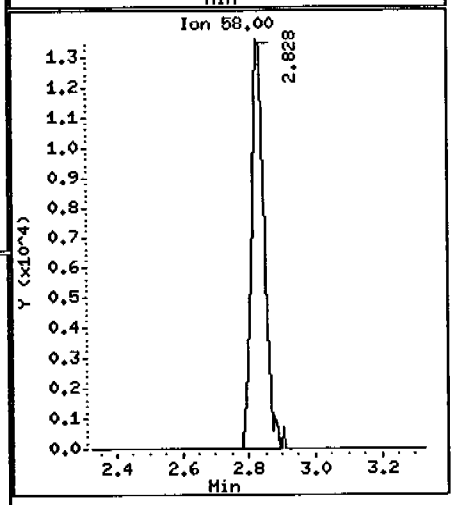

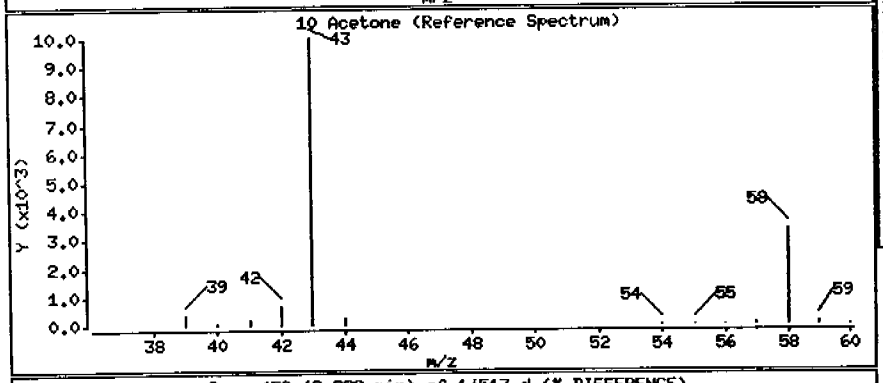

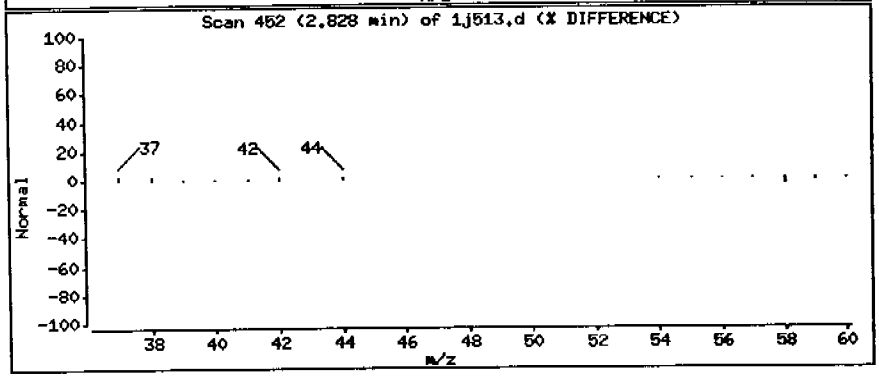

Data File: /chem/VOA1.i/051305v1.b/1j513.d

Date : 13-MAY-2005 21:26

Client ID: RE03-05-59546

Instrument: VOA1.i

Sample Info: |1358050051425470|1|VOAF|1|

Operator: PAM

Column phase: RTX-Volatiles

Column diameter: 0.25

17 Methylene chloride

Concentration: 4.1 ug/Kg

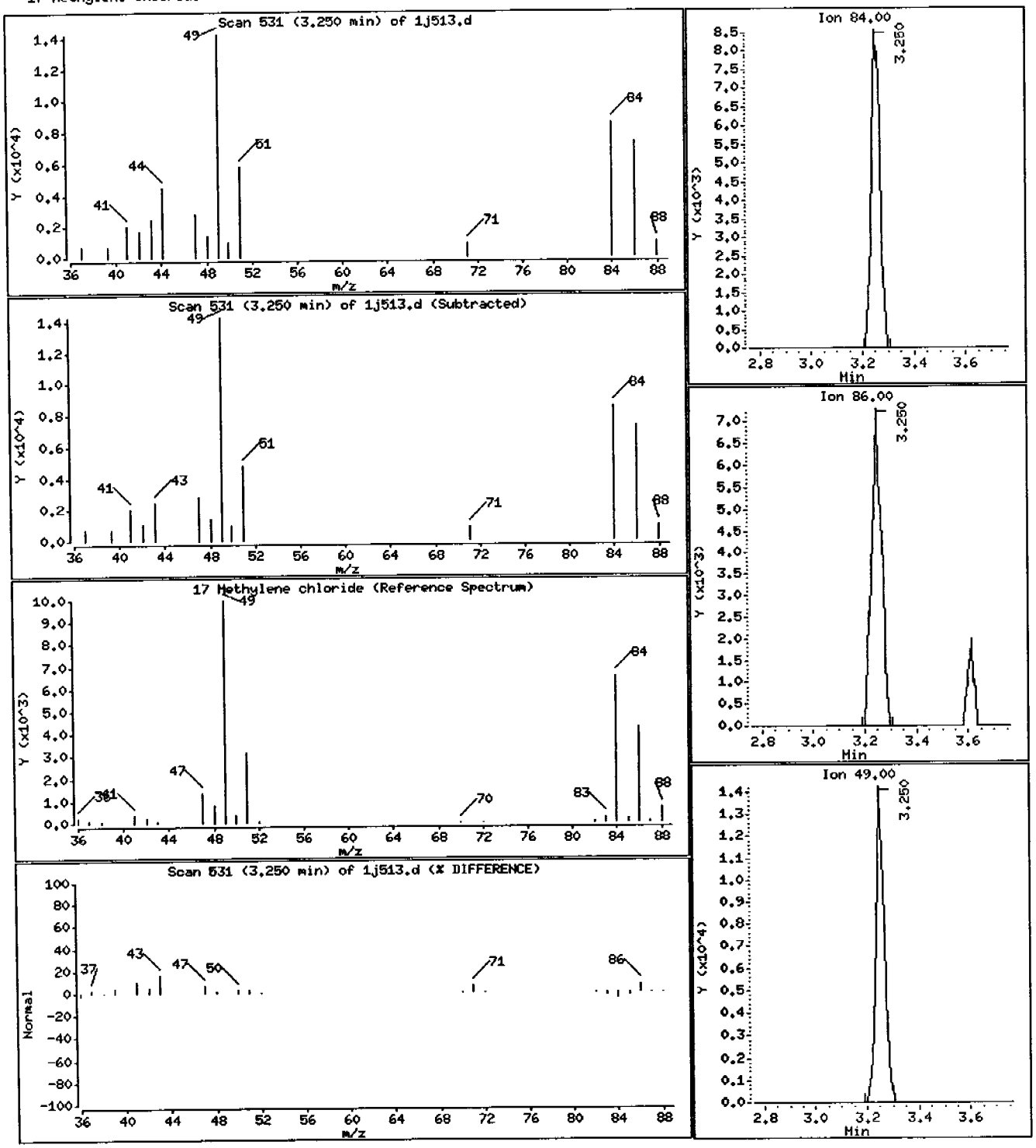

Data File: /chem/VOA1.i/051305v1.b/1j513.d

Date : 13-MAY-2005 21:26

Client ID: RE03-05-59546

Instrument: VOA1.i

Sample Info: |1358050051425470|1|VOAF|1|

Operator: PAH

Column phase: RTX-Volatiles

Column diameter: 0.25

Concentration: 7.0 ug/Kg

30 2-Butanone

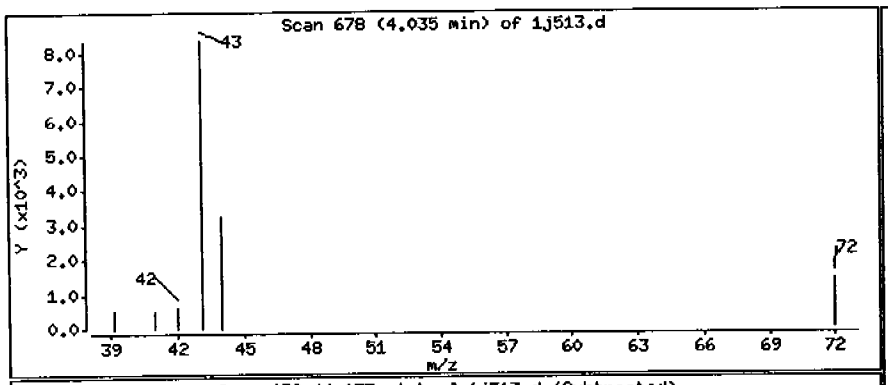

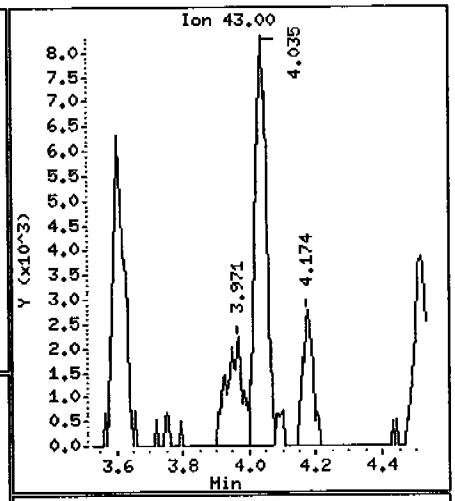

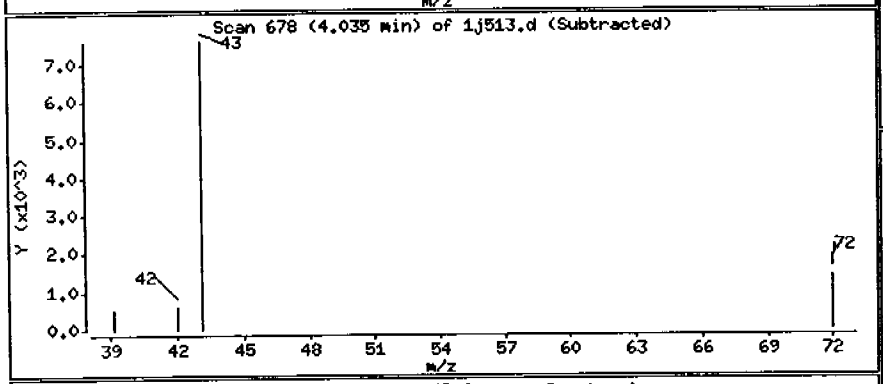

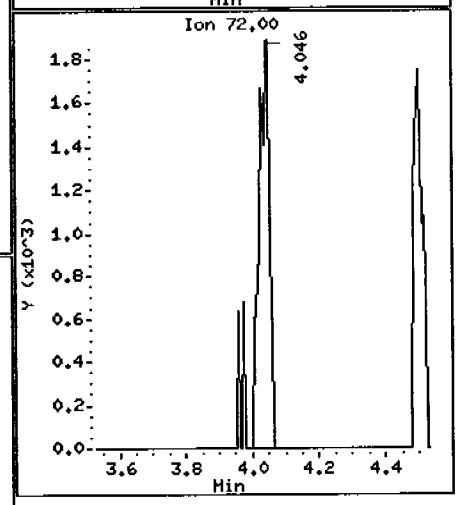

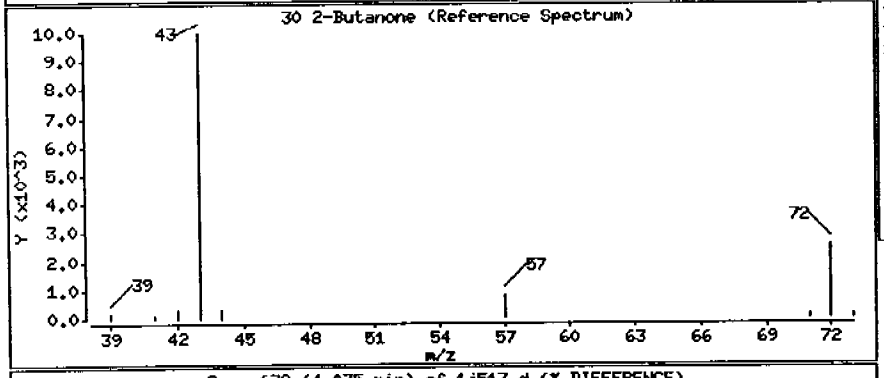

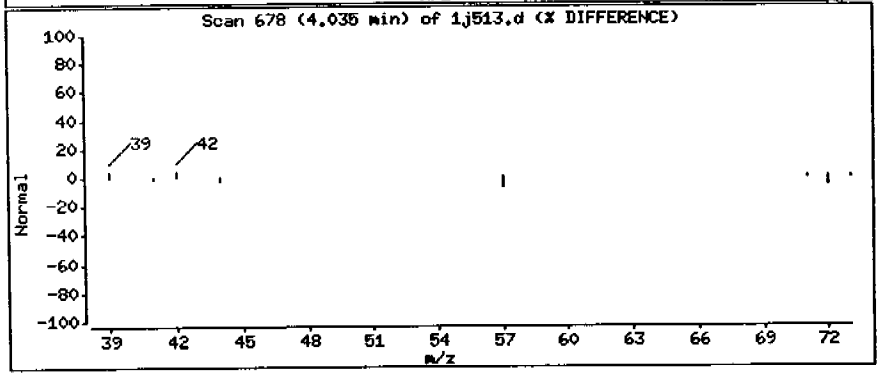

Data File: /chem/VOA1.i/051305v1.b/1j513.d

Date : 13-MAY-2005 21:26

Client ID: RE03-05-59546

Instrument: VOA1.i

Sample Info: |135805005|425470|1|VOAF|1|

Operator: PAM

Column phase: RTX-Volatiles

Column diameter: 0.25

87 1,4-Dichlorobenzene

Concentration: 0.60 ug/Kg

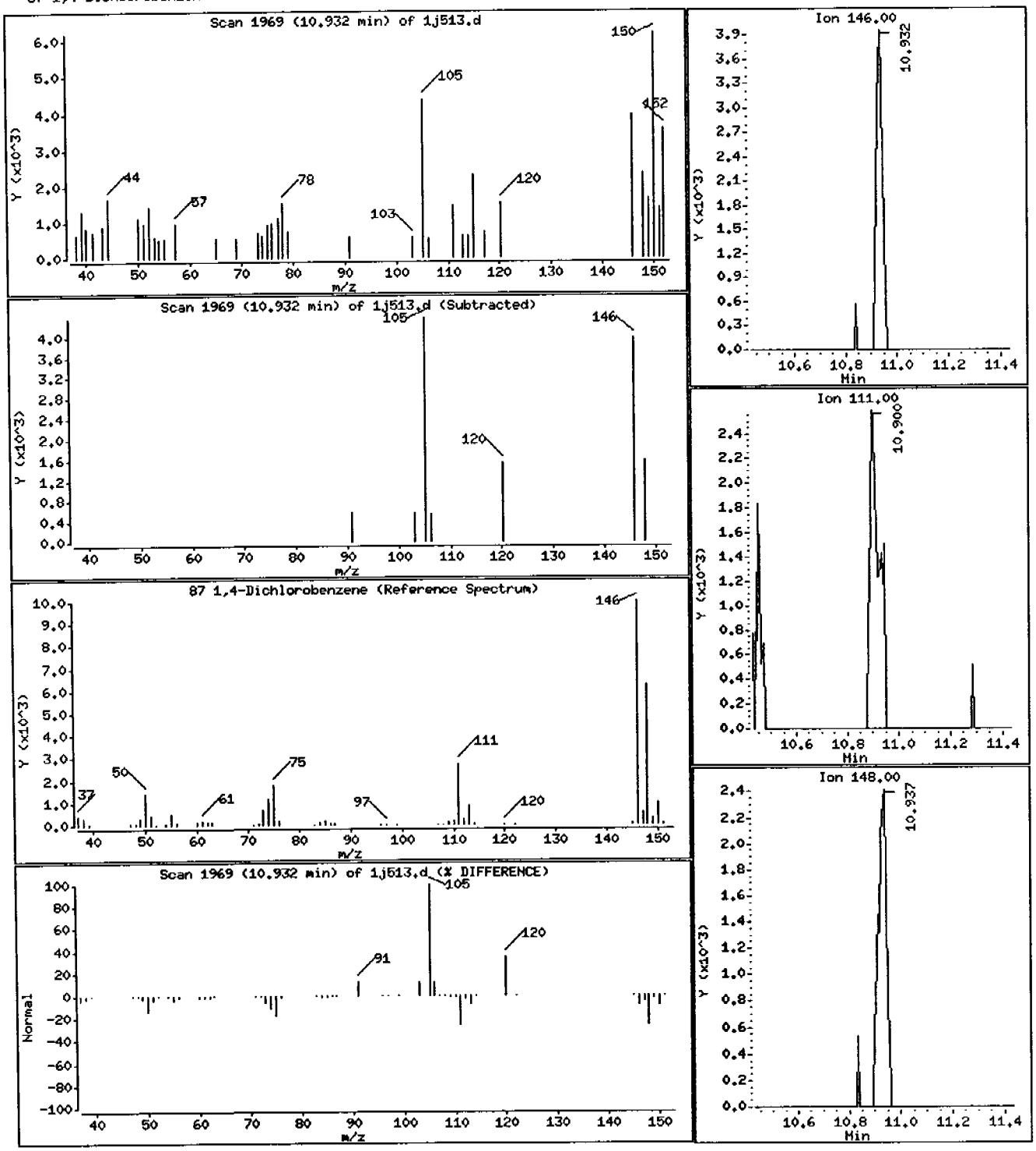

Data File: /chem/VOA1.i/051305v1.b/1j513.d

Date : 13-MAY-2005 21:26

Client ID: RE03-05-59546

Instrument: VOA1.i

Sample Info: |135805005|425470|1|VOAF|1|

Operator: PAH

Column phase: RTX-Volatiles

Column diameter: 0.25

50 Toluene

Concentration: 5.0 ug/Kg

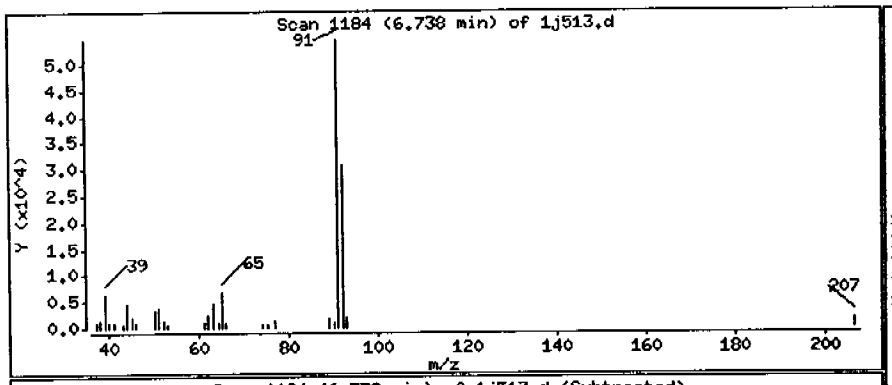

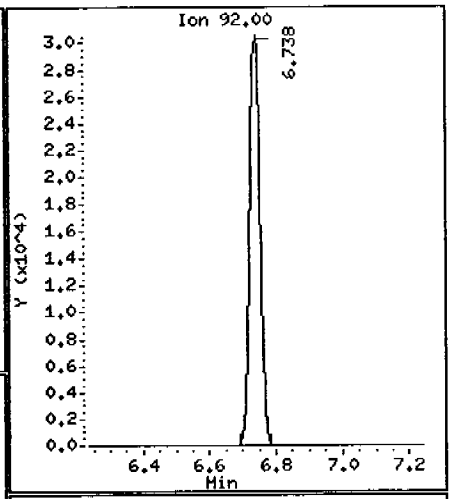

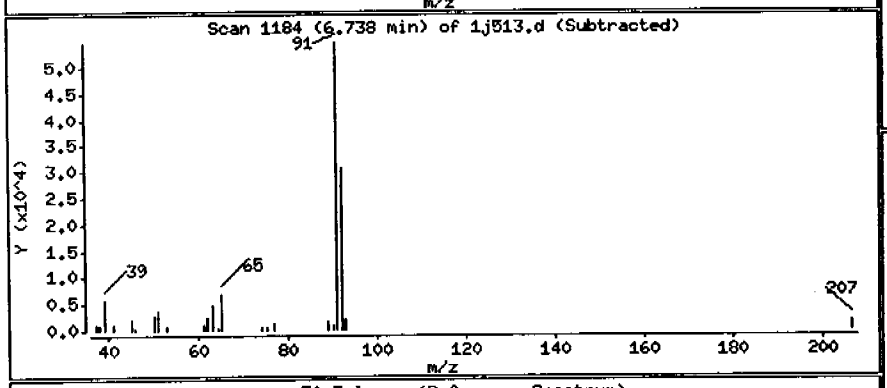

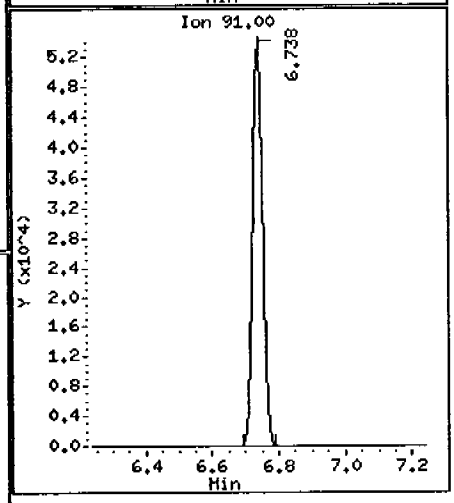

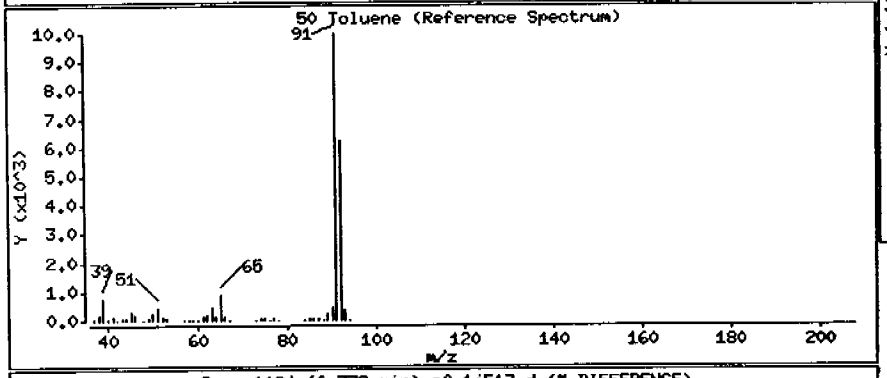

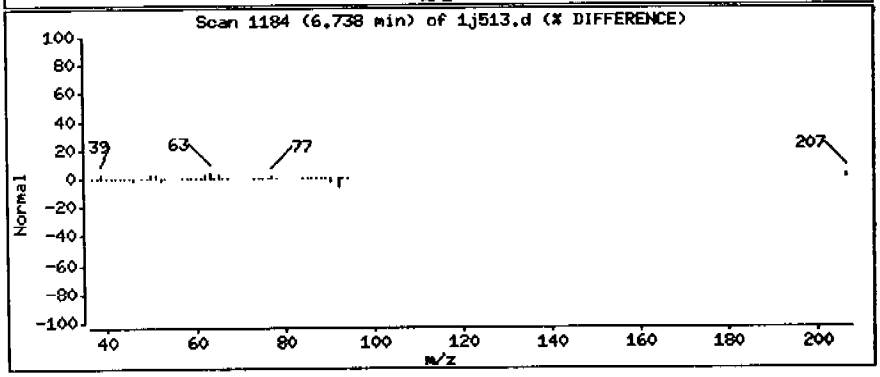

Data File: /chem/VOA1.i/051305v1.b/1j513.d

Date : 13-MAY-2005 21:26

Client ID: RE03-05-59546

Instrument: VOA1.i

Sample Info: |1358050051425470|1|VOAF|1|

Operator: PAM

Column phase: RTX-Volatiles

Column diameter: 0.25

55 2-Hexanone

Concentration: 2.1 ug/Kg

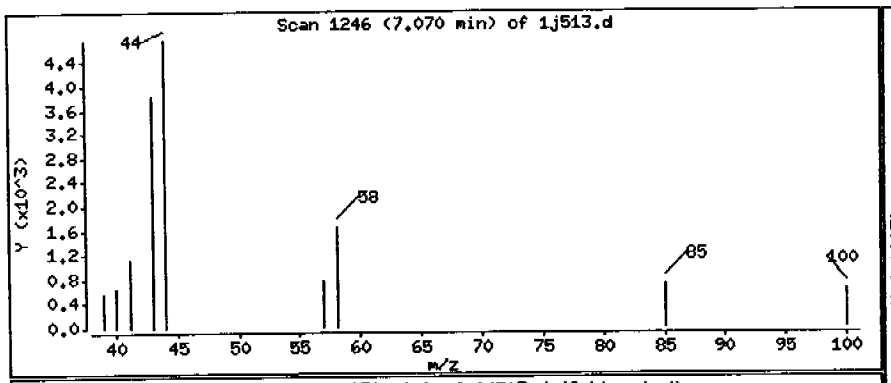

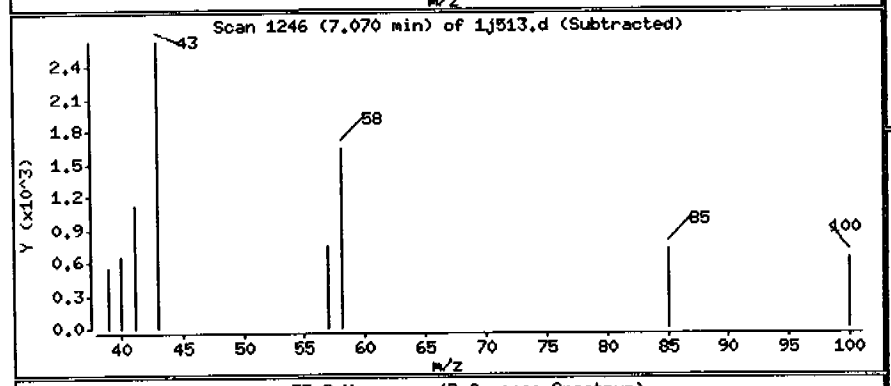

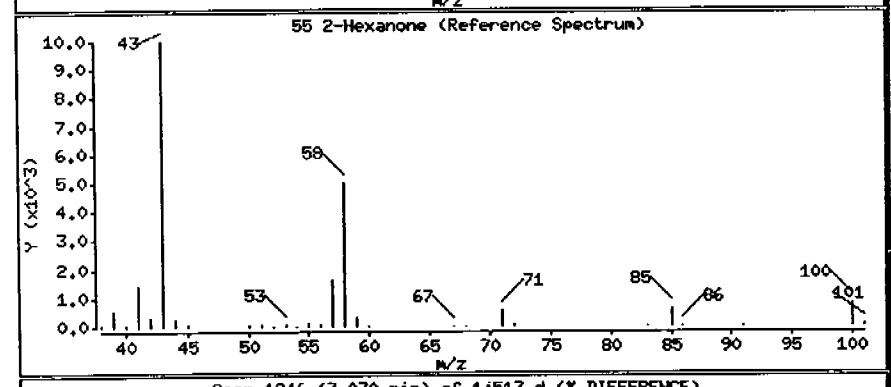

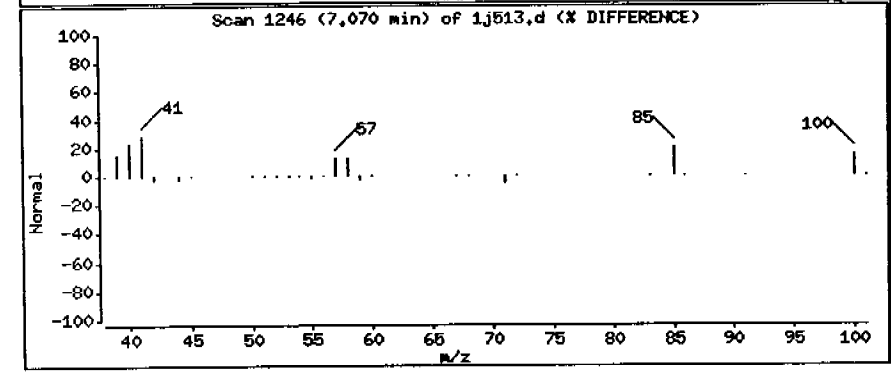

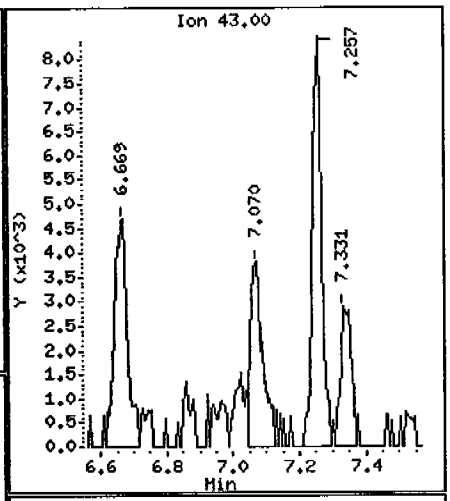

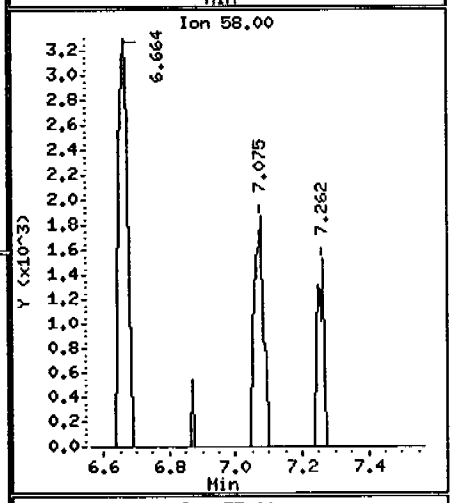

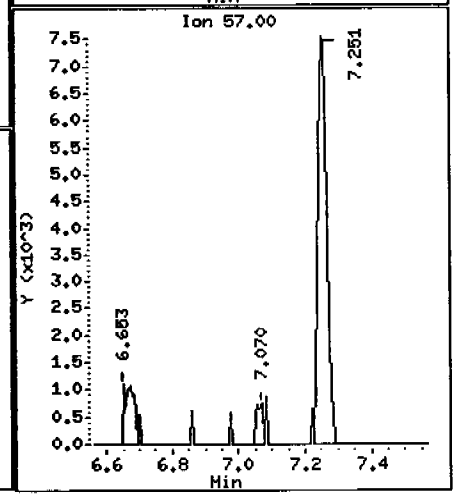

Data File: /chem/VOA1.i/051305v1.b/1j513.d

Date : 13-MAY-2005 21:26

Client ID: RE03-05-59546

Instrument: VOA1.i

Sample Info: |135805005|425470|1|VOAF|1|

Operator: PAM

Column phase: RTX-Volatiles

Column diameter: 0.25

58 Ethylbenzene

Concentration: 1.4 ug/Kg

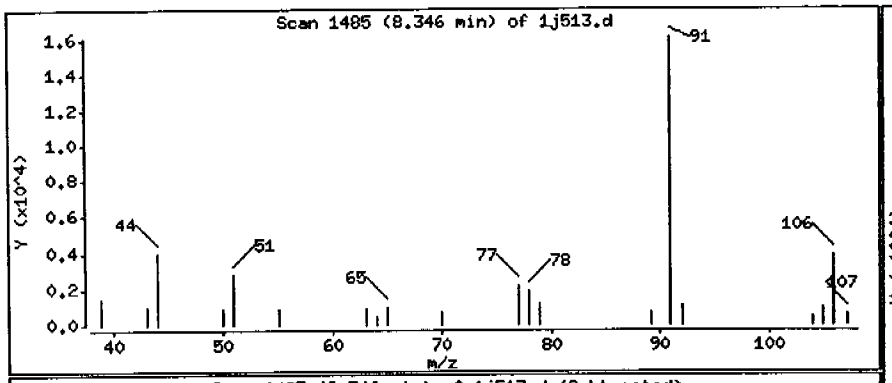

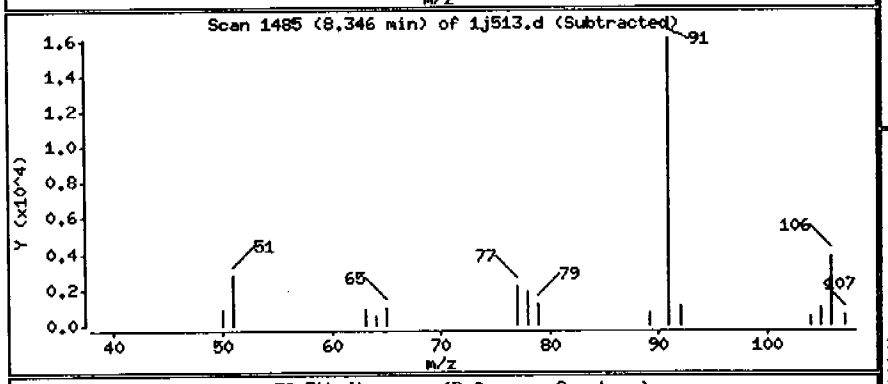

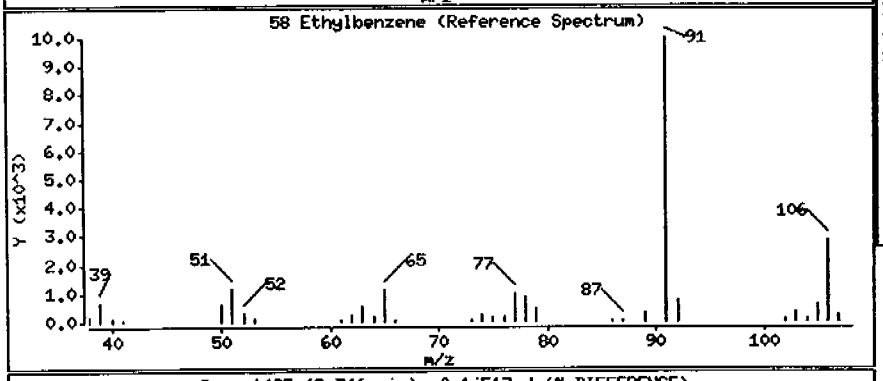

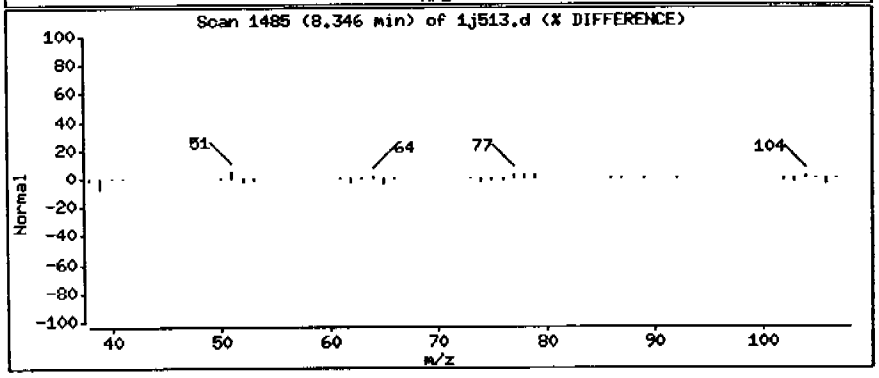

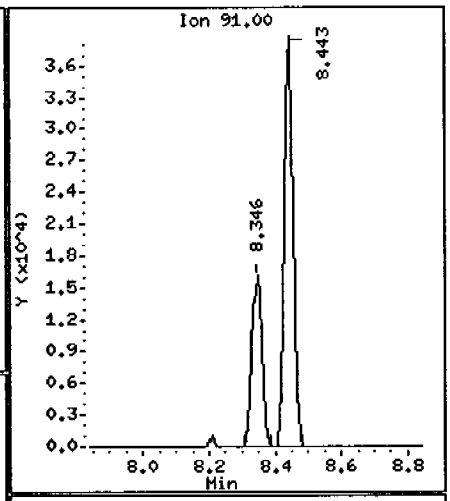

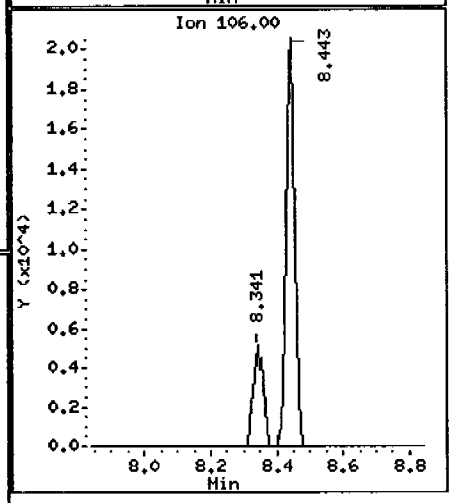

Data File: /chem/VOA1.i/051305v1.b/1j513.d

Date : 13-MAY-2005 21:26

Client ID: RE03-05-59546

Instrument: VOA1.i

Sample Info: |1358050051425470|1|VOAF|1|

Operator: PAM

Column phase: RTX-Volatiles

Column diameter: 0.25

63 m,p-Xylenes

Concentration: 4.3 ug/Kg

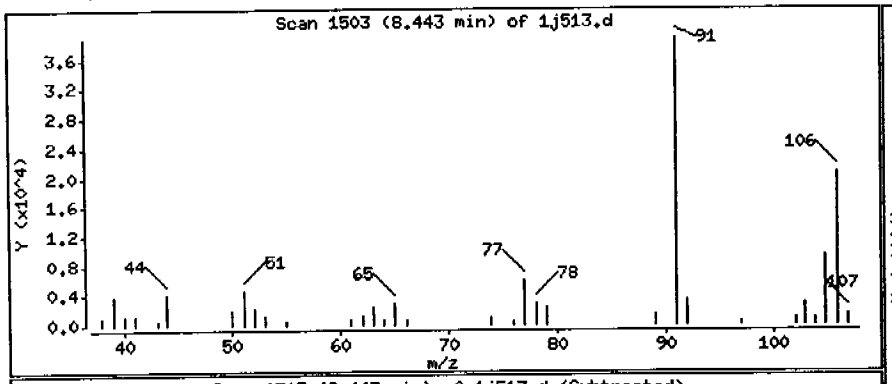

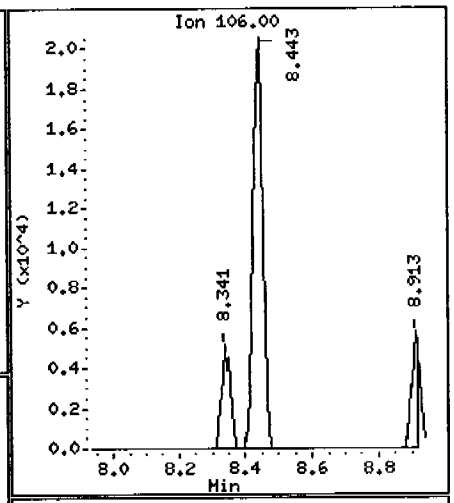

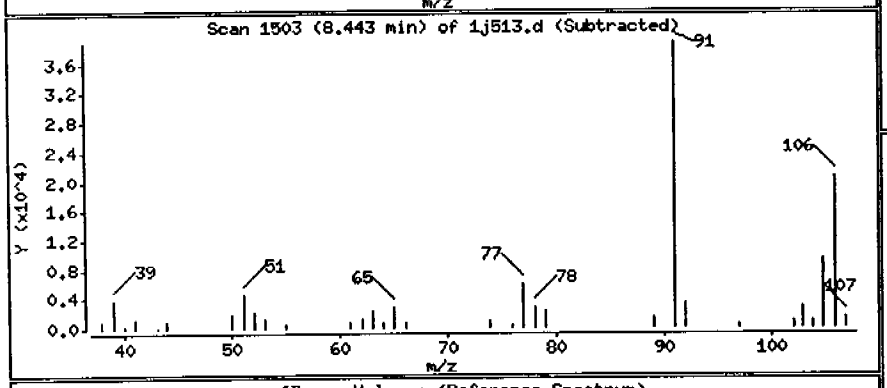

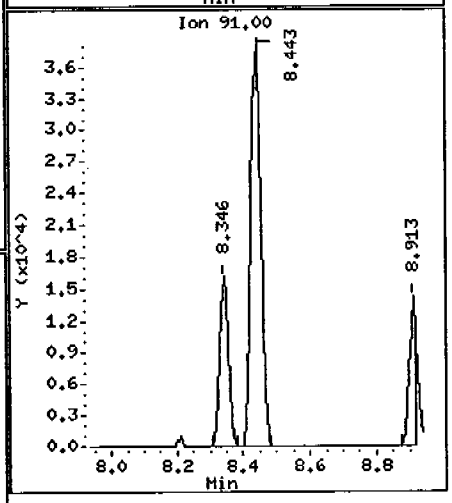

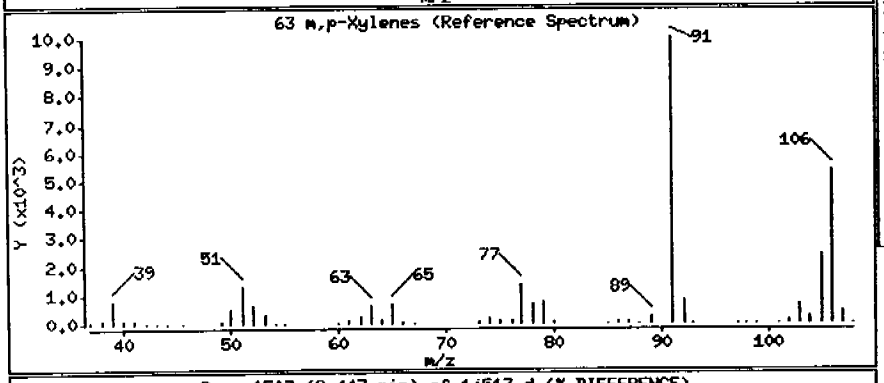

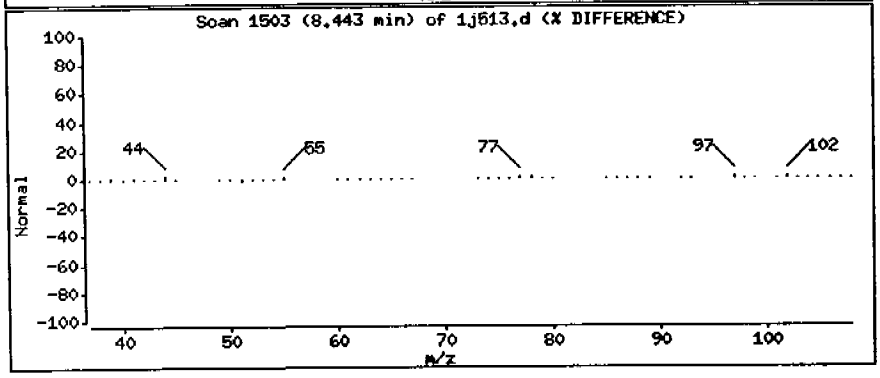

Data File: /chem/VOA1.i/051305v1.b/1j513.d

Date : 13-MAY-2005 21:26

Client ID: RE03-05-59546

Instrument: VOA1.i

Sample Info: |1358050051425470|1|VOAF|1|

Operator: PAM

Column phase: RTX-Volatiles

Column diameter: 0.25

65 Styrene

Concentration: 0.51 ug/Kg

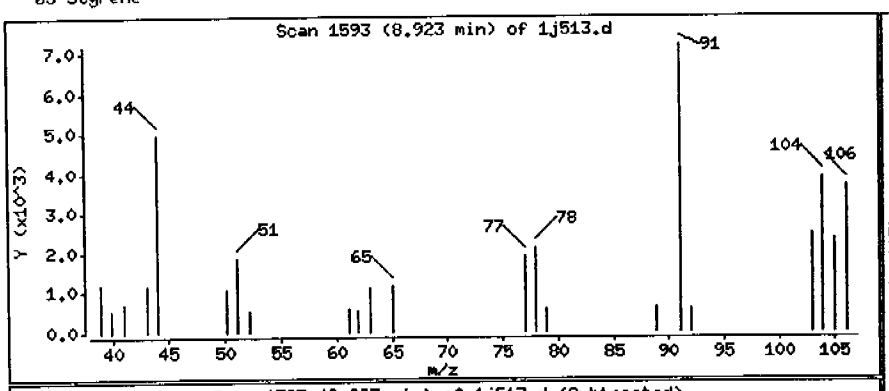

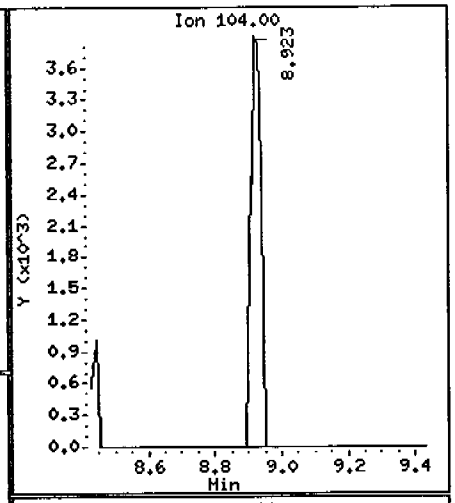

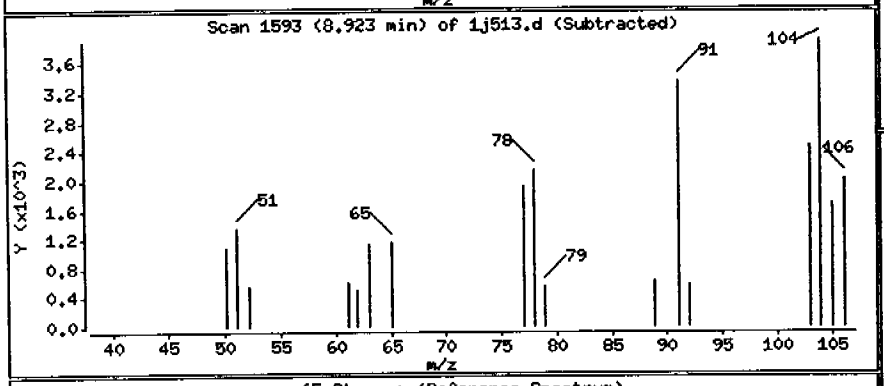

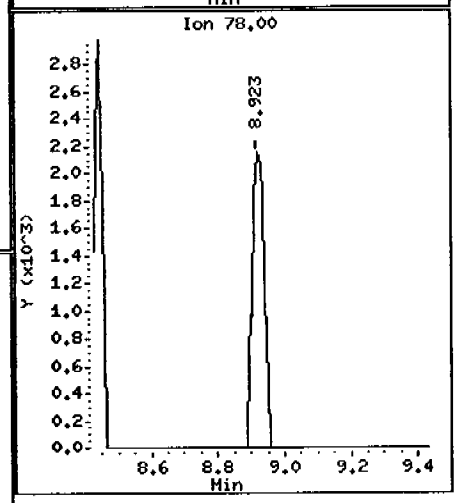

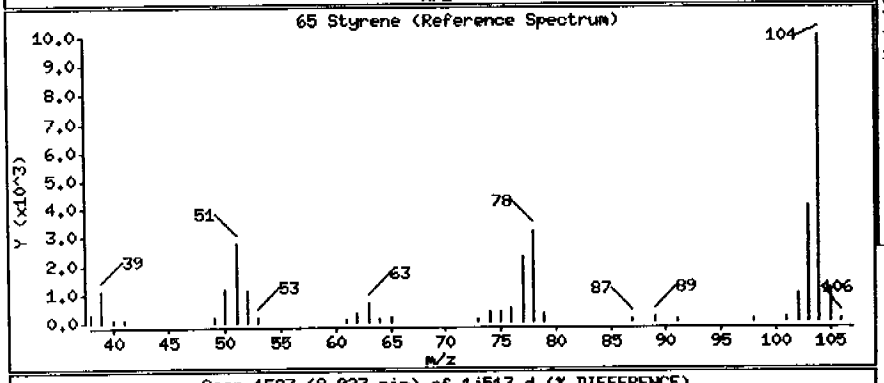

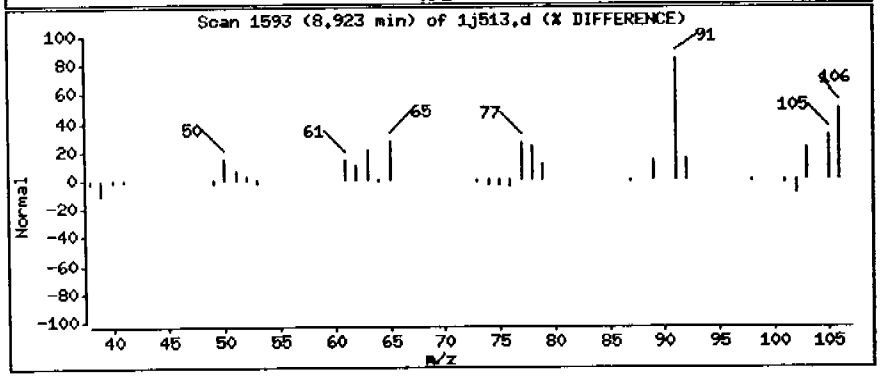

Data File: /chem/VOA1.i/051305v1.b/1j513.d

Date : 13-MAY-2005 21:26

Client ID: RE03-05-59546

Instrument: VOA1.i

Sample Info: |1358050051425470|1|VOAF|1|

Operator: PAM

Column phase: RTX-Volatiles

Column diameter: 0.25

Concentration: 1.2 ug/Kg

64 o-Xylene

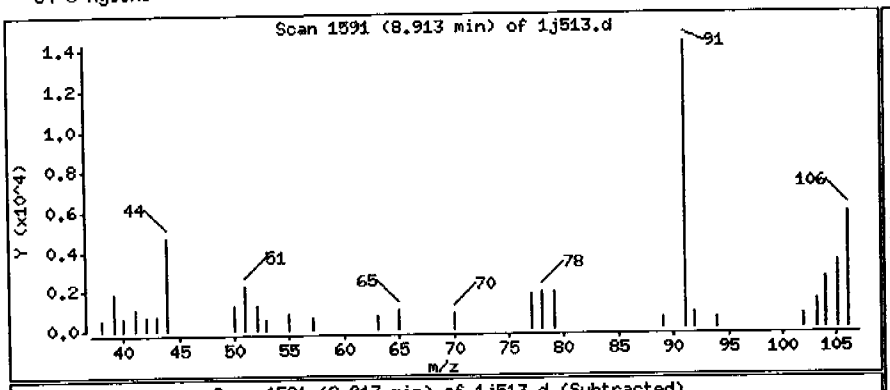

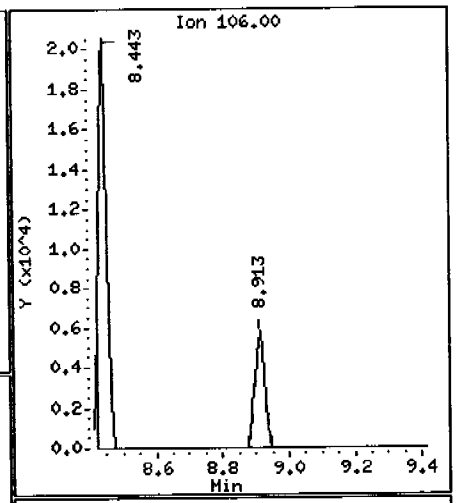

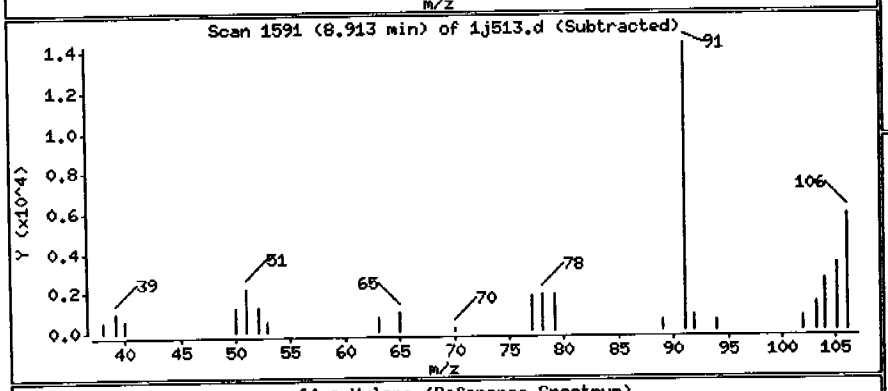

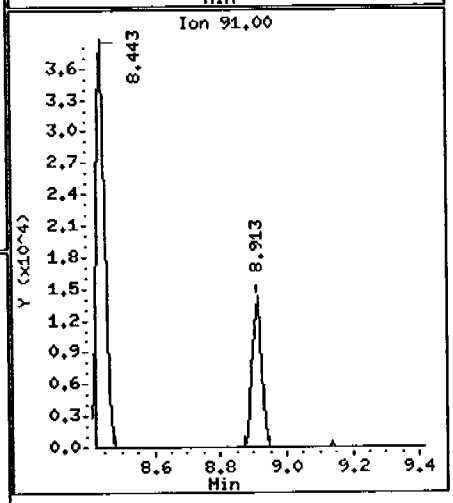

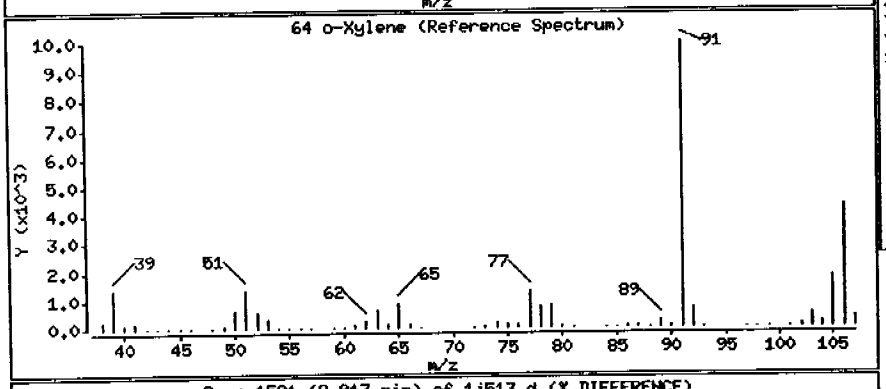

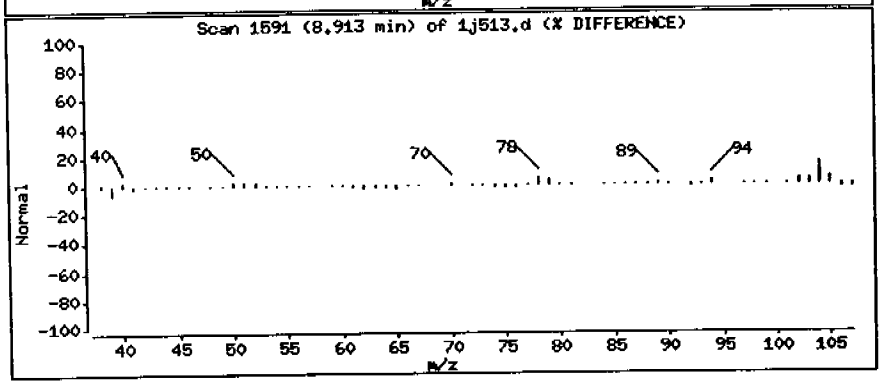

Data File: /chem/VOA1.i/051305v1.b/1j513.d

Date : 13-MAY-2005 21:26

Client ID: RE03-05-59546

Instrument: VOA1.i

Sample Info: |135805005|425470|1|VOAF|1|

Operator: PAM

Column phase: RTX-Volatiles

Column diameter: 0.25

67 Isopropylbenzene

Concentration: 0.22 ug/Kg

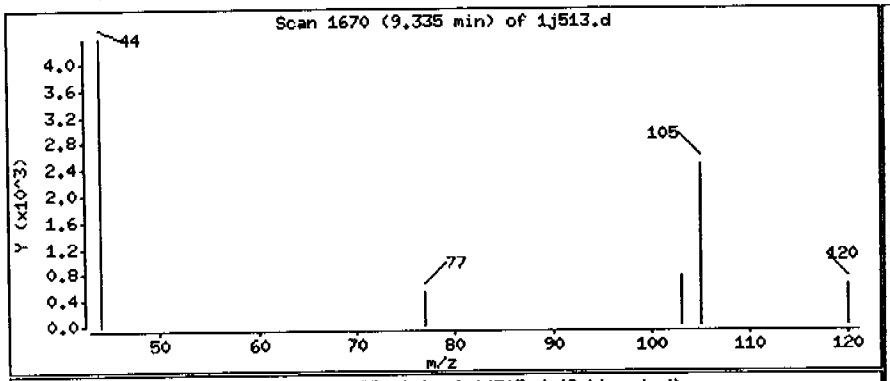

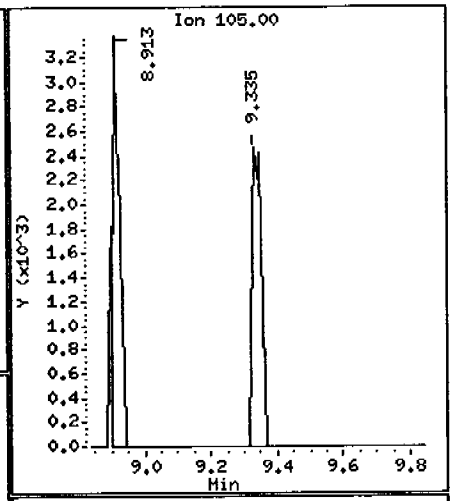

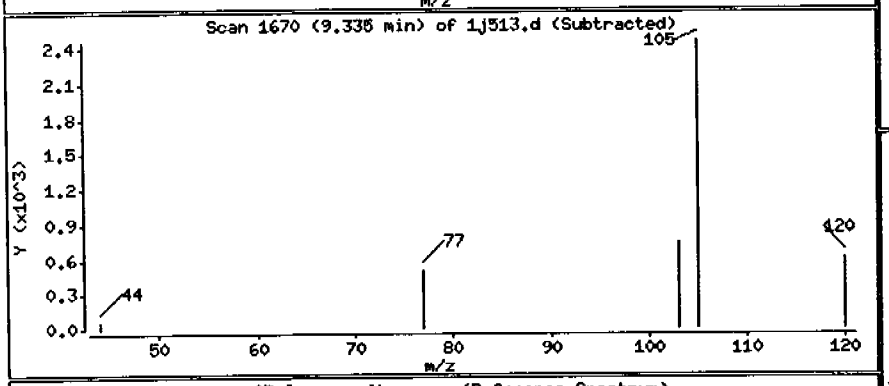

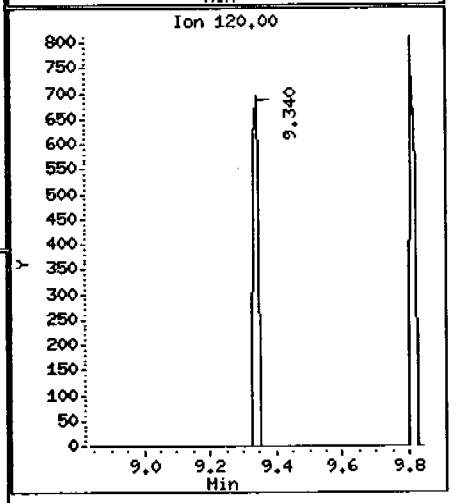

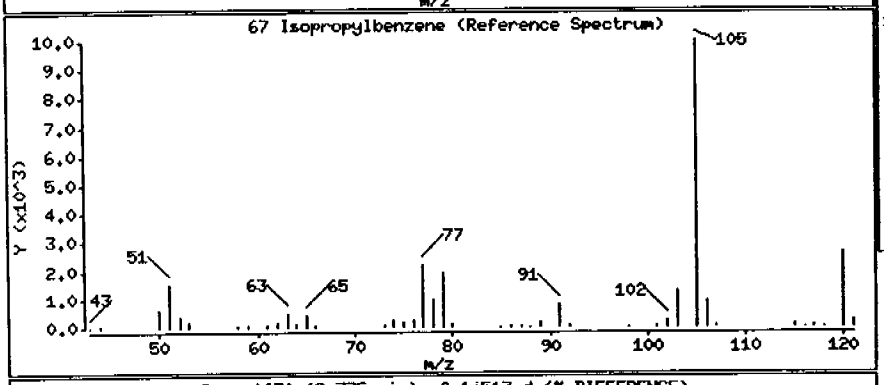

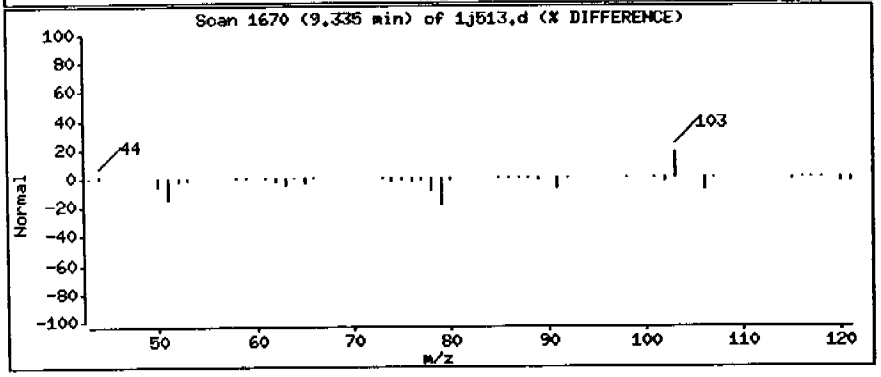

Data File: /chem/VOA1.i/051305v1.b/1j513.d

Date : 13-MAY-2005 21:26

Client ID: RE03-05-59546

Instrument: VOA1.i

Sample Info: |1358050051425470|1|VOAF|1|

Operator: PAM

Column phase: RTX-Volatiles

Column diameter: 0.25

76 n-Propylbenzene

Concentration: 0.26 ug/Kg

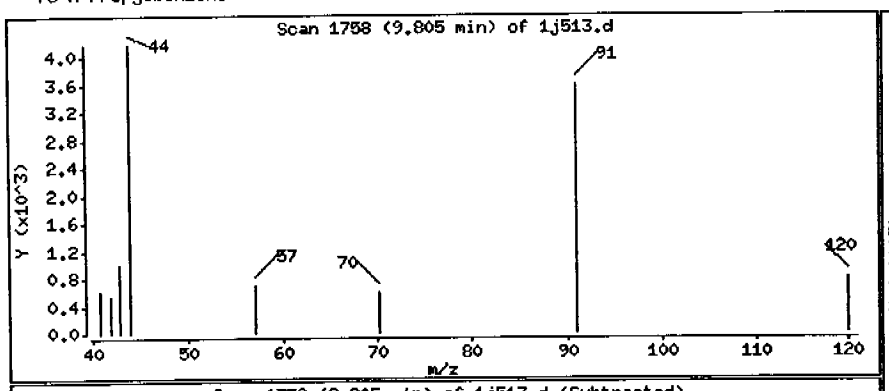

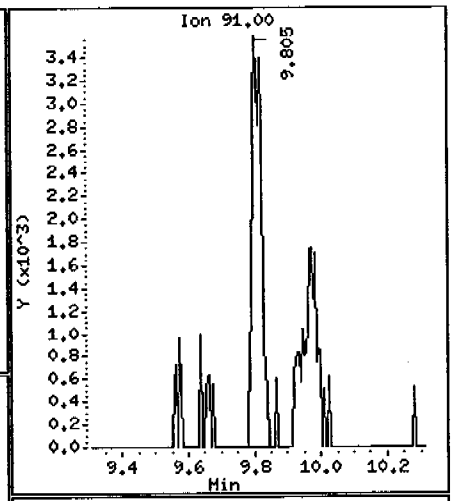

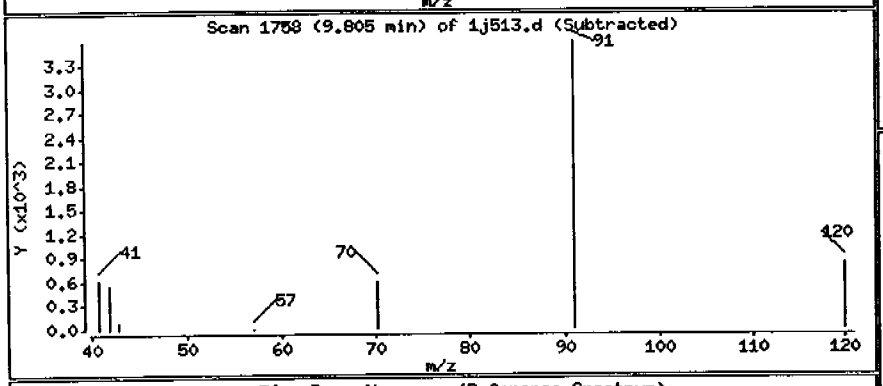

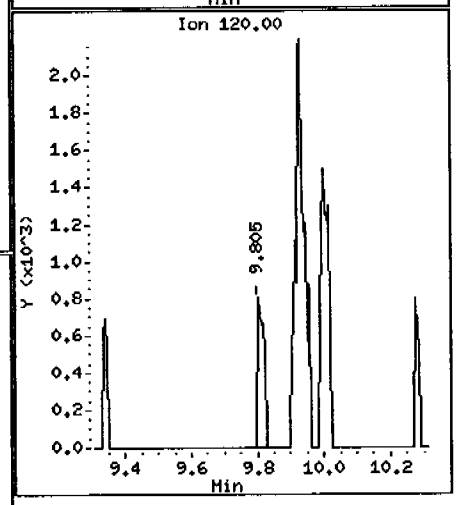

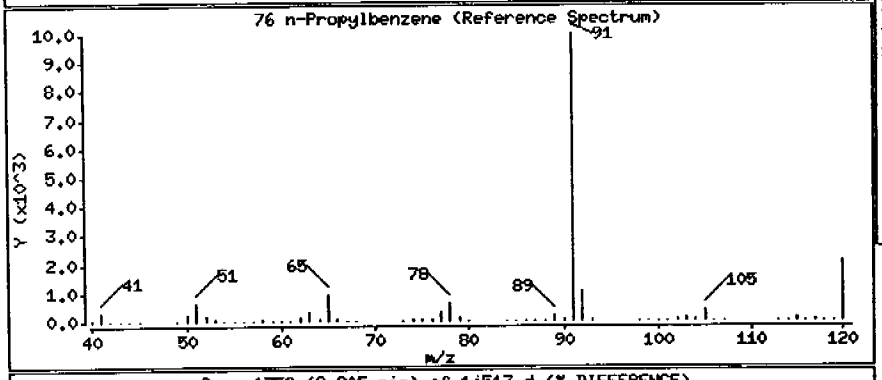

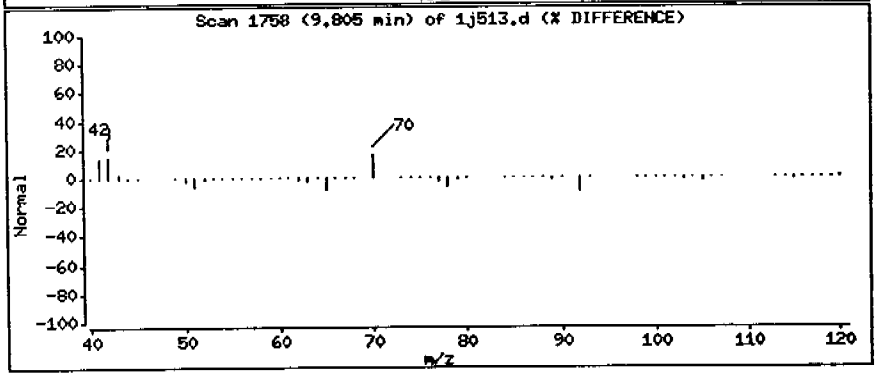

Data File: /chem/VOA1.i/051305v1.b/1j513.d

Date : 13-MAY-2005 21:26

Client ID: RE03-05-59546

Instrument: VOA1.i

Sample Info: |135805005|425470|1|VOAF|1|

Operator: PAM

Column phase: RTX-Volatiles

Column diameter: 0.25

84 4-Isopropyltoluene

Concentration: 1.6 ug/Kg

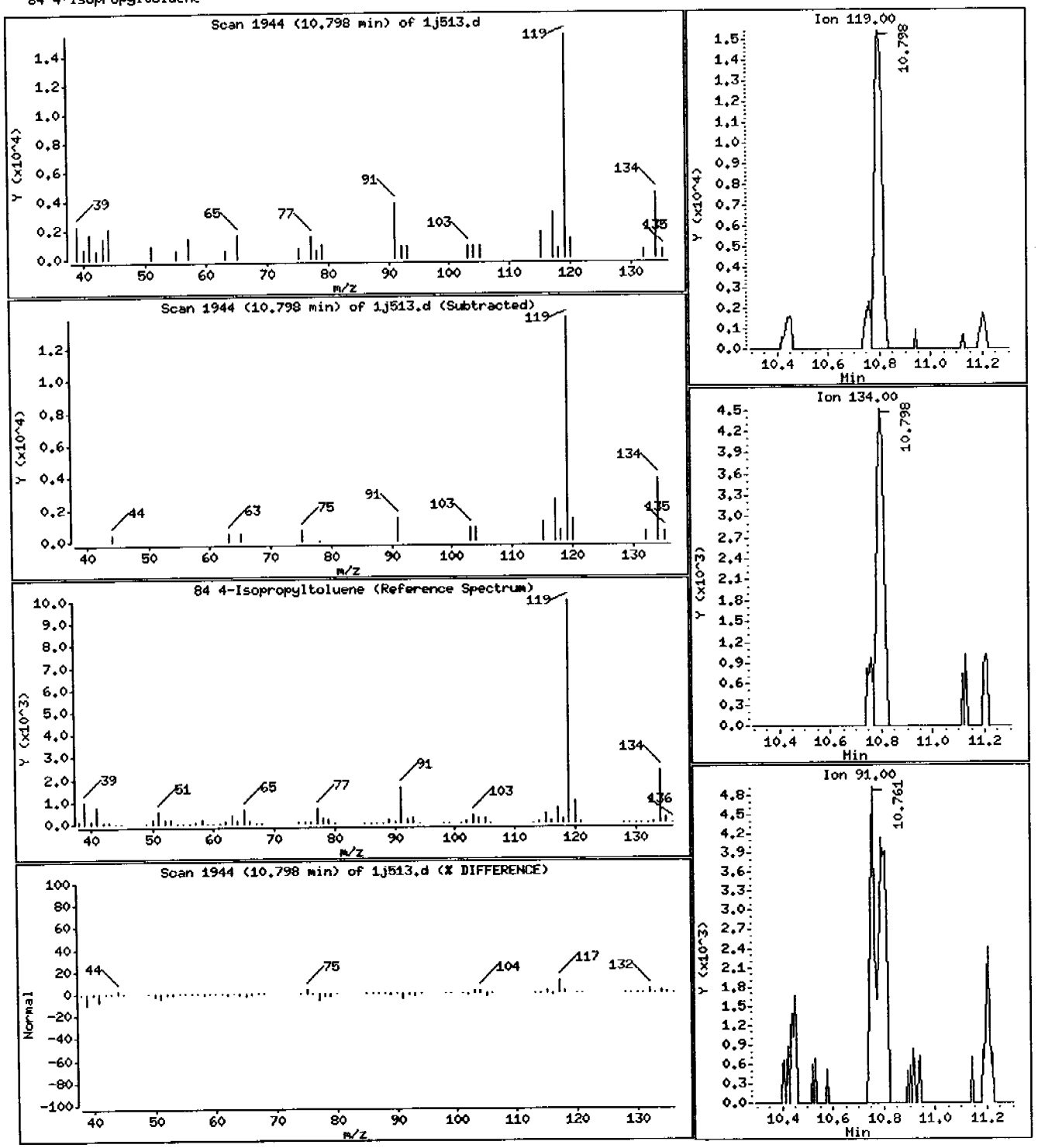

Data File: /chem/VOA1.i/051305v1.b/1j513.d

Date : 13-MAY-2005 21:26

Client ID: RE03-05-59546

Instrument: VOA1.i

Sample Info: |135805005|425470|1|VOAF|1|

Operator: PAM

Column phase: RTX-Volatiles

Column diameter: 0.25

78 1,3,5-Trimethylbenzene

Concentration: 0.28 ug/Kg

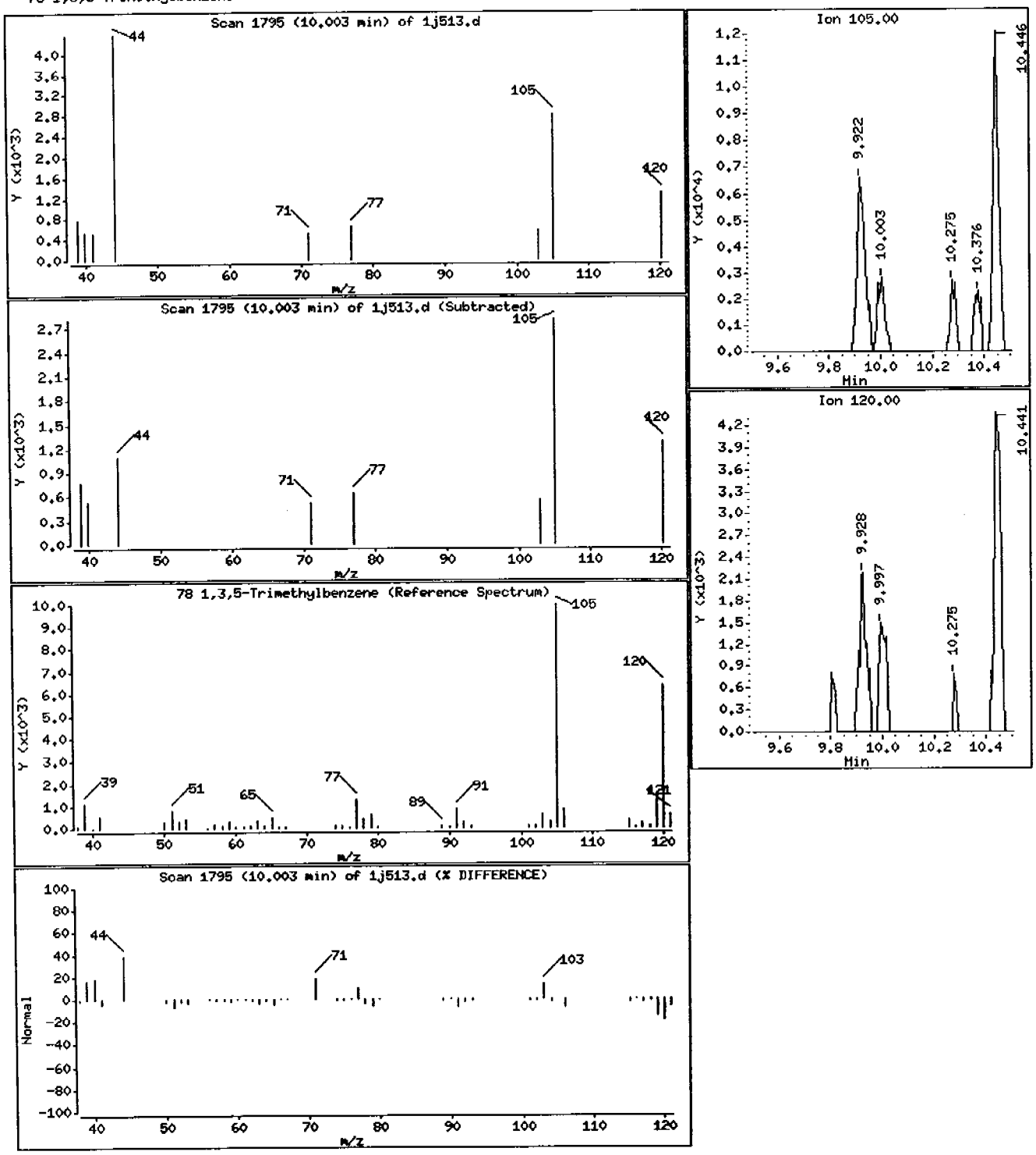

Data File: /chem/VOA1.i/051305v1.b/1j513.d

Date : 13-MAY-2005 21:26

Client ID: RE03-05-59546

Instrument: VOA1.i

Sample Info: |1358050051425470|1|VOAF|1|

Operator: PAM

Column phase: RTX-Volatiles

Column diameter: 0.25

79 1,2,4-Trimethylbenzene

Concentration: 1.1 ug/Kg

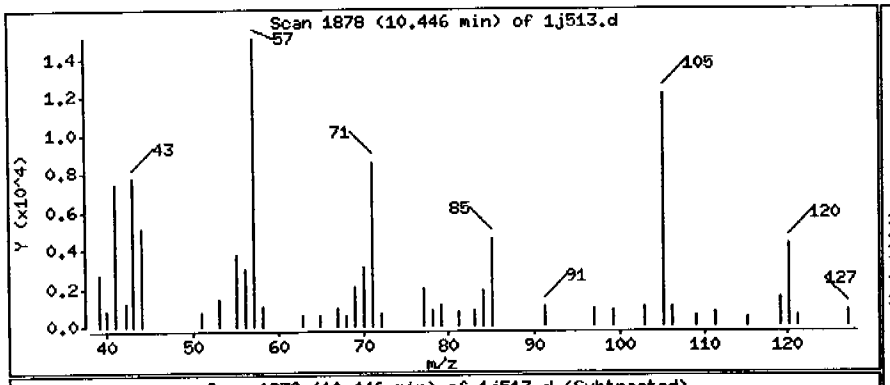

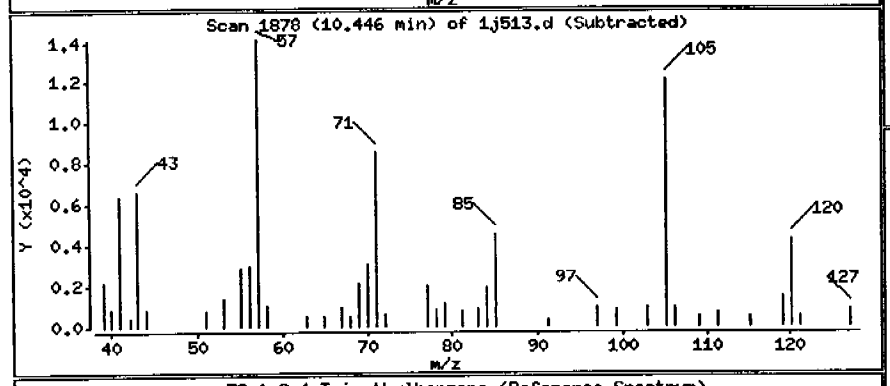

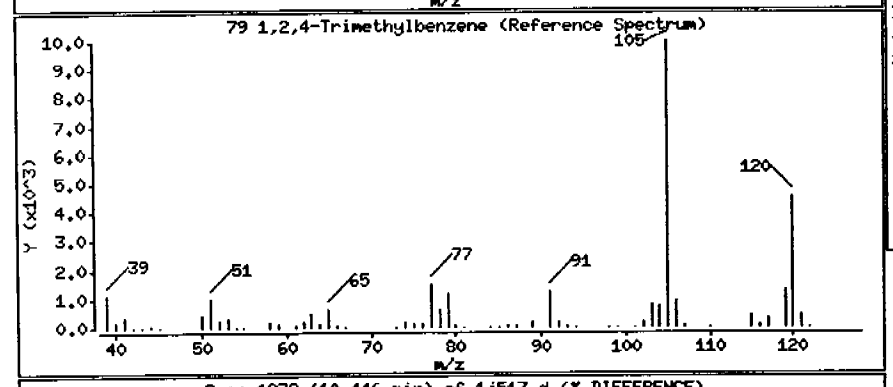

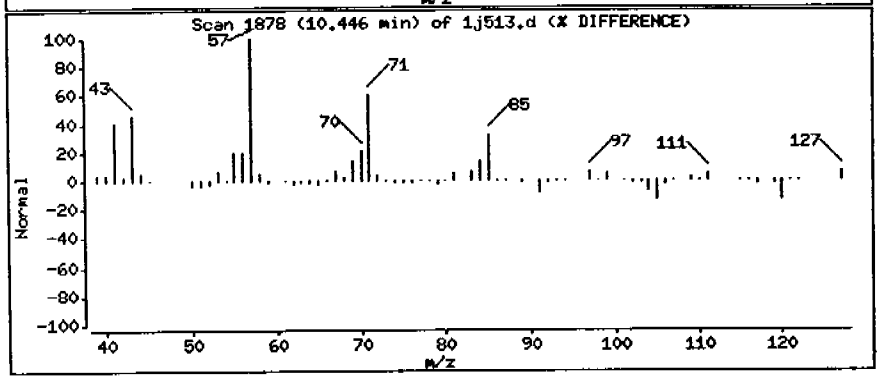

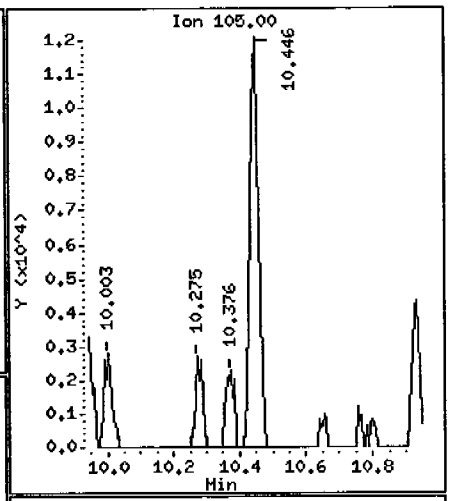

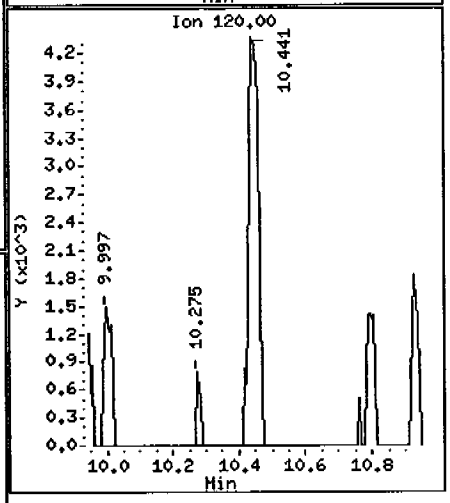

Data File: /chem/VOA1.i/051305v1.b/1j513.d

Date : 13-MAY-2005 21:26

Client ID: RE03-05-59546

Instrument: VOA1.i

Sample Info: |1358050051425470|1|VOAF|1|

Operator: PAM

Column phase: RTX-Volatiles

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0

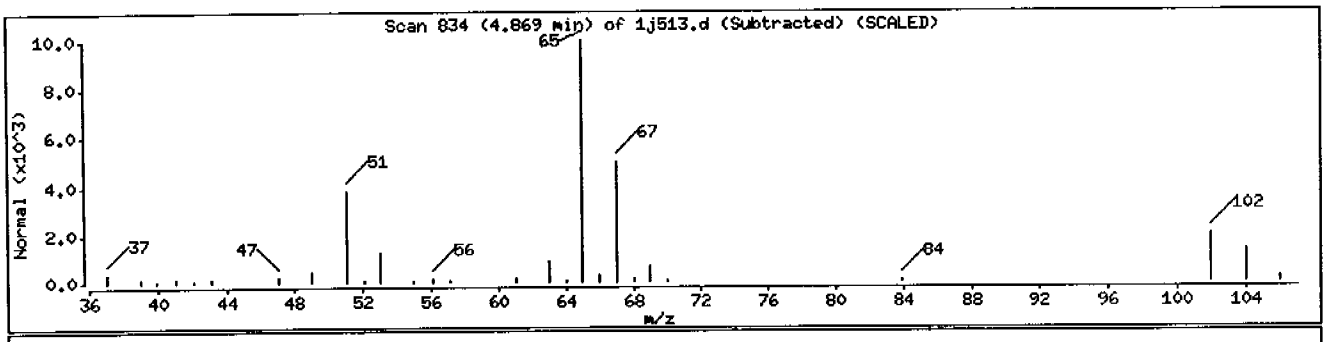

Data File: /chem/VOA1.i/051305v1.b/1j513.d

Date : 13-MAY-2005 21:26

Client ID: RE03-05-59546

Instrument: VOA1.i

Sample Info: |135805005|425470|1|VOAF|1|

Operator: PAM

Column phase: RTX-Volatiles

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Cyclohexene, 1-methyl-4-(1-methylethenyl	7705-14-8	Nist98.l	21971	94	C10H16	136
Limonene	138-86-3	Nist98.l	114006	94	C10H16	136
D-Limonene	5989-27-5	Nist98.l	21974	93	C10H16	136

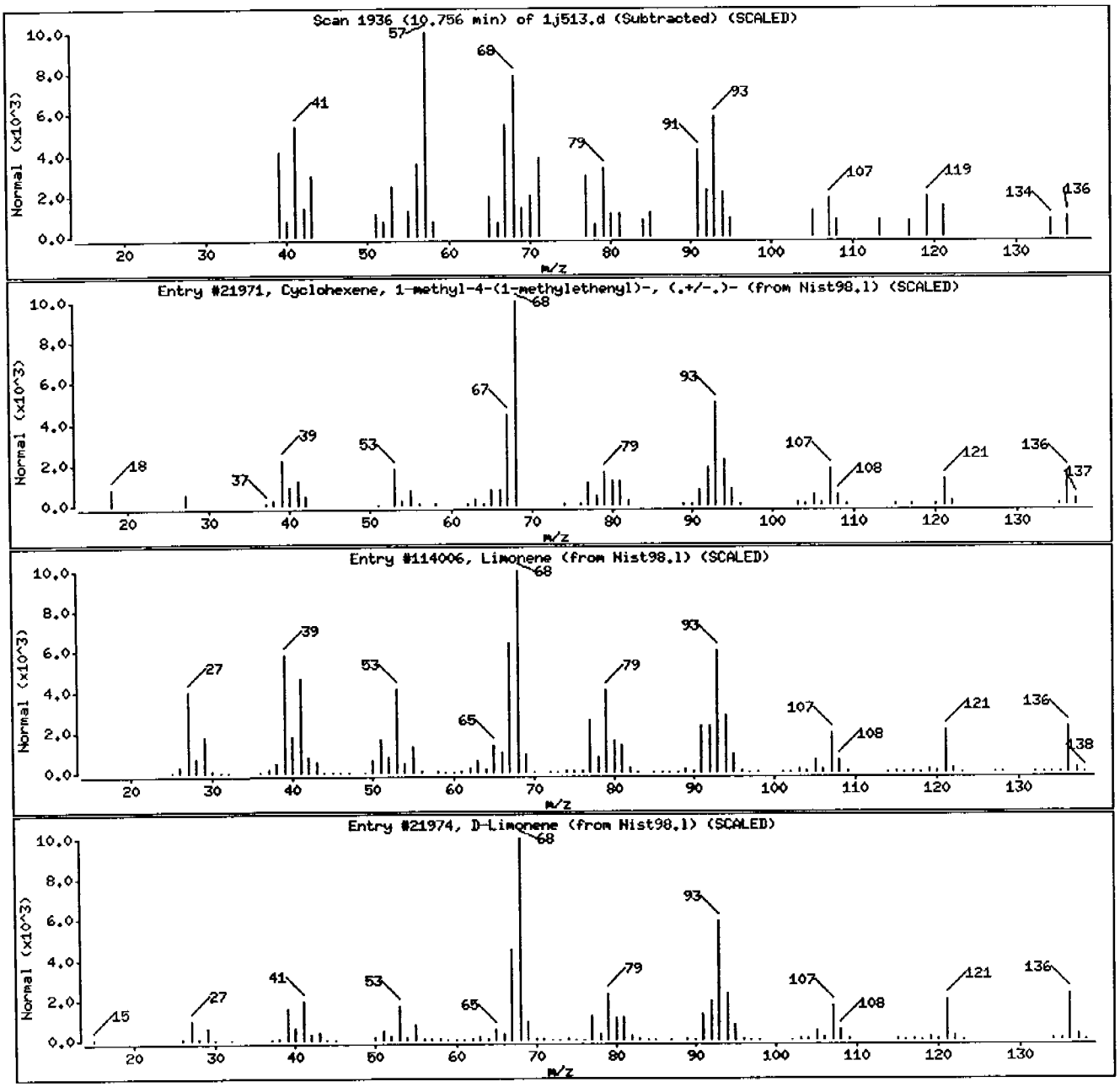

Data File: /chem/VOA1.i/051305v1.b/1j513.d

Date : 13-MAY-2005 21:26

Client ID: RE03-05-59546

Instrument: VOA1.i

Sample Info: |1358050051425470|1|VOAF|1|

Operator: PAH

Column phase: RTX-Volatiles

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Acetic acid, 2-ethylhexyl ester	103-09-3	Nist98.1	6207	90	C10H2OO2	172
Acetic acid, 2-ethylhexyl ester	103-09-3	Nist98.1	109835	90	C10H2OO2	172
3-Methylheptyl acetate	72218-58-7	Nist98.1	6208	78	C10H2OO2	172

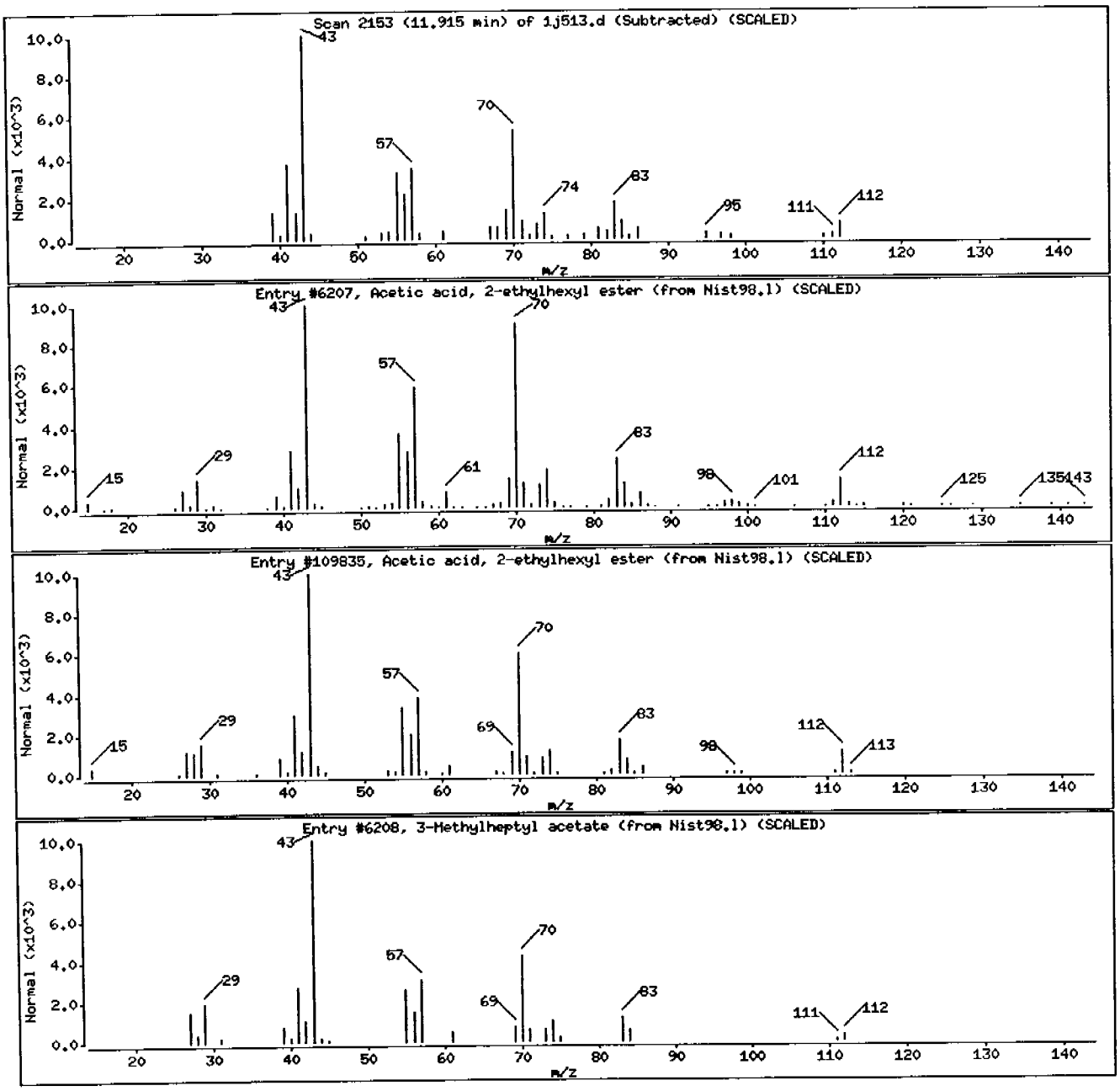

STANDARDS DATA

EPA 524.2/Low level SW846 8260B and Regular level 8260B and EPA 624
Calibration Standard Concentration Levels

	Level 1	Level 1a	Level 2	Level 3	Level 4 #	Level 5	Level 6	Level 7 !	Level 7a
Fluorobenzene (IS)									
Dibromofluoromethane (surr)		0.5	1	2	5	10	20	50	100
Dichlorodifluoromethane		0.5	1	2	5	10	20	50	100
Chloromethane		0.5	1	2	5	10	20	50	100
Vinyl chloride		0.5	1	2	5	10	20	50	100
Bromomethane		0.5	1	2	5	10	20	50	100
Chloroethane		0.5	1	2	5	10	20	50	100
Trichlorofluoromethane		0.5	1	2	5	10	20	50	100
1,1-Dichloroethene		0.5	1	2	5	10	20	50	100
Acetone	1	2.5	5	10	25	50	100	250	500
Iodomethane	1	2.5	5	10	25	50	100	250	500
Carbon disulfide	1	2.5	5	10	25	50	100	250	500
Methylene chloride		0.5	1	2	5	10	20	50	100
trans-1,2-Dichloroethene		0.5	1	2	5	10	20	50	100
1,1-Dichloroethane		0.5	1	2	5	10	20	50	100
Vinyl acetate	1	2.5	5	10	25	50	100	250	500
cis-1,2-Dichloroethene		0.5	1	2	5	10	20	50	100
2,2-Dichloropropane		0.5	1	2	5	10	20	50	100
2-Butanone	1	2.5	5	10	25	50	100	250	500
Bromochloromethane		0.5	1	2	5	10	20	50	100
Chloroform		0.5	1	2	5	10	20	50	100
1,1,1-Trichloroethane		0.5	1	2	5	10	20	50	100
1,1-Dichloropropene		0.5	1	2	5	10	20	50	100
Carbon tetrachloride		0.5	1	2	5	10	20	50	100
Benzene		0.5	1	2	5	10	20	50	100
1,2-Dichloroethane		0.5	1	2	5	10	20	50	100
Trichloroethene		0.5	1	2	5	10	20	50	100
1,2-Dichloropropane		0.5	1	2	5	10	20	50	100
Dibromomethane		0.5	1	2	5	10	20	50	100
Bromodichloromethane		0.5	1	2	5	10	20	50	100
cis-1,3-Dichloropropene		0.5	1	2	5	10	20	50	100
tert-Butylmethylether		0.5	1	2	5	10	20	50	100
Ethyl Ether			1	2	5	10	20	50	100
Acetonitrile			25	50	125	250	500	1250	2500
2-Chloroethylvinyl ether			5	10	25	50	100	250	500
Methyl acetate			5	10	25	50	100	250	500
Cyclohexane			1	2	5	10	20	50	100
Methylcyclohexane			1	2	5	10	20	50	100
n-Butyl alcohol			50	100	250	500	1000	2500	5000
2-Nitropropane			5	10	25	50	100	250	500
Ethyl acetate			5	10	25	50	100	250	500
Acrolein			5	10	25	50	100	250	500
Trichlorotrifluoroethane			5	10	25	50	100	250	500
Allyl chloride			5	10	25	50	100	250	500
Acrylonitrile			5	10	25	50	100	250	500
1,4-Dioxane			50	100	250	500	1000	2500	5000
Isobutyl alcohol			50	100	250	500	1000	2500	5000
Methacrylonitrile			5	10	25	50	100	250	500
Propionitrile			5	10	25	50	100	250	500
Methyl methacrylate			5	10	25	50	100	250	500
2-Chloro-1,3-butadiene(chloroprene)			1	2	5	10	20	50	100
Chlorobenzene-d5 (IS)									
Toluene-d8 (surr)		0.5	1	2	5	10	20	50	100
4-Methyl-2-pentanone	1	2.5	5	10	25	50	100	250	500
Toluene		0.5	1	2	5	10	20	50	100
trans-1,3-Dichloropropene		0.5	1	2	5	10	20	50	100
1,1,2-Trichloroethane		0.5	1	2	5	10	20	50	100
Tetrachloroethene		0.5	1	2	5	10	20	50	100
1,3-Dichloropropane		0.5	1	2	5	10	20	50	100
2-Hexanone	1	2.5	5	10	25	50	20	250	500
Dibromochloromethane		0.5	1	2	5	10	20	50	100
1,2-Dibromoethane		0.5	1	2	5	10	20	50	100
Chlorobenzene		0.5	1	2	5	10	20	50	100

	Level 1	Level 1a	Level 2	Level 3	Level 4 #	Level 5	Level 6	Level 7 !	Level 7a
1,1,1,2-Tetrachloroethane		0.5	1	2	5	10	20	50	100
Ethylbenzene		0.5	1	2	5	10	20	50	100
m,p-Xylene		1	2	4	10	20	20	100	200
o-Xylene		0.5	1	2	5	10	20	50	100
Stryene		0.5	1	2	5	10	20	50	100
Cyclohexanone			50	100	250	500	1000	2500	5000
Ethyl methacrylate			5	10	25	50	100	250	500
1,4-Dichlorobenzene-d4 (IS)									
Bromofluorobenzene (surr)		0.5	1	2	5	10	20	50	100
Bromoform		0.5	1	2	5	10	20	50	100
Isopropylbenzene		0.5	1	2	5	10	20	50	100
1,1,2,2-Tetrachloroethane		0.5	1	2	5	10	20	50	100
Bromobenzene		0.5	1	2	5	10	20	50	100
1,2,3-Trichloropropane		0.5	1	2	5	10	20	50	100
n-Propylbenzene		0.5	1	2	5	10	20	50	100
2-Chlorotoluene		0.5	1	2	5	10	20	50	100
1,3,5-Trimethylbenzene		0.5	1	2	5	10	20	50	100
4-Chlorotoluene		0.5	1	2	5	10	20	50	100
1,2,4-Trimethylbenzene		0.5	1	2	5	10	20	50	100
sec-Butylbenzene		0.5	1	2	5	10	20	50	100
1,3-Dichlorobenzene		0.5	1	2	5	10	20	50	100
tert-Butylbenzene		0.5	1	2	5	10	20	50	100
Isopropyltoluene		0.5	1	2	5	10	20	50	100
1,4-Dichlorobenzene		0.5	1	2	5	10	20	50	100
n-Butylbenzene		0.5	1	2	5	10	20	50	100
1,2-Dichlorobenzene		0.5	1	2	5	10	20	50	100
1,2-Dibromo-3-chloropropane		0.5	1	2	5	10	20	50	100
1,2,4-Trichlorobenzene		0.5	1	2	5	10	20	50	100
Hexachlorobutadiene		0.5	1	2	5	10	20	50	100
Naphthalene		0.5	1	2	5	10	20	50	100
1,2,3-Trichlorobenzene		0.5	1	2	5	10	20	50	100
cis-1,4-Dichloro-2-butene			5	10	25	50	100	250	500
trans-1,4-Dichloro-2-butene			5	10	25	50	100	250	500
Tetrahydrofuran			5	10	25	50	100	250	500
Pentachloroethane			5	10	25	50	100	250	500
Benzyl chloride			5	10	25	50	100	250	500
bis(2-Chloro-isopropyl)ether			5	10	25	50	100	250	500

Method	PQL	Concentration range
EPA 524.2	Level 1a	Levels 1a -> 7a
SW 846 8260B low level	Level 1a	Levels 1-> 7a
EPA 624	Level 2	Levels 2-> 7a
SW846 8260B	Level 2	Levels 2-> 7a

#: Indicates calibration verification concentration level used for low level analysis

!: Indicates calibration verification concentration level used for regular level analysis

Report Date: 20-Apr-2005 14:44

Calibration History

Method : /chem/VOA1.i/041905v1.b/VOA1-8260B-041905.m
Start Cal Date: 20-APR-2005 00:44
End Cal Date : 20-APR-2005 07:36

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 1.00000		
20-APR-2005 05:01	ICALsubS	/chem/VOA1.i/041905v1.b/1g228.d
20-APR-2005 01:09	CALsubL+	/chem/VOA1.i/041905v1.b/1g219.d
Cal Level: 2 , Cal Amount: 2.00000		
20-APR-2005 05:27	ICALsubS	/chem/VOA1.i/041905v1.b/1g229.d
20-APR-2005 02:01	CALsubL+	/chem/VOA1.i/041905v1.b/1g221.d
Cal Level: 3 , Cal Amount: 5.00000		
20-APR-2005 05:53	ICALsubS	/chem/VOA1.i/041905v1.b/1g230.d
20-APR-2005 02:27	CALsubL+	/chem/VOA1.i/041905v1.b/1g222.d
Cal Level: 4 , Cal Amount: 10.00000		
20-APR-2005 06:19	ICALsubS	/chem/VOA1.i/041905v1.b/1g231.d
20-APR-2005 02:53	CALsubL+	/chem/VOA1.i/041905v1.b/1g223.d
Cal Level: 5 , Cal Amount: 20.00000		
20-APR-2005 06:45	ICALsubS	/chem/VOA1.i/041905v1.b/1g232.d
20-APR-2005 03:18	CALsubL+	/chem/VOA1.i/041905v1.b/1g224.d
Cal Level: 6 , Cal Amount: 50.00000		
20-APR-2005 07:10	ICALsubS	/chem/VOA1.i/041905v1.b/1g233.d
20-APR-2005 03:44	CALsubL+	/chem/VOA1.i/041905v1.b/1g225.d
Cal Level: 7 , Cal Amount: 100.00000		
20-APR-2005 07:36	ICALsubS	/chem/VOA1.i/041905v1.b/1g234.d
20-APR-2005 04:10	CALsubL+	/chem/VOA1.i/041905v1.b/1g226.d
Cal Level: 8 , Cal Amount: 200.00000		
20-APR-2005 00:44	BENZENE+	/chem/VOA1.i/041905v1.b/1g218.d

20-APR-2005 00:44	CALsubL+	/chem/VOA1.i/041905v1.b/1g218.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 6

Ccal Level: 6 , Ccal Amount: 50.0		
20-APR-2005 09:19	CALsubS+SS	/chem/VOA1.i/041905v1.b/1g238.d
Ccal Level: 6 , Ccal Amount: 50.0		
20-APR-2005 08:53	CALsubL+	/chem/VOA1.i/041905v1.b/1g237.d
Ccal Level: 6 , Ccal Amount: 50.0		
20-APR-2005 08:28	CALsubL+	/chem/VOA1.i/041905v1.b/1g236.d
Ccal Level: 6 , Ccal Amount: 50.0		
20-APR-2005 07:10	ICALsubS	/chem/VOA1.i/041905v1.b/1g233.d
Ccal Level: 6 , Ccal Amount: 50.0		
20-APR-2005 03:44	CALsubL+	/chem/VOA1.i/041905v1.b/1g225.d

General Engineering Laboratories, LLC

INITIAL CALIBRATION DATA

Start Cal Date : 20-APR-2005 00:44
End Cal Date : 20-APR-2005 07:36
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/VOA1.i/041905v1.b/VOA1-8260B-041905.m
Cal Date : 22-Apr-2005 08:36 ehl

Calibration File Names:
Level 1: /chem/VOA1.i/041905v1.b/1g228.d
Level 2: /chem/VOA1.i/041905v1.b/1g229.d
Level 3: /chem/VOA1.i/041905v1.b/1g230.d
Level 4: /chem/VOA1.i/041905v1.b/1g231.d
Level 5: /chem/VOA1.i/041905v1.b/1g232.d
Level 6: /chem/VOA1.i/041905v1.b/1g233.d
Level 8: /chem/VOA1.i/041905v1.b/1g218.d

Compound	1 Level 1	2 Level 2	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	200 Level 8									
M 1 Xylenes (total)	0.71676	0.73557	0.67446	0.71287	0.70870	0.76451					
	0.69834	+++++					AVRG		0.71589		3.96633
M 2 1,2-Dichloroethylene (total)	0.23368	0.26423	0.25506	0.25620	0.26539	0.27813					
	0.25572	+++++					AVRG		0.25835		5.25661
M 135 1,3-Dichloropropylene	0.57894	0.65279	0.63008	0.62448	0.63889	0.69863					
	0.64788	+++++					AVRG		0.63881		5.61560
3 Dichlorodifluoromethane	2883	6359	16528	33124	76509	217102					
	439995	+++++					LINR	0.01451	0.28775		0.99777
4 Chloromethane	0.35716	0.35921	0.29139	0.28727	0.34098	0.34256					
	0.29361	+++++					AVRG		0.32460		9.98693

General Engineering Laboratories, LLC

INITIAL CALIBRATION DATA

Start Cal Date : 20-APR-2005 00:44
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Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/VOA1.i/041905v1.b/VOA1-8260B-041905.m
Cal Date : 22-Apr-2005 08:36 ehl

Compound	1 Level 1 100 Level 7	2 Level 2 200 Level 8	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
5 Vinyl chloride	0.26907	0.29804	0.28871	0.28416	0.30896	0.31524					
	0.27405	+++++					AVRG		0.29117		5.91546
6 Bromomethane	3853	6877	13850	26190	54260	139959					
	256594	+++++					LINR	-0.03096	0.16806		0.99163
7 Chloroethane	0.16498	0.17757	0.17312	0.16369	0.17579	0.18524					
	0.16431	+++++					AVRG		0.17210		4.73933
8 Trichlorofluoromethane	0.36196	0.35304	0.37272	0.34892	0.38180	0.41211					
	0.35269	+++++					AVRG		0.36903		6.06970
134 Ethyl Ether	0.28932	0.27919	0.27730	0.26523	0.29758	0.32622					
	0.28022	+++++					AVRG		0.28787		6.83823
9 Acrolein	0.03759	0.03909	0.04288	0.04040	0.04879	0.04706					
	0.04724	+++++					AVRG		0.04329		10.27672
12 Trichlorotrifluoroethane	0.09379	0.08586	0.08251	0.08507	0.09541	0.08821					
	0.09450	+++++					AVRG		0.08933		5.80751
10 Acetone	0.10735	0.10137	0.09470	0.09263	0.09451	0.09279					
	0.08846	+++++					AVRG		0.09597		6.59217
11 1,1-Dichloroethylene	0.47538	0.42171	0.40273	0.43683	0.43113	0.45810					
	0.42950	+++++					AVRG		0.43648		5.46617

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INITIAL CALIBRATION DATA

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Integrator : HP RTE
Method file : /chem/VOA1.i/041905v1.b/VOA1-8260B-041905.m
Cal Date : 22-Apr-2005 08:36 eh1

Compound	1 Level 1 / 100 Level 7	2 Level 2 / 200 Level 8	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
13 Iodomethane	0.40614	0.40663	0.38104	0.38819	0.39267	0.41147					
	0.36933	+++++					AVRG		0.39364		3.91246
15 Acetonitrile	0.03279	0.03823	0.04092	0.04016	0.04091	0.04337					
	0.03944	+++++					AVRG		0.03940		8.41624
128 Methyl acetate	0.26765	0.27082	0.25506	0.26686	0.26979	0.28333					
	0.25856	+++++					AVRG		0.26744		3.42111
14 Carbon disulfide	0.90311	0.90621	0.82276	0.81037	0.81351	0.84062					
	0.76424	+++++					AVRG		0.83726		6.15405
16 Allyl chloride	0.10385	0.10056	0.10211	0.10246	0.12250	0.11397					
	0.12186	+++++					AVRG		0.10961		8.79574
17 Methylene chloride	+++++	0.36396	0.28277	0.27743	0.27266	0.27928					
	0.25668	+++++					AVRG		0.28880		13.13752
18 Acrylonitrile	0.11647	0.11514	0.10942	0.11117	0.12460	0.11971					
	0.12532	+++++					AVRG		0.11740		5.25588
20 tert-Butyl methyl ether	0.83343	0.83137	0.85124	0.84349	0.88937	0.94713					
	0.87916	+++++					AVRG		0.86788		4.76516
21 trans-1,2-Dichloroethylene	0.21401	0.26644	0.24458	0.24025	0.25151	0.25995					
	0.23918	+++++					AVRG		0.24513		6.95281

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End Cal Date : 20-APR-2005 07:36
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Integrator : HP RTE
Method file : /chem/VOA1.i/041905v1.b/VOA1-8260B-041905.m
Cal Date : 22-Apr-2005 08:36 eh1

Compound	1 Level 1 100 Level 7	2 Level 2 200 Level 8	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
23 Vinyl acetate	0.65009	0.63993	0.61864	0.58542	0.64835	0.69102					
	0.60689	+++++					AVRG		0.63433		5.41561
22 1,1-Dichloroethane	0.51919	0.48612	0.48173	0.50040	0.50769	0.53712					
	0.50102	+++++					AVRG		0.50475		3.77184
24 2-Chloro-1,3-butadiene	0.35878	0.35654	0.35821	0.36716	0.41467	0.37833					
	0.40776	+++++					AVRG		0.37735		6.46122
26 Ethyl acetate	0.33301	0.34049	0.30701	0.29431	0.33154	0.31678					
	0.32983	+++++					AVRG		0.32185		5.12686
30 2-Butanone	0.16225	0.17175	0.15623	0.15565	0.16742	0.18115					
	0.16622	+++++					AVRG		0.16581		5.39988
31 cis-1,2-Dichloroethylene	0.25335	0.26203	0.26555	0.27216	0.27927	0.29630					
	0.27227	+++++					AVRG		0.27156		5.05652
28 Propionitrile	0.03505	0.03892	0.03932	0.04058	0.04711	0.04696					
	0.04952	+++++					AVRG		0.04249		12.62359
25 2,2-Dichloropropane	0.30861	0.33095	0.29886	0.32273	0.31897	0.33495					
	0.30718	+++++					AVRG		0.31747		4.16174
27 Methacrylonitrile	0.22762	0.20553	0.19454	0.19168	0.22147	0.20525					
	0.22033	+++++					AVRG		0.20949		6.64895

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Method file : /chem/VOA1.i/041905v1.b/VOA1-8260B-041905.m
Cal Date : 22-Apr-2005 08:36 ehl

Compound	1 Level 1 / 100 Level 7	2 Level 2 / 200 Level 8	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
29 Bromochloromethane	601	3403	9283	20183	37799	102376					
	212241	+++++					LINR	0.00416	0.13736		0.99915
32 Chloroform	0.47161	0.48378	0.42950	0.45539	0.48111	0.50247					
	0.44984	+++++					AVRG		0.46767		5.23199
72 Tetrahydrofuran	23811	31840	52760	88283	163232	385723					
	782598	+++++					LINR	-0.16515	0.32080		0.99908
36 1,1,1-Trichloroethane	0.35448	0.37385	0.32367	0.34178	0.35348	0.36601					
	0.33869	+++++					AVRG		0.35028		4.86933
19 Isobutyl alcohol	0.01213	0.01207	0.01149	0.01111	0.01299	0.01278					
	0.01332	+++++					AVRG		0.01227		6.56969
34 1,1-Dichloropropene	0.34157	0.38853	0.35947	0.37228	0.37328	0.38141					
	0.35722	+++++					AVRG		0.36768		4.34912
129 Cyclohexane	0.55873	0.55483	0.53831	0.56087	0.56753	0.58953					
	0.54176	+++++					AVRG		0.55879		3.05713
33 Carbon tetrachloride	0.30772	0.32385	0.31113	0.34139	0.35369	0.36174					
	0.33002	+++++					AVRG		0.33279		6.17547
37 1,2-Dichloroethane	0.37871	0.39329	0.36590	0.39899	0.41601	0.44107					
	0.41470	+++++					AVRG		0.40124		6.28070

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Method file : /chem/VOA1.i/041905v1.b/VOA1-8260B-041905.m
Cal Date : 22-Apr-2005 08:36 ehl

Compound	1 Level 1 100 Level 7	2 Level 2 200 Level 8	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
38 Benzene	1.15482	1.18265	1.08475	1.08631	1.11480	1.18559					
	1.07960	1.10059					AVRG		1.12364		3.94377
131 n-Butyl alcohol	19627	28664	82443	172068	342658	944435					
	1944173	5318					LINR	0.47363	0.01260		0.99892
39 Trichloroethylene	0.26845	0.27588	0.26458	0.26507	0.27223	0.28977					
	0.25923	+++++					AVRG		0.27075		3.68963
42 Methyl methacrylate	0.21713	0.19575	0.19639	0.19103	0.21384	0.20879					
	0.21007	+++++					AVRG		0.20471		4.96413
41 1,2-Dichloropropane	0.29722	0.30459	0.31402	0.31220	0.32707	0.33934					
	0.31574	+++++					AVRG		0.31574		4.41968
130 Methylcyclohexane	0.54274	0.54432	0.49562	0.53584	0.54373	0.56255					
	0.52187	+++++					AVRG		0.53524		3.96715
97 1,4-Dioxane	1314	2912	9487	20191	40162	95937					
	204501	+++++					LINR	0.68335	0.00288		0.99877
43 Dibromomethane	0.17398	0.18677	0.17768	0.17418	0.18969	0.19660					
	0.18285	+++++					AVRG		0.18311		4.63068
45 Bromodichloromethane	0.36375	0.36086	0.36695	0.36615	0.37984	0.40458					
	0.37701	+++++					AVRG		0.37416		4.03408

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Method file : /chem/VOA1.i/041905v1.b/VOA1-8260B-041905.m
Cal Date : 22-Apr-2005 08:36 ehl

Compound	1 Level 1 / 100 Level 7	2 Level 2 / 200 Level 8	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
48 2-Nitropropane	0.12161	0.11459	0.10789	0.10555	0.11999	0.11803					
	0.12368	+++++					AVRG		0.11591		5.97061
44 2-Chloroethylvinyl ether	0.21054	0.19443	0.20353	0.19627	0.21456	0.23394					
	0.19443	+++++					AVRG		0.20682		6.94683
46 cis-1,3-Dichloropropylene	0.42458	0.45817	0.45672	0.44515	0.46857	0.50244					
	0.45758	+++++					AVRG		0.45903		5.15808
49 4-Methyl-2-pentanone	0.20958	0.19918	0.20095	0.20131	0.20866	0.23200					
	0.21735	+++++					AVRG		0.20986		5.55176
50 Toluene	1.03224	1.09111	0.97782	0.95811	0.97471	1.07827					
	0.98929	+++++					AVRG		1.01451		5.24581
51 Ethyl methacrylate	0.63223	0.65766	0.62511	0.60924	0.67718	0.62261					
	0.64896	+++++					AVRG		0.63900		3.66927
53 trans-1,3-Dichloropropylene	0.54943	0.64368	0.59844	0.59371	0.61643	0.66450					
	0.63186	+++++					AVRG		0.61400		6.15849
54 1,1,2-Trichloroethane	0.32204	0.28968	0.30532	0.29914	0.29051	0.33710					
	0.30848	+++++					AVRG		0.30747		5.58539
55 2-Hexanone	0.36911	0.35819	0.34047	0.35186	0.36369	0.40076					
	0.37017	+++++					AVRG		0.36489		5.18122

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Compound	1 Level 1	2 Level 2	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	200 Level 8									
52 1,3-Dichloropropane	0.58259	0.59763	0.58450	0.60491	0.60337	0.65331					
	0.59682	+++++					AVRG		0.60330		3.92228
56 Tetrachloroethylene	0.26438	0.29252	0.27943	0.30645	0.29115	0.30338					
	0.27948	+++++					AVRG		0.28811		5.13059
57 Dibromochloromethane	0.35490	0.39810	0.40036	0.40706	0.40097	0.44007					
	0.41026	+++++					AVRG		0.40168		6.24848
59 1,2-Dibromoethane	0.35559	0.35096	0.31497	0.34503	0.35774	0.38894					
	0.37016	+++++					AVRG		0.35477		6.41481
62 Chlorobenzene	1.09147	1.16071	1.04667	1.08614	1.08477	1.12896					
	1.04321	+++++					AVRG		1.09170		3.85169
58 Ethylbenzene	1.96560	1.90539	1.78774	1.85286	1.86651	1.95991					
	1.84529	+++++					AVRG		1.88333		3.42157
60 1,1,1,2-Tetrachloroethane	0.36199	0.36107	0.34982	0.35397	0.37506	0.41089					
	0.37910	+++++					AVRG		0.37027		5.60849
63 m,p-Xylenes	0.73854	0.75666	0.67556	0.72415	0.71625	0.76462					
	0.70568	+++++					AVRG		0.72592		4.22507
64 o-Xylene	0.67321	0.69341	0.67227	0.69030	0.69360	0.76430					
	0.68366	+++++					AVRG		0.69582		4.52377

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Compound	1 Level 1 / 100 Level 7	2 Level 2 / 200 Level 8	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
65 Styrene	1.20551	1.15912	1.12910	1.20023	1.19182	1.32969					
	1.19286	+++++					AVRG		1.20119		5.22745
66 Bromoform	0.40059	0.47642	0.48414	0.50071	0.51644	0.58635					
	0.53268	+++++					AVRG		0.49962		11.40605
67 Isopropylbenzene	3.54981	3.59029	3.32624	3.47143	3.35023	3.70924					
	3.29383	+++++					AVRG		3.47015		4.46628
68 cis-1,4-Dichloro-2-butene	0.35827	0.35739	0.32908	0.33066	0.36930	0.35256					
	0.37475	+++++					AVRG		0.35315		4.98120
70 Cyclohexanone	0.01630	0.01780	0.01723	0.01711	0.02076	0.02109					
	+++++	+++++					AVRG		0.01838		11.05147
73 1,1,2,2-Tetrachloroethane	0.94939	0.89181	0.95372	0.99001	0.95814	1.06433					
	0.95723	+++++					AVRG		0.96637		5.39576
69 trans-1,4-Dichloro-2-butene	0.26323	0.23910	0.23710	0.23361	0.25711	0.24716					
	0.26078	+++++					AVRG		0.24830		4.88748
74 1,2,3-Trichloropropane	699	2304	5919	14150	26400	71548					
	141852	+++++					LINR	-0.00745	0.26677		0.99449
75 Bromobenzene	0.88444	0.87640	0.84756	0.86233	0.84917	0.95035					
	0.84379	+++++					AVRG		0.87343		4.25993

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Compound	1 Level 1 / 100 Level 7	2 Level 2 / 200 Level 8	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
76 n-Propylbenzene	4.32847	4.42077	4.17235	4.44319	4.38416	4.72094					
	4.09438	+++++					AVRG		4.36632		4.65583
78 1,3,5-Trimethylbenzene	3.13253	3.06423	2.83819	3.06571	2.96093	3.27565					
	2.83888	+++++					AVRG		3.02516		5.24797
77 2-Chlorotoluene	2.91836	2.84067	2.72526	2.84450	2.68818	3.04113					
	2.67057	+++++					AVRG		2.81838		4.76618
80 4-Chlorotoluene	3.16450	2.99172	2.79616	2.93931	2.85044	3.13098					
	2.74268	+++++					AVRG		2.94511		5.49276
81 tert-Butylbenzene	2.71706	2.88548	2.78540	2.75777	2.81230	3.08107					
	2.73587	+++++					AVRG		2.82499		4.45592
79 1,2,4-Trimethylbenzene	3.20492	3.20158	2.94206	3.06877	3.04654	3.30773					
	2.93856	+++++					AVRG		3.10145		4.54672
82 Pentachloroethane	0.40975	0.39841	0.37594	0.36184	0.41567	0.38951					
	0.38364	+++++					AVRG		0.39068		4.84285
83 sec-Butylbenzene	3.97755	4.01746	3.80929	3.86754	3.85239	4.19732					
	3.76674	+++++					AVRG		3.92690		3.78362
84 4-Isopropyltoluene	3.24233	3.16724	3.06015	3.10634	3.18159	3.35985					
	3.04691	+++++					AVRG		3.16634		3.47393

General Engineering Laboratories, LLC

INITIAL CALIBRATION DATA

Start Cal Date : 20-APR-2005 00:44
End Cal Date : 20-APR-2005 07:36
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/VOA1.i/041905v1.b/VOA1-8260B-041905.m
Cal Date : 22-Apr-2005 08:36 ehl

Compound	1 Level 1 / 100 Level 7	2 Level 2 / 200 Level 8	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
85 1,3-Dichlorobenzene	1.85836	1.73085	1.63688	1.67793	1.60910	1.71375					
	1.57023	+++++					AVRG		1.68530		5.64379
87 1,4-Dichlorobenzene	1.87344	1.66227	1.68392	1.69899	1.61586	1.76968					
	1.57146	+++++					AVRG		1.69652		5.90128
88 Benzyl chloride	1.64130	1.26982	1.16874	1.21857	1.33492	1.23982					
	1.28532	+++++					AVRG		1.30835		11.91545
89 n-Butylbenzene	3.11202	3.23230	2.94407	3.09189	3.02187	3.33985					
	3.00950	+++++					AVRG		3.10736		4.42566
90 1,2-Dichlorobenzene	1.73046	1.64797	1.54471	1.55782	1.54737	1.69383					
	1.50554	+++++					AVRG		1.60396		5.37190
91 bis(2-Chloroisopropyl)ether	0.60494	0.59657	0.54788	0.54976	0.60913	0.58029					
	0.61813	+++++					AVRG		0.58667		4.83843
92 1,2-Dibromo-3-chloropropane	0.14178	0.15296	0.17351	0.18108	0.19006	0.21557					
	0.19511	+++++					AVRG		0.17858		14.12149
93 1,2,4-Trichlorobenzene	1.18629	0.98163	0.97960	0.97008	0.94558	1.06564					
	0.94842	+++++					AVRG		1.01103		8.60655
94 Hexachlorobutadiene	0.55805	0.56413	0.49498	0.56382	0.54358	0.59221					
	0.52321	+++++					AVRG		0.54857		5.76868

General Engineering Laboratories, LLC

INITIAL CALIBRATION DATA

Start Cal Date : 20-APR-2005 00:44
End Cal Date : 20-APR-2005 07:36
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/VOA1.i/041905v1.b/VOA1-8260B-041905.m
Cal Date : 22-Apr-2005 08:36 ehl

Compound	1 Level 1	2 Level 2	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	200 Level 8									
95 Naphthalene	3.45570	2.97027	2.74263	2.86874	2.81617	3.19605					
	2.86096	+++++					AVRG		2.98722		8.45148
96 1,2,3-Trichlorobenzene	1.08996	1.03047	0.96481	0.95971	0.94585	1.07728					
	0.94548	+++++					AVRG		1.00194		6.27707
$ 35 Dibromofluoromethane	+++++	+++++	0.25286	0.26750	0.28048	0.28669					
	0.26005	+++++					AVRG		0.26952		5.20264
$ 47 Toluene-d8	+++++	+++++	1.58232	1.51058	1.43428	1.57480					
	1.42753	+++++					AVRG		1.50590		4.91122
$ 71 Bromofluorobenzene	+++++	+++++	1.38458	1.32345	1.23027	1.27261					
	1.12671	+++++					AVRG		1.26752		7.69687

General Engineering Laboratories, LLC

INITIAL CALIBRATION DATA

Start Cal Date : 20-APR-2005 00:44
End Cal Date : 20-APR-2005 07:36
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/VOA1.i/041905v1.b/VOA1-8260B-041905.m
Cal Date : 22-Apr-2005 08:36 eh1

Curve	Formula	Units
Averaged	Amt = Rsp/ml	Response
Linear	Amt = b + Rsp/ml	Response

Data File: /chem/VOA1.i/041905v1.b/1g237.d
Report Date: 27-Apr-2005 15:12

General Engineering Laboratories, LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA1.i
Lab File ID: 1g237.d
Analysis Type: WATER
Lab Sample ID: UVM050323-01D
Method: /chem/VOA1.i/041905v1.b/VOA1-8260B-041905.m

Injection Date: 20-APR-2005 08:53
Init. Cal. Date(s): 20-APR-2005 20-APR-2005
Init. Cal. Times: 00:44 07:36
Quant Type: ISTD

	COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
M	1 Xylenes (total)	0.71589	0.70537	0.70537	0.050	-1.46867	40.00000	Averaged	
M	2 1,2-Dichloroethylene (total	0.25835	0.27720	0.27720	0.050	7.29671	40.00000	Averaged	
M	135 1,3-Dichloropropylene	0.63881	0.63016	0.63016	0.050	-1.35381	40.00000	Averaged	
	3 Dichlorodifluoromethane	57.25855	50.00000	0.32534	0.050	14.51710	40.00000	Linear	
	4 Chloromethane	0.32460	0.38310	0.38310	0.100	18.02458	40.00000	Averaged	spcc
	5 Vinyl chloride	0.29117	0.32061	0.32061	0.050	10.10873	20.00000	Averaged	ccc
	6 Bromomethane	55.19598	50.00000	0.19073	0.050	10.39196	40.00000	Linear	
	7 Chloroethane	0.17210	0.21363	0.21363	0.050	24.13243	40.00000	Averaged	
	8 Trichlorofluoromethane	0.36903	0.39539	0.39539	0.050	7.14096	40.00000	Averaged	
	134 Ethyl Ether	0.28787	0.28333	0.28333	0.010	-1.57614	40.00000	Averaged	
	10 Acetone	0.09597	0.09564	0.09564	0.050	-0.34660	40.00000	Averaged	
	15 Acetonitrile	0.03940	0.04228	0.04228	0.010	7.30774	40.00000	Averaged	
	11 1,1-Dichloroethylene	0.43648	0.44138	0.44138	0.050	1.12169	20.00000	Averaged	ccc
	128 Methyl acetate	0.26744	0.27135	0.27135	0.010	1.46197	40.00000	Averaged	
	13 Iodomethane	0.39364	0.38162	0.38162	0.050	-3.05371	40.00000	Averaged	
	17 Methylene chloride	0.28880	0.27488	0.27488	0.050	-4.81937	40.00000	Averaged	
	14 Carbon disulfide	0.83726	0.74147	0.74147	0.050	-11.44139	40.00000	Averaged	
	20 tert-Butyl methyl ether	0.86788	0.91000	0.91000	0.050	4.85306	40.00000	Averaged	
	21 trans-1,2-Dichloroethylene	0.24513	0.25827	0.25827	0.050	5.35798	40.00000	Averaged	
	23 Vinyl acetate	0.63433	0.66224	0.66224	0.010	4.39923	40.00000	Averaged	
	22 1,1-Dichloroethane	0.50475	0.53899	0.53899	0.100	6.78344	40.00000	Averaged	spcc
	30 2-Butanone	0.16581	0.17524	0.17524	0.030	5.68536	40.00000	Averaged	
	31 cis-1,2-Dichloroethylene	0.27156	0.29613	0.29613	0.050	9.04676	40.00000	Averaged	
	25 2,2-Dichloropropane	0.31747	0.32162	0.32162	0.050	1.30950	40.00000	Averaged	
	32 Chloroform	0.46767	0.47771	0.47771	0.010	2.14613	20.00000	Averaged	ccc
	29 Bromochloromethane	50.69791	50.00000	0.13870	0.010	1.39581	40.00000	Linear	
$	35 Dibromofluoromethane	0.26952	0.26873	0.26873	0.010	-0.29356	40.00000	Averaged	
	36 1,1,1-Trichloroethane	0.35028	0.35758	0.35758	0.010	2.08278	40.00000	Averaged	
	129 Cyclohexane	0.55879	0.50753	0.50753	0.010	-9.17422	40.00000	Averaged	
	34 1,1-Dichloropropene	0.36768	0.36369	0.36369	0.010	-1.08492	40.00000	Averaged	
	131 n-Butyl alcohol	2482	5000	0.00619	0.001	-50.36368	40.00000	Linear	<-
	33 Carbon tetrachloride	0.33279	0.34997	0.34997	0.010	5.16340	40.00000	Averaged	
	37 1,2-Dichloroethane	0.40124	0.43773	0.43773	0.010	9.09549	40.00000	Averaged	
	38 Benzene	1.12364	1.11879	1.11879	0.010	-0.43153	40.00000	Averaged	
	39 Trichloroethylene	0.27075	0.27739	0.27739	0.010	2.45235	40.00000	Averaged	
	41 1,2-Dichloropropane	0.31574	0.33963	0.33963	0.010	7.56493	20.00000	Averaged	ccc

General Engineering Laboratories, LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA1.i
Lab File ID: 1g237.d
Analysis Type: WATER
Lab Sample ID: UVM050323-01D
Method: /chem/VOA1.i/041905v1.b/VOA1-8260B-041905.m

Injection Date: 20-APR-2005 08:53
Init. Cal. Date(s): 20-APR-2005 20-APR-2005
Init. Cal. Times: 00:44 07:36
Quant Type: ISTD

	COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
	130 Methylcyclohexane	0.53524	0.46753	0.46753	0.010	-12.64957	40.00000	Averaged	
	45 Bromodichloromethane	0.37416	0.38791	0.38791	0.010	3.67395	40.00000	Averaged	
	43 Dibromomethane	0.18311	0.19000	0.19000	0.010	3.76645	40.00000	Averaged	
	44 2-Chloroethylvinyl ether	0.20682	0.20879	0.20879	0.001	0.95364	40.00000	Averaged	
	49 4-Methyl-2-pentanone	0.20986	0.22025	0.22025	0.010	4.95231	40.00000	Averaged	
	46 cis-1,3-Dichloropropylene	0.45903	0.45511	0.45511	0.010	-0.85448	40.00000	Averaged	
$	47 Toluene-d8	1.50590	1.52656	1.52656	0.010	1.37208	40.00000	Averaged	
	50 Toluene	1.01451	1.00643	1.00643	0.010	-0.79646	20.00000	Averaged	ccc
	53 trans-1,3-Dichloropropylene	0.61400	0.60779	0.60779	0.010	-1.01154	40.00000	Averaged	
	54 1,1,2-Trichloroethane	0.30747	0.31709	0.31709	0.010	3.13012	40.00000	Averaged	
	55 2-Hexanone	0.36489	0.38971	0.38971	0.010	6.80054	40.00000	Averaged	
	52 1,3-Dichloropropane	0.60330	0.65310	0.65310	0.010	8.25469	40.00000	Averaged	
	56 Tetrachloroethylene	0.28811	0.27862	0.27862	0.010	-3.29587	40.00000	Averaged	
	57 Dibromochloromethane	0.40168	0.44069	0.44069	0.010	9.71295	40.00000	Averaged	
	59 1,2-Dibromoethane	0.35477	0.38131	0.38131	0.010	7.48071	40.00000	Averaged	
	62 Chlorobenzene	1.09170	1.08930	1.08930	0.300	-0.22057	40.00000	Averaged	spcc
	60 1,1,1,2-Tetrachloroethane	0.37027	0.39570	0.39570	0.010	6.86723	40.00000	Averaged	
	58 Ethylbenzene	1.88333	1.84637	1.84637	0.010	-1.96242	20.00000	Averaged	ccc
	63 m,p-Xylenes	0.72592	0.69593	0.69593	0.010	-4.13149	40.00000	Averaged	
	64 o-Xylene	0.69582	0.72426	0.72426	0.010	4.08732	40.00000	Averaged	
	65 Styrene	1.20119	1.22671	1.22671	0.010	2.12485	40.00000	Averaged	
	66 Bromoform	0.49962	0.57022	0.57022	0.100	14.13135	40.00000	Averaged	spcc
	67 Isopropylbenzene	3.47015	3.26375	3.26375	0.010	-5.94808	40.00000	Averaged	
	73 1,1,2,2-Tetrachloroethane	0.96637	1.00348	1.00348	0.300	3.83961	40.00000	Averaged	spcc
$	71 Bromofluorobenzene	1.26752	1.17629	1.17629	0.010	-7.19768	40.00000	Averaged	
	74 1,2,3-Trichloropropane	50.70091	50.00000	0.27249	0.010	1.40182	40.00000	Linear	
	75 Bromobenzene	0.87343	0.87908	0.87908	0.010	0.64642	40.00000	Averaged	
	76 n-Propylbenzene	4.36632	4.13744	4.13744	0.010	-5.24196	40.00000	Averaged	
	77 2-Chlorotoluene	2.81838	2.77104	2.77104	0.010	-1.67988	40.00000	Averaged	
	78 1,3,5-Trimethylbenzene	3.02516	2.80246	2.80246	0.010	-7.36175	40.00000	Averaged	
	80 4-Chlorotoluene	2.94511	2.67323	2.67323	0.010	-9.23176	40.00000	Averaged	
	81 tert-Butylbenzene	2.82499	2.75996	2.75996	0.010	-2.30198	40.00000	Averaged	
	79 1,2,4-Trimethylbenzene	3.10145	2.84443	2.84443	0.010	-8.28701	40.00000	Averaged	
	83 sec-Butylbenzene	3.92690	3.76553	3.76553	0.010	-4.10929	40.00000	Averaged	
	84 4-Isopropyltoluene	3.16634	2.95398	2.95398	0.010	-6.70677	40.00000	Averaged	

General Engineering Laboratories, LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA1.i Injection Date: 20-APR-2005 08:53
Lab File ID: 1g237.d Init. Cal. Date(s): 20-APR-2005 20-APR-2005
Analysis Type: WATER Init. Cal. Times: 00:44 07:36
Lab Sample ID: UVM050323-01D Quant Type: ISTD
Method: /chem/VOA1.i/041905v1.b/VOA1-8260B-041905.m

COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
85 1,3-Dichlorobenzene	1.68530	1.55064	1.55064	0.010	-7.99010	40.00000	Averaged
87 1,4-Dichlorobenzene	1.69652	1.54406	1.54406	0.010	-8.98630	40.00000	Averaged
89 n-Butylbenzene	3.10736	2.71357	2.71357	0.010	-12.67283	40.00000	Averaged
90 1,2-Dichlorobenzene	1.60396	1.52326	1.52326	0.010	-5.03117	40.00000	Averaged
92 1,2-Dibromo-3-chloropropane	0.17858	0.20998	0.20998	0.010	17.58333	40.00000	Averaged
93 1,2,4-Trichlorobenzene	1.01103	0.87647	0.87647	0.010	-13.30998	40.00000	Averaged
94 Hexachlorobutadiene	0.54857	0.45226	0.45226	0.010	-17.55670	40.00000	Averaged
95 Naphthalene	2.98722	2.84396	2.84396	0.010	-4.79574	40.00000	Averaged
96 1,2,3-Trichlorobenzene	1.00194	0.90832	0.90832	0.010	-9.34370	40.00000	Averaged

Average %D / Drift Results.

Calculated Average %D/Drift = 6.47128
Maximun Average %D/Drift = 20.00000
* Passed Average %D/Drift Test.

General Engineering Laboratories, LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/041905v1.b/1g237.d
Lab Smp Id: UVM050323-01D Client Smp ID: VSTD050
Inj Date : 20-APR-2005 08:53
Operator : PAM Inst ID: VOA1.i
Smp Info : |UVM050323-01D|ICV|1|VOAF|1|
Misc Info : VSTD050
Comment :
Method : /chem/VOA1.i/041905v1.b/VOA1-8260B-041905.m
Meth Date : 27-Apr-2005 15:12 tcl Quant Type: ISTD
Cal Date : 20-APR-2005 05:01 Cal File: 1g228.d
Als bottle: 25 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: CALsubL+.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (Uf/Vo) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	sample purged

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
M 1 Xylenes (total)	106				1016802	150.000	148
M 2 1,2-Dichloroethylene (total)	96				381947	100.000	107
M 135 1,3-Dichloropropylene	75				605590	100.000	99.1
3 Dichlorodifluoromethane	85	1.913	1.913	(0.369)	224144	50.0000	57.2
4 Chloromethane	50	2.034	2.034	(0.393)	263937	50.0000	59.0
5 Vinyl chloride	62	2.124	2.124	(0.410)	220882	50.0000	55.0
6 Bromomethane	94	2.386	2.386	(0.461)	131403	50.0000	55.2
7 Chloroethane	64	2.418	2.418	(0.467)	147181	50.0000	62.1
8 Trichlorofluoromethane	101	2.637	2.637	(0.509)	272400	50.0000	53.6
134 Ethyl Ether	59	2.760	2.760	(0.533)	195198	50.0000	49.2
10 Acetone	43	2.835	2.835	(0.547)	329457	250.000	249
15 Acetonitrile	41	2.963	2.963	(0.572)	728259	1250.00	1340
11 1,1-Dichloroethylene	61	3.006	3.006	(0.580)	304087	50.0000	50.6
128 Methyl acetate	43	3.139	3.139	(0.606)	934724	250.000	254
13 Iodomethane	142	3.182	3.182	(0.614)	1314573	250.000	242

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
17 Methylene chloride	84	3.273	3.273	(0.632)	189377	50.0000	47.6
14 Carbon disulfide	76	3.337	3.337	(0.644)	2554154	250.000	221
20 tert-Butyl methyl ether	73	3.412	3.412	(0.659)	626944	50.0000	52.4
21 trans-1,2-Dichloroethylene	96	3.513	3.513	(0.678)	177931	50.0000	52.7
23 Vinyl acetate	43	3.738	3.738	(0.722)	2281238	250.000	261
22 1,1-Dichloroethane	63	3.775	3.775	(0.729)	371337	50.0000	53.4
30 2-Butanone	43	4.031	4.031	(0.778)	603642	250.000	264
31 cis-1,2-Dichloroethylene	96	4.213	4.213	(0.813)	204016	50.0000	54.5
25 2,2-Dichloropropane	77	4.202	4.202	(0.811)	221581	50.0000	50.6
32 Chloroform	83	4.331	4.331	(0.836)	329115	50.0000	51.1
29 Bromochloromethane	128	4.437	4.437	(0.857)	95558	50.0000	50.7
$ 35 Dibromofluoromethane	113	4.480	4.480	(0.865)	185138	50.0000	49.8
36 1,1,1-Trichloroethane	97	4.683	4.683	(0.904)	246351	50.0000	51.0
129 Cyclohexane	56	4.769	4.769	(0.921)	349661	50.0000	45.4
34 1,1-Dichloropropene	75	4.811	4.811	(0.929)	250564	50.0000	49.4
131 n-Butyl alcohol	56	4.859	4.859	(0.938)	426667	5000.00	2480
33 Carbon tetrachloride	117	4.913	4.913	(0.948)	241114	50.0000	52.6
37 1,2-Dichloroethane	62	4.940	4.940	(0.954)	301575	50.0000	54.5
38 Benzene	78	5.004	5.004	(0.966)	770787	50.0000	49.8
* 40 Fluorobenzene	96	5.180	5.180	(1.000)	688947	50.0000	
39 Trichloroethylene	95	5.549	5.549	(1.071)	191104	50.0000	51.2
41 1,2-Dichloropropane	63	5.666	5.666	(1.094)	233985	50.0000	53.8
130 Methylcyclohexane	83	5.704	5.704	(1.101)	322106	50.0000	43.7
45 Bromodichloromethane	83	5.858	5.858	(1.131)	267248	50.0000	51.8
43 Dibromomethane	93	5.885	5.885	(1.136)	130903	50.0000	51.9
44 2-Chloroethylvinyl ether	63	6.136	6.136	(1.185)	719218	250.000	252
49 4-Methyl-2-pentanone	58	6.200	6.200	(0.755)	529160	250.000	262
46 cis-1,3-Dichloropropylene	75	6.371	6.371	(1.230)	313544	50.0000	49.6
$ 47 Toluene-d8	98	6.660	6.660	(0.811)	733516	50.0000	50.7
50 Toluene	92	6.735	6.735	(0.820)	483591	50.0000	49.6
53 trans-1,3-Dichloropropylene	75	6.852	6.852	(0.835)	292046	50.0000	49.5
54 1,1,2-Trichloroethane	83	7.012	7.012	(0.854)	152363	50.0000	51.6
55 2-Hexanone	43	7.060	7.060	(0.860)	936277	250.000	267
52 1,3-Dichloropropane	76	7.263	7.263	(0.885)	313818	50.0000	54.1
56 Tetrachloroethylene	164	7.434	7.434	(0.906)	133876	50.0000	48.4
57 Dibromochloromethane	129	7.531	7.531	(0.917)	211753	50.0000	54.8
59 1,2-Dibromoethane	107	7.750	7.750	(0.944)	183220	50.0000	53.7
* 61 Chlorobenzene-d5	117	8.209	8.209	(1.000)	480502	50.0000	
62 Chlorobenzene	112	8.246	8.246	(1.005)	523409	50.0000	49.9
60 1,1,1,2-Tetrachloroethane	131	8.294	8.294	(1.010)	190134	50.0000	53.4
58 Ethylbenzene	91	8.343	8.343	(1.016)	887185	50.0000	49.0
63 m,p-Xylenes	106	8.433	8.433	(1.027)	668792	100.000	95.9
64 o-Xylene	106	8.909	8.909	(1.085)	348010	50.0000	52.0
65 Styrene	104	8.925	8.925	(1.087)	589439	50.0000	51.1
66 Bromoform	173	9.213	9.213	(0.845)	136857	50.0000	57.1
67 Isopropylbenzene	105	9.336	9.336	(0.856)	783322	50.0000	47.0
73 1,1,2,2-Tetrachloroethane	83	9.443	9.443	(0.866)	240842	50.0000	51.9

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
$ 71 Bromofluorobenzene	95	9.566	9.566	(0.877)	282318	50.0000	46.4
74 1,2,3-Trichloropropane	110	9.609	9.609	(0.881)	65400	50.0000	50.7
75 Bromobenzene	156	9.774	9.774	(0.897)	210985	50.0000	50.3
76 n-Propylbenzene	91	9.806	9.806	(0.900)	993015	50.0000	47.4
77 2-Chlorotoluene	91	9.972	9.972	(0.915)	665068	50.0000	49.2
78 1,3,5-Trimethylbenzene	105	9.999	9.999	(0.917)	672609	50.0000	46.3
80 4-Chlorotoluene	91	10.031	10.031	(0.920)	641593	50.0000	45.4
81 tert-Butylbenzene	119	10.410	10.410	(0.955)	662410	50.0000	48.8
79 1,2,4-Trimethylbenzene	105	10.442	10.442	(0.958)	682684	50.0000	45.8
83 sec-Butylbenzene	105	10.650	10.650	(0.977)	903754	50.0000	47.9
84 4-Isopropyltoluene	119	10.795	10.795	(0.990)	708977	50.0000	46.6
85 1,3-Dichlorobenzene	146	10.827	10.827	(0.993)	372165	50.0000	46.0
* 86 1,4-Dichlorobenzene-d4	152	10.901	10.901	(1.000)	240007	50.0000	
87 1,4-Dichlorobenzene	146	10.934	10.934	(1.003)	370586	50.0000	45.5
89 n-Butylbenzene	91	11.201	11.201	(1.027)	651275	50.0000	43.7
90 1,2-Dichlorobenzene	146	11.275	11.275	(1.034)	365593	50.0000	47.5
92 1,2-Dibromo-3-chloropropane	75	11.943	11.943	(1.096)	50397	50.0000	58.8(Q)
93 1,2,4-Trichlorobenzene	180	12.712	12.712	(1.166)	210358	50.0000	43.3
94 Hexachlorobutadiene	225	12.878	12.878	(1.181)	108545	50.0000	41.2
95 Naphthalene	128	12.905	12.905	(1.184)	682570	50.0000	47.6
96 1,2,3-Trichlorobenzene	180	13.145	13.145	(1.206)	218003	50.0000	45.3

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: /chem/VOA1.i/041905v1.b/1g237.d
Date : 20-APR-2005 08:53
Client ID: VSTD50
Sample Info: |UUH050323-01D|ICV|1|VOAF|1|
Purge Volume: 5.0
Column phase: RTX-Volatiles

Instrument: VOA1.i
Operator: PAM
Column diameter: 0.25

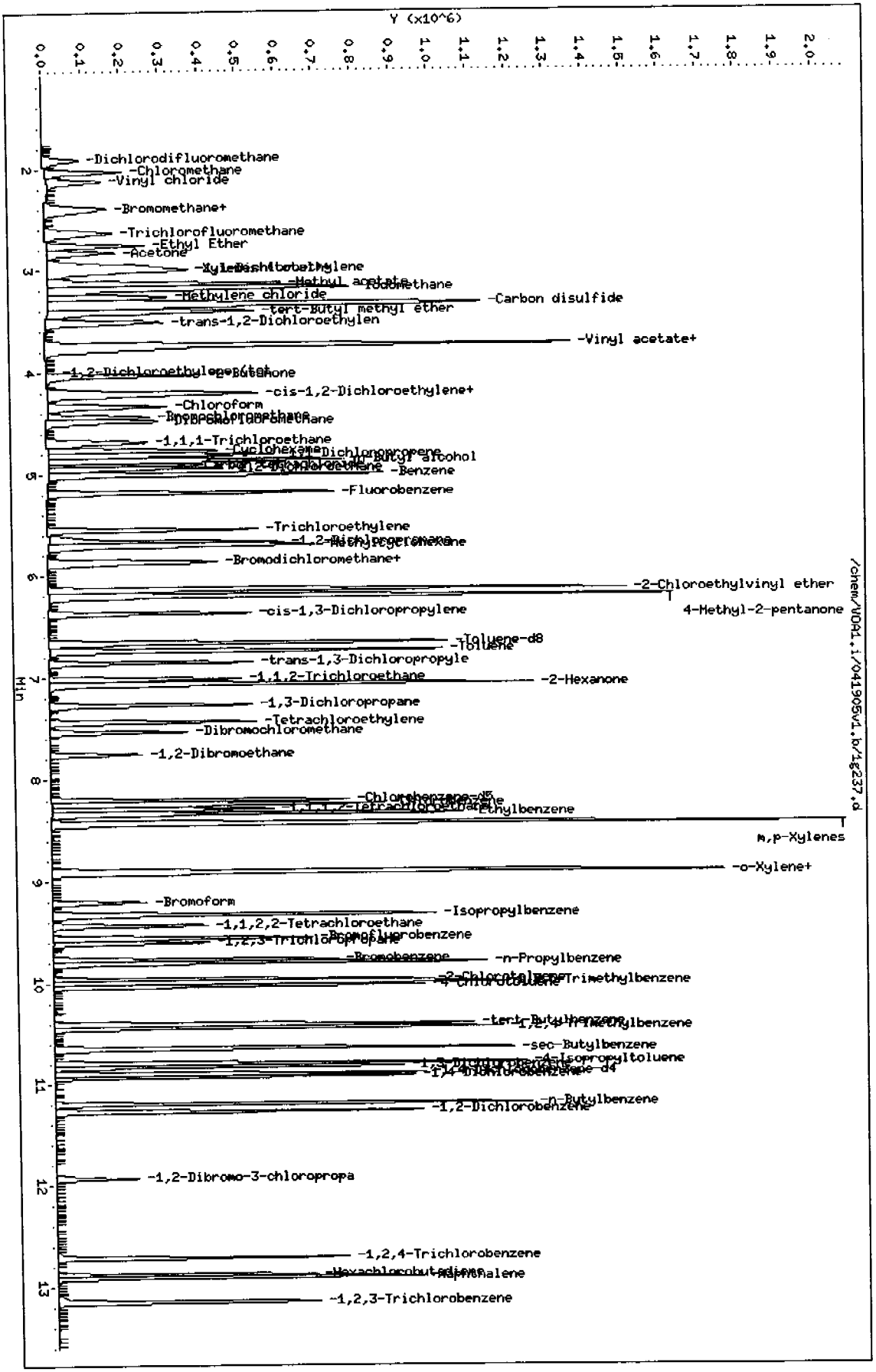

Data File: /chem/VOA1.i/051305v1.b/1j502.d
Report Date: 17-May-2005 22:45

General Engineering Laboratories, LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA1.i
Lab File ID: 1j502.d
Analysis Type: WATER
Lab Sample ID: W1VM050513-01 Quant Type: ISTD
Method: /chem/VOA1.i/051305v1.b/VOA1-8260B-041905.m

Injection Date: 13-MAY-2005 16:00
Init. Cal. Date(s): 20-APR-2005 20-APR-2005
Init. Cal. Times: 00:44 07:36

	COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
M	1 Xylenes (total)	0.71589	0.82339	0.82339	0.050	15.01581	40.00000	Averaged
M	2 1,2-Dichloroethylene (total	0.25835	0.29734	0.29734	0.050	15.09281	40.00000	Averaged
M	135 1,3-Dichloropropylene	0.63881	0.60921	0.60921	0.050	-4.63345	40.00000	Averaged
	3 Dichlorodifluoromethane	44.25109	50.00000	0.25049	0.050	-11.49781	40.00000	Linear
	4 Chloromethane	0.32460	0.23619	0.23619	0.100	-27.23592	40.00000	Averaged spcc
	5 Vinyl chloride	0.29117	0.23842	0.23842	0.050	-18.11616	20.00000	Averaged ccc
	6 Bromomethane	59.02705	50.00000	0.20361	0.050	18.05410	40.00000	Linear
	7 Chloroethane	0.17210	0.18525	0.18525	0.050	7.63826	40.00000	Averaged
	8 Trichlorofluoromethane	0.36903	0.35624	0.35624	0.050	-3.46587	40.00000	Averaged
	134 Ethyl Ether	0.28787	0.23008	0.23008	0.010	-20.07476	40.00000	Averaged
	10 Acetone	0.09597	0.12373	0.12373	0.050	28.91879	40.00000	Averaged
	15 Acetonitrile	0.03940	0.03959	0.03959	0.010	0.47772	40.00000	Averaged
	11 1,1-Dichloroethylene	0.43648	0.44820	0.44820	0.050	2.68484	20.00000	Averaged ccc
	128 Methyl acetate	0.26744	0.22754	0.22754	0.010	-14.91898	40.00000	Averaged
	13 Iodomethane	0.39364	0.46199	0.46199	0.050	17.36472	40.00000	Averaged
	17 Methylene chloride	0.28880	0.27898	0.27898	0.050	-3.39768	40.00000	Averaged
	14 Carbon disulfide	0.83726	0.72306	0.72306	0.050	-13.64008	40.00000	Averaged
	20 tert-Butyl methyl ether	0.86788	0.73980	0.73980	0.050	-14.75870	40.00000	Averaged
	21 trans-1,2-Dichloroethylene	0.24513	0.28228	0.28228	0.050	15.15518	40.00000	Averaged
	23 Vinyl acetate	0.63433	0.64134	0.64134	0.010	1.10448	40.00000	Averaged
	22 1,1-Dichloroethane	0.50475	0.52918	0.52918	0.100	4.83917	40.00000	Averaged spcc
	30 2-Butanone	0.16581	0.16729	0.16729	0.030	0.89104	40.00000	Averaged
	31 cis-1,2-Dichloroethylene	0.27156	0.31239	0.31239	0.050	15.03651	40.00000	Averaged
	25 2,2-Dichloropropane	0.31747	0.41731	0.41731	0.050	31.44949	40.00000	Averaged
	32 Chloroform	0.46767	0.51063	0.51063	0.010	9.18506	20.00000	Averaged ccc
	29 Bromochloromethane	54.61630	50.00000	0.14947	0.010	9.23260	40.00000	Linear
$	35 Dibromofluoromethane	0.26952	0.26142	0.26142	0.010	-3.00610	40.00000	Averaged
	36 1,1,1-Trichloroethane	0.35028	0.42903	0.42903	0.010	22.48253	40.00000	Averaged
	129 Cyclohexane	0.55879	0.54803	0.54803	0.010	-1.92588	40.00000	Averaged
	34 1,1-Dichloropropene	0.36768	0.42295	0.42295	0.010	15.03169	40.00000	Averaged
	131 n-Butyl alcohol	1868	2500	0.00929	0.001	-25.29467	40.00000	Linear
	33 Carbon tetrachloride	0.33279	0.43337	0.43337	0.010	30.22322	40.00000	Averaged
	37 1,2-Dichloroethane	0.40124	0.40855	0.40855	0.010	1.82272	40.00000	Averaged
	38 Benzene	1.12364	1.16952	1.16952	0.010	4.08293	40.00000	Averaged
	39 Trichloroethylene	0.27075	0.30964	0.30964	0.010	14.36371	40.00000	Averaged
	41 1,2-Dichloropropane	0.31574	0.30437	0.30437	0.010	-3.60001	20.00000	Averaged ccc

General Engineering Laboratories, LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA1.i
Lab File ID: 1j502.d
Analysis Type: WATER
Lab Sample ID: W1VM050513-01 Quant Type: ISTD
Method: /chem/VOA1.i/051305v1.b/VOA1-8260B-041905.m

Injection Date: 13-MAY-2005 16:00
Init. Cal. Date(s): 20-APR-2005 20-APR-2005
Init. Cal. Times: 00:44 07:36

	COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
	130 Methylcyclohexane	0.53524	0.55016	0.55016	0.010	2.78823	40.00000	Averaged	
	45 Bromodichloromethane	0.37416	0.37848	0.37848	0.010	1.15549	40.00000	Averaged	
	43 Dibromomethane	0.18311	0.18562	0.18562	0.010	1.37368	40.00000	Averaged	
	44 2-Chloroethylvinyl ether	0.20682	0.14970	0.14970	0.001	-27.61861	40.00000	Averaged	
	49 4-Methyl-2-pentanone	0.20986	0.15448	0.15448	0.010	-26.39106	40.00000	Averaged	
	46 cis-1,3-Dichloropropylene	0.45903	0.47663	0.47663	0.010	3.83416	40.00000	Averaged	
$	47 Toluene-d8	1.50590	1.35339	1.35339	0.010	-10.12736	40.00000	Averaged	
	50 Toluene	1.01451	1.01631	1.01631	0.010	0.17755	20.00000	Averaged	ccc
	53 trans-1,3-Dichloropropylene	0.61400	0.57219	0.57219	0.010	-6.80981	40.00000	Averaged	
	54 1,1,2-Trichloroethane	0.30747	0.28294	0.28294	0.010	-7.97667	40.00000	Averaged	
	55 2-Hexanone	0.36489	0.33341	0.33341	0.010	-8.62850	40.00000	Averaged	
	52 1,3-Dichloropropane	0.60330	0.57416	0.57416	0.010	-4.83137	40.00000	Averaged	
	56 Tetrachloroethylene	0.28811	0.36547	0.36547	0.010	26.84889	40.00000	Averaged	
	57 Dibromochloromethane	0.40168	0.39011	0.39011	0.010	-2.88014	40.00000	Averaged	
	59 1,2-Dibromoethane	0.35477	0.33732	0.33732	0.010	-4.92003	40.00000	Averaged	
	62 Chlorobenzene	1.09170	1.11441	1.11441	0.300	2.07963	40.00000	Averaged	spcc
	60 1,1,1,2-Tetrachloroethane	0.37027	0.39830	0.39830	0.010	7.56953	40.00000	Averaged	
	58 Ethylbenzene	1.88333	1.91210	1.91210	0.010	1.52740	20.00000	Averaged	ccc
	63 m,p-Xylenes	0.72592	0.85044	0.85044	0.010	17.15250	40.00000	Averaged	
	64 o-Xylene	0.69582	0.76928	0.76928	0.010	10.55758	40.00000	Averaged	
	65 Styrene	1.20119	1.35011	1.35011	0.010	12.39767	40.00000	Averaged	
	66 Bromoform	0.49962	0.50121	0.50121	0.100	0.31958	40.00000	Averaged	spcc
	67 Isopropylbenzene	3.47015	3.35839	3.35839	0.010	-3.22083	40.00000	Averaged	
	73 1,1,2,2-Tetrachloroethane	0.96637	0.90253	0.90253	0.300	-6.60652	40.00000	Averaged	spcc
$	71 Bromofluorobenzene	1.26752	1.09612	1.09612	0.010	-13.52294	40.00000	Averaged	
	74 1,2,3-Trichloropropane	50.06221	50.00000	0.26908	0.010	0.12442	40.00000	Linear	
	75 Bromobenzene	0.87343	0.93374	0.93374	0.010	6.90499	40.00000	Averaged	
	76 n-Propylbenzene	4.36632	4.68408	4.68408	0.010	7.27743	40.00000	Averaged	
	77 2-Chlorotoluene	2.81838	2.92173	2.92173	0.010	3.66695	40.00000	Averaged	
	78 1,3,5-Trimethylbenzene	3.02516	3.18149	3.18149	0.010	5.16757	40.00000	Averaged	
	80 4-Chlorotoluene	2.94511	3.01426	3.01426	0.010	2.34783	40.00000	Averaged	
	81 tert-Butylbenzene	2.82499	3.09298	3.09298	0.010	9.48631	40.00000	Averaged	
	79 1,2,4-Trimethylbenzene	3.10145	3.19387	3.19387	0.010	2.97973	40.00000	Averaged	
	83 sec-Butylbenzene	3.92690	4.20247	4.20247	0.010	7.01738	40.00000	Averaged	
	84 4-Isopropyltoluene	3.16634	3.48171	3.48171	0.010	9.95980	40.00000	Averaged	

General Engineering Laboratories, LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA1.i
Lab File ID: 1j502.d
Analysis Type: WATER
Lab Sample ID: W1VM050513-01 Quant Type: ISTD
Method: /chem/VOA1.i/051305v1.b/VOA1-8260B-041905.m

Injection Date: 13-MAY-2005 16:00
Init. Cal. Date(s): 20-APR-2005 20-APR-2005
Init. Cal. Times: 00:44 07:36

COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
85 1,3-Dichlorobenzene	1.68530	1.80969	1.80969	0.010	7.38088	40.00000	Averaged
87 1,4-Dichlorobenzene	1.69652	1.78998	1.78998	0.010	5.50905	40.00000	Averaged
89 n-Butylbenzene	3.10736	3.42468	3.42468	0.010	10.21199	40.00000	Averaged
90 1,2-Dichlorobenzene	1.60396	1.62042	1.62042	0.010	1.02610	40.00000	Averaged
92 1,2-Dibromo-3-chloropropane	0.17858	0.15167	0.15167	0.010	-15.07055	40.00000	Averaged
93 1,2,4-Trichlorobenzene	1.01103	0.98537	0.98537	0.010	-2.53880	40.00000	Averaged
94 Hexachlorobutadiene	0.54857	0.57783	0.57783	0.010	5.33463	40.00000	Averaged
95 Naphthalene	2.98722	2.29264	2.29264	0.010	-23.25168	40.00000	Averaged
96 1,2,3-Trichlorobenzene	1.00194	0.85653	0.85653	0.010	-14.51266	40.00000	Averaged

Average %D / Drift Results.

Calculated Average %D/Drift = 9.95997
Maximun Average %D/Drift = 20.00000
* Passed Average %D/Drift Test.

General Engineering Laboratories, LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/051305v1.b/1j502.d
Lab Smp Id: W1VM050513-01 Client Smp ID: VSTD050
Inj Date : 13-MAY-2005 16:00
Operator : PAM Inst ID: VOA1.i
Smp Info : |W1VM050513-01|CCVLCS|1|VOAF|1|
Misc Info : CCV 5mL N/A UVM050418-01D+IVM050512-01
Comment :
Method : /chem/VOA1.i/051305v1.b/VOA1-8260B-041905.m
Meth Date : 17-May-2005 22:45 tcl Quant Type: ISTD
Cal Date : 20-APR-2005 05:01 Cal File: 1g228.d
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: CALsubL+.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (Uf/Vo) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	sample purged

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
M 1 Xylenes (total)	106				1427565	150.000	172
M 2 1,2-Dichloroethylene (total)	96				465973	100.000	115
M 135 1,3-Dichloropropylene	75				704159	100.000	98.5
3 Dichlorodifluoromethane	85	1.896	1.896	(0.366)	196275	50.0000	44.2
4 Chloromethane	50	2.021	2.021	(0.390)	185072	50.0000	36.4
5 Vinyl chloride	62	2.123	2.123	(0.410)	186824	50.0000	40.9
6 Bromomethane	94	2.379	2.379	(0.459)	159542	50.0000	59.0
7 Chloroethane	64	2.406	2.406	(0.465)	145154	50.0000	53.8
8 Trichlorofluoromethane	101	2.636	2.636	(0.509)	279144	50.0000	48.3
134 Ethyl Ether	59	2.753	2.753	(0.532)	180283	50.0000	40.0
10 Acetone	43	2.828	2.828	(0.546)	484751	250.000	322
15 Acetonitrile	41	2.956	2.956	(0.571)	775569	1250.00	1260
11 1,1-Dichloroethylene	61	3.010	3.010	(0.581)	351201	50.0000	51.3
128 Methyl acetate	43	3.133	3.133	(0.605)	891474	250.000	213
13 Iodomethane	142	3.175	3.175	(0.613)	1810035	250.000	293

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
17 Methylene chloride	84	3.261	3.261	(0.630)	218606	50.0000	48.3
14 Carbon disulfide	76	3.346	3.346	(0.646)	2832855	250.000	216
20 tert-Butyl methyl ether	73	3.405	3.405	(0.658)	579687	50.0000	42.6
21 trans-1,2-Dichloroethylene	96	3.501	3.501	(0.676)	221189	50.0000	57.6
23 Vinyl acetate	43	3.731	3.731	(0.720)	2512694	250.000	253
22 1,1-Dichloroethane	63	3.763	3.763	(0.727)	414652	50.0000	52.4
30 2-Butanone	43	4.030	4.030	(0.778)	655410	250.000	252
31 cis-1,2-Dichloroethylene	96	4.206	4.206	(0.812)	244784	50.0000	57.5
25 2,2-Dichloropropane	77	4.196	4.196	(0.810)	326992	50.0000	65.7
32 Chloroform	83	4.329	4.329	(0.836)	400115	50.0000	54.6
29 Bromochloromethane	128	4.436	4.436	(0.857)	117118	50.0000	54.6
$ 35 Dibromofluoromethane	113	4.473	4.473	(0.864)	204839	50.0000	48.5
36 1,1,1-Trichloroethane	97	4.676	4.676	(0.903)	336180	50.0000	61.2
129 Cyclohexane	56	4.762	4.762	(0.920)	429426	50.0000	49.0
34 1,1-Dichloropropene	75	4.810	4.810	(0.929)	331413	50.0000	57.5
131 n-Butyl alcohol	56	4.858	4.858	(0.938)	364023	2500.00	1870
33 Carbon tetrachloride	117	4.906	4.906	(0.947)	339580	50.0000	65.1
37 1,2-Dichloroethane	62	4.938	4.938	(0.954)	320132	50.0000	50.9
38 Benzene	78	5.002	5.002	(0.966)	916406	50.0000	52.0
* 40 Fluorobenzene	96	5.179	5.179	(1.000)	783577	50.0000	
39 Trichloroethylene	95	5.547	5.547	(1.071)	242623	50.0000	57.2
41 1,2-Dichloropropane	63	5.665	5.665	(1.094)	238501	50.0000	48.2
130 Methylcyclohexane	83	5.702	5.702	(1.101)	431095	50.0000	51.4
45 Bromodichloromethane	83	5.862	5.862	(1.132)	296572	50.0000	50.6
43 Dibromomethane	93	5.884	5.884	(1.136)	145450	50.0000	50.7
44 2-Chloroethylvinyl ether	63	6.140	6.140	(1.186)	586491	250.000	181
49 4-Methyl-2-pentanone	58	6.204	6.204	(0.755)	446377	250.000	184
46 cis-1,3-Dichloropropylene	75	6.375	6.375	(1.231)	373475	50.0000	51.9
$ 47 Toluene-d8	98	6.658	6.658	(0.811)	782159	50.0000	44.9
50 Toluene	92	6.739	6.739	(0.820)	587351	50.0000	50.1
53 trans-1,3-Dichloropropylene	75	6.856	6.856	(0.835)	330684	50.0000	46.6
54 1,1,2-Trichloroethane	83	7.011	7.011	(0.854)	163519	50.0000	46.0
55 2-Hexanone	43	7.064	7.064	(0.860)	963425	250.000	228
52 1,3-Dichloropropane	76	7.267	7.267	(0.885)	331819	50.0000	47.6
56 Tetrachloroethylene	164	7.433	7.433	(0.905)	211213	50.0000	63.4
57 Dibromochloromethane	129	7.534	7.534	(0.917)	225453	50.0000	48.6
59 1,2-Dibromoethane	107	7.753	7.753	(0.944)	194943	50.0000	47.5
* 61 Chlorobenzene-d5	117	8.213	8.213	(1.000)	577925	50.0000	
62 Chlorobenzene	112	8.250	8.250	(1.005)	644044	50.0000	51.0
60 1,1,1,2-Tetrachloroethane	131	8.298	8.298	(1.010)	230187	50.0000	53.8
58 Ethylbenzene	91	8.341	8.341	(1.016)	1105048	50.0000	50.8
63 m,p-Xylenes	106	8.437	8.437	(1.027)	982976	100.000	117
64 o-Xylene	106	8.913	8.913	(1.085)	444589	50.0000	55.3
65 Styrene	104	8.929	8.929	(1.087)	780263	50.0000	56.2
66 Bromoform	173	9.223	9.223	(0.846)	152247	50.0000	50.2
67 Isopropylbenzene	105	9.340	9.340	(0.857)	1020130	50.0000	48.4
73 1,1,2,2-Tetrachloroethane	83	9.447	9.447	(0.867)	274149	50.0000	46.7

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
$ 71 Bromofluorobenzene	95	9.570	9.570	(0.878)	332952	50.0000	43.2
74 1,2,3-Trichloropropane	110	9.613	9.613	(0.882)	81736	50.0000	50.1
75 Bromobenzene	156	9.778	9.778	(0.897)	283630	50.0000	53.4
76 n-Propylbenzene	91	9.810	9.810	(0.900)	1422817	50.0000	53.6
77 2-Chlorotoluene	91	9.970	9.970	(0.915)	887493	50.0000	51.8
78 1,3,5-Trimethylbenzene	105	10.003	10.003	(0.918)	966396	50.0000	52.6
80 4-Chlorotoluene	91	10.035	10.035	(0.921)	915599	50.0000	51.2
81 tert-Butylbenzene	119	10.414	10.414	(0.955)	939511	50.0000	54.7
79 1,2,4-Trimethylbenzene	105	10.446	10.446	(0.958)	970156	50.0000	51.5
83 sec-Butylbenzene	105	10.649	10.649	(0.977)	1276524	50.0000	53.5
84 4-Isopropyltoluene	119	10.799	10.799	(0.991)	1057589	50.0000	55.0
85 1,3-Dichlorobenzene	146	10.831	10.831	(0.994)	549704	50.0000	53.7
* 86 1,4-Dichlorobenzene-d4	152	10.900	10.900	(1.000)	303756	50.0000	
87 1,4-Dichlorobenzene	146	10.932	10.932	(1.003)	543717	50.0000	52.8
89 n-Butylbenzene	91	11.205	11.205	(1.028)	1040267	50.0000	55.1
90 1,2-Dichlorobenzene	146	11.279	11.279	(1.035)	492211	50.0000	50.5
92 1,2-Dibromo-3-chloropropane	75	11.942	11.942	(1.096)	46070	50.0000	42.5(Q)
93 1,2,4-Trichlorobenzene	180	12.716	12.716	(1.167)	299311	50.0000	48.7
94 Hexachlorobutadiene	225	12.882	12.882	(1.182)	175520	50.0000	52.7
95 Naphthalene	128	12.909	12.909	(1.184)	696403	50.0000	38.4
96 1,2,3-Trichlorobenzene	180	13.149	13.149	(1.206)	260176	50.0000	42.7

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: /chem/VOA1.i/051305v1.b/1j502.d
Date : 13-MAY-2005 16:00
Client ID: VSTD050
Sample Info: IW1VH050513-01|CCVLCS11|VOAF11|
Purge Volume: 5.0
Column phase: RTX-Volatiles

Instrument: VOA1.i
Operator: PAM
Column diameter: 0.25

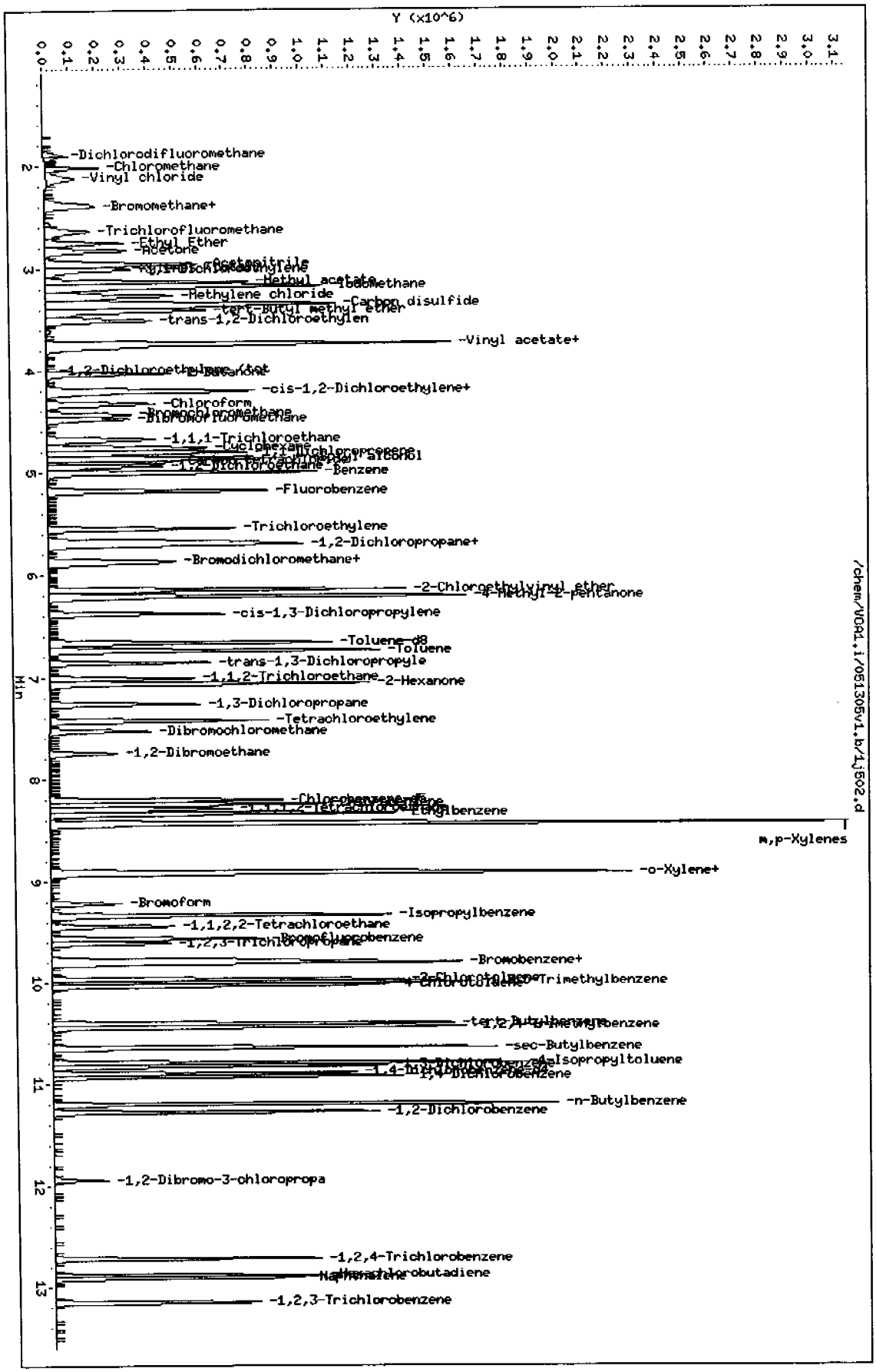

General Engineering Laboratories, LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA1.i
Lab File ID: 1j504.d
Analysis Type: WATER
Lab Sample ID: UVM050309-01B
Method: /chem/VOA1.i/051305v1.b/VOA1-8260B-041905.m

Injection Date: 13-MAY-2005 16:50
Init. Cal. Date(s): 20-APR-2005 20-APR-2005
Init. Cal. Times: 00:44 07:36
Quant Type: ISTD

COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
9 Acrolein	0.04329	0.03917	0.03917	0.001	-9.51771	40.00000	Averaged	
12 Trichlorotrifluoroethane	0.08933	0.08908	0.08908	0.050	-0.28131	40.00000	Averaged	
16 Allyl chloride	0.10961	0.08524	0.08524	0.010	-22.23209	40.00000	Averaged	
18 Acrylonitrile	0.11740	0.07955	0.07955	0.010	-32.23871	40.00000	Averaged	
24 2-Chloro-1,3-butadiene	0.37735	0.39748	0.39748	0.010	5.33427	40.00000	Averaged	
28 Propionitrile	0.04249	0.03917	0.03917	0.010	-7.81883	40.00000	Averaged	
26 Ethyl acetate	0.32185	0.28338	0.28338	0.010	-11.95302	40.00000	Averaged	
27 Methacrylonitrile	0.20949	0.18812	0.18812	0.010	-10.20245	40.00000	Averaged	
19 Isobutyl alcohol	0.01227	0.01114	0.01114	0.005	-9.17982	40.00000	Averaged	
72 Tetrahydrofuran	208	250	0.27765	0.010	-16.75154	40.00000	Linear	
42 Methyl methacrylate	0.20471	0.18356	0.18356	0.010	-10.33447	40.00000	Averaged	
51 Ethyl methacrylate	0.63900	0.47834	0.47834	0.010	-25.14199	40.00000	Averaged	
97 1,4-Dioxane	2291	2500	0.00260	0.001	-8.37949	40.00000	Linear	
48 2-Nitropropane	0.11591	0.09122	0.09122	0.010	-21.29603	40.00000	Averaged	
70 Cyclohexanone	0.01838	0.01393	0.01393	0.010	-24.21396	40.00000	Averaged	
68 cis-1,4-Dichloro-2-butene	0.35315	0.33620	0.33620	0.010	-4.79938	40.00000	Averaged	
69 trans-1,4-Dichloro-2-butene	0.24830	0.29375	0.29375	0.010	18.30782	40.00000	Averaged	
82 Pentachloroethane	0.39068	0.53047	0.53047	0.010	35.78077	40.00000	Averaged	
88 Benzyl chloride	1.30835	1.65988	1.65988	0.010	26.86797	40.00000	Averaged	
91 bis(2-Chloroisopropyl)ether	0.58667	0.34131	0.34131	0.010	-41.82318	40.00000	Averaged	<-
$ 35 Dibromofluoromethane	0.26952	0.28004	0.28004	0.010	3.90575	40.00000	Averaged	
$ 47 Toluene-d8	1.50590	1.46983	1.46983	0.010	-2.39503	40.00000	Averaged	
$ 71 Bromofluorobenzene	1.26752	1.20118	1.20118	0.010	-5.23401	40.00000	Averaged	

Average %D / Drift Results.

Calculated Average %D/Drift = 15.39085
Maximun Average %D/Drift = 20.00000
* Passed Average %D/Drift Test.

General Engineering Laboratories, LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/051305v1.b/1j504.d
Lab Smp Id: UVM050309-01B Client Smp ID: VSTD250S
Inj Date : 13-MAY-2005 16:50
Operator : PAM Inst ID: VOA1.i
Smp Info : |UVM050309-01B|SHORT|1|VOAF|1|
Misc Info : SHORT 5mL N/A VSTD250S
Comment :
Method : /chem/VOA1.i/051305v1.b/VOA1-8260B-041905.m
Meth Date : 16-May-2005 16:10 tcl Quant Type: ISTD
Cal Date : 20-APR-2005 05:01 Cal File: 1g228.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: CALsubS+SS.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (Uf/Vo) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	sample purged

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
9 Acrolein	56	2.786	2.786	(0.538)	163219	250.000	226
12 Trichlorotrifluoroethane	85	2.930	2.930	(0.566)	371175	250.000	249
16 Allyl chloride	76	3.202	3.202	(0.618)	355185	250.000	194
18 Acrylonitrile	53	3.272	3.272	(0.632)	331475	250.000	169
24 2-Chloro-1,3-butadiene	53	3.854	3.854	(0.744)	331232	50.0000	52.7
28 Propionitrile	54	4.020	4.020	(0.776)	163216	250.000	230
26 Ethyl acetate	43	4.169	4.169	(0.805)	1180747	250.000	220
27 Methacrylonitrile	41	4.201	4.201	(0.811)	783813	250.000	224
19 Isobutyl alcohol	41	4.292	4.292	(0.829)	464314	2500.00	2270
72 Tetrahydrofuran	42	4.490	4.490	(0.412)	376249	250.000	208
42 Methyl methacrylate	69	5.708	5.708	(1.102)	764818	250.000	224
* 40 Fluorobenzene	96	5.179	5.179	(1.000)	833330	50.0000	
51 Ethyl methacrylate	69	6.894	6.894	(0.840)	1396752	250.000	187
97 1,4-Dioxane	88	5.863	5.863	(1.132)	108245	2500.00	2290
48 2-Nitropropane	43	5.863	5.863	(1.132)	380091	250.000	197

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
* 61 Chlorobenzene-d5	117	8.208	8.208	(1.000)	583999	50.0000	
70 Cyclohexanone	55	9.287	9.287	(1.131)	203400	1250.00	947
68 cis-1,4-Dichloro-2-butene	53	9.298	9.298	(0.853)	455580	250.000	238
69 trans-1,4-Dichloro-2-butene	53	9.688	9.688	(0.889)	398067	250.000	296
82 Pentachloroethane	167	10.419	10.419	(0.956)	718837	250.000	339
* 86 1,4-Dichlorobenzene-d4	152	10.900	10.900	(1.000)	271020	50.0000	
88 Benzyl chloride	91	11.018	11.018	(1.011)	2249307	250.000	317
91 bis(2-Chloroisopropyl)ether	45	11.269	11.269	(1.034)	462504	250.000	145
$ 35 Dibromofluoromethane	113	4.474	4.474	(0.864)	233369	50.0000	52.0
$ 47 Toluene-d8	98	6.659	6.659	(0.811)	858381	50.0000	48.8
$ 71 Bromofluorobenzene	95	9.570	9.570	(0.878)	325544	50.0000	47.4

Data File: /chem/VOA1.i/051305v1.b/1j504.d
Date : 13-MAY-2005 16:50
Client ID: VSTD250S
Sample Info: IUVH050309-01B|SHORT|1|VOAF|1|
Purge Volume: 5.0
Column phase: RTX-Volatiles

Instrument: VOA1.i
Operator: PAM
Column diameter: 0.25

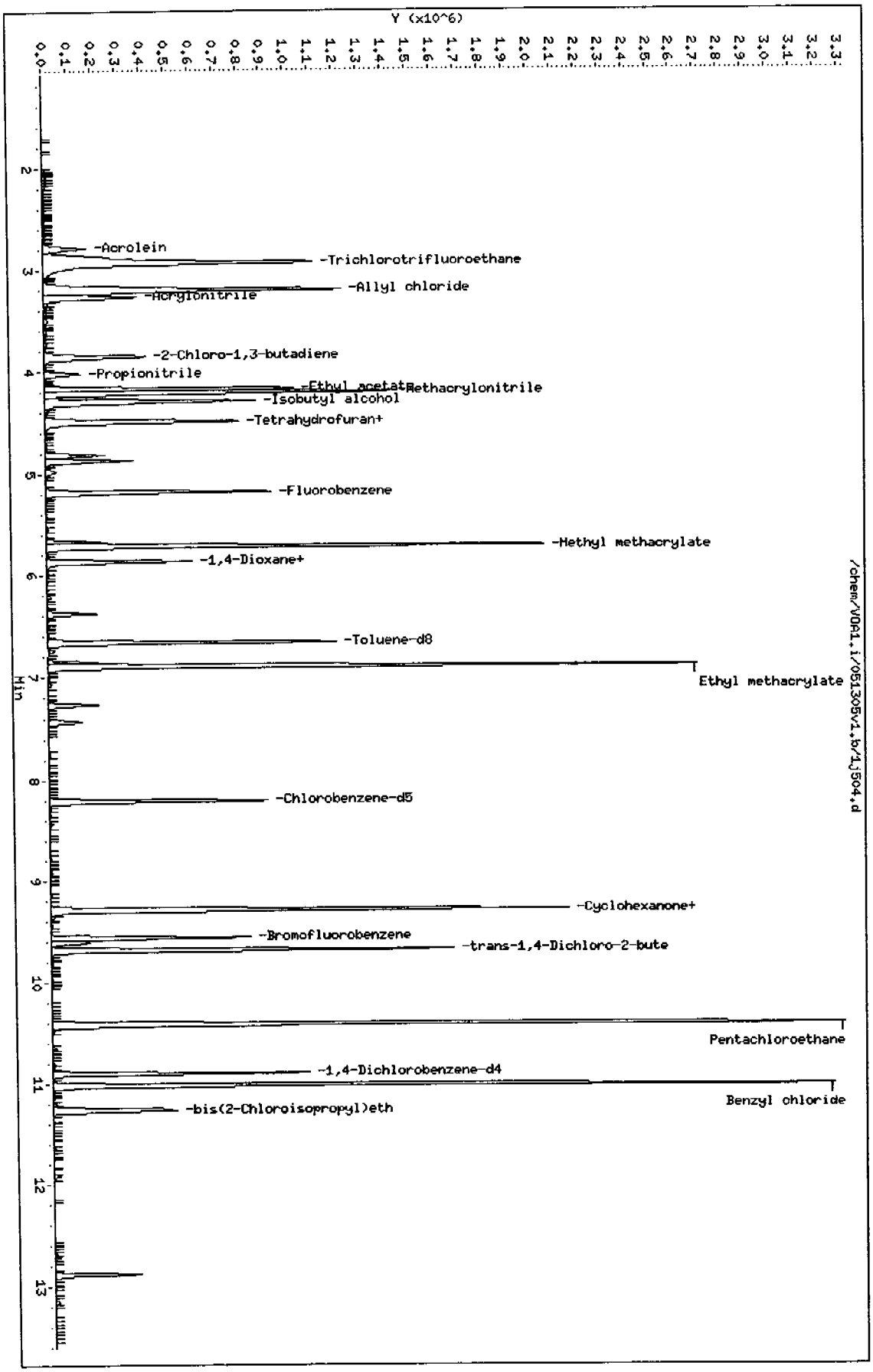

Page 1

QUALITY CONTROL DATA

Data File: /chem/VOA1.i/051305v1.b/1j501.d

Date : 13-MAY-2005 15:47

Client ID: BFB01

Instrument: VOA1.i

Sample Info: |UVH050303-04|BFB|1|VOAF|1|

Operator: PAM

Column phase: RTX-Volatiles

Column diameter: 0.25

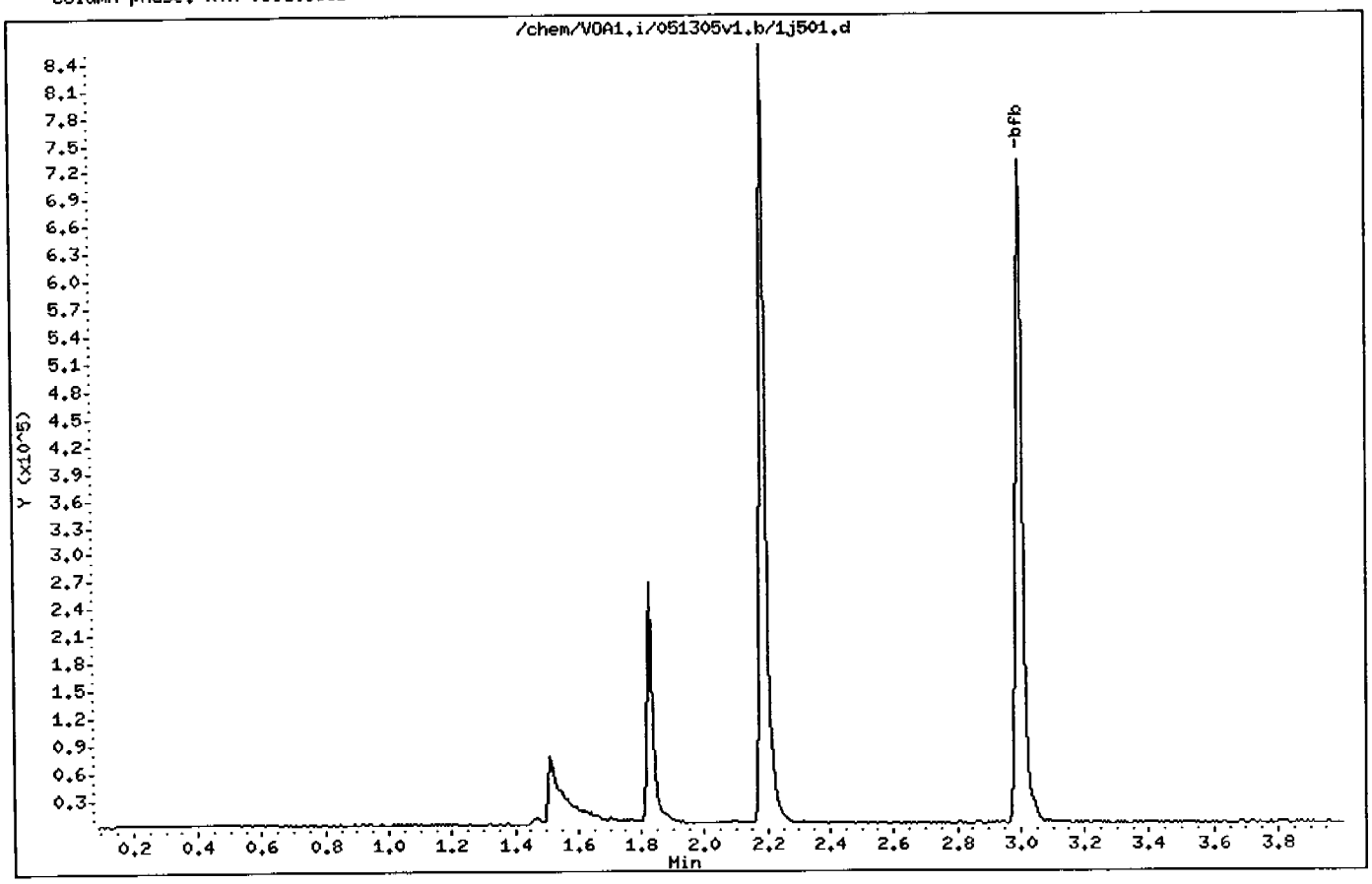

Data File: /chem/VOA1.i/051305v1.b/1j501.d

Date : 13-MAY-2005 15:47

Client ID: BFB01

Instrument: VOA1.i

Sample Info: |UVM050303-04|BFB|1|VOAF|1|

Operator: PAM

Column phase: RTX-Volatiles

Column diameter: 0.25

1 bfb

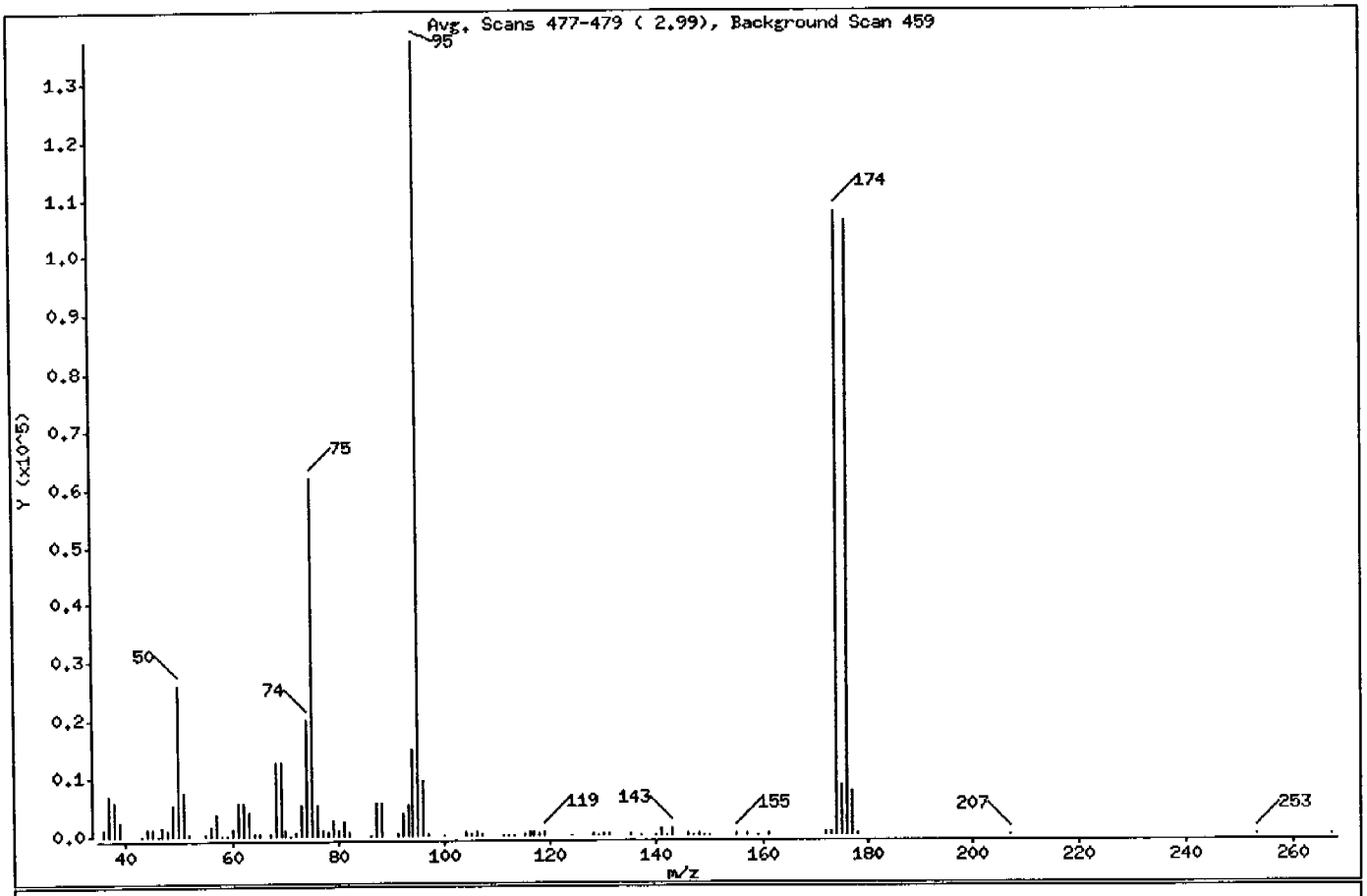

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	18.93
75	30.00 - 60.00% of mass 95	44.99
96	5.00 - 9.00% of mass 95	6.95
173	Less than 2.00% of mass 174	0.45 (0.58)
174	50.00 - 100.00% of mass 95	78.37
175	5.00 - 9.00% of mass 174	6.28 (8.01)
176	95.00 - 101.00% of mass 174	77.17 (98.47)
177	5.00 - 9.00% of mass 176	5.43 (7.03)

Data File: /chem/VOA1.i/051305v1.b/1j501.d

Date : 13-MAY-2005 15:47

Client ID: BFB01

Instrument: VOA1.i

Sample Info: |UVM050303-04|BFB|1|VOAF|1|

Operator: PAM

Column phase: RTX-Volatiles

Column diameter: 0.25

Data File: 1j501.d

Spectrum: Avg. Scans 477-479 (2.99), Background Scan 459

Location of Maximum: 95.00

Number of points: 94

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	1378	65.00	411	95.00	137344	141.00	1325
37.00	7003	67.00	291	96.00	9549	142.00	116
38.00	6062	68.00	12769	97.00	258	143.00	1353
39.00	2664	69.00	12727	100.00	107	146.00	175
43.00	66	70.00	1044	104.00	494	147.00	111
44.00	1136	71.00	54	105.00	241	148.00	447
45.00	1184	72.00	606	106.00	567	149.00	63
46.00	63	73.00	5234	107.00	263	150.00	139
47.00	1686	74.00	19960	111.00	68	155.00	339
48.00	804	75.00	61816	112.00	63	157.00	219
49.00	5346	76.00	5292	113.00	117	159.00	156
50.00	26008	77.00	813	115.00	198	161.00	162
51.00	7538	78.00	524	116.00	475	172.00	603
52.00	273	79.00	2802	117.00	676	173.00	623
55.00	356	80.00	941	118.00	410	174.00	107664
56.00	1735	81.00	2620	119.00	767	175.00	8622
57.00	3637	82.00	515	124.00	60	176.00	106016
58.00	50	86.00	121	128.00	433	177.00	7457
59.00	55	87.00	5801	129.00	76	178.00	239
60.00	1193	88.00	5761	130.00	470	207.00	51
61.00	5750	91.00	450	131.00	270	253.00	52
62.00	5720	92.00	3815	135.00	276	267.00	51
63.00	4041	93.00	5239	137.00	77		
64.00	412	94.00	14842	140.00	57		

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK01

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

Matrix: (soil/water) SOIL Lab Sample ID: 1200846374

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 1J508LA

Level: (low/med) LOW Date Received: 05/13/05

% Moisture: not dec. _____ Date Analyzed: 05/13/05

GC Column: RTX-VOLATILES ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-71-8	Dichlorodifluoromethane	1.0	U
74-87-3	Chloromethane	1.0	U
75-01-4	Vinyl chloride	1.0	U
74-83-9	Bromomethane	1.0	U
75-00-3	Chloroethane	1.0	U
75-69-4	Trichlorofluoromethane	1.0	U
75-35-4	1,1-Dichloroethylene	1.0	U
67-64-1	Acetone	5.0	U
76-13-1	Trichlorotrifluoroethane	5.0	U
74-88-4	Iodomethane	5.0	U
75-15-0	Carbon disulfide	5.0	U
75-09-2	Methylene chloride	5.0	U
156-60-5	trans-1,2-Dichloroethylene	1.0	U
75-34-3	1,1-Dichloroethane	1.0	U
78-93-3	2-Butanone	5.0	U
156-59-2	cis-1,2-Dichloroethylene	1.0	U
594-20-7	2,2-Dichloropropane	1.0	U
74-97-5	Bromochloromethane	1.0	U
67-66-3	Chloroform	1.0	U
71-55-6	1,1,1-Trichloroethane	1.0	U
563-58-6	1,1-Dichloropropene	1.0	U
56-23-5	Carbon tetrachloride	1.0	U
107-06-2	1,2-Dichloroethane	1.0	U
71-43-2	Benzene	1.0	U
79-01-6	Trichloroethylene	1.0	U
78-87-5	1,2-Dichloropropane	1.0	U
74-95-3	Dibromomethane	1.0	U
75-27-4	Bromodichloromethane	1.0	U
10061-01-5	cis-1,3-Dichloropropylene	1.0	U
108-10-1	4-Methyl-2-pentanone	5.0	U
108-88-3	Toluene	1.0	U
10061-02-6	trans-1,3-Dichloropropylene	1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK01

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

Matrix: (soil/water) SOIL Lab Sample ID: 1200846374

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 1J508LA

Level: (low/med) LOW Date Received: 05/13/05

% Moisture: not dec. _____ Date Analyzed: 05/13/05

GC Column: RTX-VOLATILES ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
142-28-9	1,3-Dichloropropane	1.0	U
591-78-6	2-Hexanone	5.0	U
127-18-4	Tetrachloroethylene	1.0	U
124-48-1	Dibromochloromethane	1.0	U
106-93-4	1,2-Dibromoethane	1.0	U
108-90-7	Chlorobenzene	1.0	U
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U
100-41-4	Ethylbenzene	1.0	U
95-47-6	o-Xylene	1.0	U
	m,p-Xylenes	2.0	U
100-42-5	Styrene	1.0	U
75-25-2	Bromoform	1.0	U
98-82-8	Isopropylbenzene	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U
96-18-4	1,2,3-Trichloropropane	1.0	U
108-86-1	Bromobenzene	1.0	U
103-65-1	n-Propylbenzene	1.0	U
95-49-8	2-Chlorotoluene	1.0	U
108-67-8	1,3,5-Trimethylbenzene	1.0	U
95-63-6	1,2,4-Trimethylbenzene	1.0	U
106-43-4	4-Chlorotoluene	1.0	U
98-06-6	tert-Butylbenzene	1.0	U
135-98-8	sec-Butylbenzene	1.0	U
99-87-6	4-Isopropyltoluene	1.0	U
541-73-1	1,3-Dichlorobenzene	1.0	U
106-46-7	1,4-Dichlorobenzene	1.0	U
104-51-8	n-Butylbenzene	1.0	U
95-50-1	1,2-Dichlorobenzene	1.0	U
96-12-8	1,2-Dibromo-3-chloropropane	1.0	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLK01

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

Matrix: (soil/water) SOIL Lab Sample ID: 1200846374

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 1J508LA

Level: (low/med) LOW Date Received: 05/13/05

% Moisture: not dec. _____ Date Analyzed: 05/13/05

GC Column: RTX-VOLATILES ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.				
2.				
3.				
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FORM I VOA-TIC OLM03.0

General Engineering Laboratories, LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/051305v1.b/1j508LA.d
Lab Smp Id: 1200846374 Client Smp ID: VBLK01
Inj Date : 13-MAY-2005 19:21
Operator : PAM Inst ID: VOA1.i
Smp Info : |1200846374|425470|1|VOAF|1|
Misc Info : BLANK 5mL N/A VBLK01
Comment :
Method : /chem/VOA1.i/051305v1.b/VOA1-8260B-041905.m
Meth Date : 17-May-2005 22:45 tcl Quant Type: ISTD
Cal Date : 20-APR-2005 05:01 Cal File: 1g228.d
Als bottle: 7 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 3194S.sub
Target Version: 3.50
Processing Host: kilroy

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	0.00000	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
* 40 Fluorobenzene	96	5.179	5.179	(1.000)	779007	50.0000	
* 61 Chlorobenzene-d5	117	8.213	8.213	(1.000)	570598	50.0000	
* 86 1,4-Dichlorobenzene-d4	152	10.906	10.900	(1.000)	252696	50.0000	
$ 35 Dibromofluoromethane	113	4.479	4.473	(0.865)	200524	47.7539	47.8
$ 47 Toluene-d8	98	6.659	6.658	(0.811)	801340	46.6295	46.6
$ 71 Bromofluorobenzene	95	9.570	9.570	(0.878)	281176	43.8929	43.9

General Engineering Laboratories, LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/051305v1.b/1j508LA.d
Lab Smp Id: 1200846374 Client Smp ID: VBLK01
Inj Date : 13-MAY-2005 19:21
Operator : PAM Inst ID: VOA1.i
Smp Info : |1200846374|425470|1|VOAF|1|
Misc Info : BLANK 5mL N/A VBLK01
Comment :
Method : /chem/VOA1.i/051305v1.b/VOA1-8260B-041905.m
Meth Date : 17-May-2005 22:45 tcl Quant Type: ISTD
Cal Date : 20-APR-2005 05:01 Cal File: 1g228.d
Als bottle: 7 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 3194S.sub
Target Version: 3.50
Processing Host: kilroy

- NO TENTATIVELY IDENTIFIED COMPOUNDS -

Data File: /chem/VOA1.i/051305v1.b/1j508LA.d
Date : 13-MAY-2005 19:21
Client ID: VBLK01
Sample Info: |1200846374|425470|1|VOAF|1|

Instrument: VOA1.i

Operator: PAM
Column diameter: 0.25

Column phase: RTX-Volatiles

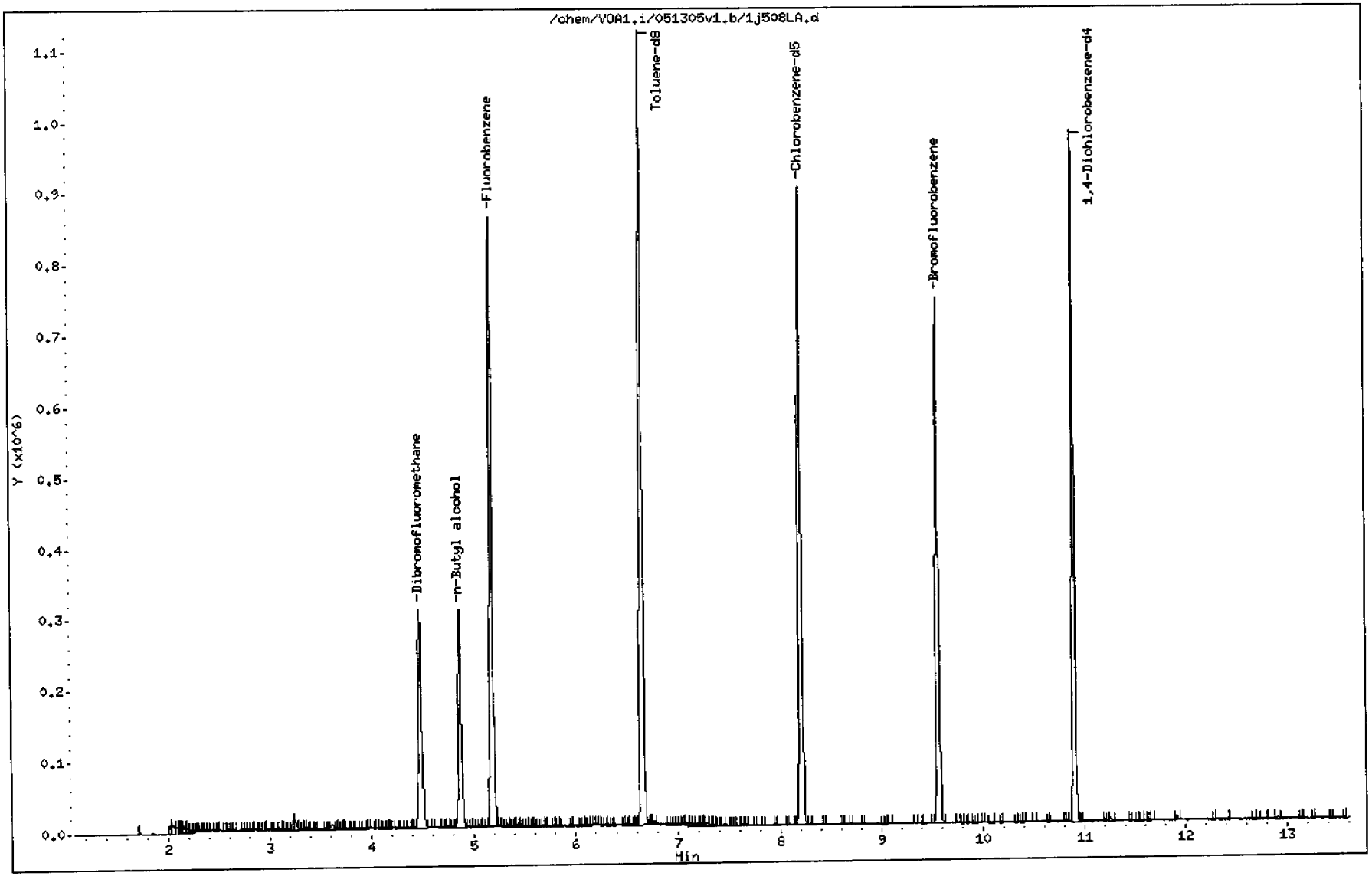

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK01LCS

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

Matrix: (soil/water) SOIL Lab Sample ID: 1200846405

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 1J502LCSLA

Level: (low/med) LOW Date Received: 05/13/05

% Moisture: not dec. _____ Date Analyzed: 05/13/05

GC Column: RTX-VOLATILES ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-71-8	Dichlorodifluoromethane	44.2	
74-87-3	Chloromethane	36.4	
75-01-4	Vinyl chloride	40.9	
74-83-9	Bromomethane	59.0	
75-00-3	Chloroethane	53.8	
75-69-4	Trichlorofluoromethane	48.3	
75-35-4	1,1-Dichloroethylene	51.3	
67-64-1	Acetone	322	
76-13-1	Trichlorotrifluoroethane	5.0	U
74-88-4	Iodomethane	293	
75-15-0	Carbon disulfide	216	
75-09-2	Methylene chloride	48.3	
156-60-5	trans-1,2-Dichloroethylene	57.6	
75-34-3	1,1-Dichloroethane	52.4	
78-93-3	2-Butanone	252	
156-59-2	cis-1,2-Dichloroethylene	57.5	
594-20-7	2,2-Dichloropropane	65.7	
74-97-5	Bromochloromethane	54.6	
67-66-3	Chloroform	54.6	
71-55-6	1,1,1-Trichloroethane	61.2	
563-58-6	1,1-Dichloropropene	57.5	
56-23-5	Carbon tetrachloride	65.1	
107-06-2	1,2-Dichloroethane	50.9	
71-43-2	Benzene	52.0	
79-01-6	Trichloroethylene	57.2	
78-87-5	1,2-Dichloropropane	48.2	
74-95-3	Dibromomethane	50.7	
75-27-4	Bromodichloromethane	50.6	
10061-01-5	cis-1,3-Dichloropropylene	51.9	
108-10-1	4-Methyl-2-pentanone	184	
108-88-3	Toluene	50.1	
10061-02-6	trans-1,3-Dichloropropylene	46.6	
79-00-5	1,1,2-Trichloroethane	46.0	

FORM I VOA OLM03.0

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK01LCS

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

Matrix: (soil/water) SOIL Lab Sample ID: 1200846405

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 1J502LCSLA

Level: (low/med) LOW Date Received: 05/13/05

% Moisture: not dec. _____ Date Analyzed: 05/13/05

GC Column: RTX-VOLATILES ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
142-28-9	1,3-Dichloropropane	47.6	
591-78-6	2-Hexanone	228	
127-18-4	Tetrachloroethylene	63.4	
124-48-1	Dibromochloromethane	48.6	
106-93-4	1,2-Dibromoethane	47.5	
108-90-7	Chlorobenzene	51.0	
630-20-6	1,1,1,2-Tetrachloroethane	53.8	
100-41-4	Ethylbenzene	50.8	
95-47-6	o-Xylene	55.3	
	m,p-Xylenes	117	
100-42-5	Styrene	56.2	
75-25-2	Bromoform	50.2	
98-82-8	Isopropylbenzene	48.4	
79-34-5	1,1,2,2-Tetrachloroethane	46.7	
96-18-4	1,2,3-Trichloropropane	50.1	
108-86-1	Bromobenzene	53.4	
103-65-1	n-Propylbenzene	53.6	
95-49-8	2-Chlorotoluene	51.8	
108-67-8	1,3,5-Trimethylbenzene	52.6	
95-63-6	1,2,4-Trimethylbenzene	51.5	
106-43-4	4-Chlorotoluene	51.2	
98-06-6	tert-Butylbenzene	54.7	
135-98-8	sec-Butylbenzene	53.5	
99-87-6	4-Isopropyltoluene	55.0	
541-73-1	1,3-Dichlorobenzene	53.7	
106-46-7	1,4-Dichlorobenzene	52.8	
104-51-8	n-Butylbenzene	55.1	
95-50-1	1,2-Dichlorobenzene	50.5	
96-12-8	1,2-Dibromo-3-chloropropane	42.5	

FORM I VOA OLM03.0

General Engineering Laboratories, LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/051305v1.b/1j502LCSLA.d
Lab Smp Id: 1200846405 Client Smp ID: VBLK01LCS
Inj Date : 13-MAY-2005 16:00
Operator : PAM Inst ID: VOA1.i
Smp Info : |1200846405|425470|1|VOAF|1|
Misc Info : CCV 5mL N/A UVM050418-01D+IVM050512-01
Comment :
Method : /chem/VOA1.i/051305v1.b/VOA1-8260B-041905.m
Meth Date : 17-May-2005 22:45 tcl Quant Type: ISTD
Cal Date : 20-APR-2005 05:01 Cal File: 1g228.d
Als bottle: 1 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 3194S.sub
Target Version: 3.50
Processing Host: kilroy

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	0.00000	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
* 40 Fluorobenzene	96	5.179	5.179	(1.000)	783577	50.0000	
* 61 Chlorobenzene-d5	117	8.213	8.213	(1.000)	577925	50.0000	
* 86 1,4-Dichlorobenzene-d4	152	10.900	10.900	(1.000)	303756	50.0000	
$ 35 Dibromofluoromethane	113	4.473	4.473	(0.864)	204839	48.4969	48.5
$ 47 Toluene-d8	98	6.658	6.658	(0.811)	782159	44.9363	44.9
$ 71 Bromofluorobenzene	95	9.570	9.570	(0.878)	332952	43.2385	43.2
3 Dichlorodifluoromethane	85	1.896	1.896	(0.366)	196275	44.2511	44.2
4 Chloromethane	50	2.021	2.021	(0.390)	185072	36.3820	36.4
5 Vinyl chloride	62	2.123	2.123	(0.410)	186824	40.9419	40.9
6 Bromomethane	94	2.379	2.379	(0.459)	159542	59.0270	59.0
7 Chloroethane	64	2.406	2.406	(0.465)	145154	53.8191	53.8
8 Trichlorofluoromethane	101	2.636	2.636	(0.509)	279144	48.2671	48.3

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
11 1,1-Dichloroethylene	61	3.010	3.010	(0.581)	351201	51.3424	51.3
10 Acetone	43	2.828	2.828	(0.546)	484751	322.297	322
14 Carbon disulfide	76	3.346	3.346	(0.646)	2832855	215.900	216
17 Methylene chloride	84	3.261	3.261	(0.630)	218606	48.3012	48.3
21 trans-1,2-Dichloroethylene	96	3.501	3.501	(0.676)	221189	57.5776	57.6
22 1,1-Dichloroethane	63	3.763	3.763	(0.727)	414652	52.4196	52.4
31 cis-1,2-Dichloroethylene	96	4.206	4.206	(0.812)	244784	57.5183	57.5
32 Chloroform	83	4.329	4.329	(0.836)	400115	54.5925	54.6
37 1,2-Dichloroethane	62	4.938	4.938	(0.954)	320132	50.9114	50.9
30 2-Butanone	43	4.030	4.030	(0.778)	655410	252.228	252
36 1,1,1-Trichloroethane	97	4.676	4.676	(0.903)	336180	61.2413	61.2
87 1,4-Dichlorobenzene	146	10.932	10.932	(1.003)	543717	52.7545	52.8
85 1,3-Dichlorobenzene	146	10.831	10.831	(0.994)	549704	53.6904	53.7
90 1,2-Dichlorobenzene	146	11.279	11.279	(1.035)	492211	50.5131	50.5
33 Carbon tetrachloride	117	4.906	4.906	(0.947)	339580	65.1116	65.1
38 Benzene	78	5.002	5.002	(0.966)	916406	52.0415	52.0
39 Trichloroethylene	95	5.547	5.547	(1.071)	242623	57.1819	57.2
41 1,2-Dichloropropane	63	5.665	5.665	(1.094)	238501	48.2000	48.2
45 Bromodichloromethane	83	5.862	5.862	(1.132)	296572	50.5777	50.6
46 cis-1,3-Dichloropropylene	75	6.375	6.375	(1.231)	373475	51.9171	51.9
53 trans-1,3-Dichloropropylene	75	6.856	6.856	(0.835)	330684	46.5951	46.6
54 1,1,2-Trichloroethane	83	7.011	7.011	(0.854)	163519	46.0117	46.0
57 Dibromochloromethane	129	7.534	7.534	(0.917)	225453	48.5599	48.6
49 4-Methyl-2-pentanone	58	6.204	6.204	(0.755)	446377	184.022	184
50 Toluene	92	6.739	6.739	(0.820)	587351	50.0888	50.1
56 Tetrachloroethylene	164	7.433	7.433	(0.905)	211213	63.4244	63.4
55 2-Hexanone	43	7.064	7.064	(0.860)	963425	228.429	228
59 1,2-Dibromoethane	107	7.753	7.753	(0.944)	194943	47.5400	47.5
62 Chlorobenzene	112	8.250	8.250	(1.005)	644044	51.0398	51.0
58 Ethylbenzene	91	8.341	8.341	(1.016)	1105048	50.7637	50.8
63 m,p-Xylenes	106	8.437	8.437	(1.027)	982976	117.152	117
65 Styrene	104	8.929	8.929	(1.087)	780263	56.1988	56.2
64 o-Xylene	106	8.913	8.913	(1.085)	444589	55.2788	55.3
67 Isopropylbenzene	105	9.340	9.340	(0.857)	1020130	48.3896	48.4
66 Bromoform	173	9.223	9.223	(0.846)	152247	50.1598	50.2
73 1,1,2,2-Tetrachloroethane	83	9.447	9.447	(0.867)	274149	46.6967	46.7
92 1,2-Dibromo-3-chloropropane	75	11.942	11.942	(1.096)	46070	42.4647	42.5(Q)
60 1,1,1,2-Tetrachloroethane	131	8.298	8.298	(1.010)	230187	53.7848	53.8
34 1,1-Dichloropropene	75	4.810	4.810	(0.929)	331413	57.5158	57.5
25 2,2-Dichloropropane	77	4.196	4.196	(0.810)	326992	65.7247	65.7
80 4-Chlorotoluene	91	10.035	10.035	(0.921)	915599	51.1739	51.2
75 Bromobenzene	156	9.778	9.778	(0.897)	283630	53.4525	53.4
81 tert-Butylbenzene	119	10.414	10.414	(0.955)	939511	54.7432	54.7
83 sec-Butylbenzene	105	10.649	10.649	(0.977)	1276524	53.5087	53.5
76 n-Propylbenzene	91	9.810	9.810	(0.900)	1422817	53.6387	53.6
89 n-Butylbenzene	91	11.205	11.205	(1.028)	1040267	55.1060	55.1
13 Iodomethane	142	3.175	3.175	(0.613)	1810035	293.412	293

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
43 Dibromomethane	93	5.884	5.884	(1.136)	145450	50.6868	50.7
29 Bromochloromethane	128	4.436	4.436	(0.857)	117118	54.6163	54.6
84 4-Isopropyltoluene	119	10.799	10.799	(0.991)	1057589	54.9799	55.0
77 2-Chlorotoluene	91	9.970	9.970	(0.915)	887493	51.8335	51.8
52 1,3-Dichloropropane	76	7.267	7.267	(0.885)	331819	47.5843	47.6
78 1,3,5-Trimethylbenzene	105	10.003	10.003	(0.918)	966396	52.5838	52.6
74 1,2,3-Trichloropropane	110	9.613	9.613	(0.882)	81736	50.0622	50.1
79 1,2,4-Trimethylbenzene	105	10.446	10.446	(0.958)	970156	51.4899	51.5

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: /chem/VOA1.i/051305v1.b/1j502LCSLA.d
Date : 13-MAY-2005 16:00
Client ID: VBLK01LCS
Sample Info: 1120084640514254701111VOAF111
Column phase: RTX-Volatiles

Instrument: VOA1.i
Operator: PQM
Column diameter: 0.25

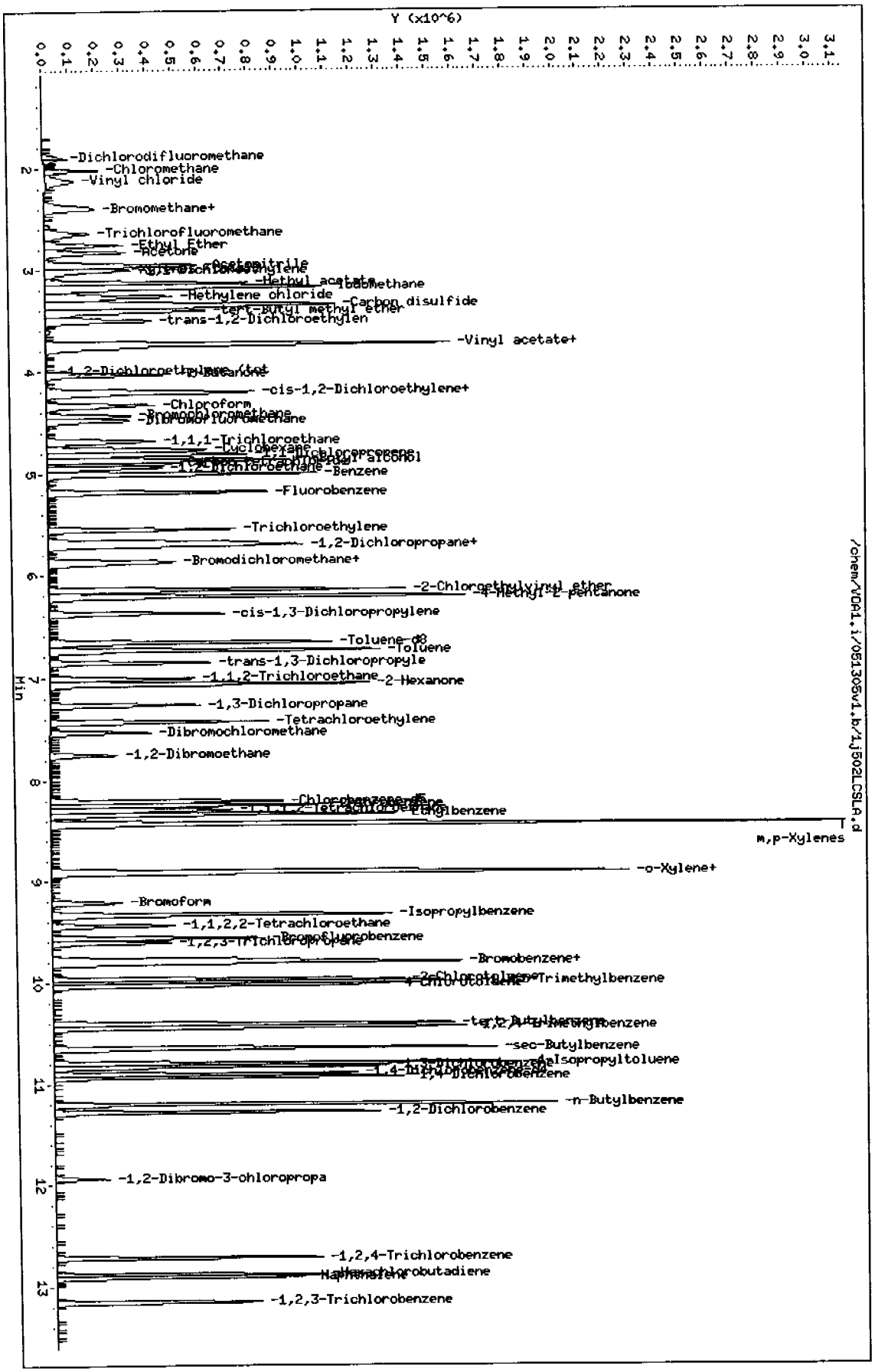

Page 1

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK01SLCS

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

Matrix: (soil/water) SOIL Lab Sample ID: 1200846375

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 1J504SLCSLA

Level: (low/med) LOW Date Received: 05/13/05

% Moisture: not dec. _____ Date Analyzed: 05/13/05

GC Column: RTX-VOLATILES ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-71-8	Dichlorodifluoromethane	1.0	U
74-87-3	Chloromethane	1.0	U
75-01-4	Vinyl chloride	1.0	U
74-83-9	Bromomethane	1.0	U
75-00-3	Chloroethane	1.0	U
75-69-4	Trichlorofluoromethane	1.0	U
75-35-4	1,1-Dichloroethylene	1.0	U
67-64-1	Acetone	5.0	U
76-13-1	Trichlorotrifluoroethane	249	
74-88-4	Iodomethane	5.0	U
75-15-0	Carbon disulfide	5.0	U
75-09-2	Methylene chloride	5.0	U
156-60-5	trans-1,2-Dichloroethylene	1.0	U
75-34-3	1,1-Dichloroethane	1.0	U
78-93-3	2-Butanone	5.0	U
156-59-2	cis-1,2-Dichloroethylene	1.0	U
594-20-7	2,2-Dichloropropane	1.0	U
74-97-5	Bromochloromethane	1.0	U
67-66-3	Chloroform	1.0	U
71-55-6	1,1,1-Trichloroethane	1.0	U
563-58-6	1,1-Dichloropropene	1.0	U
56-23-5	Carbon tetrachloride	1.0	U
107-06-2	1,2-Dichloroethane	1.0	U
71-43-2	Benzene	1.0	U
79-01-6	Trichloroethylene	1.0	U
78-87-5	1,2-Dichloropropane	1.0	U
74-95-3	Dibromomethane	1.0	U
75-27-4	Bromodichloromethane	1.0	U
10061-01-5	cis-1,3-Dichloropropylene	1.0	U
108-10-1	4-Methyl-2-pentanone	5.0	U
108-88-3	Toluene	1.0	U
10061-02-6	trans-1,3-Dichloropropylene	1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK01SLCS

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

Matrix: (soil/water) SOIL Lab Sample ID: 1200846375

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 1J504SLCSLA

Level: (low/med) LOW Date Received: 05/13/05

% Moisture: not dec. _____ Date Analyzed: 05/13/05

GC Column: RTX-VOLATILES ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
142-28-9	1,3-Dichloropropane	1.0	U
591-78-6	2-Hexanone	5.0	U
127-18-4	Tetrachloroethylene	1.0	U
124-48-1	Dibromochloromethane	1.0	U
106-93-4	1,2-Dibromoethane	1.0	U
108-90-7	Chlorobenzene	1.0	U
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U
100-41-4	Ethylbenzene	1.0	U
95-47-6	o-Xylene	1.0	U
	m,p-Xylenes	2.0	U
100-42-5	Styrene	1.0	U
75-25-2	Bromoform	1.0	U
98-82-8	Isopropylbenzene	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U
96-18-4	1,2,3-Trichloropropane	1.0	U
108-86-1	Bromobenzene	1.0	U
103-65-1	n-Propylbenzene	1.0	U
95-49-8	2-Chlorotoluene	1.0	U
108-67-8	1,3,5-Trimethylbenzene	1.0	U
95-63-6	1,2,4-Trimethylbenzene	1.0	U
106-43-4	4-Chlorotoluene	1.0	U
98-06-6	tert-Butylbenzene	1.0	U
135-98-8	sec-Butylbenzene	1.0	U
99-87-6	4-Isopropyltoluene	1.0	U
541-73-1	1,3-Dichlorobenzene	1.0	U
106-46-7	1,4-Dichlorobenzene	1.0	U
104-51-8	n-Butylbenzene	1.0	U
95-50-1	1,2-Dichlorobenzene	1.0	U
96-12-8	1,2-Dibromo-3-chloropropane	1.0	U

FORM I VOA OLM03.0

General Engineering Laboratories, LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/051305v1.b/1j504SLCSLA.d
Lab Smp Id: 1200846375 Client Smp ID: VBLK01SLCS
Inj Date : 13-MAY-2005 16:50
Operator : PAM Inst ID: VOA1.i
Smp Info : |1200846375|425470|1|VOAF|1|
Misc Info : SHORT 5mL N/A VBLK01SLCS UVM050309-01B
Comment :
Method : /chem/VOA1.i/051305v1.b/VOA1-8260B-041905.m
Meth Date : 17-May-2005 22:45 tcl Quant Type: ISTD
Cal Date : 20-APR-2005 05:01 Cal File: 1g228.d
Als bottle: 3 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 3194S.sub
Target Version: 3.50
Processing Host: kilroy

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	0.00000	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
* 40 Fluorobenzene	96	5.179	5.179	(1.000)	833330	50.0000	
* 61 Chlorobenzene-d5	117	8.208	8.213	(1.000)	583999	50.0000	
* 86 1,4-Dichlorobenzene-d4	152	10.900	10.900	(1.000)	271020	50.0000	
$ 35 Dibromofluoromethane	113	4.474	4.473	(0.864)	233369	51.9529	52.0
$ 47 Toluene-d8	98	6.659	6.658	(0.811)	858381	48.8025	48.8
$ 71 Bromofluorobenzene	95	9.570	9.570	(0.878)	325544	47.3830	47.4
12 Trichlorotrifluoroethane	85	2.930	2.930	(0.566)	371175	249.297	249

Data File: /chem/VOA1.i/051305v1.b/1j504SLCSLA.d
Date : 13-MAY-2005 16:50
Client ID: VBLK01SLCS
Sample Info: 1120084637514254701111VOAF111
Column phase: RTX-Volatiles

Instrument: VOA1.i
Operator: PAH
Column diameter: 0.25

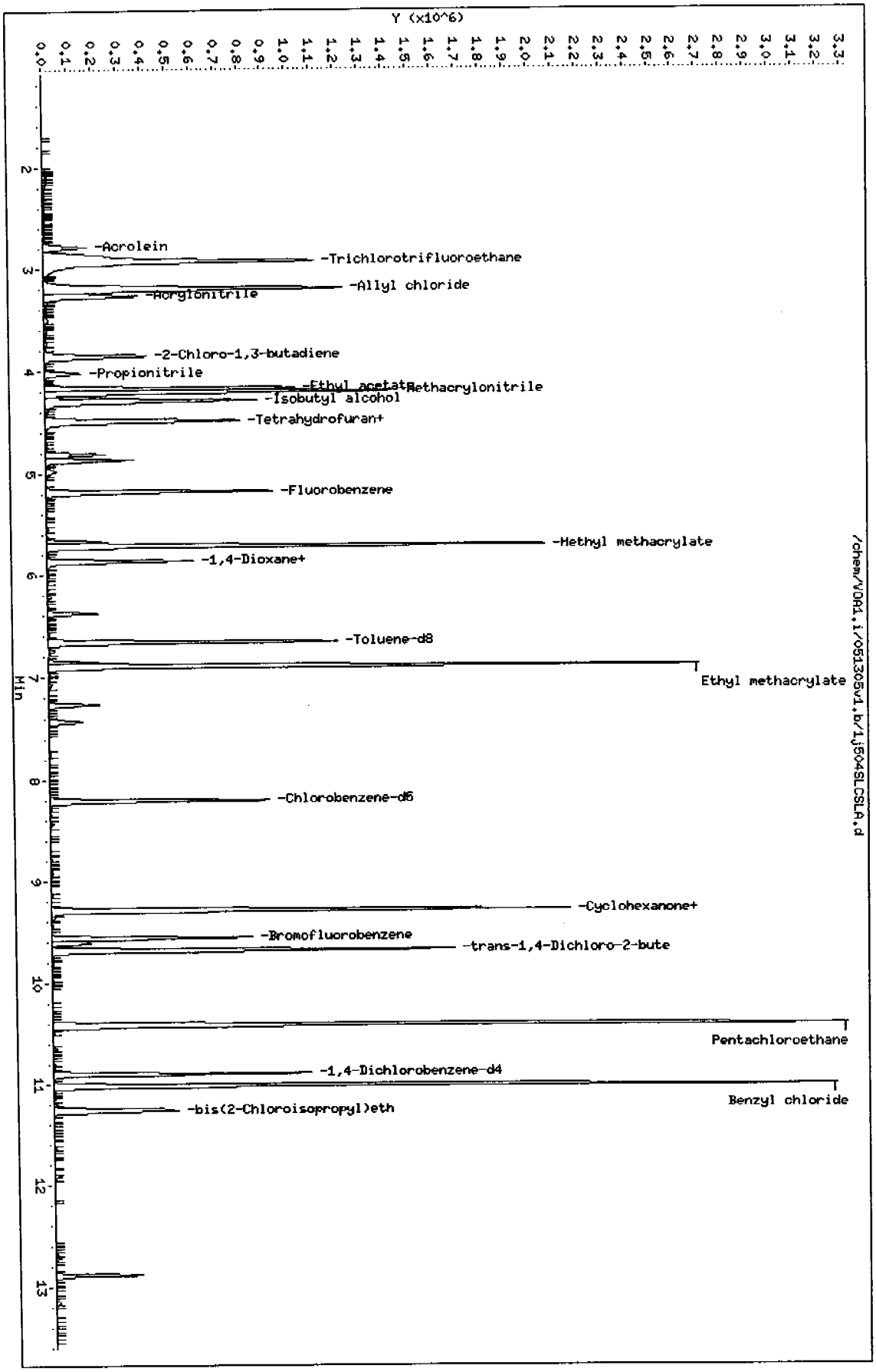

Page 1

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK01LCSD

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

Matrix: (soil/water) SOIL Lab Sample ID: 1200846406

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 1J505LCSDLA

Level: (low/med) LOW Date Received: 05/13/05

% Moisture: not dec. _____ Date Analyzed: 05/13/05

GC Column: RTX-VOLATILES ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-71-8	Dichlorodifluoromethane	42.2	
74-87-3	Chloromethane	34.7	
75-01-4	Vinyl chloride	38.1	
74-83-9	Bromomethane	61.2	
75-00-3	Chloroethane	53.8	
75-69-4	Trichlorofluoromethane	47.1	
75-35-4	1,1-Dichloroethylene	50.9	
67-64-1	Acetone	324	
76-13-1	Trichlorotrifluoroethane	5.0	U
74-88-4	Iodomethane	293	
75-15-0	Carbon disulfide	219	
75-09-2	Methylene chloride	47.6	
156-60-5	trans-1,2-Dichloroethylene	58.0	
75-34-3	1,1-Dichloroethane	51.4	
78-93-3	2-Butanone	252	
156-59-2	cis-1,2-Dichloroethylene	55.9	
594-20-7	2,2-Dichloropropane	64.4	
74-97-5	Bromochloromethane	54.1	
67-66-3	Chloroform	54.7	
71-55-6	1,1,1-Trichloroethane	61.0	
563-58-6	1,1-Dichloropropene	57.9	
56-23-5	Carbon tetrachloride	65.0	
107-06-2	1,2-Dichloroethane	52.3	
71-43-2	Benzene	52.8	
79-01-6	Trichloroethylene	59.7	
78-87-5	1,2-Dichloropropane	50.1	
74-95-3	Dibromomethane	51.7	
75-27-4	Bromodichloromethane	50.9	
10061-01-5	cis-1,3-Dichloropropylene	53.5	
108-10-1	4-Methyl-2-pentanone	175	
108-88-3	Toluene	49.8	
10061-02-6	trans-1,3-Dichloropropylene	45.7	
79-00-5	1,1,2-Trichloroethane	44.7	

FORM I VOA OLM03.0

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK01LCSD

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

Matrix: (soil/water) SOIL Lab Sample ID: 1200846406

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 1J505LCSDLA

Level: (low/med) LOW Date Received: 05/13/05

% Moisture: not dec. _____ Date Analyzed: 05/13/05

GC Column: RTX-VOLATILES ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
142-28-9	1,3-Dichloropropane	50.2	
591-78-6	2-Hexanone	217	
127-18-4	Tetrachloroethylene	64.9	
124-48-1	Dibromochloromethane	50.4	
106-93-4	1,2-Dibromoethane	50.3	
108-90-7	Chlorobenzene	53.6	
630-20-6	1,1,1,2-Tetrachloroethane	57.7	
100-41-4	Ethylbenzene	53.9	
95-47-6	o-Xylene	53.6	
	m,p-Xylenes	110	
100-42-5	Styrene	53.9	
75-25-2	Bromoform	50.7	
98-82-8	Isopropylbenzene	48.4	
79-34-5	1,1,2,2-Tetrachloroethane	46.7	
96-18-4	1,2,3-Trichloropropane	50.8	
108-86-1	Bromobenzene	54.0	
103-65-1	n-Propylbenzene	52.7	
95-49-8	2-Chlorotoluene	51.6	
108-67-8	1,3,5-Trimethylbenzene	52.5	
95-63-6	1,2,4-Trimethylbenzene	52.1	
106-43-4	4-Chlorotoluene	51.0	
98-06-6	tert-Butylbenzene	54.3	
135-98-8	sec-Butylbenzene	53.1	
99-87-6	4-Isopropyltoluene	56.5	
541-73-1	1,3-Dichlorobenzene	53.4	
106-46-7	1,4-Dichlorobenzene	53.3	
104-51-8	n-Butylbenzene	55.0	
95-50-1	1,2-Dichlorobenzene	51.5	
96-12-8	1,2-Dibromo-3-chloropropane	42.9	

FORM I VOA OLM03.0

General Engineering Laboratories, LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/051305v1.b/1j505LCSDLA.d
Lab Smp Id: 1200846406 Client Smp ID: VBLK01LCSD
Inj Date : 13-MAY-2005 18:06
Operator : PAM Inst ID: VOA1.i
Smp Info : |1200846406|425470|1|VOAF|1|
Misc Info : CCV 5mL N/A UVM050418-01D+IVM050512-01
Comment :
Method : /chem/VOA1.i/051305v1.b/VOA1-8260B-041905.m
Meth Date : 17-May-2005 22:45 tcl Quant Type: ISTD
Cal Date : 20-APR-2005 05:01 Cal File: 1g228.d
Als bottle: 4 QC Sample: LCSD
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 3194S.sub
Target Version: 3.50
Processing Host: kilroy

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	0.00000	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
* 40 Fluorobenzene	96	5.180	5.179	(1.000)	713840	50.0000	
* 61 Chlorobenzene-d5	117	8.209	8.213	(1.000)	549160	50.0000	
* 86 1,4-Dichlorobenzene-d4	152	10.901	10.900	(1.000)	282161	50.0000	
$ 35 Dibromofluoromethane	113	4.480	4.473	(0.865)	203768	52.9564	53.0
$ 47 Toluene-d8	98	6.660	6.658	(0.811)	820413	49.6030	49.6
$ 71 Bromofluorobenzene	95	9.571	9.570	(0.878)	337906	47.2403	47.2
3 Dichlorodifluoromethane	85	1.904	1.896	(0.368)	170518	42.2334	42.2
4 Chloromethane	50	2.017	2.021	(0.389)	160722	34.6819	34.7
5 Vinyl chloride	62	2.124	2.123	(0.410)	158473	38.1216	38.1
6 Bromomethane	94	2.380	2.379	(0.460)	150540	61.1930	61.2
7 Chloroethane	64	2.407	2.406	(0.465)	132319	53.8531	53.8
8 Trichlorofluoromethane	101	2.642	2.636	(0.510)	248140	47.0978	47.1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
11 1,1-Dichloroethylene	61	3.011	3.010	(0.581)	317418	50.9369	50.9
10 Acetone	43	2.829	2.828	(0.546)	443360	323.575	324(R)
14 Carbon disulfide	76	3.347	3.346	(0.646)	2623395	219.469	219
17 Methylene chloride	84	3.262	3.261	(0.630)	196092	47.5594	47.6
21 trans-1,2-Dichloroethylene	96	3.508	3.501	(0.677)	202986	58.0012	58.0
22 1,1-Dichloroethane	63	3.769	3.763	(0.728)	370794	51.4545	51.4
31 cis-1,2-Dichloroethylene	96	4.202	4.206	(0.811)	216746	55.9055	55.9
32 Chloroform	83	4.330	4.329	(0.836)	365419	54.7294	54.7
37 1,2-Dichloroethane	62	4.945	4.938	(0.955)	299438	52.2725	52.3
30 2-Butanone	43	4.031	4.030	(0.778)	597457	252.387	252
36 1,1,1-Trichloroethane	97	4.678	4.676	(0.903)	305342	61.0576	61.0
87 1,4-Dichlorobenzene	146	10.933	10.932	(1.003)	509943	53.2643	53.3
85 1,3-Dichlorobenzene	146	10.832	10.831	(0.994)	508190	53.4345	53.4
90 1,2-Dichlorobenzene	146	11.280	11.279	(1.035)	466436	51.5314	51.5
33 Carbon tetrachloride	117	4.907	4.906	(0.947)	308651	64.9628	65.0
38 Benzene	78	5.003	5.002	(0.966)	847052	52.8023	52.8
39 Trichloroethylene	95	5.548	5.547	(1.071)	230730	59.6913	59.7
41 1,2-Dichloropropane	63	5.671	5.665	(1.095)	225896	50.1125	50.1
45 Bromodichloromethane	83	5.864	5.862	(1.132)	271932	50.9062	50.9
46 cis-1,3-Dichloropropylene	75	6.376	6.375	(1.231)	350497	53.4828	53.5
53 trans-1,3-Dichloropropylene	75	6.857	6.856	(0.835)	308516	45.7485	45.7
54 1,1,2-Trichloroethane	83	7.012	7.011	(0.854)	151035	44.7250	44.7
57 Dibromochloromethane	129	7.536	7.534	(0.918)	222595	50.4557	50.4
49 4-Methyl-2-pentanone	58	6.205	6.204	(0.756)	403523	175.069	175
50 Toluene	92	6.740	6.739	(0.821)	554443	49.7591	49.8
56 Tetrachloroethylene	164	7.434	7.433	(0.906)	205406	64.9115	64.9(R)
55 2-Hexanone	43	7.066	7.064	(0.861)	870807	217.284	217
59 1,2-Dibromoethane	107	7.755	7.753	(0.945)	195980	50.2963	50.3
62 Chlorobenzene	112	8.251	8.250	(1.005)	642975	53.6241	53.6
58 Ethylbenzene	91	8.342	8.341	(1.016)	1115712	53.9382	53.9
63 m,p-Xylenes	106	8.438	8.437	(1.028)	878622	110.200	110
65 Styrene	104	8.930	8.929	(1.088)	710720	53.8713	53.9
64 o-Xylene	106	8.914	8.913	(1.086)	409830	53.6261	53.6
67 Isopropylbenzene	105	9.341	9.340	(0.857)	948464	48.4334	48.4
66 Bromoform	173	9.224	9.223	(0.846)	142847	50.6648	50.7
73 1,1,2,2-Tetrachloroethane	83	9.448	9.447	(0.867)	254771	46.7173	46.7
92 1,2-Dibromo-3-chloropropane	75	11.943	11.942	(1.096)	43214	42.8808	42.9(Q)
60 1,1,1,2-Tetrachloroethane	131	8.300	8.298	(1.011)	234833	57.7444	57.7
34 1,1-Dichloropropene	75	4.811	4.810	(0.929)	304089	57.9295	57.9
25 2,2-Dichloropropane	77	4.197	4.196	(0.810)	291855	64.3932	64.4
80 4-Chlorotoluene	91	10.036	10.035	(0.921)	847403	50.9872	51.0
75 Bromobenzene	156	9.779	9.778	(0.897)	266178	54.0027	54.0
81 tert-Butylbenzene	119	10.410	10.414	(0.955)	866105	54.3283	54.3
83 sec-Butylbenzene	105	10.650	10.649	(0.977)	1177069	53.1160	53.1
76 n-Propylbenzene	91	9.806	9.810	(0.900)	1297957	52.6766	52.7
89 n-Butylbenzene	91	11.200	11.205	(1.027)	964000	54.9742	55.0
13 Iodomethane	142	3.176	3.175	(0.613)	1646123	292.910	293

Compounds	QUANT STG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
43 Dibromomethane	93	5.885	5.884	(1.136)	135266	51.7429	51.7
29 Bromochloromethane	128	4.437	4.436	(0.857)	105689	54.1035	54.1
84 4-Isopropyltoluene	119	10.800	10.799	(0.991)	1009489	56.4958	56.5
77 2-Chlorotoluene	91	9.972	9.970	(0.915)	821383	51.6439	51.6
52 1,3-Dichloropropane	76	7.269	7.267	(0.885)	332341	50.1556	50.2
78 1,3,5-Trimethylbenzene	105	10.004	10.003	(0.918)	895617	52.4623	52.5
74 1,2,3-Trichloropropane	110	9.614	9.613	(0.882)	77044	50.8054	50.8(Q)
79 1,2,4-Trimethylbenzene	105	10.447	10.446	(0.958)	911272	52.0662	52.1

QC Flag Legend

Q - Qualifier signal failed the ratio test.
R - Spike/Surrogate failed recovery limits.

Data File: /chem/VOA1.i/051305v1.b/1j505LCSDLA.d
Date : 13-MAY-2005 18:06
Client ID: VBLK01LCSD
Sample Info: I120084640614254701|1|VOAF|1|
Column phase: RTX-Volatiles

Instrument: VOA1.i
Operator: PAM
Column diameter: 0.25

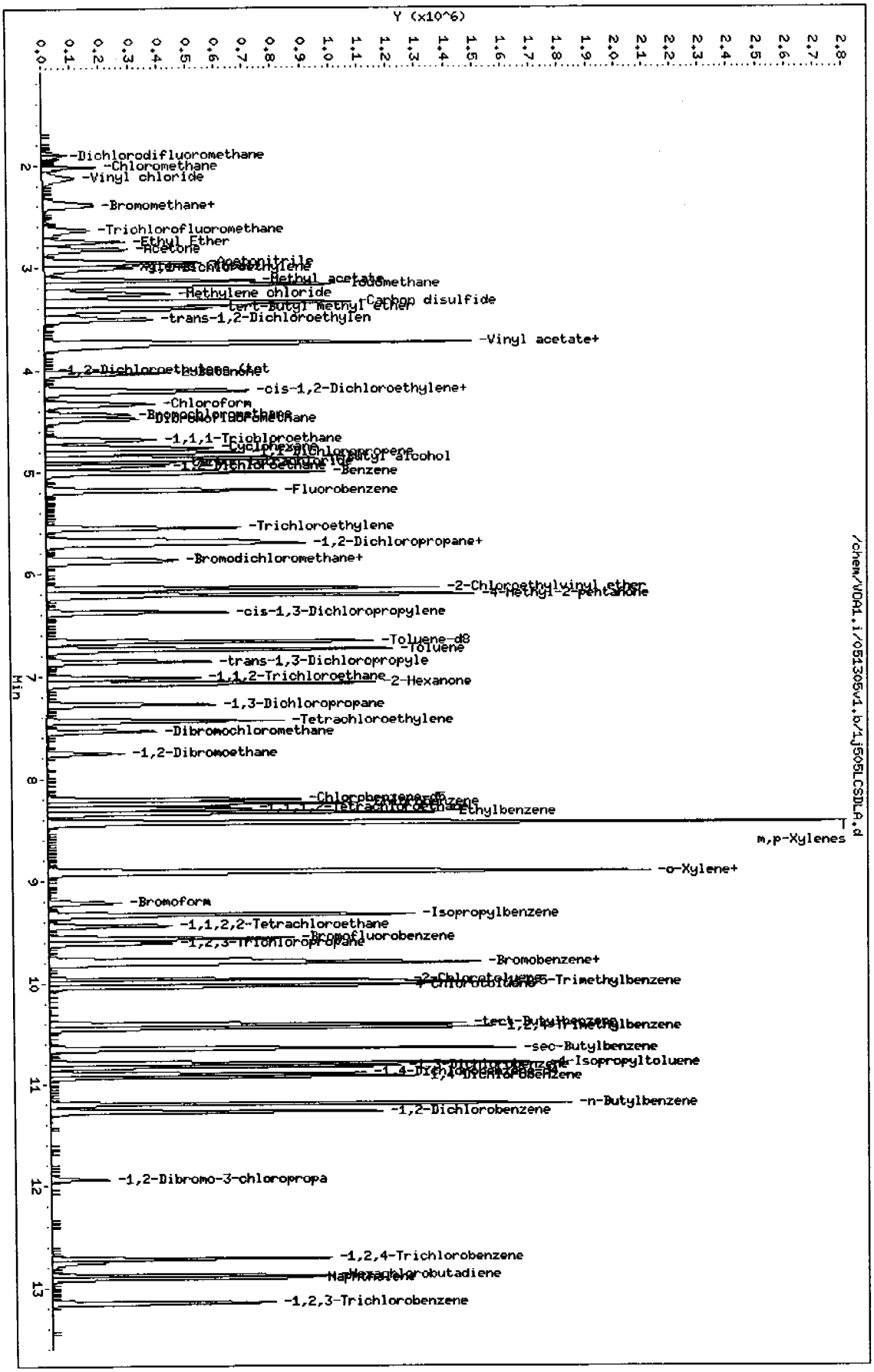

MISCELLANEOUS DATA

Prep Logbook

Volatile Organic Compounds (VOC) by Gas Chromatography/Mass Spectrometer

Batch ID: 425465 **Verified by:** _____

Analyst: Patricia Murphy

Method: SW846 5030

Lab SOP: GL-OA-E-038 REV# 9

Instrument: Balance B-001 SR-2

Sample ID	Run Date	Initial Volume (g)	Prepped Aliquot / Aliquot (mL/g)	Final Volume (mL)	pH Check
1200846375 LCS	13-MAY-2005 15:30:00	5	1	5	
1200846405 LCS	13-MAY-2005 15:30:00	5	1	5	
1200846406 LCSD	13-MAY-2005 15:30:00	5	1	5	
135805003	13-MAY-2005 18:32:00	4.4	1.13636	5	
135805004	13-MAY-2005 18:33:00	4.8	1.04167	5	
135805005	13-MAY-2005 18:34:00	5	1	5	
135831001	13-MAY-2005 18:35:00	4.4	1.13636	5	
135831002	13-MAY-2005 18:36:00	4.5	1.11111	5	
135831003	13-MAY-2005 18:37:00	4.9	1.02041	5	
135831004	13-MAY-2005 18:38:00	5.3	0.9434	5	
135831005	13-MAY-2005 18:39:00	5	1	5	
136007001	13-MAY-2005 18:40:00	3.8	1.31579	5	
136007003	13-MAY-2005 18:42:00	5	1	5	
136326001	13-MAY-2005 18:43:00	4.8	1.04167	5	
136326002	13-MAY-2005 18:44:00	4.6	1.08696	5	
1200846374 MB	13-MAY-2005 19:21:00	5	1	5	
1200849218 MB	16-MAY-2005 16:00:00	5	1	5	
1200849219 LCS	16-MAY-2005 16:00:00	5	1	5	
1200849220 LCS	16-MAY-2005 16:00:00	5	1	5	
1200849221 LCSD	16-MAY-2005 16:00:00	5	1	5	
136007002	16-MAY-2005 22:02:00	3.6	1.38889	5	
136326003	16-MAY-2005 22:03:00	5	1	5	

Type	Sample Id	Description	Serial Number	Spike Amt	Units

Comments:

General Engineering Laboratories
Form GEL-XXX
Rev. 06/02

NCR Report No.: 202717
Revision No.: 2

COMPANY – WIDE NONCONFORMANCE REPORT

Mo.Day Yr. 17-MAY-05	**Division:** Federal	**Quality Criteria:** Specifications	**Type:** Process
Instrument Type: VOA GC/MS	**Test / Method:** SW846 8260B	**Matrix Type:** Solid	**Client Code:** LANL
Batch ID: 425470	**Sample Numbers:** See Below		

Potentially affected work order(s)(SDG): 135805(3194S),135831(3202S),136007(3205S),136326(3228S)

Application Issues:

Failed Recovery for LCS/MS/PS

Specification and Requirements Nonconformance Description:	**NRG Disposition:**
Laboratory Control Sample (LCS) Recovery The laboratory control samples did not recover all spiking analytes within the acceptance limits.	The failures were less than 5% of the requested analyte list. This satisfies the client criteria. Please see the Form III in the deliverable for a complete list of failures and the recovery limits.
Laboratory Control Sample Duplicate (LCSD) Recovery The laboratory control sample duplicates did not recover all spiking analytes within the acceptance limits.	The failures were less than 5% of the requested analyte list. This satisfies the client criteria. Please see the Form III in the deliverable for a complete list of failures and the recovery limits.

Originator's Name:

Tammy Woodie 18-MAY-05

Data Validator/Group Leader:

Erin Haubert 19-MAY-05

Quality Review:

Director:

General Engineering Laboratories, LLC
Revision:11/22/04

ORGANIC RUN LOG - INSTRUMENT ID#VOA1

Date: 4/19/05 Method 8260 Operator: PAM

REVIEWED BY: EHL
DATE: 4/21/05

HARDWARE CONFIGURATION & METHOD CONDITIONS SUMMARY No# 1

Daily Instrument Readings:
Multiplier Voltage: 1494

CALIBRATION & CC INFORMATION:

Initial Calibration Date: 4/19/05

(See pg. _____ for ICAL Std. Sci. Ids)

Sequence Number: 041905V1

Daily Standard Solution ID#		Volume Added for Purge (ul) Blk/ Smpl	CCV	MS/ LCS	BFB
CCV	UVM050323-01D				
IS	UVM050325-01	1	1	1	
SS	UVM050325-02	1		1	
LCS/MS	N/A			5	
BFB	UVM050303-04				1
SHORT	UVM050309-01A		5		
DHEC	N/A			5	

Purge Amount	
5	Water Purge Vol:
5	Soil Purge Wt.
	Mid level ext. MeOH Vol:
	ul
	Methanol Lot #
x	Heated Purge

Analysis Date	Time	Data File	Lab Sample ID	Client	Batch #	Wt.(g) or Vol(ml/ul)	Dil. Factor	pH	AS Slot #	Matrix w or s	Analyst	Acceptable(√/X)	Comments
4/19/05	23:52	1G216.D	UVM050303-04		BFB2	1UL	1	N/A	4	W/S	PAM	O	
4/20/05	0:18	1G217.D	BLANK		ICAL	5ML	1	N/A	5	W/S	PAM	O	
4/20/05	0:44	1G218.D	UVM050216-01C	VSTD0005	ICAL	5ML	1	N/A	6	W/S	PAM	O	UVM050216-01C ✓
4/20/05	1:09	1G219.D	W1VM050419-01	VSTD001	ICAL	5ML	1	N/A	7	W/S	PAM	O	UVM050216-02C+UVM050314-02D ✓
4/20/05	1:35	1G220.D	W1VM050419-02	VSTD002	ICAL	5ML	1	N/A	8	W/S	PAM	O	UVM050216-03C+UVM050314-03D ✓
4/20/05	2:01	1G221.D	W1VM050419-03	VSTD005	ICAL	5ML	1	N/A	9	W/S	PAM	O	UVM050216-04C+UVM050314-04D ✓
4/20/05	2:27	1G222.D	W1VM050419-04	VSTD010	ICAL	5ML	1	N/A	10	W/S	PAM	O	UVM050216-05C+UVM050314-05D ✓
4/20/05	2:53	1G223.D	W1VM050419-05	VSTD020	ICAL	5ML	1	N/A	11	W/S	PAM	O	UVM050216-06C+UVM050314-06D ✓
4/20/05	3:18	1G224.D	W1VM050419-06	VSTD050	ICAL	5ML	1	N/A	12	W/S	PAM	O	UVM050216-07C+UVM050314-07D ✓
4/20/05	3:44	1G225.D	W1VM050419-07	VSTD100	ICAL	5ML	1	N/A	13	W/S	PAM	O	UVM050216-08C+UVM050314-08D ✓
4/20/05	4:10	1G226.D	BLANK		ICAL	5ML	1	N/A	14	W/S	PAM	O	
4/20/05	4:36	1G227.D	UVM050408-01A		ICAL	5ML	1	N/A	15	W/S	PAM	O	
4/20/05	5:01	1G228.D	UVM050408-02A		ICAL	5ML	1	N/A	16	W/S	PAM	O	
4/20/05	5:27	1G229.D	UVM050408-03A		ICAL	5ML	1	N/A	17	W/S	PAM	O	
4/20/05	5:53	1G230.D	UVM050408-04A		ICAL	5ML	1	N/A	18	W/S	PAM	O	
4/20/05	6:19	1G231.D	UVM050408-05A		ICAL	5ML	1	N/A	19	W/S	PAM	O	
4/20/05	6:45	1G232.D	UVM050408-06A		ICAL	5ML	1	N/A	20	W/S	PAM	O	
4/20/05	7:10	1G233.D	UVM050408-07A		ICAL	5ML	1	N/A	21	W/S	PAM	O	
4/20/05	7:36	1G234.D	BLANK		ICAL	5ML	1	N/A	22	W/S	PAM	O	
4/20/05	8:02	1G235.D	W1VM050419-08	VSTD050	ICV	5ML	1	N/A	23	W/S	PAM	O	
4/20/05	8:28	1G236.D	UVM050323-01D	VSTD050	ICV	5ML	1	N/A	24	W/S	PAM	X	UVM050418-01A+IV050414-
4/20/05	8:53	1G237.D	UVM050309-01A	VSTD250S	ICVS	5ML	1	N/A	25	W/S	PAM	O	
4/20/05	9:19	1G238.D							26	W/S	PAM	O	

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General ineering Laboratories, LLC
Revision. . . /22/04

ORGANIC RUN LOG - RUMENT ID#VOA1

Date: 5/13/05 Method 8260B Operator: PAM

REVIEWED BY: SAB
DATE: 5-17-05

HARDWARE CONFIGURATION & METHOD CONDITIONS SUMMARY No# 1

Daily Instrument Readings:
Multiplier Voltage: 1706

CALIBRATION & CC INFORMATION:

Initial Calibration Date: 4/19/05

(See pg. 8 for ICAL Std. Sci. Ids)

Sequence Number: 051305V1

Daily Standard	Solution ID#	Volume Added for Purge (ul) Blk/ Smpl	CCV	MS/ LCS	BFB
CCV	W1VM050513-01		5+5		
IS	UVM050325-01	1	1	1	
SS	UVM050325-02	1	1	1	
LCS/MS	W1VM050513-01			5+5	
BFB	UVM050303-04				1
SHORT	UVM050309-01B		5		
DHEC	N/A				

Purge Amount

	Water Purge Vol:
5	Soil Purge Wt.
	Mid level ext. MeOH Vol:
	ul
	Methanol Lot #
x	Heated Purge

Analysis Date	Time	Data File	Lab Sample ID	Client	Batch #	Wt.(g) or Vol(ml/ul)	Dil. Factor	pH	AS Slot #	Matrix w or s	Analyst	Acceptable (O/X)	Comments
5/13/05	15:47	1J501.D	UVM050303-04	N/A	BFB	N/A	1	N/A	100	s	PAM	O	
5/13/05	16:00	1J502.D	W1VM050513-01	N/A	CCVLCS	N/A	1	N/A	1	s	PAM	O	UVM050418-01D+IVM050512-01
5/13/05	16:25	1J503.D	UVM050427-01D	N/A	CCVLCS	N/A	1	N/A	2	s	PAM	X	
5/13/05	16:50	1J504.D	UVM050309-01B	N/A	SHORT	N/A	1	N/A	3	s	PAM	O	
5/13/05	18:06	1J505.D	W1VM050513-01	N/A	LCSD	N/A	1	N/A	4	s	PAM	O	UVM050418-01D+IVM050512-01
5/13/05	18:31	1J506.D	BLANK	N/A	BLANK	N/A	1	N/A	5	s	PAM	X	CLEAN UP BLANK
5/13/05	18:56	1J507.D	120083----	N/A	42----	N/A	1	N/A	6	s	PAM	X	VBLK01
5/13/05	19:21	1J508.D	120083----	BLANK	42----	5mL	1	N/A	7	s	PAM	O	VBLK01
5/13/05	19:46	1J509.D	135752007	DMAX	424808	3.4G	1	N/A	8	s	PAM	O	last IS fails all SS pass confirmed by 1J316
5/13/05	20:11	1J510.D	BLANK	BLANK	BLANK	5mL	1	N/A	9	s	PAM	X	CLEAN UP BLANK
5/13/05	20:36	1J511.D	BLANK	BLANK	BLANK	5mL	1	N/A	10	s	PAM	X	CLEAN UP BLANK
5/13/05	21:01	1J512.D	BLANK	BLANK	BLANK	5mL	1	N/A	11	s	PAM	X	CLEAN UP BLANK
5/13/05	21:26	1J513.D	135805005	LANL	425470	5.0G	1	N/A	12	s	PAM	O	
5/13/05	21:51	1J514.D	135831005	LANL	425470	5G	1	N/A	13	s	PAM	O	
5/13/05	22:16	1J515.D	136007003	LANL	425470	5G	1	N/A	14	s	PAM	O	
5/13/05	22:42	1J516.D	136326003	LANL	425470	5G	1	N/A	15	s	PAM	X	DBFM high
5/13/05	23:07	1J517.D	135805003	LANL	425470	4.4G	1	N/A	16	s	PAM	O	
5/13/05	23:32	1J518.D	135805004	LANL	425470	4.8G	1	N/A	17	s	PAM	O	
5/13/05	23:57	1J519.D	135831001	LANL	425470	4.4G	1	N/A	18	s	PAM	O	
5/14/05	0:22	1J520.D	135831002	LANL	425470	4.5G	1	N/A	19	s	PAM	X	IS and SS failures
5/14/05	0:47	1J521.D	135831003	LANL	425470	4.9G	1	N/A	20	s	PAM	O	
5/14/05	1:12	1J522.D	135831004	LANL	425470	5.3G	1	N/A	21	s	PAM	O	
5/14/05	1:37	1J523.D	136007001	LANL	425470	3.8G	1	N/A	22	s	PAM	O	
5/14/05	2:02	1J524.D	136007002	LANL	425470	3.9G	1	N/A	23	s	PAM	X	DBFM high
5/14/05	2:27	1J525.D	136326001	LANL	425470	4.8G	1	N/A	24	s	PAM	O	
5/14/05	2:52	1J526.D	136326002	LANL	425470	4.6G	1	N/A	25	s	PAM	O	

General Engineering Laboratories, LLC
Revision:11/22/04

ORGANIC RUN LOG - INSTRUMENT ID#VOA5

Date: 5/16/2005 Method 8260B Operator: JEB

REVIEWED BY: _____
DATE: _____

HARDWARE CONFIGURATION & METHOD CONDITIONS SUMMARY No# 1

Daily Instrument Readings:
Multiplier Voltage: 2002

CALIBRATION & CC INFORMATION:

Initial Calibration Date: 4/28/2005

(See pg. 2 for ICAL Std. Sci. Ids)

Sequence Number: 051605V5

Daily Standard

	Solution ID#	Volume Added for Purge (ul) Blk/ Smpl	CCV	MS/ LCS	BFB
CCV	UVM050427-01E		5		
IS	UVM050412-01	1	1	1	
SS	UVM050412-02	1	1	1	
LCS/MS	UVM050427-01E			5	
BFB	UVM050412-02				1
SHORT	UVM050429-01A		5		
DHEC	UVM050415-01D			5	

Purge Amount

5	Water Purge Vol:
5	Soil Purge Wt.
	Mid level ext. MeOH Vol:
	ul
	Methanol Lot #
x	Heated Purge

Analysis Date Time	Data File	Lab Sample ID	Client	Batch #	Wt.(g) or Vol(ml/ul)	Dil. Factor	pH	AS Slot #	Matrix w or s	Analyst	Acceptable (√/X)	Comments
5/16/2005 10:56	5K102.D	1200----	BLANK	------	5mL	1	N/A	6	w	JEB	X	VBLK01
5/16/2005 11:23	5K103.D	bosh001	bosh	-------	100ul	50	N/A	7	w	JEB	X	
5/16/2005 11:50	5K104.D	bosh002	bosh	-------	100ul	50	N/A	8	w	JEB	X	
5/16/2005 12:17	5K105.D	bosh003	bosh	-------	100ul	50	N/A	9	w	JEB	X	
5/16/2005 12:44	5K106.D	bosh004	bosh	-------	100ul	50	N/A	10	w	JEB	X	
5/16/2005 13:11	5K107.D	bosh005	bosh	-------	100ul	50	N/A	11	w	JEB	X	
5/16/2005 19:02	5K108.D	UVM050412-02	N/A	BFB	N/A	1	N/A	100	w/s	JEB	O	
5/16/2005 19:17	5K109.D	UVM050427-01E	N/A	CCV	N/A	1	N/A	1	w/s	JEB	O	
5/16/2005 19:44	5K110.D	UVM050427-01E	N/A	CCV	N/A	1	N/A	2	w/s	JEB	O	
5/16/2005 20:11	5K111.D	UVM050429-01A	N/A	SHORT	N/A	1	N/A	3	w/s	JEB	O	
5/16/2005 20:38	5K112.D	UVM050415-01D	N/A	DHEC	N/A	1	N/A	4	w/s	JEB	O	
5/16/2005 21:05	5K113.D	BLANK	N/A	BLANK	N/A	1	N/A	5	w/s	JEB	X	CLEAN UP
5/16/2005 21:40	5K114.D	1200----	N/A	BLANK	N/A	1	N/A	6	w/s	JEB	O	VBLK01
5/16/2005 22:06	5K115.D	135906020	[redacted]	425712	5mL	1	pH2	7	w	JEB	O	
5/16/2005 22:33	5K116.D	135906021	[redacted]	425712	5mL	1	pH2	8	w	JEB	O	
5/16/2005 23:00	5K117.D	135906001	[redacted]	425712	5mL	1	pH2	9	w	JEB	O	
5/16/2005 23:26	5K118.D	135906014	[redacted]	425712	5mL	1	pH2	10	w	JEB	O	
5/16/2005 23:53	5K119.D	135906015	[redacted]	425712	5mL	1	pH2	11	w	JEB	O	
5/17/2005 0:20	5K120.D	135906016	[redacted]	425712	5mL	1	pH2	12	w	JEB	O	
5/17/2005 0:47	5K121.D	135906017	[redacted]	425712	5mL	1	pH2	13	w	JEB	O	
5/17/2005 1:14	5K122.D	135906018	[redacted]	425712	5mL	1	pH2	14	w	JEB	O	
5/17/2005 1:41	5K123.D	135906019	[redacted]	425712	5mL	1	pH2	15	w	JEB	O	
5/17/2005 2:08	5K124.D	135831002	LANL	425470	4.8G	1	N/A	16	s	JEB	X	confirms original analysis
5/17/2005 2:35	5K125.D	136007002	LANL	425470	3.6G	1	N/A	17	s	JEB	O	
5/17/2005 3:02	5K126.D	136326003	LANL	425470	5G	1	N/A	18	s	JEB	O	
5/17/2005 3:29	5K127.D	136033001	[redacted]	425842	5mL	1	pH2	19	w	JEB	O	RR @10X
5/17/2005 3:56	5K128.D	136033002	[redacted]	425842	5mL	1	pH2	20	w	JEB	X	RR NEAT possible carryover
5/17/2005 4:23	5K129.D	136033003	[redacted]	425842	5mL	1	pH2	21	w	JEB	X	RR NEAT possible carryover

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GC/MS SEMIVOLATILE ANALYSIS

Semi-Volatile Case Narrative
Los Alamos National Laboratory (LANL)
SDG 3194S

Method/Analysis Information

Procedure:	**Semi-volatile Analysis by Gas Chromatograph/Mass Spectrometer**
Analytical Method:	SW846 8270C
Prep Method:	SW846 3550B
Analytical Batch Number:	423903
Prep Batch Number:	423902

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 8270C:

Sample ID	Client ID
135805001	RE03-05-59531
135805002	RE03-05-59541
135805003	RE03-05-59532
135805004	RE03-05-59542
1200842643	Method Blank (MB)
1200842644	Laboratory Control Sample (LCS)
1200842645	135831001(RE03-05-58926) Matrix Spike (MS)
1200842646	135831001(RE03-05-58926) Matrix Spike Duplicate (MSD)

Preparation/Analytical Method Verification

Procedures for preparation, analysis, and reporting of analytical data are documented by General Engineering Laboratories, LLC (GEL) as Standard Operating Procedure (SOP) GL-OA-E-009, Rev. 14.

Calibration Information

Due to software limitations, the files displayed at the beginning of the Form 6 are only the last files uploaded for each individual level. A complete listing of all files used in the current ICAL are shown on the Calibration History that is included with each Level 4 or higher package. The last file by date in each level is the one currently uploaded for that level.

Diphenylamine has now superseded N-Nitroso-diphenylamine as a CCC on Quantitation Reports, Initial Calibration Reports, Calibration Check Standard Reports, etc. Previous versions of EPA Method 8270 (prior to 8270C) listed N-Nitroso-diphenylamine as a CCC. However, as stated in EPA Method 8270C, Revision 3, December, 1996, Section 1.4.5, "N-Nitroso-diphenylamine decomposes in the gas chromatographic inlet and cannot be separated from Diphenylamine." Studies of these two compounds at GEL, both independent of each other and together, show that they not only co-elute, but also have similar mass spectra. N-Nitroso-diphenylamine and Diphenylamine will be reported as Diphenylamine on all reports and forms.

When calibrations are performed for Appendix IX compounds some of the compounds may not be calibrated exactly according to the criteria in Method 8270C. If the %RSD is greater than 15% or the correlation coefficient is less that 0.99 then the analyte is quantitated using the response factor. If the analyte is detected then the sample is re-analyzed for that analyte on an instrument that is compliant with the criteria in the method.

Initial Calibration
All initial calibration requirements have been met for this sample delivery group (SDG). A second source initial calibration verification (ICV) was included in the standard section directly behind the initial calibration.

CCV Requirements
All associated calibration verification standard(s) (ICV or CCV) met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Surrogate Recoveries
Samples 1200842645 (RE03-05-58926), 1200842646 (RE03-05-58926), 135805001 (RE03-05-59531), 135805002 (RE03-05-59541), 135805003 (RE03-05-59532) and 135805004 (RE03-05-59542) were analyzed at a dilution. As a result, the surrogates were diluted out of the acceptance limits.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

QC Sample Designation
Sample 135831001 (RE03-05-58926) not associated with this SDG, was selected for analysis as the matrix spike and matrix spike duplicate. Please see the Miscellaneous Section in the data report for the MS/MSD raw data.

Matrix Spike (MS) Recovery Statement
The MS recoveries were not within the acceptance limits. The sample was analyzed at a dilution. As a result, multiple spike recoveries were diluted out of the acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recoveries were not within the acceptance limits. The sample was analyzed at a dilution. As a result, multiple spike recoveries were diluted out of the acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The MS/MSD RPD values did not meet the acceptance limits due to the sample dilutions.

Internal Standard (ISTD) Acceptance
The internal standard responses were within the required acceptance criteria for all samples and QC.

Technical Information:

Holding Time Specifications
All samples in this SDG met the specified holding time. GEL assigns holding times based on the associated methodology that assigns the date and time from sample collection or sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

Sample Dilutions
Samples 1200842645 (RE03-05-58926), 1200842646 (RE03-05-58926), 135805001 (RE03-05-59531), 135805002 (RE03-05-59541), 135805003 (RE03-05-59532) and 135805004 (RE03-05-59542) were diluted because the extracts were very dark and viscous.

Sample Re-extraction/Re-analysis
Re-extractions or re-analyses were not required in this SDG except for confirmations and/or dilutions.

Miscellaneous Information:

Nonconformance (NCR) Documentation
A nonconformance report (NCR) was not generated for this SDG.

Manual Integrations
Some initial calibration standards, continuing calibration standards, and/or samples may require manual integrations due to software limitations. Please see the raw data in the Miscellaneous Section.

Additional Comments
Additional comments were not required for this SDG.

Electronic Package Comment

The following package was generated using an electronic data processing program referred to as "virtual packaging". In an effort to increase quality and efficiency, the laboratory is developing systems to eventually generate all data packages electronically. The following change from "traditional" packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. An electronic signature page inserted after the case narrative of each electronic package will indicate the analyst, reviewer, and report specialist names associated with the generation of the data and package. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

System Configuration

The laboratory utilizes a HP 6890 Series gas chromatograph and a HP 5973 Mass Selective Detector. The configuration is equipped with the electronic pressure control. All MS interfaces are capillary direct.

Chromatographic Columns

Chromatographic separation of semi-volatile components is accomplished through analysis on one or more of the

following columns (all with dimensions of 30 meters x 0.25 millimeters ID and 0.25 micron film except J&W DB-5MS2 which is 25 meters x 0.20 mm ID and 0.33 micron film):

Column ID	Column Description
J&W	DB-5.625(5% Phenyl)-methylpolysiloxane (identified by a DB-5.625 designation on quantitation reports and reconstructed ion chromatograms)
J&W DB-5MS	Similar to the J&W DB-5.625 with low bleed characteristics (identified by a DB-5MS designation)
Alltech	EC-5 (SE-54) 5% Phenyl, 95% Methylpolysiloxane (identified by a HP-5MS designation)
HP	HP-5MS 5% Phenylmethylsiloxane (identified by a HP-5MS designation)
Phenomenex	ZB-5 5% Phenyl Polysiloxane (identified by a ZB-5 designation)
J&W DB-5MS2	Similar to the J&W DB-5.625 with low bleed characteristics (identified by a DB-5MS2 designation)

Instrument Configuration

The samples reported in this SDG were analyzed on one or more of the following instrument systems. Instrument systems are referenced in the raw data and individual form headers by the Instrument ID designations listed below:

The Semi-Volatiles-GC/MS analysis was performed on a HP Mass Spectrometer.

Instrument ID	System Configuration	Column ID	Column Description
MSD8.I	HP6890/HP5973	DB-5MS	25m x 0.2mm, 0.33um (5% Phenylmethylpolysiloxane)

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

Reviewer: Dana B. Beachum **Date:** 6-24-05

Roadmap for LANL 3194S SVOA

This roadmap was analyzed by Chris Kerr on 05-27-2005, 08:58.
This roadmap was reviewed by Cameron Bearden on 05-27-2005, 14:32.
This roadmap was reviewed by Sherri Brown on 06-22-2005, 09:08.
This roadmap was packaged by Sherri Brown on 06-23-2005, 14:33.
This roadmap was reviewed by Daniel Beacham on 06-24-2005, 11:28.
This roadmap was packaged by Daniel Beacham on 06-24-2005, 11:40.

Sample

exclude	manual	datafile	smpid	injdate	injtime	sublist	clientid	dilution	comment
■	N	/chem/MSD4.i/s051705.b/s4c1727.d	135805001	18-MAY-2005	03:53	3194S.sub	RE03-05-59531	1	DUSE - fails ISTD - RR on MSD8
■	N	/chem/MSD4.i/s051705.b/s4c1728.d	135805002	18-MAY-2005	04:15	3194S.sub	RE03-05-59541	1	DUSE - fails ISTD - RR on MSD8
■	N	/chem/MSD4.i/s051705.b/s4c1729.d	135805003	18-MAY-2005	04:37	3194S.sub	RE03-05-59432	1	DUSE - fails ISTD - RR on MSD8
■	N	/chem/MSD4.i/s051705.b/s4c1730.d	135805004	18-MAY-2005	04:59	3194S.sub	RE03-05-59542	1	DUSE - fails ISTD - RR on MSD8
■	N	/chem/MSD8.i/s051805.b/s8c1816.d	135805001	18-MAY-2005	14:17	3194S.sub	RE03-05-59531	4	
■	N	/chem/MSD8.i/s051805.b/s8c1817.d	135805002	18-MAY-2005	14:37	3194S.sub	RE03-05-59541	4	
■	N	/chem/MSD8.i/s051805.b/s8c1818.d	135805003	18-MAY-2005	14:57	3194S.sub	RE03-05-59432	4	
■	N	/chem/MSD8.i/s051805.b/s8e1819.d	135805004	18-MAY-2005	15:18	3194S.sub	RE03-05-59542	4	
□	N	/chem/MSD8.i/s051905.b/s8c1906.d	135805001	19-MAY-2005	16:34	3194S.sub	RE03-05-59531	4	
□	N	/chem/MSD8.i/s051905.b/s8c1907.d	135805002	19-MAY-2005	16:55	3194S.sub	RE03-05-59541	4	
□	N	/chem/MSD8.i/s051905.b/s8e1908.d	135805003	19-MAY-2005	17:15	3194S.sub	RE03-05-59532	4	
□	N	/chem/MSD8.i/s051905.b/s8e1909.d	135805004	19-MAY-2005	17:36	3194S.sub	RE03-05-59542	4	

QC Sample

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	comment
□	N	/chem/MSD8.i/s051905.b/s8e1904-1.d	1200842643	mb	19-MAY-2005	15:52	3194S.sub	SBLK01	1	
□	N	/chem/MSD8.i/s051905.b/s8e1905-1.d	1200842644	lcs	19-MAY-2005	16:13	3194S.sub	SBLK01LCS	1	

SAMPLE DATA SUMMARY

1B
SVOA ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-59531

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

Matrix: (soil/water) SOIL Lab Sample ID: 135805001

Sample wt/vol: 30.0 (g/mL) G Lab File ID: S8E1906

Level: (low/med) LOW Date Received: 05/04/05

% Moisture: 16 decanted: (Y/N) N Date Extracted:05/10/05

Concentrated Extract Volume: 1.00(mL) Date Analyzed: 05/19/05

Injection Volume: 0.5(uL) Dilution Factor: 4.0

GPC Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
62-75-9	N-Methyl-N-nitrosomethylamin	1590	U
110-86-1	Pyridine	1590	U
62-53-3	Aniline	1590	U
108-95-2	Phenol	1590	U
111-44-4	bis(2-Chloroethyl) ether	1590	U
95-57-8	2-Chlorophenol	1590	U
541-73-1	1,3-Dichlorobenzene	1590	U
106-46-7	1,4-Dichlorobenzene	1590	U
100-51-6	Benzyl alcohol	1590	U
95-50-1	1,2-Dichlorobenzene	1590	U
108-60-1	bis(2-Chloroisopropyl)ether	1590	U
95-48-7	o-Cresol	1590	U
621-64-7	N-Nitrosodipropylamine	1590	U
65794-96-9	m,p-Cresols	1590	U
67-72-1	Hexachloroethane	1590	U
78-59-1	Isophorone	1590	U
88-75-5	2-Nitrophenol	1590	U
105-67-9	2,4-Dimethylphenol	1590	U
111-91-1	bis(2-Chloroethoxy)methane	1590	U
120-83-2	2,4-Dichlorophenol	1590	U
65-85-0	Benzoic acid	3170	U
120-82-1	1,2,4-Trichlorobenzene	1590	U
91-20-3	Naphthalene	159	U
106-47-8	4-Chloroaniline	1590	U
87-68-3	Hexachlorobutadiene	1590	U
59-50-7	4-Chloro-3-methylphenol	1590	U
91-57-6	2-Methylnaphthalene	159	U
77-47-4	Hexachlorocyclopentadiene	1590	U
88-06-2	2,4,6-Trichlorophenol	1590	U
95-95-4	2,4,5-Trichlorophenol	1590	U
91-58-7	2-Chloronaphthalene	159	U
88-74-4	o-Nitroaniline	1590	U
99-09-2	m-Nitroaniline	1590	U

1C
SVOA ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-59531

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

Matrix: (soil/water) SOIL Lab Sample ID: 135805001

Sample wt/vol: 30.0 (g/mL) G Lab File ID: S8E1906

Level: (low/med) LOW Date Received: 05/04/05

% Moisture: 16 decanted: (Y/N) N Date Extracted: 05/10/05

Concentrated Extract Volume: 1.00(mL) Date Analyzed: 05/19/05

Injection Volume: 0.5(uL) Dilution Factor: 4.0

GPC Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
131-11-3	Dimethylphthalate	1590	U
606-20-2	2,6-Dinitrotoluene	1590	U
208-96-8	Acenaphthylene	159	U
83-32-9	Acenaphthene	159	U
51-28-5	2,4-Dinitrophenol	3170	U
132-64-9	Dibenzofuran	1590	U
121-14-2	2,4-Dinitrotoluene	1590	U
84-66-2	Diethylphthalate	1590	U
100-02-7	4-Nitrophenol	1590	U
86-73-7	Fluorene	159	U
7005-72-3	4-Chlorophenylphenylether	1590	U
534-52-1	2-Methyl-4,6-dinitrophenol	1590	U
100-01-6	p-Nitroaniline	1590	U
122-39-4	Diphenylamine	1590	U
122-66-7	1,2-Diphenylhydrazine	1590	U
101-55-3	4-Bromophenylphenylether	1590	U
118-74-1	Hexachlorobenzene	1590	U
87-86-5	Pentachlorophenol	1590	U
85-01-8	Phenanthrene	159	U
120-12-7	Anthracene	159	U
84-74-2	Di-n-butylphthalate	1590	U
206-44-0	Fluoranthene	159	U
129-00-0	Pyrene	159	U
85-68-7	Butylbenzylphthalate	1590	U
56-55-3	Benzo(a)anthracene	159	U
91-94-1	3,3'-Dichlorobenzidine	1590	U
218-01-9	Chrysene	159	U
117-81-7	bis(2-Ethylhexyl)phthalate	1590	U
117-84-0	Di-n-octylphthalate	1590	U
205-99-2	Benzo(b)fluoranthene	159	U
207-08-9	Benzo(k)fluoranthene	159	U
50-32-8	Benzo(a)pyrene	159	U
193-39-5	Indeno(1,2,3-cd)pyrene	159	U

FORM I SV-2 OLM03.0

1C
SVOA ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-59531

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

Matrix: (soil/water) SOIL Lab Sample ID: 135805001

Sample wt/vol: 30.0 (g/mL) G Lab File ID: S8E1906

Level: (low/med) LOW Date Received: 05/04/05

% Moisture: 16 decanted: (Y/N) N Date Extracted:05/10/05

Concentrated Extract Volume: 1.00(mL) Date Analyzed: 05/19/05

Injection Volume: 0.5(uL) Dilution Factor: 4.0

GPC Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
53-70-3	Dibenzo(a,h)anthracene	159	U
191-24-2	Benzo(ghi)perylene	159	U

FORM I SV-3 OLM03.0

1F

SVOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

RE03-05-59531

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

Matrix: (soil/water) SOIL Lab Sample ID: 135805001

Sample wt/vol: 30.0 (g/mL) G Lab File ID: S8E1906

Level: (low/med) LOW Date Received: 05/04/05

% Moisture: 16 decanted: (Y/N) N Date Extracted:05/10/05

Concentrated Extract Volume: 1.00(mL) Date Analyzed: 05/19/05

Injection Volume: 0.5(uL) Dilution Factor: 4.0

GPC Cleanup: (Y/N) N

Number TICs found: 6

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 1786-12-5	CYCLOTETRADECANE, 1,7,11-TRI	7.91	3300	NJ
2. 3386-33-2	OCTADECANE, 1-CHLORO-	7.96	3190	NJ
3. 19780-11-1	2-DODECEN-1-YL(-)SUCCINIC AN	8.02	3290	NJ
4.	UNKNOWN	8.04	3460	J
5. 20175-84-2	[1,2'-BINAPHTHALENE]-5,5',8,	8.74	3160	NJ
6. 54482-31-4	D-HOMOANDROSTANE, (5.ALPHA.,	8.98	5530	NJ
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FORM I SV-TIC OLM03.0

1B
SVOA ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-59532

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

Matrix: (soil/water) SOIL Lab Sample ID: 135805003

Sample wt/vol: 30.0 (g/mL) G Lab File ID: S8E1908

Level: (low/med) LOW Date Received: 05/04/05

% Moisture: 14 decanted: (Y/N) N Date Extracted: 05/10/05

Concentrated Extract Volume: 1.00(mL) Date Analyzed: 05/19/05

Injection Volume: 0.5(uL) Dilution Factor: 4.0

GPC Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
62-75-9	N-Methyl-N-nitrosomethylamin	1550	U
110-86-1	Pyridine	1550	U
62-53-3	Aniline	1550	U
108-95-2	Phenol	1550	U
111-44-4	bis(2-Chloroethyl) ether	1550	U
95-57-8	2-Chlorophenol	1550	U
541-73-1	1,3-Dichlorobenzene	1550	U
106-46-7	1,4-Dichlorobenzene	1550	U
100-51-6	Benzyl alcohol	1550	U
95-50-1	1,2-Dichlorobenzene	1550	U
108-60-1	bis(2-Chloroisopropyl)ether	1550	U
95-48-7	o-Cresol	1550	U
621-64-7	N-Nitrosodipropylamine	1550	U
65794-96-9	m,p-Cresols	1550	U
67-72-1	Hexachloroethane	1550	U
78-59-1	Isophorone	1550	U
88-75-5	2-Nitrophenol	1550	U
105-67-9	2,4-Dimethylphenol	1550	U
111-91-1	bis(2-Chloroethoxy)methane	1550	U
120-83-2	2,4-Dichlorophenol	1550	U
65-85-0	Benzoic acid	3100	U
120-82-1	1,2,4-Trichlorobenzene	1550	U
91-20-3	Naphthalene	155	U
106-47-8	4-Chloroaniline	1550	U
87-68-3	Hexachlorobutadiene	1550	U
59-50-7	4-Chloro-3-methylphenol	1550	U
91-57-6	2-Methylnaphthalene	155	U
77-47-4	Hexachlorocyclopentadiene	1550	U
88-06-2	2,4,6-Trichlorophenol	1550	U
95-95-4	2,4,5-Trichlorophenol	1550	U
91-58-7	2-Chloronaphthalene	155	U
88-74-4	o-Nitroaniline	1550	U
99-09-2	m-Nitroaniline	1550	U

FORM I SV-1 OLM03.0

1C
SVOA ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-59532

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

Matrix: (soil/water) SOIL Lab Sample ID: 135805003

Sample wt/vol: 30.0 (g/mL) G Lab File ID: S8E1908

Level: (low/med) LOW Date Received: 05/04/05

% Moisture: 14 decanted: (Y/N) N Date Extracted:05/10/05

Concentrated Extract Volume: 1.00(mL) Date Analyzed: 05/19/05

Injection Volume: 0.5(uL) Dilution Factor: 4.0

GPC Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
131-11-3	Dimethylphthalate	1550	U
606-20-2	2,6-Dinitrotoluene	1550	U
208-96-8	Acenaphthylene	155	U
83-32-9	Acenaphthene	155	U
51-28-5	2,4-Dinitrophenol	3100	U
132-64-9	Dibenzofuran	1550	U
121-14-2	2,4-Dinitrotoluene	1550	U
84-66-2	Diethylphthalate	1550	U
100-02-7	4-Nitrophenol	1550	U
86-73-7	Fluorene	155	U
7005-72-3	4-Chlorophenylphenylether	1550	U
534-52-1	2-Methyl-4,6-dinitrophenol	1550	U
100-01-6	p-Nitroaniline	1550	U
122-39-4	Diphenylamine	1550	U
122-66-7	1,2-Diphenylhydrazine	1550	U
101-55-3	4-Bromophenylphenylether	1550	U
118-74-1	Hexachlorobenzene	1550	U
87-86-5	Pentachlorophenol	1550	U
85-01-8	Phenanthrene	155	U
120-12-7	Anthracene	155	U
84-74-2	Di-n-butylphthalate	1550	U
206-44-0	Fluoranthene	155	U
129-00-0	Pyrene	155	U
85-68-7	Butylbenzylphthalate	1550	U
56-55-3	Benzo(a)anthracene	155	U
91-94-1	3,3'-Dichlorobenzidine	1550	U
218-01-9	Chrysene	155	U
117-81-7	bis(2-Ethylhexyl)phthalate	691	JB
117-84-0	Di-n-octylphthalate	1550	U
205-99-2	Benzo(b)fluoranthene	155	U
207-08-9	Benzo(k)fluoranthene	155	U
50-32-8	Benzo(a)pyrene	155	U
193-39-5	Indeno(1,2,3-cd)pyrene	155	U

FORM I SV-2 OLM03.0

1C
SVOA ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-59532

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

Matrix: (soil/water) SOIL Lab Sample ID: 135805003

Sample wt/vol: 30.0 (g/mL) G Lab File ID: S8E1908

Level: (low/med) LOW Date Received: 05/04/05

% Moisture: 14 decanted: (Y/N) N Date Extracted: 05/10/05

Concentrated Extract Volume: 1.00(mL) Date Analyzed: 05/19/05

Injection Volume: 0.5(uL) Dilution Factor: 4.0

GPC Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
53-70-3	Dibenzo(a,h)anthracene	155	U
191-24-2	Benzo(ghi)perylene	155	U

FORM I SV-3 OLM03.0

1F

SVOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

RE03-05-59532

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

Matrix: (soil/water) SOIL Lab Sample ID: 135805003

Sample wt/vol: 30.0 (g/mL) G Lab File ID: S8E1908

Level: (low/med) LOW Date Received: 05/04/05

% Moisture: 14 decanted: (Y/N) N Date Extracted:05/10/05

Concentrated Extract Volume: 1.00(mL) Date Analyzed: 05/19/05

Injection Volume: 0.5(uL) Dilution Factor: 4.0

GPC Cleanup: (Y/N) N

Number TICs found: 9

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	19780-11-1	2-DODECEN-1-YL(-)SUCCINIC AN	7.91	2980	NJ
2.		UNKNOWN HYDROCARBON	8.07	3480	J
3.	1786-12-5	CYCLOTETRADECANE, 1,7,11-TRI	8.12	2330	NJ
4.	1000130-81-0	E-11,13-DIMETHYL-12-TETRADEC	8.16	2820	NJ
5.	20175-84-2	[1,2'-BINAPHTHALENE]-5,5',8,	8.21	2110	NJ
6.	55044-36-5	1H-INDENE, 5-BUTYL-6-HEXYLOC	8.24	2560	NJ
7.	18835-33-1	1-HEXACOSENE	8.72	4360	NJ
8.		UNKNOWN	8.94	1750	J
9.	54482-31-4	D-HOMOANDROSTANE, (5.ALPHA.,	8.97	2370	NJ
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FORM I SV-TIC OLM03.0

1B
SVOA ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-59541

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

Matrix: (soil/water) SOIL Lab Sample ID: 135805002

Sample wt/vol: 30.0 (g/mL) G Lab File ID: S8E1907

Level: (low/med) LOW Date Received: 05/04/05

% Moisture: 13 decanted: (Y/N) N Date Extracted: 05/10/05

Concentrated Extract Volume: 1.00(mL) Date Analyzed: 05/19/05

Injection Volume: 0.5(uL) Dilution Factor: 4.0

GPC Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
62-75-9	N-Methyl-N-nitrosomethylamin	1540	U
110-86-1	Pyridine	1540	U
62-53-3	Aniline	1540	U
108-95-2	Phenol	1540	U
111-44-4	bis(2-Chloroethyl) ether	1540	U
95-57-8	2-Chlorophenol	1540	U
541-73-1	1,3-Dichlorobenzene	1540	U
106-46-7	1,4-Dichlorobenzene	1540	U
100-51-6	Benzyl alcohol	1540	U
95-50-1	1,2-Dichlorobenzene	1540	U
108-60-1	bis(2-Chloroisopropyl)ether	1540	U
95-48-7	o-Cresol	1540	U
621-64-7	N-Nitrosodipropylamine	1540	U
65794-96-9	m,p-Cresols	1540	U
67-72-1	Hexachloroethane	1540	U
78-59-1	Isophorone	1540	U
88-75-5	2-Nitrophenol	1540	U
105-67-9	2,4-Dimethylphenol	1540	U
111-91-1	bis(2-Chloroethoxy)methane	1540	U
120-83-2	2,4-Dichlorophenol	1540	U
65-85-0	Benzoic acid	3080	U
120-82-1	1,2,4-Trichlorobenzene	1540	U
91-20-3	Naphthalene	154	U
106-47-8	4-Chloroaniline	1540	U
87-68-3	Hexachlorobutadiene	1540	U
59-50-7	4-Chloro-3-methylphenol	1540	U
91-57-6	2-Methylnaphthalene	154	U
77-47-4	Hexachlorocyclopentadiene	1540	U
88-06-2	2,4,6-Trichlorophenol	1540	U
95-95-4	2,4,5-Trichlorophenol	1540	U
91-58-7	2-Chloronaphthalene	154	U
88-74-4	o-Nitroaniline	1540	U
99-09-2	m-Nitroaniline	1540	U

FORM I SV-1 OLM03.0

1C
SVOA ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-59541

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

Matrix: (soil/water) SOIL Lab Sample ID: 135805002

Sample wt/vol: 30.0 (g/mL) G Lab File ID: S8E1907

Level: (low/med) LOW Date Received: 05/04/05

% Moisture: 13 decanted: (Y/N) N Date Extracted:05/10/05

Concentrated Extract Volume: 1.00(mL) Date Analyzed: 05/19/05

Injection Volume: 0.5(uL) Dilution Factor: 4.0

GPC Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
131-11-3	Dimethylphthalate	1540	U
606-20-2	2,6-Dinitrotoluene	1540	U
208-96-8	Acenaphthylene	154	U
83-32-9	Acenaphthene	154	U
51-28-5	2,4-Dinitrophenol	3080	U
132-64-9	Dibenzofuran	1540	U
121-14-2	2,4-Dinitrotoluene	1540	U
84-66-2	Diethylphthalate	1540	U
100-02-7	4-Nitrophenol	1540	U
86-73-7	Fluorene	154	U
7005-72-3	4-Chlorophenylphenylether	1540	U
534-52-1	2-Methyl-4,6-dinitrophenol	1540	U
100-01-6	p-Nitroaniline	1540	U
122-39-4	Diphenylamine	1540	U
122-66-7	1,2-Diphenylhydrazine	1540	U
101-55-3	4-Bromophenylphenylether	1540	U
118-74-1	Hexachlorobenzene	1540	U
87-86-5	Pentachlorophenol	1540	U
85-01-8	Phenanthrene	154	U
120-12-7	Anthracene	154	U
84-74-2	Di-n-butylphthalate	1540	U
206-44-0	Fluoranthene	154	U
129-00-0	Pyrene	154	U
85-68-7	Butylbenzylphthalate	1540	U
56-55-3	Benzo(a)anthracene	154	U
91-94-1	3,3'-Dichlorobenzidine	1540	U
218-01-9	Chrysene	154	U
117-81-7	bis(2-Ethylhexyl)phthalate	697	JB
117-84-0	Di-n-octylphthalate	1540	U
205-99-2	Benzo(b)fluoranthene	154	U
207-08-9	Benzo(k)fluoranthene	154	U
50-32-8	Benzo(a)pyrene	154	U
193-39-5	Indeno(1,2,3-cd)pyrene	154	U

FORM I SV-2 OLM03.0

1C
SVOA ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-59541

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

Matrix: (soil/water) SOIL Lab Sample ID: 135805002

Sample wt/vol: 30.0 (g/mL) G Lab File ID: S8E1907

Level: (low/med) LOW Date Received: 05/04/05

% Moisture: 13 decanted: (Y/N) N Date Extracted:05/10/05

Concentrated Extract Volume: 1.00(mL) Date Analyzed: 05/19/05

Injection Volume: 0.5(uL) Dilution Factor: 4.0

GPC Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
53-70-3	Dibenzo(a,h)anthracene	154	U
191-24-2	Benzo(ghi)perylene	154	U

FORM I SV-3 OLM03.0

1F

SVOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

RE03-05-59541

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

Matrix: (soil/water) SOIL Lab Sample ID: 135805002

Sample wt/vol: 30.0 (g/mL) G Lab File ID: S8E1907

Level: (low/med) LOW Date Received: 05/04/05

% Moisture: 13 decanted: (Y/N) N Date Extracted:05/10/05

Concentrated Extract Volume: 1.00(mL) Date Analyzed: 05/19/05

Injection Volume: 0.5(uL) Dilution Factor: 4.0

GPC Cleanup: (Y/N) N

Number TICs found: 12

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN HYDROCARBON	8.53	4110	J
2. 20175-84-2	[1,2'-BINAPHTHALENE]-5,5',8,	8.59	1650	NJ
3. 19780-11-1	2-DODECEN-1-YL(-)SUCCINIC AN	8.61	1620	NJ
4.	UNKNOWN HYDROCARBON	8.63	2760	J
5.	UNKNOWN HYDROCARBON	8.83	1610	J
6.	UNKNOWN	8.84	1510	J
7.	UNKNOWN	8.97	2750	J
8.	UNKNOWN	9.06	2360	J
9.	UNKNOWN	9.12	1020	J
10.	UNKNOWN	9.35	1120	J
11.	UNKNOWN	9.36	914	J
12. 1000130-81-0	E-11,13-DIMETHYL-12-TETRADEC	9.47	811	NJ
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FORM I SV-TIC OLM03.0

1B
SVOA ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-59542

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

Matrix: (soil/water) SOIL Lab Sample ID: 135805004

Sample wt/vol: 30.0 (g/mL) G Lab File ID: S8E1909

Level: (low/med) LOW Date Received: 05/04/05

% Moisture: 14 decanted: (Y/N) N Date Extracted: 05/10/05

Concentrated Extract Volume: 1.00(mL) Date Analyzed: 05/19/05

Injection Volume: 0.5(uL) Dilution Factor: 4.0

GPC Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
62-75-9	N-Methyl-N-nitrosomethylamin	1560	U
110-86-1	Pyridine	1560	U
62-53-3	Aniline	1560	U
108-95-2	Phenol	1560	U
111-44-4	bis(2-Chloroethyl) ether	1560	U
95-57-8	2-Chlorophenol	1560	U
541-73-1	1,3-Dichlorobenzene	1560	U
106-46-7	1,4-Dichlorobenzene	1560	U
100-51-6	Benzyl alcohol	1560	U
95-50-1	1,2-Dichlorobenzene	1560	U
108-60-1	bis(2-Chloroisopropyl)ether	1560	U
95-48-7	o-Cresol	1560	U
621-64-7	N-Nitrosodipropylamine	1560	U
65794-96-9	m,p-Cresols	1560	U
67-72-1	Hexachloroethane	1560	U
78-59-1	Isophorone	1560	U
88-75-5	2-Nitrophenol	1560	U
105-67-9	2,4-Dimethylphenol	1560	U
111-91-1	bis(2-Chloroethoxy)methane	1560	U
120-83-2	2,4-Dichlorophenol	1560	U
65-85-0	Benzoic acid	3110	U
120-82-1	1,2,4-Trichlorobenzene	1560	U
91-20-3	Naphthalene	156	U
106-47-8	4-Chloroaniline	1560	U
87-68-3	Hexachlorobutadiene	1560	U
59-50-7	4-Chloro-3-methylphenol	1560	U
91-57-6	2-Methylnaphthalene	156	U
77-47-4	Hexachlorocyclopentadiene	1560	U
88-06-2	2,4,6-Trichlorophenol	1560	U
95-95-4	2,4,5-Trichlorophenol	1560	U
91-58-7	2-Chloronaphthalene	156	U
88-74-4	o-Nitroaniline	1560	U
99-09-2	m-Nitroaniline	1560	U

FORM I SV-1 OLM03.0

1C
SVOA ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-59542

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

Matrix: (soil/water) SOIL Lab Sample ID: 135805004

Sample wt/vol: 30.0 (g/mL) G Lab File ID: S8E1909

Level: (low/med) LOW Date Received: 05/04/05

% Moisture: 14 decanted: (Y/N) N Date Extracted: 05/10/05

Concentrated Extract Volume: 1.00(mL) Date Analyzed: 05/19/05

Injection Volume: 0.5(uL) Dilution Factor: 4.0

GPC Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
131-11-3	Dimethylphthalate	1560	U
606-20-2	2,6-Dinitrotoluene	1560	U
208-96-8	Acenaphthylene	156	U
83-32-9	Acenaphthene	156	U
51-28-5	2,4-Dinitrophenol	3110	U
132-64-9	Dibenzofuran	1560	U
121-14-2	2,4-Dinitrotoluene	1560	U
84-66-2	Diethylphthalate	1560	U
100-02-7	4-Nitrophenol	1560	U
86-73-7	Fluorene	156	U
7005-72-3	4-Chlorophenylphenylether	1560	U
534-52-1	2-Methyl-4,6-dinitrophenol	1560	U
100-01-6	p-Nitroaniline	1560	U
122-39-4	Diphenylamine	1560	U
122-66-7	1,2-Diphenylhydrazine	1560	U
101-55-3	4-Bromophenylphenylether	1560	U
118-74-1	Hexachlorobenzene	1560	U
87-86-5	Pentachlorophenol	1560	U
85-01-8	Phenanthrene	156	U
120-12-7	Anthracene	156	U
84-74-2	Di-n-butylphthalate	1560	U
206-44-0	Fluoranthene	156	U
129-00-0	Pyrene	156	U
85-68-7	Butylbenzylphthalate	1560	U
56-55-3	Benzo(a)anthracene	156	U
91-94-1	3,3'-Dichlorobenzidine	1560	U
218-01-9	Chrysene	156	U
117-81-7	bis(2-Ethylhexyl)phthalate	1190	JB
117-84-0	Di-n-octylphthalate	1560	U
205-99-2	Benzo(b)fluoranthene	156	U
207-08-9	Benzo(k)fluoranthene	156	U
50-32-8	Benzo(a)pyrene	156	U
193-39-5	Indeno(1,2,3-cd)pyrene	156	U

FORM I SV-2 OLM03.0

1C
SVOA ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-59542

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

Matrix: (soil/water) SOIL Lab Sample ID: 135805004

Sample wt/vol: 30.0 (g/mL) G Lab File ID: S8E1909

Level: (low/med) LOW Date Received: 05/04/05

% Moisture: 14 decanted: (Y/N) N Date Extracted:05/10/05

Concentrated Extract Volume: 1.00(mL) Date Analyzed: 05/19/05

Injection Volume: 0.5(uL) Dilution Factor: 4.0

GPC Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
53-70-3	Dibenzo(a,h)anthracene	156	U
191-24-2	Benzo(ghi)perylene	156	U

FORM I SV-3 OLM03.0

1F
SVOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

RE03-05-59542

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

Matrix: (soil/water) SOIL Lab Sample ID: 135805004

Sample wt/vol: 30.0 (g/mL) G Lab File ID: S8E1909

Level: (low/med) LOW Date Received: 05/04/05

% Moisture: 14 decanted: (Y/N) N Date Extracted:05/10/05

Concentrated Extract Volume: 1.00(mL) Date Analyzed: 05/19/05

Injection Volume: 0.5(uL) Dilution Factor: 4.0

GPC Cleanup: (Y/N) N

Number TICs found: 15

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 1599-67-3	1-DOCOSENE	7.96	1270	NJ
2.	UNKNOWN HYDROCARBON	8.16	1120	J
3. 638-36-8	HEXADECANE, 2,6,10,14-TETRAM	8.27	1120	NJ
4.	UNKNOWN HYDROCARBON	8.53	4910	J
5. 4452-45-3	1,14-DOCOSANEDIOL	8.56	3650	NJ
6. 55044-36-5	1H-INDENE, 5-BUTYL-6-HEXYLOC	8.59	2740	NJ
7. 20175-84-2	[1,2'-BINAPHTHALENE]-5,5',8,	8.92	1440	NJ
8.	UNKNOWN ANHYDRIDE	8.98	3860	J
9.	UNKNOWN	9.03	2020	J
10.	UNKNOWN	9.06	3530	J
11. 7683-64-9	SQUALENE	9.16	1730	NJ
12.	UNKNOWN	9.17	1520	J
13.	UNKNOWN	9.19	2440	J
14.	UNKNOWN	9.34	2070	J
15.	UNKNOWN	9.39	1430	J
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FORM I SV-TIC OLM03.0

QUALITY CONTROL SUMMARY

2D
SOIL SVOA SURROGATE RECOVERY

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

Level:(low/med) LOW

	EPA SAMPLE NO.	S1 (2FP) #	S2 (PHL) #	S3 (NBZ) #	S4 (FBP) #	S5 (TBP) #	S6 (TPH) #	TOT OUT
01	SBLK01	62	61	67	60	67	66	0
02	SBLK01LCS	59	60	59	62	86	76	0
03	RE03-05-59531	65	67	66	71	72	80	0
04	RE03-05-59541	44	48	44	52	64	84	0
05	RE03-05-59532	73	72	72	77	78	96	0
06	RE03-05-59542	62	63	61	65	68	86	0
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		QC LIMITS
S1 (2FP)	= 2-Fluorophenol	(40-105)
S2 (PHL)	= Phenol-d5	(46-100)
S3 (NBZ)	= Nitrobenzene-d5	(42-114)
S4 (FBP)	= 2-Fluorobiphenyl	(50-113)
S5 (TBP)	= 2,4,6-Tribromophenol	(35-120)
S6 (TPH)	= p-Terphenyl-d14	(44-125)

Column to be used to flag recovery values
* Values outside of contract required QC limits
D Surrogate diluted out

3D
SOIL SVOA LAB CONTROL SAMPLE

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

Matrix Spike - EPA Sample No.: SBLK01 Level:(low/med) LOW

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC #	QC. LIMITS REC.
N-Methyl-N-nitrosomethy	1670	0.0	812	49	10-150
Pyridine	1670	0.0	616	37	12- 89
Aniline	1670	0.0	738	44	22-104
Phenol	3330	0.0	2030	61	43-100
bis(2-Chloroethyl) ethe	1670	0.0	876	52	33-105
2-Chlorophenol	3330	0.0	2050	62	45-104
1,3-Dichlorobenzene	1670	0.0	886	53	44- 97
1,4-Dichlorobenzene	1670	0.0	910	54	38-103
Benzyl alcohol	1670	0.0	910	54	20-111
1,2-Dichlorobenzene	1670	0.0	930	56	36-105
bis(2-Chloroisopropyl)e	1670	0.0	878	52	26-114
o-Cresol	3330	0.0	2090	63	42-102
N-Nitrosodipropylamine	1670	0.0	1000	60	40-107
m,p-Cresols	3330	0.0	2130	64	42-105
Hexachloroethane	1670	0.0	902	54	36-102
Isophorone	1670	0.0	963	58	45- 99
2-Nitrophenol	3330	0.0	2300	69	42-105
2,4-Dimethylphenol	3330	0.0	2180	65	42-104
bis(2-Chloroethoxy)meth	1670	0.0	997	60	40-102
2,4-Dichlorophenol	3330	0.0	2300	69	47-107
Benzoic acid	3330	0.0	2680	80	30-119
1,2,4-Trichlorobenzene	1670	0.0	1000	60	35-108
Naphthalene	1670	0.0	1040	62	40-103
4-Chloroaniline	1670	0.0	830	50	25- 96
Hexachlorobutadiene	1670	0.0	1020	61	42-100
4-Chloro-3-methylphenol	3330	0.0	2560	77	52-108
2-Methylnaphthalene	1670	0.0	1080	65	47-104
Hexachlorocyclopentadie	1670	0.0	961	58	26-103

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

COMMENTS:

3D
SOIL SVOA LAB CONTROL SAMPLE

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

Matrix Spike - EPA Sample No.: SBLK01 Level:(low/med) LOW

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC #	QC. LIMITS REC.
2,4,6-Trichlorophenol	3330	0.0	2340	70	50-102
2,4,5-Trichlorophenol	3330	0.0	2320	70	51-109
2-Chloronaphthalene	1670	0.0	1020	61	46-102
o-Nitroaniline	1670	0.0	1130	68	47-120
m-Nitroaniline	1670	0.0	1020	61	33-110
Dimethylphthalate	1670	0.0	1110	66	55-102
2,6-Dinitrotoluene	1670	0.0	1160	69	50-109
Acenaphthylene	1670	0.0	1150	69	47-103
Acenaphthene	1670	0.0	1180	71	52-109
2,4-Dinitrophenol	3330	0.0	2570	77	35-121
Dibenzofuran	1670	0.0	1030	62	52-101
2,4-Dinitrotoluene	1670	0.0	1230	74	59-113
Diethylphthalate	1670	0.0	1170	70	54-106
4-Nitrophenol	3330	0.0	2670	80	40-132
Fluorene	1670	0.0	1200	72	52-105
4-Chlorophenylphenyleth	1670	0.0	1120	67	54-103
2-Methyl-4,6-dinitrophe	3330	0.0	2500	75	36-133
p-Nitroaniline	1670	0.0	1160	69	38-122
Diphenylamine	1670	0.0	1120	67	50-110
1,2-Diphenylhydrazine	1670	0.0	1060	63	51-113
4-Bromophenylphenylethe	1670	0.0	1180	71	53-115
Hexachlorobenzene	1670	0.0	1180	71	54-106
Pentachlorophenol	3330	0.0	2840	85	42-120
Phenanthrene	1670	0.0	1250	75	61-103
Anthracene	1670	0.0	1300	78	57-108
Di-n-butylphthalate	1670	0.0	1240	74	64-110
Fluoranthene	1670	0.0	1360	81	60-115
Pyrene	1670	0.0	1290	77	53-117

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

COMMENTS: _____

3D
SOIL SVOA LAB CONTROL SAMPLE

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

Matrix Spike - EPA Sample No.: SBLK01 Level:(low/med) LOW

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC #	QC. LIMITS REC.
Butylbenzylphthalate	1670	0.0	1270	76	53-122
Benzo(a)anthracene	1670	0.0	1320	79	65-110
3,3'-Dichlorobenzidine	1670	0.0	1380	83	37-126
Chrysene	1670	0.0	1390	83	65-109
bis(2-Ethylhexyl)phthal	1670	118	1300	71	61-124
Di-n-octylphthalate	1670	0.0	1350	81	46-127
Benzo(b)fluoranthene	1670	0.0	1240	74	56-115
Benzo(k)fluoranthene	1670	0.0	1510	90	53-121
Benzo(a)pyrene	1670	0.0	1300	78	58-110
Indeno(1,2,3-cd)pyrene	1670	0.0	1290	77	53-120
Dibenzo(a,h)anthracene	1670	0.0	1270	76	52-124
Benzo(ghi)perylene	1670	0.0	1280	77	51-125

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

RPD: 0 out of 0 outside limits
Spike Recovery: 0 out of 68 outside limits

COMMENTS: _____

4B
SVOA METHOD BLANK SUMMARY

EPA SAMPLE NO.

SBLK01

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

Lab File ID: S8E1904-1 Lab Sample ID: 1200842643

Instrument ID: MSD8 Date Extracted: 05/10/05

Matrix: (soil/water) SOIL Date Analyzed: 05/19/05

Level:(low/med) LOW Time Analyzed: 1552

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	SBLK01LCS	1200842644	S8E1905-1	05/19/05
02	RE03-05-59531	135805001	S8E1906	05/19/05
03	RE03-05-59541	135805002	S8E1907	05/19/05
04	RE03-05-59532	135805003	S8E1908	05/19/05
05	RE03-05-59542	135805004	S8E1909	05/19/05
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5B

SVOA ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

Lab File ID: S8E1101 DFTPP Injection Date: 05/11/05

Instrument ID: MSD8 DFTPP Injection Time: 1500

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	33.4
68	Less than 2.0% of mass 69	0.0 (0.0)1
69	Mass 69 relative abundance	31.5
70	Less than 2.0% of mass 69	0.2 (0.6)1
127	40.0 - 60.0% of mass 198	43.1
197	Less than 1.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	6.6
275	10.0 - 30.0% of mass 198	29.9
365	Greater than 1.0% of mass 198	4.07
441	Present, but less than mass 443	13.2
442	Greater than 40.0% of mass 198	73.7
443	17.0 - 23.0% of mass 442	14.5 (19.6)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	ANBZICAL001	UBN050216-15	S8E1111	05/11/05	1818
02	ANBZICAL010	UBN050216-16	S8E1112	05/11/05	1838
03	ANBZICAL020	UBN050216-17	S8E1113	05/11/05	1859
04	ANBZICAL040	UBN050216-18.1	S8E1114	05/11/05	1919
05	ANBZICAL050	UBN050216-19	S8E1115	05/11/05	1939
06	ANBZICAL080	UBN050216-20	S8E1116	05/11/05	2000
07	ANBZICAL100	UBN050216-21	S8E1117	05/11/05	2020
08	ANBZICAL120	UBN050216-22	S8E1118	05/11/05	2040
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5B

SVOA ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

Lab File ID: S8E1601 DFTPP Injection Date: 05/16/05

Instrument ID: MSD8 DFTPP Injection Time: 1352

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	33.3
68	Less than 2.0% of mass 69	0.0 (0.0)1
69	Mass 69 relative abundance	32.7
70	Less than 2.0% of mass 69	0.1 (0.3)1
127	40.0 - 60.0% of mass 198	43.2
197	Less than 1.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	6.9
275	10.0 - 30.0% of mass 198	29.7
365	Greater than 1.0% of mass 198	3.92
441	Present, but less than mass 443	11.7
442	Greater than 40.0% of mass 198	68.4
443	17.0 - 23.0% of mass 442	13.1 (19.2)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	BNAICAL001	UBN050506-23	S8E1605	05/16/05	1546
02	BNAICAL010	UBN050506-24	S8E1606	05/16/05	1606
03	BNAICAL020	UBN050506-25	S8E1607	05/16/05	1626
04	BNAICAL040	UBN050506-26.3	S8E1608	05/16/05	1647
05	BNAICAL050	UBN050506-27	S8E1609	05/16/05	1707
06	BNAICAL080	UBN050506-28	S8E1610	05/16/05	1728
07	BNAICAL100	UBN050506-29	S8E1611	05/16/05	1748
08	BNAICAL120	UBN050506-30	S8E1612	05/16/05	1809
09	BNA ICV	UBN050421-04.1	S8E1614	05/16/05	1850
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5B

SVOA ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

Lab File ID: S8E1901 DFTPP Injection Date: 05/19/05

Instrument ID: MSD8 DFTPP Injection Time: 1446

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	32.1
68	Less than 2.0% of mass 69	0.0 (0.0)1
69	Mass 69 relative abundance	33.0
70	Less than 2.0% of mass 69	0.2 (0.5)1
127	40.0 - 60.0% of mass 198	43.7
197	Less than 1.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	6.8
275	10.0 - 30.0% of mass 198	29.2
365	Greater than 1.0% of mass 198	3.94
441	Present, but less than mass 443	12.4
442	Greater than 40.0% of mass 198	68.4
443	17.0 - 23.0% of mass 442	13.1 (19.1)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	BNA CVS	UBN050421-04.3	S8E1902	05/19/05	1501
02	ANBZ CVS	UBN050506-06.3	S8E1903	05/19/05	1522
03	SBLK01	1200842643	S8E1904-1	05/19/05	1552
04	SBLK01LCS	1200842644	S8E1905-1	05/19/05	1613
05	RE03-05-59531	135805001	S8E1906	05/19/05	1634
06	RE03-05-59541	135805002	S8E1907	05/19/05	1655
07	RE03-05-59532	135805003	S8E1908	05/19/05	1715
08	RE03-05-59542	135805004	S8E1909	05/19/05	1736
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

8B
SVOA INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

Lab File ID (Standard): S8E1902 Date Analyzed: 05/19/05

Instrument ID: MSD8 Time Analyzed: 1501

		IS1(DCB) AREA #	RT #	IS2(NPT) AREA #	RT #	IS3(ANT) AREA #	RT #
	12 HOUR STD	142760	3.79	605639	4.66	353337	5.90
	UPPER LIMIT	285520	4.29	1211278	5.16	706674	6.40
	LOWER LIMIT	71380	3.29	302820	4.16	176668	5.40
	EPA SAMPLE NO.						
01	SBLK01	114869	3.79	402922	4.65	262709	5.90
02	SBLK01LCS	124428	3.79	512899	4.65	315855	5.90
03	RE03-05-59531	110418	3.79	386732	4.65	250462	5.90
04	RE03-05-59541	119947	3.79	422185	4.65	273275	5.90
05	RE03-05-59532	132793	3.79	477143	4.65	302171	5.90
06	RE03-05-59542	121319	3.79	434231	4.65	277074	5.90
07							
08							
09							
10							
11							
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13							
14							
15							
16							
17							
18							
19							
20							
21							
22							

IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = + 0.50 minutes of internal standard RT
RT LOWER LIMIT = - 0.50 minutes of internal standard RT

Column used to flag internal standard area values with an asterisk.
* Values outside of QC limits.

8C
SVOA INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

Lab File ID (Standard): S8E1902 Date Analyzed: 05/19/05

Instrument ID: MSD8 Time Analyzed: 1501

		IS4(PHN) AREA #	RT #	IS5(CRY) AREA #	RT #	IS6(PRY) AREA #	RT #
	12 HOUR STD	709636	6.89	516526	8.46	404394	9.57
	UPPER LIMIT	1419272	7.39	1033052	8.96	808788	10.07
	LOWER LIMIT	354818	6.39	258263	7.96	202197	9.07
	EPA SAMPLE NO.						
01	SBLK01	544132	6.89	441962	8.46	374744	9.58
02	SBLK01LCS	667079	6.89	532819	8.46	473203	9.57
03	RE03-05-59531	517649	6.89	409876	8.46	298509	9.58
04	RE03-05-59541	525312	6.89	315437	8.46	212052	9.57
05	RE03-05-59532	578891	6.89	367829	8.46	291430	9.56
06	RE03-05-59542	518375	6.89	326492	8.46	253084	9.57
07							
08							
09							
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11							
12							
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17							
18							
19							
20							
21							
22							

IS4 (PHN) = Phenanthrene-d10
IS5 (CRY) = Chrysene-d12
IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = + 0.50 minutes of internal standard RT
RT LOWER LIMIT = - 0.50 minutes of internal standard RT

Column used to flag internal standard area values with an asterisk.
* Values outside of QC limits.

SAMPLE DATA

1B
SVOA ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-59531

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

Matrix: (soil/water) SOIL Lab Sample ID: 135805001

Sample wt/vol: 30.0 (g/mL) G Lab File ID: S8E1906

Level: (low/med) LOW Date Received: 05/04/05

% Moisture: 16 decanted: (Y/N) N Date Extracted: 05/10/05

Concentrated Extract Volume: 1.00(mL) Date Analyzed: 05/19/05

Injection Volume: 0.5(uL) Dilution Factor: 4.0

GPC Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
62-75-9	N-Methyl-N-nitrosomethylamin	1590	U
110-86-1	Pyridine	1590	U
62-53-3	Aniline	1590	U
108-95-2	Phenol	1590	U
111-44-4	bis(2-Chloroethyl) ether	1590	U
95-57-8	2-Chlorophenol	1590	U
541-73-1	1,3-Dichlorobenzene	1590	U
106-46-7	1,4-Dichlorobenzene	1590	U
100-51-6	Benzyl alcohol	1590	U
95-50-1	1,2-Dichlorobenzene	1590	U
108-60-1	bis(2-Chloroisopropyl)ether	1590	U
95-48-7	o-Cresol	1590	U
621-64-7	N-Nitrosodipropylamine	1590	U
65794-96-9	m,p-Cresols	1590	U
67-72-1	Hexachloroethane	1590	U
78-59-1	Isophorone	1590	U
88-75-5	2-Nitrophenol	1590	U
105-67-9	2,4-Dimethylphenol	1590	U
111-91-1	bis(2-Chloroethoxy)methane	1590	U
120-83-2	2,4-Dichlorophenol	1590	U
65-85-0	Benzoic acid	3170	U
120-82-1	1,2,4-Trichlorobenzene	1590	U
91-20-3	Naphthalene	159	U
106-47-8	4-Chloroaniline	1590	U
87-68-3	Hexachlorobutadiene	1590	U
59-50-7	4-Chloro-3-methylphenol	1590	U
91-57-6	2-Methylnaphthalene	159	U
77-47-4	Hexachlorocyclopentadiene	1590	U
88-06-2	2,4,6-Trichlorophenol	1590	U
95-95-4	2,4,5-Trichlorophenol	1590	U
91-58-7	2-Chloronaphthalene	159	U
88-74-4	o-Nitroaniline	1590	U
99-09-2	m-Nitroaniline	1590	U

1C
SVOA ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-59531

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

Matrix: (soil/water) SOIL Lab Sample ID: 135805001

Sample wt/vol: 30.0 (g/mL) G Lab File ID: S8E1906

Level: (low/med) LOW Date Received: 05/04/05

% Moisture: 16 decanted: (Y/N) N Date Extracted: 05/10/05

Concentrated Extract Volume: 1.00(mL) Date Analyzed: 05/19/05

Injection Volume: 0.5(uL) Dilution Factor: 4.0

GPC Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
131-11-3	Dimethylphthalate	1590	U
606-20-2	2,6-Dinitrotoluene	1590	U
208-96-8	Acenaphthylene	159	U
83-32-9	Acenaphthene	159	U
51-28-5	2,4-Dinitrophenol	3170	U
132-64-9	Dibenzofuran	1590	U
121-14-2	2,4-Dinitrotoluene	1590	U
84-66-2	Diethylphthalate	1590	U
100-02-7	4-Nitrophenol	1590	U
86-73-7	Fluorene	159	U
7005-72-3	4-Chlorophenylphenylether	1590	U
534-52-1	2-Methyl-4,6-dinitrophenol	1590	U
100-01-6	p-Nitroaniline	1590	U
122-39-4	Diphenylamine	1590	U
122-66-7	1,2-Diphenylhydrazine	1590	U
101-55-3	4-Bromophenylphenylether	1590	U
118-74-1	Hexachlorobenzene	1590	U
87-86-5	Pentachlorophenol	1590	U
85-01-8	Phenanthrene	159	U
120-12-7	Anthracene	159	U
84-74-2	Di-n-butylphthalate	1590	U
206-44-0	Fluoranthene	159	U
129-00-0	Pyrene	159	U
85-68-7	Butylbenzylphthalate	1590	U
56-55-3	Benzo(a)anthracene	159	U
91-94-1	3,3'-Dichlorobenzidine	1590	U
218-01-9	Chrysene	159	U
117-81-7	bis(2-Ethylhexyl)phthalate	1590	U
117-84-0	Di-n-octylphthalate	1590	U
205-99-2	Benzo(b)fluoranthene	159	U
207-08-9	Benzo(k)fluoranthene	159	U
50-32-8	Benzo(a)pyrene	159	U
193-39-5	Indeno(1,2,3-cd)pyrene	159	U

FORM I SV-2 OLM03.0

1C
SVOA ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-59531

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

Matrix: (soil/water) SOIL Lab Sample ID: 135805001

Sample wt/vol: 30.0 (g/mL) G Lab File ID: S8E1906

Level: (low/med) LOW Date Received: 05/04/05

% Moisture: 16 decanted: (Y/N) N Date Extracted:05/10/05

Concentrated Extract Volume: 1.00(mL) Date Analyzed: 05/19/05

Injection Volume: 0.5(uL) Dilution Factor: 4.0

GPC Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
53-70-3	Dibenzo(a,h)anthracene	159	U
191-24-2	Benzo(ghi)perylene	159	U

FORM I SV-3 OLM03.0

1F
SVOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

RE03-05-59531

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

Matrix: (soil/water) SOIL Lab Sample ID: 135805001

Sample wt/vol: 30.0 (g/mL) G Lab File ID: S8E1906

Level: (low/med) LOW Date Received: 05/04/05

% Moisture: 16 decanted: (Y/N) N Date Extracted:05/10/05

Concentrated Extract Volume: 1.00(mL) Date Analyzed: 05/19/05

Injection Volume: 0.5(uL) Dilution Factor: 4.0

GPC Cleanup: (Y/N) N

Number TICs found: 6

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 1786-12-5	CYCLOTETRADECANE, 1,7,11-TRI	7.91	3300	NJ
2. 3386-33-2	OCTADECANE, 1-CHLORO-	7.96	3190	NJ
3. 19780-11-1	2-DODECEN-1-YL(-)SUCCINIC AN	8.02	3290	NJ
4.	UNKNOWN	8.04	3460	J
5. 20175-84-2	[1,2'-BINAPHTHALENE]-5,5',8,	8.74	3160	NJ
6. 54482-31-4	D-HOMOANDROSTANE, (5.ALPHA.,	8.98	5530	NJ
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29.				
30.				

FORM I SV-TIC OLM03.0

General Engineering Laboratories, LLC

Data file : /chem/MSD8.i/s051905.b/s8e1906.d
Lab Smp Id: 135805001 Client Smp ID: RE03-05-59531
Inj Date : 19-MAY-2005 16:34
Operator : cak Inst ID: MSD8.i
Smp Info : |135805001|423903|4|SVMF|1|LANL|
Misc Info : |MSD8270_SF|WBN050506-02
Comment : Column: J & W DB-5MS:25m x 0.20mm - 0.33um Film m
Method : /chem/MSD8.i/s051905.b/MSD8-8270-051605a.m
Meth Date : 20-May-2005 11:13 cak Quant Type: ISTD
Cal Date : 11-MAY-2005 18:18 Cal File: s8e1111.d
Als bottle: 6
Dil Factor: 4.00000
Integrator: HP RTE Compound Sublist: 3194S.sub
Target Version: 3.50
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	4.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	15.93160	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.789	3.792	(1.000)	110418	40.0000	
* 29 Naphthalene-d8	136	4.652	4.655	(1.000)	386732	40.0000	
* 46 Acenaphthene-d10	164	5.898	5.901	(1.000)	250462	40.0000	
* 67 Phenanthrene-d10	188	6.891	6.894	(1.000)	517649	40.0000	
* 91 Chrysene-d12	240	8.460	8.463	(1.000)	409876	40.0000	
* 98 Perylene-d12	264	9.576	9.567	(1.000)	298509	40.0000	
$ 3 2-Fluorophenol	112	2.972	2.975	(0.784)	36836	16.1130	2560
$ 5 Phenol-d5	99	3.501	3.504	(0.924)	43839	16.6494	2640
$ 20 Nitrobenzene-d5	82	4.147	4.150	(0.891)	18459	8.24233	1310
$ 39 2-Fluorobiphenyl	172	5.393	5.396	(0.914)	67831	8.85388	1400
$ 60 2,4,6-Tribromophenol	329	6.438	6.442	(1.092)	16285	18.0018	2860
$ 81 p-Terphenyl-d14	244	7.807	7.805	(0.923)	98804	9.94499	1580

General Engineering Laboratories, LLC

Data file : /chem/MSD8.i/s051905.b/s8e1906.d
Lab Smp Id: 135805001 Client Smp ID: RE03-05-59531
Inj Date : 19-MAY-2005 16:34
Operator : cak Inst ID: MSD8.i
Smp Info : |135805001|423903|4|SVMF|1|LANL|
Misc Info : |MSD8270_SF|WBN050506-02
Comment : Column: J & W DB-5MS:25m x 0.20mm - 0.33um Film m
Method : /chem/MSD8.i/s051905.b/MSD8-8270-051605a.m
Meth Date : 20-May-2005 11:13 cak Quant Type: ISTD
Cal Date : 11-MAY-2005 18:18 Cal File: s8e1111.d
Als bottle: 6
Dil Factor: 4.00000
Integrator: HP RTE Compound Sublist: 3194S.sub
Target Version: 3.50
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	4.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	15.93160	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 91 Chrysene-d12	8.460	2454653	40.000

RT	AREA	CONCENTRATIONS ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	QUANT LIBRARY	LIB ENTRY	CPND #
Cyclotetradecane, 1,7,11-trimethyl-4-(1-				CAS #: 1786-12-5			
7.907	1277828	20.8229442	3300	89	Nist98.1	13719	91
Octadecane, 1-chloro-				CAS #: 3386-33-2			
7.960	1234128	20.1108229	3190	91	Nist98.1	112584	91

RT	AREA	CONCENTRATIONS ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	QUANT LIBRARY	LIB ENTRY	CPND #
2-Dodecen-1-yl(-)succinic anhydride					CAS #: 19780-11-1		
8.019	1274512	20.7689149	3290	96	Nist98.1	1951	91
Unknown					CAS #:		
8.042	1339488	21.8277274	3460	0		0	91
[1,2'-Binaphthalene]-5,5',8,8'-tetrone,					CAS #: 20175-84-2		
8.736	1223730	19.9413915	3160	99	Nist98.1	111487	91
D-Homoandrostane, (5.alpha.,13.alpha.)-					CAS #: 54482-31-4		
8.982	2138699	34.8513321	5530	98	Nist98.1	41085	91

Data File: /chem/MSD8.i/s051905.b/s8e1906.d

Date : 19-MAY-2005 16:34

Client ID: RE03-05-59531

Sample Info: |135805001|423903|4|SVMF|1|LANL|

Volume Injected (uL): 0.5

Column phase: J&W DB-5MS

Page 1

Instrument: MSD8.i

Operator: cak

Column diameter: 0.20

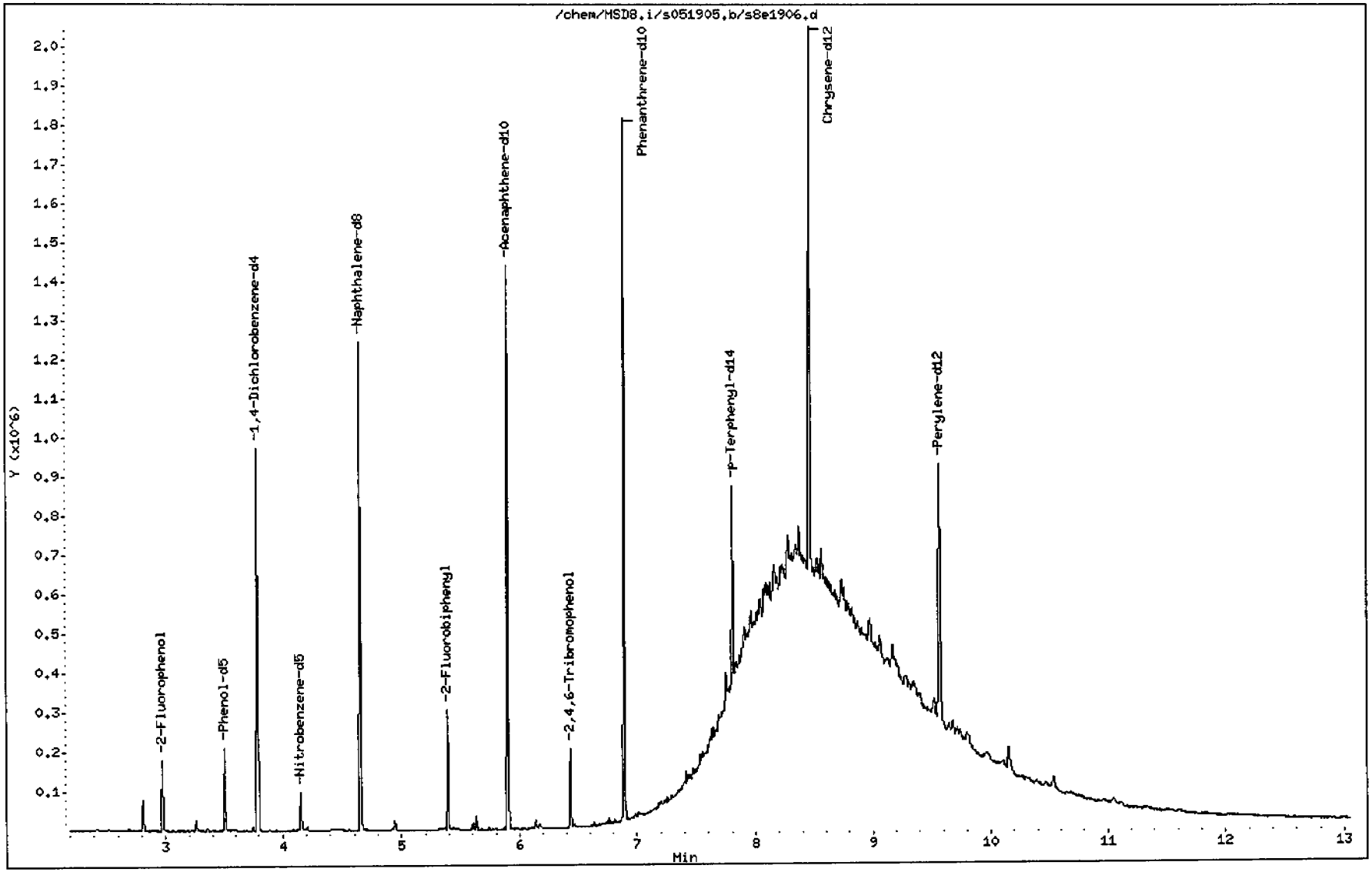

Data File: /chem/MSD8.i/s051905.b/s8e1906.d

Date : 19-MAY-2005 16:34

Client ID: RE03-05-59531

Instrument: MSD8.i

Sample Info: |135805001|423903|4|SVMF|1|LANL|

Volume Injected (uL): 0.5

Operator: cak

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Cyclotetradecane, 1,7,11-trimethyl-4-(1-	1786-12-5	Nist98.l	13719	89	C20H40	280
2-Dodecen-1-yl(-)succinic anhydride	19780-11-1	Nist98.l	1951	83	C16H26O3	266
Octadecane, 1-chloro-	3386-33-2	Nist98.l	112584	70	C18H37Cl	288

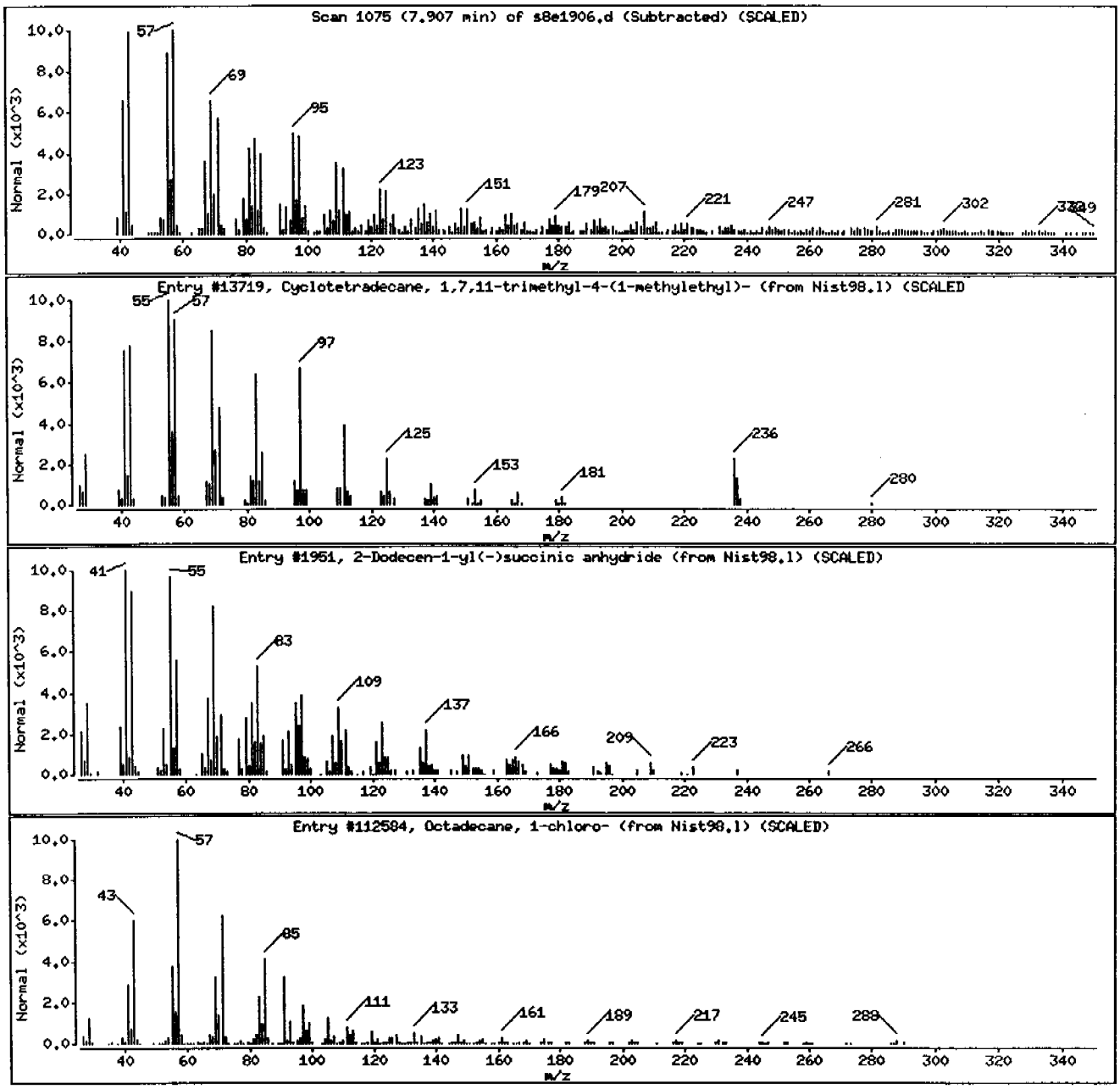

Data File: /chem/MSD8.i/s051905.b/s8e1906.d

Date : 19-MAY-2005 16:34

Client ID: RE03-05-59531

Instrument: MSD8.i

Sample Info: |135805001|423903|4|SVMF|1|LANL|

Volume Injected (uL): 0.5

Operator: cak

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Octadecane, 1-chloro-	3386-33-2	Nist98.l	112584	91	C18H37Cl	288
Cyclotetradecane, 1,7,11-trimethyl-4-(1-	1786-12-5	Nist98.l	13719	90	C20H40	280
2-Dodecen-1-yl(-)succinic anhydride	19780-11-1	Nist98.l	1951	68	C16H26O3	266

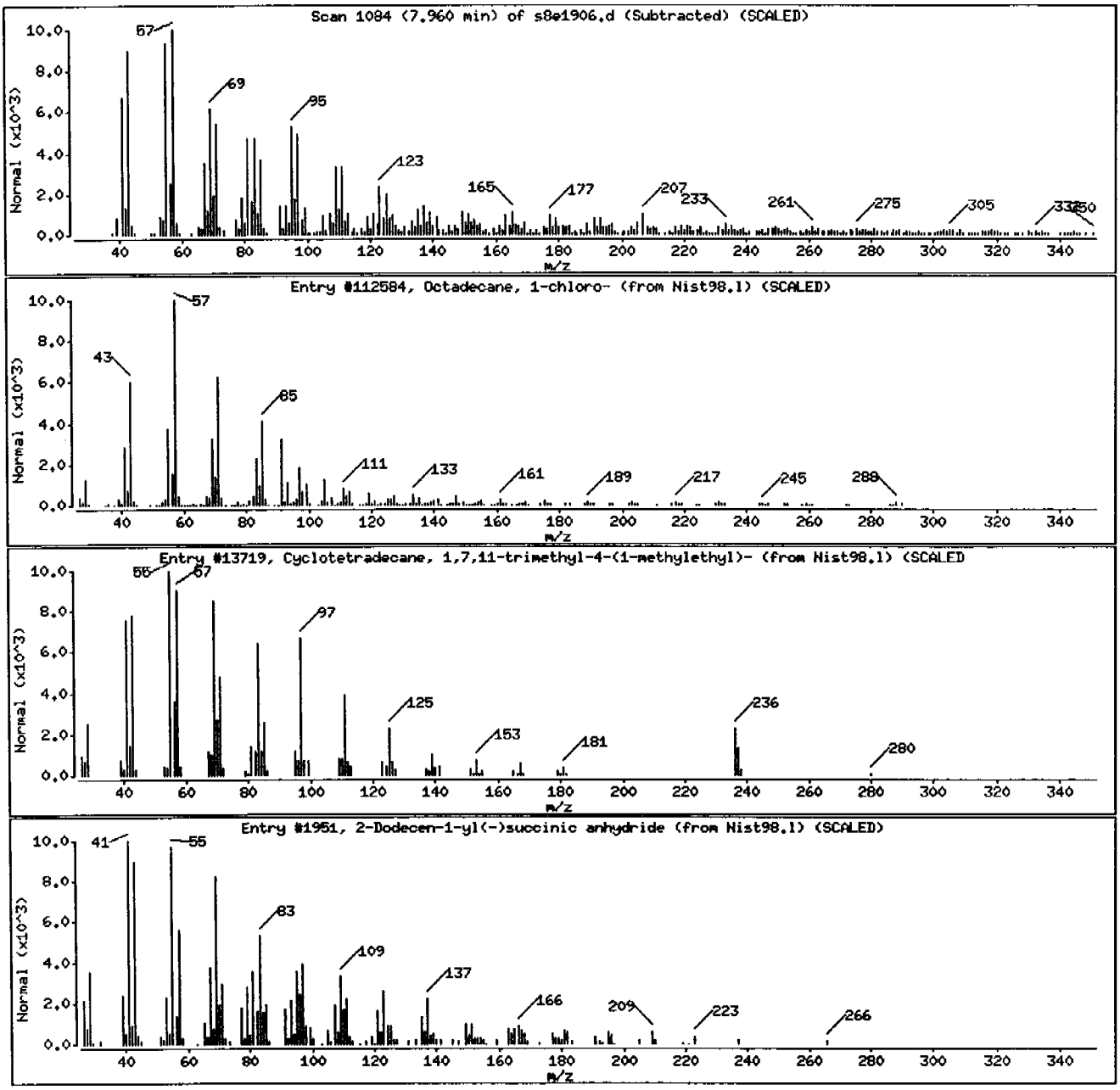

Data File: /chem/MSD8.i/s051905.b/s8e1906.d

Date : 19-MAY-2005 16:34

Client ID: RE03-05-59531

Instrument: MSD8.i

Sample Info: |1358050011423903|4|SVMF|1|LANL|

Volume Injected (uL): 0.5

Operator: cak

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
2-Dodecen-1-yl(-)succinic anhydride	19780-11-1	Nist98.l	1951	96	C16H2603	266
Cyclohexadecane, 1,2-diethyl-	1000155-85-3	Nist98.l	5047	86	C20H40	280
Cyclodocosane, ethyl-	1000151-22-6	Nist98.l	16754	70	C24H48	336

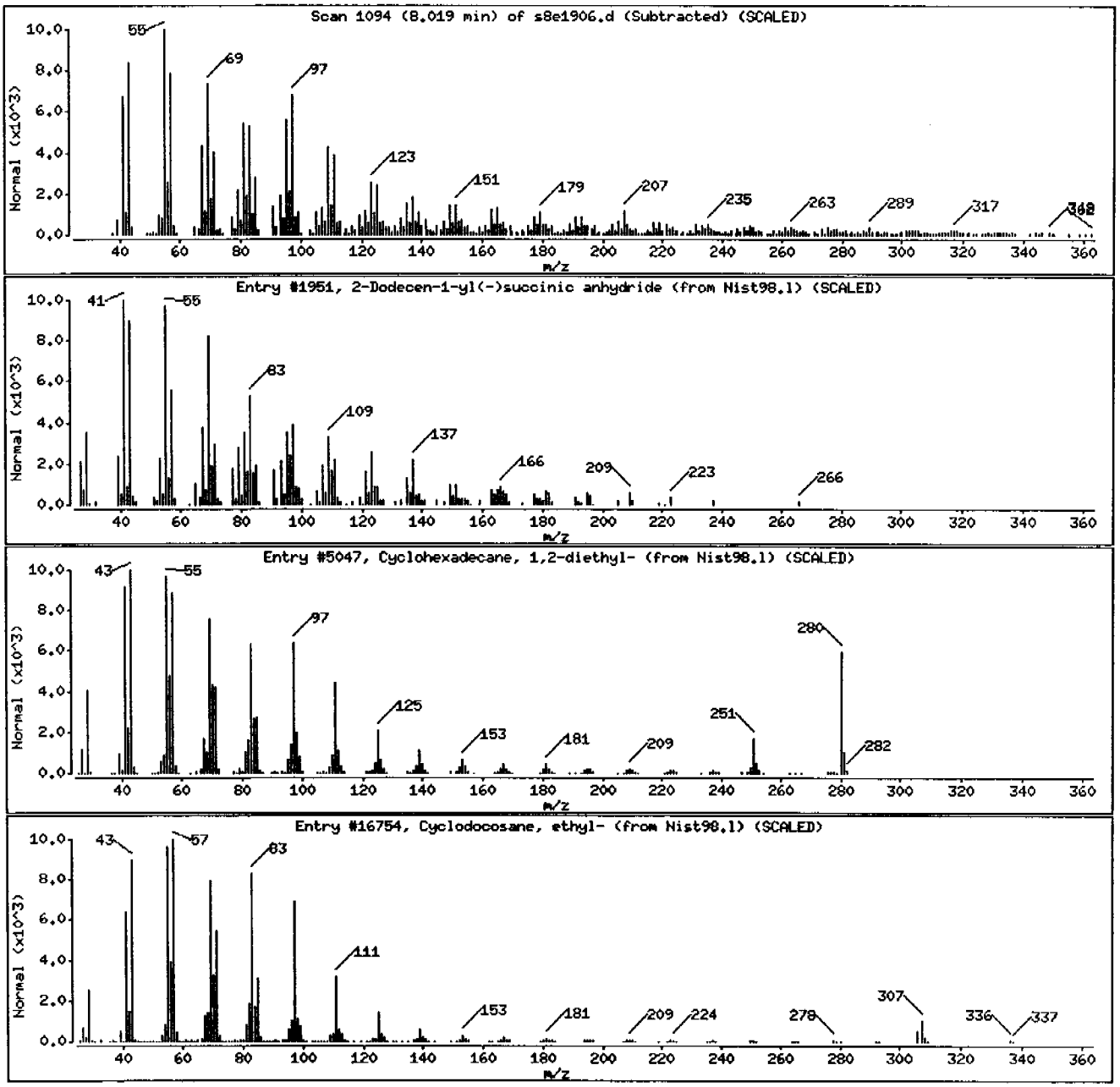

Data File: /chem/MSD8.i/s051905.b/s8e1906.d

Date : 19-MAY-2005 16:34

Client ID: RE03-05-59531

Instrument: MSD8.i

Sample Info: |135805001|423903|4|SVMF|1|LANL|

Volume Injected (uL): 0.5

Operator: cak

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Z-8-Dodecen-1-ol	1000130-71-8	Nist98.l	5239	55	C14H2602	226
E-11,13-Dimethyl-12-tetradecen-1-ol acet	1000130-81-0	Nist98.l	22661	55	C18H3402	282
5,6,6-Trimethyl-5-(3-oxobut-1-enyl)-1-ox	1000192-73-9	Nist98.l	4530	53	C14H2003	236

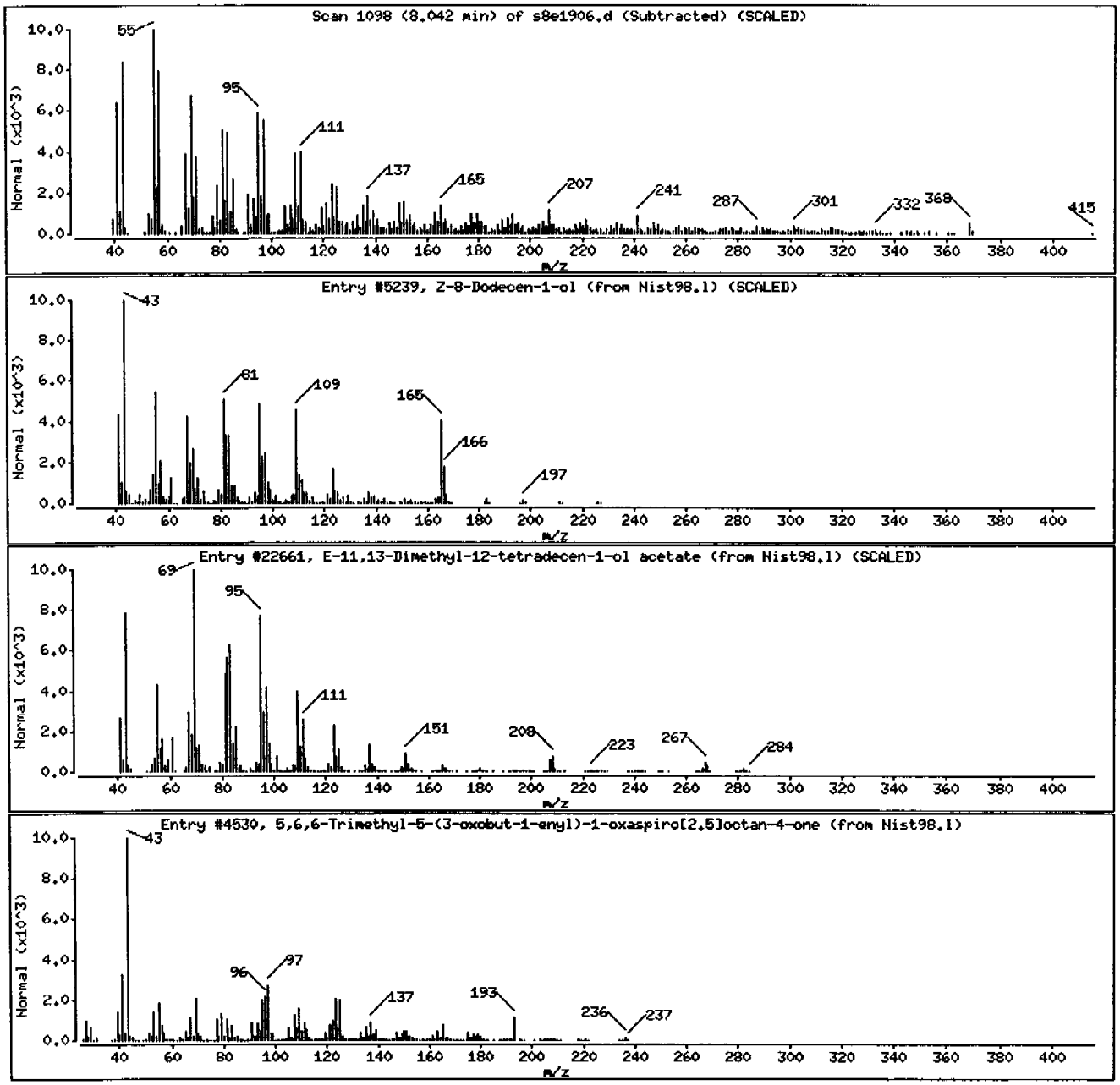

Data File: /chem/MSD8.i/s051905.b/s8e1906.d

Date : 19-MAY-2005 16:34

Client ID: RE03-05-59531

Instrument: MSD8.i

Sample Info: |135805001|423903|4|SVMF|1|LANL|

Volume Injected (uL): 0.5

Operator: cak

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
[1,2'-Binaphthalene]-5,5',8,8'-tetrone,	20175-84-2	Nist98.l	111487	99	C22H1406	374
Cyclotetradecane, 1,7,11-trimethyl-4-(1-	1786-12-5	Nist98.l	13719	90	C20H40	280
1-Bromo-11-iodoundecane	1000195-60-2	Nist98.l	22893	64	C11H22BrI	360

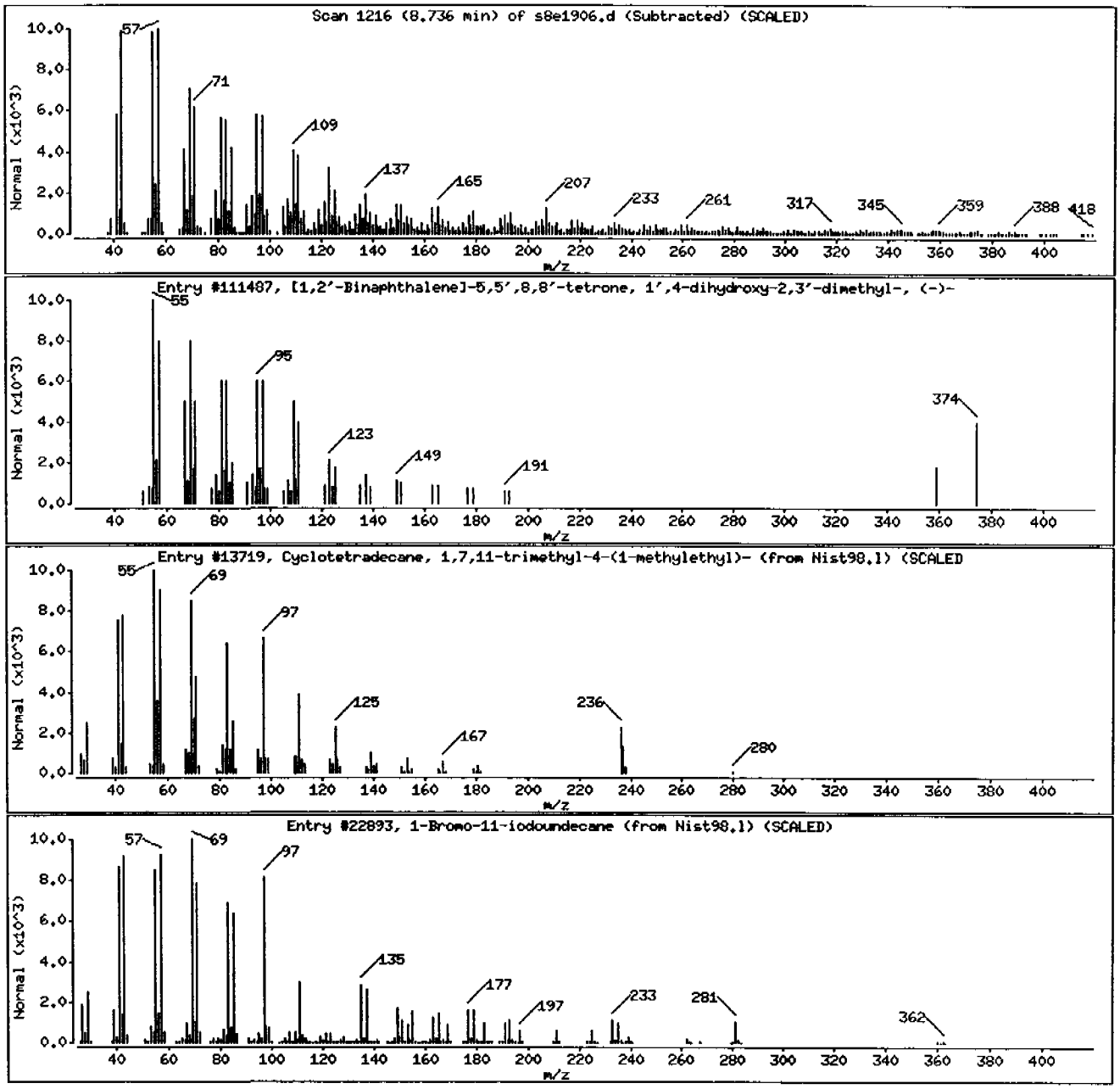

Data File: /chem/MSD8.i/s051905.b/s8e1906.d

Date : 19-MAY-2005 16:34

Client ID: RE03-05-59531

Instrument: MSD8.i

Sample Info: |135805001|423903|4|SVMF|1|LANL|

Volume Injected (uL): 0.5

Operator: cak

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
D-Homoandrostane, (5,alpha.,13,alpha.)-	54482-31-4	Nist98.1	41085	98	C20H34	274
[1,2'-Binaphthalene]-5,5',8,8'-tetrone,	20175-84-2	Nist98.1	111487	92	C22H1406	374
11,12-Dibromo-tetradecan-1-ol acetate	1000130-78-5	Nist98.1	5209	89	C16H30Br2O2	412

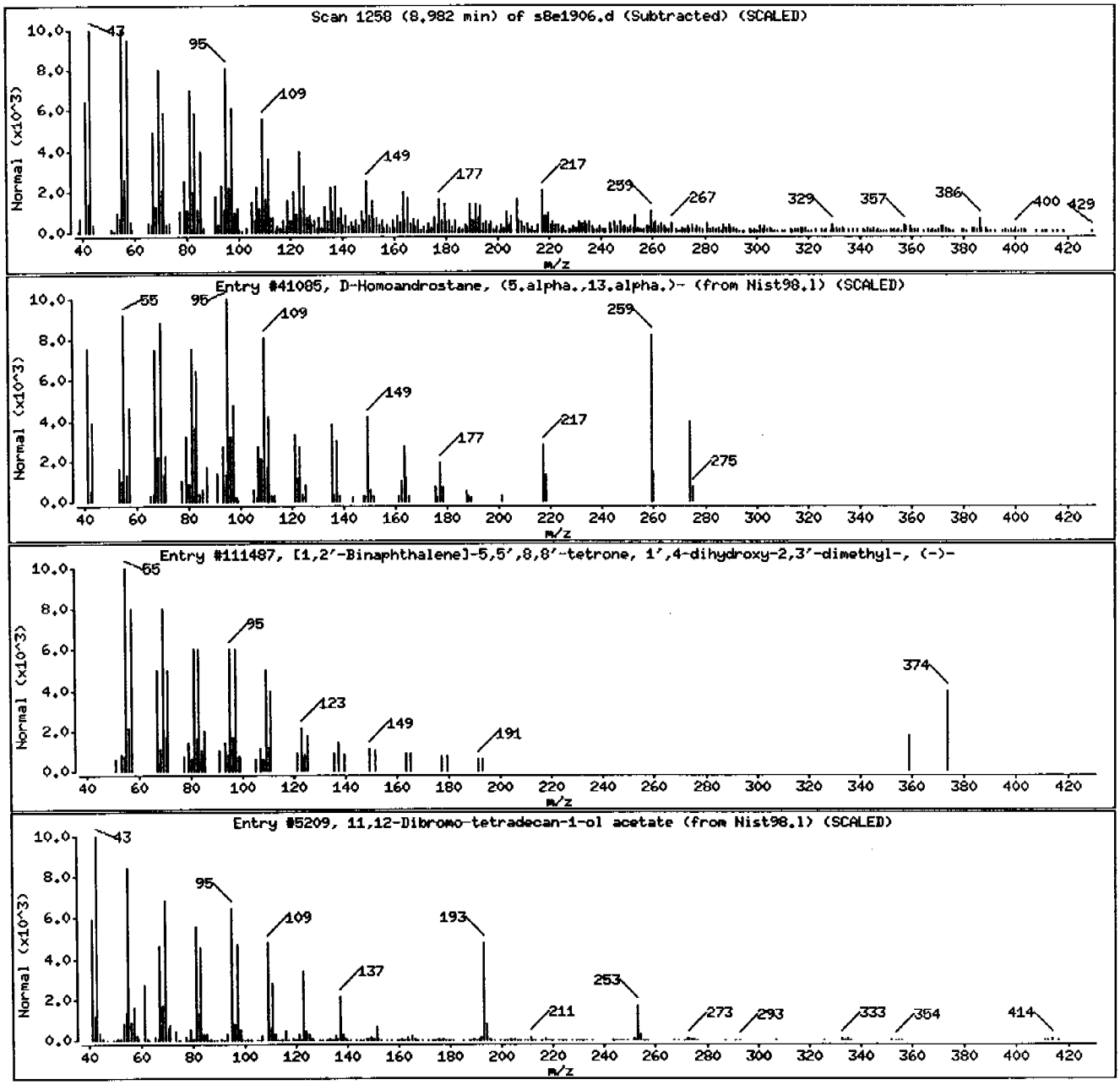

1B
SVOA ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-59532

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

Matrix: (soil/water) SOIL Lab Sample ID: 135805003

Sample wt/vol: 30.0 (g/mL) G Lab File ID: S8E1908

Level: (low/med) LOW Date Received: 05/04/05

% Moisture: 14 decanted: (Y/N) N Date Extracted:05/10/05

Concentrated Extract Volume: 1.00(mL) Date Analyzed: 05/19/05

Injection Volume: 0.5(uL) Dilution Factor: 4.0

GPC Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
62-75-9	N-Methyl-N-nitrosomethylamin	1550	U
110-86-1	Pyridine	1550	U
62-53-3	Aniline	1550	U
108-95-2	Phenol	1550	U
111-44-4	bis(2-Chloroethyl) ether	1550	U
95-57-8	2-Chlorophenol	1550	U
541-73-1	1,3-Dichlorobenzene	1550	U
106-46-7	1,4-Dichlorobenzene	1550	U
100-51-6	Benzyl alcohol	1550	U
95-50-1	1,2-Dichlorobenzene	1550	U
108-60-1	bis(2-Chloroisopropyl)ether	1550	U
95-48-7	o-Cresol	1550	U
621-64-7	N-Nitrosodipropylamine	1550	U
65794-96-9	m,p-Cresols	1550	U
67-72-1	Hexachloroethane	1550	U
78-59-1	Isophorone	1550	U
88-75-5	2-Nitrophenol	1550	U
105-67-9	2,4-Dimethylphenol	1550	U
111-91-1	bis(2-Chloroethoxy)methane	1550	U
120-83-2	2,4-Dichlorophenol	1550	U
65-85-0	Benzoic acid	3100	U
120-82-1	1,2,4-Trichlorobenzene	1550	U
91-20-3	Naphthalene	155	U
106-47-8	4-Chloroaniline	1550	U
87-68-3	Hexachlorobutadiene	1550	U
59-50-7	4-Chloro-3-methylphenol	1550	U
91-57-6	2-Methylnaphthalene	155	U
77-47-4	Hexachlorocyclopentadiene	1550	U
88-06-2	2,4,6-Trichlorophenol	1550	U
95-95-4	2,4,5-Trichlorophenol	1550	U
91-58-7	2-Chloronaphthalene	155	U
88-74-4	o-Nitroaniline	1550	U
99-09-2	m-Nitroaniline	1550	U

FORM I SV-1 OLM03.0

1C
SVOA ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-59532

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

Matrix: (soil/water) SOIL Lab Sample ID: 135805003

Sample wt/vol: 30.0 (g/mL) G Lab File ID: S8E1908

Level: (low/med) LOW Date Received: 05/04/05

% Moisture: 14 decanted: (Y/N) N Date Extracted:05/10/05

Concentrated Extract Volume: 1.00(mL) Date Analyzed: 05/19/05

Injection Volume: 0.5(uL) Dilution Factor: 4.0

GPC Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
131-11-3	Dimethylphthalate	1550	U
606-20-2	2,6-Dinitrotoluene	1550	U
208-96-8	Acenaphthylene	155	U
83-32-9	Acenaphthene	155	U
51-28-5	2,4-Dinitrophenol	3100	U
132-64-9	Dibenzofuran	1550	U
121-14-2	2,4-Dinitrotoluene	1550	U
84-66-2	Diethylphthalate	1550	U
100-02-7	4-Nitrophenol	1550	U
86-73-7	Fluorene	155	U
7005-72-3	4-Chlorophenylphenylether	1550	U
534-52-1	2-Methyl-4,6-dinitrophenol	1550	U
100-01-6	p-Nitroaniline	1550	U
122-39-4	Diphenylamine	1550	U
122-66-7	1,2-Diphenylhydrazine	1550	U
101-55-3	4-Bromophenylphenylether	1550	U
118-74-1	Hexachlorobenzene	1550	U
87-86-5	Pentachlorophenol	1550	U
85-01-8	Phenanthrene	155	U
120-12-7	Anthracene	155	U
84-74-2	Di-n-butylphthalate	1550	U
206-44-0	Fluoranthene	155	U
129-00-0	Pyrene	155	U
85-68-7	Butylbenzylphthalate	1550	U
56-55-3	Benzo(a)anthracene	155	U
91-94-1	3,3'-Dichlorobenzidine	1550	U
218-01-9	Chrysene	155	U
117-81-7	bis(2-Ethylhexyl)phthalate	691	JB
117-84-0	Di-n-octylphthalate	1550	U
205-99-2	Benzo(b)fluoranthene	155	U
207-08-9	Benzo(k)fluoranthene	155	U
50-32-8	Benzo(a)pyrene	155	U
193-39-5	Indeno(1,2,3-cd)pyrene	155	U

FORM I SV-2 OLM03.0

1C
SVOA ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-59532

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

Matrix: (soil/water) SOIL Lab Sample ID: 135805003

Sample wt/vol: 30.0 (g/mL) G Lab File ID: S8E1908

Level: (low/med) LOW Date Received: 05/04/05

% Moisture: 14 decanted: (Y/N) N Date Extracted:05/10/05

Concentrated Extract Volume: 1.00(mL) Date Analyzed: 05/19/05

Injection Volume: 0.5(uL) Dilution Factor: 4.0

GPC Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
53-70-3	Dibenzo(a,h)anthracene	155	U
191-24-2	Benzo(ghi)perylene	155	U

FORM I SV-3 OLM03.0

1F

SVOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

RE03-05-59532

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

Matrix: (soil/water) SOIL Lab Sample ID: 135805003

Sample wt/vol: 30.0 (g/mL) G Lab File ID: S8E1908

Level: (low/med) LOW Date Received: 05/04/05

% Moisture: 14 decanted: (Y/N) N Date Extracted:05/10/05

Concentrated Extract Volume: 1.00(mL) Date Analyzed: 05/19/05

Injection Volume: 0.5(uL) Dilution Factor: 4.0

GPC Cleanup: (Y/N) N

Number TICs found: 9

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 19780-11-1	2-DODECEN-1-YL(-)SUCCINIC AN	7.91	2980	NJ
2.	UNKNOWN HYDROCARBON	8.07	3480	J
3. 1786-12-5	CYCLOTETRADECANE, 1,7,11-TRI	8.12	2330	NJ
4. 1000130-81-0	E-11,13-DIMETHYL-12-TETRADEC	8.16	2820	NJ
5. 20175-84-2	[1,2'-BINAPHTHALENE]-5,5',8,	8.21	2110	NJ
6. 55044-36-5	1H-INDENE, 5-BUTYL-6-HEXYLOC	8.24	2560	NJ
7. 18835-33-1	1-HEXACOSENE	8.72	4360	NJ
8.	UNKNOWN	8.94	1750	J
9. 54482-31-4	D-HOMOANDROSTANE, (5.ALPHA.,	8.97	2370	NJ
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
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29.				
30.				

FORM I SV-TIC OLM03.0

General Engineering Laboratories, LLC

Data file : /chem/MSD8.i/s051905.b/s8e1908.d
Lab Smp Id: 135805003 Client Smp ID: RE03-05-59532
Inj Date : 19-MAY-2005 17:15
Operator : cak Inst ID: MSD8.i
Smp Info : |135805003|423903|4|SVMF|1|LANL|
Misc Info : |MSD8270_SF|WBN050506-02
Comment : Column: J & W DB-5MS:25m x 0.20mm - 0.33um Film m
Method : /chem/MSD8.i/s051905.b/MSD8-8270-051605a.m
Meth Date : 23-May-2005 08:53 cak Quant Type: ISTD
Cal Date : 11-MAY-2005 18:18 Cal File: s8e1111.d
Als bottle: 8
Dil Factor: 4.00000
Integrator: HP RTE Compound Sublist: 3194S.sub
Target Version: 3.50
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	4.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	13.99250	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.788	3.792	(1.000)	132793	40.0000	
* 29 Naphthalene-d8	136	4.652	4.655	(1.000)	477143	40.0000	
* 46 Acenaphthene-d10	164	5.898	5.901	(1.000)	302171	40.0000	
* 67 Phenanthrene-d10	188	6.891	6.894	(1.000)	578891	40.0000	
* 91 Chrysene-d12	240	8.459	8.463	(1.000)	367829	40.0000	
* 98 Perylene-d12	264	9.564	9.567	(1.000)	291430	40.0000	
$ 3 2-Fluorophenol	112	2.972	2.975	(0.784)	49957	18.1705	2820
$ 5 Phenol-d5	99	3.501	3.504	(0.924)	56880	17.9623	2780
$ 20 Nitrobenzene-d5	82	4.147	4.150	(0.891)	24960	9.03334	1400
$ 39 2-Fluorobiphenyl	172	5.392	5.396	(0.914)	89039	9.63329	1490
$ 60 2,4,6-Tribromophenol	329	6.438	6.442	(1.092)	21257	19.4769	3020
$ 81 p-Terphenyl-d14	244	7.801	7.805	(0.922)	107745	12.0846	1870

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
93 bis(2-Ethylhexyl)phthalate	149	8.371	8.375	(0.990)	6541	4.45532	691(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

General Engineering Laboratories, LLC

Data file : /chem/MSD8.i/s051905.b/s8e1908.d
Lab Smp Id: 135805003 Client Smp ID: RE03-05-59532
Inj Date : 19-MAY-2005 17:15
Operator : cak Inst ID: MSD8.i
Smp Info : |135805003|423903|4|SVMF|1|LANL|
Misc Info : |MSD8270_SF|WBN050506-02
Comment : Column: J & W DB-5MS:25m x 0.20mm - 0.33um Film m
Method : /chem/MSD8.i/s051905.b/MSD8-8270-051605a.m
Meth Date : 23-May-2005 08:53 cak Quant Type: ISTD
Cal Date : 11-MAY-2005 18:18 Cal File: s8e1111.d
Als bottle: 8
Dil Factor: 4.00000
Integrator: HP RTE Compound Sublist: 3194S.sub
Target Version: 3.50
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	4.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	13.99250	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 91 Chrysene-d12	8.459	1621887	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
2-Dodecen-1-yl(-)succinic anhydride				CAS #: 19780-11-1			
7.907	780016	19.2372407	2980	96	Nist98.1	1951	91
Unknown Hydrocarbon				CAS #:			
8.072	909787	22.4377490	3480	0		0	91

RT	AREA	CONCENTRATIONS ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	QUANT LIBRARY	LIB ENTRY	CPND #
Cyclotetradecane, 1,7,11-trimethyl-4-(1-					CAS #: 1786-12-5		
8.119	610043	15.0452604	2330	86	Nist98.1	111544	91
E-11,13-Dimethyl-12-tetradecen-1-ol acet					CAS #: 1000130-81-0		
8.160	738084	18.2030905	2820	91	Nist98.1	22661	91
[1,2'-Binaphthalene]-5,5',8,8'-tetrone,					CAS #: 20175-84-2		
8.213	552004	13.6138594	2110	98	Nist98.1	111487	91
1H-Indene, 5-butyl-6-hexyloctahydro-					CAS #: 55044-36-5		
8.236	670644	16.5398486	2560	83	Nist98.1	2761	91
1-Hexacosene					CAS #: 18835-33-1		
8.724	1141314	28.1478075	4360	94	Nist98.1	109692	91
Unknown					CAS #:		
8.935	458092	11.2977606	1750	0		0	91
D-Homoandrostane, (5.alpha.,13.alpha.)-					CAS #: 54482-31-4		
8.971	620373	15.3000226	2370	93	Nist98.1	41085	91

Data File: /chem/MSD8.i/s051905.b/s8e1908.d
Date : 19-MAY-2005 17:15
Client ID: RE03-05-59832
Sample Info: |1358050031423903141SVMF11|LANL|
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD8.i

Operator: cak
Column diameter: 0.20

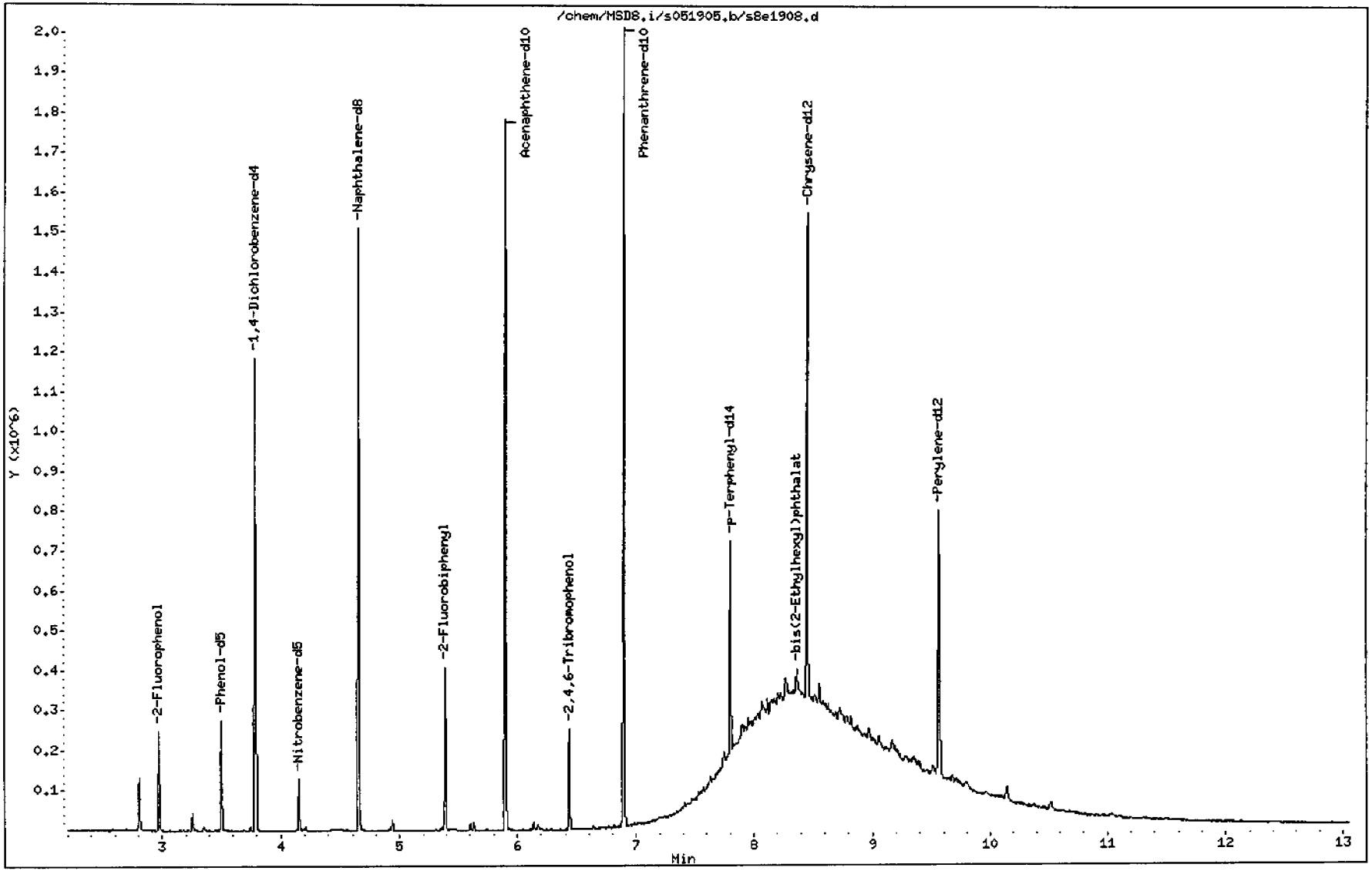

Data File: /chem/MSD8.i/s051905.b/s8e1908.d

Date : 19-MAY-2005 17:15

Client ID: RE03-05-59532

Instrument: MSD8.i

Sample Info: 1135805003142390314ISVMF11LANL1

Volume Injected (uL): 0.5

Operator: cak

Column phase: J&W DB-5MS

Column diameter: 0.20

93 bis(2-Ethylhexyl)phthalate

Concentration: 691 ug/Kg

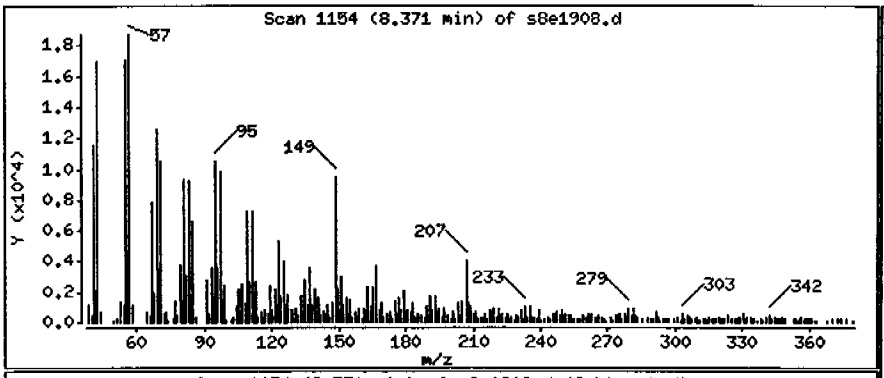

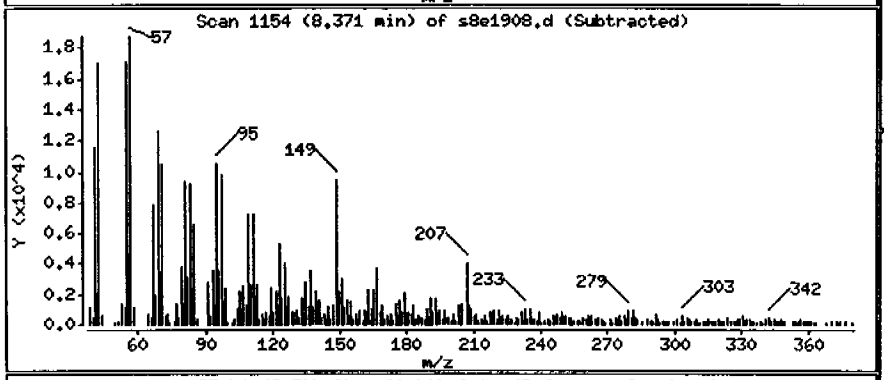

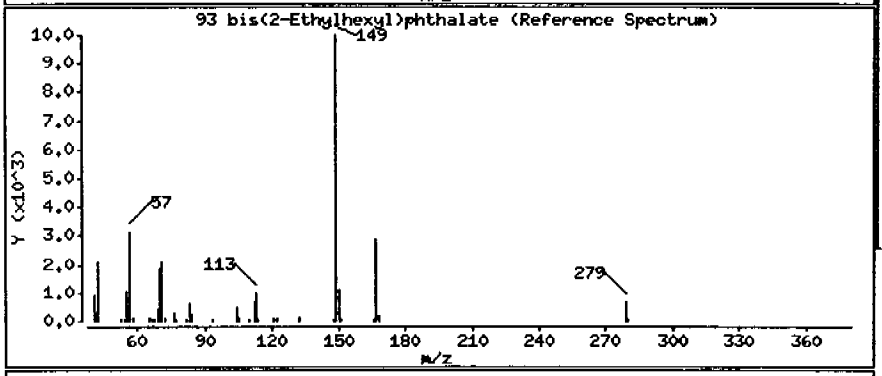

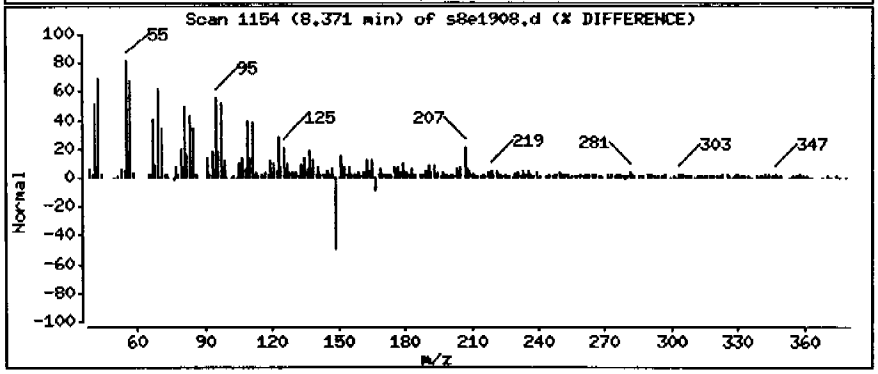

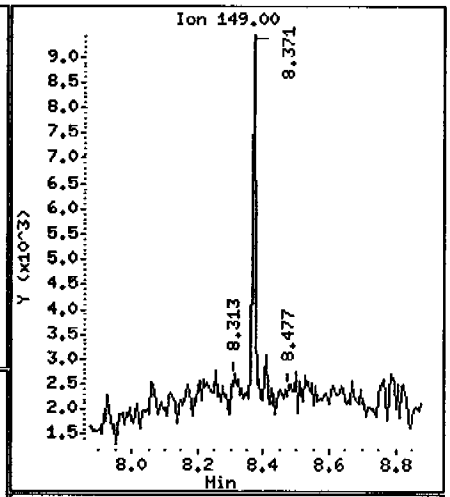

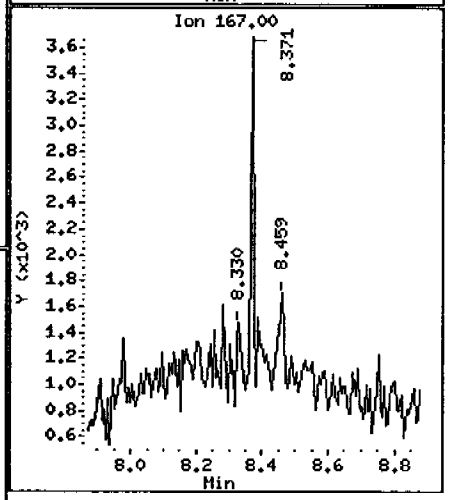

Data File: /chem/MSD8.i/s051905.b/s8e1908.d

Date : 19-MAY-2005 17:15

Client ID: RE03-05-59532

Instrument: MSD8.i

Sample Info: |135805003|423903|4|SVMF|1|LANL|

Volume Injected (uL): 0.5

Operator: cak

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
2-Dodecen-1-yl(-)succinic anhydride	19780-11-1	Nist98.l	1951	96	C16H2603	266
E-11,13-Dimethyl-12-tetradecen-1-ol acet	1000130-81-0	Nist98.l	22661	64	C18H3402	282
Cyclopentane, (2-hexylootyl)-	55044-77-4	Nist98.l	1773	56	C19H38	266

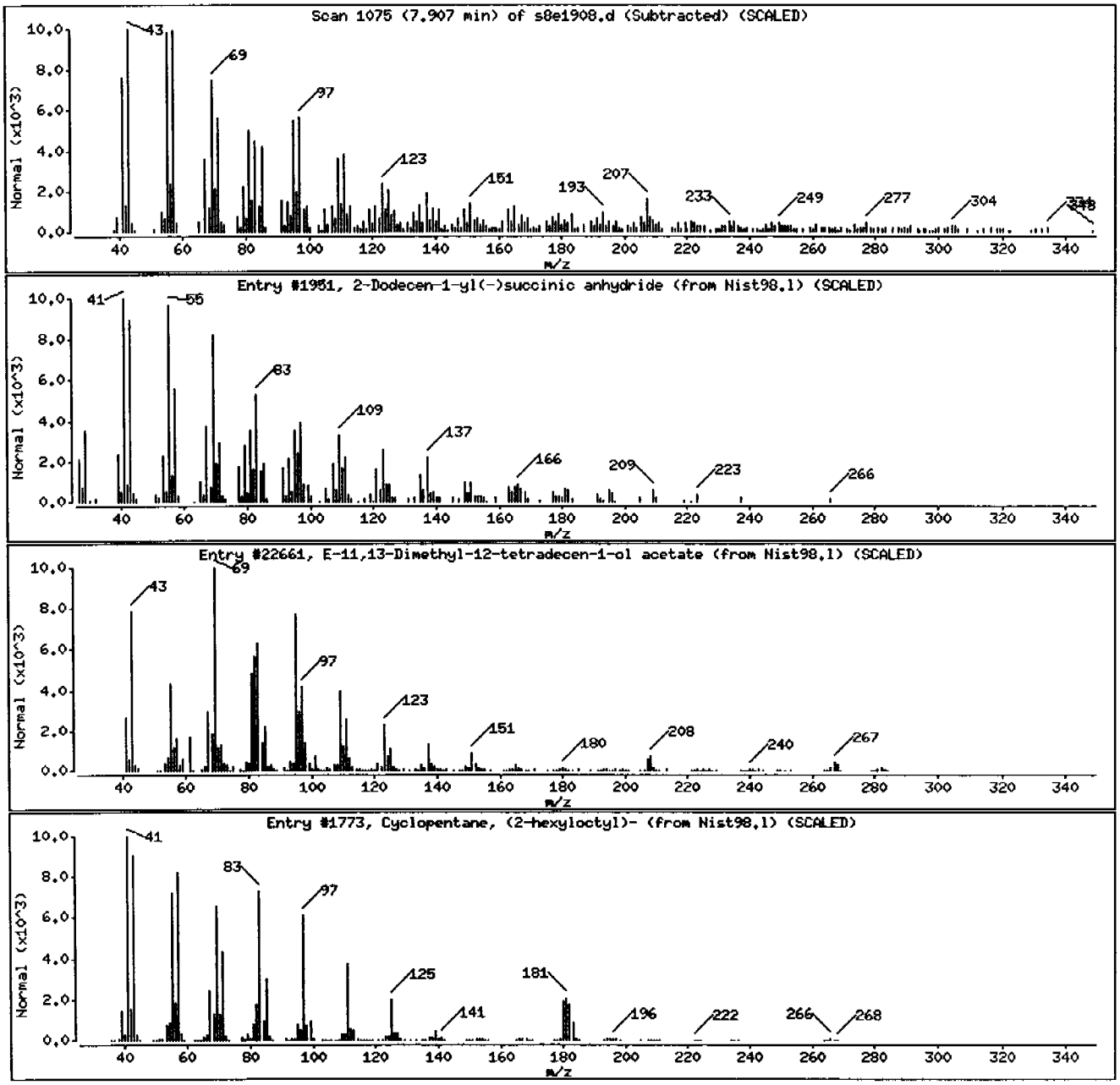

Data File: /chem/MSD8.i/s051905.b/s8e1908.d

Date : 19-MAY-2005 17:15

Client ID: RE03-05-59532

Instrument: MSD8.i

Sample Info: |135805003|423903|4|SVHF|1|LANL|

Volume Injected (uL): 0.5

Operator: cak

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Hydrocarbon						
1-Docosene	1599-67-3	Nist98.l	111438	70	C22H44	308
Cyclopentane, (2-hexyloctyl)-	55044-77-4	Nist98.l	108541	64	C19H38	266
Cyclopentane, (2-hexyloctyl)-	55044-77-4	Nist98.l	1773	64	C19H38	266

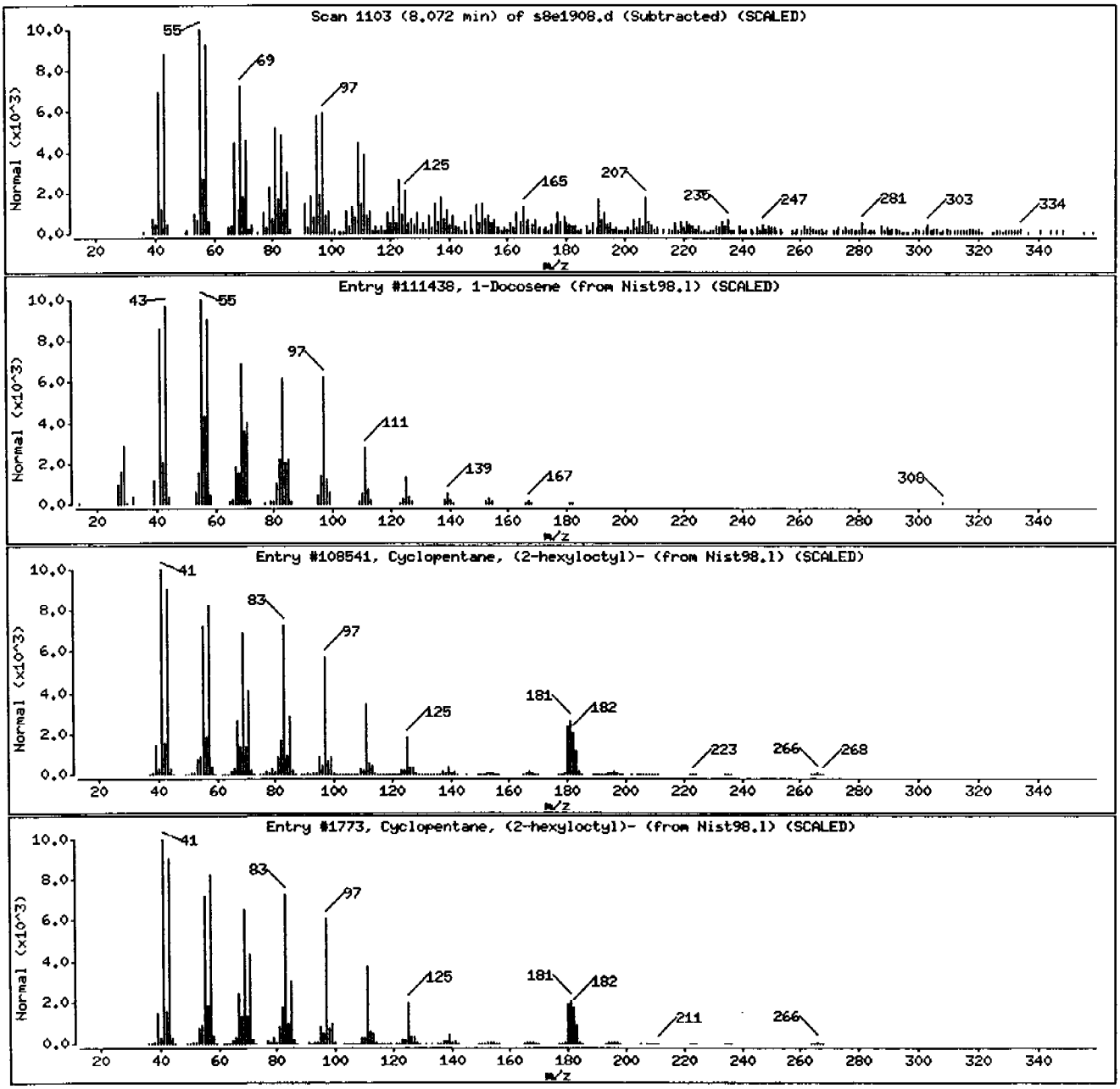

Data File: /chem/MSD8.i/s051905.b/s8e1908.d

Date : 19-MAY-2005 17:15

Client ID: RE03-05-59532

Instrument: MSD8.i

Sample Info: |135805003|423903|4|SVMF|1|LANL|

Volume Injected (uL): 0.5

Operator: cak

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Cyclotetradecane, 1,7,11-trimethyl-4-(1-	1786-12-5	Nist98.l	111544	86	C20H40	280
2-Dodecen-1-yl(-)succinic anhydride	19780-11-1	Nist98.l	1951	83	C16H26O3	266
Methanesulfonic acid, 2,7-dioxatricyclo[	75568-59-1	Nist98.l	14351	51	C9H14O5S	234

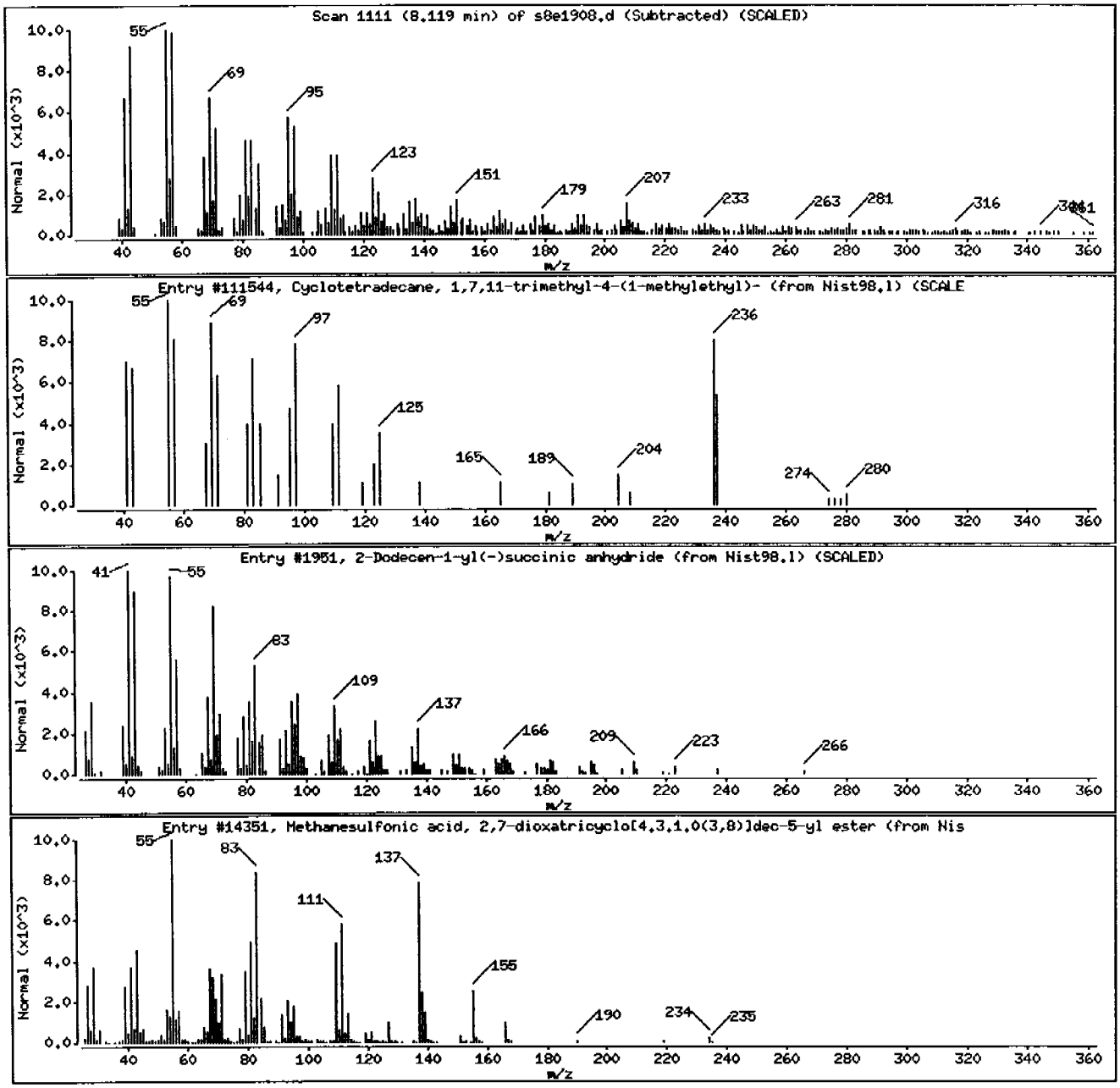

Data File: /chem/MSD8.i/s051905.b/s8e1908.d

Date : 19-MAY-2005 17:15

Client ID: RE03-05-59532

Instrument: MSD8.i

Sample Info: |135805003|423903|4|SVMF|1|LANL|

Volume Injected (uL): 0.5

Operator: cak

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
E-11,13-Dimethyl-12-tetradecen-1-ol acet	1000130-81-0	Nist98.l	22661	91	C18H3402	282
2-Dodecen-1-yl(-)succinic anhydride	19780-11-1	Nist98.l	1951	90	C16H2603	266
Z-8-Dodecen-1-ol	1000130-71-8	Nist98.l	5239	50	C14H2602	226

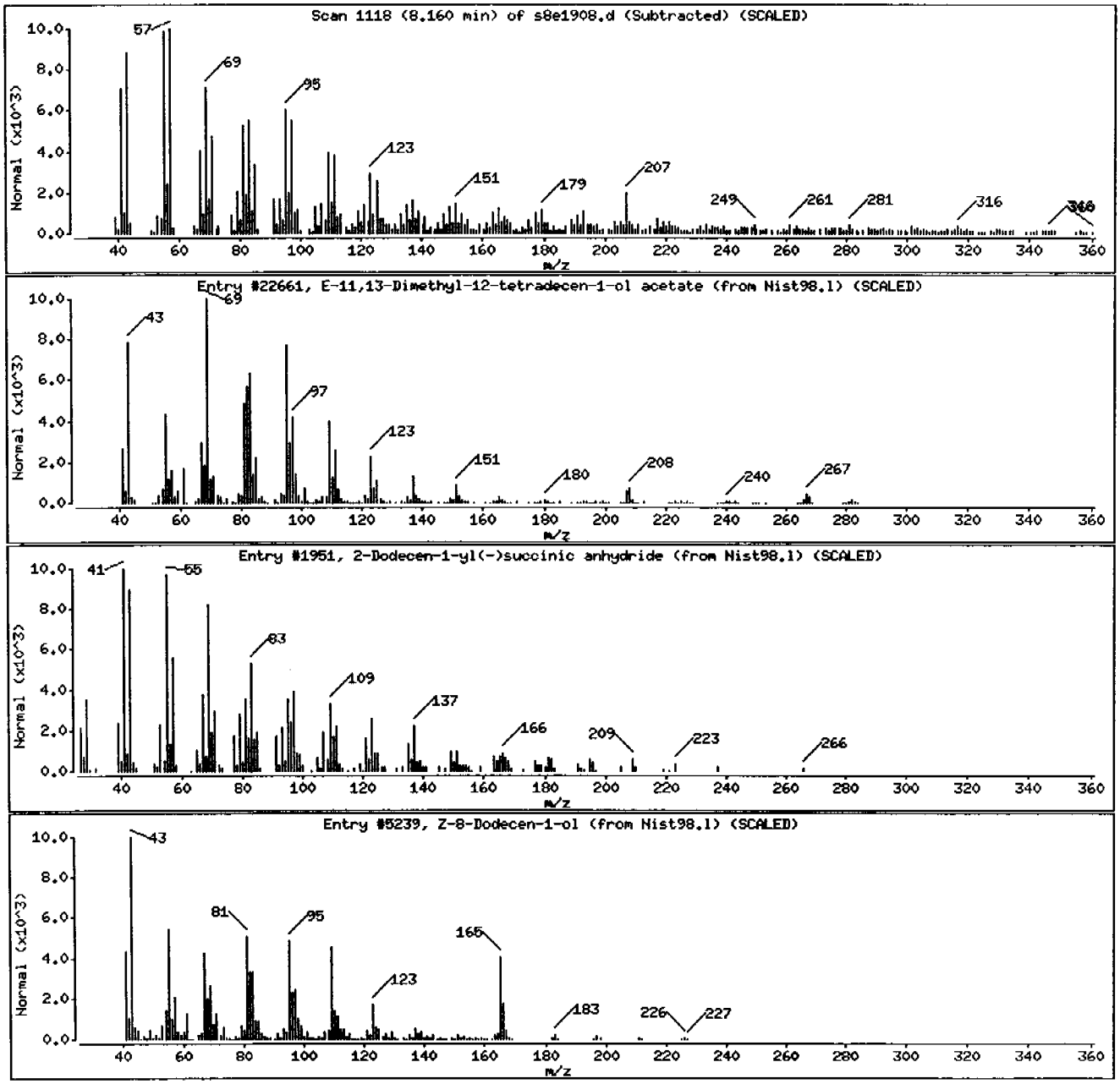

Data File: /chem/MSD8.i/s051905.b/s8e1908.d

Date : 19-MAY-2005 17:15

Client ID: RE03-05-59532 Instrument: MSD8.i

Sample Info: |135805003142390314|SVMF11LANL|

Volume Injected (uL): 0.5 Operator: cak

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
[1,2'-Binaphthalene]-5,5',8,8'-tetrone,	20175-84-2	Nist98.l	111487	98	C22H1406	374
Trifluoroacetoxy hexadecane	1000130-88-2	Nist98.l	5516	86	C18H33F302	338
2-Dodecen-1-yl(-)succinic anhydride	19780-11-1	Nist98.l	1951	86	C16H2603	266

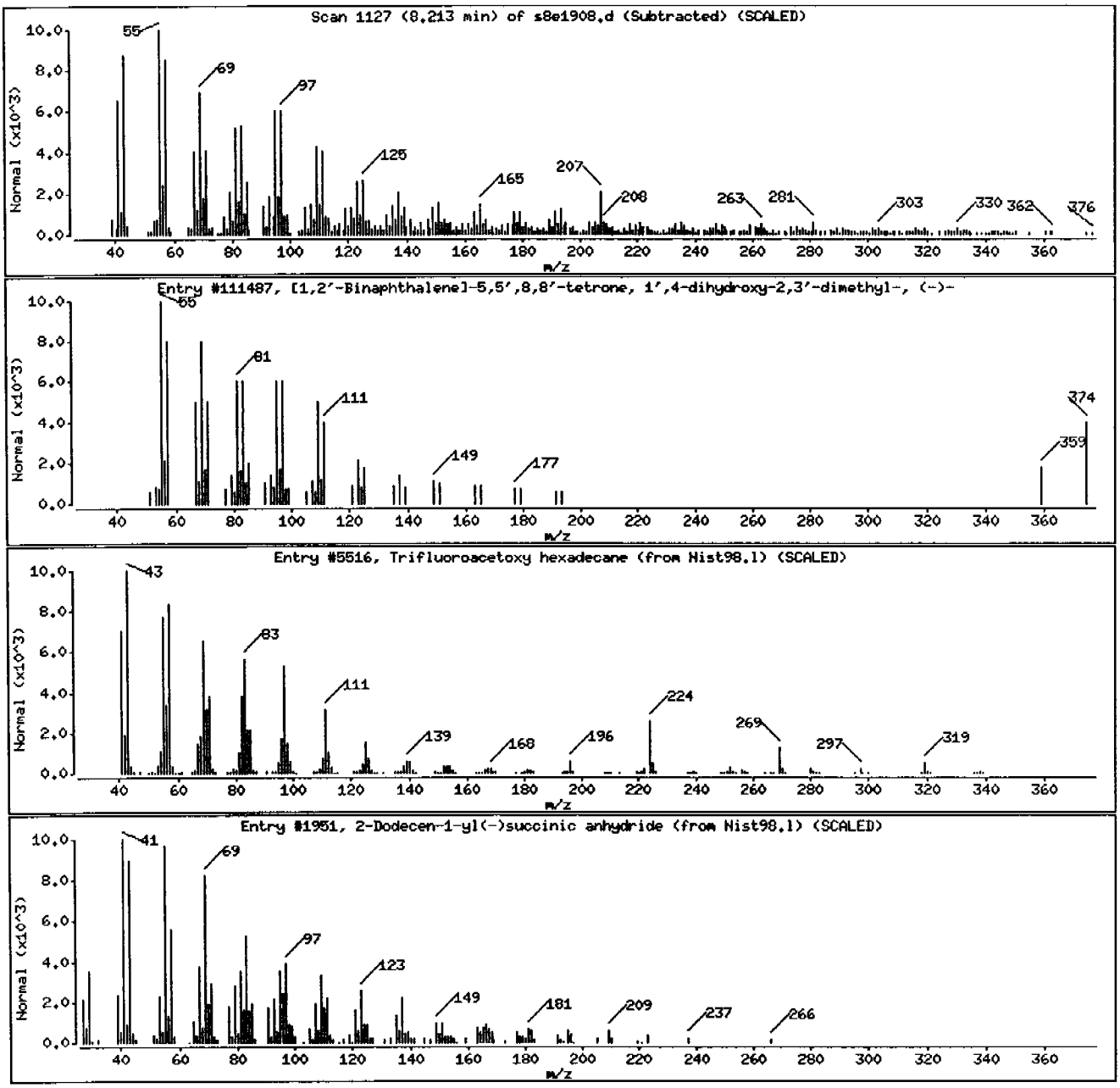

Data File: /chem/MSD8.i/s051905.b/s8e1908.d

Date : 19-MAY-2005 17:15

Client ID: RE03-05-59532 Instrument: MSD8.i

Sample Info: |135805003|423903|4|SVHF|1|LANL|

Volume Injected (uL): 0.5 Operator: cak

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
1H-Indene, 5-butyl-6-hexyloctahydro-	55044-36-5	Nist98.l	2761	83	C19H36	264
Spiro[4.5]decan-7-one, 1,8-dimethyl-8,9-	1000197-25-2	Nist98.l	7938	50	C15H2402	236
1-Hexacosene	18835-33-1	Nist98.l	5535	50	C26H52	364

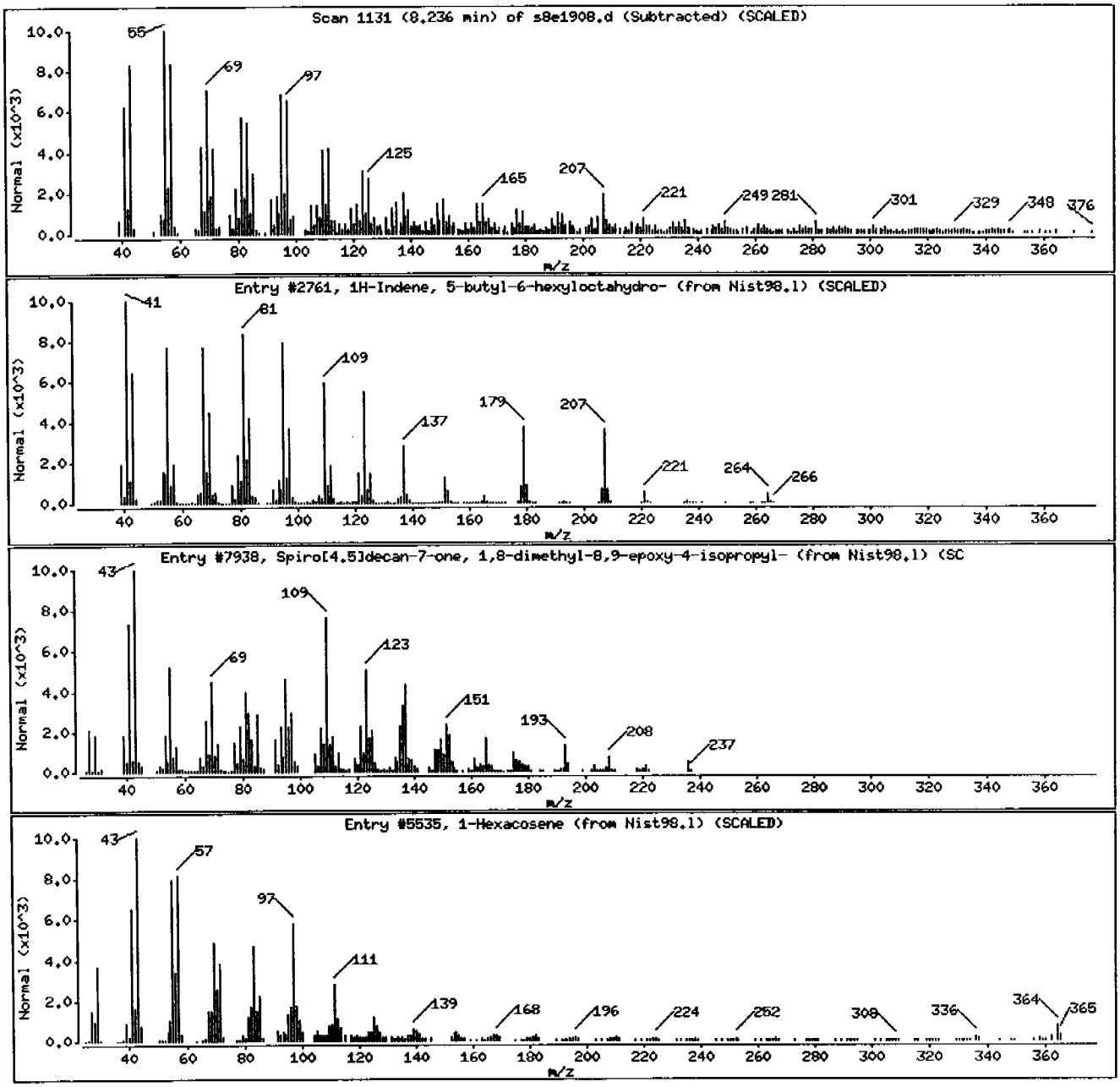

Data File: /chem/MSD8.i/s051905.b/s8e1908.d

Date : 19-MAY-2005 17:15

Client ID: RE03-05-59532 Instrument: MSD8.i

Sample Info: |135805003|423903|4|SVMF|1|LANL|

Volume Injected (uL): 0.5 Operator: cak

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
1-Hexacosene	18835-33-1	Nist98.l	109692	94	C26H52	364
2-Dodecen-1-yl(-)succinic anhydride	19780-11-1	Nist98.l	1951	83	C16H2603	266
4,8-Dimethyl-4Z,8E-tetracosadienal	116206-69-0	Nist98.l	7426	64	C26H480	376

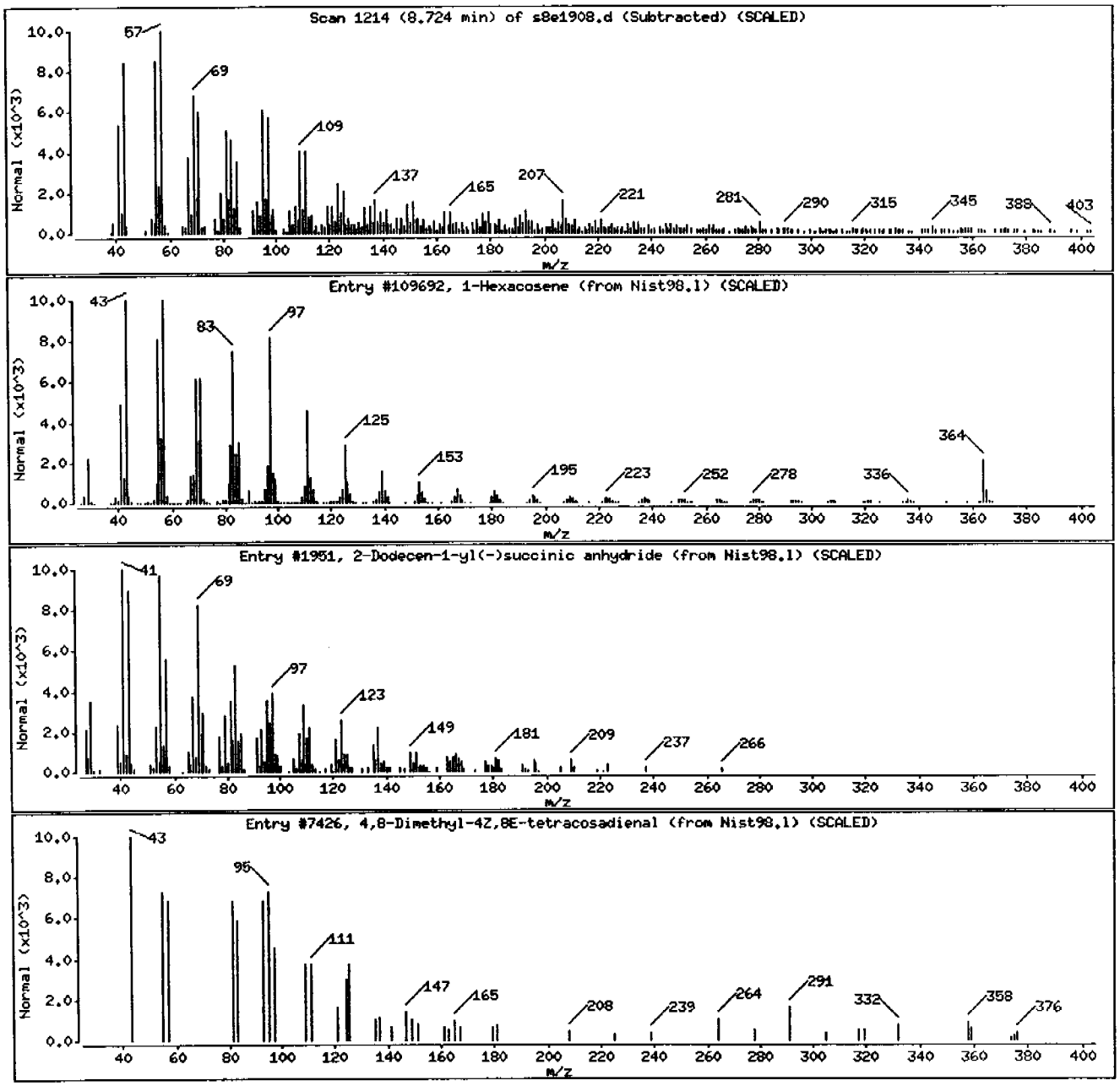

Data File: /chem/MSD8.i/s051905.b/s8e1908.d

Date : 19-MAY-2005 17:15

Client ID: RE03-05-59532

Instrument: MSD8.i

Sample Info: |135805003|423903|4|SVMF|1|LANL|

Volume Injected (uL): 0.5

Operator: cak

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
9,9'-Biphenanthrene, octacosahydro-	55334-18-4	Nist98.l	41632	70	C28H46	382
1H-Indene, 5-butyl-6-hexyloctahydro-	55044-36-5	Nist98.l	2761	70	C19H36	264
Hexadecanoic acid, 2-hydroxy-, methyl es	16742-51-1	Nist98.l	13720	55	C17H3403	286

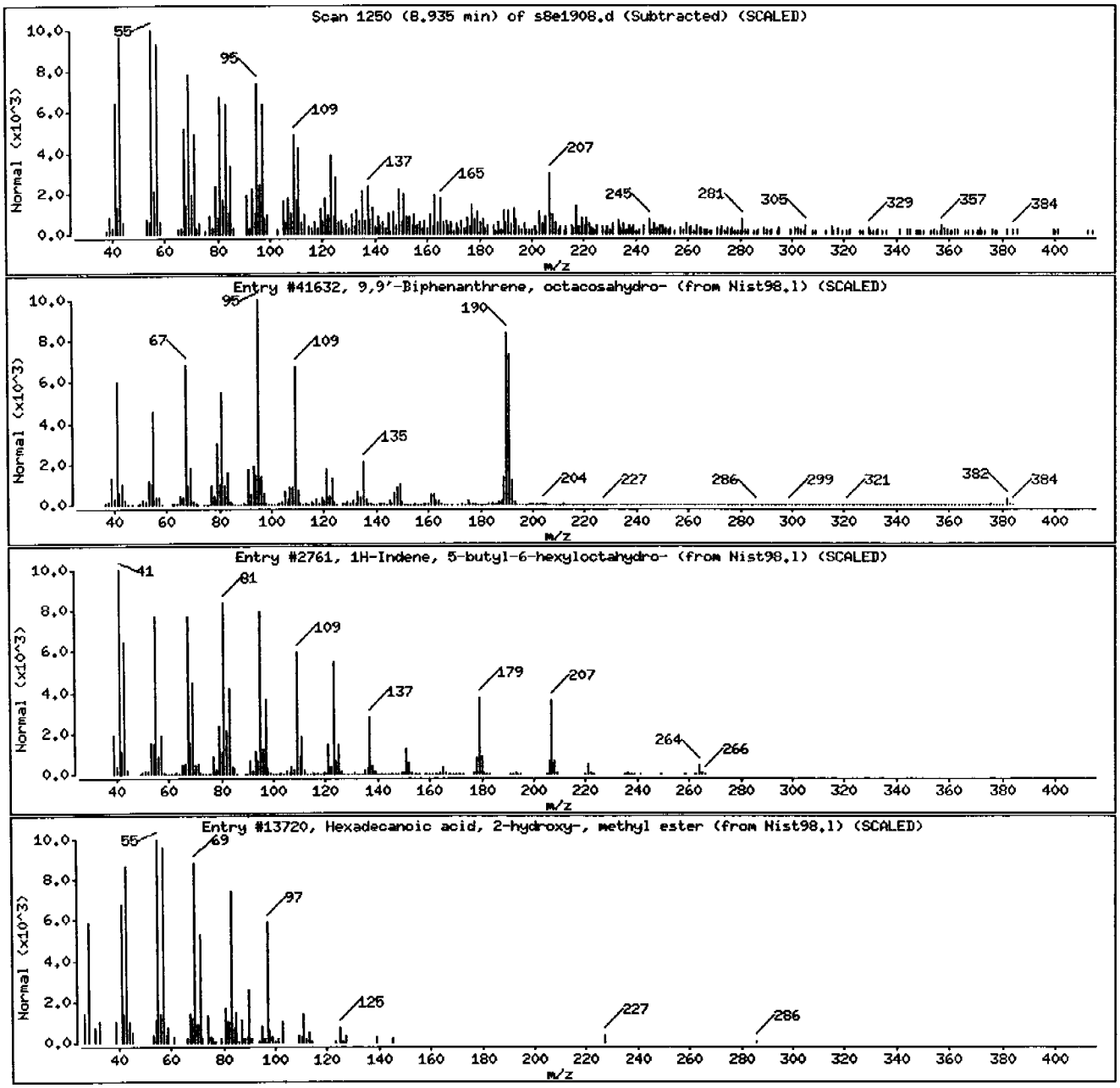

Data File: /chem/MSD8.i/s051905.b/s8e1908.d

Date : 19-MAY-2005 17:15

Client ID: RE03-05-59532

Instrument: MSD8.i

Sample Info: |135805003|423903|4|SVMF|1|LANL|

Volume Injected (uL): 0.5

Operator: cak

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
D-Homoandrostane, (5.alpha.,13.alpha.)-	54482-31-4	Nist98.l	41085	93	C20H34	274
E-11,13-Dimethyl-12-tetradecen-1-ol acet	1000130-81-0	Nist98.l	22661	64	C18H3402	282
8-Decenoic acid, 5-ethenyl-3,5,9-trimeth	56114-53-5	Nist98.l	49283	45	C16H2802	252

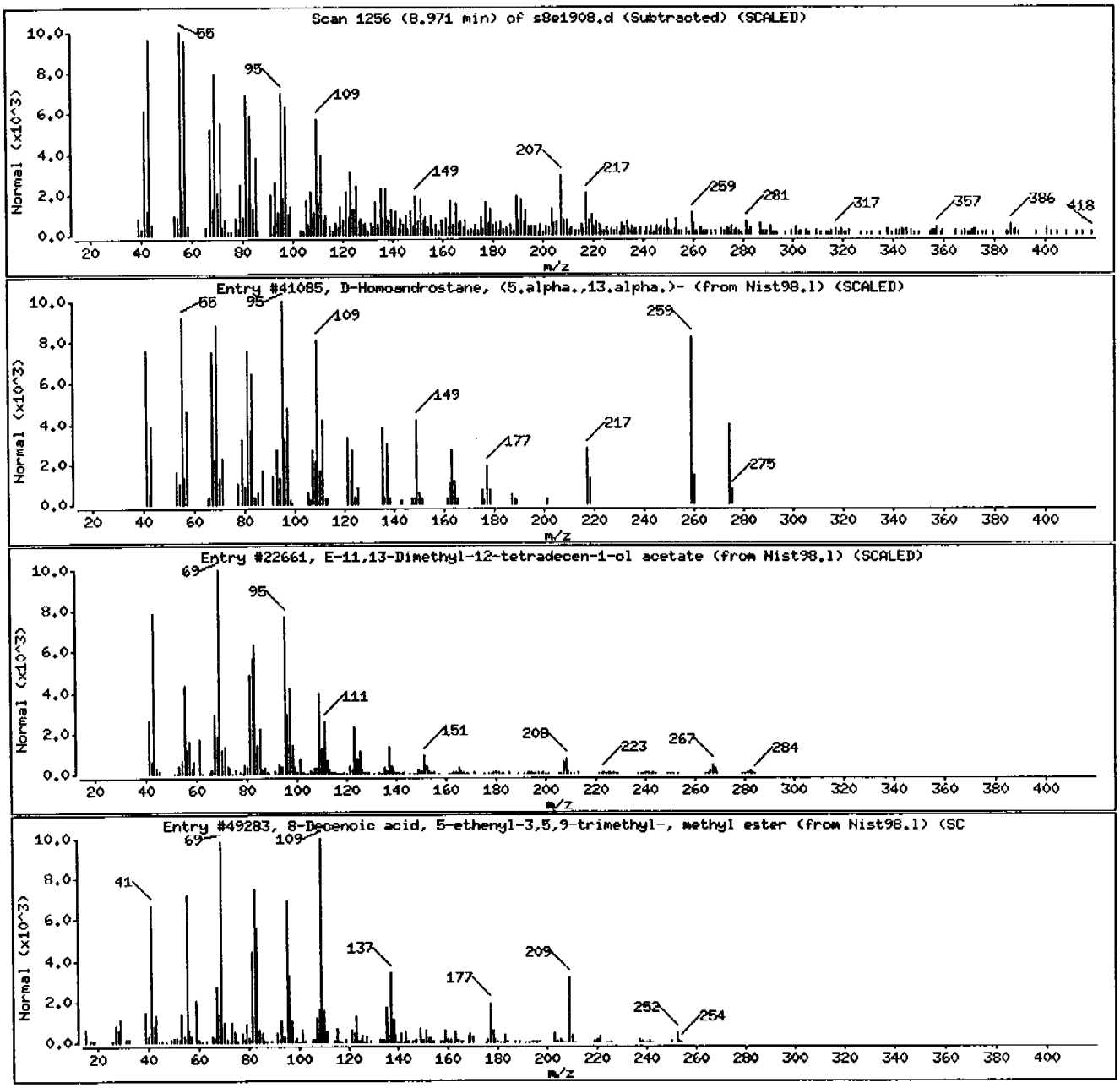

1B
SVOA ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-59541

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

Matrix: (soil/water) SOIL Lab Sample ID: 135805002

Sample wt/vol: 30.0 (g/mL) G Lab File ID: S8E1907

Level: (low/med) LOW Date Received: 05/04/05

% Moisture: 13 decanted: (Y/N) N Date Extracted: 05/10/05

Concentrated Extract Volume: 1.00(mL) Date Analyzed: 05/19/05

Injection Volume: 0.5(uL) Dilution Factor: 4.0

GPC Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
62-75-9	N-Methyl-N-nitrosomethylamin	1540	U
110-86-1	Pyridine	1540	U
62-53-3	Aniline	1540	U
108-95-2	Phenol	1540	U
111-44-4	bis(2-Chloroethyl) ether	1540	U
95-57-8	2-Chlorophenol	1540	U
541-73-1	1,3-Dichlorobenzene	1540	U
106-46-7	1,4-Dichlorobenzene	1540	U
100-51-6	Benzyl alcohol	1540	U
95-50-1	1,2-Dichlorobenzene	1540	U
108-60-1	bis(2-Chloroisopropyl)ether	1540	U
95-48-7	o-Cresol	1540	U
621-64-7	N-Nitrosodipropylamine	1540	U
65794-96-9	m,p-Cresols	1540	U
67-72-1	Hexachloroethane	1540	U
78-59-1	Isophorone	1540	U
88-75-5	2-Nitrophenol	1540	U
105-67-9	2,4-Dimethylphenol	1540	U
111-91-1	bis(2-Chloroethoxy)methane	1540	U
120-83-2	2,4-Dichlorophenol	1540	U
65-85-0	Benzoic acid	3080	U
120-82-1	1,2,4-Trichlorobenzene	1540	U
91-20-3	Naphthalene	154	U
106-47-8	4-Chloroaniline	1540	U
87-68-3	Hexachlorobutadiene	1540	U
59-50-7	4-Chloro-3-methylphenol	1540	U
91-57-6	2-Methylnaphthalene	154	U
77-47-4	Hexachlorocyclopentadiene	1540	U
88-06-2	2,4,6-Trichlorophenol	1540	U
95-95-4	2,4,5-Trichlorophenol	1540	U
91-58-7	2-Chloronaphthalene	154	U
88-74-4	o-Nitroaniline	1540	U
99-09-2	m-Nitroaniline	1540	U

FORM I SV-1 OLM03.0

1C
SVOA ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-59541

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

Matrix: (soil/water) SOIL Lab Sample ID: 135805002

Sample wt/vol: 30.0 (g/mL) G Lab File ID: S8E1907

Level: (low/med) LOW Date Received: 05/04/05

% Moisture: 13 decanted: (Y/N) N Date Extracted:05/10/05

Concentrated Extract Volume: 1.00(mL) Date Analyzed: 05/19/05

Injection Volume: 0.5(uL) Dilution Factor: 4.0

GPC Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
131-11-3	Dimethylphthalate	1540	U
606-20-2	2,6-Dinitrotoluene	1540	U
208-96-8	Acenaphthylene	154	U
83-32-9	Acenaphthene	154	U
51-28-5	2,4-Dinitrophenol	3080	U
132-64-9	Dibenzofuran	1540	U
121-14-2	2,4-Dinitrotoluene	1540	U
84-66-2	Diethylphthalate	1540	U
100-02-7	4-Nitrophenol	1540	U
86-73-7	Fluorene	154	U
7005-72-3	4-Chlorophenylphenylether	1540	U
534-52-1	2-Methyl-4,6-dinitrophenol	1540	U
100-01-6	p-Nitroaniline	1540	U
122-39-4	Diphenylamine	1540	U
122-66-7	1,2-Diphenylhydrazine	1540	U
101-55-3	4-Bromophenylphenylether	1540	U
118-74-1	Hexachlorobenzene	1540	U
87-86-5	Pentachlorophenol	1540	U
85-01-8	Phenanthrene	154	U
120-12-7	Anthracene	154	U
84-74-2	Di-n-butylphthalate	1540	U
206-44-0	Fluoranthene	154	U
129-00-0	Pyrene	154	U
85-68-7	Butylbenzylphthalate	1540	U
56-55-3	Benzo(a)anthracene	154	U
91-94-1	3,3'-Dichlorobenzidine	1540	U
218-01-9	Chrysene	154	U
117-81-7	bis(2-Ethylhexyl)phthalate	697	JB
117-84-0	Di-n-octylphthalate	1540	U
205-99-2	Benzo(b)fluoranthene	154	U
207-08-9	Benzo(k)fluoranthene	154	U
50-32-8	Benzo(a)pyrene	154	U
193-39-5	Indeno(1,2,3-cd)pyrene	154	U

FORM I SV-2 OLM03.0

1C
SVOA ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-59541

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

Matrix: (soil/water) SOIL Lab Sample ID: 135805002

Sample wt/vol: 30.0 (g/mL) G Lab File ID: S8E1907

Level: (low/med) LOW Date Received: 05/04/05

% Moisture: 13 decanted: (Y/N) N Date Extracted:05/10/05

Concentrated Extract Volume: 1.00(mL) Date Analyzed: 05/19/05

Injection Volume: 0.5(uL) Dilution Factor: 4.0

GPC Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
53-70-3	Dibenzo(a,h)anthracene	154	U
191-24-2	Benzo(ghi)perylene	154	U

FORM I SV-3 OLM03.0

1F

SVOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

RE03-05-59541

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

Matrix: (soil/water) SOIL Lab Sample ID: 135805002

Sample wt/vol: 30.0 (g/mL) G Lab File ID: S8E1907

Level: (low/med) LOW Date Received: 05/04/05

% Moisture: 13 decanted: (Y/N) N Date Extracted:05/10/05

Concentrated Extract Volume: 1.00(mL) Date Analyzed: 05/19/05

Injection Volume: 0.5(uL) Dilution Factor: 4.0

GPC Cleanup: (Y/N) N

Number TICs found: 12

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN HYDROCARBON	8.53	4110	J
2. 20175-84-2	[1,2'-BINAPHTHALENE]-5,5',8,	8.59	1650	NJ
3. 19780-11-1	2-DODECEN-1-YL(-)SUCCINIC AN	8.61	1620	NJ
4.	UNKNOWN HYDROCARBON	8.63	2760	J
5.	UNKNOWN HYDROCARBON	8.83	1610	J
6.	UNKNOWN	8.84	1510	J
7.	UNKNOWN	8.97	2750	J
8.	UNKNOWN	9.06	2360	J
9.	UNKNOWN	9.12	1020	J
10.	UNKNOWN	9.35	1120	J
11.	UNKNOWN	9.36	914	J
12. 1000130-81-0	E-11,13-DIMETHYL-12-TETRADEC	9.47	811	NJ
13.				
14.				
15.				
16.				
17.				
18.				
19.				
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28.				
29.				
30.				

FORM I SV-TIC OLM03.0

General Engineering Laboratories, LLC

Data file : /chem/MSD8.i/s051905.b/s8e1907.d
Lab Smp Id: 135805002 Client Smp ID: RE03-05-59541
Inj Date : 19-MAY-2005 16:55
Operator : cak Inst ID: MSD8.i
Smp Info : |135805002|423903|4|SVMF|1|LANL|
Misc Info : |MSD8270_SF|WBN050506-02
Comment : Column: J & W DB-5MS:25m x 0.20mm - 0.33um Film m
Method : /chem/MSD8.i/s051905.b/MSD8-8270-051605a.m
Meth Date : 20-May-2005 11:13 cak Quant Type: ISTD
Cal Date : 11-MAY-2005 18:18 Cal File: s8e1111.d
Als bottle: 7
Dil Factor: 4.00000
Integrator: HP RTE Compound Sublist: 3194S.sub
Target Version: 3.50
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	4.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	13.31460	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.791	3.792	(1.000)	119947	40.0000	
* 29 Naphthalene-d8	136	4.654	4.655	(1.000)	422185	40.0000	
* 46 Acenaphthene-d10	164	5.900	5.901	(1.000)	273275	40.0000	
* 67 Phenanthrene-d10	188	6.893	6.894	(1.000)	525312	40.0000	
* 91 Chrysene-d12	240	8.456	8.463	(1.000)	315437	40.0000	
* 98 Perylene-d12	264	9.566	9.567	(1.000)	212052	40.0000	
$ 3 2-Fluorophenol	112	2.974	2.975	(0.785)	27450	11.0535	1700
$ 5 Phenol-d5	99	3.503	3.504	(0.924)	34239	11.9704	1840
$ 20 Nitrobenzene-d5	82	4.149	4.150	(0.891)	13330	5.45230	839
$ 39 2-Fluorobiphenyl	172	5.395	5.396	(0.914)	54247	6.48968	998
$ 60 2,4,6-Tribromophenol	329	6.441	6.442	(1.092)	15676	15.8820	2440
$ 81 p-Terphenyl-d14	244	7.804	7.805	(0.923)	80715	10.5566	1620

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
93 bis(2-Ethylhexyl)phthalate	149	8.374	8.375	(0.990)	6016	4.52992	697(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

General Engineering Laboratories, LLC

Data file : /chem/MSD8.i/s051905.b/s8e1907.d
Lab Smp Id: 135805002 Client Smp ID: RE03-05-59541
Inj Date : 19-MAY-2005 16:55
Operator : cak Inst ID: MSD8.i
Smp Info : |135805002|423903|4|SVMF|1|LANL|
Misc Info : |MSD8270_SF|WBN050506-02
Comment : Column: J & W DB-5MS:25m x 0.20mm - 0.33um Film m
Method : /chem/MSD8.i/s051905.b/MSD8-8270-051605a.m
Meth Date : 20-May-2005 11:13 cak Quant Type: ISTD
Cal Date : 11-MAY-2005 18:18 Cal File: s8e1111.d
Als bottle: 7
Dil Factor: 4.00000
Integrator: HP RTE Compound Sublist: 3194S.sub
Target Version: 3.50
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariabl

Name	Value	Description
DF	4.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	13.31460	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 91 Chrysene-d12	8.456	808304	40.000
* 98 Perylene-d12	9.566	654716	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown Hydrocarbon				CAS #:			
8.526	539578	26.7017028	4110	0		0	91

RT	AREA	CONCENTRATIONS ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	QUANT LIBRARY	LIB ENTRY	CPND #
[1,2'-Binaphthalene]-5,5',8,8'-tetrone,				CAS #: 20175-84-2			
8.591	217239	10.7503635	1650	99	Nist98.1	111487	91
2-Dodecen-1-yl(-)succinic anhydride				CAS #: 19780-11-1			
8.609	212213	10.5016176	1620	87	Nist98.1	1951	91
Unknown Hydrocarbon				CAS #:			
8.632	361976	17.9128693	2760	0		0	91
Unknown Hydrocarbon				CAS #:			
8.826	212017	10.4919536	1610	0		0	91
Unknown				CAS #:			
8.844	198439	9.82003103	1510	0		0	91
Unknown				CAS #:			
8.973	360992	17.8641376	2750	0		0	91
Unknown				CAS #:			
9.055	250777	15.3212735	2360	0		0	98
Unknown				CAS #:			
9.120	108702	6.64118935	1020	0		0	98
Unknown				CAS #:			
9.349	119656	7.31038996	1120	0		0	98
Unknown				CAS #:			
9.361	97299	5.94451522	914	0		0	98
E-11,13-Dimethyl-12-tetradecen-1-ol acet				CAS #: 1000130-81-0			
9.472	86312	5.27323591	811	83	Nist98.1	22661	98

Data File: /chem/MSD8.i/s051905.b/s8e1907.d
Date : 19-MAY-2005 16:55
Client ID: RE03-05-59541
Sample Info: |1358050021423903|4|SVMF|1|LANL|
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD8.i
Operator: cak
Column diameter: 0.20

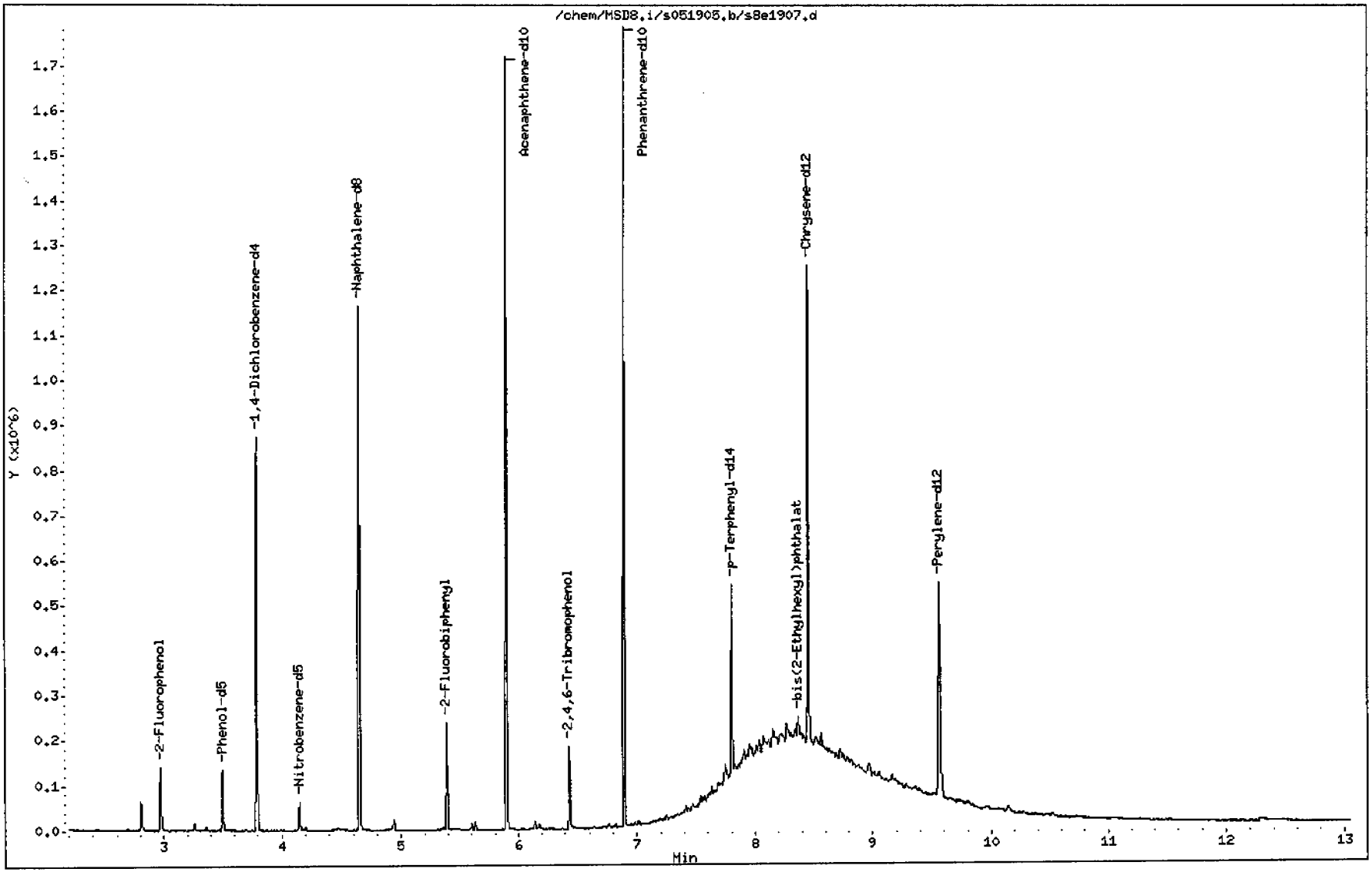

Data File: /chem/MSD8.i/s051905.b/s8e1907.d

Date : 19-MAY-2005 16:55

Client ID: RE03-05-59541

Instrument: MSD8.i

Sample Info: |135805002|423903141SVMF11ILANL|

Volume Injected (uL): 0.5

Operator: cak

Column phase: J&W DB-5MS

Column diameter: 0.20

93 bis(2-Ethylhexyl)phthalate

Concentration: 697 ug/Kg

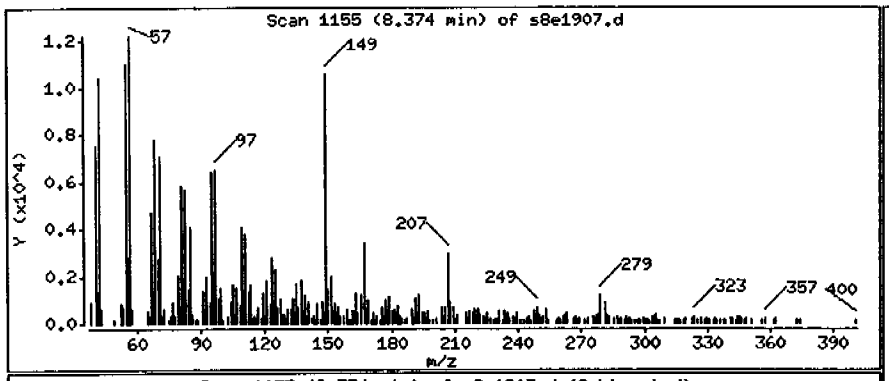

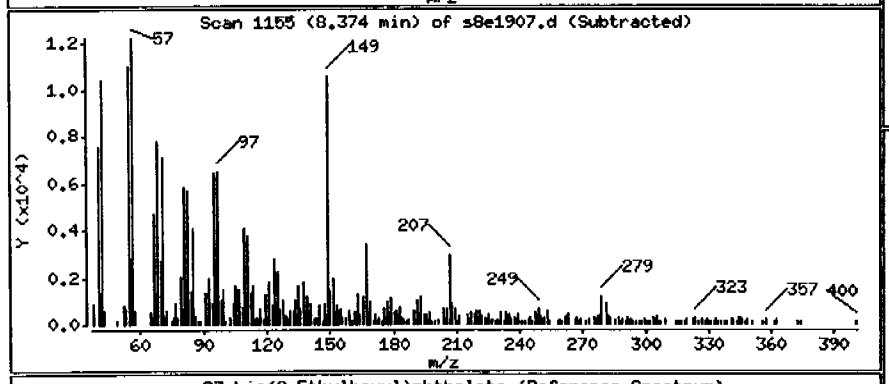

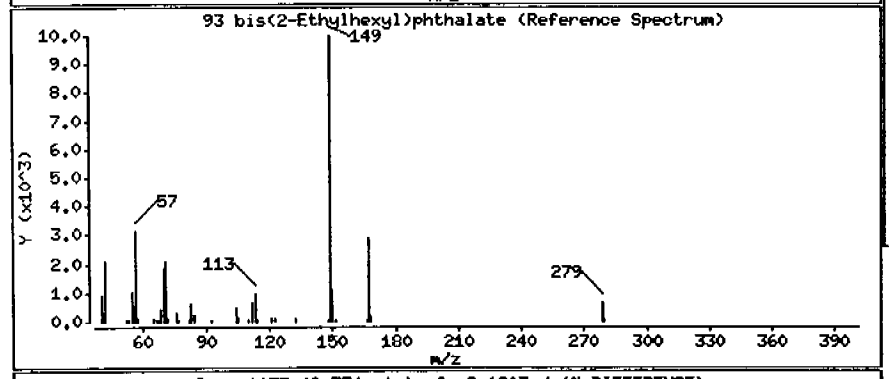

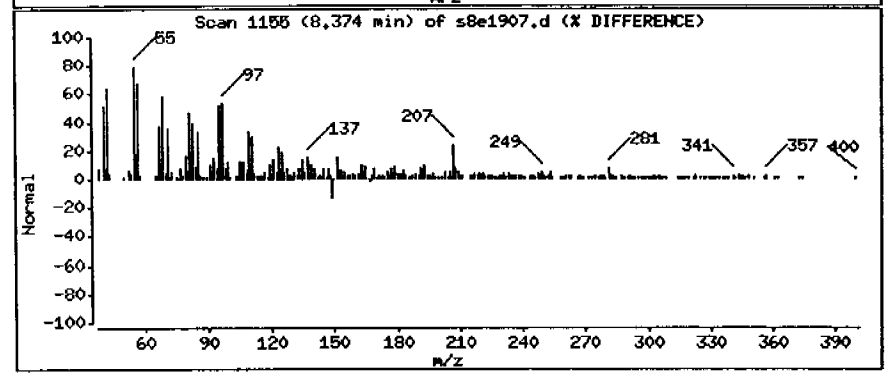

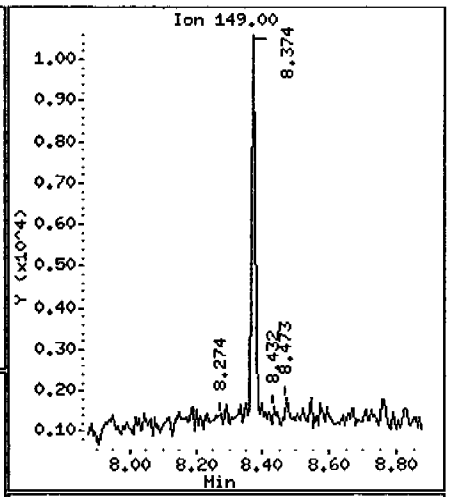

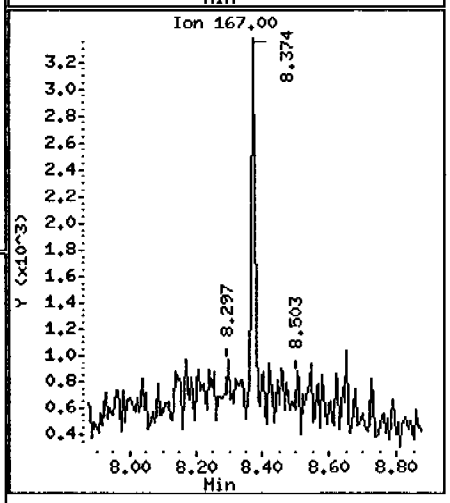

Data File: /chem/MSD8.i/s051905.b/s8e1907.d

Date : 19-MAY-2005 16:55

Client ID: RE03-05-59541

Instrument: MSD8.i

Sample Info: |135805002|423903|4|SVMF|1|LANL|

Volume Injected (uL): 0.5

Operator: cak

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Hydrocarbon						
Cyclopentane, (2-hexyloctyl)-	55044-77-4	Nist98.1	108541	50	C19H38	266
1H-Indene, 5-butyl-6-hexyloctahydro-	55044-36-5	Nist98.1	2761	46	C19H36	264
Tetradecane, 1-bromo-	112-71-0	Nist98.1	112434	43	C14H29Br	276

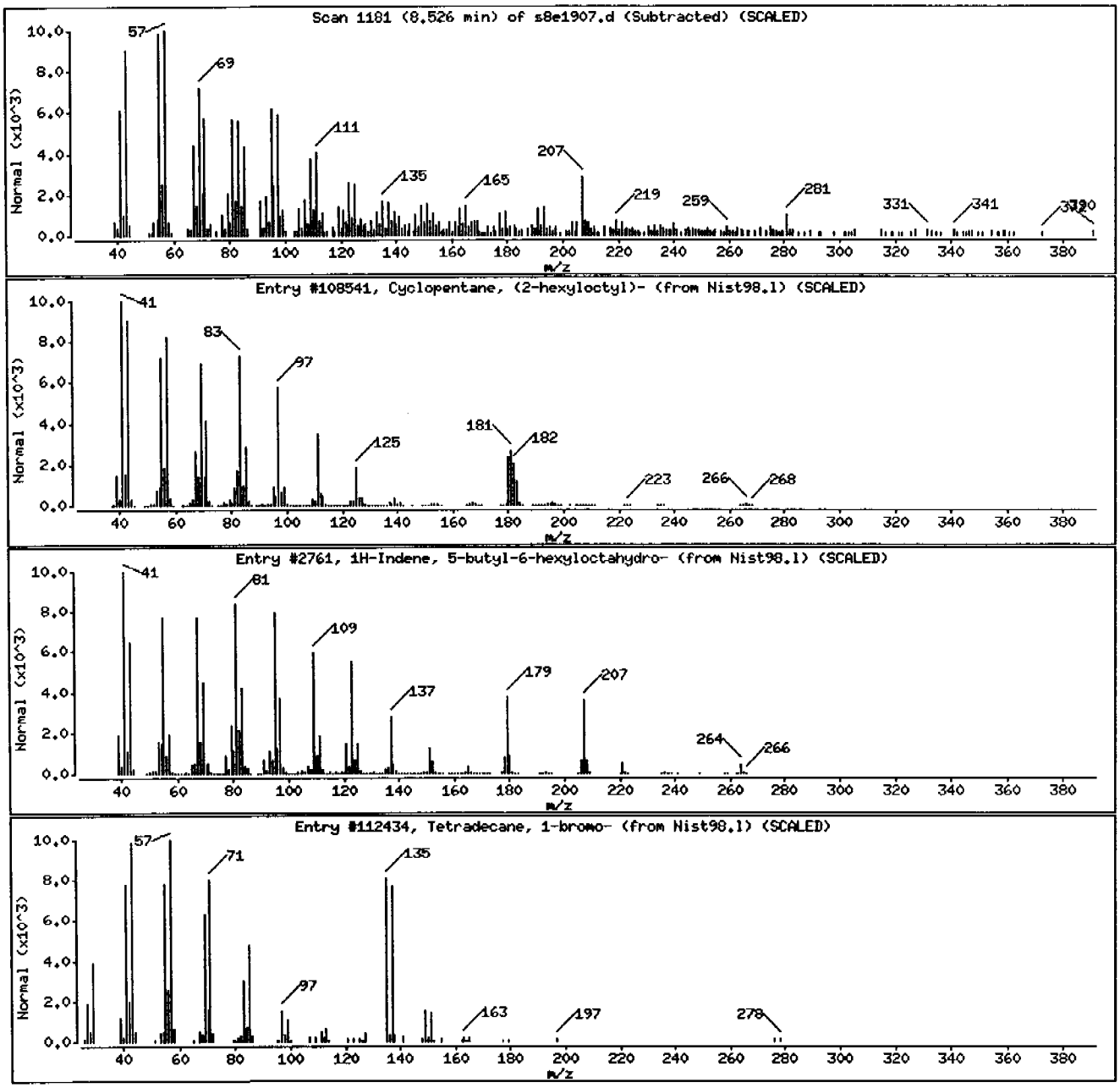

Data File: /chem/MSD8.i/s051905.b/s8e1907.d

Date : 19-MAY-2005 16:55

Client ID: RE03-05-59541

Instrument: MSD8.i

Sample Info: |135805002|423903|4|SVMF|1|LANL|

Volume Injected (uL): 0.5

Operator: cak

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
[1,2'-Binaphthalene]-5,5',8,8'-tetrone,	20175-84-2	Nist98.l	111487	99	C22H1406	374
2-Dodecen-1-yl(-)succinic anhydride	19780-11-1	Nist98.l	1951	80	C16H2603	266
E-11,13-Dimethyl-12-tetradecen-1-ol acet	1000130-81-0	Nist98.l	22661	78	C18H3402	282

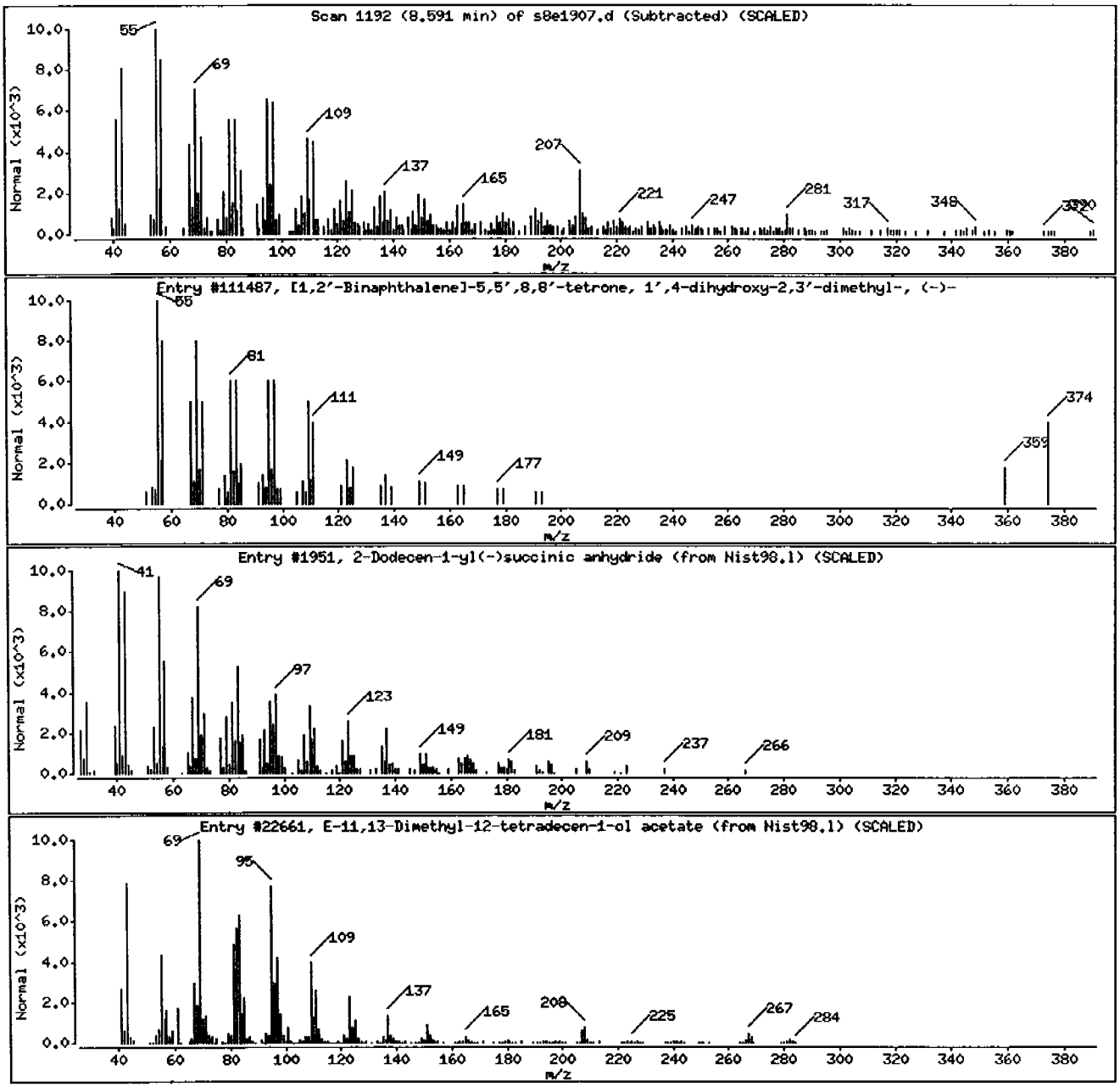

Data File: /chem/MSD8.i/s051905.b/s8e1907.d

Date : 19-MAY-2005 16:55

Client ID: RE03-05-59541 Instrument: MSD8.i

Sample Info: |1358050021423903|4|SVMF|1|LANL|

Volume Injected (uL): 0.5 Operator: cak

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
2-Dodecen-1-yl(-)succinic anhydride	19780-11-1	Nist98.l	1951	87	C16H2603	266
[1,2'-Binaphthalene]-5,5',8,8'-tetrone,	20175-84-2	Nist98.l	111487	60	C22H1406	374
E-11,13-Dimethyl-12-tetradecen-1-ol acet	1000130-81-0	Nist98.l	22661	58	C18H3402	282

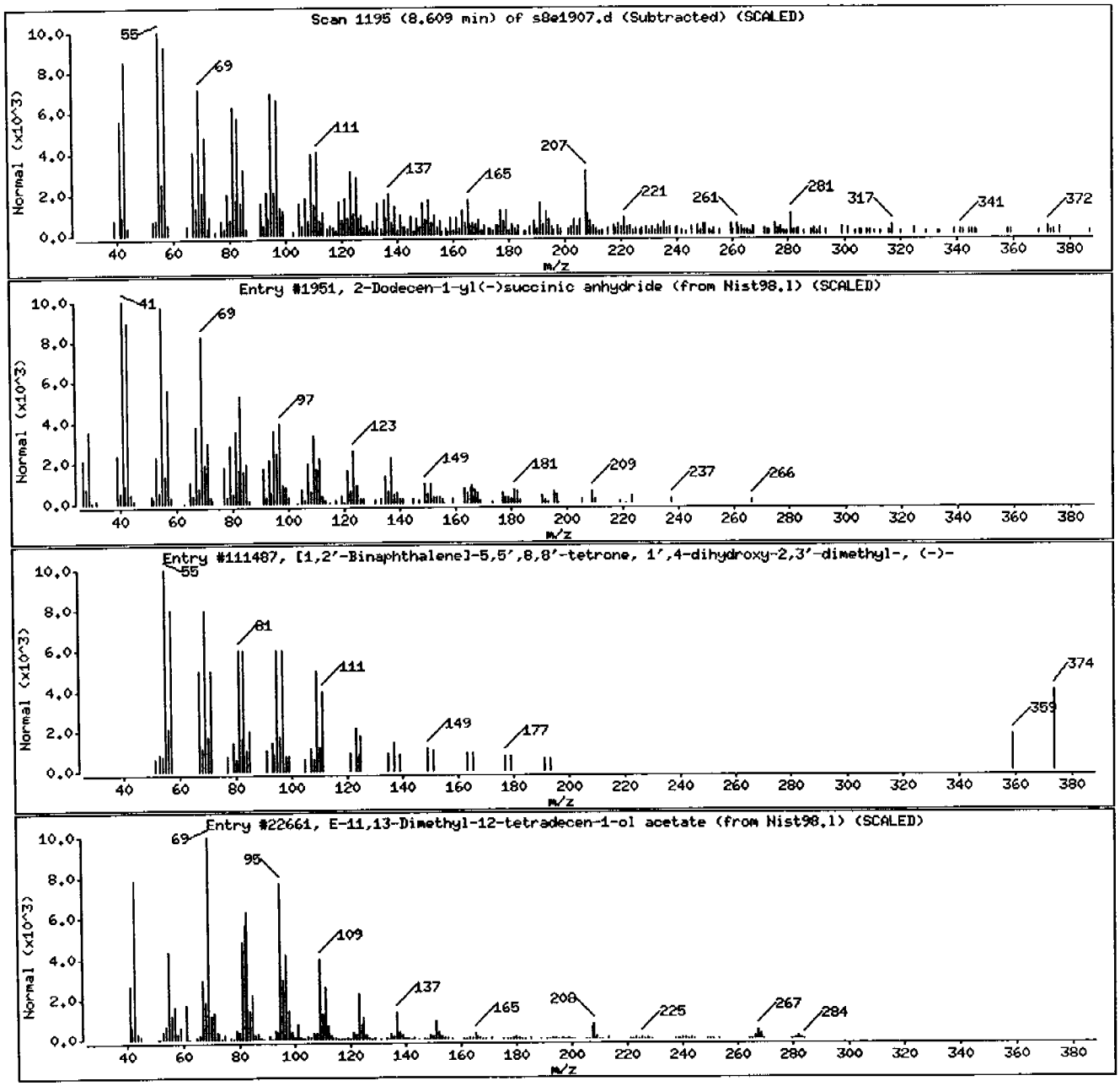

Data File: /chem/MSD8.i/s051905.b/s8e1907.d

Date : 19-MAY-2005 16:55

Client ID: RE03-05-59541 Instrument: MSD8.i

Sample Info: |1358050021423903141SVMF|1|LANL|

Volume Injected (uL): 0.5 Operator: cak

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Hydrocarbon						
4,6,10,10-Tetramethyl-5-oxatricyclo[4.4.	97371-60-1	Nist98.l	7983	56	C13H2002	208
8,12-Tetradecadienoic acid, 5-ethenyl-3,	36237-73-7	Nist98.l	33133	55	C21H3602	320
1-Pentadecene	13360-61-7	Nist98.l	109475	50	C15H30	210

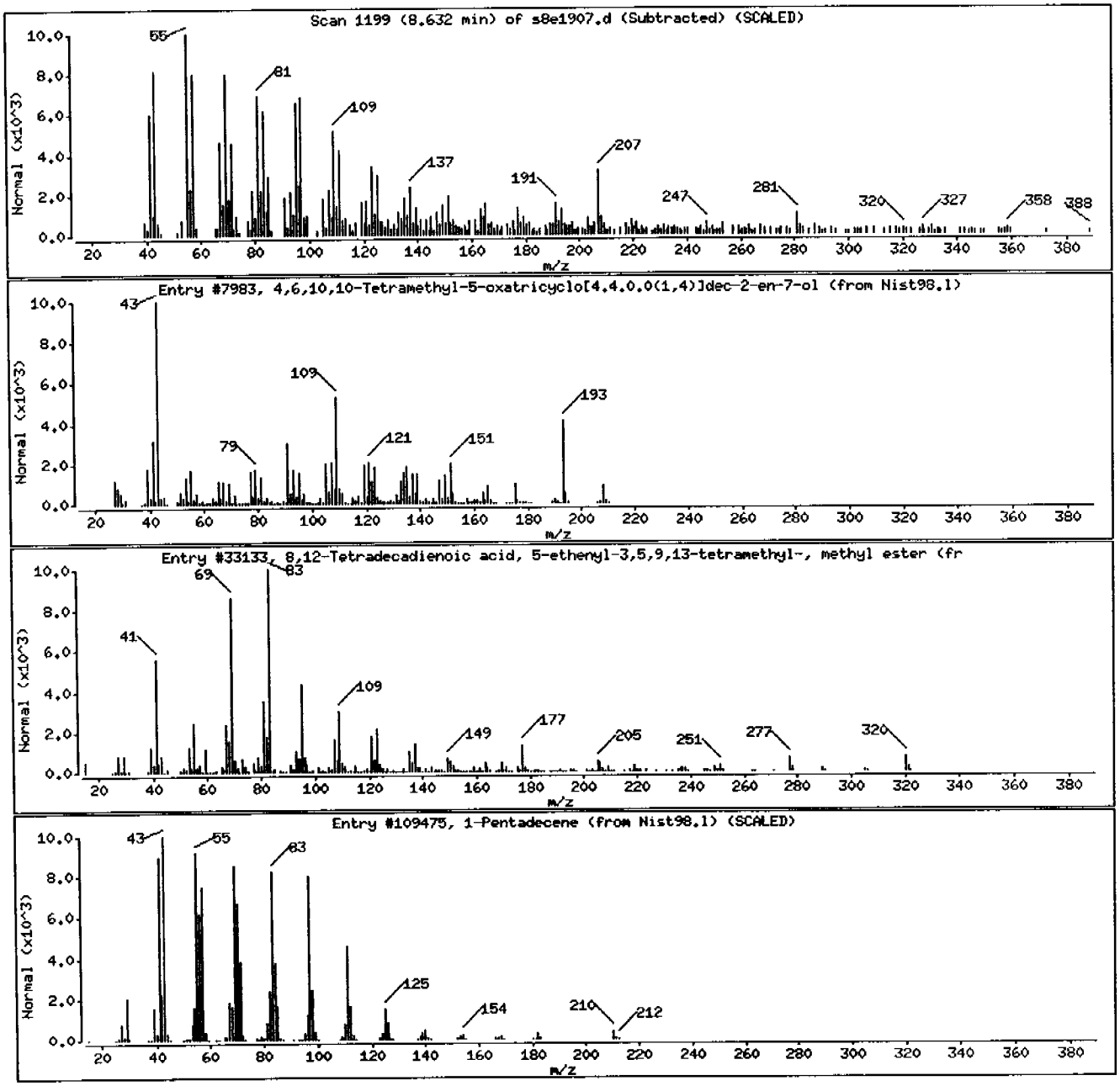

Data File: /chem/MSD8.i/s051905.b/s8e1907.d

Date : 19-MAY-2005 16:55

Client ID: RE03-05-59541

Instrument: MSD8.i

Sample Info: |135805002|423903|4|SVMF|1|LANL|

Volume Injected (uL): 0.5

Operator: cak

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Hydrocarbon						
Cyclotetradecane, 1,7,11-trimethyl-4-(1-	1786-12-5	Nist98.l	111544	53	C20H40	280
Longifolenaldehyde	19890-84-7	Nist98.l	41437	48	C15H24O	220
1-Bromo-11-iodoundecane	1000195-60-2	Nist98.l	22893	45	C11H22BrI	360

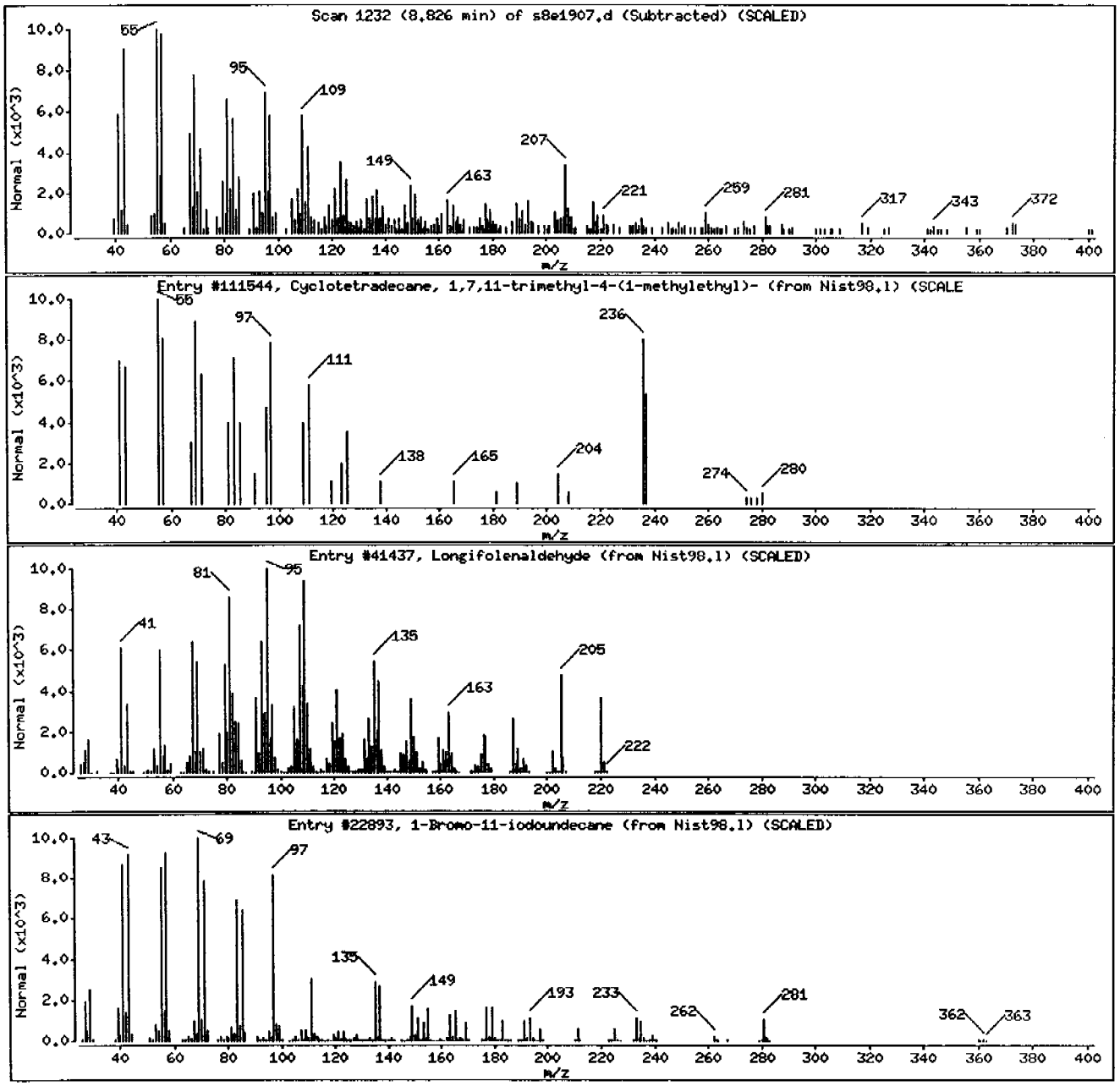

Data File: /chem/MSD8.i/s051905.b/s8e1907.d

Date : 19-MAY-2005 16:55

Client ID: RE03-05-59541 Instrument: MSD8.i

Sample Info: |1358050021423903|4|SVMF|1|LANL|

Volume Injected (uL): 0.5 Operator: cak

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Spiro[4.5]decan-7-one, 1,8-dimethyl-8,9-	1000197-25-2	Nist98.l	7938	55	C15H2402	236
Cyclohexane, 1,2-dimethyl-3-pentyl-4-pro	62376-17-4	Nist98.l	42165	46	C16H32	224
Cedrol	77-53-2	Nist98.l	118233	44	C15H260	222

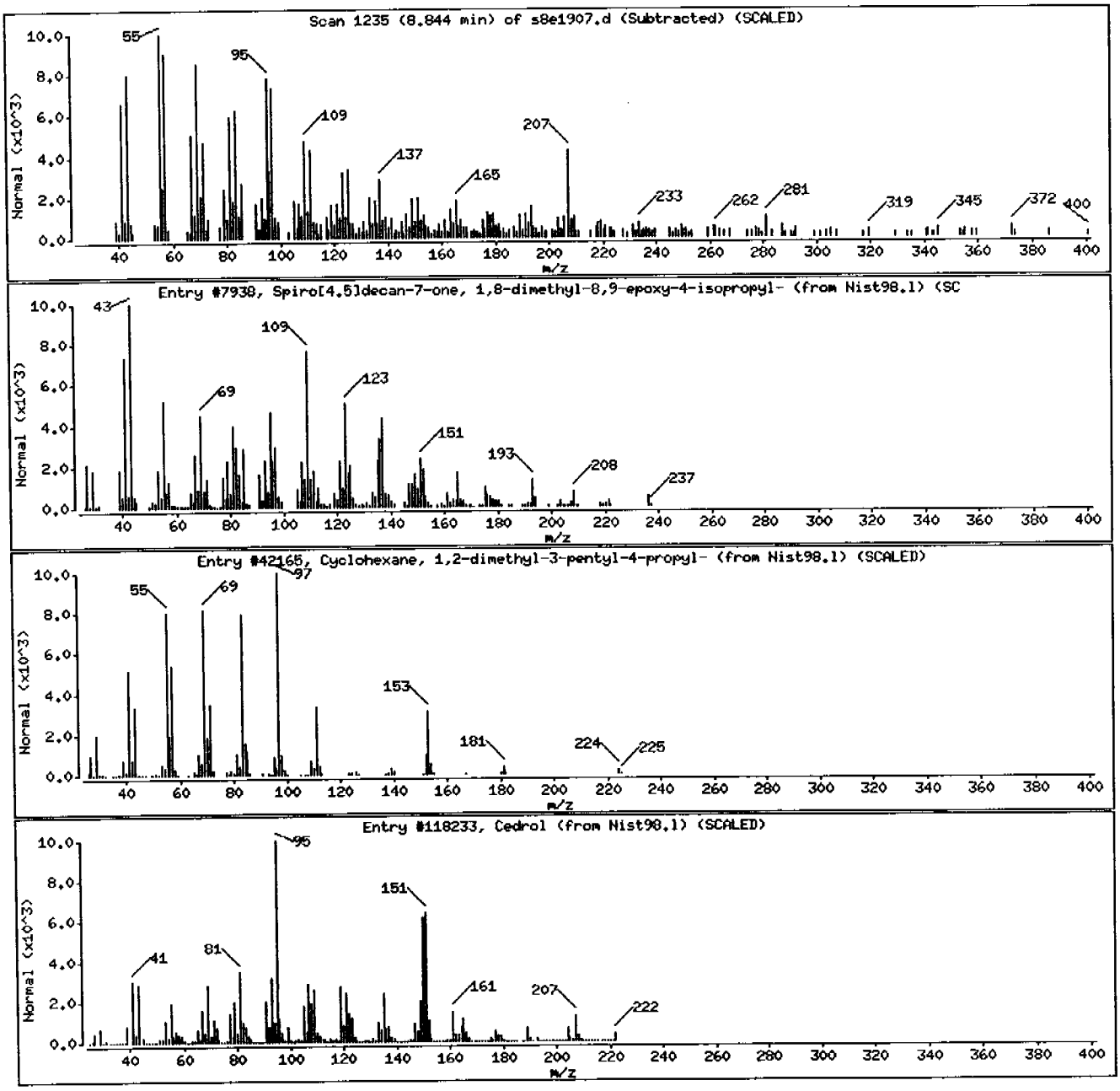

Data File: /chem/MSD8.i/s051905.b/s8e1907.d

Date : 19-MAY-2005 16:55

Client ID: RE03-05-59541

Instrument: MSD8.i

Sample Info: |135805002|423903|4|SVMF|1|LANL|

Volume Injected (uL): 0.5

Operator: cak

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
D-Homoandrostane, (5.alpha.,13.alpha.)-	54482-31-4	Nist98.l	41085	64	C20H34	274
E-11,13-Dimethyl-12-tetradecen-1-ol acet	1000130-81-0	Nist98.l	22661	60	C18H3402	282
4,6,10,10-Tetramethyl-5-oxatricyclo[4.4.	97371-50-1	Nist98.l	7983	43	C13H2002	208

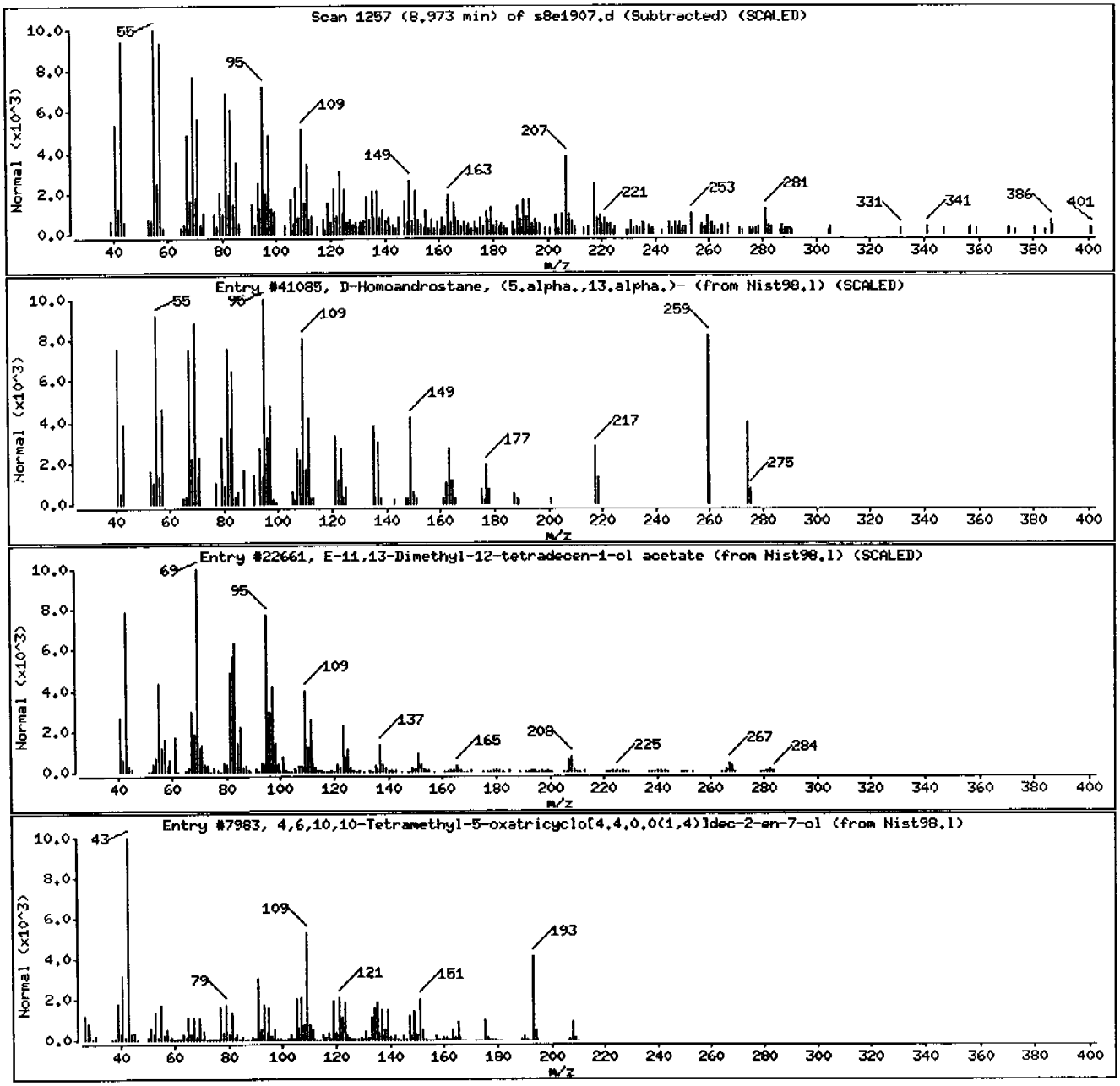

Data File: /chem/MSD8.i/s051905.b/s8e1907.d

Date : 19-MAY-2005 16:55

Client ID: RE03-05-59541

Instrument: MSD8.i

Sample Info: |1358050021423903|4|SVMF|1|LANL|

Volume Injected (uL): 0.5

Operator: cak

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Cholest-23-ene, (5.beta.)-	30658-62-9	Nist98.l	14638	50	C27H46	370
5.beta.-Cholest-23-ene, (Z)-	14949-12-3	Nist98.l	14636	50	C27H46	370
11,12-Dibromo-tetradecan-1-ol acetate	1000130-78-5	Nist98.l	5209	43	C16H30Br2O2	412

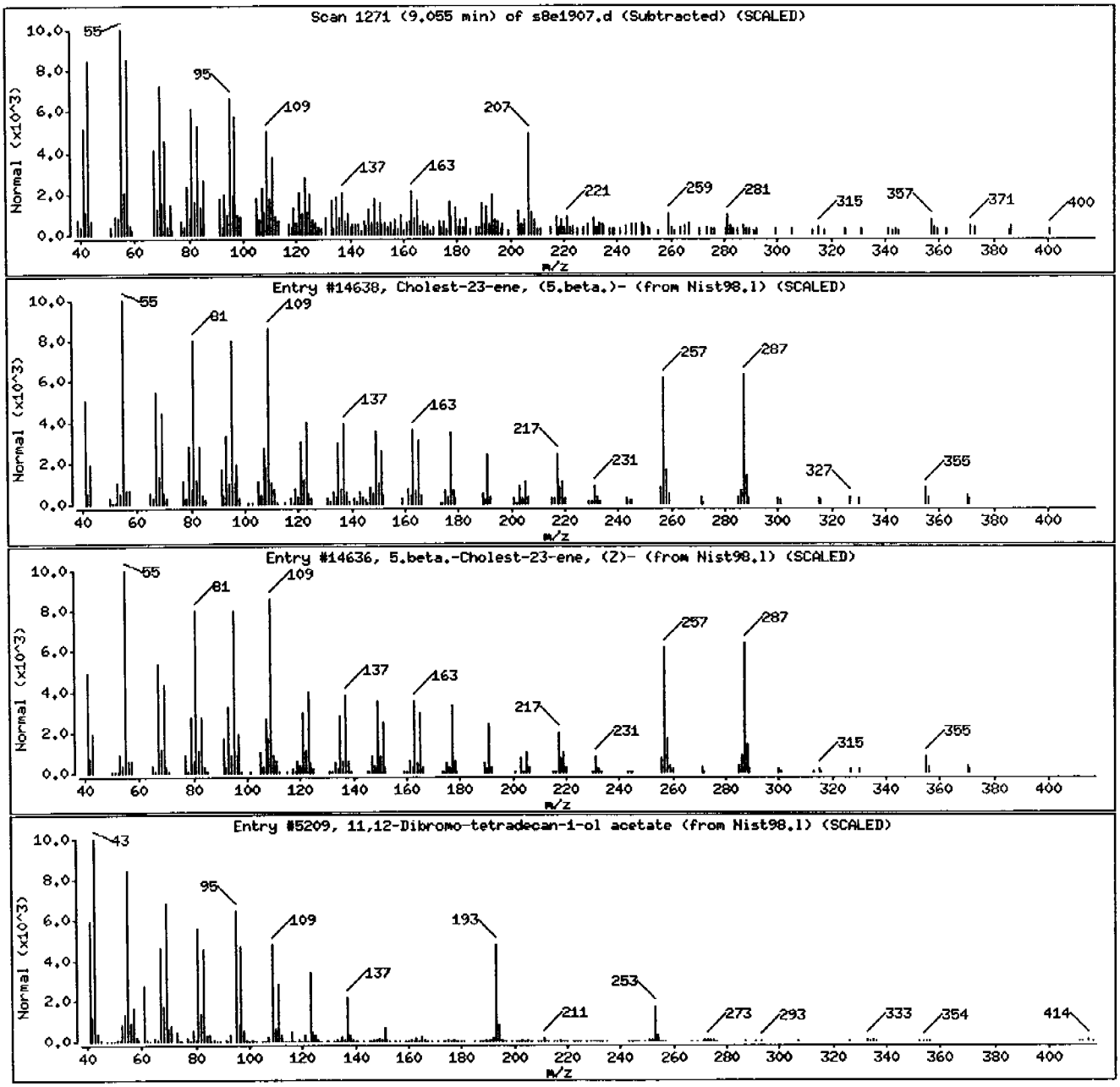

Data File: /chem/MSD8.i/s051905.b/s8e1907.d

Date : 19-MAY-2005 16:55

Client ID: RE03-05-59541

Instrument: MSD8.i

Sample Info: |1358050021423903|4|SVMF|1|LANL|

Volume Injected (uL): 0.5

Operator: cak

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
5,6,6-Trimethyl-5-(3-oxobut-1-enyl)-1-ox	1000192-73-9	Nist98.l	4530	38	C14H2003	236
2,4,5,5,8a-Pentamethyl-4a,5,6,7,8,8a-hex	1000195-30-1	Nist98.l	49498	38	C14H240	208
2-Butene, 1,1,1,4,4,4-hexafluoro-, (Z)-	692-49-9	Nist98.l	23206	30	C4H2F6	164

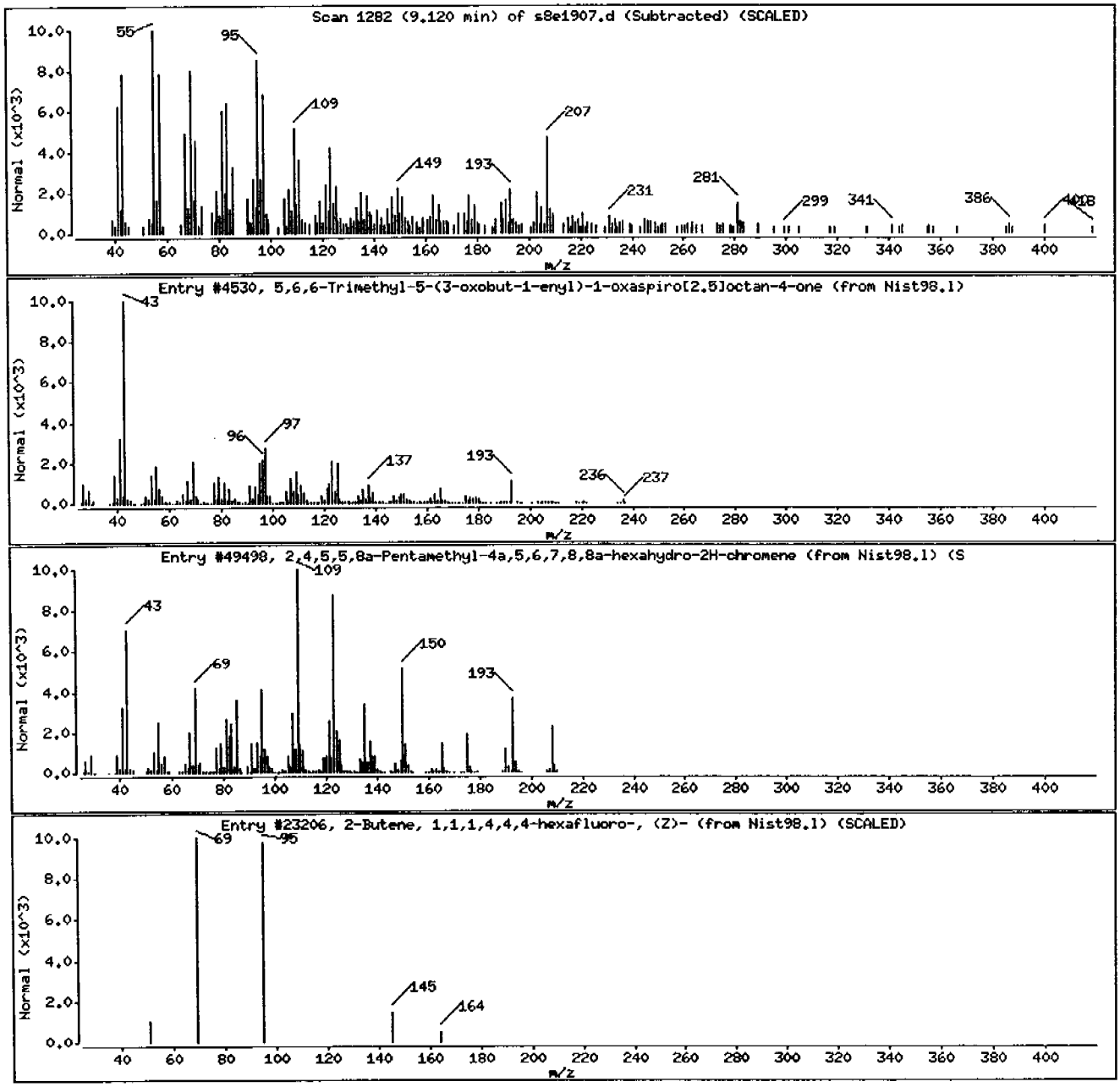

Data File: /chem/MSD8.i/s051905.b/s8e1907.d

Date : 19-MAY-2005 16:55

Client ID: RE03-05-59541 Instrument: MSD8.i

Sample Info: |135805002|423903|4|SVMF|1|LANL|

Volume Injected (uL): 0.5 Operator: cak

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
1,4-Methanoazulen-7-ol, decahydro-4,8,8,	18319-27-2	Nist98.l	2947	55	C15H26O	222
E-11,13-Dimethyl-12-tetradecen-1-ol acet	1000130-81-0	Nist98.l	22661	47	C18H34O2	282
2-Dodecen-1-yl(-)succinic anhydride	19780-11-1	Nist98.l	1951	43	C16H26O3	266

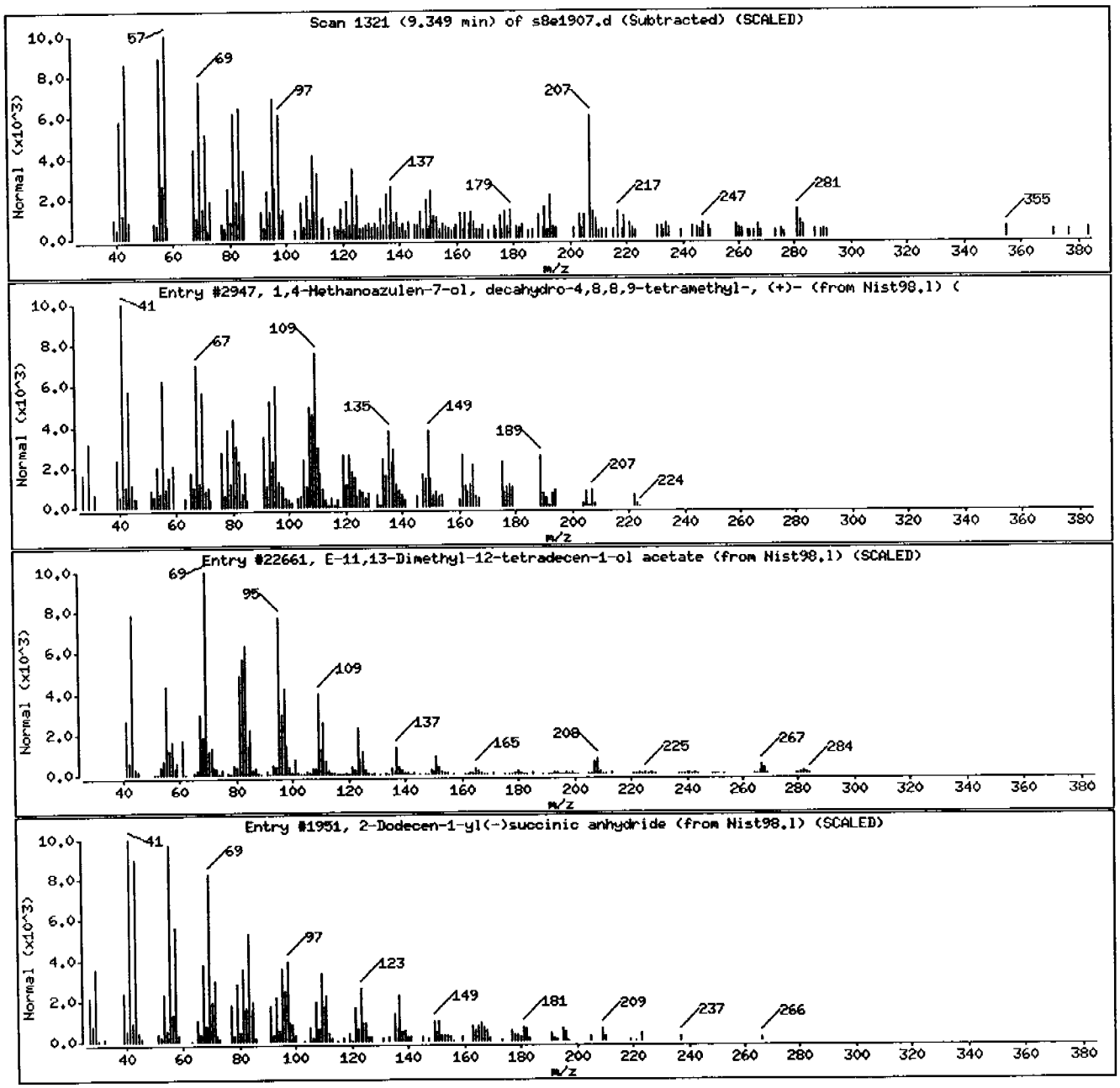

Data File: /chem/MSD8.i/s051905.b/s8e1907.d

Date : 19-MAY-2005 16:55

Client ID: RE03-05-59541 Instrument: MSD8.i

Sample Info: |135805002|423903|4|SVMF|1|LANL|

Volume Injected (uL): 0.5 Operator: cak

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
1,3-Dioxolane, 4-ethyl-5-octyl-2,2-bis(t	38274-72-5	Nist98.l	23227	43	C15H24F6O2	350
1,3-Dioxolane, 4-ethyl-5-octyl-2,2-bis(t	38274-73-6	Nist98.l	23228	43	C15H24F6O2	350
11,12-Dibromo-tetradecan-1-ol acetate	1000130-78-5	Nist98.l	5209	38	C16H30Br2O2	412

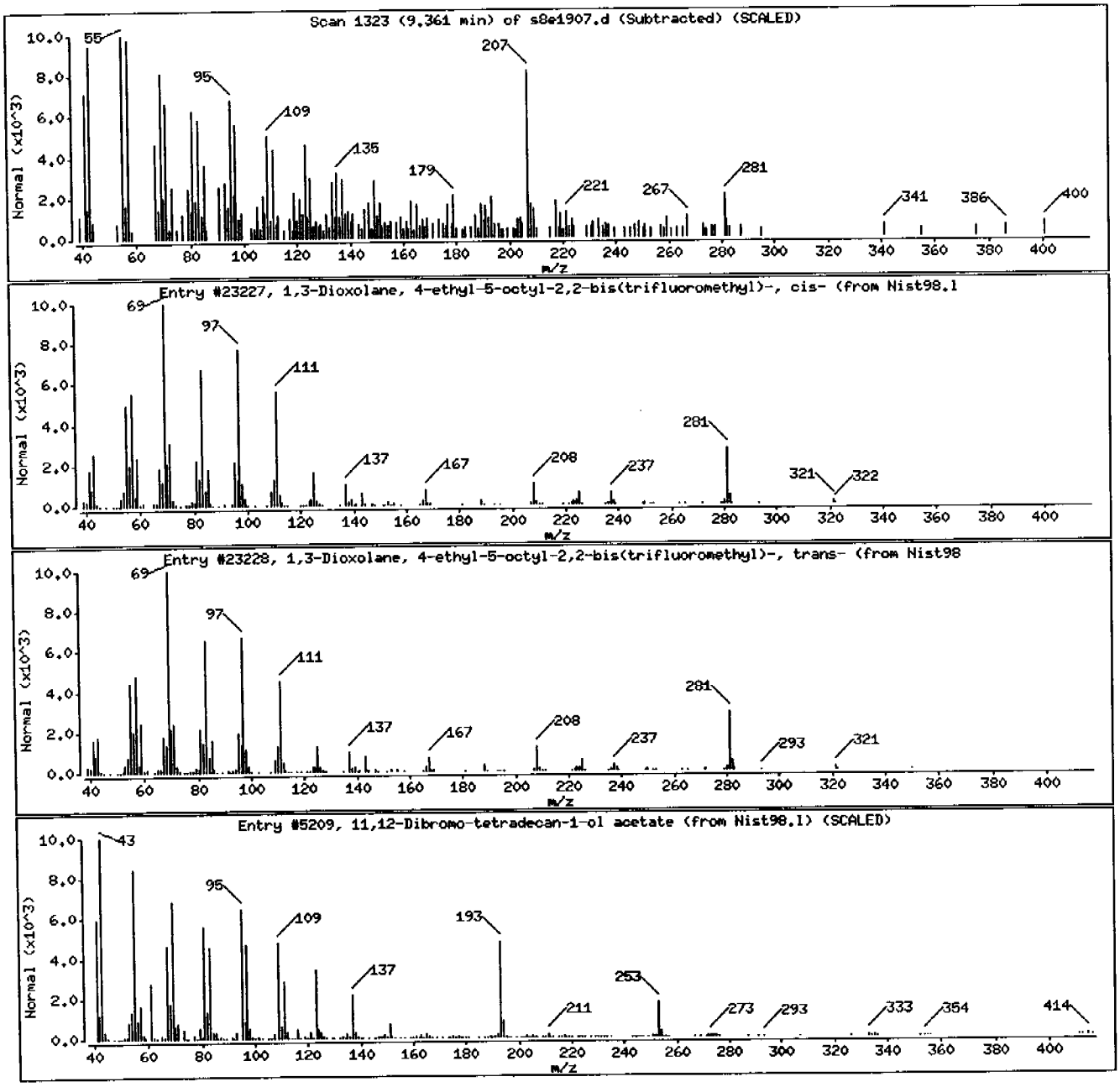

Data File: /chem/MSD8.i/s051905.b/s8e1907.d

Date : 19-MAY-2005 16:55

Client ID: RE03-05-59541 Instrument: MSD8.i

Sample Info: |135805002|423903|4|SVMF|1|LANL|

Volume Injected (uL): 0.5 Operator: cak

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
E-11,13-Dimethyl-12-tetradecen-1-ol acet	1000130-81-0	Nist98.l	22661	83	C18H3402	282
11,12-Dibromo-tetradecan-1-ol acetate	1000130-78-5	Nist98.l	5209	49	C16H30Br202	412
Cholestan-3-ol, 2-methylene-, (3.beta.,5	22599-96-8	Nist98.l	23055	43	C28H480	400

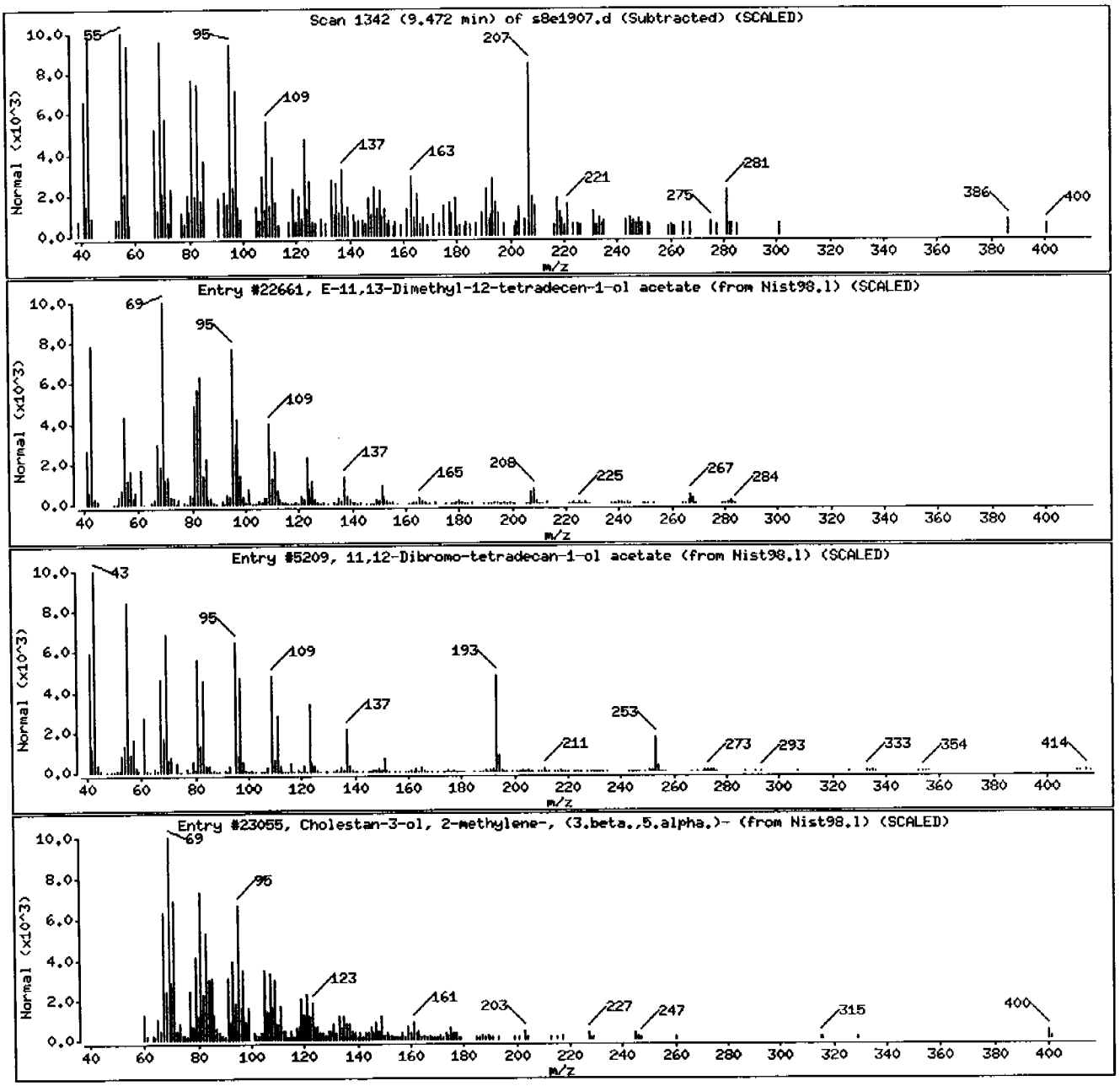

1B
SVOA ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-59542

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

Matrix: (soil/water) SOIL Lab Sample ID: 135805004

Sample wt/vol: 30.0 (g/mL) G Lab File ID: S8E1909

Level: (low/med) LOW Date Received: 05/04/05

% Moisture: 14 decanted: (Y/N) N Date Extracted: 05/10/05

Concentrated Extract Volume: 1.00(mL) Date Analyzed: 05/19/05

Injection Volume: 0.5(uL) Dilution Factor: 4.0

GPC Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
62-75-9	N-Methyl-N-nitrosomethylamin	1560	U
110-86-1	Pyridine	1560	U
62-53-3	Aniline	1560	U
108-95-2	Phenol	1560	U
111-44-4	bis(2-Chloroethyl) ether	1560	U
95-57-8	2-Chlorophenol	1560	U
541-73-1	1,3-Dichlorobenzene	1560	U
106-46-7	1,4-Dichlorobenzene	1560	U
100-51-6	Benzyl alcohol	1560	U
95-50-1	1,2-Dichlorobenzene	1560	U
108-60-1	bis(2-Chloroisopropyl)ether	1560	U
95-48-7	o-Cresol	1560	U
621-64-7	N-Nitrosodipropylamine	1560	U
65794-96-9	m,p-Cresols	1560	U
67-72-1	Hexachloroethane	1560	U
78-59-1	Isophorone	1560	U
88-75-5	2-Nitrophenol	1560	U
105-67-9	2,4-Dimethylphenol	1560	U
111-91-1	bis(2-Chloroethoxy)methane	1560	U
120-83-2	2,4-Dichlorophenol	1560	U
65-85-0	Benzoic acid	3110	U
120-82-1	1,2,4-Trichlorobenzene	1560	U
91-20-3	Naphthalene	156	U
106-47-8	4-Chloroaniline	1560	U
87-68-3	Hexachlorobutadiene	1560	U
59-50-7	4-Chloro-3-methylphenol	1560	U
91-57-6	2-Methylnaphthalene	156	U
77-47-4	Hexachlorocyclopentadiene	1560	U
88-06-2	2,4,6-Trichlorophenol	1560	U
95-95-4	2,4,5-Trichlorophenol	1560	U
91-58-7	2-Chloronaphthalene	156	U
88-74-4	o-Nitroaniline	1560	U
99-09-2	m-Nitroaniline	1560	U

1C

SVOA ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-59542

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

Matrix: (soil/water) SOIL Lab Sample ID: 135805004

Sample wt/vol: 30.0 (g/mL) G Lab File ID: S8E1909

Level: (low/med) LOW Date Received: 05/04/05

% Moisture: 14 decanted: (Y/N) N Date Extracted:05/10/05

Concentrated Extract Volume: 1.00(mL) Date Analyzed: 05/19/05

Injection Volume: 0.5(uL) Dilution Factor: 4.0

GPC Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
131-11-3	Dimethylphthalate	1560	U
606-20-2	2,6-Dinitrotoluene	1560	U
208-96-8	Acenaphthylene	156	U
83-32-9	Acenaphthene	156	U
51-28-5	2,4-Dinitrophenol	3110	U
132-64-9	Dibenzofuran	1560	U
121-14-2	2,4-Dinitrotoluene	1560	U
84-66-2	Diethylphthalate	1560	U
100-02-7	4-Nitrophenol	1560	U
86-73-7	Fluorene	156	U
7005-72-3	4-Chlorophenylphenylether	1560	U
534-52-1	2-Methyl-4,6-dinitrophenol	1560	U
100-01-6	p-Nitroaniline	1560	U
122-39-4	Diphenylamine	1560	U
122-66-7	1,2-Diphenylhydrazine	1560	U
101-55-3	4-Bromophenylphenylether	1560	U
118-74-1	Hexachlorobenzene	1560	U
87-86-5	Pentachlorophenol	1560	U
85-01-8	Phenanthrene	156	U
120-12-7	Anthracene	156	U
84-74-2	Di-n-butylphthalate	1560	U
206-44-0	Fluoranthene	156	U
129-00-0	Pyrene	156	U
85-68-7	Butylbenzylphthalate	1560	U
56-55-3	Benzo(a)anthracene	156	U
91-94-1	3,3'-Dichlorobenzidine	1560	U
218-01-9	Chrysene	156	U
117-81-7	bis(2-Ethylhexyl)phthalate	1190	JB
117-84-0	Di-n-octylphthalate	1560	U
205-99-2	Benzo(b)fluoranthene	156	U
207-08-9	Benzo(k)fluoranthene	156	U
50-32-8	Benzo(a)pyrene	156	U
193-39-5	Indeno(1,2,3-cd)pyrene	156	U

FORM I SV-2 OLM03.0

1C
SVOA ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-59542

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

Matrix: (soil/water) SOIL Lab Sample ID: 135805004

Sample wt/vol: 30.0 (g/mL) G Lab File ID: S8E1909

Level: (low/med) LOW Date Received: 05/04/05

% Moisture: 14 decanted: (Y/N) N Date Extracted:05/10/05

Concentrated Extract Volume: 1.00(mL) Date Analyzed: 05/19/05

Injection Volume: 0.5(uL) Dilution Factor: 4.0

GPC Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
53-70-3	Dibenzo(a,h)anthracene	156	U
191-24-2	Benzo(ghi)perylene	156	U

FORM I SV-3 OLM03.0

1F

SVOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

RE03-05-59542

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

Matrix: (soil/water) SOIL Lab Sample ID: 135805004

Sample wt/vol: 30.0 (g/mL) G Lab File ID: S8E1909

Level: (low/med) LOW Date Received: 05/04/05

% Moisture: 14 decanted: (Y/N) N Date Extracted: 05/10/05

Concentrated Extract Volume: 1.00(mL) Date Analyzed: 05/19/05

Injection Volume: 0.5(uL) Dilution Factor: 4.0

GPC Cleanup: (Y/N) N

Number TICs found: 15

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 1599-67-3	1-DOCOSENE	7.96	1270	NJ
2.	UNKNOWN HYDROCARBON	8.16	1120	J
3. 638-36-8	HEXADECANE, 2,6,10,14-TETRAM	8.27	1120	NJ
4.	UNKNOWN HYDROCARBON	8.53	4910	J
5. 4452-45-3	1,14-DOCOSANEDIOL	8.56	3650	NJ
6. 55044-36-5	1H-INDENE, 5-BUTYL-6-HEXYLOC	8.59	2740	NJ
7. 20175-84-2	[1,2'-BINAPHTHALENE]-5,5',8,	8.92	1440	NJ
8.	UNKNOWN ANHYDRIDE	8.98	3860	J
9.	UNKNOWN	9.03	2020	J
10.	UNKNOWN	9.06	3530	J
11. 7683-64-9	SQUALENE	9.16	1730	NJ
12.	UNKNOWN	9.17	1520	J
13.	UNKNOWN	9.19	2440	J
14.	UNKNOWN	9.34	2070	J
15.	UNKNOWN	9.39	1430	J
16.				
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				

FORM I SV-TIC OLM03.0

General Engineering Laboratories, LLC

Data file : /chem/MSD8.i/s051905.b/s8e1909.d
Lab Smp Id: 135805004 Client Smp ID: RE03-05-59542
Inj Date : 19-MAY-2005 17:36
Operator : cak Inst ID: MSD8.i
Smp Info : |135805004|423903|4|SVMF|1|LANL|
Misc Info : |MSD8270_SF|WBN050506-02
Comment : Column: J & W DB-5MS:25m x 0.20mm - 0.33um Film m
Method : /chem/MSD8.i/s051905.b/MSD8-8270-051605a.m
Meth Date : 23-May-2005 08:53 cak Quant Type: ISTD
Cal Date : 11-MAY-2005 18:18 Cal File: s8e1111.d
Als bottle: 9
Dil Factor: 4.00000
Integrator: HP RTE Compound Sublist: 3194S.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	4.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	14.32480	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.786	3.792	(1.000)	121319	40.0000	
* 29 Naphthalene-d8	136	4.650	4.655	(1.000)	434231	40.0000	
* 46 Acenaphthene-d10	164	5.901	5.901	(1.000)	277074	40.0000	
* 67 Phenanthrene-d10	188	6.894	6.894	(1.000)	518375	40.0000	
* 91 Chrysene-d12	240	8.463	8.463	(1.000)	326492	40.0000	
* 98 Perylene-d12	264	9.573	9.567	(1.000)	253084	40.0000	
$ 3 2-Fluorophenol	112	2.975	2.975	(0.786)	38714	15.4129	2400
$ 5 Phenol-d5	99	3.498	3.504	(0.924)	45316	15.6639	2440
$ 20 Nitrobenzene-d5	82	4.150	4.150	(0.893)	19100	7.59565	1180
$ 39 2-Fluorobiphenyl	172	5.396	5.396	(0.914)	69036	8.14567	1270
$ 60 2,4,6-Tribromophenol	329	6.436	6.442	(1.091)	16926	16.9133	2630
$ 81 p-Terphenyl-d14	244	7.805	7.805	(0.922)	85641	10.8216	1680

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
93 bis(2-Ethylhexyl)phthalate	149	8.375	8.375	(0.990)	23915	7.66495	1190(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

General Engineering Laboratories, LLC

Data file : /chem/MSD8.i/s051905.b/s8e1909.d
Lab Smp Id: 135805004 Client Smp ID: RE03-05-59542
Inj Date : 19-MAY-2005 17:36
Operator : cak Inst ID: MSD8.i
Smp Info : |135805004|423903|4|SVMF|1|LANL|
Misc Info : |MSD8270_SF|WBN050506-02
Comment : Column: J & W DB-5MS:25m x 0.20mm - 0.33um Film m
Method : /chem/MSD8.i/s051905.b/MSD8-8270-051605a.m
Meth Date : 23-May-2005 08:53 cak Quant Type: ISTD
Cal Date : 11-MAY-2005 18:18 Cal File: s8e1111.d
Als bottle: 9
Dil Factor: 4.00000
Integrator: HP RTE Compound Sublist: 3194S.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariabl

Name	Value	Description
DF	4.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	14.32480	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 91 Chrysene-d12	8.463	856315	40.000
* 98 Perylene-d12	9.573	789460	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
1-Docosene				CAS #: 1599-67-3			
7.957	174373	8.14527832	1270	86	Nist98.1	111438	91

Data File: /chem/MSD8.i/s051905.b/s8e1909.d
Report Date: 03-Jun-2005 08:17

RT	AREA	CONCENTRATIONS ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	QUANT LIBRARY	LIB ENTRY	CPND #
Unknown Hydrocarbon				CAS #:			
8.157	153760	7.18238103	1120	0		0	91
Hexadecane, 2,6,10,14-tetramethyl-				CAS #: 638-36-8			
8.275	153696	7.17940070	1120	92	Nist98.1	112379	91
Unknown Hydrocarbon				CAS #:			
8.527	675528	31.5551083	4910	0		0	91
1,14-Docosanediol				CAS #: 4452-45-3			
8.563	501755	23.4378487	3650	83	Nist98.1	23057	91
1H-Indene, 5-butyl-6-hexyloctahydro-				CAS #: 55044-36-5			
8.586	376581	17.5907454	2740	84	Nist98.1	2761	91
[1,2'-Binaphthalene]-5,5',8,8'-tetrone,				CAS #: 20175-84-2			
8.915	198544	9.27433450	1440	98	Nist98.1	111487	91
Unknown Anhydride				CAS #:			
8.980	530458	24.7786238	3860	0		0	91
Unknown				CAS #:			
9.033	255954	12.9685622	2020	0		0	98
Unknown				CAS #:			
9.056	447983	22.6982053	3530	0		0	98
Squalene				CAS #: 7683-64-9			
9.156	219529	11.1229916	1730	80	Nist98.1	23074	98
Unknown				CAS #:			
9.168	192240	9.74031353	1520	0		0	98
Unknown				CAS #:			
9.191	309398	15.6764534	2440	0		0	98
Unknown				CAS #:			
9.344	262699	13.3103102	2070	0		0	98
Unknown				CAS #:			
9.385	180847	9.16308514	1430	0		0	98

Data File: /chem/MSD8.i/s051905.b/s8e1909.d
Date : 19-MAY-2005 17:36
Client ID: RE03-05-59542
Sample Info: 1135805041423903141SVMF11LANL1
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD8.i
Operator: cak
Column diameter: 0.20

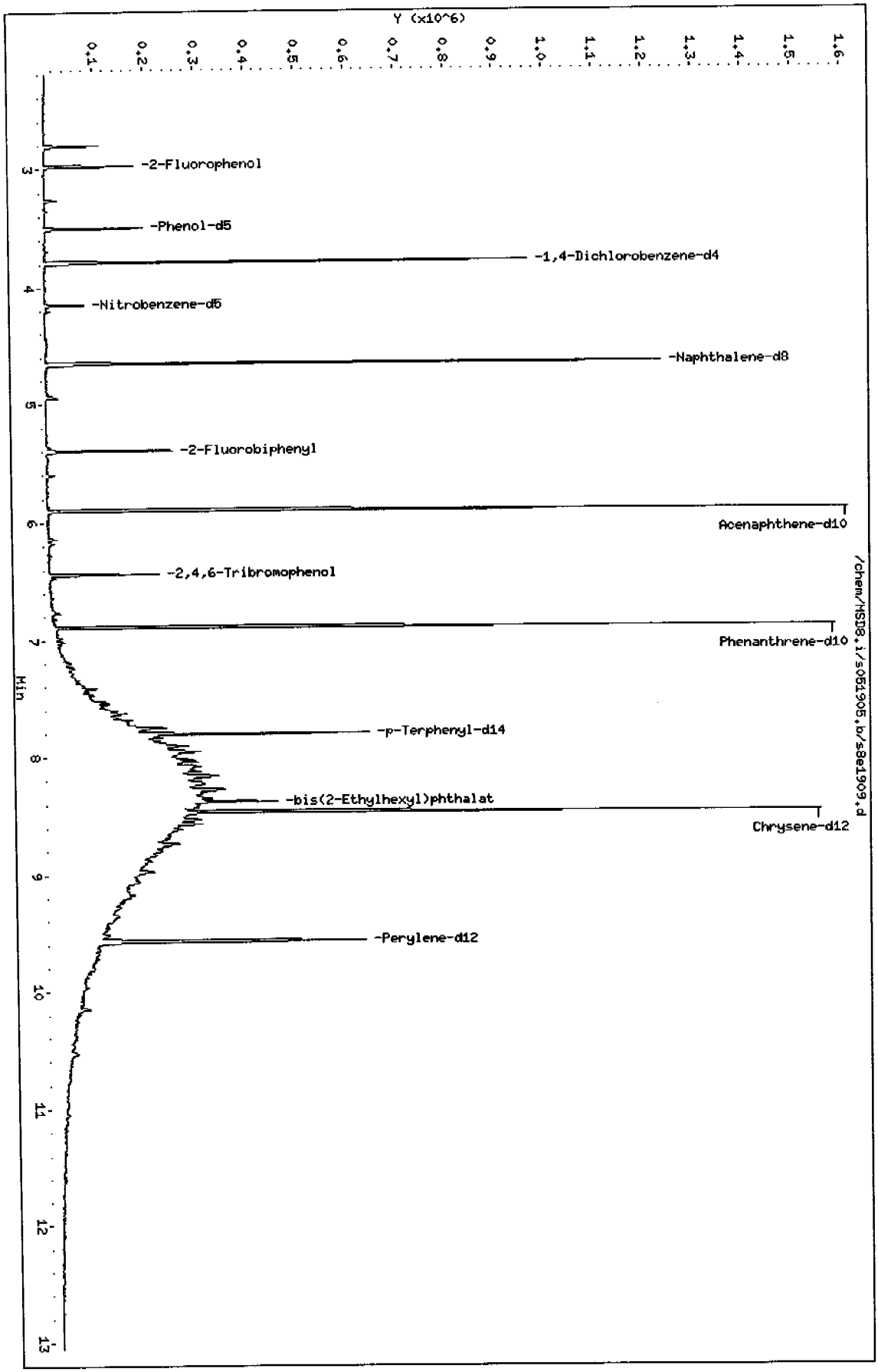

Page 1

Data File: /chem/MSD8.i/s051905.b/s8e1909.d

Date : 19-MAY-2005 17:36

Client ID: RE03-05-59542

Instrument: MSD8.i

Sample Info: 1135805004142390314|SVMF1|1|LANL|

Volume Injected (uL): 0.5

Operator: cak

Column phase: J&W DB-5MS

Column diameter: 0.20

93 bis(2-Ethylhexyl)phthalate

Concentration: 1190 ug/Kg

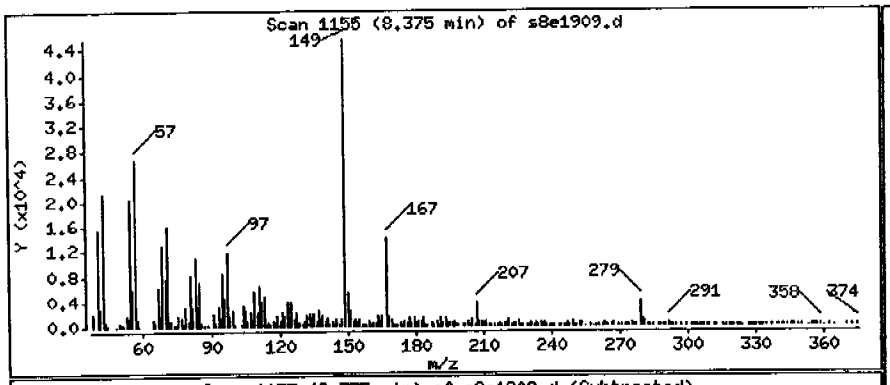

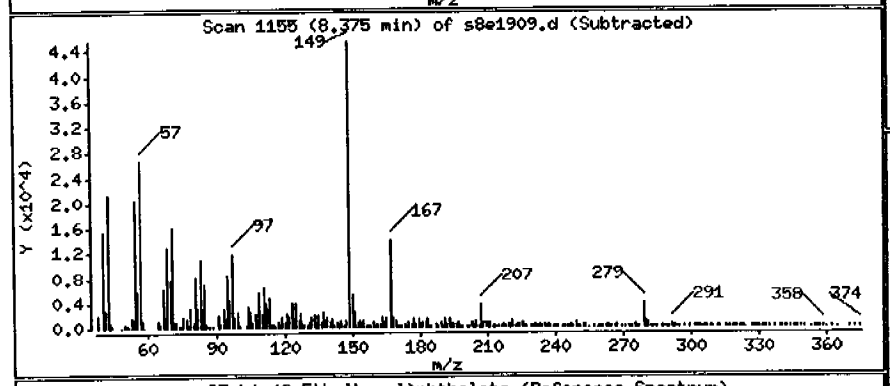

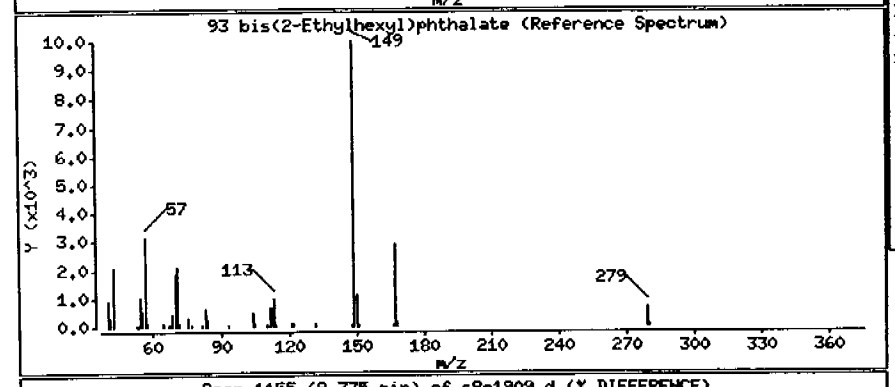

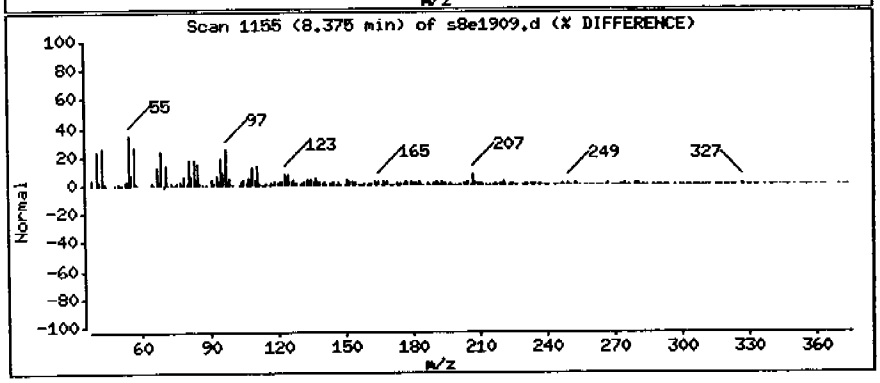

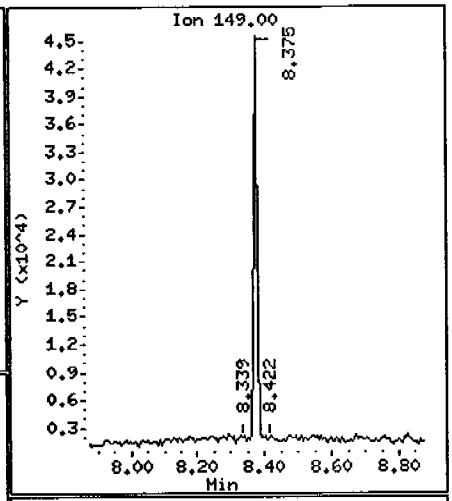

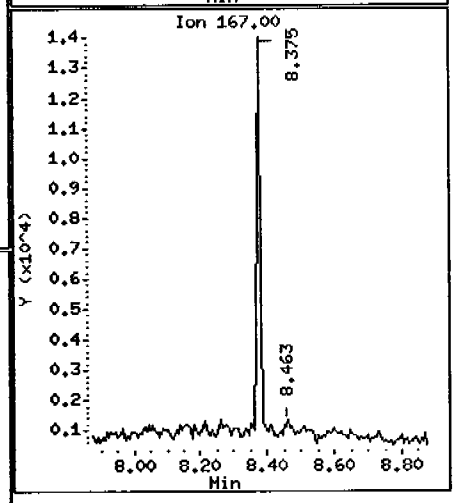

Data File: /chem/MSD8.i/s051905.b/s8e1909.d

Date : 19-MAY-2005 17:36

Client ID: RE03-05-59542

Instrument: MSD8.i

Sample Info: |135805004|423903|4|SVMF|1|LANL|

Volume Injected (uL): 0.5

Operator: cak

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
1-Docosene	1599-67-3	Nist98.l	111438	86	C22H44	308
Tetrapentacontane, 1,54-dibromo-	1000156-09-4	Nist98.l	17122	81	C54H108Br2	915
Cyclopentane, 1-pentyl-2-propyl-	62199-51-3	Nist98.l	22824	60	C13H26	182

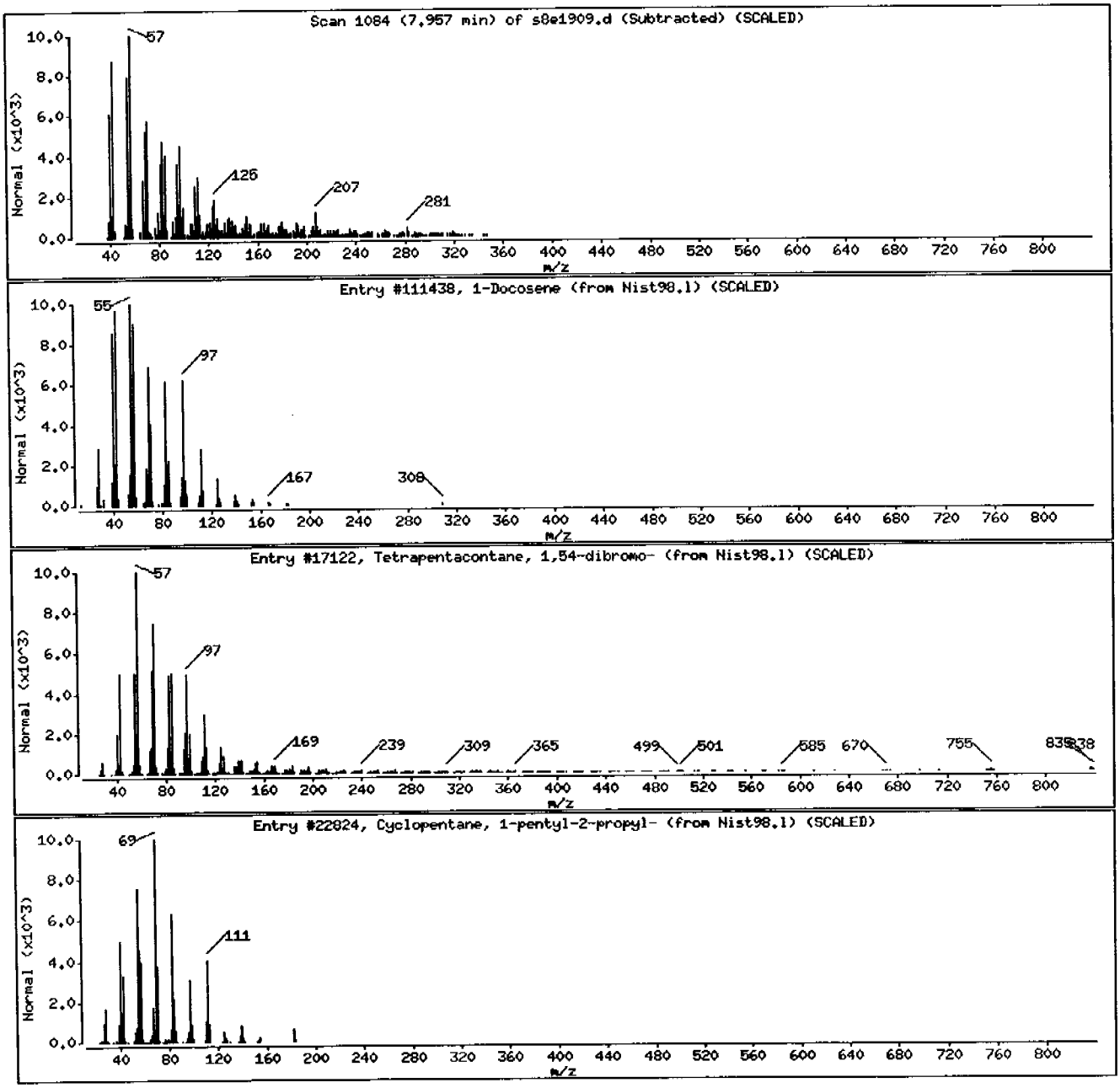

Data File: /chem/MSD8.i/s051905.b/s8e1909.d

Date : 19-MAY-2005 17:36

Client ID: RE03-05-59542

Instrument: MSD8.i

Sample Info: |1358050041423903|4|SVMF|1|LANL|

Volume Injected (uL): 0.5

Operator: cak

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Hydrocarbon						
1-Hexadecanol, 2-methyl-	2490-48-4	Nist98.l	16348	64	C17H36O	256
9-Methyl-Z-10-tetradecen-1-ol acetate	1000130-99-4	Nist98.l	5243	60	C17H32O2	268
1-Docosene	1599-67-3	Nist98.l	5177	55	C22H44	308

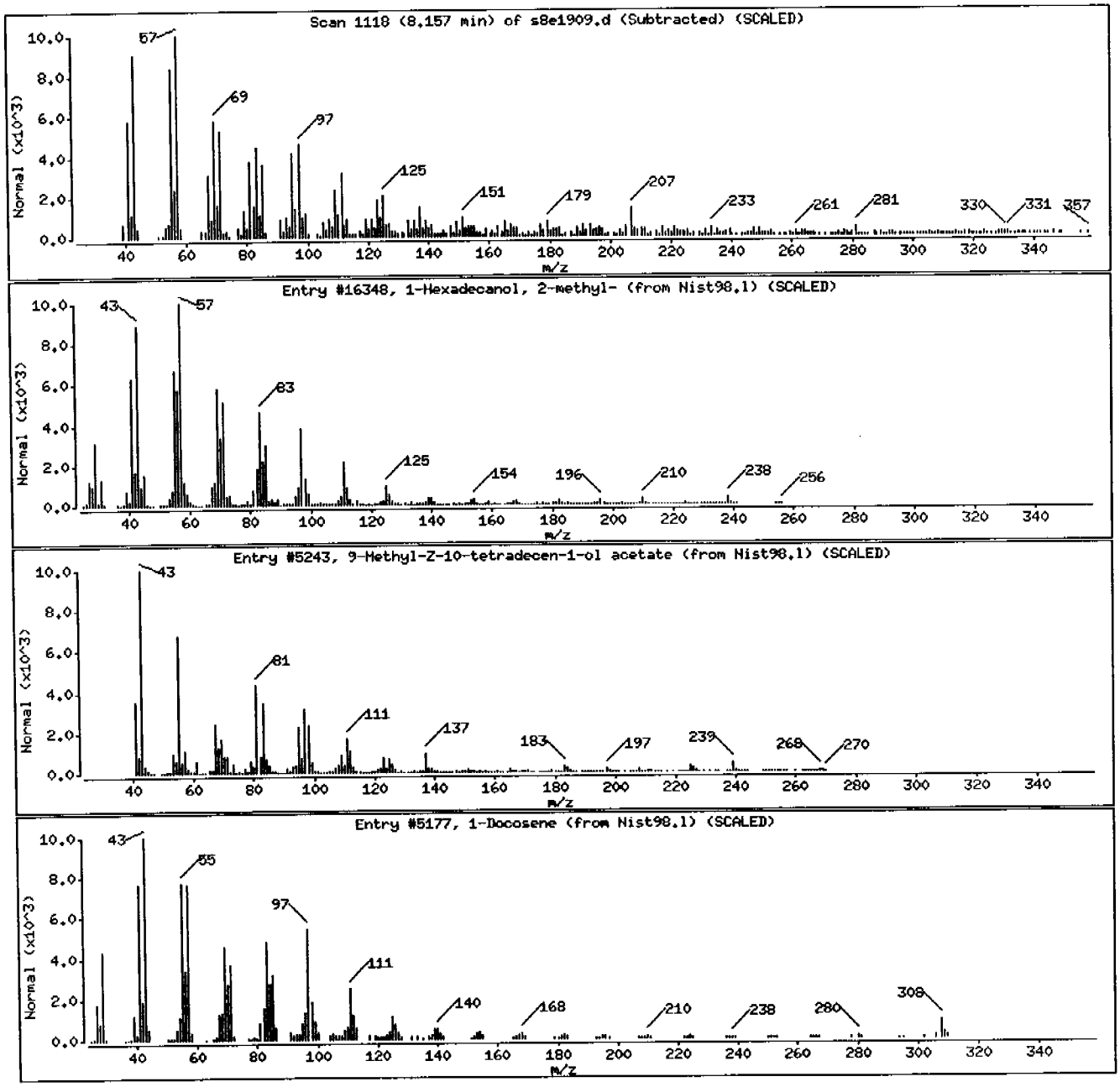

Data File: /chem/MSD8.i/s051905.b/s8e1909.d

Date : 19-MAY-2005 17:36

Client ID: RE03-05-59542

Instrument: MSD8.i

Sample Info: |1358050041423903141SVMF111LANL|

Volume Injected (uL): 0.5

Operator: cak

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Hexadecane, 2,6,10,14-tetramethyl-	638-36-8	Nist98.l	112379	92	C20H42	282
Heneicosane, 3-methyl-	6418-47-9	Nist98.l	16444	64	C22H46	310
E-11,13-Dimethyl-12-tetradecen-1-ol acet	1000130-81-0	Nist98.l	22661	60	C18H3402	282

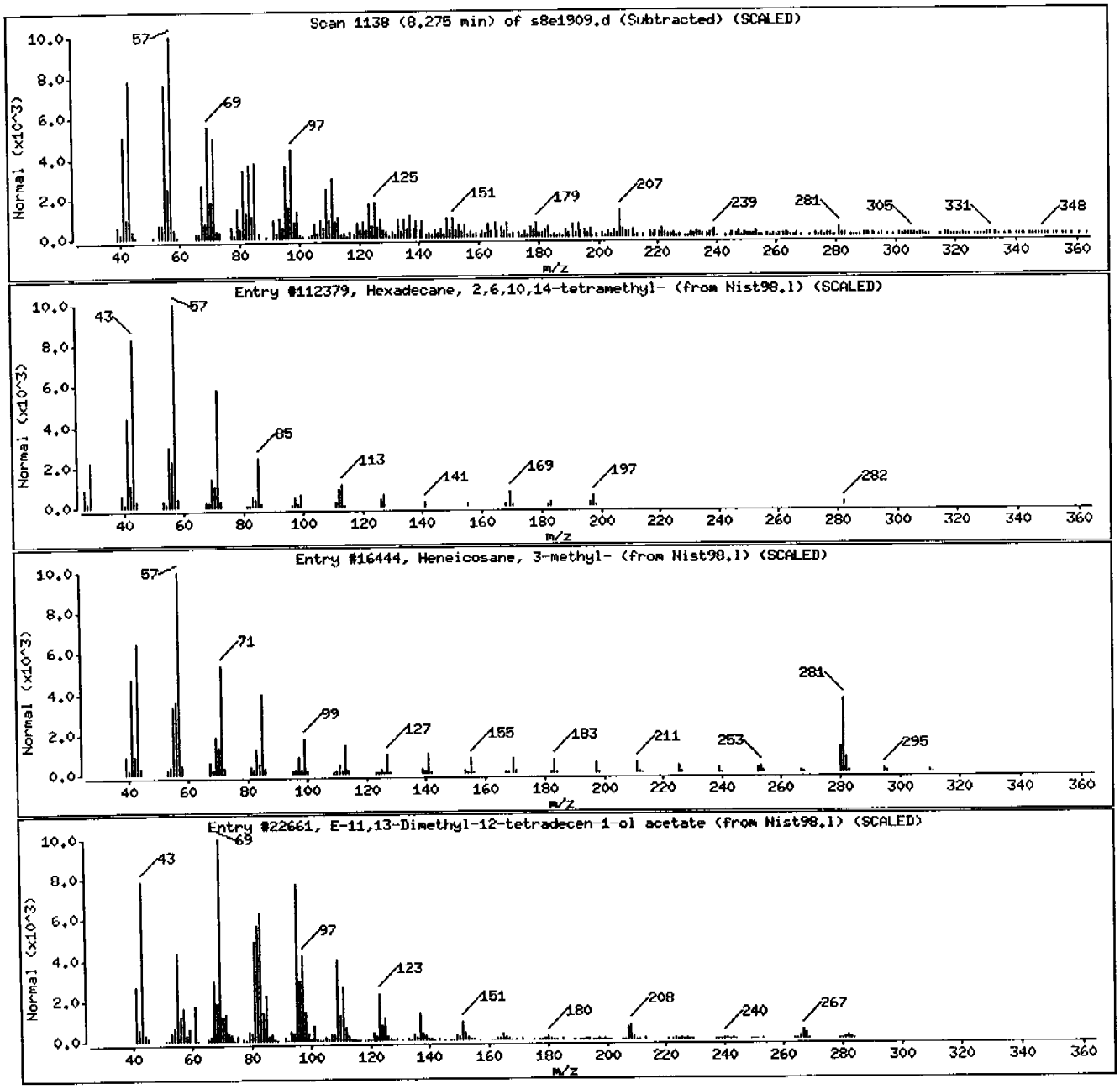

Data File: /chem/MSD8.i/s051905.b/s8e1909.d

Date : 19-MAY-2005 17:36

Client ID: RE03-05-59542 Instrument: MSD8.i

Sample Info: |1358050041423903141SVMF11LANL|

Volume Injected (uL): 0.5 Operator: cak

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Hydrocarbon						
Hexadecane, 7,9-dimethyl-	21164-95-4	Nist98.l	17082	53	C18H38	254
Octadecane, 1-chloro-	3386-33-2	Nist98.l	16321	51	C18H37Cl	288
4,8-Dimethyl-4Z,8E-tetracosadienal	116206-69-0	Nist98.l	7426	50	C26H48O	376

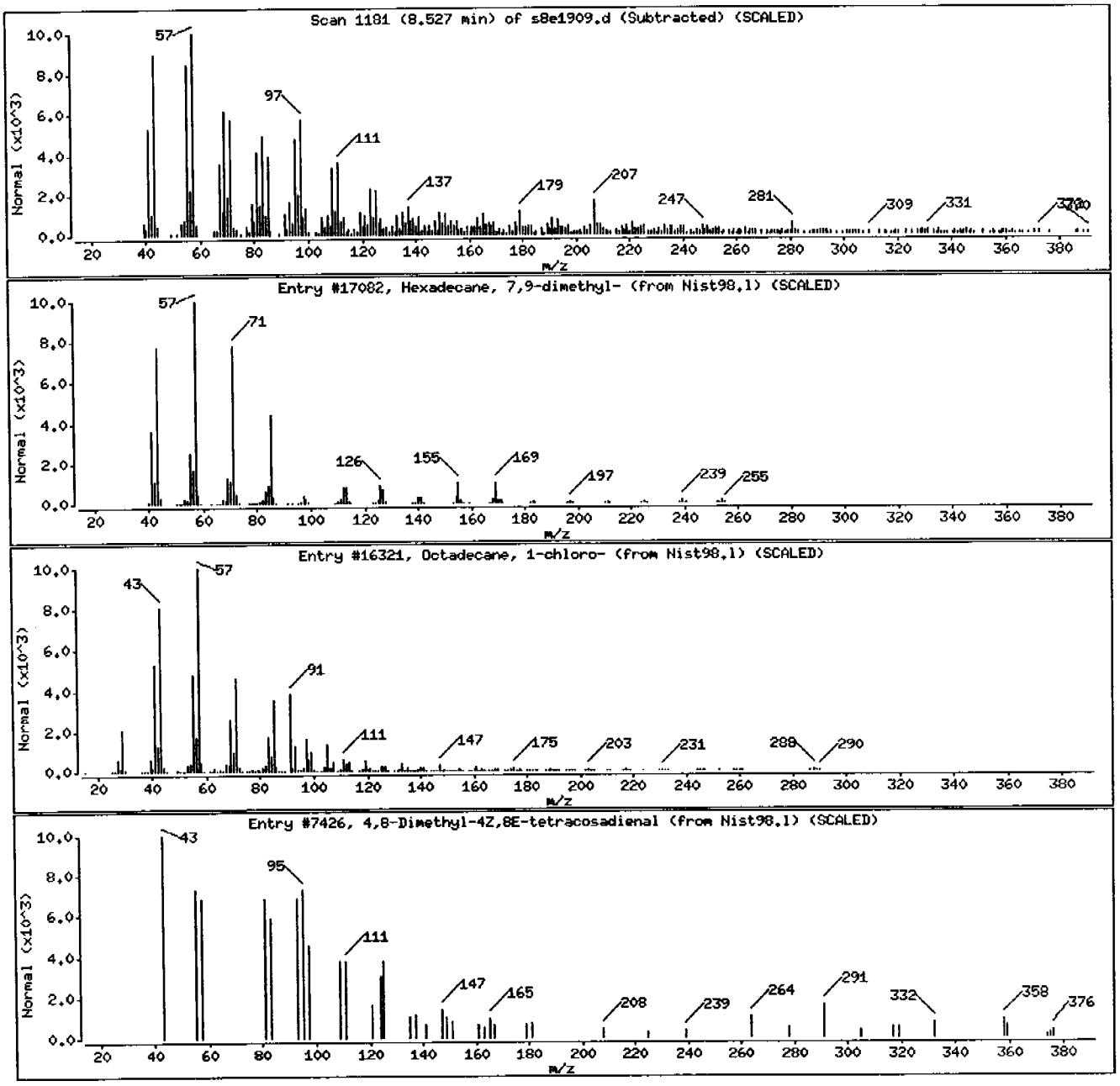

Data File: /chem/MSD8.i/s051905.b/s8e1909.d

Date : 19-MAY-2005 17:36

Client ID: RE03-05-59542 Instrument: MSD8.i

Sample Info: |135805004|423903|4|SVMF|1|LANL|

Volume Injected (uL): 0.5 Operator: cak

Column phase: J&W DB-5HS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
1,14-Docosanediol	4452-45-3	Nist98.1	23057	83	C22H4602	342
Bicyclo[4.3.0]nonane, 2,2,6,7-tetramethy	1000196-98-1	Nist98.1	4398	70	C13H240	196
E-11,13-Dimethyl-12-tetradecen-1-ol acet	1000130-81-0	Nist98.1	22661	60	C18H3402	282

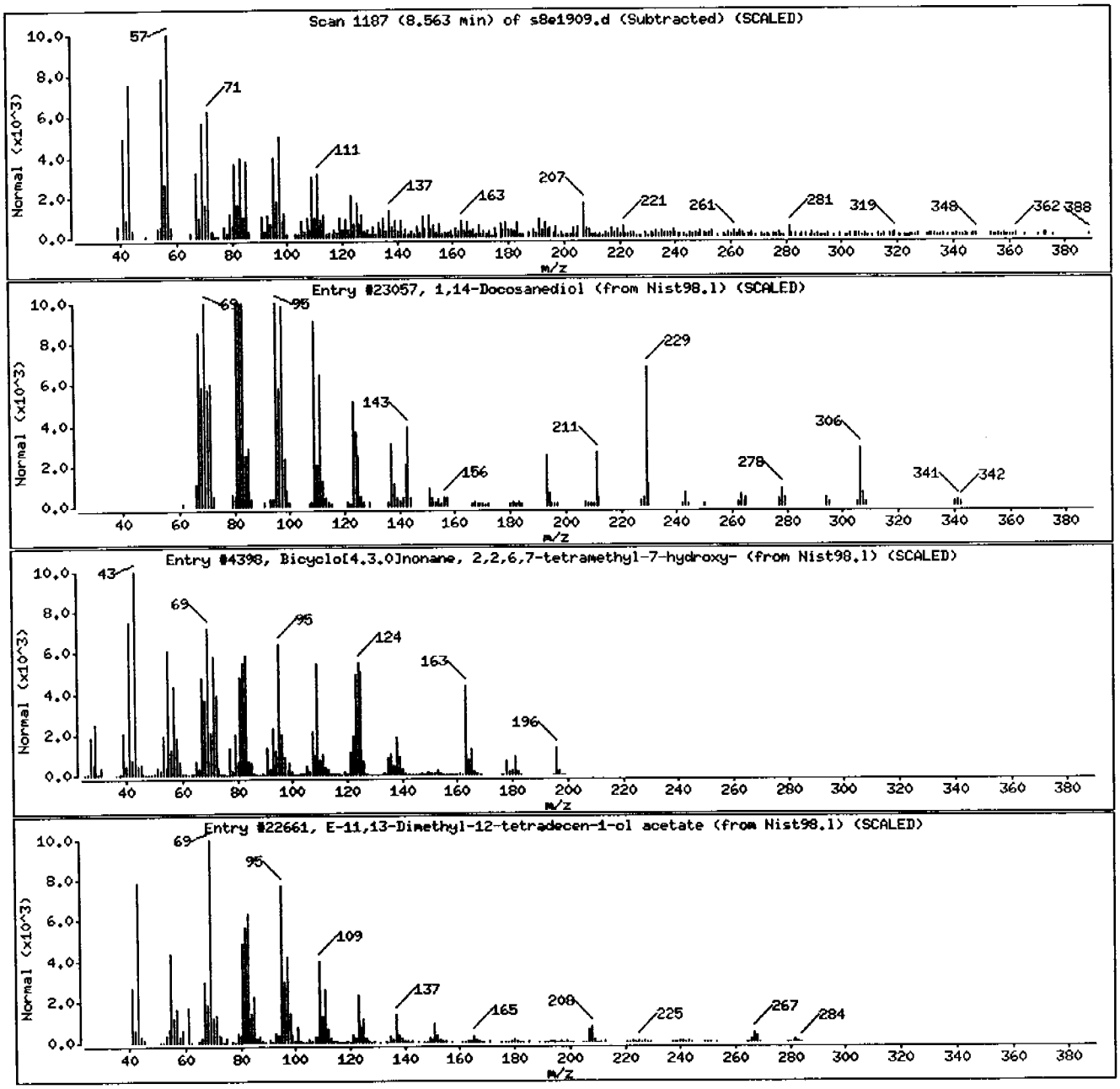

Data File: /chem/MSD8.i/s051905.b/s8e1909.d

Date : 19-MAY-2005 17:36

Client ID: RE03-05-59542 Instrument: MSD8.i

Sample Info: |1358050041423903|4|SVMF|1|LANL|

Volume Injected (uL): 0.5 Operator: cak

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
1H-Indene, 5-butyl-6-hexyloctahydro-	55044-36-5	Nist98.l	2761	84	C19H36	264
Cyclodocosane, ethyl-	1000151-22-6	Nist98.l	16754	64	C24H48	336
E-11,13-Dimethyl-12-tetradecen-1-ol acet	1000130-81-0	Nist98.l	22661	60	C18H3402	282

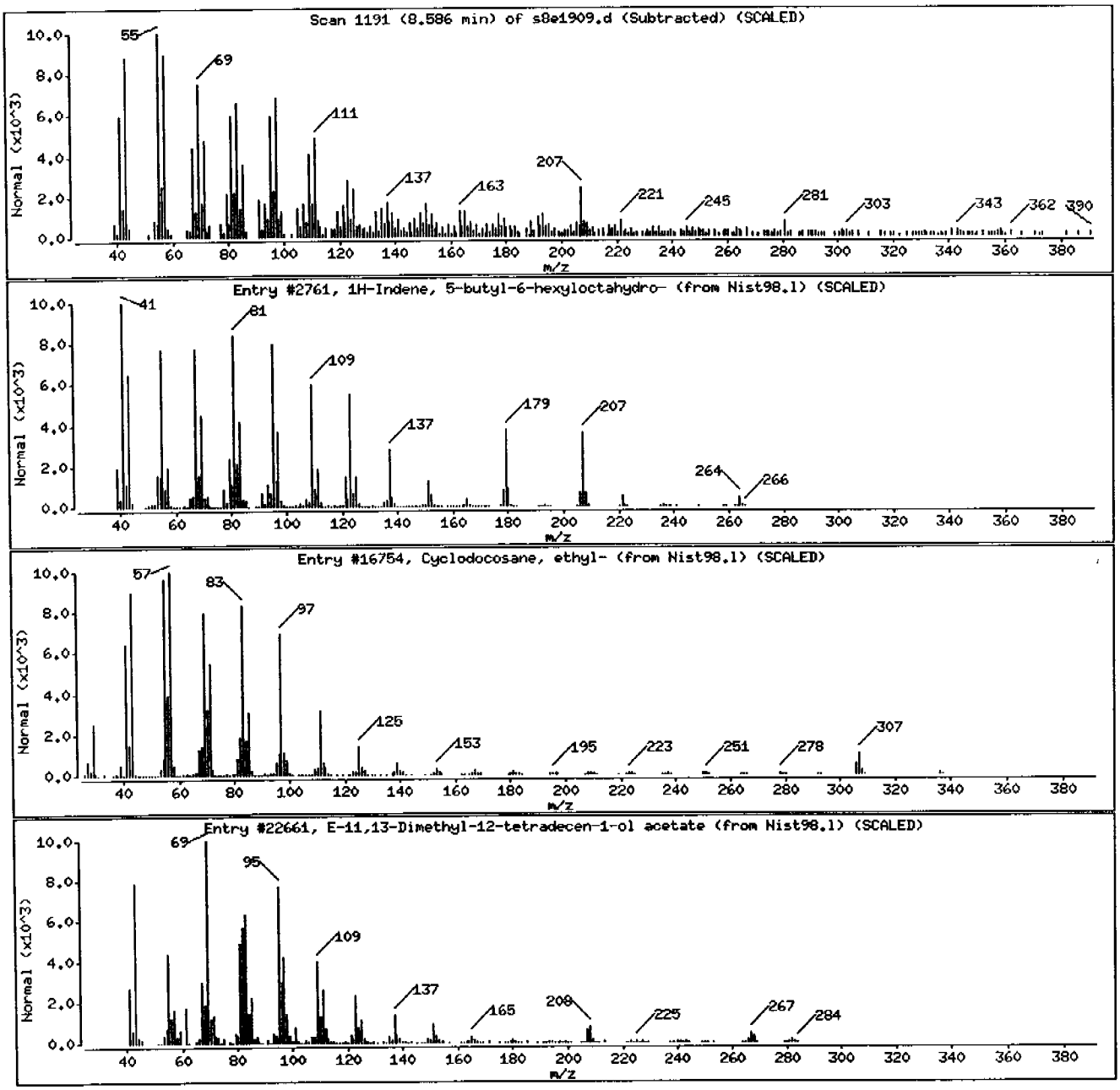

Data File: /chem/MSD8.i/s051905.b/s8e1909.d

Date : 19-MAY-2005 17:36

Client ID: RE03-05-59542 Instrument: MSD8.i

Sample Info: |1358050041423903|4|SVMF|1|LANL|

Volume Injected (uL): 0.5 Operator: cak

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
[1,2'-Binaphthalene]-5,5',8,8'-tetrone,	20175-84-2	Nist98.l	111487	98	C22H1406	374
Tridecanedial	63521-76-6	Nist98.l	14456	42	C13H2402	212
p-Menth-8(10)-en-9-ol, cis-	15714-13-3	Nist98.l	14099	42	C10H180	154

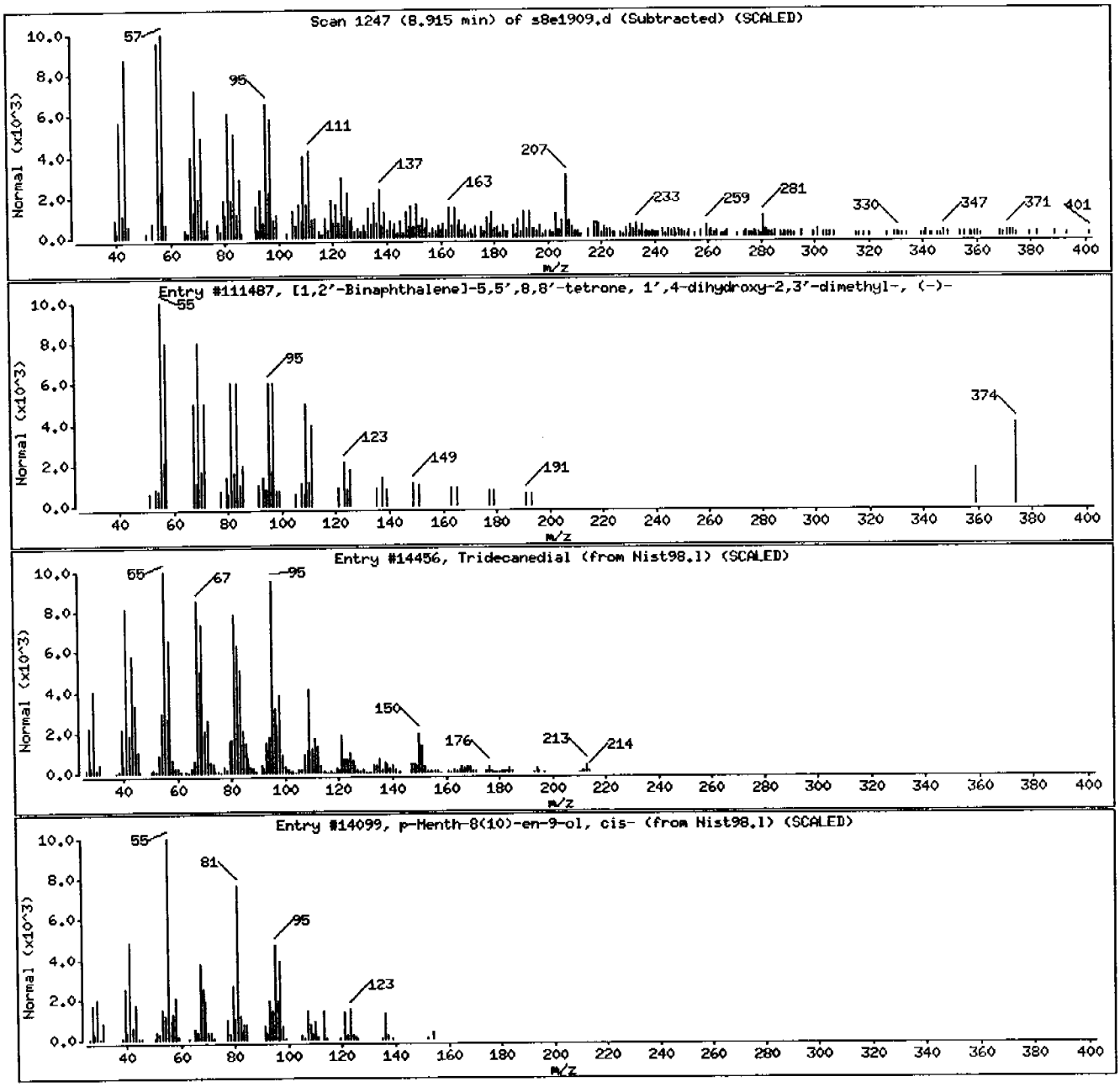

Data File: /chem/MSD8.i/s051905.b/s8e1909.d

Date : 19-MAY-2005 17:36

Client ID: RE03-05-59542

Instrument: MSD8.i

Sample Info: |1358050041423903141SVMFI1ILANL|

Volume Injected (uL): 0.5

Operator: cak

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Anhydride						
2-Dodecen-1-yl(-)succinic anhydride	19780-11-1	Nist98.l	1951	55	C16H2603	266
1-Pentadecene	13360-61-7	Nist98.l	109475	50	C15H30	210
9,9'-Biphenanthrene, octacosahydro-	55334-18-4	Nist98.l	41632	45	C28H46	382

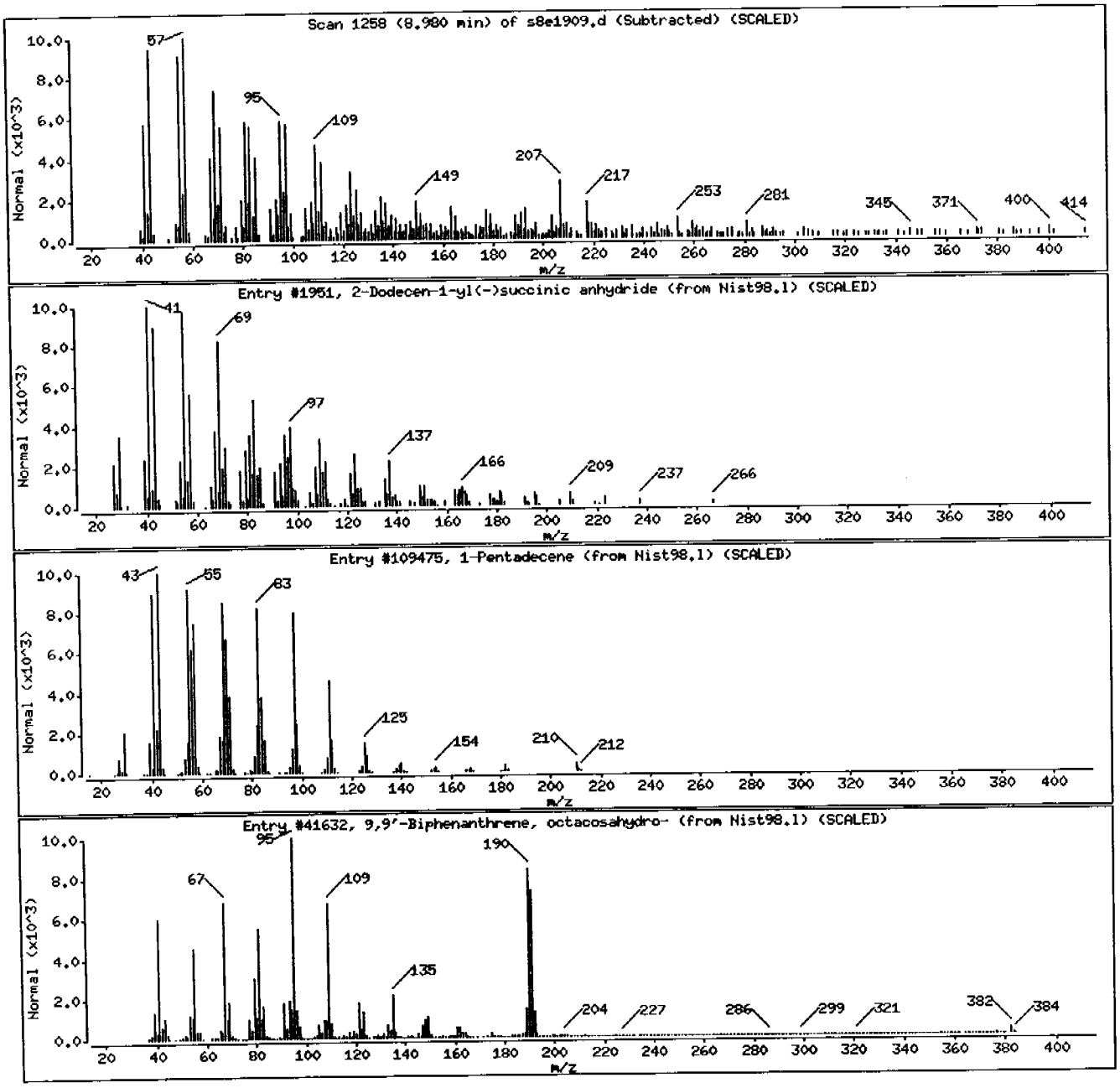

Data File: /chem/MSD8.i/s051905.b/s8e1909.d

Date : 19-MAY-2005 17:36

Client ID: RE03-05-59542

Instrument: MSD8.i

Sample Info: |135805004|423903|4|SVMF|1|LANL|

Volume Injected (uL): 0.5

Operator: cak

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
8,12-Tetradecadienoic acid, 5-ethenyl-3,	36237-73-7	Nist98.l	33133	55	C21H36O2	320
5-Octen-2-one, 6-methyl-8-(2,6,6-trimeth	55638-41-0	Nist98.l	7963	53	C18H30O	262
3-Eicosene, (E)-	74685-33-9	Nist98.l	16986	50	C20H40	280

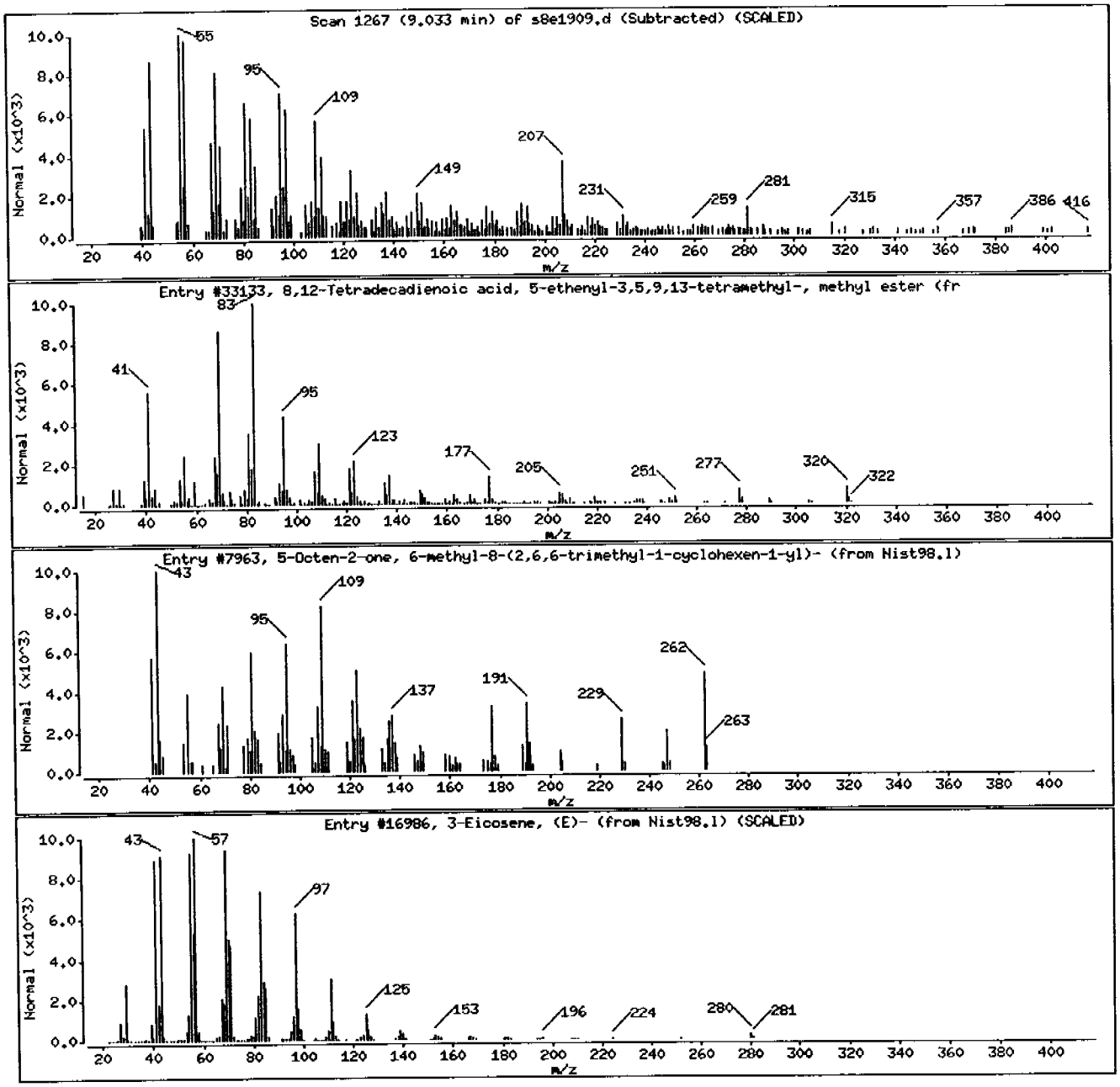

Data File: /chem/MSD8.i/s051905.b/s8e1909.d

Date : 19-MAY-2005 17:36

Client ID: RE03-05-59542 Instrument: MSD8.i

Sample Info: |1358050041423903141SVMFI1|LANL|

Volume Injected (uL): 0.5 Operator: cak

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
D-Homoandrostane, (5.alpha.,13.alpha.)-	54482-31-4	Nist98.l	41085	64	C20H34	274
1H-Indene, 5-butyl-6-hexyloctahydro-	55044-36-5	Nist98.l	2761	56	C19H36	264
E-11,13-Dimethyl-12-tetradecen-1-ol acet	1000130-81-0	Nist98.l	22661	46	C18H3402	282

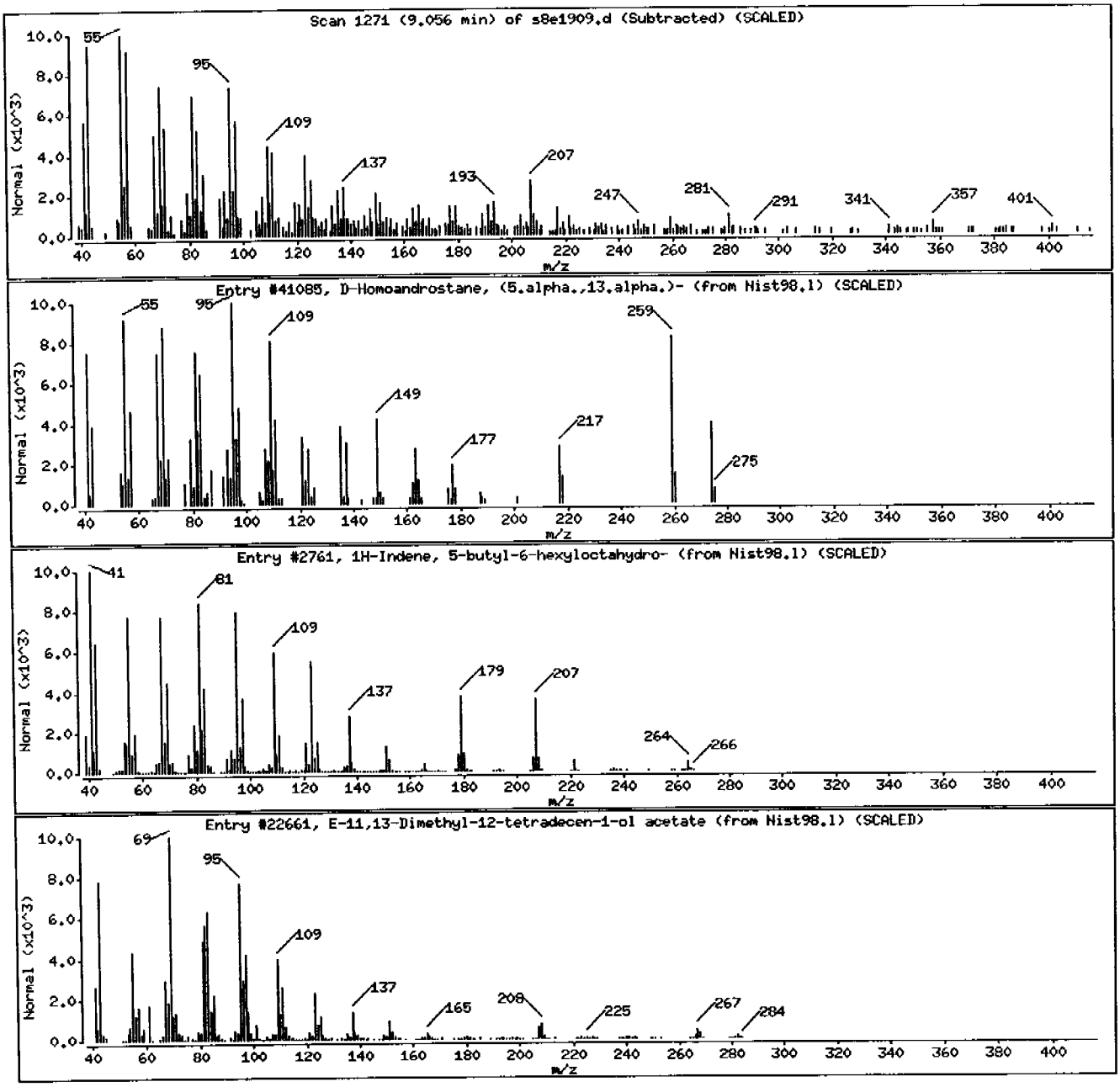

Data File: /chem/MSD8.i/s051905.b/s8e1909.d

Date : 19-MAY-2005 17:36

Client ID: RE03-05-59542 Instrument: MSD8.i

Sample Info: |1358050041423903141SVMF11|LANL|

Volume Injected (uL): 0.5 Operator: cak

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Squalene	7683-64-9	Nist98.l	23074	80	C30H50	410
E-11,13-Dimethyl-12-tetradecen-1-ol acet	1000130-81-0	Nist98.l	22661	70	C18H3402	282
5,6,6-Trimethyl-5-(3-oxobut-1-enyl)-1-ox	1000192-73-9	Nist98.l	4530	46	C14H2003	236

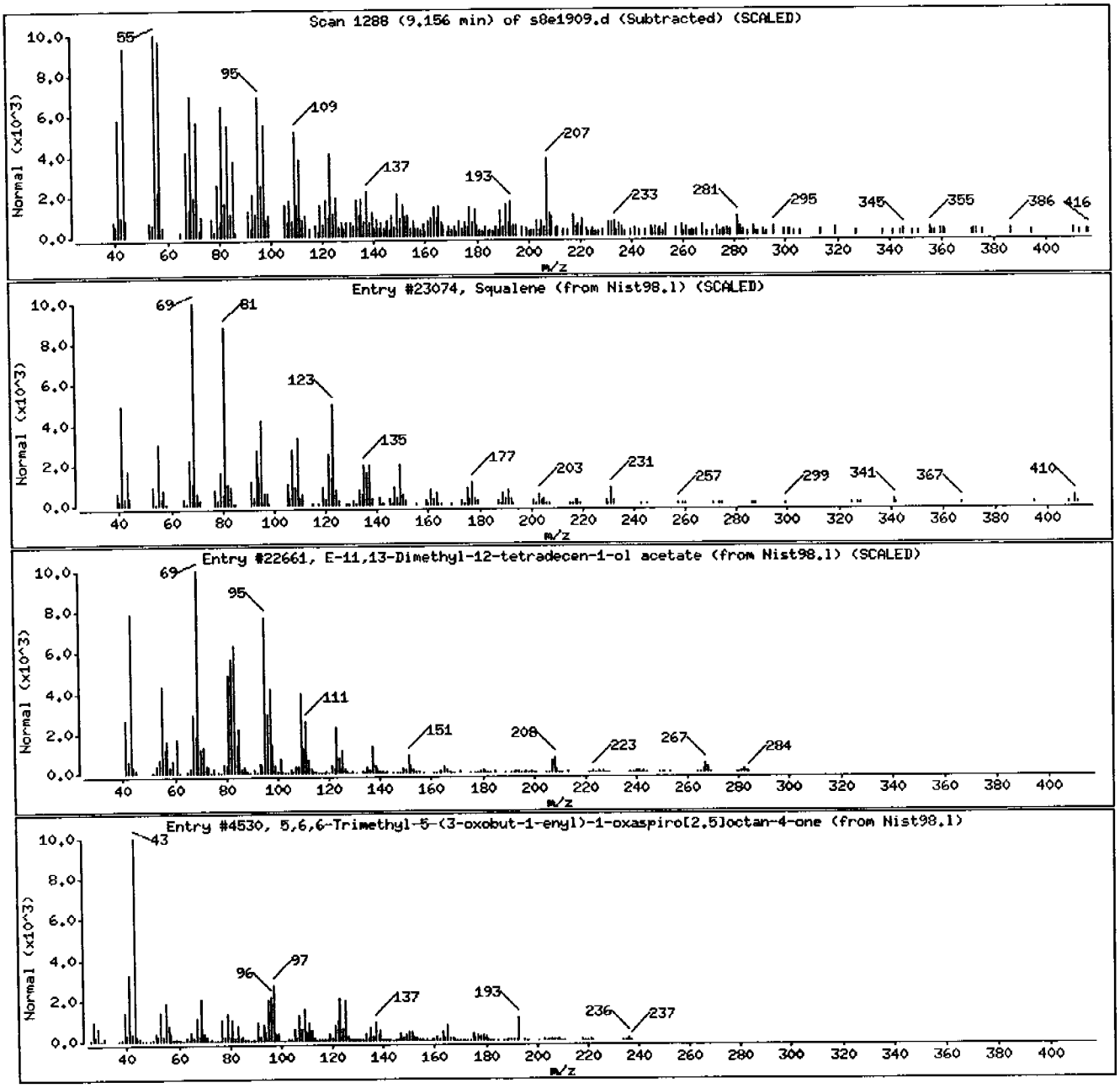

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Date : 19-MAY-2005 17:36

Client ID: RE03-05-59542 Instrument: MSD8.i

Sample Info: |1358050041423903|4|SVMF|1|LANL|

Volume Injected (uL): 0.5 Operator: cak

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Methyl 5-methyl-2-ethenyl-cyclohexane-1-	1000144-54-1	Nist98.l	32119	60	C11H1802	182
Cholestan-3-ol, 2-methylene-, (3.beta.,5	22599-96-8	Nist98.l	23055	52	C28H480	400
2-Pentenoic acid, 5-(decahydro-5,5,8a-tr	24470-48-2	Nist98.l	31951	49	C20H3202	304

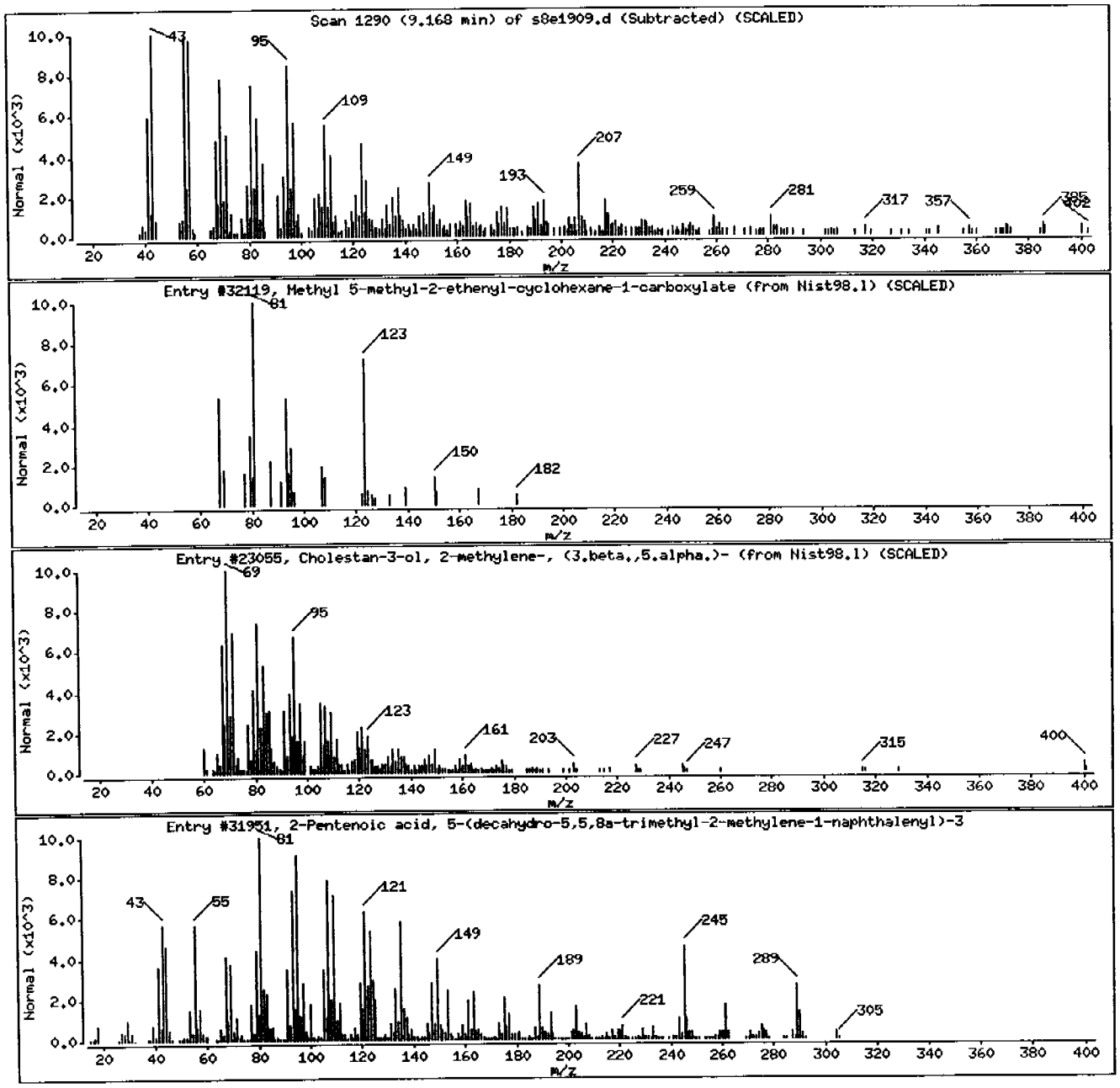

Data File: /chem/MSD8.i/s051905.b/s8e1909.d

Date : 19-MAY-2005 17:36

Client ID: RE03-05-59542 Instrument: MSD8.i

Sample Info: |135805004|423903|4|SVMF|1|LANL|

Volume Injected (uL): 0.5 Operator: cak

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Spiro[4.5]decan-7-one, 1,8-dimethyl-8,9-	1000197-25-2	Nist98.l	7938	46	C15H2402	236
1,6-Dimethyl-9-(1-methylethylidene)-5,12	1000072-83-2	Nist98.l	4377	45	C15H2203	250
cis-2-Ethenyl-cycloheptane-1-carboxylic	1000144-53-7	Nist98.l	32125	44	C10H1602	168

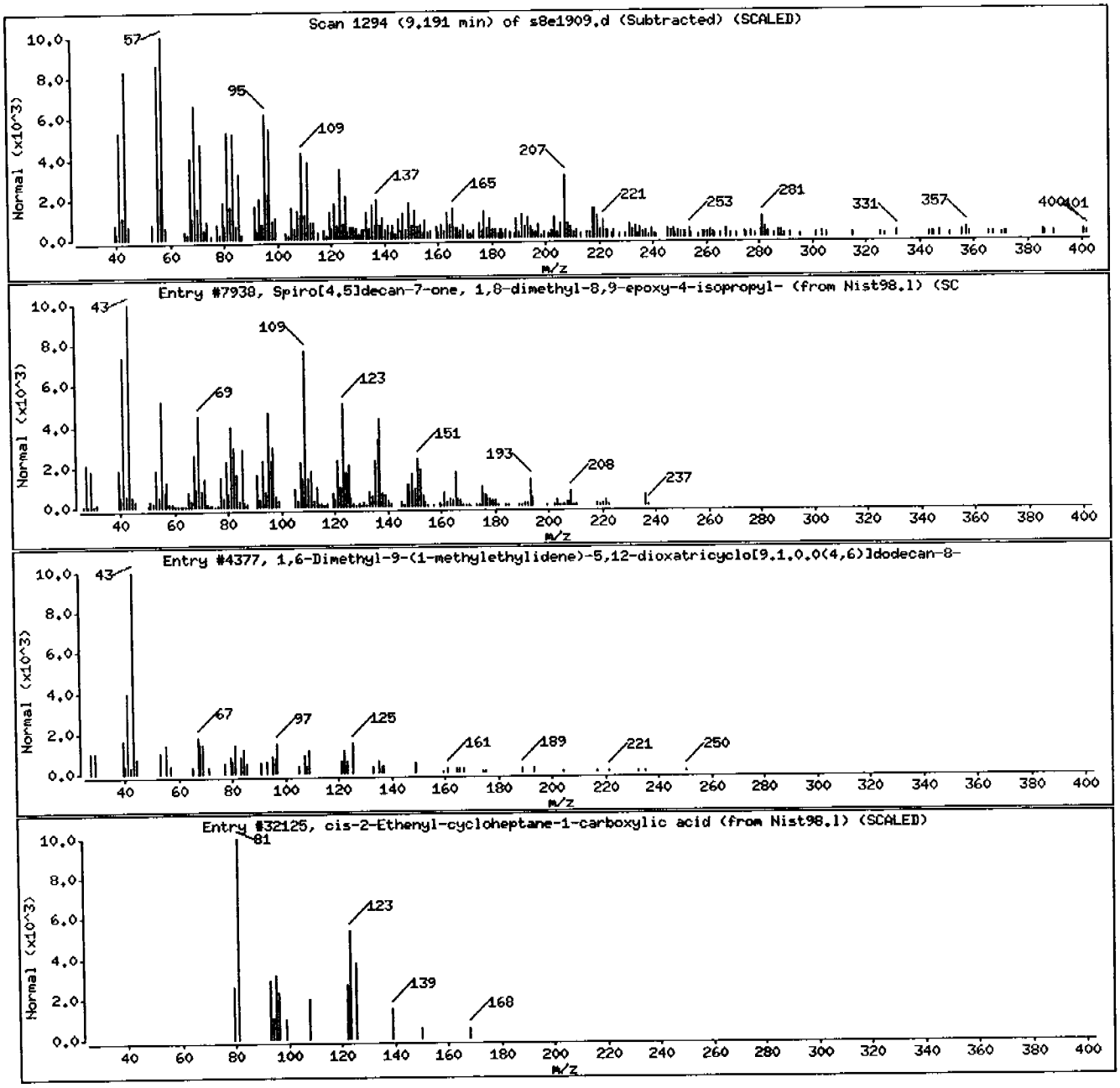

Data File: /chem/MSD8.i/s051905.b/s8e1909.d

Date : 19-MAY-2005 17:36

Client ID: RE03-05-59542 Instrument: MSD8.i

Sample Info: |1358050041423903141SVMF1I1LANL|

Volume Injected (uL): 0.5 Operator: cak

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Ergost-22-en-3-ol, (3.beta.,5.alpha.,22E	36422-25-0	Nist98.1	13909	64	C28H48O	400
Cyclohexane, 1-(cyclohexylmethyl)-2-ethy	54934-92-8	Nist98.1	13401	60	C15H28	208
1-Bromo-11-iodoundecane	1000195-60-2	Nist98.1	22893	55	C11H22BrI	360

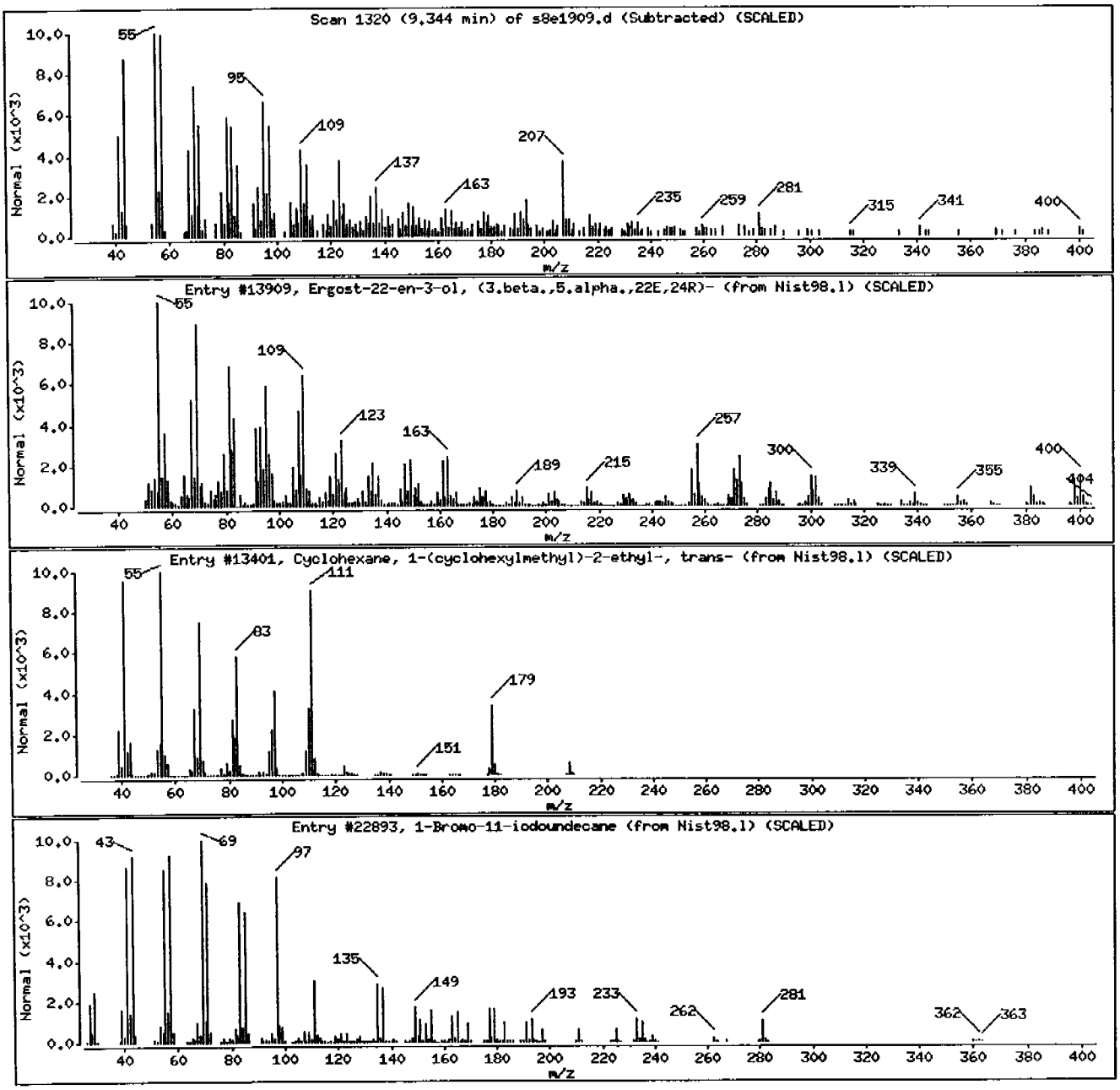

Data File: /chem/MSD8.i/s051905.b/s8e1909.d

Date : 19-MAY-2005 17:36

Client ID: RE03-05-59542

Instrument: MSD8.i

Sample Info: |135805004|423903|4|SVMF|1|LANL|

Volume Injected (uL): 0.5

Operator: oak

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
7-Oxabicyclo[2.2.1]heptane, 2-(2-butenyl	70429-52-6	Nist98.l	6147	46	C13H20O	192
Cyclohexane, 1-(cyclohexylmethyl)-2-ethy	54934-92-8	Nist98.l	13401	42	C15H28	208
Squalene	7683-64-9	Nist98.l	23074	41	C30H50	410

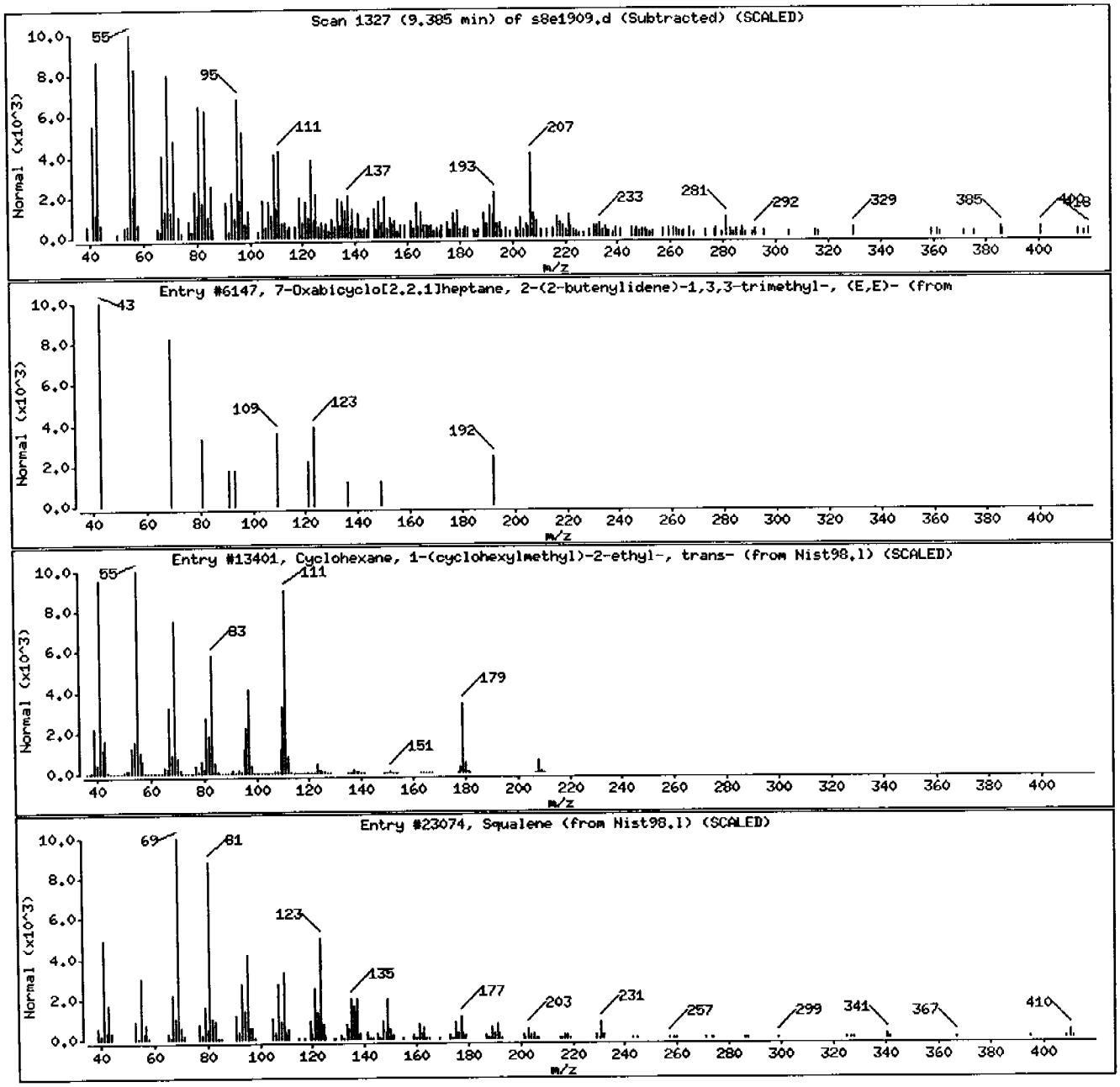

STANDARDS DATA

SW846 8270C/EPA 625

Calibration Standard Concentration Levels*

	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
1,4-Dichlorobenzene-d4 (INTERNAL STANDARD								
Naphthalene-d8 (INTERNAL STANDARD)								
Acenaphthene-d10 (INTERNAL STANDARD)								
Phenanthrene-d10 (INTERNAL STANDARD)								
Chrysene-d12 (INTERNAL STANDARD)								
Perylene-d12 (INTERNAL STANDARD)								
2-Fluorophenol (SURROGATE)		10	20	40	50	80	100	120
Phenol-d5 (SURROGATE)		10	20	40	50	80	100	120
2-Chlorophenol-d4 (CLP SURROGATE)		10	20	40	50	80	100	120
1,2-Dichlorobenzene-d4 (CLP SURROGATE)		10	20	40	50	80	100	120
Nitrobenzene-d5 (SURROGATE)		10	20	40	50	80	100	120
2-Fluorobiphenyl (SURROGATE)		10	20	40	50	80	100	120
2,4,6-Tribromophenol (SURROGATE)		10	20	40	50	80	100	120
p-Terphenyl-d14 (SURROGATE)		10	20	40	50	80	100	120
N-Nitrosodimethylamine		10	20	40	50	80	100	120
Pyridine		10	20	40	50	80	100	120
Aniline		10	20	40	50	80	100	120
Benzaldehyde		10	20	40	50	80	100	120
Phenol		10	20	40	50	80	100	120
bis(2-Chloroethyl)ether		10	20	40	50	80	100	120
2-Chlorophenol		10	20	40	50	80	100	120
n-Decane		10	20	40	50	80	100	120
1,3-Dichlorobenzene		10	20	40	50	80	100	120
1,4-Dichlorobenzene		10	20	40	50	80	100	120
Benzyl Alcohol		10	20	40	50	80	100	120
1,2-Dichlorobenzene		10	20	40	50	80	100	120
bis(2-Chloroisopropyl)ether		10	20	40	50	80	100	120
o-Cresol (2-Methylphenol)		10	20	40	50	80	100	120
Acetophenone		10	20	40	50	80	100	120
N-Nitrosodipropylamine		10	20	40	50	80	100	120
m,p-Cresols (3-Methylphenol & 4-Methylphenol)		10	20	40	50	80	100	120
Hexachloroethane		10	20	40	50	80	100	120
Nitrobenzene		10	20	40	50	80	100	120
Isophorone		10	20	40	50	80	100	120
2-Nitrophenol		10	20	40	50	80	100	120
2,4-Dimethylphenol		10	20	40	50	80	100	120
bis(2-Chloroethoxy)methane		10	20	40	50	80	100	120
2,4-Dichlorophenol		10	20	40	50	80	100	120
Benzoic Acid			20	40	50	80	100	120
1,2,4-Trichlorobenzene		10	20	40	50	80	100	120
Naphthalene	1	10	20	40	50	80	100	120
alpha-Terpineol		10	20	40	50	80	100	120
4-Chloroaniline		10	20	40	50	80	100	120

Caprolactam		10	20	40	50	80	100	120

SW846 8270C/EPA 625								
Calibration Standard Concentration Levels*								
	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Hexachlorobutadiene		10	20	40	50	80	100	120
4-Chloro-3-methylphenol		10	20	40	50	80	100	120
2-Methylnaphthalene	1	10	20	40	50	80	100	120
1-Methylnaphthalene	1	10	20	40	50	80	100	120
Hexachlorocyclopentadiene		10	20	40	50	80	100	120
1,1'-Biphenyl		10	20	40	50	80	100	120
2,3-Dichloroaniline		10	20	40	50	80	100	120
2,4,6-Trichlorophenol		10	20	40	50	80	100	120
2,4,5-Trichlorophenol		10	20	40	50	80	100	120
2-Chloronaphthalene	1	10	20	40	50	80	100	120
o-Nitroaniline		10	20	40	50	80	100	120
m-Nitroaniline		10	20	40	50	80	100	120
Dimethylphthalate		10	20	40	50	80	100	120
2,6-Dinitrotoluene		10	20	40	50	80	100	120
Acenaphthylene	1	10	20	40	50	80	100	120
Acenaphthene	1	10	20	40	50	80	100	120
2,4-Dinitrophenol			20	40	50	80	100	120
Dibenzofuran		10	20	40	50	80	100	120
2,4-Dinitrotoluene		10	20	40	50	80	100	120
Diethylphthalate		10	20	40	50	80	100	120
4-Nitrophenol		10	20	40	50	80	100	120
Fluorene	1	10	20	40	50	80	100	120
4-Chlorophenyl phenyl ether		10	20	40	50	80	100	120
2-Methyl-4,6-dinitrophenol		10	20	40	50	80	100	120
p-Nitroaniline		10	20	40	50	80	100	120
Diphenylamine		10	20	40	50	80	100	120
1,2-Diphenylhydrazine		10	20	40	50	80	100	120
Tributylphosphate		10	20	40	50	80	100	120
4-Bromophenyl phenyether		10	20	40	50	80	100	120
Hexachlorobenzene		10	20	40	50	80	100	120
Atrazine		10	20	40	50	80	100	120
Pentachlorophenol		10	20	40	50	80	100	120
n-Octadecane		10	20	40	50	80	100	120
Phenanthrene	1	10	20	40	50	80	100	120
Anthracene	1	10	20	40	50	80	100	120
Di-n-butylphthalate		10	20	40	50	80	100	120
Fluoranthene	1	10	20	40	50	80	100	120
Benzidine	10	20	50	100	150	200	250	300
Pyrene	1	10	20	40	50	80	100	120
Butylbenzylphthalate		10	20	40	50	80	100	120
Benzo(a)anthracene	1	10	20	40	50	80	100	120
3,3'-Dichlorobenzidene	10	20	50	100	150	200	250	300

Chrysene	1	10	20	40	50	80	100	120
bis (2-Ethylhexyl) phthalate	1	10	20	40	50	80	100	120
Di-n-octylphthalate		10	20	40	50	80	100	120

SW846 8270C/EPA 625

Calibration Standard Concentration Levels*

	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Benzo(b)fluoranthene	1	10	20	40	50	80	100	120
Benzo(k)fluoranthene	1	10	20	40	50	80	100	120
Benzo(a)pyrene	1	10	20	40	50	80	100	120
Indeno-(1,2,3-cd)pyrene	1	10	20	40	50	80	100	120
Dibenzo(a,h)anthracene	1	10	20	40	50	80	100	120
Benzo(ghi)perylene	1	10	20	40	50	80	100	120
Carbazole	1	10	20	40	50	80	100	120

APPENDIX IX

1,4-Dioxane		10	20	40	50	80	100	120
Methyl methacrylate		10	20	40	50	80	100	120
Ethyl methacrylate		10	20	40	50	80	100	120
2-Picoline		10	20	40	50	80	100	120
N-Nitrosomethylethylamine		10	20	40	50	80	100	120
Methyl methanesulfonate		10	20	40	50	80	100	120
N-Nitrosodiethylamine		10	20	40	50	80	100	120
Ethyl methanesulfonate		10	20	40	50	80	100	120
Pentachloroethane		10	20	40	50	80	100	120
N-Nitrosopyrrolidine		10	20	40	50	80	100	120
N-Nitrosomorpholine		10	20	40	50	80	100	120
o-Toluidine		10	20	40	50	80	100	120
N-Nitrosopiperidine		10	20	40	50	80	100	120
a,a-Dimethhylphenethylamine		10	20	40	50	80	100	120
Triethylphosphorothioate		10	20	40	50	80	100	120
2,6-Dichlorophenol		10	20	40	50	80	100	120
Hexachloropropene		10	20	40	50	80	100	120
p-Phenylenediamine		10	20	40	50	80	100	120
N-Nitrosodi-n-butylamine		10	20	40	50	80	100	120
Safrole		10	20	40	50	80	100	120
1,2,4,5-Tetrachlorobenzene		10	20	40	50	80	100	120
Isosafrole		10	20	40	50	80	100	120
1,4-Naphthoquinone		10	20	40	50	80	100	120
m-Dinitrobenzene		10	20	40	50	80	100	120
Pentachlorobenzene		10	20	40	50	80	100	120
1-Naphthylamine		10	20	40	50	80	100	120
2-Naphthylamine		10	20	40	50	80	100	120
2,3,4,6-Tetrachlorophenol		10	20	40	50	80	100	120
5-Nitro-o-toluidine		10	20	40	50	80	100	120

Thionazin		10	20	40	50	80	100	120
Sulfotepp		10	20	40	50	80	100	120
Phorate		10	20	40	50	80	100	120
1,3,5-Trinitrobenzene		10	20	40	50	80	100	120
Phenacetin		10	20	40	50	80	100	120
Diallate (cis and trans)		10	20	40	50	80	100	120

SW846 8270C/EPA 625								
Calibration Standard Concentration Levels*								
	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Dimethoate		10	20	40	50	80	100	120
4-Aminobiphenyl		10	20	40	50	80	100	120
Pentachloronitrobenzene		10	20	40	50	80	100	120
Pronamide		10	20	40	50	80	100	120
Dinoseb		10	20	40	50	80	100	120
Disulfoton		10	20	40	50	80	100	120
Methyl parathion		10	20	40	50	80	100	120
4-Nitroquinoline oxide		10	20	40	50	80	100	120
Methapyrilene		10	20	40	50	80	100	120
Isodrin		10	20	40	50	80	100	120
Aramite		10	20	40	50	80	100	120
Kepone		10	20	40	50	80	100	120
p-(Dimethylamino)azobenzene		10	20	40	50	80	100	120
Chlorobenzilate		10	20	40	50	80	100	120
3,3'-Dimethylbenzidine		10	20	40	50	80	100	120
Famphur		10	20	40	50	80	100	120
2-Acetylaminofluorene		10	20	40	50	80	100	120
7,12-Dimethylbenz(a)anthracene		10	20	40	50	80	100	120
3-Methylcholanthrene		10	20	40	50	80	100	120
Hexachlorophene		500	1000	1250	2000	2500		
p-Benzoquinone		10	20	40	50	80	100	120
Parathion		10	20	40	50	80	100	120
Methoxychlor		10	20	40	50	80	100	120
2-Ethoxyethanol		50	75	100	125	150	200	250
cis-Diallate		1.5	3	6	7.5	12	15	18
trans-Diallate		8.5	17	34	42	68	85	102
Dibenzo(a,e)pyrene		50	75	100	125	150	200	250
Phthalic anhydride		50	75	100	125	150	200	250
1,4-Dinitrobenzene		50	75	100	125	150	200	250
(2,3-Dibromopropyl)phosphate		50	75	100	125	150	200	250
Methylenebis(2-chloroaniline)		50	75	100	125	150	200	250

All values are mg/L without the prep factor.
# Indicates the calibration verification concentration level used
* Usual calibration levels using SCAN methodology

(04/04)

Report Date: 20-May-2005 15:34

Calibration History

Method : /chem/MSD8.i/s051905.b/MSD8-8270-051605a.m
Start Cal Date: 11-MAY-2005 15:15
End Cal Date : 16-MAY-2005 20:53

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 1.00000		
11-MAY-2005 18:18	ANIL+BNZ+AT	/chem/MSD8.i/s051105a.b/s8e1111.d
16-MAY-2005 15:46	BNAICAL-NAB	/chem/MSD8.i/s051605a.b/s8e1605.d
Cal Level: 2 , Cal Amount: 10.00000		
16-MAY-2005 19:31	HEXMIX-O2SI	/chem/MSD8.i/s051605a.b/s8e1616.d
13-MAY-2005 01:14	167MIX-O2SI	/chem/MSD8.i/s051205a.b/s8e1231.d
12-MAY-2005 22:31	AP9MIX-O2SI	/chem/MSD8.i/s051205a.b/s8e1223.d
11-MAY-2005 21:01	168MIX-O2SI	/chem/MSD8.i/s051105a.b/s8e1119.d
11-MAY-2005 18:38	ANIL+BNZ+AT	/chem/MSD8.i/s051105a.b/s8e1112.d
16-MAY-2005 16:06	BNAICAL-NAB	/chem/MSD8.i/s051605a.b/s8e1606.d
Cal Level: 3 , Cal Amount: 20.00000		
16-MAY-2005 19:51	HEXMIX-O2SI	/chem/MSD8.i/s051605a.b/s8e1617.d
13-MAY-2005 01:34	167MIX-O2SI	/chem/MSD8.i/s051205a.b/s8e1232.d
12-MAY-2005 22:51	AP9MIX-O2SI	/chem/MSD8.i/s051205a.b/s8e1224.d
11-MAY-2005 21:21	168MIX-O2SI	/chem/MSD8.i/s051105a.b/s8e1120.d
11-MAY-2005 18:59	ANIL+BNZ+AT	/chem/MSD8.i/s051105a.b/s8e1113.d
16-MAY-2005 16:26	BNAICAL-NAB	/chem/MSD8.i/s051605a.b/s8e1607.d
Cal Level: 4 , Cal Amount: 40.00000		
16-MAY-2005 20:12	HEXMIX-O2SI	/chem/MSD8.i/s051605a.b/s8e1618.d
13-MAY-2005 01:55	167MIX-O2SI	/chem/MSD8.i/s051205a.b/s8e1233.d
12-MAY-2005 23:12	AP9MIX-O2SI	/chem/MSD8.i/s051205a.b/s8e1225.d
11-MAY-2005 21:41	168MIX-O2SI	/chem/MSD8.i/s051105a.b/s8e1121.d
11-MAY-2005 19:19	ANIL+BNZ+AT	/chem/MSD8.i/s051105a.b/s8e1114.d
16-MAY-2005 16:47	BNAICAL-NAB	/chem/MSD8.i/s051605a.b/s8e1608.d
Cal Level: 5 , Cal Amount: 50.00000		
16-MAY-2005 20:33	HEXMIX-O2SI	/chem/MSD8.i/s051605a.b/s8e1619.d
13-MAY-2005 02:15	167MIX-O2SI	/chem/MSD8.i/s051205a.b/s8e1234.d
12-MAY-2005 23:32	AP9MIX-O2SI	/chem/MSD8.i/s051205a.b/s8e1226.d
11-MAY-2005 22:02	168MIX-O2SI	/chem/MSD8.i/s051105a.b/s8e1122.d
11-MAY-2005 19:39	ANIL+BNZ+AT	/chem/MSD8.i/s051105a.b/s8e1115.d
16-MAY-2005 17:07	BNAICAL-NAB	/chem/MSD8.i/s051605a.b/s8e1609.d
Cal Level: 6 , Cal Amount: 80.00000		

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+=================================================================================+
|16-MAY-2005 20:53 |HEXMIX-O2SI        |/chem/MSD8.i/s051605a.b/s8e1620.d          |
|13-MAY-2005 02:35 |167MIX-O2SI        |/chem/MSD8.i/s051205a.b/s8e1235.d          |
```

12-MAY-2005 23:53	AP9MIX-O2SI	/chem/MSD8.i/s051205a.b/s8e1227.d
11-MAY-2005 22:22	168MIX-O2SI	/chem/MSD8.i/s051105a.b/s8e1123.d
11-MAY-2005 20:00	ANIL+BNZ+AT	/chem/MSD8.i/s051105a.b/s8e1116.d
16-MAY-2005 17:28	BNAICAL-NAB	/chem/MSD8.i/s051605a.b/s8e1610.d

Cal Level: 7 , Cal Amount: 100.00000

13-MAY-2005 02:55	167MIX-O2SI	/chem/MSD8.i/s051205a.b/s8e1236.d
13-MAY-2005 00:13	AP9MIX-O2SI	/chem/MSD8.i/s051205a.b/s8e1228.d
11-MAY-2005 22:42	168MIX-O2SI	/chem/MSD8.i/s051105a.b/s8e1124.d
11-MAY-2005 20:20	ANIL+BNZ+AT	/chem/MSD8.i/s051105a.b/s8e1117.d
16-MAY-2005 17:48	BNAICAL-NAB	/chem/MSD8.i/s051605a.b/s8e1611.d

Cal Level: 8 , Cal Amount: 120.00000

13-MAY-2005 03:16	167MIX-O2SI	/chem/MSD8.i/s051205a.b/s8e1237.d
13-MAY-2005 00:33	AP9MIX-O2SI	/chem/MSD8.i/s051205a.b/s8e1229.d
11-MAY-2005 23:03	168MIX-O2SI	/chem/MSD8.i/s051105a.b/s8e1125.d
11-MAY-2005 20:40	ANIL+BNZ+AT	/chem/MSD8.i/s051105a.b/s8e1118.d
16-MAY-2005 18:09	BNAICAL-NAB	/chem/MSD8.i/s051605a.b/s8e1612.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 40.0

19-MAY-2005 15:01	BNAICAL-NAB	/chem/MSD8.i/s051905.b/s8e1902.d

Ccal Level: 4 , Ccal Amount: 40.0

19-MAY-2005 15:22	ANIL+BNZ+AT	/chem/MSD8.i/s051905.b/s8e1903.d

General Engineering Laboratories, LLC

INITIAL CALIBRATION DATA

Start Cal Date : 11-MAY-2005 15:15
End Cal Date : 16-MAY-2005 20:53
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD8.i/s051905.b/MSD8-8270-051605a.m
Cal Date : 20-May-2005 11:13 cak

Calibration File Names:
Level 1: /chem/MSD8.i/s051105a.b/s8e1111.d
Level 2: /chem/MSD8.i/s051605a.b/s8e1616.d
Level 3: /chem/MSD8.i/s051605a.b/s8e1617.d
Level 4: /chem/MSD8.i/s051605a.b/s8e1618.d
Level 5: /chem/MSD8.i/s051605a.b/s8e1619.d
Level 6: /chem/MSD8.i/s051605a.b/s8e1620.d
Level 7: /chem/MSD8.i/s051205a.b/s8e1236.d
Level 8: /chem/MSD8.i/s051205a.b/s8e1237.d

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
1 N-Methyl-N-nitrosomethylamine	+++++	0.40565	0.43476	0.42341	0.44584	+++++					
	0.41728	0.39464					AVRG		0.42026		4.45488
2 Pyridine	+++++	0.79118	0.88139	0.81642	0.85891	+++++					
	0.81222	0.78109					AVRG		0.82354		4.74201
4 Aniline	+++++	1.29440	1.39348	1.38183	1.40413	1.38788					
	1.35962	1.34402					AVRG		1.36648		2.76854
209 Benzaldehyde	+++++	0.78155	0.82055	0.82482	0.81510	0.79783					
	0.76675	0.75384					AVRG		0.79435		3.49486
6 Phenol	+++++	1.04037	1.07258	1.02698	1.04642	+++++					
	0.96789	0.94281					AVRG		1.01618		4.92270

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
7 bis(2-Chloroethyl) ether	+++++	0.78184	0.89155	0.83402	0.90666	+++++					
	0.95824	0.77863					AVRG		0.85849		8.43451
8 2-Chlorophenol	+++++	0.99834	1.02339	0.98596	1.04837	+++++					
	0.99434	0.98014					AVRG		1.00509		2.57832
185 n-Decane	+++++	1.00715	1.03605	0.93630	0.96768	+++++					
	0.83893	0.76705					AVRG		0.92553		11.16470
9 1,3-Dichlorobenzene	+++++	1.22294	1.27425	1.23333	1.29008	+++++					
	1.22258	1.19841					AVRG		1.24027		2.80441
11 1,4-Dichlorobenzene	+++++	1.28724	1.33074	1.26726	1.34233	+++++					
	1.26757	1.23154					AVRG		1.28778		3.26045
12 Benzyl alcohol	+++++	0.52666	0.58450	0.56910	0.58518	+++++					
	0.57352	0.54968					AVRG		0.56477		4.02310
13 1,2-Dichlorobenzene	+++++	1.14709	1.23916	1.16172	1.22917	+++++					
	1.15451	1.13487					AVRG		1.17775		3.79543
14 bis(2-Chloroisopropyl)ether	+++++	1.36122	1.43912	1.34210	1.38594	+++++					
	1.25209	1.16854					AVRG		1.32483		7.40597
15 o-Cresol	+++++	0.77362	0.82203	0.79350	0.82158	+++++					
	0.77773	0.75778					AVRG		0.79104		3.33798

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Compound	1 Level 1 100 Level 7	10 Level 2 120 Level 8	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
16 Acetophenone	+++++	1.26688	1.38991	1.33810	1.39599	+++++					
	1.29399	1.24495					AVRG		1.32164		4.79781
17 N-Nitrosodipropylamine	+++++	0.58316	0.63753	0.62275	0.65455	+++++					
	0.62386	0.60652					AVRG		0.62139		3.97528
18 m,p-Cresols	+++++	1.07776	1.16046	1.15841	1.21869	+++++					
	1.12650	1.07936					AVRG		1.13686		4.75699
19 Hexachloroethane	+++++	0.42816	0.46416	0.45368	0.47769	+++++					
	0.45559	0.43045					AVRG		0.45162		4.26584
21 Nitrobenzene	+++++	0.22232	0.23980	0.22435	0.23542	+++++					
	0.21299	0.20132					AVRG		0.22270		6.37843
22 Isophorone	+++++	0.45711	0.48361	0.43758	0.45627	+++++					
	0.41038	0.39124					AVRG		0.43936		7.69652
23 2-Nitrophenol	+++++	0.10485	0.12273	0.12328	0.13185	+++++					
	0.12385	0.11901					AVRG		0.12093		7.38465
24 2,4-Dimethylphenol	+++++	0.24796	0.25818	0.23503	0.24319	+++++					
	0.21812	0.20159					AVRG		0.23401		8.89718
25 bis(2-Chloroethoxy)methane	+++++	0.26337	0.26943	0.24391	0.24693	+++++					
	0.21911	0.20505					AVRG		0.24130		10.35737

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
26 2,4-Dichlorophenol	+++++	0.21209	0.23423	0.23058	0.23401	+++++					
	0.21760	0.20740					AVRG		0.22265		5.29781
27 Benzoic acid	+++++	+++++	10184	36075	49936	+++++					
	152068	217383					LINR	0.41208	0.11907		0.99675
28 1,2,4-Trichlorobenzene	+++++	0.31384	0.31309	0.28171	0.28758	+++++					
	0.26031	0.24654					AVRG		0.28384		9.60821
30 Naphthalene	0.83822	0.84365	0.86262	0.78712	0.78401	+++++					
	0.68259	0.63528					AVRG		0.77621		11.11571
204 alpha-Terpineol	+++++	0.20377	0.20837	0.19170	0.19314	+++++					
	0.17681	0.16558					AVRG		0.18989		8.52438
31 4-Chloroaniline	+++++	0.33455	0.35991	0.35202	0.35447	0.36035					
	0.35259	0.35114					AVRG		0.35215		2.44285
189 Caprolactam	+++++	0.05782	0.07315	0.07176	0.07444	+++++					
	0.06885	0.06365					AVRG		0.06828		9.37413
32 Hexachlorobutadiene	+++++	0.23121	0.23374	0.21097	0.21578	+++++					
	0.18735	0.17104					AVRG		0.20835		11.87936
33 4-Chloro-3-methylphenol	+++++	0.21021	0.22886	0.21514	0.21947	+++++					
	0.20019	0.18818					AVRG		0.21034		6.86938

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
34 2-Methylnaphthalene	0.55516	0.59256	0.59677	0.54529	0.56670	++++++					
	0.50650	0.47564					AVRG		0.54837		8.06303
35 1-Methylnaphthalene	0.55772	0.55500	0.57609	0.52397	0.53517	++++++					
	0.48139	0.44718					AVRG		0.52522		8.73967
36 Hexachlorocyclopentadiene	++++++	13292	37508	89310	116257	++++++					
	265036	365163					LINR	0.19101	0.36977		0.99818
208 1,1'-Biphenyl	++++++	1.28108	1.30266	1.25029	1.31239	++++++					
	1.26293	1.21223					AVRG		1.27026		2.89505
205 2,3-Dichloroaniline	++++++	0.45627	0.49015	0.46526	0.48141	0.47252					
	0.47659	0.47557					AVRG		0.47397		2.30775
37 2,4,6-Trichlorophenol	++++++	0.26370	0.31209	0.31309	0.33739	++++++					
	0.33942	0.32057					AVRG		0.31438		8.73472
38 2,4,5-Trichlorophenol	++++++	0.30849	0.35356	0.33172	0.36769	++++++					
	0.38195	0.33165					AVRG		0.34584		7.79784
40 2-Chloronaphthalene	0.91452	0.93742	0.97803	0.94745	1.00604	++++++					
	0.95054	0.91729					AVRG		0.95018		3.44247
42 o-Nitroaniline	++++++	0.16027	0.18874	0.19707	0.19721	0.20633					
	0.20527	0.20693					AVRG		0.19455		8.47090

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
41 m-Nitroaniline	+++++	0.17337	0.19802	0.21623	0.21218	0.22956					
	0.22554	0.22658					AVRG		0.21164		9.46695
43 Dimethylphthalate	+++++	1.12841	1.18739	1.15888	1.21963	+++++					
	1.19283	1.14229					AVRG		1.17157		2.93029
44 2,6-Dinitrotoluene	+++++	0.16116	0.20426	0.21492	0.23361	+++++					
	0.24460	0.23769					AVRG		0.21604		14.25974
45 Acenaphthylene	1.02867	1.41296	1.50650	1.47654	1.57116	+++++					
	1.53103	1.46679					AVRG		1.42766		12.81448
47 Acenaphthene	0.91290	0.92787	0.97870	0.94369	0.98904	+++++					
	0.97522	0.93767					AVRG		0.95216		3.03464
48 2,4-Dinitrophenol	+++++	+++++	8340	22309	28519	+++++					
	75542	98681					LINR	0.32351	0.10776		0.99476
49 Dibenzofuran	+++++	1.45897	1.47521	1.42899	1.49962	+++++					
	1.45401	1.40327					AVRG		1.45335		2.33360
50 2,4-Dinitrotoluene	+++++	14259	39396	90548	120354	+++++					
	246250	319315					LINR	0.09695	0.32246		0.99824
51 Diethylphthalate	+++++	1.22357	1.27013	1.22442	1.29452	+++++					
	1.26788	1.19388					AVRG		1.24573		3.02496

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
52 4-Nitrophenol	+++++	6351	20079	45926	59805	+++++					
	121406	+++++					LINR	0.11373	0.16478		0.99962
53 Fluorene	0.97359	1.06086	1.09558	1.04962	1.09955	+++++					
	1.07125	1.03689					AVRG		1.05534		4.04128
54 4-Chlorophenylphenylether	+++++	0.69994	0.71687	0.67760	0.72403	+++++					
	0.70295	0.67131					AVRG		0.69878		2.99217
55 2-Methyl-4,6-dinitrophenol	+++++	6054	18937	48814	65030	+++++					
	150083	202857					LINR	0.26128	0.11099		0.99542
56 p-Nitroaniline	+++++	0.14846	0.19207	0.19760	0.18041	0.21026					
	0.19358	0.19540					AVRG		0.18825		10.42446
57 N-Nitroso-diphenylamine	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+00		0.000e+00
133 Diphenylamine	+++++	0.49127	0.50512	0.48543	0.52411	+++++					
	0.51286	0.51760					AVRG		0.50606		2.99724
58 1,2-Diphenylhydrazine	+++++	0.42980	0.44435	0.42655	0.45422	+++++					
	0.44600	0.44827					AVRG		0.44153		2.47363
59 Tributylphosphate	+++++	0.94037	1.11987	1.09258	1.17742	+++++					
	1.18134	1.15463					AVRG		1.11103		8.13011

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	100 Level 7	120 Level 8									
61 4-Bromophenylphenylether	+++++	0.20063	0.20781	0.20205	0.21518	+++++					
	0.21088	0.21216					AVRG		0.20812		2.77597
62 alpha-BHC	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+00		0.000e+00
63 Hexachlorobenzene	+++++	0.21808	0.21569	0.20569	0.22265	+++++					
	0.21778	0.21443					AVRG		0.21572		2.62354
207 Atrazine	+++++	0.04384	0.04511	0.04649	0.04762	0.04672					
	0.04897	0.04805					AVRG		0.04669		3.76815
64 beta-BHC	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+00		0.000e+00
65 Pentachlorophenol	+++++	7344	23888	60524	79026	+++++					
	157488	200913					LINR	0.14641	0.10858		0.99939
206 n-Octadecane	+++++	0.30573	0.30584	0.27457	0.29608	+++++					
	0.28418	0.28426					AVRG		0.29178		4.39199
66 gamma-BHC (Lindane)	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+00		0.000e+00
68 Phenanthrene	0.80971	0.78086	0.80599	0.76895	0.82412	+++++					
	0.78869	0.77533					AVRG		0.79338		2.55862

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
69 Anthracene	0.63575	0.73433	0.79166	0.77089	0.82171	+++++					
	0.78540	0.78277					AVRG		0.76036		7.99785
70 delta-BHC	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+00		0.000e+00
71 Heptachlor	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+00		0.000e+00
72 Di-n-butylphthalate	+++++	0.92648	1.01189	1.00226	1.09251	+++++					
	1.09104	1.06628					AVRG		1.03174		6.24316
73 Aldrin	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+00		0.000e+00
74 Heptachlor epoxide	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+00		0.000e+00
75 Endrin	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+00		0.000e+00
76 Fluoranthene	0.67233	0.89290	0.96448	0.96893	1.05431	+++++					
	1.04327	1.02632					AVRG		0.94608		14.06416
77 Benzidine	54249	174097	474061	1216691	1345563	2131624					
	2399480	2609024					LINR	0.14439	0.61214		0.99966

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	100 Level 7	120 Level 8									
78 Endosulfan I	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+00		0.000e+00
79 Pyrene	1.02422	1.29705	1.32832	1.27806	1.34691	+++++					
	1.27247	1.26094					AVRG		1.25828		8.56258
80 4,4'-DDE	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+00		0.000e+00
82 Dieldrin	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+00		0.000e+00
83 4,4'-DDD	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+00		0.000e+00
84 Endosulfan II	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+00		0.000e+00
85 Butylbenzylphthalate	+++++	0.42866	0.52353	0.52918	0.56438	+++++					
	0.56638	0.55508					AVRG		0.52787		9.81441
86 4,4'-DDT	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+00		0.000e+00
87 Endosulfan sulfate	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+00		0.000e+00

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INITIAL CALIBRATION DATA

Start Cal Date : 11-MAY-2005 15:15
End Cal Date : 16-MAY-2005 20:53
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD8.i/s051905.b/MSD8-8270-051605a.m
Cal Date : 20-May-2005 11:13 cak

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
88 Endrin aldehyde	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+00		0.000e+00
89 Benzo(a)anthracene	0.78390	0.89499	0.94093	0.92163	0.98333	+++++					
	0.96897	0.95058					AVRG		0.92062		7.27719
90 3,3'-Dichlorobenzidine	0.18663	0.22171	0.24256	0.26879	0.22941	0.27217					
	0.23612	0.23139					AVRG		0.23610		11.46989
92 Chrysene	0.89353	0.88785	0.90217	0.88780	0.92235	+++++					
	0.88149	0.84623					AVRG		0.88878		2.59614
93 bis(2-Ethylhexyl)phthalate	2236	47128	134670	311874	408832	+++++					
	841665	1067751					LINR	0.08566	0.69124		0.99870
94 Di-n-octylphthalate	+++++	61032	192523	476716	635216	+++++					
	1334531	1613480					LINR	0.15231	1.21933		0.99912
95 Benzo(b)fluoranthene	4669	75391	217895	477797	636821	+++++					
	1182610	1427723					LINR	0.02873	1.03769		0.99843
96 Benzo(k)fluoranthene	0.66118	0.98982	0.97588	0.96931	1.03976	+++++					
	1.03976	1.04013					AVRG		0.95941		14.09143
97 Benzo(a)pyrene	3117	61407	173674	400955	517980	+++++					
	1020723	1209932					LINR	0.04889	0.88867		0.99932

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Compound	1 Level 1 100 Level 7	10 Level 2 120 Level 8	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
99 Indeno(1,2,3-cd)pyrene	2438	56138	185210	422419	550973	++++++					
	1028433	1166866					LINR	0.01762	0.87102		0.99668
100 Dibenzo(a,h)anthracene	2033	43654	147177	343955	454437	++++++					
	852837	971352					LINR	0.03111	0.72667		0.99684
101 Benzo(ghi)perylene	2703	53747	164191	363548	473533	++++++					
	845519	950923					LINR	-0.01864	0.70750		0.99432
102 1,4-Dioxane	+++++	0.30449	0.28683	0.25636	0.24674	0.22076					
	+++++	+++++					AVRG		0.26304		12.58324
103 Methyl methacrylate	+++++	0.29655	0.30988	0.29008	0.30113	0.28542					
	+++++	0.27468					AVRG		0.29296		4.22307
104 Ethyl methacrylate	+++++	1.13115	1.18335	1.11931	1.13355	1.08737					
	+++++	1.05654					AVRG		1.11855		3.87661
105 2-Picoline	+++++	0.95189	1.01265	0.98167	0.99735	0.95472					
	+++++	0.92576					AVRG		0.97067		3.32833
106 N-Nitrosomethylethylamine	+++++	0.38439	0.40859	0.40292	0.40928	0.39496					
	+++++	0.37958					AVRG		0.39662		3.16088
107 Methyl methanesulfonate	+++++	0.44177	0.46408	0.45873	0.46302	0.43083					
	+++++	0.42084					AVRG		0.44654		4.077756

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	100 Level 7	120 Level 8									
108 N-Nitrosodiethylamine	+++++	0.41177	0.44360	0.43121	0.45313	0.43444					
	+++++	0.41876					AVRG		0.43215		3.54233
109 Ethyl Methanesulfonate	+++++	0.56942	0.60868	0.59962	0.61708	0.59253					
	+++++	0.57826					AVRG		0.59427		3.04144
110 Pentachloroethane	+++++	0.50160	0.52888	0.51957	0.52905	0.50610					
	+++++	0.49408					AVRG		0.51321		2.87447
111 N-Nitrosopyrrolidine	+++++	0.40883	0.45166	0.45949	0.46351	0.45869					
	+++++	0.45247					AVRG		0.44911		4.50552
113 N-Nitrosomorpholine	+++++	0.57065	0.60596	0.61729	0.61755	0.59059					
	+++++	0.58162					AVRG		0.59728		3.25124
114 o-Toluidine	+++++	1.46763	1.60352	1.57472	1.60357	1.54795					
	+++++	1.50676					AVRG		1.55069		3.53233
115 N-Nitrosopiperidine	+++++	0.11403	0.11960	0.11901	0.11861	0.12336					
	0.11970	0.11722					AVRG		0.11879		2.37030
116 a,a-Dimethylphenethylamine	+++++	0.49298	0.67487	0.70091	0.72336	0.73073					
	+++++	0.72123					AVRG		0.67401		13.49700
117 Triethylphosphorothioate	+++++	0.17567	0.19077	0.18966	0.18651	0.18868					
	0.18887	0.19161					AVRG		0.18739		2.89352

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
118 2,6-Dichlorophenol	+++++	0.20836	0.23443	0.24190	0.24162	0.24472					
	+++++	0.24163					AVRG		0.23544		5.82011
119 Hexachloropropene	+++++	0.17220	0.19557	0.22728	0.21071	0.21730					
	+++++	0.22143					AVRG		0.20742		9.83300
120 p-Phenylenediamine	+++++	22309	64214	126126	173735	321759					
	402028	525639					LINR	0.15632	0.24640		0.99629
121 N-Nitrosodi-n-butylamine	+++++	0.17003	0.19237	0.18824	0.18736	0.18375					
	+++++	0.17692					AVRG		0.18311		4.50238
122 Safrole	+++++	0.24436	0.27170	0.27425	0.27328	0.26747					
	+++++	0.26096					AVRG		0.26534		4.28607
123 1,2,4,5-Tetrachlorobenzene	+++++	0.60238	0.64878	0.62871	0.62398	0.60964					
	+++++	0.58375					AVRG		0.61620		3.67559
124 Isosafrole	+++++	0.41042	0.45755	0.45203	0.44849	0.44283					
	+++++	0.44021					AVRG		0.44192		3.76709
125 1,4-Naphthoquinone	+++++	0.31756	0.37037	0.38148	0.38620	0.38351					
	+++++	0.37108					AVRG		0.36837		6.98717
126 m-Dinitrobenzene	+++++	10819	28204	76934	81454	151374					
	+++++	232857					LINR	0.14649	0.16656		0.99877

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	 m1	 m2	%RSD or R^2
	100 Level 7	120 Level 8									
127 Pentachlorobenzene	+++++	0.54437	0.57532	0.56980	0.57442	0.56571					
	+++++	0.54279					AVRG		0.56207		2.62184
128 1-Naphthylamine	+++++	0.89969	0.96268	0.96792	0.95317	0.89563					
	+++++	0.89826					AVRG		0.92956		3.77266
129 2-Naphthylamine	+++++	0.89911	0.96592	0.97129	0.89462	0.86433					
	+++++	0.86471					AVRG		0.91000		5.24173
130 2,3,4,6-Tetrachlorophenol	+++++	17388	46105	125684	137421	235052					
	+++++	348295					LINR	0.08354	0.24744		0.99964
131 5-Nitro-o-toluidine	+++++	0.20899	0.24909	0.28559	0.27113	0.28184					
	+++++	0.29011					AVRG		0.26446		11.67281
132 Thionazin	+++++	0.14184	0.15741	0.15947	0.16161	0.15965					
	0.16194	0.16414					AVRG		0.15801		4.71285
134 Sulfotepp	+++++	0.09471	0.10267	0.10865	0.10659	0.11387					
	0.11902	0.12478					AVRG		0.11004		9.20706
135 Phorate	+++++	0.20630	0.21892	0.22990	0.21961	0.22463					
	0.23639	0.24060					AVRG		0.22519		5.16774
136 1,3,5-Trinitrobenzene	+++++	4758	14631	33313	49880	100704					
	133247	179645					LINR	0.29424	0.07013		0.99266

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	100 Level 7	120 Level 8										
137 Phenacetin	+++++	0.17158	0.19648	0.22670	0.22414	0.23451						
	+++++	0.24869					AVRG		0.21702		12.93609	
138 Diallate	+++++	0.16168	0.16375	0.16626	0.15828	0.16107						
	0.16741	0.16480					AVRG		0.16332		1.95100	
139 Dimethoate	+++++	0.10655	0.12171	0.13030	0.13184	0.12912						
	0.13316	0.13190					AVRG		0.12637		7.53419	
140 4-Aminobiphenyl	+++++	0.50459	0.53277	0.56334	0.52687	0.56499						
	+++++	0.58185					AVRG		0.54574		5.31153	
141 Pentachloronitrobenzene	+++++	0.10130	0.11767	0.11664	0.12305	0.10553						
	+++++	0.08889					AVRG		0.10885		11.66729	
142 Pronamide	+++++	0.52154	0.58562	0.56232	0.58095	0.52823						
	+++++	0.45970					AVRG		0.53973		8.76275	
143 Dinoseb	+++++	0.03245	0.03970	0.06757	0.06726	0.08412						
	+++++	0.09786					AVRG		0.06483		38.75682	<-
144 Disulfoton	+++++	0.18078	0.20395	0.20905	0.20217	0.20644						
	0.21310	0.20965					AVRG		0.20359		5.25804	
145 Methyl parathion	+++++	18049	38512	108830	129705	213988						
	258774	364226					LINR	0.13799	0.13457		0.99931	

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Compound	1 Level 1 100 Level 7	10 Level 2 120 Level 8	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
146 4-Nitroquinoline-1-oxide	+++++	1810	3396	12467	11377	19402					
	+++++	32405					LINR	0.16119	0.01183		0.99123
147 Methapyrilene	+++++	0.25909	0.31834	0.31780	0.33313	0.29837					
	+++++	0.30513					AVRG		0.30531		8.39508
148 Isodrin	+++++	0.09428	0.09966	0.09771	0.09634	0.09716					
	0.09877	0.09579					AVRG		0.09710		1.87792
149 Aramite	+++++	0.03110	0.03643	0.04166	0.04255	0.03980					
	+++++	0.04220					AVRG		0.03896		11.45336
150 Kepone	+++++	6863	18493	56273	70570	124724					
	140119	186723					LINR	0.15355	0.07270		0.99439
151 p-(Dimethylamino)azobenzene	+++++	0.26122	0.31316	0.26957	0.29615	0.25712					
	+++++	+++++					AVRG		0.27944		8.66181
152 Chlorobenzilate	+++++	28587	71701	222945	281334	497825					
	582389	+++++					LINR	0.20558	0.44572		0.99574
153 3,3'-Dimethylbenzidine	+++++	0.47998	0.49095	0.53620	0.49830	0.42457					
	+++++	0.44230					AVRG		0.47872		8.40634
154 Famphur	+++++	0.47264	0.51978	0.56530	0.54555	0.55771					
	0.56616	0.59850					AVRG		0.54652		7.37236

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
155 2-Acetylaminofluorene	+++++	17193	41692	191773	153237	287281					
	+++++	610215					LINR	0.23503	0.27639		0.99212
157 7,12Dimethylbenz(a)anthracene	+++++	0.45650	0.57572	0.57175	0.60623	0.58514					
	+++++	0.56126					AVRG		0.55943		9.41305
158 3-Methylcholanthrene	+++++	0.35455	0.43194	0.50247	0.50644	0.50960					
	+++++	0.51459					AVRG		0.46993		13.69702
166 Maleic anhydride	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+00		0.000e+00
167 a,a,a-Trichlorotoluene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+00		0.000e+00
169 2,3-Dimethylnaphthalene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+00		0.000e+00
170 2,6-Dimethylnapthalene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+00		0.000e+00
171 Biphenyl	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+00		0.000e+00
172 1-Methyl fluorene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+00		0.000e+00

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Compound	1 Level 1 100 Level 7	10 Level 2 120 Level 8	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
173 Carbazole	0.70696	0.66601	0.71030	0.70702	0.67743	0.70500					
	0.67312	0.66865					AVRG		0.68931		2.84089
174 Hexachlorophene	+++++	171059	443344	741519	1502081	1684300					
	+++++	+++++					LINR	6.51595	0.06131		0.99501
175 Benzo(j)fluoranthene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+00		0.000e+00
176 Dibenz(a,h)acridine	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+00		0.000e+00
177 Dibenz(a,j)acridine	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+00		0.000e+00
178 Dibenzo(a,i)pyrene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+00		0.000e+00
180 7-H-Dibenzo(c,g)carbazole	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+00		0.000e+00
181 Dibenzo(a,h)pyrene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+00		0.000e+00
182 4,6-Dinitro-2-cyclohexylpheno	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+00		0.000e+00

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	100 Level 7	120 Level 8										
184 p-Benzoquinone	+++++	0.47328	0.53904	0.54993	0.57425	0.56216						
	0.55656	0.54660					AVRG		0.54312		6.04420	
185 (2,3-Dibromopropyl)phosphate	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					LINR	0.000e+00	0.000e+00		0.000e+00	<-
186 2,6-Toluene diisocyanate	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	
191 Parathion	+++++	9175	20412	60532	72483	126004						
	152906	218179					LINR	0.19093	0.08158		0.99828	
192 Methoxychlor	+++++	64888	142507	398776	492763	846315						
	909836	1294056					LINR	0.13800	0.71520		0.99800	
193 Hexamethyleneimine	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	
195 4-Chlorophenyl sulfone	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	
197 Anthraquinone	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	
199 2-Aminoanthraquinone	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	

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200 2-Methyl anthracene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+00		0.000e+00
201 N,N-Dimethyl formamide	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+00		0.000e+00
202 bis(2-Chloromethyl)ether	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+00		0.000e+00
210 9,10-Anthracenedione	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+00		0.000e+00
211 1HBenzdeisoquinoline132Hdione	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+00		0.000e+00
212 Dichlofenthion	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+00		0.000e+00
213 m_Toluidine	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+00		0.000e+00
214 p-Toluidine	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+00		0.000e+00
215 Cyclohexylamine	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+00		0.000e+00

General Engineering Laboratories, LLC

INITIAL CALIBRATION DATA

Start Cal Date : 11-MAY-2005 15:15
End Cal Date : 16-MAY-2005 20:53
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD8.i/s051905.b/MSD8-8270-051605a.m
Cal Date : 20-May-2005 11:13 cak

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
217 Diisobutylamine	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+00		0.000e+00
218 Dimethylaniline	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+00		0.000e+00
219 Nonylamine	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+00		0.000e+00
220 Diethylamine	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+00		0.000e+00
221 n-Propanol	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+00		0.000e+00
222 Cyclohexanol	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+00		0.000e+00
223 3,3'-Dimethoxybenzidine(2)	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+00		0.000e+00
(3)	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+00		0.000e+00
224 2-Ethoxyethanol	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+00		0.000e+00

General Engineering Laboratories, LLC

INITIAL CALIBRATION DATA

Start Cal Date : 11-MAY-2005 15:15
End Cal Date : 16-MAY-2005 20:53
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD8.i/s051905.b/MSD8-8270-051605a.m
Cal Date : 20-May-2005 11:13 cak

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	100 Level 7	120 Level 8										
225 Dibenzo(a,e)pyrene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					LINR	0.000e+00	0.000e+00		0.000e+00	<-
226 Phthalic anhydride	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	
230 1,4-Dinitrobenzene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	
227 Cis Diallate	+++++	0.16237	0.17359	0.17896	0.17138	0.17472						
	0.17706	0.17209					AVRG		0.17288		3.09331	
228 Trans Diallate	+++++	0.19022	0.19265	0.19560	0.18621	0.18949						
	0.19696	0.19388					AVRG		0.19214		1.95100	
229 Methylenebis(2-chloroaniline)	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	
$ 3 2-Fluorophenol	+++++	0.80258	0.87142	0.81662	0.86611	+++++						
	0.81907	0.79317					AVRG		0.82816		3.97020	
$ 5 Phenol-d5	+++++	0.93973	0.99589	0.95401	0.99996	+++++						
	0.93242	0.90112					AVRG		0.95385		4.01493	

General Engineering Laboratories, LLC

INITIAL CALIBRATION DATA

Start Cal Date : 11-MAY-2005 15:15
End Cal Date : 16-MAY-2005 20:53
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD8.i/s051905.b/MSD8-8270-051605a.m
Cal Date : 20-May-2005 11:13 cak

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
$ 187 2-Chlorophenol-d4	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+00		0.000e+00
$ 188 1,2-Dichlorobenzene-d4	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+00		0.000e+00
$ 20 Nitrobenzene-d5	+++++	0.23819	0.24635	0.23218	0.24330	+++++					
	0.21958	0.21023					AVRG		0.23164		6.10368
$ 39 2-Fluorobiphenyl	+++++	1.24686	1.25098	1.19573	1.26503	+++++					
	1.22712	1.15542					AVRG		1.22352		3.35900
$ 60 2,4,6-Tribromophenol	+++++	0.10904	0.13944	0.14794	0.15594	+++++					
	0.16152	0.15295					AVRG		0.14447		13.08455
$ 81 p-Terphenyl-d14	+++++	0.96821	0.98192	0.96509	1.01768	+++++					
	0.95835	0.92615					AVRG		0.96957		3.09450

General Engineering Laboratories, LLC

INITIAL CALIBRATION DATA

Start Cal Date : 11-MAY-2005 15:15
End Cal Date : 16-MAY-2005 20:53
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD8.i/s051905.b/MSD8-8270-051605a.m
Cal Date : 20-May-2005 11:13 cak

Curve	Formula	Units
Averaged	Amt = Rsp/ml	Response
Linear	Amt = b + Rsp/ml	Response

Data File: /chem/MSD8.i/s051605a.b/s8e1614.d
Report Date: 17-May-2005 07:42

General Engineering Laboratories, LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD8.i
Lab File ID: s8e1614.d
Analysis Type:
Lab Sample ID: UBN050421-04.1
Method: /chem/MSD8.i/s051605a.b/MSD8-8270-051605a.m

Injection Date: 16-MAY-2005 18:50
Init. Cal. Date(s): 11-MAY-2005 16-MAY-2005
Init. Cal. Times: 15:15 20:53
Quant Type: ISTD

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
$ 3 2-Fluorophenol	0.82816	0.91770	0.91770	0.000	10.81180	60.00000	Averaged	
$ 5 Phenol-d5	0.95385	1.01865	1.01865	0.000	6.79347	60.00000	Averaged	
$ 20 Nitrobenzene-d5	0.23164	0.23498	0.23498	0.000	1.44183	60.00000	Averaged	
$ 39 2-Fluorobiphenyl	1.22352	1.18766	1.18766	0.000	-2.93104	60.00000	Averaged	
$ 60 2,4,6-Tribromophenol	0.14447	0.14835	0.14835	0.000	2.68534	60.00000	Averaged	
$ 81 p-Terphenyl-d14	0.96957	0.98494	0.98494	0.000	1.58596	60.00000	Averaged	
1 N-Methyl-N-nitrosomethylami	0.42026	0.29399	0.29399	0.000	-30.04640	60.00000	Averaged	
2 Pyridine	0.82354	0.63741	0.63741	0.000	-22.60126	60.00000	Averaged	
6 Phenol	1.01618	1.00454	1.00454	0.001	-1.14502	20.00000	Averaged	ccc
7 bis(2-Chloroethyl) ether	0.85849	0.80662	0.80662	0.000	-6.04130	60.00000	Averaged	
8 2-Chlorophenol	1.00509	0.97173	0.97173	0.000	-3.31892	60.00000	Averaged	
185 n-Decane	0.92553	0.89469	0.89469	0.000	-3.33137	60.00000	Averaged	
9 1,3-Dichlorobenzene	1.24027	1.20690	1.20690	0.000	-2.68975	60.00000	Averaged	
11 1,4-Dichlorobenzene	1.28778	1.20827	1.20827	0.001	-6.17430	20.00000	Averaged	ccc
12 Benzyl alcohol	0.56477	0.57428	0.57428	0.000	1.68270	60.00000	Averaged	
13 1,2-Dichlorobenzene	1.17775	1.15557	1.15557	0.000	-1.88394	60.00000	Averaged	
14 bis(2-Chloroisopropyl)ether	1.32483	1.13512	1.13512	0.000	-14.31950	60.00000	Averaged	
15 o-Cresol	0.79104	0.73652	0.73652	0.000	-6.89214	60.00000	Averaged	
16 Acetophenone	1.32164	1.21419	1.21419	0.000	-8.12978	60.00000	Averaged	
17 N-Nitrosodipropylamine	0.62139	0.56073	0.56073	0.050	-9.76218	60.00000	Averaged	spcc
18 m,p-Cresols	1.13686	1.04049	1.04049	0.000	-8.47729	60.00000	Averaged	
19 Hexachloroethane	0.45162	0.42370	0.42370	0.000	-6.18167	60.00000	Averaged	
21 Nitrobenzene	0.22270	0.22035	0.22035	0.000	-1.05346	60.00000	Averaged	
22 Isophorone	0.43936	0.45790	0.45790	0.000	4.21944	60.00000	Averaged	
23 2-Nitrophenol	0.12093	0.12343	0.12343	0.001	2.06578	20.00000	Averaged	ccc
24 2,4-Dimethylphenol	0.23401	0.24230	0.24230	0.000	3.54215	60.00000	Averaged	
25 bis(2-Chloroethoxy)methane	0.24130	0.23404	0.23404	0.000	-3.00873	60.00000	Averaged	
26 2,4-Dichlorophenol	0.22265	0.22311	0.22311	0.001	0.20536	20.00000	Averaged	ccc
27 Benzoic acid	42.33040	40.00000	0.07694	0.000	5.82600	60.00000	Linear	
28 1,2,4-Trichlorobenzene	0.28384	0.27569	0.27569	0.000	-2.87300	60.00000	Averaged	
30 Naphthalene	0.77621	0.77875	0.77875	0.000	0.32664	60.00000	Averaged	
204 alpha-Terpineol	0.18989	0.19098	0.19098	0.000	0.56982	60.00000	Averaged	
189 Caprolactam	0.06828	0.07090	0.07090	0.000	3.83528	60.00000	Averaged	
32 Hexachlorobutadiene	0.20835	0.22382	0.22382	0.001	7.42516	20.00000	Averaged	ccc
33 4-Chloro-3-methylphenol	0.21034	0.19531	0.19531	0.001	-7.14564	20.00000	Averaged	ccc
34 2-Methylnaphthalene	0.54837	0.53876	0.53876	0.000	-1.75400	60.00000	Averaged	

General Engineering Laboratories, LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD8.i Injection Date: 16-MAY-2005 18:50
Lab File ID: s8e1614.d Init. Cal. Date(s): 11-MAY-2005 16-MAY-2005
Analysis Type: Init. Cal. Times: 15:15 20:53
Lab Sample ID: UBN050421-04.1 Quant Type: ISTD
Method: /chem/MSD8.i/s051605a.b/MSD8-8270-051605a.m

	COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
35	1-Methylnaphthalene	0.52522	0.49850	0.49850	0.000	-5.08641	60.00000	Averaged	
36	Hexachlorocyclopentadiene	35.89655	40.00000	0.26120	0.050	-10.25863	60.00000	Linear	spcc
208	1,1'-Biphenyl	1.27026	1.24946	1.24946	0.000	-1.63796	60.00000	Averaged	
37	2,4,6-Trichlorophenol	0.31438	0.30538	0.30538	0.001	-2.86132	20.00000	Averaged	ccc
38	2,4,5-Trichlorophenol	0.34584	0.30675	0.30675	0.000	-11.30328	60.00000	Averaged	
40	2-Chloronaphthalene	0.95018	0.89302	0.89302	0.000	-6.01567	60.00000	Averaged	
43	Dimethylphthalate	1.17157	1.10547	1.10547	0.000	-5.64183	60.00000	Averaged	
44	2,6-Dinitrotoluene	0.21604	0.21600	0.21600	0.000	-0.01661	60.00000	Averaged	
45	Acenaphthylene	1.42766	1.53098	1.53098	0.000	7.23699	60.00000	Averaged	
47	Acenaphthene	0.95216	0.92289	0.92289	0.001	-3.07412	20.00000	Averaged	ccc
48	2,4-Dinitrophenol	37.95863	40.00000	0.06740	0.050	-5.10343	60.00000	Linear	spcc
49	Dibenzofuran	1.45335	1.35629	1.35629	0.000	-6.67788	60.00000	Averaged	
50	2,4-Dinitrotoluene	36.87112	40.00000	0.26597	0.000	-7.82219	60.00000	Linear	
51	Diethylphthalate	1.24573	1.14675	1.14675	0.000	-7.94603	60.00000	Averaged	
52	4-Nitrophenol	33.68138	40.00000	0.12001	0.050	-15.79654	60.00000	Linear	spcc
53	Fluorene	1.05534	1.05571	1.05571	0.000	0.03543	60.00000	Averaged	
54	4-Chlorophenylphenylether	0.69878	0.61198	0.61198	0.000	-12.42163	60.00000	Averaged	
55	2-Methyl-4,6-dinitrophenol	34.85843	40.00000	0.06772	0.000	-12.85393	60.00000	Linear	
133	Diphenylamine	0.50606	0.48169	0.48169	0.001	-4.81693	20.00000	Averaged	ccc
58	1,2-Diphenylhydrazine	0.44153	0.40443	0.40443	0.000	-8.40276	60.00000	Averaged	
59	Tributylphosphate	1.11103	1.04496	1.04496	0.000	-5.94725	60.00000	Averaged	
61	4-Bromophenylphenylether	0.20812	0.16569	0.16569	0.000	-20.38822	60.00000	Averaged	
63	Hexachlorobenzene	0.21572	0.20403	0.20403	0.000	-5.41938	60.00000	Averaged	
65	Pentachlorophenol	37.62096	40.00000	0.08623	0.001	-5.94759	20.00000	Linear	ccc
206	n-Octadecane	0.29178	0.26141	0.26141	0.000	-10.40657	60.00000	Averaged	
68	Phenanthrene	0.79338	0.78262	0.78262	0.000	-1.35564	60.00000	Averaged	
69	Anthracene	0.76036	0.76727	0.76727	0.000	0.90946	60.00000	Averaged	
72	Di-n-butylphthalate	1.03174	0.94931	0.94931	0.000	-7.99012	60.00000	Averaged	
76	Fluoranthene	0.94608	0.96229	0.96229	0.001	1.71391	20.00000	Averaged	ccc
79	Pyrene	1.25828	1.31781	1.31781	0.000	4.73066	60.00000	Averaged	
85	Butylbenzylphthalate	0.52787	0.54564	0.54564	0.000	3.36718	60.00000	Averaged	
89	Benzo(a)anthracene	0.92062	0.94434	0.94434	0.000	2.57645	60.00000	Averaged	
92	Chrysene	0.88878	0.84436	0.84436	0.000	-4.99686	60.00000	Averaged	
93	bis(2-Ethylhexyl)phthalate	37.41131	40.00000	0.58729	0.000	-6.47172	60.00000	Linear	
94	Di-n-octylphthalate	40.79726	40.00000	1.05791	0.001	1.99315	20.00000	Linear	ccc

General Engineering Laboratories, LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD8.i
Lab File ID: s8e1614.d
Analysis Type:
Lab Sample ID: UBN050421-04.1
Method: /chem/MSD8.i/s051605a.b/MSD8-8270-051605a.m

Injection Date: 16-MAY-2005 18:50
Init. Cal. Date(s): 11-MAY-2005 16-MAY-2005
Init. Cal. Times: 15:15 20:53
Quant Type: ISTD

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
95 Benzo(b)fluoranthene	37.43105	40.00000	0.94123	0.000	-6.42236	60.00000	Linear	
96 Benzo(k)fluoranthene	0.95941	1.06952	1.06952	0.000	11.47751	60.00000	Averaged	
97 Benzo(a)pyrene	37.00379	40.00000	0.77866	0.001	-7.49053	20.00000	Linear	ccc
99 Indeno(1,2,3-cd)pyrene	33.70242	40.00000	0.71854	0.000	-15.74395	60.00000	Linear	
100 Dibenzo(a,h)anthracene	33.91354	40.00000	0.59349	0.000	-15.21615	60.00000	Linear	
101 Benzo(ghi)perylene	33.40213	40.00000	0.60399	0.000	-16.49467	60.00000	Linear	

Data File: /chem/MSD8.i/s051905.b/s8e1902.d
Report Date: 23-May-2005 08:54

General Engineering Laboratories, LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD8.i
Lab File ID: s8e1902.d
Analysis Type:
Lab Sample ID: UBN050421-04.3 Quant Type: ISTD
Method: /chem/MSD8.i/s051905.b/MSD8-8270-051605a.m

Injection Date: 19-MAY-2005 15:01
Init. Cal. Date(s): 11-MAY-2005 16-MAY-2005
Init. Cal. Times: 15:15 20:53

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
$ 3 2-Fluorophenol	0.82816	0.76720	0.76720	0.000	-7.36147	60.00000	Averaged	
$ 5 Phenol-d5	0.95385	0.87726	0.87726	0.000	-8.03032	60.00000	Averaged	
$ 20 Nitrobenzene-d5	0.23164	0.22358	0.22358	0.000	-3.47668	60.00000	Averaged	
$ 39 2-Fluorobiphenyl	1.22352	1.18317	1.18317	0.000	-3.29843	60.00000	Averaged	
$ 60 2,4,6-Tribromophenol	0.14447	0.15620	0.15620	0.000	8.11572	60.00000	Averaged	
$ 81 p-Terphenyl-d14	0.96957	0.99938	0.99938	0.000	3.07456	60.00000	Averaged	
1 N-Methyl-N-nitrosomethylami	0.42026	0.36356	0.36356	0.000	-13.49211	60.00000	Averaged	
2 Pyridine	0.82354	0.71079	0.71079	0.000	-13.69075	60.00000	Averaged	
6 Phenol	1.01618	0.92724	0.92724	0.001	-8.75192	20.00000	Averaged	ccc
7 bis(2-Chloroethyl) ether	0.85849	0.89887	0.89887	0.000	4.70322	60.00000	Averaged	
8 2-Chlorophenol	1.00509	0.95834	0.95834	0.000	-4.65191	60.00000	Averaged	
185 n-Decane	0.92553	0.88353	0.88353	0.000	-4.53738	60.00000	Averaged	
9 1,3-Dichlorobenzene	1.24027	1.20857	1.20857	0.000	-2.55576	60.00000	Averaged	
11 1,4-Dichlorobenzene	1.28778	1.24473	1.24473	0.001	-3.34290	20.00000	Averaged	ccc
12 Benzyl alcohol	0.56477	0.53649	0.53649	0.000	-5.00709	60.00000	Averaged	
13 1,2-Dichlorobenzene	1.17775	1.18793	1.18793	0.000	0.86400	60.00000	Averaged	
14 bis(2-Chloroisopropyl)ether	1.32483	1.22351	1.22351	0.000	-7.64824	60.00000	Averaged	
15 o-Cresol	0.79104	0.75899	0.75899	0.000	-4.05178	60.00000	Averaged	
16 Acetophenone	1.32164	1.29143	1.29143	0.000	-2.28533	60.00000	Averaged	
17 N-Nitrosodipropylamine	0.62139	0.61175	0.61175	0.050	-1.55143	60.00000	Averaged	spcc
18 m,p-Cresols	1.13686	1.08642	1.08642	0.000	-4.43668	60.00000	Averaged	
19 Hexachloroethane	0.45162	0.44652	0.44652	0.000	-1.12995	60.00000	Averaged	
21 Nitrobenzene	0.22270	0.20634	0.20634	0.000	-7.34808	60.00000	Averaged	
22 Isophorone	0.43936	0.39633	0.39633	0.000	-9.79549	60.00000	Averaged	
23 2-Nitrophenol	0.12093	0.12352	0.12352	0.001	2.14219	20.00000	Averaged	ccc
24 2,4-Dimethylphenol	0.23401	0.22430	0.22430	0.000	-4.15106	60.00000	Averaged	
25 bis(2-Chloroethoxy)methane	0.24130	0.23299	0.23299	0.000	-3.44296	60.00000	Averaged	
26 2,4-Dichlorophenol	0.22265	0.21427	0.21427	0.001	-3.76470	20.00000	Averaged	ccc
27 Benzoic acid	43.84740	40.00000	0.08146	0.000	9.61849	60.00000	Linear	
28 1,2,4-Trichlorobenzene	0.28384	0.27984	0.27984	0.000	-1.41128	60.00000	Averaged	
30 Naphthalene	0.77621	0.72921	0.72921	0.000	-6.05611	60.00000	Averaged	
204 alpha-Terpineol	0.18989	0.18812	0.18812	0.000	-0.93422	60.00000	Averaged	
189 Caprolactam	0.06828	0.07271	0.07271	0.000	6.48314	60.00000	Averaged	
32 Hexachlorobutadiene	0.20835	0.20406	0.20406	0.001	-2.05967	20.00000	Averaged	ccc
33 4-Chloro-3-methylphenol	0.21034	0.20175	0.20175	0.001	-4.08359	20.00000	Averaged	ccc
34 2-Methylnaphthalene	0.54837	0.52443	0.52443	0.000	-4.36717	60.00000	Averaged	

General Engineering Laboratories, LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD8.i Injection Date: 19-MAY-2005 15:01
Lab File ID: s8e1902.d Init. Cal. Date(s): 11-MAY-2005 16-MAY-2005
Analysis Type: Init. Cal. Times: 15:15 20:53
Lab Sample ID: UBN050421-04.3 Quant Type: ISTD
Method: /chem/MSD8.i/s051905.b/MSD8-8270-051605a.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
35 1-Methylnaphthalene	0.52522	0.49664	0.49664	0.000	-5.44054	60.00000	Averaged	
36 Hexachlorocyclopentadiene	34.91661	40.00000	0.25214	0.050	-12.70846	60.00000	Linear	spcc
208 1,1'-Biphenyl	1.27026	1.27493	1.27493	0.000	0.36726	60.00000	Averaged	
37 2,4,6-Trichlorophenol	0.31438	0.31508	0.31508	0.001	0.22435	20.00000	Averaged	ccc
38 2,4,5-Trichlorophenol	0.34584	0.33170	0.33170	0.000	-4.08986	60.00000	Averaged	
40 2-Chloronaphthalene	0.95018	0.92711	0.92711	0.000	-2.42848	60.00000	Averaged	
43 Dimethylphthalate	1.17157	1.10020	1.10020	0.000	-6.09209	60.00000	Averaged	
44 2,6-Dinitrotoluene	0.21604	0.20766	0.20766	0.000	-3.88052	60.00000	Averaged	
45 Acenaphthylene	1.42766	1.44064	1.44064	0.000	0.90879	60.00000	Averaged	
47 Acenaphthene	0.95216	0.88564	0.88564	0.001	-6.98601	20.00000	Averaged	ccc
48 2,4-Dinitrophenol	39.18642	40.00000	0.07071	0.050	-2.03396	60.00000	Linear	spcc
49 Dibenzofuran	1.45335	1.39324	1.39324	0.000	-4.13590	60.00000	Averaged	
50 2,4-Dinitrotoluene	36.27214	40.00000	0.26114	0.000	-9.31964	60.00000	Linear	
51 Diethylphthalate	1.24573	1.17156	1.17156	0.000	-5.95433	60.00000	Averaged	
52 4-Nitrophenol	36.34870	40.00000	0.13100	0.050	-9.12826	60.00000	Linear	spcc
53 Fluorene	1.05534	1.02368	1.02368	0.000	-2.99931	60.00000	Averaged	
54 4-Chlorophenylphenylether	0.69878	0.67763	0.67763	0.000	-3.02746	60.00000	Averaged	
55 2-Methyl-4,6-dinitrophenol	37.27041	40.00000	0.07441	0.000	-6.82397	60.00000	Linear	
133 Diphenylamine	0.50606	0.49306	0.49306	0.001	-2.56954	20.00000	Averaged	ccc
58 1,2-Diphenylhydrazine	0.44153	0.41780	0.41780	0.000	-5.37522	60.00000	Averaged	
59 Tributylphosphate	1.11103	1.16152	1.16152	0.000	4.54408	60.00000	Averaged	
61 4-Bromophenylphenylether	0.20812	0.21267	0.21267	0.000	2.18775	60.00000	Averaged	
63 Hexachlorobenzene	0.21572	0.21847	0.21847	0.000	1.27680	60.00000	Averaged	
65 Pentachlorophenol	40.07087	40.00000	0.09288	0.001	0.17717	20.00000	Linear	ccc
206 n-Octadecane	0.29178	0.29304	0.29304	0.000	0.43348	60.00000	Averaged	
68 Phenanthrene	0.79338	0.75559	0.75559	0.000	-4.76323	60.00000	Averaged	
69 Anthracene	0.76036	0.74889	0.74889	0.000	-1.50844	60.00000	Averaged	
72 Di-n-butylphthalate	1.03174	0.99315	0.99315	0.000	-3.74030	60.00000	Averaged	
76 Fluoranthene	0.94608	0.90560	0.90560	0.001	-4.27803	20.00000	Averaged	ccc
79 Pyrene	1.25828	1.27070	1.27070	0.000	0.98734	60.00000	Averaged	
85 Butylbenzylphthalate	0.52787	0.55720	0.55720	0.000	5.55565	60.00000	Averaged	
89 Benzo(a)anthracene	0.92062	0.88181	0.88181	0.000	-4.21512	60.00000	Averaged	
92 Chrysene	0.88878	0.85293	0.85293	0.000	-4.03323	60.00000	Averaged	
93 bis(2-Ethylhexyl)phthalate	42.03759	40.00000	0.66724	0.000	5.09399	60.00000	Linear	
94 Di-n-octylphthalate	46.08533	40.00000	1.21911	0.001	15.21333	20.00000	Linear	ccc

General Engineering Laboratories, LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD8.i
Lab File ID: s8e1902.d
Analysis Type:
Lab Sample ID: UBN050421-04.3
Method: /chem/MSD8.i/s051905.b/MSD8-8270-051605a.m

Injection Date: 19-MAY-2005 15:01
Init. Cal. Date(s): 11-MAY-2005 16-MAY-2005
Init. Cal. Times: 15:15 20:53
Quant Type: ISTD

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
95 Benzo(b)fluoranthene	39.15583	40.00000	0.98597	0.000	-2.11042	60.00000	Linear	
96 Benzo(k)fluoranthene	0.95941	0.99391	0.99391	0.000	3.59633	60.00000	Averaged	
97 Benzo(a)pyrene	37.52617	40.00000	0.79026	0.001	-6.18456	20.00000	Linear	ccc
99 Indeno(1,2,3-cd)pyrene	32.31275	40.00000	0.68828	0.000	-19.21813	60.00000	Linear	
100 Dibenzo(a,h)anthracene	31.79781	40.00000	0.55506	0.000	-20.50548	60.00000	Linear	
101 Benzo(ghi)perylene	31.79183	40.00000	0.57550	0.000	-20.52043	60.00000	Linear	

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Data file : /chem/MSD8.i/s051905.b/s8e1902.d
Lab Smp Id: UBN050421-04.3 Client Smp ID: BNA CVS
Inj Date : 19-MAY-2005 15:01
Operator : cak Inst ID: MSD8.i
Smp Info : |UBN050421-04.3|40ppm|1|SVMF|1|BNA CVS|
Misc Info : |MSD8270|WBN050506-02
Comment : Column: J & W DB-5MS:25m x 0.20mm - 0.33um Film m
Method : /chem/MSD8.i/s051905.b/MSD8-8270-051605a.m
Meth Date : 23-May-2005 08:53 cak Quant Type: ISTD
Cal Date : 11-MAY-2005 18:18 Cal File: s8e1111.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: BNAICAL-NAB.sub
Target Version: 3.50
Processing Host: kilroy

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	3.792	3.792	(1.000)	142760	40.0000	
* 29 Naphthalene-d8	136	4.655	4.655	(1.000)	605639	40.0000	(H)
* 46 Acenaphthene-d10	164	5.901	5.901	(1.000)	353337	40.0000	(H)
* 67 Phenanthrene-d10	188	6.894	6.894	(1.000)	709636	40.0000	(H)
* 91 Chrysene-d12	240	8.463	8.463	(1.000)	516526	40.0000	(H)
* 98 Perylene-d12	264	9.567	9.567	(1.000)	404394	40.0000	(H)
$ 3 2-Fluorophenol	112	2.975	2.975	(0.785)	109525	40.0000	37.0(H)
$ 5 Phenol-d5	99	3.504	3.504	(0.924)	125237	40.0000	36.8(H)
$ 20 Nitrobenzene-d5	82	4.150	4.150	(0.876)	135411	40.0000	38.6
$ 39 2-Fluorobiphenyl	172	5.396	5.396	(0.903)	418057	40.0000	38.7(H)
$ 60 2,4,6-Tribromophenol	329	6.442	6.442	(1.078)	55191	40.0000	43.2(H)
$ 81 p-Terphenyl-d14	244	7.805	7.805	(0.915)	516204	40.0000	41.2
1 N-Methyl-N-nitrosomethylamine	74	2.264	2.264	(0.597)	51902	40.0000	34.6(H)
2 Pyridine	79	2.299	2.299	(0.606)	101472	40.0000	34.5
6 Phenol	94	3.510	3.510	(0.926)	132373	40.0000	36.5(H)
7 bis(2-Chloroethyl) ether	93	3.592	3.592	(0.947)	128322	40.0000	41.9(H)
8 2-Chlorophenol	128	3.651	3.651	(0.963)	136812	40.0000	38.1(H)
185 n-Decane	43	3.639	3.639	(0.960)	126133	40.0000	38.2
9 1,3-Dichlorobenzene	146	3.756	3.756	(0.991)	172535	40.0000	39.0(H)
11 1,4-Dichlorobenzene	146	3.803	3.803	(1.003)	177698	40.0000	38.7
12 Benzyl alcohol	108	3.856	3.856	(1.017)	76590	40.0000	38.0(H)
13 1,2-Dichlorobenzene	146	3.903	3.903	(1.029)	169589	40.0000	40.3
14 bis(2-Chloroisopropyl)ether	45	3.933	3.933	(1.037)	174668	40.0000	36.9(H)
15 o-Cresol	107	3.909	3.909	(1.031)	108353	40.0000	38.4(H)
16 Acetophenone	105	4.038	4.038	(1.065)	184365	40.0000	39.1
17 N-Nitrosodipropylamine	70	4.027	4.027	(1.062)	87334	40.0000	39.4(H)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
18 m,p-Cresols	107	4.003	4.003	(1.056)	155098	40.0000	38.2(H)
19 Hexachloroethane	117	4.132	4.132	(1.090)	63745	40.0000	39.5
21 Nitrobenzene	77	4.162	4.162	(0.878)	124965	40.0000	37.1
22 Isophorone	82	4.315	4.315	(0.911)	240031	40.0000	36.1(H)
23 2-Nitrophenol	139	4.379	4.379	(0.924)	74808	40.0000	40.8
24 2,4-Dimethylphenol	122	4.373	4.373	(0.923)	135843	40.0000	38.3(H)
25 bis(2-Chloroethoxy)methane	93	4.438	4.438	(0.937)	141109	40.0000	38.6
26 2,4-Dichlorophenol	162	4.538	4.538	(0.958)	129768	40.0000	38.5(H)
27 Benzoic acid	105	4.414	4.414	(0.932)	49334	40.0000	43.8
28 1,2,4-Trichlorobenzene	180	4.602	4.602	(0.971)	169481	40.0000	39.4(H)
30 Naphthalene	128	4.667	4.667	(0.985)	441635	40.0000	37.6(H)
204 alpha-Terpineol	59	4.644	4.644	(0.980)	113933	40.0000	39.6(H)
189 Caprolactam	113	4.932	4.932	(1.041)	44033	40.0000	42.6(H)
32 Hexachlorobutadiene	225	4.732	4.732	(0.999)	123585	40.0000	39.2(H)
33 4-Chloro-3-methylphenol	107	5.002	5.002	(1.056)	122189	40.0000	38.4
34 2-Methylnaphthalene	142	5.149	5.149	(1.087)	317613	40.0000	38.2(H)
35 1-Methylnaphthalene	142	5.225	5.225	(1.103)	300786	40.0000	37.8(H)
36 Hexachlorocyclopentadiene	237	5.255	5.255	(0.879)	89092	40.0000	34.9
208 1,1'-Biphenyl	154	5.472	5.472	(0.915)	450479	40.0000	40.1
37 2,4,6-Trichlorophenol	196	5.337	5.337	(0.893)	111330	40.0000	40.1(H)
38 2,4,5-Trichlorophenol	196	5.366	5.366	(0.898)	117202	40.0000	38.4(H)
40 2-Chloronaphthalene	162	5.501	5.501	(0.920)	327582	40.0000	39.0(H)
43 Dimethylphthalate	163	5.666	5.666	(0.948)	388741	40.0000	37.6
44 2,6-Dinitrotoluene	165	5.725	5.725	(0.958)	73373	40.0000	38.4
45 Acenaphthylene	152	5.801	5.801	(0.970)	509031	40.0000	40.4(H)
47 Acenaphthene	154	5.924	5.924	(0.991)	312929	40.0000	37.2(H)
48 2,4-Dinitrophenol	184	5.924	5.924	(0.991)	24983	40.0000	39.2(H)
49 Dibenzofuran	168	6.042	6.042	(1.011)	492282	40.0000	38.3(H)
50 2,4-Dinitrotoluene	165	6.013	6.013	(1.006)	92272	40.0000	36.3(H)
51 Diethylphthalate	149	6.160	6.160	(1.030)	413955	40.0000	37.6(H)
52 4-Nitrophenol	139	5.936	5.936	(0.993)	46286	40.0000	36.3
53 Fluorene	166	6.277	6.277	(1.050)	361705	40.0000	38.8(H)
54 4-Chlorophenylphenylether	204	6.259	6.259	(1.047)	239431	40.0000	38.8(H)
55 2-Methyl-4,6-dinitrophenol	198	6.295	6.295	(0.907)	52807	40.0000	37.3(H)
133 Diphenylamine	169	6.336	6.336	(0.913)	349894	40.0000	39.0(H)
58 1,2-Diphenylhydrazine	77	6.371	6.371	(0.918)	296484	40.0000	37.8
59 Tributylphosphate	99	6.283	6.283	(1.051)	410408	40.0000	41.8(H)
61 4-Bromophenylphenylether	248	6.588	6.588	(0.949)	150919	40.0000	40.9
63 Hexachlorobenzene	284	6.641	6.641	(0.957)	155036	40.0000	40.5
65 Pentachlorophenol	266	6.765	6.765	(0.975)	65909	40.0000	40.1
206 n-Octadecane	57	6.753	6.753	(0.973)	207953	40.0000	40.2(H)
68 Phenanthrene	178	6.912	6.912	(0.996)	536192	40.0000	38.1(H)
69 Anthracene	178	6.941	6.941	(1.000)	531439	40.0000	39.4
72 Di-n-butylphthalate	149	7.188	7.188	(1.036)	704777	40.0000	38.5
76 Fluoranthene	202	7.617	7.617	(1.097)	642649	40.0000	38.3(H)
79 Pyrene	202	7.752	7.752	(0.909)	656352	40.0000	40.4(H)
85 Butylbenzylphthalate	149	8.063	8.063	(0.946)	287806	40.0000	42.2

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
89 Benzo(a)anthracene	228	8.451	8.451	(0.991)	455480	40.0000	38.3(H)
92 Chrysene	228	8.474	8.474	(0.994)	440560	40.0000	38.4(H)
93 bis(2-Ethylhexyl)phthalate	149	8.375	8.375	(0.982)	344647	40.0000	42.0(H)
94 Di-n-octylphthalate	149	8.768	8.768	(0.909)	493001	40.0000	46.1(H)
95 Benzo(b)fluoranthene	252	9.209	9.209	(0.955)	398722	40.0000	39.2(H)
96 Benzo(k)fluoranthene	252	9.232	9.232	(0.957)	401931	40.0000	41.4(H)
97 Benzo(a)pyrene	252	9.514	9.514	(0.987)	319577	40.0000	37.5(H)
99 Indeno(1,2,3-cd)pyrene	276	10.842	10.842	(1.124)	278336	40.0000	32.3(H)
100 Dibenzo(a,h)anthracene	278	10.842	10.842	(1.124)	224462	40.0000	31.8(H)
101 Benzo(ghi)perylene	276	11.242	11.242	(1.166)	232730	40.0000	31.8(H)

QC Flag Legend

H - Operator selected an alternate compound hit.

Data File: /chem/MSD8.i/s051905.b/s8e1902.d
Date : 19-MAY-2005 15:01
Client ID: BNA CVS
Sample Info: IUBN050421-04,3l40ppm1l1SWHF1l1BNA CVS1
Column phase: J&W DB-5MS

Instrument: MSD8.i
Operator: cak
Column diameter: 0.20

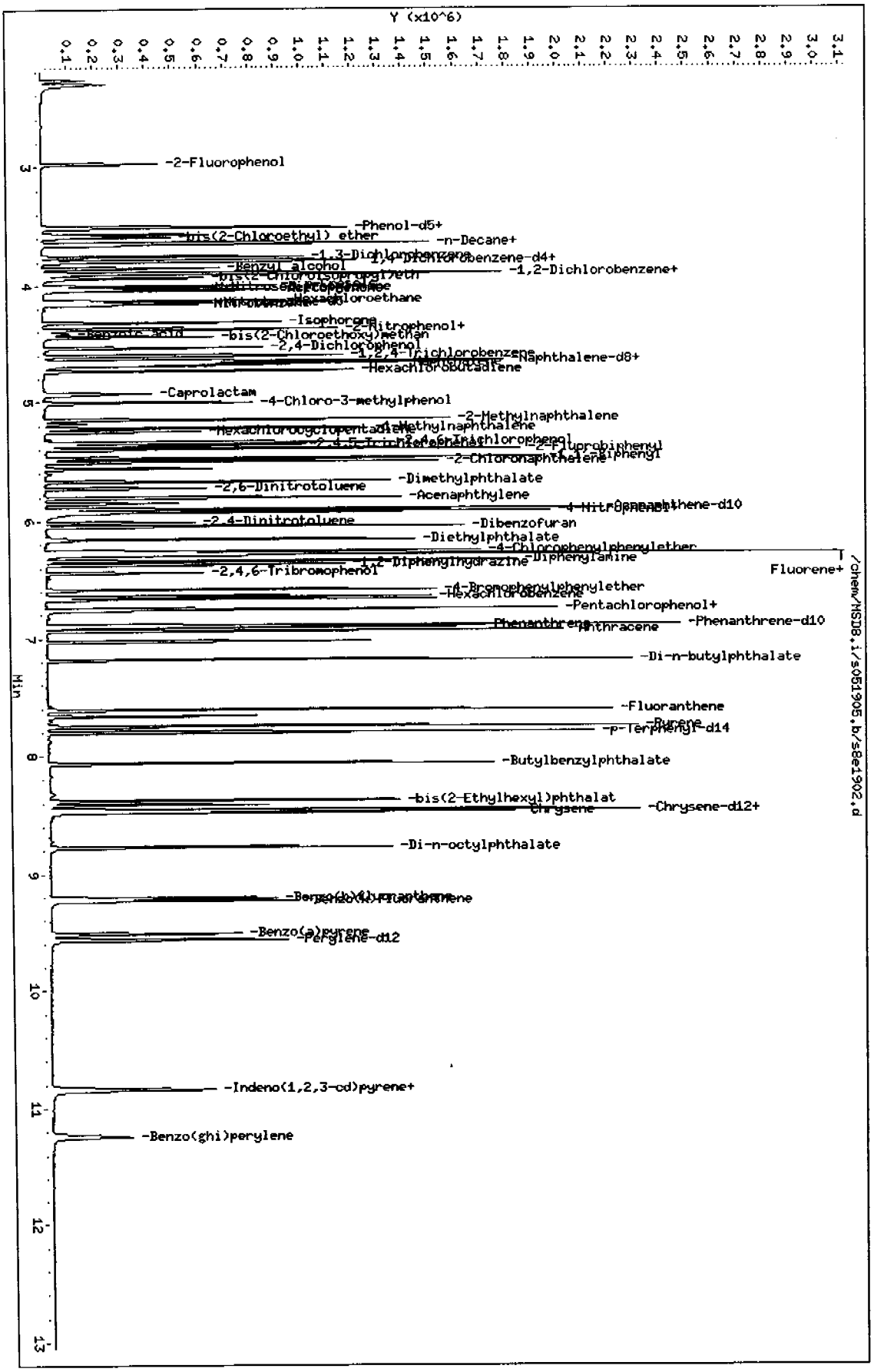

Page 1

General Engineering Laboratories, LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD8.i
Lab File ID: s8e1903.d
Analysis Type:
Lab Sample ID: UBN050506-06.3
Method: /chem/MSD8.i/s051905.b/MSD8-8270-051605a.m

Injection Date: 19-MAY-2005 15:22
Init. Cal. Date(s): 11-MAY-2005 16-MAY-2005
Init. Cal. Times: 15:15 20:53
Quant Type: ISTD

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
4 Aniline	1.36648	1.30779	1.30779	0.000	-4.29526	60.00000	Averaged	
209 Benzaldehyde	0.79435	0.64827	0.64827	0.000	-18.39041	60.00000	Averaged	
31 4-Chloroaniline	0.35215	0.31511	0.31511	0.000	-10.51909	60.00000	Averaged	
205 2,3-Dichloroaniline	0.47397	0.47203	0.47203	0.000	-0.40773	60.00000	Averaged	
42 o-Nitroaniline	0.19455	0.19572	0.19572	0.000	0.60480	60.00000	Averaged	
41 m-Nitroaniline	0.21164	0.21005	0.21005	0.000	-0.75061	60.00000	Averaged	
56 p-Nitroaniline	0.18825	0.20069	0.20069	0.000	6.60654	60.00000	Averaged	
207 Atrazine	0.04669	0.04627	0.04627	0.000	-0.89570	60.00000	Averaged	
77 Benzidine	30.85768	100	0.15354	0.000	-69.14232	60.00000	Linear	<-
90 3,3'-Dichlorobenzidine	0.23610	0.09185	0.09185	0.000	-61.09444	60.00000	Averaged	<-
173 Carbazole	0.68931	0.75609	0.75609	0.000	9.68806	60.00000	Averaged	

General Engineering Laboratories, LLC

Data file : /chem/MSD8.i/s051905.b/s8e1903.d
Lab Smp Id: UBN050506-06.3 Client Smp ID: ANBZ CVS
Inj Date : 19-MAY-2005 15:22
Operator : cak Inst ID: MSD8.i
Smp Info : |UBN050506-06.3|40ppm|1|SVMF|1|ANBZ CVS|
Misc Info : |MSD8270|WBN050506-02
Comment : Column: J & W DB-5MS:25m x 0.20mm - 0.33um Film m
Method : /chem/MSD8.i/s051905.b/MSD8-8270-051605a.m
Meth Date : 20-May-2005 11:13 cak Quant Type: ISTD
Cal Date : 11-MAY-2005 18:18 Cal File: s8e1111.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ANIL+BNZ+AT.sub
Target Version: 3.50
Processing Host: kilroy

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	3.791	3.791	(1.000)	130681	40.0000	
* 29 Naphthalene-d8	136	4.654	4.654	(1.000)	535250	40.0000	
* 46 Acenaphthene-d10	164	5.900	5.900	(1.000)	322468	40.0000	
* 67 Phenanthrene-d10	188	6.893	6.893	(1.000)	663425	40.0000	
* 91 Chrysene-d12	240	8.468	8.468	(1.000)	518480	40.0000	
* 98 Perylene-d12	264	9.578	9.578	(1.000)	432383	40.0000	
4 Aniline	93	3.573	3.573	(0.943)	170903	40.0000	38.3(H)
209 Benzaldehyde	77	3.515	3.515	(0.927)	84716	40.0000	32.6(H)
31 4-Chloroaniline	127	4.684	4.684	(1.006)	168660	40.0000	35.8(H)
205 2,3-Dichloroaniline	161	5.348	5.348	(0.906)	152216	40.0000	39.8(H)
42 o-Nitroaniline	65	5.559	5.559	(0.942)	63114	40.0000	40.2
41 m-Nitroaniline	138	5.853	5.853	(0.992)	67735	40.0000	39.7(H)
56 p-Nitroaniline	138	6.276	6.276	(1.064)	64716	40.0000	42.6(H)
207 Atrazine	173	6.664	6.664	(0.967)	30696	40.0000	39.6
77 Benzidine	184	7.669	7.669	(0.906)	199017	100.000	30.8
90 3,3'-Dichlorobenzidine	252	8.415	8.415	(0.994)	119062	100.000	38.9
173 Carbazole	167	7.028	7.028	(1.020)	501610	40.0000	43.9(H)

QC Flag Legend

H - Operator selected an alternate compound hit.

Data File: /chem/MSD8.i/s051905.b/s8e1903.d

Date : 19-MAY-2005 15:22

Client ID: ANBZ CVS

Sample Info: |UBN050506-06.3|40ppm|1|SVMF|1|ANBZ CVS|

Column phase: J&W DB-5MS

Instrument: MSD8.i

Operator: oak

Column diameter: 0.20

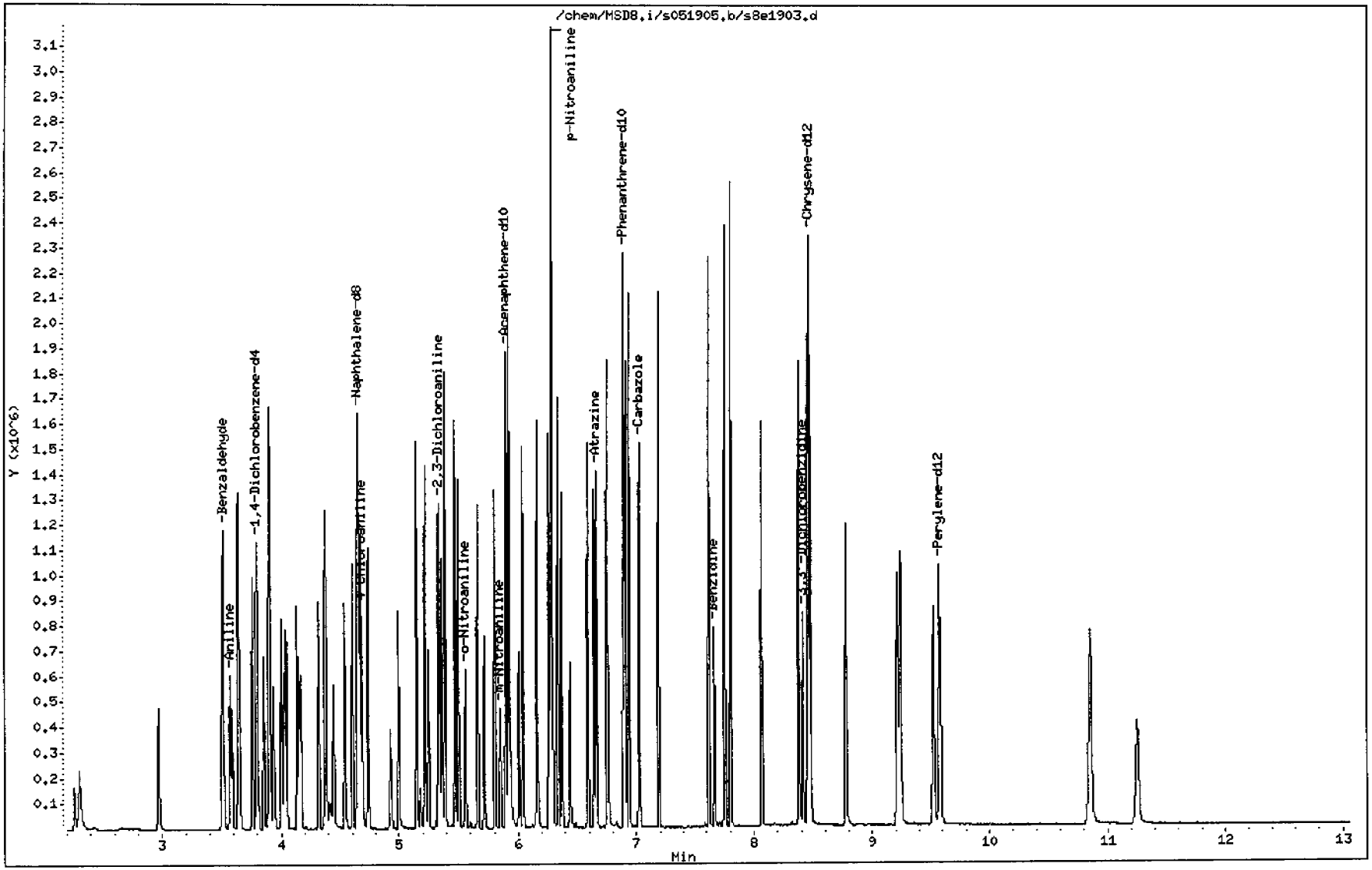

QUALITY CONTROL DATA

Data File: /chem/MSD8.i/s051905.b/s8e1901.d

Date : 19-MAY-2005 14:46

Client ID: DFTPP

Instrument: MSD8.i

Sample Info: |WBN050506-01|50ng|1|SVMI1|DFTPP|

Operator: cak

Column phase: J&W DB-5MS

Column diameter: 0.20

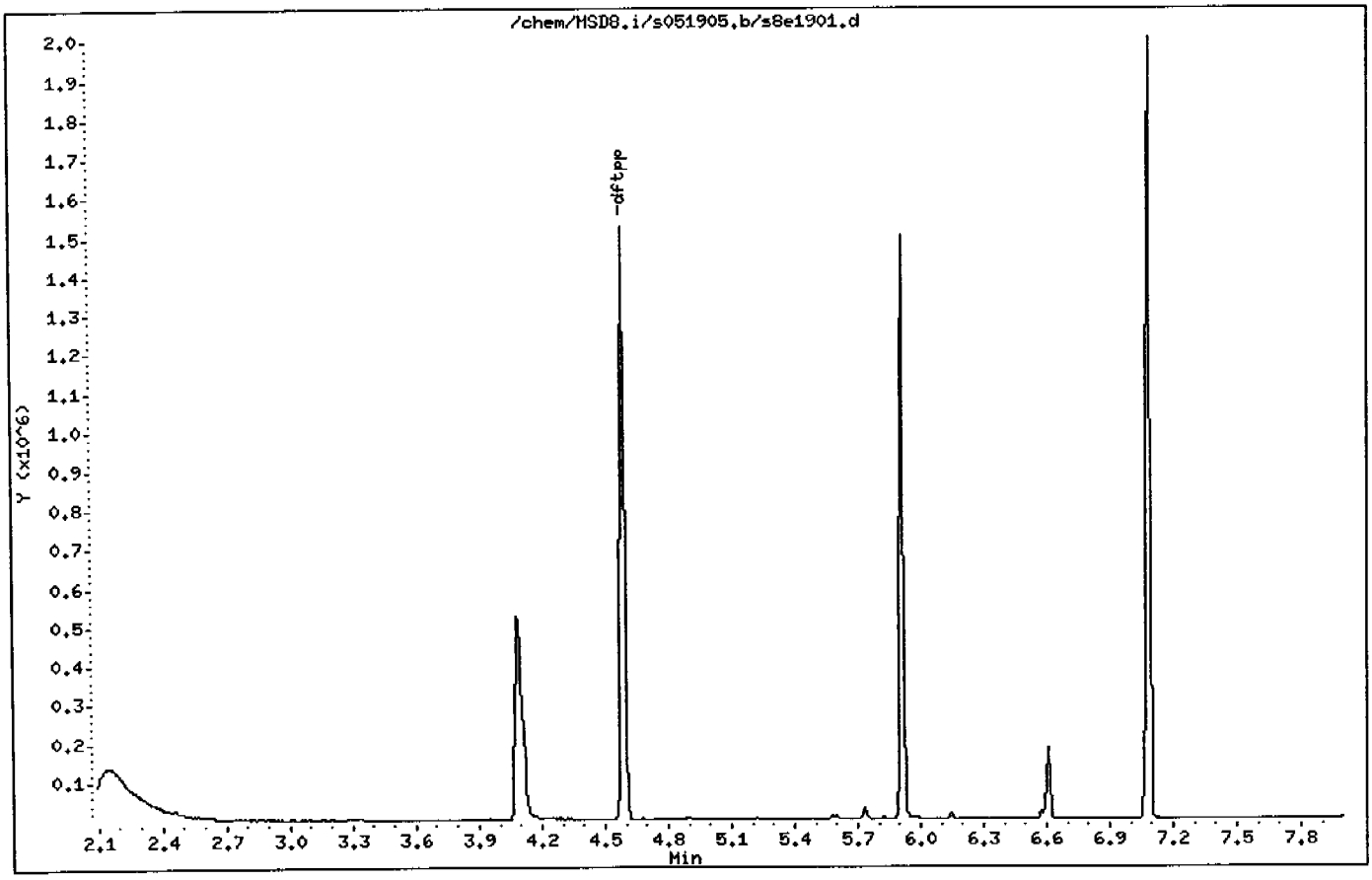

Data File: /chem/MSD8.i/s051905.b/s8e1901.d

Date : 19-MAY-2005 14:46

Client ID: DFTPP

Instrument: MSD8.i

Sample Info: |WBN050506-01|50ng|1|SVM|1|DFTPP|

Operator: cak

Column phase: J&W DB-5MS

Column diameter: 0.20

1 dftpp

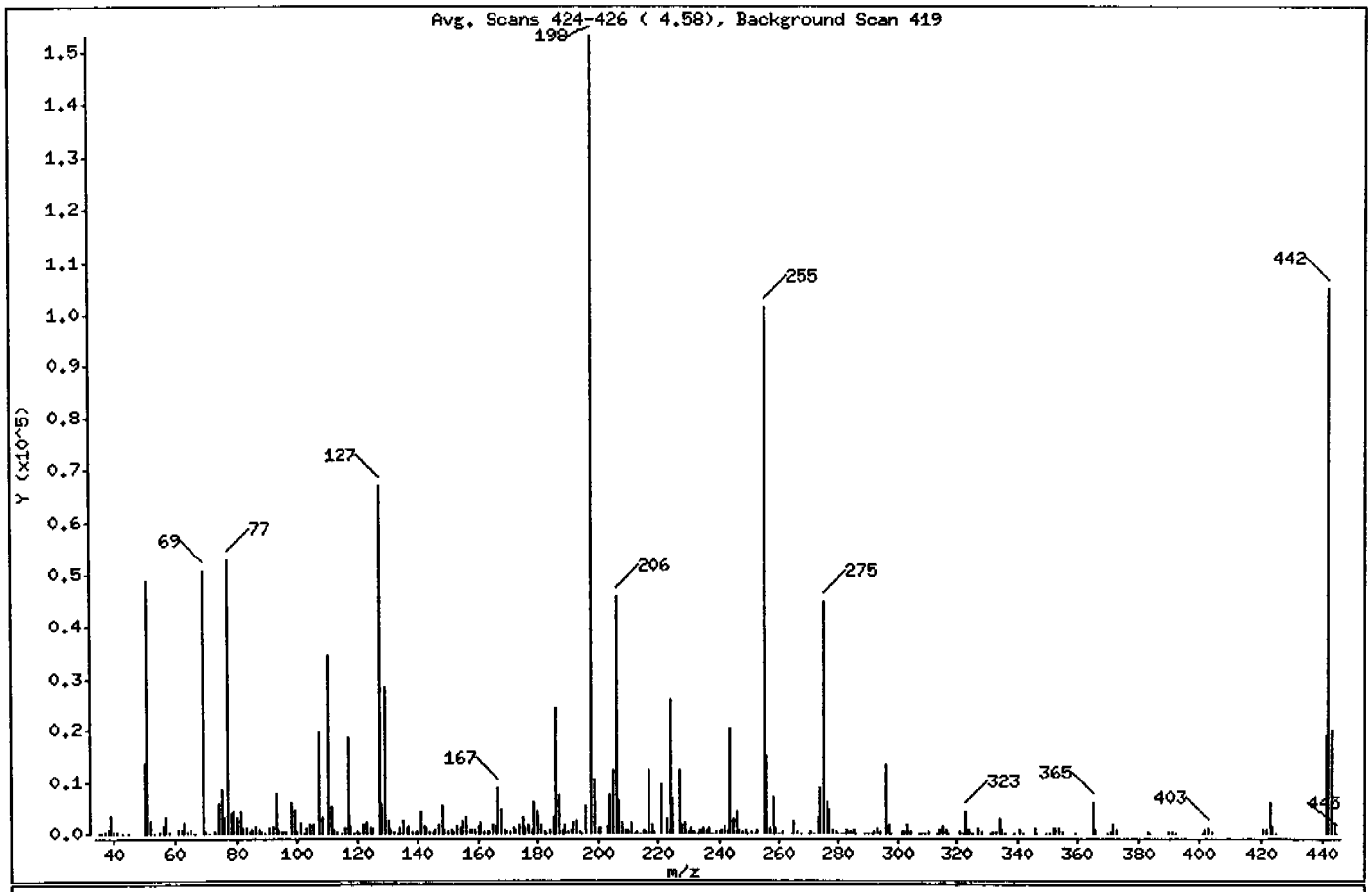

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	32.06
68	Less than 2.00% of mass 69	0.00 (0.00)
69	Mass 69 relative abundance	33.04
70	Less than 2.00% of mass 69	0.18 (0.55)
127	40.00 - 60.00% of mass 198	43.69
197	Less than 1.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.84
275	10.00 - 30.00% of mass 198	29.18
365	Greater than 1.00% of mass 198	3.94
441	Present, but less than mass 443	12.42
442	Greater than 40.00% of mass 198	68.43
443	17.00 - 23.00% of mass 442	13.09 (19.12)

Data File: /chem/MSD8.i/s051905.b/s8e1901.d

Date : 19-MAY-2005 14:46

Client ID: DFTPP

Instrument: MSD8.i

Sample Info: |WBN050506-01|50ng|1|SVM|1|DFTPP|

Operator: cak

Column phase: J&W DB-5MS

Column diameter: 0.20

Data File: s8e1901.d
Spectrum: Avg. Scans 424-426 (4.58), Background Scan 419
Location of Maximum: 198.00
Number of points: 297

m/z	Y	m/z	Y	m/z	Y	m/z	Y
35.00	46	127.00	66920	204.00	7245	289.00	137
36.00	48	128.00	5593	205.00	12196	290.00	68
37.00	222	129.00	28608	206.00	45896	291.00	90
38.00	745	130.00	2512	207.00	6321	292.00	220
39.00	3581	131.00	548	208.00	1996	293.00	966
40.00	202	132.00	306	209.00	672	294.00	210
41.00	191	133.00	159	210.00	587	296.00	13354
43.00	44	134.00	902	211.00	2184	297.00	1931
45.00	121	135.00	2572	212.00	95	298.00	63
50.00	13670	136.00	1132	213.00	224	301.00	230
51.00	49104	137.00	1456	214.00	76	302.00	275
52.00	2509	138.00	239	215.00	684	303.00	1676
53.00	165	139.00	255	216.00	502	304.00	402
55.00	427	140.00	266	217.00	12329	307.00	51
56.00	1529	141.00	4342	218.00	1775	308.00	148
57.00	3295	142.00	1288	219.00	233	309.00	53
58.00	201	143.00	1064	221.00	9492	310.00	249
61.00	671	144.00	229	223.00	2775	313.00	125
62.00	698	145.00	290	224.00	26192	314.00	722
63.00	2283	146.00	827	225.00	6555	315.00	1569
64.00	304	147.00	1927	227.00	12484	316.00	822
65.00	843	148.00	5368	228.00	1716	317.00	123
66.00	44	149.00	864	229.00	2279	321.00	404
67.00	83	150.00	330	230.00	405	322.00	158
69.00	50600	151.00	709	231.00	983	323.00	4093
70.00	276	152.00	363	232.00	193	324.00	755
71.00	88	153.00	1239	233.00	169	325.00	60
73.00	411	154.00	1020	234.00	827	327.00	957
74.00	5730	155.00	2310	235.00	940	328.00	419
75.00	8325	156.00	3224	236.00	634	331.00	45
76.00	3221	157.00	642	237.00	1024	332.00	338
77.00	52928	158.00	782	238.00	69	333.00	278
78.00	3805	159.00	700	239.00	526	334.00	2703
79.00	4354	160.00	1343	240.00	396	335.00	636
80.00	3039	161.00	2268	241.00	668	336.00	95

Data File: /chem/MSD8.i/s051905.b/s8e1901.d

Date : 19-MAY-2005 14:46

Client ID: DFTPP

Instrument: MSD8.i

Sample Info: |WBN050506-01|50ng|1|SVM|1|DFTPP|

Operator: cak

Column phase: J&W DB-5MS

Column diameter: 0.20

Data File: s8e1901.d
Spectrum: Avg. Scans 424-426 (4.58), Background Scan 419
Location of Maximum: 198.00
Number of points: 297

m/z	Y	m/z	Y	m/z	Y	m/z	Y
81.00	4125	162.00	523	242.00	1464	339.00	47
82.00	989	163.00	211	243.00	760	341.00	578
83.00	891	164.00	227	244.00	20560	342.00	115
84.00	230	165.00	1672	245.00	2978	346.00	976
85.00	782	166.00	1320	246.00	4323	347.00	161
86.00	1357	167.00	8665	247.00	843	350.00	42
87.00	671	168.00	4577	248.00	228	351.00	48
88.00	255	169.00	718	249.00	724	352.00	1117
89.00	46	170.00	317	250.00	48	353.00	895
91.00	1089	171.00	359	251.00	220	354.00	1152
92.00	1236	172.00	981	252.00	172	355.00	256
93.00	7590	173.00	878	253.00	553	359.00	49
94.00	615	174.00	1848	255.00	101328	365.00	6041
95.00	205	175.00	3133	256.00	15061	366.00	632
96.00	393	176.00	889	257.00	1176	370.00	134
98.00	5948	177.00	1736	258.00	7069	371.00	283
99.00	4492	178.00	533	259.00	1097	372.00	1885
100.00	342	179.00	6101	260.00	160	373.00	561
101.00	2266	180.00	4170	261.00	203	383.00	494
102.00	99	181.00	1863	264.00	53	384.00	139
103.00	994	182.00	254	265.00	2568	390.00	261
104.00	1634	183.00	78	266.00	329	391.00	184
105.00	1651	184.00	619	268.00	66	392.00	62
107.00	19864	185.00	3278	270.00	55	401.00	56
108.00	3096	186.00	24392	271.00	250	402.00	723
110.00	34480	187.00	7374	272.00	103	403.00	1012
111.00	5328	188.00	829	273.00	3287	404.00	481
112.00	786	189.00	1821	274.00	8648	421.00	828
113.00	267	190.00	347	275.00	44696	422.00	561
115.00	100	191.00	837	276.00	6152	423.00	5820
116.00	966	192.00	2222	277.00	4614	424.00	1453
117.00	18696	193.00	2475	278.00	803	425.00	144
118.00	1273	194.00	487	279.00	184	441.00	19024
119.00	128	195.00	103	280.00	50	442.00	104808
120.00	315	196.00	5278	281.00	50	443.00	20040

Data File: /chem/MSD8.i/s051905.b/s8e1901.d

Date : 19-MAY-2005 14:46

Client ID: DFTPP

Instrument: MSD8.i

Sample Info: |WBN050506-01|50ng|1|SVM|1|DFTPP|

Operator: cak

Column phase: J&W DB-5MS

Column diameter: 0.20

Data File: s8e1901.d
Spectrum: Avg. Scans 424-426 (4.58), Background Scan 419
Location of Maximum: 198.00
Number of points: 297

m/z	Y	m/z	Y	m/z	Y	m/z	Y
121.00	49	198.00	153152	282.00	98	444.00	1754
122.00	1598	199.00	10482	283.00	564	445.00	96
123.00	2168	200.00	985	284.00	374		
124.00	981	201.00	1001	285.00	769		
125.00	918	203.00	1485	286.00	115		

1B
SVOA ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK01

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

Matrix: (soil/water) SOIL Lab Sample ID: 1200842643

Sample wt/vol: 30.0 (g/mL) G Lab File ID: S8E1904-1

Level: (low/med) LOW Date Received: 05/10/05

% Moisture: 0 decanted: (Y/N) N Date Extracted:05/10/05

Concentrated Extract Volume: 1.00(mL) Date Analyzed: 05/19/05

Injection Volume: 0.5(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
62-75-9	N-Methyl-N-nitrosomethylamin	333	U
110-86-1	Pyridine	333	U
62-53-3	Aniline	333	U
108-95-2	Phenol	333	U
111-44-4	bis(2-Chloroethyl) ether	333	U
95-57-8	2-Chlorophenol	333	U
541-73-1	1,3-Dichlorobenzene	333	U
106-46-7	1,4-Dichlorobenzene	333	U
100-51-6	Benzyl alcohol	333	U
95-50-1	1,2-Dichlorobenzene	333	U
108-60-1	bis(2-Chloroisopropyl)ether	333	U
95-48-7	o-Cresol	333	U
621-64-7	N-Nitrosodipropylamine	333	U
65794-96-9	m,p-Cresols	333	U
67-72-1	Hexachloroethane	333	U
78-59-1	Isophorone	333	U
88-75-5	2-Nitrophenol	333	U
105-67-9	2,4-Dimethylphenol	333	U
111-91-1	bis(2-Chloroethoxy)methane	333	U
120-83-2	2,4-Dichlorophenol	333	U
65-85-0	Benzoic acid	667	U
120-82-1	1,2,4-Trichlorobenzene	333	U
91-20-3	Naphthalene	33.3	U
106-47-8	4-Chloroaniline	333	U
87-68-3	Hexachlorobutadiene	333	U
59-50-7	4-Chloro-3-methylphenol	333	U
91-57-6	2-Methylnaphthalene	33.3	U
77-47-4	Hexachlorocyclopentadiene	333	U
88-06-2	2,4,6-Trichlorophenol	333	U
95-95-4	2,4,5-Trichlorophenol	333	U
91-58-7	2-Chloronaphthalene	33.3	U
88-74-4	o-Nitroaniline	333	U
99-09-2	m-Nitroaniline	333	U

1C
SVOA ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK01

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

Matrix: (soil/water) SOIL Lab Sample ID: 1200842643

Sample wt/vol: 30.0 (g/mL) G Lab File ID: S8E1904-1

Level: (low/med) LOW Date Received: 05/10/05

% Moisture: 0 decanted: (Y/N) N Date Extracted: 05/10/05

Concentrated Extract Volume: 1.00(mL) Date Analyzed: 05/19/05

Injection Volume: 0.5(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
131-11-3	Dimethylphthalate	333	U
606-20-2	2,6-Dinitrotoluene	333	U
208-96-8	Acenaphthylene	33.3	U
83-32-9	Acenaphthene	33.3	U
51-28-5	2,4-Dinitrophenol	667	U
132-64-9	Dibenzofuran	333	U
121-14-2	2,4-Dinitrotoluene	333	U
84-66-2	Diethylphthalate	333	U
100-02-7	4-Nitrophenol	333	U
86-73-7	Fluorene	33.3	U
7005-72-3	4-Chlorophenylphenylether	333	U
534-52-1	2-Methyl-4,6-dinitrophenol	333	U
100-01-6	p-Nitroaniline	333	U
122-39-4	Diphenylamine	333	U
122-66-7	1,2-Diphenylhydrazine	333	U
101-55-3	4-Bromophenylphenylether	333	U
118-74-1	Hexachlorobenzene	333	U
87-86-5	Pentachlorophenol	333	U
85-01-8	Phenanthrene	33.3	U
120-12-7	Anthracene	33.3	U
84-74-2	Di-n-butylphthalate	333	U
206-44-0	Fluoranthene	33.3	U
129-00-0	Pyrene	33.3	U
85-68-7	Butylbenzylphthalate	333	U
56-55-3	Benzo(a)anthracene	33.3	U
91-94-1	3,3'-Dichlorobenzidine	333	U
218-01-9	Chrysene	33.3	U
117-81-7	bis(2-Ethylhexyl)phthalate	118	J
117-84-0	Di-n-octylphthalate	333	U
205-99-2	Benzo(b)fluoranthene	33.3	U
207-08-9	Benzo(k)fluoranthene	33.3	U
50-32-8	Benzo(a)pyrene	33.3	U
193-39-5	Indeno(1,2,3-cd)pyrene	33.3	U

FORM I SV-2 OLM03.0

1C
SVOA ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK01

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

Matrix: (soil/water) SOIL Lab Sample ID: 1200842643

Sample wt/vol: 30.0 (g/mL) G Lab File ID: S8E1904-1

Level: (low/med) LOW Date Received: 05/10/05

% Moisture: 0 decanted: (Y/N) N Date Extracted:05/10/05

Concentrated Extract Volume: 1.00(mL) Date Analyzed: 05/19/05

Injection Volume: 0.5(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
53-70-3	Dibenzo(a,h)anthracene	33.3	U
191-24-2	Benzo(ghi)perylene	33.3	U

FORM I SV-3 OLM03.0

1F
SVOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SBLK01

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

Matrix: (soil/water) SOIL Lab Sample ID: 1200842643

Sample wt/vol: 30.0 (g/mL) G Lab File ID: S8E1904-1

Level: (low/med) LOW Date Received: 05/10/05

% Moisture: _____ decanted: (Y/N)___ Date Extracted:05/10/05

Concentrated Extract Volume: 1.00(mL) Date Analyzed: 05/19/05

Injection Volume: 0.5(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

Number TICs found: 4

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	1.62	292	J
2.	UNKNOWN	1.82	961	J
3.	UNKNOWN ALDOL CONDENSATE	2.81	436	JA
4.	UNKNOWN	3.26	167	J
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
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20.				
21.				
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23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				

FORM I SV-TIC OLM03.0

General Engineering Laboratories, LLC

Data file : /chem/MSD8.i/s051905.b/s8e1904-1.d
Lab Smp Id: 1200842643 Client Smp ID: SBLK01
Inj Date : 19-MAY-2005 15:52
Operator : cak Inst ID: MSD8.i
Smp Info : |1200842643|423903|1|SVMF|1|MB|
Misc Info : |MSD8270_SF|WBN050506-02
Comment : Column: J & W DB-5MS:25m x 0.20mm - 0.33um Film m
Method : /chem/MSD8.i/s051905.b/MSD8-8270-051605a.m
Meth Date : 20-May-2005 11:13 cak Quant Type: ISTD
Cal Date : 11-MAY-2005 18:18 Cal File: s8e1111.d
Als bottle: 4 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 3194S.sub
Target Version: 3.50
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	0.00000	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.787	3.792	(1.000)	114869	40.0000	
* 29 Naphthalene-d8	136	4.650	4.655	(1.000)	402922	40.0000	
* 46 Acenaphthene-d10	164	5.902	5.901	(1.000)	262709	40.0000	
* 67 Phenanthrene-d10	188	6.895	6.894	(1.000)	544132	40.0000	
* 91 Chrysene-d12	240	8.464	8.463	(1.000)	441962	40.0000	
* 98 Perylene-d12	264	9.580	9.567	(1.000)	374744	40.0000	
$ 3 2-Fluorophenol	112	2.976	2.975	(0.786)	148781	62.5590	2080
$ 5 Phenol-d5	99	3.505	3.504	(0.926)	165919	60.5720	2020
$ 20 Nitrobenzene-d5	82	4.145	4.150	(0.891)	78068	33.4583	1120
$ 39 2-Fluorobiphenyl	172	5.397	5.396	(0.914)	240416	29.9182	997
$ 60 2,4,6-Tribromophenol	329	6.436	6.442	(1.091)	63843	67.2834	2240
$ 81 p-Terphenyl-d14	244	7.811	7.805	(0.923)	354493	33.0906	1100

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
93 bis(2-Ethylhexyl)phthalate	149	8.375	8.375	(0.990)	894	3.54333	118(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

General Engineering Laboratories, LLC

Data file : /chem/MSD8.i/s051905.b/s8e1904-1.d
Lab Smp Id: 1200842643 Client Smp ID: SBLK01
Inj Date : 19-MAY-2005 15:52
Operator : cak Inst ID: MSD8.i
Smp Info : |1200842643|423903|1|SVMF|1|MB|
Misc Info : |MSD8270_SF|WBN050506-02
Comment : Column: J & W DB-5MS:25m x 0.20mm - 0.33um Film m
Method : /chem/MSD8.i/s051905.b/MSD8-8270-051605a.m
Meth Date : 20-May-2005 11:13 cak Quant Type: ISTD
Cal Date : 11-MAY-2005 18:18 Cal File: s8e1111.d
Als bottle: 4 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 3194S.sub
Target Version: 3.50
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	0.00000	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	3.787	664305	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown				CAS #:			
1.619	145599	8.76702211	292	0		0	10
Unknown				CAS #:			
1.824	478787	28.8293646	961	0		0	10

RT	AREA	CONCENTRATIONS ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	QUANT LIBRARY	LIB ENTRY	CPND #
Unknown Aldol Condensate				CAS #:			
2.805	217144	13.0749351	436	0		0	10
Unknown				CAS #:			
3.258	83382	5.02068861	167	0		0	10

Data File: /chem/MSD8.i/s051905.b/s8e1904-1.d
Date : 19-MAY-2005 15:52
Client ID: SBLK01
Sample Info: !120084264314239031!!SVMF!1!MB!
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD8.i

Operator: cak
Column diameter: 0.20

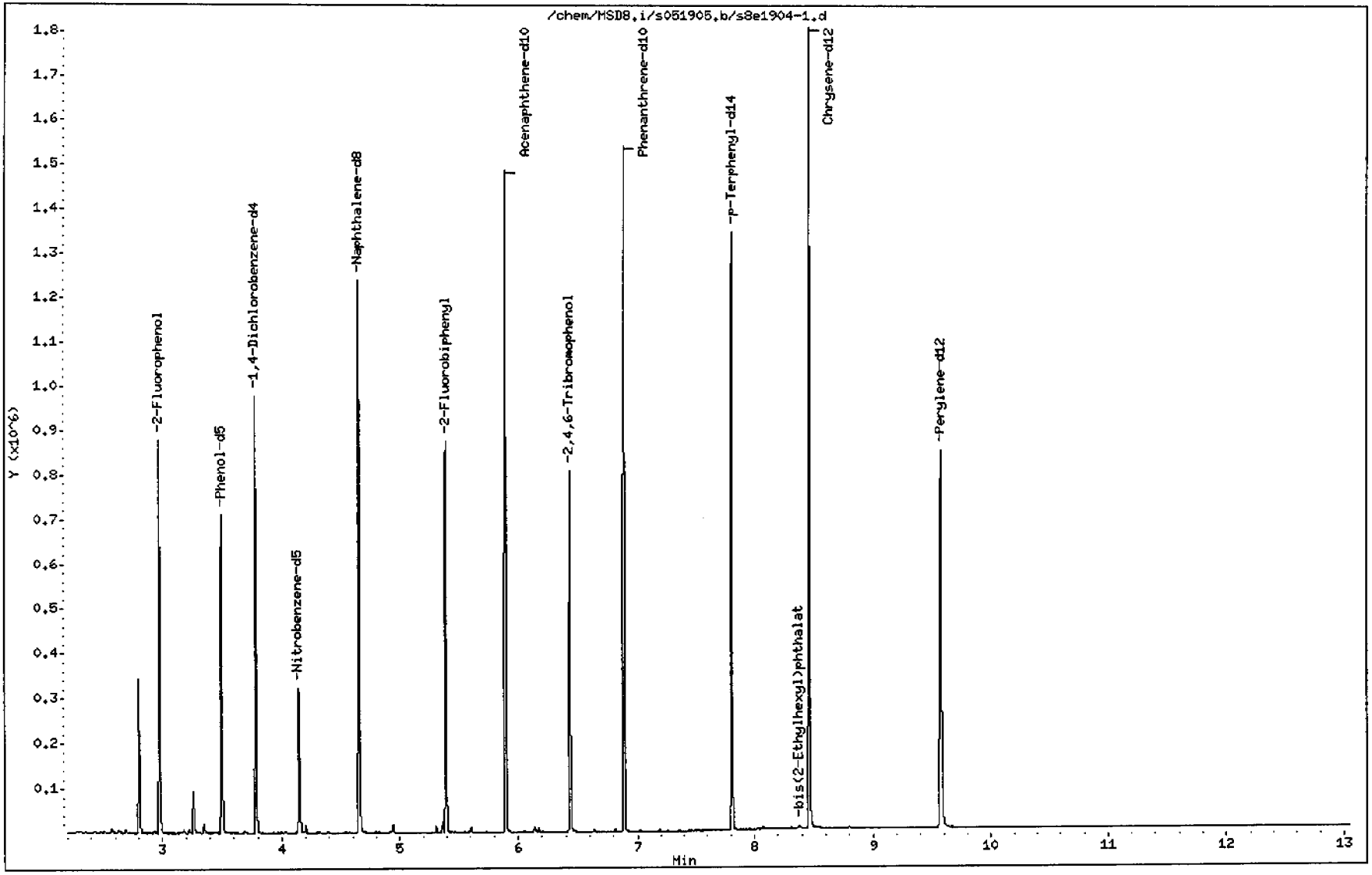

Data File: /chem/MSD8.i/s051905.b/s8e1904-1.d

Date : 19-MAY-2005 15:52

Client ID: SBLK01

Instrument: MSD8.i

Sample Info: |1200842643|423903|1|SVMF|1|MB|

Volume Injected (uL): 0.5

Operator: cak

Column phase: J&W DB-5MS

Column diameter: 0.20

93 bis(2-Ethylhexyl)phthalate

Concentration: 118 ug/Kg

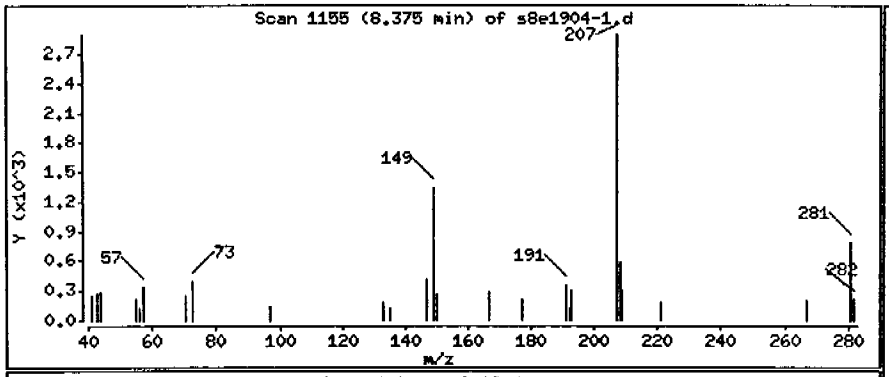

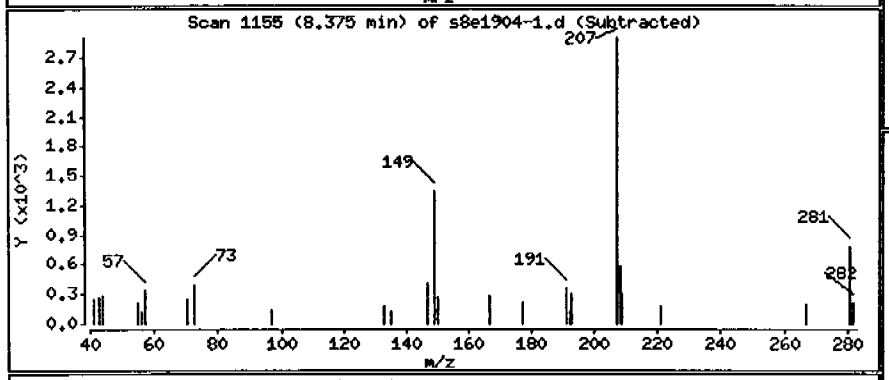

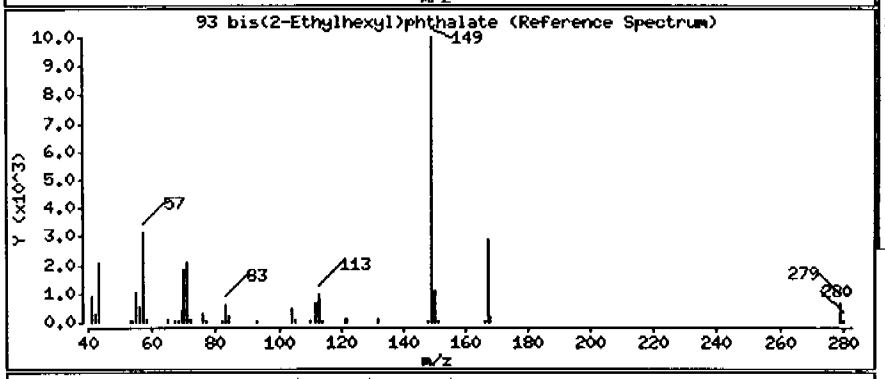

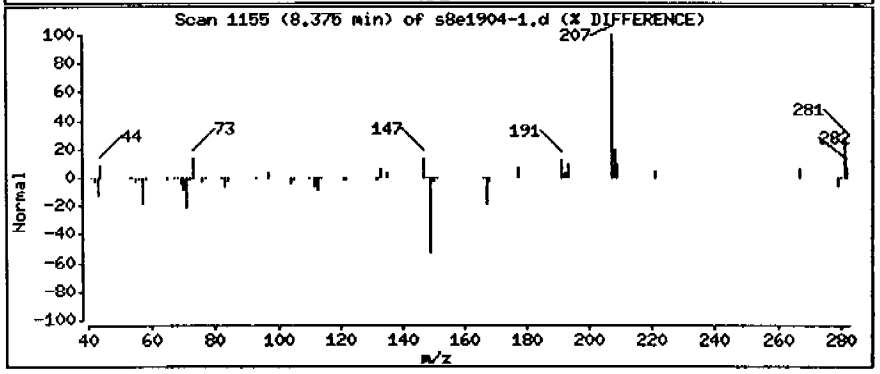

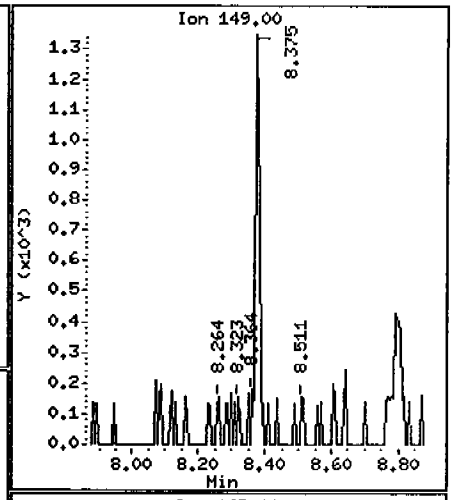

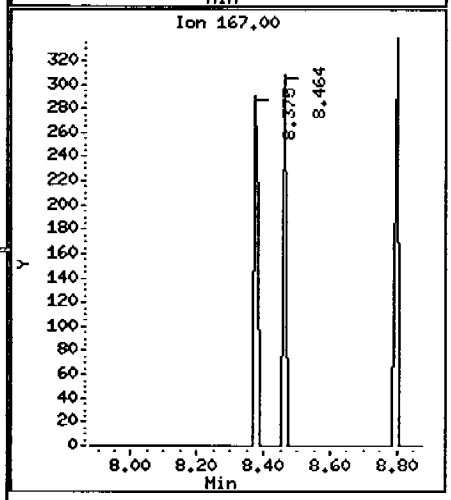

Data File: /chem/MSD8.i/s051905.b/s8e1904-1.d

Date : 19-MAY-2005 15:52

Client ID: SBLK01

Instrument: MSD8.i

Sample Info: |120084264314239031|1|SVMF|1|MB|

Volume Injected (uL): 0.5

Operator: cak

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Propionic acid, 2-chloro-, pentyl ester	1000132-28-6	Nist98.l	6211	38	C8H15ClO2	178
2-Butanone, 3-methyl-	563-80-4	Nist98.l	109358	9	C5H10O	86
Cyclooct-4-en-1-ol, 8-iodo-, acetate	1000197-11-8	Nist98.l	7886	9	C10H15IO2	294

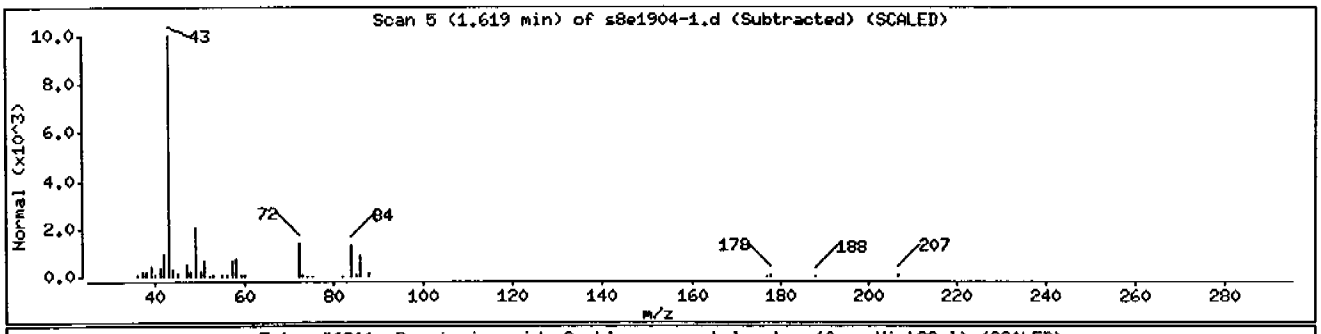

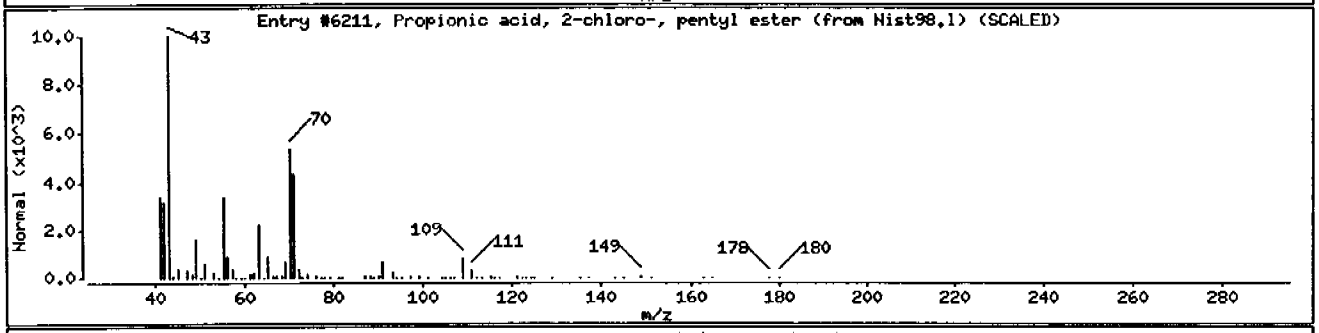

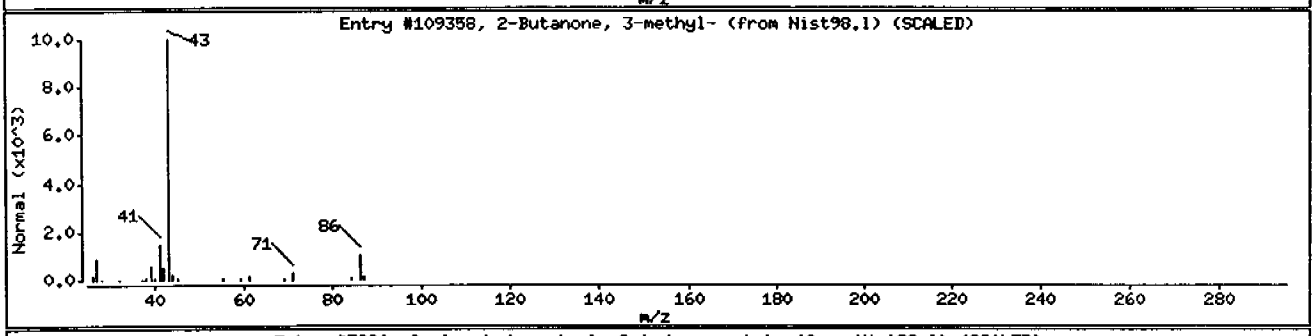

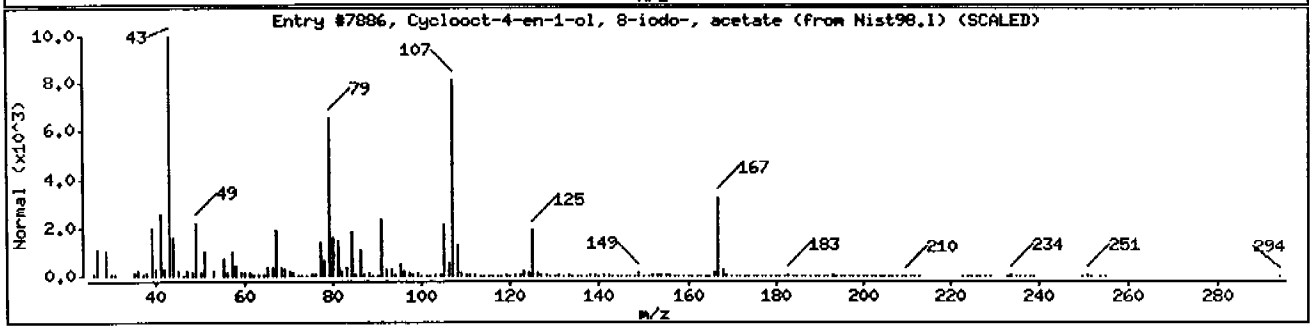

Data File: /chem/MSD8.i/s051905.b/s8e1904-1.d

Date : 19-MAY-2005 15:52

Client ID: SBLK01

Instrument: MSD8.i

Sample Info: 1120084264314239031 1|SVMF1 1|MB1

Volume Injected (uL): 0.5

Operator: cak

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Propane, 2,2-dimethoxy-	77-76-9	Nist98.1	25339	45	C5H12O2	104
Propane, 2,2-dimethoxy-	77-76-9	Nist98.1	114823	38	C5H12O2	104
Propane, 2,2-dimethoxy-	77-76-9	Nist98.1	114821	36	C5H12O2	104

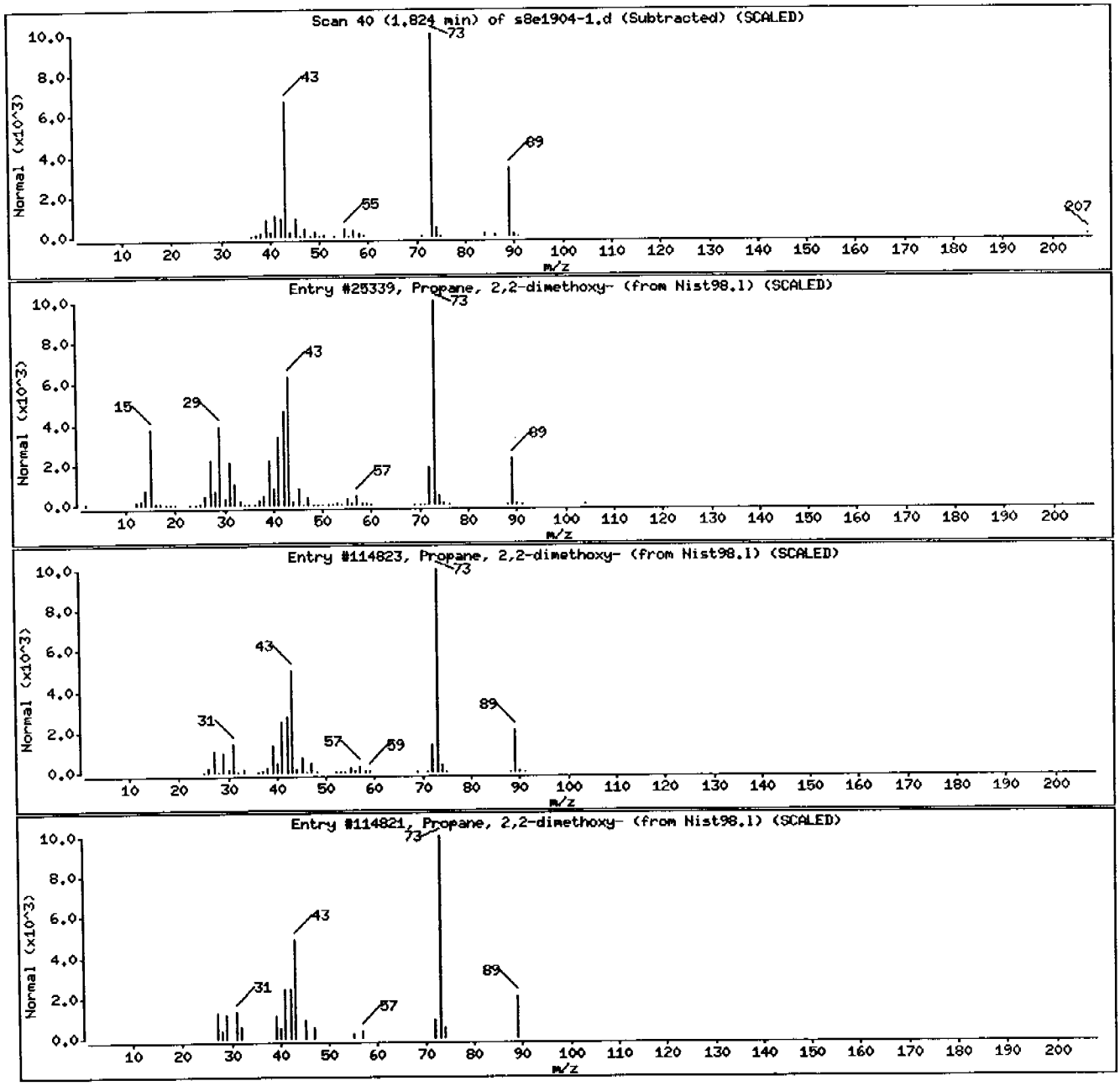

Data File: /chem/MSD8.i/s051905.b/s8e1904-1.d

Date : 19-MAY-2005 15:52

Client ID: SBLK01 Instrument: MSD8.i

Sample Info: |1200842643|423903|1|SVMF|1|MB|

Volume Injected (uL): 0.5 Operator: cak

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	Nist98.l	109756	56	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	Nist98.l	109755	38	C6H12O2	116
Acetic acid, 1,1-dimethylethyl ester	540-88-5	Nist98.l	109590	33	C6H12O2	116

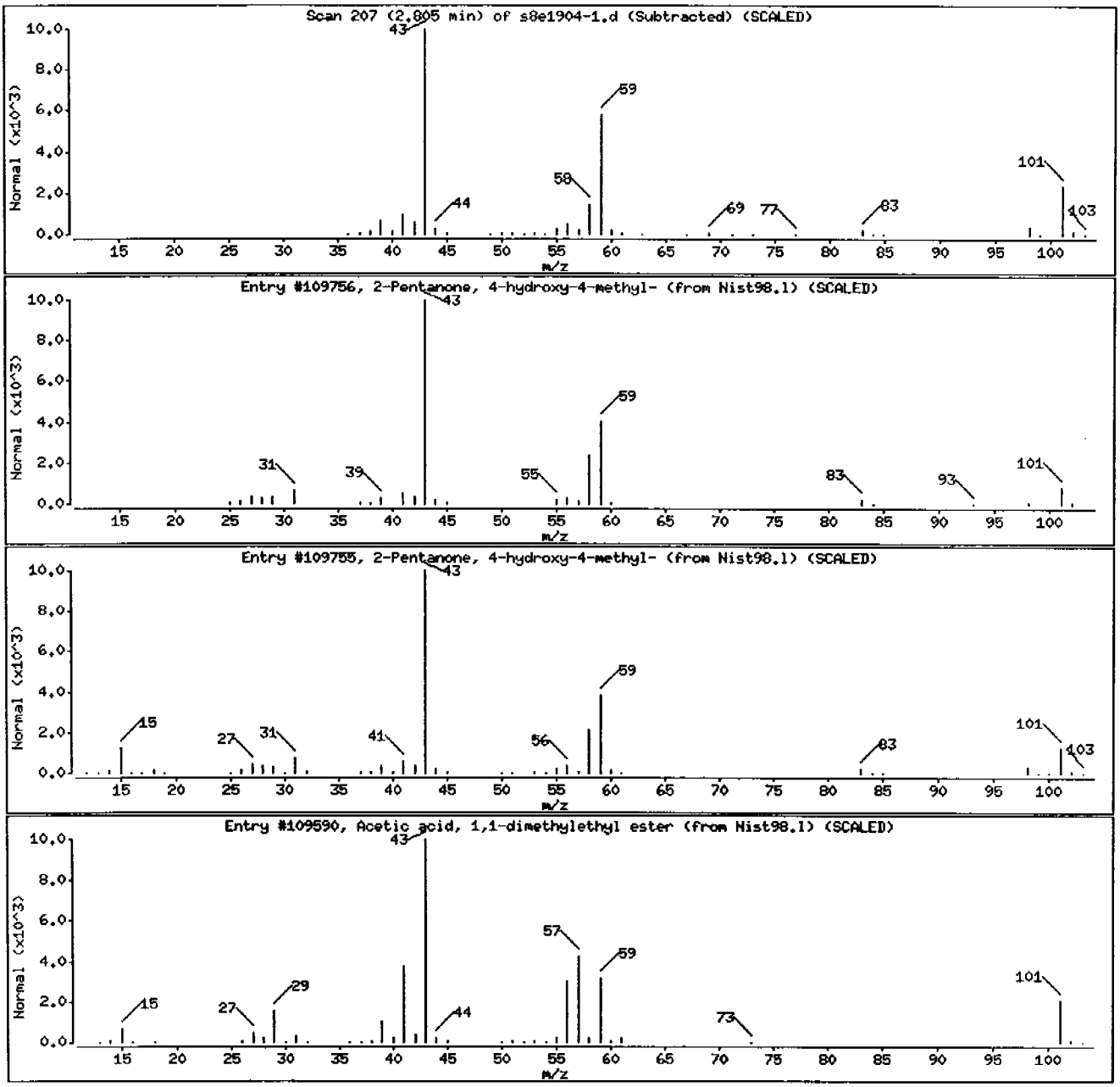

Data File: /chem/MSD8.i/s051905.b/s8e1904-1.d

Date : 19-MAY-2005 15:52

Client ID: SBLK01

Instrument: MSD8.i

Sample Info: |120084264314239031|SVMF|1|MB|

Volume Injected (uL): 0.5

Operator: cak

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Glycine, N-[2-cyanoethyl]-	1000133-01-4	Nist98.l	3565	38	C5H8N2O2	128
Formic acid, propyl ester	110-74-7	Nist98.l	108994	23	C4H8O2	88
Butane, 2,3-dimethyl-	79-29-8	Nist98.l	3328	9	C6H14	86

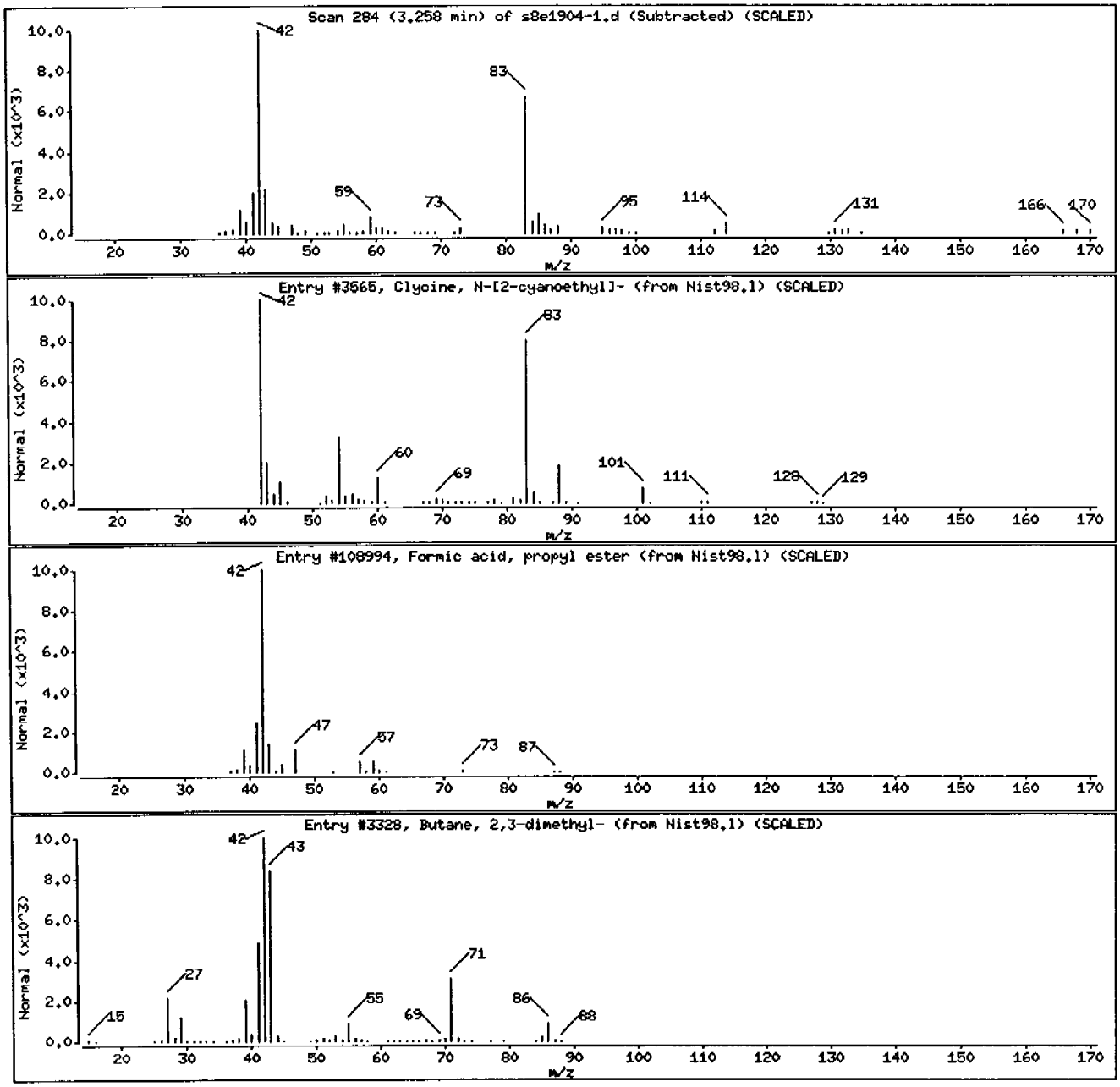

1B
SVOA ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK01LCS

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

Matrix: (soil/water) SOIL Lab Sample ID: 1200842644

Sample wt/vol: 30.0 (g/mL) G Lab File ID: S8E1905-1

Level: (low/med) LOW Date Received: 05/10/05

% Moisture: 0 decanted: (Y/N) N Date Extracted: 05/10/05

Concentrated Extract Volume: 1.00(mL) Date Analyzed: 05/19/05

Injection Volume: 0.5(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
62-75-9	N-Methyl-N-nitrosomethylamin	812	
110-86-1	Pyridine	616	
62-53-3	Aniline	738	
108-95-2	Phenol	2030	
111-44-4	bis(2-Chloroethyl) ether	876	
95-57-8	2-Chlorophenol	2050	
541-73-1	1,3-Dichlorobenzene	886	
106-46-7	1,4-Dichlorobenzene	910	
100-51-6	Benzyl alcohol	910	
95-50-1	1,2-Dichlorobenzene	930	
108-60-1	bis(2-Chloroisopropyl)ether	878	
95-48-7	o-Cresol	2090	
621-64-7	N-Nitrosodipropylamine	1000	
65794-96-9	m,p-Cresols	2130	
67-72-1	Hexachloroethane	902	
78-59-1	Isophorone	963	
88-75-5	2-Nitrophenol	2300	
105-67-9	2,4-Dimethylphenol	2180	
111-91-1	bis(2-Chloroethoxy)methane	997	
120-83-2	2,4-Dichlorophenol	2300	
65-85-0	Benzoic acid	2680	
120-82-1	1,2,4-Trichlorobenzene	1000	
91-20-3	Naphthalene	1040	
106-47-8	4-Chloroaniline	830	
87-68-3	Hexachlorobutadiene	1020	
59-50-7	4-Chloro-3-methylphenol	2560	
91-57-6	2-Methylnaphthalene	1080	
77-47-4	Hexachlorocyclopentadiene	961	
88-06-2	2,4,6-Trichlorophenol	2340	
95-95-4	2,4,5-Trichlorophenol	2320	
91-58-7	2-Chloronaphthalene	1020	
88-74-4	o-Nitroaniline	1130	
99-09-2	m-Nitroaniline	1020	

1C
SVOA ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK01LCS

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

Matrix: (soil/water) SOIL Lab Sample ID: 1200842644

Sample wt/vol: 30.0 (g/mL) G Lab File ID: S8E1905-1

Level: (low/med) LOW Date Received: 05/10/05

% Moisture: 0 decanted: (Y/N) N Date Extracted:05/10/05

Concentrated Extract Volume: 1.00(mL) Date Analyzed: 05/19/05

Injection Volume: 0.5(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
131-11-3	Dimethylphthalate	1110	
606-20-2	2,6-Dinitrotoluene	1160	
208-96-8	Acenaphthylene	1150	
83-32-9	Acenaphthene	1180	
51-28-5	2,4-Dinitrophenol	2570	
132-64-9	Dibenzofuran	1030	
121-14-2	2,4-Dinitrotoluene	1230	
84-66-2	Diethylphthalate	1170	
100-02-7	4-Nitrophenol	2670	
86-73-7	Fluorene	1200	
7005-72-3	4-Chlorophenylphenylether	1120	
534-52-1	2-Methyl-4,6-dinitrophenol	2500	
100-01-6	p-Nitroaniline	1160	
122-39-4	Diphenylamine	1120	
122-66-7	1,2-Diphenylhydrazine	1060	
101-55-3	4-Bromophenylphenylether	1180	
118-74-1	Hexachlorobenzene	1180	
87-86-5	Pentachlorophenol	2840	
85-01-8	Phenanthrene	1250	
120-12-7	Anthracene	1300	
84-74-2	Di-n-butylphthalate	1240	
206-44-0	Fluoranthene	1360	
129-00-0	Pyrene	1290	
85-68-7	Butylbenzylphthalate	1270	
56-55-3	Benzo(a)anthracene	1320	
91-94-1	3,3'-Dichlorobenzidine	1380	
218-01-9	Chrysene	1390	
117-81-7	bis(2-Ethylhexyl)phthalate	1300	B
117-84-0	Di-n-octylphthalate	1350	
205-99-2	Benzo(b)fluoranthene	1240	
207-08-9	Benzo(k)fluoranthene	1510	
50-32-8	Benzo(a)pyrene	1300	
193-39-5	Indeno(1,2,3-cd)pyrene	1290	

FORM I SV-2 OLM03.0

1C
SVOA ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK01LCS

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

Matrix: (soil/water) SOIL Lab Sample ID: 1200842644

Sample wt/vol: 30.0 (g/mL) G Lab File ID: S8E1905-1

Level: (low/med) LOW Date Received: 05/10/05

% Moisture: 0 decanted: (Y/N) N Date Extracted:05/10/05

Concentrated Extract Volume: 1.00(mL) Date Analyzed: 05/19/05

Injection Volume: 0.5(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
53-70-3	Dibenzo(a,h)anthracene	1270	
191-24-2	Benzo(ghi)perylene	1280	

FORM I SV-3 OLM03.0

General Engineering Laboratories, LLC

Data file : /chem/MSD8.i/s051905.b/s8e1905-1.d
Lab Smp Id: 1200842644 Client Smp ID: SBLK01LCS
Inj Date : 19-MAY-2005 16:13
Operator : cak Inst ID: MSD8.i
Smp Info : |1200842644|423903|1|SVMF|1|LCS|
Misc Info : |MSD8270_SF|WBN050506-02
Comment : Column: J & W DB-5MS:25m x 0.20mm - 0.33um Film m
Method : /chem/MSD8.i/s051905.b/MSD8-8270-051605a.m
Meth Date : 23-May-2005 08:53 cak Quant Type: ISTD
Cal Date : 11-MAY-2005 18:18 Cal File: s8e1111.d
Als bottle: 5 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 3194S.sub
Target Version: 3.50
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	0.00000	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.787	3.792	(1.000)	124428	40.0000	
* 29 Naphthalene-d8	136	4.650	4.655	(1.000)	512899	40.0000	
* 46 Acenaphthene-d10	164	5.902	5.901	(1.000)	315855	40.0000	
* 67 Phenanthrene-d10	188	6.895	6.894	(1.000)	667079	40.0000	
* 91 Chrysene-d12	240	8.464	8.463	(1.000)	532819	40.0000	
* 98 Perylene-d12	264	9.568	9.567	(1.000)	473203	40.0000	
$ 3 2-Fluorophenol	112	2.976	2.975	(0.786)	152872	59.3410	1980
$ 5 Phenol-d5	99	3.505	3.504	(0.926)	178580	60.1857	2010
$ 20 Nitrobenzene-d5	82	4.151	4.150	(0.893)	88115	29.6668	989
$ 39 2-Fluorobiphenyl	172	5.397	5.396	(0.914)	299388	30.9880	1030
$ 60 2,4,6-Tribromophenol	329	6.442	6.442	(1.092)	98120	86.0081	2870
$ 81 p-Terphenyl-d14	244	7.806	7.805	(0.922)	492367	38.1234	1270

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
6 Phenol	94	3.517	3.510	(0.929)	192332	60.8449	2030
8 2-Chlorophenol	128	3.652	3.651	(0.964)	192128	61.4507	2050
11 1,4-Dichlorobenzene	146	3.799	3.803	(1.003)	109312	27.2877	910
17 N-Nitrosodipropylamine	70	4.028	4.027	(1.064)	58122	30.0687	1000
28 1,2,4-Trichlorobenzene	180	4.603	4.602	(0.990)	109413	30.0619	1000
33 4-Chloro-3-methylphenol	107	5.003	5.002	(1.076)	206987	76.7442	2560
47 Acenaphthene	154	5.925	5.924	(1.004)	267328	35.5556	1180
50 2,4-Dinitrotoluene	165	6.008	6.013	(1.018)	84032	36.8802	1230
52 4-Nitrophenol	139	5.937	5.936	(1.006)	98306	80.1023	2670
65 Pentachlorophenol	266	6.760	6.765	(0.980)	143573	85.1425	2840
79 Pyrene	202	7.753	7.752	(0.916)	650768	38.8265	1290
2 Pyridine	79	2.300	2.299	(0.607)	47376	18.4934	616
4 Aniline	93	3.569	3.573	(0.943)	94178	22.1558	738 (H)
7 bis(2-Chloroethyl) ether	93	3.587	3.592	(0.947)	70214	26.2924	876
9 1,3-Dichlorobenzene	146	3.752	3.756	(0.991)	102556	26.5820	886
12 Benzyl alcohol	108	3.851	3.856	(1.017)	47984	27.3127	910
13 1,2-Dichlorobenzene	146	3.904	3.903	(1.031)	102280	27.9176	930
14 bis(2-Chloroisopropyl)ether	45	3.934	3.933	(1.039)	108509	26.3297	878
15 o-Cresol	107	3.910	3.909	(1.033)	154615	62.8342	2090
18 m,p-Cresols	107	4.004	4.003	(1.057)	225955	63.8933	2130
19 Hexachloroethane	117	4.133	4.132	(1.092)	38021	27.0639	902
22 Isophorone	82	4.316	4.315	(0.928)	162752	28.8888	963
23 2-Nitrophenol	139	4.380	4.379	(0.942)	106964	68.9822	2300
24 2,4-Dimethylphenol	122	4.374	4.373	(0.941)	195959	65.3066	2180
25 bis(2-Chloroethoxy)methane	93	4.439	4.438	(0.955)	92534	29.9070	997
26 2,4-Dichlorophenol	162	4.539	4.538	(0.976)	196653	68.8826	2300
27 Benzoic acid	105	4.427	4.414	(0.952)	97527	80.3600	2680
30 Naphthalene	128	4.668	4.667	(1.004)	310266	31.1732	1040
31 4-Chloroaniline	127	4.686	4.684	(1.008)	112380	24.8881	830 (Q)
32 Hexachlorobutadiene	225	4.733	4.732	(1.018)	81635	30.5572	1020
34 2-Methylnaphthalene	142	5.150	5.149	(1.107)	228493	32.4955	1080
36 Hexachlorocyclopentadiene	237	5.250	5.255	(0.889)	61878	28.8330	961
37 2,4,6-Trichlorophenol	196	5.338	5.337	(0.904)	174168	70.1602	2340
38 2,4,5-Trichlorophenol	196	5.367	5.366	(0.909)	190360	69.7054	2320
40 2-Chloronaphthalene	162	5.502	5.501	(0.932)	229149	30.5409	1020
42 o-Nitroaniline	65	5.555	5.559	(0.941)	52024	33.8654	1130
41 m-Nitroaniline	138	5.849	5.853	(0.991)	51135	30.5979	1020 (Q)
43 Dimethylphthalate	163	5.667	5.666	(0.960)	308589	33.3567	1110
44 2,6-Dinitrotoluene	165	5.720	5.725	(0.969)	59396	34.8172	1160
45 Acenaphthylene	152	5.802	5.801	(0.983)	387670	34.3881	1150
48 2,4-Dinitrophenol	184	5.920	5.924	(1.003)	54537	77.0334	2570 (Q)
49 Dibenzofuran	168	6.043	6.042	(1.024)	354385	30.8801	1030
51 Diethylphthalate	149	6.160	6.160	(1.044)	346027	35.1769	1170
53 Fluorene	166	6.278	6.277	(1.064)	300596	36.0716	1200
54 4-Chlorophenylphenylether	204	6.260	6.259	(1.061)	185717	33.6575	1120
55 2-Methyl-4,6-dinitrophenol	198	6.296	6.295	(0.913)	119719	75.1319	2500
56 p-Nitroaniline	138	6.278	6.276	(1.064)	51915	34.9240	1160 (Q)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
133 Diphenylamine	169	6.337	6.336	(0.919)	283909	33.6400	1120
58 1,2-Diphenylhydrazine	77	6.366	6.371	(0.923)	234584	31.8581	1060
61 4-Bromophenylphenylether	248	6.589	6.588	(0.956)	123415	35.5583	1180
63 Hexachlorobenzene	284	6.642	6.641	(0.963)	127708	35.4988	1180
68 Phenanthrene	178	6.907	6.912	(1.002)	494853	37.4006	1250
69 Anthracene	178	6.942	6.941	(1.007)	495514	39.0769	1300
72 Di-n-butylphthalate	149	7.189	7.188	(1.043)	643152	37.3787	1240
76 Fluoranthene	202	7.618	7.617	(1.105)	642297	40.7091	1360
85 Butylbenzylphthalate	149	8.064	8.063	(0.953)	268300	38.1571	1270
89 Benzo(a)anthracene	228	8.452	8.451	(0.999)	487305	39.7375	1320
90 3,3'-Dichlorobenzidine	252	8.411	8.415	(0.994)	129849	41.2885	1380
92 Chrysene	228	8.475	8.474	(1.001)	494127	41.7375	1390
93 bis(2-Ethylhexyl)phthalate	149	8.376	8.375	(0.990)	327345	38.9778	1300
94 Di-n-octylphthalate	149	8.769	8.768	(0.916)	498369	40.6421	1350
95 Benzo(b)fluoranthene	252	9.210	9.209	(0.963)	442941	37.2313	1240
96 Benzo(k)fluoranthene	252	9.233	9.232	(0.965)	515235	45.3958	1510
97 Benzo(a)pyrene	252	9.515	9.514	(0.994)	388689	38.9278	1300
99 Indeno(1,2,3-cd)pyrene	276	10.843	10.842	(1.133)	391752	38.7234	1290
100 Dibenzo(a,h)anthracene	278	10.849	10.842	(1.134)	316043	38.0082	1270
101 Benzo(ghi)perylene	276	11.249	11.242	(1.176)	328445	38.4963	1280
1 N-Methyl-N-nitrosomethylamine	74	2.265	2.264	(0.598)	31851	24.3637	812

QC Flag Legend

Q - Qualifier signal failed the ratio test.
H - Operator selected an alternate compound hit.

Data File: /chem/MSD8.i/s051905.b/s8e1905-1.d
Date : 19-MAY-2005 16:13
Client ID: SBLK01LCS
Sample Info: 1120084264|423903|1|SVMF1|1|LCS1
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD8.i
Operator: cak
Column diameter: 0.20

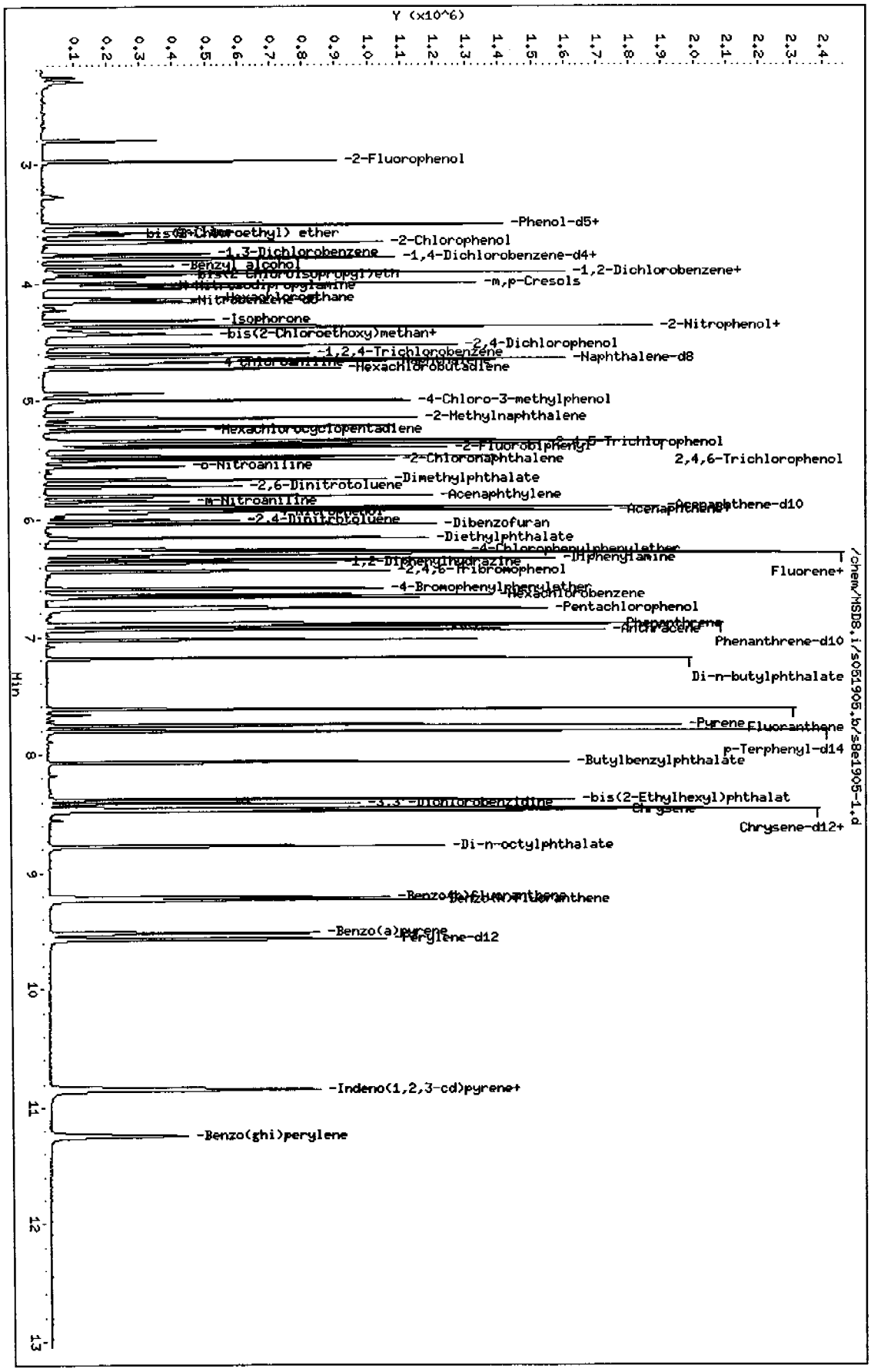

Page 1

MISCELLANEOUS DATA

GEL ORGANIC RUN LOG INSTRUMENT ID: MSD8

DATE:05/11/05 METHOD: 8270,625 OPERATOR: CAK REVIEWED BY:_____ DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 8 on pg. 109
Multiplier Voltage: 1482Emv Extr. Injection Volume: 0.5, 1.0 ul SOLVENT REF MAT 050428-A
DFTPP Solution ID: WBN050506-01 Internal Std ID: WBN050506-02
Sequence Number:051105A.B Initial Calibration Date(s): 05/11/05 SOP: GL-OA-E-009 Rev. 14

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
s8e1101.d	WBN050506-01	cak	11-MAY-2005 15:00		s051105a	1.0	DFTPP	
s8e1102.d	UBN050421-01	cak	11-MAY-2005 15:15	1ppm	s051105a	1.0	BNA ICAL	DUSE
s8e1103.d	UBN050421-02	cak	11-MAY-2005 15:36	10ppm	s051105a	1.0	BNA ICAL	DUSE
s8e1104.d	UBN050421-03	cak	11-MAY-2005 15:56	20ppm	s051105a	1.0	BNA ICAL	DUSE
s8e1105.d	UBN050421-04	cak	11-MAY-2005 16:17	40ppm	s051105a	1.0	BNA ICAL	DUSE
s8e1106.d	UBN050421-05	cak	11-MAY-2005 16:37	50ppm	s051105a	1.0	BNA ICAL	DUSE
s8e1107.d	UBN050421-06	cak	11-MAY-2005 16:57	80ppm	s051105a	1.0	BNA ICAL	DUSE
s8e1108.d	UBN050421-07	cak	11-MAY-2005 17:17	100ppm	s051105a	1.0	BNA ICAL	DUSE
s8e1109.d	UBN050421-08	cak	11-MAY-2005 17:38	120ppm	s051105a	1.0	BNA ICAL	DUSE
s8e1110.d	UBN050505-04.2	cak	11-MAY-2005 17:58	40ppm	s051105a	1.0	bna nsi CVS	DUSE
s8e1111.d	UBN050216-15	cak	11-MAY-2005 18:18	1ppm	s051105a	1.0	ANBZICAL	
s8e1112.d	UBN050216-16	cak	11-MAY-2005 18:38	10ppm	s051105a	1.0	ANBZICAL	
s8e1113.d	UBN050216-17	cak	11-MAY-2005 18:59	20ppm	s051105a	1.0	ANBZICAL	
s8e1114.d	UBN050216-18.1	cak	11-MAY-2005 19:19	40ppm	s051105a	1.0	ANBZICAL	
s8e1115.d	UBN050216-19	cak	11-MAY-2005 19:39	50ppm	s051105a	1.0	ANBZICAL	
s8e1116.d	UBN050216-20	cak	11-MAY-2005 20:00	80ppm	s051105a	1.0	ANBZICAL	
s8e1117.d	UBN050216-21	cak	11-MAY-2005 20:20	100ppm	s051105a	1.0	ANBZICAL	
s8e1118.d	UBN050216-22	cak	11-MAY-2005 20:40	120ppm	s051105a	1.0	ANBZICAL	
s8e1119.d	UBN050308-08	cak	11-MAY-2005 21:01	10ppm	s051105a	1.0	168 ICAL	
s8e1120.d	UBN050308-09	cak	11-MAY-2005 21:21	20ppm	s051105a	1.0	168 ICAL	
s8e1121.d	UBN050308-10	cak	11-MAY-2005 21:41	40ppm	s051105a	1.0	168 ICAL	

s8e1122.d	UBN050308-11	cak	11-MAY-2005 22:02	50ppm	s051105a		1.0	168 ICAL
s8e1123.d	UBN050308-12	cak	11-MAY-2005 22:22	80ppm	s051105a		1.0	168 ICAL
s8e1124.d	UBN050308-13	cak	11-MAY-2005 22:42	100ppm	s051105a		1.0	168 ICAL
s8e1125.d	UBN050308-14	cak	11-MAY-2005 23:03	120ppm	s051105a		1.0	168 ICAL

Instrument Batch: /chem/MSD8.i/s051105a.b

Page: 1

GEL ORGANIC RUN LOG INSTRUMENT ID: MSD8

DATE:05/16/05 METHOD: 8270,625 OPERATOR:cak REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No.8 on pg.109
Multiplier Voltage: 1482Emv Extr. Injection Volume: 0.5, 1.0 ul SOLVENT REF MAT 050428-A
DFTPP Solution ID: WBN050506-01 Internal Std ID: WBN050506-02
Sequence Number:S051605.B Initial Calibration Date(s):05/16/05 SOP: GL-OA-E-009 Rev. 14

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
s8e1601.d	WBN050506-01	cak	16-MAY-2005 13:52		s051605a	1.0	DFTPP	
s8e1602.d	UBN050506-26.3	cak	16-MAY-2005 14:07	40ppm	s051605a	1.0	BNA CVS	DUSE
s8e1603.d	UBN050506-06.3	cak	16-MAY-2005 14:27	40ppm	s051605a	1.0	ANBZ CVS	
s8e1604.d	INSTRUMENT BLANK	cak	16-MAY-2005 15:25		s051605a	1.0		
s8e1605.d	UBN050506-23	cak	16-MAY-2005 15:46	1ppm	s051605a	1.0	BNAICAL	
s8e1606.d	UBN050506-24	cak	16-MAY-2005 16:06	10ppm	s051605a	1.0	BNAICAL	
s8e1607.d	UBN050506-25	cak	16-MAY-2005 16:26	20ppm	s051605a	1.0	BNAICAL	
s8e1608.d	UBN050506-26.3	cak	16-MAY-2005 16:47	40ppm	s051605a	1.0	BNAICAL	
s8e1609.d	UBN050506-27	cak	16-MAY-2005 17:07	50ppm	s051605a	1.0	BNAICAL	
s8e1610.d	UBN050506-28	cak	16-MAY-2005 17:28	80ppm	s051605a	1.0	BNAICAL	
s8e1611.d	UBN050506-29	cak	16-MAY-2005 17:48	100ppm	s051605a	1.0	BNAICAL	
s8e1612.d	UBN050506-30	cak	16-MAY-2005 18:09	120ppm	s051605a	1.0	BNAICAL	
s8e1613.d	INSTRUMENT BLANK	cak	16-MAY-2005 18:29		s051605a	1.0		
s8e1614.d	UBN050421-04.1	cak	16-MAY-2005 18:50	40ppm	s051605a	1.0	BNA ICV NSI	
s8e1615.d	INSTRUMENT BLANK	cak	16-MAY-2005 19:10		s051605a	1.0		
s8e1616.d	UBN050413-09	cak	16-MAY-2005 19:31	500ppm	s051605a	1.0	HEXICAL	
s8e1617.d	UBN050413-10	cak	16-MAY-2005 19:51	1000ppm	s051605a	1.0	HEXICAL	
s8e1618.d	UBN050413-11	cak	16-MAY-2005 20:12	1250ppm	s051605a	1.0	HEXICAL	
s8e1619.d	UBN050413-12	cak	16-MAY-2005 20:33	2000ppm	s051605a	1.0	HEXICAL	
s8e1620.d	UBN050413-13	cak	16-MAY-2005 20:53	2500ppm	s051605a	1.0	HEXICAL	

Instrument Batch: /chem/MSD8.i/s051605a.b Page: 1

GEL ORGANIC RUN LOG INSTRUMENT ID: MSD8

DATE:05/19/05 METHOD: 8270,625 OPERATOR:cak

REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 8 on pg. 109
Multiplier Voltage: 1482 Emv Extr. Injection Volume: 0.5, 1.0 ul SOLVENT REF MAT 050428-A
DFTPP Solution ID: WBN050506-01 Internal Std ID: WBN050506-02
Sequence Number:S051905.B Initial Calibration Date(s):05/16/05 SOP: GL-OA-E-009 Rev. 14

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
s8e1901.d	WBN050506-01	cak	19-MAY-2005 14:46		s051905	1.0	DFTPP	
s8e1902.d	UBN050421-04.3	cak	19-MAY-2005 15:01	40ppm	s051905	1.0	BNA CVS	
s8e1903.d	UBN050506-06.3	cak	19-MAY-2005 15:22	40ppm	s051905	1.0	ANBZ CVS	
s8e1904-1.d	1200842643	cak	19-MAY-2005 15:52	423903	3194S	1.0	MB	
s8e1904-2.d	1200842643	cak	19-MAY-2005 15:52	423903	3202S	1.0	MB	
s8e1904.d	1200842643	cak	19-MAY-2005 15:52	423903		1.0	MB	
s8e1905-1.d	1200842644	cak	19-MAY-2005 16:13	423903	3194S	1.0	LCS	
s8e1905-2.d	1200842644	cak	19-MAY-2005 16:13	423903	3202S	1.0	LCS	
s8e1905.d	1200842644	cak	19-MAY-2005 16:13	423903		1.0	LCS	
s8e1906.d	135805001	cak	19-MAY-2005 16:34	423903	3194S	4.0	LANL	
s8e1907.d	135805002	cak	19-MAY-2005 16:55	423903	3194S	4.0	LANL	
s8e1908.d	135805003	cak	19-MAY-2005 17:15	423903	3194S	4.0	LANL	
s8e1909.d	135805004	cak	19-MAY-2005 17:36	423903	3194S	4.0	LANL	
s8e1910.d	1200842645	cak	19-MAY-2005 17:56	423903	3202S	10.0	MS-1001	
s8e1911.d	1200842646	cak	19-MAY-2005 18:16	423903	3202S	10.0	MSD-1001	
s8e1912.d	135831001	cak	19-MAY-2005 18:37	423903	3202S	10.0	LANL	
s8e1913.d	135831002	cak	19-MAY-2005 20:04	423903	3202S	10.0	LANL	FAILS ISTD. Confirmed by s4e1734
s8e1914.d	135831003	cak	19-MAY-2005 20:24	423903	3202S	10.0	LANL	
s8e1915.d	135831004	cak	19-MAY-2005 20:44	423903	3202S	10.0	LANL	FAILS ISTD. Confirmed by s4e1736.
s8e1916-1.d	1200847768	cak	19-MAY-2005 21:05	426005	136013	1.0	MB	
s8e1916-2.d	1200847768	cak	19-MAY-2005 21:05	426005	136017	1.0	MB	

s8e1916-3.d	1200847768	cak	19-MAY-2005 21:05	426005	136335		1.0	MB	
s8e1916-4.d	1200847768	cak	19-MAY-2005 21:05	426005	136336		1.0	MB	
s8e1916-5.d	1200847768	cak	19-MAY-2005 21:05	426005	136576		1.0	MB	
s8e1916-6.d	1200847768	cak	19-MAY-2005 21:05	426005	136577		1.0	MB	
s8e1916.d	1200847768	cak	19-MAY-2005 21:05	426005	s051905		1.0	MB	
s8e1917-1.d	1200847769	cak	19-MAY-2005 21:25	426005	136013		1.0	LCS	
s8e1917-2.d	1200847769	cak	19-MAY-2005 21:25	426005	136017		1.0	LCS	
s8e1917-3.d	1200847769	cak	19-MAY-2005 21:25	426005	136335		1.0	LCS	
s8e1917-4.d	1200847769	cak	19-MAY-2005 21:25	426005	136336		1.0	LCS	
s8e1917-5.d	1200847769	cak	19-MAY-2005 21:25	426005	136576		1.0	LCS	
s8e1917-6.d	1200847769	cak	19-MAY-2005 21:25	426005	136577		1.0	LCS	
s8e1917.d	1200847769	cak	19-MAY-2005 21:25	426005	s051905		1.0	LCS	
s8e1918-1.d	1200848287	cak	19-MAY-2005 21:46	426005	136013		1.0	LCSD	
s8e1918-2.d	1200848287	cak	19-MAY-2005 21:46	426005	136017		1.0	LCSD	
s8e1918-3.d	1200848287	cak	19-MAY-2005 21:46	426005	136335		1.0	LCSD	
s8e1918-4.d	1200848287	cak	19-MAY-2005 21:46	426005	136336		1.0	LCSD	
s8e1918-5.d	1200848287	cak	19-MAY-2005 21:46	426005	136576		1.0	LCSD	
s8e1918-6.d	1200848287	cak	19-MAY-2005 21:46	426005	136577		1.0	LCSD	
s8e1918.d	1200848287	cak	19-MAY-2005 21:46	426005	s051905		1.0	LCSD	

Instrument Batch: /chem/MSD8.i/s051905.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
s8e1919.d	136013001	cak	19-MAY-2005 22:06	426005	136013	10.0	COMM	FAILS ISTD RR SEE RX OF
s8e1920.d	136017001	cak	19-MAY-2005 22:27	426005	136017	1.0	COMM	DUSE RX OF S4E1529 CONFIRMS
s8e1921.d	136335003	cak	19-MAY-2005 22:47	426005	136335	1.0	GEEL	DUSE RX OF S4E1534 CONFIRMS
s8e1922.d	136335004	cak	19-MAY-2005 23:07	426005	136335	1.0	GEEL	RX OF S4E1534 DNC USE THIS DATA
s8e1923.d	136336001	cak	19-MAY-2005 23:28	426005	136336	1.0	CH2M	FAILS SURR NO SAMPLE LEFT TO RX REPORT AS IS
s8e1924.d	136336002	cak	19-MAY-2005 23:48	426005	136336	1.0	CH2M	FAILS SURR NO SAMPLE LEFT TO RX REPORT AS IS

s8e1925.d	136336003	cak	20-MAY-2005 00:08	426005	136336		1.0	CH2M	FAILS SURR NO SAMPLE LEFT TO RX REPORT AS IS
s8e1926.d	136336004	cak	20-MAY-2005 00:29	426005	136336		1.0	CH2M	FAILS SURR NO SAMPLE LEFT TO RX REPORT AS IS
s8e1927.d	136336005	cak	20-MAY-2005 00:49	426005	136336		1.0	CH2M	FAILS SURR NO SAMPLE LEFT TO RX REPORT AS IS
s8e1928.d	136336006	cak	20-MAY-2005 01:09	426005	136336		1.0	CH2M	FAILS ISTD RR SEE
s8e1929.d	136576001	cak	20-MAY-2005 01:30	426005	136576		1.0	COMM	FAILS ISTD RR SEE
s8e1930.d	136577001	cak	20-MAY-2005 01:50	426005	136577		1.0	COMM	FAILS ISTD RR SEE

Instrument Batch: /chem/MSD8.i/s051905.b

Prep Logbook

Extraction of Semivolatile and Nonvolatile Organic Compounds from Soil, Sludge and Other Miscellaneous Samples

Batch ID: 423902 **Verified by:** _____

Analyst: Joan Patrick

Method: SW846 3550B

Lab SOP: GL-OA-E-010 REV# 12

Instrument: Semi-Volatiles Manual

Sample ID	Run Date	Aliquot (g)	Prepped Aliquot (mL)	Prepped Factor (mL/g)
1200842643 MB	10-MAY-2005 13:34:28	30	1	0.03333
1200842644 LCS	10-MAY-2005 13:34:28	30	1	0.03333
135805001	10-MAY-2005 13:34:28	30	1	0.03333
135805002	10-MAY-2005 13:34:28	30	1	0.03333
135805003	10-MAY-2005 13:34:28	30	1	0.03333
135805004	10-MAY-2005 13:34:28	30	1	0.03333
135831001	10-MAY-2005 13:34:28	30	1	0.03333
1200842645 MS (135831001)	10-MAY-2005 13:34:28	30	1	0.03333
1200842646 MSD (135831001)	10-MAY-2005 13:34:28	30	1	0.03333
135831002	10-MAY-2005 13:34:28	30	1	0.03333
135831003	10-MAY-2005 13:34:28	30	1	0.03333
135831004	10-MAY-2005 13:34:28	30	1	0.03333

Type	Sample Id	Description	Serial Number	Spike Amt	Units
LCS	1200842644	BNA LCS for all spikes	UE050429-03	1	mL
MS	1200842645	BNA LCS for all spikes	UE050429-03	1	mL
MSD	1200842646	BNA LCS for all spikes	UE050429-03	1	mL
SURR	All	BNA for all SurrogateS	UE050503-01	1	mL
REGNT	All	Acetone	050322-A	100	mL
REGNT	All	Methylene Chloride	050505-A	180	mL
SOURC	All	SODIUM SULFATE	243217	30	g

Comments:

Final Solvent: CH2CL2

Verified By: NAG

GC SEMIVOLATILE DRO ANALYSIS

DRO Case Narrative
Los Alamos National Laboratory (LANL)
SDG 3194S

Method/Analysis Information

Procedure:	**Non-Volatile Total Petroleum Hydrocarbons by Flame Ionization Detector**
Analytical Method:	SW846 8015A/B SVOC
Prep Method:	SW846 3550B
Analytical Batch Number:	423035
Prep Batch Number:	423034

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 8015A/B SVOC:

Sample ID	Client ID
135805001	RE03-05-59531
135805002	RE03-05-59541
135805003	RE03-05-59532
135805004	RE03-05-59542
1200840424	Method Blank (MB)
1200840425	Laboratory Control Sample (LCS)
1200840426	135831001(RE03-05-58926) Matrix Spike (MS)
1200840427	135831001(RE03-05-58926) Matrix Spike Duplicate (MSD)

Preparation/Analytical Method Verification

Procedures for preparation, analysis, and reporting of analytical data are documented by General Engineering Laboratories, LLC. (GEL) as Standard Operating Procedures (SOP).

Calibration Information

Initial Calibration
All initial calibration requirements have been met for this sample delivery group (SDG).

Continuing Calibration Verification (CCV) Requirements
All calibration verification standards (CVS, ICV, or CCV) requirements have not been met for this SDG.

Some target analytes failed with a positive bias in the standards bracketing the samples in this SDG. The positive bias for the analytical data is a result of the instrument response increasing after the initial calibration. All samples

were re-analyzed and the standard failed in the same manner, confirming matrix interference.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB(s) analyzed with this SDG met the acceptance criteria.

Surrogate Recoveries
Samples 1200840426 (RE03-05-58926MS), 1200840427 (RE03-05-58926MSD), 135805001 (RE03-05-59531), 135805002 (RE03-05-59541) and 135805004 (RE03-05-59542) did not meet surrogate recovery acceptance criteria due to matrix interferences associated with high level hits of Diesel Range Organics, and/or the presence of hydrocarbons heavier than diesel.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

QC Sample Designation
An LANL sample from another SDG (# 135831) was selected for the matrix spike and matrix spike duplicate analysis.

Matrix Spike (MS) Recovery Statement
The MS recoveries for this SDG were not within the acceptance limits due matrix interference and dilution. The matrix spike duplicate confirms the failure.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recoveries for this SDG were not within the acceptance limits due matrix interference and dilution. The MS confirms the failure.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD(s) between the MS and MSD met the acceptance limits.

Technical Information

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

Sample Dilutions
Samples 135805001 (RE03-05-59531)(1:10), 135805002 (RE03-05-59541)(1:10) and 135805004 (RE03-05-59542) (1:10) required dilution due to the matrix of the samples.

Sample Re-extraction/Re-analysis
Re-extractions or re-analyses were not required in this SDG.

Miscellaneous Information

Nonconformance (NCR) Documentation
A NCR was not required for this SDG.

Manual Integrations
Certain standards and QC samples may have required manual integrations to correctly position the baseline as set in

the calibration standard injections. If manual integrations were performed, copies of all manual integration peak profiles are included in the raw data section of this fraction.

Additional Comments
The additional comments field is used to address special issues associated with each analysis, clarify method/contractual issues pertaining to the analysis, and to list any report documents generated as a result of sample analysis or review. The following additional comments were required:

Samples 1200840426 (RE03-05-58926), 1200840427 (RE03-05-58926), 135805001 (RE03-05-59531), 135805002 (RE03-05-59541), 135805003 (RE03-05-59532) and 135805004 (RE03-05-59542) contained hydrocarbons heavier than diesel.

Due to software limitation, the Form VIIs will display the results either in the % difference or % drift depending on the type of the calibration curve. If the curve of all analytes is generated using an average response factor (RF), the Form VII will display results using the %difference calculation (RF). If the curve of one or more analytes is generated using a linear curve, the Form VII will display results using the % drift calculation (by concentration) for all analytes.

System Configuration

The GC-FID analysis was performed on a HP Gas Chromatograph.

Instrument ID	System Configuration	Column ID	Column Description
FIDA.I	HP5890 Series II FID	J&W DB-Wax	30m x 0.53mm, 0.5um
FIDA.I	HP5890 Series II FID	ZB-5	30m x 0.25mm, 0.25um (Phenomenex)
FIDA.I	HP5890 Series II FID	J&W BD-624	75m x 0.53mm, 1.4um

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Jimi Cao **Date:** 6/22/05

SAMPLE DATA SUMMARY

1B
DRO ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-59532

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

Matrix: (soil/water) SOIL Lab Sample ID: 135805003

Sample wt/vol: 30.0 (g/mL) G Lab File ID: 021F2101

Level: (low/med) LOW Date Received: 05/04/05

% Moisture: 14 decanted: (Y/N) N Date Extracted:05/11/05

Concentrated Extract Volume: 1.00(mL) Date Analyzed: 05/16/05

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) MG/KG	Q
	----------Diesel Range Organics	88.0	

FORM I SV-1 OLM03.0

1B
DRO ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-59531

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

Matrix: (soil/water) SOIL Lab Sample ID: 135805001

Sample wt/vol: 30.0 (g/mL) G Lab File ID: 019F1901

Level: (low/med) LOW Date Received: 05/04/05

% Moisture: 16 decanted: (Y/N) N Date Extracted:05/11/05

Concentrated Extract Volume: 1.00(mL) Date Analyzed: 05/16/05

Injection Volume: 1.0(uL) Dilution Factor: 10.0

GPC Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) MG/KG	Q
	----------Diesel Range Organics_____	398	

FORM I SV-1 OLM03.0

1B
DRO ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-59541

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

Matrix: (soil/water) SOIL Lab Sample ID: 135805002

Sample wt/vol: 30.0 (g/mL) G Lab File ID: 020F2001

Level: (low/med) LOW Date Received: 05/04/05

% Moisture: 13 decanted: (Y/N) N Date Extracted:05/11/05

Concentrated Extract Volume: 1.00(mL) Date Analyzed: 05/16/05

Injection Volume: 1.0(uL) Dilution Factor: 10.0

GPC Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) MG/KG	Q
	----------Diesel Range Organics	99.9	

FORM I SV-1 OLM03.0

1B
DRO ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-59542

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

Matrix: (soil/water) SOIL Lab Sample ID: 135805004

Sample wt/vol: 30.0 (g/mL) G Lab File ID: 022F2201

Level: (low/med) LOW Date Received: 05/04/05

% Moisture: 14 decanted: (Y/N) N Date Extracted: 05/11/05

Concentrated Extract Volume: 1.00(mL) Date Analyzed: 05/16/05

Injection Volume: 1.0(uL) Dilution Factor: 10.0

GPC Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) MG/KG	Q
	----------Diesel Range Organics	230	

FORM I SV-1 OLM03.0

QUALITY CONTROL SUMMARY

2D
SOIL DRO SURROGATE RECOVERY

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

Level:(low/med) LOW

	EPA SAMPLE NO.	S1 #	S2 #	S3 #	S4 #	S5 #	S6 #	TOT OUT
01	DBLK01	67						0
02	DBLK01LCS	106						0
03	RE03-05-59531	253D						0
04	RE03-05-59541	169D						0
05	RE03-05-59532	95						0
06	RE03-05-59542	205D						0
07								
08								
09								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								

		QC LIMITS
S1	= o-Terphenyl	(38-143)

Column to be used to flag recovery values
* Values outside of contract required QC limits
D Surrogate diluted out

FORM 3
SOIL SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Matrix Spike - Los Alamos Sample No.: RE03

COMPOUND	SPIKE ADDED (mg/Kg)	SAMPLE CONCENTRATION (mg/Kg)	MS CONCENTRATION (mg/Kg)	MS % REC #	QC. LIMITS REC.
Diesel Range Organics	35.4	1840	1500	N/A	22-158

COMPOUND	SPIKE ADDED (mg/Kg)	MSD CONCENTRATION (mg/Kg)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Diesel Range Organics	35.4	1610	N/A	N/A	37	22-158

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 1 outside limits
Spike Recovery: 0 out of 2 outside limits
N/A: Not applicable due to parent sample concentration

COMMENTS: _____

FORM III SV

3D
SOIL DRO LAB CONTROL SAMPLE

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

Matrix Spike - EPA Sample No.: DBLK01 Level:(low/med) LOW

COMPOUND	SPIKE ADDED (mg/Kg)	SAMPLE CONCENTRATION (mg/Kg)	LCS CONCENTRATION (mg/Kg)	LCS % REC #	QC. LIMITS REC.
Diesel Range Organics	33.3	0.0	29.7	89	60-112

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

RPD: 0 out of 0 outside limits
Spike Recovery: 0 out of 1 outside limits

COMMENTS:

FORM III SV-2 OLM03.0

4B

DRO METHOD BLANK SUMMARY

EPA SAMPLE NO.

DBLK01

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

Lab File ID: 007F0701MB1 Lab Sample ID: 1200840424

Instrument ID: FIDA Date Extracted: 05/11/05

Matrix: (soil/water) SOIL Date Analyzed: 05/12/05

Level:(low/med) LOW Time Analyzed: 1303

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	DBLK01LCS	1200840425	008F0801LCS1	05/12/05
02	RE03-05-59531	135805001	019F1901	05/16/05
03	RE03-05-59541	135805002	020F2001	05/16/05
04	RE03-05-59532	135805003	021F2101	05/16/05
05	RE03-05-59542	135805004	022F2201	05/16/05
06				
07				
08				
09				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				
27				
28				
29				
30				

SAMPLE DATA

1B
DRO ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-59532

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

Matrix: (soil/water) SOIL Lab Sample ID: 135805003

Sample wt/vol: 30.0 (g/mL) G Lab File ID: 021F2101

Level: (low/med) LOW Date Received: 05/04/05

% Moisture: 14 decanted: (Y/N) N Date Extracted: 05/11/05

Concentrated Extract Volume: 1.00(mL) Date Analyzed: 05/16/05

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) MG/KG	Q
	----------Diesel Range Organics	88.0	

FORM I SV-1 OLM03.0

Data File: /chem/fida.i/051605/021f2101.d
Report Date: 17-May-2005 08:54

General Engineering Laboratories, LLC

ZB-5 0.25mm

Data file : /chem/fida.i/051605/021f2101.d
Lab Smp Id: 135805003 Client Smp ID: RE03-05-59432
Inj Date : 16-MAY-2005 20:13
Operator : JMB3 Inst ID: fida.i
Smp Info : |135805003|1|
Misc Info : |FIDDRO_SF|423035|FIDF|LANL|
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fida.i/051605/FIDa.i_f_DRO_042105.m
Meth Date : 17-May-2005 08:53 jos00786 Quant Type: ESTD
Cal Date : 21-APR-2005 17:02 Cal File: 007f0701.d
Als bottle: 21
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 3194S.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weigth of sample extracted (g)
M	13.99250	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (mg/L)	FINAL (mg/Kg)	
S 1 Diesel Range Organics					CAS #:	
7.623- 17.980			15168003	2270.94	88.0	
$ 2 o-Terphenyl					CAS #: 84-15-1	
13.763	13.773	-0.010	176080	19.1117	0.74	(M)

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/fida.i/051605/021f2101.d
Injection Date: 16-MAY-2005 20:13
Instrument: fida.i
Client Sample ID: RE03-05-59432

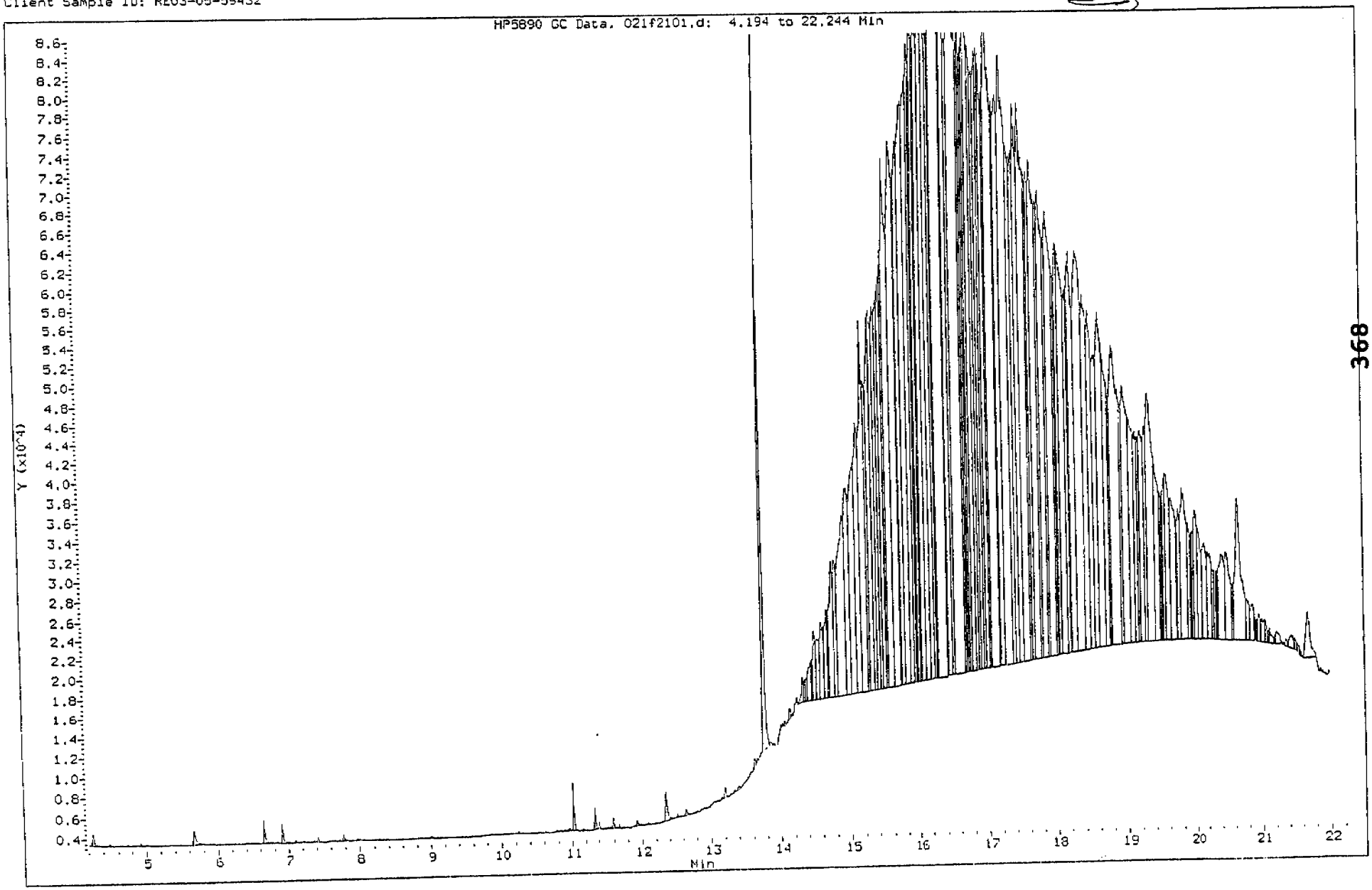

368

Data File: /chem/fida.1/051605/021f2101.d
Injection Date: 16-MAY-2005 20:13
Instrument: fida.1
Client Sample ID: RE03-05-59432

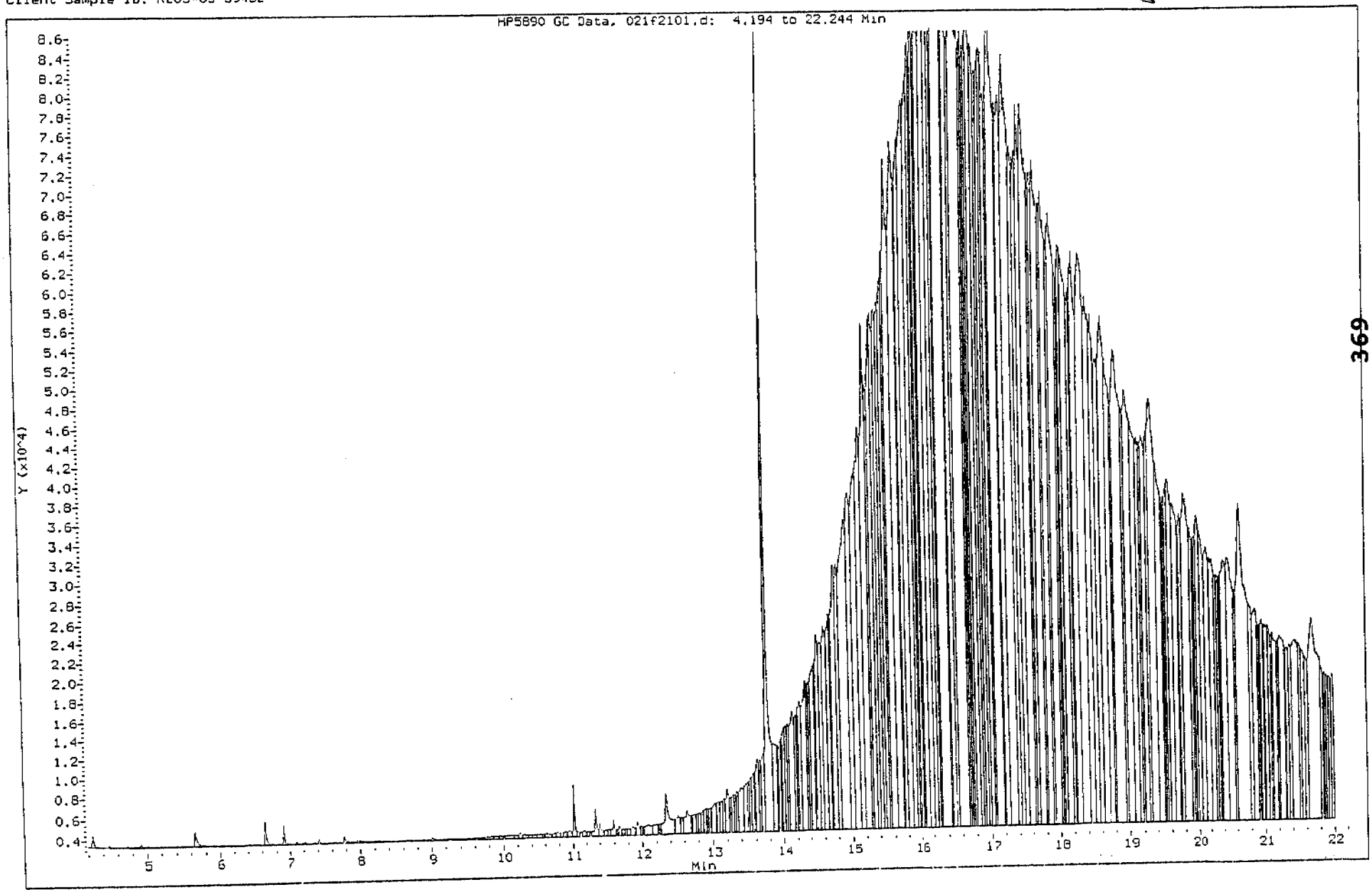

Data File: /chem/fida.i/051605/021f2101.d
Date : 16-MAY-2005 20:13
Client ID: RE03-05-59432
Sample Info: |135805003|1|
Volume Injected (uL): 1.0
Column phase: ZB-5

Instrument: fida.i

Operator: JMB3
Column diameter: 0.25

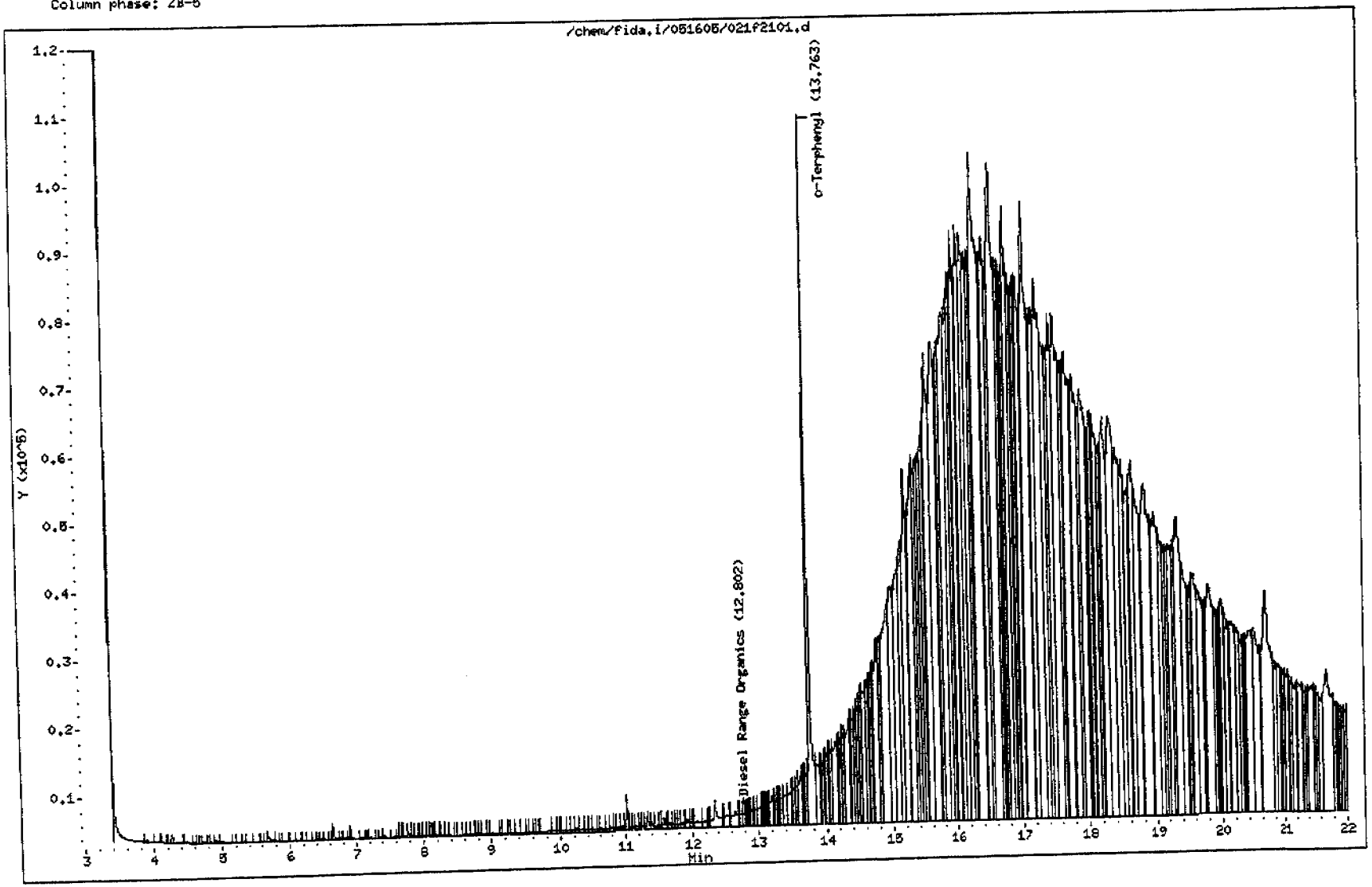

1B
DRO ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-59531

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

Matrix: (soil/water) SOIL Lab Sample ID: 135805001

Sample wt/vol: 30.0 (g/mL) G Lab File ID: 019F1901

Level: (low/med) LOW Date Received: 05/04/05

% Moisture: 16 decanted: (Y/N) N Date Extracted: 05/11/05

Concentrated Extract Volume: 1.00(mL) Date Analyzed: 05/16/05

Injection Volume: 1.0(uL) Dilution Factor: 10.0

GPC Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) MG/KG	Q
	Diesel Range Organics	398	

FORM I SV-1 OLM03.0

Data File: /chem/fida.i/051605/019f1901.d
Report Date: 17-May-2005 08:53

General Engineering Laboratories, LLC

ZB-5 0.25mm

Data file : /chem/fida.i/051605/019f1901.d
Lab Smp Id: 135805001 Client Smp ID: RE03-05-59531
Inj Date : 16-MAY-2005 19:16
Operator : JMB3 Inst ID: fida.i
Smp Info : |135805001|10|
Misc Info : |FIDDRO_SF|423035|FIDF|LANL|
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fida.i/051605/FIDa.i_f_DRO_042105.m
Meth Date : 17-May-2005 08:53 jos00786 Quant Type: ESTD
Cal Date : 21-APR-2005 17:02 Cal File: 007f0701.d
Als bottle: 19
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: 3194S.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	10.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weigth of sample extracted (g)
M	15.93160	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (mg/L)	FINAL (mg/Kg)	
S 1 Diesel Range Organics					CAS #:	
7.623	17.980		6699709	1003.07	398	
$ 2 o-Terphenyl					CAS #: 84-15-1	
13.763	13.773	-0.010	45440	4.93205	2.0	(RM)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Data File: /chem/fida.i/051605/019f1901.d
Injection Date: 16-MAY-2005 19:16
Instrument: fida.i
Client Sample ID: RE03-05-59531

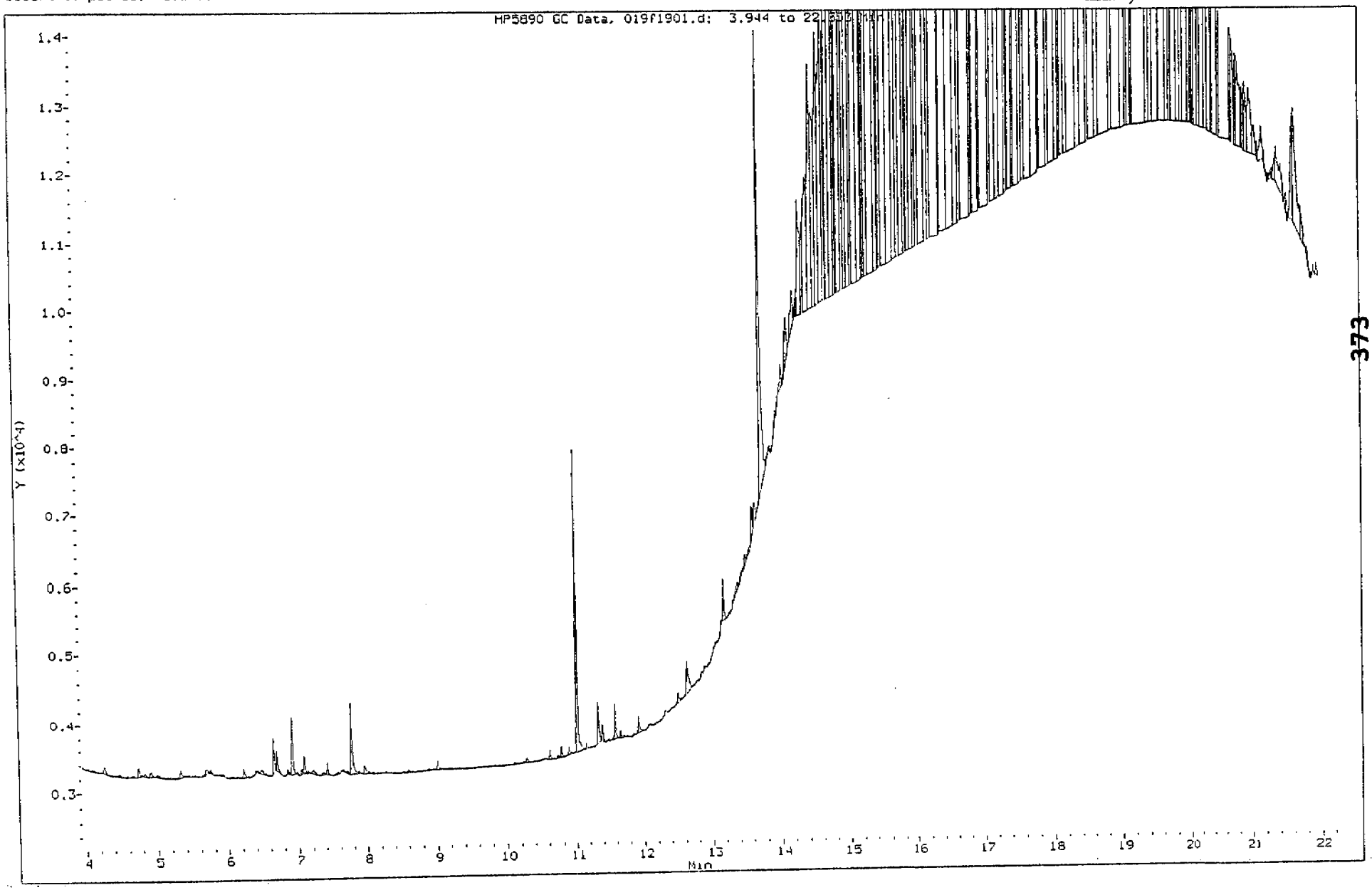

373

Data File: /chem/fida.i/051605/019f1901.d
Injection Date: 16-MAY-2005 19:16
Instrument: fida.i
Client Sample ID: RE03-05-59531

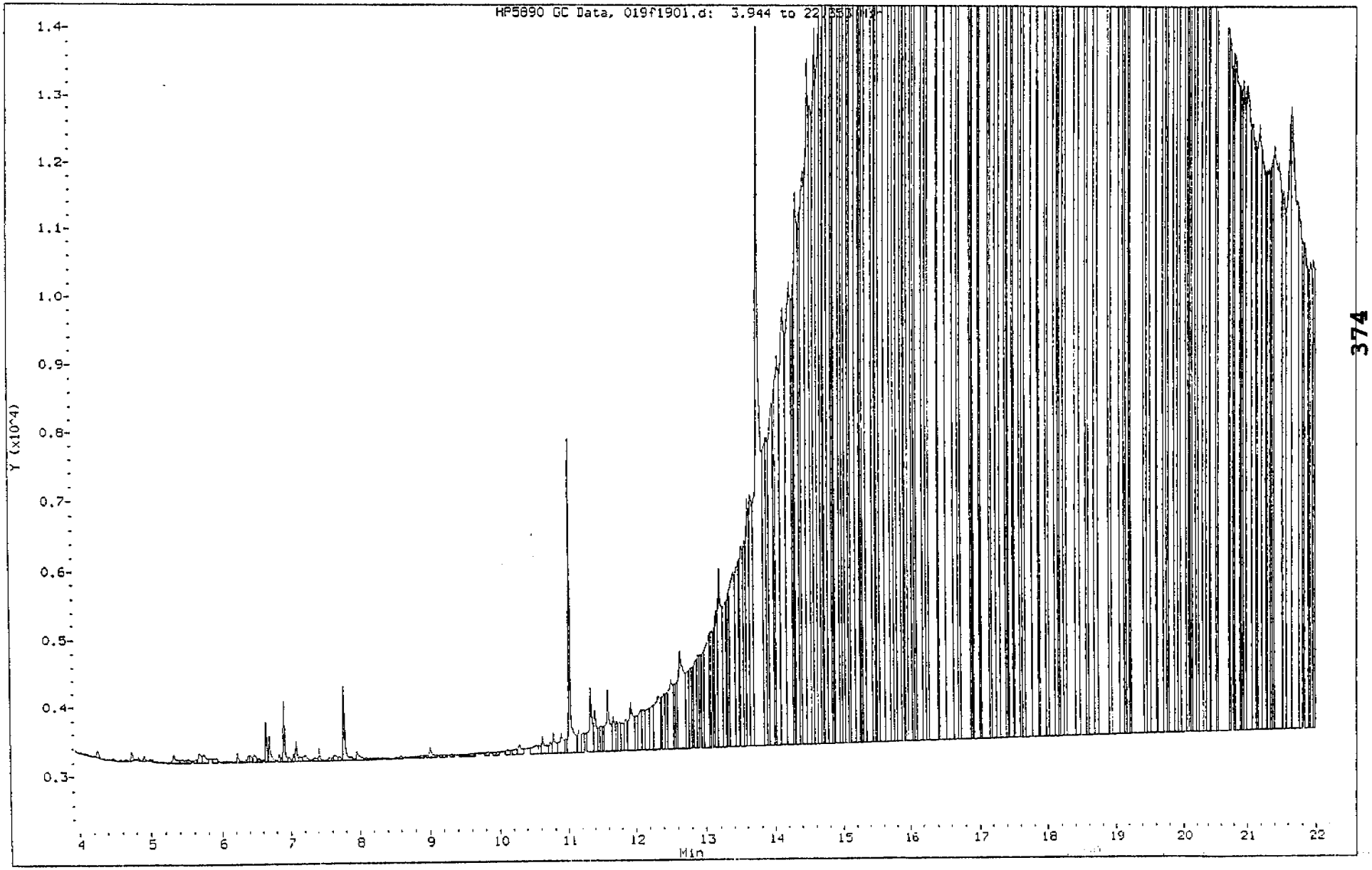

Data File: /chem/fida.i/051605/019f1901.d
Date : 16-MAY-2005 19:16
Client ID: RE03-05-59531
Sample Info: |135805001|10|
Volume Injected (uL): 1.0
Column phase: ZB-5

Instrument: fida.i

Operator: JHB3
Column diameter: 0.25

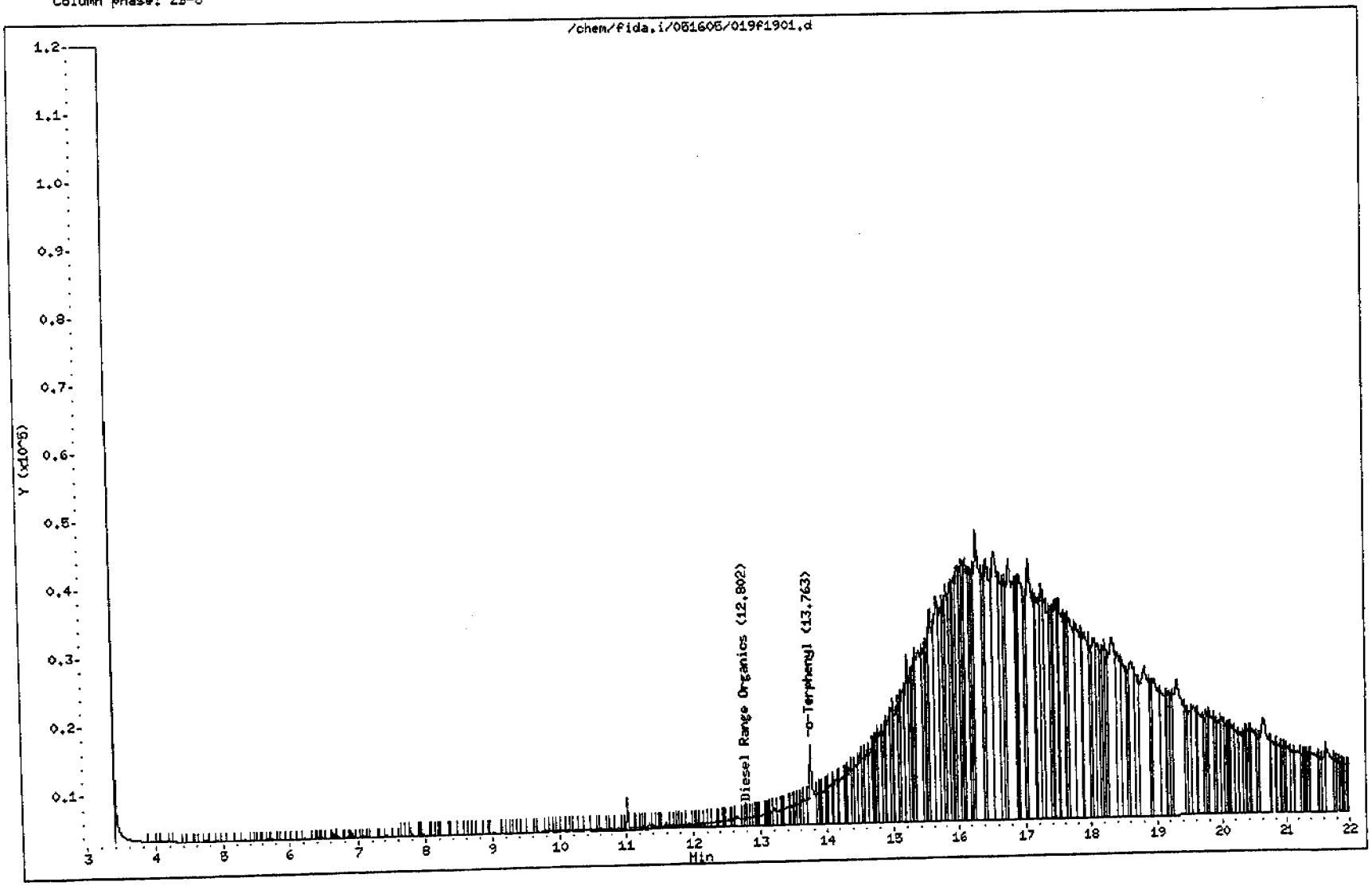

1B
DRO ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-59541

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

Matrix: (soil/water) SOIL Lab Sample ID: 135805002

Sample wt/vol: 30.0 (g/mL) G Lab File ID: 020F2001

Level: (low/med) LOW Date Received: 05/04/05

% Moisture: 13 decanted: (Y/N) N Date Extracted:05/11/05

Concentrated Extract Volume: 1.00(mL) Date Analyzed: 05/16/05

Injection Volume: 1.0(uL) Dilution Factor: 10.0

GPC Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) MG/KG	Q
	Diesel Range Organics	99.9	

FORM I SV-1 OLM03.0

General Engineering Laboratories, LLC

ZB-5 0.25mm

Data file : /chem/fida.i/051605/020f2001.d
Lab Smp Id: 135805002 Client Smp ID: RE03-05-59541
Inj Date : 16-MAY-2005 19:44
Operator : JMB3 Inst ID: fida.i
Smp Info : |135805002|10|
Misc Info : |FIDDRO_SF|423035|FIDF|LANL|
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fida.i/051605/FIDa.i_f_DRO_042105.m
Meth Date : 17-May-2005 08:53 jos00786 Quant Type: ESTD
Cal Date : 21-APR-2005 17:02 Cal File: 007f0701.d
Als bottle: 20
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: 3194S.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	10.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weigth of sample extracted (g)
M	13.31460	% Moisture

Cpnd Variable Local Compound Variable

	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (mg/L)	FINAL (mg/Kg)	
S	1 Diesel Range Organics					CAS #:	
	7.623- 17.980			1735392	259.821	99.9	
$	2 o-Terphenyl					CAS #: 84-15-1	
	13.767	13.773	-0.006	30281	3.28670	1.3	(RM)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Data File: /chem/fida.i/051605/020f2001.d
Injection Date: 16-MAY-2005 19:44
Instrument: fida.i
Client Sample ID: RE03-05-59541

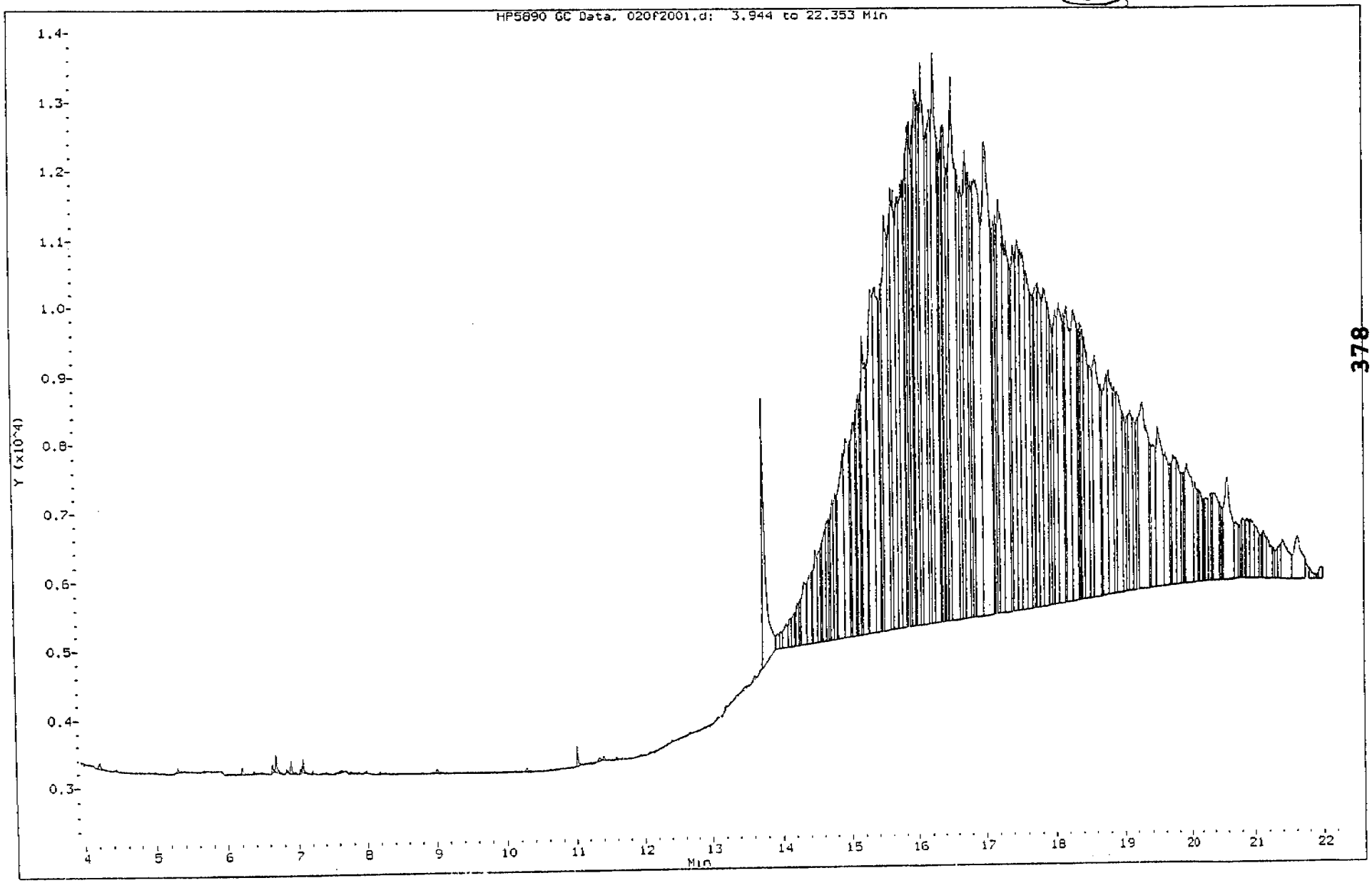

378

Data File: /chem/fida.i/051605/020f2001.d
Injection Date: 16-MAY-2005 19:44
Instrument: fida.i
Client Sample ID: RE03-05-59541

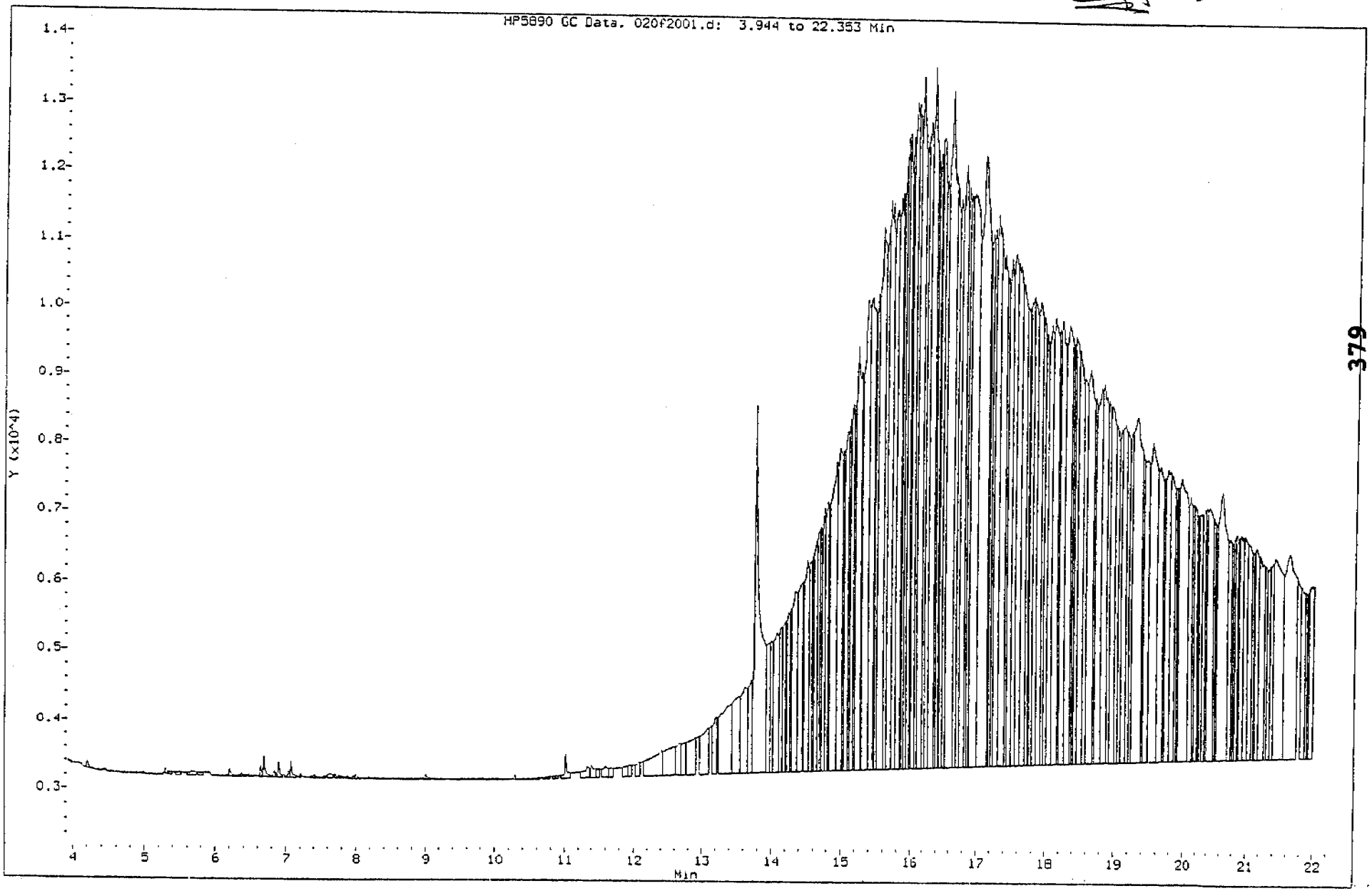

Data File: /chem/fida.i/051605/020f2001.d
Date : 16-MAY-2005 19:44
Client ID: RE03-05-59541
Sample Info: 1135805002|101
Volume Injected (uL): 1.0
Column phase: ZB-5

Instrument: fida.i

Operator: JMB3
Column diameter: 0.25

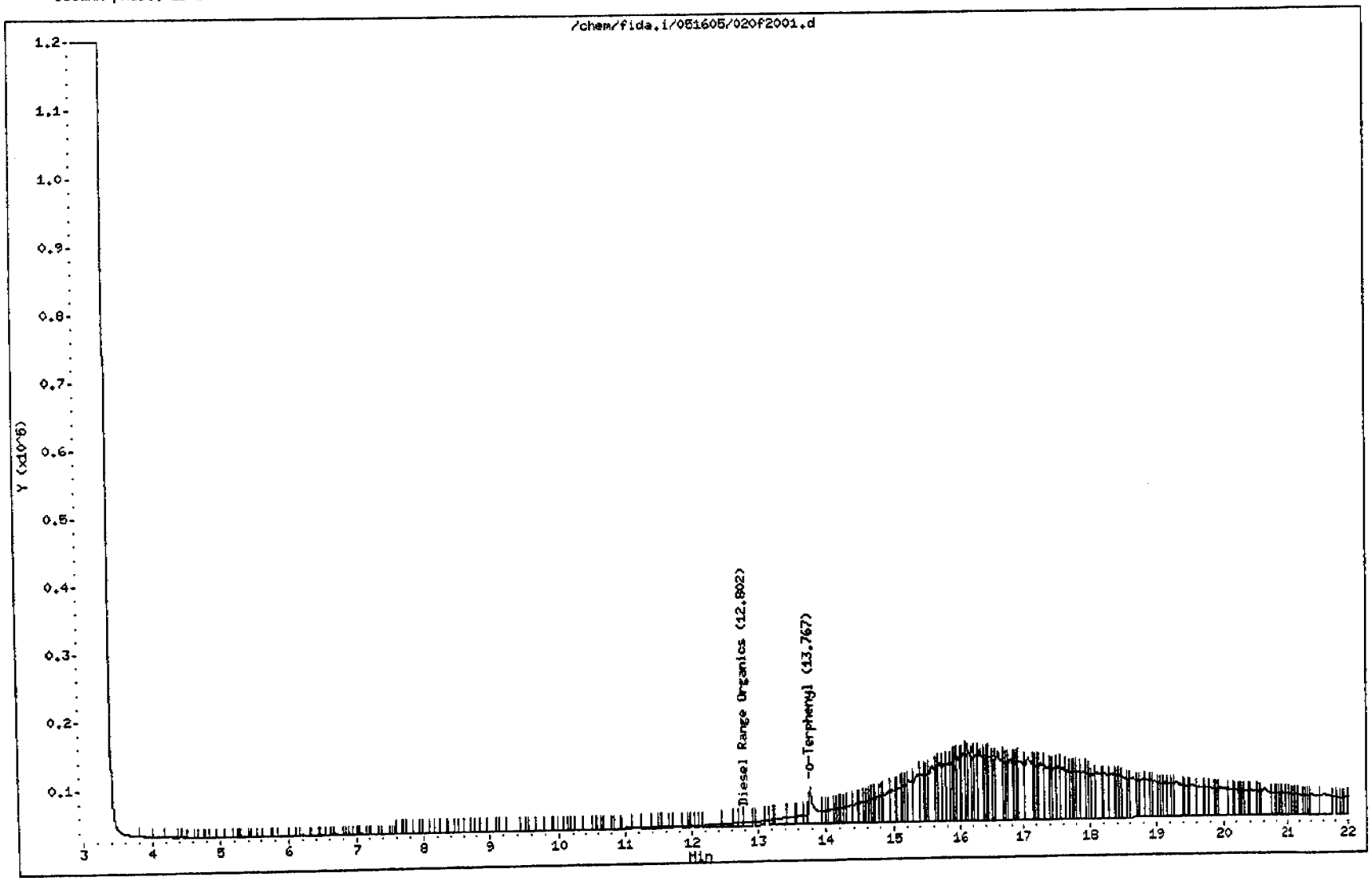

1B
DRO ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-59542

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

Matrix: (soil/water) SOIL Lab Sample ID: 135805004

Sample wt/vol: 30.0 (g/mL) G Lab File ID: 022F2201

Level: (low/med) LOW Date Received: 05/04/05

% Moisture: 14 decanted: (Y/N) N Date Extracted: 05/11/05

Concentrated Extract Volume: 1.00(mL) Date Analyzed: 05/16/05

Injection Volume: 1.0(uL) Dilution Factor: 10.0

GPC Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) MG/KG	Q
	Diesel Range Organics	230	

FORM I SV-1 OLM03.0

General Engineering Laboratories, LLC

ZB-5 0.25mm

Data file : /chem/fida.i/051605/022f2201.d
Lab Smp Id: 135805004 Client Smp ID: RE03-05-59542
Inj Date : 16-MAY-2005 20:42
Operator : JMB3 Inst ID: fida.i
Smp Info : |135805004|10|
Misc Info : |FIDDRO_SF|423035|FIDF|LANL|
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fida.i/051605/FIDa.i_f_DRO_042105.m
Meth Date : 17-May-2005 08:53 jos00786 Quant Type: ESTD
Cal Date : 21-APR-2005 17:02 Cal File: 007f0701.d
Als bottle: 22
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: 3194S.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	10.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weigth of sample extracted (g)
M	14.32480	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (mg/L)	FINAL (mg/Kg)	
$ 1 Diesel Range Organics					CAS #:	
7.623- 17.980			3948423	591.153	230	
$ 2 o-Terphenyl					CAS #: 84-15-1	
13.767	13.773	-0.006	37898	4.11345	1.6	(RM)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Data File: /chem/fida.i/051605/022f2201.d
Injection Date: 16-MAY-2005 20:42
Instrument: fida.i
Client Sample ID: RE03-05-59542

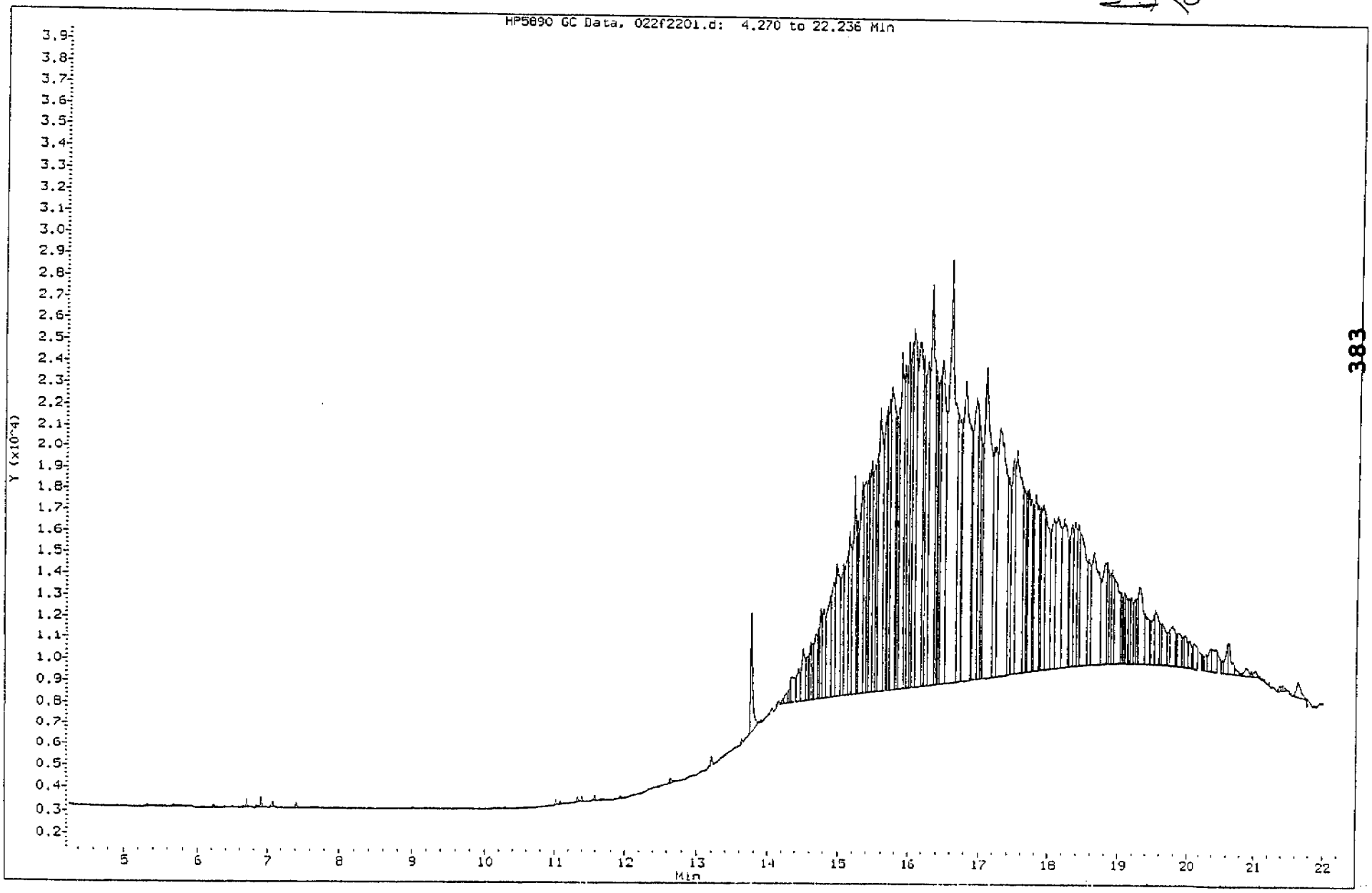

383

Data File: /chem/fida.i/051605/022f2201.d
Injection Date: 16-MAY-2005 20:42
Instrument: fida.i
Client Sample ID: RE03-05-59542

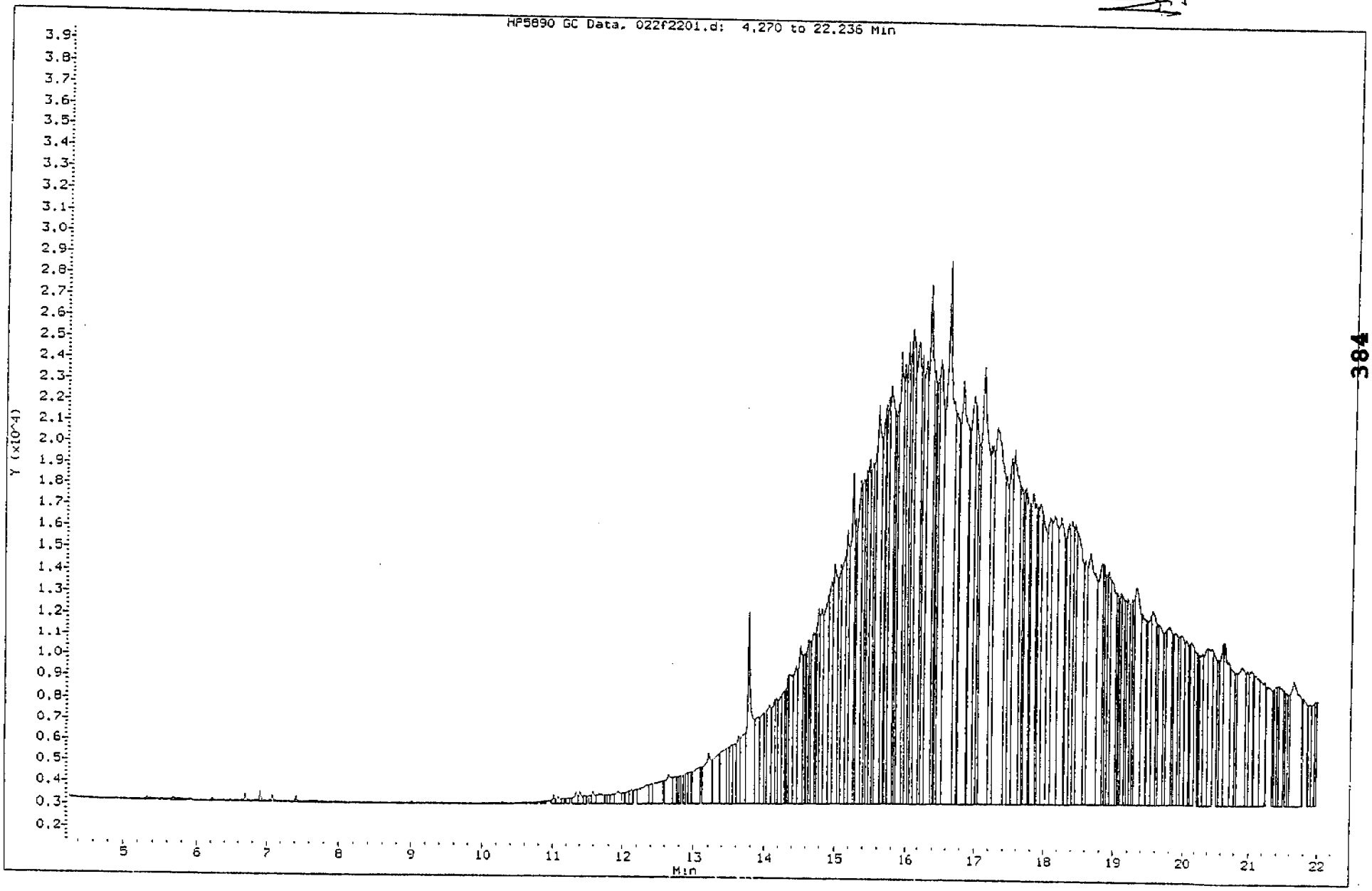

Data File: /chem/fida.i/051605/022f2201.d
Date : 16-MAY-2005 20:42
Client ID: RE03-05-39542
Sample Info: |1358050041101
Volume Injected (uL): 1.0
Column phase: ZB-5

Instrument: fida.i

Operator: JMB3
Column diameter: 0.25

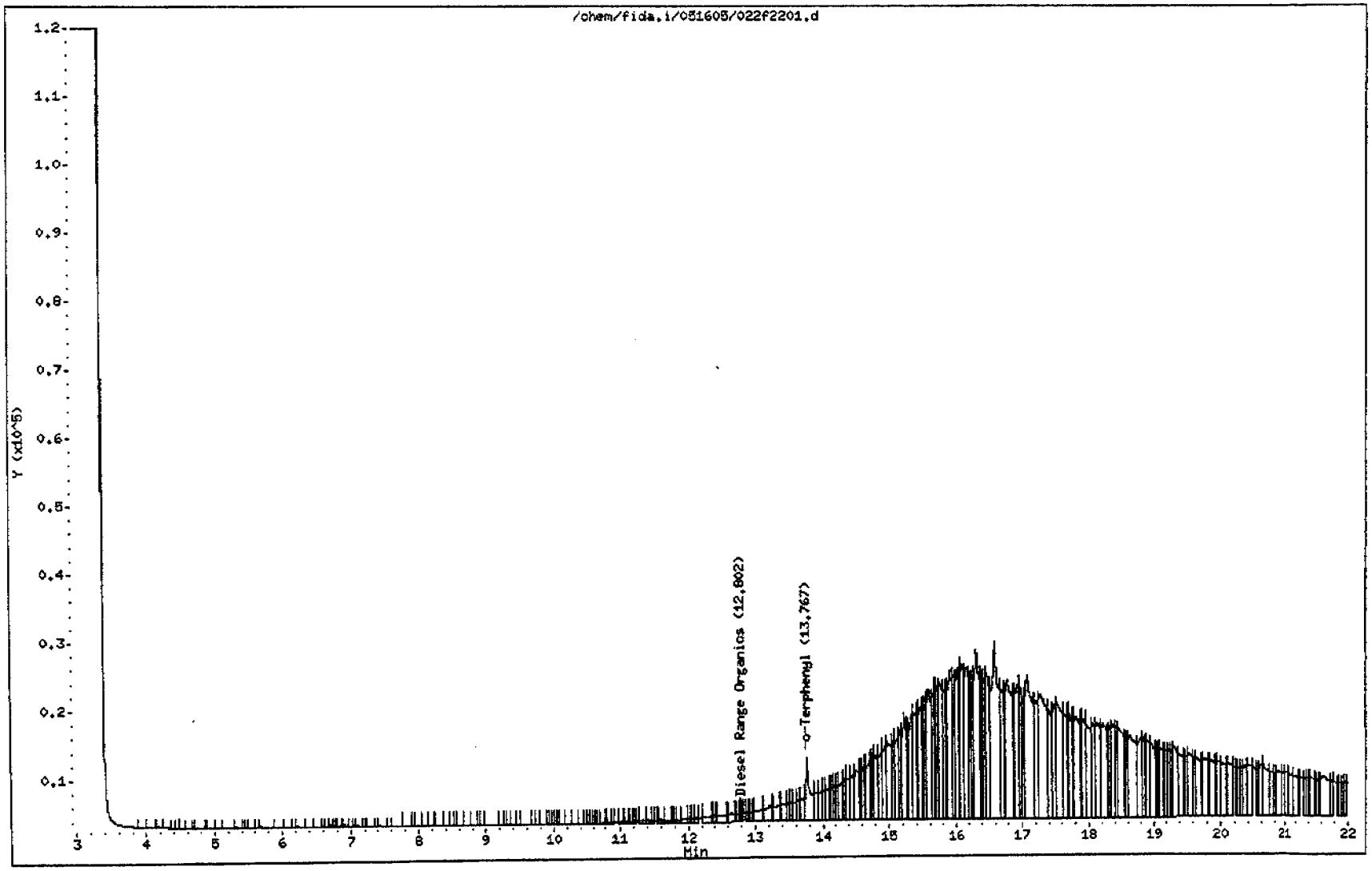

STANDARDS DATA

Report Date: 15-May-2005 11:33

Calibration History

Method : /chem/fida.i/051205/FIDa.i_f_DRO_042105.m
Start Cal Date: 21-APR-2005 15:08
End Cal Date : 21-APR-2005 17:02

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 50.00000		
21-APR-2005 15:08	DRO	/chem/fida.i/042105/003f0301.d
Cal Level: 3 , Cal Amount: 200.00000		
21-APR-2005 15:36	DRO	/chem/fida.i/042105/004f0401.d
Cal Level: 4 , Cal Amount: 500.00000		
21-APR-2005 16:05	DRO	/chem/fida.i/042105/005f0501.d
Cal Level: 5 , Cal Amount: 1000.00000		
21-APR-2005 16:34	DRO	/chem/fida.i/042105/006f0601.d
Cal Level: 7 , Cal Amount: 5000.00000		
21-APR-2005 17:02	DRO	/chem/fida.i/042105/007f0701.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 5

Ccal Level: 5 , Ccal Amount: 1000		
13-MAY-2005 02:02	DRO	/chem/fida.i/051205/034f3401.d
Ccal Level: 5 , Ccal Amount: 1000		
12-MAY-2005 21:46	DRO	/chem/fida.i/051205/025f2501.d
Ccal Level: 5 , Ccal Amount: 1000		
12-MAY-2005 16:52	DRO	/chem/fida.i/051205/015f1501.d
Ccal Level: 5 , Ccal Amount: 1000		
12-MAY-2005 11:09	DRO	/chem/fida.i/051205/003f0301.d
Ccal Level: 5 , Ccal Amount: 1000		
12-MAY-2005 22:43	3192S	/chem/fida.i/051205/027f2701.d

General Engineering Laboratories, LLC

COMPOUND LISTING

Method file : /chem/fida.i/051205/FIDa.i_f_DRO_042105.m
Quant Method : ESTD Target Version : 3.50
Last Update : 13-May-2005 09:24 Number of Cpnds : 4
Data Type : GC DATA

Global Integrator : Falcon

Chromat Events	Values
Initial:Start Threshold	1.000000
Initial:End Threshold	0.500000
Initial:Area Threshold	5.000000
Initial:P-P Resolution	1.000000
Initial:Bunch Factor	2.000000
Initial:Negative Peaks	OFF
Initial:Tension	3.000000
4.000:Force Cluster ON	n/a
20.000:Force Cluster OFF	n/a

	Compound	RT	RT Window	RF
S	1 Diesel Range Organics	12.803	7.623-17.983	6.679e+03
$	2 o-Terphenyl	13.777	13.747-13.807	9.213e+03
	3 Decane (C10)	7.653	7.623-7.683	
	4 Octacosane (C28)	17.953	17.923-17.983	

General Engineering Laboratories, LLC

INITIAL CALIBRATION DATA

Start Cal Date : 21-APR-2005 15:08
End Cal Date : 21-APR-2005 17:02
Quant Method : ESTD
Target Version : 3.50
Integrator : Falcon
Method file : /chem/fida.i/051205/FIDa.i_f_DRO_042105.m
Cal Date : 13-May-2005 09:24 jos00786

Calibration File Names:
Level 1: /chem/fida.i/042105/003f0301.d
Level 3: /chem/fida.i/042105/004f0401.d
Level 4: /chem/fida.i/042105/005f0501.d
Level 5: /chem/fida.i/042105/006f0601.d
Level 7: /chem/fida.i/042105/007f0701.d

Compound	50 Level 1	200 Level 3	500 Level 4	1000 Level 5	5000 Level 7	Curve	Coefficients b	m1	m2	%RSD or R^2	
S 1 Diesel Range Organics	6612	6367	6617	6842	6958	AVRG		6679		3.42876	
3 Decane (C10)	+++++	+++++	+++++	+++++	+++++	LINR	0.000e+00	0.000e+00		0.000e+00	<-
4 Octacosane (C28)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00	
# 2 o-Terphenyl	8144	8873	9082	9516	10451	AVRG		9213		9.24435	

Report Date : 15-May-2005 11:33

General Engineering Laboratories, LLC

INITIAL CALIBRATION DATA

Start Cal Date : 21-APR-2005 15:08
End Cal Date : 21-APR-2005 17:02
Quant Method : ESTD
Target Version : 3.50
Integrator : Falcon
Method file : /chem/fida.i/051205/FIDa.i_f_DRO_042105.m
Cal Date : 13-May-2005 09:24 jos00786

Curve	Formula	Units
Averaged	Amt = Rsp/ml	Response
Linear	Amt = b + Rsp/ml	Response

Report Date: 17-May-2005 08:50

Calibration History

Method : /chem/fida.i/051605/FIDa.i_f_DRO_042105.m
Start Cal Date: 21-APR-2005 15:08
End Cal Date : 21-APR-2005 17:02

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 50.00000		
21-APR-2005 15:08	DRO	/chem/fida.i/042105/003f0301.d
Cal Level: 3 , Cal Amount: 200.00000		
21-APR-2005 15:36	DRO	/chem/fida.i/042105/004f0401.d
Cal Level: 4 , Cal Amount: 500.00000		
21-APR-2005 16:05	DRO	/chem/fida.i/042105/005f0501.d
Cal Level: 5 , Cal Amount: 1000.00000		
21-APR-2005 16:34	DRO	/chem/fida.i/042105/006f0601.d
Cal Level: 7 , Cal Amount: 5000.00000		
21-APR-2005 17:02	DRO	/chem/fida.i/042105/007f0701.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 5

Ccal Level: 5 , Ccal Amount: 1000		
16-MAY-2005 23:05	DRO	/chem/fida.i/051605/027f2701.d
Ccal Level: 5 , Ccal Amount: 1000		
16-MAY-2005 17:21	DRO	/chem/fida.i/051605/015f1501.d
Ccal Level: 5 , Ccal Amount: 1000		
16-MAY-2005 10:59	DRO	/chem/fida.i/051605/003f0301.d

General Engineering Laboratories, LLC

COMPOUND LISTING

Method file : /chem/fida.i/051605/FIDa.i_f_DRO_042105.m
Quant Method : ESTD
Last Update : 17-May-2005 08:33
Data Type : GC DATA

Target Version : 3.50
Number of Cpnds : 4

Global Integrator : Falcon

Chromat Events	Values
Initial:Start Threshold	1.000000
Initial:End Threshold	0.500000
Initial:Area Threshold	5.000000
Initial:P-P Resolution	1.000000
Initial:Bunch Factor	2.000000
Initial:Negative Peaks	OFF
Initial:Tension	3.000000
4.000:Force Cluster ON	n/a
20.000:Force Cluster OFF	n/a

	Compound	RT	RT Window	RF
S	1 Diesel Range Organics	12.802	7.623-17.980	6.679e+03
$	2 o-Terphenyl	13.773	13.743-13.803	9.213e+03
	3 Decane (C10)	7.653	7.623-7.683	
	4 Octacosane (C28)	17.950	17.920-17.980	

General Engineering Laboratories, LLC

INITIAL CALIBRATION DATA

Start Cal Date : 21-APR-2005 15:08
End Cal Date : 21-APR-2005 17:02
Quant Method : ESTD
Target Version : 3.50
Integrator : Falcon
Method file : /chem/fida.i/051605/FIDa.i_f_DRO_042105.m
Cal Date : 17-May-2005 08:33 jos00786

Calibration File Names:
Level 1: /chem/fida.i/042105/003f0301.d
Level 3: /chem/fida.i/042105/004f0401.d
Level 4: /chem/fida.i/042105/005f0501.d
Level 5: /chem/fida.i/042105/006f0601.d
Level 7: /chem/fida.i/042105/007f0701.d

	Compound	50 Level 1	200 Level 3	500 Level 4	1000 Level 5	5000 Level 7	Curve	Coefficients b	m1	m2	%RSD or R^2	
S	1 Diesel Range Organics	6612	6367	6617	6842	6958	AVRG		6679		3.42876	
	3 Decane (C10)	+++++	+++++	+++++	+++++	+++++	LINR	0.000e+00	0.000e+00		0.000e+00	<-
	4 Octacosane (C28)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00	
$	2 o-Terphenyl	8144	8873	9082	9516	10451	AVRG		9213		9.24435	

General Engineering Laboratories, LLC

INITIAL CALIBRATION DATA

Start Cal Date : 21-APR-2005 15:08
End Cal Date : 21-APR-2005 17:02
Quant Method : ESTD
Target Version : 3.50
Integrator : Falcon
Method file : /chem/fida.i/051605/FIDa.i_f_DRO_042105.m
Cal Date : 17-May-2005 08:33 jos00786

Curve	Formula	Units
Averaged	Amt = Rsp/m1	Response
Linear	Amt = b + Rsp/m1	Response

General Engineering Laboratories, LLC

ZB-5 0.25mm

Data file : /chem/fida.i/042105/003f0301.d
Lab Smp Id: UFI050110-01 50 Client Smp ID: CSTD01
Inj Date : 21-APR-2005 15:08
Operator : JMB3 Inst ID: fida.i
Smp Info : |UFI050110-01 50
Misc Info :
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fida.i/042105/FIDa.i_f_DRO_042105.m
Meth Date : 22-Apr-2005 08:32 jos00786 Quant Type: ESTD
Cal Date : 21-APR-2005 15:08 Cal File: 003f0301.d
Als bottle: 3 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: DRO.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: kilroy

	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (mg/L)	AMOUNTS ON-COL (mg/L)
S	1 Diesel Range Organics					CAS #:
	7.633- 18.003			330599	50.0000	49.5
$	2 o-Terphenyl					CAS #: 84-15-1
	13.767	13.767	0.000	20359	2.50000	2.2

Data File: /chem/fida.i/042105/003f0301.d

Date : 21-APR-2005 15:08

Client ID: CSTD01

Sample Info: IUFI050110-01 50

Column phase: ZB-5

Instrument: fida.i

Operator: JMB3

Column diameter: 0.25

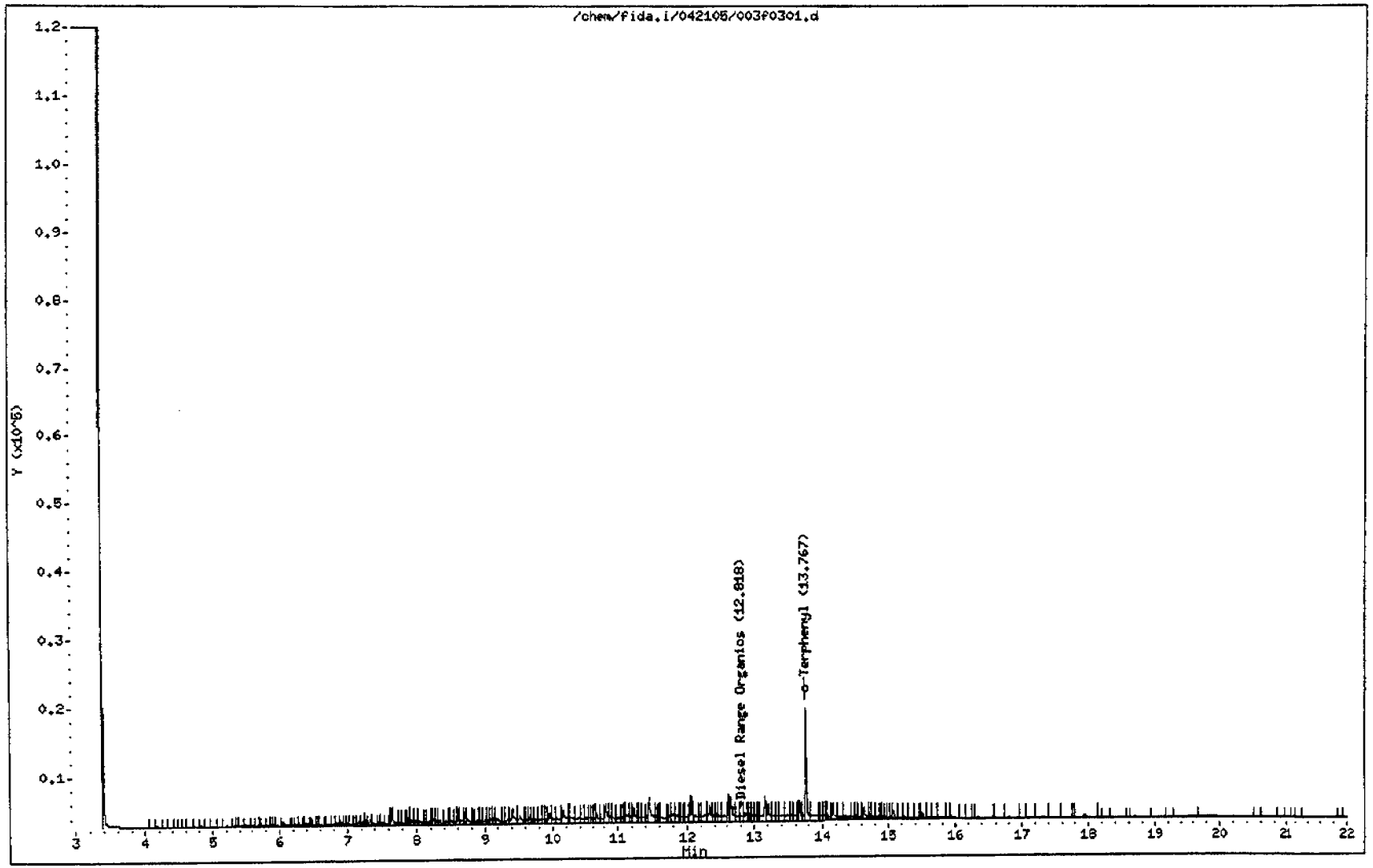

General Engineering Laboratories, LLC

ZB-5 0.25mm

Data file : /chem/fida.i/042105/004f0401.d
Lab Smp Id: UFI050110-03 200 Client Smp ID: CSTD02
Inj Date : 21-APR-2005 15:36
Operator : JMB3 Inst ID: fida.i
Smp Info : |UFI050110-03 200
Misc Info :
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fida.i/042105/FIDa.i_f_DRO_042105.m
Meth Date : 22-Apr-2005 08:32 jos00786 Quant Type: ESTD
Cal Date : 21-APR-2005 15:36 Cal File: 004f0401.d
Als bottle: 4 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: DRO.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: kilroy

	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (mg/L)	AMOUNTS ON-COL (mg/L)
S	1 Diesel Range Organics					CAS #:
	7.633- 18.003			1273445	200.000	191
$	2 o-Terphenyl					CAS #: 84-15-1
	13.770	13.770	0.000	88733	10.0000	9.6

Data File: /chem/fida.i/042105/004f0401.d
Date : 21-APR-2005 15:36
Client ID: CSTD02
Sample Info: !UFI050110-03 200

Column phase: ZB-5

Instrument: fida.i

Operator: JMB3
Column diameter: 0.25

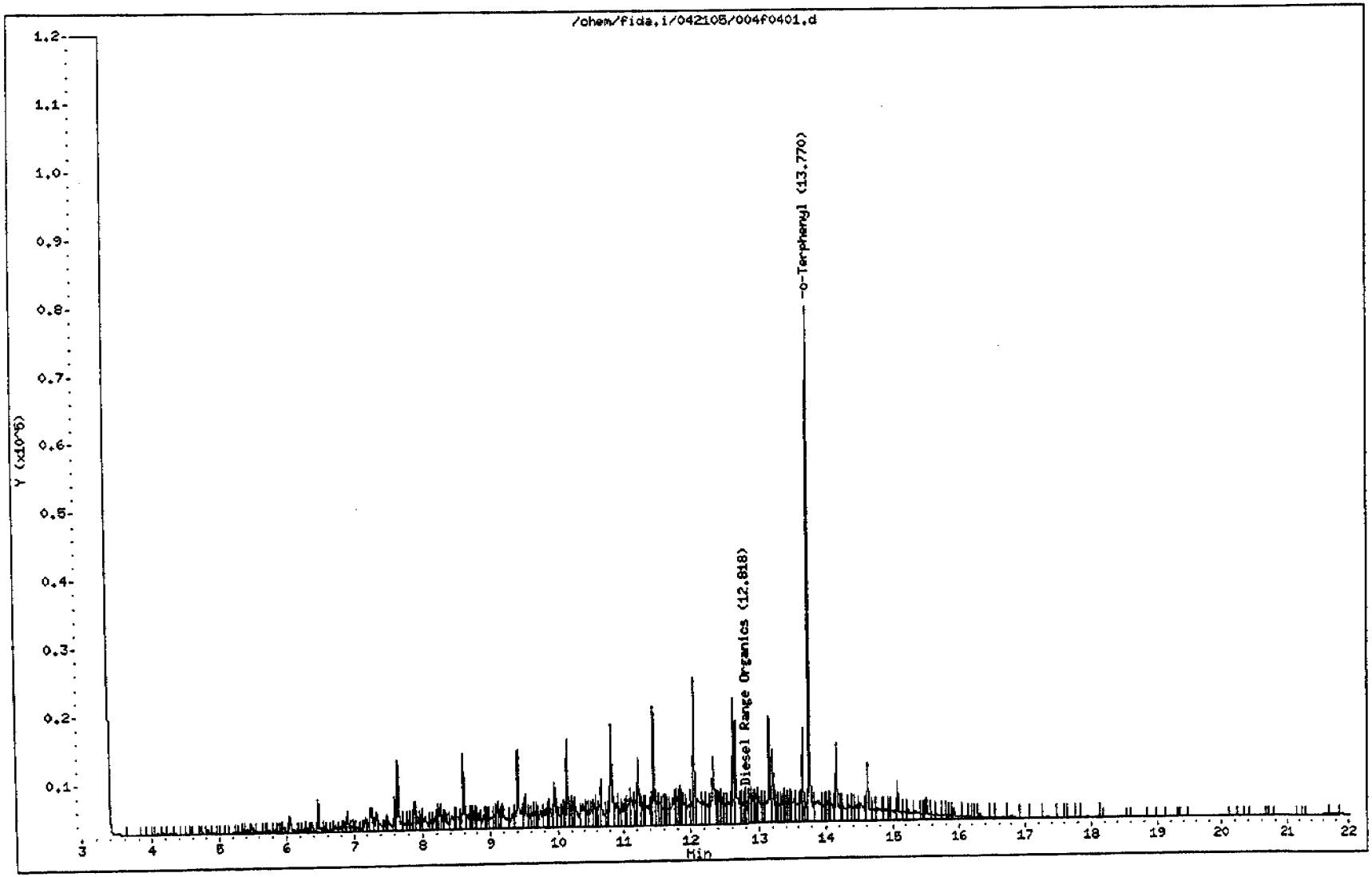

General Engineering Laboratories, LLC

ZB-5 0.25mm

Data file : /chem/fida.i/042105/005f0501.d
Lab Smp Id: UFI050110-04 500 Client Smp ID: CSTD03
Inj Date : 21-APR-2005 16:05
Operator : JMB3 Inst ID: fida.i
Smp Info : |UFI050110-04 500
Misc Info :
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fida.i/042105/FIDa.i_f_DRO_042105.m
Meth Date : 22-Apr-2005 08:32 jos00786 Quant Type: ESTD
Cal Date : 21-APR-2005 16:05 Cal File: 005f0501.d
Als bottle: 5 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: DRO.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: kilroy

	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (mg/L)	AMOUNTS ON-COL (mg/L)
S	1 Diesel Range Organics					CAS #:
	7.633- 18.003			3308524	500.000	495
$	2 o-Terphenyl					CAS #: 84-15-1
	13.777	13.777	0.000	227046	25.0000	24.6

Data File: /chem/fida.i/042105/005f0501.d
Date : 21-APR-2005 16:05
Client ID: CSTD03
Sample Info: IUFI050110-04 500

Column phase: ZB-5

Instrument: fida.i

Operator: JMB3
Column diameter: 0.25

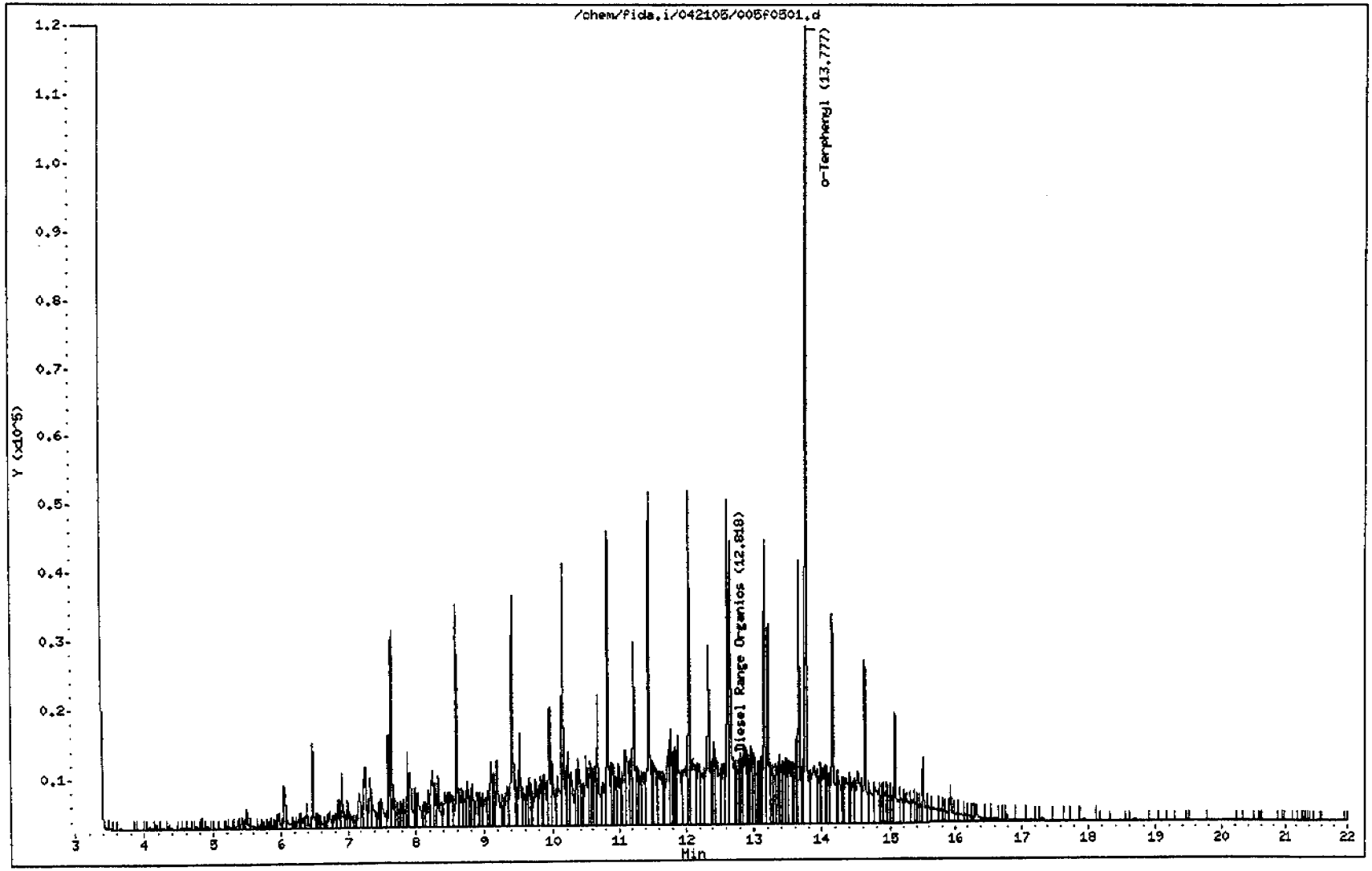

General Engineering Laboratories, LLC

ZB-5 0.25mm

Data file : /chem/fida.i/042105/006f0601.d
Lab Smp Id: UFI050110-05 1000 Client Smp ID: CSTD04
Inj Date : 21-APR-2005 16:34
Operator : JMB3 Inst ID: fida.i
Smp Info : |UFI050110-05 1000
Misc Info :
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fida.i/042105/FIDa.i_f_DRO_042105.m
Meth Date : 22-Apr-2005 08:32 jos00786 Quant Type: ESTD
Cal Date : 21-APR-2005 16:34 Cal File: 006f0601.d
Als bottle: 6 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: DRO.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: kilroy

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (mg/L)	AMOUNTS ON-COL (mg/L)
$ 1 Diesel Range Organics					CAS #:
7.633- 18.003			6841887	1000.00	1020
$ 2 o-Terphenyl					CAS #: 84-15-1
13.783	13.783	0.000	475793	50.0000	51.6

Data File: /chem/fida.i/042105/006f0601.d
Date : 21-APR-2005 16:34
Client ID: CSTD04
Sample Info: IUFI050110-05 1000

Column phase: ZB-5

Instrument: fida.i

Operator: JMB3
Column diameter: 0.25

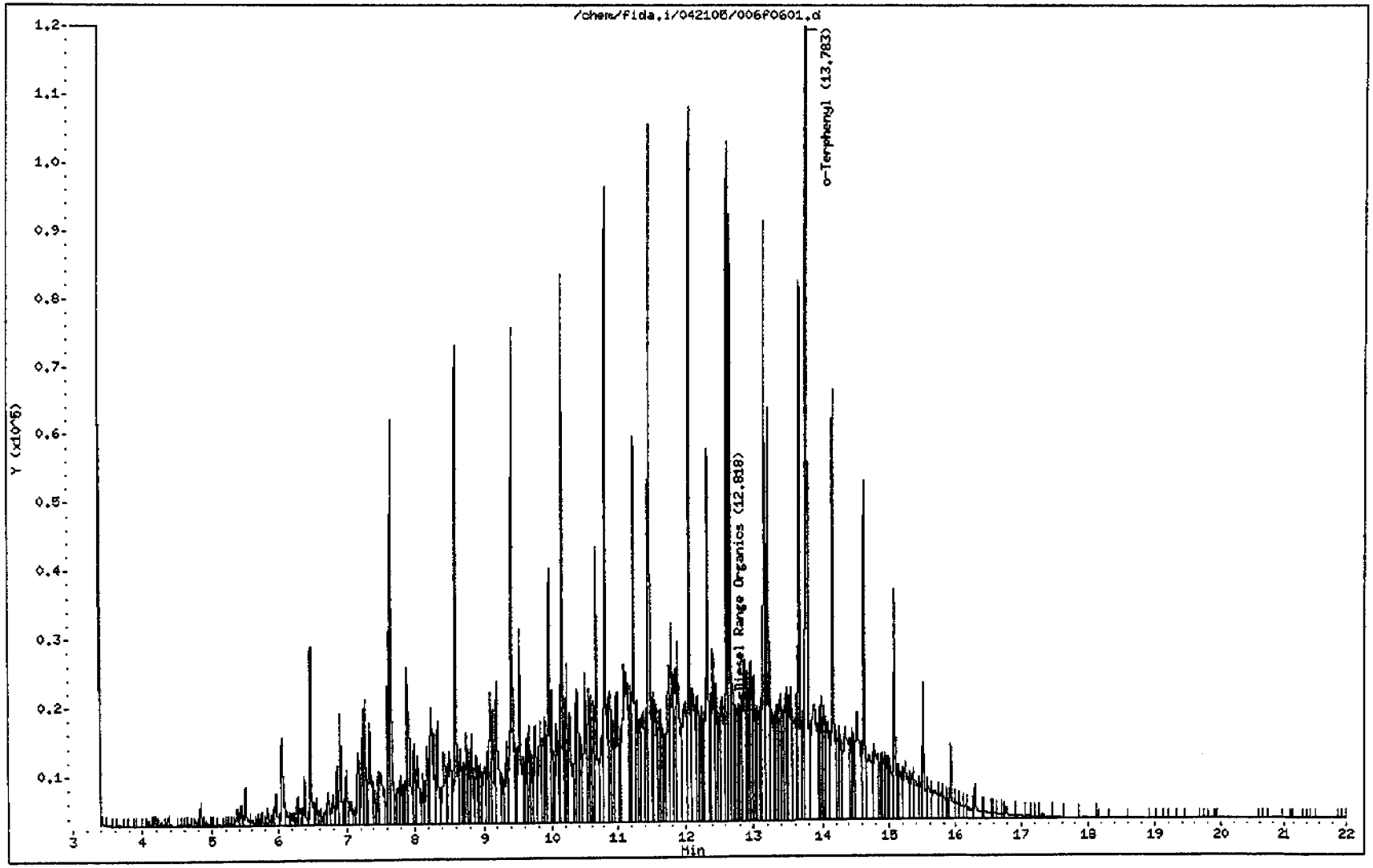

General Engineering Laboratories, LLC

ZB-5 0.25mm

Data file : /chem/fida.i/042105/007f0701.d
Lab Smp Id: UFI050110-06 5000 Client Smp ID: CSTD05
Inj Date : 21-APR-2005 17:02
Operator : JMB3 Inst ID: fida.i
Smp Info : |UFI050110-06 5000
Misc Info :
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fida.i/042105/FIDa.i_f_DRO_042105.m
Meth Date : 22-Apr-2005 08:32 jos00786 Quant Type: ESTD
Cal Date : 21-APR-2005 17:02 Cal File: 007f0701.d
Als bottle: 7 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: DRO.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: kilroy

	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (mg/L)	ON-COL (mg/L)	
S	1 Diesel Range Organics					CAS #:	
	7.633- 18.003			34788941	5000.00	5210	(A)
$	2 o-Terphenyl					CAS #: 84-15-1	
	13.827	13.827	0.000	2612850	250.000	284	(A)

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.

Data File: /chem/fida.i/042105/007f0701.d
Date : 21-APR-2005 17:02
Client ID: CSTD05
Sample Info: IUF1050110-06 5000

Instrument: fida.i

Operator: JMB3
Column diameter: 0.25

Column phase: ZB-5

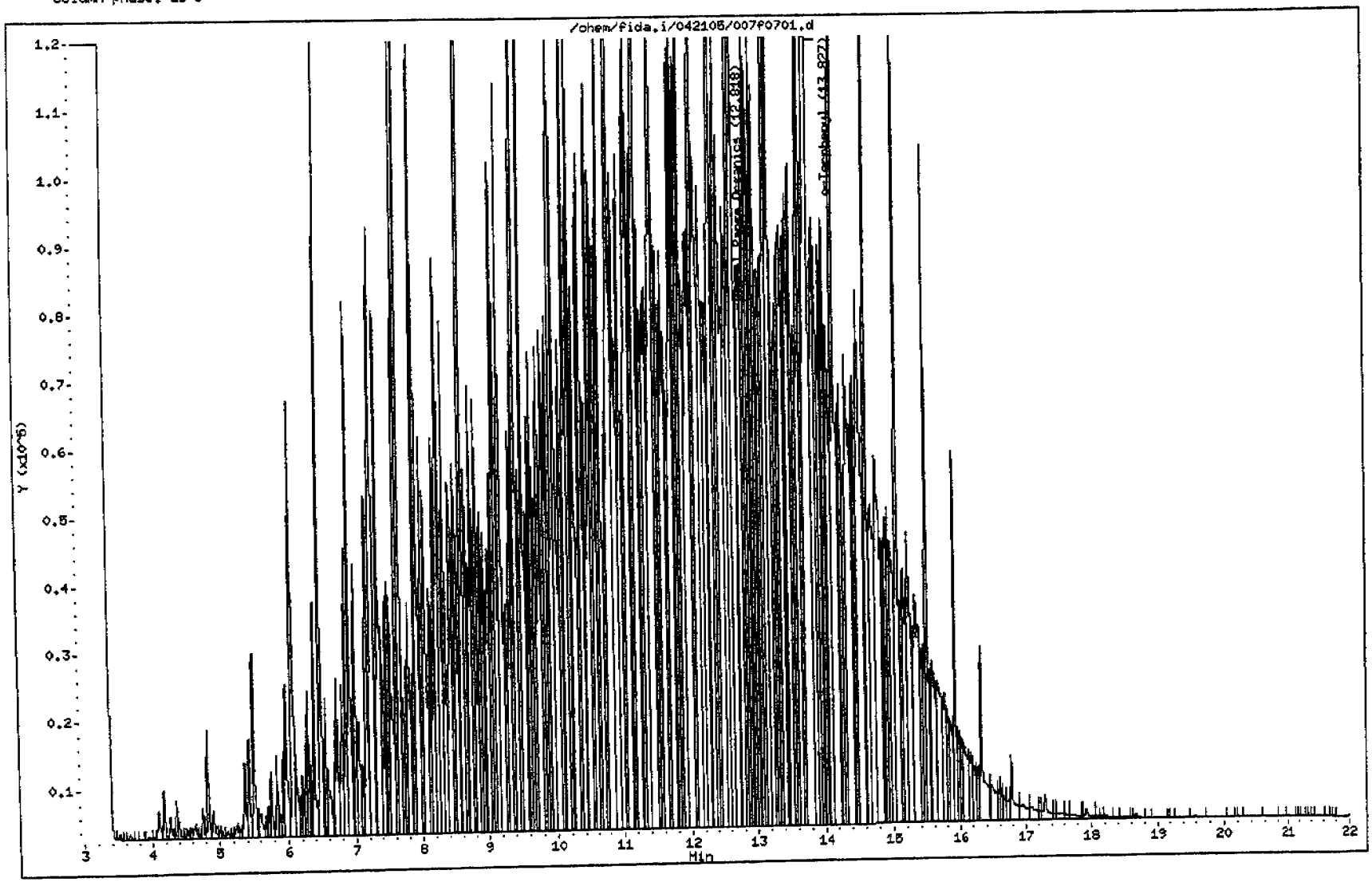

FORM 7
SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

Instrument ID: FIDA Calibration Date: 05/12/05 Time: 1109

Lab File ID: 003F0301 Init. Calib. Date(s): 04/21/05 04/21/05

Init. Calib. Times: 1508 1702

GC Column: ZB-5 ID: 0.25 (mm)

COMPOUND	SAMPLE AMOUNT	1000 AMOUNT	CURVE	%D	MAX %d
Diesel Range Organics	981	1000	AVRG	-1.9	15.0
o-Terphenyl	53.0	50.0	AVRG	6.0	15.0

FORM VII SV

FORM 7
SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

Instrument ID: FIDA Calibration Date: 05/12/05 Time: 1652

Lab File ID: 015F1501 Init. Calib. Date(s): 04/21/05 04/21/05

Init. Calib. Times: 1508 1702

GC Column: ZB-5 ID: 0.25 (mm)

COMPOUND	SAMPLE AMOUNT	1000 AMOUNT	CURVE	%D	MAX %d
Diesel Range Organics	967	1000	AVRG	-3.3	15.0
o-Terphenyl	50.3	50.0	AVRG	0.6	15.0

FORM VII SV

FORM 7
SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

Instrument ID: FIDA Calibration Date: 05/16/05 Time: 1059

Lab File ID: 003F0301 Init. Calib. Date(s): 04/21/05 04/21/05

Init. Calib. Times: 1508 1702

GC Column: ZB-5 ID: 0.25 (mm)

COMPOUND	SAMPLE AMOUNT	1000 AMOUNT	CURVE	%D	MAX %d
Diesel Range Organics	997	1000	AVRG	-0.3	15.0
o-Terphenyl	54.4	50.0	AVRG	8.8	15.0

FORM VII SV

FORM 7
SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

Instrument ID: FIDA Calibration Date: 05/16/05 Time: 1721

Lab File ID: 015F1501 Init. Calib. Date(s): 04/21/05 04/21/05

Init. Calib. Times: 1508 1702

GC Column: ZB-5 ID: 0.25 (mm)

COMPOUND	SAMPLE AMOUNT	1000 AMOUNT	CURVE	%D	MAX %d
Diesel Range Organics	1040	1000	AVRG	4.0	15.0
o-Terphenyl	55.6	50.0	AVRG	11.2	15.0

FORM VII SV

FORM 7
SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

Instrument ID: FIDA Calibration Date: 05/16/05 Time: 2305

Lab File ID: 027F2701 Init. Calib. Date(s): 04/21/05 04/21/05

Init. Calib. Times: 1508 1702

GC Column: ZB-5 ID: 0.25 (mm)

COMPOUND	SAMPLE AMOUNT	1000 AMOUNT	CURVE	%D	MAX %d	
Diesel Range Organics	1410	1000	AVRG	41.0	15.0	<-
o-Terphenyl	61.8	50.0	AVRG	23.6	15.0	<-

FORM VII SV

General Engineering Laboratories, LLC

ZB-5 0.25mm

Data file : /chem/fida.i/051205/003f0301.d
Lab Smp Id: UFI050310-01 1000 Client Smp ID: DSTD01
Inj Date : 12-MAY-2005 11:09
Operator : JMB3 Inst ID: fida.i
Smp Info : |UFI050310-01 1000
Misc Info :
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fida.i/051205/FIDa.i_f_DRO_042105.m
Meth Date : 13-May-2005 09:24 jos00786 Quant Type: ESTD
Cal Date : 21-APR-2005 17:02 Cal File: 007f0701.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: DRO.sub
Target Version: 3.50 Sample Matrix: None

	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (mg/L)	ON-COL (mg/L)	
S	1 Diesel Range Organics						CAS #:
	7.623- 17.983			6553163	1000.00		981
$	2 o-Terphenyl						CAS #: 84-15-1
	13.777	13.777	0.000	488167	50.0000		53.0

Data File: /chem/fida.i/051205/003f0301.d
Date : 12-MAY-2005 11:09
Client ID: DSTD01
Sample Info: IUFI050310-01 1000

Column phase: ZB-5

Instrument: fida.i

Operator: JMB3
Column diameter: 0.25

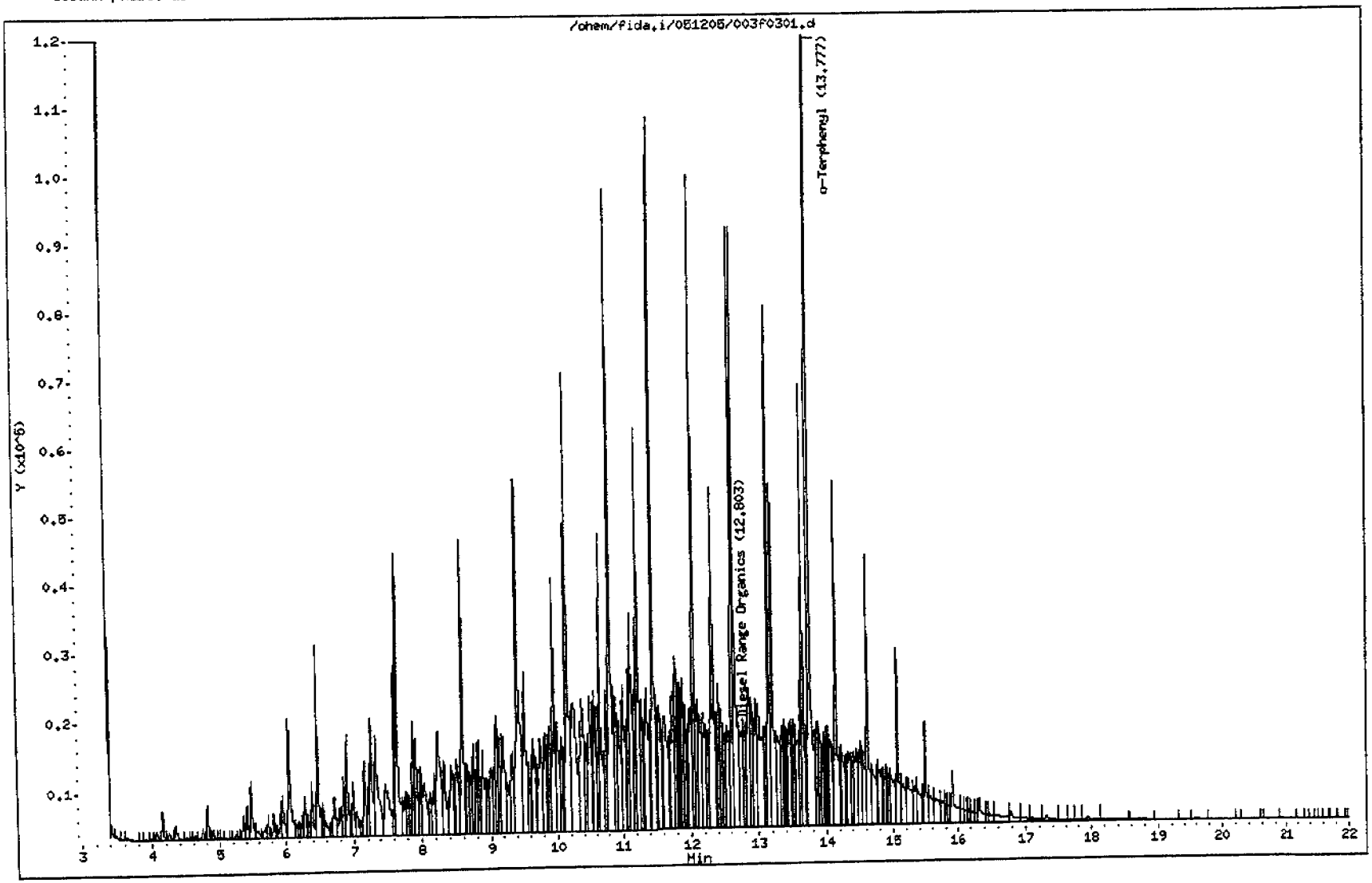

412

General Engineering Laboratories, LLC

ZB-5 0.25mm

Data file : /chem/fida.i/051205/015f1501.d
Lab Smp Id: UFI050310-01 1000 Client Smp ID: DSTD02
Inj Date : 12-MAY-2005 16:52
Operator : JMB3 Inst ID: fida.i
Smp Info : |UFI050310-01 1000
Misc Info :
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fida.i/051205/FIDa.i_f_DRO_042105.m
Meth Date : 13-May-2005 09:24 jos00786 Quant Type: ESTD
Cal Date : 21-APR-2005 17:02 Cal File: 007f0701.d
Als bottle: 15 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: DRO.sub
Target Version: 3.50 Sample Matrix: None

	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (mg/L)	AMOUNTS ON-COL (mg/L)	
$	1 Diesel Range Organics						CAS #:
	7.623- 17.983			6458730	1000.00		967
$	2 o-Terphenyl						CAS #: 84-15-1
	13.780	13.777	0.003	463836	50.0000		50.3

Data File: /chem/fida.i/051205/015f1501.d
Date : 12-MAY-2005 16:52
Client ID: DSTD02
Sample Info: IUFI050310-01 1000

Column phase: ZB-5

Instrument: fida.i

Operator: JMB3
Column diameter: 0.25

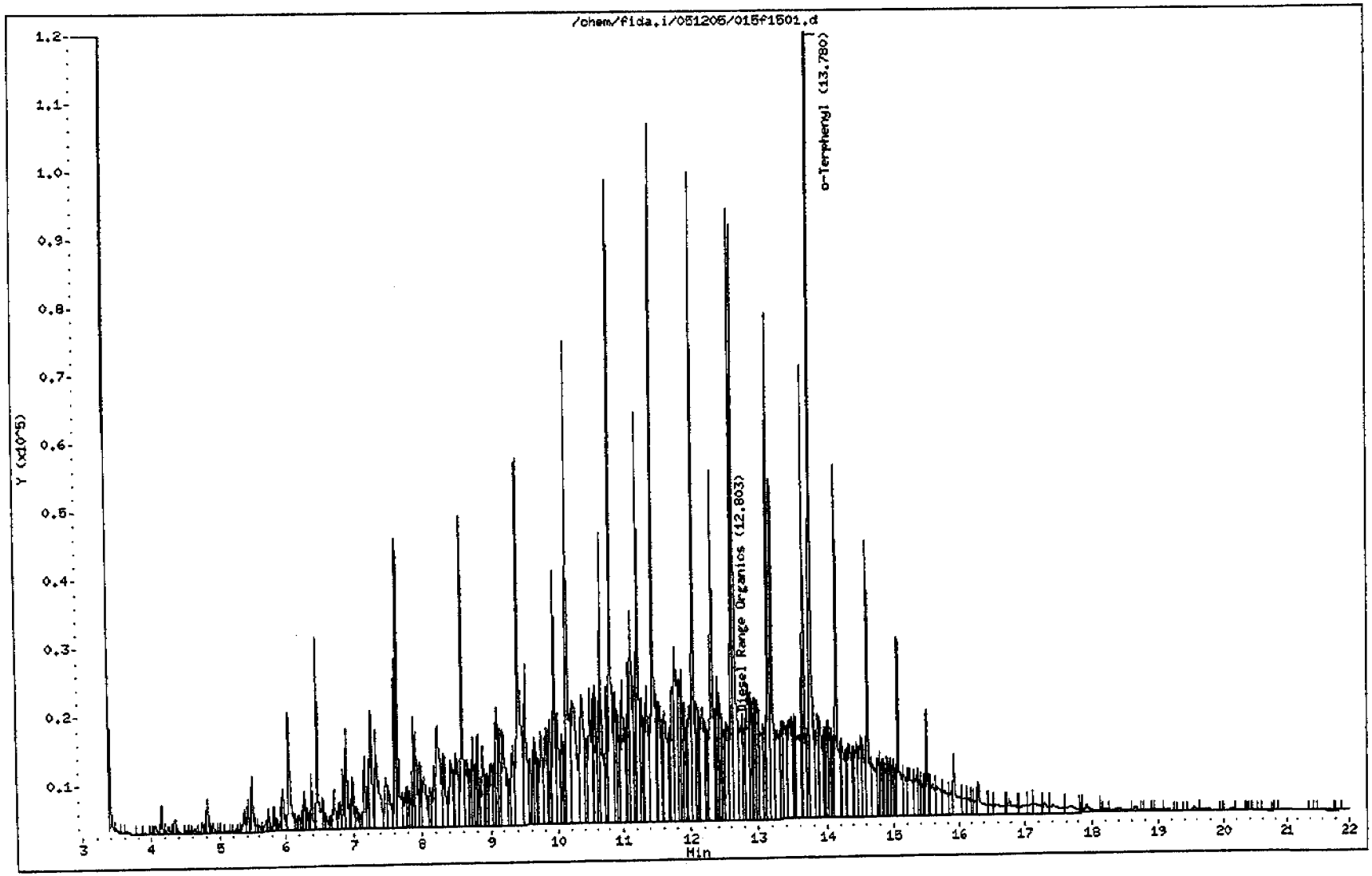

General Engineering Laboratories, LLC

ZB-5 0.25mm

Data file : /chem/fida.i/051605/003f0301.d
Lab Smp Id: UFI050310-01 1000 Client Smp ID: DSTD01
Inj Date : 16-MAY-2005 10:59
Operator : JMB3 Inst ID: fida.i
Smp Info : |UFI050310-01 1000
Misc Info :
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fida.i/051605/FIDa.i_f_DRO_042105.m
Meth Date : 17-May-2005 08:51 jos00786 Quant Type: ESTD
Cal Date : 21-APR-2005 17:02 Cal File: 007f0701.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: DRO.sub
Target Version: 3.50 Sample Matrix: None

	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (mg/L)	AMOUNTS ON-COL (mg/L)	
S	1 Diesel Range Organics						CAS #:
	7.623- 17.980			6658485	1000.00		997
$	2 o-Terphenyl						CAS #: 84-15-1
	13.773	13.773	0.000	501475	50.0000		54.4

Data File: /chem/fida.i/051605/003f0301.d
Date : 16-MAY-2005 10:59
Client ID: DSTD01
Sample Info: IUFI050310-01 1000

Column phase: ZB-5

Instrument: fida.i

Operator: JHB3
Column diameter: 0.25

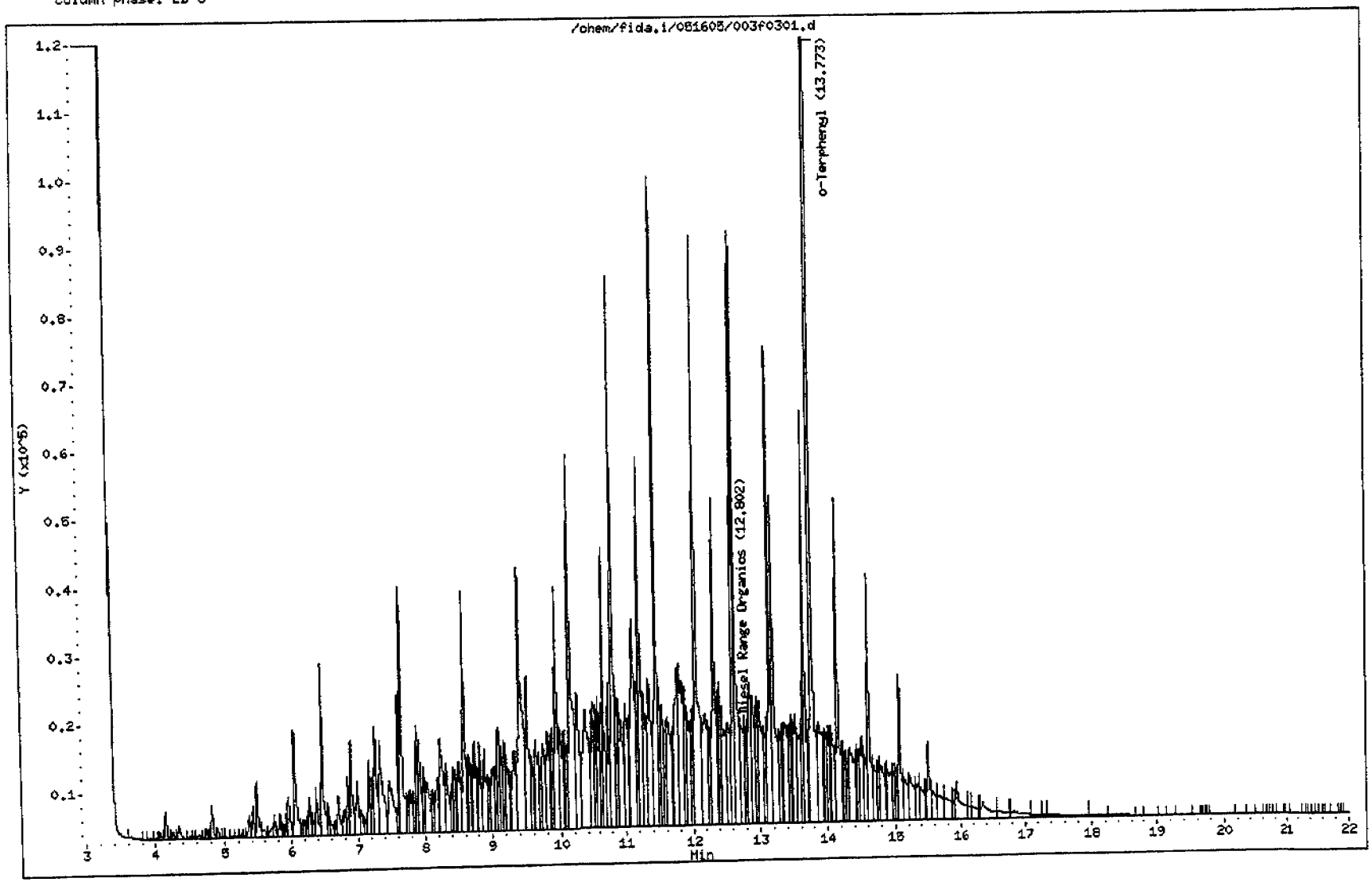

General Engineering Laboratories, LLC

ZB-5 0.25mm

Data file : /chem/fida.i/051605/015f1501.d
Lab Smp Id: UFI050310-01 1000 Client Smp ID: DSTD02
Inj Date : 16-MAY-2005 17:21
Operator : JMB3 Inst ID: fida.i
Smp Info : |UFI050310-01 1000
Misc Info :
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fida.i/051605/FIDa.i_f_DRO_042105.m
Meth Date : 17-May-2005 08:53 jos00786 Quant Type: ESTD
Cal Date : 21-APR-2005 17:02 Cal File: 007f0701.d
Als bottle: 15 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: DRO.sub
Target Version: 3.50 Sample Matrix: None

	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (mg/L)	ON-COL (mg/L)
$ 1 Diesel Range Organics						CAS #:
	7.623- 17.980			6974191	1000.00	1040
$ 2 o-Terphenyl						CAS #: 84-15-1
	13.777	13.773	0.004	512143	50.0000	55.6

Data File: /chem/fida.i/051605/015f1501.d
Date : 16-MAY-2005 17:21
Client ID: DSTD02
Sample Info: IUF1050310-01 1000

Instrument: fida.i

Operator: JMB3
Column diameter: 0.25

Column phase: ZB-5

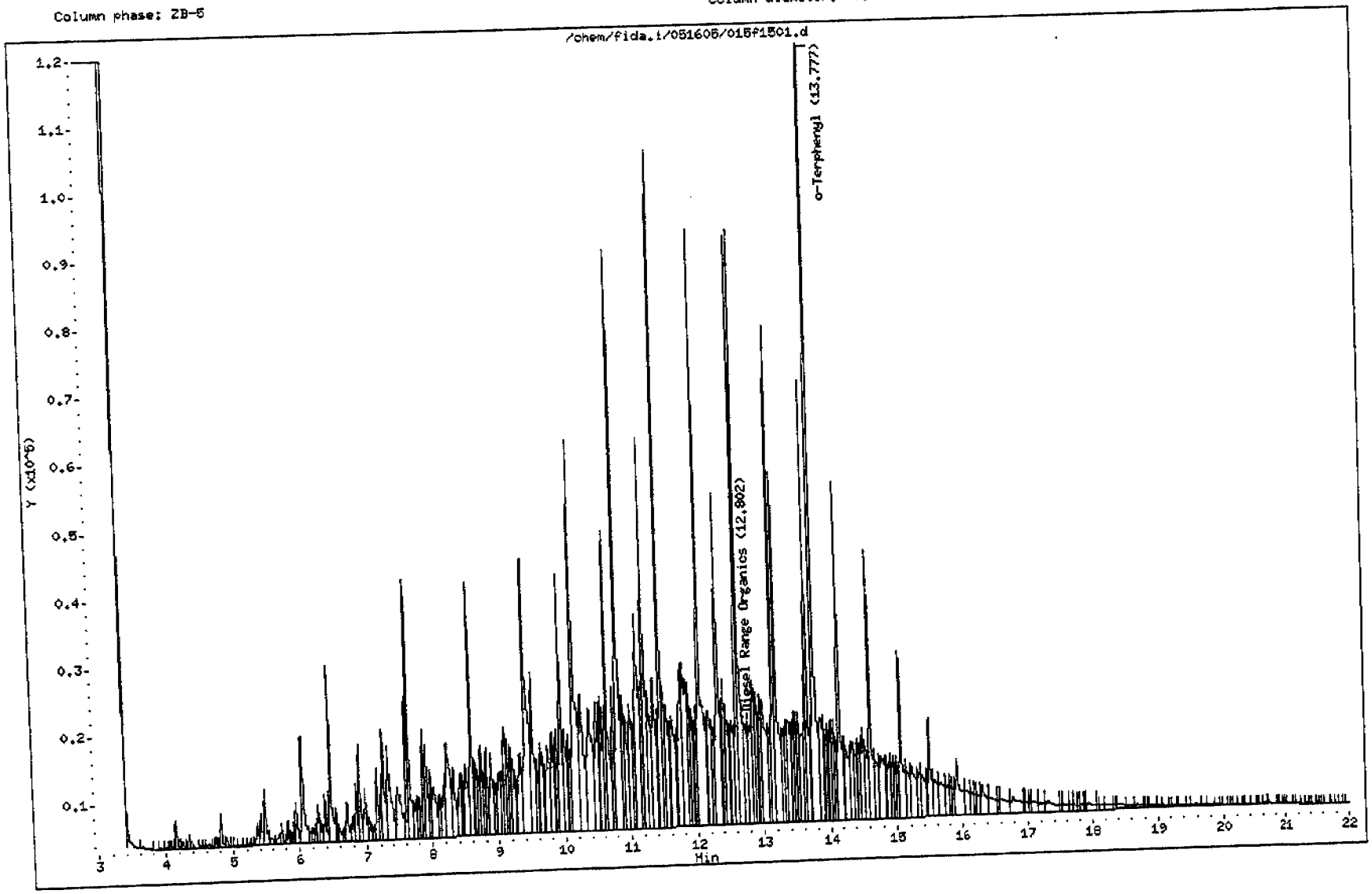

Data File: /chem/fida.i/051605/027f2701.d
Report Date: 17-May-2005 08:54

General Engineering Laboratories, LLC

ZB-5 0.25mm

Data file : /chem/fida.i/051605/027f2701.d
Lab Smp Id: UFI050310-01 1000 Client Smp ID: DSTD03
Inj Date : 16-MAY-2005 23:05
Operator : JMB3 Inst ID: fida.i
Smp Info : |UFI050310-01 1000
Misc Info :
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fida.i/051605/FIDa.i_f_DRO_042105.m
Meth Date : 17-May-2005 08:53 jos00786 Quant Type: ESTD
Cal Date : 21-APR-2005 17:02 Cal File: 007f0701.d
Als bottle: 27 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: DRO.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: kilroy

	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (mg/L)	AMOUNTS ON-COL (mg/L)		
S	1 Diesel Range Organics						CAS #:	
	7.623- 17.980			9398690	1000.00	1410		
$	2 o-Terphenyl						CAS #: 84-15-1	
	13.780	13.773	0.007	569343	50.0000	61.8		(M)

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/fida.i/051605/027f2701.d
Injection Date: 16-MAY-2005 23:05
Instrument: fida.i
Client Sample ID: DSTD03

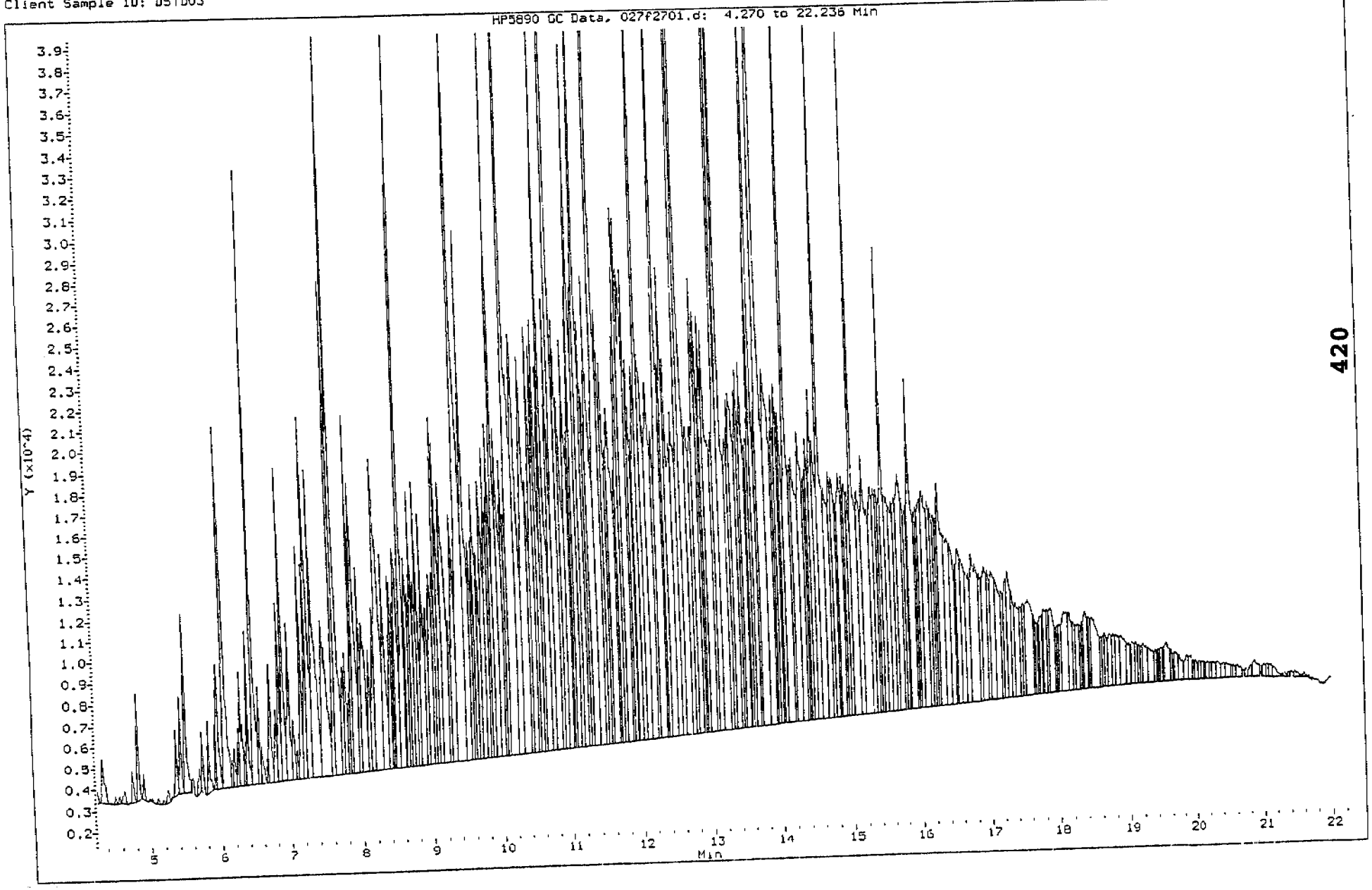

420

Data File: /chem/fida.i/051605/027f2701.d
Injection Date: 16-MAY-2005 23:05
Instrument: fida.i
Client Sample ID: DSTD03

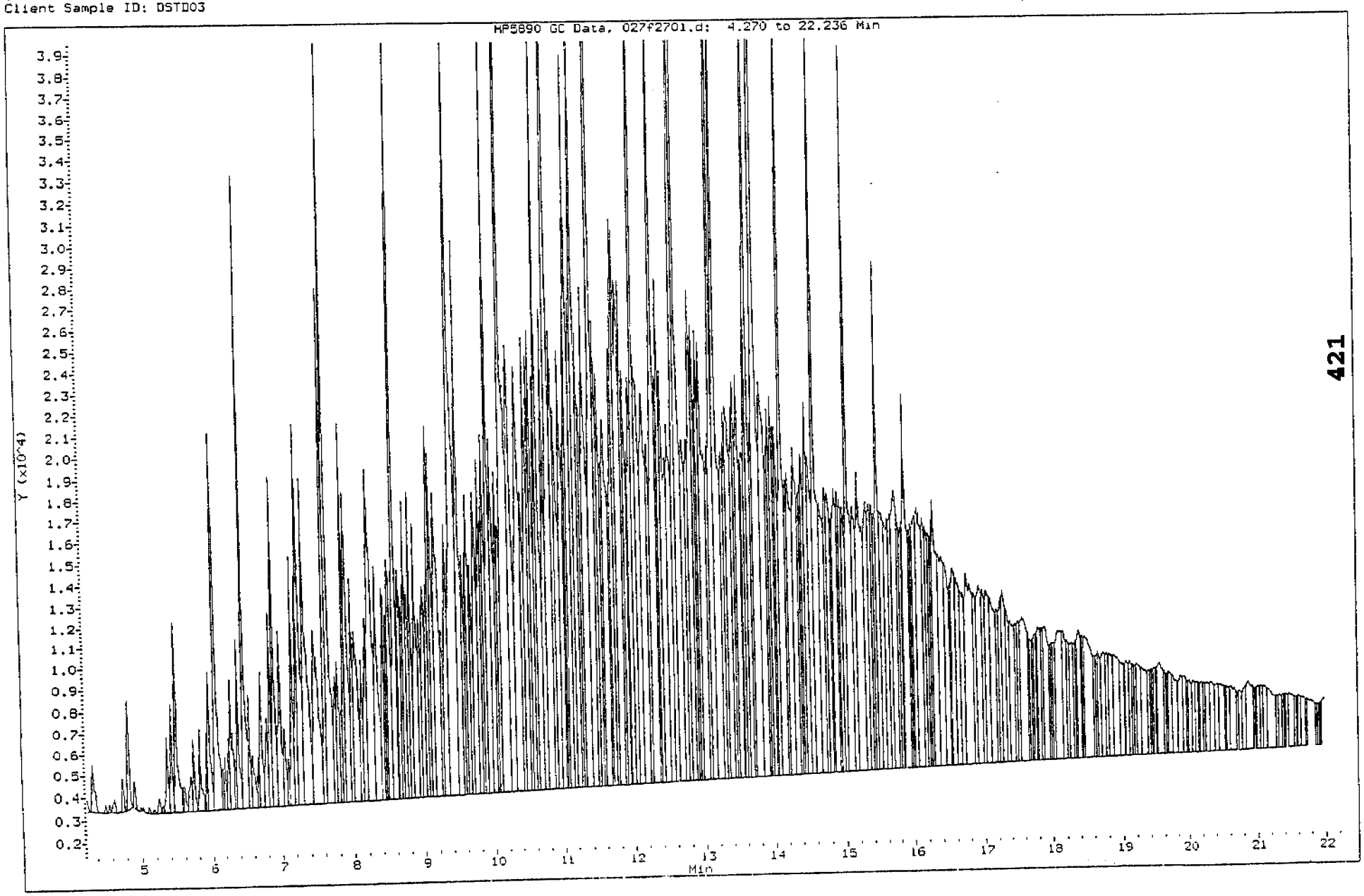

421

Data File: /chem/fida.i/051605/027f2701.d
Date : 16-MAY-2005 23:05
Client ID: DSTD03
Sample Info: |UFI050310-01 1000

Column phase: ZB-5

Instrument: fida.i

Operator: JMB3
Column diameter: 0.25

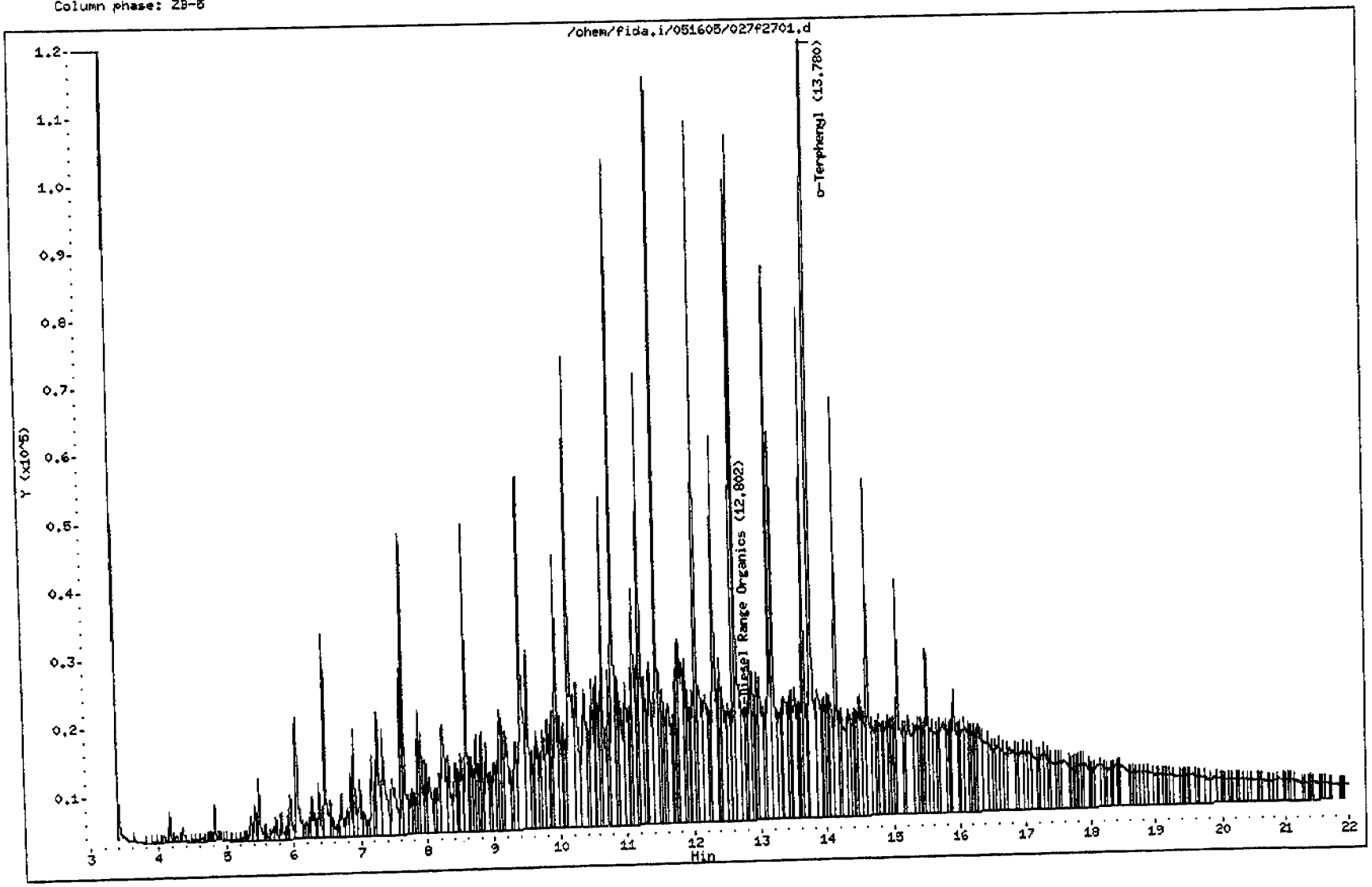

8D
DRO ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

GC Column: ZB-5 ID: 0.25 (mm) Init. Calib. Date(s): 04/21/05 04/21/05

Instrument ID: FIDA

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 13.78

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	RT #
01	ZZZZZ	ZZZZZ	04/21/05	1411	13.77	
02	ZZZZZ	ZZZZZ	04/21/05	1439		
03	CSTD01	UFI050110-01	04/21/05	1508	13.77	
04	CSTD02	UFI050110-03	04/21/05	1536	13.77	
05	CSTD03	UFI050110-04	04/21/05	1605	13.78	
06	CSTD04	UFI050110-05	04/21/05	1634	13.78	
07	CSTD05	UFI050110-06	04/21/05	1702	13.83*	
08	DSTD01	UFI050310-01	04/21/05	1731	13.78	
09	ZZZZZ	ZZZZZ	04/21/05	1759	13.77	
10	ZZZZZ	ZZZZZ	04/21/05	1828	13.77	
11	ZZZZZ	ZZZZZ	04/21/05	1857	13.77	
12	ZZZZZ	ZZZZZ	04/21/05	1925	13.77	
13	ZZZZZ	ZZZZZ	04/21/05	1954	13.77	
14	ZZZZZ	ZZZZZ	04/21/05	2022	13.77	
15	ZZZZZ	ZZZZZ	04/21/05	2051	13.77	
16	DSTD02	UFI050310-01	04/21/05	2120	13.78	
17	ZZZZZ	ZZZZZ	04/21/05	2148	13.77	
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						
31						
32						

QC LIMITS
(+/- 0.03 MINUTES)

S1 = o-Terphenyl

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

8D
DRO ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

GC Column: ZB-5 ID: 0.25 (mm) Init. Calib. Date(s): 04/21/05 04/21/05

Instrument ID: FIDA

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 13.78

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	RT #
01	ZZZZZ	ZZZZZ	05/12/05	1011	13.76	
02	ZZZZZ	ZZZZZ	05/12/05	1040		
03	DSTD01	UFI050310-01	05/12/05	1109	13.78	
04	ZZZZZ	ZZZZZ	05/12/05	1138	13.77	
05	ZZZZZ	ZZZZZ	05/12/05	1206	13.76	
06	ZZZZZ	ZZZZZ	05/12/05	1235	13.77	
07	DBLK01	1200840424	05/12/05	1303	13.77	
08	DBLK01LCS	1200840425	05/12/05	1332	13.77	
09	ZZZZZ	ZZZZZ	05/12/05	1401	13.76	
10	ZZZZZ	ZZZZZ	05/12/05	1429	13.76	
11	ZZZZZ	ZZZZZ	05/12/05	1458	13.76	
12	ZZZZZ	ZZZZZ	05/12/05	1526	13.77	
13	ZZZZZ	ZZZZZ	05/12/05	1555	13.77	
14	ZZZZZ	ZZZZZ	05/12/05	1623	13.76	
15	DSTD02	UFI050310-01	05/12/05	1652	13.78	
16	ZZZZZ	ZZZZZ	05/12/05	1720	13.77	
17	ZZZZZ	ZZZZZ	05/12/05	1749	13.77	
18	ZZZZZ	ZZZZZ	05/12/05	1817	13.77	
19	ZZZZZ	ZZZZZ	05/12/05	1846	13.77	
20	ZZZZZ	ZZZZZ	05/12/05	1923	13.76	
21	ZZZZZ	ZZZZZ	05/12/05	1952	13.77	
22	ZZZZZ	ZZZZZ	05/12/05	2020	13.77	
23	ZZZZZ	ZZZZZ	05/12/05	2049	13.78	
24	ZZZZZ	ZZZZZ	05/12/05	2117	13.77	
25	DSTD03	UFI050310-01	05/12/05	2146	13.78	
26	ZZZZZ	ZZZZZ	05/12/05	2214	13.77	
27	ZZZZZ	ZZZZZ	05/12/05	2243	13.77	
28	ZZZZZ	ZZZZZ	05/12/05	2311	13.77	
29	ZZZZZ	ZZZZZ	05/12/05	2340	13.77	
30	ZZZZZ	ZZZZZ	05/13/05	0008	13.77	
31	ZZZZZ	ZZZZZ	05/13/05	0037	13.77	
32	ZZZZZ	ZZZZZ	05/13/05	0105	13.77	

S1 = o-Terphenyl

QC LIMITS
(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

8D
DRO ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

GC Column: ZB-5 ID: 0.25 (mm) Init. Calib. Date(s): 04/21/05 04/21/05

Instrument ID: FIDA

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 13.78

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	RT #
01	ZZZZZ	ZZZZZ	05/13/05	0134	13.77	
02	DSTD04	UFI050310-01	05/13/05	0202	13.78	
03	ZZZZZ	ZZZZZ	05/13/05	0231	13.77	
04						
05						
06						
07						
08						
09						
10						
11						
12						
13						
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16						
17						
18						
19						
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22						
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25						
26						
27						
28						
29						
30						
31						
32						

S1 = o-Terphenyl

QC LIMITS
(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

8D
DRO ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

GC Column: ZB-5 ID: 0.25 (mm) Init. Calib. Date(s): 04/21/05 04/21/05

Instrument ID: FIDA

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 13.77

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	RT #
01	ZZZZZ	ZZZZZ	05/16/05	1002	13.77	
02	ZZZZZ	ZZZZZ	05/16/05	1030		
03	DSTD01	UFI050310-01	05/16/05	1059	13.77	
04	ZZZZZ	ZZZZZ	05/16/05	1130	13.76	
05	ZZZZZ	ZZZZZ	05/16/05	1159	13.76	
06	ZZZZZ	ZZZZZ	05/16/05	1228		
07	ZZZZZ	ZZZZZ	05/16/05	1256		
08	ZZZZZ	ZZZZZ	05/16/05	1325		
09	ZZZZZ	ZZZZZ	05/16/05	1353	13.80	
10	ZZZZZ	ZZZZZ	05/16/05	1458	13.76	
11	ZZZZZ	ZZZZZ	05/16/05	1527		
12	ZZZZZ	ZZZZZ	05/16/05	1555	13.78	
13	ZZZZZ	ZZZZZ	05/16/05	1624	13.76	
14	ZZZZZ	ZZZZZ	05/16/05	1653	13.76	
15	DSTD02	UFI050310-01	05/16/05	1721	13.78	
16	ZZZZZ	ZZZZZ	05/16/05	1750	13.76	
17	ZZZZZ	ZZZZZ	05/16/05	1819	13.76	
18	ZZZZZ	ZZZZZ	05/16/05	1847		
19	RE03-05-59531	135805001	05/16/05	1916	13.76	
20	RE03-05-59541	135805002	05/16/05	1944	13.77	
21	RE03-05-59532	135805003	05/16/05	2013	13.76	
22	RE03-05-59542	135805004	05/16/05	2042	13.77	
23	ZZZZZ	ZZZZZ	05/16/05	2110		
24	ZZZZZ	ZZZZZ	05/16/05	2139		
25	ZZZZZ	ZZZZZ	05/16/05	2208		
26	ZZZZZ	ZZZZZ	05/16/05	2236		
27	DSTD03	UFI050310-01	05/16/05	2305	13.78	
28	ZZZZZ	ZZZZZ	05/16/05	2333	13.76	
29						
30						
31						
32						

QC LIMITS
S1 = o-Terphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

QUALITY CONTROL DATA

1B
DRO ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

DBLK01

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

Matrix: (soil/water) SOIL Lab Sample ID: 1200840424

Sample wt/vol: 30.0 (g/mL) G Lab File ID: 007F0701MB1

Level: (low/med) LOW Date Received: 05/11/05

% Moisture: 0 decanted: (Y/N) N Date Extracted:05/11/05

Concentrated Extract Volume: 1.00(mL) Date Analyzed: 05/12/05

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) MG/KG	Q
	Diesel Range Organics	1.7	U

FORM I SV-1 OLM03.0

Data File: /chem/fida.i/051205/007f0701MB1.d
Report Date: 18-May-2005 08:44

General Engineering Laboratories, LLC

ZB-5 0.25mm

Data file : /chem/fida.i/051205/007f0701MB1.d
Lab Smp Id: 1200840424 Client Smp ID: DBLK01
Inj Date : 12-MAY-2005 13:03
Operator : JMB3 Inst ID: fida.i
Smp Info : |1200840424|1|
Misc Info : |FIDDRO_SF|423035|FIDF|MB|
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fida.i/051205/FIDa.i_f_DRO_042105.m
Meth Date : 13-May-2005 09:24 jos00786 Quant Type: ESTD
Cal Date : 21-APR-2005 17:02 Cal File: 007f0701.d
Als bottle: 7 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 3194S.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weigth of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (mg/L)	FINAL (mg/Kg)
$ 2 o-Terphenyl					CAS #: 84-15-1
13.767	13.777	-0.010	123803	13.4376	0.45

Data File: /chem/fida.i/051205/007f0701MB1.d
Date : 12-MAY-2005 13:03
Client ID: DBLK01
Sample Info: |1200840424|1|
Volume Injected (uL): 1.0
Column phase: ZB-5

Instrument: fida.i

Operator: JMB3
Column diameter: 0.25

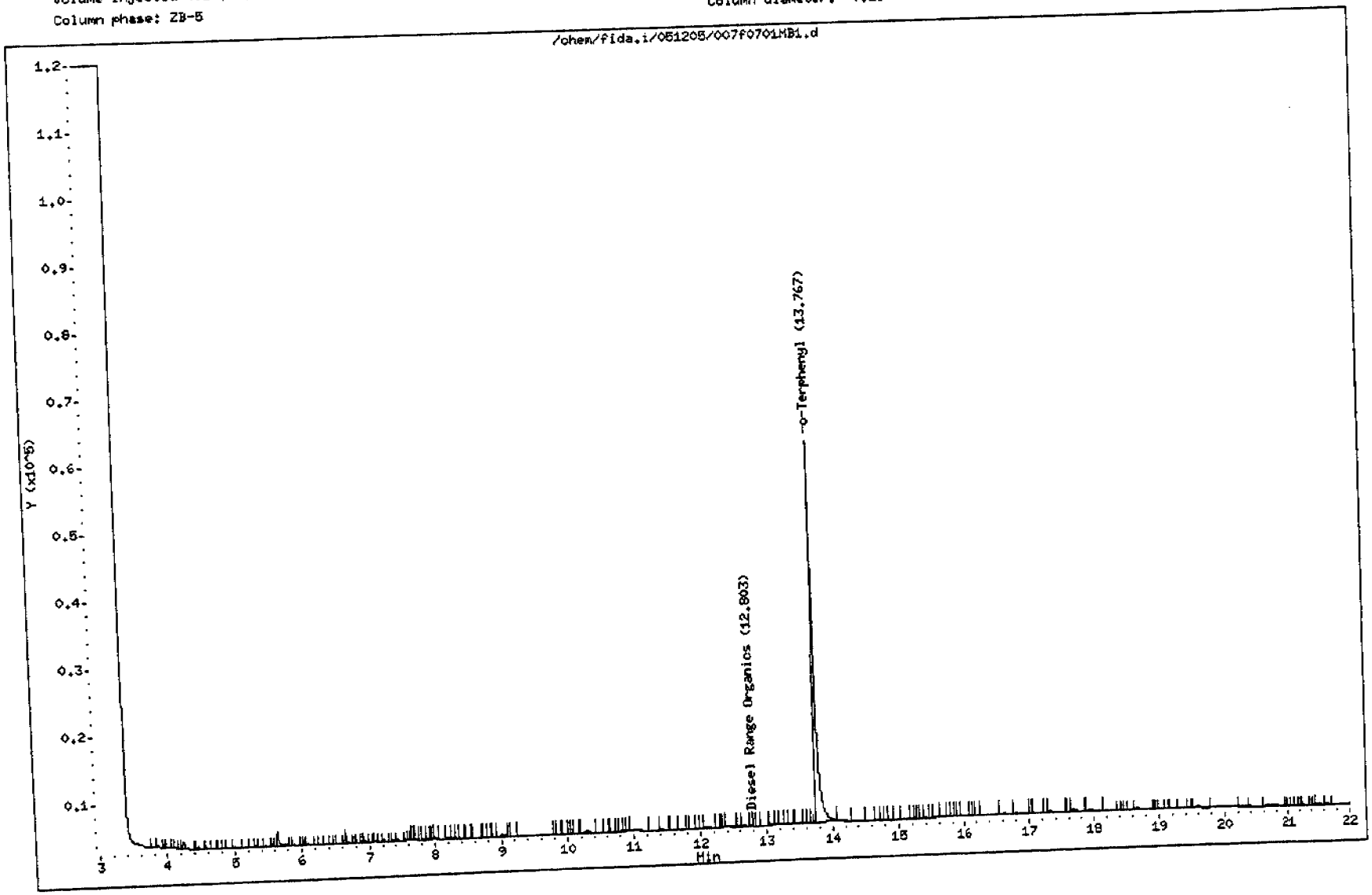

1B
DRO ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

DBLK01LCS

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

Matrix: (soil/water) SOIL Lab Sample ID: 1200840425

Sample wt/vol: 30.0 (g/mL) G Lab File ID: 008F0801LCS1

Level: (low/med) LOW Date Received: 05/11/05

% Moisture: 0 decanted: (Y/N) N Date Extracted: 05/11/05

Concentrated Extract Volume: 1.00(mL) Date Analyzed: 05/12/05

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) MG/KG	Q
	Diesel Range Organics	29.7	

FORM I SV-1 OLM03.0

Data File: /chem/fida.i/051205/008f0801LCS1.d
Report Date: 18-May-2005 08:44

General Engineering Laboratories, LLC

ZB-5 0.25mm

Data file : /chem/fida.i/051205/008f0801LCS1.d
Lab Smp Id: 1200840425 Client Smp ID: DBLK01LCS
Inj Date : 12-MAY-2005 13:32
Operator : JMB3 Inst ID: fida.i
Smp Info : |1200840425|1|
Misc Info : |FIDDRO_SF|423035|FIDF|LCS|
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fida.i/051205/FIDa.i_f_DRO_042105.m
Meth Date : 13-May-2005 09:24 jos00786 Quant Type: ESTD
Cal Date : 21-APR-2005 17:02 Cal File: 007f0701.d
Als bottle: 8 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 3194S.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weigth of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (mg/L)	FINAL (mg/Kg)	
S	1 Diesel Range Organics					CAS #:	
	7.623- 17.983			5943481	889.851	29.7	
$	2 o-Terphenyl					CAS #: 84-15-1	
	13.767	13.777	-0.010	195241	21.1914	0.71	(M)

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/fida.i/051205/008f0801.d
Injection Date: 12-MAY-2005 13:32
Instrument: fida.i
Client Sample ID: DBLK01LCS

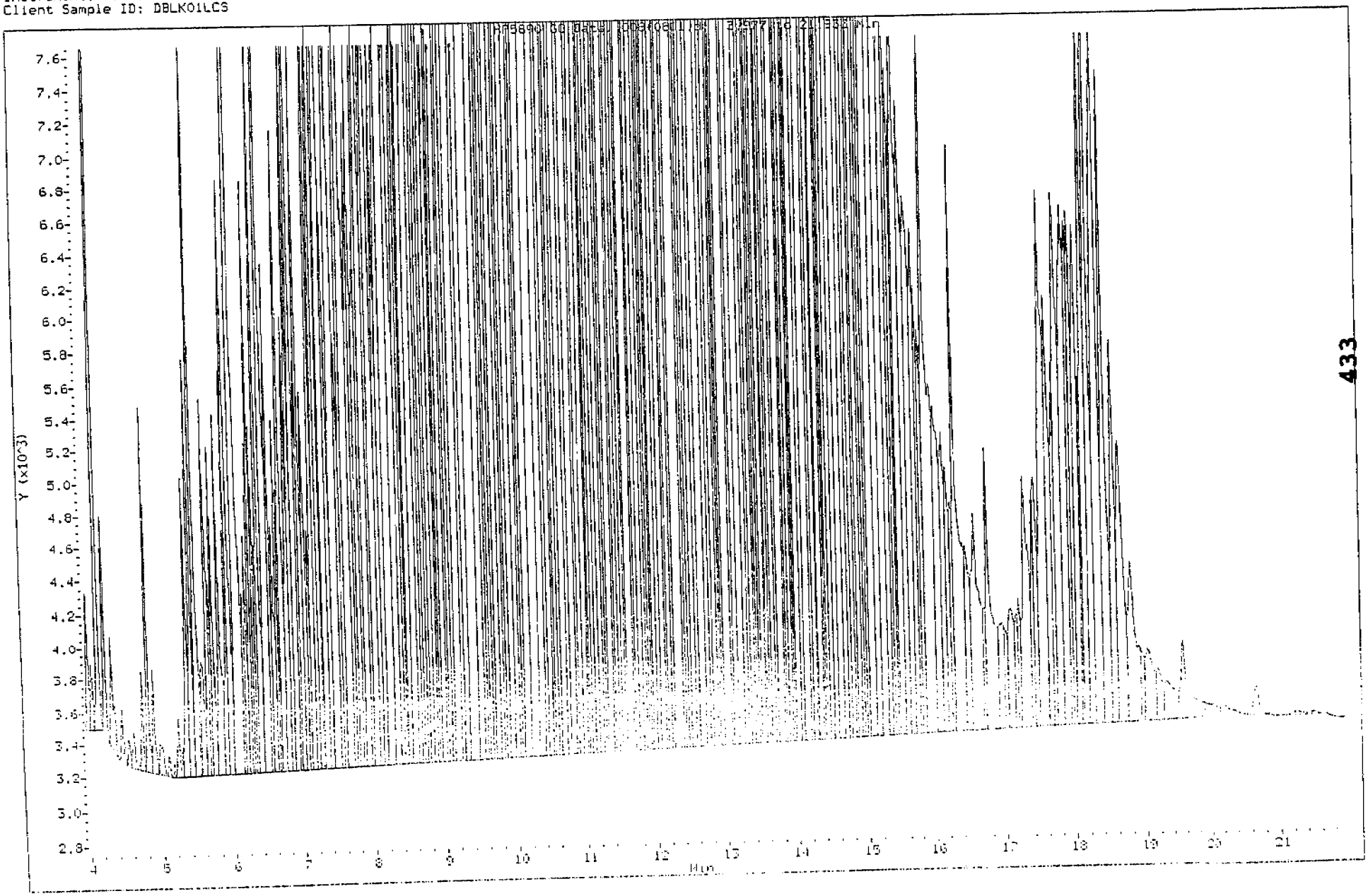

433

Data File: /chem/fida.i/051205/008f0B01.d
Injection Date: 12-MAY-2005 13:32
Instrument: fida.i
Client Sample ID: DBLK01LCS

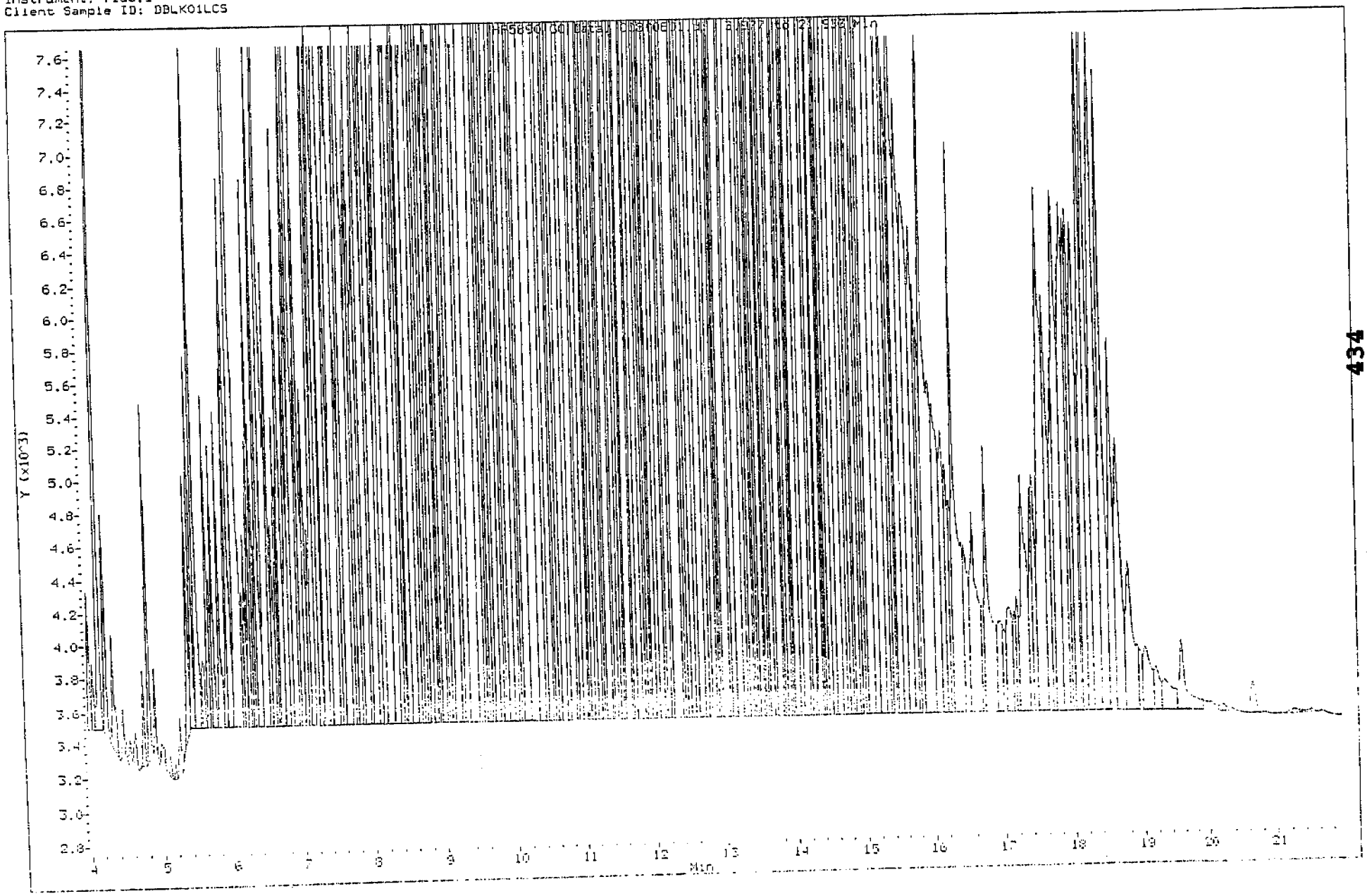

434

Data File: /chem/fida.i/051205/008f0801LCS1.d
Date : 12-MAY-2005 13:32
Client ID: DBLK01LCS
Sample Info: 1120084042511
Volume Injected (uL): 1.0
Column phase: ZB-5

Instrument: fida.i

Operator: JMB3
Column diameter: 0.25

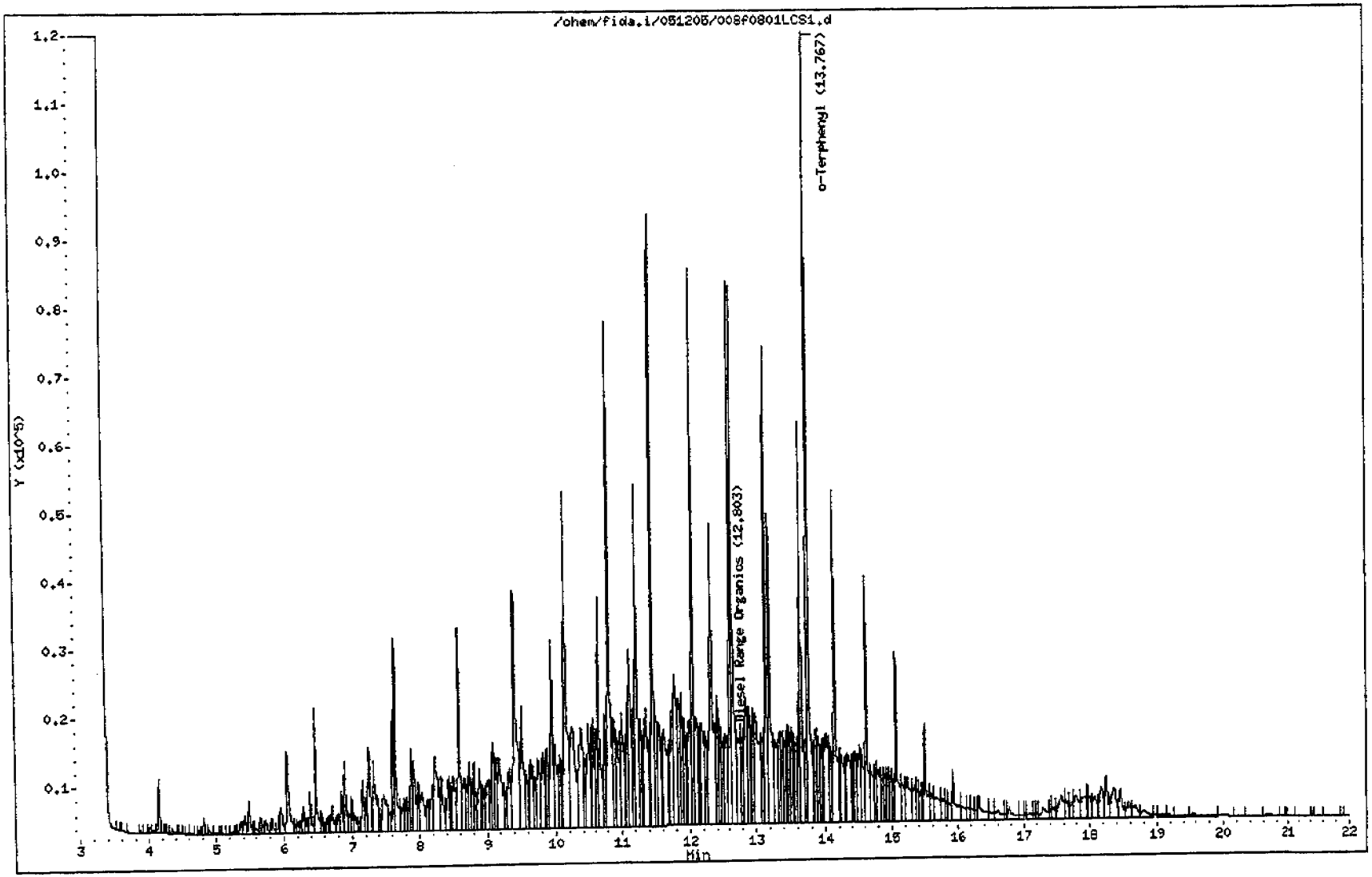

MISCELLANEOUS DATA

GEL ORGANIC RUN LOG INSTRUMENT ID: fida.i

DATE: 05/18/2005 METHOD: FIDa.i_f_DRO_042105.m OPERATOR:JMB3 REVIEWED BY:_____

DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 16 on pg. 16 Solvent REFMAT ID: Methylene Chloride 252222

Calibration & QC Information
GC Column: ZB-5 30m x 0.25mm x 0.25um
Initial Calibration Dates: See Calibration History and Standards Log
Initial Calibration Std ID's: See Calibration History and Standards Log
FID analysis of GEL SOP: GL-OA-E-003

Sequence Number: 042105 Injection Volume: 2.0 ul

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001f0101.d	IFI050314-01 IB	JMB3	21-APR-2005 14:11		042105	1.0	CLEAN	
002f0201.d	UFI050328-03 RT	JMB3	21-APR-2005 14:39		042105	1.0	RT MARKER	
003f0301.d	UFI050110-01 50	JMB3	21-APR-2005 15:08		042105	1.0	ICAL 1	
004f0401.d	UFI050110-03 200	JMB3	21-APR-2005 15:36		042105	1.0	ICAL 2	
005f0501.d	UFI050110-04 500	JMB3	21-APR-2005 16:05		042105	1.0	ICAL 3	
006f0601.d	UFI050110-05 1000	JMB3	21-APR-2005 16:34		042105	1.0	ICAL 4	
007f0701.d	UFI050110-06 5000	JMB3	21-APR-2005 17:02		042105	1.0	ICAL 5	
008f0801.d	UFI050310-01 1000	JMB3	21-APR-2005 17:31		042105	1.0	ICV: Passes	
009f0901.d	IFI050314-01 IB	JMB3	21-APR-2005 17:59		042105	1.0	CLEAN	
010f1001.d	QCNAGSOILBLK	JMB3	21-APR-2005 18:28		042105	1.0		
011f1101.d	QCNAGSOILLCS1	JMB3	21-APR-2005 18:57		042105	1.0		
012f1201.d	QCNAGSOILLCS2	JMB3	21-APR-2005 19:25		042105	1.0		
013f1301.d	QCNAGSOILLCS3	JMB3	21-APR-2005 19:54		042105	1.0		
014f1401.d	QCNAGSOILLCS4	JMB3	21-APR-2005 20:22		042105	1.0		
015f1501.d	QCNAGSOILLCS5	JMB3	21-APR-2005 20:51		042105	1.0		

Instrument Batch: /chem/fida.i/042105 Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
016f1601.d	UFI050310-01 1000	JMB3	21-APR-2005 21:20		042105	1.0	CCV: Passes	

017f1701.d	IFI050314-01 IB	JMB3	21-APR-2005 21:48		042105	1.0	CLEAN

GEL ORGANIC RUN LOG

INSTRUMENT ID: fida.i

DATE: 05/13/2005 METHOD: FIDa.i_f_DRO_042105.m OPERATOR:JMB3 REVIEWED BY:_____ DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 16 on pg. 16 Solvent REFMAT ID: Methylene Chloride 252222

Calibration & QC Information
GC Column: ZB-5 30m x 0.25mm x 0.25um
Initial Calibration Dates: See Calibration History and Standards Log
Initial Calibration Std ID's: See Calibration History and Standards Log
FID analysis of GEL SOP: GL-OA-E-003

ESHL 136029
EAEN 136033
LANL 3192S
LANL 3194S
LANL 3202S

Sequence Number: 051205 Injection Volume: 2.0 ul

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001f0101.d	IFI050314-01 IB	JMB3	12-MAY-2005 10:11		051205	1.0		CLEAN
002f0201.d	UFI050221-03 RT	JMB3	12-MAY-2005 10:40		051205	1.0		RT MARKER
003f0301.d	UFI050310-01 1000	JMB3	12-MAY-2005 11:09		051205	1.0		CCV: Passes
004f0401.d	IFI050314-01 IB	JMB3	12-MAY-2005 11:38		051205	1.0		CLEAN
005f0501.d	1200842693	JMB3	12-MAY-2005 12:06	423926	136029	1.0	MB	USE
006f0601.d	1200842694	JMB3	12-MAY-2005 12:35	423926	136029	1.0	LCS	USE
007f0701.d	1200840424	JMB3	12-MAY-2005 13:03	423035	3192S	1.0	MB	USE: LANL 3194S, LANL 3202S
008f0801.d	1200840425	JMB3	12-MAY-2005 13:32	423035	3192S	1.0	LCS	USE: LANL 3194S, LANL 3202S
009f0901.d	136029003	JMB3	12-MAY-2005 14:01	423926	136029	1.0	ESHL	USE: OTP Fails low; Reextract confirms: See 051805
010f1001.d	1200842695	JMB3	12-MAY-2005 14:29	423926	136029	1.0	MS	USE: OTP Fails low; Reextract confirms: See 051805
011f1101.d	1200842696	JMB3	12-MAY-2005 14:58	423926	136029	1.0	MSD	USE: OTP Fails low; Reextract confirms: See 051805
012f1201.d	136033001	JMB3	12-MAY-2005 15:26	423926	136033	1.0	EAEN	USE
013f1301.d	136033002	JMB3	12-MAY-2005 15:55	423926	136033	1.0	EAEN	USE
014f1401.d	136033003	JMB3	12-MAY-2005 16:23	423926	136033	1.0	EAEN	USE
015f1501.d	UFI050310-01 1000	JMB3	12-MAY-2005 16:52		051205	1.0		CCV: Passes

Instrument Batch: /chem/fida.i/051205

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
016f1601.d	IFI050314-01 IB	JMB3	12-MAY-2005 17:20		051205	1.0		CLEAN

017f1701.d	135802001	JMB3	12-MAY-2005 17:49	423035	3192S	10.0	LANL	USE
018f1801.d	135802002	JMB3	12-MAY-2005 18:17	423035	3192S	10.0	LANL	DUSE: Rerun @ 50x
019f1901.d	IFI050314-01 IB	JMB3	12-MAY-2005 18:46		051205	1.0		Instrument Blank
020f2001.d	135802003	JMB3	12-MAY-2005 19:23	423035	3192S	50.0	LANL	USE
021f2101.d	135802004	JMB3	12-MAY-2005 19:52	423035	3192S	10.0	LANL	USE
022f2201.d	135802005	JMB3	12-MAY-2005 20:20	423035	3192S	50.0	LANL	USE
023f2301.d	135802006	JMB3	12-MAY-2005 20:49	423035	3192S	50.0	LANL	DUSE: Rerun @ 10x
024f2401.d	135802007	JMB3	12-MAY-2005 21:17	423035	3192S	50.0	LANL	DUSE: Rerun @ 10x
025f2501.d	UFI050310-01 1000	JMB3	12-MAY-2005 21:46		051205	1.0		CCV: Passes
026f2601.d	IFI050314-01 IB	JMB3	12-MAY-2005 22:14		051205	1.0		CLEAN
027f2701.d	135802008	JMB3	12-MAY-2005 22:43	423035	3192S	50.0	LANL	USE
028f2801.d	135802009	JMB3	12-MAY-2005 23:11	423035	3192S	50.0	LANL	USE
029f2901.d	135802010	JMB3	12-MAY-2005 23:40	423035	3192S	50.0	LANL	USE
030f3001.d	135802011	JMB3	13-MAY-2005 00:08	423035	3192S	10.0	LANL	DUSE: Rerun neat
031f3101.d	135802012	JMB3	13-MAY-2005 00:37	423035	3192S	50.0	LANL	DUSE: Rerun @ 10x
032f3201.d	135802013	JMB3	13-MAY-2005 01:05	423035	3192S	50.0	LANL	USE
033f3301.d	135802014	JMB3	13-MAY-2005 01:34	423035	3192S	10.0	LANL	USE
034f3401.d	UFI050310-01 1000	JMB3	13-MAY-2005 02:02		051205	1.0		CCV: Passes
035f3501.d	IFI050314-01 IB	JMB3	13-MAY-2005 02:31		051205	1.0		CLEAN

GEL ORGANIC RUN LOG

INSTRUMENT ID: fida.i

DATE: 05/17/2005 METHOD: FIDa.i_f_DRO_042105.m OPERATOR:JMB3 REVIEWED BY:_____ DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 16 on pg. 16 Solvent REFMAT ID: Methylene Chloride 252222

Calibration & QC Information
GC Column: ZB-5 30m x 0.25mm x 0.25um
Initial Calibration Dates: See Calibration History and Standards Log
Initial Calibration Std ID's: See Calibration History and Standards Log
FID analysis of GEL SOP: GL-OA-E-003

EAEN 136036
LANL 3202S
LANL 3192S
LANL 3194S

Sequence Number: 051605 Injection Volume: 2.0 ul

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001f0101.d	IFI050314-01 IB	JMB3	16-MAY-2005 10:02		051605	1.0		CLEAN
002f0201.d	UFI050221-03 RT	JMB3	16-MAY-2005 10:30		051605	1.0		RT MARKER
003f0301.d	UFI050310-01 1000	JMB3	16-MAY-2005 10:59		051605	1.0		CCV: Passes
004f0401.d	IFI050314-01 IB	JMB3	16-MAY-2005 11:30		051605	1.0		CLEAN
005f0501.d	136036001	JMB3	16-MAY-2005 11:59	423910	136036	10.0	EAEN	USE
006f0601.d	135831003	JMB3	16-MAY-2005 12:28	423910	3202S	50.0	LANL	USE
007f0701.d	1200842660	JMB3	16-MAY-2005 12:56	423910	3202S	50.0	MS	USE
008f0801.d	1200842661	JMB3	16-MAY-2005 13:25	423910	3202S	50.0	MSD	USE
009f0901.d	135831004	JMB3	16-MAY-2005 13:53	423910	3202S	20.0	LANL	DUSE: Rerun @ 200x
010f1001.d	IFI050314-01 IB	JMB3	16-MAY-2005 14:58		051605	1.0		CLEAN
011f1101.d	135802002	JMB3	16-MAY-2005 15:27	423035	3192S	50.0	LANL	USE
012f1201.d	135802006	JMB3	16-MAY-2005 15:55	423035	3192S	10.0	LANL	USE
013f1301.d	135802007	JMB3	16-MAY-2005 16:24	423035	3192S	10.0	LANL	USE
014f1401.d	135802012	JMB3	16-MAY-2005 16:53	423035	3192S	10.0	LANL	USE
015f1501.d	UFI050310-01 1000	JMB3	16-MAY-2005 17:21		051605	1.0		CCV: Passes

Instrument Batch: /chem/fida.i/051605

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
016f1601.d	IFI050314-01 IB	JMB3	16-MAY-2005 17:50		051605	1.0		CLEAN

017f1701.d	135802011	JMB3	16-MAY-2005 18:19	423035	3192S		1.0	LANL	USE: See 051705 for CCV failure confirmation
018f1801.d	135831004	JMB3	16-MAY-2005 18:47	423910	3202S		200.0	LANL	USE: See 051705 for CCV failure confirmation
019f1901.d	135805001	JMB3	16-MAY-2005 19:16	423035	3194S		10.0	LANL	USE: See 051705 for CCV failure confirmation
020f2001.d	135805002	JMB3	16-MAY-2005 19:44	423035	3194S		10.0	LANL	USE: See 051705 for CCV failure confirmation
021f2101.d	135805003	JMB3	16-MAY-2005 20:13	423035	3194S		1.0	LANL	USE: See 051705 for CCV failure confirmation
022f2201.d	135805004	JMB3	16-MAY-2005 20:42	423035	3194S		10.0	LANL	USE: See 051705 for CCV failure confirmation
023f2301.d	135831001	JMB3	16-MAY-2005 21:10	423035	3202S		50.0	LANL	USE: See 051705 for CCV failure confirmation
024f2401.d	1200840426	JMB3	16-MAY-2005 21:39	423035	3202S		50.0	MS	USE: See 051705 for CCV failure confirmation
025f2501.d	1200840427	JMB3	16-MAY-2005 22:08	423035	3202S		50.0	MSD	USE: See 051705 for CCV failure confirmation
026f2601.d	135831002	JMB3	16-MAY-2005 22:36	423035	3202S		50.0	LANL	USE: See 051705 for CCV failure confirmation
027f2701.d	UFI050310-01 1000	JMB3	16-MAY-2005 23:05		051605		1.0		CCV: Fails high; See 051705 for CCV failure confirmation
028f2801.d	IFI050314-01 IB	JMB3	16-MAY-2005 23:33		051605		1.0		Instrument Blank

Prep Logbook

Extraction of Semivolatile and Nonvolatile Organic Compounds from Soil, Sludge and Other Miscellaneous Samples

Batch ID: 423034 **Verified by:** _____

Analyst: Nathan Greene

Method: SW846 3550B

Lab SOP: GL-OA-E-010 REV# 12

Instrument: Semi-Volatiles Manual

Sample ID	Run Date	Aliquot (g)	Prepped Aliquot (mL)	Prepped Factor (mL/g)
1200840424 MB	11-MAY-2005 13:00:00	30	1	0.03333
1200840425 LCS	11-MAY-2005 13:00:00	30	1	0.03333
135802001	11-MAY-2005 13:00:00	30	1	0.03333
135802002	11-MAY-2005 13:00:00	30	1	0.03333
135802003	11-MAY-2005 13:00:00	30	1	0.03333
135802004	11-MAY-2005 13:00:00	30	1	0.03333
135802005	11-MAY-2005 13:00:00	30	1	0.03333
135802006	11-MAY-2005 13:00:00	30	1	0.03333
135802007	11-MAY-2005 13:00:00	30	1	0.03333
135802008	11-MAY-2005 13:00:00	30	1	0.03333
135802009	11-MAY-2005 13:00:00	30	1	0.03333
135802010	11-MAY-2005 13:00:00	30	1	0.03333
135802011	11-MAY-2005 13:00:00	30	1	0.03333
135802012	11-MAY-2005 13:00:00	30	1	0.03333
135802013	11-MAY-2005 13:00:00	30	1	0.03333
135802014	11-MAY-2005 13:00:00	30	1	0.03333
135805001	11-MAY-2005 13:00:00	30	1	0.03333
135805002	11-MAY-2005 13:00:00	30	1	0.03333
135805003	11-MAY-2005 13:00:00	30	1	0.03333
135805004	11-MAY-2005 13:00:00	30	1	0.03333
135831001	11-MAY-2005 13:00:00	30	1	0.03333
1200840426 MS (135831001)	11-MAY-2005 13:00:00	30	1	0.03333
1200840427 MSD (135831001)	11-MAY-2005 13:00:00	30	1	0.03333
135831002	11-MAY-2005 13:00:00	30	1	0.03333

Type	Sample Id	Description	Serial Number	Spike Amt	Units
LCS	1200840425	DRO LCS	UE050419-03	1	mL
MS	1200840426	DRO LCS	UE050419-03	1	mL
MSD	1200840427	DRO LCS	UE050419-03	1	mL
SURR	All	20 ppm surrogate	WE050509-01	1	mL
REGNT	All	Methylene Chloride	050505-A	100	mL
SOURC	All	SODIUM SULFATE	243217	30	g

Comments:

Final Solvent: CH2Cl2

Verified By: AJP

General Engineering Laboratories
Form GEL-XXX
Rev. 06/02

NCR Report No.: 202768
Revision No.: 1

COMPANY - WIDE NONCONFORMANCE REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
18-MAY-05			
Instrument Type: GC/FID	**Test / Method:** SW846 8015A/B SVOC	**Matrix Type:** Solid	**Client Code:** LANL
Batch ID: 423035	**Sample Numbers:** SEE BELOW		

Potentially affected work order(s)(SDG): 135802(3192S),135805(3194S),135831(3202S)

Application Issues:

Failed Recovery for Surrogate or Tracer

Failed Recovery for LCS/MS/PS

Failed CCV or CCB

Specification and Requirements Nonconformance Description:	NRG Disposition:
1. Failed Recovery for surrogate: QC 1200840426MS QC 1200840427MSD 135802 001, 002, 003, 004, 006, 007, 008, 009, 010, 012, 013, 014 135805 001, 002, 004 135831 001, 002 2. Failed Recovery for MS: QC 1200840426MS 3. Failed CCV: QC 1200840426MS QC 1200840427MSD 135802 011 135805 001, 002, 003, 004 135831 001, 002	1. The following samples failed ortho-terphenyl surrogate recoveries due to matrix interferences associated with high level hits of Diesel Range Organics, and/or the presence of hydrocarbons heavier than diesel. 2. The MS recoveries for this SDG were not within the acceptance limits. The failures confirm in the matrix spike duplicate and are attributed to matrix interference. 3. All calibration verification standardss (CVS, ICV, or CCV) requirements have not been met for this SDG. Some target analytes failed with a positive bias in the standards bracketing the samples in this SDG. The positive bias for the analytical data is a result of the instrument response increasing after the initial calibration. All samples were re-analyzed and the standard failed in the same manner, confirming matrix interference.

Originator's Name:
Josh Brooks 18-MAY-05

Data Validator/Group Leader:

Quality Review:

Director:

Data File: /chem/fida.i/051605/023f2301.d
Report Date: 17-May-2005 08:54

General Engineering Laboratories, LLC

ZB-5 0.25mm

Data file : /chem/fida.i/051605/023f2301.d
Lab Smp Id: 135831001
Inj Date : 16-MAY-2005 21:10
Operator : JMB3
Smp Info : |135831001|50|
Misc Info : |FIDDRO_SF|423035|FIDF|LANL|
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fida.i/051605/FIDa.i_f_DRO_042105.m
Meth Date : 17-May-2005 08:53 jos00786
Cal Date : 21-APR-2005 17:02
Als bottle: 23
Dil Factor: 50.00000
Integrator: Falcon
Target Version: 3.50
Processing Host: kilroy

Client Smp ID: RE03-05-58926
Inst ID: fida.i
Quant Type: ESTD
Cal File: 007f0701.d
Compound Sublist: 3202S.sub
Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariab

Name	Value	Description
DF	50.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weigth of sample extracted (g)
M	5.87600	% Moisture

Cpnd Variable — Local Compound Variable

	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (mg/L)	FINAL (mg/Kg)	
$	1 Diesel Range Organics					CAS #:	
	7.623	17.980		6943720	1039.61	1840	
$	2 o-Terphenyl					CAS #: 84-15-1	
	13.763	13.773	-0.010	28108	3.05084	5.1	(RM)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Data File: /chem/fida.i/051605/023f2301.d
Report Date: 17-May-2005 08:54

General Engineering Laboratories, LLC

RECOVERY REPORT

Client Name: Los Alamos National 05-MAY-2005 00:00 Client SDG: 3202S
Sample Matrix: SOLID Fraction: SV
Lab Smp Id: 135831001 Client Smp ID: RE03-05-58926
Level: LOW Operator: JMB3
Data Type: GC DATA SampleType: SAMPLE
SpikeList File: DROLCSSOIL.spk Quant Type: ESTD
Sublist File: 3202S.sub
Method File: /chem/fida.i/051605/FIDa.i_f_DRO_042105.m
Misc Info: |FIDDRO_SF|423035|FIDF|LANL|

SURROGATE COMPOUND	CONC ADDED mg/Kg	CONC RECOVERED mg/Kg	% RECOVERED	LIMITS
$ 2 o-Terphenyl	0.71	5.4	760.56*	38-143

Data File: /chem/fida.i/051605/023f2301.d
Injection Date: 16-MAY-2005 21:10
Instrument: fida.i
Client Sample ID: RE03-05-58926

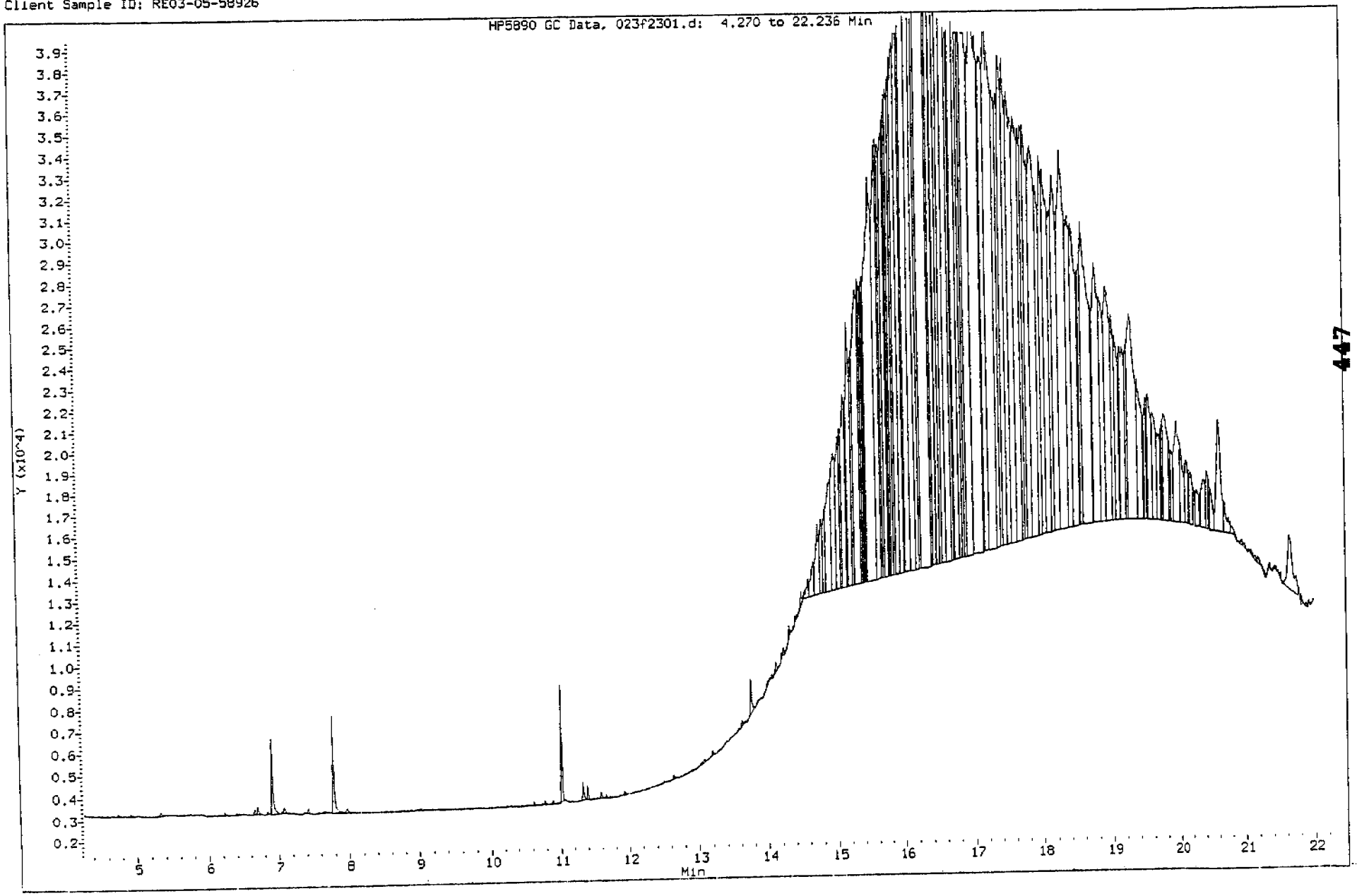

Data File: /chem/fida.i/051605/023f2301.d
Injection Date: 16-MAY-2005 21:10
Instrument: fida.i
Client Sample ID: RE03-05-58926

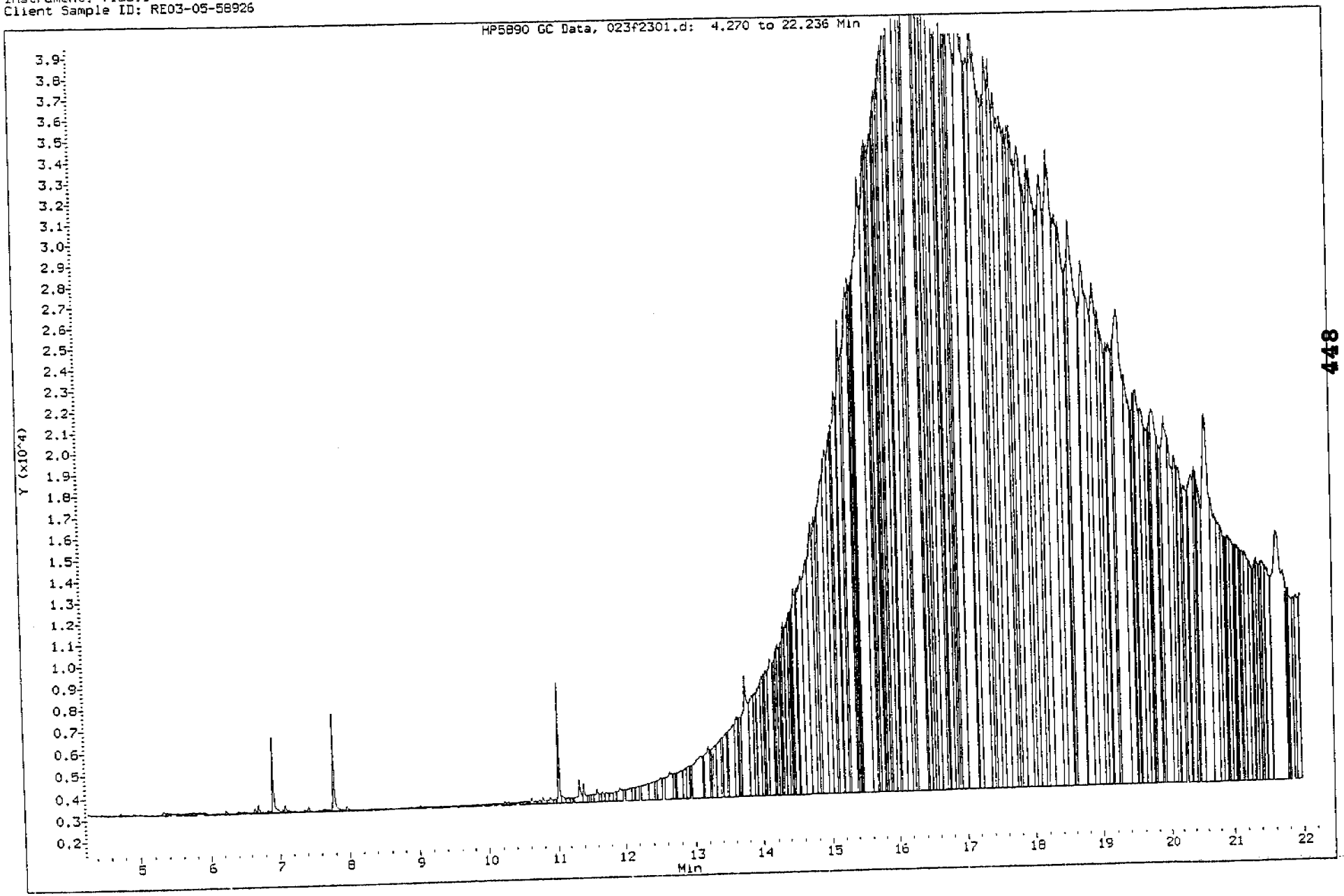

Data File: /chem/fida.i/051605/023f2301.d
Date : 16-MAY-2005 21:10
Client ID: RE03-05-58926
Sample Info: |135831001|50|
Volume Injected (uL): 1.0
Column phase: ZB-5

Instrument: fida.i

Operator: JMB3
Column diameter: 0.25

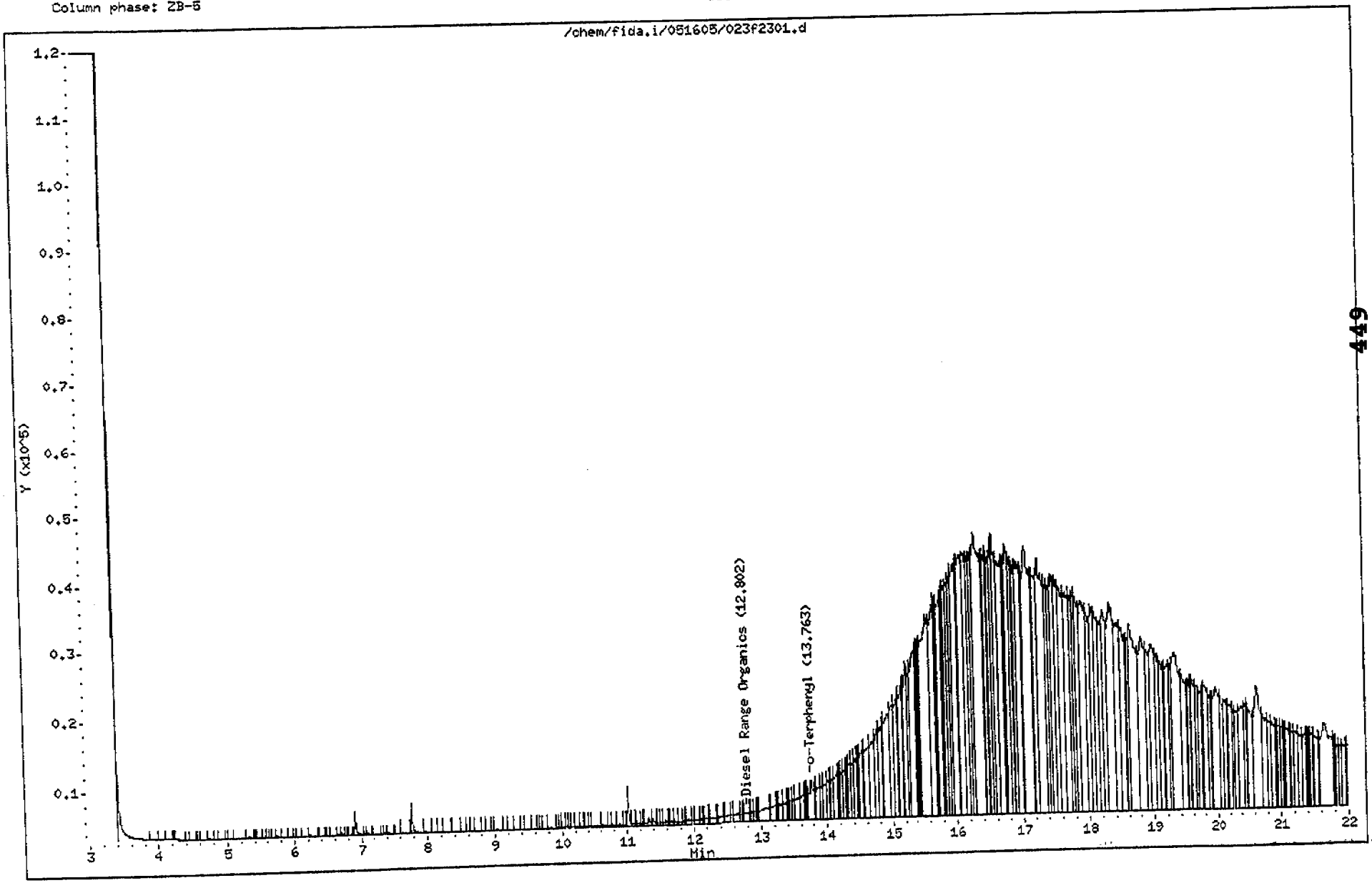

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Data File: /chem/fida.i/051605/024f2401.d
Report Date: 17-May-2005 08:54

General Engineering Laboratories, LLC

ZB-5 0.25mm

Data file : /chem/fida.i/051605/024f2401.d
Lab Smp Id: 1200840426
Inj Date : 16-MAY-2005 21:39
Operator : JMB3
Smp Info : |1200840426|50|
Misc Info : |FIDDRO_SF|423035|FIDF|MS|
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fida.i/051605/FIDa.i_f_DRO_042105.m
Meth Date : 17-May-2005 08:53 jos00786
Cal Date : 21-APR-2005 17:02
Als bottle: 24
Dil Factor: 50.00000
Integrator: Falcon
Target Version: 3.50
Processing Host: kilroy

Client Smp ID: RE03-05-8926MS

Inst ID: fida.i

Quant Type: ESTD
Cal File: 007f0701.d
QC Sample: MS

Compound Sublist: 3202S.sub
Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariab

Name	Value	Description
DF	50.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weigth of sample extracted (g)
M	5.87600	% Moisture

Cpnd Variable — Local Compound Variable

	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (mg/L)	FINAL (mg/Kg)		
S 1 Diesel Range Organics						CAS #:		
	7.623- 17.980			5653463	846.430	1500	(R)	
S 2 o-Terphenyl						CAS #: 84-15-1		
	13.763	13.773	-0.010	30346	3.29375	5.8	(RM)	

Jm 5/17/05

JB 5-18-05

QC Flag Legend

R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Data File: /chem/fida.i/051605/024f2401.d
Report Date: 17-May-2005 08:54

General Engineering Laboratories, LLC

RECOVERY REPORT

Client Name:
Sample Matrix: SOLID
Lab Smp Id: 1200840426
Level: LOW
Data Type: GC DATA
SpikeList File: DROSOILMS.spk
Sublist File: 3202S.sub
Method File: /chem/fida.i/051605/FIDa.i_f_DRO_042105.m
Misc Info: |FIDDRO_SF|423035|FIDF|MS|

Client SDG: 3202S
Fraction: SV
Client Smp ID: RE03-05-8926MS
Operator: JMB3
SampleType: MS
Quant Type: ESTD

SPIKE COMPOUND	CONC ADDED mg/Kg	CONC RECOVERED mg/Kg	% RECOVERED	LIMITS
S 1 Diesel Range Organ	35.4	1500	4237.29*	22-158

SURROGATE COMPOUND	CONC ADDED mg/Kg	CONC RECOVERED mg/Kg	% RECOVERED	LIMITS
$ 2 o-Terphenyl	0.71	5.8	816.90*	38-143

Data File: /chem/fida.i/051605/024f2401.d
Injection Date: 16-MAY-2005 21:39
Instrument: fida.i
Client Sample ID: RE03-05-8926MS

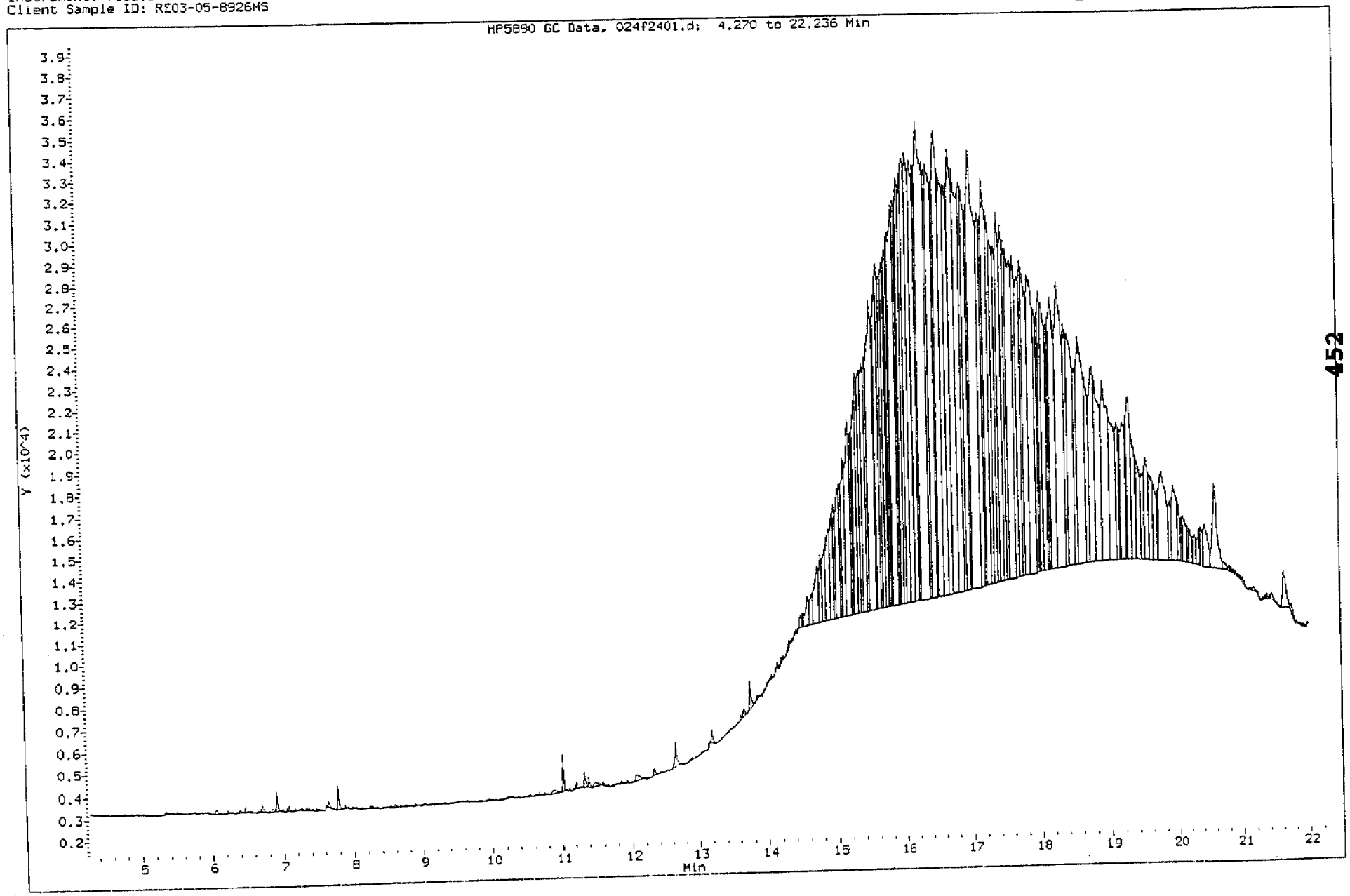

452

Data File: /chem/fida.i/051605/024f2401.d
Injection Date: 16-MAY-2005 21:39
Instrument: fida.i
Client Sample ID: RE03-05-8926MS

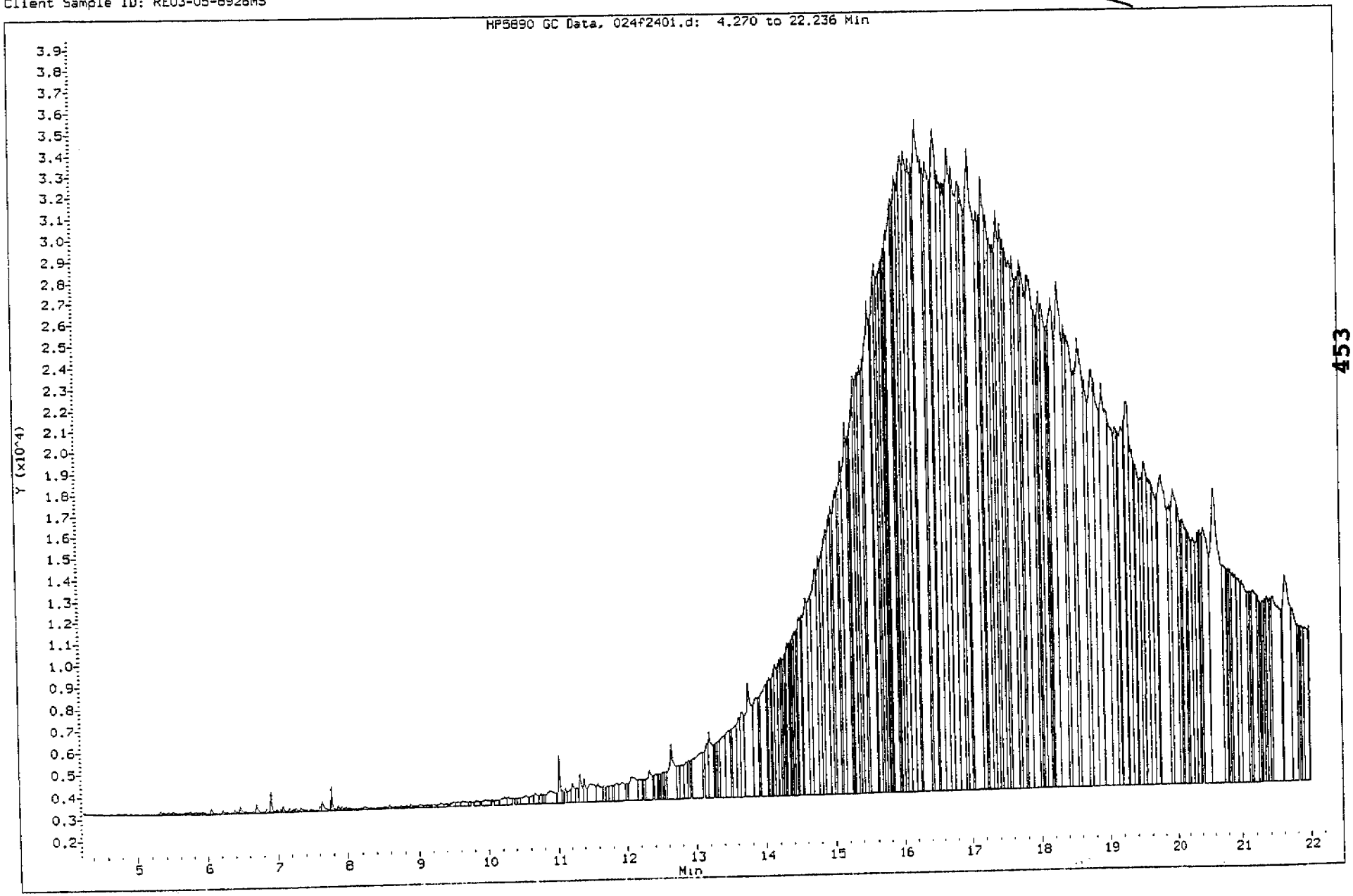

Data File: /chem/fida.i/051605/024f2401.d
Date : 16-MAY-2005 21:39
Client ID: RE03-05-8926MS
Sample Info: 112008404261501
Volume Injected (uL): 1.0
Column phase: ZB-5

Instrument: fida.i

Operator: JMB3
Column diameter: 0.25

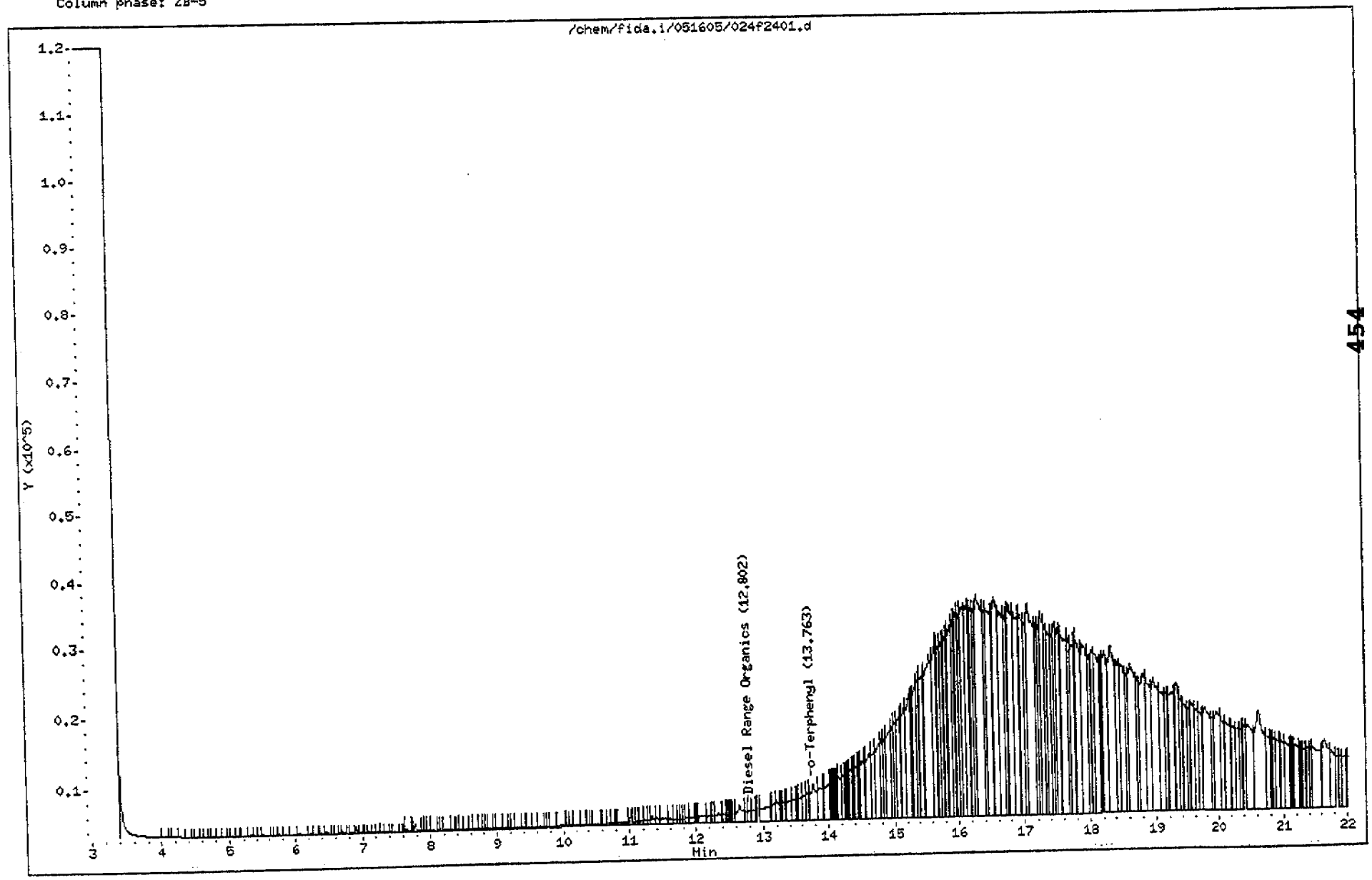

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General Engineering Laboratories, LLC

ZB-5 0.25mm

Data file : /chem/fida.i/051605/025f2501.d
Lab Smp Id: 1200840427 — Client Smp ID: RE03-05-8926MSD
Inj Date : 16-MAY-2005 22:08
Operator : JMB3 — Inst ID: fida.i
Smp Info : |1200840427|50|
Misc Info : |FIDDRO_SF|423035|FIDF|MSD|
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fida.i/051605/FIDa.i_f_DRO_042105.m
Meth Date : 17-May-2005 08:53 jos00786 — Quant Type: ESTD
Cal Date : 21-APR-2005 17:02 — Cal File: 007f0701.d
Als bottle: 25 — QC Sample: MSD
Dil Factor: 50.00000
Integrator: Falcon — Compound Sublist: 3202S.sub
Target Version: 3.50 — Sample Matrix: Soil
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariab

Name	Value	Description
DF	50.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weigth of sample extracted (g)
M	5.87600	% Moisture

Cpnd Variable — Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (mg/L)	FINAL (mg/Kg)		
S 1 Diesel Range Organics					CAS #:		
7.623	17.980		6065800	908.165	1610		(R)
S 2 o-Terphenyl					CAS #: 84-15-1		
13.763	13.773	-0.010	29436	3.19498	5.6	0	(RM) AB

JMP 5/17/05

QC Flag Legend

R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Data File: /chem/fida.i/051605/025f2501.d
Report Date: 17-May-2005 08:54

General Engineering Laboratories, LLC

RECOVERY REPORT

Client Name:
Sample Matrix: SOLID
Lab Smp Id: 1200840427
Level: LOW
Data Type: GC DATA
SpikeList File: DROSOILMS.spk
Sublist File: 3202S.sub
Method File: /chem/fida.i/051605/FIDa.i_f_DRO_042105.m
Misc Info: |FIDDRO_SF|423035|FIDF|MSD|

Client SDG: 3202S
Fraction: SV
Client Smp ID: RE03-05-8926MSD
Operator: JMB3
SampleType: MSD
Quant Type: ESTD

SPIKE COMPOUND	CONC ADDED mg/Kg	CONC RECOVERED mg/Kg	% RECOVERED	LIMITS
S 1 Diesel Range Organ	35.4	1610	4548.02*	22-158

SURROGATE COMPOUND	CONC ADDED mg/Kg	CONC RECOVERED mg/Kg	% RECOVERED	LIMITS
$ 2 o-Terphenyl	0.71	5.6	788.73*	38-143

Data File: /chem/fida.i/051605/025f2501.d
Injection Date: 16-MAY-2005 22:08
Instrument: fida.i
Client Sample ID: RE03-05-8926MSD

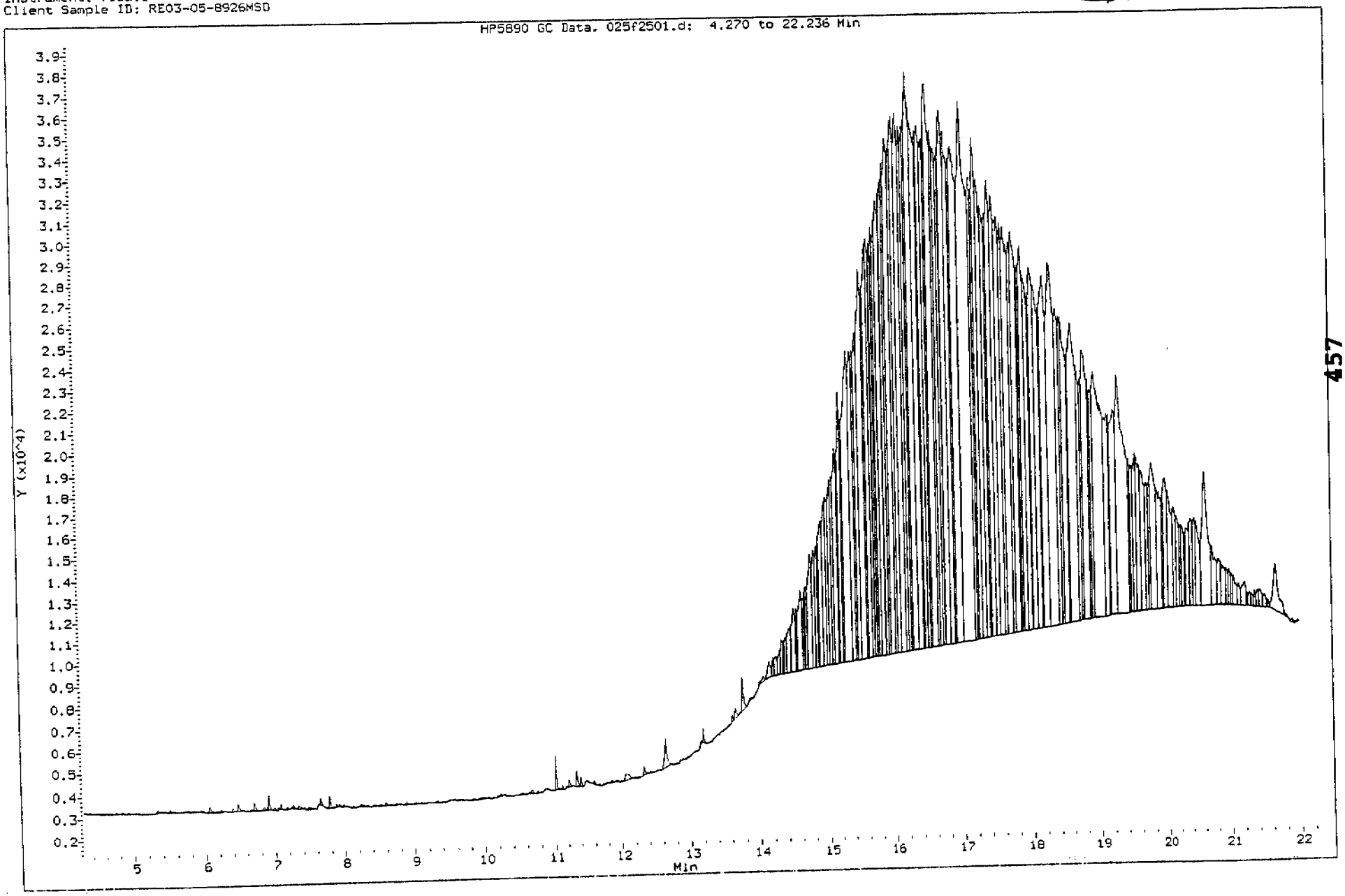

Data File: /chem/fida.i/051605/025f2501.d
Injection Date: 16-MAY-2005 22:08
Instrument: fida.i
Client Sample ID: RE03-05-8926MSD

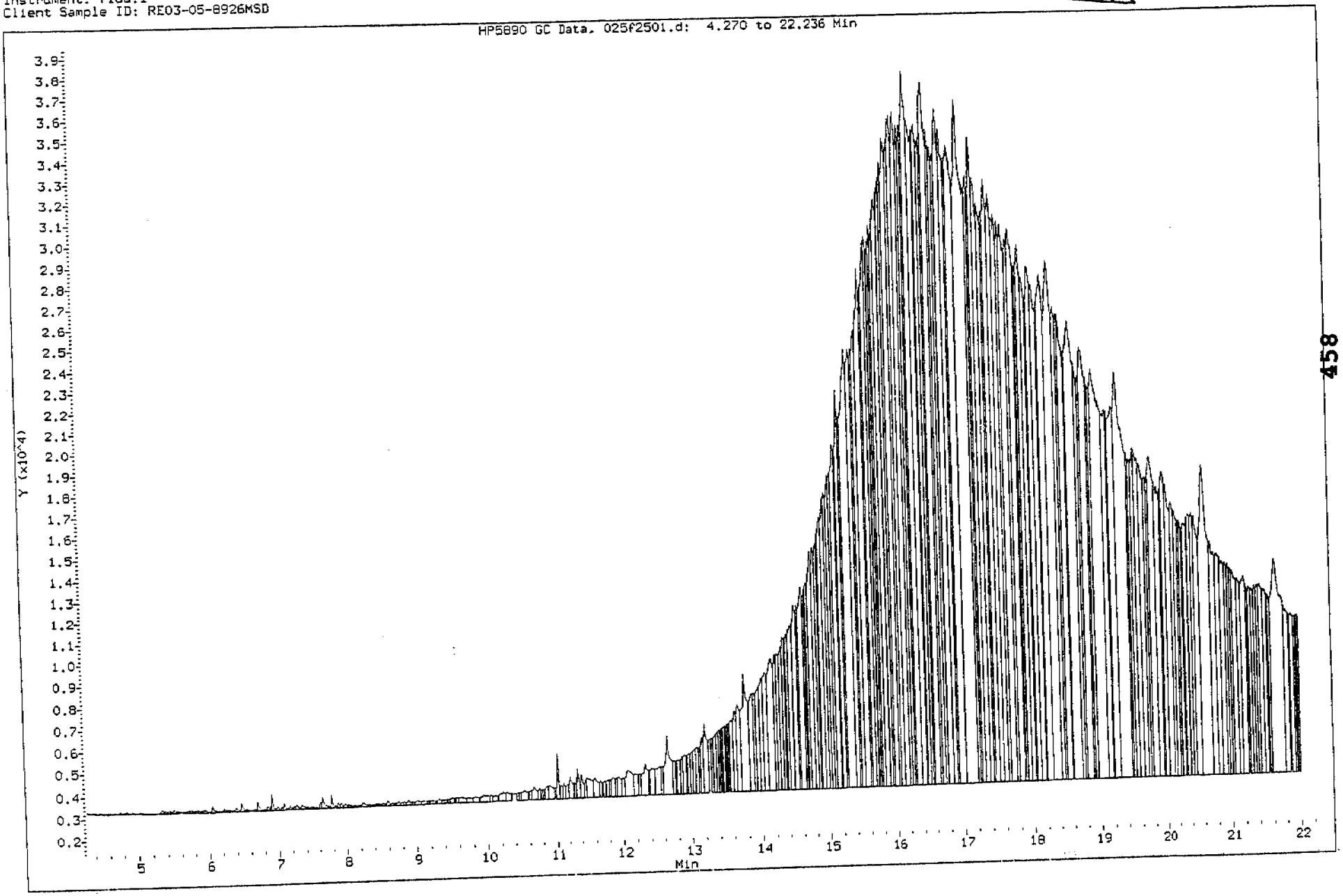

458

Data File: /chem/fida.i/051605/025f2501.d
Date : 16-MAY-2005 22:08
Client ID: RE03-05-8926MSD
Sample Info: 112008404271501
Volume Injected (uL): 1.0
Column phase: ZB-5

Instrument: fida.i

Operator: JMB3
Column diameter: 0.25

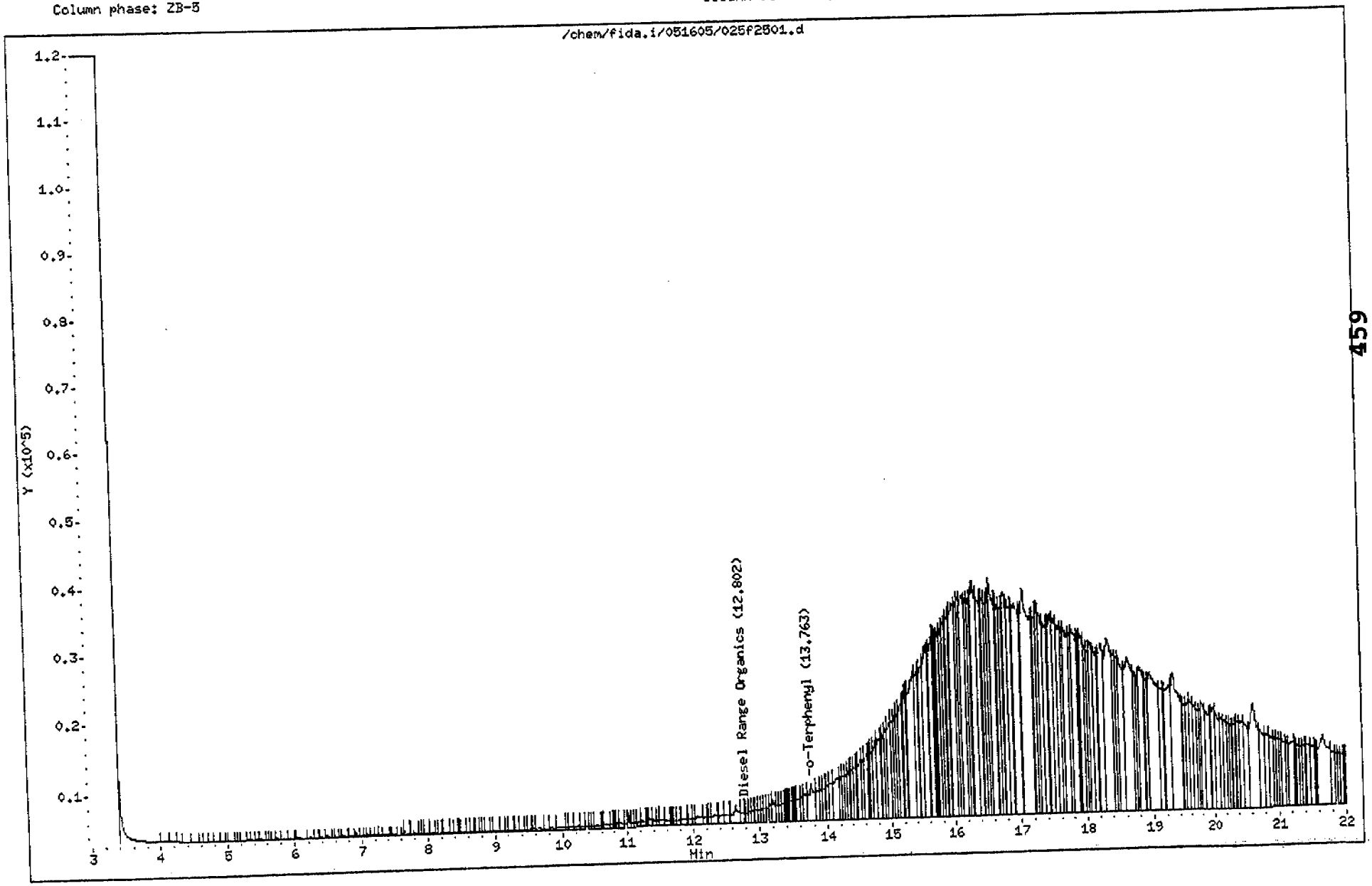

GC/FID VOLATILE ANALYSIS

GC Volatile Organics
Los Alamos National Laboratory (LANL)
SDG 3194S

Method/Analysis Information

Procedure:	Volatile Total Petroleum Hydrocarbons by Flame Ionization Detector
Analytical Method:	SW846 8015B VOC
Prep Method:	SW846 8015B PREP
Analytical Batch Number:	425588
Prep Batch Number:	425587

Sample Analysis

The following client and quality control samples were analyzed to complete this sample delivery group/work order using the methods referenced in the Analysis Information section:

Sample ID	Client ID
135805001	RE03-05-59531
135805002	RE03-05-59541
135805003	RE03-05-59532
135805004	RE03-05-59542
1200846633	Method Blank (MB)
1200846636	Laboratory Control Sample (LCS)
1200846634	135805001(RE03-05-59531) Matrix Spike (MS)
1200846635	135805001(RE03-05-59531) Matrix Spike Duplicate (MSD)

Gasoline Range Organics will be designated as GRO throughout this case narrative.

Preparation/Analytical Method Verification

Procedures for preparation, analysis, and reporting of analytical data are documented by General Engineering Laboratories, LLC. (GEL) as Standard Operating Procedures (SOP).

Calibration Information

Due to the limited capacity of software, all of the current initial calibration files may not be displayed. If necessary, a calibration history report was inserted, prior to the appropriate Form 6, in the Standards section in the data package.

Initial Calibration

All initial calibration requirements have been met for this sample delivery groups (SDG).

CCV Requirements
All associated calibration verification standard(s) (ICV or CCV) met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
Target analytes were detected in the blank below the reporting limit.

Surrogate Recoveries
Sample 1200846634 (RE03-05-59531MS) failed surrogate recoveries. The sample was re-analyzed and confirmed the failures. The MSD and associated sample recovered this surrogate at the lower end of the acceptance limits. Please see the Form II in the deliverable for a complete list of failures and the recovery limits. See NCR 203021.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

QC Sample Designation
Sample 135805001 (RE03-05-59531) was selected for analysis as the matrix spike.

Matrix Spike (MS) Recovery Statement
The MS recoveries were not within the acceptance limits. The MSD recovered in a similar manner. Please see the Form III in the deliverable for a complete list of failures and the recovery limits. See NCR 203021.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recoveries were not within the acceptance limits. The MS recovered in a similar manner. Please see the Form III in the deliverable for a complete list of failures and the recovery limits. See NCR 203021.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD(s) between the MS and MSD met the acceptance limits.

Technical Information

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the ALPHALIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

Sample Dilutions
The samples in this SDG did not require dilutions.

Miscellaneous Information

Electronic Package Comment
The following package was generated using an electronic data processing program referred to as "virtual packaging". In an effort to increase quality and efficiency, the laboratory is developing systems to eventually generate all data packages electronically. The following change from "traditional" packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. An electronic signature page inserted after the case narrative of each electronic package will indicate the analyst, reviewer, and report specialist names associated with the generation of the data and package. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Nonconformance (NCR) Documentation
Nonconformance report (NCR) 203021 was generated for this SDG.

Manual Integrations
Data files associated with the initial calibration, continuing calibration check, and samples did not require manual integrations.

Additional Comments
Additional comments were not required for this SDG.

System Configuration
The laboratory utilizes the following gas chromatographic configurations:

Chromatographic Columns
Chromatographic separation of volatile components is accomplished through the following column:

Column ID	Column Description
J&W2	DB-624(0.53mm x 3.0u x 15m)

Instrument Configuration
Instrument systems are referenced in the raw data and individual form headers by the Instrument ID designation below:

Instrument ID	System Configuration	Chromatographic Column	P & T Trap
VOC1	Tracor 540 GC PID/FID	J&W	Tekmar #1

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Erin Lambert Date: 5/31/05

Roadmap for LANL 3194S GRO

This roadmap was analyzed by Amy Jamison on 05-19-2005, 15:20.
This roadmap was reviewed by Gwen Hallquist on 05-19-2005, 16:19.
This roadmap was packaged by LySandra Gathers on 05-23-2005, 12:33.

Sample

exclude	manual	datafile	smpid	injdate	injtime	sublist	clientid	dilution	comment
■	N	/chem/voc1a.i/051405.b/1j6016.d	135805001	14-MAY-2005	19:04	GRO.sub	RE03-05-59531	1.00000	
□	N	/chem/voc1a.i/051405.b/1j609.d	135805001	14-MAY-2005	14:58	GRO.sub	RE03-05-59531	1.00000	
■	N	/chem/voc1a.i/051405.b/1j6017.d	135805002	14-MAY-2005	19:39	GRO.sub	RE03-05-59541	1.00000	
□	N	/chem/voc1a.i/051405.b/1j6010.d	135805002	14-MAY-2005	15:34	GRO.sub	RE03-05-59541	1.00000	
■	N	/chem/voc1a.i/051405.b/1j6018.d	135805003	14-MAY-2005	20:14	GRO.sub	RE03-05-59432	1.00000	
□	N	/chem/voc1a.i/051405.b/1j6011.d	135805003	14-MAY-2005	16:09	GRO.sub	RE03-05-59432	1.00000	
■	N	/chem/voc1a.i/051405.b/1j6019.d	135805004	14-MAY-2005	20:49	GRO.sub	RE03-05-59542	1.00000	
□	N	/chem/voc1a.i/051405.b/1j6012.d	135805004	14-MAY-2005	16:44	GRO.sub	RE03-05-59542	1.00000	

QC Sample

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	comment
□	N	/chem/voc1a.i/051405.b/1j505BSLANL.d	1200846633	mb	14-MAY-2005	12:38	GRO.sub	VBLK01	1.00000	
□	N	/chem/voc1a.i/051405.b/1j504LSLANL.d	1200846636	lcs	14-MAY-2005	12:03	GRO.sub	VBLK01LCS	1.00000	
■	N	/chem/voc1a.i/051405.b/1j6020.d	1200846634	ms	14-MAY-2005	21:24	GRO.sub	RE03-05-59531MS	1.00000	
□	N	/chem/voc1a.i/051405.b/1j6013.d	1200846634	ms	14-MAY-2005	17:19	GRO.sub	RE03-05-59531MS	1.00000	
■	N	/chem/voc1a.i/051405.b/1j6021.d	1200846635	msd	14-MAY-2005	21:59	GRO.sub	RE03-05-59531MSD	1.00000	
□	N	/chem/voc1a.i/051405.b/1j6014.d	1200846635	msd	14-MAY-2005	17:54	GRO.sub	RE03-05-59531MSD	1.00000	

SAMPLE DATA SUMMARY

1A
GRO ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-59532

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

Matrix: (soil/water) SOIL Lab Sample ID: 135805003

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 1J6011

Level: (low/med) LOW Date Received: 05/04/05

% Moisture: not dec. 14 Date Analyzed: 05/14/05

GC Column: RTX-VOLATILES ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
	----------Gasoline Range Organics_____	58.1	U

FORM I VOA OLM03.0

1A
GRO ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-59531

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

Matrix: (soil/water) SOIL Lab Sample ID: 135805001

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 1J609

Level: (low/med) LOW Date Received: 05/04/05

% Moisture: not dec. 16 Date Analyzed: 05/14/05

GC Column: RTX-VOLATILES ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
	----------Gasoline Range Organics_____	29.2	J

FORM I VOA OLM03.0

1A
GRO ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-59541

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

Matrix: (soil/water) SOIL Lab Sample ID: 135805002

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 1J6010

Level: (low/med) LOW Date Received: 05/04/05

% Moisture: not dec. 13 Date Analyzed: 05/14/05

GC Column: RTX-VOLATILES ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
	----------Gasoline Range Organics_____	57.7	U

FORM I VOA OLM03.0

1A
GRO ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-59542

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

Matrix: (soil/water) SOIL Lab Sample ID: 135805004

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 1J6012

Level: (low/med) LOW Date Received: 05/04/05

% Moisture: not dec. 14 Date Analyzed: 05/14/05

GC Column: RTX-VOLATILES ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
	Gasoline Range Organics	34.1	J

FORM I VOA OLM03.0

QUALITY CONTROL SUMMARY

2B
SOIL GRO SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

Level:(low/med) LOW

	EPA SAMPLE NO.	SMC1 (BFB) #	SMC2 #	SMC3 #	OTHER	TOT OUT
01	VBLK01LCS	105				0
02	VBLK01	100				0
03	RE03-05-59531	69				0
04	RE03-05-59541	76				0
05	RE03-05-59532	81				0
06	RE03-05-59542	74				0
07	RE03-05-59531MS	56*				1
08	RE03-05-59531MSD	65				0
09						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						

SMC1 (BFB) = Bromofluorobenzene QC LIMITS (58-124)

Column to be used to flag recovery values

* Values outside of contract required QC limits

3B

SOIL GRO MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

Matrix Spike - EPA Sample No.: RE03-05-5953 Level:(low/med) LOW

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC #	QC. LIMITS REC.
Gasoline Range Organics	595	29.2	258	38*	51-130

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Gasoline Range Organics	595	294	44*	15	31	51-130

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 1 outside limits
Spike Recovery: 2 out of 2 outside limits

COMMENTS: _____

3B
SOIL GRO LAB CONTROL SAMPLE

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

Matrix Spike - EPA Sample No.: VBLK01 Level:(low/med) LOW

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC #	QC. LIMITS REC.
Gasoline Range Organics	500	0.0	498	100	73-118

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 0 outside limits
Spike Recovery: 0 out of 1 outside limits

COMMENTS: _____

4A
GRO METHOD BLANK SUMMARY

EPA SAMPLE NO.

| VBLK01 |

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

Lab File ID: 1J505BSLANL Lab Sample ID: 1200846633

Date Analyzed: 05/14/05 Time Analyzed: 1238

GC Column: RTX-VOLATILESID: 0.25 (mm) Heated Purge: (Y/N) Y

Instrument ID: VOC1A

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	VBLK01LCS	1200846636	1J504LSLANL	1203
02	RE03-05-59531	135805001	1J609	1458
03	RE03-05-59541	135805002	1J6010	1534
04	RE03-05-59532	135805003	1J6011	1609
05	RE03-05-59542	135805004	1J6012	1644
06	RE03-05-59531MS	1200846634	1J6013	1719
07	RE03-05-59531MSD	1200846635	1J6014	1754
08				
09				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				
27				
28				
29				
30				

SAMPLE DATA

1A
GRO ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-59532

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

Matrix: (soil/water) SOIL Lab Sample ID: 135805003

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 1J6011

Level: (low/med) LOW Date Received: 05/04/05

% Moisture: not dec. 14 Date Analyzed: 05/14/05

GC Column: RTX-VOLATILES ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
	----------Gasoline Range Organics_____	58.1	U

FORM I VOA OLM03.0

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Data file : /chem/vocla.i/051405.b/1j6011.d
Lab Smp Id: 135805003 Client Smp ID: RE03-05-59432
Inj Date : 14-MAY-2005 16:09
Operator : ACJ Inst ID: vocla.i
Smp Info : |135805003|1|
Misc Info : |VOC8015_SF|425588|GROF|
Comment : FID
Method : /chem/vocla.i/051405.b/8015GRO-050905.m
Meth Date : 16-May-2005 15:16 amj Quant Type: ESTD
Cal Date : 09-MAY-2005 21:08 Cal File: 1j1010.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: GRO.sub
Target Version: 3.50 Sample Matrix: WATER

Concentration Formula: Amt * DF * (Vt/Vo)*Uf * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	5.00000	Purge Volume
Vo	5.00000	Initial sample volume
Uf	1.00000	Unit Correction Factor

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)
$ 3 Bromofluorobenzene					CAS #: 460-00-4
9.943	9.957	-0.014	151356	40.3841	40.4

Data File: /chem/voc1a.i/051405.b/1j6011.d

Date : 14-MAY-2005 16:09

Client ID: RE03-05-59432

Sample Info: |135805003|1|

Purge Volume: 5.0

Column phase: Rtx-Volatiles

Instrument: voc1a.i

Operator: ACJ

Column diameter: 0.25

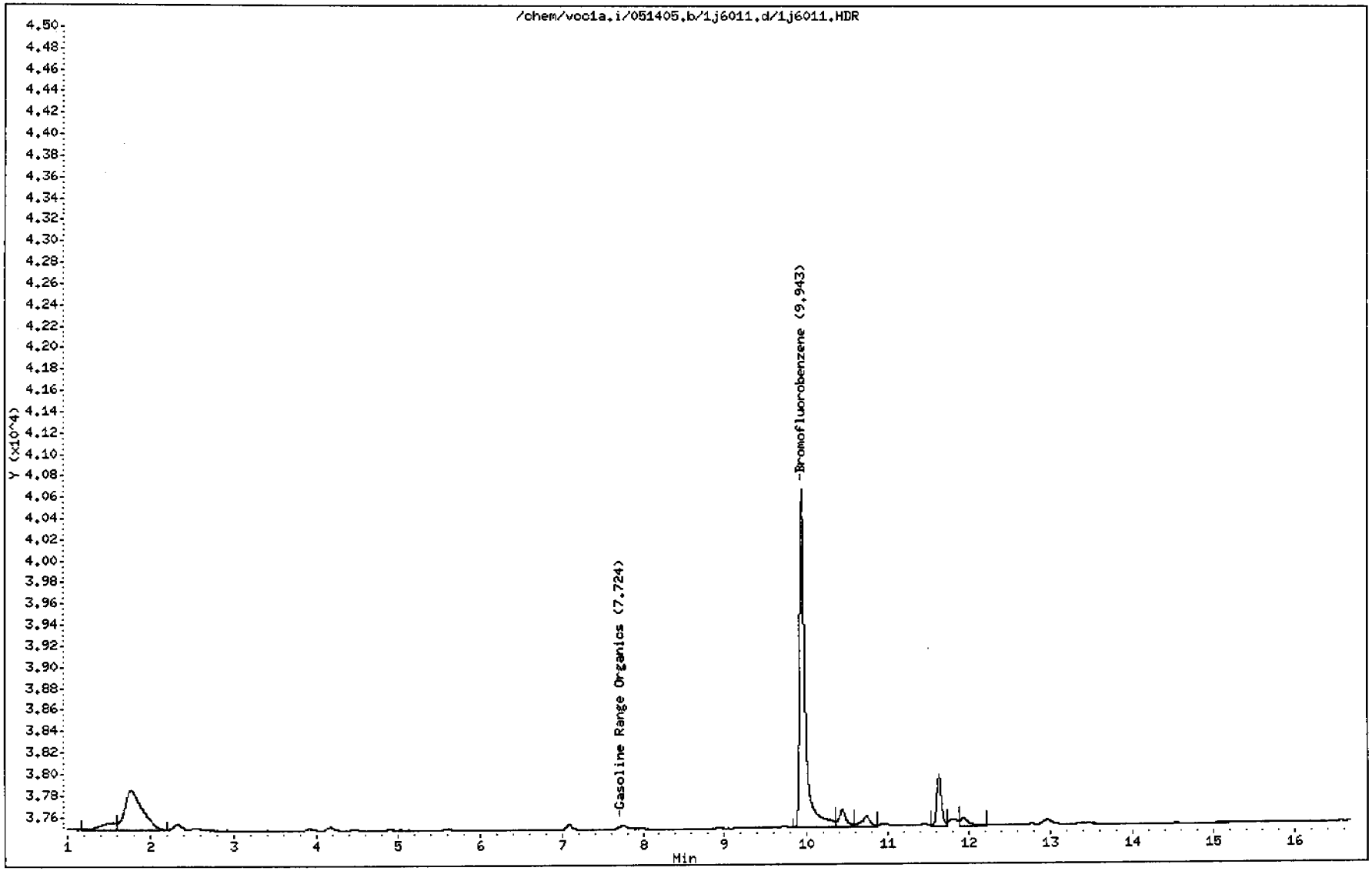

1A
GRO ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-59531

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

Matrix: (soil/water) SOIL Lab Sample ID: 135805001

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 1J609

Level: (low/med) LOW Date Received: 05/04/05

% Moisture: not dec. 16 Date Analyzed: 05/14/05

GC Column: RTX-VOLATILES ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
	----------Gasoline Range Organics_____	29.2	J

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General Engineering Laboratories, LLC

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Data file : /chem/vocla.i/051405.b/1j609.d
Lab Smp Id: 135805001 Client Smp ID: RE03-05-59531
Inj Date : 14-MAY-2005 14:58
Operator : ACJ Inst ID: vocla.i
Smp Info : |135805001|1|
Misc Info : |VOC8015_SF|425588|GROF|
Comment : FID
Method : /chem/vocla.i/051405.b/8015GRO-050905.m
Meth Date : 16-May-2005 15:16 amj Quant Type: ESTD
Cal Date : 09-MAY-2005 21:08 Cal File: 1j1010.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: GRO.sub
Target Version: 3.50 Sample Matrix: SOIL

Concentration Formula: Amt * DF * (100/(100-M)*(Vt/Ws))*Uf * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	15.93160	% Moisture
Vt	5.00000	Purge Volume (mL)
Ws	5.00000	Weight of sample (g)
Uf	1.00000	Unit Correction Factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	
S 1 Gasoline Range Organics					CAS #:	
3.234-	12.215		91182	24.5905	29.2	(a)
$ 3 Bromofluorobenzene					CAS #: 460-00-4	
9.937	9.957	-0.020	129817	34.6372	41.2	

QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).

Data File: /chem/voc1a.i/051405.b/1j609.d

Page 1

Date : 14-MAY-2005 14:58

Client ID: RE03-05-59531

Instrument: voc1a.i

Sample Info: |1358050011|1|

Operator: ACJ

Column phase: Rtx-Volatiles

Column diameter: 0.25

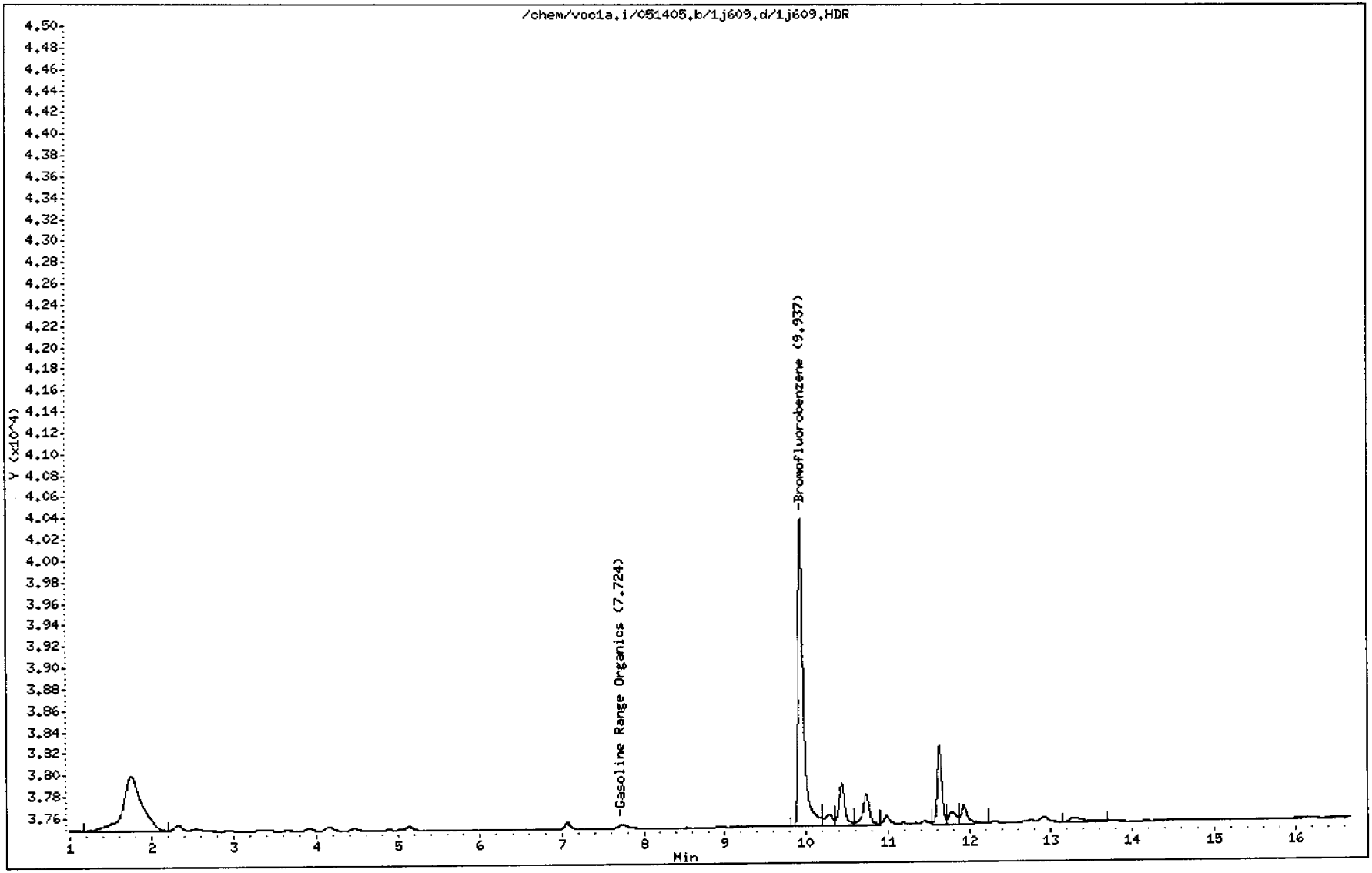

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1A
GRO ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-59541

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

Matrix: (soil/water) SOIL Lab Sample ID: 135805002

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 1J6010

Level: (low/med) LOW Date Received: 05/04/05

% Moisture: not dec. 13 Date Analyzed: 05/14/05

GC Column: RTX-VOLATILES ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
	Gasoline Range Organics	57.7	U

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Data file : /chem/vocla.i/051405.b/1j6010.d
Lab Smp Id: 135805002 Client Smp ID: RE03-05-59541
Inj Date : 14-MAY-2005 15:34
Operator : ACJ Inst ID: vocla.i
Smp Info : |135805002|1|
Misc Info : |VOC8015_SF|425588|GROF|
Comment : FID
Method : /chem/vocla.i/051405.b/8015GRO-050905.m
Meth Date : 16-May-2005 15:16 amj Quant Type: ESTD
Cal Date : 09-MAY-2005 21:08 Cal File: 1j1010.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: GRO.sub
Target Version: 3.50 Sample Matrix: WATER

Concentration Formula: Amt * DF * (Vt/Vo)*Uf * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	5.00000	Purge Volume
Vo	5.00000	Initial sample volume
Uf	1.00000	Unit Correction Factor

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)
$ 3 Bromofluorobenzene					CAS #: 460-00-4
9.945	9.957	-0.012	141801	37.8347	37.8

Data File: /chem/voc1a.i/051405.b/1j6010.d

Page 1

Date : 14-MAY-2005 15:34

Client ID: RE03-05-59541

Instrument: voc1a.i

Sample Info: 1135805002111

Purge Volume: 5.0

Operator: ACJ

Column phase: Rtx-Volatiles

Column diameter: 0.25

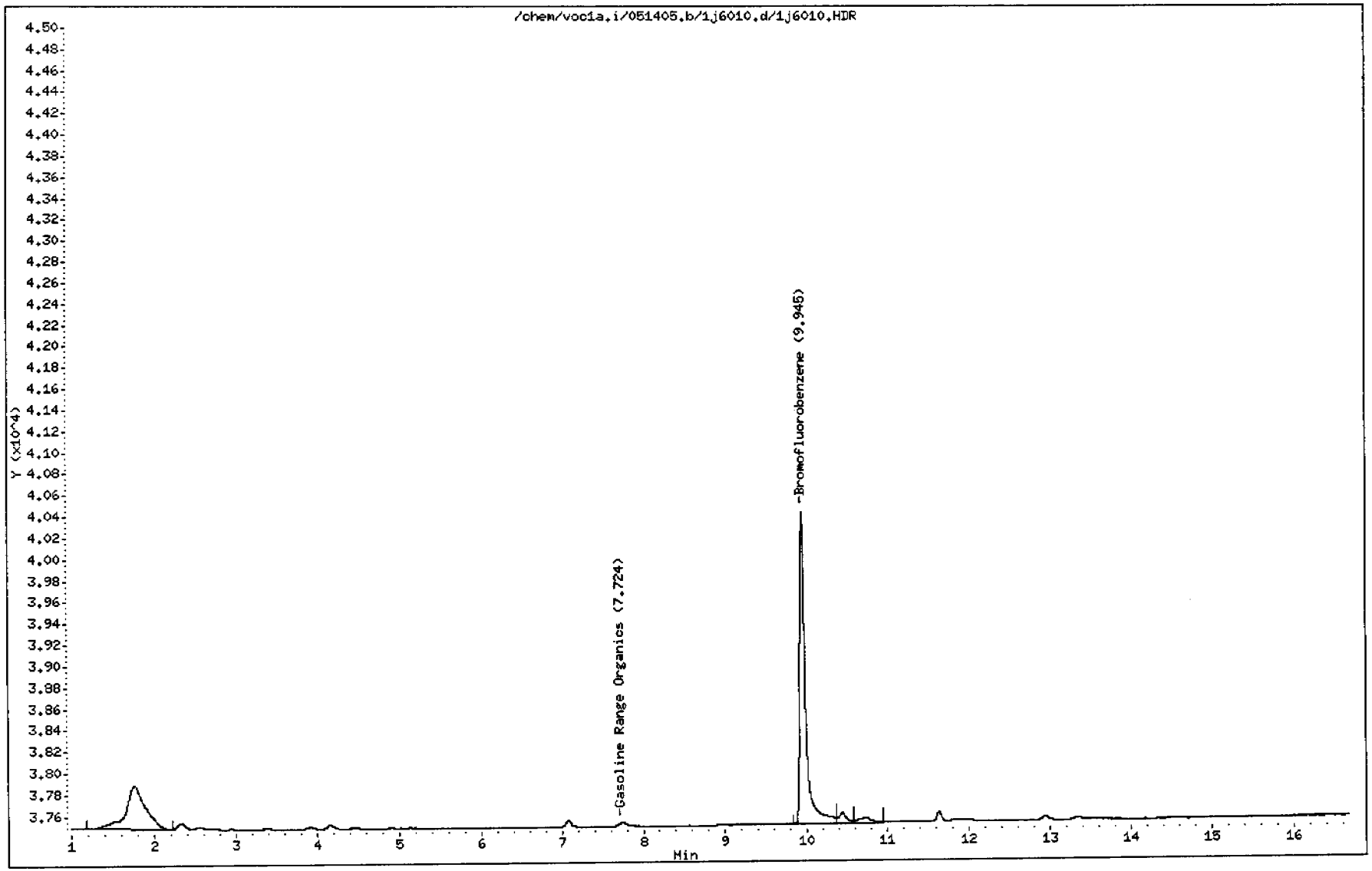

1A
GRO ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-59542

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

Matrix: (soil/water) SOIL Lab Sample ID: 135805004

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 1J6012

Level: (low/med) LOW Date Received: 05/04/05

% Moisture: not dec. 14 Date Analyzed: 05/14/05

GC Column: RTX-VOLATILES ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
----------	Gasoline Range Organics_____	34.1	J

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Data file : /chem/vocla.i/051405.b/1j6012.d
Lab Smp Id: 135805004 Client Smp ID: RE03-05-59542
Inj Date : 14-MAY-2005 16:44
Operator : ACJ Inst ID: vocla.i
Smp Info : |135805004|1|
Misc Info : |VOC8015_SF|425588|GROF|
Comment : FID
Method : /chem/vocla.i/051405.b/8015GRO-050905.m
Meth Date : 16-May-2005 15:16 amj Quant Type: ESTD
Cal Date : 09-MAY-2005 21:08 Cal File: 1j1010.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: GRO.sub
Target Version: 3.50 Sample Matrix: WATER

Concentration Formula: Amt * DF * (Vt/Vo)*Uf * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	5.00000	Purge Volume
Vo	5.00000	Initial sample volume
Uf	1.00000	Unit Correction Factor

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	
S 1 Gasoline Range Organics					CAS #:	
3.234-	12.215		108484	29.2566	29.2	(a)
$ 3 Bromofluorobenzene					CAS #: 460-00-4	
9.938	9.957	-0.019	138354	36.9150	36.9	

QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).

Data File: /chem/voc1a.i/051405.b/1j6012.d

Page 1

Date : 14-MAY-2005 16:44

Client ID: RE03-05-59542

Instrument: voc1a.i

Sample Info: |135805004|1|

Purge Volume: 5.0

Operator: ACJ

Column phase: Rtx-Volatiles

Column diameter: 0.25

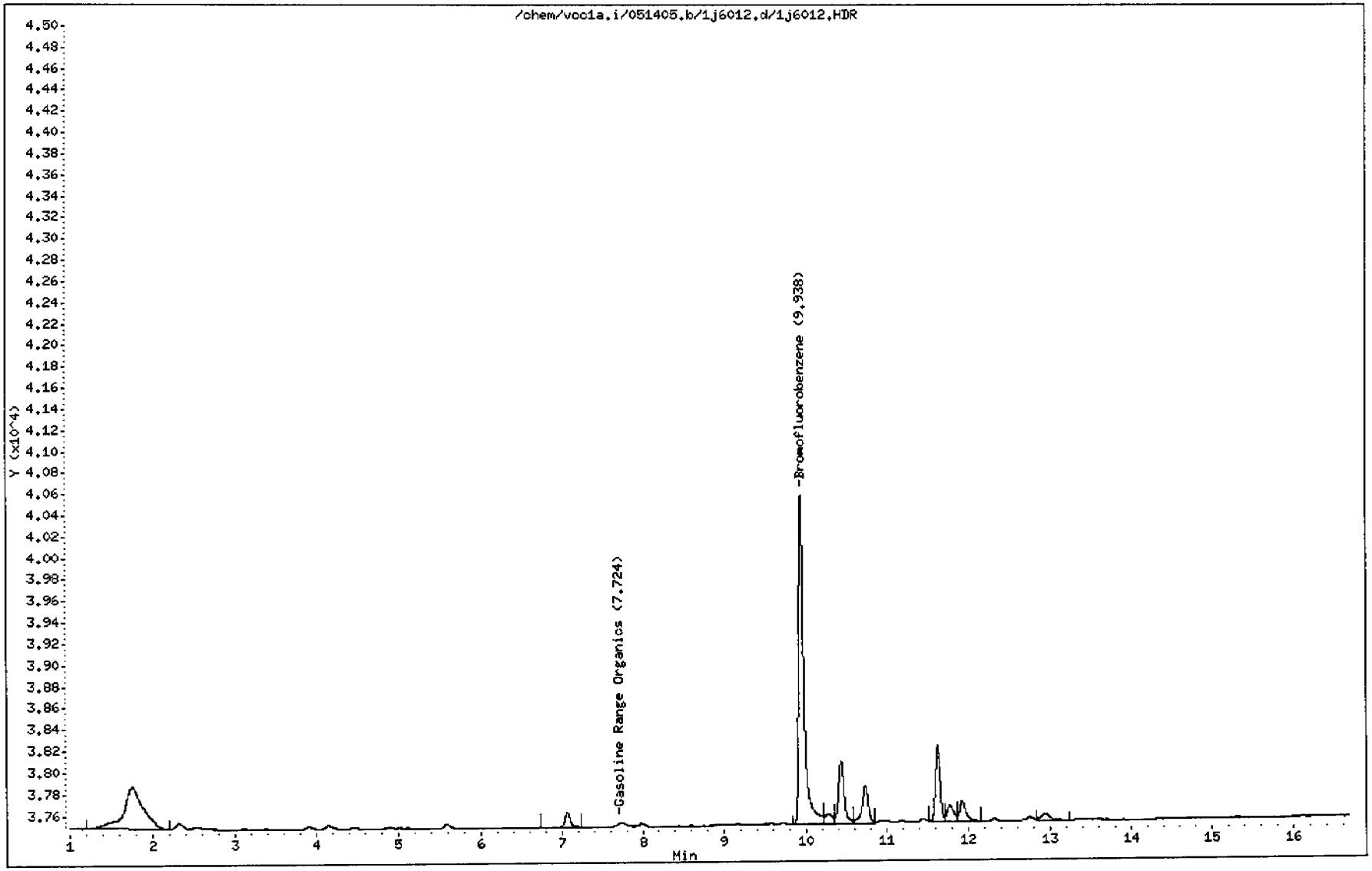

STANDARDS DATA

Report Date: 18-May-2005 15:15

Calibration History

Method : /chem/vocla.i/051405.b/8015GRO-050905.m
Start Cal Date: 09-MAY-2005 17:36
End Cal Date : 09-MAY-2005 21:08

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 50.00000		
09-MAY-2005 17:36	GRO	/chem/vocla.i/050905.b/1j104.d
Cal Level: 2 , Cal Amount: 100.00000		
09-MAY-2005 18:11	GRO	/chem/vocla.i/050905.b/1j105.d
Cal Level: 3 , Cal Amount: 250.00000		
09-MAY-2005 18:46	GRO	/chem/vocla.i/050905.b/1j106.d
Cal Level: 4 , Cal Amount: 500.00000		
09-MAY-2005 19:22	GRO	/chem/vocla.i/050905.b/1j107.d
Cal Level: 5 , Cal Amount: 750.00000		
09-MAY-2005 19:57	GRO	/chem/vocla.i/050905.b/1j108.d
Cal Level: 6 , Cal Amount: 1000.00000		
09-MAY-2005 20:33	GRO	/chem/vocla.i/050905.b/1j109.d
Cal Level: 7 , Cal Amount: 2000.00000		
09-MAY-2005 21:08	GRO	/chem/vocla.i/050905.b/1j1010.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 500		
15-MAY-2005 00:18	GRO	/chem/vocla.i/051405.b/1j6025.d
Ccal Level: 4 , Ccal Amount: 500		
14-MAY-2005 18:29	GRO	/chem/vocla.i/051405.b/1j6015.d

Ccal Level: 4 , Ccal Amount: 500

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INITIAL CALIBRATION DATA

Start Cal Date : 09-MAY-2005 17:36
End Cal Date : 09-MAY-2005 21:08
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem/vocla.i/051405.b/8015GRO-050905.m
Cal Date : 16-May-2005 15:16 amj
Curve Type : Average

Calibration File Names:
Level 1: /chem/vocla.i/050905.b/1j104.d
Level 2: /chem/vocla.i/050905.b/1j105.d
Level 3: /chem/vocla.i/050905.b/1j106.d
Level 4: /chem/vocla.i/050905.b/1j107.d
Level 5: /chem/vocla.i/050905.b/1j108.d
Level 6: /chem/vocla.i/050905.b/1j109.d
Level 7: /chem/vocla.i/050905.b/1j1010.d

Compound	50.000 Level 1	100.000 Level 2	250.000 Level 3	500.000 Level 4	750.000 Level 5	1000.000 Level 6	2000.000 Level 7	RRF	% RSD
S 1 Gasoline Range Organics	3277	3481	3665	3713	3909	3861	4049	3708	7.127
2 2-Methylpentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
4 1,2,4-Trimethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
$ 3 Bromofluorobenzene	4319	3550	3691	3524	3589	3679	3883	3748	7.446

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SW-846 3rd edition 8015 Modified

Data file : /chem/vocla.i/050905.b/1j202.d
Lab Smp Id: W1V050509-01 Client Smp ID: RTCHECK
Inj Date : 09-MAY-2005 16:24
Operator : AW2 Inst ID: vocla.i
Smp Info : |W1V050509-01|
Misc Info : |VOC8015_LF|-----|GROF|
Comment : FID
Method : /chem/vocla.i/050905.b/8015GRO-050905.m
Meth Date : 10-May-2005 09:51 amj Quant Type: ESTD
Cal Date : 09-MAY-2005 21:08 Cal File: 1j1010.d
Als bottle: 1 QC Sample: RT_CHECK
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: Range.sub
Target Version: 3.50 Sample Matrix: WATER

Concentration Formula: Amt * DF * (Vt/Vo)*Uf * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	5.00000	Purge Volume
Vo	5.00000	Initial sample volume
Uf	1.00000	Unit Correction Factor

Cpnd Variable Local Compound Variable

	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	
	2 2-Methylpentane					CAS #:	
	3.664	3.664	0.000	327885			(a)
$	3 Bromofluorobenzene					CAS #: 460-00-4	
	10.239	10.239	0.000	191040	50.9724	51.0	
	4 1,2,4-Trimethylbenzene					CAS #:	
	11.626	11.626	0.000	361329			(a)

QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).

Data File: /chem/voc1a.i/050905.b/1j202.d

Date : 09-MAY-2005 16:24

Client ID: RTCHECK

Sample Info: IW1V050509-01I

Purge Volume: 5.0

Column phase: Rtx-Volatiles

Instrument: voc1a.i

Operator: AW2

Column diameter: 0.25

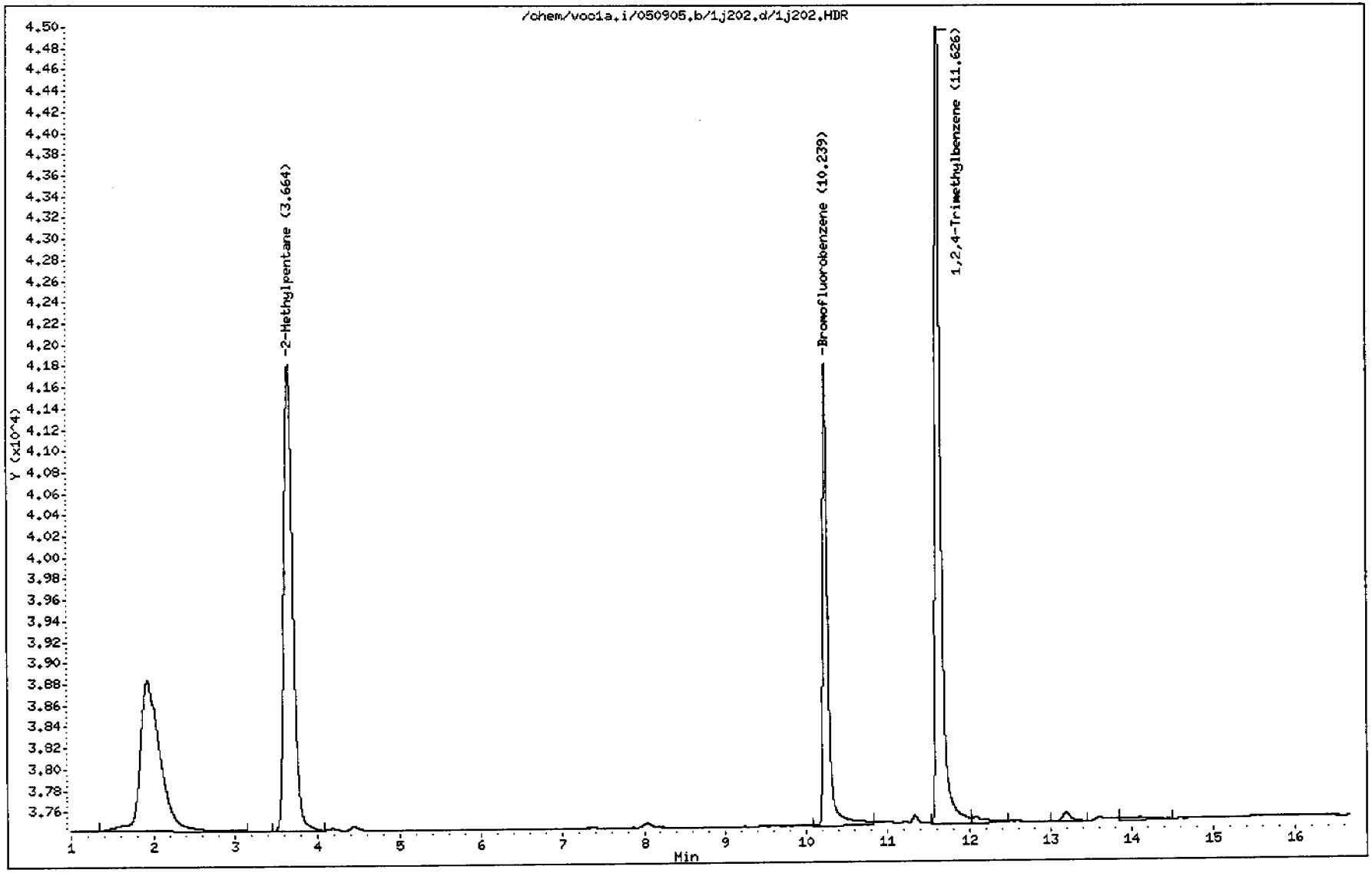

General Engineering Laboratories, LLC

SW-846 3rd edition 8015 Modified

Data file : /chem/vocla.i/051405.b/1j502.d
Lab Smp Id: W1V050514-01 Client Smp ID: RTCHECK
Inj Date : 14-MAY-2005 10:54
Operator : ACJ Inst ID: vocla.i
Smp Info : |W1V050514-01|
Misc Info : |VOC8015_LF|-----|GROF|
Comment : FID
Method : /chem/vocla.i/051405.b/8015GRO-050905.m
Meth Date : 16-May-2005 15:16 amj Quant Type: ESTD
Cal Date : 09-MAY-2005 21:08 Cal File: 1j1010.d
Als bottle: 1 QC Sample: RT_CHECK
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: Range.sub
Target Version: 3.50 Sample Matrix: WATER

Concentration Formula: Amt * DF * (Vt/Vo)*Uf * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	5.00000	Purge Volume
Vo	5.00000	Initial sample volume
Uf	1.00000	Unit Correction Factor

Cpnd Variable Local Compound Variable

	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	
	2 2-Methylpentane					CAS #:	
	3.654	3.654	0.000	8893			(a)
$	3 Bromofluorobenzene					CAS #: 460-00-4	
	9.957	9.957	0.000	196061	52.3121	52.3	
	4 1,2,4-Trimethylbenzene					CAS #:	
	11.795	11.795	0.000	5824			(a)

QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).

Data File: /chem/voc1a.i/051405.b/1j502.d
Date : 14-MAY-2005 10:54
Client ID: RTCHECK
Sample Info: IW1V050514-01!
Purge Volume: 5.0
Column phase: Rtx-Volatiles

Instrument: voc1a.i
Operator: ACJ
Column diameter: 0.25

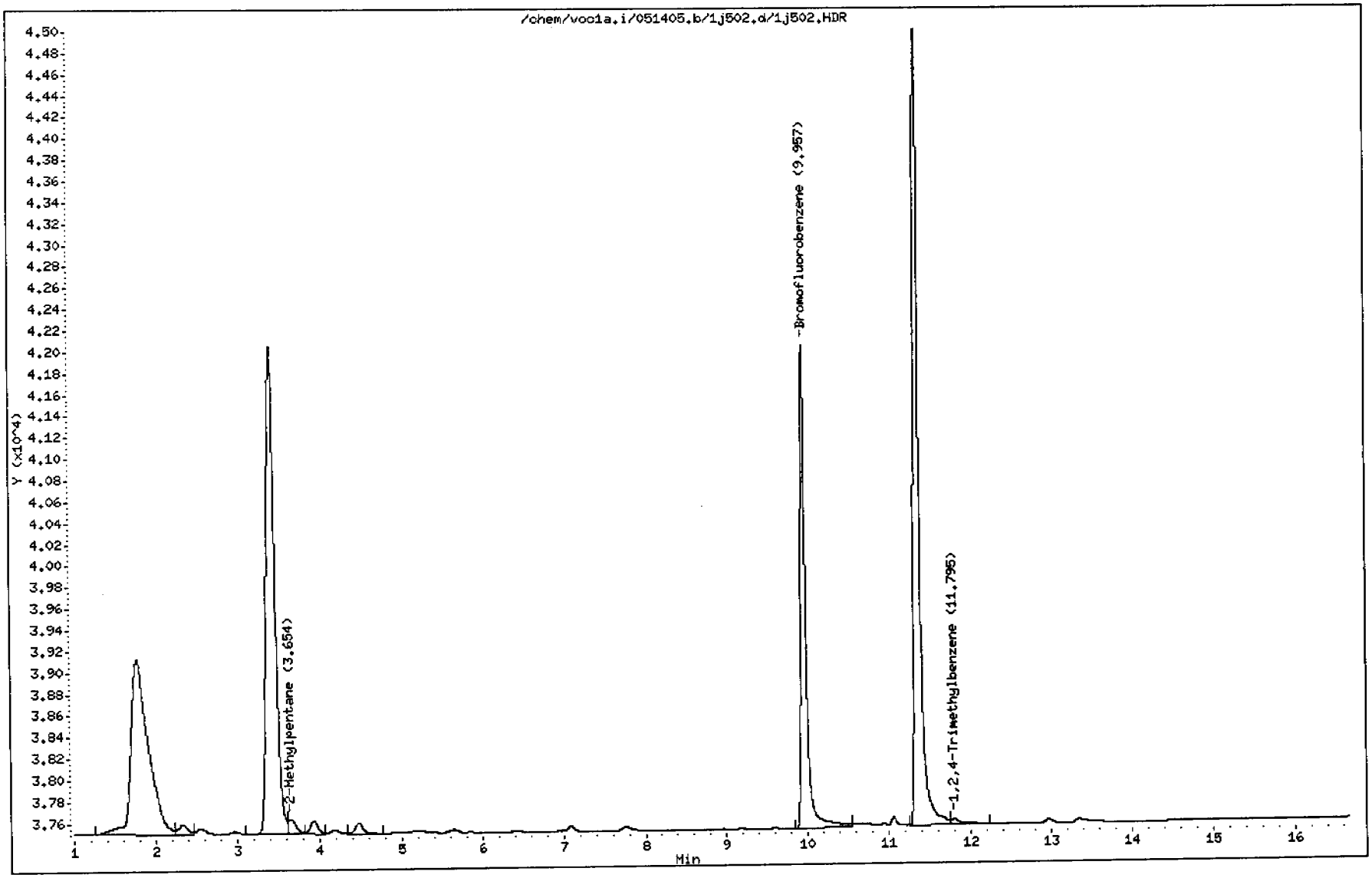

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: vocla.i Injection Date: 14-MAY-2005 11:29
Lab File ID: 1j503.d Init. Cal. Date(s): 09-MAY-2005 09-MAY-2005
Analysis Type: WATER Init. Cal. Times: 17:36 21:08
Lab Sample ID: UVG050218-01B Quant Type: ESTD
Method: /chem/vocla.i/051405.b/8015GRO-050905.m

COMPOUND	RRF / AMOUNT	RF500	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
S 1 Gasoline Range Organics	3708	4070	0.010	9.75071	15.00000	Averaged
$ 3 Bromofluorobenzene	3748	4080	0.010	8.87051	15.00000	Averaged

General Engineering Laboratories, LLC

SW-846 3rd edition 8015 Modified

Data file : /chem/vocla.i/051405.b/1j503.d
Lab Smp Id: UVG050218-01B Client Smp ID: VSTD0500
Inj Date : 14-MAY-2005 11:29
Operator : ACJ Inst ID: vocla.i
Smp Info : |UVG050218-01B|
Misc Info : |VOC8015_LF|-----|GROF|
Comment : FID
Method : /chem/vocla.i/051405.b/8015GRO-050905.m
Meth Date : 16-May-2005 15:16 amj Quant Type: ESTD
Cal Date : 09-MAY-2005 21:08 Cal File: 1j1010.d
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: GRO.sub
Target Version: 3.50 Sample Matrix: WATER

Concentration Formula: Amt * DF * (Vt/Vo)*Uf * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	5.00000	Purge Volume
Vo	5.00000	Initial sample volume
Uf	1.00000	Unit Correction Factor

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
$ 1 Gasoline Range Organics					CAS #:
3.234-	12.215		2034787	500.000	549
$ 3 Bromofluorobenzene					CAS #: 460-00-4
9.951	9.957	-0.006	204018	50.0000	54.4

Data File: /chem/voc1a.i/051405.b/1j503.d

Date : 14-MAY-2005 11:29

Client ID: VSTD0500

Sample Info: IUVG050218-01BI

Purge Volume: 5.0

Column phase: Rtx-Volatiles

Instrument: voc1a.i

Operator: ACJ

Column diameter: 0.25

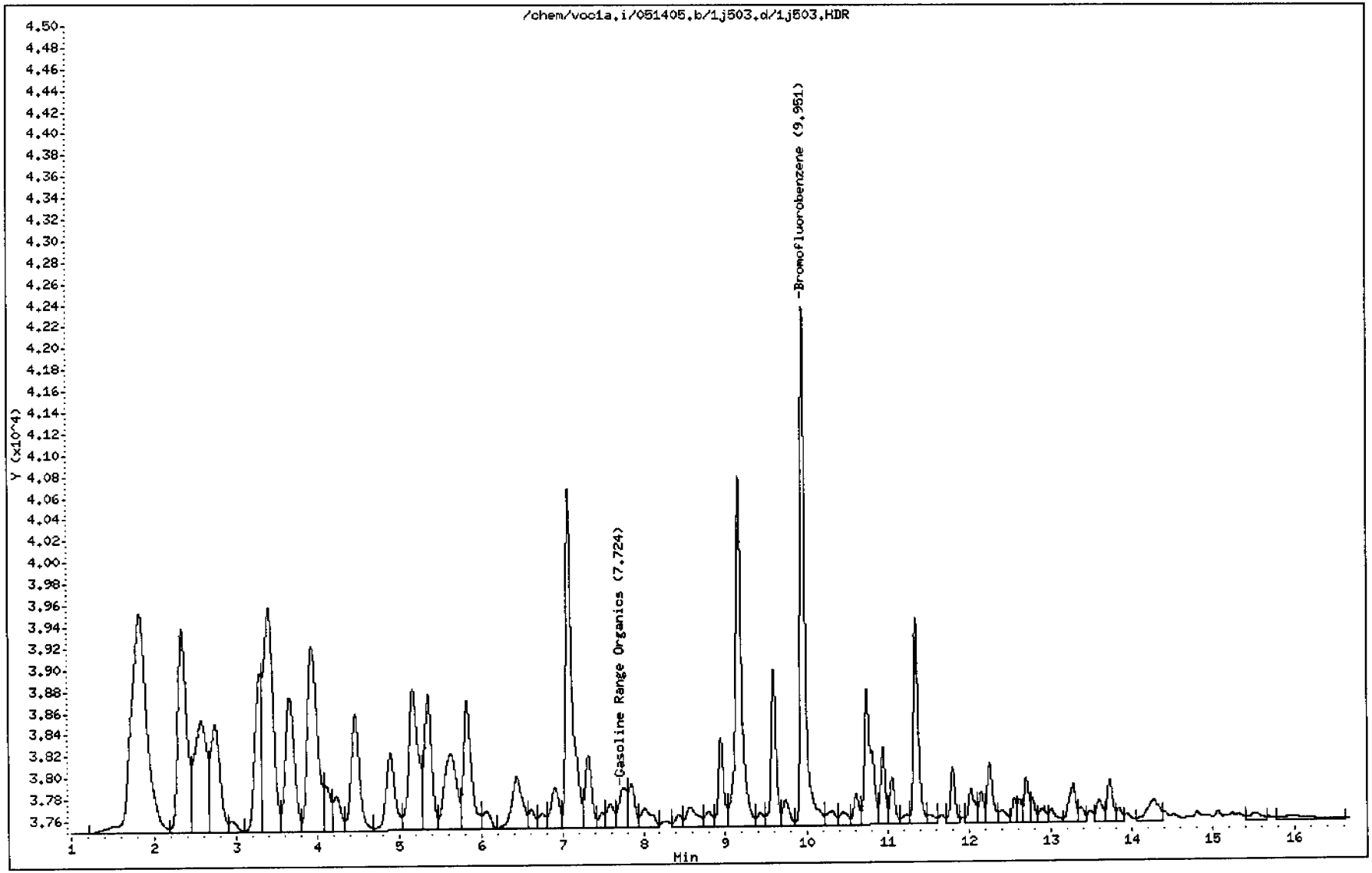

500

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: voc1a.i
Lab File ID: 1j6015.d
Analysis Type: WATER
Lab Sample ID: CCV001
Method: /chem/voc1a.i/051405.b/8015GRO-050905.m

Injection Date: 14-MAY-2005 18:29
Init. Cal. Date(s): 09-MAY-2005 09-MAY-2005
Init. Cal. Times: 17:36 21:08
Quant Type: ESTD

COMPOUND	RRF / AMOUNT	RF500	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
S 1 Gasoline Range Organics	3708	3874	0.010	4.46746	15.00000	Averaged
$ 3 Bromofluorobenzene	3748	4173	0.010	11.35351	15.00000	Averaged

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Data file : /chem/vocla.i/051405.b/1j6015.d
Lab Smp Id: CCV001 Client Smp ID: VSTD0500
Inj Date : 14-MAY-2005 18:29
Operator : ACJ Inst ID: vocla.i
Smp Info : |CCV001|
Misc Info : |VOC8015_LF|-----|GROF|
Comment : FID
Method : /chem/vocla.i/051405.b/8015GRO-050905.m
Meth Date : 16-May-2005 15:16 amj Quant Type: ESTD
Cal Date : 09-MAY-2005 21:08 Cal File: 1j1010.d
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: GRO.sub
Target Version: 3.50 Sample Matrix: WATER

Concentration Formula: Amt * DF * (Vt/Vo)*Uf * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	5.00000	Purge Volume
Vo	5.00000	Initial sample volume
Uf	1.00000	Unit Correction Factor

Cpnd Variable Local Compound Variable

	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	
S	1 Gasoline Range Organics						CAS #:
	3.234	12.215		1936835	500.000		522
$	3 Bromofluorobenzene						CAS #: 460-00-4
	9.939	9.957	-0.018	208671	50.0000		55.7

Data File: /chem/voc1a.i/051405.b/1j6015.d
Date : 14-MAY-2005 18:29
Client ID: VSTD0500
Sample Info: ICCV0011
Purge Volume: 5.0
Column phase: Rtx-Volatiles

Instrument: voc1a.i
Operator: ACJ
Column diameter: 0.25

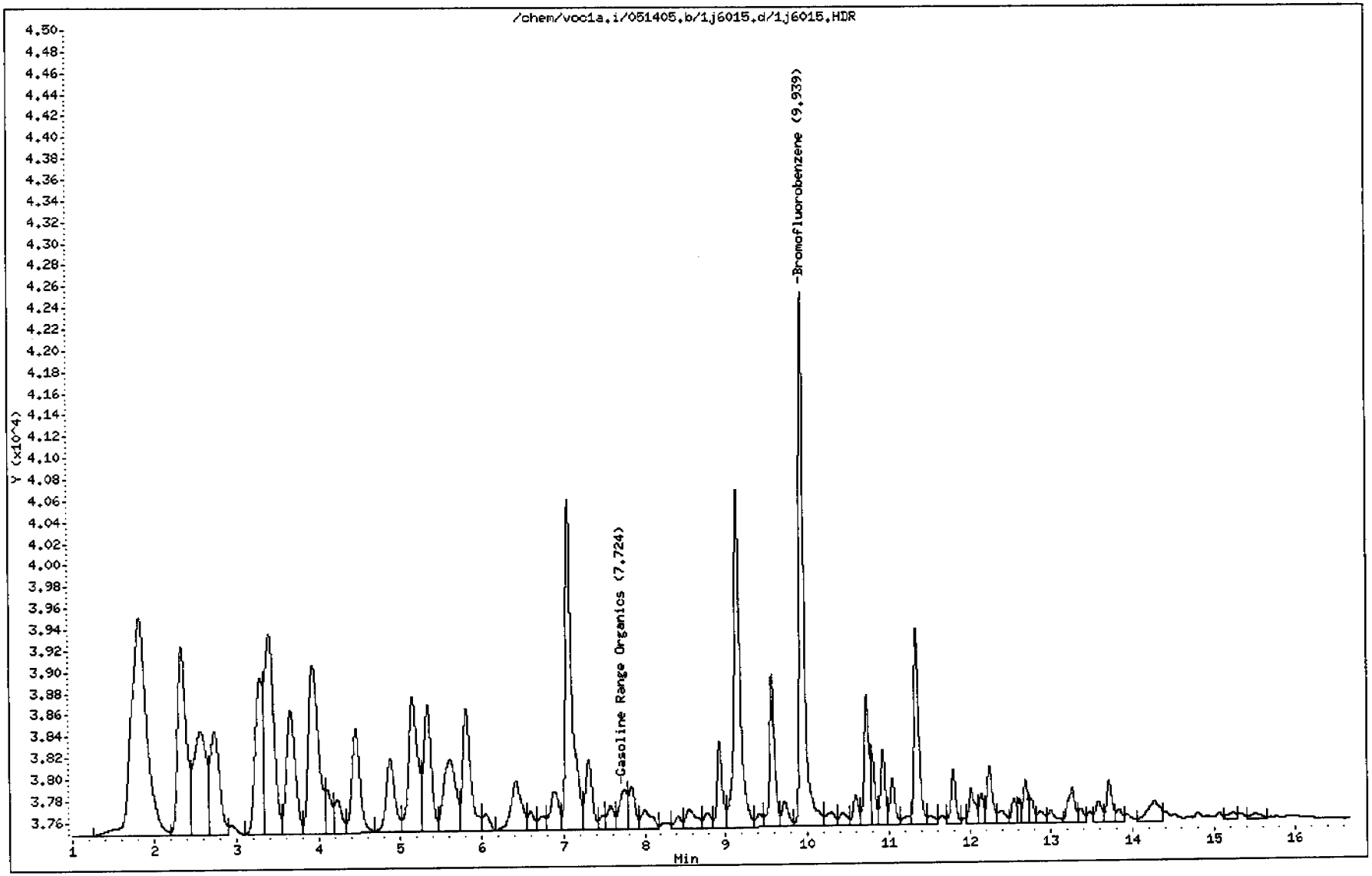

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: voc1a.i
Lab File ID: 1j6025.d
Analysis Type: WATER
Lab Sample ID: CCV002
Method: /chem/voc1a.i/051405.b/8015GRO-050905.m

Injection Date: 15-MAY-2005 00:18
Init. Cal. Date(s): 09-MAY-2005 09-MAY-2005
Init. Cal. Times: 17:36 21:08
Quant Type: ESTD

COMPOUND	RRF / AMOUNT	RF500	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
S 1 Gasoline Range Organics	3708	4099	0.010	10.55160	15.00000	Averaged
$ 3 Bromofluorobenzene	3748	3813	0.010	1.72776	15.00000	Averaged

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Data file : /chem/vocla.i/051405.b/1j6025.d
Lab Smp Id: CCV002 Client Smp ID: VSTD0500
Inj Date : 15-MAY-2005 00:18
Operator : ACJ Inst ID: vocla.i
Smp Info : |CCV002|
Misc Info : |VOC8015_LF|-----|GROF|
Comment : FID
Method : /chem/vocla.i/051405.b/8015GRO-050905.m
Meth Date : 16-May-2005 15:16 amj Quant Type: ESTD
Cal Date : 09-MAY-2005 21:08 Cal File: 1j1010.d
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: GRO.sub
Target Version: 3.50 Sample Matrix: WATER

Concentration Formula: Amt * DF * (Vt/Vo)*Uf * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	5.00000	Purge Volume
Vo	5.00000	Initial sample volume
Uf	1.00000	Unit Correction Factor

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
S 1 Gasoline Range Organics					CAS #:
3.234-	12.215		2049635	500.000	553
$ 3 Bromofluorobenzene					CAS #: 460-00-4
9.941	9.957	-0.016	190633	50.0000	50.9

Data File: /chem/voc1a.i/051405.b/1j6025.d
Date : 15-MAY-2005 00:18
Client ID: VSTD0500
Sample Info: ICCV002I
Purge Volume: 5.0
Column phase: Rtx-Volatiles

Instrument: voc1a.i
Operator: ACJ
Column diameter: 0.25

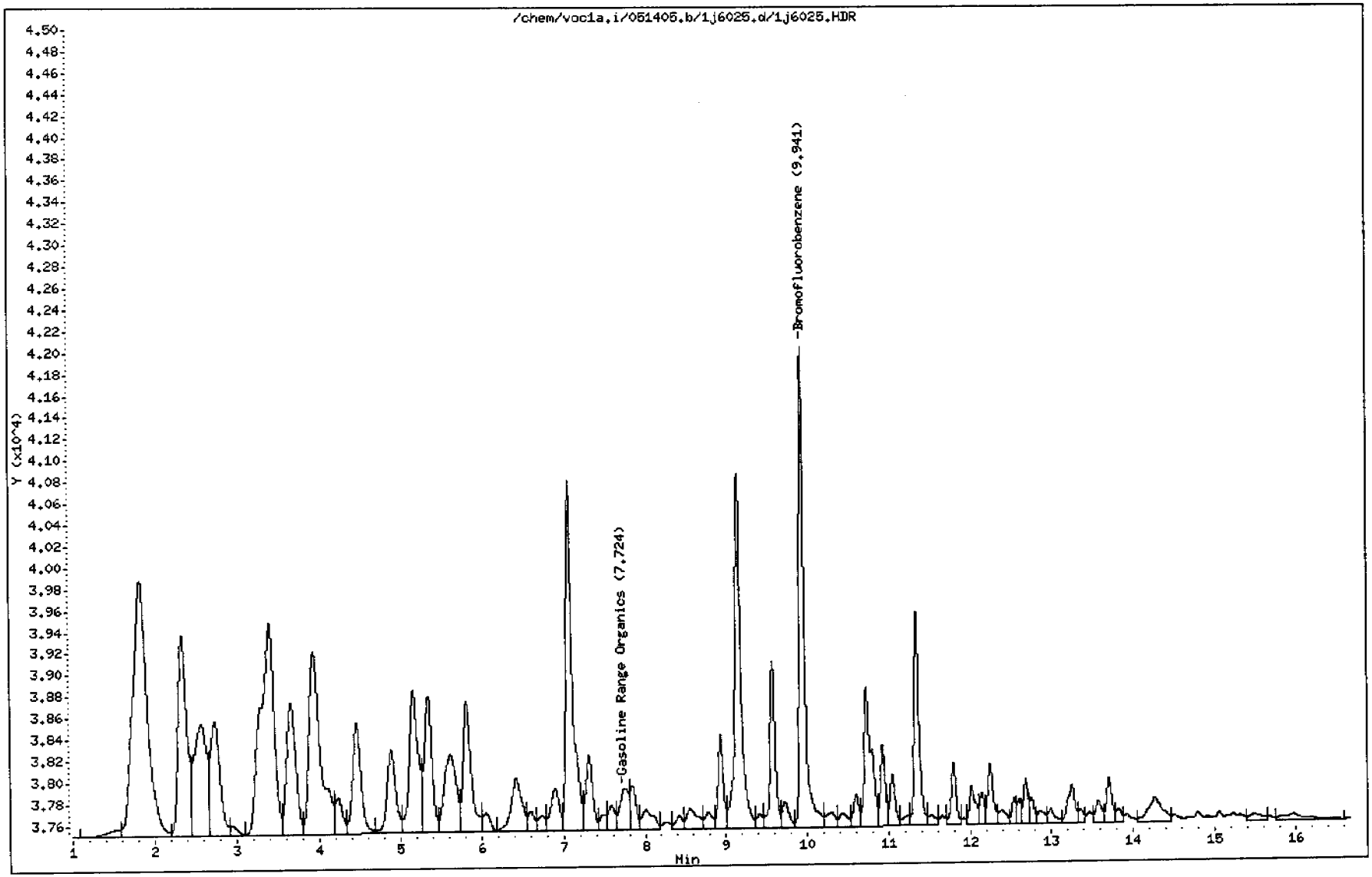

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8D
GRO ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

GC Column: RTX-VOLATILES ID: 0.25 (mm) Init. Calib. Date(s): 05/09/05 05/09/05

Instrument ID: VOC1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 9.96

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT	#	RT	#
01								
02	VSTD0500	UVG050218-01	05/14/05	1129	9.95			
03	ZZZZZ	ZZZZZ	05/14/05	1203	9.95			
04	ZZZZZ	ZZZZZ	05/14/05	1203	9.95			
05	VBLK01LCS	1200846636	05/14/05	1203	9.95			
06	ZZZZZ	ZZZZZ	05/14/05	1203	9.95			
07	ZZZZZ	ZZZZZ	05/14/05	1238	9.95			
08	ZZZZZ	ZZZZZ	05/14/05	1238	9.95			
09	VBLK01	1200846633	05/14/05	1238	9.95			
10	ZZZZZ	ZZZZZ	05/14/05	1238	9.95			
11	ZZZZZ	ZZZZZ	05/14/05	1313	9.95			
12	ZZZZZ	ZZZZZ	05/14/05	1348	9.94			
13	ZZZZZ	ZZZZZ	05/14/05	1423	9.94			
14	RE03-05-59531	135805001	05/14/05	1458	9.94			
15	RE03-05-59541	135805002	05/14/05	1534	9.95			
16	RE03-05-59432	135805003	05/14/05	1609	9.94			
17	RE03-05-59542	135805004	05/14/05	1644	9.94			
18	RE03-05-59531MS	1200846634	05/14/05	1719	9.93			
19	RE03-05-59531MSD	1200846635	05/14/05	1754	9.94			
20	VSTD0500	CCV001	05/14/05	1829	9.94			
21	RE03-05-59531	135805001	05/14/05	1904	9.95			
22	RE03-05-59541	135805002	05/14/05	1939	9.94			
23	RE03-05-59432	135805003	05/14/05	2014	9.95			
24	RE03-05-59542	135805004	05/14/05	2049	9.95			
25	RE03-05-59531MS	1200846634	05/14/05	2124	9.95			
26	RE03-05-59531MSD	1200846635	05/14/05	2159	9.95			
27	ZZZZZ	ZZZZZ	05/14/05	2233	9.94			
28	ZZZZZ	ZZZZZ	05/14/05	2308	9.94			
29	ZZZZZ	ZZZZZ	05/14/05	2343	9.94			
30	VSTD0500	CCV002	05/15/05	0018	9.94			
31								
32								

QC LIMITS
S1 = Bromofluorobenzene (+/- 0.42 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

8D
GRO ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

GC Column: RTX-VOLATILES ID: 0.25 (mm) Init. Calib. Date(s): 05/09/05 05/09/05

Instrument ID: VOC1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 10.24

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT	#	RT	#
01	ZZZZZ	ZZZZZ	05/09/05	1548	10.26			
02	ZZZZZ	ZZZZZ	05/09/05	1700	10.23			
03	VSTD0050	VSTD0050	05/09/05	1736	10.25			
04	VSTD0100	VSTD0100	05/09/05	1811	10.26			
05	VSTD0250	VSTD0250	05/09/05	1846	10.25			
06	VSTD0500	VSTD0500	05/09/05	1922	10.24			
07	VSTD0750	VSTD0750	05/09/05	1957	10.23			
08	VSTD1000	VSTD1000	05/09/05	2033	10.25			
09	VSTD02000	VSTD02000	05/09/05	2108	10.24			
10	ZZZZZ	ZZZZZ	05/09/05	2143	10.25			
11	ZZZZZ	ZZZZZ	05/09/05	2219	10.25			
12	SECOND SOURCE	WVG050508-01	05/09/05	2254	10.25			
13	ZZZZZ	ZZZZZ	05/09/05	2254	10.25			
14	SECOND SOURCE	WVG050508-01	05/09/05	2254	10.25			
15	ZZZZZ	ZZZZZ	05/09/05	2329	10.25			
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								
31								
32								

QC LIMITS
S1 = Bromofluorobenzene (+/- 0.42 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

QUALITY CONTROL DATA

1A
GRO ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK01

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

Matrix: (soil/water) SOIL Lab Sample ID: 1200846633

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 1J505BSLANL

Level: (low/med) LOW Date Received: 05/14/05

% Moisture: not dec. _____ Date Analyzed: 05/14/05

GC Column: RTX-VOLATILES ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
	Gasoline Range Organics	50.0	U

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Data file : /chem/vocla.i/051405.b/1j505BSLANL.d
Lab Smp Id: 1200846633 Client Smp ID: VBLK01
Inj Date : 14-MAY-2005 12:38
Operator : ACJ Inst ID: vocla.i
Smp Info : |1200846633|1|
Misc Info : |VOC8015_LF|425588|GROF|
Comment : FID
Method : /chem/vocla.i/051405.b/8015GRO-050905.m
Meth Date : 16-May-2005 15:16 amj Quant Type: ESTD
Cal Date : 09-MAY-2005 21:08 Cal File: 1j1010.d
Als bottle: 1 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: GRO.sub
Target Version: 3.50 Sample Matrix: SOIL

Concentration Formula: Amt * DF * (100/(100-M)*(Vt/Ws))*Uf * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	0.00000	% Moisture
Vt	5.00000	Purge Volume (mL)
Ws	5.00000	Weight of sample (g)
Uf	1.00000	Unit Correction Factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)
$ 3 Bromofluorobenzene					CAS #: 460-00-4
9.954	9.957	-0.003	186804	49.8422	49.8

Data File: /chem/voc1a.i/051405.b/1j505BSLANL.d

Date : 14-MAY-2005 12:38

Client ID: VBLK01

Sample Info: |120084663|1|

Column phase: Rtx-Volatiles

Instrument: voc1a.i

Operator: ACJ

Column diameter: 0.25

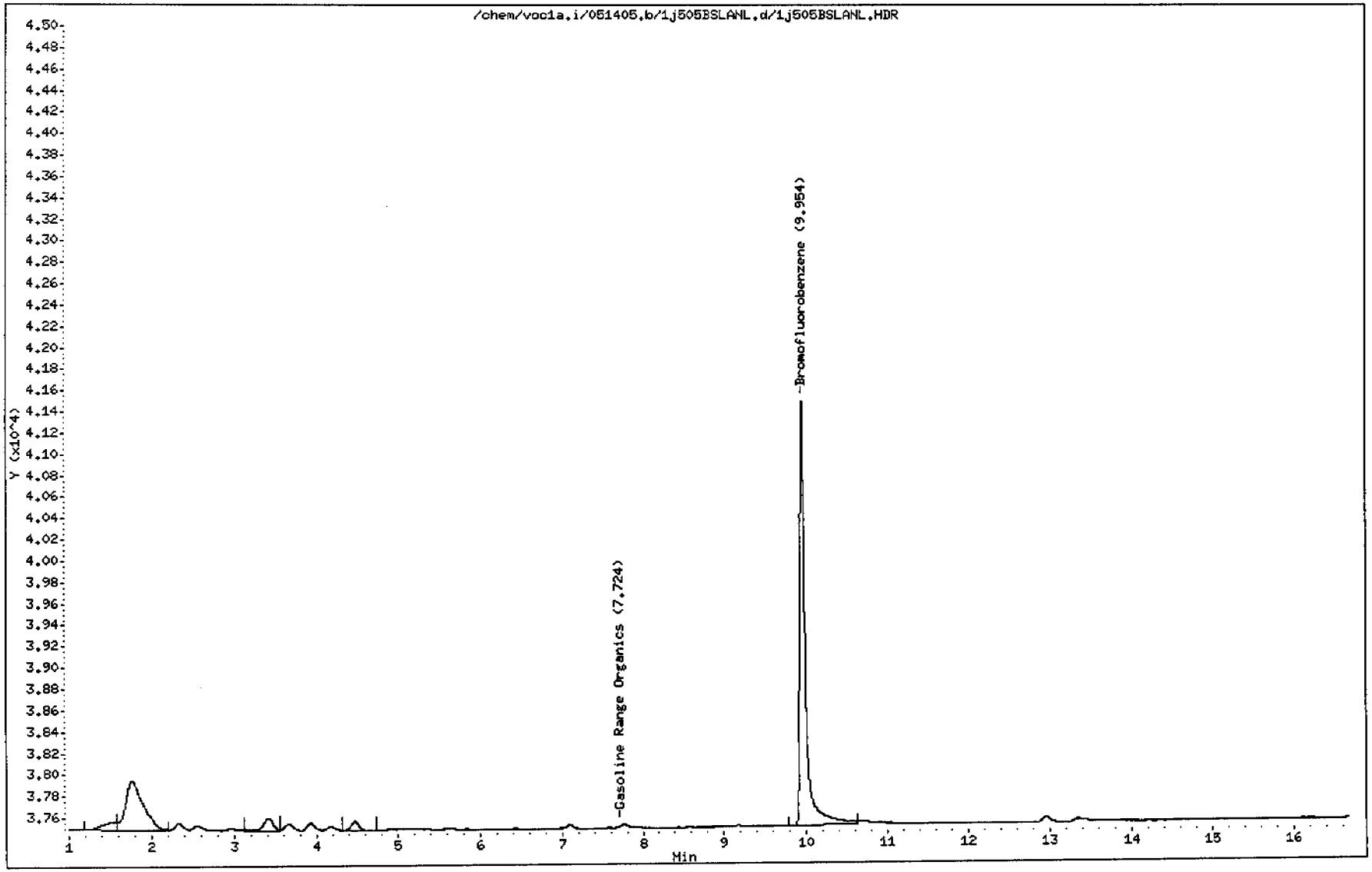

1A
GRO ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK01LCS

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

Matrix: (soil/water) SOIL Lab Sample ID: 1200846636

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 1J504LSLANL

Level: (low/med) LOW Date Received: 05/14/05

% Moisture: not dec. _____ Date Analyzed: 05/14/05

GC Column: RTX-VOLATILES ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
	----------Gasoline Range Organics	498	

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Data file : /chem/vocla.i/051405.b/1j504LSLANL.d
Lab Smp Id: 1200846636 Client Smp ID: VBLK01LCS
Inj Date : 14-MAY-2005 12:03
Operator : ACJ Inst ID: vocla.i
Smp Info : |1200846636|1|
Misc Info : |VOC8015_SF|425588|GROF|
Comment : FID
Method : /chem/vocla.i/051405.b/8015GRO-050905.m
Meth Date : 16-May-2005 15:16 amj Quant Type: ESTD
Cal Date : 09-MAY-2005 21:08 Cal File: 1j1010.d
Als bottle: 1 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: GRO.sub
Target Version: 3.50 Sample Matrix: SOIL

Concentration Formula: Amt * DF * (100/(100-M)*(Vt/Ws))*Uf * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	0.00000	% Moisture
Vt	5.00000	Purge Volume (mL)
Ws	5.00000	Weight of sample (g)
Uf	1.00000	Unit Correction Factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)
S	1 Gasoline Range Organics					CAS #:
	3.234- 12.215			1846987	498.106	498
$	3 Bromofluorobenzene					CAS #: 460-00-4
	9.946	9.957	-0.011	196487	52.4258	52.4

Data File: /chem/voc1a.i/051405.b/1j504LSLANL.d

Date : 14-MAY-2005 12:03

Client ID: VBLK01LCS

Sample Info: |1200846636|1|

Column phase: Rtx-Volatiles

Instrument: voc1a.i

Operator: ACJ

Column diameter: 0.25

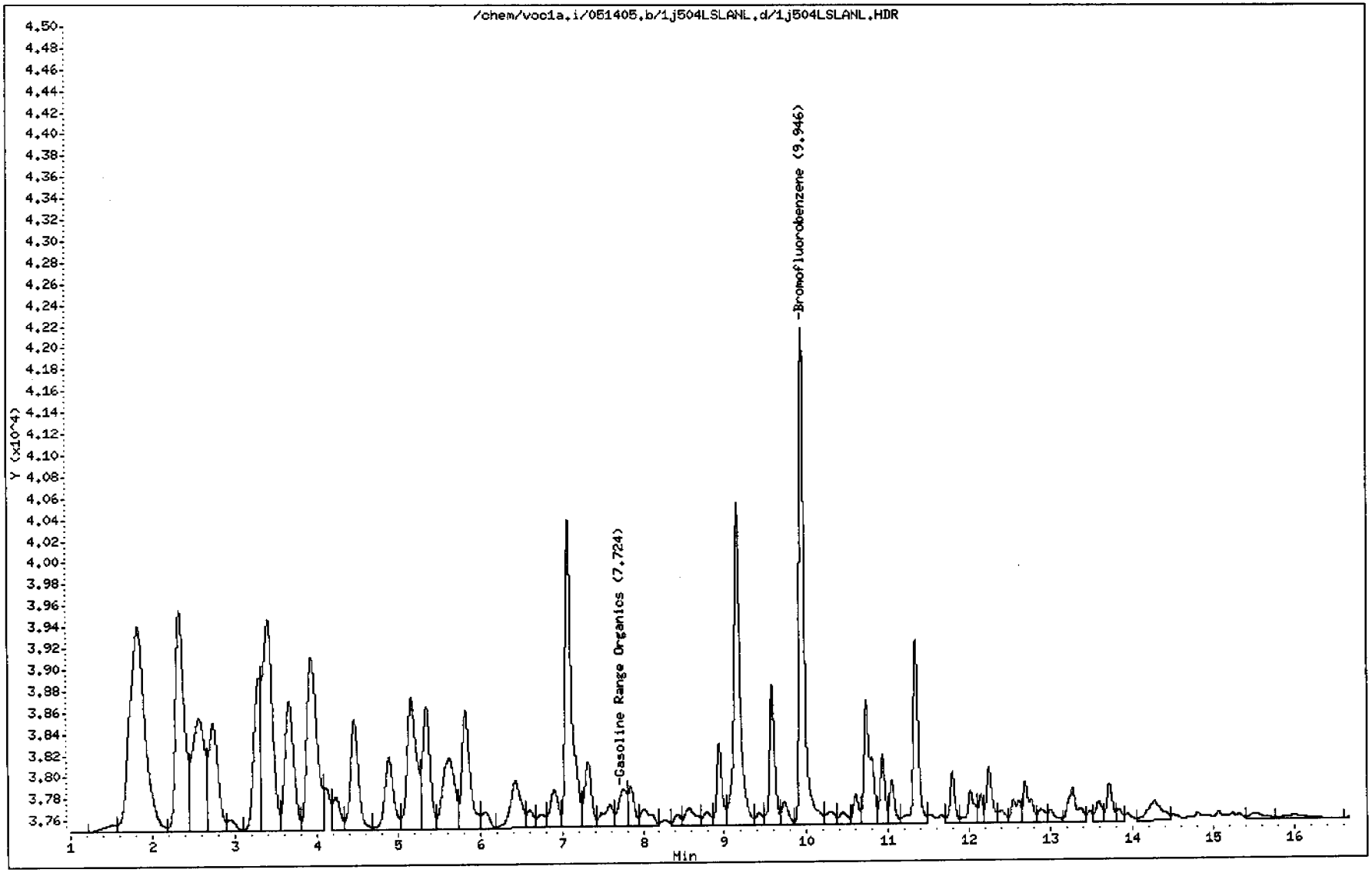

1A
GRO ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-59531MS

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

Matrix: (soil/water) SOIL Lab Sample ID: 1200846634

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 1J6013

Level: (low/med) LOW Date Received: 05/04/05

% Moisture: not dec. 16 Date Analyzed: 05/14/05

GC Column: RTX-VOLATILES ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
	Gasoline Range Organics	258	

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Data file : /chem/vocla.i/051405.b/1j6013.d
Lab Smp Id: 1200846634 Client Smp ID: RE03-05-59531MS
Inj Date : 14-MAY-2005 17:19
Operator : ACJ Inst ID: vocla.i
Smp Info : |1200846634|1|
Misc Info : |VOC8015_SF|425588|GROF|
Comment : FID
Method : /chem/vocla.i/051405.b/8015GRO-050905.m
Meth Date : 16-May-2005 15:16 amj Quant Type: ESTD
Cal Date : 09-MAY-2005 21:08 Cal File: 1j1010.d
Als bottle: 1 QC Sample: MS
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: GRO.sub
Target Version: 3.50 Sample Matrix: SOIL

Concentration Formula: Amt * DF * (100/(100-M)*(Vt/Ws))*Uf * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	15.93160	% Moisture
Vt	5.00000	Purge Volume (mL)
Ws	5.00000	Weight of sample (g)
Uf	1.00000	Unit Correction Factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	
S	1 Gasoline Range Organics					CAS #:	
	3.234- 12.215			804213	216.885	258	(R)
$	3 Bromofluorobenzene					CAS #: 460-00-4	
	9.934	9.957	-0.023	104077	27.7693	33.0	(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: /chem/voc1a.i/051405.b/1j6013.d
Date : 14-MAY-2005 17:19
Client ID: RE03-05-59531MS
Sample Info: |120084663411|

Column phase: Rtx-Volatiles

Instrument: voc1a.i

Operator: ACJ
Column diameter: 0.25

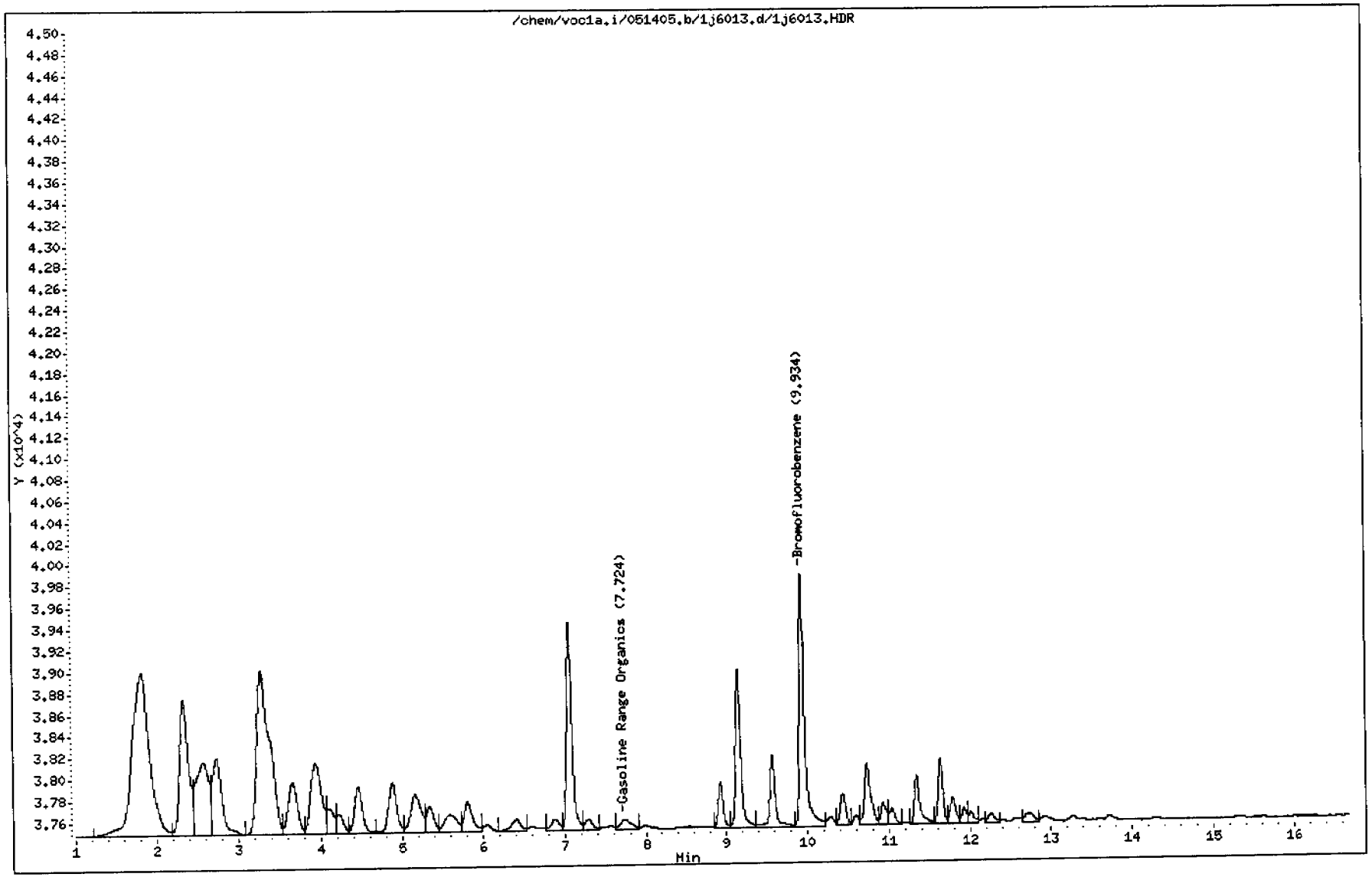

1A
GRO ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-59531MSD

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

Matrix: (soil/water) SOIL Lab Sample ID: 1200846635

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 1J6014

Level: (low/med) LOW Date Received: 05/04/05

% Moisture: not dec. 16 Date Analyzed: 05/14/05

GC Column: RTX-VOLATILES ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
	Gasoline Range Organics	294	

FORM I VOA OLM03.0

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Data file : /chem/vocla.i/051405.b/1j6014.d
Lab Smp Id: 1200846635 Client Smp ID: RE03-05-59531MSD
Inj Date : 14-MAY-2005 17:54
Operator : ACJ Inst ID: vocla.i
Smp Info : |1200846635|1|
Misc Info : |VOC8015_SF|425588|GROF|
Comment : FID
Method : /chem/vocla.i/051405.b/8015GRO-050905.m
Meth Date : 16-May-2005 15:16 amj Quant Type: ESTD
Cal Date : 09-MAY-2005 21:08 Cal File: 1j1010.d
Als bottle: 1 QC Sample: MSD
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: GRO.sub
Target Version: 3.50 Sample Matrix: SOIL

Concentration Formula: Amt * DF * (100/(100-M)*(Vt/Ws))*Uf * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	15.93160	% Moisture
Vt	5.00000	Purge Volume (mL)
Ws	5.00000	Weight of sample (g)
Uf	1.00000	Unit Correction Factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	
S	1 Gasoline Range Organics					CAS #:	
	3.234	12.215		916951	247.289	294	(R)
$	3 Bromofluorobenzene					CAS #: 460-00-4	
	9.943	9.957	-0.014	121986	32.5477	38.7	

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: /chem/voc1a.i/051405.b/1j6014.d
Date : 14-MAY-2005 17:54
Client ID: RE03-05-59531MSD
Sample Info: |1200846635|1|

Column phase: Rtx-Volatiles

Instrument: voc1a.i

Operator: ACJ
Column diameter: 0.25

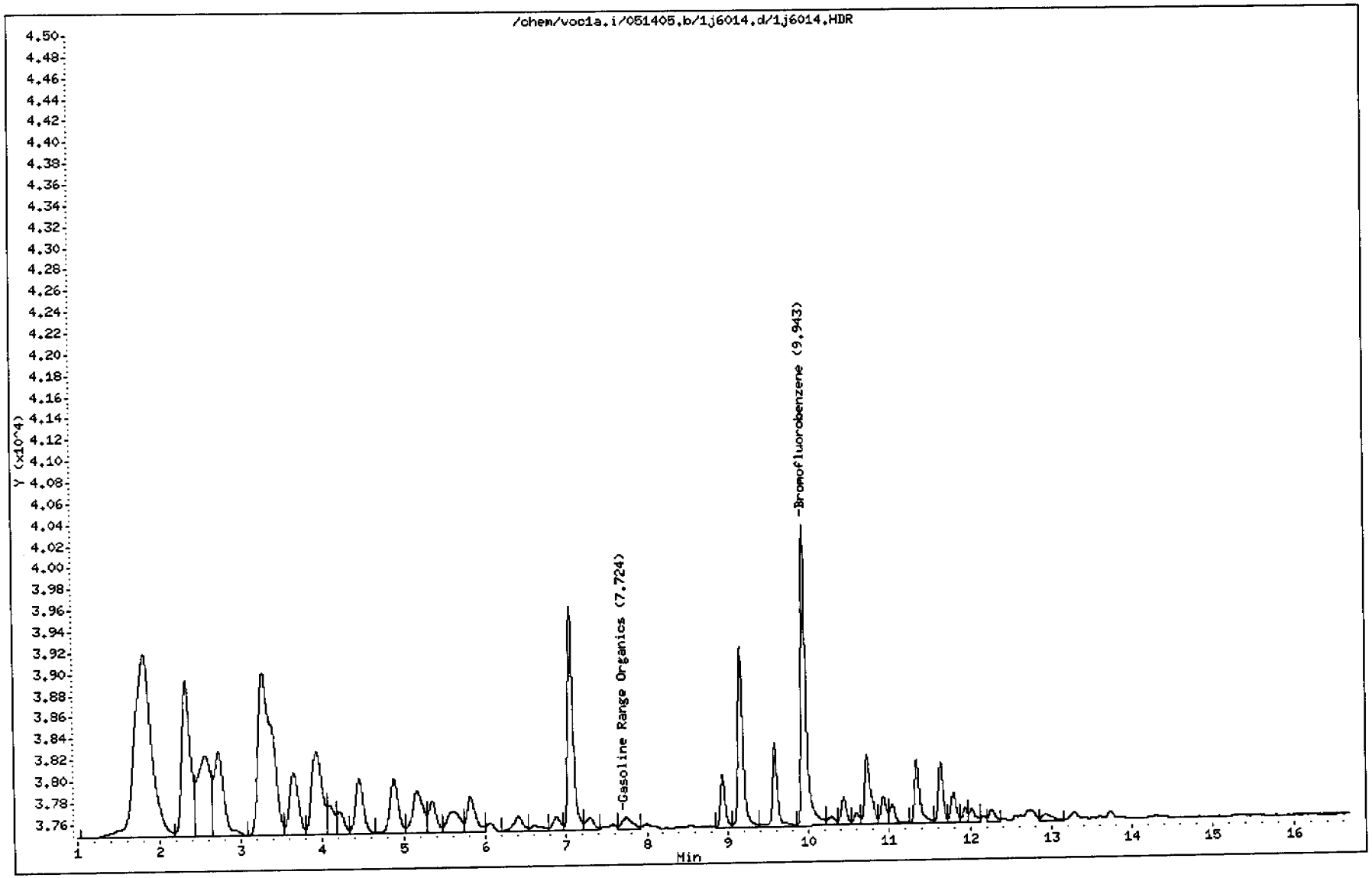

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MISCELLANEOUS DATA

General Engineering Laboratories
Form GEL-XXX
Rev. 06/02

NCR Report No.: 203021
Revision No.: 2

COMPANY - WIDE NONCONFORMANCE REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
18-MAY-05	Federal	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
VOC/FID	SW846 8015A/B VOC	Solid	LANL
Batch ID:	**Sample Numbers:**		
425588	See Below		

Potentially affected work order(s)(SDG): 135805(3194S),135831(3202S)

Application Issues:

Failed Recovery for Surrogate or Tracer

Failed Recovery for LCS/MS/PS

Method Blank contamination

Specification and Requirements Nonconformance Description:	NRG Disposition:
Surrogate Recoveries Sample 1200846634 (RE03-05-59531MS) failed surrogate recoveries.	The sample was re-analyzed and confirmed the failures. The MSD and associated sample recovered this surrogate at the lower end of the acceptance limits. Please see the Form II in the deliverable for a complete list of failures and the recovery limits.
Matrix Spike (MS) Recovery Statement The MS recoveries were not within the acceptance limits.	The MSD recovered in a similar manner. Please see the Form III in the deliverable for a complete list of failures and the recovery limits.
Matrix Spike Duplicate (MSD) Recovery Statement The MSD recoveries were not within the acceptance limits.	The MS recovered in a similar manner. Please see the Form III in the deliverable for a complete list of failures and the recovery limits.

Originator's Name:

Amy Jamison 18-MAY-05

Data Validator/Group Leader:

Erin Haubert 19-MAY-05

Quality Review:

Director:

Revision Date: 06/19/98

ORGANIC RUN LOG - INSTRUMENT ID# VOC1

DATE: 5 / 09 / 05 METHOD: 8015 OPERATOR: ACJ REVIEWED BY: RAM DATE: 5-10-05

HARDWARE CONFIGURATION & METHOD CONDITIONS SUMMARY No# 1 on pg. 1

Daily Instrument Readings:
Detector #1 = FID
Detector #2 = PID (Volt Setting n/a)

WO-0-185

CALIBRATION & QC INFORMATION:

Initial Calibration Date: / /
(See pg. for ICAL Std. Sol. IDs)
Initial Calib. Stock Std. IDs:

Reagent Number: 050905

	Daily Standard Solution ID#	Volume Added for Purge (ul) Blk/Smpl	CCV/~~LCS~~	LCS/MS	RT
CCV/~~LCS~~	AVG0462IX-01A		5		
IS					
SS	AVG0411130-01D	2.5	2.5	2.5	2.5
LCS/MS					
RT ~~Other~~	W1V050509-01				5.5

Purge Amount
- [x] Water Purge Volume: 5 mL
- [ ] Soil Purge Weight: ___ gm.
- [ ] Med level ext. MeOH vol.: ___ ul. (Methanol Lot #: ___)
- [x] Heated Purge [ ] Ambient Purge

Analysis Date	Time	Data File	Lab Sample ID#	Client	Batch #	Dil. Factor	pH	AS slot #	Matrix (w = water, s = soil)	Analyst	Accept-able (✓/X)	Comments (GRO: AVG04 / Surr - AVG0411130-01D)
5/09/05	1548	~~9~~ IJ101	BLANK					1	w	ACJ	X	
	1624	IJ102	RT					2			✓	AVG0462IX-01/02
	1700	IJ103	BLANK					3			X	
	1736	104	VS1D0050					4			✓	GRO: 0.5uL + Surr: .2uL
	1811	105	0100					5			✓	1.0uL + .5uL
	1846	106	0250					6			✓	2.5uL + 1.0uL
	1922	107	0500					7			✓	5.0uL + 2.5uL
	1957	108	0750					8			✓	7.5uL + 3.5uL
	2033	109	1000					9			✓	10.0uL + 5.0uL
	2108	110	2000					10			✓	20.0uL + 10.0uL
	2143	111	BLANK					11			X	
	2219	112	BLANK					12			X	
	2254	113	CCV					13			✓	
	2329	114	CCV					14			X	not needed
		~~115~~	ACJ 05/10/05									
		~~116~~	ACJ 05/10/05									

ACJ 05/10/05

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(✓ = OK / X = Rerun)

...ISTRIAL GROUNDWATER LABORATORY, INC.

Revision No.: 08/19/98

ORGANIC RUN LOG - INSTRUMENT ID# VOC1

DATE: 5/14/05 METHOD: 8015 OPERATOR: ACS REVIEWED BY: CDS

DATE: 05/16/05

HARDWARE CONFIGURATION & METHOD CONDITIONS SUMMARY No# 1 on pg. 1

Daily Instrument Readings:
Detector #1 = FID
Detector #2 = PID (Volt Setting n/a)

VO-0-185

CALIBRATION & QC INFORMATION:

Initial Calibration Date: ~~5~~ 1/09/05 ACS 05/14/05
(pg. 027 for ICAL Std. Sol. IDs)
Initial Calib. Stock Std. IDs:

Daily Standard Solution ID#

	Daily Standard Solution ID#	Volume Added for Purge (ul) Blk/Smpl	CCV/~~LCS~~	~~LCS~~/MS	RT
CCV ~~LCS~~	WV6040278-01B		5		
IS					
SS	WV6041130-02A	2.5	2.5	2.5	2.5
LCS/MS	WVC050512-01			5	
RT ~~Other~~	WIV050514-01				525

Purge Amount
- ☐ ~~Water~~ Purge Volume: 5 ml.
- ☐ Soil Purge Weight: ____ gm.
- ☐ Med level ext. MeOH vol.: ____ ul.
- (Methanol Lot #: ____)
- ☒ ~~Heated~~ Purge ☐ Ambient Purge

Batchee Number: 051405

Analysis Date	Time	Data File	Lab Sample ID#	Client	Batch #	Dil. Factor	pH	AS slot #	Matrix (w = water; s = soil)	Analyst	Accept-able (✓/X)	Comments
5/14/05	1020	1 J.601	BLANK	—	—	—	—	1	W	ACS	✓	not needed
	1054	602	RT					2			✓	WV6050209-01/02
	1129	603	CCV					3			✓	
	1203	604	LCS					4			✓	
	1238	605	BLANK					5			✓	
	1313	606	136049001	[redacted]	425590	1:1	2	6	W		✓	
	1348	607	1200846642				2	7			✓	MS 136049001
	1423	608	1200846643				2	8			✓	MSD 136049001
	1458	609	135805001	LANL	425558		—	9	S		✓	
	1534	6010	135805002		425558		—	10			✓	
	1609	6011	135805003				—	11			✓	
	1644	6012	135805004				—	12			✓	
	1719	6013	1200846634				—	13			✓	MS 135805001 NCR FAILURE
	1754	6014	1200846635				—	14			✓	MSD 135805001 NCR FAILURE
	1829	6015	CCV	—	—	—	—	15	W		✓	
	1904	6016	135805001	LANL	425558	1:1	—	16	S		X	not needed
	1939	6017	002				—	17			X	not needed
	2014	6018	003				—	18			X	not needed
	2049	6019	004				—	19			X	not needed
	2124	6020	1200846634				—	20			X	report original analysis

(✓ = OK / X = Rerun)

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GENERAL ENGINEERING LABORATORIES, Inc.
Revision No.: 06/19/98

ORGANIC RUN LOG - INSTRUMENT ID# VOC1

PAGE #: 0943

VO-0200

Sequence Number: 051405 (Continuation)

Analysis Date	/ Time	Data File	Lab Sample ID#	Client	Batch #	Dil. Factor	pH	AS slot #	Matrix (w = water; s = soil)	Analyst	Accept-able (✓/X)	Comments
5/14/05	2159	LJ6021	1200846634	LAWL	425558	1:1	—	21	S	AG	X	report original analysis
	2233	6022	135732002	[redacted]	425559	1:5	2	22	W		X	overrange
	2308	6023	1200846638			1:5	2	23			X	MS 135732002
	2343	6024	1200846639			1:5	2	24			X	MSD 135732002
5/15/05	0018	6025	CCV	—	—	—	—	25			✓	
—	—	6026	CCV	—	—	—	—	26			—	not used
—	—	6027	CCV	—	—	—	—	27			—	not used

AG 05/15/05

(✓ = OK / X = Rehun)

Calibration Date:

midpoint std lvl:		
internal std	area	rt
1 a,a,a-TFT		
2		
3		

Calibration Verification Std. Data File:

Internal std	area	rt
1 a,a,a-TFT		
2		
3		

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GC SEMIVOLATILE PCB ANALYSIS

PCB Case Narrative
Los Alamos National Laboratory (LANL)
SDG 3194S

Method/Analysis Information

Procedure:	**Polychlorinated Biphenyls by ECD**
Analytical Method:	SW846 8082
Prep Method:	SW846 3550B
Analytical Batch Number:	422957
Prep Batch Number:	422954

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 8082:

Sample ID	Client ID
135805001	RE03-05-59531
135805002	RE03-05-59541
135805003	RE03-05-59532
135805004	RE03-05-59542
1200840306	Method Blank (MB)
1200840307	Laboratory Control Sample (LCS)
1200840308	135805001(RE03-05-59531) Matrix Spike (MS)
1200840309	135805001(RE03-05-59531) Matrix Spike Duplicate (MSD)

Preparation/Analytical Method Verification

Procedures for preparation, analysis, and reporting of analytical data are documented by General Engineering Laboratories, LLC. (GEL) as Standard Operating Procedures (SOP).

Calibration Information

Initial Calibration
All initial calibration requirements have been met for this sample delivery group (SDG).

Continuing Calibration Verification (CCV) Requirements
The calibration verification standards (CVS, ICV, or CCV) requirements have not been met for this SDG.

Three of five peaks failed with a positive bias on one column in the Aroclor-1254 standard analyzed on 5/13/05 at 0739 in this SDG; however the average concentration of the five quantitated peaks met the acceptance criteria.

Aroclor -1260 failed acceptance criteria with a negative bias on one or both analytical columns in the standards

bracketing the samples in this SDG. The negative bias for the analytical data is a result of instrument response decreasing after the initial calibration due to sample matrix interference. Samples 135805002 (RE03-05-59541), 135805003 (RE03-05-59432) and 135805004 (RE03-05-59542) were re-extracted and re-analyzed, and the bracketing standard failed in the same manner. The confirmation data is located in the Miscellaneous Section.

Decachlorobiphenyl (DCB) surrogates failed acceptance criteria in the standard bracketing the samples in this SDG; however, this non-compliance has no adverse effects on the data.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB(s) analyzed with this SDG met the acceptance criteria.

Surrogate Recoveries
Samples 1200840308 (RE03-05-59531MS), 1200840309 (RE03-05-59531MSD) and 135805001 (RE03-05-59531) did not meet the surrogate recovery acceptance criteria due to dilution and matrix interference. Samples 135805002 (RE03-05-59541), 135805003 (RE03-05-59532) and 135805004 (RE03-05-59542) failed surrogate recovery low and were re-extracted. The re-extraction samples failed surrogate recovery in the same manner; therefore, the failure is attributed to matrix interference. The confirmation data is located in the Miscellaneous Section.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

QC Sample Designation
Sample 135805001 (RE03-05-59531) was selected for the matrix spike and matrix spike duplicate analysis.

Matrix Spike (MS) Recovery Statement
The MS recoveries for this SDG were not within the acceptance limits. Aroclor-1016 failed spike recovery due to dilution and matrix interference.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recoveries for this SDG were not within the acceptance limits. Aroclor-1016 failed spike recovery due to dilution and matrix interference.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD(s) between the MS and MSD met the acceptance limits.

Technical Information

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP. All sample extracts were cleaned using alumina. Elemental mercury was added to field sample extracts to remove sulfur.

Sample Dilutions
Samples 1200840308 (RE03-05-59531MS), 1200840309 (RE03-05-59531MSD) and 135805001 (RE03-05-59531) were diluted at 1:10 due to the oily matrix of the extracts.

Sample Re-extraction/Re-analysis
Samples 135805002 (RE03-05-59541), 135805003 (RE03-05-59532) and 135805004 (RE03-05-59542) were re-extracted due to low surrogate recovery.

Miscellaneous Information

Electronic Package Comment

The following package was generated using an electronic data processing program referred to as "virtual packaging". In an effort to increase quality and efficiency, the laboratory is developing systems to eventually generate all data packages electronically. The following change from "traditional" packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. An electronic signature page inserted after the case narrative of each electronic package will indicate the analyst, reviewer, and report specialist names associated with the generation of the data and package. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Nonconformance (NCR) Documentation

Nonconformance reports (NCRs) are for documentation of any procedural anomalies that may deviate from referenced SOP or contractual document. A NCR was not required for this SDG.

Manual Integration

Certain standards and samples may have required manual integration to correctly position the baseline as set in the calibration standard injections. If manual integration was performed, copies of all manual integration peak profiles are included in the raw data section of this PCB fraction.

Additional Comments

The additional comments field is used to address special issues associated with each analysis, clarify method/contractual issues pertaining to the analysis, and to list any report documents generated as a result of sample analysis or review. The following additional comments were required:

The higher results from either column has been chosen and reported in the data package.

Aroclors quantitated on the raw data report by the Target data system do not necessarily represent positive Aroclor identification. In order for positive identification to be made, the Aroclor must match in pattern and retention time; as well as quantitate relatively close between the primary and confirmation columns, as specified in SW846 method 8000. When these conditions are not met, the Aroclor is reported as a non-detect on the data report. These situations will be noted on the raw data as DMP, representing does not match pattern, or DNC does not confirm.

Due to software limitation, the Form VIIs will display the results either in the % difference or % drift depending on the type of the calibration curve. If the curve of all analytes is generated using an average response factor (RF), the Form VII will display results using the %difference calculation (RF). If the curve of one or more analytes is generated using a linear curve, the Form VII will display results using the % drift calculation (by concentration) for all analytes.

System Configuration

The Semi-Volatiles-PCB analysis was performed on a HP Gas Chromatograph.

Instrument ID	System Configuration	Column ID	Column Description
ECD2A.I_1	HP6890 Series ECD	Rtx-CLP I	30m x 0.25mm, 0.25um (Rtx-CLPesticide)
ECD2A.I_2	HP6890 Series ECD	Rtx-CLP II	30m x 0.25mm, 0.20um (Rtx-CLPesticide II)

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Jim Cao Date: 6/2/05

Roadmap for LANL 3194S PCB

This roadmap was analyzed by Yiping Shi on 05-17-2005, 16:28.
This roadmap was analyzed by Jared Wagner on 05-31-2005, 12:30.
This roadmap was reviewed by Josh Brooks on 06-01-2005, 14:58.
This roadmap was packaged by Yvette Lampkin on 06-01-2005, 20:13.

Front Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
■	N	/chem/ecd2a.i/051605.b/033f3301.d	135805001	sample	16-MAY-2005	18:48	3194S.sub	RE03-05-59531	10.00000	422957	DUSE
□	N	/chem/ecd2a.i/051305.b/056f5601.d	135805001	sample	13-MAY-2005	18:33	3194S.sub	RE03-05-59531	10.00000	422957	UPLOAD BOTH USE HIGHER
■	N	/chem/ecd2a.i/051605.b/036f3601.d	135805002	sample	16-MAY-2005	19:22	3194S.sub	RE03-05-59541	5.00000	422957	DUSE
■	N	/chem/ecd2a.i/052005.b/030f3001.d	135805002	sample	20-MAY-2005	12:22	3194S.sub	RE03-05-59541	1.00000	426670	DUSE Confirmation for Surrogates and check standards failure.
□	N	/chem/ecd2a.i/051305.b/059f5901.d	135805002	sample	13-MAY-2005	19:07	3194S.sub	RE03-05-59541	1.00000	422957	UPLOAD BOTH USE HIGHER
■	N	/chem/ecd2a.i/051605.b/037f3701.d	135805003	sample	16-MAY-2005	19:33	3194S.sub	RE03-05-59432	1.00000	422957	DUSE
□	N	/chem/ecd2a.i/051305.b/060f6001.d	135805003	sample	13-MAY-2005	19:18	3194S.sub	RE03-05-59432	1.00000	422957	UPLOAD BOTH USE HIGHER
■	N	/chem/ecd2a.i/051605.b/038f3801.d	135805004	sample	16-MAY-2005	19:44	3194S.sub	RE03-05-59542	5.00000	422957	DUSE
■	N	/chem/ecd2a.i/052005.b/034f3401.d	135805004	sample	20-MAY-2005	13:07	3194S.sub	RE03-05-59542	1.00000	426670	DUSE Confirmation for Surrogates and check standards failure.
□	N	/chem/ecd2a.i/051305.b/061f6101.d	135805004	sample	13-MAY-2005	19:29	3194S.sub	RE03-05-59542	1.00000	422957	UPLOAD BOTH USE HIGHER

Back Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
■	N	/chem/ecd2a.i/051605.b/033b3301.d	135805001	sample	16-MAY-2005	18:48	3194S.sub	RE03-05-59531	10.00000	422957	DUSE
□	N	/chem/ecd2a.i/051305.b/056b5601.d	135805001	sample	13-MAY-2005	18:33	3194S.sub	RE03-05-59531	10.00000	422957	UPLOAD BOTH USE HIGHER
■	N	/chem/ecd2a.i/051605.b/036b3601.d	135805002	sample	16-MAY-2005	19:22	3194S.sub	RE03-05-59541	5.00000	422957	DUSE
■	N	/chem/ecd2a.i/052005.b/030b3001.d	135805002	sample	20-MAY-2005	12:22	3194S.sub	RE03-05-59541	1.00000	426670	DUSE Confirmation for Surrogates and check standards failure.
□	N	/chem/ecd2a.i/051305.b/059b5901.d	135805002	sample	13-MAY-2005	19:07	3194S.sub	RE03-05-59541	1.00000	422957	UPLOAD BOTH USE HIGHER
■	N	/chem/ecd2a.i/051605.b/037b3701.d	135805003	sample	16-MAY-2005	19:33	3194S.sub	RE03-05-59432	1.00000	422957	DUSE
□	N	/chem/ecd2a.i/051305.b/060b6001.d	135805003	sample	13-MAY-2005	19:18	3194S.sub	RE03-05-59432	1.00000	422957	UPLOAD BOTH USE HIGHER
■	N	/chem/ecd2a.i/051605.b/038b3801.d	135805004	sample	16-MAY-2005	19:44	3194S.sub	RE03-05-59542	5.00000	422957	DUSE
■	N	/chem/ecd2a.i/052005.b/034b3401.d	135805004	sample	20-MAY-2005	13:07	3194S.sub	RE03-05-59542	1.00000	426670	DUSE Confirmation for Surrogates and check standards failure.
□	N	/chem/ecd2a.i/051305.b/061b6101.d	135805004	sample	13-MAY-2005	19:29	3194S.sub	RE03-05-59542	1.00000	422957	UPLOAD BOTH USE HIGHER

Front QC Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
□	N	/chem/ecd2a.i/051305.b/033f3301-2.d	1200840306	mb	13-MAY-2005	14:16	3194S.sub	PBLK01	1.00000	422957	
□	N	/chem/ecd2a.i/051305.b/034f3401-2.d	1200840307	lcs	13-MAY-2005	14:27	3194S.sub	PBLK01LCS	1.00000	422957	
■	N	/chem/ecd2a.i/051605.b/034f3401.d	1200840308	ms	16-MAY-2005	18:59	3194S.sub	RE03-05-59531MS	10.00000	422957	DUSE
□	N	/chem/ecd2a.i/051305.b/057f5701.d	1200840308	ms	13-MAY-2005	18:45	3194S.sub	RE03-05-59531MS	10.00000	422957	UPLOAD BOTH USE HIGHER

■	N	/chem/ecd2a.i/051605.b/035f3501.d	1200840309	msd	16-MAY-2005	19:10	3194S.sub	RE03-05-59531MSD	10.00000	422957	DUSE
□	N	/chem/ecd2a.i/051305.b/058f5801.d	1200840309	msd	13-MAY-2005	18:56	3194S.sub	RE03-05-59531MSD	10.00000	422957	UPLOAD BOTH USE HIGHER

Back QC Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
□	N	/chem/ecd2a.i/051305.b/033b3301-2.d	1200840306	mb	13-MAY-2005	14:16	3194S.sub	PBLK01	1.00000	422957	
□	N	/chem/ecd2a.i/051305.b/034b3401-2.d	1200840307	lcs	13-MAY-2005	14:27	3194S.sub	PBLK01LCS	1.00000	422957	
■	N	/chem/ecd2a.i/051605.b/034b3401.d	1200840308	ms	16-MAY-2005	18:59	3194S.sub	RE03-05-59531MS	10.00000	422957	DUSE
□	N	/chem/ecd2a.i/051305.b/057b5701.d	1200840308	ms	13-MAY-2005	18:45	3194S.sub	RE03-05-59531MS	10.00000	422957	UPLOAD BOTH USE HIGHER
■	N	/chem/ecd2a.i/051605.b/035b3501.d	1200840309	msd	16-MAY-2005	19:10	3194S.sub	RE03-05-59531MSD	10.00000	422957	DUSE
□	N	/chem/ecd2a.i/051305.b/058b5801.d	1200840309	msd	13-MAY-2005	18:56	3194S.sub	RE03-05-59531MSD	10.00000	422957	UPLOAD BOTH USE HIGHER

SAMPLE DATA SUMMARY

1D
PCB ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-59532

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

Matrix: (soil/water) SOIL Lab Sample ID: 135805003

Sample wt/vol: 30.0 (g/mL) G Lab File ID: 060F6001

% Moisture: 14 decanted: (Y/N) N Date Received: 05/04/05

Extraction: (SepF/Cont/Sonc) SONC Date Extracted:05/11/05

Concentrated Extract Volume: 1.00(mL) Date Analyzed: 05/13/05

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
12674-11-2	Aroclor-1016	3.9	U
11104-28-2	Aroclor-1221	3.9	U
11141-16-5	Aroclor-1232	3.9	U
53469-21-9	Aroclor-1242	3.9	U
12672-29-6	Aroclor-1248	3.9	U
11097-69-1	Aroclor-1254	3.9	U
11096-82-5	Aroclor-1260	3.9	U

1D
PCB ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-59531

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

Matrix: (soil/water) SOIL Lab Sample ID: 135805001

Sample wt/vol: 30.0 (g/mL) G Lab File ID: 056F5601

% Moisture: 16 decanted: (Y/N) N Date Received: 05/04/05

Extraction: (SepF/Cont/Sonc) SONC Date Extracted:05/11/05

Concentrated Extract Volume: 1.00(mL) Date Analyzed: 05/13/05

Injection Volume: 1.0(uL) Dilution Factor: 10.0

GPC Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
12674-11-2	Aroclor-1016	39.6	U
11104-28-2	Aroclor-1221	39.6	U
11141-16-5	Aroclor-1232	39.6	U
53469-21-9	Aroclor-1242	39.6	U
12672-29-6	Aroclor-1248	39.6	U
11097-69-1	Aroclor-1254	18.4	J
11096-82-5	Aroclor-1260	39.6	U

FORM I PEST OLM03.0

1D
PCB ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-59541

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

Matrix: (soil/water) SOIL Lab Sample ID: 135805002

Sample wt/vol: 30.0 (g/mL) G Lab File ID: 059F5901

% Moisture: 13 decanted: (Y/N) N Date Received: 05/04/05

Extraction: (SepF/Cont/Sonc) SONC Date Extracted:05/11/05

Concentrated Extract Volume: 1.00(mL) Date Analyzed: 05/13/05

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
12674-11-2	Aroclor-1016	3.8	U
11104-28-2	Aroclor-1221	3.8	U
11141-16-5	Aroclor-1232	3.8	U
53469-21-9	Aroclor-1242	3.8	U
12672-29-6	Aroclor-1248	3.8	U
11097-69-1	Aroclor-1254	2.5	JP
11096-82-5	Aroclor-1260	1.3	J

1D
PCB ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-59542

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

Matrix: (soil/water) SOIL Lab Sample ID: 135805004

Sample wt/vol: 30.0 (g/mL) G Lab File ID: 061F6101

% Moisture: 14 decanted: (Y/N) N Date Received: 05/04/05

Extraction: (SepF/Cont/Sonc) SONC Date Extracted:05/11/05

Concentrated Extract Volume: 1.00(mL) Date Analyzed: 05/13/05

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
12674-11-2	Aroclor-1016	3.9	U
11104-28-2	Aroclor-1221	3.9	U
11141-16-5	Aroclor-1232	3.9	U
53469-21-9	Aroclor-1242	3.9	U
12672-29-6	Aroclor-1248	3.9	U
11097-69-1	Aroclor-1254	2.4	JP
11096-82-5	Aroclor-1260	1.4	J

FORM I PEST OLM03.0

QUALITY CONTROL SUMMARY

2F
SOIL PCB SURROGATE RECOVERY

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

GC Column(1): CLP1 ID: 0.25 (mm) GC Column(2): CLP2 ID: 0.25 (mm)

	EPA SAMPLE NO.	S1 1 %REC #	S1 2 %REC #	DCB 1 %REC #	DCB 2 %REC #	OTHER (1)	OTHER (2)	TOT OUT
01	PBLK01	78	84	86	79			0
02	PBLK01LCS	72	78	80	73			0
03	RE03-05-59531	57D	52D	22D	35D			0
04	RE03-05-59531MS	67	62	24D	42D			0
05	RE03-05-59531MSD	71	64	26D	46D			0
06	RE03-05-59541	65	68	43*	42*			2
07	RE03-05-59532	73	77	54*	47*			2
08	RE03-05-59542	64	67	41*	41*			2
09								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								

		ADVISORY QC LIMITS
S1	= 4cmx	(58-106)
S2 (DCB)	= Decachlorobiphenyl	(55-115)

Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out

3F
SOIL PCB LAB CONTROL SAMPLE

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

Matrix Spike - EPA Sample No.: PBLK01

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC #	QC. LIMITS REC.
Aroclor-1016	33.3	0.0	28.2	85	57-113
Aroclor-1260	33.3	0.0	27.5	82	60-127

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 0 outside limits
Spike Recovery: 0 out of 2 outside limits

COMMENTS: _____

3F

SOIL PCB MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

Matrix Spike - EPA Sample No.: RE03-05-5953

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC #	QC. LIMITS REC.
Aroclor-1016	39.6	0.0	0.0	0*	27-152
Aroclor-1260	39.6	0.0	37.0	93	32-144

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Aroclor-1016	39.6	0.0	0*	0	30	27-152
Aroclor-1260	39.6	33.5	84	10	30	32-144

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 2 outside limits
Spike Recovery: 2 out of 4 outside limits

COMMENTS: _____

4C
PCB METHOD BLANK SUMMARY

EPA SAMPLE NO.

PBLK01

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

Lab Sample ID: 1200840306 Lab File ID: 033F3301-2

Matrix (soil/water) SOIL Extraction:(SepF/Cont/Sonc) SONC

Sulfur Cleanup (Y/N) Y Date Extracted: 05/11/05

Date Analyzed (1): 05/13/05 Date Analyzed (2): 05/13/05

Time Analyzed (1): 1416 Time Analyzed (2): 1416

Instrument ID (1): ECD2A Instrument ID (2): ECD2A

GC Column (1): CLP1 ID: 0.25(mm) GC Column (2): CLP2 ID: 0.25(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
01	PBLK01LCS	1200840307	05/13/05	05/13/05
02	RE03-05-59531	135805001	05/13/05	05/13/05
03	RE03-05-59531MS	1200840308	05/13/05	05/13/05
04	RE03-05-59531MSD	1200840309	05/13/05	05/13/05
05	RE03-05-59541	135805002	05/13/05	05/13/05
06	RE03-05-59532	135805003	05/13/05	05/13/05
07	RE03-05-59542	135805004	05/13/05	05/13/05
08				
09				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				

SAMPLE DATA

1D
PCB ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-59532

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

Matrix: (soil/water) SOIL Lab Sample ID: 135805003

Sample wt/vol: 30.0 (g/mL) G Lab File ID: 060F6001

% Moisture: 14 decanted: (Y/N) N Date Received: 05/04/05

Extraction: (SepF/Cont/Sonc) SONC Date Extracted:05/11/05

Concentrated Extract Volume: 1.00(mL) Date Analyzed: 05/13/05

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
12674-11-2	Aroclor-1016	3.9	U
11104-28-2	Aroclor-1221	3.9	U
11141-16-5	Aroclor-1232	3.9	U
53469-21-9	Aroclor-1242	3.9	U
12672-29-6	Aroclor-1248	3.9	U
11097-69-1	Aroclor-1254	3.9	U
11096-82-5	Aroclor-1260	3.9	U

General Engineering Laboratories, LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/051305.b/060f6001.d
Lab Smp Id: 135805003 Client Smp ID: RE03-05-59532
Inj Date : 13-MAY-2005 19:18
Operator : JMW1 Inst ID: ecd2a.i
Smp Info : |135805003|1
Misc Info : |ECD82P_1SF|422957|SVA|LANL|
Comment :
Method : /chem/ecd2a.i/051305.b/ECD2-F-8082-051105.m
Meth Date : 20-May-2005 15:31 jar00935 Quant Type: ESTD
Cal Date : 13-MAY-2005 08:58 Cal File: 010f1001.d
Als bottle: 60
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 3194S.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	13.99250	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 10 4cmx					CAS #: 877-09-8		
2.024	2.019	0.005	32465788	147.987	5.7	80.00- 120.00	100.00
$ 11 Decachlorobiphenyl					CAS #: 2051-24-3		
5.956	5.950	0.006	14144105	107.349	4.2	80.00- 120.00	100.00(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: /chem/ecd2a.i/051305.b/060f6001.d
Date : 13-MAY-2005 19:18
Client ID: RE03-05-59532
Sample Info: 1135805003 11
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecd2a.i
Operator: JMM
Column diameter: 0.25

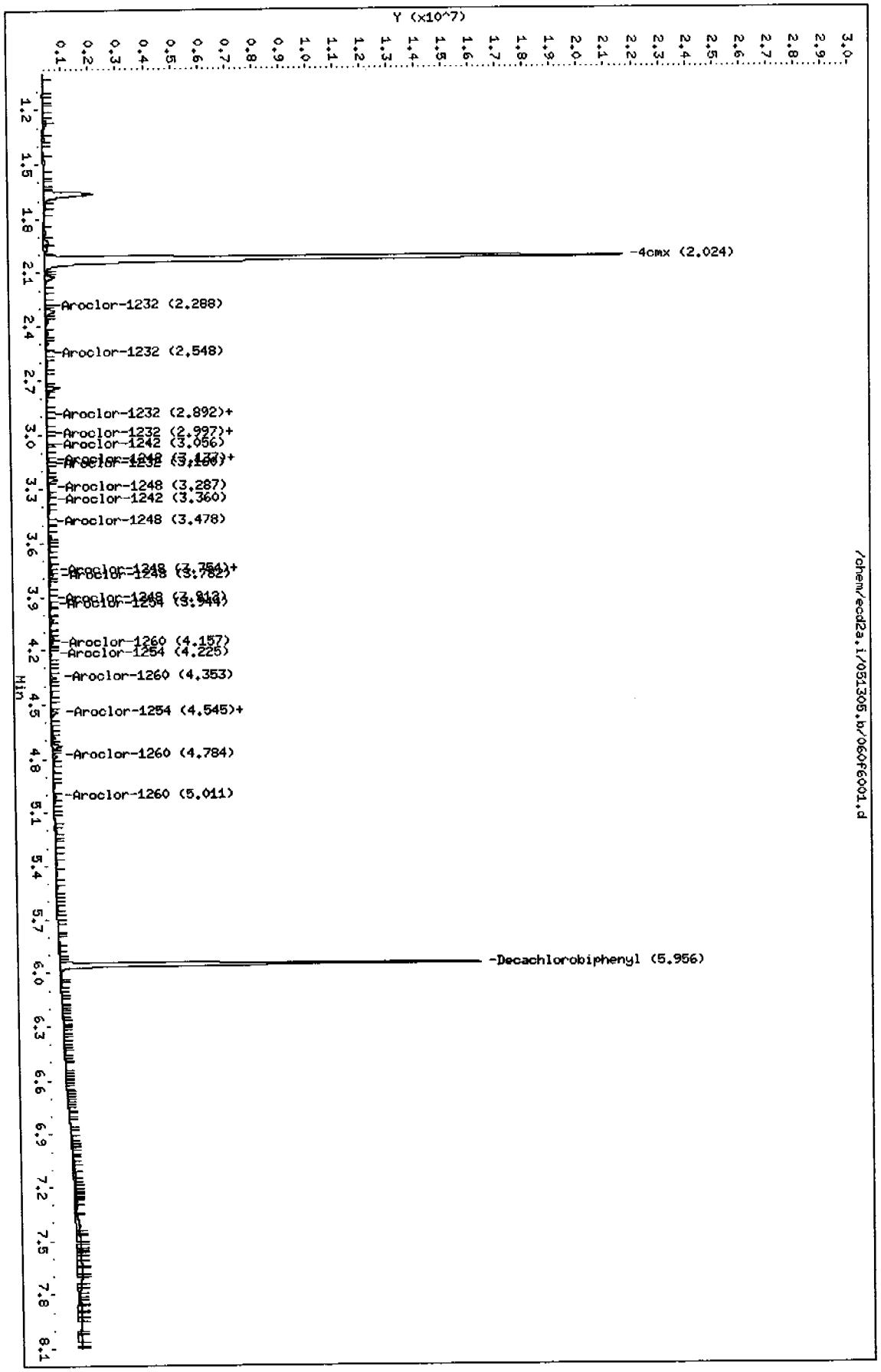

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RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/051305.b/060b6001.d
Lab Smp Id: 135805003 Client Smp ID: RE03-05-59532
Inj Date : 13-MAY-2005 19:18
Operator : JMW1 Inst ID: ecd2a.i
Smp Info : |135805003|1
Misc Info : |ECD82P_1SF|422957|SVA|LANL|
Comment :
Method : /chem/ecd2a.i/051305.b/ECD2-B-8082-051105.m
Meth Date : 20-May-2005 14:19 jar00935 Quant Type: ESTD
Cal Date : 13-MAY-2005 08:58 Cal File: 010b1001.d
Als bottle: 60
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 3194S.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	13.99250	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 10 4cmx					CAS #: 877-09-8		
2.418	2.416	0.002	67590514	155.928	6.0	80.00- 120.00	100.00
$ 11 Decachlorobiphenyl					CAS #: 2051-24-3		
6.757	6.751	0.006	24227971	96.3742	3.7	80.00- 120.00	100.00(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: /chem/ecd2a.i/051305.b/060b6001.d

Date : 13-MAY-2005 19:18

Client ID: RE03-05-59532

Sample Info: 113580500311

Volume Injected (uL): 1.0

Column phase: CLP2

Instrument: ecd2a.i

Operator: JMW1

Column diameter: 0.25

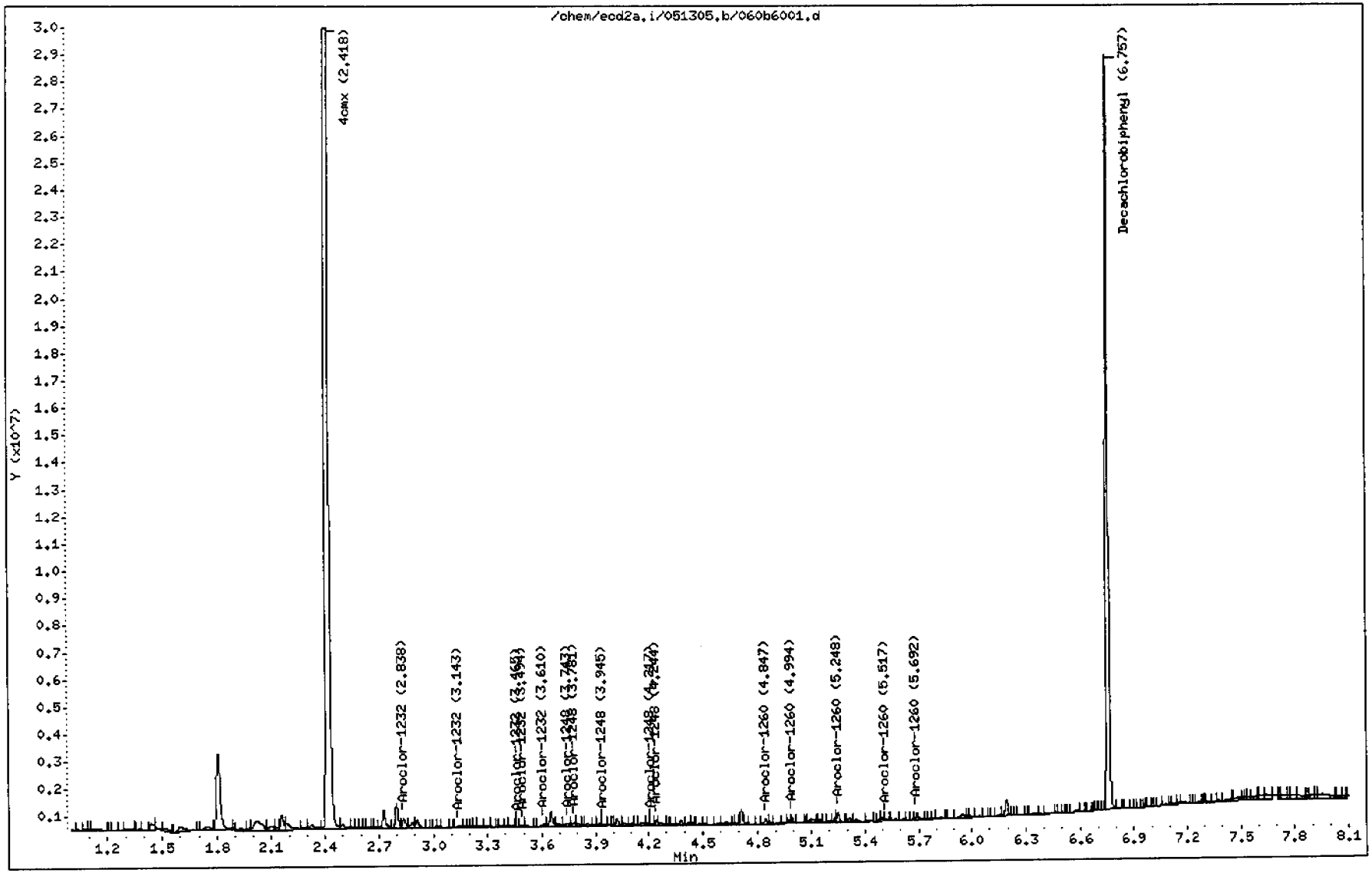

1D
PCB ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-59531

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

Matrix: (soil/water) SOIL Lab Sample ID: 135805001

Sample wt/vol: 30.0 (g/mL) G Lab File ID: 056F5601

% Moisture: 16 decanted: (Y/N) N Date Received: 05/04/05

Extraction: (SepF/Cont/Sonc) SONC Date Extracted:05/11/05

Concentrated Extract Volume: 1.00(mL) Date Analyzed: 05/13/05

Injection Volume: 1.0(uL) Dilution Factor: 10.0

GPC Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
12674-11-2	Aroclor-1016	39.6	U
11104-28-2	Aroclor-1221	39.6	U
11141-16-5	Aroclor-1232	39.6	U
53469-21-9	Aroclor-1242	39.6	U
12672-29-6	Aroclor-1248	39.6	U
11097-69-1	Aroclor-1254	18.4	J
11096-82-5	Aroclor-1260	39.6	U

FORM I PEST OLM03.0

General Engineering Laboratories, LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/051305.b/056f5601.d
Lab Smp Id: 135805001 Client Smp ID: RE03-05-59531
Inj Date : 13-MAY-2005 18:33
Operator : JMW1 Inst ID: ecd2a.i
Smp Info : |135805001|10
Misc Info : |ECD82P_1SF|422957|SVA|LANL|
Comment :
Method : /chem/ecd2a.i/051305.b/ECD2-F-8082-051105.m
Meth Date : 20-May-2005 15:31 jar00935 Quant Type: ESTD
Cal Date : 13-MAY-2005 08:58 Cal File: 010f1001.d
Als bottle: 56
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: 3194S.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	10.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	15.93160	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 10 4cmx					CAS #: 877-09-8		
2.027	2.019	0.008	2501356	11.4018	4.5	80.00- 120.00	100.00(R)
$ 11 Decachlorobiphenyl					CAS #: 2051-24-3		
5.951	5.950	0.001	1027054	4.23215	1.7	80.00- 120.00	100.00(R)
6 Aroclor-1254					CAS #: 11097-69-1		
3.138	3.136	0.002	150188	32.9598	13.1	80.00- 120.00	100.00(aM)
3.753	3.752	0.001	326497	44.2363	17.5	144.58- 184.58	217.39
3.943	3.946	-0.003	253804	43.1271	17.1	103.07- 143.07	168.99
4.223	4.228	-0.005	292922	35.5136	14.1	150.80- 190.80	195.04

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
6 Aroclor-1254 (continued)							
4.549	4.549	0.000	0			197.09- 237.09	0.00
Average of Peak Concentrations =					15.4		

QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Data File: /chem/ecd2a.i/051305.b/056f5601.d

Page 1

Date : 13-MAY-2005 18:33

Client ID: RE03-05-59531

Instrument: ecd2a.i

Sample Info: |135805001|10

Volume Injected (uL): 1.0

Operator: JMW1

Column phase: CLP1

Column diameter: 0.25

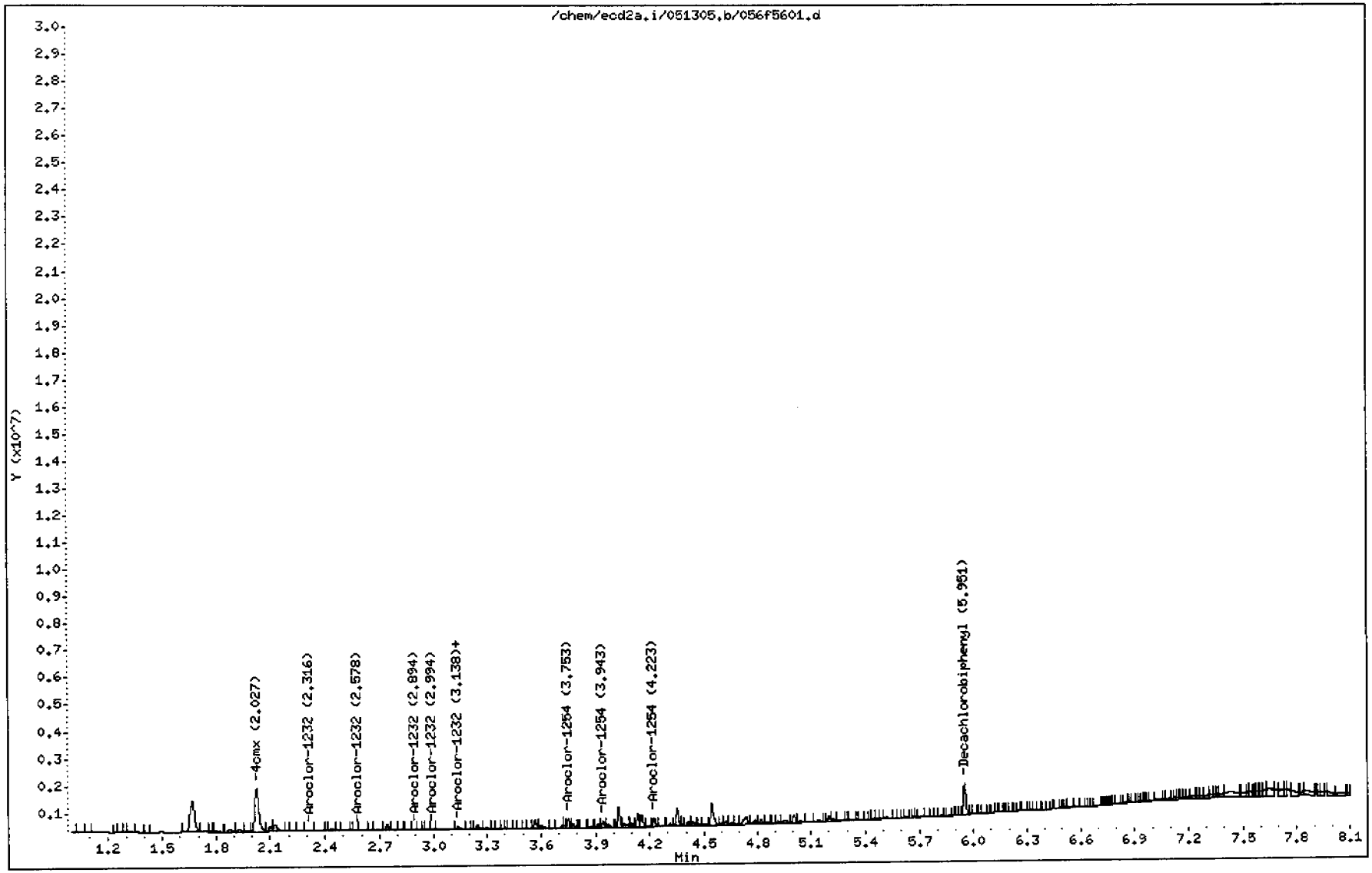

553

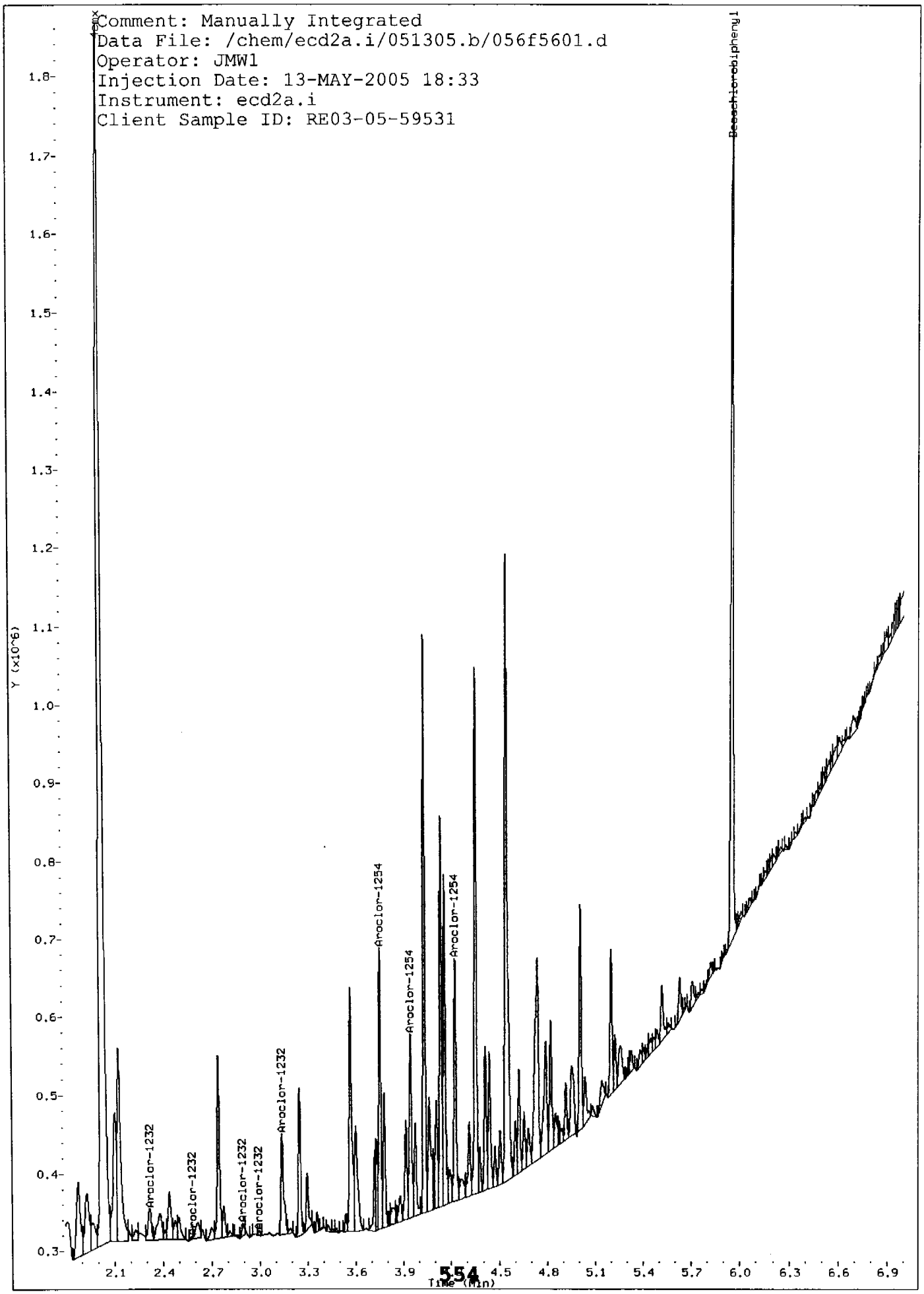
Comment: Manually Integrated
Data File: /chem/ecd2a.i/051305.b/056f5601.d
Operator: JMW1
Injection Date: 13-MAY-2005 18:33
Instrument: ecd2a.i
Client Sample ID: RE03-05-59531
Decachlorobiphenyl
Aroclor-1232
Aroclor-1232
Aroclor-1232
Aroclor-1232
Aroclor-1232
Aroclor-1254
Aroclor-1254
Aroclor-1254
Y (x10^6)
Time (min)

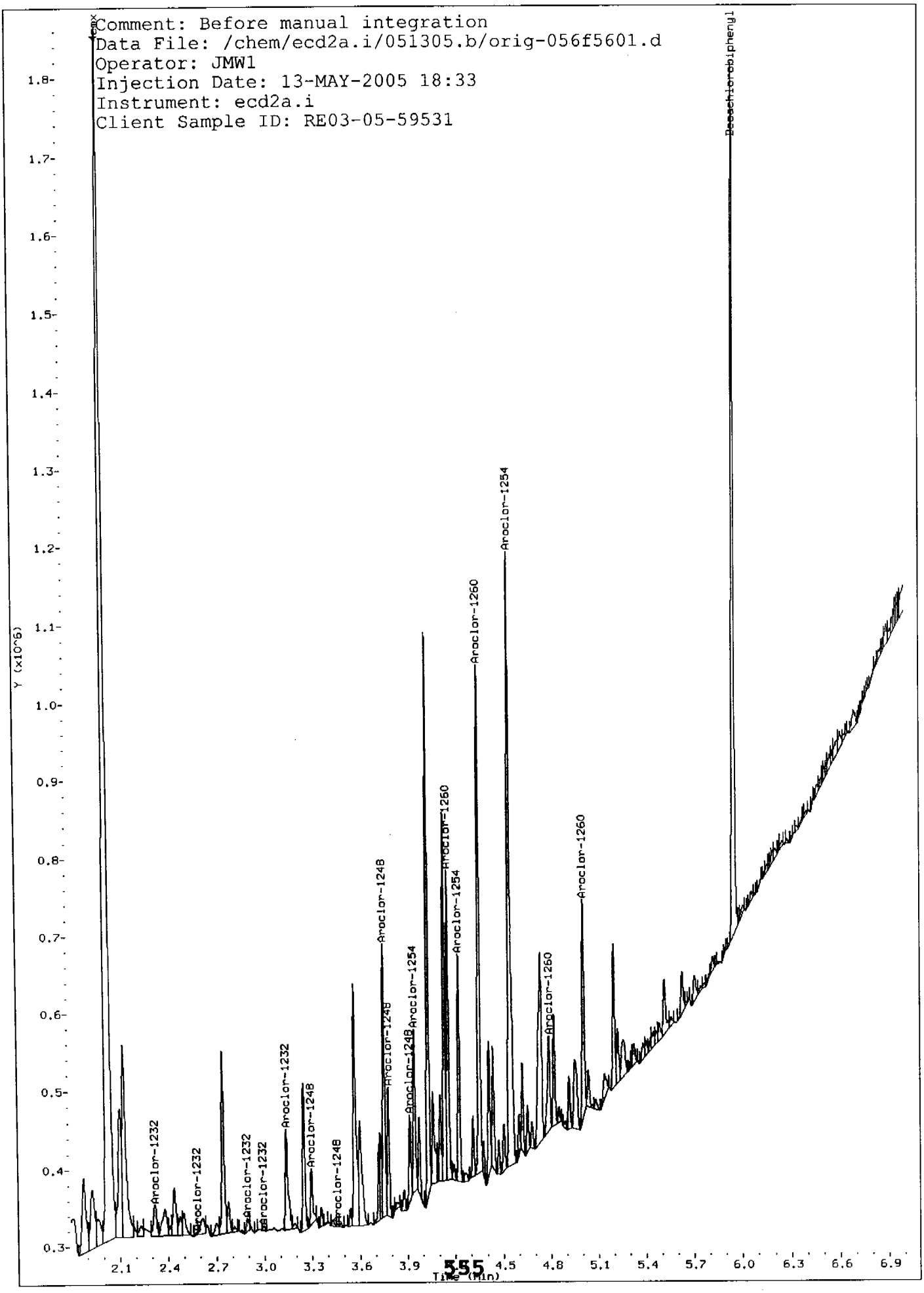
Comment: Before manual integration
Data File: /chem/ecd2a.i/051305.b/orig-056f5601.d
Operator: JMW1
Injection Date: 13-MAY-2005 18:33
Instrument: ecd2a.i
Client Sample ID: RE03-05-59531
Decachlorobiphenyl
Aroclor-1232
Aroclor-1248
Aroclor-1254
Aroclor-1260
Y (x10^6)
Time (Min)

General Engineering Laboratories, LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/051305.b/056b5601.d
Lab Smp Id: 135805001 Client Smp ID: RE03-05-59531
Inj Date : 13-MAY-2005 18:33
Operator : JMW1 Inst ID: ecd2a.i
Smp Info : |135805001|10
Misc Info : |ECD82P_1SF|422957|SVA|LANL|
Comment :
Method : /chem/ecd2a.i/051305.b/ECD2-B-8082-051105.m
Meth Date : 20-May-2005 14:19 jar00935 Quant Type: ESTD
Cal Date : 13-MAY-2005 08:58 Cal File: 010b1001.d
Als bottle: 56
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: 3194S.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	10.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	15.93160	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 10 4cmx					CAS #: 877-09-8		
2.420	2.416	0.004	4510678	10.4059	4.1	80.00- 120.00	100.00(R)
$ 11 Decachlorobiphenyl					CAS #: 2051-24-3		
6.753	6.751	0.002	1807220	7.18877	2.8	80.00- 120.00	100.00(R)
6 Aroclor-1254					CAS #: 11097-69-1		
4.244	4.242	0.002	481601	41.8466	16.6	80.00- 120.00	100.00(aM)
4.380	4.379	0.001	521276	46.8209	18.6	80.48- 120.48	108.24
4.626	4.626	0.000	431106	50.6730	20.1	52.66- 92.66	89.52
4.710	4.710	0.000	0			112.90- 152.90	0.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
6 Aroclor-1254 (continued)							
4.845	4.845	0.000	0			52.17- 92.17	0.00
Average of Peak Concentrations =					18.4		

QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Data File: /chem/ecd2a.i/051305.b/056b5601.d
Date : 13-MAY-2005 18:33
Client ID: RE03-05-59531
Sample Info: 1135805001|10
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd2a.i
Operator: JMW1
Column diameter: 0.25

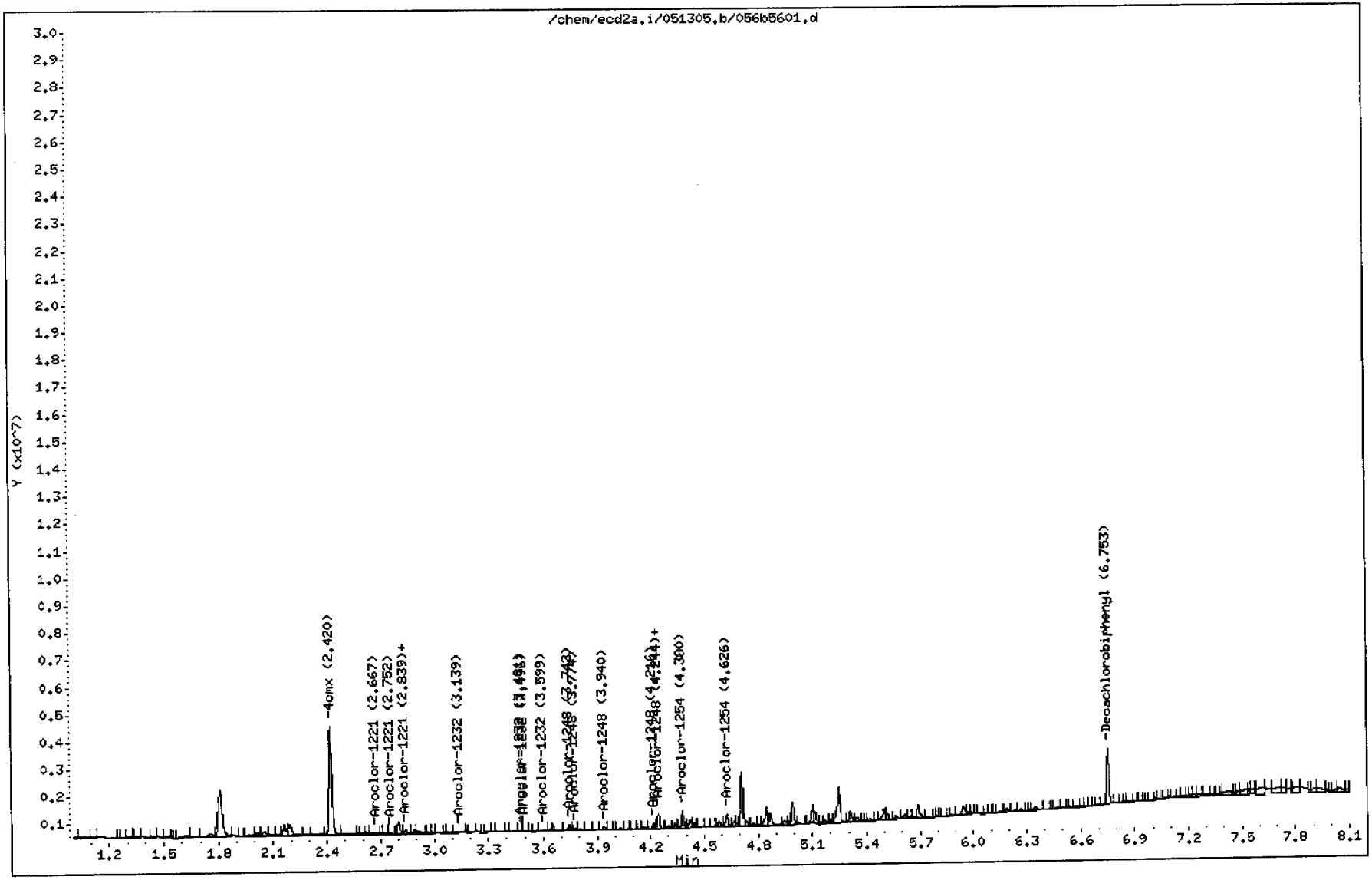

Comment: Manually Integrated
Data File: /chem/ecd2a.i/051305.b/056b5601.d
Operator: JMW1
Injection Date: 13-MAY-2005 18:33
Instrument: ecd2a.i
Client Sample ID: RE03-05-59531

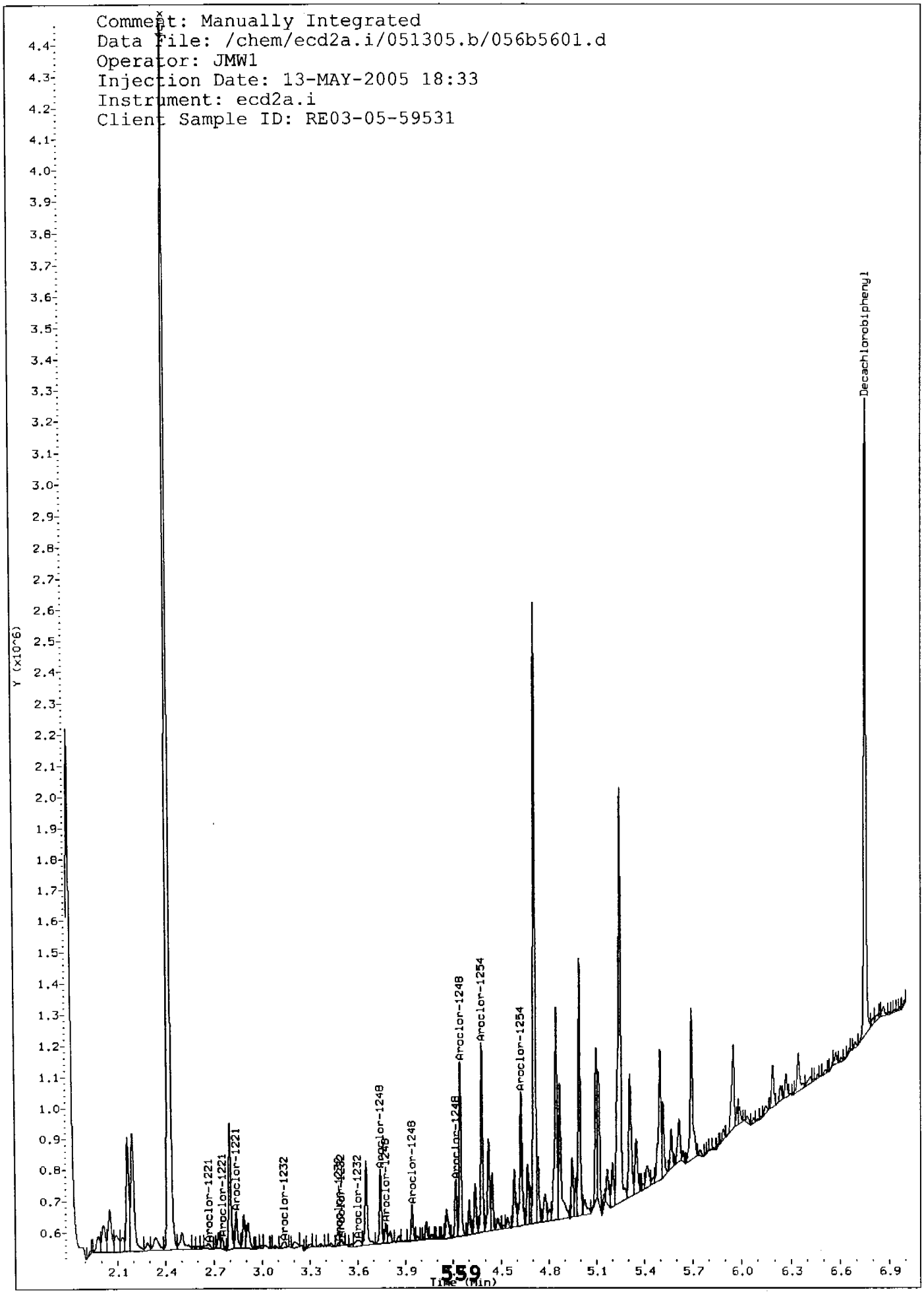

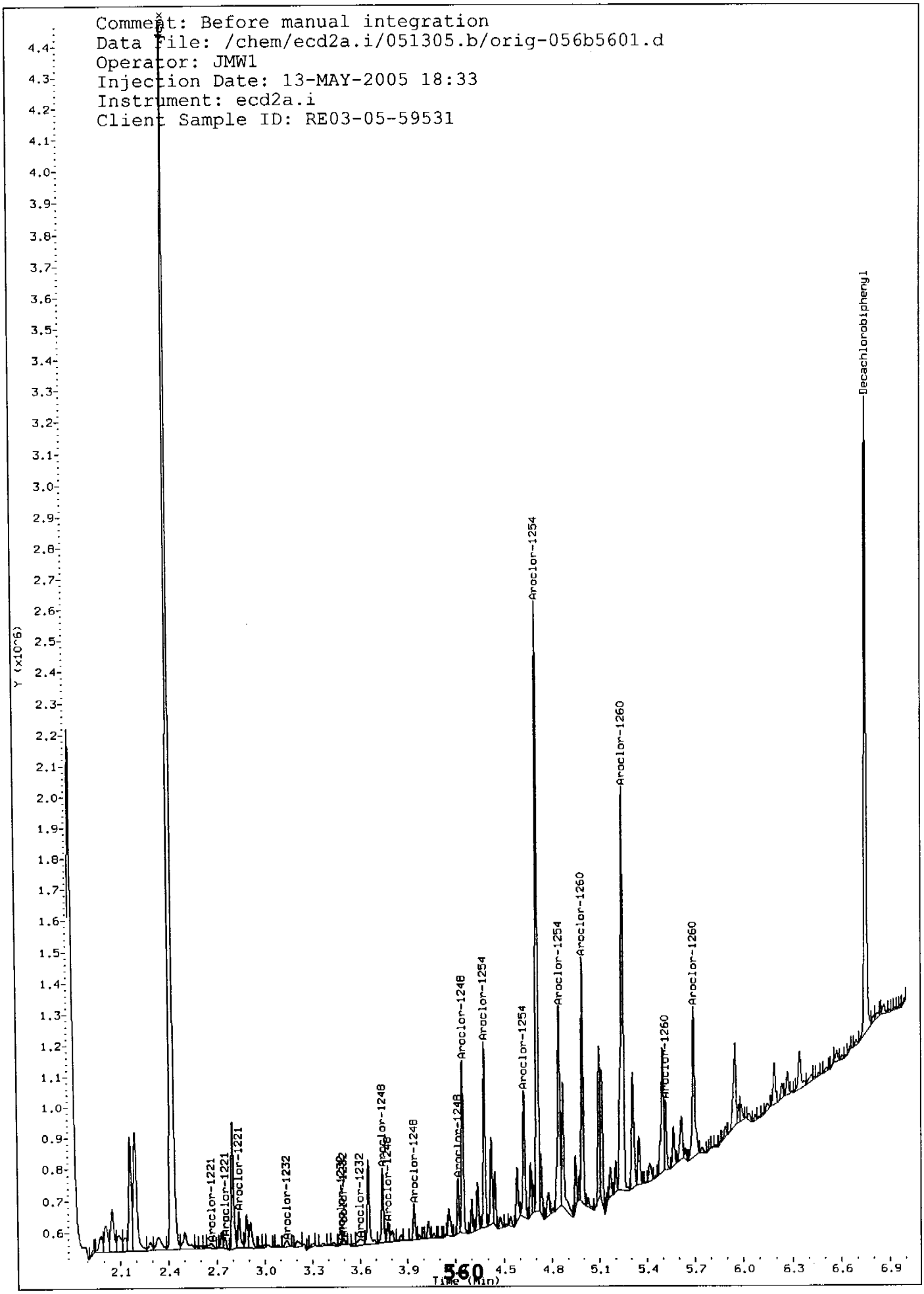
Comment: Before manual integration
Data File: /chem/ecd2a.i/051305.b/orig-056b5601.d
Operator: JMW1
Injection Date: 13-MAY-2005 18:33
Instrument: ecd2a.i
Client Sample ID: RE03-05-59531
Y (x10^6)
Time (min)
Aroclor-1221
Aroclor-1232
Aroclor-1248
Aroclor-1254
Aroclor-1260
Decachlorobiphenyl

1D
PCB ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-59541

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

Matrix: (soil/water) SOIL Lab Sample ID: 135805002

Sample wt/vol: 30.0 (g/mL) G Lab File ID: 059F5901

% Moisture: 13 decanted: (Y/N) N Date Received: 05/04/05

Extraction: (SepF/Cont/Sonc) SONC Date Extracted:05/11/05

Concentrated Extract Volume: 1.00(mL) Date Analyzed: 05/13/05

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
12674-11-2	Aroclor-1016	3.8	U
11104-28-2	Aroclor-1221	3.8	U
11141-16-5	Aroclor-1232	3.8	U
53469-21-9	Aroclor-1242	3.8	U
12672-29-6	Aroclor-1248	3.8	U
11097-69-1	Aroclor-1254	2.5	JP
11096-82-5	Aroclor-1260	1.3	J

FORM I PEST OLM03.0

General Engineering Laboratories, LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/051305.b/059f5901.d
Lab Smp Id: 135805002 Client Smp ID: RE03-05-59541
Inj Date : 13-MAY-2005 19:07
Operator : JMW1 Inst ID: ecd2a.i
Smp Info : |135805002|1
Misc Info : |ECD82P_1SF|422957|SVA|LANL|
Comment :
Method : /chem/ecd2a.i/051305.b/ECD2-F-8082-051105.m
Meth Date : 20-May-2005 15:31 jar00935 Quant Type: ESTD
Cal Date : 13-MAY-2005 08:58 Cal File: 010f1001.d
Als bottle: 59
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 3194S.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	13.31460	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 10 4cmx					CAS #: 877-09-8		
2.025	2.019	0.006	28391143	129.414	5.0	80.00- 120.00	100.00
$ 11 Decachlorobiphenyl					CAS #: 2051-24-3		
5.957	5.950	0.007	11471246	86.3373	3.3	80.00- 120.00	100.00(R)
6 Aroclor-1254					CAS #: 11097-69-1		
3.136	3.136	0.000	0			80.00- 120.00	0.00(a)
3.753	3.752	0.001	309062	41.8741	1.6	144.58- 184.58	272.16
3.944	3.946	-0.002	275110	46.7474	1.8	103.07- 143.07	242.26
4.224	4.228	-0.004	275663	33.4211	1.3	150.80- 190.80	242.75

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
6 Aroclor-1254 (continued)							
4.549	4.549	0.000	0			197.09- 237.09	0.00
Average of Peak Concentrations =					1.6		
7 Aroclor-1260					CAS #: 11096-82-5		
4.158	4.158	0.000	421307	44.0368	1.7	80.00- 120.00	100.00(a)
4.354	4.354	0.000	0			130.26- 170.26	0.00
4.547	4.547	0.000	0			142.30- 182.30	0.00
4.792	4.795	-0.003	251140	34.0276	1.3	60.34- 100.34	59.61
5.011	5.009	0.002	412706	22.2653	0.86	158.91- 198.91	97.96
Average of Peak Concentrations =					1.3		

QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
R - Spike/Surrogate failed recovery limits.

Data File: /chem/ecd2a.i/051305.b/059f5901.d
Date : 13-MAY-2005 19:07
Client ID: RE03-05-59541
Sample Info: 1135805002|1
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecd2a.i
Operator: JMW1
Column diameter: 0.25

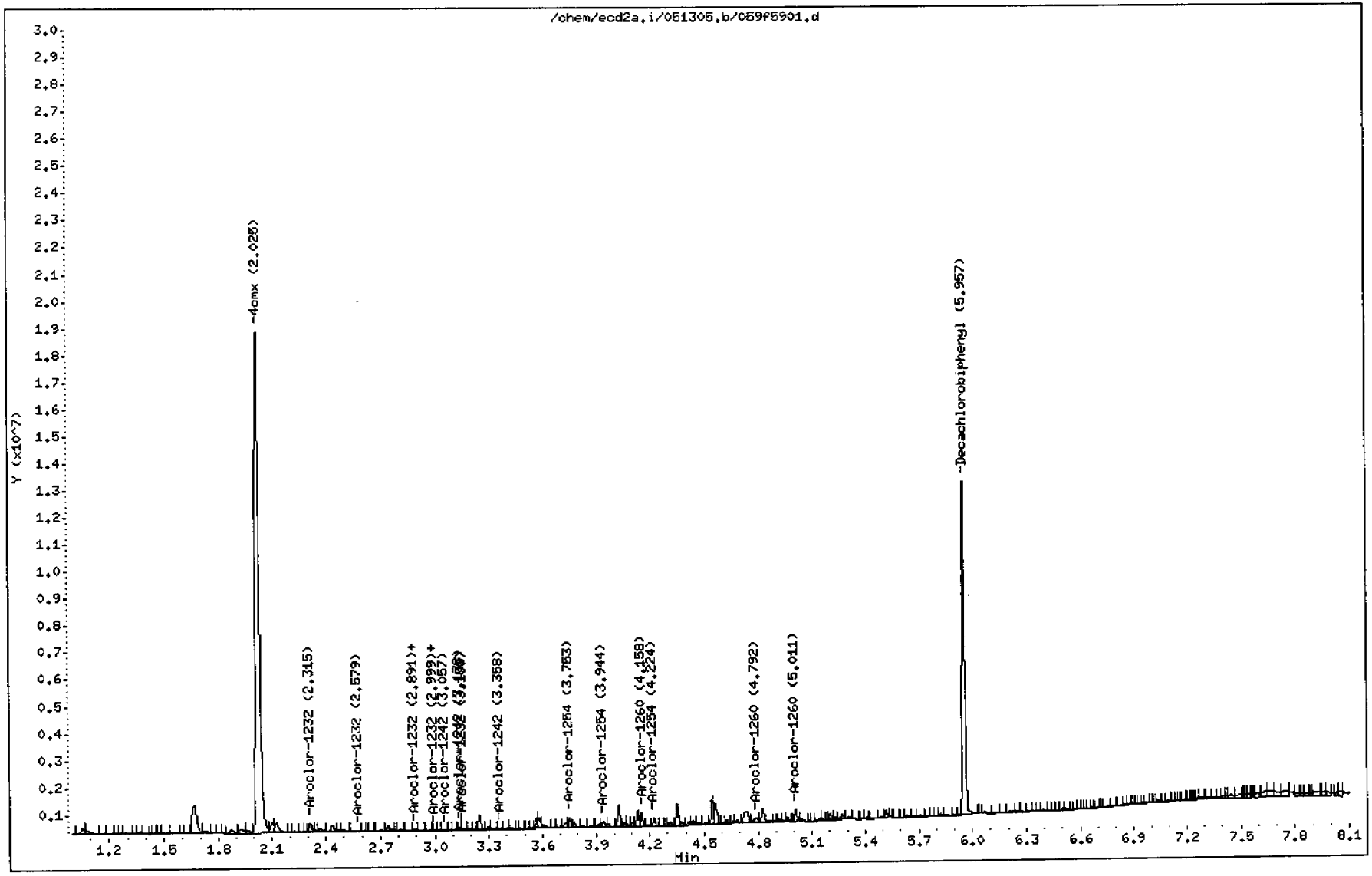

General Engineering Laboratories, LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/051305.b/059b5901.d
Lab Smp Id: 135805002 Client Smp ID: RE03-05-59541
Inj Date : 13-MAY-2005 19:07
Operator : JMW1 Inst ID: ecd2a.i
Smp Info : |135805002|1
Misc Info : |ECD82P_1SF|422957|SVA|LANL|
Comment :
Method : /chem/ecd2a.i/051305.b/ECD2-B-8082-051105.m
Meth Date : 20-May-2005 14:19 jar00935 Quant Type: ESTD
Cal Date : 13-MAY-2005 08:58 Cal File: 010b1001.d
Als bottle: 59
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 3194S.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	13.31460	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 10 4cmx					CAS #: 877-09-8		
2.419	2.416	0.003	58111640	134.061	5.2	80.00- 120.00	100.00
$ 11 Decachlorobiphenyl					CAS #: 2051-24-3		
6.757	6.751	0.006	21058012	83.7647	3.2	80.00- 120.00	100.00(R)
6 Aroclor-1254					CAS #: 11097-69-1		
4.244	4.242	0.002	753339	65.4581	2.5	80.00- 120.00	100.00(aM)
4.381	4.379	0.002	664007	59.6409	2.3	80.48- 120.48	88.14
4.628	4.626	0.002	606135	71.2462	2.7	52.66- 92.66	80.46
4.710	4.710	0.000	0			112.90- 152.90	0.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
6 Aroclor-1254 (continued)							
4.845	4.845	0.000	0			52.17- 92.17	0.00
Average of Peak Concentrations =					2.5		
7 Aroclor-1260					CAS #: 11096-82-5		
4.846	4.846	0.000	0			80.00- 120.00	0.00(aM)
4.994	4.993	0.001	850062	46.3202	1.8	99.88- 139.88	87.95
5.246	5.246	0.000	0			95.70- 135.70	0.00
5.517	5.515	0.002	394357	29.2960	1.1	55.49- 95.49	40.80
5.692	5.690	0.002	812065	29.7887	1.1	153.48- 193.48	84.02
Average of Peak Concentrations =					1.3		

QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Data File: /chem/ecd2a.i/051305.b/059b5901.d
Date : 13-MAY-2005 19:07
Client ID: RE03-05-59541
Sample Info: |13580500211
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd2a.i
Operator: JMW1
Column diameter: 0.25

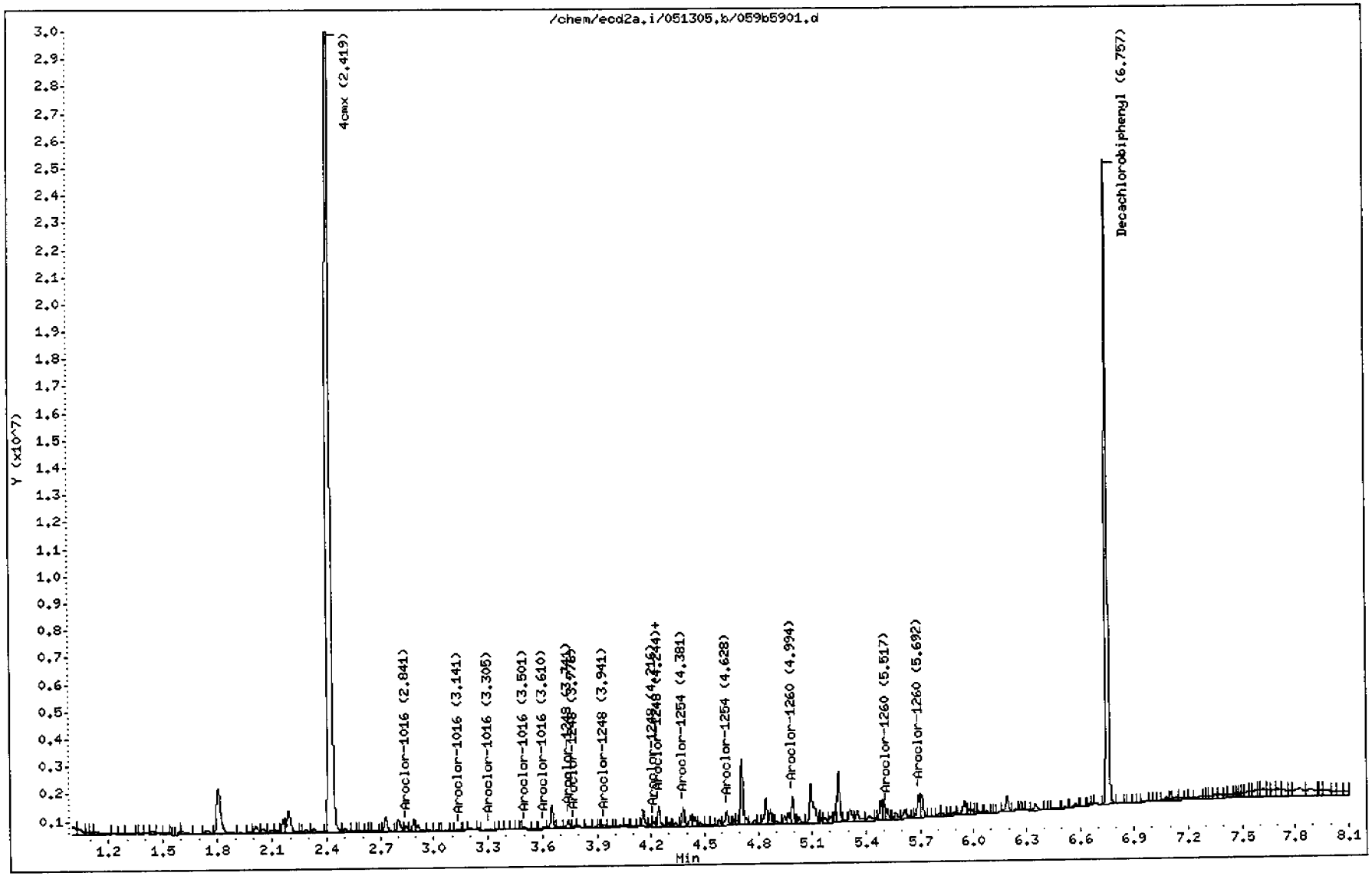

Comment: Manually Integrated
Data File: /chem/ecd2a.i/051305.b/059b5901.d
Operator: JMW1
Injection Date: 13-MAY-2005 19:07
Instrument: ecd2a.i
Client Sample ID: RE03-05-59541

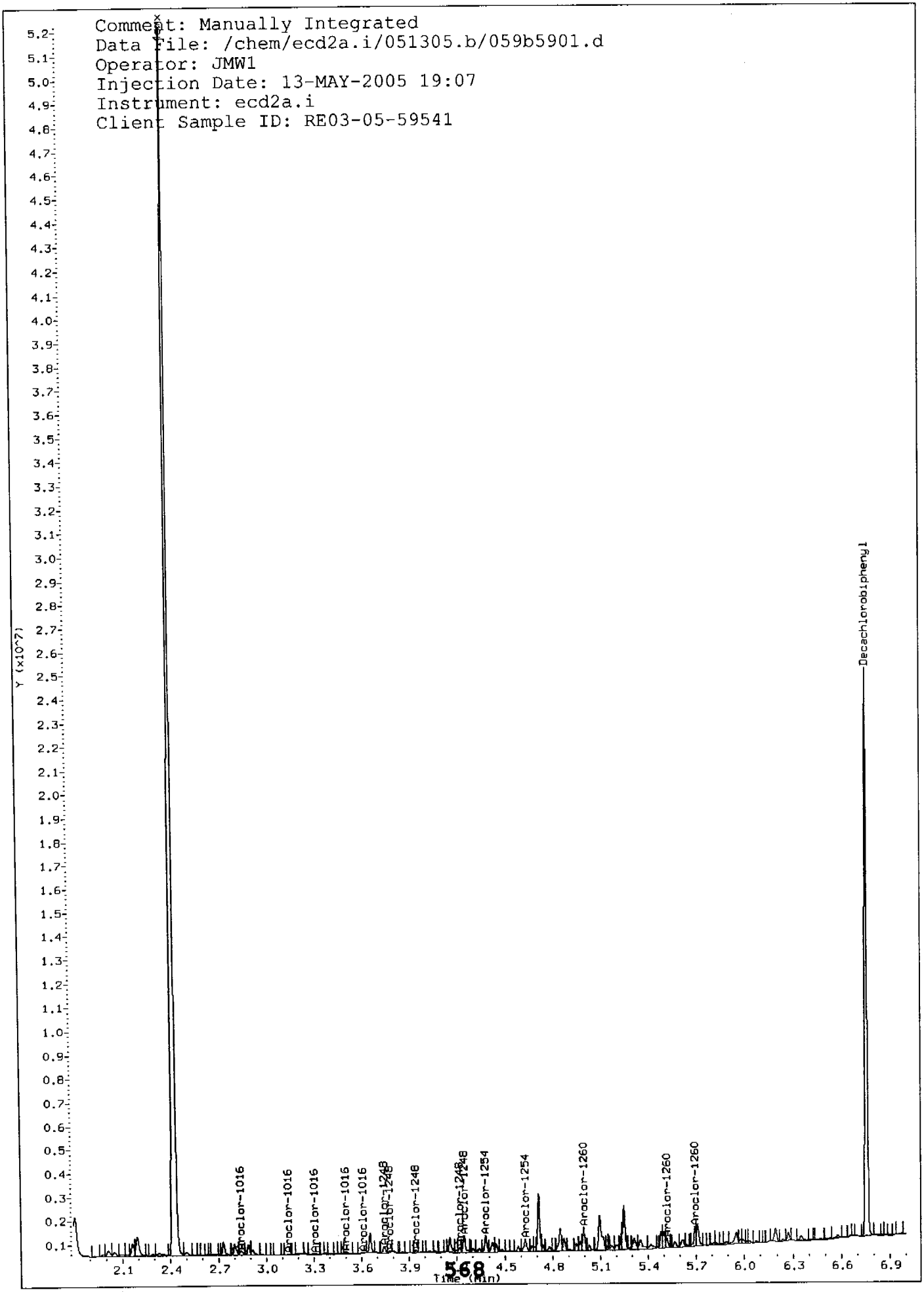

Comment: Before manual integration
Data File: /chem/ecd2a.i/051305.b/orig-059b5901.d
Operator: JMW1
Injection Date: 13-MAY-2005 19:07
Instrument: ecd2a.i
Client Sample ID: RE03-05-59541

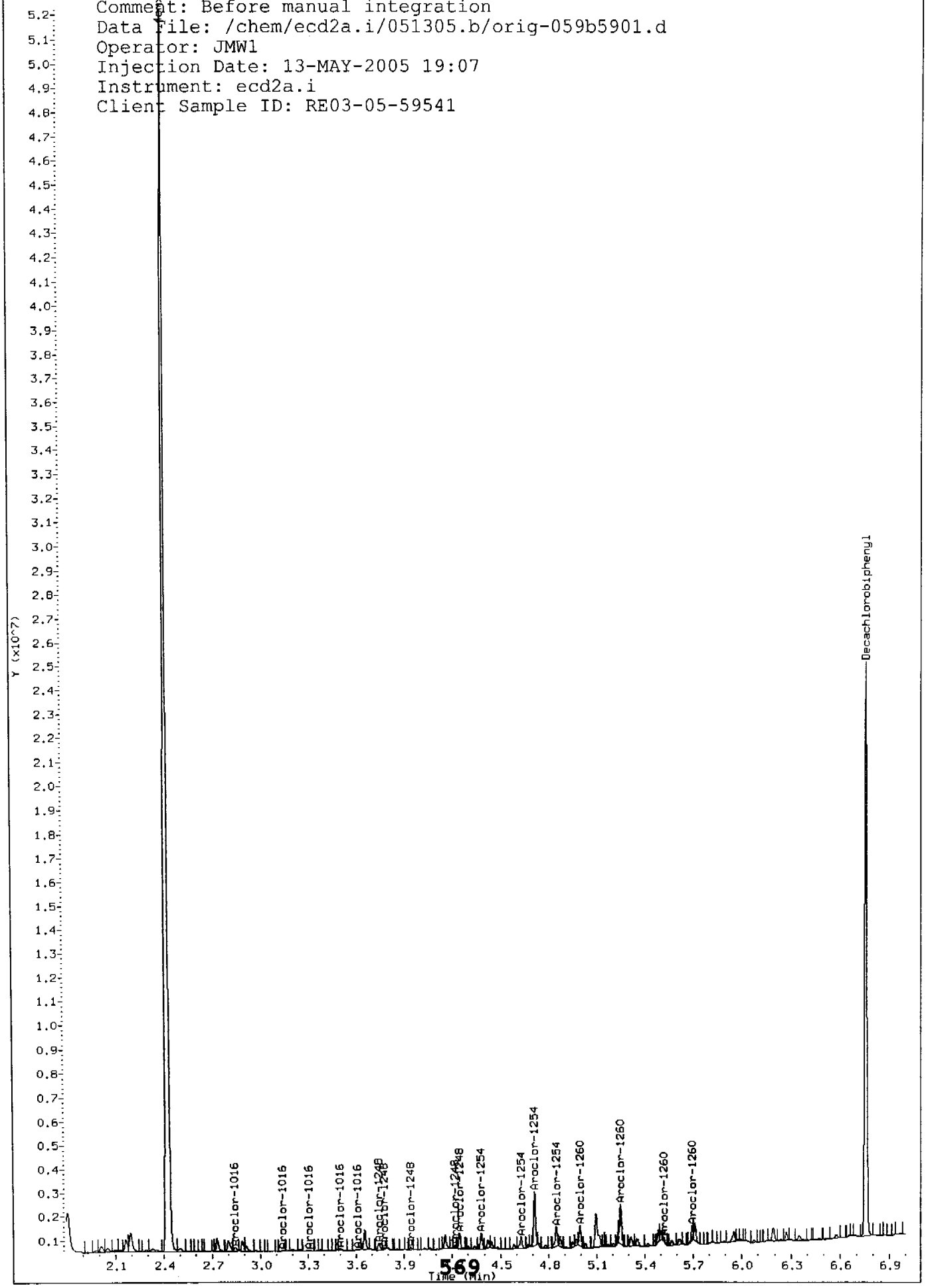

1D
PCB ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-59542

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

Matrix: (soil/water) SOIL Lab Sample ID: 135805004

Sample wt/vol: 30.0 (g/mL) G Lab File ID: 061F6101

% Moisture: 14 decanted: (Y/N) N Date Received: 05/04/05

Extraction: (SepF/Cont/Sonc) SONC Date Extracted:05/11/05

Concentrated Extract Volume: 1.00(mL) Date Analyzed: 05/13/05

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
12674-11-2	Aroclor-1016	3.9	U
11104-28-2	Aroclor-1221	3.9	U
11141-16-5	Aroclor-1232	3.9	U
53469-21-9	Aroclor-1242	3.9	U
12672-29-6	Aroclor-1248	3.9	U
11097-69-1	Aroclor-1254	2.4	JP
11096-82-5	Aroclor-1260	1.4	J

General Engineering Laboratories, LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/051305.b/061f6101.d
Lab Smp Id: 135805004 Client Smp ID: RE03-05-59542
Inj Date : 13-MAY-2005 19:29
Operator : JMW1 Inst ID: ecd2a.i
Smp Info : |135805004|1
Misc Info : |ECD82P_1SF|422957|SVA|LANL|
Comment :
Method : /chem/ecd2a.i/051305.b/ECD2-F-8082-051105.m
Meth Date : 20-May-2005 15:31 jar00935 Quant Type: ESTD
Cal Date : 13-MAY-2005 08:58 Cal File: 010f1001.d
Als bottle: 61
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 3194S.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	14.32480	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 10 4cmx					CAS #: 877-09-8		
2.024	2.019	0.005	27938474	127.350	5.0	80.00- 120.00	100.00
$ 11 Decachlorobiphenyl					CAS #: 2051-24-3		
5.958	5.950	0.008	10994736	82.5913	3.2	80.00- 120.00	100.00(R)
6 Aroclor-1254					CAS #: 11097-69-1		
3.136	3.136	0.000	0			80.00- 120.00	0.00(a)
3.754	3.752	0.002	323226	43.7931	1.7	144.58- 184.58	320.05
3.946	3.946	0.000	316026	53.7000	2.1	103.07- 143.07	312.92
4.227	4.228	-0.001	295862	35.8700	1.4	150.80- 190.80	292.96

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
6 Aroclor-1254 (continued)							
4.549	4.549	0.000	0			197.09- 237.09	0.00
Average of Peak Concentrations =					1.7		
7 Aroclor-1260					CAS #: 11096-82-5		
4.158	4.158	0.000	406187	42.4564	1.6	80.00- 120.00	100.00(a)
4.354	4.354	0.000	0			130.26- 170.26	0.00
4.547	4.547	0.000	0			142.30- 182.30	0.00
4.791	4.795	-0.004	347980	47.1487	1.8	60.34- 100.34	85.67
5.012	5.009	0.003	412206	22.2383	0.86	158.91- 198.91	101.48
Average of Peak Concentrations =					1.4		

QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
R - Spike/Surrogate failed recovery limits.

Data File: /chem/ecd2a.i/051305.b/061f6101.d
Date : 13-MAY-2005 19:29
Client ID: RE03-05-59542
Sample Info: 113580500411
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecd2a.i
Operator: JMW1
Column diameter: 0.25

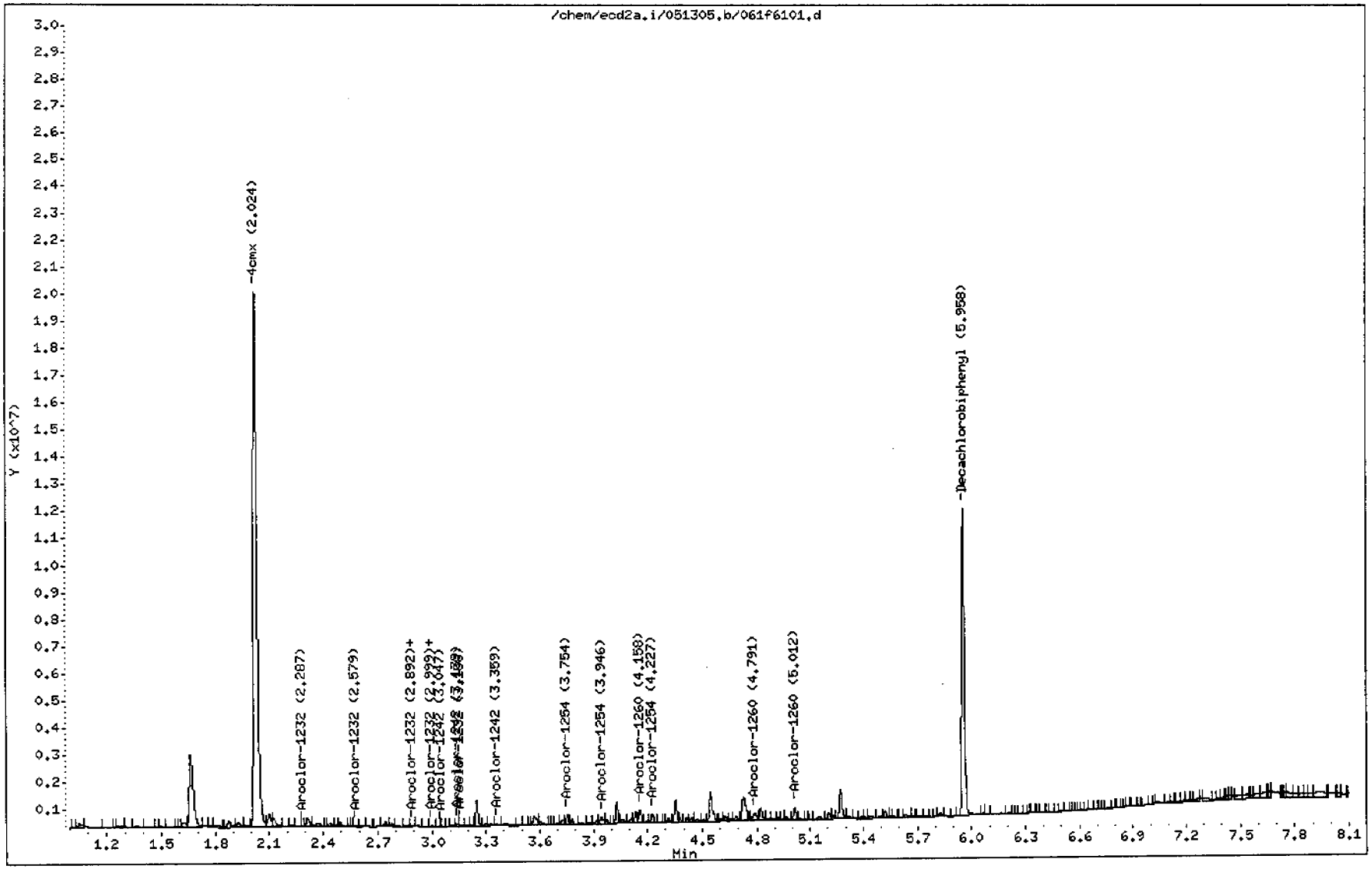

General Engineering Laboratories, LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/051305.b/061b6101.d
Lab Smp Id: 135805004 Client Smp ID: RE03-05-59542
Inj Date : 13-MAY-2005 19:29
Operator : JMW1 Inst ID: ecd2a.i
Smp Info : |135805004|1
Misc Info : |ECD82P_1SF|422957|SVA|LANL|
Comment :
Method : /chem/ecd2a.i/051305.b/ECD2-B-8082-051105.m
Meth Date : 20-May-2005 14:19 jar00935 Quant Type: ESTD
Cal Date : 13-MAY-2005 08:58 Cal File: 010b1001.d
Als bottle: 61
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 3194S.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	14.32480	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 10 4cmx					CAS #: 877-09-8		
2.419	2.416	0.003	57396171	132.411	5.2	80.00- 120.00	100.00
$ 11 Decachlorobiphenyl					CAS #: 2051-24-3		
6.759	6.751	0.008	20543906	81.7197	3.2	80.00- 120.00	100.00(R)
6 Aroclor-1254					CAS #: 11097-69-1		
4.245	4.242	0.003	662591	57.5729	2.2	80.00- 120.00	100.00(aM)
4.381	4.379	0.002	613384	55.0940	2.1	80.48- 120.48	92.57
4.629	4.626	0.003	618049	72.6466	2.8	52.66- 92.66	93.28
4.710	4.710	0.000	0			112.90- 152.90	0.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
6 Aroclor-1254 (continued)							
4.845	4.845	0.000	0			52.17- 92.17	0.00
Average of Peak Concentrations =					2.4		
7 Aroclor-1260					CAS #: 11096-82-5		
4.846	4.846	0.000	0			80.00- 120.00	0.00(aM)
4.995	4.993	0.002	876559	47.7641	1.8	99.88- 139.88	91.71
5.246	5.246	0.000	0			95.70- 135.70	0.00
5.518	5.515	0.003	335119	24.8954	0.97	55.49- 95.49	35.06
5.695	5.690	0.005	594513	21.8083	0.85	153.48- 193.48	62.20
Average of Peak Concentrations =					1.2		

QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Data File: /chem/ecd2a.i/051305.b/061b6101.d

Date : 13-MAY-2005 19:29

Client ID: RE03-05-59542

Sample Info: 113580500411

Volume Injected (uL): 1.0

Column phase: CLP2

Instrument: ecd2a.i

Operator: JMW1

Column diameter: 0.25

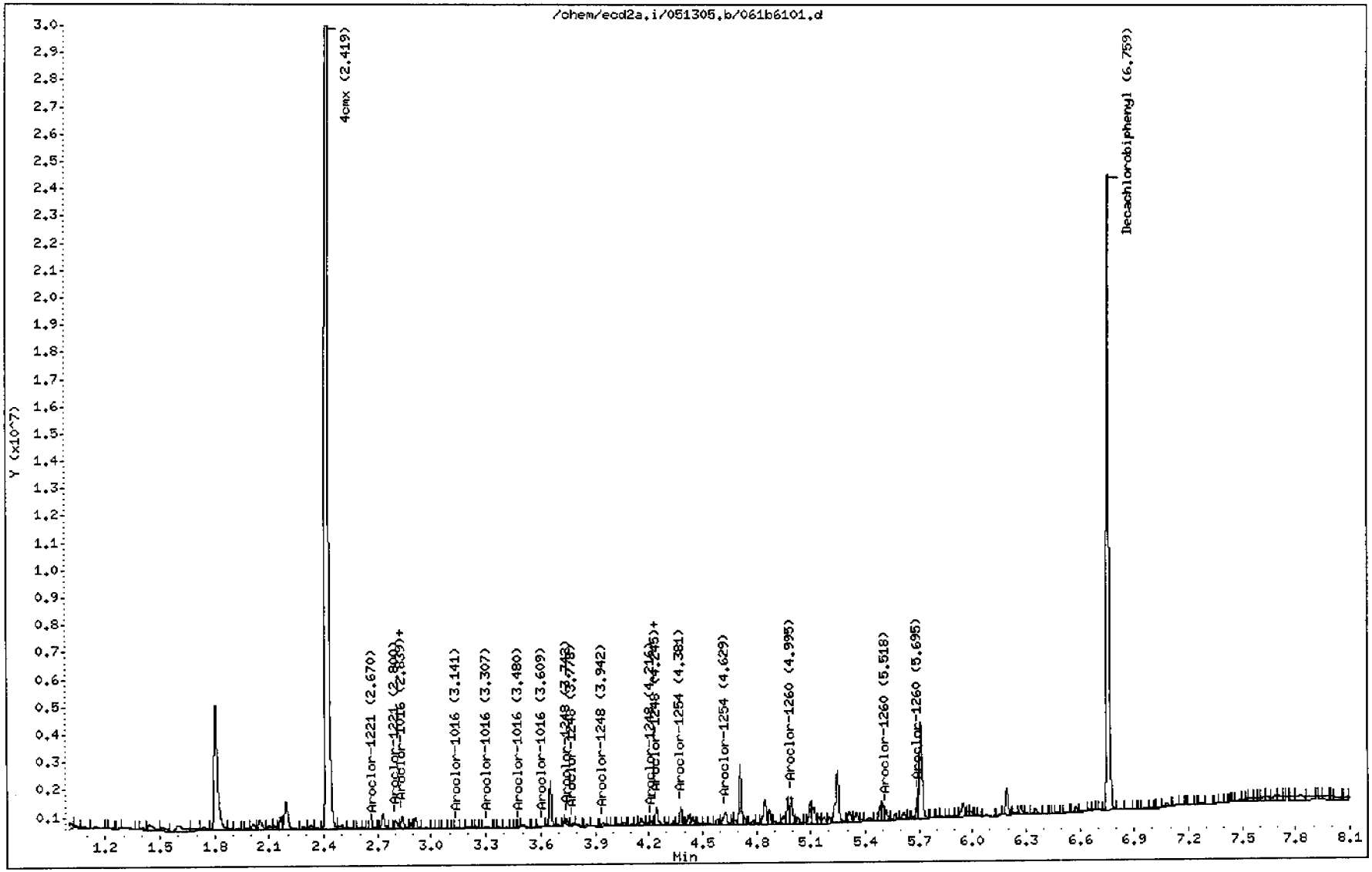

Comment: Manually Integrated
Data File: /chem/ecd2a.i/051305.b/061b6101.d
Operator: JMW1
Injection Date: 13-MAY-2005 19:29
Instrument: ecd2a.i
Client Sample ID: RE03-05-59542

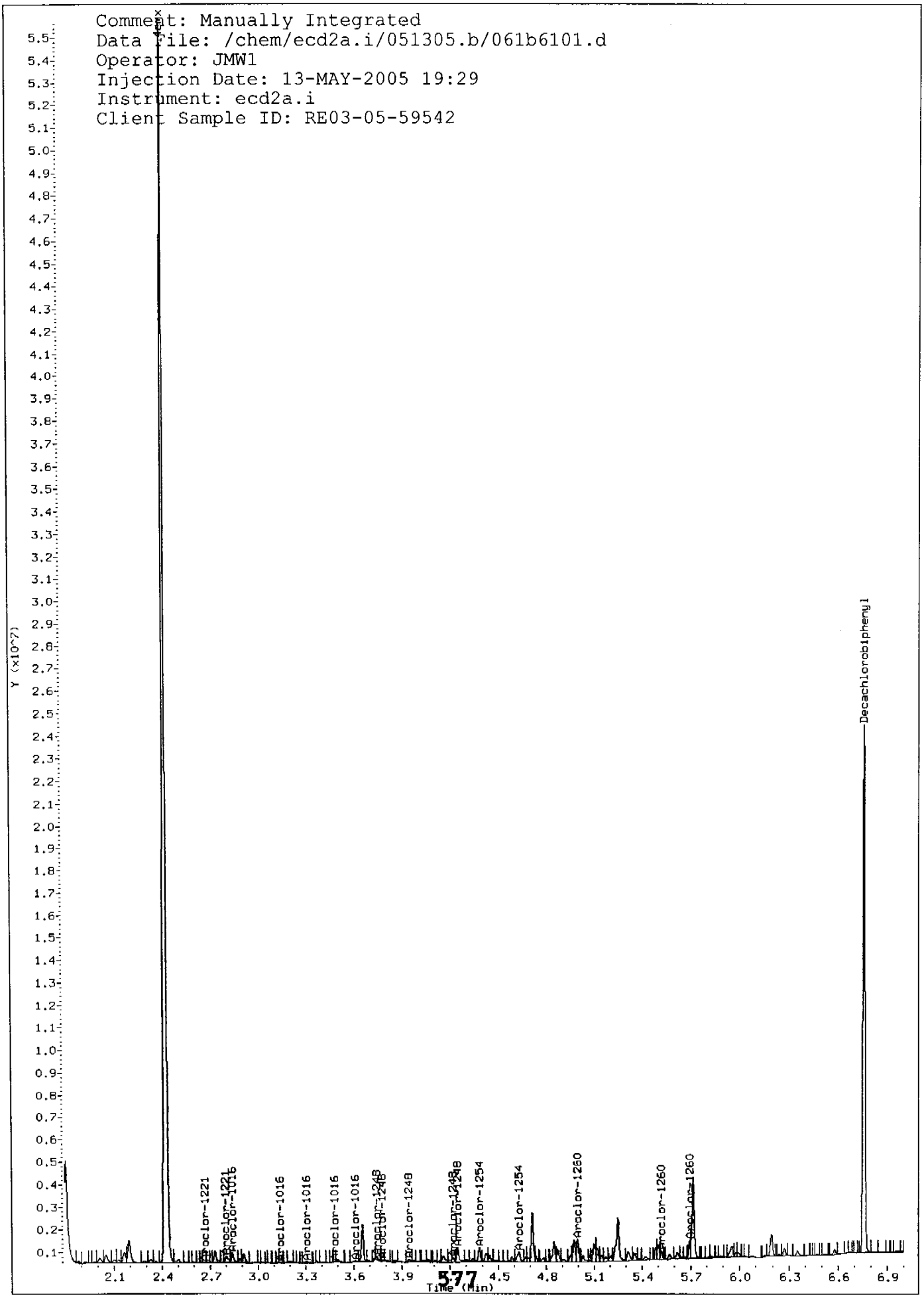

Comment: Before manual integration
Data File: /chem/ecd2a.i/051305.b/orig-061b6101.d
Operator: JMW1
Injection Date: 13-MAY-2005 19:29
Instrument: ecd2a.i
Client Sample ID: RE03-05-59542

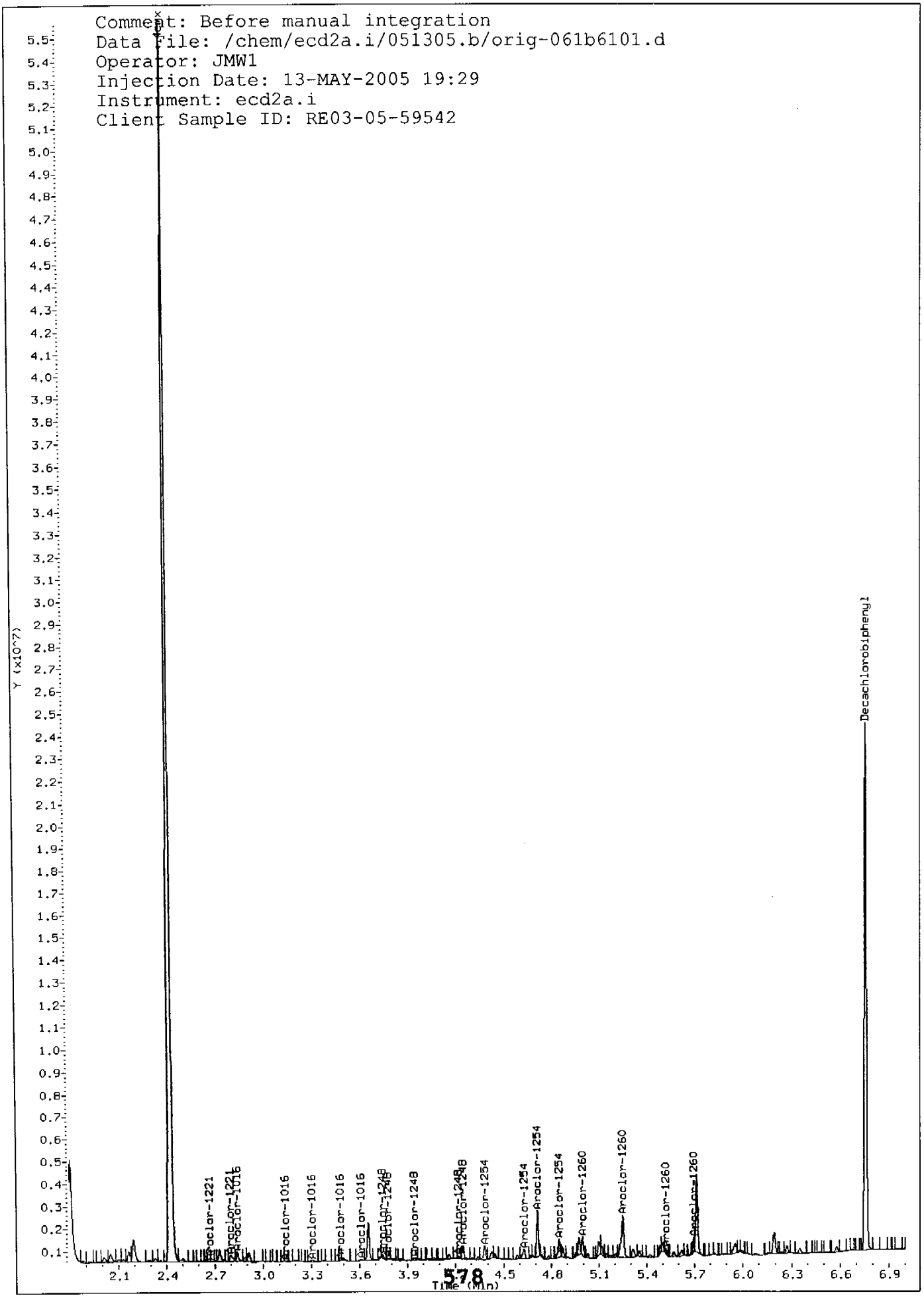

STANDARDS DATA

Report Date: 24-May-2005 09:12

Calibration History

Method : /chem/ecd2a.i/051305.b/ECD2-F-8082-051105.m
Start Cal Date: 11-MAY-2005 09:42
End Cal Date : 13-MAY-2005 08:58

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 100.00000		
11-MAY-2005 11:57	AR1242	/chem/ecd2a.i/051105.b/014f1401.d
11-MAY-2005 10:50	AR1254	/chem/ecd2a.i/051105.b/008f0801.d
12-MAY-2005 07:29	AR1660	/chem/ecd2a.i/051205.b/005f0501.d
Cal Level: 2 , Cal Amount: 250.00000		
11-MAY-2005 12:08	AR1242	/chem/ecd2a.i/051105.b/015f1501.d
11-MAY-2005 11:01	AR1254	/chem/ecd2a.i/051105.b/009f0901.d
12-MAY-2005 07:40	AR1660	/chem/ecd2a.i/051205.b/006f0601.d
Cal Level: 3 , Cal Amount: 500.00000		
11-MAY-2005 12:19	AR1242	/chem/ecd2a.i/051105.b/016f1601.d
11-MAY-2005 11:12	AR1254	/chem/ecd2a.i/051105.b/010f1001.d
12-MAY-2005 07:51	AR1660	/chem/ecd2a.i/051205.b/007f0701.d
Cal Level: 4 , Cal Amount: 1000.00000		
13-MAY-2005 08:58	AR1268	/chem/ecd2a.i/051305.b/010f1001.d
12-MAY-2005 09:10	AR1221	/chem/ecd2a.i/051205.b/014f1401.d
12-MAY-2005 08:59	AR1232	/chem/ecd2a.i/051205.b/013f1301.d
13-MAY-2005 08:13	AR1262	/chem/ecd2a.i/051305.b/006f0601.d
13-MAY-2005 08:02	AR1248	/chem/ecd2a.i/051305.b/005f0501.d
11-MAY-2005 12:31	AR1242	/chem/ecd2a.i/051105.b/017f1701.d
11-MAY-2005 11:23	AR1254	/chem/ecd2a.i/051105.b/011f1101.d
12-MAY-2005 08:03	AR1660	/chem/ecd2a.i/051205.b/008f0801.d
Cal Level: 5 , Cal Amount: 4000.00000		
11-MAY-2005 12:42	AR1242	/chem/ecd2a.i/051105.b/018f1801.d
11-MAY-2005 11:34	AR1254	/chem/ecd2a.i/051105.b/012f1201.d
12-MAY-2005 08:14	AR1660	/chem/ecd2a.i/051205.b/009f0901.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 1000		
13-MAY-2005 17:37	AR1660	/chem/ecd2a.i/051305.b/051f5101.d

Ccal Level: 4 , Ccal Amount: 1000		
13-MAY-2005 19:40	AR1660	/chem/ecd2a.i/051305.b/062f6201.d
Ccal Level: 4 , Ccal Amount: 1000		
13-MAY-2005 17:26	AR1660	/chem/ecd2a.i/051305.b/050f5001.d
Ccal Level: 4 , Ccal Amount: 1000		
13-MAY-2005 15:12	AR1660	/chem/ecd2a.i/051305.b/038f3801.d
Ccal Level: 4 , Ccal Amount: 1000		
13-MAY-2005 08:47	AR1221	/chem/ecd2a.i/051305.b/009f0901.d
Ccal Level: 4 , Ccal Amount: 1000		
13-MAY-2005 08:36	AR1232	/chem/ecd2a.i/051305.b/008f0801.d
Ccal Level: 4 , Ccal Amount: 1000		
13-MAY-2005 08:24	AR1242	/chem/ecd2a.i/051305.b/007f0701.d
Ccal Level: 4 , Ccal Amount: 1000		
13-MAY-2005 08:02	AR1248	/chem/ecd2a.i/051305.b/005f0501.d
Ccal Level: 4 , Ccal Amount: 1000		
13-MAY-2005 07:39	AR1254	/chem/ecd2a.i/051305.b/003f0301.d
Ccal Level: 4 , Ccal Amount: 1000		
13-MAY-2005 10:28	AR1660	/chem/ecd2a.i/051305.b/018f1801.d
Ccal Level: 4 , Ccal Amount: 1000		
13-MAY-2005 07:51	AR1242	/chem/ecd2a.i/051305.b/004f0401.d
Ccal Level: 4 , Ccal Amount: 1000		
13-MAY-2005 13:49	AR1660	/chem/ecd2a.i/051305.b/031f3101.d
Ccal Level: 4 , Ccal Amount: 1000		
13-MAY-2005 12:58	AR1660	/chem/ecd2a.i/051305.b/029f2901.d
Ccal Level: 4 , Ccal Amount: 1000		
13-MAY-2005 11:12	AR1660	/chem/ecd2a.i/051305.b/020f2001.d
Ccal Level: 4 , Ccal Amount: 1000		
13-MAY-2005 08:58	AR1268	/chem/ecd2a.i/051305.b/010f1001.d
Ccal Level: 4 , Ccal Amount: 1000		
13-MAY-2005 08:13	AR1262	/chem/ecd2a.i/051305.b/006f0601.d
Ccal Level: 4 , Ccal Amount: 1000		
13-MAY-2005 07:28	AR1660	/chem/ecd2a.i/051305.b/002f0201.d

Report Date: 24-May-2005 09:12

Calibration History

Method : /chem/ecd2a.i/051305.b/ECD2-B-8082-051105.m
Start Cal Date: 11-MAY-2005 09:42
End Cal Date : 13-MAY-2005 08:58

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 100.00000		
11-MAY-2005 11:57	AR1242	/chem/ecd2a.i/051105.b/014b1401.d
11-MAY-2005 10:50	AR1254	/chem/ecd2a.i/051105.b/008b0801.d
12-MAY-2005 07:29	AR1660	/chem/ecd2a.i/051205.b/005b0501.d
Cal Level: 2 , Cal Amount: 250.00000		
11-MAY-2005 12:08	AR1242	/chem/ecd2a.i/051105.b/015b1501.d
11-MAY-2005 11:01	AR1254	/chem/ecd2a.i/051105.b/009b0901.d
12-MAY-2005 07:40	AR1660	/chem/ecd2a.i/051205.b/006b0601.d
Cal Level: 3 , Cal Amount: 500.00000		
11-MAY-2005 12:19	AR1242	/chem/ecd2a.i/051105.b/016b1601.d
11-MAY-2005 11:12	AR1254	/chem/ecd2a.i/051105.b/010b1001.d
12-MAY-2005 07:51	AR1660	/chem/ecd2a.i/051205.b/007b0701.d
Cal Level: 4 , Cal Amount: 1000.00000		
13-MAY-2005 08:58	AR1268	/chem/ecd2a.i/051305.b/010b1001.d
13-MAY-2005 08:47	AR1221	/chem/ecd2a.i/051305.b/009b0901.d
13-MAY-2005 08:36	AR1232	/chem/ecd2a.i/051305.b/008b0801.d
13-MAY-2005 08:13	AR1262	/chem/ecd2a.i/051305.b/006b0601.d
13-MAY-2005 08:02	AR1248	/chem/ecd2a.i/051305.b/005b0501.d
11-MAY-2005 12:31	AR1242	/chem/ecd2a.i/051105.b/017b1701.d
11-MAY-2005 11:23	AR1254	/chem/ecd2a.i/051105.b/011b1101.d
12-MAY-2005 08:03	AR1660	/chem/ecd2a.i/051205.b/008b0801.d
Cal Level: 5 , Cal Amount: 4000.00000		
11-MAY-2005 12:42	AR1242	/chem/ecd2a.i/051105.b/018b1801.d
11-MAY-2005 11:34	AR1254	/chem/ecd2a.i/051105.b/012b1201.d
12-MAY-2005 08:14	AR1660	/chem/ecd2a.i/051205.b/009b0901.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 1000		
13-MAY-2005 19:40	AR1660	/chem/ecd2a.i/051305.b/062b6201.d
Ccal Level: 4 , Ccal Amount: 1000		
13-MAY-2005 17:26	AR1660	/chem/ecd2a.i/051305.b/050b5001.d
Ccal Level: 4 , Ccal Amount: 1000		

13-MAY-2005 15:12	AR1660	/chem/ecd2a.i/051305.b/038b3801.d
Ccal Level: 4 , Ccal Amount: 1000		
13-MAY-2005 08:47	AR1221	/chem/ecd2a.i/051305.b/009b0901.d
Ccal Level: 4 , Ccal Amount: 1000		
13-MAY-2005 08:36	AR1232	/chem/ecd2a.i/051305.b/008b0801.d
Ccal Level: 4 , Ccal Amount: 1000		
13-MAY-2005 08:24	AR1242	/chem/ecd2a.i/051305.b/007b0701.d
Ccal Level: 4 , Ccal Amount: 1000		
13-MAY-2005 07:51	AR1242	/chem/ecd2a.i/051305.b/004b0401.d
Ccal Level: 4 , Ccal Amount: 1000		
13-MAY-2005 07:39	AR1254	/chem/ecd2a.i/051305.b/003b0301.d
Ccal Level: 4 , Ccal Amount: 1000		
13-MAY-2005 11:12	AR1660	/chem/ecd2a.i/051305.b/020b2001.d
Ccal Level: 4 , Ccal Amount: 1000		
13-MAY-2005 13:49	AR1660	/chem/ecd2a.i/051305.b/031b3101.d
Ccal Level: 4 , Ccal Amount: 1000		
13-MAY-2005 12:58	AR1660	/chem/ecd2a.i/051305.b/029b2901.d
Ccal Level: 4 , Ccal Amount: 1000		
13-MAY-2005 10:28	AR1660	/chem/ecd2a.i/051305.b/018b1801.d
Ccal Level: 4 , Ccal Amount: 1000		
13-MAY-2005 08:58	AR1268	/chem/ecd2a.i/051305.b/010b1001.d
Ccal Level: 4 , Ccal Amount: 1000		
13-MAY-2005 08:13	AR1262	/chem/ecd2a.i/051305.b/006b0601.d
Ccal Level: 4 , Ccal Amount: 1000		
13-MAY-2005 08:02	AR1248	/chem/ecd2a.i/051305.b/005b0501.d
Ccal Level: 4 , Ccal Amount: 1000		
13-MAY-2005 07:28	AR1660	/chem/ecd2a.i/051305.b/002b0201.d

General Engineering Laboratories, LLC

COMPOUND LISTING

Method file : /chem/ecd2a.i/051305.b/ECD2-F-8082-051105.m
Quant Method : ESTD Target Version : 3.50
Last Update : 16-May-2005 07:29 Number of Cpnds : 11
Data Type : GC MULTI COMP

Global Integrator : Falcon

Chromat Events	Values
Initial:Start Threshold	758.000000
Initial:End Threshold	379.000000
Initial:Area Threshold	734.000000
Initial:P-P Resolution	1.000000
Initial:Bunch Factor	2.000000
Initial:Negative Peaks	OFF
Initial:Tension	1.100000
8.500:Bunch Factor	2.000000

Compound	RT	RT Window	RF
1 Aroclor-1016	2.564	2.534-2.594	5.963e+03
	2.904	2.874-2.934	8.907e+03
	2.999	2.969-3.029	5.439e+03
	3.044	3.014-3.074	3.420e+03
	3.136	3.106-3.166	3.020e+03
2 Aroclor-1221	2.157	2.127-2.187	2.161e+03
	2.267	2.237-2.297	1.168e+03
	2.298	2.268-2.328	5.059e+03
3 Aroclor-1232	2.298	2.268-2.328	4.240e+03
	2.563	2.533-2.593	3.328e+03
	2.904	2.874-2.934	4.257e+03
	3.000	2.970-3.030	2.659e+03
	3.152	3.122-3.182	1.385e+03
4 Aroclor-1242	2.904	2.874-2.934	8.221e+03
	2.999	2.969-3.029	4.935e+03
	3.044	3.014-3.074	3.007e+03
	3.135	3.105-3.165	2.415e+03
	3.355	3.325-3.385	2.737e+03
5 Aroclor-1248	3.295	3.265-3.325	6.733e+03
	3.457	3.427-3.487	1.464e+03
	3.755	3.725-3.785	4.924e+03
	3.779	3.749-3.809	2.424e+03
	3.916	3.886-3.946	1.652e+03

General Engineering Laboratories, LLC

COMPOUND LISTING

Method file : /chem/ecd2a.i/051305.b/ECD2-F-8082-051105.m

Compound	RT	RT Window	RF
6 Aroclor-1254	3.136	3.106-3.166	4.557e+03
	3.752	3.722-3.782	7.381e+03
	3.946	3.916-3.976	5.885e+03
	4.228	4.198-4.258	8.248e+03
	4.549	4.519-4.579	1.010e+04
7 Aroclor-1260	4.158	4.128-4.188	9.567e+03
	4.354	4.324-4.384	1.317e+04
	4.547	4.517-4.577	1.541e+04
	4.795	4.765-4.825	7.380e+03
	5.009	4.979-5.039	1.854e+04
8 Aroclor-1262	4.160	4.130-4.191	6.661e+03
	4.355	4.325-4.385	8.098e+03
	4.625	4.596-4.656	1.072e+04
	4.795	4.765-4.825	9.752e+03
	5.010	4.980-5.040	1.993e+04
9 Aroclor-1268	5.227	5.197-5.257	2.016e+04
	5.254	5.224-5.284	2.199e+04
	5.384	5.354-5.414	1.666e+04
	5.629	5.599-5.659	7.185e+03
	5.823	5.793-5.853	4.910e+04
$ 10 4cmx	2.019	1.989-2.049	2.194e+05
$ 11 Decachlorobiphenyl	5.950	5.920-5.980	1.272e+05

General Engineering Laboratories, LLC

COMPOUND LISTING

Method file : /chem/ecd2a.i/051305.b/ECD2-B-8082-051105.m
Quant Method : ESTD Target Version : 3.50
Last Update : 16-May-2005 07:29 Number of Cpnds : 11
Data Type : GC MULTI COMP

Global Integrator : Falcon

Chromat Events	Values
Initial:Start Threshold	733.000000
Initial:End Threshold	366.500000
Initial:Area Threshold	522.000000
Initial:P-P Resolution	0.000000
Initial:Bunch Factor	3.000000
Initial:Negative Peaks	OFF
Initial:Tension	1.000000
9.000:Bunch Factor	3.000000

Compound	RT	RT Window	RF
1 Aroclor-1016	2.822	2.792-2.852	5.658e+03
	3.140	3.110-3.170	1.350e+04
	3.328	3.298-3.358	4.842e+03
	3.491	3.461-3.521	1.624e+04
	3.590	3.560-3.620	9.654e+03
2 Aroclor-1221	2.658	2.628-2.688	3.714e+03
	2.772	2.742-2.802	2.217e+03
	2.820	2.790-2.850	8.679e+03
3 Aroclor-1232	2.821	2.791-2.851	7.177e+03
	3.140	3.110-3.170	6.351e+03
	3.478	3.448-3.508	4.756e+03
	3.490	3.460-3.520	7.042e+03
	3.590	3.560-3.620	4.324e+03
4 Aroclor-1242	3.139	3.109-3.169	9.769e+03
	3.328	3.298-3.358	3.574e+03
	3.478	3.448-3.508	7.097e+03
	3.490	3.460-3.520	1.152e+04
	3.937	3.907-3.967	5.457e+03
5 Aroclor-1248	3.739	3.709-3.769	8.467e+03
	3.771	3.741-3.801	7.402e+03
	3.937	3.907-3.967	1.053e+04
	4.214	4.184-4.244	9.833e+03
	4.246	4.216-4.276	1.264e+04

General Engineering Laboratories, LLC

COMPOUND LISTING

Method file : /chem/ecd2a.i/051305.b/ECD2-B-8082-051105.m

Compound	RT	RT Window	RF
6 Aroclor-1254	4.242	4.212-4.272	1.151e+04
	4.379	4.349-4.409	1.113e+04
	4.626	4.596-4.656	8.508e+03
	4.710	4.680-4.740	1.754e+04
	4.845	4.815-4.875	8.234e+03
7 Aroclor-1260	4.846	4.816-4.876	1.608e+04
	4.993	4.963-5.023	1.835e+04
	5.246	5.216-5.276	2.460e+04
	5.515	5.485-5.545	1.346e+04
	5.690	5.660-5.720	2.726e+04
8 Aroclor-1262	4.846	4.816-4.876	1.324e+04
	4.993	4.963-5.023	1.470e+04
	5.308	5.278-5.338	2.056e+04
	5.515	5.485-5.545	1.925e+04
	5.689	5.659-5.718	3.796e+04
9 Aroclor-1268	5.938	5.908-5.968	4.214e+04
	5.971	5.941-6.001	4.223e+04
	6.146	6.116-6.176	3.296e+04
	6.345	6.315-6.375	1.312e+04
	6.573	6.543-6.603	1.011e+05
$ 10 4cmx	2.416	2.386-2.446	4.335e+05
$ 11 Decachlorobiphenyl	6.751	6.721-6.781	2.514e+05

Report Date : 24-May-2005 09:12

General Engineering Laboratories, LLC

INITIAL CALIBRATION DATA

Start Cal Date : 11-MAY-2005 09:42
End Cal Date : 13-MAY-2005 08:58
Quant Method : ESTD
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd2a.i/051305.b/ECD2-F-8082-051105.m
Cal Date : 20-May-2005 15:31 jar00935

Calibration File Names:
Level 1: /chem/ecd2a.i/051105.b/014f1401.d
Level 2: /chem/ecd2a.i/051105.b/015f1501.d
Level 3: /chem/ecd2a.i/051105.b/016f1601.d
Level 4: /chem/ecd2a.i/051305.b/010f1001.d
Level 5: /chem/ecd2a.i/051105.b/018f1801.d

Compound	100 Level 1	250 Level 2	500 Level 3	1000 Level 4	4000 Level 5	Curve	Coefficients b	m1	m2	%RSD or R^2
1 Aroclor-1016(1)	915487	2053640	3867079	6931742	24406828	LINR	-110	5963		0.99924
(2)	1136553	2771056	5118119	9717641	36096988	LINR	-61.39205	8907		0.99978
(3)	771297	1736994	3172158	5859691	22094852	LINR	-66.82121	5439		0.99990
(4)	471191	1053870	1902435	3529369	13843465	LINR	-46.54078	3420		0.99995
(5)	426653	928068	1622140	3099684	12214039	LINR	-41.31319	3020		0.99995
2 Aroclor-1221(1)	+++++	+++++	+++++	2161	+++++	AVRG		2161		0.000e+00
(2)	+++++	+++++	+++++	1168	+++++	AVRG		1168		0.000e+00
(3)	+++++	+++++	+++++	5059	+++++	AVRG		5059		0.000e+00
3 Aroclor-1232(1)	+++++	+++++	+++++	4240	+++++	AVRG		4240		0.000e+00
(2)	+++++	+++++	+++++	3328	+++++	AVRG		3328		0.000e+00
(3)	+++++	+++++	+++++	4257	+++++	AVRG		4257		0.000e+00
(4)	+++++	+++++	+++++	2659	+++++	AVRG		2659		0.000e+00
(5)	+++++	+++++	+++++	1385	+++++	AVRG		1385		0.000e+00
4 Aroclor-1242(1)	9224	8056	8235	7760	7832	AVRG		8221		7.19054
(2)	5712	5047	4833	4660	4423	AVRG		4935		9.95202
(3)	3428	3044	2935	2875	2752	AVRG		3007		8.57835
(4)	2791	2480	2339	2238	2227	AVRG		2415		9.66010
(5)	3040	2695	2707	2626	2618	AVRG		2737		6.35002

General Engineering Laboratories, LLC

INITIAL CALIBRATION DATA

Start Cal Date : 11-MAY-2005 09:42
End Cal Date : 13-MAY-2005 08:58
Quant Method : ESTD
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd2a.i/051305.b/ECD2-F-8082-051105.m
Cal Date : 20-May-2005 15:31 jar00935

Compound	100 Level 1	250 Level 2	500 Level 3	1000 Level 4	4000 Level 5	Curve	Coefficients b	m1	m2	%RSD or R^2
5 Aroclor-1248(1)	+++++	+++++	+++++	6733	+++++	AVRG		6733		0.000e+00
(2)	+++++	+++++	+++++	1464	+++++	AVRG		1464		0.000e+00
(3)	+++++	+++++	+++++	4924	+++++	AVRG		4924		0.000e+00
(4)	+++++	+++++	+++++	2424	+++++	AVRG		2424		0.000e+00
(5)	+++++	+++++	+++++	1652	+++++	AVRG		1652		0.000e+00
6 Aroclor-1254(1)	5131	4778	4568	4372	3935	AVRG		4557		9.81640
(2)	7451	7814	7775	6889	6975	AVRG		7381		5.88085
(3)	6847	5889	5775	5469	5445	AVRG		5885		9.69803
(4)	9194	8443	8314	7635	7654	AVRG		8248		7.82258
(5)	10940	10278	9972	9733	9598	AVRG		10104		5.28429
7 Aroclor-1260(1)	11158	9652	9276	8917	8833	AVRG		9567		9.89362
(2)	13670	13165	13161	12895	12982	AVRG		13175		2.28144
(3)	17718	15198	14922	14426	14780	AVRG		15409		8.56963
(4)	8243	7451	7201	6862	7145	AVRG		7380		7.12394
(5)	21254	19108	18388	16880	17049	AVRG		18536		9.60847
8 Aroclor-1262(1)	+++++	+++++	+++++	6661	+++++	AVRG		6661		0.000e+00
(2)	+++++	+++++	+++++	8098	+++++	AVRG		8098		0.000e+00
(3)	+++++	+++++	+++++	10716	+++++	AVRG		10716		0.000e+00
(4)	+++++	+++++	+++++	9752	+++++	AVRG		9752		0.000e+00
(5)	+++++	+++++	+++++	19926	+++++	AVRG		19926		0.000e+00
9 Aroclor-1268(1)	+++++	+++++	+++++	20157	+++++	AVRG		20157		0.000e+00
(2)	+++++	+++++	+++++	21991	+++++	AVRG		21991		0.000e+00
(3)	+++++	+++++	+++++	16665	+++++	AVRG		16665		0.000e+00
(4)	+++++	+++++	+++++	7185	+++++	AVRG		7185		0.000e+00
(5)	+++++	+++++	+++++	49097	+++++	AVRG		49097		0.000e+00

Report Date : 24-May-2005 09:12

General Engineering Laboratories, LLC

INITIAL CALIBRATION DATA

Start Cal Date : 11-MAY-2005 09:42
End Cal Date : 13-MAY-2005 08:58
Quant Method : ESTD
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd2a.i/051305.b/ECD2-F-8082-051105.m
Cal Date : 20-May-2005 15:31 jar00935

Compound	100 Level 1	250 Level 2	500 Level 3	1000 Level 4	4000 Level 5	Curve	Coefficients b	m1	m2	%RSD or R^2
$ 10 4cmx	235532	226482	223219	209150	202532	AVRG		219383		6.09255
$ 11 Decachlorobiphenyl	1725683	3751279	6536891	13521202	51323469	LINR	-3.84185	127205		0.99988

Curve	Formula	Units
Averaged	Amt = Rsp/m1	Response
Linear	Amt = b + Rsp/m1	Response

General Engineering Laboratories, LLC

INITIAL CALIBRATION DATA

Start Cal Date : 11-MAY-2005 09:42
End Cal Date : 13-MAY-2005 08:58
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd2a.i/051305.b/ECD2-B-8082-051105.m
Cal Date : 16-May-2005 07:29 yip00818
Curve Type : Average

Calibration File Names:
Level 1: /chem/ecd2a.i/051105.b/014b1401.d
Level 2: /chem/ecd2a.i/051105.b/015b1501.d
Level 3: /chem/ecd2a.i/051105.b/016b1601.d
Level 4: /chem/ecd2a.i/051305.b/010b1001.d
Level 5: /chem/ecd2a.i/051105.b/018b1801.d

Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
1 Aroclor-1016(1)	6182	5840	5661	5423	5184	5658	6.770
(2)	14636	14097	13472	13061	12260	13505	6.804
(3)	5379	4964	4729	4656	4480	4842	7.167
(4)	16348	16016	16714	16296	15815	16238	2.112
(5)	10095	9303	9648	9573	9649	9654	2.950
2 Aroclor-1221(1)	+++++	+++++	+++++	3714	+++++	3714	0.000
(2)	+++++	+++++	+++++	2217	+++++	2217	0.000
(3)	+++++	+++++	+++++	8679	+++++	8679	0.000
3 Aroclor-1232(1)	+++++	+++++	+++++	7177	+++++	7177	0.000
(2)	+++++	+++++	+++++	6351	+++++	6351	0.000
(3)	+++++	+++++	+++++	4756	+++++	4756	0.000
(4)	+++++	+++++	+++++	7042	+++++	7042	0.000
(5)	+++++	+++++	+++++	4324	+++++	4324	0.000
4 Aroclor-1242(1)	10699	9771	9842	9508	9026	9769	6.250
(2)	3893	3597	3588	3459	3334	3574	5.821
(3)	6782	6918	7377	7024	7386	7097	3.848
(4)	11665	11514	11412	11374	11627	11519	1.109
(5)	5355	5367	5465	5400	5698	5457	2.590
5 Aroclor-1248(1)	+++++	+++++	+++++	8467	+++++	8467	0.000
(2)	+++++	+++++	+++++	7402	+++++	7402	0.000
(3)	+++++	+++++	+++++	10525	+++++	10525	0.000
(4)	+++++	+++++	+++++	9833	+++++	9833	0.000
(5)	+++++	+++++	+++++	12637	+++++	12637	0.000
6 Aroclor-1254(1)	12026	11410	11563	11240	11304	11509	2.728
(2)	10748	10681	11194	11203	11842	11133	4.174
(3)	8654	8116	8550	8349	8870	8508	3.392
(4)	18196	17552	18210	17739	16008	17541	5.151
(5)	9054	7899	8128	7777	8314	8234	6.105

General Engineering Laboratories, LLC

INITIAL CALIBRATION DATA

Start Cal Date : 11-MAY-2005 09:42
End Cal Date : 13-MAY-2005 08:58
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd2a.i/051305.b/ECD2-B-8082-051105.m
Cal Date : 16-May-2005 07:29 yip00818
Curve Type : Average

Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
7 Aroclor-1260 (1)	17342	16051	16380	15746	14877	16079	5.601
(2)	19056	17904	18419	18104	18276	18352	2.388
(3)	24801	24374	24786	23869	25159	24598	2.004
(4)	13676	13276	13379	13271	13704	13461	1.586
(5)	28605	27949	26366	26529	26856	27261	3.566
8 Aroclor-1262 (1)	+++++	+++++	+++++	13238	+++++	13238	0.000
(2)	+++++	+++++	+++++	14704	+++++	14704	0.000
(3)	+++++	+++++	+++++	20560	+++++	20560	0.000
(4)	+++++	+++++	+++++	19249	+++++	19249	0.000
(5)	+++++	+++++	+++++	37959	+++++	37959	0.000
9 Aroclor-1268 (1)	+++++	+++++	+++++	42144	+++++	42144	0.000
(2)	+++++	+++++	+++++	42234	+++++	42234	0.000
(3)	+++++	+++++	+++++	32957	+++++	32957	0.000
(4)	+++++	+++++	+++++	13118	+++++	13118	0.000
(5)	+++++	+++++	+++++	101084	+++++	101084	0.000
$ 10 4cmx	423304	427197	429300	436170	451385	433471	2.549
$ 11 Decachlorobiphenyl	264932	253042	248862	245540	244599	251395	3.285

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

Instrument ID: ECD2A Calibration Date: 05/13/05 Time: 0728

Lab File ID: 002F0201 Init. Calib. Date(s): 05/12/05 05/12/05

Heated Purge: (Y/N) N Init. Calib. Times: 0729 0814

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	SAMPLE AMOUNT	1000 AMOUNT	CURVE	%D	MAX %d
Aroclor-1016	962	1000	LINR	-3.8	15.0
Aroclor-1260	924	1000	AVRG	-7.6	15.0
4cmx	93.6	100	AVRG	-6.4	15.0
Decachlorobiphenyl	103	100	LINR	3.0	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

Instrument ID: ECD2A Calibration Date: 05/13/05 Time: 0728

Lab File ID: 002B0201 Init. Calib. Date(s): 05/12/05 05/12/05

Heated Purge: (Y/N) N Init. Calib. Times: 0729 0814

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	5658.098	5822.358	0.01	2.9	15.0
(2)	13504.879	13860.838	0.01	2.6	15.0
(3)	4841.549	4866.340	0.01	0.5	15.0
(4)	16237.685	16385.060	0.01	0.9	15.0
(5)	9653.598	9884.181	0.01	2.4	15.0
Aroclor-1260	16079.169	16764.635	0.01	4.3	15.0
(2)	18351.857	19248.348	0.01	4.9	15.0
(3)	24597.737	26346.657	0.01	7.1	15.0
(4)	13461.099	14258.806	0.01	5.9	15.0
(5)	27260.868	28461.259	0.01	4.4	15.0
4cmx	433471.32	448425.28	0.01	3.4	15.0
Decachlorobiphenyl	251394.86	259180.60	0.01	3.1	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

Instrument ID: ECD2A Calibration Date: 05/13/05 Time: 0739

Lab File ID: 003F0301 Init. Calib. Date(s): 05/11/05 05/11/05

Heated Purge: (Y/N) N Init. Calib. Times: 1050 1134

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	SAMPLE AMOUNT	1000 AMOUNT	CURVE	%D	MAX %d
Aroclor-1254	963	1000	AVRG	-3.7	15.0
4cmx	96.4	100	AVRG	-3.6	15.0
Decachlorobiphenyl	112	100	LINR	12.0	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

Instrument ID: ECD2A Calibration Date: 05/13/05 Time: 0739

Lab File ID: 003B0301 Init. Calib. Date(s): 05/11/05 05/11/05

Heated Purge: (Y/N) N Init. Calib. Times: 1050 1134

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D	
Aroclor-1254	11508.725	13435.287	0.01	16.7	15.0	<-
(2)	11133.411	13500.247	0.01	21.2	15.0	<-
(3)	8507.606	9762.218	0.01	14.7	15.0	
(4)	17540.879	17855.221	0.01	1.8	15.0	
(5)	8234.174	9696.151	0.01	17.8	15.0	<-
4cmx	433471.32	465161.20	0.01	7.3	15.0	
Decachlorobiphenyl	251394.86	289726.67	0.01	15.2	15.0	<-

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

Instrument ID: ECD2A Calibration Date: 05/13/05 Time: 1349

Lab File ID: 031F3101 Init. Calib. Date(s): 05/12/05 05/12/05

Heated Purge: (Y/N) N Init. Calib. Times: 0729 0814

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	SAMPLE AMOUNT	1000 AMOUNT	CURVE	%D	MAX %d
Aroclor-1016	976	1000	LINR	-2.4	15.0
Aroclor-1260	944	1000	AVRG	-5.6	15.0
4cmx	91.0	100	AVRG	-9.0	15.0
Decachlorobiphenyl	95.6	100	LINR	-4.4	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

Instrument ID: ECD2A Calibration Date: 05/13/05 Time: 1349

Lab File ID: 031B3101 Init. Calib. Date(s): 05/12/05 05/12/05

Heated Purge: (Y/N) N Init. Calib. Times: 0729 0814

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D	
Aroclor-1016	5658.098	5764.684	0.01	1.9	15.0	
(2)	13504.879	13623.299	0.01	0.9	15.0	
(3)	4841.549	4677.834	0.01	-3.4	15.0	
(4)	16237.685	16438.711	0.01	1.2	15.0	
(5)	9653.598	9669.195	0.01	0.2	15.0	
Aroclor-1260	16079.169	17182.454	0.01	6.9	15.0	
(2)	18351.857	19687.771	0.01	7.3	15.0	
(3)	24597.737	25479.889	0.01	3.6	15.0	
(4)	13461.099	13803.362	0.01	2.5	15.0	
(5)	27260.868	28039.264	0.01	2.8	15.0	
4cmx	433471.32	442275.24	0.01	2.0	15.0	
Decachlorobiphenyl	251394.86	201334.59	0.01	-19.9	15.0	<-

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

Instrument ID: ECD2A Calibration Date: 05/13/05 Time: 1512

Lab File ID: 038F3801 Init. Calib. Date(s): 05/12/05 05/12/05

Heated Purge: (Y/N) N Init. Calib. Times: 0729 0814

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	SAMPLE AMOUNT	1000 AMOUNT	CURVE	%D	MAX %d
Aroclor-1016	1020	1000	LINR	2.0	15.0
Aroclor-1260	916	1000	AVRG	-8.4	15.0
4cmx	97.6	100	AVRG	-2.4	15.0
Decachlorobiphenyl	96.5	100	LINR	-3.5	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

Instrument ID: ECD2A Calibration Date: 05/13/05 Time: 1512

Lab File ID: 038B3801 Init. Calib. Date(s): 05/12/05 05/12/05

Heated Purge: (Y/N) N Init. Calib. Times: 0729 0814

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D	
Aroclor-1016	5658.098	5859.711	0.01	3.6	15.0	
(2)	13504.879	13965.291	0.01	3.4	15.0	
(3)	4841.549	4913.005	0.01	1.5	15.0	
(4)	16237.685	17794.339	0.01	9.6	15.0	
(5)	9653.598	10313.126	0.01	6.8	15.0	
Aroclor-1260	16079.169	15948.414	0.01	-0.8	15.0	
(2)	18351.857	19262.029	0.01	5.0	15.0	
(3)	24597.737	26136.601	0.01	6.2	15.0	
(4)	13461.099	13732.520	0.01	2.0	15.0	
(5)	27260.868	27718.079	0.01	1.7	15.0	
4cmx	433471.32	450330.56	0.01	3.9	15.0	
Decachlorobiphenyl	251394.86	207631.20	0.01	-17.4	15.0	<-

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

Instrument ID: ECD2A Calibration Date: 05/13/05 Time: 1737

Lab File ID: 051F5101 Init. Calib. Date(s): 05/12/05 05/12/05

Heated Purge: (Y/N) N Init. Calib. Times: 0729 0814

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	SAMPLE AMOUNT	1000 AMOUNT	CURVE	%D	MAX %d	
Aroclor-1016	1020	1000	LINR	2.0	15.0	
Aroclor-1260	819	1000	AVRG	-18.1	15.0	<-
4cmx	98.6	100	AVRG	-1.4	15.0	
Decachlorobiphenyl	75.0	100	LINR	-25.0	15.0	<-

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

Instrument ID: ECD2A Calibration Date: 05/13/05 Time: 1737

Lab File ID: 051B5101 Init. Calib. Date(s): 05/12/05 05/12/05

Heated Purge: (Y/N) N Init. Calib. Times: 0729 0814

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D	
Aroclor-1016	5658.098	5880.595	0.01	3.9	15.0	
(2)	13504.879	13909.312	0.01	3.0	15.0	
(3)	4841.549	4901.119	0.01	1.2	15.0	
(4)	16237.685	17431.844	0.01	7.4	15.0	
(5)	9653.598	10394.632	0.01	7.7	15.0	
Aroclor-1260	16079.169	15036.697	0.01	-6.5	15.0	
(2)	18351.857	18250.292	0.01	-0.6	15.0	
(3)	24597.737	18183.802	0.01	-26.1	15.0	<-
(4)	13461.099	11622.810	0.01	-13.6	15.0	
(5)	27260.868	26225.831	0.01	-3.8	15.0	
4cmx	433471.32	450083.37	0.01	3.8	15.0	
Decachlorobiphenyl	251394.86	174814.08	0.01	-30.5	15.0	<-

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

Instrument ID: ECD2A Calibration Date: 05/13/05 Time: 1940

Lab File ID: 062F6201 Init. Calib. Date(s): 05/12/05 05/12/05

Heated Purge: (Y/N) N Init. Calib. Times: 0729 0814

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	SAMPLE AMOUNT	1000 AMOUNT	CURVE	%D	MAX %d	
Aroclor-1016	1020	1000	LINR	2.0	15.0	
Aroclor-1260	813	1000	AVRG	-18.7	15.0	<-
4cmx	99.4	100	AVRG	-0.6	15.0	
Decachlorobiphenyl	73.0	100	LINR	-27.0	15.0	<-

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

Instrument ID: ECD2A Calibration Date: 05/13/05 Time: 1940

Lab File ID: 062B6201 Init. Calib. Date(s): 05/12/05 05/12/05

Heated Purge: (Y/N) N Init. Calib. Times: 0729 0814

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D	
Aroclor-1016	5658.098	5792.864	0.01	2.4	15.0	
(2)	13504.879	13696.021	0.01	1.4	15.0	
(3)	4841.549	4772.558	0.01	-1.4	15.0	
(4)	16237.685	16686.782	0.01	2.8	15.0	
(5)	9653.598	10049.364	0.01	4.1	15.0	
Aroclor-1260	16079.169	14078.374	0.01	-12.4	15.0	
(2)	18351.857	16877.220	0.01	-8.0	15.0	
(3)	24597.737	16288.772	0.01	-33.8	15.0	<-
(4)	13461.099	10628.156	0.01	-21.0	15.0	<-
(5)	27260.868	24423.370	0.01	-10.4	15.0	
4cmx	433471.32	449058.44	0.01	3.6	15.0	
Decachlorobiphenyl	251394.86	165478.64	0.01	-34.2	15.0	<-

FORM VII PEST

General Engineering Laboratories, LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/051305.b/002f0201.d
Lab Smp Id: WAR051105-13601 Client Smp ID: AR166001
Inj Date : 13-MAY-2005 07:28
Operator : JMW1 Inst ID: ecd2a.i
Smp Info : |WAR051105-13601
Misc Info : |PCB_CVS|1660||CVS|
Comment :
Method : /chem/ecd2a.i/051305.b/ECD2-F-8082-051105.m
Meth Date : 16-May-2005 06:18 yip00818 Quant Type: ESTD
Cal Date : 13-MAY-2005 08:58 Cal File: 010f1001.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 10 4cmx					CAS #: 877-09-8		
2.019	2.019	0.000	20530863	0.00000	93.6	80.00- 120.00	100.00
$ 11 Decachlorobiphenyl					CAS #: 2051-24-3		
5.950	5.950	0.000	13607258	0.00000	103	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.564	2.564	0.000	6738300	1000.00	1020	80.00- 120.00	100.00(M)
2.904	2.904	0.000	9374032	1000.00	991	119.12- 159.12	139.12
2.999	2.999	0.000	5494008	1000.00	943	61.53- 101.53	81.53
3.044	3.044	0.000	3370406	1000.00	939	30.02- 70.02	50.02
3.136	3.136	0.000	2888346	1000.00	915	22.86- 62.86	42.86
Average of Peak Amounts =					962		
7 Aroclor-1260					CAS #: 11096-82-5		
4.158	4.158	0.000	8502795	1000.00	889	80.00- 120.00	100.00(M)
4.354	4.354	0.000	12141295	1000.00	922	122.79- 162.79	142.79
4.547	4.547	0.000	14096469	1000.00	915	145.79- 185.79	165.79
4.795	4.795	0.000	6970464	1000.00	944	61.98- 101.98	81.98
5.009	5.009	0.000	17576357	1000.00	948	186.71- 226.71	206.71
Average of Peak Amounts =					924		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd2a.i/051305.b/002f0201.d
Date : 13-MAY-2005 07:28
Client ID: AR166001
Sample Info: |WAR051105-13601

Column phase: CLP1

Instrument: ecd2a.i

Operator: JMW1
Column diameter: 0.25

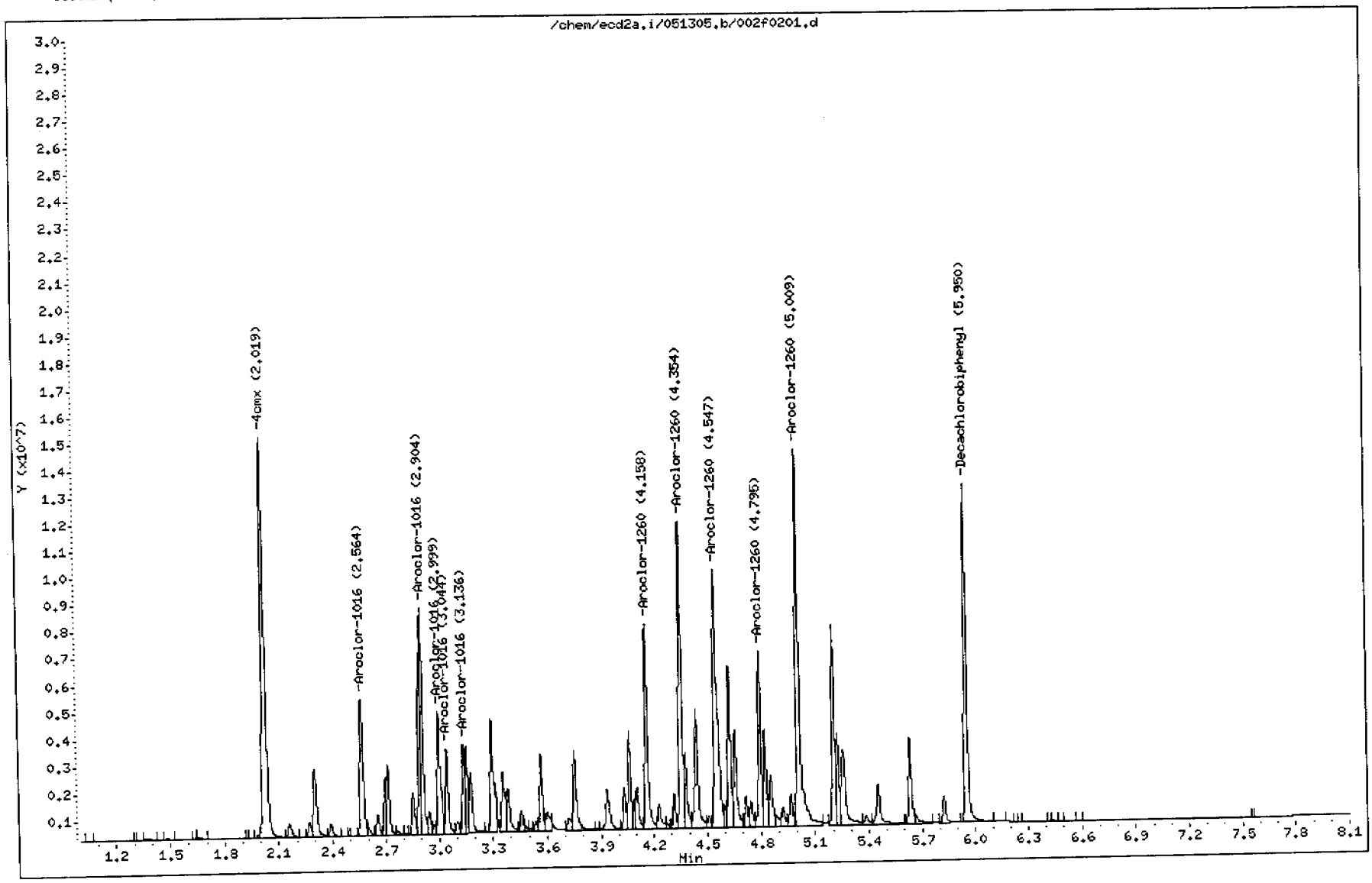

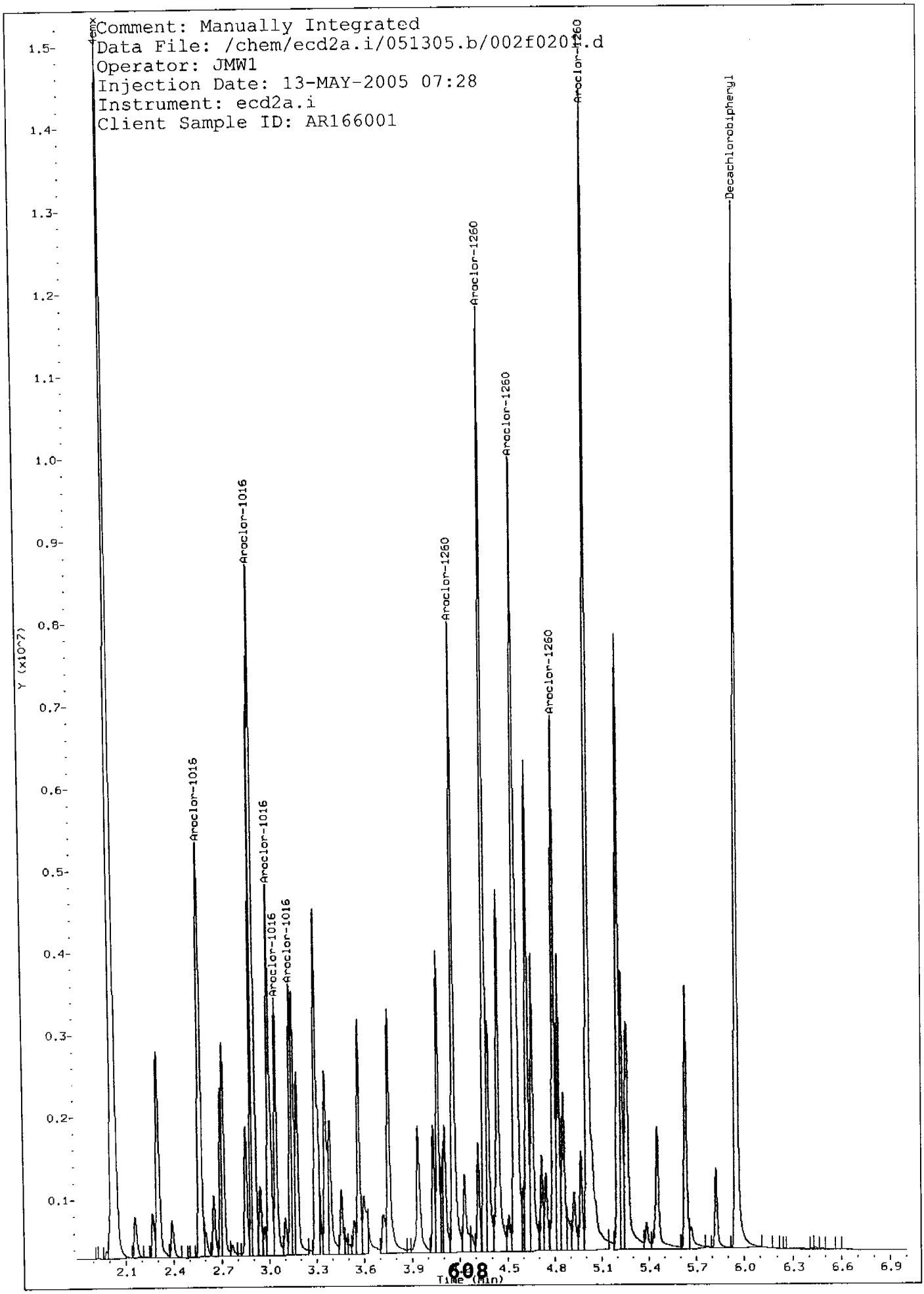
Comment: Manually Integrated
Data File: /chem/ecd2a.i/051305.b/002f0201.d
Operator: JMW1
Injection Date: 13-MAY-2005 07:28
Instrument: ecd2a.i
Client Sample ID: AR166001
Y (x10^7)
Time (Min)
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl

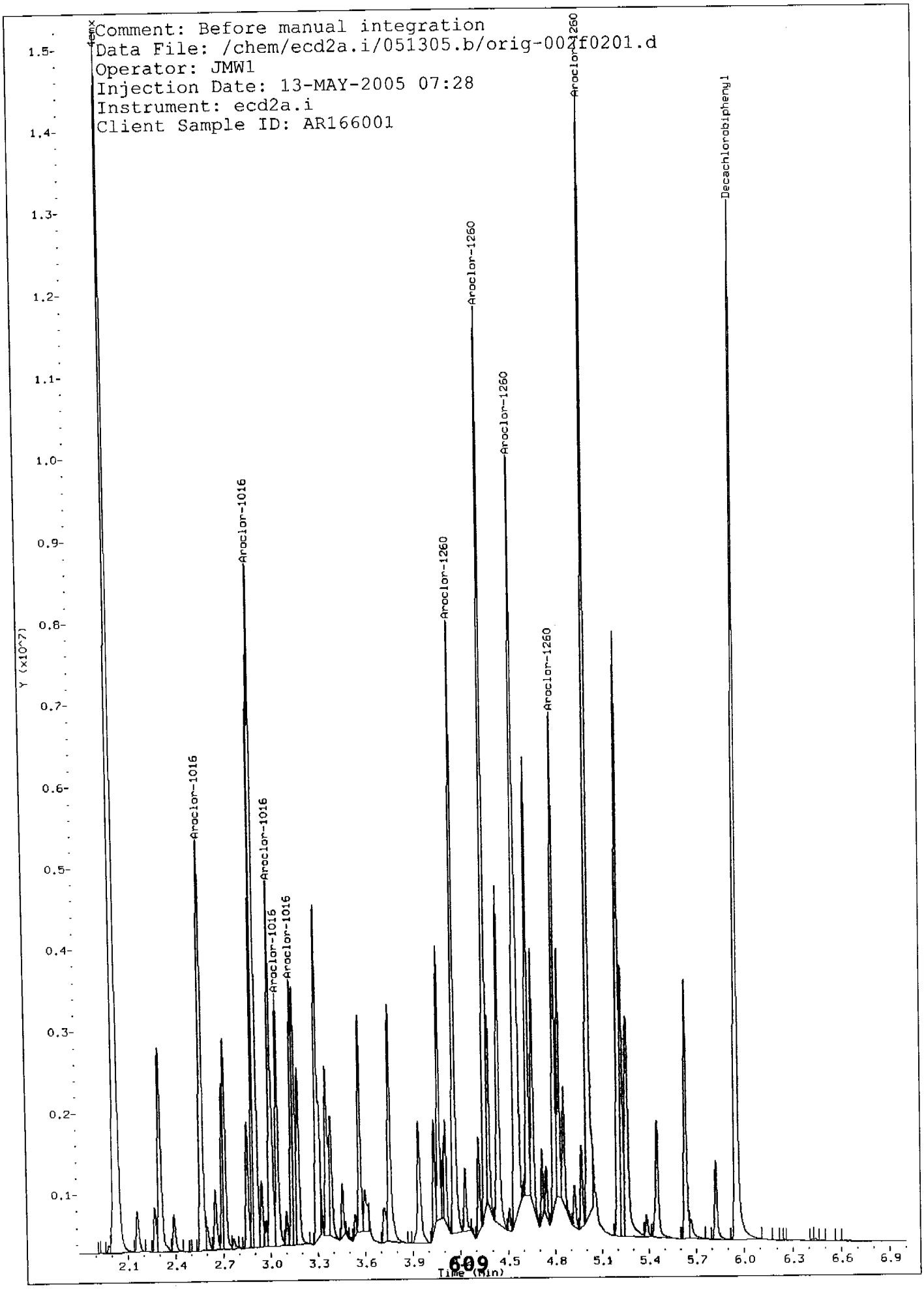
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Operator: JMW1
Injection Date: 13-MAY-2005 07:28
Instrument: ecd2a.i
Client Sample ID: AR166001
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

General Engineering Laboratories, LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/051305.b/002b0201.d
Lab Smp Id: WAR051105-13601 Client Smp ID: AR166001
Inj Date : 13-MAY-2005 07:28
Operator : JMW1 Inst ID: ecd2a.i
Smp Info : |WAR051105-13601
Misc Info : |PCB_CVS|1660||CVS|
Comment :
Method : /chem/ecd2a.i/051305.b/ECD2-B-8082-051105.m
Meth Date : 16-May-2005 06:18 yip00818 Quant Type: ESTD
Cal Date : 13-MAY-2005 08:58 Cal File: 010b1001.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 10 4cmx					CAS #: 877-09-8		
2.416	2.416	0.000	44842528	0.00000	103	80.00- 120.00	100.00
$ 11 Decachlorobiphenyl					CAS #: 2051-24-3		
6.751	6.751	0.000	25918060	0.00000	103	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.822	2.822	0.000	5822358	1000.00	1030	80.00- 120.00	100.00
3.140	3.140	0.000	13860838	1000.00	1030	218.06- 258.06	238.06
3.328	3.328	0.000	4866340	1000.00	1000	63.58- 103.58	83.58
3.491	3.491	0.000	16385060	1000.00	1010	261.42- 301.42	281.42
3.590	3.590	0.000	9884181	1000.00	1020	149.76- 189.76	169.76
Average of Peak Amounts =				1.02e+03			
7 Aroclor-1260					CAS #: 11096-82-5		
4.846	4.846	0.000	16764635	1000.00	1040	80.00- 120.00	100.00
4.993	4.993	0.000	19248348	1000.00	1050	94.82- 134.82	114.82
5.246	5.246	0.000	26346657	1000.00	1070	137.16- 177.16	157.16
5.515	5.515	0.000	14258806	1000.00	1060	65.05- 105.05	85.05
5.690	5.690	0.000	28461259	1000.00	1040	149.77- 189.77	169.77
Average of Peak Amounts =				1.05e+03			

Data File: /chem/ecd2a.i/051305.b/002b0201.d
Date : 13-MAY-2005 07:28
Client ID: AR166001
Sample Info: IWAR051105-13601
Column phase: CLP2

Instrument: ecd2a.i
Operator: JMW1
Column diameter: 0.25

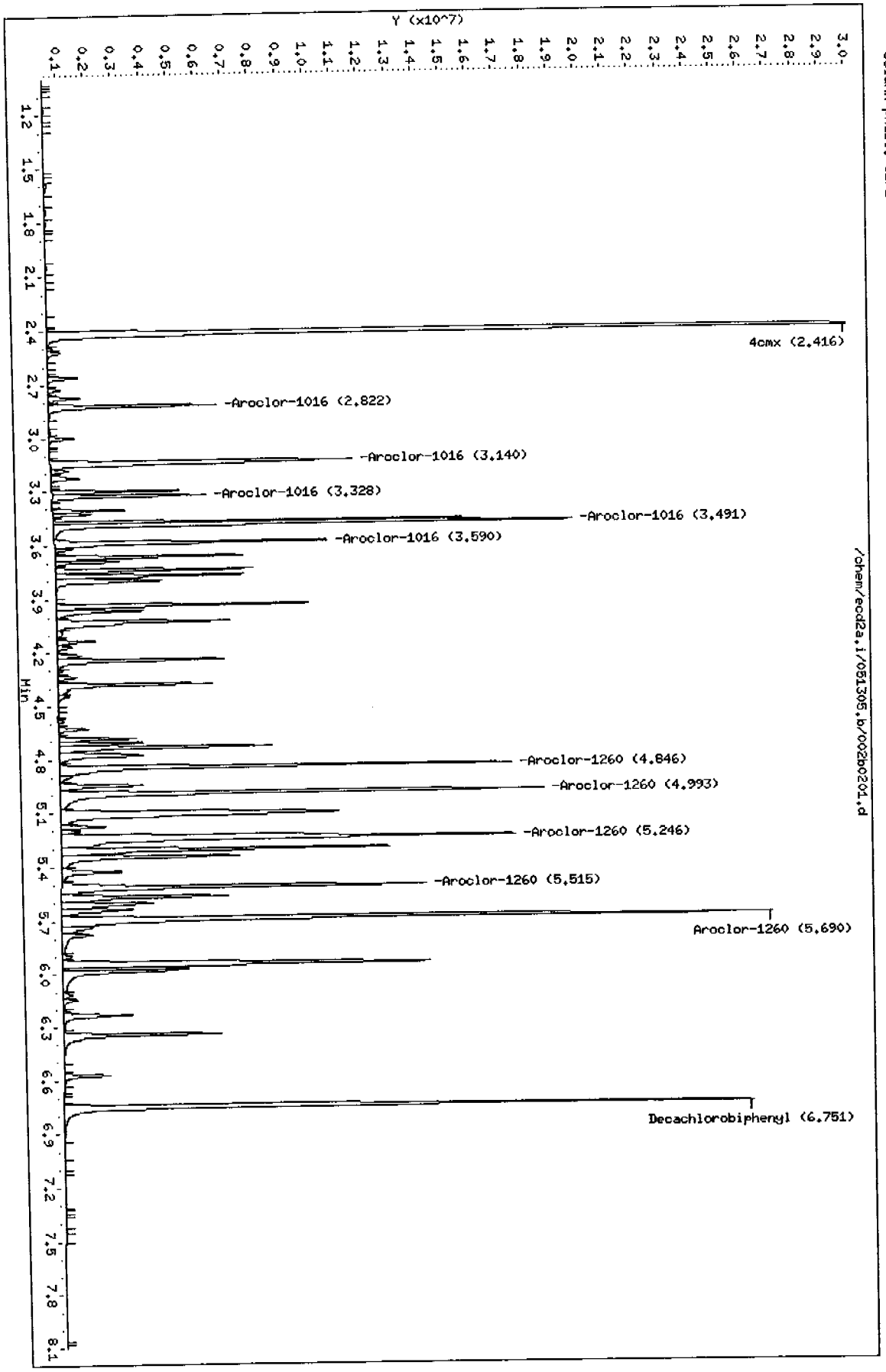

Page 1

General Engineering Laboratories, LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/051305.b/003f0301.d
Lab Smp Id: WAR050415-05541 Client Smp ID: AR125401
Inj Date : 13-MAY-2005 07:39
Operator : JMW1 Inst ID: ecd2a.i
Smp Info : |WAR050415-05541
Misc Info :
Comment :
Method : /chem/ecd2a.i/051305.b/ECD2-F-8082-051105.m
Meth Date : 16-May-2005 15:18 yip00818 Quant Type: ESTD
Cal Date : 13-MAY-2005 08:58 Cal File: 010f1001.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1254.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 10 4cmx					CAS #: 877-09-8		
2.018	2.019	-0.001	21160592	0.00000	96.4	80.00- 120.00	100.00
$ 11 Decachlorobiphenyl					CAS #: 2051-24-3		
5.952	5.950	0.002	14748295	0.00000	112	80.00- 120.00	100.00
6 Aroclor-1254					CAS #: 11097-69-1		
3.136	3.136	0.000	4486615	1000.00	985	80.00- 120.00	100.00
3.752	3.752	0.000	7384135	1000.00	1000	144.58- 184.58	164.58
3.946	3.946	0.000	5521676	1000.00	938	103.07- 143.07	123.07
4.228	4.228	0.000	7663061	1000.00	929	150.80- 190.80	170.80
4.549	4.549	0.000	9739957	1000.00	964	197.09- 237.09	217.09
Average of Peak Amounts =					963		

Data File: /chem/ecd2a.i/051305.b/003f0301.d
Date : 13-MAY-2005 07:39
Client ID: AR125401
Sample Info: IWAR050415-05541

Column phase: CLP1

Instrument: ecd2a.i

Operator: JMW1
Column diameter: 0.25

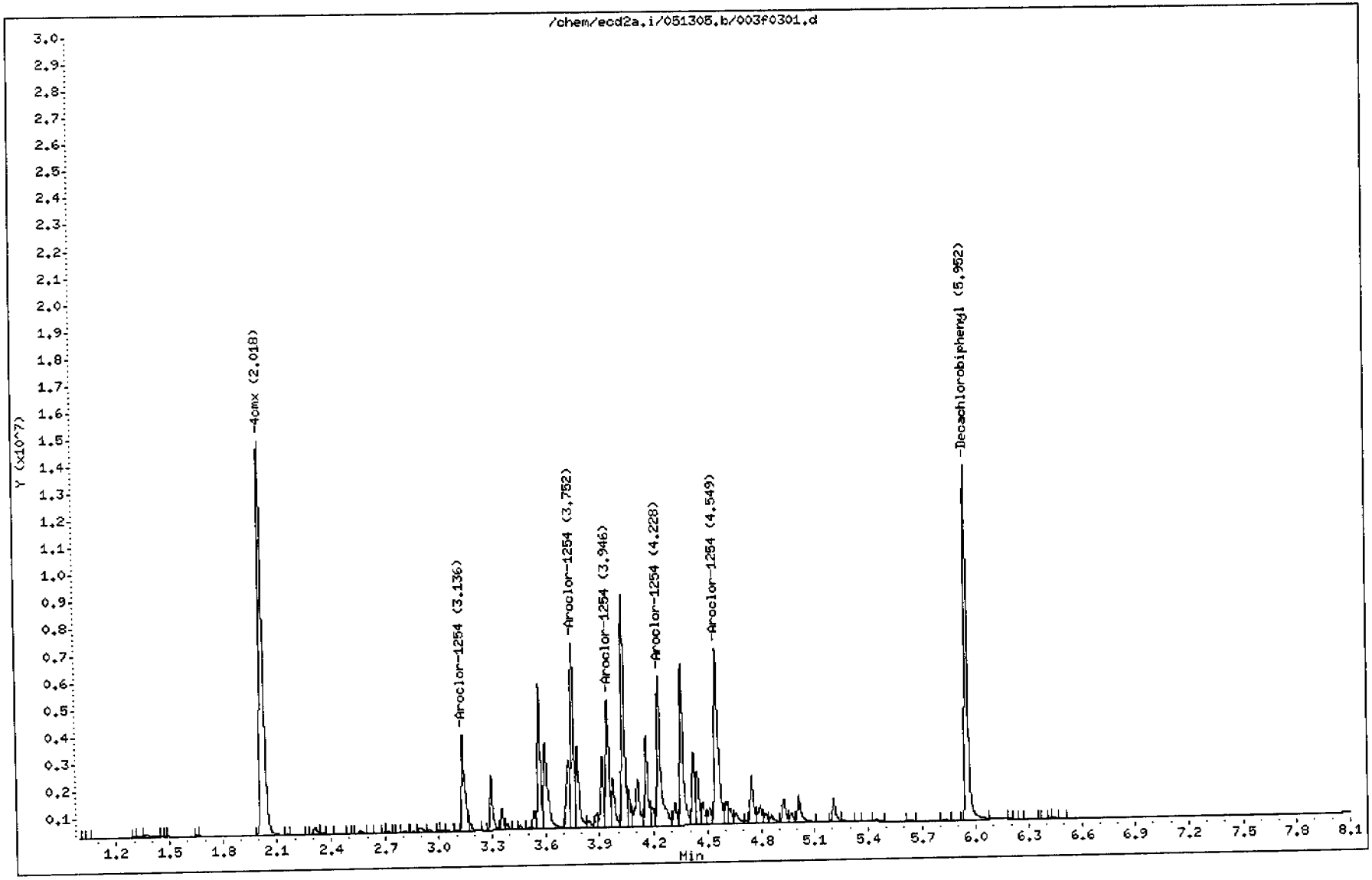

General Engineering Laboratories, LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/051305.b/003b0301.d
Lab Smp Id: WAR050415-05541 Client Smp ID: AR125401
Inj Date : 13-MAY-2005 07:39
Operator : JMW1 Inst ID: ecd2a.i
Smp Info : |WAR050415-05541
Misc Info :
Comment :
Method : /chem/ecd2a.i/051305.b/ECD2-B-8082-051105.m
Meth Date : 16-May-2005 14:27 yip00818 Quant Type: ESTD
Cal Date : 13-MAY-2005 08:58 Cal File: 010b1001.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1254.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 10 4cmx					CAS #: 877-09-8		
2.415	2.416	-0.001	46516120	0.00000	107	80.00- 120.00	100.00
$ 11 Decachlorobiphenyl					CAS #: 2051-24-3		
6.752	6.751	0.001	28972667	0.00000	115	80.00- 120.00	100.00
6 Aroclor-1254					CAS #: 11097-69-1		
4.242	4.242	0.000	13435287	1000.00	1170	80.00- 120.00	100.00
4.379	4.379	0.000	13500247	1000.00	1210	80.48- 120.48	100.48
4.626	4.626	0.000	9762218	1000.00	1150	52.66- 92.66	72.66
4.710	4.710	0.000	17855220	1000.00	1020	112.90- 152.90	132.90
4.845	4.845	0.000	9696150	1000.00	1180	52.17- 92.17	72.17

Average of Peak Amounts = 1.14e+03

Data File: /chem/ecd2a.i/051305.b/003b0301.d
Date : 13-MAY-2005 07:39
Client ID: AR125401
Sample Info: IWAR050415-05541

Column phase: CLP2

Instrument: ecd2a.i

Operator: JMW1
Column diameter: 0.25

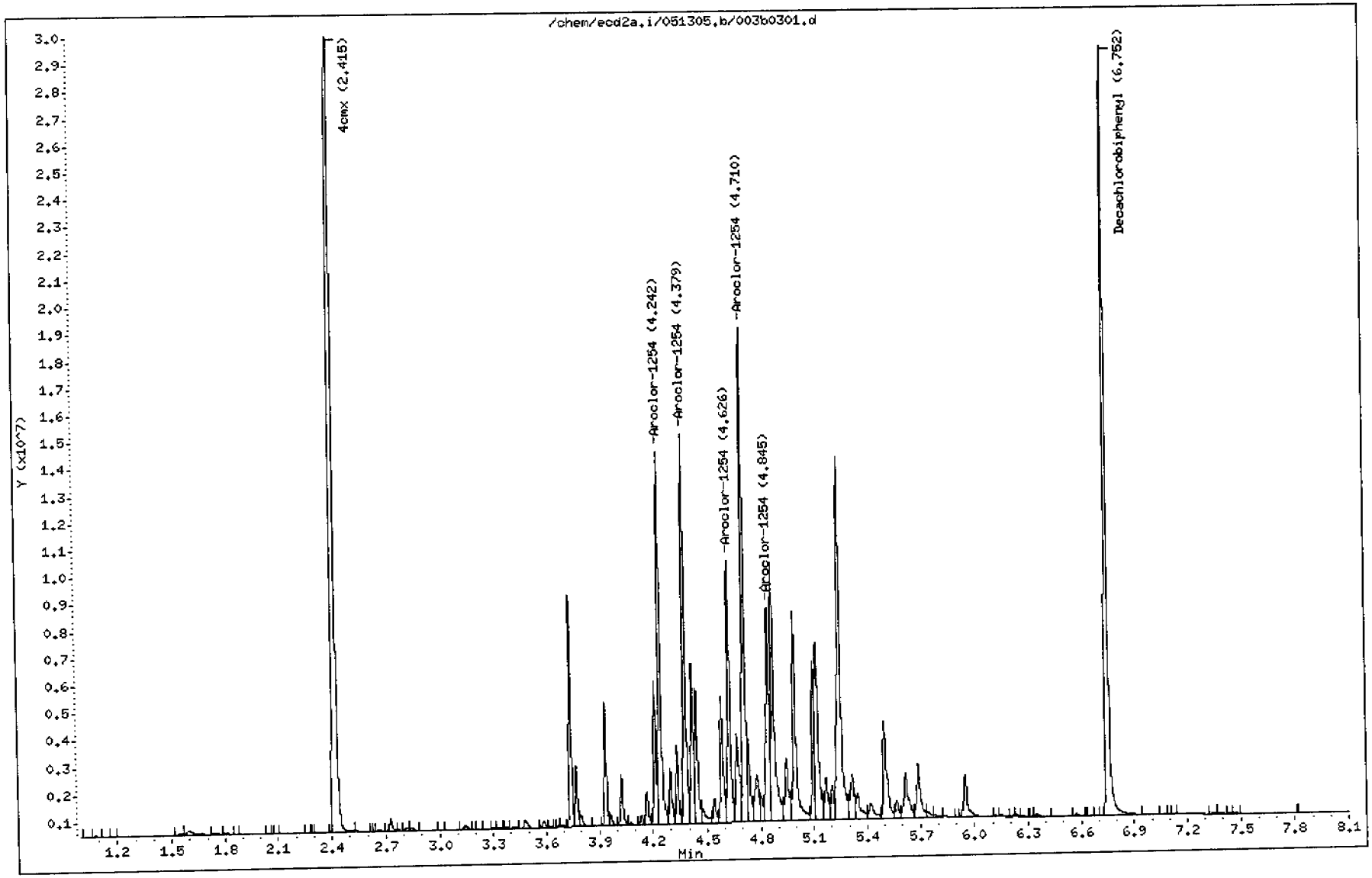

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RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/051305.b/004f0401.d
Lab Smp Id: WAR050323-01421 Client Smp ID: AR124201
Inj Date : 13-MAY-2005 07:51
Operator : JMW1 Inst ID: ecd2a.i
Smp Info : |WAR050323-01421
Misc Info :
Comment :
Method : /chem/ecd2a.i/051305.b/ECD2-F-8082-051105.m
Meth Date : 16-May-2005 14:27 yip00818 Quant Type: ESTD
Cal Date : 13-MAY-2005 08:58 Cal File: 010f1001.d
Als bottle: 4 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1242.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 10 4cmx					CAS #: 877-09-8		
2.019	2.019	0.000	21849996	0.00000	99.6	80.00- 120.00	100.00
$ 11 Decachlorobiphenyl					CAS #: 2051-24-3		
5.953	5.950	0.003	14297055	0.00000	108	80.00- 120.00	100.00
4 Aroclor-1242					CAS #: 53469-21-9		
2.904	2.904	0.000	7659626	1000.00	932	80.00- 120.00	100.00(M)
2.999	2.999	0.000	4606799	1000.00	933	40.14- 80.14	60.14
3.044	3.044	0.000	2931150	1000.00	975	18.27- 58.27	38.27
3.137	3.135	0.002	2274683	1000.00	942	9.70- 49.70	29.70
3.355	3.355	0.000	2331008	1000.00	852	10.43- 50.43	30.43
			Average of Peak Amounts =		927		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd2a.i/051305.b/004f0401.d
Date : 13-MAY-2005 07:51
Client ID: AR124201
Sample Info: 1WAR050323-01421

Column phase: CLP1

Instrument: ecd2a.i

Operator: JMW1
Column diameter: 0.25

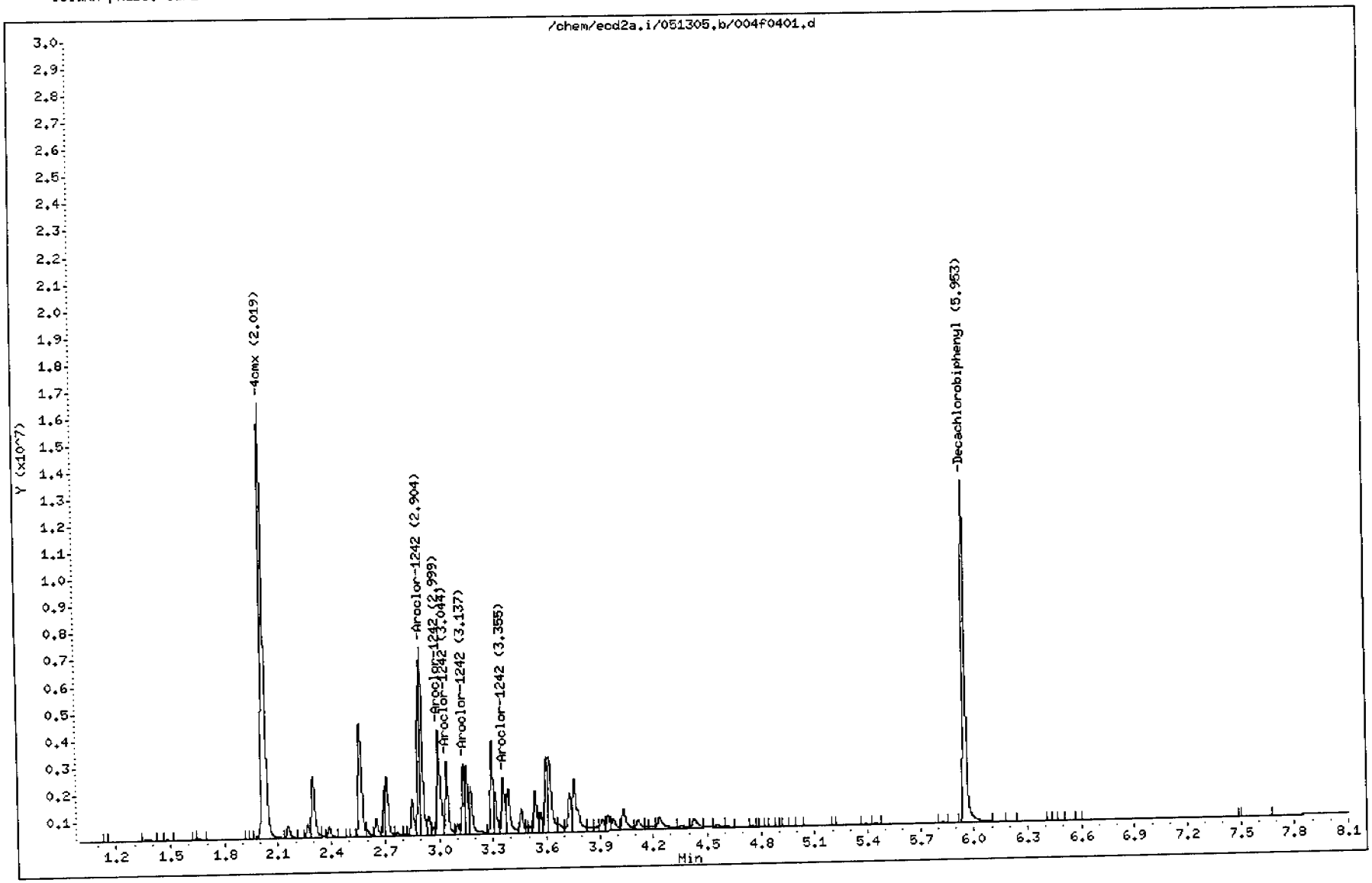

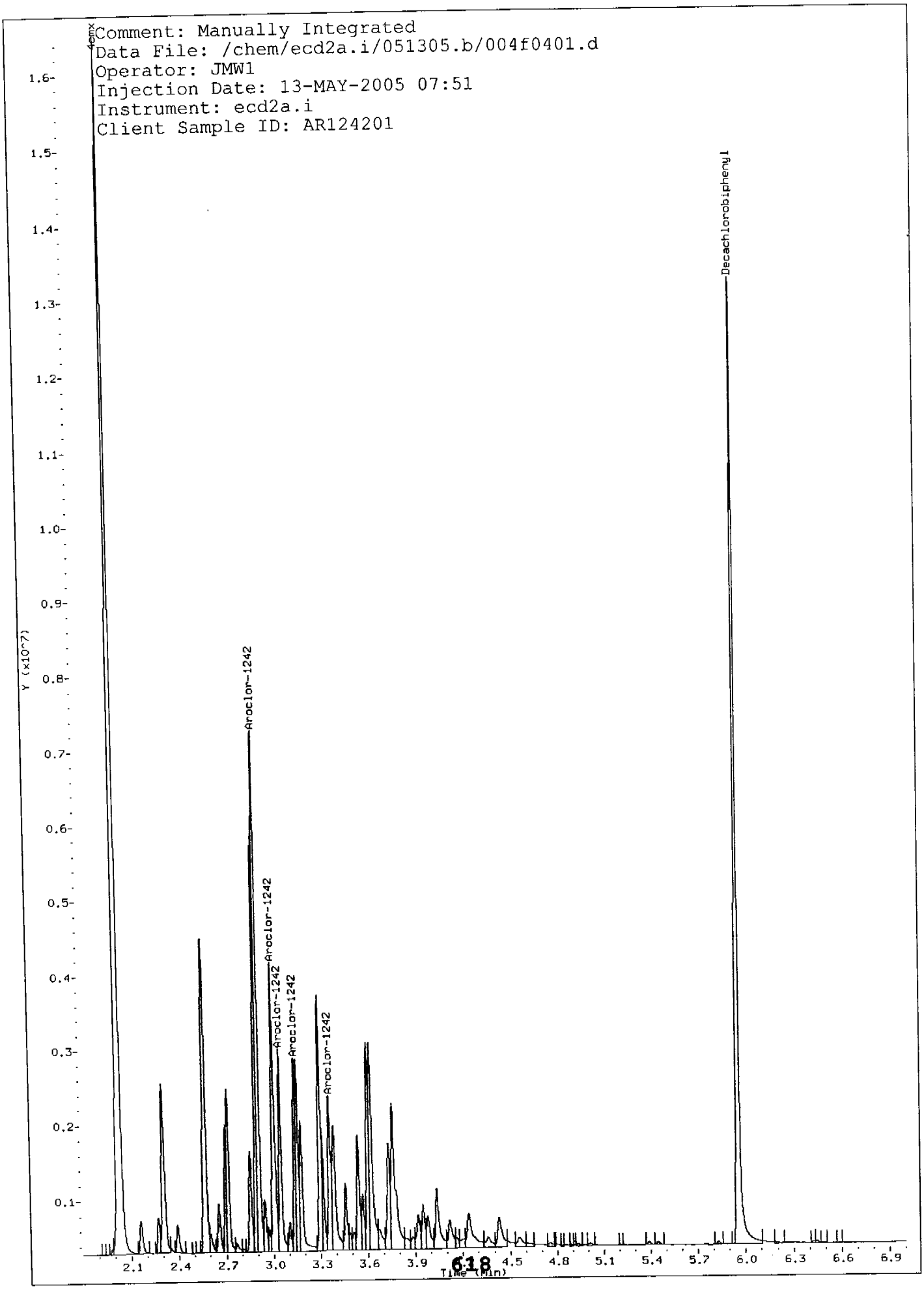
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Data File: /chem/ecd2a.i/051305.b/004f0401.d
Operator: JMW1
Injection Date: 13-MAY-2005 07:51
Instrument: ecd2a.i
Client Sample ID: AR124201
Decachlorobiphenyl
Aroclor-1242
Aroclor-1242
Aroclor-1242
Aroclor-1242
Aroclor-1242
Y (x10^7)
Time (Min)

Comment: Before manual integration
Data File: /chem/ecd2a.i/051305.b/orig-004f0401.d
Operator: JMW1
Injection Date: 13-MAY-2005 07:51
Instrument: ecd2a.i
Client Sample ID: AR124201

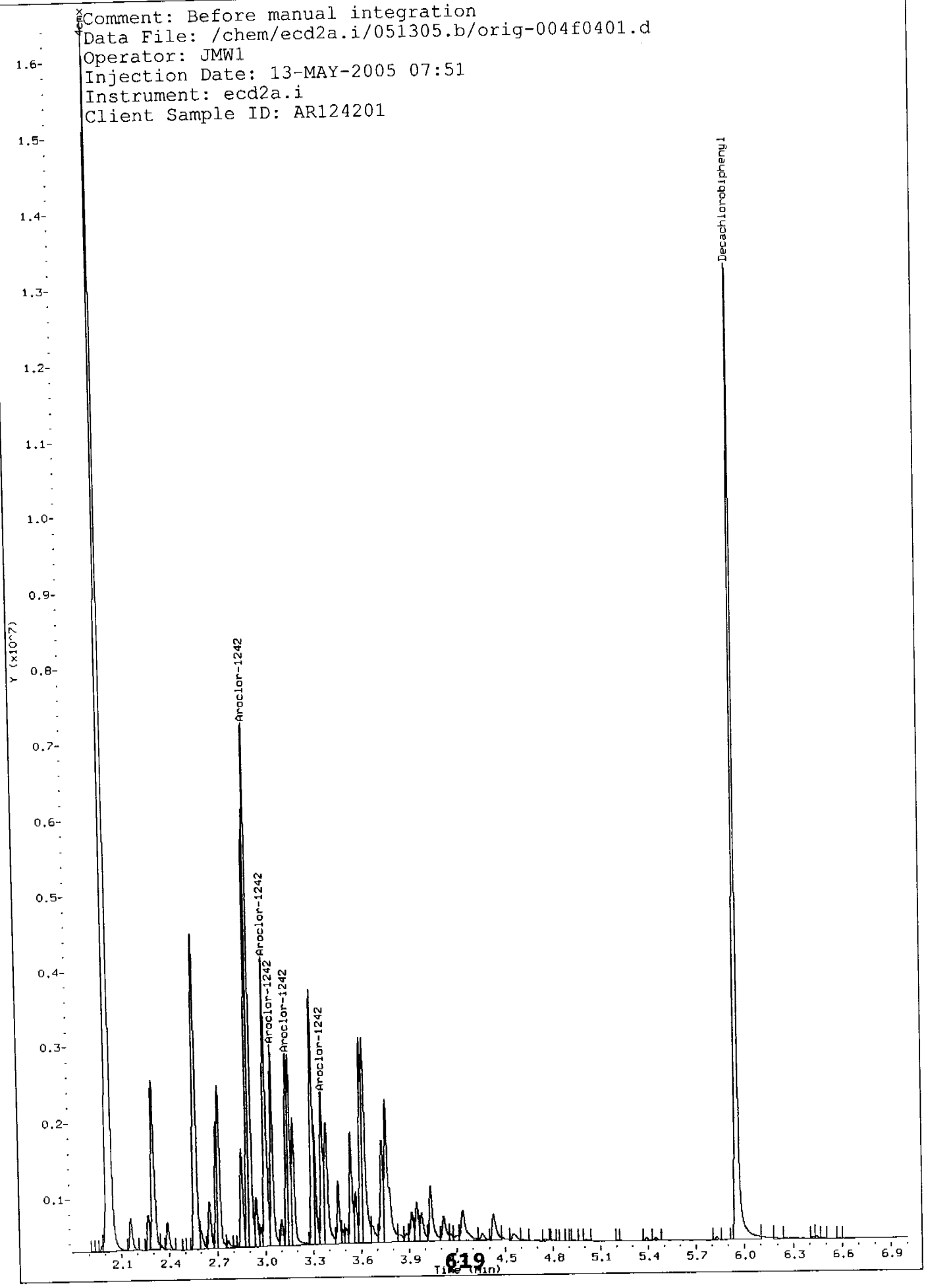

General Engineering Laboratories, LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/051305.b/004b0401.d
Lab Smp Id: WAR050323-01421 Client Smp ID: AR124201
Inj Date : 13-MAY-2005 07:51
Operator : JMW1 Inst ID: ecd2a.i
Smp Info : |WAR050323-01421
Misc Info :
Comment :
Method : /chem/ecd2a.i/051305.b/ECD2-B-8082-051105.m
Meth Date : 17-May-2005 15:41 yip00818 Quant Type: ESTD
Cal Date : 13-MAY-2005 08:58 Cal File: 010b1001.d
Als bottle: 4 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1242.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 10 4cmx					CAS #: 877-09-8		
2.415	2.416	-0.001	45239452	0.00000	104	80.00- 120.00	100.00
$ 11 Decachlorobiphenyl					CAS #: 2051-24-3		
6.752	6.751	0.001	27471229	0.00000	109	80.00- 120.00	100.00
4 Aroclor-1242					CAS #: 53469-21-9		
3.140	3.139	0.001	10622708	1000.00	1090	80.00- 120.00	100.00
3.327	3.328	-0.001	3897623	1000.00	1090	15.94- 55.94	36.69
3.478	3.478	0.000	8549565	1000.00	1200	58.51- 98.51	80.48
3.491	3.490	0.001	12816237	1000.00	1110	98.59- 138.59	120.65
3.937	3.937	0.000	6144401	1000.00	1120	35.74- 75.74	57.84

Average of Peak Amounts = 1.12e+03

Data File: /chem/ecd2a.i/051305.b/004b0401.d
Date : 13-MAY-2005 07:51
Client ID: AR124201
Sample Info: IWAR050323-01421

Instrument: ecd2a.i

Operator: JMW1
Column diameter: 0.25

Column phase: CLP2

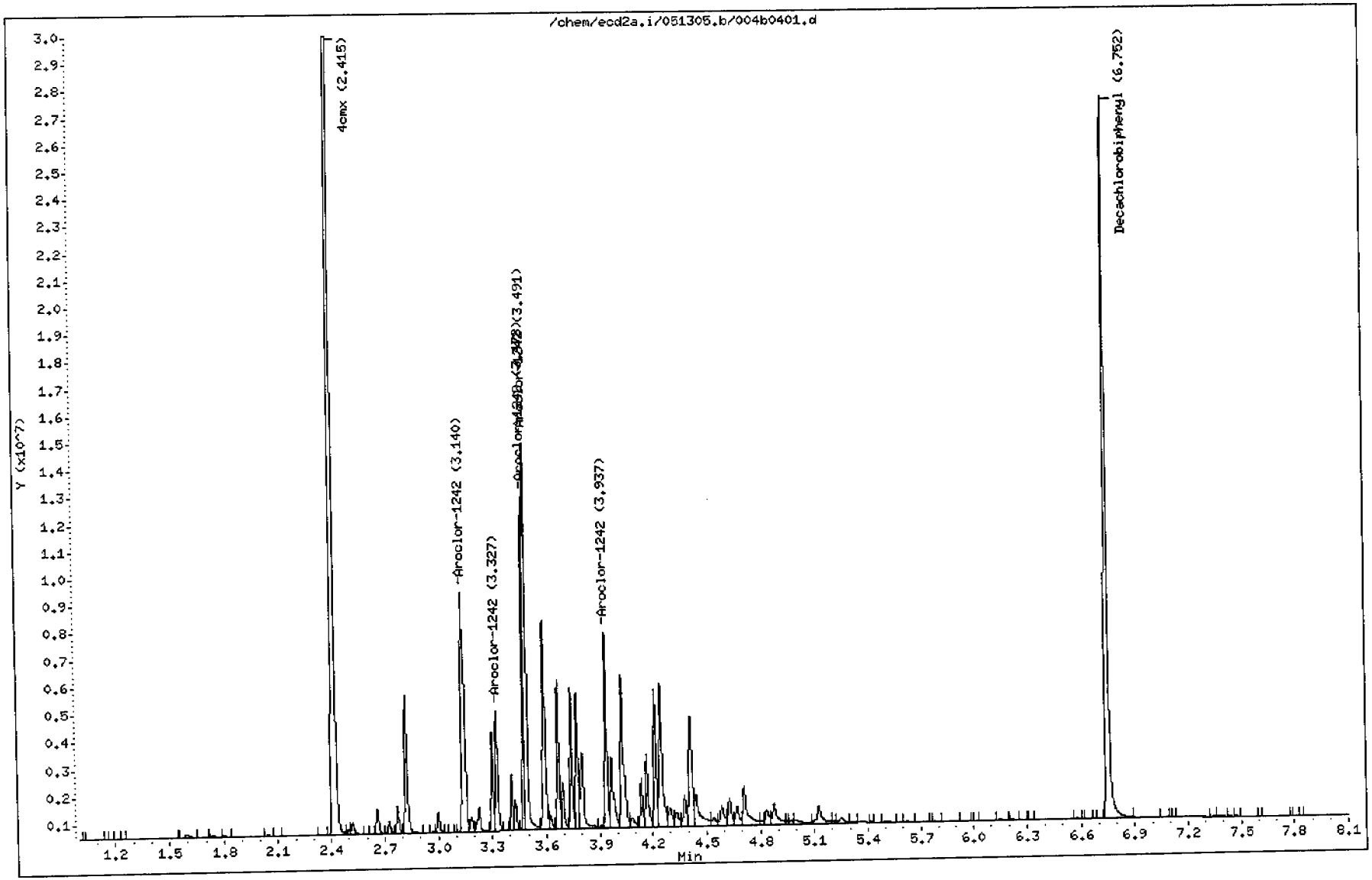

General Engineering Laboratories, LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/051305.b/005f0501.d
Lab Smp Id: WAR050504-01481 Client Smp ID: AR124801
Inj Date : 13-MAY-2005 08:02
Operator : JMW1 Inst ID: ecd2a.i
Smp Info : |WAR050504-01481
Misc Info :
Comment :
Method : /chem/ecd2a.i/051305.b/ECD2-F-8082-051105.m
Meth Date : 17-May-2005 15:42 yip00818 Quant Type: ESTD
Cal Date : 13-MAY-2005 08:58 Cal File: 010f1001.d
Als bottle: 5 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1248.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 10 4cmx					CAS #: 877-09-8		
2.019	2.019	0.000	21267751	0.00000	96.9	80.00- 120.00	100.00
$ 11 Decachlorobiphenyl					CAS #: 2051-24-3		
5.952	5.950	0.002	13616156	0.00000	103	80.00- 120.00	100.00
5 Aroclor-1248					CAS #: 12672-29-6		
3.295	3.295	0.000	6767437	1000.00	1000	80.00- 120.00	100.00(M)
3.457	3.457	0.000	1499294	1000.00	1020	1.74- 41.74	22.15
3.755	3.755	0.000	4938690	1000.00	1000	53.13- 93.13	72.98
3.779	3.779	0.000	2449349	1000.00	1010	16.00- 56.00	36.19
3.916	3.916	0.000	1667354	1000.00	1010	4.53- 44.53	24.64

Average of Peak Amounts = 1.01e+03

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd2a.i/051305.b/005f0501.d
Date : 13-MAY-2005 08:02
Client ID: AR124801
Sample Info: IWAR050504-01481

Column phase: CLP1

Instrument: ecd2a.i

Operator: JMW1
Column diameter: 0.25

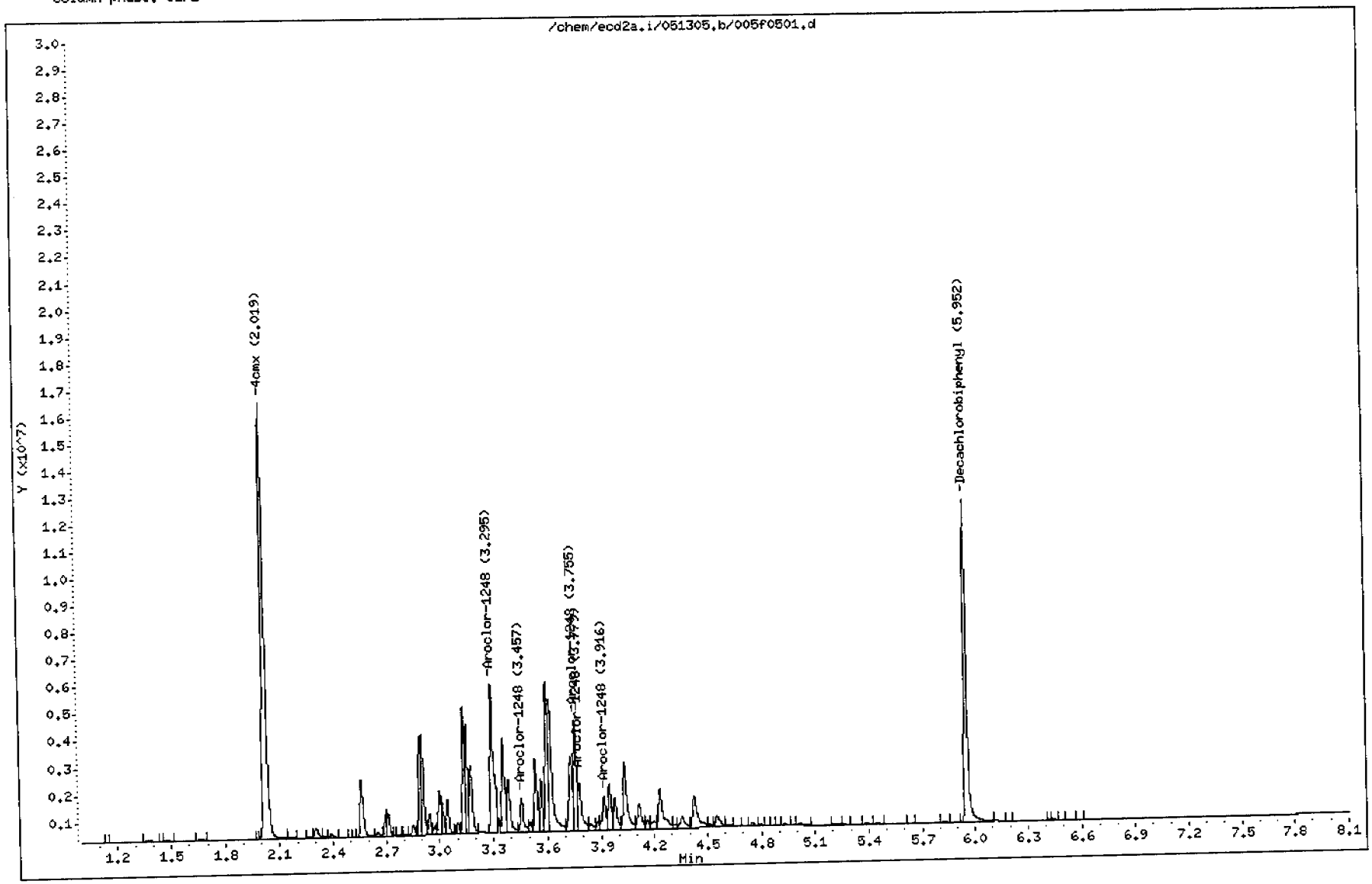

Comment: Manually Integrated
Data File: /chem/ecd2a.i/051305.b/005f0501.d
Operator: JMW1
Injection Date: 13-MAY-2005 08:02
Instrument: ecd2a.i
Client Sample ID: AR124801

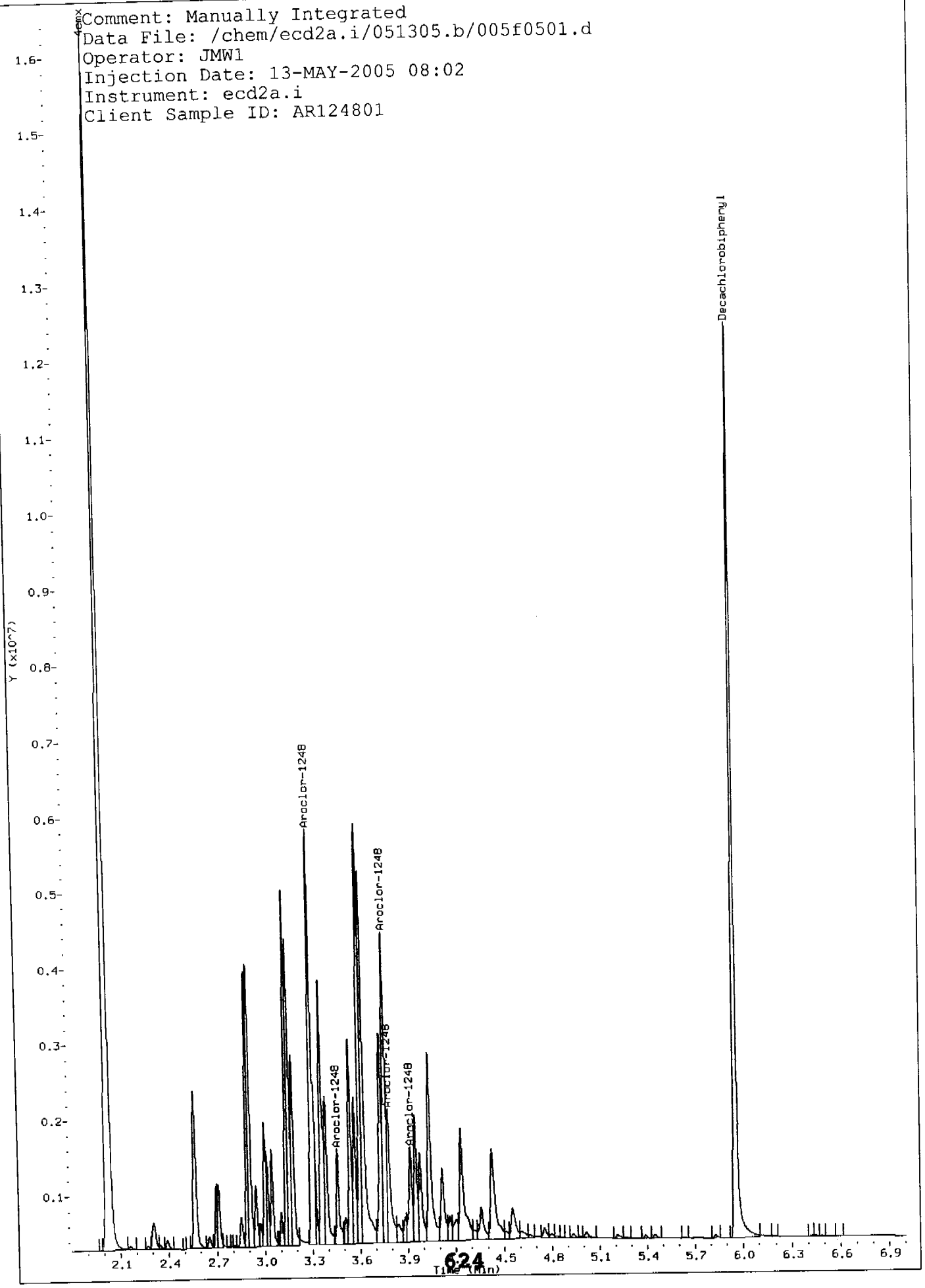

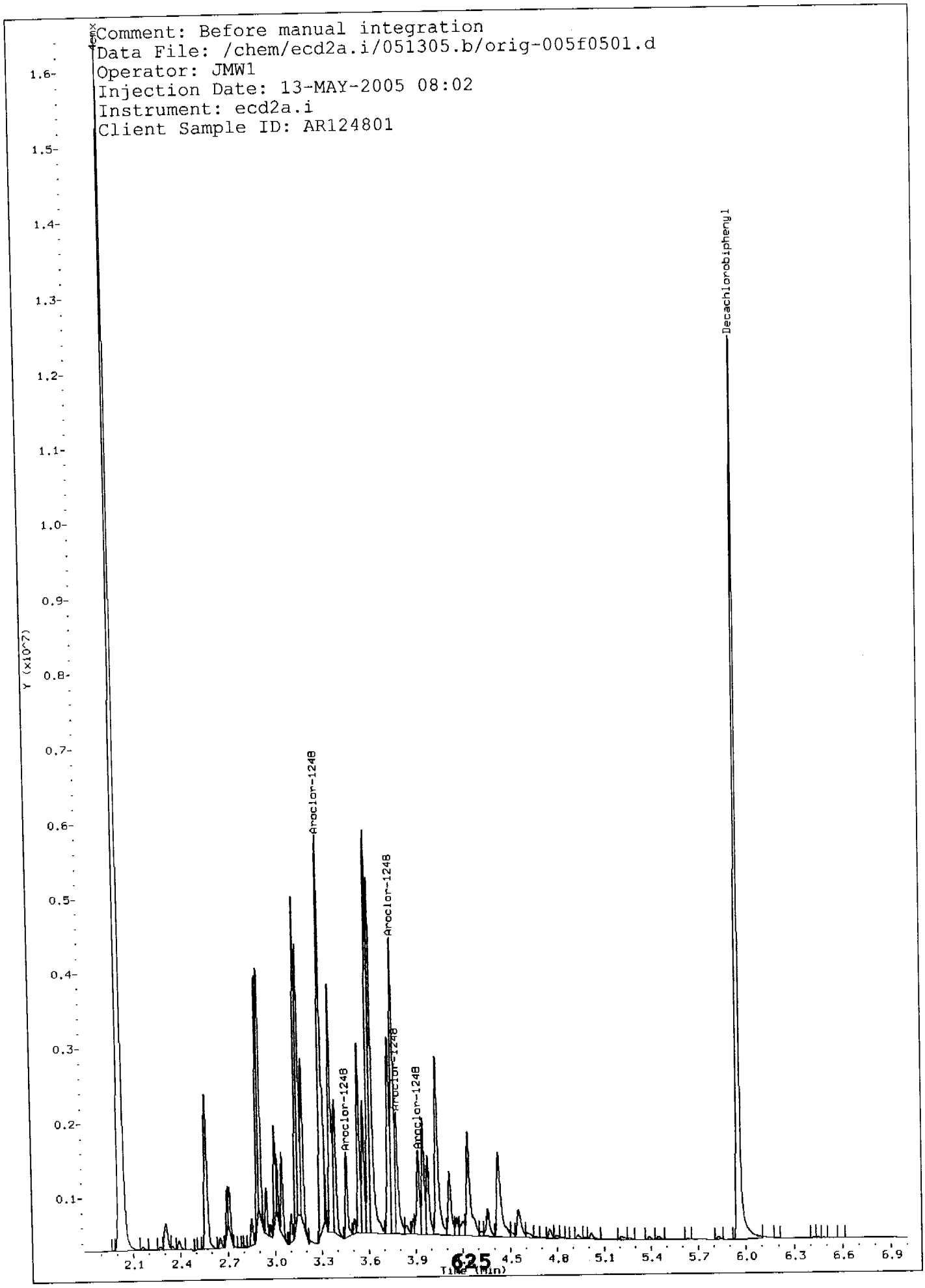
Comment: Before manual integration
Data File: /chem/ecd2a.i/051305.b/orig-005f0501.d
Operator: JMW1
Injection Date: 13-MAY-2005 08:02
Instrument: ecd2a.i
Client Sample ID: AR124801
Y (x10^7)
Aroclor-1248
Aroclor-1248
Aroclor-1248
Aroclor-1248
Aroclor-1248
Decachlorobiphenyl
Time (Min)

General Engineering Laboratories, LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/051305.b/005b0501.d
Lab Smp Id: WAR050504-01481 Client Smp ID: AR124801
Inj Date : 13-MAY-2005 08:02
Operator : JMW1 Inst ID: ecd2a.i
Smp Info : |WAR050504-01481
Misc Info :
Comment :
Method : /chem/ecd2a.i/051305.b/ECD2-B-8082-051105.m
Meth Date : 16-May-2005 06:19 yip00818 Quant Type: ESTD
Cal Date : 13-MAY-2005 08:58 Cal File: 010b1001.d
Als bottle: 5 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1248.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 10 4cmx					CAS #: 877-09-8		
2.414	2.416	-0.002	44120323	0.00000	102	80.00- 120.00	100.00
$ 11 Decachlorobiphenyl					CAS #: 2051-24-3		
6.752	6.751	0.001	27278834	0.00000	108	80.00- 120.00	100.00
5 Aroclor-1248					CAS #: 12672-29-6		
3.739	3.739	0.000	8467151	1000.00	1000	80.00- 120.00	100.00
3.771	3.771	0.000	7401520	1000.00	1000	67.41- 107.41	87.41
3.937	3.937	0.000	10525017	1000.00	1000	104.30- 144.30	124.30
4.214	4.214	0.000	9833287	1000.00	1000	96.13- 136.13	116.13
4.246	4.246	0.000	12636683	1000.00	1000	129.24- 169.24	149.24

Average of Peak Amounts = 1e+03

Data File: /chem/ecd2a.i/051305.b/005b0501.d
Date : 13-MAY-2005 03:02
Client ID: AR124801
Sample Info: IWAR050504-01481
Column phase: CLP2

Instrument: ecd2a.i
Operator: JWM1
Column diameter: 0.25

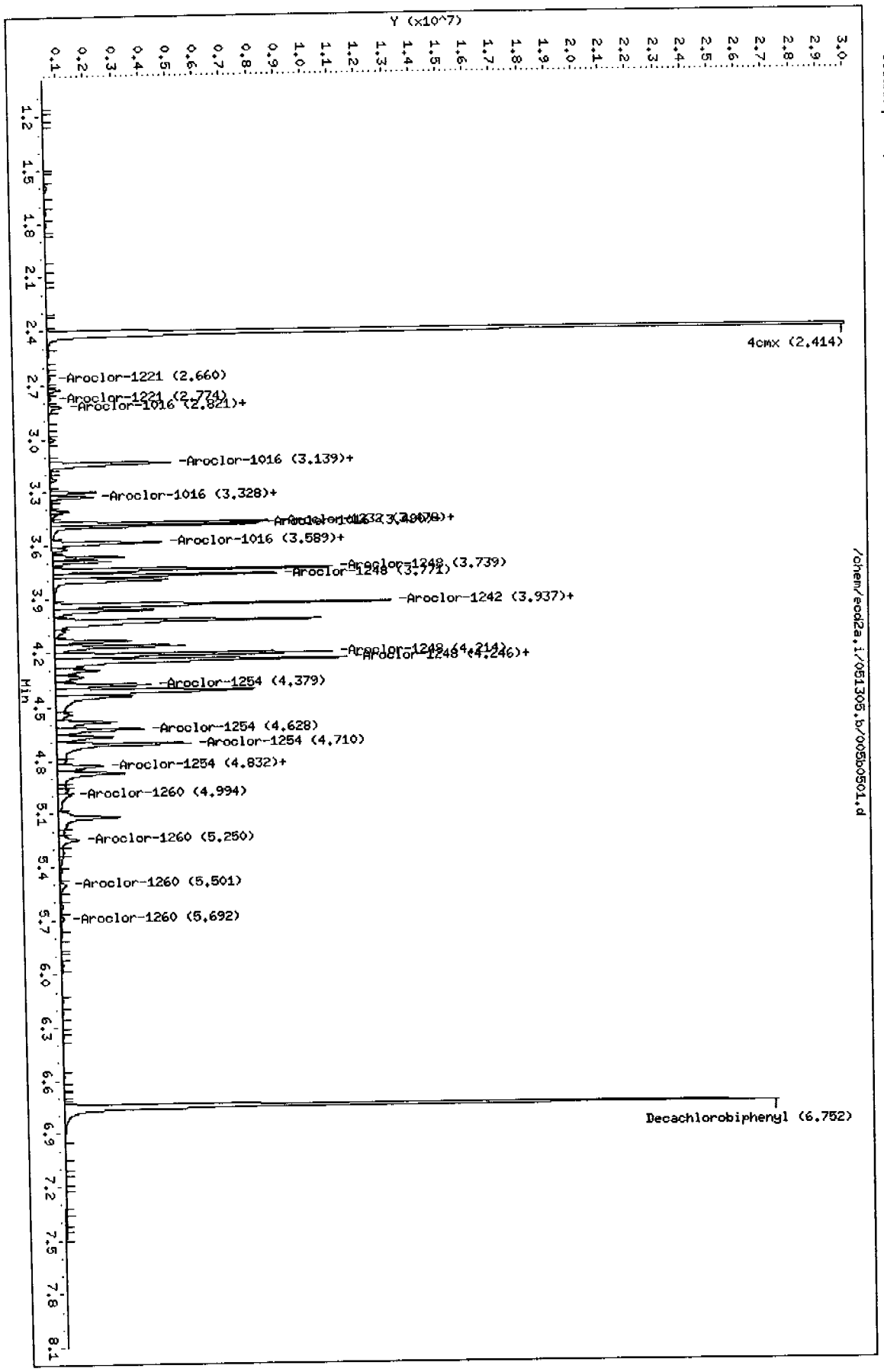

General Engineering Laboratories, LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/051305.b/007f0701.d
Lab Smp Id: WAR050323-01421 Client Smp ID: AR124202
Inj Date : 13-MAY-2005 08:24
Operator : JMW1 Inst ID: ecd2a.i
Smp Info : |WAR050323-01421
Misc Info :
Comment :
Method : /chem/ecd2a.i/051305.b/ECD2-F-8082-051105.m
Meth Date : 20-May-2005 15:31 jar00935 Quant Type: ESTD
Cal Date : 13-MAY-2005 08:58 Cal File: 010f1001.d
Als bottle: 7 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1242.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 10 4cmx					CAS #: 877-09-8		
2.017	2.019	-0.002	20614890	0.00000	94.0	80.00- 120.00	100.00
$ 11 Decachlorobiphenyl					CAS #: 2051-24-3		
5.952	5.950	0.002	13400040	0.00000	102	80.00- 120.00	100.00
4 Aroclor-1242					CAS #: 53469-21-9		
2.904	2.904	0.000	7249278	1000.00	882	80.00- 120.00	100.00(M)
2.999	2.999	0.000	4393731	1000.00	890	40.61- 80.61	60.61
3.044	3.044	0.000	2785830	1000.00	926	18.43- 58.43	38.43
3.135	3.135	0.000	2194551	1000.00	909	10.27- 50.27	30.27
3.355	3.355	0.000	2238112	1000.00	818	10.87- 50.87	30.87
Average of Peak Amounts =					885		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd2a.i/051305.b/007f0701.d
Date : 13-MAY-2005 08:24
Client ID: AR124202
Sample Info: IWAR050323-01421

Instrument: ecd2a.i

Operator: JMW1
Column diameter: 0.25

Column phase: CLP1

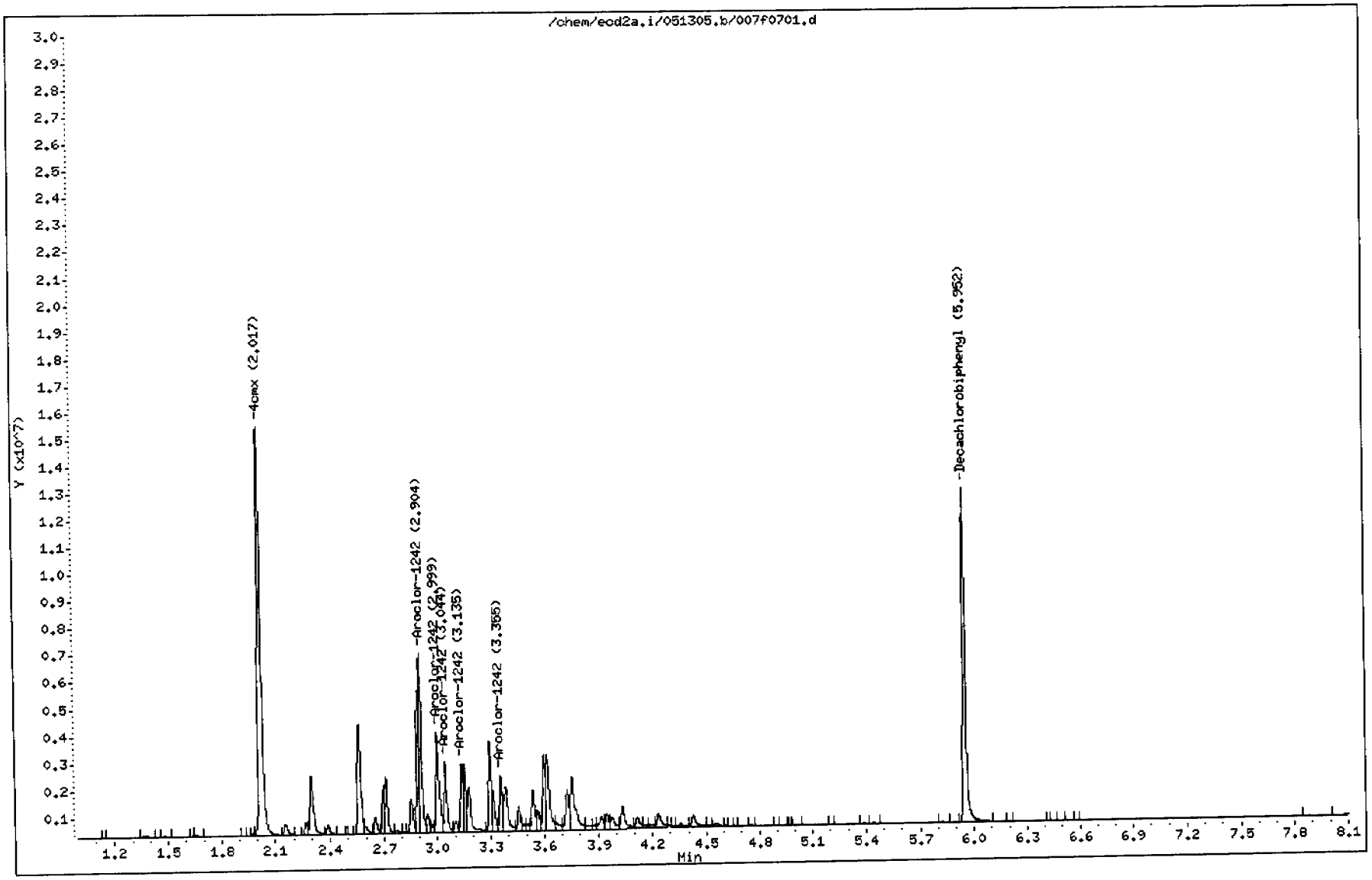

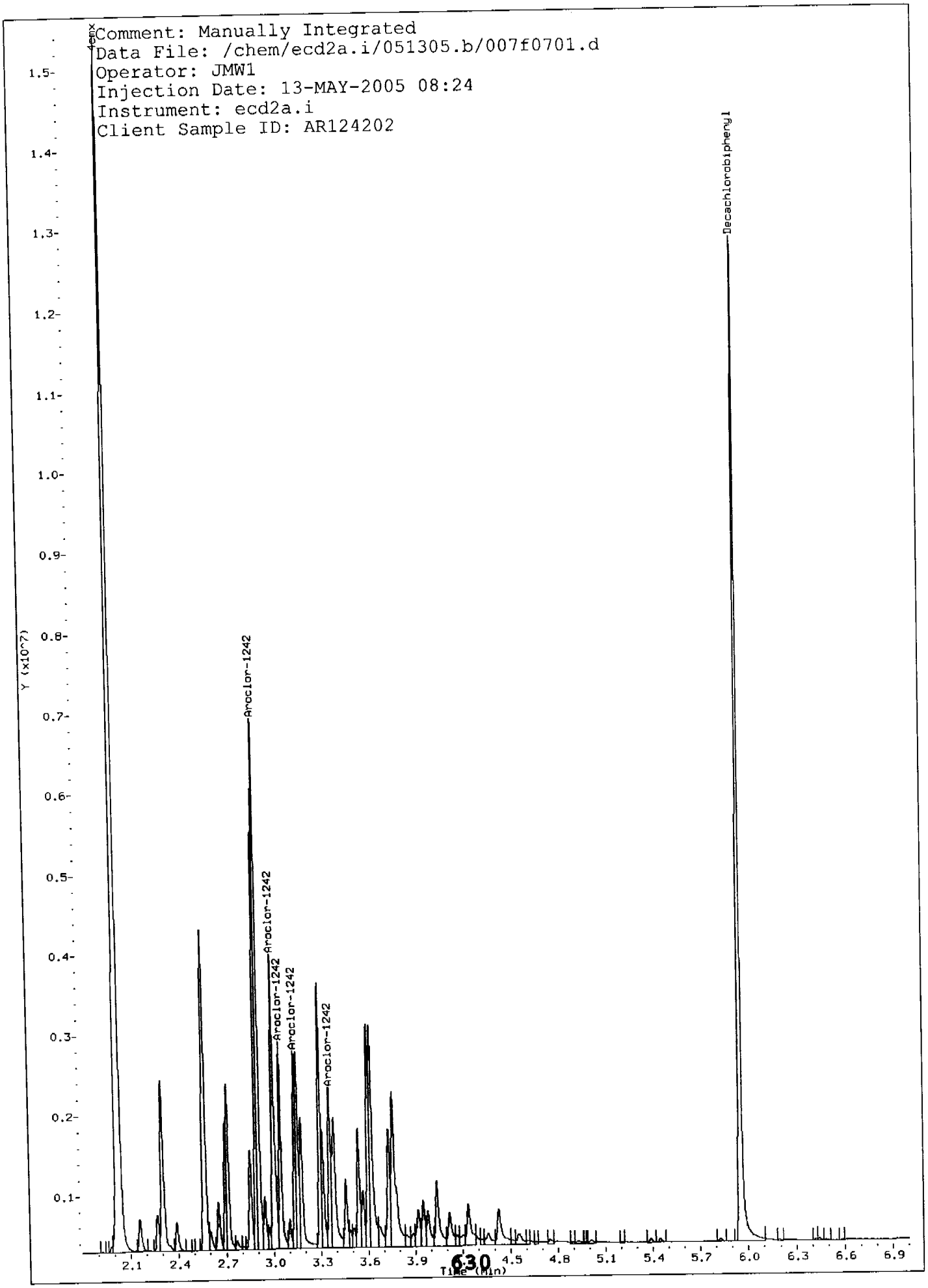
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Data File: /chem/ecd2a.i/051305.b/007f0701.d
Operator: JMW1
Injection Date: 13-MAY-2005 08:24
Instrument: ecd2a.i
Client Sample ID: AR124202
Y (x10^7)
Aroclor-1242
Aroclor-1242
Aroclor-1242
Aroclor-1242
Aroclor-1242
Decachlorobiphenyl
Time (min)

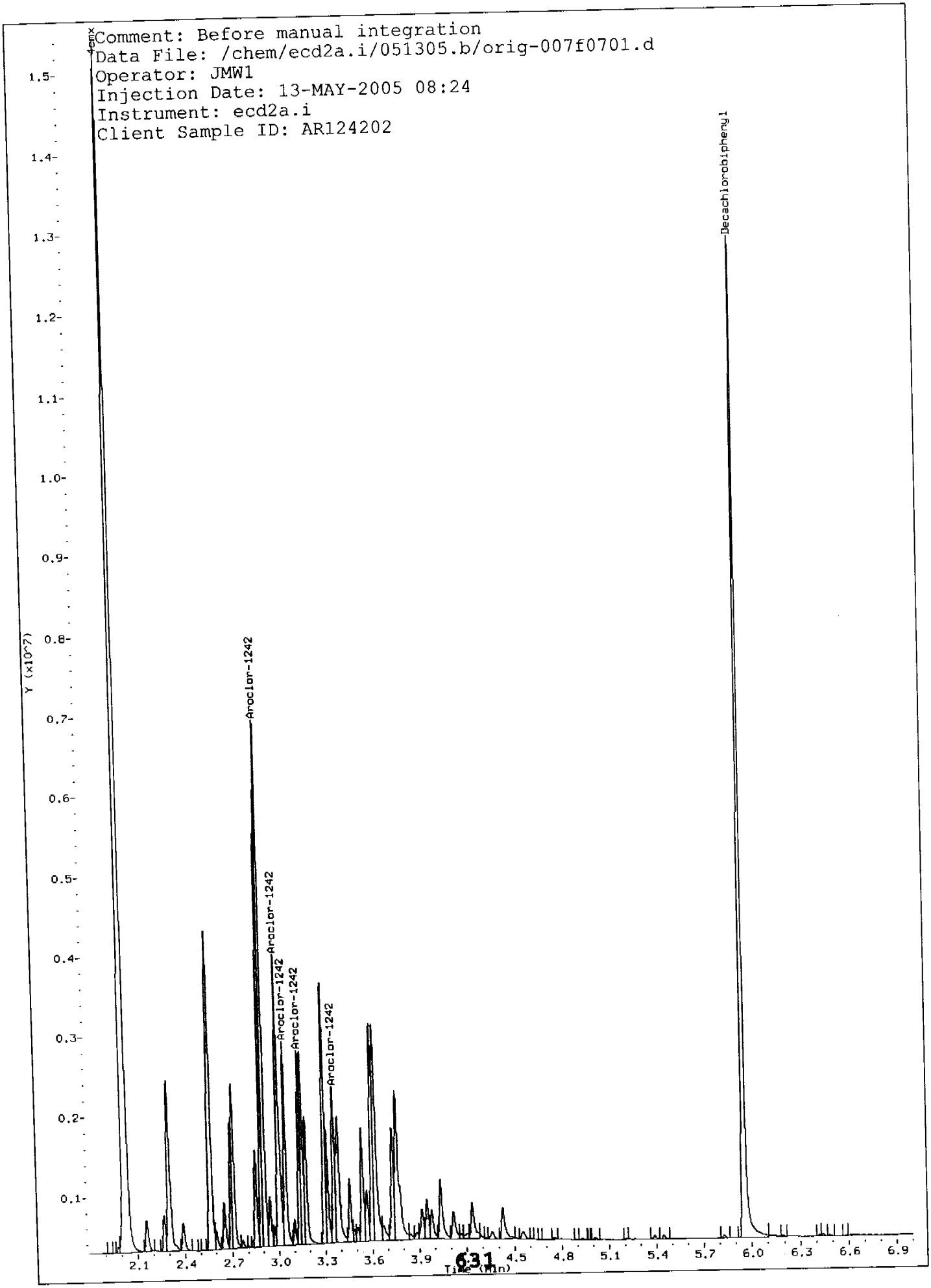
Comment: Before manual integration
Data File: /chem/ecd2a.i/051305.b/orig-007f0701.d
Operator: JMW1
Injection Date: 13-MAY-2005 08:24
Instrument: ecd2a.i
Client Sample ID: AR124202
Y (x10^7)
Aroclor-1242
Aroclor-1242
Aroclor-1242
Aroclor-1242
Aroclor-1242
Decachlorobiphenyl
Time (Min)

General Engineering Laboratories, LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/051305.b/007b0701.d
Lab Smp Id: WAR050323-01421 Client Smp ID: AR124202
Inj Date : 13-MAY-2005 08:24
Operator : JMW1 Inst ID: ecd2a.i
Smp Info : |WAR050323-01421
Misc Info :
Comment :
Method : /chem/ecd2a.i/051305.b/ECD2-B-8082-051105.m
Meth Date : 17-May-2005 15:42 yip00818 Quant Type: ESTD
Cal Date : 13-MAY-2005 08:58 Cal File: 010b1001.d
Als bottle: 7 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1242.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 10 4cmx					CAS #: 877-09-8		
2.413	2.416	-0.003	44014544	0.00000	102	80.00- 120.00	100.00
$ 11 Decachlorobiphenyl					CAS #: 2051-24-3		
6.751	6.751	0.000	26648220	0.00000	106	80.00- 120.00	100.00
4 Aroclor-1242					CAS #: 53469-21-9		
3.139	3.139	0.000	10281399	1000.00	1050	80.00- 120.00	100.00
3.328	3.328	0.000	3695304	1000.00	1030	16.69- 56.69	35.94
3.478	3.478	0.000	8071807	1000.00	1140	60.48- 100.48	78.51
3.490	3.490	0.000	12192759	1000.00	1060	100.65- 140.65	118.59
3.937	3.937	0.000	5730367	1000.00	1050	37.84- 77.84	55.74

Average of Peak Amounts = 1.07e+03

Data File: /chem/ecd2a.i/051305.b/007b0701.d
Date : 13-MAY-2005 08:24
Client ID: AR124202
Sample Info: IWAR050323-01421

Column phase: CLP2

Instrument: ecd2a.i

Operator: JMW1
Column diameter: 0.25

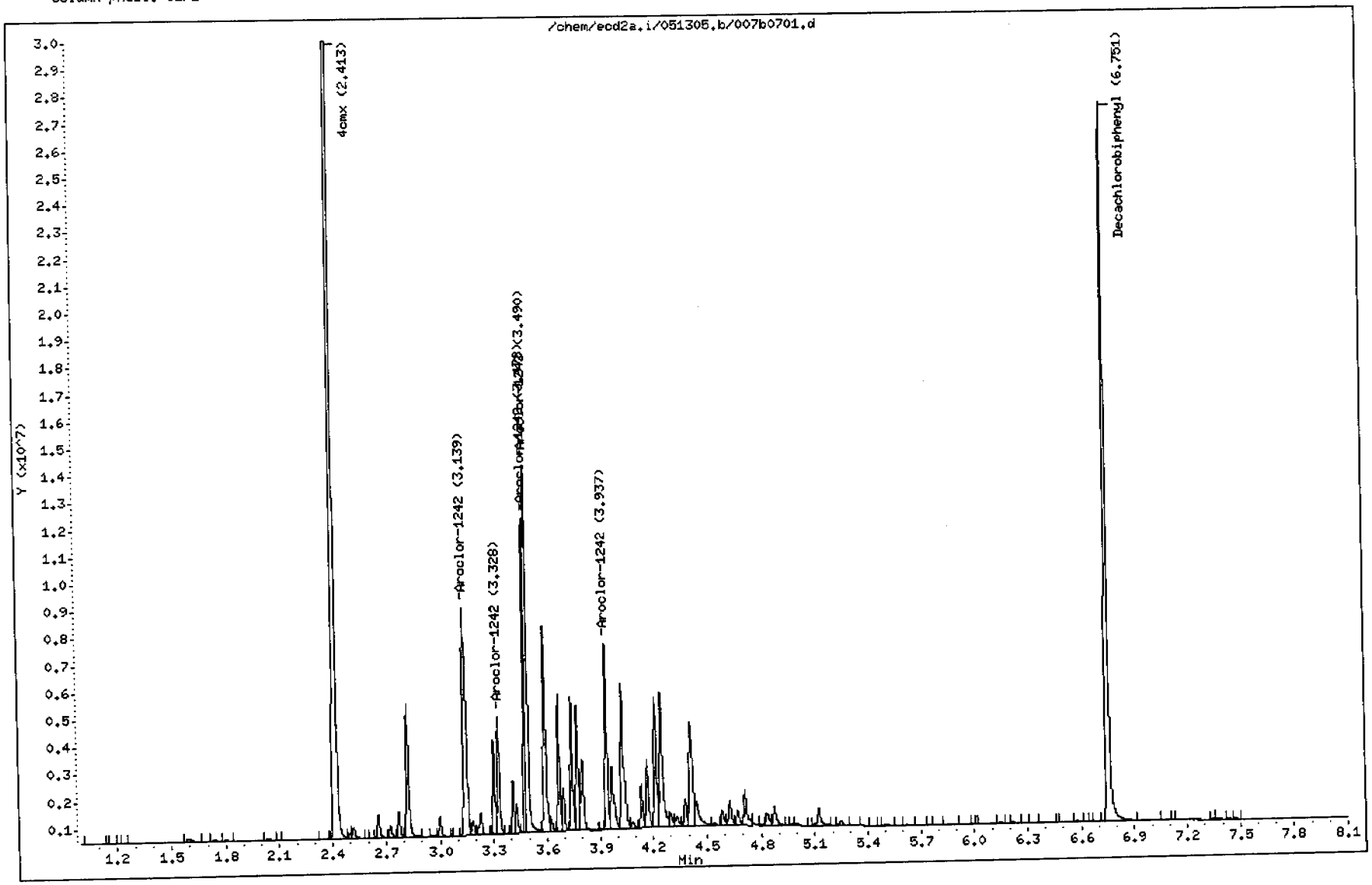

General Engineering Laboratories, LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/051305.b/008f0801.d
Lab Smp Id: WAR050401-05321 Client Smp ID: AR123201
Inj Date : 13-MAY-2005 08:36
Operator : JMW1 Inst ID: ecd2a.i
Smp Info : |WAR050401-05321
Misc Info :
Comment :
Method : /chem/ecd2a.i/051305.b/ECD2-F-8082-051105.m
Meth Date : 17-May-2005 15:46 yip00818 Quant Type: ESTD
Cal Date : 13-MAY-2005 08:58 Cal File: 010f1001.d
Als bottle: 8 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1232.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 10 4cmx					CAS #: 877-09-8		
2.018	2.019	-0.001	21972533	0.00000	100	80.00- 120.00	100.00
$ 11 Decachlorobiphenyl					CAS #: 2051-24-3		
5.953	5.950	0.003	14168716	0.00000	108	80.00- 120.00	100.00
3 Aroclor-1232					CAS #: 11141-16-5		
2.298	2.298	0.000	4183472	1000.00	987	80.00- 120.00	100.00
2.563	2.563	0.000	3224010	1000.00	969	57.07- 97.07	77.07
2.904	2.904	0.000	4185617	1000.00	983	80.05- 120.05	100.05
3.000	3.000	0.000	2529207	1000.00	951	40.46- 80.46	60.46
3.152	3.152	0.000	1273197	1000.00	920	10.43- 50.43	30.43
Average of Peak Amounts =					962		

Data File: /chem/ecd2a.i/051305.b/008f0801.d
Date : 13-MAY-2005 08:36
Client ID: AR123201
Sample Info: IWAR050401-05321

Instrument: ecd2a.i

Operator: JMW1
Column diameter: 0.25

Column phase: CLP1

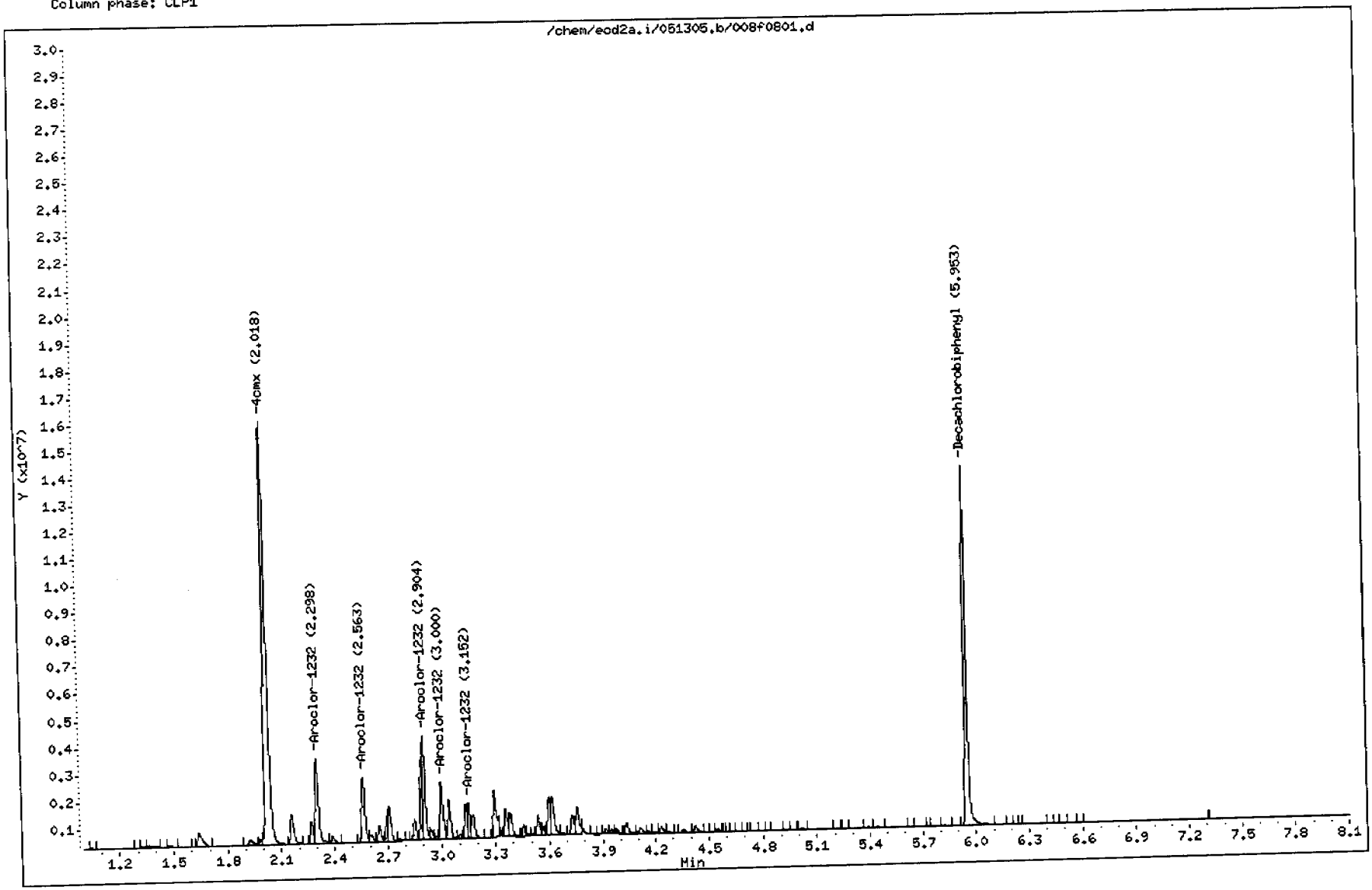

General Engineering Laboratories, LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/051305.b/008b0801.d
Lab Smp Id: WAR050401-05321 Client Smp ID: AR123201
Inj Date : 13-MAY-2005 08:36
Operator : JMW1 Inst ID: ecd2a.i
Smp Info : |WAR050401-05321
Misc Info :
Comment :
Method : /chem/ecd2a.i/051305.b/ECD2-B-8082-051105.m
Meth Date : 17-May-2005 15:46 yip00818 Quant Type: ESTD
Cal Date : 13-MAY-2005 08:58 Cal File: 010b1001.d
Als bottle: 8 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1232.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 10 4cmx					CAS #: 877-09-8		
2.415	2.416	-0.001	47371573	0.00000	109	80.00- 120.00	100.00
$ 11 Decachlorobiphenyl					CAS #: 2051-24-3		
6.751	6.751	0.000	28906166	0.00000	115	80.00- 120.00	100.00
3 Aroclor-1232					CAS #: 11141-16-5		
2.821	2.821	0.000	7176833	1000.00	1000	80.00- 120.00	100.00
3.140	3.140	0.000	6351234	1000.00	1000	68.50- 108.50	88.50
3.478	3.478	0.000	4756150	1000.00	1000	46.27- 86.27	66.27
3.490	3.490	0.000	7042276	1000.00	1000	78.13- 118.13	98.13
3.590	3.590	0.000	4323955	1000.00	1000	40.25- 80.25	60.25
			Average of Peak Amounts =		1e+03		

Data File: /chem/ecd2a.i/051305.b/008b0801.d
Date : 13-MAY-2005 08:36
Client ID: AR123201
Sample Info: IWAR050401-05321

Column phase: CLP2

Instrument: ecd2a.i

Operator: JMW1
Column diameter: 0.25

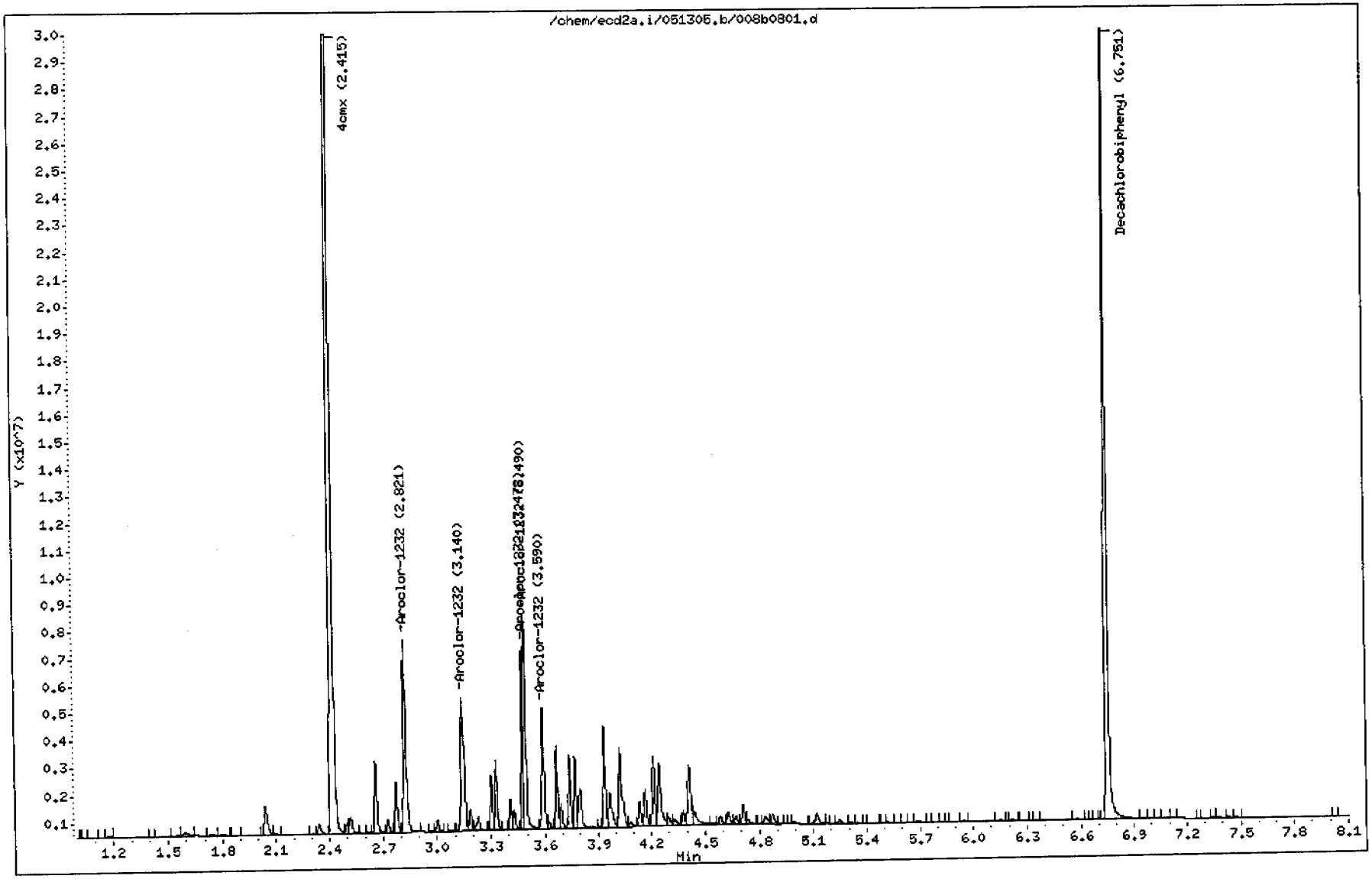

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RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/051305.b/009f0901.d
Lab Smp Id: WAR050328-05211 Client Smp ID: AR122101
Inj Date : 13-MAY-2005 08:47
Operator : JMW1 Inst ID: ecd2a.i
Smp Info : |WAR050328-05211
Misc Info :
Comment :
Method : /chem/ecd2a.i/051305.b/ECD2-F-8082-051105.m
Meth Date : 17-May-2005 15:47 yip00818 Quant Type: ESTD
Cal Date : 13-MAY-2005 08:58 Cal File: 010f1001.d
Als bottle: 9 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1221.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 10 4cmx					CAS #: 877-09-8		
2.018	2.019	-0.001	21698413	0.00000	98.9	80.00- 120.00	100.00
$ 11 Decachlorobiphenyl					CAS #: 2051-24-3		
5.952	5.950	0.002	14391053	0.00000	109	80.00- 120.00	100.00
2 Aroclor-1221					CAS #: 11104-28-2		
2.157	2.157	0.000	2062884	1000.00	955	80.00- 120.00	100.00
2.267	2.267	0.000	1117113	1000.00	957	34.15- 74.15	54.15
2.298	2.298	0.000	4825314	1000.00	954	213.91- 253.91	233.91
Average of Peak Amounts =					955		

Data File: /chem/ecd2a.i/051305.b/009f0901.d
Date : 13-MAY-2005 08:47
Client ID: AR122101
Sample Info: IWAR050328-05211

Instrument: ecd2a.i

Operator: JMW1
Column diameter: 0.25

Column phase: CLP1

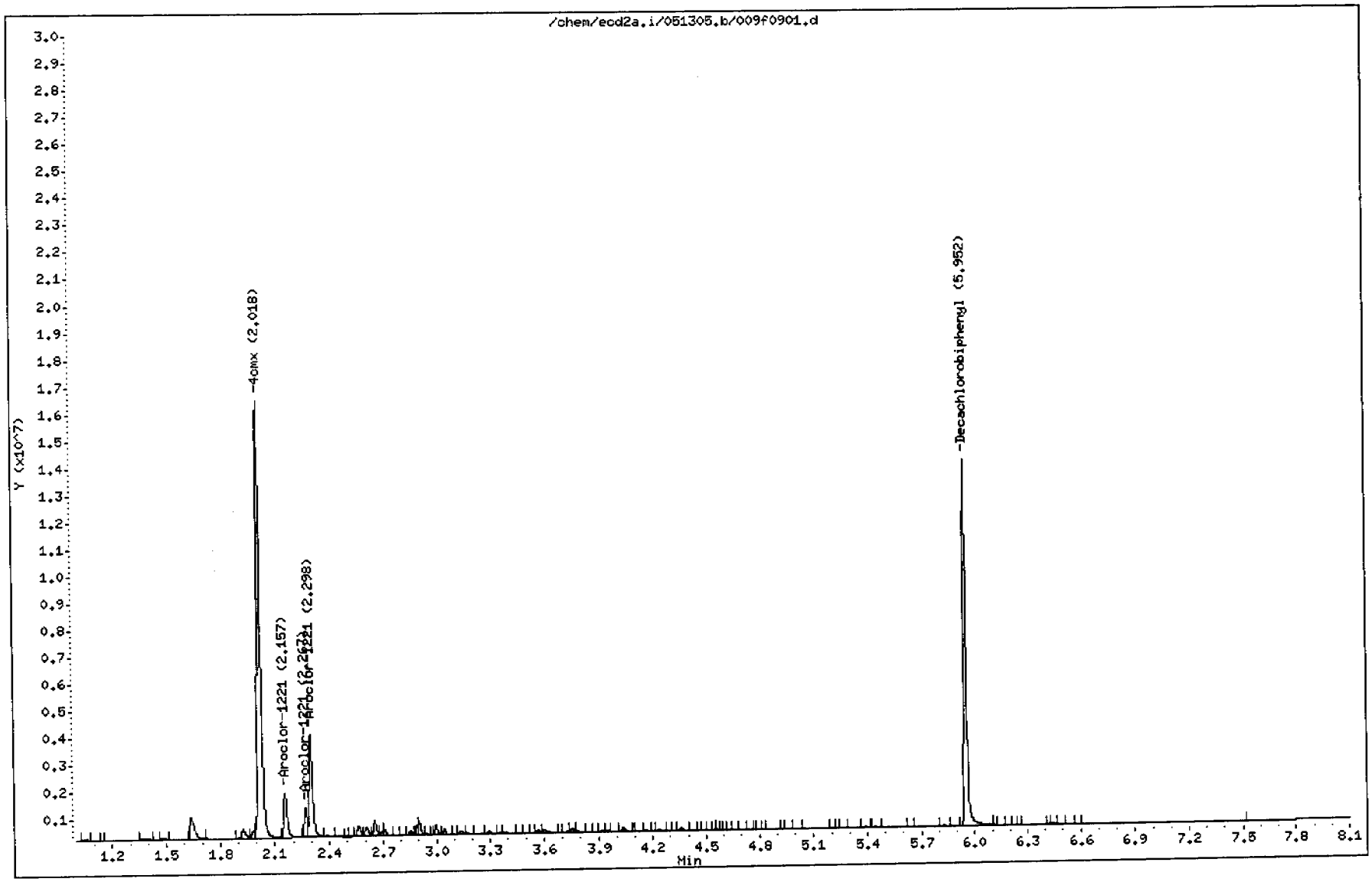

General Engineering Laboratories, LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/051305.b/009b0901.d
Lab Smp Id: WAR050328-05211 Client Smp ID: AR122101
Inj Date : 13-MAY-2005 08:47
Operator : JMW1 Inst ID: ecd2a.i
Smp Info : |WAR050328-05211
Misc Info :
Comment :
Method : /chem/ecd2a.i/051305.b/ECD2-B-8082-051105.m
Meth Date : 17-May-2005 15:46 yip00818 Quant Type: ESTD
Cal Date : 13-MAY-2005 08:58 Cal File: 010b1001.d
Als bottle: 9 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1221.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 10 4cmx					CAS #: 877-09-8		
2.414	2.416	-0.002	47827687	0.00000	110	80.00- 120.00	100.00
$ 11 Decachlorobiphenyl					CAS #: 2051-24-3		
6.751	6.751	0.000	29303049	0.00000	116	80.00- 120.00	100.00
2 Aroclor-1221					CAS #: 11104-28-2		
2.658	2.658	0.000	3714486	1000.00	1000	80.00- 120.00	100.00
2.772	2.772	0.000	2216777	1000.00	1000	39.68- 79.68	59.68
2.820	2.820	0.000	8678900	1000.00	1000	213.65- 253.65	233.65
Average of Peak Amounts =					1e+03		

Data File: /chem/ecd2a.i/051305.b/009b0901.d
Date : 13-MAY-2005 08:47
Client ID: AR122101
Sample Info: !WAR050328-05211

Column phase: CLP2

Instrument: ecd2a.i

Operator: JMW1
Column diameter: 0.25

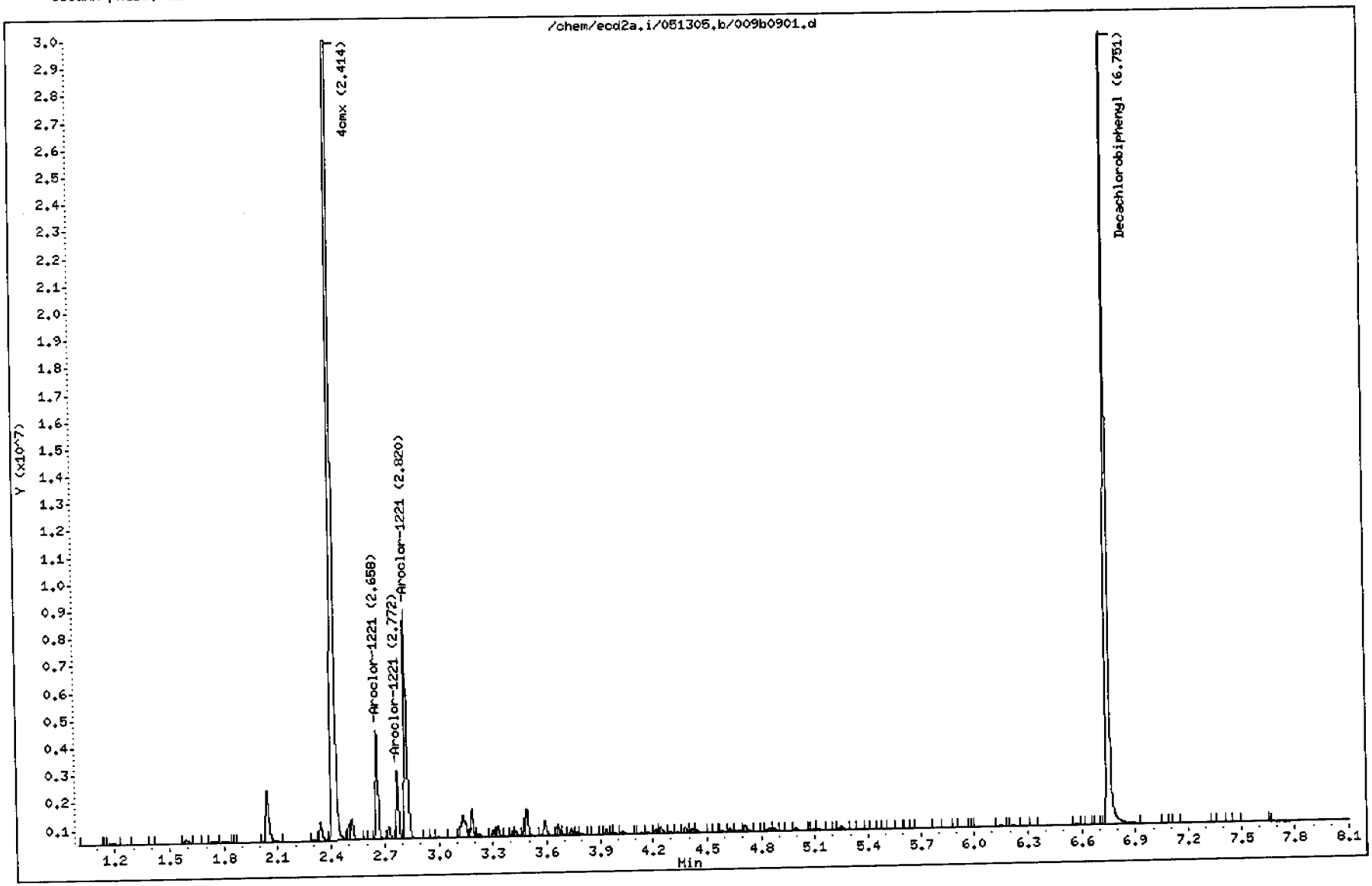

General Engineering Laboratories, LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/051305.b/031f3101.d
Lab Smp Id: WAR050511-13605 Client Smp ID: AR166005
Inj Date : 13-MAY-2005 13:49
Operator : JMW1 Inst ID: ecd2a.i
Smp Info : |WAR050511-13605
Misc Info :
Comment :
Method : /chem/ecd2a.i/051305.b/ECD2-F-8082-051105.m
Meth Date : 16-May-2005 07:15 yip00818 Quant Type: ESTD
Cal Date : 12-MAY-2005 09:21 Cal File: 015f1501.d
Als bottle: 31 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 10 4cmx					CAS #: 877-09-8		
2.018	2.019	-0.001	19963111	0.00000	91.0	80.00- 120.00	100.00
$ 11 Decachlorobiphenyl					CAS #: 2051-24-3		
5.948	5.950	-0.002	12647096	0.00000	95.6	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.562	2.564	-0.002	6860049	1000.00	1040	80.00- 120.00	100.00
2.903	2.904	-0.001	9312048	1000.00	984	115.74- 155.74	135.74
2.998	2.999	-0.001	5608487	1000.00	964	61.76- 101.76	81.76
3.043	3.044	-0.001	3377744	1000.00	941	29.24- 69.24	49.24
3.134	3.136	-0.002	3003374	1000.00	953	23.78- 63.78	43.78
Average of Peak Amounts =					977		
7 Aroclor-1260					CAS #: 11096-82-5		
4.156	4.158	-0.002	8582135	1000.00	897	80.00- 120.00	100.00(M)
4.350	4.354	-0.004	12635492	1000.00	959	127.23- 167.23	147.23
4.543	4.547	-0.004	14486408	1000.00	940	148.80- 188.80	168.80
4.791	4.795	-0.004	7220306	1000.00	978	64.13- 104.13	84.13
5.005	5.009	-0.004	17577131	1000.00	948	184.81- 224.81	178.08
Average of Peak Amounts =					945		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd2a.i/051305.b/031f3101.d
Date : 13-MAY-2005 13:49
Client ID: AR166005
Sample Info: WAR050511-13605
Column phase: CLP1

Instrument: ecd2a.i
Operator: JMM1
Column diameter: 0.25

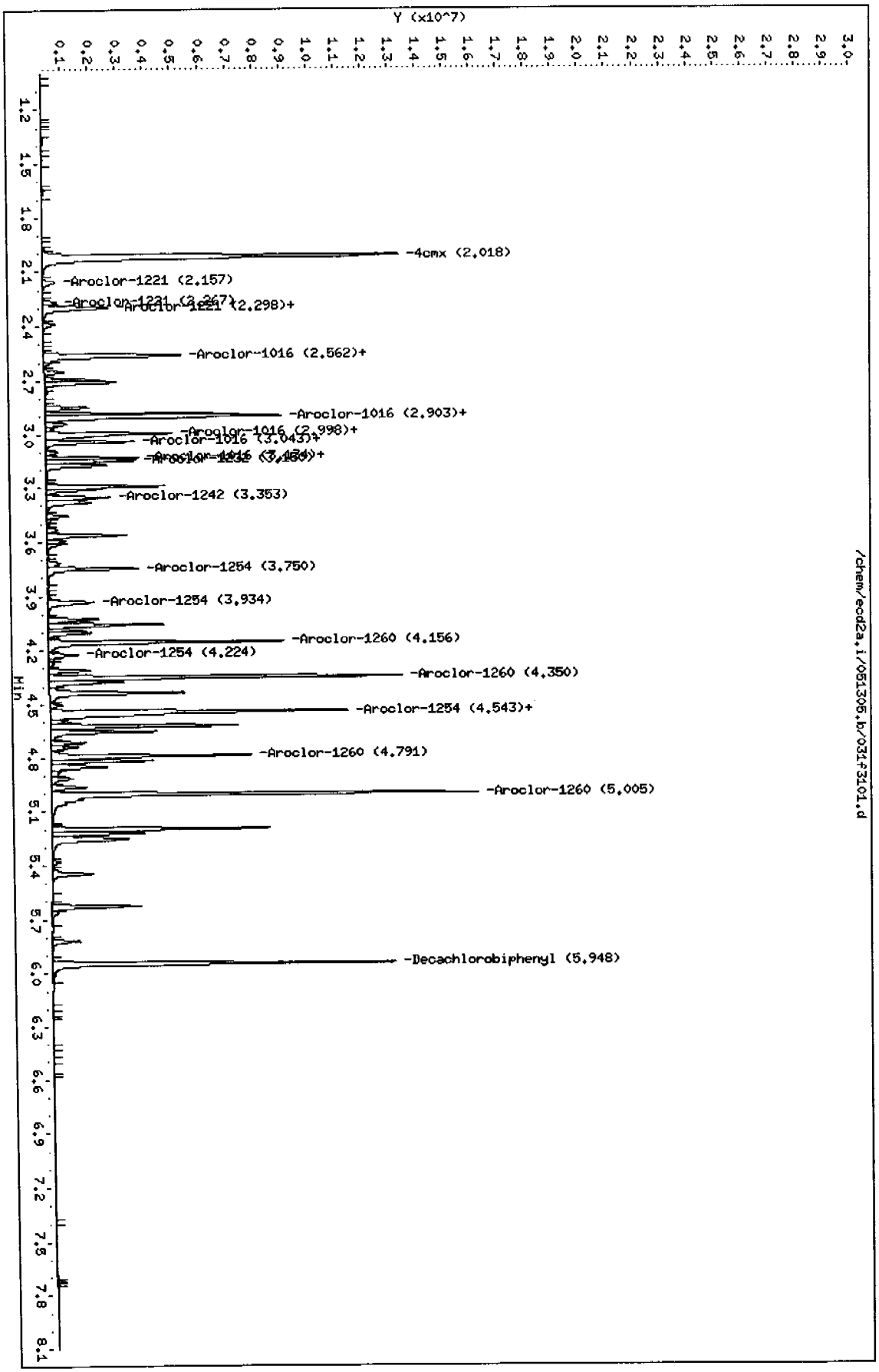

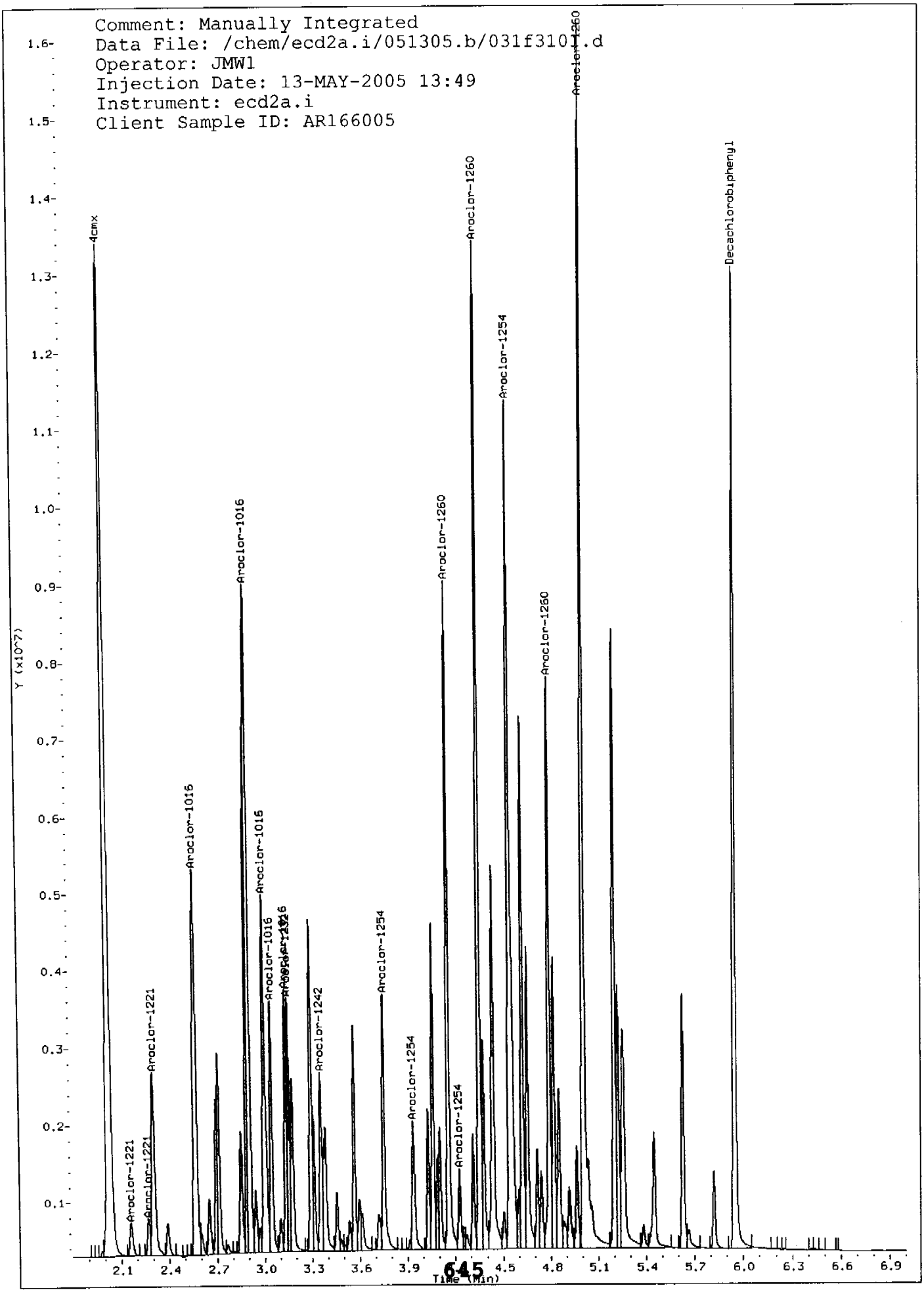
Comment: Manually Integrated
Data File: /chem/ecd2a.i/051305.b/031f3101.d
Operator: JMW1
Injection Date: 13-MAY-2005 13:49
Instrument: ecd2a.i
Client Sample ID: AR166005
Y (x10^7)
Time (Min)
4cmx
Aroclor-1221
Aroclor-1221
Aroclor-1221
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1242
Aroclor-1254
Aroclor-1254
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Aroclor-1260
Decachlorobiphenyl

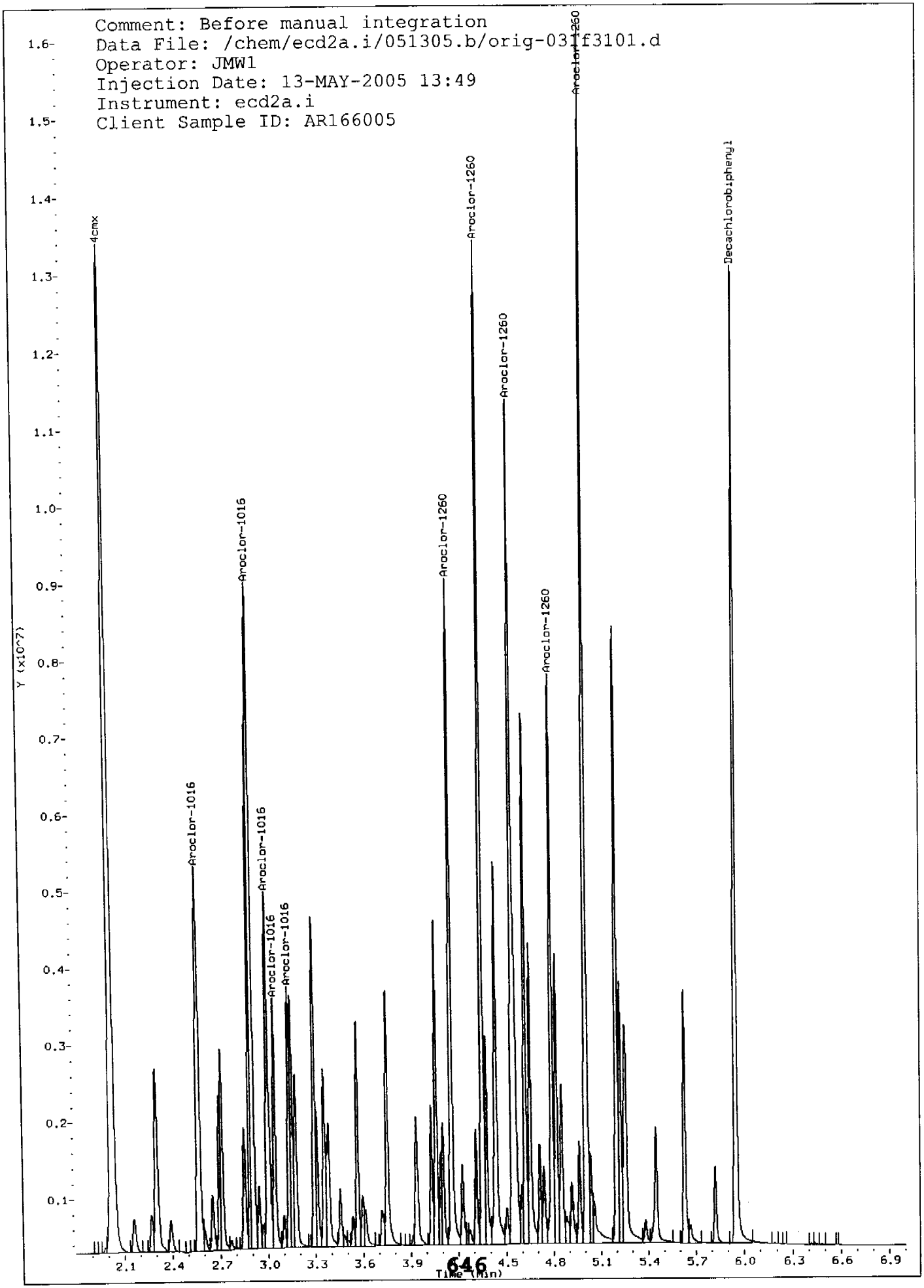
Comment: Before manual integration
Data File: /chem/ecd2a.i/051305.b/orig-031f3101.d
Operator: JMW1
Injection Date: 13-MAY-2005 13:49
Instrument: ecd2a.i
Client Sample ID: AR166005
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

General Engineering Laboratories, LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/051305.b/031b3101.d
Lab Smp Id: WAR050511-13605 Client Smp ID: AR166005
Inj Date : 13-MAY-2005 13:49
Operator : JMW1 Inst ID: ecd2a.i
Smp Info : |WAR050511-13605
Misc Info :
Comment :
Method : /chem/ecd2a.i/051305.b/ECD2-B-8082-051105.m
Meth Date : 16-May-2005 07:15 yip00818 Quant Type: ESTD
Cal Date : 13-MAY-2005 08:58 Cal File: 010b1001.d
Als bottle: 31 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	TARGET RANGE	RATIO
$ 10 4cmx					CAS #: 877-09-8		
2.416	2.416	0.000	44227524	0.00000	102	80.00- 120.00	100.00
$ 11 Decachlorobiphenyl					CAS #: 2051-24-3		
6.751	6.751	0.000	20133459	0.00000	80.1	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.822	2.822	0.000	5764684	1000.00	1020	80.00- 120.00	100.00
3.141	3.140	0.001	13623298	1000.00	1010	216.32- 256.32	236.32
3.329	3.328	0.001	4677833	1000.00	966	61.15- 101.15	81.15
3.491	3.491	0.000	16438710	1000.00	1010	265.16- 305.16	285.16
3.591	3.590	0.001	9669194	1000.00	1000	147.73- 187.73	167.73
Average of Peak Amounts =					1e+03		
7 Aroclor-1260					CAS #: 11096-82-5		
4.846	4.846	0.000	17182454	1000.00	1070	80.00- 120.00	100.00
4.991	4.993	-0.002	19687770	1000.00	1070	94.58- 134.58	114.58
5.246	5.246	0.000	25479889	1000.00	1040	128.29- 168.29	148.29
5.516	5.515	0.001	13803361	1000.00	1020	60.33- 100.33	80.33
5.689	5.690	-0.001	28039263	1000.00	1030	143.19- 183.19	163.19
Average of Peak Amounts =					1.05e+03		

Data File: /chem/ecd2a.i/051305.b/031b3101.d
Date : 13-MAY-2005 13:49
Client ID: AR166005
Sample Info: WAR050511-13605

Column phase: CLP2

Instrument: ecd2a.i
Operator: JMWL
Column diameter: 0.25

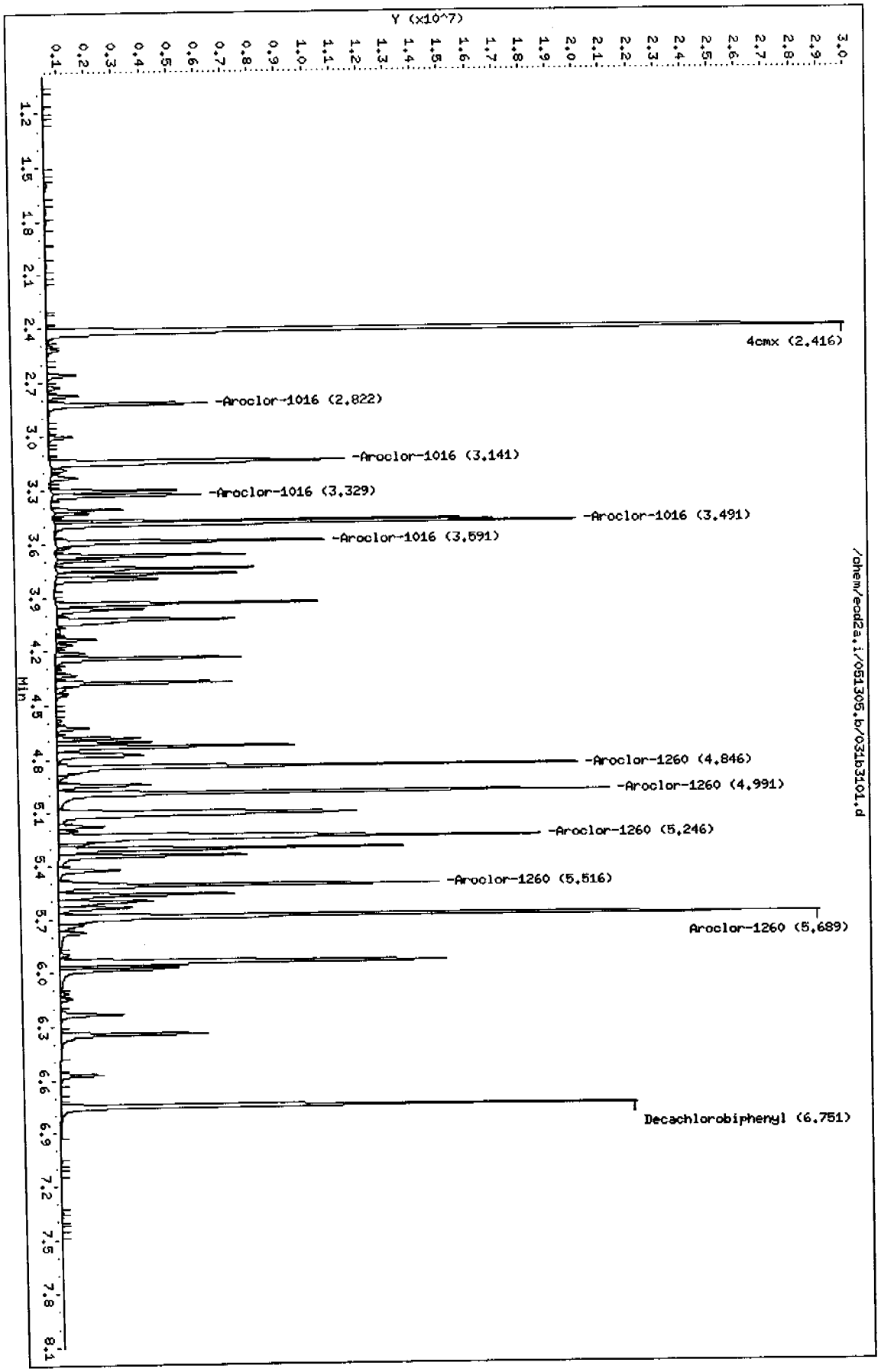

General Engineering Laboratories, LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/051305.b/038f3801.d
Lab Smp Id: WAR050511-13606 Client Smp ID: AR166006
Inj Date : 13-MAY-2005 15:12
Operator : JMW1 Inst ID: ecd2a.i
Smp Info : |WAR050511-13606
Misc Info :
Comment :
Method : /chem/ecd2a.i/051305.b/ECD2-F-8082-051105.m
Meth Date : 20-May-2005 14:17 jar00935 Quant Type: ESTD
Cal Date : 13-MAY-2005 08:58 Cal File: 010f1001.d
Als bottle: 38 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 10 4cmx					CAS #: 877-09-8		
2.021	2.019	0.002	21411690	0.00000	97.6	80.00- 120.00	100.00
$ 11 Decachlorobiphenyl					CAS #: 2051-24-3		
5.950	5.950	0.000	12767645	0.00000	96.5	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.565	2.564	0.001	7167615	1000.00	1090	80.00- 120.00	100.00
2.905	2.904	0.001	9970972	1000.00	1060	117.04- 157.04	139.11
3.001	2.999	0.002	5851881	1000.00	1010	61.23- 101.23	81.64
3.045	3.044	0.001	3540892	1000.00	989	28.60- 68.60	49.40
3.137	3.136	0.001	3068603	1000.00	975	22.41- 62.41	42.81
Average of Peak Amounts =					1.02e+03		
7 Aroclor-1260					CAS #: 11096-82-5		
4.158	4.158	0.000	8647716	1000.00	904	80.00- 120.00	100.00
4.352	4.354	-0.002	13014927	1000.00	988	131.30- 171.30	150.50
4.545	4.547	-0.002	14266221	1000.00	926	133.42- 173.42	164.97
4.793	4.795	-0.002	6946285	1000.00	941	58.17- 98.17	80.33
5.008	5.009	-0.001	15253684	1000.00	823	149.08- 189.08	176.39
Average of Peak Amounts =					916		

Data File: /chem/ecd2a.i/051305.b/038f3801.d
Date : 13-MAY-2005 15:12
Client ID: AR166006
Sample Info: IWAR050511-13606

Column phase: CLP1

Instrument: ecd2a.i

Operator: JMW1
Column diameter: 0.25

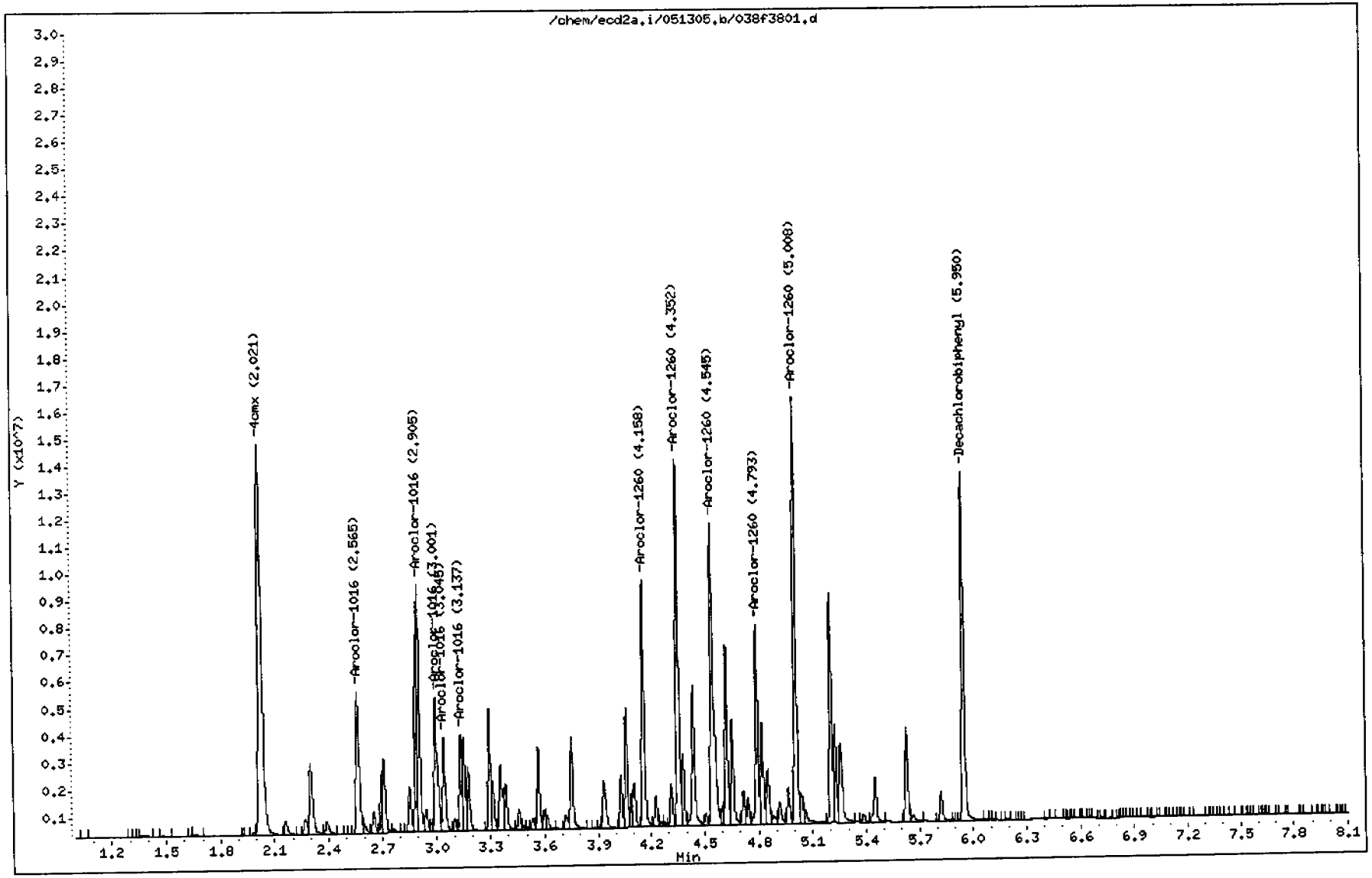

General Engineering Laboratories, LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/051305.b/038b3801.d
Lab Smp Id: WAR050511-13 606 Client Smp ID: AR166006
Inj Date : 13-MAY-2005 15:12
Operator : JMW1 Inst ID: ecd2a.i
Smp Info : |WAR050511-13 606
Misc Info :
Comment :
Method : /chem/ecd2a.i/051305.b/ECD2-B-8082-051105.m
Meth Date : 20-May-2005 14:19 jar00935 Quant Type: ESTD
Cal Date : 13-MAY-2005 08:58 Cal File: 010b1001.d
Als bottle: 38 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 10 4cmx					CAS #: 877-09-8		
2.416	2.416	0.000	45033056	0.00000	104	80.00- 120.00	100.00
$ 11 Decachlorobiphenyl					CAS #: 2051-24-3		
6.751	6.751	0.000	20763120	0.00000	82.6	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.823	2.822	0.001	5859711	1000.00	1040	80.00- 120.00	100.00
3.141	3.140	0.001	13965291	1000.00	1030	216.43- 256.43	238.33
3.328	3.328	0.000	4913004	1000.00	1010	62.39- 102.39	83.84
3.492	3.491	0.001	17794338	1000.00	1100	268.06- 308.06	303.67
3.591	3.590	0.001	10313126	1000.00	1070	153.48- 193.48	176.00
Average of Peak Amounts =					1.05e+03		
7 Aroclor-1260					CAS #: 11096-82-5		
4.845	4.846	-0.001	15948414	1000.00	992	80.00- 120.00	100.00
4.992	4.993	-0.001	19262028	1000.00	1050	99.88- 139.88	120.78
5.245	5.246	-0.001	26136601	1000.00	1060	95.70- 135.70	163.88
5.515	5.515	0.000	13732520	1000.00	1020	55.49- 95.49	86.11
5.689	5.690	-0.001	27718079	1000.00	1020	153.48- 193.48	173.80
Average of Peak Amounts =					1.03e+03		

Data File: /chem/ecd2a.i/051305.b/038b3801.d
Date : 13-MAY-2005 15:12
Client ID: AR166006
Sample Info: IWAR050511-13 606

Instrument: ecd2a.i

Operator: JMW1
Column diameter: 0.25

Column phase: CLP2

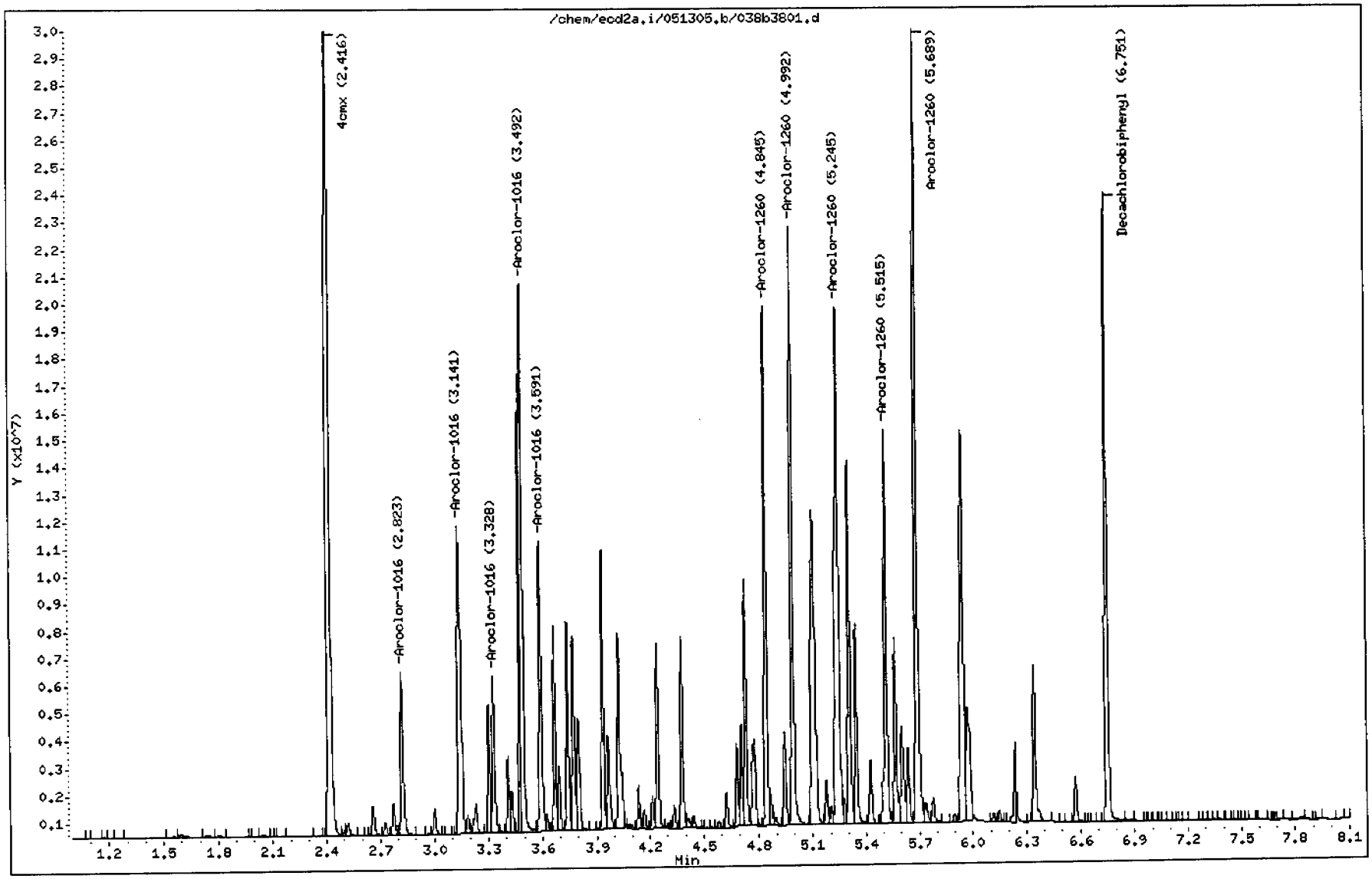

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RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/051305.b/051f5101.d
Lab Smp Id: WAR050511-13 60 Client Smp ID: AR1660
Inj Date : 13-MAY-2005 17:37
Operator : JMW1 Inst ID: ecd2a.i
Smp Info : |WAR050511-13 60
Misc Info :
Comment :
Method : /chem/ecd2a.i/051305.b/ECD2-F-8082-051105.m
Meth Date : 20-May-2005 15:31 jar00935 Quant Type: ESTD
Cal Date : 13-MAY-2005 08:58 Cal File: 010f1001.d
Als bottle: 51 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 10 4cmx					CAS #: 877-09-8		
2.022	2.019	0.003	21625212	0.00000	98.6	80.00- 120.00	100.00
$ 11 Decachlorobiphenyl					CAS #: 2051-24-3		
5.952	5.950	0.002	10032425	0.00000	75.0	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.565	2.564	0.001	7190302	1000.00	1100	80.00- 120.00	100.00
2.905	2.904	0.001	9297516	1000.00	982	109.31- 149.31	129.31
3.001	2.999	0.002	5913752	1000.00	1020	62.25- 102.25	82.25
3.046	3.044	0.002	3540583	1000.00	989	29.24- 69.24	49.24
3.137	3.136	0.001	3145385	1000.00	1000	23.74- 63.74	43.74
Average of Peak Amounts =					1.02e+03		
7 Aroclor-1260					CAS #: 11096-82-5		
4.157	4.158	-0.001	7740294	1000.00	809	80.00- 120.00	100.00
4.352	4.354	-0.002	11630735	1000.00	883	130.26- 170.26	150.26
4.545	4.547	-0.002	12562485	1000.00	815	142.30- 182.30	162.30
4.794	4.795	-0.001	6218902	1000.00	843	60.34- 100.34	80.34
5.009	5.009	0.000	13848330	1000.00	747	158.91- 198.91	178.91
Average of Peak Amounts =					819		

Data File: /chem/ecd2a.i/051305.b/051f5101.d
Date : 13-MAY-2005 17:37
Client ID: AR1660
Sample Info: IWAR050511-13 60

Column phase: CLP1

Instrument: ecd2a.i

Operator: JMW1
Column diameter: 0.25

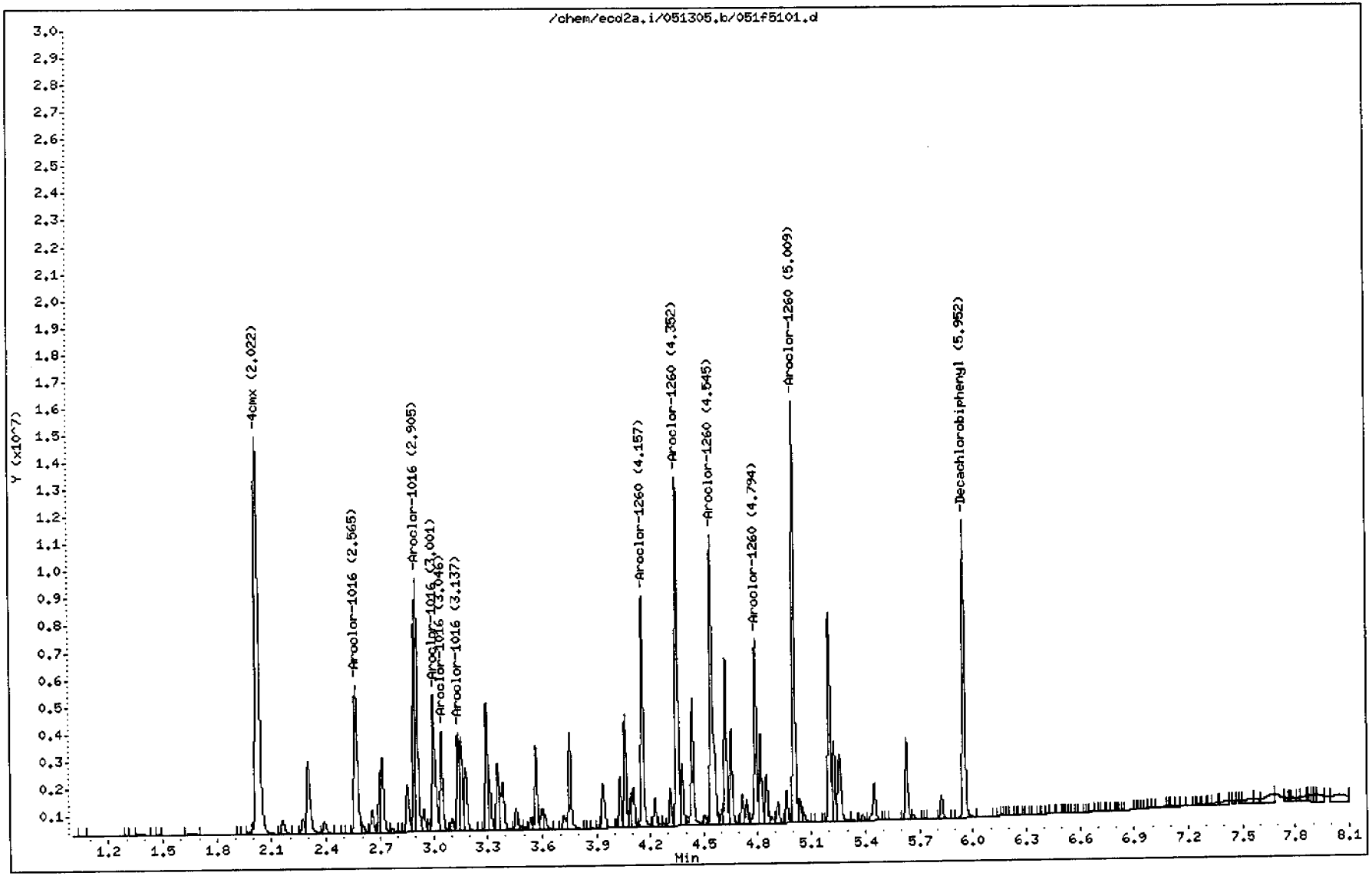

General Engineering Laboratories, LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/051305.b/051b5101.d
Lab Smp Id: WAR050511-13 60 Client Smp ID: AR1660
Inj Date : 13-MAY-2005 17:37
Operator : JMW1 Inst ID: ecd2a.i
Smp Info : |WAR050511-13 60
Misc Info :
Comment :
Method : /chem/ecd2a.i/051205.b/ECD2-B-8082-051105.m
Meth Date : 20-May-2005 15:31 jar00935 Quant Type: ESTD
Cal Date : 11-MAY-2005 12:42 Cal File: 018b1801.d
Als bottle: 51 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 10 4cmx					CAS #: 877-09-8		
2.417	2.415	0.002	45008337	100.000	104	80.00- 120.00	100.00
$ 11 Decachlorobiphenyl					CAS #: 2051-24-3		
6.753	6.753	0.000	17481408	100.000	69.5	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.823	2.822	0.001	5880595	1000.00	1040	80.00- 120.00	100.00
3.141	3.140	0.001	13909311	1000.00	1030	216.53- 256.53	236.53
3.330	3.328	0.002	4901119	1000.00	1010	63.34- 103.34	83.34
3.493	3.491	0.002	17431844	1000.00	1070	276.43- 316.43	296.43
3.591	3.590	0.001	10394631	1000.00	1080	156.76- 196.76	176.76
Average of Peak Amounts =					1.05e+03		
7 Aroclor-1260					CAS #: 11096-82-5		
4.847	4.847	0.000	15036697	1000.00	935	80.00- 120.00	100.00
4.994	4.994	0.000	18250292	1000.00	994	101.37- 141.37	121.37
5.246	5.248	-0.002	18183802	1000.00	739	100.93- 140.93	120.93
5.516	5.517	-0.001	11622809	1000.00	863	57.30- 97.30	77.30
5.690	5.689	0.001	26225830	1000.00	962	154.41- 194.41	174.41
Average of Peak Amounts =					899		

Data File: /chem/ecd2a.i/051305.b/051b5101.d
Date : 13-MAY-2005 17:37
Client ID: AR1660
Sample Info: IWAR050511-13 60

Instrument: ecd2a.i

Operator: JMW1
Column diameter: 0.25

Column phase: CLP2

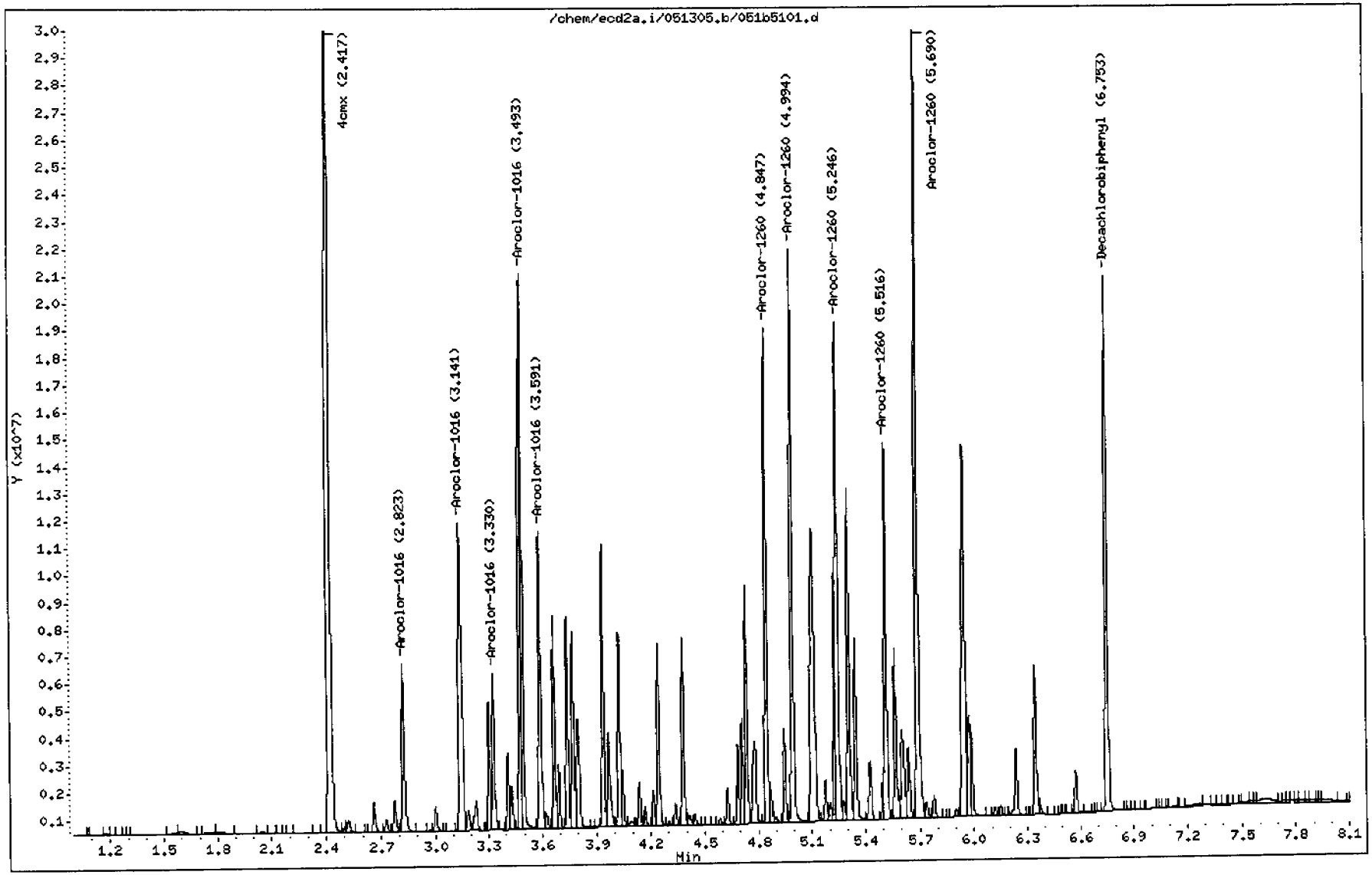

General Engineering Laboratories, LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/051305.b/062f6201.d
Lab Smp Id: WAR050511-13 607 Client Smp ID: AR166007
Inj Date : 13-MAY-2005 19:40
Operator : JMW1 Inst ID: ecd2a.i
Smp Info : |WAR050511-13 607
Misc Info :
Comment :
Method : /chem/ecd2a.i/051305.b/ECD2-F-8082-051105.m
Meth Date : 20-May-2005 14:17 jar00935 Quant Type: ESTD
Cal Date : 13-MAY-2005 08:58 Cal File: 010f1001.d
Als bottle: 62 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 10 4cmx					CAS #: 877-09-8		
2.025	2.019	0.006	21819672	0.00000	99.4	80.00- 120.00	100.00
$ 11 Decachlorobiphenyl					CAS #: 2051-24-3		
5.951	5.950	0.001	9780861	0.00000	73.0	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.566	2.564	0.002	7172821	1000.00	1090	80.00- 120.00	100.00
2.906	2.904	0.002	9829560	1000.00	1040	117.04- 157.04	137.04
3.001	2.999	0.002	5826208	1000.00	1000	61.23- 101.23	81.23
3.046	3.044	0.002	3485918	1000.00	973	28.60- 68.60	48.60
3.139	3.136	0.003	3041900	1000.00	966	22.41- 62.41	42.41
Average of Peak Amounts =					1.02e+03		
7 Aroclor-1260					CAS #: 11096-82-5		
4.158	4.158	0.000	7874534	1000.00	823	80.00- 120.00	100.00
4.352	4.354	-0.002	11914467	1000.00	904	131.30- 171.30	151.30
4.545	4.547	-0.002	12080823	1000.00	784	133.42- 173.42	153.42
4.793	4.795	-0.002	6155757	1000.00	834	58.17- 98.17	78.17
5.008	5.009	-0.001	13314120	1000.00	718	149.08- 189.08	169.08
Average of Peak Amounts =					813		

Data File: /chem/ecd2a.i/051305.b/062f6201.d

Date : 13-MAY-2005 19:40

Client ID: AR166007

Sample Info: IWAR050511-13 607

Column phase: CLP1

Instrument: ecd2a.i

Operator: JMW1

Column diameter: 0.25

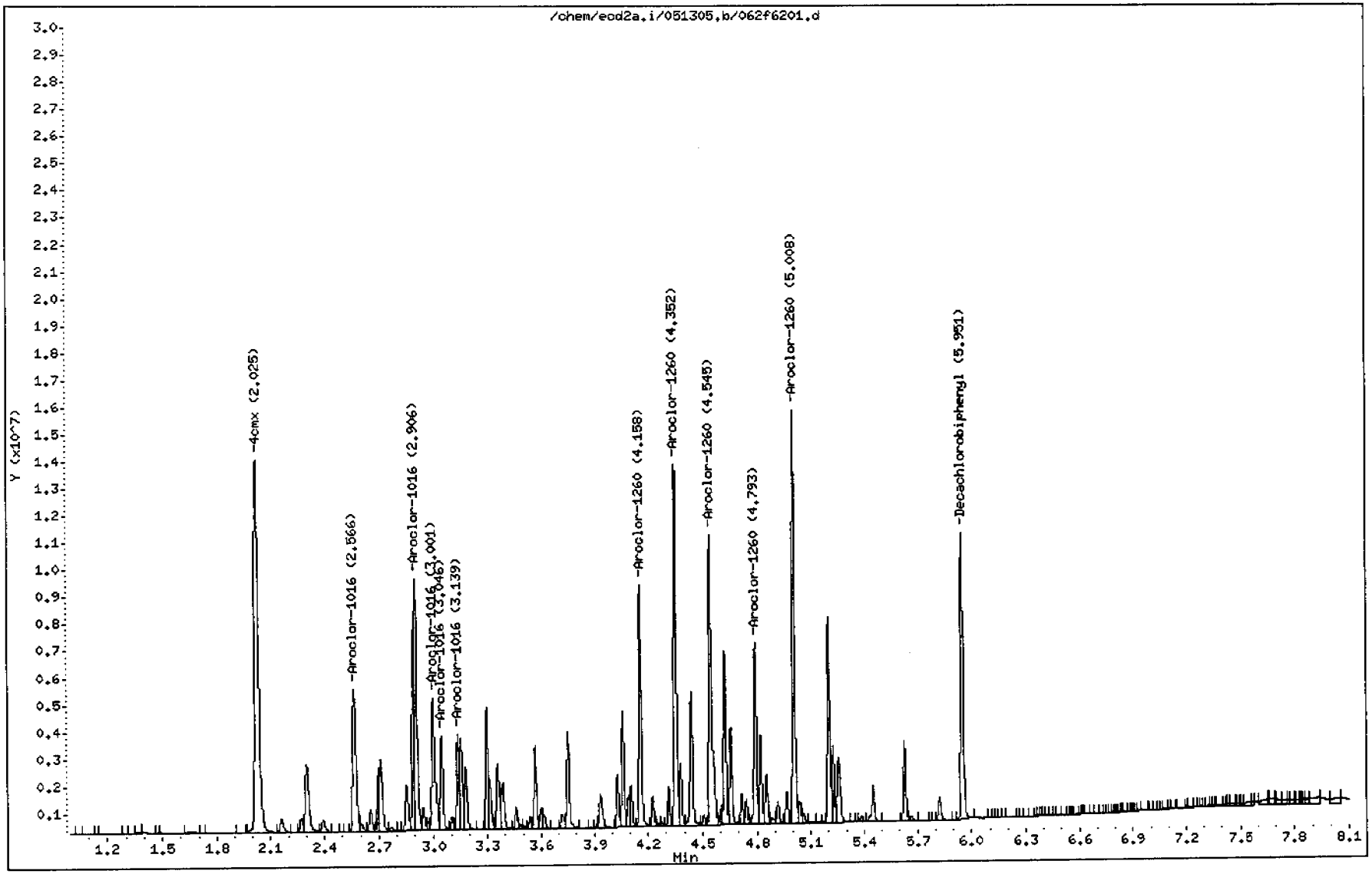

General Engineering Laboratories, LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/051305.b/062b6201.d
Lab Smp Id: WAR050511-13 607 Client Smp ID: AR166007
Inj Date : 13-MAY-2005 19:40
Operator : JMW1 Inst ID: ecd2a.i
Smp Info : |WAR050511-13 607
Misc Info :
Comment :
Method : /chem/ecd2a.i/051305.b/ECD2-B-8082-051105.m
Meth Date : 20-May-2005 14:19 jar00935 Quant Type: ESTD
Cal Date : 13-MAY-2005 08:58 Cal File: 010b1001.d
Als bottle: 62 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 10 4cmx					CAS #: 877-09-8		
2.419	2.416	0.003	44905844	0.00000	104	80.00- 120.00	100.00
$ 11 Decachlorobiphenyl					CAS #: 2051-24-3		
6.753	6.751	0.002	16547864	0.00000	65.8	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.824	2.822	0.002	5792864	1000.00	1020	80.00- 120.00	100.00
3.142	3.140	0.002	13696020	1000.00	1010	216.43- 256.43	236.43
3.330	3.328	0.002	4772558	1000.00	986	62.39- 102.39	82.39
3.494	3.491	0.003	16686782	1000.00	1030	268.06- 308.06	288.06
3.593	3.590	0.003	10049363	1000.00	1040	153.48- 193.48	173.48
Average of Peak Amounts =					1.02e+03		
7 Aroclor-1260					CAS #: 11096-82-5		
4.847	4.846	0.001	14078373	1000.00	876	80.00- 120.00	100.00
4.994	4.993	0.001	16877220	1000.00	920	99.88- 139.88	119.88
5.247	5.246	0.001	16288772	1000.00	662	95.70- 135.70	115.70
5.517	5.515	0.002	10628156	1000.00	790	55.49- 95.49	75.49
5.690	5.690	0.000	24423370	1000.00	896	153.48- 193.48	173.48
Average of Peak Amounts =					829		

Data File: /chem/ecd2a.i/051305.b/062b6201.d

Date : 13-MAY-2005 19:40

Client ID: AR166007

Sample Info: IWAR050511-13 607

Column phase: CLP2

Instrument: ecd2a.i

Operator: JMW1

Column diameter: 0.25

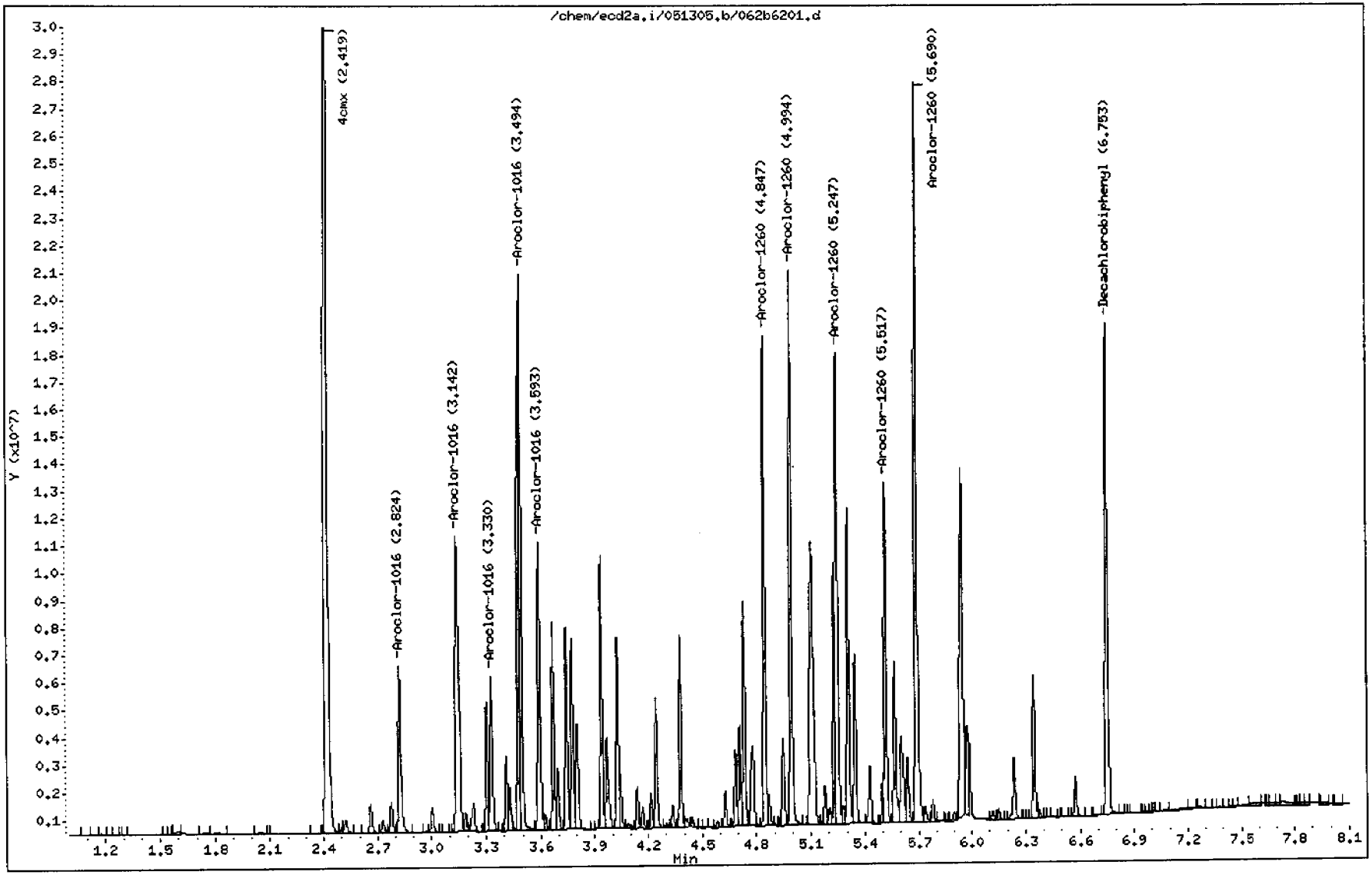

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 05/11/05 05/11/05

Instrument ID: ECD2A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.02 DCB: 5.96

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	ZZZZZ	ZZZZZ	05/11/05	0932	2.01	5.96
02	AR166001	WAR050511-04	05/11/05	0942	2.02	5.96
03	AR166002	WAR050511-03	05/11/05	0954	2.02	5.96
04	AR166003	WAR050511-02	05/11/05	1005	2.02	5.96
05	AR166004	WAR050511-01	05/11/05	1016	2.02	5.96
06	AR166005	IAR050321-01	05/11/05	1027	2.02	5.95
07	AR166001	WAR050511-13	05/11/05	1038	2.02	5.96
08	AR125401	WAR050511-08	05/11/05	1050	2.02	5.96
09	AR125402	WAR050511-07	05/11/05	1101	2.02	5.96
10	AR125403	WAR050511-06	05/11/05	1112	2.02	5.96
11	AR125404	WAR050511-05	05/11/05	1123	2.02	5.96
12	AR125405	IAR050328-01	05/11/05	1134	2.02	5.96
13	AR125401	WAR050415-05	05/11/05	1146	2.02	5.96
14	AR124201	WAR050511-12	05/11/05	1157	2.02	5.96
15	AR124202	WAR050511-11	05/11/05	1208	2.02	5.96
16	AR124203	WAR050511-10	05/11/05	1219	2.02	5.96
17	AR124204	WAR050511-09	05/11/05	1231	2.02	5.96
18	AR124205	IAR050331-01	05/11/05	1242	2.02	5.96
19	AR124201	WAR050323-01	05/11/05	1253	2.02	5.96
20	AR128201	WAR050504-01	05/11/05	1304	2.02	5.95
21	AR126201	WAR050412-02	05/11/05	1315	2.02	5.96
22	AR123201	WAR050401-05	05/11/05	1327	2.02	5.96
23	AR122101	WAR050328-05	05/11/05	1338	2.02	5.96
24	AR126801	WAR050322-10	05/11/05	1349	2.02	5.95
25	ZZZZZ	ZZZZZ	05/11/05	1400	2.02	5.96
26	ZZZZZ	ZZZZZ	05/11/05	1411	2.02	5.95
27	ZZZZZ	ZZZZZ	05/11/05	1423	2.02	5.95
28	ZZZZZ	ZZZZZ	05/11/05	1434	2.02	5.95
29	ZZZZZ	ZZZZZ	05/11/05	1445	2.02	5.95
30	ZZZZZ	ZZZZZ	05/11/05	1456	2.02	5.95
31	ZZZZZ	ZZZZZ	05/11/05	1507	2.02	5.95
32	AR166002	WAR050511-13	05/11/05	1519	2.02	5.95

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 05/11/05 05/11/05

Instrument ID: ECD2A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.42 DCB: 6.75

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	ZZZZZ	ZZZZZ	05/11/05	0932	2.41	6.75
02	AR166001	WAR050511-04	05/11/05	0942	2.41	6.75
03	AR166002	WAR050511-03	05/11/05	0954	2.41	6.75
04	AR166003	WAR050511-02	05/11/05	1005	2.41	6.75
05	AR166004	WAR050511-01	05/11/05	1016	2.42	6.75
06	AR166005	IAR050321-01	05/11/05	1027	2.42	6.75
07	AR166001	WAR050511-13	05/11/05	1038	2.42	6.75
08	AR125401	WAR050511-08	05/11/05	1050	2.42	6.75
09	AR125402	WAR050511-07	05/11/05	1101	2.42	6.75
10	AR125403	WAR050511-06	05/11/05	1112	2.42	6.75
11	AR125404	WAR050511-05	05/11/05	1123	2.42	6.75
12	AR125405	IAR050328-01	05/11/05	1134	2.42	6.75
13	AR125401	WAR050415-05	05/11/05	1146	2.41	6.75
14	AR124201	WAR050511-12	05/11/05	1157	2.42	6.75
15	AR124202	WAR050511-11	05/11/05	1208	2.42	6.75
16	AR124203	WAR050511-10	05/11/05	1219	2.42	6.75
17	AR124204	WAR050511-09	05/11/05	1231	2.42	6.75
18	AR124205	IAR050331-01	05/11/05	1242	2.42	6.75
19	AR124201	WAR050323-01	05/11/05	1253	2.41	6.75
20	AR124801	WAR050504-01	05/11/05	1304	2.42	6.75
21	AR126201	WAR050412-02	05/11/05	1315	2.42	6.75
22	AR123201	WAR050401-05	05/11/05	1327	2.41	6.75
23	AR122101	WAR050328-05	05/11/05	1338	2.42	6.75
24	AR126801	WAR050322-10	05/11/05	1349	2.42	6.75
25	ZZZZZ	ZZZZZ	05/11/05	1400	2.41	6.75
26	ZZZZZ	ZZZZZ	05/11/05	1411	2.42	6.75
27	ZZZZZ	ZZZZZ	05/11/05	1423	2.42	6.75
28	ZZZZZ	ZZZZZ	05/11/05	1434	2.42	6.75
29	ZZZZZ	ZZZZZ	05/11/05	1445	2.42	6.75
30	ZZZZZ	ZZZZZ	05/11/05	1456	2.42	6.75
31	ZZZZZ	ZZZZZ	05/11/05	1507	2.41	6.75
32	AR166002	WAR050511-13	05/11/05	1519	2.42	6.75

QC LIMITS
S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 05/12/05 05/12/05

Instrument ID: ECD2A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.02 DCB: 5.95

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	ZZZZZ	ZZZZZ	05/12/05	0644	2.02	5.95
02	ZZZZZ	ZZZZZ	05/12/05	0655	2.02	5.95
03	AR125401	WAR050415-05	05/12/05	0706	2.02	5.95
04	AR124201	WAR050323-01	05/12/05	0718	2.02	5.95
05	AR166001	WAR050512-04	05/12/05	0729	2.02	5.96
06	AR166002	WAR050512-03	05/12/05	0740	2.02	5.95
07	AR166003	WAR050505-02	05/12/05	0751	2.02	5.95
08	AR166004	WAR050512-01	05/12/05	0803	2.02	5.95
09	AR166005	IAR050321-04	05/12/05	0814	2.02	5.95
10	AR166001	WAR050511-13	05/12/05	0825	2.02	5.95
11	AR124801	WAR050504-01	05/12/05	0836	2.02	5.95
12	AR126201	WAR050412-02	05/12/05	0847	2.02	5.95
13	AR123201	WAR050401-05	05/12/05	0859	2.02	5.95
14	AR122101	WAR050328-05	05/12/05	0910	2.02	5.95
15	AR126801	WAR050322-10	05/12/05	0921	2.02	5.95
16	ZZZZZ	ZZZZZ	05/12/05	0932	2.02	5.95
17	ZZZZZ	ZZZZZ	05/12/05	0943	2.02	5.95
18	ZZZZZ	ZZZZZ	05/12/05	0955	2.02	5.95
19	ZZZZZ	ZZZZZ	05/12/05	1006	2.02	5.95
20	ZZZZZ	ZZZZZ	05/12/05	1017	2.02	5.95
21	ZZZZZ	ZZZZZ	05/12/05	1028	2.02	5.95
22	ZZZZZ	ZZZZZ	05/12/05	1039	2.02	5.95
23	ZZZZZ	ZZZZZ	05/12/05	1051	2.02	5.95
24	ZZZZZ	ZZZZZ	05/12/05	1102	2.02	5.95
25	ZZZZZ	ZZZZZ	05/12/05	1113	2.02	5.95
26	AR166002	WAR050511-13	05/12/05	1124	2.02	5.95
27	PIBLK03	WAR050413-10	05/12/05	1135	2.02	5.95
28	ZZZZZ	ZZZZZ	05/12/05	1147	2.02	5.95
29	ZZZZZ	ZZZZZ	05/12/05	1158	2.02	5.95
30	ZZZZZ	ZZZZZ	05/12/05	1209	2.02	5.95
31	ZZZZZ	ZZZZZ	05/12/05	1220	2.02	5.95
32	ZZZZZ	ZZZZZ	05/12/05	1231	2.02	5.95

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 05/12/05 05/12/05

Instrument ID: ECD2A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.42 DCB: 6.75

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	ZZZZZ	ZZZZZ	05/12/05	0644	2.42	6.75
02	ZZZZZ	ZZZZZ	05/12/05	0655	2.42	6.75
03	AR125401	WAR050415-05	05/12/05	0706	2.41	6.75
04	AR124201	WAR050323-01	05/12/05	0718	2.42	6.75
05	AR166001	WAR050512-04	05/12/05	0729	2.42	6.75
06	AR166001	WAR050512-03	05/12/05	0740	2.42	6.75
07	AR166003	WAR050505-02	05/12/05	0751	2.41	6.75
08	AR166004	WAR050512-01	05/12/05	0803	2.42	6.75
09	AR166005	IAR050321-04	05/12/05	0814	2.42	6.75
10	AR166001	WAR050511-13	05/12/05	0825	2.42	6.75
11	AR124801	WAR050504-01	05/12/05	0836	2.42	6.75
12	AR126201	WAR050412-02	05/12/05	0847	2.41	6.75
13	AR123201	WAR050401-05	05/12/05	0859	2.41	6.75
14	AR122101	WAR050328-05	05/12/05	0910	2.42	6.75
15	AR126801	WAR050322-10	05/12/05	0921	2.41	6.75
16	ZZZZZ	ZZZZZ	05/12/05	0932	2.42	6.75
17	ZZZZZ	ZZZZZ	05/12/05	0943	2.42	6.75
18	ZZZZZ	ZZZZZ	05/12/05	0955	2.42	6.75
19	ZZZZZ	ZZZZZ	05/12/05	1006	2.41	6.75
20	ZZZZZ	ZZZZZ	05/12/05	1017	2.42	6.75
21	ZZZZZ	ZZZZZ	05/12/05	1028	2.42	6.75
22	ZZZZZ	ZZZZZ	05/12/05	1039	2.42	6.75
23	ZZZZZ	ZZZZZ	05/12/05	1051	2.42	6.75
24	ZZZZZ	ZZZZZ	05/12/05	1102	2.41	6.75
25	ZZZZZ	ZZZZZ	05/12/05	1113	2.41	6.75
26	AR166002	WAR050511-13	05/12/05	1124	2.42	6.75
27	ZZZZZ	ZZZZZ	05/12/05	1135	2.42	6.75
28	ZZZZZ	ZZZZZ	05/12/05	1147	2.42	6.75
29	ZZZZZ	ZZZZZ	05/12/05	1158	2.42	6.75
30	ZZZZZ	ZZZZZ	05/12/05	1209	2.41	6.75
31	ZZZZZ	ZZZZZ	05/12/05	1220	2.41	6.75
32	ZZZZZ	ZZZZZ	05/12/05	1231	2.42	6.75

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 05/11/05 05/12/05

Instrument ID: ECD2A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.02 DCB: 5.95

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	ZZZZZ	ZZZZZ	05/13/05	0717	2.02	5.95
02	AR166001	WAR051105-13	05/13/05	0728	2.02	5.95
03	AR125401	WAR050415-05	05/13/05	0739	2.02	5.95
04	AR124201	WAR050323-01	05/13/05	0751	2.02	5.95
05	AR124801	WAR050504-01	05/13/05	0802	2.02	5.95
06	AR126201	WAR050412-02	05/13/05	0813	2.02	5.95
07	AR124202	WAR050323-01	05/13/05	0824	2.02	5.95
08	AR123201	WAR050401-05	05/13/05	0836	2.02	5.95
09	AR122101	WAR050328-05	05/13/05	0847	2.02	5.95
10	AR126801	WAR050322-10	05/13/05	0858	2.02	5.95
11	ZZZZZ	ZZZZZ	05/13/05	0909	2.02	5.95
12	ZZZZZ	ZZZZZ	05/13/05	0920	2.02	5.95
13	ZZZZZ	ZZZZZ	05/13/05	0932	2.02	5.95
14	ZZZZZ	ZZZZZ	05/13/05	0943	2.03	6.01*
15	ZZZZZ	ZZZZZ	05/13/05	0954	2.03	6.01*
16	ZZZZZ	ZZZZZ	05/13/05	1005	2.03	6.01*
17	ZZZZZ	ZZZZZ	05/13/05	1016	2.02	5.95
18	AR166001	WAR050511-13	05/13/05	1028	2.02	5.95
19	ZZZZZ	ZZZZZ	05/13/05	1039	2.02	5.95
20	AR166003	WAR050511-13	05/13/05	1112	2.02	5.95
21	ZZZZZ	ZZZZZ	05/13/05	1123	2.02	5.95
22	ZZZZZ	ZZZZZ	05/13/05	1134	2.02	5.95
23	ZZZZZ	ZZZZZ	05/13/05	1146	2.02	5.95
24	ZZZZZ	ZZZZZ	05/13/05	1157	2.03	
25	ZZZZZ	ZZZZZ	05/13/05	1208	2.03	
26	ZZZZZ	ZZZZZ	05/13/05	1219	2.02	5.95
27	ZZZZZ	ZZZZZ	05/13/05	1235	2.02	
28	ZZZZZ	ZZZZZ	05/13/05	1246	2.02	5.95
29	AR166004	WAR050511-13	05/13/05	1258	2.02	5.95
30	ZZZZZ	ZZZZZ	05/13/05	1309	2.02	5.95
31	AR166005	WAR050511-13	05/13/05	1349	2.02	5.95
32	ZZZZZ	ZZZZZ	05/13/05	1400	2.02	5.95

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 05/11/05 05/12/05

Instrument ID: ECD2A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.02 DCB: 5.95

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PBLK01	1200840306	05/13/05	1416	2.01	5.95
02	PBLK01LCS	1200840307	05/13/05	1427	2.02	5.95
03	ZZZZZ	ZZZZZ	05/13/05	1438	2.02	5.95
04	ZZZZZ	ZZZZZ	05/13/05	1450	2.02	5.95
05	ZZZZZ	ZZZZZ	05/13/05	1501	2.02	5.95
06	AR166006	WAR050511-13	05/13/05	1512	2.02	5.95
07	ZZZZZ	ZZZZZ	05/13/05	1523	2.02	5.95
08	ZZZZZ	ZZZZZ	05/13/05	1534	2.04	5.94
09	ZZZZZ	ZZZZZ	05/13/05	1546	2.03	5.97
10	ZZZZZ	ZZZZZ	05/13/05	1557	2.02	5.95
11	ZZZZZ	ZZZZZ	05/13/05	1608	2.02	5.97
12	ZZZZZ	ZZZZZ	05/13/05	1619	2.03	5.98
13	ZZZZZ	ZZZZZ	05/13/05	1630	2.02	5.95
14	ZZZZZ	ZZZZZ	05/13/05	1641	2.03	6.03*
15	ZZZZZ	ZZZZZ	05/13/05	1653	2.02	5.98
16	ZZZZZ	ZZZZZ	05/13/05	1704	2.02	5.95
17	ZZZZZ	ZZZZZ	05/13/05	1715	2.02	5.96
18	ZZZZZ	ZZZZZ	05/13/05	1726	2.02	5.95
19	AR1660	WAR050511-13	05/13/05	1737	2.02	5.95
20	ZZZZZ	ZZZZZ	05/13/05	1749	2.03	5.95
21	ZZZZZ	ZZZZZ	05/13/05	1800	2.03	5.96
22	ZZZZZ	ZZZZZ	05/13/05	1811	2.03	6.36*
23	ZZZZZ	ZZZZZ	05/13/05	1822	2.02	5.96
24	RE03-05-59531	135805001	05/13/05	1833	2.03	5.95
25	RE03-05-59531MS	1200840308	05/13/05	1845	2.02	5.95
26	RE03-05-59531MSD	1200840309	05/13/05	1856	2.03	5.95
27	RE03-05-59541	135805002	05/13/05	1907	2.03	5.96
28	RE03-05-59532	135805003	05/13/05	1918	2.02	5.96
29	RE03-05-59542	135805004	05/13/05	1929	2.02	5.96
30	AR166007	WAR050511-13	05/13/05	1940	2.02	5.95
31	ZZZZZ	ZZZZZ	05/13/05	1952	2.02	5.95
32						

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 05/11/05 05/12/05

Instrument ID: ECD2A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.42 DCB: 6.75

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	ZZZZZ	ZZZZZ	05/13/05	0717	2.41	6.75
02	AR166001	WAR051105-13	05/13/05	0728	2.42	6.75
03	AR125401	WAR050415-05	05/13/05	0739	2.42	6.75
04	AR124201	WAR050323-01	05/13/05	0751	2.41	6.75
05	AR124801	WAR050504-01	05/13/05	0802	2.41	6.75
06	AR126201	WAR050412-02	05/13/05	0813	2.42	6.75
07	AR124202	WAR050323-01	05/13/05	0824	2.41	6.75
08	AR123201	WAR050401-05	05/13/05	0836	2.41	6.75
09	AR122101	WAR050328-05	05/13/05	0847	2.41	6.75
10	AR126801	WAR050322-10	05/13/05	0858	2.41	6.75
11	ZZZZZ	ZZZZZ	05/13/05	0909	2.41	6.75
12	ZZZZZ	ZZZZZ	05/13/05	0920	2.41	6.75
13	ZZZZZ	ZZZZZ	05/13/05	0932	2.41	6.75
14	ZZZZZ	ZZZZZ	05/13/05	0943	2.42	6.79*
15	ZZZZZ	ZZZZZ	05/13/05	0954	2.42	6.79*
16	ZZZZZ	ZZZZZ	05/13/05	1005	2.42	6.79*
17	ZZZZZ	ZZZZZ	05/13/05	1016	2.42	6.75
18	AR166001	WAR050511-13	05/13/05	1028	2.42	6.75
19	ZZZZZ	ZZZZZ	05/13/05	1039	2.42	6.75
20	AR166003	WAR050511-13	05/13/05	1112	2.42	6.75
21	ZZZZZ	ZZZZZ	05/13/05	1123	2.42	6.75
22	ZZZZZ	ZZZZZ	05/13/05	1134	2.42	6.75
23	ZZZZZ	ZZZZZ	05/13/05	1146	2.42	6.75
24	ZZZZZ	ZZZZZ	05/13/05	1157	2.42	
25	ZZZZZ	ZZZZZ	05/13/05	1208	2.42	
26	ZZZZZ	ZZZZZ	05/13/05	1219	2.42	6.75
27	ZZZZZ	ZZZZZ	05/13/05	1235	2.42	
28	ZZZZZ	ZZZZZ	05/13/05	1246	2.42	6.75
29	AR166004	WAR050511-13	05/13/05	1258	2.42	6.75
30	ZZZZZ	ZZZZZ	05/13/05	1309	2.42	6.75
31	AR166005	WAR050511-13	05/13/05	1349	2.42	6.75
32	ZZZZZ	ZZZZZ	05/13/05	1400	2.42	6.75

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 05/11/05 05/12/05

Instrument ID: ECD2A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.42 DCB: 6.75

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PBLK01	1200840306	05/13/05	1416	2.41	6.75
02	PBLK01LCS	1200840307	05/13/05	1427	2.42	6.75
03	ZZZZZ	ZZZZZ	05/13/05	1438	2.42	6.75
04	ZZZZZ	ZZZZZ	05/13/05	1450	2.42	6.75
05	ZZZZZ	ZZZZZ	05/13/05	1501	2.42	6.75
06	AR166006	WAR050511-13	05/13/05	1512	2.42	6.75
07	ZZZZZ	ZZZZZ	05/13/05	1523	2.42	6.75
08	ZZZZZ	ZZZZZ	05/13/05	1534	2.43	6.73
09	ZZZZZ	ZZZZZ	05/13/05	1546	2.42	6.84*
10	ZZZZZ	ZZZZZ	05/13/05	1557	2.42	6.75
11	ZZZZZ	ZZZZZ	05/13/05	1608	2.42	6.77
12	ZZZZZ	ZZZZZ	05/13/05	1619	2.42	6.77
13	ZZZZZ	ZZZZZ	05/13/05	1630	2.42	6.75
14	ZZZZZ	ZZZZZ	05/13/05	1641	2.42	6.80*
15	ZZZZZ	ZZZZZ	05/13/05	1653	2.42	6.77
16	ZZZZZ	ZZZZZ	05/13/05	1704	2.42	6.75
17	ZZZZZ	ZZZZZ	05/13/05	1715	2.42	6.76
18	ZZZZZ	ZZZZZ	05/13/05	1726	2.42	6.75
19	AR1660	WAR050511-13	05/13/05	1737	2.42	6.75
20	ZZZZZ	ZZZZZ	05/13/05	1749	2.42	6.75
21	ZZZZZ	ZZZZZ	05/13/05	1800	2.42	6.76
22	ZZZZZ	ZZZZZ	05/13/05	1811	2.43	6.73
23	ZZZZZ	ZZZZZ	05/13/05	1822	2.42	6.76
24	RE03-05-59531	135805001	05/13/05	1833	2.42	6.75
25	RE03-05-59531MS	1200840308	05/13/05	1845	2.42	6.75
26	RE03-05-59531MSD	1200840309	05/13/05	1856	2.42	6.75
27	RE03-05-59541	135805002	05/13/05	1907	2.42	6.76
28	RE03-05-59532	135805003	05/13/05	1918	2.42	6.76
29	RE03-05-59542	135805004	05/13/05	1929	2.42	6.76
30	AR166007	WAR050511-13	05/13/05	1940	2.42	6.75
31	ZZZZZ	ZZZZZ	05/13/05	1952	2.42	6.75
32						

QC LIMITS
S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

10B
PCB IDENTIFICATION SUMMARY
FOR MULTICOMPONENT ANALYTES

EPA SAMPLE NO.

PBLK01LCS

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

Lab Sample ID: 1200840307 Date(s) Analyzed: 05/13/05 05/13/05

Instrument ID (1): ECD2A Instrument ID (2): ECD2A

GC Column(1): CLP1 ID: 0.25(mm) GC Column(2): CLP2 ID: 0.25(mm)

ANALYTE	PEAK	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	MEAN CONCENTRATION	RPD
Aroclor-1016 COLUMN 1	1	2.56	2.53	2.59	28.0		
	2	2.90	2.87	2.93	26.6		
	3	3.00	2.97	3.03	26.1		
	4	3.04	3.01	3.07	25.4		
	5	3.14	3.11	3.17	26.7	26.6	
COLUMN 2	1	2.82	2.79	2.85	29.1		
	2	3.14	3.11	3.17	27.2		
	3	3.33	3.30	3.36	26.7		
	4	3.49	3.46	3.52	28.8		
	5	3.59	3.56	3.62	29.0	28.2	5.8
Aroclor-1260 COLUMN 1	1	4.16	4.13	4.19	25.3		
	2	4.35	4.32	4.38	27.0		
	3	4.54	4.52	4.58	25.9		
	4	4.79	4.77	4.83	28.2		
	5	5.01	4.98	5.04	25.9	26.5	
COLUMN 2	1	4.85	4.82	4.88	28.2		
	2	4.99	4.96	5.02	30.4		
	3	5.25	5.22	5.28	22.0		
	4	5.51	5.48	5.54	27.1		
	5	5.69	5.66	5.72	30.0	27.5	3.7
COLUMN 1	1						
	2						
	3						
	4						
	5						
COLUMN 2	1						
	2						
	3						
	4						
	5						

At least 3 peaks for each column are required for identification o: multicomponent analytes.

10B
PCB IDENTIFICATION SUMMARY
FOR MULTICOMPONENT ANALYTES

EPA SAMPLE NO.

RE03-05-59531

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

Lab Sample ID: 135805001 Date(s) Analyzed: 05/13/05 05/13/05

Instrument ID (1): ECD2A Instrument ID (2): ECD2A

GC Column(1): CLP1 ID: 0.25(mm) GC Column(2): CLP2 ID: 0.25(mm)

ANALYTE	PEAK	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	MEAN CONCENTRATION	RPD
Aroclor-1254 COLUMN 1	1	3.14	3.11	3.17	13.1		
	2	3.75	3.72	3.78	17.5		
	3	3.94	3.92	3.98	17.1		
	4	4.22	4.20	4.26	14.1		
	5					15.4	
COLUMN 2	1	4.24	4.21	4.27	16.6		
	2	4.38	4.35	4.41	18.6		
	3	4.63	4.60	4.66	20.1		
	4						
	5					18.4	17.8
_____ COLUMN 1	1						
	2						
	3						
	4						
	5						
COLUMN 2	1						
	2						
	3						
	4						
	5						
_____ COLUMN 1	1						
	2						
	3						
	4						
	5						
COLUMN 2	1						
	2						
	3						
	4						
	5						

At least 3 peaks for each column are required for identification o: multicomponent analytes.

10B
PCB IDENTIFICATION SUMMARY
FOR MULTICOMPONENT ANALYTES

EPA SAMPLE NO.

RE03-05-59531MS

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

Lab Sample ID: 1200840308 Date(s) Analyzed: 05/13/05 05/13/05

Instrument ID (1): ECD2A Instrument ID (2): ECD2A

GC Column(1): CLP1 ID: 0.25(mm) GC Column(2): CLP2 ID: 0.25(mm)

ANALYTE	PEAK	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	MEAN CONCENTRATION	RPD
Aroclor-1254 COLUMN 1	1	3.14	3.11	3.17	24.5		
	2	3.75	3.72	3.78	29.2		
	3	3.94	3.92	3.98	26.3		
	4	4.22	4.20	4.26	17.4		
	5					24.4	
COLUMN 2	1	4.24	4.21	4.27	32.6		
	2	4.38	4.35	4.41	33.1		
	3	4.63	4.60	4.66	25.9		
	4						
	5					30.5	22.2
Aroclor-1260 COLUMN 1	1	4.16	4.13	4.19	42.3		
	2	4.79	4.77	4.83	33.3		
	3	5.01	4.98	5.04	24.4		
	4						
	5					33.3	
COLUMN 2	1	4.85	4.82	4.88	50.0		
	2	5.51	5.48	5.54	28.3		
	3	5.69	5.66	5.72	32.8		
	4						
	5					37.0	10.5
COLUMN 1	1						
	2						
	3						
	4						
	5						
COLUMN 2	1						
	2						
	3						
	4						
	5						

At least 3 peaks for each column are required for identification o: multicomponent analytes.

10B
PCB IDENTIFICATION SUMMARY
FOR MULTICOMPONENT ANALYTES

EPA SAMPLE NO.

RE03-05-
59531MSD

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

Lab Sample ID: 1200840309 Date(s) Analyzed: 05/13/05 05/13/05

Instrument ID (1): ECD2A Instrument ID (2): ECD2A

GC Column(1): CLP1 ID: 0.25(mm) GC Column(2): CLP2 ID: 0.25(mm)

ANALYTE	PEAK	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	MEAN CONCENTRATION	RPD
Aroclor-1254 COLUMN 1	1	3.14	3.11	3.17	26.8		
	2	3.75	3.72	3.78	27.0		
	3	3.94	3.92	3.98	22.8		
	4	4.22	4.20	4.26	12.9		
	5					22.4	
COLUMN 2	1	4.24	4.21	4.27	31.1		
	2	4.38	4.35	4.41	33.4		
	3	4.63	4.60	4.66	24.9		
	4						
	5					29.8	28.4
Aroclor-1260 COLUMN 1	1	4.16	4.13	4.19	37.7		
	2	4.79	4.77	4.83	31.2		
	3	5.01	4.98	5.04	22.3		
	4						
	5					30.4	
COLUMN 2	1	5.25	5.22	5.28	42.5		
	2	5.52	5.48	5.54	26.6		
	3	5.69	5.66	5.72	31.3		
	4						
	5					33.5	9.7
COLUMN 1	1						
	2						
	3						
	4						
	5						
COLUMN 2	1						
	2						
	3						
	4						
	5						

At least 3 peaks for each column are required for identification o: multicomponent analytes.

10B
PCB IDENTIFICATION SUMMARY
FOR MULTICOMPONENT ANALYTES

EPA SAMPLE NO.

RE03-05-59541

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

Lab Sample ID: 135805002 Date(s) Analyzed: 05/13/05 05/13/05

Instrument ID (1): ECD2A Instrument ID (2): ECD2A

GC Column(1): CLP1 ID: 0.25(mm) GC Column(2): CLP2 ID: 0.25(mm)

ANALYTE	PEAK	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	MEAN CONCENTRATION	RPD
	1	3.75	3.72	3.78	1.6		
Aroclor-1254	2	3.94	3.92	3.98	1.8		
	3	4.22	4.20	4.26	1.3		
COLUMN 1	4						
	5					1.6	
	1	4.24	4.21	4.27	2.5		
	2	4.38	4.35	4.41	2.3		
	3	4.63	4.60	4.66	2.7		
COLUMN 2	4						
	5					2.5	43.9
	1	4.16	4.13	4.19	1.7		
Aroclor-1260	2	4.79	4.77	4.83	1.3		
	3	5.01	4.98	5.04	0.86		
COLUMN 1	4						
	5					1.3	
	1	4.99	4.96	5.02	1.8		
	2	5.52	5.48	5.54	1.1		
	3	5.69	5.66	5.72	1.1		
COLUMN 2	4						
	5					1.3	0.0
	1						
	2						
	3						
COLUMN 1	4						
	5						
	1						
	2						
	3						
COLUMN 2	4						
	5						

At least 3 peaks for each column are required for identification o: multicomponent analytes.

10B
PCB IDENTIFICATION SUMMARY
FOR MULTICOMPONENT ANALYTES

EPA SAMPLE NO.

RE03-05-59542

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

Lab Sample ID: 135805004 Date(s) Analyzed: 05/13/05 05/13/05

Instrument ID (1): ECD2A Instrument ID (2): ECD2A

GC Column(1): CLP1 ID: 0.25(mm) GC Column(2): CLP2 ID: 0.25(mm)

ANALYTE	PEAK	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	MEAN CONCENTRATION	RPD
Aroclor-1254 COLUMN 1	1	3.75	3.72	3.78	1.7		
	2	3.95	3.92	3.98	2.1		
	3	4.23	4.20	4.26	1.4		
	4						
	5					1.7	
COLUMN 2	1	4.25	4.21	4.27	2.2		
	2	4.38	4.35	4.41	2.1		
	3	4.63	4.60	4.66	2.8		
	4						
	5					2.4	34.1
Aroclor-1260 COLUMN 1	1	4.16	4.13	4.19	1.6		
	2	4.79	4.77	4.83	1.8		
	3	5.01	4.98	5.04	0.86		
	4						
	5					1.4	
COLUMN 2	1	4.99	4.96	5.02	1.8		
	2	5.52	5.48	5.54	0.97		
	3	5.69	5.66	5.72	0.85		
	4						
	5					1.2	15.4
COLUMN 1	1						
	2						
	3						
	4						
	5						
COLUMN 2	1						
	2						
	3						
	4						
	5						

At least 3 peaks for each column are required for identification o: multicomponent analytes.

QUALITY CONTROL DATA

1D
PCB ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PBLK01

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

Matrix: (soil/water) SOIL Lab Sample ID: 1200840306

Sample wt/vol: 30.0 (g/mL) G Lab File ID: 033F3301-2

% Moisture: 0 decanted: (Y/N) N Date Received: 05/11/05

Extraction: (SepF/Cont/Sonc) SONC Date Extracted:05/11/05

Concentrated Extract Volume: 1.00(mL) Date Analyzed: 05/13/05

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
12674-11-2	Aroclor-1016	3.3	U
11104-28-2	Aroclor-1221	3.3	U
11141-16-5	Aroclor-1232	3.3	U
53469-21-9	Aroclor-1242	3.3	U
12672-29-6	Aroclor-1248	3.3	U
11097-69-1	Aroclor-1254	3.3	U
11096-82-5	Aroclor-1260	3.3	U

General Engineering Laboratories, LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/051305.b/033f3301-2.d
Lab Smp Id: 1200840306 Client Smp ID: PBLK01
Inj Date : 13-MAY-2005 14:16
Operator : JMW1 Inst ID: ecd2a.i
Smp Info : |1200840306|1
Misc Info : |ECD82P_1S|422957|SVA|MB|
Comment :
Method : /chem/ecd2a.i/051305.b/ECD2-F-8082-051105.m
Meth Date : 16-May-2005 15:18 yip00818 Quant Type: ESTD
Cal Date : 13-MAY-2005 08:58 Cal File: 010f1001.d
Als bottle: 33 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 3194S.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 10 4cmx					CAS #: 877-09-8		
2.013	2.019	-0.006	34395161	156.781	5.2	80.00- 120.00	100.00
$ 11 Decachlorobiphenyl					CAS #: 2051-24-3		
5.953	5.950	0.003	22566630	173.562	5.8	80.00- 120.00	100.00

Data File: /chem/ecd2a.i/051305.b/033f3301-2.d
Date : 13-MAY-2005 14:16
Client ID: PBLK01
Sample Info: I120084030614
Volume Injected (uL): 1.0
Column Phase: CLP1

Instrument: ecd2a.i
Operator: JMM1
Column diameter: 0.25

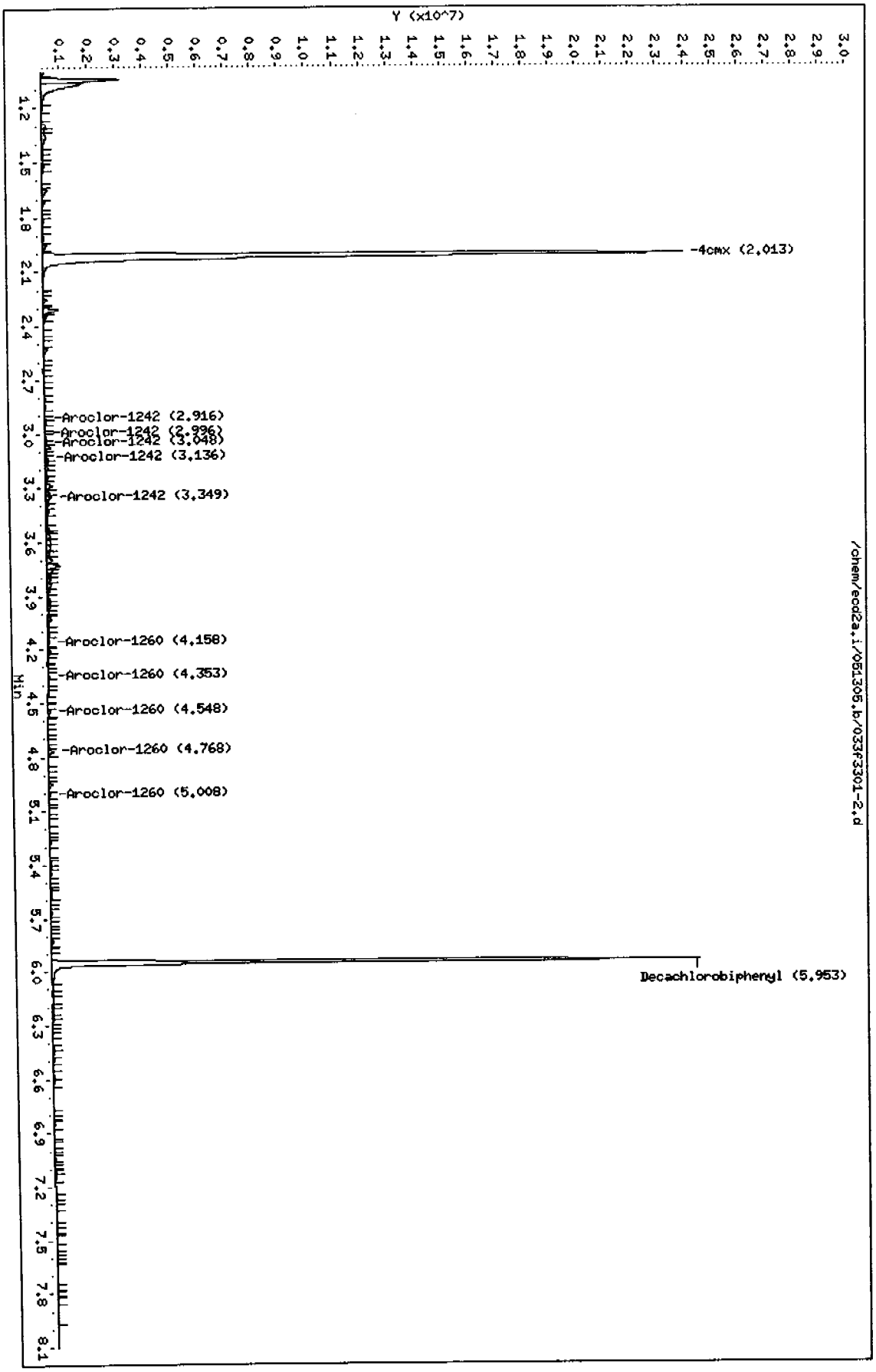

Page 1

General Engineering Laboratories, LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/051305.b/033b3301-2.d
Lab Smp Id: 1200840306 Client Smp ID: PBLK01
Inj Date : 13-MAY-2005 14:16
Operator : JMW1 Inst ID: ecd2a.i
Smp Info : |1200840306|1
Misc Info : |ECD82P_1S|422957|SVA|MB|
Comment :
Method : /chem/ecd2a.i/051305.b/ECD2-B-8082-051105.m
Meth Date : 16-May-2005 14:27 yip00818 Quant Type: ESTD
Cal Date : 13-MAY-2005 08:58 Cal File: 010b1001.d
Als bottle: 33 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 3194S.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 10 4cmx					CAS #: 877-09-8		
2.410	2.416	-0.006	73417799	169.372	5.6	80.00- 120.00	100.00
$ 11 Decachlorobiphenyl					CAS #: 2051-24-3		
6.753	6.751	0.002	39928807	158.829	5.3	80.00- 120.00	100.00

Data File: /chem/ecd2a.i/051305.b/033b3301-2.d
Date : 13-MAY-2005 14:16
Client ID: PBLK01
Sample Info: 1120084030611
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd2a.i

Operator: JHW1
Column diameter: 0.25

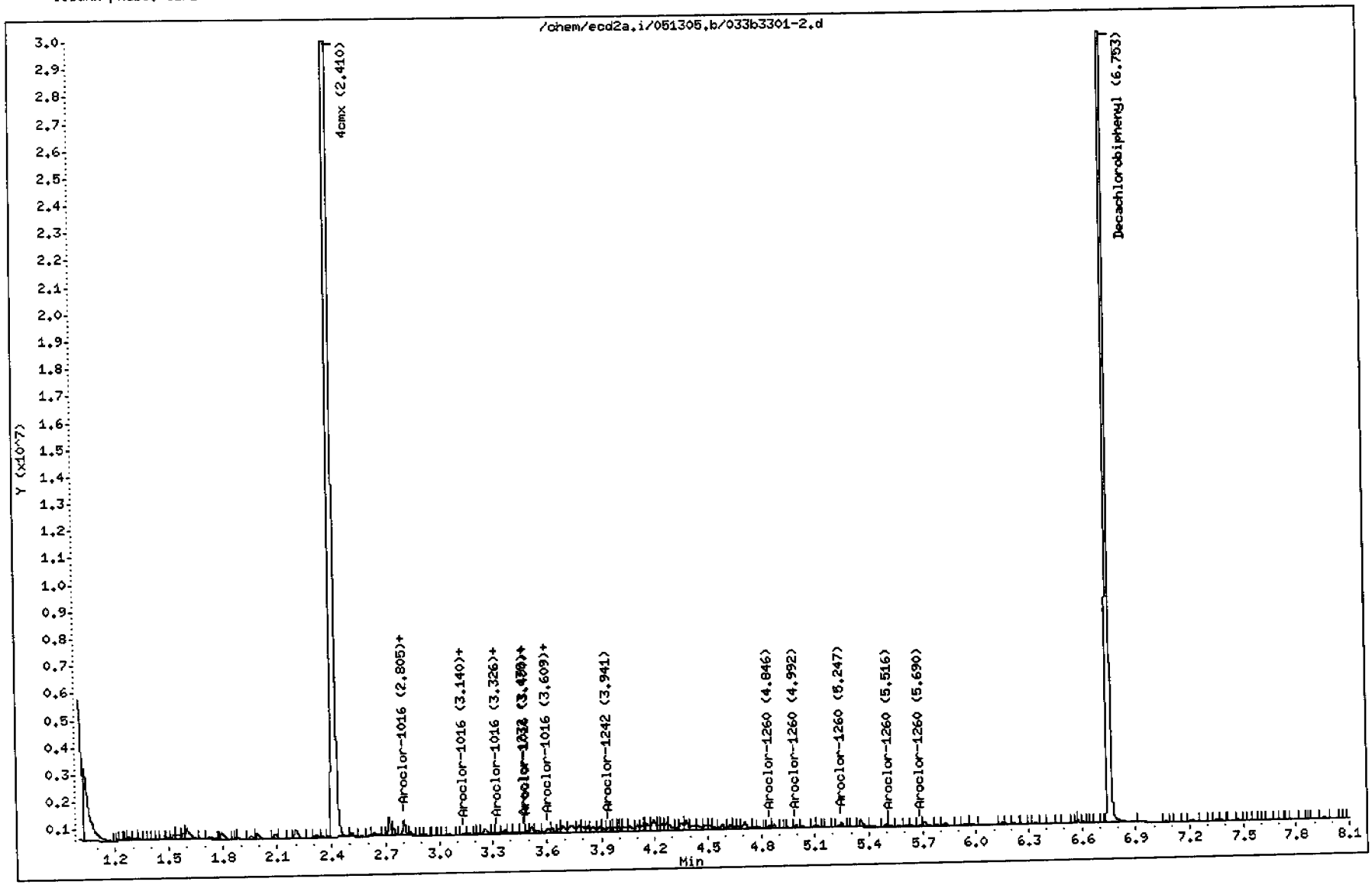

1D
PCB ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PBLK01LCS

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

Matrix: (soil/water) SOIL Lab Sample ID: 1200840307

Sample wt/vol: 30.0 (g/mL) G Lab File ID: 034F3401-2

% Moisture: 0 decanted: (Y/N) N Date Received: 05/11/05

Extraction: (SepF/Cont/Sonc) SONC Date Extracted:05/11/05

Concentrated Extract Volume: 1.00(mL) Date Analyzed: 05/13/05

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
12674-11-2	Aroclor-1016	28.2	
11104-28-2	Aroclor-1221	3.3	U
11141-16-5	Aroclor-1232	3.3	U
53469-21-9	Aroclor-1242	3.3	U
12672-29-6	Aroclor-1248	3.3	U
11097-69-1	Aroclor-1254	3.3	U
11096-82-5	Aroclor-1260	27.5	

FORM I PEST OLM03.0

General Engineering Laboratories, LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/051305.b/034f3401-2.d
Lab Smp Id: 1200840307 Client Smp ID: PBLK01LCS
Inj Date : 13-MAY-2005 14:27
Operator : JMW1 Inst ID: ecd2a.i
Smp Info : |1200840307|1
Misc Info : |ECD82P_1S|422957|SVA|LCS|
Comment :
Method : /chem/ecd2a.i/051305.b/ECD2-F-8082-051105.m
Meth Date : 17-May-2005 16:09 yip00818 Quant Type: ESTD
Cal Date : 13-MAY-2005 08:58 Cal File: 010f1001.d
Als bottle: 34 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 3194S.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 10 4cmx					CAS #: 877-09-8		
2.020	2.019	0.001	31832324	145.099	4.8	80.00- 120.00	100.00
$ 11 Decachlorobiphenyl					CAS #: 2051-24-3		
5.950	5.950	0.000	21271206	163.378	5.4	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.564	2.564	0.000	5664588	839.569	28.0	80.00- 120.00	100.00
2.905	2.904	0.001	7668870	799.597	26.6	110.76- 150.76	135.38
3.000	2.999	0.001	4619064	782.437	26.1	58.79- 98.79	81.54
3.045	3.044	0.001	2762843	761.406	25.4	27.11- 67.11	48.77

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
1 Aroclor-1016 (continued)							
3.137	3.136	0.001	2542958	800.737	26.7	20.16- 60.16	44.89
Average of Peak Concentrations =					26.6		
7 Aroclor-1260					CAS #: 11096-82-5		
4.157	4.158	-0.001	7263266	759.187	25.3	80.00- 120.00	100.00(M)
4.352	4.354	-0.002	10689263	811.346	27.0	122.78- 162.78	147.17
4.545	4.547	-0.002	11993608	778.363	25.9	135.71- 175.71	165.13
4.793	4.795	-0.002	6245998	846.286	28.2	47.57- 87.57	85.99
5.007	5.009	-0.002	14421040	778.009	25.9	139.99- 179.99	198.55
Average of Peak Concentrations =					26.5		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd2a.i/051305.b/034f3401-2.d
Date : 13-MAY-2005 14:27
Client ID: PBLK01LCS
Sample Info: 1120084030711
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecd2a.i
Operator: JMW1
Column diameter: 0.25

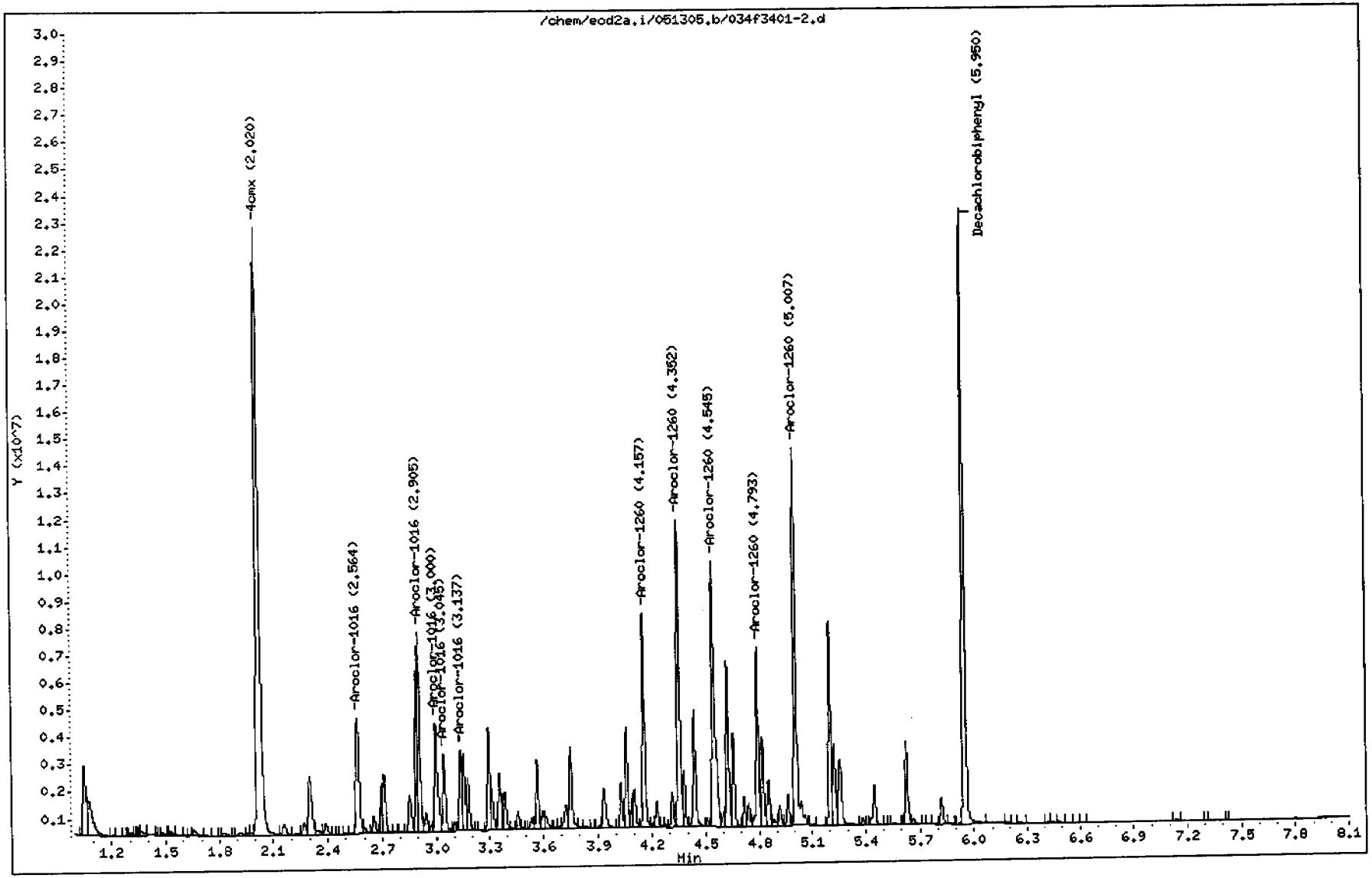

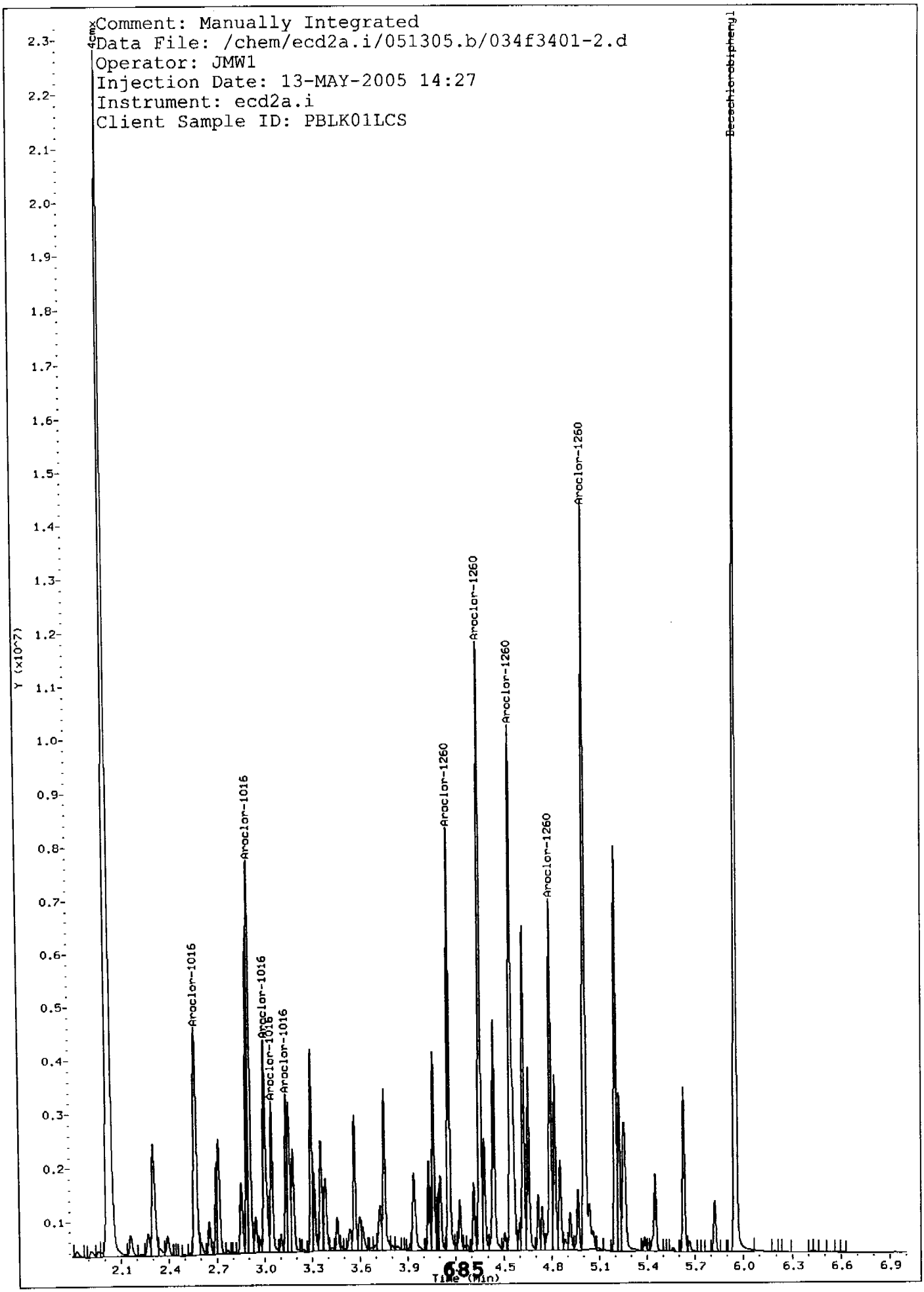
Comment: Manually Integrated
Data File: /chem/ecd2a.i/051305.b/034f3401-2.d
Operator: JMW1
Injection Date: 13-MAY-2005 14:27
Instrument: ecd2a.i
Client Sample ID: PBLK01LCS
4cmx
Decachlorobiphenyl
Aroclor-1016
Aroclor-1260
Y (x10^7)
Time (Min)

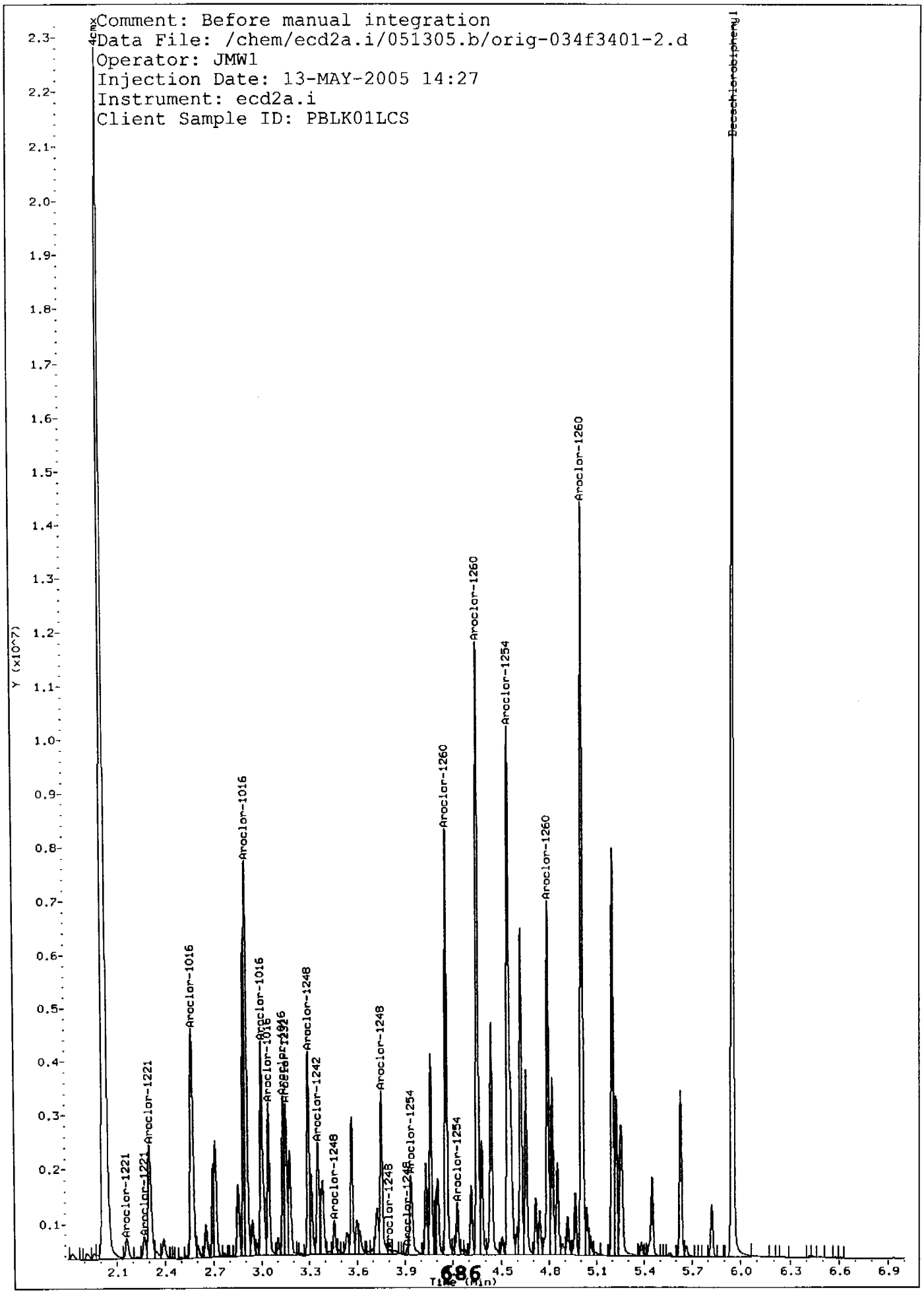
Comment: Before manual integration
Data File: /chem/ecd2a.i/051305.b/orig-034f3401-2.d
Operator: JMW1
Injection Date: 13-MAY-2005 14:27
Instrument: ecd2a.i
Client Sample ID: PBLK01LCS
Decachlorobiphenyl
Aroclor-1260
Aroclor-1254
Aroclor-1248
Aroclor-1242
Aroclor-1221
Aroclor-1016
Y (x10^7)
Time (min)

General Engineering Laboratories, LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/051305.b/034b3401-2.d
Lab Smp Id: 1200840307 Client Smp ID: PBLK01LCS
Inj Date : 13-MAY-2005 14:27
Operator : JMW1 Inst ID: ecd2a.i
Smp Info : |1200840307|1
Misc Info : |ECD82P_1S|422957|SVA|LCS|
Comment :
Method : /chem/ecd2a.i/051305.b/ECD2-B-8082-051105.m
Meth Date : 17-May-2005 16:08 yip00818 Quant Type: ESTD
Cal Date : 13-MAY-2005 08:58 Cal File: 010b1001.d
Als bottle: 34 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 3194S.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 10 4cmx					CAS #: 877-09-8		
2.416	2.416	0.000	67624626	156.007	5.2	80.00- 120.00	100.00
$ 11 Decachlorobiphenyl					CAS #: 2051-24-3		
6.751	6.751	0.000	36956550	147.006	4.9	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.822	2.822	0.000	4942290	873.490	29.1	80.00- 120.00	100.00
3.140	3.140	0.000	11040172	817.495	27.2	217.88- 257.88	223.38
3.329	3.328	0.001	3881171	801.638	26.7	63.77- 103.77	78.53
3.491	3.491	0.000	14012738	862.976	28.8	281.10- 321.10	283.53

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
1 Aroclor-1016 (continued)							
3.591	3.590	0.001	8410573	871.237	29.0	155.33- 195.33	170.18
Average of Peak Concentrations =					28.2		
7 Aroclor-1260					CAS #: 11096-82-5		
4.845	4.846	-0.001	13624805	847.358	28.2	80.00- 120.00	100.00
4.991	4.993	-0.002	16721521	911.162	30.4	93.58- 133.58	122.73
5.245	5.246	-0.001	16222952	659.530	22.0	91.12- 131.12	119.07
5.515	5.515	0.000	10959766	814.181	27.1	59.79- 99.79	80.44
5.688	5.690	-0.002	24523214	899.576	30.0	142.65- 182.65	179.99
Average of Peak Concentrations =					27.5		

Data File: /chem/ecd2a.i/051305.b/034b3401-2.d
Date : 13-MAY-2005 14:27
Client ID: PBLK01LCS
Sample Info: 1120084030711
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd2a.i
Operator: JMW1
Column diameter: 0.25

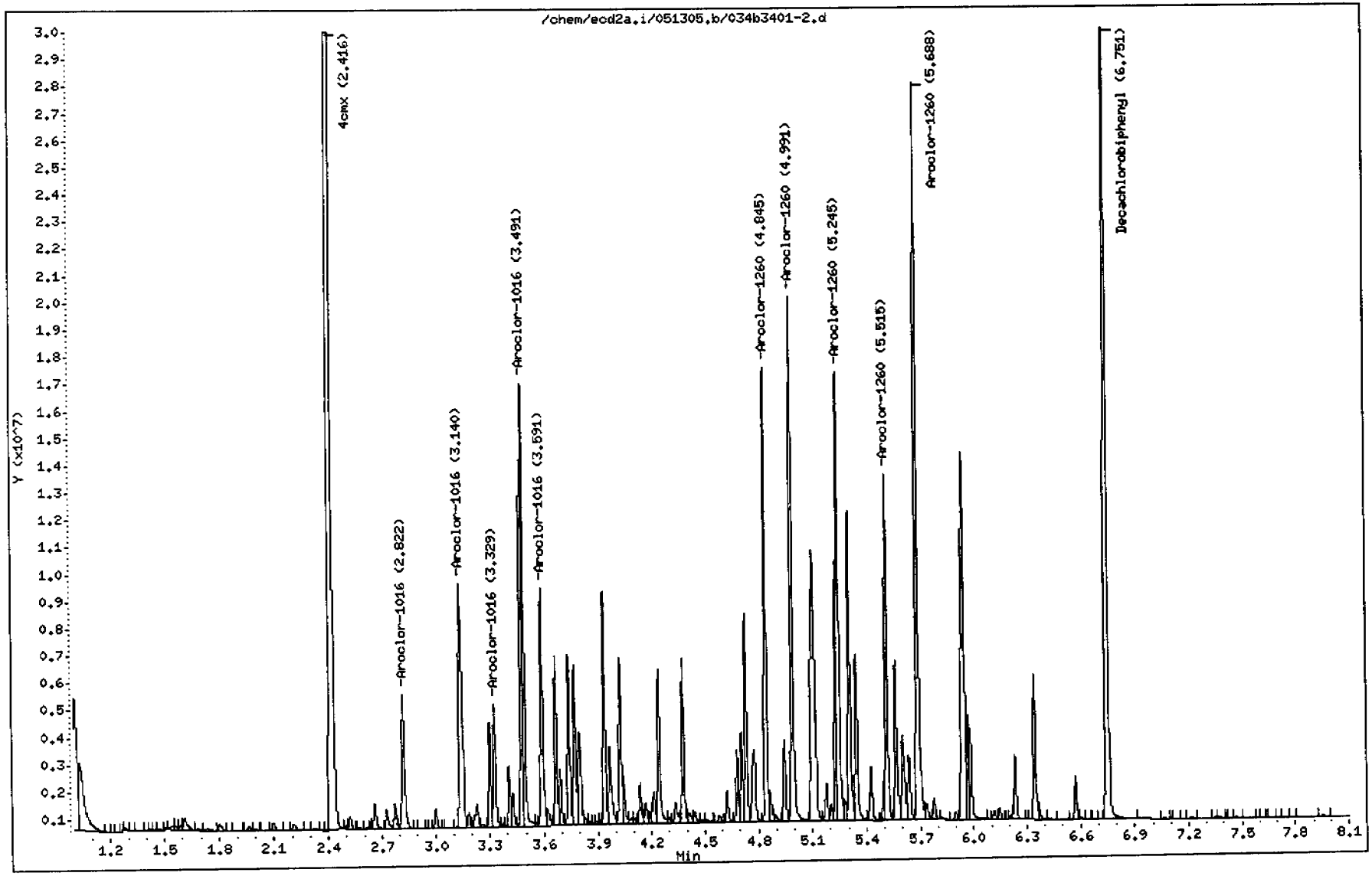

1D
PCB ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-59531MS

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

Matrix: (soil/water) SOIL Lab Sample ID: 1200840308

Sample wt/vol: 30.0 (g/mL) G Lab File ID: 057F5701

% Moisture: 16 decanted: (Y/N) N Date Received: 05/04/05

Extraction: (SepF/Cont/Sonc) SONC Date Extracted:05/11/05

Concentrated Extract Volume: 1.00(mL) Date Analyzed: 05/13/05

Injection Volume: 1.0(uL) Dilution Factor: 10.0

GPC Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
12674-11-2	Aroclor-1016	39.6	U
11104-28-2	Aroclor-1221	39.6	U
11141-16-5	Aroclor-1232	39.6	U
53469-21-9	Aroclor-1242	39.6	U
12672-29-6	Aroclor-1248	39.6	U
11097-69-1	Aroclor-1254	30.5	JP
11096-82-5	Aroclor-1260	37.0	J

General Engineering Laboratories, LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/051305.b/057f5701.d
Lab Smp Id: 1200840308 Client Smp ID: RE03-05-59531MS
Inj Date : 13-MAY-2005 18:45
Operator : JMW1 Inst ID: ecd2a.i
Smp Info : |1200840308|10
Misc Info : |ECD82P_1SF|422957|SVA|MS|
Comment :
Method : /chem/ecd2a.i/051305.b/ECD2-F-8082-051105.m
Meth Date : 20-May-2005 15:31 jar00935 Quant Type: ESTD
Cal Date : 13-MAY-2005 08:58 Cal File: 010f1001.d
Als bottle: 57 QC Sample: MS
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: 3194S.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	10.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	15.93160	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 10 4cmx					CAS #: 877-09-8		
2.024	2.019	0.005	2934985	13.3784	5.3	80.00- 120.00	100.00
$ 11 Decachlorobiphenyl					CAS #: 2051-24-3		
5.951	5.950	0.001	1106204	4.85437	1.9	80.00- 120.00	100.00(R)
6 Aroclor-1254					CAS #: 11097-69-1		
3.139	3.136	0.003	281319	61.7374	24.5	80.00- 120.00	100.00(a)
3.753	3.752	0.001	543909	73.6930	29.2	144.58- 184.58	193.34
3.942	3.946	-0.004	390307	66.3220	26.3	103.07- 143.07	138.74
4.224	4.228	-0.004	362406	43.9378	17.4	150.80- 190.80	128.82

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
6 Aroclor-1254 (continued)							
4.549	4.549	0.000	0			197.09- 237.09	0.00
Average of Peak Concentrations =					24.4		
7 Aroclor-1260					CAS #: 11096-82-5		
4.157	4.158	-0.001	1019781	106.592	42.3	80.00- 120.00	100.00(a)
4.354	4.354	0.000	0			130.26- 170.26	0.00
4.547	4.547	0.000	0			142.30- 182.30	0.00
4.792	4.795	-0.003	620594	84.0858	33.3	60.34- 100.34	60.86
5.007	5.009	-0.002	1140070	61.5063	24.4	158.91- 198.91	111.80
Average of Peak Concentrations =					33.3		

QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
R - Spike/Surrogate failed recovery limits.

Data File: /chem/ecd2a.i/051305.b/057f5701.d
Date : 13-MAY-2005 18:45
Client ID: RE03-05-59531MS
Sample Info: !1200840308!10
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecd2a.i

Operator: JMW1
Column diameter: 0.25

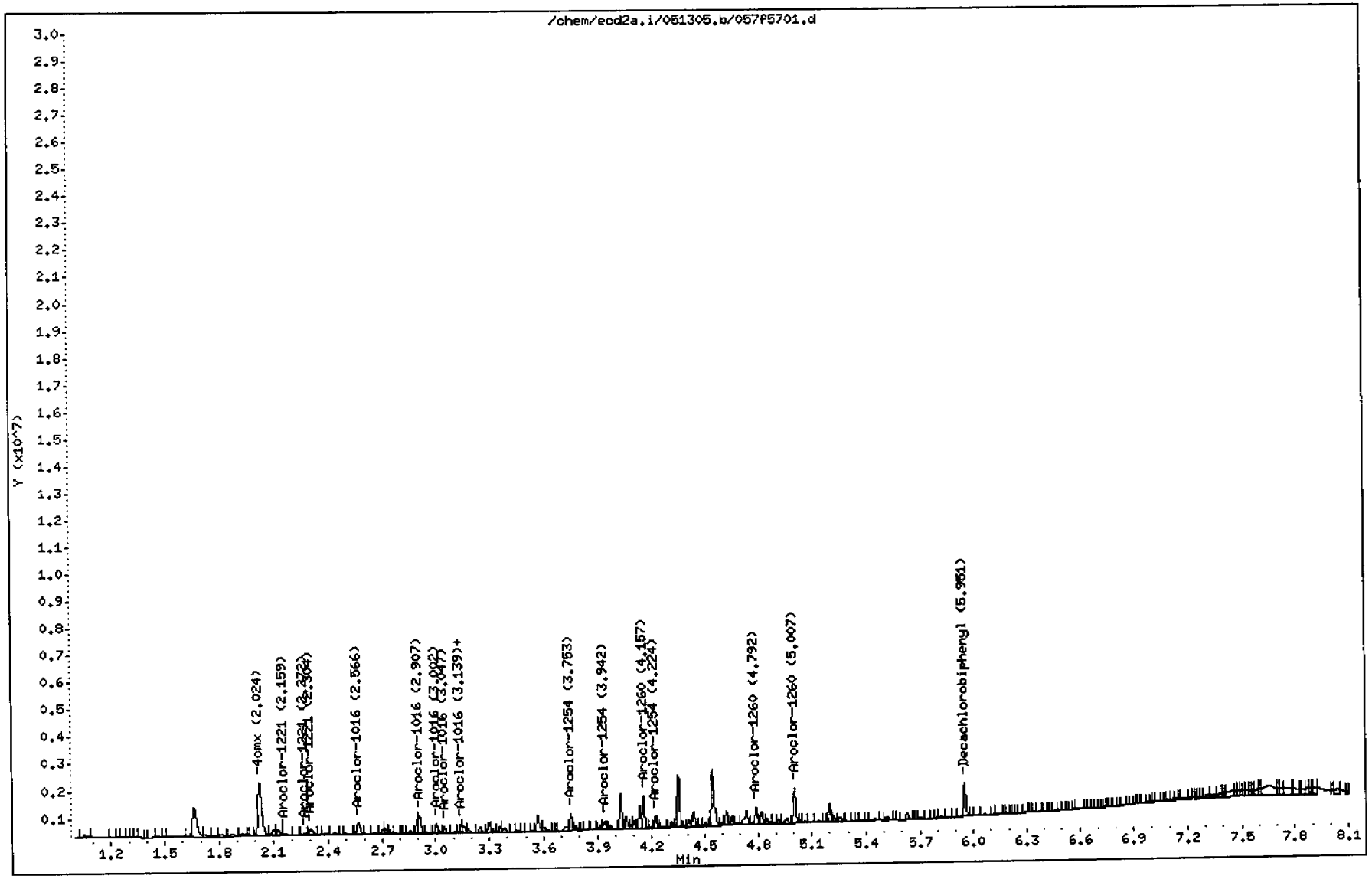

General Engineering Laboratories, LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/051305.b/057b5701.d
Lab Smp Id: 1200840308 Client Smp ID: RE03-05-59531MS
Inj Date : 13-MAY-2005 18:45
Operator : JMW1 Inst ID: ecd2a.i
Smp Info : |1200840308|10
Misc Info : |ECD82P_1SF|422957|SVA|MS|
Comment :
Method : /chem/ecd2a.i/051305.b/ECD2-B-8082-051105.m
Meth Date : 20-May-2005 14:19 jar00935 Quant Type: ESTD
Cal Date : 13-MAY-2005 08:58 Cal File: 010b1001.d
Als bottle: 57 QC Sample: MS
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: 3194S.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	10.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	15.93160	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 10 4cmx					CAS #: 877-09-8		
2.418	2.416	0.002	5383513	12.4195	4.9	80.00- 120.00	100.00
$ 11 Decachlorobiphenyl					CAS #: 2051-24-3		
6.753	6.751	0.002	2104275	8.37040	3.3	80.00- 120.00	100.00(R)
6 Aroclor-1254					CAS #: 11097-69-1		
4.244	4.242	0.002	945689	82.1715	32.6	80.00- 120.00	100.00(aM)
4.380	4.379	0.001	929130	83.4542	33.1	80.48- 120.48	98.25
4.627	4.626	0.001	555365	65.2786	25.9	52.66- 92.66	58.73
4.710	4.710	0.000	0			112.90- 152.90	0.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
6 Aroclor-1254 (continued)							
4.845	4.845	0.000	0			52.17- 92.17	0.00
Average of Peak Concentrations =					30.5		
7 Aroclor-1260					CAS #: 11096-82-5		
4.846	4.846	0.000	2026427	126.028	50.0	80.00- 120.00	100.00(aM)
4.993	4.993	0.000	0			99.88- 139.88	0.00
5.246	5.246	0.000	0			95.70- 135.70	0.00
5.515	5.515	0.000	959586	71.2859	28.3	55.49- 95.49	47.35
5.689	5.690	-0.001	2256056	82.7580	32.8	153.48- 193.48	111.33
Average of Peak Concentrations =					37.0		

QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Data File: /chem/ecd2a.i/051305.b/057b5701.d
Date : 13-MAY-2005 18:45
Client ID: RE03-05-59531MS
Sample Info: I1200840308110
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd2a.i
Operator: JMW1
Column diameter: 0.25

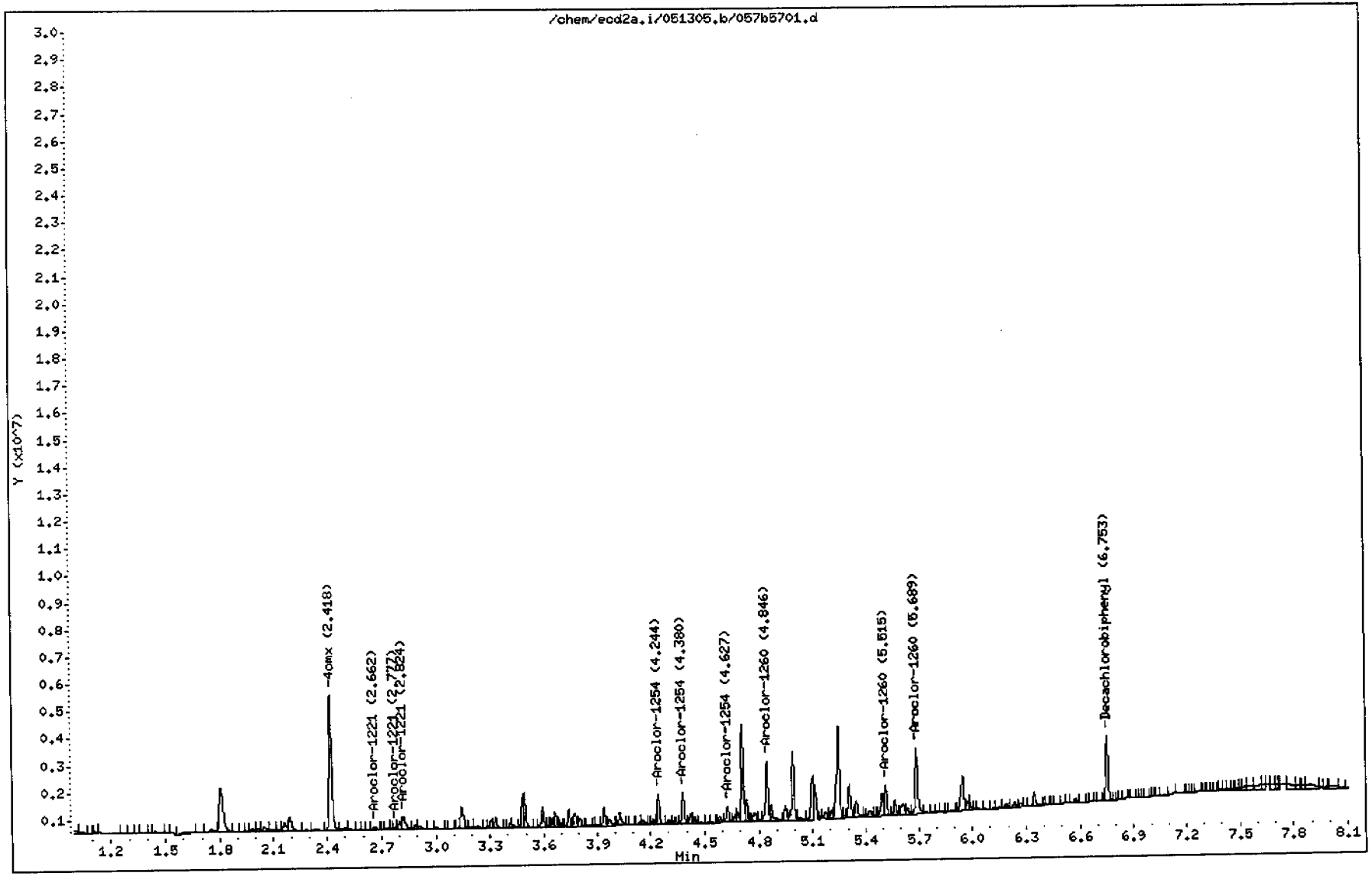

Comment: Manually Integrated
Data File: /chem/ecd2a.i/051305.b/057b5701.d
Operator: JMW1
Injection Date: 13-MAY-2005 18:45
Instrument: ecd2a.i
Client Sample ID: RE03-05-59531MS

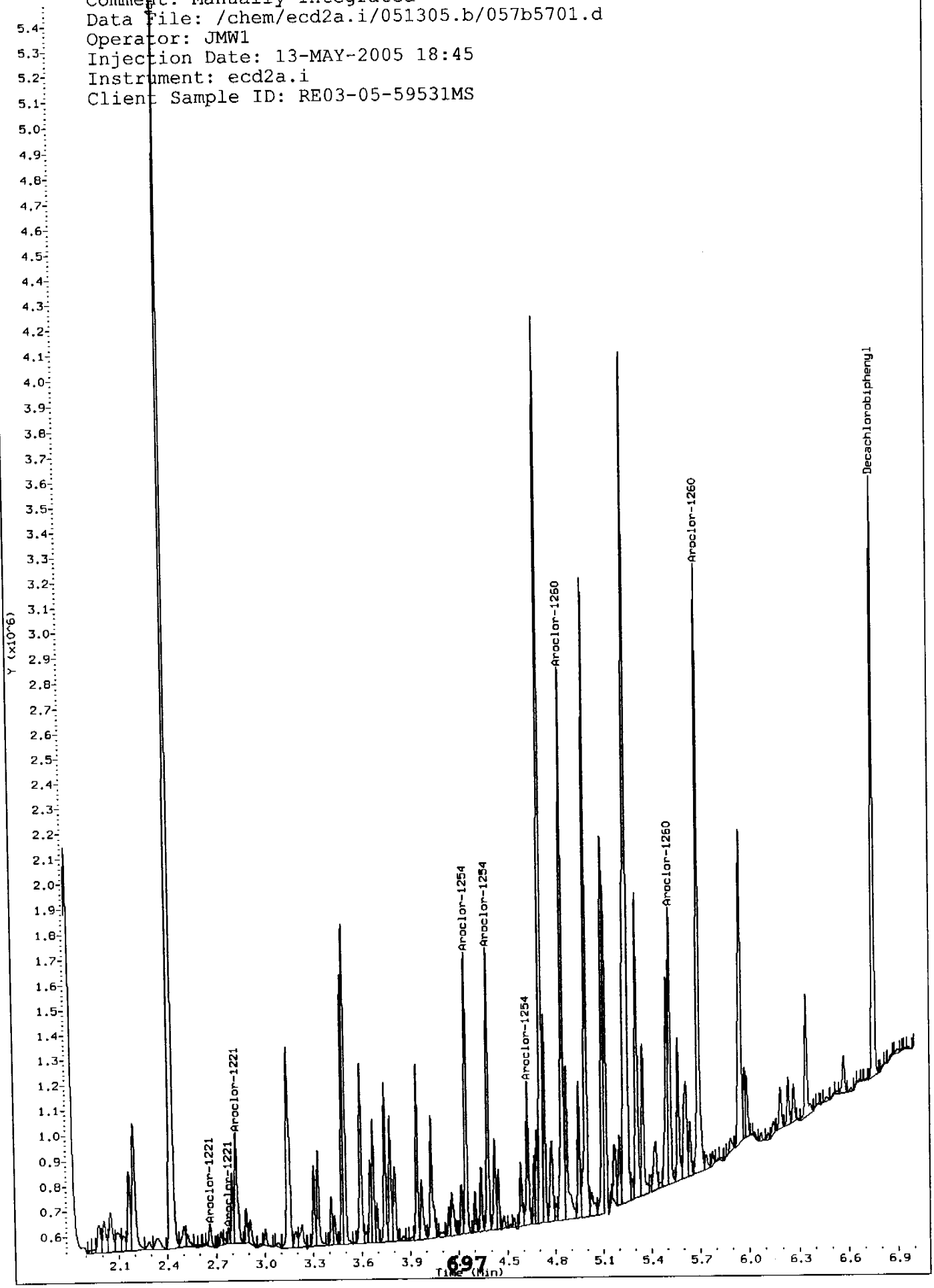

Comment: Before manual integration
Data File: /chem/ecd2a.i/051305.b/orig-057b5701.d
Operator: JMW1
Injection Date: 13-MAY-2005 18:45
Instrument: ecd2a.i
Client Sample ID: RE03-05-59531MS

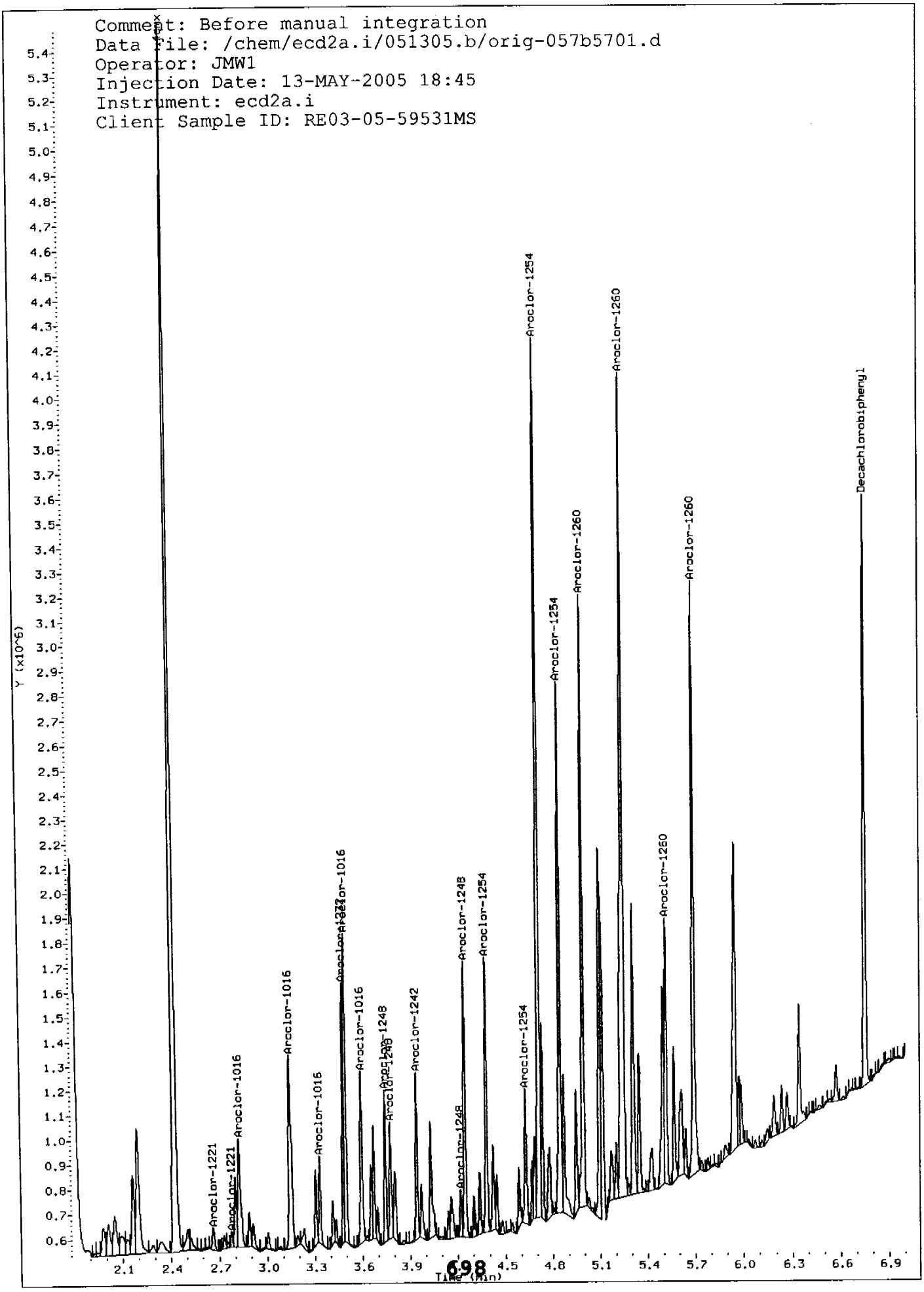

1D
PCB ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-
59531MSD

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

Matrix: (soil/water) SOIL Lab Sample ID: 1200840309

Sample wt/vol: 30.0 (g/mL) G Lab File ID: 058F5801

% Moisture: 16 decanted: (Y/N) N Date Received: 05/04/05

Extraction: (SepF/Cont/Sonc) SONC Date Extracted:05/11/05

Concentrated Extract Volume: 1.00(mL) Date Analyzed: 05/13/05

Injection Volume: 1.0(uL) Dilution Factor: 10.0

GPC Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
12674-11-2	Aroclor-1016	39.6	U
11104-28-2	Aroclor-1221	39.6	U
11141-16-5	Aroclor-1232	39.6	U
53469-21-9	Aroclor-1242	39.6	U
12672-29-6	Aroclor-1248	39.6	U
11097-69-1	Aroclor-1254	29.8	JP
11096-82-5	Aroclor-1260	33.5	J

FORM I PEST OLM03.0

General Engineering Laboratories, LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/051305.b/058f5801.d
Lab Smp Id: 1200840309 Client Smp ID: RE03-05-59531MSD
Inj Date : 13-MAY-2005 18:56
Operator : JMW1 Inst ID: ecd2a.i
Smp Info : |1200840309|10
Misc Info : |ECD82P_1SF|422957|SVA|MSD|
Comment :
Method : /chem/ecd2a.i/051305.b/ECD2-F-8082-051105.m
Meth Date : 20-May-2005 15:31 jar00935 Quant Type: ESTD
Cal Date : 13-MAY-2005 08:58 Cal File: 010f1001.d
Als bottle: 58 QC Sample: MSD
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: 3194S.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	10.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	15.93160	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 10 4cmx					CAS #: 877-09-8		
2.028	2.019	0.009	3087027	14.0714	5.6	80.00- 120.00	100.00
$ 11 Decachlorobiphenyl					CAS #: 2051-24-3		
5.952	5.950	0.002	1176882	5.41000	2.1	80.00- 120.00	100.00(R)
6 Aroclor-1254					CAS #: 11097-69-1		
3.138	3.136	0.002	308177	67.6316	26.8	80.00- 120.00	100.00(a)
3.752	3.752	0.000	502080	68.0257	27.0	144.58- 184.58	162.92
3.941	3.946	-0.005	338736	57.5590	22.8	103.07- 143.07	109.92
4.223	4.228	-0.005	268143	32.5094	12.9	150.80- 190.80	87.01

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
6 Aroclor-1254 (continued)							
4.549	4.549	0.000	0			197.09- 237.09	0.00
Average of Peak Concentrations =					22.4		
7 Aroclor-1260					CAS #: 11096-82-5		
4.156	4.158	-0.002	910684	95.1886	37.7	80.00- 120.00	100.00(a)
4.354	4.354	0.000	0			130.26- 170.26	0.00
4.547	4.547	0.000	0			142.30- 182.30	0.00
4.791	4.795	-0.004	581190	78.7469	31.2	60.34- 100.34	63.82
5.006	5.009	-0.003	1041699	56.1992	22.3	158.91- 198.91	114.39
Average of Peak Concentrations =					30.4		

QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
R - Spike/Surrogate failed recovery limits.

Data File: /chem/ecd2a.i/051305.b/058f5801.d
Date : 13-MAY-2005 18:56
Client ID: RE03-05-59531MSD
Sample Info: 112008403091 10
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecd2a.i

Operator: JMW1
Column diameter: 0.25

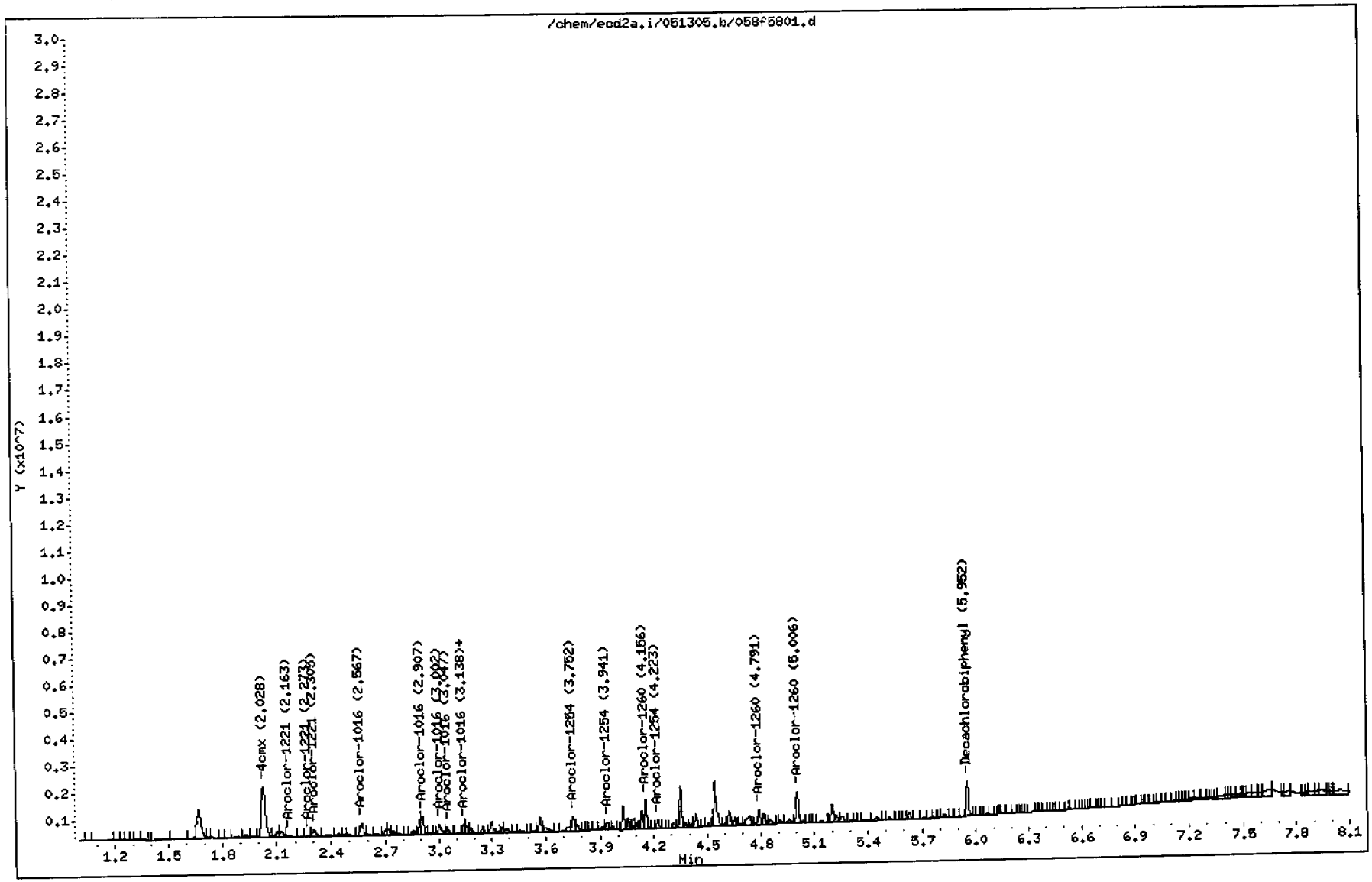

General Engineering Laboratories, LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/051305.b/058b5801.d
Lab Smp Id: 1200840309 Client Smp ID: RE03-05-59531MSD
Inj Date : 13-MAY-2005 18:56
Operator : JMW1 Inst ID: ecd2a.i
Smp Info : |1200840309|10
Misc Info : |ECD82P_1SF|422957|SVA|MSD|
Comment :
Method : /chem/ecd2a.i/051305.b/ECD2-B-8082-051105.m
Meth Date : 20-May-2005 14:19 jar00935 Quant Type: ESTD
Cal Date : 13-MAY-2005 08:58 Cal File: 010b1001.d
Als bottle: 58 QC Sample: MSD
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: 3194S.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	10.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	15.93160	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 10 4cmx					CAS #: 877-09-8		
2.420	2.416	0.004	5576965	12.8658	5.1	80.00- 120.00	100.00
$ 11 Decachlorobiphenyl					CAS #: 2051-24-3		
6.754	6.751	0.003	2252092	8.95839	3.6	80.00- 120.00	100.00(R)
6 Aroclor-1254					CAS #: 11097-69-1		
4.244	4.242	0.002	903750	78.5274	31.1	80.00- 120.00	100.00(aM)
4.380	4.379	0.001	938728	84.3163	33.4	80.48- 120.48	103.87
4.626	4.626	0.000	534698	62.8494	24.9	52.66- 92.66	59.16
4.710	4.710	0.000	0			112.90- 152.90	0.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
6 Aroclor-1254 (continued)							
4.845	4.845	0.000	0			52.17- 92.17	0.00
Average of Peak Concentrations =					29.8		
7 Aroclor-1260					CAS #: 11096-82-5		
4.846	4.846	0.000	0			80.00- 120.00	0.00(aM)
4.993	4.993	0.000	0			99.88- 139.88	0.00
5.246	5.246	0.000	2639557	107.309	42.5	95.70- 135.70	151.23
5.516	5.515	0.001	904580	67.1996	26.6	55.49- 95.49	51.83
5.690	5.690	0.000	2152543	78.9609	31.3	153.48- 193.48	123.33
Average of Peak Concentrations =					33.5		

QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Data File: /chem/ecd2a.i/051305.b/058b5801.d
Date : 13-MAY-2005 18:56
Client ID: RE03-05-59531MSD
Sample Info: 1120084030911 0
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd2a.i
Operator: JMW1
Column diameter: 0.25

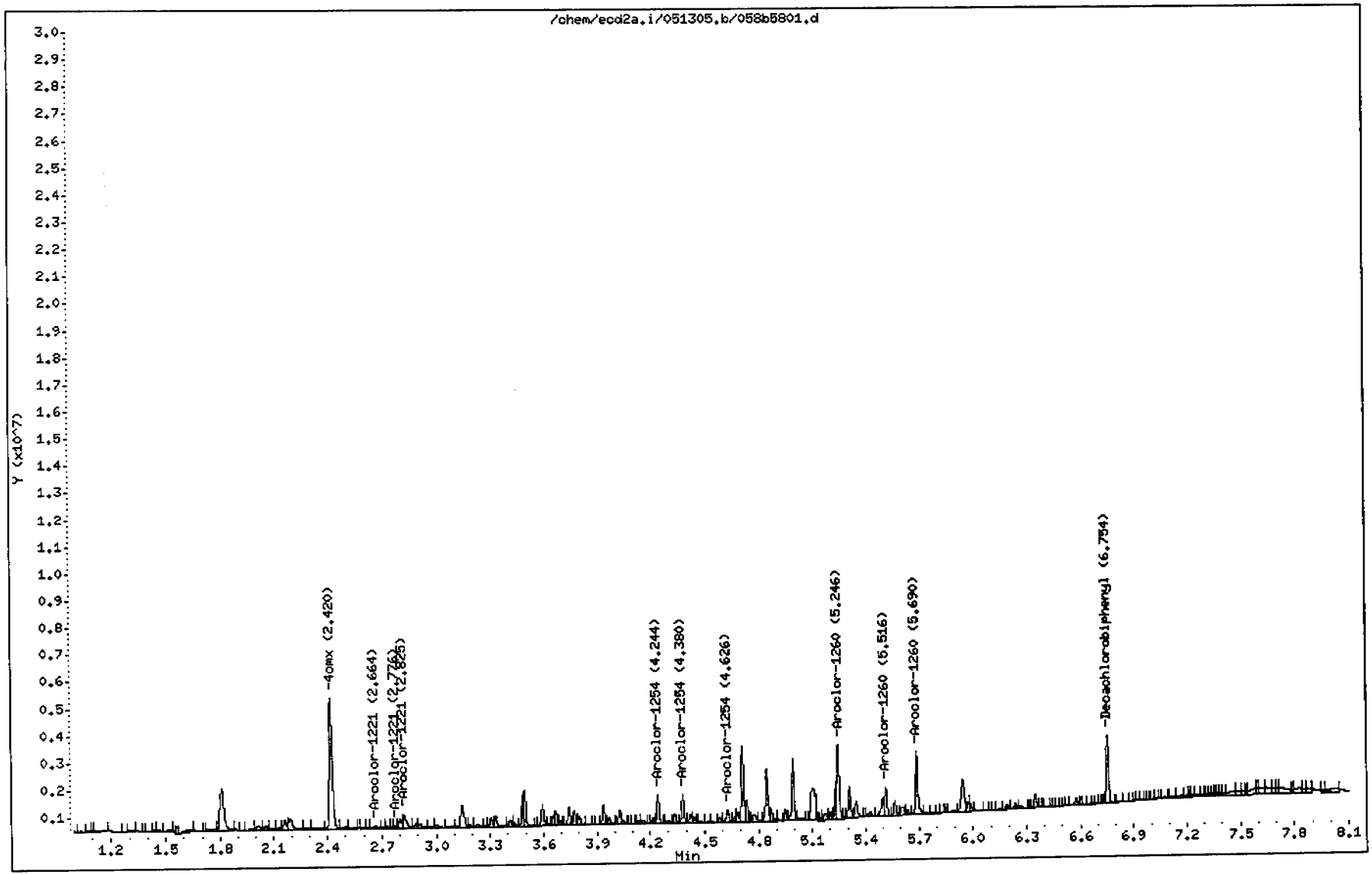

Comment: Manually Integrated
Data File: /chem/ecd2a.i/051305.b/058b5801.d
Operator: JMW1
Injection Date: 13-MAY-2005 18:56
Instrument: ecd2a.i
Client Sample ID: RE03-05-59531MSD

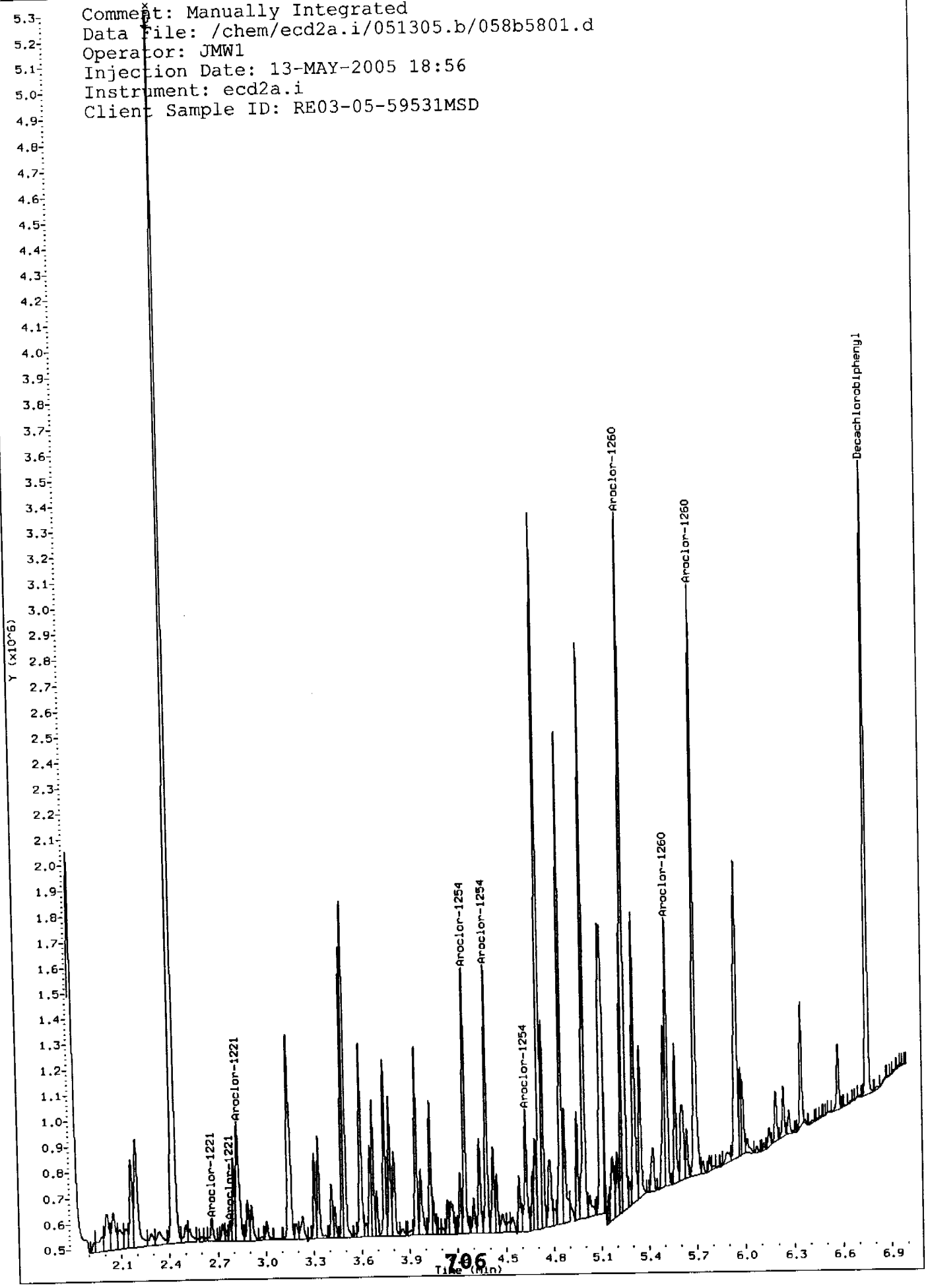

Comment: Before manual integration
Data File: /chem/ecd2a.i/051305.b/orig-058b5801.d
Operator: JMW1
Injection Date: 13-MAY-2005 18:56
Instrument: ecd2a.i
Client Sample ID: RE03-05-59531MSD

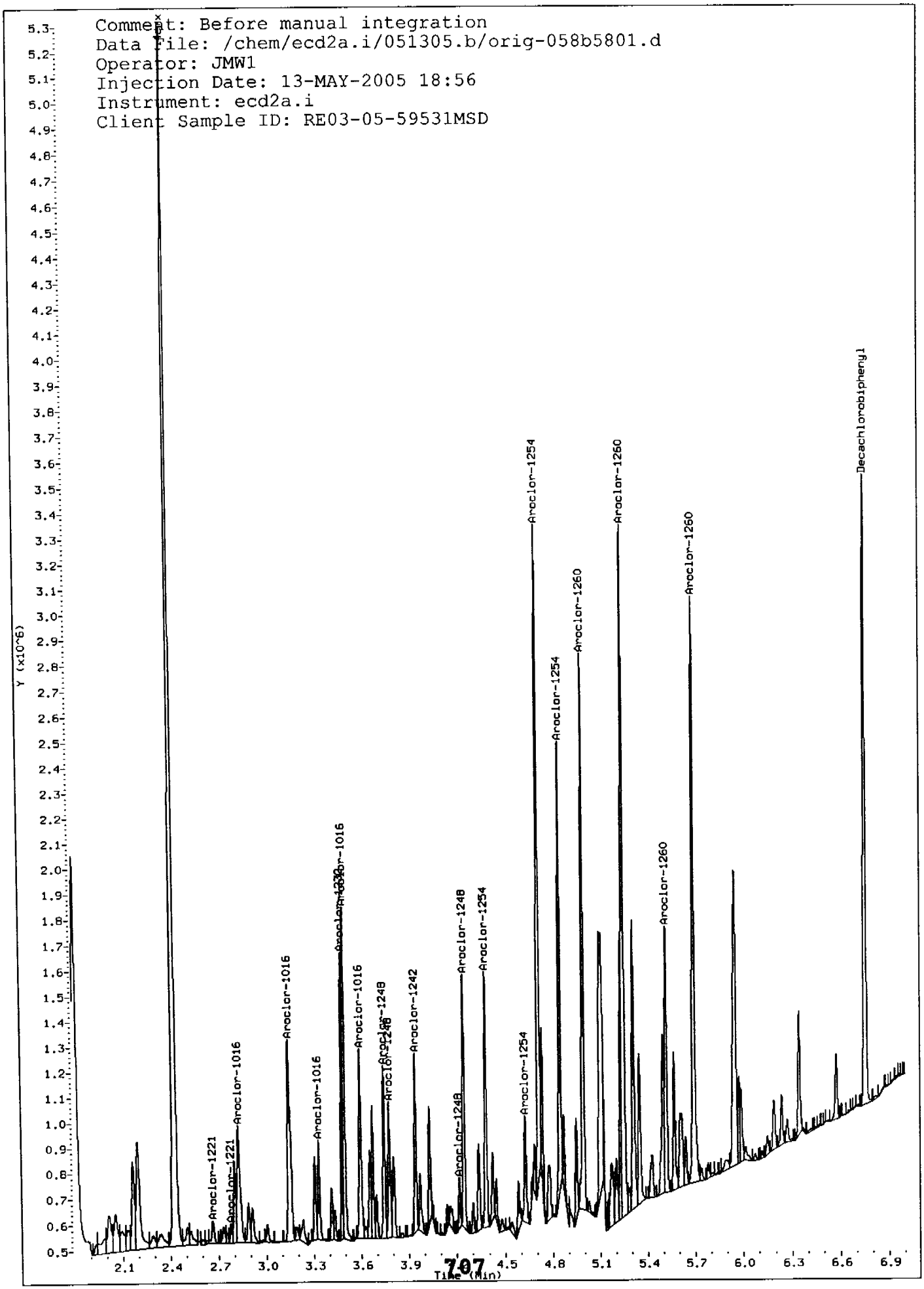

MISCELLANEOUS DATA

GEL ORGANIC RUN LOG INSTRUMENT ID: ECD2

DATE: 05/12/2005 METHOD: ECD2-B-8082-051105.m OPERATOR:YS1 REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT

Calibration & QC Information
Initial Calibration Dates: See Calibration History and Standards Log
Initial Calibration Std ID's: See Calibration History and Standards Log
GEL SOP GL-OA-E-040
EPA Method: 8082 Polychlorinated Biphenyls PCBs by Gas Chromatography
Sequence Number: Injection Volume: 1.0 uL

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001b0101.d	WAR050413-10 I	YS1	11-MAY-2005 09:32	SOLV	051105	1.0	IB	Clean
002b0201.d	WAR050511-04 60	YS1	11-MAY-2005 09:42	1660	051105	1.0	CAL1	AR1660 Initial Calibration Level 1.
003b0301.d	WAR050511-03 60	YS1	11-MAY-2005 09:54	1660	051105	1.0	CAL2	AR1660 Initial Calibration Level 2.
004b0401.d	WAR050511-02 60	YS1	11-MAY-2005 10:05	1660	051105	1.0	CAL3	AR1660 Initial Calibration Level 3.
005b0501.d	WAR050511-01 60	YS1	11-MAY-2005 10:16	1660	051105	1.0	CAL4	AR1660 Initial Calibration Level 4.
006b0601.d	IAR050321-01 60	YS1	11-MAY-2005 10:27	1660	051105	1.0	CAL5	AR1660 Initial Calibration Level 5.
007b0701.d	WAR050511-13601	YS1	11-MAY-2005 10:38	1660	051105	1.0	CVS	OK Pass on both columns.
008b0801.d	WAR050511-08 54	YS1	11-MAY-2005 10:50		051105	1.0		AR1254 Initial Calibration Level 1.
009b0901.d	WAR050511-07 54	YS1	11-MAY-2005 11:01		051105	1.0		AR1254 Initial Calibration Level 2.
010b1001.d	WAR050511-06 54	YS1	11-MAY-2005 11:12		051105	1.0		AR1254 Initial Calibration Level 3.
011b1101.d	WAR050511-05 54	YS1	11-MAY-2005 11:23		051105	1.0		AR1254 Initial Calibration Level 4.
012b1201.d	IAR050328-01 54	YS1	11-MAY-2005 11:34		051105	1.0		AR1254 Initial Calibration Level 5.
013b1301.d	WAR050415-05541	YS1	11-MAY-2005 11:46		051105	1.0		OK pass on both columns.
014b1401.d	WAR050511-12 42	YS1	11-MAY-2005 11:57	1660	051105	1.0	CAL1	AR1242 Initial Calibration Level 1.
015b1501.d	WAR050511-11 42	YS1	11-MAY-2005 12:08	1660	051105	1.0	CAL2	AR1242 Initial Calibration Level 2.

Instrument Batch: /chem/ecd2a.i/051105.b Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
016b1601.d	WAR050511-10 42	YS1	11-MAY-2005 12:19	1660	051105	1.0	CAL3	AR1242 Initial Calibration Level 3.
017b1701.d	WAR050511-09 42	YS1	11-MAY-2005 12:31	1660	051105	1.0	CAL4	AR1242 Initial Calibration Level 4.

018b1801.d	IAR050331-01 42	YS1	11-MAY-2005 12:42	1660	051105		1.0	CAL5	AR1242 Initial Calibration Level 5.
019b1901.d	WAR050323-01421	YS1	11-MAY-2005 12:53	1660	051105		1.0		OK Pass on both columns.
020b2001.d	WAR050504-01481	YS1	11-MAY-2005 13:04	1660	051105		1.0		OK Pattern only.
021b2101.d	WAR050412-02621	YS1	11-MAY-2005 13:15	1660	051105		1.0		OK Pattern only.
022b2201.d	WAR050401-05321	YS1	11-MAY-2005 13:27	1660	051105		1.0		OK Pattern only.
023b2301.d	WAR050328-05211	YS1	11-MAY-2005 13:38	1221	051105		1.0		OK Pattern only.
024b2401.d	WAR050322-10681	YS1	11-MAY-2005 13:49	1268	051105		1.0		OK Pattern only.
025b2501.d	WAR050413-10IB2	YS1	11-MAY-2005 14:00	SOLV	051105		1.0	IB	Clean.
026b2601.d	1200833285	YS1	11-MAY-2005 14:11	420185	135001		1.0	MB	USE Report result from higher of the two.
027b2701.d	1200833286	YS1	11-MAY-2005 14:23	420185	135001		1.0	LCS	USE Report result from higher of the two.
028b2801.d	135001003	YS1	11-MAY-2005 14:34	420185	135001		1.0	ESHL	USE Report result from higher of the two.
029b2901.d	1200833287	YS1	11-MAY-2005 14:45	420185	135001		1.0	MS	USE Report result from higher of the two.
030b3001.d	1200833288	YS1	11-MAY-2005 14:56	420185	135001		1.0	MSD	USE Report result from higher of the two.
031b3101.d	135001004	YS1	11-MAY-2005 15:07	420185	135001		1.0	ESHL	USE Report result from higher of the two.
032b3201.d	WAR050511-13602	YS1	11-MAY-2005 15:19	1660	051105		1.0	CVS	OK Pass on both columns. DCB low.
033b3301.d	WAR050413-10IB3	YS1	11-MAY-2005 15:30	SOLV	051105		1.0	IB	Clean.
034b3401.d	1200836110	YS1	11-MAY-2005 15:41	421332	135408		1.0	MB	USE Report result from back column.
035b3501.d	1200836111	YS1	11-MAY-2005 15:52	421332	135408		1.0	LCS	USE Spike, surrogate low. Re-prep out of holding for whole batch

Instrument Batch: /chem/ecd2a.i/051105.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
036b3601.d	135408009	YS1	11-MAY-2005 16:03	421332	135408		1.0	ESHL	USE Report result from higher of the two.
037b3701.d	1200836114	YS1	11-MAY-2005 16:14	421332	135408		1.0	MS	USE Report result from higher of the two.
038b3801.d	1200836115	YS1	11-MAY-2005 16:26	421332	135408		1.0	MSD	USE Report result from higher of the two. DCB low.
039b3901.d	WAR050511-13603	YS1	11-MAY-2005 16:37	1660	051105		1.0	CVS	OK AR1260 1200 on back.
040b4001.d	WAR050413-10IB4	YS1	11-MAY-2005 16:48	SOLV	051105		1.0	IB	
041b4101.d	135213001	YS1	11-MAY-2005 16:59	421332	NMI-082		1.0	DMAX	USE Report result from back column. Surrogate low.

042b4201.d	135213002	YS1	11-MAY-2005 17:10	421332	NMI-082	1.0	DMAX	DUSE Ar1254 hit. Re-run 051705 file 39.
043b4301.d	135213003	YS1	11-MAY-2005 17:22	421332	NMI-082	1.0	DMAX	USE Report result from back column. DCB low.
044b4401.d	135213004	YS1	11-MAY-2005 17:33	421332	NMI-082	1.0	DMAX	USE Report result from back column. Surrogate low.
045b4501.d	135213005	YS1	11-MAY-2005 17:44	421332	NMI-082	1.0	DMAX	USE Report result from back column. Surrogate low.
046b4601.d	135213008	YS1	11-MAY-2005 17:55	421332	NMI-082	1.0	DMAX	USE Report result from back column. DCB low.
047b4701.d	135213009	YS1	11-MAY-2005 18:06	421332	NMI-082	1.0	DMAX	USE Report result from back column. DCB low.
048b4801.d	135213010	YS1	11-MAY-2005 18:17	421332	NMI-082	1.0	DMAX	USE Report result from back column. DCB low.
049b4901.d	1200836116	YS1	11-MAY-2005 18:29	421332	NMI-082	1.0	MS	USE Report result from back column. DCB low.
050b5001.d	1200836117	YS1	11-MAY-2005 18:40	421332	NMI-082	1.0	MSD	USE Report result from back column. DCB low.
051b5101.d	WAR050511-13604	YS1	11-MAY-2005 18:51	1660	051105	1.0	CVS	OK DCB and Ar1260 low on both columns. Confirm with re-prep.
052b5201.d	WAR050413-10IB5	YS1	11-MAY-2005 19:02	SOLV	051105	1.0	IB	
053b5301.d	135213011	YS1	11-MAY-2005 19:13	421332	NMI-082	1.0	DMAX	USE Report result from back column. DCB low.
054b5401.d	135213012	YS1	11-MAY-2005 19:24	421332	NMI-082	1.0	DMAX	USE Report result from back column. Surrogates low.
055b5501.d	135213013	YS1	11-MAY-2005 19:36	421332	NMI-082	1.0	DMAX	USE Report result from back column. DCB low.

Instrument Batch: /chem/ecd2a.i/051105.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
056b5601.d	135213014	YS1	11-MAY-2005 19:47	421332	NMI-082	1.0	DMAX	USE Report result from back column. Surrogates low.
057b5701.d	135213015	YS1	11-MAY-2005 19:58	421332	NMI-082	1.0	DMAX	USE Report result from back column. DCB low.
058b5801.d	WAR050511-13604	YS1	11-MAY-2005 20:09	1660	051105	1.0	CVS	OK DCB and Ar1260 low on both columns. Confirm with re-prep.

Instrument Batch: /chem/ecd2a.i/051105.b

GEL ORGANIC RUN LOG INSTRUMENT ID: ECD2

DATE: 05/13/2005 METHOD: ECD2-B-8082-051105.m OPERATOR:YS1 REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT CN881 Mercurey lot 91581-A2

Calibration & QC Information
Initial Calibration Dates: See Calibration History and Standards Log
Initial Calibration Std ID's: See Calibration History and Standards Log
GEL SOP GL-OA-E-040
EPA Method: 8082 Polychlorinated Biphenyls PCBs by Gas Chromatography
Sequence Number: Injection Volume: 1.0 uL

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001b0101.d	WAR040413-10 I	YS1	12-MAY-2005 06:44		051205	1.0		Clean.
002b0201.d	WAR051105-13601	YS1	12-MAY-2005 06:55		051205	1.0		DUSE See file 10
003b0301.d	WAR050415-05541	YS1	12-MAY-2005 07:06		051205	1.0		OK Pass on both columns.
004b0401.d	WAR050323-01421	YS1	12-MAY-2005 07:18		051205	1.0		OK Pass on both columns.
005b0501.d	WAR050512-04 60	YS1	12-MAY-2005 07:29		051205	1.0		AR1660 Initial Calibration Level 1.
006b0601.d	WAR050512-03 60	YS1	12-MAY-2005 07:40	1660	051205	1.0		AR1660 Initial Calibration Level 2.
007b0701.d	WAR050505-02 60	YS1	12-MAY-2005 07:51	1660	051205	1.0		AR1660 Initial Calibration Level 3.
008b0801.d	WAR050512-01 60	YS1	12-MAY-2005 08:03	1660	051205	1.0		AR1660 Initial Calibration Level 4.
009b0901.d	IAR050321-04 60	YS1	12-MAY-2005 08:14		051205	1.0		AR1660 Initial Calibration Level 5.
010b1001.d	WAR050511-13601	YS1	12-MAY-2005 08:25		051205	1.0		OK Pass on both columns.
011b1101.d	WAR050504-01481	YS1	12-MAY-2005 08:36		051205	1.0		OK Pattern only.
012b1201.d	WAR050412-02621	YS1	12-MAY-2005 08:47		051205	1.0		OK Pattern only.
013b1301.d	WAR050401-05321	YS1	12-MAY-2005 08:59		051205	1.0		OK Pattern only.
014b1401.d	WAR050328-05211	YS1	12-MAY-2005 09:10		051205	1.0		OK Pattern only.
015b1501.d	WAR050322-10681	YS1	12-MAY-2005 09:21		051205	1.0		OK Pattern only.

Instrument Batch: /chem/ecd2a.i/051205.b Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
016b1601.d	1200830322	YS1	12-MAY-2005 09:32	418941	134770	1.0	MB	USE Report result from higher of the two.
017b1701.d	1200830323	YS1	12-MAY-2005 09:43	418941	134770	1.0	LCS	USE Report result from higher of the two.

018b1801.d	134770009	YS1	12-MAY-2005 09:55	418941	134770		1.0	ESHL	USE Report result from higher of the two.
019b1901.d	1200830325	YS1	12-MAY-2005 10:06	418941	134770		1.0	MSD	USE Report result from higher of the two.
020b2001.d	1200830324	YS1	12-MAY-2005 10:17	418941	134770		1.0	MS	USE Report result from higher of the two.
021b2101.d	134770010	YS1	12-MAY-2005 10:28	418941	134770		1.0	ESHL	USE Report result from higher of the two.
022b2201.d	134858003	YS1	12-MAY-2005 10:39	418941	134858		1.0	ESHL	USE Report result from higher of the two.
023b2301.d	134858004	YS1	12-MAY-2005 10:51	418941	134858		1.0	ESHL	USE Report result from higher of the two.
024b2401.d	1200831069	YS1	12-MAY-2005 11:02	418941	134858		1.0	MS	USE Report result from higher of the two.
025b2501.d	1200831070	YS1	12-MAY-2005 11:13	418941	134858		1.0	MSD	USE Report result from higher of the two.
026b2601.d	WAR050511-13602	YS1	12-MAY-2005 11:24	418941	051205		1.0		OK Pass on both columns.
027b2701.d	WAR050413-10IB3	YS1	12-MAY-2005 11:35		051205		1.0		
028b2801.d	1200836951	YS1	12-MAY-2005 11:47		135525		1.0	MB	USE Report result from higher of the two.
029b2901.d	1200836952	YS1	12-MAY-2005 11:58	421688	135525		1.0	LCS	USE Report result from higher of the two.
030b3001.d	135525005	YS1	12-MAY-2005 12:09	421688	135525		1.0	ESHL	USE Report result from higher of the two.
031b3101.d	135525006	YS1	12-MAY-2005 12:20	421688	135525		1.0	ESHL	USE Report result from higher of the two.
032b3201.d	135561007	YS1	12-MAY-2005 12:31	421688	135525		1.0	ESHL	USE Report result from higher of the two.
033b3301.d	135561008	YS1	12-MAY-2005 12:43	421688	135561		1.0	ESHL	USE Report result from higher of the two.
034b3401.d	135563006	YS1	12-MAY-2005 12:54	421688	135563		1.0	ESHL	USE Report result from higher of the two.
035b3501.d	1200836953	YS1	12-MAY-2005 13:05	421688	135563		1.0	MS	USE Report result from higher of the two.

Instrument Batch: /chem/ecd2a.i/051205.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
036b3601.d	1200836954	YS1	12-MAY-2005 13:16	421688	135563		1.0	MSD	USE Report result from higher of the two.
037b3701.d	WAR050511-13603	YS1	12-MAY-2005 13:27	421688	051205		1.0		OK Pass on both columns. One 1260 peak low on each. DCB low.
038b3801.d	WAR050413-10IB4	YS1	12-MAY-2005 13:39		051205		1.0		
039b3901.d	1200837218	YS1	12-MAY-2005 13:50	421774	135508		1.0	MB	USE Report result from higher of the two.
040b4001.d	1200837219	YS1	12-MAY-2005 14:01	421774	135508		1.0	LCS	USE Report result from higher of the two.
041b4101.d	135508006	YS1	12-MAY-2005 14:12	421774	135508		1.0	ESHL	USE Report result from higher of the two.

042b4201.d	135508007	YS1	12-MAY-2005 14:23	421774	135508		1.0	ESHL	USE Report result from higher of the two.
043b4301.d	135508008	YS1	12-MAY-2005 14:35	421774	135508		1.0	ESHL	USE Surrogates low. Re-prep out of holding.
044b4401.d	135528002	YS1	12-MAY-2005 14:46	421774	135528		1.0	ESHL	USE Surrogates low. No more sample left.
045b4501.d	WAR050511-13604	YS1	12-MAY-2005 14:57	421774	051205		1.0		OK Pass on both columns.
046b4601.d	WAR050413-10IB5	YS1	12-MAY-2005 15:08		051205		1.0		
047b4701.d	135560007	YS1	12-MAY-2005 15:19		135560		1.0	ESHL	USE Report result from higher of the two.
048b4801.d	135560008	YS1	12-MAY-2005 15:30	421774	135560		1.0	ESHL	USE DCB low on front. No more sample left.
049b4901.d	1200837221	YS1	12-MAY-2005 15:42	421774	135560		1.0	MSD	USE Report result from higher of the two.
050b5001.d	1200837220	YS1	12-MAY-2005 15:53	421774	135560		1.0	MS	USE Ar1260 low. DCB low.
051b5101.d	135560009	YS1	12-MAY-2005 16:04	421774	135560		1.0	ESHL	USE Report result from higher of the two.
052b5201.d	WAR050511-13605	YS1	12-MAY-2005 16:15		051205		1.0		OK Pass on both columns.
053b5301.d	WAR050413-10IB6	YS1	12-MAY-2005 16:26		051205		1.0		
054b5401.d	135574001	YS1	12-MAY-2005 16:38	421774	135574		1.0	GEEL	DUSE need sulfur clean.
055b5501.d	WAR050413-10IB7	YS1	12-MAY-2005 16:49		051205		1.0		

Instrument Batch: /chem/ecd2a.i/051205.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
056b5601.d	WAR050413-10IB8	YS1	12-MAY-2005 17:00		051205	1.0		
057b5701.d	135574002	YS1	12-MAY-2005 17:11	421774	135574	1.0	GEEL	USE Report result from back column.
058b5801.d	1200837218	YS1	12-MAY-2005 17:22	421774	051205	1.0	MB	DUSE Sulfur cleaned.
059b5901.d	1200837219	YS1	12-MAY-2005 17:34	421774		1.0	LCS	DUSE Sulfur cleaned.
060b6001.d	135574001	YS1	12-MAY-2005 17:45	421774	135574	5.0	GEEL	USE Report result from back column. DCB low. No more sample left
061b6101.d	WAR050511-13606	YS1	12-MAY-2005 17:56		051205	1.0		
062b6201.d	WAR050413-10IB9	YS1	12-MAY-2005 18:07		051205	1.0		
063b6301.d	135524001	YS1	12-MAY-2005 18:18	421774	NMI-085W	1.0	DMAX	USE DCB low reprep out of holding.
064b6401.d	WAR050413-10IB10	YS1	12-MAY-2005 18:29		051205	1.0		
065b6501.d	WAR050413-10IB2	YS1	12-MAY-2005 18:41		051205	1.0		
066b6601.d	WAR050511-1366	YS1	12-MAY-2005 18:52		051205	1.0		OK pass on both columns.

GEL ORGANIC RUN LOG

INSTRUMENT ID: ECD2

DATE: 05/16/2005 METHOD: ECD2-B-8082-051105.m OPERATOR:JMW1 REVIEWED BY:_____ DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT CN881 Mercurey lot 91581-A2

Calibration & QC Information
Initial Calibration Dates: See Calibration History and Standards Log
Initial Calibration Std ID's: See Calibration History and Standards Log
GEL SOP GL-OA-E-040
EPA Method: 8082 Polychlorinated Biphenyls PCBs by Gas Chromatography
Sequence Number: 051305 Injection Volume: 1.0 uL

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001b0101.d	WAR040413-10 I	JMW1	13-MAY-2005 07:17		051305	1.0		
002b0201.d	WAR051105-13601	JMW1	13-MAY-2005 07:28		051305	1.0		OK Pass on both columns.
003b0301.d	WAR050415-05541	JMW1	13-MAY-2005 07:39		051305	1.0		OK Pass on both columns.
004b0401.d	WAR050323-01421	JMW1	13-MAY-2005 07:51		051305	1.0		OK Pass on both columns.
005b0501.d	WAR050504-01481	JMW1	13-MAY-2005 08:02		051305	1.0		OK pattern only.
006b0601.d	WAR050412-02621	JMW1	13-MAY-2005 08:13		051305	1.0		OK pattern only.
007b0701.d	WAR050323-01421	JMW1	13-MAY-2005 08:24	1242	051305	1.0		OK Pass on both columns. One peak low on front.
008b0801.d	WAR050401-05321	JMW1	13-MAY-2005 08:36		051305	1.0		OK pattern only.
009b0901.d	WAR050328-05211	JMW1	13-MAY-2005 08:47		051305	1.0		OK pattern only.
010b1001.d	WAR050322-10681	JMW1	13-MAY-2005 08:58		051305	1.0		OK pattern only.
011b1101.d	WAR050413-10IB2	JMW1	13-MAY-2005 09:09		051305	1.0		OK pattern only.
012b1201.d	1200831076	JMW1	13-MAY-2005 09:20	419265	05038	1.0	MB	USE Report result from back column.
013b1301.d	1200831077	JMW1	13-MAY-2005 09:32	419265	05038	1.0	LCS	USE Report result from back column.
014b1401.d	1200831078	JMW1	13-MAY-2005 09:43	419265	05038	1.0	MS	USE Report result from back column.
015b1501.d	1200831079	JMW1	13-MAY-2005 09:54	419265	05038	1.0	MSD	USE Report result from back column.

Instrument Batch: /chem/ecd2a.i/051305.b

Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
016b1601.d	134891001	JMW1	13-MAY-2005 10:05	419265	05038	1.0	WSRS	USE Report result from back column.
017b1701.d	WAR050413-10IB3	JMW1	13-MAY-2005 10:16		051305	1.0		

018b1801.d	WAR050511-13602	JMW1	13-MAY-2005 10:28		051305		1.0		OK AR1260 low on both columns. See confirmation below.
019b1901.d	WAR050413-10IB4	JMW1	13-MAY-2005 10:39		051305		1.0		
020b2001.d	WAR050511-13603	JMW1	13-MAY-2005 11:12		051305		1.0		OK pass on both columns.
021b2101.d	WAR050413-10IB5	JMW1	13-MAY-2005 11:23		051305		1.0		
022b2201.d	1200831076	JMW1	13-MAY-2005 11:34	419265	051305		1.0	MB	DUSE Confirmation for AR1260 failure.
023b2301.d	1200831077	JMW1	13-MAY-2005 11:46	419265	051305		1.0	LCS	DUSE Confirmation for AR1260 failure.
024b2401.d	1200831078	JMW1	13-MAY-2005 11:57	419265	1MS)		1.0	MS	DUSE Confirmation for AR1260 failure.
025b2501.d	1200831079	RAW2	13-MAY-2005 12:08	419265	05038		1.0	MSD	DUSE Confirmation for AR1260 failure.
026b2601.d	WAR050413-10IB6	JMW1	13-MAY-2005 12:19	419265			1.0		
027b2701.d	134891001	JMW1	13-MAY-2005 12:35	419265	05038		1.0	WSRS	DUSE Confirmation for AR1260 failure.
028b2801.d	WAR050413-10IB7	JMW1	13-MAY-2005 12:46		051305		1.0		
029b2901.d	WAR050511-13604	JMW1	13-MAY-2005 12:58		051305		1.0		AR1260 failed low on both columns.
030b3001.d	WAR050413-10IB8	JMW1	13-MAY-2005 13:09		051305		1.0		
031b3101.d	WAR050511-13605	JMW1	13-MAY-2005 13:49		051305		1.0		OK Pass on both columns.
032b3201.d	WAR050413-10IB8	JMW1	13-MAY-2005 14:00		051305		1.0		
033b3301.d	1200840306	JMW1	13-MAY-2005 14:16	422957	EUI-3256		1.0	MB	USE Report result from back column.
034b3401.d	1200840307	JMW1	13-MAY-2005 14:27	422957	EUI-3256		1.0	LCS	USE Report result from back column.
035b3501.d	135770001	JMW1	13-MAY-2005 14:38	422957	EUI-3256		20.0	CARE	USE Report result from back column.

Instrument Batch: /chem/ecd2a.i/051305.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
036b3601.d	135773001	JMW1	13-MAY-2005 14:50	422957	135773	5.0	PERM	USE Report result from back column.
037b3701.d	WAR050413-10IB9	JMW1	13-MAY-2005 15:01		051305	1.0		OK Pass on both columns.
038b3801.d	WAR050511-13606	JMW1	13-MAY-2005 15:12		051305	1.0		
039b3901.d	WAR050413-10IB10	JMW1	13-MAY-2005 15:23		051305	1.0		
040b4001.d	135802001	JMW1	13-MAY-2005 15:34	422957	3192S	1.0	LANL	DUSE DO dilution and re-run LANL samples.
041b4101.d	135802002	JMW1	13-MAY-2005 15:46	422957	3192S	1.0	LANL	UPLOAD BOTH USE HIGHER

042b4201.d	135802003	JMW1	13-MAY-2005 15:57	422957	3192S		10.0	LANL	DUSE RERUN
043b4301.d	135802004	JMW1	13-MAY-2005 16:08	422957	3192S		1.0	LANL	UPLOAD BOTH USE HIGHER
044b4401.d	135802005	JMW1	13-MAY-2005 16:19	422957	3192S		1.0	LANL	UPLOAD BOTH USE HIGHER
045b4501.d	135802006	JMW1	13-MAY-2005 16:30	422957	3192S		1.0	LANL	UPLOAD BOTH USE HIGHER
046b4601.d	135802007	JMW1	13-MAY-2005 16:41	422957	3192S		10.0	LANL	UPLOAD BOTH USE HIGHER
047b4701.d	135802008	JMW1	13-MAY-2005 16:53	422957	3192S		10.0	LANL	UPLOAD BOTH USE HIGHER
048b4801.d	135802009	JMW1	13-MAY-2005 17:04	422957	3192S		1.0	LANL	UPLOAD BOTH USE HIGHER
049b4901.d	135802010	JMW1	13-MAY-2005 17:15	422957	3192S		1.0	LANL	UPLOAD BOTH USE HIGHER
050b5001.d	WAR050511-13606	JMW1	13-MAY-2005 17:26		051305		1.0	ICV	FAILED LOW CONFIRMS WITH REEXTRACT DATA
051b5101.d	WAR050413-10IB1	JMW1	13-MAY-2005 17:37		051205		1.0	IBLK	CLEAN
052b5201.d	135802011	JMW1	13-MAY-2005 17:49	422957	3192S		1.0	LANL	UPLOAD BOTH USE HIGHER
053b5301.d	135802012	JMW1	13-MAY-2005 18:00	422957	3192S		1.0	LANL	UPLOAD BOTH USE HIGHER
054b5401.d	135802013	JMW1	13-MAY-2005 18:11	422957	3192S		1.0	LANL	UPLOAD BOTH USE HIGHER
055b5501.d	135802014	JMW1	13-MAY-2005 18:22	422957	3192S		1.0	LANL	UPLOAD BOTH USE HIGHER

Instrument Batch: /chem/ecd2a.i/051305.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
056b5601.d	135805001	JMW1	13-MAY-2005 18:33	422957	3194S	10.0	LANL	UPLOAD BOTH USE HIGHER
057b5701.d	1200840308	JMW1	13-MAY-2005 18:45	422957	3194S	10.0	MS	UPLOAD BOTH USE HIGHER
058b5801.d	1200840309	JMW1	13-MAY-2005 18:56	422957	3194S	10.0	MSD	UPLOAD BOTH USE HIGHER
059b5901.d	135805002	JMW1	13-MAY-2005 19:07	422957	3194S	1.0	LANL	UPLOAD BOTH USE HIGHER
060b6001.d	135805003	JMW1	13-MAY-2005 19:18	422957	3194S	1.0	LANL	UPLOAD BOTH USE HIGHER
061b6101.d	135805004	JMW1	13-MAY-2005 19:29	422957	3194S	1.0	LANL	UPLOAD BOTH USE HIGHER
062b6201.d	WAR050511-13607	JMW1	13-MAY-2005 19:40		051205	1.0		AR1260 low on front.

Instrument Batch: /chem/ecd2a.i/051305.b

Prep Logbook

Extraction of Semivolatile and Nonvolatile Organic Compounds from Soil, Sludge and Other Miscellaneous Samples

Batch ID: 422954 **Verified by:** _____

Analyst: Joan Patrick **Lab SOP:** GL-OA-E-010 REV# 12

Method: SW846 3550B **Instrument:** Semi-Volatiles Manual

Sample ID	Run Date	Aliquot (g)	Clean Up	Prior to Clean up (mL)	Amount Cleaned (mL)	After Clean up (mL)	Prepped Aliquot (mL)	Prepped Factor (mL/g)
1200840306 MB	11-MAY-2005 15:18:45	30	H2SO4/KMn1		1	10	1	0.03333
1200840307 LCS	11-MAY-2005 15:18:45	30	H2SO4/KMn1		1	10	1	0.03333
135770001	11-MAY-2005 15:18:45	30	H2SO4/KMn1		1	10	1	0.03333
135773001	11-MAY-2005 15:18:45	10	H2SO4/KMn1		1	10	1	0.1
135802001	11-MAY-2005 15:18:45	30	H2SO4/KMn1		1	10	1	0.03333
135802002	11-MAY-2005 15:18:45	30	H2SO4/KMn1		1	10	1	0.03333
135802003	11-MAY-2005 15:18:45	30	H2SO4/KMn1		1	10	1	0.03333
135802004	11-MAY-2005 15:18:45	30	H2SO4/KMn1		1	10	1	0.03333
135802005	11-MAY-2005 15:18:45	30	H2SO4/KMn1		1	10	1	0.03333
135802006	11-MAY-2005 15:18:45	30	H2SO4/KMn1		1	10	1	0.03333
135802007	11-MAY-2005 15:18:45	30	H2SO4/KMn1		1	10	1	0.03333
135802008	11-MAY-2005 15:18:45	30	H2SO4/KMn1		1	10	1	0.03333
135802009	11-MAY-2005 15:18:45	30	H2SO4/KMn1		1	10	1	0.03333
135802010	11-MAY-2005 15:18:45	30	H2SO4/KMn1		1	10	1	0.03333
135802011	11-MAY-2005 15:18:45	30	H2SO4/KMn1		1	10	1	0.03333
135802012	11-MAY-2005 15:18:45	30	H2SO4/KMn1		1	10	1	0.03333
135802013	11-MAY-2005 15:18:45	30	H2SO4/KMn1		1	10	1	0.03333
135802014	11-MAY-2005 15:18:45	30	H2SO4/KMn1		1	10	1	0.03333
135805001	11-MAY-2005 15:18:45	30	H2SO4/KMn1		1	10	1	0.03333
1200840308 MS (135805001)	11-MAY-2005 15:18:45	30	H2SO4/KMn1		1	10	1	0.03333
1200840309 MSD (135805001)	11-MAY-2005 15:18:45	30	H2SO4/KMn1		1	10	1	0.03333
135805002	11-MAY-2005 15:18:45	30	H2SO4/KMn1		1	10	1	0.03333
135805003	11-MAY-2005 15:18:45	30	H2SO4/KMn1		1	10	1	0.03333
135805004	11-MAY-2005 15:18:45	30	H2SO4/KMn1		1	10	1	0.03333

Type	Sample Id	Description	Serial Number	Spike Amt	Units
LCS	1200840307	PCB Laboratory Control	WE050509-02	1	mL
MS	1200840308	PCB Laboratory Control	WE050509-02	1	mL
MSD	1200840309	PCB Laboratory Control	WE050509-02	1	mL
SURR	All	PEST LOW LEVEL SURROGATE 200 UG/L	UE050428-03	1	mL
REGNT	All	Acetone	050322-A	100	mL
REGNT	All	Hexane	050427	180	mL
SOURC	All	SODIUM SULFATE	243217	30	g

Comments:

Final Solvent: Hexane
Clean up Initials: JKP
Verified By: NAG
Clean Up SOP: GL-OA-E-036 REV.1
Clean up Date: 11-MAY-2005

Confirmation Data

GEL ORGANIC RUN LOG

INSTRUMENT ID: ECD2

DATE: 05/20/2005 METHOD: ECD2-F-8082-051105.m OPERATOR:YS1 REVIEWED BY:_____ DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT

Calibration & QC Information
Initial Calibration Dates: See Calibration History and Standards Log
Initial Calibration Std ID's: See Calibration History and Standards Log
GEL SOP GL-OA-E-040
EPA Method: 8082 Polychlorinated Biphenyls PCBs by Gas Chromatography
Sequence Number: Injection Volume: 1.0 uL

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001f0101.d	WAR040413-10 I	YS1	20-MAY-2005 06:57	SOLV	052005	1.0	IB	Clean.
002f0201.d	WAR051105-13601	YS1	20-MAY-2005 07:08	1660	051905	1.0	CVS	OK Pass on both columns.
003f0301.d	WAR050415-05541	YS1	20-MAY-2005 07:19	1254	052005	1.0	CVS	OK Pass on both columns.
004f0401.d	WAR050323-01421	YS1	20-MAY-2005 07:30		052005	1.0		OK High on back.
005f0501.d	WAR050504-01481	YS1	20-MAY-2005 07:42		052005	1.0		OK Pattern only.
006f0601.d	WAR050412-02621	YS1	20-MAY-2005 07:53		052005	1.0		OK Pattern only.
007f0701.d	WAR050401-05321	YS1	20-MAY-2005 08:04		052005	1.0		OK Pattern only.
008f0801.d	WAR050328-05211	YS1	20-MAY-2005 08:15		052005	1.0		OK Pattern only.
009f0901.d	WAR050322-10681	YS1	20-MAY-2005 08:26		052005	1.0		OK Pattern only.
010f1001.d	WAR050413-10IB2	YS1	20-MAY-2005 08:38		052005	1.0		Clean
011f1101.d	136137001	YS1	20-MAY-2005 08:49		052005	5.0	ESHL	Report from 052005608.
012f1201.d	WAR050511-13602	YS1	20-MAY-2005 09:00		052005	1.0		OK pass on both columns.
013f1301.d	WAR050413-10IB3	YS1	20-MAY-2005 09:11		052005	1.0		Clean.
014f1401.d	136417001	YS1	20-MAY-2005 09:23		052005	1000.0	ORNL	
015f1501.d	WAR050511-13603	YS1	20-MAY-2005 09:34		052005	1.0		OK Pass on both columns.

Instrument Batch: /chem/ecd2a.i/052005.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
016f1601.d	WAR050413-10IB4	YS1	20-MAY-2005 09:45		052005	1.0		
017f1701.d	1200849515	YS1	20-MAY-2005 09:56	426670	052005	1.0	MB	DUSE Confirmation for Surrogates and check standards failure.
018f1801.d	1200849516	YS1	20-MAY-2005 10:07	426670		1.0	LCS	DUSE Confirmation for Surrogates and check standards failure.
019f1901.d	135802002	YS1	20-MAY-2005 10:19	426670	3192S	1.0	LANL	DUSE Confirmation for Surrogates and check standards failure.
020f2001.d	135802004	YS1	20-MAY-2005 10:30	426670	3192S	1.0	LANL	DUSE Confirmation for Surrogates and check standards failure.
021f2101.d	135802005	YS1	20-MAY-2005 10:41	426670	3192S	1.0	LANL	DUSE Confirmation for Surrogates and check standards failure.
022f2201.d	135802006	YS1	20-MAY-2005 10:52	426670	3192S	1.0	LANL	DUSE Confirmation for Surrogates and check standards failure.
023f2301.d	135802007	YS1	20-MAY-2005 11:03	426670	3192S	1.0	LANL	DUSE Confirmation for Surrogates and check standards failure.
024f2401.d	135802010	YS1	20-MAY-2005 11:15	426670	3192S	1.0	LANL	DUSE Confirmation for Surrogates and check standards failure.
025f2501.d	135802012	YS1	20-MAY-2005 11:26	426670	3192S	1.0	LANL	DUSE Confirmation for Surrogates and check standards failure.
026f2601.d	135802013	YS1	20-MAY-2005 11:37	426670	3192S	1.0	LANL	DUSE Confirmation for Surrogates and check standards failure.
027f2701.d	WAR050511-13604	YS1	20-MAY-2005 11:48		052005	1.0		AR1260 low on both columns.
028f2801.d	WAR050413-10IB5	YS1	20-MAY-2005 11:59		052005	1.0		
029f2901.d	135802014	YS1	20-MAY-2005 12:11	426670	3192S	1.0	LANL	DUSE Confirmation for Surrogates and check standards failure.
030f3001.d	135805002	YS1	20-MAY-2005 12:22	426670	3194S	1.0	LANL	DUSE Confirmation for Surrogates and check standards failure.
031f3101.d	1200849517	YS1	20-MAY-2005 12:33	426670	002MS)	1.0	MS	DUSE Confirmation for Surrogates and check standards failure.
032f3201.d	1200849518	YS1	20-MAY-2005 12:44	426670	002MSD)	1.0	MSD	DUSE Confirmation for Surrogates and check standards failure.
033f3301.d	135805003	YS1	20-MAY-2005 12:55	426670	3194S	1.0	LANL	DUSE Confirmation for Surrogates and check standards failure.
034f3401.d	135805004	YS1	20-MAY-2005 13:07	426670	3194S	1.0	LANL	DUSE Confirmation for Surrogates and check standards failure.
035f3501.d	WAR050511-13605	YS1	20-MAY-2005 13:18		052005	1.0		AR1260 low on one column.

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General Engineering Laboratories, LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/052005.b/015b1501.d
Lab Smp Id: WAR050511-13603 Client Smp ID: AR166001
Inj Date : 20-MAY-2005 09:34
Operator : YS1 Inst ID: ecd2a.i
Smp Info : |WAR050511-13603
Misc Info :
Comment :
Method : /chem/ecd2a.i/052005.b/ECD2-B-8082-051105.m
Meth Date : 20-May-2005 11:28 yip00818 Quant Type: ESTD
Cal Date : 20-MAY-2005 08:26 Cal File: 009b0901.d
Als bottle: 15
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 10 4cmx					CAS #: 877-09-8		
2.416	2.415	0.001	49354902	113.860	114	80.00- 120.00	100.00(R)
$ 11 Decachlorobiphenyl					CAS #: 2051-24-3		
6.752	6.751	0.001	27081835	107.726	108	80.00- 120.00	100.00(R)
1 Aroclor-1016					CAS #: 12674-11-2		
2.822	2.820	0.002	6348394	1122.00	1120	80.00- 120.00	100.00
3.139	3.139	0.000	15121347	1119.70	1120	218.04- 258.04	238.19
3.327	3.326	0.001	5208670	1075.83	1080	63.80- 103.80	82.05
3.491	3.490	0.001	18049073	1111.55	1110	268.06- 308.06	284.31
3.590	3.589	0.001	10779971	1116.68	1120	154.57- 194.57	169.81
Average of Peak Concentrations =					1110		
7 Aroclor-1260					CAS #: 11096-82-5		
4.845	4.844	0.001	17306306	1076.32	1080	80.00- 120.00	100.00
4.992	4.990	0.002	21105848	1150.07	1150	101.22- 141.22	121.95
5.246	5.244	0.002	28630081	1163.93	1160	138.74- 178.74	165.43
5.515	5.513	0.002	15416693	1145.28	1140	57.59- 97.59	89.08
5.688	5.687	0.001	32331781	1186.01	1190	153.13- 193.13	186.82
Average of Peak Concentrations =					1140		

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

General Engineering Laboratories, LLC

RECOVERY REPORT

Client Name: URS Operation Servi
Client SDG: 052005
Sample Matrix: NONE
Fraction: PEST
Lab Smp Id: WAR050511-13603
Client Smp ID: AR166001
Level:
Operator: YS1
Data Type: GC MULTI COMP
SampleType: SAMPLE
SpikeList File: 60LCSS.spk
Quant Type: ESTD
Sublist File: AR1660.sub
Method File: /chem/ecd2a.i/052005.b/ECD2-B-8082-051105.m
Misc Info:

SURROGATE COMPOUND	AMOUNT ADDED ug/L	AMOUNT RECOVERED ug/L	% RECOVERED	LIMITS
$ 10 4cmx	200	114	57.00	
$ 11 Decachlorobiphenyl	200	108	54.00	

Data File: /chem/ecd2a.i/052008.b/015b1501.d
Date : 20-MAY-2008 09:34
Client ID: AR166001
Sample Info: IWAR050511-13603
Column phase: CLP2

Instrument: ecd2a.i
Operator: YSI
Column diameter: 0.25

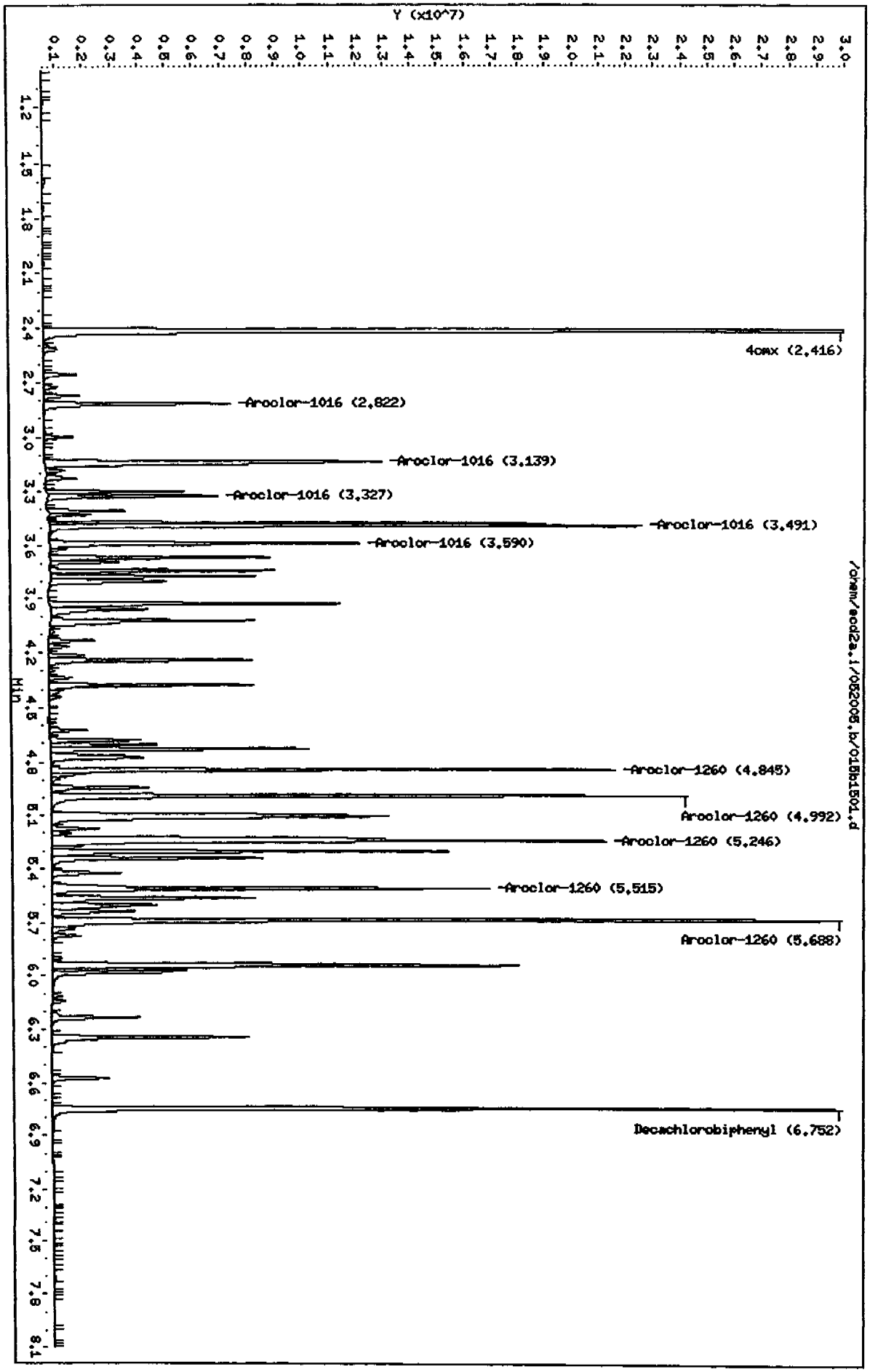

General Engineering Laboratories, LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/052005.b/015f1501.d
Lab Smp Id: WAR050511-13603 Client Smp ID: AR166001
Inj Date : 20-MAY-2005 09:34
Operator : YS1 Inst ID: ecd2a.i
Smp Info : |WAR050511-13603
Misc Info :
Comment :
Method : /chem/ecd2a.i/052005.b/ECD2-F-8082-051105.m
Meth Date : 20-May-2005 11:28 yip00818 Quant Type: ESTD
Cal Date : 20-MAY-2005 08:26 Cal File: 009f0901.d
Als bottle: 15
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 10 4cmx					CAS #: 877-09-8		
2.019	2.019	0.000	22816877	104.005	104	80.00- 120.00	100.00(R)
$ 11 Decachlorobiphenyl					CAS #: 2051-24-3		
5.949	5.948	0.001	14429204	109.591	110	80.00- 120.00	100.00(R)
1 Aroclor-1016					CAS #: 12674-11-2		
2.561	2.562	-0.001	7767492	1192.23	1190	80.00- 120.00	100.00
2.903	2.902	0.001	10333320	1098.74	1100	116.07- 156.07	133.03
2.998	2.998	0.000	6490886	1126.59	1130	64.30- 104.30	83.56
3.043	3.042	0.001	3924696	1101.17	1100	30.91- 70.91	50.53
3.134	3.135	-0.001	3477464	1110.18	1110	26.55- 66.55	44.77
Average of Peak Concentrations =					1120		
7 Aroclor-1260					CAS #: 11096-82-5		
4.155	4.155	0.000	9703999	1014.30	1010	80.00- 120.00	100.00
4.350	4.350	0.000	14472996	1098.54	1100	129.59- 169.59	149.14
4.544	4.542	0.002	16660580	1081.24	1080	140.84- 180.84	171.69
4.791	4.791	0.000	8250285	1117.85	1120	58.52- 98.52	85.02
5.006	5.005	0.001	17948232	968.300	968	164.23- 204.23	184.96
Average of Peak Concentrations =					1060		

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

General Engineering Laboratories, LLC

RECOVERY REPORT

Client Name:
Sample Matrix: NONE
Lab Smp Id: WAR050511-13603
Level:
Data Type: GC MULTI COMP
SpikeList File: WaterLCS.spk
Sublist File: AR1660.sub
Method File: /chem/ecd2a.i/052005.b/ECD2-F-8082-051105.m
Misc Info:

Client SDG: 052005
Fraction: PEST
Client Smp ID: AR166001
Operator: YS1
SampleType: SAMPLE
Quant Type: ESTD

SURROGATE COMPOUND	AMOUNT ADDED ug/L	AMOUNT RECOVERED ug/L	% RECOVERED	LIMITS
$ 10 4cmx	200	104	52.00	
$ 11 Decachlorobiphenyl	200	110	55.00	

Data File: /chem/ecd2a.i/052005.b/015f1501.d
Date : 20-MAY-2005 09:34
Client ID: AR166001
Sample Info: IWAR050511-13603

Instrument: ecd2a.i

Operator: YS1
Column diameter: 0.25

Column phase: CLP1

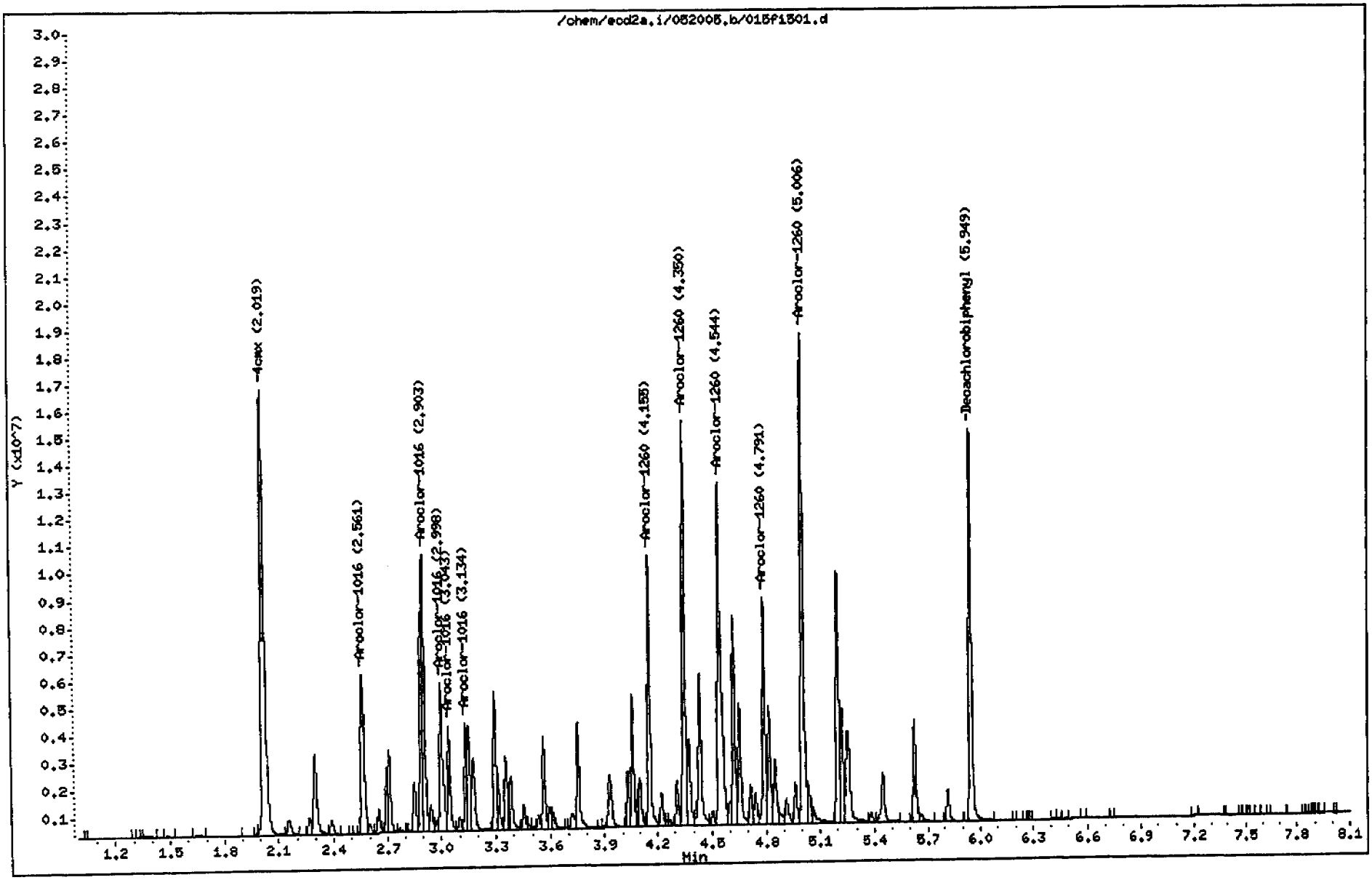

General Engineering Laboratories, LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/052005.b/016b1601.d
Lab Smp Id: WAR050413-10IB4 Client Smp ID: AR
Inj Date : 20-MAY-2005 09:45
Operator : YS1 Inst ID: ecd2a.i
Smp Info : |WAR050413-10IB4
Misc Info :
Comment :
Method : /chem/ecd2a.i/052005.b/ECD2-B-8082-051105.m
Meth Date : 20-May-2005 11:28 yip00818 Quant Type: ESTD
Cal Date : 20-MAY-2005 08:26 Cal File: 009b0901.d
Als bottle: 16
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: PCB.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 10 4cmx					CAS #: 877-09-8		
2.417	2.415	0.002	88994400	205.306	205	80.00- 120.00	100.00(R)
$ 11 Decachlorobiphenyl					CAS #: 2051-24-3		
6.752	6.751	0.001	52022764	206.936	207	80.00- 120.00	100.00(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

General Engineering Laboratories, LLC

RECOVERY REPORT

Client Name: URS Operation Servi
Client SDG: 052005
Sample Matrix: NONE
Fraction: PEST
Lab Smp Id: WAR050413-10IB4
Client Smp ID: AR
Level:
Operator: YS1
Data Type: GC MULTI COMP
SampleType: SAMPLE
SpikeList File: 60LCSS.spk
Quant Type: ESTD
Sublist File: PCB.sub
Method File: /chem/ecd2a.i/052005.b/ECD2-B-8082-051105.m
Misc Info:

SURROGATE COMPOUND	AMOUNT ADDED ug/L	AMOUNT RECOVERED ug/L	% RECOVERED	LIMITS
$ 10 4cmx	200	205	102.50	
$ 11 Decachlorobiphenyl	200	207	103.50	

Data File: /chem/ecd2a.i/052005.b/016b1601.d
Date : 20-MAY-2005 09:45
Client ID: AR
Sample Info: IWAR050413-10IB4

Column phase: CLP2

Instrument: ecd2a.i

Operator: YS1
Column diameter: 0.25

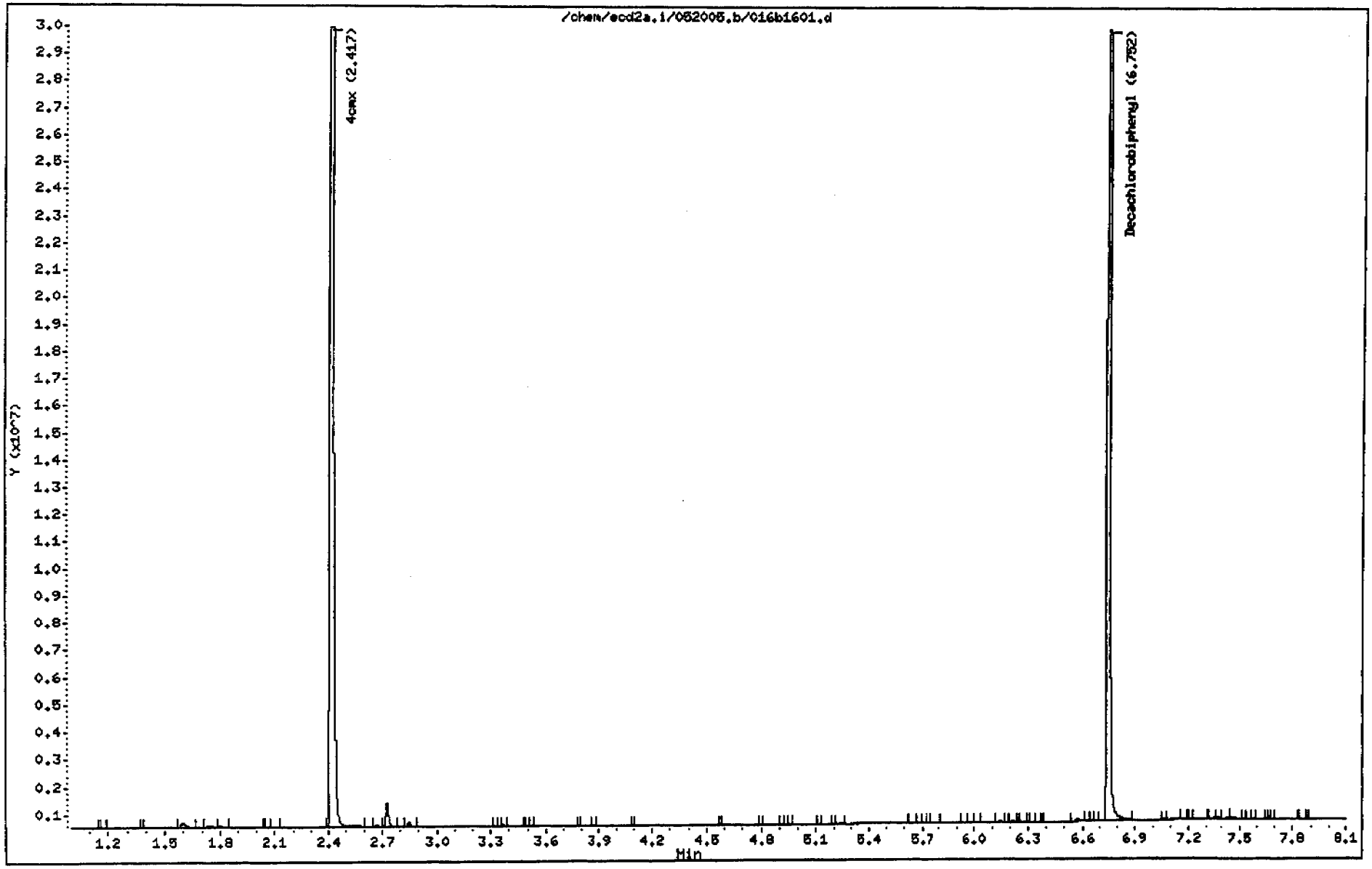

General Engineering Laboratories, LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/052005.b/016f1601.d
Lab Smp Id: WAR050413-10IB4 Client Smp ID: AR
Inj Date : 20-MAY-2005 09:45
Operator : YS1 Inst ID: ecd2a.i
Smp Info : |WAR050413-10IB4
Misc Info :
Comment :
Method : /chem/ecd2a.i/052005.b/ECD2-F-8082-051105.m
Meth Date : 20-May-2005 11:28 yip00818 Quant Type: ESTD
Cal Date : 20-MAY-2005 08:26 Cal File: 009f0901.d
Als bottle: 16
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: PCB.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 10 4cmx					CAS #: 877-09-8		
2.021	2.019	0.002	40563294	184.897	185	80.00- 120.00	100.00(R)
$ 11 Decachlorobiphenyl					CAS #: 2051-24-3		
5.948	5.948	0.000	27363288	211.270	211	80.00- 120.00	100.00(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

General Engineering Laboratories, LLC

RECOVERY REPORT

Client Name:
Sample Matrix: NONE
Lab Smp Id: WAR050413-10IB4
Level:
Data Type: GC MULTI COMP
SpikeList File: WaterLCS.spk
Sublist File: PCB.sub
Method File: /chem/ecd2a.i/052005.b/ECD2-F-8082-051105.m
Misc Info:

Client SDG: 052005
Fraction: PEST
Client Smp ID: AR
Operator: YS1
SampleType: SAMPLE
Quant Type: ESTD

SURROGATE COMPOUND	AMOUNT ADDED ug/L	AMOUNT RECOVERED ug/L	% RECOVERED	LIMITS
$ 10 4cmx	200	185	92.50	
$ 11 Decachlorobiphenyl	200	211	105.50	

Data File: /chem/ecd2a.i/052005.b/016f1601.d

Date : 20-MAY-2005 09:45

Client ID: AR

Sample Info: IWAR050413-10IB4

Column phase: CLP1

Instrument: ecd2a.i

Operator: YS1

Column diameter: 0.25

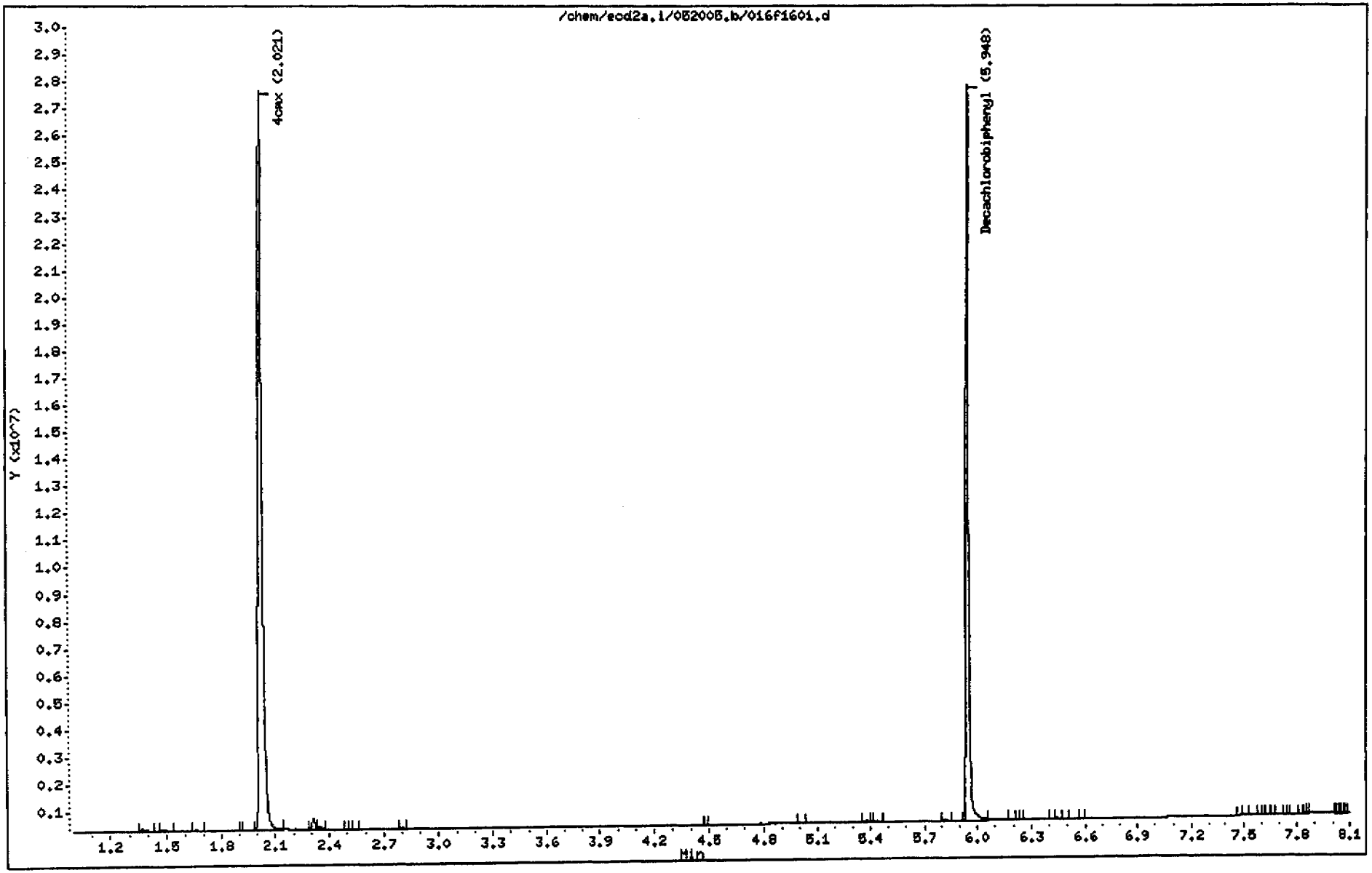

General Engineering Laboratories, LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/052005.b/017b1701.d
Lab Smp Id: 1200849515 Client Smp ID: MB_for_batch_426669
Inj Date : 20-MAY-2005 09:56
Operator : YS1 Inst ID: ecd2a.i
Smp Info : |1200849515|1
Misc Info : |ECD82P_1SF|426670|SVAP|MB|
Comment :
Method : /chem/ecd2a.i/052005.b/ECD2-B-8082-051105.m
Meth Date : 20-May-2005 11:28 yip00818 Quant Type: ESTD
Cal Date : 20-MAY-2005 08:26 Cal File: 009b0901.d
Als bottle: 17 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: PCB.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariab

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 10 4cmx					CAS #: 877-09-8		
2.416	2.415	0.001	74263462	171.323	5.7	80.00- 120.00	100.00
$ 11 Decachlorobiphenyl					CAS #: 2051-24-3		
6.750	6.751	-0.001	46619276	185.442	6.2	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.810	2.820	-0.010	160376	28.3446	0.94	80.00- 120.00	100.00(a)
3.142	3.139	0.003	16917	1.25273	0.042	218.04- 258.04	10.55
3.332	3.326	0.006	6403	1.32261	0.044	63.80- 103.80	3.99
3.492	3.490	0.002	19709	1.21380	0.040	268.06- 308.06	12.29

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
1 Aroclor-1016 (continued)							
3.608	3.589	0.019	84390	8.74185	0.29	154.57- 194.57	52.62
Average of Peak Concentrations =					0.27		
5 Aroclor-1248					CAS #: 12672-29-6		
3.735	3.740	-0.005	159621	15.9908	0.53	80.00- 120.00	100.00(a)
3.778	3.771	0.007	90181	10.4247	0.35	66.66- 106.66	56.50
3.941	3.936	0.005	19664	1.55842	0.052	106.41- 146.41	12.32
4.219	4.212	0.007	34464	2.66687	0.089	109.47- 149.47	21.59
4.240	4.246	-0.006	29630	2.08911	0.070	122.09- 162.09	18.56
Average of Peak Concentrations =					0.22		
6 Aroclor-1254					CAS #: 11097-69-1		
4.240	4.241	-0.001	29630	2.09499	0.070	80.00- 120.00	100.00(a)
4.375	4.378	-0.003	44322	2.94194	0.098	86.71- 126.71	149.58
4.629	4.625	0.004	11794	1.06717	0.036	57.22- 97.22	39.81
4.711	4.708	0.003	16982	0.83216	0.028	122.52- 162.52	57.32
4.839	4.843	-0.004	56047	5.27102	0.18	55.49- 95.49	189.16
Average of Peak Concentrations =					0.082		
7 Aroclor-1260					CAS #: 11096-82-5		
4.839	4.844	-0.005	56047	3.48574	0.12	80.00- 120.00	100.00(a)
4.987	4.990	-0.003	14423	0.78597	0.026	101.22- 141.22	25.74
5.245	5.244	0.001	17042	0.69284	0.023	138.74- 178.74	30.41
5.517	5.513	0.004	4782	0.35529	0.012	57.59- 97.59	8.53
5.688	5.687	0.001	2589	0.09497	0.0032	153.13- 193.13	4.62
Average of Peak Concentrations =					0.037		

QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).

General Engineering Laboratories, LLC

RECOVERY REPORT

Client Name: URS Operation Servi
Sample Matrix: SOLID
Lab Smp Id: 1200849515
Level: LOW
Data Type: GC MULTI COMP
SpikeList File: 60LCSS.spk
Sublist File: PCB.sub
Method File: /chem/ecd2a.i/052005.b/ECD2-B-8082-051105.m
Misc Info: |ECD82P_1SF|426670|SVAP|MB|

Client SDG: 052005
Fraction: PEST
Client Smp ID: MB_for_batch_426669
Operator: YS1
SampleType: BLANK
Quant Type: ESTD

SURROGATE COMPOUND	CONC ADDED ug/Kg	CONC RECOVERED ug/Kg	% RECOVERED	LIMITS
$ 10 4cmx	6.7	5.7	85.07	41-132
$ 11 Decachlorobiphenyl	6.7	6.2	92.54	44-127

Data File: /chem/ecd2a.i/052005.b/017b1701.d
Date : 20-MAY-2005 09:56
Client ID: MB_for_batch_426669
Sample Info: 1120084951511
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd2a.i

Operator: YS1
Column diameter: 0.25

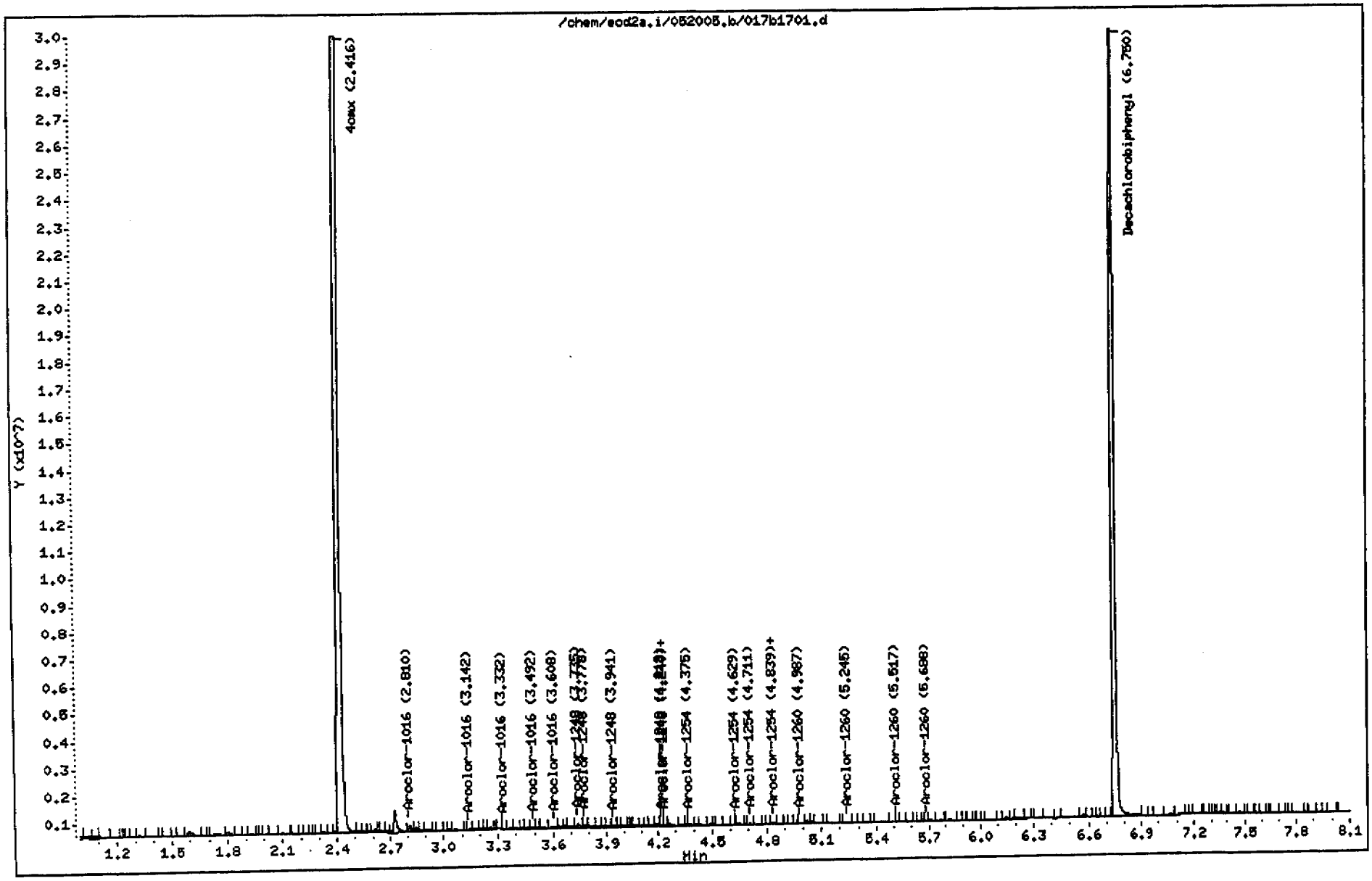

General Engineering Laboratories, LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/052005.b/017f1701.d
Lab Smp Id: 1200849515 Client Smp ID: MB_for_batch_426669
Inj Date : 20-MAY-2005 09:56
Operator : YS1 Inst ID: ecd2a.i
Smp Info : |1200849515|1
Misc Info : |ECD82P_1SF|426670|SVAP|MB|
Comment :
Method : /chem/ecd2a.i/052005.b/ECD2-F-8082-051105.m
Meth Date : 20-May-2005 11:28 yip00818 Quant Type: ESTD
Cal Date : 20-MAY-2005 08:26 Cal File: 009f0901.d
Als bottle: 17 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: PCB.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariab

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 10 4cmx					CAS #: 877-09-8		
2.021	2.019	0.002	33697723	153.602	5.1	80.00- 120.00	100.00
$ 11 Decachlorobiphenyl					CAS #: 2051-24-3		
5.947	5.948	-0.001	25094439	193.433	6.4	80.00- 120.00	100.00
2 Aroclor-1221					CAS #: 11104-28-2		
2.185	2.158	0.027	14054	6.08721	0.20	80.00- 120.00	100.00(a)
2.253	2.268	-0.015	151893	119.521	4.0	35.04- 75.04	1080.77
2.311	2.298	0.013	520419	93.9092	3.1	220.03- 260.03	3702.96
Average of Peak Concentrations *					2.4		

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
3 Aroclor-1232					CAS #: 11141-16-5		
2.311	2.297	0.014	520419	106.294	3.5	80.00- 120.00	100.00(a)
2.576	2.561	0.015	16564	4.44941	0.15	56.04- 96.04	3.18
2.892	2.902	-0.010	11426	2.33622	0.078	79.89- 119.89	2.20
3.014	2.997	0.017	51599	16.5495	0.55	43.68- 83.68	9.91
3.157	3.151	0.006	12544	7.60946	0.25	13.67- 53.67	2.41
Average of Peak Concentrations =					0.90		
5 Aroclor-1248					CAS #: 12672-29-6		
3.286	3.293	-0.007	56184	8.34532	0.28	80.00- 120.00	100.00(a)
3.482	3.455	0.027	20848	13.3417	0.44	3.21- 43.21	37.11
3.751	3.752	-0.001	40650	6.71414	0.22	69.93- 109.93	72.35
3.799	3.776	0.023	26392	10.5496	0.35	17.16- 57.16	46.97
3.903	3.913	-0.010	8263	4.15356	0.14	9.55- 49.55	14.71
Average of Peak Concentrations =					0.29		
6 Aroclor-1254					CAS #: 11097-69-1		
3.555	3.564	-0.009	24203	3.74967	0.12	80.00- 120.00	100.00(a)
3.751	3.750	0.001	40650	4.84670	0.16	112.09- 152.09	167.95
3.929	3.942	-0.013	7151	1.12146	0.037	76.64- 116.64	29.55
4.027	4.027	0.000	13919	1.28750	0.043	147.36- 187.36	57.51
4.552	4.543	0.009	38213	3.40442	0.11	159.04- 199.04	157.88
Average of Peak Concentrations =					0.094		
7 Aroclor-1260					CAS #: 11096-82-5		
4.152	4.155	-0.003	2642	0.27624	0.0092	80.00- 120.00	100.00(a)
4.350	4.350	0.000	2841	0.21566	0.0072	129.59- 169.59	107.51
4.552	4.542	0.010	38213	2.47998	0.083	140.84- 180.84	1445.94
4.764	4.791	-0.027	12517	1.69604	0.056	58.52- 98.52	473.65
5.002	5.005	-0.003	12910	0.69650	0.023	164.23- 204.23	488.50
Average of Peak Concentrations =					0.036		

QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).

General Engineering Laboratories, LLC

RECOVERY REPORT

Client Name:
Sample Matrix: SOLID
Lab Smp Id: 1200849515
Level: LOW
Data Type: GC MULTI COMP
SpikeList File: WaterLCS.spk
Sublist File: PCB.sub
Method File: /chem/ecd2a.i/052005.b/ECD2-F-8082-051105.m
Misc Info: |ECD82P_1SF|426670|SVAP|MB|

Client SDG: 052005
Fraction: PEST
Client Smp ID: MB_for_batch_426669
Operator: YS1
SampleType: BLANK
Quant Type: ESTD

SURROGATE COMPOUND	CONC ADDED ug/Kg	CONC RECOVERED ug/Kg	% RECOVERED	LIMITS
$ 10 4cmx	6.7	5.1	76.12	41-132
$ 11 Decachlorobiphenyl	6.7	6.4	95.52	44-127

Data File: /chem/ecd2a.i/052005.b/017f1701.d
Date : 20-MAY-2005 09:56
Client ID: MB_for_batch_426669
Sample Info: !12008495815!1
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecd2a.i

Operator: YS1
Column diameter: 0.25

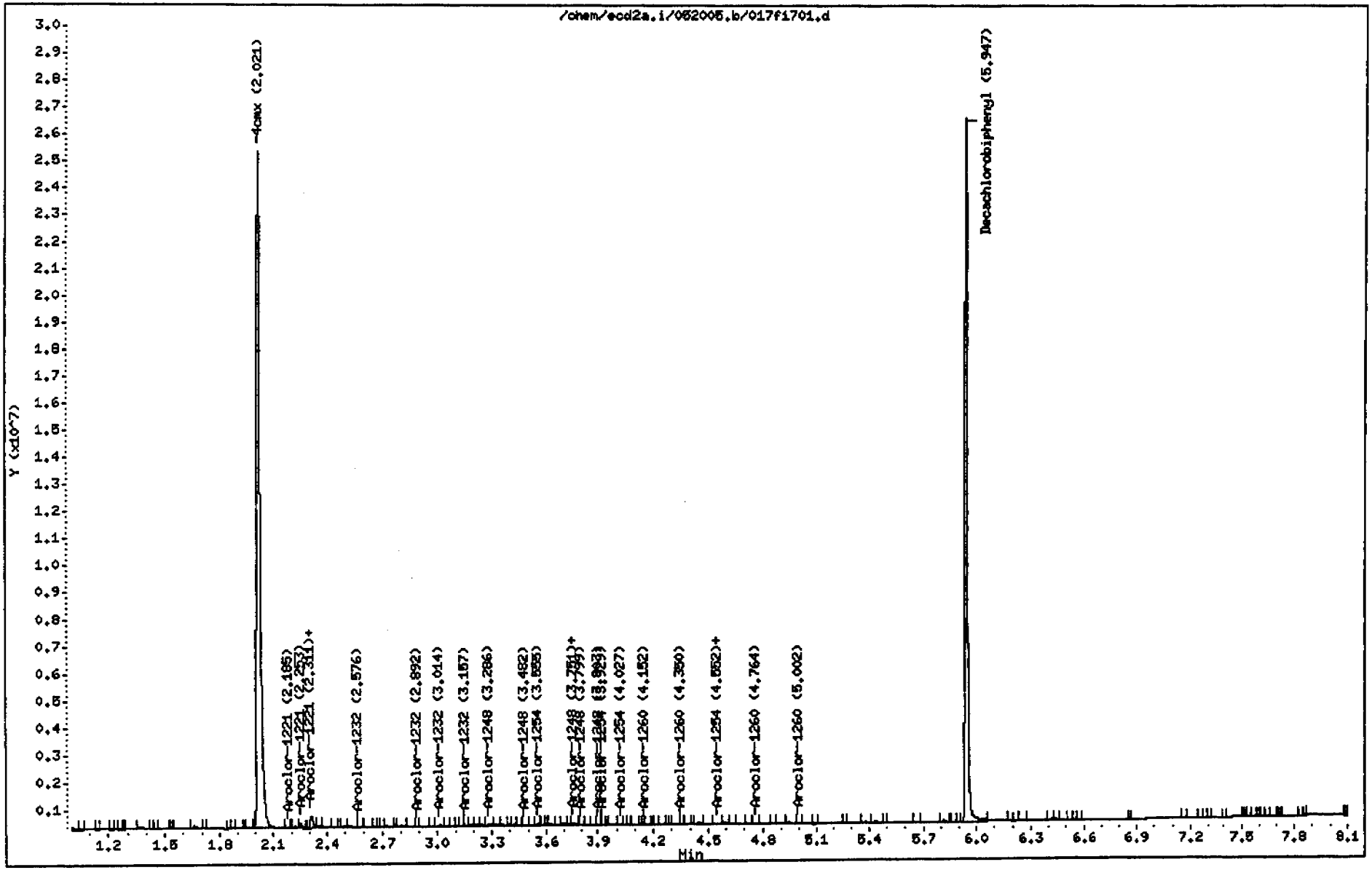

General Engineering Laboratories, LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/052005.b/018b1801.d
Lab Smp Id: 1200849516 Client Smp ID: LCS_for_batch_42666
Inj Date : 20-MAY-2005 10:07
Operator : YS1 Inst ID: ecd2a.i
Smp Info : |1200849516|1
Misc Info : |ECD82P_1SF|426670|SVAP|LCS|
Comment :
Method : /chem/ecd2a.i/052005.b/ECD2-B-8082-051105.m
Meth Date : 20-May-2005 11:28 yip00818 Quant Type: ESTD
Cal Date : 20-MAY-2005 08:26 Cal File: 009b0901.d
Als bottle: 18 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: PCB.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariab

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 10 4cmx					CAS #: 877-09-8		
2.415	2.415	0.000	62791121	144.856	4.8	80.00- 120.00	100.00
$ 11 Decachlorobiphenyl					CAS #: 2051-24-3		
6.750	6.751	-0.001	37805253	150.382	5.0	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.820	2.820	0.000	4283782	757.106	25.2	80.00- 120.00	100.00
3.139	3.139	0.000	9797476	725.477	24.2	218.04- 258.04	228.71
3.327	3.326	0.001	3432802	709.030	23.6	63.80- 103.80	80.13
3.490	3.490	0.000	12116559	746.200	24.9	268.06- 308.06	282.85

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
1 Aroclor-1016 (continued)							
3.589	3.589	0.000	7262747	752.336	25.1	154.57- 194.57	169.54
Average of Peak Concentrations =					24.6		
2 Aroclor-1221					CAS #: 11104-28-2		
2.659	2.659	0.000	800868	194.036	6.5	80.00- 120.00	100.00
2.773	2.774	-0.001	747949	303.586	10.1	39.69- 79.69	93.39
2.820	2.822	-0.002	4283782	441.035	14.7	215.33- 255.33	534.89
Average of Peak Concentrations =					10.4		
3 Aroclor-1232					CAS #: 11141-16-5		
2.820	2.820	0.000	4283782	535.410	17.8	80.00- 120.00	100.00
3.139	3.139	0.000	9797476	1390.63	46.4	68.06- 108.06	228.71
3.478	3.478	0.000	8318408	1498.71	50.0	49.37- 89.37	194.18
3.490	3.490	0.000	12116559	1511.05	50.4	80.22- 120.22	282.85
3.589	3.590	-0.001	7262747	1468.71	49.0	41.80- 81.80	169.54
Average of Peak Concentrations =					42.7		
4 Aroclor-1242					CAS #: 53469-21-9		
3.139	3.140	-0.001	9797476	1002.89	33.4	80.00- 120.00	100.00
3.327	3.327	0.000	3432802	960.421	32.0	15.85- 55.85	35.04
3.478	3.478	0.000	8318408	1172.07	39.1	65.25- 105.25	84.90
3.490	3.491	-0.001	12116559	1051.91	35.1	101.62- 141.62	123.67
3.936	3.937	-0.001	5823523	1067.20	35.6	38.64- 78.64	59.44
Average of Peak Concentrations =					35.0		
5 Aroclor-1248					CAS #: 12672-29-6		
3.739	3.740	-0.001	4413174	442.107	14.7	80.00- 120.00	100.00
3.770	3.771	-0.001	4538553	524.644	17.5	66.66- 106.66	102.84
3.936	3.936	0.000	5823523	461.522	15.4	106.41- 146.41	131.96
4.213	4.212	0.001	828863	64.1367	2.1	109.47- 149.47	18.78
4.241	4.246	-0.005	4500035	317.279	10.6	122.09- 162.09	101.97
Average of Peak Concentrations =					12.1		
6 Aroclor-1254					CAS #: 11097-69-1		
4.241	4.241	0.000	4500035	318.171	10.6	80.00- 120.00	100.00
4.377	4.378	-0.001	4262991	282.961	9.4	86.71- 126.71	94.73
4.625	4.625	0.000	818396	74.0495	2.5	57.22- 97.22	18.19
4.708	4.708	0.000	2217948	108.679	3.6	122.52- 162.52	49.29
4.844	4.843	0.001	11617290	1092.55	36.4	55.49- 95.49	258.16
Average of Peak Concentrations =					12.5		
7 Aroclor-1260					CAS #: 11096-82-5		
4.844	4.844	0.000	11617290	722.506	24.1	80.00- 120.00	100.00
4.990	4.990	0.000	14056493	765.944	25.5	101.22- 141.22	121.00
5.244	5.244	0.000	14461426	587.917	19.6	138.74- 178.74	124.48

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
7 Aroclor-1260 (continued)							
5.513	5.513	0.000	10608535	788.088	26.3	57.59- 97.59	91.32
5.687	5.687	0.000	22470317	824.270	27.5	153.13- 193.13	193.42
		Average of Peak Concentrations =			24.6		

General Engineering Laboratories, LLC

RECOVERY REPORT

Client Name: URS Operation Servi
Sample Matrix: SOLID
Lab Smp Id: 1200849516
Level: LOW
Data Type: GC MULTI COMP
SpikeList File: 60LCSS.spk
Sublist File: PCB.sub
Client SDG:
Fraction: PEST
Client Smp ID: LCS_for_batch_42666
Operator: YS1
SampleType: LCS
Quant Type: ESTD
Method File: /chem/ecd2a.i/052005.b/ECD2-B-8082-051105.m
Misc Info: |ECD82P_1SF|426670|SVAP|LCS|

SURROGATE COMPOUND	CONC ADDED ug/Kg	CONC RECOVERED ug/Kg	% RECOVERED	LIMITS
$ 10 4cmx	6.7	4.8	71.64	41-132
$ 11 Decachlorobiphenyl	6.7	5.0	74.63	44-127

Data File: /chem/ecd2a.i/052005.b/018b1801.d
Date : 20-MAY-2005 10:07
Client ID: LCS_for_batch_42666
Sample Info: 1120084981611
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd2a.i
Operator: YSI
Column diameter: 0.25

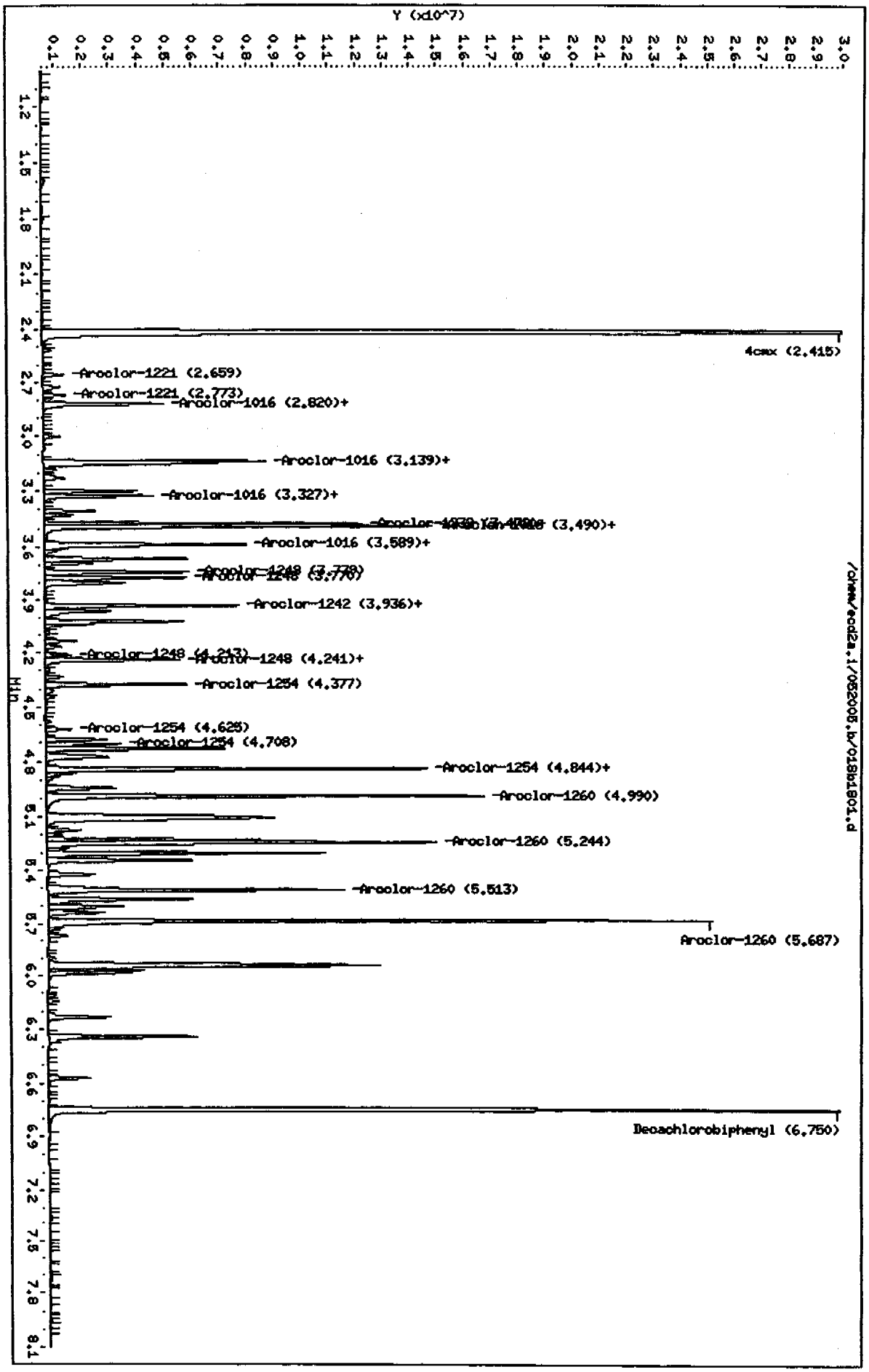

General Engineering Laboratories, LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/052005.b/018f1801.d
Lab Smp Id: 1200849516 Client Smp ID: LCS_for_batch_42666
Inj Date : 20-MAY-2005 10:07
Operator : YS1 Inst ID: ecd2a.i
Smp Info : |1200849516|1
Misc Info : |ECD82P_1SF|426670|SVAP|LCS|
Comment :
Method : /chem/ecd2a.i/052005.b/ECD2-F-8082-051105.m
Meth Date : 20-May-2005 11:28 yip00818 Quant Type: ESTD
Cal Date : 20-MAY-2005 08:26 Cal File: 009f0901.d
Als bottle: 18 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: PCB.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariab

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 10 4cmx					CAS #: 877-09-8		
2.019	2.019	0.000	28533680	130.063	4.3	80.00- 120.00	100.00
$ 11 Decachlorobiphenyl					CAS #: 2051-24-3		
5.947	5.948	-0.001	21232782	163.076	5.4	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.561	2.562	-0.001	5101272	745.101	24.8	80.00- 120.00	100.00
2.902	2.902	0.000	6794112	701.387	23.4	116.07- 156.07	133.18
2.998	2.998	0.000	4160629	698.149	23.3	64.30- 104.30	81.56
3.042	3.042	0.000	2467023	674.898	22.5	30.91- 70.91	48.36

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
1 Aroclor-1016 (continued)							
3.135	3.135	0.000	2211839	691.094	23.0	26.55- 66.55	43.36
Average of Peak Concentrations =					23.4		
2 Aroclor-1221					CAS #: 11104-28-2		
2.156	2.158	-0.002	445991	193.170	6.4	80.00- 120.00	100.00
2.267	2.268	-0.001	532190	418.766	14.0	35.04- 75.04	119.33
2.299	2.298	0.001	2544379	459.130	15.3	220.03- 260.03	570.50
Average of Peak Concentrations =					11.9		
3 Aroclor-1232					CAS #: 11141-16-5		
2.299	2.297	0.002	2544379	519.683	17.3	80.00- 120.00	100.00
2.561	2.561	0.000	5101272	1370.28	45.7	56.04- 96.04	200.49
2.902	2.902	0.000	6794112	1389.15	46.3	79.89- 119.89	267.02
2.998	2.997	0.001	4160629	1334.44	44.5	43.68- 83.68	163.52
3.151	3.151	0.000	2390638	1450.16	48.3	13.67- 53.67	93.96
Average of Peak Concentrations =					40.4		
4 Aroclor-1242					CAS #: 53469-21-9		
2.902	2.904	-0.002	6794112	826.400	27.5	80.00- 120.00	100.00
2.998	2.999	-0.001	4160629	843.073	28.1	41.90- 81.90	61.24
3.042	3.044	-0.002	2467023	820.512	27.4	18.49- 58.49	36.31
3.135	3.135	0.000	2211839	915.885	30.5	10.40- 50.40	32.56
3.353	3.354	-0.001	2139294	781.613	26.0	9.72- 49.72	31.49
Average of Peak Concentrations =					27.9		
6 Aroclor-1254					CAS #: 11097-69-1		
3.564	3.564	0.000	2153495	333.622	11.1	80.00- 120.00	100.00
3.750	3.750	0.000	2699902	321.906	10.7	112.09- 152.09	125.37
3.933	3.942	-0.009	1688674	264.792	8.8	76.64- 116.64	78.42
4.027	4.027	0.000	1338518	123.809	4.1	147.36- 187.36	62.16
4.542	4.543	-0.001	11321904	1008.66	33.6	159.04- 199.04	525.75
Average of Peak Concentrations =					13.7		
7 Aroclor-1260					CAS #: 11096-82-5		
4.155	4.155	0.000	6642376	694.289	23.1	80.00- 120.00	100.00
4.350	4.350	0.000	9787251	742.881	24.8	129.59- 169.59	147.35
4.542	4.542	0.000	11321904	734.771	24.5	140.84- 180.84	170.45
4.791	4.791	0.000	5727638	776.052	25.9	58.52- 98.52	86.23
5.005	5.005	0.000	12186180	657.439	21.9	164.23- 204.23	183.46
Average of Peak Concentrations =					24.0		

General Engineering Laboratories, LLC

RECOVERY REPORT

Client Name:
Sample Matrix: SOLID
Lab Smp Id: 1200849516
Level: LOW
Data Type: GC MULTI COMP
SpikeList File: WaterLCS.spk
Sublist File: PCB.sub
Method File: /chem/ecd2a.i/052005.b/ECD2-F-8082-051105.m
Misc Info: |ECD82P_1SF|426670|SVAP|LCS|

Client SDG:
Fraction: PEST
Client Smp ID: LCS_for_batch_42666
Operator: YS1
SampleType: LCS
Quant Type: ESTD

SURROGATE COMPOUND	CONC ADDED ug/Kg	CONC RECOVERED ug/Kg	% RECOVERED	LIMITS
$ 10 4cmx	6.7	4.3	64.18	41-132
$ 11 Decachlorobiphenyl	6.7	5.4	80.60	44-127

Data File: /ohem/ecd2a.i/052005.b/018f1801.d
Date : 20-MAY-2005 10:07
Client ID: LCS_for_batch_42666
Sample Info: 1120084951611
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecd2a.i
Operator: YSL
Column diameter: 0.25

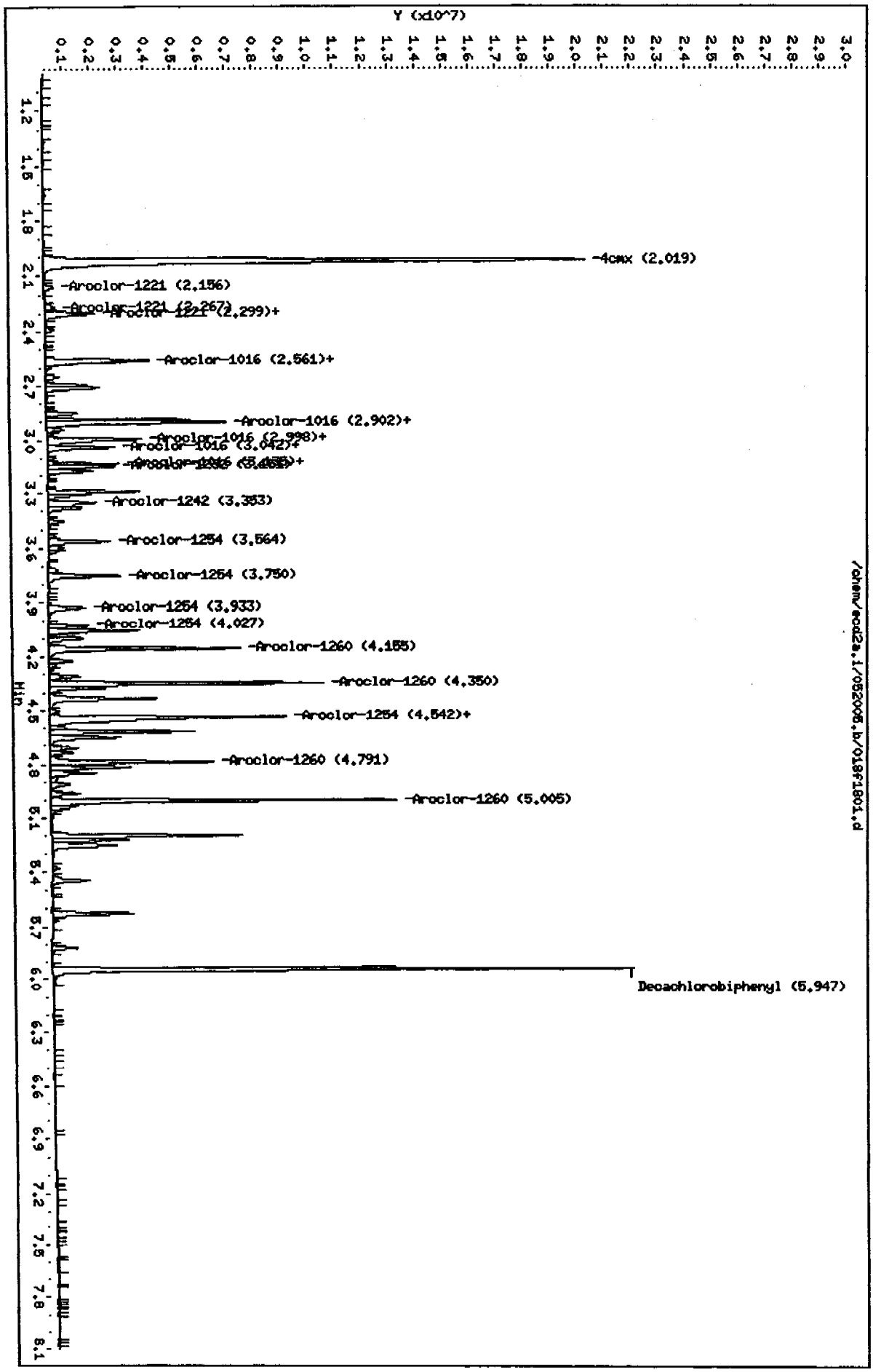

General Engineering Laboratories, LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/052005.b/030b3001.d
Lab Smp Id: 135805002 Client Smp ID: RE03-05-59541
Inj Date : 20-MAY-2005 12:22
Operator : YS1 Inst ID: ecd2a.i
Smp Info : |135805002|1
Misc Info : |ECD82P_1SF|426670|SVAP|LANL|
Comment :
Method : /chem/ecd2a.i/052005.b/ECD2-B-8082-051105.m
Meth Date : 20-May-2005 11:28 yip00818 Quant Type: ESTD
Cal Date : 20-MAY-2005 08:26 Cal File: 009b0901.d
Als bottle: 30
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 3194S.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariab

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	13.31460	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 10 4cmx					CAS #: 877-09-8		
2.418	2.415	0.003	52510467	121.139	4.6	80.00- 120.00	100.00
$ 11 Decachlorobiphenyl					CAS #: 2051-24-3		
6.755	6.751	0.004	17929518	71.3201	2.7	80.00- 120.00	100.00(R)
6 Aroclor-1254					CAS #: 11097-69-1		
4.243	4.241	0.002	662730	46.8578	1.8	80.00- 120.00	100.00(a)
4.379	4.378	0.001	640090	42.4868	1.6	86.71- 126.71	96.58
4.627	4.625	0.002	601215	54.3987	2.1	57.22- 97.22	90.72
4.711	4.708	0.003	2328950	114.118	4.4	122.52- 162.52	351.42

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
6 Aroclor-1254 (continued)							
4.846	4.843	0.003	1030363	96.9006	3.7	55.49- 95.49	155.47
Average of Peak Concentrations =					2.7		
7 Aroclor-1260					CAS #: 11096-82-5		
4.846	4.844	0.002	1030363	64.0806	2.5	80.00- 120.00	100.00(a)
4.993	4.990	0.003	984144	53.6264	2.1	101.22- 141.22	95.51
5.246	5.244	0.002	2515241	102.255	3.9	138.74- 178.74	244.11
5.515	5.513	0.002	347462	25.8123	0.99	57.59- 97.59	33.72
5.691	5.687	0.004	854611	31.3494	1.2	153.13- 193.13	82.94
Average of Peak Concentrations =					2.1		

QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
R - Spike/Surrogate failed recovery limits.

General Engineering Laboratories, LLC

RECOVERY REPORT

Client Name: Los Alamos National 04-MAY-2005 00:00 Client SDG: 3194S
Sample Matrix: SOLID Fraction: PEST
Lab Smp Id: 135805002 Client Smp ID: RE03-05-59541
Level: LOW Operator: YS1
Data Type: GC MULTI COMP SampleType: SAMPLE
SpikeList File: 60LCSS.spk Quant Type: ESTD
Sublist File: 3194S.sub
Method File: /chem/ecd2a.i/052005.b/ECD2-B-8082-051105.m
Misc Info: |ECD82P_1SF|426670|SVAP|LANL|

SURROGATE COMPOUND	CONC ADDED ug/Kg	CONC RECOVERED ug/Kg	% RECOVERED	LIMITS
$ 10 4cmx	7.7	4.6	59.74	58-106
$ 11 Decachlorobiphenyl	7.7	2.7	35.06*	55-115

Data File: /chem/ecd2a.i/052005.b/030b3001.d
Date : 20-MAY-2005 12:22
Client ID: RE03-05-89841
Sample Info: 1135805002l4
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd2a.i
Operator: YS1
Column diameter: 0.25

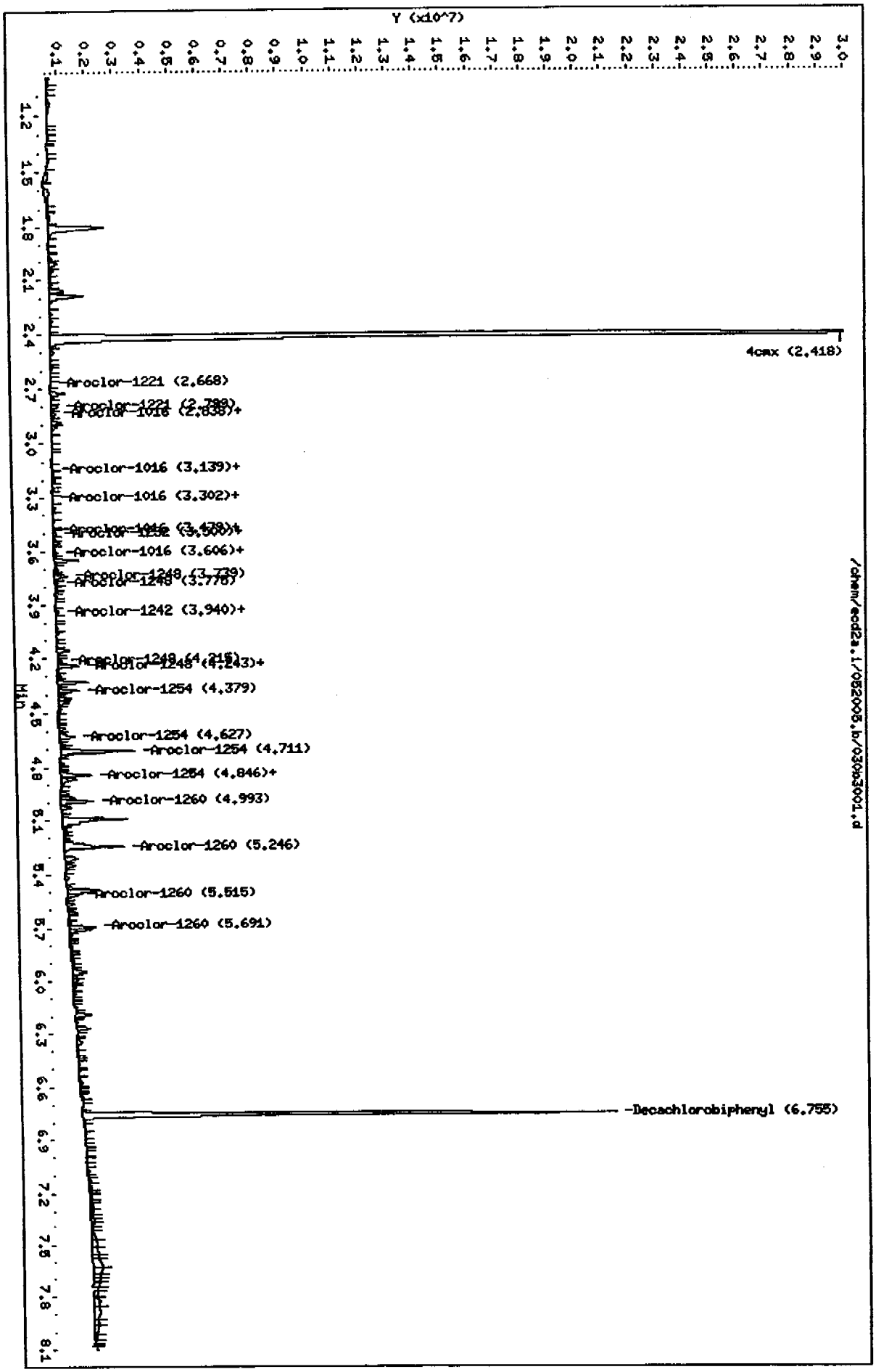

General Engineering Laboratories, LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/052005.b/030f3001.d
Lab Smp Id: 135805002 Client Smp ID: RE03-05-59541
Inj Date : 20-MAY-2005 12:22
Operator : YS1 Inst ID: ecd2a.i
Smp Info : |135805002|1
Misc Info : |ECD82P_1SF|426670|SVAP|LANL|
Comment :
Method : /chem/ecd2a.i/052005.b/ECD2-F-8082-051105.m
Meth Date : 20-May-2005 11:28 yip00818 Quant Type: ESTD
Cal Date : 20-MAY-2005 08:26 Cal File: 009f0901.d
Als bottle: 30
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 3194S.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariab

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	13.31460	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 10 4cmx					CAS #: 877-09-8		
2.022	2.019	0.003	24666987	112.438	4.3	80.00- 120.00	100.00(R)
$ 11 Decachlorobiphenyl					CAS #: 2051-24-3		
5.954	5.948	0.006	10533373	78.9643	3.0	80.00- 120.00	100.00(R)
5 Aroclor-1248					CAS #: 12672-29-6		
3.293	3.293	0.000	107958	16.0356	0.62	80.00- 120.00	100.00(a)
3.451	3.455	-0.004	3173	2.03048	0.078	3.21- 43.21	2.94
3.752	3.752	0.000	351927	58.1269	2.2	69.93- 109.93	325.99
3.768	3.776	-0.008	877040	350.575	13.5	17.16- 57.16	812.39

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
5 Aroclor-1248 (continued)							
3.912	3.913	-0.001	135333	68.0267	2.6	9.55- 49.55	125.36
Average of Peak Concentrations =					3.8		
6 Aroclor-1254					CAS #: 11097-69-1		
3.566	3.564	0.002	442380	68.5340	2.6	80.00- 120.00	100.00(a)
3.752	3.750	0.002	351927	41.9598	1.6	112.09- 152.09	79.55
3.942	3.942	0.000	355545	55.7510	2.1	76.64- 116.64	80.37
4.027	4.027	0.000	844032	78.0702	3.0	147.36- 187.36	190.79
4.543	4.543	0.000	1144208	101.937	3.9	159.04- 199.04	258.65
Average of Peak Concentrations =					2.6		
7 Aroclor-1260					CAS #: 11096-82-5		
4.156	4.155	0.001	565464	59.1047	2.3	80.00- 120.00	100.00(a)
4.351	4.350	0.001	820650	62.2897	2.4	129.59- 169.59	145.13
4.543	4.542	0.001	1144208	74.2570	2.8	140.84- 180.84	202.35
4.789	4.791	-0.002	378024	51.2194	2.0	58.52- 98.52	66.85
5.009	5.005	0.004	618868	33.3877	1.3	164.23- 204.23	109.44
Average of Peak Concentrations =					2.2		

QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
R - Spike/Surrogate failed recovery limits.

General Engineering Laboratories, LLC

RECOVERY REPORT

Client Name: Los Alamos National 04-MAY-2005 00:00 Client SDG: 3194S
Sample Matrix: SOLID Fraction: PEST
Lab Smp Id: 135805002 Client Smp ID: RE03-05-59541
Level: LOW Operator: YS1
Data Type: GC MULTI COMP SampleType: SAMPLE
SpikeList File: WaterLCS.spk Quant Type: ESTD
Sublist File: 3194S.sub
Method File: /chem/ecd2a.i/052005.b/ECD2-F-8082-051105.m
Misc Info: |ECD82P_1SF|426670|SVAP|LANL|

SURROGATE COMPOUND	CONC ADDED ug/Kg	CONC RECOVERED ug/Kg	% RECOVERED	LIMITS
$ 10 4cmx	7.7	4.3	55.84*	58-106
$ 11 Decachlorobiphenyl	7.7	3.0	38.96*	55-115

Data File: /chem/ecd2a.i/052005.b/030f3001.d
Date : 20-MAY-2005 12:22
Client ID: RE03-05-59541
Sample Info: 113580500211
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecd2a.i
Operator: YS1
Column diameter: 0.25

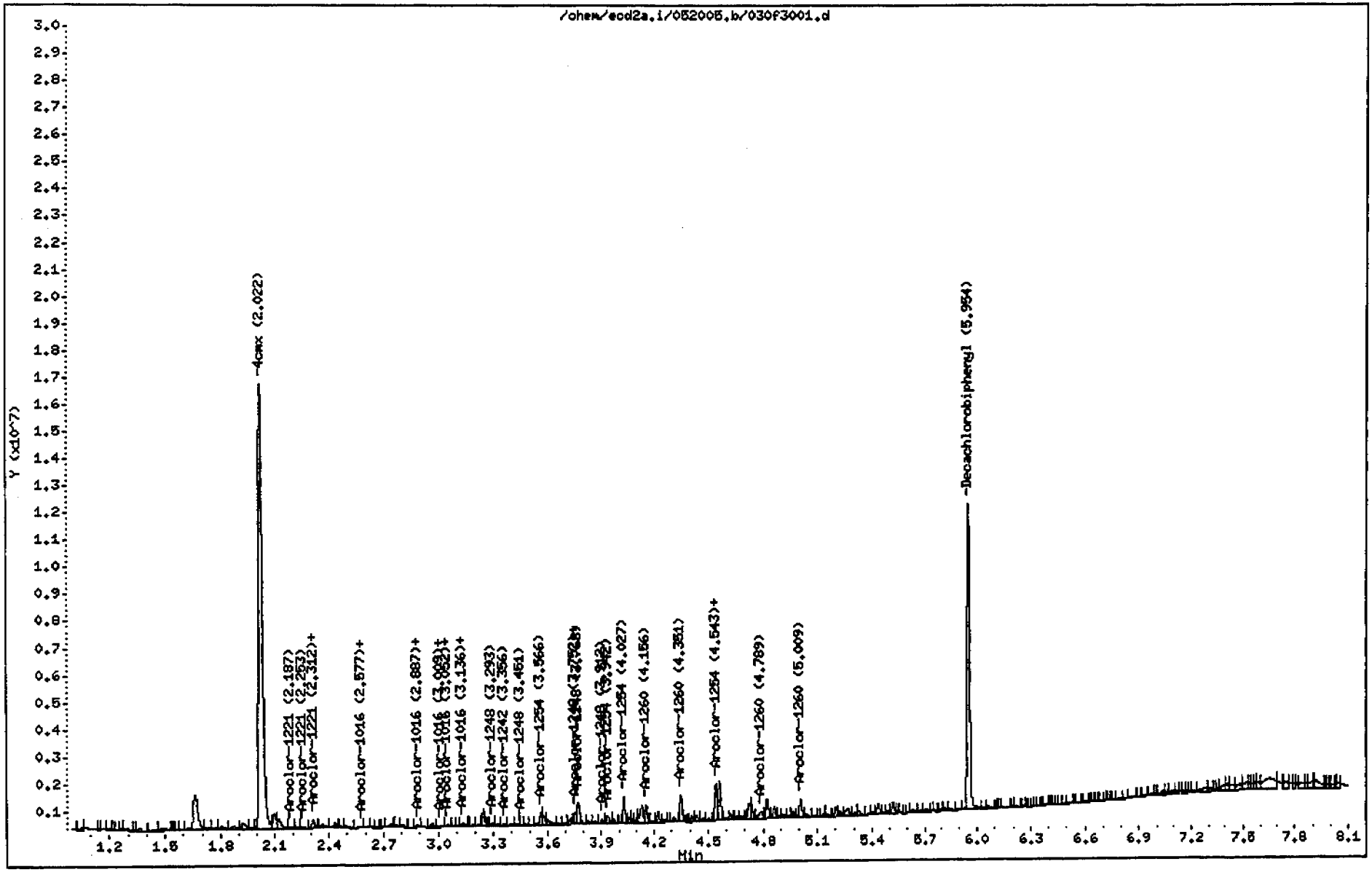

General Engineering Laboratories, LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/052005.b/031b3101.d
Lab Smp Id: 1200849517 Client Smp ID: RE03-05-59541(13580
Inj Date : 20-MAY-2005 12:33
Operator : YS1 Inst ID: ecd2a.i
Smp Info : |1200849517|1
Misc Info : |ECD82P_1SF|426670|SVAP|MS|
Comment :
Method : /chem/ecd2a.i/052005.b/ECD2-B-8082-051105.m
Meth Date : 20-May-2005 11:28 yip00818 Quant Type: ESTD
Cal Date : 20-MAY-2005 08:26 Cal File: 009b0901.d
Als bottle: 31 QC Sample: MS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 3194S.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariab

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	13.31460	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 10 4cmx					CAS #: 877-09-8		
2.418	2.415	0.003	51167521	118.041	4.5	80.00- 120.00	100.00
$ 11 Decachlorobiphenyl					CAS #: 2051-24-3		
6.754	6.751	0.003	19641014	78.1281	3.0	80.00- 120.00	100.00(R)
1 Aroclor-1016					CAS #: 12674-11-2		
2.822	2.820	0.002	3802563	672.057	25.8	80.00- 120.00	100.00
3.140	3.139	0.001	8370172	619.789	23.8	218.04- 258.04	220.12
3.329	3.326	0.003	2860917	590.909	22.7	63.80- 103.80	75.24
3.492	3.490	0.002	10053542	619.149	23.8	268.06- 308.06	264.39

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
1 Aroclor-1016 (continued)							
3.591	3.589	0.002	6137431	635.766	24.4	154.57- 194.57	161.40
Average of Peak Concentrations =					24.1		
2 Aroclor-1221					CAS #: 11104-28-2		
2.661	2.659	0.002	695688	168.553	6.5	80.00- 120.00	100.00
2.774	2.774	0.000	622215	252.552	9.7	39.69- 79.69	89.44
2.822	2.822	0.000	3802563	391.491	15.0	215.33- 255.33	546.59
Average of Peak Concentrations =					10.4		
3 Aroclor-1232					CAS #: 11141-16-5		
2.822	2.820	0.002	3802563	475.265	18.3	80.00- 120.00	100.00
3.140	3.139	0.001	8370172	1188.05	45.7	68.06- 108.06	220.12
3.479	3.478	0.001	7384737	1330.49	51.2	49.37- 89.37	194.20
3.492	3.490	0.002	10053542	1253.77	48.2	80.22- 120.22	264.39
3.591	3.590	0.001	6137431	1241.15	47.7	41.80- 81.80	161.40
Average of Peak Concentrations =					42.2		
4 Aroclor-1242					CAS #: 53469-21-9		
3.140	3.140	0.000	8370172	856.791	32.9	80.00- 120.00	100.00
3.329	3.327	0.002	2860917	800.421	30.8	15.85- 55.85	34.18
3.479	3.478	0.001	7384737	1040.52	40.0	65.25- 105.25	88.23
3.492	3.491	0.001	10053542	872.810	33.6	101.62- 141.62	120.11
3.938	3.937	0.001	4641923	850.660	32.7	38.64- 78.64	55.46
Average of Peak Concentrations =					34.0		
5 Aroclor-1248					CAS #: 12672-29-6		
3.740	3.740	0.000	3931462	393.850	15.1	80.00- 120.00	100.00
3.772	3.771	0.001	3543967	409.673	15.8	66.66- 106.66	90.14
3.938	3.936	0.002	4641923	367.878	14.1	106.41- 146.41	118.07
4.214	4.212	0.002	796684	61.6468	2.4	109.47- 149.47	20.26
4.243	4.246	-0.003	3959500	279.168	10.7	122.09- 162.09	100.71
Average of Peak Concentrations =					11.6		
6 Aroclor-1254					CAS #: 11097-69-1		
4.243	4.241	0.002	3959500	279.953	10.8	80.00- 120.00	100.00
4.379	4.378	0.001	3883328	257.761	9.9	86.71- 126.71	98.08
4.626	4.625	0.001	1182792	107.020	4.1	57.22- 97.22	29.87
4.709	4.708	0.001	3598939	176.348	6.8	122.52- 162.52	90.89
4.845	4.843	0.002	8463201	795.923	30.6	55.49- 95.49	213.74
Average of Peak Concentrations =					12.4		
7 Aroclor-1260					CAS #: 11096-82-5		
4.845	4.844	0.001	8463201	526.346	20.2	80.00- 120.00	100.00
4.993	4.990	0.003	9869438	537.790	20.7	101.22- 141.22	116.62
5.246	5.244	0.002	10427292	423.913	16.3	138.74- 178.74	123.21

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
7 Aroclor-1260 (continued)							
5.515	5.513	0.002	5763560	428.164	16.5	57.59- 97.59	68.10
5.690	5.687	0.003	14768324	541.741	20.8	153.13- 193.13	174.50
			Average of Peak Concentrations =		18.9		

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

General Engineering Laboratories, LLC

RECOVERY REPORT

Client Name: Los Alamos National 04-MAY-2005 00:00 Client SDG: 002MS)
Sample Matrix: SOLID Fraction: PEST
Lab Smp Id: 1200849517 Client Smp ID: RE03-05-59541(13580
Level: LOW Operator: YS1
Data Type: GC MULTI COMP SampleType: MS
SpikeList File: 60LCSS.spk Quant Type: ESTD
Sublist File: 3194S.sub
Method File: /chem/ecd2a.i/052005.b/ECD2-B-8082-051105.m
Misc Info: |ECD82P_1SF|426670|SVAP|MS|

SURROGATE COMPOUND	CONC ADDED ug/Kg	CONC RECOVERED ug/Kg	% RECOVERED	LIMITS
$ 10 4cmx	7.7	4.5	58.44	58-106
$ 11 Decachlorobiphenyl	7.7	3.0	38.96*	55-115

Data File: /chem/ecd2a.i/052005.b/031b3101.d
Date : 20-MAY-2005 12:33
Client ID: RE03-05-59541(13580
Sample Info: 1120084951711
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd2a.i
Operator: YSI
Column diameter: 0.25

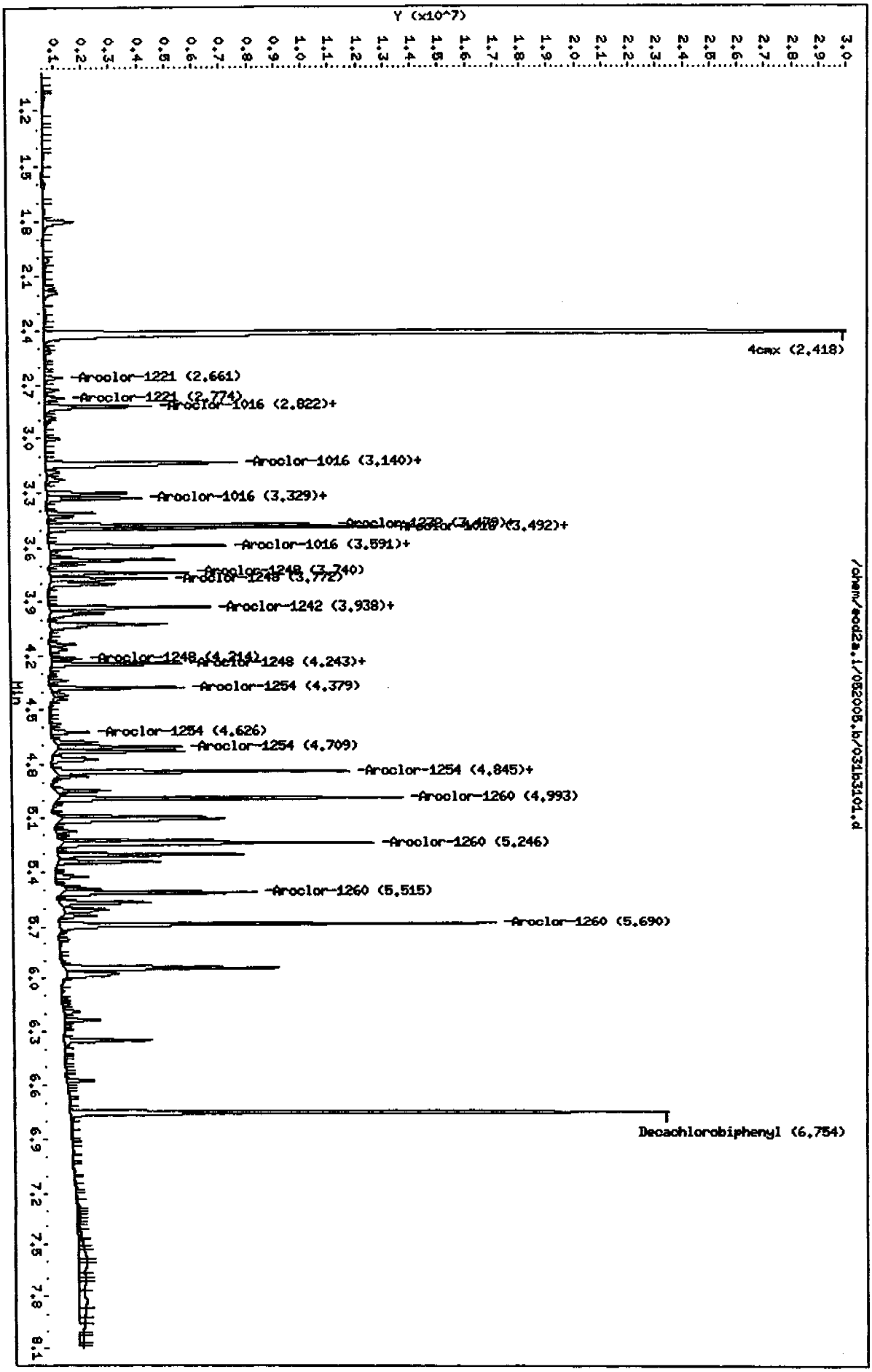

General Engineering Laboratories, LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/052005.b/031f3101.d
Lab Smp Id: 1200849517 Client Smp ID: RE03-05-59541(13580
Inj Date : 20-MAY-2005 12:33
Operator : YS1 Inst ID: ecd2a.i
Smp Info : |1200849517|1
Misc Info : |ECD82P_1SF|426670|SVAP|MS|
Comment :
Method : /chem/ecd2a.i/052005.b/ECD2-F-8082-051105.m
Meth Date : 20-May-2005 11:28 yip00818 Quant Type: ESTD
Cal Date : 20-MAY-2005 08:26 Cal File: 009f0901.d
Als bottle: 31 QC Sample: MS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 3194S.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariab

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	13.31460	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 10 4CMX					CAS #: 877-09-8		
2.021	2.019	0.002	24094643	109.829	4.2	80.00- 120.00	100.00(R)
$ 11 Decachlorobiphenyl					CAS #: 2051-24-3		
5.953	5.948	0.005	11372622	85.5619	3.3	80.00- 120.00	100.00(R)
1 Aroclor-1016					CAS #: 12674-11-2		
2.563	2.562	0.001	4606970	662.206	25.5	80.00- 120.00	100.00
2.905	2.902	0.003	6043643	617.131	23.7	116.07- 156.07	131.18
3.000	2.998	0.002	3582497	591.854	22.8	64.30- 104.30	77.76
3.044	3.042	0.002	2005517	539.939	20.8	30.91- 70.91	43.53

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
1 Aroclor-1016 (continued)							
3.136	3.135	0.001	2098818	653.669	25.1	26.55- 66.55	45.56
Average of Peak Concentrations =					23.6		
2 Aroclor-1221					CAS #: 11104-28-2		
2.157	2.158	-0.001	370235	160.358	6.2	80.00- 120.00	100.00
2.268	2.268	0.000	320571	252.248	9.7	35.04- 75.04	86.59
2.300	2.298	0.002	2230295	402.454	15.5	220.03- 260.03	602.40
Average of Peak Concentrations =					10.5		
3 Aroclor-1232					CAS #: 11141-16-5		
2.300	2.297	0.003	2230295	455.532	17.5	80.00- 120.00	100.00
2.563	2.561	0.002	4606970	1237.50	47.6	56.04- 96.04	206.56
2.905	2.902	0.003	6043643	1235.71	47.5	79.89- 119.89	270.98
3.000	2.997	0.003	3582497	1149.01	44.2	43.68- 83.68	160.63
3.152	3.151	0.001	1938984	1176.19	45.2	13.67- 53.67	86.94
Average of Peak Concentrations =					40.4		
4 Aroclor-1242					CAS #: 53469-21-9		
2.905	2.904	0.001	6043643	735.117	28.3	80.00- 120.00	100.00
3.000	2.999	0.001	3582497	725.925	27.9	41.90- 81.90	59.28
3.044	3.044	0.000	2005517	667.018	25.6	18.49- 58.49	33.18
3.136	3.135	0.001	2098818	869.085	33.4	10.40- 50.40	34.73
3.355	3.354	0.001	1530555	559.204	21.5	9.72- 49.72	25.33
Average of Peak Concentrations =					27.3		
5 Aroclor-1248					CAS #: 12672-29-6		
3.294	3.293	0.001	2835228	421.132	16.2	80.00- 120.00	100.00
3.456	3.455	0.001	432095	276.508	10.6	3.21- 43.21	15.24
3.751	3.752	-0.001	2308784	381.336	14.7	69.93- 109.93	81.43
3.777	3.776	0.001	296010	118.323	4.5	17.16- 57.16	10.44
3.911	3.913	-0.002	199361	100.211	3.8	9.55- 49.55	7.03
Average of Peak Concentrations =					10.0		
6 Aroclor-1254					CAS #: 11097-69-1		
3.565	3.564	0.001	2310316	357.917	13.8	80.00- 120.00	100.00
3.751	3.750	0.001	2308784	275.273	10.6	112.09- 152.09	99.93
3.935	3.942	-0.007	1469428	230.413	8.9	76.64- 116.64	63.60
4.027	4.027	0.000	1688403	156.172	6.0	147.36- 187.36	73.08
4.543	4.543	0.000	8842990	787.819	30.3	159.04- 199.04	382.76
Average of Peak Concentrations =					13.9		
7 Aroclor-1260					CAS #: 11096-82-5		
4.155	4.155	0.000	4638300	484.815	18.6	80.00- 120.00	100.00
4.351	4.350	0.001	7490182	568.526	21.9	129.59- 169.59	161.49
4.543	4.542	0.001	8842990	573.894	22.1	140.84- 180.84	190.65

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
7 Aroclor-1260 (continued)							
4.791	4.791	0.000	3709998	502.677	19.3	58.52- 98.52	79.99
5.007	5.005	0.002	8309358	448.286	17.2	164.23- 204.23	179.15
		Average of Peak Concentrations =			19.8		

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

General Engineering Laboratories, LLC

RECOVERY REPORT

Client Name: Los Alamos National 04-MAY-2005 00:00 Client SDG: 002MS)
Sample Matrix: SOLID Fraction: PEST
Lab Smp Id: 1200849517 Client Smp ID: RE03-05-59541(13580
Level: LOW Operator: YS1
Data Type: GC MULTI COMP SampleType: MS
SpikeList File: WaterLCS.spk Quant Type: ESTD
Sublist File: 3194S.sub
Method File: /chem/ecd2a.i/052005.b/ECD2-F-8082-051105.m
Misc Info: |ECD82P_1SF|426670|SVAP|MS|

SURROGATE COMPOUND	CONC ADDED ug/Kg	CONC RECOVERED ug/Kg	% RECOVERED	LIMITS
$ 10 4cmx	7.7	4.2	54.55*	58-106
$ 11 Decachlorobiphenyl	7.7	3.3	42.86*	55-115

Data File: /chem/ecd2a.i/052008.b/031f3101.d
Date : 20-MAY-2005 12:33
Client ID: RE03-08-59541(13580
Sample Info: 1120084951711
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecd2a.i
Operator: YSI
Column diameter: 0.25

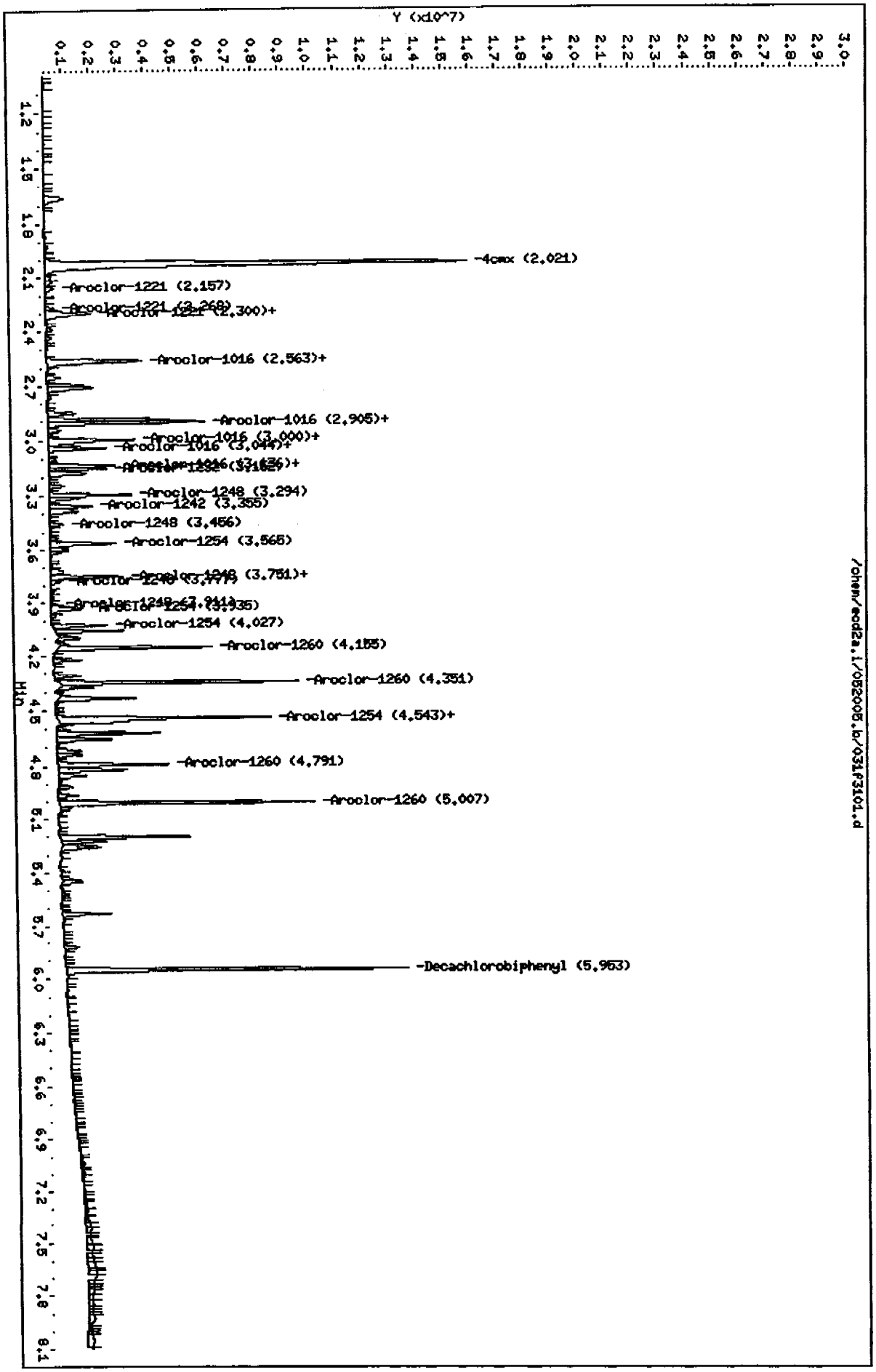

General Engineering Laboratories, LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/052005.b/032b3201.d
Lab Smp Id: 1200849518 Client Smp ID: RE03-05-59541(13580
Inj Date : 20-MAY-2005 12:44
Operator : YS1 Inst ID: ecd2a.i
Smp Info : |1200849518|1
Misc Info : |ECD82P_1SF|426670|SVAP|MSD|
Comment :
Method : /chem/ecd2a.i/052005.b/ECD2-B-8082-051105.m
Meth Date : 20-May-2005 11:28 yip00818 Quant Type: ESTD
Cal Date : 20-MAY-2005 08:26 Cal File: 009b0901.d
Als bottle: 32 QC Sample: MSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: PCB.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariab

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	13.31460	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 10 4cmx					CAS #: 877-09-8		
2.418	2.415	0.003	51893088	119.715	4.6	80.00- 120.00	100.00
$ 11 Decachlorobiphenyl					CAS #: 2051-24-3		
6.758	6.751	0.007	18998841	75.5737	2.9	80.00- 120.00	100.00(R)
1 Aroclor-1016					CAS #: 12674-11-2		
2.823	2.820	0.003	3530518	623.976	24.0	80.00- 120.00	100.00
3.141	3.139	0.002	7641713	565.848	21.8	218.04- 258.04	216.45
3.329	3.326	0.003	2527070	521.955	20.1	63.80- 103.80	71.58
3.493	3.490	0.003	9600032	591.219	22.7	268.06- 308.06	271.92

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
1 Aroclor-1016 (continued)							
3.592	3.589	0.003	5645530	584.811	22.5	154.57- 194.57	159.91
Average of Peak Concentrations =					22.2		
2 Aroclor-1221					CAS #: 11104-28-2		
2.662	2.659	0.003	746969	180.977	7.0	80.00- 120.00	100.00
2.775	2.774	0.001	497998	202.133	7.8	39.69- 79.69	66.67
2.823	2.822	0.001	3530518	363.483	14.0	215.33- 255.33	472.65
Average of Peak Concentrations =					9.6		
3 Aroclor-1232					CAS #: 11141-16-5		
2.823	2.820	0.003	3530518	441.263	17.0	80.00- 120.00	100.00
3.141	3.139	0.002	7641713	1084.65	41.7	68.06- 108.06	216.45
3.479	3.478	0.001	6666727	1201.13	46.2	49.37- 89.37	188.83
3.493	3.490	0.003	9600032	1197.22	46.0	80.22- 120.22	271.92
3.592	3.590	0.002	5645530	1141.67	43.9	41.80- 81.80	159.91
Average of Peak Concentrations =					39.0		
4 Aroclor-1242					CAS #: 53469-21-9		
3.141	3.140	0.001	7641713	782.224	30.1	80.00- 120.00	100.00
3.329	3.327	0.002	2527070	707.018	27.2	15.85- 55.85	33.07
3.479	3.478	0.001	6666727	939.348	36.1	65.25- 105.25	87.24
3.493	3.491	0.002	9600032	833.438	32.0	101.62- 141.62	125.63
3.939	3.937	0.002	4244933	777.909	29.9	38.64- 78.64	55.55
Average of Peak Concentrations =					31.1		
5 Aroclor-1248					CAS #: 12672-29-6		
3.742	3.740	0.002	3717020	372.367	14.3	80.00- 120.00	100.00
3.773	3.771	0.002	3190887	368.858	14.2	66.66- 106.66	85.85
3.939	3.936	0.003	4244933	336.416	12.9	106.41- 146.41	114.20
4.215	4.212	0.003	691684	53.5219	2.0	109.47- 149.47	18.61
4.243	4.246	-0.003	3804233	268.220	10.3	122.09- 162.09	102.35
Average of Peak Concentrations =					10.7		
6 Aroclor-1254					CAS #: 11097-69-1		
4.243	4.241	0.002	3804233	268.975	10.3	80.00- 120.00	100.00
4.380	4.378	0.002	3796168	251.975	9.7	86.71- 126.71	99.79
4.628	4.625	0.003	1266672	114.610	4.4	57.22- 97.22	33.30
4.711	4.708	0.003	3764824	184.476	7.1	122.52- 162.52	98.96
4.847	4.843	0.004	7798329	733.395	28.2	55.49- 95.49	204.99
Average of Peak Concentrations =					11.9		
7 Aroclor-1260					CAS #: 11096-82-5		
4.847	4.844	0.003	7798329	484.996	18.6	80.00- 120.00	100.00
4.993	4.990	0.003	9197651	501.184	19.3	101.22- 141.22	117.94
5.248	5.244	0.004	9891140	402.116	15.5	138.74- 178.74	126.84

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
7 Aroclor-1260 (continued)							
5.517	5.513	0.004	4815197	357.712	13.8	57.59- 97.59	61.75
5.693	5.687	0.006	14384540	527.663	20.3	153.13- 193.13	184.46
		Average of Peak Concentrations =			17.5		

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

General Engineering Laboratories, LLC

RECOVERY REPORT

Client Name: URS Operation Servi
Client SDG: 002MSD)
Sample Matrix: SOLID
Fraction: PEST
Lab Smp Id: 1200849518
Client Smp ID: RE03-05-59541(13580
Level: LOW
Operator: YS1
Data Type: GC MULTI COMP
SampleType: MSD
SpikeList File: 60LCSS.spk
Quant Type: ESTD
Sublist File: PCB.sub
Method File: /chem/ecd2a.i/052005.b/ECD2-B-8082-051105.m
Misc Info: |ECD82P_1SF|426670|SVAP|MSD|

SURROGATE COMPOUND	CONC ADDED ug/Kg	CONC RECOVERED ug/Kg	% RECOVERED	LIMITS
$ 10 4cmx	7.7	4.6	59.74	41-132
$ 11 Decachlorobiphenyl	7.7	2.9	37.66*	44-127

Data File: /chem/ecd2a.i/052005.b/032b3201.d
Date : 20-MAY-2005 12:44
Client ID: RE03-05-59541(13580)
Sample Info: 1120084982811
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd2a.i
Operator: YSI
Column diameter: 0.25

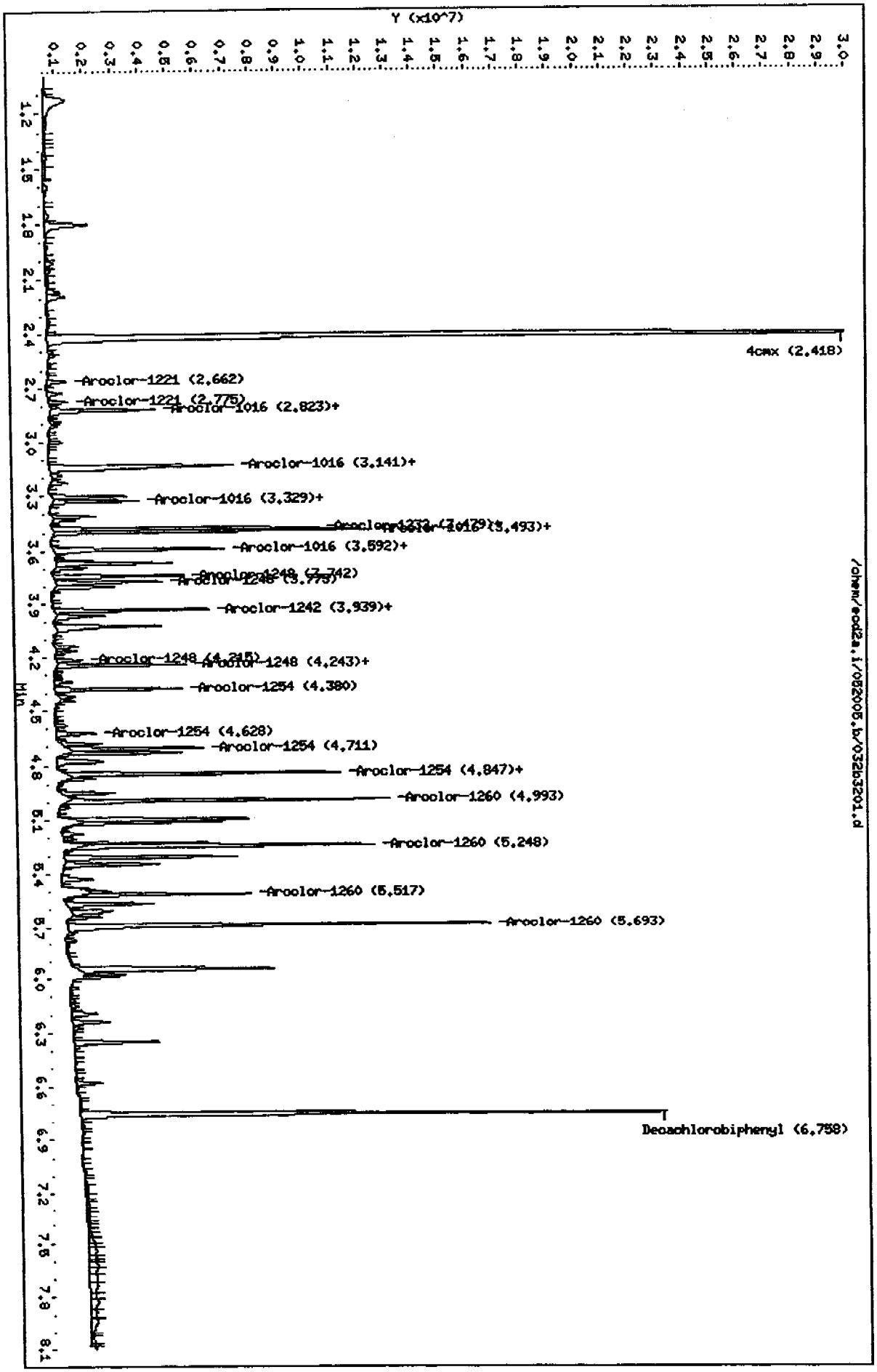

General Engineering Laboratories, LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/052005.b/032f3201.d
Lab Smp Id: 1200849518 Client Smp ID: RE03-05-59541(13580
Inj Date : 20-MAY-2005 12:44
Operator : YS1 Inst ID: ecd2a.i
Smp Info : |1200849518|1
Misc Info : |ECD82P_1SF|426670|SVAP|MSD|
Comment :
Method : /chem/ecd2a.i/052005.b/ECD2-F-8082-051105.m
Meth Date : 20-May-2005 11:28 yip00818 Quant Type: ESTD
Cal Date : 20-MAY-2005 08:26 Cal File: 009f0901.d
Als bottle: 32 QC Sample: MSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: PCB.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariab

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	13.31460	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 10 4cmx					CAS #: 877-09-8		
2.023	2.019	0.004	24710076	112.634	4.3	80.00- 120.00	100.00
$ 11 Decachlorobiphenyl					CAS #: 2051-24-3		
5.956	5.948	0.008	11948625	90.0901	3.5	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.565	2.562	0.003	4400892	627.647	24.1	80.00- 120.00	100.00
2.906	2.902	0.004	5479565	553.802	21.3	116.07- 156.07	124.51
3.000	2.998	0.002	3395197	557.417	21.4	64.30- 104.30	77.15
3.045	3.042	0.003	1907842	511.375	19.7	30.91- 70.91	43.35

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
1 Aroclor-1016 (continued)							
3.137	3.135	0.002	1914092	592.501	22.8	26.55- 66.55	43.49
Average of Peak Concentrations =					21.9		
2 Aroclor-1221					CAS #: 11104-28-2		
2.160	2.158	0.002	399316	172.954	6.6	80.00- 120.00	100.00
2.270	2.268	0.002	301714	237.410	9.1	35.04- 75.04	75.56
2.301	2.298	0.003	2111616	381.039	14.6	220.03- 260.03	528.81
Average of Peak Concentrations =					10.1		
3 Aroclor-1232					CAS #: 11141-16-5		
2.301	2.297	0.004	2111616	431.292	16.6	80.00- 120.00	100.00
2.565	2.561	0.004	4400892	1182.15	45.4	56.04- 96.04	208.41
2.906	2.902	0.004	5479565	1120.37	43.1	79.89- 119.89	259.50
3.000	2.997	0.003	3395197	1088.94	41.9	43.68- 83.68	160.79
3.153	3.151	0.002	1866060	1131.95	43.5	13.67- 53.67	88.37
Average of Peak Concentrations =					38.1		
4 Aroclor-1242					CAS #: 53469-21-9		
2.906	2.904	0.002	5479565	666.506	25.6	80.00- 120.00	100.00
3.000	2.999	0.001	3395197	687.973	26.4	41.90- 81.90	61.96
3.045	3.044	0.001	1907842	634.532	24.4	18.49- 58.49	34.82
3.137	3.135	0.002	1914092	792.593	30.5	10.40- 50.40	34.93
3.356	3.354	0.002	1386128	506.436	19.5	9.72- 49.72	25.30
Average of Peak Concentrations =					25.3		
5 Aroclor-1248					CAS #: 12672-29-6		
3.295	3.293	0.002	2624389	389.814	15.0	80.00- 120.00	100.00
3.456	3.455	0.001	378653	242.309	9.3	3.21- 43.21	14.43
3.752	3.752	0.000	2253659	372.231	14.3	69.93- 109.93	85.87
3.779	3.776	0.003	314665	125.779	4.8	17.16- 57.16	11.99
3.913	3.913	0.000	188816	94.9106	3.6	9.55- 49.55	7.19
Average of Peak Concentrations =					9.4		
6 Aroclor-1254					CAS #: 11097-69-1		
3.565	3.564	0.001	2364420	366.299	14.1	80.00- 120.00	100.00
3.752	3.750	0.002	2253659	268.701	10.3	112.09- 152.09	95.32
3.936	3.942	-0.006	1385056	217.183	8.4	76.64- 116.64	58.58
4.029	4.027	0.002	1955938	180.918	7.0	147.36- 187.36	82.72
4.545	4.543	0.002	7229784	644.099	24.8	159.04- 199.04	305.77
Average of Peak Concentrations =					12.9		
7 Aroclor-1260					CAS #: 11096-82-5		
4.156	4.155	0.001	4813673	503.146	19.3	80.00- 120.00	100.00
4.352	4.350	0.002	7607644	577.442	22.2	129.59- 169.59	158.04
4.545	4.542	0.003	7229784	469.200	18.0	140.84- 180.84	150.19

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
7 Aroclor-1260 (continued)							
4.793	4.791	0.002	3673271	497.701	19.1	58.52- 98.52	76.31
5.010	5.005	0.005	8114348	437.766	16.8	164.23- 204.23	168.57
			Average of Peak Concentrations =		19.1		

General Engineering Laboratories, LLC

RECOVERY REPORT

Client Name:
Sample Matrix: SOLID
Lab Smp Id: 1200849518
Level: LOW
Data Type: GC MULTI COMP
SpikeList File: WaterLCS.spk
Sublist File: PCB.sub
Method File: /chem/ecd2a.i/052005.b/ECD2-F-8082-051105.m
Misc Info: |ECD82P_1SF|426670|SVAP|MSD|

Client SDG: 002MSD)
Fraction: PEST
Client Smp ID: RE03-05-59541(13580
Operator: YS1
SampleType: MSD
Quant Type: ESTD

SURROGATE COMPOUND	CONC ADDED ug/Kg	CONC RECOVERED ug/Kg	% RECOVERED	LIMITS
$ 10 4cmx	7.7	4.3	55.84	41-132
$ 11 Decachlorobiphenyl	7.7	3.5	45.45	44-127

Data File: /ohem/ecd2a.i/052005.b/032f3201.d
Date : 20-MAY-2005 12:44
Client ID: REQ3-05-59541(13580
Sample Info: 1120084951811
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecd2a.i
Operator: YSI
Column diameter: 0.25

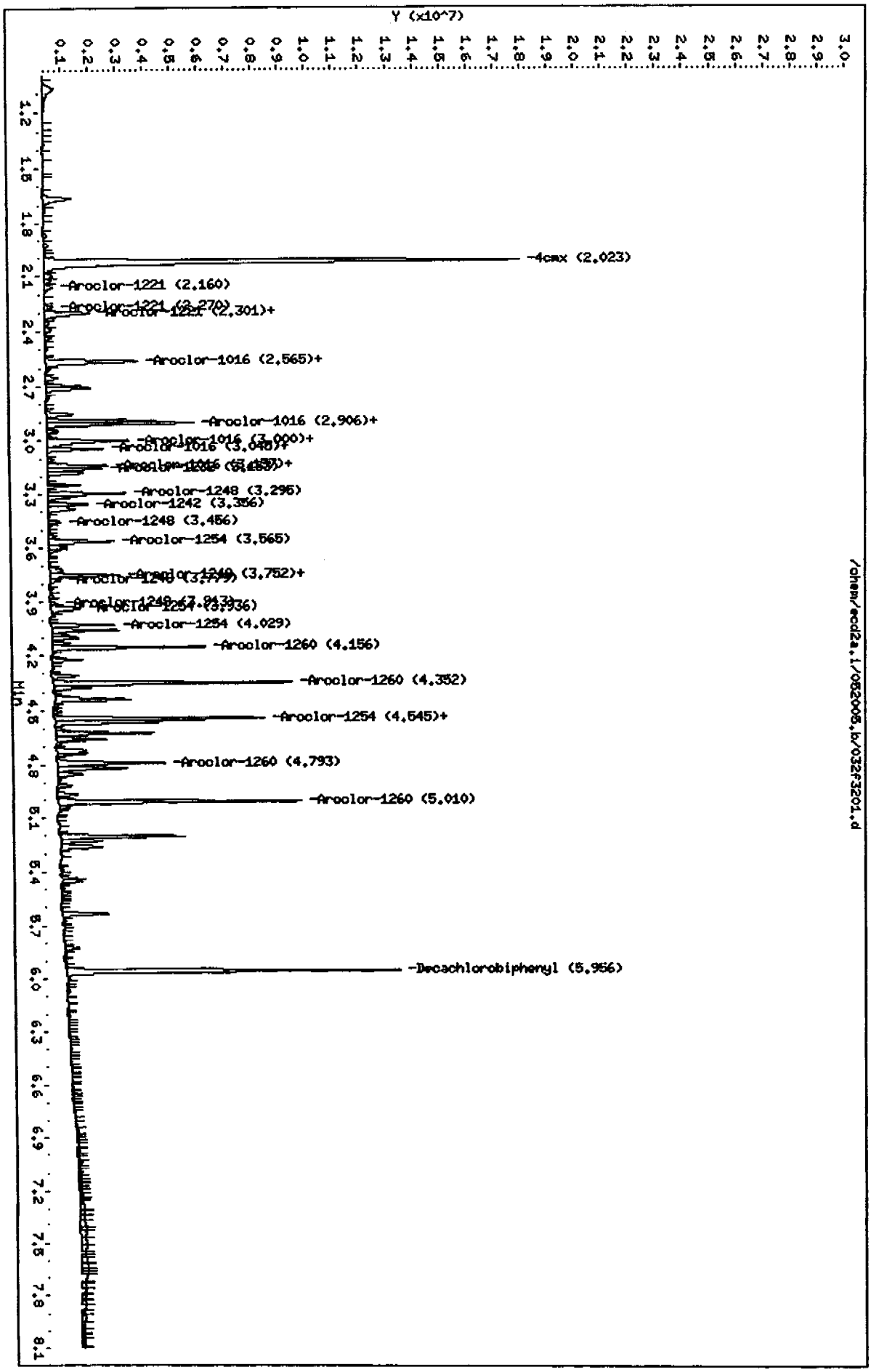

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General Engineering Laboratories, LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/052005.b/033b3301.d
Lab Smp Id: 135805003 Client Smp ID: RE03-05-59432
Inj Date : 20-MAY-2005 12:55
Operator : YS1 Inst ID: ecd2a.i
Smp Info : |135805003|1
Misc Info : |ECD82P_1SF|426670|SVAP|LANL|
Comment :
Method : /chem/ecd2a.i/052005.b/ECD2-B-8082-051105.m
Meth Date : 20-May-2005 11:28 yip00818 Quant Type: ESTD
Cal Date : 20-MAY-2005 08:26 Cal File: 009b0901.d
Als bottle: 33 QC Sample: MSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 3194S.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariab

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	13.99250	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 10 4cmx					CAS #: 877-09-8		
2.418	2.415	0.003	69971047	161.420	6.2	80.00- 120.00	100.00
$ 11 Decachlorobiphenyl					CAS #: 2051-24-3		
6.755	6.751	0.004	22939848	91.2503	3.5	80.00- 120.00	100.00(R)
2 Aroclor-1221					CAS #: 11104-28-2		
2.648	2.659	-0.011	282795	68.5162	2.6	80.00- 120.00	100.00
2.798	2.774	0.024	1194176	484.706	18.8	39.69- 79.69	422.28
2.840	2.822	0.018	304036	31.3019	1.2	215.33- 255.33	107.51
Average of Peak Concentrations =					7.6		

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
6 Aroclor-1254					CAS #: 11097-69-1		
4.242	4.241	0.001	325379	23.0057	0.89	80.00- 120.00	100.00(a)
4.379	4.378	0.001	402008	26.6838	1.0	86.71- 126.71	123.55
4.627	4.625	0.002	274448	24.8324	0.96	57.22- 97.22	84.35
4.710	4.708	0.002	903630	44.2778	1.7	122.52- 162.52	277.72
4.846	4.843	0.003	310044	29.1581	1.1	55.49- 95.49	95.29
		Average of Peak Concentrations =			1.1		

QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
R - Spike/Surrogate failed recovery limits.

General Engineering Laboratories, LLC

RECOVERY REPORT

Client Name: Los Alamos National 04-MAY-2005 00:00 Client SDG: 3194S
Sample Matrix: SOLID Fraction: PEST
Lab Smp Id: 135805003 Client Smp ID: RE03-05-59432
Level: LOW Operator: YS1
Data Type: GC MULTI COMP SampleType: MSD
SpikeList File: 60LCSS.spk Quant Type: ESTD
Sublist File: 3194S.sub
Method File: /chem/ecd2a.i/052005.b/ECD2-B-8082-051105.m
Misc Info: |ECD82P_1SF|426670|SVAP|LANL|

SURROGATE COMPOUND	CONC ADDED ug/Kg	CONC RECOVERED ug/Kg	% RECOVERED	LIMITS
$ 10 4cmx	7.8	6.2	79.49	58-106
$ 11 Decachlorobiphenyl	7.8	3.5	44.87*	55-115

Data File: /chem/ecd2a.i/052005.b/033b3301.d
Date : 20-MAY-2005 12:55
Client ID: RE03-05-59432
Sample Info: |1358050031|1
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd2a.i

Operator: YS1
Column diameter: 0.25

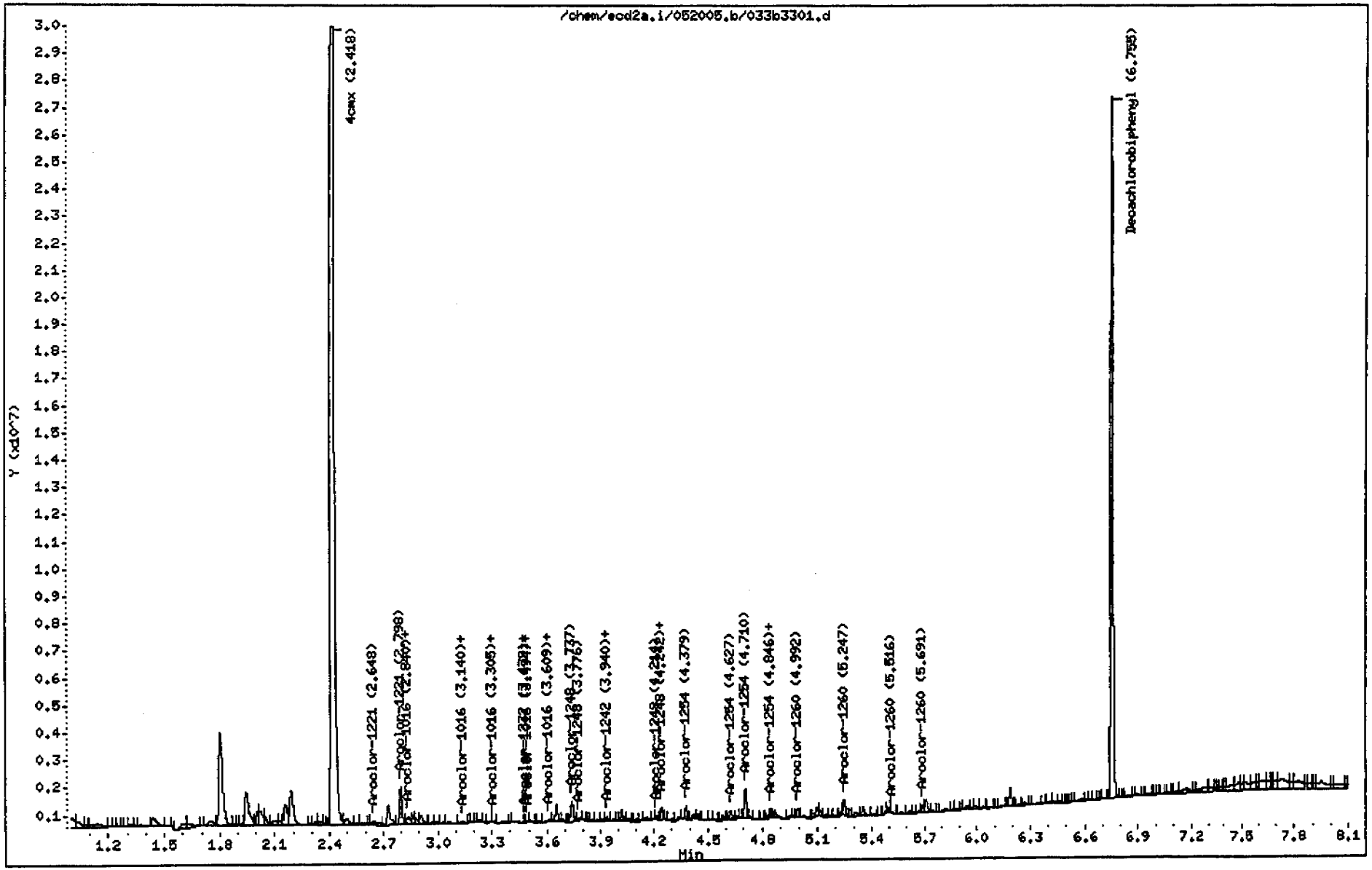

General Engineering Laboratories, LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/052005.b/033f3301.d
Lab Smp Id: 135805003 Client Smp ID: RE03-05-59432
Inj Date : 20-MAY-2005 12:55
Operator : YS1 Inst ID: ecd2a.i
Smp Info : |135805003|1
Misc Info : |ECD82P_1SF|426670|SVAP|LANL|
Comment :
Method : /chem/ecd2a.i/052005.b/ECD2-F-8082-051105.m
Meth Date : 20-May-2005 11:28 yip00818 Quant Type: ESTD
Cal Date : 20-MAY-2005 08:26 Cal File: 009f0901.d
Als bottle: 33 QC Sample: MSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 3194S.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariab

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	13.99250	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 10 4cmx					CAS #: 877-09-8		
2.022	2.019	0.003	32587766	148.543	5.8	80.00- 120.00	100.00
$ 11 Decachlorobiphenyl					CAS #: 2051-24-3		
5.953	5.948	0.005	13968944	105.972	4.1	80.00- 120.00	100.00(R)
2 Aroclor-1221					CAS #: 11104-28-2		
2.188	2.158	0.030	62384	27.0200	1.0	80.00- 120.00	100.00
2.254	2.268	-0.014	284786	224.090	8.7	35.04- 75.04	456.50
2.313	2.298	0.015	474326	85.5916	3.3	220.03- 260.03	760.33
Average of Peak Concentrations =					4.3		

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
3 Aroclor-1232					CAS #: 11141-16-5		
2.313	2.297	0.016	474326	96.8799	3.8	80.00- 120.00	100.00(a)
2.573	2.561	0.012	74768	20.0838	0.78	56.04- 96.04	15.76
2.892	2.902	-0.010	29379	6.00694	0.23	79.89- 119.89	6.19
2.995	2.997	-0.002	15874	5.09127	0.20	43.68- 83.68	3.35
3.137	3.151	-0.014	213571	129.552	5.0	13.67- 53.67	45.03
			Average of Peak Concentrations =		2.0		
5 Aroclor-1248					CAS #: 12672-29-6		
3.294	3.293	0.001	180354	26.7889	1.0	80.00- 120.00	100.00(a)
3.474	3.455	0.019	36093	23.0968	0.90	3.21- 43.21	20.01
3.751	3.752	-0.001	269847	44.5700	1.7	69.93- 109.93	149.62
3.779	3.776	0.003	321088	128.347	5.0	17.16- 57.16	178.03
3.912	3.913	-0.001	81102	40.7669	1.6	9.55- 49.55	44.97
			Average of Peak Concentrations =		2.0		
6 Aroclor-1254					CAS #: 11097-69-1		
3.564	3.564	0.000	397988	61.6568	2.4	80.00- 120.00	100.00(a)
3.751	3.750	0.001	269847	32.1735	1.2	112.09- 152.09	67.80
3.942	3.942	0.000	171168	26.8399	1.0	76.64- 116.64	43.01
4.028	4.027	0.001	394538	36.4935	1.4	147.36- 187.36	99.13
4.543	4.543	0.000	357530	31.8522	1.2	159.04- 199.04	89.83
			Average of Peak Concentrations =		1.4		

QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
R - Spike/Surrogate failed recovery limits.

General Engineering Laboratories, LLC

RECOVERY REPORT

Client Name: Los Alamos National 04-MAY-2005 00:00 Client SDG: 3194S
Sample Matrix: SOLID Fraction: PEST
Lab Smp Id: 135805003 Client Smp ID: RE03-05-59432
Level: LOW Operator: YS1
Data Type: GC MULTI COMP SampleType: MSD
SpikeList File: WaterLCS.spk Quant Type: ESTD
Sublist File: 3194S.sub
Method File: /chem/ecd2a.i/052005.b/ECD2-F-8082-051105.m
Misc Info: |ECD82P_1SF|426670|SVAP|LANL|

SURROGATE COMPOUND	CONC ADDED ug/Kg	CONC RECOVERED ug/Kg	% RECOVERED	LIMITS
$ 10 4cmx	7.8	5.8	74.36	58-106
$ 11 Decachlorobiphenyl	7.8	4.1	52.56*	55-115

Data File: /chem/ecd2a.i/052005.b/033f3301.d
Date : 20-MAY-2005 12:55
Client ID: RE03-05-59432
Sample Info: 1135805003:1
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecd2a.i
Operator: YS1
Column diameter: 0.25

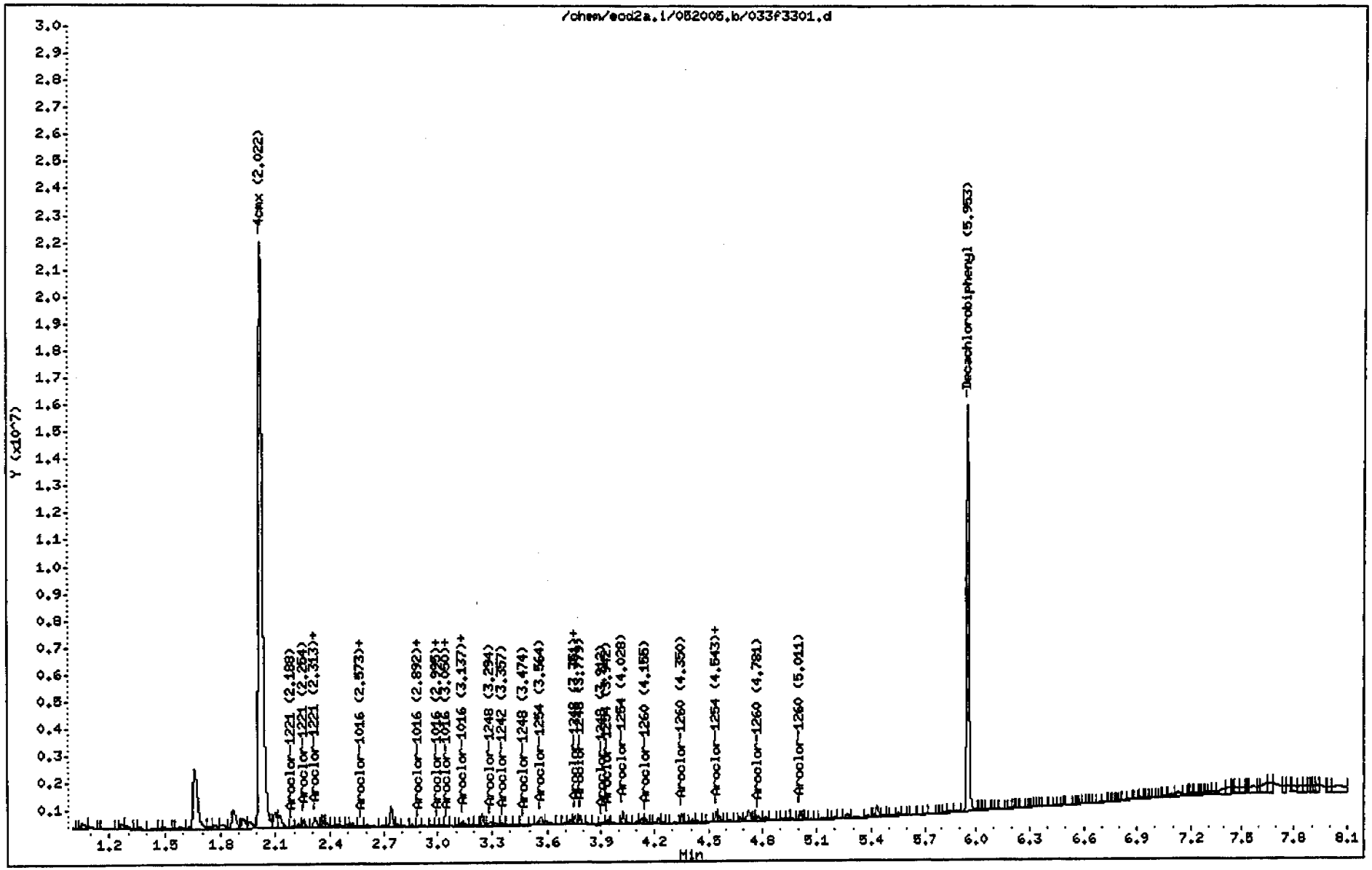

Data File: /chem/ecd2a.i/052005.b/033b3301.d
Report Date: 20-May-2005 13:40

General Engineering Laboratories, LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/052005.b/033b3301.d
Lab Smp Id: 135805003 Client Smp ID: RE03-05-59432
Inj Date : 20-MAY-2005 12:55
Operator : YS1 Inst ID: ecd2a.i
Smp Info : |135805003|1
Misc Info : |ECD82P_1SF|426670|SVAP|LANL|
Comment :
Method : /chem/ecd2a.i/052005.b/ECD2-B-8082-051105.m
Meth Date : 20-May-2005 11:28 yip00818 Quant Type: ESTD
Cal Date : 20-MAY-2005 08:26 Cal File: 009b0901.d
Als bottle: 33 QC Sample: MSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 3194S.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariab

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	13.99250	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 10 4cmx					CAS #: 877-09-8		
2.418	2.415	0.003	69971047	161.420	6.2	80.00- 120.00	100.00
$ 11 Decachlorobiphenyl					CAS #: 2051-24-3		
6.755	6.751	0.004	22939848	91.2503	3.5	80.00- 120.00	100.00(R)
2 Aroclor-1221					CAS #: 11104-28-2		
2.648	2.659	-0.011	282795	68.5162	2.6	80.00- 120.00	100.00
2.798	2.774	0.024	1194176	484.706	18.8	39.69- 79.69	422.28
2.840	2.822	0.018	304036	31.3019	1.2	215.33- 255.33	107.51
Average of Peak Concentrations =					7.6		

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
6 Aroclor-1254					CAS #: 11097-69-1		
4.242	4.241	0.001	325379	23.0057	0.89	80.00- 120.00	100.00(a)
4.379	4.378	0.001	402008	26.6838	1.0	86.71- 126.71	123.55
4.627	4.625	0.002	274448	24.8324	0.96	57.22- 97.22	84.35
4.710	4.708	0.002	903630	44.2778	1.7	122.52- 162.52	277.72
4.846	4.843	0.003	310044	29.1581	1.1	55.49- 95.49	95.29
			Average of Peak Concentrations =		1.1		

QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
R - Spike/Surrogate failed recovery limits.

General Engineering Laboratories, LLC

RECOVERY REPORT

Client Name: Los Alamos National 04-MAY-2005 00:00 Client SDG: 3194S
Sample Matrix: SOLID Fraction: PEST
Lab Smp Id: 135805003 Client Smp ID: RE03-05-59432
Level: LOW Operator: YS1
Data Type: GC MULTI COMP SampleType: MSD
SpikeList File: 60LCSS.spk Quant Type: ESTD
Sublist File: 3194S.sub
Method File: /chem/ecd2a.i/052005.b/ECD2-B-8082-051105.m
Misc Info: |ECD82P_1SF|426670|SVAP|LANL|

SURROGATE COMPOUND	CONC ADDED ug/Kg	CONC RECOVERED ug/Kg	% RECOVERED	LIMITS
$ 10 4cmx	7.8	6.2	79.49	58-106
$ 11 Decachlorobiphenyl	7.8	3.5	44.87*	55-115

Data File: /chem/ecd2a.i/052005.b/033b3301.d
Date : 20-MAY-2005 12:55
Client ID: RE03-05-59432
Sample Info: I1358050031I
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd2a.i

Operator: YS1
Column diameter: 0.25

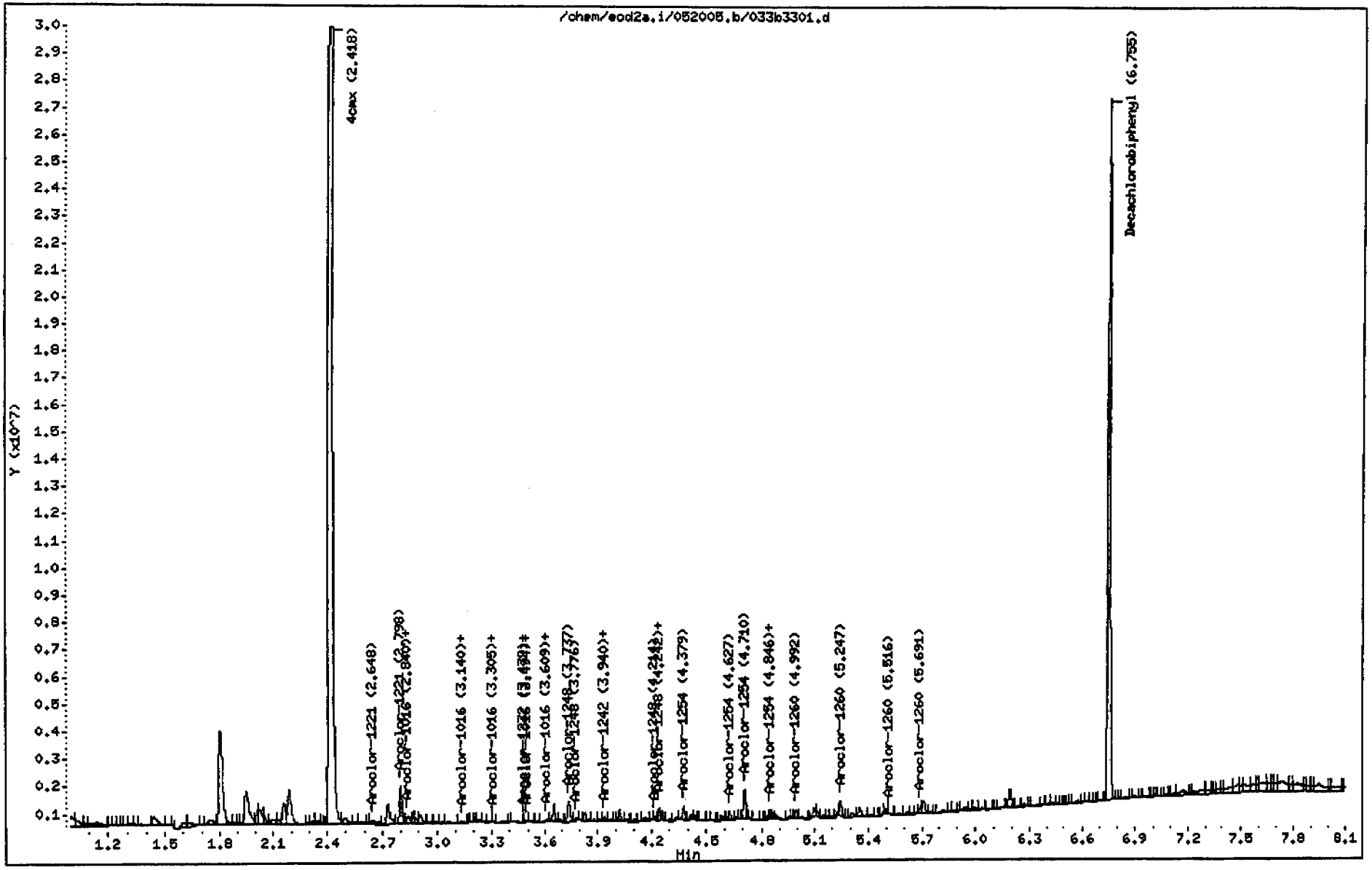

General Engineering Laboratories, LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/052005.b/034b3401.d
Lab Smp Id: 135805004 Client Smp ID: RE03-05-59542
Inj Date : 20-MAY-2005 13:07
Operator : YS1 Inst ID: ecd2a.i
Smp Info : |135805004|1
Misc Info : |ECD82P_1SF|426670|SVAP|LANL|
Comment :
Method : /chem/ecd2a.i/052005.b/ECD2-B-8082-051105.m
Meth Date : 20-May-2005 11:28 yip00818 Quant Type: ESTD
Cal Date : 20-MAY-2005 08:26 Cal File: 009b0901.d
Als bottle: 34
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 3194S.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariab

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	14.32480	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 10 4cmx					CAS #: 877-09-8		
2.419	2.415	0.004	53333391	123.038	4.8	80.00- 120.00	100.00
$ 11 Decachlorobiphenyl					CAS #: 2051-24-3		
6.768	6.751	0.017	19716506	78.4284	3.0	80.00- 120.00	100.00(R)
5 Aroclor-1248					CAS #: 12672-29-6		
3.739	3.740	-0.001	936697	93.8374	3.6	80.00- 120.00	100.00(a)
3.780	3.771	0.009	338720	39.1551	1.5	66.66- 106.66	36.16
3.946	3.936	0.010	242153	19.1909	0.75	106.41- 146.41	25.85
4.217	4.212	0.005	152394	11.7921	0.46	109.47- 149.47	16.27

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
5 Aroclor-1248 (continued)							
4.245	4.246	-0.001	684718	48.2766	1.9	122.09- 162.09	73.10
Average of Peak Concentrations =					1.6		
6 Aroclor-1254					CAS #: 11097-69-1		
4.245	4.241	0.004	684718	48.4124	1.9	80.00- 120.00	100.00(a)
4.383	4.378	0.005	731676	48.5659	1.9	86.71- 126.71	106.86
4.631	4.625	0.006	641008	57.9992	2.2	57.22- 97.22	93.62
4.715	4.708	0.007	2233149	109.424	4.2	122.52- 162.52	326.14
4.851	4.843	0.008	1168699	109.910	4.3	55.49- 95.49	170.68
Average of Peak Concentrations =					2.9		
7 Aroclor-1260					CAS #: 11096-82-5		
4.851	4.844	0.007	1168699	72.6840	2.8	80.00- 120.00	100.00(a)
5.000	4.990	0.010	839633	45.7519	1.8	101.22- 141.22	71.84
5.254	5.244	0.010	2856352	116.123	4.5	138.74- 178.74	244.40
5.504	5.513	-0.009	533712	39.6485	1.5	57.59- 97.59	45.67
5.703	5.687	0.016	971083	35.6219	1.4	153.13- 193.13	83.09
Average of Peak Concentrations =					2.4		

QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
R - Spike/Surrogate failed recovery limits.

General Engineering Laboratories, LLC

RECOVERY REPORT

Client Name: Los Alamos National 04-MAY-2005 00:00 Client SDG: 3194S
Sample Matrix: SOLID
Fraction: PEST
Lab Smp Id: 135805004
Client Smp ID: RE03-05-59542
Level: LOW
Operator: YS1
Data Type: GC MULTI COMP
SampleType: SAMPLE
SpikeList File: 60LCSS.spk
Quant Type: ESTD
Sublist File: 3194S.sub
Method File: /chem/ecd2a.i/052005.b/ECD2-B-8082-051105.m
Misc Info: |ECD82P_1SF|426670|SVAP|LANL|

SURROGATE COMPOUND	CONC ADDED ug/Kg	CONC RECOVERED ug/Kg	% RECOVERED	LIMITS
$ 10 4cmx	7.8	4.8	61.54	58-106
$ 11 Decachlorobiphenyl	7.8	3.0	38.46*	55-115

Data File: /chem/ecd2a.i/052005.b/034b3401.d
Date : 20-MAY-2005 13:07
Client ID: RE03-05-59842
Sample Info: 1135805000411
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd2a.i
Operator: YSL
Column diameter: 0.25

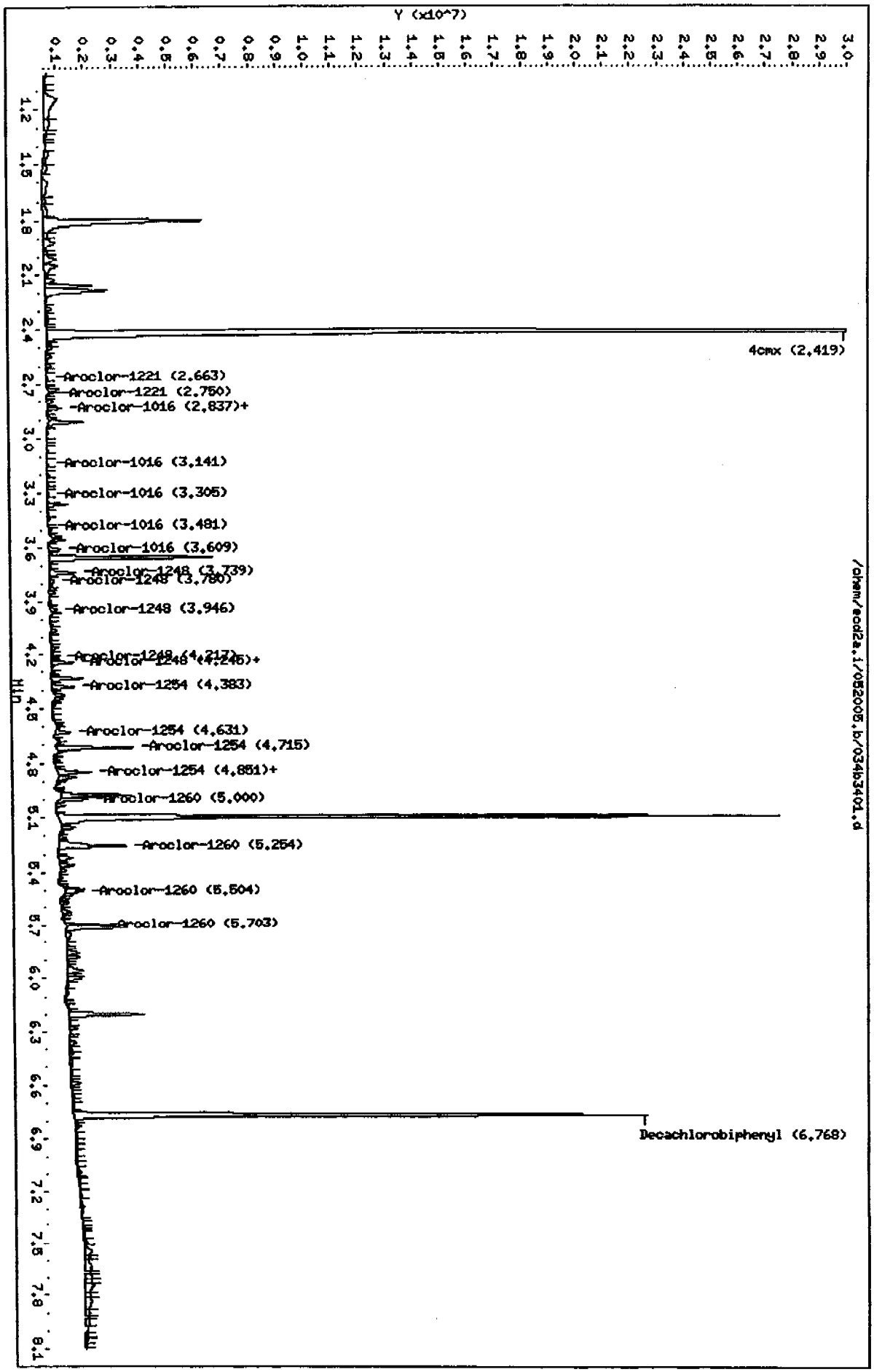

Data File: /chem/ecd2a.i/052005.b/025f2501.d
Report Date: 20-May-2005 13:41

General Engineering Laboratories, LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/052005.b/025f2501.d
Lab Smp Id: 135802012 Client Smp ID: RE03-05-59540
Inj Date : 20-MAY-2005 11:26
Operator : YS1 Inst ID: ecd2a.i
Smp Info : |135802012|1
Misc Info : |ECD82P_1SF|426670|SVAP|LANL|
Comment :
Method : /chem/ecd2a.i/052005.b/ECD2-F-8082-051105.m
Meth Date : 20-May-2005 11:28 yip00818 Quant Type: ESTD
Cal Date : 20-MAY-2005 08:26 Cal File: 009f0901.d
Als bottle: 25
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 3192S.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariab

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	20.73260	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 10 4cmx					CAS #: 877-09-8		
2.020	2.019	0.001	26416491	120.413	5.1	80.00- 120.00	100.00
$ 11 Decachlorobiphenyl					CAS #: 2051-24-3		
5.956	5.948	0.008	10376640	77.7322	3.3	80.00- 120.00	100.00(R)
1 Aroclor-1016					CAS #: 12674-11-2		
2.575	2.562	0.013	27438			80.00- 120.00	100.00
2.889	2.902	-0.013	103908			116.07- 156.07	378.70
2.999	2.998	0.001	5816			64.30- 104.30	21.20
3.021	3.042	-0.021	52092			30.91- 70.91	189.85

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
1 Aroclor-1016 (continued)							
3.136	3.135	0.001	925734	265.225	11.2	26.55- 66.55	3373.91
Average of Peak Concentrations =					11.2		
3 Aroclor-1232					CAS #: 11141-16-5		
2.310	2.297	0.013	292578	59.7583	2.5	80.00- 120.00	100.00
2.575	2.561	0.014	27438	7.37027	0.31	56.04- 96.04	9.38
2.889	2.902	-0.013	103908	21.2454	0.89	79.89- 119.89	35.51
2.999	2.997	0.002	5816	1.86537	0.078	43.68- 83.68	1.99
3.136	3.151	-0.015	925734	561.550	23.6	13.67- 53.67	316.41
Average of Peak Concentrations =					5.5		
4 Aroclor-1242					CAS #: 53469-21-9		
2.889	2.904	-0.015	103908	12.6388	0.53	80.00- 120.00	100.00(a)
2.999	2.999	0.000	5816	1.17850	0.050	41.90- 81.90	5.60
3.021	3.044	-0.023	52092	17.3254	0.73	18.49- 58.49	50.13
3.136	3.135	0.001	925734	383.331	16.1	10.40- 50.40	890.92
3.354	3.354	0.000	139177	50.8497	2.1	9.72- 49.72	133.94
Average of Peak Concentrations =					3.9		
5 Aroclor-1248					CAS #: 12672-29-6		
3.294	3.293	0.001	390738	58.0384	2.4	80.00- 120.00	100.00
3.454	3.455	-0.001	13504	8.64154	0.36	3.21- 43.21	3.46
3.750	3.752	-0.002	3944892	651.568	27.4	69.93- 109.93	1009.60
3.777	3.776	0.001	1691795	676.252	28.4	17.16- 57.16	432.97
3.912	3.913	-0.001	1351662	679.429	28.6	9.55- 49.55	345.93
Average of Peak Concentrations =					17.4		
6 Aroclor-1254					CAS #: 11097-69-1		
3.564	3.564	0.000	4595237	711.900	29.9	80.00- 120.00	100.00
3.750	3.750	0.000	3944892	470.344	19.8	112.09- 152.09	85.85
3.942	3.942	0.000	3397447	532.735	22.4	76.64- 116.64	73.93
4.028	4.027	0.001	8850035	818.599	34.4	147.36- 187.36	192.59
4.544	4.543	0.001	11483469	1023.06	43.0	159.04- 199.04	249.90
Average of Peak Concentrations =					29.9		
7 Aroclor-1260					CAS #: 11096-82-5		
4.155	4.155	0.000	4768583	498.433	21.0	80.00- 120.00	100.00
4.351	4.350	0.001	7713741	585.495	24.6	129.59- 169.59	161.76
4.544	4.542	0.002	11483469	745.256	31.3	140.84- 180.84	240.82
4.792	4.791	0.001	932691	126.373	5.3	58.52- 98.52	19.56
5.009	5.005	0.004	2052928	110.755	4.6	164.23- 204.23	43.05
Average of Peak Concentrations =					17.4		

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
R - Spike/Surrogate failed recovery limits.

General Engineering Laboratories, LLC

RECOVERY REPORT

Client Name: Los Alamos National 04-MAY-2005 00:00 Client SDG: 3192S
Sample Matrix: SOLID Fraction: PEST
Lab Smp Id: 135802012 Client Smp ID: RE03-05-59540
Level: LOW Operator: YS1
Data Type: GC MULTI COMP SampleType: SAMPLE
SpikeList File: WaterLCS.spk Quant Type: ESTD
Sublist File: 3192S.sub
Method File: /chem/ecd2a.i/052005.b/ECD2-F-8082-051105.m
Misc Info: |ECD82P_1SF|426670|SVAP|LANL|

SURROGATE COMPOUND	CONC ADDED ug/Kg	CONC RECOVERED ug/Kg	% RECOVERED	LIMITS
$ 10 4cmx	8.4	5.1	60.71	58-106
$ 11 Decachlorobiphenyl	8.4	3.3	39.29*	55-115

Data File: /chem/eod2a.i/052005.b/025f2501.d
Date : 20-MAY-2005 11:26
Client ID: RE03-05-59640
Sample Info: 113580201211
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: eod2a.i

Operator: YS1
Column diameter: 0.25

/chem/eod2a.i/052005.b/025f2501.d

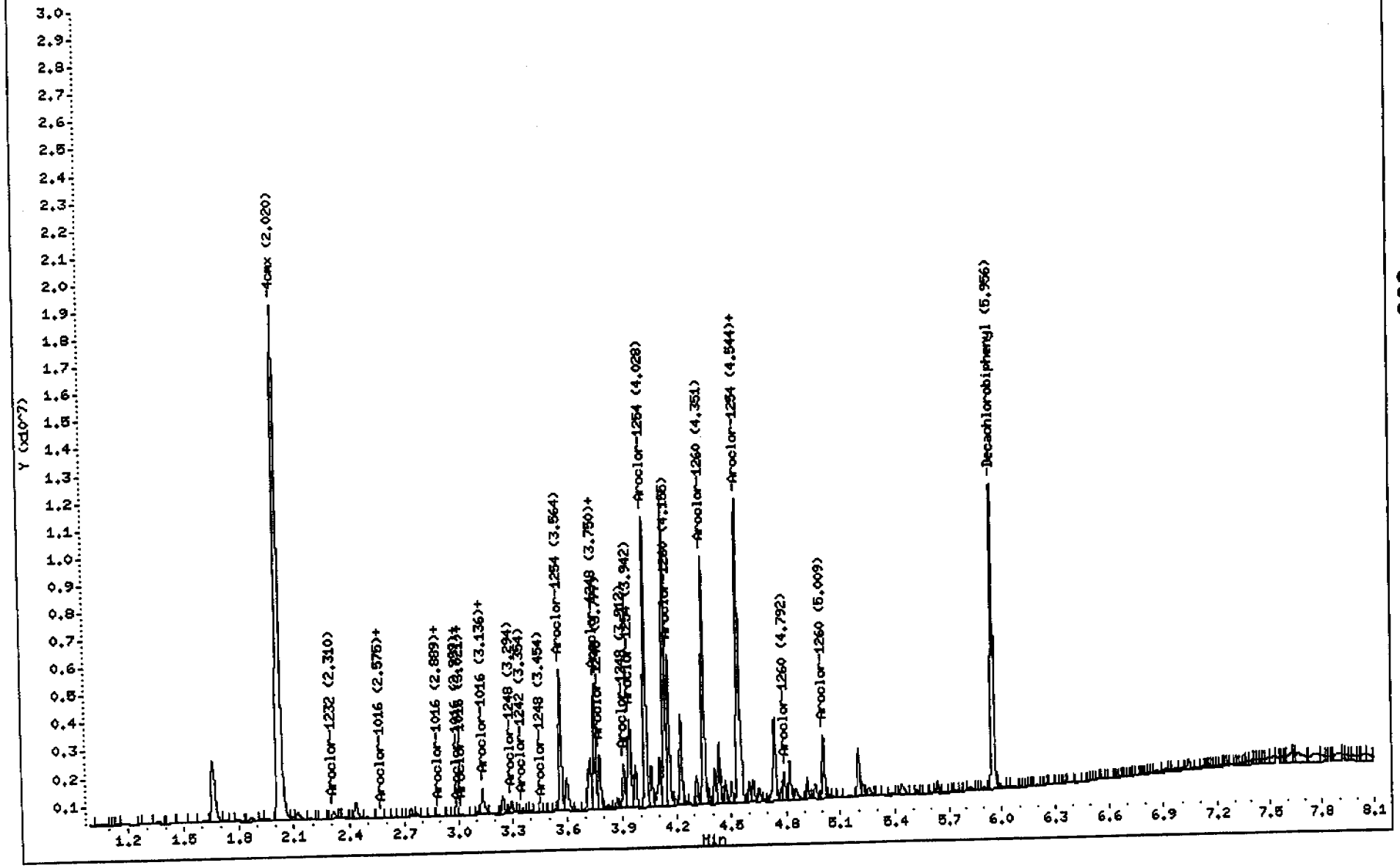

General Engineering Laboratories, LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/052005.b/034f3401.d
Lab Smp Id: 135805004 Client Smp ID: RE03-05-59542
Inj Date : 20-MAY-2005 13:07
Operator : YS1 Inst ID: ecd2a.i
Smp Info : |135805004|1
Misc Info : |ECD82P_1SF|426670|SVAP|LANL|
Comment :
Method : /chem/ecd2a.i/052005.b/ECD2-F-8082-051105.m
Meth Date : 20-May-2005 11:28 yip00818 Quant Type: ESTD
Cal Date : 20-MAY-2005 08:26 Cal File: 009f0901.d
Als bottle: 34
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 3194S.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariab

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	14.32480	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 10 4cmx					CAS #: 877-09-8		
2.023	2.019	0.004	26850574	122.391	4.8	80.00- 120.00	100.00
$ 11 Decachlorobiphenyl					CAS #: 2051-24-3		
5.972	5.948	0.024	11398278	85.7636	3.3	80.00- 120.00	100.00(R)
5 Aroclor-1248					CAS #: 12672-29-6		
3.296	3.293	0.003	108655	16.1391	0.63	80.00- 120.00	100.00
3.479	3.455	0.024	139513	89.2778	3.5	3.21- 43.21	128.40
3.757	3.752	0.005	346405	57.2149	2.2	69.93- 109.93	318.81
3.770	3.776	-0.006	997317	398.652	15.5	17.16- 57.16	917.87

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
5 Aroclor-1248 (continued)							
3.917	3.913	0.004	141107	70.9291	2.8	9.55- 49.55	129.87
Average of Peak Concentrations =					4.9		
6 Aroclor-1254					CAS #: 11097-69-1		
3.570	3.564	0.006	808484	125.251	4.9	80.00- 120.00	100.00
3.757	3.750	0.007	346405	41.3014	1.6	112.09- 152.09	42.85
3.946	3.942	0.004	374542	58.7298	2.3	76.64- 116.64	46.33
4.033	4.027	0.006	882947	81.6697	3.2	147.36- 187.36	109.21
4.572	4.543	0.029	16802163	1496.90	58.2	159.04- 199.04	2078.23
Average of Peak Concentrations =					14.0		
7 Aroclor-1260					CAS #: 11096-82-5		
4.162	4.155	0.007	542062	56.6586	2.2	80.00- 120.00	100.00(a)
4.359	4.350	0.009	943296	71.5989	2.8	129.59- 169.59	174.02
4.512	4.542	-0.030	79710	5.17303	0.20	140.84- 180.84	14.70
4.792	4.791	0.001	1115520	151.145	5.9	58.52- 98.52	205.79
4.999	5.005	-0.006	247549	13.3552	0.52	164.23- 204.23	45.67
Average of Peak Concentrations =					2.3		

QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
R - Spike/Surrogate failed recovery limits.

General Engineering Laboratories, LLC

RECOVERY REPORT

Client Name: Los Alamos National 04-MAY-2005 00:00 Client SDG: 3194S
Sample Matrix: SOLID Fraction: PEST
Lab Smp Id: 135805004 Client Smp ID: RE03-05-59542
Level: LOW Operator: YS1
Data Type: GC MULTI COMP SampleType: SAMPLE
SpikeList File: WaterLCS.spk Quant Type: ESTD
Sublist File: 3194S.sub
Method File: /chem/ecd2a.i/052005.b/ECD2-F-8082-051105.m
Misc Info: |ECD82P_1SF|426670|SVAP|LANL|

SURROGATE COMPOUND	CONC ADDED ug/Kg	CONC RECOVERED ug/Kg	% RECOVERED	LIMITS
$ 10 4cmx	7.8	4.8	61.54	58-106
$ 11 Decachlorobiphenyl	7.8	3.3	42.31*	55-115

Data File: /chem/ecd2a.i/052005.b/034f3401.d
Date : 20-MAY-2005 13:07
Client ID: RE03-05-59842
Sample Info: 113580500411
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecd2a.i

Operator: YS1
Column diameter: 0.25

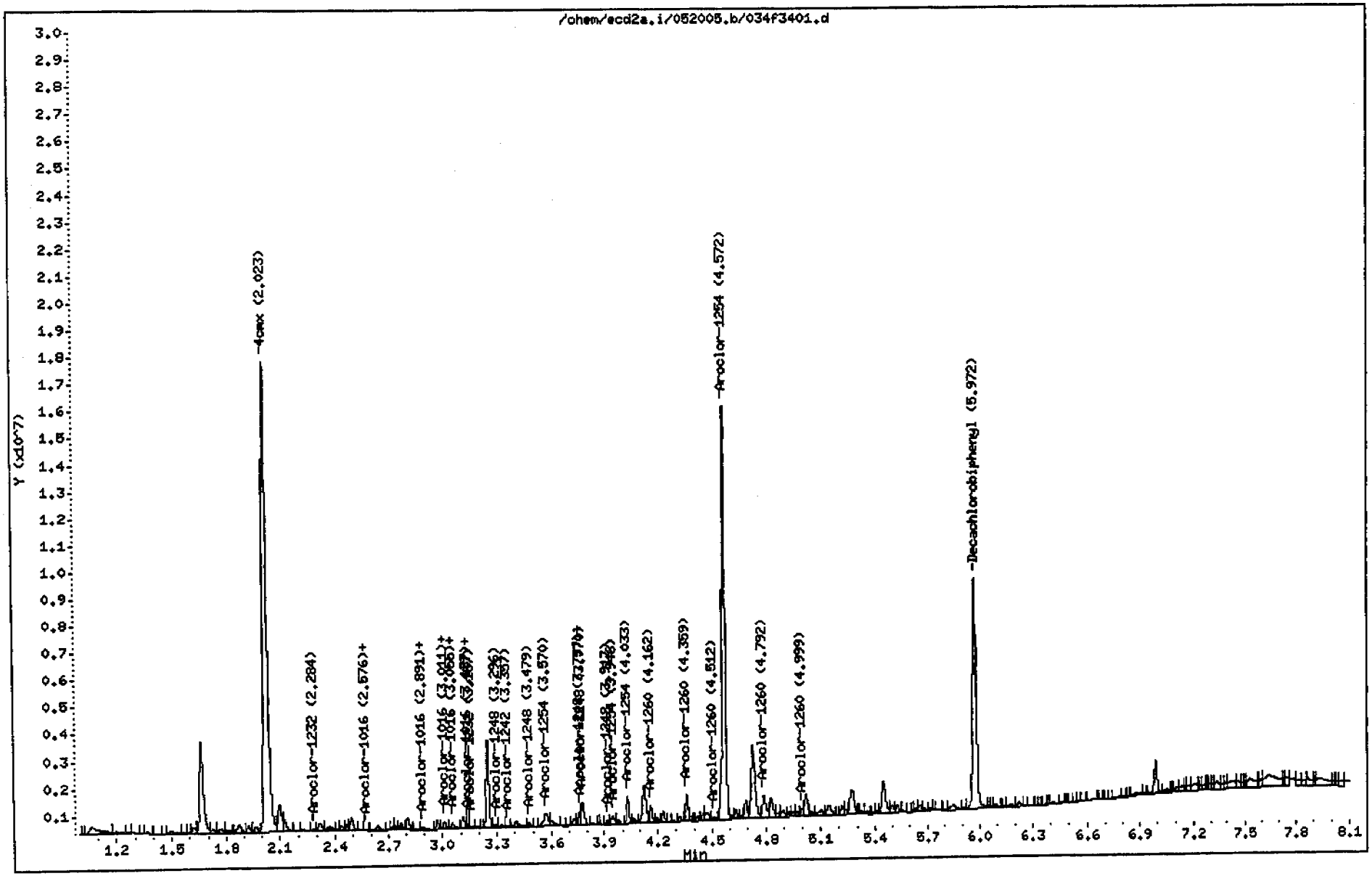

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General Engineering Laboratories, LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/052005.b/035b3501.d
Lab Smp Id: WAR050511-13605 Client Smp ID: AR1660
Inj Date : 20-MAY-2005 13:18
Operator : YS1 Inst ID: ecd2a.i
Smp Info : |WAR050511-13605
Misc Info :
Comment :
Method : /chem/ecd2a.i/052005.b/ECD2-B-8082-051105.m
Meth Date : 20-May-2005 11:28 yip00818 Quant Type: ESTD
Cal Date : 20-MAY-2005 08:26 Cal File: 009b0901.d
Als bottle: 35
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 10 4cmx					CAS #: 877-09-8		
2.418	2.415	0.003	49206976	113.518	114	80.00- 120.00	100.00(R)
$ 11 Decachlorobiphenyl					CAS #: 2051-24-3		
6.753	6.751	0.002	15721966	62.5389	62.5	80.00- 120.00	100.00(R)
1 Aroclor-1016					CAS #: 12674-11-2		
2.823	2.820	0.003	6365303	1124.99	1120	80.00- 120.00	100.00
3.141	3.139	0.002	14797608	1095.72	1100	218.04- 258.04	232.47
3.329	3.326	0.003	5044992	1042.02	1040	63.80- 103.80	79.26
3.492	3.490	0.002	17641052	1086.43	1090	268.06- 308.06	277.14
3.591	3.589	0.002	10412353	1078.60	1080	154.57- 194.57	163.58
Average of Peak Concentrations =					1090		
7 Aroclor-1260					CAS #: 11096-82-5		
4.846	4.844	0.002	13613931	846.681	847	80.00- 120.00	100.00(M)
4.992	4.990	0.002	16332295	889.953	890	101.22- 141.22	119.97
5.246	5.244	0.002	21639888	879.751	880	138.74- 178.74	116.11
5.515	5.513	0.002	10276309	763.408	763	57.59- 97.59	75.48
5.689	5.687	0.002	23199185	851.007	851	153.13- 193.13	170.41
Average of Peak Concentrations =					846		

QC Flag Legend

R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Data File: /chem/ecd2a.i/052005.b/035b3501.d
Report Date: 20-May-2005 13:47

General Engineering Laboratories, LLC

RECOVERY REPORT

Client Name: URS Operation Servi
Sample Matrix: NONE
Lab Smp Id: WAR050511-13605
Level:
Data Type: GC MULTI COMP
SpikeList File: 60LCSS.spk
Sublist File: AR1660.sub
Method File: /chem/ecd2a.i/052005.b/ECD2-B-8082-051105.m
Misc Info:

Client SDG: 052005
Fraction: PEST
Client Smp ID: AR1660
Operator: YS1
SampleType: SAMPLE
Quant Type: ESTD

SURROGATE COMPOUND	AMOUNT ADDED ug/L	AMOUNT RECOVERED ug/L	% RECOVERED	LIMITS
$ 10 4cmx	200	114	57.00	
$ 11 Decachlorobiphenyl	200	62.5	31.25	

Data File: /chem/ecd2a.i/052005.b/035b3501.d
Date : 20-MAY-2005 13:18
Client ID: AR1660
Sample Info: IWAR050511-13605

Column phase: CLP2

Instrument: ecd2a.i

Operator: YS1
Column diameter: 0.25

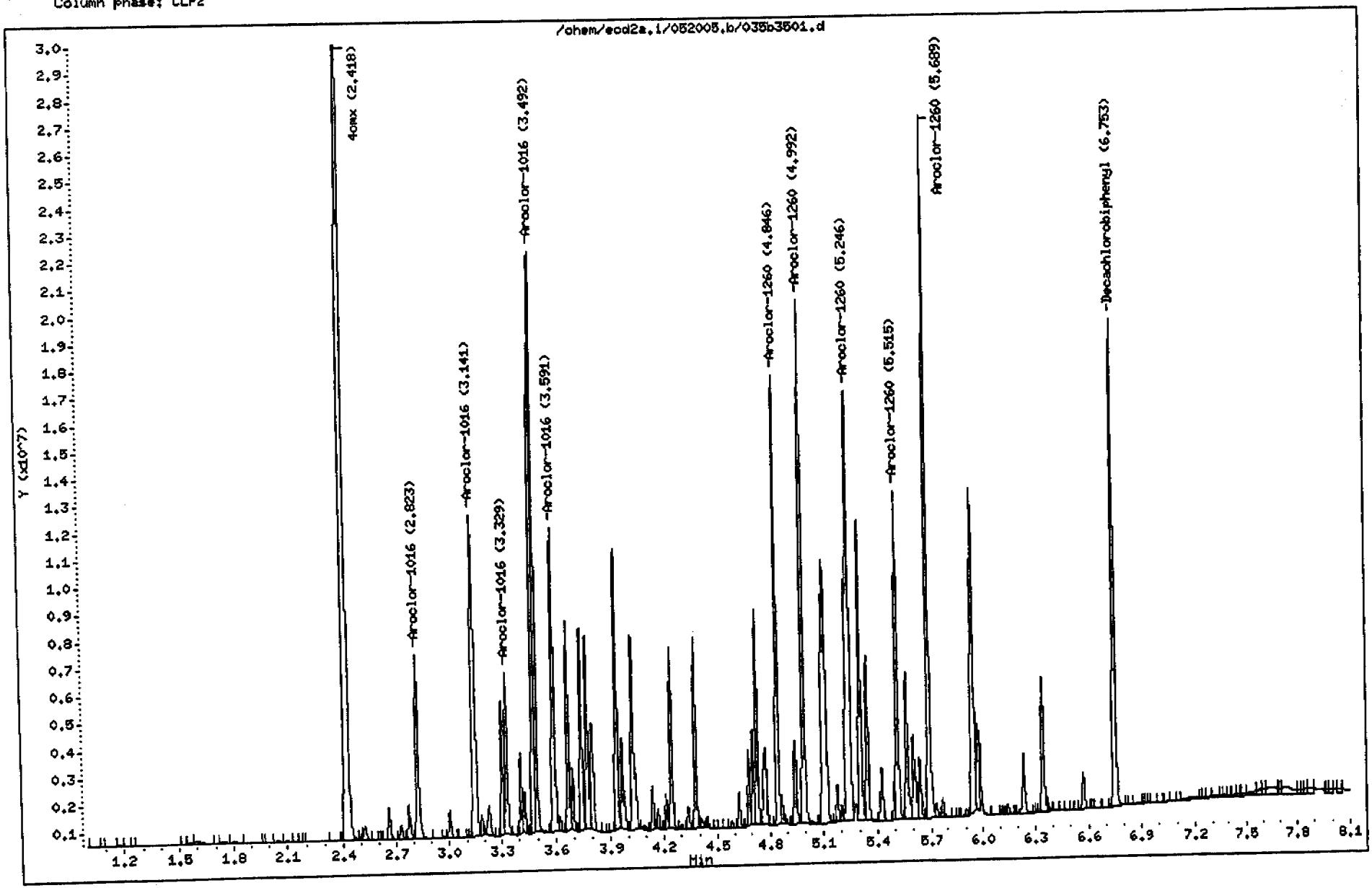

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Data File: /chem/ecd2a.i/052005.b/035f3501.d
Report Date: 20-May-2005 13:45

General Engineering Laboratories, LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/052005.b/035f3501.d
Lab Smp Id: WAR050511-13605 Client Smp ID: AR1660
Inj Date : 20-MAY-2005 13:18
Operator : YS1 Inst ID: ecd2a.i
Smp Info : |WAR050511-13605
Misc Info :
Comment :
Method : /chem/ecd2a.i/052005.b/ECD2-F-8082-051105.m
Meth Date : 20-May-2005 11:28 yip00818 Quant Type: ESTD
Cal Date : 20-MAY-2005 08:26 Cal File: 009f0901.d
Als bottle: 35
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 10 4CMX					CAS #: 877-09-8		
2.023	2.019	0.004	22762244	103.756	104	80.00- 120.00	100.00(R)
$ 11 Decachlorobiphenyl					CAS #: 2051-24-3		
5.948	5.948	0.000	9623433	71.8110	71.8	80.00- 120.00	100.00(R)
1 Aroclor-1016					CAS #: 12674-11-2		
2.563	2.562	0.001	7748229	1189.00	1190	80.00- 120.00	100.00
2.905	2.902	0.003	10896850	1162.00	1160	116.07- 156.07	140.64
3.000	2.998	0.002	6432941	1115.93	1120	64.30- 104.30	83.02
3.045	3.042	0.003	3860002	1082.25	1080	30.91- 70.91	49.82
3.137	3.135	0.002	3477364	1110.15	1110	26.55- 66.55	44.88
Average of Peak Concentrations =					1130		
7 Aroclor-1260					CAS #: 11096-82-5		
4.157	4.155	0.002	8627507	901.784	902	80.00- 120.00	100.00
4.351	4.350	0.001	12855355	975.759	976	129.59- 169.59	149.00
4.543	4.542	0.001	13652133	885.999	886	140.84- 180.84	158.24
4.792	4.791	0.001	6202378	840.376	840	58.52- 98.52	71.89
5.006	5.005	0.001	13249497	714.805	715	164.23- 204.23	153.57
Average of Peak Concentrations =					864		

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: /chem/ecd2a.i/052005.b/035f3501.d
Report Date: 20-May-2005 13:45

General Engineering Laboratories, LLC

RECOVERY REPORT

Client Name:
Sample Matrix: NONE
Lab Smp Id: WAR050511-13605
Level:
Data Type: GC MULTI COMP
SpikeList File: WaterLCS.spk
Sublist File: AR1660.sub
Method File: /chem/ecd2a.i/052005.b/ECD2-F-8082-051105.m
Misc Info:

Client SDG: 052005
Fraction: PEST
Client Smp ID: AR1660
Operator: YS1
SampleType: SAMPLE
Quant Type: ESTD

SURROGATE COMPOUND	AMOUNT ADDED ug/L	AMOUNT RECOVERED ug/L	% RECOVERED	LIMITS
$ 10 4cmx	200	104	52.00	
$ 11 Decachlorobiphenyl	200	71.8	35.90	

Data File: /chem/eod2a.i/052005.b/035f3501.d
Date : 20-MAY-2005 13:18
Client ID: AR1660
Sample Info: IWAR050511-13605

Column phase: CLP1

Instrument: eod2a.i

Operator: YS1
Column diameter: 0.25

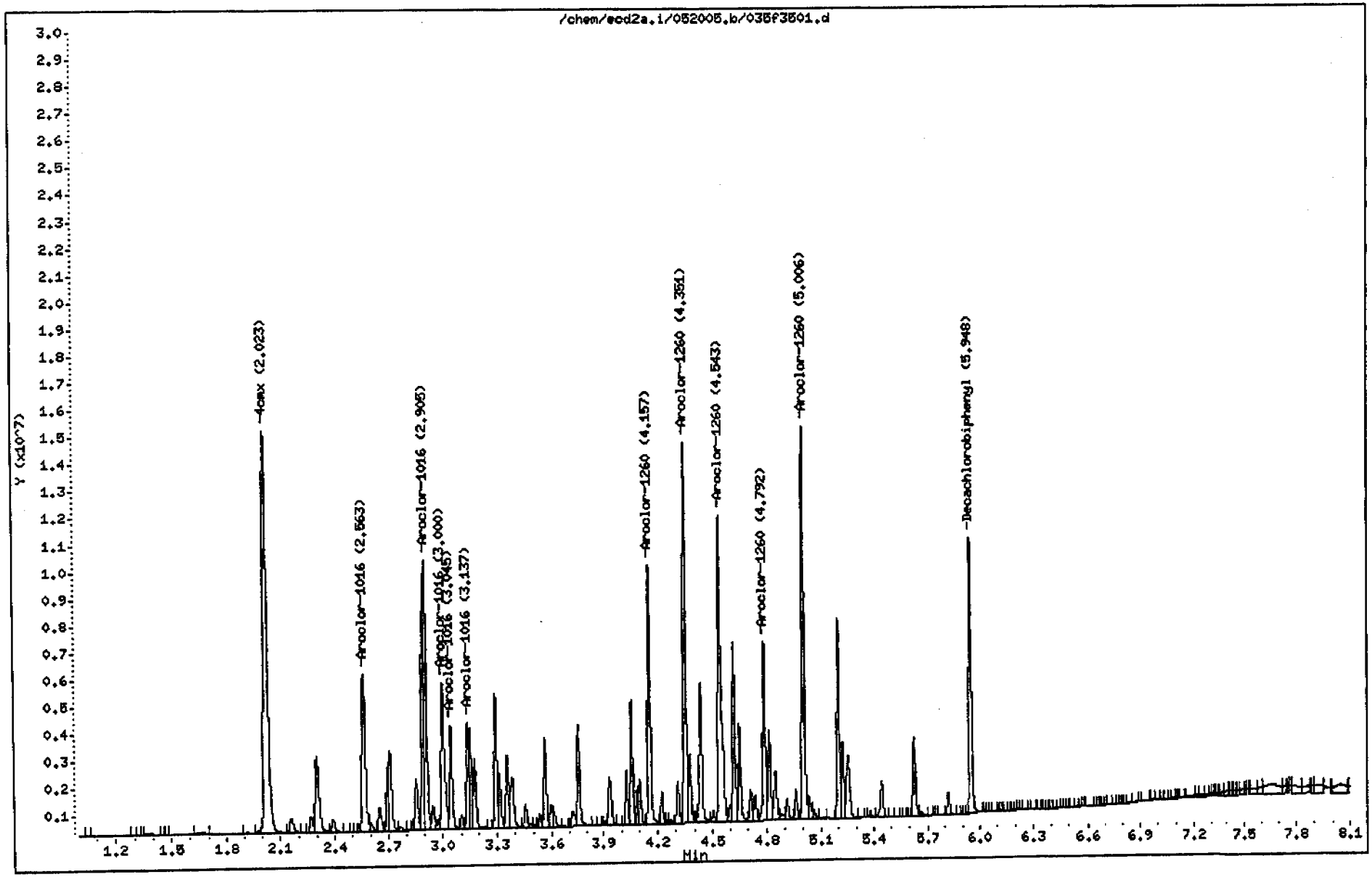

Tuesday, May 3, 2005

REQUEST NUMBER: 3193S

ANALYSIS TYPE: INORGANIC

Los Alamos
NATIONAL LABORATORY

ATTN: Stacy Griffin
General Engineering Laboratories, Inc., Historical
2040 Savage Road
Charleston, SC 29407

Please analyze the enclosed samples according to the schedule indicated:

SHIP DATE: 05/03/2005
REPORT DUE: 05/13/2005
TURN AROUND REQ'D: 10

RAD SCREENING: NOT REQ
COMMENTS:

These samples are on:

LANL Request Number: 3193S
Per Agreement Number: 126310011
Project Cost Code: MR0R00FC6800

LANL ER SMO CONTACT:
Signature:

METHOD CODE	SAMPLE ID	CONT ID	SAMPLE MATRIX	DATE SAMPLED	COMMENTS
SW-846:6010B	RE03-05-59527	5	S	05/02/2005	
SW-846:6020	RE03-05-59527	5	S	05/02/2005	
SW-846:7471A	RE03-05-59527	5	S	05/02/2005	
SW-846:6010B	RE03-05-59528	5	S	05/02/2005	
SW-846:6020	RE03-05-59528	5	S	05/02/2005	
SW-846:7471A	RE03-05-59528	5	S	05/02/2005	
SW-846:6010B	RE03-05-59529	5	S	05/02/2005	
SW-846:6020	RE03-05-59529	5	S	05/02/2005	
SW-846:7471A	RE03-05-59529	5	S	05/02/2005	
SW-846:6010B	RE03-05-59530	5	S	05/02/2005	
SW-846:6020	RE03-05-59530	5	S	05/02/2005	
SW-846:7471A	RE03-05-59530	5	S	05/02/2005	
SW-846:6010B	RE03-05-59533	5	S	05/02/2005	
SW-846:6020	RE03-05-59533	5	S	05/02/2005	
SW-846:7471A	RE03-05-59533	5	S	05/02/2005	
SW-846:6010B	RE03-05-59534	5	S	05/02/2005	
SW-846:6020	RE03-05-59534	5	S	05/02/2005	
SW-846:7471A	RE03-05-59534	5	S	05/02/2005	
SW-846:6010B	RE03-05-59535	5	S	05/02/2005	
SW-846:6020	RE03-05-59535	5	S	05/02/2005	
SW-846:7471A	RE03-05-59535	5	S	05/02/2005	
SW-846:6010B	RE03-05-59536	5	S	05/02/2005	
SW-846:6020	RE03-05-59536	5	S	05/02/2005	
SW-846:7471A	RE03-05-59536	5	S	05/02/2005	
SW-846:6010B	RE03-05-59537	5	S	05/02/2005	
SW-846:6020	RE03-05-59537	5	S	05/02/2005	
SW-846:7471A	RE03-05-59537	5	S	05/02/2005	
SW-846:6010B	RE03-05-59538	5	S	05/02/2005	
SW-846:6020	RE03-05-59538	5	S	05/02/2005	
SW-846:7471A	RE03-05-59538	5	S	05/02/2005	
SW-846:6010B	RE03-05-59539	5	S	05/02/2005	
SW-846:6020	RE03-05-59539	5	S	05/02/2005	
SW-846:7471A	RE03-05-59539	5	S	05/02/2005	
SW-846:6010B	RE03-05-59540	5	S	05/02/2005	
SW-846:6020	RE03-05-59540	5	S	05/02/2005	
SW-846:7471A	RE03-05-59540	5	S	05/02/2005	
SW-846:6010B	RE03-05-59543	1	S	05/02/2005	
SW-846:6020	RE03-05-59543	1	S	05/02/2005	

METHOD CODE	SAMPLE ID	CONT ID	SAMPLE MATRIX	DATE SAMPLED	COMMENTS
SW-846:7471A	RE03-05-59543	1	S	05/02/2005	
SW-846:6010B	RE03-05-59544	1	S	05/02/2005	
SW-846:6020	RE03-05-59544	1	S	05/02/2005	
SW-846:7471A	RE03-05-59544	1	S	05/02/2005	

Final Page of REQUEST NUMBER 3193S

Tuesday, May 3, 2005

CHAIN OF CUSTODY DOCUMENT NUMBER: 3193SC

Los Alamos
NATIONAL LABORATORY

REQUEST NUMBER: 3193S

ANALYSIS TYPE: INORGANIC

ATTN: Stacy Griffin
General Engineering Laboratories, Inc., Historical
2040 Savage Road
Charleston, SC 29407

SAMPLE ID	CONT ID	CONTAINER DESCRIPTION	ORDER TEMPLATE CODE	PRESERVATIVE	MATRIX
RE03-05-59527	5	125 ML POLY	METALS-GEL	ICE	S
RE03-05-59528	5	125 ML POLY	METALS-GEL	ICE	S
RE03-05-59529	5	125 ML POLY	METALS-GEL	ICE	S
RE03-05-59530	5	125 ML POLY	METALS-GEL	ICE	S
RE03-05-59533	5	125 ML POLY	METALS-GEL	ICE	S
RE03-05-59534	5	125 ML POLY	METALS-GEL	ICE	S
RE03-05-59535	5	125 ML POLY	METALS-GEL	ICE	S
RE03-05-59536	5	125 ML POLY	METALS-GEL	ICE	S
RE03-05-59537	5	125 ML POLY	METALS-GEL	ICE	S
RE03-05-59538	5	125 ML POLY	METALS-GEL	ICE	S
RE03-05-59539	5	125 ML POLY	METALS-GEL	ICE	S
RE03-05-59540	5	125 ML POLY	METALS-GEL	ICE	S
RE03-05-59543	1	125 ML POLY	METALS-GEL	ICE	S
RE03-05-59544	1	125 ML POLY	METALS-GEL	ICE	S

Final Page of CHAIN OF CUSTODY DOCUMENT FOR REQUEST NUMBER 3193S

Relinquished By:		Date	Time	Received By:		Date	Time
Afodilla	[illegible]	5/2/05	1400				
PRINTED NAME	SIGNATURE			PRINTED NAME	SIGNATURE		
PRINTED NAME	SIGNATURE			PRINTED NAME	SIGNATURE		
PRINTED NAME	SIGNATURE			PRINTED NAME	SIGNATURE		

Received for DISPOSAL By:		Date	Time	Remarks:
PRINTED NAME	SIGNATURE			

Los Alamos National Laboratory
Environmental Restoration Project
Los Alamos, NM 87545

EVENT NAME: TA-3 03-013(i)

FIELD CHAIN OF CUSTODY

COC ID: 226562 Event ID:4932

SAMPLE ID: RE03-05-59527
SAMPLE ORDER MATRIX: Soil
ER TEAM LEADER: Roy Bohn
FIELD TEAM LEADER: Daniel Thompson
DESTINATION: SMO
DEST. POC:

ANALYSES REQUESTED

CONT. ID	ORDER	CONTAINER DESCRIPTION	PRESERVATIVE	COLLECTED Y / N	REASON	SPECIAL INSTRUCTIONS
1	8260BENCORE	5 G ENCORE	Ice	N	Not req.	
2	8260BENCORE	5 G ENCORE	Ice	N		
3	8270C+8082+TPH-DRO	500 ML GLASS	Ice	Y		
5	METALS-GEL	125 ML POLY	Ice	Y		
4	TPH-GRO	125 SEPTUM AMBER GLASS	Ice	Y		

RELINQUISHED BY (printed name): (signature): Paul Olsen	Date/Time: 5/2/05 0440	RELINQUISHED BY (printed name): (signature):	Date/Time:
RECEIVED BY (printed name): (signature):	Date/Time: 5/2/05 4:40	RECEIVED BY (printed name): (signature):	Date/Time:

Los Alamos National Laboratory
Environmental Restoration Project
Los Alamos, NM 87545

FIELD CHAIN OF CUSTODY

EVENT NAME: TA-3 03-013(i)

COC ID: 226572 Event ID:4932

SAMPLE ID: RE03-05-59528

SAMPLE ORDER MATRIX: Soil

ER TEAM LEADER: Roy Bohn

FIELD TEAM LEADER: Daniel Thompson

DESTINATION: SMO

DEST. POC:

ANALYSES REQUESTED

CONT. ID	ORDER	CONTAINER DESCRIPTION	PRESERVATIVE	COLLECTED Y / N	REASON	SPECIAL INSTRUCTIONS
1	8260BENCORE	5 G ENCORE	Ice	Y		
2	8260BENCORE	5 G ENCORE	Ice	Y		
3	8270C+8082+TPH-DRO	500 ML GLASS	Ice	Y		
5	METALS-GEL	125 ML POLY	Ice	Y		
4	TPH-GRO	125 SEPTUM AMBER GLASS	Ice	Y		

RELINQUISHED BY (printed name): (signature):	Date/Time: 5/2/05 4:40	RELINQUISHED BY (printed name): (signature):	Date/Time:
RECEIVED BY (printed name): (signature):	Date/Time: 5/2/05 4:40	RECEIVED BY (printed name): (signature):	Date/Time:

Los Alamos National Laboratory
Environmental Restoration Project
Los Alamos, NM 87545

FIELD CHAIN OF CUSTODY

EVENT NAME: TA-3 03-013(i)

COC ID: 226582 Event ID:4932

SAMPLE ID: RE03-05-59529

SAMPLE ORDER MATRIX: Soil

ER TEAM LEADER: Roy Bohn

FIELD TEAM LEADER: Daniel Thompson

DESTINATION: SMO

DEST. POC:

ANALYSES REQUESTED

CONT. ID	ORDER	CONTAINER DESCRIPTION	PRESERVATIVE	COLLECTED Y / N	REASON	SPECIAL INSTRUCTIONS
1	8260BENCORE	5 G ENCORE	Ice	N	Not Req	
2	8260BENCORE	5 G ENCORE	Ice	N	Not Req	
3	8270C+8082+TPH-DRO	500 ML GLASS	Ice	Y		
5	METALS-GEL	125 ML POLY	Ice	Y		
4	TPH-GRO	125 SEPTUM AMBER GLASS	Ice	Y		

RELINQUISHED BY (printed name): (signature): Saul Alari	Date/Time: 5/2/05 4:40	RELINQUISHED BY (printed name): (signature):	Date/Time:
RECEIVED BY (printed name): (signature):	Date/Time: 5/2/05 4:40	RECEIVED BY (printed name): (signature):	Date/Time:

Los Alamos National Laboratory
Environmental Restoration Project
Los Alamos, NM 87545

EVENT NAME: TA-3 03-013(I)

FIELD CHAIN OF CUSTODY

COC ID: 226592 Event ID:4932

SAMPLE ID: RE03-05-59530
SAMPLE ORDER MATRIX: Soil
ER TEAM LEADER: Roy Bohn
FIELD TEAM LEADER: Daniel Thompson
DESTINATION: SMO
DEST. POC:

ANALYSES REQUESTED

CONT. ID	ORDER	CONTAINER DESCRIPTION	PRESERVATIVE	COLLECTED Y / N	REASON	SPECIAL INSTRUCTIONS
1	8260BENCORE	5 G ENCORE	Ice	Y		
2	8260BENCORE	5 G ENCORE	Ice	Y		
3	8270C+8082+TPH-DRO	500 ML GLASS	Ice	Y		
5	METALS-GEL	125 ML POLY	Ice	Y		
4	TPH-GRO	125 SEPTUM AMBER GLASS	Ice	Y		

RELINQUISHED BY (printed name): (signature): Paul Alarid	Date/Time: 5/2/05 4:40	RELINQUISHED BY (printed name): (signature):	Date/Time:
RECEIVED BY (printed name): (signature):	Date/Time: 5/2/05 4:40	RECEIVED BY (printed name): (signature):	Date/Time

Los Alamos National Laboratory
Environmental Restoration Project
Los Alamos, NM 87545

EVENT NAME: TA-3 03-013(i)

FIELD CHAIN OF CUSTODY

COC ID: 226622 Event ID:4932

SAMPLE ID: RE03-05-59533
SAMPLE ORDER MATRIX: Soil
ER TEAM LEADER: Roy Bohn
FIELD TEAM LEADER: Daniel Thompson
DESTINATION: SMO
DEST. POC:

ANALYSES REQUESTED

CONT. ID	ORDER	CONTAINER DESCRIPTION	PRESERVATIVE	COLLECTED Y / N	REASON	SPECIAL INSTRUCTIONS
1	8260BENCORE	5 G ENCORE	Ice	N	Not req	
2	8260BENCORE	5 G ENCORE	Ice	N	Not req	
3	8270C+8082+TPH-DRO	500 ML GLASS	Ice	Y		
5	METALS-GEL	125 ML POLY	Ice	Y		
4	TPH-GRO	125 SEPTUM AMBER GLASS	Ice	Y		

RELINQUISHED BY (printed name): (signature): Paul Ahn	Date/Time: 5/2/05 4:40	RELINQUISHED BY (printed name): (signature):	Date/Time
RECEIVED BY (printed name): (signature):	Date/Time: 5/2/05 4:40	RECEIVED BY (printed name): (signature):	Date/Time

Los Alamos National Laboratory
Environmental Restoration Project
Los Alamos, NM 87545

EVENT NAME: TA-3 03-013(i)

FIELD CHAIN OF CUSTODY

COC ID: 226632 Event ID:4932

SAMPLE ID: RE03-05-59534
SAMPLE ORDER MATRIX: Soil
ER TEAM LEADER: Roy Bohn
FIELD TEAM LEADER: Daniel Thompson
DESTINATION: SMO
DEST. POC:

ANALYSES REQUESTED

CONT. ID	ORDER	CONTAINER DESCRIPTION	PRESERVATIVE	COLLECTED Y / N	REASON	SPECIAL INSTRUCTIONS
1	8260BENCORE	5 G ENCORE	Ice	Y		
2	8260BENCORE	5 G ENCORE	Ice	Y		
3	8270C+8082+TPH-DRO	500 ML GLASS	Ice	Y		
5	METALS-GEL	125 ML POLY	Ice	Y		
4	TPH-GRO	125 SEPTUM AMBER GLASS	Ice	Y		

RELINQUISHED BY (printed name): (signature):	Date/Time: 5/2/05 440	RELINQUISHED BY (printed name): (signature):	Date/Time
RECEIVED BY (printed name): (signature):	Date/Time: 5/2/05 4:40	RECEIVED BY (printed name): (signature):	Date/Time

Los Alamos National Laboratory
Environmental Restoration Project
Los Alamos, NM 87545

EVENT NAME: TA-3 03-013(i)

FIELD CHAIN OF CUSTODY

COC ID: 226642 Event ID:4932

SAMPLE ID: RE03-05-59535
SAMPLE ORDER MATRIX: Soil
ER TEAM LEADER: Roy Bohn
FIELD TEAM LEADER: Daniel Thompson
DESTINATION: SMO
DEST. POC:

ANALYSES REQUESTED

CONT. ID	ORDER	CONTAINER DESCRIPTION	PRESERVATIVE	COLLECTED Y / N	REASON	SPECIAL INSTRUCTIONS
1	8260BENCORE	5 G ENCORE	Ice	N	Not req	
2	8260BENCORE	5 G ENCORE	Ice	N	Not req	
3	8270C+8082+TPH-DRO	500 ML GLASS	Ice	Y		
5	METALS-GEL	125 ML POLY	Ice	Y		
4	TPH-GRO	125 SEPTUM AMBER GLASS	Ice	Y		

RELINQUISHED BY (printed name): (signature): Paul Adams	Date/Time: 5/2/05 4:40	RELINQUISHED BY (printed name): (signature):	Date/Time:
RECEIVED BY (printed name): (signature):	Date/Time: 5/2/05 4:40	RECEIVED BY (printed name): (signature):	Date/Time:

Los Alamos National Laboratory
Environmental Restoration Project
Los Alamos, NM 87545

FIELD CHAIN OF CUSTODY

EVENT NAME: TA-3 03-013(i)

COC ID: 226652 Event ID:4932

SAMPLE ID: RE03-05-59536

SAMPLE ORDER MATRIX: Soil

ER TEAM LEADER: Roy Bohn

FIELD TEAM LEADER: Daniel Thompson

DESTINATION: SMO

DEST. POC:

ANALYSES REQUESTED

CONT. ID	ORDER	CONTAINER DESCRIPTION	PRESERVATIVE	COLLECTED Y / N	REASON	SPECIAL INSTRUCTIONS
1	8260BENCORE	5 G ENCORE	Ice	Y		
2	8260BENCORE	5 G ENCORE	Ice	Y		
3	8270C+8082+TPH-DRO	500 ML GLASS	Ice	Y		
5	METALS-GEL	125 ML POLY	Ice	Y		
4	TPH-GRO	125 SEPTUM AMBER GLASS	Ice	Y		

RELINQUISHED BY (printed name): (signature): Saul Alani	Date/Time: 5/2/05 440	RELINQUISHED BY (printed name): (signature):	Date/Time:
RECEIVED BY (printed name): (signature):	Date/Time: 5/2/05 4:40	RECEIVED BY (printed name): (signature):	Date/Time:

Los Alamos National Laboratory
Environmental Restoration Project
Los Alamos, NM 87545

EVENT NAME: TA-3 03-013(I)

FIELD CHAIN OF CUSTODY

COC ID: 226662 Event ID:4932

SAMPLE ID: RE03-05-59537

SAMPLE ORDER MATRIX: Soil

ER TEAM LEADER: Roy Bohn

FIELD TEAM LEADER: Daniel Thompson

DESTINATION: SMO

DEST. POC:

ANALYSES REQUESTED

CONT. ID	ORDER	CONTAINER DESCRIPTION	PRESERVATIVE	COLLECTED Y / N	REASON	SPECIAL INSTRUCTIONS
1	8260BENCORE	5 G ENCORE	Ice	N	Not req	
2	8260BENCORE	5 G ENCORE	Ice	N	Not req	
3	8270C+8082+TPH-DRO	500 ML GLASS	Ice	Y		
5	METALS-GEL	125 ML POLY	Ice	Y		
4	TPH-GRO	125 SEPTUM AMBER GLASS	Ice	Y		

RELINQUISHED BY (printed name): (signature): Daniel Alan	Date/Time: 5/2/05 440	RELINQUISHED BY (printed name): (signature):	Date/Tim
RECEIVED BY (printed name): (signature):	Date/Time: 5/2/05 4:40	RECEIVED BY (printed name): (signature):	Date/Tim

Los Alamos National Laboratory
Environmental Restoration Project
Los Alamos, NM 87545

EVENT NAME: TA-3 03-013(i)

FIELD CHAIN OF CUSTODY

COC ID: 226672 Event ID:4932

SAMPLE ID: RE03-05-59538
SAMPLE ORDER MATRIX: Soil

ER TEAM LEADER: Roy Bohn
FIELD TEAM LEADER: Daniel Thompson

DESTINATION: SMO
DEST. POC:

ANALYSES REQUESTED

CONT. ID	ORDER	CONTAINER DESCRIPTION	PRESERVATIVE	COLLECTED Y / N	REASON	SPECIAL INSTRUCTIONS
1	8260BENCORE	5 G ENCORE	Ice	Y		
2	8260BENCORE	5 G ENCORE	Ice	Y		
3	8270C+8082+TPH-DRO	500 ML GLASS	Ice	Y		
5	METALS-GEL	125 ML POLY	Ice	Y		
4	TPH-GRO	125 SEPTUM AMBER GLASS	Ice	Y		

RELINQUISHED BY (printed name): (signature):	Date/Time: 5/2/05 4:40	RELINQUISHED BY (printed name): (signature):	Date/Tim
RECEIVED BY (printed name): (signature):	Date/Time: 5/2/05 4:40	RECEIVED BY (printed name): (signature):	Date/Tim

Los Alamos National Laboratory
Environmental Restoration Project
Los Alamos, NM 87545

EVENT NAME: TA-3 03-013(i)

FIELD CHAIN OF CUSTODY

COC ID: 226682 Event ID:4932

SAMPLE ID: RE03-05-59539
SAMPLE ORDER MATRIX: Soil
ER TEAM LEADER: Roy Bohn
FIELD TEAM LEADER: Daniel Thompson
DESTINATION: SMO
DEST. POC:

ANALYSES REQUESTED

CONT. ID	ORDER	CONTAINER DESCRIPTION	PRESERVATIVE	COLLECTED Y/N	REASON	SPECIAL INSTRUCTIONS
1	8260BENCORE	5 G ENCORE	Ice	N	Not req	
2	8260BENCORE	5 G ENCORE	Ice	N	Not req	
3	8270C+8082+TPH-DRO	500 ML GLASS	Ice	Y		
5	METALS-GEL	125 ML POLY	Ice	Y		
4	TPH-GRO	125 SEPTUM AMBER GLASS	Ice	Y		

RELINQUISHED BY (printed name): (signature):	Date/Time: 5/2/05	RELINQUISHED BY (printed name): (signature):	Date/Tim
RECEIVED BY (printed name): (signature):	Date/Time: 5/2/05 4:40	RECEIVED BY (printed name): (signature):	Date/Tim

Los Alamos National Laboratory
Environmental Restoration Project
Los Alamos, NM 87545

FIELD CHAIN OF CUSTODY

EVENT NAME: TA-3 03-013(i)

COC ID: 226692 Event ID:4932

SAMPLE ID: RE03-05-59540

SAMPLE ORDER MATRIX: Soil

ER TEAM LEADER: Roy Bohn

FIELD TEAM LEADER: Daniel Thompson

DESTINATION: SMO

DEST. POC:

ANALYSES REQUESTED

CONT. ID	ORDER	CONTAINER DESCRIPTION	PRESERVATIVE	COLLECTED Y / N	REASON	SPECIAL INSTRUCTIONS
1	8260BENCORE	5 G ENCORE	Ice	Y		
2	8260BENCORE	5 G ENCORE	Ice	Y		
3	8270C+8082+TPH-DRO	500 ML GLASS	Ice	Y		
5	METALS-GEL	125 ML POLY	Ice	Y		
4	TPH-GRO	125 SEPTUM AMBER GLASS	Ice	Y		

RELINQUISHED BY (printed name): Saul Alonzo (signature):	Date/Time: 5/2/05 440	RELINQUISHED BY (printed name): (signature):	Date/Time:
RECEIVED BY (printed name): (signature):	Date/Time: 5/2/05 4:40	RECEIVED BY (printed name): (signature):	Date/Time:

Los Alamos National Laboratory
Environmental Restoration Project
Los Alamos, NM 87545

EVENT NAME: TA-3 03-013(i)

FIELD CHAIN OF CUSTODY

COC ID: 226722 Event ID:4932

SAMPLE ID: RE03-05-59543
SAMPLE ORDER MATRIX: Soil
ER TEAM LEADER: Roy Bohn
FIELD TEAM LEADER: Daniel Thompson
DESTINATION: SMO
DEST. POC:

ANALYSES REQUESTED

CONT. ID	ORDER	CONTAINER DESCRIPTION	PRESERVATIVE	COLLECTED Y/N	REASON	SPECIAL INSTRUCTIONS
2	8260BENCORE	5 G ENCORE	Ice	Y		
3	8260BENCORE	5 G ENCORE	Ice	Y		
4	8270C+8082+TPH-DRO	500 ML GLASS	Ice	Y		
1	METALS-GEL	125 ML POLY	Ice	Y		
5	TPH-GRO	125 SEPTUM AMBER GLASS	Ice	Y		

RELINQUISHED BY (printed name): (signature): Paul Atari	Date/Time: 5/2/05 440	RELINQUISHED BY (printed name): (signature):	Date/Time
RECEIVED BY (printed name): (signature):	Date/Time: 5/2/05 4:40	RECEIVED BY (printed name): (signature):	Date/Time

Los Alamos National Laboratory
Environmental Restoration Project
Los Alamos, NM 87545

EVENT NAME: TA-3 03-013(i)

FIELD CHAIN OF CUSTODY

COC ID: 226732 Event ID:4932

SAMPLE ID: RE03-05-59544
ER TEAM LEADER: Roy Bohn
DESTINATION: SMO
SAMPLE ORDER MATRIX: Soil
FIELD TEAM LEADER: Daniel Thompson
DEST. POC:

ANALYSES REQUESTED

CONT. ID	ORDER	CONTAINER DESCRIPTION	PRESERVATIVE	COLLECTED Y / N	REASON	SPECIAL INSTRUCTIONS
2	8260BENCORE	5 G ENCORE	Ice	Y		
3	8260BENCORE	5 G ENCORE	Ice	Y		
4	8270C+8082+TPH-DRO	500 ML GLASS	Ice	Y		
1	METALS-GEL	125 ML POLY	Ice	Y		
5	TPH-GRO	125 SEPTUM AMBER GLASS	Ice	Y		

RELINQUISHED BY (printed name): (signature):	Date/Time: 5/2/05 440	RELINQUISHED BY (printed name): (signature):	Date/Time
RECEIVED BY (printed name): (signature):	Date/Time: 5/2/05 4:40	RECEIVED BY (printed name): (signature):	Date/Time

Los Alamos National Laboratory
Environmental Restoration Project
Los Alamos, NM 87545

FIELD CHAIN OF CUSTODY

EVENT NAME: TA-3 03-013(i)

COC ID: 226742 Event ID:4932

SAMPLE ID: RE03-05-59545

SAMPLE ORDER MATRIX: Soil

ER TEAM LEADER: Roy Bohn

FIELD TEAM LEADER: Daniel Thompson

DESTINATION: SMO

DEST. POC:

ANALYSES REQUESTED

CONT. ID	ORDER	CONTAINER DESCRIPTION	PRESERVATIVE	COLLECTED Y / N	REASON	SPECIAL INSTRUCTIONS
1	8260B	125 SEPTUM AMBER GLASS	Ice	Y		

RELINQUISHED BY (printed name): (signature): Saul Alan	Date/Time: 5/2/05 446	RELINQUISHED BY (printed name): (signature):	Date/Time:
RECEIVED BY (printed name): (signature):	Date/Time: 5/2/05 4:40	RECEIVED BY (printed name): (signature):	Date/Time:

Rad Screening Data Release Form

The Following samples were received at the Field Support Facility (FSF) without screening data (list sample number):

These samples will not be shipped until radiological screening data documentation arrives at the FSF. I understand that it is my responsibility to ensure this information arrives at the FSF in a timely manner. If holding times are missed because screening data does not arrive, I will pick up the samples.

The following samples do not require rad screening data for the reasons stated (list sample numbers):

RE03-05-59527-530
533-540
543-545
RE03-05-59548

Reason:

See Rad Release Tag

Print Last Name Saul Alanis Signature Saul Alanis Date 5/2/05

Data-Validation Cover Sheet

☐ Rejected Data

Section I

Request Number: 3193S Validation Date: 13-Jun-05 Lab Code: GEL

Contract Laboratory Name:

Validator: Clifford Deiner Organization: ENV-ECR

Analytical Suite (check all that apply):
- ☐ Volatile Organics
- ☐ Semivolatile Organics
- ☐ Organochlorine Pesticides/Polychlorinated Biphenyls
- ☐ High Explosives
- ☒ Inorganics
- ☐ Radiochemistry

Other (describe):

Section II—Completeness Check

Yes	No	n/a	(check one)	Yes	No	n/a	(check one)
☒	☐	☐	1. Chain-of-custody form(s)	☒	☐	☐	6. Raw/BSS data
☒	☐	☐	2. Case narrative	☒	☐	☐	7. Quality control forms
☒	☐	☐	3. Sample result forms	☒	☐	☐	8. Quantitation reports
☐	☐	☒	4. Sample chromatograms	☐	☐	☒	9. TICs forms
☐	☐	☒	5. Standard chromatograms	☐	☐	☒	10. TICs mass spectra

Identify any samples in the assigned Request Number that are missing:

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

Metals:

Blank contamination was present for Cr, Pb, and Zn in soil. The 5x rule was applied and no sample results for were qualified. The matrix spike recoveries for Ba(134%), Ca(164%), Mg(169%), Mn(215%), K(192%), and Sb(37.5) did not meet acceptance limits. Ba results were qualified J+,I3d; Ca, Mg, Mn, and K results were qualified J+I3c; while Sb sample results were qualified either J-,I3e or UJ,I3e. The duplicate RPDs for Co, Cu, and Fe did not meet acceptance limits and sample results were qualified J,I10c. The serial dilution for K for RE03-05-59527 did not meet acceptance limits and the sample result was qualified J,I18b. All other QCs met acceptance limits. Some analytes were B-flagged and sample results were qualified J,I1.

Validator's signature: Clifford Deiner Date: 6-13-05

(Attach additional comment sheets as necessary.)

Inorganic Data-Validation Checklist

Yes	No	(check one)	Assign qualifier listed below if criteria = Yes: Detected analyte	Undetected analyte
☐	☒	1. The preparation Blank (PB), ICB, or CCB was not analyzed with the samples.	R, I4	R, I4
☐	☒	2. The analyte detected in PB and the sample result for the analyte ≤5x the amount in PB.	U, I4a	N/A
☐	☒	3. The initial or continuing calibration verification (ICV or CCV) was not analyzed with the samples.	R, I16	R, I16
☐	☒	4. The ICV or CCV recovery is >UAL.	R, I16a	N/A
☐	☒	5. The ICV or CCV recovery is >UWL and ≤UAL.	J+, I16b	N/A
☐	☒	6. The ICV or CCV recovery is <LWL but ≥LAL.	J-, I16c	UJ, I16c
☐	☒	7. The ICV or CCV recovery is <LAL.	R, I16d	R, I16d
☐	☒	8. For ICPMS and CN analyses: The correlation coefficient is <0.995?	R, I16e	R,I16e
☐	☒	9. The interference check sample (ICS) was not analyzed with the samples.	R, I7	R, I7
☐	☒	10. The ICS recovery is >120%.	J+, I7a	N/A
☐	☒	11. The ICS recovery is ≥50% and <80%.	J-, I7b	UJ, I7b
☐	☒	12. The ICS recovery is <50%.	R, I7c	R, I7d
☐	☒	13. The MS was not analyzed with the sample without explanation.	R, I3	R, I3
☐	☒	14. Insufficient sample volume for MS analyses was provided.	J, I3a	UJ, I3a
☐	☒	15. An MS analyses was performed on a non-LANL sample.	J, I3b	UJ, I3b
☒	☐	16. The MS recovery was > 150%*.	J+, I3c	UJ, I3c
☒	☐	17. The MS recovery was >125% and ≤150%.	J+, I3d	N/A
☒	☐	18. The MS recovery was ≥30% and <75%.	J-, I3e	UJ, I3e
☐	☒	19. The MS recovery was <30%.	R, I3f	R, I3f
☐	☒	20. A duplicate sample was not analyzed without explanation.	J, I10	UJ, I10
☐	☒	21. Insufficient sample volume for duplicate sample analysis was provided.	J, I10a	UJ, I10a
☐	☒	22. A duplicate sample was performed on a non-LANL sample.	J, I10b	UJ, I10b
☒	☐	23. Both the sample and the duplicate are ≥5x RL, and the RPD is >20 for water samples or >35 for soil samples	J, I10c	UJ, I10c
☐	☒	24. Either the sample or Dup is ≥5x the RL and the sample and Dup results are not within ±1x the RL for water or ±2x the RL for soil.	J, I10d	UJ, I10d
☐	☒	25. The LCS was not analyzed with the samples.	R, I6	R, I6
☐	☒	26. The LCS recovery was >the UWL.	J+, I6a	N/A
☐	☒	27. The LCS recovery was ≥LAL and <LWL.	J-, I6b	UJ, I6b
☐	☒	28. The LCS recovery was <the LAL.	R, I6c	R, I6c
☐	☒	29. The serial dilution sample was not analyzed with the samples.	J, I18	UJ, I18
☐	☒	30. The serial dilution sample was performed on a non-LANL sample.	J, I18a	UJ, I18a
☒	☐	31. The RPD between the sample and the serial dilution sample is >10, and the undiluted sample result is >50x the RL(>100x for ICPMS).	J, I18b	UJ, I18b
☐	☒	32. The sample was analyzed past the appropriate hold time.	J-, I9	UJ, I9
☐	☒	33. The sample was analyzed past double the hold time.	J-, I9a	R, I9a
☒	☐	34. B-flagged sample results are present.	J, I1	N/A
☐	☒	35. Other obvious data quality issues are identified.	__, I19	__, I19

CD

Tuesday, May 3, 2005

Los Alamos
NATIONAL LABORATORY

CHAIN OF CUSTODY DOCUMENT NUMBER: 3193SC

REQUEST NUMBER: 3193S

ANALYSIS TYPE: INORGANIC

ATTN: Stacy Griffin
General Engineering Laboratories, Inc., Historical
2040 Savage Road
Charleston, SC 29407

1358067

SAMPLE ID	CONT ID	CONTAINER DESCRIPTION	ORDER TEMPLATE CODE	PRESERVATIVE	MATRIX
RE03-05-59527 1300	5	125 ML POLY	METALS-GEL	ICE	S
RE03-05-59528 1510	5	125 ML POLY	METALS-GEL	ICE	S
RE03-05-59529 1305	5	125 ML POLY	METALS-GEL	ICE	S
RE03-05-59530 1524	5	125 ML POLY	METALS-GEL	ICE	S
RE03-05-59533 1318	5	125 ML POLY	METALS-GEL	ICE	S
RE03-05-59534 1544	5	125 ML POLY	METALS-GEL	ICE	S
RE03-05-59535 1329	5	125 ML POLY	METALS-GEL	ICE	S
RE03-05-59536 1550	5	125 ML POLY	METALS-GEL	ICE	S
RE03-05-59537 1419	5	125 ML POLY	METALS-GEL	ICE	S
RE03-05-59538 1555	5	125 ML POLY	METALS-GEL	ICE	S
RE03-05-59539 1424	5	125 ML POLY	METALS-GEL	ICE	S
RE03-05-59540 1602	5	125 ML POLY	METALS-GEL	ICE	S
RE03-05-59543 1524	1	125 ML POLY	METALS-GEL	ICE	S
RE03-05-59544 1602	1	125 ML POLY	METALS-GEL	ICE	S

Final Page of CHAIN OF CUSTODY DOCUMENT FOR REQUEST NUMBER 3193S

Relinquished By: PRINTED NAME	SIGNATURE	Date	Time	Received By: PRINTED NAME	SIGNATURE	Date	Time
A Padilla	A Padilla	5/3/05	1400	C Gause	C Gause	5/4/05	945
PRINTED NAME	SIGNATURE			PRINTED NAME	SIGNATURE		
PRINTED NAME	SIGNATURE			PRINTED NAME	SIGNATURE		

Received for DISPOSAL By: PRINTED NAME	SIGNATURE	Date	Time	Remarks:

5

Tuesday, May 3, 2005

REQUEST NUMBER: 3193S

ANALYSIS TYPE: INORGANIC

Los Alamos
NATIONAL LABORATORY

ATTN: Stacy Griffin
General Engineering Laboratories, Inc., Historical
2040 Savage Road
Charleston, SC 29407

Please analyze the enclosed samples according to the schedule indicated:

SHIP DATE: 05/03/2005
REPORT DUE: 05/13/2005
TURN AROUND REQ'D: 10

RAD SCREENING: NOT REQ
COMMENTS:

These samples are on:

LANL Request Number: 3193S
Per Agreement Number: 126310011
Project Cost Code: MR0R00FC6800

LANL ER SMO CONTACT:
Signature:

METHOD CODE	SAMPLE ID	CONT ID	SAMPLE MATRIX	DATE SAMPLED	COMMENTS
SW-846:6010B	RE03-05-59527	5	S	05/02/2005	
SW-846:6020	RE03-05-59527	5	S	05/02/2005	
SW-846:7471A	RE03-05-59527	5	S	05/02/2005	
SW-846:6010B	RE03-05-59528	5	S	05/02/2005	
SW-846:6020	RE03-05-59528	5	S	05/02/2005	
SW-846:7471A	RE03-05-59528	5	S	05/02/2005	
SW-846:6010B	RE03-05-59529	5	S	05/02/2005	
SW-846:6020	RE03-05-59529	5	S	05/02/2005	
SW-846:7471A	RE03-05-59529	5	S	05/02/2005	
SW-846:6010B	RE03-05-59530	5	S	05/02/2005	
SW-846:6020	RE03-05-59530	5	S	05/02/2005	
SW-846:7471A	RE03-05-59530	5	S	05/02/2005	
SW-846:6010B	RE03-05-59533	5	S	05/02/2005	
SW-846:6020	RE03-05-59533	5	S	05/02/2005	
SW-846:7471A	RE03-05-59533	5	S	05/02/2005	
SW-846:6010B	RE03-05-59534	5	S	05/02/2005	
SW-846:6020	RE03-05-59534	5	S	05/02/2005	
SW-846:7471A	RE03-05-59534	5	S	05/02/2005	
SW-846:6010B	RE03-05-59535	5	S	05/02/2005	
SW-846:6020	RE03-05-59535	5	S	05/02/2005	
SW-846:7471A	RE03-05-59535	5	S	05/02/2005	
SW-846:6010B	RE03-05-59536	5	S	05/02/2005	
SW-846:6020	RE03-05-59536	5	S	05/02/2005	
SW-846:7471A	RE03-05-59536	5	S	05/02/2005	
SW-846:6010B	RE03-05-59537	5	S	05/02/2005	
SW-846:6020	RE03-05-59537	5	S	05/02/2005	
SW-846:7471A	RE03-05-59537	5	S	05/02/2005	
SW-846:6010B	RE03-05-59538	5	S	05/02/2005	
SW-846:6020	RE03-05-59538	5	S	05/02/2005	
SW-846:7471A	RE03-05-59538	5	S	05/02/2005	
SW-846:6010B	RE03-05-59539	5	S	05/02/2005	
SW-846:6020	RE03-05-59539	5	S	05/02/2005	
SW-846:7471A	RE03-05-59539	5	S	05/02/2005	
SW-846:6010B	RE03-05-59540	5	S	05/02/2005	
SW-846:6020	RE03-05-59540	5	S	05/02/2005	
SW-846:7471A	RE03-05-59540	5	S	05/02/2005	
SW-846:6010B	RE03-05-59543	1	S	05/02/2005	
SW-846:6020	RE03-05-59543	1	S	05/02/2005	

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METHOD CODE	SAMPLE ID	CONT ID	SAMPLE MATRIX	DATE SAMPLED	COMMENTS
SW-846:7471A	RE03-05-59543	1	S	05/02/2005	
SW-846:6010B	RE03-05-59544	1	S	05/02/2005	
SW-846:6020	RE03-05-59544	1	S	05/02/2005	
SW-846:7471A	RE03-05-59544	1	S	05/02/2005	

Final Page of REQUEST NUMBER 3193S

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 3193S **METHOD TYPE:** SW846

SAMPLE ID: 135806001 **CLIENT ID:** RE03-05-59527

CONTRACT: LANL00101

MATRIX: S **DATE RECEIVED** 04-MAY-05 **LEVEL:** Low **%SOLIDS:** 87

CAS No	Analyte	Result	Units	C	Qual	M	MDL	Instrument ID	Analytical Run
7429-90-5	Aluminum	10500000	ug/kg			P	7730	TRACE2	051005-1
7440-36-0	Antimony	329	ug/kg	B	N	MS	113	ICPMS5	050509-4
7440-38-2	Arsenic	1950	ug/kg	J, Z3e; J.Z1		P	682	TRACE2	051005-1
7440-39-3	Barium	57500	ug/kg	J,Z3d	N	P	114	TRACE2	051005-1
7440-41-7	Beryllium	608	ug/kg			MS	22.6	ICPMS5	050509-4
7440-43-9	Cadmium	505	ug/kg	B J.Z1		P	114	TRACE2	051005-1
7440-70-2	Calcium	1250000	ug/kg	J,Z3c	N	P	4090	TRACE2	051005-1
7440-47-3	Chromium	5650	ug/kg		*	P	114	TRACE2	051005-1
7440-48-4	Cobalt	2140	ug/kg	J.Z10c	*	P	227	TRACE2	051005-1
7440-50-8	Copper	11300	ug/kg	J.Z10c	*	P	341	TRACE2	051005-1
7439-89-6	Iron	12700000	ug/kg	J,Z10c	*	P	2050	TRACE2	051005-1
7439-92-1	Lead	38100	ug/kg		*	P	284	TRACE2	051005-1
7439-95-4	Magnesium	1100000	ug/kg	J,Z3c	N	P	9660	TRACE2	051005-1
7439-96-5	Manganese	132000	ug/kg	J,Z3c	*N	P	227	TRACE2	051005-1
7439-97-6	Mercury	25.2	ug/kg			AV	2.78	MER179	051005S2-3
7440-02-0	Nickel	4780	ug/kg			MS	113	ICPMS5	050509-4
7440-09-7	Potassium	1120000	ug/kg	J,Z3c; J,Z18b	EN	P	5680	TRACE2	051005-1
7782-49-2	Selenium	682	ug/kg	U		P	682	TRACE2	051005-1
7440-22-4	Silver	135	ug/kg	B J.Z1		MS	45.3	ICPMS5	050509-4
7440-23-5	Sodium	192000	ug/kg			P	5110	TRACE2	051005-1
7440-28-0	Thallium	108	ug/kg	B J.Z1		MS	90.6	ICPMS5	050509-4
7440-62-2	Vanadium	8220	ug/kg			P	114	TRACE2	051005-1
7440-66-6	Zinc	52800	ug/kg			P	227	TRACE2	051005-1

CD

Comments:

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 3193S **METHOD TYPE:** SW846

SAMPLE ID: 135806002 **CLIENT ID:** RE03-05-59528

CONTRACT: LANL00101

MATRIX: S **DATE RECEIVED** 04-MAY-05 **LEVEL:** Low **%SOLIDS:** 85

CAS No	Analyte	Result	Units	C	Qual	M	MDL	Instrument ID	Analytical Run
7429-90-5	Aluminum	10200000	ug/kg			P	7950	TRACE2	051005-1
7440-36-0	Antimony	115	ug/kg	U	N	MS	115	ICPMS5	050509-4
7440-38-2	Arsenic	1800	~~ug/kg~~ UJ, Z3e			P	702	TRACE2	051005-1
7440-39-3	Barium	35900	ug/kg	J+, Z3d	N	P	117	TRACE2	051005-1
7440-41-7	Beryllium	598	ug/kg			MS	23.1	ICPMS5	050509-4
7440-43-9	Cadmium	176	ug/kg	B J, Z1		P	117	TRACE2	051005-1
7440-70-2	Calcium	1100000	ug/kg	J+, Z3c	N	P	4210	TRACE2	051005-1
7440-47-3	Chromium	4010	ug/kg		*	P	117	TRACE2	051005-1
7440-48-4	Cobalt	1010	ug/kg	J, Z10c	*	P	234	TRACE2	051005-1
7440-50-8	Copper	4000	ug/kg	J, Z10c	*	P	351	TRACE2	051005-1
7439-89-6	Iron	6230000	ug/kg	J, Z10c	*	P	2100	TRACE2	051005-1
7439-92-1	Lead	11600	ug/kg		*	P	292	TRACE2	051005-1
7439-95-4	Magnesium	1050000	ug/kg	J+, Z3c	N	P	9940	TRACE2	051005-1
7439-96-5	Manganese	97000	ug/kg	J+, Z3c	*N	P	234	TRACE2	051005-1
7439-97-6	Mercury	12.7	ug/kg			AV	2.76	MER179	051005S2-3
7440-02-0	Nickel	4260	ug/kg			MS	115	ICPMS5	050509-4
7440-09-7	Potassium	1060000	ug/kg	J+, Z3c	EN	P	5850	TRACE2	051005-1
7782-49-2	Selenium	702	ug/kg	U		P	702	TRACE2	051005-1
7440-22-4	Silver	46.1	ug/kg	U		MS	46.1	ICPMS5	050509-4
7440-23-5	Sodium	172000	ug/kg			P	5260	TRACE2	051005-1
7440-28-0	Thallium	92.3	ug/kg	U		MS	92.3	ICPMS5	050509-4
7440-62-2	Vanadium	7760	ug/kg			P	117	TRACE2	051005-1
7440-66-6	Zinc	32900	ug/kg			P	234	TRACE2	051005-1

CD

Comments:

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 3193S **METHOD TYPE:** SW846

SAMPLE ID: 135806003 **CLIENT ID:** RE03-05-59529

CONTRACT: LANL00101

MATRIX: S **DATE RECEIVED** 04-MAY-05 **LEVEL:** Low **%SOLIDS:** 87

CAS No	Analyte	Result	Units	C	Qual	M	MDL	Instrument ID	Analytical Run
7429-90-5	Aluminum	7350000	ug/kg			P	7630	TRACE2	051005-1
7440-36-0	Antimony	181	ug/kg	B J.Z3e	N J.I1	MS	113	ICPMS5	050509-4
7440-38-2	Arsenic	2610	ug/kg			P	673	TRACE2	051005-1
7440-39-3	Barium	34300	ug/kg	J+.I3d	N	P	112	TRACE2	051005-1
7440-41-7	Beryllium	921	ug/kg			MS	22.5	ICPMS5	050509-4
7440-43-9	Cadmium	797	ug/kg			P	112	TRACE2	051005-1
7440-70-2	Calcium	906000	ug/kg	J+.I3c	N	P	4040	TRACE2	051005-1
7440-47-3	Chromium	2620	ug/kg		*	P	112	TRACE2	051005-1
7440-48-4	Cobalt	1000	ug/kg	J.I10c	*	P	224	TRACE2	051005-1
7440-50-8	Copper	3550	ug/kg	J.I10c	*	P	337	TRACE2	051005-1
7439-89-6	Iron	6950000	ug/kg	J.I10c	*	P	2020	TRACE2	051005-1
7439-92-1	Lead	12400	ug/kg		*	P	281	TRACE2	051005-1
7439-95-4	Magnesium	590000	ug/kg	J+.I3c	N	P	9540	TRACE2	051005-1
7439-96-5	Manganese	154000	ug/kg	J+.I3c	*N	P	224	TRACE2	051005-1
7439-97-6	Mercury	23.4	ug/kg			AV	2.69	MER179	051005S2-3
7440-02-0	Nickel	5070	ug/kg			MS	113	ICPMS5	050509-4
7440-09-7	Potassium	1040000	ug/kg	J+.I3c	EN	P	5610	TRACE2	051005-1
7782-49-2	Selenium	673	ug/kg	U		P	673	TRACE2	051005-1
7440-22-4	Silver	59.3	ug/kg	B J.I1		MS	45.1	ICPMS5	050509-4
7440-23-5	Sodium	140000	ug/kg			P	5050	TRACE2	051005-1
7440-28-0	Thallium	110	ug/kg	B J.I1		MS	90.1	ICPMS5	050509-4
7440-62-2	Vanadium	10000	ug/kg			P	112	TRACE2	051005-1
7440-66-6	Zinc	34800	ug/kg			P	224	TRACE2	051005-1

CD

Comments:

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 3193S **METHOD TYPE:** SW846

SAMPLE ID: 135806004 **CLIENT ID:** RE03-05-59530

CONTRACT: LANL00101

MATRIX: S **DATE RECEIVED** 04-MAY-05 **LEVEL:** Low **%SOLIDS:** 83

CAS No	Analyte	Result	Units	C	Qual	M	MDL	Instrument ID	Analytical Run
7429-90-5	Aluminum	9600000	ug/kg			P	8210	TRACE2	051005-1
7440-36-0	Antimony	128	ug/kg	B J-.Z3a; J.Z1	N	MS	120	ICPMS5	050509-4
7440-38-2	Arsenic	1250	ug/kg	B J.Z1		P	724	TRACE2	051005-1
7440-39-3	Barium	44000	ug/kg	J+Z3d	N	P	121	TRACE2	051005-1
7440-41-7	Beryllium	669	ug/kg			MS	23.9	ICPMS5	050509-4
7440-43-9	Cadmium	3530	ug/kg			P	121	TRACE2	051005-1
7440-70-2	Calcium	966000	ug/kg	J+Z3c	N	P	4340	TRACE2	051005-1
7440-47-3	Chromium	3660	ug/kg		*	P	121	TRACE2	051005-1
7440-48-4	Cobalt	1080	ug/kg	J.Z10c	*	P	241	TRACE2	051005-1
7440-50-8	Copper	9000	ug/kg	J.Z10c	*	P	362	TRACE2	051005-1
7439-89-6	Iron	5850000	ug/kg	J.Z10c	*	P	2170	TRACE2	051005-1
7439-92-1	Lead	8150	ug/kg		*	P	302	TRACE2	051005-1
7439-95-4	Magnesium	908000	ug/kg	J+.Z3c	N	P	10300	TRACE2	051005-1
7439-96-5	Manganese	74800	ug/kg	J+.Z3c	*N	P	241	TRACE2	051005-1
7439-97-6	Mercury	12.8	ug/kg			AV	2.88	MER179	051005S2-3
7440-02-0	Nickel	4050	ug/kg			MS	120	ICPMS5	050509-4
7440-09-7	Potassium	992000	ug/kg	J+.Z3c	EN	P	6030	TRACE2	051005-1
7782-49-2	Selenium	724	ug/kg	U		P	724	TRACE2	051005-1
7440-22-4	Silver	51.2	ug/kg	B J.Z1		MS	47.9	ICPMS5	050509-4
7440-23-5	Sodium	197000	ug/kg			P	5430	TRACE2	051005-1
7440-28-0	Thallium	96	ug/kg	B J.Z1		MS	95.8	ICPMS5	050509-4
7440-62-2	Vanadium	7140	ug/kg			P	121	TRACE2	051005-1
7440-66-6	Zinc	55900	ug/kg			P	241	TRACE2	051005-1

GD

Comments:

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 3193S **METHOD TYPE:** SW846

SAMPLE ID: 135806005 **CLIENT ID:** RE03-05-59533

CONTRACT: LANL00101

MATRIX: S **DATE RECEIVED** 04-MAY-05 **LEVEL:** Low **%SOLIDS:** 83

CAS No	Analyte	Result	Units	C	Qual	M	MDL	Instrument ID	Analytical Run
7429-90-5	Aluminum	10400000	ug/kg			P	7990	TRACE2	051005-1
7440-36-0	Antimony	1710	ug/kg	J-,Z3e	N	MS	118	ICPMS5	050509-4
7440-38-2	Arsenic	2860	ug/kg			P	705	TRACE2	051005-1
7440-39-3	Barium	68500	ug/kg	J+,Z3d	N	P	118	TRACE2	051005-1
7440-41-7	Beryllium	545	ug/kg			MS	23.5	ICPMS5	050509-4
7440-43-9	Cadmium	5580	ug/kg			P	118	TRACE2	051005-1
7440-70-2	Calcium	1970000	ug/kg	J+,Z3c	N	P	4230	TRACE2	051005-1
7440-47-3	Chromium	18700	ug/kg		*	P	118	TRACE2	051005-1
7440-48-4	Cobalt	2650	ug/kg	J,Z10c	*	P	235	TRACE2	051005-1
7440-50-8	Copper	21800	ug/kg	J,Z10c	*	P	353	TRACE2	051005-1
7439-89-6	Iron	14300000	ug/kg	J,Z10c	*	P	2120	TRACE2	051105-2
7439-92-1	Lead	238000	ug/kg		*	P	294	TRACE2	051005-1
7439-95-4	Magnesium	1240000	ug/kg	J+,Z3c	N	P	9990	TRACE2	051005-1
7439-96-5	Manganese	291000	ug/kg	J+,Z3c	*N	P	235	TRACE2	051005-1
7439-97-6	Mercury	51.4	ug/kg			AV	3	MER179	051005S2-3
7440-02-0	Nickel	16300	ug/kg			MS	118	ICPMS5	050509-4
7440-09-7	Potassium	1190000	ug/kg	J+,Z3c	EN	P	5880	TRACE2	051005-1
7782-49-2	Selenium	705	ug/kg	U		P	705	TRACE2	051005-1
7440-22-4	Silver	151	ug/kg	B J,Z1		MS	47	ICPMS5	050509-4
7440-23-5	Sodium	198000	ug/kg			P	5290	TRACE2	051005-1
7440-28-0	Thallium	98.1	ug/kg	B J,Z1		MS	94.1	ICPMS5	050509-4
7440-62-2	Vanadium	11600	ug/kg			P	118	TRACE2	051005-1
7440-66-6	Zinc	482000	ug/kg			P	235	TRACE2	051005-1

CD

Comments:

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 3193S **METHOD TYPE:** SW846

SAMPLE ID: 135806006 **CLIENT ID:** RE03-05-59534

CONTRACT: LANL00101

MATRIX: S **DATE RECEIVED** 04-MAY-05 **LEVEL:** Low **%SOLIDS:** 88

CAS No	Analyte	Result	Units	C	Qual	M	MDL	Instrument ID	Analytical Run
7429-90-5	Aluminum	7730000	ug/kg			P	7610	TRACE2	051005-1
7440-36-0	Antimony	1550	ug/kg	J-, Z3e	N	MS	112	ICPMS5	050509-4
7440-38-2	Arsenic	2240	ug/kg			P	672	TRACE2	051005-1
7440-39-3	Barium	42100	ug/kg	J+, Z3d	N	P	112	TRACE2	051005-1
7440-41-7	Beryllium	585	ug/kg			MS	22.3	ICPMS5	050509-4
7440-43-9	Cadmium	2790	ug/kg			P	112	TRACE2	051005-1
7440-70-2	Calcium	1010000	ug/kg	J+, Z3c	N	P	4030	TRACE2	051005-1
7440-47-3	Chromium	10100	ug/kg		*	P	112	TRACE2	051005-1
7440-48-4	Cobalt	1370	ug/kg	J, Z10c	*	P	224	TRACE2	051005-1
7440-50-8	Copper	11100	ug/kg	J, Z10c	*	P	336	TRACE2	051005-1
7439-89-6	Iron	8850000	ug/kg	J, Z10c	*	P	2020	TRACE2	051105-2
7439-92-1	Lead	140000	ug/kg		*	P	280	TRACE2	051005-1
7439-95-4	Magnesium	908000	ug/kg	J+, Z3c	N	P	9520	TRACE2	051005-1
7439-96-5	Manganese	134000	ug/kg	J+, Z3c	*N	P	224	TRACE2	051005-1
7439-97-6	Mercury	22.9	ug/kg			AV	2.8	MER179	051005S2-3
7440-02-0	Nickel	7240	ug/kg			MS	112	ICPMS5	050509-4
7440-09-7	Potassium	891000	ug/kg	J+, Z3c	EN	P	5600	TRACE2	051005-1
7782-49-2	Selenium	672	ug/kg	U		P	672	TRACE2	051005-1
7440-22-4	Silver	358	ug/kg			MS	44.6	ICPMS5	050509-4
7440-23-5	Sodium	168000	ug/kg			P	5040	TRACE2	051005-1
7440-28-0	Thallium	90.3	ug/kg	B J, Z1		MS	89.2	ICPMS5	050509-4
7440-62-2	Vanadium	7970	ug/kg			P	112	TRACE2	051005-1
7440-66-6	Zinc	196000	ug/kg			P	224	TRACE2	051005-1

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Comments:

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 3193S **METHOD TYPE:** SW846

SAMPLE ID: 135806007 **CLIENT ID:** RE03-05-59535

CONTRACT: LANL00101

MATRIX: S **DATE RECEIVED** 04-MAY-05 **LEVEL:** Low **%SOLIDS:** 90

CAS No	Analyte	Result	Units	C	Qual	M	MDL	Instrument ID	Analytical Run
7429-90-5	Aluminum	6860000	ug/kg			P	7550	TRACE2	051005-1
7440-36-0	Antimony	961	ug/kg	J-,Z3e	N	MS	111	ICPMS5	050509-4
7440-38-2	Arsenic	1490	ug/kg	B	J,I1	P	666	TRACE2	051005-1
7440-39-3	Barium	51600	ug/kg	J+,Z3d	N	P	111	TRACE2	051005-1
7440-41-7	Beryllium	522	ug/kg			MS	22.3	ICPMS5	050509-4
7440-43-9	Cadmium	1180	ug/kg			P	111	TRACE2	051005-1
7440-70-2	Calcium	897000	ug/kg	J+,Z3c	N	P	4000	TRACE2	051005-1
7440-47-3	Chromium	13500	ug/kg		*	P	111	TRACE2	051005-1
7440-48-4	Cobalt	1480	ug/kg	J,I10c	*	P	222	TRACE2	051005-1
7440-50-8	Copper	9570	ug/kg	J,I10c	*	P	333	TRACE2	051005-1
7439-89-6	Iron	9930000	ug/kg	J,I10c	*	P	2000	TRACE2	051105-2
7439-92-1	Lead	137000	ug/kg		*	P	277	TRACE2	051005-1
7439-95-4	Magnesium	1000000	ug/kg	J+,Z3c	N	P	9430	TRACE2	051005-1
7439-96-5	Manganese	155000	ug/kg	J+,Z3c	*N	P	222	TRACE2	051005-1
7439-97-6	Mercury	11.9	ug/kg			AV	2.58	MER179	051005S2-3
7440-02-0	Nickel	6760	ug/kg			MS	111	ICPMS5	050509-4
7440-09-7	Potassium	962000	ug/kg	J+,I3c	EN	P	5550	TRACE2	051005-1
7782-49-2	Selenium	666	ug/kg	U		P	666	TRACE2	051005-1
7440-22-4	Silver	74	ug/kg	B	J,I1	MS	44.6	ICPMS5	050509-4
7440-23-5	Sodium	115000	ug/kg			P	4990	TRACE2	051005-1
7440-28-0	Thallium	91.8	ug/kg	B	J,I1	MS	89.1	ICPMS5	050509-4
7440-62-2	Vanadium	8350	ug/kg			P	111	TRACE2	051005-1
7440-66-6	Zinc	113000	ug/kg			P	222	TRACE2	051005-1

Comments:

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 3193S **METHOD TYPE:** SW846

SAMPLE ID: 135806008 **CLIENT ID:** RE03-05-59536

CONTRACT: LANL00101

MATRIX: S **DATE RECEIVED** 04-MAY-05 **LEVEL:** Low **%SOLIDS:** 86

CAS No	Analyte	Result	Units	C	Qual	M	MDL	Instrument ID	Analytical Run
7429-90-5	Aluminum	11600000	ug/kg			P	7790	TRACE2	051005-1
7440-36-0	Antimony	158	ug/kg	B	N	MS	116	ICPMS5	050509-4
				J-, Z3e; J. Z1					
7440-38-2	Arsenic	1870	ug/kg			P	687	TRACE2	051005-1
7440-39-3	Barium	81200	ug/kg	J+. Z3d	N	P	115	TRACE2	051005-1
7440-41-7	Beryllium	788	ug/kg			MS	23.1	ICPMS5	050509-4
7440-43-9	Cadmium	384	ug/kg	B J, Z1		P	115	TRACE2	051005-1
7440-70-2	Calcium	1300000	ug/kg	J+. Z3c	N	P	4120	TRACE2	051005-1
7440-47-3	Chromium	5010	ug/kg		*	P	115	TRACE2	051005-1
7440-48-4	Cobalt	1380	ug/kg	J-Z10c	*	P	229	TRACE2	051005-1
7440-50-8	Copper	4680	ug/kg	J. Z10c	*	P	344	TRACE2	051005-1
7439-89-6	Iron	7050000	ug/kg	J. Z10c	*	P	2060	TRACE2	051105-2
7439-92-1	Lead	37600	ug/kg		*	P	286	TRACE2	051005-1
7439-95-4	Magnesium	1250000	ug/kg	J+ Z3c	N	P	9740	TRACE2	051005-1
7439-96-5	Manganese	147000	ug/kg	J+. Z3c	*N	P	229	TRACE2	051005-1
7439-97-6	Mercury	12.1	ug/kg			AV	2.76	MER179	051005S2-3
7440-02-0	Nickel	6470	ug/kg			MS	116	ICPMS5	050509-4
7440-09-7	Potassium	1220000	ug/kg	J+. Z3c	EN	P	5730	TRACE2	051005-1
7782-49-2	Selenium	687	ug/kg	U		P	687	TRACE2	051005-1
7440-22-4	Silver	82.2	ug/kg	B J. Z1		MS	46.3	ICPMS5	050509-4
7440-23-5	Sodium	254000	ug/kg			P	5160	TRACE2	051005-1
7440-28-0	Thallium	120	ug/kg	B J. Z1		MS	92.6	ICPMS5	050509-4
7440-62-2	Vanadium	8510	ug/kg			P	115	TRACE2	051005-1
7440-66-6	Zinc	56500	ug/kg			P	229	TRACE2	051005-1

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Comments:

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 3193S **METHOD TYPE:** SW846

SAMPLE ID: 135806009 **CLIENT ID:** RE03-05-59537

CONTRACT: LANL00101

MATRIX: S **DATE RECEIVED** 04-MAY-05 **LEVEL:** Low **%SOLIDS:** 83

CAS No	Analyte	Result	Units	C	Qual	M	MDL	Instrument ID	Analytical Run
7429-90-5	Aluminum	13000000	ug/kg			P	8100	TRACE2	051005-1
7440-36-0	Antimony	214	ug/kg	B	N	MS	118	ICPMS5	050509-4
7440-38-2	Arsenic	1860	ug/kg	J-, Z3e, J.Z1		P	715	TRACE2	051005-1
7440-39-3	Barium	74900	ug/kg	J+.Z3d	N	P	119	TRACE2	051005-1
7440-41-7	Beryllium	692	ug/kg			MS	23.5	ICPMS5	050509-4
7440-43-9	Cadmium	406	ug/kg	B J.Z1		P	119	TRACE2	051005-1
7440-70-2	Calcium	2720000	ug/kg	J+.Z3c	N	P	4290	TRACE2	051005-1
7440-47-3	Chromium	6300	ug/kg		*	P	119	TRACE2	051005-1
7440-48-4	Cobalt	1830	ug/kg	J.Z10c	*	P	238	TRACE2	051005-1
7440-50-8	Copper	5670	ug/kg	J.Z10c	*	P	357	TRACE2	051005-1
7439-89-6	Iron	8290000	ug/kg	J.Z10c	*	P	2140	TRACE2	051105-2
7439-92-1	Lead	45800	ug/kg		*	P	298	TRACE2	051005-1
7439-95-4	Magnesium	1320000	ug/kg	J+.Z3c	N	P	10100	TRACE2	051005-1
7439-96-5	Manganese	235000	ug/kg	J+.Z3c	*N	P	238	TRACE2	051005-1
7439-97-6	Mercury	11.3	ug/kg			AV	2.83	MER179	051005S2-3
7440-02-0	Nickel	6180	ug/kg			MS	118	ICPMS5	050509-4
7440-09-7	Potassium	1490000	ug/kg	J+.Z3c	EN	P	5950	TRACE2	051005-1
7782-49-2	Selenium	715	ug/kg	U		P	715	TRACE2	051005-1
7440-22-4	Silver	58.1	ug/kg	B J.Z1		MS	47.1	ICPMS5	050509-4
7440-23-5	Sodium	379000	ug/kg			P	5360	TRACE2	051005-1
7440-28-0	Thallium	116	ug/kg	B J.Z1		MS	94.2	ICPMS5	050509-4
7440-62-2	Vanadium	9540	ug/kg			P	119	TRACE2	051005-1
7440-66-6	Zinc	61700	ug/kg			P	238	TRACE2	051005-1

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Comments:

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 3193S **METHOD TYPE:** SW846

SAMPLE ID: 135806010 **CLIENT ID:** RE03-05-59538

CONTRACT: LANL00101

MATRIX: S **DATE RECEIVED** 04-MAY-05 **LEVEL:** Low **%SOLIDS:** 76

CAS No	Analyte	Result	Units	C	Qual	M	MDL	Instrument ID	Analytical Run
7429-90-5	Aluminum	14400000	ug/kg			P	8920	TRACE2	051005-1
7440-36-0	Antimony	281	ug/kg	B	N	MS	128	ICPMS5	050509-4
7440-38-2	Arsenic	2270	ug/kg J-.Z3e,J,Z1			~~P~~	787	TRACE2	051005-1
7440-39-3	Barium	82100	ug/kg	J+Z3d	N	P	131	TRACE2	051005-1
7440-41-7	Beryllium	1260	ug/kg			MS	25.6	ICPMS5	050509-4
7440-43-9	Cadmium	131	ug/kg	U		P	131	TRACE2	051005-1
7440-70-2	Calcium	1510000	ug/kg	J+.Z3c	N	P	4720	TRACE2	051005-1
7440-47-3	Chromium	4830	ug/kg		*	P	131	TRACE2	051005-1
7440-48-4	Cobalt	1460	ug/kg	J.Z10c	*	P	262	TRACE2	051005-1
7440-50-8	Copper	4240	ug/kg	J,Z10c	*	P	394	TRACE2	051005-1
7439-89-6	Iron	6890000	ug/kg	J.Z10c	*	P	2360	TRACE2	051105-2
7439-92-1	Lead	8760	ug/kg		*	P	328	TRACE2	051005-1
7439-95-4	Magnesium	1270000	ug/kg	J+.Z3c	N	P	11200	TRACE2	051005-1
7439-96-5	Manganese	162000	ug/kg	J+.Z3c	*N	P	262	TRACE2	051005-1
7439-97-6	Mercury	27.2	ug/kg			AV	3.11	MER179	051005S2-3
7440-02-0	Nickel	8280	ug/kg			MS	128	ICPMS5	050509-4
7440-09-7	Potassium	1550000	ug/kg	J+,Z3c	EN	P	6560	TRACE2	051005-1
7782-49-2	Selenium	787	ug/kg	U		P	787	TRACE2	051005-1
7440-22-4	Silver	66.1	ug/kg	B J.Z1		MS	51.3	ICPMS5	050509-4
7440-23-5	Sodium	298000	ug/kg			P	5900	TRACE2	051005-1
7440-28-0	Thallium	146	ug/kg	B J.Z1		MS	103	ICPMS5	050509-4
7440-62-2	Vanadium	9680	ug/kg			P	131	TRACE2	051005-1
7440-66-6	Zinc	21400	ug/kg			P	262	TRACE2	051005-1

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Comments:

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 3193S **METHOD TYPE:** SW846

SAMPLE ID: 135806011 **CLIENT ID:** RE03-05-59539

CONTRACT: LANL00101

MATRIX: S **DATE RECEIVED** 04-MAY-05 **LEVEL:** Low **%SOLIDS:** 81

CAS No	Analyte	Result	Units	C	Qual	M	MDL	Instrument ID	Analytical Run
7429-90-5	Aluminum	13400000	ug/kg			P	8270	TRACE2	051005-1
7440-36-0	Antimony	640	ug/kg	J-,I3e	N	MS	122	ICPMS5	050509-4
7440-38-2	Arsenic	1780	ug/kg	B	J,I1	P	730	TRACE2	051005-1
7440-39-3	Barium	302000	ug/kg	J+,I3d	N	P	122	TRACE2	051005-1
7440-41-7	Beryllium	1050	ug/kg			MS	24.4	ICPMS5	050509-4
7440-43-9	Cadmium	623	ug/kg			P	122	TRACE2	051005-1
7440-70-2	Calcium	4940000	ug/kg	J+,I3c	N	P	4380	TRACE2	051005-1
7440-47-3	Chromium	6230	ug/kg		*	P	122	TRACE2	051005-1
7440-48-4	Cobalt	2000	ug/kg	J,I10c	*	P	243	TRACE2	051005-1
7440-50-8	Copper	7310	ug/kg	J,I10c	*	P	365	TRACE2	051005-1
7439-89-6	Iron	8230000	ug/kg	J,I10c	*	P	2190	TRACE2	051105-2
7439-92-1	Lead	37100	ug/kg		*	P	304	TRACE2	051005-1
7439-95-4	Magnesium	1410000	ug/kg	J+,I3c	N	P	10300	TRACE2	051005-1
7439-96-5	Manganese	188000	ug/kg	J+,I3c	*N	P	243	TRACE2	051005-1
7439-97-6	Mercury	15.5	ug/kg			AV	3.08	MER179	051005S2-3
7440-02-0	Nickel	11200	ug/kg			MS	122	ICPMS5	050509-4
7440-09-7	Potassium	1620000	ug/kg	J+,I3c	EN	P	6080	TRACE2	051005-1
7782-49-2	Selenium	874	ug/kg	B	J,I1	P	730	TRACE2	051005-1
7440-22-4	Silver	70.4	ug/kg	B	J,I1	MS	48.8	ICPMS5	050509-4
7440-23-5	Sodium	353000	ug/kg			P	5470	TRACE2	051005-1
7440-28-0	Thallium	157	ug/kg	B	J,I1	MS	97.5	ICPMS5	050509-4
7440-62-2	Vanadium	11200	ug/kg			P	122	TRACE2	051005-1
7440-66-6	Zinc	59100	ug/kg			P	243	TRACE2	051005-1

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Comments:

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 3193S **METHOD TYPE:** SW846

SAMPLE ID: 135806012 **CLIENT ID:** RE03-05-59540

CONTRACT: LANL00101

MATRIX: S **DATE RECEIVED** 04-MAY-05 **LEVEL:** Low **%SOLIDS:** 78

CAS No	Analyte	Result	Units	C	Qual	M	MDL	Instrument ID	Analytical Run
7429-90-5	Aluminum	14900000	ug/kg			P	8550	TRACE2	051005-1
7440-36-0	Antimony	216	ug/kg	B J-.23e; J.I1	N	MS	125	ICPMS5	050509-4
7440-38-2	Arsenic	2110	ug/kg			P	755	TRACE2	051005-1
7440-39-3	Barium	96900	ug/kg	J+.I3d	N	P	126	TRACE2	051005-1
7440-41-7	Beryllium	1030	ug/kg			MS	24.9	ICPMS5	050509-4
7440-43-9	Cadmium	188	ug/kg	B J.I1		P	126	TRACE2	051005-1
7440-70-2	Calcium	2080000	ug/kg	J+.I3c	N	P	4530	TRACE2	051005-1
7440-47-3	Chromium	5380	ug/kg		*	P	126	TRACE2	051005-1
7440-48-4	Cobalt	2230	ug/kg	J.I10c	*	P	252	TRACE2	051005-1
7440-50-8	Copper	5390	ug/kg	J.I10c	*	P	377	TRACE2	051005-1
7439-89-6	Iron	7690000	ug/kg	J.I10c	*	P	2260	TRACE2	051105-2
7439-92-1	Lead	18500	ug/kg		*	P	314	TRACE2	051005-1
7439-95-4	Magnesium	1470000	ug/kg	J+.I3c	N	P	10700	TRACE2	051005-1
7439-96-5	Manganese	236000	ug/kg	J+.I3c	*N	P	252	TRACE2	051005-1
7439-97-6	Mercury	15.3	ug/kg			AV	2.96	MER179	051005S2-3
7440-02-0	Nickel	7880	ug/kg			MS	125	ICPMS5	050509-4
7440-09-7	Potassium	1720000	ug/kg	J+.I3c	EN	P	6290	TRACE2	051005-1
7782-49-2	Selenium	755	ug/kg	U		P	755	TRACE2	051005-1
7440-22-4	Silver	64.5	ug/kg	B J.I1		MS	49.8	ICPMS5	050509-4
7440-23-5	Sodium	387000	ug/kg			P	5660	TRACE2	051005-1
7440-28-0	Thallium	170	ug/kg	B J.I1		MS	99.6	ICPMS5	050509-4
7440-62-2	Vanadium	11200	ug/kg			P	126	TRACE2	051005-1
7440-66-6	Zinc	33100	ug/kg			P	252	TRACE2	051005-1

CD

Comments:

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 3193S **METHOD TYPE:** SW846

SAMPLE ID: 135806013 **CLIENT ID:** RE03-05-59543

CONTRACT: LANL00101

MATRIX: S **DATE RECEIVED** 04-MAY-05 **LEVEL:** Low **%SOLIDS:** 84

CAS No	Analyte	Result	Units	C	Qual	M	MDL	Instrument ID	Analytical Run
7429-90-5	Aluminum	5800000	ug/kg			P	7990	TRACE2	051005-1
7440-36-0	Antimony	119	ug/kg	U	N	MS	119	ICPMS5	050509-4
				UJ, E3e					
7440-38-2	Arsenic	761	ug/kg	B J.E1		P	705	TRACE2	051005-1
7440-39-3	Barium	23700	ug/kg J+.E3d		N	P	118	TRACE2	051005-1
7440-41-7	Beryllium	564	ug/kg			MS	23.8	ICPMS5	050509-4
7440-43-9	Cadmium	1500	ug/kg			P	118	TRACE2	051005-1
7440-70-2	Calcium	609000	ug/kg J+.E3c		N	P	4230	TRACE2	051005-1
7440-47-3	Chromium	2060	ug/kg		*	P	118	TRACE2	051005-1
7440-48-4	Cobalt	520	ug/kg	B	*	P	235	TRACE2	051005-1
				J.E10c; J.E1					
7440-50-8	Copper	4020	ug/kg J.E10c		*	P	353	TRACE2	051005-1
7439-89-6	Iron	4990000	ug/kg J.E10c		*	P	2120	TRACE2	051105-2
7439-92-1	Lead	4210	ug/kg		*	P	294	TRACE2	051005-1
7439-95-4	Magnesium	549000	ug/kg J+.E3c		N	P	9990	TRACE2	051005-1
7439-96-5	Manganese	98400	ug/kg J+.E3c		*N	P	235	TRACE2	051005-1
7439-97-6	Mercury	8.6	ug/kg	B J.E1		AV	2.93	MER179	051005S2-3
7440-02-0	Nickel	6580	ug/kg			MS	119	ICPMS5	050509-4
7440-09-7	Potassium	656000	ug/kg J+.E3c		EN	P	5880	TRACE2	051005-1
7782-49-2	Selenium	705	ug/kg	U		P	705	TRACE2	051005-1
7440-22-4	Silver	47.7	ug/kg	U		MS	47.7	ICPMS5	050509-4
7440-23-5	Sodium	139000	ug/kg			P	5290	TRACE2	051005-1
7440-28-0	Thallium	95.4	ug/kg	U		MS	95.4	ICPMS5	050509-4
7440-62-2	Vanadium	4600	ug/kg			P	118	TRACE2	051005-1
7440-66-6	Zinc	41300	ug/kg			P	235	TRACE2	051005-1

Comments:

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 3193S **METHOD TYPE:** SW846

SAMPLE ID: 135806014 **CLIENT ID:** RE03-05-59544

CONTRACT: LANL00101

MATRIX: S **DATE RECEIVED** 04-MAY-05 **LEVEL:** Low **%SOLIDS:** 77

CAS No	Analyte	Result	Units	C	Qual	M	MDL	Instrument ID	Analytical Run
7429-90-5	Aluminum	15500000	ug/kg			P	8770	TRACE2	051005-1
7440-36-0	Antimony	193	ug/kg	B	N J-.23e ; J.I1	MS	126	ICPMS5	050509-4
7440-38-2	Arsenic	2440	ug/kg			P	774	TRACE2	051005-1
7440-39-3	Barium	90300	ug/kg	J+.23d	N	P	129	TRACE2	051005-1
7440-41-7	Beryllium	1110	ug/kg			MS	25.3	ICPMS5	050509-4
7440-43-9	Cadmium	312	ug/kg	B J.I1		P	129	TRACE2	051005-1
7440-70-2	Calcium	3710000	ug/kg	J+.23c	N	P	4650	TRACE2	051005-1
7440-47-3	Chromium	6930	ug/kg		*	P	129	TRACE2	051005-1
7440-48-4	Cobalt	2740	ug/kg	J.I10c	*	P	258	TRACE2	051005-1
7440-50-8	Copper	6310	ug/kg	J.I10c	*	P	387	TRACE2	051005-1
7439-89-6	Iron	9710000	ug/kg	J.I10c	*	P	2320	TRACE2	051105-2
7439-92-1	Lead	44000	ug/kg		*	P	323	TRACE2	051005-1
7439-95-4	Magnesium	1870000	ug/kg	J+.23c	N	P	11000	TRACE2	051005-1
7439-96-5	Manganese	278000	ug/kg	J+.23c	*N	P	258	TRACE2	051005-1
7439-97-6	Mercury	14.9	ug/kg			AV	3.12	MER179	051005S2-3
7440-02-0	Nickel	7690	ug/kg			MS	126	ICPMS5	050509-4
7440-09-7	Potassium	1780000	ug/kg	J+.23c	EN	P	6450	TRACE2	051005-1
7782-49-2	Selenium	774	ug/kg	U		P	774	TRACE2	051005-1
7440-22-4	Silver	74	ug/kg	B J.I1		MS	50.5	ICPMS5	050509-4
7440-23-5	Sodium	380000	ug/kg			P	5810	TRACE2	051005-1
7440-28-0	Thallium	192	ug/kg	B J.I1		MS	101	ICPMS5	050509-4
7440-62-2	Vanadium	12900	ug/kg			P	129	TRACE2	051005-1
7440-66-6	Zinc	47200	ug/kg			P	258	TRACE2	051005-1

CD

Comments:

DATA VALIDATION COVER SHEET (Example)

SECTION I.

REQUEST NUMBER: 31935 COST CODE: _____

VALIDATION DATE: _____

LAB NAME: _____ LAB CODE: _____

VALIDATOR: _____ ORGANIZATION: _____

ANALYTICAL SUITE: ___ VOLATILES ___ HIGH EXPLOSIVES

___ SEMIVOLATILES ___ INORGANICS

___ PESTICIDES/AROCLORS ___ RADIOCHEMISTRY

OTHER (describe) _____

SECTION II. COMPLETENESS CHECKLIST

Item	Present? (Y/N/NA)	Item	Present? (Y/N/NA)
1. COC form(s)		2. Case Narrative	
3. Sample Results		4. Sample Chromatograms	
5. Standard Chromatograms		6. Quantitation Reports	
7. QC Forms			

Identify any samples in the assigned Request Number that are missing:

_____ _____ _____ _____ _____ _____

_____ _____ _____ _____ _____ _____

Comments: include information about requests to the laboratory and agreed upon date of resolution and lab contact: (Attach additional comment sheets as necessary)

_____

_____

_____

Signature/1st validation: _____ Date/1st validation: _____

Signature/2nd validation: _____ Date/2nd validation: _____

GENERAL ENGINEERING LABORATORIES, LLC
a Member of THE GEL GROUP, INC.
Meeting Today's Needs with a Vision for Tomorrow

May 30, 2005

Ms. Joylene Valdez, MS-M707
Los Alamos National Laboratory
TA-3, Bldg. 1237, Drop Pt. 03U
Los Alamos, NM 87544

Re: Contract No. 12631-0011 2P

Dear Ms. Valdez:

I am sending you the data package for the soil samples for release # 3193S that were analyzed for Metals parameters.

General Engineering Laboratories appreciates this opportunity to provide you with analytical results, and trusts that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 769-7391.

Yours very truly,

Valerie S. Davis
Project Manager

enclosure

P.O. Box 30712 • Charleston, SC 29417 • 2040 Savage Road (29407)
Phone (843) 556-8171 • Fax (843) 766-1178 • www.gel.com

LOS ALAMOS NATIONAL LABORATORY
Contract No. 12631-0011 2P
Release # 3193S

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GENERAL NARRATIVE

CASE NARRATIVE
for
Los Alamos National Laboratory
Contract No. 12631-0011 2P
Release# 3193S

May 30, 2005

Laboratory Identification:

General Engineering Laboratories, LLC.

Mailing Address:

P.O. Box 30712
Charleston, South Carolina 29417

Express Mail Delivery and Shipping Address:

2040 Savage Road
Charleston, South Carolina 29407

Telephone Number:

(843) 556-8171

Summary:

Sample receipt

The samples for Los Alamos National Laboratory SMO release #3193S arrived at General Engineering Laboratories, LLC., (GEL) Charleston, South Carolina on May 4, 2005 for environmental analyses. The sample containers arrived without any visible signs of tampering or breakage. The sample containers were received at 6°C temperature.

The laboratory received the following samples:

Laboratory Identification	Sample Description
135806001	RE03-05-59527
135806002	RE03-05-59528
135806003	RE03-05-59529
135806004	RE03-05-59530
135806005	RE03-05-59533
135806006	RE03-05-59534
135806007	RE03-05-59535
135806008	RE03-05-59536
135806009	RE03-05-59537
135806010	RE03-05-59538

135806011	RE03-05-59539
135806012	RE03-05-59540
135806013	RE03-05-59543
135806014	RE03-05-59544

Internal Chain of Custody:

Custody was maintained for the samples.

Data Package:

The enclosed data package contains the following sections: Case Narrative, Chain of Custody, Cooler Receipt Checklist, Data Qualifier Review Sheet, and Metals Analysis.

I certify that this data report is in compliance with the terms and conditions of the subcontract and task order, both technically and for completeness, for other than the conditions detailed in the attached case narrative.

Valerie S. Davis

Project Manager

CHAIN OF CUSTODY

Tuesday, May 3, 2005

CHAIN OF CUSTODY DOCUMENT NUMBER: 3193SC

Los Alamos
NATIONAL LABORATORY

REQUEST NUMBER: 3193S

ANALYSIS TYPE: INORGANIC

ATTN: Stacy Griffin
General Engineering Laboratories, Inc., Historical
2040 Savage Road
Charleston, SC 29407

1358067

SAMPLE ID	CONT ID	CONTAINER DESCRIPTION	ORDER TEMPLATE CODE	PRESERVATIVE	MATRIX
RE03-05-59527 1300	5	125 ML POLY	METALS-GEL	ICE	S
RE03-05-59528 1510	5	125 ML POLY	METALS-GEL	ICE	S
RE03-05-59529 1305	5	125 ML POLY	METALS-GEL	ICE	S
RE03-05-59530 1524	5	125 ML POLY	METALS-GEL	ICE	S
RE03-05-59533 1318	5	125 ML POLY	METALS-GEL	ICE	S
RE03-05-59534 1544	5	125 ML POLY	METALS-GEL	ICE	S
RE03-05-59535 1329	5	125 ML POLY	METALS-GEL	ICE	S
RE03-05-59536 1550	5	125 ML POLY	METALS-GEL	ICE	S
RE03-05-59537 1419	5	125 ML POLY	METALS-GEL	ICE	S
RE03-05-59538 1555	5	125 ML POLY	METALS-GEL	ICE	S
RE03-05-59539 1424	5	125 ML POLY	METALS-GEL	ICE	S
RE03-05-59540 1602	5	125 ML POLY	METALS-GEL	ICE	S
RE03-05-59543 1524	1	125 ML POLY	METALS-GEL	ICE	S
RE03-05-59544 1602	1	125 ML POLY	METALS-GEL	ICE	S

Final Page of CHAIN OF CUSTODY DOCUMENT FOR REQUEST NUMBER 3193S

Relinquished By: PRINTED NAME	SIGNATURE	Date	Time	Received By: PRINTED NAME	SIGNATURE	Date	Time
A Padilla	A Padilla	5/3/05	1400	C Grace	C Grace	5/4/05	945

Received for DISPOSAL By: PRINTED NAME SIGNATURE — Date — Time

Remarks:

5

Tuesday, May 3, 2005

REQUEST NUMBER: 3193S

ANALYSIS TYPE: INORGANIC

Los Alamos
NATIONAL LABORATORY

ATTN: Stacy Griffin
General Engineering Laboratories, Inc., Historical
2040 Savage Road
Charleston, SC 29407

Please analyze the enclosed samples according to the schedule indicated:

SHIP DATE: 05/03/2005
REPORT DUE: 05/13/2005
TURN AROUND REQ'D: 10

RAD SCREENING: NOT REQ
COMMENTS:

These samples are on:

LANL Request Number: 3193S
Per Agreement Number: 126310011
Project Cost Code: MR0R00FC6800

LANL ER SMO CONTACT:
Signature:

METHOD CODE	SAMPLE ID	CONT ID	SAMPLE MATRIX	DATE SAMPLED	COMMENTS
SW-846:6010B	RE03-05-59527	5	S	05/02/2005	
SW-846:6020	RE03-05-59527	5	S	05/02/2005	
SW-846:7471A	RE03-05-59527	5	S	05/02/2005	
SW-846:6010B	RE03-05-59528	5	S	05/02/2005	
SW-846:6020	RE03-05-59528	5	S	05/02/2005	
SW-846:7471A	RE03-05-59528	5	S	05/02/2005	
SW-846:6010B	RE03-05-59529	5	S	05/02/2005	
SW-846:6020	RE03-05-59529	5	S	05/02/2005	
SW-846:7471A	RE03-05-59529	5	S	05/02/2005	
SW-846:6010B	RE03-05-59530	5	S	05/02/2005	
SW-846:6020	RE03-05-59530	5	S	05/02/2005	
SW-846:7471A	RE03-05-59530	5	S	05/02/2005	
SW-846:6010B	RE03-05-59533	5	S	05/02/2005	
SW-846:6020	RE03-05-59533	5	S	05/02/2005	
SW-846:7471A	RE03-05-59533	5	S	05/02/2005	
SW-846:6010B	RE03-05-59534	5	S	05/02/2005	
SW-846:6020	RE03-05-59534	5	S	05/02/2005	
SW-846:7471A	RE03-05-59534	5	S	05/02/2005	
SW-846:6010B	RE03-05-59535	5	S	05/02/2005	
SW-846:6020	RE03-05-59535	5	S	05/02/2005	
SW-846:7471A	RE03-05-59535	5	S	05/02/2005	
SW-846:6010B	RE03-05-59536	5	S	05/02/2005	
SW-846:6020	RE03-05-59536	5	S	05/02/2005	
SW-846:7471A	RE03-05-59536	5	S	05/02/2005	
SW-846:6010B	RE03-05-59537	5	S	05/02/2005	
SW-846:6020	RE03-05-59537	5	S	05/02/2005	
SW-846:7471A	RE03-05-59537	5	S	05/02/2005	
SW-846:6010B	RE03-05-59538	5	S	05/02/2005	
SW-846:6020	RE03-05-59538	5	S	05/02/2005	
SW-846:7471A	RE03-05-59538	5	S	05/02/2005	
SW-846:6010B	RE03-05-59539	5	S	05/02/2005	
SW-846:6020	RE03-05-59539	5	S	05/02/2005	
SW-846:7471A	RE03-05-59539	5	S	05/02/2005	
SW-846:6010B	RE03-05-59540	5	S	05/02/2005	
SW-846:6020	RE03-05-59540	5	S	05/02/2005	
SW-846:7471A	RE03-05-59540	5	S	05/02/2005	
SW-846:6010B	RE03-05-59543	1	S	05/02/2005	
SW-846:6020	RE03-05-59543	1	S	05/02/2005	

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METHOD CODE	SAMPLE ID	CONT ID	SAMPLE MATRIX	DATE SAMPLED	COMMENTS
SW-846:7471A	RE03-05-59543	1	S	05/02/2005	
SW-846:6010B	RE03-05-59544	1	S	05/02/2005	
SW-846:6020	RE03-05-59544	1	S	05/02/2005	
SW-846:7471A	RE03-05-59544	1	S	05/02/2005	

Final Page of REQUEST NUMBER 3193S

COOLER RECEIPT CHECKLIST

SAMPLE RECEIPT & REVIEW FORM

GENERAL ENGINEERING LABORATORIES, LLC

PM use only

Client: Los Alamos	**SDG/ARCOC/Work Order:** 31935
Date Received: 5/4/05	**PM(A) Review (ensure non-conforming items are resolved prior to signing):** Valerie Davis
Received By: [illegible]	

	Sample Receipt Criteria	Conforming	NA	Non-Conforming	Comments/Qualifiers (Required for Non-Conforming Items).
1	Shipping containers received intact and sealed?	✓			Circle Applicable: seals broken damaged container leaking container other (describe)
2	Samples requiring cold preservation within (4 +/- 2 C). Record preservation method.	✓			Circle Coolant # ice bags blue ice dry ice none other(describe) 6°
3	Chain of custody documents included with shipment?	✓			
4	Sample containers intact and sealed?	~~✓~~ X		✓	Circle Applicable: seals broken damaged container leaking container other (describe) Broken 59535 - 500 ambers loss 59529 - 500 ambers
5	Samples requiring chemical preservation at proper pH?		✓		Sample ID's, containers affected and observed pH:
6	VOA vials free of headspace (defined as < 6mm bubble)?		✓		Sample ID's and containers affected:
7	Samples received within holding time?	✓			Id's and tests affected:
8	Sample ID's on COC match ID's on bottles?	✓			Sample ID's and containers affected:
9	Date & time on COC match date & time on bottles?			✓	Sample ID's affected: no date + time on samples
10	Number of containers received match number indicated on COC	~~✓~~ X		✓	Sample ID's affected: 59529-1+2 missing 59537-1+2 - Encore
11	COC form is properly signed in relinquished/received sections?	✓			
12	Air Bill ,Tracking #'s, & Additional Comments	Fed Ex 6954 7789 4081 6954 7789 4107			

Radiological Information	Non-RAD	RAD	RADI	RSO RAD Receipt #
What is the radiological classification of the samples?	✓			Comments:
Radioactivity Screening Results (maximum observed CPM)	30CPM			*If > x2 area background is observed on a non-radioactive sample, contact the RSO to investigate.

PM (or PMA) review of Receiving Rad classification: VSO Initials 5/4/05 Date:

DATA REVIEW QUALIFIER FLAG DEFINITION SHEET

General Engineering Laboratories, LLC.

DATA QUALIFIERS FOR INORGANIC ANALYSES

Data Qualifiers used on Form 1s or Certificates of Analysis (COA) follow the specifications set forth in the technical specifications of the most current CLP Statement of Work and are defined as follows:

Section	Explanation	Location
E	The qualifier that is used when the percent difference between the parent sample and its serial dilution's concentration exceeds 10%. The sample's concentration must be greater than 50 times the IDL/MDL for ICP or 100 times the absolute value of the preparation blank's concentration for ICP-MS. However, if analyzing ILMO 4.0 (ICP-MS), the parent sample's concentration must be 20 times the CRDL before the "E" flag is applied.	Form 1 and EDD
*	The qualifier that is used to indicate the duplicate sample analysis for an analyte is out of control.	Form 1 and EDD
J	The qualifier is used to indicate that the reported result fell above the IDL/MDL but below the CRDL.	Form 1 and EDD
N	This qualifier is used to indicate that the matrix or pre-digested spike sample recovery for an analyte is not within the specified control limit.	Form 1 and EDD
U	Analyte analyzed for but not detected above the PQL/CRDL.	COA, Form 1, and EDD
X	Other reporting flag as defined in report narrative.	Form 1 and EDD
**	Laboratory Control Sample (LCS) recovery for an analyte is outside of specified acceptance limit.	QC Summary Report

All surrogate recoveries and acceptance ranges are reported at the bottom of Form 2 or COA.
Any recoveries falling outside the acceptance range will be flagged with a **.
All flags do not apply to QC Summary and Certificate of Analysis packages.

INORGANIC ANALYSIS

Metals Fractional Narrative
Los Alamos National Laboratory (LANL)
SDG 3193S

Method/Analysis Information

Analytical Batch:	423071, 423106, 422745
Prep Batch:	423070, 423105, 422744
Standard Operating Procedures:	GL-MA-E-013 REV# 12, GL-MA-E-014 REV# 9, GL-MA-E-010 REV# 15, GL-MA-E-009 REV# 13
Analytical Method:	SW846 6010B, SW846 6020, SW846 7471A
Prep Method:	SW846 3050B, SW846 7471A

Sample Analysis

Sample ID	Client ID
135806001	RE03-05-59527
135806002	RE03-05-59528
135806003	RE03-05-59529
135806004	RE03-05-59530
135806005	RE03-05-59533
135806006	RE03-05-59534
135806007	RE03-05-59535
135806008	RE03-05-59536
135806009	RE03-05-59537
135806010	RE03-05-59538
135806011	RE03-05-59539
135806012	RE03-05-59540
135806013	RE03-05-59543
135806014	RE03-05-59544
1200840497	Method Blank (MB) **ICP**
1200840501	Laboratory Control Sample (LCS)
1200840502	135806001(RE03-05-59527L) Serial Dilution (SD)
1200840498	135806001(RE03-05-59527D) Sample Duplicate (DUP)

1200840499	135806001(RE03-05-59527S) Matrix Spike (MS)
1200840500	135806001(RE03-05-59527SD) Matrix Spike Duplicate (MSD)
1200840571	Method Blank (MB) **ICP-MS**
1200840575	Laboratory Control Sample (LCS)
1200840576	135806001(RE03-05-59527L) Serial Dilution (SD)
1200840572	135806001(RE03-05-59527D) Sample Duplicate (DUP)
1200840573	135806001(RE03-05-59527S) Matrix Spike (MS)
1200840574	135806001(RE03-05-59527SD) Matrix Spike Duplicate (MSD)
1200839770	Method Blank (MB) **CVAA**
1200839771	Laboratory Control Sample (LCS)
1200839774	135803001(RE03-05-59531L) Serial Dilution (SD)
1200839772	135803001(RE03-05-59531D) Sample Duplicate (DUP)
1200839773	135803001(RE03-05-59531S) Matrix Spike (MS)
1200839775	135803001(RE03-05-59531SD) Matrix Spike Duplicate (MSD)

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by General Engineering Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

System Configuration

The ICP analysis was performed on a Thermo Jarrell Ash 61E Trace axial-viewing inductively coupled plasma atomic emission spectrometer. The instrument is equipped with a Burgener nebulizer, cyclonic spray chamber, and yttrium internal standard. Operating conditions for the Trace ICP are set at a power level of 950 watts. The instrument has a peristaltic pump flow rate of 140 RPM (2.0 mL/min sample uptake rate), argon gas flows of 15 L/min and 0.5 L/min for the torch and auxiliary gases, and a pressure setting of 26 PSI for the nebulizer.

The ICP-MS analysis was performed on a Perkin Elmer ICP-MS ELAN 9000. The instrument is equipped with a cross-flow nebulizer, quadrupole mass spectrometer, and dual mode electron multiplier detector. Internal standards of scandium, germanium, indium, and tantalum were utilized to cover the mass spectrum. Operating conditions are set at 1400W power and combined argon pressures of 3607 kPa for the plasma and auxiliary gases, and 0.85 L/min carrier gas flow, and an initial lens voltage of 5.2.

The Mercury analysis was performed on a Perkin-Elmer Flow Injection Mercury System (FIMS-400) automated mercury analyzer. The instrument consists of a cold vapor atomic absorption spectrometer set to detect mercury at a wavelength of 254 nm. Sample

introduction through the flow injection system is performed via a peristaltic pump at 9 mL/min and nitrogen carrier gas rate of 80mL/min.

Calibration Information

Instrument Calibration
All initial calibration requirements have been met for this sample delivery group (SDG).

CRDL Requirements
All CRDL standard(s) met the referenced advisory control limits.

Continuing Calibration Blank (CCB) Requirements
All continuing calibration blanks (CCB) bracketing this batch met the established acceptance criteria.

Continuing Calibration Verification (CCV) Requirements
All continuing calibration verification (CCV) bracketing this SDG met the established acceptance criteria for all analytes except iron in CCV08. Samples bracketed by CCV08 were rerun for iron.

ICSA/ICSAB statement
All interference check samples (ICSA and ICSAB) associated with this SDG met the established acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MBs analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

Quality Control (QC) Sample Statement
The following samples were selected as the quality control (QC) samples for the CVAA, ICP and ICPMS batches respectively: 135803001 (RE03-05-59531) from LANL SDG 3195S and 135806001 (RE03-05-59527).

Matrix Spike (MS) Recovery Statement
The percent recoveries (%R) obtained from the MS analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. The MS did not meet the recommended quality control acceptance criteria for percent recoveries for antimony, barium, calcium, magnesium, manganese, and potassium, as indicated by the "N" qualifiers.

Matrix Spike Duplicate (MSD) Recovery Statement
The percent recovery (%R) obtained from the MSD analyses are evaluated when the

sample concentration is less than four times (4X) the spike concentration added. The MSD did not meet the recommended quality control acceptance criteria for percent recoveries for antimony, calcium and potassium, as indicated by the "N" qualifiers. The very low recovery of antimony in the MS was confirmed in the MSD.

MS/MSD Relative Percent Difference (RPD) Statement
The relative percent difference (RPD) obtained from the designated matrix spike duplicate (MSD) is evaluated based on acceptance criteria of 20%. The RPD between qualifying elements results in the MS and MSD were within the acceptance limits of 20% except manganese, as indicated by the "*" qualifier.

Duplicate Relative Percent Difference (RPD) Statement
The relative percent difference (RPD) obtained from the designated sample duplicate (DUP) is evaluated based on acceptance criteria of 20% when the sample is >5X the contract required detection limit (RL). In cases were either the sample or duplicate value is less than 5X the contract required detection limit (RL), a control of RL is used to evaluate the DUP results. Chromium, cobalt, cobalt, iron, and lead did not meet these requirements, as indicated by the "*" qualifiers.

Serial Dilution % Difference Statement
The serial dilution is used to assess matrix suppression or enhancement. Raw element concentrations that are 25X the IDL for CVAA, 50X the IDL for ICP, and 100X the IDL for ICP-MS analyses are applicable for serial dilution assessment. All applicable analytes met the acceptance criteria of less than 10% difference (%D) except potassium, as indicated by the "E" qualifier.

Technical Information

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

Sample Dilutions
Dilutions are performed to minimize matrix interferences resulting from elevated mineral element concentrations present in soil samples and/or to bring over range target analyte concentrations into the linear calibration range of the instrument. The samples in this SDG were diluted the standard 2x for soils on the ICPMS.

Preparation Information
The samples in this SDG were prepared exactly according to the cited SOP.

Miscellaneous Information

Nonconformance Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. NCR ID 200874 and NCR ID 200407 were generated for this SDG. A copy is included in the Miscellaneous Data section of this package.

Additional Comments
Additional comments were not required for this SDG.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Allison M. C. **Date:** 6/1/05

SAMPLE DATA SUMMARY

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 3193S **METHOD TYPE:** SW846

SAMPLE ID: 135806001 **CLIENT ID:** RE03-05-59527

CONTRACT: LANL00101

MATRIX: S **DATE RECEIVED** 04-MAY-05 **LEVEL:** Low **%SOLIDS:** 87

CAS No	Analyte	Result	Units	C	Qual	M	MDL	Instrument ID	Analytical Run
7429-90-5	Aluminum	10500000	ug/kg			P	7730	TRACE2	051005-1
7440-36-0	Antimony	329	ug/kg	B	N	MS	113	ICPMS5	050509-4
7440-38-2	Arsenic	1950	ug/kg			P	682	TRACE2	051005-1
7440-39-3	Barium	57500	ug/kg		N	P	114	TRACE2	051005-1
7440-41-7	Beryllium	608	ug/kg			MS	22.6	ICPMS5	050509-4
7440-43-9	Cadmium	505	ug/kg	B		P	114	TRACE2	051005-1
7440-70-2	Calcium	1250000	ug/kg		N	P	4090	TRACE2	051005-1
7440-47-3	Chromium	5650	ug/kg		*	P	114	TRACE2	051005-1
7440-48-4	Cobalt	2140	ug/kg		*	P	227	TRACE2	051005-1
7440-50-8	Copper	11300	ug/kg		*	P	341	TRACE2	051005-1
7439-89-6	Iron	12700000	ug/kg		*	P	2050	TRACE2	051005-1
7439-92-1	Lead	38100	ug/kg		*	P	284	TRACE2	051005-1
7439-95-4	Magnesium	1100000	ug/kg		N	P	9660	TRACE2	051005-1
7439-96-5	Manganese	132000	ug/kg		*N	P	227	TRACE2	051005-1
7439-97-6	Mercury	25.2	ug/kg			AV	2.78	MER179	051005S2-3
7440-02-0	Nickel	4780	ug/kg			MS	113	ICPMS5	050509-4
7440-09-7	Potassium	1120000	ug/kg		EN	P	5680	TRACE2	051005-1
7782-49-2	Selenium	682	ug/kg	U		P	682	TRACE2	051005-1
7440-22-4	Silver	135	ug/kg	B		MS	45.3	ICPMS5	050509-4
7440-23-5	Sodium	192000	ug/kg			P	5110	TRACE2	051005-1
7440-28-0	Thallium	108	ug/kg	B		MS	90.6	ICPMS5	050509-4
7440-62-2	Vanadium	8220	ug/kg			P	114	TRACE2	051005-1
7440-66-6	Zinc	52800	ug/kg			P	227	TRACE2	051005-1

Comments:

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 3193S **METHOD TYPE:** SW846

SAMPLE ID: 135806002 **CLIENT ID:** RE03-05-59528

CONTRACT: LANL00101

MATRIX: S **DATE RECEIVED** 04-MAY-05 **LEVEL:** Low **%SOLIDS:** 85

CAS No	Analyte	Result	Units	C	Qual	M	MDL	Instrument ID	Analytical Run
7429-90-5	Aluminum	10200000	ug/kg			P	7950	TRACE2	051005-1
7440-36-0	Antimony	115	ug/kg	U	N	MS	115	ICPMS5	050509-4
7440-38-2	Arsenic	1800	ug/kg			P	702	TRACE2	051005-1
7440-39-3	Barium	35900	ug/kg		N	P	117	TRACE2	051005-1
7440-41-7	Beryllium	598	ug/kg			MS	23.1	ICPMS5	050509-4
7440-43-9	Cadmium	176	ug/kg	B		P	117	TRACE2	051005-1
7440-70-2	Calcium	1100000	ug/kg		N	P	4210	TRACE2	051005-1
7440-47-3	Chromium	4010	ug/kg		*	P	117	TRACE2	051005-1
7440-48-4	Cobalt	1010	ug/kg		*	P	234	TRACE2	051005-1
7440-50-8	Copper	4000	ug/kg		*	P	351	TRACE2	051005-1
7439-89-6	Iron	6230000	ug/kg		*	P	2100	TRACE2	051005-1
7439-92-1	Lead	11600	ug/kg		*	P	292	TRACE2	051005-1
7439-95-4	Magnesium	1050000	ug/kg		N	P	9940	TRACE2	051005-1
7439-96-5	Manganese	97000	ug/kg		*N	P	234	TRACE2	051005-1
7439-97-6	Mercury	12.7	ug/kg			AV	2.76	MER179	051005S2-3
7440-02-0	Nickel	4260	ug/kg			MS	115	ICPMS5	050509-4
7440-09-7	Potassium	1060000	ug/kg		EN	P	5850	TRACE2	051005-1
7782-49-2	Selenium	702	ug/kg	U		P	702	TRACE2	051005-1
7440-22-4	Silver	46.1	ug/kg	U		MS	46.1	ICPMS5	050509-4
7440-23-5	Sodium	172000	ug/kg			P	5260	TRACE2	051005-1
7440-28-0	Thallium	92.3	ug/kg	U		MS	92.3	ICPMS5	050509-4
7440-62-2	Vanadium	7760	ug/kg			P	117	TRACE2	051005-1
7440-66-6	Zinc	32900	ug/kg			P	234	TRACE2	051005-1

Comments:

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 3193S **METHOD TYPE:** SW846

SAMPLE ID: 135806003 **CLIENT ID:** RE03-05-59529

CONTRACT: LANL00101

MATRIX: S **DATE RECEIVED** 04-MAY-05 **LEVEL:** Low **%SOLIDS:** 87

CAS No	Analyte	Result	Units	C	Qual	M	MDL	Instrument ID	Analytical Run
7429-90-5	Aluminum	7350000	ug/kg			P	7630	TRACE2	051005-1
7440-36-0	Antimony	181	ug/kg	B	N	MS	113	ICPMS5	050509-4
7440-38-2	Arsenic	2610	ug/kg			P	673	TRACE2	051005-1
7440-39-3	Barium	34300	ug/kg		N	P	112	TRACE2	051005-1
7440-41-7	Beryllium	921	ug/kg			MS	22.5	ICPMS5	050509-4
7440-43-9	Cadmium	797	ug/kg			P	112	TRACE2	051005-1
7440-70-2	Calcium	906000	ug/kg		N	P	4040	TRACE2	051005-1
7440-47-3	Chromium	2620	ug/kg		*	P	112	TRACE2	051005-1
7440-48-4	Cobalt	1000	ug/kg		*	P	224	TRACE2	051005-1
7440-50-8	Copper	3550	ug/kg		*	P	337	TRACE2	051005-1
7439-89-6	Iron	6950000	ug/kg		*	P	2020	TRACE2	051005-1
7439-92-1	Lead	12400	ug/kg		*	P	281	TRACE2	051005-1
7439-95-4	Magnesium	590000	ug/kg		N	P	9540	TRACE2	051005-1
7439-96-5	Manganese	154000	ug/kg		*N	P	224	TRACE2	051005-1
7439-97-6	Mercury	23.4	ug/kg			AV	2.69	MER179	051005S2-3
7440-02-0	Nickel	5070	ug/kg			MS	113	ICPMS5	050509-4
7440-09-7	Potassium	1040000	ug/kg		EN	P	5610	TRACE2	051005-1
7782-49-2	Selenium	673	ug/kg	U		P	673	TRACE2	051005-1
7440-22-4	Silver	59.3	ug/kg	B		MS	45.1	ICPMS5	050509-4
7440-23-5	Sodium	140000	ug/kg			P	5050	TRACE2	051005-1
7440-28-0	Thallium	110	ug/kg	B		MS	90.1	ICPMS5	050509-4
7440-62-2	Vanadium	10000	ug/kg			P	112	TRACE2	051005-1
7440-66-6	Zinc	34800	ug/kg			P	224	TRACE2	051005-1

Comments:

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 3193S **METHOD TYPE:** SW846

SAMPLE ID: 135806004 **CLIENT ID:** RE03-05-59530

CONTRACT: LANL00101

MATRIX: S **DATE RECEIVED** 04-MAY-05 **LEVEL:** Low **%SOLIDS:** 83

CAS No	Analyte	Result	Units	C	Qual	M	MDL	Instrument ID	Analytical Run
7429-90-5	Aluminum	9600000	ug/kg			P	8210	TRACE2	051005-1
7440-36-0	Antimony	128	ug/kg	B	N	MS	120	ICPMS5	050509-4
7440-38-2	Arsenic	1250	ug/kg	B		P	724	TRACE2	051005-1
7440-39-3	Barium	44000	ug/kg		N	P	121	TRACE2	051005-1
7440-41-7	Beryllium	669	ug/kg			MS	23.9	ICPMS5	050509-4
7440-43-9	Cadmium	3530	ug/kg			P	121	TRACE2	051005-1
7440-70-2	Calcium	966000	ug/kg		N	P	4340	TRACE2	051005-1
7440-47-3	Chromium	3660	ug/kg		*	P	121	TRACE2	051005-1
7440-48-4	Cobalt	1080	ug/kg		*	P	241	TRACE2	051005-1
7440-50-8	Copper	9000	ug/kg		*	P	362	TRACE2	051005-1
7439-89-6	Iron	5850000	ug/kg		*	P	2170	TRACE2	051005-1
7439-92-1	Lead	8150	ug/kg		*	P	302	TRACE2	051005-1
7439-95-4	Magnesium	908000	ug/kg		N	P	10300	TRACE2	051005-1
7439-96-5	Manganese	74800	ug/kg		*N	P	241	TRACE2	051005-1
7439-97-6	Mercury	12.8	ug/kg			AV	2.88	MER179	051005S2-3
7440-02-0	Nickel	4050	ug/kg			MS	120	ICPMS5	050509-4
7440-09-7	Potassium	992000	ug/kg		EN	P	6030	TRACE2	051005-1
7782-49-2	Selenium	724	ug/kg	U		P	724	TRACE2	051005-1
7440-22-4	Silver	51.2	ug/kg	B		MS	47.9	ICPMS5	050509-4
7440-23-5	Sodium	197000	ug/kg			P	5430	TRACE2	051005-1
7440-28-0	Thallium	96	ug/kg	B		MS	95.8	ICPMS5	050509-4
7440-62-2	Vanadium	7140	ug/kg			P	121	TRACE2	051005-1
7440-66-6	Zinc	55900	ug/kg			P	241	TRACE2	051005-1

Comments:

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 3193S **METHOD TYPE:** SW846

SAMPLE ID: 135806005 **CLIENT ID:** RE03-05-59533

CONTRACT: LANL00101

MATRIX: S **DATE RECEIVED** 04-MAY-05 **LEVEL:** Low **%SOLIDS:** 83

CAS No	Analyte	Result	Units	C	Qual	M	MDL	Instrument ID	Analytical Run
7429-90-5	Aluminum	10400000	ug/kg			P	7990	TRACE2	051005-1
7440-36-0	Antimony	1710	ug/kg		N	MS	118	ICPMS5	050509-4
7440-38-2	Arsenic	2860	ug/kg			P	705	TRACE2	051005-1
7440-39-3	Barium	68500	ug/kg		N	P	118	TRACE2	051005-1
7440-41-7	Beryllium	545	ug/kg			MS	23.5	ICPMS5	050509-4
7440-43-9	Cadmium	5580	ug/kg			P	118	TRACE2	051005-1
7440-70-2	Calcium	1970000	ug/kg		N	P	4230	TRACE2	051005-1
7440-47-3	Chromium	18700	ug/kg		*	P	118	TRACE2	051005-1
7440-48-4	Cobalt	2650	ug/kg		*	P	235	TRACE2	051005-1
7440-50-8	Copper	21800	ug/kg		*	P	353	TRACE2	051005-1
7439-89-6	Iron	14300000	ug/kg		*	P	2120	TRACE2	051105-2
7439-92-1	Lead	238000	ug/kg		*	P	294	TRACE2	051005-1
7439-95-4	Magnesium	1240000	ug/kg		N	P	9990	TRACE2	051005-1
7439-96-5	Manganese	291000	ug/kg		*N	P	235	TRACE2	051005-1
7439-97-6	Mercury	51.4	ug/kg			AV	3	MER179	051005S2-3
7440-02-0	Nickel	16300	ug/kg			MS	118	ICPMS5	050509-4
7440-09-7	Potassium	1190000	ug/kg		EN	P	5880	TRACE2	051005-1
7782-49-2	Selenium	705	ug/kg	U		P	705	TRACE2	051005-1
7440-22-4	Silver	151	ug/kg	B		MS	47	ICPMS5	050509-4
7440-23-5	Sodium	198000	ug/kg			P	5290	TRACE2	051005-1
7440-28-0	Thallium	98.1	ug/kg	B		MS	94.1	ICPMS5	050509-4
7440-62-2	Vanadium	11600	ug/kg			P	118	TRACE2	051005-1
7440-66-6	Zinc	482000	ug/kg			P	235	TRACE2	051005-1

Comments:

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 3193S **METHOD TYPE:** SW846

SAMPLE ID: 135806006 **CLIENT ID:** RE03-05-59534

CONTRACT: LANL00101

MATRIX: S **DATE RECEIVED** 04-MAY-05 **LEVEL:** Low **%SOLIDS:** 88

CAS No	Analyte	Result	Units	C	Qual	M	MDL	Instrument ID	Analytical Run
7429-90-5	Aluminum	7730000	ug/kg			P	7610	TRACE2	051005-1
7440-36-0	Antimony	1550	ug/kg		N	MS	112	ICPMS5	050509-4
7440-38-2	Arsenic	2240	ug/kg			P	672	TRACE2	051005-1
7440-39-3	Barium	42100	ug/kg		N	P	112	TRACE2	051005-1
7440-41-7	Beryllium	585	ug/kg			MS	22.3	ICPMS5	050509-4
7440-43-9	Cadmium	2790	ug/kg			P	112	TRACE2	051005-1
7440-70-2	Calcium	1010000	ug/kg		N	P	4030	TRACE2	051005-1
7440-47-3	Chromium	10100	ug/kg		*	P	112	TRACE2	051005-1
7440-48-4	Cobalt	1370	ug/kg		*	P	224	TRACE2	051005-1
7440-50-8	Copper	11100	ug/kg		*	P	336	TRACE2	051005-1
7439-89-6	Iron	8850000	ug/kg		*	P	2020	TRACE2	051105-2
7439-92-1	Lead	140000	ug/kg		*	P	280	TRACE2	051005-1
7439-95-4	Magnesium	908000	ug/kg		N	P	9520	TRACE2	051005-1
7439-96-5	Manganese	134000	ug/kg		*N	P	224	TRACE2	051005-1
7439-97-6	Mercury	22.9	ug/kg			AV	2.8	MER179	051005S2-3
7440-02-0	Nickel	7240	ug/kg			MS	112	ICPMS5	050509-4
7440-09-7	Potassium	891000	ug/kg		EN	P	5600	TRACE2	051005-1
7782-49-2	Selenium	672	ug/kg	U		P	672	TRACE2	051005-1
7440-22-4	Silver	358	ug/kg			MS	44.6	ICPMS5	050509-4
7440-23-5	Sodium	168000	ug/kg			P	5040	TRACE2	051005-1
7440-28-0	Thallium	90.3	ug/kg	B		MS	89.2	ICPMS5	050509-4
7440-62-2	Vanadium	7970	ug/kg			P	112	TRACE2	051005-1
7440-66-6	Zinc	196000	ug/kg			P	224	TRACE2	051005-1

Comments:

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 3193S **METHOD TYPE:** SW846

SAMPLE ID: 135806007 **CLIENT ID:** RE03-05-59535

CONTRACT: LANL00101

MATRIX: S **DATE RECEIVED** 04-MAY-05 **LEVEL:** Low **%SOLIDS:** 90

CAS No	Analyte	Result	Units	C	Qual	M	MDL	Instrument ID	Analytical Run
7429-90-5	Aluminum	6860000	ug/kg			P	7550	TRACE2	051005-1
7440-36-0	Antimony	961	ug/kg		N	MS	111	ICPMS5	050509-4
7440-38-2	Arsenic	1490	ug/kg	B		P	666	TRACE2	051005-1
7440-39-3	Barium	51600	ug/kg		N	P	111	TRACE2	051005-1
7440-41-7	Beryllium	522	ug/kg			MS	22.3	ICPMS5	050509-4
7440-43-9	Cadmium	1180	ug/kg			P	111	TRACE2	051005-1
7440-70-2	Calcium	897000	ug/kg		N	P	4000	TRACE2	051005-1
7440-47-3	Chromium	13500	ug/kg		*	P	111	TRACE2	051005-1
7440-48-4	Cobalt	1480	ug/kg		*	P	222	TRACE2	051005-1
7440-50-8	Copper	9570	ug/kg		*	P	333	TRACE2	051005-1
7439-89-6	Iron	9930000	ug/kg		*	P	2000	TRACE2	051105-2
7439-92-1	Lead	137000	ug/kg		*	P	277	TRACE2	051005-1
7439-95-4	Magnesium	1000000	ug/kg		N	P	9430	TRACE2	051005-1
7439-96-5	Manganese	155000	ug/kg		*N	P	222	TRACE2	051005-1
7439-97-6	Mercury	11.9	ug/kg			AV	2.58	MER179	051005S2-3
7440-02-0	Nickel	6760	ug/kg			MS	111	ICPMS5	050509-4
7440-09-7	Potassium	962000	ug/kg		EN	P	5550	TRACE2	051005-1
7782-49-2	Selenium	666	ug/kg	U		P	666	TRACE2	051005-1
7440-22-4	Silver	74	ug/kg	B		MS	44.6	ICPMS5	050509-4
7440-23-5	Sodium	115000	ug/kg			P	4990	TRACE2	051005-1
7440-28-0	Thallium	91.8	ug/kg	B		MS	89.1	ICPMS5	050509-4
7440-62-2	Vanadium	8350	ug/kg			P	111	TRACE2	051005-1
7440-66-6	Zinc	113000	ug/kg			P	222	TRACE2	051005-1

Comments:

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 3193S **METHOD TYPE:** SW846

SAMPLE ID: 135806008 **CLIENT ID:** RE03-05-59536

CONTRACT: LANL00101

MATRIX: S **DATE RECEIVED** 04-MAY-05 **LEVEL:** Low **%SOLIDS:** 86

CAS No	Analyte	Result	Units	C	Qual	M	MDL	Instrument ID	Analytical Run
7429-90-5	Aluminum	11600000	ug/kg			P	7790	TRACE2	051005-1
7440-36-0	Antimony	158	ug/kg	B	N	MS	116	ICPMS5	050509-4
7440-38-2	Arsenic	1870	ug/kg			P	687	TRACE2	051005-1
7440-39-3	Barium	81200	ug/kg		N	P	115	TRACE2	051005-1
7440-41-7	Beryllium	788	ug/kg			MS	23.1	ICPMS5	050509-4
7440-43-9	Cadmium	384	ug/kg	B		P	115	TRACE2	051005-1
7440-70-2	Calcium	1300000	ug/kg		N	P	4120	TRACE2	051005-1
7440-47-3	Chromium	5010	ug/kg		*	P	115	TRACE2	051005-1
7440-48-4	Cobalt	1380	ug/kg		*	P	229	TRACE2	051005-1
7440-50-8	Copper	4680	ug/kg		*	P	344	TRACE2	051005-1
7439-89-6	Iron	7050000	ug/kg		*	P	2060	TRACE2	051105-2
7439-92-1	Lead	37600	ug/kg		*	P	286	TRACE2	051005-1
7439-95-4	Magnesium	1250000	ug/kg		N	P	9740	TRACE2	051005-1
7439-96-5	Manganese	147000	ug/kg		*N	P	229	TRACE2	051005-1
7439-97-6	Mercury	12.1	ug/kg			AV	2.76	MER179	051005S2-3
7440-02-0	Nickel	6470	ug/kg			MS	116	ICPMS5	050509-4
7440-09-7	Potassium	1220000	ug/kg		EN	P	5730	TRACE2	051005-1
7782-49-2	Selenium	687	ug/kg	U		P	687	TRACE2	051005-1
7440-22-4	Silver	82.2	ug/kg	B		MS	46.3	ICPMS5	050509-4
7440-23-5	Sodium	254000	ug/kg			P	5160	TRACE2	051005-1
7440-28-0	Thallium	120	ug/kg	B		MS	92.6	ICPMS5	050509-4
7440-62-2	Vanadium	8510	ug/kg			P	115	TRACE2	051005-1
7440-66-6	Zinc	56500	ug/kg			P	229	TRACE2	051005-1

Comments:

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 3193S **METHOD TYPE:** SW846

SAMPLE ID: 135806009 **CLIENT ID:** RE03-05-59537

CONTRACT: LANL00101

MATRIX: S **DATE RECEIVED** 04-MAY-05 **LEVEL:** Low **%SOLIDS:** 83

CAS No	Analyte	Result	Units	C	Qual	M	MDL	Instrument ID	Analytical Run
7429-90-5	Aluminum	13000000	ug/kg			P	8100	TRACE2	051005-1
7440-36-0	Antimony	214	ug/kg	B	N	MS	118	ICPMS5	050509-4
7440-38-2	Arsenic	1860	ug/kg			P	715	TRACE2	051005-1
7440-39-3	Barium	74900	ug/kg		N	P	119	TRACE2	051005-1
7440-41-7	Beryllium	692	ug/kg			MS	23.5	ICPMS5	050509-4
7440-43-9	Cadmium	406	ug/kg	B		P	119	TRACE2	051005-1
7440-70-2	Calcium	2720000	ug/kg		N	P	4290	TRACE2	051005-1
7440-47-3	Chromium	6300	ug/kg		*	P	119	TRACE2	051005-1
7440-48-4	Cobalt	1830	ug/kg		*	P	238	TRACE2	051005-1
7440-50-8	Copper	5670	ug/kg		*	P	357	TRACE2	051005-1
7439-89-6	Iron	8290000	ug/kg		*	P	2140	TRACE2	051105-2
7439-92-1	Lead	45800	ug/kg		*	P	298	TRACE2	051005-1
7439-95-4	Magnesium	1320000	ug/kg		N	P	10100	TRACE2	051005-1
7439-96-5	Manganese	235000	ug/kg		*N	P	238	TRACE2	051005-1
7439-97-6	Mercury	11.3	ug/kg			AV	2.83	MER179	051005S2-3
7440-02-0	Nickel	6180	ug/kg			MS	118	ICPMS5	050509-4
7440-09-7	Potassium	1490000	ug/kg		EN	P	5950	TRACE2	051005-1
7782-49-2	Selenium	715	ug/kg	U		P	715	TRACE2	051005-1
7440-22-4	Silver	58.1	ug/kg	B		MS	47.1	ICPMS5	050509-4
7440-23-5	Sodium	379000	ug/kg			P	5360	TRACE2	051005-1
7440-28-0	Thallium	116	ug/kg	B		MS	94.2	ICPMS5	050509-4
7440-62-2	Vanadium	9540	ug/kg			P	119	TRACE2	051005-1
7440-66-6	Zinc	61700	ug/kg			P	238	TRACE2	051005-1

Comments:

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 3193S **METHOD TYPE:** SW846

SAMPLE ID: 135806010 **CLIENT ID:** RE03-05-59538

CONTRACT: LANL00101

MATRIX: S **DATE RECEIVED** 04-MAY-05 **LEVEL:** Low **%SOLIDS:** 76

CAS No	Analyte	Result	Units	C	Qual	M	MDL	Instrument ID	Analytical Run
7429-90-5	Aluminum	14400000	ug/kg			P	8920	TRACE2	051005-1
7440-36-0	Antimony	281	ug/kg	B	N	MS	128	ICPMS5	050509-4
7440-38-2	Arsenic	2270	ug/kg			P	787	TRACE2	051005-1
7440-39-3	Barium	82100	ug/kg		N	P	131	TRACE2	051005-1
7440-41-7	Beryllium	1260	ug/kg			MS	25.6	ICPMS5	050509-4
7440-43-9	Cadmium	131	ug/kg	U		P	131	TRACE2	051005-1
7440-70-2	Calcium	1510000	ug/kg		N	P	4720	TRACE2	051005-1
7440-47-3	Chromium	4830	ug/kg		*	P	131	TRACE2	051005-1
7440-48-4	Cobalt	1460	ug/kg		*	P	262	TRACE2	051005-1
7440-50-8	Copper	4240	ug/kg		*	P	394	TRACE2	051005-1
7439-89-6	Iron	6890000	ug/kg		*	P	2360	TRACE2	051105-2
7439-92-1	Lead	8760	ug/kg		*	P	328	TRACE2	051005-1
7439-95-4	Magnesium	1270000	ug/kg		N	P	11200	TRACE2	051005-1
7439-96-5	Manganese	162000	ug/kg		*N	P	262	TRACE2	051005-1
7439-97-6	Mercury	27.2	ug/kg			AV	3.11	MER179	051005S2-3
7440-02-0	Nickel	8280	ug/kg			MS	128	ICPMS5	050509-4
7440-09-7	Potassium	1550000	ug/kg		EN	P	6560	TRACE2	051005-1
7782-49-2	Selenium	787	ug/kg	U		P	787	TRACE2	051005-1
7440-22-4	Silver	66.1	ug/kg	B		MS	51.3	ICPMS5	050509-4
7440-23-5	Sodium	298000	ug/kg			P	5900	TRACE2	051005-1
7440-28-0	Thallium	146	ug/kg	B		MS	103	ICPMS5	050509-4
7440-62-2	Vanadium	9680	ug/kg			P	131	TRACE2	051005-1
7440-66-6	Zinc	21400	ug/kg			P	262	TRACE2	051005-1

Comments:

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 3193S **METHOD TYPE:** SW846

SAMPLE ID: 135806011 **CLIENT ID:** RE03-05-59539

CONTRACT: LANL00101

MATRIX: S **DATE RECEIVED** 04-MAY-05 **LEVEL:** Low **%SOLIDS:** 81

CAS No	Analyte	Result	Units	C	Qual	M	MDL	Instrument ID	Analytical Run
7429-90-5	Aluminum	13400000	ug/kg			P	8270	TRACE2	051005-1
7440-36-0	Antimony	640	ug/kg		N	MS	122	ICPMS5	050509-4
7440-38-2	Arsenic	1780	ug/kg	B		P	730	TRACE2	051005-1
7440-39-3	Barium	302000	ug/kg		N	P	122	TRACE2	051005-1
7440-41-7	Beryllium	1050	ug/kg			MS	24.4	ICPMS5	050509-4
7440-43-9	Cadmium	623	ug/kg			P	122	TRACE2	051005-1
7440-70-2	Calcium	4940000	ug/kg		N	P	4380	TRACE2	051005-1
7440-47-3	Chromium	6230	ug/kg		*	P	122	TRACE2	051005-1
7440-48-4	Cobalt	2000	ug/kg		*	P	243	TRACE2	051005-1
7440-50-8	Copper	7310	ug/kg		*	P	365	TRACE2	051005-1
7439-89-6	Iron	8230000	ug/kg		*	P	2190	TRACE2	051105-2
7439-92-1	Lead	37100	ug/kg		*	P	304	TRACE2	051005-1
7439-95-4	Magnesium	1410000	ug/kg		N	P	10300	TRACE2	051005-1
7439-96-5	Manganese	188000	ug/kg		*N	P	243	TRACE2	051005-1
7439-97-6	Mercury	15.5	ug/kg			AV	3.08	MER179	051005S2-3
7440-02-0	Nickel	11200	ug/kg			MS	122	ICPMS5	050509-4
7440-09-7	Potassium	1620000	ug/kg		EN	P	6080	TRACE2	051005-1
7782-49-2	Selenium	874	ug/kg	B		P	730	TRACE2	051005-1
7440-22-4	Silver	70.4	ug/kg	B		MS	48.8	ICPMS5	050509-4
7440-23-5	Sodium	353000	ug/kg			P	5470	TRACE2	051005-1
7440-28-0	Thallium	157	ug/kg	B		MS	97.5	ICPMS5	050509-4
7440-62-2	Vanadium	11200	ug/kg			P	122	TRACE2	051005-1
7440-66-6	Zinc	59100	ug/kg			P	243	TRACE2	051005-1

Comments:

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 3193S **METHOD TYPE:** SW846

SAMPLE ID: 135806012 **CLIENT ID:** RE03-05-59540

CONTRACT: LANL00101

MATRIX: S **DATE RECEIVED** 04-MAY-05 **LEVEL:** Low **%SOLIDS:** 78

CAS No	Analyte	Result	Units	C	Qual	M	MDL	Instrument ID	Analytical Run
7429-90-5	Aluminum	14900000	ug/kg			P	8550	TRACE2	051005-1
7440-36-0	Antimony	216	ug/kg	B	N	MS	125	ICPMS5	050509-4
7440-38-2	Arsenic	2110	ug/kg			P	755	TRACE2	051005-1
7440-39-3	Barium	96900	ug/kg		N	P	126	TRACE2	051005-1
7440-41-7	Beryllium	1030	ug/kg			MS	24.9	ICPMS5	050509-4
7440-43-9	Cadmium	188	ug/kg	B		P	126	TRACE2	051005-1
7440-70-2	Calcium	2080000	ug/kg		N	P	4530	TRACE2	051005-1
7440-47-3	Chromium	5380	ug/kg		*	P	126	TRACE2	051005-1
7440-48-4	Cobalt	2230	ug/kg		*	P	252	TRACE2	051005-1
7440-50-8	Copper	5390	ug/kg		*	P	377	TRACE2	051005-1
7439-89-6	Iron	7690000	ug/kg		*	P	2260	TRACE2	051105-2
7439-92-1	Lead	18500	ug/kg		*	P	314	TRACE2	051005-1
7439-95-4	Magnesium	1470000	ug/kg		N	P	10700	TRACE2	051005-1
7439-96-5	Manganese	236000	ug/kg		*N	P	252	TRACE2	051005-1
7439-97-6	Mercury	15.3	ug/kg			AV	2.96	MER179	051005S2-3
7440-02-0	Nickel	7880	ug/kg			MS	125	ICPMS5	050509-4
7440-09-7	Potassium	1720000	ug/kg		EN	P	6290	TRACE2	051005-1
7782-49-2	Selenium	755	ug/kg	U		P	755	TRACE2	051005-1
7440-22-4	Silver	64.5	ug/kg	B		MS	49.8	ICPMS5	050509-4
7440-23-5	Sodium	387000	ug/kg			P	5660	TRACE2	051005-1
7440-28-0	Thallium	170	ug/kg	B		MS	99.6	ICPMS5	050509-4
7440-62-2	Vanadium	11200	ug/kg			P	126	TRACE2	051005-1
7440-66-6	Zinc	33100	ug/kg			P	252	TRACE2	051005-1

Comments:

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 3193S **METHOD TYPE:** SW846

SAMPLE ID: 135806013 **CLIENT ID:** RE03-05-59543

CONTRACT: LANL00101

MATRIX: S **DATE RECEIVED** 04-MAY-05 **LEVEL:** Low **%SOLIDS:** 84

CAS No	Analyte	Result	Units	C	Qual	M	MDL	Instrument ID	Analytical Run
7429-90-5	Aluminum	5800000	ug/kg			P	7990	TRACE2	051005-1
7440-36-0	Antimony	119	ug/kg	U	N	MS	119	ICPMS5	050509-4
7440-38-2	Arsenic	761	ug/kg	B		P	705	TRACE2	051005-1
7440-39-3	Barium	23700	ug/kg		N	P	118	TRACE2	051005-1
7440-41-7	Beryllium	564	ug/kg			MS	23.8	ICPMS5	050509-4
7440-43-9	Cadmium	1500	ug/kg			P	118	TRACE2	051005-1
7440-70-2	Calcium	609000	ug/kg		N	P	4230	TRACE2	051005-1
7440-47-3	Chromium	2060	ug/kg		*	P	118	TRACE2	051005-1
7440-48-4	Cobalt	520	ug/kg	B	*	P	235	TRACE2	051005-1
7440-50-8	Copper	4020	ug/kg		*	P	353	TRACE2	051005-1
7439-89-6	Iron	4990000	ug/kg		*	P	2120	TRACE2	051105-2
7439-92-1	Lead	4210	ug/kg		*	P	294	TRACE2	051005-1
7439-95-4	Magnesium	549000	ug/kg		N	P	9990	TRACE2	051005-1
7439-96-5	Manganese	98400	ug/kg		*N	P	235	TRACE2	051005-1
7439-97-6	Mercury	8.6	ug/kg	B		AV	2.93	MER179	051005S2-3
7440-02-0	Nickel	6580	ug/kg			MS	119	ICPMS5	050509-4
7440-09-7	Potassium	656000	ug/kg		EN	P	5880	TRACE2	051005-1
7782-49-2	Selenium	705	ug/kg	U		P	705	TRACE2	051005-1
7440-22-4	Silver	47.7	ug/kg	U		MS	47.7	ICPMS5	050509-4
7440-23-5	Sodium	139000	ug/kg			P	5290	TRACE2	051005-1
7440-28-0	Thallium	95.4	ug/kg	U		MS	95.4	ICPMS5	050509-4
7440-62-2	Vanadium	4600	ug/kg			P	118	TRACE2	051005-1
7440-66-6	Zinc	41300	ug/kg			P	235	TRACE2	051005-1

Comments:

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 3193S **METHOD TYPE:** SW846

SAMPLE ID: 135806014 **CLIENT ID:** RE03-05-59544

CONTRACT: LANL00101

MATRIX: S **DATE RECEIVED** 04-MAY-05 **LEVEL:** Low **%SOLIDS:** 77

CAS No	Analyte	Result	Units	C	Qual	M	MDL	Instrument ID	Analytical Run
7429-90-5	Aluminum	15500000	ug/kg			P	8770	TRACE2	051005-1
7440-36-0	Antimony	193	ug/kg	B	N	MS	126	ICPMS5	050509-4
7440-38-2	Arsenic	2440	ug/kg			P	774	TRACE2	051005-1
7440-39-3	Barium	90300	ug/kg		N	P	129	TRACE2	051005-1
7440-41-7	Beryllium	1110	ug/kg			MS	25.3	ICPMS5	050509-4
7440-43-9	Cadmium	312	ug/kg	B		P	129	TRACE2	051005-1
7440-70-2	Calcium	3710000	ug/kg		N	P	4650	TRACE2	051005-1
7440-47-3	Chromium	6930	ug/kg		*	P	129	TRACE2	051005-1
7440-48-4	Cobalt	2740	ug/kg		*	P	258	TRACE2	051005-1
7440-50-8	Copper	6310	ug/kg		*	P	387	TRACE2	051005-1
7439-89-6	Iron	9710000	ug/kg		*	P	2320	TRACE2	051105-2
7439-92-1	Lead	44000	ug/kg		*	P	323	TRACE2	051005-1
7439-95-4	Magnesium	1870000	ug/kg		N	P	11000	TRACE2	051005-1
7439-96-5	Manganese	278000	ug/kg		*N	P	258	TRACE2	051005-1
7439-97-6	Mercury	14.9	ug/kg			AV	3.12	MER179	051005S2-3
7440-02-0	Nickel	7690	ug/kg			MS	126	ICPMS5	050509-4
7440-09-7	Potassium	1780000	ug/kg		EN	P	6450	TRACE2	051005-1
7782-49-2	Selenium	774	ug/kg	U		P	774	TRACE2	051005-1
7440-22-4	Silver	74	ug/kg	B		MS	50.5	ICPMS5	050509-4
7440-23-5	Sodium	380000	ug/kg			P	5810	TRACE2	051005-1
7440-28-0	Thallium	192	ug/kg	B		MS	101	ICPMS5	050509-4
7440-62-2	Vanadium	12900	ug/kg			P	129	TRACE2	051005-1
7440-66-6	Zinc	47200	ug/kg			P	258	TRACE2	051005-1

Comments:

QUALITY CONTROL DATA

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 3193S

Contract: LANL00101 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS5,MER179,TRACE2

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
ICV01										
	Antimony	49.88	ug/L	50	ug/L	99.8	90.0 – 110.0	MS	09-MAY-05 17:33	050509-4
	Beryllium	50.84	ug/L	50	ug/L	101.7	90.0 – 110.0	MS	09-MAY-05 17:33	050509-4
	Nickel	50.38	ug/L	50	ug/L	100.8	90.0 – 110.0	MS	09-MAY-05 17:33	050509-4
	Silver	50.97	ug/L	50	ug/L	101.9	90.0 – 110.0	MS	09-MAY-05 17:33	050509-4
	Thallium	50.72	ug/L	50	ug/L	101.4	90.0 – 110.0	MS	09-MAY-05 17:33	050509-4
	Aluminum	4952.57	ug/L	5000	ug/L	99.1	90.0 – 110.0	P	10-MAY-05 13:50	051005-1
	Arsenic	499.85	ug/L	500	ug/L	100	90.0 – 110.0	P	10-MAY-05 13:50	051005-1
	Barium	501.64	ug/L	500	ug/L	100.3	90.0 – 110.0	P	10-MAY-05 13:50	051005-1
	Cadmium	487.8	ug/L	500	ug/L	97.6	90.0 – 110.0	P	10-MAY-05 13:50	051005-1
	Calcium	4967.84	ug/L	5000	ug/L	99.4	90.0 – 110.0	P	10-MAY-05 13:50	051005-1
	Chromium	500.24	ug/L	500	ug/L	100.1	90.0 – 110.0	P	10-MAY-05 13:50	051005-1
	Cobalt	489.41	ug/L	500	ug/L	97.9	90.0 – 110.0	P	10-MAY-05 13:50	051005-1
	Copper	491.05	ug/L	500	ug/L	98.2	90.0 – 110.0	P	10-MAY-05 13:50	051005-1
	Iron	4778.74	ug/L	5000	ug/L	95.6	90.0 – 110.0	P	10-MAY-05 13:50	051005-1
	Lead	487.54	ug/L	500	ug/L	97.5	90.0 – 110.0	P	10-MAY-05 13:50	051005-1
	Magnesium	4897.1	ug/L	5000	ug/L	97.9	90.0 – 110.0	P	10-MAY-05 13:50	051005-1
	Manganese	487.68	ug/L	500	ug/L	97.5	90.0 – 110.0	P	10-MAY-05 13:50	051005-1
	Potassium	2440.44	ug/L	2500	ug/L	97.6	90.0 – 110.0	P	10-MAY-05 13:50	051005-1
	Selenium	2466.99	ug/L	2500	ug/L	98.7	90.0 – 110.0	P	10-MAY-05 13:50	051005-1
	Sodium	2486.98	ug/L	2500	ug/L	99.5	90.0 – 110.0	P	10-MAY-05 13:50	051005-1
	Vanadium	488.69	ug/L	500	ug/L	97.7	90.0 – 110.0	P	10-MAY-05 13:50	051005-1
	Zinc	490.08	ug/L	500	ug/L	98	90.0 – 110.0	P	10-MAY-05 13:50	051005-1
	Mercury	5.05	ug/L	5	ug/L	100.9	90.0 – 110.0	AV	10-MAY-05 18:23	051005S2-3
	Iron	4965.92	ug/L	5000	ug/L	99.3	90.0 – 110.0	P	11-MAY-05 08:15	051105-2
CCV01										
	Antimony	49.65	ug/L	50	ug/L	99.3	90.0 – 110.0	MS	09-MAY-05 17:58	050509-4
	Beryllium	52.03	ug/L	50	ug/L	104.1	90.0 – 110.0	MS	09-MAY-05 17:58	050509-4
	Nickel	50.72	ug/L	50	ug/L	101.4	90.0 – 110.0	MS	09-MAY-05 17:58	050509-4
	Silver	50.58	ug/L	50	ug/L	101.2	90.0 – 110.0	MS	09-MAY-05 17:58	050509-4
	Thallium	50.48	ug/L	50	ug/L	101	90.0 – 110.0	MS	09-MAY-05 17:58	050509-4

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 3193S

Contract: LANL00101 **Lab Code:** GEL

Initial Calibration Source:

Continuing Calibration Source:

Instrument ID: ICPMS5,MER179,TRACE2

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Aluminum	5092.72	ug/L	5000	ug/L	101.9	90.0 – 110.0	P	10–MAY–05 14:39	051005–1
	Arsenic	515.35	ug/L	500	ug/L	103.1	90.0 – 110.0	P	10–MAY–05 14:39	051005–1
	Barium	504.09	ug/L	500	ug/L	100.8	90.0 – 110.0	P	10–MAY–05 14:39	051005–1
	Cadmium	509.2	ug/L	500	ug/L	101.8	90.0 – 110.0	P	10–MAY–05 14:39	051005–1
	Calcium	4988.83	ug/L	5000	ug/L	99.8	90.0 – 110.0	P	10–MAY–05 14:39	051005–1
	Chromium	499.01	ug/L	500	ug/L	99.8	90.0 – 110.0	P	10–MAY–05 14:39	051005–1
	Cobalt	503.83	ug/L	500	ug/L	100.8	90.0 – 110.0	P	10–MAY–05 14:39	051005–1
	Copper	501.85	ug/L	500	ug/L	100.4	90.0 – 110.0	P	10–MAY–05 14:39	051005–1
	Iron	4597.97	ug/L	5000	ug/L	92	90.0 – 110.0	P	10–MAY–05 14:39	051005–1
	Lead	513.66	ug/L	500	ug/L	102.7	90.0 – 110.0	P	10–MAY–05 14:39	051005–1
	Magnesium	5068.73	ug/L	5000	ug/L	101.4	90.0 – 110.0	P	10–MAY–05 14:39	051005–1
	Manganese	480.12	ug/L	500	ug/L	96	90.0 – 110.0	P	10–MAY–05 14:39	051005–1
	Potassium	5177.2	ug/L	5000	ug/L	103.5	90.0 – 110.0	P	10–MAY–05 14:39	051005–1
	Selenium	516.5	ug/L	500	ug/L	103.3	90.0 – 110.0	P	10–MAY–05 14:39	051005–1
	Sodium	10355.32	ug/L	10000	ug/L	103.6	90.0 – 110.0	P	10–MAY–05 14:39	051005–1
	Vanadium	488.61	ug/L	500	ug/L	97.7	90.0 – 110.0	P	10–MAY–05 14:39	051005–1
	Zinc	503.58	ug/L	500	ug/L	100.7	90.0 – 110.0	P	10–MAY–05 14:39	051005–1
	Mercury	5.14	ug/L	5	ug/L	102.9	80.0 – 120.0	AV	10–MAY–05 18:29	051005S2–3
	Iron	5108.62	ug/L	5000	ug/L	102.2	90.0 – 110.0	P	11–MAY–05 08:59	051105–2
CCV02										
	Antimony	48.81	ug/L	50	ug/L	97.6	90.0 – 110.0	MS	09–MAY–05 18:50	050509–4
	Beryllium	51.29	ug/L	50	ug/L	102.6	90.0 – 110.0	MS	09–MAY–05 18:50	050509–4
	Nickel	50.7	ug/L	50	ug/L	101.4	90.0 – 110.0	MS	09–MAY–05 18:50	050509–4
	Silver	50.55	ug/L	50	ug/L	101.1	90.0 – 110.0	MS	09–MAY–05 18:50	050509–4
	Thallium	51.03	ug/L	50	ug/L	102.1	90.0 – 110.0	MS	09–MAY–05 18:50	050509–4
	Aluminum	5019.01	ug/L	5000	ug/L	100.4	90.0 – 110.0	P	10–MAY–05 15:44	051005–1
	Arsenic	536.24	ug/L	500	ug/L	107.3	90.0 – 110.0	P	10–MAY–05 15:44	051005–1
	Barium	506.03	ug/L	500	ug/L	101.2	90.0 – 110.0	P	10–MAY–05 15:44	051005–1
	Cadmium	518.78	ug/L	500	ug/L	103.8	90.0 – 110.0	P	10–MAY–05 15:44	051005–1
	Calcium	5027.4	ug/L	5000	ug/L	100.6	90.0 – 110.0	P	10–MAY–05 15:44	051005–1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 3193S

Contract: LANL00101 **Lab Code:** GEL

Initial Calibration Source:

Continuing Calibration Source:

Instrument ID: ICPMS5,MER179,TRACE2

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Chromium	498.93	ug/L	500	ug/L	99.8	90.0 – 110.0	P	10-MAY-05 15:44	051005-1
	Cobalt	511.68	ug/L	500	ug/L	102.3	90.0 – 110.0	P	10-MAY-05 15:44	051005-1
	Copper	502.88	ug/L	500	ug/L	100.6	90.0 – 110.0	P	10-MAY-05 15:44	051005-1
	Iron	4250.09	ug/L	5000	ug/L	85	90.0 – 110.0	P	10-MAY-05 15:44	051005-1
	Lead	518.48	ug/L	500	ug/L	103.7	90.0 – 110.0	P	10-MAY-05 15:44	051005-1
	Magnesium	5050.16	ug/L	5000	ug/L	101	90.0 – 110.0	P	10-MAY-05 15:44	051005-1
	Manganese	467.45	ug/L	500	ug/L	93.5	90.0 – 110.0	P	10-MAY-05 15:44	051005-1
	Potassium	5368.84	ug/L	5000	ug/L	107.4	90.0 – 110.0	P	10-MAY-05 15:44	051005-1
	Selenium	525.21	ug/L	500	ug/L	105	90.0 – 110.0	P	10-MAY-05 15:44	051005-1
	Sodium	10719.33	ug/L	10000	ug/L	107.2	90.0 – 110.0	P	10-MAY-05 15:44	051005-1
	Vanadium	481.28	ug/L	500	ug/L	96.3	90.0 – 110.0	P	10-MAY-05 15:44	051005-1
	Zinc	510.22	ug/L	500	ug/L	102	90.0 – 110.0	P	10-MAY-05 15:44	051005-1
	Mercury	5.15	ug/L	5	ug/L	103	80.0 – 120.0	AV	10-MAY-05 18:53	051005S2-3
	Iron	5227.2	ug/L	5000	ug/L	104.5	90.0 – 110.0	P	11-MAY-05 09:57	051105-2
CCV03										
	Antimony	49.13	ug/L	50	ug/L	98.3	90.0 – 110.0	MS	09-MAY-05 19:37	050509-4
	Beryllium	50.97	ug/L	50	ug/L	101.9	90.0 – 110.0	MS	09-MAY-05 19:37	050509-4
	Nickel	51.43	ug/L	50	ug/L	102.9	90.0 – 110.0	MS	09-MAY-05 19:37	050509-4
	Silver	50.63	ug/L	50	ug/L	101.3	90.0 – 110.0	MS	09-MAY-05 19:37	050509-4
	Thallium	49.87	ug/L	50	ug/L	99.8	90.0 – 110.0	MS	09-MAY-05 19:37	050509-4
	Aluminum	5075.96	ug/L	5000	ug/L	101.5	90.0 – 110.0	P	10-MAY-05 16:10	051005-1
	Arsenic	506.77	ug/L	500	ug/L	101.4	90.0 – 110.0	P	10-MAY-05 16:10	051005-1
	Barium	496.66	ug/L	500	ug/L	99.3	90.0 – 110.0	P	10-MAY-05 16:10	051005-1
	Cadmium	507.62	ug/L	500	ug/L	101.5	90.0 – 110.0	P	10-MAY-05 16:10	051005-1
	Calcium	5052.04	ug/L	5000	ug/L	101	90.0 – 110.0	P	10-MAY-05 16:10	051005-1
	Chromium	504.63	ug/L	500	ug/L	100.9	90.0 – 110.0	P	10-MAY-05 16:10	051005-1
	Cobalt	504.38	ug/L	500	ug/L	100.9	90.0 – 110.0	P	10-MAY-05 16:10	051005-1
	Copper	487.96	ug/L	500	ug/L	97.6	90.0 – 110.0	P	10-MAY-05 16:10	051005-1
	Iron	5443.12	ug/L	5000	ug/L	108.9	90.0 – 110.0	P	10-MAY-05 16:10	051005-1
	Lead	508.97	ug/L	500	ug/L	101.8	90.0 – 110.0	P	10-MAY-05 16:10	051005-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 3193S

Contract: LANL00101 **Lab Code:** GEL

Initial Calibration Source:

Continuing Calibration Source:

Instrument ID: ICPMS5,MER179,TRACE2

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Magnesium	5240.24	ug/L	5000	ug/L	104.8	90.0 – 110.0	P	10-MAY-05 16:10	051005-1
	Manganese	518.79	ug/L	500	ug/L	103.8	90.0 – 110.0	P	10-MAY-05 16:10	051005-1
	Potassium	5308.13	ug/L	5000	ug/L	106.2	90.0 – 110.0	P	10-MAY-05 16:10	051005-1
	Selenium	512.72	ug/L	500	ug/L	102.5	90.0 – 110.0	P	10-MAY-05 16:10	051005-1
	Sodium	10521.51	ug/L	10000	ug/L	105.2	90.0 – 110.0	P	10-MAY-05 16:10	051005-1
	Vanadium	507.73	ug/L	500	ug/L	101.6	90.0 – 110.0	P	10-MAY-05 16:10	051005-1
	Zinc	499.43	ug/L	500	ug/L	99.9	90.0 – 110.0	P	10-MAY-05 16:10	051005-1
	Mercury	5.18	ug/L	5	ug/L	103.7	80.0 – 120.0	AV	10-MAY-05 19:17	051005S2-3
	Iron	5178.61	ug/L	5000	ug/L	103.6	90.0 – 110.0	P	11-MAY-05 10:50	051105-2
CCV04										
	Antimony	48.85	ug/L	50	ug/L	97.7	90.0 – 110.0	MS	09-MAY-05 20:13	050509-4
	Beryllium	51.69	ug/L	50	ug/L	103.4	90.0 – 110.0	MS	09-MAY-05 20:13	050509-4
	Nickel	51.85	ug/L	50	ug/L	103.7	90.0 – 110.0	MS	09-MAY-05 20:13	050509-4
	Silver	50.13	ug/L	50	ug/L	100.3	90.0 – 110.0	MS	09-MAY-05 20:13	050509-4
	Thallium	49.85	ug/L	50	ug/L	99.7	90.0 – 110.0	MS	09-MAY-05 20:13	050509-4
	Aluminum	4962.16	ug/L	5000	ug/L	99.2	90.0 – 110.0	P	10-MAY-05 17:10	051005-1
	Arsenic	513.4	ug/L	500	ug/L	102.7	90.0 – 110.0	P	10-MAY-05 17:10	051005-1
	Barium	490.66	ug/L	500	ug/L	98.1	90.0 – 110.0	P	10-MAY-05 17:10	051005-1
	Cadmium	505.9	ug/L	500	ug/L	101.2	90.0 – 110.0	P	10-MAY-05 17:10	051005-1
	Calcium	4985.37	ug/L	5000	ug/L	99.7	90.0 – 110.0	P	10-MAY-05 17:10	051005-1
	Chromium	496.13	ug/L	500	ug/L	99.2	90.0 – 110.0	P	10-MAY-05 17:10	051005-1
	Cobalt	502.73	ug/L	500	ug/L	100.6	90.0 – 110.0	P	10-MAY-05 17:10	051005-1
	Copper	474.4	ug/L	500	ug/L	94.9	90.0 – 110.0	P	10-MAY-05 17:10	051005-1
	Iron	5131.68	ug/L	5000	ug/L	102.6	90.0 – 110.0	P	10-MAY-05 17:10	051005-1
	Lead	512.95	ug/L	500	ug/L	102.6	90.0 – 110.0	P	10-MAY-05 17:10	051005-1
	Magnesium	5194.63	ug/L	5000	ug/L	103.9	90.0 – 110.0	P	10-MAY-05 17:10	051005-1
	Manganese	500.21	ug/L	500	ug/L	100	90.0 – 110.0	P	10-MAY-05 17:10	051005-1
	Potassium	5614.47	ug/L	5000	ug/L	112.3	90.0 – 110.0	P	10-MAY-05 17:10	051005-1
	Selenium	512.05	ug/L	500	ug/L	102.4	90.0 – 110.0	P	10-MAY-05 17:10	051005-1
	Sodium	11012.96	ug/L	10000	ug/L	110.1	90.0 – 110.0	P	10-MAY-05 17:10	051005-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 3193S

Contract: LANL00101 **Lab Code:** GEL

Initial Calibration Source:

Continuing Calibration Source:

Instrument ID: ICPMS5,MER179,TRACE2

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Vanadium	492.31	ug/L	500	ug/L	98.5	90.0 – 110.0	P	10-MAY-05 17:10	051005-1
	Zinc	494.21	ug/L	500	ug/L	98.8	90.0 – 110.0	P	10-MAY-05 17:10	051005-1
	Mercury	5.19	ug/L	5	ug/L	103.8	80.0 – 120.0	AV	10-MAY-05 19:41	051005S2-3
	Iron	5169.49	ug/L	5000	ug/L	103.4	90.0 – 110.0	P	11-MAY-05 11:43	051105-2
CCV05										
	Aluminum	4996.12	ug/L	5000	ug/L	99.9	90.0 – 110.0	P	10-MAY-05 17:53	051005-1
	Arsenic	512.57	ug/L	500	ug/L	102.5	90.0 – 110.0	P	10-MAY-05 17:53	051005-1
	Barium	506.63	ug/L	500	ug/L	101.3	90.0 – 110.0	P	10-MAY-05 17:53	051005-1
	Cadmium	498.11	ug/L	500	ug/L	99.6	90.0 – 110.0	P	10-MAY-05 17:53	051005-1
	Calcium	4990.84	ug/L	5000	ug/L	99.8	90.0 – 110.0	P	10-MAY-05 17:53	051005-1
	Chromium	493.39	ug/L	500	ug/L	98.7	90.0 – 110.0	P	10-MAY-05 17:53	051005-1
	Cobalt	501.38	ug/L	500	ug/L	100.3	90.0 – 110.0	P	10-MAY-05 17:53	051005-1
	Copper	494.35	ug/L	500	ug/L	98.9	90.0 – 110.0	P	10-MAY-05 17:53	051005-1
	Iron	4971.41	ug/L	5000	ug/L	99.4	90.0 – 110.0	P	10-MAY-05 17:53	051005-1
	Lead	506.66	ug/L	500	ug/L	101.3	90.0 – 110.0	P	10-MAY-05 17:53	051005-1
	Magnesium	5017.55	ug/L	5000	ug/L	100.4	90.0 – 110.0	P	10-MAY-05 17:53	051005-1
	Manganese	495.04	ug/L	500	ug/L	99	90.0 – 110.0	P	10-MAY-05 17:53	051005-1
	Potassium	5158.83	ug/L	5000	ug/L	103.2	90.0 – 110.0	P	10-MAY-05 17:53	051005-1
	Selenium	515.96	ug/L	500	ug/L	103.2	90.0 – 110.0	P	10-MAY-05 17:53	051005-1
	Sodium	10365.91	ug/L	10000	ug/L	103.7	90.0 – 110.0	P	10-MAY-05 17:53	051005-1
	Vanadium	491.2	ug/L	500	ug/L	98.2	90.0 – 110.0	P	10-MAY-05 17:53	051005-1
	Zinc	498.88	ug/L	500	ug/L	99.8	90.0 – 110.0	P	10-MAY-05 17:53	051005-1
CCV06										
	Aluminum	5017.02	ug/L	5000	ug/L	100.3	90.0 – 110.0	P	10-MAY-05 19:04	051005-1
	Arsenic	532.45	ug/L	500	ug/L	106.5	90.0 – 110.0	P	10-MAY-05 19:04	051005-1
	Barium	511.22	ug/L	500	ug/L	102.2	90.0 – 110.0	P	10-MAY-05 19:04	051005-1
	Cadmium	507.41	ug/L	500	ug/L	101.5	90.0 – 110.0	P	10-MAY-05 19:04	051005-1
	Calcium	5082.54	ug/L	5000	ug/L	101.7	90.0 – 110.0	P	10-MAY-05 19:04	051005-1
	Chromium	496.03	ug/L	500	ug/L	99.2	90.0 – 110.0	P	10-MAY-05 19:04	051005-1
	Cobalt	511.73	ug/L	500	ug/L	102.4	90.0 – 110.0	P	10-MAY-05 19:04	051005-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 3193S

Contract: LANL00101 **Lab Code:** GEL

Initial Calibration Source:

Continuing Calibration Source:

Instrument ID: ICPMS5,MER179,TRACE2

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Copper	497.05	ug/L	500	ug/L	99.4	90.0 – 110.0	P	10-MAY-05 19:04	051005-1
	Iron	4926.85	ug/L	5000	ug/L	98.5	90.0 – 110.0	P	10-MAY-05 19:04	051005-1
	Lead	517.61	ug/L	500	ug/L	103.5	90.0 – 110.0	P	10-MAY-05 19:04	051005-1
	Magnesium	5090.89	ug/L	5000	ug/L	101.8	90.0 – 110.0	P	10-MAY-05 19:04	051005-1
	Manganese	493.93	ug/L	500	ug/L	98.8	90.0 – 110.0	P	10-MAY-05 19:04	051005-1
	Potassium	5458.68	ug/L	5000	ug/L	109.2	90.0 – 110.0	P	10-MAY-05 19:04	051005-1
	Selenium	534.66	ug/L	500	ug/L	106.9	90.0 – 110.0	P	10-MAY-05 19:04	051005-1
	Sodium	10912.39	ug/L	10000	ug/L	109.1	90.0 – 110.0	P	10-MAY-05 19:04	051005-1
	Vanadium	489.93	ug/L	500	ug/L	98	90.0 – 110.0	P	10-MAY-05 19:04	051005-1
	Zinc	509.49	ug/L	500	ug/L	101.9	90.0 – 110.0	P	10-MAY-05 19:04	051005-1
CCV07										
	Aluminum	4954.96	ug/L	5000	ug/L	99.1	90.0 – 110.0	P	10-MAY-05 20:15	051005-1
	Arsenic	519.72	ug/L	500	ug/L	103.9	90.0 – 110.0	P	10-MAY-05 20:15	051005-1
	Barium	498.26	ug/L	500	ug/L	99.7	90.0 – 110.0	P	10-MAY-05 20:15	051005-1
	Cadmium	497.57	ug/L	500	ug/L	99.5	90.0 – 110.0	P	10-MAY-05 20:15	051005-1
	Calcium	4942.34	ug/L	5000	ug/L	98.9	90.0 – 110.0	P	10-MAY-05 20:15	051005-1
	Chromium	486.47	ug/L	500	ug/L	97.3	90.0 – 110.0	P	10-MAY-05 20:15	051005-1
	Cobalt	498.18	ug/L	500	ug/L	99.6	90.0 – 110.0	P	10-MAY-05 20:15	051005-1
	Copper	482.89	ug/L	500	ug/L	96.6	90.0 – 110.0	P	10-MAY-05 20:15	051005-1
	Iron	5104.78	ug/L	5000	ug/L	102.1	90.0 – 110.0	P	10-MAY-05 20:15	051005-1
	Lead	504.49	ug/L	500	ug/L	100.9	90.0 – 110.0	P	10-MAY-05 20:15	051005-1
	Magnesium	5029.7	ug/L	5000	ug/L	100.6	90.0 – 110.0	P	10-MAY-05 20:15	051005-1
	Manganese	494.74	ug/L	500	ug/L	99	90.0 – 110.0	P	10-MAY-05 20:15	051005-1
	Potassium	5362.5	ug/L	5000	ug/L	107.3	90.0 – 110.0	P	10-MAY-05 20:15	051005-1
	Selenium	516.47	ug/L	500	ug/L	103.3	90.0 – 110.0	P	10-MAY-05 20:15	051005-1
	Sodium	10644.98	ug/L	10000	ug/L	106.5	90.0 – 110.0	P	10-MAY-05 20:15	051005-1
	Vanadium	487.28	ug/L	500	ug/L	97.5	90.0 – 110.0	P	10-MAY-05 20:15	051005-1
	Zinc	495.69	ug/L	500	ug/L	99.1	90.0 – 110.0	P	10-MAY-05 20:15	051005-1
CCV08										
	Aluminum	5030.23	ug/L	5000	ug/L	100.6	90.0 – 110.0	P	10-MAY-05 21:26	051005-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 3193S

Contract: LANL00101 **Lab Code:** GEL

Initial Calibration Source:

Continuing Calibration Source:

Instrument ID: ICPMS5,MER179,TRACE2

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Arsenic	503.02	ug/L	500	ug/L	100.6	90.0 – 110.0	P	10-MAY-05 21:26	051005-1
	Barium	497.32	ug/L	500	ug/L	99.5	90.0 – 110.0	P	10-MAY-05 21:26	051005-1
	Cadmium	494.38	ug/L	500	ug/L	98.9	90.0 – 110.0	P	10-MAY-05 21:26	051005-1
	Calcium	5001.45	ug/L	5000	ug/L	100	90.0 – 110.0	P	10-MAY-05 21:26	051005-1
	Chromium	492.87	ug/L	500	ug/L	98.6	90.0 – 110.0	P	10-MAY-05 21:26	051005-1
	Cobalt	498.9	ug/L	500	ug/L	99.8	90.0 – 110.0	P	10-MAY-05 21:26	051005-1
	Copper	480.57	ug/L	500	ug/L	96.1	90.0 – 110.0	P	10-MAY-05 21:26	051005-1
	Iron	5667.6	ug/L	5000	ug/L	113.4	90.0 – 110.0	P	10-MAY-05 21:26	051005-1
	Lead	497.13	ug/L	500	ug/L	99.4	90.0 – 110.0	P	10-MAY-05 21:26	051005-1
	Magnesium	5152.3	ug/L	5000	ug/L	103.1	90.0 – 110.0	P	10-MAY-05 21:26	051005-1
	Manganese	521.89	ug/L	500	ug/L	104.4	90.0 – 110.0	P	10-MAY-05 21:26	051005-1
	Potassium	5348.08	ug/L	5000	ug/L	107	90.0 – 110.0	P	10-MAY-05 21:26	051005-1
	Selenium	508.32	ug/L	500	ug/L	101.7	90.0 – 110.0	P	10-MAY-05 21:26	051005-1
	Sodium	10523.67	ug/L	10000	ug/L	105.2	90.0 – 110.0	P	10-MAY-05 21:26	051005-1
	Vanadium	503.15	ug/L	500	ug/L	100.6	90.0 – 110.0	P	10-MAY-05 21:26	051005-1
	Zinc	493.74	ug/L	500	ug/L	98.8	90.0 – 110.0	P	10-MAY-05 21:26	051005-1

METALS
-2b-
CRDL Standard for AA & ICP

SDG No: 3193S

Contract: LANL00101 **Lab Code:** GEL

AA CRDL Standard Source: SPEX

ICP CRDL Standard Source Solutions Plus

Instrument ID: ICPMS5,MER179,TRACE2

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Advisory Limits (%R)	M	Analysis Date/Time	Run Number
CRDL01										
	Nickel	4.16	ug/L	4	ug/L	104.05	70.0 – 130.0	MS	09-MAY-05 17:43	050509-4
	Silver	2.11	ug/L	2	ug/L	105.45	70.0 – 130.0	MS	09-MAY-05 17:43	050509-4
	Thallium	1.1	ug/L	1	ug/L	109.7	70.0 – 130.0	MS	09-MAY-05 17:43	050509-4
	Antimony	3.74	ug/L	4	ug/L	93.4	70.0 – 130.0	MS	09-MAY-05 17:43	050509-4
	Beryllium	.383	ug/L	.4	ug/L	95.75	70.0 – 130.0	MS	09-MAY-05 17:43	050509-4
	Mercury	.2248	ug/L	.2	ug/L	112.4	70.0 – 130.0	AV	10-MAY-05 18:27	051005S2-3
PQL01										
	Cobalt	10.19	ug/L	10	ug/L	101.93	70.0 – 130.0	P	10-MAY-05 14:03	051005-1
	Copper	9.85	ug/L	10	ug/L	98.53	70.0 – 130.0	P	10-MAY-05 14:03	051005-1
	Vanadium	11.78	ug/L	10	ug/L	117.83	70.0 – 130.0	P	10-MAY-05 14:03	051005-1
	Zinc	10.13	ug/L	10	ug/L	101.34	70.0 – 130.0	P	10-MAY-05 14:03	051005-1
	Calcium	199.25	ug/L	200	ug/L	99.62	70.0 – 130.0	P	10-MAY-05 14:03	051005-1
	Selenium	9.06	ug/L	10	ug/L	90.64	70.0 – 130.0	P	10-MAY-05 14:03	051005-1
	Chromium	10.72	ug/L	10	ug/L	107.25	70.0 – 130.0	P	10-MAY-05 14:03	051005-1
	Aluminum	208.98	ug/L	200	ug/L	104.49	70.0 – 130.0	P	10-MAY-05 14:03	051005-1
	Lead	12.43	ug/L	10	ug/L	124.31	70.0 – 130.0	P	10-MAY-05 14:03	051005-1
	Iron	195.22	ug/L	200	ug/L	97.61	70.0 – 130.0	P	10-MAY-05 14:03	051005-1
	Magnesium	212.26	ug/L	200	ug/L	106.13	70.0 – 130.0	P	10-MAY-05 14:03	051005-1
	Manganese	19.86	ug/L	20	ug/L	99.29	70.0 – 130.0	P	10-MAY-05 14:03	051005-1
	Potassium	202.65	ug/L	200	ug/L	101.32	70.0 – 130.0	P	10-MAY-05 14:03	051005-1
	Sodium	192.11	ug/L	200	ug/L	96.06	70.0 – 130.0	P	10-MAY-05 14:03	051005-1
	Arsenic	10.43	ug/L	10	ug/L	104.34	70.0 – 130.0	P	10-MAY-05 14:03	051005-1
	Barium	10.42	ug/L	10	ug/L	104.25	70.0 – 130.0	P	10-MAY-05 14:03	051005-1
	Cadmium	10.43	ug/L	10	ug/L	104.26	70.0 – 130.0	P	10-MAY-05 14:03	051005-1
	Iron	198.19	ug/L	200	ug/L	99.09	70.0 – 130.0	P	11-MAY-05 08:28	051105-2

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 3193S

Contract: LANL00101 **Lab Code: GEL**

Sample ID	Analyte	Result	Acceptance ug/L	Conc Qual	MDL	RDL	M	Analysis Date/Time	Run
ICB01									
	Antimony	0.5	+/-2	U	0.5	2.0	MS	09-MAY-05 17:38	050509-4
	Beryllium	0.1	+/-.5	U	0.1	0.5	MS	09-MAY-05 17:38	050509-4
	Nickel	0.5	+/-2	U	0.5	2.0	MS	09-MAY-05 17:38	050509-4
	Silver	0.2	+/-1	U	0.2	1.0	MS	09-MAY-05 17:38	050509-4
	Thallium	0.4	+/-1	U	0.4	1.0	MS	09-MAY-05 17:38	050509-4
	Aluminum	68.0	+/-200	U	68.0	200	P	10-MAY-05 13:57	051005-1
	Arsenic	6.0	+/-15	U	6.0	15.0	P	10-MAY-05 13:57	051005-1
	Barium	1.0	+/-5	U	1.0	5.0	P	10-MAY-05 13:57	051005-1
	Cadmium	1.0	+/-5	U	1.0	5.0	P	10-MAY-05 13:57	051005-1
	Calcium	36.0	+/-100	U	36.0	100	P	10-MAY-05 13:57	051005-1
	Chromium	1.0	+/-5	U	1.0	5.0	P	10-MAY-05 13:57	051005-1
	Cobalt	2.0	+/-5	U	2.0	5.0	P	10-MAY-05 13:57	051005-1
	Copper	3.0	+/-10	U	3.0	10.0	P	10-MAY-05 13:57	051005-1
	Iron	18.0	+/-100	U	18.0	100	P	10-MAY-05 13:57	051005-1
	Lead	2.75	+/-10	B	2.5	10.0	P	10-MAY-05 13:57	051005-1
	Magnesium	85.0	+/-300	U	85.0	300	P	10-MAY-05 13:57	051005-1
	Manganese	2.0	+/-10	U	2.0	10.0	P	10-MAY-05 13:57	051005-1
	Potassium	50.0	+/-150	U	50.0	150	P	10-MAY-05 13:57	051005-1
	Selenium	6.0	+/-15	U	6.0	15.0	P	10-MAY-05 13:57	051005-1
	Sodium	45.0	+/-150	U	45.0	150	P	10-MAY-05 13:57	051005-1
	Vanadium	-1.32	+/-5	B	1.0	5.0	P	10-MAY-05 13:57	051005-1
	Zinc	2.0	+/-10	U	2.0	10.0	P	10-MAY-05 13:57	051005-1
	Mercury	0.05	+/-.2	U	0.05	0.2	AV	10-MAY-05 18:25	051005S2-3
	Iron	18.0	+/-100	U	18.0	100	P	11-MAY-05 08:22	051105-2
CCB01									
	Antimony	0.5	+/-2	U	0.5	2.0	MS	09-MAY-05 18:04	050509-4
	Beryllium	0.1	+/-.5	U	0.1	0.5	MS	09-MAY-05 18:04	050509-4
	Nickel	0.5	+/-2	U	0.5	2.0	MS	09-MAY-05 18:04	050509-4
	Silver	0.2	+/-1	U	0.2	1.0	MS	09-MAY-05 18:04	050509-4
	Thallium	0.4	+/-1	U	0.4	1.0	MS	09-MAY-05 18:04	050509-4
	Aluminum	68.0	+/-200	U	68.0	200	P	10-MAY-05 14:45	051005-1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 3193S

Contract: LANL00101 **Lab Code: GEL**

Sample ID	Analyte	Result	Acceptance ug/L	Conc Qual	MDL	RDL	M	Analysis Date/Time	Run
	Arsenic	6.0	+/–15	U	6.0	15.0	P	10–MAY–05 14:45	051005–1
	Barium	1.0	+/–5	U	1.0	5.0	P	10–MAY–05 14:45	051005–1
	Cadmium	1.0	+/–5	U	1.0	5.0	P	10–MAY–05 14:45	051005–1
	Calcium	36.0	+/–100	U	36.0	100	P	10–MAY–05 14:45	051005–1
	Chromium	1.0	+/–5	U	1.0	5.0	P	10–MAY–05 14:45	051005–1
	Cobalt	2.0	+/–5	U	2.0	5.0	P	10–MAY–05 14:45	051005–1
	Copper	3.0	+/–10	U	3.0	10.0	P	10–MAY–05 14:45	051005–1
	Iron	18.0	+/–100	U	18.0	100	P	10–MAY–05 14:45	051005–1
	Lead	2.5	+/–10	U	2.5	10.0	P	10–MAY–05 14:45	051005–1
	Magnesium	85.0	+/–300	U	85.0	300	P	10–MAY–05 14:45	051005–1
	Manganese	2.0	+/–10	U	2.0	10.0	P	10–MAY–05 14:45	051005–1
	Potassium	50.0	+/–150	U	50.0	150	P	10–MAY–05 14:45	051005–1
	Selenium	6.0	+/–15	U	6.0	15.0	P	10–MAY–05 14:45	051005–1
	Sodium	45.0	+/–150	U	45.0	150	P	10–MAY–05 14:45	051005–1
	Vanadium	1.0	+/–5	U	1.0	5.0	P	10–MAY–05 14:45	051005–1
	Zinc	2.0	+/–10	U	2.0	10.0	P	10–MAY–05 14:45	051005–1
	Mercury	0.05	+/–.2	U	0.05	0.2	AV	10–MAY–05 18:31	051005S2–3
	Iron	18.0	+/–100	U	18.0	100	P	11–MAY–05 09:05	051105–2
CCB02									
	Antimony	0.5	+/–2	U	0.5	2.0	MS	09–MAY–05 18:55	050509–4
	Beryllium	0.1	+/–.5	U	0.1	0.5	MS	09–MAY–05 18:55	050509–4
	Nickel	0.5	+/–2	U	0.5	2.0	MS	09–MAY–05 18:55	050509–4
	Silver	0.2	+/–1	U	0.2	1.0	MS	09–MAY–05 18:55	050509–4
	Thallium	0.4	+/–1	U	0.4	1.0	MS	09–MAY–05 18:55	050509–4
	Aluminum	68.0	+/–200	U	68.0	200	P	10–MAY–05 15:50	051005–1
	Arsenic	6.0	+/–15	U	6.0	15.0	P	10–MAY–05 15:50	051005–1
	Barium	1.0	+/–5	U	1.0	5.0	P	10–MAY–05 15:50	051005–1
	Cadmium	1.0	+/–5	U	1.0	5.0	P	10–MAY–05 15:50	051005–1
	Calcium	36.0	+/–100	U	36.0	100	P	10–MAY–05 15:50	051005–1
	Chromium	1.0	+/–5	U	1.0	5.0	P	10–MAY–05 15:50	051005–1
	Cobalt	2.0	+/–5	U	2.0	5.0	P	10–MAY–05 15:50	051005–1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 3193S

Contract: LANL00101 **Lab Code: GEL**

Sample ID	Analyte	Result	Acceptance ug/L	Conc Qual	MDL	RDL	M	Analysis Date/Time	Run
	Copper	3.0	+/–10	U	3.0	10.0	P	10–MAY–05 15:50	051005–1
	Iron	18.0	+/–100	U	18.0	100	P	10–MAY–05 15:50	051005–1
	Lead	2.5	+/–10	U	2.5	10.0	P	10–MAY–05 15:50	051005–1
	Magnesium	85.0	+/–300	U	85.0	300	P	10–MAY–05 15:50	051005–1
	Manganese	2.0	+/–10	U	2.0	10.0	P	10–MAY–05 15:50	051005–1
	Potassium	50.0	+/–150	U	50.0	150	P	10–MAY–05 15:50	051005–1
	Selenium	6.0	+/–15	U	6.0	15.0	P	10–MAY–05 15:50	051005–1
	Sodium	45.0	+/–150	U	45.0	150	P	10–MAY–05 15:50	051005–1
	Vanadium	1.0	+/–5	U	1.0	5.0	P	10–MAY–05 15:50	051005–1
	Zinc	2.0	+/–10	U	2.0	10.0	P	10–MAY–05 15:50	051005–1
	Mercury	0.05	+/–.2	U	0.05	0.2	AV	10–MAY–05 18:55	051005S2–3
	Iron	18.0	+/–100	U	18.0	100	P	11–MAY–05 10:03	051105–2
CCB03									
	Antimony	0.5	+/–2	U	0.5	2.0	MS	09–MAY–05 19:42	050509–4
	Beryllium	0.1	+/–.5	U	0.1	0.5	MS	09–MAY–05 19:42	050509–4
	Nickel	0.5	+/–2	U	0.5	2.0	MS	09–MAY–05 19:42	050509–4
	Silver	0.2	+/–1	U	0.2	1.0	MS	09–MAY–05 19:42	050509–4
	Thallium	0.4	+/–1	U	0.4	1.0	MS	09–MAY–05 19:42	050509–4
	Aluminum	68.0	+/–200	U	68.0	200	P	10–MAY–05 16:16	051005–1
	Arsenic	6.0	+/–15	U	6.0	15.0	P	10–MAY–05 16:16	051005–1
	Barium	1.0	+/–5	U	1.0	5.0	P	10–MAY–05 16:16	051005–1
	Cadmium	1.0	+/–5	U	1.0	5.0	P	10–MAY–05 16:16	051005–1
	Calcium	36.0	+/–100	U	36.0	100	P	10–MAY–05 16:16	051005–1
	Chromium	1.0	+/–5	U	1.0	5.0	P	10–MAY–05 16:16	051005–1
	Cobalt	2.0	+/–5	U	2.0	5.0	P	10–MAY–05 16:16	051005–1
	Copper	3.0	+/–10	U	3.0	10.0	P	10–MAY–05 16:16	051005–1
	Iron	18.0	+/–100	U	18.0	100	P	10–MAY–05 16:16	051005–1
	Lead	2.5	+/–10	U	2.5	10.0	P	10–MAY–05 16:16	051005–1
	Magnesium	85.0	+/–300	U	85.0	300	P	10–MAY–05 16:16	051005–1
	Manganese	2.0	+/–10	U	2.0	10.0	P	10–MAY–05 16:16	051005–1
	Potassium	50.0	+/–150	U	50.0	150	P	10–MAY–05 16:16	051005–1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 3193S

Contract: LANL00101 **Lab Code: GEL**

Sample ID	Analyte	Result	Acceptance ug/L	Conc Qual	MDL	RDL	M	Analysis Date/Time	Run
	Selenium	8.42	+/–15	B	6.0	15.0	P	10–MAY–05 16:16	051005–1
	Sodium	–46.02	+/–150	B	45.0	150	P	10–MAY–05 16:16	051005–1
	Vanadium	1.41	+/–5	B	1.0	5.0	P	10–MAY–05 16:16	051005–1
	Zinc	2.0	+/–10	U	2.0	10.0	P	10–MAY–05 16:16	051005–1
	Mercury	0.05	+/–.2	U	0.05	0.2	AV	10–MAY–05 19:19	051005S2–3
	Iron	18.0	+/–100	U	18.0	100	P	11–MAY–05 10:56	051105–2
CCB04									
	Antimony	0.5	+/–2	U	0.5	2.0	MS	09–MAY–05 20:19	050509–4
	Beryllium	0.1	+/–.5	U	0.1	0.5	MS	09–MAY–05 20:19	050509–4
	Nickel	0.5	+/–2	U	0.5	2.0	MS	09–MAY–05 20:19	050509–4
	Silver	0.2	+/–1	U	0.2	1.0	MS	09–MAY–05 20:19	050509–4
	Thallium	0.4	+/–1	U	0.4	1.0	MS	09–MAY–05 20:19	050509–4
	Aluminum	68.0	+/–200	U	68.0	200	P	10–MAY–05 17:16	051005–1
	Arsenic	6.0	+/–15	U	6.0	15.0	P	10–MAY–05 17:16	051005–1
	Barium	1.0	+/–5	U	1.0	5.0	P	10–MAY–05 17:16	051005–1
	Cadmium	1.0	+/–5	U	1.0	5.0	P	10–MAY–05 17:16	051005–1
	Calcium	36.0	+/–100	U	36.0	100	P	10–MAY–05 17:16	051005–1
	Chromium	1.0	+/–5	U	1.0	5.0	P	10–MAY–05 17:16	051005–1
	Cobalt	2.0	+/–5	U	2.0	5.0	P	10–MAY–05 17:16	051005–1
	Copper	3.0	+/–10	U	3.0	10.0	P	10–MAY–05 17:16	051005–1
	Iron	18.0	+/–100	U	18.0	100	P	10–MAY–05 17:16	051005–1
	Lead	2.5	+/–10	U	2.5	10.0	P	10–MAY–05 17:16	051005–1
	Magnesium	85.0	+/–300	U	85.0	300	P	10–MAY–05 17:16	051005–1
	Manganese	2.0	+/–10	U	2.0	10.0	P	10–MAY–05 17:16	051005–1
	Potassium	50.0	+/–150	U	50.0	150	P	10–MAY–05 17:16	051005–1
	Selenium	6.0	+/–15	U	6.0	15.0	P	10–MAY–05 17:16	051005–1
	Sodium	–50.21	+/–150	B	45.0	150	P	10–MAY–05 17:16	051005–1
	Vanadium	1.0	+/–5	U	1.0	5.0	P	10–MAY–05 17:16	051005–1
	Zinc	2.0	+/–10	U	2.0	10.0	P	10–MAY–05 17:16	051005–1
	Mercury	0.05	+/–.2	U	0.05	0.2	AV	10–MAY–05 19:43	051005S2–3
	Iron	18.0	+/–100	U	18.0	100	P	11–MAY–05 11:49	051105–2

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 3193S

Contract: LANL00101 **Lab Code: GEL**

Sample ID	Analyte	Result	Acceptance ug/L	Conc Qual	MDL	RDL	M	Analysis Date/Time	Run
CCB05									
	Aluminum	68.0	+/–200	U	68.0	200	P	10–MAY–05 17:58	051005–1
	Arsenic	6.0	+/–15	U	6.0	15.0	P	10–MAY–05 17:58	051005–1
	Barium	1.0	+/–5	U	1.0	5.0	P	10–MAY–05 17:58	051005–1
	Cadmium	1.09	+/–5	B	1.0	5.0	P	10–MAY–05 17:58	051005–1
	Calcium	36.0	+/–100	U	36.0	100	P	10–MAY–05 17:58	051005–1
	Chromium	1.0	+/–5	U	1.0	5.0	P	10–MAY–05 17:58	051005–1
	Cobalt	2.0	+/–5	U	2.0	5.0	P	10–MAY–05 17:58	051005–1
	Copper	3.0	+/–10	U	3.0	10.0	P	10–MAY–05 17:58	051005–1
	Iron	18.0	+/–100	U	18.0	100	P	10–MAY–05 17:58	051005–1
	Lead	2.5	+/–10	U	2.5	10.0	P	10–MAY–05 17:58	051005–1
	Magnesium	85.0	+/–300	U	85.0	300	P	10–MAY–05 17:58	051005–1
	Manganese	2.0	+/–10	U	2.0	10.0	P	10–MAY–05 17:58	051005–1
	Potassium	50.0	+/–150	U	50.0	150	P	10–MAY–05 17:58	051005–1
	Selenium	6.0	+/–15	U	6.0	15.0	P	10–MAY–05 17:58	051005–1
	Sodium	45.0	+/–150	U	45.0	150	P	10–MAY–05 17:58	051005–1
	Vanadium	1.17	+/–5	B	1.0	5.0	P	10–MAY–05 17:58	051005–1
	Zinc	2.0	+/–10	U	2.0	10.0	P	10–MAY–05 17:58	051005–1
CCB06									
	Aluminum	68.0	+/–200	U	68.0	200	P	10–MAY–05 19:10	051005–1
	Arsenic	6.0	+/–15	U	6.0	15.0	P	10–MAY–05 19:10	051005–1
	Barium	1.0	+/–5	U	1.0	5.0	P	10–MAY–05 19:10	051005–1
	Cadmium	1.0	+/–5	U	1.0	5.0	P	10–MAY–05 19:10	051005–1
	Calcium	36.0	+/–100	U	36.0	100	P	10–MAY–05 19:10	051005–1
	Chromium	1.0	+/–5	U	1.0	5.0	P	10–MAY–05 19:10	051005–1
	Cobalt	2.0	+/–5	U	2.0	5.0	P	10–MAY–05 19:10	051005–1
	Copper	3.0	+/–10	U	3.0	10.0	P	10–MAY–05 19:10	051005–1
	Iron	18.0	+/–100	U	18.0	100	P	10–MAY–05 19:10	051005–1
	Lead	2.5	+/–10	U	2.5	10.0	P	10–MAY–05 19:10	051005–1
	Magnesium	85.0	+/–300	U	85.0	300	P	10–MAY–05 19:10	051005–1
	Manganese	2.0	+/–10	U	2.0	10.0	P	10–MAY–05 19:10	051005–1
	Potassium	50.0	+/–150	U	50.0	150	P	10–MAY–05 19:10	051005–1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 3193S

Contract: LANL00101 **Lab Code: GEL**

Sample ID	Analyte	Result	Acceptance ug/L	Conc Qual	MDL	RDL	M	Analysis Date/Time	Run
	Selenium	-7.22	+/-15	B	6.0	15.0	P	10-MAY-05 19:10	051005-1
	Sodium	-57.79	+/-150	B	45.0	150	P	10-MAY-05 19:10	051005-1
	Vanadium	1.0	+/-5	U	1.0	5.0	P	10-MAY-05 19:10	051005-1
	Zinc	2.0	+/-10	U	2.0	10.0	P	10-MAY-05 19:10	051005-1
CCB07									
	Aluminum	68.0	+/-200	U	68.0	200	P	10-MAY-05 20:21	051005-1
	Arsenic	6.0	+/-15	U	6.0	15.0	P	10-MAY-05 20:21	051005-1
	Barium	1.0	+/-5	U	1.0	5.0	P	10-MAY-05 20:21	051005-1
	Cadmium	1.0	+/-5	U	1.0	5.0	P	10-MAY-05 20:21	051005-1
	Calcium	36.0	+/-100	U	36.0	100	P	10-MAY-05 20:21	051005-1
	Chromium	1.0	+/-5	U	1.0	5.0	P	10-MAY-05 20:21	051005-1
	Cobalt	2.0	+/-5	U	2.0	5.0	P	10-MAY-05 20:21	051005-1
	Copper	3.0	+/-10	U	3.0	10.0	P	10-MAY-05 20:21	051005-1
	Iron	18.0	+/-100	U	18.0	100	P	10-MAY-05 20:21	051005-1
	Lead	2.5	+/-10	U	2.5	10.0	P	10-MAY-05 20:21	051005-1
	Magnesium	85.0	+/-300	U	85.0	300	P	10-MAY-05 20:21	051005-1
	Manganese	2.0	+/-10	U	2.0	10.0	P	10-MAY-05 20:21	051005-1
	Potassium	50.0	+/-150	U	50.0	150	P	10-MAY-05 20:21	051005-1
	Selenium	6.0	+/-15	U	6.0	15.0	P	10-MAY-05 20:21	051005-1
	Sodium	-50.53	+/-150	B	45.0	150	P	10-MAY-05 20:21	051005-1
	Vanadium	1.0	+/-5	U	1.0	5.0	P	10-MAY-05 20:21	051005-1
	Zinc	2.0	+/-10	U	2.0	10.0	P	10-MAY-05 20:21	051005-1
CCB08									
	Aluminum	68.0	+/-200	U	68.0	200	P	10-MAY-05 21:32	051005-1
	Arsenic	6.0	+/-15	U	6.0	15.0	P	10-MAY-05 21:32	051005-1
	Barium	1.0	+/-5	U	1.0	5.0	P	10-MAY-05 21:32	051005-1
	Cadmium	1.0	+/-5	U	1.0	5.0	P	10-MAY-05 21:32	051005-1
	Calcium	36.0	+/-100	U	36.0	100	P	10-MAY-05 21:32	051005-1
	Chromium	1.0	+/-5	U	1.0	5.0	P	10-MAY-05 21:32	051005-1
	Cobalt	2.0	+/-5	U	2.0	5.0	P	10-MAY-05 21:32	051005-1
	Copper	3.0	+/-10	U	3.0	10.0	P	10-MAY-05 21:32	051005-1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 3193S

Contract: LANL00101 **Lab Code: GEL**

Sample ID	Analyte	Result	Acceptance ug/L	Conc Qual	MDL	RDL	M	Analysis Date/Time	Run
	Iron	18.0	+/-100	U	18.0	100	P	10-MAY-05 21:32	051005-1
	Lead	2.5	+/-10	U	2.5	10.0	P	10-MAY-05 21:32	051005-1
	Magnesium	85.0	+/-300	U	85.0	300	P	10-MAY-05 21:32	051005-1
	Manganese	2.0	+/-10	U	2.0	10.0	P	10-MAY-05 21:32	051005-1
	Potassium	50.0	+/-150	U	50.0	150	P	10-MAY-05 21:32	051005-1
	Selenium	6.0	+/-15	U	6.0	15.0	P	10-MAY-05 21:32	051005-1
	Sodium	45.0	+/-150	U	45.0	150	P	10-MAY-05 21:32	051005-1
	Vanadium	1.0	+/-5	U	1.0	5.0	P	10-MAY-05 21:32	051005-1
	Zinc	2.0	+/-10	U	2.0	10.0	P	10-MAY-05 21:32	051005-1

METALS
-3b-
PREPARATION BLANK SUMMARY

SDG NO. 3193S

Contract: LANL00101

Matrix: SOIL

Sample ID	Analyte	Result	Units	Acceptance Window	Conc Qual	M	MDL	RDL
1200839770								
	Mercury	2.5	ug/kg	+/-10.0	U	AV	2.5	10
1200840497								
	Aluminum	6800	ug/kg	+/-20000	U	P	6800	20000
	Arsenic	600	ug/kg	+/-1500	U	P	600	1500
	Barium	100	ug/kg	+/-500	U	P	100	500
	Cadmium	100	ug/kg	+/-500	U	P	100	500
	Calcium	3600	ug/kg	+/-10000	U	P	3600	10000
	Chromium	107.518	ug/kg	+/-500	B	P	100	500
	Cobalt	200	ug/kg	+/-500	U	P	200	500
	Copper	300	ug/kg	+/-1000	U	P	300	1000
	Iron	1800	ug/kg	+/-10000	U	P	1800	10000
	Lead	330.83	ug/kg	+/-1000	B	P	250	1000
	Magnesium	8500	ug/kg	+/-30000	U	P	8500	30000
	Manganese	200	ug/kg	+/-1000	U	P	200	1000
	Potassium	5000	ug/kg	+/-15000	U	P	5000	15000
	Selenium	600	ug/kg	+/-1500	U	P	600	1500
	Sodium	-5956.71	ug/kg	+/-15000	B	P	4500	15000
	Vanadium	100	ug/kg	+/-500	U	P	100	500
	Zinc	314.478	ug/kg	+/-1000	B	P	200	1000
1200840571								
	Antimony	100	ug/kg	+/-400	U	MS	100	400
	Beryllium	20	ug/kg	+/-100	U	MS	20	100
	Nickel	100	ug/kg	+/-400	U	MS	100	400
	Silver	40	ug/kg	+/-200	U	MS	40	200
	Thallium	80	ug/kg	+/-200	U	MS	80	200

METALS
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Interference Check Sample

SDG No: 3193S

Contract: LANL00101 **Lab Code:** GEL

ICS: O2Si

Instrument: TRACE2

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Aluminum	453208.81	ug/L	500000	ug/L	90.6	80.0 – 120.0	10-MAY-05 14:19	051005-1
	Arsenic	1.34	ug/L					10-MAY-05 14:19	051005-1
	Barium	1.26	ug/L					10-MAY-05 14:19	051005-1
	Cadmium	-0.999	ug/L					10-MAY-05 14:19	051005-1
	Calcium	442773.59	ug/L	500000	ug/L	88.6	80.0 – 120.0	10-MAY-05 14:19	051005-1
	Chromium	1.45	ug/L					10-MAY-05 14:19	051005-1
	Cobalt	-0.043	ug/L					10-MAY-05 14:19	051005-1
	Copper	2.68	ug/L					10-MAY-05 14:19	051005-1
	Iron	186763.56	ug/L	200000	ug/L	93.4	80.0 – 120.0	10-MAY-05 14:19	051005-1
	Lead	11.87	ug/L					10-MAY-05 14:19	051005-1
	Magnesium	476409.41	ug/L	500000	ug/L	95.3	80.0 – 120.0	10-MAY-05 14:19	051005-1
	Manganese	2.05	ug/L					10-MAY-05 14:19	051005-1
	Potassium	4.87	ug/L					10-MAY-05 14:19	051005-1
	Selenium	10.98	ug/L					10-MAY-05 14:19	051005-1
	Sodium	-15.94	ug/L					10-MAY-05 14:19	051005-1
	Vanadium	1.74	ug/L					10-MAY-05 14:19	051005-1
	Zinc	0.793	ug/L					10-MAY-05 14:19	051005-1
ICSAB01									
	Aluminum	462372.56	ug/L	500000	ug/L	92.5	80.0 – 120.0	10-MAY-05 14:25	051005-1
	Arsenic	499.48	ug/L	500	ug/L	99.9	80.0 – 120.0	10-MAY-05 14:25	051005-1
	Barium	509.49	ug/L	500	ug/L	102	80.0 – 120.0	10-MAY-05 14:25	051005-1
	Cadmium	462.07	ug/L	500	ug/L	92.4	80.0 – 120.0	10-MAY-05 14:25	051005-1
	Calcium	450963.09	ug/L	500000	ug/L	90.2	80.0 – 120.0	10-MAY-05 14:25	051005-1
	Chromium	474	ug/L	500	ug/L	94.8	80.0 – 120.0	10-MAY-05 14:25	051005-1
	Cobalt	453.68	ug/L	500	ug/L	90.7	80.0 – 120.0	10-MAY-05 14:25	051005-1
	Copper	494.36	ug/L	500	ug/L	98.9	80.0 – 120.0	10-MAY-05 14:25	051005-1
	Iron	191506.52	ug/L	200000	ug/L	95.8	80.0 – 120.0	10-MAY-05 14:25	051005-1
	Lead	471.73	ug/L	500	ug/L	94.4	80.0 – 120.0	10-MAY-05 14:25	051005-1
	Magnesium	485779.59	ug/L	500000	ug/L	97.2	80.0 – 120.0	10-MAY-05 14:25	051005-1

METALS
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Interference Check Sample

SDG No: 3193S

Contract: LANL00101 **Lab Code:** GEL

ICS:

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
	Manganese	468.64	ug/L	500	ug/L	93.7	80.0 – 120.0	10–MAY–05 14:25	051005–1
	Potassium	5524.93	ug/L	5000	ug/L	111	80.0 – 120.0	10–MAY–05 14:25	051005–1
	Selenium	2419.26	ug/L	2500	ug/L	96.8	80.0 – 120.0	10–MAY–05 14:25	051005–1
	Sodium	5110.94	ug/L	5000	ug/L	102	80.0 – 120.0	10–MAY–05 14:25	051005–1
	Vanadium	479.29	ug/L	500	ug/L	95.9	80.0 – 120.0	10–MAY–05 14:25	051005–1
	Zinc	487.17	ug/L	500	ug/L	97.4	80.0 – 120.0	10–MAY–05 14:25	051005–1

METALS
-4-
Interference Check Sample

SDG No: 3193S

Contract: LANL00101 **Lab Code:** GEL

ICS: O2Si

Instrument: TRACE2

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Iron	187437.39	ug/L	200000	ug/L	93.7	80.0 - 120.0	11-MAY-05 08:39	051105-2
ICSAB01									
	Iron	188841.13	ug/L	200000	ug/L	94.4	80.0 - 120.0	11-MAY-05 08:45	051105-2

METALS
-4-
Interference Check Sample

SDG No: 3193S

Contract: LANL00101 **Lab Code:** GEL

ICS: O2Si

Instrument: ICPMS5

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Antimony	0.658	ug/L					09-MAY-05 17:48	050509-4
	Beryllium	0.001	ug/L					09-MAY-05 17:48	050509-4
	Nickel	1.36	ug/L					09-MAY-05 17:48	050509-4
	Silver	0.056	ug/L					09-MAY-05 17:48	050509-4
	Thallium	0.018	ug/L					09-MAY-05 17:48	050509-4
ICSAB01									
	Antimony	21.22	ug/L	22.3	ug/L	95.2	80.0 – 120.0	09-MAY-05 17:53	050509-4
	Beryllium	20.19	ug/L	20	ug/L	101	80.0 – 120.0	09-MAY-05 17:53	050509-4
	Nickel	20.73	ug/L	21.4	ug/L	96.9	80.0 – 120.0	09-MAY-05 17:53	050509-4
	Silver	19.96	ug/L	20.2	ug/L	98.8	80.0 – 120.0	09-MAY-05 17:53	050509-4
	Thallium	19.97	ug/L	20	ug/L	99.9	80.0 – 120.0	09-MAY-05 17:53	050509-4

METALS
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Matrix Spike Summary

SDG NO. 3193S **Client ID** RE03–05–59527S

Contract: LANL00101 **Level:** Low

Matrix: SOIL **% Solids:** 87

Sample ID: 135806001 **Spike ID:** 1200840499

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Aluminum	ug/kg		15600000		10500000		565000	903	N/A	P
Arsenic	ug/kg	75–125	60700		1950		56500	104		P
Barium	ug/kg	75–125	133000		57500		56500	134	N	P
Cadmium	ug/kg	75–125	57400		505	B	56500	101		P
Calcium	ug/kg	75–125	2180000		1250000		565000	164	N	P
Chromium	ug/kg	75–125	65900		5650		56500	107		P
Cobalt	ug/kg	75–125	60100		2140		56500	103		P
Copper	ug/kg	75–125	64600		11300		56500	94.4		P
Iron	ug/kg		8570000		12700000		565000	–737	N/A	P
Lead	ug/kg	75–125	101000		38100		56500	110		P
Magnesium	ug/kg	75–125	2050000		1100000		565000	169	N	P
Manganese	ug/kg	75–125	253000		132000		56500	215	N	P
Potassium	ug/kg	75–125	2200000		1120000		565000	192	N	P
Selenium	ug/kg	75–125	57800		682	U	56500	102		P
Sodium	ug/kg	75–125	839000		192000		565000	114		P
Vanadium	ug/kg	75–125	69300		8220		56500	108		P
Zinc	ug/kg	75–125	121000		52800		56500	121		P

METALS
-5a-

Matrix Spike Duplicate Summary

SDG NO.	3193S	**Client ID**	RE03-05-59527SD
Contract:	LANL00101	**Level:**	Low
Matrix:	SOIL	**% Solids:**	87
Sample ID:	135806001	**Spike ID:**	1200840500

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Aluminum	ug/kg		12900000		10500000		569000	413	N/A	P
Arsenic	ug/kg	75-125	60700		1950		56900	103		P
Barium	ug/kg	75-125	118000		57500		56900	106		P
Cadmium	ug/kg	75-125	56800		505	B	56900	98.9		P
Calcium	ug/kg	75-125	2240000		1250000		569000	174	N	P
Chromium	ug/kg	75-125	64500		5650		56900	103		P
Cobalt	ug/kg	75-125	58500		2140		56900	98.9		P
Copper	ug/kg	75-125	63500		11300		56900	91.6		P
Iron	ug/kg		7940000		12700000		569000	-842	N/A	P
Lead	ug/kg	75-125	94200		38100		56900	98.5		P
Magnesium	ug/kg	75-125	1780000		1100000		569000	121		P
Manganese	ug/kg	75-125	196000		132000		56900	113		P
Potassium	ug/kg	75-125	1910000		1120000		569000	140	N	P
Selenium	ug/kg	75-125	56900		682	U	56900	99.8		P
Sodium	ug/kg	75-125	812000		192000		569000	109		P
Vanadium	ug/kg	75-125	67700		8220		56900	105		P
Zinc	ug/kg	75-125	120000		52800		56900	117		P

METALS
-5a-
Matrix Spike Summary

SDG NO. 3193S **Client ID** RE03-05-59527S

Contract: LANL00101 **Level:** Low

Matrix: SOIL **% Solids:** 87

Sample ID: 135806001 **Spike ID:** 1200840573

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Antimony	ug/kg	75-125	4590		329	B	11300	37.5	N	MS
Beryllium	ug/kg	75-125	6220		608		5670	98.9		MS
Nickel	ug/kg	75-125	10600		4780		5670	102		MS
Silver	ug/kg	75-125	5580		135	B	5670	96.1		MS
Thallium	ug/kg	75-125	5770		108	B	5670	99.9		MS

METALS
-5a-

Matrix Spike Duplicate Summary

SDG NO. 3193S **Client ID** RE03-05-59527SD

Contract: LANL00101 **Level:** Low

Matrix: SOIL **% Solids:** 87

Sample ID: 135806001 **Spike ID:** 1200840574

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Antimony	ug/kg	75-125	3810		329	B	11400	30.5	N	MS
Beryllium	ug/kg	75-125	5770		608		5710	90.4		MS
Nickel	ug/kg	75-125	10000		4780		5710	91.6		MS
Silver	ug/kg	75-125	5180		135	B	5710	88.5		MS
Thallium	ug/kg	75-125	5370		108	B	5710	92.2		MS

METALS
–5a–

Matrix Spike Summary

SDG NO.	3193S	**Client ID**	RE03–05–59531S
Contract:	LANL00101	**Level:**	Low
Matrix:	SOIL	**% Solids:**	84
Sample ID:	135803001	**Spike ID:**	1200839773

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Mercury	ug/kg	75–125	136		12.1		113	110		AV

METALS
–5a–
Matrix Spike Duplicate Summary

SDG NO.	3193S	**Client ID**	RE03–05–59531SD
Contract:	LANL00101	**Level:**	Low
Matrix:	SOIL	**% Solids:**	84
Sample ID:	135803001	**Spike ID:**	1200839775

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Mercury	ug/kg	75–125	134		12.1		113	108		AV

Metals
-6-
Duplicate Sample Summary

SDG No.: 3193S

Contract: LANL00101 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE03-05-59527D

Sample ID: 135806001 **Duplicate ID:** 1200840498 **Percent Solids for Dup:** 87

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	ug/kg	+/-20%	10500000		9760000		7.79		P
Arsenic	ug/kg	+/-1730	1950		1620	B	18.8		P
Barium	ug/kg	+/-20%	57500		49900		14.2		P
Cadmium	ug/kg	+/-577	505	B	371	B	30.6		P
Calcium	ug/kg	+/-20%	1250000		1140000		9.76		P
Chromium	ug/kg	+/-20%	5650		4580		20.9	*	P
Cobalt	ug/kg	+/-577	2140		1130		61.9	*	P
Copper	ug/kg	+/-20%	11300		4360		88.6	*	P
Iron	ug/kg	+/-20%	12700000		6660000		62.6	*	P
Lead	ug/kg	+/-20%	38100		28200		30	*	P
Magnesium	ug/kg	+/-20%	1100000		937000		15.8		P
Manganese	ug/kg	+/-20%	132000		123000		6.6		P
Potassium	ug/kg	+/-20%	1120000		1020000		9.43		P
Selenium	ug/kg		682	U	693	U			P
Sodium	ug/kg	+/-20%	192000		184000		4.5		P
Vanadium	ug/kg	+/-20%	8220		7840		4.68		P
Zinc	ug/kg	+/-20%	52800		45800		14.3		P

Metals
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Duplicate Sample Summary

SDG No.: 3193S

Contract: LANL00101 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE03–05–59527SD

Sample ID: 1200840499 **Duplicate ID:** 1200840500 **Percent Solids for Dup:** 87

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	ug/kg	+/–20	15600000		12900000		19.3		P
Arsenic	ug/kg	+/–20	60700		60700		.108		P
Barium	ug/kg	+/–20	133000		118000		12.3		P
Cadmium	ug/kg	+/–20	57400		56800		1.02		P
Calcium	ug/kg	+/–20	2180000		2240000		2.79		P
Chromium	ug/kg	+/–20	65900		64500		2.08		P
Cobalt	ug/kg	+/–20	60100		58500		2.77		P
Copper	ug/kg	+/–20	64600		63500		1.78		P
Iron	ug/kg	+/–20	8570000		7940000		7.63		P
Lead	ug/kg	+/–20	101000		94200		6.45		P
Magnesium	ug/kg	+/–20	2050000		1780000		13.9		P
Manganese	ug/kg	+/–20	253000		196000		25.4	*	P
Potassium	ug/kg	+/–20	2200000		1910000		13.8		P
Selenium	ug/kg	+/–20	57800		56900		1.63		P
Sodium	ug/kg	+/–20	839000		812000		3.23		P
Vanadium	ug/kg	+/–20	69300		67700		2.27		P
Zinc	ug/kg	+/–20	121000		120000		1.04		P

Metals
-6-
Duplicate Sample Summary

SDG No.: 3193S

Contract: LANL00101 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE03-05-59527D

Sample ID: 135806001 **Duplicate ID:** 1200840572 **Percent Solids for Dup:** 87

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Antimony	ug/kg	+/-457	329	B	390	B	16.9		MS
Beryllium	ug/kg	+/-20%	608		671		9.84		MS
Nickel	ug/kg	+/-20%	4780		5230		9.05		MS
Silver	ug/kg	+/-229	135	B	134	B	.534		MS
Thallium	ug/kg	+/-229	108	B	108	B	.143		MS

Metals
-6-
Duplicate Sample Summary

SDG No.: 3193S

Contract: LANL00101 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE03-05-59527SD

Sample ID: 1200840573 **Duplicate ID:** 1200840574 **Percent Solids for Dup:** 87

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Antimony	ug/kg	+/-20	4590		3810		18.6		MS
Beryllium	ug/kg	+/-20	6220		5770		7.47		MS
Nickel	ug/kg	+/-20	10600		10000		5.43		MS
Silver	ug/kg	+/-20	5580		5180		7.42		MS
Thallium	ug/kg	+/-20	5770		5370		7.27		MS

Metals
-6-
Duplicate Sample Summary

SDG No.: 3193S

Contract: LANL00101 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE03-05-59531D

Sample ID: 135803001 **Duplicate ID:** 1200839772 **Percent Solids for Dup:** 84

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Mercury	ug/kg	+/-11.7	12.1		13.7		11.9		AV

Metals
–6–
Duplicate Sample Summary

SDG No.: 3193S

Contract: LANL00101 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE03–05–59531SD

Sample ID: 1200839773 **Duplicate ID:** 1200839775 **Percent Solids for Dup:** 84

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Mercury	ug/kg	+/–20	136		134		1.24		AV

METALS
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Laboratory Control Sample Summary

SDG NO. 3193S

Contract: LANL00101

Aqueous LCS Source: **Solid LCS Source:**

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1200840501								
	Aluminum	ug/kg	6640000	7340000		111	43.7–156.6	P
	Arsenic	ug/kg	197000	192000		97.6	79.2–120.8	P
	Barium	ug/kg	392000	378000		96.4	79.6–120.4	P
	Cadmium	ug/kg	69100	65700		95.1	80.5–119.5	P
	Calcium	ug/kg	3380000	3300000		97.7	75.7–124.3	P
	Chromium	ug/kg	82600	77800		94.2	77.2–122.8	P
	Cobalt	ug/kg	81500	78700		96.5	84.5–115.2	P
	Copper	ug/kg	127000	120000		94.3	80.3–119.7	P
	Iron	ug/kg	12200000	12700000		104	47.4–152.5	P
	Lead	ug/kg	95000	91500		96.3	77.2–123.3	P
	Magnesium	ug/kg	2050000	2080000		101	70.7–129.3	P
	Manganese	ug/kg	452000	427000		94.5	75.7–124.3	P
	Potassium	ug/kg	1910000	1960000		103	63.9–136.1	P
	Selenium	ug/kg	117000	112000		95.5	74–125.6	P
	Sodium	ug/kg	352000	323000		91.6	50.9–149.1	P
	Vanadium	ug/kg	158000	146000		92.4	69.6–129.1	P
	Zinc	ug/kg	275000	260000		94.7	76.7–122.5	P

METALS
-7-
Laboratory Control Sample Summary

SDG NO. 3193S

Contract: LANL00101

Aqueous LCS Source: **Solid LCS Source:**

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1200840575								
	Antimony	ug/kg	57200	38000		66.4	.7–267.5	MS
	Beryllium	ug/kg	73400	75100		102	80.4–119.6	MS
	Nickel	ug/kg	82300	82900		101	78.3–121.5	MS
	Silver	ug/kg	127000	44800		35.3	24.8–174.8	MS
	Thallium	ug/kg	103000	107000		104	73.8–126.2	MS

METALS
-7-
Laboratory Control Sample Summary

SDG NO. 3193S

Contract: LANL00101

Aqueous LCS Source: **Solid LCS Source:**

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1200839771								
	Mercury	ug/kg	9410	9750		104	65.8–133.9	AV

METALS
-9-
Serial Dilution Sample Summary

SDG NO. 3193S **Client ID** RE03-05-59527L

Contract: LANL00101

Matrix: SOLID **Level:** Low

Sample ID: 135806001 **Serial Dilution ID:** 1200840502

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Aluminum	92800		99500		7.22		10	P
Arsenic	17.2		38.55	B	124			P
Barium	506		525		3.75		10	P
Cadmium	4.44	B	7.95	B	79.1			P
Calcium	11000		11600		5.45		10	P
Chromium	49.7		52.5		5.63			P
Cobalt	18.8		20	B	6.38			P
Copper	99.2		102.5		3.33			P
Iron	112000		118000		5.36		10	P
Lead	335		366		9.25		10	P
Magnesium	9660		10200		5.59		10	P
Manganese	1160		1220		5.17		10	P
Potassium	9820		10850		10.5	E	10	P
Selenium	6	U	30	U				P
Sodium	1690		1555		7.99			P
Vanadium	72.3		76.5		5.81		10	P
Zinc	465		495		6.45		10	P

METALS
-9-
Serial Dilution Sample Summary

SDG NO. 3193S **Client ID** RE03-05-59527L

Contract: LANL00101

Matrix: SOLID **Level:** Low

Sample ID: 135806001 **Serial Dilution ID:** 1200840576

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Antimony	1.45	B	2.5	U	100			MS
Beryllium	2.69		2.63		2.23			MS
Nickel	21.1		22.3		5.69			MS
Silver	.597	B	1	U	100			MS
Thallium	.477	B	2	U	100			MS

METALS
-9-
Serial Dilution Sample Summary

SDG NO. 3193S **Client ID** RE03-05-59531L

Contract: LANL00101

Matrix: SOLID **Level:** Low

Sample ID: 135803001 **Serial Dilution ID:** 1200839774

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Mercury	.205		.25	U	100			AV

METALS
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SAMPLE PREPARATION SUMMARY

SDG No: 3193S **Method Type** P

Contract: LANL00101 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number 423070							
135806001	RE03-05-59527	SAMPLE	SOIL	06-MAY-05	.508g	50mL	87
135806002	RE03-05-59528	SAMPLE	SOIL	06-MAY-05	.503g	50mL	85
135806003	RE03-05-59529	SAMPLE	SOIL	06-MAY-05	.512g	50mL	87
135806004	RE03-05-59530	SAMPLE	SOIL	06-MAY-05	.5g	50mL	83
135806005	RE03-05-59533	SAMPLE	SOIL	06-MAY-05	.512g	50mL	83
135806006	RE03-05-59534	SAMPLE	SOIL	06-MAY-05	.506g	50mL	88
135806007	RE03-05-59535	SAMPLE	SOIL	06-MAY-05	.503g	50mL	90
135806008	RE03-05-59536	SAMPLE	SOIL	06-MAY-05	.507g	50mL	86
135806009	RE03-05-59537	SAMPLE	SOIL	06-MAY-05	.506g	50mL	83
135806010	RE03-05-59538	SAMPLE	SOIL	06-MAY-05	.5g	50mL	76
135806011	RE03-05-59539	SAMPLE	SOIL	06-MAY-05	.507g	50mL	81
135806012	RE03-05-59540	SAMPLE	SOIL	06-MAY-05	.507g	50mL	78
135806013	RE03-05-59543	SAMPLE	SOIL	06-MAY-05	.508g	50mL	84
135806014	RE03-05-59544	SAMPLE	SOIL	06-MAY-05	.501g	50mL	77
1200840497	MB for batch 423070	MB	SOIL	06-MAY-05	.5g	50mL	
1200840498	RE03-05-59527D	DUP	SOIL	06-MAY-05	.5g	50mL	87
1200840499	RE03-05-59527S	MS	SOIL	06-MAY-05	.511g	50mL	87
1200840500	RE03-05-59527SD	MSD	SOIL	06-MAY-05	.507g	50mL	87
1200840501	LCS for batch 423070	LCS	SOIL	06-MAY-05	.502g	50mL	

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METALS
-13-
SAMPLE PREPARATION SUMMARY

SDG No: 3193S **Method Type** MS

Contract: LANL00101 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number	423105						
135806001	RE03-05-59527	SAMPLE	SOIL	06-MAY-05	.51g	50mL	87
135806002	RE03-05-59528	SAMPLE	SOIL	06-MAY-05	.51g	50mL	85
135806003	RE03-05-59529	SAMPLE	SOIL	06-MAY-05	.51g	50mL	87
135806004	RE03-05-59530	SAMPLE	SOIL	06-MAY-05	.504g	50mL	83
135806005	RE03-05-59533	SAMPLE	SOIL	06-MAY-05	.512g	50mL	83
135806006	RE03-05-59534	SAMPLE	SOIL	06-MAY-05	.508g	50mL	88
135806007	RE03-05-59535	SAMPLE	SOIL	06-MAY-05	.501g	50mL	90
135806008	RE03-05-59536	SAMPLE	SOIL	06-MAY-05	.502g	50mL	86
135806009	RE03-05-59537	SAMPLE	SOIL	06-MAY-05	.512g	50mL	83
135806010	RE03-05-59538	SAMPLE	SOIL	06-MAY-05	.512g	50mL	76
135806011	RE03-05-59539	SAMPLE	SOIL	06-MAY-05	.506g	50mL	81
135806012	RE03-05-59540	SAMPLE	SOIL	06-MAY-05	.512g	50mL	78
135806013	RE03-05-59543	SAMPLE	SOIL	06-MAY-05	.501g	50mL	84
135806014	RE03-05-59544	SAMPLE	SOIL	06-MAY-05	.512g	50mL	77
1200840571	MB for batch 423105	MB	SOIL	06-MAY-05	.5g	50mL	
1200840572	RE03-05-59527D	DUP	SOIL	06-MAY-05	.505g	50mL	87
1200840573	RE03-05-59527S	MS	SOIL	06-MAY-05	.509g	50mL	87
1200840574	RE03-05-59527SD	MSD	SOIL	06-MAY-05	.506g	50mL	87
1200840575	LCS for batch 423105	LCS	SOIL	06-MAY-05	.5g	50mL	

SW846

METALS
-13-
SAMPLE PREPARATION SUMMARY

SDG No: 3193S **Method Type** AV

Contract: LANL00101 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number	422744						
1200839770	MB for batch 422744	MB	SOIL	09-MAY-05	.6g	30mL	
1200839771	LCS for batch 422744	LCS	SOIL	09-MAY-05	.201g	30mL	
1200839772	RE03-05-59531D	DUP	SOIL	09-MAY-05	.614g	30mL	84
1200839773	RE03-05-59531S	MS	SOIL	09-MAY-05	.636g	30mL	84
1200839775	RE03-05-59531SD	MSD	SOIL	09-MAY-05	.631g	30mL	84
135806001	RE03-05-59527	SAMPLE	SOIL	09-MAY-05	.622g	30mL	87
135806002	RE03-05-59528	SAMPLE	SOIL	09-MAY-05	.639g	30mL	85
135806003	RE03-05-59529	SAMPLE	SOIL	09-MAY-05	.642g	30mL	87
135806004	RE03-05-59530	SAMPLE	SOIL	09-MAY-05	.628g	30mL	83
135806005	RE03-05-59533	SAMPLE	SOIL	09-MAY-05	.601g	30mL	83
135806006	RE03-05-59534	SAMPLE	SOIL	09-MAY-05	.606g	30mL	88
135806007	RE03-05-59535	SAMPLE	SOIL	09-MAY-05	.649g	30mL	90
135806008	RE03-05-59536	SAMPLE	SOIL	09-MAY-05	.632g	30mL	86
135806009	RE03-05-59537	SAMPLE	SOIL	09-MAY-05	.638g	30mL	83
135806010	RE03-05-59538	SAMPLE	SOIL	09-MAY-05	.632g	30mL	76
135806011	RE03-05-59539	SAMPLE	SOIL	09-MAY-05	.6g	30mL	81
135806012	RE03-05-59540	SAMPLE	SOIL	09-MAY-05	.646g	30mL	78
135806013	RE03-05-59543	SAMPLE	SOIL	09-MAY-05	.612g	30mL	84
135806014	RE03-05-59544	SAMPLE	SOIL	09-MAY-05	.622g	30mL	77

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Metals
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Analysis Run Log

Contract: LANL00101
Lab Code: GEL
Inst Name: TRACE2
Start Date: 10–MAY–05 **End Date:** 10–MAY–05

Client Sdg: 3193S
Method P
Data File: 051005–1

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn
S0	1	13:06	X		X	X		X	X	X	X	X	X	X	X	X			X	X		X		X	X
S0.1	1	13:12	X		X	X		X	X	X	X	X	X	X	X	X			X	X		X		X	X
S0.5	1	13:18	X		X	X		X	X	X	X	X	X	X	X	X			X	X		X		X	X
SCAL	1	13:24	X		X	X		X	X	X	X	X	X	X	X	X			X	X		X		X	X
S10	1	13:30	X		X	X		X	X	X	X	X	X	X	X	X			X	X		X		X	X
S10	1	13:35	X		X	X		X	X	X	X	X	X	X	X	X			X	X		X		X	X
SCAL	1	13:43	X		X	X		X	X	X	X	X	X	X	X	X			X	X		X		X	X
ICV01	1	13:50	X		X	X		X	X	X	X	X	X	X	X	X			X	X		X		X	X
ICB01	1	13:57	X		X	X		X	X	X	X	X	X	X	X	X			X	X		X		X	X
PQL01	1	14:03	X		X	X		X	X	X	X	X	X	X	X	X			X	X		X		X	X
ZZZZZZ	1	14:09																							
ICSA01	1	14:19	X		X	X		X	X	X	X	X	X	X	X	X			X	X		X		X	X
ICSAB01	1	14:25	X		X	X		X	X	X	X	X	X	X	X	X			X	X		X		X	X
CCV01	1	14:39	X		X	X		X	X	X	X	X	X	X	X	X			X	X		X		X	X
CCB01	1	14:45	X		X	X		X	X	X	X	X	X	X	X	X			X	X		X		X	X
ZZZZZZ	1	14:51																							
ZZZZZZ	1	14:57																							
ZZZZZZ	1	15:03																							
ZZZZZZ	1	15:09																							
ZZZZZZ	1	15:15																							
ZZZZZZ	5	15:21																							
ZZZZZZ	1	15:26																							
ZZZZZZ	1	15:32																							
ZZZZZZ	1	15:38																							
CCV02	1	15:44	X		X	X		X	X	X	X	X	X	X	X	X			X	X		X		X	X
CCB02	1	15:50	X		X	X		X	X	X	X	X	X	X	X	X			X	X		X		X	X
CCV03	1	16:10	X		X	X		X	X	X	X	X	X	X	X	X			X	X		X		X	X
CCB03	1	16:16	X		X	X		X	X	X	X	X	X	X	X	X			X	X		X		X	X
ZZZZZZ	1	16:22																							
ZZZZZZ	1	16:28																							
ZZZZZZ	1	16:34																							
ZZZZZZ	1	16:40																							
ZZZZZZ	1	16:46																							
ZZZZZZ	1	16:52																							
ZZZZZZ	1	16:58																							
ZZZZZZ	5	17:04																							
CCV04	1	17:10	X		X	X		X	X	X	X	X	X	X	X	X			X	X		X		X	X
CCB04	1	17:16	X		X	X		X	X	X	X	X	X	X	X	X			X	X		X		X	X
ZZZZZZ	1	17:43																							
CCV05	1	17:53	X		X	X		X	X	X	X	X	X	X	X	X			X	X		X		X	X

Metals
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Analysis Run Log

Samp No.	D/F	Run Time																								
CCB05	1	17:58	X		X	X		X	X	X	X	X	X	X	X	X			X	X		X		X	X
ZZZZZZ	1	18:04																							
ZZZZZZ	1	18:10																							
ZZZZZZ	1	18:16																							
ZZZZZZ	1	18:22																							
ZZZZZZ	1	18:28																							
ZZZZZZ	5	18:34																							
ZZZZZZ	5	18:40																							
ZZZZZZ	25	18:46																							
ZZZZZZ	5	18:52																							
ZZZZZZ	5	18:58																							
CCV06	1	19:04	X		X	X		X	X	X	X	X	X	X	X	X			X	X		X		X	X
CCB06	1	19:10	X		X	X		X	X	X	X	X	X	X	X	X			X	X		X		X	X
1200840497	1	19:16	X		X	X		X	X	X	X	X	X	X	X	X			X	X		X		X	X
1200840501	1	19:22	X		X	X		X	X	X	X	X	X	X	X	X			X	X		X		X	X
135806001	1	19:28	X		X	X		X	X	X	X	X	X	X	X	X			X	X		X		X	X
1200840498	1	19:34	X		X	X		X	X	X	X	X	X	X	X	X			X	X		X		X	X
1200840499	1	19:39	X		X	X		X	X	X	X	X	X	X	X	X			X	X		X		X	X
1200840500	1	19:45	X		X	X		X	X	X	X	X	X	X	X	X			X	X		X		X	X
1200840502	5	19:51	X		X	X		X	X	X	X	X	X	X	X	X			X	X		X		X	X
135806002	1	19:57	X		X	X		X	X	X	X	X	X	X	X	X			X	X		X		X	X
135806003	1	20:03	X		X	X		X	X	X	X	X	X	X	X	X			X	X		X		X	X
135806004	1	20:09	X		X	X		X	X	X	X	X	X	X	X	X			X	X		X		X	X
CCV07	1	20:15	X		X	X		X	X	X	X	X	X	X	X	X			X	X		X		X	X
CCB07	1	20:21	X		X	X		X	X	X	X	X	X	X	X	X			X	X		X		X	X
135806005	1	20:27	X		X	X		X	X	X	X	X		X	X	X			X	X		X		X	X
135806006	1	20:33	X		X	X		X	X	X	X	X		X	X	X			X	X		X		X	X
135806007	1	20:39	X		X	X		X	X	X	X	X		X	X	X			X	X		X		X	X
135806008	1	20:45	X		X	X		X	X	X	X	X		X	X	X			X	X		X		X	X
135806009	1	20:51	X		X	X		X	X	X	X	X		X	X	X			X	X		X		X	X
135806010	1	20:57	X		X	X		X	X	X	X	X		X	X	X			X	X		X		X	X
135806011	1	21:03	X		X	X		X	X	X	X	X		X	X	X			X	X		X		X	X
135806012	1	21:09	X		X	X		X	X	X	X	X		X	X	X			X	X		X		X	X
135806013	1	21:15	X		X	X		X	X	X	X	X		X	X	X			X	X		X		X	X
135806014	1	21:21	X		X	X		X	X	X	X	X		X	X	X			X	X		X		X	X
CCV08	1	21:26	X		X	X		X	X	X	X	X	X	X	X	X			X	X		X		X	X
CCB08	1	21:32	X		X	X		X	X	X	X	X	X	X	X	X			X	X		X		X	X

Metals
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Analysis Run Log

Contract: LANL00101
Lab Code: GEL
Inst Name: TRACE2
Start Date: 11-MAY-05 **End Date:** 11-MAY-05

Client Sdg: 3193S
Method P
Data File: 051105-2

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn
S0	1	07:32											X												
S0.1	1	07:38											X												
S0.5	1	07:43											X												
SCAL	1	07:49											X												
S10	1	07:55											X												
S10	1	08:00											X												
SCAL	1	08:08											X												
ICV01	1	08:15											X												
ICB01	1	08:22											X												
PQL01	1	08:28											X												
ZZZZZZ	1	08:33																							
ICSA01	1	08:39											X												
ICSAB01	1	08:45											X												
CCV01	1	08:59											X												
CCB01	1	09:05											X												
ZZZZZZ	1	09:15																							
ZZZZZZ	1	09:21																							
ZZZZZZ	1	09:27																							
ZZZZZZ	1	09:33																							
ZZZZZZ	1	09:39																							
ZZZZZZ	5	09:45																							
ZZZZZZ	1	09:51																							
CCV02	1	09:57											X												
CCB02	1	10:03											X												
ZZZZZZ	1	10:08																							
ZZZZZZ	1	10:14																							
ZZZZZZ	1	10:20																							
ZZZZZZ	1	10:26																							
135806005	1	10:32											X												
135806006	1	10:38											X												
135806007	1	10:44											X												
CCV03	1	10:50											X												
CCB03	1	10:56											X												
135806008	1	11:02											X												
135806009	1	11:07											X												
135806010	1	11:13											X												
135806011	1	11:19											X												
135806012	1	11:25											X												
135806013	1	11:31											X												
135806014	1	11:37											X												

Metals
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Analysis Run Log

Samp No.	D/F	Run Time																							
CCV04	1	11:43											X												
CCB04	1	11:49											X												

Metals
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Analysis Run Log

Contract: LANL00101
Lab Code: GEL
Inst Name: ICPMS5
Start Date: 09-MAY-05 **End Date:** 09-MAY-05

Client Sdg: 3193S
Method MS
Data File: 050509-4

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn
Blank	1	17:17:00		X			X											X			X		X		
Standard 1	1	17:22:00		X			X											X			X		X		
Standard 2	1	17:28:00		X			X											X			X		X		
ICV01	1	17:33:00		X			X											X			X		X		
ICB01	1	17:38:00		X			X											X			X		X		
CRDL01	1	17:43:00		X			X											X			X		X		
ICSA01	1	17:48:00		X			X											X			X		X		
ICSAB01	1	17:53:00		X			X											X			X		X		
CCV01	1	17:58:00		X			X											X			X		X		
CCB01	1	18:04:00		X			X											X			X		X		
1200840571	2	18:09:00		X			X											X			X		X		
1200840575	5	18:14:00		X			X											X			X		X		
135806001	2	18:19:00		X			X											X			X		X		
1200840572	2	18:24:00		X			X											X			X		X		
1200840573	2	18:30:00		X			X											X			X		X		
1200840574	2	18:35:00		X			X											X			X		X		
1200840576	10	18:40:00		X			X											X			X		X		
135806002	2	18:45:00		X			X											X			X		X		
CCV02	1	18:50:00		X			X											X			X		X		
CCB02	1	18:55:00		X			X											X			X		X		
135806003	2	19:01:00		X			X											X			X		X		
135806004	2	19:06:00		X			X											X			X		X		
135806005	2	19:11:00		X			X											X			X		X		
135806006	2	19:16:00		X			X											X			X		X		
135806007	2	19:21:00		X			X											X			X		X		
135806008	2	19:27:00		X			X											X			X		X		
135806009	2	19:32:00		X			X											X			X		X		
CCV03	1	19:37:00		X			X											X			X		X		
CCB03	1	19:42:00		X			X											X			X		X		
135806010	2	19:47:00		X			X											X			X		X		
135806011	2	19:53:00		X			X											X			X		X		
135806012	2	19:58:00		X			X											X			X		X		
135806013	2	20:03:00		X			X											X			X		X		
135806014	2	20:08:00		X			X											X			X		X		
CCV04	1	20:13:00		X			X											X			X		X		
CCB04	1	20:19:00		X			X											X			X		X		

Metals
–14–
Analysis Run Log

Contract: LANL00101
Lab Code: GEL
Inst Name: MER179
Start Date: 10–MAY–05 **End Date:** 10–MAY–05

Client Sdg: 3193S
Method AV
Data File: 051005S2–3

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn
SCalib Blank	1	18:11															X								
S0.2	1	18:13															X								
S0.5	1	18:15															X								
S2.0	1	18:17															X								
S5.0	1	18:19															X								
S10.0	1	18:21															X								
ICV01	1	18:23															X								
ICB01	1	18:25															X								
CRDL01	1	18:27															X								
CCV01	1	18:29															X								
CCB01	1	18:31															X								
1200839770	1	18:33															X								
1200839771	10	18:35															X								
ZZZZZZ	1	18:37																							
1200839772	1	18:39															X								
1200839773	1	18:41															X								
1200839775	1	18:43															X								
1200839774	5	18:45															X								
ZZZZZZ	1	18:47																							
ZZZZZZ	1	18:49																							
ZZZZZZ	1	18:51																							
CCV02	1	18:53															X								
CCB02	1	18:55															X								
135806001	1	18:57															X								
135806002	1	18:59															X								
135806003	1	19:01															X								
135806004	1	19:03															X								
135806005	1	19:05															X								
135806006	1	19:07															X								
135806007	1	19:09															X								
135806008	1	19:11															X								
135806009	1	19:13															X								
135806010	1	19:15															X								
CCV03	1	19:17															X								
CCB03	1	19:19															X								
135806011	1	19:21															X								
135806012	1	19:23															X								
135806013	1	19:25															X								
135806014	1	19:27															X								
ZZZZZZ	1	19:29																							

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time																							
ZZZZZZ	10	19:31																							
ZZZZZZ	1	19:33																							
ZZZZZZ	1	19:35																							
ZZZZZZ	1	19:37																							
ZZZZZZ	1	19:39																							
CCV04	1	19:41														X									
CCB04	1	19:43														X									

STANDARDS DATA

METALS
-10-
Instrument Detection Limits

SDG NO. 3193S

Contract: LANL00101 **Lab Code: GEL** **MDL Effective Date:** 01-APR-05

ICP	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
	Aluminum	308.215	68.0	200
	Antimony	206.838	4.0	10
	Arsenic	193.696	6.0	15
	Barium	493.409	1.0	5
	Beryllium	313.042	1.0	5
	Cadmium	226.502	1.0	5
	Calcium	317.933	36.0	100
	Chromium	267.716	1.0	5
	Cobalt	228.616	2.0	5
	Copper	324.754	3.0	10
	Iron	259.94	18.0	100
	Lead	220.353	2.5	10
	Magnesium	279.078	85.0	300
	Manganese	257.61	2.0	10
	Nickel	231.604	1.0	5
	Potassium	766.491	50.0	150
	Selenium	196.026	6.0	15
	Silver	328.068	1.0	5
	Sodium	588.995	45.0	150
	Thallium	190.864	5.0	20
	Vanadium	292.402	1.0	5
	Zinc	213.856	2.0	10

METALS
–10–
Instrument Detection Limits

SDG NO. 3193S

Contract: LANL00101 **Lab Code: GEL** **MDL Effective Date:** 01–APR–05

ICP/MS	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
	Aluminum		5.0	15
	Antimony		0.5	2
	Arsenic		1.5	5
	Barium		0.5	2
	Beryllium		0.1	.5
	Cadmium		0.1	1
	Calcium		40.0	100
	Chromium		1.0	3
	Cobalt		0.1	1
	Copper		0.2	1
	Iron		10.0	25
	Lead		0.5	2
	Magnesium		5.0	15
	Manganese		1.0	5
	Nickel		0.5	2
	Potassium		80.0	300
	Selenium		2.5	5
	Silver		0.2	1
	Sodium		80.0	250
	Thallium		0.4	1
	Vanadium		2.0	10
	Zinc		2.0	10

METALS
-10-
Instrument Detection Limits

SDG NO. 3193S

Contract: LANL00101 **Lab Code: GEL** **MDL Effective Date:** 01-APR-05

	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
MERCURY				
	Mercury		0.05	.2

METALS
–11–
Interelement Correction Factors

Lab Code: GEL
Contract: LANL00101
Instrument: TRACE2
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 3193S
Effective Dates: 31–OCT–04,31–JAN–05

Parmname	Wavelength	Aluminum	Antimony	Arsenic	Barium	Beryllium
Aluminum	308.215	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.838	0.00000	0.00000	0.00000	0.00000	0.00000
Arsenic	189.042	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	493.409	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.042	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.678	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Calcium	317.933	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.753	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	259.94	0.00000	0.00000	0.00000	0.00000	0.00000
	271.441	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.351	0.00000	0.00000	0.00000	0.00000	0.00000
	220.352	0.00000	0.00000	0.00000	0.00000	0.00000
Magnesium	279.078	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.03	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	178.287	0.00000	0.00000	0.00000	0.00000	0.00000
Potassium	766.491	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.022	0.00002	0.00000	0.00000	0.00000	0.00000
Silicon	288.158	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Sodium	330.232	0.00120	0.00000	0.00000	0.00092	0.00000
	588.95	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.864	0.00000	0.00000	0.00000	0.00000	0.00000
Tin	189.989	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.941	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	385.958	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	–0.00040	0.00000
Zinc	213.858	0.00000	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL00101
Instrument: TRACE2
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 3193S
Effective Dates: 31-OCT-04,31-JAN-05

Parmname	Wavelength	Boron	Cadmium	Calcium	Chromium	Cobalt
Aluminum	308.215	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.838	0.00000	0.00000	0.00000	0.00307	0.00000
Arsenic	189.042	0.00000	0.00000	0.00000	0.00013	0.00013
Barium	493.409	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.042	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.678	0.00000	0.00000	0.00000	0.00000	0.00106
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Calcium	317.933	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	-0.00051	0.00000
Copper	324.753	0.00000	0.00000	0.00000	0.00000	-0.00135
Iron	259.94	0.00000	0.00000	0.00000	0.00000	0.00000
	271.441	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.351	0.00000	0.00000	0.00000	0.00000	0.00000
	220.352	0.00000	0.00000	0.00000	0.00000	0.00000
Magnesium	279.078	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.03	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	-0.00065
Phosphorous	178.287	0.00000	0.00000	0.00000	0.00000	0.00000
Potassium	766.491	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.022	0.00000	0.00000	0.00000	-0.00014	-0.00044
Silicon	288.158	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Sodium	330.232	0.00000	0.00000	0.00000	0.00000	0.00000
	588.95	0.00000	0.00000	0.00003	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00001	0.00000	0.00000
Thallium	190.864	0.00000	0.00000	0.00000	0.00000	-0.00252
Tin	189.989	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.941	0.00000	0.00000	0.00000	0.00029	0.00000
Uranium	385.958	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.858	0.00000	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL00101
Instrument: TRACE2
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 3193S
Effective Dates: 31-OCT-04,31-JAN-05

Parmname	Wavelength	Copper	Iron	Lead	Magnesium	Manganese
Aluminum	308.215	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.838	0.00000	0.00008	0.00000	0.00000	0.00000
Arsenic	189.042	0.00021	-0.00001	0.00000	0.00000	0.00000
Barium	493.409	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.042	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.678	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00002	0.00000	0.00000	0.00000
Calcium	317.933	0.00000	0.00000	0.00000	0.00004	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	-0.00093
Cobalt	228.616	0.00000	0.00002	0.00000	0.00000	0.00000
Copper	324.753	0.00000	-0.00025	0.00000	0.00000	0.00000
Iron	259.94	0.00000	0.00000	0.00000	0.00010	0.00000
	271.441	0.00000	0.00000	0.00000	0.00010	0.00000
Lead	220.351	0.00000	0.00023	0.00000	0.00000	0.00000
	220.352	0.00000	0.00004	0.00000	0.00000	0.00000
Magnesium	279.078	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00002	0.00000	0.00001	0.00000
Molybdenum	202.03	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00002	0.00000	0.00000	0.00000
Phosphorous	178.287	0.00000	0.00010	0.00000	0.00000	0.00000
Potassium	766.491	0.00000	0.00000	0.00000	0.00012	0.00000
Selenium	196.022	0.00000	-0.00025	0.00000	0.00000	0.00103
Silicon	288.158	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Sodium	330.232	0.00000	0.00000	0.00000	0.00000	0.00000
	588.95	0.00000	0.00000	0.00000	0.00010	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.864	0.00000	-0.00002	0.00000	0.00000	0.00000
Tin	189.989	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.941	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	385.958	0.00000	0.00101	0.00000	0.00000	0.00725
Vanadium	292.402	0.00000	0.00003	0.00000	0.00000	0.00000
Zinc	213.858	0.00000	0.00005	0.00000	0.00003	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL **GEL Job No:** 3193S
Contract: LANL00101
Instrument: TRACE2 **Effective Dates:** 31-OCT-04,31-JAN-05
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Parmname	Wavelength	Molybdenum	Nickel	Phosphorous	Potassium	Selenium
Aluminum	308.215	-0.01269	0.00000	0.00000	0.00000	0.00000
Antimony	206.838	-0.00708	0.00000	0.00000	0.00000	0.00000
Arsenic	189.042	0.00026	0.00000	0.00000	0.00000	0.00000
Barium	493.409	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.042	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.678	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Calcium	317.933	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.753	0.00020	0.00000	0.00000	0.00000	0.00000
Iron	259.94	0.00000	0.00000	0.00000	0.00000	0.00000
	271.441	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.351	-0.00108	0.00000	0.00000	0.00000	0.00000
	220.352	-0.00112	0.00000	0.00000	0.00000	0.00000
Magnesium	279.078	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.03	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	178.287	0.00000	0.00000	0.00000	0.00000	0.00000
Potassium	766.491	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.022	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	288.158	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	-0.00051	0.00000	0.00000	0.00000	0.00000
Sodium	330.232	0.00000	0.00000	0.00000	0.00000	0.00000
	588.95	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.864	0.00000	0.00000	0.00000	0.00000	0.00000
Tin	189.989	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.941	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	385.958	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	-0.00064	0.00000	0.00000	0.00000	0.00000
Zinc	213.858	0.00000	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL00101
Instrument: TRACE2
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 3193S
Effective Dates: 31-OCT-04,31-JAN-05

Parmname	Wavelength	Silicon	Silver	Sodium	Strontium	Thallium
Aluminum	308.215	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.838	0.00000	0.00000	0.00000	0.00000	0.00000
Arsenic	189.042	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	493.409	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.042	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.678	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Calcium	317.933	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.753	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	259.94	0.00000	0.00000	0.00000	0.00000	0.00000
	271.441	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.351	0.00000	0.00000	0.00000	0.00000	0.00000
	220.352	0.00000	0.00000	0.00000	0.00000	0.00000
Magnesium	279.078	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.03	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	178.287	0.00000	0.00000	0.00000	0.00000	0.00000
Potassium	766.491	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.022	-0.00013	0.00000	0.00000	0.00000	0.00000
Silicon	288.158	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Sodium	330.232	0.00000	0.00000	0.00000	0.00000	0.00000
	588.95	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.864	0.00000	0.00000	0.00000	0.00000	0.00000
Tin	189.989	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.941	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	385.958	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.858	0.00000	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL **GEL Job No:** 3193S
Contract: LANL00101
Instrument: TRACE2 **Effective Dates:** 31-OCT-04,31-JAN-05
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Parmname	Wavelength	Tin	Titanium	Uranium	Vanadium	Zinc
Aluminum	308.215	0.00000	0.00000	0.00000	0.02412	0.00000
Antimony	206.838	0.00000	0.00000	0.00000	0.00000	0.00000
Arsenic	189.042	0.00000	0.00000	-0.00018	0.00000	0.00000
Barium	493.409	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.042	0.00000	0.00000	0.00000	0.00017	0.00000
Boron	249.678	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Calcium	317.933	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00104	0.00000	0.00000
Cobalt	228.616	0.00000	0.00181	0.00012	0.00000	0.00000
Copper	324.753	0.00000	0.00000	0.00089	0.00000	0.00000
Iron	259.94	0.00000	0.00000	0.00000	0.00000	0.00000
	271.441	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.351	0.00000	-0.00580	0.00050	0.00000	0.00000
	220.352	0.00000	-0.00006	0.00059	0.00000	0.00000
Magnesium	279.078	0.00000	0.00000	0.00424	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.03	0.00000	0.00000	0.00000	-0.00001	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	178.287	0.00000	0.00000	0.00000	0.00000	0.00000
Potassium	766.491	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.022	0.00000	-0.00057	-0.00025	-0.00030	0.00000
Silicon	288.158	0.01260	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00025	0.00000	0.00000
Sodium	330.232	0.00000	0.00000	0.00000	0.00254	0.02000
	588.95	0.00000	0.00000	0.00000	0.00017	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.864	0.00000	-0.00144	0.00000	-0.00240	0.00000
Tin	189.989	0.00000	-0.00604	0.00000	0.00000	0.00000
Titanium	334.941	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	385.958	0.00000	0.00000	0.00000	-0.00581	0.00000
Vanadium	292.402	0.00000	0.00180	0.00020	0.00000	0.00000
Zinc	213.858	0.00000	0.00000	0.00000	0.00000	0.00000

METALS
-12-
Linear Ranges

SDG NO. 3193S

Contract: LANL00101 **Lab Code: GEL**

Instrument ID TRACE2

Analyte	Integration Time	LDR	Units	Effective Date
Aluminum		500000	ug/L	01-MAY-05
Antimony		50000	ug/L	01-MAY-05
Arsenic		50000	ug/L	01-MAY-05
Barium		15000	ug/L	01-MAY-05
Beryllium		10000	ug/L	01-MAY-05
Cadmium		25000	ug/L	01-MAY-05
Calcium		500000	ug/L	01-MAY-05
Chromium		50000	ug/L	01-MAY-05
Cobalt		50000	ug/L	01-MAY-05
Copper		25000	ug/L	01-MAY-05
Iron		500000	ug/L	01-MAY-05
Lead		50000	ug/L	01-MAY-05
Magnesium		500000	ug/L	01-MAY-05
Manganese		10000	ug/L	01-MAY-05
Nickel		50000	ug/L	01-MAY-05
Potassium		30000	ug/L	01-MAY-05
Selenium		50000	ug/L	01-MAY-05
Silver		2000	ug/L	01-MAY-05
Sodium		200000	ug/L	01-MAY-05
Thallium		50000	ug/L	01-MAY-05
Vanadium		50000	ug/L	01-MAY-05
Zinc		5000	ug/L	01-MAY-05

METALS
-12-
Linear Ranges

SDG NO. 3193S

Contract: LANL00101 **Lab Code: GEL**

Instrument ID ICPMS5

Analyte	Integration Time	LDR	Units	Effective Date
Aluminum		200000	ug/L	01-MAY-05
Antimony		2500	ug/L	01-MAY-05
Arsenic		5000	ug/L	01-MAY-05
Barium		10000	ug/L	01-MAY-05
Beryllium		5000	ug/L	01-MAY-05
Cadmium		10000	ug/L	01-MAY-05
Calcium		200000	ug/L	01-MAY-05
Chromium		10000	ug/L	01-MAY-05
Cobalt		10000	ug/L	01-MAY-05
Copper		10000	ug/L	01-MAY-05
Iron		200000	ug/L	01-MAY-05
Lead		10000	ug/L	01-MAY-05
Magnesium		200000	ug/L	01-MAY-05
Manganese		10000	ug/L	01-MAY-05
Nickel		10000	ug/L	01-MAY-05
Potassium		200000	ug/L	01-MAY-05
Selenium		2500	ug/L	01-MAY-05
Silver		100	ug/L	01-MAY-05
Sodium		100000	ug/L	01-MAY-05
Thallium		10000	ug/L	01-MAY-05
Vanadium		10000	ug/L	01-MAY-05
Zinc		5000	ug/L	01-MAY-05

RAW DATA

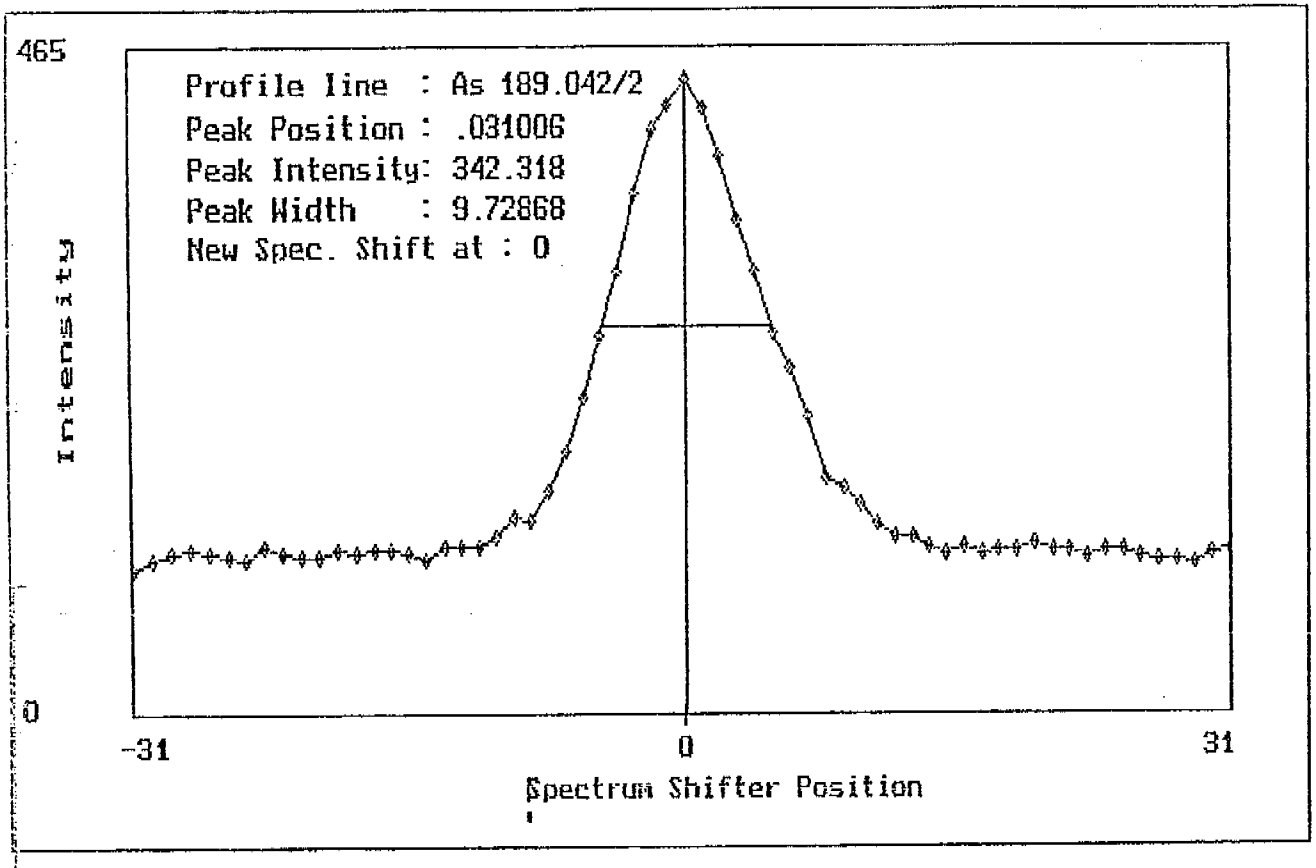
465
Profile line : As 189.042/2
Peak Position : .031006
Peak Intensity: 342.318
Peak Width : 9.72868
New Spec. Shift at : 0
Intensity
0
-31
0
31
Spectrum Shifter Position

HSC
05/10/05

Method: TRACE2 Standard: S0
Run Time: 05/10/05 13:06:52

Elem	Ag_328	Al_308	As_189	B_2496	Ba_493	Be_313	Ca_317
Avge	-.0007	.0047	.0000	.0004	.0006	.0005	.0008
SDev	.0007	.0002	.0025	.0003	.0003	.0001	.0001
%RSD	107.9	4.847	5581.	65.39	48.66	13.20	10.69
#1	-.0003	.0047	.0021	.0007	.0004	.0004	.0009
#2	-.0015	.0049	-.0027	.0002	.0005	.0005	.0007
#3	-.0002	.0044	.0008	.0004	.0009	.0005	.0009

Elem	Cd_226	Co_228	Cr_267	Cu_324	Fe_	Fe_	K_7664
Avge	-.0005	-.0001	.0002	.0009	-.0001	.0004	.0485
SDev	.0006	.0006	.0003	.0005	.0002	.0003	.0140
%RSD	113.9	851.4	145.0	51.70	297.7	70.79	28.83
#1	.0001	.0002	.0005	.0014	.0001	.0003	.0647
#2	-.0006	-.0008	.0000	.0009	-.0001	.0002	.0409
#3	-.0011	.0003	.0001	.0005	-.0002	.0008	.0401

Elem	Mg_279	Mn_257	Mo_202	Na_	Na_	Ni_231	Sb_206
Avge	.0000	.0000	.0001	-.0008	-2.242	.0001	.0005
SDev	.0002	.0001	.0003	.0012	.054	.0004	.0001
%RSD	520.6	107700.	327.0	157.6	2.390	420.3	22.26
#1	.0002	.0001	-.0001	-.0003	-2.193	-.0003	.0006
#2	-.0002	-.0001	-.0001	-.0021	-2.234	.0002	.0004
#3	.0001	.0000	.0005	.0002	-2.299	.0005	.0005

Elem	Sn_189	Ti_334	Tl_190	U_3859	V_2924	Zn_213	P_1782
Avge	.0004	-.0008	-.0011	.0185	-.0000	.0001	.0272
SDev	.0013	.0010	.0011	.0012	.0001	.0001	.0018
%RSD	331.5	124.1	95.73	6.666	450.8	99.57	6.702
#1	-.0010	-.0001	.0001	.0199	.0001	.0001	.0256
#2	.0015	-.0020	-.0017	.0175	.0000	.0000	.0269
#3	.0006	-.0003	-.0018	.0182	-.0001	.0001	.0292

Elem	Si_288	Si02_	Sr_421	Pb1st	Pb2nd	Se1st	Se2nd
Avge	.0043	.0043	.0024	.0032	-.0009	.0016	-.0011
SDev	.0001	.0001	.0004	.0006	.0020	.0037	.0003
%RSD	3.513	3.513	15.35	17.38	231.2	226.8	25.66
#1	.0043	.0043	.0024	.0033	-.0005	.0050	-.0009
#2	.0041	.0041	.0020	.0026	-.0030	-.0023	-.0009
#3	.0044	.0044	.0027	.0037	.0009	.0022	-.0014

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	17314	--	--	--	--	--	--
SDev	145.5171	--	--	--	--	--	--
%RSD	.8404602	--	--	--	--	--	--
#1	17373	--	--	--	--	--	--
#2	17421	--	--	--	--	--	--
#3	17148	--	--	--	--	--	--

Method: TRACE2 Standard: S0.1
Run Time: 05/10/05 13:12:50

Elem	Ag_328	As_189	B_2496	Ba_493	Be_313	Cd_226	Co_228
Avge	.0919	.0575	.0126	.2611	.2721	.2790	.0572
SDev	.0017	.0006	.0005	.0010	.0016	.0028	.0004
%RSD	1.891	1.113	4.175	.3752	.5834	.9947	.7791
#1	.0900	.0578	.0121	.2604	.2702	.2804	.0567
#2	.0934	.0580	.0131	.2606	.2730	.2807	.0576
#3	.0923	.0568	.0124	.2622	.2729	.2758	.0572

Elem	Cr_267	Cu_324	K_7664	Mn_257	Mo_202	Ni_231	Sb_206
Avge	.0480	.0604	1.851	.0316	.0441	.0462	.0176
SDev	.0004	.0004	.004	.0002	.0006	.0002	.0004
%RSD	.9315	.5910	.2344	.6387	1.266	.4040	2.104
#1	.0476	.0600	1.855	.0318	.0445	.0462	.0178
#2	.0485	.0606	1.851	.0314	.0443	.0464	.0178
#3	.0480	.0606	1.846	.0315	.0434	.0461	.0172

Elem	Sn_189	Ti_334	Tl_190	U_3859	V_2924	Zn_213	P_1782
Avge	.0670	.5243	.0401	.0232	.0159	.0283	.3513
SDev	.0043	.0027	.0009	.0005	.0002	.0002	.0026
%RSD	6.427	.5208	2.254	2.083	1.527	.6442	.7305
#1	.0620	.5211	.0392	.0235	.0157	.0282	.3542
#2	.0696	.5256	.0402	.0227	.0160	.0285	.3492
#3	.0693	.5261	.0410	.0235	.0162	.0282	.3507

Elem	Si_288	Si02_	Sr_421	Pb1st	Pb2nd	Se1st	Se2nd
Avge	.0393	.0393	.9810	.1044	.0466	.0674	.0317
SDev	.0006	.0006	.0040	.0022	.0014	.0013	.0021
%RSD	1.614	1.614	.4052	2.100	3.017	1.935	6.463
#1	.0386	.0386	.9781	.1043	.0454	.0672	.0321
#2	.0399	.0399	.9794	.1022	.0481	.0688	.0336
#3	.0394	.0394	.9856	.1066	.0464	.0662	.0295

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	17271	--	--	--	--	--	--
SDev	554.3746	--	--	--	--	--	--
%RSD	3.209881	--	--	--	--	--	--
#1	17904	--	--	--	--	--	--
#2	17037	--	--	--	--	--	--
#3	16872	--	--	--	--	--	--

Method: TRACE2 Standard: S0.5
Run Time: 05/10/05 13:18:47

Elem	Ag_328	As_189	B_2496	Ba_493	Be_313	Cd_226	Co_228
Avge	.4572	.2819	.0630	1.295	1.364	1.392	.2825
SDev	.0083	.0051	.0009	.020	.024	.029	.0046
%RSD	1.824	1.824	1.423	1.537	1.761	2.109	1.646
#1	.4481	.2760	.0620	1.273	1.337	1.358	.2774
#2	.4644	.2856	.0634	1.311	1.384	1.413	.2865
#3	.4592	.2839	.0637	1.303	1.370	1.404	.2837

Elem	Cr_267	Cu_324	Fe_	K_7664	Mn_257	Mo_202	Ni_231
Avge	.2412	.2922	.9655	8.898	.1584	.2193	.2275
SDev	.0046	.0046	.0117	.157	.0026	.0052	.0037
%RSD	1.917	1.582	1.213	1.770	1.646	2.362	1.603
#1	.2362	.2871	.9522	8.728	.1554	.2133	.2234
#2	.2453	.2962	.9699	9.040	.1600	.2221	.2304
#3	.2422	.2932	.9743	8.925	.1598	.2224	.2287

Elem	Sb_206	Sn_189	Ti_334	Tl_190	U_3859	V_2924	Zn_213
Avge	.0859	.3407	2.630	.2015	.0406	.0803	.1388
SDev	.0020	.0070	.048	.0065	.0003	.0015	.0023
%RSD	2.346	2.052	1.836	3.225	.8701	1.839	1.658
#1	.0835	.3330	2.577	.1951	.0405	.0786	.1362
#2	.0869	.3467	2.671	.2081	.0410	.0812	.1400
#3	.0871	.3422	2.643	.2013	.0403	.0811	.1404

Elem	P_1782	Si_288	Si02_	Sr_421	Pb1st	Pb2nd	Se1st
Avge	1.652	.1834	.1834	4.884	.5413	.2273	.3392
SDev	.037	.0040	.0040	.077	.0013	.0028	.0035
%RSD	2.249	2.169	2.169	1.578	.2373	1.232	1.043
#1	1.609	.1788	.1788	4.797	.5426	.2259	.3363
#2	1.674	.1853	.1853	4.945	.5400	.2306	.3382
#3	1.672	.1861	.1861	4.909	.5414	.2256	.3432

Elem	Se2nd
Avge	.1646
SDev	.0029
%RSD	1.766
#1	.1623
#2	.1679
#3	.1637

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	17246	--	--	--	--	--	--
SDev	177.6450	--	--	--	--	--	--
%RSD	1.030037	--	--	--	--	--	--
#1	17188	--	--	--	--	--	--
#2	17105	--	--	--	--	--	--
#3	17446	--	--	--	--	--	--

ethod: TRACE2 Standard: SCAL
un Time: 05/10/05 13:24:44

Elem	Ag_328	Al_308	As_189	B_2496	Ba_493	Be_313	Ca_317
Avge	.9093	.5764	.5503	.1231	2.609	2.721	1.862
SDev	.0091	.0051	.0092	.0008	.023	.026	.012
%RSD	.9964	.8829	1.672	.6329	.8738	.9526	.6679
#1	.9034	.5731	.5413	.1223	2.586	2.697	1.848
#2	.9197	.5823	.5596	.1238	2.609	2.749	1.871
#3	.9047	.5738	.5500	.1232	2.631	2.718	1.868

Elem	Cd_226	Co_228	Cr_267	Cu_324	Fe_	Fe_	K_7664
Avge	2.723	.5576	.4772	.5797	.1377	1.912	17.04
SDev	.016	.0044	.0024	.0066	.0018	.026	.15
%RSD	.6048	.7886	.4944	1.146	1.287	1.344	.8607
#1	2.710	.5539	.4745	.5748	.1362	1.916	16.92
#2	2.742	.5625	.4790	.5872	.1397	1.885	17.20
#3	2.718	.5564	.4781	.5769	.1372	1.936	16.99

Elem	Mg_279	Mn_257	Mo_202	Na_	Ni_231	Sb_206	Sn_189
Avge	.2172	.3154	.4347	59.01	.4484	.1713	.6695
SDev	.0010	.0013	.0040	.95	.0027	.0022	.0038
%RSD	.4484	.4068	.9142	1.618	.5969	1.268	.5668
#1	.2164	.3142	.4318	58.00	.4454	.1689	.6661
#2	.2182	.3151	.4329	59.89	.4494	.1731	.6736
#3	.2169	.3167	.4392	59.15	.4505	.1718	.6687

Elem	Ti_334	Tl_190	U_3859	V_2924	Zn_213	P_1782	Si_288
Avge	5.237	.3954	.0628	.1598	.2726	3.225	.3547
SDev	.047	.0042	.0002	.0014	.0024	.039	.0044
%RSD	.8997	1.068	.3516	.8816	.8823	1.208	1.245
#1	5.185	.3919	.0628	.1588	.2700	3.184	.3515
#2	5.277	.4001	.0631	.1592	.2748	3.262	.3597
#3	5.249	.3942	.0627	.1614	.2728	3.229	.3528

Elem	SiO2_	Sr_421	Pb1st	Pb2nd	Se1st	Se2nd
Avge	.3547	9.781	1.072	.4565	.6626	.3313
SDev	.0044	.081	.011	.0150	.0175	.0138
%RSD	1.245	.8244	1.063	3.282	2.634	4.158
#1	.3515	9.694	1.068	.4736	.6565	.3455
#2	.3597	9.796	1.085	.4503	.6823	.3305
#3	.3528	9.853	1.064	.4456	.6490	.3180

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	16037	--	--	--	--	--	--
SDev	308.3105	--	--	--	--	--	--
%RSD	1.922538	--	--	--	--	--	--
#1	16094	--	--	--	--	--	--
#2	16312	--	--	--	--	--	--
#3	15704	--	--	--	--	--	--

Method: TRACE2 Standard: S10
Run Time: 05/10/05 13:30:42

Elem	Al_308	Ca_317	Fe_	Mg_279	Na_
Avge	2.839	9.350	.2693	1.067	.2166
SDev	.029	.092	.0043	.013	.0027
%RSD	1.016	.9856	1.595	1.221	1.266
#1	2.806	9.243	.2645	1.052	.2135
#2	2.853	9.401	.2708	1.074	.2182
#3	2.858	9.404	.2727	1.075	.2183

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	16489	--	--	--	--	--	--
SDev	119.2447	--	--	--	--	--	--
%RSD	.7231800	--	--	--	--	--	--
#1	16611	--	--	--	--	--	--
#2	16484	--	--	--	--	--	--
#3	16372	--	--	--	--	--	--

Iethod: TRACE2 Slope = Conc(SIR)/IR

:lement	Wavelen	High std	Low std	Slope	Y-intercept	Date Standardized
ıg_328	328.068	Multiple	Standards	1089.83	.743750	05/10/05 01:24:44
ıl_308	308.215	Multiple	Standards	17576.5	-82.5041	05/10/05 01:30:42
ıs_189	189.042	Multiple	Standards	1777.87	-.097447	05/10/05 01:24:44
ı_2496	249.678	Multiple	Standards	8135.27	-3.59209	05/10/05 01:24:44
ıa_493	493.409	Multiple	Standards	384.480	-.231013	05/10/05 01:24:44
ıe_313	313.042	Multiple	Standards	367.572	-.168454	05/10/05 01:24:44
:a_317	317.933	Multiple	Standards	5360.12	-4.36482	05/10/05 01:30:42
:d_226	226.502	Multiple	Standards	361.348	.186064	05/10/05 01:24:44
:o_228	228.616	Multiple	Standards	1772.57	.120401	05/10/05 01:24:44
:r_267	267.716	Multiple	Standards	2086.92	-.360217	05/10/05 01:24:44
:u_324	324.753	Multiple	Standards	1706.07	-1.61864	05/10/05 01:24:44
?e_	271.441	Multiple	Standards	73414.7	3.73359	05/10/05 01:30:42
?e_	259.940	Multiple	Standards	5206.02	-2.33396	05/10/05 01:24:44
(_7664	766.491	Multiple	Standards	569.169	-27.8681	05/10/05 01:24:44
ıg_279	279.078	Multiple	Standards	46468.7	-2.47854	05/10/05 01:30:42
ın_257	257.610	Multiple	Standards	3166.12	.000463	05/10/05 01:24:44
ıo_202	202.030	Multiple	Standards	2285.54	-.228665	05/10/05 01:24:44
ıa_	330.232	S10	S0	91993.5	70.3534	05/10/05 01:30:42
ıa_	588.950	SCAL	S0	163.256	366.037	05/10/05 01:30:42
ıi_231	231.604	Multiple	Standards	2197.47	-.227954	05/10/05 01:24:44
b_206	206.838	Multiple	Standards	5833.39	-3.03412	05/10/05 01:24:44
b_220	220.353	NONE	NONE	.000000	.000000	*NOT STANDARDIZED
e_196	196.026	NONE	NONE	.000000	.000000	*NOT STANDARDIZED
n_189	189.989	Multiple	Standards	1479.47	-.562653	05/10/05 01:24:44
i_334	334.941	Multiple	Standards	190.470	.153135	05/10/05 01:24:44
l_190	190.864	Multiple	Standards	2454.73	2.72981	05/10/05 01:24:44
_3859	385.958	Multiple	Standards	22277.1	-412.191	05/10/05 01:24:44
_2924	292.402	Multiple	Standards	6255.33	.124762	05/10/05 01:24:44
n_213	213.858	Multiple	Standards	3604.87	-.225035	05/10/05 01:24:44
_1782	178.287	Multiple	Standards	1548.51	-42.1288	05/10/05 01:24:44
i_288	288.158	Multiple	Standards	14172.4	-60.8251	05/10/05 01:24:44
i02_	288.158	Multiple	Standards	30314.7	-130.105	05/10/05 01:24:44
r_421	421.552	Multiple	Standards	102.297	-.245286	05/10/05 01:24:44
b1st	220.351	Multiple	Standards	950.460	-2.98975	05/10/05 01:24:44
b2nd	220.352	Multiple	Standards	2157.21	1.82629	05/10/05 01:24:44
e1st	196.021	Multiple	Standards	1508.34	-2.44003	05/10/05 01:24:44
e2nd	196.022	Multiple	Standards	3005.62	3.25420	05/10/05 01:24:44

Method: TRACE2

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Ag_328	328.068	S0	.000000	-.008568	.008568
		S0.1	100.000	100.944	-.944351
		S0.5	500.000	499.054	.946106
		SCAL	1000.00	991.675	8.32526

CorCoef: 0.99999

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Al_308	308.215	S0	.000000	-.297748	.297748
		SCAL	10000.0	10048.7	-48.6602
		S10	50000.0	49814.1	185.934

CorCoef: 1.00000

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
As_189	189.042	S0	.000000	-.018960	.018960
		S0.1	100.000	102.145	-2.14544
		S0.5	500.000	500.997	-.997223
		SCAL	1000.00	978.265	21.7350

CorCoef: 0.99992

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
B_2496	249.678	S0	.000000	.011066	-.011066
		S0.1	100.000	98.6817	1.31825
		S0.5	500.000	509.289	-9.28922
		SCAL	1000.00	997.781	2.21881

CorCoef: 0.99993

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Ba_493	493.409	S0	.000000	-.000942	.000942
		S0.1	100.000	100.153	-.152794
		S0.5	500.000	497.833	2.16702
		SCAL	1000.00	1002.81	-2.80621

CorCoef: 0.99999

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Be_313	313.042	S0	.000000	.001485	-.001485
		S0.1	100.000	99.8302	.169785
		S0.5	500.000	501.082	-1.08185
		SCAL	1000.00	1000.05	-.053162

CorCoef: 1.00000

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Ca_317	317.933	S0	.000000	.176875	-.176875
		SCAL	10000.0	9977.89	22.1094
		S10	50000.0	50110.5	-110.547

CorCoef: 1.00000

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Cd_226	226.502	S0	.000000	-.009579	.009579
		S0.1	100.000	100.999	-.998650
		S0.5	500.000	503.032	-3.03198
		SCAL	1000.00	984.248	15.7520

CorCoef: 0.99993

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Co_228	228.616	S0	.000000	-.011649	.011649
		S0.1	100.000	101.434	-1.43388
		S0.5	500.000	500.928	-.928436
		SCAL	1000.00	988.485	11.5152

CorCoef: 0.99998

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Cr_267	267.716	S0	.000000	.000689	-.000689
		S0.1	100.000	99.8673	.132706
		S0.5	500.000	503.068	-3.06778
		SCAL	1000.00	995.516	4.48431

CorCoef: 0.99998

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Cu_324	324.753	S0	.000000	-.012657	.012657
		S0.1	100.000	101.425	-1.42486
		S0.5	500.000	496.856	3.14441
		SCAL	1000.00	987.319	12.6811

CorCoef: 0.99999

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Fe_	271.441	S0	.000000	-.562080	.562080
		SCAL	10000.0	10112.4	-112.416
		S10	20000.0	19775.2	224.832

CorCoef: 0.99991

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Fe_	259.940	S0	.000000	-.120238	.120238
		S0.5	5000.00	5024.05	-24.0479
		SCAL	10000.0	9951.91	48.0947

CorCoef: 0.99998

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
K_7664	766.491	S0	.000000	-.238320	.238320
		S0.1	1000.00	1025.67	-25.6693
		S0.5	5000.00	5036.49	-36.4917
		SCAL	10000.0	9670.33	329.675

CorCoef: 0.99977

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Mg_279	279.078	S0	.000000	-.676215	.676215
		SCAL	10000.0	10088.8	-88.7793
		S10	50000.0	49577.5	422.500

CorCoef: 0.99999

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Mn_257	257.610	S0	.000000	.000632	-.000632
		S0.1	100.000	99.8977	.102341
		S0.5	500.000	501.529	-1.52893
		SCAL	1000.00	998.445	1.55463

CorCoef: 1.00000

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Mo_202	202.030	S0	.000000	-.004688	.004688
		S0.1	100.000	100.501	-.500839
		S0.5	500.000	500.901	-.900757
		SCAL	1000.00	993.190	6.80981

CorCoef: 0.99999

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Na_	330.232	S0	.000000	-.000002	.000002
		S10	20000.0	20000.0	.000000

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Na_	588.950	S0	.000000	.000012	-.000012
		SCAL	10000.0	10000.0	.000000

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Ni_231	231.604	S0	.000000	-.013077	.013077
		S0.1	100.000	101.389	-1.38917
		S0.5	500.000	499.704	.295624
		SCAL	1000.00	985.121	14.8792

CorCoef: 0.99997

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Sb_206	206.838	S0	.000000	-.001095	.001095
		S0.1	100.000	99.7295	.270493
		S0.5	500.000	497.868	2.13235
		SCAL	1000.00	996.053	3.94708

CorCoef: 1.00000

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Pb_220	220.353	NONE	.000000	.000000	.000000
		NONE	10.0000	.000000	10.0000

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Se_196	196.026	NONE	.000000	.000000	.000000
		NONE	10.0000	.000000	10.0000

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Sn_189	189.989	S0	.000000	.006668	-.006668
		S0.1	100.000	98.5119	1.48811
		S0.5	500.000	503.420	-3.42038
		SCAL	1000.00	989.917	10.0827

CorCoef: 0.99996

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Ti_334	334.941	S0	.000000	-.000300	.000300
		S0.1	100.000	100.008	-.008133
		S0.5	500.000	501.132	-1.13159
		SCAL	1000.00	997.655	2.34454

CorCoef: 1.00000

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Cl_190	190.864	S0	.000000	-.017269	.017269
		S0.1	100.000	101.272	-1.27205
		S0.5	500.000	497.316	2.68427
		SCAL	1000.00	973.426	26.5742

CorCoef: 0.99994

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
I_3859	385.958	S0	.000000	-.040731	.040731
		S0.1	100.000	104.951	-4.95091
		S0.5	500.000	492.038	7.96225
		SCAL	1000.00	987.539	12.4606

CorCoef: 0.99997

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
I_2924	292.402	S0	.000000	.001599	-.001599
		S0.1	100.000	99.8786	.121353
		S0.5	500.000	502.451	-2.45090
		SCAL	1000.00	999.830	.169617

CorCoef: 1.00000

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Zn_213	213.858	S0	.000000	-.016627	.016627
		S0.1	100.000	101.847	-1.84692
		S0.5	500.000	500.288	-.288116
		SCAL	1000.00	982.299	17.7006

CorCoef: 0.99995

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
P_1782	178.287	S0	.000000	-.020197	.020197
		S0.1	500.000	501.912	-1.91168
		S0.5	2500.00	2515.47	-15.4668
		SCAL	5000.00	4951.95	48.0542

CorCoef: 0.99997

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Si_288	288.158	S0	.000000	.031000	-.031000
		S0.1	500.000	495.700	4.29993
		S0.5	2500.00	2538.51	-38.5056
		SCAL	5000.00	4965.99	34.0117

CorCoef: 0.99993

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Si02_	288.158	S0	.000000	.066300	-.066300
		S0.1	1069.50	1060.30	9.19763
		S0.5	5347.50	5429.86	-82.3633
		SCAL	10695.0	10622.2	72.7510

CorCoef: 0.99993

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Sr_421	421.552	S0	.000000	-.000882	.000882
		S0.1	100.000	100.113	-.112656
		S0.5	500.000	499.338	.661591
		SCAL	1000.00	1000.34	-.336731

CorCoef: 1.00000

lement	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
b1st	220.351	S0	.000000	.032060	-.032060
		S0.1	100.000	96.2044	3.79562
		S0.5	500.000	511.537	-11.5367
		SCAL	1000.00	1016.24	-16.2391

orCoef: 0.99997

lement	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
b2nd	220.352	S0	.000000	-.021661	.021661
		S0.1	100.000	102.376	-2.37630
		S0.5	500.000	492.258	7.74179
		SCAL	1000.00	986.589	13.4106

orCoef: 0.99999

lement	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
e1st	196.021	S0	.000000	.008244	-.008244
		S0.1	100.000	99.2167	.783279
		S0.5	500.000	509.245	-9.24500
		SCAL	1000.00	996.950	3.05042

orCoef: 0.99993

lement	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
e2nd	196.022	S0	.000000	.009147	-.009147
		S0.1	100.000	98.5834	1.41661
		S0.5	500.000	498.108	1.89215
		SCAL	1000.00	999.027	.973145

orCoef: 1.00000

Method: TRACE2 Sample Name: S10 Operator: HSC
Run Time: 05/10/05 13:35:53
Comment: CALIBRATION CURVE
Mode: CONC Corr. Factor: 1

Elem	Ag_328	Al_308	As_189	B_2496	Ba_493	Be_313	Ca_317
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	.8607	49590.	.6592	.6990	.4703	.2230	50050.
SDev	.6612	158.	3.964	4.065	.0573	.0169	177.
%RSD	76.82	.3182	601.3	581.5	12.17	7.573	.3539
#1	.4836	49420.	4.758	5.246	.4187	.2086	49850.
#2	.4743	49720.	-3.154	-2.583	.5319	.2188	50170.
#3	1.624	49640.	.3728	-.5654	.4604	.2416	50130.
Errors	NOCHECK	QC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK	QC Pass
Value		50000.					50000.
Range		5.000					5.000

Elem	Cd_226	Co_228	Cr_267	Cu_324	Fe_	K_7664	Mg_279
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	.1884	.1050	-.6521	.2418	19710.	7.883	49730.
SDev	.1797	.1658	.7932	.2189	200.	4.906	136.
%RSD	95.37	157.9	121.6	90.52	1.017	62.23	.2742
#1	-.0191	.2471	-.4733	.4818	19490.	3.221	49620.
#2	.2933	.1451	-1.519	.0531	19740.	7.427	49880.
#3	.2911	-.0771	.0364	.1905	19890.	13.00	49680.
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	QC Pass	NOCHECK	QC Pass
Value					20000.		50000.
Range					5.000		5.000

Elem	Mn_257	Mo_202	Na_	Ni_231	Sb_206	Pb_220	Se_196
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	.2659	-.3244	19970.	1.071	-1.547	1.542	1.937
SDev	.1059	.4081	138.	.975	4.945	2.027	1.293
%RSD	39.82	125.8	.6888	91.01	319.8	131.4	66.76
#1	.3120	-.0907	19810.	.1976	2.565	-.2144	.6527
#2	.3409	-.7956	20030.	2.122	-7.034	1.081	3.239
#3	.1448	-.0869	20070.	.8930	-.1698	3.760	1.920
Errors	NOCHECK	NOCHECK	QC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK
Value			20000.				
Range			5.000				

Elem	Sn_189	Ti_334	Tl_190	U_3859	V_2924	Zn_213	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	-1.211	.2011	2.085	-8.416	.9305	.3456	2.629
SDev	1.413	.1498	3.032	3.564	.5981	.1167	6.158
%RSD	116.6	74.51	145.4	42.35	64.28	33.77	234.2
#1	.2414	.0727	4.388	-12.17	.2780	.3790	1.718
#2	-2.580	.1649	3.216	-5.075	1.453	.4420	9.192
#3	-1.294	.3657	-1.350	-8.007	1.061	.2159	-3.022
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK

Value
Range

Elem	Si_288	Si02_	Sr_421	Pb1st	Pb2nd	Se1st	Se2nd
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	-17.79	-38.05	.6488	24.65	-9.994	-1.514	3.660
SDev	6.91	14.78	.0258	2.56	2.497	6.709	5.282
%RSD	38.85	38.85	3.975	10.40	24.98	443.2	144.3
#1	-25.75	-55.09	.6251	21.76	-11.18	5.519	-1.777
#2	-14.25	-30.47	.6763	26.63	-11.68	-7.842	8.771
#3	-13.37	-28.60	.6450	25.56	-7.125	-2.218	3.986
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK

Value
Range

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	16274	--	--	--	--	--	--
SDev	255.2010	--	--	--	--	--	--
%RSD	1.568156	--	--	--	--	--	--
#1	16569	--	--	--	--	--	--
#2	16126	--	--	--	--	--	--
#3	16127	--	--	--	--	--	--

Method: TRACE2 Sample Name: SCAL Operator: HSC
Run Time: 05/10/05 13:43:00
Comment: CALIBRATION CURVE
Mode: CONC Corr. Factor: 1

Elem	Ag_328	Al_308	As_189	B_2496	Ba_493	Be_313	Ca_317
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	1007.	10170.	1002.	1018.	1021.	1019.	10180.
SDev	30.	336.	27.	32.	33.	30.	302.
%RSD	3.018	3.302	2.726	3.177	3.216	2.978	2.972
#1	1041.	10550.	1029.	Q1056.	Q1059.	Q1053.	10520.
#2	999.0	10040.	1004.	999.1	1007.	1009.	10070.
#3	981.9	9913.	974.2	1000.	997.6	995.3	9941.
Errors	QC Pass	NOCHECK	QC Pass	QC Pass	QC Pass	QC Pass	NOCHECK
Value	1000.		1000.	1000.	1000.	1000.	
Range	5.000		5.000	5.000	5.000	5.000	

Elem	Cd_226	Co_228	Cr_267	Cu_324	Fe_	K_7664	Mg_279
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	1000.	1004.	1016.	1003.	10130.	9770.	10260.
SDev	31.	31.	30.	32.	231.	270.	299.
%RSD	3.102	3.136	2.956	3.178	2.283	2.765	2.918
#1	1036.	1039.	Q1050.	1039.	10390.	10070.	10610.
#2	986.9	991.9	1003.	993.1	9960.	9674.	10130.
#3	978.2	979.5	994.7	977.7	10040.	9561.	10050.
Errors	QC Pass	QC Pass	QC Pass	QC Pass	NOCHECK	NOCHECK	NOCHECK
Value	1000.	1000.	1000.	1000.			
Range	5.000	5.000	5.000	5.000			

Elem	Mn_257	Mo_202	Na_	Ni_231	Sb_206	Pb_220	Se_196
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	1015.	1014.	10150.	1002.	1016.	995.6	1000.
SDev	25.	30.	350.	29.	34.	29.9	36.
%RSD	2.459	3.003	3.451	2.902	3.366	3.002	3.615
#1	1043.	1049.	10530.	1035.	Q1056.	1030.	1041.
#2	1004.	995.9	10080.	989.0	1002.	983.1	971.8
#3	997.4	997.2	9847.	981.2	992.0	974.0	988.3
Errors	QC Pass	QC Pass	NOCHECK	QC Pass	QC Pass	QC Pass	QC Pass
Value	1000.	1000.		1000.	1000.	1000.	1000.
Range	5.000	5.000		5.000	5.000	5.000	5.000

Elem	Sn_189	Ti_334	Tl_190	U_3859	V_2924	Zn_213	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	1015.	1016.	996.1	992.3	1017.	997.3	5092.
SDev	32.	30.	29.5	32.0	27.	27.7	156.
%RSD	3.124	3.001	2.959	3.225	2.627	2.781	3.056
#1	Q1051.	Q1050.	1028.	1029.	1048.	1029.	Q5260.
#2	999.2	1006.	989.4	974.9	1000.	984.4	5065.
#3	994.0	992.0	970.5	972.8	1004.	978.4	4952.
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass

Value	1000.	1000.	1000.	1000.	1000.	1000.	5000.
Range	5.000	5.000	5.000	5.000	5.000	5.000	5.000
Elem	Si_288	Si02_	Sr_421	Pb1st	Pb2nd	Se1st	Se2nd
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	5050.	10800.	1017.	1024.	981.2	1000.	1000.
SDev	147.	314.	33.	24.	32.9	29.	40.
%RSD	2.911	2.911	3.197	2.358	3.357	2.928	4.029
#1	5216.	11160.	Q1054.	1051.	1019.	1034.	1044.
#2	5001.	10700.	1003.	1018.	965.5	984.6	965.4
#3	4935.	10560.	994.3	1004.	959.1	982.3	991.3
Errors	NOCHECK	NOCHECK	QC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK
Value			1000.				
Range			5.000				

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	16411	--	--	--	--	--	--
SDev	527.2458	--	--	--	--	--	--
%RSD	3.212774	--	--	--	--	--	--
#1	15819	--	--	--	--	--	--
#2	16582	--	--	--	--	--	--
#3	16831	--	--	--	--	--	--

ethod: TRACE2 Sample Name: ICV Operator: HSC
un Time: 05/10/05 13:50:06
omment: CALIBRATION CURVE
ode: CONC Corr. Factor: 1

Elem	Ag_328	Al_308	As_189	B_2496	Ba_493	Be_313	Ca_317
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	248.8	4953.	499.9	501.4	501.6	247.3	4968.
SDev	.4	12.	5.7	9.0	1.2	.4	7.
%RSD	.1787	.2429	1.132	1.800	.2356	.1607	.1329
#1	249.2	4964.	494.5	509.1	502.7	247.0	4969.
#2	248.3	4953.	505.7	503.6	501.9	247.1	4974.
#3	249.0	4940.	499.4	491.5	500.4	247.7	4961.
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	250.0	5000.	500.0	500.0	500.0	250.0	5000.
Range	10.00	10.00	10.00	10.00	10.00	10.00	10.00

Elem	Cd_226	Co_228	Cr_267	Cu_324	Fe_	K_7664	Mg_279
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	487.8	489.4	500.2	491.1	4779.	2440.	4897.
SDev	2.9	2.2	.7	.4	69.	29.	5.
%RSD	.5848	.4476	.1462	.0777	1.436	1.169	.0957
#1	488.5	487.6	500.6	490.9	4833.	2409.	4902.
#2	484.7	488.8	499.4	490.8	4802.	2449.	4895.
#3	490.2	491.8	500.7	491.5	4702.	2464.	4894.
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	500.0	500.0	500.0	500.0	5000.	2500.	5000.
Range	10.00	10.00	10.00	10.00	10.00	10.00	10.00

Elem	Mn_257	Mo_202	Na_	Ni_231	Sb_206	Pb_220	Se_196
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	487.7	497.3	2487.	482.3	501.5	487.5	2467.
SDev	2.2	.7	25.	2.3	5.5	7.3	29.
%RSD	.4451	.1404	1.013	.4768	1.093	1.498	1.188
#1	489.8	496.7	2469.	480.2	497.0	479.4	2437.
#2	487.8	497.1	2476.	484.8	507.6	489.9	2468.
#3	485.5	498.1	2516.	481.9	499.9	493.4	2496.
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	500.0	500.0	2500.	500.0	500.0	500.0	2500.
Range	10.00	10.00	10.00	10.00	10.00	10.00	10.00

Elem	Sn_189	Ti_334	Tl_190	U_3859	V_2924	Zn_213	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	485.7	497.0	490.4	492.1	488.7	490.1	2462.
SDev	1.5	1.0	7.2	21.6	4.7	.4	33.
%RSD	.3188	.2034	1.459	4.397	.9551	.0886	1.327
#1	485.0	497.0	483.0	472.3	492.0	489.6	2434.
#2	487.5	496.0	490.7	515.2	490.8	490.2	2454.
#3	484.8	498.0	497.3	488.7	483.3	490.5	2498.
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass

Value	500.0	500.0	500.0	500.0	500.0	500.0	2500.
Range	10.00	10.00	10.00	10.00	10.00	10.00	10.00
Elem	Si_288	Si02_	Sr_421	Pb1st	Pb2nd	Se1st	Se2nd
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	4908.	10500.	502.6	497.0	482.8	2475.	2463.
SDev	7.	15.	1.7	5.4	8.7	33.	31.
%RSD	.1415	.1415	.3346	1.088	1.796	1.339	1.278
#1	4915.	10510.	504.5	492.4	472.8	2456.	2427.
#2	4906.	10490.	501.4	495.7	487.0	2455.	2475.
#3	4902.	10490.	501.8	503.0	488.6	2513.	2487.
Errors	QC Pass	NOCHECK	QC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK
Value	5000.		500.0				
Range	10.00		10.00				
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	16853	--	--	--	--	--	--
SDev	166.0429	--	--	--	--	--	--
%RSD	.9852705	--	--	--	--	--	--
#1	17008	--	--	--	--	--	--
#2	16872	--	--	--	--	--	--
#3	16678	--	--	--	--	--	--

Analysis Report QC Standard 05/10/05 02:03:05 PM page 1

Method: TRACE2 Sample Name: ICB Operator: HSC
Run Time: 05/10/05 13:57:13
Comment: CALIBRATION CURVE
Mode: CONC Corr. Factor: 1

Elem	Ag_328	Al_308	As_189	B_2496	Ba_493	Be_313	Ca_317
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	-1.457	-6.773	-2.751	-2.036	.0052	.1143	-.4449
SDev	1.307	3.790	6.149	3.797	.2243	.1336	.3858
%RSD	89.72	55.95	223.5	186.5	4315.	116.9	86.71
#1	-.7184	-4.855	4.041	.1927	.1491	.1949	-.0008
#2	-.6859	-4.327	-4.356	.1199	.1198	.1879	-.6968
#3	-2.966	-11.14	-7.939	-6.420	-.2533	-.0400	-.6372
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.0000	.0000	.0000	.0000	.0000	.0000	.0000
Range	5.000	200.0	15.00	50.00	5.000	5.000	100.0

Elem	Cd_226	Co_228	Cr_267	Cu_324	Fe	K_7664	Mg_279
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	.2867	-.6268	-.8970	.3322	-2.521	.1972	-7.752
SDev	.6293	.6628	.5705	3.362	2.129	35.65	2.505
%RSD	219.5	105.7	63.60	1012.	84.45	18080.	32.31
#1	1.006	.0155	-.4946	3.034	-.2147	26.05	-5.235
#2	-.1642	-.5875	-1.550	1.396	-4.412	15.01	-7.776
#3	.0186	-1.308	-.6465	-3.433	-2.937	-40.47	-10.24
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.0000	.0000	.0000	.0000	.0000	.0000	.0000
Range	5.000	5.000	5.000	10.00	100.0	150.0	300.0

Elem	Mn_257	Mo_202	Na	Ni_231	Sb_206	Pb_220	Se_196
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	-.0594	-1.906	-3.784	-.1471	-3.713	2.755	-2.741
SDev	.2113	1.001	25.097	2.0730	13.116	1.054	2.879
%RSD	356.0	52.53	663.2	1409.	353.2	38.26	105.0
#1	.1847	-2.488	12.85	1.306	8.484	1.560	-3.670
#2	-.1799	-.7500	8.452	.7743	-2.036	3.149	-5.042
#3	-.1828	-2.480	-32.65	-2.521	Q-17.59	3.554	.4875
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.0000	.0000	.0000	.0000	.0000	.0000	.0000
Range	10.00	10.00	150.0	5.000	10.00	10.00	15.00

Elem	Sn_189	Ti_334	Tl_190	U_3859	V_2924	Zn_213	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	-2.858	-.2278	-1.640	-20.60	-1.320	-.0150	1.578
SDev	2.435	.2993	7.601	46.69	2.197	.3629	7.274
%RSD	85.21	131.4	463.4	226.6	166.5	2413.	461.1
#1	-.0461	.0534	7.013	12.74	.1207	.4040	-4.036
#2	-4.276	-.1944	-4.692	-.5830	-.2318	-.2246	9.796
#3	-4.253	-.5423	-7.242	Q-73.96	-3.849	-.2246	-1.027
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass

Value	.0000	.0000	.0000	.0000	.0000	.0000	.0000
Range	10.00	5.000	20.00	50.00	5.000	10.00	150.0
Elem	Si_288	Si02_	Sr_421	Pb1st	Pb2nd	Se1st	Se2nd
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	-16.12	-34.48	.0913	2.578	2.842	4.918	-6.565
SDev	4.75	10.16	.1017	6.951	4.530	12.04	9.800
%RSD	29.47	29.47	111.5	269.6	159.4	244.7	149.3
#1	-12.20	-26.09	.1890	5.579	-.4462	16.08	-13.53
#2	-14.76	-31.57	.0989	7.525	.9644	6.507	-10.81
#3	-21.40	-45.78	-.0141	-5.369	8.009	-7.833	4.642
Errors	QC Pass	NOCHECK	QC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK
Value	.0000		.0000				
Range	100.0		5.000				

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	17329	--	--	--	--	--	--
SDev	181.6616	--	--	--	--	--	--
%RSD	1.048322	--	--	--	--	--	--
#1	17196	--	--	--	--	--	--
#2	17536	--	--	--	--	--	--
#3	17255	--	--	--	--	--	--

Method: TRACE2 Sample Name: PQL Operator: HSC
Run Time: 05/10/05 14:03:09
Comment: CALIBRATION CURVE
Mode: CONC Corr. Factor: 1

Elem	Ag_328	Al_308	As_189	B_2496	Ba_493	Be_313	Ca_317
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	11.84	209.0	10.43	98.92	10.42	9.763	199.2
SDev	3.42	16.2	.85	5.02	.58	.052	4.1
%RSD	28.92	7.775	8.139	5.074	5.589	.5277	2.053
#1	8.638	192.1	11.02	98.08	9.938	9.736	195.1
#2	11.43	210.3	10.83	94.38	10.27	9.822	199.3
#3	Q15.45	224.5	9.460	104.3	11.07	9.731	203.3
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	10.00	200.0	10.00	100.0	10.00	10.00	200.0
Range	30.00	30.00	30.00	30.00	30.00	30.00	30.00

Elem	Cd_226	Co_228	Cr_267	Cu_324	Fe_	K_7664	Mg_279
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	10.43	10.19	10.72	9.853	195.2	202.6	212.3
SDev	.58	2.31	3.03	.826	4.2	9.4	28.2
%RSD	5.598	22.66	28.26	8.382	2.132	4.656	13.26
#1	10.45	7.809	8.892	8.923	191.4	192.3	191.6
#2	11.00	10.35	9.059	10.50	194.6	210.9	200.8
#3	9.833	12.42	Q14.22	10.14	199.7	204.7	244.3
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	10.00	10.00	10.00	10.00	200.0	200.0	200.0
Range	30.00	30.00	30.00	30.00	30.00	30.00	30.00

Elem	Mn_257	Mo_202	Na_	Ni_231	Sb_206	Pb_220	Se_196
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	19.86	19.67	192.1	9.262	14.77	12.43	9.064
SDev	.74	3.25	8.9	.285	2.49	.56	3.881
%RSD	3.740	16.50	4.607	3.079	16.89	4.523	42.82
#1	19.43	16.99	201.6	8.969	Q12.67	12.34	8.285
#2	19.43	18.75	190.6	9.539	14.11	Q13.04	Q5.632
#3	20.72	23.28	184.1	9.279	17.53	11.92	Q13.27
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	20.00	20.00	200.0	10.00	20.00	10.00	10.00
Range	30.00	30.00	30.00	30.00	30.00	30.00	30.00

Elem	Sn_189	Ti_334	Tl_190	U_3859	V_2924	Zn_213	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	23.65	10.33	18.70	85.87	11.78	10.13	108.1
SDev	6.49	.97	1.94	22.52	3.62	.34	7.0
%RSD	27.43	9.420	10.38	26.22	30.73	3.402	6.472
#1	17.66	9.431	16.62	78.53	8.827	9.816	108.9
#2	22.77	10.19	19.01	111.1	10.70	10.09	114.7
#3	Q30.54	11.36	20.46	Q67.93	Q15.82	10.50	100.7
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass

Value	20.00	10.00	20.00	100.0	10.00	10.00	100.0
Range	30.00	30.00	30.00	30.00	30.00	30.00	30.00
Elem	Si_288	Si02_	Sr_421	Pb1st	Pb2nd	Se1st	Se2nd
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	179.2	383.4	9.901	3.948	16.67	-2.330	14.75
SDev	6.6	14.2	.251	18.63	8.58	17.370	14.08
%RSD	3.709	3.709	2.532	471.9	51.49	745.6	95.42
#1	175.6	375.6	9.666	11.75	12.63	10.02	7.417
#2	186.9	399.8	9.871	17.41	10.85	5.178	5.858
#3	175.2	374.8	10.17	-17.32	26.52	-22.19	30.98
Errors	QC Pass	NOCHECK	QC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK
Value	200.0		10.00				
Range	30.00		30.00				

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	17380	--	--	--	--	--	--
SDev	469.7335	--	--	--	--	--	--
%RSD	2.702737	--	--	--	--	--	--
#1	17922	--	--	--	--	--	--
#2	17104	--	--	--	--	--	--
#3	17113	--	--	--	--	--	--

Method: TRACE2 Sample Name: ICS-A Operator: HSC
Run Time: 05/10/05 14:19:26
Comment: CALIBRATION CURVE
Mode: CONC Corr. Factor: 1

Elem	Ag_328	Al_308	As_189	B_2496	Ba_493	Be_313	Ca_317
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	.2568	453200.	1.337	.4364	1.262	.0677	442800.
SDev	.1205	9333.	3.551	1.893	.071	.0213	8990.
%RSD	46.95	2.059	265.7	433.7	5.592	31.48	2.030
#1	.3215	464000.	-2.257	2.269	1.229	.0476	453200.
#2	.3311	447400.	1.425	.5514	1.214	.0654	437500.
#3	.1177	448200.	4.842	-1.511	1.343	.0900	437600.
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.0000	500000.	.0000	.0000	.0000	.0000	500000.
Range	10.00	100000.	30.00	100.0	10.00	10.00	100000.

Elem	Cd_226	Co_228	Cr_267	Cu_324	Fe_	K_7664	Mg_279
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	-.9992	-.0425	1.446	2.683	186800.	4.871	476400.
SDev	.7333	1.1266	.809	.809	2505.	3.318	9712.
%RSD	73.39	2650.	55.97	30.17	1.342	68.12	2.039
#1	-.5041	-1.301	1.305	3.233	189600.	1.798	487600.
#2	-.6518	.8732	.7163	1.753	184700.	4.425	471000.
#3	-1.842	.2998	2.316	3.061	186000.	8.390	470600.
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.0000	.0000	.0000	.0000	200000.	.0000	500000.
Range	10.00	10.00	10.00	20.00	40000.	300.0	100000.

Elem	Mn_257	Mo_202	Na_	Ni_231	Sb_206	Pb_220	Se_196
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	2.047	.8457	-15.94	-1.282	5.645	11.87	10.98
SDev	.413	1.127	6.96	.909	1.593	5.30	2.75
%RSD	20.16	133.3	43.66	70.94	28.22	44.63	25.05
#1	2.390	.5196	-23.94	-1.960	3.921	16.62	7.826
#2	2.162	2.100	-11.37	-1.638	5.951	6.156	12.88
#3	1.589	-.0825	-12.50	-.2485	7.062	12.83	12.24
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.0000	.0000	.0000	.0000	.0000	.0000	.0000
Range	20.00	20.00	300.0	10.00	20.00	20.00	30.00

Elem	Sn_189	Ti_334	Tl_190	U_3859	V_2924	Zn_213	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	.2352	-1.438	3.521	-12.91	1.736	.7929	11.13
SDev	1.315	.187	5.309	8.81	1.343	.1738	3.14
%RSD	559.1	13.04	150.8	68.22	77.34	21.92	28.19
#1	1.753	-1.593	4.920	-22.55	3.268	.6704	8.980
#2	-.5701	-1.230	7.991	-10.90	1.177	.7165	14.74
#3	-.4770	-1.491	-2.347	-5.284	.7636	.9918	9.687
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass

Value	.0000	.0000	.0000	.0000	.0000	.0000	.0000
Range	20.00	10.00	40.00	100.0	10.00	20.00	300.0
Elem	Si_288	Si02_	Sr_421	Pb1st	Pb2nd	Se1st	Se2nd
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	-11.88	-25.42	4.819	252.7	-108.4	11.13	10.91
SDev	3.11	6.66	.081	3.8	6.1	.08	4.08
%RSD	26.21	26.21	1.680	1.493	5.589	.7584	37.45
#1	-12.57	-26.88	4.912	256.1	-102.9	11.04	6.220
#2	-8.481	-18.14	4.762	248.7	-114.9	11.21	13.71
#3	-14.60	-31.22	4.783	253.5	-107.3	11.14	12.79
Errors	QC Pass	NOCHECK	QC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK
Value	.0000		.0000				
Range	200.0		10.00				
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	15537	--	--	--	--	--	--
SDev	232.0576	--	--	--	--	--	--
%RSD	1.493594	--	--	--	--	--	--
#1	15272	--	--	--	--	--	--
#2	15704	--	--	--	--	--	--
#3	15635	--	--	--	--	--	--

Method: TRACE2 Sample Name: ICS-AB Operator: HSC
Run Time: 05/10/05 14:25:22
Comment: CALIBRATION CURVE
Mode: CONC Corr. Factor: 1

Elem	Ag_328	Al_308	As_189	B_2496	Ba_493	Be_313	Ca_317
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	257.4	462400.	499.5	496.1	509.5	247.4	451000.
SDev	.6	568.	5.3	1.1	1.2	.6	494.
%RSD	.2408	.1228	1.061	.2134	.2283	.2252	.1094
#1	256.7	463000.	505.5	496.7	508.5	246.8	451000.
#2	257.6	461900.	497.2	494.8	509.2	247.7	450400.
#3	257.9	462200.	495.7	496.6	510.8	247.8	451400.
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	250.0	500000.	500.0	500.0	500.0	250.0	500000.
Range	20.00	20.00	20.00	20.00	20.00	20.00	20.00

Elem	Cd_226	Co_228	Cr_267	Cu_324	Fe_	K_7664	Mg_279
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	462.1	453.7	474.0	494.4	191500.	5525.	485800.
SDev	.6	3.4	2.0	1.3	968.	22.	1432.
%RSD	.1231	.7429	.4275	.2656	.5057	.3913	.2948
#1	462.7	452.3	475.8	492.8	190400.	5502.	487400.
#2	461.6	451.2	474.4	495.1	191800.	5528.	484800.
#3	461.8	457.5	471.8	495.1	192300.	5545.	485100.
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	500.0	500.0	500.0	500.0	200000.	5000.	500000.
Range	20.00	20.00	20.00	20.00	20.00	20.00	20.00

Elem	Mn_257	Mo_202	Na_	Ni_231	Sb_206	Pb_220	Se_196
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	468.6	488.0	5111.	445.9	502.6	471.7	2419.
SDev	2.8	2.9	26.	3.1	14.2	3.0	12.
%RSD	.6043	.5961	.5174	.6910	2.816	.6314	.4787
#1	471.9	489.3	5083.	449.3	515.3	472.8	2423.
#2	467.1	484.6	5115.	443.3	487.3	468.4	2406.
#3	466.9	490.0	5135.	445.2	505.0	474.0	2429.
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	500.0	500.0	5000.	500.0	500.0	500.0	2500.
Range	20.00	20.00	20.00	20.00	20.00	20.00	20.00

Elem	Sn_189	Ti_334	Tl_190	U_3859	V_2924	Zn_213	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	481.7	490.9	467.2	486.0	479.3	487.2	2569.
SDev	5.0	1.3	6.3	11.8	1.5	.9	22.
%RSD	1.044	.2614	1.357	2.430	.3085	.1925	.8552
#1	486.6	489.4	471.1	478.2	479.5	487.5	2560.
#2	476.5	491.3	470.6	480.2	477.7	487.9	2552.
#3	481.9	491.9	459.9	499.6	480.7	486.1	2594.
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass

Value	500.0	500.0	500.0	500.0	500.0	500.0	2500.
Range	20.00	20.00	20.00	20.00	20.00	20.00	20.00
Elem	Si_288	Si02_	Sr_421	Pb1st	Pb2nd	Se1st	Se2nd
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	4805.	10280.	508.4	727.6	344.0	2425.	2416.
SDev	15.	32.	.7	3.0	3.2	25.	9.
%RSD	.3093	.3093	.1306	.4168	.9332	1.031	.3662
#1	4789.	10240.	508.9	730.1	344.3	2418.	2425.
#2	4811.	10290.	507.6	724.2	340.6	2405.	2407.
#3	4816.	10300.	508.7	728.4	347.0	2453.	2417.
Errors	QC Pass	NOCHECK	QC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK
Value	5000.		500.0				
Range	20.00		20.00				

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	15296	--	--	--	--	--	--
SDev	48.87607	--	--	--	--	--	--
%RSD	.3195375	--	--	--	--	--	--
#1	15352	--	--	--	--	--	--
#2	15263	--	--	--	--	--	--
#3	15273	--	--	--	--	--	--

Operator: HSC

Method: TRACE2 Sample Name: CCV1
Run Time: 05/10/05 14:39:23
Comment: CALIBRATION CURVE
Mode: CONC Corr. Factor: 1

Elem	Ag_328	Al_308	As_189	B_2496	Ba_493	Be_313	Ca_317
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	507.0	5093.	515.3	497.2	504.1	505.6	4989.
SDev	2.2	47.	2.4	9.1	4.9	2.4	50.
%RSD	.4328	.9221	.4661	1.824	.9801	.4792	1.006
#1	509.5	5147.	512.6	506.9	509.7	508.4	5045.
#2	506.1	5061.	517.2	488.9	500.5	504.4	4947.
#3	505.3	5070.	516.3	496.0	502.0	504.0	4975.
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	500.0	5000.	500.0	500.0	500.0	500.0	5000.
Range	10.00	10.00	10.00	10.00	10.00	10.00	10.00

Elem	Cd_226	Co_228	Cr_267	Cu_324	Fe_	K_7664	Mg_279
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	509.2	503.8	499.0	501.9	4598.	5177.	5069.
SDev	2.0	.8	2.4	2.4	114.	13.	51.
%RSD	.3957	.1542	.4800	.4733	2.478	.2584	1.012
#1	511.4	504.7	501.7	504.4	4728.	5163.	5125.
#2	508.7	503.3	498.1	501.3	4515.	5179.	5025.
#3	507.5	503.5	497.2	499.8	4551.	5190.	5056.
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	500.0	500.0	500.0	500.0	5000.	5000.	5000.
Range	10.00	10.00	10.00	10.00	10.00	10.00	10.00

Elem	Mn_257	Mo_202	Na_	Ni_231	Sb_206	Pb_220	Se_196
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	480.1	503.5	10360.	502.8	503.3	513.7	516.5
SDev	6.2	6.2	53.	2.1	5.8	5.5	7.3
%RSD	1.286	1.225	.5122	.4223	1.144	1.073	1.404
#1	487.1	510.5	10410.	505.3	503.6	508.2	515.6
#2	475.4	498.6	10350.	501.6	508.9	513.6	509.7
#3	477.8	501.5	10300.	501.7	497.4	519.2	524.1
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	500.0	500.0	10000.	500.0	500.0	500.0	500.0
Range	10.00	10.00	10.00	10.00	10.00	10.00	10.00

Elem	Sn_189	Ti_334	Tl_190	U_3859	V_2924	Zn_213	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	502.9	505.8	514.7	503.0	488.6	503.6	2614.
SDev	1.3	2.7	3.4	5.3	7.9	4.0	4.
%RSD	.2571	.5285	.6595	1.049	1.614	.7958	.1343
#1	504.1	508.9	518.4	501.0	497.6	508.2	2613.
#2	501.5	504.1	511.7	509.0	483.1	501.5	2618.
#3	503.1	504.4	514.1	499.0	485.1	501.0	2611.
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass

Value	500.0	500.0	500.0	500.0	500.0	500.0	2500.
Range	10.00	10.00	10.00	10.00	10.00	10.00	10.00
Elem	Si_288	Si02_	Sr_421	Pb1st	Pb2nd	Se1st	Se2nd
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	2531.	5413.	503.5	524.6	508.2	528.0	510.8
SDev	12.	26.	4.2	13.2	7.5	15.8	16.5
%RSD	.4810	.4810	.8303	2.520	1.472	2.992	3.228
#1	2543.	5439.	508.2	511.1	506.7	513.7	516.6
#2	2531.	5413.	500.4	537.6	501.6	545.0	492.1
#3	2518.	5387.	501.9	525.0	516.3	525.4	523.5
Errors	QC Pass	NOCHECK	QC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK
Value	2500.		500.0				
Range	10.00		10.00				

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	16825	--	--	--	--	--	--
SDev	100.6369	--	--	--	--	--	--
%RSD	.5981343	--	--	--	--	--	--
#1	16939	--	--	--	--	--	--
#2	16750	--	--	--	--	--	--
#3	16786	--	--	--	--	--	--

Analysis Report QC Standard 05/10/05 02:51:14 PM page 1

Method: TRACE2 Sample Name: CCB1 Operator: HSC
Run Time: 05/10/05 14:45:21
Comment: CALIBRATION CURVE
Mode: CONC Corr. Factor: 1

Elem	Ag_328	Al_308	As_189	B_2496	Ba_493	Be_313	Ca_317
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	.9676	13.80	1.348	.7790	.3574	.3849	8.279
SDev	.6829	10.25	3.397	1.763	.1613	.0936	4.765
%RSD	70.58	74.28	251.9	226.3	45.13	24.33	57.56
#1	1.193	11.76	3.836	-1.222	.4188	.4742	7.506
#2	1.509	24.91	2.731	2.105	.4790	.3930	13.38
#3	.2004	4.719	-2.522	1.454	.1744	.2875	3.948
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.0000	.0000	.0000	.0000	.0000	.0000	.0000
Range	5.000	200.0	15.00	50.00	5.000	5.000	100.0

Elem	Cd_226	Co_228	Cr_267	Cu_324	Fe_	K_7664	Mg_279
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	.1392	.5684	-.2092	1.033	4.375	13.63	12.66
SDev	.3464	.6892	1.0187	.387	2.388	7.30	5.70
%RSD	248.8	121.3	487.0	37.50	54.57	53.57	45.01
#1	.4598	.2253	.8732	1.181	4.644	18.84	16.55
#2	-.2282	1.362	-.3514	1.325	6.616	16.78	15.31
#3	.1860	.1180	-1.149	.5934	1.864	5.285	6.118
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.0000	.0000	.0000	.0000	.0000	.0000	.0000
Range	5.000	5.000	5.000	10.00	100.0	150.0	300.0

Elem	Mn_257	Mo_202	Na_	Ni_231	Sb_206	Pb_220	Se_196
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	.3903	.9165	-17.84	.0573	-.5125	-.3175	-1.725
SDev	.2049	.7142	22.69	.7230	.4630	1.4976	3.662
%RSD	52.50	77.92	127.2	1261.	90.34	471.7	212.3
#1	.3692	1.636	7.917	-.3560	-.9857	1.380	-5.865
#2	.6049	.2079	-34.86	.8922	-.0604	-1.453	-.3994
#3	.1967	.9055	-26.58	-.3642	-.4913	-.8789	1.090
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.0000	.0000	.0000	.0000	.0000	.0000	.0000
Range	10.00	10.00	150.0	5.000	10.00	10.00	15.00

Elem	Sn_189	Ti_334	Tl_190	U_3859	V_2924	Zn_213	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	.2658	.3245	-.8675	-4.034	.5317	.4351	7.630
SDev	2.953	.1242	2.4838	14.531	.7786	.3802	4.648
%RSD	1111.	38.27	286.3	360.2	146.4	87.40	60.91
#1	-.3881	.3529	.0122	-16.22	-.2362	.6146	9.040
#2	3.491	.4321	-3.671	-7.926	1.321	.6923	11.41
#3	-2.305	.1886	1.057	12.05	.5107	-.0017	2.441
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass

Value	.0000	.0000	.0000	.0000	.0000	.0000	.0000
Range	10.00	5.000	20.00	50.00	5.000	10.00	150.0
Elem	Si_288	Si02_	Sr_421	Pb1st	Pb2nd	Se1st	Se2nd
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	-14.89	-31.85	.3453	-.6500	-.1515	.1998	-2.686
SDev	4.85	10.38	.1284	5.1389	3.0386	9.987	3.015
%RSD	32.59	32.59	37.18	790.6	2005.	4998.	112.3
#1	-13.75	-29.40	.3985	-.5549	2.345	-7.991	-4.803
#2	-20.22	-43.24	.4385	-5.836	.7347	-2.734	.7663
#3	-10.71	-22.92	.1989	4.441	-3.535	11.33	-4.020
Errors	QC Pass	NOCHECK	QC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK
Value	.0000		.0000				
Range	100.0		5.000				

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	16328	--	--	--	--	--	--
SDev	748.8704	--	--	--	--	--	--
%RSD	4.586357	--	--	--	--	--	--
#1	17159	--	--	--	--	--	--
#2	15705	--	--	--	--	--	--
#3	16121	--	--	--	--	--	--

nalysis Report QC Standard 05/10/05 03:50:39 PM

Operator: HSC

ethod: TRACE2 Sample Name: CCV1
un Time: 05/10/05 15:44:47
omment: 421419||6010 WATER
ode: CONC Corr. Factor: 1

Fe fails

Elem	Ag_328	Al_308	As_189	B_2496	Ba_493	Be_313	Ca_317
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	514.8	5019.	536.2	494.1	506.0	513.7	5027.
SDev	2.2	12.	5.5	9.4	2.5	1.6	20.
%RSD	.4325	.2353	1.031	1.911	.4920	.3125	.3915
#1	515.9	5013.	542.5	484.6	503.9	514.3	5014.
#2	516.2	5033.	534.1	503.5	508.7	514.8	5050.
#3	512.2	5011.	532.1	494.2	505.5	511.8	5018.
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	500.0	5000.	500.0	500.0	500.0	500.0	5000.
Range	10.00	10.00	10.00	10.00	10.00	10.00	10.00

Elem	Cd_226	Co_228	Cr_267	Cu_324	Fe_	K_7664	Mg_279
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	518.8	511.7	498.9	502.9	Q4250.	5369.	5050.
SDev	1.6	3.3	1.8	1.1	93.	28.	17.
%RSD	.3168	.6378	.3605	.2214	2.199	.5287	.3386
#1	518.2	512.1	498.0	503.7	Q4152.	5395.	5041.
#2	520.6	514.7	501.0	503.4	Q4260.	5373.	5070.
#3	517.5	508.2	497.8	501.6	Q4338.	5339.	5040.
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Fail	QC Pass	QC Pass
Value	500.0	500.0	500.0	500.0	5000.	5000.	5000.
Range	10.00	10.00	10.00	10.00	10.00	10.00	10.00

Elem	Mn_257	Mo_202	Na_	Ni_231	Sb_206	Pb_220	Se_196
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	467.4	504.2	10720.	513.7	510.7	518.5	525.2
SDev	4.5	5.6	72.	2.9	4.6	1.2	5.5
%RSD	.9594	1.119	.6730	.5582	.8927	.2342	1.053
#1	462.5	497.7	10790.	511.5	515.7	519.3	520.0
#2	468.5	507.3	10720.	517.0	506.9	519.0	531.0
#3	471.3	507.6	10650.	512.7	509.4	517.1	524.7
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	500.0	500.0	10000.	500.0	500.0	500.0	500.0
Range	10.00	10.00	10.00	10.00	10.00	10.00	10.00

Elem	Sn_189	Ti_334	Tl_190	U_3859	V_2924	Zn_213	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	509.5	514.0	522.6	478.2	481.3	510.2	Q2821.
SDev	2.3	1.6	5.6	11.4	4.6	2.8	19.
%RSD	.4549	.3207	1.068	2.392	.9647	.5437	.6680
#1	508.5	513.6	526.6	490.7	475.9	512.5	Q2819.
#2	512.1	515.8	525.0	468.2	483.7	511.1	Q2840.
#3	507.8	512.6	516.2	475.8	484.2	507.1	Q2803.
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Fail

Value	500.0	500.0	500.0	500.0	500.0	500.0	2500.
Range	10.00	10.00	10.00	10.00	10.00	10.00	10.00
Elem	Si_288	Si02_	Sr_421	Pb1st	Pb2nd	Se1st	Se2nd
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	2549.	5452.	505.3	526.8	514.3	525.5	525.0
SDev	12.	26.	3.2	4.3	3.6	.2	8.3
%RSD	.4678	.4678	.6326	.8160	.7037	.0367	1.586
#1	2562.	5479.	503.6	527.7	515.2	525.5	517.2
#2	2548.	5450.	509.0	522.1	517.4	525.4	533.8
#3	2538.	5428.	503.3	530.6	510.4	525.8	524.1
Errors	QC Pass	NOCHECK	QC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK
Value	2500.		500.0				
Range	10.00		10.00				

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	17048	--	--	--	--	--	--
SDev	108.8313	--	--	--	--	--	--
%RSD	.6383972	--	--	--	--	--	--
#1	17094	--	--	--	--	--	--
#2	16923	--	--	--	--	--	--
#3	17125	--	--	--	--	--	--

Operator: HSC

ethod: TRACE2 Sample Name: CCB1
un Time: 05/10/05 15:50:44
omment: 421419||6010 WATER
ode: CONC Corr. Factor: 1

Elem	Ag_328	Al_308	As_189	B_2496	Ba_493	Be_313	Ca_317
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	.8382	6.849	1.580	-.8428	.3877	.3516	7.755
SDev	.6826	6.143	1.747	2.4944	.1812	.0767	2.167
%RSD	81.43	89.69	110.5	295.9	46.74	21.82	27.94
#1	1.276	13.27	-.4230	1.823	.4205	.4323	10.23
#2	.0517	1.031	2.786	-3.120	.1923	.3430	6.817
#3	1.187	6.244	2.379	-1.232	.5502	.2795	6.216
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.0000	.0000	.0000	.0000	.0000	.0000	.0000
Range	5.000	200.0	15.00	50.00	5.000	5.000	100.0

Elem	Cd_226	Co_228	Cr_267	Cu_324	Fe_	K_7664	Mg_279
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	.5109	.2985	-.2295	-.0444	1.545	5.930	3.155
SDev	.4242	.8008	1.5828	.4816	2.119	6.930	11.94
%RSD	83.04	268.3	689.8	1086.	137.2	116.9	378.5
#1	.9296	.5497	-.4725	-.5738	1.447	11.50	11.64
#2	.0814	-.5978	-1.677	.0732	-.5239	8.116	-10.50
#3	.5217	.9435	1.461	.3676	3.711	-1.830	8.327
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.0000	.0000	.0000	.0000	.0000	.0000	.0000
Range	5.000	5.000	5.000	10.00	100.0	150.0	300.0

Elem	Mn_257	Mo_202	Na_	Ni_231	Sb_206	Pb_220	Se_196
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	.1281	.0693	-6.583	1.206	-5.479	.2125	-1.828
SDev	.2212	1.809	7.699	.717	3.327	.7662	1.689
%RSD	172.6	2611.	117.0	59.45	60.73	360.5	92.42
#1	.3835	2.123	-12.86	2.033	-8.666	1.092	-.6469
#2	.0006	-1.288	2.009	.7904	-5.742	-.3095	-1.074
#3	.0003	-.6267	-8.902	.7932	-2.027	-.1451	-3.763
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.0000	.0000	.0000	.0000	.0000	.0000	.0000
Range	10.00	10.00	150.0	5.000	10.00	10.00	15.00

Elem	Sn_189	Ti_334	Tl_190	U_3859	V_2924	Zn_213	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	-2.118	.4135	1.640	-9.980	-.3675	.5534	9.905
SDev	3.864	.3908	8.125	5.611	1.1102	.3237	5.229
%RSD	182.5	94.50	495.4	56.22	302.1	58.50	52.79
#1	.4258	.5912	9.861	-13.13	-.6294	.6472	14.19
#2	-6.564	-.0345	1.445	-13.30	-1.323	.8198	11.44
#3	-.2150	.6839	-6.386	-3.502	.8502	.1931	4.079
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass

Value	.0000	.0000	.0000	.0000	.0000	.0000	.0000
Range	10.00	5.000	20.00	50.00	5.000	10.00	150.0
Elem	Si_288	Si02_	Sr_421	Pb1st	Pb2nd	Se1st	Se2nd
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	-14.37	-30.73	.4081	-1.320	.9774	5.211	-5.342
SDev	8.19	17.51	.1070	5.892	3.479	9.431	4.555
%RSD	56.98	56.98	26.21	446.5	356.0	181.0	85.26
#1	-10.22	-21.86	.5284	-2.761	3.016	-.8084	-.5663
#2	-9.085	-19.43	.3237	5.160	-3.040	16.08	-9.638
#3	-23.80	-50.91	.3723	-6.357	2.956	.3615	-5.822
Errors	QC Pass	NOCHECK	QC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK
Value	.0000		.0000				
Range	100.0		5.000				

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	17002	--	--	--	--	--	--
SDev	414.3021	--	--	--	--	--	--
%RSD	2.436822	--	--	--	--	--	--
#1	16524	--	--	--	--	--	--
#2	17257	--	--	--	--	--	--
#3	17225	--	--	--	--	--	--

Operator: HSC

ethod: TRACE2 Sample Name: CCV1
un Time: 05/10/05 16:10:41
omment: 421419||6010 WATER
ode: CONC Corr. Factor: 1

Elem	Ag_328	Al_308	As_189	B_2496	Ba_493	Be_313	Ca_317
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	491.6	5076.	506.8	490.0	496.7	494.5	5052.
SDev	3.2	30.	4.5	5.4	1.7	3.4	20.
%RSD	.6499	.5992	.8945	1.103	.3389	.6968	.3895
#1	492.4	5105.	508.3	490.7	497.1	495.7	5061.
#2	494.3	5079.	510.4	495.0	498.1	497.3	5065.
#3	488.1	5044.	501.7	484.2	494.8	490.7	5029.
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	500.0	5000.	500.0	500.0	500.0	500.0	5000.
Range	10.00	10.00	10.00	10.00	10.00	10.00	10.00

Elem	Cd_226	Co_228	Cr_267	Cu_324	Fe_	K_7664	Mg_279
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	507.6	504.4	504.6	488.0	5443.	5308.	5240.
SDev	2.1	3.4	3.4	2.6	47.	26.	16.
%RSD	.4057	.6757	.6747	.5376	.8649	.4968	.3095
#1	508.6	507.2	506.6	490.4	5453.	5323.	5258.
#2	509.0	505.3	506.6	488.3	5392.	5324.	5236.
#3	505.3	500.6	500.7	485.2	5484.	5278.	5226.
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	500.0	500.0	500.0	500.0	5000.	5000.	5000.
Range	10.00	10.00	10.00	10.00	10.00	10.00	10.00

Elem	Mn_257	Mo_202	Na_	Ni_231	Sb_206	Pb_220	Se_196
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	518.8	508.8	10520.	503.4	502.0	509.0	512.7
SDev	1.3	4.7	85.	.9	2.1	10.7	5.6
%RSD	.2521	.9175	.8100	.1886	.4240	2.097	1.084
#1	519.3	506.4	10580.	504.4	500.6	508.4	514.4
#2	517.3	505.9	10560.	502.6	500.8	519.9	517.2
#3	519.8	514.2	10420.	503.0	504.4	498.6	506.5
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	500.0	500.0	10000.	500.0	500.0	500.0	500.0
Range	10.00	10.00	10.00	10.00	10.00	10.00	10.00

Elem	Sn_189	Ti_334	Tl_190	U_3859	V_2924	Zn_213	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	532.6	500.2	501.3	498.3	507.7	499.4	2501.
SDev	3.9	3.2	4.5	14.5	3.8	1.9	37.
%RSD	.7333	.6362	.9005	2.912	.7550	.3786	1.468
#1	528.3	501.0	502.1	483.3	511.1	501.1	2512.
#2	536.0	502.9	505.3	499.2	503.6	499.8	2531.
#3	533.4	496.7	496.4	512.3	508.5	497.4	2460.
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass

Value	500.0	500.0	500.0	500.0	500.0	500.0	2500.
Range	10.00	10.00	10.00	10.00	10.00	10.00	10.00
Elem	Si_288	Si02_	Sr_421	Pb1st	Pb2nd	Se1st	Se2nd
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	2487.	5321.	498.1	524.1	501.4	522.3	507.9
SDev	4.	8.	2.5	2.5	14.8	7.9	10.1
%RSD	.1581	.1581	.4995	.4716	2.958	1.509	1.986
#1	2491.	5328.	499.3	523.2	501.0	530.2	506.5
#2	2483.	5312.	499.8	526.9	516.4	514.4	518.6
#3	2488.	5322.	495.3	522.3	486.8	522.4	498.6
Errors	QC Pass	NOCHECK	QC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK
Value	2500.		500.0				
Range	10.00		10.00				
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	16796	--	--	--	--	--	--
SDev	143.2194	--	--	--	--	--	--
%RSD	.8527160	--	--	--	--	--	--
#1	16689	--	--	--	--	--	--
#2	16740	--	--	--	--	--	--
#3	16958	--	--	--	--	--	--

Analysis Report QC Standard 05/10/05 04:22:32 PM page 1

Method: TRACE2 Sample Name: CCB1 Operator: HSC
Run Time: 05/10/05 16:16:39
Comment: 421419||6010 WATER
Mode: CONC Corr. Factor: 1

Elem	Ag_328	Al_308	As_189	B_2496	Ba_493	Be_313	Ca_317
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	1.523	3.466	1.397	-1.920	.6420	.4162	5.049
SDev	.817	5.458	5.222	1.529	.1791	.1406	1.885
%RSD	53.63	157.5	373.7	79.62	27.90	33.79	37.34
#1	2.161	9.285	4.550	-3.594	.8211	.5627	6.970
#2	.6026	-1.541	-4.630	-1.567	.4629	.4035	4.976
#3	1.806	2.655	4.272	-.5986	.6420	.2823	3.201
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.0000	.0000	.0000	.0000	.0000	.0000	.0000
Range	5.000	200.0	15.00	50.00	5.000	5.000	100.0

Elem	Cd_226	Co_228	Cr_267	Cu_324	Fe_	K_7664	Mg_279
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	.4759	1.174	.3868	1.212	5.089	23.45	14.70
SDev	.5477	1.117	.8506	1.062	1.837	15.27	5.12
%RSD	115.1	95.14	219.9	87.59	36.10	65.14	34.80
#1	-.1511	1.659	-.5161	2.288	7.056	40.88	17.64
#2	.8607	-.1035	1.173	.1652	4.794	12.41	17.66
#3	.7182	1.965	.5035	1.183	3.417	17.05	8.792
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.0000	.0000	.0000	.0000	.0000	.0000	.0000
Range	5.000	5.000	5.000	10.00	100.0	150.0	300.0

Elem	Mn_257	Mo_202	Na_	Ni_231	Sb_206	Pb_220	Se_196
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	.4571	.5784	-46.02	-.0447	1.642	1.484	8.421
SDev	.2251	.9446	10.91	1.3279	4.555	1.098	6.765
%RSD	49.25	163.3	23.70	2972.	277.4	74.00	80.34
#1	.5908	1.051	-34.19	1.413	.6025	2.731	10.22
#2	.1972	1.194	-55.68	-1.185	-2.303	1.064	14.10
#3	.5832	-.5092	-48.19	-.3616	6.626	.6581	.9361
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.0000	.0000	.0000	.0000	.0000	.0000	.0000
Range	10.00	10.00	150.0	5.000	10.00	10.00	15.00

Elem	Sn_189	Ti_334	Tl_190	U_3859	V_2924	Zn_213	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	2.129	.5973	1.307	27.44	1.407	.1451	12.58
SDev	2.356	.0994	3.795	4.10	1.115	.3388	3.92
%RSD	110.6	16.65	290.3	14.95	79.23	233.6	31.17
#1	4.594	.6744	3.503	25.63	2.065	-.2259	9.877
#2	-.0993	.4851	-3.075	24.55	.1199	.2229	10.78
#3	1.893	.6324	3.494	32.13	2.037	.4382	17.08
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass

Value	.0000	.0000	.0000	.0000	.0000	.0000	.0000
Range	10.00	5.000	20.00	50.00	5.000	10.00	150.0
Elem	Si_288	Si02_	Sr_421	Pb1st	Pb2nd	Se1st	Se2nd
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	-8.742	-18.70	.4455	-1.212	2.830	4.406	10.42
SDev	5.788	12.38	.1125	2.526	.392	6.657	6.82
%RSD	66.21	66.21	25.26	208.5	13.86	151.1	65.41
#1	-14.11	-30.18	.5754	1.624	3.283	6.213	12.23
#2	-2.609	-5.581	.3850	-2.040	2.614	9.973	16.16
#3	-9.510	-20.34	.3762	-3.219	2.594	-2.968	2.885
Errors	QC Pass	NOCHECK	QC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK
Value	.0000		.0000				
Range	100.0		5.000				

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	16147	--	--	--	--	--	--
SDev	128.1414	--	--	--	--	--	--
%RSD	.7935994	--	--	--	--	--	--
#1	16079	--	--	--	--	--	--
#2	16067	--	--	--	--	--	--
#3	16295	--	--	--	--	--	--

Method: TRACE2 Sample Name: CCV1 Operator: HSC
Run Time: 05/10/05 17:10:06
Comment: 423067||6010 WATER
Mode: CONC Corr. Factor: 1

K fails

Elem	Ag_328	Al_308	As_189	B_2496	Ba_493	Be_313	Ca_317
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	484.0	4962.	513.4	468.2	490.7	484.3	4985.
SDev	2.6	26.	3.9	3.8	1.2	2.8	11.
%RSD	.5287	.5293	.7668	.8055	.2434	.5874	.2246
#1	485.5	4940.	514.6	472.5	489.9	486.7	4974.
#2	481.1	4955.	509.0	465.3	490.1	481.2	4986.
#3	485.4	4991.	516.6	466.9	492.0	485.2	4996.
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	500.0	5000.	500.0	500.0	500.0	500.0	5000.
Range	10.00	10.00	10.00	10.00	10.00	10.00	10.00

Elem	Cd_226	Co_228	Cr_267	Cu_324	Fe_	K_7664	Mg_279
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	505.9	502.7	496.1	474.4	5132.	Q5614.	5195.
SDev	.9	3.5	2.9	3.1	92.	43.	20.
%RSD	.1717	.6982	.5782	.6506	1.788	.7734	.3934
#1	504.9	505.4	499.3	475.8	5028.	Q5628.	5171.
#2	506.4	498.8	493.7	470.9	5202.	Q5566.	5206.
#3	506.4	504.0	495.3	476.5	5165.	Q5650.	5207.
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Fail	QC Pass
Value	500.0	500.0	500.0	500.0	5000.	5000.	5000.
Range	10.00	10.00	10.00	10.00	10.00	10.00	10.00

Elem	Mn_257	Mo_202	Na_	Ni_231	Sb_206	Pb_220	Se_196
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	500.2	509.2	Q11010.	498.1	499.5	513.0	512.1
SDev	3.3	3.8	106.	.5	3.9	7.2	11.9
%RSD	.6589	.7463	.9589	.0910	.7753	1.398	2.321
			110. %				
#1	496.4	505.1	Q11010.	498.6	504.0	516.6	519.4
#2	502.3	512.6	10910.	497.7	497.9	504.7	498.3
#3	501.9	509.9	Q11120.	498.0	496.8	517.6	518.5
Errors	QC Pass	QC Pass	QC ~~Fail~~ Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	500.0	500.0	10000.	500.0	500.0	500.0	500.0
Range	10.00	10.00	10.00	10.00	10.00	10.00	10.00

Elem	Sn_189	Ti_334	Tl_190	U_3859	V_2924	Zn_213	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	539.6	496.0	514.7	494.7	492.3	494.2	2586.
SDev	7.0	2.1	3.0	17.8	4.6	.9	60.
%RSD	1.305	.4293	.5835	3.595	.9421	.1879	2.331
#1	545.2	497.3	515.2	474.7	487.0	495.2	2534.
#2	531.7	493.6	511.5	508.8	494.9	494.0	2571.
#3	542.0	497.2	517.5	500.7	495.1	493.4	2652.
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass

Value	500.0	500.0	500.0	500.0	500.0	500.0	2500.
Range	10.00	10.00	10.00	10.00	10.00	10.00	10.00
Elem	Si_288	Si02_	Sr_421	Pb1st	Pb2nd	Se1st	Se2nd
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	2430.	5199.	492.4	530.3	504.3	529.8	503.2
SDev	24.	51.	.9	13.3	4.4	10.5	12.6
%RSD	.9873	.9873	.1743	2.517	.8751	1.988	2.505
#1	2441.	5222.	492.3	534.3	507.8	537.4	510.3
#2	2403.	5140.	491.6	515.4	499.3	517.8	488.6
#3	2447.	5234.	493.3	541.2	505.8	534.3	510.5
Errors	QC Pass	NOCHECK	QC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK
Value	2500.		500.0				
Range	10.00		10.00				

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	16121	--	--	--	--	--	--
SDev	156.5070	--	--	--	--	--	--
%RSD	.9708381	--	--	--	--	--	--
#1	16233	--	--	--	--	--	--
#2	16187	--	--	--	--	--	--
#3	15942	--	--	--	--	--	--

Method: TRACE2 Sample Name: CCB1 Operator: HSC
Run Time: 05/10/05 17:16:04
Comment: 423067||6010 WATER
Mode: CONC Corr. Factor: 1

Elem	Ag_328	Al_308	As_189	B_2496	Ba_493	Be_313	Ca_317
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	-.0357	-3.847	2.259	-1.271	.2951	.3286	2.454
SDev	1.0701	.994	.653	2.235	.2126	.0840	2.022
%RSD	2994.	25.84	28.89	175.9	72.04	25.56	82.38
#1	.1339	-4.444	1.550	-1.084	.4092	.4209	4.560
#2	.9394	-2.699	2.836	-3.593	.4264	.3083	2.272
#3	-1.180	-4.396	2.392	.8650	.0498	.2566	.5294
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.0000	.0000	.0000	.0000	.0000	.0000	.0000
Range	5.000	200.0	15.00	50.00	5.000	5.000	100.0

Elem	Cd_226	Co_228	Cr_267	Cu_324	Fe_	K_7664	Mg_279
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	.8989	.3681	.4323	.6891	2.505	8.557	-6.229
SDev	.5056	.4951	.1851	.4259	2.902	6.353	7.108
%RSD	56.25	134.5	42.81	61.81	115.9	74.25	114.1
#1	1.478	.6639	.3898	.9939	5.371	13.09	.2941
#2	.5482	.6438	.6350	.2025	2.577	1.296	-5.175
#3	.6700	-.2035	.2723	.8709	-.4326	11.28	-13.80
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.0000	.0000	.0000	.0000	.0000	.0000	.0000
Range	5.000	5.000	5.000	10.00	100.0	150.0	300.0

Elem	Mn_257	Mo_202	Na_	Ni_231	Sb_206	Pb_220	Se_196
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	.3222	.6950	-50.21	1.294	-2.118	-.2801	-3.404
SDev	.2286	.1771	8.96	1.289	6.249	.2633	3.120
%RSD	70.93	25.48	17.84	99.61	295.0	93.97	91.66
#1	.5861	.8989	-55.57	1.534	-8.425	-.0467	.0463
#2	.1872	.5799	-39.87	-.0980	-2.000	-.5655	-4.232
#3	.1934	.6061	-55.18	2.447	4.071	-.2283	-6.027
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.0000	.0000	.0000	.0000	.0000	.0000	.0000
Range	10.00	10.00	150.0	5.000	10.00	10.00	15.00

Elem	Sn_189	Ti_334	Tl_190	U_3859	V_2924	Zn_213	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	-1.279	.2213	-.2394	4.806	-.0047	.6497	12.77
SDev	3.124	.1901	2.6641	16.18	.2257	.2303	5.29
%RSD	244.3	85.87	1113.	336.7	4824.	35.44	41.45
#1	2.268	.3176	1.823	21.92	-.2653	.6639	17.94
#2	-2.480	.3441	.7059	-10.25	.1266	.4126	13.02
#3	-3.625	.0024	-3.247	2.757	.1246	.8725	7.358
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass

Value	.0000	.0000	.0000	.0000	.0000	.0000	.0000
Range	10.00	5.000	20.00	50.00	5.000	10.00	150.0
Elem	Si_288	Si02_	Sr_421	Pb1st	Pb2nd	Se1st	Se2nd
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	-10.82	-23.15	.2664	-4.139	1.646	1.880	-6.042
SDev	3.89	8.31	.1172	1.708	.606	9.925	1.825
%RSD	35.92	35.92	44.01	41.28	36.81	527.9	30.20
#1	-7.512	-16.07	.3729	-2.166	1.012	13.30	-6.570
#2	-9.851	-21.07	.2855	-5.121	1.709	-4.672	-4.012
#3	-15.10	-32.30	.1408	-5.130	2.219	-2.987	-7.545
Errors	QC Pass	NOCHECK	QC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK
Value	.0000		.0000				
Range	100.0		5.000				
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	16535	--	--	--	--	--	--
SDev	383.2253	--	--	--	--	--	--
%RSD	2.317728	--	--	--	--	--	--
#1	16216	--	--	--	--	--	--
#2	16960	--	--	--	--	--	--
#3	16428	--	--	--	--	--	--

Method: TRACE2 Sample Name: CCV1 Operator: HSC
Run Time: 05/10/05 17:53:00
Comment: 421421||6010 WATER
Mode: CONC Corr. Factor: 1

Elem	Ag_328	Al_308	As_189	B_2496	Ba_493	Be_313	Ca_317
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	501.0	4996.	512.6	483.1	506.6	498.0	4991.
SDev	2.7	13.	12.5	6.0	1.3	1.8	20.
%RSD	.5352	.2623	2.447	1.247	.2555	.3659	.3979
#1	498.3	4987.	498.3	489.1	506.6	496.0	4985.
#2	501.1	4990.	517.7	483.2	505.3	499.6	5013.
#3	503.6	5011.	521.8	477.1	507.9	498.3	4975.
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	500.0	5000.	500.0	500.0	500.0	500.0	5000.
Range	10.00	10.00	10.00	10.00	10.00	10.00	10.00

Elem	Cd_226	Co_228	Cr_267	Cu_324	Fe_	K_7664	Mg_279
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	498.1	501.4	493.4	494.4	4971.	5159.	5018.
SDev	1.6	2.4	1.4	6.5	11.	75.	23.
%RSD	.3166	.4720	.2818	1.306	.2245	1.446	.4651
#1	496.4	499.2	491.8	487.2	4982.	5078.	5008.
#2	499.4	503.9	494.5	496.2	4973.	5226.	5044.
#3	498.6	501.0	493.9	499.7	4960.	5173.	5001.
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	500.0	500.0	500.0	500.0	5000.	5000.	5000.
Range	10.00	10.00	10.00	10.00	10.00	10.00	10.00

Elem	Mn_257	Mo_202	Na_	Ni_231	Sb_206	Pb_220	Se_196
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	495.0	508.3	10370.	493.4	494.2	506.7	516.0
SDev	1.3	7.2	106.	6.8	8.5	2.3	5.7
%RSD	.2528	1.413	1.021	1.374	1.730	.4575	1.111
#1	493.7	503.7	10250.	485.7	484.6	509.2	522.2
#2	496.2	504.7	10460.	495.9	496.8	504.7	514.7
#3	495.2	516.6	10390.	498.5	501.0	506.1	510.9
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	500.0	500.0	10000.	500.0	500.0	500.0	500.0
Range	10.00	10.00	10.00	10.00	10.00	10.00	10.00

Elem	Sn_189	Ti_334	Tl_190	U_3859	V_2924	Zn_213	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	531.6	504.2	512.3	466.2	491.2	498.9	2568.
SDev	2.6	1.7	7.3	62.1	.9	4.6	17.
%RSD	.4824	.3438	1.423	13.32	.1906	.9300	.6701
#1	529.6	502.3	504.0	Q394.6	490.2	494.2	2557.
#2	530.6	505.8	515.5	497.8	492.0	498.9	2588.
#3	534.5	504.5	517.4	506.0	491.5	503.5	2560.
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass

Value	500.0	500.0	500.0	500.0	500.0	500.0	2500.
Range	10.00	10.00	10.00	10.00	10.00	10.00	10.00
Elem	Si_288	Si02_	Sr_421	Pb1st	Pb2nd	Se1st	Se2nd
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	2475.	5293.	502.8	507.9	506.0	510.3	518.8
SDev	23.	50.	1.6	19.4	12.2	22.8	20.0
%RSD	.9399	.9399	.3086	3.821	2.410	4.474	3.854
#1	2448.	5237.	501.7	489.3	519.2	485.9	540.4
#2	2492.	5331.	502.1	506.5	503.8	514.1	515.0
#3	2483.	5311.	504.6	528.1	495.1	531.1	500.9
Errors	QC Pass	NOCHECK	QC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK
Value	2500.		500.0				
Range	10.00		10.00				
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	15677	--	--	--	--	--	--
SDev	94.19531	--	--	--	--	--	--
%RSD	.6008343	--	--	--	--	--	--
#1	15669	--	--	--	--	--	--
#2	15776	--	--	--	--	--	--
#3	15588	--	--	--	--	--	--

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Method: TRACE2 Sample Name: CCB1 Operator: HSC
Run Time: 05/10/05 17:58:57
Comment: 421421||6010 WATER
Mode: CONC Corr. Factor: 1

Elem	Ag_328	Al_308	As_189	B_2496	Ba_493	Be_313	Ca_317
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	.9439	2.081	-.9744	2.062	.4753	.2874	3.413
SDev	1.955	10.34	5.8041	2.789	.1788	.1066	2.965
%RSD	207.1	496.9	595.7	135.2	37.61	37.08	86.87
#1	1.009	-1.470	-3.871	3.317	.5153	.2103	4.089
#2	-1.043	-6.016	5.708	-1.133	.2799	.4091	.1681
#3	2.866	13.73	-4.760	4.003	.6307	.2429	5.980
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.0000	.0000	.0000	.0000	.0000	.0000	.0000
Range	5.000	200.0	15.00	50.00	5.000	5.000	100.0

Elem	Cd_226	Co_228	Cr_267	Cu_324	Fe_	K_7664	Mg_279
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	1.094	.3205	.3837	-.9163	3.298	-14.15	2.447
SDev	.292	1.911	1.051	3.9243	1.396	53.70	14.69
%RSD	26.70	596.3	274.0	428.3	42.34	379.5	600.3
#1	.8655	.3343	.1423	-5.037	3.667	-71.23	.3232
#2	.9936	-1.597	-.5260	2.776	1.754	35.36	-11.06
#3	1.423	2.225	1.535	-.4884	4.473	-6.571	18.08
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.0000	.0000	.0000	.0000	.0000	.0000	.0000
Range	5.000	5.000	5.000	10.00	100.0	150.0	300.0

Elem	Mn_257	Mo_202	Na_	Ni_231	Sb_206	Pb_220	Se_196
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	.5845	1.628	-36.34	-.1222	-1.009	.0710	-.9934
SDev	.3475	1.274	33.20	2.8948	12.078	2.425	.7648
%RSD	59.46	78.24	91.37	2368.	1197.	3413.	76.99
#1	.3845	3.099	-65.08	-.2278	8.311	-1.665	-.1279
#2	.3831	.8758	.0090	2.824	3.316	-.9633	-1.578
#3	.9857	.9097	-43.95	-2.963	Q-14.65	2.841	-1.274
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.0000	.0000	.0000	.0000	.0000	.0000	.0000
Range	10.00	10.00	150.0	5.000	10.00	10.00	15.00

Elem	Sn_189	Ti_334	Tl_190	U_3859	V_2924	Zn_213	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	1.779	.4183	-1.377	-9.915	1.168	.4314	15.63
SDev	4.598	.5032	5.720	56.784	2.360	.3748	3.51
%RSD	258.4	120.3	415.3	572.7	202.1	86.87	22.44
#1	-.8297	.3611	.5015	4.044	1.643	.6495	19.59
#2	-.9204	-.0540	3.167	38.59	-1.393	.6462	14.37
#3	7.088	.9477	-7.801	Q-72.38	3.253	-.0013	12.92
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass

Value	.0000	.0000	.0000	.0000	.0000	.0000	.0000
Range	10.00	5.000	20.00	50.00	5.000	10.00	150.0
Elem	Si_288	Si02_	Sr_421	Pb1st	Pb2nd	Se1st	Se2nd
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	-11.78	-25.21	.3511	-1.859	1.034	-2.003	-.4896
SDev	5.01	10.73	.1047	16.023	11.17	33.802	17.018
%RSD	42.55	42.55	29.82	862.1	1080.	1688.	3476.
#1	-15.26	-32.64	.4187	-.7979	-2.098	2.231	-1.305
#2	-6.036	-12.91	.2305	13.61	-8.238	29.48	-17.09
#3	-14.06	-30.07	.4043	-18.39	13.44	-37.72	16.92
Errors	QC Pass	NOCHECK	QC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK
Value	.0000		.0000				
Range	100.0		5.000				
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	16367	--	--	--	--	--	--
SDev	266.7366	--	--	--	--	--	--
%RSD	1.629716	--	--	--	--	--	--
#1	16484	--	--	--	--	--	--
#2	16555	--	--	--	--	--	--
#3	16062	--	--	--	--	--	--

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Method: TRACE2 Sample Name: CCV1 Operator: HSC
Run Time: 05/10/05 19:04:18
Comment: 421403||6010 SRR
Mode: CONC Corr. Factor: 1

Elem	Ag_328	Al_308	As_189	B_2496	Ba_493	Be_313	Ca_317
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	506.0	5017.	532.4	481.3	511.2	502.5	5083.
SDev	1.6	22.	9.7	3.3	2.2	.4	34.
%RSD	.3090	.4370	1.829	.6779	.4361	.0767	.6629
#1	507.0	5035.	542.8	479.8	513.1	502.9	5116.
#2	504.2	5023.	523.4	485.1	511.8	502.1	5084.
#3	506.9	4993.	531.2	479.1	508.7	502.5	5048.
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	500.0	5000.	500.0	500.0	500.0	500.0	5000.
Range	10.00	10.00	10.00	10.00	10.00	10.00	10.00

Elem	Cd_226	Co_228	Cr_267	Cu_324	Fe_	K_7664	Mg_279
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	507.4	511.7	496.0	497.0	4927.	5459.	5091.
SDev	2.0	1.8	1.3	1.2	79.	9.	16.
%RSD	.3876	.3428	.2717	.2442	1.599	.1583	.3065
#1	507.1	511.1	497.5	498.4	4967.	5465.	5100.
#2	509.5	510.4	494.8	496.4	4977.	5449.	5100.
#3	505.6	513.7	495.7	496.3	4836.	5463.	5073.
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	500.0	500.0	500.0	500.0	5000.	5000.	5000.
Range	10.00	10.00	10.00	10.00	10.00	10.00	10.00

Elem	Mn_257	Mo_202	Na_	Ni_231	Sb_206	Pb_220	Se_196
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	493.9	518.3	10910.	502.2	515.2	517.6	534.7
SDev	3.1	3.6	14.	2.5	3.6	.5	7.7
%RSD	.6361	.7040	.1253	.4904	.6894	.1023	1.440
#1	495.9	514.0	10920.	501.9	511.8	517.5	533.2
#2	495.6	520.4	10900.	499.9	514.9	517.2	543.0
#3	490.3	520.3	10920.	504.8	518.9	518.2	527.8
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	500.0	500.0	10000.	500.0	500.0	500.0	500.0
Range	10.00	10.00	10.00	10.00	10.00	10.00	10.00

Elem	Sn_189	Ti_334	Tl_190	U_3859	V_2924	Zn_213	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	Q550.1	511.5	526.0	511.8	489.9	509.5	2614.
SDev	1.3	.8	3.0	6.7	3.7	.8	25.
%RSD	.2298	.1565	.5633	1.311	.7522	.1554	.9689
#1	550.0	512.4	529.4	504.7	494.1	509.6	2595.
#2	Q551.4	511.1	524.2	518.0	488.4	510.2	2604.
#3	548.9	510.9	524.4	512.9	487.2	508.7	2643.
Errors	QC ~~Fail~~	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass

110.0%

PASS

Value	500.0	500.0	500.0	500.0	500.0	500.0	2500.
Range	10.00	10.00	10.00	10.00	10.00	10.00	10.00
Elem	Si_288	Si02_	Sr_421	Pb1st	Pb2nd	Se1st	Se2nd
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	2573.	5504.	510.3	531.2	510.8	541.8	531.1
SDev	47.	100.	1.3	2.6	.6	3.0	10.2
%RSD	1.809	1.809	.2567	.4871	.1247	.5450	1.912
#1	2625.	5615.	510.8	529.3	511.5	540.2	529.7
#2	2560.	5476.	511.3	530.0	510.8	545.3	541.8
#3	2535.	5422.	508.8	534.1	510.2	540.0	521.6
Errors	QC Pass	NOCHECK	QC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK
Value	2500.		500.0				
Range	10.00		10.00				

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	15467	--	--	--	--	--	--
SDev	64.35246	--	--	--	--	--	--
%RSD	.4160754	--	--	--	--	--	--
#1	15466	--	--	--	--	--	--
#2	15531	--	--	--	--	--	--
#3	15403	--	--	--	--	--	--

Method: TRACE2 Sample Name: CCB1 Operator: HSC
Run Time: 05/10/05 19:10:15
Comment: 421403||6010 SRR
Mode: CONC Corr. Factor: 1

Elem	Ag_328	Al_308	As_189	B_2496	Ba_493	Be_313	Ca_317
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	1.045	10.37	.2254	-3.423	.4429	.3815	14.32
SDev	.282	5.12	3.098	1.091	.0973	.0461	4.25
%RSD	26.95	49.38	1374.	31.87	21.96	12.08	29.65
#1	1.099	15.79	-.7870	-2.547	.5353	.4220	19.07
#2	1.296	5.613	-2.240	-3.076	.4520	.3912	12.98
#3	.7404	9.700	3.703	-4.645	.3414	.3313	10.90
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.0000	.0000	.0000	.0000	.0000	.0000	.0000
Range	5.000	200.0	15.00	50.00	5.000	5.000	100.0

Elem	Cd_226	Co_228	Cr_267	Cu_324	Fe_	K_7664	Mg_279
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	.6876	.2305	-.0948	.6047	2.915	8.376	-.4536
SDev	.4352	.9164	.8349	.5030	2.543	2.659	7.4960
%RSD	63.30	397.5	880.3	83.18	87.26	31.75	1652.
#1	.1860	1.147	.8655	.0439	4.361	6.129	.5808
#2	.9655	.2303	-.5018	.7545	-.0219	11.31	-8.413
#3	.9111	-.6858	-.6482	1.016	4.406	7.687	6.471
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.0000	.0000	.0000	.0000	.0000	.0000	.0000
Range	5.000	5.000	5.000	10.00	100.0	150.0	300.0

Elem	Mn_257	Mo_202	Na_	Ni_231	Sb_206	Pb_220	Se_196
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	.4076	2.115	-57.79	1.145	2.690	.8112	-7.219
SDev	.2048	.506	8.48	1.516	4.439	2.096	2.817
%RSD	50.25	23.95	14.67	132.4	165.0	258.3	39.02
#1	.6111	1.682	-58.16	1.468	2.976	-.4678	-10.18
#2	.2015	2.671	-49.13	-.5066	6.979	3.230	-6.902
#3	.4102	1.991	-66.08	2.474	-1.885	-.3282	-4.574
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.0000	.0000	.0000	.0000	.0000	.0000	.0000
Range	10.00	10.00	150.0	5.000	10.00	10.00	15.00

Elem	Sn_189	Ti_334	Tl_190	U_3859	V_2924	Zn_213	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	-3.687	.5797	2.550	3.226	.6572	.6247	13.00
SDev	1.584	.2927	4.417	17.91	1.418	.3578	6.32
%RSD	42.95	50.49	173.2	555.3	215.8	57.28	48.65
#1	-1.889	.8145	1.161	-16.86	2.139	.9336	14.12
#2	-4.876	.6728	-1.005	8.994	.5205	.2326	18.68
#3	-4.296	.2518	7.494	17.54	-.6877	.7080	6.187
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass

Value	.0000	.0000	.0000	.0000	.0000	.0000	.0000
Range	10.00	5.000	20.00	50.00	5.000	10.00	150.0
Elem	Si_288	Si02_	Sr_421	Pb1st	Pb2nd	Se1st	Se2nd
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	28.21	60.35	.3996	.1674	1.133	-5.580	-8.037
SDev	20.51	43.88	.0841	6.381	.930	5.541	2.198
%RSD	72.70	72.70	21.03	3811.	82.11	99.31	27.34
#1	46.70	99.89	.4780	-5.376	1.982	-11.97	-9.289
#2	31.79	68.00	.4100	7.142	1.276	-2.054	-9.323
#3	6.148	13.15	.3108	-1.264	.1392	-2.719	-5.500
Errors	QC Pass	NOCHECK	QC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK
Value	.0000		.0000				
Range	100.0		5.000				
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	15587	--	--	--	--	--	--
SDev	159.7945	--	--	--	--	--	--
%RSD	1.025149	--	--	--	--	--	--
#1	15553	--	--	--	--	--	--
#2	15762	--	--	--	--	--	--
#3	15448	--	--	--	--	--	--

Method: TRACE2 Sample Name: 1200840497 Operator: HSC
Run Time: 05/10/05 19:16:12
Comment: 423071||6010 SOIL
Mode: CONC Corr. Factor: 1

Elem	Ag_328	Al_308	As_189	B_2496	Ba_493	Be_313	Ca_317
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	.3981	15.81	1.751	-.3057	.2124	.0925	23.59
SDev	.6463	4.19	6.077	5.6376	.1509	.0479	3.21
%RSD	162.3	26.51	347.0	1844.	71.06	51.77	13.59
#1	.2396	19.87	5.375	2.797	.3730	.1442	27.21
#2	1.109	16.07	-5.264	-6.813	.0735	.0496	21.10
#3	-.1542	11.50	5.144	3.099	.1907	.0837	22.46
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	5.000	200.0	15.00	50.00	5.000	5.000	100.0
Low	-5.000	-200.0	-15.00	-50.00	-5.000	-5.000	-100.0

Elem	Cd_226	Co_228	Cr_267	Cu_324	Fe_	K_7664	Mg_279
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	.6106	.7135	1.075	1.344	6.651	21.91	.5108
SDev	.1545	.9293	.316	.448	2.218	8.54	8.047
%RSD	25.31	130.2	29.39	33.32	33.35	38.96	1575.
#1	.7773	1.394	1.396	1.383	7.889	25.04	9.606
#2	.4721	-.3454	.7639	.8782	7.973	12.25	-2.389
#3	.5824	1.092	1.066	1.771	4.090	28.44	-5.684
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	5.000	5.000	5.000	10.00	100.0	150.0	300.0
Low	-5.000	-5.000	-5.000	-10.00	-100.0	-150.0	-300.0

Elem	Mn_257	Mo_202	Na_	Ni_231	Sb_206	Pb_220	Se_196
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	.3534	.1205	-59.57	.3485	-1.382	3.308	-.4579
SDev	.1267	.5326	14.74	.7609	2.865	.919	8.1150
%RSD	35.85	442.0	24.74	218.3	207.2	27.78	1772.
#1	.2074	.0705	-44.17	1.211	1.925	4.274	-3.830
#2	.4183	.6763	-60.98	.0617	-3.032	2.444	-6.343
#3	.4346	-.3854	-73.55	-.2273	-3.040	3.206	8.800
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.00	10.00	150.0	5.000	10.00	10.00	15.00
Low	-10.00	-10.00	-150.0	-5.000	-10.00	-10.00	-15.00

Elem	Sn_189	Ti_334	Tl_190	U_3859	V_2924	Zn_213	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	2.408	.3997	-.7093	1.014	.5237	3.145	11.09
SDev	3.944	.2534	4.5542	20.53	1.111	.685	5.50
%RSD	163.8	63.40	642.1	2026.	212.1	21.77	49.63
#1	6.705	.6892	-.1556	19.43	.9386	3.314	5.003
#2	-1.049	.2914	3.543	-21.12	1.367	2.392	15.71
#3	1.569	.2184	-5.515	4.735	-.7345	3.729	12.54
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	NOCHECK

High	10.00	5.000	20.00	50.00	10.00	10.00	
Low	-10.00	-5.000	-20.00	-50.00	-10.00	-10.00	
Elem	Si_288	Si02_	Sr_421	Pb1st	Pb2nd	Se1st	Se2nd
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	90.93	194.5	.1194	.0815	4.919	1.441	-1.406
SDev	46.86	100.2	.0728	2.875	2.740	8.912	7.717
%RSD	51.54	51.54	60.95	3527.	55.69	618.7	549.0
#1	H143.3	306.4	.2030	-3.237	8.024	-2.342	-4.573
#2	76.67	164.0	.0852	1.649	2.842	-4.957	-7.035
#3	52.85	113.1	.0700	1.832	3.892	11.62	7.391
Errors	LC Pass	NOCHECK	LC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK
High	100.0		10.00				
Low	-100.0		-10.00				
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	15005	--	--	--	--	--	--
SDev	368.1567	--	--	--	--	--	--
%RSD	2.453488	--	--	--	--	--	--
#1	15277	--	--	--	--	--	--
#2	15153	--	--	--	--	--	--
#3	14586	--	--	--	--	--	--

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Method: TRACE2 Sample Name: 1200840501 Operator: HSC
Run Time: 05/10/05 19:22:08
Comment: 423071||6010 SOIL
Mode: CONC Corr. Factor: 1

Elem	Ag_328	Al_308	As_189	B_2496	Ba_493	Be_313	Ca_317
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	1554.	73730.	1931.	476.2	3792.	720.3	33150.
SDev	18.	531.	20.	4.1	22.	7.5	194.
%RSD	1.189	.7206	1.031	.8518	.5881	1.039	.5840
#1	1570.	74230.	1951.	480.6	3818.	727.3	33370.
#2	1559.	73780.	1931.	475.4	3776.	721.1	33090.
#3	1534.	73170.	1911.	472.5	3783.	712.4	33000.
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2000.	500000.	50000.	50000.	15000.	10000.	500000.
Low	-5.000	-200.0	-15.00	-50.00	-5.000	-5.000	-100.0

Elem	Cd_226	Co_228	Cr_267	Cu_324	Fe_	K_7664	Mg_279
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	659.6	789.7	781.0	1202.	127600.	19700.	20870.
SDev	7.1	6.0	4.9	12.	1533.	94.	90.
%RSD	1.069	.7565	.6238	.9991	1.201	.4757	.4319
#1	667.7	796.0	786.4	1215.	128800.	19770.	20970.
#2	655.7	788.8	780.0	1202.	128300.	19740.	20830.
#3	655.3	784.2	776.8	1191.	125900.	19600.	20800.
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	25000.	50000.	50000.	25000.	500000.	30000.	500000.
Low	-5.000	-5.000	-5.000	-10.00	-100.0	-150.0	-300.0

Elem	Mn_257	Mo_202	Na_	Ni_231	Sb_206	Pb_220	Se_196
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	4290.	810.7	3239.	816.1	559.5	918.7	1122.
SDev	19.	6.6	17.	6.2	8.3	14.3	18.
%RSD	.4332	.8110	.5330	.7629	1.487	1.552	1.631
#1	4311.	817.3	3257.	822.8	568.2	931.7	1128.
#2	4275.	804.1	3236.	815.0	551.6	920.9	1136.
#3	4284.	810.6	3223.	810.5	558.6	903.5	1101.
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10000.	50000.	200000.	50000.	50000.	50000.	50000.
Low	-10.00	-10.00	-150.0	-5.000	-10.00	-10.00	-15.00

Elem	Sn_189	Ti_334	Tl_190	U_3859	V_2924	Zn_213	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	950.3	3912.	1033.	L-51.70	1466.	2614.	4430.
SDev	2.6	32.	13.	18.07	9.	20.	67.
%RSD	.2722	.8162	1.290	34.95	.5945	.7650	1.513
#1	951.2	3943.	1043.	L-71.01	1476.	2636.	4421.
#2	952.4	3915.	1037.	-48.88	1458.	2609.	4501.
#3	947.4	3879.	1018.	-35.21	1464.	2596.	4368.
Errors	LC Pass	LC Pass	LC Pass	LC Low	LC Pass	LC Pass	LC Pass

High	50000.	10000.	50000.	50000.	50000.	5000.	50000.
Low	-10.00	-5.000	-20.00	-50.00	-5.000	-10.00	-150.0
Elem	Si_288	Si02_	Sr_421	Pb1st	Pb2nd	Se1st	Se2nd
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	4795.	10260.	793.4	976.6	889.8	1123.	1121.
SDev	69.	147.	5.8	12.8	17.1	20.	22.
%RSD	1.436	1.436	.7276	1.311	1.922	1.795	2.004
#1	4865.	10410.	799.9	991.3	902.0	1144.	1120.
#2	4793.	10250.	788.8	968.4	897.2	1119.	1145.
#3	4728.	10110.	791.6	970.0	870.2	1104.	1100.
Errors	LC Pass	NOCHECK	LC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK
High	50000.		10000.				
Low	-100.0		-5.000				

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	15003	--	--	--	--	--	--
SDev	87.26990	--	--	--	--	--	--
%RSD	.5816699	--	--	--	--	--	--
#1	15063	--	--	--	--	--	--
#2	14903	--	--	--	--	--	--
#3	15044	--	--	--	--	--	--

ethod: TRACE2 Sample Name: 135806001 Operator: HSC
un Time: 05/10/05 19:28:06
omment: 423071||6010 SOIL
ode: CONC Corr. Factor: 1

Elem	Ag_328	Al_308	As_189	B_2496	Ba_493	Be_313	Ca_317
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	.9219	92800.	17.17	19.13	505.9	5.826	11020.
SDev	.6727	527.	.95	1.00	1.2	.049	35.
%RSD	72.98	.5675	5.511	5.225	.2286	.8331	.3175
#1	.4670	93380.	18.06	17.98	506.7	5.862	11060.
#2	.6039	92660.	16.18	19.61	504.6	5.845	11010.
#3	1.695	92360.	17.27	19.79	506.4	5.771	11000.
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2000.	500000.	50000.	50000.	15000.	10000.	500000.
Low	-5.000	-200.0	-15.00	-50.00	-5.000	-5.000	-100.0

Elem	Cd_226	Co_228	Cr_267	Cu_324	Fe_	K_7664	Mg_279
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	4.444	18.84	49.69	99.23	112000.	9817.	9655.
SDev	.450	.34	.41	.68	237.	9.	19.
%RSD	10.13	1.828	.8238	.6815	.2115	.0934	.1969
#1	4.492	18.90	50.17	100.00	112100.	9806.	9676.
#2	3.972	18.47	49.47	98.97	112200.	9820.	9651.
#3	4.869	19.16	49.45	98.72	111700.	9823.	9639.
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	25000.	50000.	50000.	25000.	500000.	30000.	500000.
Low	-5.000	-5.000	-5.000	-10.00	-100.0	-150.0	-300.0

Elem	Mn_257	Mo_202	Na_	Ni_231	Sb_206	Pb_220	Se_196
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	1158.	9.106	1690.	85.52	14.40	335.4	.7164
SDev	9.	1.875	11.	1.14	5.33	5.0	.2560
%RSD	.7450	20.59	.6220	1.331	37.02	1.492	35.74
#1	1168.	10.42	1702.	86.84	9.864	341.1	.9562
#2	1151.	9.935	1685.	84.88	13.06	333.3	.7462
#3	1156.	6.959	1683.	84.85	20.27	331.8	.4468
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10000.	50000.	200000.	50000.	50000.	50000.	50000.
Low	-10.00	-10.00	-150.0	-5.000	-10.00	-10.00	-15.00

Elem	Sn_189	Ti_334	Tl_190	U_3859	V_2924	Zn_213	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	13.45	1897.	.7396	.8870	72.28	464.9	338.7
SDev	2.18	5.	4.787	1.459	.45	2.7	4.6
%RSD	16.19	.2553	647.3	164.5	.6285	.5841	1.353
#1	15.62	1903.	2.725	-.5493	72.79	467.8	334.5
#2	13.44	1896.	-4.721	.8423	71.91	462.4	343.6
#3	11.27	1893.	4.215	2.368	72.14	464.5	337.8
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass

High	50000.	10000.	50000.	50000.	50000.	5000.	50000.
Low	-10.00	-5.000	-20.00	-50.00	-5.000	-10.00	-150.0
Elem	Si_288	Si02_	Sr_421	Pb1st	Pb2nd	Se1st	Se2nd
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	10890.	23300.	151.0	397.0	304.7	-13.03	7.581
SDev	86.	184.	.6	9.1	7.2	2.56	1.405
%RSD	.7895	.7895	.3819	2.300	2.370	19.68	18.53
#1	10980.	23490.	151.6	402.3	310.6	-11.79	7.320
#2	10880.	23260.	150.5	386.5	306.7	-15.98	9.098
#3	10810.	23130.	151.0	402.3	296.6	-11.33	6.325
Errors	LC Pass	NOCHECK	LC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK
High	50000.		10000.				
Low	-100.0		-5.000				
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	15154	--	--	--	--	--	--
SDev	263.2591	--	--	--	--	--	--
%RSD	1.737257	--	--	--	--	--	--
#1	15450	--	--	--	--	--	--
#2	15066	--	--	--	--	--	--
#3	14946	--	--	--	--	--	--

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Method: TRACE2 Sample Name: 1200840498 Operator: HSC
Run Time: 05/10/05 19:34:03
Comment: 423071||6010 SOIL
Mode: CONC Corr. Factor: 1

Elem	Ag_328	Al_308	As_189	B_2496	Ba_493	Be_313	Ca_317
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	.0598	84490.	13.99	14.90	431.9	5.182	9839.
SDev	.1357	412.	4.98	.58	1.1	.019	32.
%RSD	226.9	.4880	35.59	3.894	.2591	.3686	.3232
#1	-.0908	84950.	10.08	15.28	433.2	5.176	9872.
#2	.1726	84150.	19.60	15.18	431.2	5.204	9808.
#3	.0976	84370.	12.29	14.23	431.3	5.167	9837.
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2000.	500000.	50000.	50000.	15000.	10000.	500000.
Low	-5.000	-200.0	-15.00	-50.00	-5.000	-5.000	-100.0

Elem	Cd_226	Co_228	Cr_267	Cu_324	Fe_	K_7664	Mg_279
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	3.213	9.778	39.67	37.71	57650.	8792.	8113.
SDev	.329	.450	1.07	.45	328.	40.	48.
%RSD	10.24	4.600	2.710	1.200	.5688	.4563	.5912
#1	2.842	9.269	40.90	38.23	57500.	8757.	8168.
#2	3.330	9.940	39.20	37.41	57430.	8783.	8082.
#3	3.468	10.12	38.91	37.49	58030.	8836.	8088.
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	25000.	50000.	50000.	25000.	500000.	30000.	500000.
Low	-5.000	-5.000	-5.000	-10.00	-100.0	-150.0	-300.0

Elem	Mn_257	Mo_202	Na_	Ni_231	Sb_206	Pb_220	Se_196
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	1067.	3.657	1590.	43.81	5.090	244.1	2.696
SDev	5.	2.069	6.	.92	9.529	1.9	1.653
%RSD	.4992	56.57	.3738	2.090	187.2	.7938	61.33
#1	1073.	5.519	1591.	44.45	-4.084	242.9	3.357
#2	1065.	1.430	1583.	42.76	4.416	246.3	3.917
#3	1063.	4.023	1595.	44.22	14.94	243.0	.8145
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10000.	50000.	200000.	50000.	50000.	50000.	50000.
Low	-10.00	-10.00	-150.0	-5.000	-10.00	-10.00	-15.00

Elem	Sn_189	Ti_334	Tl_190	U_3859	V_2924	Zn_213	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	7.235	1741.	-2.433	-16.93	67.88	396.3	298.6
SDev	1.209	5.	7.271	5.95	1.01	3.1	2.9
%RSD	16.71	.3028	298.9	35.12	1.495	.7843	.9786
#1	7.376	1741.	4.355	-23.80	68.79	399.0	296.1
#2	8.366	1737.	-10.11	-13.34	66.79	392.9	298.0
#3	5.962	1747.	-1.548	-13.66	68.07	397.1	301.8
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass

High	50000.	10000.	50000.	50000.	50000.	5000.	50000.
Low	-10.00	-5.000	-20.00	-50.00	-5.000	-10.00	-150.0
Elem	Si_288	Si02_	Sr_421	Pb1st	Pb2nd	Se1st	Se2nd
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	10080.	21570.	135.9	294.1	219.1	-2.053	5.067
SDev	40.	85.	.4	6.4	4.6	7.537	5.775
%RSD	.3960	.3960	.3288	2.185	2.111	367.1	114.0
#1	10120.	21640.	136.3	288.5	220.1	1.679	4.195
#2	10040.	21470.	135.5	292.7	223.1	-10.73	11.23
#3	10090.	21580.	136.0	301.1	214.0	2.890	-.2217
Errors	LC Pass	NOCHECK	LC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK
High	50000.		10000.				
Low	-100.0		-5.000				

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	15240	--	--	--	--	--	--
SDev	238.9685	--	--	--	--	--	--
%RSD	1.568068	--	--	--	--	--	--
#1	15509	--	--	--	--	--	--
#2	15157	--	--	--	--	--	--
#3	15053	--	--	--	--	--	--

Method: TRACE2 Sample Name: 1200840499 Operator: HSC
Run Time: 05/10/05 19:39:59
Comment: 423071||6010 SOIL
Mode: CONC Corr. Factor: 1

Elem	Ag_328	Al_308	As_189	B_2496	Ba_493	Be_313	Ca_317
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	503.2	138500.	537.6	489.7	1180.	518.7	19300.
SDev	7.1	1414.	9.7	8.3	13.	6.5	234.
%RSD	1.409	1.021	1.814	1.693	1.101	1.262	1.211
#1	503.5	137800.	535.2	488.7	1171.	517.5	19190.
#2	496.0	137500.	529.2	482.0	1173.	512.9	19130.
#3	510.1	140100.	548.3	498.5	1195.	525.8	19560.
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2000.	500000.	50000.	50000.	15000.	10000.	500000.
Low	-5.000	-200.0	-15.00	-50.00	-5.000	-5.000	-100.0

Elem	Cd_226	Co_228	Cr_267	Cu_324	Fe_	K_7664	Mg_279
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	508.2	531.9	582.9	571.7	75820.	19450.	18160.
SDev	5.3	5.9	9.4	6.5	1135.	251.	167.
%RSD	1.045	1.114	1.610	1.142	1.497	1.288	.9190
#1	505.9	532.3	575.9	572.0	75790.	19370.	18020.
#2	504.4	525.7	579.1	565.0	74700.	19260.	18100.
#3	514.3	537.6	593.5	578.1	76970.	19740.	18340.
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	25000.	50000.	50000.	25000.	500000.	30000.	500000.
Low	-5.000	-5.000	-5.000	-10.00	-100.0	-150.0	-300.0

Elem	Mn_257	Mo_202	Na_	Ni_231	Sb_206	Pb_220	Se_196
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	2239.	532.3	7422.	563.5	327.7	889.6	511.8
SDev	20.	8.1	117.	8.7	6.8	6.9	6.8
%RSD	.8991	1.520	1.571	1.544	2.087	.7797	1.320
#1	2221.	524.2	7390.	557.7	325.3	893.1	518.4
#2	2235.	532.5	7324.	559.3	322.5	881.6	504.9
#3	2261.	540.3	7551.	573.5	335.5	894.0	512.2
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10000.	50000.	200000.	50000.	50000.	50000.	50000.
Low	-10.00	-10.00	-150.0	-5.000	-10.00	-10.00	-15.00

Elem	Sn_189	Ti_334	Tl_190	U_3859	V_2924	Zn_213	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	568.9	2802.	523.5	514.6	613.2	1070.	942.0
SDev	11.9	34.	10.7	1.9	5.7	14.	11.6
%RSD	2.088	1.212	2.052	.3655	.9296	1.302	1.232
#1	561.6	2791.	513.1	515.4	607.8	1063.	938.2
#2	562.4	2775.	522.9	515.9	612.6	1061.	932.8
#3	582.6	2840.	534.5	512.4	619.2	1086.	955.0
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass

High	50000.	10000.	50000.	50000.	50000.	5000.	50000.
Low	-10.00	-5.000	-20.00	-50.00	-5.000	-10.00	-150.0
Elem	Si_288	Si02_	Sr_421	Pb1st	Pb2nd	Se1st	Se2nd
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	10610.	22690.	712.9	993.6	837.6	496.8	519.3
SDev	104.	223.	9.8	18.3	6.7	13.0	11.9
%RSD	.9832	.9832	1.369	1.842	.7957	2.616	2.284
#1	10610.	22690.	706.8	988.7	845.3	489.1	533.0
#2	10510.	22470.	707.7	978.2	833.3	489.4	512.6
#3	10720.	22920.	724.1	1014.	834.2	511.8	512.3
Errors	LC Pass	NOCHECK	LC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK
High	50000.		10000.				
Low	-100.0		-5.000				
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	15003	--	--	--	--	--	--
SDev	383.4849	--	--	--	--	--	--
%RSD	2.555980	--	--	--	--	--	--
#1	15333	--	--	--	--	--	--
#2	15094	--	--	--	--	--	--
#3	14583	--	--	--	--	--	--

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Method: TRACE2 Sample Name: 1200840500 Operator: HSC
Run Time: 05/10/05 19:45:56
Comment: 423071||6010 SOIL
Mode: CONC Corr. Factor: 1

Elem	Ag_328	Al_308	As_189	B_2496	Ba_493	Be_313	Ca_317
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	494.2	113300.	532.8	483.2	1034.	509.3	19680.
SDev	5.5	1191.	4.5	5.6	10.	5.8	173.
%RSD	1.113	1.052	.8520	1.167	1.014	1.132	.8812
#1	496.5	113400.	535.2	479.6	1030.	510.4	19680.
#2	487.9	112000.	527.5	480.2	1027.	503.1	19510.
#3	498.2	114400.	535.6	489.7	1046.	514.5	19860.
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2000.	500000.	50000.	50000.	15000.	10000.	500000.
Low	-5.000	-200.0	-15.00	-50.00	-5.000	-5.000	-100.0

Elem	Cd_226	Co_228	Cr_267	Cu_324	Fe_	K_7664	Mg_279
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	499.1	513.3	566.4	557.2	69700.	16810.	15670.
SDev	5.1	5.1	7.3	6.2	960.	186.	160.
%RSD	1.026	.9955	1.288	1.114	1.378	1.108	1.022
#1	500.8	512.8	564.5	559.1	70040.	16850.	15660.
#2	493.3	508.4	560.2	550.3	68610.	16610.	15520.
#3	503.1	518.6	574.4	562.3	70440.	16980.	15840.
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	25000.	50000.	50000.	25000.	500000.	30000.	500000.
Low	-5.000	-5.000	-5.000	-10.00	-100.0	-150.0	-300.0

Elem	Mn_257	Mo_202	Na_	Ni_231	Sb_206	Pb_220	Se_196
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	1721.	529.6	7129.	544.0	303.0	827.4	499.6
SDev	11.	2.4	86.	6.7	10.0	14.0	11.5
%RSD	.6253	.4549	1.209	1.240	3.316	1.687	2.300
#1	1718.	528.1	7155.	541.3	312.4	826.5	506.9
#2	1711.	528.2	7033.	539.1	304.2	813.9	486.4
#3	1732.	532.3	7200.	551.7	292.4	841.8	505.5
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10000.	50000.	200000.	50000.	50000.	50000.	50000.
Low	-10.00	-10.00	-150.0	-5.000	-10.00	-10.00	-15.00

Elem	Sn_189	Ti_334	Tl_190	U_3859	V_2924	Zn_213	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	560.4	2890.	522.0	495.6	594.8	1051.	969.5
SDev	9.3	29.	8.0	13.1	2.7	7.	8.3
%RSD	1.654	.9918	1.540	2.635	.4518	.6967	.8556
#1	554.7	2896.	515.8	480.6	596.1	1053.	967.5
#2	555.4	2859.	519.0	501.8	591.7	1043.	962.4
#3	571.1	2915.	531.0	504.4	596.5	1057.	978.6
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass

High	50000.	10000.	50000.	50000.	50000.	5000.	50000.
Low	-10.00	-5.000	-20.00	-50.00	-5.000	-10.00	-150.0
Elem	Si_288	Si02_	Sr_421	Pb1st	Pb2nd	Se1st	Se2nd
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	9285.	19860.	677.6	912.5	785.0	497.9	500.5
SDev	128.	273.	6.2	20.5	11.2	15.1	12.8
%RSD	1.375	1.375	.9119	2.245	1.421	3.042	2.563
#1	9323.	19940.	676.2	906.1	786.8	494.9	512.9
#2	9142.	19550.	672.3	896.0	773.0	484.5	487.3
#3	9389.	20080.	684.4	935.4	795.1	514.4	501.1
Errors	LC Pass	NOCHECK	LC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK
High	50000.		10000.				
Low	-100.0		-5.000				
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	15100	--	--	--	--	--	--
SDev	429.4262	--	--	--	--	--	--
%RSD	2.843795	--	--	--	--	--	--
#1	15421	--	--	--	--	--	--
#2	15267	--	--	--	--	--	--
#3	14613	--	--	--	--	--	--

Method: TRACE2 Sample Name: 1200840502|5| Operator: HSC
Run Time: 05/10/05 19:51:51
Comment: 423071||6010 SOIL
Mode: CONC Corr. Factor: 1

Elem	Ag_328	Al_308	As_189	B_2496	Ba_493	Be_313	Ca_317
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	.6522	19890.	7.713	6.004	105.0	1.379	2322.
SDev	.2617	129.	.592	3.617	1.0	.042	22.
%RSD	40.13	.6491	7.671	60.24	.9643	3.039	.9283
#1	.9518	19900.	8.310	9.212	105.3	1.426	2325.
#2	.5370	20010.	7.127	6.716	105.8	1.366	2342.
#3	.4678	19760.	7.702	2.084	103.9	1.345	2299.
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2000.	500000.	50000.	50000.	15000.	10000.	500000.
Low	-5.000	-200.0	-15.00	-50.00	-5.000	-5.000	-100.0

Elem	Cd_226	Co_228	Cr_267	Cu_324	Fe_	K_7664	Mg_279
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	1.586	3.999	10.52	20.48	23560.	2168.	2037.
SDev	.120	.592	.52	.18	213.	24.	2.
%RSD	7.577	14.81	4.970	.8973	.9045	1.093	.0787
#1	1.560	4.377	10.26	20.69	23730.	2191.	2037.
#2	1.481	4.303	10.19	20.34	23620.	2169.	2039.
#3	1.717	3.316	11.12	20.41	23320.	2144.	2035.
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	25000.	50000.	50000.	25000.	500000.	30000.	500000.
Low	-5.000	-5.000	-5.000	-10.00	-100.0	-150.0	-300.0

Elem	Mn_257	Mo_202	Na_	Ni_231	Sb_206	Pb_220	Se_196
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	243.7	1.315	311.1	18.84	-.3347	73.24	-.8505
SDev	1.5	.227	5.8	1.66	7.1699	4.58	2.2805
%RSD	.6227	17.26	1.852	8.796	2142.	6.254	268.2
#1	242.8	1.067	317.3	18.84	7.002	78.45	1.782
#2	245.4	1.365	310.1	20.50	-.6809	71.47	-2.210
#3	242.7	1.512	305.9	17.18	-7.325	69.82	-2.124
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10000.	50000.	200000.	50000.	50000.	50000.	50000.
Low	-10.00	-10.00	-150.0	-5.000	-10.00	-10.00	-15.00

Elem	Sn_189	Ti_334	Tl_190	U_3859	V_2924	Zn_213	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	2.201	395.2	4.853	-1.854	15.35	98.96	75.47
SDev	.562	4.1	1.869	3.928	.78	1.02	8.36
%RSD	25.53	1.032	38.51	211.9	5.054	1.028	11.08
#1	1.748	398.0	4.645	-6.377	15.26	98.56	67.07
#2	2.025	397.2	3.096	.6927	16.16	100.1	83.79
#3	2.830	390.6	6.816	.1235	14.62	98.21	75.54
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass

High	50000.	10000.	50000.	50000.	50000.	5000.	50000.
Low	-10.00	-5.000	-20.00	-50.00	-5.000	-10.00	-150.0
Elem	Si_288	Si02_	Sr_421	Pb1st	Pb2nd	Se1st	Se2nd
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	2343.	5013.	31.58	83.29	68.23	.2156	-1.383
SDev	22.	48.	.32	5.72	4.14	5.502	4.032
%RSD	.9594	.9594	1.026	6.873	6.062	2552.	291.6
#1	2356.	5040.	31.68	89.35	73.00	1.105	2.120
#2	2357.	5041.	31.84	82.55	65.93	-5.677	-.4785
#3	2317.	4957.	31.22	77.97	65.74	5.219	-5.790
Errors	LC Pass	NOCHECK	LC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK
High	50000.		10000.				
Low	-100.0		-5.000				
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	15803	--	--	--	--	--	--
SDev	65.40958	--	--	--	--	--	--
%RSD	.4138935	--	--	--	--	--	--
#1	15878	--	--	--	--	--	--
#2	15777	--	--	--	--	--	--
#3	15756	--	--	--	--	--	--

Method: TRACE2 Sample Name: 135806002 Operator: HSC
Run Time: 05/10/05 19:57:47
Comment: 423071||6010 SOIL
Mode: CONC Corr. Factor: 1

Elem	Ag_328	Al_308	As_189	B_2496	Ba_493	Be_313	Ca_317
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	.2782	87030.	15.40	16.66	307.0	5.687	9427.
SDev	.1505	298.	1.68	3.54	.4	.042	14.
%RSD	54.08	.3422	10.92	21.26	.1143	.7453	.1450
#1	.4043	87370.	17.26	17.17	307.3	5.708	9435.
#2	.3188	86950.	14.98	19.92	306.6	5.714	9434.
#3	.1117	86790.	13.98	12.89	307.1	5.638	9411.
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2000.	500000.	50000.	50000.	15000.	10000.	500000.
Low	-5.000	-200.0	-15.00	-50.00	-5.000	-5.000	-100.0

Elem	Cd_226	Co_228	Cr_267	Cu_324	Fe_	K_7664	Mg_279
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	1.505	8.655	34.30	34.22	53240.	9077.	8971.
SDev	.462	.336	.98	.65	483.	65.	29.
%RSD	30.71	3.885	2.860	1.898	.9069	.7121	.3265
#1	.9760	8.837	33.48	34.21	53420.	9076.	9004.
#2	1.709	8.861	34.03	34.87	53610.	9142.	8949.
#3	1.830	8.267	35.38	33.57	52700.	9012.	8960.
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	25000.	50000.	50000.	25000.	500000.	30000.	500000.
Low	-5.000	-5.000	-5.000	-10.00	-100.0	-150.0	-300.0

Elem	Mn_257	Mo_202	Na_	Ni_231	Sb_206	Pb_220	Se_196
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	829.8	2.500	1468.	38.70	2.939	99.38	1.263
SDev	4.6	1.650	18.	1.46	5.542	5.13	1.313
%RSD	.5509	65.99	1.244	3.784	188.6	5.163	104.0
#1	834.7	1.522	1483.	38.87	8.402	97.30	1.640
#2	825.7	1.574	1472.	40.06	-2.679	105.2	2.346
#3	829.0	4.405	1447.	37.15	3.094	95.62	-.1981
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10000.	50000.	200000.	50000.	50000.	50000.	50000.
Low	-10.00	-10.00	-150.0	-5.000	-10.00	-10.00	-15.00

Elem	Sn_189	Ti_334	Tl_190	U_3859	V_2924	Zn_213	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	7.747	1633.	1.653	-25.05	66.38	281.6	232.6
SDev	4.560	8.	1.730	7.91	.35	.8	3.5
%RSD	58.86	.4878	104.7	31.60	.5288	.2821	1.524
#1	12.63	1636.	.4182	-30.22	66.31	282.2	236.0
#2	3.595	1638.	.9098	-15.94	66.76	280.7	232.9
#3	7.019	1623.	3.630	-28.99	66.07	282.0	228.9
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass

High	50000.	10000.	50000.	50000.	50000.	5000.	50000.
Low	-10.00	-5.000	-20.00	-50.00	-5.000	-10.00	-150.0
Elem	Si_288	Si02_	Sr_421	Pb1st	Pb2nd	Se1st	Se2nd
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	5547.	11870.	105.0	148.0	75.11	-4.730	4.254
SDev	37.	80.	.1	5.1	6.12	3.199	2.773
%RSD	.6734	.6734	.1265	3.447	8.148	67.64	65.19
#1	5575.	11930.	104.9	142.7	74.64	-1.409	3.162
#2	5561.	11900.	105.0	152.9	81.45	-7.791	7.407
#3	5505.	11770.	105.2	148.5	69.24	-4.989	2.194
Errors	LC Pass	NOCHECK	LC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK
High	50000.		10000.				
Low	-100.0		-5.000				
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	15391	--	--	--	--	--	--
SDev	243.1837	--	--	--	--	--	--
%RSD	1.580026	--	--	--	--	--	--
#1	15669	--	--	--	--	--	--
#2	15216	--	--	--	--	--	--
#3	15289	--	--	--	--	--	--

Analysis Report 05/10/05 08:09:36 PM

Method: TRACE2 Sample Name: 135806003 Operator: HSC
Run Time: 05/10/05 20:03:44
Comment: 423071||6010 SOIL
Mode: CONC Corr. Factor: 1

Elem	Ag_328	Al_308	As_189	B_2496	Ba_493	Be_313	Ca_317
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	.0960	65470.	23.26	10.82	305.9	7.678	8069.
SDev	.6366	426.	4.24	3.46	1.4	.071	35.
%RSD	663.4	.6514	18.24	31.96	.4672	.9217	.4360
#1	-.5800	65920.	23.41	14.70	307.5	7.707	8105.
#2	.1838	65410.	18.95	9.709	304.8	7.730	8068.
#3	.6841	65070.	27.43	8.057	305.4	7.598	8035.
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2000.	500000.	50000.	50000.	15000.	10000.	500000.
Low	-5.000	-200.0	-15.00	-50.00	-5.000	-5.000	-100.0

Elem	Cd_226	Co_228	Cr_267	Cu_324	Fe_	K_7664	Mg_279
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	7.103	8.950	23.30	31.60	61920.	9228.	5254.
SDev	.237	.335	1.09	.17	381.	41.	26.
%RSD	3.343	3.740	4.684	.5347	.6146	.4480	.5029
#1	7.359	8.955	24.55	31.60	62180.	9249.	5284.
#2	7.058	8.612	22.52	31.42	62110.	9254.	5243.
#3	6.890	9.281	22.83	31.76	61490.	9180.	5234.
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	25000.	50000.	50000.	25000.	500000.	30000.	500000.
Low	-5.000	-5.000	-5.000	-10.00	-100.0	-150.0	-300.0

Elem	Mn_257	Mo_202	Na_	Ni_231	Sb_206	Pb_220	Se_196
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	1370.	5.705	1243.	25.58	6.574	110.4	2.493
SDev	10.	.882	12.	1.37	5.758	1.6	10.51
%RSD	.7306	15.46	.9763	5.340	87.59	1.407	421.3
#1	1381.	6.382	1256.	24.44	12.58	112.2	14.34
#2	1366.	4.707	1242.	25.20	6.050	109.7	-1.178
#3	1362.	6.024	1232.	27.10	1.095	109.4	-5.684
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10000.	50000.	200000.	50000.	50000.	50000.	50000.
Low	-10.00	-10.00	-150.0	-5.000	-10.00	-10.00	-15.00

Elem	Sn_189	Ti_334	Tl_190	U_3859	V_2924	Zn_213	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	6.675	1258.	3.285	-27.41	89.38	310.5	431.3
SDev	2.860	8.	5.702	10.23	.74	3.6	2.9
%RSD	42.84	.6126	173.6	37.31	.8226	1.170	.6839
#1	8.315	1265.	-2.229	-15.60	88.92	314.4	431.9
#2	3.373	1261.	2.926	-33.30	88.99	309.8	433.8
#3	8.338	1250.	9.158	-33.33	90.23	307.2	428.0
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass

High	50000.	10000.	50000.	50000.	50000.	5000.	50000.
Low	-10.00	-5.000	-20.00	-50.00	-5.000	-10.00	-150.0
Elem	Si_288	Si02_	Sr_421	Pb1st	Pb2nd	Se1st	Se2nd
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	4955.	10600.	86.45	149.3	91.01	-2.674	5.073
SDev	49.	104.	.41	3.6	2.61	3.532	14.04
%RSD	.9793	.9793	.4700	2.420	2.869	132.1	276.8
#1	5005.	10710.	86.88	150.7	92.99	.9975	21.00
#2	4951.	10590.	86.07	145.2	91.98	-2.971	-.2823
#3	4908.	10500.	86.40	152.1	88.05	-6.048	-5.502
Errors	LC Pass	NOCHECK	LC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK
High	50000.		10000.				
Low	-100.0		-5.000				

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	15397	--	--	--	--	--	--
SDev	144.5640	--	--	--	--	--	--
%RSD	.9389384	--	--	--	--	--	--
#1	15558	--	--	--	--	--	--
#2	15280	--	--	--	--	--	--
#3	15351	--	--	--	--	--	--

Method: TRACE2 Sample Name: 135806004 Operator: HSC
Run Time: 05/10/05 20:09:40
Comment: 423071||6010 SOIL
Mode: CONC Corr. Factor: 1

Elem	Ag_328	Al_308	As_189	B_2496	Ba_493	Be_313	Ca_317
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	.0700	79540.	10.40	12.96	364.6	5.653	8007.
SDev	.5104	294.	1.62	1.02	1.5	.020	21.
%RSD	729.5	.3696	15.58	7.871	.4021	.3507	.2673
#1	.3325	79870.	9.280	13.44	366.3	5.632	8031.
#2	-.5182	79320.	12.25	13.65	363.7	5.654	7991.
#3	.3956	79410.	9.656	11.79	363.8	5.672	7999.
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2000.	500000.	50000.	50000.	15000.	10000.	500000.
Low	-5.000	-200.0	-15.00	-50.00	-5.000	-5.000	-100.0

Elem	Cd_226	Co_228	Cr_267	Cu_324	Fe	K_7664	Mg_279
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	29.23	8.940	30.34	74.55	48470.	8217.	7521.
SDev	.74	.780	.38	.19	192.	28.	33.
%RSD	2.524	8.720	1.252	.2512	.3956	.3372	.4333
#1	29.01	9.639	30.31	74.66	48360.	8205.	7559.
#2	30.06	8.099	29.97	74.34	48370.	8198.	7503.
#3	28.64	9.080	30.73	74.66	48700.	8249.	7502.
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	25000.	50000.	50000.	25000.	500000.	30000.	500000.
Low	-5.000	-5.000	-5.000	-10.00	-100.0	-150.0	-300.0

Elem	Mn_257	Mo_202	Na	Ni_231	Sb_206	Pb_220	Se_196
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	620.0	2.484	1628.	38.14	10.32	67.49	.0557
SDev	4.4	2.074	4.	2.39	2.15	3.21	6.078
%RSD	.7154	83.50	.2682	6.274	20.86	4.754	10900.
#1	625.0	.9322	1633.	40.30	8.245	64.01	2.078
#2	616.8	1.680	1624.	35.57	12.54	68.13	4.864
#3	618.0	4.840	1628.	38.56	10.16	70.33	-6.775
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10000.	50000.	200000.	50000.	50000.	50000.	50000.
Low	-10.00	-10.00	-150.0	-5.000	-10.00	-10.00	-15.00

Elem	Sn_189	Ti_334	Tl_190	U_3859	V_2924	Zn_213	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	8.698	1772.	-2.143	-7.756	59.13	463.0	287.5
SDev	1.768	3.	3.852	15.665	1.03	1.9	6.5
%RSD	20.32	.1828	179.7	202.0	1.748	.3996	2.253
#1	7.705	1773.	-6.585	-13.89	60.31	464.8	280.6
#2	7.650	1769.	-.1237	10.05	58.68	461.1	288.3
#3	10.74	1775.	.2791	-19.42	58.40	463.2	293.5
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass

High	50000.	10000.	50000.	50000.	50000.	5000.	50000.
Low	-10.00	-5.000	-20.00	-50.00	-5.000	-10.00	-150.0
Elem	Si_288	Si02_	Sr_421	Pb1st	Pb2nd	Se1st	Se2nd
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	5024.	10750.	86.40	114.4	44.07	-6.528	3.343
SDev	19.	41.	.30	3.0	3.91	1.582	8.375
%RSD	.3791	.3791	.3505	2.622	8.883	24.24	250.5
#1	5046.	10790.	86.75	111.3	40.41	-5.430	5.827
#2	5013.	10720.	86.27	117.3	43.60	-5.813	10.19
#3	5012.	10720.	86.18	114.7	48.19	-8.342	-5.993
Errors	LC Pass	NOCHECK	LC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK
High	50000.		10000.				
Low	-100.0		-5.000				

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	15549	--	--	--	--	--	--
SDev	210.3174	--	--	--	--	--	--
%RSD	1.352635	--	--	--	--	--	--
#1	15750	--	--	--	--	--	--
#2	15565	--	--	--	--	--	--
#3	15331	--	--	--	--	--	--

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Method: TRACE2 Sample Name: CCV1 Operator: HSC
Run Time: 05/10/05 20:15:37
Comment: 423071||6010 SOIL
Mode: CONC Corr. Factor: 1

Elem	Ag_328	Al_308	As_189	B_2496	Ba_493	Be_313	Ca_317
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	490.6	4955.	519.7	465.2	498.3	486.8	4942.
SDev	2.0	9.	6.1	8.1	2.5	2.8	25.
%RSD	.4156	.1723	1.168	1.735	.5050	.5738	.5112
#1	490.7	4959.	524.4	456.6	496.1	487.0	4927.
#2	488.5	4945.	512.9	466.5	497.6	483.9	4928.
#3	492.6	4960.	522.0	472.6	501.0	489.5	4972.
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	500.0	5000.	500.0	500.0	500.0	500.0	5000.
Range	10.00	10.00	10.00	10.00	10.00	10.00	10.00

Elem	Cd_226	Co_228	Cr_267	Cu_324	Fe_	K_7664	Mg_279
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	497.6	498.2	486.5	482.9	5105.	5362.	5030.
SDev	.6	4.0	3.8	1.7	79.	43.	29.
%RSD	.1111	.8080	.7710	.3555	1.540	.7971	.5815
#1	497.0	496.5	486.0	484.4	5018.	5396.	5009.
#2	497.5	495.3	483.0	481.0	5172.	5314.	5017.
#3	498.1	502.8	490.4	483.3	5124.	5377.	5063.
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	500.0	500.0	500.0	500.0	5000.	5000.	5000.
Range	10.00	10.00	10.00	10.00	10.00	10.00	10.00

Elem	Mn_257	Mo_202	Na_	Ni_231	Sb_206	Pb_220	Se_196
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	494.7	507.2	10640.	489.8	502.2	504.5	516.5
SDev	3.8	2.6	89.	4.3	.9	2.3	5.5
%RSD	.7732	.5063	.8393	.8775	.1865	.4609	1.066
#1	490.5	504.6	10720.	488.0	503.0	506.5	515.8
#2	496.0	507.1	10540.	486.7	501.2	501.9	511.3
#3	497.8	509.8	10670.	494.7	502.3	505.1	522.3
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	500.0	500.0	10000.	500.0	500.0	500.0	500.0
Range	10.00	10.00	10.00	10.00	10.00	10.00	10.00

Elem	Sn_189	Ti_334	Tl_190	U_3859	V_2924	Zn_213	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	544.9	497.5	510.9	507.7	487.3	495.7	2438.
SDev	7.8	2.2	4.8	7.0	3.8	2.3	13.
%RSD	1.437	.4484	.9433	1.370	.7865	.4627	.5285
#1	545.0	497.8	515.8	514.3	483.5	495.1	2440.
#2	537.0	495.2	506.1	508.3	487.1	493.8	2424.
#3	Q552.7	499.7	510.7	500.4	491.2	498.2	2450.
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass

Value	500.0	500.0	500.0	500.0	500.0	500.0	2500.
Range	10.00	10.00	10.00	10.00	10.00	10.00	10.00
Elem	Si_288	Si02_	Sr_421	Pb1st	Pb2nd	Se1st	Se2nd
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	2442.	5223.	496.3	519.7	496.9	527.0	511.2
SDev	10.	22.	1.2	8.0	1.2	5.1	6.0
%RSD	.4200	.4200	.2477	1.535	.2371	.9748	1.179
#1	2449.	5238.	495.1	528.0	495.8	529.0	509.3
#2	2430.	5198.	496.3	512.0	496.9	521.2	506.4
#3	2446.	5233.	497.6	519.0	498.1	530.9	518.0
Errors	QC Pass	NOCHECK	QC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK
Value	2500.		500.0				
Range	10.00		10.00				
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	16119	--	--	--	--	--	--
SDev	136.4366	--	--	--	--	--	--
%RSD	.8464168	--	--	--	--	--	--
#1	15998	--	--	--	--	--	--
#2	16267	--	--	--	--	--	--
#3	16093	--	--	--	--	--	--

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Method: TRACE2 Sample Name: CCB1 Operator: HSC
Run Time: 05/10/05 20:21:34
Comment: 423071||6010 SOIL
Mode: CONC Corr. Factor: 1

Elem	Ag_328	Al_308	As_189	B_2496	Ba_493	Be_313	Ca_317
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	.9043	4.391	2.055	1.162	.4188	.3222	2.565
SDev	.2084	8.288	1.517	2.073	.1705	.0683	.222
%RSD	23.05	188.8	73.84	178.4	40.72	21.19	8.637
#1	.9512	11.27	3.805	3.042	.4927	.3621	2.698
#2	1.085	6.711	1.239	1.505	.5399	.3611	2.688
#3	.6765	-4.810	1.119	-1.061	.2238	.2434	2.309
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.0000	.0000	.0000	.0000	.0000	.0000	.0000
Range	5.000	200.0	15.00	50.00	5.000	5.000	100.0

Elem	Cd_226	Co_228	Cr_267	Cu_324	Fe_	K_7664	Mg_279
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	.7350	.8203	-.1846	.5176	5.379	10.99	-.5421
SDev	.5260	.5557	.1968	.2025	2.739	1.82	4.4283
%RSD	71.55	67.75	106.6	39.12	50.91	16.60	816.9
#1	.8434	.8978	-.2232	.3155	8.445	9.450	-5.371
#2	.1634	.2299	.0287	.5168	4.516	13.00	3.329
#3	1.198	1.333	-.3592	.7206	3.176	10.51	.4157
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.0000	.0000	.0000	.0000	.0000	.0000	.0000
Range	5.000	5.000	5.000	10.00	100.0	150.0	300.0

Elem	Mn_257	Mo_202	Na_	Ni_231	Sb_206	Pb_220	Se_196
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	.5940	1.679	-50.53	1.014	3.786	-2.026	.8699
SDev	.1956	.583	.56	2.058	3.361	.411	2.666
%RSD	32.93	34.75	1.113	203.0	88.77	20.29	306.4
#1	.3977	1.779	-50.87	3.357	5.763	-1.667	-1.658
#2	.5955	2.206	-50.84	.1852	-.0947	-1.937	3.655
#3	.7889	1.052	-49.88	-.5008	5.690	-2.474	.6133
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.0000	.0000	.0000	.0000	.0000	.0000	.0000
Range	10.00	10.00	150.0	5.000	10.00	10.00	15.00

Elem	Sn_189	Ti_334	Tl_190	U_3859	V_2924	Zn_213	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	-.5855	.6459	1.256	-.6582	.2543	.8272	6.014
SDev	4.1174	.1572	4.064	4.6357	.8156	.4708	1.863
%RSD	703.2	24.34	323.7	704.3	320.8	56.91	30.98
#1	-2.971	.8224	-.0405	-5.470	-.6595	.4532	5.283
#2	4.169	.5947	5.810	3.779	.9083	1.356	8.132
#3	-2.954	.5207	-2.002	-.2834	.5140	.6725	4.628
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass

Value	.0000	.0000	.0000	.0000	.0000	.0000	.0000
Range	10.00	5.000	20.00	50.00	5.000	10.00	150.0
Elem	Si_288	Si02_	Sr_421	Pb1st	Pb2nd	Se1st	Se2nd
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	-8.526	-18.24	.3435	-3.440	-1.320	1.865	.3733
SDev	6.871	14.70	.0669	2.638	.785	1.766	3.288
%RSD	80.59	80.59	19.49	76.71	59.46	94.74	880.9
#1	-3.916	-8.376	.3580	-.5459	-2.226	-.1737	-2.399
#2	-16.42	-35.13	.4021	-4.061	-.8763	2.951	4.006
#3	-5.238	-11.20	.2706	-5.712	-.8574	2.817	-.4869
Errors	QC Pass	NOCHECK	QC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK
Value	.0000		.0000				
Range	100.0		5.000				
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	15987	--	--	--	--	--	--
SDev	66.45725	--	--	--	--	--	--
%RSD	.4157065	--	--	--	--	--	--
#1	15938	--	--	--	--	--	--
#2	15959	--	--	--	--	--	--
#3	16062	--	--	--	--	--	--

Method: TRACE2 Sample Name: 135806005 Operator: HSC
Run Time: 05/10/05 20:27:31
Comment: 423071||6010 SOIL
Mode: CONC Corr. Factor: 1

Elem	Ag_328	Al_308	As_189	B_2496	Ba_493	Be_313	Ca_317
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	.7675	88650.	24.36	29.82	582.7	5.490	16730.
SDev	.1240	327.	1.42	1.46	2.0	.016	47.
%RSD	16.15	.3684	5.829	4.892	.3352	.2922	.2789
#1	.6949	88420.	23.55	29.27	580.9	5.475	16700.
#2	.9106	88500.	23.53	31.47	582.5	5.507	16710.
#3	.6971	89020.	26.00	28.71	584.8	5.489	16780.
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2000.	500000.	50000.	50000.	15000.	10000.	500000.
Low	-5.000	-200.0	-15.00	-50.00	-5.000	-5.000	-100.0

Elem	Cd_226	Co_228	Cr_267	Cu_324	Fe_	K_7664	Mg_279
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	47.46	22.52	158.6	185.6	116000.	10130.	10570.
SDev	.79	.29	.6	.5	493.	53.	35.
%RSD	1.672	1.298	.3978	.2911	.4251	.5248	.3326
#1	47.93	22.61	157.9	185.0	115400.	10070.	10580.
#2	46.54	22.76	158.9	185.9	116200.	10160.	10540.
#3	47.90	22.20	159.1	186.0	116300.	10160.	10610.
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	25000.	50000.	50000.	25000.	500000.	30000.	500000.
Low	-5.000	-5.000	-5.000	-10.00	-100.0	-150.0	-300.0

Elem	Mn_257	Mo_202	Na_	Ni_231	Sb_206	Pb_220	Se_196
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	2471.	41.89	1683.	109.8	27.79	2025.	1.589
SDev	14.	1.33	2.	1.4	9.77	13.	6.155
%RSD	.5625	3.170	.1389	1.303	35.17	.6490	387.4
#1	2463.	40.83	1681.	108.3	22.50	2029.	6.853
#2	2464.	43.38	1683.	110.2	39.07	2036.	-5.179
#3	2487.	41.46	1685.	111.1	21.80	2010.	3.093
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10000.	50000.	200000.	50000.	50000.	50000.	50000.
Low	-10.00	-10.00	-150.0	-5.000	-10.00	-10.00	-15.00

Elem	Sn_189	Ti_334	Tl_190	U_3859	V_2924	Zn_213	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	18.03	2628.	2.015	-8.137	98.79	4099.	1403.
SDev	4.03	10.	1.597	6.069	1.44	10.	8.
%RSD	22.34	.3901	79.26	74.58	1.462	.2456	.5720
#1	18.66	2617.	.2614	-1.387	97.65	4109.	1410.
#2	21.71	2631.	2.398	-9.883	98.32	4099.	1395.
#3	13.73	2636.	3.386	-13.14	100.4	4089.	1405.
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass

High	50000.	10000.	50000.	50000.	50000.	5000.	50000.
Low	-10.00	-5.000	-20.00	-50.00	-5.000	-10.00	-150.0
Elem	Si_288	Si02_	Sr_421	Pb1st	Pb2nd	Se1st	Se2nd
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	4815.	10300.	101.0	2123.	1976.	-4.091	4.424
SDev	18.	39.	.3	14.	19.	4.898	10.24
%RSD	.3801	.3801	.3319	.6710	.9732	119.7	231.4
#1	4797.	10260.	100.7	2109.	1989.	-1.734	11.14
#2	4834.	10340.	101.0	2137.	1985.	-.8170	-7.357
#3	4814.	10300.	101.4	2123.	1954.	-9.722	9.490
Errors	LC Pass	NOCHECK	LC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK
High	50000.		10000.				
Low	-100.0		-5.000				

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	15413	--	--	--	--	--	--
SDev	150.6012	--	--	--	--	--	--
%RSD	.9770760	--	--	--	--	--	--
#1	15585	--	--	--	--	--	--
#2	15304	--	--	--	--	--	--
#3	15352	--	--	--	--	--	--

Analysis Report

Method: TRACE2 Sample Name: 135806006 Operator: HSC
Run Time: 05/10/05 20:33:28
Comment: 423071||6010 SOIL
Mode: CONC Corr. Factor: 1

Elem	Ag_328	Al_308	As_189	B_2496	Ba_493	Be_313	Ca_317
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	.8413	69000.	20.02	16.14	376.0	5.043	9053.
SDev	.3207	646.	3.95	2.24	2.9	.096	89.
%RSD	38.12	.9362	19.71	13.88	.7741	1.902	.9866
#1	1.026	69740.	24.45	15.97	379.3	5.149	9155.
#2	1.027	68540.	16.88	13.99	373.9	4.963	8989.
#3	.4709	68730.	18.74	18.46	374.7	5.017	9014.
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2000.	500000.	50000.	50000.	15000.	10000.	500000.
Low	-5.000	-200.0	-15.00	-50.00	-5.000	-5.000	-100.0

Elem	Cd_226	Co_228	Cr_267	Cu_324	Fe	K_7664	Mg_279
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	24.95	12.20	89.95	99.53	73750.	7955.	8112.
SDev	.80	.86	.88	.60	596.	45.	69.
%RSD	3.189	7.085	.9752	.6030	.8081	.5603	.8543
#1	25.84	11.40	90.76	99.86	74170.	7971.	8192.
#2	24.33	13.12	90.08	98.84	73060.	7905.	8072.
#3	24.67	12.09	89.02	99.90	74010.	7990.	8071.
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	25000.	50000.	50000.	25000.	500000.	30000.	500000.
Low	-5.000	-5.000	-5.000	-10.00	-100.0	-150.0	-300.0

Elem	Mn_257	Mo_202	Na	Ni_231	Sb_206	Pb_220	Se_196
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	1200.	12.46	1504.	66.31	31.23	1249.	1.855
SDev	12.	.66	12.	1.31	2.77	14.	2.095
%RSD	1.014	5.292	.7913	1.973	8.875	1.128	112.9
#1	1214.	12.65	1516.	67.52	30.67	1256.	.1026
#2	1195.	13.00	1492.	64.92	34.25	1233.	4.175
#3	1191.	11.72	1506.	66.48	28.79	1259.	1.288
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10000.	50000.	200000.	50000.	50000.	50000.	50000.
Low	-10.00	-10.00	-150.0	-5.000	-10.00	-10.00	-15.00

Elem	Sn_189	Ti_334	Tl_190	U_3859	V_2924	Zn_213	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	9.126	1847.	-4.857	-2.486	71.19	1746.	650.5
SDev	1.862	12.	2.670	7.671	.66	10.	16.5
%RSD	20.41	.6601	54.98	308.6	.9274	.5955	2.533
#1	7.855	1859.	-5.855	-.6176	71.08	1758.	656.3
#2	8.260	1834.	-6.885	4.078	71.90	1742.	631.9
#3	11.26	1847.	-1.832	-10.92	70.59	1738.	663.3
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass

High	50000.	10000.	50000.	50000.	50000.	5000.	50000.
Low	-10.00	-5.000	-20.00	-50.00	-5.000	-10.00	-150.0
Elem	Si_288	Si02_	Sr_421	Pb1st	Pb2nd	Se1st	Se2nd
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	4557.	9747.	72.73	1322.	1213.	-7.196	6.374
SDev	45.	95.	.53	8.	17.	3.480	3.873
%RSD	.9786	.9786	.7278	.5940	1.436	48.36	60.76
#1	4599.	9838.	73.32	1323.	1222.	-3.914	2.108
#2	4510.	9648.	72.29	1314.	1193.	-6.829	9.669
#3	4561.	9756.	72.59	1329.	1224.	-10.85	7.346
Errors	LC Pass	NOCHECK	LC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK
High	50000.		10000.				
Low	-100.0		-5.000				

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	15668	--	--	--	--	--	--
SDev	159.7248	--	--	--	--	--	--
%RSD	1.019447	--	--	--	--	--	--
#1	15793	--	--	--	--	--	--
#2	15722	--	--	--	--	--	--
#3	15488	--	--	--	--	--	--

nalysis Report

Operator: HSC

ethod: TRACE2 Sample Name: 135806007
un Time: 05/10/05 20:39:24
omment: 423071||6010 SOIL
ode: CONC Corr. Factor: 1

Elem	Ag_328	Al_308	As_189	B_2496	Ba_493	Be_313	Ca_317
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	.2736	61820.	13.42	17.38	465.4	3.812	8086.
SDev	.3600	851.	3.47	1.10	4.7	.086	100.
%RSD	131.6	1.377	25.82	6.336	1.015	2.266	1.232
#1	-.1421	62800.	16.14	17.60	470.8	3.907	8201.
#2	.4764	61310.	14.61	18.36	463.4	3.788	8032.
#3	.4865	61340.	9.518	16.19	462.0	3.740	8025.
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2000.	500000.	50000.	50000.	15000.	10000.	500000.
Low	-5.000	-200.0	-15.00	-50.00	-5.000	-5.000	-100.0

Elem	Cd_226	Co_228	Cr_267	Cu_324	Fe_	K_7664	Mg_279
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	10.59	13.36	122.0	86.27	81520.	8666.	9046.
SDev	.79	.53	.9	1.68	1702.	125.	89.
%RSD	7.480	3.933	.7254	1.951	2.087	1.446	.9810
#1	9.707	13.05	123.0	88.17	83470.	8811.	9148.
#2	10.82	13.97	121.5	85.67	80400.	8594.	9001.
#3	11.24	13.07	121.5	84.97	80670.	8594.	8989.
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	25000.	50000.	50000.	25000.	500000.	30000.	500000.
Low	-5.000	-5.000	-5.000	-10.00	-100.0	-150.0	-300.0

Elem	Mn_257	Mo_202	Na_	Ni_231	Sb_206	Pb_220	Se_196
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	1396.	19.13	1033.	72.20	14.90	1232.	.1769
SDev	10.	1.17	17.	2.47	9.22	19.	3.605
%RSD	.7051	6.104	1.624	3.424	61.88	1.531	2038.
#1	1406.	18.22	1053.	74.04	9.471	1253.	-2.229
#2	1396.	18.71	1022.	73.17	25.55	1228.	-1.562
#3	1387.	20.44	1025.	69.39	9.688	1217.	4.322
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10000.	50000.	200000.	50000.	50000.	50000.	50000.
Low	-10.00	-10.00	-150.0	-5.000	-10.00	-10.00	-15.00

Elem	Sn_189	Ti_334	Tl_190	U_3859	V_2924	Zn_213	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	9.398	1854.	-.4932	-9.072	75.26	1022.	645.9
SDev	1.535	27.	6.9290	18.782	1.45	14.	9.2
%RSD	16.33	1.446	1405.	207.0	1.921	1.362	1.423
#1	9.600	1885.	3.908	-22.26	75.46	1038.	656.3
#2	10.82	1838.	-8.480	12.43	76.60	1013.	642.7
#3	7.772	1838.	3.093	-17.39	73.73	1015.	638.7
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass

High	50000.	10000.	50000.	50000.	50000.	5000.	50000.
Low	-10.00	-5.000	-20.00	-50.00	-5.000	-10.00	-150.0
Elem	Si_288	Si02_	Sr_421	Pb1st	Pb2nd	Se1st	Se2nd
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	3909.	8361.	70.47	1302.	1198.	-2.936	1.731
SDev	62.	134.	.72	20.	21.	1.243	5.613
%RSD	1.599	1.599	1.018	1.499	1.726	42.34	324.3
#1	3980.	8513.	71.29	1317.	1221.	-1.577	-2.555
#2	3885.	8309.	70.08	1310.	1187.	-4.016	-.3371
#3	3862.	8261.	70.02	1280.	1185.	-3.213	8.084
Errors	LC Pass	NOCHECK	LC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK
High	50000.		10000.				
Low	-100.0		-5.000				

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	15896	--	--	--	--	--	--
SDev	151.8721	--	--	--	--	--	--
%RSD	.9553928	--	--	--	--	--	--
#1	15731	--	--	--	--	--	--
#2	15927	--	--	--	--	--	--
#3	16030	--	--	--	--	--	--

Analysis Report

Operator: HSC

Method: TRACE2 Sample Name: 135806008
Run Time: 05/10/05 20:45:21
Comment: 423071||6010 SOIL
Mode: CONC Corr. Factor: 1

Elem	Ag_328	Al_308	As_189	B_2496	Ba_493	Be_313	Ca_317
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	.8651	101100.	16.28	19.81	708.4	6.534	11370.
SDev	.5661	275.	5.27	.94	2.9	.033	39.
%RSD	65.44	.2722	32.34	4.734	.4115	.5021	.3437
#1	1.514	100900.	10.88	18.73	707.6	6.555	11340.
#2	.4712	101000.	16.55	20.45	705.9	6.551	11360.
#3	.6102	101400.	21.40	20.25	711.6	6.496	11410.
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2000.	500000.	50000.	50000.	15000.	10000.	500000.
Low	-5.000	-200.0	-15.00	-50.00	-5.000	-5.000	-100.0

Elem	Cd_226	Co_228	Cr_267	Cu_324	Fe_	K_7664	Mg_279
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	3.355	12.01	43.74	40.84	59940.	10680.	10890.
SDev	.131	.59	.77	1.04	394.	49.	68.
%RSD	3.914	4.936	1.763	2.558	.6572	.4555	.6286
#1	3.463	12.52	43.35	41.91	59950.	10690.	10880.
#2	3.392	11.36	43.24	40.78	60330.	10730.	10820.
#3	3.209	12.16	44.62	39.83	59540.	10630.	10960.
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	25000.	50000.	50000.	25000.	500000.	30000.	500000.
Low	-5.000	-5.000	-5.000	-10.00	-100.0	-150.0	-300.0

Elem	Mn_257	Mo_202	Na_	Ni_231	Sb_206	Pb_220	Se_196
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	1285.	4.694	2219.	59.21	7.320	327.8	1.591
SDev	8.	1.475	12.	.94	3.093	4.5	5.358
%RSD	.5879	31.42	.5319	1.586	42.26	1.380	336.7
#1	1279.	6.047	2222.	60.10	8.046	331.1	-3.102
#2	1284.	4.912	2228.	58.23	9.985	329.7	7.428
#3	1294.	3.122	2206.	59.30	3.928	322.6	.4469
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10000.	50000.	200000.	50000.	50000.	50000.	50000.
Low	-10.00	-10.00	-150.0	-5.000	-10.00	-10.00	-15.00

Elem	Sn_189	Ti_334	Tl_190	U_3859	V_2924	Zn_213	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	11.74	1785.	.7454	-13.94	74.28	493.4	411.2
SDev	3.14	3.	5.756	7.34	1.60	1.6	7.4
%RSD	26.77	.1511	772.2	52.64	2.152	.3322	1.812
#1	8.612	1785.	-.8544	-6.063	73.23	491.8	405.4
#2	14.90	1788.	-4.041	-20.58	76.12	493.4	419.6
#3	11.72	1783.	7.132	-15.16	73.50	495.1	408.4
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass

High	50000.	10000.	50000.	50000.	50000.	5000.	50000.
Low	-10.00	-5.000	-20.00	-50.00	-5.000	-10.00	-150.0
Elem	Si_288	Si02_	Sr_421	Pb1st	Pb2nd	Se1st	Se2nd
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	6346.	13580.	111.5	392.3	295.6	-6.880	5.820
SDev	17.	37.	.5	3.7	6.7	5.225	5.775
%RSD	.2711	.2711	.4672	.9384	2.262	75.95	99.22
#1	6327.	13530.	111.3	389.6	301.9	-9.364	.0243
#2	6357.	13600.	111.1	396.5	296.3	-.8764	11.57
#3	6356.	13600.	112.1	390.9	288.5	-10.40	5.863
Errors	LC Pass	NOCHECK	LC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK
High	50000.		10000.				
Low	-100.0		-5.000				

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	15636	--	--	--	--	--	--
SDev	67.40933	--	--	--	--	--	--
%RSD	.4311140	--	--	--	--	--	--
#1	15660	--	--	--	--	--	--
#2	15560	--	--	--	--	--	--
#3	15688	--	--	--	--	--	--

Analysis Report

Operator: HSC

Method: TRACE2 Sample Name: 135806009
Run Time: 05/10/05 20:51:18
Comment: 423071||6010 SOIL
Mode: CONC Corr. Factor: 1

Elem	Ag_328	Al_308	As_189	B_2496	Ba_493	Be_313	Ca_317
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	.0449	109300.	15.63	20.68	629.3	7.507	22830.
SDev	.0771	408.	3.51	2.29	1.4	.045	22.
%RSD	172.0	.3728	22.47	11.06	.2202	.5995	.0955
#1	.0007	109800.	19.20	20.33	630.9	7.459	22850.
#2	-.0001	109100.	12.18	23.11	628.7	7.549	22810.
#3	.1339	109100.	15.50	18.58	628.4	7.511	22830.
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2000.	500000.	50000.	50000.	15000.	10000.	500000.
Low	-5.000	-200.0	-15.00	-50.00	-5.000	-5.000	-100.0

Elem	Cd_226	Co_228	Cr_267	Cu_324	Fe_	K_7664	Mg_279
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	3.405	15.37	52.88	47.58	67610.	12480.	11090.
SDev	.527	.50	.60	.40	274.	30.	39.
%RSD	15.47	3.241	1.129	.8417	.4048	.2414	.3553
#1	2.797	15.76	53.52	47.15	67310.	12440.	11140.
#2	3.713	14.81	52.78	47.65	67690.	12490.	11070.
#3	3.706	15.55	52.34	47.94	67840.	12500.	11070.
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	25000.	50000.	50000.	25000.	500000.	30000.	500000.
Low	-5.000	-5.000	-5.000	-10.00	-100.0	-150.0	-300.0

Elem	Mn_257	Mo_202	Na_	Ni_231	Sb_206	Pb_220	Se_196
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	1973.	6.022	3183.	60.44	2.998	384.2	1.378
SDev	13.	1.129	2.	1.92	1.319	17.0	7.686
%RSD	.6589	18.76	.0649	3.183	44.01	4.423	557.8
#1	1987.	4.781	3185.	62.63	2.199	371.6	6.689
#2	1961.	6.989	3181.	59.01	2.274	403.6	-7.436
#3	1972.	6.295	3182.	59.68	4.521	377.5	4.880
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10000.	50000.	200000.	50000.	50000.	50000.	50000.
Low	-10.00	-10.00	-150.0	-5.000	-10.00	-10.00	-15.00

Elem	Sn_189	Ti_334	Tl_190	U_3859	V_2924	Zn_213	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	7.402	1879.	-2.982	-32.35	80.11	518.5	366.8
SDev	1.711	3.	4.848	9.99	.28	4.1	6.5
%RSD	23.11	.1497	162.6	30.89	.3492	.7896	1.780
#1	5.778	1878.	2.117	-20.95	80.30	521.8	373.8
#2	9.188	1877.	-7.532	-39.58	80.25	519.7	365.5
#3	7.242	1882.	-3.531	-36.53	79.79	513.9	360.9
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass

High	50000.	10000.	50000.	50000.	50000.	5000.	50000.
Low	-10.00	-5.000	-20.00	-50.00	-5.000	-10.00	-150.0
Elem	Si_288	Si02_	Sr_421	Pb1st	Pb2nd	Se1st	Se2nd
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	4731.	10120.	152.8	476.1	338.4	-8.612	6.366
SDev	7.	16.	.3	56.8	7.0	3.385	9.848
%RSD	.1560	.1560	.1759	11.92	2.072	39.31	154.7
#1	4738.	10130.	153.1	447.0	334.0	-6.674	13.36
#2	4732.	10120.	152.7	541.5	334.7	-12.52	-4.897
#3	4723.	10100.	152.5	439.8	346.5	-6.642	10.63
Errors	LC Pass	NOCHECK	LC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK
High	50000.		10000.				
Low	-100.0		-5.000				

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	15856	--	--	--	--	--	--
SDev	103.5809	--	--	--	--	--	--
%RSD	.6532611	--	--	--	--	--	--
#1	15969	--	--	--	--	--	--
#2	15832	--	--	--	--	--	--
#3	15767	--	--	--	--	--	--

Analysis Report

Operator: HSC

Method: TRACE2 Sample Name: 135806010
Run Time: 05/10/05 20:57:15
Comment: 423071||6010 SOIL
Mode: CONC Corr. Factor: 1

Elem	Ag_328	Al_308	As_189	B_2496	Ba_493	Be_313	Ca_317
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	-.1306	109500.	17.31	21.68	625.5	9.784	11540.
SDev	.3101	506.	3.23	3.88	2.9	.050	41.
%RSD	237.4	.4621	18.65	17.88	.4604	.5073	.3559
#1	-.0702	110000.	20.95	19.32	628.5	9.831	11580.
#2	.1448	109400.	14.78	26.16	625.2	9.732	11520.
#3	-.4665	109100.	16.20	19.57	622.7	9.787	11500.
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2000.	500000.	50000.	50000.	15000.	10000.	500000.
Low	-5.000	-200.0	-15.00	-50.00	-5.000	-5.000	-100.0

Elem	Cd_226	Co_228	Cr_267	Cu_324	Fe_	K_7664	Mg_279
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	.6881	11.15	36.79	32.34	50860.	11830.	9685.
SDev	.3611	1.06	1.20	.54	286.	57.	37.
%RSD	52.47	9.546	3.267	1.667	.5631	.4841	.3816
#1	.5274	12.38	37.66	32.96	51160.	11890.	9728.
#2	.4354	10.61	37.30	31.98	50590.	11780.	9664.
#3	1.102	10.47	35.42	32.08	50830.	11820.	9665.
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	25000.	50000.	50000.	25000.	500000.	30000.	500000.
Low	-5.000	-5.000	-5.000	-10.00	-100.0	-150.0	-300.0

Elem	Mn_257	Mo_202	Na_	Ni_231	Sb_206	Pb_220	Se_196
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	1231.	2.940	2273.	62.75	13.02	66.74	2.426
SDev	3.	1.275	11.	2.17	8.87	3.10	7.722
%RSD	.2571	43.37	.4651	3.462	68.13	4.645	318.4
#1	1233.	1.489	2285.	61.97	15.91	65.84	10.89
#2	1233.	3.881	2264.	61.08	20.09	64.19	.6076
#3	1228.	3.451	2271.	65.21	3.065	70.19	-4.225
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10000.	50000.	200000.	50000.	50000.	50000.	50000.
Low	-10.00	-10.00	-150.0	-5.000	-10.00	-10.00	-15.00

Elem	Sn_189	Ti_334	Tl_190	U_3859	V_2924	Zn_213	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	5.972	1650.	-1.986	-18.92	73.75	163.4	285.9
SDev	1.512	8.	5.116	9.43	.06	1.3	6.5
%RSD	25.32	.4992	257.6	49.83	.0805	.8211	2.271
#1	6.036	1660.	-6.666	-16.96	73.75	164.5	290.5
#2	7.452	1646.	-2.768	-29.18	73.80	164.0	278.5
#3	4.429	1645.	3.476	-10.63	73.68	161.9	288.7
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass

High	50000.	10000.	50000.	50000.	50000.	5000.	50000.
Low	-10.00	-5.000	-20.00	-50.00	-5.000	-10.00	-150.0
Elem	Si_288	Si02_	Sr_421	Pb1st	Pb2nd	Se1st	Se2nd
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	10990.	23500.	116.3	128.8	35.77	-7.498	7.380
SDev	61.	130.	.7	3.0	4.44	1.208	11.02
%RSD	.5570	.5524	.5953	2.326	12.40	16.11	149.3
#1	11060.	23650.	117.0	131.7	32.96	-6.106	19.38
#2	10960.	23440.	116.1	125.7	33.47	-8.270	5.040
#3	10950.	23420.	115.7	128.9	40.89	-8.117	-2.282
Errors	LC Pass	NOCHECK	LC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK
High	50000.		10000.				
Low	-100.0		-5.000				

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	16083	--	--	--	--	--	--
SDev	99.15590	--	--	--	--	--	--
%RSD	.6165300	--	--	--	--	--	--
#1	15969	--	--	--	--	--	--
#2	16129	--	--	--	--	--	--
#3	16151	--	--	--	--	--	--

Analysis Report

Method: TRACE2 Sample Name: 135806011 Operator: HSC
Run Time: 05/10/05 21:03:11
Comment: 423071||6010 SOIL
Mode: CONC Corr. Factor: 1

Elem	Ag_328	Al_308	As_189	B_2496	Ba_493	Be_313	Ca_317
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	.3324	110500.	14.64	24.89	2479.	8.831	40590.
SDev	.3412	317.	2.48	.95	9.	.046	91.
%RSD	102.6	.2867	16.95	3.810	.3792	.5211	.2230
#1	.4158	110500.	11.82	23.81	2472.	8.871	40600.
#2	.6241	110900.	15.61	25.28	2490.	8.840	40680.
#3	-.0427	110200.	16.48	25.58	2475.	8.781	40500.
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2000.	500000.	50000.	50000.	15000.	10000.	500000.
Low	-5.000	-200.0	-15.00	-50.00	-5.000	-5.000	-100.0

Elem	Cd_226	Co_228	Cr_267	Cu_324	Fe_	K_7664	Mg_279
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	5.122	16.41	51.19	60.12	65450.	13330.	11610.
SDev	.347	.44	.58	.69	504.	54.	10.
%RSD	6.770	2.710	1.136	1.144	.7703	.4040	.0882
#1	5.443	16.88	51.74	59.90	65830.	13370.	11610.
#2	4.755	16.00	50.58	60.88	65640.	13360.	11620.
#3	5.169	16.34	51.25	59.56	64870.	13270.	11600.
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	25000.	50000.	50000.	25000.	500000.	30000.	500000.
Low	-5.000	-5.000	-5.000	-10.00	-100.0	-150.0	-300.0

Elem	Mn_257	Mo_202	Na_	Ni_231	Sb_206	Pb_220	Se_196
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	1548.	4.659	2903.	61.79	8.966	304.9	7.188
SDev	7.	.913	12.	1.01	7.089	6.5	3.984
%RSD	.4388	19.60	.4298	1.631	79.07	2.143	55.43
#1	1540.	3.693	2914.	61.69	9.234	312.4	3.368
#2	1551.	5.509	2904.	60.83	1.746	301.8	11.32
#3	1553.	4.776	2890.	62.84	15.92	300.5	6.876
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10000.	50000.	200000.	50000.	50000.	50000.	50000.
Low	-10.00	-10.00	-150.0	-5.000	-10.00	-10.00	-15.00

Elem	Sn_189	Ti_334	Tl_190	U_3859	V_2924	Zn_213	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	6.220	2045.	-1.933	-29.08	91.73	485.6	523.9
SDev	1.479	9.	5.771	14.04	.61	.9	7.8
%RSD	23.78	.4277	298.5	48.27	.6652	.1752	1.497
#1	5.388	2051.	2.323	-16.69	92.36	486.6	518.0
#2	7.927	2050.	-8.502	-44.32	91.14	485.4	532.8
#3	5.344	2035.	.3797	-26.22	91.69	484.9	520.8
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass

High	50000.	10000.	50000.	50000.	50000.	5000.	50000.
Low	-10.00	-5.000	-20.00	-50.00	-5.000	-10.00	-150.0
Elem	Si_288	Si02_	Sr_421	Pb1st	Pb2nd	Se1st	Se2nd
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	10630.	22740.	315.9	370.3	272.2	-2.655	12.10
SDev	30.	64.	1.2	7.8	6.7	5.745	7.49
%RSD	.2830	.2830	.3710	2.101	2.455	216.4	61.86
#1	10650.	22780.	315.5	377.7	279.8	2.754	3.675
#2	10650.	22770.	317.2	371.1	267.2	-2.032	17.98
#3	10600.	22660.	314.9	362.2	269.7	-8.686	14.65
Errors	LC Pass	NOCHECK	LC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK
High	50000.		10000.				
Low	-100.0		-5.000				

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	16364	--	--	--	--	--	--
SDev	67.59324	--	--	--	--	--	--
%RSD	.4130621	--	--	--	--	--	--
#1	16318	--	--	--	--	--	--
#2	16333	--	--	--	--	--	--
#3	16442	--	--	--	--	--	--

Analysis Report

Method: TRACE2 Sample Name: 135806012 Operator: HSC
Run Time: 05/10/05 21:09:08
Comment: 423071||6010 SOIL
Mode: CONC Corr. Factor: 1

Elem	Ag_328	Al_308	As_189	B_2496	Ba_493	Be_313	Ca_317
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	.1490	118200.	16.75	21.79	770.1	8.690	16560.
SDev	.5379	1274.	3.24	2.43	7.1	.025	152.
%RSD	361.0	1.078	19.35	11.15	.9227	.2875	.9160
#1	-.0525	119600.	19.12	23.08	777.9	8.714	16720.
#2	-.2591	117200.	18.08	18.98	764.0	8.664	16430.
#3	.7585	117800.	13.06	23.29	768.4	8.692	16510.
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2000.	500000.	50000.	50000.	15000.	10000.	500000.
Low	-5.000	-200.0	-15.00	-50.00	-5.000	-5.000	-100.0

Elem	Cd_226	Co_228	Cr_267	Cu_324	Fe_	K_7664	Mg_279
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	1.492	17.70	42.79	42.89	60390.	13710.	11660.
SDev	.562	.70	1.25	.32	297.	66.	129.
%RSD	37.65	3.956	2.917	.7469	.4918	.4819	1.105
#1	.8442	18.12	44.22	43.22	60520.	13750.	11810.
#2	1.783	16.89	42.23	42.58	60050.	13640.	11560.
#3	1.847	18.09	41.93	42.86	60590.	13750.	11620.
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	25000.	50000.	50000.	25000.	500000.	30000.	500000.
Low	-5.000	-5.000	-5.000	-10.00	-100.0	-150.0	-300.0

Elem	Mn_257	Mo_202	Na_	Ni_231	Sb_206	Pb_220	Se_196
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	1878.	1.854	3077.	62.40	5.871	147.4	4.963
SDev	21.	1.567	15.	2.04	3.845	.9	3.323
%RSD	1.116	84.51	.5017	3.275	65.50	.6190	66.96
#1	1902.	2.601	3088.	64.75	7.544	148.1	8.051
#2	1866.	.0535	3060.	61.03	8.596	146.4	1.446
#3	1866.	2.909	3084.	61.43	1.472	147.8	5.391
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10000.	50000.	200000.	50000.	50000.	50000.	50000.
Low	-10.00	-10.00	-150.0	-5.000	-10.00	-10.00	-15.00

Elem	Sn_189	Ti_334	Tl_190	U_3859	V_2924	Zn_213	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	8.451	1969.	-2.314	-42.21	88.75	262.9	481.9
SDev	2.022	12.	2.278	15.48	.65	2.7	6.5
%RSD	23.92	.5950	98.42	36.68	.7278	1.008	1.346
#1	10.48	1980.	-4.864	-48.65	89.49	265.8	474.8
#2	8.428	1957.	-.4791	-24.55	88.47	260.5	487.5
#3	6.441	1969.	-1.600	L-53.44	88.29	262.5	483.5
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass

High	50000.	10000.	50000.	50000.	50000.	5000.	50000.
Low	-10.00	-5.000	-20.00	-50.00	-5.000	-10.00	-150.0
Elem	Si_288	Si02_	Sr_421	Pb1st	Pb2nd	Se1st	Se2nd
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	5415.	11580.	155.0	213.0	114.7	-2.901	8.889
SDev	31.	66.	1.4	1.2	2.0	7.527	1.339
%RSD	.5727	.5727	.8940	.5853	1.725	259.5	15.07
#1	5450.	11660.	156.6	212.4	116.0	3.394	10.38
#2	5394.	11540.	153.9	214.4	112.4	-11.24	7.779
#3	5399.	11550.	154.7	212.2	115.7	-.8582	8.511
Errors	LC Pass	NOCHECK	LC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK
High	50000.		10000.				
Low	-100.0		-5.000				

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	16127	--	--	--	--	--	--
SDev	90.17799	--	--	--	--	--	--
%RSD	.5591602	--	--	--	--	--	--
#1	16153	--	--	--	--	--	--
#2	16202	--	--	--	--	--	--
#3	16027	--	--	--	--	--	--

Analysis Report

Method: TRACE2 Sample Name: 135806013 Operator: HSC
Run Time: 05/10/05 21:15:04
Comment: 423071||6010 SOIL
Mode: CONC Corr. Factor: 1

Elem	Ag_328	Al_308	As_189	B_2496	Ba_493	Be_313	Ca_317
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	.0380	49380.	6.471	8.137	201.6	3.354	5181.
SDev	.5719	73.	2.906	3.718	.7	.020	12.
%RSD	1506.	.1473	44.91	45.69	.3247	.5885	.2403
#1	-.1712	49430.	7.794	7.232	201.9	3.339	5193.
#2	.6850	49290.	8.480	12.22	200.9	3.377	5169.
#3	-.3999	49410.	3.139	4.955	202.1	3.348	5180.
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2000.	500000.	50000.	50000.	15000.	10000.	500000.
Low	-5.000	-200.0	-15.00	-50.00	-5.000	-5.000	-100.0

Elem	Cd_226	Co_228	Cr_267	Cu_324	Fe_	K_7664	Mg_279
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	12.75	4.421	17.51	34.17	40070.	5584.	4667.
SDev	.07	.294	1.39	.46	165.	24.	29.
%RSD	.5379	6.651	7.942	1.345	.4124	.4318	.6161
#1	12.70	4.560	18.50	34.38	40100.	5588.	4690.
#2	12.83	4.620	15.92	33.64	39890.	5558.	4634.
#3	12.72	4.083	18.10	34.48	40220.	5606.	4675.
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	25000.	50000.	50000.	25000.	500000.	30000.	500000.
Low	-5.000	-5.000	-5.000	-10.00	-100.0	-150.0	-300.0

Elem	Mn_257	Mo_202	Na_	Ni_231	Sb_206	Pb_220	Se_196
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	837.1	3.578	1185.	30.75	3.017	35.79	-1.921
SDev	.6	1.377	6.	.79	4.602	.79	1.238
%RSD	.0669	38.50	.5098	2.556	152.6	2.208	64.44
#1	837.7	5.165	1192.	31.06	-2.123	36.71	-2.260
#2	836.6	2.688	1180.	31.34	6.756	35.31	-2.954
#3	837.0	2.881	1184.	29.86	4.418	35.37	-.5491
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10000.	50000.	200000.	50000.	50000.	50000.	50000.
Low	-10.00	-10.00	-150.0	-5.000	-10.00	-10.00	-15.00

Elem	Sn_189	Ti_334	Tl_190	U_3859	V_2924	Zn_213	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	5.714	1705.	-.8475	-16.45	39.17	351.3	185.9
SDev	4.683	6.	3.6747	12.38	.47	2.0	2.1
%RSD	81.96	.3481	433.6	75.24	1.207	.5744	1.154
#1	3.850	1708.	-3.854	-22.60	38.66	353.7	185.7
#2	11.04	1698.	3.249	-24.56	39.25	350.2	183.9
#3	2.250	1707.	-1.937	-2.203	39.59	350.1	188.2
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass

High	50000.	10000.	50000.	50000.	50000.	5000.	50000.
Low	-10.00	-5.000	-20.00	-50.00	-5.000	-10.00	-150.0
Elem	Si_288	Si02_	Sr_421	Pb1st	Pb2nd	Se1st	Se2nd
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	8589.	18370.	54.00	60.78	23.32	-5.032	-.3677
SDev	31.	67.	.14	4.79	2.62	5.018	3.1423
%RSD	.3637	.3637	.2653	7.884	11.22	99.72	854.6
#1	8613.	18420.	54.09	60.85	24.65	-10.64	1.924
#2	8554.	18300.	53.83	55.96	25.00	-.9604	-3.950
#3	8601.	18400.	54.07	65.54	20.30	-3.498	.9231
Errors	LC Pass	NOCHECK	LC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK
High	50000.		10000.				
Low	-100.0		-5.000				
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	16385	--	--	--	--	--	--
SDev	187.9676	--	--	--	--	--	--
%RSD	1.147211	--	--	--	--	--	--
#1	16528	--	--	--	--	--	--
#2	16455	--	--	--	--	--	--
#3	16172	--	--	--	--	--	--

Analysis Report 05/10/05 09:26:53 PM page 1

Method: TRACE2 Sample Name: 135806014 Operator: HSC
Run Time: 05/10/05 21:21:01
Comment: 423071||6010 SOIL
Mode: CONC Corr. Factor: 1

Elem	Ag_328	Al_308	As_189	B_2496	Ba_493	Be_313	Ca_317
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	-.2912	119900.	18.90	23.82	699.9	9.024	28710.
SDev	.5260	2167.	5.13	.90	11.7	.202	518.
%RSD	180.7	1.807	27.12	3.783	1.665	2.240	1.803
#1	-.8354	122400.	22.98	24.69	713.3	9.254	29310.
#2	.2145	118600.	20.58	22.89	694.9	8.942	28410.
#3	-.2526	118700.	13.15	23.89	691.6	8.875	28420.
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2000.	500000.	50000.	50000.	15000.	10000.	500000.
Low	-5.000	-200.0	-15.00	-50.00	-5.000	-5.000	-100.0

Elem	Cd_226	Co_228	Cr_267	Cu_324	Fe_	K_7664	Mg_279
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	2.417	21.23	53.69	48.90	71120.	13820.	14470.
SDev	.118	.19	.76	1.36	1642.	248.	245.
%RSD	4.892	.8828	1.419	2.779	2.309	1.792	1.696
#1	2.519	21.02	54.49	50.47	73010.	14100.	14760.
#2	2.287	21.34	53.60	48.02	70180.	13680.	14330.
#3	2.443	21.34	52.97	48.23	70160.	13670.	14340.
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	25000.	50000.	50000.	25000.	500000.	30000.	500000.
Low	-5.000	-5.000	-5.000	-10.00	-100.0	-150.0	-300.0

Elem	Mn_257	Mo_202	Na_	Ni_231	Sb_206	Pb_220	Se_196
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	2151.	3.620	2945.	76.14	8.549	340.9	-1.159
SDev	28.	1.886	62.	2.39	3.947	6.7	4.142
%RSD	1.308	52.08	2.113	3.142	46.17	1.960	357.3
#1	2183.	5.699	3017.	78.60	10.46	348.5	-5.576
#2	2131.	3.143	2911.	75.99	4.010	335.8	-.5401
#3	2138.	2.019	2907.	73.82	11.18	338.5	2.638
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10000.	50000.	200000.	50000.	50000.	50000.	50000.
Low	-10.00	-10.00	-150.0	-5.000	-10.00	-10.00	-15.00

Elem	Sn_189	Ti_334	Tl_190	U_3859	V_2924	Zn_213	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	7.933	2372.	-6.056	-21.57	99.91	365.5	565.2
SDev	1.262	47.	2.957	8.13	1.61	6.5	10.9
%RSD	15.91	2.001	48.83	37.71	1.609	1.782	1.934
#1	9.326	2427.	-9.131	-14.01	101.4	373.0	577.5
#2	7.607	2346.	-3.232	-20.53	100.1	361.4	556.8
#3	6.866	2344.	-5.805	-30.17	98.21	362.1	561.2
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass

High	50000.	10000.	50000.	50000.	50000.	5000.	50000.
Low	-10.00	-5.000	-20.00	-50.00	-5.000	-10.00	-150.0
Elem	Si_288	Si02_	Sr_421	Pb1st	Pb2nd	Se1st	Se2nd
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	5789.	12380.	177.3	418.5	302.2	-7.343	1.928
SDev	125.	268.	2.9	7.7	7.5	10.860	5.800
%RSD	2.165	2.165	1.655	1.840	2.485	147.9	300.8
#1	5934.	12690.	180.7	424.0	310.8	-17.38	.3199
#2	5710.	12210.	175.9	409.7	298.9	4.183	-2.898
#3	5724.	12240.	175.4	421.8	296.9	-8.828	8.363
Errors	LC Pass	NOCHECK	LC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK
High	50000.		10000.				
Low	-100.0		-5.000				

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	16115	--	--	--	--	--	--
SDev	265.1255	--	--	--	--	--	--
%RSD	1.645179	--	--	--	--	--	--
#1	15809	--	--	--	--	--	--
#2	16268	--	--	--	--	--	--
#3	16269	--	--	--	--	--	--

lethod: TRACE2 Sample Name: CCV1 Operator: HSC
un Time: 05/10/05 21:26:58
omment: 423071||6010 SOIL
lode: CONC Corr. Factor: 1

✓ Fe fails

Elem	Ag_328	Al_308	As_189	B_2496	Ba_493	Be_313	Ca_317
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	484.9	5030.	503.0	475.8	497.3	483.9	5001.
SDev	1.1	13.	9.3	2.0	1.9	.5	16.
%RSD	.2186	.2500	1.846	.4203	.3836	.1013	.3107
#1	485.9	5044.	513.6	473.8	499.0	484.4	5019.
#2	483.8	5026.	499.4	475.7	495.3	483.4	4989.
#3	485.0	5020.	496.1	477.8	497.7	483.9	4996.
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	500.0	5000.	500.0	500.0	500.0	500.0	5000.
Range	10.00	10.00	10.00	10.00	10.00	10.00	10.00

Elem	Cd_226	Co_228	Cr_267	Cu_324	Fe_	K_7664	Mg_279
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	494.4	498.9	492.9	480.6	Q5668.	5348.	5152.
SDev	1.6	.5	2.8	1.7	32.	2.	5.
%RSD	.3217	.0941	.5608	.3476	.5708	.0328	.0917
#1	494.7	499.0	496.0	480.7	Q5699.	5349.	5154.
#2	492.6	499.3	492.0	478.8	Q5669.	5346.	5147.
#3	495.8	498.4	490.7	482.2	Q5634.	5349.	5156.
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Fail	QC Pass	QC Pass
Value	500.0	500.0	500.0	500.0	5000.	5000.	5000.
Range	10.00	10.00	10.00	10.00	10.00	10.00	10.00

Elem	Mn_257	Mo_202	Na_	Ni_231	Sb_206	Pb_220	Se_196
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	521.9	513.3	10520.	491.0	500.3	497.1	508.3
SDev	1.7	2.3	28.	5.4	6.0	5.1	1.1
%RSD	.3235	.4543	.2650	1.095	1.199	1.034	.2250
#1	523.8	512.1	10560.	496.8	501.6	498.7	509.6
#2	521.2	511.8	10500.	490.0	493.8	491.4	507.7
#3	520.6	516.0	10510.	486.1	505.6	501.3	507.7
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	500.0	500.0	10000.	500.0	500.0	500.0	500.0
Range	10.00	10.00	10.00	10.00	10.00	10.00	10.00

Elem	Sn_189	Ti_334	Tl_190	U_3859	V_2924	Zn_213	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	Q552.4	495.2	500.6	487.1	503.1	493.7	2265.
SDev	5.5	.8	4.5	9.3	2.1	2.3	4.
%RSD	.9949	.1705	.9087	1.901	.4137	.4574	.1557
#1	547.4 110.4%	496.1	498.6	493.9	505.5	495.2	2268.
#2	Q558.3	494.9	505.8	476.5	501.4	491.1	2261.
#3	Q551.6	494.5	497.3	490.8	502.6	494.9	2266.
Errors	QC ~~Fail~~ PASS	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass

Value	500.0	500.0	500.0	500.0	500.0	500.0	2500.
Range	10.00	10.00	10.00	10.00	10.00	10.00	10.00
Elem	Si_288	Si02_	Sr_421	Pb1st	Pb2nd	Se1st	Se2nd
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	2455.	5252.	496.7	522.6	484.4	526.9	499.0
SDev	4.	9.	1.6	6.0	4.7	12.8	5.6
%RSD	.1711	.1711	.3261	1.154	.9727	2.431	1.126
#1	2458.	5257.	498.1	524.9	485.6	535.2	496.9
#2	2450.	5241.	494.9	515.7	479.2	512.2	505.4
#3	2458.	5257.	497.1	527.1	488.4	533.4	494.8
Errors	QC Pass	NOCHECK	QC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK
Value	2500.		500.0				
Range	10.00		10.00				

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	16427	--	--	--	--	--	--
SDev	34.81856	--	--	--	--	--	--
%RSD	.2119565	--	--	--	--	--	--
#1	16393	--	--	--	--	--	--
#2	16463	--	--	--	--	--	--
#3	16426	--	--	--	--	--	--

ethod: TRACE2 Sample Name: CCB1 Operator: HSC
un Time: 05/10/05 21:32:56
omment: 423071||6010 SOIL
ode: CONC Corr. Factor: 1

Elem	Ag_328	Al_308	As_189	B_2496	Ba_493	Be_313	Ca_317
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	.8312	5.150	3.992	-.0878	.4163	.2689	4.205
SDev	.2205	8.471	1.283	1.4900	.0972	.0548	2.930
%RSD	26.53	164.5	32.14	1697.	23.36	20.38	69.68
#1	.7392	14.63	2.526	-1.594	.5009	.3279	7.156
#2	.6716	2.513	4.910	1.385	.3101	.2592	4.162
#3	1.083	-1.689	4.541	-.0547	.4378	.2196	1.296
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.0000	.0000	.0000	.0000	.0000	.0000	.0000
Range	5.000	200.0	15.00	50.00	5.000	5.000	100.0

Elem	Cd_226	Co_228	Cr_267	Cu_324	Fe_	K_7664	Mg_279
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	.4088	.3000	.4851	.6437	8.983	15.78	4.169
SDev	.3663	.1298	1.239	.3134	2.189	2.33	7.314
%RSD	89.62	43.27	255.4	48.68	24.37	14.77	175.4
#1	.7850	.2249	-.7664	.8789	11.09	18.13	3.138
#2	.0533	.2252	.5105	.7643	9.133	15.73	-2.574
#3	.3880	.4498	1.711	.2879	6.722	13.47	11.94
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.0000	.0000	.0000	.0000	.0000	.0000	.0000
Range	5.000	5.000	5.000	10.00	100.0	150.0	300.0

Elem	Mn_257	Mo_202	Na_	Ni_231	Sb_206	Pb_220	Se_196
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	.3894	1.513	-43.11	-.0881	1.994	1.356	1.383
SDev	.1933	1.143	5.48	1.8129	1.974	.479	1.929
%RSD	49.65	75.53	12.70	2058.	98.97	35.30	139.5
#1	.5835	1.596	-38.79	1.391	3.785	1.866	2.819
#2	.3878	.3307	-41.27	-2.110	2.320	.9157	2.141
#3	.1969	2.611	-49.27	.4548	-.1221	1.288	-.8100
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.0000	.0000	.0000	.0000	.0000	.0000	.0000
Range	10.00	10.00	150.0	5.000	10.00	10.00	15.00

Elem	Sn_189	Ti_334	Tl_190	U_3859	V_2924	Zn_213	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	.9068	.6694	1.981	15.69	-.0009	.3667	5.962
SDev	1.523	.0653	2.318	11.00	1.8937	.1309	3.782
%RSD	168.0	9.760	117.0	70.14	201900.	35.69	63.44
#1	.1683	.6912	3.940	21.46	1.273	.4384	1.612
#2	-.1064	.5960	-.5782	22.60	-2.177	.2157	7.803
#3	2.659	.7211	2.582	2.998	.9017	.4461	8.473
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass

Value	.0000	.0000	.0000	.0000	.0000	.0000	.0000
Range	10.00	5.000	20.00	50.00	5.000	10.00	150.0
Elem	Si_288	Si02_	Sr_421	Pb1st	Pb2nd	Se1st	Se2nd
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	-4.406	-9.425	.2773	-1.425	2.745	8.535	-2.187
SDev	3.270	6.994	.0412	2.115	1.749	2.863	3.840
%RSD	74.21	74.21	14.87	148.4	63.73	33.54	175.6
#1	-.7745	-1.657	.3200	-3.863	4.726	5.266	1.597
#2	-5.327	-11.39	.2742	-.0794	1.413	10.59	-2.079
#3	-7.117	-15.22	.2377	-.3323	2.097	9.745	-6.079
Errors	QC Pass	NOCHECK	QC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK
Value	.0000		.0000				
Range	100.0		5.000				
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	16241	--	--	--	--	--	--
SDev	128.9491	--	--	--	--	--	--
%RSD	.7939500	--	--	--	--	--	--
#1	16284	--	--	--	--	--	--
#2	16343	--	--	--	--	--	--
#3	16096	--	--	--	--	--	--

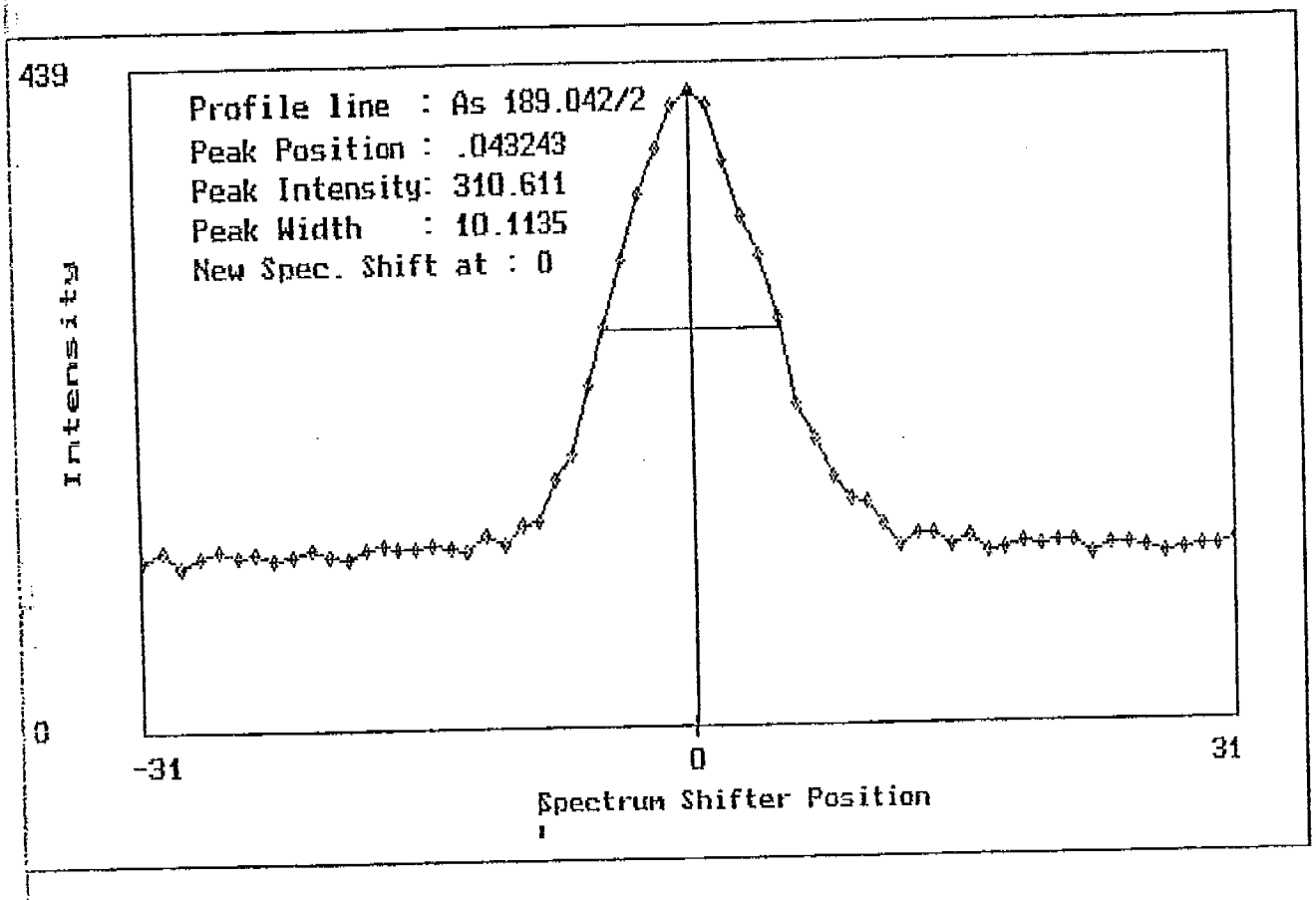
439
Profile line : As 189.042/2
Peak Position : .043243
Peak Intensity: 310.611
Peak Width : 10.1135
New Spec. Shift at : 0
Intensity
0
-31
0
31
Spectrum Shifter Position

AFC
05/11/05

Standardization Rpt. 05/11/05 07:37:59 AM page 1

Method: TRACE2 Standard: S0
Run Time: 05/11/05 07:32:08

Elem	Ag_328	Al_308	As_189	B_2496	Ba_493	Be_313	Ca_317
Avge	-.0006	.0039	.0014	.0001	.0005	.0008	.0003
SDev	.0005	.0003	.0008	.0003	.0003	.0001	.0000
%RSD	74.03	8.384	55.66	227.0	55.59	9.015	12.38
#1	-.0003	.0038	.0005	-.0001	.0004	.0009	.0003
#2	-.0004	.0043	.0017	.0004	.0007	.0007	.0004
#3	-.0012	.0037	.0020	.0000	.0002	.0008	.0004

Elem	Cd_226	Co_228	Cr_267	Cu_324	Fe_	Fe_	K_7664
Avge	.0002	.0001	.0002	.0017	.0001	.0000	.0949
SDev	.0004	.0002	.0004	.0003	.0001	.0006	.0172
%RSD	173.2	264.4	202.9	19.67	99.95	1112.	18.18
#1	.0000	-.0001	.0000	.0019	.0001	.0001	.1129
#2	.0000	.0003	-.0001	.0013	.0000	.0006	.0785
#3	.0007	.0000	.0007	.0019	.0003	-.0005	.0932

Elem	Mg_279	Mn_257	Mo_202	Na_	Na_	Ni_231	Sb_206
Avge	-.0001	-.0001	.0001	.0015	-2.847	.0009	.0016
SDev	.0001	.0000	.0008	.0020	.040	.0009	.0019
%RSD	99.89	43.30	681.3	134.3	1.417	104.7	119.3
#1	.0000	-.0001	-.0008	.0021	-2.810	.0018	.0027
#2	-.0001	-.0001	.0008	-.0007	-2.890	.0007	-.0006
#3	-.0001	-.0001	.0004	.0032	-2.841	.0001	.0026

Elem	Sn_189	Ti_334	Tl_190	U_3859	V_2924	Zn_213	P_1782
Avge	-.0014	-.0006	-.0016	.0195	-.0000	.0015	.0333
SDev	.0018	.0011	.0016	.0004	.0002	.0000	.0032
%RSD	131.6	174.3	99.18	2.274	95660.	.1667	9.685
#1	-.0032	-.0017	-.0029	.0193	-.0001	.0015	.0366
#2	.0004	.0004	-.0020	.0192	-.0001	.0015	.0332
#3	-.0012	-.0006	.0001	.0200	.0002	.0015	.0302

Elem	Si_288	Si02_	Sr_421	Pb1st	Pb2nd	Se1st	Se2nd
Avge	.0049	.0049	.0017	.0028	-.0011	.0055	-.0036
SDev	.0002	.0002	.0004	.0054	.0032	.0058	.0031
%RSD	3.850	3.850	22.75	195.0	298.4	105.9	86.89
#1	.0048	.0048	.0015	.0071	.0011	.0032	-.0040
#2	.0047	.0047	.0021	.0046	-.0048	.0012	-.0065
#3	.0051	.0051	.0015	-.0033	.0004	.0120	-.0003

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	13592	--	--	--	--	--	--
SDev	22.65182	--	--	--	--	--	--
%RSD	.1666585	--	--	--	--	--	--
#1	13592	--	--	--	--	--	--
#2	13569	--	--	--	--	--	--
#3	13614	--	--	--	--	--	--

Method: TRACE2 Standard: S0.1
Run Time: 05/11/05 07:38:03

Elem	Ag_328	As_189	B_2496	Ba_493	Be_313	Cd_226	Co_228
Avge	.0980	.0639	.0130	.2797	.2945	.2960	.0618
SDev	.0008	.0012	.0005	.0012	.0024	.0022	.0005
%RSD	.7829	1.820	3.960	.4285	.8087	.7599	.7839
#1	.0972	.0630	.0136	.2784	.2918	.2944	.0622
#2	.0987	.0652	.0126	.2807	.2954	.2950	.0620
#3	.0981	.0634	.0129	.2801	.2963	.2986	.0613

Elem	Cr_267	Cu_324	K_7664	Mn_257	Mo_202	Ni_231	Sb_206
Avge	.0514	.0646	1.898	.0356	.0476	.0488	.0192
SDev	.0004	.0016	.051	.0001	.0006	.0010	.0003
%RSD	.8322	2.478	2.687	.3041	1.217	2.150	1.639
#1	.0512	.0628	1.846	.0355	.0475	.0477	.0193
#2	.0511	.0650	1.900	.0357	.0472	.0490	.0188
#3	.0519	.0659	1.948	.0357	.0483	.0497	.0194

Elem	Sn_189	Ti_334	Tl_190	U_3859	V_2924	Zn_213	P_1782
Avge	.0783	.5703	.0421	.0226	.0177	.0318	.3422
SDev	.0020	.0036	.0013	.0026	.0002	.0004	.0078
%RSD	2.545	.6257	2.968	11.29	1.212	1.274	2.292
#1	.0768	.5665	.0408	.0197	.0177	.0313	.3332
#2	.0805	.5707	.0422	.0233	.0180	.0321	.3473
#3	.0775	.5736	.0433	.0246	.0176	.0319	.3461

Elem	Si_288	SiO2_	Sr_421	Pb1st	Pb2nd	Se1st	Se2nd
Avge	.0417	.0417	1.067	.1132	.0470	.0770	.0348
SDev	.0008	.0008	.002	.0111	.0014	.0057	.0010
%RSD	2.048	2.048	.2140	9.812	2.959	7.353	3.027
#1	.0408	.0408	1.064	.1032	.0459	.0726	.0347
#2	.0416	.0416	1.069	.1114	.0485	.0750	.0359
#3	.0425	.0425	1.068	.1252	.0465	.0834	.0338

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	14020	--	--	--	--	--	--
SDev	43.96664	--	--	--	--	--	--
%RSD	.3136026	--	--	--	--	--	--
#1	13993	--	--	--	--	--	--
#2	14071	--	--	--	--	--	--
#3	13996	--	--	--	--	--	--

Method: TRACE2 Standard: S0.5
Run Time: 05/11/05 07:43:58

Elem	Ag_328	As_189	B_2496	Ba_493	Be_313	Cd_226	Co_228
Avge	.4848	.3120	.0645	1.370	1.462	1.462	.3024
SDev	.0054	.0040	.0004	.003	.013	.016	.0033
%RSD	1.109	1.296	.6244	.2426	.8899	1.073	1.105
#1	.4892	.3136	.0643	1.373	1.473	1.475	.3051
#2	.4864	.3150	.0643	1.371	1.466	1.466	.3033
#3	.4788	.3074	.0650	1.366	1.447	1.444	.2987

Elem	Cr_267	Cu_324	Fe_	K_7664	Mn_257	Mo_202	Ni_231
Avge	.2551	.3105	1.142	9.140	.1764	.2352	.2385
SDev	.0032	.0030	.011	.170	.0008	.0016	.0016
%RSD	1.265	.9533	.9786	1.861	.4436	.6745	.6632
#1	.2575	.3131	1.147	9.256	.1773	.2369	.2402
#2	.2563	.3112	1.130	9.220	.1758	.2351	.2383
#3	.2514	.3073	1.150	8.945	.1761	.2337	.2370

Elem	Sb_206	Sn_189	Ti_334	Tl_190	U_3859	V_2924	Zn_213
Avge	.0938	.3861	2.820	.2125	.0418	.0868	.1513
SDev	.0024	.0022	.022	.0029	.0022	.0004	.0005
%RSD	2.540	.5736	.7696	1.356	5.376	.4295	.3537
#1	.0955	.3878	2.837	.2141	.0437	.0872	.1519
#2	.0948	.3836	2.829	.2142	.0424	.0864	.1514
#3	.0911	.3869	2.796	.2092	.0393	.0867	.1508

Elem	P_1782	Si_288	Si02_	Sr_421	Pb1st	Pb2nd	Se1st
Avge	1.607	.1926	.1926	5.231	.5811	.2404	.3899
SDev	.025	.0023	.0023	.024	.0154	.0038	.0085
%RSD	1.569	1.184	1.184	.4655	2.658	1.597	2.189
#1	1.611	.1939	.1939	5.255	.5914	.2437	.3971
#2	1.630	.1940	.1940	5.232	.5887	.2412	.3923
#3	1.580	.1900	.1900	5.206	.5634	.2362	.3805

Elem	Se2nd
Avge	.1822
SDev	.0026
%RSD	1.443
#1	.1851
#2	.1818
#3	.1798

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	14851	--	--	--	--	--	--
SDev	259.7482	--	--	--	--	--	--
%RSD	1.749010	--	--	--	--	--	--
#1	14639	--	--	--	--	--	--
#2	14774	--	--	--	--	--	--
#3	15141	--	--	--	--	--	--

Method: TRACE2 Standard: SCAL
Run Time: 05/11/05 07:49:52

Elem	Ag_328	Al_308	As_189	B_2496	Ba_493	Be_313	Ca_317
Avge	.9678	.6085	.6312	.1303	2.749	2.948	2.018
SDev	.0104	.0042	.0087	.0000	.018	.028	.014
%RSD	1.071	.6851	1.371	.0152	.6368	.9518	.7150
#1	.9560	.6037	.6212	.1303	2.729	2.916	2.001
#2	.9722	.6110	.6359	.1303	2.760	2.957	2.026
#3	.9753	.6109	.6365	.1303	2.759	2.969	2.026

Elem	Cd_226	Co_228	Cr_267	Cu_324	Fe_	Fe_	K_7664
Avge	2.924	.6087	.5162	.6183	.1450	2.318	18.20
SDev	.019	.0065	.0050	.0048	.0022	.016	.20
%RSD	.6591	1.064	.9724	.7721	1.499	.7050	1.105
#1	2.902	.6018	.5105	.6128	.1425	2.322	17.98
#2	2.936	.6096	.5184	.6205	.1458	2.332	18.25
#3	2.935	.6147	.5198	.6216	.1466	2.300	18.37

Elem	Mg_279	Mn_257	Mo_202	Na_	Ni_231	Sb_206	Sn_189
Avge	.2340	.3585	.4764	61.62	.4797	.1868	.7835
SDev	.0018	.0024	.0024	.69	.0016	.0020	.0097
%RSD	.7660	.6723	.4937	1.119	.3315	1.050	1.241
#1	.2320	.3559	.4740	60.87	.4785	.1847	.7752
#2	.2351	.3607	.4764	61.78	.4792	.1873	.7810
#3	.2350	.3589	.4787	62.22	.4815	.1885	.7942

Elem	Ti_334	Tl_190	U_3859	V_2924	Zn_213	P_1782	Si_288
Avge	5.698	.4296	.0667	.1758	.3006	3.189	.3824
SDev	.060	.0023	.0004	.0009	.0015	.060	.0035
%RSD	1.049	.5288	.5894	.5234	.4954	1.883	.9039
#1	5.630	.4274	.0664	.1753	.2988	3.120	.3785
#2	5.721	.4295	.0665	.1768	.3013	3.215	.3839
#3	5.742	.4319	.0672	.1752	.3015	3.231	.3849

Elem	Si02_	Sr_421	Pb1st	Pb2nd	Se1st	Se2nd
Avge	.3824	10.51	1.163	.4847	.7788	.3717
SDev	.0035	.07	.021	.0122	.0162	.0109
%RSD	.9039	.6673	1.797	2.518	2.082	2.917
#1	.3785	10.43	1.142	.4709	.7651	.3592
#2	.3839	10.55	1.164	.4939	.7747	.3782
#3	.3849	10.56	1.184	.4894	.7967	.3778

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	15085	--	--	--	--	--	--
SDev	265.1644	--	--	--	--	--	--
%RSD	1.757788	--	--	--	--	--	--
#1	15369	--	--	--	--	--	--
#2	15042	--	--	--	--	--	--
#3	14844	--	--	--	--	--	--

Standardization Rpt. 05/11/05 08:00:52 AM

Method: TRACE2 Standard: S10
Run Time: 05/11/05 07:55:48

Elem	Al_308	Ca_317	Fe_	Mg_279	Na_
Avge	2.984	10.05	.2792	1.151	.2244
SDev	.009	.02	.0021	.002	.0021
%RSD	.3037	.2183	.7484	.1412	.9180
#1	2.994	10.08	.2805	1.153	.2268
#2	2.983	10.05	.2803	1.150	.2232
#3	2.976	10.03	.2768	1.150	.2233

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	14907	--	--	--	--	--	--
SDev	56.94173	--	--	--	--	--	--
%RSD	.3819711	--	--	--	--	--	--
#1	14851	--	--	--	--	--	--
#2	14907	--	--	--	--	--	--
#3	14965	--	--	--	--	--	--

Standardization Report 05/11/05 08:00:52 AM

Method: TRACE2 Slope = Conc(SIR)/IR

Element	Wavelen	High std	Low std	Slope	Y-intercept	Date Standardized
Ag_328	328.068	Multiple	Standards	1025.14	.643480	05/11/05 07:49:52
Al_308	308.215	Multiple	Standards	16666.2	-65.5155	05/11/05 07:55:48
As_189	189.042	Multiple	Standards	1600.38	-2.23548	05/11/05 07:49:52
B_2496	249.678	Multiple	Standards	7743.66	-.948062	05/11/05 07:49:52
Ba_493	493.409	Multiple	Standards	362.321	-.178627	05/11/05 07:49:52
Be_313	313.042	Multiple	Standards	340.748	-.275784	05/11/05 07:49:52
Ca_317	317.933	Multiple	Standards	4965.87	-1.84771	05/11/05 07:55:48
Cd_226	226.502	Multiple	Standards	340.758	-.090026	05/11/05 07:49:52
Co_228	228.616	Multiple	Standards	1641.16	-.131035	05/11/05 07:49:52
Cr_267	267.716	Multiple	Standards	1951.57	-.427852	05/11/05 07:49:52
Cu_324	324.753	Multiple	Standards	1607.98	-2.76930	05/11/05 07:49:52
Fe_	271.441	Multiple	Standards	70344.3	-11.2681	05/11/05 07:55:48
Fe_	259.940	Multiple	Standards	4344.97	-.034036	05/11/05 07:49:52
K_7664	766.491	Multiple	Standards	553.222	-52.4531	05/11/05 07:49:52
Mg_279	279.078	Multiple	Standards	43080.2	2.52693	05/11/05 07:55:48
Mn_257	257.610	Multiple	Standards	2807.03	.273468	05/11/05 07:49:52
Mo_202	202.030	Multiple	Standards	2110.13	-.261051	05/11/05 07:49:52
Na_	330.232	S10	S0	89728.5	-136.236	05/11/05 07:55:48
Na_	588.950	SCAL	S0	155.106	441.618	05/11/05 07:55:48
Ni_231	231.604	Multiple	Standards	2091.44	-1.79850	05/11/05 07:49:52
Sb_206	206.838	Multiple	Standards	5474.83	-8.55688	05/11/05 07:49:52
Pb_220	220.353	NONE	NONE	.000000	.000000	*NOT STANDARDIZED
Se_196	196.026	NONE	NONE	.000000	.000000	*NOT STANDARDIZED
Sn_189	189.989	Multiple	Standards	1265.63	1.72588	05/11/05 07:49:52
Ti_334	334.941	Multiple	Standards	175.970	.104432	05/11/05 07:49:52
Tl_190	190.864	Multiple	Standards	2299.35	3.65899	05/11/05 07:49:52
U_3859	385.958	Multiple	Standards	24603.0	-478.866	05/11/05 07:49:52
V_2924	292.402	Multiple	Standards	5703.25	-.007124	05/11/05 07:49:52
Zn_213	213.858	Multiple	Standards	3332.08	-5.15419	05/11/05 07:49:52
P_1782	178.287	Multiple	Standards	1597.26	-53.1810	05/11/05 07:49:52
Si_288	288.158	Multiple	Standards	13378.4	-64.8951	05/11/05 07:49:52
SiO2_	288.158	Multiple	Standards	28616.3	-138.811	05/11/05 07:49:52
Sr_421	421.552	Multiple	Standards	94.8760	-.169431	05/11/05 07:49:52
Pb1st	220.351	Multiple	Standards	876.963	-2.40750	05/11/05 07:49:52
Pb2nd	220.352	Multiple	Standards	2066.39	2.24043	05/11/05 07:49:52
Se1st	196.021	Multiple	Standards	1331.94	-7.23360	05/11/05 07:49:52
Se2nd	196.022	Multiple	Standards	2636.89	9.43837	05/11/05 07:49:52

Method: TRACE2

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Ag_328	328.068	S0	.000000	-.009780	.009780
		S0.1	100.000	101.110	-1.10996
		S0.5	500.000	497.661	2.33853
		SCAL	1000.00	992.803	7.19653

CorCoef: 1.00000

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Al_308	308.215	S0	.000000	-.521523	.521523
		SCAL	10000.0	10076.6	-76.6396
		S10	50000.0	49674.3	325.676

CorCoef: 1.00000

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
As_189	189.042	S0	.000000	.001463	-.001463
		S0.1	100.000	99.9639	.036133
		S0.5	500.000	497.055	2.94452
		SCAL	1000.00	1007.97	-7.96515

CorCoef: 0.99997

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
B_2496	249.678	S0	.000000	.003413	-.003413
		S0.1	100.000	99.7672	.232796
		S0.5	500.000	498.709	1.29135
		SCAL	1000.00	1008.09	-8.08783

CorCoef: 0.99998

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Ba_493	493.409	S0	.000000	-.009692	.009692
		S0.1	100.000	101.161	-1.16143
		S0.5	500.000	496.197	3.80292
		SCAL	1000.00	995.992	4.00842

CorCoef: 1.00000

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Be_313	313.042	S0	.000000	-.000026	.000026
		S0.1	100.000	100.069	-.069427
		S0.5	500.000	497.871	2.12872
		SCAL	1000.00	1004.08	-4.08209

CorCoef: 0.99999

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Ca_317	317.933	S0	.000000	-.142691	.142691
		SCAL	10000.0	10017.8	-17.8359
		S10	50000.0	49910.8	89.1836

CorCoef: 1.00000

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Cd_226	226.502	S0	.000000	-.006594	.006594
		S0.1	100.000	100.778	-.777771
		S0.5	500.000	498.044	1.95609
		SCAL	1000.00	996.433	3.56665

CorCoef: 1.00000

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Co_228	228.616	S0	.000000	-.010017	.010017
		S0.1	100.000	101.360	-1.35954
		S0.5	500.000	496.111	3.88885
		SCAL	1000.00	998.863	1.13708

CorCoef: 0.99999

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Cr_267	267.716	S0	.000000	.002031	-.002031
		S0.1	100.000	99.8436	.156387
		S0.5	500.000	497.420	2.57962
		SCAL	1000.00	1007.05	-7.04718

CorCoef: 0.99998

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Cu_324	324.753	S0	.000000	-.009361	.009361
		S0.1	100.000	101.065	-1.06492
		S0.5	500.000	496.570	3.43042
		SCAL	1000.00	991.483	8.51691

CorCoef: 1.00000

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Fe_	271.441	S0	.000000	-.928533	.928533
		SCAL	10000.0	10185.7	-185.706
		S10	20000.0	19628.6	371.414

CorCoef: 0.99976

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Fe_	259.940	S0	.000000	.181744	-.181744
		S0.5	5000.00	4963.65	36.3486
		SCAL	10000.0	10072.7	-72.6982

CorCoef: 0.99997

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
K_7664	766.491	S0	.000000	.021723	-.021723
		S0.1	1000.00	997.492	2.50824
		S0.5	5000.00	5004.26	-4.26367
		SCAL	10000.0	10016.6	-16.5557

CorCoef: 1.00000

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Mg_279	279.078	S0	.000000	-.640946	.640946
		SCAL	10000.0	10084.4	-84.3701
		S10	50000.0	49599.5	400.465

CorCoef: 0.99999

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Mn_257	257.610	S0	.000000	-.001897	.001897
		S0.1	100.000	100.315	-.315483
		S0.5	500.000	495.370	4.63022
		SCAL	1000.00	1006.59	-6.58582

CorCoef: 0.99996

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Mo_202	202.030	S0	.000000	-.001756	.001756
		S0.1	100.000	100.281	-.281166
		S0.5	500.000	496.126	3.87433
		SCAL	1000.00	1004.94	-4.93695

CorCoef: 0.99998

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Na_	330.232	S0	.000000	-.000001	.000001
		S10	20000.0	20000.0	.000000

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Na_	588.950	S0	.000000	.000004	-.000004
		SCAL	10000.0	10000.0	.000000

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Ni_231	231.604	S0	.000000	-.002621	.002621
		S0.1	100.000	100.287	-.287491
		S0.5	500.000	497.000	3.00037
		SCAL	1000.00	1001.55	-1.54932

CorCoef: 0.99999

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Sb_206	206.838	S0	.000000	.026615	-.026615
		S0.1	100.000	96.4926	3.50739
		S0.5	500.000	504.996	-4.99634
		SCAL	1000.00	1014.18	-14.1827

CorCoef: 0.99999

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Pb_220	220.353	NONE	.000000	.000000	.000000
		NONE	10.0000	.000000	10.0000

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Se_196	196.026	NONE	.000000	.000000	.000000
		NONE	10.0000	.000000	10.0000

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Sn_189	189.989	S0	.000000	-.011151	.011151
		S0.1	100.000	100.782	-.781517
		S0.5	500.000	490.381	9.61865
		SCAL	1000.00	993.299	6.70099

CorCoef: 0.99997

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Ti_334	334.941	S0	.000000	-.003355	.003355
		S0.1	100.000	100.453	-.453239
		S0.5	500.000	496.381	3.61945
		SCAL	1000.00	1002.71	-2.70642

CorCoef: 0.99999

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Pl_190	190.864	S0	.000000	-.009101	.009101
		S0.1	100.000	100.477	-.476921
		S0.5	500.000	492.262	7.73831
		SCAL	1000.00	991.484	8.51581

CorCoef: 0.99999

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
J_3859	385.958	S0	.000000	.206801	-.206801
		S0.1	100.000	76.2195	23.7805
		S0.5	500.000	549.446	-49.4463
		SCAL	1000.00	1162.51	-162.507

CorCoef: 0.99932

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
_2924	292.402	S0	.000000	-.008284	.008284
		S0.1	100.000	101.148	-1.14754
		S0.5	500.000	494.760	5.23987
		SCAL	1000.00	1002.52	-2.51917

CorCoef: 0.99997

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Zn_213	213.858	S0	.000000	-.005936	.005936
		S0.1	100.000	100.686	-.685684
		S0.5	500.000	499.089	.911285
		SCAL	1000.00	996.321	3.67920

CorCoef: 1.00000

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
_1782	178.287	S0	.000000	.056763	-.056763
		S0.1	500.000	493.395	6.60526
		S0.5	2500.00	2513.94	-13.9375
		SCAL	5000.00	5040.19	-40.1909

CorCoef: 1.00000

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Si_288	288.158	S0	.000000	.066068	-.066068
		S0.1	500.000	492.383	7.61716
		S0.5	2500.00	2512.42	-12.4211
		SCAL	5000.00	5051.33	-51.3296

CorCoef: 0.99999

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
SiO2_	288.158	S0	.000000	.141328	-.141328
		S0.1	1069.50	1053.21	16.2931
		S0.5	5347.50	5374.07	-26.5693
		SCAL	10695.0	10804.8	-109.794

CorCoef: 0.99999

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Cr_421	421.552	S0	.000000	-.008846	.008846
		S0.1	100.000	101.068	-1.06849
		S0.5	500.000	496.147	3.85349
		SCAL	1000.00	997.162	2.83832

CorCoef: 0.99999

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Pb1st	220.351	S0	.000000	.026607	-.026607
		S0.1	100.000	96.9057	3.09427
		S0.5	500.000	507.233	-7.23267
		SCAL	1000.00	1017.83	-17.8307

CorCoef: 0.99999

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Pb2nd	220.352	S0	.000000	.004554	-.004554
		S0.1	100.000	99.3155	.684486
		S0.5	500.000	498.923	1.07697
		SCAL	1000.00	1003.87	-3.87366

CorCoef: 1.00000

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Se1st	196.021	S0	.000000	.042801	-.042801
		S0.1	100.000	95.3119	4.68811
		S0.5	500.000	512.152	-12.1524
		SCAL	1000.00	1030.15	-30.1486

CorCoef: 0.99997

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Se2nd	196.022	S0	.000000	-.012345	.012345
		S0.1	100.000	101.155	-1.15485
		S0.5	500.000	489.976	10.0241
		SCAL	1000.00	989.681	10.3188

CorCoef: 0.99998

Analysis Report QC Standard 05/11/05 08:06:47 AM page 1

Method: TRACE2 Sample Name: S10 Operator: HSC
Run Time: 05/11/05 08:00:56
Comment: CALIBRATION CURVE
Mode: CONC Corr. Factor: 1

Elem	Ag_328	Al_308	As_189	B_2496	Ba_493	Be_313	Ca_317
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	4.535	49180.	-.4876	2.464	.3879	.1444	49340.
SDev	.156	93.	1.9605	.788	.1182	.0563	101.
%RSD	3.445	.1888	402.0	31.97	30.46	39.00	.2057
#1	4.445	49290.	1.581	1.605	.4426	.1961	49450.
#2	4.715	49140.	-2.318	2.634	.2524	.0844	49280.
#3	4.445	49120.	-.7258	3.152	.4689	.1527	49270.
Errors	NOCHECK	QC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK	QC Pass
Value		50000.					50000.
Range		5.000					5.000

Elem	Cd_226	Co_228	Cr_267	Cu_324	Fe_	K_7664	Mg_279
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	.0536	.0422	.5085	-.6074	19460.	-11.62	49240.
SDev	.3660	.1698	.2284	.1685	86.	3.21	96.
%RSD	683.3	402.7	44.91	27.74	.4422	27.62	.1940
#1	-.2684	.2270	.2826	-.8020	19380.	-7.944	49330.
#2	.4516	.0062	.5038	-.5096	19440.	-13.88	49240.
#3	-.0225	-.1068	.7393	-.5107	19550.	-13.02	49140.
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	QC Pass	NOCHECK	QC Pass
Value					20000.		50000.
Range					5.000		5.000

Elem	Mn_257	Mo_202	Na_	Ni_231	Sb_206	Pb_220	Se_196
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	.5516	.2049	19910.	-1.752	-8.197	3.006	5.305
SDev	.0023	1.028	69.	1.436	6.704	.256	1.143
%RSD	.4184	501.6	.3480	81.97	81.79	8.505	21.55
#1	.5491	-.9568	19830.	-2.580	-7.845	3.212	5.986
#2	.5521	.5756	19950.	-2.582	-15.07	3.087	3.985
#3	.5536	.9959	19960.	-.0937	-1.675	2.720	5.944
Errors	NOCHECK	NOCHECK	QC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK
Value			20000.				
Range			5.000				

Elem	Sn_189	Ti_334	Tl_190	U_3859	V_2924	Zn_213	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	3.123	.1510	1.811	-31.76	.1498	-1.566	-9.640
SDev	2.394	.0879	5.856	30.27	.3733	.341	1.502
%RSD	76.67	58.18	323.4	95.30	249.2	21.81	15.58
#1	1.059	.0696	2.924	-63.98	-.2200	-1.649	-11.20
#2	2.563	.1393	-4.522	-27.36	.5265	-1.858	-9.527
#3	5.748	.2442	7.031	-3.930	.1428	-1.190	-8.198
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK

Value
Range

Elem	Si_288	Si02_	Sr_421	Pb1st	Pb2nd	Se1st	Se2nd
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	-12.15	-25.99	.6150	26.05	-8.499	-1.152	8.529
SDev	1.42	3.04	.0505	.75	.653	2.154	.801
%RSD	11.68	11.68	8.217	2.880	7.686	187.0	9.386
#1	-13.72	-29.36	.6649	26.30	-8.316	.7964	8.576
#2	-10.97	-23.46	.5638	25.21	-7.956	-3.466	7.705
#3	-11.77	-25.17	.6164	26.64	-9.224	-.7863	9.304
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK

Value
Range

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	15135	--	--	--	--	--	--
SDev	27.65791	--	--	--	--	--	--
%RSD	.1827404	--	--	--	--	--	--
#1	15164	--	--	--	--	--	--
#2	15133	--	--	--	--	--	--
#3	15109	--	--	--	--	--	--

Analysis Report QC Standard 05/11/05 08:13:51 AM

Method: TRACE2 Sample Name: SCAL Operator: HSC
Run Time: 05/11/05 08:08:00
Comment: CALIBRATION CURVE
Mode: CONC Corr. Factor: 1

U fails

Elem	Ag_328	Al_308	As_189	B_2496	Ba_493	Be_313	Ca_317
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	977.4	9926.	994.0	999.9	977.9	991.3	9916.
SDev	1.4	36.	7.0	2.8	2.4	1.6	12.
%RSD	.1453	.3671	.7080	.2754	.2460	.1610	.1257
#1	977.1	9889.	996.1	997.4	977.3	989.9	9913.
#2	976.1	9962.	986.2	1003.	980.6	991.0	9929.
#3	978.9	9928.	999.8	999.5	975.9	993.1	9905.
Errors	QC Pass	NOCHECK	QC Pass	QC Pass	QC Pass	QC Pass	NOCHECK
Value	1000.		1000.	1000.	1000.	1000.	
Range	5.000		5.000	5.000	5.000	5.000	

Elem	Cd_226	Co_228	Cr_267	Cu_324	Fe_	K_7664	Mg_279
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	988.2	985.8	996.6	977.3	10070.	9893.	10050.
SDev	5.7	.9	2.4	3.0	137.	36.	24.
%RSD	.5739	.0956	.2375	.3061	1.360	.3675	.2398
#1	981.7	986.7	993.9	974.3	9967.	9932.	10070.
#2	992.1	985.9	998.3	977.4	10220.	9860.	10060.
#3	990.8	984.8	997.6	980.2	10010.	9887.	10020.
Errors	QC Pass	QC Pass	QC Pass	QC Pass	NOCHECK	NOCHECK	NOCHECK
Value	1000.	1000.	1000.	1000.			
Range	5.000	5.000	5.000	5.000			

Elem	Mn_257	Mo_202	Na_	Ni_231	Sb_206	Pb_220	Se_196
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	998.4	990.3	9813.	993.1	1008.	995.0	1001.
SDev	8.7	1.4	34.	2.0	5.	3.7	8.
%RSD	.8679	.1367	.3437	.2032	.5343	.3745	.7870
#1	990.8	991.0	9844.	990.8	1005.	999.2	1010.
#2	1008.	988.8	9777.	994.5	1014.	992.2	996.2
#3	996.5	991.2	9818.	993.9	1004.	993.6	996.9
Errors	QC Pass	QC Pass	NOCHECK	QC Pass	QC Pass	QC Pass	QC Pass
Value	1000.	1000.		1000.	1000.	1000.	1000.
Range	5.000	5.000		5.000	5.000	5.000	5.000

Elem	Sn_189	Ti_334	Tl_190	U_3859	V_2924	Zn_213	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	985.1	987.1	980.6	Q1123.	994.6	986.1	4991.
SDev	3.4	1.0	4.1	24.	6.3	2.4	25.
%RSD	.3470	.1005	.4211	2.182	.6373	.2478	.5061
#1	981.2	986.6	976.4	Q1145.	993.8	984.3	5014.
#2	986.5	986.5	980.6	Q1096.	1001.	988.9	4995.
#3	987.6	988.3	984.7	Q1127.	988.8	985.1	4964.
Errors	QC Pass	QC Pass	QC Pass	QC Fail	QC Pass	QC Pass	QC Pass

Value	1000.	1000.	1000.	1000.	1000.	1000.	5000.
Range	5.000	5.000	5.000	5.000	5.000	5.000	5.000
Elem	Si_288	Si02_	Sr_421	Pb1st	Pb2nd	Se1st	Se2nd
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	4991.	10680.	981.0	1011.	986.8	1020.	991.6
SDev	33.	71.	1.6	10.	5.2	16.	6.1
%RSD	.6659	.6659	.1632	1.016	.5239	1.574	.6109
#1	4954.	10600.	979.3	1016.	991.0	1036.	997.3
#2	5018.	10730.	981.5	999.7	988.5	1004.	992.4
#3	5000.	10700.	982.4	1019.	981.0	1020.	985.3
Errors	NOCHECK	NOCHECK	QC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK
Value			1000.				
Range			5.000				

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	15643	--	--	--	--	--	--
SDev	58.33978	--	--	--	--	--	--
%RSD	.3729521	--	--	--	--	--	--
#1	15589	--	--	--	--	--	--
#2	15705	--	--	--	--	--	--
#3	15634	--	--	--	--	--	--

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Method: TRACE2 Sample Name: ICV Operator: HSC
Run Time: 05/11/05 08:15:04
Comment: CALIBRATION CURVE
Mode: CONC Corr. Factor: 1

Upgrade 200.7

Elem	Ag_328	Al_308	As_189	B_2496	Ba_493	Be_313	Ca_317
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	248.6	4973.	498.2	500.1	490.3	245.4	4950.
SDev	.2	17.	3.7	8.2	3.6	.5	26.
%RSD	.0773	.3418	.7499	1.635	.7363	.2167	.5352
#1	248.7	4953.	499.2	491.5	486.2	245.0	4920.
#2	248.7	4984.	494.1	507.8	493.2	245.3	4971.
#3	248.4	4980.	501.3	501.0	491.5	246.0	4959.
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	250.0	5000.	500.0	500.0	500.0	250.0	5000.
Range	10.00	10.00	10.00	10.00	10.00	10.00	10.00

Elem	Cd_226	Co_228	Cr_267	Cu_324	Fe	K_7664	Mg_279
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	488.2	490.5	501.1	489.8	4966.	2494.	4899.
SDev	2.9	3.1	1.9	1.2	84.	2.	32.
%RSD	.5981	.6240	.3777	.2511	1.690	.0995	.6477
#1	485.3	487.4	499.4	488.4	4881.	2494.	4863.
#2	491.1	490.6	503.1	490.4	5049.	2491.	4920.
#3	488.3	493.5	500.8	490.6	4968.	2496.	4914.
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	500.0	500.0	500.0	500.0	5000.	2500.	5000.
Range	10.00	10.00	10.00	10.00	10.00	10.00	10.00

Elem	Mn_257	Mo_202	Na	Ni_231	Sb_206	Pb_220	Se_196
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	498.7	495.0	2509.	485.9	503.7	492.3	2475.
SDev	4.9	4.0	2.	3.8	1.3	6.1	8.
%RSD	.9894	.8118	.0993	.7886	.2593	1.239	.3265
#1	494.1	490.5	2507.	481.4	502.7	487.9	2472.
#2	503.9	498.3	2508.	488.1	505.1	499.3	2485.
#3	498.1	496.3	2511.	488.0	503.2	489.8	2470.
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	500.0	500.0	2500.	500.0	500.0	500.0	2500.
Range	10.00	10.00	10.00	10.00	10.00	10.00	10.00

Elem	Sn_189	Ti_334	Tl_190	U_3859	V_2924	Zn_213	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	485.8	493.6	487.2	530.6	492.4	486.3	2447.
SDev	2.1	1.2	3.5	26.0	4.8	4.2	20.
%RSD	.4385	.2357	.7144	4.896	.9772	.8679	.8045
#1	486.1	492.5	487.3	524.3	487.5	481.5	2435.
#2	487.8	493.5	483.7	Q559.2	497.1	489.3	2435.
#3	483.6	494.8	490.7	508.4	492.7	488.2	2469.
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass

Value	500.0	500.0	500.0	500.0	500.0	500.0	2500.
Range	10.00	10.00	10.00	10.00	10.00	10.00	10.00
Elem	Si_288	Si02_	Sr_421	Pb1st	Pb2nd	Se1st	Se2nd
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	4884.	10450.	493.8	498.3	489.3	2547.	2440.
SDev	10.	21.	3.0	6.2	6.1	11.	12.
%RSD	.2015	.2015	.5983	1.238	1.248	.4480	.4865
#1	4874.	10420.	490.3	494.5	484.5	2534.	2441.
#2	4885.	10450.	495.6	505.4	496.2	2552.	2451.
#3	4893.	10470.	495.3	494.9	487.2	2555.	2427.
Errors	QC Pass	NOCHECK	QC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK
Value	5000.		500.0				
Range	10.00		10.00				

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	15739	--	--	--	--	--	--
SDev	160.4851	--	--	--	--	--	--
%RSD	1.019669	--	--	--	--	--	--
#1	15913	--	--	--	--	--	--
#2	15708	--	--	--	--	--	--
#3	15596	--	--	--	--	--	--

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Method: TRACE2 Sample Name: ICB Operator: HSC
Run Time: 05/11/05 08:22:07
Comment: CALIBRATION CURVE
Mode: CONC Corr. Factor: 1

Elem	Ag_328	Al_308	As_189	B_2496	Ba_493	Be_313	Ca_317
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	1.698	8.745	-1.890	2.126	.3064	.0877	2.934
SDev	.257	6.231	3.043	1.539	.0493	.0423	.393
%RSD	15.12	71.26	161.0	72.40	16.08	48.27	13.40
#1	1.983	15.46	-.7387	3.876	.3631	.1273	2.484
#2	1.624	7.632	.4092	1.514	.2822	.0926	3.205
#3	1.486	3.145	-5.341	.9861	.2739	.0431	3.114
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.0000	.0000	.0000	.0000	.0000	.0000	.0000
Range	5.000	200.0	15.00	50.00	5.000	5.000	100.0

Elem	Cd_226	Co_228	Cr_267	Cu_324	Fe_	K_7664	Mg_279
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	.1593	.0412	1.136	-.4729	2.859	-11.92	11.55
SDev	.7345	.2162	.266	.6063	2.459	12.79	5.61
%RSD	461.2	524.3	23.45	128.2	86.00	107.3	48.55
#1	.8652	-.1330	1.021	.2272	3.214	1.762	13.22
#2	.2134	-.0265	.9462	-.8195	.2423	-13.96	5.300
#3	-.6008	.2833	1.440	-.8263	5.122	-23.57	16.14
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.0000	.0000	.0000	.0000	.0000	.0000	.0000
Range	5.000	5.000	5.000	10.00	100.0	150.0	300.0

Elem	Mn_257	Mo_202	Na_	Ni_231	Sb_206	Pb_220	Se_196
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	.5676	1.241	60.44	-.8223	-5.742	1.667	4.256
SDev	.2685	.505	10.23	1.8052	7.902	2.895	3.289
%RSD	47.31	40.65	16.93	219.5	137.6	173.7	77.27
#1	.2732	1.579	72.22	-1.799	2.025	4.950	.7710
#2	.6304	1.484	53.80	1.261	Q-13.77	-.5196	7.305
#3	.7991	.6614	55.29	-1.929	-5.480	.5697	4.693
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.0000	.0000	.0000	.0000	.0000	.0000	.0000
Range	10.00	10.00	150.0	5.000	10.00	10.00	15.00

Elem	Sn_189	Ti_334	Tl_190	U_3859	V_2924	Zn_213	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	2.859	.5985	.3350	-11.89	1.183	-3.481	-10.21
SDev	1.262	.1623	2.430	24.24	.739	.414	3.00
%RSD	44.14	27.11	725.5	203.8	62.46	11.90	29.41
#1	3.701	.6745	3.090	10.09	1.412	-3.079	-10.99
#2	1.408	.7088	-.5801	-7.885	.3569	-3.459	-12.75
#3	3.467	.4121	-1.505	-37.89	1.781	-3.906	-6.896
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass

Value	.0000	.0000	.0000	.0000	.0000	.0000	.0000
Range	10.00	5.000	20.00	50.00	5.000	10.00	150.0
Elem	Si_288	Si02_	Sr_421	Pb1st	Pb2nd	Se1st	Se2nd
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	-10.84	-23.19	.2432	-1.734	3.364	-3.258	8.008
SDev	4.95	10.58	.0522	4.282	2.209	8.032	3.947
%RSD	45.64	45.64	21.44	246.9	65.66	246.5	49.29
#1	-9.052	-19.36	.3034	3.167	5.840	-5.731	4.017
#2	-7.037	-15.05	.2107	-4.751	1.593	5.719	8.097
#3	-16.44	-35.16	.2157	-3.618	2.660	-9.763	11.91
Errors	QC Pass	NOCHECK	QC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK
Value	.0000		.0000				
Range	100.0		5.000				
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	15929	--	--	--	--	--	--
SDev	179.0570	--	--	--	--	--	--
%RSD	1.124094	--	--	--	--	--	--
#1	16051	--	--	--	--	--	--
#2	15723	--	--	--	--	--	--
#3	16012	--	--	--	--	--	--

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Method: TRACE2 Sample Name: PQL Operator: HSC
Run Time: 05/11/05 08:28:01
Comment: CALIBRATION CURVE
Mode: CONC Corr. Factor: 1

Cu failed

Elem	Ag_328	Al_308	As_189	B_2496	Ba_493	Be_313	Ca_317
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	8.537	191.3	12.72	97.59	9.584	9.529	197.3
SDev	1.337	7.5	4.49	.66	.315	.040	2.7
%RSD	15.67	3.944	35.27	.6771	3.291	.4211	1.377
#1	7.010	182.7	7.820	98.27	9.221	9.483	194.4
#2	9.100	194.6	Q16.63	96.95	9.788	9.558	199.7
#3	9.501	196.6	Q13.71	97.55	9.743	9.545	197.9
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	10.00	200.0	10.00	100.0	10.00	10.00	200.0
Range	30.00	30.00	30.00	30.00	30.00	30.00	30.00

Elem	Cd_226	Co_228	Cr_267	Cu_324	Fe_	K_7664	Mg_279
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	9.859	9.055	8.112	Q5.829	198.2	146.8	185.8
SDev	.647	.756	1.400	2.568	2.6	38.4	16.1
%RSD	6.565	8.352	17.26	44.06	1.328	26.15	8.654
				58%			
#1	9.132	8.194	Q6.753	7.317	195.7	176.3	167.3
#2	10.37	9.355	8.034	7.307	198.0	160.7	193.4
#3	10.07	9.614	9.550	Q2.863	200.9	Q103.4	196.6
Errors	QC Pass	QC Pass	QC Pass	QC Fail	QC Pass	QC Pass	QC Pass
Value	10.00	10.00	10.00	10.00	200.0	200.0	200.0
Range	30.00	30.00	30.00	30.00	30.00	30.00	30.00

Elem	Mn_257	Mo_202	Na_	Ni_231	Sb_206	Pb_220	Se_196
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	19.82	17.86	227.4	9.109	16.32	8.403	9.988
SDev	.16	.23	22.2	1.863	5.43	3.363	.842
%RSD	.7871	1.264	9.755	20.46	33.26	40.02	8.427
#1	19.84	17.76	242.9	9.107	15.95	12.23	9.028
#2	19.66	17.70	237.3	10.97	21.92	7.058	10.60
#3	19.97	18.12	202.0	7.247	Q11.09	Q5.920	10.34
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	20.00	20.00	200.0	10.00	20.00	10.00	10.00
Range	30.00	30.00	30.00	30.00	30.00	30.00	30.00

Elem	Sn_189	Ti_334	Tl_190	U_3859	V_2924	Zn_213	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	22.07	9.236	20.06	77.86	7.912	Q6.954	87.92
SDev	5.81	.402	2.43	18.33	1.315	.215	5.02
%RSD	26.34	4.357	12.10	23.54	16.62	3.092	5.705
						70%	
#1	15.69	8.792	21.62	Q67.93	Q6.421	Q6.970	83.75
#2	Q27.07	9.340	21.30	99.01	8.408	7.160	93.49
#3	23.44	9.577	17.26	Q66.64	8.907	Q6.731	86.53
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC ~~Fail~~ Pass	QC Pass

Value	20.00	10.00	20.00	100.0	10.00	10.00	100.0
Range	30.00	30.00	30.00	30.00	30.00	30.00	30.00
Elem	Si_288	Si02_	Sr_421	Pb1st	Pb2nd	Se1st	Se2nd
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	176.3	377.0	9.502	15.95	4.634	15.97	7.000
SDev	4.5	9.6	.143	7.06	2.868	5.66	3.650
%RSD	2.543	2.543	1.508	44.26	61.88	35.46	52.14
#1	172.1	368.1	9.357	21.89	7.409	20.21	3.446
#2	181.0	387.1	9.506	17.83	1.682	18.18	6.814
#3	175.7	375.8	9.644	8.143	4.810	9.540	10.74
Errors	QC Pass	NOCHECK	QC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK
Value	200.0		10.00				
Range	30.00		30.00				
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	16031	--	--	--	--	--	--
SDev	159.6401	--	--	--	--	--	--
%RSD	.9958434	--	--	--	--	--	--
#1	15920	--	--	--	--	--	--
#2	16214	--	--	--	--	--	--
#3	15958	--	--	--	--	--	--

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Method: TRACE2 Sample Name: ICS-A Operator: HSC
Run Time: 05/11/05 08:39:49
Comment: CALIBRATION CURVE
Mode: CONC Corr. Factor: 1

Elem	Ag_328	Al_308	As_189	B_2496	Ba_493	Be_313	Ca_317
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	1.132	456400.	-2.845	1.709	1.221	.0165	445600.
SDev	.366	1269.	1.580	1.249	.079	.0140	220.
%RSD	32.36	.2781	55.52	73.05	6.485	84.99	.0493
#1	.7110	454900.	-3.803	1.536	1.169	.0080	445600.
#2	1.377	457100.	-3.712	3.036	1.313	.0088	445700.
#3	1.309	457000.	-1.022	.5564	1.182	.0327	445300.
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.0000	500000.	.0000	.0000	.0000	.0000	500000.
Range	10.00	100000.	30.00	100.0	10.00	10.00	100000.

Elem	Cd_226	Co_228	Cr_267	Cu_324	Fe_	K_7664	Mg_279
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	-1.131	-.0810	.4726	-.2803	187400.	-10.93	491300.
SDev	.162	.1537	.6356	.4907	1174.	3.65	1540.
%RSD	14.32	189.9	134.5	175.0	.6261	33.39	.3134
#1	-.9817	-.2485	-.1702	-.3245	186200.	-7.917	490800.
#2	-1.303	.0535	.4873	-.7475	187500.	-14.99	493100.
#3	-1.109	-.0478	1.101	.2309	188600.	-9.892	490200.
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.0000	.0000	.0000	.0000	200000.	.0000	500000.
Range	10.00	10.00	10.00	20.00	40000.	300.0	100000.

Elem	Mn_257	Mo_202	Na_	Ni_231	Sb_206	Pb_220	Se_196
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	2.864	-.2198	81.49	-1.499	-5.405	7.449	9.671
SDev	.408	1.2922	2.79	1.313	6.189	4.409	3.020
%RSD	14.26	587.9	3.426	87.58	114.5	59.19	31.22
#1	2.481	1.093	84.22	-.3730	-12.30	4.427	6.367
#2	2.818	-.2611	81.60	-2.941	-3.571	12.51	10.36
#3	3.294	-1.491	78.64	-1.183	-.3397	5.412	12.29
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.0000	.0000	.0000	.0000	.0000	.0000	.0000
Range	20.00	20.00	300.0	10.00	20.00	20.00	30.00

Elem	Sn_189	Ti_334	Tl_190	U_3859	V_2924	Zn_213	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	2.749	-1.512	-4.813	-15.43	1.903	-1.997	-.0671
SDev	2.312	.087	3.757	15.17	.376	1.003	4.4624
%RSD	84.11	5.783	78.07	98.34	19.78	50.22	6648.
#1	4.639	-1.555	-9.118	-4.777	1.908	-.9519	1.557
#2	.1710	-1.412	-2.193	-32.80	1.524	-2.089	3.356
#3	3.438	-1.571	-3.128	-8.709	2.277	-2.952	-5.114
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass

Value	.0000	.0000	.0000	.0000	.0000	.0000	.0000
Range	20.00	10.00	40.00	100.0	10.00	20.00	300.0
Elem	Si_288	Si02_	Sr_421	Pb1st	Pb2nd	Se1st	Se2nd
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	-12.63	-27.01	4.752	258.3	-117.8	.4910	14.25
SDev	1.58	3.37	.010	6.0	3.6	7.786	5.18
%RSD	12.49	12.49	.2075	2.310	3.083	1586.	36.35
#1	-10.83	-23.17	4.741	254.1	-120.2	1.150	8.971
#2	-13.28	-28.40	4.755	265.2	-113.6	-7.604	19.33
#3	-13.78	-29.48	4.760	255.7	-119.6	7.927	14.46
Errors	QC Pass	NOCHECK	QC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK
Value	.0000		.0000				
Range	200.0		10.00				
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	15527	--	--	--	--	--	--
SDev	76.37957	--	--	--	--	--	--
%RSD	.4919044	--	--	--	--	--	--
#1	15589	--	--	--	--	--	--
#2	15551	--	--	--	--	--	--
#3	15442	--	--	--	--	--	--

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Method: TRACE2 Sample Name: ICS-AB Operator: HSC
Run Time: 05/11/05 08:45:42
Comment: CALIBRATION CURVE
Mode: CONC Corr. Factor: 1

Elem	Ag_328	Al_308	As_189	B_2496	Ba_493	Be_313	Ca_317
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	256.2	460700.	503.8	503.7	495.7	245.2	446500.
SDev	1.1	1342.	2.7	2.2	1.8	1.0	1424.
%RSD	.4409	.2913	.5405	.4303	.3535	.4226	.3189
#1	256.0	459100.	501.1	503.5	493.7	244.6	445000.
#2	257.4	461600.	506.5	505.9	496.3	246.4	447900.
#3	255.1	461200.	503.8	501.6	497.1	244.7	446700.
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	250.0	500000.	500.0	500.0	500.0	250.0	500000.
Range	20.00	20.00	20.00	20.00	20.00	20.00	20.00

Elem	Cd_226	Co_228	Cr_267	Cu_324	Fe_	K_7664	Mg_279
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	463.5	459.8	481.9	492.7	188800.	5734.	494200.
SDev	.6	1.6	1.8	2.3	1343.	26.	1812.
%RSD	.1281	.3585	.3764	.4736	.7111	.4524	.3667
#1	462.8	459.0	480.8	491.2	188400.	5723.	492400.
#2	463.8	461.7	484.0	495.4	190300.	5764.	494000.
#3	463.9	458.7	480.9	491.4	187700.	5716.	496100.
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	500.0	500.0	500.0	500.0	200000.	5000.	500000.
Range	20.00	20.00	20.00	20.00	20.00	20.00	20.00

Elem	Mn_257	Mo_202	Na_	Ni_231	Sb_206	Pb_220	Se_196
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	488.5	484.8	5117.	449.0	517.3	472.7	2473.
SDev	2.9	5.4	37.	1.6	11.1	1.9	8.
%RSD	.5963	1.108	.7251	.3670	2.137	.4045	.3394
#1	486.4	483.8	5099.	450.5	521.2	474.6	2464.
#2	487.3	480.0	5160.	449.2	525.8	472.7	2477.
#3	491.8	490.6	5093.	447.3	504.8	470.8	2479.
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	500.0	500.0	5000.	500.0	500.0	500.0	2500.
Range	20.00	20.00	20.00	20.00	20.00	20.00	20.00

Elem	Sn_189	Ti_334	Tl_190	U_3859	V_2924	Zn_213	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	483.0	483.1	463.3	562.9	485.3	486.5	2478.
SDev	5.4	1.9	13.6	9.5	3.1	2.9	25.
%RSD	1.119	.3860	2.925	1.689	.6399	.5963	1.005
#1	483.7	481.5	478.4	553.3	482.0	483.2	2476.
#2	488.1	485.1	459.5	563.1	486.0	487.4	2504.
#3	477.3	482.5	452.1	572.3	488.1	488.8	2455.
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass

Value	500.0	500.0	500.0	500.0	500.0	500.0	2500.
Range	20.00	20.00	20.00	20.00	20.00	20.00	20.00
Elem	Si_288	Si02_	Sr_421	Pb1st	Pb2nd	Se1st	Se2nd
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	4809.	10290.	495.9	738.5	340.0	2562.	2429.
SDev	15.	31.	2.2	1.6	2.5	10.	8.
%RSD	.3037	.3037	.4519	.2118	.7322	.4075	.3193
#1	4800.	10270.	493.5	738.7	342.8	2550.	2420.
#2	4826.	10320.	496.1	739.9	339.2	2570.	2431.
#3	4800.	10270.	498.0	736.8	337.9	2565.	2435.
Errors	QC Pass	NOCHECK	QC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK
Value	5000.		500.0				
Range	20.00		20.00				

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	15285	--	--	--	--	--	--
SDev	52.21054	--	--	--	--	--	--
%RSD	.3415909	--	--	--	--	--	--
#1	15336	--	--	--	--	--	--
#2	15232	--	--	--	--	--	--
#3	15286	--	--	--	--	--	--

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Method: TRACE2 Sample Name: CCV1 Operator: HSC
Run Time: 05/11/05 08:59:38
Comment: CALIBRATION CURVE
Mode: CONC Corr. Factor: 1

✓ 4 fails

Elem	Ag_328	Al_308	As_189	B_2496	Ba_493	Be_313	Ca_317
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	489.0	4992.	497.4	500.3	478.9	492.3	4919.
SDev	4.1	70.	4.9	8.3	7.8	4.9	62.
%RSD	.8438	1.407	.9786	1.652	1.636	.9893	1.253
#1	489.8	5015.	492.5	506.4	483.5	493.4	4949.
#2	492.7	5048.	502.3	503.6	483.3	496.6	4961.
#3	484.6	4913.	497.5	490.9	469.8	487.0	4848.
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	500.0	5000.	500.0	500.0	500.0	500.0	5000.
Range	10.00	10.00	10.00	10.00	10.00	10.00	10.00

Elem	Cd_226	Co_228	Cr_267	Cu_324	Fe_	K_7664	Mg_279
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	498.7	495.1	498.0	486.4	5109.	5059.	5075.
SDev	5.7	4.1	5.9	4.9	118.	38.	61.
%RSD	1.133	.8277	1.185	1.018	2.308	.7526	1.210
#1	501.2	496.4	501.4	488.0	5197.	5056.	5107.
#2	502.6	498.5	501.3	490.5	5154.	5099.	5113.
#3	492.2	490.6	491.1	480.9	4975.	5023.	5004.
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	500.0	500.0	500.0	500.0	5000.	5000.	5000.
Range	10.00	10.00	10.00	10.00	10.00	10.00	10.00

Elem	Mn_257	Mo_202	Na_	Ni_231	Sb_206	Pb_220	Se_196
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	501.5	489.6	9782.	495.0	489.6	502.3	509.6
SDev	6.2	8.5	97.	5.5	9.2	5.0	4.9
%RSD	1.228	1.730	.9872	1.115	1.872	.9968	.9691
#1	505.3	496.6	9792.	498.8	487.4	504.2	504.3
#2	504.8	492.0	9873.	497.4	499.7	506.1	514.2
#3	494.4	480.2	9681.	488.7	481.8	496.7	510.3
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	500.0	500.0	10000.	500.0	500.0	500.0	500.0
Range	10.00	10.00	10.00	10.00	10.00	10.00	10.00

Elem	Sn_189	Ti_334	Tl_190	U_3859	V_2924	Zn_213	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	497.4	488.2	486.3	Q554.2	493.8	491.8	2417.
SDev	6.8	5.2	2.1	17.4	7.1	8.0	29.
%RSD	1.374	1.064	.4301	3.142	1.440	1.622	1.214
#1	500.5	490.0	486.8	Q551.5	499.8	494.9	2414.
#2	502.2	492.3	488.2	Q572.9	495.6	497.9	2448.
#3	489.6	482.4	484.1	538.4	485.9	482.8	2390.
Errors	QC Pass	QC Pass	QC Pass	QC Fail	QC Pass	QC Pass	QC Pass

Value	500.0	500.0	500.0	500.0	500.0	500.0	2500.
Range	10.00	10.00	10.00	10.00	10.00	10.00	10.00
Elem	Si_288	Si02_	Sr_421	Pb1st	Pb2nd	Se1st	Se2nd
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	2492.	5331.	483.1	513.5	496.8	514.4	507.2
SDev	17.	37.	7.5	5.3	5.1	6.7	4.1
%RSD	.6990	.6990	1.558	1.026	1.019	1.301	.8114
#1	2498.	5343.	486.9	517.1	497.8	507.0	503.0
#2	2506.	5360.	488.0	515.9	501.3	519.9	511.3
#3	2473.	5289.	474.5	507.4	491.3	516.3	507.2
Errors	QC Pass	NOCHECK	QC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK
Value	2500.		500.0				
Range	10.00		10.00				
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	16581	--	--	--	--	--	--
SDev	112.6982	--	--	--	--	--	--
%RSD	.6797026	--	--	--	--	--	--
#1	16559	--	--	--	--	--	--
#2	16480	--	--	--	--	--	--
#3	16703	--	--	--	--	--	--

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Method: TRACE2 Sample Name: CCB1 Operator: HSC
Run Time: 05/11/05 09:05:33
Comment: CALIBRATION CURVE
Mode: CONC Corr. Factor: 1

Elem	Ag_328	Al_308	As_189	B_2496	Ba_493	Be_313	Ca_317
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	1.494	14.01	1.543	5.113	.5369	.3096	10.28
SDev	.798	4.31	1.605	2.982	.1349	.0616	1.18
%RSD	53.42	30.74	104.0	58.33	25.12	19.90	11.51
#1	1.099	14.46	-.0487	2.568	.5736	.3651	11.36
#2	2.413	18.08	1.517	8.395	.6497	.2433	10.45
#3	.9706	9.497	3.161	4.376	.3875	.3204	9.015
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.0000	.0000	.0000	.0000	.0000	.0000	.0000
Range	5.000	200.0	15.00	50.00	5.000	5.000	100.0

Elem	Cd_226	Co_228	Cr_267	Cu_324	Fe_	K_7664	Mg_279
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	.9554	.4255	.4970	-.0899	7.496	-4.709	17.21
SDev	.6455	.4242	.3593	1.9389	2.137	31.827	6.99
%RSD	67.57	99.68	72.30	2158.	28.50	675.8	40.63
#1	1.082	.1829	.6725	1.579	5.040	26.97	16.34
#2	.2561	.9153	.7347	-2.217	8.520	-36.68	24.60
#3	1.528	.1783	.0836	.3675	8.928	-4.425	10.70
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.0000	.0000	.0000	.0000	.0000	.0000	.0000
Range	5.000	5.000	5.000	10.00	100.0	150.0	300.0

Elem	Mn_257	Mo_202	Na_	Ni_231	Sb_206	Pb_220	Se_196
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	.7492	1.199	48.38	-.5419	-.3501	.9199	3.166
SDev	.2053	1.341	16.53	1.1923	7.1104	4.384	2.782
%RSD	27.40	111.9	34.17	220.0	2031.	476.6	87.88
#1	.6374	-.2611	58.77	.7796	7.778	.2801	4.526
#2	.9860	1.481	29.32	-.8683	-5.420	5.589	5.006
#3	.6241	2.377	57.06	-1.537	-3.408	-3.109	-.0345
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.0000	.0000	.0000	.0000	.0000	.0000	.0000
Range	10.00	10.00	150.0	5.000	10.00	10.00	15.00

Elem	Sn_189	Ti_334	Tl_190	U_3859	V_2924	Zn_213	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	3.563	.6131	3.612	-9.459	1.329	-3.314	-4.100
SDev	2.191	.1385	9.165	42.836	.563	.356	3.100
%RSD	61.49	22.59	253.8	452.9	42.37	10.75	75.59
#1	1.237	.6638	11.57	38.29	1.464	-2.993	-.7469
#2	5.588	.7191	-6.409	-44.50	1.812	-3.251	-4.694
#3	3.864	.4564	5.674	-22.17	.7107	-3.697	-6.860
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass

Value	.0000	.0000	.0000	.0000	.0000	.0000	.0000
Range	10.00	5.000	20.00	50.00	5.000	10.00	150.0
Elem	Si_288	Si02_	Sr_421	Pb1st	Pb2nd	Se1st	Se2nd
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	-10.13	-21.66	.3962	.0680	1.345	2.325	3.585
SDev	5.60	11.97	.0491	6.903	9.635	13.29	9.044
%RSD	55.27	55.27	12.39	10150.	716.2	571.3	252.3
#1	-5.875	-12.57	.4152	5.278	-2.215	12.85	.3714
#2	-16.47	-35.22	.4330	-7.761	12.25	-12.60	13.80
#3	-8.035	-17.19	.3404	2.687	-6.003	6.732	-3.413
Errors	QC Pass	NOCHECK	QC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK
Value	.0000		.0000				
Range	100.0		5.000				
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	15720	--	--	--	--	--	--
SDev	293.7771	--	--	--	--	--	--
%RSD	1.868832	--	--	--	--	--	--
#1	15414	--	--	--	--	--	--
#2	15746	--	--	--	--	--	--
#3	16000	--	--	--	--	--	--

Analysis Report QC Standard 05/11/05 10:02:56 AM

Method: TRACE2 Sample Name: CCV1 Operator: HSC
Run Time: 05/11/05 09:57:05
Comment: 421419||6010 WRR
Mode: CONC Corr. Factor: 1

Elem	Ag_328	Al_308	As_189	B_2496	Ba_493	Be_313	Ca_317
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	485.8	4967.	491.8	493.0	474.3	490.0	4942.
SDev	2.7	10.	4.3	6.0	1.0	2.5	10.
%RSD	.5502	.1960	.8773	1.221	.2051	.5106	.2006
#1	485.1	4967.	492.2	492.8	474.8	490.5	4954.
#2	488.7	4957.	495.8	487.0	473.2	492.2	4935.
#3	483.5	4977.	487.2	499.1	475.0	487.3	4938.
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	500.0	5000.	500.0	500.0	500.0	500.0	5000.
Range	10.00	10.00	10.00	10.00	10.00	10.00	10.00

Elem	Cd_226	Co_228	Cr_267	Cu_324	Fe_	K_7664	Mg_279
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	499.1	494.5	502.2	482.1	5227.	5146.	5137.
SDev	.2	2.8	1.4	1.4	50.	26.	13.
%RSD	.0433	.5687	.2797	.2885	.9525	.5068	.2439
#1	499.1	493.7	501.2	481.2	5231.	5140.	5138.
#2	498.9	497.6	503.8	483.7	5176.	5174.	5149.
#3	499.3	492.2	501.5	481.3	5275.	5123.	5124.
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	500.0	500.0	500.0	500.0	5000.	5000.	5000.
Range	10.00	10.00	10.00	10.00	10.00	10.00	10.00

Elem	Mn_257	Mo_202	Na_	Ni_231	Sb_206	Pb_220	Se_196
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	507.9	488.3	9905.	495.5	491.6	508.0	501.8
SDev	1.8	2.5	37.	1.8	2.1	4.4	5.8
%RSD	.3577	.5078	.3732	.3665	.4364	.8716	1.158
#1	508.6	489.7	9908.	497.6	489.1	512.5	495.8
#2	505.9	485.4	9941.	494.8	493.1	507.7	507.4
#3	509.3	489.7	9867.	494.2	492.5	503.7	502.3
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	500.0	500.0	10000.	500.0	500.0	500.0	500.0
Range	10.00	10.00	10.00	10.00	10.00	10.00	10.00

Elem	Sn_189	Ti_334	Tl_190	U_3859	V_2924	Zn_213	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	499.9	486.7	489.6	534.1	498.3	489.1	2396.
SDev	.6	1.8	5.0	28.0	3.5	.7	20.
%RSD	.1274	.3784	1.025	5.234	.6996	.1473	.8449
#1	499.9	487.9	488.4	509.7	496.0	489.4	2388.
#2	500.5	487.7	485.3	Q564.6	496.6	488.3	2419.
#3	499.2	484.6	495.1	527.9	502.4	489.6	2380.
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass

Value	500.0	500.0	500.0	500.0	500.0	500.0	2500.
Range	10.00	10.00	10.00	10.00	10.00	10.00	10.00
Elem	Si_288	Si02_	Sr_421	Pb1st	Pb2nd	Se1st	Se2nd
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	2499.	5345.	479.5	511.1	506.4	512.0	496.7
SDev	4.	9.	1.0	7.9	4.6	12.7	9.5
%RSD	.1636	.1636	.2043	1.547	.9029	2.470	1.922
#1	2495.	5336.	480.6	514.3	511.6	515.3	486.1
#2	2503.	5353.	478.8	516.9	503.1	522.8	499.7
#3	2499.	5345.	479.1	502.1	504.4	498.1	504.5
Errors	QC Pass	NOCHECK	QC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK
Value	2500.		500.0				
Range	10.00		10.00				

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	16496	--	--	--	--	--	--
SDev	66.99043	--	--	--	--	--	--
%RSD	.4060961	--	--	--	--	--	--
#1	16512	--	--	--	--	--	--
#2	16423	--	--	--	--	--	--
#3	16554	--	--	--	--	--	--

Analysis Report QC Standard 05/11/05 10:08:51 AM

Method: TRACE2 Sample Name: CCB1 Operator: HSC
Run Time: 05/11/05 10:03:00
Comment: 421419||6010 WRR
Mode: CONC Corr. Factor: 1

Elem	Ag_328	Al_308	As_189	B_2496	Ba_493	Be_313	Ca_317
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	.1523	5.493	-1.185	-.1217	.1570	.2503	6.911
SDev	.2030	3.200	4.224	3.2208	.0860	.0425	1.849
%RSD	133.3	58.26	356.6	2647.	54.79	16.97	26.75
#1	-.0214	1.855	-.3593	3.597	.1758	.2797	7.867
#2	.3754	6.751	-5.760	-1.980	.2321	.2697	8.086
#3	.1029	7.873	2.566	-1.982	.0632	.2016	4.780
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.0000	.0000	.0000	.0000	.0000	.0000	.0000
Range	5.000	200.0	15.00	50.00	5.000	5.000	100.0

Elem	Cd_226	Co_228	Cr_267	Cu_324	Fe_	K_7664	Mg_279
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	-.0359	-.1979	-.2765	-1.087	4.655	-11.32	10.23
SDev	.4935	.6378	.4675	.566	1.237	3.05	3.38
%RSD	1374.	322.3	169.1	52.02	26.59	26.96	33.03
#1	-.2234	-.6652	-.4116	-.5535	5.916	-8.404	8.210
#2	-.4082	-.4571	.2437	-1.680	3.443	-14.49	8.355
#3	.5239	.5287	-.6615	-1.028	4.605	-11.07	14.14
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.0000	.0000	.0000	.0000	.0000	.0000	.0000
Range	5.000	5.000	5.000	10.00	100.0	150.0	300.0

Elem	Mn_257	Mo_202	Na_	Ni_231	Sb_206	Pb_220	Se_196
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	.3966	.3957	36.89	.5722	-4.094	-.6943	3.654
SDev	.2856	.6345	10.58	2.169	7.795	1.7489	6.293
%RSD	72.01	160.3	28.67	379.0	190.4	251.9	172.2
#1	.4563	-.2611	48.80	-1.663	-2.488	1.134	3.554
#2	.6476	1.005	33.31	.7114	Q-12.57	-.8666	9.996
#3	.0859	.4430	28.57	2.668	2.773	-2.351	-2.587
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.0000	.0000	.0000	.0000	.0000	.0000	.0000
Range	10.00	10.00	150.0	5.000	10.00	10.00	15.00

Elem	Sn_189	Ti_334	Tl_190	U_3859	V_2924	Zn_213	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	1.260	.0993	.5236	-20.16	.1210	-3.902	-8.002
SDev	1.250	.1530	5.118	5.29	.7906	.350	9.662
%RSD	99.22	154.1	977.4	26.27	653.6	8.977	120.7
#1	.2419	.2651	5.758	-15.21	.3670	-4.286	2.231
#2	.8824	.0692	.2831	-19.53	-.7634	-3.599	-16.97
#3	2.655	-.0365	-4.470	-25.74	.7593	-3.821	-9.268
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass

Value	.0000	.0000	.0000	.0000	.0000	.0000	.0000
Range	10.00	5.000	20.00	50.00	5.000	10.00	150.0
Elem	Si_288	Si02_	Sr_421	Pb1st	Pb2nd	Se1st	Se2nd
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	-11.76	-25.15	.3448	.3677	-1.225	-1.477	6.216
SDev	2.21	4.73	.0911	3.723	3.432	9.914	8.127
%RSD	18.82	18.82	26.41	1013.	280.3	671.1	130.7
#1	-11.68	-24.98	.4368	1.593	.9053	8.301	1.185
#2	-9.586	-20.51	.3429	-3.814	.6048	-1.211	15.59
#3	-14.01	-29.97	.2547	3.324	-5.184	-11.52	1.873
Errors	QC Pass	NOCHECK	QC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK
Value	.0000		.0000				
Range	100.0		5.000				
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	15106	--	--	--	--	--	--
SDev	198.4676	--	--	--	--	--	--
%RSD	1.313847	--	--	--	--	--	--
#1	15335	--	--	--	--	--	--
#2	14997	--	--	--	--	--	--
#3	14986	--	--	--	--	--	--

Method: TRACE2 Sample Name: 135806005 Operator: HSC
Run Time: 05/11/05 10:32:30
Comment: 423071||6010 SRR
Mode: CONC Corr. Factor: 1

Elem	Ag_328	Al_308	As_189	B_2496	Ba_493	Be_313	Ca_317
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	.8791	93870.	23.64	33.69	576.0	5.617	17220.
SDev	.4402	818.	3.27	.89	4.5	.038	158.
%RSD	50.08	.8711	13.84	2.630	.7729	.6722	.9157
#1	1.387	92960.	25.51	34.62	570.9	5.579	17040.
#2	.6435	94540.	25.55	33.59	578.6	5.655	17350.
#3	.6068	94110.	19.86	32.86	578.6	5.616	17270.
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2000.	500000.	50000.	50000.	15000.	10000.	500000.
Low	-5.000	-200.0	-15.00	-50.00	-5.000	-5.000	-100.0

Elem	Cd_226	Co_228	Cr_267	Cu_324	Fe_	K_7664	Mg_279
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	49.12	22.60	169.4	193.5	122000.	9904.	11040.
SDev	.50	.48	1.3	1.7	1372.	105.	107.
%RSD	1.023	2.142	.7554	.8786	1.125	1.063	.9720
#1	48.64	22.05	168.1	191.8	120400.	9782.	10920.
#2	49.64	22.96	170.6	195.2	122800.	9967.	11130.
#3	49.09	22.79	169.6	193.6	122700.	9961.	11060.
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	25000.	50000.	50000.	25000.	500000.	30000.	500000.
Low	-5.000	-5.000	-5.000	-10.00	-100.0	-150.0	-300.0

Elem	Mn_257	Mo_202	Na_	Ni_231	Sb_206	Pb_220	Se_196
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	2591.	39.90	1718.	112.2	21.92	2060.	9.134
SDev	13.	1.68	9.	1.0	6.85	23.	1.716
%RSD	.4923	4.208	.5132	.8903	31.24	1.117	18.78
#1	2581.	41.50	1709.	111.7	26.42	2033.	7.544
#2	2605.	40.04	1726.	113.4	25.29	2075.	10.95
#3	2587.	38.15	1718.	111.6	14.04	2071.	8.906
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10000.	50000.	200000.	50000.	50000.	50000.	50000.
Low	-10.00	-10.00	-150.0	-5.000	-10.00	-10.00	-15.00

Elem	Sn_189	Ti_334	Tl_190	U_3859	V_2924	Zn_213	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	17.82	2750.	-2.371	-33.29	104.4	4176.	1531.
SDev	3.29	29.	5.303	20.29	.7	23.	24.
%RSD	18.47	1.040	223.6	60.94	.7086	.5466	1.555
#1	18.63	2717.	-4.255	-10.03	104.9	4151.	1505.
#2	14.20	2765.	3.617	-42.51	104.9	4195.	1536.
#3	20.62	2768.	-6.476	-47.34	103.6	4182.	1552.
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass

High	50000.	10000.	50000.	50000.	50000.	5000.	50000.
Low	-10.00	-5.000	-20.00	-50.00	-5.000	-10.00	-150.0
Elem	Si_288	Si02_	Sr_421	Pb1st	Pb2nd	Se1st	Se2nd
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	8677.	18560.	101.8	2132.	2024.	-7.547	17.46
SDev	57.	122.	.8	6.	32.	9.904	2.57
%RSD	.6548	.6548	.8337	.2777	1.604	131.2	14.73
#1	8613.	18420.	100.9	2128.	1986.	-14.48	18.54
#2	8719.	18650.	102.3	2139.	2043.	3.795	14.53
#3	8700.	18610.	102.3	2130.	2041.	-11.95	19.32
Errors	LC Pass	NOCHECK	LC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK
High	50000.		10000.				
Low	-100.0		-5.000				

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	15336	--	--	--	--	--	--
SDev	291.6413	--	--	--	--	--	--
%RSD	1.901707	--	--	--	--	--	--
#1	15664	--	--	--	--	--	--
#2	15236	--	--	--	--	--	--
#3	15107	--	--	--	--	--	--

Analysis Report 05/11/05 10:44:16 AM

Method: TRACE2 Sample Name: 135806006 Operator: HSC
Run Time: 05/11/05 10:38:25
Comment: 423071||6010 SRR
Mode: CONC Corr. Factor: 1

Elem	Ag_328	Al_308	As_189	B_2496	Ba_493	Be_313	Ca_317
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	.4147	74370.	16.24	19.11	381.5	5.287	9512.
SDev	.8808	269.	1.28	4.56	3.3	.027	56.
%RSD	212.4	.3614	7.891	23.85	.8635	.5175	.5901
#1	-.5808	74070.	16.03	23.90	377.8	5.273	9450.
#2	.7320	74590.	17.61	18.59	382.6	5.269	9524.
#3	1.093	74450.	15.07	14.83	384.0	5.318	9560.
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2000.	500000.	50000.	50000.	15000.	10000.	500000.
Low	-5.000	-200.0	-15.00	-50.00	-5.000	-5.000	-100.0

Elem	Cd_226	Co_228	Cr_267	Cu_324	Fe_	K_7664	Mg_279
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	25.21	12.83	96.97	105.2	79010.	7949.	8556.
SDev	.54	.08	1.02	1.6	378.	39.	48.
%RSD	2.125	.6177	1.056	1.510	.4779	.4852	.5591
#1	24.59	12.75	95.94	107.0	79250.	7935.	8501.
#2	25.48	12.91	96.98	104.5	78570.	7919.	8588.
#3	25.56	12.84	97.98	104.0	79210.	7992.	8579.
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	25000.	50000.	50000.	25000.	500000.	30000.	500000.
Low	-5.000	-5.000	-5.000	-10.00	-100.0	-150.0	-300.0

Elem	Mn_257	Mo_202	Na_	Ni_231	Sb_206	Pb_220	Se_196
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	1281.	11.68	1540.	71.54	24.76	1301.	11.78
SDev	12.	.39	13.	.47	2.94	10.	1.97
%RSD	.9626	3.305	.8392	.6521	11.88	.7628	16.75
#1	1267.	12.02	1555.	71.27	27.81	1309.	10.13
#2	1285.	11.26	1533.	72.08	21.95	1290.	11.25
#3	1291.	11.76	1532.	71.27	24.52	1305.	13.97
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10000.	50000.	200000.	50000.	50000.	50000.	50000.
Low	-10.00	-10.00	-150.0	-5.000	-10.00	-10.00	-15.00

Elem	Sn_189	Ti_334	Tl_190	U_3859	V_2924	Zn_213	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	10.96	1942.	1.008	-37.18	75.30	1811.	705.9
SDev	1.57	9.	2.508	18.73	.87	8.	7.0
%RSD	14.35	.4441	248.8	50.38	1.149	.4571	.9919
#1	10.89	1937.	.1387	-16.03	74.32	1803.	712.2
#2	12.57	1938.	-.9498	L-51.66	75.97	1811.	707.1
#3	9.426	1952.	3.835	-43.85	75.60	1820.	698.3
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass

High	50000.	10000.	50000.	50000.	50000.	5000.	50000.
Low	-10.00	-5.000	-20.00	-50.00	-5.000	-10.00	-150.0
Elem	Si_288	Si02_	Sr_421	Pb1st	Pb2nd	Se1st	Se2nd
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	6259.	13390.	74.68	1358.	1273.	-8.907	22.11
SDev	18.	39.	.63	14.	10.	8.877	3.12
%RSD	.2881	.2881	.8456	1.049	.8087	99.66	14.10
#1	6267.	13400.	74.01	1359.	1284.	-9.224	19.80
#2	6239.	13340.	74.78	1343.	1263.	-17.62	25.66
#3	6272.	13420.	75.26	1372.	1272.	.1235	20.88
Errors	LC Pass	NOCHECK	LC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK
High	50000.		10000.				
Low	-100.0		-5.000				
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	14607	--	--	--	--	--	--
SDev	366.5510	--	--	--	--	--	--
%RSD	2.509389	--	--	--	--	--	--
#1	14949	--	--	--	--	--	--
#2	14653	--	--	--	--	--	--
#3	14220	--	--	--	--	--	--

Method: TRACE2 Sample Name: 135806007 Operator: HSC
Run Time: 05/11/05 10:44:19
Comment: 423071||6010 SRR
Mode: CONC Corr. Factor: 1

Elem	Ag_328	Al_308	As_189	B_2496	Ba_493	Be_313	Ca_317
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	-.0733	67980.	12.79	23.47	482.7	4.105	8683.
SDev	.3630	546.	1.99	1.34	2.1	.054	43.
%RSD	495.2	.8026	15.59	5.703	.4405	1.321	.4925
#1	.3162	68570.	11.24	24.76	485.1	4.168	8729.
#2	-.4022	67490.	12.09	22.08	481.1	4.073	8644.
#3	-.1339	67880.	15.04	23.56	481.8	4.074	8678.
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2000.	500000.	50000.	50000.	15000.	10000.	500000.
Low	-5.000	-200.0	-15.00	-50.00	-5.000	-5.000	-100.0

Elem	Cd_226	Co_228	Cr_267	Cu_324	Fe_	K_7664	Mg_279
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	10.57	14.06	136.3	92.80	89520.	8823.	9783.
SDev	.85	1.09	.9	1.11	352.	22.	44.
%RSD	8.065	7.748	.6279	1.198	.3934	.2526	.4524
#1	11.45	15.01	136.4	94.08	89670.	8821.	9826.
#2	9.752	12.87	135.4	92.07	89110.	8801.	9737.
#3	10.51	14.30	137.1	92.24	89770.	8846.	9786.
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	25000.	50000.	50000.	25000.	500000.	30000.	500000.
Low	-5.000	-5.000	-5.000	-10.00	-100.0	-150.0	-300.0

Elem	Mn_257	Mo_202	Na_	Ni_231	Sb_206	Pb_220	Se_196
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	1525.	19.91	1093.	76.16	10.27	1307.	6.840
SDev	8.	1.67	15.	.91	7.88	8.	7.705
%RSD	.5405	8.376	1.357	1.197	76.76	.6479	112.6
#1	1533.	21.05	1110.	75.19	18.44	1315.	-2.051
#2	1517.	17.99	1087.	77.00	9.658	1299.	11.00
#3	1526.	20.68	1082.	76.28	2.710	1308.	11.57
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10000.	50000.	200000.	50000.	50000.	50000.	50000.
Low	-10.00	-10.00	-150.0	-5.000	-10.00	-10.00	-15.00

Elem	Sn_189	Ti_334	Tl_190	U_3859	V_2924	Zn_213	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	11.11	1997.	-4.063	-33.10	82.78	1081.	736.4
SDev	.84	8.	2.619	8.72	1.16	7.	1.6
%RSD	7.576	.4233	64.45	26.34	1.397	.6406	.2232
#1	11.51	2004.	-6.755	-38.03	83.12	1088.	735.2
#2	10.14	1987.	-1.525	-38.24	81.49	1075.	738.3
#3	11.67	2000.	-3.910	-23.03	83.72	1080.	735.9
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass

High	50000.	10000.	50000.	50000.	50000.	5000.	50000.
Low	-10.00	-5.000	-20.00	-50.00	-5.000	-10.00	-150.0
Elem	Si_288	Si02_	Sr_421	Pb1st	Pb2nd	Se1st	Se2nd
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	5470.	11700.	73.83	1362.	1280.	-11.57	16.03
SDev	59.	125.	.33	10.	9.	4.70	13.46
%RSD	1.070	1.070	.4514	.7488	.6830	40.65	83.94
#1	5531.	11830.	74.19	1367.	1290.	-7.229	.5343
#2	5415.	11580.	73.54	1350.	1273.	-16.57	24.77
#3	5463.	11690.	73.77	1369.	1278.	-10.92	22.79
Errors	LC Pass	NOCHECK	LC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK
High	50000.		10000.				
Low	-100.0		-5.000				
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	14470	--	--	--	--	--	--
SDev	272.4718	--	--	--	--	--	--
%RSD	1.883019	--	--	--	--	--	--
#1	14753	--	--	--	--	--	--
#2	14448	--	--	--	--	--	--
#3	14209	--	--	--	--	--	--

Analysis Report QC Standard 05/11/05 10:56:05 AM page 1

Method: TRACE2 Sample Name: CCV1 Operator: HSC
Run Time: 05/11/05 10:50:13
Comment: 423071||6010 SRR
Mode: CONC Corr. Factor: 1

Elem	Ag_328	Al_308	As_189	B_2496	Ba_493	Be_313	Ca_317
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	485.6	5030.	479.3	487.5	475.7	486.3	4896.
SDev	2.5	12.	6.4	8.5	1.6	1.9	5.
%RSD	.5066	.2437	1.339	1.740	.3388	.3984	.1040
#1	487.4	5044.	486.7	477.8	474.1	487.7	4896.
#2	482.8	5022.	475.9	491.0	477.3	484.1	4891.
#3	486.6	5023.	475.3	493.6	475.7	487.1	4901.
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	500.0	5000.	500.0	500.0	500.0	500.0	5000.
Range	10.00	10.00	10.00	10.00	10.00	10.00	10.00

Elem	Cd_226	Co_228	Cr_267	Cu_324	Fe_	K_7664	Mg_279
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	488.3	488.9	496.9	484.7	5179.	5016.	5040.
SDev	.7	2.3	1.8	1.4	65.	25.	22.
%RSD	.1449	.4656	.3560	.2894	1.259	.4904	.4272
#1	488.6	491.4	498.1	484.0	5107.	5040.	5029.
#2	487.4	487.0	494.8	483.7	5235.	4991.	5026.
#3	488.8	488.2	497.7	486.3	5194.	5018.	5065.
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	500.0	500.0	500.0	500.0	5000.	5000.	5000.
Range	10.00	10.00	10.00	10.00	10.00	10.00	10.00

Elem	Mn_257	Mo_202	Na_	Ni_231	Sb_206	Pb_220	Se_196
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	502.0	481.5	9844.	485.8	490.4	494.4	495.4
SDev	2.9	3.3	58.	6.5	3.3	2.7	2.4
%RSD	.5865	.6881	.5878	1.344	.6750	.5446	.4824
#1	498.6	478.7	9911.	479.2	486.6	497.5	492.8
#2	504.0	485.2	9808.	485.8	492.6	492.4	497.6
#3	503.3	480.6	9814.	492.3	491.9	493.3	495.7
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	500.0	500.0	10000.	500.0	500.0	500.0	500.0
Range	10.00	10.00	10.00	10.00	10.00	10.00	10.00

Elem	Sn_189	Ti_334	Tl_190	U_3859	V_2924	Zn_213	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	491.9	486.0	474.8	540.5	495.0	483.0	2417.
SDev	6.7	1.6	5.0	13.5	1.1	1.6	23.
%RSD	1.353	.3322	1.057	2.490	.2264	.3284	.9550
#1	497.6	487.6	473.4	Q555.0	494.7	481.4	2442.
#2	484.5	484.4	480.4	528.3	494.1	484.6	2409.
#3	493.5	485.8	470.6	538.4	496.2	483.1	2398.
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass

Value	500.0	500.0	500.0	500.0	500.0	500.0	2500.
Range	10.00	10.00	10.00	10.00	10.00	10.00	10.00
Elem	Si_288	Si02_	Sr_421	Pb1st	Pb2nd	Se1st	Se2nd
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	2482.	5310.	479.0	506.5	488.3	498.7	493.7
SDev	8.	18.	1.5	4.4	4.1	2.9	3.3
%RSD	.3310	.3310	.3138	.8667	.8370	.5911	.6603
#1	2489.	5324.	477.4	506.9	492.7	498.7	489.9
#2	2473.	5290.	480.4	501.9	487.7	501.7	495.5
#3	2485.	5315.	479.1	510.7	484.6	495.8	495.6
Errors	QC Pass	NOCHECK	QC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK
Value	2500.		500.0				
Range	10.00		10.00				
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	15657	--	--	--	--	--	--
SDev	168.5080	--	--	--	--	--	--
%RSD	1.076252	--	--	--	--	--	--
#1	15463	--	--	--	--	--	--
#2	15771	--	--	--	--	--	--
#3	15736	--	--	--	--	--	--

Analysis Report QC Standard 05/11/05 11:02:00 AM

Method: TRACE2 Sample Name: CCB1 Operator: HSC
Run Time: 05/11/05 10:56:09
Comment: 423071||6010 SRR
Mode: CONC Corr. Factor: 1

Elem	Ag_328	Al_308	As_189	B_2496	Ba_493	Be_313	Ca_317
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	1.112	14.35	-.0963	1.851	.4852	.3115	6.825
SDev	.574	10.26	2.3221	.550	.1392	.1085	1.325
%RSD	51.59	71.51	2412.	29.70	28.68	34.82	19.42
#1	1.501	16.65	-2.751	1.530	.5865	.4221	8.004
#2	.4531	3.132	.9051	2.486	.3265	.3073	5.390
#3	1.381	23.26	1.557	1.538	.5425	.2052	7.080
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.0000	.0000	.0000	.0000	.0000	.0000	.0000
Range	5.000	200.0	15.00	50.00	5.000	5.000	100.0

Elem	Cd_226	Co_228	Cr_267	Cu_324	Fe_	K_7664	Mg_279
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	.3903	.2179	.8069	-.4468	15.69	-9.570	10.92
SDev	.4275	.5330	.2383	.8153	2.12	9.228	4.91
%RSD	109.5	244.5	29.53	182.5	13.53	96.43	44.93
#1	.3676	.0790	.7117	.4366	18.04	-1.013	8.102
#2	-.0255	.8066	1.078	-.6068	15.11	-8.348	8.074
#3	.8287	-.2318	.6310	-1.170	13.91	-19.35	16.59
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.0000	.0000	.0000	.0000	.0000	.0000	.0000
Range	5.000	5.000	5.000	10.00	100.0	150.0	300.0

Elem	Mn_257	Mo_202	Na_	Ni_231	Sb_206	Pb_220	Se_196
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	.5715	.4169	49.08	-1.352	-4.387	2.462	.9734
SDev	.1024	1.813	9.04	.339	8.184	4.003	1.812
%RSD	17.92	435.0	18.43	25.04	186.5	162.6	186.1
#1	.6323	2.440	54.53	-1.397	.5664	-1.120	2.933
#2	.6289	-1.063	54.07	-1.666	.1054	1.724	.6275
#3	.4532	-.1256	38.64	-.9932	Q-13.83	6.783	-.6403
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.0000	.0000	.0000	.0000	.0000	.0000	.0000
Range	10.00	10.00	150.0	5.000	10.00	10.00	15.00

Elem	Sn_189	Ti_334	Tl_190	U_3859	V_2924	Zn_213	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	2.319	.8170	-1.539	-29.62	.3653	-3.807	-5.583
SDev	1.046	.2117	3.362	21.28	1.270	.254	8.066
%RSD	45.13	25.91	218.5	71.84	347.8	6.660	144.5
#1	1.975	.9490	-.3131	-14.43	-.3698	-3.663	-5.040
#2	3.494	.5728	1.038	-20.49	-.3666	-4.099	-13.91
#3	1.488	.9292	-5.341	Q-53.94	1.832	-3.658	2.198
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass

Value	.0000	.0000	.0000	.0000	.0000	.0000	.0000
Range	10.00	5.000	20.00	50.00	5.000	10.00	150.0
Elem	Si_288	Si02_	Sr_421	Pb1st	Pb2nd	Se1st	Se2nd
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	-10.21	-21.84	.4486	-4.397	5.886	-9.831	6.367
SDev	8.25	17.65	.0802	2.947	7.473	6.024	2.119
%RSD	80.80	80.80	17.88	67.03	126.9	61.27	33.28
#1	-.6852	-1.466	.5408	-1.793	-.7845	-6.735	7.760
#2	-14.87	-31.81	.3957	-3.801	4.482	-5.984	3.928
#3	-15.07	-32.24	.4092	-7.596	13.96	-16.77	7.414
Errors	QC Pass	NOCHECK	QC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK
Value	.0000		.0000				
Range	100.0		5.000				
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	15660	--	--	--	--	--	--
SDev	106.5257	--	--	--	--	--	--
%RSD	.6802310	--	--	--	--	--	--
#1	15627	--	--	--	--	--	--
#2	15780	--	--	--	--	--	--
#3	15575	--	--	--	--	--	--

nalysis Report

Operator: HSC

lethod: TRACE2 Sample Name: 135806008
un Time: 05/11/05 11:02:03
omment: 423071||6010 SRR
lode: CONC Corr. Factor: 1

Elem	Ag_328	Al_308	As_189	B_2496	Ba_493	Be_313	Ca_317
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	.5459	104300.	9.967	23.73	681.1	6.626	11410.
SDev	.9581	51.	2.274	3.11	2.1	.036	11.
%RSD	175.5	.0493	22.81	13.11	.3087	.5427	.0988
#1	-.1053	104400.	12.44	25.90	678.7	6.667	11420.
#2	.0970	104300.	7.974	20.17	681.6	6.614	11420.
#3	1.646	104300.	9.484	25.13	682.8	6.598	11400.
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2000.	500000.	50000.	50000.	15000.	10000.	500000.
Low	-5.000	-200.0	-15.00	-50.00	-5.000	-5.000	-100.0

Elem	Cd_226	Co_228	Cr_267	Cu_324	Fe_	K_7664	Mg_279
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	2.581	11.21	45.82	41.09	61560.	10250.	11050.
SDev	.601	.58	.73	.87	447.	22.	16.
%RSD	23.30	5.196	1.585	2.109	.7267	.2161	.1413
#1	3.275	11.39	46.10	41.34	62070.	10280.	11070.
#2	2.222	11.68	46.36	41.81	61220.	10230.	11040.
#3	2.245	10.56	44.99	40.13	61410.	10250.	11060.
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	25000.	50000.	50000.	25000.	500000.	30000.	500000.
Low	-5.000	-5.000	-5.000	-10.00	-100.0	-150.0	-300.0

Elem	Mn_257	Mo_202	Na_	Ni_231	Sb_206	Pb_220	Se_196
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	1311.	3.073	2142.	57.56	-3.518	322.9	11.15
SDev	2.	1.129	17.	1.41	6.263	8.7	4.80
%RSD	.1826	36.75	.7821	2.451	178.0	2.700	43.10
#1	1309.	3.680	2161.	57.58	3.556	330.0	14.66
#2	1314.	3.769	2129.	58.96	-5.752	325.5	5.671
#3	1311.	1.770	2137.	56.14	-8.357	313.2	13.12
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10000.	50000.	200000.	50000.	50000.	50000.	50000.
Low	-10.00	-10.00	-150.0	-5.000	-10.00	-10.00	-15.00

Elem	Sn_189	Ti_334	Tl_190	U_3859	V_2924	Zn_213	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	10.27	1811.	.0020	-36.91	76.40	487.9	437.6
SDev	2.40	5.	.8547	27.73	.93	.4	6.6
%RSD	23.37	.2652	42670.	75.13	1.213	.0731	1.498
#1	12.95	1816.	.5961	-6.339	75.34	488.0	445.1
#2	8.322	1806.	-.9775	-43.94	76.81	487.6	434.3
#3	9.532	1811.	.3874	L-60.45	77.05	488.3	433.3
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass

High	50000.	10000.	50000.	50000.	50000.	5000.	50000.
Low	-10.00	-5.000	-20.00	-50.00	-5.000	-10.00	-150.0
Elem	Si_288	Si02_	Sr_421	Pb1st	Pb2nd	Se1st	Se2nd
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	8418.	18010.	108.6	382.6	293.1	-9.852	21.63
SDev	68.	145.	.1	7.0	9.6	10.989	5.56
%RSD	.8076	.8076	.0999	1.829	3.268	111.5	25.71
#1	8496.	18170.	108.6	388.1	300.9	2.835	20.56
#2	8373.	17910.	108.5	385.1	295.8	-16.39	16.69
#3	8385.	17930.	108.8	374.8	282.4	-16.00	27.65
Errors	LC Pass	NOCHECK	LC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK
High	50000.		10000.				
Low	-100.0		-5.000				

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	14733	--	--	--	--	--	--
SDev	230.9743	--	--	--	--	--	--
%RSD	1.567745	--	--	--	--	--	--
#1	14991	--	--	--	--	--	--
#2	14661	--	--	--	--	--	--
#3	14546	--	--	--	--	--	--

nalysis Report

Operator: HSC

ethod: TRACE2 Sample Name: 135806009
un Time: 05/11/05 11:07:57
omment: 423071||6010 SRR
ode: CONC Corr. Factor: 1

Elem	Ag_328	Al_308	As_189	B_2496	Ba_493	Be_313	Ca_317
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	-.2586	112700.	11.37	22.52	605.7	7.553	22850.
SDev	.5034	281.	2.99	1.26	1.7	.009	48.
%RSD	194.7	.2490	26.27	5.578	.2869	.1215	.2101
#1	-.7666	113000.	7.945	22.10	607.7	7.558	22810.
#2	.2401	112500.	12.73	21.53	605.3	7.557	22840.
#3	-.2491	112600.	13.44	23.93	604.3	7.542	22910.
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2000.	500000.	50000.	50000.	15000.	10000.	500000.
Low	-5.000	-200.0	-15.00	-50.00	-5.000	-5.000	-100.0

Elem	Cd_226	Co_228	Cr_267	Cu_324	Fe_	K_7664	Mg_279
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	3.118	15.21	55.03	47.68	69580.	12050.	11220.
SDev	.325	.43	.37	.62	413.	60.	56.
%RSD	10.44	2.822	.6664	1.305	.5939	.5008	.4954
#1	3.451	14.72	54.71	48.38	69140.	11980.	11190.
#2	2.801	15.47	54.95	47.17	69640.	12080.	11180.
#3	3.103	15.45	55.43	47.49	69960.	12090.	11280.
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	25000.	50000.	50000.	25000.	500000.	30000.	500000.
Low	-5.000	-5.000	-5.000	-10.00	-100.0	-150.0	-300.0

Elem	Mn_257	Mo_202	Na_	Ni_231	Sb_206	Pb_220	Se_196
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	1999.	7.122	3050.	60.20	-2.587	372.7	12.01
SDev	5.	1.923	8.	1.46	3.626	5.4	1.09
%RSD	.2667	26.99	.2499	2.429	140.2	1.452	9.087
#1	2005.	4.906	3052.	61.82	1.570	377.9	12.87
#2	1996.	8.349	3042.	59.81	-4.236	373.1	12.37
#3	1997.	8.111	3056.	58.98	-5.097	367.1	10.78
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10000.	50000.	200000.	50000.	50000.	50000.	50000.
Low	-10.00	-10.00	-150.0	-5.000	-10.00	-10.00	-15.00

Elem	Sn_189	Ti_334	Tl_190	U_3859	V_2924	Zn_213	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	8.061	1880.	.6893	L-60.18	82.61	512.2	392.4
SDev	2.579	6.	2.317	11.00	.61	1.3	7.8
%RSD	31.99	.3317	336.1	18.28	.7329	.2589	1.989
#1	10.70	1874.	3.253	-49.29	81.92	513.7	384.1
#2	5.551	1879.	.0700	L-71.28	83.06	511.8	399.6
#3	7.928	1887.	-1.255	L-59.96	82.85	511.1	393.6
Errors	LC Pass	LC Pass	LC Pass	LC Low	LC Pass	LC Pass	LC Pass

High	50000.	10000.	50000.	50000.	50000.	5000.	50000.
Low	-10.00	-5.000	-20.00	-50.00	-5.000	-10.00	-150.0
Elem	Si_288	Si02_	Sr_421	Pb1st	Pb2nd	Se1st	Se2nd
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	5940.	12710.	148.6	439.3	339.4	-12.92	24.45
SDev	20.	43.	.2	7.7	8.9	5.08	3.91
%RSD	.3397	.3397	.1644	1.756	2.618	39.31	15.99
#1	5942.	12710.	148.8	434.5	349.6	-13.07	25.82
#2	5919.	12660.	148.7	448.2	335.6	-17.93	27.50
#3	5960.	12750.	148.3	435.1	333.1	-7.772	20.05
Errors	LC Pass	NOCHECK	LC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK
High	50000.		10000.				
Low	-100.0		-5.000				
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	14729	--	--	--	--	--	--
SDev	338.5279	--	--	--	--	--	--
%RSD	2.298392	--	--	--	--	--	--
#1	15109	--	--	--	--	--	--
#2	14460	--	--	--	--	--	--
#3	14618	--	--	--	--	--	--

Method: TRACE2 Sample Name: 135806010 Operator: HSC
Run Time: 05/11/05 11:13:51
Comment: 423071||6010 SRR
Mode: CONC Corr. Factor: 1

Elem	Ag_328	Al_308	As_189	B_2496	Ba_493	Be_313	Ca_317
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	-.0011	113400.	15.09	23.93	605.3	9.885	11570.
SDev	.2906	408.	5.88	4.46	2.5	.070	28.
%RSD	26500.	.3596	38.97	18.66	.4072	.7081	.2432
#1	.3133	113400.	21.13	28.11	602.4	9.899	11560.
#2	-.0567	113700.	9.379	24.47	606.7	9.947	11610.
#3	-.2599	112900.	14.77	19.23	606.6	9.809	11560.
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2000.	500000.	50000.	50000.	15000.	10000.	500000.
Low	-5.000	-200.0	-15.00	-50.00	-5.000	-5.000	-100.0

Elem	Cd_226	Co_228	Cr_267	Cu_324	Fe_	K_7664	Mg_279
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	.2575	10.58	38.99	31.12	52490.	11530.	9745.
SDev	.5505	.48	.88	.89	600.	90.	19.
%RSD	213.8	4.525	2.269	2.844	1.143	.7784	.1965
#1	-.1731	11.08	39.62	31.61	52740.	11500.	9740.
#2	.8778	10.56	39.37	31.66	52920.	11630.	9766.
#3	.0679	10.12	37.98	30.10	51800.	11460.	9728.
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	25000.	50000.	50000.	25000.	500000.	30000.	500000.
Low	-5.000	-5.000	-5.000	-10.00	-100.0	-150.0	-300.0

Elem	Mn_257	Mo_202	Na_	Ni_231	Sb_206	Pb_220	Se_196
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	1236.	1.443	2218.	63.85	-2.486	68.66	5.225
SDev	.	2.139	18.	.63	3.310	1.66	3.683
%RSD	.0093	148.2	.8035	.9877	133.2	2.419	70.48
#1	1236.	3.700	2228.	64.50	-.5960	66.96	1.336
#2	1236.	-.5559	2229.	63.24	-.5535	70.28	5.680
#3	1236.	1.186	2198.	63.79	-6.308	68.73	8.659
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10000.	50000.	200000.	50000.	50000.	50000.	50000.
Low	-10.00	-10.00	-150.0	-5.000	-10.00	-10.00	-15.00

Elem	Sn_189	Ti_334	Tl_190	U_3859	V_2924	Zn_213	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	6.160	1656.	3.232	L-50.88	74.14	158.8	323.7
SDev	1.133	9.	2.352	12.91	.67	.4	12.2
%RSD	18.40	.5644	72.77	25.38	.9012	.2635	3.758
#1	6.477	1657.	.5556	-46.29	73.61	158.6	315.3
#2	7.100	1665.	4.969	L-65.46	74.89	158.6	337.6
#3	4.902	1647.	4.172	-40.88	73.91	159.3	318.1
Errors	LC Pass	LC Pass	LC Pass	LC Low	LC Pass	LC Pass	LC Pass

High	50000.	10000.	50000.	50000.	50000.	5000.	50000.
Low	-10.00	-5.000	-20.00	-50.00	-5.000	-10.00	-150.0
Elem	Si_288	Si02_	Sr_421	Pb1st	Pb2nd	Se1st	Se2nd
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	12270.	26250.	113.8	126.4	39.84	-20.87	18.25
SDev	91.	195.	.3	4.0	3.45	1.37	5.86
%RSD	.7427	.7427	.2912	3.186	8.671	6.583	32.10
#1	12340.	26400.	113.4	124.9	38.01	-19.65	11.81
#2	12300.	26310.	113.9	123.2	43.83	-22.36	19.68
#3	12170.	26030.	114.0	130.9	37.69	-20.61	23.27
Errors	LC Pass	NOCHECK	LC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK
High	50000.		10000.				
Low	-100.0		-5.000				

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	14603	--	--	--	--	--	--
SDev	302.5247	--	--	--	--	--	--
%RSD	2.071596	--	--	--	--	--	--
#1	14918	--	--	--	--	--	--
#2	14315	--	--	--	--	--	--
#3	14578	--	--	--	--	--	--

Analysis Report 05/11/05 11:25:35 AM

Method: TRACE2 Sample Name: 135806011 Operator: HSC
Run Time: 05/11/05 11:19:44
Comment: 423071||6010 SRR
Mode: CONC Corr. Factor: 1

Elem	Ag_328	Al_308	As_189	B_2496	Ba_493	Be_313	Ca_317
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	.3211	114500.	15.58	27.98	2404.	8.909	40690.
SDev	.6998	3020.	3.94	4.89	55.	.245	1019.
%RSD	217.9	2.637	25.26	17.48	2.301	2.746	2.504
#1	-.3727	112700.	11.80	28.54	2374.	8.773	40140.
#2	.3095	112800.	19.66	22.84	2370.	8.763	40060.
#3	1.027	118000.	15.29	32.57	2468.	9.191	41860.
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2000.	500000.	50000.	50000.	15000.	10000.	500000.
Low	-5.000	-200.0	-15.00	-50.00	-5.000	-5.000	-100.0

Elem	Cd_226	Co_228	Cr_267	Cu_324	Fe_	K_7664	Mg_279
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	4.719	15.26	53.28	62.36	67650.	13030.	11690.
SDev	.157	.57	1.72	2.30	2102.	363.	273.
%RSD	3.333	3.706	3.231	3.688	3.107	2.785	2.336
#1	4.882	14.60	51.78	62.36	66310.	12780.	11580.
#2	4.707	15.59	52.91	60.06	66560.	12860.	11490.
#3	4.568	15.58	55.16	64.66	70070.	13450.	12000.
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	25000.	50000.	50000.	25000.	500000.	30000.	500000.
Low	-5.000	-5.000	-5.000	-10.00	-100.0	-150.0	-300.0

Elem	Mn_257	Mo_202	Na_	Ni_231	Sb_206	Pb_220	Se_196
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	1557.	5.615	2826.	63.87	.2209	302.6	10.23
SDev	34.	.821	80.	.78	2.435	5.4	5.80
%RSD	2.163	14.61	2.839	1.220	1102.	1.789	56.65
#1	1543.	6.226	2781.	63.63	-2.505	300.7	13.07
#2	1532.	5.937	2779.	63.24	2.181	298.4	3.564
#3	1595.	4.683	2919.	64.74	.9874	308.7	14.07
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10000.	50000.	200000.	50000.	50000.	50000.	50000.
Low	-10.00	-10.00	-150.0	-5.000	-10.00	-10.00	-15.00

Elem	Sn_189	Ti_334	Tl_190	U_3859	V_2924	Zn_213	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	10.05	2048.	-4.279	L-51.44	92.98	477.2	592.3
SDev	4.74	56.	1.828	17.30	1.49	11.4	25.1
%RSD	47.16	2.747	42.71	33.63	1.608	2.390	4.244
#1	4.582	2013.	-2.429	-33.58	91.32	473.1	577.6
#2	12.97	2019.	-6.084	L-52.64	93.42	468.5	578.0
#3	12.60	2113.	-4.324	L-68.12	94.21	490.1	621.3
Errors	LC Pass	LC Pass	LC Pass	LC Low	LC Pass	LC Pass	LC Pass

High	50000.	10000.	50000.	50000.	50000.	5000.	50000.
Low	-10.00	-5.000	-20.00	-50.00	-5.000	-10.00	-150.0
Elem	Si_288	Si02_	Sr_421	Pb1st	Pb2nd	Se1st	Se2nd
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	11880.	25420.	308.8	364.0	272.0	-5.261	17.97
SDev	316.	675.	7.4	9.3	3.5	17.456	1.69
%RSD	2.656	2.656	2.408	2.553	1.279	331.8	9.393
#1	11710.	25050.	305.1	360.5	270.9	6.644	16.28
#2	11690.	25010.	304.0	356.9	269.2	-25.30	17.97
#3	12250.	26200.	317.4	374.5	275.9	2.873	19.65
Errors	LC Pass	NOCHECK	LC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK
High	50000.		10000.				
Low	-100.0		-5.000				

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	14562	--	--	--	--	--	--
SDev	443.5047	--	--	--	--	--	--
%RSD	3.045606	--	--	--	--	--	--
#1	14962	--	--	--	--	--	--
#2	14639	--	--	--	--	--	--
#3	14085	--	--	--	--	--	--

Analysis Report 05/11/05 11:31:29 AM

Method: TRACE2 Sample Name: 135806012 Operator: HSC
Run Time: 05/11/05 11:25:38
Comment: 423071||6010 SRR
Mode: CONC Corr. Factor: 1

Elem	Ag_328	Al_308	As_189	B_2496	Ba_493	Be_313	Ca_317
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	.0424	119600.	14.59	27.66	731.1	8.573	16310.
SDev	.6607	121.	.39	2.93	1.1	.063	10.
%RSD	1560.	.1007	2.694	10.61	.1470	.7362	.0599
#1	-.7111	119500.	14.21	24.28	730.1	8.595	16300.
#2	.5225	119700.	15.00	29.55	731.0	8.623	16320.
#3	.3157	119800.	14.55	29.14	732.2	8.502	16310.
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2000.	500000.	50000.	50000.	15000.	10000.	500000.
Low	-5.000	-200.0	-15.00	-50.00	-5.000	-5.000	-100.0

Elem	Cd_226	Co_228	Cr_267	Cu_324	Fe_	K_7664	Mg_279
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	1.230	17.32	44.33	42.02	61140.	13090.	11510.
SDev	.419	.30	1.05	1.21	675.	84.	5.
%RSD	34.07	1.754	2.358	2.888	1.104	.6436	.0414
#1	1.236	17.44	44.81	43.36	61240.	13080.	11510.
#2	1.646	17.55	43.13	41.71	61760.	13180.	11510.
#3	.8081	16.98	45.05	41.00	60420.	13010.	11520.
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	25000.	50000.	50000.	25000.	500000.	30000.	500000.
Low	-5.000	-5.000	-5.000	-10.00	-100.0	-150.0	-300.0

Elem	Mn_257	Mo_202	Na_	Ni_231	Sb_206	Pb_220	Se_196
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	1848.	3.280	2930.	60.16	-.3364	144.0	8.758
SDev	10.	1.098	17.	1.50	5.8249	3.2	4.749
%RSD	.5494	33.48	.5729	2.499	1732.	2.189	54.22
#1	1839.	2.687	2934.	61.61	5.014	142.8	11.09
#2	1847.	2.606	2945.	60.28	.5188	147.6	3.295
#3	1859.	4.548	2912.	58.61	-6.542	141.6	11.89
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10000.	50000.	200000.	50000.	50000.	50000.	50000.
Low	-10.00	-10.00	-150.0	-5.000	-10.00	-10.00	-15.00

Elem	Sn_189	Ti_334	Tl_190	U_3859	V_2924	Zn_213	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	9.989	1963.	4.127	L-51.55	88.83	252.7	540.9
SDev	3.029	9.	4.696	18.32	.78	.5	7.1
%RSD	30.32	.4559	113.8	35.54	.8755	.1938	1.308
#1	11.64	1961.	9.428	-32.11	88.57	252.1	534.7
#2	11.84	1972.	2.463	L-68.48	88.22	252.9	548.6
#3	6.494	1955.	.4898	L-54.05	89.71	253.0	539.5
Errors	LC Pass	LC Pass	LC Pass	LC Low	LC Pass	LC Pass	LC Pass

High	50000.	10000.	50000.	50000.	50000.	5000.	50000.
Low	-10.00	-5.000	-20.00	-50.00	-5.000	-10.00	-150.0
Elem	Si_288	Si02_	Sr_421	Pb1st	Pb2nd	Se1st	Se2nd
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	7780.	16640.	148.7	205.2	113.4	-14.53	20.39
SDev	36.	77.	.3	.8	4.4	6.70	4.02
%RSD	.4611	.4611	.2252	.3690	3.875	46.10	19.71
#1	7785.	16650.	148.3	205.3	111.6	-9.418	21.33
#2	7813.	16710.	148.8	205.9	118.4	-22.12	15.98
#3	7742.	16560.	149.0	204.4	110.2	-12.06	23.85
Errors	LC Pass	NOCHECK	LC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK
High	50000.		10000.				
Low	-100.0		-5.000				
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	14889	--	--	--	--	--	--
SDev	159.0494	--	--	--	--	--	--
%RSD	1.068213	--	--	--	--	--	--
#1	15032	--	--	--	--	--	--
#2	14718	--	--	--	--	--	--
#3	14919	--	--	--	--	--	--

Analysis Report 05/11/05 11:37:22 AM

Method: TRACE2 Sample Name: 135806013 Operator: HSC
Run Time: 05/11/05 11:31:32
Comment: 423071||6010 SRR
Mode: CONC Corr. Factor: 1

Elem	Ag_328	Al_308	As_189	B_2496	Ba_493	Be_313	Ca_317
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	-.4451	52200.	5.205	11.07	199.0	3.435	5306.
SDev	.4596	165.	1.544	2.05	1.3	.025	15.
%RSD	103.3	.3168	29.66	18.56	.6736	.7289	.2817
#1	-.9699	52110.	6.800	13.42	197.8	3.443	5299.
#2	-.2509	52100.	5.097	9.594	198.9	3.407	5296.
#3	-.1145	52390.	3.718	10.20	200.4	3.456	5323.
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2000.	500000.	50000.	50000.	15000.	10000.	500000.
Low	-5.000	-200.0	-15.00	-50.00	-5.000	-5.000	-100.0

Elem	Cd_226	Co_228	Cr_267	Cu_324	Fe_	K_7664	Mg_279
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	12.40	4.841	19.13	34.31	42420.	5474.	4801.
SDev	.49	1.260	.79	.53	296.	27.	18.
%RSD	3.935	26.02	4.141	1.555	.6967	.4926	.3689
#1	12.96	3.464	18.27	34.92	42290.	5451.	4781.
#2	12.09	5.124	19.29	34.07	42210.	5467.	4814.
#3	12.14	5.936	19.83	33.94	42750.	5504.	4809.
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	25000.	50000.	50000.	25000.	500000.	30000.	500000.
Low	-5.000	-5.000	-5.000	-10.00	-100.0	-150.0	-300.0

Elem	Mn_257	Mo_202	Na_	Ni_231	Sb_206	Pb_220	Se_196
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	855.7	3.533	1193.	32.34	-7.044	38.19	4.655
SDev	3.4	1.224	5.	2.39	2.306	.83	2.581
%RSD	.3963	34.64	.4159	7.404	32.74	2.183	55.45
#1	851.8	4.773	1197.	31.63	-4.417	38.35	2.120
#2	857.9	2.326	1187.	35.01	-7.980	38.93	4.564
#3	857.4	3.501	1193.	30.38	-8.735	37.29	7.280
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10000.	50000.	200000.	50000.	50000.	50000.	50000.
Low	-10.00	-10.00	-150.0	-5.000	-10.00	-10.00	-15.00

Elem	Sn_189	Ti_334	Tl_190	U_3859	V_2924	Zn_213	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	9.263	1743.	-.8074	L-53.74	40.75	352.5	210.7
SDev	.138	10.	4.2613	4.80	.75	.4	6.9
%RSD	1.495	.5913	527.7	8.930	1.839	.1201	3.286
#1	9.109	1736.	-5.698	L-58.21	41.37	352.1	212.2
#2	9.301	1739.	1.167	-48.67	39.92	352.6	216.8
#3	9.378	1755.	2.108	L-54.34	40.96	352.9	203.2
Errors	LC Pass	LC Pass	LC Pass	LC Low	LC Pass	LC Pass	LC Pass

High	50000.	10000.	50000.	50000.	50000.	5000.	50000.
Low	-10.00	-5.000	-20.00	-50.00	-5.000	-10.00	-150.0
Elem	Si_288	Si02_	Sr_421	Pb1st	Pb2nd	Se1st	Se2nd
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	9649.	20640.	53.87	61.17	26.71	-17.11	15.52
SDev	37.	80.	.25	2.76	.62	7.95	6.19
%RSD	.3821	.3855	.4700	4.508	2.338	46.44	39.85
#1	9633.	20600.	53.70	63.06	26.01	-10.52	8.429
#2	9623.	20580.	53.75	62.45	27.19	-25.94	19.79
#3	9691.	20730.	54.16	58.01	26.94	-14.89	18.35
Errors	LC Pass	NOCHECK	LC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK
High	50000.		10000.				
Low	-100.0		-5.000				

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	14786	--	--	--	--	--	--
SDev	269.0753	--	--	--	--	--	--
%RSD	1.819808	--	--	--	--	--	--
#1	15091	--	--	--	--	--	--
#2	14683	--	--	--	--	--	--
#3	14583	--	--	--	--	--	--

Analysis Report 05/11/05 11:43:16 AM page 1

Method: TRACE2 Sample Name: 135806014 Operator: HSC
Run Time: 05/11/05 11:37:25
Comment: 423071||6010 SRR
Mode: CONC Corr. Factor: 1

Elem	Ag_328	Al_308	As_189	B_2496	Ba_493	Be_313	Ca_317
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	-.4113	124700.	16.63	28.60	683.7	9.259	28960.
SDev	.4641	229.	3.04	2.30	3.9	.080	81.
%RSD	112.8	.1841	18.26	8.032	.5714	.8661	.2799
#1	-.7760	124500.	13.31	26.35	680.9	9.211	28870.
#2	.1111	124600.	19.26	30.94	682.1	9.352	29030.
#3	-.5690	124900.	17.30	28.49	688.2	9.214	28980.
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2000.	500000.	50000.	50000.	15000.	10000.	500000.
Low	-5.000	-200.0	-15.00	-50.00	-5.000	-5.000	-100.0

Elem	Cd_226	Co_228	Cr_267	Cu_324	Fe_	K_7664	Mg_279
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	1.988	19.69	54.95	49.64	75230.	13630.	14580.
SDev	.705	.27	1.17	.32	617.	76.	55.
%RSD	35.46	1.389	2.124	.6529	.8195	.5561	.3760
#1	2.165	19.95	55.01	49.33	75010.	13580.	14520.
#2	1.211	19.41	56.08	49.98	75930.	13720.	14590.
#3	2.587	19.70	53.75	49.61	74750.	13590.	14630.
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	25000.	50000.	50000.	25000.	500000.	30000.	500000.
Low	-5.000	-5.000	-5.000	-10.00	-100.0	-150.0	-300.0

Elem	Mn_257	Mo_202	Na_	Ni_231	Sb_206	Pb_220	Se_196
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	2137.	2.806	2899.	76.28	4.298	345.4	7.212
SDev	9.	1.106	16.	.17	2.469	3.5	6.363
%RSD	.4364	39.42	.5519	.2233	57.45	1.018	88.24
#1	2141.	1.846	2887.	76.43	6.038	346.3	13.39
#2	2126.	4.015	2917.	76.32	1.472	348.4	7.559
#3	2144.	2.556	2892.	76.09	5.383	341.5	.6820
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10000.	50000.	200000.	50000.	50000.	50000.	50000.
Low	-10.00	-10.00	-150.0	-5.000	-10.00	-10.00	-15.00

Elem	Sn_189	Ti_334	Tl_190	U_3859	V_2924	Zn_213	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	9.485	2421.	-5.442	L-67.16	100.6	361.5	648.3
SDev	1.569	9.	4.398	14.65	1.0	1.3	11.0
%RSD	16.54	.3743	80.81	21.82	.9880	.3481	1.694
#1	11.09	2415.	-1.241	L-50.69	99.52	360.4	636.1
#2	9.403	2431.	-5.073	L-78.73	101.4	362.9	657.3
#3	7.959	2416.	-10.01	L-72.06	101.0	361.4	651.6
Errors	LC Pass	LC Pass	LC Pass	LC Low	LC Pass	LC Pass	LC Pass

High	50000.	10000.	50000.	50000.	50000.	5000.	50000.
Low	-10.00	-5.000	-20.00	-50.00	-5.000	-10.00	-150.0
Elem	Si_288	Si02_	Sr_421	Pb1st	Pb2nd	Se1st	Se2nd
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	7538.	16120.	174.7	415.5	310.4	-10.34	15.97
SDev	37.	80.	.6	3.7	4.1	6.80	7.60
%RSD	.4938	.4938	.3463	.8830	1.325	65.72	47.54
#1	7529.	16100.	174.1	413.4	312.7	-8.826	24.49
#2	7578.	16210.	174.7	419.8	312.7	-4.430	13.54
#3	7505.	16050.	175.3	413.4	305.6	-17.77	9.892
Errors	LC Pass	NOCHECK	LC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK
High	50000.		10000.				
Low	-100.0		-5.000				

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	14935	--	--	--	--	--	--
SDev	116.5387	--	--	--	--	--	--
%RSD	.7802886	--	--	--	--	--	--
#1	15022	--	--	--	--	--	--
#2	14803	--	--	--	--	--	--
#3	14981	--	--	--	--	--	--

Analysis Report QC Standard 05/11/05 11:49:11 AM

Operator: HSC

Method: TRACE2 Sample Name: CCV1
Run Time: 05/11/05 11:43:20
Comment: 423071||6010 SRR
Mode: CONC Corr. Factor: 1

Elem	Ag_328	Al_308	As_189	B_2496	Ba_493	Be_313	Ca_317
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	485.3	5094.	483.9	486.3	476.6	486.7	4919.
SDev	.7	19.	8.0	5.8	.9	.8	10.
%RSD	.1400	.3648	1.645	1.192	.1990	.1584	.1980
#1	484.6	5092.	488.3	485.2	477.3	486.6	4923.
#2	485.4	5114.	474.7	492.5	477.0	486.1	4926.
#3	486.0	5077.	488.6	481.1	475.5	487.6	4908.
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	500.0	5000.	500.0	500.0	500.0	500.0	5000.
Range	10.00	10.00	10.00	10.00	10.00	10.00	10.00

Elem	Cd_226	Co_228	Cr_267	Cu_324	Fe	K_7664	Mg_279
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	490.2	489.6	497.4	486.9	5169.	5099.	5045.
SDev	2.3	1.0	1.4	.8	45.	9.	23.
%RSD	.4626	.2122	.2827	.1591	.8764	.1859	.4564
#1	487.9	488.6	496.3	487.3	5179.	5110.	5029.
#2	490.3	489.5	499.0	486.0	5209.	5096.	5072.
#3	492.5	490.6	497.0	487.4	5120.	5092.	5035.
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	500.0	500.0	500.0	500.0	5000.	5000.	5000.
Range	10.00	10.00	10.00	10.00	10.00	10.00	10.00

Elem	Mn_257	Mo_202	Na	Ni_231	Sb_206	Pb_220	Se_196
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	502.6	481.9	9960.	489.9	490.1	492.7	485.6
SDev	2.2	1.9	39.	1.4	4.3	3.6	5.8
%RSD	.4468	.3851	.3951	.2904	.8846	.7328	1.199
#1	502.6	481.0	10000.	488.9	495.1	489.6	479.0
#2	504.9	484.0	9926.	489.3	488.0	491.7	488.4
#3	500.4	480.6	9951.	491.5	487.3	496.6	489.6
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	500.0	500.0	10000.	500.0	500.0	500.0	500.0
Range	10.00	10.00	10.00	10.00	10.00	10.00	10.00

Elem	Sn_189	Ti_334	Tl_190	U_3859	V_2924	Zn_213	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	482.3	487.2	482.2	548.6	495.0	482.3	2508.
SDev	1.6	.6	8.4	11.4	3.1	2.0	26.
%RSD	.3308	.1193	1.736	2.073	.6317	.4192	1.017
#1	480.5	487.8	488.6	Q561.7	491.6	480.0	2537.
#2	483.0	486.7	472.7	543.5	497.8	483.4	2489.
#3	483.4	487.1	485.3	540.8	495.7	483.6	2498.
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass

Value	500.0	500.0	500.0	500.0	500.0	500.0	2500.
Range	10.00	10.00	10.00	10.00	10.00	10.00	10.00
Elem	Si_288	Si02_	Sr_421	Pb1st	Pb2nd	Se1st	Se2nd
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	2501.	5349.	480.4	507.2	485.4	502.3	477.4
SDev	9.	18.	.9	2.9	5.4	5.7	11.5
%RSD	.3407	.3407	.1971	.5644	1.117	1.143	2.411
#1	2495.	5337.	480.5	509.1	479.9	508.8	464.1
#2	2510.	5370.	481.4	503.9	485.6	498.0	483.5
#3	2496.	5340.	479.5	508.5	490.7	499.9	484.5
Errors	QC Pass	NOCHECK	QC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK
Value	2500.		500.0				
Range	10.00		10.00				

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	15342	--	--	--	--	--	--
SDev	43.38720	--	--	--	--	--	--
%RSD	.2828009	--	--	--	--	--	--
#1	15386	--	--	--	--	--	--
#2	15299	--	--	--	--	--	--
#3	15341	--	--	--	--	--	--

Analysis Report QC Standard 05/11/05 11:55:06 AM

Operator: HSC

Method: TRACE2 Sample Name: CCB1
Run Time: 05/11/05 11:49:15
Comment: 423071||6010 SRR
Mode: CONC Corr. Factor: 1

Elem	Ag_328	Al_308	As_189	B_2496	Ba_493	Be_313	Ca_317
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	.7394	19.80	-2.671	.9066	.4350	.2934	7.312
SDev	.5680	7.17	3.926	2.773	.2079	.0873	1.514
%RSD	76.82	36.22	147.0	305.9	47.79	29.76	20.70
#1	1.386	26.12	-6.951	1.079	.6750	.3932	8.877
#2	.3184	21.26	-1.825	3.590	.3167	.2565	7.205
#3	.5144	12.01	.7619	-1.949	.3131	.2306	5.855
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.0000	.0000	.0000	.0000	.0000	.0000	.0000
Range	5.000	200.0	15.00	50.00	5.000	5.000	100.0

Elem	Cd_226	Co_228	Cr_267	Cu_324	Fe_	K_7664	Mg_279
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	.2350	-.1289	-.2331	-1.076	12.80	-6.291	8.220
SDev	.2477	.4892	.7733	.636	5.17	5.864	2.851
%RSD	105.4	379.5	331.7	59.09	40.42	93.20	34.68
#1	.4226	.4052	-.1591	-1.282	18.73	-7.087	5.397
#2	-.0458	-.5553	.5005	-1.584	10.43	-11.72	11.10
#3	.3283	-.2367	-1.041	-.3629	9.233	-.0703	8.164
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.0000	.0000	.0000	.0000	.0000	.0000	.0000
Range	5.000	5.000	5.000	10.00	100.0	150.0	300.0

Elem	Mn_257	Mo_202	Na_	Ni_231	Sb_206	Pb_220	Se_196
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	.9427	-.0257	36.43	-.5213	-5.469	-1.964	1.560
SDev	.1052	1.8342	5.08	1.8667	5.819	1.131	3.318
%RSD	11.16	7138.	13.93	358.1	106.4	57.56	212.7
#1	1.008	2.087	34.25	1.486	-1.377	-1.575	-1.953
#2	.8214	-.9480	32.82	-.8459	Q-12.13	-3.238	4.641
#3	.9989	-1.216	42.24	-2.204	-2.901	-1.080	1.991
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.0000	.0000	.0000	.0000	.0000	.0000	.0000
Range	10.00	10.00	150.0	5.000	10.00	10.00	15.00

Elem	Sn_189	Ti_334	Tl_190	U_3859	V_2924	Zn_213	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	2.000	.6703	3.358	-21.62	.6133	-4.215	-2.987
SDev	1.897	.2672	2.401	13.29	.2127	.255	6.424
%RSD	94.84	39.86	71.51	61.47	34.68	6.043	215.1
#1	2.229	.9451	.9538	-11.95	.3678	-4.065	2.010
#2	-.0006	.6544	5.756	-36.78	.7407	-4.070	-10.23
#3	3.773	.4115	3.364	-16.14	.7316	-4.509	-.7385
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass

Value	.0000	.0000	.0000	.0000	.0000	.0000	.0000
Range	10.00	5.000	20.00	50.00	5.000	10.00	150.0
Elem	Si_288	Si02_	Sr_421	Pb1st	Pb2nd	Se1st	Se2nd
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	-7.732	-16.54	.3701	-3.066	-1.414	-.4941	2.585
SDev	4.079	8.72	.1320	2.135	2.045	6.8484	4.180
%RSD	52.75	52.75	35.67	69.63	144.6	1386.	161.7
#1	-3.607	-7.715	.5135	-5.452	.3610	-7.158	.6461
#2	-11.76	-25.16	.3432	-2.414	-3.649	-.8492	7.383
#3	-7.826	-16.74	.2536	-1.334	-.9531	6.525	-.2731
Errors	QC Pass	NOCHECK	QC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK
Value	.0000		.0000				
Range	100.0		5.000				

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	15371	--	--	--	--	--	--
SDev	96.50335	--	--	--	--	--	--
%RSD	.6278462	--	--	--	--	--	--
#1	15280	--	--	--	--	--	--
#2	15360	--	--	--	--	--	--
#3	15472	--	--	--	--	--	--

Instrument Tuning Report

File Name: default2.tun
File Path: c:\elandata\Tuning

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Pk. Width
He	3.0	3.0	594	2080	0.555
Be	9.0	8.9	2047	2080	0.605
Mg	24.0	24.0	5682	2080	0.652
Mg	25.0	25.0	5939	2085	0.661
Mg	26.0	26.0	6164	2090	0.636
Co	58.9	58.9	14168	2110	0.645
Rh	102.9	102.9	24869	2175	0.596
In	114.9	114.9	27786	2190	0.612
Ce	139.9	139.9	33869	2215	0.605
Pb	206.0	206.0	49936	2290	0.592
Pb	207.0	207.0	50183	2275	0.621
Pb	208.0	208.0	50427	2310	0.601
U	238.1	238.0	57724	2325	0.604

✓ EAQ 5/9/05

Daily Performance Report

Sample ID: Sample
Sample Date/Time: Monday, May 09, 2005 09:13:59
Sample Description:
Method File: c:\elandata\Method\Daily2.mth
Dataset File: c:\elandata\Dataset\050301\Sample.980
Tuning File: c:\elandata\Tuning\default2.tun
Optimization File: c:\elandata\Optimize\default.dac
Dual Detector Mode: Pulse

Acq. Dead Time(ns): 35
Current Dead Time (ns): 35

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Be	9.0	3762.1	3762.095	67.273	1.8
	Mg	24.0	45684.1	45684.139	570.665	1.2
	Co	58.9	109551.7	109551.662	650.632	0.6
	Rh	102.9	203744.7	203744.659	1061.036	0.5
	In	114.9	257992.7	257992.737	2539.413	1.0
	Pb	208.0	141259.6	141259.604	1202.354	0.9
⌈>	Ba	137.9	232242.8	232242.804	1449.150	0.6
⌊	Ba++	69.0	4942.0	0.021	0.000	1.8
⌈>	Ce	139.9	283462.7	283462.695	1111.371	0.4
⌊	CeO	155.9	3943.0	0.014	0.000	1.7
	Bkgd	220.0	28.1	28.100	4.436	15.8

Current Optimization File Data

Current Value	Description
0.92	Nebulizer Gas Flow
8.75	Lens Voltage
1400.00	ICP RF Power
-1781.25	Analog Stage Voltage
1250.00	Pulse Stage Voltage
250.00	Discriminator Threshold
-6.00	AC Rod Offset

EAG 5/9/05

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	13	8.3	4071.9
Co	59	13	8.8	115505.1
In	115	13	9.5	310976.3

ICPMS#5 - Summary Report

Sample ID: Blank
Sample Date/Time: Monday, May 09, 2005 17:17:45
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\050509\Blank.087

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7		ug/L		59	
	Be	9		ug/L		28	
	B	11		ug/L		1017	
	Na	23		ug/L		23687	
	Mg	24		ug/L		1333	
	Al	27		ug/L		8670	
	P	31		ug/L		8435	
	K	39		ug/L		1526414	
	Ca	43		ug/L		1647	
>	Sc	45		ug/L		1830509	
	Ti	47		ug/L		651	
	V	51		ug/L		-108092	
	Cr	52		ug/L		-18391	
	Cr	53		ug/L		641220	
	Mn	55		ug/L		5867	
	Fe	57		ug/L		14258	
	Co	59		ug/L		386	
	Ni	60		ug/L		133	
	Cu	63		ug/L		256	
	Cu	65		ug/L		178	
	Zn	66		ug/L		639	
	Zn	67		ug/L		29068	
	Zn	68		ug/L		2786	
>	Ge	74		ug/L		753417	
	As	75		ug/L		5028	
	Se	77		ug/L		52001	
	Se	82		ug/L		51	
	Kr	83		ug/L		354	
	Sr	88		ug/L		461	
	Y	89		ug/L		72	
	Zr	90		ug/L		683	
	Mo	98		ug/L		80	
	Ag	107		ug/L		58	
	Cd	111		ug/L		27	
	Cd	114		ug/L		54	
>	In	115		ug/L		369395	
	Sn	120		ug/L		523	
	Sb	121		ug/L		174	
	Sb	123		ug/L		121	
	Ba	135		ug/L		45	
	Ba	137		ug/L		48	
	Ho	165		ug/L		29	
>	Ta	181		ug/L		305904	
	Tl	205		ug/L		303	
	Pb	208		ug/L		8259	
	Bi	209		ug/L		49	
	Th	232		ug/L		212	
	U	238		ug/L		80	

ICV: P, U
ICSA: K
ICSAB: K, V
CCV: P, U

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	
Be	9	Linear Thru Zero	
B	11	Linear Thru Zero	
Na	23	Linear Thru Zero	
Mg	24	Linear Thru Zero	
Al	27	Linear Thru Zero	
P	31	Linear Thru Zero	
K	39	Linear Thru Zero	
Ca	43	Linear Thru Zero	
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	
V	51	Linear Thru Zero	
Cr	52	Linear Thru Zero	
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	
Fe	57	Linear Thru Zero	
Co	59	Linear Thru Zero	
Ni	60	Linear Thru Zero	
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	
Zn	66	Linear Thru Zero	
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	
Mo	98	Linear Thru Zero	
Ag	107	Linear Thru Zero	
Cd	111	Linear Thru Zero	
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	
Sb	121	Linear Thru Zero	
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	
Ho	165	Linear Thru Zero	
Ta	181	Linear Thru Zero	
Tl	205	Linear Thru Zero	
Pb	208	Linear Thru Zero	
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	
U	238	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45					
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115					
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Ta	181					
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Monday, May 09, 2005 17:22:55
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\050509\Standard 1.088

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	10.000	ug/L	1.075	15412	0.008
	Be	9	10.000	ug/L	1.025	4302	0.002
	B	11	20.000	ug/L	0.703	8548	0.004
	Na	23	1000.000	ug/L	1.063	6567105	3.586
	Mg	24	1000.000	ug/L	2.313	4517358	2.475
	Al	27	1000.000	ug/L	2.171	6802374	3.724
	P	31	1000.000	ug/L	0.802	433397	0.233
	K	39	1000.000	ug/L	2.969	11845403	5.658
	Ca	43	1000.000	ug/L	0.757	24126	0.012
>	Sc	45		ug/L		1824533	1824533.014
	Ti	47	10.000	ug/L	2.660	11888	0.006
	V	51	10.000	ug/L	10.919	30779	0.076
	Cr	52	10.000	ug/L	0.271	95525	0.062
	Cr	53		ug/L		604112	-0.019
	Mn	55	10.000	ug/L	3.101	185080	0.098
	Fe	57	1000.000	ug/L	1.272	359473	0.189
	Co	59	10.000	ug/L	1.413	129861	0.071
	Ni	60	10.000	ug/L	2.226	27777	0.015
	Cu	63		ug/L		65073	0.036
	Cu	65	10.000	ug/L	0.388	31541	0.017
	Zn	66	10.000	ug/L	1.328	21147	0.027
	Zn	67		ug/L		30867	0.002
	Zn	68		ug/L		18740	0.021
>	Ge	74		ug/L		758759	758759.140
	As	75	10.000	ug/L	6.996	26553	0.028
	Se	77		ug/L		51102	-0.002
	Se	82	10.000	ug/L	3.880	2093	0.003
	Kr	83		ug/L		347	-0.000
	Sr	88	10.000	ug/L	0.270	257074	0.688
	Y	89		ug/L		128	0.000
	Zr	90	10.000	ug/L	0.867	153108	0.409
	Mo	98	10.000	ug/L	1.587	58112	0.156
	Ag	107	10.000	ug/L	0.490	91441	0.245
	Cd	111	10.000	ug/L	1.350	21556	0.058
	Cd	114		ug/L		50706	0.136
>	In	115		ug/L		372845	372845.119
	Sn	120	10.000	ug/L	2.868	94287	0.251
	Sb	121	10.000	ug/L	2.147	84646	0.227
	Sb	123		ug/L		65993	0.177
	Ba	135		ug/L		22907	0.072
	Ba	137	10.000	ug/L	3.276	39564	0.124
	Ho	165		ug/L		33	0.000
>	Ta	181		ug/L		318533	318533.169
	Tl	205	10.000	ug/L	0.954	167357	0.524
	Pb	208	10.000	ug/L	2.297	223244	0.674
	Bi	209		ug/L		70	0.000
	Th	232	10.000	ug/L	0.568	218539	0.685
	U	238	10.000	ug/L	0.782	202791	0.636

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Ta	181	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45					
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115					
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Ta	181					
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Monday, May 09, 2005 17:28:02
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\050509\Standard 2.089

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**100.017**	ug/L	0.981	153328	0.086
	Be	9	**100.006**	ug/L	3.187	42218	0.024
	B	11	**199.998**	ug/L	2.818	74810	0.041
	Na	23	**9989.647**	ug/L	3.352	58153983	32.465
	Mg	24	**9999.515**	ug/L	6.493	44093452	24.631
	Al	27	**9994.310**	ug/L	2.380	63020430	35.211
	P	31	**10000.786**	ug/L	1.603	4210191	2.348
	K	39	**9998.270**	ug/L	4.348	101046224	55.612
	Ca	43	**9995.308**	ug/L	1.949	212217	0.118
>	Sc	45		ug/L		1789959	1789959.096
	Ti	47	**99.977**	ug/L	0.972	108391	0.060
	V	51	**99.999**	ug/L	3.314	1251303	0.758
	Cr	52	**99.887**	ug/L	2.716	984359	0.560
	Cr	53		ug/L		575928	-0.028
	Mn	55	**99.891**	ug/L	1.478	1589451	0.885
	Fe	57	**9999.865**	ug/L	2.816	3395550	1.890
	Co	59	**99.897**	ug/L	2.623	1150417	0.643
	Ni	60	**99.952**	ug/L	1.967	258657	0.144
	Cu	63		ug/L		595307	0.332
	Cu	65	**99.956**	ug/L	1.079	294679	0.165
	Zn	66	**99.941**	ug/L	1.953	192927	0.255
	Zn	67		ug/L		57551	0.038
	Zn	68		ug/L		154498	0.201
>	Ge	74		ug/L		753898	753897.797
	As	75	**100.012**	ug/L	1.283	221160	0.287
	Se	77		ug/L		52849	0.001
	Se	82	**99.956**	ug/L	1.948	19458	0.026
	Kr	83		ug/L		347	-0.000
	Sr	88	**99.982**	ug/L	0.475	2464893	6.760
	Y	89		ug/L		573	0.001
	Zr	90	**99.832**	ug/L	1.736	1274127	3.494
	Mo	98	**99.974**	ug/L	1.864	553037	1.517
	Ag	107	**99.936**	ug/L	2.035	839612	2.303
	Cd	111	**99.982**	ug/L	3.349	206744	0.567
	Cd	114		ug/L		474618	1.302
>	In	115		ug/L		364567	364566.733
	Sn	120	**99.945**	ug/L	2.007	868690	2.382
	Sb	121	**99.944**	ug/L	1.787	781429	2.143
	Sb	123		ug/L		610943	1.676
	Ba	135		ug/L		219074	0.685
	Ba	137	**99.945**	ug/L	0.899	376015	1.176
	Ho	165		ug/L		35	0.000
>	Ta	181		ug/L		319818	319817.870
	Tl	205	**99.856**	ug/L	0.428	1464332	4.578
	Pb	208	**99.925**	ug/L	0.713	2012582	6.266
	Bi	209		ug/L		246	0.001
	Th	232	**99.841**	ug/L	1.442	1888638	5.905
	U	238	**99.858**	ug/L	1.490	1779926	5.565

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	0.9999
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	0.9999
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	0.9999
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	0.9999
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Ta	181	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45					
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115					
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Ta	181					
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Monday, May 09, 2005 17:33:10
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\050509\QC Std 1.090

P, U

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	49.319	ug/L	1.243	74368	0.042
	Be	9	50.840	ug/L	2.469	21118	0.012
	B	11	109.077	ug/L	1.939	40563	0.022
	Na	23	5185.030	ug/L	5.914	29664405	16.851
	Mg	24	5064.552	ug/L	5.855	21965969	12.475
	Al	27	5136.686	ug/L	9.505	31850866	18.097
	P	31	4352.261	ug/L	1.207	1806182	1.022
	K	39	5127.313	ug/L	3.880	51645848	28.519
	Ca	43	5077.598	ug/L	0.525	106775	0.060
>	Sc	45		ug/L		1759881	1759880.950
	Ti	47	48.343	ug/L	1.665	51855	0.029
	V	51	51.175	ug/L	0.612	579072	0.388
	Cr	52	52.709	ug/L	0.038	502501	0.296
	Cr	53		ug/L		309773	-0.174
	Mn	55	52.607	ug/L	1.143	825774	0.466
	Fe	57	4558.756	ug/L	0.910	1529805	0.862
	Co	59	51.761	ug/L	0.850	586378	0.333
	Ni	60	50.375	ug/L	0.860	128261	0.073
	Cu	63		ug/L		297803	0.169
	Cu	65	50.028	ug/L	0.757	145101	0.082
	Zn	66	51.188	ug/L	1.060	97190	0.131
	Zn	67		ug/L		31703	0.004
	Zn	68		ug/L		76002	0.099
>	Ge	74		ug/L		739170	739170.055
	As	75	48.407	ug/L	1.553	107497	0.139
	Se	77		ug/L		22605	-0.038
	Se	82	50.776	ug/L	0.866	9716	0.013
	Kr	83		ug/L		322	-0.000
	Sr	88	46.650	ug/L	1.580	1164451	3.154
	Y	89		ug/L		471	0.001
	Zr	90	48.315	ug/L	3.494	624523	1.691
	Mo	98	49.957	ug/L	3.360	279764	0.758
	Ag	107	50.972	ug/L	1.305	433526	1.175
	Cd	111	49.799	ug/L	1.866	104268	0.283
	Cd	114		ug/L		242975	0.658
>	In	115		ug/L		369056	369056.124
	Sn	120	50.143	ug/L	1.033	441489	1.195
	Sb	121	49.876	ug/L	3.047	394814	1.070
	Sb	123		ug/L		307033	0.832
	Ba	135		ug/L		109089	0.339
	Ba	137	49.971	ug/L	1.635	188908	0.588
	Ho	165		ug/L		50	0.000
>	Ta	181		ug/L		321345	321344.502
	Tl	205	50.721	ug/L	1.252	747574	2.325
	Pb	208	52.750	ug/L	1.415	1071504	3.308
	Bi	209		ug/L		114	0.000
	Th	232	53.349	ug/L	0.230	1014119	3.155
	U	238	56.695	ug/L	0.715	1015427	3.160

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	0.9999
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	0.9999
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	0.9999
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	0.9999
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Ta	181	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
Li	7	98.639				
Be	9	101.679				
B	11	109.077				
Na	23	103.701				
Mg	24	101.291				
Al	27	101.717				
P	31	87.045				
K	39	102.546				
Ca	43	101.552				
> Sc	45		96.1			
Ti	47	96.686				
V	51	102.350				
Cr	52	105.417				
Cr	53					
Mn	55	105.215				
Fe	57	91.175				
Co	59	103.522				
Ni	60	100.751				
Cu	63					
Cu	65	100.055				
Zn	66	102.375				
Zn	67					
Zn	68					
> Ge	74		98.1			
As	75	96.814				
Se	77					
Se	82	101.551				
Kr	83					
Sr	88	93.300				
Y	89					
Zr	90	96.630				
Mo	98	99.913				
Ag	107	101.943				
Cd	111	99.598				
Cd	114					
> In	115		99.9			
Sn	120	100.286				
Sb	121	99.752				
Sb	123					
Ba	135					
Ba	137	99.943				
Ho	165					
> Ta	181		105.0			
Tl	205	101.442				
Pb	208	105.501				
Bi	209					
Th	232	106.698				
U	238	113.390				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 1	P	31	ICV is out of limits (+/- 10%)
QC Std 1	U	238	ICV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Monday, May 09, 2005 17:38:20
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\050509\QC Std 2.091

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	-0.001	ug/L	787.567	57	-0.000
	Be	9	-0.009	ug/L	135.226	23	-0.000
	B	11	7.048	ug/L	18.468	3607	0.001
	Na	23	0.194	ug/L	549.358	24355	0.001
	Mg	24	0.309	ug/L	153.641	2667	0.001
	Al	27	-0.344	ug/L	94.968	6335	-0.001
	P	31	-0.642	ug/L	163.388	8003	-0.000
	K	39	-3.817	ug/L	119.789	1459278	-0.021
	Ca	43	-5.879	ug/L	47.697	1491	-0.000
>	Sc	45		ug/L		1795832	1795832.460
	Ti	47	-0.035	ug/L	32.951	600	-0.000
	V	51	4.443	ug/L	10.507	-45557	0.034
	Cr	52	1.108	ug/L	5.670	-6881	0.006
	Cr	53		ug/L		431437	-0.110
	Mn	55	-0.049	ug/L	9.850	4973	-0.000
	Fe	57	1.675	ug/L	35.565	14556	0.000
	Co	59	0.001	ug/L	345.072	388	0.000
	Ni	60	-0.002	ug/L	192.099	124	-0.000
	Cu	63		ug/L		257	0.000
	Cu	65	0.003	ug/L	193.099	185	0.000
	Zn	66	-0.007	ug/L	148.633	628	-0.000
	Zn	67		ug/L		21631	-0.010
	Zn	68		ug/L		2090	-0.001
>	Ge	74		ug/L		755712	755712.131
	As	75	-0.683	ug/L	30.224	3562	-0.002
	Se	77		ug/L		35678	-0.022
	Se	82	-0.076	ug/L	202.924	37	-0.000
	Kr	83		ug/L		314	-0.000
	Sr	88	-0.005	ug/L	18.106	332	-0.000
	Y	89		ug/L		78	0.000
	Zr	90	0.703	ug/L	19.555	9902	0.025
	Mo	98	0.036	ug/L	34.335	283	0.001
	Ag	107	0.003	ug/L	36.003	84	0.000
	Cd	111	0.010	ug/L	51.233	49	0.000
	Cd	114		ug/L		56	0.000
>	In	115		ug/L		374720	374719.908
	Sn	120	0.146	ug/L	37.082	1828	0.003
	Sb	121	0.209	ug/L	25.399	1855	0.004
	Sb	123		ug/L		1460	0.004
	Ba	135		ug/L		44	-0.000
	Ba	137	0.001	ug/L	82.593	54	0.000
	Ho	165		ug/L		24	-0.000
>	Ta	181		ug/L		320941	320941.279
	Tl	205	0.010	ug/L	29.801	464	0.000
	Pb	208	0.256	ug/L	18.299	13833	0.016
	Bi	209		ug/L		46	-0.000
	Th	232	0.039	ug/L	28.435	960	0.002
	U	238	0.002	ug/L	46.995	129	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	0.9999
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	0.9999
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	0.9999
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	0.9999
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Ta	181	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
Li	7					
Be	9					
B	11					
Na	23					
Mg	24					
Al	27					
P	31					
K	39					
Ca	43					
> Sc	45		98.1			
Ti	47					
V	51					
Cr	52					
Cr	53					
Mn	55					
Fe	57					
Co	59					
Ni	60					
Cu	63					
Cu	65					
Zn	66					
Zn	67					
Zn	68					
> Ge	74		100.3			
As	75					
Se	77					
Se	82					
Kr	83					
Sr	88					
Y	89					
Zr	90					
Mo	98					
Ag	107					
Cd	111					
Cd	114					
> In	115		101.4			
Sn	120					
Sb	121					
Sb	123					
Ba	135					
Ba	137					
Ho	165					
> Ta	181		104.9			
Tl	205					
Pb	208					
Bi	209					
Th	232					
U	238					

QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Monday, May 09, 2005 17:43:30
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\050509\QC Std 3.092

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	20.031	ug/L	0.949	30266	0.017
	Be	9	0.383	ug/L	14.195	186	0.000
	B	11	34.191	ug/L	4.368	13394	0.007
	Na	23	523.389	ug/L	3.954	3017380	1.701
	Mg	24	20.056	ug/L	6.515	88273	0.049
	Al	27	30.576	ug/L	18.327	197715	0.108
	P	31	95.985	ug/L	2.296	47801	0.023
	K	39	626.142	ug/L	11.742	7610853	3.483
	Ca	43	203.150	ug/L	3.362	5797	0.002
>	Sc	45		ug/L		1761342	1761341.895
	Ti	47	17.269	ug/L	2.046	18938	0.010
	V	51	25.269	ug/L	1.375	233513	0.192
	Cr	52	7.701	ug/L	2.955	58356	0.043
	Cr	53		ug/L		259576	-0.203
	Mn	55	11.063	ug/L	1.684	178249	0.098
	Fe	57	53.453	ug/L	3.903	31509	0.010
	Co	59	2.243	ug/L	3.038	25777	0.014
	Ni	60	4.162	ug/L	0.652	10721	0.006
	Cu	63		ug/L		13358	0.007
	Cu	65	2.230	ug/L	2.859	6636	0.004
	Zn	66	20.904	ug/L	2.825	40456	0.053
	Zn	67		ug/L		21081	-0.010
	Zn	68		ug/L		31169	0.038
>	Ge	74		ug/L		746537	746537.269
	As	75	4.506	ug/L	3.967	14626	0.013
	Se	77		ug/L		16674	-0.047
	Se	82	9.687	ug/L	5.201	1914	0.002
	Kr	83		ug/L		306	-0.000
	Sr	88	19.606	ug/L	0.919	501322	1.326
	Y	89		ug/L		610	0.001
	Zr	90	2.139	ug/L	0.296	28984	0.075
	Mo	98	0.967	ug/L	1.984	5627	0.015
	Ag	107	2.109	ug/L	0.473	18421	0.049
	Cd	111	1.946	ug/L	1.518	4199	0.011
	Cd	114		ug/L		10027	0.026
>	In	115		ug/L		377825	377824.617
	Sn	120	3.925	ug/L	1.637	35873	0.094
	Sb	121	3.736	ug/L	2.488	30446	0.080
	Sb	123		ug/L		23574	0.062
	Ba	135		ug/L		8799	0.027
	Ba	137	4.025	ug/L	2.557	15284	0.047
	Ho	165		ug/L		51	0.000
>	Ta	181		ug/L		321766	321765.580
	Tl	205	1.097	ug/L	1.355	16496	0.050
	Pb	208	4.822	ug/L	3.056	105965	0.302
	Bi	209		ug/L		128	0.000
	Th	232	2.158	ug/L	1.009	41288	0.128
	U	238	0.464	ug/L	1.260	8399	0.026

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	0.9999
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	1.0000
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	0.9999
Cr	52	Linear Thru Zero	0.9999
Cr	53	Linear Thru Zero	1.0000
Mn	55	Linear Thru Zero	0.9999
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	1.0000
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	1.0000
As	75	Linear Thru Zero	
Se	77	Linear Thru Zero	1.0000
Se	82	Linear Thru Zero	
Kr	83	Linear Thru Zero	1.0000
Sr	88	Linear Thru Zero	
Y	89	Linear Thru Zero	0.9999
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	1.0000
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	1.0000
Ba	137	Linear Thru Zero	
Ho	165	Linear Thru Zero	
Ta	181	Linear Thru Zero	0.9999
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	
Bi	209	Linear Thru Zero	0.9999
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
Li	7	100.157				
Be	9	95.850				
B	11	113.972				
Na	23	104.678				
Mg	24	100.281				
Al	27	101.921				
P	31	95.985				
K	39	104.357				
Ca	43	101.575				
> Sc	45		96.2			
Ti	47	86.344				
V	51	126.346				
Cr	52	128.358				
Cr	53					
Mn	55	110.629				
Fe	57	106.905				
Co	59	112.137				
Ni	60	104.038				
Cu	63					
Cu	65	111.507				
Zn	66	104.522				
Zn	67					
Zn	68		99.1			
> Ge	74					
As	75	75.095				
Se	77					
Se	82	96.873				
Kr	83					
Sr	88	98.029				
Y	89					
Zr	90	106.963				
Mo	98	96.729				
Ag	107	105.438				
Cd	111	97.305				
Cd	114		102.3			
> In	115					
Sn	120	98.121				
Sb	121	93.398				
Sb	123					
Ba	135					
Ba	137	100.637				
Ho	165		105.2			
> Ta	181					
Tl	205	109.676				
Pb	208	120.549				
Bi	209					
Th	232	107.899				
U	238	115.911				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Monday, May 09, 2005 17:48:39
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\050509\QC Std 4.093

K

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	0.587	ug/L	3.028	904	0.001
	Be	9	0.001	ug/L	811.265	26	0.000
	B	11	5.430	ug/L	9.592	2831	0.001
	Na	23	98624.441	ug/L	2.739	541742532	320.515
	Mg	24	96350.990	ug/L	3.676	401040441	237.331
	Al	27	93351.612	ug/L	5.544	555772064	328.890
	P	31	98026.504	ug/L	2.366	38903554	23.014
	K	39	S	ug/L	S	S	S
	Ca	43	91992.359	ug/L	0.665	1831945	1.083
>	Sc	45		ug/L		1690442	1690441.865
	Ti	47	1666.137	ug/L	2.337	1696279	1.003
	V	51	8.112	ug/L	7.896	4252	0.062
	Cr	52	4.206	ug/L	3.677	22879	0.024
	Cr	53		ug/L		182036	-0.243
	Mn	55	3.091	ug/L	0.949	51699	0.027
	Fe	57	101331.609	ug/L	1.578	32379641	19.150
	Co	59	0.298	ug/L	1.927	3599	0.002
	Ni	60	1.355	ug/L	1.289	3434	0.002
	Cu	63		ug/L		11046	0.006
	Cu	65	2.299	ug/L	2.399	6560	0.004
	Zn	66	9.033	ug/L	1.894	17126	0.023
	Zn	67		ug/L		15485	-0.017
	Zn	68		ug/L		10426	0.011
>	Ge	74		ug/L		716548	716548.115
	As	75	-1.705	ug/L	18.883	1280	-0.005
	Se	77		ug/L		14189	-0.049
	Se	82	-0.965	ug/L	16.877	-129	-0.000
	Kr	83		ug/L		475	0.000
	Sr	88	1.978	ug/L	0.209	50120	0.134
	Y	89		ug/L		1414	0.004
	Zr	90	1.112	ug/L	39.869	15121	0.039
	Mo	98	2034.854	ug/L	1.782	11466302	30.877
	Ag	107	0.056	ug/L	2.622	542	0.001
	Cd	111	0.300	ug/L	44.686	661	0.002
	Cd	114		ug/L		12785	0.034
>	In	115		ug/L		371345	371344.631
	Sn	120	0.212	ug/L	2.278	2401	0.005
	Sb	121	0.658	ug/L	0.542	5411	0.014
	Sb	123		ug/L		4307	0.011
	Ba	135		ug/L		990	0.003
	Ba	137	0.399	ug/L	6.807	1681	0.005
	Ho	165		ug/L		82	0.000
>	Ta	181		ug/L		347386	347386.159
	Tl	205	0.018	ug/L	18.057	629	0.001
	Pb	208	1.089	ug/L	9.625	32999	0.068
	Bi	209		ug/L		3747	0.011
	Th	232	0.041	ug/L	15.069	1076	0.002
	U	238	0.015	ug/L	19.132	375	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	0.9999
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	0.9999
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	0.9999
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	0.9999
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Ta	181	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
Li	7					
Be	9					
B	11	271.479				
Na	23	98.624				
Mg	24	96.505				
Al	27	93.352				
P	31	98.036				
K	39	S				
Ca	43	91.992				
> Sc	45		92.3			
Ti	47	83.307				
V	51	405.625				
Cr	52	100.132				
Cr	53					
Mn	55	162.670				
Fe	57	101.332				
Co	59					
Ni	60	96.815				
Cu	63					
Cu	65	120.985				
Zn	66	161.309				
Zn	67					
Zn	68					
> Ge	74		95.1			
As	75					
Se	77					
Se	82					
Kr	83					
Sr	88	68.199				
Y	89					
Zr	90					
Mo	98	101.743				
Ag	107	18.829				
Cd	111					
Cd	114					
> In	115		100.5			
Sn	120	6.624				
Sb	121	28.589				
Sb	123					
Ba	135					
Ba	137	199.664				
Ho	165					
> Ta	181		113.6			
Tl	205					
Pb	208	136.068				
Bi	209					
Th	232					
U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 4	K	39	ICSA is out of limits

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Monday, May 09, 2005 17:53:49
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\050509\QC Std 5.094

K, V

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	22.138	ug/L	1.723	31643	0.019
	Be	9	20.188	ug/L	0.773	7957	0.005
	B	11	24.617	ug/L	3.360	9386	0.005
	Na	23	97698.340	ug/L	1.896	529113131	317.505
	Mg	24	94864.364	ug/L	1.007	389411399	233.669
	Al	27	95626.885	ug/L	3.249	561392805	336.906
	P	31	95489.481	ug/L	1.965	37365478	22.419
	K	39	63240.031	ug/L	1.772	587544390	351.748
	Ca	43	89653.943	ug/L	1.253	1760224	1.055
>	Sc	45		ug/L		1666451	1666451.213
	Ti	47	1661.756	ug/L	1.507	1668173	1.001
	V	51	26.785	ug/L	2.325	240117	0.203
	Cr	52	24.625	ug/L	2.212	213381	0.138
	Cr	53		ug/L		192871	-0.235
	Mn	55	24.344	ug/L	1.230	364741	0.216
	Fe	57	100532.412	ug/L	0.480	31673385	18.999
	Co	59	21.198	ug/L	1.197	227613	0.136
	Ni	60	20.732	ug/L	2.056	50055	0.030
	Cu	63		ug/L		119949	0.072
	Cu	65	21.912	ug/L	1.775	60272	0.036
	Zn	66	26.233	ug/L	0.408	48979	0.067
	Zn	67		ug/L		20178	-0.011
	Zn	68		ug/L		34767	0.044
>	Ge	74		ug/L		722421	722420.698
	As	75	19.733	ug/L	2.846	45690	0.057
	Se	77		ug/L		15874	-0.047
	Se	82	20.051	ug/L	2.089	3779	0.005
	Kr	83		ug/L		467	0.000
	Sr	88	21.182	ug/L	0.276	532406	1.432
	Y	89		ug/L		1410	0.004
	Zr	90	21.461	ug/L	1.627	279620	0.751
	Mo	98	2037.901	ug/L	0.765	11485198	30.923
	Ag	107	19.959	ug/L	1.376	170887	0.460
	Cd	111	19.558	ug/L	1.740	41232	0.111
	Cd	114		ug/L		108503	0.292
>	In	115		ug/L		371420	371420.280
	Sn	120	20.585	ug/L	2.354	182720	0.491
	Sb	121	21.219	ug/L	0.959	169182	0.455
	Sb	123		ug/L		131677	0.354
	Ba	135		ug/L		44775	0.132
	Ba	137	19.431	ug/L	1.990	77678	0.229
	Ho	165		ug/L		95	0.000
>	Ta	181		ug/L		339639	339639.368
	Tl	205	19.974	ug/L	1.108	311335	0.916
	Pb	208	21.104	ug/L	1.330	458612	1.323
	Bi	209		ug/L		3825	0.011
	Th	232	22.078	ug/L	1.208	443715	1.306
	U	238	23.029	ug/L	0.754	436022	1.284

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	0.9999
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	1.0000
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	0.9999
Cr	52	Linear Thru Zero	0.9999
Cr	53	Linear Thru Zero	1.0000
Mn	55	Linear Thru Zero	0.9999
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	1.0000
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	1.0000
Zn	68	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	1.0000
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	1.0000
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	1.0000
Sr	88	Linear Thru Zero	0.9999
Y	89	Linear Thru Zero	1.0000
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	1.0000
In	115	Linear Thru Zero	1.0000
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	1.0000
Ba	135	Linear Thru Zero	1.0000
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	0.9999
Ta	181	Linear Thru Zero	1.0000
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	0.9999
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
Li	7	110.691				
Be	9	100.938				
B	11	111.894				
Na	23	97.698				
Mg	24	95.016				
Al	27	95.627				
P	31	95.499				
K	39	63.240				
Ca	43	89.654				
> Sc	45		91.0			
Ti	47	83.088				
V	51	121.748				
Cr	52	101.758				
Cr	53					
Mn	55	111.161				
Fe	57	100.532				
Co	59	105.992				
Ni	60	96.878				
Cu	63					
Cu	65	100.055				
Zn	66	102.473				
Zn	67					
Zn	68					
> Ge	74		95.9			
As	75	98.666				
Se	77					
Se	82	100.253				
Kr	83					
Sr	88	92.498				
Y	89					
Zr	90	107.307				
Mo	98	101.895				
Ag	107	98.321				
Cd	111	97.789				
Cd	114					
> In	115		100.5			
Sn	120	88.727				
Sb	121	95.153				
Sb	123					
Ba	135					
Ba	137	96.193				
Ho	165					
> Ta	181		111.0			
Tl	205	99.872				
Pb	208	101.460				
Bi	209					
Th	232	110.389				
U	238	115.147				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 5	K	39	ICSAB is out of limits
QC Std 5	V	51	ICSAB is out of limits

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Monday, May 09, 2005 17:58:58
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\050509\QC Std 6.095

P, U

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	52.811	ug/L	1.456	77355	0.045
	Be	9	52.030	ug/L	0.740	20997	0.012
	B	11	103.792	ug/L	1.968	37544	0.021
	Na	23	5178.557	ug/L	12.021	28783284	16.830
	Mg	24	4755.588	ug/L	0.528	20027795	11.714
	Al	27	4721.953	ug/L	4.262	28444356	16.636
	P	31	4187.727	ug/L	1.231	1688598	0.983
	K	39	5286.103	ug/L	15.875	51645848	29.402
	Ca	43	5046.941	ug/L	2.005	103094	0.059
>	Sc	45		ug/L		1709592	1709591.615
	Ti	47	48.779	ug/L	1.466	50824	0.029
	V	51	52.913	ug/L	2.277	584982	0.401
	Cr	52	53.359	ug/L	0.363	494374	0.299
	Cr	53		ug/L		219013	-0.222
	Mn	55	52.807	ug/L	2.059	805157	0.468
	Fe	57	4586.286	ug/L	3.355	1494795	0.867
	Co	59	51.752	ug/L	2.631	569474	0.333
	Ni	60	50.717	ug/L	1.139	125434	0.073
	Cu	63		ug/L		296182	0.173
	Cu	65	51.075	ug/L	2.408	143891	0.084
	Zn	66	51.609	ug/L	1.140	98079	0.132
	Zn	67		ug/L		26865	-0.002
	Zn	68		ug/L		75687	0.099
>	Ge	74		ug/L		739866	739865.788
	As	75	48.068	ug/L	1.577	106876	0.138
	Se	77		ug/L		17346	-0.046
	Se	82	50.539	ug/L	1.652	9680	0.013
	Kr	83		ug/L		300	-0.000
	Sr	88	45.705	ug/L	1.065	1174942	3.090
	Y	89		ug/L		470	0.001
	Zr	90	47.660	ug/L	1.843	634628	1.668
	Mo	98	49.508	ug/L	2.405	285542	0.751
	Ag	107	50.576	ug/L	0.911	443078	1.166
	Cd	111	49.111	ug/L	3.606	105878	0.279
	Cd	114		ug/L		249798	0.657
>	In	115		ug/L		380096	380096.034
	Sn	120	49.234	ug/L	3.168	446341	1.173
	Sb	121	49.654	ug/L	2.413	404810	1.065
	Sb	123		ug/L		316884	0.833
	Ba	135		ug/L		109556	0.324
	Ba	137	47.762	ug/L	0.615	189706	0.562
	Ho	165		ug/L		47	0.000
>	Ta	181		ug/L		337578	337578.058
	Tl	205	50.478	ug/L	2.133	781483	2.314
	Pb	208	52.603	ug/L	0.423	1122612	3.298
	Bi	209		ug/L		113	0.000
	Th	232	53.344	ug/L	2.272	1065170	3.155
	U	238	56.309	ug/L	2.076	1059441	3.138

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	0.9999
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	1.0000
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	0.9999
Cr	52	Linear Thru Zero	
Cr	53	Linear Thru Zero	0.9999
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	
Cu	63	Linear Thru Zero	1.0000
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	1.0000
As	75	Linear Thru Zero	
Se	77	Linear Thru Zero	1.0000
Se	82	Linear Thru Zero	
Kr	83	Linear Thru Zero	1.0000
Sr	88	Linear Thru Zero	
Y	89	Linear Thru Zero	0.9999
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	1.0000
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	1.0000
Ba	137	Linear Thru Zero	
Ho	165	Linear Thru Zero	
Ta	181	Linear Thru Zero	0.9999
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	
Bi	209	Linear Thru Zero	0.9999
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
Li	7	105.623				
Be	9	104.061				
B	11	103.792				
Na	23	103.571				
Mg	24	95.112				
Al	27	93.504				
P	31	83.755				
K	39	105.722				
Ca	43	100.939				
> Sc	45		93.4			
Ti	47	97.559				
V	51	105.825				
Cr	52	106.718				
Cr	53					
Mn	55	105.613				
Fe	57	91.726				
Co	59	103.504				
Ni	60	101.434				
Cu	63					
Cu	65	102.150				
Zn	66	103.217				
Zn	67					
Zn	68		98.2			
> Ge	74					
As	75	96.135				
Se	77					
Se	82	101.077				
Kr	83					
Sr	88	91.411				
Y	89					
Zr	90	95.320				
Mo	98	99.016				
Ag	107	101.151				
Cd	111	98.222				
Cd	114		102.9			
> In	115					
Sn	120	98.468				
Sb	121	99.308				
Sb	123					
Ba	135					
Ba	137	95.525				
Ho	165		110.4			
> Ta	181					
Tl	205	100.956				
Pb	208	105.206				
Bi	209					
Th	232	106.688				
U	238	112.618				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 6	P	31	CCV is out of limits (+/- 10%)
QC Std 6	U	238	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Monday, May 09, 2005 18:04:08
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\050509\QC Std 7.096

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.045**	**ug/L**	18.155	123	0.000
	Be	9	**-0.009**	**ug/L**	186.252	23	-0.000
	B	11	**4.546**	**ug/L**	21.453	2594	0.001
	Na	23	**1.398**	**ug/L**	87.130	30367	0.005
	Mg	24	**0.638**	**ug/L**	35.686	4001	0.002
	Al	27	**-0.419**	**ug/L**	58.361	5668	-0.001
	P	31	**-2.095**	**ug/L**	17.258	7151	-0.000
	K	39	**0.293**	**ug/L**	1128.180	1451541	0.002
	Ca	43	**-7.951**	**ug/L**	29.714	1400	-0.000
>	Sc	45		**ug/L**		1737230	1737230.070
	Ti	47	**-0.034**	**ug/L**	66.100	582	-0.000
	V	51	**6.927**	**ug/L**	11.840	-11357	0.053
	Cr	52	**1.985**	**ug/L**	2.099	1888	0.011
	Cr	53		**ug/L**		310094	-0.172
	Mn	55	**-0.084**	**ug/L**	4.343	4283	-0.001
	Fe	57	**5.568**	**ug/L**	18.286	15360	0.001
	Co	59	**0.001**	**ug/L**	79.423	382	0.000
	Ni	60	**0.006**	**ug/L**	5.872	142	0.000
	Cu	63		**ug/L**		298	0.000
	Cu	65	**0.013**	**ug/L**	34.557	208	0.000
	Zn	66	**-0.026**	**ug/L**	19.822	587	-0.000
	Zn	67		**ug/L**		16743	-0.016
	Zn	68		**ug/L**		1677	-0.001
>	Ge	74		**ug/L**		750294	750293.696
	As	75	**-0.931**	**ug/L**	48.866	2999	-0.003
	Se	77		**ug/L**		27239	-0.033
	Se	82	**0.825**	**ug/L**	22.356	211	0.000
	Kr	83		**ug/L**		298	-0.000
	Sr	88	**-0.006**	**ug/L**	12.164	316	-0.000
	Y	89		**ug/L**		81	0.000
	Zr	90	**0.659**	**ug/L**	19.918	9496	0.023
	Mo	98	**0.119**	**ug/L**	20.167	774	0.002
	Ag	107	**0.003**	**ug/L**	41.998	83	0.000
	Cd	111	**0.010**	**ug/L**	17.879	51	0.000
	Cd	114		**ug/L**		55	-0.000
>	In	115		**ug/L**		381885	381885.113
	Sn	120	**0.143**	**ug/L**	29.709	1841	0.003
	Sb	121	**0.136**	**ug/L**	27.662	1294	0.003
	Sb	123		**ug/L**		998	0.002
	Ba	135		**ug/L**		50	0.000
	Ba	137	**0.002**	**ug/L**	20.758	60	0.000
	Ho	165		**ug/L**		25	-0.000
>	Ta	181		**ug/L**		326273	326272.626
	Tl	205	**0.005**	**ug/L**	40.854	399	0.000
	Pb	208	**0.514**	**ug/L**	17.045	19328	0.032
	Bi	209		**ug/L**		47	-0.000
	Th	232	**0.036**	**ug/L**	28.712	922	0.002
	U	238	**0.003**	**ug/L**	61.945	145	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	0.9999
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	0.9999
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	0.9999
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	0.9999
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Ta	181	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		94.9			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		99.6			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		103.4			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Ta	181		106.7			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1200840571
Sample Date/Time: Monday, May 09, 2005 18:09:19
Sample Type:
Sample Description: LANL 6020 MB
Number of Replicates: 3
Batch ID: 423106|2|baj
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\050509\1200840571.097

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	0.007	ug/L	60.531	70	0.000
	Be	9	-0.020	ug/L	35.945	19	-0.000
	B	11	1.760	ug/L	6.052	1684	0.000
	Na	23	2.629	ug/L	5.807	39388	0.009
	Mg	24	0.075	ug/L	177.208	1667	0.000
	Al	27	0.411	ug/L	122.090	11338	0.001
	P	31	9.129	ug/L	14.662	12385	0.002
	K	39	-14.652	ug/L	32.494	1379596	-0.081
	Ca	43	-6.771	ug/L	55.149	1503	-0.000
>	Sc	45		ug/L		1833750	1833749.559
	Ti	47	0.027	ug/L	336.112	682	0.000
	V	51	6.932	ug/L	12.335	-11899	0.053
	Cr	52	2.166	ug/L	4.258	3845	0.012
	Cr	53		ug/L		283916	-0.195
	Mn	55	0.227	ug/L	13.079	9558	0.002
	Fe	57	6.120	ug/L	12.670	16402	0.001
	Co	59	0.021	ug/L	48.738	632	0.000
	Ni	60	0.007	ug/L	52.115	152	0.000
	Cu	63		ug/L		399	0.000
	Cu	65	0.018	ug/L	44.033	233	0.000
	Zn	66	0.387	ug/L	6.527	1404	0.001
	Zn	67		ug/L		16583	-0.017
	Zn	68		ug/L		2299	-0.001
>	Ge	74		ug/L		764999	764998.902
	As	75	-1.518	ug/L	20.521	1779	-0.004
	Se	77		ug/L		21583	-0.041
	Se	82	-0.033	ug/L	285.220	45	-0.000
	Kr	83		ug/L		298	-0.000
	Sr	88	0.002	ug/L	62.679	534	0.000
	Y	89		ug/L		88	0.000
	Zr	90	1.055	ug/L	45.319	15108	0.037
	Mo	98	0.080	ug/L	21.726	559	0.001
	Ag	107	0.005	ug/L	26.764	104	0.000
	Cd	111	0.013	ug/L	43.274	57	0.000
	Cd	114		ug/L		66	0.000
>	In	115		ug/L		390785	390784.723
	Sn	120	0.045	ug/L	2.520	968	0.001
	Sb	121	0.035	ug/L	30.301	474	0.001
	Sb	123		ug/L		380	0.001
	Ba	135		ug/L		79	0.000
	Ba	137	0.014	ug/L	25.898	109	0.000
	Ho	165		ug/L		27	-0.000
>	Ta	181		ug/L		334877	334877.305
	Tl	205	0.015	ug/L	2.762	566	0.001
	Pb	208	1.106	ug/L	6.515	32266	0.069
	Bi	209		ug/L		66	0.000
	Th	232	0.019	ug/L	45.973	606	0.001
	U	238	-0.001	ug/L	31.357	61	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	0.9999
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	0.9999
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	0.9999
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	0.9999
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Ta	181	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
Li	7					
Be	9					
B	11					
Na	23					
Mg	24					
Al	27					
P	31					
K	39					
Ca	43					
> Sc	45		100.2			
Ti	47					
V	51					
Cr	52					
Cr	53					
Mn	55					
Fe	57					
Co	59					
Ni	60					
Cu	63					
Cu	65					
Zn	66					
Zn	67					
Zn	68					
> Ge	74		101.5			
As	75					
Se	77					
Se	82					
Kr	83					
Sr	88					
Y	89					
Zr	90					
Mo	98					
Ag	107					
Cd	111					
Cd	114					
> In	115		105.8			
Sn	120					
Sb	121					
Sb	123					
Ba	135					
Ba	137					
Ho	165					
> Ta	181		109.5			
Tl	205					
Pb	208					
Bi	209					
Th	232					
U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1200840575
Sample Date/Time: Monday, May 09, 2005 18:14:28
Sample Type:
Sample Description: LANL 6020 LCS
Number of Replicates: 3
Batch ID: 423106|5|baj
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\050509\1200840575.098

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	15.546	ug/L	2.095	24821	0.013
	Be	9	150.204	ug/L	0.976	65901	0.035
	B	11	111.929	ug/L	5.456	43953	0.023
	Na	23	628.424	ug/L	2.665	3822780	2.042
	Mg	24	4305.458	ug/L	4.215	19724955	10.605
	Al	27	15212.546	ug/L	8.483	99640410	53.596
	P	31	779.512	ug/L	2.034	348957	0.183
	K	39	4154.051	ug/L	7.690	44563976	23.105
	Ca	43	6713.795	ug/L	0.448	148698	0.079
>	Sc	45		ug/L		1860290	1860290.061
	Ti	47	578.354	ug/L	2.410	648392	0.348
	V	51	263.141	ug/L	3.296	3601281	1.996
	Cr	52	155.578	ug/L	2.389	1603965	0.872
	Cr	53		ug/L		476021	-0.094
	Mn	55	895.630	ug/L	2.165	14763087	7.934
	Fe	57	21003.358	ug/L	3.275	7395950	3.969
	Co	59	149.552	ug/L	2.147	1789842	0.962
	Ni	60	165.899	ug/L	0.965	446154	0.240
	Cu	63		ug/L		1413429	0.760
	Cu	65	239.273	ug/L	1.750	732833	0.394
	Zn	66	520.394	ug/L	2.305	995438	1.328
	Zn	67		ug/L		194698	0.221
	Zn	68		ug/L		798363	1.062
>	Ge	74		ug/L		749130	749129.956
	As	75	383.662	ug/L	1.555	828811	1.100
	Se	77		ug/L		57707	0.008
	Se	82	242.978	ug/L	0.443	46929	0.063
	Kr	83		ug/L		410	0.000
	Sr	88	158.796	ug/L	0.550	4017280	10.737
	Y	89		ug/L		628607	1.680
	Zr	90	13.490	ug/L	2.743	177263	0.472
	Mo	98	158.910	ug/L	2.811	901993	2.411
	Ag	107	89.632	ug/L	1.589	772793	2.066
	Cd	111	132.901	ug/L	2.913	282015	0.754
	Cd	114		ug/L		655232	1.751
>	In	115		ug/L		374149	374149.063
	Sn	120	83.560	ug/L	2.077	745418	1.991
	Sb	121	75.918	ug/L	2.159	609179	1.628
	Sb	123		ug/L		472024	1.261
	Ba	135		ug/L		1527400	4.628
	Ba	137	765.684	ug/L	1.475	2972182	9.006
	Ho	165		ug/L		27175	0.082
>	Ta	181		ug/L		330015	330014.596
	Tl	205	213.236	ug/L	1.756	3226457	9.775
	Pb	208	182.102	ug/L	1.049	3777197	11.419
	Bi	209		ug/L		9934	0.030
	Th	232	22.465	ug/L	0.781	438698	1.329
	U	238	4.098	ug/L	1.843	75463	0.228

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	0.9999
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	0.9999
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	0.9999
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	0.9999
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Ta	181	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
Li	7					
Be	9					
B	11					
Na	23					
Mg	24					
Al	27					
P	31					
K	39					
Ca	43					
> Sc	45		101.6			
Ti	47					
V	51					
Cr	52					
Cr	53					
Mn	55					
Fe	57					
Co	59					
Ni	60					
Cu	63					
Cu	65					
Zn	66					
Zn	67					
Zn	68					
> Ge	74		99.4			
As	75					
Se	77					
Se	82					
Kr	83					
Sr	88					
Y	89					
Zr	90					
Mo	98					
Ag	107					
Cd	111					
Cd	114					
> In	115		101.3			
Sn	120					
Sb	121					
Sb	123					
Ba	135					
Ba	137					
Ho	165					
> Ta	181		107.9			
Tl	205					
Pb	208					
Bi	209					
Th	232					
U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Ti 47 Upper, S, EEE	Ti	47	Sample is out of limits (over linear range)

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 135806001
Sample Date/Time: Monday, May 09, 2005 18:19:39
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 423106|2|baj
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\050509\135806001.099

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	38.801	ug/L	1.425	61896	0.033
	Be	9	2.687	ug/L	4.309	1207	0.001
	B	11	13.346	ug/L	5.134	6158	0.003
	Na	23	640.439	ug/L	4.861	3896207	2.081
	Mg	24	3566.473	ug/L	7.235	16348293	8.785
	Al	27	38545.625	ug/L	2.950	252763023	135.801
	P	31	132.666	ug/L	2.433	66533	0.031
	K	39	3923.288	ug/L	6.351	42145776	21.822
	Ca	43	4879.302	ug/L	1.947	108560	0.057
>	Sc	45		ug/L		1861137	1861136.821
	Ti	47	433.475	ug/L	1.197	486462	0.261
	V	51	30.822	ug/L	4.443	324992	0.234
	Cr	52	22.457	ug/L	2.277	215643	0.126
	Cr	53		ug/L		254011	-0.214
	Mn	55	461.167	ug/L	1.800	7608734	4.085
	Fe	57	20573.250	ug/L	3.016	7248850	3.888
	Co	59	5.188	ug/L	2.110	62498	0.033
	Ni	60	21.113	ug/L	0.621	56927	0.031
	Cu	63		ug/L		109202	0.059
	Cu	65	17.379	ug/L	1.478	53433	0.029
	Zn	66	197.065	ug/L	1.142	381896	0.503
	Zn	67		ug/L		78459	0.065
	Zn	68		ug/L		301188	0.394
>	Ge	74		ug/L		758052	758052.015
	As	75	3.287	ug/L	4.632	12204	0.009
	Se	77		ug/L		16788	-0.047
	Se	82	2.813	ug/L	8.125	601	0.001
	Kr	83		ug/L		467	0.000
	Sr	88	63.402	ug/L	1.165	1628169	4.287
	Y	89		ug/L		874891	2.304
	Zr	90	53.000	ug/L	2.864	704838	1.855
	Mo	98	1.878	ug/L	2.197	10902	0.028
	Ag	107	0.597	ug/L	2.026	5285	0.014
	Cd	111	2.517	ug/L	4.182	5451	0.014
	Cd	114		ug/L		9638	0.025
>	In	115		ug/L		379742	379742.036
	Sn	120	0.694	ug/L	2.903	6816	0.017
/	Sb	121	1.453	ug/L	3.603	12007	0.031
	Sb	123		ug/L		9427	0.024
	Ba	135		ug/L		429821	1.254
	Ba	137	181.034	ug/L	3.258	729930	2.129
	Ho	165		ug/L		38374	0.112
>	Ta	181		ug/L		342935	342934.971
	Tl	205	0.477	ug/L	6.574	7835	0.022
	Pb	208	120.251	ug/L	1.684	2594436	7.540
	Bi	209		ug/L		9083	0.026
	Th	232	15.289	ug/L	2.764	310188	0.904
	U	238	2.388	ug/L	2.844	45719	0.133

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	0.9999
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	0.9999
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	0.9999
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	0.9999
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Ta	181	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
Li	7					
Be	9					
B	11					
Na	23					
Mg	24					
Al	27					
P	31					
K	39					
Ca	43					
> Sc	45		101.7			
Ti	47					
V	51					
Cr	52					
Cr	53					
Mn	55					
Fe	57					
Co	59					
Ni	60					
Cu	63					
Cu	65					
Zn	66					
Zn	67					
Zn	68					
> Ge	74		100.6			
As	75					
Se	77					
Se	82					
Kr	83					
Sr	88					
Y	89					
Zr	90					
Mo	98					
Ag	107					
Cd	111					
Cd	114					
> In	115		102.8			
Sn	120					
Sb	121					
Sb	123					
Ba	135					
Ba	137					
Ho	165					
> Ta	181		112.1			
Tl	205					
Pb	208					
Bi	209					
Th	232					
U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Ti 47 Upper, S, EEE	Ti	47	Sample is out of limits (over linear range)

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1200840572
Sample Date/Time: Monday, May 09, 2005 18:24:49
Sample Type:
Sample Description: LANL 6020 DUP
Number of Replicates: 3
Batch ID: 423106|2|baj
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\050509\1200840572.100

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	38.152	ug/L	2.462	60428	0.033
	Be	9	2.936	ug/L	2.849	1307	0.001
	B	11	12.738	ug/L	1.098	5882	0.003
	Na	23	641.912	ug/L	9.411	3880145	2.086
	Mg	24	4291.757	ug/L	7.621	19543251	10.571
	Al	27	41709.467	ug/L	3.311	271669152	146.948
	P	31	214.728	ug/L	0.801	101691	0.050
	K	39	4218.265	ug/L	1.912	44909433	23.462
	Ca	43	5849.545	ug/L	0.697	128925	0.069
>	Sc	45		ug/L		1848312	1848311.997
	Ti	47	561.609	ug/L	1.240	625727	0.338
	V	51	36.479	ug/L	3.382	402097	0.277
	Cr	52	29.989	ug/L	1.401	292244	0.168
	Cr	53		ug/L		248005	-0.216
	Mn	55	511.274	ug/L	1.757	8377092	4.529
	Fe	57	24517.399	ug/L	2.349	8577128	4.633
	Co	59	6.051	ug/L	1.694	72340	0.039
	Ni	60	22.887	ug/L	0.336	61275	0.033
	Cu	63		ug/L		139266	0.075
	Cu	65	22.652	ug/L	0.547	69106	0.037
	Zn	66	270.510	ug/L	1.769	521290	0.690
	Zn	67		ug/L		100872	0.095
	Zn	68		ug/L		404508	0.533
>	Ge	74		ug/L		754269	754269.158
	As	75	3.645	ug/L	6.740	12910	0.010
	Se	77		ug/L		15614	-0.048
	Se	82	2.574	ug/L	8.637	551	0.001
	Kr	83		ug/L		501	0.000
	Sr	88	67.345	ug/L	0.682	1733575	4.553
	Y	89		ug/L		1304476	3.427
	Zr	90	64.643	ug/L	1.636	861675	2.262
	Mo	98	3.276	ug/L	2.384	19003	0.050
	Ag	107	0.588	ug/L	3.718	5219	0.014
	Cd	111	3.118	ug/L	2.891	6761	0.018
	Cd	114		ug/L		12260	0.032
>	In	115		ug/L		380621	380621.346
	Sn	120	0.861	ug/L	1.395	8350	0.021
	Sb	121	1.705	ug/L	2.055	14095	0.037
	Sb	123		ug/L		11042	0.029
	Ba	135		ug/L		476437	1.389
	Ba	137	201.271	ug/L	3.198	811709	2.367
	Ho	165		ug/L		56489	0.165
>	Ta	181		ug/L		343013	343013.405
	Tl	205	0.473	ug/L	2.088	7779	0.022
	Pb	208	203.811	ug/L	2.566	4391229	12.780
	Bi	209		ug/L		10624	0.031
	Th	232	18.346	ug/L	3.053	372223	1.085
	U	238	3.068	ug/L	4.561	58710	0.171

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	0.9999
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	0.9999
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	0.9999
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	0.9999
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Ta	181	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
Li	7					
Be	9					
B	11					
Na	23					
Mg	24					
Al	27					
P	31					
K	39					
Ca	43					
> Sc	45		101.0			
Ti	47					
V	51					
Cr	52					
Cr	53					
Mn	55					
Fe	57					
Co	59					
Ni	60					
Cu	63					
Cu	65					
Zn	66					
Zn	67					
Zn	68					
> Ge	74		100.1			
As	75					
Se	77					
Se	82					
Kr	83					
Sr	88					
Y	89					
Zr	90					
Mo	98					
Ag	107					
Cd	111					
Cd	114					
> In	115		103.0			
Sn	120					
Sb	121					
Sb	123					
Ba	135					
Ba	137					
Ho	165					
> Ta	181		112.1			
Tl	205					
Pb	208					
Bi	209					
Th	232					
U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Ti 47 Upper, S, EEETi		47	Sample is out of limits (over linear range)

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1200840573
Sample Date/Time: Monday, May 09, 2005 18:30:01
Sample Type:
Sample Description: LANL 6020 MS
Number of Replicates: 3
Batch ID: 423106|2|baj
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\050509\1200840573.101

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	70.081	ug/L	1.227	111954	0.060
	Be	9	27.398	ug/L	1.253	12074	0.006
	B	11	64.553	ug/L	3.059	25859	0.013
	Na	23	1579.146	ug/L	4.377	9595958	5.132
	Mg	24	5694.816	ug/L	5.919	26165345	14.027
	Al	27	51582.073	ug/L	2.843	338947719	181.731
	P	31	946.089	ug/L	2.821	422725	0.222
	K	39	5945.625	ug/L	3.781	63218663	33.070
	Ca	43	6673.199	ug/L	1.996	148143	0.079
>	Sc	45		ug/L		1864937	1864936.815
	Ti	47	650.720	ug/L	1.257	731368	0.392
	V	51	59.235	ug/L	2.125	727481	0.449
	Cr	52	51.176	ug/L	2.248	516352	0.287
	Cr	53		ug/L		261983	-0.210
	Mn	55	514.729	ug/L	0.830	8509343	4.560
	Fe	57	26957.925	ug/L	2.796	9513559	5.095
	Co	59	30.163	ug/L	1.950	362217	0.194
	Ni	60	46.568	ug/L	1.975	125640	0.067
	Cu	63		ug/L		281795	0.151
	Cu	65	45.352	ug/L	0.553	139416	0.075
	Zn	66	297.672	ug/L	1.897	571647	0.760
	Zn	67		ug/L		108537	0.106
	Zn	68		ug/L		442606	0.585
>	Ge	74		ug/L		751778	751777.729
	As	75	22.735	ug/L	1.164	54004	0.065
	Se	77		ug/L		15100	-0.049
	Se	82	6.751	ug/L	4.879	1358	0.002
	Kr	83		ug/L		483	0.000
	Sr	88	99.059	ug/L	1.420	2568892	6.698
	Y	89		ug/L		1056981	2.756
	Zr	90	95.898	ug/L	1.436	1287632	3.356
	Mo	98	25.476	ug/L	2.236	148325	0.387
	Ag	107	24.611	ug/L	1.331	217557	0.567
	Cd	111	5.892	ug/L	0.677	12846	0.033
	Cd	114		ug/L		25124	0.065
>	In	115		ug/L		383502	383501.540
	Sn	120	13.028	ug/L	2.113	119597	0.310
	Sb	121	20.222	ug/L	1.817	166483	0.434
	Sb	123		ug/L		128163	0.334
	Ba	135		ug/L		549578	1.598
	Ba	137	227.223	ug/L	2.387	919324	2.673
	Ho	165		ug/L		47027	0.137
>	Ta	181		ug/L		344019	344018.753
	Tl	205	25.451	ug/L	0.781	401715	1.167
	Pb	208	217.296	ug/L	1.133	4696406	13.626
	Bi	209		ug/L		10445	0.030
	Th	232	44.972	ug/L	1.974	915023	2.660
	U	238	31.051	ug/L	4.230	595184	1.731

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	0.9999
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	0.9999
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	0.9999
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	0.9999
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Ta	181	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
Li	7					
Be	9					
B	11					
Na	23					
Mg	24					
Al	27					
P	31					
K	39					
Ca	43					
> Sc	45		101.9			
Ti	47					
V	51					
Cr	52					
Cr	53					
Mn	55					
Fe	57					
Co	59					
Ni	60					
Cu	63					
Cu	65					
Zn	66					
Zn	67					
Zn	68					
> Ge	74		99.8			
As	75					
Se	77					
Se	82					
Kr	83					
Sr	88					
Y	89					
Zr	90					
Mo	98					
Ag	107					
Cd	111					
Cd	114					
> In	115		103.8			
Sn	120					
Sb	121					
Sb	123					
Ba	135					
Ba	137					
Ho	165					
> Ta	181		112.5			
Tl	205					
Pb	208					
Bi	209					
Th	232					
U	238					

QC Out Of Limits

Measurement Type Analyte	Mass	Out of Limits Message
Ti 47 Upper, S, EEE	Ti	47 Sample is out of limits (over linear range)

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1200840574
Sample Date/Time: Monday, May 09, 2005 18:35:13
Sample Type:
Sample Description: LANL 6020 MSD
Number of Replicates: 3
Batch ID: 423106|2|baj
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\050509\1200840574.102

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	65.003	ug/L	0.707	104251	0.056
	Be	9	25.276	ug/L	3.150	11184	0.006
	B	11	60.970	ug/L	1.477	24580	0.013
	Na	23	1579.478	ug/L	5.490	9632671	5.133
	Mg	24	5253.875	ug/L	3.640	24227171	12.941
	Al	27	49426.486	ug/L	1.472	326002982	174.136
	P	31	877.071	ug/L	1.227	394114	0.206
	K	39	5556.067	ug/L	4.147	59418634	30.903
	Ca	43	6018.975	ug/L	1.377	134324	0.071
>	Sc	45		ug/L		1872063	1872062.946
	Ti	47	631.807	ug/L	1.489	712904	0.380
	V	51	55.122	ug/L	0.915	672050	0.418
	Cr	52	47.458	ug/L	0.927	479419	0.266
	Cr	53		ug/L		261053	-0.211
	Mn	55	494.224	ug/L	2.105	8202278	4.378
	Fe	57	25244.418	ug/L	1.661	8945771	4.771
	Co	59	28.703	ug/L	1.070	346084	0.185
	Ni	60	43.847	ug/L	1.453	118778	0.063
	Cu	63		ug/L		264125	0.141
	Cu	65	42.494	ug/L	1.435	131139	0.070
	Zn	66	266.509	ug/L	2.526	519811	0.680
	Zn	67		ug/L		100033	0.092
	Zn	68		ug/L		401618	0.522
>	Ge	74		ug/L		763383	763382.819
	As	75	21.279	ug/L	3.135	51652	0.061
	Se	77		ug/L		15539	-0.049
	Se	82	5.573	ug/L	9.778	1148	0.001
	Kr	83		ug/L		492	0.000
	Sr	88	89.098	ug/L	1.527	2326412	6.024
	Y	89		ug/L		957958	2.481
	Zr	90	88.893	ug/L	1.579	1201671	3.111
	Mo	98	23.395	ug/L	2.514	137127	0.355
	Ag	107	22.716	ug/L	1.102	202179	0.523
	Cd	111	4.948	ug/L	2.268	10867	0.028
	Cd	114		ug/L		21160	0.055
>	In	115		ug/L		386084	386083.665
	Sn	120	12.517	ug/L	1.130	115707	0.298
	Sb	121	16.686	ug/L	1.419	138332	0.358
	Sb	123		ug/L		107428	0.278
	Ba	135		ug/L		526740	1.500
	Ba	137	215.989	ug/L	1.384	891934	2.541
	Ho	165		ug/L		42539	0.121
>	Ta	181		ug/L		351073	351073.291
	Tl	205	23.525	ug/L	1.750	379008	1.078
	Pb	208	215.226	ug/L	1.591	4747142	13.496
	Bi	209		ug/L		9535	0.027
	Th	232	41.453	ug/L	0.448	860910	2.452
	U	238	28.009	ug/L	0.990	548096	1.561

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	0.9999
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	0.9999
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	0.9999
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	0.9999
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Ta	181	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
Li	7					
Be	9					
B	11					
Na	23					
Mg	24					
Al	27					
P	31					
K	39					
Ca	43					
> Sc	45		102.3			
Ti	47					
V	51					
Cr	52					
Cr	53					
Mn	55					
Fe	57					
Co	59					
Ni	60					
Cu	63					
Cu	65					
Zn	66					
Zn	67					
Zn	68					
> Ge	74		101.3			
As	75					
Se	77					
Se	82					
Kr	83					
Sr	88					
Y	89					
Zr	90					
Mo	98					
Ag	107					
Cd	111					
Cd	114					
> In	115		104.5			
Sn	120					
Sb	121					
Sb	123					
Ba	135					
Ba	137					
Ho	165					
> Ta	181		114.8			
Tl	205					
Pb	208					
Bi	209					
Th	232					
U	238					

QC Out Of Limits

Measurement Type Analyte	Mass	Out of Limits Message
Ti 47 Upper, S, EEETi	47	Sample is out of limits (over linear range)

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1200840576
Sample Date/Time: Monday, May 09, 2005 18:40:26
Sample Type:
Sample Description: LANL 6020 SDILT
Number of Replicates: 3
Batch ID: 423106|10|baj
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\050509\1200840576.103

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	8.055	ug/L	1.251	12435	0.007
	Be	9	0.526	ug/L	3.846	250	0.000
	B	11	4.600	ug/L	12.446	2698	0.001
	Na	23	133.408	ug/L	2.277	801192	0.434
	Mg	24	796.370	ug/L	6.646	3520511	1.962
	Al	27	8026.509	ug/L	2.130	50756995	28.278
	P	31	27.337	ug/L	5.870	19783	0.006
	K	39	785.023	ug/L	2.828	9332742	4.366
	Ca	43	1056.087	ug/L	0.655	23923	0.012
>	Sc	45		ug/L		1794530	1794529.758
	Ti	47	91.421	ug/L	1.474	99424	0.055
	V	51	12.585	ug/L	1.674	65318	0.095
	Cr	52	6.140	ug/L	0.862	43758	0.034
	Cr	53		ug/L		257074	-0.207
	Mn	55	93.668	ug/L	0.995	1494758	0.830
	Fe	57	3943.400	ug/L	1.194	1351313	0.745
	Co	59	1.086	ug/L	0.740	12914	0.007
	Ni	60	4.459	ug/L	1.809	11695	0.006
	Cu	63		ug/L		22706	0.013
	Cu	65	3.710	ug/L	0.746	11136	0.006
	Zn	66	42.821	ug/L	1.981	83603	0.109
	Zn	67		ug/L		30129	0.001
	Zn	68		ug/L		65125	0.082
>	Ge	74		ug/L		759220	759219.996
	As	75	-0.283	ug/L	66.689	4453	-0.001
	Se	77		ug/L		18392	-0.045
	Se	82	1.475	ug/L	8.166	340	0.000
	Kr	83		ug/L		337	-0.000
	Sr	88	13.945	ug/L	0.555	362360	0.943
	Y	89		ug/L		186983	0.487
	Zr	90	10.932	ug/L	2.382	147522	0.383
	Mo	98	0.364	ug/L	1.297	2205	0.006
	Ag	107	0.116	ug/L	0.968	1085	0.003
	Cd	111	0.497	ug/L	5.843	1110	0.003
	Cd	114		ug/L		2006	0.005
>	In	115		ug/L		383808	383808.323
	Sn	120	0.132	ug/L	2.666	1754	0.003
	Sb	121	0.295	ug/L	1.964	2613	0.006
	Sb	123		ug/L		1995	0.005
	Ba	135		ug/L		89376	0.262
	Ba	137	38.423	ug/L	1.948	153869	0.452
	Ho	165		ug/L		7698	0.023
>	Ta	181		ug/L		340384	340383.720
	Tl	205	0.097	ug/L	6.555	1847	0.004
	Pb	208	27.002	ug/L	0.787	585479	1.693
	Bi	209		ug/L		1895	0.005
	Th	232	3.146	ug/L	1.848	63559	0.186
	U	238	0.485	ug/L	1.096	9288	0.027

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	0.9999
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	0.9999
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	0.9999
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	0.9999
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Ta	181	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
Li	7					
Be	9					
B	11					
Na	23					
Mg	24					
Al	27					
P	31					
K	39					
Ca	43					
> Sc	45		98.0			
Ti	47					
V	51					
Cr	52					
Cr	53					
Mn	55					
Fe	57					
Co	59					
Ni	60					
Cu	63					
Cu	65					
Zn	66					
Zn	67					
Zn	68					
> Ge	74		100.8			
As	75					
Se	77					
Se	82					
Kr	83					
Sr	88					
Y	89					
Zr	90					
Mo	98					
Ag	107					
Cd	111					
Cd	114					
> In	115		103.9			
Sn	120					
Sb	121					
Sb	123					
Ba	135					
Ba	137					
Ho	165					
> Ta	181		111.3			
Tl	205					
Pb	208					
Bi	209					
Th	232					
U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 135806002
Sample Date/Time: Monday, May 09, 2005 18:45:37
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 423106|2|baj
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\050509\135806002.104

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	32.525	ug/L	1.755	51760	0.028
	Be	9	2.593	ug/L	1.904	1163	0.001
	B	11	8.992	ug/L	5.355	4472	0.002
	Na	23	620.852	ug/L	5.123	3767710	2.018
	Mg	24	3490.613	ug/L	5.036	15954602	8.598
	Al	27	35275.553	ug/L	4.501	230620709	124.280
	P	31	81.672	ug/L	2.644	44138	0.019
	K	39	3732.613	ug/L	8.685	40073032	20.761
	Ca	43	3961.283	ug/L	1.941	88214	0.047
>	Sc	45		ug/L		1856255	1856255.199
	Ti	47	447.734	ug/L	0.818	501106	0.270
	V	51	29.938	ug/L	2.830	311771	0.227
	Cr	52	16.380	ug/L	1.645	151837	0.092
	Cr	53		ug/L		230582	-0.226
	Mn	55	301.649	ug/L	1.936	4966258	2.672
	Fe	57	19232.539	ug/L	2.636	6760070	3.635
	Co	59	4.423	ug/L	2.430	53202	0.028
	Ni	60	18.485	ug/L	0.601	49725	0.027
	Cu	63		ug/L		86167	0.046
	Cu	65	13.926	ug/L	0.150	42737	0.023
	Zn	66	110.518	ug/L	1.761	215419	0.282
	Zn	67		ug/L		50763	0.028
	Zn	68		ug/L		168168	0.217
>	Ge	74		ug/L		761499	761498.897
	As	75	1.529	ug/L	22.321	8417	0.004
	Se	77		ug/L		15099	-0.049
	Se	82	0.162	ug/L	105.032	83	0.000
	Kr	83		ug/L		443	0.000
	Sr	88	43.203	ug/L	1.587	1126345	2.921
	Y	89		ug/L		615693	1.597
	Zr	90	49.610	ug/L	1.352	669866	1.736
	Mo	98	1.298	ug/L	2.416	7672	0.020
	Ag	107	0.196	ug/L	1.679	1805	0.005
	Cd	111	1.075	ug/L	2.441	2379	0.006
	Cd	114		ug/L		3031	0.008
>	In	115		ug/L		385508	385508.483
	Sn	120	0.509	ug/L	1.362	5217	0.012
	Sb	121	0.486	ug/L	3.484	4201	0.010
	Sb	123		ug/L		3203	0.008
	Ba	135		ug/L		299477	0.857
	Ba	137	125.428	ug/L	0.777	515616	1.475
	Ho	165		ug/L		28859	0.082
>	Ta	181		ug/L		349474	349474.249
	Tl	205	0.360	ug/L	1.489	6121	0.017
	Pb	208	40.295	ug/L	1.136	892377	2.527
	Bi	209		ug/L		7262	0.021
	Th	232	13.289	ug/L	2.438	274875	0.786
	U	238	1.500	ug/L	2.186	29310	0.084

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	0.9999
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	
Sc	45	Linear Thru Zero	1.0000
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	0.9999
Cr	52	Linear Thru Zero	
Cr	53	Linear Thru Zero	0.9999
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	
Cu	63	Linear Thru Zero	1.0000
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	1.0000
As	75	Linear Thru Zero	
Se	77	Linear Thru Zero	1.0000
Se	82	Linear Thru Zero	
Kr	83	Linear Thru Zero	1.0000
Sr	88	Linear Thru Zero	
Y	89	Linear Thru Zero	0.9999
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	1.0000
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	1.0000
Ba	137	Linear Thru Zero	
Ho	165	Linear Thru Zero	
Ta	181	Linear Thru Zero	0.9999
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	
Bi	209	Linear Thru Zero	0.9999
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
Li	7					
Be	9					
B	11					
Na	23					
Mg	24					
Al	27					
P	31					
K	39					
Ca	43					
> Sc	45		101.4			
Ti	47					
V	51					
Cr	52					
Cr	53					
Mn	55					
Fe	57					
Co	59					
Ni	60					
Cu	63					
Cu	65					
Zn	66					
Zn	67					
Zn	68					
> Ge	74		101.1			
As	75					
Se	77					
Se	82					
Kr	83					
Sr	88					
Y	89					
Zr	90					
Mo	98					
Ag	107					
Cd	111					
Cd	114					
> In	115		104.4			
Sn	120					
Sb	121					
Sb	123					
Ba	135					
Ba	137					
Ho	165					
> Ta	181		114.2			
Tl	205					
Pb	208					
Bi	209					
Th	232					
U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Ti 47 Upper, S, EEETi		47	Sample is out of limits (over linear range)

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 8
Sample Date/Time: Monday, May 09, 2005 18:50:47
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\050509\QC Std 8.105

P, U

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	52.899	ug/L	2.124	80356	0.045
	Be	9	51.288	ug/L	1.318	21466	0.012
	B	11	102.071	ug/L	0.906	38312	0.021
	Na	23	4990.538	ug/L	9.153	28783284	16.218
	Mg	24	5252.098	ug/L	3.971	22935055	12.937
	Al	27	4852.580	ug/L	2.610	30317937	17.096
	P	31	4165.675	ug/L	2.358	1742068	0.978
	K	39	5016.993	ug/L	4.285	50954934	27.905
	Ca	43	5033.011	ug/L	1.290	106635	0.059
>	Sc	45		ug/L		1773087	1773086.535
	Ti	47	47.561	ug/L	0.698	51413	0.029
	V	51	53.434	ug/L	0.948	613780	0.405
	Cr	52	53.787	ug/L	1.131	516982	0.302
	Cr	53		ug/L		226725	-0.222
	Mn	55	53.000	ug/L	2.006	838139	0.470
	Fe	57	4616.677	ug/L	2.366	1560774	0.872
	Co	59	52.408	ug/L	0.201	598205	0.337
	Ni	60	50.698	ug/L	1.258	130051	0.073
	Cu	63		ug/L		306010	0.172
	Cu	65	51.582	ug/L	1.813	150730	0.085
	Zn	66	51.388	ug/L	1.980	100474	0.131
	Zn	67		ug/L		27678	-0.002
	Zn	68		ug/L		78151	0.099
>	Ge	74		ug/L		761202	761202.067
	As	75	48.106	ug/L	2.479	110039	0.138
	Se	77		ug/L		17585	-0.046
	Se	82	50.892	ug/L	0.909	10028	0.013
	Kr	83		ug/L		311	-0.000
	Sr	88	45.840	ug/L	0.408	1210885	3.099
	Y	89		ug/L		552	0.001
	Zr	90	48.771	ug/L	1.723	667221	1.707
	Mo	98	49.245	ug/L	1.866	291889	0.747
	Ag	107	50.545	ug/L	0.770	454982	1.165
	Cd	111	48.823	ug/L	1.938	108185	0.277
	Cd	114		ug/L		254002	0.650
>	In	115		ug/L		390540	390539.957
	Sn	120	49.399	ug/L	1.537	460277	1.177
	Sb	121	48.813	ug/L	2.006	408965	1.047
	Sb	123		ug/L		320324	0.820
	Ba	135		ug/L		112898	0.332
	Ba	137	49.082	ug/L	2.120	196010	0.577
	Ho	165		ug/L		55	0.000
>	Ta	181		ug/L		339466	339465.879
	Tl	205	51.028	ug/L	0.340	794463	2.339
	Pb	208	53.601	ug/L	2.319	1149957	3.361
	Bi	209		ug/L		126	0.000
	Th	232	53.116	ug/L	0.452	1066591	3.141
	U	238	56.989	ug/L	2.511	1078151	3.176

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	0.9999
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	0.9999
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	0.9999
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	0.9999
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Ta	181	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
Li	7	105.798				
Be	9	102.576				
B	11	102.071				
Na	23	99.811				
Mg	24	105.042				
Al	27	96.091				
P	31	83.313				
K	39	100.340				
Ca	43	100.660				
> Sc	45		96.9			
Ti	47	95.123				
V	51	106.867				
Cr	52	107.575				
Cr	53					
Mn	55	106.000				
Fe	57	92.334				
Co	59	104.817				
Ni	60	101.396				
Cu	63					
Cu	65	103.164				
Zn	66	102.776				
Zn	67					
Zn	68					
> Ge	74		101.0			
As	75	96.211				
Se	77					
Se	82	101.783				
Kr	83					
Sr	88	91.680				
Y	89					
Zr	90	97.541				
Mo	98	98.490				
Ag	107	101.090				
Cd	111	97.646				
Cd	114					
> In	115		105.7			
Sn	120	98.798				
Sb	121	97.625				
Sb	123					
Ba	135					
Ba	137	98.164				
Ho	165					
> Ta	181		111.0			
Tl	205	102.057				
Pb	208	107.201				
Bi	209					
Th	232	106.232				
U	238	113.978				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 8	P	31	CCV is out of limits (+/- 10%)
QC Std 8	U	238	CCV is out of limits (+/- 10%)

QC Action

ICPMS#5 - Summary Report

Sample ID: QC Std 9
Sample Date/Time: Monday, May 09, 2005 18:55:59
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\050509\QC Std 9.106

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	0.037	ug/L	24.800	117	0.000
	Be	9	-0.002	ug/L	953.535	27	-0.000
	B	11	4.069	ug/L	19.252	2547	0.001
	Na	23	-0.667	ug/L	59.986	19680	-0.002
	Mg	24	0.521	ug/L	138.090	3667	0.001
	Al	27	-0.104	ug/L	438.197	8002	-0.000
	P	31	-2.809	ug/L	19.396	7213	-0.001
	K	39	-9.442	ug/L	39.316	1427614	-0.053
	Ca	43	-5.795	ug/L	54.089	1519	-0.000
>	Sc	45		ug/L		1827566	1827565.629
	Ti	47	-0.048	ug/L	30.821	597	-0.000
	V	51	7.525	ug/L	5.040	-3688	0.057
	Cr	52	2.460	ug/L	3.463	6838	0.014
	Cr	53		ug/L		299259	-0.187
	Mn	55	-0.067	ug/L	15.246	4770	-0.001
	Fe	57	13.781	ug/L	9.748	18990	0.003
	Co	59	0.004	ug/L	38.488	434	0.000
	Ni	60	0.002	ug/L	212.625	139	0.000
	Cu	63		ug/L		282	0.000
	Cu	65	0.001	ug/L	493.345	182	0.000
	Zn	66	0.074	ug/L	50.843	817	0.000
	Zn	67		ug/L		17499	-0.016
	Zn	68		ug/L		1757	-0.001
>	Ge	74		ug/L		788386	788386.244
	As	75	-1.504	ug/L	30.257	1865	-0.004
	Se	77		ug/L		24221	-0.038
	Se	82	0.177	ug/L	38.865	89	0.000
	Kr	83		ug/L		328	-0.000
	Sr	88	-0.004	ug/L	20.042	391	-0.000
	Y	89		ug/L		74	-0.000
	Zr	90	0.696	ug/L	17.220	10298	0.024
	Mo	98	0.036	ug/L	48.268	297	0.001
	Ag	107	0.005	ug/L	38.864	111	0.000
	Cd	111	0.008	ug/L	90.794	47	0.000
	Cd	114		ug/L		64	0.000
>	In	115		ug/L		393024	393023.693
	Sn	120	0.134	ug/L	34.053	1809	0.003
	Sb	121	0.138	ug/L	32.091	1348	0.003
	Sb	123		ug/L		1070	0.002
	Ba	135		ug/L		48	0.000
	Ba	137	0.006	ug/L	66.387	74	0.000
	Ho	165		ug/L		29	-0.000
>	Ta	181		ug/L		328679	328679.290
	Tl	205	0.002	ug/L	45.447	356	0.000
	Pb	208	0.691	ug/L	13.735	23128	0.043
	Bi	209		ug/L		49	-0.000
	Th	232	0.026	ug/L	34.897	736	0.002
	U	238	0.004	ug/L	41.740	155	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	0.9999
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	1.0000
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	0.9999
Cr	52	Linear Thru Zero	0.9999
Cr	53	Linear Thru Zero	1.0000
Mn	55	Linear Thru Zero	0.9999
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	1.0000
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	1.0000
As	75	Linear Thru Zero	
Se	77	Linear Thru Zero	1.0000
Se	82	Linear Thru Zero	
Kr	83	Linear Thru Zero	1.0000
Sr	88	Linear Thru Zero	
Y	89	Linear Thru Zero	0.9999
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	1.0000
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	1.0000
Ba	137	Linear Thru Zero	
Ho	165	Linear Thru Zero	
Ta	181	Linear Thru Zero	0.9999
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	
Bi	209	Linear Thru Zero	0.9999
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
Li	7					
Be	9					
B	11					
Na	23					
Mg	24					
Al	27					
P	31					
K	39					
Ca	43					
> Sc	45		99.8			
Ti	47					
V	51					
Cr	52					
Cr	53					
Mn	55					
Fe	57					
Co	59					
Ni	60					
Cu	63					
Cu	65					
Zn	66					
Zn	67					
Zn	68					
> Ge	74		104.6			
As	75					
Se	77					
Se	82					
Kr	83					
Sr	88					
Y	89					
Zr	90					
Mo	98					
Ag	107					
Cd	111					
Cd	114					
> In	115		106.4			
Sn	120					
Sb	121					
Sb	123					
Ba	135					
Ba	137					
Ho	165					
> Ta	181		107.4			
Tl	205					
Pb	208					
Bi	209					
Th	232					
U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 135806003
Sample Date/Time: Monday, May 09, 2005 19:01:10
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 423106|2|ba|
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\050509\135806003.107

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	143.754	ug/L	1.492	231785	0.123
	Be	9	4.088	ug/L	4.246	1843	0.001
	B	11	9.930	ug/L	4.410	4901	0.002
	Na	23	795.245	ug/L	2.482	4892057	2.584
	Mg	24	5958.977	ug/L	7.744	27618975	14.678
	Al	27	41095.245	ug/L	3.892	272520779	144.784
	P	31	430.282	ug/L	1.068	198875	0.101
	K	39	5460.288	ug/L	9.866	58727720	30.371
	Ca	43	5495.208	ug/L	0.575	123489	0.065
>	Sc	45		ug/L		1882970	1882970.027
	Ti	47	684.646	ug/L	0.994	776906	0.412
	V	51	35.469	ug/L	3.204	395150	0.269
	Cr	52	20.343	ug/L	1.102	195866	0.114
	Cr	53		ug/L		232375	-0.227
	Mn	55	378.455	ug/L	3.131	6317344	3.353
	Fe	57	24157.841	ug/L	2.468	8608963	4.565
	Co	59	5.999	ug/L	3.793	73040	0.039
	Ni	60	22.483	ug/L	0.910	61319	0.032
	Cu	63		ug/L		149169	0.079
	Cu	65	23.661	ug/L	1.412	73517	0.039
	Zn	66	222.532	ug/L	2.574	438153	0.568
	Zn	67		ug/L		85781	0.073
	Zn	68		ug/L		339370	0.437
>	Ge	74		ug/L		770409	770408.543
	As	75	2.520	ug/L	12.396	10704	0.007
	Se	77		ug/L		15260	-0.049
	Se	82	1.965	ug/L	18.946	442	0.001
	Kr	83		ug/L		557	0.000
	Sr	88	46.882	ug/L	1.512	1217938	3.170
	Y	89		ug/L		1595698	4.154
	Zr	90	66.317	ug/L	1.526	892108	2.321
	Mo	98	1.686	ug/L	1.466	9911	0.026
	Ag	107	0.263	ug/L	2.665	2391	0.006
	Cd	111	6.047	ug/L	2.363	13203	0.034
	Cd	114		ug/L		27036	0.070
>	In	115		ug/L		384129	384129.444
	Sn	120	1.173	ug/L	1.927	11284	0.028
	Sb	121	0.802	ug/L	3.715	6787	0.017
	Sb	123		ug/L		5304	0.013
	Ba	135		ug/L		392446	1.124
	Ba	137	162.999	ug/L	1.939	669351	1.917
	Ho	165		ug/L		69602	0.199
>	Ta	181		ug/L		349160	349159.624
	Tl	205	0.489	ug/L	2.295	8167	0.022
	Pb	208	82.077	ug/L	0.747	1806380	5.147
	Bi	209		ug/L		9238	0.026
	Th	232	17.567	ug/L	1.230	362998	1.039
	U	238	2.133	ug/L	1.540	41592	0.119

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	0.9999
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	
Sc	45	Linear Thru Zero	1.0000
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	0.9999
Cr	52	Linear Thru Zero	
Cr	53	Linear Thru Zero	0.9999
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	
Cu	63	Linear Thru Zero	1.0000
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	1.0000
As	75	Linear Thru Zero	
Se	77	Linear Thru Zero	1.0000
Se	82	Linear Thru Zero	
Kr	83	Linear Thru Zero	1.0000
Sr	88	Linear Thru Zero	
Y	89	Linear Thru Zero	0.9999
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	1.0000
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	1.0000
Ba	137	Linear Thru Zero	
Ho	165	Linear Thru Zero	
Ta	181	Linear Thru Zero	0.9999
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	
Bi	209	Linear Thru Zero	0.9999
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
Li	7					
Be	9					
B	11					
Na	23					
Mg	24					
Al	27					
P	31					
K	39					
Ca	43					
> Sc	45		102.9			
Ti	47					
V	51					
Cr	52					
Cr	53					
Mn	55					
Fe	57					
Co	59					
Ni	60					
Cu	63					
Cu	65					
Zn	66					
Zn	67					
Zn	68					
> Ge	74		102.3			
As	75					
Se	77					
Se	82					
Kr	83					
Sr	88					
Y	89					
Zr	90					
Mo	98					
Ag	107					
Cd	111					
Cd	114					
> In	115		104.0			
Sn	120					
Sb	121					
Sb	123					
Ba	135					
Ba	137					
Ho	165					
> Ta	181		114.1			
Tl	205					
Pb	208					
Bi	209					
Th	232					
U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Ti 47 Upper, S, EEE	Ti	47	Sample is out of limits (over linear range)

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 135806004
Sample Date/Time: Monday, May 09, 2005 19:06:21
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 423106|2|baj
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\050509\135806004.108

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	32.603	ug/L	0.287	51292	0.028
	Be	9	2.794	ug/L	2.910	1237	0.001
	B	11	8.158	ug/L	5.966	4107	0.002
	Na	23	663.196	ug/L	7.693	3978812	2.155
	Mg	24	3137.807	ug/L	2.695	14185513	7.729
	Al	27	35852.758	ug/L	6.570	231812988	126.314
	P	31	200.644	ug/L	1.527	94911	0.047
	K	39	3606.781	ug/L	3.245	38345747	20.061
	Ca	43	4194.757	ug/L	1.711	92276	0.049
>	Sc	45		ug/L		1835304	1835303.515
	Ti	47	615.989	ug/L	1.361	681425	0.371
	V	51	29.485	ug/L	0.847	302019	0.224
	Cr	52	16.041	ug/L	0.919	146652	0.090
	Cr	53		ug/L		207767	-0.237
	Mn	55	329.104	ug/L	1.654	5356460	2.915
	Fe	57	21149.169	ug/L	1.831	7349412	3.997
	Co	59	4.272	ug/L	0.905	50825	0.027
	Ni	60	16.902	ug/L	0.634	44968	0.024
	Cu	63		ug/L		306846	0.167
	Cu	65	50.285	ug/L	1.369	152100	0.083
	Zn	66	252.388	ug/L	1.719	487131	0.644
	Zn	67		ug/L		93230	0.085
	Zn	68		ug/L		375817	0.494
>	Ge	74		ug/L		755321	755320.866
	As	75	1.640	ug/L	29.003	8587	0.005
	Se	77		ug/L		13079	-0.052
	Se	82	1.246	ug/L	30.795	293	0.000
	Kr	83		ug/L		456	0.000
	Sr	88	41.166	ug/L	1.218	1074971	2.783
	Y	89		ug/L		1010119	2.616
	Zr	90	56.620	ug/L	1.559	765552	1.981
	Mo	98	1.692	ug/L	2.560	9991	0.026
	Ag	107	0.214	ug/L	1.915	1961	0.005
	Cd	111	24.965	ug/L	1.390	54696	0.142
	Cd	114		ug/L		126628	0.328
>	In	115		ug/L		386045	386044.596
	Sn	120	0.814	ug/L	1.927	8036	0.019
	Sb	121	0.534	ug/L	0.887	4603	0.011
	Sb	123		ug/L		3552	0.009
	Ba	135		ug/L		343983	0.991
	Ba	137	144.400	ug/L	1.035	589622	1.698
	Ho	165		ug/L		46864	0.135
>	Ta	181		ug/L		347098	347097.939
	Tl	205	0.401	ug/L	2.900	6726	0.018
	Pb	208	45.890	ug/L	0.441	1008158	2.878
	Bi	209		ug/L		8159	0.023
	Th	232	15.867	ug/L	2.736	325926	0.938
	U	238	1.449	ug/L	2.345	28123	0.081

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	0.9999
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	
Sc	45	Linear Thru Zero	1.0000
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	0.9999
Cr	52	Linear Thru Zero	
Cr	53	Linear Thru Zero	0.9999
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	
Cu	63	Linear Thru Zero	1.0000
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	1.0000
As	75	Linear Thru Zero	
Se	77	Linear Thru Zero	1.0000
Se	82	Linear Thru Zero	
Kr	83	Linear Thru Zero	1.0000
Sr	88	Linear Thru Zero	
Y	89	Linear Thru Zero	0.9999
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	1.0000
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	1.0000
Ba	137	Linear Thru Zero	
Ho	165	Linear Thru Zero	
Ta	181	Linear Thru Zero	0.9999
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	
Bi	209	Linear Thru Zero	0.9999
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
Li	7					
Be	9					
B	11					
Na	23					
Mg	24					
Al	27					
P	31					
K	39					
Ca	43					
> Sc	45		100.3			
Ti	47					
V	51					
Cr	52					
Cr	53					
Mn	55					
Fe	57					
Co	59					
Ni	60					
Cu	63					
Cu	65					
Zn	66					
Zn	67					
Zn	68					
> Ge	74		100.3			
As	75					
Se	77					
Se	82					
Kr	83					
Sr	88					
Y	89					
Zr	90					
Mo	98					
Ag	107					
Cd	111					
Cd	114					
> In	115		104.5			
Sn	120					
Sb	121					
Sb	123					
Ba	135					
Ba	137					
Ho	165					
> Ta	181		113.5			
Tl	205					
Pb	208					
Bi	209					
Th	232					
U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Ti 47 Upper, S, EEETi		47	Sample is out of limits (over linear range)

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 135806005
Sample Date/Time: Monday, May 09, 2005 19:11:32
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 423106|2|baj
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\050509\135806005.109

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	31.335	ug/L	1.245	51768	0.027
Be	9	2.316	ug/L	2.152	1081	0.001
B	11	17.946	ug/L	4.280	8202	0.004
Na	23	682.543	ug/L	9.763	4297759	2.218
Mg	24	4627.543	ug/L	1.911	21965969	11.399
Al	27	38046.534	ug/L	9.718	258213438	134.043
P	31	697.880	ug/L	3.075	324586	0.164
K	39	4298.934	ug/L	7.478	47673090	23.911
Ca	43	6513.188	ug/L	1.526	149477	0.077
Sc	45		ug/L		1927127	1927126.974
Ti	47	571.181	ug/L	0.824	663538	0.344
V	51	40.889	ug/L	2.417	483733	0.310
Cr	52	72.430	ug/L	2.179	763319	0.406
Cr	53		ug/L		291334	-0.199
Mn	55	1149.134	ug/L	1.794	19623929	10.180
Fe	57	119455.288	ug/L	2.454	43515853	22.575
Co	59	16.608	ug/L	2.321	206296	0.107
Ni	60	69.439	ug/L	1.138	193551	0.100
Cu	63		ug/L		733298	0.380
Cu	65	114.704	ug/L	0.889	364073	0.189
Zn	66	2296.900	ug/L	3.082	4483545	5.862
Zn	67		ug/L		662114	0.827
Zn	68		ug/L		3326078	4.345
Ge	74		ug/L		765055	765055.357
As	75	13.073	ug/L	2.414	33779	0.037
Se	77		ug/L		13270	-0.052
Se	82	1.054	ug/L	19.712	260	0.000
Kr	83		ug/L		517	0.000
Sr	88	40.904	ug/L	1.469	1061068	2.766
Y	89		ug/L		1076808	2.808
Zr	90	57.851	ug/L	1.856	777008	2.024
Mo	98	23.457	ug/L	1.245	136580	0.356
Ag	107	0.644	ug/L	1.300	5756	0.015
Cd	111	25.807	ug/L	0.272	56173	0.146
Cd	114		ug/L		132625	0.346
In	115		ug/L		383499	383499.242
Sn	120	2.860	ug/L	1.861	26676	0.068
Sb	121	7.292	ug/L	1.199	60144	0.156
Sb	123		ug/L		46946	0.122
Ba	135		ug/L		575235	1.728
Ba	137	246.971	ug/L	3.166	967090	2.905
Ho	165		ug/L		45560	0.137
Ta	181		ug/L		333017	333017.500
Tl	205	0.417	ug/L	1.330	6690	0.019
Pb	208	955.157	ug/L	3.832	19944151	59.894
Bi	209		ug/L		11859	0.035
Th	232	17.495	ug/L	1.568	344716	1.035
U	238	3.272	ug/L	3.080	60785	0.182

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	0.9999
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	
Sc	45	Linear Thru Zero	1.0000
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	0.9999
Cr	52	Linear Thru Zero	
Cr	53	Linear Thru Zero	0.9999
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	
Cu	63	Linear Thru Zero	1.0000
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	1.0000
As	75	Linear Thru Zero	
Se	77	Linear Thru Zero	1.0000
Se	82	Linear Thru Zero	
Kr	83	Linear Thru Zero	1.0000
Sr	88	Linear Thru Zero	
Y	89	Linear Thru Zero	0.9999
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	1.0000
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	1.0000
Ba	137	Linear Thru Zero	
Ho	165	Linear Thru Zero	
Ta	181	Linear Thru Zero	0.9999
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	
Bi	209	Linear Thru Zero	0.9999
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
Li	7					
Be	9					
B	11					
Na	23					
Mg	24					
Al	27					
P	31					
K	39					
Ca	43					
> Sc	45		105.3			
Ti	47					
V	51					
Cr	52					
Cr	53					
Mn	55					
Fe	57					
Co	59					
Ni	60					
Cu	63					
Cu	65					
Zn	66					
Zn	67					
Zn	68					
> Ge	74		101.5			
As	75					
Se	77					
Se	82					
Kr	83					
Sr	88					
Y	89					
Zr	90					
Mo	98					
Ag	107					
Cd	111					
Cd	114					
> In	115		103.8			
Sn	120					
Sb	121					
Sb	123					
Ba	135					
Ba	137					
Ho	165					
> Ta	181		108.9			
Tl	205					
Pb	208					
Bi	209					
Th	232					
U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Ti	47 Upper, S, EEETi	47	Sample is out of limits (over linear range)

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 135806006
Sample Date/Time: Monday, May 09, 2005 19:16:44
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 423106|2|baj
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\050509\135806006.110

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	31.645	ug/L	1.648	51073	0.027
Be	9	2.624	ug/L	1.137	1193	0.001
B	11	10.008	ug/L	2.830	4931	0.002
Na	23	716.542	ug/L	2.467	4407899	2.329
Mg	24	3871.826	ug/L	5.814	17948296	9.537
Al	27	33214.456	ug/L	5.762	220401180	117.019
P	31	327.081	ug/L	1.385	153244	0.077
K	39	3776.910	ug/L	4.296	41109404	21.008
Ca	43	4402.506	ug/L	0.476	99261	0.052
> Sc	45		ug/L		1882709	1882709.173
Ti	47	594.288	ug/L	2.015	674329	0.358
V	51	40.172	ug/L	1.483	462332	0.305
Cr	52	40.498	ug/L	1.014	408622	0.227
Cr	53		ug/L		231011	-0.228
Mn	55	656.720	ug/L	2.245	10957179	5.818
Fe	57	31678.461	ug/L	2.182	11283777	5.987
Co	59	7.814	ug/L	2.577	95026	0.050
Ni	60	32.477	ug/L	1.218	88510	0.047
Cu	63		ug/L		322863	0.171
Cu	65	51.306	ug/L	2.039	159172	0.084
Zn	66	816.817	ug/L	1.451	1554239	2.085
Zn	67		ug/L		280212	0.337
Zn	68		ug/L		1212448	1.623
> Ge	74		ug/L		745322	745322.333
As	75	6.192	ug/L	4.638	18206	0.018
Se	77		ug/L		11545	-0.054
Se	82	1.137	ug/L	12.357	269	0.000
Kr	83		ug/L		463	0.000
Sr	88	36.033	ug/L	0.671	925673	2.436
Y	89		ug/L		976853	2.572
Zr	90	55.156	ug/L	1.316	733701	1.930
Mo	98	6.404	ug/L	3.518	36979	0.097
Ag	107	1.606	ug/L	1.141	14117	0.037
Cd	111	12.980	ug/L	1.318	27991	0.074
Cd	114		ug/L		64075	0.169
> In	115		ug/L		379770	379769.751
Sn	120	1.775	ug/L	1.272	16599	0.042
Sb	121	6.948	ug/L	2.136	56754	0.149
Sb	123		ug/L		43643	0.115
Ba	135		ug/L		581245	1.700
Ba	137	241.967	ug/L	1.482	972860	2.846
Ho	165		ug/L		43215	0.126
> Ta	181		ug/L		341839	341839.495
Tl	205	0.405	ug/L	1.052	6682	0.019
Pb	208	599.277	ug/L	0.761	12854231	37.578
Bi	209		ug/L		12135	0.035
Th	232	20.806	ug/L	1.900	420842	1.231
U	238	4.554	ug/L	0.717	86848	0.254

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	0.9999
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	0.9999
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	0.9999
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	0.9999
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Ta	181	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
Li	7					
Be	9					
B	11					
Na	23					
Mg	24					
Al	27					
P	31					
K	39					
Ca	43					
> Sc	45		102.9			
Ti	47					
V	51					
Cr	52					
Cr	53					
Mn	55					
Fe	57					
Co	59					
Ni	60					
Cu	63					
Cu	65					
Zn	66					
Zn	67					
Zn	68					
> Ge	74		98.9			
As	75					
Se	77					
Se	82					
Kr	83					
Sr	88					
Y	89					
Zr	90					
Mo	98					
Ag	107					
Cd	111					
Cd	114					
> In	115		102.8			
Sn	120					
Sb	121					
Sb	123					
Ba	135					
Ba	137					
Ho	165					
> Ta	181		111.7			
Tl	205					
Pb	208					
Bi	209					
Th	232					
U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Ti 47 Upper, S, EEETi		47	Sample is out of limits (over linear range)

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 135806007
Sample Date/Time: Monday, May 09, 2005 19:21:57
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 423106|2|baj
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\050509\135806007.111

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	32.879	ug/L	1.485	52433	0.028
	Be	9	2.341	ug/L	2.543	1055	0.001
	B	11	11.095	ug/L	1.711	5290	0.002
	Na	23	573.628	ug/L	6.611	3492360	1.864
	Mg	24	4273.264	ug/L	8.779	19583630	10.526
	Al	27	33575.216	ug/L	4.602	220060529	118.290
	P	31	404.508	ug/L	1.054	185247	0.095
	K	39	4240.132	ug/L	3.558	45427619	23.584
	Ca	43	4459.624	ug/L	1.354	99334	0.052
>	Sc	45		ug/L		1860324	1860324.199
	Ti	47	622.343	ug/L	1.283	697822	0.375
	V	51	37.288	ug/L	1.762	416235	0.283
	Cr	52	50.146	ug/L	0.580	504455	0.281
	Cr	53		ug/L		240517	-0.221
	Mn	55	704.408	ug/L	2.484	11614084	6.240
	Fe	57	28506.162	ug/L	1.315	10036080	5.387
	Co	59	8.448	ug/L	0.447	101504	0.054
	Ni	60	30.317	ug/L	0.918	81651	0.044
	Cu	63		ug/L		229136	0.123
	Cu	65	37.190	ug/L	0.932	114078	0.061
	Zn	66	520.894	ug/L	1.812	1001407	1.329
	Zn	67		ug/L		180122	0.201
	Zn	68		ug/L		766170	1.014
>	Ge	74		ug/L		752829	752828.889
	As	75	4.315	ug/L	8.142	14337	0.012
	Se	77		ug/L		11761	-0.053
	Se	82	1.278	ug/L	6.208	299	0.000
	Kr	83		ug/L		463	0.000
	Sr	88	36.234	ug/L	0.622	948809	2.450
	Y	89		ug/L		1032647	2.668
	Zr	90	53.077	ug/L	1.834	719666	1.857
	Mo	98	6.179	ug/L	1.069	36376	0.094
	Ag	107	0.332	ug/L	0.133	3023	0.008
	Cd	111	4.906	ug/L	1.303	10802	0.028
	Cd	114		ug/L		23010	0.059
>	In	115		ug/L		387102	387101.968
	Sn	120	1.611	ug/L	0.993	15411	0.038
	Sb	121	4.314	ug/L	1.789	35992	0.093
	Sb	123		ug/L		28104	0.072
	Ba	135		ug/L		698275	2.007
	Ba	137	286.182	ug/L	2.125	1171128	3.366
	Ho	165		ug/L		44470	0.128
>	Ta	181		ug/L		347937	347936.824
	Tl	205	0.412	ug/L	3.228	6911	0.019
	Pb	208	762.796	ug/L	1.714	16650297	47.831
	Bi	209		ug/L		11987	0.034
	Th	232	18.376	ug/L	1.491	378340	1.087
	U	238	3.024	ug/L	1.781	58722	0.169

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	0.9999
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	1.0000
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	0.9999
Cr	52	Linear Thru Zero	0.9999
Cr	53	Linear Thru Zero	1.0000
Mn	55	Linear Thru Zero	0.9999
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	1.0000
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	1.0000
Zn	68	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	1.0000
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	1.0000
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	1.0000
Sr	88	Linear Thru Zero	0.9999
Y	89	Linear Thru Zero	1.0000
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	1.0000
In	115	Linear Thru Zero	1.0000
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	1.0000
Ba	135	Linear Thru Zero	1.0000
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	0.9999
Ta	181	Linear Thru Zero	1.0000
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	0.9999
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
Li	7					
Be	9					
B	11					
Na	23					
Mg	24					
Al	27					
P	31					
K	39					
Ca	43					
> Sc	45		101.6			
Ti	47					
V	51					
Cr	52					
Cr	53					
Mn	55					
Fe	57					
Co	59					
Ni	60					
Cu	63					
Cu	65					
Zn	66					
Zn	67					
Zn	68					
> Ge	74		99.9			
As	75					
Se	77					
Se	82					
Kr	83					
Sr	88					
Y	89					
Zr	90					
Mo	98					
Ag	107					
Cd	111					
Cd	114					
> In	115		104.8			
Sn	120					
Sb	121					
Sb	123					
Ba	135					
Ba	137					
Ho	165					
> Ta	181		113.7			
Tl	205					
Pb	208					
Bi	209					
Th	232					
U	238					

QC Out Of Limits

Measurement Type Analyte	Mass	Out of Limits Message
Ti 47 Upper, S, EEETi	47	Sample is out of limits (over linear range)

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 135806008
Sample Date/Time: Monday, May 09, 2005 19:27:10
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 423106|2|baj
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\050509\135806008.112

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	40.803	ug/L	0.996	66140	0.035
Be	9	3.404	ug/L	3.832	1546	0.001
B	11	10.208	ug/L	2.341	5033	0.002
Na	23	792.334	ug/L	6.200	4894352	2.575
Mg	24	4957.065	ug/L	3.191	23096570	12.210
Al	27	45242.211	ug/L	2.920	301476112	159.394
P	31	152.146	ug/L	3.136	76285	0.036
K	39	4775.924	ug/L	5.581	51818576	26.564
Ca	43	5335.924	ug/L	1.313	120510	0.063
> Sc	45		ug/L		1891473	1891473.346
Ti	47	576.595	ug/L	2.080	657385	0.347
V	51	39.436	ug/L	1.107	454008	0.299
Cr	52	23.867	ug/L	1.788	234161	0.134
Cr	53		ug/L		216240	-0.236
Mn	55	522.067	ug/L	2.473	8753834	4.625
Fe	57	25676.871	ug/L	2.192	9193065	4.853
Co	59	6.563	ug/L	0.967	80263	0.042
Ni	60	27.974	ug/L	0.905	76614	0.040
Cu	63		ug/L		116088	0.061
Cu	65	18.350	ug/L	2.607	57319	0.030
Zn	66	148.592	ug/L	0.377	289966	0.379
Zn	67		ug/L		65477	0.047
Zn	68		ug/L		238733	0.309
> Ge	74		ug/L		762891	762891.116
As	75	3.990	ug/L	4.694	13816	0.011
Se	77		ug/L		13017	-0.052
Se	82	1.214	ug/L	16.967	290	0.000
Kr	83		ug/L		510	0.000
Sr	88	54.486	ug/L	1.389	1417519	3.684
Y	89		ug/L		1260651	3.277
Zr	90	66.205	ug/L	3.223	891777	2.317
Mo	98	1.819	ug/L	3.368	10699	0.028
Ag	107	0.355	ug/L	3.889	3208	0.008
Cd	111	1.797	ug/L	2.022	3951	0.010
Cd	114		ug/L		5371	0.014
> In	115		ug/L		384701	384700.816
Sn	120	0.658	ug/L	2.520	6577	0.016
Sb	121	0.683	ug/L	2.435	5811	0.015
Sb	123		ug/L		4428	0.011
Ba	135		ug/L		977229	2.813
Ba	137	392.641	ug/L	1.535	1604208	4.618
Ho	165		ug/L		54279	0.156
> Ta	181		ug/L		347345	347345.101
Tl	205	0.520	ug/L	1.575	8623	0.024
Pb	208	104.499	ug/L	1.197	2285375	6.553
Bi	209		ug/L		11018	0.032
Th	232	21.244	ug/L	0.596	436639	1.256
U	238	2.964	ug/L	2.522	57472	0.165

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	0.9999
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	
Sc	45	Linear Thru Zero	1.0000
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	0.9999
Cr	52	Linear Thru Zero	
Cr	53	Linear Thru Zero	0.9999
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	
Cu	63	Linear Thru Zero	1.0000
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	1.0000
As	75	Linear Thru Zero	
Se	77	Linear Thru Zero	1.0000
Se	82	Linear Thru Zero	
Kr	83	Linear Thru Zero	1.0000
Sr	88	Linear Thru Zero	
Y	89	Linear Thru Zero	0.9999
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	1.0000
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	1.0000
Ba	137	Linear Thru Zero	
Ho	165	Linear Thru Zero	
Ta	181	Linear Thru Zero	0.9999
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	
Bi	209	Linear Thru Zero	0.9999
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
Li	7					
Be	9					
B	11					
Na	23					
Mg	24					
Al	27					
P	31					
K	39					
Ca	43					
> Sc	45		103.3			
Ti	47					
V	51					
Cr	52					
Cr	53					
Mn	55					
Fe	57					
Co	59					
Ni	60					
Cu	63					
Cu	65					
Zn	66					
Zn	67					
Zn	68					
> Ge	74		101.3			
As	75					
Se	77					
Se	82					
Kr	83					
Sr	88					
Y	89					
Zr	90					
Mo	98					
Ag	107					
Cd	111					
Cd	114					
> In	115		104.1			
Sn	120					
Sb	121					
Sb	123					
Ba	135					
Ba	137					
Ho	165					
> Ta	181		113.5			
Tl	205					
Pb	208					
Bi	209					
Th	232					
U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Ti 47 Upper, S, EEETi		47	Sample is out of limits (over linear range)

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 135806009
Sample Date/Time: Monday, May 09, 2005 19:32:22
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 423106|2|baj
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\050509\135806009.113

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	37.270	ug/L	0.926	60801	0.032
	Be	9	2.941	ug/L	2.217	1349	0.001
	B	11	9.713	ug/L	1.257	4870	0.002
	Na	23	1069.413	ug/L	5.777	6638237	3.475
	Mg	24	3876.025	ug/L	2.362	18172902	9.547
	Al	27	38405.860	ug/L	3.069	257532136	135.309
	P	31	216.720	ug/L	0.740	105623	0.051
	K	39	4791.827	ug/L	6.990	52336762	26.653
	Ca	43	10668.338	ug/L	1.750	240758	0.126
>	Sc	45		ug/L		1903481	1903480.988
	Ti	47	510.096	ug/L	0.903	585360	0.307
	V	51	33.296	ug/L	0.843	368225	0.253
	Cr	52	21.498	ug/L	1.692	210333	0.121
	Cr	53		ug/L		230809	-0.229
	Mn	55	770.346	ug/L	1.224	12995780	6.824
	Fe	57	22984.505	ug/L	1.754	8282293	4.344
	Co	59	6.994	ug/L	1.044	86049	0.045
	Ni	60	26.262	ug/L	0.557	72389	0.038
	Cu	63		ug/L		135189	0.071
	Cu	65	21.202	ug/L	1.436	66620	0.035
	Zn	66	273.907	ug/L	2.261	541298	0.699
	Zn	67		ug/L		104003	0.096
	Zn	68		ug/L		426069	0.547
>	Ge	74		ug/L		773492	773492.054
	As	75	3.487	ug/L	9.949	12890	0.010
	Se	77		ug/L		15774	-0.049
	Se	82	1.124	ug/L	7.545	277	0.000
	Kr	83		ug/L		476	0.000
	Sr	88	58.945	ug/L	1.680	1555402	3.985
	Y	89		ug/L		1180876	3.026
	Zr	90	58.938	ug/L	1.238	805451	2.063
	Mo	98	2.581	ug/L	2.589	15363	0.039
	Ag	107	0.247	ug/L	1.616	2282	0.006
	Cd	111	2.156	ug/L	6.916	4797	0.012
	Cd	114		ug/L		7965	0.020
>	In	115		ug/L		390225	390225.349
	Sn	120	0.759	ug/L	1.588	7611	0.018
	Sb	121	0.911	ug/L	5.309	7804	0.020
	Sb	123		ug/L		6044	0.015
	Ba	135		ug/L		603824	1.751
	Ba	137	249.126	ug/L	1.184	1010656	2.930
	Ho	165		ug/L		51579	0.149
>	Ta	181		ug/L		344909	344909.000
	Tl	205	0.494	ug/L	3.265	8143	0.023
	Pb	208	157.323	ug/L	1.117	3411507	9.865
	Bi	209		ug/L		9081	0.026
	Th	232	17.851	ug/L	2.078	364313	1.056
	U	238	1.941	ug/L	1.765	37394	0.108

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	0.9999
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	0.9999
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	0.9999
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	0.9999
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Ta	181	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
Li	7					
Be	9					
B	11					
Na	23					
Mg	24					
Al	27					
P	31					
K	39					
Ca	43					
> Sc	45		104.0			
Ti	47					
V	51					
Cr	52					
Cr	53					
Mn	55					
Fe	57					
Co	59					
Ni	60					
Cu	63					
Cu	65					
Zn	66					
Zn	67					
Zn	68					
> Ge	74		102.7			
As	75					
Se	77					
Se	82					
Kr	83					
Sr	88					
Y	89					
Zr	90					
Mo	98					
Ag	107					
Cd	111					
Cd	114					
> In	115		105.6			
Sn	120					
Sb	121					
Sb	123					
Ba	135					
Ba	137					
Ho	165					
> Ta	181		112.8			
Tl	205					
Pb	208					
Bi	209					
Th	232					
U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Ti 47 Upper, S, EEE	Ti	47	Sample is out of limits (over linear range)

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 8
Sample Date/Time: Monday, May 09, 2005 19:37:33
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\050509\QC Std 8.114

P, U

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	52.595	ug/L	0.904	81018	0.045
	Be	9	50.969	ug/L	2.135	21632	0.012
	B	11	102.209	ug/L	3.157	38896	0.021
	Na	23	5274.284	ug/L	8.581	30839233	17.141
	Mg	24	4741.175	ug/L	2.765	20996882	11.678
	Al	27	4838.787	ug/L	3.189	30658588	17.048
	P	31	4182.133	ug/L	0.737	1773530	0.982
	K	39	5014.797	ug/L	3.655	51645848	27.893
	Ca	43	5033.241	ug/L	2.088	108137	0.059
>	Sc	45		ug/L		1797846	1797846.042
	Ti	47	47.317	ug/L	1.385	51867	0.028
	V	51	53.050	ug/L	0.900	617159	0.402
	Cr	52	53.810	ug/L	0.516	524450	0.302
	Cr	53		ug/L		220315	-0.228
	Mn	55	53.173	ug/L	1.862	852636	0.471
	Fe	57	4621.704	ug/L	2.022	1584296	0.873
	Co	59	52.487	ug/L	0.705	607472	0.338
	Ni	60	51.431	ug/L	0.691	133772	0.074
	Cu	63		ug/L		312042	0.173
	Cu	65	51.596	ug/L	1.346	152882	0.085
	Zn	66	50.843	ug/L	2.417	101177	0.130
	Zn	67		ug/L		27230	-0.003
	Zn	68		ug/L		78957	0.098
>	Ge	74		ug/L		774757	774756.727
	As	75	48.079	ug/L	0.846	111942	0.138
	Se	77		ug/L		17415	-0.047
	Se	82	50.445	ug/L	1.138	10119	0.013
	Kr	83		ug/L		294	-0.000
	Sr	88	46.264	ug/L	1.246	1222057	3.128
	Y	89		ug/L		634	0.001
	Zr	90	49.098	ug/L	1.022	671749	1.718
	Mo	98	49.733	ug/L	2.185	294802	0.755
	Ag	107	50.628	ug/L	0.387	455718	1.167
	Cd	111	49.226	ug/L	1.730	109077	0.279
	Cd	114		ug/L		255167	0.653
>	In	115		ug/L		390536	390536.215
	Sn	120	49.650	ug/L	0.853	462624	1.183
	Sb	121	49.131	ug/L	1.427	411654	1.054
	Sb	123		ug/L		321157	0.822
	Ba	135		ug/L		112486	0.324
	Ba	137	47.948	ug/L	2.739	195612	0.564
	Ho	165		ug/L		48	0.000
>	Ta	181		ug/L		346851	346851.171
	Tl	205	49.873	ug/L	0.839	793300	2.286
	Pb	208	52.058	ug/L	2.255	1141313	3.264
	Bi	209		ug/L		113	0.000
	Th	232	52.330	ug/L	0.964	1073750	3.095
	U	238	55.477	ug/L	0.961	1072417	3.092

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	0.9999
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	
Sc	45	Linear Thru Zero	1.0000
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	0.9999
Cr	52	Linear Thru Zero	
Cr	53	Linear Thru Zero	0.9999
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	
Cu	63	Linear Thru Zero	1.0000
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	1.0000
As	75	Linear Thru Zero	
Se	77	Linear Thru Zero	1.0000
Se	82	Linear Thru Zero	
Kr	83	Linear Thru Zero	1.0000
Sr	88	Linear Thru Zero	
Y	89	Linear Thru Zero	0.9999
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	1.0000
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	1.0000
Ba	137	Linear Thru Zero	
Ho	165	Linear Thru Zero	
Ta	181	Linear Thru Zero	0.9999
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	
Bi	209	Linear Thru Zero	0.9999
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
Li	7	105.190				
Be	9	101.938				
B	11	102.209				
Na	23	105.486				
Mg	24	94.824				
Al	27	95.818				
P	31	83.643				
K	39	100.296				
Ca	43	100.665				
> Sc	45		98.2			
Ti	47	94.634				
V	51	106.100				
Cr	52	107.621				
Cr	53					
Mn	55	106.346				
Fe	57	92.434				
Co	59	104.974				
Ni	60	102.861				
Cu	63					
Cu	65	103.193				
Zn	66	101.686				
Zn	67					
Zn	68					
> Ge	74		102.8			
As	75	96.158				
Se	77					
Se	82	100.890				
Kr	83					
Sr	88	92.528				
Y	89					
Zr	90	98.196				
Mo	98	99.467				
Ag	107	101.256				
Cd	111	98.451				
Cd	114					
> In	115		105.7			
Sn	120	99.300				
Sb	121	98.263				
Sb	123					
Ba	135					
Ba	137	95.896				
Ho	165					
> Ta	181		113.4			
Tl	205	99.746				
Pb	208	104.117				
Bi	209					
Th	232	104.660				
U	238	110.953				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 8	P	31	CCV is out of limits (+/- 10%)
QC Std 8	U	238	CCV is out of limits (+/- 10%)

QC Action

ICPMS#5 - Summary Report

Sample ID: QC Std 9
Sample Date/Time: Monday, May 09, 2005 19:42:44
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\050509\QC Std 9.115

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	0.052	ug/L	23.527	145	0.000
	Be	9	-0.021	ug/L	8.607	19	-0.000
	B	11	3.378	ug/L	17.256	2355	0.001
	Na	23	-0.274	ug/L	285.557	22685	-0.001
	Mg	24	0.641	ug/L	52.210	4334	0.002
	Al	27	0.013	ug/L	3928.697	9003	0.000
	P	31	-3.568	ug/L	5.514	7087	-0.001
	K	39	-18.750	ug/L	11.626	1371510	-0.104
	Ca	43	-13.714	ug/L	8.232	1387	-0.000
>	Sc	45		ug/L		1879733	1879732.733
	Ti	47	-0.076	ug/L	59.469	583	-0.000
	V	51	6.792	ug/L	9.937	-14211	0.052
	Cr	52	2.677	ug/L	5.274	9341	0.015
	Cr	53		ug/L		290163	-0.196
	Mn	55	-0.069	ug/L	9.631	4872	-0.001
	Fe	57	16.768	ug/L	7.973	20595	0.003
	Co	59	0.002	ug/L	32.480	415	0.000
	Ni	60	-0.001	ug/L	1218.295	135	-0.000
	Cu	63		ug/L		266	0.000
	Cu	65	-0.003	ug/L	91.974	174	-0.000
	Zn	66	0.044	ug/L	60.752	762	0.000
	Zn	67		ug/L		16573	-0.018
	Zn	68		ug/L		1563	-0.002
>	Ge	74		ug/L		793401	793400.715
	As	75	-1.358	ug/L	14.641	2204	-0.004
	Se	77		ug/L		24139	-0.039
	Se	82	0.042	ug/L	338.955	62	0.000
	Kr	83		ug/L		327	-0.000
	Sr	88	-0.004	ug/L	21.116	381	-0.000
	Y	89		ug/L		88	0.000
	Zr	90	0.695	ug/L	17.167	10335	0.024
	Mo	98	0.034	ug/L	24.811	289	0.001
	Ag	107	0.003	ug/L	38.235	93	0.000
	Cd	111	0.003	ug/L	114.144	36	0.000
	Cd	114		ug/L		47	-0.000
>	In	115		ug/L		394829	394829.415
	Sn	120	0.133	ug/L	30.422	1812	0.003
	Sb	121	0.138	ug/L	32.150	1353	0.003
	Sb	123		ug/L		1053	0.002
	Ba	135		ug/L		52	0.000
	Ba	137	0.003	ug/L	93.222	65	0.000
	Ho	165		ug/L		30	-0.000
>	Ta	181		ug/L		344253	344253.207
	Tl	205	-0.004	ug/L	73.298	280	-0.000
	Pb	208	0.633	ug/L	21.544	22875	0.040
	Bi	209		ug/L		46	-0.000
	Th	232	0.023	ug/L	37.022	698	0.001
	U	238	0.003	ug/L	48.989	143	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	0.9999
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	1.0000
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	0.9999
Cr	52	Linear Thru Zero	
Cr	53	Linear Thru Zero	0.9999
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	
Cu	63	Linear Thru Zero	1.0000
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	1.0000
As	75	Linear Thru Zero	
Se	77	Linear Thru Zero	1.0000
Se	82	Linear Thru Zero	
Kr	83	Linear Thru Zero	1.0000
Sr	88	Linear Thru Zero	
Y	89	Linear Thru Zero	0.9999
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	1.0000
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	1.0000
Ba	137	Linear Thru Zero	
Ho	165	Linear Thru Zero	
Ta	181	Linear Thru Zero	0.9999
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	
Bi	209	Linear Thru Zero	0.9999
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
Li	7					
Be	9					
B	11					
Na	23					
Mg	24					
Al	27					
P	31					
K	39					
Ca	43					
> Sc	45		102.7			
Ti	47					
V	51					
Cr	52					
Cr	53					
Mn	55					
Fe	57					
Co	59					
Ni	60					
Cu	63					
Cu	65					
Zn	66					
Zn	67					
Zn	68					
> Ge	74		105.3			
As	75					
Se	77					
Se	82					
Kr	83					
Sr	88					
Y	89					
Zr	90					
Mo	98					
Ag	107					
Cd	111					
Cd	114					
> In	115		106.9			
Sn	120					
Sb	121					
Sb	123					
Ba	135					
Ba	137					
Ho	165					
> Ta	181		112.5			
Tl	205					
Pb	208					
Bi	209					
Th	232					
U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 135806010
Sample Date/Time: Monday, May 09, 2005 19:47:56
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 423106|2|baj
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\050509\135806010.116

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	50.100	ug/L	2.208	81930	0.043
	Be	9	4.903	ug/L	1.286	2235	0.001
	B	11	14.204	ug/L	2.958	6651	0.003
	Na	23	1080.153	ug/L	3.827	6725431	3.510
	Mg	24	5153.666	ug/L	3.884	24227171	12.694
	Al	27	49634.725	ug/L	5.063	333837955	174.870
	P	31	183.058	ug/L	1.729	90827	0.043
	K	39	6211.316	ug/L	4.181	67536878	34.548
	Ca	43	12637.881	ug/L	1.692	285666	0.149
>	Sc	45		ug/L		1908620	1908620.304
	Ti	47	591.759	ug/L	1.129	680772	0.356
	V	51	38.357	ug/L	1.202	442461	0.291
	Cr	52	22.489	ug/L	0.696	221521	0.126
	Cr	53		ug/L		227781	-0.231
	Mn	55	646.632	ug/L	1.055	10939165	5.728
	Fe	57	24767.823	ug/L	2.402	8947428	4.681
	Co	59	7.206	ug/L	1.788	88876	0.046
	Ni	60	32.299	ug/L	0.384	89241	0.047
	Cu	63		ug/L		121678	0.064
	Cu	65	19.275	ug/L	2.194	60745	0.032
	Zn	66	118.429	ug/L	1.370	232613	0.302
	Zn	67		ug/L		57497	0.036
	Zn	68		ug/L		197852	0.254
>	Ge	74		ug/L		767489	767488.579
	As	75	3.252	ug/L	6.968	12275	0.009
	Se	77		ug/L		15691	-0.049
	Se	82	0.755	ug/L	37.106	201	0.000
	Kr	83		ug/L		596	0.000
	Sr	88	70.810	ug/L	0.960	1844782	4.788
	Y	89		ug/L		1680778	4.363
	Zr	90	73.458	ug/L	1.459	990916	2.571
	Mo	98	1.215	ug/L	2.320	7182	0.018
	Ag	107	0.258	ug/L	0.938	2355	0.006
	Cd	111	2.987	ug/L	1.160	6556	0.017
	Cd	114		ug/L		11154	0.029
>	In	115		ug/L		385253	385252.708
	Sn	120	0.631	ug/L	3.144	6334	0.015
	Sb	121	1.095	ug/L	1.277	9223	0.023
	Sb	123		ug/L		7106	0.018
	Ba	135		ug/L		972214	2.744
	Ba	137	382.003	ug/L	1.239	1591868	4.493
	Ho	165		ug/L		74459	0.210
>	Ta	181		ug/L		354277	354277.338
	Tl	205	0.569	ug/L	1.165	9595	0.026
	Pb	208	110.762	ug/L	0.277	2470133	6.945
	Bi	209		ug/L		11624	0.033
	Th	232	20.241	ug/L	1.479	424349	1.197
	U	238	2.242	ug/L	0.676	44360	0.125

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	0.9999
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	0.9999
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	0.9999
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	0.9999
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Ta	181	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
Li	7					
Be	9					
B	11					
Na	23					
Mg	24					
Al	27					
P	31					
K	39					
Ca	43					
> Sc	45		104.3			
Ti	47					
V	51					
Cr	52					
Cr	53					
Mn	55					
Fe	57					
Co	59					
Ni	60					
Cu	63					
Cu	65					
Zn	66					
Zn	67					
Zn	68					
> Ge	74		101.9			
As	75					
Se	77					
Se	82					
Kr	83					
Sr	88					
Y	89					
Zr	90					
Mo	98					
Ag	107					
Cd	111					
Cd	114					
> In	115		104.3			
Sn	120					
Sb	121					
Sb	123					
Ba	135					
Ba	137					
Ho	165					
> Ta	181		115.8			
Tl	205					
Pb	208					
Bi	209					
Th	232					
U	238					

QC Out Of Limits

Measurement Type Analyte	Mass	Out of Limits Message
Ti 47 Upper, S, EEETi	47	Sample is out of limits (over linear range)

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 135806011
Sample Date/Time: Monday, May 09, 2005 19:53:08
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 423106|2|baj
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\050509\135806011.117

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	47.672	ug/L	1.076	77213	0.041
	Be	9	4.323	ug/L	3.305	1955	0.001
	B	11	13.580	ug/L	2.909	6344	0.003
	Na	23	1125.050	ug/L	7.728	6934238	3.656
	Mg	24	4960.083	ug/L	4.210	23096570	12.218
	Al	27	45702.346	ug/L	3.705	304371645	161.015
	P	31	331.247	ug/L	0.637	155710	0.078
	K	39	6028.202	ug/L	5.230	64945949	33.530
	Ca	43	10274.677	ug/L	0.914	230323	0.121
>	Sc	45		ug/L		1890244	1890243.594
	Ti	47	652.343	ug/L	2.108	743184	0.393
	V	51	41.779	ug/L	0.631	487289	0.317
	Cr	52	30.447	ug/L	1.004	303753	0.171
	Cr	53		ug/L		225987	-0.231
	Mn	55	836.994	ug/L	2.161	14021321	7.415
	Fe	57	29874.370	ug/L	1.565	10686184	5.646
	Co	59	9.280	ug/L	0.482	113256	0.060
	Ni	60	45.986	ug/L	1.826	125778	0.066
	Cu	63		ug/L		229876	0.121
	Cu	65	36.731	ug/L	0.990	114479	0.060
	Zn	66	284.357	ug/L	1.263	558604	0.726
	Zn	67		ug/L		106989	0.101
	Zn	68		ug/L		432668	0.559
>	Ge	74		ug/L		768855	768854.859
	As	75	4.300	ug/L	5.588	14606	0.012
	Se	77		ug/L		14398	-0.050
	Se	82	1.526	ug/L	16.854	354	0.000
	Kr	83		ug/L		542	0.000
	Sr	88	65.543	ug/L	0.443	1718566	4.432
	Y	89		ug/L		1520027	3.921
	Zr	90	70.666	ug/L	1.463	959336	2.473
	Mo	98	7.822	ug/L	2.080	46090	0.119
	Ag	107	0.289	ug/L	1.249	2644	0.007
	Cd	111	2.598	ug/L	0.911	5742	0.015
	Cd	114		ug/L		9431	0.024
>	In	115		ug/L		387696	387695.582
	Sn	120	0.780	ug/L	2.476	7753	0.019
	Sb	121	2.627	ug/L	2.569	22021	0.056
	Sb	123		ug/L		17049	0.044
	Ba	135		ug/L		659584	1.883
	Ba	137	268.366	ug/L	1.371	1105816	3.157
	Ho	165		ug/L		65363	0.186
>	Ta	181		ug/L		350329	350328.718
	Tl	205	0.645	ug/L	2.816	10711	0.030
	Pb	208	252.068	ug/L	0.854	5546329	15.806
	Bi	209		ug/L		11530	0.033
	Th	232	21.048	ug/L	2.216	436257	1.245
	U	238	2.264	ug/L	2.751	44283	0.126

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	0.9999
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	0.9999
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	0.9999
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	0.9999
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Ta	181	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
Li	7					
Be	9					
B	11					
Na	23					
Mg	24					
Al	27					
P	31					
K	39					
Ca	43					
> Sc	45		103.3			
Ti	47					
V	51					
Cr	52					
Cr	53					
Mn	55					
Fe	57					
Co	59					
Ni	60					
Cu	63					
Cu	65					
Zn	66					
Zn	67					
Zn	68					
> Ge	74		102.0			
As	75					
Se	77					
Se	82					
Kr	83					
Sr	88					
Y	89					
Zr	90					
Mo	98					
Ag	107					
Cd	111					
Cd	114					
> In	115		105.0			
Sn	120					
Sb	121					
Sb	123					
Ba	135					
Ba	137					
Ho	165					
> Ta	181		114.5			
Tl	205					
Pb	208					
Bi	209					
Th	232					
U	238					

QC Out Of Limits

Measurement Type Analyte	Mass	Out of Limits Message
Ti 47 Upper, S, EEE	47	Ti Sample is out of limits (over linear range)

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 135806012
Sample Date/Time: Monday, May 09, 2005 19:58:20
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 423106|2|baj
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\050509\135806012.118

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	48.093	ug/L	1.373	78164	0.041
	Be	9	4.152	ug/L	1.197	1885	0.001
	B	11	11.789	ug/L	5.617	5664	0.002
	Na	23	1324.624	ug/L	5.850	8187082	4.305
	Mg	24	5942.870	ug/L	6.876	27780490	14.638
	Al	27	50404.725	ug/L	7.715	336733488	177.583
	P	31	296.986	ug/L	0.991	140988	0.070
	K	39	6088.339	ug/L	5.846	65809592	33.864
	Ca	43	7584.168	ug/L	0.236	171044	0.089
>	Sc	45		ug/L		1896837	1896837.154
	Ti	47	660.479	ug/L	0.772	755066	0.398
	V	51	43.152	ug/L	1.939	508680	0.327
	Cr	52	22.034	ug/L	1.108	215302	0.124
	Cr	53		ug/L		207867	-0.241
	Mn	55	922.622	ug/L	1.168	15509358	8.173
	Fe	57	30538.853	ug/L	2.245	10960696	5.771
	Co	59	11.290	ug/L	2.400	138154	0.073
	Ni	60	31.620	ug/L	1.430	86824	0.046
	Cu	63		ug/L		130487	0.069
	Cu	65	20.778	ug/L	0.803	65063	0.034
	Zn	66	144.690	ug/L	0.908	284207	0.369
	Zn	67		ug/L		61983	0.042
	Zn	68		ug/L		225830	0.290
>	Ge	74		ug/L		767891	767890.753
	As	75	3.880	ug/L	2.242	13666	0.011
	Se	77		ug/L		13455	-0.051
	Se	82	1.685	ug/L	8.875	385	0.000
	Kr	83		ug/L		533	0.000
	Sr	88	66.178	ug/L	1.172	1726337	4.474
	Y	89		ug/L		1501187	3.892
	Zr	90	69.168	ug/L	1.100	934352	2.421
	Mo	98	1.517	ug/L	2.257	8964	0.023
	Ag	107	0.259	ug/L	3.389	2360	0.006
	Cd	111	1.457	ug/L	2.759	3216	0.008
	Cd	114		ug/L		3706	0.009
>	In	115		ug/L		385749	385748.516
	Sn	120	0.743	ug/L	3.199	7375	0.018
	Sb	121	0.867	ug/L	0.272	7352	0.019
	Sb	123		ug/L		5738	0.015
	Ba	135		ug/L		584538	1.669
	Ba	137	240.012	ug/L	1.684	988635	2.823
	Ho	165		ug/L		67871	0.194
>	Ta	181		ug/L		350184	350184.210
	Tl	205	0.682	ug/L	1.365	11299	0.031
	Pb	208	76.617	ug/L	1.340	1691804	4.804
	Bi	209		ug/L		11814	0.034
	Th	232	20.891	ug/L	1.528	432900	1.236
	U	238	2.291	ug/L	1.208	44808	0.128

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	0.9999
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	0.9999
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	0.9999
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	0.9999
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Ta	181	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
Li	7					
Be	9					
B	11					
Na	23					
Mg	24					
Al	27					
P	31					
K	39					
Ca	43					
> Sc	45		103.6			
Ti	47					
V	51					
Cr	52					
Cr	53					
Mn	55					
Fe	57					
Co	59					
Ni	60					
Cu	63					
Cu	65					
Zn	66					
Zn	67					
Zn	68					
> Ge	74		101.9			
As	75					
Se	77					
Se	82					
Kr	83					
Sr	88					
Y	89					
Zr	90					
Mo	98					
Ag	107					
Cd	111					
Cd	114					
> In	115		104.4			
Sn	120					
Sb	121					
Sb	123					
Ba	135					
Ba	137					
Ho	165					
> Ta	181		114.5			
Tl	205					
Pb	208					
Bi	209					
Th	232					
U	238					

QC Out Of Limits

Measurement Type Analyte	Mass	Out of Limits Message
Ti 47 Upper, S, EEE	47	Sample is out of limits (over linear range)

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 135806013
Sample Date/Time: Monday, May 09, 2005 20:03:33
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 423106|2|baj
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\050509\135806013.119

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	29.206	ug/L	1.979	45876	0.025
	Be	9	2.365	ug/L	2.424	1049	0.001
	B	11	6.494	ug/L	3.616	3471	0.001
	Na	23	654.743	ug/L	4.686	3921447	2.128
	Mg	24	2560.612	ug/L	2.599	11555856	6.307
	Al	27	27344.474	ug/L	6.762	176457205	96.338
	P	31	110.393	ug/L	3.231	55918	0.026
	K	39	3139.953	ug/L	9.989	33509346	17.465
	Ca	43	3218.337	ug/L	2.236	71048	0.038
>	Sc	45		ug/L		1832096	1832096.213
	Ti	47	516.613	ug/L	0.288	570619	0.311
	V	51	25.940	ug/L	1.034	252214	0.197
	Cr	52	13.256	ug/L	1.373	117771	0.074
	Cr	53		ug/L		181565	-0.251
	Mn	55	227.481	ug/L	0.425	3698043	2.015
	Fe	57	16714.343	ug/L	1.079	5801071	3.159
	Co	59	3.508	ug/L	2.375	41733	0.023
	Ni	60	27.618	ug/L	0.458	73263	0.040
	Cu	63		ug/L		553556	0.302
	Cu	65	91.099	ug/L	0.867	274945	0.150
	Zn	66	163.395	ug/L	2.410	312531	0.417
	Zn	67		ug/L		62904	0.046
	Zn	68		ug/L		239477	0.316
>	Ge	74		ug/L		748083	748083.368
	As	75	0.573	ug/L	42.044	6224	0.002
	Se	77		ug/L		10861	-0.054
	Se	82	0.884	ug/L	23.816	221	0.000
	Kr	83		ug/L		421	0.000
	Sr	88	32.009	ug/L	1.290	838655	2.164
	Y	89		ug/L		725313	1.873
	Zr	90	45.263	ug/L	2.511	614132	1.584
	Mo	98	1.309	ug/L	4.094	7773	0.020
	Ag	107	0.165	ug/L	2.345	1531	0.004
	Cd	111	9.374	ug/L	0.980	20624	0.053
	Cd	114		ug/L		46658	0.120
>	In	115		ug/L		387325	387324.803
	Sn	120	0.707	ug/L	0.794	7074	0.017
	Sb	121	0.422	ug/L	3.767	3684	0.009
	Sb	123		ug/L		2848	0.007
	Ba	135		ug/L		267466	0.759
	Ba	137	110.725	ug/L	1.247	458763	1.302
	Ho	165		ug/L		33428	0.095
>	Ta	181		ug/L		352213	352213.292
	Tl	205	0.342	ug/L	1.364	5872	0.016
	Pb	208	26.258	ug/L	0.895	589456	1.647
	Bi	209		ug/L		7082	0.020
	Th	232	13.182	ug/L	1.551	274837	0.780
	U	238	1.174	ug/L	2.153	23131	0.065

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	0.9999
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	0.9999
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	0.9999
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	0.9999
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Ta	181	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
Li	7					
Be	9					
B	11					
Na	23					
Mg	24					
Al	27					
P	31					
K	39					
Ca	43					
> Sc	45		100.1			
Ti	47					
V	51					
Cr	52					
Cr	53					
Mn	55					
Fe	57					
Co	59					
Ni	60					
Cu	63					
Cu	65					
Zn	66					
Zn	67					
Zn	68					
> Ge	74		99.3			
As	75					
Se	77					
Se	82					
Kr	83					
Sr	88					
Y	89					
Zr	90					
Mo	98					
Ag	107					
Cd	111					
Cd	114					
> In	115		104.9			
Sn	120					
Sb	121					
Sb	123					
Ba	135					
Ba	137					
Ho	165					
> Ta	181		115.1			
Tl	205					
Pb	208					
Bi	209					
Th	232					
U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Ti 47 Upper, S, EEETi		47	Sample is out of limits (over linear range)

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 135806014
Sample Date/Time: Monday, May 09, 2005 20:08:45
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 423106|2|baj
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\050509\135806014.120

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	48.671	ug/L	0.653	77886	0.042
	Be	9	4.414	ug/L	1.932	1971	0.001
	B	11	11.068	ug/L	3.671	5300	0.002
	Na	23	1266.927	ug/L	8.987	7712103	4.117
	Mg	24	4706.622	ug/L	7.360	21642940	11.593
	Al	27	48867.564	ug/L	7.676	321404194	172.167
	P	31	176.435	ug/L	2.126	85953	0.041
	K	39	6202.742	ug/L	6.634	65982321	34.500
	Ca	43	7534.906	ug/L	2.142	167316	0.089
>	Sc	45		ug/L		1867535	1867535.062
	Ti	47	701.377	ug/L	2.561	789314	0.422
	V	51	40.536	ug/L	1.757	463777	0.307
	Cr	52	21.996	ug/L	2.274	211562	0.123
	Cr	53		ug/L		197382	-0.245
	Mn	55	1006.308	ug/L	1.811	16654005	8.915
	Fe	57	27392.427	ug/L	2.432	9681452	5.177
	Co	59	9.859	ug/L	1.260	118844	0.063
	Ni	60	30.464	ug/L	0.356	82362	0.044
	Cu	63		ug/L		130542	0.070
	Cu	65	20.921	ug/L	0.640	64500	0.034
	Zn	66	150.961	ug/L	2.665	292149	0.385
	Zn	67		ug/L		62172	0.044
	Zn	68		ug/L		234019	0.306
>	Ge	74		ug/L		756722	756722.045
	As	75	3.574	ug/L	11.655	12802	0.010
	Se	77		ug/L		12090	-0.053
	Se	82	0.411	ug/L	37.097	132	0.000
	Kr	83		ug/L		530	0.000
	Sr	88	67.409	ug/L	0.607	1746223	4.558
	Y	89		ug/L		1519694	3.967
	Zr	90	73.777	ug/L	1.354	989540	2.582
	Mo	98	1.798	ug/L	2.013	10534	0.027
	Ag	107	0.293	ug/L	0.834	2650	0.007
	Cd	111	1.694	ug/L	3.909	3711	0.010
	Cd	114		ug/L		4743	0.012
>	In	115		ug/L		383062	383061.526
	Sn	120	0.623	ug/L	0.849	6232	0.015
	Sb	121	0.764	ug/L	1.366	6456	0.016
	Sb	123		ug/L		5004	0.013
	Ba	135		ug/L		670215	1.918
	Ba	137	273.034	ug/L	0.533	1122075	3.212
	Ho	165		ug/L		69685	0.199
>	Ta	181		ug/L		349367	349367.003
	Tl	205	0.760	ug/L	1.988	12525	0.035
	Pb	208	98.656	ug/L	0.857	2170713	6.186
	Bi	209		ug/L		12490	0.036
	Th	232	23.415	ug/L	1.498	484064	1.385
	U	238	2.504	ug/L	0.594	48855	0.140

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	0.9999
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	0.9999
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	0.9999
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	0.9999
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Ta	181	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
Li	7					
Be	9					
B	11					
Na	23					
Mg	24					
Al	27					
P	31					
K	39					
Ca	43					
> Sc	45		102.0			
Ti	47					
V	51					
Cr	52					
Cr	53					
Mn	55					
Fe	57					
Co	59					
Ni	60					
Cu	63					
Cu	65					
Zn	66					
Zn	67					
Zn	68					
> Ge	74		100.4			
As	75					
Se	77					
Se	82					
Kr	83					
Sr	88					
Y	89					
Zr	90					
Mo	98					
Ag	107					
Cd	111					
Cd	114					
> In	115		103.7			
Sn	120					
Sb	121					
Sb	123					
Ba	135					
Ba	137					
Ho	165					
> Ta	181		114.2			
Tl	205					
Pb	208					
Bi	209					
Th	232					
U	238					

QC Out Of Limits

Measurement Type Analyte	Mass	Out of Limits Message
Ti 47 Upper, S, EEETi	47	Sample is out of limits (over linear range)

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 8
Sample Date/Time: Monday, May 09, 2005 20:13:57
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\050509\QC Std 8.121

P, U

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	54.465	ug/L	0.703	83233	0.047
	Be	9	51.688	ug/L	2.792	21759	0.012
	B	11	103.485	ug/L	4.847	39047	0.021
	Na	23	4962.533	ug/L	2.716	28783284	16.127
	Mg	24	4781.637	ug/L	8.108	20996882	11.778
	Al	27	4904.947	ug/L	1.298	30828913	17.281
	P	31	4116.427	ug/L	2.447	1731661	0.966
	K	39	5425.430	ug/L	9.856	55273148	30.177
	Ca	43	5018.222	ug/L	1.081	106957	0.059
>	Sc	45		ug/L		1783637	1783637.414
	Ti	47	47.290	ug/L	0.429	51429	0.028
	V	51	53.436	ug/L	2.268	617369	0.405
	Cr	52	53.794	ug/L	2.363	520041	0.302
	Cr	53		ug/L		211127	-0.232
	Mn	55	53.279	ug/L	0.507	847554	0.472
	Fe	57	4596.937	ug/L	1.256	1563288	0.869
	Co	59	52.885	ug/L	2.424	607141	0.340
	Ni	60	51.848	ug/L	1.534	133776	0.075
	Cu	63		ug/L		311901	0.175
	Cu	65	52.130	ug/L	1.288	153235	0.086
	Zn	66	50.610	ug/L	1.862	100168	0.129
	Zn	67		ug/L		26241	-0.005
	Zn	68		ug/L		78227	0.098
>	Ge	74		ug/L		770483	770482.634
	As	75	48.068	ug/L	1.382	111309	0.138
	Se	77		ug/L		16542	-0.048
	Se	82	50.317	ug/L	1.092	10037	0.013
	Kr	83		ug/L		307	-0.000
	Sr	88	45.693	ug/L	0.835	1222271	3.089
	Y	89		ug/L		603	0.001
	Zr	90	48.507	ug/L	0.709	672155	1.698
	Mo	98	49.466	ug/L	1.499	296906	0.751
	Ag	107	50.129	ug/L	1.161	456941	1.155
	Cd	111	48.703	ug/L	2.240	109276	0.276
	Cd	114		ug/L		255007	0.645
>	In	115		ug/L		395509	395509.388
	Sn	120	48.772	ug/L	1.700	460174	1.162
	Sb	121	48.853	ug/L	2.073	414470	1.048
	Sb	123		ug/L		319046	0.806
	Ba	135		ug/L		112996	0.326
	Ba	137	47.747	ug/L	2.057	194759	0.562
	Ho	165		ug/L		56	0.000
>	Ta	181		ug/L		346740	346739.746
	Tl	205	49.848	ug/L	2.938	792519	2.285
	Pb	208	52.186	ug/L	1.037	1143919	3.272
	Bi	209		ug/L		118	0.000
	Th	232	52.676	ug/L	2.629	1080287	3.115
	U	238	55.920	ug/L	3.147	1080465	3.117

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	0.9999
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	0.9999
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	0.9999
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	0.9999
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Ta	181	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
	Li	7	108.930				
	Be	9	103.376				
	B	11	103.485				
	Na	23	99.251				
	Mg	24	95.633				
	Al	27	97.128				
	P	31	82.329				
	K	39	108.509				
	Ca	43	100.364				
>	Sc	45		97.4			
	Ti	47	94.579				
	V	51	106.871				
	Cr	52	107.587				
	Cr	53					
	Mn	55	106.557				
	Fe	57	91.939				
	Co	59	105.770				
	Ni	60	103.697				
	Cu	63					
	Cu	65	104.260				
	Zn	66	101.221				
	Zn	67					
	Zn	68					
>	Ge	74		102.3			
	As	75	96.137				
	Se	77					
	Se	82	100.634				
	Kr	83					
	Sr	88	91.385				
	Y	89					
	Zr	90	97.015				
	Mo	98	98.933				
	Ag	107	100.258				
	Cd	111	97.405				
	Cd	114					
>	In	115		107.1			
	Sn	120	97.544				
	Sb	121	97.706				
	Sb	123					
	Ba	135					
	Ba	137	95.494				
	Ho	165					
>	Ta	181		113.3			
	Tl	205	99.695				
	Pb	208	104.372				
	Bi	209					
	Th	232	105.351				
	U	238	111.840				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 8	P	31	CCV is out of limits (+/- 10%)
QC Std 8	U	238	CCV is out of limits (+/- 10%)

QC Action

ICPMS#5 - Summary Report

Sample ID: QC Std 9
Sample Date/Time: Monday, May 09, 2005 20:19:09
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\050509\QC Std 9.122

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	0.044	ug/L	19.520	130	0.000
	Be	9	0.002	ug/L	1132.341	29	0.000
	B	11	3.349	ug/L	21.947	2328	0.001
	Na	23	-0.846	ug/L	41.368	19013	-0.003
	Mg	24	0.430	ug/L	77.927	3334	0.001
	Al	27	0.076	ug/L	469.344	9337	0.000
	P	31	-3.796	ug/L	5.600	6938	-0.001
	K	39	-21.410	ug/L	18.980	1334217	-0.119
	Ca	43	-11.781	ug/L	15.241	1421	-0.000
>	Sc	45		ug/L		1866820	1866819.767
	Ti	47	-0.073	ug/L	23.657	582	-0.000
	V	51	7.013	ug/L	8.720	-10998	0.053
	Cr	52	2.454	ug/L	4.264	6938	0.014
	Cr	53		ug/L		271255	-0.205
	Mn	55	-0.076	ug/L	7.029	4724	-0.001
	Fe	57	11.220	ug/L	3.400	18499	0.002
	Co	59	0.006	ug/L	33.685	462	0.000
	Ni	60	0.001	ug/L	327.067	138	0.000
	Cu	63		ug/L		277	0.000
	Cu	65	-0.003	ug/L	170.073	174	-0.000
	Zn	66	0.051	ug/L	42.257	775	0.000
	Zn	67		ug/L		15847	-0.019
	Zn	68		ug/L		1536	-0.002
>	Ge	74		ug/L		792026	792026.043
	As	75	-1.465	ug/L	34.418	1969	-0.004
	Se	77		ug/L		21396	-0.042
	Se	82	0.056	ug/L	98.730	65	0.000
	Kr	83		ug/L		311	-0.000
	Sr	88	-0.004	ug/L	10.877	383	-0.000
	Y	89		ug/L		86	0.000
	Zr	90	0.681	ug/L	16.682	10137	0.024
	Mo	98	0.034	ug/L	52.573	286	0.001
	Ag	107	0.004	ug/L	36.156	101	0.000
	Cd	111	0.009	ug/L	48.384	50	0.000
	Cd	114		ug/L		59	0.000
>	In	115		ug/L		394427	394426.731
	Sn	120	0.131	ug/L	30.833	1794	0.003
	Sb	121	0.142	ug/L	35.208	1388	0.003
	Sb	123		ug/L		1082	0.002
	Ba	135		ug/L		51	0.000
	Ba	137	0.007	ug/L	47.100	80	0.000
	Ho	165		ug/L		25	-0.000
>	Ta	181		ug/L		331108	331107.765
	Tl	205	-0.003	ug/L	75.163	287	-0.000
	Pb	208	0.709	ug/L	16.108	23634	0.044
	Bi	209		ug/L		49	-0.000
	Th	232	0.025	ug/L	34.609	711	0.001
	U	238	0.005	ug/L	30.594	174	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	0.9999
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	0.9999
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	0.9999
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	0.9999
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Ta	181	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
Li	7					
Be	9					
B	11					
Na	23					
Mg	24					
Al	27					
P	31					
K	39					
Ca	43					
> Sc	45		102.0			
Ti	47					
V	51					
Cr	52					
Cr	53					
Mn	55					
Fe	57					
Co	59					
Ni	60					
Cu	63					
Cu	65					
Zn	66					
Zn	67					
Zn	68					
> Ge	74		105.1			
As	75					
Se	77					
Se	82					
Kr	83					
Sr	88					
Y	89					
Zr	90					
Mo	98					
Ag	107					
Cd	111					
Cd	114					
> In	115		106.8			
Sn	120					
Sb	121					
Sb	123					
Ba	135					
Ba	137					
Ho	165					
> Ta	181		108.2			
Tl	205					
Pb	208					
Bi	209					
Th	232					
U	238					

QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

==========

Method Name: Soil1 NWC 5/10/05
Method Description: 7471A ILMO4.0/ANALYST NOR1
Element: Hg

Date: 05/10/2005
Technique:FI-MHS
Calibration Type:
Hg, Zero Intercept: Linear
Wavelength: 253.7 nm
Sample Info Name: 051005S1.SIF Results Data Set Name: 051005S2

==========

Element: Hg Seq. No.: 1 AS Loc.: 1 Date: 05/10/2005
Sample ID: Calib Blank

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1			0.0012	0.0012	18:10:58	No
2			0.0011	0.0011	18:11:32	No
Mean:			0.0011			
SD :			0.0001			
%RSD:			6.9982			

Auto-zero performed.

==========

Element: Hg Seq. No.: 2 AS Loc.: 2 Date: 05/10/2005
Sample ID: 0.2

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1			0.0028	0.0039	18:12:55	No
2			0.0030	0.0042	18:13:30	No
Mean:			0.0029			
SD :			0.0002			
%RSD:			5.6452			

[Hg] Standard number 1 applied. [0.200]
Correlation Coefficient: 1.00000 Slope: 0.01452

==========

Element: Hg Seq. No.: 3 AS Loc.: 3 Date: 05/10/2005
Sample ID: 0.5

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1			0.0070	0.0081	18:14:55	No
2			0.0063	0.0074	18:15:29	No
Mean:			0.0066			
SD :			0.0005			
%RSD:			7.4036			

[Hg] Standard number 2 applied. [0.500]
Correlation Coefficient: 0.99665 Slope: 0.01345

==========

Element: Hg Seq. No.: 4 AS Loc.: 4 Date: 05/10/2005
Sample ID: 2.0

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1			0.0268	0.0279	18:16:54	No
2			0.0256	0.0267	18:17:28	No
Mean:			0.0262			
SD :			0.0008			
%RSD:			3.2177			

[Hg] Standard number 3 applied. [2.000]
Correlation Coefficient: 0.99986 Slope: 0.01312

Element: Hg Seq. No.: 5 AS Loc.: 5 Date: 05/10/2005
Sample ID: 5.0

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1			0.0665	0.0677	18:18:55	No
2			0.0640	0.0651	18:19:30	No
Mean:			0.0652			
SD :			0.0018			
%RSD:			2.7858			

[Hg] Standard number 4 applied. [5.000]
Correlation Coefficient: 0.99998 Slope: 0.01306

Element: Hg Seq. No.: 6 AS Loc.: 6 Date: 05/10/2005
Sample ID: 10.0

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1			0.1258	0.1270	18:20:56	No
2			0.1209	0.1221	18:21:31	No
Mean:			0.1234			
SD :			0.0035			
%RSD:			2.8063			

[Hg] Standard number 5 applied. [10.00]
Correlation Coefficient: 0.99943 Slope: 0.01251

Calibration data for Hg

Standard ID	Mean Signal (Pk Height)	Entered Concentration (µg/L)	Calculated Concentration (µg/L)	Standard Deviation	%RSD
Calib Blank	0.0011	---	----	----	----
0.2	0.0029	0.200	0.232	0.0002	5.6
0.5	0.0066	0.500	0.530	0.0005	7.4
2.0	0.0262	2.000	2.093	0.0008	3.2
5.0	0.0652	5.000	5.215	0.0018	2.8
10.0	0.1234	10.000	9.864	0.0035	2.8

Correlation Coefficient: 0.99943 Slope: 0.01251 ----

✓ NAC 5/10/05

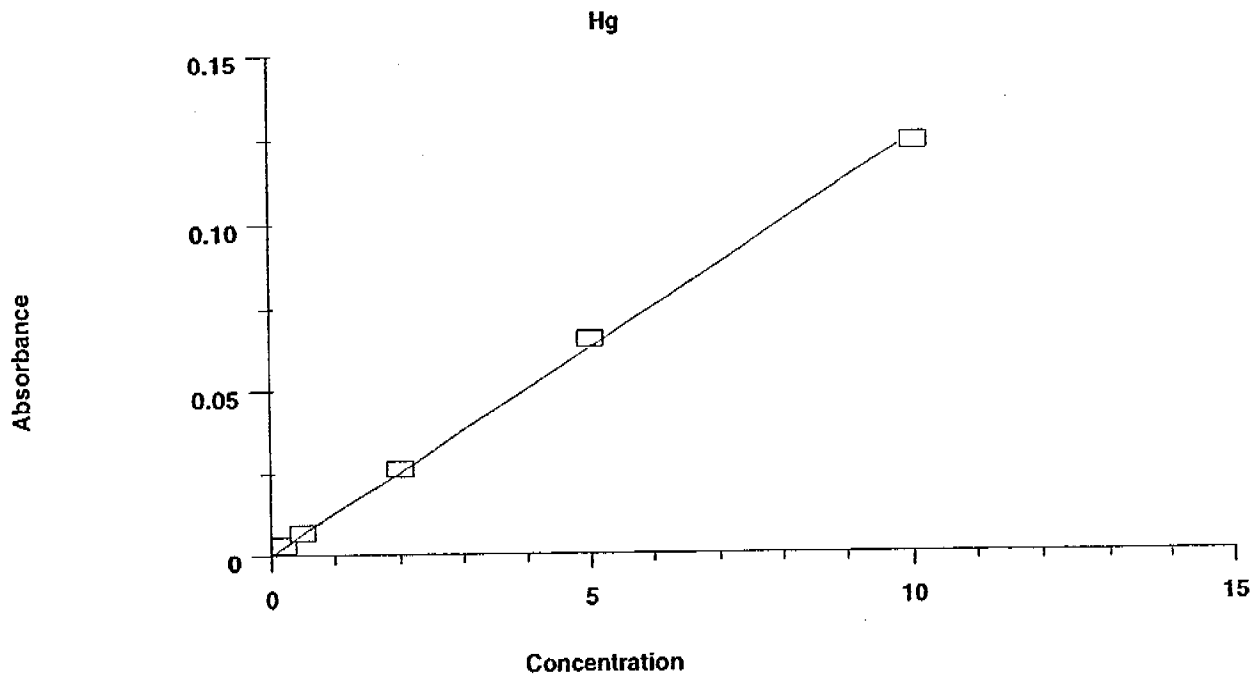

==========

Element: Hg Seq. No.: 7 AS Loc.: 9 Date: 05/10/2005
Sample ID: ICV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	5.137	5.137	0.0643	0.0654	18:23:02	No
2	4.955	4.955	0.0620	0.0631	18:23:37	No
Mean:	5.046	5.046	0.0631			
SD :	0.1290	0.1290	0.0016			
%RSD:	2.6	2.6	2.5571			

QC value within specified limits.

==========

Element: Hg Seq. No.: 8 AS Loc.: 10 Date: 05/10/2005
Sample ID: ICB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.037	0.037	0.0005	0.0016	18:24:59	No
2	0.003	0.003	0.0000	0.0012	18:25:34	No
Mean:	0.020	0.020	0.0003			
SD :	0.0237	0.0237	0.0003			
%RSD:	118.4	118.4	118.4400			

QC value within specified limits.

==========

Element: Hg Seq. No.: 9 AS Loc.: 11 Date: 05/10/2005
Sample ID: CRDL

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.225	0.225	0.0028	0.0040	18:26:58	No
2	0.224	0.224	0.0028	0.0039	18:27:32	No
Mean:	0.225	0.225	0.0028			
SD :	0.0010	0.0010	0.0000			
%RSD:	0.4	0.4	0.4353			

QC value within specified limits.

==========

Element: Hg Seq. No.: 10 AS Loc.: 7 Date: 05/10/2005
Sample ID: CCV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	5.266	5.266	0.0659	0.0670	18:28:57	No
2	5.023	5.023	0.0628	0.0640	18:29:32	No
Mean:	5.145	5.145	0.0644			
SD :	0.1714	0.1714	0.0021			
%RSD:	3.3	3.3	3.3320			

QC value within specified limits.

==========

Element: Hg Seq. No.: 11 AS Loc.: 8 Date: 05/10/2005
Sample ID: CCB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.004	0.004	0.0001	0.0012	18:31:01	No
2	-0.027	-0.027	-0.0003	0.0008	18:31:35	No
Mean:	-0.011	-0.011	-0.0001			
SD :	0.0217	0.0217	0.0003			
%RSD:	192.8	192.8	192.8320			

QC value within specified limits.

==========

Element: Hg Seq. No.: 12 AS Loc.: 12 Date: 05/10/2005
Sample ID: 1200839770|i||422745|MB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.018	0.018	0.0002	0.0014	18:33:01	No
2	0.008	0.008	0.0001	0.0012	18:33:37	No
Mean:	0.013	0.013	0.0002			
SD :	0.0066	0.0066	0.0001			
%RSD:	50.6	50.6	50.6039			

==========

Element: Hg Seq. No.: 13 AS Loc.: 13 Date: 05/10/2005
Sample ID: 1200839771|i|10||LCS

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	6.692	6.692	0.0837	0.0848	18:35:01	No
2	6.369	6.369	0.0797	0.0808	18:35:36	No
Mean:	6.530	6.530	0.0817			
SD :	0.2285	0.2285	0.0029			
%RSD:	3.5	3.5	3.4991			

==========

Element: Hg Seq. No.: 14 AS Loc.: 14 Date: 05/10/2005
Sample ID: 135803001|i|

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.236	0.236	0.0029	0.0041	18:37:02	No
2	0.175	0.175	0.0022	0.0033	18:37:38	No
Mean:	0.205	0.205	0.0026			
SD :	0.0431	0.0431	0.0005			
%RSD:	21.0	21.0	20.9951			

==========

Element: Hg Seq. No.: 15 AS Loc.: 15 Date: 05/10/2005
Sample ID: 1200839772|i|||DUP

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.245	0.245	0.0031	0.0042	18:39:06	No
2	0.225	0.225	0.0028	0.0039	18:39:41	No
Mean:	0.235	0.235	0.0029			
SD :	0.0141	0.0141	0.0002			
%RSD:	6.0	6.0	5.9878			

Element: Hg Seq. No.: 16 AS Loc.: 16 Date: 05/10/2005
Sample ID: 1200839773|i|||MS

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	2.440	2.440	0.0305	0.0317	18:41:09	No
2	2.397	2.397	0.0300	0.0311	18:41:45	No
Mean:	2.418	2.418	0.0302			
SD :	0.0306	0.0306	0.0004			
%RSD:	1.3	1.3	1.2644			

Element: Hg Seq. No.: 17 AS Loc.: 17 Date: 05/10/2005
Sample ID: 1200839775|i|||MSD

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	2.413	2.413	0.0302	0.0313	18:43:10	No
2	2.326	2.326	0.0291	0.0302	18:43:44	No
Mean:	2.370	2.370	0.0296			
SD :	0.0617	0.0617	0.0008			
%RSD:	2.6	2.6	2.6040			

Element: Hg Seq. No.: 18 AS Loc.: 18 Date: 05/10/2005
Sample ID: 1200839774|i|5||SDILT

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.051	0.051	0.0006	0.0018	18:45:05	No
2	-0.082	-0.082	-0.0010	0.0001	18:45:40	No
Mean:	-0.015	-0.015	-0.0002			
SD :	0.0943	0.0943	0.0012			
%RSD:	614.2	614.2	614.2019			

Element: Hg Seq. No.: 19 AS Loc.: 19 Date: 05/10/2005
Sample ID: 135803002|i|

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.401	0.401	0.0050	0.0061	18:47:02	No
2	0.388	0.388	0.0048	0.0060	18:47:36	No
Mean:	0.394	0.394	0.0049			
SD :	0.0096	0.0096	0.0001			
%RSD:	2.4	2.4	2.4299			

Element: Hg Seq. No.: 20 AS Loc.: 20 Date: 05/10/2005
Sample ID: 135803003|i|

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.194	0.194	0.0024	0.0036	18:48:58	No
2	0.189	0.189	0.0024	0.0035	18:49:32	No
Mean:	0.192	0.192	0.0024			
SD :	0.0033	0.0033	0.0000			

%RSD: 1.7 1.7 1.7472

==========

Element: Hg Seq. No.: 21 AS Loc.: 21 Date: 05/10/2005
Sample ID: 135803004|i|

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.310	0.310	0.0039	0.0050	18:50:55	No
2	0.297	0.297	0.0037	0.0048	18:51:30	No
Mean:	0.303	0.303	0.0038			
SD :	0.0091	0.0091	0.0001			
%RSD:	3.0	3.0	2.9893			

==========

Element: Hg Seq. No.: 22 AS Loc.: 7 Date: 05/10/2005
Sample ID: CCV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	5.241	5.241	0.0656	0.0667	18:52:55	No
2	5.062	5.062	0.0633	0.0645	18:53:29	No
Mean:	5.151	5.151	0.0644			
SD :	0.1261	0.1261	0.0016			
%RSD:	2.4	2.4	2.4474			

QC value within specified limits.

==========

Element: Hg Seq. No.: 23 AS Loc.: 8 Date: 05/10/2005
Sample ID: CCB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.047	0.047	0.0006	0.0017	18:54:57	No
2	-0.005	-0.005	-0.0001	0.0011	18:55:33	No
Mean:	0.021	0.021	0.0003			
SD :	0.0366	0.0366	0.0005			
%RSD:	171.8	171.8	171.8079			

QC value within specified limits.

==========

Element: Hg Seq. No.: 24 AS Loc.: 22 Date: 05/10/2005
Sample ID: 135806001|i|

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.475	0.475	0.0059	0.0071	18:56:59	No
2	0.430	0.430	0.0054	0.0065	18:57:33	No
Mean:	0.453	0.453	0.0057			
SD :	0.0317	0.0317	0.0004			
%RSD:	7.0	7.0	7.0128			

==========

Element: Hg Seq. No.: 25 AS Loc.: 23 Date: 05/10/2005
Sample ID: 135806002|i|

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.232	0.232	0.0029	0.0040	18:58:57	No
2	0.229	0.229	0.0029	0.0040	18:59:31	No
Mean:	0.230	0.230	0.0029			
SD :	0.0017	0.0017	0.0000			
%RSD:	0.7	0.7	0.7284			

==========

Element: Hg Seq. No.: 26 AS Loc.: 24 Date: 05/10/2005
Sample ID: 135806003|i|

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.441	0.441	0.0055	0.0067	19:00:56	No
2	0.432	0.432	0.0054	0.0065	19:01:32	No
Mean:	0.436	0.436	0.0055			
SD :	0.0067	0.0067	0.0001			
%RSD:	1.5	1.5	1.5277			

Element: Hg Seq. No.: 27 AS Loc.: 25 Date: 05/10/2005
Sample ID: 135806004|i|

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.224	0.224	0.0028	0.0039	19:02:57	No
2	0.221	0.221	0.0028	0.0039	19:03:32	No
Mean:	0.223	0.223	0.0028			
SD :	0.0023	0.0023	0.0000			
%RSD:	1.1	1.1	1.0543			

Element: Hg Seq. No.: 28 AS Loc.: 26 Date: 05/10/2005
Sample ID: 135806005|i|

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.865	0.865	0.0108	0.0120	19:04:57	No
2	0.845	0.845	0.0106	0.0117	19:05:32	No
Mean:	0.855	0.855	0.0107			
SD :	0.0143	0.0143	0.0002			
%RSD:	1.7	1.7	1.6767			

Element: Hg Seq. No.: 29 AS Loc.: 27 Date: 05/10/2005
Sample ID: 135806006|i|

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.415	0.415	0.0052	0.0063	19:06:58	No
2	0.402	0.402	0.0050	0.0062	19:07:34	No
Mean:	0.409	0.409	0.0051			
SD :	0.0090	0.0090	0.0001			
%RSD:	2.2	2.2	2.2007			

Element: Hg Seq. No.: 30 AS Loc.: 28 Date: 05/10/2005
Sample ID: 135806007|i|

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.237	0.237	0.0030	0.0041	19:09:01	No
2	0.222	0.222	0.0028	0.0039	19:09:35	No
Mean:	0.230	0.230	0.0029			
SD :	0.0106	0.0106	0.0001			
%RSD:	4.6	4.6	4.6229			

Element: Hg Seq. No.: 31 AS Loc.: 29 Date: 05/10/2005
Sample ID: 135806008|i|

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.222	0.222	0.0028	0.0039	19:11:01	No
2	0.217	0.217	0.0027	0.0038	19:11:37	No
Mean:	0.219	0.219	0.0027			
SD :	0.0035	0.0035	0.0000			

%RSD: 1.6 1.6 1.5900

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Element: Hg Seq. No.: 32 AS Loc.: 30 Date: 05/10/2005
Sample ID: 135806009|i|

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.208	0.208	0.0026	0.0037	19:13:04	No
2	0.189	0.189	0.0024	0.0035	19:13:39	No
Mean:	0.199	0.199	0.0025			
SD :	0.0134	0.0134	0.0002			
%RSD:	6.7	6.7	6.7456			

==========

Element: Hg Seq. No.: 33 AS Loc.: 31 Date: 05/10/2005
Sample ID: 135806010|i|

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.452	0.452	0.0056	0.0068	19:15:06	No
2	0.421	0.421	0.0053	0.0064	19:15:40	No
Mean:	0.436	0.436	0.0055			
SD :	0.0217	0.0217	0.0003			
%RSD:	5.0	5.0	4.9743			

==========

Element: Hg Seq. No.: 34 AS Loc.: 7 Date: 05/10/2005
Sample ID: CCV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	5.287	5.287	0.0661	0.0673	19:17:08	No
2	5.078	5.078	0.0635	0.0647	19:17:44	No
Mean:	5.183	5.183	0.0648			
SD :	0.1472	0.1472	0.0018			
%RSD:	2.8	2.8	2.8409			

QC value within specified limits.

==========

Element: Hg Seq. No.: 35 AS Loc.: 8 Date: 05/10/2005
Sample ID: CCB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.011	0.011	0.0001	0.0013	19:19:11	No
2	-0.003	-0.003	0.0000	0.0011	19:19:46	No
Mean:	0.004	0.004	0.0001			
SD :	0.0099	0.0099	0.0001			
%RSD:	222.4	222.4	222.4490			

QC value within specified limits.

==========

Element: Hg Seq. No.: 36 AS Loc.: 32 Date: 05/10/2005
Sample ID: 135806011|i|

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.259	0.259	0.0032	0.0044	19:21:10	No
2	0.243	0.243	0.0030	0.0042	19:21:45	No
Mean:	0.251	0.251	0.0031			
SD :	0.0113	0.0113	0.0001			
%RSD:	4.5	4.5	4.5071			

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Element: Hg Seq. No.: 37 AS Loc.: 33 Date: 05/10/2005
Sample ID: 135806012|i|

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.270	0.270	0.0034	0.0045	19:23:06	No
2	0.248	0.248	0.0031	0.0042	19:23:41	No
Mean:	0.259	0.259	0.0032			
SD :	0.0158	0.0158	0.0002			
%RSD:	6.1	6.1	6.1113			

Element: Hg Seq. No.: 38 AS Loc.: 34 Date: 05/10/2005
Sample ID: 135806013|i|

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.181	0.181	0.0023	0.0034	19:25:03	No
2	0.113	0.113	0.0014	0.0025	19:25:38	No
Mean:	0.147	0.147	0.0018			
SD :	0.0481	0.0481	0.0006			
%RSD:	32.7	32.7	32.6724			

Element: Hg Seq. No.: 39 AS Loc.: 35 Date: 05/10/2005
Sample ID: 135806014|i|

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.238	0.238	0.0030	0.0041	19:27:00	No
2	0.240	0.240	0.0030	0.0041	19:27:36	No
Mean:	0.239	0.239	0.0030			
SD :	0.0020	0.0020	0.0000			
%RSD:	0.9	0.9	0.8562			

Element: Hg Seq. No.: 40 AS Loc.: 36 Date: 05/10/2005
Sample ID: 1200834438|i||420661|MB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.018	0.018	0.0002	0.0014	19:28:57	No
2	-0.005	-0.005	-0.0001	0.0011	19:29:33	No
Mean:	0.007	0.007	0.0001			
SD :	0.0160	0.0160	0.0002			
%RSD:	242.5	242.5	242.5193			

Element: Hg Seq. No.: 41 AS Loc.: 37 Date: 05/10/2005
Sample ID: 1200834439|i|10||LCS

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	6.896	6.896	0.0863	0.0874	19:30:56	No
2	6.654	6.654	0.0832	0.0844	19:31:31	No
Mean:	6.775	6.775	0.0847			
SD :	0.1710	0.1710	0.0021			
%RSD:	2.5	2.5	2.5244			

Element: Hg Seq. No.: 42 AS Loc.: 38 Date: 05/10/2005
Sample ID: 135255001|i|

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.013	0.013	0.0002	0.0013	19:32:54	No
2	-0.005	-0.005	-0.0001	0.0011	19:33:29	No
Mean:	0.004	0.004	0.0001			
SD :	0.0123	0.0123	0.0002			

%RSD: 295.4 295.4 295.3563

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Element: Hg Seq. No.: 43 AS Loc.: 39 Date: 05/10/2005
Sample ID: 135255002|i|

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.050	0.050	0.0006	0.0018	19:34:53	No
2	0.048	0.048	0.0006	0.0017	19:35:29	No
Mean:	0.049	0.049	0.0006			
SD :	0.0017	0.0017	0.0000			
%RSD:	3.4	3.4	3.4413			

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Element: Hg Seq. No.: 44 AS Loc.: 40 Date: 05/10/2005
Sample ID: 1200834440|i|||DUP

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.050	0.050	0.0006	0.0018	19:36:53	No
2	0.060	0.060	0.0008	0.0019	19:37:28	No
Mean:	0.055	0.055	0.0007			
SD :	0.0070	0.0070	0.0001			
%RSD:	12.7	12.7	12.6857			

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Element: Hg Seq. No.: 45 AS Loc.: 41 Date: 05/10/2005
Sample ID: 1200834441|i|||MS

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	2.164	2.164	0.0271	0.0282	19:38:52	No
2	2.076	2.076	0.0260	0.0271	19:39:27	No
Mean:	2.120	2.120	0.0265			
SD :	0.0622	0.0622	0.0008			
%RSD:	2.9	2.9	2.9343			

==========

Element: Hg Seq. No.: 46 AS Loc.: 7 Date: 05/10/2005
Sample ID: CCV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	5.304	5.304	0.0663	0.0675	19:40:53	No
2	5.080	5.080	0.0635	0.0647	19:41:28	No
Mean:	5.192	5.192	0.0649			
SD :	0.1584	0.1584	0.0020			
%RSD:	3.1	3.1	3.0502			

QC value within specified limits.

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Element: Hg Seq. No.: 47 AS Loc.: 8 Date: 05/10/2005
Sample ID: CCB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.007	-0.007	-0.0001	0.0010	19:42:56	No
2	0.013	0.013	0.0002	0.0013	19:43:31	No
Mean:	0.003	0.003	0.0000			
SD :	0.0144	0.0144	0.0002			
%RSD:	491.7	491.7	491.6897			

QC value within specified limits.

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Element: Hg Seq. No.: 48 AS Loc.: 42 Date: 05/10/2005
Sample ID: 1200834443|i|||MSD

MISCELLANEOUS DATA

Prep LogBook

Analyst: CQH1 CQH 5/6/05 Verified by: CQH 5/6/05

Batch: 423070

Lab SOP: GL-MA-E-009 REV# 13

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1200840501	UI041001	.502	g
MS	1200840499	UI050503-01	.25	mL
MS	1200840499	UI050503-06	.25	mL
MSD	1200840500	UI050503-01	.25	mL
MSD	1200840500	UI050503-06	.25	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1200840497		SW846 3050B	06-MAY-2005 19:58	0.5 g	50 mL	100	SOIL
LCS	1200840501		SW846 3050B	06-MAY-2005 19:58	0.502 g	50 mL	99.60159	SOIL
SAMPLE	135806001		SW846 3050B	06-MAY-2005 19:58	0.508 g	50 mL	98.4252	SOIL
DUP	1200840498	135806001	SW846 3050B	06-MAY-2005 19:58	0.5 g	50 mL	100	SOIL
MS	1200840499	135806001	SW846 3050B	06-MAY-2005 19:58	0.511 g	50 mL	97.84736	SOIL
MSD	1200840500	135806001	SW846 3050B	06-MAY-2005 19:58	0.507 g	50 mL	98.61933	SOIL
SDILT	1200840502	135806001	SW846 3050B	06-MAY-2005 19:58	0.508 g	50 mL	98.4252	SOIL
SAMPLE	135806002		SW846 3050B	06-MAY-2005 19:58	0.503 g	50 mL	99.40358	SOIL
SAMPLE	135806003		SW846 3050B	06-MAY-2005 19:58	0.512 g	50 mL	97.65625	SOIL
SAMPLE	135806004		SW846 3050B	06-MAY-2005 19:58	0.5 g	50 mL	100	SOIL
SAMPLE	135806005		SW846 3050B	06-MAY-2005 19:58	0.512 g	50 mL	97.65625	SOIL
SAMPLE	135806006		SW846 3050B	06-MAY-2005 19:58	0.506 g	50 mL	98.81423	SOIL
SAMPLE	135806007		SW846 3050B	06-MAY-2005 19:58	0.503 g	50 mL	99.40358	SOIL
SAMPLE	135806008		SW846 3050B	06-MAY-2005 19:58	0.507 g	50 mL	98.61933	SOIL
SAMPLE	135806009		SW846 3050B	06-MAY-2005 19:58	0.506 g	50 mL	98.81423	SOIL
SAMPLE	135806010		SW846 3050B	06-MAY-2005 19:58	0.5 g	50 mL	100	SOIL
SAMPLE	135806011		SW846 3050B	06-MAY-2005 19:58	0.507 g	50 mL	98.61933	SOIL
SAMPLE	135806012		SW846 3050B	06-MAY-2005 19:58	0.507 g	50 mL	98.61933	SOIL
SAMPLE	135806013		SW846 3050B	06-MAY-2005 19:58	0.508 g	50 mL	98.4252	SOIL
SAMPLE	135806014		SW846 3050B	06-MAY-2005 19:58	0.501 g	50 mL	99.8004	SOIL

Reagent/Solvent Lot ID	Amount	Description
050503-05	1.5 mL	Hydrogen Peroxide 30%
300385	5 mL	HYDROCHLORIC ACID
300383	5 mL	Nitric Acid CONC.

Comments: Brown grainy soil

Prep LogBook

Analyst: CQH1 CQH 5/6/05 Verified by: CQH 5/6/05

Batch: 423105

Lab SOP: GL-MA-E-009 REV# 13

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1200840575	UI041001-01	.5	g
MS	1200840573	UI050503-02	.5	mL
MSD	1200840574	UI050503-02	.5	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1200840571		SW846 3050B	06-MAY-2005 20:16	0.5 g	50 mL	100	SOIL
LCS	1200840575		SW846 3050B	06-MAY-2005 20:16	0.5 g	50 mL	100	SOIL
SAMPLE	135806001		SW846 3050B	06-MAY-2005 20:16	0.51 g	50 mL	98.03922	SOIL
DUP	1200840572	135806001	SW846 3050B	06-MAY-2005 20:16	0.505 g	50 mL	99.0099	SOIL
MS	1200840573	135806001	SW846 3050B	06-MAY-2005 20:16	0.509 g	50 mL	98.23183	SOIL
MSD	1200840574	135806001	SW846 3050B	06-MAY-2005 20:16	0.506 g	50 mL	98.81423	SOIL
SDILT	1200840576	135806001	SW846 3050B	06-MAY-2005 20:16	0.51 g	50 mL	98.03922	SOIL
SAMPLE	135806002		SW846 3050B	06-MAY-2005 20:16	0.51 g	50 mL	98.03922	SOIL
SAMPLE	135806003		SW846 3050B	06-MAY-2005 20:16	0.51 g	50 mL	98.03922	SOIL
SAMPLE	135806004		SW846 3050B	06-MAY-2005 20:16	0.504 g	50 mL	99.20635	SOIL
SAMPLE	135806005		SW846 3050B	06-MAY-2005 20:16	0.512 g	50 mL	97.65625	SOIL
SAMPLE	135806006		SW846 3050B	06-MAY-2005 20:16	0.508 g	50 mL	98.4252	SOIL
SAMPLE	135806007		SW846 3050B	06-MAY-2005 20:16	0.501 g	50 mL	99.8004	SOIL
SAMPLE	135806008		SW846 3050B	06-MAY-2005 20:16	0.502 g	50 mL	99.60159	SOIL
SAMPLE	135806009		SW846 3050B	06-MAY-2005 20:16	0.512 g	50 mL	97.65625	SOIL
SAMPLE	135806010		SW846 3050B	06-MAY-2005 20:16	0.512 g	50 mL	97.65625	SOIL
SAMPLE	135806011		SW846 3050B	06-MAY-2005 20:16	0.506 g	50 mL	98.81423	SOIL
SAMPLE	135806012		SW846 3050B	06-MAY-2005 20:16	0.512 g	50 mL	97.65625	SOIL
SAMPLE	135806013		SW846 3050B	06-MAY-2005 20:16	0.501 g	50 mL	99.8004	SOIL
SAMPLE	135806014		SW846 3050B	06-MAY-2005 20:16	0.512 g	50 mL	97.65625	SOIL

Reagent/Solvent Lot ID	Amount	Description
050503-05	1.5 mL	Hydrogen Peroxide 30%
300383	5 mL	Nitric Acid CONC.

Comments: Brown grainy soil

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Prep LogBook

Analyst: ETL
Batch: 422744
Lab SOP: GL-MA-E-010 REV# 15

Verified by: 5/9/05

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1200839771	UI041001	.201	g
MS	1200839773	WHG050509-14	.3	mL
MSD	1200839775	WHG050509-14	.3	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1200839770		SW846 7471A Prep	09-MAY-2005 14:15	0.6 g	30 mL	50	SOIL
LCS	1200839771		SW846 7471A Prep	09-MAY-2005 14:15	0.201 g	30 mL	149.25373	SOIL
SAMPLE	135803001		SW846 7471A Prep	09-MAY-2005 14:15	0.605 g	30 mL	49.58678	SOIL
DUP	1200839772	135803001	SW846 7471A Prep	09-MAY-2005 14:15	0.614 g	30 mL	48.85993	SOIL
MS	1200839773	135803001	SW846 7471A Prep	09-MAY-2005 14:15	0.636 g	30 mL	47.16981	SOIL
MSD	1200839775	135803001	SW846 7471A Prep	09-MAY-2005 14:15	0.631 g	30 mL	47.54358	SOIL
SDILT	1200839774	135803001	SW846 7471A Prep	09-MAY-2005 14:15	0.605 g	30 mL	49.58678	SOIL
SAMPLE	135803002		SW846 7471A Prep	09-MAY-2005 14:15	0.647 g	30 mL	46.36785	SOIL
SAMPLE	135803003		SW846 7471A Prep	09-MAY-2005 14:15	0.614 g	30 mL	48.85993	SOIL
SAMPLE	135803004		SW846 7471A Prep	09-MAY-2005 14:15	0.601 g	30 mL	49.91681	SOIL
SAMPLE	135806001		SW846 7471A Prep	09-MAY-2005 14:15	0.622 g	30 mL	48.23151	SOIL
SAMPLE	135806002		SW846 7471A Prep	09-MAY-2005 14:15	0.639 g	30 mL	46.94836	SOIL
SAMPLE	135806003		SW846 7471A Prep	09-MAY-2005 14:15	0.642 g	30 mL	46.72897	SOIL
SAMPLE	135806004		SW846 7471A Prep	09-MAY-2005 14:15	0.628 g	30 mL	47.7707	SOIL
SAMPLE	135806005		SW846 7471A Prep	09-MAY-2005 14:15	0.601 g	30 mL	49.91681	SOIL
SAMPLE	135806006		SW846 7471A Prep	09-MAY-2005 14:15	0.606 g	30 mL	49.50495	SOIL
SAMPLE	135806007		SW846 7471A Prep	09-MAY-2005 14:15	0.649 g	30 mL	46.22496	SOIL
SAMPLE	135806008		SW846 7471A Prep	09-MAY-2005 14:15	0.632 g	30 mL	47.46835	SOIL
SAMPLE	135806009		SW846 7471A Prep	09-MAY-2005 14:15	0.638 g	30 mL	47.02194	SOIL
SAMPLE	135806010		SW846 7471A Prep	09-MAY-2005 14:15	0.632 g	30 mL	47.46835	SOIL
SAMPLE	135806011		SW846 7471A Prep	09-MAY-2005 14:15	0.6 g	30 mL	50	SOIL
SAMPLE	135806012		SW846 7471A Prep	09-MAY-2005 14:15	0.646 g	30 mL	46.43963	SOIL
SAMPLE	135806013		SW846 7471A Prep	09-MAY-2005 14:15	0.612 g	30 mL	49.01961	SOIL
SAMPLE	135806014		SW846 7471A Prep	09-MAY-2005 14:15	0.622 g	30 mL	48.23151	SOIL

Reagent/Solvent Lot ID	Amount	Description
302187-A	1.125 mL	Hydrochloric Acid Conc.
302189-1	.375 mL	NITRIC ACID
301012-C	7.5 mL	5% KMnO4 solution
301014-C	2 mL	Hg reducing agent
WHG050509-07	30 uL	Mercury Working Standard 1st Source CAL S 0.2/CRA
WHG050509-08	75 uL	Mercury Working Standard 1st Source CAL S 0.5

Comments: Sample 135803001 is a black and dark brown soil and clay mix.
Digestion Start Date: 09-MAY-05 14:15
Digestion End Date: 09-MAY-05 14:45

Prep LogBook

WHG050509-11	1.5 mL	Mercury Working 1st Source CAL S 10.0
WHG050509-09	300 uL	Mercury Working 1st Source CAL S 2.0
WHG050509-10	750 uL	Mercury Working 1st Source CAL S 5.0/CCV
WHG050509-12	750 uL	Mercury Working 2nd Source S 5.0/ICV

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General Engineering Laboratories
Form GEL-XXX
Rev. 06/02

NCR Report No.: 200407
Revision No.: 1

COMPANY - WIDE NONCONFORMANCE REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
10-MAY-05	Federal	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
ICP/MS	SW846 3050B/6020	Solid	LANL
Batch ID:	**Sample Numbers:**		
423106	See Below		

Potentially affected work order(s)(SDG): 135806(3193S)

Application Issues:

Failed Recovery for LCS/MS/PS

Specification and Requirements Nonconformance Description:	NRG Disposition:
1. Failed Recovery for LCS/MS/PS: QC 1200840573MS	The MS and MSD both failed for Sb. Matrix interferences are suspected. Data is qualified and reported as is.

Originator's Name:

Elizabeth Janssen 10-MAY-05

Data Validator/Group Leader:

6/1/05

Quality Review:

Director:

Paul Bo

General Engineering Laboratories
Form GEL-XXX
Rev. 06/02

NCR Report No.: 200874
Revision No.:

COMPANY - WIDE NONCONFORMANCE REPORT

Mo.Day Yr. 11-MAY-05	**Division:** Federal	**Quality Criteria:** Specifications	**Type:** Process
Instrument Type: ICP	**Test / Method:** SW846 3050B/6010B	**Matrix Type:** Solid	**Client Code:** LANL
Batch ID: 423071	**Sample Numbers:** See Below		

Potentially affected work order(s)(SDG): 135806(3193S)

Application Issues:

Failed Recovery for LCS/MS/PS

Failed RPD for LCS/LCSD, MS/MSD, or PS/PSD

Failed RPD for DUP

Specification and Requirements Nonconformance Description:	**NRG Disposition:**
1. Failed Recovery for LCS/MS/PS: QC 1200840499MS 2. Failed RPD for DUP: QC 1200840498DUP 3. Failed RPD for LCS/LCSD, MS/MSD, or PS/PSD: QC 1200840500MSD	1. The matrix spike and matrix spike duplicate recovery failed for potassium,barium,calcium,magnesium and manganese due to possible matrix interference. The RPD failed on duplicate and matrix spike duplicate for chromium,cobalt,copper,iron,lead and manganese due to sample not homogeneous. Sample #135806001 is a brown grainy soil. Data are qualified and reported.

Originator's Name:

Helen Camello 13-MAY-05

Data Validator/Group Leader:

6/1/05

Quality Review:

Director:

Wednesday, July 16, 2003

REQUEST NUMBER: 1806S

ANALYSIS TYPE: RAD

Los Alamos
NATIONAL LABORATORY

AMENDED

ATTN: Stacy Griffin
General Engineering Laboratories, Inc., Historical
2040 Savage Road
Charleston, SC 29407

Please analyze the enclosed samples according to the schedule indicated:

SHIP DATE: 07/16/2003
REPORT DUE: 08/15/2003
TURN AROUND REQ'D: 30

RAD SCREENING: NOT REQ
COMMENTS: '

These samples are on:

LANL Request Number: 1806S
Per Agreement Number: 126310011
Project Cost Code: ML4700000000

LANL ER SMO CONTACT:
Signature:

METHOD CODE	SAMPLE ID	CONT ID	SAMPLE MATRIX	DATE SAMPLED	COMMENTS
EPA:905.0	GW05-03-51063	2	W	07/15/2003	Radionuclides to GEL.
EPA:905.0	GW05-03-51065	2	W	07/15/2003	Radionuclides to GEL.
EPA:905.0	GW05-03-51083	13	W	07/15/2003	Send to GEL.
EPA:905.0	GW05-03-51089	13	W	07/15/2003	Send to GEL.
EPA:905.0	GW05-03-51091	13	W	07/15/2003	Send to GEL.

Final Page of REQUEST NUMBER 1806S

Wednesday, July 16, 2003

CHAIN OF CUSTODY DOCUMENT NUMBER: 1806SC

Los Alamos
NATIONAL LABORATORY

REQUEST NUMBER: 1806S

ANALYSIS TYPE: RAD

ATTN: Stacy Griffin
General Engineering Laboratories, Inc., Historical
2040 Savage Road
Charleston, SC 29407

SAMPLE ID	CONT ID	CONTAINER DESCRIPTION	ORDER TEMPLATE CODE	PRESERVATIVE	MATRIX
GW05-03-51063	2	500 ML POLY	SR90	HNO3	W
GW05-03-51065	2	500 ML POLY	SR90	HNO3	W
GW05-03-51083	13	1 GAL POLY	~~AM241+GS+ISOPU+ISOU~~+SR90	HNO3	W
GW05-03-51089	13	1 GAL POLY	~~AM241+GS+ISOPU+ISO~~U+SR90	HNO3	W
GW05-03-51091	13	1 GAL POLY	~~AM241+GS+ISOPU+ISOU~~+SR90	HNO3	W

Final Page of CHAIN OF CUSTODY DOCUMENT FOR REQUEST NUMBER 1806S

Relinquished By:	Date	Time	Received By:	Date	Time
PRINTED NAME SIGNATURE	7/16/03	1420	PRINTED NAME SIGNATURE		
PRINTED NAME SIGNATURE			PRINTED NAME SIGNATURE		
PRINTED NAME SIGNATURE			PRINTED NAME SIGNATURE		

Received for DISPOSAL By:	Date	Time	Remarks:
PRINTED NAME SIGNATURE			

Los Alamos National Laboratory
Environmental Restoration Project
Los Alamos, NM 87545

FIELD CHAIN OF CUSTODY

EVENT NAME: Baseline Sampling/Analysis of Permeable Reactive Barrier, Mortandad Canyon

COC ID: 90612 **Event ID:**2262

SAMPLE ID: GW05-03-51063 **ER TEAM LEADER:** Patrick Longmire **DESTINATION:** SMO

SAMPLE ORDER MATRIX: Water **FIELD TEAM LEADER:** Alethea Banar **DEST. POC:**

ANALYSES REQUESTED

CONT. ID	ORDER	CONTAINER DESCRIPTION	PRESERVATIVE	COLLECTED Y / N	REASON	SPECIAL INSTRUCTIONS
13	Alkalinity	1 L POLY	Ice	Y		Send to EES-6.
14	DOC+TOC+NO3NO2+CLO 4+ANIO	250 ML AMBER GLASS	Ice	Y		Send to EES-6.
2	SR90	500 ML POLY	Nitric Acid	Y		Radionuclides to GEL.

RELINQUISHED BY (printed name): Curtis Schultz (signature):	**Date/Time:** 7/15/03 2:45	**RELINQUISHED BY** (printed name): (signature):	**Date/Time:**
RECEIVED BY (printed name): (signature):	**Date/Time:** 7/15/03 2:45	**RECEIVED BY** (printed name): (signature):	**Date/Time:**

Los Alamos National Laboratory
Environmental Restoration Project
Los Alamos, NM 87545

FIELD CHAIN OF CUSTODY

EVENT NAME: Baseline Sampling/Analysis of Permeable Reactive Barrier, Mortandad Canyon

COC ID: 91752 Event ID:2262

SAMPLE ID: GW05-03-51064
SAMPLE ORDER MATRIX: Water
ER TEAM LEADER: Patrick Longmire
FIELD TEAM LEADER: Alethea Banar
DESTINATION: SMO
DEST. POC:

ANALYSES REQUESTED

CONT. ID	ORDER	CONTAINER DESCRIPTION	PRESERVATIVE	COLLECTED Y / N	REASON	SPECIAL INSTRUCTIONS
1	METALS-EES-6	1 L POLY	Nitric Acid	Y		

RELINQUISHED BY (printed name): Curtis Schultz (signature):	Date/Time: 7/15/03 2:45	RELINQUISHED BY (printed name): (signature):	Date/Time:
RECEIVED BY (printed name): (signature):	Date/Time: 7/15/03 2:45	RECEIVED BY (printed name): (signature):	Date/Time:

Los Alamos National Laboratory
Environmental Restoration Project
Los Alamos, NM 87545

FIELD CHAIN OF CUSTODY

EVENT NAME: Baseline Sampling/Analysis of Permeable Reactive Barrier, Mortandad Canyon

COC ID: 90622 Event ID:2262

SAMPLE ID: GW05-03-51065 ER TEAM LEADER: Patrick Longmire DESTINATION: SMO

SAMPLE ORDER MATRIX: Water FIELD TEAM LEADER: Alethea Banar DEST. POC:

ANALYSES REQUESTED

CONT. ID	ORDER	CONTAINER DESCRIPTION	PRESERVATIVE	COLLECTED Y / N	REASON	SPECIAL INSTRUCTIONS
12	Alkalinity	1 L POLY	Ice	Y		Send to EES-6.
13	DOC+TOC+NO3NO2+CLO 4+ANIO	250 ML AMBER GLASS	Ice	Y		Send to EES-6.
2	SR90	500 ML POLY	Nitric Acid	Y		Radionuclides to GEL.

RELINQUISHED BY (printed name): Curtis Schultz (signature):	Date/Time: 7/15/03 2:45	RELINQUISHED BY (printed name): (signature):	Date/Time:
RECEIVED BY (printed name): (signature):	Date/Time: 7/15/03 2:45	RECEIVED BY (printed name): (signature):	Date/Time:

Los Alamos National Laboratory
Environmental Restoration Project
Los Alamos, NM 87545

FIELD CHAIN OF CUSTODY

EVENT NAME: Baseline Sampling/Analysis of Permeable Reactive Barrier, Mortandad Canyon

COC ID: 91762 **Event ID:**2262

SAMPLE ID: GW05-03-51066 **ER TEAM LEADER:** Patrick Longmire **DESTINATION:** SMO

SAMPLE ORDER MATRIX: Water **FIELD TEAM LEADER:** Alethea Banar **DEST. POC:**

ANALYSES REQUESTED

CONT. ID	ORDER	CONTAINER DESCRIPTION	PRESERVATIVE	COLLECTED Y / N	REASON	SPECIAL INSTRUCTIONS
1	METALS-EES-6	1 L POLY	Nitric Acid	Y		

RELINQUISHED BY (printed name): Curtis Schultz (signature):	Date/Time: 7/15/03 2:45	RELINQUISHED BY (printed name): (signature):	Date/Time:
RECEIVED BY (printed name): (signature):	Date/Time: 7/15/03 2:45	RECEIVED BY (printed name): (signature):	Date/Time:

Los Alamos National Laboratory
Environmental Restoration Project
Los Alamos, NM 87545

FIELD CHAIN OF CUSTODY

EVENT NAME: Baseline Sampling/Analysis of Permeable Reactive Barrier, Mortandad Canyon

COC ID: 90892 Event ID:2262

SAMPLE ID: GW05-03-51083
SAMPLE ORDER MATRIX: Water
ER TEAM LEADER: Patrick Longmire
FIELD TEAM LEADER: Alethea Banar
DESTINATION: SMO
DEST. POC:

ANALYSES REQUESTED

CONT. ID	ORDER	CONTAINER DESCRIPTION	PRESERVATIVE	COLLECTED Y / N	REASON	SPECIAL INSTRUCTIONS
14	Alkalinity	1 L POLY	Ice	Y		Send to EES-6.
13	~~AM241+GS+ISOPU+ISOU+~~ SR90 ~~EB 7/15/03~~	~~1 GAL POLY~~ 500 ml poly EB 7/15/03	Nitric Acid	Y		Send to GEL.
15	DOC+TOC+NO3NO2+CLO 4+ANIO	250 ML AMBER GLASS	Ice	Y		Send to EES-6.
5	H3	500 ML POLY	Ice	N	NR	Send to GEL.
10	N14N15	1 GAL POLY	Hydrochloric Acid (Hydrogen Chloride)	N		Send to EES-6
9	TIMS	1 L POLY	Nitric Acid	N		Send to C-INC.

RELINQUISHED BY (printed name): Curtis Schulte (signature):	Date/Time: 7/15/03 2:45	RELINQUISHED BY (printed name): (signature):	Date/Time:
RECEIVED BY (printed name): (signature):	Date/Time: 7/15/03 2:45	RECEIVED BY (printed name): (signature):	Date/Time:

Los Alamos National Laboratory
Environmental Restoration Project
Los Alamos, NM 87545

FIELD CHAIN OF CUSTODY

EVENT NAME: Baseline Sampling/Analysis of Permeable Reactive Barrier, Mortandad Canyon

COC ID: 91852 Event ID:2262

SAMPLE ID: GW05-03-51084 ER TEAM LEADER: Patrick Longmire DESTINATION: SMO

SAMPLE ORDER MATRIX: Water FIELD TEAM LEADER: Alethea Banar DEST. POC:

ANALYSES REQUESTED

CONT. ID	ORDER	CONTAINER DESCRIPTION	PRESERVATIVE	COLLECTED Y / N	REASON	SPECIAL INSTRUCTIONS
2	AM-241+ISOU+ISOPU+GS	1 GAL POLY	Nitric Acid	N	NR	Send to GEL.
1	METALS-EES-6	1 L POLY	Nitric Acid	Y		

RELINQUISHED BY (printed name): Curtis Schultz (signature):	Date/Time: 7/15/03 2:45	RELINQUISHED BY (printed name): (signature):	Date/Time:
RECEIVED BY (printed name): (signature):	Date/Time: 7/15/03 2:45	RECEIVED BY (printed name): (signature):	Date/Time:

Los Alamos National Laboratory
Environmental Restoration Project
Los Alamos, NM 87545

FIELD CHAIN OF CUSTODY

EVENT NAME: Baseline Sampling/Analysis of Permeable Reactive Barrier, Mortandad Canyon

COC ID: 90922 **Event ID:**2262

SAMPLE ID: GW05-03-51089 **ER TEAM LEADER:** Patrick Longmire **DESTINATION:** SMO

SAMPLE ORDER MATRIX: Water **FIELD TEAM LEADER:** Alethea Banar **DEST. POC:**

ANALYSES REQUESTED

CONT. ID	ORDER	CONTAINER DESCRIPTION	PRESERVATIVE	COLLECTED Y / N	REASON	SPECIAL INSTRUCTIONS
14	Alkalinity	1 L POLY	Ice	Y		Send to EES-6.
13	~~AM241+GS+ISOPU+ISOU+~~ SR90	~~4 GAL POLY~~ 500 ml poly	Nitric Acid	Y		Send to GEL.
15	DOC+TOC+NO3NO2+CLO 4+ANIO	250 ML AMBER GLASS	Ice	Y		Send to EES-6.
5	H3	500 ML POLY	Ice	N	NR	Send to GEL.
10	N14N15	1 GAL POLY	Hydrochloric Acid (Hydrogen Chloride)	N		Send to EES-6.
9	TIMS	1 L POLY	Nitric Acid	N		Send to C-INC.

RELINQUISHED BY (printed name): Curtis Schultz (signature):	**Date/Time:** 7/15/03 2:45	**RELINQUISHED BY** (printed name): (signature):	**Date/Time:**
RECEIVED BY (printed name): (signature):	**Date/Time:** 7/15/03 2:45	**RECEIVED BY** (printed name): (signature):	**Date/Time:**

Los Alamos National Laboratory
Environmental Restoration Project
Los Alamos, NM 87545

FIELD CHAIN OF CUSTODY

EVENT NAME: Baseline Sampling/Analysis of Permeable Reactive Barrier, Mortandad Canyon

COC ID: 91882 Event ID:2262

SAMPLE ID: GW05-03-51090
SAMPLE ORDER MATRIX: Water
ER TEAM LEADER: Patrick Longmire
FIELD TEAM LEADER: Alethea Banar
DESTINATION: SMO
DEST. POC:

ANALYSES REQUESTED

CONT. ID	ORDER	CONTAINER DESCRIPTION	PRESERVATIVE	COLLECTED Y / N	REASON	SPECIAL INSTRUCTIONS
2	AM-241+ISOU+ISOPU+GS	1 GAL POLY	Nitric Acid	N	NR	Send to GEL.
1	METALS-EES-6	1 L POLY	Nitric Acid	Y		

RELINQUISHED BY (printed name): Curtis Schultz (signature):	Date/Time: 7/15/03 2:45	RELINQUISHED BY (printed name): (signature):	Date/Time:
RECEIVED BY (printed name): (signature):	Date/Time: 7/15/03 2:45	RECEIVED BY (printed name): (signature):	Date/Time:

Los Alamos National Laboratory
Environmental Restoration Project
Los Alamos, NM 87545

FIELD CHAIN OF CUSTODY

EVENT NAME: Baseline Sampling/Analysis of Permeable Reactive Barrier, Mortandad Canyon

COC ID: 90932 **Event ID:** 2262

SAMPLE ID: GW05-03-51091 **ER TEAM LEADER:** Patrick Longmire **DESTINATION:** SMO

SAMPLE ORDER MATRIX: Water **FIELD TEAM LEADER:** Alethea Banar **DEST. POC:**

ANALYSES REQUESTED

CONT. ID	ORDER	CONTAINER DESCRIPTION	PRESERVATIVE	COLLECTED Y / N	REASON	SPECIAL INSTRUCTIONS
14	Alkalinity	1 L POLY	Ice	Y		Send to EES-6.
13	~~AM241+GS+ISOPU+ISOU+~~ SR90	~~1 GAL POLY~~ 500 ml poly	Nitric Acid	Y		Send to GEL.
15	DOC+TOC+NO3NO2+CLO 4+ANIO	250 ML AMBER GLASS	Ice	Y		Send to EES-6.
5	H3	500 ML POLY	Ice	N	NR	Send to GEL.
~~10~~	~~N14N15~~	~~1 GAL POLY~~	~~Hydrochloric Acid~~ (Hydrogen Chloride)	N		~~Send to EES-6.~~
9	TIMS	1 L POLY	Nitric Acid	N		Send to C-INC.

RELINQUISHED BY (printed name): Curtis Schultz (signature):	**Date/Time:** 7/15/03 2:45	**RELINQUISHED BY** (printed name): (signature):	**Date/Time:**
RECEIVED BY (printed name): (signature):	**Date/Time:** 7/15/03 2:45	**RECEIVED BY** (printed name): (signature):	**Date/Time:**

Los Alamos National Laboratory
Environmental Restoration Project
Los Alamos, NM 87545

FIELD CHAIN OF CUSTODY

EVENT NAME: Baseline Sampling/Analysis of Permeable Reactive Barrier, Mortandad Canyon

COC ID: 91892 **Event ID:**2262

SAMPLE ID: GW05-03-51092 **ER TEAM LEADER:** Patrick Longmire **DESTINATION:** SMO

SAMPLE ORDER MATRIX: Water **FIELD TEAM LEADER:** Alethea Banar **DEST. POC:**

ANALYSES REQUESTED

CONT. ID	ORDER	CONTAINER DESCRIPTION	PRESERVATIVE	COLLECTED Y / N	REASON	SPECIAL INSTRUCTIONS
2	AM-241+ISOU+ISOPU+GS	1 GAL POLY	Nitric Acid	N	NR	Send to GEL.
1	METALS-EES-6	1 L POLY	Nitric Acid	Y		

RELINQUISHED BY (printed name): Curtis Schulte (signature):	**Date/Time:** 7/15/03 2:45	**RELINQUISHED BY** (printed name): (signature):	**Date/Time:**
RECEIVED BY (printed name): (signature):	**Date/Time:** 7/15/03 2:45	**RECEIVED BY** (printed name): (signature):	**Date/Time:**

RADIOLOGICAL SCREENING DATA RELEASE FORM

The following samples (list samples by number) were received at the Field Support Facility (FSF) without radiological screening data. These samples will not be shipped until radiological screening documentation arrives at the FSF. I understand that it is my responsibility to ensure that this information arrives at the FSF in a timely manner. **If holding times are missed because screening data do not arrive, I will pick up the samples when called to do so.**

****

The following samples (list samples by number) do not require radiological screening for the reason stated.

GW05-03- 51063 thru 51066
" " 51083 and 51084
" " 51089 thru 51092

Reason:

No rad activity anticipated in the permeable reactive barrier points

Signature _____

Printed name Curtis Schultz

Telephone number 780-2897 Date 7/15/03

CHAIN OF CUSTODY FORM (Example)

SECTION I. DATA PACKAGE INFORMATION (Relinquisher completes)

New Issue ☒ Yes ☐ No

Request Number(s): 17955 18195 18185 18095
18065 17885 18285 18145

Data Package Requestor (check one): ☒ Editing/Validation ☐ User

Name (print) Libby Gallegos Focus Area: VFV
Phone 7-7052 Z Number: 151019

SECTION II. AUTHORIZING SIGNATURES (Reliquished/Received signatures)

Relinquished By: _____ Date: 8/29/03

I accept custody of the above listed data package(s).

Received By: Libby Gallegos Date: 8/29/03

Relinquished By: Libby Gallegos Date: 10/1/03

I accept custody of the above listed data package(s).

Received By: _____ Date: 10-1-03

Comments:

CHAIN OF CUSTODY FORM (Example)

SECTION I. DATA PACKAGE INFORMATION (Relinquisher completes)

New Issue ☒ Yes ☐ No

Request Number(s): 17955 18195 18185 18095
18065 17885 18285 18145

Data Package Requestor (check one): ☒ Editing/Validation ☐ User

Name (print) Libby Gallegos Focus Area: VTV
Phone 7-1052 Z Number: 15019

SECTION II. AUTHORIZING SIGNATURES (Relinquished/Received signatures)

Relinquished By: [signature] Date: 8/29/03

I accept custody of the above listed data package(s).

Received By: Libby Gallegos Date: 8/29/03

Relinquished By: _____ Date: _____

I accept custody of the above listed data package(s).

Received By: _____ Date: _____

Comments:

Field Copy CD.

[redacted]

1809S

Pit - Pony m

Report Sent To:

Approved By: 09/05/03

Date Sent:

FIELD COPY

Data Validation Cover Sheet

Section I. Data Record Package Identification

Request Number: 1806S Validation Date: 02-Sep-03 Lab Code: GEL

Contract Laboratory Name: General Engineering Laboratories, Inc.

Validator: John A. Wilcox Organization: EES-9

Analytical Suite(s): (check all that apply)

- ☐ Volatile Organics
- ☐ Semivolatile Organics
- ☐ Organochlorine Pesticides/Polychlorinated Biphenyls
- ☐ Other: _____ (describe)
- ☐ High Explosives
- ☐ Inorganics
- ☒ Radiochemistry

Section II. Completeness Check

Yes	No	n/a	(check one)	Yes	No	n/a	(check one)
☒	☐	☐	1. Chain-of-custody form(s)	☒	☐	☐	6. Raw/BSS data
☒	☐	☐	2. Case narrative	☒	☐	☐	7. Quality control forms
☒	☐	☐	3. Sample result forms	☒	☐	☐	8. Quantitation reports
☐	☐	☒	4. Sample chromatograms	☐	☐	☒	9. TICs forms
☐	☐	☒	5. Standard chromatograms	☐	☐	☒	10. TICs mass spectra

Identify any samples in the assigned Request Number that are missing:

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed upon date of resolution and contract laboratory point of contact):

Rad Gas Flow: All QC were within limits.

Note: Unqualified data were flagged NQ in the electronic database.

(Attach additional comment sheets as necessary)

Validator's signature: John A Wilcox Date: 9/2/03

ER-SOPs 15.01–15.06, 15.14

Los Alamos
Environmental Restoration Project

Attachment D: RAD Checklist

Yes	No	N/A	(check one)	Assign qualifier listed below if criteria = Yes: Detected analyte	Undetected analyte
☐	☒	☐	1. The MDC and/or TPU were not stated for each radionuclide in each batch for each sample.	(See note)[a]	(See note)[a]
☐	☒	☐	2. The sample result is less than the MDC.	U, R5	U, R5
☐	☒	☐	3. The sample result is less than three times the TPU calculation.	U, R11	N/A
☐	☒	☐	4. Required blank information is missing.	R, R4	R, R4
☐	☒	☐	5. The analyte detected is shown in the blank and sample result for analyte is less than or equal to the amount in blank.	U, R4a	N/A
☐	☒	☐	6. The duplicate analysis information is not present.	J, R7	UJ, R7
☐	☒	☐	7. The duplicate analysis was performed in lieu of a preparation duplicate.	J, R7a	N/A
☐	☒	☐	8. The DER for detected analytes is greater than but less than or equal to four.	J, R7b	N/A
☐	☒	☐	9. The DER for detected analytes is greater than four.	R, R7c	N/A
☐	☒	☐	10. The tracer/carrier information is not present.	R, R1	R, R1
☐	☒	☐	11. The tracer/carrier %R is greater than the UAL.	J+, R1d	N/A
☐	☒	☐	12. The tracer/carrier %R is less than 30 but greater than or equal to 10%.	J-, R1b	UJ, R1c
☐	☒	☐	13. The tracer/carrier %R is less than 10%.	R, R1a	R, R1a
☐	☒	☐	14. The LCS information is not present.	R, R6	R, R6
☐	☒	☐	15. The LCS %R is greater than 120%.	J+, R6a	N/A
☐	☒	☐	16. The LCS %R is less than 80 but greater than or equal to 10%.	J-, R6c	UJ, R6d
☐	☒	☐	17. The LCS %R is less than 10%.	R, R6b	R, R6b
☐	☒	☐	18. The matrix spike information is not present.	R, R3	R, R3
☐	☒	☐	19. The matrix spike %R is greater than 125%.	J+, R3c	N/A
☐	☒	☐	20. The matrix spike %R is less than 75% but greater than or equal to 10%.	J-, R3d	UJ, R3e
☐	☒	☐	21. The matrix spike %R is less than 10%.	R, R3a	R, R3b
☐	☒	☐	22. The sample was extracted after the appropriate holding time was exceeded.	J-, R9	UJ, R9
☐	☒	☐	23. The sample was extracted after a period double the appropriate holding time was exceeded.	R, R9a	R, R9a
☐	☒	☐	24. Other obvious data quality issues are identified.	__, R19	__, R19

[a] If the laboratory cannot provide the missing MDC, an estimated MDC can be calculated using an amount equal to three times the TPU.

GENERAL ENGINEERING LABORATORIES, LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Lab
Address : PO Box 1663
TA-3, Bldg. 271, Drop Pt. 01U
Los Alamos, New Mexico 87545
Contact: Keith Greene
Project: Groundwater Project

Report Date: August 8, 2003

Client Sample ID:	GW05-03-51063	Project:	LANL00401
Sample ID:	84373001	Client ID:	LANL004
Matrix:	Ground Water		
Collect Date:	15-JUL-03		
Receive Date:	17-JUL-03		
Collector:	Client		

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	AnalystDate	Time	Batch	Mtd.
Rad Gas Flow Proportional Counting											
GFPC, Sr90, liquid											
Strontium-90		55.8	0.481	+/-6.13	0.200	pCi/L		AB2 08/06/03	0532	266716	1
	Yield%			106							

The following Analytical Methods were performed

Method	Description
1	EPA 905.0 Modified

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

JAW 9/2/03

< Result is less than amount reported.
> Result is greater than amount reported.
B Target analyte was detected in the sample as well as the associated blank.
BD Flag for results below the MDC or a flag for low tracer recovery.
E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
P The response between the confirmation column and the primary column is >40%D.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
Y QC Samples were not spiked with this compound.
h Sample preparation or preservation holding time exceeded.

The above sample is reported on an "as received" basis.

This data report has been prepared and reviewed in accordance with General Engineering Laboratories, LLC standard operating procedures. Please direct any questions to your Project Manager, Stacy Griffin.

Reviewed by

GENERAL ENGINEERING LABORATORIES, LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Lab
Address : PO Box 1663
TA-3, Bldg. 271, Drop Pt. 01U
Los Alamos, New Mexico 87545
Contact: Keith Greene
Project: Groundwater Project

Report Date: August 8, 2003

Client Sample ID:	GW05-03-51065	Project:	LANL00401
Sample ID:	84373002	Client ID:	LANL004
Matrix:	Ground Water		
Collect Date:	15-JUL-03		
Receive Date:	17-JUL-03		
Collector:	Client		

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gas Flow Proportional Counting												
GFPC, Sr90, liquid												
Strontium-90		19.2	0.472	+/-2.62	0.200	pCi/L		AB2	08/06/03	0532	266716	1
	Yield %			88.4								

The following Analytical Methods were performed

Method	Description
1	EPA 905.0 Modified

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

JAW 9/2/03

< Result is less than amount reported.
> Result is greater than amount reported.
B Target analyte was detected in the sample as well as the associated blank.
BD Flag for results below the MDC or a flag for low tracer recovery.
E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
P The response between the confirmation column and the primary column is >40%D.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
Y QC Samples were not spiked with this compound.
h Sample preparation or preservation holding time exceeded.

The above sample is reported on an "as received" basis.

This data report has been prepared and reviewed in accordance with General Engineering Laboratories, LLC standard operating procedures. Please direct any questions to your Project Manager, Stacy Griffin.

Heather A. Arcari

Reviewed by

GENERAL ENGINEERING LABORATORIES, LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Lab
Address : PO Box 1663
TA-3, Bldg. 271, Drop Pt. 01U
Los Alamos, New Mexico 87545
Contact: Keith Greene
Project: Groundwater Project

Report Date: August 8, 2003

Client Sample ID:	GW05-03-51083	Project:	LANL00401
Sample ID:	84373003	Client ID:	LANL004
Matrix:	Ground Water		
Collect Date:	15-JUL-03		
Receive Date:	17-JUL-03		
Collector:	Client		

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gas Flow Proportional Counting												
GFPC, Sr90, liquid												
Strontium-90		88.0	0.446	+/-13.8	0.200	pCi/L		AB2	08/06/03	0532	266716	1
	Yield%			95.2								

The following Analytical Methods were performed

Method	Description
1	EPA 905.0 Modified

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

JAW 9/2/03

< Result is less than amount reported.
> Result is greater than amount reported.
B Target analyte was detected in the sample as well as the associated blank.
BD Flag for results below the MDC or a flag for low tracer recovery.
E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
P The response between the confirmation column and the primary column is >40%D.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
Y QC Samples were not spiked with this compound.
h Sample preparation or preservation holding time exceeded.

The above sample is reported on an "as received" basis.

This data report has been prepared and reviewed in accordance with General Engineering Laboratories, LLC standard operating procedures. Please direct any questions to your Project Manager, Stacy Griffin.

Heather G. Cuccia
Reviewed by

GENERAL ENGINEERING LABORATORIES, LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Lab
Address : PO Box 1663
TA-3, Bldg. 271, Drop Pt. 01U
Los Alamos, New Mexico 87545
Contact: Keith Greene
Project: Groundwater Project

Report Date: August 8, 2003

Client Sample ID:	GW05-03-51089	Project:	LANL00401
Sample ID:	84373004	Client ID:	LANL004
Matrix:	Ground Water		
Collect Date:	15-JUL-03		
Receive Date:	17-JUL-03		
Collector:	Client		

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gas Flow Proportional Counting												
GFPC, Sr90, liquid												
Strontium-90		90.4	0.601	+/-15.0	0.200	pCi/L		AB2	08/06/03	0532	266716	1
	Yield%			78.0								

The following Analytical Methods were performed

Method	Description
1	EPA 905.0 Modified

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

JAW 9/2/03

< Result is less than amount reported.
> Result is greater than amount reported.
B Target analyte was detected in the sample as well as the associated blank.
BD Flag for results below the MDC or a flag for low tracer recovery.
E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
P The response between the confirmation column and the primary column is >40%D.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
Y QC Samples were not spiked with this compound.
h Sample preparation or preservation holding time exceeded.

The above sample is reported on an "as received" basis.

This data report has been prepared and reviewed in accordance with General Engineering Laboratories, LLC standard operating procedures. Please direct any questions to your Project Manager, Stacy Griffin.

Heather G. Cr

Reviewed by

GENERAL ENGINEERING LABORATORIES, LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Lab
Address : PO Box 1663
TA-3, Bldg. 271, Drop Pt. 01U
Los Alamos, New Mexico 87545
Contact: Keith Greene
Project: Groundwater Project

Report Date: August 8, 2003

Client Sample ID:	GW05-03-51091	Project:	LANL00401
Sample ID:	84373005	Client ID:	LANL004
Matrix:	Ground Water		
Collect Date:	15-JUL-03		
Receive Date:	17-JUL-03		
Collector:	Client		

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gas Flow Proportional Counting												
GFPC, Sr90, liquid												
Strontium-90		84.2	0.522	+/-10.7	0.200	pCi/L		AB2	08/06/03	0545	266716	1
	Yield%			91.8								

The following Analytical Methods were performed

Method	Description
1	EPA 905.0 Modified

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

JAW 9/2/03

< Result is less than amount reported.
> Result is greater than amount reported.
B Target analyte was detected in the sample as well as the associated blank.
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E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
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P The response between the confirmation column and the primary column is >40%D.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
Y QC Samples were not spiked with this compound.
h Sample preparation or preservation holding time exceeded.
The above sample is reported on an "as received" basis.

This data report has been prepared and reviewed in accordance with General Engineering Laboratories, LLC standard operating procedures. Please direct any questions to your Project Manager, Stacy Griffin.

Reviewed by

Wednesday, July 16, 2003

CHAIN OF CUSTODY DOCUMENT NUMBER: 1806SC

Los Alamos
NATIONAL LABORATORY

REQUEST NUMBER: 1806S

ANALYSIS TYPE: RAD

ATTN: Stacy Griffin
General Engineering Laboratories, Inc., Historical
2040 Savage Road
Charleston, SC 29407

SAMPLE ID	CONT ID	CONTAINER DESCRIPTION	ORDER TEMPLATE CODE	PRESERVATIVE	MATRIX
GW05-03-51063	2	500 ML POLY	SR90	HNO3	W
GW05-03-51065	2	500 ML POLY	SR90	HNO3	W
GW05-03-51083	13	1 GAL POLY	~~AM241+GS+ISOPU+ISOU~~+SR90	HNO3	W
GW05-03-51089	13	1 GAL POLY	~~AM241+GS+ISOPU+ISOU~~+SR90	HNO3	W
GW05-03-51091	13	1 GAL POLY	~~AM241+GS+ISOPU+ISOU~~+SR90	HNO3	W

Final Page of CHAIN OF CUSTODY DOCUMENT FOR REQUEST NUMBER 1806S

Relinquished By:	Date	Time	Received By:	Date	Time
PRINTED NAME SIGNATURE	7-16-03	1420	Mike Kaster	7-17-03	0845
PRINTED NAME SIGNATURE			PRINTED NAME SIGNATURE		
PRINTED NAME SIGNATURE			PRINTED NAME SIGNATURE		

Received for DISPOSAL By:	Date	Time	Remarks:
PRINTED NAME SIGNATURE			

6

DATA VALIDATION COVER SHEET (Example)

SECTION I.

REQUEST NUMBER: 18065 COST CODE: _____

VALIDATION DATE: _____

LAB NAME: Cel. LAB CODE: _____

VALIDATOR: _____ ORGANIZATION: _____

ANALYTICAL SUITE: ___ VOLATILES ___ HIGH EXPLOSIVES

___ SEMIVOLATILES ___ INORGANICS

___ PESTICIDES/AROCLORS ___ RADIOCHEMISTRY

OTHER (describe) _____

SECTION II. COMPLETENESS CHECKLIST

Item	Present? (Y/N/NA)	Item	Present? (Y/N/NA)
1. COC form(s)		2. Case Narrative	
3. Sample Results		4. Sample Chromatograms	
5. Standard Chromatograms		6. Quantitation Reports	
7. QC Forms			

Identify any samples in the assigned Request Number that are missing:

_____ _____ _____ _____ _____ _____

_____ _____ _____ _____ _____ _____

Comments: include information about requests to the laboratory and agreed upon date of resolution and lab contact: (Attach additional comment sheets as necessary)

_____

_____

_____

Signature/1st validation: _____ Date/1st validation: _____

Signature/2nd validation: _____ Date/2nd validation: _____

GENERAL ENGINEERING LABORATORIES, LLC
a Member of THE GEL GROUP, INC.
Meeting Today's Needs with a Vision for Tomorrow

August 6, 2003

AUG 2003

Ms. Joylene Valdez, MS-H865
Los Alamos National Laboratory
TA-3, Bldg. 271, Drop Pt. 01U
Los Alamos, NM 87545

Re: Contract No. 12631-0011 2P

Dear Ms. Valdez:

I am sending you the data package for five water samples for release # 1806S that were analyzed for radiochemistry parameters.

General Engineering Laboratories appreciates this opportunity to provide you with analytical results, and trusts that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 769-7394.

Yours very truly,

Stacy L. Griffin
Project Manager

enclosure

P.O. Box 30712 • Charleston, SC 29417 • 2040 Savage Road (29407)
Phone (843) 556-8171 • Fax (843) 766-1178 • www.gel.com

LOS ALAMOS NATIONAL LABORATORY
Contract No. 12631-0011 2P
Release # 1806S

Table of Contents

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- Standards Data 40
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GENERAL NARRATIVE

CASE NARRATIVE
for
Los Alamos National Laboratory
Contract No. 12631-0011 2P
Release 1806S

August 6, 2003

Laboratory Identification:

General Engineering Laboratories, LLC.

Mailing Address:

P.O. Box 30712
Charleston, South Carolina 29417

Express Mail Delivery and Shipping Address:

2040 Savage Road
Charleston, South Carolina 29407

Telephone Number:

(843) 556-8171

Summary:

Sample receipt

Five water samples for Los Alamos National Laboratory SMO release #1806S arrived at General Engineering Laboratories, LLC., (GEL) Charleston, South Carolina on July 17, 2003 for environmental analyses. The sample containers were delivered with chain of custody documentation and signatures. The sample containers were received at 20°C temperature. The sample containers arrived without any visible signs of tampering or breakage.

The laboratory received the following samples:

Laboratory Identification	Sample Description
84373001	GW05-03-51063
84373002	GW05-03-51065
84373003	GW05-03-51083
84373004	GW05-03-51089
84373005	GW05-03-51091

Internal Chain of Custody:

Custody was maintained for these samples.

Data Package:

The enclosed data package contains the following sections: Case Narrative, Chain of Custody, Cooler Receipt Checklist, and Radiochemistry.

I certify that this data report is in compliance with the terms and conditions of the subcontract and task order, both technically and for completeness, for other than the conditions detailed in the attached case narrative.

Stacy L. Griffin

Project Manager

CHAIN OF CUSTODY

Wednesday, July 16, 2003

REQUEST NUMBER: 1806S

ANALYSIS TYPE: RAD

Los Alamos
NATIONAL LABORATORY

AMENDED

ATTN: Stacy Griffin
General Engineering Laboratories, Inc., Historical
2040 Savage Road
Charleston, SC 29407

Please analyze the enclosed samples according to the schedule indicated:

SHIP DATE: 07/16/2003
REPORT DUE: 08/15/2003
TURN AROUND REQ'D: 30

RAD SCREENING: NOT REQ
COMMENTS: '

These samples are on:

LANL Request Number: 1806S
Per Agreement Number: 126310011
Project Cost Code: ML4700000000

LANL ER SMO CONTACT:
84373/ Signature:

Page 1

METHOD CODE	SAMPLE ID	CONT ID	SAMPLE MATRIX	DATE SAMPLED	COMMENTS
EPA:905.0	GW05-03-51063	2	W	07/15/2003	Radionuclides to GEL.
EPA:905.0	GW05-03-51065	2	W	07/15/2003	Radionuclides to GEL.
EPA:905.0	GW05-03-51083	13	W	07/15/2003	Send to GEL.
EPA:905.0	GW05-03-51089	13	W	07/15/2003	Send to GEL.
EPA:905.0	GW05-03-51091	13	W	07/15/2003	Send to GEL.

Final Page of REQUEST NUMBER 1806S

5

Wednesday, July 16, 2003

CHAIN OF CUSTODY DOCUMENT NUMBER: 1806SC

Los Alamos
NATIONAL LABORATORY

REQUEST NUMBER: 1806S

ANALYSIS TYPE: RAD

ATTN: Stacy Griffin
General Engineering Laboratories, Inc., Historical
2040 Savage Road
Charleston, SC 29407

SAMPLE ID	CONT ID	CONTAINER DESCRIPTION	ORDER TEMPLATE CODE	PRESERVATIVE	MATRIX
GW05-03-51063	2	500 ML POLY	SR90	HNO3	W
GW05-03-51065	2	500 ML POLY	SR90	HNO3	W
GW05-03-51083	13	1 GAL POLY	~~AM241+GS+ISOPU+ISOU~~+SR90	HNO3	W
GW05-03-51089	13	1 GAL POLY	~~AM241+GS+ISOPU+ISO~~U+SR90	HNO3	W
GW05-03-51091	13	1 GAL POLY	~~AM241+GS+ISOPU+ISOU~~+SR90	HNO3	W

Final Page of CHAIN OF CUSTODY DOCUMENT FOR REQUEST NUMBER 1806S

Relinquished By:		Date	Time	Received By:		Date	Time
PRINTED NAME	SIGNATURE	7-16-03	1420	Mike Kaster		7-17-03	0845
PRINTED NAME	SIGNATURE			PRINTED NAME	SIGNATURE		
PRINTED NAME	SIGNATURE			PRINTED NAME	SIGNATURE		

Received for DISPOSAL By:		Date	Time	Remarks:
PRINTED NAME	SIGNATURE			

COOLER RECEIPT CHECKLIST

SAMPLE RECEIPT & REVIEW FORM

Date 7-17-03 Client LANL Received by MK

	SAMPLE REVIEW CRITERIA	YES	NO	N/A	COMMENTS/QUALIFIERS
1	Were shipping containers received intact and sealed? If no, notify the Project Manager	✓			
2	Were chain of custody documents included?	✓			
3	Shipping container temperature(s) checked?	✓			
4	Is temperature documented on Chain of Custody?	✓			20° NO ICE
5	Was shipping container temperature within specifications (4 +/- 2 C)? If no, notify Project Manager		✓		
6	Are any of the samples identified by the client as radioactive? If yes, complete radioactive receipt form			✓	
	Any samples not indentified by the client as radioactive must be screened for radioactivitiy.		✓		
	If screening results indicate > x2 background inform the RSO.	30			observed background CPM
		30			Max observed sample CPM
7	Were chain of custody documents completed correctly? (Ink, signed, match containers)		✓		*
8	Were sample containers received intact and sealed? If no, notify the Project Manager	✓			
9	Were all sample containers properly labeled?	✓			
10	Were correct sample containers received?	✓			
11	Preserved samples checked for pH?	✓			
12	Were samples preserved correctly? If no, notify Project Manager		✓		**
13	Were samples received within holding time? If No, notify Project Manager	✓			
14	Were VOA vials free of headspace?			✓	
15	ARCOC#	✓			1809SC, 1806SC + 1810SC
16	SDG#				

PM(A) Review: [signature] Date Reviewed: 07/17/03

Cooler Air Bill #'s, Associated Temperatures, Instrument Serial #'s, & Additional Comments:

* CHAIN SAYS 1 GAL POLY - RECEIVED 500 mL POLY.
** GW05-03-51093 - B-PH = 4 SHOULD BE <2.
FED EX # 4847 3252 1971

Temp Device Serial # (Circle)

8

RADIOLOGICAL ANALYSIS

Radiochemistry Case Narrative
Los Alamos National Laboratory (LANL)
SDG 1806S

Method/Analysis Information

Procedure:	**Determination of Strontium 89/90 in Water, Soil, Milk, Filters, Vegetation and Tissues**
Analytical Method:	EPA 905.0 Modified

Analytical Batch Number: 266716

Sample ID	Client ID
84373001	GW05-03-51063
84373002	GW05-03-51065
84373003	GW05-03-51083
84373004	GW05-03-51089
84373005	GW05-03-51091
1200463640	Method Blank (MB)
1200463642	Laboratory Control Sample (LCS)
1200463641	84896001(CADP-03-52017 1) Sample Duplicate (DUP)
1200463741	84896001(CADP-03-52017 1) Matrix Spike (MS)

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by General Engineering Laboratories, LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-004 REV.8.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. The initial calibration was performed on November 9, 2002.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
The blank volume is representative of the sample volume(s) in this batch.

Designated QC
The following sample was used for QC: 84896001 (CADP-03-52017 1).
The QC sample is from LANL work order 84896.

QC Information
All of the QC samples met the required acceptance limits.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Preparation Information
All preparation criteria have been met for these analyses.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Chemical Recoveries
All chemical recoveries meet the required acceptance limits for this sample set.

Miscellaneous Information:

NCR Documentation
No NCR was generated for the preparation or analysis of this sample set.

Qualifier information
Manual qualifiers were not required.

Certification Statement
Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:
GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.
The following data validator verified the information presented in this case narrative:

Reviewer: Heather Cu cox **Date:** 8/8/03

SAMPLE DATA SUMMARY

GENERAL ENGINEERING LABORATORIES, LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Lab
Address : PO Box 1663
TA-3, Bldg. 271, Drop Pt. 01U
Los Alamos, New Mexico 87545
Contact: Keith Greene
Project: Groundwater Project

Report Date: August 8, 2003

Client Sample ID:	GW05-03-51063	Project:	LANL00401
Sample ID:	84373001	Client ID:	LANL004
Matrix:	Ground Water		
Collect Date:	15-JUL-03		
Receive Date:	17-JUL-03		
Collector:	Client		

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gas Flow Proportional Counting												
GFPC, Sr90, liquid												
Strontium-90		55.8	0.481	+/-6.13	0.200	pCi/L		AB2	08/06/03	0532	266716	1
	Yield%			106								

The following Analytical Methods were performed

Method	Description
1	EPA 905.0 Modified

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

< Result is less than amount reported.
> Result is greater than amount reported.
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E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
P The response between the confirmation column and the primary column is >40%D.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
Y QC Samples were not spiked with this compound.
h Sample preparation or preservation holding time exceeded.

The above sample is reported on an "as received" basis.

This data report has been prepared and reviewed in accordance with General Engineering Laboratories, LLC standard operating procedures. Please direct any questions to your Project Manager, Stacy Griffin.

Reviewed by

GENERAL ENGINEERING LABORATORIES, LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Lab
Address : PO Box 1663
TA-3, Bldg. 271, Drop Pt. 01U
Los Alamos, New Mexico 87545
Contact: Keith Greene
Project: Groundwater Project

Report Date: August 8, 2003

Client Sample ID:	GW05-03-51065	Project:	LANL00401
Sample ID:	84373002	Client ID:	LANL004
Matrix:	Ground Water		
Collect Date:	15-JUL-03		
Receive Date:	17-JUL-03		
Collector:	Client		

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gas Flow Proportional Counting												
GFPC, Sr90, liquid												
Strontium-90		19.2	0.472	+/-2.62	0.200	pCi/L		AB2	08/06/03	0532	266716	1
	Yield %			88.4								

The following Analytical Methods were performed

Method	Description
1	EPA 905.0 Modified

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

< Result is less than amount reported.
> Result is greater than amount reported.
B Target analyte was detected in the sample as well as the associated blank.
BD Flag for results below the MDC or a flag for low tracer recovery.
E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
P The response between the confirmation column and the primary column is >40%D.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
Y QC Samples were not spiked with this compound.
h Sample preparation or preservation holding time exceeded.

The above sample is reported on an "as received" basis.

This data report has been prepared and reviewed in accordance with General Engineering Laboratories, LLC standard operating procedures. Please direct any questions to your Project Manager, Stacy Griffin.

Heather A. Acra

Reviewed by

GENERAL ENGINEERING LABORATORIES, LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Lab
Address : PO Box 1663
TA-3, Bldg. 271, Drop Pt. 01U
Los Alamos, New Mexico 87545
Contact: Keith Greene
Project: Groundwater Project

Report Date: August 8, 2003

Client Sample ID:	GW05-03-51083	Project:	LANL00401
Sample ID:	84373003	Client ID:	LANL004
Matrix:	Ground Water		
Collect Date:	15-JUL-03		
Receive Date:	17-JUL-03		
Collector:	Client		

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gas Flow Proportional Counting												
GFPC, Sr90, liquid												
Strontium-90		88.0	0.446	+/-13.8	0.200	pCi/L		AB2	08/06/03	0532	266716	1
	Yield%			95.2								

The following Analytical Methods were performed

Method	Description
1	EPA 905.0 Modified

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
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> Result is greater than amount reported.
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P The response between the confirmation column and the primary column is >40%D.
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UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
Y QC Samples were not spiked with this compound.
h Sample preparation or preservation holding time exceeded.

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Heather G. Cicero
Reviewed by

GENERAL ENGINEERING LABORATORIES, LLC

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Certificate of Analysis

Company : Los Alamos National Lab
Address : PO Box 1663
TA-3, Bldg. 271, Drop Pt. 01U
Los Alamos, New Mexico 87545
Contact: Keith Greene
Project: Groundwater Project

Report Date: August 8, 2003

Client Sample ID:	GW05-03-51089	Project:	LANL00401
Sample ID:	84373004	Client ID:	LANL004
Matrix:	Ground Water		
Collect Date:	15-JUL-03		
Receive Date:	17-JUL-03		
Collector:	Client		

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	AnalystDate	Time	Batch	Mtd.
Rad Gas Flow Proportional Counting											
GFPC, Sr90, liquid											
Strontium-90		90.4	0.601	+/-15.0	0.200	pCi/L		AB2 08/06/03	0532	266716	1
	Yield %			78.0							

The following Analytical Methods were performed

Method	Description
1	EPA 905.0 Modified

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
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> Result is greater than amount reported.
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E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
P The response between the confirmation column and the primary column is >40%D.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
Y QC Samples were not spiked with this compound.
h Sample preparation or preservation holding time exceeded.

The above sample is reported on an "as received" basis.

This data report has been prepared and reviewed in accordance with General Engineering Laboratories, LLC standard operating procedures. Please direct any questions to your Project Manager, Stacy Griffin.

Reviewed by Heather G. Cross

GENERAL ENGINEERING LABORATORIES, LLC

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Certificate of Analysis

Company : Los Alamos National Lab
Address : PO Box 1663
TA-3, Bldg. 271, Drop Pt. 01U
Los Alamos, New Mexico 87545
Contact: Keith Greene
Project: Groundwater Project

Report Date: August 8, 2003

Client Sample ID:	GW05-03-51091	Project:	LANL00401
Sample ID:	84373005	Client ID:	LANL004
Matrix:	Ground Water		
Collect Date:	15-JUL-03		
Receive Date:	17-JUL-03		
Collector:	Client		

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	AnalystDate	Time	Batch	Mtd.
Rad Gas Flow Proportional Counting											
GFPC, Sr90, liquid											
Strontium-90		84.2	0.522	+/-10.7	0.200	pCi/L		AB2 08/06/03	0545	266716	1
	Yield%			91.8							

The following Analytical Methods were performed

Method	Description
1	EPA 905.0 Modified

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
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> Result is greater than amount reported.
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E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
P The response between the confirmation column and the primary column is >40%D.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
Y QC Samples were not spiked with this compound.
h Sample preparation or preservation holding time exceeded.

The above sample is reported on an "as received" basis.

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Reviewed by

QUALITY CONTROL DATA

GENERAL ENGINEERING LABORATORIES, LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

QC Summary

Report Date: August 8, 2003
Page 1 of 2

Client : Los Alamos National Lab
PO Box 1663
TA-3, Bldg. 271, Drop Pt. 01U
Los Alamos, New Mexico

Contact: Keith Greene

Workorder: 84373

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Gas Flow Proportional Counting										
Batch 266716										
QC1200463641 84896001 DUP										
Strontium-90		118		120	pCi/L	0.0327		(0% - 20%)	AB2	08/06/03 08:51
	TPU:	+/-14.8		+/-15.8						
	Yield:			89.5						
QC1200463642 LCS										
Strontium-90	16.9			14.6	pCi/L		86	(75%-125%)		
	TPU:			+/-3.02						
	Yield:			56.2						
QC1200463640 MB										
Strontium-90				0.0634	pCi/L					08/06/03 12:01
	TPU:			+/-0.107						
	Yield:			51.6						
QC1200463741 84896001 MS										
Strontium-90	84.5	118		213	pCi/L		113	(75%-125%)		08/06/03 08:51
	TPU:	+/-14.8		+/-28.8						
	Yield:			86.1						

Notes:
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- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- P The response between the confirmation column and the primary column is >40%D.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- Y QC Samples were not spiked with this compound.
- h Sample preparation or preservation holding time exceeded.

GENERAL ENGINEERING LABORATORIES, LLC
2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

QC Summary

Workorder: 84373

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date	Time

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more.
** Indicates analyte is a surrogate compound.
^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptence criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.
For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

RAW DATA

Radiochemistry Batch Checklist, Rev 3

Batch# 266716 Product: SR90 Date: 8/6/03

Criteria:	Yes	No	Comments
Sample Solids are less than 100 mg	✓		
If activity less 10* RDL, error is 150% or less of sample activity. If greater 10* RDL, error is 40% or less. If below the RDL, error is okay.	✓		
Instrument source check is within limits. Instument bkg check is within limits.	✓		
Method RDL has been met.	✓		
If duplicate activities are less 5* RDL, then rpd is 100% or less. If greater 5*, then rpd 20% or less. If below the RDL, the rpd is 0%.	✓		
Tracer yield is 15-125% . WSRC is 25-125%. Carrier yield is 25-125% .	✓		
Method blank is less than the RDL. (If rad samples, < 5% of lowest activity)	✓		
Sample was run within hold time. Special requirements page checked	✓		
Sample was correctly preserved if required.	✓		
Smears Taken for Radioactive batches.	N/A		
Method Spike and LCS are within 75-125%.	✓		
No blank spaces on data forms. All lineouts initialed and dated. No transcription errors are apparent.	✓		
QC data entered into QC database. Batch entered into Case Narrative.	✓		
Batch non-conformances completed if applicable.	✓		

General Engineering Laboratories

10/31/00

Primary Review Performed By: Jennifer Odenell 8/6/03

Secondary Review Performed By: KO 8/7/03

8/9 - 8/16

LANL

2667116

Blank Correction Report

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
1200463641	DUP	Strontium-90	0.400 L	120	15.8	1.42	.1585	pCi/L	NO
1200463642	LCS	Strontium-90	1.00 L	14.6	3.02	0.906	.0634	pCi/L	NO
1200463640	MB	Strontium-90	1.00 L	0.0634	0.107	0.455	.0634	pCi/L	YES
1200463741	MS	Strontium-90	0.200 L	213	28.8	2.84	.317	pCi/L	NO
84373001	GW05-03-51063	Strontium-90	0.400 L	55.8	6.13	0.482	.1585	pCi/L	NO
84373002	GW05-03-51065	Strontium-90	0.400 L	19.2	2.62	0.473	.1585	pCi/L	NO
84373003	GW05-03-51083	Strontium-90	0.400 L	88.0	13.8	0.447	.1585	pCi/L	NO
84373004	GW05-03-51089	Strontium-90	0.400 L	90.4	15.0	0.601	.1585	pCi/L	NO
84373005	GW05-03-51091	Strontium-90	0.400 L	84.2	10.7	0.523	.1585	pCi/L	NO
84375001	GW05-03-51093	Strontium-90	0.400 L	44.9	5.50	0.594	.1585	pCi/L	NO
84375002	GW05-03-51190	Strontium-90	0.400 L	77.5	10.1	0.637	.1585	pCi/L	NO
84375003	GW05-03-51192	Strontium-90	0.400 L	23.9	3.15	0.505	.1585	pCi/L	NO
84895001	GW05-03-51194 2	Strontium-90	0.400 L	91.7	11.6	0.471	.1585	pCi/L	NO
84895002	GW05-03-51196 2	Strontium-90	0.400 L	82.5	9.42	0.407	.1585	pCi/L	NO
84896001	CADP-03-52017 1	Strontium-90	0.400 L	118	14.8	0.672	.1585	pCi/L	NO
84896002	CADP-03-52018 1	Strontium-90	0.500 L	125	15.3	0.513	.1268	pCi/L	NO
84896003	CADP-03-52019 1	Strontium-90	0.500 L	203	26.4	0.539	.1268	pCi/L	NO

M.A. 8/8/03

Strontium 90 Que Sheet

07/29/03

Batch #: 266716 **Analyst:** AB2 **Minimum DueDate:** 08/09/2003 **Comments**

Sr-90 Spike Code: 01333-N **Expiration Date:** 4/16/04 **Vol:** 0.1mL **Sr Sep. Date/time:** 8/5/03 1045

Sr-90 LCS Code: 01333-N **Expiration Date:** 4/18/04 **Vol:** 0.1mL

Sr Carrier Code: 1002267 **Exp Date:** 11/1/04 **Vol:** 0.5mL **Sdt Wt:** 8.71 mg

Prep Date: 8/1/03 **Initials:** AB **Pipet ID:** 428704 **Balance #:** 284568 **Analytical Scale #:** 38110047 **Witness:** JAS 8/1/03

Sample ID	Client Description	Type	RDL	Collection Date	Matrix	Client	Rad	Bkr#	Aliquot (mL) or (g)	Det # 1 & 2	Initial Sr wt (g)	Final Sr wt (g)	Net Sr wt (mg)
84373001	GW05-03-51063	SAMPLE	1 pCi/L	JUL-15-03 12:59 AM	GROUND WATE	LANL004		1	400	D1	0.0842	0.0934	9.2
84373002	GW05-03-51065	SAMPLE	1 pCi/L	JUL-15-03 12:59 AM	GROUND WATE	LANL004		2	400	D2	0.0842	0.0919	7.7
84373003	GW05-03-51083	SAMPLE	1 pCi/L	JUL-15-03 12:59 AM	GROUND WATE	LANL004		3	400	D3	0.0838	0.0921	8.3
84373004	GW05-03-51089	SAMPLE	1 pCi/L	JUL-15-03 12:59 AM	GROUND WATE	LANL004		4	400	D4	0.0842	0.0910	6.8
84373005	GW05-03-51091	SAMPLE	1 pCi/L	JUL-15-03 12:59 AM	GROUND WATE	LANL004		5	400	C1	0.0844	0.0924	8.0
84375001	GW05-03-51093	SAMPLE	1 pCi/L	JUL-16-03 12:59 AM	GROUND WATE	LANL004		6	400	C2	0.0836	0.0918	8.2
84375002	GW05-03-51190	SAMPLE	1 pCi/L	JUL-16-03 12:59 AM	GROUND WATE	LANL004		7	400	C3	0.0841	0.0919	7.8
84375003	GW05-03-51192	SAMPLE	1 pCi/L	JUL-16-03 12:59 AM	GROUND WATE	LANL004		8	400	G1	0.0841	0.0917	7.6
84895001	GW05-03-51194 2	SAMPLE	1 pCi/L	JUL-23-03 12:01 AM	GROUND WATE	LANL004		9	400	G3	0.0841	0.0920	7.9
84895002	GW05-03-51196 2	SAMPLE	1 pCi/L	JUL-23-03 12:01 AM	GROUND WATE	LANL004		10	400	G4	0.0843	0.0931	8.8
84896001	CADP-03-52017 1	SAMPLE	1 pCi/L	JUL-23-03 12:01 AM	WATER	LANL004		11	400	A1	0.0837	0.0918	8.1
84896002	CADP-03-52018 1	SAMPLE	1 pCi/L	JUL-23-03 12:01 AM	WATER	LANL004		12	500	A2	0.0833	0.0916	8.3
84896003	CADP-03-52019 1	SAMPLE	1 pCi/L	JUL-23-03 12:01 AM	WATER	LANL004		13	500	A3	0.0841	0.0921	8.0
1200463640	MB for batch 266716	MB	1 pCi/L		GROUND WATE	QC ACCOUNT		14	1000	A4	0.0837	0.0832	4.5
1200463641	GW05-03-51091 84373005DUP	DUP	1 pCi/L	JUL-15-03 12:59 AM	GROUND WATE	QC ACCOUNT		15	400	H1	0.0843	0.0921	7.8
1200463741	GW05-03-51091 84373005MS	MS	1 pCi/L	JUL-15-03 12:59 AM	GROUND WATE	QC ACCOUNT		16	200	H2	0.0837	0.0912	7.5
1200463642	LCS for batch 266716	LCS	1 pCi/L		GROUND WATE	QC ACCOUNT		17	1000	H3	0.0837	~~0.0880~~ 4.2 0.0866	4.9

1pCi/L

Instrument used: LB4110 SN 8219

Solid Sample Dissolution by: LEACH or DIGESTION (NA)
Circle One

Data Reviewed By: Jennifer O'Donnell 8/6/03

General Engineering Laboratories, Radiochemistry Division

24

S266716.XLS

Sr-90 WATER (LANL)

Filename : SRWATLAN.1ST
File type : Excel
Version # : 21

Batch : 266716
Analyst : AB2
Date : 8/1/2003
Sr-90 Abundance : 0.99989
Calibration Date : 11/9/2002
Cal Due Date : 11/9/2003
Bkg Count Time : 1000
Carrier S/N : 1002267
Carrier Exp Date : 1/1/2004
Spike S/N : 0133-M
Spike Exp Date : 4/18/2004
LCS S/N : 0133-M
LCS Exp Date : 4/18/2004

Standard Strength Sr-90 :	138426071	dpm
Standard Error Sr-90 :	1107408.57	dpm
Weight for A Solution Sr-90 :	4.8374	g
Volume for A Solution Sr-90 :	100	ml
Weight for M Solution Sr-90 :	0.3247	g
Volume for M Solution Sr-90 :	1000	ml
Balance Error 0.1g Range : +/-	0.695850	mg
Balance Error 10g Range : +/-	0.005072	g
Vol Flask, 100 ml Error : +/-	0.08	ml
Pipet, 0.1ml Error : +/-	0.000701	ml
Pipet, 0.5 ml Error : +/-	0.002564	ml
Pipet, 1ml Error : +/-	0.005480	ml

Procedure Code :	GFC90SRL	
Parmname :	Strontium-90	
Instrument Used :	LB4100	
Required MDA :	1.0	PCL
Strontium Carrier Conc. :	17.43	mg/mL +/-

Sample Characteristics / Carrier Calculation / Count raw Data

Sample ID	Sample Aliquot (L)	Sample Aliquot Stdev.	Sample Date/Time	Prep Date	Strontium Carrier Volume (ml)	Strontium Carrier Wt. (mg)	Yttrium Decay Start Time	Yttrium Ing.
84373001	0.400	0.000169	7/15/2003 0:59	8/1/2003	0.5	9.2	8/5/2003 10:45	0.146
84373002	0.400	0.000169	7/15/2003 0:59	8/1/2003	0.5	7.7	8/5/2003 10:45	0.146
84373003	0.400	0.000169	7/15/2003 0:59	8/1/2003	0.5	8.3	8/5/2003 10:45	0.146
84373004	0.400	0.000169	7/15/2003 0:59	8/1/2003	0.5	6.8	8/5/2003 10:45	0.146
84373005	0.400	0.000169	7/15/2003 0:59	8/1/2003	0.5	8.0	8/5/2003 10:45	0.148
84375001	0.400	0.000169	7/16/2003 0:59	8/1/2003	0.5	8.2	8/5/2003 10:45	0.148
84375002	0.400	0.000169	7/16/2003 0:59	8/1/2003	0.5	7.8	8/5/2003 10:45	0.148
84375003	0.400	0.000169	7/16/2003 0:59	8/1/2003	0.5	7.6	8/5/2003 10:45	0.149
84895001	0.400	0.000169	7/23/2003 0:01	8/1/2003	0.5	7.9	8/5/2003 10:45	0.149
84895002	0.400	0.000169	7/23/2003 0:01	8/1/2003	0.5	9.6	8/5/2003 10:45	0.149
84896001	0.400	0.000169	7/23/2003 0:01	8/1/2003	0.5	8.1	8/5/2003 10:45	0.222
84896002	0.500	0.000169	7/23/2003 0:01	8/1/2003	0.5	8.3	8/5/2003 10:45	0.222
84896003	0.500	0.000169	7/23/2003 0:01	8/1/2003	0.5	8.0	8/5/2003 10:45	0.222
1200463640	1.000	0.000169	8/1/2003 0:00	8/1/2003	0.5	4.5	8/5/2003 10:45	0.222
1200463641	0.400	0.000169	7/23/2003 0:01	8/1/2003	0.5	7.8	8/5/2003 10:45	0.208
1200463741	0.200	0.000169	7/23/2003 0:01	8/1/2003	0.5	7.5	8/5/2003 10:45	0.208
1200463642	1.000	0.000169	8/1/2003 0:00	8/1/2003	0.5	4.9	8/5/2003 10:45	0.208

Jennifer O'Donnell 8/7/03

KO 8/7/03

S266716.XLS

Sample ID	Sample Dup	Det.	Run Date
1200463641	84896001	H1	8/6/2003 8:51
1200463741	84896001	H2	8/6/2003 8:51
1200463642		H3	8/6/2003 8:51

0.21

Detector #	Counting Time	Alpha Counts	Beta Counts	Gross Beta cpm	Alpha Xtalk	Y-90 Efficiency	Det.Eff. Error	Background cpm	Date/Time Counted	Sr-90 Decay	Recovery %	Recovery Error %	Results Decision Level PCL
D1	500	166	13769	27.53	0.0145	0.5340	0.01320	1.141	8/6/2003 5:32	0.999	105.6%	10.76%	0.24
D2	500	86	4250	8.50	0.0254	0.5341	0.03039	0.768	8/6/2003 5:32	0.999	88.4%	12.85%	0.23
D3	500	161	19550	39.09	0.0280	0.5371	0.07231	0.824	8/6/2003 5:32	0.999	95.2%	11.93%	0.22
D4	500	126	16870	33.74	0.0185	0.5380	0.05596	1.037	8/6/2003 5:32	0.999	78.0%	14.53%	0.29
C1	500	243	17330	34.65	0.0130	0.5340	0.01902	0.957	8/6/2003 5:45	0.999	91.8%	12.37%	0.25
C2	500	106	10165	20.33	0.0213	0.5277	0.01220	1.384	8/6/2003 5:45	0.999	94.1%	12.07%	0.29
C3	500	81	16561	33.10	0.0240	0.5237	0.02111	1.49	8/6/2003 5:45	0.999	89.5%	12.68%	0.31
G1	500	74	5214	10.42	0.0211	0.5135	0.01162	0.89	8/6/2003 5:47	0.999	87.2%	13.01%	0.25
G3	500	33	20404	40.81	0.0299	0.5279	0.01200	0.92	8/6/2003 5:47	0.999	90.9%	12.55%	0.23
G4	500	91	20162	40.36	0.0285	0.5283	0.01284	0.83	8/6/2003 5:47	0.999	101.0%	11.26%	0.20
A1	240	68	12978	54.07	0.0152	0.5364	0.01870	0.945	8/6/2003 12:01	0.999	92.9%	12.22%	0.32
A2	240	267	16962	70.66	0.0138	0.5278	0.01949	0.844	8/6/2003 12:01	0.999	95.2%	11.93%	0.25
A3	240	545	26329	109.67	0.0165	0.5208	0.02760	0.849	8/6/2003 12:01	0.999	91.8%	12.37%	0.28
A4	240	8	203	0.85	0.0208	0.5309	0.01530	0.806	8/6/2003 12:01	1.000	51.6%	21.91%	0.22
H1	60	198	2753	45.78	0.0317	0.4959	0.02167	0.867	8/6/2003 8:51	0.999	89.5%	12.68%	0.65
H2	60	81	2543	42.31	0.0577	0.5176	0.01656	0.718	8/6/2003 8:51	0.999	86.1%	13.19%	1.30
H3	60	21	596	9.91	0.0567	0.5088	0.01564	0.758	8/6/2003 8:51	1.000	56.2%	20.13%	0.42

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ND 8/7/03

Jennifer O'Donnell 8/7/03

S266716.XLS

Sample Type	Standard ID	NC	Amt Added (mL)	Smp Vol (L)	Recovery/RER
DUP					0.03
MS	0133-M	84.46	0.1	0.2	112.7%
LCS	0133-M	16.86	0.1	1	86.4%

MDC PCL	Sample Act. Conc.	Sample Act. Error	Net Count Rate	Net Count Rate Error	Counting Uncertainty	1 Sigma Total Prop. Uncertainty	Sr-90 EFF	SR-90 Slope	Sr-90 Corrected EFF
0.48	55.827	0.109	26.392	0.237	0.98	6.13	0.4425	-0.0017	0.4270
0.47	18.160	0.133	7.708	0.133	0.65	2.62	0.4500	-0.0019	0.4354
0.45	87.976	0.140	38.267	0.281	1.27	13.84	0.4544	-0.0021	0.4366
0.60	90.422	0.156	32.696	0.262	1.42	14.98	0.4578	-0.0020	0.4440
0.52	84.214	0.125	33.697	0.265	1.30	10.68	0.4265	-0.0018	0.4125
0.59	44.934	0.122	18.941	0.205	0.95	5.50	0.4412	-0.0017	0.4270
0.64	77.540	0.129	31.608	0.260	1.25	10.12	0.4526	-0.0021	0.4360
0.50	23.873	0.132	9.535	0.147	0.72	3.15	0.4566	-0.0021	0.4403
0.47	91.664	0.126	39.886	0.287	1.29	11.60	0.4770	-0.0018	0.4627
0.41	82.491	0.114	39.532	0.286	1.17	9.42	0.4741	-0.0020	0.4588
0.67	117.695	0.124	53.125	0.478	2.07	14.75	0.4461	-0.0022	0.4282
0.51	124.571	0.121	69.816	0.543	1.90	15.28	0.4283	-0.0018	0.4133
0.54	203.492	0.127	108.618	0.677	2.48	26.44	0.4211	-0.0015	0.4095
0.45	0.063	1.695	0.039	0.066	0.21	0.11	0.4284	-0.0017	0.4210
1.42	119.689	0.130	45.112	0.674	4.54	15.79	0.3850	-0.0017	0.3714
2.83	212.863	0.134	41.587	0.840	8.43	28.63	0.4187	-0.0020	0.4040
0.90	14.589	0.207	9.155	0.407	1.27	3.02	0.4056	-0.0018	0.3970

KD 8/7/03

Jennifer O'Donnell 8/7/03

266716A.

Detector	Pgm time	Sample I.D.	Act. Time	Alpha	Beta	Total	yeff	Beta cpm	Alpha Bkg.	Beta Bkg.	89eff	89slope	90eff	90slope	Voltage	Date/Time	Alpha Xtalk
D1	500	84373001	500	166	13769	16482	0.534	27.538	0.217	1.141	0.5456	0.0008	0.4425	-0.0017	1470	08/06/03 5:32	0.01451082
D2	500	84373002	500	85	4250	5070	0.5341	8.5	0.048	0.788	0.5469	0.0009	0.45	-0.0019	1470	08/06/03 5:32	0.02544749
D3	500	84373003	500	161	19550	23307	0.5371	39.1	0.081	0.824	0.5458	0.0013	0.4544	-0.0021	1470	08/06/03 5:32	0.02804946
D4	500	84373004	500	126	16870	19770	0.538	33.74	0.063	1.037	0.5548	0.0009	0.4578	-0.002	1470	08/06/03 5:32	0.01848923
C1	500	84373005	500	243	17330	21784	0.534	34.66	0.073	0.957	0.5379	0.0011	0.4266	-0.0018	1470	08/06/03 5:45	0.01300709
C2	500	84375001	500	106	10165	12364	0.5277	20.33	0.114	1.384	0.5512	0.0003	0.4412	-0.0017	1470	08/06/03 5:45	0.02134881
C3	500	84375002	500	51	16551	19003	0.5237	33.102	0.09	1.49	0.5463	0.0003	0.4526	-0.0021	1470	08/06/03 5:45	0.02398103
G1	500	84375003	500	74	5214	5792	0.5135	10.428	0.074	0.89	0.5395	0.0005	0.4566	-0.0021	1470	08/06/03 5:47	0.0211231
G3	500	84896001	500	33	20404	21529	0.5279	40.808	0.037	0.92	0.5334	0.0013	0.477	-0.0018	1470	08/06/03 5:47	0.02993069
G4	500	84896002	500	31	20182	20850	0.5263	40.364	0.027	0.83	0.5321	0.001	0.4741	-0.002	1470	08/06/03 5:47	0.02846995
A1	240	84896001	240	86	12978	15856	0.5364	54.075	0.039	0.945	0.5547	0.0003	0.4461	-0.0022	1470	08/06/03 12:01	0.01523375
A2	240	84896002	240	257	16962	21258	0.5278	70.675	0.039	0.844	0.5465	0.0001	0.4283	-0.0018	1470	08/06/03 12:01	0.01380193
A3	240	84896003	240	545	26329	34456	0.5208	109.7042	0.056	0.849	0.531	0.0005	0.4211	-0.0015	1470	08/06/03 12:01	0.01647482
A4	240	1200463640	240	8	203	247	0.5309	0.845833	0.033	0.806	0.5521	0	0.4284	-0.0017	1470	08/06/03 12:01	0.02080202
H1	60	1200463641	60	198	2763	3722	0.4969	46.88333	0.067	0.667	0.4987	0.0004	0.385	-0.0017	1522.5	08/06/03 8:51	0.03171247
H2	60	1200463741	60	81	2543	3132	0.5176	42.38333	0.122	0.718	0.4949	0.0019	0.4187	-0.002	1522.5	08/06/03 8:51	0.05773672
H9	60	1200463642	60	21	596	759	0.5088	9.933333	0.105	0.758	0.4991	0.0013	0.4056	-0.0018	1522.5	08/06/03 8:51	0.05571642

gw 8/7/03

mo 8/7/03

BACKGROUND AND EFFICIENCY DATA

Gas Flow Proportional Counting

Version 1.1 4/7/03

LB4100A1 Printed 05-AUG-2003

Alpha Background

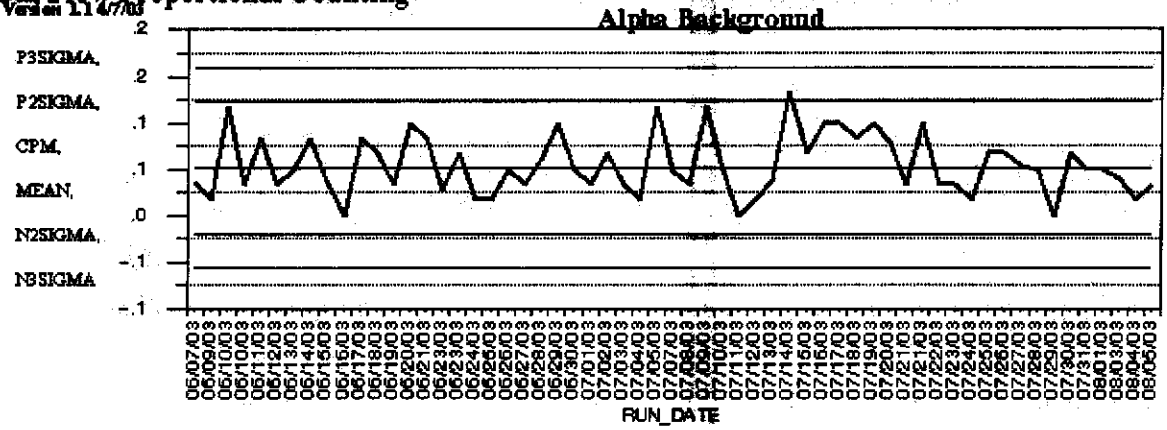

Beta Background

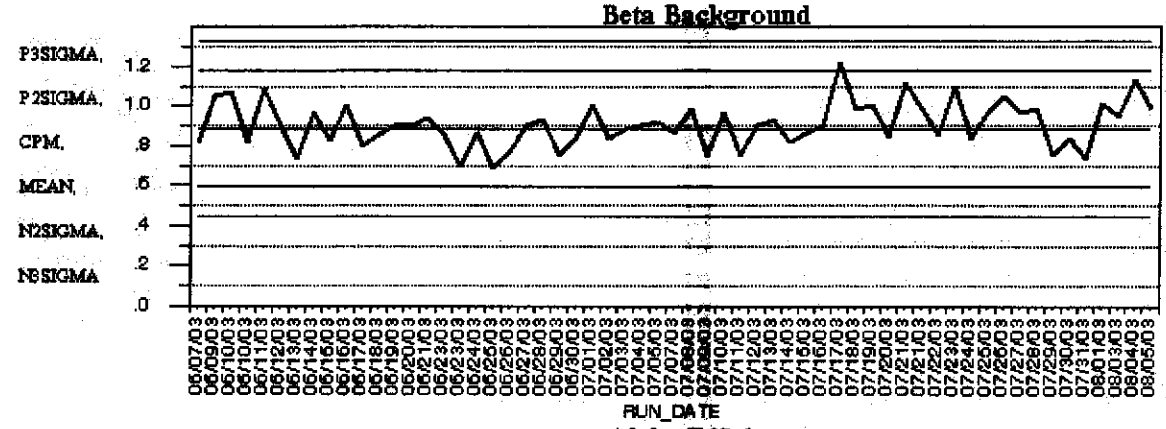

Alpha Efficiency

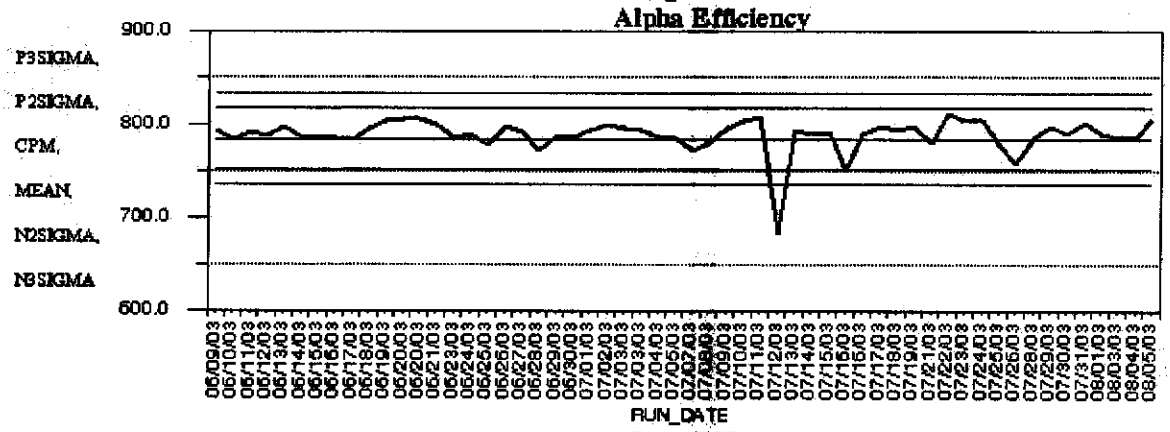

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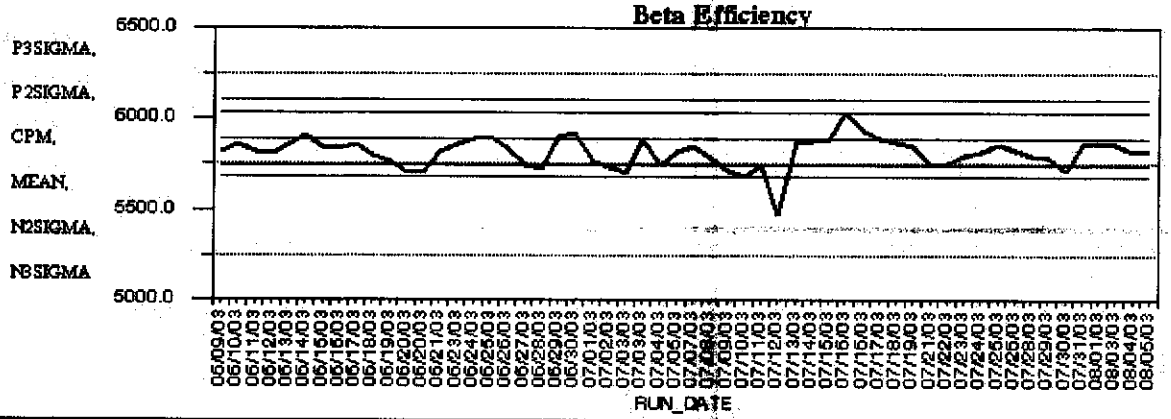

Gas Flow Proportional Counting

LB4100A4 Printed 05-AUG-2003

Version 11/4/03

Alpha Background

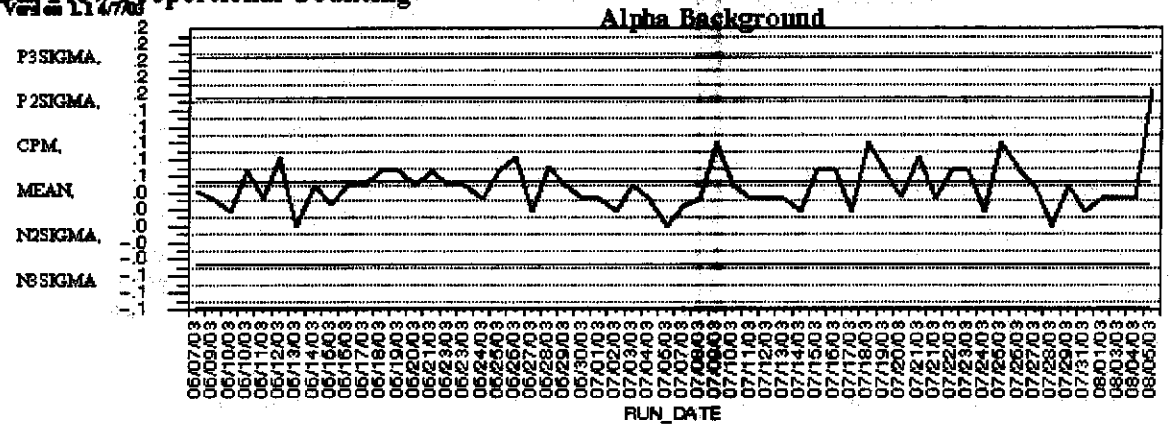

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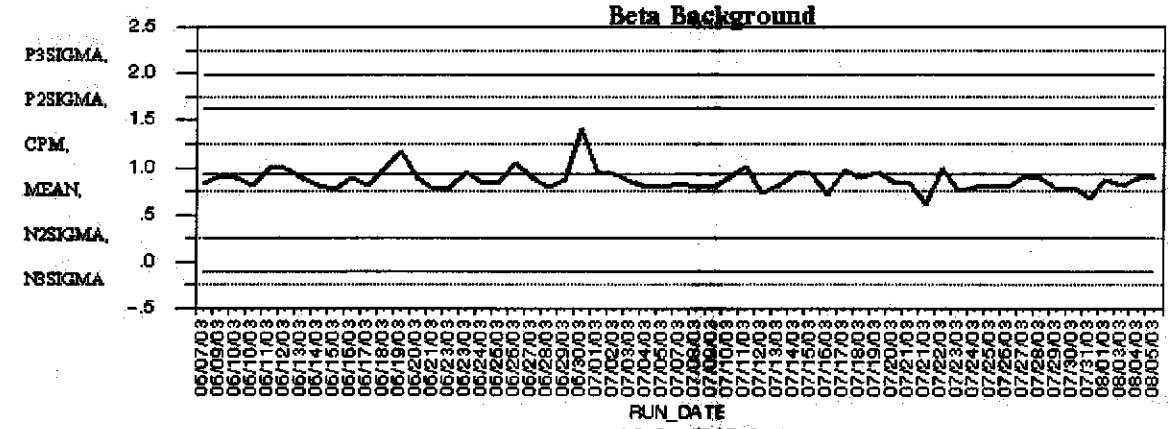

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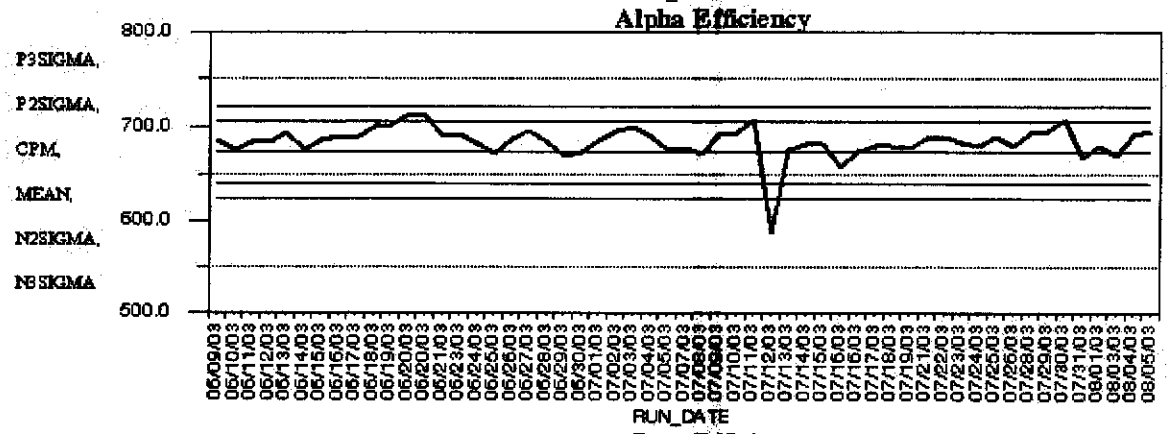

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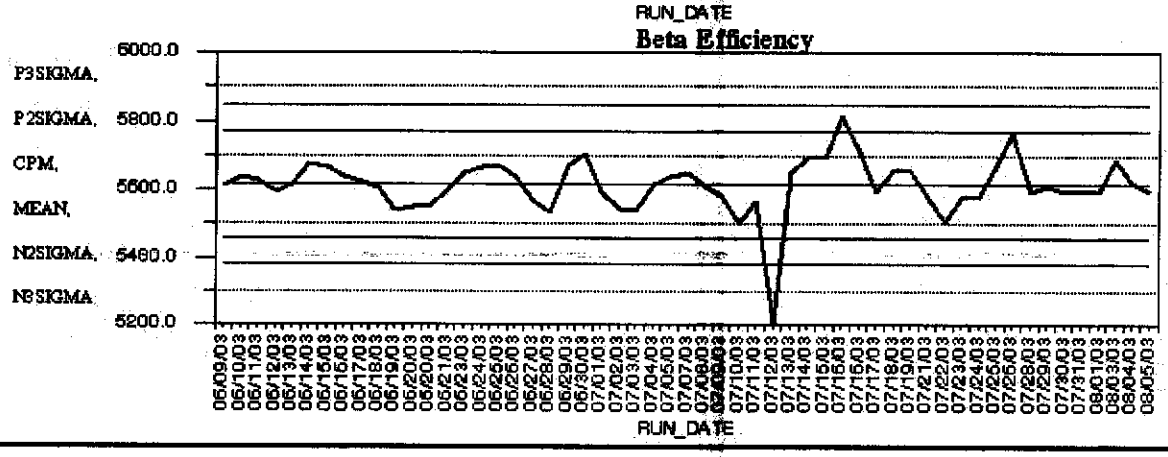

Gas Flow Proportional Counting

Version 1.14/7/03

LB4100C1 Printed 05-AUG-2003

Alpha Background

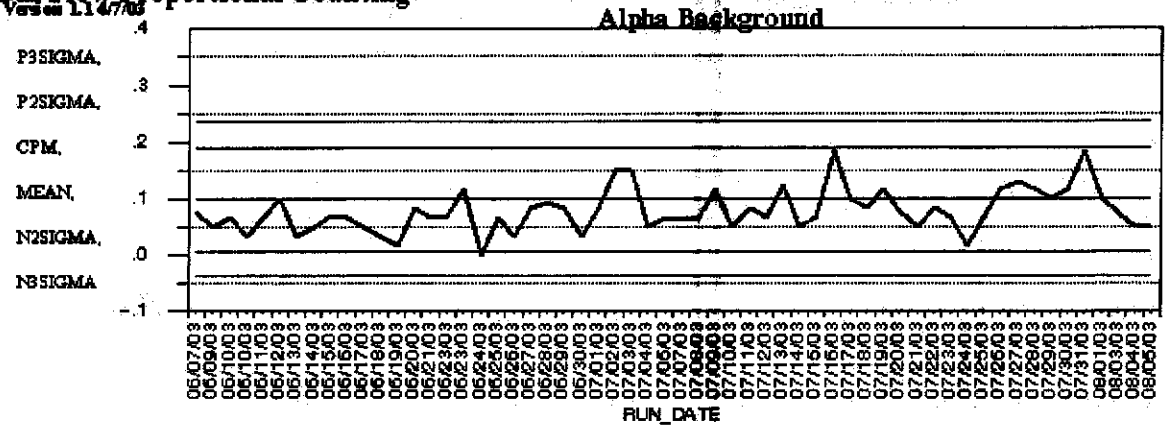

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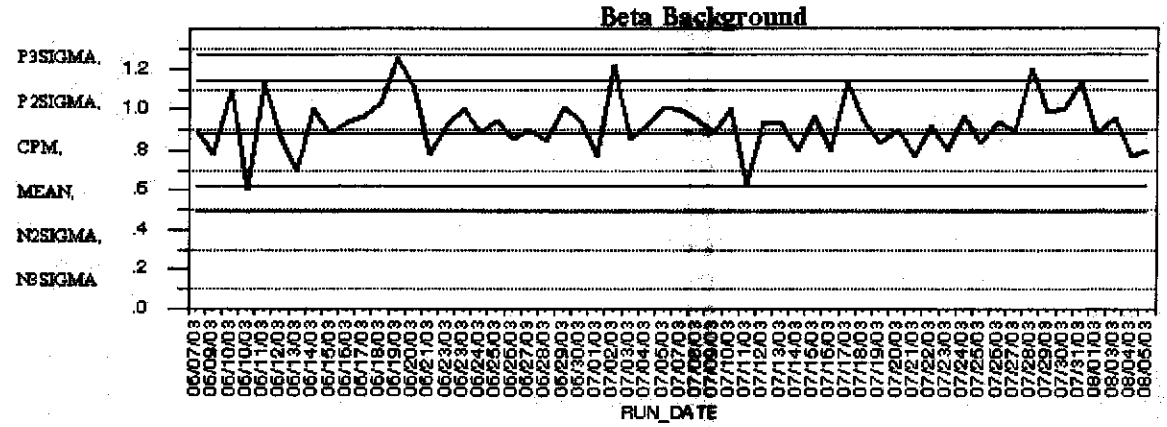

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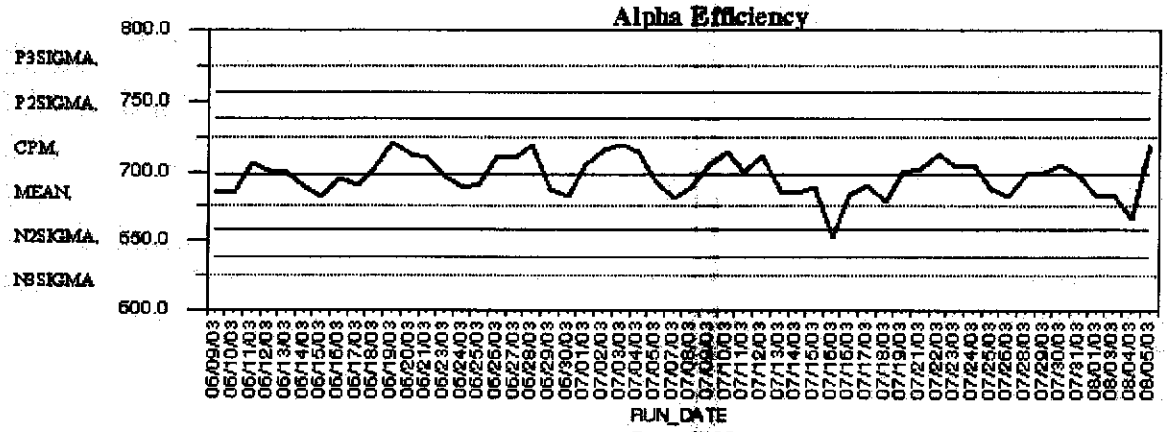

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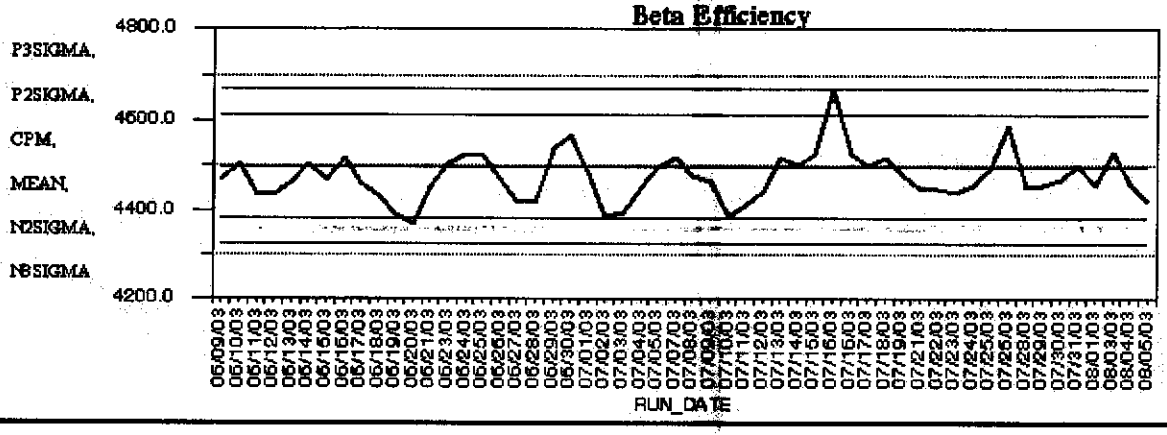

Gas Flow Proportional Counting

Version 1.1 4/7/03

LB4100D1 Printed 05-AUG-2003

Alpha Background

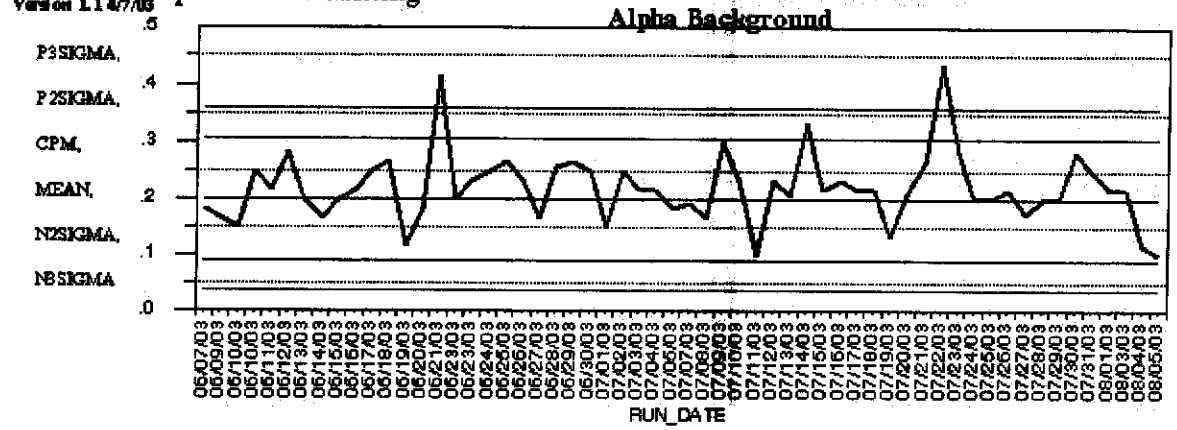

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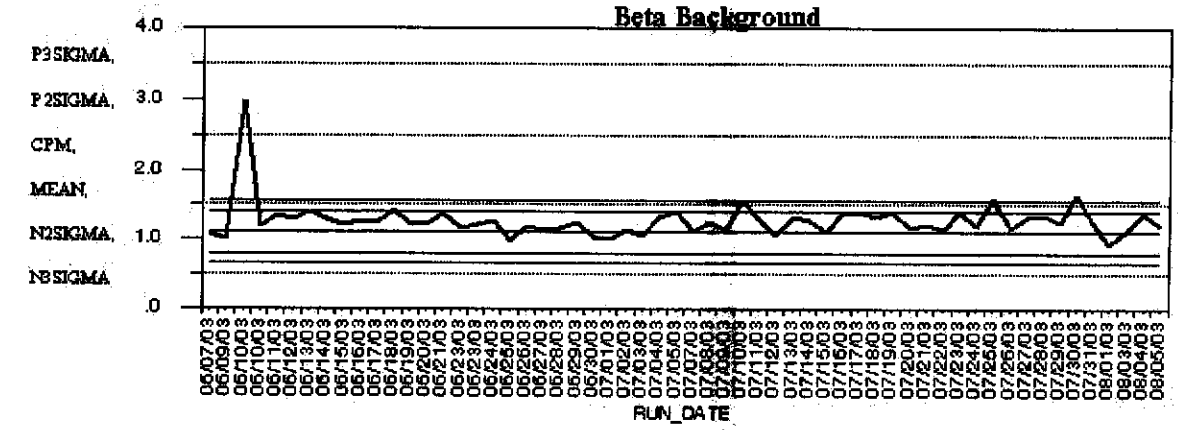

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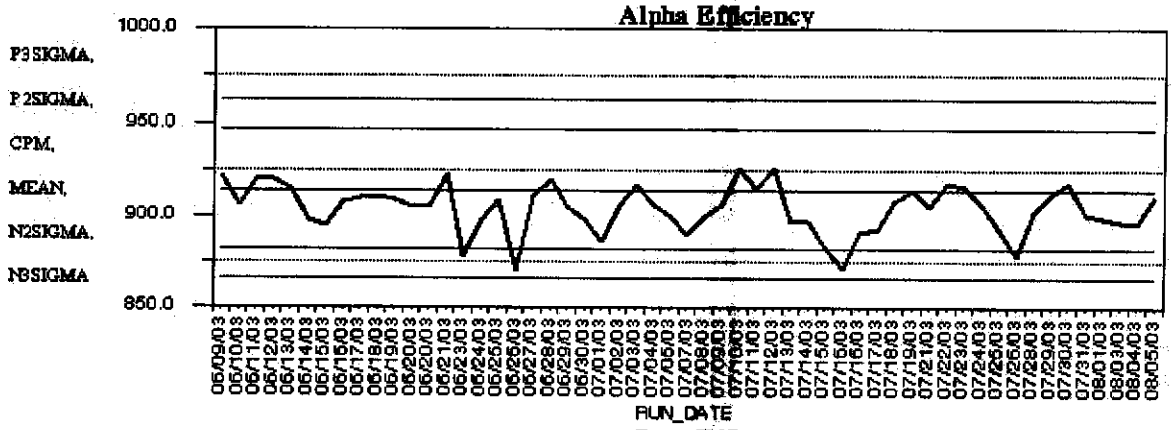

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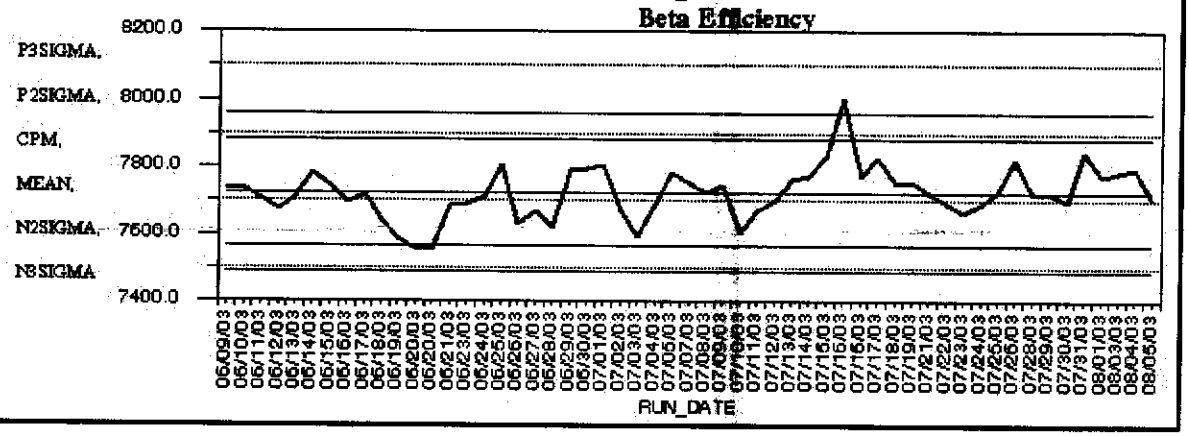

Gas Flow Proportional Counting

Version 1.1 4/7/03

LB4100D2 Printed 05-AUG-2003

Alpha Background

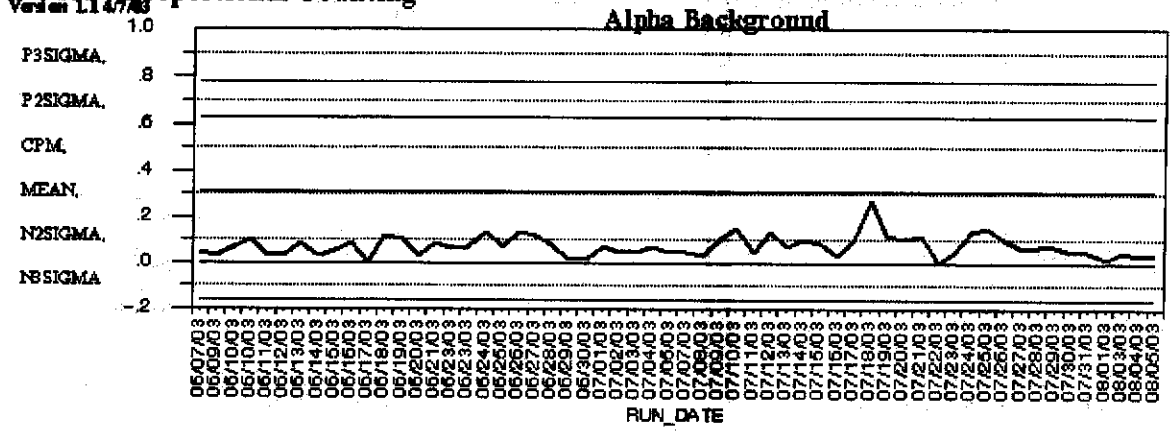

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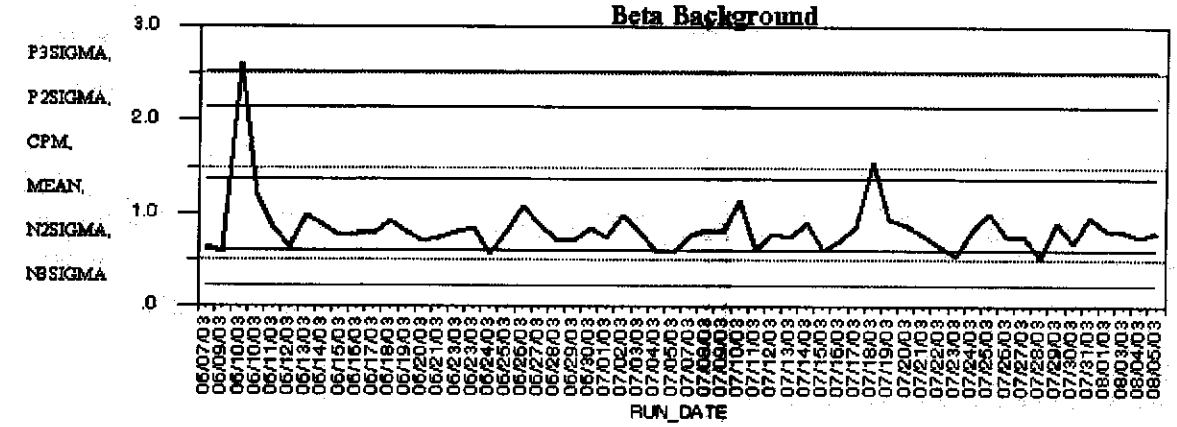

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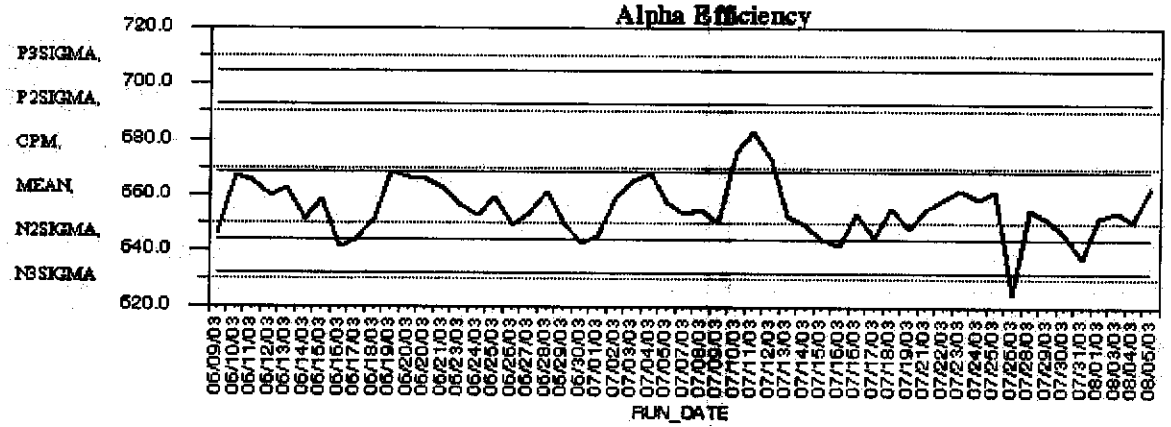

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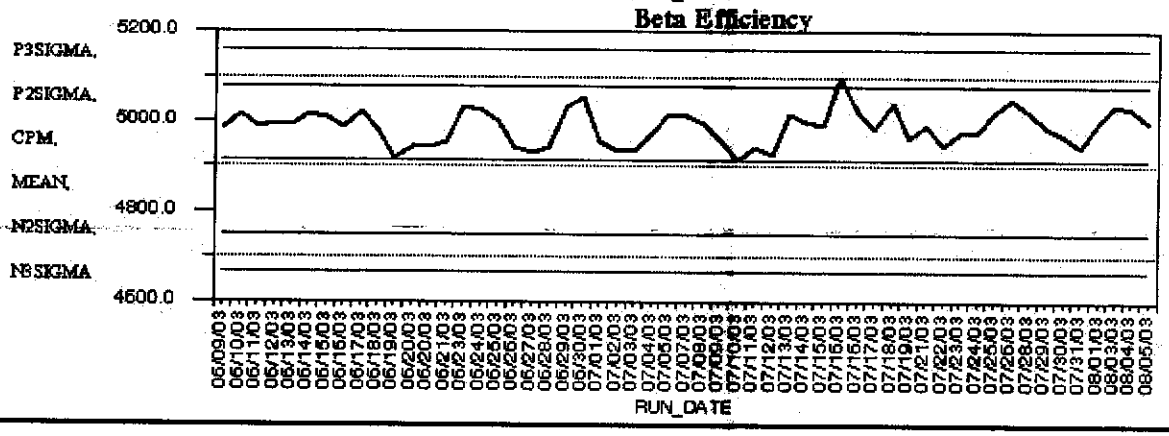

Gas Flow Proportional Counting **LB4100D3 Printed 05-AUG-2003**

Version 114/7/03

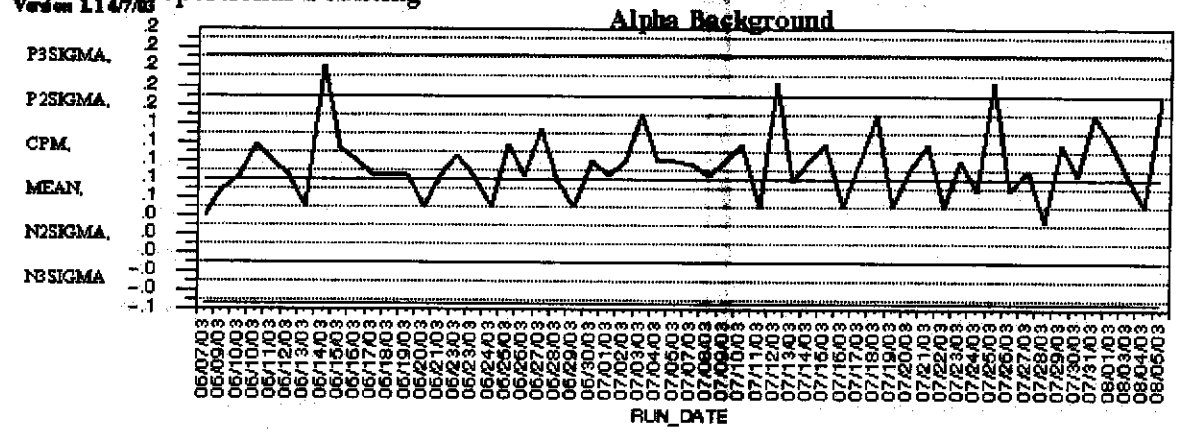

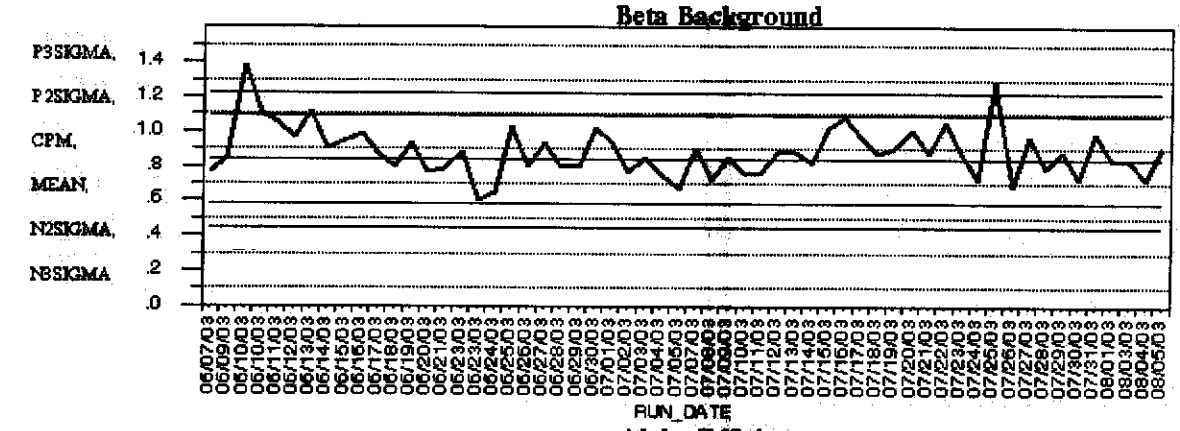

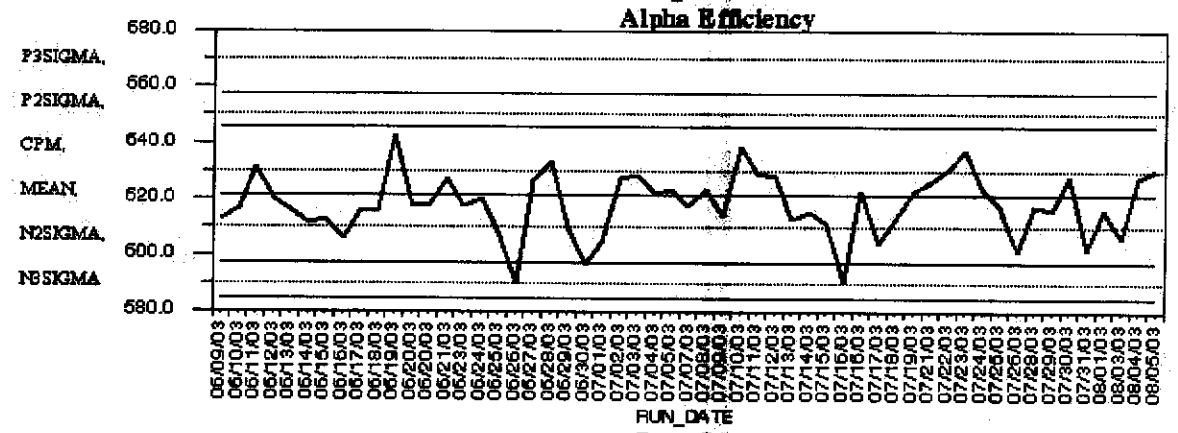

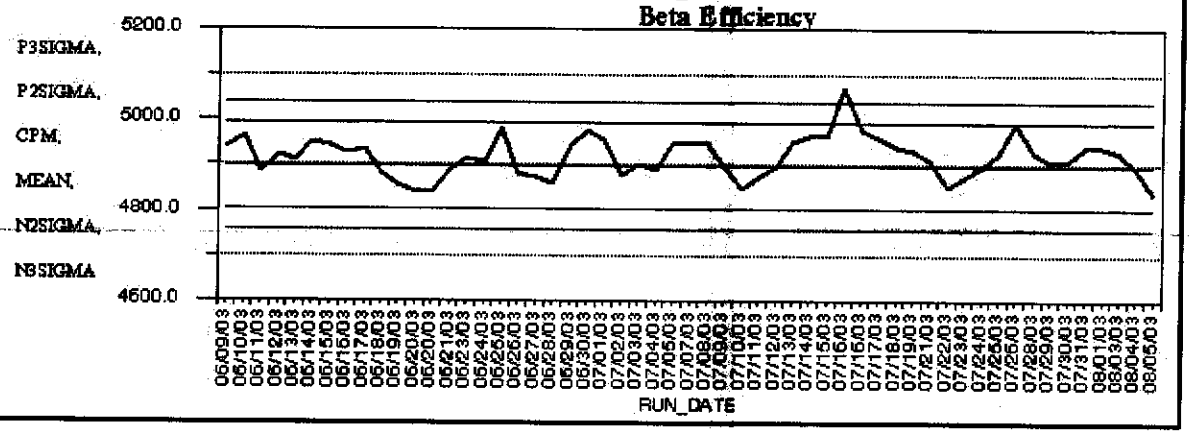

Gas Flow Proportional Counting **LB4100D4 Printed 05-AUG-2003**

Version 1 14/7/03

Alpha Background

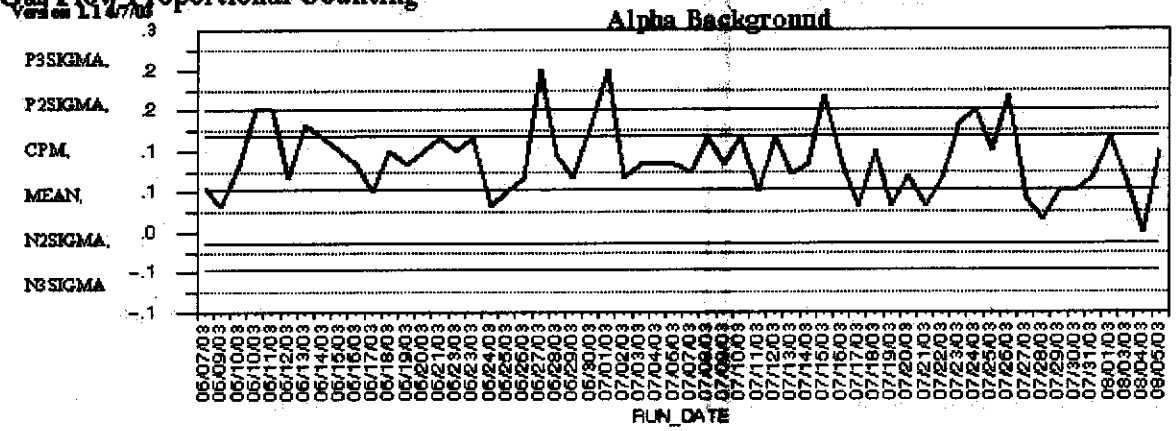

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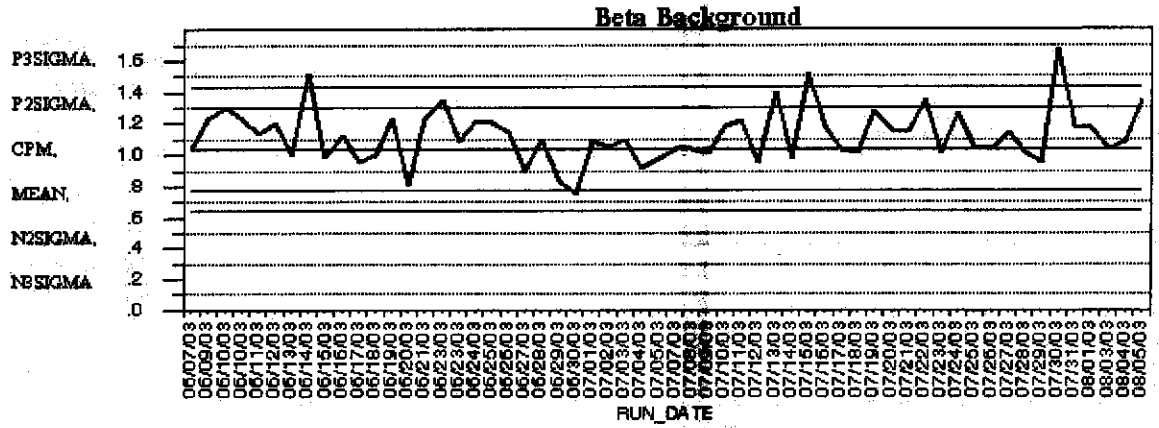

Alpha Efficiency

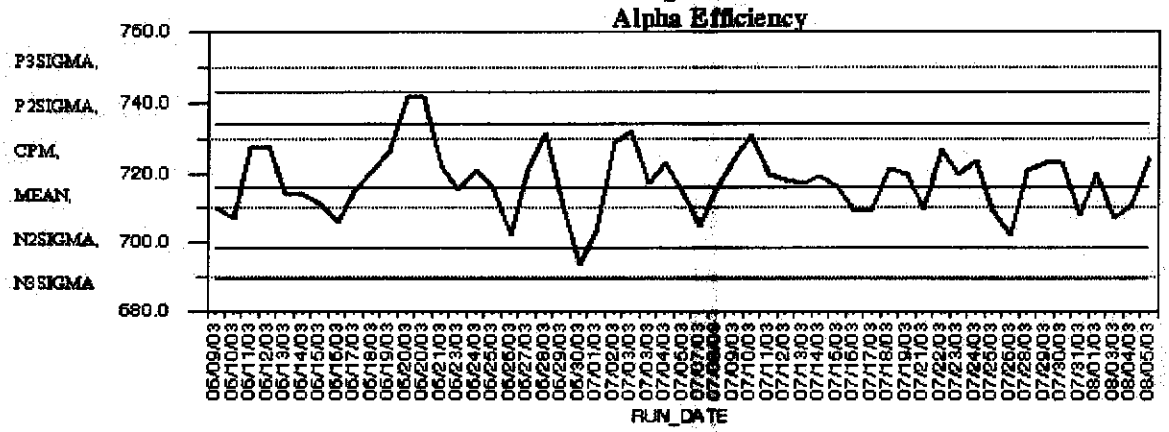

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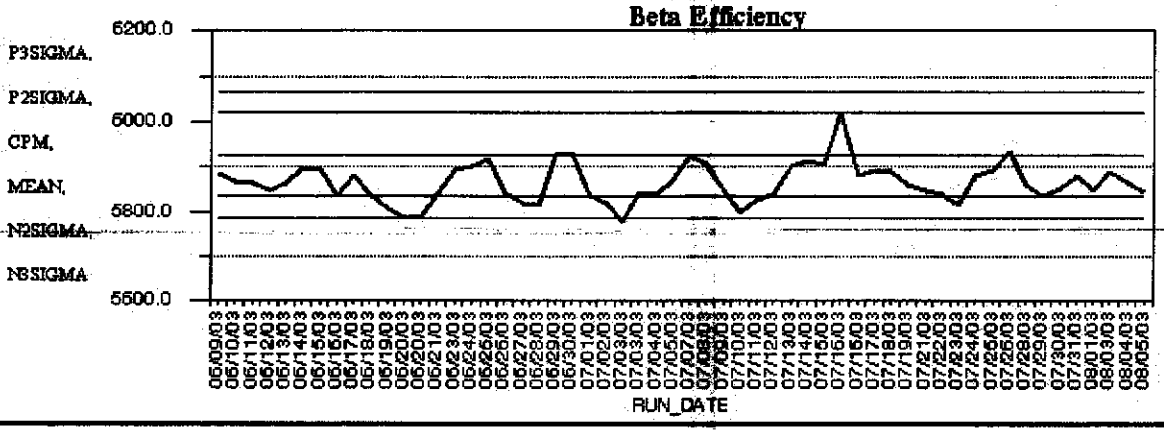

Gas Flow Proportional Counting

Version 1.14/7/03

LB4100H1 Printed 05-AUG-2003

Alpha Background

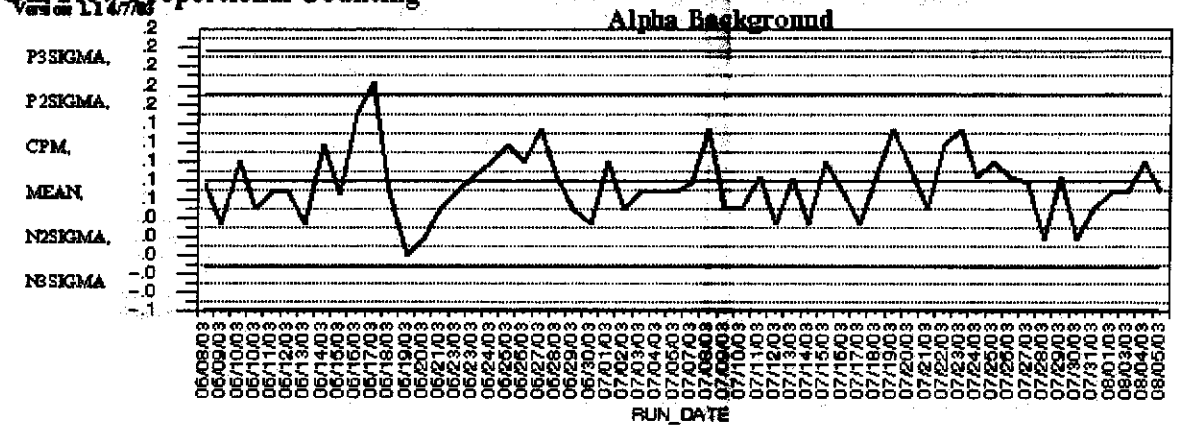

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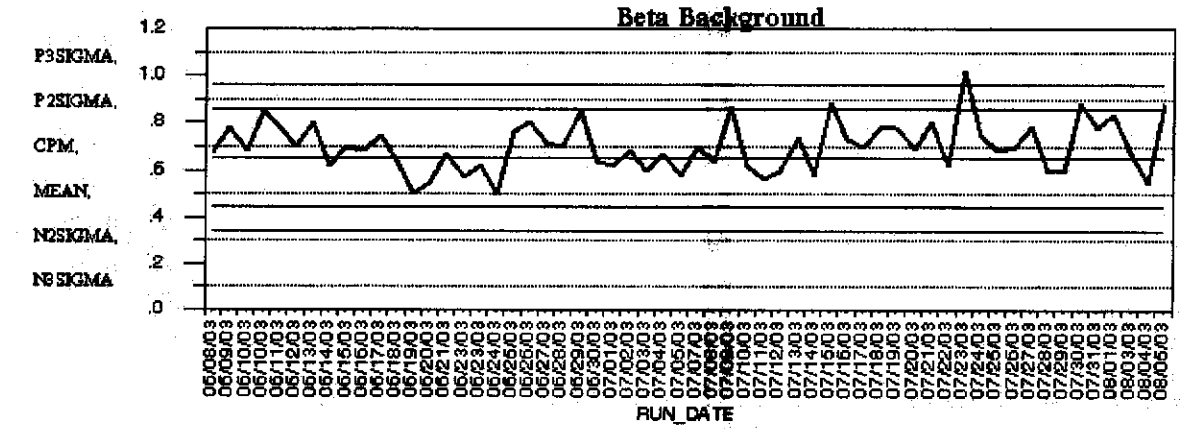

Alpha Efficiency

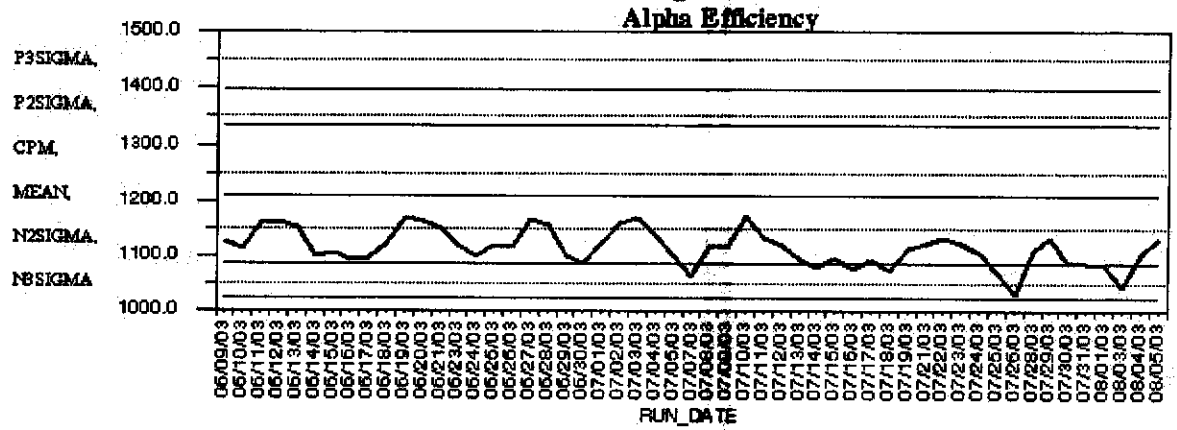

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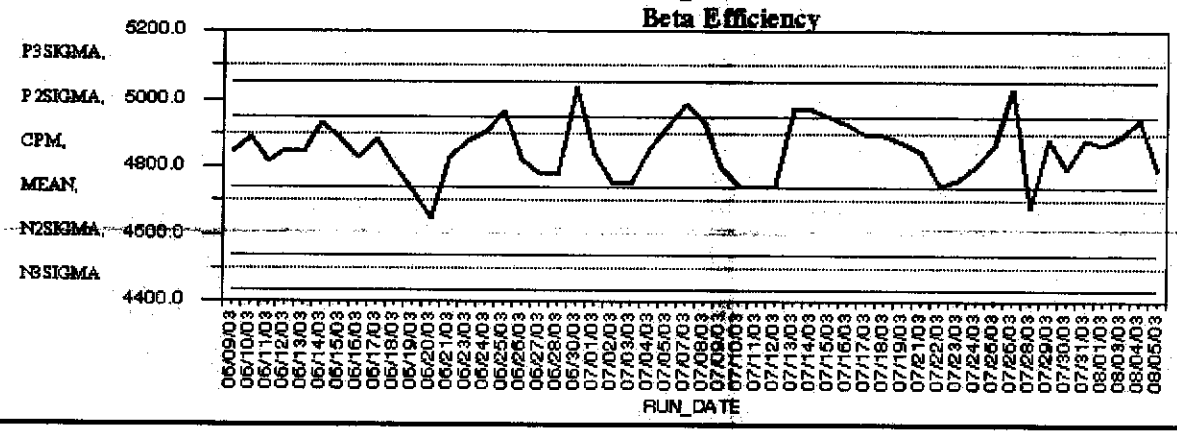

Gas Flow Proportional Counting

Version 1.14/7/03

LB4100H2 Printed 05-AUG-2003

Alpha Background

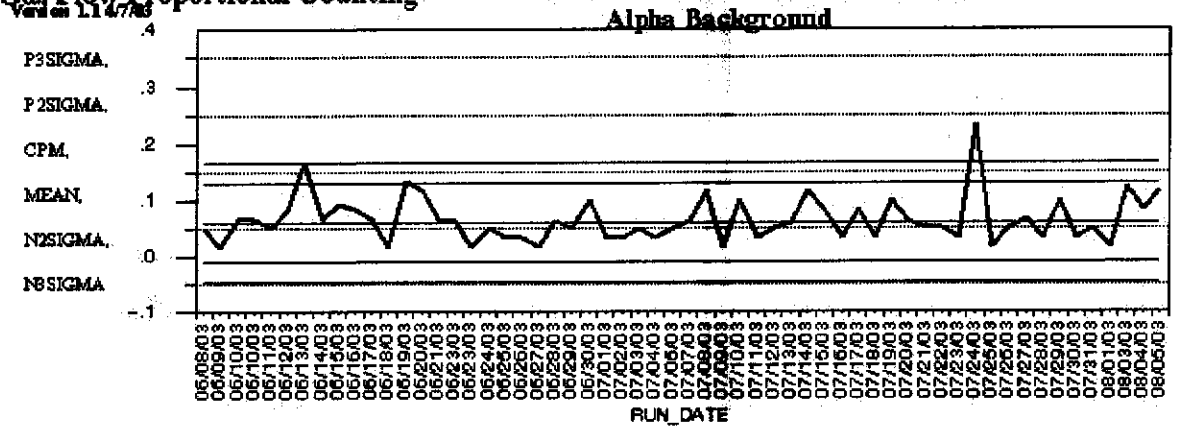

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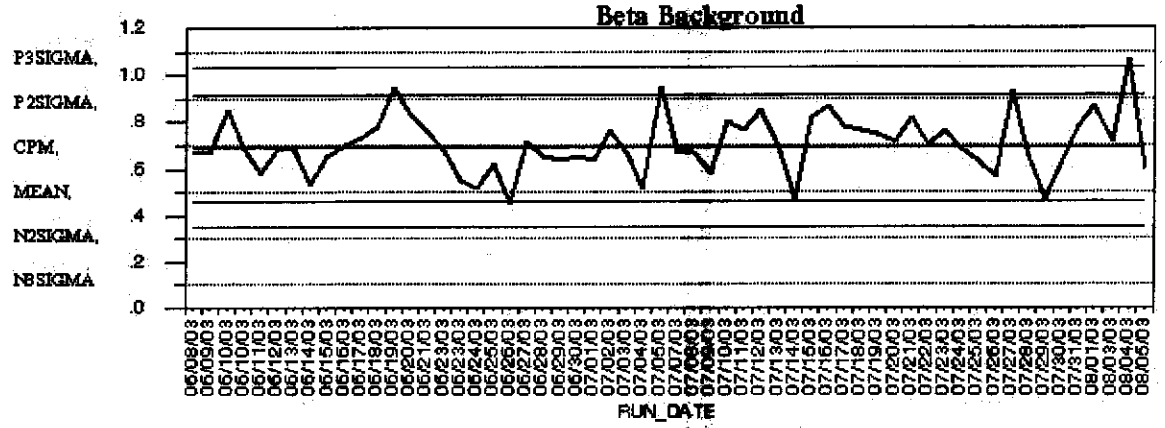

Alpha Efficiency

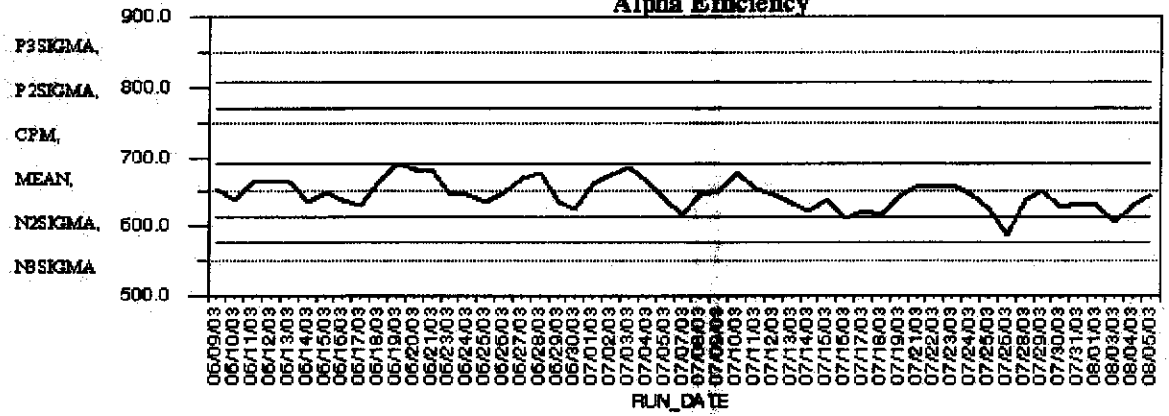

Beta Efficiency

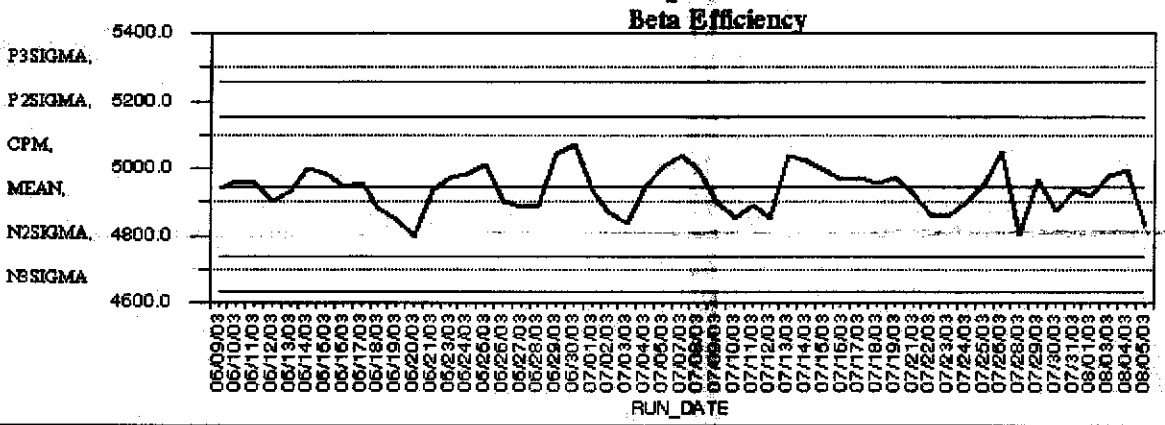

Gas Flow Proportional Counting

Version 1.14/7/03

LB4100H3 Printed 05-AUG-2003

Alpha Background

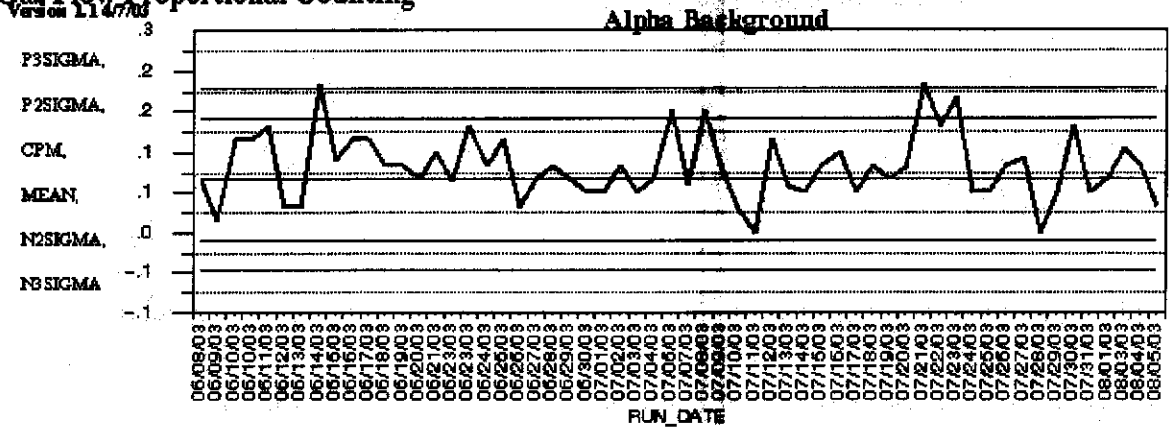

Beta Background

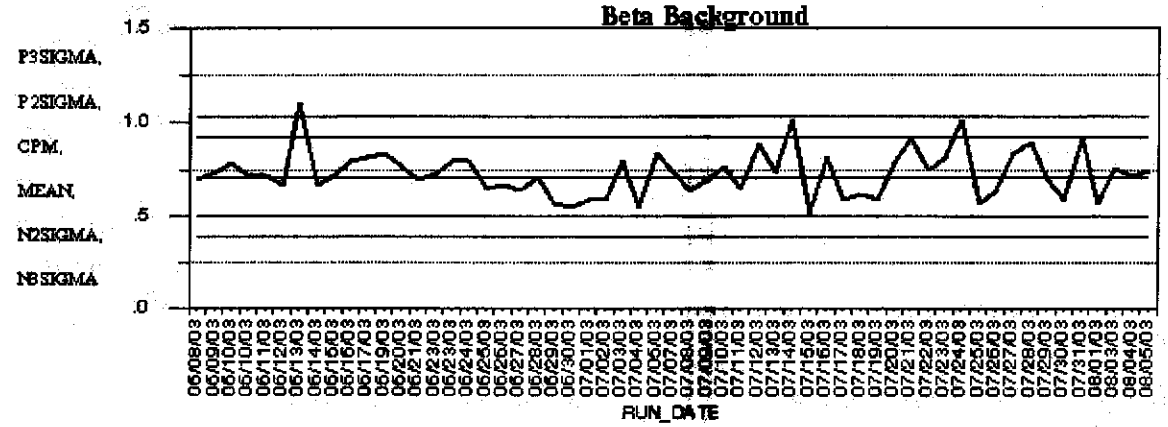

Alpha Efficiency

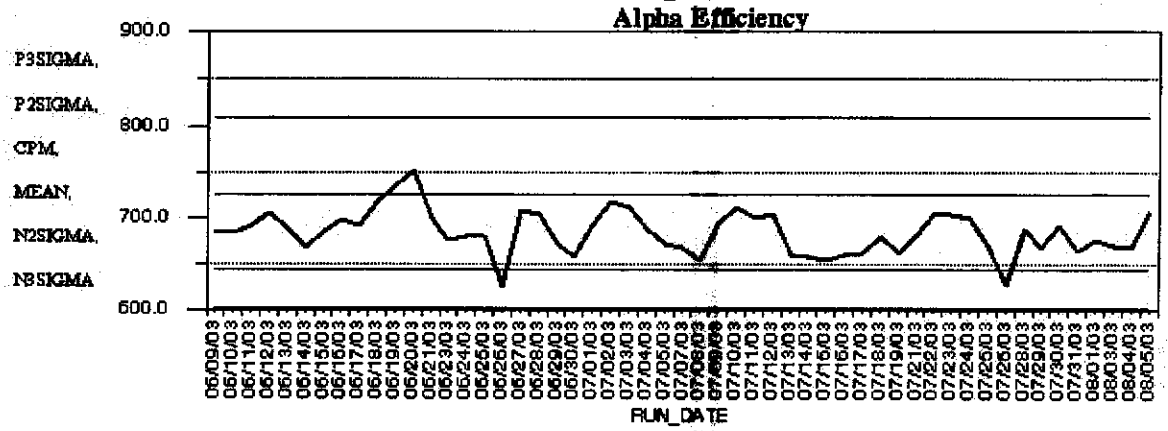

Beta Efficiency

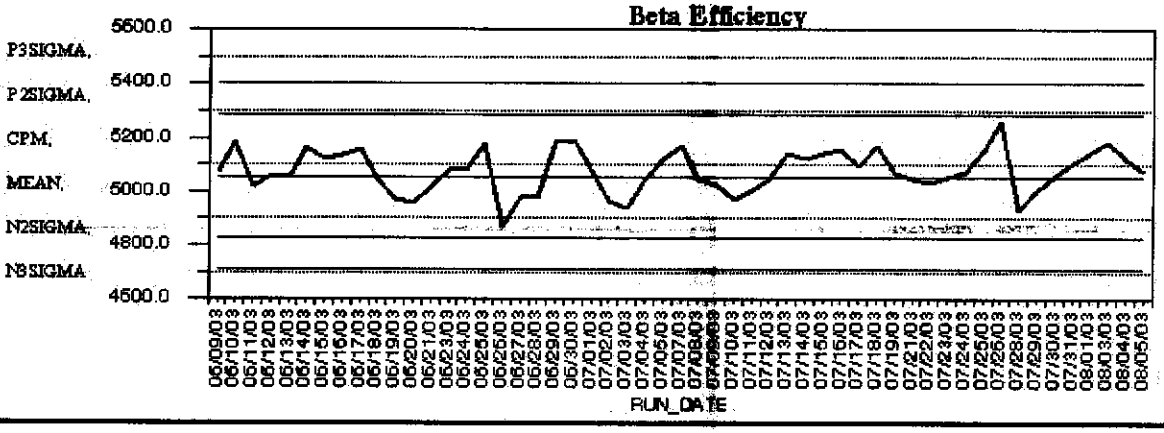

STANDARDS DATA

0133

[redacted]

UKAS ACCREDITED CALIBRATION LABORATORY No. 0146

Measurement

Reference time for solution number S6/7/19:	**1200 GMT on 1 April 1996**	
Radioactive concentration of strontium-90:	477.1	kilobecquerels per gram of solution
which is equivalent to:	12.89	microcuries per gram of solution
Mass of solution:	5.0669	grams
Total activity of strontium-90:	2.417	megabecquerels
which is equivalent to:	65.3	microcuries

Method of measurement used (see page 3 of the certificate): K

Calibration dates: 25 March 1996 to 27 March 1996

The calibration date is provided for added information only, and must not be confused with the reference date on pages 1 and 2 of the certificate. It is the reference date that must be used in all calculations relating to the values of activity.

Accuracy

Expanded uncertainty in the radioactive concentration quoted above: ± 0.80 %

Combined Type A uncertainty : ± 0.05 %

Combined Type B uncertainty : ± 0.40 %

Radionuclidic purity

The estimated activities of any radioactive impurities found by high-resolution gamma ray spectrometry, or in any other examination of the solution, are listed below expressed as percentages of the activity of the principal radionuclide at the reference time.

Other radionuclides 0.0005(3) %

Chemical composition

0.1 M HCl containing 100 micrograms of strontium and 100 micrograms of yttrium per ml.

Physical data

Recommended half life: 29.12 ± 0.24 years (1 year = 365.25 days)

Strontium-90: 100% beta particle emission.
Yttrium-90: 100% beta particle emission. Half life 64.1 ± 0.1 hours.

The activity of the yttrium-90 is equal to the activity of the strontium-90.

Remarks

This product meets the quality assurance requirements for achieving traceability to NIST as defined in ANSI N42.22-1995.

Tests made over a period of 2 years on standardised solutions of strontium-90 stored in glass ampoules have shown that loss of strontium-90 from solution is negligible other than by radioactive decay.

RC-5-024-060

Nycomed Amersham plc
Amersham Laboratories

[redacted]

NAMAS
CALIBRATION
No. 0146

ISSUED BY:	Nycomed Amersham plc Radiation & Radioactivity Calibration Laboratory Amersham Laboratories White Lion Road Amersham Buckinghamshire HP7 9LL	ISSUED FOR:	AEA Technology plc Isotrak Amersham Laboratories White Lion Road Amersham Buckinghamshire HP7 9LL

Description Principal radionuclide: Strontium-90

Product code: SIZ64
Solution number: S6/7/19

Measurement Reference time: 1200 GMT on 1 April 1996

Nuclear data Nuclear data quoted on this certificate are taken from the Joint European File, Version 2.2.

Expression of uncertainties The reported expanded uncertainty is based on a standard uncertainty multiplied by a coverage factor $k = 2.00$, which for a t-distribution with $\nu_{eff} = \infty$ effective degrees of freedom corresponds to a coverage probability of approximately 95%. The uncertainty evaluation has been carried out in accordance with UKAS requirements.

Unless indicated, all other uncertainties are expressed at the confidence level associated with one standard uncertainty.

The format used for the uncertainties in the values of radionuclidic purity is illustrated by the following examples;

6.5(21)	=	6.5 ± 2.1
6.54(21)	=	6.54 ± 0.21
6.543(21)	=	6.543 ± 0.021

Approved Signatory W. F. Case

Date of issue 11 May 1999

QC-5-024-060A

Nycomed Amersham

W F Case

42

This certificate is issued in accordance with the requirements of the United Kingdom Accreditation Service as specified in the NAMAS

[redacted]

UKAS ACCREDITED CALIBRATION LABORATORY No. 0146

Methods of measurement

The measurement techniques listed below are currently in use at Nycomed Amersham for the absolute standardisation of radioactive solutions. The methods used for this standardisation are indicated on page 2 of the certificate.

Using a gas flow proportional counter

A	4 pi beta counting
B	4 pi alpha counting
C	4 pi internal conversion electron counting
D	4 pi coincidence counting
E	4 pi anticoincidence counting
F	4 pi coincidence and anticoincidence counting

Using a liquid scintillation counter

G	4 pi coincidence counting
H	4 pi anticoincidence counting
J	4 pi coincidence and anticoincidence counting
K	4 pi efficiency tracing

SI unit of radioactivity

The S.I. unit of radioactivity is the becquerel

1 becquerel (Bq) = 1 nuclear transformation per second, therefore
1 curie (Ci) = 3.7×10^{10} becquerels exactly

Useful conversion factors are:

1 microcurie (μCi)	=	3.7×10^{4} Bq	=	37 kilobecquerels (kBq)
1 millicurie (mCi)	=	3.7×10^{7} Bq	=	37 megabecquerels (MBq)
1 kilobecquerel (kBq)	=	27.027 nanocuries (nCi)		
1 megabecquerel (MBq)	=	27.027 microcuries (μCi)		

RC-5-024-060B

Standard Traceability Log Rad

Source Material Info	
Parent Code:	0133
Prepared By:	Joe Davis
Carrier Conc:	0.1 M HCL
Reference Date:	04/01/1996
Ampoule Mass (g):	5.0669 g
Uncertainty:	+/- .8 %
LogBook No:	RC S 023 060

A Solution Material Info	
Isotope:	Strontium-90
Prepared By:	Joe Davis
Prep Date:	09/25/1999
Verification Date:	04/18/2003
Expiration Date:	04/18/2004
Primary Code:	0133-A
Dilution(mL):	100 mL
Mass of Parent(g):	4.8374 g
Specific Volume:	0.9959

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (uCi/g)) * (conversion dpm to uCi) / (Dilution Vol) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (uCi/g)) * (conversion dpm to uCi) / (Dilution Vol) * (Specific Volume) = Parent Activity (dpm/g)
(4.8374 g) * (12.89 uCi/g) * (2220000 dpm/uCi) / (100 mL) = 1384260.7092 dpm/mL
(4.8374 g) * (12.89 uCi/g) * (2220000 dpm/uCi) / (100 mL) * (0.9959) = 1378622.1492 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date
06/07/2002	Angela Albee	0.1816	1000	0133-K	250.358 dpm/mL	06/07/2002	06/07/2003
05/06/2002	Angela Albee	0.3738	1000	0133-J	515.329 dpm/mL	05/09/2002	05/09/2003
09/06/2000	Joe Davis	0.0899	1000	0133-F	124.445 dpm/mL	09/06/2000	09/06/2001
12/05/1999	Joe Davis	0.9937	100	0133-C	13699.37 dpm/mL	12/05/1999	12/05/2000
12/05/1999	Joe Davis	0.0995	100	0133-B	1371.73 dpm/mL	12/05/1999	12/05/2000
02/16/2000	Richard Kinney	0.0349	500	0133-D	96.23 dpm/mL	02/16/2000	02/16/2001
03/09/2000	Richard Kinney	0.0282	250	0133-E	155.51 dpm/mL	03/09/2000	03/09/2001
10/13/2000	Robert Timm	0.3194	1000	0133-G-104	440.332 dpm/mL	10/09/2001	10/09/2002
10/13/2000	Robert Timm	1.0865	100	0133-H	14978.73 dpm/mL	10/09/2001	10/09/2002
10/13/2000	Robert Timm	0.3194	1000	0133-G-204	440.332 dpm/mL	10/09/2001	10/09/2002
10/13/2000	Robert Timm	0.3194	1000	0133-G-304	440.332 dpm/mL	10/09/2001	10/09/2002
10/13/2000	Robert Timm	0.3194	1000	0133-G-404	440.332 dpm/mL	10/09/2001	10/09/2002
05/10/2001	Angela Albee	1.0005	1000	0133-I	1379.311 dpm/mL	05/11/2001	05/11/2002
01/16/2003	Angela Albee	0.2964	1000	0133-L	408.624 dpm/mL	01/16/2003	01/16/2004
04/18/2003	Lawrence Morris	0.3247	1000	0133-M	447.6386 dpm/mL	04/18/2003	04/18/2004
10/31/2002	Angela Albee	10.1100	1000	0133-G		10/31/2002	10/31/2003

General Engineering Laboratories, LLC
Version 1.0 9/18/2000

RUNLOGS

Instrument Run Log

ID	Sample Type	Analyst	Instrument	Dil	Run Date	Batch Id
84373001	SAMPLE	AB2	LB4100D1		06-AUG-2003 05:32	266716
84373002	SAMPLE	AB2	LB4100D2		06-AUG-2003 05:32	266716
84373003	SAMPLE	AB2	LB4100D3		06-AUG-2003 05:32	266716
84373004	SAMPLE	AB2	LB4100D4		06-AUG-2003 05:32	266716
84373005	SAMPLE	AB2	LB4100C1		06-AUG-2003 05:45	266716
84375001	SAMPLE	AB2	LB4100C2		06-AUG-2003 05:45	266716
84375002	SAMPLE	AB2	LB4100C3		06-AUG-2003 05:45	266716
84375003	SAMPLE	AB2	LB4100G1		06-AUG-2003 05:47	266716
84895001	SAMPLE	AB2	LB4100G3		06-AUG-2003 05:47	266716
84895002	SAMPLE	AB2	LB4100G4		06-AUG-2003 05:47	266716
1200463641	DUP	AB2	LB4100H1		06-AUG-2003 08:51	266716
1200463642	LCS	AB2	LB4100H3		06-AUG-2003 08:51	266716
1200463741	MS	AB2	LB4100H2		06-AUG-2003 08:51	266716
1200463640	MB	AB2	LB4100A4		06-AUG-2003 12:01	266716
84896001	SAMPLE	AB2	LB4100A1		06-AUG-2003 12:01	266716
84896002	SAMPLE	AB2	LB4100A2		06-AUG-2003 12:01	266716
84896003	SAMPLE	AB2	LB4100A3		06-AUG-2003 12:01	266716

Version 1.0 11/28/99
General Engineering Laboratories, LLC

Monday, September 16, 2002

REQUEST NUMBER: 1203S

ANALYSIS TYPE: INORGANIC

Los Alamos
NATIONAL LABORATORY

ATTN: Elvin Chavez
Assaigai Analytical Laboratory
7300 Jefferson NE
Albuquerque, NM 87109

Please analyze the enclosed samples according to the schedule indicated:

SHIP DATE: 09/16/2002
REPORT DUE: 10/16/2002
TURN AROUND REQ'D: 30

RAD SCREENING: NOT REQ
COMMENTS:

These samples are on:

LANL Request Number: 1203S
Per Agreement Number:
Project Cost Code: XURP04503219

LANL ER SMO CONTACT:
Signature:

METHOD CODE	SAMPLE ID	CONT ID	SAMPLE MATRIX	DATE SAMPLED	COMMENTS
SW-846:7196A	RE03-02-49531	1	S	09/12/2002	
SW-846:7471A	RE03-02-49531	1	S	09/12/2002	
SW-846:7471A	RE03-02-49530	1	S	09/12/2002	
SW-846:6010B	RE03-02-49531	1	S	09/12/2002	
SW-846:6020	RE03-02-49531	1	S	09/12/2002	
SW-846:6010B	RE03-02-49530	1	S	09/12/2002	
SW-846:6020	RE03-02-49530	1	S	09/12/2002	
SW-846:7196A	RE03-02-49530	1	S	09/12/2002	

Final Page of REQUEST NUMBER 1203S

Monday, September 16, 2002

CHAIN OF CUSTODY DOCUMENT NUMBER: 1203SC

Los Alamos
NATIONAL LABORATORY

REQUEST NUMBER: 1203S

ANALYSIS TYPE: INORGANIC

ATTN: Elvin Chavez
Assaigai Analytical Laboratory
7300 Jefferson NE
Albuquerque, NM 87109

SAMPLE ID	CONT ID	CONTAINER DESCRIPTION	ORDER TEMPLATE CODE	PRESERVATIVE	MATRIX
RE03-02-49530	1	250 ML GLASS	METALS+7196	ICE	S
RE03-02-49531	1	250 ML GLASS	METALS+7196	ICE	S

Final Page of CHAIN OF CUSTODY DOCUMENT FOR REQUEST NUMBER 1203S

Relinquished By: PRINTED NAME	SIGNATURE	Date	Time	Received By: PRINTED NAME	SIGNATURE	Date	Time
[illegible]	[illegible]	9-16-02	15 23	Elvin J. Chavez	[illegible]	9/16/02	1523
PRINTED NAME	SIGNATURE			PRINTED NAME	SIGNATURE		
PRINTED NAME	SIGNATURE			PRINTED NAME	SIGNATURE		

Received for DISPOSAL By: PRINTED NAME	SIGNATURE	Date	Time	Remarks:

Los Alamos National Laboratory
Environmental Restoration Project
Los Alamos, NM 87545

FIELD CHAIN OF CUSTODY

EVENT NAME: PRS 03-012(b)-00, TA-3

COC ID: 67332 **Event ID:**1,512

SAMPLE ID: RE03-02-49530 **ER TEAM LEADER:** Gabriela Lopez Escobedo **DESTINATION:** SMO

SAMPLE ORDER MATRIX: Soil **FIELD TEAM LEADER:** Gabriela Lopez Escobedo **DEST. POC:**

ANALYSES REQUESTED

CONT. ID	ORDER	CONTAINER DESCRIPTION	PRESERVATIVE	COLLECTED Y / N	REASON	SPECIAL INSTRUCTIONS
1	METALS+7196	250 ML GLASS	Ice			

RELINQUISHED BY (printed name): (signature):	**Date/Time:** 09/12/02 / 2:25	**RELINQUISHED BY** (printed name): (signature):	**Date/Time:**
RECEIVED BY (printed name): (signature):	**Date/Time:** 9/12/02 2:25	**RECEIVED BY** (printed name): (signature):	**Date/Time:**

Los Alamos National Laboratory
Environmental Restoration Project
Los Alamos, NM 87545

FIELD CHAIN OF CUSTODY

EVENT NAME: PRS 03-012(b)-00, TA-3

COC ID: 67342 Event ID:1,512

SAMPLE ID: RE03-02-49531
SAMPLE ORDER MATRIX: Soil
ER TEAM LEADER: Gabriela Lopez Escobedo
FIELD TEAM LEADER: Gabriela Lopez Escobedo
DESTINATION: SMO
DEST. POC:

ANALYSES REQUESTED

CONT. ID	ORDER	CONTAINER DESCRIPTION	PRESERVATIVE	COLLECTED Y / N	REASON	SPECIAL INSTRUCTIONS
1	METALS+7196	250 ML GLASS	Ice			

RELINQUISHED BY (printed name): (signature):	Date/Time: 09/12/02 2:25	RELINQUISHED BY (printed name): (signature):	Date/Time:
RECEIVED BY (printed name): (signature):	Date/Time: 9/12/02 2:25	RECEIVED BY (printed name): (signature):	Date/Time:

RADIOLOGICAL SCREENING DATA RELEASE FORM

The following samples (list samples by number) were received at the Field Support Facility (FSF) without radiological screening data. These samples will not be shipped until radiological screening documentation arrives at the FSF. I understand that it is my responsibility to ensure that this information arrives at the FSF in a timely manner. **If holding times are missed because screening data do not arrive, I will pick up the samples when called to do so.**

****

The following samples (list samples by number) do not require radiological screening for the reason stated.

RE-03-02-49270 — RE-03-02-49301, RE-03-02-49530 &
RE-03-02-49531

Reason:

Signature _____

Printed name MARK HAGGENSTAD

Telephone number 7-0104 Date 09/22/02

ASSAIGAI ANALYTICAL LABORATORIES, INC.
P.O. Box 90430 • Albuquerque, New Mexico 87199 • (505) 345-8964 • FAX (505) 345-7259
3332 Wedgewood, Ste. N • El Paso, Texas 79925 • (915) 593-6000 • FAX (915) 593-7820
127 Eastgate Drive, 212-C • Los Alamos, New Mexico 87544 • (505) 662-2558

Explanation of codes

B	*analyte detected in Method Blank*
E	*result is estimated*
H	*analyzed out of hold time*
N	*tentatively identified compound*
S	*subcontracted*
1-9	*see footnote*

LANL-DDP03-0271-014,RM100 E SI
attn: **KEITH GREENE**
P.O. BOX 1663, MS H865
LOS ALAMOS NM 87544

STANDARD

Assaigai Analytical Laboratories, Inc.

Certificate of Analysis

Client: **LANL-DDP03-0271-014,RM100 E SI**
Project: **XURP 0450 3219 0000, 1199S&1203S**
Order: **0209364 LOS40** Receipt: **09-17-02**

William P. Biava: President of Assaigai Analytical Laboratories, Inc.

Sample: ***RE03-02-49270*** Collected: *09-12-02 0:00:00* By:
Matrix: ***SO***

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Code	Prep Date	Run Date
0209364-01A		**ASTM D2216**					By:	MDE		
MO0215	WC.2002.1476.2		Moisture	11.9	%	1	0.1	H1	10-09-02	10-09-02
0209364-01A		**EPA 218.4 Hex. Chromium Dry Weight**					By:	NJL		
W02387	WC.2002.1317.6		Chromium, Hexavalent	4.22	mg / kg	1	1		09-24-02	09-25-02
0209364-01A		**SW846 3050A/6020 ICP-MS Dry Weight**					By:	CJ		
M021282	MT.2002.1109.15	7429-90-5	Aluminum	7060	mg / Kg	99	0.5		09-23-02	09-23-02
M021282	MT.2002.1109.14	7440-36-0	Antimony	ND	mg / Kg	10	0.05		09-23-02	09-23-02
M021282	MT.2002.1109.14	7440-38-2	Arsenic	4.31	mg / Kg	10	0.025		09-23-02	09-23-02
M021282	MT.2002.1109.14	7440-39-3	Barium	95.4	mg / Kg	10	0.025		09-23-02	09-23-02
M021282	MT.2002.1109.14	7440-41-7	Beryllium	0.412	mg / Kg	10	0.025		09-23-02	09-23-02
M021282	MT.2002.1118.37	7440-42-8	Boron	ND	mg / Kg	10	0.15		09-23-02	09-25-02
M021282	MT.2002.1109.14	7440-43-9	Cadmium	0.688	mg / Kg	10	0.025		09-23-02	09-23-02
M021282	MT.2002.1118.37	7440-70-2	Calcium	3140	mg / Kg	10	0.5		09-23-02	09-25-02
M021282	MT.2002.1109.15	7440-47-3	Chromium	169	mg / Kg	99	0.05		09-23-02	09-23-02
M021282	MT.2002.1109.14	7440-48-4	Cobalt	2.05	mg / Kg	10	0.025		09-23-02	09-23-02
M021282	MT.2002.1109.14	7440-50-8	Copper	26.1	mg / Kg	10	0.025		09-23-02	09-23-02
M021282	MT.2002.1118.14	7439-89-6	Iron	8120	mg / Kg	99	0.5		09-23-02	09-25-02
M021282	MT.2002.1109.14	7439-92-1	Lead	21.2	mg / Kg	10	0.025		09-23-02	09-23-02
M021282	MT.2002.1133.14	7440-22-4	Lithium	6.96	mg / Kg	10	0.05		09-23-02	09-27-02
M021282	MT.2002.1118.37	7439-95-4	Magnesium	1590	mg / Kg	10	0.5		09-23-02	09-25-02
M021282	MT.2002.1109.15	7439-96-5	Manganese	230	mg / Kg	99	0.025		09-23-02	09-23-02
M021282	MT.2002.1109.14	7439-98-7	Molybdenum	0.452	mg / Kg	10	0.025		09-23-02	09-23-02
M021282	MT.2002.1109.14	7440-02-0	Nickel	5.38	mg / Kg	10	0.025		09-23-02	09-23-02
M021282	MT.2002.1118.37	7440-09-7	Potassium	880	mg / Kg	10	0.5		09-23-02	09-25-02

Member:
American Council of
Independent Laboratories, Inc.

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PRODUCT ENDORSEMENT BY THE NATIONAL VOLUNTARY LABORATORY ACCREDITATION PROGRAM.

Assaigai Analytical Laboratories, Inc.

Certificate of Analysis

Client: **LANL-DDP03-0271-014,RM100 E SI**
Project: **XURP 0450 3219 0000, 1199S&1203S**
Order: **0209364** **LOS40** Receipt: **09-17-02**

Sample: ***RE03-02-49270*** Collected: *09-12-02 0:00:00* By:
Matrix: ***SO***

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Code	Prep Date	Run Date
0209364-01A		**SW846 3050A/6020 ICP-MS Dry Weight**					By:	CJ		
M021282	MT.2002.1109.14	7782-49-2	Selenium	0.490	mg / Kg	10	0.025		09-23-02	09-23-02
M021282	MT.2002.1109.14	7440-21-3	Silicon	484	mg / Kg	10	1	E	09-23-02	09-23-02
M021282	MT.2002.1109.14	7440-22-4	Silver	6.45	mg / Kg	10	0.025		09-23-02	09-23-02
M021282	MT.2002.1118.37	7440-23-5	Sodium	142	mg / Kg	10	0.5		09-23-02	09-25-02
M021282	MT.2002.1109.14	7439-89-6	Strontium	51.9	mg / Kg	10	0.025		09-23-02	09-23-02
M021282	MT.2002.1109.14	7440-28-0	Thallium	ND	mg / Kg	10	0.025		09-23-02	09-23-02
M021282	MT.2002.1109.14	7440-31-5	Tin	3.74	mg / Kg	10	0.025		09-23-02	09-23-02
M021282	MT.2002.1109.15	7440-32-6	Titanium	241	mg / Kg	99	0.025		09-23-02	09-23-02
M021282	MT.2002.1109.14	7440-61-1	Uranium	1.41	mg / Kg	10	0.025		09-23-02	09-23-02
M021282	MT.2002.1118.37	7440-62-2	Vanadium	10.7	mg / Kg	10	0.05		09-23-02	09-25-02
M021282	MT.2002.1118.37	7440-66-6	Zinc	95.4	mg / Kg	10	0.25		09-23-02	09-25-02
0209364-01A		**SW846 7471 CVAA Dry Weight**					By:	JRE		
M021284	MT.2002.1103.12	7439-97-6	Mercury	0.102	mg / Kg	1	0.05		09-23-02	09-23-02

Sample: ***RE03-02-49271*** Collected: *09-12-02 0:00:00* By:
Matrix: ***SO***

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Code	Prep Date	Run Date
0209364-02A		**ASTM D2216**					By:	MDE		
MO0215	WC.2002.1476.4		Moisture	14.1	%	1	0.1	H	10-09-02	10-09-02
0209364-02A		**EPA 218.4 Hex. Chromium Dry Weight**					By:	NJL		
W02387	WC.2002.1317.13		Chromium, Hexavalent	1.47	mg / kg	1	1		09-24-02	09-25-02
0209364-02A		**SW846 3050A/6020 ICP-MS Dry Weight**					By:	CJ		
M021282	MT.2002.1109.23	7429-90-5	Aluminum	7030	mg / Kg	99	0.5		09-23-02	09-23-02
M021282	MT.2002.1109.22	7440-36-0	Antimony	ND	mg / Kg	10	0.05		09-23-02	09-23-02
M021282	MT.2002.1109.22	7440-38-2	Arsenic	1.48	mg / Kg	10	0.025		09-23-02	09-23-02
M021282	MT.2002.1109.22	7440-39-3	Barium	53.4	mg / Kg	10	0.025		09-23-02	09-23-02
M021282	MT.2002.1109.22	7440-41-7	Beryllium	0.566	mg / Kg	10	0.025		09-23-02	09-23-02
M021282	MT.2002.1118.40	7440-42-8	Boron	ND	mg / Kg	10	0.15		09-23-02	09-25-02
M021282	MT.2002.1109.22	7440-43-9	Cadmium	ND	mg / Kg	10	0.025		09-23-02	09-23-02
M021282	MT.2002.1118.40	7440-70-2	Calcium	1100	mg / Kg	10	0.5		09-23-02	09-25-02
M021282	MT.2002.1109.22	7440-47-3	Chromium	3.56	mg / Kg	10	0.05		09-23-02	09-23-02
M021282	MT.2002.1109.22	7440-48-4	Cobalt	0.888	mg / Kg	10	0.025		09-23-02	09-23-02
M021282	MT.2002.1109.22	7440-50-8	Copper	2.71	mg / Kg	10	0.025		09-23-02	09-23-02
M021282	MT.2002.1118.17	7439-89-6	Iron	7250	mg / Kg	99	0.5		09-23-02	09-25-02
M021282	MT.2002.1109.22	7439-92-1	Lead	10.2	mg / Kg	10	0.025		09-23-02	09-23-02
M021282	MT.2002.1133.17	7440-22-4	Lithium	2.74	mg / Kg	10	0.05		09-23-02	09-27-02
M021282	MT.2002.1118.40	7439-95-4	Magnesium	849	mg / Kg	10	0.5		09-23-02	09-25-02
M021282	MT.2002.1109.23	7439-96-5	Manganese	194	mg / Kg	99	0.025		09-23-02	09-23-02
M021282	MT.2002.1109.22	7439-98-7	Molybdenum	0.796	mg / Kg	10	0.025		09-23-02	09-23-02

Assaigai Analytical Laboratories, Inc.

Certificate of Analysis

Client: **LANL-DDP03-0271-014,RM100 E SI**
Project: **XURP 0450 3219 0000, 1199S&1203S**
Order: **0209364** **LOS40** Receipt: **09-17-02**

Sample: ***RE03-02-49271*** Collected: *09-12-02 0:00:00* By:
Matrix: ***SO***

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Code	Prep Date	Run Date
0209364-02A		**SW846 3050A/6020 ICP-MS Dry Weight**					By:	CJ		
M021282	MT.2002.1109.22	7440-02-0	Nickel	2.78	mg / Kg	10	0.025		09-23-02	09-23-02
M021282	MT.2002.1118.40	7440-09-7	Potassium	778	mg / Kg	10	0.5		09-23-02	09-25-02
M021282	MT.2002.1109.22	7782-49-2	Selenium	0.577	mg / Kg	10	0.025		09-23-02	09-23-02
M021282	MT.2002.1109.22	7440-21-3	Silicon	237	mg / Kg	10	1	E	09-23-02	09-23-02
M021282	MT.2002.1109.22	7440-22-4	Silver	ND	mg / Kg	10	0.025		09-23-02	09-23-02
M021282	MT.2002.1118.40	7440-23-5	Sodium	157	mg / Kg	10	0.5		09-23-02	09-25-02
M021282	MT.2002.1109.22	7439-89-6	Strontium	43.3	mg / Kg	10	0.025		09-23-02	09-23-02
M021282	MT.2002.1109.22	7440-28-0	Thallium	ND	mg / Kg	10	0.025		09-23-02	09-23-02
M021282	MT.2002.1109.22	7440-31-5	Tin	1.12	mg / Kg	10	0.025	B	09-23-02	09-23-02
M021282	MT.2002.1109.23	7440-32-6	Titanium	177	mg / Kg	99	0.025		09-23-02	09-23-02
M021282	MT.2002.1109.22	7440-61-1	Uranium	0.513	mg / Kg	10	0.025		09-23-02	09-23-02
M021282	MT.2002.1118.40	7440-62-2	Vanadium	5.24	mg / Kg	10	0.05		09-23-02	09-25-02
M021282	MT.2002.1118.40	7440-66-6	Zinc	31.0	mg / Kg	10	0.25		09-23-02	09-25-02
0209364-02A		**SW846 7471 CVAA Dry Weight**					By:	JRE		
M021284	MT.2002.1103.15	7439-97-6	Mercury	ND	mg / Kg	1	0.05		09-23-02	09-23-02

Sample: ***RE03-02-49272*** Collected: *09-12-02 0:00:00* By:
Matrix: ***SO***

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Code	Prep Date	Run Date
0209364-03A		**ASTM D2216**					By:	MDE		
MO0215	WC.2002.1476.5		Moisture	13.0	%	1	0.1	H	10-09-02	10-09-02
0209364-03A		**EPA 218.4 Hex. Chromium Dry Weight**					By:	NJL		
W02387	WC.2002.1317.16		Chromium, Hexavalent	8.94	mg / kg	1	1		09-24-02	09-25-02
0209364-03A		**SW846 3050A/6020 ICP-MS Dry Weight**					By:	CJ		
M021282	MT.2002.1109.25	7429-90-5	Aluminum	7340	mg / Kg	98	0.5		09-23-02	09-23-02
M021282	MT.2002.1109.24	7440-36-0	Antimony	ND	mg / Kg	10	0.05		09-23-02	09-23-02
M021282	MT.2002.1109.24	7440-38-2	Arsenic	1.57	mg / Kg	10	0.025		09-23-02	09-23-02
M021282	MT.2002.1109.24	7440-39-3	Barium	48.3	mg / Kg	10	0.025		09-23-02	09-23-02
M021282	MT.2002.1109.24	7440-41-7	Beryllium	0.440	mg / Kg	10	0.025		09-23-02	09-23-02
M021282	MT.2002.1118.41	7440-42-8	Boron	ND	mg / Kg	10	0.15		09-23-02	09-25-02
M021282	MT.2002.1109.24	7440-43-9	Cadmium	ND	mg / Kg	10	0.025		09-23-02	09-23-02
M021282	MT.2002.1118.41	7440-70-2	Calcium	1310	mg / Kg	10	0.5		09-23-02	09-25-02
M021282	MT.2002.1109.24	7440-47-3	Chromium	42.9	mg / Kg	10	0.05		09-23-02	09-23-02
M021282	MT.2002.1109.24	7440-48-4	Cobalt	1.18	mg / Kg	10	0.025		09-23-02	09-23-02
M021282	MT.2002.1109.24	7440-50-8	Copper	20.6	mg / Kg	10	0.025		09-23-02	09-23-02
M021282	MT.2002.1118.41	7439-89-6	Iron	5000	mg / Kg	10	0.5		09-23-02	09-25-02
M021282	MT.2002.1109.24	7439-92-1	Lead	16.8	mg / Kg	10	0.025		09-23-02	09-23-02
M021282	MT.2002.1133.18	7440-22-4	Lithium	2.20	mg / Kg	10	0.05		09-23-02	09-27-02
M021282	MT.2002.1118.41	7439-95-4	Magnesium	900	mg / Kg	10	0.5		09-23-02	09-25-02

Assaigai Analytical Laboratories, Inc.

Certificate of Analysis

Client: **LANL-DDP03-0271-014,RM100 E SI**
Project: **XURP 0450 3219 0000, 1199S&1203S**
Order: **0209364** **LOS40** Receipt: **09-17-02**

Sample: ***RE03-02-49272*** Collected: *09-12-02 0:00:00* By:
Matrix: ***SO***

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Code	Prep Date	Run Date
0209364-03A		**SW846 3050A/6020 ICP-MS Dry Weight**					By:	CJ		
M021282	MT.2002.1109.25	7439-96-5	Manganese	147	mg / Kg	98	0.025		09-23-02	09-23-02
M021282	MT.2002.1109.24	7439-98-7	Molybdenum	ND	mg / Kg	10	0.025		09-23-02	09-23-02
M021282	MT.2002.1109.24	7440-02-0	Nickel	3.64	mg / Kg	10	0.025		09-23-02	09-23-02
M021282	MT.2002.1118.41	7440-09-7	Potassium	816	mg / Kg	10	0.5		09-23-02	09-25-02
M021282	MT.2002.1109.24	7782-49-2	Selenium	0.570	mg / Kg	10	0.025		09-23-02	09-23-02
M021282	MT.2002.1109.24	7440-21-3	Silicon	334	mg / Kg	10	1	E	09-23-02	09-23-02
M021282	MT.2002.1109.24	7440-22-4	Silver	1.49	mg / Kg	10	0.025		09-23-02	09-23-02
M021282	MT.2002.1118.41	7440-23-5	Sodium	78.8	mg / Kg	10	0.5		09-23-02	09-25-02
M021282	MT.2002.1109.24	7439-89-6	Strontium	40.3	mg / Kg	10	0.025		09-23-02	09-23-02
M021282	MT.2002.1109.24	7440-28-0	Thallium	ND	mg / Kg	10	0.025		09-23-02	09-23-02
M021282	MT.2002.1109.24	7440-31-5	Tin	1.22	mg / Kg	10	0.025	B	09-23-02	09-23-02
M021282	MT.2002.1109.25	7440-32-6	Titanium	137	mg / Kg	98	0.025		09-23-02	09-23-02
M021282	MT.2002.1109.24	7440-61-1	Uranium	0.802	mg / Kg	10	0.025		09-23-02	09-23-02
M021282	MT.2002.1118.41	7440-62-2	Vanadium	6.29	mg / Kg	10	0.05		09-23-02	09-25-02
M021282	MT.2002.1118.41	7440-66-6	Zinc	49.0	mg / Kg	10	0.25		09-23-02	09-25-02
0209364-03A		**SW846 7471 CVAA Dry Weight**					By:	JRE		
M021284	MT.2002.1103.16	7439-97-6	Mercury	ND	mg / Kg	1	0.05		09-23-02	09-23-02

Sample: ***RE03-02-49273*** Collected: *09-12-02 0:00:00* By:
Matrix: ***SO***

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Code	Prep Date	Run Date
0209364-04A		**ASTM D2216**					By:	MDE		
MO0215	WC.2002.1476.6		Moisture	14.8	%	1	0.1	H	10-09-02	10-09-02
0209364-04A		**EPA 218.4 Hex. Chromium Dry Weight**					By:	NJL		
W02387	WC.2002.1317.18		Chromium, Hexavalent	5.23	mg / kg	1	1		09-24-02	09-25-02
0209364-04A		**SW846 3050A/6020 ICP-MS Dry Weight**					By:	CJ		
M021282	MT.2002.1109.27	7429-90-5	Aluminum	7050	mg / Kg	94	0.5		09-23-02	09-23-02
M021282	MT.2002.1109.26	7440-36-0	Antimony	ND	mg / Kg	9	0.05		09-23-02	09-23-02
M021282	MT.2002.1109.26	7440-38-2	Arsenic	1.41	mg / Kg	9	0.025		09-23-02	09-23-02
M021282	MT.2002.1109.26	7440-39-3	Barium	39.8	mg / Kg	9	0.025		09-23-02	09-23-02
M021282	MT.2002.1109.26	7440-41-7	Beryllium	0.534	mg / Kg	9	0.025		09-23-02	09-23-02
M021282	MT.2002.1118.42	7440-42-8	Boron	ND	mg / Kg	9	0.15		09-23-02	09-25-02
M021282	MT.2002.1109.26	7440-43-9	Cadmium	ND	mg / Kg	9	0.025		09-23-02	09-23-02
M021282	MT.2002.1118.42	7440-70-2	Calcium	879	mg / Kg	9	0.5		09-23-02	09-25-02
M021282	MT.2002.1109.26	7440-47-3	Chromium	3.32	mg / Kg	9	0.05		09-23-02	09-23-02
M021282	MT.2002.1109.26	7440-48-4	Cobalt	0.948	mg / Kg	9	0.025		09-23-02	09-23-02
M021282	MT.2002.1109.26	7440-50-8	Copper	2.60	mg / Kg	9	0.025		09-23-02	09-23-02
M021282	MT.2002.1118.21	7439-89-6	Iron	6850	mg / Kg	94	0.5		09-23-02	09-25-02
M021282	MT.2002.1109.26	7439-92-1	Lead	11.8	mg / Kg	9	0.025		09-23-02	09-23-02

Assaigai Analytical Laboratories, Inc.

Certificate of Analysis

Client: **LANL-DDP03-0271-014,RM100 E SI**
Project: **XURP 0450 3219 0000, 1199S&1203S**
Order: **0209364** **LOS40** Receipt: **09-17-02**

Sample: ***RE03-02-49273*** Collected: *09-12-02 0:00:00* By:
Matrix: ***SO***

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Code	Prep Date	Run Date
0209364-04A		**SW846 3050A/6020 ICP-MS Dry Weight**					By:	CJ		
M021282	MT.2002.1133.21	7440-22-4	Lithium	3.11	mg / Kg	9	0.05		09-23-02	09-27-02
M021282	MT.2002.1118.42	7439-95-4	Magnesium	783	mg / Kg	9	0.5		09-23-02	09-25-02
M021282	MT.2002.1109.27	7439-96-5	Manganese	209	mg / Kg	94	0.025		09-23-02	09-23-02
M021282	MT.2002.1109.26	7439-98-7	Molybdenum	0.732	mg / Kg	9	0.025		09-23-02	09-23-02
M021282	MT.2002.1109.26	7440-02-0	Nickel	2.76	mg / Kg	9	0.025		09-23-02	09-23-02
M021282	MT.2002.1118.42	7440-09-7	Potassium	743	mg / Kg	9	0.5		09-23-02	09-25-02
M021282	MT.2002.1109.26	7782-49-2	Selenium	0.777	mg / Kg	9	0.025		09-23-02	09-23-02
M021282	MT.2002.1109.26	7440-21-3	Silicon	238	mg / Kg	9	1	E	09-23-02	09-23-02
M021282	MT.2002.1109.26	7440-22-4	Silver	ND	mg / Kg	9	0.025		09-23-02	09-23-02
M021282	MT.2002.1118.42	7440-23-5	Sodium	155	mg / Kg	9	0.5		09-23-02	09-25-02
M021282	MT.2002.1109.26	7439-89-6	Strontium	41.2	mg / Kg	9	0.025		09-23-02	09-23-02
M021282	MT.2002.1109.26	7440-28-0	Thallium	ND	mg / Kg	9	0.025		09-23-02	09-23-02
M021282	MT.2002.1109.26	7440-31-5	Tin	1.21	mg / Kg	9	0.025	B	09-23-02	09-23-02
M021282	MT.2002.1109.27	7440-32-6	Titanium	190	mg / Kg	94	0.025		09-23-02	09-23-02
M021282	MT.2002.1109.26	7440-61-1	Uranium	0.529	mg / Kg	9	0.025		09-23-02	09-23-02
M021282	MT.2002.1118.42	7440-62-2	Vanadium	5.36	mg / Kg	9	0.05		09-23-02	09-25-02
M021282	MT.2002.1118.42	7440-66-6	Zinc	29.8	mg / Kg	9	0.25		09-23-02	09-25-02
0209364-04A		**SW846 7471 CVAA Dry Weight**					By:	JRE		
M021284	MT.2002.1103.17	7439-97-6	Mercury	ND	mg / Kg	1	0.05		09-23-02	09-23-02

Sample: ***RE03-02-49274*** Collected: *09-12-02 0:00:00* By:
Matrix: ***SO***

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Code	Prep Date	Run Date
0209364-05A		**ASTM D2216**					By:	MDE		
MO0215	WC.2002.1476.7		Moisture	14.5	%	1	0.1	H	10-09-02	10-09-02
0209364-05A		**EPA 218.4 Hex. Chromium Dry Weight**					By:	NJL		
W02387	WC.2002.1317.21		Chromium, Hexavalent	3.64	mg / kg	1	1		09-25-02	09-25-02
0209364-05A		**SW846 3050A/6020 ICP-MS Dry Weight**					By:	CJ		
M021282	MT.2002.1109.29	7429-90-5	Aluminum	8820	mg / Kg	96	0.5		09-23-02	09-23-02
M021282	MT.2002.1109.28	7440-36-0	Antimony	ND	mg / Kg	10	0.05		09-23-02	09-23-02
M021282	MT.2002.1109.28	7440-38-2	Arsenic	1.43	mg / Kg	10	0.025		09-23-02	09-23-02
M021282	MT.2002.1109.28	7440-39-3	Barium	58.2	mg / Kg	10	0.025		09-23-02	09-23-02
M021282	MT.2002.1109.28	7440-41-7	Beryllium	0.706	mg / Kg	10	0.025		09-23-02	09-23-02
M021282	MT.2002.1118.45	7440-42-8	Boron	ND	mg / Kg	10	0.15		09-23-02	09-25-02
M021282	MT.2002.1109.28	7440-43-9	Cadmium	ND	mg / Kg	10	0.025		09-23-02	09-23-02
M021282	MT.2002.1118.45	7440-70-2	Calcium	1130	mg / Kg	10	0.5		09-23-02	09-25-02
M021282	MT.2002.1109.28	7440-47-3	Chromium	4.13	mg / Kg	10	0.05		09-23-02	09-23-02
M021282	MT.2002.1109.28	7440-48-4	Cobalt	1.06	mg / Kg	10	0.025		09-23-02	09-23-02
M021282	MT.2002.1109.28	7440-50-8	Copper	2.96	mg / Kg	10	0.025		09-23-02	09-23-02

Assaigai Analytical Laboratories, Inc.

Certificate of Analysis

Client: **LANL-DDP03-0271-014,RM100 E SI**
Project: **XURP 0450 3219 0000, 1199S&1203S**
Order: **0209364** **LOS40** Receipt: **09-17-02**

Sample: ***RE03-02-49274*** Collected: *09-12-02 0:00:00* By:
Matrix: ***SO***

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Code	Prep Date	Run Date
0209364-05A		**SW846 3050A/6020 ICP-MS Dry Weight**					By:	CJ		
M021282	MT.2002.1118.22	7439-89-6	Iron	9560	mg / Kg	96	0.5		09-23-02	09-25-02
M021282	MT.2002.1109.28	7439-92-1	Lead	10.5	mg / Kg	10	0.025		09-23-02	09-23-02
M021282	MT.2002.1133.22	7440-22-4	Lithium	9.30	mg / Kg	10	0.05		09-23-02	09-27-02
M021282	MT.2002.1118.45	7439-95-4	Magnesium	1030	mg / Kg	10	0.5		09-23-02	09-25-02
M021282	MT.2002.1109.29	7439-96-5	Manganese	199	mg / Kg	96	0.025		09-23-02	09-23-02
M021282	MT.2002.1109.28	7439-98-7	Molybdenum	1.05	mg / Kg	10	0.025		09-23-02	09-23-02
M021282	MT.2002.1109.28	7440-02-0	Nickel	3.02	mg / Kg	10	0.025		09-23-02	09-23-02
M021282	MT.2002.1118.45	7440-09-7	Potassium	936	mg / Kg	10	0.5		09-23-02	09-25-02
M021282	MT.2002.1109.28	7782-49-2	Selenium	0.835	mg / Kg	10	0.025		09-23-02	09-23-02
M021282	MT.2002.1109.28	7440-21-3	Silicon	228	mg / Kg	10	1	E	09-23-02	09-23-02
M021282	MT.2002.1109.28	7440-22-4	Silver	ND	mg / Kg	10	0.025		09-23-02	09-23-02
M021282	MT.2002.1118.45	7440-23-5	Sodium	171	mg / Kg	10	0.5		09-23-02	09-25-02
M021282	MT.2002.1109.28	7439-89-6	Strontium	53.2	mg / Kg	10	0.025		09-23-02	09-23-02
M021282	MT.2002.1109.28	7440-28-0	Thallium	ND	mg / Kg	10	0.025		09-23-02	09-23-02
M021282	MT.2002.1109.28	7440-31-5	Tin	1.27	mg / Kg	10	0.025	B	09-23-02	09-23-02
M021282	MT.2002.1109.29	7440-32-6	Titanium	237	mg / Kg	96	0.025		09-23-02	09-23-02
M021282	MT.2002.1109.28	7440-61-1	Uranium	0.504	mg / Kg	10	0.025		09-23-02	09-23-02
M021282	MT.2002.1118.45	7440-62-2	Vanadium	7.11	mg / Kg	10	0.05		09-23-02	09-25-02
M021282	MT.2002.1118.45	7440-66-6	Zinc	40.0	mg / Kg	10	0.25		09-23-02	09-25-02
0209364-05A		**SW846 7471 CVAA Dry Weight**					By:	JRE		
M021284	MT.2002.1103.18	7439-97-6	Mercury	ND	mg / Kg	1	0.05		09-23-02	09-23-02

Sample: ***RE03-02-49275*** Collected: *09-12-02 0:00:00* By:
Matrix: ***SO***

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Code	Prep Date	Run Date
0209364-06A		**ASTM D2216**					By:	MDE		
MO0215	WC.2002.1476.8		Moisture	11.8	%	1	0.1	H	10-09-02	10-09-02
0209364-06A		**EPA 218.4 Hex. Chromium Dry Weight**					By:	NJL		
W02387	WC.2002.1317.23		Chromium, Hexavalent	5.61	mg / kg	1	1		09-25-02	09-25-02
0209364-06A		**SW846 3050A/6020 ICP-MS Dry Weight**					By:	CJ		
M021282	MT.2002.1109.33	7429-90-5	Aluminum	7840	mg / Kg	97	0.5		09-23-02	09-23-02
M021282	MT.2002.1109.30	7440-36-0	Antimony	ND	mg / Kg	10	0.05		09-23-02	09-23-02
M021282	MT.2002.1109.30	7440-38-2	Arsenic	1.69	mg / Kg	10	0.025		09-23-02	09-23-02
M021282	MT.2002.1109.30	7440-39-3	Barium	52.9	mg / Kg	10	0.025		09-23-02	09-23-02
M021282	MT.2002.1109.30	7440-41-7	Beryllium	0.558	mg / Kg	10	0.025		09-23-02	09-23-02
M021282	MT.2002.1118.23	7440-42-8	Boron	ND	mg / Kg	97	0.15		09-23-02	09-25-02
M021282	MT.2002.1109.30	7440-43-9	Cadmium	ND	mg / Kg	10	0.025		09-23-02	09-23-02
M021282	MT.2002.1118.23	7440-70-2	Calcium	2160	mg / Kg	97	0.5		09-23-02	09-25-02
M021282	MT.2002.1109.30	7440-47-3	Chromium	8.46	mg / Kg	10	0.05		09-23-02	09-23-02

Assaigai Analytical Laboratories, Inc.

Certificate of Analysis

Client: **LANL-DDP03-0271-014,RM100 E SI**
Project: **XURP 0450 3219 0000, 1199S&1203S**
Order: **0209364** **LOS40** Receipt: **09-17-02**

Sample: ***RE03-02-49275*** Collected: *09-12-02 0:00:00* By:
Matrix: ***SO***

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Code	Prep Date	Run Date
0209364-06A		**SW846 3050A/6020 ICP-MS Dry Weight**					By:	CJ		
M021282	MT.2002.1109.30	7440-48-4	Cobalt	1.54	mg / Kg	10	0.025		09-23-02	09-23-02
M021282	MT.2002.1109.30	7440-50-8	Copper	4.13	mg / Kg	10	0.025		09-23-02	09-23-02
M021282	MT.2002.1118.23	7439-89-6	Iron	9230	mg / Kg	97	0.5		09-23-02	09-25-02
M021282	MT.2002.1109.30	7439-92-1	Lead	16.9	mg / Kg	10	0.025		09-23-02	09-23-02
M021282	MT.2002.1133.23	7440-22-4	Lithium	6.46	mg / Kg	10	0.05		09-23-02	09-27-02
M021282	MT.2002.1118.23	7439-95-4	Magnesium	1210	mg / Kg	97	0.5		09-23-02	09-25-02
M021282	MT.2002.1109.33	7439-96-5	Manganese	204	mg / Kg	97	0.025		09-23-02	09-23-02
M021282	MT.2002.1109.30	7439-98-7	Molybdenum	0.392	mg / Kg	10	0.025		09-23-02	09-23-02
M021282	MT.2002.1109.30	7440-02-0	Nickel	3.94	mg / Kg	10	0.025		09-23-02	09-23-02
M021282	MT.2002.1118.23	7440-09-7	Potassium	839	mg / Kg	97	0.5		09-23-02	09-25-02
M021282	MT.2002.1109.30	7782-49-2	Selenium	0.651	mg / Kg	10	0.025		09-23-02	09-23-02
M021282	MT.2002.1109.30	7440-21-3	Silicon	266	mg / Kg	10	1	E	09-23-02	09-23-02
M021282	MT.2002.1109.30	7440-22-4	Silver	0.381	mg / Kg	10	0.025		09-23-02	09-23-02
M021282	MT.2002.1118.23	7440-23-5	Sodium	159	mg / Kg	97	0.5		09-23-02	09-25-02
M021282	MT.2002.1109.30	7439-89-6	Strontium	44.7	mg / Kg	10	0.025		09-23-02	09-23-02
M021282	MT.2002.1109.30	7440-28-0	Thallium	ND	mg / Kg	10	0.025		09-23-02	09-23-02
M021282	MT.2002.1109.30	7440-31-5	Tin	0.856	mg / Kg	10	0.025	B	09-23-02	09-23-02
M021282	MT.2002.1109.33	7440-32-6	Titanium	296	mg / Kg	97	0.025		09-23-02	09-23-02
M021282	MT.2002.1109.30	7440-61-1	Uranium	0.481	mg / Kg	10	0.025		09-23-02	09-23-02
M021282	MT.2002.1118.23	7440-62-2	Vanadium	7.68	mg / Kg	97	0.05		09-23-02	09-25-02
M021282	MT.2002.1118.46	7440-66-6	Zinc	39.2	mg / Kg	10	0.25		09-23-02	09-25-02
0209364-06A		**SW846 7471 CVAA Dry Weight**					By:	JRE		
M021284	MT.2002.1103.21	7439-97-6	Mercury	ND	mg / Kg	1	0.05		09-23-02	09-23-02

Sample: ***RE03-02-49276*** Collected: *09-12-02 0:00:00* By:
Matrix: ***SO***

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Code	Prep Date	Run Date
0209364-07A		**ASTM D2216**					By:	MDE		
MO0215	WC.2002.1476.9		Moisture	13.4	%	1	0.1	H	10-09-02	10-09-02
0209364-07A		**EPA 218.4 Hex. Chromium Dry Weight**					By:	NJL		
W02387	WC.2002.1317.27		Chromium, Hexavalent	ND	mg / kg	1	1		09-25-02	09-25-02
0209364-07A		**SW846 3050A/6020 ICP-MS Dry Weight**					By:	CJ		
M021282	MT.2002.1109.34	7429-90-5	Aluminum	3600	mg / Kg	10	0.5		09-23-02	09-23-02
M021282	MT.2002.1109.34	7440-36-0	Antimony	ND	mg / Kg	10	0.05		09-23-02	09-23-02
M021282	MT.2002.1109.34	7440-38-2	Arsenic	1.26	mg / Kg	10	0.025		09-23-02	09-23-02
M021282	MT.2002.1109.34	7440-39-3	Barium	23.8	mg / Kg	10	0.025		09-23-02	09-23-02
M021282	MT.2002.1109.34	7440-41-7	Beryllium	0.566	mg / Kg	10	0.025		09-23-02	09-23-02
M021282	MT.2002.1118.47	7440-42-8	Boron	ND	mg / Kg	10	0.15		09-23-02	09-25-02
M021282	MT.2002.1109.34	7440-43-9	Cadmium	ND	mg / Kg	10	0.025		09-23-02	09-23-02

Assaigai Analytical Laboratories, Inc.

Certificate of Analysis

Client: **LANL-DDP03-0271-014,RM100 E SI**
Project: **XURP 0450 3219 0000, 1199S&1203S**
Order: **0209364** **LOS40** Receipt: **09-17-02**

Sample: ***RE03-02-49276*** Collected: *09-12-02 0:00:00* By:
Matrix: ***SO***

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Code	Prep Date	Run Date
0209364-07A		**SW846 3050A/6020 ICP-MS Dry Weight**					By:	CJ		
M021282	MT.2002.1118.47	7440-70-2	Calcium	805	mg / Kg	10	0.5		09-23-02	09-25-02
M021282	MT.2002.1109.34	7440-47-3	Chromium	4.52	mg / Kg	10	0.05		09-23-02	09-23-02
M021282	MT.2002.1109.34	7440-48-4	Cobalt	0.974	mg / Kg	10	0.025		09-23-02	09-23-02
M021282	MT.2002.1109.34	7440-50-8	Copper	2.48	mg / Kg	10	0.025		09-23-02	09-23-02
M021282	MT.2002.1118.24	7439-89-6	Iron	9410	mg / Kg	100	0.5		09-23-02	09-25-02
M021282	MT.2002.1109.34	7439-92-1	Lead	8.68	mg / Kg	10	0.025		09-23-02	09-23-02
M021282	MT.2002.1133.24	7440-22-4	Lithium	8.20	mg / Kg	10	0.05		09-23-02	09-27-02
M021282	MT.2002.1118.47	7439-95-4	Magnesium	839	mg / Kg	10	0.5		09-23-02	09-25-02
M021282	MT.2002.1109.35	7439-96-5	Manganese	263	mg / Kg	100	0.025		09-23-02	09-23-02
M021282	MT.2002.1109.34	7439-98-7	Molybdenum	1.48	mg / Kg	10	0.025		09-23-02	09-23-02
M021282	MT.2002.1109.34	7440-02-0	Nickel	2.83	mg / Kg	10	0.025		09-23-02	09-23-02
M021282	MT.2002.1118.47	7440-09-7	Potassium	550	mg / Kg	10	0.5		09-23-02	09-25-02
M021282	MT.2002.1109.34	7782-49-2	Selenium	0.611	mg / Kg	10	0.025		09-23-02	09-23-02
M021282	MT.2002.1109.34	7440-21-3	Silicon	190	mg / Kg	10	1	E	09-23-02	09-23-02
M021282	MT.2002.1109.34	7440-22-4	Silver	ND	mg / Kg	10	0.025		09-23-02	09-23-02
M021282	MT.2002.1118.47	7440-23-5	Sodium	101	mg / Kg	10	0.5		09-23-02	09-25-02
M021282	MT.2002.1109.34	7439-89-6	Strontium	25.3	mg / Kg	10	0.025		09-23-02	09-23-02
M021282	MT.2002.1109.34	7440-28-0	Thallium	ND	mg / Kg	10	0.025		09-23-02	09-23-02
M021282	MT.2002.1109.34	7440-31-5	Tin	1.22	mg / Kg	10	0.025	B	09-23-02	09-23-02
M021282	MT.2002.1109.35	7440-32-6	Titanium	455	mg / Kg	100	0.025		09-23-02	09-23-02
M021282	MT.2002.1109.34	7440-61-1	Uranium	0.393	mg / Kg	10	0.025		09-23-02	09-23-02
M021282	MT.2002.1118.47	7440-62-2	Vanadium	5.97	mg / Kg	10	0.05		09-23-02	09-25-02
M021282	MT.2002.1118.47	7440-66-6	Zinc	38.3	mg / Kg	10	0.25		09-23-02	09-25-02
0209364-07A		**SW846 7471 CVAA Dry Weight**					By:	JRE		
M021284	MT.2002.1103.22	7439-97-6	Mercury	ND	mg / Kg	1	0.05		09-23-02	09-23-02

Sample: ***RE03-02-49277*** Collected: *09-12-02 0:00:00* By:
Matrix: ***SO***

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Code	Prep Date	Run Date
0209364-08A		**ASTM D2216**					By:	MDE		
MO0215	WC.2002.1476.10		Moisture	22.0	%	1	0.1	H	10-09-02	10-09-02
0209364-08A		**EPA 218.4 Hex. Chromium Dry Weight**					By:	NJL		
W02387	WC.2002.1320.6		Chromium, Hexavalent	ND	mg / kg	1	1		09-26-02	09-26-02
0209364-08A		**SW846 3050A/6020 ICP-MS Dry Weight**					By:	CJ		
M021282	MT.2002.1109.37	7429-90-5	Aluminum	9470	mg / Kg	94	0.5		09-23-02	09-23-02
M021282	MT.2002.1109.36	7440-36-0	Antimony	ND	mg / Kg	9	0.05		09-23-02	09-23-02
M021282	MT.2002.1109.36	7440-38-2	Arsenic	2.87	mg / Kg	9	0.025		09-23-02	09-23-02
M021282	MT.2002.1109.36	7440-39-3	Barium	62.8	mg / Kg	9	0.025		09-23-02	09-23-02
M021282	MT.2002.1109.36	7440-41-7	Beryllium	0.797	mg / Kg	9	0.025		09-23-02	09-23-02

Assaigai Analytical Laboratories, Inc.

Certificate of Analysis

Client: **LANL-DDP03-0271-014,RM100 E SI**
Project: **XURP 0450 3219 0000, 1199S&1203S**
Order: **0209364** **LOS40** Receipt: **09-17-02**

Sample: ***RE03-02-49277*** Collected: *09-12-02 0:00:00* By:
Matrix: ***SO***

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Code	Prep Date	Run Date
0209364-08A		**SW846 3050A/6020 ICP-MS Dry Weight**					By:	CJ		
M021282	MT.2002.1118.25	7440-42-8	Boron	ND	mg / Kg	94	0.15		09-23-02	09-25-02
M021282	MT.2002.1109.36	7440-43-9	Cadmium	ND	mg / Kg	9	0.025		09-23-02	09-23-02
M021282	MT.2002.1118.25	7440-70-2	Calcium	3130	mg / Kg	94	0.5		09-23-02	09-25-02
M021282	MT.2002.1109.36	7440-47-3	Chromium	6.41	mg / Kg	9	0.05		09-23-02	09-23-02
M021282	MT.2002.1109.36	7440-48-4	Cobalt	1.65	mg / Kg	9	0.025		09-23-02	09-23-02
M021282	MT.2002.1109.36	7440-50-8	Copper	4.78	mg / Kg	9	0.025		09-23-02	09-23-02
M021282	MT.2002.1118.25	7439-89-6	Iron	1280	mg / Kg	94	0.5		09-23-02	09-25-02
M021282	MT.2002.1109.36	7439-92-1	Lead	9.27	mg / Kg	9	0.025		09-23-02	09-23-02
M021282	MT.2002.1133.25	7440-22-4	Lithium	14.1	mg / Kg	9	0.05		09-23-02	09-27-02
M021282	MT.2002.1118.25	7439-95-4	Magnesium	1510	mg / Kg	94	0.5		09-23-02	09-25-02
M021282	MT.2002.1109.37	7439-96-5	Manganese	168	mg / Kg	94	0.025		09-23-02	09-23-02
M021282	MT.2002.1109.36	7439-98-7	Molybdenum	1.62	mg / Kg	9	0.025		09-23-02	09-23-02
M021282	MT.2002.1109.36	7440-02-0	Nickel	4.82	mg / Kg	9	0.025		09-23-02	09-23-02
M021282	MT.2002.1118.25	7440-09-7	Potassium	858	mg / Kg	94	0.5		09-23-02	09-25-02
M021282	MT.2002.1109.36	7782-49-2	Selenium	0.773	mg / Kg	9	0.025		09-23-02	09-23-02
M021282	MT.2002.1109.36	7440-21-3	Silicon	224	mg / Kg	9	1	E	09-23-02	09-23-02
M021282	MT.2002.1109.36	7440-22-4	Silver	ND	mg / Kg	9	0.025		09-23-02	09-23-02
M021282	MT.2002.1118.25	7440-23-5	Sodium	191	mg / Kg	94	0.5		09-23-02	09-25-02
M021282	MT.2002.1109.36	7439-89-6	Strontium	46.2	mg / Kg	9	0.025		09-23-02	09-23-02
M021282	MT.2002.1109.36	7440-28-0	Thallium	ND	mg / Kg	9	0.025		09-23-02	09-23-02
M021282	MT.2002.1109.36	7440-31-5	Tin	1.36	mg / Kg	9	0.025	B	09-23-02	09-23-02
M021282	MT.2002.1109.37	7440-32-6	Titanium	355	mg / Kg	94	0.025		09-23-02	09-23-02
M021282	MT.2002.1109.36	7440-61-1	Uranium	0.410	mg / Kg	9	0.025		09-23-02	09-23-02
M021282	MT.2002.1118.25	7440-62-2	Vanadium	10.8	mg / Kg	94	0.05		09-23-02	09-25-02
M021282	MT.2002.1118.48	7440-66-6	Zinc	74.6	mg / Kg	9	0.25		09-23-02	09-25-02
0209364-08A		**SW846 7471 CVAA Dry Weight**					By:	JRE		
M021284	MT.2002.1103.23	7439-97-6	Mercury	ND	mg / Kg	1	0.05		09-23-02	09-23-02

Sample: ***RE03-02-49278*** Collected: *09-12-02 0:00:00* By:
Matrix: ***SO***

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Code	Prep Date	Run Date
0209364-09A		**ASTM D2216**					By:	MDE		
MO0215	WC.2002.1476.11		Moisture	19.4	%	1	0.1	H	10-09-02	10-09-02
0209364-09A		**EPA 218.4 Hex. Chromium Dry Weight**					By:	NJL		
W02387	WC.2002.1320.8		Chromium, Hexavalent	3.25	mg / kg	1	1		09-26-02	09-26-02
0209364-09A		**SW846 3050A/6020 ICP-MS Dry Weight**					By:	CJ		
M021282	MT.2002.1109.38	7429-90-5	Aluminum	4340	mg / Kg	9	0.5		09-23-02	09-23-02
M021282	MT.2002.1109.38	7440-36-0	Antimony	ND	mg / Kg	9	0.05		09-23-02	09-23-02
M021282	MT.2002.1109.38	7440-38-2	Arsenic	2.68	mg / Kg	9	0.025		09-23-02	09-23-02

Assaigai Analytical Laboratories, Inc.

Certificate of Analysis

Client: **LANL-DDP03-0271-014,RM100 E SI**
Project: **XURP 0450 3219 0000, 1199S&1203S**
Order: **0209364** **LOS40** Receipt: **09-17-02**

Sample: ***RE03-02-49278*** Collected: *09-12-02 0:00:00* By:
Matrix: ***SO***

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Code	Prep Date	Run Date
0209364-09A		**SW846 3050A/6020 ICP-MS Dry Weight**					By:	CJ		
M021282	MT.2002.1109.38	7440-39-3	Barium	31.9	mg / Kg	9	0.025		09-23-02	09-23-02
M021282	MT.2002.1109.38	7440-41-7	Beryllium	0.465	mg / Kg	9	0.025		09-23-02	09-23-02
M021282	MT.2002.1118.26	7440-42-8	Boron	ND	mg / Kg	94	0.15		09-23-02	09-25-02
M021282	MT.2002.1109.38	7440-43-9	Cadmium	0.349	mg / Kg	9	0.025		09-23-02	09-23-02
M021282	MT.2002.1118.26	7440-70-2	Calcium	1250	mg / Kg	94	0.5		09-23-02	09-25-02
M021282	MT.2002.1109.38	7440-47-3	Chromium	21.3	mg / Kg	9	0.05		09-23-02	09-23-02
M021282	MT.2002.1109.38	7440-48-4	Cobalt	1.08	mg / Kg	9	0.025		09-23-02	09-23-02
M021282	MT.2002.1109.38	7440-50-8	Copper	12.3	mg / Kg	9	0.025		09-23-02	09-23-02
M021282	MT.2002.1118.26	7439-89-6	Iron	7930	mg / Kg	94	0.5		09-23-02	09-25-02
M021282	MT.2002.1109.38	7439-92-1	Lead	20.3	mg / Kg	9	0.025		09-23-02	09-23-02
M021282	MT.2002.1133.26	7440-22-4	Lithium	7.07	mg / Kg	9	0.05		09-23-02	09-27-02
M021282	MT.2002.1118.26	7439-95-4	Magnesium	880	mg / Kg	94	0.5		09-23-02	09-25-02
M021282	MT.2002.1109.39	7439-96-5	Manganese	194	mg / Kg	94	0.025		09-23-02	09-23-02
M021282	MT.2002.1109.38	7439-98-7	Molybdenum	1.66	mg / Kg	9	0.025		09-23-02	09-23-02
M021282	MT.2002.1109.38	7440-02-0	Nickel	3.36	mg / Kg	9	0.025		09-23-02	09-23-02
M021282	MT.2002.1118.26	7440-09-7	Potassium	618	mg / Kg	94	0.5		09-23-02	09-25-02
M021282	MT.2002.1109.38	7782-49-2	Selenium	0.710	mg / Kg	9	0.025		09-23-02	09-23-02
M021282	MT.2002.1109.38	7440-21-3	Silicon	263	mg / Kg	9	1	E	09-23-02	09-23-02
M021282	MT.2002.1109.38	7440-22-4	Silver	1.28	mg / Kg	9	0.025		09-23-02	09-23-02
M021282	MT.2002.1118.26	7440-23-5	Sodium	118	mg / Kg	94	0.5		09-23-02	09-25-02
M021282	MT.2002.1109.38	7439-89-6	Strontium	27.4	mg / Kg	9	0.025		09-23-02	09-23-02
M021282	MT.2002.1109.38	7440-28-0	Thallium	ND	mg / Kg	9	0.025		09-23-02	09-23-02
M021282	MT.2002.1109.38	7440-31-5	Tin	1.21	mg / Kg	9	0.025	B	09-23-02	09-23-02
M021282	MT.2002.1109.39	7440-32-6	Titanium	242	mg / Kg	94	0.025		09-23-02	09-23-02
M021282	MT.2002.1109.38	7440-61-1	Uranium	0.546	mg / Kg	9	0.025		09-23-02	09-23-02
M021282	MT.2002.1118.26	7440-62-2	Vanadium	ND	mg / Kg	94	0.05		09-23-02	09-25-02
M021282	MT.2002.1118.49	7440-66-6	Zinc	138	mg / Kg	9	0.25		09-23-02	09-25-02
0209364-09A		**SW846 7471 CVAA Dry Weight**					By:	JRE		
M021284	MT.2002.1103.24	7439-97-6	Mercury	ND	mg / Kg	1	0.05		09-23-02	09-23-02

Sample: ***RE03-02-49279*** Collected: *09-12-02 0:00:00* By:
Matrix: ***SO***

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Code	Prep Date	Run Date
0209364-10A		**ASTM D2216**					By:	MDE		
MO0215	WC.2002.1476.12		Moisture	17.8	%	1	0.1	H	10-09-02	10-09-02
0209364-10A		**EPA 218.4 Hex. Chromium Dry Weight**					By:	NJL		
W02387	WC.2002.1320.11		Chromium, Hexavalent	ND	mg / kg	1	1		09-26-02	09-26-02
0209364-10A		**SW846 3050A/6020 ICP-MS Dry Weight**					By:	CJ		
M021282	MT.2002.1109.41	7429-90-5	Aluminum	6790	mg / Kg	95	0.5		09-23-02	09-23-02

Assaigai Analytical Laboratories, Inc.

Certificate of Analysis

Client: **LANL-DDP03-0271-014,RM100 E SI**
Project: **XURP 0450 3219 0000, 1199S&1203S**
Order: **0209364** **LOS40** Receipt: **09-17-02**

Sample: ***RE03-02-49279*** Collected: *09-12-02 0:00:00* By:
Matrix: ***SO***

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Code	Prep Date	Run Date
0209364-10A		**SW846 3050A/6020 ICP-MS Dry Weight**					By:	CJ		
M021282	MT.2002.1109.40	7440-36-0	Antimony	ND	mg / Kg	10	0.05		09-23-02	09-23-02
M021282	MT.2002.1109.40	7440-38-2	Arsenic	2.08	mg / Kg	10	0.025		09-23-02	09-23-02
M021282	MT.2002.1109.40	7440-39-3	Barium	46.6	mg / Kg	10	0.025		09-23-02	09-23-02
M021282	MT.2002.1109.40	7440-41-7	Beryllium	0.590	mg / Kg	10	0.025		09-23-02	09-23-02
M021282	MT.2002.1118.27	7440-42-8	Boron	ND	mg / Kg	95	0.15		09-23-02	09-25-02
M021282	MT.2002.1109.40	7440-43-9	Cadmium	0.376	mg / Kg	10	0.025		09-23-02	09-23-02
M021282	MT.2002.1118.27	7440-70-2	Calcium	1570	mg / Kg	95	0.5		09-23-02	09-25-02
M021282	MT.2002.1109.40	7440-47-3	Chromium	14.2	mg / Kg	10	0.05		09-23-02	09-23-02
M021282	MT.2002.1109.40	7440-48-4	Cobalt	1.16	mg / Kg	10	0.025		09-23-02	09-23-02
M021282	MT.2002.1109.40	7440-50-8	Copper	6.81	mg / Kg	10	0.025		09-23-02	09-23-02
M021282	MT.2002.1118.27	7439-89-6	Iron	10100	mg / Kg	95	0.5		09-23-02	09-25-02
M021282	MT.2002.1109.40	7439-92-1	Lead	15.0	mg / Kg	10	0.025		09-23-02	09-23-02
M021282	MT.2002.1133.27	7440-22-4	Lithium	10.4	mg / Kg	10	0.05		09-23-02	09-27-02
M021282	MT.2002.1118.27	7439-95-4	Magnesium	1290	mg / Kg	95	0.5		09-23-02	09-25-02
M021282	MT.2002.1109.41	7439-96-5	Manganese	230	mg / Kg	95	0.025		09-23-02	09-23-02
M021282	MT.2002.1109.40	7439-98-7	Molybdenum	1.36	mg / Kg	10	0.025		09-23-02	09-23-02
M021282	MT.2002.1109.40	7440-02-0	Nickel	3.64	mg / Kg	10	0.025		09-23-02	09-23-02
M021282	MT.2002.1118.27	7440-09-7	Potassium	1280	mg / Kg	95	0.5		09-23-02	09-25-02
M021282	MT.2002.1109.40	7782-49-2	Selenium	0.700	mg / Kg	10	0.025		09-23-02	09-23-02
M021282	MT.2002.1109.40	7440-21-3	Silicon	252	mg / Kg	10	1	E	09-23-02	09-23-02
M021282	MT.2002.1109.40	7440-22-4	Silver	0.712	mg / Kg	10	0.025		09-23-02	09-23-02
M021282	MT.2002.1118.27	7440-23-5	Sodium	142	mg / Kg	95	0.5		09-23-02	09-25-02
M021282	MT.2002.1109.40	7439-89-6	Strontium	38.4	mg / Kg	10	0.025		09-23-02	09-23-02
M021282	MT.2002.1109.40	7440-28-0	Thallium	ND	mg / Kg	10	0.025		09-23-02	09-23-02
M021282	MT.2002.1109.40	7440-31-5	Tin	1.14	mg / Kg	10	0.025	B	09-23-02	09-23-02
M021282	MT.2002.1109.41	7440-32-6	Titanium	330	mg / Kg	95	0.025		09-23-02	09-23-02
M021282	MT.2002.1109.40	7440-61-1	Uranium	0.498	mg / Kg	10	0.025		09-23-02	09-23-02
M021282	MT.2002.1118.27	7440-62-2	Vanadium	8.04	mg / Kg	95	0.05		09-23-02	09-25-02
M021282	MT.2002.1118.27	7440-66-6	Zinc	148	mg / Kg	95	0.25		09-23-02	09-25-02
0209364-10A		**SW846 7471 CVAA Dry Weight**					By:	JRE		
M021284	MT.2002.1103.25	7439-97-6	Mercury	ND	mg / Kg	1	0.05		09-23-02	09-23-02

Sample: ***RE03-02-49280*** Collected: *09-12-02 0:00:00* By:
Matrix: ***SO***

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Code	Prep Date	Run Date
0209364-11A		**ASTM D2216**					By:	MDE		
MO0215	WC.2002.1476.13		Moisture	15.1	%	1	0.1	H	10-09-02	10-09-02
0209364-11A		**EPA 218.4 Hex. Chromium Dry Weight**					By:	NJL		
W02387	WC.2002.1320.13		Chromium, Hexavalent	7.57	mg / kg	1	1		09-26-02	09-26-02

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Certificate of Analysis

Client: **LANL-DDP03-0271-014,RM100 E SI**
Project: **XURP 0450 3219 0000, 1199S&1203S**
Order: **0209364** **LOS40** Receipt: **09-17-02**

Sample: ***RE03-02-49280*** Collected: *09-12-02 0:00:00* By:
Matrix: ***SO***

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Code	Prep Date	Run Date
0209364-11A		**SW846 3050A/6020 ICP-MS Dry Weight**					By:	CJ		
M021282	MT.2002.1109.42	7429-90-5	Aluminum	1800	mg / Kg	10	0.5		09-23-02	09-23-02
M021282	MT.2002.1109.42	7440-36-0	Antimony	ND	mg / Kg	10	0.05		09-23-02	09-23-02
M021282	MT.2002.1109.42	7440-38-2	Arsenic	0.960	mg / Kg	10	0.025		09-23-02	09-23-02
M021282	MT.2002.1109.42	7440-39-3	Barium	22.5	mg / Kg	10	0.025		09-23-02	09-23-02
M021282	MT.2002.1109.42	7440-41-7	Beryllium	0.349	mg / Kg	10	0.025		09-23-02	09-23-02
M021282	MT.2002.1118.51	7440-42-8	Boron	ND	mg / Kg	10	0.15		09-23-02	09-26-02
M021282	MT.2002.1109.42	7440-43-9	Cadmium	ND	mg / Kg	10	0.025		09-23-02	09-23-02
M021282	MT.2002.1118.51	7440-70-2	Calcium	628	mg / Kg	10	0.5		09-23-02	09-26-02
M021282	MT.2002.1109.42	7440-47-3	Chromium	5.17	mg / Kg	10	0.05		09-23-02	09-23-02
M021282	MT.2002.1109.42	7440-48-4	Cobalt	0.463	mg / Kg	10	0.025		09-23-02	09-23-02
M021282	MT.2002.1109.42	7440-50-8	Copper	4.79	mg / Kg	10	0.025		09-23-02	09-23-02
M021282	MT.2002.1118.51	7439-89-6	Iron	4980	mg / Kg	10	0.5		09-23-02	09-26-02
M021282	MT.2002.1109.42	7439-92-1	Lead	4.04	mg / Kg	10	0.025		09-23-02	09-23-02
M021282	MT.2002.1133.28	7440-22-4	Lithium	3.38	mg / Kg	10	0.05		09-23-02	09-27-02
M021282	MT.2002.1118.51	7439-95-4	Magnesium	4.39	mg / Kg	10	0.5		09-23-02	09-26-02
M021282	MT.2002.1109.45	7439-96-5	Manganese	165	mg / Kg	97	0.025		09-23-02	09-24-02
M021282	MT.2002.1109.42	7439-98-7	Molybdenum	ND	mg / Kg	10	0.025		09-23-02	09-23-02
M021282	MT.2002.1109.42	7440-02-0	Nickel	1.48	mg / Kg	10	0.025		09-23-02	09-23-02
M021282	MT.2002.1118.51	7440-09-7	Potassium	323	mg / Kg	10	0.5		09-23-02	09-26-02
M021282	MT.2002.1109.42	7782-49-2	Selenium	0.503	mg / Kg	10	0.025		09-23-02	09-23-02
M021282	MT.2002.1109.42	7440-21-3	Silicon	202	mg / Kg	10	1	E	09-23-02	09-23-02
M021282	MT.2002.1109.42	7440-22-4	Silver	ND	mg / Kg	10	0.025		09-23-02	09-23-02
M021282	MT.2002.1118.51	7440-23-5	Sodium	82.3	mg / Kg	10	0.5		09-23-02	09-26-02
M021282	MT.2002.1109.42	7439-89-6	Strontium	11.4	mg / Kg	10	0.025		09-23-02	09-23-02
M021282	MT.2002.1109.42	7440-28-0	Thallium	ND	mg / Kg	10	0.025		09-23-02	09-23-02
M021282	MT.2002.1109.42	7440-31-5	Tin	ND	mg / Kg	10	0.025		09-23-02	09-23-02
M021282	MT.2002.1109.45	7440-32-6	Titanium	167	mg / Kg	97	0.025		09-23-02	09-24-02
M021282	MT.2002.1109.42	7440-61-1	Uranium	0.389	mg / Kg	10	0.025		09-23-02	09-23-02
M021282	MT.2002.1118.51	7440-62-2	Vanadium	3.89	mg / Kg	10	0.05		09-23-02	09-26-02
M021282	MT.2002.1118.51	7440-66-6	Zinc	32.0	mg / Kg	10	0.25		09-23-02	09-26-02
0209364-11A		**SW846 7471 CVAA Dry Weight**					By:	JRE		
M021284	MT.2002.1103.26	7439-97-6	Mercury	ND	mg / Kg	1	0.05		09-23-02	09-23-02

Sample: ***RE03-02-49281*** Collected: *09-12-02 0:00:00* By:
Matrix: ***SO***

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Code	Prep Date	Run Date
0209364-12A		**ASTM D2216**					By:	MDE		
MO0215	WC.2002.1476.14		Moisture	11.3	%	1	0.1	H	10-09-02	10-09-02

Assaigai Analytical Laboratories, Inc.

Certificate of Analysis

Client: **LANL-DDP03-0271-014,RM100 E SI**
Project: **XURP 0450 3219 0000, 1199S&1203S**
Order: **0209364** **LOS40** Receipt: **09-17-02**

Sample: ***RE03-02-49281*** Collected: *09-12-02 0:00:00* By:
Matrix: ***SO***

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Code	Prep Date	Run Date
0209364-12A		**EPA 218.4 Hex. Chromium Dry Weight**					By:	NJL		
W02387	WC.2002.1320.16		Chromium, Hexavalent	10.7	mg / kg	1	1		09-26-02	09-26-02
0209364-12A		**SW846 3050A/6020 ICP-MS Dry Weight**					By:	CJ		
M021282	MT.2002.1109.46	7429-90-5	Aluminum	3090	mg / Kg	10	0.5		09-23-02	09-24-02
M021282	MT.2002.1109.46	7440-36-0	Antimony	ND	mg / Kg	10	0.05		09-23-02	09-24-02
M021282	MT.2002.1109.46	7440-38-2	Arsenic	1.46	mg / Kg	10	0.025		09-23-02	09-24-02
M021282	MT.2002.1109.46	7440-39-3	Barium	39.1	mg / Kg	10	0.025		09-23-02	09-24-02
M021282	MT.2002.1109.46	7440-41-7	Beryllium	0.393	mg / Kg	10	0.025		09-23-02	09-24-02
M021282	MT.2002.1118.52	7440-42-8	Boron	ND	mg / Kg	10	0.15		09-23-02	09-26-02
M021282	MT.2002.1109.46	7440-43-9	Cadmium	ND	mg / Kg	10	0.025		09-23-02	09-24-02
M021282	MT.2002.1118.52	7440-70-2	Calcium	1310	mg / Kg	10	0.5		09-23-02	09-26-02
M021282	MT.2002.1109.46	7440-47-3	Chromium	15.1	mg / Kg	10	0.05		09-23-02	09-24-02
M021282	MT.2002.1109.46	7440-48-4	Cobalt	0.814	mg / Kg	10	0.025		09-23-02	09-24-02
M021282	MT.2002.1109.46	7440-50-8	Copper	15.0	mg / Kg	10	0.025		09-23-02	09-24-02
M021282	MT.2002.1118.52	7439-89-6	Iron	5340	mg / Kg	10	0.5		09-23-02	09-26-02
M021282	MT.2002.1109.46	7439-92-1	Lead	7.19	mg / Kg	10	0.025		09-23-02	09-24-02
M021282	MT.2002.1133.29	7440-22-4	Lithium	3.86	mg / Kg	10	0.05		09-23-02	09-27-02
M021282	MT.2002.1118.52	7439-95-4	Magnesium	732	mg / Kg	10	0.5		09-23-02	09-26-02
M021282	MT.2002.1109.47	7439-96-5	Manganese	168	mg / Kg	97	0.025		09-23-02	09-24-02
M021282	MT.2002.1109.46	7439-98-7	Molybdenum	0.754	mg / Kg	10	0.025		09-23-02	09-24-02
M021282	MT.2002.1109.46	7440-02-0	Nickel	2.30	mg / Kg	10	0.025		09-23-02	09-24-02
M021282	MT.2002.1118.52	7440-09-7	Potassium	431	mg / Kg	10	0.5		09-23-02	09-26-02
M021282	MT.2002.1109.46	7782-49-2	Selenium	0.432	mg / Kg	10	0.025		09-23-02	09-24-02
M021282	MT.2002.1109.46	7440-21-3	Silicon	229	mg / Kg	10	1	E	09-23-02	09-24-02
M021282	MT.2002.1109.46	7440-22-4	Silver	0.349	mg / Kg	10	0.025		09-23-02	09-24-02
M021282	MT.2002.1118.52	7440-23-5	Sodium	100	mg / Kg	10	0.5		09-23-02	09-26-02
M021282	MT.2002.1109.46	7439-89-6	Strontium	21.3	mg / Kg	10	0.025		09-23-02	09-24-02
M021282	MT.2002.1109.46	7440-28-0	Thallium	ND	mg / Kg	10	0.025		09-23-02	09-24-02
M021282	MT.2002.1109.46	7440-31-5	Tin	0.420	mg / Kg	10	0.025	B	09-23-02	09-24-02
M021282	MT.2002.1109.47	7440-32-6	Titanium	167	mg / Kg	97	0.025		09-23-02	09-24-02
M021282	MT.2002.1109.46	7440-61-1	Uranium	0.366	mg / Kg	10	0.025		09-23-02	09-24-02
M021282	MT.2002.1118.52	7440-62-2	Vanadium	5.68	mg / Kg	10	0.05		09-23-02	09-26-02
M021282	MT.2002.1118.52	7440-66-6	Zinc	36.3	mg / Kg	10	0.25		09-23-02	09-26-02
0209364-12A		**SW846 7471 CVAA Dry Weight**					By:	JRE		
M021284	MT.2002.1103.27	7439-97-6	Mercury	ND	mg / Kg	1	0.05		09-23-02	09-23-02

Assaigai Analytical Laboratories, Inc.

Certificate of Analysis

Client: **LANL-DDP03-0271-014,RM100 E SI**
Project: **XURP 0450 3219 0000, 1199S&1203S**
Order: **0209364** **LOS40** Receipt: **09-17-02**

Sample: ***RE03-02-49282*** Collected: *09-12-02 0:00:00* By:
Matrix: ***SO***

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Code	Prep Date	Run Date
0209364-13A		**ASTM D2216**					By:	MDE		
MO0215	WC.2002.1476.15		Moisture	12.2	%	1	0.1	H	10-09-02	10-09-02
0209364-13A		**EPA 218.4 Hex. Chromium Dry Weight**					By:	NJL		
W02387	WC.2002.1320.18		Chromium, Hexavalent	ND	mg / kg	1	1		09-26-02	09-26-02
0209364-13A		**SW846 3050A/6020 ICP-MS Dry Weight**					By:	CJ		
M021282	MT.2002.1109.49	7429-90-5	Aluminum	7110	mg / Kg	92	0.5		09-23-02	09-24-02
M021282	MT.2002.1109.48	7440-36-0	Antimony	ND	mg / Kg	9	0.05		09-23-02	09-24-02
M021282	MT.2002.1109.48	7440-38-2	Arsenic	1.78	mg / Kg	9	0.025		09-23-02	09-24-02
M021282	MT.2002.1109.48	7440-39-3	Barium	37.7	mg / Kg	9	0.025		09-23-02	09-24-02
M021282	MT.2002.1109.48	7440-41-7	Beryllium	0.388	mg / Kg	9	0.025		09-23-02	09-24-02
M021282	MT.2002.1118.53	7440-42-8	Boron	ND	mg / Kg	9	0.15		09-23-02	09-26-02
M021282	MT.2002.1109.48	7440-43-9	Cadmium	ND	mg / Kg	9	0.025		09-23-02	09-24-02
M021282	MT.2002.1118.53	7440-70-2	Calcium	1080	mg / Kg	9	0.5		09-23-02	09-26-02
M021282	MT.2002.1109.48	7440-47-3	Chromium	4.99	mg / Kg	9	0.05		09-23-02	09-24-02
M021282	MT.2002.1109.48	7440-48-4	Cobalt	3.08	mg / Kg	9	0.025		09-23-02	09-24-02
M021282	MT.2002.1109.48	7440-50-8	Copper	2.18	mg / Kg	9	0.025		09-23-02	09-24-02
M021282	MT.2002.1118.30	7439-89-6	Iron	8670	mg / Kg	92	0.5		09-23-02	09-25-02
M021282	MT.2002.1109.48	7439-92-1	Lead	9.13	mg / Kg	9	0.025		09-23-02	09-24-02
M021282	MT.2002.1133.43	7440-22-4	Lithium	8.71	mg / Kg	9	0.05		09-23-02	09-30-02
M021282	MT.2002.1118.53	7439-95-4	Magnesium	861	mg / Kg	9	0.5		09-23-02	09-26-02
M021282	MT.2002.1109.49	7439-96-5	Manganese	228	mg / Kg	92	0.025		09-23-02	09-24-02
M021282	MT.2002.1109.48	7439-98-7	Molybdenum	0.430	mg / Kg	9	0.025		09-23-02	09-24-02
M021282	MT.2002.1109.48	7440-02-0	Nickel	3.34	mg / Kg	9	0.025		09-23-02	09-24-02
M021282	MT.2002.1118.53	7440-09-7	Potassium	690	mg / Kg	9	0.5		09-23-02	09-26-02
M021282	MT.2002.1109.48	7782-49-2	Selenium	0.562	mg / Kg	9	0.025		09-23-02	09-24-02
M021282	MT.2002.1109.48	7440-21-3	Silicon	280	mg / Kg	9	1	E	09-23-02	09-24-02
M021282	MT.2002.1109.48	7440-22-4	Silver	ND	mg / Kg	9	0.025		09-23-02	09-24-02
M021282	MT.2002.1118.53	7440-23-5	Sodium	132	mg / Kg	9	0.5		09-23-02	09-26-02
M021282	MT.2002.1109.48	7439-89-6	Strontium	37.8	mg / Kg	9	0.025		09-23-02	09-24-02
M021282	MT.2002.1109.48	7440-28-0	Thallium	ND	mg / Kg	9	0.025		09-23-02	09-24-02
M021282	MT.2002.1109.48	7440-31-5	Tin	0.950	mg / Kg	9	0.025	B	09-23-02	09-24-02
M021282	MT.2002.1109.49	7440-32-6	Titanium	340	mg / Kg	92	0.025		09-23-02	09-24-02
M021282	MT.2002.1109.48	7440-61-1	Uranium	0.483	mg / Kg	9	0.025		09-23-02	09-24-02
M021282	MT.2002.1118.53	7440-62-2	Vanadium	9.57	mg / Kg	9	0.05		09-23-02	09-26-02
M021282	MT.2002.1118.53	7440-66-6	Zinc	26.8	mg / Kg	9	0.25		09-23-02	09-26-02
0209364-13A		**SW846 7471 CVAA Dry Weight**					By:	JRE		
M021284	MT.2002.1103.28	7439-97-6	Mercury	ND	mg / Kg	1	0.05		09-23-02	09-23-02

Assaigai Analytical Laboratories, Inc.

Certificate of Analysis

Client: **LANL-DDP03-0271-014,RM100 E SI**
Project: **XURP 0450 3219 0000, 1199S&1203S**
Order: **0209364** **LOS40** Receipt: **09-17-02**

Sample: ***RE03-02-49283*** Collected: *09-12-02 0:00:00* By:
Matrix: ***SO***

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Code	Prep Date	Run Date
0209364-14A		**ASTM D2216**					By:	MDE		
MO0215	WC.2002.1476.16		Moisture	13.6	%	1	0.1	H	10-09-02	10-09-02
0209364-14A		**EPA 218.4 Hex. Chromium Dry Weight**					By:	NJL		
W02387	WC.2002.1320.20		Chromium, Hexavalent	2.31	mg / kg	1	1		09-26-02	09-26-02
0209364-14A		**SW846 3050A/6020 ICP-MS Dry Weight**					By:	CJ		
M021282	MT.2002.1109.51	7429-90-5	Aluminum	11300	mg / Kg	95	0.5		09-23-02	09-24-02
M021282	MT.2002.1109.50	7440-36-0	Antimony	ND	mg / Kg	9	0.05		09-23-02	09-24-02
M021282	MT.2002.1109.50	7440-38-2	Arsenic	2.89	mg / Kg	9	0.025		09-23-02	09-24-02
M021282	MT.2002.1109.50	7440-39-3	Barium	68.2	mg / Kg	9	0.025		09-23-02	09-24-02
M021282	MT.2002.1109.50	7440-41-7	Beryllium	0.653	mg / Kg	9	0.025		09-23-02	09-24-02
M021282	MT.2002.1118.59	7440-42-8	Boron	ND	mg / Kg	9	0.15		09-23-02	09-26-02
M021282	MT.2002.1109.50	7440-43-9	Cadmium	0.389	mg / Kg	9	0.025		09-23-02	09-24-02
M021282	MT.2002.1118.59	7440-70-2	Calcium	1610	mg / Kg	9	0.5		09-23-02	09-26-02
M021282	MT.2002.1109.50	7440-47-3	Chromium	45.8	mg / Kg	9	0.05		09-23-02	09-24-02
M021282	MT.2002.1109.50	7440-48-4	Cobalt	2.52	mg / Kg	9	0.025		09-23-02	09-24-02
M021282	MT.2002.1109.50	7440-50-8	Copper	8.81	mg / Kg	9	0.025		09-23-02	09-24-02
M021282	MT.2002.1118.33	7439-89-6	Iron	11100	mg / Kg	95	0.5		09-23-02	09-25-02
M021282	MT.2002.1109.50	7439-92-1	Lead	16.1	mg / Kg	9	0.025		09-23-02	09-24-02
M021282	MT.2002.1133.44	7440-22-4	Lithium	13.0	mg / Kg	9	0.05		09-23-02	09-30-02
M021282	MT.2002.1118.59	7439-95-4	Magnesium	1450	mg / Kg	9	0.5		09-23-02	09-26-02
M021282	MT.2002.1109.51	7439-96-5	Manganese	245	mg / Kg	95	0.025		09-23-02	09-24-02
M021282	MT.2002.1109.50	7439-98-7	Molybdenum	0.719	mg / Kg	9	0.025		09-23-02	09-24-02
M021282	MT.2002.1109.50	7440-02-0	Nickel	5.31	mg / Kg	9	0.025		09-23-02	09-24-02
M021282	MT.2002.1118.59	7440-09-7	Potassium	987	mg / Kg	9	0.5		09-23-02	09-26-02
M021282	MT.2002.1109.50	7782-49-2	Selenium	0.636	mg / Kg	9	0.025		09-23-02	09-24-02
M021282	MT.2002.1109.50	7440-21-3	Silicon	272	mg / Kg	9	1	E	09-23-02	09-24-02
M021282	MT.2002.1109.50	7440-22-4	Silver	1.63	mg / Kg	9	0.025		09-23-02	09-24-02
M021282	MT.2002.1118.59	7440-23-5	Sodium	120	mg / Kg	9	0.5		09-23-02	09-26-02
M021282	MT.2002.1109.50	7439-89-6	Strontium	59.5	mg / Kg	9	0.025		09-23-02	09-24-02
M021282	MT.2002.1109.50	7440-28-0	Thallium	ND	mg / Kg	9	0.025		09-23-02	09-24-02
M021282	MT.2002.1109.50	7440-31-5	Tin	1.98	mg / Kg	9	0.025	B	09-23-02	09-24-02
M021282	MT.2002.1109.51	7440-32-6	Titanium	325	mg / Kg	95	0.025		09-23-02	09-24-02
M021282	MT.2002.1109.50	7440-61-1	Uranium	0.789	mg / Kg	9	0.025		09-23-02	09-24-02
M021282	MT.2002.1118.59	7440-62-2	Vanadium	13.1	mg / Kg	9	0.05		09-23-02	09-26-02
M021282	MT.2002.1118.59	7440-66-6	Zinc	51.4	mg / Kg	9	0.25		09-23-02	09-26-02
0209364-14A		**SW846 7471 CVAA Dry Weight**					By:	JRE		
M021284	MT.2002.1103.29	7439-97-6	Mercury	ND	mg / Kg	1	0.05		09-23-02	09-23-02

Assaigai Analytical Laboratories, Inc.

Certificate of Analysis

Client: **LANL-DDP03-0271-014,RM100 E SI**
Project: **XURP 0450 3219 0000, 1199S&1203S**
Order: **0209364** **LOS40** Receipt: **09-17-02**

Sample: ***RE03-02-49284*** Collected: *09-12-02 0:00:00* By:
Matrix: ***SO***

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Code	Prep Date	Run Date
0209364-15A		**ASTM D2216**					By:	MDE		
MO0215	WC.2002.1476.17		Moisture	13.3	%	1	0.1	H	10-09-02	10-09-02
0209364-15A		**EPA 218.4 Hex. Chromium Dry Weight**					By:	NJL		
W02387	WC.2002.1320.22		Chromium, Hexavalent	1.88	mg / kg	1	1		09-26-02	09-26-02
0209364-15A		**SW846 3050A/6020 ICP-MS Dry Weight**					By:	CJ		
M021282	MT.2002.1109.52	7429-90-5	Aluminum	5490	mg / Kg	9	0.5		09-23-02	09-24-02
M021282	MT.2002.1109.52	7440-36-0	Antimony	ND	mg / Kg	9	0.05		09-23-02	09-24-02
M021282	MT.2002.1109.52	7440-38-2	Arsenic	1.11	mg / Kg	9	0.025		09-23-02	09-24-02
M021282	MT.2002.1109.52	7440-39-3	Barium	35.4	mg / Kg	9	0.025		09-23-02	09-24-02
M021282	MT.2002.1109.52	7440-41-7	Beryllium	0.497	mg / Kg	9	0.025		09-23-02	09-24-02
M021282	MT.2002.1118.60	7440-42-8	Boron	ND	mg / Kg	9	0.15		09-23-02	09-26-02
M021282	MT.2002.1109.52	7440-43-9	Cadmium	ND	mg / Kg	9	0.025		09-23-02	09-24-02
M021282	MT.2002.1118.60	7440-70-2	Calcium	996	mg / Kg	9	0.5		09-23-02	09-26-02
M021282	MT.2002.1109.52	7440-47-3	Chromium	2.92	mg / Kg	9	0.05		09-23-02	09-24-02
M021282	MT.2002.1109.52	7440-48-4	Cobalt	0.699	mg / Kg	9	0.025		09-23-02	09-24-02
M021282	MT.2002.1109.52	7440-50-8	Copper	2.30	mg / Kg	9	0.025		09-23-02	09-24-02
M021282	MT.2002.1118.34	7439-89-6	Iron	7000	mg / Kg	95	0.5		09-23-02	09-25-02
M021282	MT.2002.1109.52	7439-92-1	Lead	10.6	mg / Kg	9	0.025		09-23-02	09-24-02
M021282	MT.2002.1133.45	7440-22-4	Lithium	6.56	mg / Kg	9	0.05		09-23-02	09-30-02
M021282	MT.2002.1118.60	7439-95-4	Magnesium	748	mg / Kg	9	0.5		09-23-02	09-26-02
M021282	MT.2002.1109.53	7439-96-5	Manganese	194	mg / Kg	95	0.025		09-23-02	09-24-02
M021282	MT.2002.1109.52	7439-98-7	Molybdenum	0.890	mg / Kg	9	0.025		09-23-02	09-24-02
M021282	MT.2002.1109.52	7440-02-0	Nickel	2.36	mg / Kg	9	0.025		09-23-02	09-24-02
M021282	MT.2002.1118.60	7440-09-7	Potassium	667	mg / Kg	9	0.5		09-23-02	09-26-02
M021282	MT.2002.1109.52	7782-49-2	Selenium	0.535	mg / Kg	9	0.025		09-23-02	09-24-02
M021282	MT.2002.1109.52	7440-21-3	Silicon	266	mg / Kg	9	1	E	09-23-02	09-24-02
M021282	MT.2002.1109.52	7440-22-4	Silver	ND	mg / Kg	9	0.025		09-23-02	09-24-02
M021282	MT.2002.1118.60	7440-23-5	Sodium	157	mg / Kg	9	0.5		09-23-02	09-26-02
M021282	MT.2002.1109.52	7439-89-6	Strontium	35.9	mg / Kg	9	0.025		09-23-02	09-24-02
M021282	MT.2002.1109.52	7440-28-0	Thallium	ND	mg / Kg	9	0.025		09-23-02	09-24-02
M021282	MT.2002.1109.52	7440-31-5	Tin	1.02	mg / Kg	9	0.025	B	09-23-02	09-24-02
M021282	MT.2002.1109.53	7440-32-6	Titanium	188	mg / Kg	95	0.025		09-23-02	09-24-02
M021282	MT.2002.1109.52	7440-61-1	Uranium	0.443	mg / Kg	9	0.025		09-23-02	09-24-02
M021282	MT.2002.1118.60	7440-62-2	Vanadium	4.74	mg / Kg	9	0.05		09-23-02	09-26-02
M021282	MT.2002.1118.60	7440-66-6	Zinc	31.5	mg / Kg	9	0.25		09-23-02	09-26-02
0209364-15A		**SW846 7471 CVAA Dry Weight**					By:	JRE		
M021284	MT.2002.1103.30	7439-97-6	Mercury	ND	mg / Kg	1	0.05		09-23-02	09-23-02

Assaigai Analytical Laboratories, Inc.

Certificate of Analysis

Client: **LANL-DDR03-0271-014,RM100 E SI**

Project: **XURP 0450 3219 0000, 1199S&1203S**

Order: **0209364** **LOS40** Receipt: **09-17-02**

Sample: ***RE03-02-49285*** Collected: *09-12-02 0:00:00* By:

Matrix: ***SO***

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Code	Prep Date	Run Date
0209364-16A		**ASTM D2216**					By:	MDE		
MO0215	WC.2002.1476.18		Moisture	14.9	%	1	0.1	H	10-09-02	10-09-02
0209364-16A		**EPA 218.4 Hex. Chromium Dry Weight**					By:	NJL		
W02387	WC.2002.1320.24		Chromium, Hexavalent	ND	mg / kg	1	1		09-26-02	09-26-02
0209364-16A		**SW846 3050A/6020 ICP-MS Dry Weight**					By:	CJ		
M021282	MT.2002.1109.59	7429-90-5	Aluminum	6260	mg / Kg	10	0.5		09-23-02	09-24-02
M021282	MT.2002.1109.59	7440-36-0	Antimony	ND	mg / Kg	10	0.05		09-23-02	09-24-02
M021282	MT.2002.1109.59	7440-38-2	Arsenic	1.80	mg / Kg	10	0.025		09-23-02	09-24-02
M021282	MT.2002.1109.59	7440-39-3	Barium	40.3	mg / Kg	10	0.025		09-23-02	09-24-02
M021282	MT.2002.1109.59	7440-41-7	Beryllium	0.520	mg / Kg	10	0.025		09-23-02	09-24-02
M021282	MT.2002.1118.61	7440-42-8	Boron	ND	mg / Kg	10	0.15		09-23-02	09-26-02
M021282	MT.2002.1109.59	7440-43-9	Cadmium	ND	mg / Kg	10	0.025		09-23-02	09-24-02
M021282	MT.2002.1118.61	7440-70-2	Calcium	1160	mg / Kg	10	0.5		09-23-02	09-26-02
M021282	MT.2002.1109.59	7440-47-3	Chromium	3.22	mg / Kg	10	0.05		09-23-02	09-24-02
M021282	MT.2002.1109.59	7440-48-4	Cobalt	1.07	mg / Kg	10	0.025		09-23-02	09-24-02
M021282	MT.2002.1109.59	7440-50-8	Copper	2.37	mg / Kg	10	0.025		09-23-02	09-24-02
M021282	MT.2002.1118.35	7439-89-6	Iron	6520	mg / Kg	97	0.5		09-23-02	09-25-02
M021282	MT.2002.1109.59	7439-92-1	Lead	10.9	mg / Kg	10	0.025		09-23-02	09-24-02
M021282	MT.2002.1133.46	7440-22-4	Lithium	5.08	mg / Kg	10	0.05		09-23-02	09-30-02
M021282	MT.2002.1118.61	7439-95-4	Magnesium	793	mg / Kg	10	0.5		09-23-02	09-26-02
M021282	MT.2002.1109.60	7439-96-5	Manganese	149	mg / Kg	97	0.025		09-23-02	09-24-02
M021282	MT.2002.1109.59	7439-98-7	Molybdenum	1.63	mg / Kg	10	0.025		09-23-02	09-24-02
M021282	MT.2002.1109.59	7440-02-0	Nickel	2.67	mg / Kg	10	0.025		09-23-02	09-24-02
M021282	MT.2002.1118.61	7440-09-7	Potassium	725	mg / Kg	10	0.5		09-23-02	09-26-02
M021282	MT.2002.1109.59	7782-49-2	Selenium	0.590	mg / Kg	10	0.025		09-23-02	09-24-02
M021282	MT.2002.1109.59	7440-21-3	Silicon	311	mg / Kg	10	1	E	09-23-02	09-24-02
M021282	MT.2002.1109.59	7440-22-4	Silver	ND	mg / Kg	10	0.025		09-23-02	09-24-02
M021282	MT.2002.1118.61	7440-23-5	Sodium	159	mg / Kg	10	0.5		09-23-02	09-26-02
M021282	MT.2002.1109.59	7439-89-6	Strontium	40.0	mg / Kg	10	0.025		09-23-02	09-24-02
M021282	MT.2002.1109.59	7440-28-0	Thallium	ND	mg / Kg	10	0.025		09-23-02	09-24-02
M021282	MT.2002.1109.59	7440-31-5	Tin	1.23	mg / Kg	10	0.025	B	09-23-02	09-24-02
M021282	MT.2002.1109.60	7440-32-6	Titanium	126	mg / Kg	97	0.025		09-23-02	09-24-02
M021282	MT.2002.1109.59	7440-61-1	Uranium	0.492	mg / Kg	10	0.025		09-23-02	09-24-02
M021282	MT.2002.1118.61	7440-62-2	Vanadium	5.43	mg / Kg	10	0.05		09-23-02	09-26-02
M021282	MT.2002.1118.61	7440-66-6	Zinc	28.0	mg / Kg	10	0.25		09-23-02	09-26-02
0209364-16A		**SW846 7471 CVAA Dry Weight**					By:	JRE		
M021284	MT.2002.1103.33	7439-97-6	Mercury	ND	mg / Kg	1	0.05		09-23-02	09-23-02

Assaigai Analytical Laboratories, Inc.

Certificate of Analysis

Client: **LANL-DDP03-0271-014,RM100 E SI**
Project: **XURP 0450 3219 0000, 1199S&1203S**
Order: **0209364** **LOS40** Receipt: **09-17-02**

Sample: ***RE03-02-49286*** Collected: *09-12-02 0:00:00* By:
Matrix: ***SO***

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Code	Prep Date	Run Date
0209364-17A		**ASTM D2216**					By:	MDE		
MO0215	WC.2002.1476.19		Moisture	14.6	%	1	0.1	H	10-09-02	10-09-02
0209364-17A		**EPA 218.4 Hex. Chromium Dry Weight**					By:	NJL		
W02387	WC.2002.1320.28		Chromium, Hexavalent	ND	mg / kg	1	1		09-26-02	09-26-02
0209364-17A		**SW846 3050A/6020 ICP-MS Dry Weight**					By:	CJ		
M021282	MT.2002.1109.61	7429-90-5	Aluminum	5750	mg / Kg	9	0.5		09-23-02	09-24-02
M021282	MT.2002.1109.61	7440-36-0	Antimony	ND	mg / Kg	9	0.05		09-23-02	09-24-02
M021282	MT.2002.1109.61	7440-38-2	Arsenic	1.40	mg / Kg	9	0.025		09-23-02	09-24-02
M021282	MT.2002.1109.61	7440-39-3	Barium	37.4	mg / Kg	9	0.025		09-23-02	09-24-02
M021282	MT.2002.1109.61	7440-41-7	Beryllium	0.493	mg / Kg	9	0.025		09-23-02	09-24-02
M021282	MT.2002.1118.36	7440-42-8	Boron	ND	mg / Kg	94	0.15		09-23-02	09-25-02
M021282	MT.2002.1109.61	7440-43-9	Cadmium	ND	mg / Kg	9	0.025		09-23-02	09-24-02
M021282	MT.2002.1118.62	7440-70-2	Calcium	2300	mg / Kg	9	0.5		09-23-02	09-26-02
M021282	MT.2002.1109.61	7440-47-3	Chromium	2.92	mg / Kg	9	0.05		09-23-02	09-24-02
M021282	MT.2002.1109.61	7440-48-4	Cobalt	1.01	mg / Kg	9	0.025		09-23-02	09-24-02
M021282	MT.2002.1109.61	7440-50-8	Copper	2.27	mg / Kg	9	0.025		09-23-02	09-24-02
M021282	MT.2002.1118.36	7439-89-6	Iron	6390	mg / Kg	94	0.5		09-23-02	09-25-02
M021282	MT.2002.1109.61	7439-92-1	Lead	9.95	mg / Kg	9	0.025		09-23-02	09-24-02
M021282	MT.2002.1133.47	7440-22-4	Lithium	6.81	mg / Kg	9	0.05		09-23-02	09-30-02
M021282	MT.2002.1118.62	7439-95-4	Magnesium	1390	mg / Kg	9	0.5		09-23-02	09-26-02
M021282	MT.2002.1109.62	7439-96-5	Manganese	213	mg / Kg	94	0.025		09-23-02	09-24-02
M021282	MT.2002.1109.61	7439-98-7	Molybdenum	0.838	mg / Kg	9	0.025		09-23-02	09-24-02
M021282	MT.2002.1109.61	7440-02-0	Nickel	2.55	mg / Kg	9	0.025		09-23-02	09-24-02
M021282	MT.2002.1118.62	7440-09-7	Potassium	1150	mg / Kg	9	0.5		09-23-02	09-26-02
M021282	MT.2002.1109.61	7782-49-2	Selenium	0.454	mg / Kg	9	0.025		09-23-02	09-24-02
M021282	MT.2002.1109.61	7440-21-3	Silicon	281	mg / Kg	9	1	E	09-23-02	09-24-02
M021282	MT.2002.1109.61	7440-22-4	Silver	ND	mg / Kg	9	0.025		09-23-02	09-24-02
M021282	MT.2002.1118.62	7440-23-5	Sodium	123	mg / Kg	9	0.5		09-23-02	09-26-02
M021282	MT.2002.1109.61	7439-89-6	Strontium	36.9	mg / Kg	9	0.025		09-23-02	09-24-02
M021282	MT.2002.1109.61	7440-28-0	Thallium	ND	mg / Kg	9	0.025		09-23-02	09-24-02
M021282	MT.2002.1109.61	7440-31-5	Tin	1.14	mg / Kg	9	0.025	B	09-23-02	09-24-02
M021282	MT.2002.1109.62	7440-32-6	Titanium	184	mg / Kg	94	0.025		09-23-02	09-24-02
M021282	MT.2002.1109.61	7440-61-1	Uranium	0.433	mg / Kg	9	0.025		09-23-02	09-24-02
M021282	MT.2002.1118.62	7440-62-2	Vanadium	9.11	mg / Kg	9	0.05		09-23-02	09-26-02
M021282	MT.2002.1118.62	7440-66-6	Zinc	22.4	mg / Kg	9	0.25		09-23-02	09-26-02
0209364-17A		**SW846 7471 CVAA Dry Weight**					By:	JRE		
M021284	MT.2002.1103.34	7439-97-6	Mercury	ND	mg / Kg	1	0.05		09-23-02	09-23-02

Assaigai Analytical Laboratories, Inc.

Certificate of Analysis

Client: **LANL-DDP03-0271-014,RM100 E SI**

Project: **XURP 0450 3219 0000, 1199S&1203S**

Order: **0209364** **LOS40** Receipt: **09-17-02**

Unless otherwise noted, all samples were received in acceptable condition and all sampling was performed by client or client representative. Sample result of ND indicates Not Detected, ie result is less than the sample specific Detection Limit. Sample specific Detection Limit is determined by multiplying the sample Dilution Factor by the listed Reporting Detection Limit. All results relate only to the items tested. Any miscellaneous workorder information or foonotes will appear below.

1 The relative percent difference between the sample and the sample duplicate was slightly above AALI's QC criteria of less than or equal to 20% at 22% due to a nonhomogenous sample matrix

MEMO: Hexavalent Chromium was analyzed by zeroing the spectrophotometer on an undeveloped aliquot of sample, then reading the developed sample. This method was utilized in attempt to eliminate the high bias attributed to the sample extract turbidity. However, the reported values may still be biased high due to this high turbidity.

Assaigai Analytical Laboratories, Inc.

Quality Control Summary

Client: **LANL-DDP03-0271-014,RM100 E SI**
Project: **XURP 0450 3219 0000, 1199S&1203S**
Order: **0209364 LOS40**

Explanation of codes	
D	*Not applicable due to sample dilution*
L	*Not applicable due to MDL proximity*

Type: ***LCS: Lab Control Spike*** Matrix: ***SOLID***

Run Sequence	CAS #	Analyte	Result	Units	Range	Dilution Factor	Detection Limit	Code	Run Date
W02387		**EPA 218.4 Hex. Chromium by Chelation Extraction**						**W02387-002**	
WC.2002.1317.3		Chromium, Hexavalent	105	% Recovery	80 - 120	1	NA		09-24-02
M021282		**SW846 3050A/6020 ICP-MS**						**M021282-002**	
MT.2002.1109.12	7429-90-5	Aluminum	109	% Recovery	80 - 120	1	NA		09-23-02
MT.2002.1109.12	7440-36-0	Antimony	99	% Recovery	80 - 120	1	NA		09-23-02
MT.2002.1109.12	7440-38-2	Arsenic	104	% Recovery	80 - 120	1	NA		09-23-02
MT.2002.1109.12	7440-39-3	Barium	101	% Recovery	80 - 120	1	NA		09-23-02
MT.2002.1109.12	7440-41-7	Beryllium	96	% Recovery	80 - 120	1	NA		09-23-02
MT.2002.1118.12	7440-42-8	Boron	92	% Recovery	80 - 120	1	NA		09-25-02
MT.2002.1109.12	7440-43-9	Cadmium	100	% Recovery	80 - 120	1	NA		09-23-02
MT.2002.1118.12	7440-70-2	Calcium	103	% Recovery	80 - 120	1	NA		09-25-02
MT.2002.1109.12	7440-47-3	Chromium	101	% Recovery	80 - 120	1	NA		09-23-02
MT.2002.1109.12	7440-48-4	Cobalt	101	% Recovery	80 - 120	1	NA		09-23-02
MT.2002.1109.12	7440-50-8	Copper	103	% Recovery	80 - 120	1	NA		09-23-02
MT.2002.1118.12	7439-89-6	Iron	104	% Recovery	80 - 120	1	NA		09-25-02
MT.2002.1109.12	7439-92-1	Lead	98	% Recovery	80 - 120	1	NA		09-23-02
MT.2002.1118.12	7439-95-4	Magnesium	93	% Recovery	80 - 120	1	NA		09-25-02
MT.2002.1109.12	7439-96-5	Manganese	99	% Recovery	80 - 120	1	NA		09-23-02
MT.2002.1109.12	7439-98-7	Molybdenum	97	% Recovery	80 - 120	1	NA		09-23-02
MT.2002.1109.12	7440-02-0	Nickel	102	% Recovery	80 - 120	1	NA		09-23-02
MT.2002.1118.12	7440-09-7	Potassium	98	% Recovery	80 - 120	1	NA		09-25-02
MT.2002.1109.12	7782-49-2	Selenium	103	% Recovery	80 - 120	1	NA		09-23-02
MT.2002.1109.12	7440-21-3	Silicon	105	% Recovery	80 - 120	1	NA		09-23-02
MT.2002.1109.12	7440-22-4	Silver	97	% Recovery	80 - 120	1	NA		09-23-02
MT.2002.1118.12	7440-23-5	Sodium	96	% Recovery	80 - 120	1	NA		09-25-02
MT.2002.1109.12	7439-89-6	Strontium	99	% Recovery	80 - 120	1	NA		09-23-02
MT.2002.1109.12	7440-28-0	Thallium	96	% Recovery	80 - 120	1	NA		09-23-02
MT.2002.1109.12	7440-31-5	Tin	112	% Recovery	80 - 120	1	NA		09-23-02
MT.2002.1109.12	7440-32-6	Titanium	101	% Recovery	80 - 120	1	NA		09-23-02
MT.2002.1109.12	7440-61-1	Uranium	97	% Recovery	80 - 120	1	NA		09-23-02
MT.2002.1118.12	7440-62-2	Vanadium	100	% Recovery	80 - 120	1	NA		09-25-02
MT.2002.1118.12	7440-66-6	Zinc	107	% Recovery	80 - 120	1	NA		09-25-02
M021282		**SW846 3050A/6020 ICP-MS**						**M021282-004**	
MT.2002.1133.12	7440-22-4	Lithium	96	% Recovery	80 - 120	1	NA		09-27-02
M021284		**SW846 7471 CVAA**						**M021284-002**	
MT.2002.1103.10	7439-97-6	Mercury	100	% Recovery	90 - 110	1	NA		09-23-02

Type: ***LCSD: Lab Control Spike Duplicate Precision*** Matrix: ***SOLID***

Run Sequence	CAS #	Analyte	Result	Units	Range	Dilution Factor	Detection Limit	Code	Run Date
W02387		**EPA 218.4 Hex. Chromium by Chelation Extraction**						**W02387-003**	
WC.2002.1317.4		Chromium, Hexavalent	< 1	RPD	0 - 20	1	NA		09-24-02

Assaigai Analytical Laboratories, Inc.

Quality Control Summary

Client: **LANL-DDP03-0271-014,RM100 E SI**
Project: **XURP 0450 3219 0000, 1199S&1203S**
Order: **0209364 LOS40**

Explanation of codes	
D	*Not applicable due to sample dilution*
L	*Not applicable due to MDL proximity*

Type: ***LCSD: Lab Control Spike Duplicate Precision*** Matrix: ***SOLID***

Run Sequence	CAS #	Analyte	Result	Units	Range	Dilution Factor	Detection Limit	Code	Run Date
M021282		**SW846 3050A/6020 ICP-MS**					**M021282-003**		
MT.2002.1109.13	7429-90-5	Aluminum	5	RPD	0 - 20	1	NA		09-23-02
MT.2002.1109.13	7440-36-0	Antimony	2	RPD	0 - 20	1	NA		09-23-02
MT.2002.1109.13	7440-38-2	Arsenic	2	RPD	0 - 20	1	NA		09-23-02
MT.2002.1109.13	7440-39-3	Barium	2	RPD	0 - 20	1	NA		09-23-02
MT.2002.1109.13	7440-41-7	Beryllium	< 1	RPD	0 - 20	1	NA		09-23-02
MT.2002.1118.13	7440-42-8	Boron	3	RPD	0 - 20	1	NA		09-25-02
MT.2002.1109.13	7440-43-9	Cadmium	2	RPD	0 - 20	1	NA		09-23-02
MT.2002.1118.13	7440-70-2	Calcium	< 1	RPD	0 - 20	1	NA		09-25-02
MT.2002.1109.13	7440-47-3	Chromium	1	RPD	0 - 20	1	NA		09-23-02
MT.2002.1109.13	7440-48-4	Cobalt	3	RPD	0 - 20	1	NA		09-23-02
MT.2002.1109.13	7440-50-8	Copper	1	RPD	0 - 20	1	NA		09-23-02
MT.2002.1118.13	7439-89-6	Iron	1	RPD	0 - 20	1	NA		09-25-02
MT.2002.1109.13	7439-92-1	Lead	3	RPD	0 - 20	1	NA		09-23-02
MT.2002.1118.13	7439-95-4	Magnesium	5	RPD	0 - 20	1	NA		09-25-02
MT.2002.1109.13	7439-96-5	Manganese	3	RPD	0 - 20	1	NA		09-23-02
MT.2002.1109.13	7439-98-7	Molybdenum	4	RPD	0 - 20	1	NA		09-23-02
MT.2002.1109.13	7440-02-0	Nickel	2	RPD	0 - 20	1	NA		09-23-02
MT.2002.1118.13	7440-09-7	Potassium	< 1	RPD	0 - 20	1	NA		09-25-02
MT.2002.1109.13	7782-49-2	Selenium	< 1	RPD	0 - 20	1	NA		09-23-02
MT.2002.1109.13	7440-21-3	Silicon	7	RPD	0 - 20	1	NA		09-23-02
MT.2002.1109.13	7440-22-4	Silver	4	RPD	0 - 20	1	NA		09-23-02
MT.2002.1118.13	7440-23-5	Sodium	3	RPD	0 - 20	1	NA		09-25-02
MT.2002.1109.13	7439-89-6	Strontium	2	RPD	0 - 20	1	NA		09-23-02
MT.2002.1109.13	7440-28-0	Thallium	3	RPD	0 - 20	1	NA		09-23-02
MT.2002.1109.13	7440-31-5	Tin	2	RPD	0 - 20	1	NA		09-23-02
MT.2002.1109.13	7440-32-6	Titanium	3	RPD	0 - 20	1	NA		09-23-02
MT.2002.1109.13	7440-61-1	Uranium	2	RPD	0 - 20	1	NA		09-23-02
MT.2002.1118.13	7440-62-2	Vanadium	< 1	RPD	0 - 20	1	NA		09-25-02
MT.2002.1118.13	7440-66-6	Zinc	2	RPD	0 - 20	1	NA		09-25-02
M021282		**SW846 3050A/6020 ICP-MS**					**M021282-005**		
MT.2002.1133.13	7440-22-4	Lithium	4	RPD	0 - 20	1	NA		09-27-02
M021284		**SW846 7471 CVAA**					**M021284-003**		
MT.2002.1103.11	7439-97-6	Mercury	1	RPD	0 - 20	1	NA		09-23-02

Type: ***LCSD: Lab Control Spike Duplicate Accuracy*** Matrix: ***SOLID***

Run Sequence	CAS #	Analyte	Result	Units	Range	Dilution Factor	Detection Limit	Code	Run Date
W02387		**EPA 218.4 Hex. Chromium by Chelation Extraction**					**W02387-003**		
WC.2002.1317.4		Chromium, Hexavalent	104	% Recovery	80 - 120	1	NA		09-24-02
M021282		**SW846 3050A/6020 ICP-MS**					**M021282-003**		
MT.2002.1109.13	7429-90-5	Aluminum	116	% Recovery	80 - 120	1	NA		09-23-02

Assaigai Analytical Laboratories, Inc.

Quality Control Summary

Client: **LANL-DDR03-0271-014,RM100 E SI**
Project: **XURP 0450 3219 0000, 1199S&1203S**
Order: **0209364 LOS40**

Explanation of codes	
D	*Not applicable due to sample dilution*
L	*Not applicable due to MDL proximity*

Type: ***LCSD: Lab Control Spike Duplicate Accuracy*** Matrix: ***SOLID***

Run Sequence	CAS #	Analyte	Result	Units	Range	Dilution Factor	Detection Limit	Code	Run Date
M021282		**SW846 3050A/6020 ICP-MS**						**M021282-003**	
MT.2002.1109.13	7440-36-0	Antimony	101	% Recovery	80 - 120	1	NA		09-23-02
MT.2002.1109.13	7440-38-2	Arsenic	106	% Recovery	80 - 120	1	NA		09-23-02
MT.2002.1109.13	7440-39-3	Barium	104	% Recovery	80 - 120	1	NA		09-23-02
MT.2002.1109.13	7440-41-7	Beryllium	96	% Recovery	80 - 120	1	NA		09-23-02
MT.2002.1118.13	7440-42-8	Boron	95	% Recovery	80 - 120	1	NA		09-25-02
MT.2002.1109.13	7440-43-9	Cadmium	103	% Recovery	80 - 120	1	NA		09-23-02
MT.2002.1118.13	7440-70-2	Calcium	104	% Recovery	80 - 120	1	NA		09-25-02
MT.2002.1109.13	7440-47-3	Chromium	102	% Recovery	80 - 120	1	NA		09-23-02
MT.2002.1109.13	7440-48-4	Cobalt	104	% Recovery	80 - 120	1	NA		09-23-02
MT.2002.1109.13	7440-50-8	Copper	104	% Recovery	80 - 120	1	NA		09-23-02
MT.2002.1118.13	7439-89-6	Iron	105	% Recovery	80 - 120	1	NA		09-25-02
MT.2002.1109.13	7439-92-1	Lead	101	% Recovery	80 - 120	1	NA		09-23-02
MT.2002.1118.13	7439-95-4	Magnesium	98	% Recovery	80 - 120	1	NA		09-25-02
MT.2002.1109.13	7439-96-5	Manganese	102	% Recovery	80 - 120	1	NA		09-23-02
MT.2002.1109.13	7439-98-7	Molybdenum	100	% Recovery	80 - 120	1	NA		09-23-02
MT.2002.1109.13	7440-02-0	Nickel	104	% Recovery	80 - 120	1	NA		09-23-02
MT.2002.1118.13	7440-09-7	Potassium	98	% Recovery	80 - 120	1	NA		09-25-02
MT.2002.1109.13	7782-49-2	Selenium	104	% Recovery	80 - 120	1	NA		09-23-02
MT.2002.1109.13	7440-21-3	Silicon	112	% Recovery	80 - 120	1	NA		09-23-02
MT.2002.1109.13	7440-22-4	Silver	101	% Recovery	80 - 120	1	NA		09-23-02
MT.2002.1118.13	7440-23-5	Sodium	99	% Recovery	80 - 120	1	NA		09-25-02
MT.2002.1109.13	7439-89-6	Strontium	101	% Recovery	80 - 120	1	NA		09-23-02
MT.2002.1109.13	7440-28-0	Thallium	99	% Recovery	80 - 120	1	NA		09-23-02
MT.2002.1109.13	7440-31-5	Tin	114	% Recovery	80 - 120	1	NA		09-23-02
MT.2002.1109.13	7440-32-6	Titanium	104	% Recovery	80 - 120	1	NA		09-23-02
MT.2002.1109.13	7440-61-1	Uranium	98	% Recovery	80 - 120	1	NA		09-23-02
MT.2002.1118.13	7440-62-2	Vanadium	100	% Recovery	80 - 120	1	NA		09-25-02
MT.2002.1118.13	7440-66-6	Zinc	105	% Recovery	80 - 120	1	NA		09-25-02
M021282		**SW846 3050A/6020 ICP-MS**						**M021282-005**	
MT.2002.1133.13	7440-22-4	Lithium	100	% Recovery	80 - 120	1	NA		09-27-02
M021284		**SW846 7471 CVAA**						**M021284-003**	
MT.2002.1103.11	7439-97-6	Mercury	98	% Recovery	90 - 110	1	NA		09-23-02

Type: ***MB: Method Blank*** Matrix: ***SOLID***

Run Sequence	CAS #	Analyte	Result	Units	Range	Dilution Factor	Detection Limit	Code	Run Date
MO0215		**ASTM D2216**						**02.1476-1**	
WC.2002.1476.1		Moisture	ND	%		1	0.1		10-09-02
W02387		**EPA 218.4 Hex. Chromium by Chelation Extraction**						**W02387-001**	
WC.2002.1317.2		Chromium, Hexavalent	ND	mg / kg		1	1		09-24-02

Assaigai Analytical Laboratories, Inc.

Quality Control Summary

Client: **LANL-DDP03-0271-014,RM100 E SI**
Project: **XURP 0450 3219 0000, 1199S&1203S**
Order: **0209364 LOS40**

Explanation of codes	
D	*Not applicable due to sample dilution*
L	*Not applicable due to MDL proximity*

Type: ***MB: Method Blank*** Matrix: ***SOLID***

Run Sequence	CAS #	Analyte	Result	Units	Range	Dilution Factor	Detection Limit	Code	Run Date
W02387		**EPA 218.4 Hex. Chromium by Chelation Extraction**						**W02387-016**	
WC.2002.1317.19		Chromium, Hexavalent	ND	mg / kg		1	1		09-25-02
W02387		**EPA 218.4 Hex. Chromium by Chelation Extraction**						**W02387-023**	
WC.2002.1320.3		Chromium, Hexavalent	ND	mg / kg		1	1		09-26-02
M021282		**SW846 3050A/6020 ICP-MS**						**M021282-001**	
MT.2002.1109.11	7429-90-5	Aluminum	1.22	mg / Kg		1	0.5		09-23-02
MT.2002.1109.11	7440-36-0	Antimony	ND	mg / Kg		1	0.05		09-23-02
MT.2002.1109.11	7440-38-2	Arsenic	0.029	mg / Kg		1	0.025		09-23-02
MT.2002.1109.11	7440-39-3	Barium	0.128	mg / Kg		1	0.025		09-23-02
MT.2002.1109.11	7440-41-7	Beryllium	ND	mg / Kg		1	0.025		09-23-02
MT.2002.1118.11	7440-42-8	Boron	ND	mg / Kg		1	0.15		09-25-02
MT.2002.1109.11	7440-43-9	Cadmium	ND	mg / Kg		1	0.025		09-23-02
MT.2002.1118.11	7440-70-2	Calcium	3.00	mg / Kg		1	0.5		09-25-02
MT.2002.1109.11	7440-47-3	Chromium	0.064	mg / Kg		1	0.05		09-23-02
MT.2002.1109.11	7440-48-4	Cobalt	ND	mg / Kg		1	0.025		09-23-02
MT.2002.1109.11	7440-50-8	Copper	0.046	mg / Kg		1	0.025		09-23-02
MT.2002.1118.11	7439-89-6	Iron	1.29	mg / Kg		1	0.5		09-25-02
MT.2002.1109.11	7439-92-1	Lead	ND	mg / Kg		1	0.025		09-23-02
MT.2002.1133.11	7440-22-4	Lithium	ND	mg / Kg		1	0.05		09-27-02
MT.2002.1118.11	7439-95-4	Magnesium	1.09	mg / Kg		1	0.5		09-25-02
MT.2002.1109.11	7439-96-5	Manganese	0.038	mg / Kg		1	0.025		09-23-02
MT.2002.1109.11	7439-98-7	Molybdenum	ND	mg / Kg		1	0.025		09-23-02
MT.2002.1109.11	7440-02-0	Nickel	ND	mg / Kg		1	0.025		09-23-02
MT.2002.1118.11	7440-09-7	Potassium	1.67	mg / Kg		1	0.5		09-25-02
MT.2002.1109.11	7782-49-2	Selenium	ND	mg / Kg		1	0.025		09-23-02
MT.2002.1109.11	7440-21-3	Silicon	ND	mg / Kg		1	1		09-23-02
MT.2002.1109.11	7440-22-4	Silver	ND	mg / Kg		1	0.025		09-23-02
MT.2002.1118.11	7440-23-5	Sodium	1.60	mg / Kg		1	0.5		09-25-02
MT.2002.1109.11	7439-99-6	Strontium	ND	mg / Kg		1	0.025		09-23-02
MT.2002.1109.11	7440-28-0	Thallium	ND	mg / Kg		1	0.025		09-23-02
MT.2002.1109.11	7440-31-5	Tin	0.617	mg / Kg		1	0.025		09-23-02
MT.2002.1109.11	7440-32-6	Titanium	0.060	mg / Kg		1	0.025		09-23-02
MT.2002.1109.11	7440-61-1	Uranium	ND	mg / Kg		1	0.025		09-23-02
MT.2002.1118.11	7440-62-2	Vanadium	ND	mg / Kg		1	0.05		09-25-02
MT.2002.1118.11	7440-66-6	Zinc	ND	mg / Kg		1	0.25		09-25-02
M021284		**SW846 7471 CVAA**						**M021284-001**	
MT.2002.1103.9	7439-97-6	Mercury	ND	mg / Kg		1	0.05		09-23-02

Assaigai Analytical Laboratories, Inc.

Quality Control Summary

Client: **LANL-DDP03-0271-014,RM100 E SI**
Project: **XURP 0450 3219 0000, 1199S&1203S**
Order: **0209364 LOS40**

Explanation of codes	
D	*Not applicable due to sample dilution*
L	*Not applicable due to MDL proximity*

Type: ***MD: Matrix Duplicate*** Matrix: ***SOLID***

Run Sequence	CAS #	Analyte	Result	Units	Range	Dilution Factor	Detection Limit	Code	Run Date
MO0215		**ASTM D2216**						**02.1476-3**	
WC.2002.1476.3		Moisture	22	RPD		1	NA		10-09-02

Type: ***MS: Matrix Spike*** Matrix: ***SOLID***

Run Sequence	CAS #	Analyte	Result	Units	Range	Dilution Factor	Detection Limit	Code	Run Date
W02387		**EPA 218.4 Hex. Chromium by Chelation Extraction**						**W02387-007**	
WC.2002.1317.8		Chromium, Hexavalent	84	% Recovery	80 - 120	1	NA		09-25-02
M021282		**SW846 3050A/6020 ICP-MS**						**M021282-007**	
MT.2002.1109.17	7429-90-5	Aluminum	4000	% Recovery	80 - 120	93	NA		09-23-02
MT.2002.1109.16	7440-36-0	Antimony	29	% Recovery	80 - 120	9	NA		09-23-02
MT.2002.1109.16	7440-38-2	Arsenic	99	% Recovery	80 - 120	9	NA		09-23-02
MT.2002.1109.16	7440-39-3	Barium	279	% Recovery	80 - 120	9	NA		09-23-02
MT.2002.1109.16	7440-41-7	Beryllium	107	% Recovery	80 - 120	9	NA		09-23-02
MT.2002.1118.38	7440-42-8	Boron	111	% Recovery	80 - 120	9	NA		09-25-02
MT.2002.1109.16	7440-43-9	Cadmium	108	% Recovery	80 - 120	9	NA		09-23-02
MT.2002.1118.38	7440-70-2	Calcium	282	% Recovery	80 - 120	9	NA		09-25-02
MT.2002.1109.17	7440-47-3	Chromium	395	% Recovery	80 - 120	93	NA		09-23-02
MT.2002.1109.16	7440-48-4	Cobalt	103	% Recovery	80 - 120	9	NA		09-23-02
MT.2002.1109.16	7440-50-8	Copper	138	% Recovery	80 - 120	9	NA		09-23-02
MT.2002.1118.15	7439-89-6	Iron	3610	% Recovery	80 - 120	93	NA		09-25-02
MT.2002.1109.16	7439-92-1	Lead	113	% Recovery	80 - 120	9	NA		09-23-02
MT.2002.1118.38	7439-95-4	Magnesium	796	% Recovery	80 - 120	9	NA		09-25-02
MT.2002.1109.17	7439-96-5	Manganese	98	% Recovery	80 - 120	93	NA		09-23-02
MT.2002.1109.16	7439-98-7	Molybdenum	101	% Recovery	80 - 120	9	NA		09-23-02
MT.2002.1109.16	7440-02-0	Nickel	105	% Recovery	80 - 120	9	NA		09-23-02
MT.2002.1118.38	7440-09-7	Potassium	667	% Recovery	80 - 120	9	NA		09-25-02
MT.2002.1109.16	7782-49-2	Selenium	110	% Recovery	80 - 120	9	NA		09-23-02
MT.2002.1109.16	7440-21-3	Silicon	312	% Recovery	80 - 120	9	NA		09-23-02
MT.2002.1109.16	7440-22-4	Silver	97	% Recovery	80 - 120	9	NA		09-23-02
MT.2002.1118.38	7440-23-5	Sodium	128	% Recovery	80 - 120	9	NA		09-25-02
MT.2002.1109.16	7439-89-6	Strontium	327	% Recovery	80 - 120	9	NA		09-23-02
MT.2002.1109.16	7440-28-0	Thallium	94	% Recovery	80 - 120	9	NA		09-23-02
MT.2002.1109.16	7440-31-5	Tin	119	% Recovery	80 - 120	9	NA		09-23-02
MT.2002.1109.17	7440-32-6	Titanium	1800	% Recovery	80 - 120	93	NA		09-23-02
MT.2002.1109.16	7440-61-1	Uranium	102	% Recovery	80 - 120	9	NA		09-23-02
MT.2002.1118.38	7440-62-2	Vanadium	113	% Recovery	80 - 120	9	NA		09-25-02
MT.2002.1118.38	7440-66-6	Zinc	166	% Recovery	80 - 120	9	NA		09-25-02
M021282		**SW846 3050A/6020 ICP-MS**						**M021282-009**	
MT.2002.1133.15	7440-22-4	Lithium	242	% Recovery	80 - 120	10	NA		09-27-02
M021284		**SW846 7471 CVAA**						**M021284-005**	
MT.2002.1103.13	7439-97-6	Mercury	137	% Recovery	90 - 110	1	NA		09-23-02

Assaigai Analytical Laboratories, Inc.

Quality Control Summary

Client: **LANL-DDR03-0271-014,RM100 E SI**
Project: **XURP 0450 3219 0000, 1199S&1203S**
Order: **0209364 LOS40**

Explanation of codes	
D	*Not applicable due to sample dilution*
L	*Not applicable due to MDL proximity*

Type: ***MSD: Matrix Spike Duplicate Precision*** Matrix: ***SOLID***

Run Sequence	CAS #	Analyte	Result	Units	Range	Dilution Factor	Detection Limit	Code	Run Date
W02387		**EPA 218.4 Hex. Chromium by Chelation Extraction**					**W02387-009**		
WC.2002.1317.10		Chromium, Hexavalent	< 1	RPD	0 - 20	1	NA		09-25-02
M021282		**SW846 3050A/6020 ICP-MS**					**M021282-008**		
MT.2002.1109.21	7429-90-5	Aluminum	26	RPD	0 - 20	97	NA		09-23-02
MT.2002.1109.18	7440-36-0	Antimony	2	RPD	0 - 20	10	NA		09-23-02
MT.2002.1109.18	7440-38-2	Arsenic	17	RPD	0 - 20	10	NA		09-23-02
MT.2002.1109.18	7440-39-3	Barium	135	RPD	0 - 20	10	NA		09-23-02
MT.2002.1109.18	7440-41-7	Beryllium	6	RPD	0 - 20	10	NA		09-23-02
MT.2002.1118.39	7440-42-8	Boron	7	RPD	0 - 20	10	NA		09-25-02
MT.2002.1109.18	7440-43-9	Cadmium	8	RPD	0 - 20	10	NA		09-23-02
MT.2002.1118.39	7440-70-2	Calcium	481	RPD	0 - 20	10	NA		09-25-02
MT.2002.1109.21	7440-47-3	Chromium	52	RPD	0 - 20	97	NA		09-23-02
MT.2002.1109.18	7440-48-4	Cobalt	3	RPD	0 - 20	10	NA		09-23-02
MT.2002.1109.18	7440-50-8	Copper	23	RPD	0 - 20	10	NA		09-23-02
MT.2002.1118.16	7439-89-6	Iron	36	RPD	0 - 20	97	NA		09-25-02
MT.2002.1109.18	7439-92-1	Lead	14	RPD	0 - 20	10	NA		09-23-02
MT.2002.1118.39	7439-95-4	Magnesium	57	RPD	0 - 20	10	NA		09-25-02
MT.2002.1109.21	7439-96-5	Manganese	275	RPD	0 - 20	97	NA		09-23-02
MT.2002.1109.18	7439-98-7	Molybdenum	3	RPD	0 - 20	10	NA		09-23-02
MT.2002.1109.18	7440-02-0	Nickel	5	RPD	0 - 20	10	NA		09-23-02
MT.2002.1118.39	7440-09-7	Potassium	42	RPD	0 - 20	10	NA		09-25-02
MT.2002.1109.18	7782-49-2	Selenium	9	RPD	0 - 20	10	NA		09-23-02
MT.2002.1109.18	7440-21-3	Silicon	80	RPD	0 - 20	10	NA		09-23-02
MT.2002.1109.18	7440-22-4	Silver	2	RPD	0 - 20	10	NA		09-23-02
MT.2002.1118.39	7440-23-5	Sodium	6	RPD	0 - 20	10	NA		09-25-02
MT.2002.1109.18	7439-89-6	Strontium	35	RPD	0 - 20	10	NA		09-23-02
MT.2002.1109.18	7440-28-0	Thallium	5	RPD	0 - 20	10	NA		09-23-02
MT.2002.1109.18	7440-31-5	Tin	14	RPD	0 - 20	10	NA		09-23-02
MT.2002.1109.21	7440-32-6	Titanium	5	RPD	0 - 20	97	NA		09-23-02
MT.2002.1109.18	7440-61-1	Uranium	1	RPD	0 - 20	10	NA		09-23-02
MT.2002.1118.39	7440-62-2	Vanadium	32	RPD	0 - 20	10	NA		09-25-02
MT.2002.1118.39	7440-66-6	Zinc	61	RPD	0 - 20	10	NA		09-25-02
M021282		**SW846 3050A/6020 ICP-MS**					**M021282-010**		
MT.2002.1133.16	7440-22-4	Lithium	116	RPD	0 - 20	9	NA		09-27-02
M021284		**SW846 7471 CVAA**					**M021284-006**		
MT.2002.1103.66	7439-97-6	Mercury	39	RPD	0 - 20	1	NA		09-23-02

Assaigai Analytical Laboratories, Inc.

Quality Control Summary

Client: **LANL-DDP03-0271-014,RM100 E SI**
Project: **XURP 0450 3219 0000, 1199S&1203S**
Order: **0209364 LOS40**

Explanation of codes	
D	*Not applicable due to sample dilution*
L	*Not applicable due to MDL proximity*

Type: ***MSD: Matrix Spike Duplicate Accuracy*** Matrix: ***SOLID***

Run Sequence	CAS #	Analyte	Result	Units	Range	Dilution Factor	Detection Limit	Code	Run Date
W02387		**EPA 218.4 Hex. Chromium by Chelation Extraction**						**W02387-009**	
WC.2002.1317.10		Chromium, Hexavalent	84	% Recovery	80 - 120	1	NA		09-25-02
M021282		**SW846 3050A/6020 ICP-MS**						**M021282-008**	
MT.2002.1109.21	7429-90-5	Aluminum	2650	% Recovery	80 - 120	97	NA		09-23-02
MT.2002.1109.18	7440-36-0	Antimony	29	% Recovery	80 - 120	10	NA		09-23-02
MT.2002.1109.18	7440-38-2	Arsenic	84	% Recovery	80 - 120	10	NA		09-23-02
MT.2002.1109.18	7440-39-3	Barium	54	% Recovery	80 - 120	10	NA		09-23-02
MT.2002.1109.18	7440-41-7	Beryllium	102	% Recovery	80 - 120	10	NA		09-23-02
MT.2002.1118.39	7440-42-8	Boron	104	% Recovery	80 - 120	10	NA		09-25-02
MT.2002.1109.18	7440-43-9	Cadmium	100	% Recovery	80 - 120	10	NA		09-23-02
MT.2002.1118.39	7440-70-2	Calcium	< 1	% Recovery	80 - 120	10	NA		09-25-02
MT.2002.1109.21	7440-47-3	Chromium	548	% Recovery	80 - 120	97	NA		09-23-02
MT.2002.1109.18	7440-48-4	Cobalt	100	% Recovery	80 - 120	10	NA		09-23-02
MT.2002.1109.18	7440-50-8	Copper	109	% Recovery	80 - 120	10	NA		09-23-02
MT.2002.1118.16	7439-89-6	Iron	2880	% Recovery	80 - 120	97	NA		09-25-02
MT.2002.1109.18	7439-92-1	Lead	130	% Recovery	80 - 120	10	NA		09-23-02
MT.2002.1118.39	7439-95-4	Magnesium	444	% Recovery	80 - 120	10	NA		09-25-02
MT.2002.1109.21	7439-96-5	Manganese	709	% Recovery	80 - 120	97	NA		09-23-02
MT.2002.1109.18	7439-98-7	Molybdenum	98	% Recovery	80 - 120	10	NA		09-23-02
MT.2002.1109.18	7440-02-0	Nickel	99	% Recovery	80 - 120	10	NA		09-23-02
MT.2002.1118.39	7440-09-7	Potassium	435	% Recovery	80 - 120	10	NA		09-25-02
MT.2002.1109.18	7782-49-2	Selenium	100	% Recovery	80 - 120	10	NA		09-23-02
MT.2002.1109.18	7440-21-3	Silicon	134	% Recovery	80 - 120	10	NA		09-23-02
MT.2002.1109.18	7440-22-4	Silver	95	% Recovery	80 - 120	10	NA		09-23-02
MT.2002.1118.39	7440-23-5	Sodium	121	% Recovery	80 - 120	10	NA		09-25-02
MT.2002.1109.18	7439-89-6	Strontium	229	% Recovery	80 - 120	10	NA		09-23-02
MT.2002.1109.18	7440-28-0	Thallium	90	% Recovery	80 - 120	10	NA		09-23-02
MT.2002.1109.18	7440-31-5	Tin	138	% Recovery	80 - 120	10	NA		09-23-02
MT.2002.1109.21	7440-32-6	Titanium	1730	% Recovery	80 - 120	97	NA		09-23-02
MT.2002.1109.18	7440-61-1	Uranium	103	% Recovery	80 - 120	10	NA		09-23-02
MT.2002.1118.39	7440-62-2	Vanadium	82	% Recovery	80 - 120	10	NA		09-25-02
MT.2002.1118.39	7440-66-6	Zinc	311	% Recovery	80 - 120	10	NA		09-25-02
M021282		**SW846 3050A/6020 ICP-MS**						**M021282-010**	
MT.2002.1133.16	7440-22-4	Lithium	64	% Recovery	80 - 120	9	NA		09-27-02
M021284		**SW846 7471 CVAA**						**M021284-006**	
MT.2002.1103.66	7439-97-6	Mercury	92	% Recovery	90 - 110	1	NA		09-23-02

Monday, September 16, 2002

CHAIN OF CUSTODY DOCUMENT NUMBER: 1199SC

Los Alamos
NATIONAL LABORATORY

REQUEST NUMBER: 1199S

ANALYSIS TYPE: INORGANIC

ATTN: Elvin Chavez
Assaigai Analytical Laboratory
7300 Jefferson NE
Albuquerque, NM 87109

SAMPLE ID	CONT ID	CONTAINER DESCRIPTION 0209364	ORDER TEMPLATE CODE	PRESERVATIVE	MATRIX
RE03-02-49270	1	250 ML GLASS 01A	METALS+7196	ICE	S
RE03-02-49271	1	250 ML GLASS 02A	METALS+7196	ICE	S
RE03-02-49272	1	250 ML GLASS 03A	METALS+7196	ICE	S
RE03-02-49273	1	250 ML GLASS 04A	METALS+7196	ICE	S
RE03-02-49274	1	250 ML GLASS 05A	METALS+7196	ICE	S
RE03-02-49275	1	250 ML GLASS 06A	METALS+7196	ICE	S
RE03-02-49276	1	250 ML GLASS 07A	METALS+7196	ICE	S
RE03-02-49277	1	250 ML GLASS 08A	METALS+7196	ICE	S
RE03-02-49278	1	250 ML GLASS 09A	METALS+7196	ICE	S
RE03-02-49279	1	250 ML GLASS 10A	METALS+7196	ICE	S
RE03-02-49280	1	250 ML GLASS 11A	METALS+7196	ICE	S
RE03-02-49281	1	250 ML GLASS 12A	METALS+7196	ICE	S
RE03-02-49282	1	250 ML GLASS 13A	METALS+7196	ICE	S
RE03-02-49283	1	250 ML GLASS 14A	METALS+7196	ICE	S
RE03-02-49284	1	250 ML GLASS 15A	METALS+7196	ICE	S
RE03-02-49285	1	250 ML GLASS 16A	METALS+7196	ICE	S
RE03-02-49286	1	250 ML GLASS 17A	METALS+7196	ICE	S
RE03-02-49287	1	250 ML GLASS	METALS+7196	ICE	S
RE03-02-49288	1	250 ML GLASS	METALS+7196	ICE	S
RE03-02-49289	1	250 ML GLASS	METALS+7196	ICE	S
RE03-02-49290	1	250 ML GLASS	METALS+7196	ICE	S
RE03-02-49291	1	250 ML GLASS	METALS+7196	ICE	S
RE03-02-49292	1	250 ML GLASS	METALS+7196	ICE	S
RE03-02-49293	1	250 ML GLASS	METALS+7196	ICE	S
RE03-02-49294	1	250 ML GLASS	METALS+7196	ICE	S
RE03-02-49295	1	250 ML GLASS	METALS+7196	ICE	S
RE03-02-49296	1	250 ML GLASS	METALS+7196	ICE	S
RE03-02-49297	1	250 ML GLASS	METALS+7196	ICE	S
RE03-02-49298	1	250 ML GLASS	METALS+7196	ICE	S
RE03-02-49299	1	250 ML GLASS	METALS+7196	ICE	S
RE03-02-49300	1	250 ML GLASS	METALS+7196	ICE	S
RE03-02-49301	1	250 ML GLASS	METALS+7196	ICE	S

Relinquished By:		Date	Time	Received By:		Date	Time
PRINTED NAME	SIGNATURE	9-16-0	15.23	PRINTED NAME	SIGNATURE	9/16/02	1523
Elvin J. Chavez		9/17/0	750			9/17/02	750
PRINTED NAME	SIGNATURE			PRINTED NAME	SIGNATURE		
PRINTED NAME	SIGNATURE			PRINTED NAME	SIGNATURE		

Received for DISPOSAL By:		Date	Time	Remarks:
PRINTED NAME	SIGNATURE			

Monday, September 16, 2002

REQUEST NUMBER: 1199S

ANALYSIS TYPE: INORGANIC

Los Alamos
NATIONAL LABORATORY

02093364

ATTN: Elvin Chavez
Assaigai Analytical Laboratory
7300 Jefferson NE
Albuquerque, NM 87109

Please analyze the enclosed samples according to the schedule indicated:

These samples are on:

SHIP DATE: 09/16/2002
REPORT DUE: 10/16/2002
TURN AROUND REQ'D: 30

LANL Request Number: 1199S
Per Agreement Number:
Project Cost Code: XURP04503219

RAD SCREENING: NOT REQ
COMMENTS:

LANL ER SMO CONTACT:
Signature:

METHOD CODE	SAMPLE ID	CONT ID	SAMPLE MATRIX	DATE SAMPLED	COMMENTS
SW-846:7196A	RE03-02-49301	1	S	09/12/2002	
SW-846:7471A	RE03-02-49301	1	S	09/12/2002	
SW-846:7471A	RE03-02-49300	1	S	09/12/2002	
SW-846:6010B	RE03-02-49301	1	S	09/12/2002	
SW-846:6020	RE03-02-49301	1	S	09/12/2002	
SW-846:6010B	RE03-02-49300	1	S	09/12/2002	
SW-846:6020	RE03-02-49300	1	S	09/12/2002	
SW-846:7196A	RE03-02-49300	1	S	09/12/2002	
SW-846:6020	RE03-02-49299	1	S	09/12/2002	
SW-846:7196A	RE03-02-49299	1	S	09/12/2002	
SW-846:7471A	RE03-02-49299	1	S	09/12/2002	
SW-846:7196A	RE03-02-49298	1	S	09/12/2002	
SW-846:7471A	RE03-02-49298	1	S	09/12/2002	
SW-846:6010B	RE03-02-49299	1	S	09/12/2002	
SW-846:7471A	RE03-02-49297	1	S	09/12/2002	
SW-846:6010B	RE03-02-49298	1	S	09/12/2002	
SW-846:6020	RE03-02-49298	1	S	09/12/2002	
SW-846:6010B	RE03-02-49297	1	S	09/12/2002	
SW-846:6020	RE03-02-49297	1	S	09/12/2002	
SW-846:7196A	RE03-02-49297	1	S	09/12/2002	
SW-846:6020	RE03-02-49296	1	S	09/12/2002	
SW-846:7196A	RE03-02-49296	1	S	09/12/2002	
SW-846:7471A	RE03-02-49296	1	S	09/12/2002	
SW-846:7196A	RE03-02-49295	1	S	09/12/2002	
SW-846:7471A	RE03-02-49295	1	S	09/12/2002	
SW-846:6010B	RE03-02-49296	1	S	09/12/2002	
SW-846:7471A	RE03-02-49294	1	S	09/12/2002	
SW-846:6010B	RE03-02-49295	1	S	09/12/2002	
SW-846:6020	RE03-02-49295	1	S	09/12/2002	
SW-846:6010B	RE03-02-49294	1	S	09/12/2002	
SW-846:6020	RE03-02-49294	1	S	09/12/2002	
SW-846:7196A	RE03-02-49294	1	S	09/12/2002	
SW-846:6020	RE03-02-49293	1	S	09/12/2002	
SW-846:7196A	RE03-02-49293	1	S	09/12/2002	
SW-846:7471A	RE03-02-49293	1	S	09/12/2002	
SW-846:7196A	RE03-02-49292	1	S	09/12/2002	
SW-846:7471A	RE03-02-49292	1	S	09/12/2002	
SW-846:6010B	RE03-02-49293	1	S	09/12/2002	

Data Validation Cover Sheet

Section I. Data Record Package Identification

Request Number: 1203S Validation Date: 21-Nov-02 Lab Code: _____

Contract Laboratory Name: Assaigai

Validator: Keith Greene Organization: RRES

Analytical Suite(s): (check all that apply)

- ☐ Volatile Organics
- ☐ Semivolatile Organics
- ☐ Organochlorine Pesticides/Polychlorinated Biphenyls
- ☒ Other: 7196A (describe)
- ☐ High Explosives
- ☒ Inorganics
- ☐ Radiochemistry

Section II. Completeness Check

Yes	No	n/a	(check one)	Yes	No	n/a	(check one)
☒	☐	☐	1. Chain-of-custody form(s)	☒	☐	☐	6. Raw/BSS data
☒	☐	☐	2. Case narrative	☒	☐	☐	7. Quality control forms
☒	☐	☐	3. Sample result forms	☒	☐	☐	8. Quantitation reports
☐	☐	☒	4. Sample chromatograms	☐	☐	☒	9. TICs forms
☐	☐	☒	5. Standard chromatograms	☐	☐	☒	10. TICs mass spectra

Identify any samples in the assigned Request Number that are missing:

_____ _____ _____ _____ _____ _____ _____ _____

_____ _____ _____ _____ _____ _____ _____ _____

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed upon date of resolution and contract laboratory point of contact): Cr 6+ - No qualification needed.

Metals - Antimony is qualified as estimated (UJ, I3e) because the matrix spike was low. The raw data is reported without Correction for moisture, but the EDD is, values were verified.

(Attach additional comment sheets as necessary)

Validator's signature: [signature] Date: 11/21/02

Monday, September 16, 2002

CHAIN OF CUSTODY DOCUMENT NUMBER: 1203SC

Los Alamos
NATIONAL LABORATORY

REQUEST NUMBER: 1203S

ANALYSIS TYPE: INORGANIC

ATTN: Elvin Chavez
Assaigai Analytical Laboratory
7300 Jefferson NE
Albuquerque, NM 87109

ORIGINAL

SAMPLE ID	CONT ID	CONTAINER DESCRIPTION 0209373		ORDER TEMPLATE CODE	PRESERVATIVE	MATRIX
RE03-02-49530	1	250 ML GLASS	16A	METALS+7196	ICE	S
RE03-02-49531	1	250 ML GLASS	17A	METALS+7196	ICE	S

Final Page of CHAIN OF CUSTODY DOCUMENT FOR REQUEST NUMBER 1203S

Relinquished By: PRINTED NAME / SIGNATURE	Date	Time	Received By: PRINTED NAME / SIGNATURE	Date	Time
[illegible]	9-16-02	1523	Elvin J. Chavez	9/16/02	1523
Elvin J Chavez	9/17/02	750	M Wrasg	9-17-02	750
PRINTED NAME / SIGNATURE			PRINTED NAME / SIGNATURE		

Received for DISPOSAL By: Date Time

PRINTED NAME SIGNATURE

Remarks:

RE03-02-49530047

FRAC M021283-025

Assaigai Analytical Laboratories, Inc.

Analytical Result Summary

0209373-16A

Run Group	MT.2002.1110	59
Calc Method	6020	
Prep Method	MS3050	
Prep Matrix	SOLID	

		By	Dilution
Prepared	09-23-02 8:08:51	JRE	0.9600
Analyzed	09-24-02 19:05:00	JWB	100
Calibration	09-24-02 10:46:00		
Quant	09-24-02 19:12:00	061SMPL.D#	

r	C#	Analyte		QMass	m	Raw Quant	As	MRL	Report	As	Qual	f
	3	Be-9		9		0.1	ppb	0.025	< 2.40	mg / Kg		
	4	B-11		11		-1.3	ppb	0.15	< 14.4	mg / Kg		
	5	Na-23		23		47.68	ppb	0.5	229	mg / Kg		
	6	Mg-24		24		181.4	ppb	0.5	871	mg / Kg		
	7	Mg-25		25		183.5	ppb	0.5	881	mg / Kg		
	8	Mg-26		26		180.2	ppb	0.5	866	mg / Kg		
	9	Al-27		27		667.3	ppb	0.5	3200	mg / Kg		
	10	Si-28		28		232.6	ppb	1	1120	mg / Kg		
	11	K-39		39		128	ppb	0.5	615	mg / Kg		
	13	Ca-43		43		200	ppb	0.5	961	mg / Kg		
	14	Ca-44		44		202.3	ppb	0.5	972	mg / Kg		
x	16	Ti-47	>5x MB	47		91.04	ppb	0.025	437	mg / Kg		
	17	V-51		51		1.58	ppb	0.05	7.59	mg / Kg		
	18	Cr-52		52		1.48	ppb	0.05	7.11	mg / Kg		
	19	Cr-53		53		12.2	ppb	0.25	58.6	mg / Kg		
	20	Fe-54		54		1870	ppb	0.5	8980	mg / Kg		
x	21	Mn-55	>5x MB	55		58.15	ppb	0.025	279	mg / Kg		
x	22	Fe-57	>5x MB	57		1873	ppb	0.5	9000	mg / Kg		
	23	Co-59		59		-0.07	ppb	0.025	< 2.40	mg / Kg		
	24	Ni-60		60		0.67	ppb	0.025	3.22	mg / Kg		
	25	Cu-63		63		0.59	ppb	0.025	2.83	mg / Kg		
	26	Cu-65		65		0.54	ppb	0.025	2.59	mg / Kg		
	27	Zn-66		66		9.96	ppb	0.25	47.8	mg / Kg		
	28	Zn-67		67		10.2	ppb	0.25	49.0	mg / Kg		
	29	Zn-68		68		9.78	ppb	0.25	47.0	mg / Kg		
	32	As-75		75		0.45	ppb	0.025	< 2.40	mg / Kg		
	34	Se-82		82		0.38	ppb	0.025	< 2.40	mg / Kg		
	37	Sr-87		87		4.86	ppb	0.025	23.3	mg / Kg		
	40	Mo-95		95		2.21	ppb	0.025	10.6	mg / Kg		
	41	Mo-98		98		2.23	ppb	0.025	10.7	mg / Kg		
	43	Ag-107		107		-0.01	ppb	0.025	< 2.40	mg / Kg		
	45	Ag-109		109		-0.01	ppb	0.025	< 2.40	mg / Kg		
	46	Cd-111		111		0.06	ppb	0.025	< 2.40	mg / Kg		
	47	Cd-114		114		0.03	ppb	0.025	< 2.40	mg / Kg		
	50	Sn-120		120		0.35	ppb	0.025	< 2.40	mg / Kg		
	51	Sb-121		121		-0.11	ppb	0.05	< 4.80	mg / Kg		
	52	Sb-123	UJ, I3c	123		-0.06	ppb	0.05	< 4.80	mg / Kg		
	53	Ba-135		135		5.07	ppb	0.025	24.4	mg / Kg		
	54	Tb-159		159		0	ppb	0.001	< 0.096	mg / Kg		
	55	Au-197		197		-0.04	ppb	0.025	< 2.40	mg / Kg		
	56	Tl-205		205		-0.32	ppb	0.025	< 2.40	mg / Kg		
	59	Pb-208		208		1.55	ppb	0.025	7.44	mg / Kg		
	61	U-238		238		0.07	ppb	0.025	< 2.40	mg / Kg		

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FRAC M021283-025

Assaigai Analytical Laboratories, Inc.

Analytical Result Summary

0209373-16A

Run Group	MT.2002.1110	60l
Calc Method	6020	
Prep Method	MS3050	
Prep Matrix	SOLID	

		By	Dilution
Prepared	09-23-02 8:08:51	JRE	0.9606
Analyzed	09-24-02 19:14:00	JWB	10
Calibration	09-24-02 10:46:00		
Quant	09-24-02 19:21:00	062SMPL.D#	

r	C#	Analyte		QMass	m	Raw Quant	As	MRL	Report	As	Qual	f
x	3	Be-9		9		1.18	ppb	0.025	0.567	mg / Kg		
x	4	B-11		11		-0.19	ppb	0.15	< 1.44	mg / Kg		
x	5	Na-23	>5x MB	23		236.6	ppb	0.5	114	mg / Kg		
x	6	Mg-24	>5x MB	24		1516	ppb	0.5	728	mg / Kg		
	7	Mg-25		25		1584	ppb	0.5	761	mg / Kg		
	8	Mg-26		26		1561	ppb	0.5	750	mg / Kg		
x	9	Al-27	>5x MB	27		6020	ppb	0.5	2890	mg / Kg		
x	10	Si-28	5	28		502	ppb	1	241	mg / Kg		
x	11	K-39	>5x MB	39		1027	ppb	0.5	493	mg / Kg		
x	13	Ca-43	>5x MB	43		1599	ppb	0.5	768	mg / Kg		
	14	Ca-44		44		1585	ppb	0.5	761	mg / Kg		
	16	Ti-47		47		852.3	ppb	0.025	409	mg / Kg		x
x	17	V-51		51		11.8	ppb	0.05	5.67	mg / Kg		
x	18	Cr-52		52		9.52	ppb	0.05	4.57	mg / Kg		
	19	Cr-53		53		8.1	ppb	0.25	3.89	mg / Kg		
	20	Fe-54		54		17580	ppb	0.5	8440	mg / Kg		x
	21	Mn-55		55		571.5	ppb	0.025	274	mg / Kg		x
	22	Fe-57		57		17940	ppb	0.5	8620	mg / Kg		x
x	23	Co-59		59		1.9	ppb	0.025	0.912	mg / Kg		
x	24	Ni-60		60		6.75	ppb	0.025	3.24	mg / Kg		
x	25	Cu-63	>5x MB	63		4.74	ppb	0.025	2.28	mg / Kg		
	26	Cu-65		65		5.11	ppb	0.025	2.45	mg / Kg		
x	27	Zn-66		66		80.18	ppb	0.25	38.5	mg / Kg		
	28	Zn-67		67		76.69	ppb	0.25	36.8	mg / Kg		
	29	Zn-68		68		76.87	ppb	0.25	36.9	mg / Kg		
x	32	As-75		75		2.65	ppb	0.025	1.27	mg / Kg		
x	34	Se-82		82		1.35	ppb	0.025	0.648	mg / Kg		
x	37	Sr-87		87		46.52	ppb	0.025	22.3	mg / Kg		
x	40	Mo-95	>5x MB	95		5.8	ppb	0.025	2.78	mg / Kg		
	41	Mo-98		98		5.72	ppb	0.025	2.75	mg / Kg		
x	43	Ag-107		107		0.08	ppb	0.025	< 0.240	mg / Kg		
	45	Ag-109		109		0.09	ppb	0.025	< 0.240	mg / Kg		
x	46	Cd-111		111		0.28	ppb	0.025	< 0.240	mg / Kg		
	47	Cd-114		114		0.11	ppb	0.025	< 0.240	mg / Kg		
x	50	Sn-120	B	120		3.98	ppb	0.025	1.91	mg / Kg		
x	51	Sb-121		121		-0.06	ppb	0.05	< 0.480	mg / Kg		
	52	Sb-123	UJ, E3c	123		0	ppb	0.05	< 0.480	mg / Kg		
x	53	Be-135		135		48.69	ppb	0.025	23.4	mg / Kg		
	54	Tb-159		159		0	ppb	0.001	< 0.010	mg / Kg		
	55	Au-197		197		-0.02	ppb	0.025	< 0.240	mg / Kg		
x	56	Tl-205		205		-0.19	ppb	0.025	< 0.240	mg / Kg		
x	59	Pb-208	>5x MB	208		17.44	ppb	0.025	8.38	mg / Kg		
x	61	U-238		238		0.67	ppb	0.025	0.322	mg / Kg		

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FRAC M021283-026

Assaigai Analytical Laboratories, Inc.

0209373-17A

Analytical Result Summary

Run Group	MT.2002.1110	61
Calc Method	6020	
Prep Method	MS3050	
Prep Matrix	SOLID	

		By	Dilution
Prepared	09-23-02 6:08:51	JRE	1
Analyzed	09-24-02 19:23:00	JWB	100
Calibration	09-24-02 10:46:00		
Quant	09-24-02 19:30:00	063SMPL.D#	

r	C#	Analyte	QMass	m	Raw Quant	As	MRL	Report	As	Qual	f
	3	Be-9	9		0.08	ppb	0.025	< 2.50	mg / Kg		
	4	B-11	11		-1.57	ppb	0.15	< 15.0	mg / Kg		
	5	Na-23	23		74.31	ppb	0.5	372	mg / Kg		
	6	Mg-24	24		213.2	ppb	0.5	1070	mg / Kg		
	7	Mg-25	25		217.7	ppb	0.5	1090	mg / Kg		
	8	Mg-26	26		211.6	ppb	0.5	1060	mg / Kg		
	9	Al-27	27		988	ppb	0.5	4940	mg / Kg		
	10	Si-28	28		256.9	ppb	1	1280	mg / Kg		
	11	K-39	39		159.6	ppb	0.5	798	mg / Kg		
	13	Ca-43	43		414.6	ppb	0.5	2070	mg / Kg		
	14	Ca-44	44		424.4	ppb	0.5	2120	mg / Kg		
x	16	Ti-47 >5x MB	47		48.39	ppb	0.025	242	mg / Kg		
	17	V-51	51		1.69	ppb	0.05	8.45	mg / Kg		
	18	Cr-52	52		1.52	ppb	0.05	7.60	mg / Kg		
	19	Cr-53	53		6.68	ppb	0.25	33.4	mg / Kg		
	20	Fe-54	54		1521	ppb	0.5	7600	mg / Kg		
x	21	Mn-55 >5x MB	55		36.46	ppb	0.025	182	mg / Kg		
x	22	Fe-57 >5x MB	57		1486	ppb	0.5	7430	mg / Kg		
	23	Co-59	59		-0.02	ppb	0.025	< 2.50	mg / Kg		
	24	Ni-60	60		0.55	ppb	0.025	2.75	mg / Kg		
	25	Cu-63	63		1.05	ppb	0.025	5.25	mg / Kg		
	26	Cu-65	65		1.1	ppb	0.025	5.50	mg / Kg		
	27	Zn-66	66		9.7	ppb	0.25	48.5	mg / Kg		
	28	Zn-67	67		9.77	ppb	0.25	48.8	mg / Kg		
	29	Zn-68	68		9.41	ppb	0.25	47.0	mg / Kg		
	32	As-75	75		0.43	ppb	0.025	< 2.50	mg / Kg		
	34	Se-82	82		0.17	ppb	0.025	< 2.50	mg / Kg		
	37	Sr-87	87		7.29	ppb	0.025	36.4	mg / Kg		
	40	Mo-95	95		0.81	ppb	0.025	4.05	mg / Kg		
	41	Mo-98	98		0.73	ppb	0.025	3.65	mg / Kg		
	43	Ag-107	107		-0.01	ppb	0.025	< 2.50	mg / Kg		
	45	Ag-109	109		-0.01	ppb	0.025	< 2.50	mg / Kg		
	46	Cd-111	111		0.05	ppb	0.025	< 2.50	mg / Kg		
	47	Cd-114	114		0.01	ppb	0.025	< 2.50	mg / Kg		
	50	Sn-120	120		0.25	ppb	0.025	< 2.50	mg / Kg		
	51	Sb-121	121		-0.11	ppb	0.05	< 5.00	mg / Kg		
	52	Sb-123	123		-0.05	ppb	0.05	< 5.00	mg / Kg		
	53	Ba-135	135		7.2	ppb	0.025	36.0	mg / Kg		
	54	Tb-159	159		0	ppb	0.001	< 0.100	mg / Kg		
	55	Au-197	197		-0.05	ppb	0.025	< 2.50	mg / Kg		
	56	Tl-205	205		-0.33	ppb	0.025	< 2.50	mg / Kg		
	59	Pb-208	208		1.02	ppb	0.025	5.10	mg / Kg		
	61	U-238	238		0.1	ppb	0.025	< 2.50	mg / Kg		

Coyote 2001: Calculation 1.0.020729144500

Report Date 9/25/2002 9:50:17 AM

FRAC M021283-026

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Assaigai Analytical Laboratories, Inc.

Analytical Result Summary

0209373-17A 050

Run Group	MT.2002.1110	62
Calc Method	6020	
Prep Method	MS3050	
Prep Matrix	SOLID	

		By	Dilution
Prepared	09-23-02 8:08:51	JRE	1
Analyzed	09-24-02 19:32:00	JWB	10
Calibration	09-24-02 10:46:00		
Quant	09-24-02 19:39:00		064SMPL.D#

r	C#	Analyte	QMass	m	Raw Quant	As	MRL	Report	As	Qual	f
x	3	Be-9	9		0.87	ppb	0.025	0.435	mg / Kg		
x	4	B-11	11		0.34	ppb	0.15	< 1.50	mg / Kg		
x	5	Na-23 >5x MB	23		612.7	ppb	0.5	306	mg / Kg		
x	6	Mg-24 >5x MB	24		1930	ppb	0.5	965	mg / Kg		
	7	Mg-25	25		2044	ppb	0.5	1020	mg / Kg		
	8	Mg-26	26		1977	ppb	0.5	988	mg / Kg		
x	9	Al-27 >5x MB	27		9248	ppb	0.5	4620	mg / Kg		
x	10	Si-28 (E)	28		718.5	ppb	1	359	mg / Kg		
x	11	K-39 >5x MB	39		1371	ppb	0.5	686	mg / Kg		
x	13	Ca-43 >5x MB	43		3922	ppb	0.5	1960	mg / Kg		
	14	Ca-44	44		3816	ppb	0.5	1910	mg / Kg		
	16	Ti-47	47		454.5	ppb	0.025	227	mg / Kg		x
x	17	V-51	51		13.53	ppb	0.05	6.76	mg / Kg		
x	18	Cr-52	52		11.14	ppb	0.05	5.57	mg / Kg		
	19	Cr-53	53		24	ppb	0.25	12.0	mg / Kg		
	20	Fe-54	54		13780	ppb	0.5	6890	mg / Kg		x
	21	Mn-55	55		357.4	ppb	0.025	179	mg / Kg		x
	22	Fe-57	57		14080	ppb	0.5	7040	mg / Kg		x
x	23	Co-59	59		2.31	ppb	0.025	1.16	mg / Kg		
x	24	Ni-60	60		5.78	ppb	0.025	2.89	mg / Kg		
x	25	Cu-63 >5x MB	63		9.7	ppb	0.025	4.85	mg / Kg		
	26	Cu-65	65		9.76	ppb	0.025	4.88	mg / Kg		
x	27	Zn-66	66		76.71	ppb	0.25	38.4	mg / Kg		
	28	Zn-67	67		76.23	ppb	0.25	38.1	mg / Kg		
	29	Zn-68	68		72.39	ppb	0.25	36.2	mg / Kg		
x	32	As-75	75		2.62	ppb	0.025	1.31	mg / Kg		
x	34	Se-82	82		0.99	ppb	0.025	0.495	mg / Kg		
x	37	Sr-87	87		73.73	ppb	0.025	36.9	mg / Kg		
x	40	Mo-95 >5x MB	95		2.01	ppb	0.025	1.00	mg / Kg		
	41	Mo-98	98		2.02	ppb	0.025	1.01	mg / Kg		
x	43	Ag-107	107		0.18	ppb	0.025	< 0.250	mg / Kg		
	45	Ag-109	109		0.18	ppb	0.025	< 0.250	mg / Kg		
x	46	Cd-111	111		0.28	ppb	0.025	< 0.250	mg / Kg		
	47	Cd-114	114		0.11	ppb	0.025	< 0.250	mg / Kg		
x	50	Sn-120 (B)	120		3.27	ppb	0.025	1.64	mg / Kg		
x	51	Sb-121 > vJ, E3e	121		-0.07	ppb	0.05	< 0.500	mg / Kg		
	52	Sb-123	123		-0.01	ppb	0.05	< 0.500	mg / Kg		
x	53	Ba-135	135		70.56	ppb	0.025	35.3	mg / Kg		
	54	Tb-159	159		0	ppb	0.001	< 0.010	mg / Kg		
	55	Au-197	197		-0.04	ppb	0.025	< 0.250	mg / Kg		
x	56	Tl-205	205		-0.22	ppb	0.025	< 0.250	mg / Kg		
x	59	Pb-208 >5x MB	208		12.18	ppb	0.025	6.09	mg / Kg		
x	61	U-238	238		0.9	ppb	0.025	0.450	mg / Kg		

Assaigai Analytical Laboratories, Inc.

Analytical Result Summary

Run Group	WC.2002.1329
Analyst	NJL
Calc Method	ABS
Analyte	CR6

Import ID	02093016.228
Quant Meth	
Calibration	07-30-02 11:28:31
Quant	10-01-02 8:03:33

r	#	e	Run ID	Prep ID	Matrix	Signal m	Raw Quant	As	Run DF	Prep DF	MRL	Report	As	Prepared	Analyzed	Qual	f
	1		[STD-CCV]		LAB	0.411	0.4984	ppm	1	1	1	100	% Recovery		09-30-02 15:37:15		
x	2		W02392-018	[MB]	SOLID	-0.002	-0.0095	ppm	1	1	1	< 1.00	mg / kg	09-30-02 10:30:00	09-30-02 15:38:18		
	3		ERROR		LAB	0.009	0.004	ppm	1	1	0.005	< 0.005	mg / L		09-30-02 15:41:01		
	4		ERROR		LAB	0.03	0.0299	ppm	1	1	0.005	0.030	mg / L		09-30-02 15:42:28		
	5		W02392-019	0209373-06A	SOLID	0.045	0.0483	ppm	1	1	1	4.83	mg / kg	09-30-02 10:30:00	09-30-02 15:45:09		
x	6		W02392-020	0209373-06A	SOLID	-0.017	-0.0279	ppm	1	1	1	< 1.00	mg / kg	09-30-02 10:30:00	09-30-02 15:46:06		
	7		W02392-021	0209373-07A	SOLID	0.035	0.036	ppm	1	1	1	3.60	mg / kg	09-30-02 10:30:00	09-30-02 15:48:57		
x	8		W02392-022	0209373-07A	SOLID	-0.007	-0.0156	ppm	1	1	1	< 1.00	mg / kg	09-30-02 10:30:00	09-30-02 15:50:02		
	9		W02392-023	0209373-08A	SOLID	0.015	0.0114	ppm	1	1	1	1.14	mg / kg	09-30-02 10:30:00	09-30-02 15:51:29		
x	10		W02392-024	0209373-08A	SOLID	0.043	0.0459	ppm	1	1	1	4.59	mg / kg	09-30-02 10:30:00	09-30-02 15:53:04		
	11		W02392-025	0209373-09A	SOLID	0.01	0.0055	ppm	1	1	1	< 1.00	mg / kg	09-30-02 10:30:00	09-30-02 15:54:21		
x	12		W02392-026	0209373-09A	SOLID	0.016	0.0126	ppm	1	1	1	1.26	mg / kg	09-30-02 10:30:00	09-30-02 15:55:19		
	13		[STD-CCV]		LAB	0.415	0.5034	ppm	1	1	1	101	% Recovery		09-30-02 15:56:39		
	14		W02392-027	0209373-10A	SOLID	0.005	-0.0009	ppm	1	1	1	< 1.00	mg / kg	09-30-02 10:30:00	09-30-02 15:58:48		
x	15		W02392-028	0209373-10A	SOLID	0.018	0.0151	ppm	1	1	1	1.51	mg / kg	09-30-02 10:30:00	09-30-02 15:59:48		
	16		W02392-029	0209373-11A	SOLID	0.005	-0.0009	ppm	1	1	1	< 1.00	mg / kg	09-30-02 10:30:00	09-30-02 16:01:21		
x	17		W02392-030	0209373-11A	SOLID	0.016	0.0126	ppm	1	1	1	1.26	mg / kg	09-30-02 10:30:00	09-30-02 16:02:22		
	18		W02392-031	0209373-12A	SOLID	0.005	-0.0009	ppm	1	1	1	< 1.00	mg / kg	09-30-02 13:00:00	09-30-02 16:03:57		
x	19		W02392-032	0209373-12A	SOLID	0.032	0.0323	ppm	1	1	1	3.23	mg / kg	09-30-02 13:00:00	09-30-02 16:05:13		
	20		W02392-033	0209373-13A	SOLID	0.018	0.0151	ppm	1	1	1	1.51	mg / kg	09-30-02 13:00:00	09-30-02 16:06:50		
x	21		W02392-034	0209373-13A	SOLID	0.002	-0.0046	ppm	1	1	1	< 1.00	mg / kg	09-30-02 13:00:00	09-30-02 16:07:54		
	22		W02392-035	0209373-14A	SOLID	0.012	0.0077	ppm	1	1	1	< 1.00	mg / kg	09-30-02 13:00:00	09-30-02 16:09:43		
x	23		W02392-036	0209373-14A	SOLID	0.021	0.0188	ppm	1	1	1	1.88	mg / kg	09-30-02 13:00:00	09-30-02 16:10:39		
	24		[STD-CCV]		LAB	0.414	0.5021	ppm	1	1	1	100	% Recovery		09-30-02 16:12:10		
	25		W02392-037	0209373-15A	SOLID	0.009	0.004	ppm	1	1	1	< 1.00	mg / kg	09-30-02 13:00:00	09-30-02 16:14:50		
x	26		W02392-038	0209373-15A	SOLID	0.039	0.0409	ppm	1	1	1	4.09	mg / kg	09-30-02 13:00:00	09-30-02 16:16:02		
	27		W02392-039	0209373-16A	SOLID	0.007	0.0016	ppm	1	1	1	< 1.00	mg / kg	09-30-02 13:00:00	09-30-02 16:17:40		
x	28		W02392-040	0209373-16A	SOLID	0.02	0.0176	ppm	1	1	1	1.76	mg / kg	09-30-02 13:00:00	09-30-02 16:18:40		
	29		W02392-041	0209373-17A	SOLID	0.013	0.009	ppm	1	1	1	< 1.00	mg / kg	09-30-02 13:00:00	09-30-02 16:20:08		
x	30		W02392-042	0209373-17A	SOLID	0.049	0.0532	ppm	1	1	1	5.32	mg / kg	09-30-02 13:00:00	09-30-02 16:20:59		
	31		[STD-CCV]		LAB	0.41	0.4972	ppm	1	1	1	99	% Recovery		09-30-02 16:22:24		

JG 10/1/02

204

Coyote 2001: Calculation 1.0.020730151000

Report Date 10/1/2002 8:04:32 AM

ASSAIGAI ANALYTICAL LABORATORIES, INC.
Wet Chemistry Logbook

Ultra Violet/Visible Spectrophotometer Runlog

Date/Initials	Analysis	Batch ID#	Sample ID	ABS	Matrix	Prep DF	Run DF	Comments
9/30/02 - MJ	CrO_4^{2-}/SOLID	W02392	BLANK	0.000	SOLID	1X	1X	λ 540 nm
			[STD-CCV]	0.411				WC-133-02
			[MB]	-0.002				
			9373-06A	0.045				Undeveloped/zeroed
			↓	-0.017				Developed
			BLANK	0.000				
			9373-07A	0.035				Undeveloped/zeroed
			↓	-0.007				Developed
			BLANK	0.000				
			9373-08A	0.015				Undeveloped/zeroed
			↓	0.043				Developed
			BLANK	0.000				
			9373-09A	0.010				Undeveloped/zeroed
			↓	0.016				Developed
			BLANK	0.006				
			[STD-CCV]	0.415				WC-133-02
			9373-10A	0.005				Undeveloped/zeroed
			↓	0.018				Developed
			BLANK	0.000				
			9373-11A	0.005				Undeveloped/zeroed
			↓	0.016				Developed
			BLANK	0.000				
			9373-12A	0.005				Undeveloped/zeroed
			↓	0.032				Developed
			BLANK	0.000				
			9373-13A	0.018				Undeveloped/zeroed
			↓	0.002				Developed
			BLANK	0.000				
			9373-14A	0.012				Undeveloped/zeroed
			↓	0.021				Developed
			BLANK	0.000				
			[STD-CCV]	0.414				WC-133-02
			9373-15A	0.009				Undeveloped/zeroed
			↓	0.039				Developed

* BATCH CONTINUED ON NEXT PAGE

ASSAIGAI ANALYTICAL LABORATORIES, INC.

Wet Chemistry Logbook

654

* BATCH CONTINUED FROM LAST PAGE

Ultra Violet/Visible Spectrophotometer Runlog

Date/Initials	Analysis	Batch ID#	Sample ID	ABS	Matrix	Prep DF	Run DF	Comments
9/30/02 - LY	CR6+/SOLID	W02392	BLANK	0.000	SOLID	1X	1X	λ 540 nm
			9373-16A	0.007				Undeveloped/Zeroed
			↓	0.020				Developed
			BLANK	0.000				
			9373-17A	0.013				Undeveloped/zeroed
			↓	0.049				Developed
			BLANK	0.000				
			[STD-CCV]	0.410				WC-133-02

LY 9/30/02

DATA VALIDATION COVER SHEET (Example)

SECTION I.

REQUEST NUMBER: 12035 COST CODE: _____

VALIDATION DATE: _____

LAB NAME: ASSAIGAI LAB CODE: _____

VALIDATOR: _____ ORGANIZATION: _____

ANALYTICAL SUITE: ___ VOLATILES ___ HIGH EXPLOSIVES

___ SEMIVOLATILES ✓ INORGANICS

___ PESTICIDES/AROCLORS ___ RADIOCHEMISTRY

OTHER (describe) _____

SECTION II. COMPLETENESS CHECKLIST

Item	Present? (Y/N/NA)	Item	Present? (Y/N/NA)
1. COC form(s)		2. Case Narrative	
3. Sample Results		4. Sample Chromatograms	
5. Standard Chromatograms		6. Quantitation Reports	
7. QC Forms			

Identify any samples in the assigned Request Number that are missing:

_____ _____ _____ _____ _____ _____

_____ _____ _____ _____ _____ _____

Comments: include information about requests to the laboratory and agreed upon date of resolution and lab contact: (Attach additional comment sheets as necessary)

_____

_____

_____

Signature/1st validation: _____ Date/1st validation: _____

Signature/2nd validation: _____ Date/2nd validation: _____

ASSAIGAI ANALYTICAL LABORATORIES, INC.
P.O. Box 90430 • Albuquerque, New Mexico 87199 • (505) 345-8964 • FAX (505) 345-7259
3332 Wedgewood, E-5 • El Paso, Texas 79925 • (915) 593-6000 • FAX (915) 593-7820
127 Eastgate Drive, 212-C • Los Alamos, New Mexico 87544 • (505) 662-2558

November 4, 2002

LANL-DDP03-0271-014, RM100 E SI
P.O. Box 1663, MS H865
Los Alamos, NM 87544

Dear Keith Greene,

Please find enclosed Assaigai Analytical Laboratories, Inc. Level IV data package for LANL request numbers 1203S. The original chain of custody was sent on October 25, 2002. A copy of the chain of custody was been enclosed in the data package. Electronic data results were e-mailed to kgreene@lanl.gov on 10/24/02. If you have any questions please call me at (505) 345-8964.

Respectfully,

John P. Morris

Member:
American Council of
Independent Laboratories, Inc.

REPRODUCTION OF THIS REPORT IN LESS THAN FULL REQUIRES THE WRITTEN CONSENT OF AAL.
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PRODUCT ENDORSEMENT BY THE NATIONAL VOLUNTARY LABORATORY ACCREDITATION PROGRAM.

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Original sent on October 25, 2002

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- D. Preparation Logbook
- E. LIMS Data Report
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  2. Continuing Calibration Verification Forms
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  5. Sample Data Forms
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  2. LIMS Raw Data

V. QC Summary w/Limits

Monday, September 16, 2002

CHAIN OF CUSTODY DOCUMENT NUMBER: 1203SC

Los Alamos
NATIONAL LABORATORY

REQUEST NUMBER: 1203S

ANALYSIS TYPE: INORGANIC

ATTN: Elvin Chavez
Assaigai Analytical Laboratory
7300 Jefferson NE
Albuquerque, NM 87109

ORIGINAL

SAMPLE ID	CONT ID	CONTAINER DESCRIPTION 0209373		ORDER TEMPLATE CODE	PRESERVATIVE	MATRIX
RE03-02-49530	1	250 ML GLASS	16A	METALS+7196	ICE	S
RE03-02-49531	1	250 ML GLASS	17A	METALS+7196	ICE	S

Final Page of CHAIN OF CUSTODY DOCUMENT FOR REQUEST NUMBER 1203S

Relinquished By: PRINTED NAME / SIGNATURE	Date	Time	Received By: PRINTED NAME / SIGNATURE	Date	Time
[illegible]	9-16-02	15:23	Elvin J. Chavez	9/16/02	1523
Elvin J Chavez	9/17/02	750	M Wrage	9-17-02	750
PRINTED NAME / SIGNATURE			PRINTED NAME / SIGNATURE		

Received for DISPOSAL By: PRINTED NAME / SIGNATURE	Date	Time	Remarks:

Monday, September 16, 2002

REQUEST NUMBER: 1203S

ANALYSIS TYPE: INORGANIC

0209373

Los Alamos
NATIONAL LABORATORY

ATTN: Elvin Chavez
Assaigai Analytical Laboratory
7300 Jefferson NE
Albuquerque, NM 87109

Please analyze the enclosed samples according to the schedule indicated:

SHIP DATE: 09/16/2002
REPORT DUE: 10/16/2002
TURN AROUND REQ'D: 30

RAD SCREENING: NOT REQ
COMMENTS:

These samples are on:

LANL Request Number: 1203S
Per Agreement Number:
Project Cost Code: XURP04503219

LANL ER SMO CONTACT:
Signature:

METHOD CODE	SAMPLE ID	CONT ID	SAMPLE MATRIX	DATE SAMPLED	COMMENTS
SW-846:7196A	RE03-02-49531	1	S	09/12/2002	
SW-846:7471A	RE03-02-49531	1	S	09/12/2002	
SW-846:7471A	RE03-02-49530	1	S	09/12/2002	
SW-846:6010B	RE03-02-49531	1	S	09/12/2002	
SW-846:6020	RE03-02-49531	1	S	09/12/2002	
SW-846:6010B	RE03-02-49530	1	S	09/12/2002	
SW-846:6020	RE03-02-49530	1	S	09/12/2002	
SW-846:7196A	RE03-02-49530	1	S	09/12/2002	

Final Page of REQUEST NUMBER 1203S

ASSAIGAI ANALYTICAL LABORATORIES, INC.
P.O. Box 90430 • Albuquerque, New Mexico 87199 • (505) 345-8964 • FAX (505) 345-7259
3332 Wedgewood, E-5 • El Paso, Texas 79925 • (915) 593-6000 • FAX (915) 593-7820
127 Eastgate Drive, 212-C • Los Alamos, New Mexico 87544 • (505) 662-2558

QC NARRATIVE FOR PROJECT 1203S

GENERAL

On 9/17/02 Assaigai Analytical Laboratories, Inc. (AALI) received seventeen soil samples from Los Alamos National Labs. The samples were received on ice in a "milk crate" rather than a cooler. AALI requires all samples to be preserved at 4 °C ± 2, therefore a non-conformance report was issued for these samples. The only samples that would be affected by this non-conformance event are the Hg and Cr (VI). Keith Greene performed the sampling for Los Alamos National Labs (Request number: 1203S). The analyses requested were Hexavalent Chromium by EPA 218.4 (Chelation Extaction), Metals: Al, Sb, As, Ba, Be, B, Cd, Cr, Co, Cu, Fe, Pb, Li, Mg, Mn, Mo, Ni, K, Se, Si, Ag, Na, Sr, Tl, Sn, Ti, U, V & Zn SW846-3050A/6020, and Hg by SW846-7471A.

INITIAL/CONTINUING CALIBRATION (ICV & CCV)

The ICV for the SW846-6020 analysis was inadvertently spiked at 100 ppb instead of the usual 120 ppb, therefore the ICV was flagged as out of criteria. The ICV recovery for the 100 ppb spike is 106% which is within the required ± 10% criteria. All results are valid as reported.

The percent recoveries for Si in the ICV and in all CCV's were outside of the SW846-6020 QC criteria. The sample results were flagged with an "E" for estimated value.

All other initial and continuing calibrations met all QA/QC criteria for analytes of interest in the other analyses requested.

METHOD BLANK (MB)

The method blank for the SW846-6020 analysis was positive for Al, Ca, Fe, Pb, Mg, Mn, Mo, K, Na, Cu, and Ti. The reported sample results are greater than five times the method blank level, and are therefore, valid as reported. The method blank was also positive for Sn, but in this case the reported sample results are not greater than five times the blank level, and are therefore, flagged with a "B" for blank contamination.

All other laboratory method blanks associated with the analyses were free of target analytes.

LABORATORY CONTROL SAMPLE AND DUPLICATE (LCS/LCSD)

The LCS/LCSD recoveries and RPDs associated with all analyses were within AALI's QC criteria limits.

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MATRIX SPIKE AND DUPLICATE (MS/MSD)

The MS recovery for Hexavalent Chromium was not within AALI's QC limits. The out of criteria MS recovery was due to matrix interference. Sample RE3-02-49287 was utilized for the matrix/matrix spike duplicate.

The MS recovery for Hg was not within AALI's QC limits. The out of criteria MS recovery was due to the non-homogeneous nature of the sample. Sample RE3-02-49280 was utilized for the matrix/matrix spike duplicate.

The MS/MSD recoveries and associated RPDs for Al, Ba, Fe, Li, Si, Ti, Na, Mg, K, Ca, Mn, Sr, Sb and Zn are out of QC criteria due to the high sample concentration relative to the spike value and to matrix interference. Sample RE3-02-49287 was utilized for the SW846 6020 matrix spike/matrix spike duplicate.

MS/MSD recoveries and RPDs associated with all other analyses requested were within AALI's QC limits.

METHODS

All analyses were performed at AALI utilize procedures published in the following manuals, as well as all the latest promulgated updates.

1. Standard Methods for the Examination of Water and Wastewater, 18th Edition, 1992.
2. SW-846, Test Methods for Eval. Solid Waste: Physical/Chemical Methods, 3rd Ed, USEPA, 1986.
3. Annual Book of ASTM Standards.
4. EPA-600/4-79-020 Methods for Chemical Analysis of Water and Wastes, Revised March 1983.
5. EPA-600/4-82-057 Methods for Organic Chemical Analysis of Municipal & Industrial Wastewater, 1982.
6. NIOSH Manual of Analytical Methods, 3rd Edition, 1984.
7. Guidelines Establishing Test Procedures for the Analysis of Pollutants under the Clean Water Act, 40 CFR Part 136, October 1984.

This narrative was prepared by: _____ QA/QC Department

11.4.02
Date

MT.2002. 1103

ASSAIGAI ANALYTICAL LABORATORIES, INC.

001

Metals Cover Sheet

	Analyst			Reviewer		
Final Report Printout	Y	N	NA	Y	N	NA
Raw Data	Y	N	NA	Y	N	NA
Standard Summary Sheet	Y	N	NA	Y	N	NA

Batch	NCR Analyst	NCR Reviewer	Parabellum Analyst	Parabellum Reviewer	Digestion Log Analyst	Digestion Log Reviewer	TCLP Log Analyst	TCLP Log Reviewer
M021284	Y - N - NA NCR #	Y - N - NA	Y - N - NA	Y - N - NA	Y - N - NA	Y - N - NA	Y - N - NA	Y - N - NA
M021285	Y - N - NA NCR #	Y - N - NA	Y - N - NA	Y - N - NA	Y - N - NA	Y - N - NA	Y - N - NA	Y - N - NA
	Y - N - NA NCR #	Y - N - NA	Y - N - NA	Y - N - NA	Y - N - NA	Y - N - NA	Y - N - NA	Y - N - NA
	Y - N - NA NCR #	Y - N - NA	Y - N - NA	Y - N - NA	Y - N - NA	Y - N - NA	Y - N - NA	Y - N - NA
	Y - N - NA NCR #	Y - N - NA	Y - N - NA	Y - N - NA	Y - N - NA	Y - N - NA	Y - N - NA	Y - N - NA

Dept. Funnel/Prepared By SB
Date 9/23/02

Final Funnel/Reviewed By CJ
Date 9/23/02

Comments

QC Review

Assaigai Analytical Laboratories, Inc.

Run Group Cover Sheet

Run Group	MT.2002.1103
Reviewed:	9/23/02 12:53:54 PM
By:	JRE

Calc Method	PEHG
Import Source	FIM01
Instrument:	PE-FIMS

Calibration Mode	NATIVE
Calculation Mode	NORMAL
Spike Dilution Mode	NORMAL

RAW QUANT FLAGS	
a	*all result information keyed in manually*
d	*data from instrument keyed in manually*
i	*integration of peak performed manually*
q	*qdelete of peak*
r	*response factor postquant adjustment*

003

Assaigai Analytical Laboratories, Inc.

Laboratory Logbook

Run Group MT.2002.1103
Import Source FIM01
Instrument: PE-FIMS

o	Run#	Acquisition Date	Data File	Vial	e	Sample Run ID	Run DF	Comment	see data file(s)	Analyst
x	1	09-23-02 9:53:57	020923_r.txt	1		Calib Blank	1			JRE
x	2	09-23-02 9:56:06	020923_r.txt	2		Standard 1	1			JRE
x	3	09-23-02 9:58:15	020923_r.txt	3		Standard 2	1			JRE
x	4	09-23-02 10:00:23	020923_r.txt	4		Standard 3	1			JRE
x	5	09-23-02 10:02:34	020923_r.txt	5		Standard 4	1			JRE
x	6	09-23-02 10:04:42	020923_r.txt	6		Standard 5	1			JRE
	7	09-23-02 10:06:49	020923_r.txt	7		[STD-ICV]	1			JRE
	8	09-23-02 10:08:58	020923_r.txt	8		[CB]	1			JRE
	9	09-23-02 10:11:09	020923_r.txt	9		M021284-001	1			JRE
	10	09-23-02 10:13:18	020923_r.txt	10		M021284-002	1			JRE
	11	09-23-02 10:15:27	020923_r.txt	11		M021284-003	1			JRE
	12	09-23-02 10:17:35	020923_r.txt	12		M021284-004	1			JRE
	13	09-23-02 10:19:43	020923_r.txt	13		M021284-005	1			JRE
x	14	09-23-02 10:21:51	020923_r.txt	14		M021284-006	1			JRE
	15	09-23-02 10:24:00	020923_r.txt	15		M021284-007	1			JRE
	16	09-23-02 10:26:08	020923_r.txt	16		M021284-008	1			JRE
	17	09-23-02 10:28:20	020923_r.txt	17		M021284-009	1			JRE
	18	09-23-02 10:30:29	020923_r.txt	18		M021284-010	1			JRE
	19	09-23-02 10:32:41	020923_r.txt	19		[STD-CCV]	1			JRE
	20	09-23-02 10:34:49	020923_r.txt	20		[CB]	1			JRE
	21	09-23-02 10:37:00	020923_r.txt	21		M021284-011	1			JRE
	22	09-23-02 10:39:08	020923_r.txt	22		M021284-012	1			JRE
	23	09-23-02 10:41:17	020923_r.txt	23		M021284-013	1			JRE
	24	09-23-02 10:43:25	020923_r.txt	24		M021284-014	1			JRE
	25	09-23-02 10:45:33	020923_r.txt	25		M021284-015	1			JRE
	26	09-23-02 10:47:42	020923_r.txt	26		M021284-016	1			JRE
	27	09-23-02 10:49:50	020923_r.txt	27		M021284-017	1			JRE
	28	09-23-02 10:51:58	020923_r.txt	28		M021284-018	1			JRE
	29	09-23-02 10:54:07	020923_r.txt	29		M021284-019	1			JRE
	30	09-23-02 10:56:16	020923_r.txt	30		M021284-020	1			JRE
	31	09-23-02 10:58:23	020923_r.txt	31		[STD-CCV]	1			JRE
	32	09-23-02 11:00:32	020923_r.txt	32		[CB]	1			JRE
	33	09-23-02 11:02:39	020923_r.txt	33		M021284-021	1			JRE
	34	09-23-02 11:04;48	020923_r.txt	34		M021284-022	1			JRE
	35	09-23-02 11:06:56	020923_r.txt	35		M021285-001	1			JRE

Assaigai Analytical Laboratories, Inc.

Laboratory Logbook

Run Group MT.2002.1103
Import Source FIM01
Instrument: PE-FIMS

o	Run#	Acquisition Date	Data File	Vial	e	Sample Run ID	Run DF	Comment	see data file(s)	Analyst
	36	09-23-02 11:09:08	020923_r.txt	36		M021285-002	1			JRE
	37	09-23-02 11:11:17	020923_r.txt	37		M021285-003	1			JRE
	38	09-23-02 11:13:26	020923_r.txt	38		M021285-004	1			JRE
	39	09-23-02 11:15:33	020923_r.txt	39		M021285-005	1			JRE
x	40	09-23-02 11:17:42	020923_r.txt	40		M021285-006	1			JRE
	41	09-23-02 11:19:51	020923_r.txt	41		M021285-007	1			JRE
	42	09-23-02 11:22:00	020923_r.txt	42		M021285-008	1			JRE
	43	09-23-02 11:24:11	020923_r.txt	43		[STD-CCV]	1			JRE
	44	09-23-02 11:26:19	020923_r.txt	44		[CB]	1			JRE
	45	09-23-02 11:28:30	020923_r.txt	45		M021285-009	1			JRE
	46	09-23-02 11:30:39	020923_r.txt	46		M021285-010	1			JRE
	47	09-23-02 11:32:47	020923_r.txt	47		M021285-011	1			JRE
	48	09-23-02 11:34:56	020923_r.txt	48		M021285-012	1			JRE
	49	09-23-02 11:37:04	020923_r.txt	49		M021285-013	1			JRE
	50	09-23-02 11:39:13	020923_r.txt	50		M021285-014	1			JRE
	51	09-23-02 11:41:21	020923_r.txt	51		M021285-015	1			JRE
	52	09-23-02 11:43:29	020923_r.txt	52		M021285-016	1			JRE
	53	09-23-02 11:45:38	020923_r.txt	53		M021285-017	1			JRE
	54	09-23-02 11:47:50	020923_r.txt	54		M021285-018	1			JRE
	55	09-23-02 11:50:01	020923_r.txt	55		[STD-CCV]	1			JRE
	56	09-23-02 11:52:10	020923_r.txt	56		[CB]	1			JRE
	57	09-23-02 11:54:22	020923_r.txt	57		M021285-019	1			JRE
	58	09-23-02 11:56:30	020923_r.txt	58		M021285-020	1			JRE
	59	09-23-02 11:58:39	020923_r.txt	59		M021285-021	1			JRE
	60	09-23-02 12:00:48	020923_r.txt	60		M021285-022	1			JRE
	61	09-23-02 12:02:58	020923_r.txt	61		[STD-CCV]	1			JRE
	62	09-23-02 12:05:07	020923_r.txt	62		[CB]	1			JRE
	63	09-23-02 12:10:13	020923_r.txt	63		[STD-ICV]	1			JRE
	64	09-23-02 12:12:22	020923_r.txt	64		[CB]	1			JRE
x	65	09-23-02 12:14:34	020923_r.txt	65		M021284-005	1			JRE
	66	09-23-02 12:16:42	020923_r.txt	66		M021284-006	1			JRE
	67	09-23-02 12:18:50	020923_r.txt	67		M021285-006	1			JRE
	68	09-23-02 12:21:00	020923_r.txt	68		[STD-CCV]	1			JRE
	69	09-23-02 12:23:09	020923_r.txt	69		[CB]	1			JRE

Department: METALS
Prep Method: 7471
Matrix: SOLID
Batch ID: M021284

Assaigai Laboratories
Sample Preparation Log
Report Revision 011023

Prep Method: Hg Cold Vapor Solids & Oils

Sample Count: 17
Batch Start Timestamp: 09/23/02 8:56:37

Prep ID:	Sample ID:	Aliquot:	Units:	Initial By:	Total Volume:	Units:	Final By:	Prep DF:	Surrogate ID:	Spike ID:	Spike By:	Prep Timestamp:	Comments:
M021284-001	[MB]	1.00	G	JRE	50	ML	JRE	1			JRE	09/23/02 8:22:44	90C @ 8:22AM
M021284-002	[LCS]	1.00	G	JRE	50	ML	JRE	1		MT-0706-02	JRE	09/23/02 8:22:44	
M021284-003	[LCSD]	1.00	G	JRE	50	ML	JRE	1		MT-0706-02	JRE	09/23/02 8:22:44	
M021284-004	0209364-01A[M]	1.037	G	JRE	50	ML	JRE	0.9643			JRE	09/23/02 8:22:44	
M021284-005	0209364-01A[MS]	1.039	G	JRE	50	ML	JRE	0.9625		MT-0706-02	JRE	09/23/02 8:22:44	
M021284-006	0209364-01A[MSD]	1.082	G	JRE	50	ML	JRE	0.9242		MT-0706-02	JRE	09/23/02 8:22:44	
M021284-007	0209364-02A	1.003	G	JRE	50	ML	JRE	0.997			JRE	09/23/02 8:22:44	
M021284-008	0209364-03A	1.07	G	JRE	50	ML	JRE	0.9346			JRE	09/23/02 8:22:44	
M021284-009	0209364-04A	1.067	G	JRE	50	ML	JRE	0.9372			JRE	09/23/02 8:22:44	
M021284-010	0209364-05A	1.039	G	JRE	50	ML	JRE	0.9625			JRE	09/23/02 8:22:44	
M021284-011	0209364-06A	1.044	G	JRE	50	ML	JRE	0.9579			JRE	09/23/02 8:22:44	
M021284-012	0209364-07A	1.018	G	JRE	50	ML	JRE	0.9823			JRE	09/23/02 8:22:44	
M021284-013	0209364-08A	1.024	G	JRE	50	ML	JRE	0.9766			JRE	09/23/02 8:22:44	
M021284-014	0209364-09A	1.031	G	JRE	50	ML	JRE	0.9699			JRE	09/23/02 8:22:44	
M021284-015	0209364-10A	1.037	G	JRE	50	ML	JRE	0.9643			JRE	09/23/02 8:22:44	
M021284-016	0209364-11A	1.033	G	JRE	50	ML	JRE	0.9681			JRE	09/23/02 8:22:44	
M021284-017	0209364-12A	1.045	G	JRE	50	ML	JRE	0.9569			JRE	09/23/02 8:22:44	
M021284-018	0209364-13A	1.067	G	JRE	50	ML	JRE	0.9372			JRE	09/23/02 8:22:44	
M021284-019	0209364-14A	1.066	G	JRE	50	ML	JRE	0.9381			JRE	09/23/02 8:22:44	
M021284-020	0209364-15A	1.025	G	JRE	50	ML	JRE	0.9756			JRE	09/23/02 8:22:44	
M021284-021	0209364-16A	1.081	G	JRE	50	ML	JRE	0.9251			JRE	09/23/02 8:22:44	
M021284-022	0209364-17A	1.021	G	JRE	50	ML	JRE	0.9794			JRE	09/23/02 8:22:44	HNO3-X20045; HCL-42117

003

Coyote 2001: Parabellum 1.0.020712160500

Report Date 9/23/02 9:17:11 AM

Department: METALS
Prep Method: 7471
Matrix: SOLID
Batch ID: M021285

Assaigai Laboratories
Sample Preparation Log
Report Revision 011023

Prep Method: Hg Cold Vapor Solids & Oils

Sample Count: 17
Batch Start Timestamp: 09/23/02 9:04:21

Prep ID:	Sample ID:	Aliquot:	Units:	Initial By:	Total Volume:	Units:	Final By:	Prep DF:	Surrogate ID:	Spike ID:	Spike By:	Prep Timestamp:	Comments:
M021285-001	[MB]	1.00	G	JRE	50	ML	JRE	1			JRE	09/23/02 8:22:25	90C @ 8:22AM
M021285-002	[LCS]	1.00	G	JRE	50	ML	JRE	1		MT-0706-02	JRE	09/23/02 8:22:25	
M021285-003	[LCSD]	1.00	G	JRE	50	ML	JRE	1		MT-0706-02	JRE	09/23/02 8:22:25	
M021285-004	0209373-01A[M]	1.071	G	JRE	50	ML	JRE	0.9337			JRE	09/23/02 8:22:25	
M021285-005	0209373-01A[MS]	1.034	G	JRE	50	ML	JRE	0.9671		MT-0706-02	JRE	09/23/02 8:22:25	
M021285-006	0209373-01A[MSD]	1.067	G	JRE	50	ML	JRE	0.9372		MT-0706-02	JRE	09/23/02 8:22:25	
M021285-007	0209373-02A	1.036	G	JRE	50	ML	JRE	0.9653			JRE	09/23/02 8:22:25	
M021285-008	0209373-03A	1.072	G	JRE	50	ML	JRE	0.9328			JRE	09/23/02 8:22:25	
M021285-009	0209373-04A	1.001	G	JRE	50	ML	JRE	0.999			JRE	09/23/02 8:22:25	
M021285-010	0209373-05A	1.021	G	JRE	50	ML	JRE	0.9794			JRE	09/23/02 8:22:25	
M021285-011	0209373-06A	1.064	G	JRE	50	ML	JRE	0.9398			JRE	09/23/02 8:22:25	
M021285-012	0209373-07A	1.085	G	JRE	50	ML	JRE	0.9217			JRE	09/23/02 8:22:25	
M021285-013	0209373-08A	1.071	G	JRE	50	ML	JRE	0.9337			JRE	09/23/02 8:22:25	
M021285-014	0209373-09A	1.093	G	JRE	50	ML	JRE	0.9149			JRE	09/23/02 8:22:25	
M021285-015	0209373-10A	1.083	G	JRE	50	ML	JRE	0.9234			JRE	09/23/02 8:22:25	
M021285-016	0209373-11A	1.025	G	JRE	50	ML	JRE	0.9756			JRE	09/23/02 8:22:25	
M021285-017	0209373-12A	1.053	G	JRE	50	ML	JRE	0.9497			JRE	09/23/02 8:22:25	
M021285-018	0209373-13A	1.058	G	JRE	50	ML	JRE	0.9452			JRE	09/23/02 8:22:25	
M021285-019	0209373-14A	1.068	G	JRE	50	ML	JRE	0.9363			JRE	09/23/02 8:22:25	
M021285-020	0209373-15A	1.006	G	JRE	50	ML	JRE	0.994			JRE	09/23/02 8:22:25	
M021285-021	0209373-16A	1.007	G	JRE	50	ML	JRE	0.993			JRE	09/23/02 8:22:25	
M021285-022	0209373-17A	1.092	G	JRE	50	ML	JRE	0.9158			JRE	09/23/02 8:22:25	HNO3-X20045; HCL-42117

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ASSAIGAI ANALYTICAL LABORATORIES, INC.
Metals Digestion Log book

- ☐ DG001-Rev.5 (3005A)
- ☐ DG002-Rev.5 (3010A)
- ☐ DG003-Rev.1 (11.1.1)
- ☐ DG003-Rev.1 (11.2.1)
- ☐ DG003-Rev.1 (11.2.2)
- ☐ DG004-Rev.6 (3050A)
- ☐ DG005-Rev.6 (4.1.1)
- ☐ DG005-Rev.6 (4.1.3)
- ☐ DG005-Rev.6 (4.1.4)
- ☐ DG005-Rev.6 (IDW)
- ☐ DG005-Rev.6 (AADW)
- ☐ DG006-Rev.5 (7082)
- ☐ DG007- Rev.5 (206.2/270.2)
- ☐ DG008-Rev.2 (1311)
- ☐ DG009-Rev.2 (1311)
- ☐ DG010-Rev.4 (7056)
- ☐ DG011-Rev.1 (MS 3050A)
- ☐ MT001-Rev.6 (7470/245.1)
- ☑ MT002-Rev.8 (7471)
- ☐ OTHER _____

Batch ID: M021285
Dig. Date: 9/23/02
Start Time: 8:22 Am
Temp: 90°C
Initials: [illegible]

Sample Number	Aliquot/wt (mL/g)	Final Volume (mL)	Spike ID	DF	Comments
MB	NA	50		1x	90°C @ 8:22 Am
LCS			MT-0706-02		
LCSD					
0209373-01A	1.071			0.9337	
-01A MS	1.034		MT-0706-02	0.9671	
-01A MSD	1.067			0.9372	
-02A	1.036			0.9653	
-03A	1.072			0.9328	
-04A	1.001			0.9990	
-05A	1.021			0.9794	
-06A	1.064			0.9398	
-07A	1.085			0.9217	
-08A	1.071			0.9337	
-09A	1.093			0.9149	
-10A	1.083			0.9234	
-11A	1.025			0.9756	
-12A	1.053			0.9497	
-13A	1.058			0.9452	
-14A	1.068			0.9363	
-15A	1.006			0.9940	
-16A	1.007			0.9930	
-17A	1.092			0.9158	HNO_3-X20045, HCL-42117.
			9/23/02		

ASSAIGAI ANALYTICAL LABORATORIES, INC.
Metals Digestion Log book

- ☐ DG001-Rev.5 (3005A)
- ☐ DG002-Rev.5 (3010A)
- ☐ DG003-Rev.1 (11.1.1)
- ☐ DG003-Rev.1 (11.2.1)
- ☐ DG003-Rev.1 (11.2.2)
- ☐ DG004-Rev.6 (3050A)
- ☐ DG005-Rev.6 (4.1.1)
- ☐ DG005-Rev.6 (4.1.3)
- ☐ DG005-Rev.6 (4.1.4)
- ☐ DG005-Rev.6 (IDW)
- ☐ DG005-Rev.6 (AADW)
- ☐ DG006-Rev.5 (7082)
- ☐ DG007- Rev.5 (206.2/270.2)
- ☐ DG008-Rev.2 (1311)
- ☐ DG009-Rev.2 (1311)
- ☐ DG010-Rev.4 (7056)
- ☐ DG011-Rev.1 (MS 3050A)
- ☐ MT001-Rev.6 (7470/245.1)
- ☑ MT002-Rev.8 (7471)
- ☐ OTHER _____

Batch ID: M021284
Dig. Date: 9/23/02
Start Time: 8:22 Am
Temp: 90°C
Initials: JB

Sample Number	Aliquot/wt (mL/g)	Final Volume (mL)	Spike ID	DF	Comments
MB	NA	50		1x	90°C @ 8:22 Am
LCS			MT-0706-02		
LISO					
0209364-01Am	1.037			0.9643	
-01AMS	1.039		MT-0706-02	0.9625	
-01AMSD	1.082			0.9242	
-02A	1.003			0.9970	
-03A	1.070			0.9346	
-04A	1.067			0.9372	
-05A	1.039			0.9625	
-06A	1.044			0.9579	
-07A	1.018			0.9823	
-08A	1.024			0.9766	
-09A	1.031			0.9699	
-10A	1.037			0.9643	
-11A	1.033			0.9681	
-12A	1.045			0.9569	
-13A	1.067			0.9372	
-14A	1.066			0.9381	
-15A	1.025			0.9756	
-16A	1.081			0.9251	
-17A	1.021			0.9794	HWO-720045, HCC-42117.
			JB 9/23/02		

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Assaigai Analytical Laboratories, Inc.

Analytical Result Summary

Run Group	MT.2002.1103	Import ID	020923_r.txt
Analyst	JRE	Quant Meth	
Calc Method	PEHG	Calibration	
Analyte	Hg	Quant	

r	#	e	Run ID	Prep ID	Matrix	Signal m	Raw Quant	As	Run DF	Prep DF	MRL	Report	As	Prepared	Analyzed	Qual	f
x	7		[STD-ICV]		LAB	0.051683	0.00604	ppm	1	1	1	101	% Recovery		09-23-02 10:06:49		
x	8		[CB]		LAB	-1.1E-05	0	ppm	1	1	0.0002	< 0.0002	mg / L		09-23-02 10:08:58		
x	9		M021284-001	[MB]	SOLID	0.000133	0.00002	ppm	1	1	0.05	< 0.05	mg / Kg	09-23-02 8:22:44	09-23-02 10:11:09		
x	10		M021284-002	[LCS]	SOLID	0.051190	0.00598	ppm	1	1	1	100	% Recovery	09-23-02 8:22:44	09-23-02 10:13:18		
x	11		M021284-003	[LCSD]	SOLID	0.050527	0.0059	ppm	1	1	1	1	RPD	09-23-02 8:22:44	09-23-02 10:15:27		
x	11		M021284-003	[LCSD]	SOLID	0.050527	0.0059	ppm	1	1	1	98	% Recovery	09-23-02 8:22:44	09-23-02 10:15:27		
x	12		M021284-004	0209364-01A[M]	SOLID	0.015749	0.00184	ppm	1	0.9643	0.05	0.09	mg / Kg	09-23-02 8:22:44	09-23-02 10:17:35		
x	13		M021284-005	0209364-01A[MS]	SOLID	0.085976	0.01004	ppm	1	0.9625	1	137	% Recovery	09-23-02 8:22:44	09-23-02 10:19:43		x
x	15		M021284-007	0209364-02A	SOLID	0.001122	0.00013	ppm	1	0.997	0.05	< 0.05	mg / Kg	09-23-02 8:22:44	09-23-02 10:24:00		
x	16		M021284-008	0209364-03A	SOLID	0.005587	0.00065	ppm	1	0.9346	0.05	< 0.05	mg / Kg	09-23-02 8:22:44	09-23-02 10:26:08		
x	17		M021284-009	0209364-04A	SOLID	0.001106	0.00013	ppm	1	0.9372	0.05	< 0.05	mg / Kg	09-23-02 8:22:44	09-23-02 10:28:20		
x	18		M021284-010	0209364-05A	SOLID	0.001328	0.00016	ppm	1	0.9625	0.05	< 0.05	mg / Kg	09-23-02 8:22:44	09-23-02 10:30:29		
x	19		[STD-CCV]		LAB	0.051303	0.00599	ppm	1	1	1	100	% Recovery		09-23-02 10:32:41		
x	20		[CB]		LAB	-5.5E-05	-0.00001	ppm	1	1	0.0002	< 0.0002	mg / L		09-23-02 10:34:49		
x	21		M021284-011	0209364-06A	SOLID	0.006816	0.0008	ppm	1	0.9579	0.05	< 0.05	mg / Kg	09-23-02 8:22:44	09-23-02 10:37:00		
x	22		M021284-012	0209364-07A	SOLID	0.001776	0.00021	ppm	1	0.9823	0.05	< 0.05	mg / Kg	09-23-02 8:22:44	09-23-02 10:39:08		
x	23		M021284-013	0209364-08A	SOLID	0.003130	0.00037	ppm	1	0.9766	0.05	< 0.05	mg / Kg	09-23-02 8:22:44	09-23-02 10:41:17		
x	24		M021284-014	0209364-09A	SOLID	0.004745	0.00055	ppm	1	0.9699	0.05	< 0.05	mg / Kg	09-23-02 8:22:44	09-23-02 10:43:25		
x	25		M021284-015	0209364-10A	SOLID	0.005165	0.0006	ppm	1	0.9643	0.05	< 0.05	mg / Kg	09-23-02 8:22:44	09-23-02 10:45:33		
x	26		M021284-016	0209364-11A	SOLID	0.001432	0.00017	ppm	1	0.9681	0.05	< 0.05	mg / Kg	09-23-02 8:22:44	09-23-02 10:47:42		
x	27		M021284-017	0209364-12A	SOLID	0.002916	0.00034	ppm	1	0.9569	0.05	< 0.05	mg / Kg	09-23-02 8:22:44	09-23-02 10:49:50		
x	28		M021284-018	0209364-13A	SOLID	0.002164	0.00025	ppm	1	0.9372	0.05	< 0.05	mg / Kg	09-23-02 8:22:44	09-23-02 10:51:58		
x	29		M021284-019	0209364-14A	SOLID	0.006872	0.0008	ppm	1	0.9381	0.05	< 0.05	mg / Kg	09-23-02 8:22:44	09-23-02 10:54:07		
x	30		M021284-020	0209364-15A	SOLID	0.001074	0.00013	ppm	1	0.9756	0.05	< 0.05	mg / Kg	09-23-02 8:22:44	09-23-02 10:56:16		
x	31		[STD-CCV]		LAB	0.050976	0.00596	ppm	1	1	1	99	% Recovery		09-23-02 10:58:23		
x	32		[CB]		LAB	-5.5E-05	-0.00001	ppm	1	1	0.0002	< 0.0002	mg / L		09-23-02 11:00:32		
x	33		M021284-021	0209364-16A	SOLID	0.001120	0.00013	ppm	1	0.9251	0.05	< 0.05	mg / Kg	09-23-02 8:22:44	09-23-02 11:02:39		
x	34		M021284-022	0209364-17A	SOLID	0.001424	0.00017	ppm	1	0.9794	0.05	< 0.05	mg / Kg	09-23-02 8:22:44	09-23-02 11:04:48		
x	35		M021285-001	[MB]	SOLID	-9.6E-05	-0.00001	ppm	1	1	0.05	< 0.05	mg / Kg	09-23-02 8:22:25	09-23-02 11:06:56		
x	36		M021285-002	[LCS]	SOLID	0.050336	0.00588	ppm	1	1	1	98	% Recovery	09-23-02 8:22:25	09-23-02 11:09:08		
x	37		M021285-003	[LCSD]	SOLID	0.051555	0.00602	ppm	1	1	1	2	RPD	09-23-02 8:22:25	09-23-02 11:11:17		
x	37		M021285-003	[LCSD]	SOLID	0.051555	0.00602	ppm	1	1	1	100	% Recovery	09-23-02 8:22:25	09-23-02 11:11:17		
x	38		M021285-004	0209373-01A[M]	SOLID	0.001198	0.00014	ppm	1	0.9337	0.05	< 0.05	mg / Kg	09-23-02 8:22:25	09-23-02 11:13:26		
x	39		M021285-005	0209373-01A[MS]	SOLID	0.052441	0.00613	ppm	1	0.9671	1	100	% Recovery	09-23-02 8:22:25	09-23-02 11:15:33		
x	41		M021285-007	0209373-02A	SOLID	0.00121	0.00014	ppm	1	0.9653	0.05	< 0.05	mg / Kg	09-23-02 8:22:25	09-23-02 11:19:51		
x	42		M021285-008	0209373-03A	SOLID	0.005601	0.00065	ppm	1	0.9328	0.05	< 0.05	mg / Kg	09-23-02 8:22:25	09-23-02 11:22:00		
x	43		[STD-CCV]		LAB	0.050981	0.00596	ppm	1	1	1	99	% Recovery		09-23-02 11:24:11		
x	44		[CB]		LAB	-0.00011	-0.00001	ppm	1	1	0.0002	< 0.0002	mg / L		09-23-02 11:26:19		
x	45		M021285-009	0209373-04A	SOLID	0.001449	0.00017	ppm	1	0.999	0.05	< 0.05	mg / Kg	09-23-02 8:22:25	09-23-02 11:28:30		
x	46		M021285-010	0209373-05A	SOLID	0.005444	0.00064	ppm	1	0.9794	0.05	< 0.05	mg / Kg	09-23-02 8:22:25	09-23-02 11:30:39		
x	47		M021285-011	0209373-06A	SOLID	0.001584	0.00019	ppm	1	0.9398	0.05	< 0.05	mg / Kg	09-23-02 8:22:25	09-23-02 11:32:47		
x	48		M021285-012	0209373-07A	SOLID	0.006684	0.00078	ppm	1	0.9217	0.05	< 0.05	mg / Kg	09-23-02 8:22:25	09-23-02 11:34:56		
x	49		M021285-013	0209373-08A	SOLID	0.000124	0.00001	ppm	1	0.9337	0.05	< 0.05	mg / Kg	09-23-02 8:22:25	09-23-02 11:37:04		
x	50		M021285-014	0209373-09A	SOLID	0.000257	0.00003	ppm	1	0.9149	0.05	< 0.05	mg / Kg	09-23-02 8:22:25	09-23-02 11:39:13		

Coyote 2001: Calculation 1.0.020729144500 *Report Date 9/23/02 12:54:22 PM*

Batch M021284 MS out due to a non homogeneous Sample

010

Assalgai Analytical Laboratories, Inc.

Analytical Result Summary

Run Group MT.2002.1103
Analyst JRE
Calc Method PEHG
Analyte Hg

Import ID 020923_r.txt
Quant Meth
Calibration
Quant

r	#	e	Run ID	Prep ID	Matrix	Signal m	Raw Quant	As	Run DF	Prep DF	MRL	Report	As	Prepared	Analyzed	Qual	f
x	51		M021285-015	0209373-10A	SOLID	0.005753	0.00067	ppm	1	0.9234	0.05	< 0.05	mg / Kg	09-23-02 8:22:25	09-23-02 11:41:21		
x	52		M021285-016	0209373-11A	SOLID	0.001133	0.00013	ppm	1	0.9756	0.05	< 0.05	mg / Kg	09-23-02 8:22:25	09-23-02 11:43:29		
x	53		M021285-017	0209373-12A	SOLID	0.002159	0.00025	ppm	1	0.9497	0.05	< 0.05	mg / Kg	09-23-02 8:22:25	09-23-02 11:45:38		
x	54		M021285-018	0209373-13A	SOLID	0.005785	0.00068	ppm	1	0.9452	0.05	< 0.05	mg / Kg	09-23-02 8:22:25	09-23-02 11:47:50		
x	55		[STD-CCV]		LAB	0.050348	0.00588	ppm	1	1	1	98	% Recovery		09-23-02 11:50:01		
x	56		[CB]		LAB	-0.00009	-0.00001	ppm	1	1	0.0002	< 0.0002	mg / L		09-23-02 11:52:10		
x	57		M021285-019	0209373-14A	SOLID	0.001099	0.00013	ppm	1	0.9363	0.05	< 0.05	mg / Kg	09-23-02 8:22:25	09-23-02 11:54:22		
x	58		M021285-020	0209373-15A	SOLID	0.003904	0.00046	ppm	1	0.994	0.05	< 0.05	mg / Kg	09-23-02 8:22:25	09-23-02 11:56:30		
x	59		M021285-021	0209373-16A	SOLID	0.001339	0.00016	ppm	1	0.993	0.05	< 0.05	mg / Kg	09-23-02 8:22:25	09-23-02 11:58:39		
x	60		M021285-022	0209373-17A	SOLID	0.002538	0.0003	ppm	1	0.9158	0.05	< 0.05	mg / Kg	09-23-02 8:22:25	09-23-02 12:00:48		
x	61		[STD-CCV]		LAB	0.050581	0.00591	ppm	1	1	1	98	% Recovery		09-23-02 12:02:58		
x	62		[CB]		LAB	0.00011	0.00001	ppm	1	1	0.0002	< 0.0002	mg / L		09-23-02 12:05:07		
x	63		[STD-ICV]		LAB	0.051298	0.00598	ppm	1	1	1	100	% Recovery		09-23-02 12:10:13		
x	64		[CB]		LAB	-8.1E-05	-0.00001	ppm	1	1	0.0002	< 0.0002	mg / L		09-23-02 12:12:22		
x	66		M021284-006	0209364-01A[MSD]	SOLID	0.063722	0.00744	ppm	1	0.9242	1	39	RPD	09-23-02 8:22:44	09-23-02 12:16:42		x
x	66		M021284-006	0209364-01A[MSD]	SOLID	0.063722	0.00744	ppm	1	0.9242	1	92	% Recovery	09-23-02 8:22:44	09-23-02 12:16:42		
x	67		M021285-006	0209373-01A[MSD]	SOLID	0.05227	0.00609	ppm	1	0.9372	1	< 1	RPD	09-23-02 8:22:25	09-23-02 12:18:50		
x	67		M021285-006	0209373-01A[MSD]	SOLID	0.05227	0.00609	ppm	1	0.9372	1	99	% Recovery	09-23-02 8:22:25	09-23-02 12:18:50		
x	68		[STD-CCV]		LAB	0.051367	0.00598	ppm	1	1	1	100	% Recovery		09-23-02 12:21:00		
x	69		[CB]		LAB	-9.5E-05	-0.00001	ppm	1	1	0.0002	< 0.0002	mg / L		09-23-02 12:23:09		

Method Name: HG-2
Method Description:
Element: Hg

Date: 09/23/2002
Technique:FI-MHS
Calibration Type:
Hg, Zero Intercept: Linear
Wavelength: 253.7 nm
Sample Info Name: 020923.SIF Results Data Set Name: 020923.RDS

Element: Hg Seq. No.: 1 AS Loc.: 1 Date: 09/23/2002
Sample ID: Calib Blank

Repl #	SampleConc mg/L	StndConc mg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1			0.0004	0.0009	0.0004	09:52:49	No
2			0.0004	-0.0016	0.0004	09:53:23	No
3			0.0005	0.0006	0.0005	09:53:57	No
Mean:			0.0004				
SD :			0.0000				
%RSD:			7.9960				

Auto-zero performed.

Element: Hg Seq. No.: 2 AS Loc.: 2 Date: 09/23/2002
Sample ID: Standard 1

Repl #	SampleConc mg/L	StndConc mg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1			0.0174	0.0877	0.0178	09:54:58	No
2			0.0169	0.0852	0.0173	09:55:32	No
3			0.0172	0.0862	0.0176	09:56:06	No
Mean:			0.0172				
SD :			0.0003				
%RSD:			1.5228				

[Hg] Standard number 1 applied. [0.0020]
Correlation Coefficient: 1.00000 Slope: 8.58268

Element: Hg Seq. No.: 3 AS Loc.: 3 Date: 09/23/2002
Sample ID: Standard 2

Repl #	SampleConc mg/L	StndConc mg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1			0.0352	0.1723	0.0356	09:57:06	No
2			0.0343	0.1688	0.0348	09:57:40	No
3			0.0342	0.1680	0.0346	09:58:15	No
Mean:			0.0346				
SD :			0.0005				
%RSD:			1.5147				

[Hg] Standard number 2 applied. [0.0040]
Correlation Coefficient: 0.99997 Slope: 8.62757

Element: Hg Seq. No.: 4 AS Loc.: 4 Date: 09/23/2002
Sample ID: Standard 3

Repl #	SampleConc mg/L	StndConc mg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1			0.0533	0.2589	0.0538	09:59:15	No
2			0.0513	0.2521	0.0517	09:59:49	No
3			0.0519	0.2524	0.0523	10:00:23	No
Mean:			0.0522				

SD : 0.0011
%RSD: 2.0428
[Hg] Standard number 3 applied. [0.0060]
Correlation Coefficient: 0.99995 Slope: 8.66983

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Element: Hg Seq. No.: 5 AS Loc.: 5 Date: 09/23/2002
Sample ID: Standard 4

Repl #	SampleConc mg/L	StndConc mg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1			0.0683	0.3332	0.0687	10:01:25	No
2			0.0671	0.3270	0.0675	10:02:00	No
3			0.0664	0.3232	0.0668	10:02:34	No
Mean:			0.0673				
SD :			0.0010				
%RSD:			1.4219				

[Hg] Standard number 4 applied. [0.0080]
Correlation Coefficient: 0.99927 Slope: 8.53167

==========

Element: Hg Seq. No.: 6 AS Loc.: 6 Date: 09/23/2002
Sample ID: Standard 5

Repl #	SampleConc mg/L	StndConc mg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1			0.0872	0.4225	0.0876	10:03:33	No
2			0.0851	0.4164	0.0855	10:04:07	No
3			0.0856	0.4159	0.0860	10:04:42	No
Mean:			0.0859				
SD :			0.0011				
%RSD:			1.2936				

[Hg] Standard number 5 applied. [0.010]
Correlation Coefficient: 0.99960 Slope: 8.56020

Calibration data for Hg

Standard ID	Mean Signal (Pk Height)	Entered Concentration (mg/L)	Calculated Concentration (mg/L)	Standard Deviation	%RSD
Calib Blank	0.0004	-----	----	----	----
Standard 1	0.0172	0.00200	0.0020	0.000261	1.5
Standard 2	0.0346	0.00400	0.0040	0.000523	1.5
Standard 3	0.0522	0.00600	0.0061	0.001066	2.0
Standard 4	0.0673	0.00800	0.0079	0.000956	1.4
Standard 5	0.0859	0.01000	0.010	0.001112	1.3
Calib Blank	0.0004	-----	----	----	----

Correlation Coefficient: 0.99960 Slope: 8.56020 ----

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Element: Hg Seq. No.: 7 AS Loc.: 7 Date: 09/23/2002
Sample ID: [STD-ICV]

Repl #	SampleConc mg/L	StndConc mg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0061	0.0061	0.0525	0.2552	0.0529	10:05:41	No
2	0.0060	0.0060	0.0512	0.2486	0.0516	10:06:15	No
3	0.0060	0.0060	0.0514	0.2503	0.0518	10:06:49	No
Mean:	0.0060	0.0060	0.0517				
SD :	0.000083	0.000083	0.0007				
%RSD:	1.4	1.4	1.3696				

QC value within specified limits.

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Element: Hg Seq. No.: 8 AS Loc.: 8 Date: 09/23/2002

Sample ID: [CB]

Repl #	SampleConc mg/L	StndConc mg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.00003	0.00003	0.0002	0.0029	0.0006	10:07:49	No
2	-0.00001	-0.00001	-0.0001	0.0003	0.0004	10:08:24	No
3	-0.00002	-0.00002	-0.0002	-0.0023	0.0002	10:08:58	No
Mean:	0.00000	0.00000	0.0000				
SD :	0.000024	0.000024	0.0002				
%RSD:	1900	1900	1850.6257				

QC value within specified limits.

Element: Hg Seq. No.: 9 AS Loc.: 9 Date: 09/23/2002
Sample ID: M021284-001

Repl #	SampleConc mg/L	StndConc mg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.00003	0.00003	0.0002	0.0028	0.0007	10:10:01	No
2	0.00002	0.00002	0.0002	0.0016	0.0006	10:10:35	No
3	0.00000	0.00000	0.0000	0.0007	0.0004	10:11:09	No
Mean:	0.00002	0.00002	0.0001				
SD :	0.000015	0.000015	0.0001				
%RSD:	97	97	97.0572				

MB

Element: Hg Seq. No.: 10 AS Loc.: 10 Date: 09/23/2002
Sample ID: M021284-002

Repl #	SampleConc mg/L	StndConc mg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0060	0.0060	0.0517	0.2514	0.0521	10:12:10	No
2	0.0059	0.0059	0.0507	0.2466	0.0511	10:12:44	No
3	0.0060	0.0060	0.0512	0.2464	0.0516	10:13:18	No
Mean:	0.0060	0.0060	0.0512				
SD :	0.000057	0.000057	0.0005				
%RSD:	1.0	1.0	0.9604				

LCS

Element: Hg Seq. No.: 11 AS Loc.: 11 Date: 09/23/2002
Sample ID: M021284-003

Repl #	SampleConc mg/L	StndConc mg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0060	0.0060	0.0509	0.2497	0.0514	10:14:18	No
2	0.0059	0.0059	0.0505	0.2469	0.0509	10:14:53	No
3	0.0059	0.0059	0.0501	0.2446	0.0506	10:15:27	No
Mean:	0.0059	0.0059	0.0505				
SD :	0.000046	0.000046	0.0004				
%RSD:	0.8	0.8	0.7854				

LCSD

Element: Hg Seq. No.: 12 AS Loc.: 12 Date: 09/23/2002
Sample ID: M021284-004

Repl #	SampleConc mg/L	StndConc mg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0019	0.0019	0.0161	0.0802	0.0165	10:16:27	No
2	0.0018	0.0018	0.0156	0.0779	0.0160	10:17:01	No
3	0.0018	0.0018	0.0156	0.0779	0.0160	10:17:35	No
Mean:	0.0018	0.0018	0.0157				
SD :	0.000035	0.000035	0.0003				
%RSD:	1.9	1.9	1.8794				

M

Element: Hg Seq. No.: 13 AS Loc.: 13 Date: 09/23/2002

Sample ID: M021284-005

Repl #	SampleConc mg/L	StndConc mg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.010	0.010	0.0870	0.4229	0.0874	10:18:34	No
2	0.010	0.010	0.0857	0.4212	0.0862	10:19:09	No
3	0.0100	0.0100	0.0852	0.4169	0.0857	10:19:43	No
Mean:	0.010	0.010	0.0860				
SD :	0.00010	0.00010	0.0009				
%RSD:	1.0	1.0	1.0335				

MS

Element: Hg Seq. No.: 14 AS Loc.: 14 Date: 09/23/2002
Sample ID: M021284-006

Repl #	SampleConc mg/L	StndConc mg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0077	0.0077	0.0659	0.3223	0.0663	10:20:43	No
2	0.0077	0.0077	0.0656	0.3167	0.0660	10:21:17	No
3	-0.00002	-0.00002	-0.0001	-0.0008	0.0003	10:21:51	No
Mean:	0.0051	0.0051	0.0438				
SD :	0.0044	0.0044	0.0380				
%RSD:	87	87	86.8789				

MSD *Rerun

Element: Hg Seq. No.: 15 AS Loc.: 15 Date: 09/23/2002
Sample ID: M021284-007

Repl #	SampleConc mg/L	StndConc mg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.00014	0.00014	0.0012	0.0051	0.0016	10:22:51	No
2	0.00013	0.00013	0.0011	0.0066	0.0015	10:23:26	No
3	0.00013	0.00013	0.0011	0.0056	0.0015	10:24:00	No
Mean:	0.00013	0.00013	0.0011				
SD :	0.000004	0.000004	0.0000				
%RSD:	3.0	3.0	3.0118				

Element: Hg Seq. No.: 16 AS Loc.: 16 Date: 09/23/2002
Sample ID: M021284-008

Repl #	SampleConc mg/L	StndConc mg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.00066	0.00066	0.0056	0.0277	0.0061	10:25:00	No
2	0.00065	0.00065	0.0055	0.0277	0.0060	10:25:34	No
3	0.00065	0.00065	0.0056	0.0281	0.0060	10:26:08	No
Mean:	0.00065	0.00065	0.0056				
SD :	0.000005	0.000005	0.0000				
%RSD:	0.7	0.7	0.7469				

Element: Hg Seq. No.: 17 AS Loc.: 17 Date: 09/23/2002
Sample ID: M021284-009

Repl #	SampleConc mg/L	StndConc mg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.00013	0.00013	0.0011	0.0059	0.0015	10:27:12	No
2	0.00013	0.00013	0.0011	0.0063	0.0015	10:27:46	No
3	0.00013	0.00013	0.0011	0.0053	0.0015	10:28:20	No
Mean:	0.00013	0.00013	0.0011				
SD :	0.000001	0.000001	0.0000				
%RSD:	0.5	0.5	0.5088				

Element: Hg Seq. No.: 18 AS Loc.: 18 Date: 09/23/2002
Sample ID: M021284-010

Repl #	SampleConc mg/L	StndConc mg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.00017	0.00017	0.0015	0.0080	0.0019	10:29:20	No
2	0.00016	0.00016	0.0013	0.0081	0.0018	10:29:55	No
3	0.00014	0.00014	0.0012	0.0056	0.0016	10:30:29	No
Mean:	0.00016	0.00016	0.0013				
SD :	0.000019	0.000019	0.0002				
%RSD:	12	12	12.2896				

Element: Hg Seq. No.: 19 AS Loc.: 7 Date: 09/23/2002
Sample ID: [STD-CCV]

Repl #	SampleConc mg/L	StndConc mg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0061	0.0061	0.0520	0.2527	0.0525	10:31:32	No
2	0.0059	0.0059	0.0508	0.2441	0.0512	10:32:06	No
3	0.0060	0.0060	0.0511	0.2457	0.0515	10:32:41	No
Mean:	0.0060	0.0060	0.0513				
SD :	0.000077	0.000077	0.0007				
%RSD:	1.3	1.3	1.2870				

QC value within specified limits.

Element: Hg Seq. No.: 20 AS Loc.: 8 Date: 09/23/2002
Sample ID: [CB]

Repl #	SampleConc mg/L	StndConc mg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.00001	-0.00001	0.0000	0.0007	0.0004	10:33:41	No
2	0.00000	0.00000	0.0000	0.0016	0.0004	10:34:15	No
3	-0.00002	-0.00002	-0.0001	0.0004	0.0003	10:34:49	No
Mean:	-0.00001	-0.00001	-0.0001				
SD :	0.000008	0.000008	0.0001				
%RSD:	130	130	126.4769				

QC value within specified limits.

Element: Hg Seq. No.: 21 AS Loc.: 19 Date: 09/23/2002
Sample ID: M021284-011

Repl #	SampleConc mg/L	StndConc mg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.00082	0.00082	0.0070	0.0354	0.0074	10:35:52	No
2	0.00080	0.00080	0.0068	0.0328	0.0072	10:36:26	No
3	0.00078	0.00078	0.0066	0.0325	0.0071	10:37:00	No
Mean:	0.00080	0.00080	0.0068				
SD :	0.000021	0.000021	0.0002				
%RSD:	2.6	2.6	2.5898				

Element: Hg Seq. No.: 22 AS Loc.: 20 Date: 09/23/2002
Sample ID: M021284-012

Repl #	SampleConc mg/L	StndConc mg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.00020	0.00020	0.0017	0.0082	0.0021	10:38:00	No
2	0.00020	0.00020	0.0017	0.0091	0.0022	10:38:34	No
3	0.00022	0.00022	0.0019	0.0098	0.0023	10:39:08	No
Mean:	0.00021	0.00021	0.0018				
SD :	0.000014	0.000014	0.0001				
%RSD:	6.8	6.8	6.7503				

Element: Hg Seq. No.: 23 AS Loc.: 21 Date: 09/23/2002

Sample ID: M021284-013

Repl #	SampleConc mg/L	StndConc mg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.00040	0.00040	0.0034	0.0176	0.0038	10:40:08	No
2	0.00038	0.00038	0.0033	0.0185	0.0037	10:40:42	No
3	0.00032	0.00032	0.0027	0.0123	0.0031	10:41:17	No
Mean:	0.00037	0.00037	0.0031				
SD :	0.000043	0.000043	0.0004				
%RSD:	12	12	11.7039				

Element: Hg Seq. No.: 24 AS Loc.: 22 Date: 09/23/2002
Sample ID: M021284-014

Repl #	SampleConc mg/L	StndConc mg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.00051	0.00051	0.0043	0.0207	0.0048	10:42:17	No
2	0.00058	0.00058	0.0050	0.0236	0.0054	10:42:51	No
3	0.00057	0.00057	0.0049	0.0204	0.0054	10:43:25	No
Mean:	0.00055	0.00055	0.0047				
SD :	0.000042	0.000042	0.0004				
%RSD:	7.5	7.5	7.5227				

Element: Hg Seq. No.: 25 AS Loc.: 23 Date: 09/23/2002
Sample ID: M021284-015

Repl #	SampleConc mg/L	StndConc mg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.00058	0.00058	0.0050	0.0250	0.0054	10:44:24	No
2	0.00065	0.00065	0.0056	0.0226	0.0060	10:44:58	No
3	0.00058	0.00058	0.0049	0.0268	0.0054	10:45:33	No
Mean:	0.00060	0.00060	0.0052				
SD :	0.000041	0.000041	0.0004				
%RSD:	6.8	6.8	6.8471				

Element: Hg Seq. No.: 26 AS Loc.: 24 Date: 09/23/2002
Sample ID: M021284-016

Repl #	SampleConc mg/L	StndConc mg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.00020	0.00020	0.0017	0.0221	0.0022	10:46:33	No
2	0.00018	0.00018	0.0015	-0.0006	0.0020	10:47:07	No
3	0.00012	0.00012	0.0010	0.0005	0.0015	10:47:42	No
Mean:	0.00017	0.00017	0.0014				
SD :	0.000042	0.000042	0.0004				
%RSD:	25	25	25.0973				

Element: Hg Seq. No.: 27 AS Loc.: 25 Date: 09/23/2002
Sample ID: M021284-017

Repl #	SampleConc mg/L	StndConc mg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.00031	0.00031	0.0027	0.0097	0.0031	10:48:41	No
2	0.00035	0.00035	0.0030	0.0102	0.0034	10:49:16	No
3	0.00036	0.00036	0.0031	0.0121	0.0035	10:49:50	No
Mean:	0.00034	0.00034	0.0029				
SD :	0.000027	0.000027	0.0002				
%RSD:	7.8	7.8	7.8034				

Element: Hg Seq. No.: 28 AS Loc.: 26 Date: 09/23/2002
Sample ID: M021284-018

Repl #	SampleConc mg/L	StndConc mg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.00029	0.00029	0.0025	0.0152	0.0029	10:50:50	No
2	0.00023	0.00023	0.0019	0.0083	0.0024	10:51:24	No
3	0.00024	0.00024	0.0021	0.0157	0.0025	10:51:58	No
Mean:	0.00025	0.00025	0.0022				
SD :	0.000035	0.000035	0.0003				
%RSD:	14	14	13.9269				

Element: Hg Seq. No.: 29 AS Loc.: 27 Date: 09/23/2002
Sample ID: M021284-019

Repl #	SampleConc mg/L	StndConc mg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.00080	0.00080	0.0069	0.0357	0.0073	10:52:59	No
2	0.00080	0.00080	0.0068	0.0337	0.0073	10:53:33	No
3	0.00081	0.00081	0.0069	0.0350	0.0073	10:54:07	No
Mean:	0.00080	0.00080	0.0069				
SD :	0.000005	0.000005	0.0000				
%RSD:	0.6	0.6	0.6173				

Element: Hg Seq. No.: 30 AS Loc.: 28 Date: 09/23/2002
Sample ID: M021284-020

Repl #	SampleConc mg/L	StndConc mg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.00013	0.00013	0.0011	0.0080	0.0016	10:55:07	No
2	0.00011	0.00011	0.0010	0.0054	0.0014	10:55:42	No
3	0.00013	0.00013	0.0011	0.0067	0.0015	10:56:16	No
Mean:	0.00013	0.00013	0.0011				
SD :	0.000010	0.000010	0.0001				
%RSD:	8.0	8.0	7.9977				

Element: Hg Seq. No.: 31 AS Loc.: 7 Date: 09/23/2002
Sample ID: [STD-CCV]

Repl #	SampleConc mg/L	StndConc mg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0060	0.0060	0.0510	0.2493	0.0514	10:57:15	No
2	0.0060	0.0060	0.0510	0.2478	0.0514	10:57:49	No
3	0.0060	0.0060	0.0509	0.2491	0.0514	10:58:23	No
Mean:	0.0060	0.0060	0.0510				
SD :	0.000003	0.000003	0.0000				
%RSD:							

QC value within specified limits.

Element: Hg Seq. No.: 32 AS Loc.: 8 Date: 09/23/2002
Sample ID: [CB]

Repl #	SampleConc mg/L	StndConc mg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.00002	-0.00002	-0.0002	-0.0018	0.0002	10:59:23	No
2	0.00000	0.00000	0.0000	0.0002	0.0004	10:59:57	No
3	0.00001	0.00001	0.0001	0.0017	0.0005	11:00:32	No
Mean:	-0.00001	-0.00001	-0.0001				
SD :	0.000017	0.000017	0.0001				
%RSD:	260	260	258.0099				

QC value within specified limits.

Element: Hg Seq. No.: 33 AS Loc.: 29 Date: 09/23/2002

Sample ID: M021284-021

Repl #	SampleConc mg/L	StndConc mg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.00014	0.00014	0.0012	0.0070	0.0016	11:01:31	No
2	0.00014	0.00014	0.0012	0.0093	0.0016	11:02:05	No
3	0.00012	0.00012	0.0010	0.0053	0.0014	11:02:39	No
Mean:	0.00013	0.00013	0.0011				
SD :	0.000013	0.000013	0.0001				
%RSD:	9.7	9.7	9.7383				

Element: Hg Seq. No.: 34 AS Loc.: 30 Date: 09/23/2002
Sample ID: M021284-022

Repl #	SampleConc mg/L	StndConc mg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.00018	0.00018	0.0015	0.0092	0.0019	11:03:40	No
2	0.00018	0.00018	0.0015	0.0094	0.0019	11:04:14	No
3	0.00015	0.00015	0.0013	0.0056	0.0017	11:04:48	No
Mean:	0.00017	0.00017	0.0014				
SD :	0.000017	0.000017	0.0001				
%RSD:	10	10	10.3874				

Element: Hg Seq. No.: 35 AS Loc.: 31 Date: 09/23/2002
Sample ID: M021285-001

Repl #	SampleConc mg/L	StndConc mg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.00000	0.00000	0.0000	0.0001	0.0004	11:05:48	No
2	-0.00002	-0.00002	-0.0001	0.0001	0.0003	11:06:22	No
3	-0.00001	-0.00001	-0.0001	0.0009	0.0003	11:06:56	No
Mean:	-0.00001	-0.00001	-0.0001				
SD :	0.000006	0.000006	0.0001				
%RSD:	58	58	57.8260				

MB

Element: Hg Seq. No.: 36 AS Loc.: 32 Date: 09/23/2002
Sample ID: M021285-002

Repl #	SampleConc mg/L	StndConc mg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0059	0.0059	0.0506	0.2482	0.0511	11:08:00	No
2	0.0059	0.0059	0.0505	0.2459	0.0509	11:08:34	No
3	0.0058	0.0058	0.0499	0.2402	0.0503	11:09:08	No
Mean:	0.0059	0.0059	0.0503				
SD :	0.000045	0.000045	0.0004				
%RSD:	0.8	0.8	0.7632				

LCS

Element: Hg Seq. No.: 37 AS Loc.: 33 Date: 09/23/2002
Sample ID: M021285-003

Repl #	SampleConc mg/L	StndConc mg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0060	0.0060	0.0517	0.2513	0.0521	11:10:08	No
2	0.0061	0.0061	0.0518	0.2506	0.0522	11:10:42	No
3	0.0060	0.0060	0.0512	0.2491	0.0516	11:11:17	No
Mean:	0.0060	0.0060	0.0516				
SD :	0.000040	0.000040	0.0003				
%RSD:	0.7	0.7	0.6717				

LCSD

Element: Hg Seq. No.: 38 AS Loc.: 34 Date: 09/23/2002
Sample ID: M021285-004

Repl #	SampleConc mg/L	StndConc mg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.00014	0.00014	0.0012	0.0066	0.0016	11:12:17	No
2	0.00014	0.00014	0.0012	0.0085	0.0016	11:12:51	No
3	0.00014	0.00014	0.0012	0.0059	0.0016	11:13:26	No
Mean:	0.00014	0.00014	0.0012				
SD :	0.000003	0.000003	0.0000				
%RSD:	1.8	1.8	1.8144				

M

Element: Hg Seq. No.: 39 AS Loc.: 35 Date: 09/23/2002
Sample ID: M021285-005

Repl #	SampleConc mg/L	StndConc mg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0062	0.0062	0.0527	0.2582	0.0532	11:14:25	No
2	0.0061	0.0061	0.0522	0.2560	0.0526	11:14:59	No
3	0.0061	0.0061	0.0524	0.2590	0.0529	11:15:33	No
Mean:	0.0061	0.0061	0.0524				
SD :	0.000033	0.000033	0.0003				
%RSD:	0.5	0.5	0.5369				

MS

Element: Hg Seq. No.: 40 AS Loc.: 36 Date: 09/23/2002
Sample ID: M021285-006

Repl #	SampleConc mg/L	StndConc mg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0062	0.0062	0.0534	0.2637	0.0539	11:16:33	No
2	0.0063	0.0063	0.0537	0.2621	0.0541	11:17:08	No
3	-0.00005	-0.00005	-0.0004	-0.0021	0.0000	11:17:42	No
Mean:	0.0042	0.0042	0.0356				
SD :	0.0036	0.0036	0.0312				
%RSD:	88	88	87.6182				

MSD

*Rerun Autosampler ERROR

Element: Hg Seq. No.: 41 AS Loc.: 37 Date: 09/23/2002
Sample ID: M021285-007

Repl #	SampleConc mg/L	StndConc mg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.00016	0.00016	0.0013	0.0108	0.0018	11:18:42	No
2	0.00014	0.00014	0.0012	0.0059	0.0016	11:19:17	No
3	0.00013	0.00013	0.0011	0.0057	0.0016	11:19:51	No
Mean:	0.00014	0.00014	0.0012				
SD :	0.000013	0.000013	0.0001				
%RSD:	8.9	8.9	8.8825				

Element: Hg Seq. No.: 42 AS Loc.: 38 Date: 09/23/2002
Sample ID: M021285-008

Repl #	SampleConc mg/L	StndConc mg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.00066	0.00066	0.0057	0.0298	0.0061	11:20:51	No
2	0.00066	0.00066	0.0056	0.0291	0.0061	11:21:26	No
3	0.00064	0.00064	0.0055	0.0288	0.0059	11:22:00	No
Mean:	0.00065	0.00065	0.0056				
SD :	0.000011	0.000011	0.0001				
%RSD:	1.6	1.6	1.6386				

Element: Hg Seq. No.: 43 AS Loc.: 7 Date: 09/23/2002
Sample ID: [STD-CCV]

Repl #	SampleConc mg/L	StndConc mg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0060	0.0060	0.0513	0.2488	0.0517	11:23:02	No
2	0.0060	0.0060	0.0511	0.2502	0.0515	11:23:37	No
3	0.0059	0.0059	0.0505	0.2461	0.0509	11:24:11	No
Mean:	0.0060	0.0060	0.0510				
SD :	0.000049	0.000049	0.0004				
%RSD:	0.8	0.8	0.8162				

QC value within specified limits.

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Element: Hg Seq. No.: 44 AS Loc.: 8 Date: 09/23/2002
Sample ID: [CB]

Repl #	SampleConc mg/L	StndConc mg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.00001	-0.00001	-0.0001	0.0000	0.0003	11:25:11	No
2	-0.00001	-0.00001	-0.0001	0.0015	0.0003	11:25:45	No
3	-0.00001	-0.00001	-0.0001	0.0014	0.0003	11:26:19	No
Mean:	-0.00001	-0.00001	-0.0001				
SD :	0.000002	0.000002	0.0000				
%RSD:	15	15	15.1939				

QC value within specified limits.

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Element: Hg Seq. No.: 45 AS Loc.: 39 Date: 09/23/2002
Sample ID: M021285-009

Repl #	SampleConc mg/L	StndConc mg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.00018	0.00018	0.0015	0.0093	0.0019	11:27:22	No
2	0.00017	0.00017	0.0014	0.0085	0.0019	11:27:56	No
3	0.00016	0.00016	0.0014	0.0080	0.0018	11:28:30	No
Mean:	0.00017	0.00017	0.0014				
SD :	0.000006	0.000006	0.0001				
%RSD:	3.6	3.6	3.5578				

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Element: Hg Seq. No.: 46 AS Loc.: 40 Date: 09/23/2002
Sample ID: M021285-010

Repl #	SampleConc mg/L	StndConc mg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.00064	0.00064	0.0054	0.0294	0.0059	11:29:30	No
2	0.00064	0.00064	0.0055	0.0288	0.0059	11:30:04	No
3	0.00063	0.00063	0.0054	0.0282	0.0059	11:30:39	No
Mean:	0.00064	0.00064	0.0054				
SD :	0.000001	0.000001	0.0000				
%RSD:	0.2	0.2	0.2012				

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Element: Hg Seq. No.: 47 AS Loc.: 41 Date: 09/23/2002
Sample ID: M021285-011

Repl #	SampleConc mg/L	StndConc mg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.00018	0.00018	0.0016	0.0093	0.0020	11:31:39	No
2	0.00019	0.00019	0.0016	0.0103	0.0020	11:32:13	No
3	0.00019	0.00019	0.0016	0.0093	0.0020	11:32:47	No
Mean:	0.00019	0.00019	0.0016				
SD :	0.000002	0.000002	0.0000				
%RSD:	1.0	1.0	1.0036				

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Element: Hg Seq. No.: 48 AS Loc.: 42 Date: 09/23/2002
Sample ID: M021285-012

Repl #	SampleConc mg/L	StndConc mg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.00077	0.00077	0.0066	0.0340	0.0071	11:33:47	No
2	0.00078	0.00078	0.0067	0.0345	0.0071	11:34:22	No
3	0.00079	0.00079	0.0068	0.0355	0.0072	11:34:56	No
Mean:	0.00078	0.00078	0.0067				
SD :	0.000009	0.000009	0.0001				
%RSD:	1.1	1.1	1.1422				

Element: Hg Seq. No.: 49 AS Loc.: 43 Date: 09/23/2002
Sample ID: M021285-013

Repl #	SampleConc mg/L	StndConc mg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.00004	0.00004	0.0003	0.0014	0.0007	11:35:56	No
2	0.00000	0.00000	0.0000	0.0030	0.0004	11:36:30	No
3	0.00001	0.00001	0.0001	0.0035	0.0005	11:37:04	No
Mean:	0.00001	0.00001	0.0001				
SD :	0.000018	0.000018	0.0002				
%RSD:	130	130	127.2240				

Element: Hg Seq. No.: 50 AS Loc.: 44 Date: 09/23/2002
Sample ID: M021285-014

Repl #	SampleConc mg/L	StndConc mg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.00004	0.00004	0.0003	0.0030	0.0008	11:38:05	No
2	0.00003	0.00003	0.0002	0.0035	0.0007	11:38:39	No
3	0.00002	0.00002	0.0002	0.0038	0.0006	11:39:13	No
Mean:	0.00003	0.00003	0.0003				
SD :	0.000007	0.000007	0.0001				
%RSD:	24	24	24.3216				

Element: Hg Seq. No.: 51 AS Loc.: 45 Date: 09/23/2002
Sample ID: M021285-015

Repl #	SampleConc mg/L	StndConc mg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.00066	0.00066	0.0057	0.0293	0.0061	11:40:12	No
2	0.00067	0.00067	0.0057	0.0304	0.0062	11:40:46	No
3	0.00068	0.00068	0.0059	0.0303	0.0063	11:41:21	No
Mean:	0.00067	0.00067	0.0058				
SD :	0.000012	0.000012	0.0001				
%RSD:	1.8	1.8	1.7849				

Element: Hg Seq. No.: 52 AS Loc.: 46 Date: 09/23/2002
Sample ID: M021285-016

Repl #	SampleConc mg/L	StndConc mg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.00014	0.00014	0.0012	0.0060	0.0016	11:42:21	No
2	0.00013	0.00013	0.0011	0.0070	0.0015	11:42:55	No
3	0.00013	0.00013	0.0011	0.0062	0.0015	11:43:29	No
Mean:	0.00013	0.00013	0.0011				
SD :	0.000004	0.000004	0.0000				
%RSD:	2.8	2.8	2.7723				

Element: Hg Seq. No.: 53 AS Loc.: 47 Date: 09/23/2002
Sample ID: M021285-017

Repl #	SampleConc mg/L	StndConc mg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.00026	0.00026	0.0022	0.0129	0.0026	11:44:29	No
2	0.00024	0.00024	0.0021	0.0112	0.0025	11:45:03	No
3	0.00026	0.00026	0.0022	0.0124	0.0026	11:45:38	No
Mean:	0.00025	0.00025	0.0022				
SD :	0.000008	0.000008	0.0001				
%RSD:	3.1	3.1	3.1479				

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Element: Hg Seq. No.: 54 AS Loc.: 48 Date: 09/23/2002
Sample ID: M021285-018

Repl #	SampleConc mg/L	StndConc mg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.00068	0.00068	0.0058	0.0315	0.0063	11:46:41	No
2	0.00069	0.00069	0.0059	0.0302	0.0063	11:47:15	No
3	0.00066	0.00066	0.0056	0.0285	0.0061	11:47:50	No
Mean:	0.00068	0.00068	0.0058				
SD :	0.000016	0.000016	0.0001				
%RSD:	2.4	2.4	2.3993				

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Element: Hg Seq. No.: 55 AS Loc.: 7 Date: 09/23/2002
Sample ID: [STD-CCV]

Repl #	SampleConc mg/L	StndConc mg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0059	0.0059	0.0504	0.2478	0.0508	11:48:53	No
2	0.0059	0.0059	0.0505	0.2472	0.0509	11:49:27	No
3	0.0059	0.0059	0.0501	0.2454	0.0506	11:50:01	No
Mean:	0.0059	0.0059	0.0503				
SD :	0.000022	0.000022	0.0002				
%RSD:	0.4	0.4	0.3722				

QC value within specified limits.

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Element: Hg Seq. No.: 56 AS Loc.: 8 Date: 09/23/2002
Sample ID: [CB]

Repl #	SampleConc mg/L	StndConc mg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.00001	-0.00001	-0.0001	0.0007	0.0004	11:51:01	No
2	-0.00001	-0.00001	-0.0001	0.0007	0.0003	11:51:35	No
3	-0.00001	-0.00001	-0.0001	0.0007	0.0003	11:52:10	No
Mean:	-0.00001	-0.00001	-0.0001				
SD :	0.000002	0.000002	0.0000				
%RSD:	18	18	17.7883				

QC value within specified limits.

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Element: Hg Seq. No.: 57 AS Loc.: 49 Date: 09/23/2002
Sample ID: M021285-019

Repl #	SampleConc mg/L	StndConc mg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.00013	0.00013	0.0011	0.0067	0.0016	11:53:14	No
2	0.00013	0.00013	0.0011	0.0062	0.0015	11:53:48	No
3	0.00013	0.00013	0.0011	0.0062	0.0015	11:54:22	No
Mean:	0.00013	0.00013	0.0011				
SD :	0.000002	0.000002	0.0000				
%RSD:	1.8	1.8	1.8307				

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Element: Hg Seq. No.: 58 AS Loc.: 50 Date: 09/23/2002
Sample ID: M021285-020

Repl #	SampleConc mg/L	StndConc mg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.00046	0.00046	0.0039	0.0210	0.0043	11:55:22	No
2	0.00046	0.00046	0.0039	0.0209	0.0043	11:55:56	No
3	0.00045	0.00045	0.0039	0.0199	0.0043	11:56:30	No
Mean:	0.00046	0.00046	0.0039				
SD :	0.000002	0.000002	0.0000				
%RSD:	0.5	0.5	0.5452				

Element: Hg Seq. No.: 59 AS Loc.: 51 Date: 09/23/2002
Sample ID: M021285-021

Repl #	SampleConc mg/L	StndConc mg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.00015	0.00015	0.0013	0.0078	0.0017	11:57:30	No
2	0.00015	0.00015	0.0013	0.0063	0.0017	11:58:05	No
3	0.00017	0.00017	0.0015	0.0079	0.0019	11:58:39	No
Mean:	0.00016	0.00016	0.0013				
SD :	0.000012	0.000012	0.0001				
%RSD:	7.8	7.8	7.7987				

Element: Hg Seq. No.: 60 AS Loc.: 52 Date: 09/23/2002
Sample ID: M021285-022

Repl #	SampleConc mg/L	StndConc mg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.00030	0.00030	0.0026	0.0131	0.0030	11:59:39	No
2	0.00030	0.00030	0.0026	0.0139	0.0030	12:00:13	No
3	0.00028	0.00028	0.0024	0.0121	0.0028	12:00:48	No
Mean:	0.00030	0.00030	0.0025				
SD :	0.000012	0.000012	0.0001				
%RSD:	4.2	4.2	4.2064				

Element: Hg Seq. No.: 61 AS Loc.: 7 Date: 09/23/2002
Sample ID: [STD-CCV]

Repl #	SampleConc mg/L	StndConc mg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0059	0.0059	0.0508	0.2506	0.0512	12:01:50	No
2	0.0059	0.0059	0.0507	0.2497	0.0511	12:02:24	No
3	0.0059	0.0059	0.0503	0.2479	0.0507	12:02:58	No
Mean:	0.0059	0.0059	0.0506				
SD :	0.000032	0.000032	0.0003				
%RSD:	0.5	0.5	0.5361				

QC value within specified limits.

Element: Hg Seq. No.: 62 AS Loc.: 8 Date: 09/23/2002
Sample ID: [CB]

Repl #	SampleConc mg/L	StndConc mg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.00001	0.00001	0.0001	-0.0015	0.0005	12:03:58	No
2	0.00005	0.00005	0.0004	0.0042	0.0009	12:04:33	No
3	-0.00002	-0.00002	-0.0002	-0.0052	0.0002	12:05:07	No
Mean:	0.00001	0.00001	0.0001				
SD :	0.000036	0.000036	0.0003				
%RSD:	280	280	279.6010				

QC value within specified limits.

Element: Hg Seq. No.: 63 AS Loc.: 7 Date: 09/23/2002
Sample ID: [STD-ICV]

Repl #	SampleConc mg/L	StndConc mg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored

Element: Hg Seq. No.: 63 AS Loc.: 7 Date: 09/23/2002
Sample ID: [STD-ICV]

Repl #	SampleConc mg/L	StndConc mg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0060	0.0060	0.0515	0.2556	0.0519	12:09:05	No
2	0.0060	0.0060	0.0513	0.2543	0.0518	12:09:39	No
3	0.0060	0.0060	0.0511	0.2524	0.0515	12:10:13	No
Mean:	0.0060	0.0060	0.0513				
SD :	0.000021	0.000021	0.0002				
%RSD:	0.3	0.3	0.3417				

QC value within specified limits.

Element: Hg Seq. No.: 64 AS Loc.: 8 Date: 09/23/2002
Sample ID: [CB]

Repl #	SampleConc mg/L	StndConc mg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.00001	-0.00001	-0.0001	0.0015	0.0004	12:11:14	No
2	-0.00001	-0.00001	-0.0001	0.0010	0.0004	12:11:48	No
3	-0.00001	-0.00001	-0.0001	0.0004	0.0003	12:12:22	No
Mean:	-0.00001	-0.00001	-0.0001				
SD :	0.000003	0.000003	0.0000				
%RSD:	27	27	27.3669				

QC value within specified limits.

Element: Hg Seq. No.: 65 AS Loc.: 53 Date: 09/23/2002
Sample ID: M021284-005

Repl #	SampleConc mg/L	StndConc mg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0099	0.0099	0.0846	0.4214	0.0850	12:13:25	No
2	0.0099	0.0099	0.0843	0.4188	0.0848	12:13:59	No
3	0.0099	0.0099	0.0843	0.4187	0.0847	12:14:34	No
Mean:	0.0099	0.0099	0.0844				
SD :	0.000022	0.000022	0.0002				
%RSD:	0.2	0.2	0.2212				

MS

Element: Hg Seq. No.: 66 AS Loc.: 54 Date: 09/23/2002
Sample ID: M021284-006

Repl #	SampleConc mg/L	StndConc mg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0074	0.0074	0.0635	0.3158	0.0639	12:15:34	No
2	0.0075	0.0075	0.0639	0.3173	0.0643	12:16:08	No
3	0.0074	0.0074	0.0638	0.3151	0.0642	12:16:42	No
Mean:	0.0074	0.0074	0.0637				
SD :	0.000021	0.000021	0.0002				
%RSD:	0.3	0.3	0.2852				

MSD

Element: Hg Seq. No.: 67 AS Loc.: 55 Date: 09/23/2002
Sample ID: M021285-006

Repl #	SampleConc mg/L	StndConc mg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0061	0.0061	0.0523	0.2595	0.0527	12:17:41	No

MSD

2	0.0061	0.0061	0.0523	0.2589	0.0527	12:18:15	No
3	0.0061	0.0061	0.0522	0.2577	0.0526	12:18:50	No
Mean:	0.0061	0.0061	0.0523				
SD :	0.000007	0.000007	0.0001				
%RSD:	0.1	0.1	0.1125				

Element: Hg Seq. No.: 68 AS Loc.: 7 Date: 09/23/2002
Sample ID: [STD-CCV]

Repl #	SampleConc mg/L	StndConc mg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0060	0.0060	0.0515	0.2554	0.0519	12:19:52	No
2	0.0060	0.0060	0.0513	0.2542	0.0517	12:20:26	No
3	0.0060	0.0060	0.0513	0.2545	0.0518	12:21:00	No
Mean:	0.0060	0.0060	0.0514				
SD :	0.000015	0.000015	0.0001				
%RSD:	0.2	0.2	0.2423				

QC value within specified limits.

Element: Hg Seq. No.: 69 AS Loc.: 8 Date: 09/23/2002
Sample ID: [CB]

Repl #	SampleConc mg/L	StndConc mg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.00001	-0.00001	-0.0001	0.0010	0.0004	12:22:00	No
2	-0.00002	-0.00002	-0.0002	-0.0007	0.0003	12:22:35	No
3	-0.00001	-0.00001	-0.0001	0.0010	0.0004	12:23:09	No
Mean:	-0.00001	-0.00001	-0.0001				
SD :	0.000006	0.000006	0.0001				
%RSD:	54	54	54.2868				

QC value within specified limits.

HG STANDARDS

CALIBRATION CURVE

Source: 1000 ppm AAP-003-02 EXP08/04

Working Curve

0.20PPM	MT-0704-02	EXP9/30/02
0.40 ppm	MT-0705-02	EXP9/30/02
0.60 ppm	MT-0706-02	EXP9/30/02
0.80 ppm	MT-0707-02	EXP9/30/02
1.00 ppm	MT-0708-02	EXP9/30/02

INITIAL CALIBRATION VERIFICATION

Source: 100 ppm AAQC-01-02 EXP12/02

Working ICV

0.60 ppm MT-0709-02 EXP9/30/02

**Note: All standards are diluted by factor of 100x during the digestion process, for final calibration concentrations of: 0.002, 0.004, 0.006, 0.008, 0.010. The ICV has a final concentration of 0.006. (all concentration are in ppm)

MT.2002. 1110

ASSAIGAI ANALYTICAL LABORATORIES, INC.

Metals Cover Sheet

	Analyst			Reviewer		
Final Report Printout	Y	N	NA	Y	N	NA
Raw Data	Y	N	NA	Y	N	NA
Standard Summary Sheet	Y	N	NA	Y	N	NA

Batch	NCR Analyst	NCR Reviewer	Parabellum Analyst	Parabellum Reviewer	Digestion Log Analyst	Digestion Log Reviewer	TCLP Log Analyst	TCLP Log Reviewer
M021283	Y-N-NA NCR #	Y-N-NA	Y-N-NA	Y-N-NA	Y-N-NA	Y-N-NA	Y-N-NA	Y-N-NA
	Y-N-NA NCR #	Y-N-NA	Y-N-NA	Y-N-NA	Y-N-NA	Y-N-NA	Y-N-NA	Y-N-NA
	Y-N-NA NCR #	Y-N-NA	Y-N-NA	Y-N-NA	Y-N-NA	Y-N-NA	Y-N-NA	Y-N-NA
	Y-N-NA NCR #	Y-N-NA	Y-N-NA	Y-N-NA	Y-N-NA	Y-N-NA	Y-N-NA	Y-N-NA
	Y-N-NA NCR #	Y-N-NA	Y-N-NA	Y-N-NA	Y-N-NA	Y-N-NA	Y-N-NA	Y-N-NA

Dept. Funnel/Prepared By SB
Date 9/25/02

Final Funnel/Reviewed By CJ
Date 9/25/02

Comments

QC Review

Assaigai Analytical Laboratories, Inc.
QC NON-CONFORMANCE REPORT (NCR)

MT-02-220

Preparation/Analysis SW846 6020

Batch ID # M021283

Out-of-Control Event Codes

1	Initial Calibration Verification (ICV)	6	Laboratory Control Sample (LCS) Precision (RPD)
2	Calibration Blank (CB)	7	Matrix Spike (MS) Accuracy (%Rec)
3	Continuing Calibration Verification (CCV)	8	Matrix Spike (MS) Precision (RPD)
4	Method Blank (MB)	9	Sample Duplicate
5	Laboratory Control Sample (LCS) Accuracy (%Rec)	10	Other

Rev:	Groups	Analyst	Date	Review	Date
A	MT.2002.1110	SB	9/25/02	CJ	9/25/02

Event Codes: 10

Workorders: 0209373

Rev:	Groups	Analyst	Date	Review	Date

Event Codes:

Workorders:

Rev:	Groups	Analyst	Date	Review	Date

Event Codes:

Workorders:

Rev:	Groups	Analyst	Date	Review	Date

Event Codes:

Workorders:

QC Non-Conformance Report (NCR)

NCR# MT-02-220

SW846 6020

Batch ID:	**M021283**
Group:	**MT.2002.1110**
Date:	**09/25/2002**
Work Orders:	**0209373**

EVENT # 10:

The percent recovery for Si in the ICV and in all CCV's was outside of method criteria, high.

ACTION # 10:

The COA will be flagged with an "E" (estimated value) to alert the client of the event. No further action is required.

Prepared by John W. Biava
09/25/2002 JB 9/25/02

CJ 9/25/02

Assaigai Analytical Laboratories, Inc.

Run Group Cover Sheet

Run Group	MT.2002.1110
Reviewed:	9/25/2002 9:48:20 AM
By:	JWB

Calc Method	6020
Import Source	HPC02
Instrument:	HP4500 - Instru

Calibration Mode	NATIVE
Calculation Mode	NORMAL
Spike Dilution Mode	NORMAL

RAW QUANT FLAGS	
a	*all result information keyed in manually*
d	*data from instrument keyed in manually*
i	*integration of peak performed manually*
q	*qdelete of peak*
r	*response factor postquant adjustment*

Assaigai Analytical Laboratories, Inc.

Laboratory Logbook

Run Group MT.2002.1110
Import Source HPC02
Instrument: HP4500 - Instru

o	Run#	Acquisition Date	Data File	Vial	e	Sample Run ID	Run DF	Comment	see data file(s)	Analyst
x	1	09-24-02 10:03:00	002CALB.D#	1		CAL BLANK	1			JWB
x	2	09-24-02 10:12:00	003CALI.D#	1		0.2/1/10 CAL	1			JWB
x	3	09-24-02 10:21:00	004CALI.D#	1		2/10/100 CAL	1			JWB
x	4	09-24-02 10:30:00	005CALI.D#	1		10/100/1000 CAL	1			JWB
x	5	09-24-02 10:39:00	006CALI.D#	1		-/200/10000 CAL	1			JWB
	6	09-24-02 10:48:00	007CCB_.D#	1		[CB]	1			JWB
	7	09-24-02 10:57:00	008ICV_.D#	1		[STD-ICV]	1			JWB
x	8	09-24-02 11:06:00	009ICSA.D#	1		[ICSA]	1			JWB
x	9	09-24-02 11:16:00	010ICSB.D#	1		[ICSAB]	1			JWB
x	10	09-24-02 11:25:00	011CCB_.D#	1		BLANK	1			JWB
	11	09-24-02 11:34:00	012SMPL.D#	1		M021283-001	1	,		JWB
	12	09-24-02 11:43:00	013SMPL.D#	1		M021283-002	1	,		JWB
	13	09-24-02 11:52:00	014SMPL.D#	1		M021283-003	1	,		JWB
	14	09-24-02 12:02:00	015SMPL.D#	1		M021283-006	100	,		JWB
	15	09-24-02 12:11:00	016SMPL.D#	1		M021283-006	10	,		JWB
	16	09-24-02 12:20:00	017SMPL.D#	1		M021283-007	100	,		JWB
	17	09-24-02 12:29:00	018SMPL.D#	1		M021283-007	10	,		JWB
	18	09-24-02 12:38:00	019SMPL.D#	1		M021283-008	100	,		JWB
	19	09-24-02 12:47:00	020CCV_.D#	1		[STD-CCV]	1			JWB
	20	09-24-02 12:57:00	021CCB_.D#	1		[CB]	1			JWB
	21	09-24-02 13:06:00	022SMPL.D#	1		M021283-008	10	,		JWB
	22	09-24-02 13:15:00	023SMPL.D#	1		M021283-011	100	,		JWB
	23	09-24-02 13:24:00	024SMPL.D#	1		M021283-011	10	,		JWB
	24	09-24-02 13:33:00	025SMPL.D#	1		M021283-012	100	,		JWB
	25	09-24-02 13:43:00	026SMPL.D#	1		M021283-012	10	,		JWB
	26	09-24-02 13:52:00	027SMPL.D#	1		M021283-013	100	,		JWB
	27	09-24-02 14:01:00	028SMPL.D#	1		M021283-013	10	,		JWB
	28	09-24-02 14:10:00	029SMPL.D#	1		M021283-014	100	,		JWB
	29	09-24-02 14:19:00	030SMPL.D#	1		M021283-014	10	,		JWB
	30	09-24-02 14:29:00	031SMPL.D#	1		M021283-015	100	,		JWB
	31	09-24-02 14:38:00	032CCV_.D#	1		[STD-CCV]	1			JWB
	32	09-24-02 14:47:00	033CCB_.D#	1		[CB]	1			JWB
	33	09-24-02 14:56:00	034SMPL.D#	1		M021283-015	10	,		JWB
	34	09-24-02 15:06:00	035SMPL.D#	1		M021283-016	100	,		JWB
	35	09-24-02 15:15:00	036SMPL.D#	1		M021283-016	10	,		JWB

Assaigai Analytical Laboratories, Inc.

Laboratory Logbook

Run Group MT.2002.1110
Import Source HPC02
Instrument: HP4500 - Instru

o	Run#	Acquisition Date	Data File	Vial	e	Sample Run ID	Run DF	Comment	see data file(s)	Analyst
	36	09-24-02 15:24:00	037SMPL.D#	1		M021283-017	100	,		JWB
	37	09-24-02 15:33:00	038SMPL.D#	1		M021283-017	10	,		JWB
	38	09-24-02 15:42:00	039SMPL.D#	1		M021283-018	100	,		JWB
	39	09-24-02 15:52:00	040SMPL.D#	1		M021283-018	10	,		JWB
	40	09-24-02 16:01:00	041SMPL.D#	1		M021283-019	100	,		JWB
	41	09-24-02 16:10:00	042SMPL.D#	1		M021283-019	10	,		JWB
	42	09-24-02 16:20:00	043SMPL.D#	1		M021283-020	100	,		JWB
	43	09-24-02 16:29:00	044CCV_.D#	1		[STD-CCV]	1			JWB
	44	09-24-02 16:38:00	045CCB_.D#	1		[CB]	1			JWB
	45	09-24-02 16:47:00	046SMPL.D#	1		M021283-020	10	,		JWB
	46	09-24-02 16:56:00	047SMPL.D#	1		M021283-021	100	,		JWB
	47	09-24-02 17:05:00	048SMPL.D#	1		M021283-021	10	,		JWB
	48	09-24-02 17:15:00	049SMPL.D#	1		M021283-022	100	,		JWB
	49	09-24-02 17:24:00	050SMPL.D#	1		M021283-022	10	,		JWB
	50	09-24-02 17:33:00	051SMPL.D#	1		M021283-023	100	,		JWB
	51	09-24-02 17:42:00	052SMPL.D#	1		M021283-023	10	,		JWB
	52	09-24-02 17:52:00	053SMPL.D#	1		M021283-024	100	,		JWB
	53	09-24-02 18:01:00	054SMPL.D#	1		M021283-024	10	,		JWB
	54	09-24-02 18:19:00	056CCV_.D#	1		[STD-CCV]	1			JWB
	55	09-24-02 18:28:00	057CCB_.D#	1		[CB]	1			JWB
x	56	09-24-02 18:37:00	058ICSA.D#	1		[ICSA]	1			JWB
x	57	09-24-02 18:46:00	059ICSB.D#	1		[ICSAB]	1			JWB
x	58	09-24-02 18:56:00	060BLNK.D#	1		BLANK	1			JWB
	59	09-24-02 19:05:00	061SMPL.D#	1		M021283-025	100	,		JWB
	60	09-24-02 19:14:00	062SMPL.D#	1		M021283-025	10	,		JWB
	61	09-24-02 19:23:00	063SMPL.D#	1		M021283-026	100	,		JWB
	62	09-24-02 19:32:00	064SMPL.D#	1		M021283-026	10	,		JWB
	63	09-24-02 19:41:00	065CCV_.D#	1		[STD-CCV]	1			JWB
	64	09-24-02 19:51:00	066CCB_.D#	1		[CB]	1			JWB

CB [CB]

Assaigai Analytical Laboratories, Inc.

Analytical Result Summary

033

Run Group	MT.2002.1110	6
Calc Method	6020	
Prep Method	LAB	
Prep Matrix	LAB	

		By	Dilution
Prepared			1
Analyzed	09-24-02 10:48:00	JWB	1
Calibration	09-24-02 10:46:00		
Quant	09-24-02 10:55:00	007CCB .D#	

r	C#	Analyte	QMass	m	Raw Quant	As	MRL	Report	As	Qual	f
	3	Be-9	9		0.06	ppb	0.001	< 0.001	mg / L		
	4	B-11	11		1.36	ppb	0.001	0.001	mg / L		x
	5	Na-23	23		2.53	ppb	0.01	< 0.010	mg / L		
	6	Mg-24	24		2.14	ppb	0.01	< 0.010	mg / L		
	7	Mg-25	25		2.12	ppb	0.01	< 0.010	mg / L		
	8	Mg-26	26		2.22	ppb	0.01	< 0.010	mg / L		
	9	Al-27	27		2.34	ppb	0.01	< 0.010	mg / L		
	10	Si-28	28		-28.07	ppb	0.001	< 0.001	mg / L		
	11	K-39	39		0.95	ppb	0.01	< 0.010	mg / L		
	13	Ca-43	43		2.48	ppb	0.01	< 0.010	mg / L		
	14	Ca-44	44		2.24	ppb	0.01	< 0.010	mg / L		
	16	Ti-47	47		0.43	ppb	0.001	< 0.001	mg / L		
	17	V-51	51		0.65	ppb	0.001	< 0.001	mg / L		
	18	Cr-52	52		0.62	ppb	0.001	< 0.001	mg / L		
	19	Cr-53	53		13.41	ppb	0.001	0.013	mg / L		x
	20	Fe-54	54		-20.36	ppb	0.01	< 0.010	mg / L		
	21	Mn-55	55		-0.05	ppb	0.001	< 0.001	mg / L		
	22	Fe-57	57		-0.15	ppb	0.01	< 0.010	mg / L		
	23	Co-59	59		-0.23	ppb	0.001	< 0.001	mg / L		
	24	Ni-60	60		0.04	ppb	0.001	< 0.001	mg / L		
	25	Cu-63	63		0.07	ppb	0.001	< 0.001	mg / L		
	26	Cu-65	65		0.04	ppb	0.001	< 0.001	mg / L		
	27	Zn-66	66		0.06	ppb	0.001	< 0.001	mg / L		
	28	Zn-67	67		1.57	ppb	0.001	0.002	mg / L		x
	29	Zn-68	68		-0.1	ppb	0.001	< 0.001	mg / L		
	32	As-75	75		0.64	ppb	0.001	< 0.001	mg / L		
	34	Se-82	82		0.36	ppb	0.001	< 0.001	mg / L		
	37	Sr-87	87		0.07	ppb	0.001	< 0.001	mg / L		
	40	Mo-95	95		0.38	ppb	0.001	< 0.001	mg / L		
	41	Mo-98	98		0.41	ppb	0.001	< 0.001	mg / L		
	43	Ag-107	107		0.06	ppb	0.001	< 0.001	mg / L		
	45	Ag-109	109		0.06	ppb	0.001	< 0.001	mg / L		
	46	Cd-111	111		0.1	ppb	0.001	< 0.001	mg / L		
	47	Cd-114	114		0.06	ppb	0.001	< 0.001	mg / L		
	50	Sn-120	120		0.05	ppb	0.001	< 0.001	mg / L		
	51	Sb-121	121		0.29	ppb	0.001	< 0.001	mg / L		
	52	Sb-123	123		0.33	ppb	0.001	< 0.001	mg / L		
	53	Ba-135	135		0.06	ppb	0.001	< 0.001	mg / L		
	54	Tb-159	159		0	ppb	0.001	< 0.001	mg / L		
	55	Au-197	197		0.89	ppb	0.001	< 0.001	mg / L		
	56	Tl-205	205		0.73	ppb	0.001	< 0.001	mg / L		
	59	Pb-208	208		-0.23	ppb	0.001	< 0.001	mg / L		
	61	U-238	238		0.08	ppb	0.001	< 0.001	mg / L		

STD-ICV [STD-ICV]

Assaigai Analytical Laboratories, Inc.

Analytical Result Summary

Run Group	MT.2002.1110	7
Calc Method	6020	
Prep Method	LAB	
Prep Matrix	LAB	

		By	Dilution
Prepared			1
Analyzed	09-24-02 10:57:00	JWB	1
Calibration	09-24-02 10:46:00		
Quant	09-24-02 11:04:00		008ICV .D#

r	C#	Analyte	QMass	m	Raw Quant	As	MRL	Report	As	Qual	f
	3	Be-9	9		115.5	ppb	1	96	% Recovery		
	4	B-11	11		127	ppb	1	106	% Recovery		
	5	Na-23	23		1303	ppb	1	108	% Recovery		
	6	Mg-24	24		1293	ppb	1	108	% Recovery		
	7	Mg-25	25		1372	ppb	1	114	% Recovery		x
	8	Mg-26	26		1330	ppb	1	111	% Recovery		x
	9	Al-27	27		1308	ppb	1	109	% Recovery		
	10	Si-28	28		1399	ppb	1	116	% Recovery		x
	11	K-39	39		1289	ppb	1	107	% Recovery		
	13	Ca-43	43		1248	ppb	1	104	% Recovery		
	14	Ca-44	44		1241	ppb	1	103	% Recovery		
	16	Ti-47	47		119.8	ppb	1	100	% Recovery		
	17	V-51	51		117.7	ppb	1	98	% Recovery		
	18	Cr-52	52		117.5	ppb	1	98	% Recovery		
	19	Cr-53	53		115.2	ppb	1	96	% Recovery		
	20	Fe-54	54		1282	ppb	1	107	% Recovery		
	21	Mn-55	55		117.9	ppb	1	98	% Recovery		
	22	Fe-57	57		1249	ppb	1	104	% Recovery		
	23	Co-59	59		119.2	ppb	1	99	% Recovery		
	24	Ni-60	60		120.2	ppb	1	100	% Recovery		
	25	Cu-63	63		118.2	ppb	1	98	% Recovery		
	26	Cu-65	65		119.8	ppb	1	100	% Recovery		
	27	Zn-66	66		119.7	ppb	1	100	% Recovery		
	28	Zn-67	67		117.4	ppb	1	98	% Recovery		
	29	Zn-68	68		120.4	ppb	1	100	% Recovery		
	32	As-75	75		118.4	ppb	1	99	% Recovery		
	34	Se-82	82		119.3	ppb	1	99	% Recovery		
	37	Sr-87	87		118.2	ppb	1	98	% Recovery		
	40	Mo-95	95		116.2	ppb	1	97	% Recovery		
	41	Mo-98	98		116.2	ppb	1	97	% Recovery		
	43	Ag-107	107		123.3	ppb	1	103	% Recovery		
	45	Ag-109	109		123.1	ppb	1	102	% Recovery		
	46	Cd-111	111		116.5	ppb	1	97	% Recovery		
	47	Cd-114	114		117.4	ppb	1	98	% Recovery		
	50	Sn-120	120		115.7	ppb	1	96	% Recovery		
	51	Sb-121	121		113.4	ppb	1	94	% Recovery		
	52	Sb-123	123		113.4	ppb	1	94	% Recovery		
	53	Ba-135	135		114.3	ppb	1	95	% Recovery		
	54	Tb-159	159		0	ppb	1	< 1	% Recovery		x
	55	Au-197	197		529.5	ppb	1	441	% Recovery		x
	56	Tl-205	205		116.3	ppb	1	97	% Recovery		
	59	Pb-208	208		117.4	ppb	1	98	% Recovery		
	61	U-238	238		114.5	ppb	1	95	% Recovery		

MB M021283-001

Assaigai Analytical Laboratories, Inc.

Analytical Result Summary

035

Run Group	MT.2002.1110	11
Calc Method	6020	
Prep Method	MS3050	
Prep Matrix	SOLID	

[MB]

		By	Dilution
Prepared	09-23-02 8:08:51	JRE	1
Analyzed	09-24-02 11:34:00	JWB	1
Calibration	09-24-02 10:46:00		
Quant	09-24-02 11:41:00		012SMPL.D#

r	C#	Analyte	QMass	m	Raw Quant	As	MRL	Report	As	Qual	f
x	3	Be-9	9		0.01	ppb	0.025	< 0.025	mg / Kg		
x	4	B-11	11		-1.11	ppb	0.15	< 0.150	mg / Kg		
x	5	Na-23	23		31.51	ppb	0.5	1.58	mg / Kg		x
x	6	Mg-24	24		21.01	ppb	0.5	1.05	mg / Kg		x
	7	Mg-25	25		21.06	ppb	0.5	1.05	mg / Kg		x
	8	Mg-26	26		21.01	ppb	0.5	1.05	mg / Kg		x
x	9	Al-27	27		49.71	ppb	0.5	2.48	mg / Kg		x
x	10	Si-28	28		-11.34	ppb	1	< 1.00	mg / Kg		
x	11	K-39	39		33.71	ppb	0.5	1.68	mg / Kg		x
x	13	Ca-43	43		81.34	ppb	0.5	4.07	mg / Kg		x
	14	Ca-44	44		80.73	ppb	0.5	4.04	mg / Kg		x
x	16	Ti-47	47		1.65	ppb	0.025	0.082	mg / Kg		x
x	17	V-51	51		0.53	ppb	0.05	< 0.050	mg / Kg		
x	18	Cr-52	52		0.79	ppb	0.05	< 0.050	mg / Kg		
	19	Cr-53	53		14.06	ppb	0.25	0.703	mg / Kg		x
	20	Fe-54	54		-17.99	ppb	0.5	< 0.500	mg / Kg		
x	21	Mn-55	55		1.48	ppb	0.025	0.074	mg / Kg		x
x	22	Fe-57	57		28.53	ppb	0.5	1.43	mg / Kg		x
x	23	Co-59	59		-0.28	ppb	0.025	< 0.025	mg / Kg		
x	24	Ni-60	60		0.15	ppb	0.025	< 0.025	mg / Kg		
x	25	Cu-63	63		0.66	ppb	0.025	0.033	mg / Kg		x
	26	Cu-65	65		0.66	ppb	0.025	0.033	mg / Kg		x
x	27	Zn-66	66		4.84	ppb	0.25	< 0.250	mg / Kg		
	28	Zn-67	67		5.54	ppb	0.25	0.277	mg / Kg		x
	29	Zn-68	68		4.55	ppb	0.25	< 0.250	mg / Kg		
x	32	As-75	75		0.28	ppb	0.025	< 0.025	mg / Kg		
x	34	Se-82	82		0	ppb	0.025	< 0.025	mg / Kg		
x	37	Sr-87	87		0.16	ppb	0.025	< 0.025	mg / Kg		
x	40	Mo-95	95		1.66	ppb	0.025	0.083	mg / Kg		x
	41	Mo-98	98		1.72	ppb	0.025	0.086	mg / Kg		x
x	43	Ag-107	107		-0.02	ppb	0.025	< 0.025	mg / Kg		
	45	Ag-109	109		-0.01	ppb	0.025	< 0.025	mg / Kg		
x	46	Cd-111	111		0.04	ppb	0.025	< 0.025	mg / Kg		
	47	Cd-114	114		0.23	ppb	0.025	< 0.025	mg / Kg		
x	50	Sn-120	120		13.42	ppb	0.025	0.671	mg / Kg		x
x	51	Sb-121	121		-0.08	ppb	0.05	< 0.050	mg / Kg		
	52	Sb-123	123		-0.03	ppb	0.05	< 0.050	mg / Kg		
x	53	Ba-135	135		0.41	ppb	0.025	< 0.025	mg / Kg		
	54	Tb-159	159		0	ppb	0.001	< 0.001	mg / Kg		
	55	Au-197	197		0.41	ppb	0.025	< 0.025	mg / Kg		
x	56	Tl-205	205		-0.23	ppb	0.025	< 0.025	mg / Kg		
x	59	Pb-208	208		0.66	ppb	0.025	0.033	mg / Kg		x
x	61	U-238	238		0.01	ppb	0.025	< 0.025	mg / Kg		

LCS M021283-002

Assaigai Analytical Laboratories, Inc.

Analytical Result Summary

[LCS]

Run Group	MT.2002.1110	12
Calc Method	6020	
Prep Method	MS3050	
Prep Matrix	SOLID	

		By	Dilution
Prepared	09-23-02 8:08:51	JRE	1
Analyzed	09-24-02 11:43:00	JWB	1
Calibration	09-24-02 10:46:00		
Quant	09-24-02 11:50:00	013SMPL.D#	

r	C#	Analyte	QMass	m	Raw Quant	As	MRL	Report	As	Qual	f
x	3	Be-9	9		95.58	ppb	1	96	% Recovery		
x	4	B-11	11		96.28	ppb	1	96	% Recovery		
x	5	Na-23	23		1022	ppb	1	102	% Recovery		
x	6	Mg-24	24		1021	ppb	1	102	% Recovery		
	7	Mg-25	25		1062	ppb	1	106	% Recovery		
	8	Mg-26	26		1032	ppb	1	103	% Recovery		
x	9	Al-27	27		1019	ppb	1	102	% Recovery		
x	10	Si-28	28		1063	ppb	1	106	% Recovery		
x	11	K-39	39		1046	ppb	1	105	% Recovery		
x	13	Ca-43	43		1024	ppb	1	102	% Recovery		
	14	Ca-44	44		1033	ppb	1	103	% Recovery		
x	16	Ti-47	47		102.8	ppb	1	103	% Recovery		
x	17	V-51	51		102.7	ppb	1	103	% Recovery		
x	18	Cr-52	52		103.8	ppb	1	104	% Recovery		
	19	Cr-53	53		103.2	ppb	1	103	% Recovery		
	20	Fe-54	54		1085	ppb	1	108	% Recovery		
x	21	Mn-55	55		105	ppb	1	105	% Recovery		
x	22	Fe-57	57		1078	ppb	1	108	% Recovery		
x	23	Co-59	59		103	ppb	1	103	% Recovery		
x	24	Ni-60	60		104.4	ppb	1	104	% Recovery		
x	25	Cu-63	63		105.1	ppb	1	105	% Recovery		
	26	Cu-65	65		106.6	ppb	1	107	% Recovery		
x	27	Zn-66	66		108.1	ppb	1	108	% Recovery		
	28	Zn-67	67		105.3	ppb	1	105	% Recovery		
	29	Zn-68	68		108.3	ppb	1	108	% Recovery		
x	32	As-75	75		104.9	ppb	1	105	% Recovery		
x	34	Se-82	82		106.3	ppb	1	106	% Recovery		
x	37	Sr-87	87		103.1	ppb	1	103	% Recovery		
x	40	Mo-95	95		97.27	ppb	1	97	% Recovery		
	41	Mo-98	98		97.97	ppb	1	98	% Recovery		
x	43	Ag-107	107		101.7	ppb	1	102	% Recovery		
	45	Ag-109	109		102	ppb	1	102	% Recovery		
x	46	Cd-111	111		101.7	ppb	1	102	% Recovery		
	47	Cd-114	114		102.5	ppb	1	102	% Recovery		
x	50	Sn-120	120		115.2	ppb	1	115	% Recovery		
x	51	Sb-121	121		102.2	ppb	1	102	% Recovery		
	52	Sb-123	123		102.1	ppb	1	102	% Recovery		
x	53	Ba-135	135		103.4	ppb	1	103	% Recovery		
	54	Tb-159	159		0	ppb	1	< 1	% Recovery		x
	55	Au-197	197		100.7	ppb	1	101	% Recovery		
x	56	Tl-205	205		98.61	ppb	1	99	% Recovery		
x	59	Pb-208	208		100.4	ppb	1	100	% Recovery		
x	61	U-238	238		100.3	ppb	1	100	% Recovery		

LCSDD M021283-003

Assaigai Analytical Laboratories, Inc.

Analytical Result Summary

037

Run Group	MT.2002.1110	13
Calc Method	6020	
Prep Method	MS3050	
Prep Matrix	SOLID	

[LCSD]

		By	Dilution
Prepared	09-23-02 8:08:51	JRE	1
Analyzed	09-24-02 11:52:00	JWB	1
Calibration	09-24-02 10:46:00		
Quant	09-24-02 11:59:00	014SMPL.D#	

r	C#	Analyte	QMass	m	Raw Quant	As	MRL	Report	As	Qual	f
x	3	Be-9	9		95.24	ppb	1	< 1	RPD		
x	4	B-11	11		99.85	ppb	1	4	RPD		
x	5	Na-23	23		1001	ppb	1	2	RPD		
x	6	Mg-24	24		995.6	ppb	1	2	RPD		
	7	Mg-25	25		1065	ppb	1	< 1	RPD		
	8	Mg-26	26		1043	ppb	1	1	RPD		
x	9	Al-27	27		1052	ppb	1	3	RPD		
x	10	Si-28	28		1074	ppb	1	1	RPD		
x	11	K-39	39		1021	ppb	1	2	RPD		
x	13	Ca-43	43		1050	ppb	1	2	RPD		
	14	Ca-44	44		1085	ppb	1	5	RPD		
x	16	Ti-47	47		102.1	ppb	1	< 1	RPD		
x	17	V-51	51		101.6	ppb	1	1	RPD		
x	18	Cr-52	52		102.5	ppb	1	1	RPD		
	19	Cr-53	53		100.1	ppb	1	3	RPD		
	20	Fe-54	54		1100	ppb	1	1	RPD		
x	21	Mn-55	55		106	ppb	1	< 1	RPD		
x	22	Fe-57	57		1076	ppb	1	< 1	RPD		
x	23	Co-59	59		103.8	ppb	1	< 1	RPD		
x	24	Ni-60	60		104.8	ppb	1	< 1	RPD		
x	25	Cu-63	63		105.9	ppb	1	< 1	RPD		
	26	Cu-65	65		106.8	ppb	1	< 1	RPD		
x	27	Zn-66	66		106.6	ppb	1	< 1	RPD		
	28	Zn-67	67		106.3	ppb	1	< 1	RPD		
	29	Zn-68	68		106.4	ppb	1	< 1	RPD		
x	32	As-75	75		105.7	ppb	1	< 1	RPD		
x	34	Se-82	82		105.7	ppb	1	< 1	RPD		
x	37	Sr-87	87		102.7	ppb	1	< 1	RPD		
x	40	Mo-95	95		97.09	ppb	1	< 1	RPD		
	41	Mo-98	98		98.57	ppb	1	< 1	RPD		
x	43	Ag-107	107		101.4	ppb	1	< 1	RPD		
	45	Ag-109	109		102.2	ppb	1	< 1	RPD		
x	46	Cd-111	111		100.9	ppb	1	< 1	RPD		
	47	Cd-114	114		102.7	ppb	1	< 1	RPD		
x	50	Sn-120	120		115.5	ppb	1	< 1	RPD		
x	51	Sb-121	121		103.2	ppb	1	< 1	RPD		
	52	Sb-123	123		103.1	ppb	1	< 1	RPD		
x	53	Ba-135	135		104	ppb	1	< 1	RPD		
	54	Tb-159	159		0	ppb	1	NA	RPD		
	55	Au-197	197		99.39	ppb	1	1	RPD		
x	56	Tl-205	205		98.39	ppb	1	< 1	RPD		
x	59	Pb-208	208		99.66	ppb	1	< 1	RPD		
x	61	U-238	238		100.1	ppb	1	< 1	RPD		

LCSDS M021283-003

Assaigai Analytical Laboratories, Inc.

Analytical Result Summary

[LCSD] 038

Run Group	MT.2002.1110	13
Calc Method	6020	
Prep Method	MS3050	
Prep Matrix	SOLID	

		By	Dilution
Prepared	09-23-02 8:08:51	JRE	1
Analyzed	09-24-02 11:52:00	JWB	1
Calibration	09-24-02 10:46:00		
Quant	09-24-02 11:59:00	014SMPL.D#	

r	C#	Analyte	QMass	m	Raw Quant	As	MRL	Report	As	Qual	f
x	3	Be-9	9		95.24	ppb	1	95	% Recovery		
x	4	B-11	11		99.85	ppb	1	100	% Recovery		
x	5	Na-23	23		1001	ppb	1	100	% Recovery		
x	6	Mg-24	24		995.6	ppb	1	100	% Recovery		
	7	Mg-25	25		1065	ppb	1	106	% Recovery		
	8	Mg-26	26		1043	ppb	1	104	% Recovery		
x	9	Al-27	27		1052	ppb	1	105	% Recovery		
x	10	Si-28	28		1074	ppb	1	107	% Recovery		
x	11	K-39	39		1021	ppb	1	102	% Recovery		
x	13	Ca-43	43		1050	ppb	1	105	% Recovery		
	14	Ca-44	44		1085	ppb	1	108	% Recovery		
x	16	Ti-47	47		102.1	ppb	1	102	% Recovery		
x	17	V-51	51		101.6	ppb	1	102	% Recovery		
x	18	Cr-52	52		102.5	ppb	1	102	% Recovery		
	19	Cr-53	53		100.1	ppb	1	100	% Recovery		
	20	Fe-54	54		1100	ppb	1	110	% Recovery		
x	21	Mn-55	55		106	ppb	1	106	% Recovery		
x	22	Fe-57	57		1076	ppb	1	108	% Recovery		
x	23	Co-59	59		103.8	ppb	1	104	% Recovery		
x	24	Ni-60	60		104.8	ppb	1	105	% Recovery		
x	25	Cu-63	63		105.9	ppb	1	106	% Recovery		
	26	Cu-65	65		106.8	ppb	1	107	% Recovery		
x	27	Zn-66	66		108.8	ppb	1	109	% Recovery		
	28	Zn-67	67		106.3	ppb	1	106	% Recovery		
	29	Zn-68	68		108.4	ppb	1	108	% Recovery		
x	32	As-75	75		105.7	ppb	1	106	% Recovery		
x	34	Se-82	82		105.7	ppb	1	106	% Recovery		
x	37	Sr-87	87		102.7	ppb	1	103	% Recovery		
x	40	Mo-95	95		97.09	ppb	1	97	% Recovery		
	41	Mo-98	98		98.57	ppb	1	98	% Recovery		
x	43	Ag-107	107		101.4	ppb	1	101	% Recovery		
	45	Ag-109	109		102.2	ppb	1	102	% Recovery		
x	46	Cd-111	111		100.9	ppb	1	101	% Recovery		
	47	Cd-114	114		102.7	ppb	1	103	% Recovery		
x	50	Sn-120	120		115.5	ppb	1	116	% Recovery		
x	51	Sb-121	121		103.2	ppb	1	103	% Recovery		
	52	Sb-123	123		103.1	ppb	1	103	% Recovery		
x	53	Ba-135	135		104	ppb	1	104	% Recovery		
	54	Tb-159	159		0	ppb	1	< 1	% Recovery		x
	55	Au-197	197		99.39	ppb	1	99	% Recovery		
x	56	Tl-205	205		98.39	ppb	1	98	% Recovery		
x	59	Pb-208	208		99.66	ppb	1	100	% Recovery		
x	61	U-238	238		100.1	ppb	1	100	% Recovery		

STD-CCV [STD-CCV]

Assaigai Analytical Laboratories, Inc.

Analytical Result Summary

Run Group	MT.20021110	19
Calc Method	6020	
Prep Method	LAB	
Prep Matrix	LAB	

		By	Dilution
Prepared			1
Analyzed	09-24-02 12:47:00	JWB	1
Calibration	09-24-02 10:46:00		
Quant	09-24-02 12:55:00	020CCV .D#	

r	C#	Analyte	QMass	m	Raw Quant	As	MRL	Report	As	Qual	f
	3	Be-9	9		94.53	ppb	1	94	% Recovery		
	4	B-11	11		96.49	ppb	1	96	% Recovery		
	5	Na-23	23		992.1	ppb	1	99	% Recovery		
	6	Mg-24	24		1005	ppb	1	100	% Recovery		
	7	Mg-25	25		1055	ppb	1	106	% Recovery		
	8	Mg-26	26		1025	ppb	1	102	% Recovery		
	9	Al-27	27		1032	ppb	1	103	% Recovery		
	10	Si-28	28		1101	ppb	1	110	% Recovery		
	11	K-39	39		1034	ppb	1	103	% Recovery		
	13	Ca-43	43		1019	ppb	1	102	% Recovery		
	14	Ca-44	44		999.7	ppb	1	100	% Recovery		
	16	Ti-47	47		103.5	ppb	1	104	% Recovery		
	17	V-51	51		103.9	ppb	1	104	% Recovery		
	18	Cr-52	52		103.9	ppb	1	104	% Recovery		
	19	Cr-53	53		96.3	ppb	1	96	% Recovery		
	20	Fe-54	54		1107	ppb	1	111	% Recovery		x
	21	Mn-55	55		106.5	ppb	1	106	% Recovery		
	22	Fe-57	57		1079	ppb	1	108	% Recovery		
	23	Co-59	59		105.4	ppb	1	105	% Recovery		
	24	Ni-60	60		106.6	ppb	1	107	% Recovery		
	25	Cu-63	63		106.3	ppb	1	106	% Recovery		
	26	Cu-65	65		107.6	ppb	1	108	% Recovery		
	27	Zn-66	66		103.4	ppb	1	103	% Recovery		
	28	Zn-67	67		99.78	ppb	1	100	% Recovery		
	29	Zn-68	68		103.2	ppb	1	103	% Recovery		
	32	As-75	75		101.9	ppb	1	102	% Recovery		
	34	Se-82	82		105.6	ppb	1	106	% Recovery		
	37	Sr-87	87		102.9	ppb	1	103	% Recovery		
	40	Mo-95	95		95.76	ppb	1	96	% Recovery		
	41	Mo-98	98		96.75	ppb	1	97	% Recovery		
	43	Ag-107	107		100.1	ppb	1	100	% Recovery		
	45	Ag-109	109		100.4	ppb	1	100	% Recovery		
	46	Cd-111	111		101.1	ppb	1	101	% Recovery		
	47	Cd-114	114		101.9	ppb	1	102	% Recovery		
	50	Sn-120	120		102.7	ppb	1	103	% Recovery		
	51	Sb-121	121		102.3	ppb	1	102	% Recovery		
	52	Sb-123	123		103.3	ppb	1	103	% Recovery		
	53	Ba-135	135		102.4	ppb	1	102	% Recovery		
	54	Tb-159	159		0	ppb	1	< 1	% Recovery		x
	55	Au-197	197		99.25	ppb	1	99	% Recovery		
	56	Tl-205	205		97.93	ppb	1	98	% Recovery		
	59	Pb-208	208		99.89	ppb	1	100	% Recovery		
	61	U-238	238		100.8	ppb	1	101	% Recovery		

CB [CB]

Assaigai Analytical Laboratories, Inc.

Analytical Result Summary

040

Run Group	MT.2002.1110	20
Calc Method	6020	
Prep Method	LAB	
Prep Matrix	LAB	

		By	Dilution
Prepared			1
Analyzed	09-24-02 12:57:00	JWB	1
Calibration	09-24-02 10:46:00		
Quant	09-24-02 13:04:00	021CCB .D#	

r	C#	Analyte	QMass	m	Raw Quant	As	MRL	Report	As	Qual	f
	3	Be-9	9		0.03	ppb	0.001	< 0.001	mg / L		
	4	B-11	11		0.01	ppb	0.001	< 0.001	mg / L		
	5	Na-23	23		0.21	ppb	0.01	< 0.010	mg / L		
	6	Mg-24	24		0.46	ppb	0.01	< 0.010	mg / L		
	7	Mg-25	25		0.47	ppb	0.01	< 0.010	mg / L		
	8	Mg-26	26		0.43	ppb	0.01	< 0.010	mg / L		
	9	Al-27	27		2.98	ppb	0.01	< 0.010	mg / L		
	10	Si-28	28		-2.43	ppb	0.001	< 0.001	mg / L		
	11	K-39	39		2.22	ppb	0.01	< 0.010	mg / L		
	13	Ca-43	43		5.18	ppb	0.01	< 0.010	mg / L		
	14	Ca-44	44		1.33	ppb	0.01	< 0.010	mg / L		
	16	Ti-47	47		0.07	ppb	0.001	< 0.001	mg / L		
	17	V-51	51		0.1	ppb	0.001	< 0.001	mg / L		
	18	Cr-52	52		0.38	ppb	0.001	< 0.001	mg / L		
	19	Cr-53	53		5.05	ppb	0.001	0.005	mg / L		x
	20	Fe-54	54		35.2	ppb	0.01	0.035	mg / L		x
	21	Mn-55	55		0.08	ppb	0.001	< 0.001	mg / L		
	22	Fe-57	57		3.55	ppb	0.01	< 0.010	mg / L		
	23	Co-59	59		-0.27	ppb	0.001	< 0.001	mg / L		
	24	Ni-60	60		-0.02	ppb	0.001	< 0.001	mg / L		
	25	Cu-63	63		0.01	ppb	0.001	< 0.001	mg / L		
	26	Cu-65	65		0.03	ppb	0.001	< 0.001	mg / L		
	27	Zn-66	66		0.05	ppb	0.001	< 0.001	mg / L		
	28	Zn-67	67		0.61	ppb	0.001	< 0.001	mg / L		
	29	Zn-68	68		-0.05	ppb	0.001	< 0.001	mg / L		
	32	As-75	75		0.19	ppb	0.001	< 0.001	mg / L		
	34	Se-82	82		0.04	ppb	0.001	< 0.001	mg / L		
	37	Sr-87	87		0.03	ppb	0.001	< 0.001	mg / L		
	40	Mo-95	95		0.33	ppb	0.001	< 0.001	mg / L		
	41	Mo-98	98		0.3	ppb	0.001	< 0.001	mg / L		
	43	Ag-107	107		0.03	ppb	0.001	< 0.001	mg / L		
	45	Ag-109	109		0.02	ppb	0.001	< 0.001	mg / L		
	46	Cd-111	111		0.05	ppb	0.001	< 0.001	mg / L		
	47	Cd-114	114		0.04	ppb	0.001	< 0.001	mg / L		
	50	Sn-120	120		-0.02	ppb	0.001	< 0.001	mg / L		
	51	Sb-121	121		0.23	ppb	0.001	< 0.001	mg / L		
	52	Sb-123	123		0.27	ppb	0.001	< 0.001	mg / L		
	53	Ba-135	135		0.05	ppb	0.001	< 0.001	mg / L		
	54	Tb-159	159		0	ppb	0.001	< 0.001	mg / L		
	55	Au-197	197		0.48	ppb	0.001	< 0.001	mg / L		
	56	Tl-205	205		0.28	ppb	0.001	< 0.001	mg / L		
	59	Pb-208	208		-0.25	ppb	0.001	< 0.001	mg / L		
	61	U-238	238		0.04	ppb	0.001	< 0.001	mg / L		

STD-CCV [STD-CCV]

Assaigai Analytical Laboratories, Inc.

Analytical Result Summary

Run Group	MT.2002.1110	31
Calc Method	6020	
Prep Method	LAB	
Prep Matrix	LAB	

		By	Dilution
Prepared			1
Analyzed	09-24-02 14:38:00	JWB	1
Calibration	09-24-02 10:48:00		
Quant	09-24-02 14:45:00	032CCV .D#	

r	C#	Analyte	QMass	m	Raw Quant	As	MRL	Report	As	Qual	f
	3	Be-9	9		96.99	ppb	1	97	% Recovery		
	4	B-11	11		98.09	ppb	1	98	% Recovery		
	5	Na-23	23		972	ppb	1	97	% Recovery		
	6	Mg-24	24		1036	ppb	1	104	% Recovery		
	7	Mg-25	25		1039	ppb	1	104	% Recovery		
	8	Mg-26	26		1018	ppb	1	102	% Recovery		
	9	Al-27	27		1000	ppb	1	100	% Recovery		
	10	Si-28	28		1112	ppb	1	111	% Recovery		x
	11	K-39	39		1000	ppb	1	100	% Recovery		
	13	Ca-43	43		976.3	ppb	1	98	% Recovery		
	14	Ca-44	44		1008	ppb	1	101	% Recovery		
	16	Ti-47	47		103.8	ppb	1	104	% Recovery		
	17	V-51	51		104.2	ppb	1	104	% Recovery		
	18	Cr-52	52		104.3	ppb	1	104	% Recovery		
	19	Cr-53	53		102.5	ppb	1	102	% Recovery		
	20	Fe-54	54		1122	ppb	1	112	% Recovery		x
	21	Mn-55	55		105.9	ppb	1	106	% Recovery		
	22	Fe-57	57		1076	ppb	1	108	% Recovery		
	23	Co-59	59		106.1	ppb	1	106	% Recovery		
	24	Ni-60	60		104.8	ppb	1	105	% Recovery		
	25	Cu-63	63		107.1	ppb	1	107	% Recovery		
	26	Cu-65	65		107.7	ppb	1	108	% Recovery		
	27	Zn-66	66		99.76	ppb	1	100	% Recovery		
	28	Zn-67	67		97.4	ppb	1	97	% Recovery		
	29	Zn-68	68		100.1	ppb	1	100	% Recovery		
	32	As-75	75		99.4	ppb	1	99	% Recovery		
	34	Se-82	82		102.4	ppb	1	102	% Recovery		
	37	Sr-87	87		99.36	ppb	1	99	% Recovery		
	40	Mo-95	95		94.01	ppb	1	94	% Recovery		
	41	Mo-98	98		94.89	ppb	1	95	% Recovery		
	43	Ag-107	107		99.03	ppb	1	99	% Recovery		
	45	Ag-109	109		99.24	ppb	1	99	% Recovery		
	46	Cd-111	111		100.4	ppb	1	100	% Recovery		
	47	Cd-114	114		100.5	ppb	1	100	% Recovery		
	50	Sn-120	120		100.5	ppb	1	100	% Recovery		
	51	Sb-121	121		100.3	ppb	1	100	% Recovery		
	52	Sb-123	123		100.2	ppb	1	100	% Recovery		
	53	Ba-135	135		101.1	ppb	1	101	% Recovery		
	54	Tb-159	159		0	ppb	1	< 1	% Recovery		x
	55	Au-197	197		97.96	ppb	1	98	% Recovery		
	56	Tl-205	205		97.81	ppb	1	98	% Recovery		
	59	Pb-208	208		99.32	ppb	1	99	% Recovery		
	61	U-238	238		99.72	ppb	1	100	% Recovery		

CB [CB]

Assaigai Analytical Laboratories, Inc.

Analytical Result Summary

Run Group	MT.2002.1110	32
Calc Method	6020	
Prep Method	LAB	
Prep Matrix	LAB	

		By	Dilution
Prepared			1
Analyzed	09-24-02 14:47:00	JWB	1
Calibration	09-24-02 10:46:00		
Quant	09-24-02 14:54:00	033CCB .D#	

r	C#	Analyte	QMass	m	Raw Quant	As	MRL	Report	As	Qual	f
	3	Be-9	9		0.02	ppb	0.001	< 0.001	mg / L		
	4	B-11	11		-0.01	ppb	0.001	< 0.001	mg / L		
	5	Na-23	23		0.24	ppb	0.01	< 0.010	mg / L		
	6	Mg-24	24		0.51	ppb	0.01	< 0.010	mg / L		
	7	Mg-25	25		0.57	ppb	0.01	< 0.010	mg / L		
	8	Mg-26	26		0.45	ppb	0.01	< 0.010	mg / L		
	9	Al-27	27		3.24	ppb	0.01	< 0.010	mg / L		
	10	Si-28	28		5.06	ppb	0.001	0.005	mg / L		x
	11	K-39	39		2.92	ppb	0.01	< 0.010	mg / L		
	13	Ca-43	43		1.95	ppb	0.01	< 0.010	mg / L		
	14	Ca-44	44		1.93	ppb	0.01	< 0.010	mg / L		
	16	Ti-47	47		0.12	ppb	0.001	< 0.001	mg / L		
	17	V-51	51		0.37	ppb	0.001	< 0.001	mg / L		
	18	Cr-52	52		0.47	ppb	0.001	< 0.001	mg / L		
	19	Cr-53	53		7.38	ppb	0.001	0.007	mg / L		x
	20	Fe-54	54		27	ppb	0.01	0.027	mg / L		x
	21	Mn-55	55		0.06	ppb	0.001	< 0.001	mg / L		
	22	Fe-57	57		4.75	ppb	0.01	< 0.010	mg / L		
	23	Co-59	59		-0.27	ppb	0.001	< 0.001	mg / L		
	24	Ni-60	60		-0.04	ppb	0.001	< 0.001	mg / L		
	25	Cu-63	63		0.02	ppb	0.001	< 0.001	mg / L		
	26	Cu-65	65		0.02	ppb	0.001	< 0.001	mg / L		
	27	Zn-66	66		0.05	ppb	0.001	< 0.001	mg / L		
	28	Zn-67	67		0.58	ppb	0.001	< 0.001	mg / L		
	29	Zn-68	68		-0.1	ppb	0.001	< 0.001	mg / L		
	32	As-75	75		0.33	ppb	0.001	< 0.001	mg / L		
	34	Se-82	82		0.39	ppb	0.001	< 0.001	mg / L		
	37	Sr-87	87		0.05	ppb	0.001	< 0.001	mg / L		
	40	Mo-95	95		0.28	ppb	0.001	< 0.001	mg / L		
	41	Mo-98	98		0.23	ppb	0.001	< 0.001	mg / L		
	43	Ag-107	107		0.02	ppb	0.001	< 0.001	mg / L		
	45	Ag-109	109		0.03	ppb	0.001	< 0.001	mg / L		
	46	Cd-111	111		0.01	ppb	0.001	< 0.001	mg / L		
	47	Cd-114	114		0.04	ppb	0.001	< 0.001	mg / L		
	50	Sn-120	120		0	ppb	0.001	< 0.001	mg / L		
	51	Sb-121	121		0.19	ppb	0.001	< 0.001	mg / L		
	52	Sb-123	123		0.3	ppb	0.001	< 0.001	mg / L		
	53	Ba-135	135		0.07	ppb	0.001	< 0.001	mg / L		
	54	Tb-159	159		0	ppb	0.001	< 0.001	mg / L		
	55	Au-197	197		0.39	ppb	0.001	< 0.001	mg / L		
	56	Tl-205	205		0.23	ppb	0.001	< 0.001	mg / L		
	59	Pb-208	208		-0.26	ppb	0.001	< 0.001	mg / L		
	61	U-238	238		0.04	ppb	0.001	< 0.001	mg / L		

STD-CCV [STD-CCV]

Assaigai Analytical Laboratories, Inc.

Analytical Result Summary

043

Run Group	MT.2002.1110	43I
Calc Method	6020	
Prep Method	LAB	
Prep Matrix	LAB	

		By	Dilution
Prepared			1
Analyzed	09-24-02 16:29:00	JWB	1
Calibration	09-24-02 10:46:00		
Quant	09-24-02 16:36:00	044CCV .D#	

r	C#	Analyte	QMass	m	Raw Quant	As	MRL	Report	As	Qual	f
	3	Be-9	9		94.03	ppb	1	94	% Recovery		
	4	B-11	11		99.13	ppb	1	99	% Recovery		
	5	Na-23	23		972.9	ppb	1	97	% Recovery		
	6	Mg-24	24		985.6	ppb	1	98	% Recovery		
	7	Mg-25	25		1070	ppb	1	107	% Recovery		
	8	Mg-26	26		1025	ppb	1	102	% Recovery		
	9	Al-27	27		987.2	ppb	1	99	% Recovery		
	10	Si-28	28		1128	ppb	1	113	% Recovery		x
	11	K-39	39		1023	ppb	1	102	% Recovery		
	13	Ca-43	43		1005	ppb	1	100	% Recovery		
	14	Ca-44	44		1011	ppb	1	101	% Recovery		
	16	Ti-47	47		103.3	ppb	1	103	% Recovery		
	17	V-51	51		102.6	ppb	1	103	% Recovery		
	18	Cr-52	52		103.5	ppb	1	104	% Recovery		
	19	Cr-53	53		105.4	ppb	1	105	% Recovery		
	20	Fe-54	54		1106	ppb	1	111	% Recovery		x
	21	Mn-55	55		105	ppb	1	105	% Recovery		
	22	Fe-57	57		1080	ppb	1	108	% Recovery		
	23	Co-59	59		105.7	ppb	1	106	% Recovery		
	24	Ni-60	60		106	ppb	1	106	% Recovery		
	25	Cu-63	63		106.8	ppb	1	107	% Recovery		
	26	Cu-65	65		107.6	ppb	1	108	% Recovery		
	27	Zn-66	66		101.8	ppb	1	102	% Recovery		
	28	Zn-67	67		100.5	ppb	1	100	% Recovery		
	29	Zn-68	68		102.2	ppb	1	102	% Recovery		
	32	As-75	75		102.1	ppb	1	102	% Recovery		
	34	Se-82	82		103.7	ppb	1	104	% Recovery		
	37	Sr-87	87		101.8	ppb	1	102	% Recovery		
	40	Mo-95	95		94.4	ppb	1	94	% Recovery		
	41	Mo-98	98		94.81	ppb	1	95	% Recovery		
	43	Ag-107	107		99.4	ppb	1	99	% Recovery		
	45	Ag-109	109		99.94	ppb	1	100	% Recovery		
	46	Cd-111	111		101.1	ppb	1	101	% Recovery		
	47	Cd-114	114		101.6	ppb	1	102	% Recovery		
	50	Sn-120	120		101.7	ppb	1	102	% Recovery		
	51	Sb-121	121		100.8	ppb	1	101	% Recovery		
	52	Sb-123	123		101.8	ppb	1	102	% Recovery		
	53	Ba-135	135		102.8	ppb	1	103	% Recovery		
	54	Tb-159	159		0	ppb	1	< 1	% Recovery		x
	55	Au-197	197		100.2	ppb	1	100	% Recovery		
	56	Tl-205	205		97.94	ppb	1	98	% Recovery		
	59	Pb-208	208		99.43	ppb	1	99	% Recovery		
	61	U-238	238		99.33	ppb	1	99	% Recovery		

CB [CB]

Assaigai Analytical Laboratories, Inc.

044

Analytical Result Summary

Run Group	MT.2002.1110	44
Calc Method	6020	
Prep Method	LAB	
Prep Matrix	LAB	

		By	Dilution
Prepared			1
Analyzed	09-24-02 16:38:00	JWB	1
Calibration	09-24-02 10:46:00		
Quant	09-24-02 16:45:00	045CCB	.D#

r	C#	Analyte	QMass	m	Raw Quant	As	MRL	Report	As	Qual	f
	3	Be-9	9		0.02	ppb	0.001	< 0.001	mg / L		
	4	B-11	11		0.09	ppb	0.001	< 0.001	mg / L		
	5	Na-23	23		0.04	ppb	0.01	< 0.010	mg / L		
	6	Mg-24	24		0.41	ppb	0.01	< 0.010	mg / L		
	7	Mg-25	25		0.48	ppb	0.01	< 0.010	mg / L		
	8	Mg-26	26		0.43	ppb	0.01	< 0.010	mg / L		
	9	Al-27	27		3.34	ppb	0.01	< 0.010	mg / L		
	10	Si-28	28		14.75	ppb	0.001	0.015	mg / L		x
	11	K-39	39		3.79	ppb	0.01	< 0.010	mg / L		
	13	Ca-43	43		2.72	ppb	0.01	< 0.010	mg / L		
	14	Ca-44	44		1.46	ppb	0.01	< 0.010	mg / L		
	16	Ti-47	47		0.14	ppb	0.001	< 0.001	mg / L		
	17	V-51	51		0.35	ppb	0.001	< 0.001	mg / L		
	18	Cr-52	52		0.69	ppb	0.001	< 0.001	mg / L		
	19	Cr-53	53		17.46	ppb	0.001	0.017	mg / L		x
	20	Fe-54	54		49.13	ppb	0.01	0.049	mg / L		x
	21	Mn-55	55		0.09	ppb	0.001	< 0.001	mg / L		
	22	Fe-57	57		7.92	ppb	0.01	< 0.010	mg / L		
	23	Co-59	59		-0.27	ppb	0.001	< 0.001	mg / L		
	24	Ni-60	60		-0.03	ppb	0.001	< 0.001	mg / L		
	25	Cu-63	63		0.05	ppb	0.001	< 0.001	mg / L		
	26	Cu-65	65		0.02	ppb	0.001	< 0.001	mg / L		
	27	Zn-66	66		0.06	ppb	0.001	< 0.001	mg / L		
	28	Zn-67	67		1.39	ppb	0.001	0.001	mg / L		x
	29	Zn-68	68		0.13	ppb	0.001	< 0.001	mg / L		
	32	As-75	75		0.76	ppb	0.001	< 0.001	mg / L		
	34	Se-82	82		0.43	ppb	0.001	< 0.001	mg / L		
	37	Sr-87	87		0.06	ppb	0.001	< 0.001	mg / L		
	40	Mo-95	95		0.23	ppb	0.001	< 0.001	mg / L		
	41	Mo-98	98		0.23	ppb	0.001	< 0.001	mg / L		
	43	Ag-107	107		0.03	ppb	0.001	< 0.001	mg / L		
	45	Ag-109	109		0.03	ppb	0.001	< 0.001	mg / L		
	46	Cd-111	111		0.02	ppb	0.001	< 0.001	mg / L		
	47	Cd-114	114		0.04	ppb	0.001	< 0.001	mg / L		
	50	Sn-120	120		0.03	ppb	0.001	< 0.001	mg / L		
	51	Sb-121	121		0.16	ppb	0.001	< 0.001	mg / L		
	52	Sb-123	123		0.26	ppb	0.001	< 0.001	mg / L		
	53	Ba-135	135		0.04	ppb	0.001	< 0.001	mg / L		
	54	Tb-159	159		0	ppb	0.001	< 0.001	mg / L		
	55	Au-197	197		0.41	ppb	0.001	< 0.001	mg / L		
	56	Tl-205	205		0.24	ppb	0.001	< 0.001	mg / L		
	59	Pb-208	208		-0.25	ppb	0.001	< 0.001	mg / L		
	61	U-238	238		0.05	ppb	0.001	< 0.001	mg / L		

STD-CCV [STD-CCV]

Assaigai Analytical Laboratories, Inc.

Analytical Result Summary

Run Group	MT.2002.1110	54
Calc Method	6020	
Prep Method	LAB	
Prep Matrix	LAB	

		By	Dilution
Prepared			1
Analyzed	09-24-02 18:19:00	JWB	1
Calibration	09-24-02 10:46:00		
Quant	09-24-02 18:26:00	056CCV .D#	

r	C#	Analyte	QMass	m	Raw Quant	As	MRL	Report	As	Qual	f
	3	Be-9	9		93.66	ppb	1	94	% Recovery		
	4	B-11	11		98.9	ppb	1	99	% Recovery		
	5	Na-23	23		999.8	ppb	1	100	% Recovery		
	6	Mg-24	24		988.8	ppb	1	99	% Recovery		
	7	Mg-25	25		1071	ppb	1	107	% Recovery		
	8	Mg-26	26		1038	ppb	1	104	% Recovery		
	9	Al-27	27		1006	ppb	1	101	% Recovery		
	10	Si-28	28		1058	ppb	1	106	% Recovery		
	11	K-39	39		1029	ppb	1	103	% Recovery		
	13	Ca-43	43		993.2	ppb	1	99	% Recovery		
	14	Ca-44	44		1010	ppb	1	101	% Recovery		
	16	Ti-47	47		104.3	ppb	1	104	% Recovery		
	17	V-51	51		104.2	ppb	1	104	% Recovery		
	18	Cr-52	52		106.5	ppb	1	106	% Recovery		
	19	Cr-53	53		115.2	ppb	1	115	% Recovery		x
	20	Fe-54	54		1186	ppb	1	119	% Recovery		x
	21	Mn-55	55		107.7	ppb	1	108	% Recovery		
	22	Fe-57	57		1100	ppb	1	110	% Recovery		
	23	Co-59	59		107.5	ppb	1	108	% Recovery		
	24	Ni-60	60		107.2	ppb	1	107	% Recovery		
	25	Cu-63	63		107.6	ppb	1	108	% Recovery		
	26	Cu-65	65		109.1	ppb	1	109	% Recovery		
	27	Zn-66	66		103.6	ppb	1	104	% Recovery		
	28	Zn-67	67		103.3	ppb	1	103	% Recovery		
	29	Zn-68	68		104.8	ppb	1	105	% Recovery		
	32	As-75	75		105.8	ppb	1	106	% Recovery		
	34	Se-82	82		106.9	ppb	1	107	% Recovery		
	37	Sr-87	87		103.9	ppb	1	104	% Recovery		
	40	Mo-95	95		94.6	ppb	1	95	% Recovery		
	41	Mo-98	98		95.69	ppb	1	96	% Recovery		
	43	Ag-107	107		99.62	ppb	1	100	% Recovery		
	45	Ag-109	109		99.85	ppb	1	100	% Recovery		
	46	Cd-111	111		100.4	ppb	1	100	% Recovery		
	47	Cd-114	114		100.7	ppb	1	101	% Recovery		
	50	Sn-120	120		101.5	ppb	1	102	% Recovery		
	51	Sb-121	121		101.3	ppb	1	101	% Recovery		
	52	Sb-123	123		101.4	ppb	1	101	% Recovery		
	53	Ba-135	135		103	ppb	1	103	% Recovery		
	54	Tb-159	159		0	ppb	1	< 1	% Recovery		x
	55	Au-197	197		99.27	ppb	1	99	% Recovery		
	56	Tl-205	205		98.41	ppb	1	98	% Recovery		
	59	Pb-208	208		100.1	ppb	1	100	% Recovery		
	61	U-238	238		99.41	ppb	1	99	% Recovery		

CB [CB]

Assaigai Analytical Laboratories, Inc.

Analytical Result Summary

Run Group	MT.2002.1110	55
Calc Method	6020	
Prep Method	LAB	
Prep Matrix	LAB	

		By	Dilution
Prepared			1
Analyzed	09-24-02 18:28:00	JWB	1
Calibration	09-24-02 10:46:00		
Quant	09-24-02 18:35:00	057CCB .D#	

r	C#	Analyte	QMass	m	Raw Quant	As	MRL	Report	As	Qual	f
	3	Be-9	9		0.03	ppb	0.001	< 0.001	mg / L		
	4	B-11	11		0.23	ppb	0.001	< 0.001	mg / L		
	5	Na-23	23		0.02	ppb	0.01	< 0.010	mg / L		
	6	Mg-24	24		0.37	ppb	0.01	< 0.010	mg / L		
	7	Mg-25	25		0.4	ppb	0.01	< 0.010	mg / L		
	8	Mg-26	26		0.41	ppb	0.01	< 0.010	mg / L		
	9	Al-27	27		3.17	ppb	0.01	< 0.010	mg / L		
	10	Si-28	28		46.07	ppb	0.001	0.046	mg / L		x
	11	K-39	39		6.38	ppb	0.01	< 0.010	mg / L		
	13	Ca-43	43		3.14	ppb	0.01	< 0.010	mg / L		
	14	Ca-44	44		1.47	ppb	0.01	< 0.010	mg / L		
	16	Ti-47	47		0	ppb	0.001	< 0.001	mg / L		
	17	V-51	51		0.75	ppb	0.001	< 0.001	mg / L		
	18	Cr-52	52		0.87	ppb	0.001	< 0.001	mg / L		
	19	Cr-53	53		25.54	ppb	0.001	0.026	mg / L		x
	20	Fe-54	54		74.32	ppb	0.01	0.074	mg / L		x
	21	Mn-55	55		0.09	ppb	0.001	< 0.001	mg / L		
	22	Fe-57	57		12.01	ppb	0.01	0.012	mg / L		x
	23	Co-59	59		-0.14	ppb	0.001	< 0.001	mg / L		
	24	Ni-60	60		-0.02	ppb	0.001	< 0.001	mg / L		
	25	Cu-63	63		0.03	ppb	0.001	< 0.001	mg / L		
	26	Cu-65	65		0.02	ppb	0.001	< 0.001	mg / L		
	27	Zn-66	66		0.07	ppb	0.001	< 0.001	mg / L		
	28	Zn-67	67		2.29	ppb	0.001	0.002	mg / L		x
	29	Zn-68	68		0.25	ppb	0.001	< 0.001	mg / L		
	32	As-75	75		0.57	ppb	0.001	< 0.001	mg / L		
	34	Se-82	82		0.17	ppb	0.001	< 0.001	mg / L		
	37	Sr-87	87		0.03	ppb	0.001	< 0.001	mg / L		
	40	Mo-95	95		0.2	ppb	0.001	< 0.001	mg / L		
	41	Mo-98	98		0.21	ppb	0.001	< 0.001	mg / L		
	43	Ag-107	107		0.02	ppb	0.001	< 0.001	mg / L		
	45	Ag-109	109		0.02	ppb	0.001	< 0.001	mg / L		
	46	Cd-111	111		0.02	ppb	0.001	< 0.001	mg / L		
	47	Cd-114	114		0.06	ppb	0.001	< 0.001	mg / L		
	50	Sn-120	120		0.02	ppb	0.001	< 0.001	mg / L		
	51	Sb-121	121		0.08	ppb	0.001	< 0.001	mg / L		
	52	Sb-123	123		0.11	ppb	0.001	< 0.001	mg / L		
	53	Ba-135	135		0.02	ppb	0.001	< 0.001	mg / L		
	54	Tb-159	159		0	ppb	0.001	< 0.001	mg / L		
	55	Au-197	197		0.5	ppb	0.001	< 0.001	mg / L		
	56	Tl-205	205		0.32	ppb	0.001	< 0.001	mg / L		
	59	Pb-208	208		-0.12	ppb	0.001	< 0.001	mg / L		
	61	U-238	238		0.04	ppb	0.001	< 0.001	mg / L		

FRAC M021283-025

Assaigai Analytical Laboratories, Inc.

Analytical Result Summary

0209373-16A

			By	Dilution
Prepared	09-23-02 8:08:51		JRE	0.9606
Analyzed	09-24-02 19:05:00		JWB	100
Calibration	09-24-02 10:46:00			
Quant	09-24-02 19:12:00		061SMPL.D#	

Run Group	MT.2002.1110 59
Calc Method	6020
Prep Method	MS3050
Prep Matrix	SOLID

r	C#	Analyte	QMass	m	Raw Quant	As	MRL	Report	As	Qual	f
	3	Be-9	9		0.1	ppb	0.025	< 2.40	mg / Kg		
	4	B-11	11		-1.3	ppb	0.15	< 14.4	mg / Kg		
	5	Na-23	23		47.68	ppb	0.5	229	mg / Kg		
	6	Mg-24	24		181.4	ppb	0.5	871	mg / Kg		
	7	Mg-25	25		183.5	ppb	0.5	881	mg / Kg		
	8	Mg-26	26		180.2	ppb	0.5	866	mg / Kg		
	9	Al-27	27		667.3	ppb	0.5	3200	mg / Kg		
	10	Si-28	28		232.6	ppb	1	1120	mg / Kg		
	11	K-39	39		128	ppb	0.5	615	mg / Kg		
	13	Ca-43	43		200	ppb	0.5	961	mg / Kg		
	14	Ca-44	44		202.3	ppb	0.5	972	mg / Kg		
x	16	Ti-47 >5x MB	47		91.04	ppb	0.025	437	mg / Kg		
	17	V-51	51		1.58	ppb	0.05	7.59	mg / Kg		
	18	Cr-52	52		1.48	ppb	0.05	7.11	mg / Kg		
	19	Cr-53	53		12.2	ppb	0.25	58.6	mg / Kg		
	20	Fe-54	54		1870	ppb	0.5	8980	mg / Kg		
x	21	Mn-55 >5x MB	55		58.15	ppb	0.025	279	mg / Kg		
x	22	Fe-57 >5x MB	57		1873	ppb	0.5	9000	mg / Kg		
	23	Co-59	59		-0.07	ppb	0.025	< 2.40	mg / Kg		
	24	Ni-60	60		0.67	ppb	0.025	3.22	mg / Kg		
	25	Cu-63	63		0.59	ppb	0.025	2.83	mg / Kg		
	26	Cu-65	65		0.54	ppb	0.025	2.59	mg / Kg		
	27	Zn-66	66		9.96	ppb	0.25	47.8	mg / Kg		
	28	Zn-67	67		10.2	ppb	0.25	49.0	mg / Kg		
	29	Zn-68	68		9.78	ppb	0.25	47.0	mg / Kg		
	32	As-75	75		0.45	ppb	0.025	< 2.40	mg / Kg		
	34	Se-82	82		0.38	ppb	0.025	< 2.40	mg / Kg		
	37	Sr-87	87		4.86	ppb	0.025	23.3	mg / Kg		
	40	Mo-95	95		2.21	ppb	0.025	10.6	mg / Kg		
	41	Mo-98	98		2.23	ppb	0.025	10.7	mg / Kg		
	43	Ag-107	107		-0.01	ppb	0.025	< 2.40	mg / Kg		
	45	Ag-109	109		-0.01	ppb	0.025	< 2.40	mg / Kg		
	46	Cd-111	111		0.06	ppb	0.025	< 2.40	mg / Kg		
	47	Cd-114	114		0.03	ppb	0.025	< 2.40	mg / Kg		
	50	Sn-120	120		0.35	ppb	0.025	< 2.40	mg / Kg		
	51	Sb-121	121		-0.11	ppb	0.05	< 4.80	mg / Kg		
	52	Sb-123	123		-0.06	ppb	0.05	< 4.80	mg / Kg		
	53	Ba-135	135		5.07	ppb	0.025	24.4	mg / Kg		
	54	Tb-159	159		0	ppb	0.001	< 0.096	mg / Kg		
	55	Au-197	197		-0.04	ppb	0.025	< 2.40	mg / Kg		
	56	Tl-205	205		-0.32	ppb	0.025	< 2.40	mg / Kg		
	59	Pb-208	208		1.55	ppb	0.025	7.44	mg / Kg		
	61	U-238	238		0.07	ppb	0.025	< 2.40	mg / Kg		

FRAC M021283-025

Assaigai Analytical Laboratories, Inc.

Analytical Result Summary

0209373-16A 048

Run Group	MT.2002.1110	60i
Calc Method	6020	
Prep Method	MS3050	
Prep Matrix	SOLID	

		By	Dilution
Prepared	09-23-02 8:08:51	JRE	0.9606
Analyzed	09-24-02 19:14:00	JWB	10
Calibration	09-24-02 10:46:00		
Quant	09-24-02 19:21:00	062SMPL.D#	

r	C#	Analyte	QMass	m	Raw Quant	As	MRL	Report	As	Qual	f
x	3	Be-9	9		1.18	ppb	0.025	0.567	mg / Kg		
x	4	B-11	11		-0.19	ppb	0.15	< 1.44	mg / Kg		
x	5	Na-23 >5x MB	23		236.6	ppb	0.5	114	mg / Kg		
x	6	Mg-24 >5x MB	24		1516	ppb	0.5	728	mg / Kg		
	7	Mg-25	25		1584	ppb	0.5	761	mg / Kg		
	8	Mg-26	26		1561	ppb	0.5	750	mg / Kg		
x	9	Al-27 >5x MB	27		6020	ppb	0.5	2890	mg / Kg		
x	10	Si-28 (5)	28		502	ppb	1	241	mg / Kg		
x	11	K-39 >5x MB	39		1027	ppb	0.5	493	mg / Kg		
x	13	Ca-43 >5x MB	43		1599	ppb	0.5	768	mg / Kg		
	14	Ca-44	44		1585	ppb	0.5	761	mg / Kg		
	16	Ti-47	47		852.3	ppb	0.025	409	mg / Kg		x
x	17	V-51	51		11.8	ppb	0.05	5.67	mg / Kg		
x	18	Cr-52	52		9.52	ppb	0.05	4.57	mg / Kg		
	19	Cr-53	53		8.1	ppb	0.25	3.89	mg / Kg		
	20	Fe-54	54		17580	ppb	0.5	8440	mg / Kg		x
	21	Mn-55	55		571.5	ppb	0.025	274	mg / Kg		x
	22	Fe-57	57		17940	ppb	0.5	8620	mg / Kg		x
x	23	Co-59	59		1.9	ppb	0.025	0.912	mg / Kg		
x	24	Ni-60	60		6.75	ppb	0.025	3.24	mg / Kg		
x	25	Cu-63 >5x MB	63		4.74	ppb	0.025	2.28	mg / Kg		
	26	Cu-65	65		5.11	ppb	0.025	2.45	mg / Kg		
x	27	Zn-66	66		80.18	ppb	0.25	38.5	mg / Kg		
	28	Zn-67	67		76.69	ppb	0.25	36.8	mg / Kg		
	29	Zn-68	68		76.87	ppb	0.25	36.9	mg / Kg		
x	32	As-75	75		2.65	ppb	0.025	1.27	mg / Kg		
x	34	Se-82	82		1.35	ppb	0.025	0.648	mg / Kg		
x	37	Sr-87	87		46.52	ppb	0.025	22.3	mg / Kg		
x	40	Mo-95 >5x MB	95		5.8	ppb	0.025	2.78	mg / Kg		
	41	Mo-98	98		5.72	ppb	0.025	2.75	mg / Kg		
x	43	Ag-107	107		0.08	ppb	0.025	< 0.240	mg / Kg		
	45	Ag-109	109		0.09	ppb	0.025	< 0.240	mg / Kg		
x	46	Cd-111	111		0.28	ppb	0.025	< 0.240	mg / Kg		
	47	Cd-114	114		0.11	ppb	0.025	< 0.240	mg / Kg		
x	50	Sn-120 (B)	120		3.98	ppb	0.025	1.91	mg / Kg		
x	51	Sb-121	121		-0.06	ppb	0.05	< 0.480	mg / Kg		
	52	Sb-123	123		0	ppb	0.05	< 0.480	mg / Kg		
x	53	Ba-135	135		48.69	ppb	0.025	23.4	mg / Kg		
	54	Tb-159	159		0	ppb	0.001	< 0.010	mg / Kg		
	55	Au-197	197		-0.02	ppb	0.025	< 0.240	mg / Kg		
x	56	Tl-205	205		-0.19	ppb	0.025	< 0.240	mg / Kg		
x	59	Pb-208 >5x MB	208		17.44	ppb	0.025	8.38	mg / Kg		
x	61	U-238	238		0.67	ppb	0.025	0.322	mg / Kg		

FRAC M021283-026

Assaigai Analytical Laboratories, Inc.

Analytical Result Summary

0209373-17A 049

Run Group	MT.2002.1110	61
Calc Method	6020	
Prep Method	MS3050	
Prep Matrix	SOLID	

		By	Dilution
Prepared	09-23-02 8:08:51	JRE	1
Analyzed	09-24-02 19:23:00	JWB	100
Calibration	09-24-02 10:46:00		
Quant	09-24-02 19:30:00		063SMPL.D#

r	C#	Analyte	QMass	m	Raw Quant	As	MRL	Report	As	Qual	f
	3	Be-9	9		0.08	ppb	0.025	< 2.50	mg / Kg		
	4	B-11	11		-1.57	ppb	0.15	< 15.0	mg / Kg		
	5	Na-23	23		74.31	ppb	0.5	372	mg / Kg		
	6	Mg-24	24		213.2	ppb	0.5	1070	mg / Kg		
	7	Mg-25	25		217.7	ppb	0.5	1090	mg / Kg		
	8	Mg-26	26		211.6	ppb	0.5	1060	mg / Kg		
	9	Al-27	27		988	ppb	0.5	4940	mg / Kg		
	10	Si-28	28		256.9	ppb	1	1280	mg / Kg		
	11	K-39	39		159.6	ppb	0.5	798	mg / Kg		
	13	Ca-43	43		414.6	ppb	0.5	2070	mg / Kg		
	14	Ca-44	44		424.4	ppb	0.5	2120	mg / Kg		
x	16	Ti-47 >5x MB	47		48.39	ppb	0.025	242	mg / Kg		
	17	V-51	51		1.69	ppb	0.05	8.45	mg / Kg		
	18	Cr-52	52		1.52	ppb	0.05	7.60	mg / Kg		
	19	Cr-53	53		6.68	ppb	0.25	33.4	mg / Kg		
	20	Fe-54	54		1521	ppb	0.5	7600	mg / Kg		
x	21	Mn-55 >5x MB	55		36.46	ppb	0.025	182	mg / Kg		
x	22	Fe-57 >5x MB	57		1486	ppb	0.5	7430	mg / Kg		
	23	Co-59	59		-0.02	ppb	0.025	< 2.50	mg / Kg		
	24	Ni-60	60		0.55	ppb	0.025	2.75	mg / Kg		
	25	Cu-63	63		1.05	ppb	0.025	5.25	mg / Kg		
	26	Cu-65	65		1.1	ppb	0.025	5.50	mg / Kg		
	27	Zn-66	66		9.7	ppb	0.25	48.5	mg / Kg		
	28	Zn-67	67		9.77	ppb	0.25	48.8	mg / Kg		
	29	Zn-68	68		9.41	ppb	0.25	47.0	mg / Kg		
	32	As-75	75		0.43	ppb	0.025	< 2.50	mg / Kg		
	34	Se-82	82		0.17	ppb	0.025	< 2.50	mg / Kg		
	37	Sr-87	87		7.29	ppb	0.025	36.4	mg / Kg		
	40	Mo-95	95		0.81	ppb	0.025	4.05	mg / Kg		
	41	Mo-98	98		0.73	ppb	0.025	3.65	mg / Kg		
	43	Ag-107	107		-0.01	ppb	0.025	< 2.50	mg / Kg		
	45	Ag-109	109		-0.01	ppb	0.025	< 2.50	mg / Kg		
	46	Cd-111	111		0.05	ppb	0.025	< 2.50	mg / Kg		
	47	Cd-114	114		0.01	ppb	0.025	< 2.50	mg / Kg		
	50	Sn-120	120		0.25	ppb	0.025	< 2.50	mg / Kg		
	51	Sb-121	121		-0.11	ppb	0.05	< 5.00	mg / Kg		
	52	Sb-123	123		-0.05	ppb	0.05	< 5.00	mg / Kg		
	53	Ba-135	135		7.2	ppb	0.025	36.0	mg / Kg		
	54	Tb-159	159		0	ppb	0.001	< 0.100	mg / Kg		
	55	Au-197	197		-0.05	ppb	0.025	< 2.50	mg / Kg		
	56	Tl-205	205		-0.33	ppb	0.025	< 2.50	mg / Kg		
	59	Pb-208	208		1.02	ppb	0.025	5.10	mg / Kg		
	61	U-238	238		0.1	ppb	0.025	< 2.50	mg / Kg		

FRAC M021283-026

Assaigai Analytical Laboratories, Inc.

Analytical Result Summary

0209373-17A 050

Run Group	MT.2002.1110	62
Calc Method	6020	
Prep Method	MS3050	
Prep Matrix	SOLID	

		By	Dilution
Prepared	09-23-02 8:08:51	JRE	1
Analyzed	09-24-02 19:32:00	JWB	10
Calibration	09-24-02 10:46:00		
Quant	09-24-02 19:39:00		064SMPL.D#

r	C#	Analyte	QMass	m	Raw Quant	As	MRL	Report	As	Qual	f
x	3	Be-9	9		0.87	ppb	0.025	0.435	mg / Kg		
x	4	B-11	11		0.34	ppb	0.15	< 1.50	mg / Kg		
x	5	Na-23 >5x MB	23		612.7	ppb	0.5	306	mg / Kg		
x	6	Mg-24 >5x MB	24		1930	ppb	0.5	965	mg / Kg		
	7	Mg-25	25		2044	ppb	0.5	1020	mg / Kg		
	8	Mg-26	26		1977	ppb	0.5	988	mg / Kg		
x	9	Al-27 >5x MB	27		9248	ppb	0.5	4620	mg / Kg		
x	10	Si-28 (E)	28		718.5	ppb	1	359	mg / Kg		
x	11	K-39 >5x MB	39		1371	ppb	0.5	686	mg / Kg		
x	13	Ca-43 >5x MB	43		3922	ppb	0.5	1960	mg / Kg		
	14	Ca-44	44		3816	ppb	0.5	1910	mg / Kg		
	16	Ti-47	47		454.5	ppb	0.025	227	mg / Kg		x
x	17	V-51	51		13.53	ppb	0.05	6.76	mg / Kg		
x	18	Cr-52	52		11.14	ppb	0.05	5.57	mg / Kg		
	19	Cr-53	53		24	ppb	0.25	12.0	mg / Kg		
	20	Fe-54	54		13780	ppb	0.5	6890	mg / Kg		x
	21	Mn-55	55		357.4	ppb	0.025	179	mg / Kg		x
	22	Fe-57	57		14080	ppb	0.5	7040	mg / Kg		x
x	23	Co-59	59		2.31	ppb	0.025	1.16	mg / Kg		
x	24	Ni-60	60		5.78	ppb	0.025	2.89	mg / Kg		
x	25	Cu-63 >5x MB	63		9.7	ppb	0.025	4.85	mg / Kg		
	26	Cu-65	65		9.76	ppb	0.025	4.88	mg / Kg		
x	27	Zn-66	66		76.71	ppb	0.25	38.4	mg / Kg		
	28	Zn-67	67		76.23	ppb	0.25	38.1	mg / Kg		
	29	Zn-68	68		72.39	ppb	0.25	36.2	mg / Kg		
x	32	As-75	75		2.62	ppb	0.025	1.31	mg / Kg		
x	34	Se-82	82		0.99	ppb	0.025	0.495	mg / Kg		
x	37	Sr-87	87		73.73	ppb	0.025	36.9	mg / Kg		
x	40	Mo-95 >5x MB	95		2.01	ppb	0.025	1.00	mg / Kg		
	41	Mo-98	98		2.02	ppb	0.025	1.01	mg / Kg		
x	43	Ag-107	107		0.18	ppb	0.025	< 0.250	mg / Kg		
	45	Ag-109	109		0.16	ppb	0.025	< 0.250	mg / Kg		
x	46	Cd-111	111		0.28	ppb	0.025	< 0.250	mg / Kg		
	47	Cd-114	114		0.11	ppb	0.025	< 0.250	mg / Kg		
x	50	Sn-120 (B)	120		3.27	ppb	0.025	1.64	mg / Kg		
x	51	Sb-121	121		-0.07	ppb	0.05	< 0.500	mg / Kg		
	52	Sb-123	123		-0.01	ppb	0.05	< 0.500	mg / Kg		
x	53	Ba-135	135		70.56	ppb	0.025	35.3	mg / Kg		
	54	Tb-159	159		0	ppb	0.001	< 0.010	mg / Kg		
	55	Au-197	197		-0.04	ppb	0.025	< 0.250	mg / Kg		
x	56	Tl-205	205		-0.22	ppb	0.025	< 0.250	mg / Kg		
x	59	Pb-208 >5x MB	208		12.18	ppb	0.025	6.09	mg / Kg		
x	61	U-238	238		0.9	ppb	0.025	0.450	mg / Kg		

STD-CCV [STD-CCV]

Assaigai Analytical Laboratories, Inc.

Analytical Result Summary

Run Group	MT.2002.1110	63
Calc Method	6020	
Prep Method	LAB	
Prep Matrix	LAB	

		By	Dilution
Prepared			1
Analyzed	09-24-02 19:41:00	JWB	1
Calibration	09-24-02 10:46:00		
Quant	09-24-02 19:49:00	085CCV .D#	

r	C#	Analyte	QMass	m	Raw Quant	As	MRL	Report	As	Qual	f
	3	Be-9	9		95.92	ppb	1	96	% Recovery		
	4	B-11	11		102	ppb	1	102	% Recovery		
	5	Na-23	23		1009	ppb	1	101	% Recovery		
	6	Mg-24	24		1083	ppb	1	108	% Recovery		
	7	Mg-25	25		1091	ppb	1	109	% Recovery		
	8	Mg-26	26		1062	ppb	1	106	% Recovery		
	9	Al-27	27		1027	ppb	1	103	% Recovery		
	10	Si-28	28		1155	ppb	1	116	% Recovery		x
	11	K-39	39		1044	ppb	1	104	% Recovery		
	13	Ca-43	43		1021	ppb	1	102	% Recovery		
	14	Ca-44	44		1015	ppb	1	102	% Recovery		
	16	Ti-47	47		103.6	ppb	1	104	% Recovery		
	17	V-51	51		103.2	ppb	1	103	% Recovery		
	18	Cr-52	52		102.8	ppb	1	103	% Recovery		
	19	Cr-53	53		101	ppb	1	101	% Recovery		
	20	Fe-54	54		1110	ppb	1	111	% Recovery		x
	21	Mn-55	55		102.7	ppb	1	103	% Recovery		
	22	Fe-57	57		1040	ppb	1	104	% Recovery		
	23	Co-59	59		102.4	ppb	1	102	% Recovery		
	24	Ni-60	60		104.2	ppb	1	104	% Recovery		
	25	Cu-63	63		103.9	ppb	1	104	% Recovery		
	26	Cu-65	65		105.4	ppb	1	105	% Recovery		
	27	Zn-66	66		103	ppb	1	103	% Recovery		
	28	Zn-67	67		101.7	ppb	1	102	% Recovery		
	29	Zn-68	68		103.4	ppb	1	103	% Recovery		
	32	As-75	75		103.8	ppb	1	104	% Recovery		
	34	Se-82	82		104.3	ppb	1	104	% Recovery		
	37	Sr-87	87		100.8	ppb	1	101	% Recovery		
	40	Mo-95	95		95.45	ppb	1	95	% Recovery		
	41	Mo-98	98		95.91	ppb	1	96	% Recovery		
	43	Ag-107	107		98.94	ppb	1	99	% Recovery		
	45	Ag-109	109		99.34	ppb	1	99	% Recovery		
	46	Cd-111	111		98.61	ppb	1	99	% Recovery		
	47	Cd-114	114		99.17	ppb	1	99	% Recovery		
	50	Sn-120	120		100	ppb	1	100	% Recovery		
	51	Sb-121	121		99.58	ppb	1	100	% Recovery		
	52	Sb-123	123		100.5	ppb	1	100	% Recovery		
	53	Ba-135	135		100.4	ppb	1	100	% Recovery		
	54	Tb-159	159		0	ppb	1	< 1	% Recovery		x
	55	Au-197	197		97.4	ppb	1	97	% Recovery		
	56	Tl-205	205		96.53	ppb	1	96	% Recovery		
	59	Pb-208	208		98.23	ppb	1	98	% Recovery		
	61	U-238	238		97.25	ppb	1	97	% Recovery		

CB [CB]

Assaigai Analytical Laboratories, Inc.

052

Analytical Result Summary

Run Group	MT.2002.1110	64
Calc Method	6020	
Prep Method	LAB	
Prep Matrix	LAB	

		By	Dilution
Prepared			1
Analyzed	09-24-02 19:51:00	JWB	1
Calibration	09-24-02 10:46:00		
Quant	09-24-02 19:58:00	066CCB	D#

r	C#	Analyte	QMass	m	Raw Quant	As	MRL	Report	As	Qual	f
	3	Be-9	9		0.03	ppb	0.001	< 0.001	mg / L		
	4	B-11	11		-0.08	ppb	0.001	< 0.001	mg / L		
	5	Na-23	23		2.68	ppb	0.01	< 0.010	mg / L		
	6	Mg-24	24		2.33	ppb	0.01	< 0.010	mg / L		
	7	Mg-25	25		2.33	ppb	0.01	< 0.010	mg / L		
	8	Mg-26	26		2.29	ppb	0.01	< 0.010	mg / L		
	9	Al-27	27		5.78	ppb	0.01	< 0.010	mg / L		
	10	Si-28	28		28.27	ppb	0.001	0.028	mg / L		x
	11	K-39	39		6.46	ppb	0.01	< 0.010	mg / L		
	13	Ca-43	43		3.26	ppb	0.01	< 0.010	mg / L		
	14	Ca-44	44		3.48	ppb	0.01	< 0.010	mg / L		
	16	Ti-47	47		0.24	ppb	0.001	< 0.001	mg / L		
	17	V-51	51		0.7	ppb	0.001	< 0.001	mg / L		
	18	Cr-52	52		0.75	ppb	0.001	< 0.001	mg / L		
	19	Cr-53	53		15.46	ppb	0.001	0.015	mg / L		x
	20	Fe-54	54		49.88	ppb	0.01	0.050	mg / L		x
	21	Mn-55	55		0.08	ppb	0.001	< 0.001	mg / L		
	22	Fe-57	57		10.92	ppb	0.01	0.011	mg / L		x
	23	Co-59	59		-0.27	ppb	0.001	< 0.001	mg / L		
	24	Ni-60	60		-0.04	ppb	0.001	< 0.001	mg / L		
	25	Cu-63	63		0.04	ppb	0.001	< 0.001	mg / L		
	26	Cu-65	65		0.01	ppb	0.001	< 0.001	mg / L		
	27	Zn-66	66		0.06	ppb	0.001	< 0.001	mg / L		
	28	Zn-67	67		1.59	ppb	0.001	0.002	mg / L		x
	29	Zn-68	68		0.16	ppb	0.001	< 0.001	mg / L		
	32	As-75	75		0.24	ppb	0.001	< 0.001	mg / L		
	34	Se-82	82		0.25	ppb	0.001	< 0.001	mg / L		
	37	Sr-87	87		0.04	ppb	0.001	< 0.001	mg / L		
	40	Mo-95	95		0.43	ppb	0.001	< 0.001	mg / L		
	41	Mo-98	98		0.45	ppb	0.001	< 0.001	mg / L		
	43	Ag-107	107		0.02	ppb	0.001	< 0.001	mg / L		
	45	Ag-109	109		0.02	ppb	0.001	< 0.001	mg / L		
	46	Cd-111	111		0.02	ppb	0.001	< 0.001	mg / L		
	47	Cd-114	114		0.05	ppb	0.001	< 0.001	mg / L		
	50	Sn-120	120		-0.03	ppb	0.001	< 0.001	mg / L		
	51	Sb-121	121		0	ppb	0.001	< 0.001	mg / L		
	52	Sb-123	123		0.07	ppb	0.001	< 0.001	mg / L		
	53	Ba-135	135		0.04	ppb	0.001	< 0.001	mg / L		
	54	Tb-159	159		0	ppb	0.001	< 0.001	mg / L		
	55	Au-197	197		0.42	ppb	0.001	< 0.001	mg / L		
	58	Tl-205	205		0.16	ppb	0.001	< 0.001	mg / L		
	59	Pb-208	208		-0.25	ppb	0.001	< 0.001	mg / L		
	61	U-238	238		0.04	ppb	0.001	< 0.001	mg / L		

Tune Sample Report

File : D:\HPCHEM\1\DATA\SEP2402.09A\001TUNE.D
Acquired : Sep 24 02 09:55 am using AcqMethod QCTUNE.M
Operator : JWB
Sample Name: 6020/200.8 TUNE MIX
Misc Info :
Vial Number: 1101
CurrentMeth: D:\HPCHEM\1\METHODS\QCTUNE.M
BkgFile : --------
Sample Type: TUNE
Dilution : 1.000000

Minimum Response Criteria (cps/ppb)

Element	RSD(%)	Actual	Required	Flag
59	2.71	99901	> 200	
7	7.41	134944	> 20	
115	2.08	124339	> 100	
205	3.24	60833	> 10	
102		0(cps)	< 25(cps)	

Ion Ratio Criteria

	Actual	Required	Flag
59/59	1.00	1.00 - 1.00	
7/59	1.35	0.10 - 5.00	
115/59	1.24	0.10 - 10.00	
205/59	0.61	0.10 - 5.00	

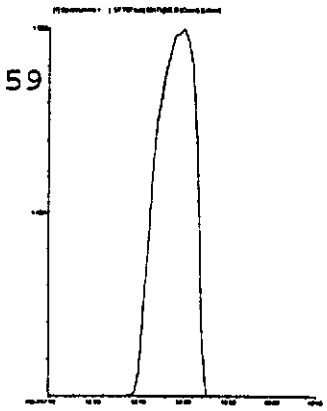

Mass Calib:59.00
W-50%: 0.60
W-10%: 0.70

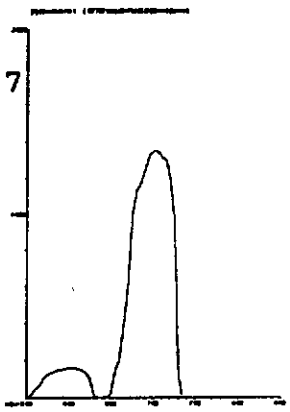

Mass Calib:7.00
W-50%: 0.60
W-10%: 0.80

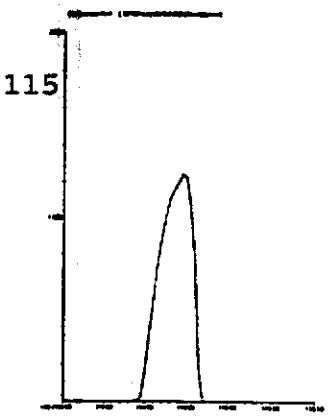

Mass Calib:114.95
W-50%: 0.55
W-10%: 0.65

Mass Calib:205.05
W-50%: 0.55

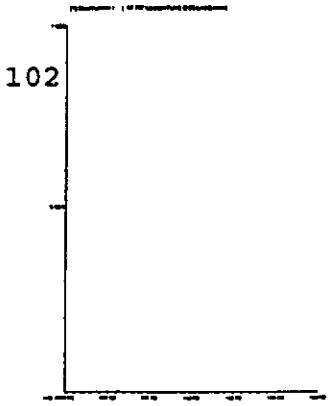

Background

US EPA Method 200.8 Tune Verification

Acquired : Sep 24 02 09:55 am using AcqMethod QCTUNE.M
Data File Name: D:\HPCHEM\1\DATA\Sep2402.09A\001TUNE.D

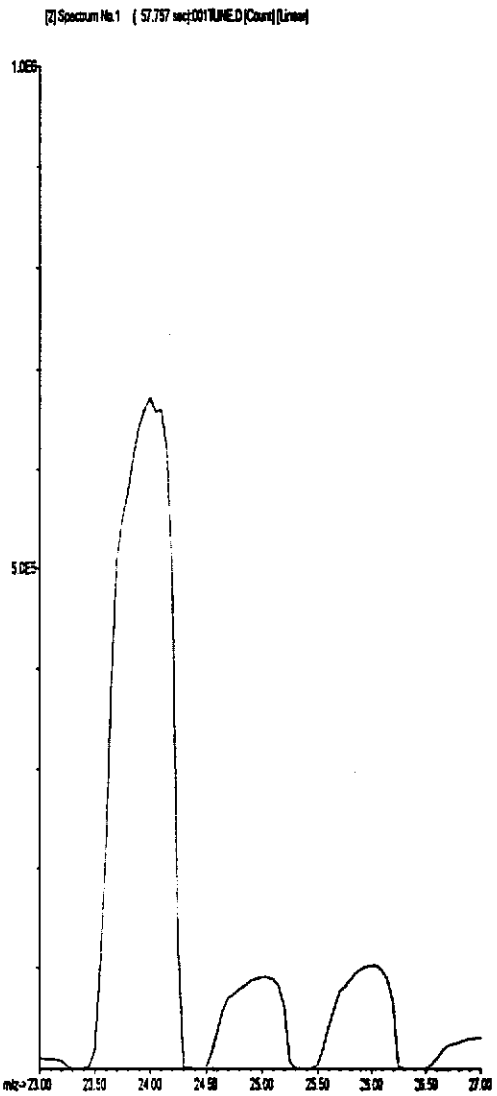

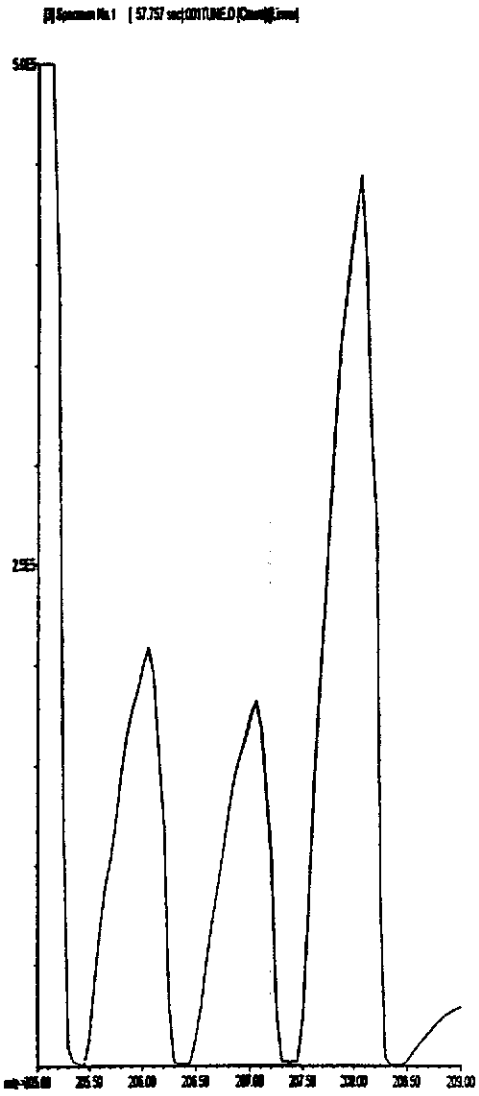

Element and Mass	Mass Assignment		PeakElement at 5and Mass Heig	Mass Assignment		Peak Width at 5% Peak Height
Mg 24	24.00	0.70	Pb 206	206.05	0.75	
Mg 25	25.00	0.70	Pb 207	207.05	0.75	
Mg 26	26.05	0.65	Pb 208	208.05	0.70	

* Does not meet EPA Method 200.8 specification.

Spectrum No.1 [57.757 sec]:001TUNE.D
Acquired : Sep 24 02 09:55 am using AcqMethod QCTUNE.M
Bkg file : --------
Interference Correction: OFF

Mass[amu]	Element	Count	n	SD	RSD[%]
5		2784.33 P	5	240.00	8.62
6		1818083.00 P	5	59800.00	3.29
7	Li	14766940.00 A	5	704700.00	4.77
8		7.80 P	5	2.78	35.58
23		133101.70 P	5	3585.00	2.69
24		7469096.00 A	5	293100.00	3.92
25		1006407.00 P	5	34050.00	3.38
26		1112756.00 P	5	35870.00	3.22
27		325384.30 P	5	18460.00	5.67
58		85735.27 P	5	5410.00	6.31
59	Co	10317040.00 A	5	267800.00	2.60
60		249.61 P	5	26.12	10.47
101		16.80 P	5	2.17	12.90
103		413.01 P	5	16.70	4.04
114		192770.00 P	5	15810.00	8.20
115	In	1493700.00 A	5	281600.00	2.45
116		530.62 P	5	8.88	1.67
204		168650.00 P	5	1864.00	1.11
205	Tl	5948684.00 A	5	89960.00	1.51
206		2027890.00 P	5	30820.00	1.52
207		1750641.00 P	5	27130.00	1.55
208		4300020.00 P	5	72490.00	1.69
209		301416.00 P	5	2494.00	0.83

Calibration Blank QC Report

File : D:\HPCHEM\1\DATA\Sep2402.09A\002CALB.D\002CALB.D#
Acquired : Sep 24 02 10:03 am using AcqMethod 6020.M
Operator : JWB
Sample Name: CAL BLANK
Misc Info :
Vial Number: 1102
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: CALBLK
Dilution : 1.000000

Mass	Element	Count	n	SD	RSD[%]
6	Li	166633.50 P	3	9264.00	5.56
7	(Li)	11419.22 P	3	482.30	4.22
9	Be	0.00 P	3	0.00	0.00
11	B	2115.41 P	3	15.53	0.73
23	Na	16766.61 P	3	458.40	2.73
24	Mg	1273.16 P	3	68.58	5.39
25	Mg	165.34 P	3	14.22	8.60
26	Mg	222.01 P	3	19.16	8.63
27	Al	2669.62 P	3	112.40	4.21
28	Si	331482.90 P	3	2893.00	0.87
39	K	200100.00 P	3	6408.00	3.20
43	Ca	67.90 P	3	5.36	7.89
44	Ca	883.96 P	3	26.93	3.05
45	Sc	138949.70 P	3	1192.00	0.86
47	Ti	113.35 P	3	26.85	23.69
51	V	2040.09 P	3	1073.00	52.59
52	Cr	5465.76 P	3	69.79	1.28
53	Cr	8601.68 P	3	281.60	3.27
54	Fe	79656.84 P	3	1365.00	1.71
55	Mn	1285.82 P	3	13.43	1.04
57	Fe	3756.65 P	3	59.97	1.60
59	Co	764.06 P	3	135.10	17.69
60	Ni	57.00 P	3	7.21	12.65
63	Cu	55.67 P	3	6.11	10.98
65	Cu	23.00 P	3	2.00	8.70
66	Zn	452.41 P	3	40.70	9.00
67	Zn	293.76 P	3	7.08	2.41
68	Zn	3642.08 P	3	36.44	1.00
69	(Zn)	153.33 P	3	15.53	10.13
72	Ge	239590.40 P	3	5281.00	2.20
75	As	458.54 P	3	336.90	73.48
77	(As)	36513.00 P	3	275.20	0.75
82	Se	-16.00 P	3	39.51	246.94
83	(Se)	1114.67 P	3	21.94	1.97

File : D:\HPCHEM\1\DATA\Sep2402.09A\002CALB.D\002CALB.D#
Acquired : Sep 24 02 10:03 am using AcqMethod 6020.M
Operator : JWB
Sample Name: CAL BLANK
Misc Info :
Vial Number: 1102
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: CALBLK
Dilution : 1.000000

Mass	Element	Count	n	SD	RSD[%]
86	(Ca)	88.67 P	3	8.51	9.59
87	Sr	4.00 P	3	2.00	50.00
88	(Ca)	22.33 P	3	7.51	33.61
89	Y	159432.40 P	3	5126.00	3.21
95	Mo	82.34 P	3	23.18	28.15
98	Mo	135.00 P	3	18.68	13.84
106	(Cd)	35.00 P	3	9.85	28.14
107	Ag	46.67 P	3	4.04	8.66
108	(Cd)	10.00 P	3	5.00	50.00
109	Ag	45.67 P	3	3.06	6.69
111	Cd	23.03 P	3	12.18	52.88
114	Cd	-3.57 P	3	8.28	231.87
115	In	125094.20 P	3	2548.00	2.04
118	(In)	131.00 P	3	7.55	5.76
120	Sn	183.34 P	3	11.24	6.13
121	Sb	62.34 P	3	10.12	16.23
123	Sb	57.67 P	3	6.35	11.01
135	Ba	4.67 P	3	2.89	61.86
159	Tb	139199.40 P	3	3711.00	2.67
197	Au	14.33 P	3	5.51	38.42
205	Tl	573.04 P	3	43.32	7.56
206	(Pb)	152.34 P	3	18.58	12.20
207	(Pb)	123.34 P	3	17.93	14.53
208	Pb	576.69 P	3	64.47	11.18
209	Bi	69722.48 P	3	1998.00	2.87
238	U	11.00 P	3	2.00	18.18

Calibration QC Report

File : D:\HPCHEM\1\DATA\Sep2402.09A\003CALI.D\003CALI.D#
Acquired : Sep 24 02 10:12 am using AcqMethod 6020.M
Operator : JWB
Sample Name: 0.2/1/10 CAL
Misc Info :
Vial Number: 1103
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: CALIB
Dilution : 1.000000

Mass	Element	Count	n	SD	RSD[%]
6	Li	158937.50 P	3	6233.00	3.92
7	(Li)	9630.98 P	3	188.20	1.95
9	Be	474.69 P	3	22.06	4.65
11	B	2192.78 P	3	15.18	0.69
23	Na	39766.76 P	3	354.80	0.89
24	Mg	16756.35 P	3	210.70	1.26
25	Mg	2127.73 P	3	39.90	1.88
26	Mg	2471.20 P	3	29.88	1.21
27	Al	22111.33 P	3	391.50	1.77
28	Si	300195.30 P	3	6325.00	2.11
39	K	205517.90 P	3	974.70	0.47
43	Ca	107.30 P	3	10.76	10.02
44	Ca	1417.34 P	3	9.04	0.64
45	Sc	124126.30 P	3	2471.00	1.99
47	Ti	264.35 P	3	15.01	5.68
51	V	4784.41 P	3	227.90	4.76
52	Cr	6894.47 P	3	205.20	2.98
53	Cr	7945.62 P	3	65.73	0.83
54	Fe	73831.40 P	3	394.60	0.53
55	Mn	3605.40 P	3	80.46	2.23
57	Fe	3814.06 P	3	75.99	1.99
59	Co	2521.54 P	3	106.50	4.22
60	Ni	522.70 P	3	17.22	3.29
63	Cu	1114.12 P	3	38.52	3.46
65	Cu	508.36 P	3	20.01	3.94
66	Zn	2059.85 P	3	52.68	2.56
67	Zn	502.58 P	3	36.58	7.28
68	Zn	4369.88 P	3	33.07	0.76
69	(Zn)	888.34 P	3	64.39	7.25
72	Ge	210206.80 P	3	2778.00	1.32
75	As	5105.18 P	3	735.20	14.40
77	(As)	33889.99 P	3	293.10	0.86
82	Se	232.00 P	3	30.51	13.15
83	(Se)	1027.67 P	3	34.93	3.40
86	(Ca)	351.68 P	3	29.20	8.30

Calibration QC Report

File : D:\HPCHEM\1\DATA\Sep2402.09A\003CALI.D\003CALI.D#
Acquired : Sep 24 02 10:12 am using AcqMethod 6020.M
Operator : JWB
Sample Name: 0.2/1/10 CAL
Misc Info :
Vial Number: 1103
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : ---------
Sample Type: CALIB
Dilution : 1.000000

Mass	Element	Count	n	SD	RSD[%]
87	Sr	199.34 P	3	12.66	6.35
88	(Ca)	2392.81 P	3	24.01	1.00
89	Y	142388.10 P	3	2096.00	1.47
95	Mo	493.36 P	3	2.89	0.59
98	Mo	754.39 P	3	37.17	4.93
106	(Cd)	44.00 P	3	6.08	13.82
107	Ag	1042.77 P	3	18.61	1.78
108	(Cd)	18.00 P	3	3.46	19.24
109	Ag	975.09 P	3	6.93	0.71
111	Cd	178.74 P	3	19.27	10.78
114	Cd	367.61 P	3	12.05	3.28
115	In	110772.30 P	3	1963.00	1.77
118	(In)	677.38 P	3	52.21	7.71
120	Sn	916.42 P	3	14.19	1.55
121	Sb	567.04 P	3	40.96	7.22
123	Sb	443.02 P	3	18.68	4.22
135	Ba	158.01 P	3	3.00	1.90
159	Tb	125137.20 P	3	4194.00	3.35
197	Au	83.67 P	3	9.07	10.85
205	Tl	1371.84 P	3	17.68	1.29
206	(Pb)	473.69 P	3	8.62	1.82
207	(Pb)	414.35 P	3	16.29	3.93
208	Pb	1866.14 P	3	23.39	1.25
209	Bi	62758.48 P	3	1009.00	1.61
238	U	1805.28 P	3	52.45	2.91

Calibration QC Report

File : D:\HPCHEM\1\DATA\Sep2402.09A\003CALI.D\003CALI.D#
Acquired : Sep 24 02 10:12 am using AcqMethod 6020.M
Operator : JWB
Sample Name: 0.2/1/10 CAL
Misc Info :
Vial Number: 1103
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : ----------
Sample Type: CALIB
Dilution : 1.000000

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	555445	529792	Pass
45	463166	413754	Pass
72	79864	70069	Pass
115	416981	369241	Pass
209	232408	209195	Pass

Internal Standards referenced to 002CALB.D#

0 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

Calibration QC Report

File : D:\HPCHEM\1\DATA\Sep2402.09A\004CALI.D\004CALI.D#
Acquired : Sep 24 02 10:21 am using AcqMethod 6020.M
Operator : JWB
Sample Name: 2/10/100 CAL
Misc Info :
Vial Number: 1104
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: CALIB
Dilution : 1.000000

Mass	Element	Count	n	SD	RSD[%]
6	Li	163128.90 P	3	4038.00	2.48
7	(Li)	9380.20 P	3	296.60	3.16
9	Be	5380.46 P	3	219.90	4.09
11	B	6727.27 P	3	262.10	3.90
23	Na	261369.90 P	3	2934.00	1.12
24	Mg	154179.80 P	3	3894.00	2.53
25	Mg	20263.57 P	3	169.10	0.83
26	Mg	23123.58 P	3	401.40	1.74
27	Al	184341.20 P	3	3772.00	2.05
28	Si	391052.00 P	3	8254.00	2.11
39	K	395209.00 P	3	903.00	0.23
43	Ca	407.74 P	3	14.17	3.48
44	Ca	6607.13 P	3	164.80	2.49
45	Sc	126020.70 P	3	1104.00	0.88
47	Ti	1996.68 P	3	35.82	1.79
51	V	27567.24 P	3	947.60	3.44
52	Cr	26372.44 P	3	219.50	0.83
53	Cr	12099.62 P	3	399.80	3.30
54	Fe	86090.55 P	3	1877.00	2.18
55	Mn	27399.89 P	3	263.20	0.96
57	Fe	8331.62 P	3	170.20	2.04
59	Co	24038.55 P	3	157.60	0.66
60	Ni	5134.11 P	3	63.23	1.23
63	Cu	11641.21 P	3	89.50	0.77
65	Cu	5441.71 P	3	82.78	1.52
66	Zn	19217.77 P	3	298.90	1.56
67	Zn	3148.06 P	3	79.74	2.53
68	Zn	16087.47 P	3	308.10	1.92
69	(Zn)	8240.53 P	3	240.50	2.92
72	Ge	211502.80 P	3	490.60	0.23
75	As	42918.11 P	3	535.90	1.25
77	(As)	39253.78 P	3	368.50	0.94
82	Se	2888.72 P	3	87.83	3.04
83	(Se)	1010.00 P	3	7.55	0.75
86	(Ca)	3047.76 P	3	37.66	1.24

Calibration QC Report

File : D:\HPCHEM\1\DATA\Sep2402.09A\004CALI.D\004CALI.D#
Acquired : Sep 24 02 10:21 am using AcqMethod 6020.M
Operator : JWB
Sample Name: 2/10/100 CAL
Misc Info :
Vial Number: 1104
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: CALIB
Dilution : 1.000000

Mass	Element	Count	n	SD	RSD[%]
87	Sr	2088.37 P	3	92.29	4.42
88	(Ca)	25463.91 P	3	210.70	0.83
89	Y	144508.00 P	3	1850.00	1.28
95	Mo	4482.94 P	3	133.50	2.98
98	Mo	7171.03 P	3	181.80	2.54
106	(Cd)	194.01 P	3	19.98	10.30
107	Ag	11157.97 P	3	154.40	1.38
108	(Cd)	121.00 P	3	3.61	2.98
109	Ag	10508.57 P	3	187.40	1.78
111	Cd	1777.22 P	3	68.50	3.85
114	Cd	3908.16 P	3	34.43	0.88
115	In	113652.70 P	3	980.60	0.86
118	(In)	6389.55 P	3	158.40	2.48
120	Sn	8601.79 P	3	179.60	2.09
121	Sb	5656.89 P	3	72.73	1.29
123	Sb	4374.53 P	3	136.50	3.12
135	Ba	1634.24 P	3	54.08	3.31
159	Tb	127651.70 P	3	2206.00	1.73
197	Au	931.42 P	3	49.87	5.35
205	Tl	12834.00 P	3	332.00	2.59
206	(Pb)	4492.95 P	3	105.00	2.34
207	(Pb)	3923.24 P	3	69.78	1.78
208	Pb	17812.69 P	3	370.70	2.08
209	Bi	63577.92 P	3	1250.00	1.97
238	U	19465.99 P	3	275.90	1.42

Calibration QC Report

File : D:\HPCHEM\1\DATA\Sep2402.09A\004CALI.D\004CALI.D#
Acquired : Sep 24 02 10:21 am using AcqMethod 6020.M
Operator : JWB
Sample Name: 2/10/100 CAL
Misc Info :
Vial Number: 1104
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: CALIB
Dilution : 1.000000

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	555445	543763	Pass
45	463166	420069	Pass
72	79864	70501	Pass
115	416981	378842	Pass
209	232408	211926	Pass

Internal Standards referenced to 002CALB.D#

0 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

Calibration QC Report

File : D:\HPCHEM\1\DATA\Sep2402.09A\005CALI.D\005CALI.D#
Acquired : Sep 24 02 10:30 am using AcqMethod 6020.M
Operator : JWB
Sample Name: 10/100/1000 CAL
Misc Info :
Vial Number: 1105
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: CALIB
Dilution : 1.000000

Mass	Element	Count	n	SD	RSD[%]
6	Li	159806.30 P	3	3075.00	1.92
7	(Li)	9092.16 P	3	246.70	2.71
9	Be	53873.54 P	3	135.80	0.25
11	B	50771.69 P	3	1428.00	2.81
23	Na	2540261.00 A	3	30640.00	1.21
24	Mg	1554727.00 A	3	20660.00	1.33
25	Mg	213886.20 P	3	4871.00	2.28
26	Mg	237150.20 P	3	7141.00	3.01
27	Al	1852589.00 A	3	24900.00	1.34
28	Si	1362210.00 P	3	14420.00	1.06
39	K	2295210.00 A	3	44340.00	1.93
43	Ca	3740.26 P	3	208.70	5.58
44	Ca	60804.79 P	3	835.60	1.37
45	Sc	129524.70 P	3	3448.00	2.66
47	Ti	18575.03 P	3	241.60	1.30
51	V	253277.20 P	3	5067.00	2.00
52	Cr	215763.20 P	3	3532.00	1.64
53	Cr	35758.36 P	3	417.60	1.17
54	Fe	211467.50 P	3	6718.00	3.18
55	Mn	264240.50 P	3	5635.00	2.13
57	Fe	54116.63 P	3	1216.00	2.25
59	Co	237927.70 P	3	5580.00	2.35
60	Ni	50384.94 P	3	801.70	1.59
63	Cu	113872.20 P	3	2482.00	2.18
65	Cu	53142.82 P	3	697.20	1.31
66	Zn	184340.00 P	3	1735.00	0.94
67	Zn	28607.96 P	3	496.60	1.74
68	Zn	130133.50 P	3	2046.00	1.57
69	(Zn)	79249.85 P	3	1898.00	2.39
72	Ge	218900.80 P	3	5301.00	2.42
75	As	398607.50 P	3	7575.00	1.90
77	(As)	63837.65 P	3	514.70	0.81
82	Se	28760.98 P	3	569.10	1.98
83	(Se)	1064.34 P	3	13.32	1.25
86	(Ca)	29246.66 P	3	581.30	1.99

Calibration QC Report

File : D:\HPCHEM\1\DATA\Sep2402.09A\005CALI.D\005CALI.D#
Acquired : Sep 24 02 10:30 am using AcqMethod 6020.M
Operator : JWB
Sample Name: 10/100/1000 CAL
Misc Info :
Vial Number: 1105
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: CALIB
Dilution : 1.000000

Mass	Element	Count	n	SD	RSD[%]
87	Sr	21327.81 P	3	526.60	2.47
88	(Ca)	253308.10 P	3	5557.00	2.19
89	Y	147973.60 P	3	4777.00	3.23
95	Mo	43793.32 P	3	774.20	1.77
98	Mo	70257.45 P	3	1891.00	2.69
106	(Cd)	1595.56 P	3	90.99	5.70
107	Ag	110376.20 P	3	2132.00	1.93
108	(Cd)	1179.13 P	3	74.97	6.36
109	Ag	102588.00 P	3	2865.00	2.79
111	Cd	17027.70 P	3	245.10	1.44
114	Cd	38658.03 P	3	837.50	2.17
115	In	115829.20 P	3	4669.00	4.03
118	(In)	62601.18 P	3	868.80	1.39
120	Sn	84171.60 P	3	2165.00	2.57
121	Sb	55861.32 P	3	1123.00	2.01
123	Sb	43411.11 P	3	1166.00	2.69
135	Ba	16367.89 P	3	382.20	2.34
159	Tb	131977.20 P	3	5662.00	4.29
197	Au	7745.67 P	3	101.10	1.30
205	Tl	127561.90 P	3	4304.00	3.37
206	(Pb)	44853.50 P	3	1270.00	2.83
207	(Pb)	38732.72 P	3	955.70	2.47
208	Pb	177815.90 P	3	4248.00	2.39
209	Bi	65861.53 P	3	2442.00	3.71
238	U	194866.30 P	3	5066.00	2.60

Calibration QC Report

File : D:\HPCHEM\1\DATA\Sep2402.09A\005CALI.D\005CALI.D#
Acquired : Sep 24 02 10:30 am using AcqMethod 6020.M
Operator : JWB
Sample Name: 10/100/1000 CAL
Misc Info :
Vial Number: 1105
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: CALIB
Dilution : 1.000000

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	555445	532688	Pass
45	463166	431749	Pass
72	79864	72967	Pass
115	416981	386097	Pass
209	232408	219538	Pass

Internal Standards referenced to 002CALB.D#

0 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

Calibration QC Report

File : D:\HPCHEM\1\DATA\Sep2402.09A\006CALI.D\006CALI.D#
Acquired : Sep 24 02 10:39 am using AcqMethod 6020.M
Operator : JWB
Sample Name: -/200/10000 CAL
Misc Info :
Vial Number: 1106
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : ---------
Sample Type: CALIB
Dilution : 1.000000

Mass	Element	Count	n	SD	RSD[%]
6	Li	167709.60 P	3	9180.00	5.47
7	(Li)	9358.06 P	3	140.30	1.50
9	Be	115622.10 P	3	3852.00	3.33
11	B	106100.00 P	3	4495.00	4.24
23	Na	27829970.00 A	3	399000.00	1.43
24	Mg	17235700.00 A	3	337200.00	1.96
25	Mg	2213634.00 A	3	70460.00	3.18
26	Mg	2558787.00 A	3	102300.00	4.00
27	Al	20738950.00 A	3	188500.00	0.91
28	Si	11001780.00 A	3	424700.00	3.86
39	K	24020000.00 A	3	679000.00	2.83
43	Ca	42169.27 P	3	1588.00	3.77
44	Ca	670581.40 P	3	27740.00	4.14
45	Sc	145860.00 P	3	3839.00	2.63
47	Ti	40615.53 P	3	1561.00	3.84
51	V	541882.10 P	3	19070.00	3.52
52	Cr	457494.20 P	3	13330.00	2.91
53	Cr	65142.98 P	3	2013.00	3.09
54	Fe	1484043.00 P	3	52220.00	3.52
55	Mn	562942.30 P	3	16700.00	2.97
57	Fe	544371.40 P	3	19590.00	3.60
59	Co	503071.10 P	3	17910.00	3.56
60	Ni	105752.30 P	3	4003.00	3.78
63	Cu	240640.20 P	3	8136.00	3.38
65	Cu	111114.70 P	3	4107.00	3.70
66	Zn	383313.40 P	3	10700.00	2.79
67	Zn	60725.72 P	3	1470.00	2.42
68	Zn	266743.90 P	3	6208.00	2.33
69	(Zn)	179977.60 P	3	6985.00	3.88
72	Ge	229976.60 P	3	4275.00	1.86
75	As	849156.90 P	3	21590.00	2.54
77	(As)	98521.18 P	3	1328.00	1.35
82	Se	59973.64 P	3	1002.00	1.67
83	(Se)	1130.34 P	3	6.03	0.53
86	(Ca)	61925.20 P	3	2143.00	3.46

Calibration QC Report

File : D:\HPCHEM\1\DATA\Sep2402.09A\006CALI.D\006CALI.D#
Acquired : Sep 24 02 10:39 am using AcqMethod 6020.M
Operator : JWB
Sample Name: -/200/10000 CAL
Misc Info :
Vial Number: 1106
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: CALIB
Dilution : 1.000000

Mass	Element	Count	n	SD	RSD[%]
87	Sr	45295.49 P	3	1486.00	3.28
88	(Ca)	537102.80 P	3	16780.00	3.13
89	Y	156752.50 P	3	4392.00	2.80
95	Mo	93731.77 P	3	2545.00	2.71
98	Mo	147547.60 P	3	3435.00	2.33
106	(Cd)	3302.90 P	3	67.70	2.05
107	Ag	226342.70 P	3	5558.00	2.46
108	(Cd)	2421.16 P	3	140.40	5.80
109	Ag	210491.80 P	3	4152.00	1.97
111	Cd	34686.07 P	3	698.40	2.01
114	Cd	78382.38 P	3	1898.00	2.42
115	In	120079.60 P	3	2509.00	2.09
118	(In)	128820.80 P	3	3248.00	2.52
120	Sn	173321.30 P	3	3676.00	2.12
121	Sb	115643.60 P	3	2357.00	2.04
123	Sb	89246.04 P	3	2176.00	2.44
135	Ba	33597.64 P	3	854.60	2.54
159	Tb	135218.60 P	3	2343.00	1.73
197	Au	17945.93 P	3	398.40	2.22
205	Tl	260469.60 P	3	8302.00	3.19
206	(Pb)	90092.71 P	3	2223.00	2.47
207	(Pb)	77613.45 P	3	1804.00	2.32
208	Pb	357424.40 P	3	8086.00	2.26
209	Bi	65724.38 P	3	1761.00	2.68
238	U	396302.00 P	3	11750.00	2.96

Calibration QC Report

File : D:\HPCHEM\1\DATA\Sep2402.09A\006CALI.D\006CALI.D#
Acquired : Sep 24 02 10:39 am using AcqMethod 6020.M
Operator : JWB
Sample Name: -/200/10000 CAL
Misc Info :
Vial Number: 1106
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: CALIB
Dilution : 1.000000

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	555445	559032	Pass
45	463166	486200	Pass
72	79864	76659	Pass
115	416981	400265	Pass
209	232408	219081	Pass

Internal Standards referenced to 002CALB.D#

0 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

Blank QC Report

File : D:\HPCHEM\1\DATA\Sep2402.09A\007CCB_D\007CCB_D#
Acquired : Sep 24 02 10:48 am using AcqMethod 6020.M
Operator : JWB
Sample Name: [CB]
Misc Info :
Vial Number: 1102
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: CCB
Dilution : 1.000000

Element		Concentration	CRDL Limit	Flag
Be	9	0.058 µg/L	1.00	Pass
B	11	1.357 µg/L	1.00	*Fail*
Na	23	2.529 µg/L	10.00	Pass
Mg	24	2.139 µg/L	10.00	Pass
Mg	25	2.120 µg/L	10.00	Pass
Mg	26	2.218 µg/L	10.00	Pass
Al	27	2.342 µg/L	10.00	Pass
Si	28	-28.070 µg/L	10.00	*Fail*
K	39	0.948 µg/L	10.00	Pass
Ca	43	2.476 µg/L	10.00	Pass
Ca	44	2.236 µg/L	10.00	Pass
Ti	47	0.430 µg/L	1.00	Pass
V	51	0.652 µg/L	1.00	Pass
Cr	52	0.618 µg/L	1.00	Pass
Cr	53	13.410 µg/L	1.00	*Fail*
Fe	54	-20.360 µg/L	10.00	*Fail*
Mn	55	-0.053 µg/L	1.00	Pass
Fe	57	-0.154 µg/L	10.00	Pass
Co	59	-0.230 µg/L	1.00	Pass
Ni	60	0.036 µg/L	1.00	Pass
Cu	63	0.067 µg/L	1.00	Pass
Cu	65	0.044 µg/L	1.00	Pass
Zn	66	0.064 µg/L	1.00	Pass
Zn	67	1.573 µg/L	1.00	*Fail*
Zn	68	-0.101 µg/L	1.00	Pass
As	75	0.636 µg/L	1.00	Pass
Se	82	0.363 µg/L	1.00	Pass
Sr	87	0.067 µg/L	1.00	Pass
Mo	95	0.380 µg/L	1.00	Pass
Mo	98	0.409 µg/L	1.00	Pass
Ag	107	0.056 µg/L	1.00	Pass
Ag	109	0.057 µg/L	1.00	Pass
Cd	111	0.097 µg/L	1.00	Pass
Cd	114	0.060 µg/L	1.00	Pass
Sn	120	0.055 µg/L	1.00	Pass
Sb	121	0.290 µg/L	1.00	Pass
Sb	123	0.332 µg/L	1.00	Pass

Ba 135	0.061 µg/L	1.00	Pass
Au 197	0.892 µg/L	1.00	Pass
Tl 205	0.732 µg/L	1.00	Pass

Blank QC Report

File : D:\HPCHEM\1\DATA\Sep2402.09A\007CCB_D\007CCB_D#
Acquired : Sep 24 02 10:48 am using AcqMethod 6020.M
Operator : JWB
Sample Name: [CB]
Misc Info :
Vial Number: 1102
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: CCB
Dilution : 1.000000

Pb 208	-0.226 µg/L	1.00	Pass
U 238	0.077 µg/L	1.00	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	555445	613018	Pass
45	463166	488201	Pass
72	79864	75707	Pass
115	416981	398786	Pass
209	232408	219419	Pass

Internal Standards referenced to 002CALB.D#

5 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

ICV QC Report

File : D:\HPCHEM\1\DATA\Sep2402.09A\008ICV_D\008ICV_D#
Acquired : Sep 24 02 10:57 am using AcqMethod 6020.M
Operator : JWB
Sample Name: [STD-ICV]
Misc Info :
Vial Number: 1107
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: ICV
Dilution : 1.000000

ICV Mix #1

Element		Concentration	Expected	QC Range	Flag
Be	9	115.500 µg/L	120.00	108.00-132.00	Pass
B	11	127.000 µg/L	120.00	108.00-132.00	Pass
Na	23	1303.000 µg/L	1200.00	1080.00-1320.00	Pass
Mg	24	1293.000 µg/L	1200.00	1080.00-1320.00	Pass
Mg	25	1372.000 µg/L	1200.00	1080.00-1320.00	*Fail*
Mg	26	1330.000 µg/L	1200.00	1080.00-1320.00	*Fail*
Al	27	1308.000 µg/L	1200.00	1080.00-1320.00	Pass
Si	28	1399.000 µg/L	1200.00	1080.00-1320.00	*Fail*
K	39	1289.000 µg/L	1200.00	1080.00-1320.00	Pass
Ca	43	1248.000 µg/L	1200.00	1080.00-1320.00	Pass
Ca	44	1241.000 µg/L	1200.00	1080.00-1320.00	Pass
Ti	47	119.800 µg/L	120.00	108.00-132.00	Pass
V	51	117.700 µg/L	120.00	108.00-132.00	Pass
Cr	52	117.500 µg/L	120.00	108.00-132.00	Pass
Cr	53	115.200 µg/L	120.00	108.00-132.00	Pass
Fe	54	1282.000 µg/L	1200.00	1080.00-1320.00	Pass
Mn	55	117.900 µg/L	120.00	108.00-132.00	Pass
Fe	57	1249.000 µg/L	1200.00	1080.00-1320.00	Pass
Co	59	119.200 µg/L	120.00	108.00-132.00	Pass
Ni	60	120.200 µg/L	120.00	108.00-132.00	Pass
Cu	63	118.200 µg/L	120.00	108.00-132.00	Pass
Cu	65	119.800 µg/L	120.00	108.00-132.00	Pass
Zn	66	119.700 µg/L	120.00	108.00-132.00	Pass
Zn	67	117.400 µg/L	120.00	108.00-132.00	Pass
Zn	68	120.400 µg/L	120.00	108.00-132.00	Pass
As	75	118.400 µg/L	120.00	108.00-132.00	Pass
Se	82	119.300 µg/L	120.00	108.00-132.00	Pass
Sr	87	118.200 µg/L	120.00	108.00-132.00	Pass
Mo	95	116.200 µg/L	120.00	108.00-132.00	Pass
Mo	98	116.200 µg/L	120.00	108.00-132.00	Pass
Ag	107	123.300 µg/L	120.00	108.00-132.00	Pass
Ag	109	123.100 µg/L	120.00	108.00-132.00	Pass
Cd	111	116.500 µg/L	120.00	108.00-132.00	Pass
Cd	114	117.400 µg/L	120.00	108.00-132.00	Pass
Sn	120	115.700 µg/L	120.00	108.00-132.00	Pass

Sb 121	113.400 µg/L	120.00	108.00-132.00	Pass
Sb 123	113.400 µg/L	120.00	108.00-132.00	Pass
Ba 135	114.300 µg/L	120.00	108.00-132.00	Pass

ICV QC Report

File : D:\HPCHEM\1\DATA\Sep2402.09A\008ICV_D\008ICV_D#
Acquired : Sep 24 02 10:57 am using AcqMethod 6020.M
Operator : JWB
Sample Name: [STD-ICV]
Misc Info :
Vial Number: 1107
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: ICV
Dilution : 1.000000

Au 197	529.500 µg/L	120.00	108.00-132.00	*Fail*
Tl 205	116.300 µg/L	120.00	108.00-132.00	Pass
Pb 208	117.400 µg/L	120.00	108.00-132.00	Pass
U 238	114.500 µg/L	120.00	108.00-132.00	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	555445	594013	Pass
45	463166	466661	Pass
72	79864	73559	Pass
115	416981	389448	Pass
209	232408	217695	Pass

Internal Standards referenced to 002CALB.D#

4 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

Interference Check A QC Report

File : D:\HPCHEM\1\DATA\Sep2402.09A\009ICSA.D\009ICSA.D#
Acquired : Sep 24 02 11:06 am using AcqMethod 6020.M
Operator : JWB
Sample Name: [ICSA]
Misc Info :
Vial Number: 1303
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: ICS_A_
Dilution : 1.000000

Element		Concentration	Expected	CRDL Range Conc	%Range Conc	Flag
Be	9	0.083 µg/L	0.00	-1.00-1.00	0-0	Pass
B	11	6.527 µg/L	0.00	-1.00-1.00	0-0	*Fail*
Na	23	----- µg/L	100000.00	1.00E+5-1.00E+5	8.00E+4-1.20E+5	OverRng
Mg	24	131200.000 µg/L	100000.00	1.00E+5-1.00E+5	8.00E+4-1.20E+5	*Fail*
Mg	25	138700.000 µg/L	100000.00	1.00E+5-1.00E+5	8.00E+4-1.20E+5	*Fail*
Mg	26	135500.000 µg/L	100000.00	1.00E+5-1.00E+5	8.00E+4-1.20E+5	*Fail*
Al	27	133700.000 µg/L	100000.00	1.00E+5-1.00E+5	8.00E+4-1.20E+5	*Fail*
Si	28	61.620 µg/L	0.00	-10.00-10.00	0-0	*Fail*
K	39	----- µg/L	100000.00	1.00E+5-1.00E+5	8.00E+4-1.20E+5	OverRng
Ca	43	153800.000 µg/L	100000.00	1.00E+5-1.00E+5	8.00E+4-1.20E+5	*Fail*
Ca	44	151100.000 µg/L	100000.00	1.00E+5-1.00E+5	8.00E+4-1.20E+5	*Fail*
Ti	47	3010.000 µg/L	2000.00	1999.00-2001.00	1600-2400	*Fail*
V	51	0.415 µg/L	0.00	-1.00-1.00	0-0	Pass
Cr	52	3.580 µg/L	0.00	-1.00-1.00	0-0	*Fail*
Cr	53	28.660 µg/L	0.00	-1.00-1.00	0-0	*Fail*
Fe	54	147200.000 µg/L	100000.00	1.00E+5-1.00E+5	8.00E+4-1.20E+5	*Fail*
Mn	55	2.426 µg/L	0.00	-1.00-1.00	0-0	*Fail*
Fe	57	150900.000 µg/L	100000.00	1.00E+5-1.00E+5	8.00E+4-1.20E+5	*Fail*
Co	59	0.216 µg/L	0.00	-1.00-1.00	0-0	Pass
Ni	60	3.701 µg/L	0.00	-1.00-1.00	0-0	*Fail*
Cu	63	11.980 µg/L	0.00	-1.00-1.00	0-0	*Fail*
Cu	65	6.533 µg/L	0.00	-1.00-1.00	0-0	*Fail*
Zn	66	53.390 µg/L	0.00	-1.00-1.00	0-0	*Fail*
Zn	67	141.100 µg/L	0.00	-1.00-1.00	0-0	*Fail*
Zn	68	48.670 µg/L	0.00	-1.00-1.00	0-0	*Fail*
As	75	0.922 µg/L	0.00	-1.00-1.00	0-0	Pass
Se	82	-2.627 µg/L	0.00	-1.00-1.00	0-0	*Fail*
Sr	87	9.400 µg/L	0.00	-1.00-1.00	0-0	*Fail*
Mo	95	2922.000 µg/L	2000.00	1999.00-2001.00	1600-2400	*Fail*
Mo	98	2990.000 µg/L	2000.00	1999.00-2001.00	1600-2400	*Fail*
Ag	107	0.932 µg/L	0.00	-1.00-1.00	0-0	Pass
Ag	109	0.935 µg/L	0.00	-1.00-1.00	0-0	Pass
Cd	111	0.161 µg/L	0.00	-1.00-1.00	0-0	Pass
Cd	114	0.139 µg/L	0.00	-1.00-1.00	0-0	Pass
Sn	120	0.367 µg/L	0.00	-1.00-1.00	0-0	Pass
Sb	121	4.563 µg/L	0.00	-1.00-1.00	0-0	*Fail*
Sb	123	4.671 µg/L	0.00	-1.00-1.00	0-0	*Fail*

Ba 135	2.234 µg/L	0.00	-1.00-1.00	0-0	*Fail*
Au 197	2.450 µg/L	0.00	-1.00-1.00	0-0	*Fail*
Tl 205	0.308 µg/L	0.00	-1.00-1.00	0-0	Pass

Interference Check A QC Report

File : D:\HPCHEM\1\DATA\Sep2402.09A\009ICSA.D\009ICSA.D#
Acquired : Sep 24 02 11:06 am using AcqMethod 6020.M
Operator : JWB
Sample Name: [ICSA]
Misc Info :
Vial Number: 1303
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : ---------
Sample Type: ICS_A_
Dilution : 1.000000

Pb 208	6.266 µg/L	0.00	-1.00-1.00	0-0	*Fail*
U 238	0.164 µg/L	0.00	-1.00-1.00	0-0	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	555445	423114	Pass
45	463166	380088	Pass
72	79864	82039	Pass
115	416981	358083	Pass
209	232408	194322	Pass

Internal Standards referenced to 002CALB.D#

29 Element Failures! Maximum Number of Allowed Failures (20) Exceeded!
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

Interference Check AB QC Report

File : D:\HPCHEM\1\DATA\Sep2402.09\010ICSB.D\010ICSB.D#
Acquired : Sep 24 02 11:16 am using AcqMethod 6020.M
Operator : JWB
Sample Name: [ICSAB]
Misc Info :
Vial Number: 1304
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: ICS_AB
Dilution : 1.000000

Element		Concentration	Expected	CRDL Range Conc	%Range Conc	Flag
Be	9	0.047 µg/L	0.00	-1.00-1.00	0-0	Pass
B	11	5.532 µg/L	0.00	-1.00-1.00	0-0	*Fail*
Na	23	----- µg/L	100000.00	1.00E+5-1.00E+5	8.00E+4-1.20E+5	OverRng
Mg	24	----- µg/L	100000.00	1.00E+5-1.00E+5	8.00E+4-1.20E+5	OverRng
Mg	25	136900.000 µg/L	100000.00	1.00E+5-1.00E+5	8.00E+4-1.20E+5	*Fail*
Mg	26	134900.000 µg/L	100000.00	1.00E+5-1.00E+5	8.00E+4-1.20E+5	*Fail*
Al	27	----- µg/L	100000.00	1.00E+5-1.00E+5	8.00E+4-1.20E+5	OverRng
Si	28	57.220 µg/L	0.00	-10.00-10.00	0-0	*Fail*
K	39	----- µg/L	100000.00	1.00E+5-1.00E+5	8.00E+4-1.20E+5	OverRng
Ca	43	157700.000 µg/L	100000.00	1.00E+5-1.00E+5	8.00E+4-1.20E+5	*Fail*
Ca	44	151200.000 µg/L	100000.00	1.00E+5-1.00E+5	8.00E+4-1.20E+5	*Fail*
Ti	47	3112.000 µg/L	2000.00	1999.00-2001.00	1600-2400	*Fail*
V	51	0.484 µg/L	0.00	-1.00-1.00	0-0	Pass
Cr	52	34.620 µg/L	20.00	19.00-21.00	16-24	*Fail*
Cr	53	56.340 µg/L	20.00	19.00-21.00	16-24	*Fail*
Fe	54	153600.000 µg/L	100000.00	1.00E+5-1.00E+5	8.00E+4-1.20E+5	*Fail*
Mn	55	34.630 µg/L	20.00	19.00-21.00	16-24	*Fail*
Fe	57	160300.000 µg/L	100000.00	1.00E+5-1.00E+5	8.00E+4-1.20E+5	*Fail*
Co	59	32.850 µg/L	20.00	19.00-21.00	16-24	*Fail*
Ni	60	34.800 µg/L	20.00	19.00-21.00	16-24	*Fail*
Cu	63	48.900 µg/L	20.00	19.00-21.00	16-24	*Fail*
Cu	65	43.670 µg/L	20.00	19.00-21.00	16-24	*Fail*
Zn	66	38.080 µg/L	20.00	19.00-21.00	16-24	*Fail*
Zn	67	128.800 µg/L	20.00	19.00-21.00	16-24	*Fail*
Zn	68	32.450 µg/L	20.00	19.00-21.00	16-24	*Fail*
As	75	25.630 µg/L	20.00	19.00-21.00	16-24	*Fail*
Se	82	-2.515 µg/L	0.00	-1.00-1.00	0-0	*Fail*
Sr	87	9.475 µg/L	0.00	-1.00-1.00	0-0	*Fail*
Mo	95	2898.000 µg/L	2000.00	1999.00-2001.00	1600-2400	*Fail*
Mo	98	2960.000 µg/L	2000.00	1999.00-2001.00	1600-2400	*Fail*
Ag	107	28.160 µg/L	20.00	19.00-21.00	16-24	*Fail*
Ag	109	28.160 µg/L	20.00	19.00-21.00	16-24	*Fail*
Cd	111	30.410 µg/L	20.00	19.00-21.00	16-24	*Fail*
Cd	114	29.920 µg/L	20.00	19.00-21.00	16-24	*Fail*
Sn	120	2.545 µg/L	0.00	-1.00-1.00	0-0	*Fail*
Sb	121	4.282 µg/L	0.00	-1.00-1.00	0-0	*Fail*
Sb	123	4.515 µg/L	0.00	-1.00-1.00	0-0	*Fail*

Ba 135	2.273 µg/L	0.00	-1.00-1.00	0-0	*Fail*
Au 197	0.797 µg/L	0.00	-1.00-1.00	0-0	Pass
Tl 205	-0.114 µg/L	0.00	-1.00-1.00	0-0	Pass

Interference Check AB QC Report

File : D:\HPCHEM\1\DATA\Sep2402.09A\010ICSB.D\010ICSB.D#
Acquired : Sep 24 02 11:16 am using AcqMethod 6020.M
Operator : JWB
Sample Name: [ICSAB]
Misc Info :
Vial Number: 1304
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: ICS_AB
Dilution : 1.000000

Pb 208	6.656 µg/L	0.00	-1.00-1.00	0-0	*Fail*
U 238	0.098 µg/L	0.00	-1.00-1.00	0-0	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	555445	376637	Pass
45	463166	338743	Pass
72	79864	78810	Pass
115	416981	355384	Pass
209	232408	202136	Pass

Internal Standards referenced to 002CALB.D#

33 Element Failures! Maximum Number of Allowed Failures (20) Exceeded!
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

Blank QC Report

File : D:\HPCHEM\1\DATA\Sep2402.09A\011CCB_D\011CCB_D#
Acquired : Sep 24 02 11:25 am using AcqMethod 6020.M
Operator : JWB
Sample Name: BLANK
Misc Info :
Vial Number: 1
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: CCB
Dilution : 1.000000

Element		Concentration	CRDL Limit	Flag
Be	9	0.025 µg/L	1.00	Pass
B	11	0.139 µg/L	1.00	Pass
Na	23	64.790 µg/L	10.00	*Fail*
Mg	24	50.520 µg/L	10.00	*Fail*
Mg	25	51.480 µg/L	10.00	*Fail*
Mg	26	52.300 µg/L	10.00	*Fail*
Al	27	58.020 µg/L	10.00	*Fail*
Si	28	-48.500 µg/L	10.00	*Fail*
K	39	46.270 µg/L	10.00	*Fail*
Ca	43	60.640 µg/L	10.00	*Fail*
Ca	44	57.380 µg/L	10.00	*Fail*
Ti	47	1.880 µg/L	1.00	*Fail*
V	51	-0.120 µg/L	1.00	Pass
Cr	52	-0.326 µg/L	1.00	Pass
Cr	53	-1.203 µg/L	1.00	*Fail*
Fe	54	-133.600 µg/L	10.00	*Fail*
Mn	55	-0.028 µg/L	1.00	Pass
Fe	57	50.330 µg/L	10.00	*Fail*
Co	59	-0.252 µg/L	1.00	Pass
Ni	60	-0.014 µg/L	1.00	Pass
Cu	63	0.182 µg/L	1.00	Pass
Cu	65	0.191 µg/L	1.00	Pass
Zn	66	0.435 µg/L	1.00	Pass
Zn	67	0.994 µg/L	1.00	Pass
Zn	68	0.076 µg/L	1.00	Pass
As	75	0.131 µg/L	1.00	Pass
Se	82	0.108 µg/L	1.00	Pass
Sr	87	0.063 µg/L	1.00	Pass
Mo	95	3.507 µg/L	1.00	*Fail*
Mo	98	3.536 µg/L	1.00	*Fail*
Ag	107	-0.001 µg/L	1.00	Pass
Ag	109	-0.004 µg/L	1.00	Pass
Cd	111	0.021 µg/L	1.00	Pass
Cd	114	0.049 µg/L	1.00	Pass
Sn	120	-0.036 µg/L	1.00	Pass
Sb	121	-0.075 µg/L	1.00	Pass
Sb	123	-0.014 µg/L	1.00	Pass

Ba 135	0.054 µg/L	1.00	Pass
Au 197	0.393 µg/L	1.00	Pass
Tl 205	-0.211 µg/L	1.00	Pass

Blank QC Report

File : D:\HPCHEM\1\DATA\Sep2402.09A\011CCB_D\011CCB_D#
Acquired : Sep 24 02 11:25 am using AcqMethod 6020.M
Operator : JWB
Sample Name: BLANK
Misc Info :
Vial Number: 1
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: CCB
Dilution : 1.000000

Pb 208	-0.237 µg/L	1.00	Pass
U 238	0.029 µg/L	1.00	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	555445	453018	Pass
45	463166	396184	Pass
72	79864	69079	Pass
115	416981	396255	Pass
209	232408	239629	Pass

Internal Standards referenced to 002CALB.D#

15 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2402.09A\012SMPL.D\012SMPL.D#
Acquired : Sep 24 02 11:34 am using AcqMethod 6020.M
Operator : JWB
Sample Name: M021283-001
Misc Info : ,
Vial Number: 2101
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 1.000000

Element		Concentration	Cal Conc	LRS Conc	Flag
Be	9	0.005 µg/L	200.000	1000	Pass
B	11	-1.110 µg/L	200.000	0	Pass
Na	23	31.510 µg/L	10000.000	20000	Pass
Mg	24	21.010 µg/L	10000.000	20000	Pass
Mg	25	21.060 µg/L	10000.000	20000	Pass
Mg	26	21.010 µg/L	10000.000	20000	Pass
Al	27	49.710 µg/L	10000.000	20000	Pass
Si	28	-11.340 µg/L	10000.000	0	Pass
K	39	33.710 µg/L	10000.000	20000	Pass
Ca	43	81.340 µg/L	10000.000	20000	Pass
Ca	44	80.730 µg/L	10000.000	20000	Pass
Ti	47	1.653 µg/L	200.000	1000	Pass
V	51	0.525 µg/L	200.000	1000	Pass
Cr	52	0.786 µg/L	200.000	1000	Pass
Cr	53	14.060 µg/L	200.000	1000	Pass
Fe	54	-17.990 µg/L	10000.000	20000	Pass
Mn	55	1.479 µg/L	200.000	1000	Pass
Fe	57	28.530 µg/L	10000.000	20000	Pass
Co	59	-0.277 µg/L	200.000	1000	Pass
Ni	60	0.154 µg/L	200.000	1000	Pass
Cu	63	0.659 µg/L	200.000	1000	Pass
Cu	65	0.657 µg/L	200.000	1000	Pass
Zn	66	4.838 µg/L	200.000	1000	Pass
Zn	67	5.543 µg/L	200.000	1000	Pass
Zn	68	4.549 µg/L	200.000	1000	Pass
As	75	0.280 µg/L	200.000	1000	Pass
Se	82	0.001 µg/L	200.000	1000	Pass
Sr	87	0.158 µg/L	200.000	1000	Pass
Mo	95	1.655 µg/L	200.000	1000	Pass
Mo	98	1.717 µg/L	200.000	1000	Pass
Ag	107	-0.023 µg/L	200.000	1000	Pass
Ag	109	-0.015 µg/L	200.000	1000	Pass
Cd	111	0.043 µg/L	200.000	1000	Pass
Cd	114	0.235 µg/L	200.000	1000	Pass
Sn	120	13.420 µg/L	200.000	1000	Pass
Sb	121	-0.077 µg/L	200.000	1000	Pass
Sb	123	-0.030 µg/L	200.000	1000	Pass

Ba 135	0.409 µg/L	200.000	1000	Pass
Au 197	0.414 µg/L	200.000	0	Pass
Tl 205	-0.228 µg/L	200.000	1000	Pass

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2402.09A\012SMPL.D\012SMPL.D#
Acquired : Sep 24 02 11:34 am using AcqMethod 6020.M
Operator : JWB
Sample Name: M021283-001
Misc Info : ,
Vial Number: 2101
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 1.000000

Pb 208	0.662 µg/L	200.000	1000	Pass
U 238	0.012 µg/L	200.000	1000	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	555445	494528	Pass
45	463166	396932	Pass
72	79864	65499	Pass
115	416981	362301	Pass
209	232408	217673	Pass

Internal Standards referenced to 002CALB.D#

0 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2402.09A\013SMPL.D\013SMPL.D#
Acquired : Sep 24 02 11:43 am using AcqMethod 6020.M
Operator : JWB
Sample Name: M021283-002
Misc Info : ,
Vial Number: 2102
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 1.000000

Element		Concentration	Cal Conc	LRS Conc	Flag
Be	9	95.580 µg/L	200.000	1000	Pass
B	11	96.280 µg/L	200.000	0	Pass
Na	23	1022.000 µg/L	10000.000	20000	Pass
Mg	24	1021.000 µg/L	10000.000	20000	Pass
Mg	25	1062.000 µg/L	10000.000	20000	Pass
Mg	26	1032.000 µg/L	10000.000	20000	Pass
Al	27	1019.000 µg/L	10000.000	20000	Pass
Si	28	1063.000 µg/L	10000.000	0	Pass
K	39	1046.000 µg/L	10000.000	20000	Pass
Ca	43	1024.000 µg/L	10000.000	20000	Pass
Ca	44	1033.000 µg/L	10000.000	20000	Pass
Ti	47	102.800 µg/L	200.000	1000	Pass
V	51	102.700 µg/L	200.000	1000	Pass
Cr	52	103.800 µg/L	200.000	1000	Pass
Cr	53	103.200 µg/L	200.000	1000	Pass
Fe	54	1085.000 µg/L	10000.000	20000	Pass
Mn	55	105.000 µg/L	200.000	1000	Pass
Fe	57	1078.000 µg/L	10000.000	20000	Pass
Co	59	103.000 µg/L	200.000	1000	Pass
Ni	60	104.400 µg/L	200.000	1000	Pass
Cu	63	105.100 µg/L	200.000	1000	Pass
Cu	65	106.600 µg/L	200.000	1000	Pass
Zn	66	108.100 µg/L	200.000	1000	Pass
Zn	67	105.300 µg/L	200.000	1000	Pass
Zn	68	108.300 µg/L	200.000	1000	Pass
As	75	104.900 µg/L	200.000	1000	Pass
Se	82	106.300 µg/L	200.000	1000	Pass
Sr	87	103.100 µg/L	200.000	1000	Pass
Mo	95	97.270 µg/L	200.000	1000	Pass
Mo	98	97.970 µg/L	200.000	1000	Pass
Ag	107	101.700 µg/L	200.000	1000	Pass
Ag	109	102.000 µg/L	200.000	1000	Pass
Cd	111	101.700 µg/L	200.000	1000	Pass
Cd	114	102.500 µg/L	200.000	1000	Pass
Sn	120	115.200 µg/L	200.000	1000	Pass
Sb	121	102.200 µg/L	200.000	1000	Pass
Sb	123	102.100 µg/L	200.000	1000	Pass

Ba 135	103.400 µg/L	200.000	1000	Pass
Au 197	100.700 µg/L	200.000	0	Pass
Tl 205	98.610 µg/L	200.000	1000	Pass

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2402.09A\013SMPL.D\013SMPL.D#
Acquired : Sep 24 02 11:43 am using AcqMethod 6020.M
Operator : JWB
Sample Name: M021283-002
Misc Info : ,
Vial Number: 2102
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 1.000000

Pb 208	100.400 µg/L	200.000	1000	Pass
U 238	100.300 µg/L	200.000	1000	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	555445	479588	Pass
45	463166	391252	Pass
72	79864	64012	Pass
115	416981	359690	Pass
209	232408	215574	Pass

Internal Standards referenced to 002CALB.D#

0 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2402.09A\014SMPL.D\014SMPL.D#
Acquired : Sep 24 02 11:52 am using AcqMethod 6020.M
Operator : JWB
Sample Name: M021283-003
Misc Info : ,
Vial Number: 2103
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 1.000000

Element		Concentration	Cal Conc	LRS Conc	Flag
Be	9	95.240 µg/L	200.000	1000	Pass
B	11	99.850 µg/L	200.000	0	Pass
Na	23	1001.000 µg/L	10000.000	20000	Pass
Mg	24	995.600 µg/L	10000.000	20000	Pass
Mg	25	1065.000 µg/L	10000.000	20000	Pass
Mg	26	1043.000 µg/L	10000.000	20000	Pass
Al	27	1052.000 µg/L	10000.000	20000	Pass
Si	28	1074.000 µg/L	10000.000	0	Pass
K	39	1021.000 µg/L	10000.000	20000	Pass
Ca	43	1050.000 µg/L	10000.000	20000	Pass
Ca	44	1085.000 µg/L	10000.000	20000	Pass
Ti	47	102.100 µg/L	200.000	1000	Pass
V	51	101.600 µg/L	200.000	1000	Pass
Cr	52	102.500 µg/L	200.000	1000	Pass
Cr	53	100.100 µg/L	200.000	1000	Pass
Fe	54	1100.000 µg/L	10000.000	20000	Pass
Mn	55	106.000 µg/L	200.000	1000	Pass
Fe	57	1076.000 µg/L	10000.000	20000	Pass
Co	59	103.800 µg/L	200.000	1000	Pass
Ni	60	104.800 µg/L	200.000	1000	Pass
Cu	63	105.900 µg/L	200.000	1000	Pass
Cu	65	106.800 µg/L	200.000	1000	Pass
Zn	66	108.800 µg/L	200.000	1000	Pass
Zn	67	106.300 µg/L	200.000	1000	Pass
Zn	68	108.400 µg/L	200.000	1000	Pass
As	75	105.700 µg/L	200.000	1000	Pass
Se	82	105.700 µg/L	200.000	1000	Pass
Sr	87	102.700 µg/L	200.000	1000	Pass
Mo	95	97.090 µg/L	200.000	1000	Pass
Mo	98	98.570 µg/L	200.000	1000	Pass
Ag	107	101.400 µg/L	200.000	1000	Pass
Ag	109	102.200 µg/L	200.000	1000	Pass
Cd	111	100.900 µg/L	200.000	1000	Pass
Cd	114	102.700 µg/L	200.000	1000	Pass
Sn	120	115.500 µg/L	200.000	1000	Pass
Sb	121	103.200 µg/L	200.000	1000	Pass
Sb	123	103.100 µg/L	200.000	1000	Pass

Ba 135	104.000 µg/L	200.000	1000	Pass
Au 197	99.390 µg/L	200.000	0	Pass
Tl 205	98.390 µg/L	200.000	1000	Pass

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2402.09A\014SMPL.D\014SMPL.D#
Acquired : Sep 24 02 11:52 am using AcqMethod 6020.M
Operator : JWB
Sample Name: M021283-003
Misc Info : ,
Vial Number: 2103
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 1.000000

Pb 208	99.660 µg/L	200.000	1000	Pass
U 238	100.100 µg/L	200.000	1000	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	555445	478276	Pass
45	463166	386987	Pass
72	79864	63751	Pass
115	416981	353689	Pass
209	232408	213937	Pass

Internal Standards referenced to 002CALB.D#

0 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

CCV QC Report

File : D:\HPCHEM\1\DATA\Sep2402.09A\020CCV_D\020CCV_D#
Acquired : Sep 24 02 00:47 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: [STD-CCV]
Misc Info :
Vial Number: 1105
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: CCV
Dilution : 1.000000

CCV Mix #1

Element		Concentration	Expected	QC Range	Flag
Be	9	94.530 µg/L	100.00	90.00-110.00	Pass
B	11	96.490 µg/L	100.00	90.00-110.00	Pass
Na	23	992.100 µg/L	1000.00	900.00-1100.00	Pass
Mg	24	1005.000 µg/L	1000.00	900.00-1100.00	Pass
Mg	25	1055.000 µg/L	1000.00	900.00-1100.00	Pass
Mg	26	1025.000 µg/L	1000.00	900.00-1100.00	Pass
Al	27	1032.000 µg/L	1000.00	900.00-1100.00	Pass
Si	28	1101.000 µg/L	1000.00	900.00-1100.00	*Fail*
K	39	1034.000 µg/L	1000.00	900.00-1100.00	Pass
Ca	43	1019.000 µg/L	1000.00	900.00-1100.00	Pass
Ca	44	999.700 µg/L	1000.00	900.00-1100.00	Pass
Ti	47	103.500 µg/L	100.00	90.00-110.00	Pass
V	51	103.900 µg/L	100.00	90.00-110.00	Pass
Cr	52	103.900 µg/L	100.00	90.00-110.00	Pass
Cr	53	96.300 µg/L	100.00	90.00-110.00	Pass
Fe	54	1107.000 µg/L	1000.00	900.00-1100.00	*Fail*
Mn	55	106.500 µg/L	100.00	90.00-110.00	Pass
Fe	57	1079.000 µg/L	1000.00	900.00-1100.00	Pass
Co	59	105.400 µg/L	100.00	90.00-110.00	Pass
Ni	60	106.600 µg/L	100.00	90.00-110.00	Pass
Cu	63	106.300 µg/L	100.00	90.00-110.00	Pass
Cu	65	107.600 µg/L	100.00	90.00-110.00	Pass
Zn	66	103.400 µg/L	100.00	90.00-110.00	Pass
Zn	67	99.780 µg/L	100.00	90.00-110.00	Pass
Zn	68	103.200 µg/L	100.00	90.00-110.00	Pass
As	75	101.900 µg/L	100.00	90.00-110.00	Pass
Se	82	105.600 µg/L	100.00	90.00-110.00	Pass
Sr	87	102.900 µg/L	100.00	90.00-110.00	Pass
Mo	95	95.760 µg/L	100.00	90.00-110.00	Pass
Mo	98	96.750 µg/L	100.00	90.00-110.00	Pass
Ag	107	100.100 µg/L	100.00	90.00-110.00	Pass
Ag	109	100.400 µg/L	100.00	90.00-110.00	Pass
Cd	111	101.100 µg/L	100.00	90.00-110.00	Pass
Cd	114	101.900 µg/L	100.00	90.00-110.00	Pass
Sn	120	102.700 µg/L	100.00	90.00-110.00	Pass

Sb 121	102.300 µg/L	100.00	90.00-110.00	Pass
Sb 123	103.300 µg/L	100.00	90.00-110.00	Pass
Ba 135	102.400 µg/L	100.00	90.00-110.00	Pass

CCV QC Report

File : D:\HPCHEM\1\DATA\Sep2402.09A\020CCV_D\020CCV_D#
Acquired : Sep 24 02 00:47 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: [STD-CCV]
Misc Info :
Vial Number: 1105
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: CCV
Dilution : 1.000000

Au 197	99.250 µg/L	100.00	90.00-110.00	Pass
Tl 205	97.930 µg/L	100.00	90.00-110.00	Pass
Pb 208	99.890 µg/L	100.00	90.00-110.00	Pass
U 238	100.800 µg/L	100.00	90.00-110.00	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	555445	430309	Pass
45	463166	356654	Pass
72	79864	60762	Pass
115	416981	343463	Pass
209	232408	207609	Pass

Internal Standards referenced to 002CALB.D#

2 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

Blank QC Report

File : D:\HPCHEM\1\DATA\Sep2402.09A\021CCB_D\021CCB_D#
Acquired : Sep 24 02 00:57 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: [CB]
Misc Info :
Vial Number: 1102
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: CCB
Dilution : 1.000000

Element		Concentration	CRDL Limit	Flag
Be	9	0.034 µg/L	1.00	Pass
B	11	0.011 µg/L	1.00	Pass
Na	23	0.209 µg/L	10.00	Pass
Mg	24	0.463 µg/L	10.00	Pass
Mg	25	0.475 µg/L	10.00	Pass
Mg	26	0.430 µg/L	10.00	Pass
Al	27	2.979 µg/L	10.00	Pass
Si	28	-2.434 µg/L	10.00	Pass
K	39	2.223 µg/L	10.00	Pass
Ca	43	5.176 µg/L	10.00	Pass
Ca	44	1.329 µg/L	10.00	Pass
Ti	47	0.071 µg/L	1.00	Pass
V	51	0.099 µg/L	1.00	Pass
Cr	52	0.384 µg/L	1.00	Pass
Cr	53	5.045 µg/L	1.00	*Fail*
Fe	54	35.200 µg/L	10.00	*Fail*
Mn	55	0.079 µg/L	1.00	Pass
Fe	57	3.552 µg/L	10.00	Pass
Co	59	-0.269 µg/L	1.00	Pass
Ni	60	-0.019 µg/L	1.00	Pass
Cu	63	0.010 µg/L	1.00	Pass
Cu	65	0.030 µg/L	1.00	Pass
Zn	66	0.046 µg/L	1.00	Pass
Zn	67	0.611 µg/L	1.00	Pass
Zn	68	-0.046 µg/L	1.00	Pass
As	75	0.189 µg/L	1.00	Pass
Se	82	0.044 µg/L	1.00	Pass
Sr	87	0.030 µg/L	1.00	Pass
Mo	95	0.326 µg/L	1.00	Pass
Mo	98	0.297 µg/L	1.00	Pass
Ag	107	0.029 µg/L	1.00	Pass
Ag	109	0.023 µg/L	1.00	Pass
Cd	111	0.049 µg/L	1.00	Pass
Cd	114	0.039 µg/L	1.00	Pass
Sn	120	-0.018 µg/L	1.00	Pass
Sb	121	0.227 µg/L	1.00	Pass
Sb	123	0.273 µg/L	1.00	Pass

Ba 135	0.050 µg/L	1.00	Pass
Au 197	0.478 µg/L	1.00	Pass
Tl 205	0.278 µg/L	1.00	Pass

Blank QC Report

File : D:\HPCHEM\1\DATA\Sep2402.09A\021CCB_D\021CCB_D#
Acquired : Sep 24 02 00:57 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: [CB]
Misc Info :
Vial Number: 1102
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: CCB
Dilution : 1.000000

Pb 208	−0.255 µg/L	1.00	Pass
U 238	0.045 µg/L	1.00	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	555445	404477	Pass
45	463166	344240	Pass
72	79864	58106	Pass
115	416981	332352	Pass
209	232408	199638	Pass

Internal Standards referenced to 002CALB.D#

2 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

CCV QC Report

09U

File : D:\HPCHEM\1\DATA\Sep2402.09A\044CCV_D\044CCV_D#
Acquired : Sep 24 02 04:29 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: [STD-CCV]
Misc Info :
Vial Number: 1105
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: CCV
Dilution : 1.000000

CCV Mix #1

Element		Concentration	Expected	QC Range	Flag
Be	9	94.030 µg/L	100.00	90.00-110.00	Pass
B	11	99.130 µg/L	100.00	90.00-110.00	Pass
Na	23	972.900 µg/L	1000.00	900.00-1100.00	Pass
Mg	24	985.600 µg/L	1000.00	900.00-1100.00	Pass
Mg	25	1070.000 µg/L	1000.00	900.00-1100.00	Pass
Mg	26	1025.000 µg/L	1000.00	900.00-1100.00	Pass
Al	27	987.200 µg/L	1000.00	900.00-1100.00	Pass
Si	28	1128.000 µg/L	1000.00	900.00-1100.00	*Fail*
K	39	1023.000 µg/L	1000.00	900.00-1100.00	Pass
Ca	43	1005.000 µg/L	1000.00	900.00-1100.00	Pass
Ca	44	1011.000 µg/L	1000.00	900.00-1100.00	Pass
Ti	47	103.300 µg/L	100.00	90.00-110.00	Pass
V	51	102.600 µg/L	100.00	90.00-110.00	Pass
Cr	52	103.500 µg/L	100.00	90.00-110.00	Pass
Cr	53	105.400 µg/L	100.00	90.00-110.00	Pass
Fe	54	1108.000 µg/L	1000.00	900.00-1100.00	*Fail*
Mn	55	105.000 µg/L	100.00	90.00-110.00	Pass
Fe	57	1080.000 µg/L	1000.00	900.00-1100.00	Pass
Co	59	105.700 µg/L	100.00	90.00-110.00	Pass
Ni	60	106.000 µg/L	100.00	90.00-110.00	Pass
Cu	63	106.600 µg/L	100.00	90.00-110.00	Pass
Cu	65	107.600 µg/L	100.00	90.00-110.00	Pass
Zn	66	101.800 µg/L	100.00	90.00-110.00	Pass
Zn	67	100.500 µg/L	100.00	90.00-110.00	Pass
Zn	68	102.200 µg/L	100.00	90.00-110.00	Pass
As	75	102.100 µg/L	100.00	90.00-110.00	Pass
Se	82	103.700 µg/L	100.00	90.00-110.00	Pass
Sr	87	101.800 µg/L	100.00	90.00-110.00	Pass
Mo	95	94.400 µg/L	100.00	90.00-110.00	Pass
Mo	98	94.810 µg/L	100.00	90.00-110.00	Pass
Ag	107	99.400 µg/L	100.00	90.00-110.00	Pass
Ag	109	99.940 µg/L	100.00	90.00-110.00	Pass
Cd	111	101.100 µg/L	100.00	90.00-110.00	Pass
Cd	114	101.600 µg/L	100.00	90.00-110.00	Pass
Sn	120	101.700 µg/L	100.00	90.00-110.00	Pass

Sb 121	100.800 µg/L	100.00	90.00-110.00	Pass
Sb 123	101.600 µg/L	100.00	90.00-110.00	Pass
Ba 135	102.600 µg/L	100.00	90.00-110.00	Pass

CCV QC Report

File : D:\HPCHEM\1\DATA\Sep2402.09A\044CCV_D\044CCV_D#
Acquired : Sep 24 02 04:29 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: [STD-CCV]
Misc Info :
Vial Number: 1105
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: CCV
Dilution : 1.000000

Au 197	100.200 µg/L	100.00	90.00-110.00	Pass
Tl 205	97.940 µg/L	100.00	90.00-110.00	Pass
Pb 208	99.430 µg/L	100.00	90.00-110.00	Pass
U 238	99.330 µg/L	100.00	90.00-110.00	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	555445	432540	Pass
45	463166	355241	Pass
72	79864	61185	Pass
115	416981	342985	Pass
209	232408	205558	Pass

Internal Standards referenced to 002CALB.D#

2 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

Blank QC Report

File : D:\HPCHEM\1\DATA\Sep2402.09A\045CCB_D\045CCB_D#
Acquired : Sep 24 02 04:38 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: [CB]
Misc Info :
Vial Number: 1102
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: CCB
Dilution : 1.000000

Element		Concentration	CRDL Limit	Flag
Be	9	0.025 µg/L	1.00	Pass
B	11	0.088 µg/L	1.00	Pass
Na	23	0.035 µg/L	10.00	Pass
Mg	24	0.406 µg/L	10.00	Pass
Mg	25	0.483 µg/L	10.00	Pass
Mg	26	0.433 µg/L	10.00	Pass
Al	27	3.335 µg/L	10.00	Pass
Si	28	14.750 µg/L	10.00	*Fail*
K	39	3.789 µg/L	10.00	Pass
Ca	43	2.716 µg/L	10.00	Pass
Ca	44	1.456 µg/L	10.00	Pass
Ti	47	0.141 µg/L	1.00	Pass
V	51	0.354 µg/L	1.00	Pass
Cr	52	0.692 µg/L	1.00	Pass
Cr	53	17.460 µg/L	1.00	*Fail*
Fe	54	49.130 µg/L	10.00	*Fail*
Mn	55	0.088 µg/L	1.00	Pass
Fe	57	7.922 µg/L	10.00	Pass
Co	59	-0.274 µg/L	1.00	Pass
Ni	60	-0.029 µg/L	1.00	Pass
Cu	63	0.049 µg/L	1.00	Pass
Cu	65	0.022 µg/L	1.00	Pass
Zn	66	0.057 µg/L	1.00	Pass
Zn	67	1.388 µg/L	1.00	*Fail*
Zn	68	0.128 µg/L	1.00	Pass
As	75	0.755 µg/L	1.00	Pass
Se	82	0.430 µg/L	1.00	Pass
Sr	87	0.063 µg/L	1.00	Pass
Mo	95	0.229 µg/L	1.00	Pass
Mo	98	0.232 µg/L	1.00	Pass
Ag	107	0.026 µg/L	1.00	Pass
Ag	109	0.031 µg/L	1.00	Pass
Cd	111	0.021 µg/L	1.00	Pass
Cd	114	0.035 µg/L	1.00	Pass
Sn	120	0.025 µg/L	1.00	Pass
Sb	121	0.160 µg/L	1.00	Pass
Sb	123	0.258 µg/L	1.00	Pass

Ba 135	0.035 µg/L	1.00	Pass
Au 197	0.406 µg/L	1.00	Pass
Tl 205	0.245 µg/L	1.00	Pass

Blank QC Report

File : D:\HPCHEM\1\DATA\Sep2402.09A\045CCB_D\045CCB_D#
Acquired : Sep 24 02 04:38 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: [CB]
Misc Info :
Vial Number: 1102
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: CCB
Dilution : 1.000000

Pb 208	−0.248 µg/L	1.00	Pass
U 238	0.045 µg/L	1.00	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	555445	447366	Pass
45	463166	357000	Pass
72	79864	59338	Pass
115	416981	334884	Pass
209	232408	196696	Pass

Internal Standards referenced to 002CALB.D#

4 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

Tune Sample Report

File : D:\HPCHEM\1\DATA\SEP2402.09A\055TUNE.D
Acquired : Sep 24 02 06:10 pm using AcqMethod QCTUNE.M
Operator : JWB
Sample Name: 6020/200.8 TUNE MIX
Misc Info :
Vial Number: 1101
CurrentMeth: D:\HPCHEM\1\METHODS\QCTUNE.M
BkgFile : --------
Sample Type: TUNE
Dilution : 1.000000

Minimum Response Criteria (cps/ppb)

Element	RSD(%)	Actual	Required	Flag
59	0.89	73609	> 200	
7	6.82	98161	> 20	
115	1.53	101764	> 100	
205	1.09	51146	> 10	
102		0(cps)	< 25(cps)	

Ion Ratio Criteria

	Actual	Required	Flag
59/59	1.00	1.00 - 1.00	
7/59	1.33	0.10 - 5.00	
115/59	1.38	0.10 - 10.00	
205/59	0.69	0.10 - 5.00	

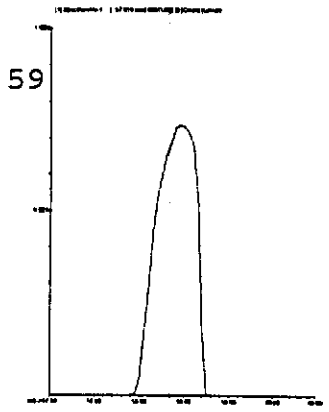

Mass Calib:58.95
W-50%: 0.60
W-10%: 0.70

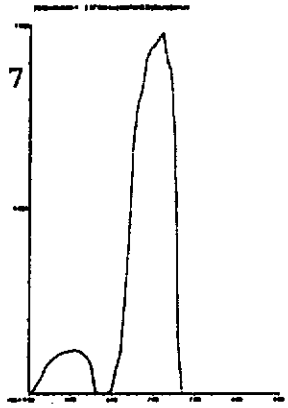

Mass Calib:7.10
W-50%: 0.60
W-10%: 0.75

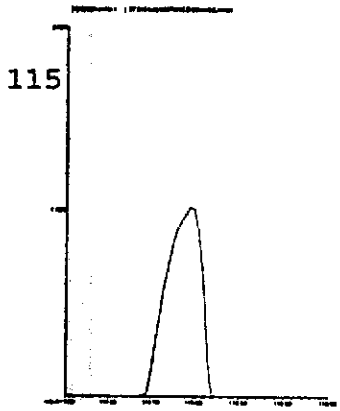

Mass Calib:114.95
W-50%: 0.55
W-10%: 0.65

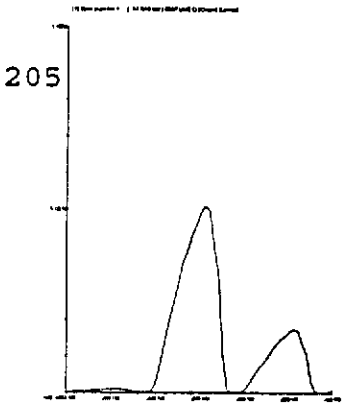

Mass Calib:205.05
W-50%: 0.55

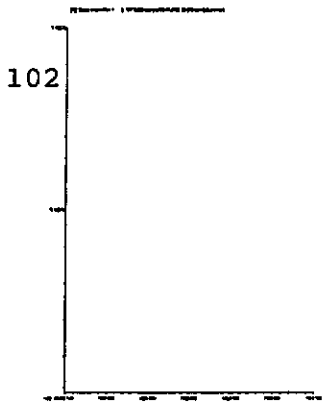

Background

US EPA Method 200.8 Tune Verification

Acquired : Sep 24 02 06:10 pm using AcqMethod QCTUNE.M
Data File Name: D:\HPCHEM\1\DATA\Sep2402.09A\055TUNE.D

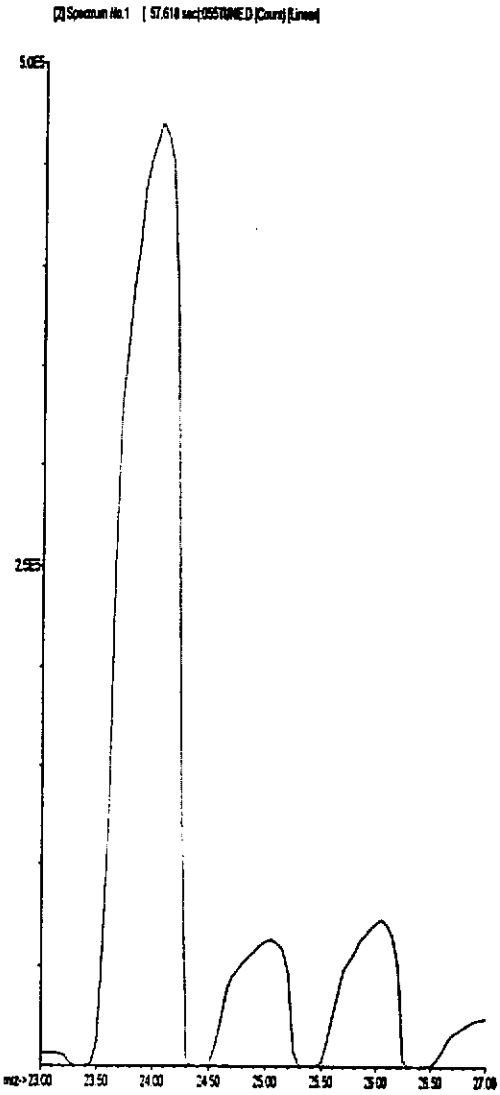

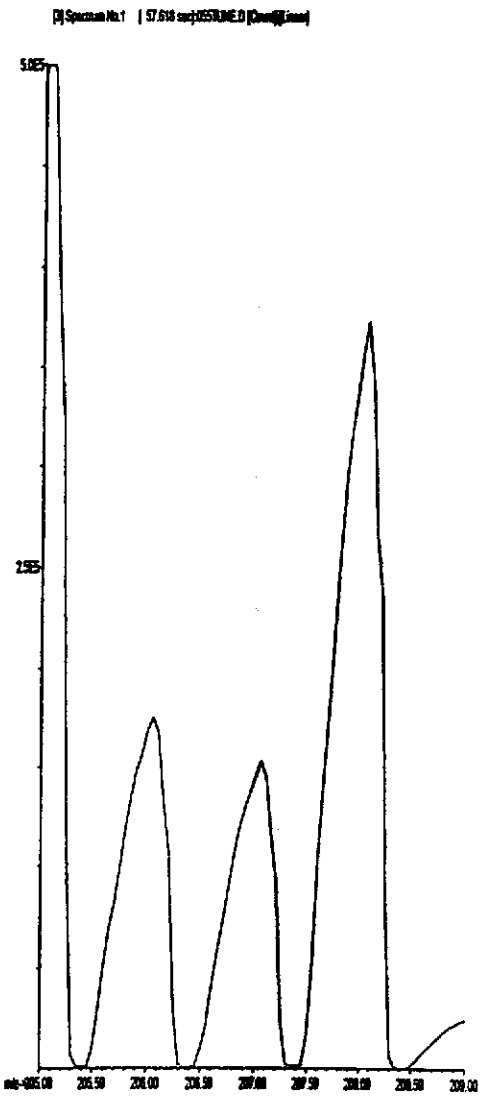

Element and Mass	Mass Assignment		PeakElement at 5and Mass Heig	Mass Assignment		Peak Width at 5% Peak Height
Mg 24	24.05	0.70	Pb 206	206.05	0.75	
Mg 25	25.05	0.70	Pb 207	207.05	0.75	
Mg 26	26.05	0.65	Pb 208	208.05	0.70	

* Does not meet EPA Method 200.8 specification.

Spectrum No.1 [57.618 sec]:055TUNE.D
Acquired : Sep 24 02 06:10 pm using AcqMethod QCTUNE.M
Bkg file : --------
Interference Correction: OFF

Mass[amu]	Element	Count	n	SD	RSD[%]
5		1764.24 P	5	149.30	8.46
6		1309948.00 P	5	22720.00	1.73
7	Li	10473410.00 A	5	298100.00	2.85
8		6.20 P	5	3.12	50.23
23		87065.80 P	5	2201.00	2.53
24		5159410.00 A	5	116700.00	2.26
25		682808.30 P	5	29280.00	4.29
26		760845.10 P	5	14530.00	1.91
27		256691.10 P	5	3633.00	1.42
58		57676.58 P	5	5625.00	9.75
59	Co	7705158.00 A	5	104600.00	1.36
60		142.80 P	5	20.90	14.64
101		11.80 P	5	1.30	11.05
103		304.61 P	5	13.99	4.59
114		158027.30 P	5	15770.00	9.98
115	In	9377831.00 A	5	214600.00	2.29
116		455.21 P	5	20.48	4.50
204		133419.70 P	5	797.10	0.60
205	Tl	4943935.00 P	5	53790.00	1.09
206		1680365.00 P	5	16980.00	1.01
207		1451827.00 P	5	15340.00	1.06
208		3573600.00 P	5	35910.00	1.00
209		252036.60 P	5	2937.00	1.17

CCV QC Report

File : D:\HPCHEM\1\DATA\Sep2402.09A\056CCV_D\056CCV_D#
Acquired : Sep 24 02 06:19 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: [STD-CCV]
Misc Info :
Vial Number: 1105
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: CCV
Dilution : 1.000000

CCV Mix #1

Element		Concentration	Expected	QC Range	Flag
Be	9	93.660 µg/L	100.00	90.00-110.00	Pass
B	11	98.900 µg/L	100.00	90.00-110.00	Pass
Na	23	999.800 µg/L	1000.00	900.00-1100.00	Pass
Mg	24	988.800 µg/L	1000.00	900.00-1100.00	Pass
Mg	25	1071.000 µg/L	1000.00	900.00-1100.00	Pass
Mg	26	1038.000 µg/L	1000.00	900.00-1100.00	Pass
Al	27	1006.000 µg/L	1000.00	900.00-1100.00	Pass
Si	28	1058.000 µg/L	1000.00	900.00-1100.00	Pass
K	39	1029.000 µg/L	1000.00	900.00-1100.00	Pass
Ca	43	993.200 µg/L	1000.00	900.00-1100.00	Pass
Ca	44	1010.000 µg/L	1000.00	900.00-1100.00	Pass
Ti	47	104.300 µg/L	100.00	90.00-110.00	Pass
V	51	104.200 µg/L	100.00	90.00-110.00	Pass
Cr	52	106.500 µg/L	100.00	90.00-110.00	Pass
Cr	53	115.200 µg/L	100.00	90.00-110.00	*Fail*
Fe	54	1186.000 µg/L	1000.00	900.00-1100.00	*Fail*
Mn	55	107.700 µg/L	100.00	90.00-110.00	Pass
Fe	57	1100.000 µg/L	1000.00	900.00-1100.00	Pass
Co	59	107.500 µg/L	100.00	90.00-110.00	Pass
Ni	60	107.200 µg/L	100.00	90.00-110.00	Pass
Cu	63	107.600 µg/L	100.00	90.00-110.00	Pass
Cu	65	109.100 µg/L	100.00	90.00-110.00	Pass
Zn	66	103.600 µg/L	100.00	90.00-110.00	Pass
Zn	67	103.300 µg/L	100.00	90.00-110.00	Pass
Zn	68	104.800 µg/L	100.00	90.00-110.00	Pass
As	75	105.800 µg/L	100.00	90.00-110.00	Pass
Se	82	106.900 µg/L	100.00	90.00-110.00	Pass
Sr	87	103.900 µg/L	100.00	90.00-110.00	Pass
Mo	95	94.600 µg/L	100.00	90.00-110.00	Pass
Mo	98	95.690 µg/L	100.00	90.00-110.00	Pass
Ag	107	99.620 µg/L	100.00	90.00-110.00	Pass
Ag	109	99.850 µg/L	100.00	90.00-110.00	Pass
Cd	111	100.400 µg/L	100.00	90.00-110.00	Pass
Cd	114	100.700 µg/L	100.00	90.00-110.00	Pass
Sn	120	101.500 µg/L	100.00	90.00-110.00	Pass

Sb 121	101.300 µg/L	100.00	90.00-110.00	Pass
Sb 123	101.400 µg/L	100.00	90.00-110.00	Pass
Ba 135	103.000 µg/L	100.00	90.00-110.00	Pass

CCV QC Report

File : D:\HPCHEM\1\DATA\Sep2402.09A\056CCV_D\056CCV_D#
Acquired : Sep 24 02 06:19 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: [STD-CCV]
Misc Info :
Vial Number: 1105
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : ---------
Sample Type: CCV
Dilution : 1.000000

Au 197	99.270 µg/L	100.00	90.00-110.00	Pass
Tl 205	98.410 µg/L	100.00	90.00-110.00	Pass
Pb 208	100.100 µg/L	100.00	90.00-110.00	Pass
U 238	99.410 µg/L	100.00	90.00-110.00	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	555445	434015	Pass
45	463166	347243	Pass
72	79864	59360	Pass
115	416981	340369	Pass
209	232408	200206	Pass

Internal Standards referenced to 002CALB.D#

2 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

Blank QC Report

File : D:\HPCHEM\1\DATA\Sep2402.09A\057CCB_D\057CCB_D#
Acquired : Sep 24 02 06:28 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: [CB]
Misc Info :
Vial Number: 1102
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: CCB
Dilution : 1.000000

Element		Concentration	CRDL Limit	Flag
Be	9	0.028 µg/L	1.00	Pass
B	11	0.232 µg/L	1.00	Pass
Na	23	0.020 µg/L	10.00	Pass
Mg	24	0.373 µg/L	10.00	Pass
Mg	25	0.403 µg/L	10.00	Pass
Mg	26	0.409 µg/L	10.00	Pass
Al	27	3.167 µg/L	10.00	Pass
Si	28	46.070 µg/L	10.00	*Fail*
K	39	6.382 µg/L	10.00	Pass
Ca	43	3.135 µg/L	10.00	Pass
Ca	44	1.470 µg/L	10.00	Pass
Ti	47	-0.001 µg/L	1.00	Pass
V	51	0.753 µg/L	1.00	Pass
Cr	52	0.865 µg/L	1.00	Pass
Cr	53	25.540 µg/L	1.00	*Fail*
Fe	54	74.320 µg/L	10.00	*Fail*
Mn	55	0.090 µg/L	1.00	Pass
Fe	57	12.010 µg/L	10.00	*Fail*
Co	59	-0.145 µg/L	1.00	Pass
Ni	60	-0.022 µg/L	1.00	Pass
Cu	63	0.028 µg/L	1.00	Pass
Cu	65	0.023 µg/L	1.00	Pass
Zn	66	0.069 µg/L	1.00	Pass
Zn	67	2.289 µg/L	1.00	*Fail*
Zn	68	0.246 µg/L	1.00	Pass
As	75	0.574 µg/L	1.00	Pass
Se	82	0.171 µg/L	1.00	Pass
Sr	87	0.033 µg/L	1.00	Pass
Mo	95	0.199 µg/L	1.00	Pass
Mo	98	0.206 µg/L	1.00	Pass
Ag	107	0.022 µg/L	1.00	Pass
Ag	109	0.021 µg/L	1.00	Pass
Cd	111	0.020 µg/L	1.00	Pass
Cd	114	0.058 µg/L	1.00	Pass
Sn	120	0.022 µg/L	1.00	Pass
Sb	121	0.085 µg/L	1.00	Pass
Sb	123	0.111 µg/L	1.00	Pass

Ba 135	0.019 µg/L	1.00	Pass
Au 197	0.499 µg/L	1.00	Pass
Tl 205	0.321 µg/L	1.00	Pass

Blank QC Report

File : D:\HPCHEM\1\DATA\Sep2402.09A\057CCB_D\057CCB_D#
Acquired : Sep 24 02 06:28 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: [CB]
Misc Info :
Vial Number: 1102
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: CCB
Dilution : 1.000000

Pb 208	-0.121 µg/L	1.00	Pass
U 238	0.040 µg/L	1.00	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	555445	418027	Pass
45	463166	340047	Pass
72	79864	56968	Pass
115	416981	329191	Pass
209	232408	193476	Pass

Internal Standards referenced to 002CALB.D#

5 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

Interference Check A QC Report

File : D:\HPCHEM\1\DATA\Sep2402.09A\058ICSA.D\058ICSA.D#
Acquired : Sep 24 02 06:37 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: [ICSA]
Misc Info :
Vial Number: 1303
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: ICS_A_
Dilution : 1.000000

Element		Concentration	Expected	CRDL Range Conc	%Range Conc	Flag
Be	9	0.054 µg/L	0.00	-1.00-1.00	0-0	Pass
B	11	5.198 µg/L	0.00	-1.00-1.00	0-0	*Fail*
Na	23	----- µg/L	100000.00	1.00E+5-1.00E+5	8.00E+4-1.20E+5	OverRng
Mg	24	----- µg/L	100000.00	1.00E+5-1.00E+5	8.00E+4-1.20E+5	OverRng
Mg	25	138700.000 µg/L	100000.00	1.00E+5-1.00E+5	8.00E+4-1.20E+5	*Fail*
Mg	26	139400.000 µg/L	100000.00	1.00E+5-1.00E+5	8.00E+4-1.20E+5	*Fail*
Al	27	----- µg/L	100000.00	1.00E+5-1.00E+5	8.00E+4-1.20E+5	OverRng
Si	28	103.200 µg/L	0.00	-10.00-10.00	0-0	*Fail*
K	39	----- µg/L	100000.00	1.00E+5-1.00E+5	8.00E+4-1.20E+5	OverRng
Ca	43	153900.000 µg/L	100000.00	1.00E+5-1.00E+5	8.00E+4-1.20E+5	*Fail*
Ca	44	152500.000 µg/L	100000.00	1.00E+5-1.00E+5	8.00E+4-1.20E+5	*Fail*
Ti	47	3047.000 µg/L	2000.00	1999.00-2001.00	1600-2400	*Fail*
V	51	0.842 µg/L	0.00	-1.00-1.00	0-0	Pass
Cr	52	3.912 µg/L	0.00	-1.00-1.00	0-0	*Fail*
Cr	53	28.540 µg/L	0.00	-1.00-1.00	0-0	*Fail*
Fe	54	151300.000 µg/L	100000.00	1.00E+5-1.00E+5	8.00E+4-1.20E+5	*Fail*
Mn	55	2.600 µg/L	0.00	-1.00-1.00	0-0	*Fail*
Fe	57	155200.000 µg/L	100000.00	1.00E+5-1.00E+5	8.00E+4-1.20E+5	*Fail*
Co	59	0.311 µg/L	0.00	-1.00-1.00	0-0	Pass
Ni	60	3.612 µg/L	0.00	-1.00-1.00	0-0	*Fail*
Cu	63	12.820 µg/L	0.00	-1.00-1.00	0-0	*Fail*
Cu	65	6.916 µg/L	0.00	-1.00-1.00	0-0	*Fail*
Zn	66	54.340 µg/L	0.00	-1.00-1.00	0-0	*Fail*
Zn	67	146.200 µg/L	0.00	-1.00-1.00	0-0	*Fail*
Zn	68	49.610 µg/L	0.00	-1.00-1.00	0-0	*Fail*
As	75	-0.202 µg/L	0.00	-1.00-1.00	0-0	Pass
Se	82	-3.172 µg/L	0.00	-1.00-1.00	0-0	*Fail*
Sr	87	9.640 µg/L	0.00	-1.00-1.00	0-0	*Fail*
Mo	95	2853.000 µg/L	2000.00	1999.00-2001.00	1600-2400	*Fail*
Mo	98	2945.000 µg/L	2000.00	1999.00-2001.00	1600-2400	*Fail*
Ag	107	0.925 µg/L	0.00	-1.00-1.00	0-0	Pass
Ag	109	0.939 µg/L	0.00	-1.00-1.00	0-0	Pass
Cd	111	-0.046 µg/L	0.00	-1.00-1.00	0-0	Pass
Cd	114	0.044 µg/L	0.00	-1.00-1.00	0-0	Pass
Sn	120	0.350 µg/L	0.00	-1.00-1.00	0-0	Pass
Sb	121	4.212 µg/L	0.00	-1.00-1.00	0-0	*Fail*
Sb	123	4.190 µg/L	0.00	-1.00-1.00	0-0	*Fail*

Ba 135	2.373 µg/L	0.00	-1.00-1.00	0-0	*Fail*
Au 197	0.467 µg/L	0.00	-1.00-1.00	0-0	Pass
Tl 205	-0.077 µg/L	0.00	-1.00-1.00	0-0	Pass

Interference Check A QC Report

File : D:\HPCHEM\1\DATA\Sep2402.09A\058ICSA.D\058ICSA.D#
Acquired : Sep 24 02 06:37 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: [ICSA]
Misc Info :
Vial Number: 1303
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: ICS_A_
Dilution : 1.000000

Pb 208	6.218 µg/L	0.00	-1.00-1.00	0-0	*Fail*
U 238	0.119 µg/L	0.00	-1.00-1.00	0-0	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	555445	351386	Pass
45	463166	329325	Pass
72	79864	73093	Pass
115	416981	333966	Pass
209	232408	187075	Pass

Internal Standards referenced to 002CALB.D#

26 Element Failures! Maximum Number of Allowed Failures (20) Exceeded!
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

Interference Check AB QC Report

File : D:\HPCHEM\1\DATA\Sep2402.09A\059ICSB.D\059ICSB.D#
Acquired : Sep 24 02 06:46 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: [ICSAB]
Misc Info :
Vial Number: 1304
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: ICS_AB
Dilution : 1.000000

Element		Concentration	Expected	CRDL Range Conc	%Range Conc	Flag
Be	9	0.037 µg/L	0.00	-1.00-1.00	0-0	Pass
B	11	4.618 µg/L	0.00	-1.00-1.00	0-0	*Fail*
Na	23	----- µg/L	100000.00	1.00E+5-1.00E+5	8.00E+4-1.20E+5	OverRng
Mg	24	130000.000 µg/L	100000.00	1.00E+5-1.00E+5	8.00E+4-1.20E+5	*Fail*
Mg	25	133300.000 µg/L	100000.00	1.00E+5-1.00E+5	8.00E+4-1.20E+5	*Fail*
Mg	26	135400.000 µg/L	100000.00	1.00E+5-1.00E+5	8.00E+4-1.20E+5	*Fail*
Al	27	----- µg/L	100000.00	1.00E+5-1.00E+5	8.00E+4-1.20E+5	OverRng
Si	28	126.500 µg/L	0.00	-10.00-10.00	0-0	*Fail*
K	39	----- µg/L	100000.00	1.00E+5-1.00E+5	8.00E+4-1.20E+5	OverRng
Ca	43	158000.000 µg/L	100000.00	1.00E+5-1.00E+5	8.00E+4-1.20E+5	*Fail*
Ca	44	154400.000 µg/L	100000.00	1.00E+5-1.00E+5	8.00E+4-1.20E+5	*Fail*
Ti	47	3163.000 µg/L	2000.00	1999.00-2001.00	1600-2400	*Fail*
V	51	0.518 µg/L	0.00	-1.00-1.00	0-0	Pass
Cr	52	35.260 µg/L	20.00	19.00-21.00	16-24	*Fail*
Cr	53	58.560 µg/L	20.00	19.00-21.00	16-24	*Fail*
Fe	54	159500.000 µg/L	100000.00	1.00E+5-1.00E+5	8.00E+4-1.20E+5	*Fail*
Mn	55	35.880 µg/L	20.00	19.00-21.00	16-24	*Fail*
Fe	57	161300.000 µg/L	100000.00	1.00E+5-1.00E+5	8.00E+4-1.20E+5	*Fail*
Co	59	33.250 µg/L	20.00	19.00-21.00	16-24	*Fail*
Ni	60	34.170 µg/L	20.00	19.00-21.00	16-24	*Fail*
Cu	63	49.180 µg/L	20.00	19.00-21.00	16-24	*Fail*
Cu	65	43.780 µg/L	20.00	19.00-21.00	16-24	*Fail*
Zn	66	38.200 µg/L	20.00	19.00-21.00	16-24	*Fail*
Zn	67	131.400 µg/L	20.00	19.00-21.00	16-24	*Fail*
Zn	68	33.190 µg/L	20.00	19.00-21.00	16-24	*Fail*
As	75	25.190 µg/L	20.00	19.00-21.00	16-24	*Fail*
Se	82	-2.677 µg/L	0.00	-1.00-1.00	0-0	*Fail*
Sr	87	9.517 µg/L	0.00	-1.00-1.00	0-0	*Fail*
Mo	95	2880.000 µg/L	2000.00	1999.00-2001.00	1600-2400	*Fail*
Mo	98	2977.000 µg/L	2000.00	1999.00-2001.00	1600-2400	*Fail*
Ag	107	28.290 µg/L	20.00	19.00-21.00	16-24	*Fail*
Ag	109	28.240 µg/L	20.00	19.00-21.00	16-24	*Fail*
Cd	111	31.060 µg/L	20.00	19.00-21.00	16-24	*Fail*
Cd	114	30.320 µg/L	20.00	19.00-21.00	16-24	*Fail*
Sn	120	2.540 µg/L	0.00	-1.00-1.00	0-0	*Fail*
Sb	121	4.258 µg/L	0.00	-1.00-1.00	0-0	*Fail*
Sb	123	4.434 µg/L	0.00	-1.00-1.00	0-0	*Fail*

Ba 135	2.302 µg/L	0.00	-1.00-1.00	0-0	*Fail*
Au 197	0.110 µg/L	0.00	-1.00-1.00	0-0	Pass
Tl 205	-0.247 µg/L	0.00	-1.00-1.00	0-0	Pass

Interference Check AB QC Report

File : D:\HPCHEM\1\DATA\Sep2402.09A\059ICSB.D\059ICSB.D#
Acquired : Sep 24 02 06:46 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: [ICSAB]
Misc Info :
Vial Number: 1304
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: ICS_AB
Dilution : 1.000000

Pb 208	6.654 µg/L	0.00	-1.00-1.00	0-0	*Fail*
U 238	0.087 µg/L	0.00	-1.00-1.00	0-0	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	555445	322369	Pass
45	463166	298305	Pass
72	79864	70875	Pass
115	416981	318916	Pass
209	232408	182259	Pass

Internal Standards referenced to 002CALB.D#

34 Element Failures! Maximum Number of Allowed Failures (20) Exceeded!
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

Blank QC Report

File : D:\HPCHEM\1\DATA\Sep2402.09A\060BLNK.D\060BLNK.D#
Acquired : Sep 24 02 06:56 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: BLANK
Misc Info :
Vial Number: 1
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : ----------
Sample Type: BLANK
Dilution : 1.000000

Element	Concentration	CRDL Limit	Flag
Be 9	0.023 µg/L	1.00	Pass
B 11	0.540 µg/L	1.00	Pass
Na 23	54.870 µg/L	10.00	*Fail*
Mg 24	46.980 µg/L	10.00	*Fail*
Mg 25	48.370 µg/L	10.00	*Fail*
Mg 26	48.070 µg/L	10.00	*Fail*
Al 27	54.070 µg/L	10.00	*Fail*
Si 28	17.370 µg/L	10.00	*Fail*
K 39	49.740 µg/L	10.00	*Fail*
Ca 43	51.780 µg/L	10.00	*Fail*
Ca 44	55.440 µg/L	10.00	*Fail*
Ti 47	1.762 µg/L	1.00	*Fail*
V 51	0.226 µg/L	1.00	Pass
Cr 52	-0.182 µg/L	1.00	Pass
Cr 53	0.701 µg/L	1.00	Pass
Fe 54	-82.490 µg/L	10.00	*Fail*
Mn 55	0.025 µg/L	1.00	Pass
Fe 57	62.660 µg/L	10.00	*Fail*
Co 59	-0.246 µg/L	1.00	Pass
Ni 60	-0.039 µg/L	1.00	Pass
Cu 63	0.149 µg/L	1.00	Pass
Cu 65	0.143 µg/L	1.00	Pass
Zn 66	0.389 µg/L	1.00	Pass
Zn 67	1.016 µg/L	1.00	*Fail*
Zn 68	0.533 µg/L	1.00	Pass
As 75	-0.184 µg/L	1.00	Pass
Se 82	0.160 µg/L	1.00	Pass
Sr 87	0.044 µg/L	1.00	Pass
Mo 95	4.561 µg/L	1.00	*Fail*
Mo 98	4.612 µg/L	1.00	*Fail*
Ag 107	-0.011 µg/L	1.00	Pass
Ag 109	-0.010 µg/L	1.00	Pass
Cd 111	-0.011 µg/L	1.00	Pass
Cd 114	0.024 µg/L	1.00	Pass
Sn 120	-0.085 µg/L	1.00	Pass
Sb 121	-0.115 µg/L	1.00	Pass
Sb 123	-0.056 µg/L	1.00	Pass

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2402.09A\061SMPL.D\061SMPL.D#
Acquired : Sep 24 02 07:05 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: M021283-025
Misc Info : ,
Vial Number: 2406
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 100.000000

Element		Concentration	Cal Conc	LRS Conc	Flag
Be	9	10.410 µg/L	200.000	1000	Pass
B	11	-130.200 µg/L	200.000	0	Pass
Na	23	4768.000 µg/L	10000.000	20000	Pass
Mg	24	18140.000 µg/L	10000.000	20000	Pass
Mg	25	18350.000 µg/L	10000.000	20000	Pass
Mg	26	18020.000 µg/L	10000.000	20000	Pass
Al	27	66730.000 µg/L	10000.000	20000	Pass
Si	28	23260.000 µg/L	10000.000	0	Pass
K	39	12800.000 µg/L	10000.000	20000	Pass
Ca	43	20000.000 µg/L	10000.000	20000	Pass
Ca	44	20230.000 µg/L	10000.000	20000	Pass
Ti	47	9104.000 µg/L	200.000	1000	Pass
V	51	158.400 µg/L	200.000	1000	Pass
Cr	52	147.800 µg/L	200.000	1000	Pass
Cr	53	1220.000 µg/L	200.000	1000	Pass
Fe	54	187000.000 µg/L	10000.000	20000	Pass
Mn	55	5815.000 µg/L	200.000	1000	Pass
Fe	57	187300.000 µg/L	10000.000	20000	Pass
Co	59	-6.614 µg/L	200.000	1000	Pass
Ni	60	67.120 µg/L	200.000	1000	Pass
Cu	63	59.010 µg/L	200.000	1000	Pass
Cu	65	54.370 µg/L	200.000	1000	Pass
Zn	66	996.400 µg/L	200.000	1000	Pass
Zn	67	1020.000 µg/L	200.000	1000	Pass
Zn	68	978.300 µg/L	200.000	1000	Pass
As	75	45.090 µg/L	200.000	1000	Pass
Se	82	37.990 µg/L	200.000	1000	Pass
Sr	87	485.800 µg/L	200.000	1000	Pass
Mo	95	221.200 µg/L	200.000	1000	Pass
Mo	98	222.800 µg/L	200.000	1000	Pass
Ag	107	-0.511 µg/L	200.000	1000	Pass
Ag	109	-1.245 µg/L	200.000	1000	Pass
Cd	111	5.931 µg/L	200.000	1000	Pass
Cd	114	3.078 µg/L	200.000	1000	Pass
Sn	120	34.540 µg/L	200.000	1000	Pass
Sb	121	-10.670 µg/L	200.000	1000	Pass
Sb	123	-5.506 µg/L	200.000	1000	Pass

Ba 135	507.000 µg/L	200.000	1000	Pass
Au 197	-3.888 µg/L	200.000	0	Pass
Tl 205	-31.780 µg/L	200.000	1000	Pass

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2402.09A\061SMPL.D\061SMPL.D#
Acquired : Sep 24 02 07:05 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: M021283-025
Misc Info : ,
Vial Number: 2406
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 100.000000

Pb 208	155.000 µg/L	200.000	1000	Pass
U 238	6.549 µg/L	200.000	1000	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	555445	456873	Pass
45	463166	366898	Pass
72	79864	59725	Pass
115	416981	325629	Pass
209	232408	193474	Pass

Internal Standards referenced to 002CALB.D#

0 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2402.09A\062SMPL.D\062SMPL.D#
Acquired : Sep 24 02 07:14 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: M021283-025
Misc Info : ,
Vial Number: 2407
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 10.000000

Element		Concentration	Cal Conc	LRS Conc	Flag
Be	9	11.780 µg/L	200.000	1000	Pass
B	11	-1.883 µg/L	200.000	0	Pass
Na	23	2366.000 µg/L	10000.000	20000	Pass
Mg	24	15160.000 µg/L	10000.000	20000	Pass
Mg	25	15840.000 µg/L	10000.000	20000	Pass
Mg	26	15610.000 µg/L	10000.000	20000	Pass
Al	27	60200.000 µg/L	10000.000	20000	Pass
Si	28	5020.000 µg/L	10000.000	0	Pass
K	39	10270.000 µg/L	10000.000	20000	Pass
Ca	43	15990.000 µg/L	10000.000	20000	Pass
Ca	44	15850.000 µg/L	10000.000	20000	Pass
Ti	47	8523.000 µg/L	200.000	1000	>Cal std
V	51	118.000 µg/L	200.000	1000	Pass
Cr	52	95.150 µg/L	200.000	1000	Pass
Cr	53	80.970 µg/L	200.000	1000	Pass
Fe	54	175800.000 µg/L	10000.000	20000	>Cal std
Mn	55	5715.000 µg/L	200.000	1000	>Cal std
Fe	57	179400.000 µg/L	10000.000	20000	>Cal std
Co	59	19.020 µg/L	200.000	1000	Pass
Ni	60	67.450 µg/L	200.000	1000	Pass
Cu	63	47.440 µg/L	200.000	1000	Pass
Cu	65	51.060 µg/L	200.000	1000	Pass
Zn	66	801.800 µg/L	200.000	1000	Pass
Zn	67	766.900 µg/L	200.000	1000	Pass
Zn	68	768.700 µg/L	200.000	1000	Pass
As	75	26.540 µg/L	200.000	1000	Pass
Se	82	13.460 µg/L	200.000	1000	Pass
Sr	87	465.200 µg/L	200.000	1000	Pass
Mo	95	58.020 µg/L	200.000	1000	Pass
Mo	98	57.160 µg/L	200.000	1000	Pass
Ag	107	0.807 µg/L	200.000	1000	Pass
Ag	109	0.871 µg/L	200.000	1000	Pass
Cd	111	2.820 µg/L	200.000	1000	Pass
Cd	114	1.092 µg/L	200.000	1000	Pass
Sn	120	39.780 µg/L	200.000	1000	Pass
Sb	121	-0.608 µg/L	200.000	1000	Pass
Sb	123	-0.037 µg/L	200.000	1000	Pass

Ba 135	486.900 µg/L	200.000	1000	Pass
Au 197	-0.165 µg/L	200.000	0	Pass
Tl 205	-1.872 µg/L	200.000	1000	Pass

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2402.09A\062SMPL.D\062SMPL.D#
Acquired : Sep 24 02 07:14 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: M021283-025
Misc Info : ,
Vial Number: 2407
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 10.000000

Pb 208	174.400 µg/L	200.000	1000	Pass
U 238	6.655 µg/L	200.000	1000	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	555445	421646	Pass
45	463166	372793	Pass
72	79864	58832	Pass
115	416981	316249	Pass
209	232408	198677	Pass

Internal Standards referenced to 002CALB.D#

4 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2402.09A\063SMPL.D\063SMPL.D#
Acquired : Sep 24 02 07:23 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: M021283-026
Misc Info : ,
Vial Number: 2408
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 100.000000

Element		Concentration	Cal Conc	LRS Conc	Flag
Be	9	8.066 µg/L	200.000	1000	Pass
B	11	-156.700 µg/L	200.000	0	Pass
Na	23	7431.000 µg/L	10000.000	20000	Pass
Mg	24	21320.000 µg/L	10000.000	20000	Pass
Mg	25	21770.000 µg/L	10000.000	20000	Pass
Mg	26	21160.000 µg/L	10000.000	20000	Pass
Al	27	98800.000 µg/L	10000.000	20000	Pass
Si	28	25690.000 µg/L	10000.000	0	Pass
K	39	15960.000 µg/L	10000.000	20000	Pass
Ca	43	41460.000 µg/L	10000.000	20000	Pass
Ca	44	42440.000 µg/L	10000.000	20000	Pass
Ti	47	4839.000 µg/L	200.000	1000	Pass
V	51	169.100 µg/L	200.000	1000	Pass
Cr	52	151.900 µg/L	200.000	1000	Pass
Cr	53	668.000 µg/L	200.000	1000	Pass
Fe	54	152100.000 µg/L	10000.000	20000	Pass
Mn	55	3646.000 µg/L	200.000	1000	Pass
Fe	57	148600.000 µg/L	10000.000	20000	Pass
Co	59	-1.972 µg/L	200.000	1000	Pass
Ni	60	55.290 µg/L	200.000	1000	Pass
Cu	63	105.200 µg/L	200.000	1000	Pass
Cu	65	110.300 µg/L	200.000	1000	Pass
Zn	66	969.900 µg/L	200.000	1000	Pass
Zn	67	976.500 µg/L	200.000	1000	Pass
Zn	68	940.700 µg/L	200.000	1000	Pass
As	75	43.170 µg/L	200.000	1000	Pass
Se	82	17.080 µg/L	200.000	1000	Pass
Sr	87	728.700 µg/L	200.000	1000	Pass
Mo	95	81.290 µg/L	200.000	1000	Pass
Mo	98	73.230 µg/L	200.000	1000	Pass
Ag	107	-0.625 µg/L	200.000	1000	Pass
Ag	109	-0.551 µg/L	200.000	1000	Pass
Cd	111	5.005 µg/L	200.000	1000	Pass
Cd	114	0.675 µg/L	200.000	1000	Pass
Sn	120	24.500 µg/L	200.000	1000	Pass
Sb	121	-11.090 µg/L	200.000	1000	Pass
Sb	123	-4.626 µg/L	200.000	1000	Pass

Ba 135	719.800 µg/L	200.000	1000	Pass
Au 197	-4.877 µg/L	200.000	0	Pass
Tl 205	-32.650 µg/L	200.000	1000	Pass

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2402.09A\063SMPL.D\063SMPL.D#
Acquired : Sep 24 02 07:23 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: M021283-026
Misc Info : ,
Vial Number: 2408
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 100.000000

Pb 208	101.800 µg/L	200.000	1000	Pass
U 238	9.511 µg/L	200.000	1000	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	555445	445532	Pass
45	463166	352653	Pass
72	79864	57098	Pass
115	416981	318965	Pass
209	232408	187808	Pass

Internal Standards referenced to 002CALB.D#

0 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2402.09A\064SMPL.D\064SMPL.D#
Acquired : Sep 24 02 07:32 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: M021283-026
Misc Info : ,
Vial Number: 2409
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 10.000000

Element		Concentration	Cal Conc	LRS Conc	Flag
Be	9	8.719 µg/L	200.000	1000	Pass
B	11	3.418 µg/L	200.000	0	Pass
Na	23	6127.000 µg/L	10000.000	20000	Pass
Mg	24	19300.000 µg/L	10000.000	20000	Pass
Mg	25	20440.000 µg/L	10000.000	20000	Pass
Mg	26	19770.000 µg/L	10000.000	20000	Pass
Al	27	92480.000 µg/L	10000.000	20000	Pass
Si	28	7185.000 µg/L	10000.000	0	Pass
K	39	13710.000 µg/L	10000.000	20000	Pass
Ca	43	39220.000 µg/L	10000.000	20000	Pass
Ca	44	38160.000 µg/L	10000.000	20000	Pass
Ti	47	4545.000 µg/L	200.000	1000	>Cal std
V	51	135.300 µg/L	200.000	1000	Pass
Cr	52	111.400 µg/L	200.000	1000	Pass
Cr	53	240.000 µg/L	200.000	1000	Pass
Fe	54	137800.000 µg/L	10000.000	20000	>Cal std
Mn	55	3574.000 µg/L	200.000	1000	>Cal std
Fe	57	140800.000 µg/L	10000.000	20000	>Cal std
Co	59	23.050 µg/L	200.000	1000	Pass
Ni	60	57.750 µg/L	200.000	1000	Pass
Cu	63	96.980 µg/L	200.000	1000	Pass
Cu	65	97.590 µg/L	200.000	1000	Pass
Zn	66	767.100 µg/L	200.000	1000	Pass
Zn	67	762.300 µg/L	200.000	1000	Pass
Zn	68	723.900 µg/L	200.000	1000	Pass
As	75	26.210 µg/L	200.000	1000	Pass
Se	82	9.853 µg/L	200.000	1000	Pass
Sr	87	737.300 µg/L	200.000	1000	Pass
Mo	95	20.100 µg/L	200.000	1000	Pass
Mo	98	20.220 µg/L	200.000	1000	Pass
Ag	107	1.796 µg/L	200.000	1000	Pass
Ag	109	1.621 µg/L	200.000	1000	Pass
Cd	111	2.771 µg/L	200.000	1000	Pass
Cd	114	1.094 µg/L	200.000	1000	Pass
Sn	120	32.680 µg/L	200.000	1000	Pass
Sb	121	-0.733 µg/L	200.000	1000	Pass
Sb	123	-0.123 µg/L	200.000	1000	Pass

Ba 135	705.600 µg/L	200.000	1000	Pass
Au 197	-0.389 µg/L	200.000	0	Pass
Tl 205	-2.185 µg/L	200.000	1000	Pass

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2402.09A\064SMPL.D\064SMPL.D#
Acquired : Sep 24 02 07:32 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: M021283-026
Misc Info : ,
Vial Number: 2409
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 10.000000

Pb 208	121.800 µg/L	200.000	1000	Pass
U 238	9.048 µg/L	200.000	1000	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	555445	453718	Pass
45	463166	388626	Pass
72	79864	60857	Pass
115	416981	329407	Pass
209	232408	201027	Pass

Internal Standards referenced to 002CALB.D#

4 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

Ba 135	0.035 µg/L	1.00	Pass
Au 197	0.055 µg/L	1.00	Pass
Tl 205	-0.295 µg/L	1.00	Pass

Blank QC Report

File : D:\HPCHEM\1\DATA\Sep2402.09A\060BLNK.D\060BLNK.D#
Acquired : Sep 24 02 06:56 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: BLANK
Misc Info :
Vial Number: 1
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: BLANK
Dilution : 1.000000

Pb 208	-0.230 µg/L	1.00	Pass
U 238	0.021 µg/L	1.00	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	555445	385526	Pass
45	463166	350812	Pass
72	79864	62693	Pass
115	416981	360796	Pass
209	232408	218609	Pass

Internal Standards referenced to 002CALB.D#

15 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

CCV QC Report

File : D:\HPCHEM\1\DATA\Sep2402.09A\065CCV_D\065CCV_D#
Acquired : Sep 24 02 07:41 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: [STD-CCV]
Misc Info :
Vial Number: 1105
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: CCV
Dilution : 1.000000

CCV Mix #1

Element	Concentration	Expected	QC Range	Flag
Be 9	95.920 µg/L	100.00	90.00-110.00	Pass
B 11	102.000 µg/L	100.00	90.00-110.00	Pass
Na 23	1009.000 µg/L	1000.00	900.00-1100.00	Pass
Mg 24	1083.000 µg/L	1000.00	900.00-1100.00	Pass
Mg 25	1091.000 µg/L	1000.00	900.00-1100.00	Pass
Mg 26	1062.000 µg/L	1000.00	900.00-1100.00	Pass
Al 27	1027.000 µg/L	1000.00	900.00-1100.00	Pass
Si 28	1155.000 µg/L	1000.00	900.00-1100.00	*Fail*
K 39	1044.000 µg/L	1000.00	900.00-1100.00	Pass
Ca 43	1021.000 µg/L	1000.00	900.00-1100.00	Pass
Ca 44	1015.000 µg/L	1000.00	900.00-1100.00	Pass
Ti 47	103.600 µg/L	100.00	90.00-110.00	Pass
V 51	103.200 µg/L	100.00	90.00-110.00	Pass
Cr 52	102.800 µg/L	100.00	90.00-110.00	Pass
Cr 53	101.000 µg/L	100.00	90.00-110.00	Pass
Fe 54	1110.000 µg/L	1000.00	900.00-1100.00	*Fail*
Mn 55	102.700 µg/L	100.00	90.00-110.00	Pass
Fe 57	1040.000 µg/L	1000.00	900.00-1100.00	Pass
Co 59	102.400 µg/L	100.00	90.00-110.00	Pass
Ni 60	104.200 µg/L	100.00	90.00-110.00	Pass
Cu 63	103.900 µg/L	100.00	90.00-110.00	Pass
Cu 65	105.400 µg/L	100.00	90.00-110.00	Pass
Zn 66	103.000 µg/L	100.00	90.00-110.00	Pass
Zn 67	101.700 µg/L	100.00	90.00-110.00	Pass
Zn 68	103.400 µg/L	100.00	90.00-110.00	Pass
As 75	103.800 µg/L	100.00	90.00-110.00	Pass
Se 82	104.300 µg/L	100.00	90.00-110.00	Pass
Sr 87	100.800 µg/L	100.00	90.00-110.00	Pass
Mo 95	95.450 µg/L	100.00	90.00-110.00	Pass
Mo 98	95.910 µg/L	100.00	90.00-110.00	Pass
Ag 107	98.940 µg/L	100.00	90.00-110.00	Pass
Ag 109	99.340 µg/L	100.00	90.00-110.00	Pass
Cd 111	98.610 µg/L	100.00	90.00-110.00	Pass
Cd 114	99.170 µg/L	100.00	90.00-110.00	Pass
Sn 120	100.000 µg/L	100.00	90.00-110.00	Pass

Sb 121	99.580 µg/L	100.00	90.00-110.00	Pass
Sb 123	100.500 µg/L	100.00	90.00-110.00	Pass
Ba 135	100.400 µg/L	100.00	90.00-110.00	Pass

CCV QC Report

File : D:\HPCHEM\1\DATA\Sep2402.09A\065CCV_D\065CCV_D#
Acquired : Sep 24 02 07:41 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: [STD-CCV]
Misc Info :
Vial Number: 1105
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : ---------
Sample Type: CCV
Dilution : 1.000000

Au 197	97.400 µg/L	100.00	90.00-110.00	Pass
Tl 205	96.530 µg/L	100.00	90.00-110.00	Pass
Pb 208	98.230 µg/L	100.00	90.00-110.00	Pass
U 238	97.250 µg/L	100.00	90.00-110.00	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	555445	467122	Pass
45	463166	374912	Pass
72	79864	60828	Pass
115	416981	332085	Pass
209	232408	197495	Pass

Internal Standards referenced to 002CALB.D#

2 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

Blank QC Report

File : D:\HPCHEM\1\DATA\Sep2402.09A\066CCB_D\066CCB_D#
Acquired : Sep 24 02 07:51 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: [CB]
Misc Info :
Vial Number: 1102
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: CCB
Dilution : 1.000000

Element	Concentration	CRDL Limit	Flag
Be 9	0.034 µg/L	1.00	Pass
B 11	-0.082 µg/L	1.00	Pass
Na 23	2.681 µg/L	10.00	Pass
Mg 24	2.326 µg/L	10.00	Pass
Mg 25	2.331 µg/L	10.00	Pass
Mg 26	2.286 µg/L	10.00	Pass
Al 27	5.782 µg/L	10.00	Pass
Si 28	28.270 µg/L	10.00	*Fail*
K 39	6.463 µg/L	10.00	Pass
Ca 43	3.256 µg/L	10.00	Pass
Ca 44	3.478 µg/L	10.00	Pass
Ti 47	0.242 µg/L	1.00	Pass
V 51	0.705 µg/L	1.00	Pass
Cr 52	0.754 µg/L	1.00	Pass
Cr 53	15.460 µg/L	1.00	*Fail*
Fe 54	49.880 µg/L	10.00	*Fail*
Mn 55	0.081 µg/L	1.00	Pass
Fe 57	10.920 µg/L	10.00	*Fail*
Co 59	-0.269 µg/L	1.00	Pass
Ni 60	-0.038 µg/L	1.00	Pass
Cu 63	0.037 µg/L	1.00	Pass
Cu 65	0.006 µg/L	1.00	Pass
Zn 66	0.065 µg/L	1.00	Pass
Zn 67	1.585 µg/L	1.00	*Fail*
Zn 68	0.159 µg/L	1.00	Pass
As 75	0.243 µg/L	1.00	Pass
Se 82	0.252 µg/L	1.00	Pass
Sr 87	0.038 µg/L	1.00	Pass
Mo 95	0.431 µg/L	1.00	Pass
Mo 98	0.447 µg/L	1.00	Pass
Ag 107	0.023 µg/L	1.00	Pass
Ag 109	0.018 µg/L	1.00	Pass
Cd 111	0.020 µg/L	1.00	Pass
Cd 114	0.051 µg/L	1.00	Pass
Sn 120	-0.025 µg/L	1.00	Pass
Sb 121	0.003 µg/L	1.00	Pass
Sb 123	0.070 µg/L	1.00	Pass

Ba 135	0.043 µg/L	1.00	Pass
Au 197	0.417 µg/L	1.00	Pass
Tl 205	0.165 µg/L	1.00	Pass

Blank QC Report

File : D:\HPCHEM\1\DATA\Sep2402.09A\066CCB_D\066CCB_D#
Acquired : Sep 24 02 07:51 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: [CB]
Misc Info :
Vial Number: 1102
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: CCB
Dilution : 1.000000

Pb 208	-0.245 µg/L	1.00	Pass
U 238	0.043 µg/L	1.00	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	555445	450889	Pass
45	463166	363027	Pass
72	79864	57872	Pass
115	416981	318362	Pass
209	232408	186977	Pass

Internal Standards referenced to 002CALB.D#

5 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

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MT.2002. 1133

ASSAIGAI ANALYTICAL LABORATORIES, INC.

Metals Cover Sheet

	Analyst			Reviewer		
Final Report Printout	Y	N	NA	Y	N	NA
Raw Data	Y	N	NA	Y	N	NA
Standard Summary Sheet	Y	N	NA	Y	N	NA

Batch	NCR	Parabellum		Digestion Log		TCLP Log	
	Analyst / Reviewer	Analyst	Reviewer	Analyst	Reviewer	Analyst	Reviewer
M021282	Y-N-NA / Y-N-NA NCR # M1-02-224	Y-N-NA	Y-N-NA	Y-N-NA	Y-N-NA	Y-N-NA	Y-N-NA
M021283	Y-N-NA / Y-N-NA NCR # M1-02-224	Y-N-NA	Y-N-NA	Y-N-NA	Y-N-NA	Y-N-NA	Y-N-NA
	Y-N-NA / Y-N-NA NCR #	Y-N-NA	Y-N-NA	Y-N-NA	Y-N-NA	Y-N-NA	Y-N-NA
	Y-N-NA / Y-N-NA NCR #	Y-N-NA	Y-N-NA	Y-N-NA	Y-N-NA	Y-N-NA	Y-N-NA
	Y-N-NA / Y-N-NA NCR #	Y-N-NA	Y-N-NA	Y-N-NA	Y-N-NA	Y-N-NA	Y-N-NA

Dept. Funnel/Prepared By CS
Date 10/1/02

Final Funnel/Reviewed By CS → SB 10/1/02
Date 10/1/02

Comments

QC Review

Assaigai Analytical Laboratories, Inc.
QC NON-CONFORMANCE REPORT (NCR)

MT-02-224

Preparation/Analysis	6020
Batch ID #	M021282, M021283

Out-of-Control Event Codes

1 Initial Calibration Verification (ICV)	6 Laboratory Control Sample (LCS) Precision (RPD)
2 Calibration Blank (CB)	7 Matrix Spike (MS) Accuracy (%Rec)
3 Continuing Calibration Verification (CCV)	8 Matrix Spike (MS) Precision (RPD)
4 Method Blank (MB)	9 Sample Duplicate
5 Laboratory Control Sample (LCS) Accuracy (%Rec)	10 Other

Rev:	Groups	Analyst	Date	Review	Date
	MT.2002.1133	CJ	10/1/02	JB	10/1/02
Event Codes: 1					
Workorders: 9364, 9373					

Rev:	Groups	Analyst	Date	Review	Date
Event Codes:					
Workorders:					

Rev:	Groups	Analyst	Date	Review	Date
Event Codes:					
Workorders:					

Rev:	Groups	Analyst	Date	Review	Date
Event Codes:					
Workorders:					

COPY

QC Non-Conformance Report (NCR)

NCR# MT-02-224

SW846 6020

Batch ID:	**M021282, M021283**
Group:	**MT.2002.1133**
Date:	**10/01/2002**
Work Orders:	**0209364, 0209373**

EVENT # 1:

The ICV was inadvertently spiked at 100 ppb instead of the usual 120 ppb therefore the ICV was flagged as being out of criteria.

ACTION # 1:

The ICV recovery for the 100 ppb spike is 106% which is within the ± 10% criteria. All data is valid as reported.

COPY

Prepared by Craig Jones
10/01/2002

CJ 10/1/02

gb 10/1/02

Assaigai Analytical Laboratories, Inc.

Run Group Cover Sheet

Run Group	MT.2002.1133
Reviewed:	10/1/2002 12:53:39 PM
By:	CWJ

Calc Method	6020
Import Source	HPC02
Instrument:	HP4500 - Instru

Calibration Mode	NATIVE
Calculation Mode	NORMAL
Spike Dilution Mode	NORMAL

RAW QUANT FLAGS	
a	*all result information keyed in manually*
d	*data from instrument keyed in manually*
i	*integration of peak performed manually*
q	*qdelete of peak*
r	*response factor postquant adjustment*

Assalgal Analytical Laboratories, Inc.

Laboratory Logbook

Run Group MT.2002.1133
Import Source HPC02
Instrument: HP4500 - Instru

o	Run#	Acquisition Date	Data File	Vial	e	Sample Run ID	Run DF	Comment	see data file(s)	Analyst
x	1	09-27-02 16:17:00	002CALB.D#	1		CAL BLANK	1			JWB
x	2	09-27-02 16:20:00	003CALI.D#	1		0.2/1/10 CAL	1			JWB
x	3	09-27-02 16:24:00	004CALI.D#	1		2/10/100 CAL	1			JWB
x	4	09-27-02 16:27:00	005CALI.D#	1		10/100/1000 CAL	1			JWB
x	5	09-27-02 16:31:00	006CALI.D#	1		-/200/10000 CAL	1			JWB
	6	09-27-02 16:35:00	007CCB_.D#	1		[CB]	1			JWB
	7	09-27-02 16:38:00	008ICV_.D#	1		[STD-ICV]	1			JWB
x	8	09-27-02 16:42:00	009ICSA.D#	1		[ICSA]	1			JWB
x	9	09-27-02 16:45:00	010ICSB.D#	1		[ICSAB]	1			JWB
x	10	09-27-02 16:49:00	011CCB_.D#	1		BLANK	1			JWB
	11	09-27-02 16:52:00	012SMPL.D#	1		M021282-001	1	,		JWB
	12	09-27-02 16:55:00	013SMPL.D#	1		M021282-004	1	,		JWB
	13	09-27-02 16:59:00	014SMPL.D#	1		M021282-005	1	,		JWB
	14	09-27-02 17:03:00	015SMPL.D#	1		M021282-006	10	,		JWB
	15	09-27-02 17:06:00	016SMPL.D#	1		M021282-009	10	,		JWB
	16	09-27-02 17:10:00	017SMPL.D#	1		M021282-010	10	,		JWB
	17	09-27-02 17:13:00	018SMPL.D#	1		M021282-011	10	,		JWB
	18	09-27-02 17:17:00	019SMPL.D#	1		M021282-012	10	,		JWB
	19	09-27-02 17:20:00	020CCV_.D#	1		[STD-CCV]	1			JWB
	20	09-27-02 17:24:00	021CCB_.D#	1		[CB]	1			JWB
	21	09-27-02 17:27:00	022SMPL.D#	1		M021282-013	10	,		JWB
	22	09-27-02 17:31:00	023SMPL.D#	1		M021282-014	10	,		JWB
	23	09-27-02 17:34:00	024SMPL.D#	1		M021282-015	10	,		JWB
	24	09-27-02 17:38:00	025SMPL.D#	1		M021282-016	10	,		JWB
	25	09-27-02 17:41:00	026SMPL.D#	1		M021282-017	10	,		JWB
	26	09-27-02 17:45:00	027SMPL.D#	1		M021282-018	10	,		JWB
	27	09-27-02 17:48:00	028SMPL.D#	1		M021282-019	10	,		JWB
	28	09-27-02 17:52:00	029SMPL.D#	1		M021282-020	10	,		JWB
	29	09-27-02 17:55:00	030SMPL.D#	1		M021282-021	10	,		JWB
	30	09-27-02 17:59:00	031SMPL.D#	1		M021282-022	10	,		JWB
	31	09-27-02 18:02:00	032CCV_.D#	1		[STD-CCV]	1			JWB
	32	09-27-02 18:06:00	033CCB_.D#	1		[CB]	1			JWB
x	33	09-30-02 14:33:00	002CALB.D#	1		CAL BLANK	1			CJ
x	34	09-30-02 14:37:00	003CALI.D#	1		0.2/1/10 CAL	1			CJ
x	35	09-30-02 14:40:00	004CALI.D#	1		2/10/100 CAL	1			CJ

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Laboratory Logbook

Run Group MT.2002.1133
Import Source HPC02
Instrument: HP4500 - Instru

o	Run#	Acquisition Date	Data File	Vial	e	Sample Run ID	Run DF	Comment	see data file(s)	Analyst
x	36	09-30-02 14:44:00	005CALI.D#	1		10/100/1000 CAL	1			CJ
x	37	09-30-02 14:47:00	006CALI.D#	1		-/200/10000 CAL	1			CJ
	38	09-30-02 14:51:00	007CCB_.D#	1		[CB]	1			CJ
	39	09-30-02 14:55:00	008ICV_.D#	1		[STD-ICV]	1			CJ
x	40	09-30-02 14:58:00	009ICSA.D#	1		[ICSA]	1			CJ
x	41	09-30-02 15:02:00	010ICSB.D#	1		[ICSAB]	1			CJ
x	42	09-30-02 15:06:00	011CCB_.D#	1		BLANK	1			CJ
	43	09-30-02 15:09:00	012SMPL.D#	1		M021282-022	10	,		CJ
	44	09-30-02 15:13:00	013SMPL.D#	1		M021282-023	10	,		CJ
	45	09-30-02 15:16:00	014SMPL.D#	1		M021282-024	10	,		CJ
	46	09-30-02 15:20:00	015SMPL.D#	1		M021282-025	10	,		CJ
	47	09-30-02 15:24:00	016SMPL.D#	1		M021282-026	10	,		CJ
	48	09-30-02 15:27:00	017SMPL.D#	1		[STD-CCV]	1	,		CJ
	49	09-30-02 15:31:00	018SMPL.D#	1		[CB]	1	,		CJ
x	50	10-01-02 9:14:00	002CALB.D#	1		CAL BLANK	1			CJ
x	51	10-01-02 9:18:00	003CALI.D#	1		0.2/1/10 CAL	1			CJ
x	52	10-01-02 9:21:00	004CALI.D#	1		2/10/100 CAL	1			CJ
x	53	10-01-02 9:25:00	005CALI.D#	1		10/100/1000 CAL	1			CJ
x	54	10-01-02 9:29:00	006CALI.D#	1		-/200/10000 CAL	1			CJ
	55	10-01-02 9:32:00	007CCB_.D#	1		[CB]	1			CJ
	56	10-01-02 9:36:00	008ICV_.D#	1		[STD-ICV]	1			CJ
x	57	10-01-02 9:39:00	009ICSA.D#	1		[ICSA]	1			CJ
x	58	10-01-02 9:43:00	010ICSB.D#	1		[ICSAB]	1			CJ
x	59	10-01-02 9:47:00	011CCB_.D#	1		BLANK	1			CJ
	60	10-01-02 9:50:00	012SMPL.D#	1		M021283-001	1	,		CJ
	61	10-01-02 9:54:00	013SMPL.D#	1		M021283-004	1	,		CJ
	62	10-01-02 9:57:00	014SMPL.D#	1		M021283-005	1	,		CJ
	63	10-01-02 10:01:00	015SMPL.D#	1		M021283-006	10	,		CJ
	64	10-01-02 10:05:00	016SMPL.D#	1		M021283-009	10	,		CJ
	65	10-01-02 10:08:00	017SMPL.D#	1		[STD-CCV]	1	,		CJ
	66	10-01-02 10:12:00	018SMPL.D#	1		[CB]	1	,		CJ
	67	10-01-02 10:16:00	019SMPL.D#	1		M021283-010	10	,		CJ
	68	10-01-02 10:21:00	001SMPL.D#	1		M021283-011	10	,		CJ
	69	10-01-02 10:24:00	002SMPL.D#	1		M021283-012	10	,		CJ
	70	10-01-02 10:28:00	003SMPL.D#	1		M021283-013	10	,		CJ

Laboratory Logbook

Run Group MT.2002.1133
Import Source HPC02
Instrument: HP4500 - Instru

o	Run#	Acquisition Date	Data File	Vial	e	Sample Run ID	Run DF	Comment	see data file(s)	Analyst
	71	10-01-02 10:32:00	004SMPL.D#	1		M021283-014	10	,		CJ
	72	10-01-02 10:35:00	005SMPL.D#	1		[STD-CCV]	1	,		CJ
	73	10-01-02 10:39:00	006SMPL.D#	1		[CB]	1	,		CJ
	74	10-01-02 10:42:00	007SMPL.D#	1		M021283-015	10	,		CJ
	75	10-01-02 10:46:00	008SMPL.D#	1		M021283-016	10	,		CJ
	76	10-01-02 10:50:00	009SMPL.D#	1		M021283-017	10	,		CJ
	77	10-01-02 10:53:00	010SMPL.D#	1		M021283-018	10	,		CJ
	78	10-01-02 10:57:00	011SMPL.D#	1		M021283-019	10	,		CJ
	79	10-01-02 11:01:00	012SMPL.D#	1		[STD-CCV]	1	,		CJ
	80	10-01-02 11:04:00	013SMPL.D#	1		[CB]	1	,		CJ
	81	10-01-02 11:08:00	014SMPL.D#	1		M021283-020	10	,		CJ
	82	10-01-02 11:11:00	015SMPL.D#	1		M021283-021	10	,		CJ
	83	10-01-02 11:15:00	016SMPL.D#	1		M021283-022	10	,		CJ
	84	10-01-02 11:19:00	017SMPL.D#	1		M021283-023	10	,		CJ
	85	10-01-02 11:22:00	018SMPL.D#	1		M021283-024	10	,		CJ
	86	10-01-02 11:26:00	019SMPL.D#	1		M021283-025	10	,		CJ
	87	10-01-02 11:30:00	020SMPL.D#	1		M021283-026	10	,		CJ
	88	10-01-02 11:33:00	021CCV_.D#	1		[STD-CCV]	1			CJ
	89	10-01-02 11:37:00	022CCB_.D#	1		[CB]	1			CJ

Department: METALS
Prep Method: MS3050
Matrix: SOLID
Batch ID: M021283

Assaigai Laboratories
Sample Preparation Log
Report Revision 011023

Prep Method: ICP/MS 6020 Solid Digestion

Sample Count: 17
Batch Start Timestamp: 09/23/02 8:44:45

Prep ID:	Sample ID:	Aliquot:	Units:	Initial By:	Total Volume:	Units:	Final By:	Prep DF:	Surrogate ID:	Spike ID:	Spike By:	Prep Timestamp:	Comments:
M021283-001	[MB]	1.00	G	JRE	50	ML	JRE	1			JRE	09/23/02 8:08:51	90C @ 8:08AM
M021283-002	[LCS]	1.00	G	JRE	50	ML	JRE	1			JRE	09/23/02 8:08:51	LCS, LCSD, MS, MSD SPIKED W/
M021283-003	[LCSD]	1.00	G	JRE	50	ML	JRE	1			JRE	09/23/02 8:08:51	MT-0691-02 Ag @ 2.5ML/50ML
M021283-004	Li [LCS]	1.00	G	JRE	50	ML	JRE	1			JRE	09/23/02 8:08:51	MT-0692-02 TRACE @ 2.5ML/50ML
M021283-005	Li [LCSD]	1.00	G	JRE	50	ML	JRE	1			JRE	09/23/02 8:08:51	MT-0693-02 CATION @ 1.0ML/50ML
M021283-006	0209373-01A[M]	1.05	G	JRE	50	ML	JRE	0.9524			JRE	09/23/02 8:08:51	MT-0717-02 Li @ 0.5ML/50ML
M021283-007	0209373-01A[MS]	1.031	G	JRE	50	ML	JRE	0.9699			JRE	09/23/02 8:08:51	
M021283-008	0209373-01A[MSD]	1.045	G	JRE	50	ML	JRE	0.9569			JRE	09/23/02 8:08:51	
M021283-009	0209373-01A[MS]	1.029	G	JRE	50	ML	JRE	0.9718			JRE	09/23/02 8:08:51	
M021283-010	0209373-01A[MSD]	1.058	G	JRE	50	ML	JRE	0.9452			JRE	09/23/02 8:08:51	
M021283-011	0209373-02A	1.074	G	JRE	50	ML	JRE	0.9311			JRE	09/23/02 8:08:51	
M021283-012	0209373-03A	1.025	G	JRE	50	ML	JRE	0.9756			JRE	09/23/02 8:08:51	
M021283-013	0209373-04A	1.012	G	JRE	50	ML	JRE	0.9881			JRE	09/23/02 8:08:51	
M021283-014	0209373-05A	1.044	G	JRE	50	ML	JRE	0.9579			JRE	09/23/02 8:08:51	
M021283-015	0209373-06A	1.011	G	JRE	50	ML	JRE	0.9891			JRE	09/23/02 8:08:51	
M021283-016	0209373-07A	1.009	G	JRE	50	ML	JRE	0.9911			JRE	09/23/02 8:08:51	
M021283-017	0209373-08A	1.019	G	JRE	50	ML	JRE	0.9814			JRE	09/23/02 8:08:51	
M021283-018	0209373-09A	1.074	G	JRE	50	ML	JRE	0.9311			JRE	09/23/02 8:08:51	
M021283-019	0209373-10A	1.033	G	JRE	50	ML	JRE	0.9681			JRE	09/23/02 8:08:51	
M021283-020	0209373-11A	1.003	G	JRE	50	ML	JRE	0.997			JRE	09/23/02 8:08:51	
M021283-021	0209373-12A	1.012	G	JRE	50	ML	JRE	0.9881			JRE	09/23/02 8:08:51	
M021283-022	0209373-13A	1.039	G	JRE	50	ML	JRE	0.9625			JRE	09/23/02 8:08:51	
M021283-023	0209373-14A	1.014	G	JRE	50	ML	JRE	0.9862			JRE	09/23/02 8:08:51	
M021283-024	0209373-15A	1.084	G	JRE	50	ML	JRE	0.9225			JRE	09/23/02 8:08:51	
M021283-025	0209373-16A	1.041	G	JRE	50	ML	JRE	0.9606			JRE	09/23/02 8:08:51	
M021283-026	0209373-17A	1.00	G	JRE	50	ML	JRE	1			JRE	09/23/02 8:08:51	HNO3-X20045; HCL-42117; H2O2-41215135

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Assaigai Analytical Laboratories, Inc.

Analytical Result Summary

Run Group	MT.2002.1133	Import ID	007CCB_.D#
Analyst	JWB	Quant Meth	
Calc Method	6020	Calibration	09-27-02 16:33:00
Analyte	Li-7	Quant	09-27-02 16:36:00

r	#	e	Run ID	Prep ID	Matrix	Signal m	Raw Quant	As	Run DF	Prep DF	MRL	Report	As	Prepared	Analyzed	Qual	f
x	6		[CB]		LAB	3	-2.28	ppb	1	1	0.001	< 0.001	mg / L		09-27-02 16:35:00		
x	7		[STD-ICV]		LAB	384	106.8	ppb	1	1	160	106% ~~89~~	% Recovery		09-27-02 16:38:00		x
x	11		M021282-001	[MB]	SOLID	1	-2.91	ppb	1	1	0.05	< 0.050	mg / Kg	09-23-02 8:08:00	09-27-02 16:52:00		
x	12		M021282-004	Li [LCS]	SOLID	346	95.82	ppb	1	1	1	96	% Recovery	09-23-02 8:08:00	09-27-02 16:55:00		
x	13		M021282-005	Li [LCSD]	SOLID	361	100.1	ppb	1	1	1	4	RPD	09-23-02 8:08:00	09-27-02 16:59:00		
x	13		M021282-005	Li [LCSD]	SOLID	361	100.1	ppb	1	1	1	100	% Recovery	09-23-02 8:08:00	09-27-02 16:59:00		
x	14		M021282-006	0209364-01A[M]	SOLID	54	12.33	ppb	10	0.994	0.05	6.13	mg / Kg	09-23-02 8:08:00	09-27-02 17:03:00		
x	15		M021282-009	0209364-01A[MS]	SOLID	140	36.94	ppb	10	0.9643	1	242	% Recovery	09-23-02 8:08:00	09-27-02 17:06:00		x
x	16		M021282-010	0209364-01A[MSD]	SOLID	79	19.39	ppb	10	0.9443	1	116	RPD	09-23-02 8:08:00	09-27-02 17:10:00		x
x	16		M021282-010	0209364-01A[MSD]	SOLID	79	19.39	ppb	10	0.9443	1	64	% Recovery	09-23-02 8:08:00	09-27-02 17:10:00		x
x	17		M021282-011	0209364-02A	SOLID	28	4.74	ppb	10	0.9911	0.05	2.35	mg / Kg	09-23-02 8:08:00	09-27-02 17:13:00		
x	18		M021282-012	0209364-03A	SOLID	25	3.89	ppb	10	0.9833	0.05	1.91	mg / Kg	09-23-02 8:08:00	09-27-02 17:17:00		
x	19		[STD-CCV]		LAB	344	95.29	ppb	1	1	1	95	% Recovery		09-27-02 17:20:00		
x	20		[CB]		LAB	2	-2.77	ppb	1	1	0.001	< 0.001	mg / L		09-27-02 17:24:00		
x	21		M021282-013	0209364-04A	SOLID	31	5.64	ppb	10	0.939	0.05	2.65	mg / Kg	09-23-02 8:08:00	09-27-02 17:27:00		
x	22		M021282-014	0209364-05A	SOLID	69	16.59	ppb	10	0.9588	0.05	7.95	mg / Kg	09-23-02 8:08:00	09-27-02 17:31:00		
x	23		M021282-015	0209364-06A	SOLID	52	11.71	ppb	10	0.9737	0.05	5.70	mg / Kg	09-23-02 8:08:00	09-27-02 17:34:00		
x	24		M021282-016	0209364-07A	SOLID	61	14.21	ppb	10	0.999	0.05	7.10	mg / Kg	09-23-02 8:08:00	09-27-02 17:38:00		
x	25		M021282-017	0209364-08A	SOLID	93	23.38	ppb	10	0.9425	0.05	11.0	mg / Kg	09-23-02 8:08:00	09-27-02 17:41:00		
x	26		M021282-018	0209364-09A	SOLID	54	12.16	ppb	10	0.9372	0.05	5.70	mg / Kg	09-23-02 8:08:00	09-27-02 17:45:00		
x	27		M021282-019	0209364-10A	SOLID	74	18	ppb	10	0.9506	0.05	8.56	mg / Kg	09-23-02 8:08:00	09-27-02 17:48:00		
x	28		M021282-020	0209364-11A	SOLID	32	5.91	ppb	10	0.9699	0.05	2.87	mg / Kg	09-23-02 8:08:00	09-27-02 17:52:00		
x	29		M021282-021	0209364-12A	SOLID	36	7.06	ppb	10	0.989	0.05	3.42	mg / Kg	09-23-02 8:08:00	09-27-02 17:55:00		
	30		M021282-022	0209364-13A	SOLID	52	11.72	ppb	10	0.9217	0.05	5.40	mg / Kg	09-23-02 8:08:00	09-27-02 17:59:00		
x	31		[STD-CCV]		LAB	362	100.5	ppb	1	1	1	100	% Recovery		09-27-02 18:02:00		
x	32		[CB]		LAB	1	-2.84	ppb	1	1	0.001	< 0.001	mg / L		09-27-02 18:06:00		
x	38		[CB]		LAB	3	-2.5	ppb	1	1	0.001	< 0.001	mg / L		09-30-02 14:51:00		
x	39		[STD-ICV]		LAB	397	110.6	ppb	1	1	1	92	% Recovery		09-30-02 14:55:00		
x	43		M021282-022	0209364-13A	SOLID	70	16.61	ppb	10	0.9217	0.05	7.65	mg / Kg	09-23-02 8:08:00	09-30-02 15:09:00		
x	44		M021282-023	0209364-14A	SOLID	94	23.69	ppb	10	0.9479	0.05	11.2	mg / Kg	09-23-02 8:08:00	09-30-02 15:13:00		
x	45		M021282-024	0209364-15A	SOLID	54	12.01	ppb	10	0.947	0.05	5.69	mg / Kg	09-23-02 8:08:00	09-30-02 15:16:00		
x	46		M021282-025	0209364-16A	SOLID	43	8.86	ppb	10	0.9747	0.05	4.32	mg / Kg	09-23-02 8:08:00	09-30-02 15:20:00		
x	47		M021282-026	0209364-17A	SOLID	55	12.44	ppb	10	0.9355	0.05	5.82	mg / Kg	09-23-02 8:08:00	09-30-02 15:24:00		
x	48		[STD-CCV]		LAB	323	89.52	ppb	1	1	1	90	% Recovery		09-30-02 15:27:00		
x	49		[CB]		LAB	3	-2.54	ppb	1	1	0.001	< 0.001	mg / L		09-30-02 15:31:00		
x	55		[CB]		LAB	0	-0.71	ppb	1	1	0.001	< 0.001	mg / L		10-01-02 9:32:00		
x	56		[STD-ICV]		LAB	98	115.9	ppb	1	1	1	96	% Recovery		10-01-02 9:36:00		
x	60		M021283-001	[MB]	SOLID	0	-0.96	ppb	1	1	0.05	< 0.050	mg / Kg	09-23-02 8:08:51	10-01-02 9:50:00		
x	61		M021283-004	Li [LCS]	SOLID	78	92.56	ppb	1	1	1	92	% Recovery	09-23-02 8:08:51	10-01-02 9:54:00		
x	62		M021283-005	Li [LCSD]	SOLID	75	88.88	ppb	1	1	1	4	RPD	09-23-02 8:08:51	10-01-02 9:57:00		
x	62		M021283-005	Li [LCSD]	SOLID	75	88.88	ppb	1	1	1	89	% Recovery	09-23-02 8:08:51	10-01-02 9:57:00		
x	63		M021283-006	0209373-01A[M]	SOLID	10	10.32	ppb	10	0.9524	0.05	4.91	mg / Kg	09-23-02 8:08:51	10-01-02 10:01:00		
x	64		M021283-009	0209373-01A[MS]	SOLID	12	12.99	ppb	10	0.9718	1	29	% Recovery	09-23-02 8:08:51	10-01-02 10:05:00		x
x	65		[STD-CCV]		LAB	78	92.35	ppb	1	1	1	92	% Recovery		10-01-02 10:08:00		

M021282
M021283 MS/MSD/RPD are out of criteria due to the non homogeneous sample matrix.

Assaigai Analytical Laboratories, Inc.

Analytical Result Summary

Run Group	MT.2002.1133
Analyst	CJ
Calc Method	6020
Analyte	Li-7

Import ID	018SMPL.D#
Quant Meth	
Calibration	10-01-02 9:30:00
Quant	10-01-02 10:14:00

r	#	e	Run ID	Prep ID	Matrix	Signal m	Raw Quant	As	Run DF	Prep DF	MRL	Report	As	Prepared	Analyzed	Qual	f
x	66		[CB]		LAB	0	-0.94	ppb	1	1	0.001	< 0.001	mg / L		10-01-02 10:12:00		
x	67		M021283-010	0209373-01A[MSD]	SOLID	20	22.48	ppb	10	0.9452	1	123	RPD	09-23-02 8:08:51	10-01-02 10:16:00		x
x	67		M021283-010	0209373-01A[MSD]	SOLID	20	22.48	ppb	10	0.9452	1	121	% Recovery	09-23-02 8:08:51	10-01-02 10:16:00		x
x	68		M021283-011	0209373-02A	SOLID	10	11.03	ppb	10	0.9311	0.05	5.14	mg / Kg	09-23-02 8:08:51	10-01-02 10:21:00		
x	69		M021283-012	0209373-03A	SOLID	20	23.31	ppb	10	0.9756	0.05	11.4	mg / Kg	09-23-02 8:08:51	10-01-02 10:24:00		
x	70		M021283-013	0209373-04A	SOLID	23	26.19	ppb	10	0.9881	0.05	12.9	mg / Kg	09-23-02 8:08:51	10-01-02 10:28:00		
x	71		M021283-014	0209373-05A	SOLID	29	33.92	ppb	10	0.9579	0.05	16.2	mg / Kg	09-23-02 8:08:51	10-01-02 10:32:00		
x	72		[STD-CCV]		LAB	77	90.49	ppb	1	1	1	90	% Recovery		10-01-02 10:35:00		
x	73		[CB]		LAB	0	-0.99	ppb	1	1	0.001	< 0.001	mg / L		10-01-02 10:39:00		
x	74		M021283-015	0209373-06A	SOLID	24	27.62	ppb	10	0.9891	0.05	13.6	mg / Kg	09-23-02 8:08:51	10-01-02 10:42:00		
x	75		M021283-016	0209373-07A	SOLID	22	24.81	ppb	10	0.9911	0.05	12.3	mg / Kg	09-23-02 8:08:51	10-01-02 10:46:00		
x	76		M021283-017	0209373-08A	SOLID	6	6.51	ppb	10	0.9814	0.05	3.19	mg / Kg	09-23-02 8:08:51	10-01-02 10:50:00		
x	77		M021283-018	0209373-09A	SOLID	6	5.78	ppb	10	0.9311	0.05	2.69	mg / Kg	09-23-02 8:08:51	10-01-02 10:53:00		
x	78		M021283-019	0209373-10A	SOLID	28	31.85	ppb	10	0.9681	0.05	15.4	mg / Kg	09-23-02 8:08:51	10-01-02 10:57:00		
x	79		[STD-CCV]		LAB	79	93.1	ppb	1	1	1	93	% Recovery		10-01-02 11:01:00		
x	80		[CB]		LAB	0	-1.01	ppb	1	1	0.001	< 0.001	mg / L		10-01-02 11:04:00		
x	81		M021283-020	0209373-11A	SOLID	19	21.26	ppb	10	0.997	0.05	10.6	mg / Kg	09-23-02 8:08:51	10-01-02 11:08:00		
x	82		M021283-021	0209373-12A	SOLID	14	15.26	ppb	10	0.9881	0.05	7.54	mg / Kg	09-23-02 8:08:51	10-01-02 11:11:00		
x	83		M021283-022	0209373-13A	SOLID	28	32.89	ppb	10	0.9625	0.05	15.8	mg / Kg	09-23-02 8:08:51	10-01-02 11:15:00		
x	84		M021283-023	0209373-14A	SOLID	9	9.71	ppb	10	0.9862	0.05	4.79	mg / Kg	09-23-02 8:08:51	10-01-02 11:19:00		
x	85		M021283-024	0209373-15A	SOLID	21	23.53	ppb	10	0.9225	0.05	10.8	mg / Kg	09-23-02 8:08:51	10-01-02 11:22:00		
x	86		M021283-025	0209373-16A	SOLID	25	28.24	ppb	10	0.9606	0.05	13.6	mg / Kg	09-23-02 8:08:51	10-01-02 11:26:00		
x	87		M021283-026	0209373-17A	SOLID	13	14.85	ppb	10	1	0.05	7.42	mg / Kg	09-23-02 8:08:51	10-01-02 11:30:00		
x	88		[STD-CCV]		LAB	78	92.37	ppb	1	1	1	92	% Recovery		10-01-02 11:33:00		
x	89		[CB]		LAB	0	-1.05	ppb	1	1	0.001	< 0.001	mg / L		10-01-02 11:37:00		

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File : D:\HPCHEM\1\DATA\Sep2702.16A\001TUNE.D
Acquired : Sep 27 02 04:09 pm using AcqMethod QCTUNE.M
Operator : JWB
Sample Name: 6020/200.8 TUNE MIX
Misc Info :
Vial Number: 1101
CurrentMeth: D:\HPCHEM\1\METHODS\QCTUNE.M
BkgFile : --------
Sample Type: TUNE
Dilution : 1.000000

Minimum Response Criteria (cps/ppb)

Element	RSD(%)	Actual	Required	Flag
59	2.15	222789	> 200	
7	3.25	586805	> 20	
115	1.27	182543	> 100	
205	2.25	82974	> 10	
102		0(cps)	< 25(cps)	

Ion Ratio Criteria

	Actual	Required	Flag
59/59	1.00	1.00 - 1.00	
7/59	2.63	0.10 - 5.00	
115/59	0.82	0.10 - 10.00	
205/59	0.37	0.10 - 5.00	

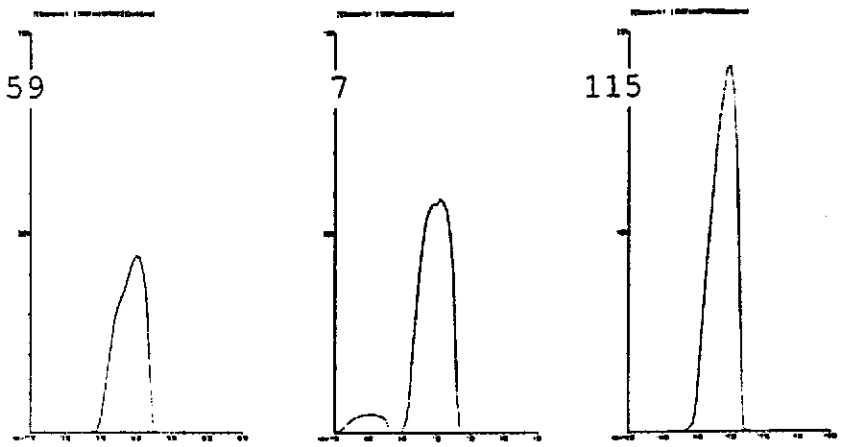

Mass Calib:	59.00	Mass Calib:	7.05	Mass Calib:	115.00
W-50%:	0.55	W-50%:	0.60	W-50%:	0.50
W-10%:	0.70	W-10%:	0.80	W-10%:	0.65

205 102

US EPA Method 200.8 Tune Verification

Acquired : Sep 27 02 04:09 pm using AcqMethod QCTUNE.M
Data File Name: D:\HPCHEM\1\DATA\Sep2702.16A\001TUNE.D

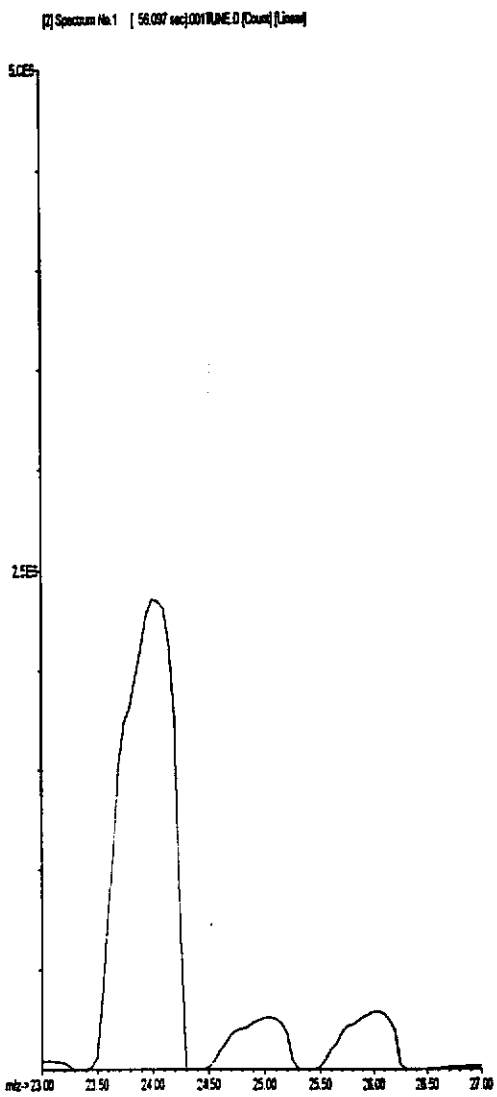

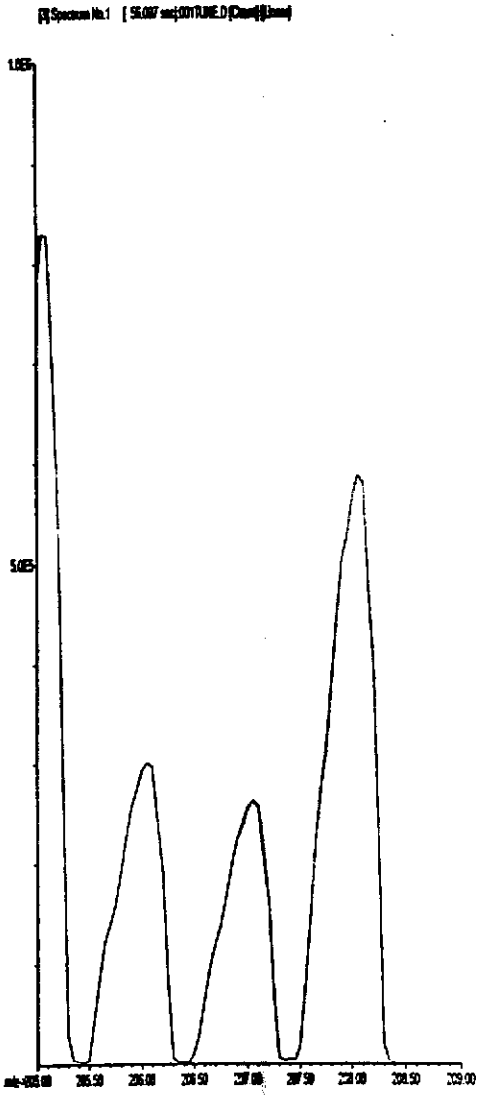

Element and Mass	Mass Assignment		PeakElement at 5and Mass Heig	Mass Assignment		Peak Width at 5% Peak Height
Mg 24	24.00	0.70	Pb 206	206.05	0.70	
Mg 25	25.05	0.70	Pb 207	207.05	0.70	
Mg 26	26.05	0.70	Pb 208	208.05	0.70	

* Does not meet EPA Method 200.8 specification.

Spectrum No.1 [56.097 sec]:001TUNE.D
Acquired : Sep 27 02 04:09 pm using AcqMethod QCTUNE.M
Bkg file : --------
Interference Correction: OFF

Mass[amu]	Element	Count	n	SD	RSD[%]
5		5808.19 P	5	153.10	2.64
6		5223308.00 A	5	201300.00	3.85
7	Li	64488410.00 A	5	1978000.00	3.07
8		8.80 P	5	1.79	20.33
23		506839.30 P	5	11140.00	2.20
24		25278860.00 A	5	406000.00	1.61
25		2747068.00 P	5	69650.00	2.54
26		2971898.00 P	5	71500.00	2.41
27		162109.80 P	5	3501.00	2.16
58		197949.70 P	5	7322.00	3.70
59	Co	21975840.00 A	5	525500.00	2.39
60		420.42 P	5	22.77	5.42
101		38.80 P	5	5.02	12.94
103		1031366.00 P	5	13760.00	1.33
114		215424.50 P	5	14410.00	6.69
115	In	16154520.00 A	5	361400.00	2.24
116		159.20 P	5	24.62	15.47
204		223132.80 P	5	2054.00	0.92
205	Tl	8074093.00 A	5	120600.00	1.49
206		2927315.00 P	5	36970.00	1.26
207		2522681.00 P	5	31500.00	1.25
208		5743047.00 A	5	77610.00	1.35
209		97.80 P	5	5.81	5.94

Calibration Blank QC Report

File : D:\HPCHEM\1\DATA\Sep2702.16A\002CALB.D\002CALB.D#
Acquired : Sep 27 02 04:17 pm using AcqMethod LI-RH.M
Operator : JWB
Sample Name: CAL BLANK
Misc Info :
Vial Number: 1102
CurrentMeth: D:\HPCHEM\1\METHODS\LI-RH.M
BkgFile : ---------
Sample Type: CALBLK
Dilution : 1.000000

Mass	Element	Count	n	SD	RSD[%]
7	Li	61996.58 P	3	8499.00	13.71
103	Rh	271923.80 P	3	1707.00	0.63

Calibration QC Report

File : D:\HPCHEM\1\DATA\Sep2702.16A\003CALI.D\003CALI.D#
Acquired : Sep 27 02 04:20 pm using AcqMethod LI-RH.M
Operator : JWB
Sample Name: 0.2/1/10 CAL
Misc Info :
Vial Number: 1103
CurrentMeth: D:\HPCHEM\1\METHODS\LI-RH.M
BkgFile : --------
Sample Type: CALIB
Dilution : 1.000000

Mass	Element	Count	n	SD	RSD[%]
7	Li	55442.50 P	3	5896.00	10.63
103	Rh	265519.50 P	3	2362.00	0.89

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
103	906413	885065	Pass

Internal Standards referenced to 002CALB.D#

0 ISTD Failures. Maximum Number of ISTD Failures Allowed (5)

Calibration QC Report

File : D:\HPCHEM\1\DATA\Sep2702.16A\004CALI.D\004CALI.D#
Acquired : Sep 27 02 04:24 pm using AcqMethod LI-RH.M
Operator : JWB
Sample Name: 2/10/100 CAL
Misc Info :
Vial Number: 1104
CurrentMeth: D:\HPCHEM\1\METHODS\LI-RH.M
BkgFile : --------
Sample Type: CALIB
Dilution : 1.000000

Mass	Element	Count	n	SD	RSD[%]
7	Li	182131.10 P	3	4022.00	2.21
103	Rh	262802.30 P	3	3765.00	1.43

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
103	906413	876007	Pass

Internal Standards referenced to 002CALB.D#

0 ISTD Failures. Maximum Number of ISTD Failures Allowed (5)

Calibration QC Report

File : D:\HPCHEM\1\DATA\Sep2702.16A\005CALI.D\005CALI.D#
Acquired : Sep 27 02 04:27 pm using AcqMethod LI-RH.M
Operator : JWB
Sample Name: 10/100/1000 CAL
Misc Info :
Vial Number: 1105
CurrentMeth: D:\HPCHEM\1\METHODS\LI-RH.M
BkgFile : --------
Sample Type: CALIB
Dilution : 1.000000

Mass	Element	Count	n	SD	RSD[%]
7	Li	1765402.00 A	3	61490.00	3.48
103	Rh	265771.30 P	3	766.30	0.29

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
103	906413	885904	Pass

Internal Standards referenced to 002CALB.D#

0 ISTD Failures. Maximum Number of ISTD Failures Allowed (5)

Calibration QC Report

File : D:\HPCHEM\1\DATA\Sep2702.16A\006CALI.D\006CALI.D#
Acquired : Sep 27 02 04:31 pm using AcqMethod LI-RH.M
Operator : JWB
Sample Name: -/200/10000 CAL
Misc Info :
Vial Number: 1106
CurrentMeth: D:\HPCHEM\1\METHODS\LI-RH.M
BkgFile : --------
Sample Type: CALIB
Dilution : 1.000000

Mass	Element	Count	n	SD	RSD[%]
7	Li	3951109.00 A	3	46490.00	1.18
103	Rh	272878.80 P	3	1486.00	0.54

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
103	906413	909596	Pass

Internal Standards referenced to 002CALB.D#

0 ISTD Failures. Maximum Number of ISTD Failures Allowed (5)

Blank QC Report

File : D:\HPCHEM\1\DATA\Sep2702.16A\007CCB_D\007CCB_D#
Acquired : Sep 27 02 04:35 pm using AcqMethod LI-RH.M
Operator : JWB
Sample Name: [CB]
Misc Info :
Vial Number: 1102
CurrentMeth: D:\HPCHEM\1\METHODS\LI-RH.M
BkgFile : --------
Sample Type: CCB
Dilution : 1.000000

Element	Concentration	CRDL Limit	Flag
Li 7	-2.283 µg/L	1.00	*Fail*

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
103	906413	883630	Pass

Internal Standards referenced to 002CALB.D#

1 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (5)

ICV QC Report

File : D:\HPCHEM\1\DATA\Sep2702.16A\008ICV_D\008ICV_D#
Acquired : Sep 27 02 04:38 pm using AcqMethod LI-RH.M
Operator : JWB
Sample Name: [STD-ICV]
Misc Info :
Vial Number: 1107
CurrentMeth: D:\HPCHEM\1\METHODS\LI-RH.M
BkgFile : ---------
Sample Type: ICV
Dilution : 1.000000

ICV Mix #1

Element	Concentration	Expected	QC Range	Flag
Li 7	106.800 µg/L	120.00	108.00-132.00	*Fail*

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
103	906413	897208	Pass

Internal Standards referenced to 002CALB.D#

1 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (5)

Interference Check A QC Report

File : D:\HPCHEM\1\DATA\Sep2702.16A\009ICSA.D\009ICSA.D#
Acquired : Sep 27 02 04:42 pm using AcqMethod LI-RH.M
Operator : JWB
Sample Name: [ICSA]
Misc Info :
Vial Number: 1303
CurrentMeth: D:\HPCHEM\1\METHODS\LI-RH.M
BkgFile : --------
Sample Type: ICS_A_
Dilution : 1.000000

Element	Concentration	Expected	CRDL Range Conc	%Range Conc	Flag
Li 7	-2.951 µg/L	0.00	-1.00-1.00	0-0	*Fail*

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
103	906413	759446	Pass

Internal Standards referenced to 002CALB.D#

1 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (5)

Interference Check AB QC Report

File : D:\HPCHEM\1\DATA\Sep2702.16A\010ICSB.D\010ICSB.D#
Acquired : Sep 27 02 04:45 pm using AcqMethod LI-RH.M
Operator : JWB
Sample Name: [ICSAB]
Misc Info :
Vial Number: 1304
CurrentMeth: D:\HPCHEM\1\METHODS\LI-RH.M
BkgFile : --------
Sample Type: ICS_AB
Dilution : 1.000000

Element	Concentration	Expected	CRDL Range Conc	%Range Conc	Flag
Li 7	-3.222 µg/L	0.00	-1.00-1.00	0-0	*Fail*

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
103	906413	1255473	Pass

Internal Standards referenced to 002CALB.D#

1 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (5)

Blank QC Report

File : D:\HPCHEM\1\DATA\Sep2702.16A\011CCB_D\011CCB_D#
Acquired : Sep 27 02 04:49 pm using AcqMethod LI-RH.M
Operator : JWB
Sample Name: BLANK
Misc Info :
Vial Number: 1
CurrentMeth: D:\HPCHEM\1\METHODS\LI-RH.M
BkgFile : --------
Sample Type: CCB
Dilution : 1.000000

Element	Concentration	CRDL Limit	Flag
Li 7	-3.065 µg/L	1.00	*Fail*

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
103	906413	1059547	Pass

Internal Standards referenced to 002CALB.D#

1 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (5)

CCV QC Report

File : D:\HPCHEM\1\DATA\Sep2702.16A\020CCV_D\020CCV_D#
Acquired : Sep 27 02 05:20 pm using AcqMethod LI-RH.M
Operator : JWB
Sample Name: [STD-CCV]
Misc Info :
Vial Number: 1105
CurrentMeth: D:\HPCHEM\1\METHODS\LI-RH.M
BkgFile : --------
Sample Type: CCV
Dilution : 1.000000

CCV Mix #1

Element	Concentration	Expected	QC Range	Flag
Li 7	95.290 µg/L	100.00	90.00-110.00	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
103	906413	915677	Pass

Internal Standards referenced to 002CALB.D#

0 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (5)

Blank QC Report

File : D:\HPCHEM\1\DATA\Sep2702.16A\021CCB_D\021CCB_D#
Acquired : Sep 27 02 05:24 pm using AcqMethod LI-RH.M
Operator : JWB
Sample Name: [CB]
Misc Info :
Vial Number: 1102
CurrentMeth: D:\HPCHEM\1\METHODS\LI-RH.M
BkgFile : --------
Sample Type: CCB
Dilution : 1.000000

Element	Concentration	CRDL Limit	Flag
Li 7	-2.773 µg/L	1.00	*Fail*

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
103	906413	910577	Pass

Internal Standards referenced to 002CALB.D#

1 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (5)

CCV QC Report

File : D:\HPCHEM\1\DATA\Sep2702.16A\032CCV_D\032CCV_D#
Acquired : Sep 27 02 06:02 pm using AcqMethod LI-RH.M
Operator : JWB
Sample Name: [STD-CCV]
Misc Info :
Vial Number: 1105
CurrentMeth: D:\HPCHEM\1\METHODS\LI-RH.M
BkgFile : --------
Sample Type: CCV
Dilution : 1.000000

CCV Mix #1

Element	Concentration	Expected	QC Range	Flag
Li 7	100.500 µg/L	100.00	90.00-110.00	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
103	906413	912691	Pass

Internal Standards referenced to 002CALB.D#

0 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (5)

Blank QC Report

File : D:\HPCHEM\1\DATA\Sep2702.16A\033CCB_D\033CCB_D#
Acquired : Sep 27 02 06:06 pm using AcqMethod LI-RH.M
Operator : JWB
Sample Name: [CB]
Misc Info :
Vial Number: 1102
CurrentMeth: D:\HPCHEM\1\METHODS\LI-RH.M
BkgFile : --------
Sample Type: CCB
Dilution : 1.000000

Element	Concentration	CRDL Limit	Flag
Li 7	-2.843 µg/L	1.00	*Fail*

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
103	906413	878210	Pass

Internal Standards referenced to 002CALB.D#

1 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (5)

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2702.16A\038SMPL.D\038SMPL.D#
Acquired : Sep 27 02 06:23 pm using AcqMethod LI-RH.M
Operator : JWB
Sample Name: M021283-001
Misc Info : ,
Vial Number: 2211
CurrentMeth: D:\HPCHEM\1\METHODS\LI-RH.M
BkgFile : --------
Sample Type: --------
Dilution : 1.000000

Element	Concentration	Cal Conc	LRS Conc	Flag
Li 7	-3.096 µg/L	200.000	0	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
103	906413	892809	Pass

Internal Standards referenced to 002CALB.D#

0 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (5)

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2702.16A\039SMPL.D\039SMPL.D#
Acquired : Sep 27 02 06:27 pm using AcqMethod LI-RH.M
Operator : JWB
Sample Name: M021283-004
Misc Info : ,
Vial Number: 2212
CurrentMeth: D:\HPCHEM\1\METHODS\LI-RH.M
BkgFile : --------
Sample Type: --------
Dilution : 1.000000

Element	Concentration	Cal Conc	LRS Conc	Flag
Li 7	88.500 µg/L	200.000	0	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
103	906413	914850	Pass

Internal Standards referenced to 002CALB.D#

0 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (5)

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2702.16A\040SMPL.D\040SMPL.D#
Acquired : Sep 27 02 06:31 pm using AcqMethod LI-RH.M
Operator : JWB
Sample Name: M021283-005
Misc Info : ,
Vial Number: 2301
CurrentMeth: D:\HPCHEM\1\METHODS\LI-RH.M
BkgFile : ---------
Sample Type: ---------
Dilution : 1.000000

Element	Concentration	Cal Conc	LRS Conc	Flag
Li 7	96.150 µg/L	200.000	0	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
103	906413	927836	Pass

Internal Standards referenced to 002CALB.D#

0 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (5)

CCV QC Report

File : D:\HPCHEM\1\DATA\Sep2702.16A\044CCV_D\044CCV_D#
Acquired : Sep 27 02 06:45 pm using AcqMethod LI-RH.M
Operator : JWB
Sample Name: [STD-CCV]
Misc Info :
Vial Number: 1105
CurrentMeth: D:\HPCHEM\1\METHODS\LI-RH.M
BkgFile : --------
Sample Type: CCV
Dilution : 1.000000

CCV Mix #1

Element	Concentration	Expected	QC Range	Flag
Li 7	82.930 µg/L	100.00	90.00-110.00	*Fail*

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
103	906413	968317	Pass

Internal Standards referenced to 002CALB.D#

1 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (5)

Blank QC Report

File : D:\HPCHEM\1\DATA\Sep2702.16A\045CCB_D\045CCB_D#
Acquired : Sep 27 02 06:48 pm using AcqMethod LI-RH.M
Operator : JWB
Sample Name: [CB]
Misc Info :
Vial Number: 1102
CurrentMeth: D:\HPCHEM\1\METHODS\LI-RH.M
BkgFile : --------
Sample Type: CCB
Dilution : 1.000000

Element	Concentration	CRDL Limit	Flag
Li 7	-2.895 µg/L	1.00	*Fail*

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
103	906413	892275	Pass

Internal Standards referenced to 002CALB.D#

1 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (5)

CCV QC Report

File : D:\HPCHEM\1\DATA\Sep2702.16A\056CCV_D\056CCV_D#
Acquired : Sep 27 02 07:27 pm using AcqMethod LI-RH.M
Operator : JWB
Sample Name: [STD-CCV]
Misc Info :
Vial Number: 1105
CurrentMeth: D:\HPCHEM\1\METHODS\LI-RH.M
BkgFile : --------
Sample Type: CCV
Dilution : 1.000000

CCV Mix #1

Element	Concentration	Expected	QC Range	Flag
Li 7	110.800 µg/L	100.00	90.00-110.00	*Fail*

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
103	906413	899620	Pass

Internal Standards referenced to 002CALB.D#

1 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (5)

Blank QC Report

File : D:\HPCHEM\1\DATA\Sep2702.16A\057CCB_D\057CCB_D#
Acquired : Sep 27 02 07:30 pm using AcqMethod LI-RH.M
Operator : JWB
Sample Name: [CB]
Misc Info :
Vial Number: 1102
CurrentMeth: D:\HPCHEM\1\METHODS\LI-RH.M
BkgFile : --------
Sample Type: CCB
Dilution : 1.000000

Element	Concentration	CRDL Limit	Flag
Li 7	-1.874 µg/L	1.00	*Fail*

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
103	906413	724140	Pass

Internal Standards referenced to 002CALB.D#

1 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (5)

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2702.16A\062SMPL.D\062SMPL.D#
Acquired : Sep 27 02 07:46 pm using AcqMethod LI-RH.M
Operator : JWB
Sample Name: M021283-025
Misc Info : ,
Vial Number: 2407
CurrentMeth: D:\HPCHEM\1\METHODS\LI-RH.M
BkgFile : --------
Sample Type: --------
Dilution : 10.000000

Element	Concentration	Cal Conc	LRS Conc	Flag
Li 7	2620.000 µg/L	200.000	0	>Cal std

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
103	906413	180622	*Fail*

Internal Standards referenced to 002CALB.D#

1 Element Failures. Maximum Number of Failures Allowed (20)
1 ISTD Failures. Maximum Number of ISTD Failures Allowed (5)

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2702.16A\063SMPL.D\063SMPL.D#
Acquired : Sep 27 02 07:50 pm using AcqMethod LI-RH.M
Operator : JWB
Sample Name: M021283-026
Misc Info : ,
Vial Number: 2408
CurrentMeth: D:\HPCHEM\1\METHODS\LI-RH.M
BkgFile : --------
Sample Type: --------
Dilution : 10.000000

Element	Concentration	Cal Conc	LRS Conc	Flag
Li 7	2041.000 µg/L	200.000	0	>Cal std

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
103	906413	153111	*Fail*

Internal Standards referenced to 002CALB.D#

1 Element Failures. Maximum Number of Failures Allowed (20)
1 ISTD Failures. Maximum Number of ISTD Failures Allowed (5)

CCV QC Report

File : D:\HPCHEM\1\DATA\Sep2702.16A\064CCV_D\064CCV_D#
Acquired : Sep 27 02 07:53 pm using AcqMethod LI-RH.M
Operator : JWB
Sample Name: [STD-CCV]
Misc Info :
Vial Number: 1105
CurrentMeth: D:\HPCHEM\1\METHODS\LI-RH.M
BkgFile : ---------
Sample Type: CCV
Dilution : 1.000000

CCV Mix #1

Element	Concentration	Expected	QC Range	Flag
Li 7	966.100 µg/L	100.00	90.00-110.00	*Fail*

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
103	906413	141290	*Fail*

Internal Standards referenced to 002CALB.D#

1 Element Failures. Maximum Number of Failures Allowed (20)
1 ISTD Failures. Maximum Number of ISTD Failures Allowed (5)

Blank QC Report

File : D:\HPCHEM\1\DATA\Sep2702.16A\065CCB_D\065CCB_D#
Acquired : Sep 27 02 07:56 pm using AcqMethod LI-RH.M
Operator : JWB
Sample Name: [CB]
Misc Info :
Vial Number: 1102
CurrentMeth: D:\HPCHEM\1\METHODS\LI-RH.M
BkgFile : ---------
Sample Type: CCB
Dilution : 1.000000

Element	Concentration	CRDL Limit	Flag
Li 7	257.200 µg/L	1.00	*Fail*

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
103	906413	132141	*Fail*

Internal Standards referenced to 002CALB.D#

1 Element Failures. Maximum Number of Failures Allowed (20)
1 ISTD Failures. Maximum Number of ISTD Failures Allowed (5)

File : D:\HPCHEM\1\DATA\Sep3002.14A\001TUNE.D
Acquired : Sep 30 02 02:25 pm using AcqMethod QCTUNE.M
Operator : CJ
Sample Name: 6020/200.8 TUNE MIX
Misc Info :
Vial Number: 1101
CurrentMeth: D:\HPCHEM\1\METHODS\QCTUNE.M
BkgFile : --------
Sample Type: TUNE
Dilution : 1.000000

Minimum Response Criteria (cps/ppb)

Element	RSD(%)	Actual	Required	Flag
59	3.92	75147	> 200	
7	2.73	195539	> 20	
115	3.19	62798	> 100	
205	1.98	32820	> 10	
102		0(cps)	< 25(cps)	

Ion Ratio Criteria

	Actual	Required	Flag
59/59	1.00	1.00 - 1.00	
7/59	2.60	0.10 - 5.00	
115/59	0.84	0.10 - 10.00	
205/59	0.44	0.10 - 5.00	

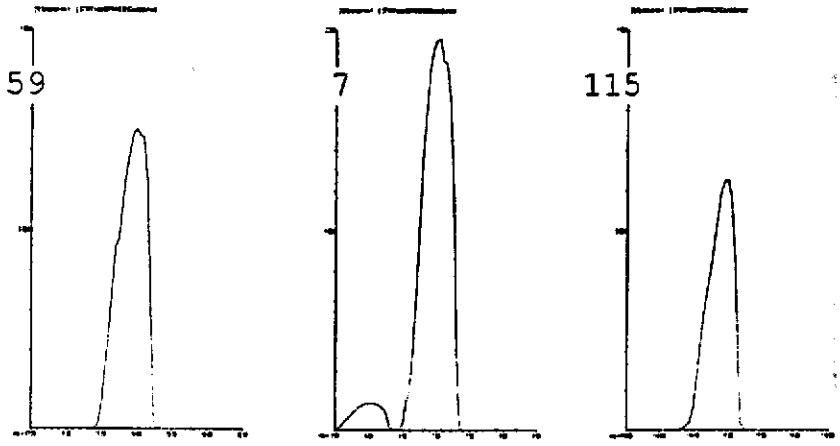

Mass Calib:	59.00	Mass Calib:	7.05	Mass Calib:	115.00
W-50%:	0.55	W-50%:	0.60	W-50%:	0.50
W-10%:	0.70	W-10%:	0.75	W-10%:	0.65

205 102

US EPA Method 200.8 Tune Verification

Acquired : Sep 30 02 02:25 pm using AcqMethod QCTUNE.M
Data File Name: D:\HPCHEM\1\DATA\Sep3002.14A\001TUNE.D

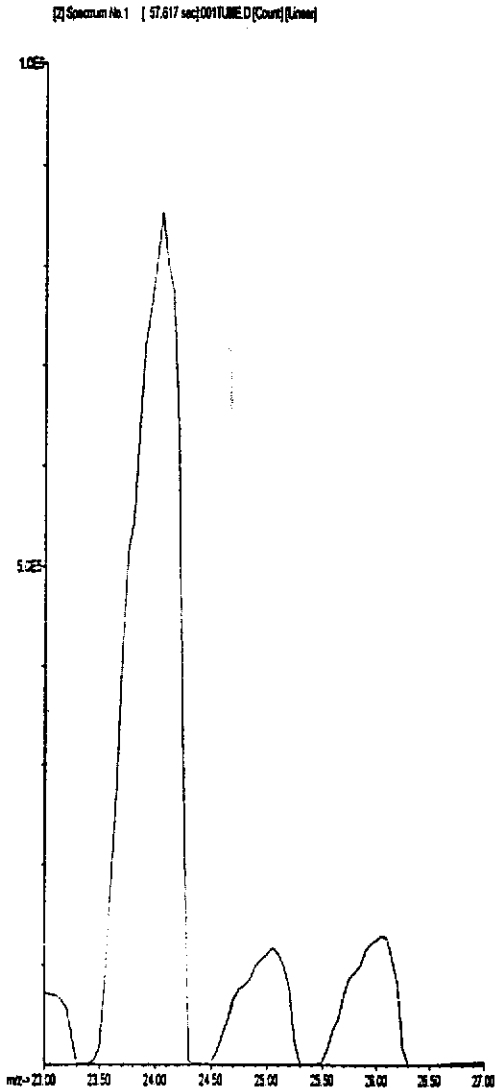

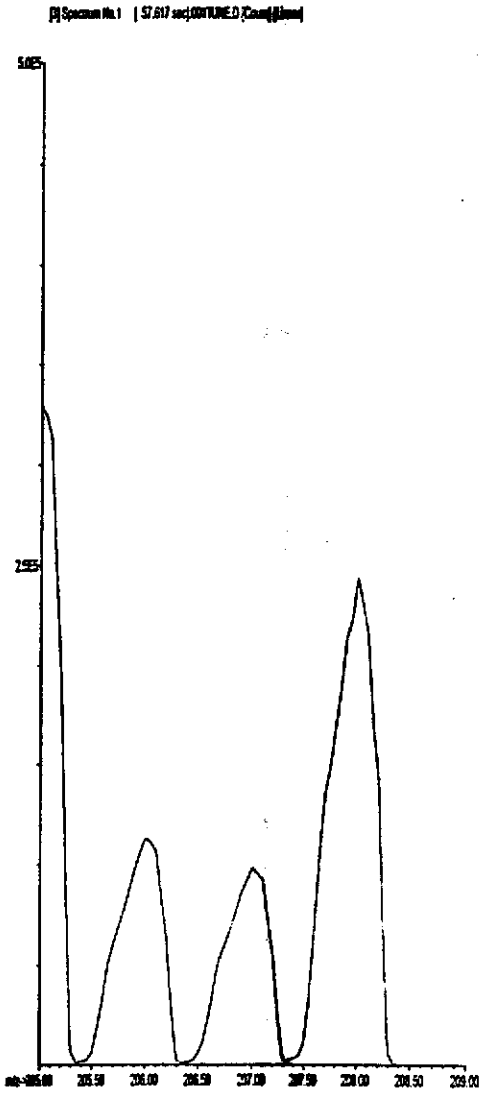

Element and Mass	Mass Assignment		PeakElement at 5and Mass Heig	Mass Assignment		Peak Width at 5% Peak Height
Mg 24	24.05	0.70	Pb 206	206.00	0.75	
Mg 25	25.05	0.70	Pb 207	207.00	0.75	
Mg 26	26.05	0.70	Pb 208	208.00	0.70	

* Does not meet EPA Method 200.8 specification.

Spectrum No.1 [57.617 sec]:001TUNE.D
Acquired : Sep 30 02 02:25 pm using AcqMethod QCTUNE.M
Bkg file : --------
Interference Correction: OFF

Mass[amu]	Element	Count	n	SD	RSD[%]
5		2185.76 P	5	100.20	4.58
6		1465115.00 P	5	53090.00	3.62
7	Li	20079900.00 A	5	570500.00	2.84
8		12.00 P	5	1.58	13.18
23		780114.50 P	5	113900.00	14.60
24		8298557.00 A	5	70970.00	0.86
25		1144388.00 P	5	20000.00	1.75
26		1269519.00 P	5	19490.00	1.54
27		30788.58 P	5	2089.00	6.79
58		70573.59 P	5	2836.00	4.02
59	Co	7438760.00 A	5	204200.00	2.75
60		187.00 P	5	31.29	16.73
101		25.80 P	5	3.27	12.68
103		347370.90 P	5	6764.00	1.95
114		95147.11 P	5	6119.00	6.43
115	In	5560992.00 A	5	206500.00	3.71
116		186.00 P	5	19.55	10.51
204		97065.62 P	5	575.80	0.59
205	Tl	3276596.00 P	5	61900.00	1.89
206		1110091.00 P	5	19120.00	1.72
207		963340.50 P	5	16800.00	1.74
208		2356718.00 P	5	44150.00	1.87
209		58.60 P	5	7.40	12.63

Calibration Blank QC Report

File : D:\HPCHEM\1\DATA\Sep3002.14A\002CALB.D\002CALB.D#
Acquired : Sep 30 02 02:33 pm using AcqMethod LI-RH.M
Operator : CJ
Sample Name: CAL BLANK
Misc Info :
Vial Number: 1102
CurrentMeth: D:\HPCHEM\1\METHODS\LI-RH.M
BkgFile : --------
Sample Type: CALBLK
Dilution : 1.000000

Mass	Element	Count	n	SD	RSD[%]
7	Li	111677.30 P	3	6569.00	5.88
103	Rh	461673.10 P	3	5446.00	1.18

Calibration QC Report

File : D:\HPCHEM\1\DATA\Sep3002.14A\003CALI.D\003CALI.D#
Acquired : Sep 30 02 02:37 pm using AcqMethod LI-RH.M
Operator : CJ
Sample Name: 0.2/1/10 CAL
Misc Info :
Vial Number: 1103
CurrentMeth: D:\HPCHEM\1\METHODS\LI-RH.M
BkgFile : --------
Sample Type: CALIB
Dilution : 1.000000

Mass	Element	Count	n	SD	RSD[%]
7	Li	89205.12 P	3	7556.00	8.47
103	Rh	443907.00 P	3	4934.00	1.11

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
103	307782	295938	Pass

Internal Standards referenced to 002CALB.D#

0 ISTD Failures. Maximum Number of ISTD Failures Allowed (5)

Calibration QC Report

File : D:\HPCHEM\1\DATA\Sep3002.14A\004CALI.D\004CALI.D#
Acquired : Sep 30 02 02:40 pm using AcqMethod LI-RH.M
Operator : CJ
Sample Name: 2/10/100 CAL
Misc Info :
Vial Number: 1104
CurrentMeth: D:\HPCHEM\1\METHODS\LI-RH.M
BkgFile : --------
Sample Type: CALIB
Dilution : 1.000000

Mass	Element	Count	n	SD	RSD[%]
7	Li	342087.80 P	3	6716.00	1.96
103	Rh	450954.40 P	3	8517.00	1.89

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
103	307782	300636	Pass

Internal Standards referenced to 002CALB.D#

0 ISTD Failures. Maximum Number of ISTD Failures Allowed (5)

Calibration QC Report

File : D:\HPCHEM\1\DATA\Sep3002.14A\005CALI.D\005CALI.D#
Acquired : Sep 30 02 02:44 pm using AcqMethod LI-RH.M
Operator : CJ
Sample Name: 10/100/1000 CAL
Misc Info :
Vial Number: 1105
CurrentMeth: D:\HPCHEM\1\METHODS\LI-RH.M
BkgFile : --------
Sample Type: CALIB
Dilution : 1.000000

Mass	Element	Count	n	SD	RSD[%]
7	Li	3068557.00 P	3	33940.00	1.11
103	Rh	444759.40 P	3	3561.00	0.80

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
103	307782	296506	Pass

Internal Standards referenced to 002CALB.D#

0 ISTD Failures. Maximum Number of ISTD Failures Allowed (5)

Calibration QC Report

File : D:\HPCHEM\1\DATA\Sep3002.14A\006CALI.D\006CALI.D#
Acquired : Sep 30 02 02:47 pm using AcqMethod LI-RH.M
Operator : CJ
Sample Name: -/200/10000 CAL
Misc Info :
Vial Number: 1106
CurrentMeth: D:\HPCHEM\1\METHODS\LI-RH.M
BkgFile : ---------
Sample Type: CALIB
Dilution : 1.000000

Mass	Element	Count	n	SD	RSD[%]
7	Li	6268498.00 P	3	99790.00	1.59
103	Rh	438293.30 P	3	14620.00	3.34

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
103	307782	292196	Pass

Internal Standards referenced to 002CALB.D#

0 ISTD Failures. Maximum Number of ISTD Failures Allowed (5)

Blank QC Report

File : D:\HPCHEM\1\DATA\Sep3002.14A\007CCB_D\007CCB_D#
Acquired : Sep 30 02 02:51 pm using AcqMethod LI-RH.M
Operator : CJ
Sample Name: [CB]
Misc Info :
Vial Number: 1102
CurrentMeth: D:\HPCHEM\1\METHODS\LI-RH.M
BkgFile : ---------
Sample Type: CCB
Dilution : 1.000000

Element	Concentration	CRDL Limit	Flag
Li 7	-2.496 µg/L	1.00	*Fail*

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
103	307782	294450	Pass

Internal Standards referenced to 002CALB.D#

1 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (5)

ICV QC Report

File : D:\HPCHEM\1\DATA\Sep3002.14A\008ICV_D\008ICV_D#
Acquired : Sep 30 02 02:55 pm using AcqMethod LI-RH.M
Operator : CJ
Sample Name: [STD-ICV]
Misc Info :
Vial Number: 1107
CurrentMeth: D:\HPCHEM\1\METHODS\LI-RH.M
BkgFile : --------
Sample Type: ICV
Dilution : 1.000000

ICV Mix #1

Element	Concentration	Expected	QC Range	Flag
Li 7	110.600 µg/L	120.00	108.00-132.00	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
103	307782	306978	Pass

Internal Standards referenced to 002CALB.D#

0 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (5)

Interference Check A QC Report

File : D:\HPCHEM\1\DATA\Sep3002.14A\009ICSA.D\009ICSA.D#
Acquired : Sep 30 02 02:58 pm using AcqMethod LI-RH.M
Operator : CJ
Sample Name: [ICSA]
Misc Info :
Vial Number: 1303
CurrentMeth: D:\HPCHEM\1\METHODS\LI-RH.M
BkgFile : --------
Sample Type: ICS_A_
Dilution : 1.000000

Element	Concentration	Expected	CRDL Range Conc	%Range Conc	Flag
Li 7	-3.193 µg/L	0.00	-1.00-1.00	0-0	*Fail*

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
103	307782	288715	Pass

Internal Standards referenced to 002CALB.D#

1 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (5)

Interference Check AB QC Report

File : D:\HPCHEM\1\DATA\Sep3002.14A\010ICSB.D\010ICSB.D#
Acquired : Sep 30 02 03:02 pm using AcqMethod LI-RH.M
Operator : CJ
Sample Name: [ICSAB]
Misc Info :
Vial Number: 1304
CurrentMeth: D:\HPCHEM\1\METHODS\LI-RH.M
BkgFile : --------
Sample Type: ICS_AB
Dilution : 1.000000

Element	Concentration	Expected	CRDL Range Conc	%Range Conc	Flag
Li 7	-3.260 µg/L	0.00	-1.00-1.00	0-0	*Fail*

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
103	307782	302360	Pass

Internal Standards referenced to 002CALB.D#

1 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (5)

Blank QC Report

File : D:\HPCHEM\1\DATA\Sep3002.14A\011CCB_D\011CCB_D#
Acquired : Sep 30 02 03:06 pm using AcqMethod LI-RH.M
Operator : CJ
Sample Name: BLANK
Misc Info :
Vial Number: 1
CurrentMeth: D:\HPCHEM\1\METHODS\LI-RH.M
BkgFile : --------
Sample Type: CCB
Dilution : 1.000000

Element	Concentration	CRDL Limit	Flag
Li 7	-3.402 µg/L	1.00	*Fail*

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
103	307782	341833	Pass

Internal Standards referenced to 002CALB.D#

1 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (5)

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep3002.14A\017SMPL.D\017SMPL.D#
Acquired : Sep 30 02 03:27 pm using AcqMethod LI-RH.M
Operator : CJ
Sample Name: [STD-CCV]
Misc Info : ,
Vial Number: 1105
CurrentMeth: D:\HPCHEM\1\METHODS\LI-RH.M
BkgFile : ---------
Sample Type: ---------
Dilution : 1.000000

Element	Concentration	Cal Conc	LRS Conc	Flag
Li 7	89.520 µg/L	200.000	0	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
103	307782	285553	Pass

Internal Standards referenced to 002CALB.D#

0 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (5)

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep3002.14A\018SMPL.D\018SMPL.D#
Acquired : Sep 30 02 03:31 pm using AcqMethod LI-RH.M
Operator : CJ
Sample Name: [CB]
Misc Info : ,
Vial Number: 1102
CurrentMeth: D:\HPCHEM\1\METHODS\LI-RH.M
BkgFile : ---------
Sample Type: ---------
Dilution : 1.000000

Element	Concentration	Cal Conc	LRS Conc	Flag
Li 7	-2.540 µg/L	200.000	0	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
103	307782	276622	Pass

Internal Standards referenced to 002CALB.D#

0 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (5)

File : D:\HPCHEM\1\DATA\Oct0102.09A\001TUNE.D
Acquired : Oct 1 02 09:06 am using AcqMethod QCTUNE.M
Operator : CJ
Sample Name: 6020/200.8 TUNE MIX
Misc Info :
Vial Number: 1101
CurrentMeth: D:\HPCHEM\1\METHODS\QCTUNE.M
BkgFile : --------
Sample Type: TUNE
Dilution : 1.000000

Minimum Response Criteria (cps/ppb)

Element	RSD(%)	Actual	Required	Flag
59	0.87	128851	> 200	
7	2.01	136713	> 20	
115	2.26	158025	> 100	
205	3.23	74148	> 10	
102		0(cps)	< 25(cps)	

Ion Ratio Criteria

	Actual	Required	Flag
59/59	1.00	1.00 - 1.00	
7/59	1.06	0.10 - 5.00	
115/59	1.23	0.10 - 10.00	
205/59	0.58	0.10 - 5.00	

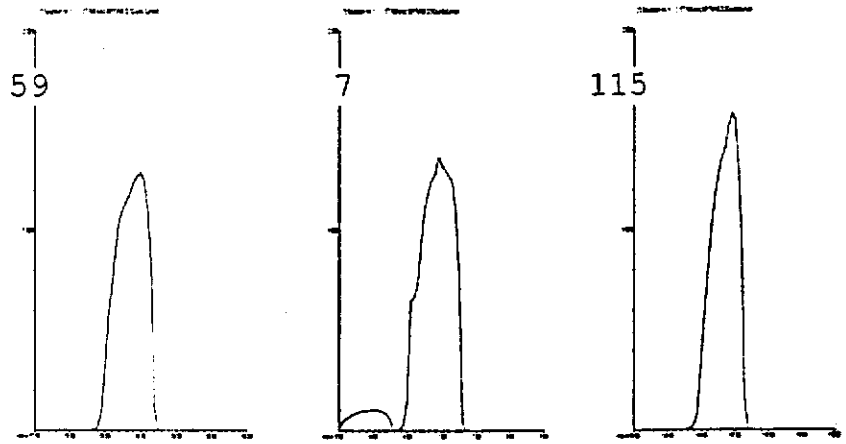

Mass Calib:	59.00	Mass Calib:	6.95	Mass Calib:	114.95
W-50%:	0.60	W-50%:	0.60	W-50%:	0.55
W-10%:	0.70	W-10%:	0.75	W-10%:	0.65

205 102

US EPA Method 200.8 Tune Verification

Acquired : Oct 1 02 09:06 am using AcqMethod QCTUNE.M
Data File Name: D:\HPCHEM\1\DATA\Oct0102.09A\001TUNE.D

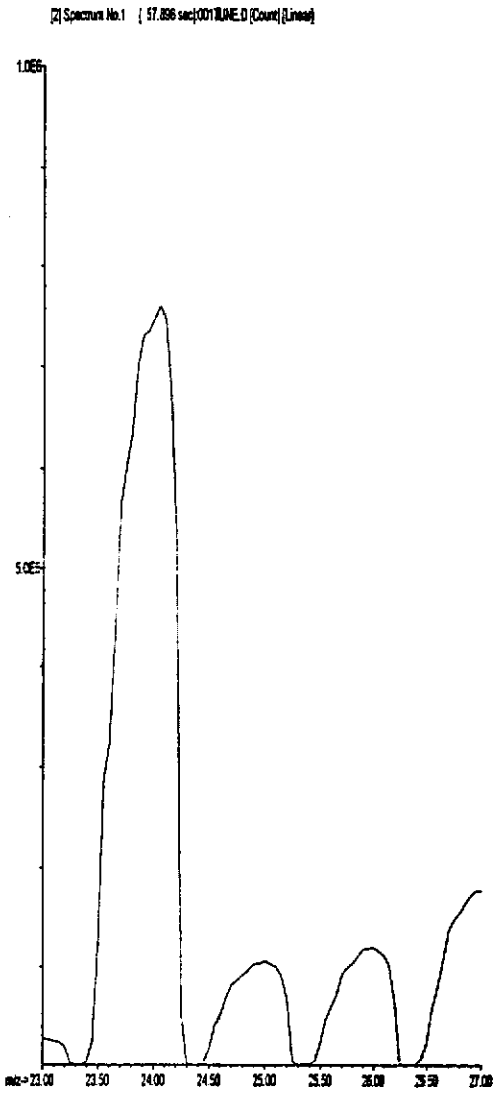

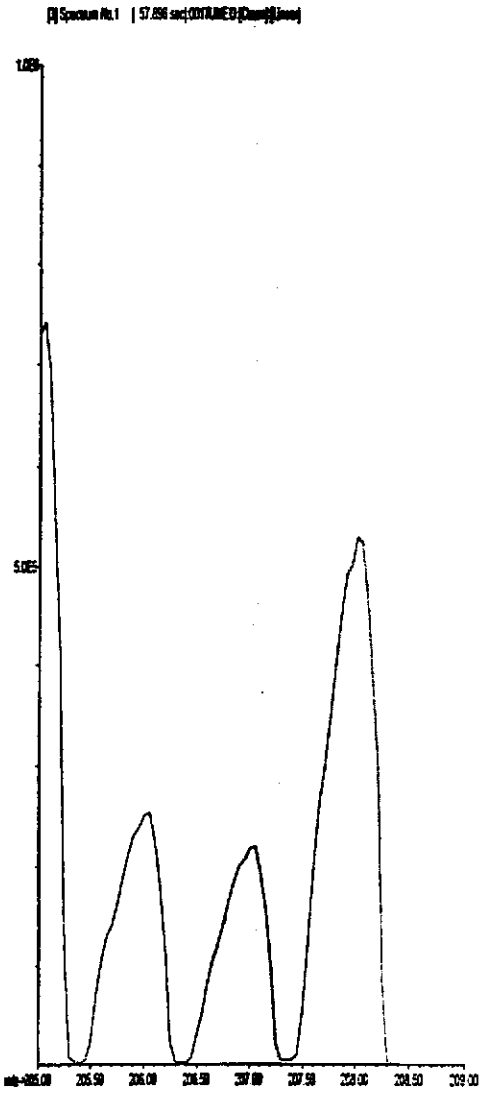

Element and Mass	Mass Assignment		PeakElement at 5and Mass Heig	Mass Assignment		Peak Width at 5% Peak Height
Mg 24	24.05	0.75	Pb 206	206.05	0.75	
Mg 25	25.00	0.70	Pb 207	207.05	0.75	
Mg 26	26.00	0.70	Pb 208	208.00	0.75	

* Does not meet EPA Method 200.8 specification.

Spectrum No.1 [57.896 sec]:001TUNE.D
Acquired : Oct 1 02 09:06 am using AcqMethod QCTUNE.M
Bkg file : --------
Interference Correction: OFF

Mass[amu]	Element	Count	n	SD	RSD[%]
5		11513.07 P	5	428.30	3.72
6		1452769.00 P	5	11310.00	0.78
7	Li	16229080.00 A	5	371600.00	2.29
8		7.40 P	5	1.82	24.55
23		447753.60 P	5	21020.00	4.70
24		8526057.00 A	5	176800.00	2.07
25		1209559.00 P	5	36470.00	3.01
26		1362402.00 P	5	24540.00	1.80
27		1959527.00 P	5	45080.00	2.30
58		425713.00 P	5	9267.00	2.18
59	Co	13765470.00 A	5	86450.00	0.63
60		1158.25 P	5	30.89	2.67
101		38.80 P	5	3.27	8.43
103		1020272.00 P	5	4756.00	0.47
114		482087.40 P	5	34970.00	7.25
115	In	14669810.00 A	5	298900.00	2.04
116		685.03 P	5	37.81	5.52
204		276730.90 P	5	5401.00	1.95
205	Tl	7539033.00 A	5	76480.00	1.01
206		2564819.00 P	5	36360.00	1.42
207		2230377.00 P	5	33900.00	1.52
208		5361205.00 A	5	87530.00	1.63
209		99.60 P	5	27.37	27.48

Calibration Blank QC Report

File : D:\HPCHEM\1\DATA\Oct0102.09A\002CALB.D\002CALB.D
Acquired : Oct 1 02 09:14 am using AcqMethod LI-RH.M
Operator : CJ
Sample Name: CAL BLANK
Misc Info :
Vial Number: 1102
CurrentMeth: D:\HPCHEM\1\METHODS\LI-RH.M
BkgFile : --------
Sample Type: CALBLK
Dilution : 1.000000

Mass	Element	Count	n	SD	RSD[%]
7	Li	26130.98 P	3	421.00	1.61
103	Rh	1251102.00 P	3	8941.00	0.71

Calibration QC Report

File : D:\HPCHEM\1\DATA\Oct0102.09A\003CALI.D\003CALI.D#
Acquired : Oct 1 02 09:18 am using AcqMethod LI-RH.M
Operator : CJ
Sample Name: 0.2/1/10 CAL
Misc Info :
Vial Number: 1103
CurrentMeth: D:\HPCHEM\1\METHODS\LI-RH.M
BkgFile : --------
Sample Type: CALIB
Dilution : 1.000000

Mass	Element	Count	n	SD	RSD[%]
7	Li	41169.56 P	3	988.20	2.40
103	Rh	1191228.00 P	3	11370.00	0.95

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
103	834068	794152	Pass

Internal Standards referenced to 002CALB.D#

0 ISTD Failures. Maximum Number of ISTD Failures Allowed (5)

Calibration QC Report

File : D:\HPCHEM\1\DATA\Oct0102.09A\004CALI.D\004CALI.D#
Acquired : Oct 1 02 09:21 am using AcqMethod LI-RH.M
Operator : CJ
Sample Name: 2/10/100 CAL
Misc Info :
Vial Number: 1104
CurrentMeth: D:\HPCHEM\1\METHODS\LI-RH.M
BkgFile : --------
Sample Type: CALIB
Dilution : 1.000000

Mass	Element	Count	n	SD	RSD[%]
7	Li	228646.80 P	3	6481.00	2.83
103	Rh	1233876.00 P	3	6770.00	0.55

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
103	834068	822584	Pass

Internal Standards referenced to 002CALB.D#

0 ISTD Failures. Maximum Number of ISTD Failures Allowed (5)

Calibration QC Report

File : D:\HPCHEM\1\DATA\Oct0102.09A\005CALI.D\005CALI.D#
Acquired : Oct 1 02 09:25 am using AcqMethod LI-RH.M
Operator : CJ
Sample Name: 10/100/1000 CAL
Misc Info :
Vial Number: 1105
CurrentMeth: D:\HPCHEM\1\METHODS\LI-RH.M
BkgFile : --------
Sample Type: CALIB
Dilution : 1.000000

Mass	Element	Count	n	SD	RSD[%]
7	Li	2073297.00 P	3	56690.00	2.73
103	Rh	1226218.00 P	3	3763.00	0.31

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
103	834068	817479	Pass

Internal Standards referenced to 002CALB.D#

0 ISTD Failures. Maximum Number of ISTD Failures Allowed (5)

Calibration QC Report

File : D:\HPCHEM\1\DATA\Oct0102.09A\006CALI.D\006CALI.D#
Acquired : Oct 1 02 09:29 am using AcqMethod LI-RH.M
Operator : CJ
Sample Name: -/200/10000 CAL
Misc Info :
Vial Number: 1106
CurrentMeth: D:\HPCHEM\1\METHODS\LI-RH.M
BkgFile : --------
Sample Type: CALIB
Dilution : 1.000000

Mass	Element	Count	n	SD	RSD[%]
7	Li	4161147.00 P	3	65340.00	1.57
103	Rh	1239074.00 P	3	17760.00	1.43

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
103	834068	826049	Pass

Internal Standards referenced to 002CALB.D#

0 ISTD Failures. Maximum Number of ISTD Failures Allowed (5)

Blank QC Report

File : D:\HPCHEM\1\DATA\Oct0102.09A\007CCB_D\007CCB_D#
Acquired : Oct 1 02 09:32 am using AcqMethod LI-RH.M
Operator : CJ
Sample Name: [CB]
Misc Info :
Vial Number: 1102
CurrentMeth: D:\HPCHEM\1\METHODS\LI-RH.M
BkgFile : --------
Sample Type: CCB
Dilution : 1.000000

Element	Concentration	CRDL Limit	Flag
Li 7	-0.706 µg/L	1.00	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
103	834068	799362	Pass

Internal Standards referenced to 002CALB.D#

0 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (5)

ICV QC Report

File : D:\HPCHEM\1\DATA\Oct0102.09A\008ICV_D\008ICV_D#
Acquired : Oct 1 02 09:36 am using AcqMethod LI-RH.M
Operator : CJ
Sample Name: [STD-ICV]
Misc Info :
Vial Number: 1107
CurrentMeth: D:\HPCHEM\1\METHODS\LI-RH.M
BkgFile : --------
Sample Type: ICV
Dilution : 1.000000

ICV Mix #1

Element	Concentration	Expected	QC Range	Flag
Li 7	115.900 µg/L	120.00	108.00-132.00	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
103	834068	834709	Pass

Internal Standards referenced to 002CALB.D#

0 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (5)

Interference Check A QC Report

File : D:\HPCHEM\1\DATA\Oct0102.09A\009ICSA.D\009ICSA.D#
Acquired : Oct 1 02 09:39 am using AcqMethod LI-RH.M
Operator : CJ
Sample Name: [ICSA]
Misc Info :
Vial Number: 1303
CurrentMeth: D:\HPCHEM\1\METHODS\LI-RH.M
BkgFile : --------
Sample Type: ICS_A_
Dilution : 1.000000

Element	Concentration	Expected	CRDL Range Conc	%Range Conc	Flag
Li 7	-0.964 µg/L	0.00	-1.00-1.00	0-0	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
103	834068	791929	Pass

Internal Standards referenced to 002CALB.D#

0 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (5)

Interference Check AB QC Report

File : D:\HPCHEM\1\DATA\Oct0102.09A\010ICSB.D\010ICSB.D#
Acquired : Oct 1 02 09:43 am using AcqMethod LI-RH.M
Operator : CJ
Sample Name: [ICSAB]
Misc Info :
Vial Number: 1304
CurrentMeth: D:\HPCHEM\1\METHODS\LI-RH.M
BkgFile : --------
Sample Type: ICS_AB
Dilution : 1.000000

Element	Concentration	Expected	CRDL Range Conc	%Range Conc	Flag
Li 7	-1.037 µg/L	0.00	-1.00-1.00	0-0	*Fail*

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
103	834068	787240	Pass

Internal Standards referenced to 002CALB.D#

1 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (5)

Blank QC Report

File : D:\HPCHEM\1\DATA\Oct0102.09A\011CCB_D\011CCB_D#
Acquired : Oct 1 02 09:47 am using AcqMethod LI-RH.M
Operator : CJ
Sample Name: BLANK
Misc Info :
Vial Number: 1
CurrentMeth: D:\HPCHEM\1\METHODS\LI-RH.M
BkgFile : --------
Sample Type: CCB
Dilution : 1.000000

Element	Concentration	CRDL Limit	Flag
Li 7	-1.081 µg/L	1.00	*Fail*

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
103	834068	899795	Pass

Internal Standards referenced to 002CALB.D#

1 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (5)

Sample QC Report

File : D:\HPCHEM\1\DATA\Oct0102.09A\012SMPL.D\012SMPL.D#
Acquired : Oct 1 02 09:50 am using AcqMethod LI-RH.M
Operator : CJ
Sample Name: M021283-001
Misc Info : ,
Vial Number: 2106
CurrentMeth: D:\HPCHEM\1\METHODS\LI-RH.M
BkgFile : --------
Sample Type: --------
Dilution : 1.000000

Element	Concentration	Cal Conc	LRS Conc	Flag
Li 7	-0.955 µg/L	200.000	0	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
103	834068	843434	Pass

Internal Standards referenced to 002CALB.D#

0 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (5)

Sample QC Report

File : D:\HPCHEM\1\DATA\Oct0102.09A\013SMPL.D\013SMPL.D#
Acquired : Oct 1 02 09:54 am using AcqMethod LI-RH.M
Operator : CJ
Sample Name: M021283-004
Misc Info : ,
Vial Number: 2107
CurrentMeth: D:\HPCHEM\1\METHODS\LI-RH.M
BkgFile : --------
Sample Type: --------
Dilution : 1.000000

Element	Concentration	Cal Conc	LRS Conc	Flag
Li 7	92.560 µg/L	200.000	0	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
103	834068	840041	Pass

Internal Standards referenced to 002CALB.D#

0 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (5)

Sample QC Report

File : D:\HPCHEM\1\DATA\Oct0102.09A\014SMPL.D\014SMPL.D#
Acquired : Oct 1 02 09:57 am using AcqMethod LI-RH.M
Operator : CJ
Sample Name: M021283-005
Misc Info : ,
Vial Number: 2108
CurrentMeth: D:\HPCHEM\1\METHODS\LI-RH.M
BkgFile : --------
Sample Type: --------
Dilution : 1.000000

Element	Concentration	Cal Conc	LRS Conc	Flag
Li 7	88.880 µg/L	200.000	0	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
103	834068	843299	Pass

Internal Standards referenced to 002CALB.D#

0 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (5)

Sample QC Report

File : D:\HPCHEM\1\DATA\Oct0102.09A\017SMPL.D\017SMPL.D#
Acquired : Oct 1 02 10:08 am using AcqMethod LI-RH.M
Operator : CJ
Sample Name: [STD-CCV]
Misc Info : ,
Vial Number: 1105
CurrentMeth: D:\HPCHEM\1\METHODS\LI-RH.M
BkgFile : --------
Sample Type: --------
Dilution : 1.000000

Element	Concentration	Cal Conc	LRS Conc	Flag
Li 7	92.350 µg/L	200.000	0	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
103	834068	832841	Pass

Internal Standards referenced to 002CALB.D#

0 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (5)

Sample QC Report

File : D:\HPCHEM\1\DATA\Oct0102.09A\018SMPL.D\018SMPL.D#
Acquired : Oct 1 02 10:12 am using AcqMethod LI-RH.M
Operator : CJ
Sample Name: [CB]
Misc Info : ,
Vial Number: 1102
CurrentMeth: D:\HPCHEM\1\METHODS\LI-RH.M
BkgFile : ---------
Sample Type: ---------
Dilution : 1.000000

Element	Concentration	Cal Conc	LRS Conc	Flag
Li 7	-0.941 µg/L	200.000	0	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
103	834068	848544	Pass

Internal Standards referenced to 002CALB.D#

0 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (5)

Sample QC Report

File : D:\HPCHEM\1\DATA\Oct0102.10A\005SMPL.D\005SMPL.D#
Acquired : Oct 1 02 10:35 am using AcqMethod LI-RH.M
Operator : CJ
Sample Name: [STD-CCV]
Misc Info : ,
Vial Number: 1105
CurrentMeth: D:\HPCHEM\1\METHODS\LI-RH.M
BkgFile : ---------
Sample Type: ---------
Dilution : 1.000000

Element	Concentration	Cal Conc	LRS Conc	Flag
Li 7	90.490 µg/L	200.000	0	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
103	834068	827865	Pass

Internal Standards referenced to 002CALB.D#

0 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (5)

Sample QC Report

File : D:\HPCHEM\1\DATA\Oct0102.10A\006SMPL.D\006SMPL.D#
Acquired : Oct 1 02 10:39 am using AcqMethod Li-RH.M
Operator : CJ
Sample Name: [CB]
Misc Info : ,
Vial Number: 1102
CurrentMeth: D:\HPCHEM\1\METHODS\LI-RH.M
BkgFile : --------
Sample Type: --------
Dilution : 1.000000

Element	Concentration	Cal Conc	LRS Conc	Flag
Li 7	-0.989 µg/L	200.000	0	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
103	834068	844083	Pass

Internal Standards referenced to 002CALB.D#

0 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (5)

Sample QC Report

File : D:\HPCHEM\1\DATA\Oct0102.10A\012SMPL.D\012SMPL.D#
Acquired : Oct 1 02 11:01 am using AcqMethod LI-RH.M
Operator : CJ
Sample Name: [STD-CCV]
Misc Info : ,
Vial Number: 1105
CurrentMeth: D:\HPCHEM\1\METHODS\LI-RH.M
BkgFile : --------
Sample Type: --------
Dilution : 1.000000

Element	Concentration	Cal Conc	LRS Conc	Flag
Li 7	93.100 µg/L	200.000	0	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
103	834068	843571	Pass

Internal Standards referenced to 002CALB.D#

0 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (5)

Sample QC Report

File : D:\HPCHEM\1\DATA\Oct0102.10A\013SMPL.D\013SMPL.D#
Acquired : Oct 1 02 11:04 am using AcqMethod LI-RH.M
Operator : CJ
Sample Name: [CB]
Misc Info : ,
Vial Number: 1102
CurrentMeth: D:\HPCHEM\1\METHODS\LI-RH.M
BkgFile : --------
Sample Type: --------
Dilution : 1.000000

Element	Concentration	Cal Conc	LRS Conc	Flag
Li 7	-1.008 µg/L	200.000	0	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
103	834068	829438	Pass

Internal Standards referenced to 002CALB.D#

0 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (5)

Sample QC Report

File : D:\HPCHEM\1\DATA\Oct0102.10A\019SMPL.D\019SMPL.D#
Acquired : Oct 1 02 11:26 am using AcqMethod LI-RH.M
Operator : CJ
Sample Name: M021283-025
Misc Info : ,
Vial Number: 2302
CurrentMeth: D:\HPCHEM\1\METHODS\LI-RH.M
BkgFile : --------
Sample Type: --------
Dilution : 10.000000

Element	Concentration	Cal Conc	LRS Conc	Flag
Li 7	282.400 µg/L	200.000	0	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
103	834068	791631	Pass

Internal Standards referenced to 002CALB.D#

0 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (5)

Sample QC Report

File : D:\HPCHEM\1\DATA\Oct0102.10A\020SMPL.D\020SMPL.D#
Acquired : Oct 1 02 11:30 am using AcqMethod LI-RH.M
Operator : CJ
Sample Name: M021283-026
Misc Info : ,
Vial Number: 2303
CurrentMeth: D:\HPCHEM\1\METHODS\LI-RH.M
BkgFile : --------
Sample Type: --------
Dilution : 10.000000

Element	Concentration	Cal Conc	LRS Conc	Flag
Li 7	148.500 µg/L	200.000	0	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
103	834068	781263	Pass

Internal Standards referenced to 002CALB.D#

0 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (5)

CCV QC Report

File : D:\HPCHEM\1\DATA\Oct0102.10A\021CCV_D\021CCV_D#
Acquired : Oct 1 02 11:33 am using AcqMethod LI-RH.M
Operator : CJ
Sample Name: [STD-CCV]
Misc Info :
Vial Number: 1105
CurrentMeth: D:\HPCHEM\1\METHODS\LI-RH.M
BkgFile : --------
Sample Type: CCV
Dilution : 1.000000

CCV Mix #1

Element	Concentration	Expected	QC Range	Flag
Li 7	92.370 µg/L	100.00	90.00-110.00	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
103	834068	795867	Pass

Internal Standards referenced to 002CALB.D#

0 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (5)

Blank QC Report

File : D:\HPCHEM\1\DATA\Oct0102.10A\022CCB_D\022CCB_D#
Acquired : Oct 1 02 11:37 am using AcqMethod LI-RH.M
Operator : CJ
Sample Name: [CB]
Misc Info :
Vial Number: 1102
CurrentMeth: D:\HPCHEM\1\METHODS\LI-RH.M
BkgFile : --------
Sample Type: CCB
Dilution : 1.000000

Element	Concentration	CRDL Limit	Flag
Li 7	-1.049 µg/L	1.00	*Fail*

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
103	834068	785002	Pass

Internal Standards referenced to 002CALB.D#

1 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (5)

Assaigai Analytical Laboratories, Inc.

Run Group Cover Sheet

Run Group	WC.2002.1329
Reviewed:	10/1/2002 8:04:26 AM
By:	NJL

Calc Method	ABS
Import Source	LOL01
Instrument:	U1100B

Calibration Mode	LIBRARY
Calculation Mode	NORMAL
Spike Dilution Mode	NORMAL

RAW QUANT FLAGS	
a	*all result information keyed in manually*
d	*data from instrument keyed in manually*
i	*integration of peak performed manually*
q	*qdelete of peak*
r	*response factor postquant adjustment*

CALIBRATION LIBRARY REPORT

Calc Method	Analyte	ClassCode	Tracking Group	Analzyed	Signal	Ref Conc
ABS	CR6	STD-CAL1	WC.2002.873	7/30/2002 11:28:31 AM	0.002	0
ABS	CR6	STD-CAL2	WC.2002.873	7/30/2002 11:29:29 AM	0.013	0.01
ABS	CR6	STD-CAL3	WC.2002.873	7/30/2002 11:30:42 AM	0.103	0.125
ABS	CR6	STD-CAL4	WC.2002.873	7/30/2002 11:31:44 AM	0.217	0.25
ABS	CR6	STD-CAL5	WC.2002.873	7/30/2002 11:32:48 AM	0.417	0.5
ABS	CR6	STD-CAL6	WC.2002.873	7/30/2002 11:33:58 AM	0.815	1

Dept. Review + Funnel: GB 10/6/02

Assaigai Analytical Laboratories, Inc.

Laboratory Logbook

Run Group WC.2002.1329
Import Source LOL01
Instrument: U1100B

o	Run#	Acquisition Date	Data File	Vial	e	Sample Run ID	Run DF	Comment	see data file(s)	Analyst
	1	09-30-02 15:37:15	02093016.228	1		[STD-CCV]	1			NJL
	2	09-30-02 15:38:18	02093016.228	2		W02392-018	1			NJL
	3	09-30-02 15:41:01	02093016.228	3		ERROR	1			NJL
	4	09-30-02 15:42:28	02093016.228	4		ERROR	1			NJL
	5	09-30-02 15:45:09	02093016.228	5		W02392-019	1			NJL
	6	09-30-02 15:46:06	02093016.228	6		W02392-020	1			NJL
	7	09-30-02 15:48:57	02093016.228	7		W02392-021	1			NJL
	8	09-30-02 15:50:02	02093016.228	8		W02392-022	1			NJL
	9	09-30-02 15:51:29	02093016.228	9		W02392-023	1			NJL
	10	09-30-02 15:53:04	02093016.228	10		W02392-024	1			NJL
	11	09-30-02 15:54:21	02093016.228	11		W02392-025	1			NJL
	12	09-30-02 15:55:19	02093016.228	12		W02392-026	1			NJL
	13	09-30-02 15:56:39	02093016.228	13		[STD-CCV]	1			NJL
	14	09-30-02 15:58:48	02093016.228	14		W02392-027	1			NJL
	15	09-30-02 15:59:48	02093016.228	15		W02392-028	1			NJL
	16	09-30-02 16:01:21	02093016.228	16		W02392-029	1			NJL
	17	09-30-02 16:02:22	02093016.228	17		W02392-030	1			NJL
	18	09-30-02 16:03:57	02093016.228	18		W02392-031	1			NJL
	19	09-30-02 16:05:13	02093016.228	19		W02392-032	1			NJL
	20	09-30-02 16:06:50	02093016.228	20		W02392-033	1			NJL
	21	09-30-02 16:07:54	02093016.228	21		W02392-034	1			NJL
	22	09-30-02 16:09:43	02093016.228	22		W02392-035	1			NJL
	23	09-30-02 16:10:39	02093016.228	23		W02392-036	1			NJL
	24	09-30-02 16:12:10	02093016.228	24		[STD-CCV]	1			NJL
	25	09-30-02 16:14:50	02093016.228	25		W02392-037	1			NJL
	26	09-30-02 16:16:02	02093016.228	26		W02392-038	1			NJL
	27	09-30-02 16:17:40	02093016.228	27		W02392-039	1			NJL
	28	09-30-02 16:18:40	02093016.228	28		W02392-040	1			NJL
	29	09-30-02 16:20:08	02093016.228	29		W02392-041	1			NJL
	30	09-30-02 16:20:59	02093016.228	30		W02392-042	1			NJL
	31	09-30-02 16:22:24	02093016.228	31		[STD-CCV]	1			NJL

NJL 10/1/02

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Department: WETCHEM
Prep Method: 1311-3500
Matrix: SOLID
Batch ID: W02392

Assalgal Laboratories
Sample Preparation Log
Report Revision 011023

Prep Method: Hexavalent Chromium Prep

Sample Count: 17
Batch Start Timestamp: 09/27/02 13:34:48

Prep ID:	Sample ID:	Aliquot:	Units:	Initial By:	Total Volume:	Units:	Final By:	Prep DF:	Surrogate ID:	Spike ID:	Spike By:	Prep Timestamp:	Comments:
W02392-001	[MB]	1.00 g		NJL	100 ml		NJL	1			NJL	09/27/02 10:30:00	
W02392-002	[LCS]	1.00 g		NJL	100 ml		NJL	1		WC-134-02	NJL	09/27/02 10:30:00	100uL
W02392-003	[LCSD]	1.00 g		NJL	100 ml		NJL	1		WC-134-02	NJL	09/27/02 10:30:00	100uL
W02392-004	0209373-01A[M]	1.00 g		NJL	100 ml		NJL	1			NJL	09/27/02 10:30:00	
W02392-005	0209373-01A[M]	1.00 g		NJL	100 ml		NJL	1			NJL	09/27/02 10:30:00	
W02392-006	0209373-01A[MS]	1.00 g		NJL	100 ml		NJL	1		WC-134-02	NJL	09/27/02 10:30:00	100uL
W02392-007	0209373-01A[MS]	1.00 g		NJL	100 ml		NJL	1		WC-134-02	NJL	09/27/02 10:30:00	100uL
W02392-008	0209373-01A[MSD]	1.00 g		NJL	100 ml		NJL	1		WC-134-02	NJL	09/27/02 10:30:00	100uL
W02392-009	0209373-01A[MSD]	1.00 g		NJL	100 ml		NJL	1		WC-134-02	NJL	09/27/02 10:30:00	100uL
W02392-010	0209373-02A	1.00 g		NJL	100 ml		NJL	1			NJL	09/27/02 10:30:00	
W02392-011	0209373-02A	1.00 g		NJL	100 ml		NJL	1			NJL	09/27/02 10:30:00	
W02392-012	0209373-03A	1.00 g		NJL	100 ml		NJL	1			NJL	09/27/02 11:40:00	
W02392-013	0209373-03A	1.00 g		NJL	100 ml		NJL	1			NJL	09/27/02 11:40:00	
W02392-014	0209373-04A	1.00 g		NJL	100 ml		NJL	1			NJL	09/27/02 11:40:00	
W02392-015	0209373-04A	1.00 g		NJL	100 ml		NJL	1			NJL	09/27/02 11:40:00	
W02392-016	0209373-05A	1.00 g		NJL	100 ml		NJL	1			NJL	09/27/02 12:00:00	
W02392-017	0209373-05A	1.00 g		NJL	100 ml		NJL	1			NJL	09/27/02 12:00:00	
W02392-018	[MB]	1.00 g		NJL	100 ml		NJL	1			NJL	09/30/02 10:30:00	
W02392-019	0209373-06A	1.00 g		NJL	100 ml		NJL	1			NJL	09/30/02 10:30:00	
W02392-020	0209373-06A	1.00 g		NJL	100 ml		NJL	1			NJL	09/30/02 10:30:00	
W02392-021	0209373-07A	1.00 g		NJL	100 ml		NJL	1			NJL	09/30/02 10:30:00	
W02392-022	0209373-07A	1.00 g		NJL	100 ml		NJL	1			NJL	09/30/02 10:30:00	
W02392-023	0209373-08A	1.00 g		NJL	100 ml		NJL	1			NJL	09/30/02 10:30:00	
W02392-024	0209373-08A	1.00 g		NJL	100 ml		NJL	1			NJL	09/30/02 10:30:00	
W02392-025	0209373-09A	1.00 g		NJL	100 ml		NJL	1			NJL	09/30/02 10:30:00	
W02392-026	0209373-09A	1.00 g		NJL	100 ml		NJL	1			NJL	09/30/02 10:30:00	
W02392-027	0209373-10A	1.00 g		NJL	100 ml		NJL	1			NJL	09/30/02 10:30:00	
W02392-028	0209373-10A	1.00 g		NJL	100 ml		NJL	1			NJL	09/30/02 10:30:00	
W02392-029	0209373-11A	1.00 g		NJL	100 ml		NJL	1			NJL	09/30/02 10:30:00	
W02392-030	0209373-11A	1.00 g		NJL	100 ml		NJL	1			NJL	09/30/02 10:30:00	
W02392-031	0209373-12A	1.00 g		NJL	100 ml		NJL	1			NJL	09/30/02 10:30:00	
W02392-032	0209373-12A	1.00 g		NJL	100 ml		NJL	1			NJL	09/30/02 13:00:00	
W02392-033	0209373-13A	1.00 g		NJL	100 ml		NJL	1			NJL	09/30/02 13:00:00	
W02392-034	0209373-13A	1.00 g		NJL	100 ml		NJL	1			NJL	09/30/02 13:00:00	
W02392-035	0209373-14A	1.00 g		NJL	100 ml		NJL	1			NJL	09/30/02 13:00:00	
W02392-036	0209373-14A	1.00 g		NJL	100 ml		NJL	1			NJL	09/30/02 13:00:00	
W02392-037	0209373-15A	1.00 g		NJL	100 ml		NJL	1			NJL	09/30/02 13:00:00	
W02392-038	0209373-15A	1.00 g		NJL	100 ml		NJL	1			NJL	09/30/02 13:00:00	
W02392-039	0209373-16A	1.00 g		NJL	100 ml		NJL	1			NJL	09/30/02 13:00:00	

NJL 9/30/02

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Coyote 2001: Parabellum 1.0.020712160500

Report Date 9/30/2002 3:04:00 PM

Department: WETCHEM
Prep Method: 1311-3500
Matrix: SOLID
Batch ID: W02392

Assaigai Laboratories
Sample Preparation Log
Report Revision 011023

Prep Method: Hexavalent Chromium Prep

Sample Count: 17
Batch Start Timestamp: 09/27/02 13:34:48

Prep ID:	Sample ID:	Aliquot:	Units:	Initial By:	Total Volume:	Units:	Final By:	Prep DF:	Surrogate ID:	Spike ID:	Spike By:	Prep Timestamp:	Comments:
W02392-040	0209373-16A	1.00 g		NJL	100 ml		NJL	1			NJL	09/30/02 13:00:00	
W02392-041	0209373-17A	1.00 g		NJL	100 ml		NJL	1			NJL	09/30/02 13:00:00	
W02392-042	0209373-17A	1.00 g		NJL	100 ml		NJL	1			NJL	09/30/02 13:00:00	

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NJL 9/30/02

ASSAIGAI ANALYTICAL LABORATORIES, INC.
Wet Chemistry Logbook

Hexavalent Chromium EPA 218.4 (Section 2.3) WC013rev#3
DL = 0.01 mg/L

Batch ID: WO2392
Analyst: [illegible]

Sample Number	Sample Volume (mL)	Final Volume (mL)	Final DF	pH	Date/Time	Comments/Standard Prep#
[MB]	50	100	1X	1.21	9/27/02 @ 1030	
[LCS]	↓	↓	↓	1.25	↓	WC-134-02 100 ul
[LCSD]	↓	↓	↓	1.24	↓	↓
9373-01A [M]	1.0g	↓	↓	1.28	↓	Undeveloped
↓	↓	↓	↓	1.25	↓	Developed
[MS]	↓	↓	↓	1.25	↓	Undeveloped WC-134-02 100 ul
↓	↓	↓	↓	1.26	↓	Developed
[MSD]	↓	↓	↓	1.22	↓	Undeveloped
↓	↓	↓	↓	1.22	↓	Developed
9373-02A	↓	↓	↓	1.22	↓	Undeveloped
↓	↓	↓	↓	1.23	↓	Developed
[STD-CCV]	~~50~~	↓	1X	1.24	↓	WC-133-02 100 ul
9373-03A	1.0g	100	1X	1.25	9/27/02 @ 1140	Undeveloped
↓	↓	↓	↓	1.25	↓	Developed
-04A	↓	↓	↓	1.25	↓	Undeveloped
↓	↓	↓	↓	1.25	↓	Developed
9373-05A	1.0g	100	1X	1.22	9/28/02 @ 1200	Undeveloped
↓	↓	↓	↓	1.26	↓	Developed
[MB]	50mL	100	1X	1.25	9/30/02 @ 1030	
9373-06A	1.0g	↓	↓	1.25	↓	Undeveloped
↓	↓	↓	↓	1.26	↓	Developed
-07A	↓	↓	↓	1.25	↓	Undeveloped
↓	↓	↓	↓	1.27	↓	Developed
-08A	↓	↓	↓	1.26	↓	Undeveloped
↓	↓	↓	↓	1.25	↓	Developed
-09A	↓	↓	↓	1.12	↓	Undeveloped
↓	↓	↓	↓	1.15	↓	Developed
-10A	↓	↓	↓	1.28	↓	Undeveloped
↓	↓	↓	↓	1.29	↓	Developed

ASSAIGAI ANALYTICAL LABORATORIES, INC.
Wet Chemistry Logbook

Hexavalent Chromium EPA 218.4 (Section 2.3) WC013rev#3
DL = 0.01 mg/L

Batch ID: W02392
Analyst: ky

Sample Number	Sample Volume (mL)	Final Volume (mL)	Final DF	pH	Date/Time	Comments/Standard Prep#
9373-11A	1.0g	100	1X	1.19	9/30/02 @ 1030	Undeveloped
↓	↓	↓	↓	1.18	↓	Developed
[STD-CCV]	↓	↓	↓	1.27	↓	WC-133-02 @ 100 uL
9373-12A	1.0g	100	1X	1.25	9/30/02 @ 1300	Undeveloped
↓	↓	↓	↓	1.25	↓	Developed
-13A	↓	↓	↓	1.25	↓	Undeveloped
↓	↓	↓	↓	1.23	↓	Developed
-14A	↓	↓	↓	1.27	↓	Undeveloped
↓	↓	↓	↓	1.28	↓	Developed
-15A	↓	↓	↓	1.27	↓	Undeveloped
-15A	↓	↓	↓	1.24	↓	Developed
~~-16A~~	↓	↓	↓	1.25	↓	Undeveloped
~~17A~~ 16A	↓	↓	↓	1.23	↓	Developed
~~17A~~	↓	↓	↓	1.28	↓	Undeveloped
17A	↓	↓	↓	1.26	↓	Developed

Assalgal Analytical Laboratories, Inc.

Analytical Result Summary

Run Group	WC.2002.1329	Import ID	02093016.228
Analyst	NJL	Quant Meth	
Calc Method	ABS	Calibration	07-30-02 11:28:31
Analyte	CR6	Quant	10-01-02 8:03:33

r	#	e	Run ID	Prep ID	Matrix	Signal m	Raw Quant	As	Run DF	Prep DF	MRL	Report	As	Prepared	Analyzed	Qual	f
	1		[STD-CCV]		LAB	0.411	0.4984	ppm	1	1	1	100	% Recovery		09-30-02 15:37:15		
x	2		W02392-018	[MB]	SOLID	-0.002	-0.0095	ppm	1	1	1	< 1.00	mg / kg	09-30-02 10:30:00	09-30-02 15:38:18		
	3		ERROR		LAB	0.009	0.004	ppm	1	1	0.005	< 0.005	mg / L		09-30-02 15:41:01		
	4		ERROR		LAB	0.03	0.0299	ppm	1	1	0.005	0.030	mg / L		09-30-02 15:42:28		
✓	5		W02392-019	0209373-06A	SOLID	0.045	0.0483	ppm	1	1	1	4.83	mg / kg	09-30-02 10:30:00	09-30-02 15:45:09		
x	6		W02392-020	0209373-06A	SOLID	-0.017	-0.0279	ppm	1	1	1	< 1.00	mg / kg	09-30-02 10:30:00	09-30-02 15:46:06		
✓	7		W02392-021	0209373-07A	SOLID	0.035	0.036	ppm	1	1	1	3.60	mg / kg	09-30-02 10:30:00	09-30-02 15:48:57		
x	8		W02392-022	0209373-07A	SOLID	-0.007	-0.0156	ppm	1	1	1	< 1.00	mg / kg	09-30-02 10:30:00	09-30-02 15:50:02		
✓	9		W02392-023	0209373-08A	SOLID	0.015	0.0114	ppm	1	1	1	1.14	mg / kg	09-30-02 10:30:00	09-30-02 15:51:29		
x	10		W02392-024	0209373-08A	SOLID	0.043	0.0450	ppm	1	1	1	4.59	mg / kg	09-30-02 10:30:00	09-30-02 15:53:04		
✓	11		W02392-025	0209373-09A	SOLID	0.01	0.0063	ppm	1	1	1	< 1.00	mg / kg	09-30-02 10:30:00	09-30-02 15:54:21		
x	12		W02392-026	0209373-09A	SOLID	0.016	0.0126	ppm	1	1	1	1.26	mg / kg	09-30-02 10:30:00	09-30-02 15:55:19		
	13		[STD-CCV]		LAB	0.415	0.5034	ppm	1	1	1	101	% Recovery		09-30-02 15:56:39		
✓	14		W02392-027	0209373-10A	SOLID	0.005	-0.0009	ppm	1	1	1	< 1.00	mg / kg	09-30-02 10:30:00	09-30-02 15:58:48		
x	15		W02392-028	0209373-10A	SOLID	0.018	0.0151	ppm	1	1	1	1.51	mg / kg	09-30-02 10:30:00	09-30-02 15:59:48		
✓	16		W02392-029	0209373-11A	SOLID	0.005	-0.0009	ppm	1	1	1	< 1.00	mg / kg	09-30-02 10:30:00	09-30-02 16:01:21		
x	17		W02392-030	0209373-11A	SOLID	0.016	0.0126	ppm	1	1	1	1.26	mg / kg	09-30-02 10:30:00	09-30-02 16:02:22		
✓	18		W02392-031	0209373-12A	SOLID	0.005	-0.0009	ppm	1	1	1	< 1.00	mg / kg	09-30-02 13:00:00	09-30-02 16:03:57		
x	19		W02392-032	0209373-12A	SOLID	0.032	0.0323	ppm	1	1	1	3.23	mg / kg	09-30-02 13:00:00	09-30-02 16:05:13		
✓	20		W02392-033	0209373-13A	SOLID	0.018	0.0151	ppm	1	1	1	1.51	mg / kg	09-30-02 13:00:00	09-30-02 16:06:50		
x	21		W02392-034	0209373-13A	SOLID	0.002	-0.0046	ppm	1	1	1	< 1.00	mg / kg	09-30-02 13:00:00	09-30-02 16:07:54		
✓	22		W02392-035	0209373-14A	SOLID	0.012	0.0077	ppm	1	1	1	< 1.00	mg / kg	09-30-02 13:00:00	09-30-02 16:09:43		
x	23		W02392-036	0209373-14A	SOLID	0.021	0.0188	ppm	1	1	1	1.88	mg / kg	09-30-02 13:00:00	09-30-02 16:10:39		
	24		[STD-CCV]		LAB	0.414	0.5021	ppm	1	1	1	100	% Recovery		09-30-02 16:12:10		
✓	25		W02392-037	0209373-15A	SOLID	0.009	0.004	ppm	1	1	1	< 1.00	mg / kg	09-30-02 13:00:00	09-30-02 16:14:50		
x	26		W02392-038	0209373-15A	SOLID	0.039	0.0409	ppm	1	1	1	4.09	mg / kg	09-30-02 13:00:00	09-30-02 16:16:02		
✓	27		W02392-039	0209373-16A	SOLID	0.007	0.0016	ppm	1	1	1	< 1.00	mg / kg	09-30-02 13:00:00	09-30-02 16:17:40		
x	28		W02392-040	0209373-16A	SOLID	0.02	0.0176	ppm	1	1	1	1.76	mg / kg	09-30-02 13:00:00	09-30-02 16:18:40		
✓	29		W02392-041	0209373-17A	SOLID	0.013	0.009	ppm	1	1	1	< 1.00	mg / kg	09-30-02 13:00:00	09-30-02 16:20:08		
x	30		W02392-042	0209373-17A	SOLID	0.049	0.0532	ppm	1	1	1	5.32	mg / kg	09-30-02 13:00:00	09-30-02 16:20:59		
	31		[STD-CCV]		LAB	0.41	0.4972	ppm	1	1	1	99	% Recovery		09-30-02 16:22:24		

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ASSAIGAI ANALYTICAL LABORATORIES, INC.
Wet Chemistry Logbook

Ultra Violet/Visible Spectrophotometer Runlog

Date/Initials	Analysis	Batch ID#	Sample ID	ABS	Matrix	Prep DF	Run DF	Comments
9/30/02 - DJ	$CR6^+$/SOLID	W02392	BLANK	0.000	SOLID	1X	1X	λ 540 nm
			[STD-CCV]	0.411				WC-133-02
			[MB]	-0.002				
			9373-06A	0.045				Undeveloped/zeroed
			↓	-0.017				Developed
			BLANK	0.000				
			9373-07A	0.035				Undeveloped/zeroed
			↓	-0.007				Developed
			BLANK	0.000				
			9373-08A	0.015				Undeveloped/zeroed
			↓	0.043				Developed
			BLANK	0.000				
			9373-09A	0.010				Undeveloped/zeroed
			↓	0.016				Developed
			BLANK	0.000				
			[STD-CCV]	0.415				WC-133-02
			9373-10A	0.005				Undeveloped/zeroed
			↓	0.018				Developed
			BLANK	0.000				
			9373-11A	0.005				Undeveloped/zeroed
			↓	0.016				Developed
			BLANK	0.000				
			9373-12A	0.005				Undeveloped/zeroed
			↓	0.032				Developed
			BLANK	0.000				
			9373-13A	0.018				Undeveloped/zeroed
			↓	0.002				Developed
			BLANK	0.000				
			9373-14A	0.012				Undeveloped/zeroed
			↓	0.021				Developed
			BLANK	0.000				
			[STD-CCV]	0.414				WC-133-02
			9373-15A	0.009				Undeveloped/zeroed
			↓	0.039				Developed

* BATCH CONTINUED ON NEXT PAGE

ASSAIGAI ANALYTICAL LABORATORIES, INC.

Wet Chemistry Logbook

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* BATCH CONTINUED FROM LAST PAGE

Ultra Violet/Visible Spectrophotometer Runlog

Date/Initials	Analysis	Batch ID#	Sample ID	ABS	Matrix	Prep DF	Run DF	Comments
9/30/02 - HF	CR6+/SOLID	W02392	BLANK	0.000	SOLID	1X	1X	λ 540 nm
			9373-16A	0.007				Undeveloped/Zeroed
			↓	0.020				Developed
			BLANK	0.000				
			9373-17A	0.013				Undeveloped/zeroed
			↓	0.049				Developed
			BLANK	0.000				
			[STD-CCV]	0.410				WC-133-02

HF 9/30/02

Assaigai Analytical Laboratories, Inc.

Quality Control Summary

Client: LANL-DDP03-0271-014,RM100 E SI
Project: XURP 0460 3219 0000, 1199S/1203S
Order: 0209373 LOS40

Explanation of codes	
D	Not applicable due to sample dilution
L	Not applicable due to MDL proximity

Type: *LCS: Lab Control Spike* Matrix: *SOLID*

Run Sequence	CAS #	Analyte	Result	Units	Range	Dilution Factor	Detection Limit	Code	Run Date
W02392		**EPA 218.4 Hex. Chromium by Chelation Extraction**						**W02392-002**	
WC.2002.1319.3		Chromium, Hexavalent	101	% Recovery	80 - 120	1	NA		09-27-02
M021283		**SW846 3050A/6020 ICP-MS**						**M021283-002**	
MT.2002.1110.12	7429-90-5	Aluminum	102	% Recovery	80 - 120	1	NA		09-24-02
MT.2002.1110.12	7440-36-0	Antimony	102	% Recovery	80 - 120	1	NA		09-24-02
MT.2002.1110.12	7440-38-2	Arsenic	105	% Recovery	80 - 120	1	NA		09-24-02
MT.2002.1110.12	7440-39-3	Barium	103	% Recovery	80 - 120	1	NA		09-24-02
MT.2002.1110.12	7440-41-7	Beryllium	96	% Recovery	80 - 120	1	NA		09-24-02
MT.2002.1110.12	7440-42-8	Boron	96	% Recovery	80 - 120	1	NA		09-24-02
MT.2002.1110.12	7440-43-9	Cadmium	102	% Recovery	80 - 120	1	NA		09-24-02
MT.2002.1110.12	7440-70-2	Calcium	102	% Recovery	80 - 120	1	NA		09-24-02
MT.2002.1110.12	7440-47-3	Chromium	104	% Recovery	80 - 120	1	NA		09-24-02
MT.2002.1110.12	7440-48-4	Cobalt	103	% Recovery	80 - 120	1	NA		09-24-02
MT.2002.1110.12	7440-50-8	Copper	105	% Recovery	80 - 120	1	NA		09-24-02
MT.2002.1110.12	7439-89-6	Iron	108	% Recovery	80 - 120	1	NA		09-24-02
MT.2002.1110.12	7439-92-1	Lead	100	% Recovery	80 - 120	1	NA		09-24-02
MT.2002.1110.12	7439-95-4	Magnesium	102	% Recovery	80 - 120	1	NA		09-24-02
MT.2002.1110.12	7439-96-5	Manganese	105	% Recovery	80 - 120	1	NA		09-24-02
MT.2002.1110.12	7439-98-7	Molybdenum	97	% Recovery	80 - 120	1	NA		09-24-02
MT.2002.1110.12	7440-02-0	Nickel	104	% Recovery	80 - 120	1	NA		09-24-02
MT.2002.1110.12	7440-09-7	Potassium	105	% Recovery	80 - 120	1	NA		09-24-02
MT.2002.1110.12	7782-49-2	Selenium	106	% Recovery	80 - 120	1	NA		09-24-02
MT.2002.1110.12	7440-21-3	Silicon	106	% Recovery	80 - 120	1	NA		09-24-02
MT.2002.1110.12	7440-22-4	Silver	102	% Recovery	80 - 120	1	NA		09-24-02
MT.2002.1110.12	7440-23-5	Sodium	102	% Recovery	80 - 120	1	NA		09-24-02
MT.2002.1110.12	7439-89-6	Strontium	103	% Recovery	80 - 120	1	NA		09-24-02
MT.2002.1110.12	7440-28-0	Thallium	99	% Recovery	80 - 120	1	NA		09-24-02
MT.2002.1110.12	7440-31-5	Tin	115	% Recovery	80 - 120	1	NA		09-24-02
MT.2002.1110.12	7440-32-6	Titanium	103	% Recovery	80 - 120	1	NA		09-24-02
MT.2002.1110.12	7440-61-1	Uranium	100	% Recovery	80 - 120	1	NA		09-24-02
MT.2002.1110.12	7440-62-2	Vanadium	103	% Recovery	80 - 120	1	NA		09-24-02
MT.2002.1110.12	7440-66-6	Zinc	108	% Recovery	80 - 120	1	NA		09-24-02
M021283		**SW846 3050A/6020 ICP-MS**						**M021283-004**	
MT.2002.1133.61	7440-22-4	Lithium	92	% Recovery	80 - 120	1	NA		10-01-02
M021285		**SW846 7471 CVAA**						**M021285-002**	
MT.2002.1103.36	7439-97-6	Mercury	98	% Recovery	90 - 110	1	NA		09-23-02

Type: *LCSD: Lab Control Spike Duplicate Precision* Matrix: *SOLID*

Run Sequence	CAS #	Analyte	Result	Units	Range	Dilution Factor	Detection Limit	Code	Run Date
W02392		**EPA 218.4 Hex. Chromium by Chelation Extraction**						**W02392-003**	
WC.2002.1319.4		Chromium, Hexavalent	< 1	RPD	0 - 20	1	NA		09-27-02

Assaigai Analytical Laboratories, Inc.

Quality Control Summary

Client: LANL-DDP03-0271-014,RM100 E SI
Project: XURP 0460 3219 0000, 1199S/1203S
Order: 0209373 LOS40

Explanation of codes	
D	Not applicable due to sample dilution
L	Not applicable due to MDL proximity

Type: *LCSD: Lab Control Spike Duplicate Precision* Matrix: *SOLID*

Run Sequence	CAS #	Analyte	Result	Units	Range	Dilution Factor	Detection Limit	Code	Run Date
M021283		**SW846 3050A/6020 ICP-MS**					**M021283-003**		
MT.2002.1110.13	7429-90-5	Aluminum	3	RPD	0 - 20	1	NA		09-24-02
MT.2002.1110.13	7440-36-0	Antimony	< 1	RPD	0 - 20	1	NA		09-24-02
MT.2002.1110.13	7440-38-2	Arsenic	< 1	RPD	0 - 20	1	NA		09-24-02
MT.2002.1110.13	7440-39-3	Barium	< 1	RPD	0 - 20	1	NA		09-24-02
MT.2002.1110.13	7440-41-7	Beryllium	< 1	RPD	0 - 20	1	NA		09-24-02
MT.2002.1110.13	7440-42-8	Boron	4	RPD	0 - 20	1	NA		09-24-02
MT.2002.1110.13	7440-43-9	Cadmium	< 1	RPD	0 - 20	1	NA		09-24-02
MT.2002.1110.13	7440-70-2	Calcium	2	RPD	0 - 20	1	NA		09-24-02
MT.2002.1110.13	7440-47-3	Chromium	1	RPD	0 - 20	1	NA		09-24-02
MT.2002.1110.13	7440-48-4	Cobalt	< 1	RPD	0 - 20	1	NA		09-24-02
MT.2002.1110.13	7440-50-8	Copper	< 1	RPD	0 - 20	1	NA		09-24-02
MT.2002.1110.13	7439-89-6	Iron	< 1	RPD	0 - 20	1	NA		09-24-02
MT.2002.1110.13	7439-92-1	Lead	< 1	RPD	0 - 20	1	NA		09-24-02
MT.2002.1110.13	7439-95-4	Magnesium	2	RPD	0 - 20	1	NA		09-24-02
MT.2002.1110.13	7439-96-5	Manganese	< 1	RPD	0 - 20	1	NA		09-24-02
MT.2002.1110.13	7439-98-7	Molybdenum	< 1	RPD	0 - 20	1	NA		09-24-02
MT.2002.1110.13	7440-02-0	Nickel	< 1	RPD	0 - 20	1	NA		09-24-02
MT.2002.1110.13	7440-09-7	Potassium	2	RPD	0 - 20	1	NA		09-24-02
MT.2002.1110.13	7782-49-2	Selenium	< 1	RPD	0 - 20	1	NA		09-24-02
MT.2002.1110.13	7440-21-3	Silicon	1	RPD	0 - 20	1	NA		09-24-02
MT.2002.1110.13	7440-22-4	Silver	< 1	RPD	0 - 20	1	NA		09-24-02
MT.2002.1110.13	7440-23-5	Sodium	2	RPD	0 - 20	1	NA		09-24-02
MT.2002.1110.13	7439-89-6	Strontium	< 1	RPD	0 - 20	1	NA		09-24-02
MT.2002.1110.13	7440-28-0	Thallium	< 1	RPD	0 - 20	1	NA		09-24-02
MT.2002.1110.13	7440-31-5	Tin	< 1	RPD	0 - 20	1	NA		09-24-02
MT.2002.1110.13	7440-32-6	Titanium	< 1	RPD	0 - 20	1	NA		09-24-02
MT.2002.1110.13	7440-61-1	Uranium	< 1	RPD	0 - 20	1	NA		09-24-02
MT.2002.1110.13	7440-62-2	Vanadium	1	RPD	0 - 20	1	NA		09-24-02
MT.2002.1110.13	7440-66-6	Zinc	< 1	RPD	0 - 20	1	NA		09-24-02
M021283		**SW846 3050A/6020 ICP-MS**					**M021283-005**		
MT.2002.1133.62	7440-22-4	Lithium	4	RPD	0 - 20	1	NA		10-01-02
M021285		**SW846 7471 CVAA**					**M021285-003**		
MT.2002.1103.37	7439-97-6	Mercury	2	RPD	0 - 20	1	NA		09-23-02

Type: *LCSD: Lab Control Spike Duplicate Accuracy* Matrix: *SOLID*

Run Sequence	CAS #	Analyte	Result	Units	Range	Dilution Factor	Detection Limit	Code	Run Date
W02392		**EPA 218.4 Hex. Chromium by Chelation Extraction**					**W02392-003**		
WC.2002.1319.4		Chromium, Hexavalent	102	% Recovery	80 - 120	1	NA		09-27-02
M021283		**SW846 3050A/6020 ICP-MS**					**M021283-003**		
MT.2002.1110.13	7429-90-5	Aluminum	105	% Recovery	80 - 120	1	NA		09-24-02

Assaigai Analytical Laboratories, Inc.

Quality Control Summary

Client: LANL-DDP03-0271-014,RM100 E SI
Project: XURP 0460 3219 0000, 1199S/1203S
Order: 0209373 LOS40

Explanation of codes	
D	*Not applicable due to sample dilution*
L	*Not applicable due to MDL proximity*

Type: *LCSD: Lab Control Spike Duplicate Accuracy* **Matrix:** *SOLID*

Run Sequence	CAS #	Analyte	Result	Units	Range	Dilution Factor	Detection Limit	Code	Run Date
M021283		**SW846 3050A/6020 ICP-MS**						**M021283-003**	
MT.2002.1110.13	7440-36-0	Antimony	103	% Recovery	80 - 120	1	NA		09-24-02
MT.2002.1110.13	7440-38-2	Arsenic	106	% Recovery	80 - 120	1	NA		09-24-02
MT.2002.1110.13	7440-39-3	Barium	104	% Recovery	80 - 120	1	NA		09-24-02
MT.2002.1110.13	7440-41-7	Beryllium	95	% Recovery	80 - 120	1	NA		09-24-02
MT.2002.1110.13	7440-42-8	Boron	100	% Recovery	80 - 120	1	NA		09-24-02
MT.2002.1110.13	7440-43-9	Cadmium	101	% Recovery	80 - 120	1	NA		09-24-02
MT.2002.1110.13	7440-70-2	Calcium	105	% Recovery	80 - 120	1	NA		09-24-02
MT.2002.1110.13	7440-47-3	Chromium	102	% Recovery	80 - 120	1	NA		09-24-02
MT.2002.1110.13	7440-48-4	Cobalt	104	% Recovery	80 - 120	1	NA		09-24-02
MT.2002.1110.13	7440-50-8	Copper	106	% Recovery	80 - 120	1	NA		09-24-02
MT.2002.1110.13	7439-89-6	Iron	108	% Recovery	80 - 120	1	NA		09-24-02
MT.2002.1110.13	7439-92-1	Lead	100	% Recovery	80 - 120	1	NA		09-24-02
MT.2002.1110.13	7439-95-4	Magnesium	100	% Recovery	80 - 120	1	NA		09-24-02
MT.2002.1110.13	7439-96-5	Manganese	106	% Recovery	80 - 120	1	NA		09-24-02
MT.2002.1110.13	7439-98-7	Molybdenum	97	% Recovery	80 - 120	1	NA		09-24-02
MT.2002.1110.13	7440-02-0	Nickel	105	% Recovery	80 - 120	1	NA		09-24-02
MT.2002.1110.13	7440-09-7	Potassium	102	% Recovery	80 - 120	1	NA		09-24-02
MT.2002.1110.13	7782-49-2	Selenium	106	% Recovery	80 - 120	1	NA		09-24-02
MT.2002.1110.13	7440-21-3	Silicon	107	% Recovery	80 - 120	1	NA		09-24-02
MT.2002.1110.13	7440-22-4	Silver	101	% Recovery	80 - 120	1	NA		09-24-02
MT.2002.1110.13	7440-23-5	Sodium	100	% Recovery	80 - 120	1	NA		09-24-02
MT.2002.1110.13	7439-89-6	Strontium	103	% Recovery	80 - 120	1	NA		09-24-02
MT.2002.1110.13	7440-28-0	Thallium	98	% Recovery	80 - 120	1	NA		09-24-02
MT.2002.1110.13	7440-31-5	Tin	116	% Recovery	80 - 120	1	NA		09-24-02
MT.2002.1110.13	7440-32-6	Titanium	102	% Recovery	80 - 120	1	NA		09-24-02
MT.2002.1110.13	7440-61-1	Uranium	100	% Recovery	80 - 120	1	NA		09-24-02
MT.2002.1110.13	7440-62-2	Vanadium	102	% Recovery	80 - 120	1	NA		09-24-02
MT.2002.1110.13	7440-66-6	Zinc	109	% Recovery	80 - 120	1	NA		09-24-02
M021283		**SW846 3050A/6020 ICP-MS**						**M021283-005**	
MT.2002.1133.62	7440-22-4	Lithium	89	% Recovery	80 - 120	1	NA		10-01-02
M021285		**SW846 7471 CVAA**						**M021285-003**	
MT.2002.1103.37	7439-97-6	Mercury	100	% Recovery	90 - 110	1	NA		09-23-02

Type: *MB: Method Blank* **Matrix:** *SOLID*

Run Sequence	CAS #	Analyte	Result	Units	Range	Dilution Factor	Detection Limit	Code	Run Date
MO0216		**ASTM D2216**						**02.1477-1**	
WC.2002.1477.1		Moisture	ND	%		1	0.1		10-09-02
W02392		**EPA 218.4 Hex. Chromium by Chelation Extraction**						**W02392-001**	
WC.2002.1319.2		Chromium, Hexavalent	ND	mg / kg		1	1		09-27-02

Assaigai Analytical Laboratories, Inc.

Quality Control Summary

Client: LANL-DDP03-0271-014,RM100 E SI
Project: XURP 0460 3219 0000, 1199S/1203S
Order: 0209373 LOS40

Explanation of codes	
D	Not applicable due to sample dilution
L	Not applicable due to MDL proximity

Type: **MB: Method Blank** Matrix: **SOLID**

Run Sequence	CAS #	Analyte	Result	Units	Range	Dilution Factor	Detection Limit	Code	Run Date
W02392		**EPA 218.4 Hex. Chromium by Chelation Extraction**						**W02392-018**	
WC.2002.1329.2		Chromium, Hexavalent	ND	mg / kg		1	1		09-30-02
M021283		**SW846 3050A/6020 ICP-MS**						**M021283-001**	
MT.2002.1110.11	7429-90-5	Aluminum	2.48	mg / Kg		1	0.5		09-24-02
MT.2002.1110.11	7440-36-0	Antimony	ND	mg / Kg		1	0.05		09-24-02
MT.2002.1110.11	7440-38-2	Arsenic	ND	mg / Kg		1	0.025		09-24-02
MT.2002.1110.11	7440-39-3	Barium	ND	mg / Kg		1	0.025		09-24-02
MT.2002.1110.11	7440-41-7	Beryllium	ND	mg / Kg		1	0.025		09-24-02
MT.2002.1110.11	7440-42-8	Boron	ND	mg / Kg		1	0.15		09-24-02
MT.2002.1110.11	7440-43-9	Cadmium	ND	mg / Kg		1	0.025		09-24-02
MT.2002.1110.11	7440-70-2	Calcium	4.07	mg / Kg		1	0.5		09-24-02
MT.2002.1110.11	7440-47-3	Chromium	ND	mg / Kg		1	0.05		09-24-02
MT.2002.1110.11	7440-48-4	Cobalt	ND	mg / Kg		1	0.025		09-24-02
MT.2002.1110.11	7440-50-8	Copper	0.033	mg / Kg		1	0.025		09-24-02
MT.2002.1110.11	7439-89-6	Iron	1.43	mg / Kg		1	0.5		09-24-02
MT.2002.1110.11	7439-92-1	Lead	0.033	mg / Kg		1	0.025		09-24-02
MT.2002.1133.60	7440-22-4	Lithium	ND	mg / Kg		1	0.05		10-01-02
MT.2002.1110.11	7439-95-4	Magnesium	1.05	mg / Kg		1	0.5		09-24-02
MT.2002.1110.11	7439-96-5	Manganese	0.074	mg / Kg		1	0.025		09-24-02
MT.2002.1110.11	7439-98-7	Molybdenum	0.083	mg / Kg		1	0.025		09-24-02
MT.2002.1110.11	7440-02-0	Nickel	ND	mg / Kg		1	0.025		09-24-02
MT.2002.1110.11	7440-09-7	Potassium	1.68	mg / Kg		1	0.5		09-24-02
MT.2002.1110.11	7782-49-2	Selenium	ND	mg / Kg		1	0.025		09-24-02
MT.2002.1110.11	7440-21-3	Silicon	ND	mg / Kg		1	1		09-24-02
MT.2002.1110.11	7440-22-4	Silver	ND	mg / Kg		1	0.025		09-24-02
MT.2002.1110.11	7440-23-5	Sodium	1.58	mg / Kg		1	0.5		09-24-02
MT.2002.1110.11	7439-89-6	Strontium	ND	mg / Kg		1	0.025		09-24-02
MT.2002.1110.11	7440-28-0	Thallium	ND	mg / Kg		1	0.025		09-24-02
MT.2002.1110.11	7440-31-5	Tin	0.671	mg / Kg		1	0.025		09-24-02
MT.2002.1110.11	7440-32-6	Titanium	0.082	mg / Kg		1	0.025		09-24-02
MT.2002.1110.11	7440-61-1	Uranium	ND	mg / Kg		1	0.025		09-24-02
MT.2002.1110.11	7440-62-2	Vanadium	ND	mg / Kg		1	0.05		09-24-02
MT.2002.1110.11	7440-66-6	Zinc	ND	mg / Kg		1	0.25		09-24-02
M021285		**SW846 7471 CVAA**						**M021285-001**	
MT.2002.1103.35	7439-97-6	Mercury	ND	mg / Kg		1	0.05		09-23-02

Type: **MD: Matrix Duplicate** Matrix: **SOLID**

Run Sequence	CAS #	Analyte	Result	Units	Range	Dilution Factor	Detection Limit	Code	Run Date
MO0216		**ASTM D2216**						**02.1477-3**	
WC.2002.1477.3		Moisture	5	RPD		1	NA		10-09-02

Assaigai Analytical Laboratories, Inc.

Quality Control Summary

Client: **LANL-DDP03-0271-014,RM100 E SI**
Project: **XURP 0460 3219 0000, 1199S/1203S**
Order: **0209373 LOS40**

Explanation of codes	
D	*Not applicable due to sample dilution*
L	*Not applicable due to MDL proximity*

Type: ***MS: Matrix Spike*** Matrix: ***SOLID***

Run Sequence	CAS #	Analyte	Result	Units	Range	Dilution Factor	Detection Limit	Code	Run Date
W02392		**EPA 218.4 Hex. Chromium by Chelation Extraction**						**W02392-007**	
WC.2002.1319.8		Chromium, Hexavalent	79	% Recovery	80 - 120	1	NA		09-27-02
M021283		**SW846 3050A/6020 ICP-MS**						**M021283-007**	
MT.2002.1110.17	7429-90-5	Aluminum	1840	% Recovery	80 - 120	10	NA		09-24-02
MT.2002.1110.17	7440-36-0	Antimony	45	% Recovery	80 - 120	10	NA		09-24-02
MT.2002.1110.17	7440-38-2	Arsenic	105	% Recovery	80 - 120	10	NA		09-24-02
MT.2002.1110.17	7440-39-3	Barium	155	% Recovery	80 - 120	10	NA		09-24-02
MT.2002.1110.17	7440-41-7	Beryllium	101	% Recovery	80 - 120	10	NA		09-24-02
MT.2002.1110.17	7440-42-8	Boron	94	% Recovery	80 - 120	10	NA		09-24-02
MT.2002.1110.17	7440-43-9	Cadmium	106	% Recovery	80 - 120	10	NA		09-24-02
MT.2002.1110.17	7440-70-2	Calcium	205	% Recovery	80 - 120	10	NA		09-24-02
MT.2002.1110.17	7440-47-3	Chromium	109	% Recovery	80 - 120	10	NA		09-24-02
MT.2002.1110.17	7440-48-4	Cobalt	104	% Recovery	80 - 120	10	NA		09-24-02
MT.2002.1110.17	7440-50-8	Copper	105	% Recovery	80 - 120	10	NA		09-24-02
MT.2002.1110.16	7439-89-6	Iron	2500	% Recovery	80 - 120	97	NA		09-24-02
MT.2002.1110.17	7439-92-1	Lead	107	% Recovery	80 - 120	10	NA		09-24-02
MT.2002.1110.17	7439-95-4	Magnesium	398	% Recovery	80 - 120	10	NA		09-24-02
MT.2002.1110.16	7439-96-5	Manganese	353	% Recovery	80 - 120	97	NA		09-24-02
MT.2002.1110.17	7439-98-7	Molybdenum	94	% Recovery	80 - 120	10	NA		09-24-02
MT.2002.1110.17	7440-02-0	Nickel	106	% Recovery	80 - 120	10	NA		09-24-02
MT.2002.1110.17	7440-09-7	Potassium	400	% Recovery	80 - 120	10	NA		09-24-02
MT.2002.1110.17	7782-49-2	Selenium	107	% Recovery	80 - 120	10	NA		09-24-02
MT.2002.1110.17	7440-21-3	Silicon	326	% Recovery	80 - 120	10	NA		09-24-02
MT.2002.1110.17	7440-22-4	Silver	102	% Recovery	80 - 120	10	NA		09-24-02
MT.2002.1110.17	7440-23-5	Sodium	122	% Recovery	80 - 120	10	NA		09-24-02
MT.2002.1110.17	7439-89-6	Strontium	201	% Recovery	80 - 120	10	NA		09-24-02
MT.2002.1110.17	7440-28-0	Thallium	98	% Recovery	80 - 120	10	NA		09-24-02
MT.2002.1110.17	7440-31-5	Tin	111	% Recovery	80 - 120	10	NA		09-24-02
MT.2002.1110.16	7440-32-6	Titanium	1250	% Recovery	80 - 120	97	NA		09-24-02
MT.2002.1110.17	7440-61-1	Uranium	104	% Recovery	80 - 120	10	NA		09-24-02
MT.2002.1110.17	7440-62-2	Vanadium	116	% Recovery	80 - 120	10	NA		09-24-02
MT.2002.1110.17	7440-66-6	Zinc	128	% Recovery	80 - 120	10	NA		09-24-02
M021283		**SW846 3050A/6020 ICP-MS**						**M021283-009**	
MT.2002.1133.64	7440-22-4	Lithium	29	% Recovery	80 - 120	10	NA		10-01-02
M021285		**SW846 7471 CVAA**						**M021285-005**	
MT.2002.1103.39	7439-97-6	Mercury	100	% Recovery	90 - 110	1	NA		09-23-02

Type: ***MSD: Matrix Spike Duplicate Precision*** Matrix: ***SOLID***

Run Sequence	CAS #	Analyte	Result	Units	Range	Dilution Factor	Detection Limit	Code	Run Date
W02392		**EPA 218.4 Hex. Chromium by Chelation Extraction**						**W02392-009**	
WC.2002.1319.10		Chromium, Hexavalent	< 1	RPD	0 - 20	1	NA		09-27-02

Assaigai Analytical Laboratories, Inc.

Quality Control Summary

212

Client: LANL-DDP03-0271-014,RM100 E SI
Project: XURP 0460 3219 0000, 1199S/1203S
Order: 0209373 LOS40

Explanation of codes	
D	Not applicable due to sample dilution
L	Not applicable due to MDL proximity

Type: **MSD: Matrix Spike Duplicate Precision** Matrix: **SOLID**

Run Sequence	CAS #	Analyte	Result	Units	Range	Dilution Factor	Detection Limit	Code	Run Date
M021283		**SW846 3050A/6020 ICP-MS**						**M021283-008**	
MT.2002.1110.21	7429-90-5	Aluminum	32	RPD	0 - 20	10	NA		09-24-02
MT.2002.1110.21	7440-36-0	Antimony	10	RPD	0 - 20	10	NA		09-24-02
MT.2002.1110.21	7440-38-2	Arsenic	2	RPD	0 - 20	10	NA		09-24-02
MT.2002.1110.21	7440-39-3	Barium	5	RPD	0 - 20	10	NA		09-24-02
MT.2002.1110.21	7440-41-7	Beryllium	3	RPD	0 - 20	10	NA		09-24-02
MT.2002.1110.21	7440-42-8	Boron	< 1	RPD	0 - 20	10	NA		09-24-02
MT.2002.1110.21	7440-43-9	Cadmium	< 1	RPD	0 - 20	10	NA		09-24-02
MT.2002.1110.21	7440-70-2	Calcium	86	RPD	0 - 20	10	NA		09-24-02
MT.2002.1110.21	7440-47-3	Chromium	< 1	RPD	0 - 20	10	NA		09-24-02
MT.2002.1110.21	7440-48-4	Cobalt	4	RPD	0 - 20	10	NA		09-24-02
MT.2002.1110.21	7440-50-8	Copper	6	RPD	0 - 20	10	NA		09-24-02
MT.2002.1110.18	7439-89-6	Iron	16	RPD	0 - 20	96	NA		09-24-02
MT.2002.1110.21	7439-92-1	Lead	42	RPD	0 - 20	10	NA		09-24-02
MT.2002.1110.21	7439-95-4	Magnesium	28	RPD	0 - 20	10	NA		09-24-02
MT.2002.1110.18	7439-96-5	Manganese	112	RPD	0 - 20	96	NA		09-24-02
MT.2002.1110.21	7439-98-7	Molybdenum	< 1	RPD	0 - 20	10	NA		09-24-02
MT.2002.1110.21	7440-02-0	Nickel	13	RPD	0 - 20	10	NA		09-24-02
MT.2002.1110.21	7440-09-7	Potassium	26	RPD	0 - 20	10	NA		09-24-02
MT.2002.1110.21	7782-49-2	Selenium	3	RPD	0 - 20	10	NA		09-24-02
MT.2002.1110.21	7440-21-3	Silicon	20	RPD	0 - 20	10	NA		09-24-02
MT.2002.1110.21	7440-22-4	Silver	< 1	RPD	0 - 20	10	NA		09-24-02
MT.2002.1110.21	7440-23-5	Sodium	11	RPD	0 - 20	10	NA		09-24-02
MT.2002.1110.21	7439-89-6	Strontium	5	RPD	0 - 20	10	NA		09-24-02
MT.2002.1110.21	7440-28-0	Thallium	3	RPD	0 - 20	10	NA		09-24-02
MT.2002.1110.21	7440-31-5	Tin	< 1	RPD	0 - 20	10	NA		09-24-02
MT.2002.1110.18	7440-32-6	Titanium	29	RPD	0 - 20	96	NA		09-24-02
MT.2002.1110.21	7440-61-1	Uranium	2	RPD	0 - 20	10	NA		09-24-02
MT.2002.1110.21	7440-62-2	Vanadium	7	RPD	0 - 20	10	NA		09-24-02
MT.2002.1110.21	7440-66-6	Zinc	2	RPD	0 - 20	10	NA		09-24-02
M021283		**SW846 3050A/6020 ICP-MS**						**M021283-010**	
MT.2002.1133.67	7440-22-4	Lithium	123	RPD	0 - 20	9	NA		10-01-02
M021285		**SW846 7471 CVAA**						**M021285-006**	
MT.2002.1103.67	7439-97-6	Mercury	< 1	RPD	0 - 20	1	NA		09-23-02

Type: **MSD: Matrix Spike Duplicate Accuracy** Matrix: **SOLID**

Run Sequence	CAS #	Analyte	Result	Units	Range	Dilution Factor	Detection Limit	Code	Run Date
W02392		**EPA 218.4 Hex. Chromium by Chelation Extraction**						**W02392-009**	
WC.2002.1319.10		Chromium, Hexavalent	80	% Recovery	80 - 120	1	NA		09-27-02
M021283		**SW846 3050A/6020 ICP-MS**						**M021283-008**	
MT.2002.1110.21	7429-90-5	Aluminum	1330	% Recovery	80 - 120	10	NA		09-24-02

Assaigai Analytical Laboratories, Inc.

Quality Control Summary

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Client: **LANL-DDP03-0271-014,RM100 E SI**
Project: **XURP 0460 3219 0000, 1199S/1203S**
Order: **0209373 LOS40**

Explanation of codes	
D	*Not applicable due to sample dilution*
L	*Not applicable due to MDL proximity*

Type: ***MSD: Matrix Spike Duplicate Accuracy*** Matrix: ***SOLID***

Run Sequence	CAS #	Analyte	Result	Units	Range	Dilution Factor	Detection Limit	Code	Run Date
M021283		**SW846 3050A/6020 ICP-MS**						**M021283-008**	
MT.2002.1110.21	7440-36-0	Antimony	50	% Recovery	80 - 120	10	NA		09-24-02
MT.2002.1110.21	7440-38-2	Arsenic	107	% Recovery	80 - 120	10	NA		09-24-02
MT.2002.1110.21	7440-39-3	Barium	148	% Recovery	80 - 120	10	NA		09-24-02
MT.2002.1110.21	7440-41-7	Beryllium	103	% Recovery	80 - 120	10	NA		09-24-02
MT.2002.1110.21	7440-42-8	Boron	93	% Recovery	80 - 120	10	NA		09-24-02
MT.2002.1110.21	7440-43-9	Cadmium	106	% Recovery	80 - 120	10	NA		09-24-02
MT.2002.1110.21	7440-70-2	Calcium	513	% Recovery	80 - 120	10	NA		09-24-02
MT.2002.1110.21	7440-47-3	Chromium	109	% Recovery	80 - 120	10	NA		09-24-02
MT.2002.1110.21	7440-48-4	Cobalt	108	% Recovery	80 - 120	10	NA		09-24-02
MT.2002.1110.21	7440-50-8	Copper	112	% Recovery	80 - 120	10	NA		09-24-02
MT.2002.1110.18	7439-89-6	Iron	1790	% Recovery	80 - 120	96	NA		09-24-02
MT.2002.1110.21	7439-92-1	Lead	165	% Recovery	80 - 120	10	NA		09-24-02
MT.2002.1110.21	7439-95-4	Magnesium	288	% Recovery	80 - 120	10	NA		09-24-02
MT.2002.1110.18	7439-96-5	Manganese	804	% Recovery	80 - 120	96	NA		09-24-02
MT.2002.1110.21	7439-98-7	Molybdenum	95	% Recovery	80 - 120	10	NA		09-24-02
MT.2002.1110.21	7440-02-0	Nickel	121	% Recovery	80 - 120	10	NA		09-24-02
MT.2002.1110.21	7440-09-7	Potassium	309	% Recovery	80 - 120	10	NA		09-24-02
MT.2002.1110.21	7782-49-2	Selenium	111	% Recovery	80 - 120	10	NA		09-24-02
MT.2002.1110.21	7440-21-3	Silicon	396	% Recovery	80 - 120	10	NA		09-24-02
MT.2002.1110.21	7440-22-4	Silver	102	% Recovery	80 - 120	10	NA		09-24-02
MT.2002.1110.21	7440-23-5	Sodium	109	% Recovery	80 - 120	10	NA		09-24-02
MT.2002.1110.21	7439-89-6	Strontium	211	% Recovery	80 - 120	10	NA		09-24-02
MT.2002.1110.21	7440-28-0	Thallium	101	% Recovery	80 - 120	10	NA		09-24-02
MT.2002.1110.21	7440-31-5	Tin	112	% Recovery	80 - 120	10	NA		09-24-02
MT.2002.1110.18	7440-32-6	Titanium	1360	% Recovery	80 - 120	96	NA		09-24-02
MT.2002.1110.21	7440-61-1	Uranium	106	% Recovery	80 - 120	10	NA		09-24-02
MT.2002.1110.21	7440-62-2	Vanadium	124	% Recovery	80 - 120	10	NA		09-24-02
MT.2002.1110.21	7440-66-6	Zinc	131	% Recovery	80 - 120	10	NA		09-24-02
M021283		**SW846 3050A/6020 ICP-MS**						**M021283-010**	
MT.2002.1133.67	7440-22-4	Lithium	121	% Recovery	80 - 120	9	NA		10-01-02
M021285		**SW846 7471 CVAA**						**M021285-006**	
MT.2002.1103.67	7439-97-6	Mercury	99	% Recovery	90 - 110	1	NA		09-23-02

Monday, September 16, 2002

REQUEST NUMBER: 1199S

ANALYSIS TYPE: INORGANIC

Los Alamos
NATIONAL LABORATORY

ATTN: Elvin Chavez
Assaigai Analytical Laboratory
7300 Jefferson NE
Albuquerque, NM 87109

Please analyze the enclosed samples according to the schedule indicated:

SHIP DATE: 09/16/2002
REPORT DUE: 10/16/2002
TURN AROUND REQ'D: 30

RAD SCREENING: NOT REQ
COMMENTS:

These samples are on:

LANL Request Number: 1199S
Per Agreement Number:
Project Cost Code: XURP04503219

LANL ER SMO CONTACT:
Signature:

METHOD CODE	SAMPLE ID	CONT ID	SAMPLE MATRIX	DATE SAMPLED	COMMENTS
SW-846:7196A	RE03-02-49301	1	S	09/12/2002	
SW-846:7471A	RE03-02-49301	1	S	09/12/2002	
SW-846:7471A	RE03-02-49300	1	S	09/12/2002	
SW-846:6010B	RE03-02-49301	1	S	09/12/2002	
SW-846:6020	RE03-02-49301	1	S	09/12/2002	
SW-846:6010B	RE03-02-49300	1	S	09/12/2002	
SW-846:6020	RE03-02-49300	1	S	09/12/2002	
SW-846:7196A	RE03-02-49300	1	S	09/12/2002	
SW-846:6020	RE03-02-49299	1	S	09/12/2002	
SW-846:7196A	RE03-02-49299	1	S	09/12/2002	
SW-846:7471A	RE03-02-49299	1	S	09/12/2002	
SW-846:7196A	RE03-02-49298	1	S	09/12/2002	
SW-846:7471A	RE03-02-49298	1	S	09/12/2002	
SW-846:6010B	RE03-02-49299	1	S	09/12/2002	
SW-846:7471A	RE03-02-49297	1	S	09/12/2002	
SW-846:6010B	RE03-02-49298	1	S	09/12/2002	
SW-846:6020	RE03-02-49298	1	S	09/12/2002	
SW-846:6010B	RE03-02-49297	1	S	09/12/2002	
SW-846:6020	RE03-02-49297	1	S	09/12/2002	
SW-846:7196A	RE03-02-49297	1	S	09/12/2002	
SW-846:6020	RE03-02-49296	1	S	09/12/2002	
SW-846:7196A	RE03-02-49296	1	S	09/12/2002	
SW-846:7471A	RE03-02-49296	1	S	09/12/2002	
SW-846:7196A	RE03-02-49295	1	S	09/12/2002	
SW-846:7471A	RE03-02-49295	1	S	09/12/2002	
SW-846:6010B	RE03-02-49296	1	S	09/12/2002	
SW-846:7471A	RE03-02-49294	1	S	09/12/2002	
SW-846:6010B	RE03-02-49295	1	S	09/12/2002	
SW-846:6020	RE03-02-49295	1	S	09/12/2002	
SW-846:6010B	RE03-02-49294	1	S	09/12/2002	
SW-846:6020	RE03-02-49294	1	S	09/12/2002	
SW-846:7196A	RE03-02-49294	1	S	09/12/2002	
SW-846:6020	RE03-02-49293	1	S	09/12/2002	
SW-846:7196A	RE03-02-49293	1	S	09/12/2002	
SW-846:7471A	RE03-02-49293	1	S	09/12/2002	
SW-846:7196A	RE03-02-49292	1	S	09/12/2002	
SW-846:7471A	RE03-02-49292	1	S	09/12/2002	
SW-846:6010B	RE03-02-49293	1	S	09/12/2002	

Monday, September 16, 2002

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Per Agreement Number:
Project Cost Code: XURP04503219

LANL ER SMO CONTACT:
Signature:

METHOD CODE	SAMPLE ID	CONT ID	SAMPLE MATRIX	DATE SAMPLED	COMMENTS
SW-846:7471A	RE03-02-49291	1	S	09/12/2002	
SW-846:6010B	RE03-02-49292	1	S	09/12/2002	
SW-846:6020	RE03-02-49292	1	S	09/12/2002	
SW-846:6010B	RE03-02-49291	1	S	09/12/2002	
SW-846:6020	RE03-02-49291	1	S	09/12/2002	
SW-846:7196A	RE03-02-49291	1	S	09/12/2002	
SW-846:6020	RE03-02-49290	1	S	09/12/2002	
SW-846:7196A	RE03-02-49290	1	S	09/12/2002	
SW-846:7471A	RE03-02-49290	1	S	09/12/2002	
SW-846:7196A	RE03-02-49289	1	S	09/12/2002	
SW-846:7471A	RE03-02-49289	1	S	09/12/2002	
SW-846:6010B	RE03-02-49290	1	S	09/12/2002	
SW-846:7471A	RE03-02-49288	1	S	09/12/2002	
SW-846:6010B	RE03-02-49289	1	S	09/12/2002	
SW-846:6020	RE03-02-49289	1	S	09/12/2002	
SW-846:6010B	RE03-02-49288	1	S	09/12/2002	
SW-846:6020	RE03-02-49288	1	S	09/12/2002	
SW-846:7196A	RE03-02-49288	1	S	09/12/2002	
SW-846:6020	RE03-02-49287	1	S	09/12/2002	
SW-846:7196A	RE03-02-49287	1	S	09/12/2002	
SW-846:7471A	RE03-02-49287	1	S	09/12/2002	
SW-846:7196A	RE03-02-49286	1	S	09/12/2002	
SW-846:7471A	RE03-02-49286	1	S	09/12/2002	
SW-846:6010B	RE03-02-49287	1	S	09/12/2002	
SW-846:7471A	RE03-02-49285	1	S	09/12/2002	
SW-846:6010B	RE03-02-49286	1	S	09/12/2002	
SW-846:6020	RE03-02-49286	1	S	09/12/2002	
SW-846:6010B	RE03-02-49285	1	S	09/12/2002	
SW-846:6020	RE03-02-49285	1	S	09/12/2002	
SW-846:7196A	RE03-02-49285	1	S	09/12/2002	
SW-846:6020	RE03-02-49284	1	S	09/12/2002	
SW-846:7196A	RE03-02-49284	1	S	09/12/2002	
SW-846:7471A	RE03-02-49284	1	S	09/12/2002	
SW-846:7196A	RE03-02-49283	1	S	09/12/2002	
SW-846:7471A	RE03-02-49283	1	S	09/12/2002	
SW-846:6010B	RE03-02-49284	1	S	09/12/2002	
SW-846:7471A	RE03-02-49282	1	S	09/12/2002	
SW-846:6010B	RE03-02-49283	1	S	09/12/2002	

Monday, September 16, 2002

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LANL Request Number: 1199S
Per Agreement Number:
Project Cost Code: XURP04503219

LANL ER SMO CONTACT:
Signature:

METHOD CODE	SAMPLE ID	CONT ID	SAMPLE MATRIX	DATE SAMPLED	COMMENTS
SW-846:6020	RE03-02-49283	1	S	09/12/2002	
SW-846:6010B	RE03-02-49282	1	S	09/12/2002	
SW-846:6020	RE03-02-49282	1	S	09/12/2002	
SW-846:7196A	RE03-02-49282	1	S	09/12/2002	
SW-846:6020	RE03-02-49281	1	S	09/12/2002	
SW-846:7196A	RE03-02-49281	1	S	09/12/2002	
SW-846:7471A	RE03-02-49281	1	S	09/12/2002	
SW-846:7196A	RE03-02-49280	1	S	09/12/2002	
SW-846:7471A	RE03-02-49280	1	S	09/12/2002	
SW-846:6010B	RE03-02-49281	1	S	09/12/2002	
SW-846:7471A	RE03-02-49279	1	S	09/12/2002	
SW-846:6010B	RE03-02-49280	1	S	09/12/2002	
SW-846:6020	RE03-02-49280	1	S	09/12/2002	
SW-846:6010B	RE03-02-49279	1	S	09/12/2002	
SW-846:6020	RE03-02-49279	1	S	09/12/2002	
SW-846:7196A	RE03-02-49279	1	S	09/12/2002	
SW-846:6020	RE03-02-49278	1	S	09/12/2002	
SW-846:7196A	RE03-02-49278	1	S	09/12/2002	
SW-846:7471A	RE03-02-49278	1	S	09/12/2002	
SW-846:7196A	RE03-02-49277	1	S	09/12/2002	
SW-846:7471A	RE03-02-49277	1	S	09/12/2002	
SW-846:6010B	RE03-02-49278	1	S	09/12/2002	
SW-846:7471A	RE03-02-49276	1	S	09/12/2002	
SW-846:6010B	RE03-02-49277	1	S	09/12/2002	
SW-846:6020	RE03-02-49277	1	S	09/12/2002	
SW-846:6010B	RE03-02-49276	1	S	09/12/2002	
SW-846:6020	RE03-02-49276	1	S	09/12/2002	
SW-846:7196A	RE03-02-49276	1	S	09/12/2002	
SW-846:6020	RE03-02-49275	1	S	09/12/2002	
SW-846:7196A	RE03-02-49275	1	S	09/12/2002	
SW-846:7471A	RE03-02-49275	1	S	09/12/2002	
SW-846:7196A	RE03-02-49274	1	S	09/12/2002	
SW-846:7471A	RE03-02-49274	1	S	09/12/2002	
SW-846:6010B	RE03-02-49275	1	S	09/12/2002	
SW-846:7471A	RE03-02-49273	1	S	09/12/2002	
SW-846:6010B	RE03-02-49274	1	S	09/12/2002	
SW-846:6020	RE03-02-49274	1	S	09/12/2002	
SW-846:6010B	RE03-02-49273	1	S	09/12/2002	

Monday, September 16, 2002

REQUEST NUMBER: 1199S

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Los Alamos
NATIONAL LABORATORY

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Assaigai Analytical Laboratory
7300 Jefferson NE
Albuquerque, NM 87109

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RAD SCREENING: NOT REQ
COMMENTS:

These samples are on:

LANL Request Number: 1199S
Per Agreement Number:
Project Cost Code: XURP04503219

LANL ER SMO CONTACT:
Signature:

METHOD CODE	SAMPLE ID	CONT ID	SAMPLE MATRIX	DATE SAMPLED	COMMENTS
SW-846:6020	RE03-02-49273	1	S	09/12/2002	
SW-846:7196A	RE03-02-49273	1	S	09/12/2002	
SW-846:6020	RE03-02-49272	1	S	09/12/2002	
SW-846:7196A	RE03-02-49272	1	S	09/12/2002	
SW-846:7471A	RE03-02-49272	1	S	09/12/2002	
SW-846:7196A	RE03-02-49271	1	S	09/12/2002	
SW-846:7471A	RE03-02-49271	1	S	09/12/2002	
SW-846:6010B	RE03-02-49272	1	S	09/12/2002	
SW-846:7471A	RE03-02-49270	1	S	09/12/2002	
SW-846:6010B	RE03-02-49271	1	S	09/12/2002	
SW-846:6020	RE03-02-49271	1	S	09/12/2002	
SW-846:6010B	RE03-02-49270	1	S	09/12/2002	
SW-846:6020	RE03-02-49270	1	S	09/12/2002	
SW-846:7196A	RE03-02-49270	1	S	09/12/2002	

Final Page of REQUEST NUMBER 1199S

Los Alamos National Laboratory
Environmental Restoration Project
Los Alamos, NM 87545

FIELD CHAIN OF CUSTODY

EVENT NAME: PRS 03-012(b)-00, TA-3, 4Qtr FY02

COC ID: 62702 Event ID:1,352

SAMPLE ID: RE03-02-49270
SAMPLE ORDER MATRIX: Soil
ER TEAM LEADER: Gabriela Lopez Escobedo
FIELD TEAM LEADER: Gabriela Lopez Escobedo
DESTINATION: SMO
DEST. POC:

ANALYSES REQUESTED

CONT. ID	ORDER	CONTAINER DESCRIPTION	PRESERVATIVE	COLLECTED Y / N	REASON	SPECIAL INSTRUCTIONS
1	METALS+7196	250 ML GLASS	Ice	Y	ANALYSES REQUIRED	

TIME: 09:13
DATE: 09/12/02

RELINQUISHED BY (printed name): MARK HAAGENSTAD (signature):	Date/Time: 09/12/02 2:25	RELINQUISHED BY (printed name): (signature):	Date/Time:
RECEIVED BY (printed name): (signature):	Date/Time: 9/12/02 2125	RECEIVED BY (printed name): (signature):	Date/Time:

Los Alamos National Laboratory
Environmental Restoration Project
Los Alamos, NM 87545

FIELD CHAIN OF CUSTODY

EVENT NAME: PRS 03-012(b)-00, TA-3, 4Qtr FY02

COC ID: 62722 **Event ID:** 1,352

SAMPLE ID: RE03-02-49271
ER TEAM LEADER: Gabriela Lopez Escobedo
DESTINATION: SMO
SAMPLE ORDER MATRIX: Soil
FIELD TEAM LEADER: Gabriela Lopez Escobedo
DEST. POC:

ANALYSES REQUESTED

CONT. ID	ORDER	CONTAINER DESCRIPTION	PRESERVATIVE	COLLECTED Y / N	REASON	SPECIAL INSTRUCTIONS
1	METALS+7196	250 ML GLASS	Ice			

RELINQUISHED BY (printed name): (signature):	**Date/Time:** 09/12/02 2:25	**RELINQUISHED BY** (printed name): (signature):	**Date/Time:**
RECEIVED BY (printed name): (signature):	**Date/Time:** 9/12/02 2:25	**RECEIVED BY** (printed name): (signature):	**Date/Time:**

Los Alamos National Laboratory
Environmental Restoration Project
Los Alamos, NM 87545

FIELD CHAIN OF CUSTODY

EVENT NAME: PRS 03-012(b)-00, TA-3, 4Qtr FY02

COC ID: 62742 Event ID:1,352

SAMPLE ID: RE03-02-49272
SAMPLE ORDER MATRIX: Soil
ER TEAM LEADER: Gabriela Lopez Escobedo
FIELD TEAM LEADER: Gabriela Lopez Escobedo
DESTINATION: SMO
DEST. POC:

ANALYSES REQUESTED

CONT. ID	ORDER	CONTAINER DESCRIPTION	PRESERVATIVE	COLLECTED Y / N	REASON	SPECIAL INSTRUCTIONS
1	METALS+7196	250 ML GLASS	Ice			

RELINQUISHED BY (printed name): (signature):	Date/Time: 09/12/02 2:25	RELINQUISHED BY (printed name): (signature):	Date/Time:
RECEIVED BY (printed name): (signature):	Date/Time: 9/12/02 2:25	RECEIVED BY (printed name): (signature):	Date/Time:

Los Alamos National Laboratory
Environmental Restoration Project
Los Alamos, NM 87545

FIELD CHAIN OF CUSTODY

EVENT NAME: PRS 03-012(b)-00, TA-3, 4Qtr FY02

COC ID: 62762 **Event ID:** 1,352

SAMPLE ID: RE03-02-49273
SAMPLE ORDER MATRIX: Soil
ER TEAM LEADER: Gabriela Lopez Escobedo
FIELD TEAM LEADER: Gabriela Lopez Escobedo
DESTINATION: SMO
DEST. POC:

ANALYSES REQUESTED

CONT. ID	ORDER	CONTAINER DESCRIPTION	PRESERVATIVE	COLLECTED Y / N	REASON	SPECIAL INSTRUCTIONS
1	METALS+7196	250 ML GLASS	Ice			

RELINQUISHED BY (printed name): (signature):	Date/Time: 09/12/02 2:25	RELINQUISHED BY (printed name): (signature):	Date/Time:
RECEIVED BY (printed name): (signature):	Date/Time: 9/12/02 2:25	RECEIVED BY (printed name): (signature):	Date/Time:

Los Alamos National Laboratory
Environmental Restoration Project
Los Alamos, NM 87545

FIELD CHAIN OF CUSTODY

EVENT NAME: PRS 03-012(b)-00, TA-3, 4Qtr FY02

COC ID: 62782 **Event ID:** 1,352

SAMPLE ID: RE03-02-49274
SAMPLE ORDER MATRIX: Soil
ER TEAM LEADER: Gabriela Lopez Escobedo
FIELD TEAM LEADER: Gabriela Lopez Escobedo
DESTINATION: SMO
DEST. POC:

ANALYSES REQUESTED

CONT. ID	ORDER	CONTAINER DESCRIPTION	PRESERVATIVE	COLLECTED Y / N	REASON	SPECIAL INSTRUCTIONS
1	METALS+7196	250 ML GLASS	Ice			

RELINQUISHED BY (printed name): (signature):	**Date/Time:** 09/12/02 2:25	**RELINQUISHED BY** (printed name): (signature):	**Date/Time:**
RECEIVED BY (printed name): (signature):	**Date/Time:** 9/12/02 2:25	**RECEIVED BY** (printed name): (signature):	**Date/Time:**

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FIELD CHAIN OF CUSTODY

EVENT NAME: PRS 03-012(b)-00, TA-3, 4Qtr FY02

COC ID: 62802 Event ID:1,352

SAMPLE ID: RE03-02-49275

SAMPLE ORDER MATRIX: Soil

ER TEAM LEADER: Gabriela Lopez Escobedo

FIELD TEAM LEADER: Gabriela Lopez Escobedo

DESTINATION: SMO

DEST. POC:

ANALYSES REQUESTED

CONT. ID	ORDER	CONTAINER DESCRIPTION	PRESERVATIVE	COLLECTED Y / N	REASON	SPECIAL INSTRUCTIONS
1	METALS+7196	250 ML GLASS	Ice			

RELINQUISHED BY (printed name): (signature):	Date/Time: 09/12/02 2:25	RELINQUISHED BY (printed name): (signature):	Date/Time:
RECEIVED BY (printed name): (signature):	Date/Time: 9/12/02 2:25	RECEIVED BY (printed name): (signature):	Date/Time:

Monday, September 16, 2002

CHAIN OF CUSTODY DOCUMENT NUMBER: 1199SC

Los Alamos
NATIONAL LABORATORY

REQUEST NUMBER: 1199S

ANALYSIS TYPE: INORGANIC

ATTN: Elvin Chavez
Assaigai Analytical Laboratory
7300 Jefferson NE
Albuquerque, NM 87109

SAMPLE ID	CONT ID	CONTAINER DESCRIPTION	ORDER TEMPLATE CODE	PRESERVATIVE	MATRIX
RE03-02-49270	1	250 ML GLASS	METALS+7196	ICE	S
RE03-02-49271	1	250 ML GLASS	METALS+7196	ICE	S
RE03-02-49272	1	250 ML GLASS	METALS+7196	ICE	S
RE03-02-49273	1	250 ML GLASS	METALS+7196	ICE	S
RE03-02-49274	1	250 ML GLASS	METALS+7196	ICE	S
RE03-02-49275	1	250 ML GLASS	METALS+7196	ICE	S
RE03-02-49276	1	250 ML GLASS	METALS+7196	ICE	S
RE03-02-49277	1	250 ML GLASS	METALS+7196	ICE	S
RE03-02-49278	1	250 ML GLASS	METALS+7196	ICE	S
RE03-02-49279	1	250 ML GLASS	METALS+7196	ICE	S
RE03-02-49280	1	250 ML GLASS	METALS+7196	ICE	S
RE03-02-49281	1	250 ML GLASS	METALS+7196	ICE	S
RE03-02-49282	1	250 ML GLASS	METALS+7196	ICE	S
RE03-02-49283	1	250 ML GLASS	METALS+7196	ICE	S
RE03-02-49284	1	250 ML GLASS	METALS+7196	ICE	S
RE03-02-49285	1	250 ML GLASS	METALS+7196	ICE	S
RE03-02-49286	1	250 ML GLASS	METALS+7196	ICE	S
RE03-02-49287	1	250 ML GLASS	METALS+7196	ICE	S
RE03-02-49288	1	250 ML GLASS	METALS+7196	ICE	S
RE03-02-49289	1	250 ML GLASS	METALS+7196	ICE	S
RE03-02-49290	1	250 ML GLASS	METALS+7196	ICE	S
RE03-02-49291	1	250 ML GLASS	METALS+7196	ICE	S
RE03-02-49292	1	250 ML GLASS	METALS+7196	ICE	S
RE03-02-49293	1	250 ML GLASS	METALS+7196	ICE	S
RE03-02-49294	1	250 ML GLASS	METALS+7196	ICE	S
RE03-02-49295	1	250 ML GLASS	METALS+7196	ICE	S
RE03-02-49296	1	250 ML GLASS	METALS+7196	ICE	S
RE03-02-49297	1	250 ML GLASS	METALS+7196	ICE	S
RE03-02-49298	1	250 ML GLASS	METALS+7196	ICE	S
RE03-02-49299	1	250 ML GLASS	METALS+7196	ICE	S
RE03-02-49300	1	250 ML GLASS	METALS+7196	ICE	S
RE03-02-49301	1	250 ML GLASS	METALS+7196	ICE	S

Relinquished By:		Date	Time	Received By:		Date	Time
PRINTED NAME	SIGNATURE	9-16-01	15.23.	PRINTED NAME	SIGNATURE	9/16/02	1523
PRINTED NAME	SIGNATURE			PRINTED NAME	SIGNATURE		
PRINTED NAME	SIGNATURE			PRINTED NAME	SIGNATURE		

Received for DISPOSAL By:		Date	Time	Remarks:
PRINTED NAME	SIGNATURE			

Los Alamos National Laboratory
Environmental Restoration Project
Los Alamos, NM 87545

EVENT NAME: PRS 03-012(b)-00, TA-3, 4Qtr FY02

FIELD CHAIN OF CUSTODY

COC ID: 62822 Event ID:1,352

SAMPLE ID: RE03-02-49276
SAMPLE ORDER MATRIX: Soil
ER TEAM LEADER: Gabriela Lopez Escobedo
FIELD TEAM LEADER: Gabriela Lopez Escobedo
DESTINATION: SMO
DEST. POC:

ANALYSES REQUESTED

CONT. ID	ORDER	CONTAINER DESCRIPTION	PRESERVATIVE	COLLECTED Y / N	REASON	SPECIAL INSTRUCTIONS
1	METALS+7196	250 ML GLASS	Ice			

RELINQUISHED BY (printed name): (signature):	Date/Time: 09/12/02 2:25	RELINQUISHED BY (printed name): (signature):	Date/Time:
RECEIVED BY (printed name): (signature):	Date/Time: 9/12/02 2:25	RECEIVED BY (printed name): (signature):	Date/Time:

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FIELD CHAIN OF CUSTODY

EVENT NAME: PRS 03-012(b)-00, TA-3, 4Qtr FY02

COC ID: 62842 Event ID: 1,352

SAMPLE ID: RE03-02-49277

SAMPLE ORDER MATRIX: Soil

ER TEAM LEADER: Gabriela Lopez Escobedo

FIELD TEAM LEADER: Gabriela Lopez Escobedo

DESTINATION: SMO

DEST. POC:

ANALYSES REQUESTED

CONT. ID	ORDER	CONTAINER DESCRIPTION	PRESERVATIVE	COLLECTED Y / N	REASON	SPECIAL INSTRUCTIONS
1	METALS+7196	250 ML GLASS	Ice			

RELINQUISHED BY (printed name): (signature):	Date/Time: 09/12/02 2:25	RELINQUISHED BY (printed name): (signature):	Date/Time:
RECEIVED BY (printed name): (signature):	Date/Time: 9/12/02 2:25	RECEIVED BY (printed name): (signature):	Date/Time:

Los Alamos National Laboratory
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FIELD CHAIN OF CUSTODY

EVENT NAME: PRS 03-012(b)-00, TA-3, 4Qtr FY02

COC ID: 62862 **Event ID:** 1,352

SAMPLE ID: RE03-02-49278
SAMPLE ORDER MATRIX: Soil
ER TEAM LEADER: Gabriela Lopez Escobedo
FIELD TEAM LEADER: Gabriela Lopez Escobedo
DESTINATION: SMO
DEST. POC:

ANALYSES REQUESTED

CONT. ID	ORDER	CONTAINER DESCRIPTION	PRESERVATIVE	COLLECTED Y / N	REASON	SPECIAL INSTRUCTIONS
1	METALS+7196	250 ML GLASS	Ice			

RELINQUISHED BY (printed name): (signature):	Date/Time: 09/12/02 2:25	RELINQUISHED BY (printed name): (signature):	Date/Time:
RECEIVED BY (printed name): (signature):	Date/Time: 9/12/02 2:25	RECEIVED BY (printed name): (signature):	Date/Time:

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FIELD CHAIN OF CUSTODY

EVENT NAME: PRS 03-012(b)-00, TA-3, 4Qtr FY02

COC ID: 62882 Event ID:1,352

SAMPLE ID: RE03-02-49279
SAMPLE ORDER MATRIX: Soil
ER TEAM LEADER: Gabriela Lopez Escobedo
FIELD TEAM LEADER: Gabriela Lopez Escobedo
DESTINATION: SMO
DEST. POC:

ANALYSES REQUESTED

CONT. ID	ORDER	CONTAINER DESCRIPTION	PRESERVATIVE	COLLECTED Y / N	REASON	SPECIAL INSTRUCTIONS
1	METALS+7196	250 ML GLASS	Ice			

RELINQUISHED BY (printed name): (signature):	Date/Time: 09/12/02 2:25	RELINQUISHED BY (printed name): (signature):	Date/Time:
RECEIVED BY (printed name): (signature):	Date/Time: 9/12/02 2:25	RECEIVED BY (printed name): (signature):	Date/Time:

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FIELD CHAIN OF CUSTODY

EVENT NAME: PRS 03-012(b)-00, TA-3, 4Qtr FY02

COC ID: 62902 Event ID:1,352

SAMPLE ID: RE03-02-49280
SAMPLE ORDER MATRIX: Soil
ER TEAM LEADER: Gabriela Lopez Escobedo
FIELD TEAM LEADER: Gabriela Lopez Escobedo
DESTINATION: SMO
DEST. POC:

ANALYSES REQUESTED

CONT. ID	ORDER	CONTAINER DESCRIPTION	PRESERVATIVE	COLLECTED Y / N	REASON	SPECIAL INSTRUCTIONS
1	METALS+7196	250 ML GLASS	Ice			

RELINQUISHED BY (printed name): (signature):	Date/Time: 09/12/02 2:25	RELINQUISHED BY (printed name): (signature):	Date/Time:
RECEIVED BY (printed name): (signature):	Date/Time: 9/12/02 2:25	RECEIVED BY (printed name): (signature):	Date/Time:

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FIELD CHAIN OF CUSTODY

EVENT NAME: PRS 03-012(b)-00, TA-3, 4Qtr FY02

COC ID: 62922 **Event ID:** 1,352

SAMPLE ID: RE03-02-49281
SAMPLE ORDER MATRIX: Soil
ER TEAM LEADER: Gabriela Lopez Escobedo
FIELD TEAM LEADER: Gabriela Lopez Escobedo
DESTINATION: SMO
DEST. POC:

ANALYSES REQUESTED

CONT. ID	ORDER	CONTAINER DESCRIPTION	PRESERVATIVE	COLLECTED Y / N	REASON	SPECIAL INSTRUCTIONS
1	METALS+7196	250 ML GLASS	Ice			

RELINQUISHED BY (printed name): (signature):	**Date/Time:** 09/12/02 2:25	**RELINQUISHED BY** (printed name): (signature):	**Date/Time:**
RECEIVED BY (printed name): (signature):	**Date/Time:** 9/12/02 2:25	**RECEIVED BY** (printed name): (signature):	**Date/Time:**

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FIELD CHAIN OF CUSTODY

EVENT NAME: PRS 03-012(b)-00, TA-3, 4Qtr FY02

COC ID: 62942 Event ID: 1,352

SAMPLE ID: RE03-02-49282
SAMPLE ORDER MATRIX: Soil
ER TEAM LEADER: Gabriela Lopez Escobedo
FIELD TEAM LEADER: Gabriela Lopez Escobedo
DESTINATION: SMO
DEST. POC:

ANALYSES REQUESTED

CONT. ID	ORDER	CONTAINER DESCRIPTION	PRESERVATIVE	COLLECTED Y / N	REASON	SPECIAL INSTRUCTIONS
1	METALS+7196	250 ML GLASS	Ice			

RELINQUISHED BY (printed name): (signature):	Date/Time: 09/12/02 2:25	RELINQUISHED BY (printed name): (signature):	Date/Time:
RECEIVED BY (printed name): (signature):	Date/Time: 9/12/02 2:25	RECEIVED BY (printed name): (signature):	Date/Time:

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FIELD CHAIN OF CUSTODY

EVENT NAME: PRS 03-012(b)-00, TA-3, 4Qtr FY02

COC ID: 62962 **Event ID:** 1,352

SAMPLE ID: RE03-02-49283
SAMPLE ORDER MATRIX: Soil
ER TEAM LEADER: Gabriela Lopez Escobedo
FIELD TEAM LEADER: Gabriela Lopez Escobedo
DESTINATION: SMO
DEST. POC:

ANALYSES REQUESTED

CONT. ID	ORDER	CONTAINER DESCRIPTION	PRESERVATIVE	COLLECTED Y / N	REASON	SPECIAL INSTRUCTIONS
1	METALS+7196	250 ML GLASS	Ice			

RELINQUISHED BY (printed name): (signature):	**Date/Time:** 09/12/02 2:27	**RELINQUISHED BY** (printed name): (signature):	**Date/Time:**
RECEIVED BY (printed name): (signature):	**Date/Time:** 9/12/02 2:25	**RECEIVED BY** (printed name): (signature):	**Date/Time:**

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FIELD CHAIN OF CUSTODY

EVENT NAME: PRS 03-012(b)-00, TA-3, 4Qtr FY02

COC ID: 62712 **Event ID:** 1,352

SAMPLE ID: RE03-02-49284
SAMPLE ORDER MATRIX: Soil
ER TEAM LEADER: Gabriela Lopez Escobedo
FIELD TEAM LEADER: Gabriela Lopez Escobedo
DESTINATION: SMO
DEST. POC:

ANALYSES REQUESTED

CONT. ID	ORDER	CONTAINER DESCRIPTION	PRESERVATIVE	COLLECTED Y / N	REASON	SPECIAL INSTRUCTIONS
1	METALS+7196	250 ML GLASS	Ice			

RELINQUISHED BY (printed name): (signature):	**Date/Time:** 09/12/02 2:25	**RELINQUISHED BY** (printed name): (signature):	**Date/Time:**
RECEIVED BY (printed name): (signature):	**Date/Time:** 9/12/02 2:25	**RECEIVED BY** (printed name): (signature):	**Date/Time:**

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FIELD CHAIN OF CUSTODY

EVENT NAME: PRS 03-012(b)-00, TA-3, 4Qtr FY02

COC ID: 62732 **Event ID:** 1,352

SAMPLE ID: RE03-02-49285
SAMPLE ORDER MATRIX: Soil
ER TEAM LEADER: Gabriela Lopez Escobedo
FIELD TEAM LEADER: Gabriela Lopez Escobedo
DESTINATION: SMO
DEST. POC:

ANALYSES REQUESTED

CONT. ID	ORDER	CONTAINER DESCRIPTION	PRESERVATIVE	COLLECTED Y / N	REASON	SPECIAL INSTRUCTIONS
1	METALS+7196	250 ML GLASS	Ice			

RELINQUISHED BY (printed name): (signature):	**Date/Time:** 09/12/02 2:25	**RELINQUISHED BY** (printed name): (signature):	**Date/Time:**
RECEIVED BY (printed name): (signature):	**Date/Time:** 9/12/02 2:25	**RECEIVED BY** (printed name): (signature):	**Date/Time:**

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FIELD CHAIN OF CUSTODY

EVENT NAME: PRS 03-012(b)-00, TA-3, 4Qtr FY02

COC ID: 62752 **Event ID:** 1,352

SAMPLE ID: RE03-02-49286
SAMPLE ORDER MATRIX: Soil
ER TEAM LEADER: Gabriela Lopez Escobedo
FIELD TEAM LEADER: Gabriela Lopez Escobedo
DESTINATION: SMO
DEST. POC:

ANALYSES REQUESTED

CONT. ID	ORDER	CONTAINER DESCRIPTION	PRESERVATIVE	COLLECTED Y / N	REASON	SPECIAL INSTRUCTIONS
1	METALS+7196	250 ML GLASS	Ice			

RELINQUISHED BY (printed name): (signature):	**Date/Time:** 09/12/02 2:25	**RELINQUISHED BY** (printed name): (signature):	**Date/Time:**
RECEIVED BY (printed name): (signature):	**Date/Time:** 9/12/02 2:25	**RECEIVED BY** (printed name): (signature):	**Date/Time:**

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FIELD CHAIN OF CUSTODY

EVENT NAME: PRS 03-012(b)-00, TA-3, 4Qtr FY02

COC ID: 62772 **Event ID:** 1,352

SAMPLE ID: RE03-02-49287
SAMPLE ORDER MATRIX: Soil
ER TEAM LEADER: Gabriela Lopez Escobedo
FIELD TEAM LEADER: Gabriela Lopez Escobedo
DESTINATION: SMO
DEST. POC:

ANALYSES REQUESTED

CONT. ID	ORDER	CONTAINER DESCRIPTION	PRESERVATIVE	COLLECTED Y / N	REASON	SPECIAL INSTRUCTIONS
1	METALS+7196	250 ML GLASS	Ice			

RELINQUISHED BY (printed name): (signature):	Date/Time: 09/12/02 2:25	RELINQUISHED BY (printed name): (signature):	Date/Time:
RECEIVED BY (printed name): (signature):	Date/Time: 9/12/02 2:25	RECEIVED BY (printed name): (signature):	Date/Time:

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FIELD CHAIN OF CUSTODY

EVENT NAME: PRS 03-012(b)-00, TA-3, 4Qtr FY02

COC ID: 62792 **Event ID:** 1,352

SAMPLE ID: RE03-02-49288

SAMPLE ORDER MATRIX: Soil

ER TEAM LEADER: Gabriela Lopez Escobedo

FIELD TEAM LEADER: Gabriela Lopez Escobedo

DESTINATION: SMO

DEST. POC:

ANALYSES REQUESTED

CONT. ID	ORDER	CONTAINER DESCRIPTION	PRESERVATIVE	COLLECTED Y / N	REASON	SPECIAL INSTRUCTIONS
1	METALS+7196	250 ML GLASS	Ice			

RELINQUISHED BY (printed name): (signature):	Date/Time: 09/12/02 2:25	RELINQUISHED BY (printed name): (signature):	Date/Time:
RECEIVED BY (printed name): (signature):	Date/Time: 9/12/02 2:25	RECEIVED BY (printed name): (signature):	Date/Time:

Los Alamos National Laboratory
Environmental Restoration Project
Los Alamos, NM 87545

FIELD CHAIN OF CUSTODY

EVENT NAME: PRS 03-012(b)-00, TA-3, 4Qtr FY02

COC ID: 62812 **Event ID:** 1,352

SAMPLE ID: RE03-02-49289
SAMPLE ORDER MATRIX: Soil
ER TEAM LEADER: Gabriela Lopez Escobedo
FIELD TEAM LEADER: Gabriela Lopez Escobedo
DESTINATION: SMO
DEST. POC:

ANALYSES REQUESTED

CONT. ID	ORDER	CONTAINER DESCRIPTION	PRESERVATIVE	COLLECTED Y / N	REASON	SPECIAL INSTRUCTIONS
1	METALS+7196	250 ML GLASS	Ice			

RELINQUISHED BY (printed name): (signature):	Date/Time: 09/12/02/2:25	RELINQUISHED BY (printed name): (signature):	Date/Time:
RECEIVED BY (printed name): (signature):	Date/Time: 9/12/02 2:25	RECEIVED BY (printed name): (signature):	Date/Time:

Los Alamos National Laboratory
Environmental Restoration Project
Los Alamos, NM 87545

FIELD CHAIN OF CUSTODY

EVENT NAME: PRS 03-012(b)-00, TA-3, 4Qtr FY02

COC ID: 62832 **Event ID:**1,352

SAMPLE ID: RE03-02-49290
SAMPLE ORDER MATRIX: Soil
ER TEAM LEADER: Gabriela Lopez Escobedo
FIELD TEAM LEADER: Gabriela Lopez Escobedo
DESTINATION: SMO
DEST. POC:

ANALYSES REQUESTED

CONT. ID	ORDER	CONTAINER DESCRIPTION	PRESERVATIVE	COLLECTED Y / N	REASON	SPECIAL INSTRUCTIONS
1	METALS+7196	250 ML GLASS	Ice			

RELINQUISHED BY (printed name): (signature):	**Date/Time:** 09/12/02 2:25	**RELINQUISHED BY** (printed name): (signature):	**Date/Time:**
RECEIVED BY (printed name): (signature):	**Date/Time:** 9/12/02 2:25	**RECEIVED BY** (printed name): (signature):	**Date/Time:**

Los Alamos National Laboratory
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FIELD CHAIN OF CUSTODY

EVENT NAME: PRS 03-012(b)-00, TA-3, 4Qtr FY02

COC ID: 62852 **Event ID:** 1,352

SAMPLE ID: RE03-02-49291
SAMPLE ORDER MATRIX: Soil
ER TEAM LEADER: Gabriela Lopez Escobedo
FIELD TEAM LEADER: Gabriela Lopez Escobedo
DESTINATION: SMO
DEST. POC:

ANALYSES REQUESTED

CONT. ID	ORDER	CONTAINER DESCRIPTION	PRESERVATIVE	COLLECTED Y / N	REASON	SPECIAL INSTRUCTIONS
1	METALS+7196	250 ML GLASS	Ice			

RELINQUISHED BY (printed name): (signature):	**Date/Time:** 09/12/02 2:25	**RELINQUISHED BY** (printed name): (signature):	**Date/Time:**
RECEIVED BY (printed name): (signature):	**Date/Time:** 9/12/02 2:25	**RECEIVED BY** (printed name): (signature):	**Date/Time:**

Los Alamos National Laboratory
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Los Alamos, NM 87545

FIELD CHAIN OF CUSTODY

EVENT NAME: PRS 03-012(b)-00, TA-3, 4Qtr FY02

COC ID: 62872 **Event ID:** 1,352

SAMPLE ID: RE03-02-49292
SAMPLE ORDER MATRIX: Soil
ER TEAM LEADER: Gabriela Lopez Escobedo
FIELD TEAM LEADER: Gabriela Lopez Escobedo
DESTINATION: SMO
DEST. POC:

ANALYSES REQUESTED

CONT. ID	ORDER	CONTAINER DESCRIPTION	PRESERVATIVE	COLLECTED Y / N	REASON	SPECIAL INSTRUCTIONS
1	METALS+7196	250 ML GLASS	Ice			

RELINQUISHED BY (printed name): (signature):	Date/Time: 09/12/02 2:25	RELINQUISHED BY (printed name): (signature):	Date/Time:
RECEIVED BY (printed name): (signature):	Date/Time: 9/12/02 2:25	RECEIVED BY (printed name): (signature):	Date/Time:

Los Alamos National Laboratory
Environmental Restoration Project
Los Alamos, NM 87545

FIELD CHAIN OF CUSTODY

EVENT NAME: PRS 03-012(b)-00, TA-3, 4Qtr FY02

COC ID: 62892 Event ID:1,352

SAMPLE ID: RE03-02-49293
SAMPLE ORDER MATRIX: Soil

ER TEAM LEADER: Gabriela Lopez Escobedo
FIELD TEAM LEADER: Gabriela Lopez Escobedo

DESTINATION: SMO
DEST. POC:

ANALYSES REQUESTED

CONT. ID	ORDER	CONTAINER DESCRIPTION	PRESERVATIVE	COLLECTED Y / N	REASON	SPECIAL INSTRUCTIONS
1	METALS+7196	250 ML GLASS	Ice			

RELINQUISHED BY (printed name): (signature):	Date/Time: 09/12/02 2:25	RELINQUISHED BY (printed name): (signature):	Date/Time:
RECEIVED BY (printed name): (signature):	Date/Time: 9/12/02 2125	RECEIVED BY (printed name): (signature):	Date/Time:

Los Alamos National Laboratory
Environmental Restoration Project
Los Alamos, NM 87545

FIELD CHAIN OF CUSTODY

EVENT NAME: PRS 03-012(b)-00, TA-3, 4Qtr FY02

COC ID: 62912 **Event ID:** 1,352

SAMPLE ID: RE03-02-49294
SAMPLE ORDER MATRIX: Soil
ER TEAM LEADER: Gabriela Lopez Escobedo
FIELD TEAM LEADER: Gabriela Lopez Escobedo
DESTINATION: SMO
DEST. POC:

ANALYSES REQUESTED

CONT. ID	ORDER	CONTAINER DESCRIPTION	PRESERVATIVE	COLLECTED Y / N	REASON	SPECIAL INSTRUCTIONS
1	METALS+7196	250 ML GLASS	Ice			

RELINQUISHED BY (printed name): (signature):	**Date/Time:** 09/12/02 1:05	**RELINQUISHED BY** (printed name): (signature):	**Date/Time:**
RECEIVED BY (printed name): (signature):	**Date/Time:** 9/12/02 2:25	**RECEIVED BY** (printed name): (signature):	**Date/Time:**

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FIELD CHAIN OF CUSTODY

EVENT NAME: PRS 03-012(b)-00, TA-3, 4Qtr FY02

COC ID: 62932 **Event ID:**1,352

SAMPLE ID: RE03-02-49295 **ER TEAM LEADER:** Gabriela Lopez Escobedo **DESTINATION:** SMO

SAMPLE ORDER MATRIX: Soil **FIELD TEAM LEADER:** Gabriela Lopez Escobedo **DEST. POC:**

ANALYSES REQUESTED

CONT. ID	ORDER	CONTAINER DESCRIPTION	PRESERVATIVE	COLLECTED Y / N	REASON	SPECIAL INSTRUCTIONS
1	METALS+7196	250 ML GLASS	Ice			

RELINQUISHED BY (printed name): (signature):	**Date/Time:** 09/26/2005	**RELINQUISHED BY** (printed name): (signature):	**Date/Time:**
RECEIVED BY (printed name): (signature):	**Date/Time:** 9/12/02 2:25	**RECEIVED BY** (printed name): (signature):	**Date/Time:**

Los Alamos National Laboratory
Environmental Restoration Project
Los Alamos, NM 87545

FIELD CHAIN OF CUSTODY

EVENT NAME: PRS 03-012(b)-00, TA-3, 4Qtr FY02

COC ID: 62952 **Event ID:** 1,352

SAMPLE ID: RE03-02-49296
SAMPLE ORDER MATRIX: Soil
ER TEAM LEADER: Gabriela Lopez Escobedo
FIELD TEAM LEADER: Gabriela Lopez Escobedo
DESTINATION: SMO
DEST. POC:

ANALYSES REQUESTED

CONT. ID	ORDER	CONTAINER DESCRIPTION	PRESERVATIVE	COLLECTED Y / N	REASON	SPECIAL INSTRUCTIONS
1	METALS+7196	250 ML GLASS	Ice			

RELINQUISHED BY (printed name): (signature):	**Date/Time:** 09/12/02 2:25	**RELINQUISHED BY** (printed name): (signature):	**Date/Time:**
RECEIVED BY (printed name): (signature):	**Date/Time:** 9/12/02 2:25	**RECEIVED BY** (printed name): (signature):	**Date/Time:**

Los Alamos National Laboratory
Environmental Restoration Project
Los Alamos, NM 87545

EVENT NAME: PRS 03-012(b)-00, TA-3, 4Qtr FY02

FIELD CHAIN OF CUSTODY

COC ID: 62972 Event ID:1,352

SAMPLE ID: RE03-02-49297
SAMPLE ORDER MATRIX: Soil
ER TEAM LEADER: Gabriela Lopez Escobedo
FIELD TEAM LEADER: Gabriela Lopez Escobedo
DESTINATION: SMO
DEST. POC:

ANALYSES REQUESTED

CONT. ID	ORDER	CONTAINER DESCRIPTION	PRESERVATIVE	COLLECTED Y / N	REASON	SPECIAL INSTRUCTIONS
1	METALS+7196	250 ML GLASS	Ice			

RELINQUISHED BY (printed name): (signature):	Date/Time: 09/12/02 2:25	RELINQUISHED BY (printed name): (signature):	Date/Time:
RECEIVED BY (printed name): (signature):	Date/Time: 9/12/02 2:25	RECEIVED BY (printed name): (signature):	Date/Time:

Los Alamos National Laboratory
Environmental Restoration Project
Los Alamos, NM 87545

FIELD CHAIN OF CUSTODY

EVENT NAME: PRS 03-012(b)-00, TA-3, 4Qtr FY02

COC ID: 62982 **Event ID:** 1,352

SAMPLE ID: RE03-02-49298 **ER TEAM LEADER:** Gabriela Lopez Escobedo **DESTINATION:** SMO

SAMPLE ORDER MATRIX: Soil **FIELD TEAM LEADER:** Gabriela Lopez Escobedo **DEST. POC:**

ANALYSES REQUESTED

CONT. ID	ORDER	CONTAINER DESCRIPTION	PRESERVATIVE	COLLECTED Y / N	REASON	SPECIAL INSTRUCTIONS
1	METALS+7196	250 ML GLASS	Ice			

RELINQUISHED BY (printed name): (signature):	**Date/Time:** 09/12/02 2:25	**RELINQUISHED BY** (printed name): (signature):	**Date/Time:**
RECEIVED BY (printed name): (signature):	**Date/Time:** 9/12/02 2:25	**RECEIVED BY** (printed name): (signature):	**Date/Time:**

Los Alamos National Laboratory
Environmental Restoration Project
Los Alamos, NM 87545

FIELD CHAIN OF CUSTODY

EVENT NAME: PRS 03-012(b)-00, TA-3, 4Qtr FY02

COC ID: 62992 **Event ID:**1,352

SAMPLE ID: RE03-02-49299
SAMPLE ORDER MATRIX: Soil
ER TEAM LEADER: Gabriela Lopez Escobedo
FIELD TEAM LEADER: Gabriela Lopez Escobedo
DESTINATION: SMO
DEST. POC:

ANALYSES REQUESTED

CONT. ID	ORDER	CONTAINER DESCRIPTION	PRESERVATIVE	COLLECTED Y / N	REASON	SPECIAL INSTRUCTIONS
1	METALS+7196	250 ML GLASS	Ice			

RELINQUISHED BY (printed name): (signature):	**Date/Time:** 09/12/02 2:25	**RELINQUISHED BY** (printed name): (signature):	**Date/Time:**
RECEIVED BY (printed name): (signature):	**Date/Time:** 9/12/02 2:25	**RECEIVED BY** (printed name): (signature):	**Date/Time:**

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Environmental Restoration Project
Los Alamos, NM 87545

FIELD CHAIN OF CUSTODY

EVENT NAME: PRS 03-012(b)-00, TA-3, 4Qtr FY02

COC ID: 63002 Event ID:1,352

SAMPLE ID: RE03-02-49300

SAMPLE ORDER MATRIX: Soil

ER TEAM LEADER: Gabriela Lopez Escobedo

FIELD TEAM LEADER: Gabriela Lopez Escobedo

DESTINATION: SMO

DEST. POC:

ANALYSES REQUESTED

CONT. ID	ORDER	CONTAINER DESCRIPTION	PRESERVATIVE	COLLECTED Y / N	REASON	SPECIAL INSTRUCTIONS
1	METALS+7196	250 ML GLASS	Ice			

RELINQUISHED BY (printed name): (signature):	Date/Time: 09/12/02 2:25	RELINQUISHED BY (printed name): (signature):	Date/Time:
RECEIVED BY (printed name): (signature):	Date/Time: 9/12/02 2:25	RECEIVED BY (printed name): (signature):	Date/Time:

Los Alamos National Laboratory
Environmental Restoration Project
Los Alamos, NM 87545

FIELD CHAIN OF CUSTODY

EVENT NAME: PRS 03-012(b)-00, TA-3, 4Qtr FY02

COC ID: 63012 **Event ID:** 1,352

SAMPLE ID: RE03-02-49301 **ER TEAM LEADER:** Gabriela Lopez Escobedo **DESTINATION:** SMO

SAMPLE ORDER MATRIX: Soil **FIELD TEAM LEADER:** Gabriela Lopez Escobedo **DEST. POC:**

ANALYSES REQUESTED

CONT. ID	ORDER	CONTAINER DESCRIPTION	PRESERVATIVE	COLLECTED Y / N	REASON	SPECIAL INSTRUCTIONS
1	METALS+7196	250 ML GLASS	Ice			

RELINQUISHED BY (printed name): (signature):	**Date/Time:** 09/12/02 2:25	**RELINQUISHED BY** (printed name): (signature):	**Date/Time:**
RECEIVED BY (printed name): (signature):	**Date/Time:** 9/12/02 2125	**RECEIVED BY** (printed name): (signature):	**Date/Time:**

RADIOLOGICAL SCREENING DATA RELEASE FORM

The following samples (list samples by number) were received at the Field Support Facility (FSF) without radiological screening data. These samples will not be shipped until radiological screening documentation arrives at the FSF. I understand that it is my responsibility to ensure that this information arrives at the FSF in a timely manner. **If holding times are missed because screening data do not arrive, I will pick up the samples when called to do so.**

****

The following samples (list samples by number) do **not** require radiological screening for the reason stated.

RE-03-02-49270 — RE-03-02-49301, RE-03-02-49530 &
RE-03-02-49531

Reason:

Signature _____

Printed name MARK HAAGENSTAD

Telephone number 7-0104 Date 09/22/02

ASSAIGAI ANALYTICAL LABORATORIES, INC.
P.O. Box 90430 • Albuquerque, New Mexico 87199 • (505) 345-8964 • FAX (505) 345-7259
3332 Wedgewood, Ste. N • El Paso, Texas 79925 • (915) 593-6000 • FAX (915) 593-7820
127 Eastgate Drive, 212-C • Los Alamos, New Mexico 87544 • (505) 662-255

Explanation of codes

B	analyte detected in Method Blank
E	result is estimated
H	analyzed out of hold time
N	tentatively identified compound
S	subcontracted
1-9	see footnote

LANL-DDP03-0271-014,RM100 E SI
attn: **KEITH GREENE**
P.O. BOX 1663, MS H865
LOS ALAMOS NM 87544

STANDARD

Assaigai Analytical Laboratories, Inc.

Certificate of Analysis

Client: **LANL-DDP03-0271-014,RM100 E SI**
Project: **XURP 0450 3219 0000, 1199S/1203S**
Order: **0209373 LOS40** Receipt: **09-17-02**

William P. Biava: President of Assaigai Analytical Laboratories, Inc.

Sample: ***RE03-02-49287*** Collected: *09-12-02 0:00:00* By:
Matrix: ***SO***

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Code	Prep Date	Run Date
0209373-01A		**ASTM D2216**					By:	MDE		
MO0216	WC.2002.1477.2		Moisture	14.6	%	1	0.1	H	10-09-02	10-09-02
0209373-01A		**EPA 218.4 Hex. Chromium Dry Weight**					By:	NJL		
W02392	WC.2002.1319.6		Chromium, Hexavalent	2.06	mg / kg	1	1	1	09-27-02	09-27-02
0209373-01A		**SW846 3050A/6020 ICP-MS Dry Weight**					By:	JWB		
M021283	MT.2002.1110.15	7429-90-5	Aluminum	5530	mg / Kg	10	0.5		09-23-02	09-24-02
M021283	MT.2002.1110.15	7440-36-0	Antimony	ND	mg / Kg	10	0.05	1	09-23-02	09-24-02
M021283	MT.2002.1110.15	7440-38-2	Arsenic	1.06	mg / Kg	10	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.15	7440-39-3	Barium	41.2	mg / Kg	10	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.15	7440-41-7	Beryllium	0.446	mg / Kg	10	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.15	7440-42-8	Boron	ND	mg / Kg	10	0.15		09-23-02	09-24-02
M021283	MT.2002.1110.15	7440-43-9	Cadmium	ND	mg / Kg	10	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.15	7440-70-2	Calcium	890	mg / Kg	10	0.5		09-23-02	09-24-02
M021283	MT.2002.1110.15	7440-47-3	Chromium	3.30	mg / Kg	10	0.05		09-23-02	09-24-02
M021283	MT.2002.1110.15	7440-48-4	Cobalt	0.870	mg / Kg	10	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.15	7440-50-8	Copper	2.44	mg / Kg	10	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.14	7439-89-6	Iron	7080	mg / Kg	95	0.5		09-23-02	09-24-02
M021283	MT.2002.1110.15	7439-92-1	Lead	9.13	mg / Kg	10	0.025		09-23-02	09-24-02
M021283	MT.2002.1133.63	7440-22-4	Lithium	5.75	mg / Kg	10	0.05		09-23-02	10-01-02
M021283	MT.2002.1110.15	7439-95-4	Magnesium	727	mg / Kg	10	0.5		09-23-02	09-24-02
M021283	MT.2002.1110.14	7439-96-5	Manganese	179	mg / Kg	95	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.15	7439-98-7	Molybdenum	1.40	mg / Kg	10	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.15	7440-02-0	Nickel	2.49	mg / Kg	10	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.15	7440-09-7	Potassium	718	mg / Kg	10	0.5		09-23-02	09-24-02

Member:
American Council of
Independent Laboratories, Inc.

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Assaigai Analytical Laboratories, Inc.

Certificate of Analysis

Client: **LANL-DDP03-0271-014,RM100 E SI**
Project: **XURP 0450 3219 0000, 1199S/1203S**
Order: **0209373** **LOS40** Receipt: **09-17-02**

Sample: ***RE03-02-49287*** Collected: *09-12-02 0:00:00* By:
Matrix: ***SO***

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Code	Prep Date	Run Date
0209373-01A		**SW846 3050A/6020 ICP-MS Dry Weight**					By:	JWB		
M021283	MT.2002.1110.15	7782-49-2	Selenium	0.457	mg / Kg	10	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.15	7440-21-3	Silicon	297	mg / Kg	10	1	E	09-23-02	09-24-02
M021283	MT.2002.1110.15	7440-22-4	Silver	ND	mg / Kg	10	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.15	7440-23-5	Sodium	134	mg / Kg	10	0.5		09-23-02	09-24-02
M021283	MT.2002.1110.15	7439-89-6	Strontium	39.3	mg / Kg	10	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.15	7440-28-0	Thallium	ND	mg / Kg	10	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.15	7440-31-5	Tin	2.00	mg / Kg	10	0.025	B	09-23-02	09-24-02
M021283	MT.2002.1110.14	7440-32-6	Titanium	166	mg / Kg	95	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.15	7440-61-1	Uranium	0.507	mg / Kg	10	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.15	7440-62-2	Vanadium	5.53	mg / Kg	10	0.05		09-23-02	09-24-02
M021283	MT.2002.1110.15	7440-66-6	Zinc	30.1	mg / Kg	10	0.25		09-23-02	09-24-02
0209373-01A		**SW846 7471 CVAA Dry Weight**					By:	JRE		
M021285	MT.2002.1103.38	7439-97-6	Mercury	ND	mg / Kg	1	0.05		09-23-02	09-23-02

Sample: ***RE03-02-49288*** Collected: *09-12-02 0:00:00* By:
Matrix: ***SO***

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Code	Prep Date	Run Date
0209373-02A		**ASTM D2216**					By:	MDE		
MO0216	WC.2002.1477.4		Moisture	14.0	%	1	0.1	H	10-09-02	10-09-02
0209373-02A		**EPA 218.4 Hex. Chromium Dry Weight**					By:	NJL		
W02392	WC.2002.1319.13		Chromium, Hexavalent	ND	mg / kg	1	1		09-27-02	09-27-02
0209373-02A		**SW846 3050A/6020 ICP-MS Dry Weight**					By:	JWB		
M021283	MT.2002.1110.23	7429-90-5	Aluminum	4350	mg / Kg	9	0.5		09-23-02	09-24-02
M021283	MT.2002.1110.23	7440-36-0	Antimony	ND	mg / Kg	9	0.05		09-23-02	09-24-02
M021283	MT.2002.1110.23	7440-38-2	Arsenic	1.07	mg / Kg	9	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.23	7440-39-3	Barium	34.1	mg / Kg	9	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.23	7440-41-7	Beryllium	0.481	mg / Kg	9	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.23	7440-42-8	Boron	ND	mg / Kg	9	0.15		09-23-02	09-24-02
M021283	MT.2002.1110.23	7440-43-9	Cadmium	ND	mg / Kg	9	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.23	7440-70-2	Calcium	926	mg / Kg	9	0.5		09-23-02	09-24-02
M021283	MT.2002.1110.23	7440-47-3	Chromium	2.72	mg / Kg	9	0.05		09-23-02	09-24-02
M021283	MT.2002.1110.23	7440-48-4	Cobalt	0.660	mg / Kg	9	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.23	7440-50-8	Copper	2.19	mg / Kg	9	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.22	7439-89-6	Iron	7140	mg / Kg	93	0.5		09-23-02	09-24-02
M021283	MT.2002.1110.23	7439-92-1	Lead	7.35	mg / Kg	9	0.025		09-23-02	09-24-02
M021283	MT.2002.1133.68	7440-22-4	Lithium	5.98	mg / Kg	9	0.05		09-23-02	10-01-02
M021283	MT.2002.1110.23	7439-95-4	Magnesium	616	mg / Kg	9	0.5		09-23-02	09-24-02
M021283	MT.2002.1110.22	7439-96-5	Manganese	205	mg / Kg	93	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.23	7439-98-7	Molybdenum	1.31	mg / Kg	9	0.025		09-23-02	09-24-02

Assaigai Analytical Laboratories, Inc.

Certificate of Analysis

Client: **LANL-DDP03-0271-014,RM100 E SI**
Project: **XURP 0450 3219 0000, 1199S/1203S**
Order: **0209373** **LOS40** Receipt: **09-17-02**

Sample: ***RE03-02-49288*** Collected: *09-12-02 0:00:00* By:
Matrix: ***SO***

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Code	Prep Date	Run Date
0209373-02A		**SW846 3050A/6020 ICP-MS Dry Weight**					By:	JWB		
M021283	MT.2002.1110.23	7440-02-0	Nickel	2.26	mg / Kg	9	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.23	7440-09-7	Potassium	587	mg / Kg	9	0.5		09-23-02	09-24-02
M021283	MT.2002.1110.23	7782-49-2	Selenium	0.432	mg / Kg	9	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.23	7440-21-3	Silicon	286	mg / Kg	9	1	E	09-23-02	09-24-02
M021283	MT.2002.1110.23	7440-22-4	Silver	ND	mg / Kg	9	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.23	7440-23-5	Sodium	132	mg / Kg	9	0.5		09-23-02	09-24-02
M021283	MT.2002.1110.23	7439-89-6	Strontium	32.1	mg / Kg	9	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.23	7440-28-0	Thallium	ND	mg / Kg	9	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.23	7440-31-5	Tin	2.00	mg / Kg	9	0.025	B	09-23-02	09-24-02
M021283	MT.2002.1110.22	7440-32-6	Titanium	181	mg / Kg	93	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.23	7440-61-1	Uranium	0.471	mg / Kg	9	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.23	7440-62-2	Vanadium	4.63	mg / Kg	9	0.05		09-23-02	09-24-02
M021283	MT.2002.1110.23	7440-66-6	Zinc	30.8	mg / Kg	9	0.25		09-23-02	09-24-02
0209373-02A		**SW846 7471 CVAA Dry Weight**					By:	JRE		
M021285	MT.2002.1103.41	7439-97-6	Mercury	ND	mg / Kg	1	0.05		09-23-02	09-23-02

Sample: ***RE03-02-49289*** Collected: *09-12-02 0:00:00* By:
Matrix: ***SO***

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Code	Prep Date	Run Date
0209373-03A		**ASTM D2216**					By:	MDE		
MO0216	WC.2002.1477.5		Moisture	11.8	%	1	0.1	H	10-09-02	10-09-02
0209373-03A		**EPA 218.4 Hex. Chromium Dry Weight**					By:	NJL		
W02392	WC.2002.1319.15		Chromium, Hexavalent	3.66	mg / kg	1	1		09-27-02	09-27-02
0209373-03A		**SW846 3050A/6020 ICP-MS Dry Weight**					By:	JWB		
M021283	MT.2002.1110.24	7429-90-5	Aluminum	7480	mg / Kg	98	0.5		09-23-02	09-24-02
M021283	MT.2002.1110.25	7440-36-0	Antimony	ND	mg / Kg	10	0.05		09-23-02	09-24-02
M021283	MT.2002.1110.25	7440-38-2	Arsenic	1.68	mg / Kg	10	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.25	7440-39-3	Barium	57.6	mg / Kg	10	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.25	7440-41-7	Beryllium	0.553	mg / Kg	10	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.25	7440-42-8	Boron	ND	mg / Kg	10	0.15		09-23-02	09-24-02
M021283	MT.2002.1110.25	7440-43-9	Cadmium	ND	mg / Kg	10	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.25	7440-70-2	Calcium	3150	mg / Kg	10	0.5		09-23-02	09-24-02
M021283	MT.2002.1110.25	7440-47-3	Chromium	11.2	mg / Kg	10	0.05		09-23-02	09-24-02
M021283	MT.2002.1110.25	7440-48-4	Cobalt	1.88	mg / Kg	10	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.25	7440-50-8	Copper	4.70	mg / Kg	10	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.24	7439-89-6	Iron	10500	mg / Kg	98	0.5		09-23-02	09-24-02
M021283	MT.2002.1110.25	7439-92-1	Lead	16.6	mg / Kg	10	0.025		09-23-02	09-24-02
M021283	MT.2002.1133.69	7440-22-4	Lithium	12.9	mg / Kg	10	0.05		09-23-02	10-01-02
M021283	MT.2002.1110.25	7439-95-4	Magnesium	1260	mg / Kg	10	0.5		09-23-02	09-24-02

Assaigai Analytical Laboratories, Inc.

Certificate of Analysis

Client: **LANL-DDP03-0271-014,RM100 E SI**
Project: **XURP 0450 3219 0000, 1199S/1203S**
Order: **0209373** **LOS40** Receipt: **09-17-02**

Sample: ***RE03-02-49289*** Collected: *09-12-02 0:00:00* By:
Matrix: ***SO***

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Code	Prep Date	Run Date
0209373-03A		**SW846 3050A/6020 ICP-MS Dry Weight**					By:	JWB		
M021283	MT.2002.1110.24	7439-96-5	Manganese	229	mg / Kg	98	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.25	7439-98-7	Molybdenum	0.968	mg / Kg	10	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.25	7440-02-0	Nickel	4.51	mg / Kg	10	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.25	7440-09-7	Potassium	862	mg / Kg	10	0.5		09-23-02	09-24-02
M021283	MT.2002.1110.25	7782-49-2	Selenium	0.503	mg / Kg	10	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.25	7440-21-3	Silicon	284	mg / Kg	10	1	E	09-23-02	09-24-02
M021283	MT.2002.1110.25	7440-22-4	Silver	0.442	mg / Kg	10	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.25	7440-23-5	Sodium	148	mg / Kg	10	0.5		09-23-02	09-24-02
M021283	MT.2002.1110.25	7439-89-6	Strontium	50.2	mg / Kg	10	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.25	7440-28-0	Thallium	ND	mg / Kg	10	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.25	7440-31-5	Tin	1.81	mg / Kg	10	0.025	B	09-23-02	09-24-02
M021283	MT.2002.1110.24	7440-32-6	Titanium	297	mg / Kg	98	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.25	7440-61-1	Uranium	0.481	mg / Kg	10	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.25	7440-62-2	Vanadium	10.4	mg / Kg	10	0.05		09-23-02	09-24-02
M021283	MT.2002.1110.25	7440-66-6	Zinc	48.8	mg / Kg	10	0.25		09-23-02	09-24-02
0209373-03A		**SW846 7471 CVAA Dry Weight**					By:	JRE		
M021285	MT.2002.1103.42	7439-97-6	Mercury	ND	mg / Kg	1	0.05		09-23-02	09-23-02

Sample: ***RE03-02-49290*** Collected: *09-12-02 0:00:00* By:
Matrix: ***SO***

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Code	Prep Date	Run Date
0209373-04A		**ASTM D2216**					By:	MDE		
MO0216	WC.2002.1477.6		Moisture	5.92	%	1	0.1	H	10-09-02	10-09-02
0209373-04A		**EPA 218.4 Hex. Chromium Dry Weight**					By:	NJL		
W02392	WC.2002.1319.17		Chromium, Hexavalent	1.48	mg / kg	1	1		09-27-02	09-27-02
0209373-04A		**SW846 3050A/6020 ICP-MS Dry Weight**					By:	JWB		
M021283	MT.2002.1110.27	7429-90-5	Aluminum	3220	mg / Kg	10	0.5		09-23-02	09-24-02
M021283	MT.2002.1110.27	7440-36-0	Antimony	ND	mg / Kg	10	0.05		09-23-02	09-24-02
M021283	MT.2002.1110.27	7440-38-2	Arsenic	0.972	mg / Kg	10	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.27	7440-39-3	Barium	23.5	mg / Kg	10	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.27	7440-41-7	Beryllium	0.589	mg / Kg	10	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.27	7440-42-8	Boron	ND	mg / Kg	10	0.15		09-23-02	09-24-02
M021283	MT.2002.1110.27	7440-43-9	Cadmium	ND	mg / Kg	10	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.27	7440-70-2	Calcium	798	mg / Kg	10	0.5		09-23-02	09-24-02
M021283	MT.2002.1110.27	7440-47-3	Chromium	4.40	mg / Kg	10	0.05		09-23-02	09-24-02
M021283	MT.2002.1110.27	7440-48-4	Cobalt	1.02	mg / Kg	10	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.27	7440-50-8	Copper	2.33	mg / Kg	10	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.26	7439-89-6	Iron	9830	mg / Kg	99	0.5		09-23-02	09-24-02
M021283	MT.2002.1110.27	7439-92-1	Lead	9.10	mg / Kg	10	0.025		09-23-02	09-24-02

Assaigai Analytical Laboratories, Inc.

Certificate of Analysis

Client: **LANL-DDR03-0271-014,RM100 E SI**
Project: **XURP 0450 3219 0000, 1199S/1203S**
Order: **0209373** **LOS40** Receipt: **09-17-02**

Sample: ***RE03-02-49290*** Collected: *09-12-02 0:00:00* By:
Matrix: ***SO***

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Code	Prep Date	Run Date
0209373-04A		**SW846 3050A/6020 ICP-MS Dry Weight**					By:	JWB		
M021283	MT.2002.1133.70	7440-22-4	Lithium	13.7	mg / Kg	10	0.05		09-23-02	10-01-02
M021283	MT.2002.1110.27	7439-95-4	Magnesium	739	mg / Kg	10	0.5		09-23-02	09-24-02
M021283	MT.2002.1110.26	7439-96-5	Manganese	278	mg / Kg	99	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.27	7439-98-7	Molybdenum	2.55	mg / Kg	10	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.27	7440-02-0	Nickel	3.22	mg / Kg	10	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.27	7440-09-7	Potassium	482	mg / Kg	10	0.5		09-23-02	09-24-02
M021283	MT.2002.1110.27	7782-49-2	Selenium	0.525	mg / Kg	10	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.27	7440-21-3	Silicon	266	mg / Kg	10	1	E	09-23-02	09-24-02
M021283	MT.2002.1110.27	7440-22-4	Silver	ND	mg / Kg	10	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.27	7440-23-5	Sodium	124	mg / Kg	10	0.5		09-23-02	09-24-02
M021283	MT.2002.1110.27	7439-89-6	Strontium	24.0	mg / Kg	10	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.27	7440-28-0	Thallium	ND	mg / Kg	10	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.27	7440-31-5	Tin	2.15	mg / Kg	10	0.025	B	09-23-02	09-24-02
M021283	MT.2002.1110.26	7440-32-6	Titanium	462	mg / Kg	99	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.27	7440-61-1	Uranium	0.378	mg / Kg	10	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.27	7440-62-2	Vanadium	6.04	mg / Kg	10	0.05		09-23-02	09-24-02
M021283	MT.2002.1110.27	7440-66-6	Zinc	40.4	mg / Kg	10	0.25		09-23-02	09-24-02
0209373-04A		**SW846 7471 CVAA Dry Weight**					By:	JRE		
M021285	MT.2002.1103.45	7439-97-6	Mercury	ND	mg / Kg	1	0.05		09-23-02	09-23-02

Sample: ***RE03-02-49291*** Collected: *09-12-02 0:00:00* By:
Matrix: ***SO***

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Code	Prep Date	Run Date
0209373-05A		**ASTM D2216**					By:	MDE		
MO0216	WC.2002.1477.7		Moisture	19.3	%	1	0.1	H	10-09-02	10-09-02
0209373-05A		**EPA 218.4 Hex. Chromium Dry Weight**					By:	NJL		
W02392	WC.2002.1319.19		Chromium, Hexavalent	4.00	mg / kg	1	1		09-27-02	09-27-02
0209373-05A		**SW846 3050A/6020 ICP-MS Dry Weight**					By:	JWB		
M021283	MT.2002.1110.29	7429-90-5	Aluminum	5190	mg / Kg	10	0.5		09-23-02	09-24-02
M021283	MT.2002.1110.29	7440-36-0	Antimony	ND	mg / Kg	10	0.05		09-23-02	09-24-02
M021283	MT.2002.1110.29	7440-38-2	Arsenic	1.31	mg / Kg	10	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.29	7440-39-3	Barium	44.2	mg / Kg	10	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.29	7440-41-7	Beryllium	0.659	mg / Kg	10	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.29	7440-42-8	Boron	ND	mg / Kg	10	0.15		09-23-02	09-24-02
M021283	MT.2002.1110.29	7440-43-9	Cadmium	ND	mg / Kg	10	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.29	7440-70-2	Calcium	1360	mg / Kg	10	0.5		09-23-02	09-24-02
M021283	MT.2002.1110.29	7440-47-3	Chromium	4.39	mg / Kg	10	0.05		09-23-02	09-24-02
M021283	MT.2002.1110.29	7440-48-4	Cobalt	1.34	mg / Kg	10	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.29	7440-50-8	Copper	2.52	mg / Kg	10	0.025		09-23-02	09-24-02

Assaigai Analytical Laboratories, Inc.

Certificate of Analysis

Client: **LANL-DDP03-0271-014,RM100 E SI**
Project: **XURP 0450 3219 0000, 1199S/1203S**
Order: **0209373** **LOS40** Receipt: **09-17-02**

Sample: ***RE03-02-49291*** Collected: *09-12-02 0:00:00* By:
Matrix: ***SO***

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Code	Prep Date	Run Date
0209373-05A		**SW846 3050A/6020 ICP-MS Dry Weight**					By:	JWB		
M021283	MT.2002.1110.28	7439-89-6	Iron	11200	mg / Kg	96	0.5		09-23-02	09-24-02
M021283	MT.2002.1110.29	7439-92-1	Lead	9.84	mg / Kg	10	0.025		09-23-02	09-24-02
M021283	MT.2002.1133.71	7440-22-4	Lithium	20.1	mg / Kg	10	0.05		09-23-02	10-01-02
M021283	MT.2002.1110.29	7439-95-4	Magnesium	1080	mg / Kg	10	0.5		09-23-02	09-24-02
M021283	MT.2002.1110.28	7439-96-5	Manganese	217	mg / Kg	96	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.29	7439-98-7	Molybdenum	1.87	mg / Kg	10	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.29	7440-02-0	Nickel	4.22	mg / Kg	10	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.29	7440-09-7	Potassium	607	mg / Kg	10	0.5		09-23-02	09-24-02
M021283	MT.2002.1110.29	7782-49-2	Selenium	0.800	mg / Kg	10	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.29	7440-21-3	Silicon	261	mg / Kg	10	1	E	09-23-02	09-24-02
M021283	MT.2002.1110.29	7440-22-4	Silver	ND	mg / Kg	10	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.29	7440-23-5	Sodium	135	mg / Kg	10	0.5		09-23-02	09-24-02
M021283	MT.2002.1110.29	7439-89-6	Strontium	29.4	mg / Kg	10	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.29	7440-28-0	Thallium	ND	mg / Kg	10	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.29	7440-31-5	Tin	2.02	mg / Kg	10	0.025	B	09-23-02	09-24-02
M021283	MT.2002.1110.28	7440-32-6	Titanium	394	mg / Kg	96	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.29	7440-61-1	Uranium	0.404	mg / Kg	10	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.29	7440-62-2	Vanadium	7.87	mg / Kg	10	0.05		09-23-02	09-24-02
M021283	MT.2002.1110.29	7440-66-6	Zinc	43.6	mg / Kg	10	0.25		09-23-02	09-24-02
0209373-05A		**SW846 7471 CVAA Dry Weight**					By:	JRE		
M021285	MT.2002.1103.46	7439-97-6	Mercury	ND	mg / Kg	1	0.05		09-23-02	09-23-02

Sample: ***RE03-02-49292*** Collected: *09-12-02 0:00:00* By:
Matrix: ***SO***

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Code	Prep Date	Run Date
0209373-06A		**ASTM D2216**					By:	MDE		
MO0216	WC.2002.1477.8		Moisture	3.93	%	1	0.1	H	10-09-02	10-09-02
0209373-06A		**EPA 218.4 Hex. Chromium Dry Weight**					By:	NJL		
W02392	WC.2002.1329.6		Chromium, Hexavalent	ND	mg / kg	1	1		09-30-02	09-30-02
0209373-06A		**SW846 3050A/6020 ICP-MS Dry Weight**					By:	JWB		
M021283	MT.2002.1110.33	7429-90-5	Aluminum	2460	mg / Kg	10	0.5		09-23-02	09-24-02
M021283	MT.2002.1110.33	7440-36-0	Antimony	ND	mg / Kg	10	0.05		09-23-02	09-24-02
M021283	MT.2002.1110.33	7440-38-2	Arsenic	1.55	mg / Kg	10	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.33	7440-39-3	Barium	34.6	mg / Kg	10	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.33	7440-41-7	Beryllium	0.423	mg / Kg	10	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.33	7440-42-8	Boron	ND	mg / Kg	10	0.15		09-23-02	09-24-02
M021283	MT.2002.1110.33	7440-43-9	Cadmium	ND	mg / Kg	10	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.33	7440-70-2	Calcium	773	mg / Kg	10	0.5		09-23-02	09-24-02
M021283	MT.2002.1110.33	7440-47-3	Chromium	8.88	mg / Kg	10	0.05		09-23-02	09-24-02

Assaigai Analytical Laboratories, Inc.

Certificate of Analysis

Client: **LANL-DDP03-0271-014,RM100 E SI**
Project: **XURP 0450 3219 0000, 1199S/1203S**
Order: **0209373** **LOS40** Receipt: **09-17-02**

Sample: ***RE03-02-49292*** Collected: *09-12-02 0:00:00* By:
Matrix: ***SO***

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Code	Prep Date	Run Date
0209373-06A		**SW846 3050A/6020 ICP-MS Dry Weight**					By:	JWB		
M021283	MT.2002.1110.33	7440-48-4	Cobalt	0.772	mg / Kg	10	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.33	7440-50-8	Copper	4.86	mg / Kg	10	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.30	7439-89-6	Iron	8420	mg / Kg	99	0.5		09-23-02	09-24-02
M021283	MT.2002.1110.33	7439-92-1	Lead	6.93	mg / Kg	10	0.025		09-23-02	09-24-02
M021283	MT.2002.1133.74	7440-22-4	Lithium	14.2	mg / Kg	10	0.05		09-23-02	10-01-02
M021283	MT.2002.1110.33	7439-95-4	Magnesium	667	mg / Kg	10	0.5		09-23-02	09-24-02
M021283	MT.2002.1110.30	7439-96-5	Manganese	241	mg / Kg	99	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.33	7439-98-7	Molybdenum	1.92	mg / Kg	10	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.33	7440-02-0	Nickel	2.54	mg / Kg	10	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.33	7440-09-7	Potassium	427	mg / Kg	10	0.5		09-23-02	09-24-02
M021283	MT.2002.1110.33	7782-49-2	Selenium	0.587	mg / Kg	10	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.33	7440-21-3	Silicon	231	mg / Kg	10	1	E	09-23-02	09-24-02
M021283	MT.2002.1110.33	7440-22-4	Silver	ND	mg / Kg	10	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.33	7440-23-5	Sodium	90.1	mg / Kg	10	0.5		09-23-02	09-24-02
M021283	MT.2002.1110.33	7439-89-6	Strontium	21.0	mg / Kg	10	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.33	7440-28-0	Thallium	ND	mg / Kg	10	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.33	7440-31-5	Tin	1.90	mg / Kg	10	0.025	B	09-23-02	09-24-02
M021283	MT.2002.1110.30	7440-32-6	Titanium	418	mg / Kg	99	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.33	7440-61-1	Uranium	0.344	mg / Kg	10	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.33	7440-62-2	Vanadium	5.42	mg / Kg	10	0.05		09-23-02	09-24-02
M021283	MT.2002.1110.33	7440-66-6	Zinc	73.7	mg / Kg	10	0.25		09-23-02	09-24-02
0209373-06A		**SW846 7471 CVAA Dry Weight**					By:	JRE		
M021285	MT.2002.1103.47	7439-97-6	Mercury	ND	mg / Kg	1	0.05		09-23-02	09-23-02

Sample: ***RE03-02-49293*** Collected: *09-12-02 0:00:00* By:
Matrix: ***SO***

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Code	Prep Date	Run Date
0209373-07A		**ASTM D2216**					By:	MDE		
MO0216	WC.2002.1477.9		Moisture	8.46	%	1	0.1	H	10-09-02	10-09-02
0209373-07A		**EPA 218.4 Hex. Chromium Dry Weight**					By:	NJL		
W02392	WC.2002.1329.8		Chromium, Hexavalent	ND	mg / kg	1	1		09-30-02	09-30-02
0209373-07A		**SW846 3050A/6020 ICP-MS Dry Weight**					By:	JWB		
M021283	MT.2002.1110.35	7429-90-5	Aluminum	5350	mg / Kg	10	0.5		09-23-02	09-24-02
M021283	MT.2002.1110.35	7440-36-0	Antimony	ND	mg / Kg	10	0.05		09-23-02	09-24-02
M021283	MT.2002.1110.35	7440-38-2	Arsenic	1.88	mg / Kg	10	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.35	7440-39-3	Barium	44.9	mg / Kg	10	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.35	7440-41-7	Beryllium	0.552	mg / Kg	10	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.35	7440-42-8	Boron	ND	mg / Kg	10	0.15		09-23-02	09-24-02
M021283	MT.2002.1110.35	7440-43-9	Cadmium	0.304	mg / Kg	10	0.025		09-23-02	09-24-02

Assaigai Analytical Laboratories, Inc.

Certificate of Analysis

Client: **LANL-DDP03-0271-014,RM100 E SI**
Project: **XURP 0450 3219 0000, 1199S/1203S**
Order: **0209373** **LOS40** Receipt: **09-17-02**

Sample: ***RE03-02-49293*** Collected: *09-12-02 0:00:00* By:
Matrix: ***SO***

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Code	Prep Date	Run Date
0209373-07A		**SW846 3050A/6020 ICP-MS Dry Weight**					By:	JWB		
M021283	MT.2002.1110.35	7440-70-2	Calcium	1760	mg / Kg	10	0.5		09-23-02	09-24-02
M021283	MT.2002.1110.35	7440-47-3	Chromium	22.2	mg / Kg	10	0.05		09-23-02	09-24-02
M021283	MT.2002.1110.35	7440-48-4	Cobalt	1.58	mg / Kg	10	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.35	7440-50-8	Copper	7.69	mg / Kg	10	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.34	7439-89-6	Iron	10100	mg / Kg	99	0.5		09-23-02	09-24-02
M021283	MT.2002.1110.35	7439-92-1	Lead	15.3	mg / Kg	10	0.025		09-23-02	09-24-02
M021283	MT.2002.1133.75	7440-22-4	Lithium	13.4	mg / Kg	10	0.05		09-23-02	10-01-02
M021283	MT.2002.1110.35	7439-95-4	Magnesium	1120	mg / Kg	10	0.5		09-23-02	09-24-02
M021283	MT.2002.1110.34	7439-96-5	Manganese	225	mg / Kg	99	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.35	7439-98-7	Molybdenum	1.79	mg / Kg	10	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.35	7440-02-0	Nickel	4.40	mg / Kg	10	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.35	7440-09-7	Potassium	822	mg / Kg	10	0.5		09-23-02	09-24-02
M021283	MT.2002.1110.35	7782-49-2	Selenium	0.601	mg / Kg	10	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.35	7440-21-3	Silicon	245	mg / Kg	10	1	E	09-23-02	09-24-02
M021283	MT.2002.1110.35	7440-22-4	Silver	0.698	mg / Kg	10	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.35	7440-23-5	Sodium	187	mg / Kg	10	0.5		09-23-02	09-24-02
M021283	MT.2002.1110.35	7439-89-6	Strontium	35.7	mg / Kg	10	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.35	7440-28-0	Thallium	ND	mg / Kg	10	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.35	7440-31-5	Tin	1.91	mg / Kg	10	0.025	B	09-23-02	09-24-02
M021283	MT.2002.1110.34	7440-32-6	Titanium	352	mg / Kg	99	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.35	7440-61-1	Uranium	0.542	mg / Kg	10	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.35	7440-62-2	Vanadium	8.54	mg / Kg	10	0.05		09-23-02	09-24-02
M021283	MT.2002.1110.35	7440-66-6	Zinc	78.8	mg / Kg	10	0.25		09-23-02	09-24-02
0209373-07A		**SW846 7471 CVAA Dry Weight**					By:	JRE		
M021285	MT.2002.1103.48	7439-97-6	Mercury	ND	mg / Kg	1	0.05		09-23-02	09-23-02

Sample: ***RE03-02-49294*** Collected: *09-12-02 0:00:00* By:
Matrix: ***SO***

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Code	Prep Date	Run Date
0209373-08A		**ASTM D2216**					By:	MDE		
MO0216	WC.2002.1477.10		Moisture	11.0	%	1	0.1	H	10-09-02	10-09-02
0209373-08A		**EPA 218.4 Hex. Chromium Dry Weight**					By:	NJL		
W02392	WC.2002.1329.10		Chromium, Hexavalent	5.16	mg / kg	1	1		09-30-02	09-30-02
0209373-08A		**SW846 3050A/6020 ICP-MS Dry Weight**					By:	JWB		
M021283	MT.2002.1110.37	7429-90-5	Aluminum	725	mg / Kg	10	0.5		09-23-02	09-24-02
M021283	MT.2002.1110.37	7440-36-0	Antimony	ND	mg / Kg	10	0.05		09-23-02	09-24-02
M021283	MT.2002.1110.37	7440-38-2	Arsenic	0.518	mg / Kg	10	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.37	7440-39-3	Barium	10.8	mg / Kg	10	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.37	7440-41-7	Beryllium	0.380	mg / Kg	10	0.025		09-23-02	09-24-02

Assaigai Analytical Laboratories, Inc.

Certificate of Analysis

Client: **LANL-DDP03-0271-014,RM100 E SI**
Project: **XURP 0450 3219 0000, 1199S/1203S**
Order: **0209373** **LOS40** Receipt: **09-17-02**

Sample: ***RE03-02-49294*** Collected: *09-12-02 0:00:00* By:
Matrix: ***SO***

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Code	Prep Date	Run Date
0209373-08A		**SW846 3050A/6020 ICP-MS Dry Weight**					By:	JWB		
M021283	MT.2002.1110.37	7440-42-8	Boron	ND	mg / Kg	10	0.15		09-23-02	09-24-02
M021283	MT.2002.1110.37	7440-43-9	Cadmium	ND	mg / Kg	10	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.37	7440-70-2	Calcium	324	mg / Kg	10	0.5		09-23-02	09-24-02
M021283	MT.2002.1110.37	7440-47-3	Chromium	1.80	mg / Kg	10	0.05		09-23-02	09-24-02
M021283	MT.2002.1110.37	7440-48-4	Cobalt	ND	mg / Kg	10	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.37	7440-50-8	Copper	2.19	mg / Kg	10	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.37	7439-89-6	Iron	3750	mg / Kg	10	0.5		09-23-02	09-24-02
M021283	MT.2002.1110.37	7439-92-1	Lead	2.60	mg / Kg	10	0.025		09-23-02	09-24-02
M021283	MT.2002.1133.76	7440-22-4	Lithium	3.58	mg / Kg	10	0.05		09-23-02	10-01-02
M021283	MT.2002.1110.37	7439-95-4	Magnesium	174	mg / Kg	10	0.5		09-23-02	09-24-02
M021283	MT.2002.1110.36	7439-96-5	Manganese	185	mg / Kg	98	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.37	7439-98-7	Molybdenum	0.739	mg / Kg	10	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.37	7440-02-0	Nickel	0.600	mg / Kg	10	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.37	7440-09-7	Potassium	156	mg / Kg	10	0.5		09-23-02	09-24-02
M021283	MT.2002.1110.37	7782-49-2	Selenium	0.413	mg / Kg	10	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.37	7440-21-3	Silicon	206	mg / Kg	10	1	E	09-23-02	09-24-02
M021283	MT.2002.1110.37	7440-22-4	Silver	ND	mg / Kg	10	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.37	7440-23-5	Sodium	77.0	mg / Kg	10	0.5		09-23-02	09-24-02
M021283	MT.2002.1110.37	7439-89-6	Strontium	4.86	mg / Kg	10	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.37	7440-28-0	Thallium	ND	mg / Kg	10	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.37	7440-31-5	Tin	0.854	mg / Kg	10	0.025	B	09-23-02	09-24-02
M021283	MT.2002.1110.37	7440-32-6	Titanium	108	mg / Kg	10	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.37	7440-61-1	Uranium	0.436	mg / Kg	10	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.37	7440-62-2	Vanadium	1.73	mg / Kg	10	0.05		09-23-02	09-24-02
M021283	MT.2002.1110.37	7440-66-6	Zinc	26.3	mg / Kg	10	0.25		09-23-02	09-24-02
0209373-08A		**SW846 7471 CVAA Dry Weight**					By:	JRE		
M021285	MT.2002.1103.49	7439-97-6	Mercury	ND	mg / Kg	1	0.05		09-23-02	09-23-02

Sample: ***RE03-02-49295*** Collected: *09-12-02 0:00:00* By:
Matrix: ***SO***

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Code	Prep Date	Run Date
0209373-09A		**ASTM D2216**					By:	MDE		
MO0216	WC.2002.1477.11		Moisture	11.6	%	1	0.1	H	10-09-02	10-09-02
0209373-09A		**EPA 218.4 Hex. Chromium Dry Weight**					By:	NJL		
W02392	WC.2002.1329.12		Chromium, Hexavalent	1.42	mg / kg	1	1		09-30-02	09-30-02
0209373-09A		**SW846 3050A/6020 ICP-MS Dry Weight**					By:	JWB		
M021283	MT.2002.1110.39	7429-90-5	Aluminum	551	mg / Kg	9	0.5		09-23-02	09-24-02
M021283	MT.2002.1110.39	7440-36-0	Antimony	ND	mg / Kg	9	0.05		09-23-02	09-24-02
M021283	MT.2002.1110.39	7440-38-2	Arsenic	ND	mg / Kg	9	0.025		09-23-02	09-24-02

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Certificate of Analysis

Client: **LANL-DDP03-0271-014,RM100 E SI**
Project: **XURP 0450 3219 0000, 1199S/1203S**
Order: **0209373** **LOS40** Receipt: **09-17-02**

Sample: ***RE03-02-49295*** Collected: *09-12-02 0:00:00* By:
Matrix: ***SO***

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Code	Prep Date	Run Date
0209373-09A		**SW846 3050A/6020 ICP-MS Dry Weight**					By:	JWB		
M021283	MT.2002.1110.39	7440-39-3	Barium	10.3	mg / Kg	9	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.39	7440-41-7	Beryllium	0.379	mg / Kg	9	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.39	7440-42-8	Boron	ND	mg / Kg	9	0.15		09-23-02	09-24-02
M021283	MT.2002.1110.39	7440-43-9	Cadmium	ND	mg / Kg	9	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.39	7440-70-2	Calcium	305	mg / Kg	9	0.5		09-23-02	09-24-02
M021283	MT.2002.1110.39	7440-47-3	Chromium	0.779	mg / Kg	9	0.05		09-23-02	09-24-02
M021283	MT.2002.1110.39	7440-48-4	Cobalt	ND	mg / Kg	9	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.39	7440-50-8	Copper	1.66	mg / Kg	9	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.39	7439-89-6	Iron	3710	mg / Kg	9	0.5		09-23-02	09-24-02
M021283	MT.2002.1110.39	7439-92-1	Lead	2.41	mg / Kg	9	0.025		09-23-02	09-24-02
M021283	MT.2002.1133.77	7440-22-4	Lithium	3.04	mg / Kg	9	0.05		09-23-02	10-01-02
M021283	MT.2002.1110.39	7439-95-4	Magnesium	136	mg / Kg	9	0.5		09-23-02	09-24-02
M021283	MT.2002.1110.38	7439-96-5	Manganese	192	mg / Kg	93	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.39	7439-98-7	Molybdenum	0.632	mg / Kg	9	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.39	7440-02-0	Nickel	0.558	mg / Kg	9	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.39	7440-09-7	Potassium	124	mg / Kg	9	0.5		09-23-02	09-24-02
M021283	MT.2002.1110.39	7782-49-2	Selenium	0.484	mg / Kg	9	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.39	7440-21-3	Silicon	210	mg / Kg	9	1	E	09-23-02	09-24-02
M021283	MT.2002.1110.39	7440-22-4	Silver	ND	mg / Kg	9	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.39	7440-23-5	Sodium	71.4	mg / Kg	9	0.5		09-23-02	09-24-02
M021283	MT.2002.1110.39	7439-89-6	Strontium	3.95	mg / Kg	9	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.39	7440-28-0	Thallium	ND	mg / Kg	9	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.39	7440-31-5	Tin	0.869	mg / Kg	9	0.025	B	09-23-02	09-24-02
M021283	MT.2002.1110.39	7440-32-6	Titanium	104	mg / Kg	9	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.39	7440-61-1	Uranium	0.452	mg / Kg	9	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.39	7440-62-2	Vanadium	1.23	mg / Kg	9	0.05		09-23-02	09-24-02
M021283	MT.2002.1110.39	7440-66-6	Zinc	26.7	mg / Kg	9	0.25		09-23-02	09-24-02
0209373-09A		**SW846 7471 CVAA Dry Weight**					By:	JRE		
M021285	MT.2002.1103.50	7439-97-6	Mercury	ND	mg / Kg	1	0.05		09-23-02	09-23-02

Sample: ***RE03-02-49296*** Collected: *09-12-02 0:00:00* By:
Matrix: ***SO***

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Code	Prep Date	Run Date
0209373-10A		**ASTM D2216**					By:	MDE		
MO0216	WC.2002.1477.12		Moisture	17.4	%	1	0.1	H	10-09-02	10-09-02
0209373-10A		**EPA 218.4 Hex. Chromium Dry Weight**					By:	NJL		
W02392	WC.2002.1329.15		Chromium, Hexavalent	1.83	mg / kg	1	1		09-30-02	09-30-02
0209373-10A		**SW846 3050A/6020 ICP-MS Dry Weight**					By:	JWB		
M021283	MT.2002.1110.40	7429-90-5	Aluminum	9770	mg / Kg	97	0.5		09-23-02	09-24-02

Assaigai Analytical Laboratories, Inc.

Certificate of Analysis

Client: **LANL-DDP03-0271-014,RM100 E SI**
Project: **XURP 0450 3219 0000, 1199S/1203S**
Order: **0209373** **LOS40** Receipt: **09-17-02**

Sample: ***RE03-02-49296*** Collected: *09-12-02 0:00:00* By:
Matrix: ***SO***

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Code	Prep Date	Run Date
0209373-10A		**SW846 3050A/6020 ICP-MS Dry Weight**					By:	JWB		
M021283	MT.2002.1110.41	7440-36-0	Antimony	ND	mg / Kg	10	0.05		09-23-02	09-24-02
M021283	MT.2002.1110.41	7440-38-2	Arsenic	1.85	mg / Kg	10	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.41	7440-39-3	Barium	68.9	mg / Kg	10	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.41	7440-41-7	Beryllium	0.627	mg / Kg	10	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.41	7440-42-8	Boron	ND	mg / Kg	10	0.15		09-23-02	09-24-02
M021283	MT.2002.1110.41	7440-43-9	Cadmium	ND	mg / Kg	10	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.41	7440-70-2	Calcium	1260	mg / Kg	10	0.5		09-23-02	09-24-02
M021283	MT.2002.1110.41	7440-47-3	Chromium	19.4	mg / Kg	10	0.05		09-23-02	09-24-02
M021283	MT.2002.1110.41	7440-48-4	Cobalt	2.11	mg / Kg	10	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.41	7440-50-8	Copper	4.72	mg / Kg	10	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.40	7439-89-6	Iron	12800	mg / Kg	97	0.5		09-23-02	09-24-02
M021283	MT.2002.1110.41	7439-92-1	Lead	18.4	mg / Kg	10	0.025		09-23-02	09-24-02
M021283	MT.2002.1133.78	7440-22-4	Lithium	18.6	mg / Kg	10	0.05		09-23-02	10-01-02
M021283	MT.2002.1110.41	7439-95-4	Magnesium	1360	mg / Kg	10	0.5		09-23-02	09-24-02
M021283	MT.2002.1110.40	7439-96-5	Manganese	295	mg / Kg	97	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.41	7439-98-7	Molybdenum	1.34	mg / Kg	10	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.41	7440-02-0	Nickel	5.10	mg / Kg	10	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.41	7440-09-7	Potassium	875	mg / Kg	10	0.5		09-23-02	09-24-02
M021283	MT.2002.1110.41	7782-49-2	Selenium	0.528	mg / Kg	10	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.41	7440-21-3	Silicon	298	mg / Kg	10	1	E	09-23-02	09-24-02
M021283	MT.2002.1110.41	7440-22-4	Silver	0.305	mg / Kg	10	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.41	7440-23-5	Sodium	97.8	mg / Kg	10	0.5		09-23-02	09-24-02
M021283	MT.2002.1110.41	7439-89-6	Strontium	49.6	mg / Kg	10	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.41	7440-28-0	Thallium	ND	mg / Kg	10	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.41	7440-31-5	Tin	2.19	mg / Kg	10	0.025	B	09-23-02	09-24-02
M021283	MT.2002.1110.40	7440-32-6	Titanium	374	mg / Kg	97	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.41	7440-61-1	Uranium	0.516	mg / Kg	10	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.41	7440-62-2	Vanadium	12.8	mg / Kg	10	0.05		09-23-02	09-24-02
M021283	MT.2002.1110.41	7440-66-6	Zinc	57.3	mg / Kg	10	0.25		09-23-02	09-24-02
0209373-10A		**SW846 7471 CVAA Dry Weight**					By:	JRE		
M021285	MT.2002.1103.51	7439-97-6	Mercury	ND	mg / Kg	1	0.05		09-23-02	09-23-02

Sample: ***RE03-02-49297*** Collected: *09-12-02 0:00:00* By:
Matrix: ***SO***

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Code	Prep Date	Run Date
0209373-11A		**ASTM D2216**					By:	MDE		
MO0216	WC.2002.1477.13		Moisture	13.8	%	1	0.1	H	10-09-02	10-09-02
0209373-11A		**EPA 218.4 Hex. Chromium Dry Weight**					By:	NJL		
W02392	WC.2002.1329.17		Chromium, Hexavalent	1.46	mg / kg	1	1		09-30-02	09-30-02

Assaigai Analytical Laboratories, Inc.

Certificate of Analysis

Client: **LANL-DDR03-0271-014,RM100 E SI**
Project: **XURP 0450 3219 0000, 1199S/1203S**
Order: **0209373** **LOS40** Receipt: **09-17-02**

Sample: ***RE03-02-49297*** Collected: *09-12-02 0:00:00* By:
Matrix: ***SO***

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Code	Prep Date	Run Date
0209373-11A		**SW846 3050A/6020 ICP-MS Dry Weight**					By:	JWB		
M021283	MT.2002.1110.45	7429-90-5	Aluminum	2920	mg / Kg	10	0.5		09-23-02	09-24-02
M021283	MT.2002.1110.45	7440-36-0	Antimony	ND	mg / Kg	10	0.05		09-23-02	09-24-02
M021283	MT.2002.1110.45	7440-38-2	Arsenic	1.06	mg / Kg	10	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.45	7440-39-3	Barium	25.9	mg / Kg	10	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.45	7440-41-7	Beryllium	0.463	mg / Kg	10	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.45	7440-42-8	Boron	ND	mg / Kg	10	0.15		09-23-02	09-24-02
M021283	MT.2002.1110.45	7440-43-9	Cadmium	ND	mg / Kg	10	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.45	7440-70-2	Calcium	807	mg / Kg	10	0.5		09-23-02	09-24-02
M021283	MT.2002.1110.45	7440-47-3	Chromium	2.85	mg / Kg	10	0.05		09-23-02	09-24-02
M021283	MT.2002.1110.45	7440-48-4	Cobalt	0.769	mg / Kg	10	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.45	7440-50-8	Copper	1.36	mg / Kg	10	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.42	7439-89-6	Iron	8610	mg / Kg	100	0.5		09-23-02	09-24-02
M021283	MT.2002.1110.45	7439-92-1	Lead	5.05	mg / Kg	10	0.025		09-23-02	09-24-02
M021283	MT.2002.1133.81	7440-22-4	Lithium	12.3	mg / Kg	10	0.05		09-23-02	10-01-02
M021283	MT.2002.1110.45	7439-95-4	Magnesium	604	mg / Kg	10	0.5		09-23-02	09-24-02
M021283	MT.2002.1110.42	7439-96-5	Manganese	296	mg / Kg	100	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.45	7439-98-7	Molybdenum	1.21	mg / Kg	10	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.45	7440-02-0	Nickel	3.83	mg / Kg	10	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.45	7440-09-7	Potassium	457	mg / Kg	10	0.5		09-23-02	09-24-02
M021283	MT.2002.1110.45	7782-49-2	Selenium	0.844	mg / Kg	10	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.45	7440-21-3	Silicon	269	mg / Kg	10	1	E	09-23-02	09-24-02
M021283	MT.2002.1110.45	7440-22-4	Silver	ND	mg / Kg	10	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.45	7440-23-5	Sodium	136	mg / Kg	10	0.5		09-23-02	09-24-02
M021283	MT.2002.1110.45	7439-89-6	Strontium	16.6	mg / Kg	10	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.45	7440-28-0	Thallium	ND	mg / Kg	10	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.45	7440-31-5	Tin	2.81	mg / Kg	10	0.025	B	09-23-02	09-24-02
M021283	MT.2002.1110.42	7440-32-6	Titanium	420	mg / Kg	100	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.45	7440-61-1	Uranium	0.387	mg / Kg	10	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.45	7440-62-2	Vanadium	4.51	mg / Kg	10	0.05		09-23-02	09-24-02
M021283	MT.2002.1110.45	7440-66-6	Zinc	34.7	mg / Kg	10	0.25		09-23-02	09-24-02
0209373-11A		**SW846 7471 CVAA Dry Weight**					By:	JRE		
M021285	MT.2002.1103.52	7439-97-6	Mercury	ND	mg / Kg	1	0.05		09-23-02	09-23-02

Sample: ***RE03-02-49298*** Collected: *09-12-02 0:00:00* By:
Matrix: ***SO***

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Code	Prep Date	Run Date
0209373-12A		**ASTM D2216**					By:	MDE		
MO0216	WC.2002.1477.14		Moisture	12.8	%	1	0.1	H	10-09-02	10-09-02

Assaigai Analytical Laboratories, Inc.

Certificate of Analysis

Client: **LANL-DDP03-0271-014,RM100 E SI**
Project: **XURP 0450 3219 0000, 1199S/1203S**
Order: **0209373** **LOS40** Receipt: **09-17-02**

Sample: ***RE03-02-49298*** Collected: *09-12-02 0:00:00* By:
Matrix: ***SO***

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Code	Prep Date	Run Date
0209373-12A		**EPA 218.4 Hex. Chromium Dry Weight**					By:	NJL		
W02392	WC.2002.1329.19		Chromium, Hexavalent	3.70	mg / kg	1	1		09-30-02	09-30-02
0209373-12A		**SW846 3050A/6020 ICP-MS Dry Weight**					By:	JWB		
M021283	MT.2002.1110.47	7429-90-5	Aluminum	4920	mg / Kg	10	0.5		09-23-02	09-24-02
M021283	MT.2002.1110.47	7440-36-0	Antimony	ND	mg / Kg	10	0.05		09-23-02	09-24-02
M021283	MT.2002.1110.47	7440-38-2	Arsenic	1.44	mg / Kg	10	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.47	7440-39-3	Barium	40.0	mg / Kg	10	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.47	7440-41-7	Beryllium	0.482	mg / Kg	10	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.47	7440-42-8	Boron	ND	mg / Kg	10	0.15		09-23-02	09-24-02
M021283	MT.2002.1110.47	7440-43-9	Cadmium	ND	mg / Kg	10	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.47	7440-70-2	Calcium	3530	mg / Kg	10	0.5		09-23-02	09-24-02
M021283	MT.2002.1110.47	7440-47-3	Chromium	5.79	mg / Kg	10	0.05		09-23-02	09-24-02
M021283	MT.2002.1110.47	7440-48-4	Cobalt	1.23	mg / Kg	10	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.47	7440-50-8	Copper	4.84	mg / Kg	10	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.46	7439-89-6	Iron	8340	mg / Kg	99	0.5		09-23-02	09-24-02
M021283	MT.2002.1110.47	7439-92-1	Lead	9.16	mg / Kg	10	0.025		09-23-02	09-24-02
M021283	MT.2002.1133.82	7440-22-4	Lithium	8.65	mg / Kg	10	0.05		09-23-02	10-01-02
M021283	MT.2002.1110.47	7439-95-4	Magnesium	970	mg / Kg	10	0.5		09-23-02	09-24-02
M021283	MT.2002.1110.46	7439-96-5	Manganese	224	mg / Kg	99	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.47	7439-98-7	Molybdenum	1.01	mg / Kg	10	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.47	7440-02-0	Nickel	3.08	mg / Kg	10	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.47	7440-09-7	Potassium	682	mg / Kg	10	0.5		09-23-02	09-24-02
M021283	MT.2002.1110.47	7782-49-2	Selenium	0.640	mg / Kg	10	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.47	7440-21-3	Silicon	357	mg / Kg	10	1	E	09-23-02	09-24-02
M021283	MT.2002.1110.47	7440-22-4	Silver	ND	mg / Kg	10	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.47	7440-23-5	Sodium	336	mg / Kg	10	0.5		09-23-02	09-24-02
M021283	MT.2002.1110.47	7439-89-6	Strontium	39.9	mg / Kg	10	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.47	7440-28-0	Thallium	ND	mg / Kg	10	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.47	7440-31-5	Tin	1.94	mg / Kg	10	0.025	B	09-23-02	09-24-02
M021283	MT.2002.1110.46	7440-32-6	Titanium	263	mg / Kg	99	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.47	7440-61-1	Uranium	0.493	mg / Kg	10	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.47	7440-62-2	Vanadium	7.24	mg / Kg	10	0.05		09-23-02	09-24-02
M021283	MT.2002.1110.47	7440-66-6	Zinc	42.4	mg / Kg	10	0.25		09-23-02	09-24-02
0209373-12A		**SW846 7471 CVAA Dry Weight**					By:	JRE		
M021285	MT.2002.1103.53	7439-97-6	Mercury	ND	mg / Kg	1	0.05		09-23-02	09-23-02

Assaigai Analytical Laboratories, Inc.

Certificate of Analysis

Client: **LANL-DDP03-0271-014,RM100 E SI**
Project: **XURP 0450 3219 0000, 1199S/1203S**
Order: **0209373** **LOS40** Receipt: **09-17-02**

Sample: ***RE03-02-49299*** Collected: *09-12-02 0:00:00* By:
Matrix: ***SO***

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Code	Prep Date	Run Date
0209373-13A		**ASTM D2216**					By:	MDE		
MO0216	WC.2002.1477.15		Moisture	12.9	%	1	0.1	H	10-09-02	10-09-02
0209373-13A		**EPA 218.4 Hex. Chromium Dry Weight**					By:	NJL		
W02392	WC.2002.1329.21		Chromium, Hexavalent	ND	mg / kg	1	1		09-30-02	09-30-02
0209373-13A		**SW846 3050A/6020 ICP-MS Dry Weight**					By:	JWB		
M021283	MT.2002.1110.48	7429-90-5	Aluminum	10000	mg / Kg	96	0.5		09-23-02	09-24-02
M021283	MT.2002.1110.49	7440-36-0	Antimony	ND	mg / Kg	10	0.05		09-23-02	09-24-02
M021283	MT.2002.1110.49	7440-38-2	Arsenic	2.32	mg / Kg	10	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.49	7440-39-3	Barium	74.7	mg / Kg	10	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.49	7440-41-7	Beryllium	0.674	mg / Kg	10	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.49	7440-42-8	Boron	ND	mg / Kg	10	0.15		09-23-02	09-24-02
M021283	MT.2002.1110.49	7440-43-9	Cadmium	ND	mg / Kg	10	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.49	7440-70-2	Calcium	1380	mg / Kg	10	0.5		09-23-02	09-24-02
M021283	MT.2002.1110.49	7440-47-3	Chromium	16.1	mg / Kg	10	0.05		09-23-02	09-24-02
M021283	MT.2002.1110.49	7440-48-4	Cobalt	2.24	mg / Kg	10	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.49	7440-50-8	Copper	4.59	mg / Kg	10	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.48	7439-89-6	Iron	12600	mg / Kg	96	0.5		09-23-02	09-24-02
M021283	MT.2002.1110.49	7439-92-1	Lead	18.2	mg / Kg	10	0.025		09-23-02	09-24-02
M021283	MT.2002.1133.83	7440-22-4	Lithium	18.1	mg / Kg	10	0.05		09-23-02	10-01-02
M021283	MT.2002.1110.49	7439-95-4	Magnesium	1380	mg / Kg	10	0.5		09-23-02	09-24-02
M021283	MT.2002.1110.48	7439-96-5	Manganese	264	mg / Kg	96	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.49	7439-98-7	Molybdenum	1.23	mg / Kg	10	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.49	7440-02-0	Nickel	5.25	mg / Kg	10	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.49	7440-09-7	Potassium	890	mg / Kg	10	0.5		09-23-02	09-24-02
M021283	MT.2002.1110.49	7782-49-2	Selenium	0.558	mg / Kg	10	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.49	7440-21-3	Silicon	248	mg / Kg	10	1	E	09-23-02	09-24-02
M021283	MT.2002.1110.49	7440-22-4	Silver	ND	mg / Kg	10	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.49	7440-23-5	Sodium	98.0	mg / Kg	10	0.5		09-23-02	09-24-02
M021283	MT.2002.1110.49	7439-89-6	Strontium	55.4	mg / Kg	10	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.49	7440-28-0	Thallium	ND	mg / Kg	10	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.49	7440-31-5	Tin	2.04	mg / Kg	10	0.025	B	09-23-02	09-24-02
M021283	MT.2002.1110.48	7440-32-6	Titanium	328	mg / Kg	96	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.49	7440-61-1	Uranium	0.442	mg / Kg	10	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.49	7440-62-2	Vanadium	12.7	mg / Kg	10	0.05		09-23-02	09-24-02
M021283	MT.2002.1110.49	7440-66-6	Zinc	44.5	mg / Kg	10	0.25		09-23-02	09-24-02
0209373-13A		**SW846 7471 CVAA Dry Weight**					By:	JRE		
M021285	MT.2002.1103.54	7439-97-6	Mercury	ND	mg / Kg	1	0.05		09-23-02	09-23-02

Assaigai Analytical Laboratories, Inc.

Certificate of Analysis

Client: **LANL-DDP03-0271-014,RM100 E SI**
Project: **XURP 0450 3219 0000, 1199S/1203S**
Order: **0209373** **LOS40** Receipt: **09-17-02**

Sample: ***RE03-02-49300*** Collected: *09-12-02 0:00:00* By:
Matrix: ***SO***

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Code	Prep Date	Run Date
0209373-14A		**ASTM D2216**					By:	MDE		
MO0216	WC.2002.1477.16		Moisture	9.63	%	1	0.1	H	10-09-02	10-09-02
0209373-14A		**EPA 218.4 Hex. Chromium Dry Weight**					By:	NJL		
W02392	WC.2002.1329.23		Chromium, Hexavalent	2.08	mg / kg	1	1		09-30-02	09-30-02
0209373-14A		**SW846 3050A/6020 ICP-MS Dry Weight**					By:	JWB		
M021283	MT.2002.1110.51	7429-90-5	Aluminum	4430	mg / Kg	10	0.5		09-23-02	09-24-02
M021283	MT.2002.1110.51	7440-36-0	Antimony	ND	mg / Kg	10	0.05		09-23-02	09-24-02
M021283	MT.2002.1110.51	7440-38-2	Arsenic	1.17	mg / Kg	10	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.51	7440-39-3	Barium	27.9	mg / Kg	10	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.51	7440-41-7	Beryllium	0.458	mg / Kg	10	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.51	7440-42-8	Boron	ND	mg / Kg	10	0.15		09-23-02	09-24-02
M021283	MT.2002.1110.51	7440-43-9	Cadmium	ND	mg / Kg	10	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.51	7440-70-2	Calcium	910	mg / Kg	10	0.5		09-23-02	09-24-02
M021283	MT.2002.1110.51	7440-47-3	Chromium	2.80	mg / Kg	10	0.05		09-23-02	09-24-02
M021283	MT.2002.1110.51	7440-48-4	Cobalt	0.611	mg / Kg	10	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.51	7440-50-8	Copper	6.18	mg / Kg	10	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.50	7439-89-6	Iron	6610	mg / Kg	99	0.5		09-23-02	09-24-02
M021283	MT.2002.1110.51	7439-92-1	Lead	5.11	mg / Kg	10	0.025		09-23-02	09-24-02
M021283	MT.2002.1133.84	7440-22-4	Lithium	5.30	mg / Kg	10	0.05		09-23-02	10-01-02
M021283	MT.2002.1110.51	7439-95-4	Magnesium	571	mg / Kg	10	0.5		09-23-02	09-24-02
M021283	MT.2002.1110.50	7439-96-5	Manganese	197	mg / Kg	99	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.51	7439-98-7	Molybdenum	0.901	mg / Kg	10	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.51	7440-02-0	Nickel	1.92	mg / Kg	10	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.51	7440-09-7	Potassium	519	mg / Kg	10	0.5		09-23-02	09-24-02
M021283	MT.2002.1110.51	7782-49-2	Selenium	0.502	mg / Kg	10	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.51	7440-21-3	Silicon	251	mg / Kg	10	1	E	09-23-02	09-24-02
M021283	MT.2002.1110.51	7440-22-4	Silver	ND	mg / Kg	10	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.51	7440-23-5	Sodium	134	mg / Kg	10	0.5		09-23-02	09-24-02
M021283	MT.2002.1110.51	7439-89-6	Strontium	28.9	mg / Kg	10	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.51	7440-28-0	Thallium	ND	mg / Kg	10	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.51	7440-31-5	Tin	1.87	mg / Kg	10	0.025	B	09-23-02	09-24-02
M021283	MT.2002.1110.50	7440-32-6	Titanium	181	mg / Kg	99	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.51	7440-61-1	Uranium	0.447	mg / Kg	10	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.51	7440-62-2	Vanadium	4.66	mg / Kg	10	0.05		09-23-02	09-24-02
M021283	MT.2002.1110.51	7440-66-6	Zinc	28.2	mg / Kg	10	0.25		09-23-02	09-24-02
0209373-14A		**SW846 7471 CVAA Dry Weight**					By:	JRE		
M021285	MT.2002.1103.57	7439-97-6	Mercury	ND	mg / Kg	1	0.05		09-23-02	09-23-02

Assalgai Analytical Laboratories, Inc.

Certificate of Analysis

Client: **LANL-DDR03-0271-014,RM100 E SI**
Project: **XURP 0450 3219 0000, 1199S/1203S**
Order: **0209373** **LOS40** Receipt: **09-17-02**

Sample: ***RE03-02-49301*** Collected: *09-12-02 0:00:00* By:
Matrix: ***SO***

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Code	Prep Date	Run Date
0209373-15A		**ASTM D2216**					By:	MDE		
MO0216	WC.2002.1477.17		Moisture	18.5	%	1	0.1	H	10-09-02	10-09-02
0209373-15A		**EPA 218.4 Hex. Chromium Dry Weight**					By:	NJL		
W02392	WC.2002.1329.26		Chromium, Hexavalent	5.02	mg / kg	1	1		09-30-02	09-30-02
0209373-15A		**SW846 3050A/6020 ICP-MS Dry Weight**					By:	JWB		
M021283	MT.2002.1110.53	7429-90-5	Aluminum	4210	mg / Kg	9	0.5		09-23-02	09-24-02
M021283	MT.2002.1110.53	7440-36-0	Antimony	ND	mg / Kg	9	0.05		09-23-02	09-24-02
M021283	MT.2002.1110.53	7440-38-2	Arsenic	1.60	mg / Kg	9	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.53	7440-39-3	Barium	35.3	mg / Kg	9	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.53	7440-41-7	Beryllium	0.436	mg / Kg	9	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.53	7440-42-8	Boron	ND	mg / Kg	9	0.15		09-23-02	09-24-02
M021283	MT.2002.1110.53	7440-43-9	Cadmium	0.470	mg / Kg	9	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.53	7440-70-2	Calcium	824	mg / Kg	9	0.5		09-23-02	09-24-02
M021283	MT.2002.1110.53	7440-47-3	Chromium	16.8	mg / Kg	9	0.05		09-23-02	09-24-02
M021283	MT.2002.1110.53	7440-48-4	Cobalt	1.44	mg / Kg	9	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.53	7440-50-8	Copper	12.5	mg / Kg	9	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.52	7439-89-6	Iron	9240	mg / Kg	92	0.5		09-23-02	09-24-02
M021283	MT.2002.1110.53	7439-92-1	Lead	17.8	mg / Kg	9	0.025		09-23-02	09-24-02
M021283	MT.2002.1133.85	7440-22-4	Lithium	13.2	mg / Kg	9	0.05		09-23-02	10-01-02
M021283	MT.2002.1110.53	7439-95-4	Magnesium	760	mg / Kg	9	0.5		09-23-02	09-24-02
M021283	MT.2002.1110.52	7439-96-5	Manganese	291	mg / Kg	92	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.53	7439-98-7	Molybdenum	1.00	mg / Kg	9	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.53	7440-02-0	Nickel	5.18	mg / Kg	9	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.53	7440-09-7	Potassium	613	mg / Kg	9	0.5		09-23-02	09-24-02
M021283	MT.2002.1110.53	7782-49-2	Selenium	0.594	mg / Kg	9	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.53	7440-21-3	Silicon	286	mg / Kg	9	1	E	09-23-02	09-24-02
M021283	MT.2002.1110.53	7440-22-4	Silver	0.622	mg / Kg	9	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.53	7440-23-5	Sodium	562	mg / Kg	9	0.5		09-23-02	09-24-02
M021283	MT.2002.1110.53	7439-89-6	Strontium	29.3	mg / Kg	9	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.53	7440-28-0	Thallium	ND	mg / Kg	9	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.53	7440-31-5	Tin	2.05	mg / Kg	9	0.025	B	09-23-02	09-24-02
M021283	MT.2002.1110.52	7440-32-6	Titanium	328	mg / Kg	92	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.53	7440-61-1	Uranium	0.481	mg / Kg	9	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.53	7440-62-2	Vanadium	9.48	mg / Kg	9	0.05		09-23-02	09-24-02
M021283	MT.2002.1110.53	7440-66-6	Zinc	67.7	mg / Kg	9	0.25		09-23-02	09-24-02
0209373-15A		**SW846 7471 CVAA Dry Weight**					By:	JRE		
M021285	MT.2002.1103.58	7439-97-6	Mercury	ND	mg / Kg	1	0.05		09-23-02	09-23-02

Assaigai Analytical Laboratories, Inc.

Certificate of Analysis

Client: **LANL-DDP03-0271-014,RM100 E SI**
Project: **XURP 0450 3219 0000, 1199S/1203S**
Order: **0209373** **LOS40** Receipt: **09-17-02**

Sample: ***RE03-02-49530*** Collected: *09-12-02 0:00:00* By:
Matrix: ***SO***

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Code	Prep Date	Run Date
0209373-16A		**ASTM D2216**					By:	MDE		
MO0216	WC.2002.1477.18		Moisture	7.01	%	1	0.1	H	10-09-02	10-09-02
0209373-16A		**EPA 218.4 Hex. Chromium Dry Weight**					By:	NJL		
W02392	WC.2002.1329.28		Chromium, Hexavalent	1.89	mg / kg	1	1		09-30-02	09-30-02
0209373-16A		**SW846 3050A/6020 ICP-MS Dry Weight**					By:	JWB		
M021283	MT.2002.1110.60	7429-90-5	Aluminum	3110	mg / Kg	10	0.5		09-23-02	09-24-02
M021283	MT.2002.1110.60	7440-36-0	Antimony	ND	mg / Kg	10	0.05		09-23-02	09-24-02
M021283	MT.2002.1110.60	7440-38-2	Arsenic	1.36	mg / Kg	10	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.60	7440-39-3	Barium	25.2	mg / Kg	10	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.60	7440-41-7	Beryllium	0.610	mg / Kg	10	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.60	7440-42-8	Boron	ND	mg / Kg	10	0.15		09-23-02	09-24-02
M021283	MT.2002.1110.60	7440-43-9	Cadmium	ND	mg / Kg	10	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.60	7440-70-2	Calcium	826	mg / Kg	10	0.5		09-23-02	09-24-02
M021283	MT.2002.1110.60	7440-47-3	Chromium	4.91	mg / Kg	10	0.05		09-23-02	09-24-02
M021283	MT.2002.1110.60	7440-48-4	Cobalt	0.981	mg / Kg	10	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.60	7440-50-8	Copper	2.45	mg / Kg	10	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.59	7439-89-6	Iron	9680	mg / Kg	96	0.5		09-23-02	09-24-02
M021283	MT.2002.1110.60	7439-92-1	Lead	9.01	mg / Kg	10	0.025		09-23-02	09-24-02
M021283	MT.2002.1133.86	7440-22-4	Lithium	14.6	mg / Kg	10	0.05		09-23-02	10-01-02
M021283	MT.2002.1110.60	7439-95-4	Magnesium	783	mg / Kg	10	0.5		09-23-02	09-24-02
M021283	MT.2002.1110.59	7439-96-5	Manganese	300	mg / Kg	96	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.60	7439-98-7	Molybdenum	2.99	mg / Kg	10	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.60	7440-02-0	Nickel	3.48	mg / Kg	10	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.60	7440-09-7	Potassium	530	mg / Kg	10	0.5		09-23-02	09-24-02
M021283	MT.2002.1110.60	7782-49-2	Selenium	0.697	mg / Kg	10	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.60	7440-21-3	Silicon	259	mg / Kg	10	1	E	09-23-02	09-24-02
M021283	MT.2002.1110.60	7440-22-4	Silver	ND	mg / Kg	10	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.60	7440-23-5	Sodium	122	mg / Kg	10	0.5		09-23-02	09-24-02
M021283	MT.2002.1110.60	7439-89-6	Strontium	24.0	mg / Kg	10	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.60	7440-28-0	Thallium	ND	mg / Kg	10	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.60	7440-31-5	Tin	2.05	mg / Kg	10	0.025	B	09-23-02	09-24-02
M021283	MT.2002.1110.59	7440-32-6	Titanium	470	mg / Kg	96	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.60	7440-61-1	Uranium	0.346	mg / Kg	10	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.60	7440-62-2	Vanadium	6.10	mg / Kg	10	0.05		09-23-02	09-24-02
M021283	MT.2002.1110.60	7440-66-6	Zinc	41.4	mg / Kg	10	0.25		09-23-02	09-24-02
0209373-16A		**SW846 7471 CVAA Dry Weight**					By:	JRE		
M021285	MT.2002.1103.59	7439-97-6	Mercury	ND	mg / Kg	1	0.05		09-23-02	09-23-02

Assaigai Analytical Laboratories, Inc.

Certificate of Analysis

Client: **LANL-DDP03-0271-014,RM100 E SI**
Project: **XURP 0450 3219 0000, 1199S/1203S**
Order: **0209373** **LOS40** Receipt: **09-17-02**

Sample: ***RE03-02-49531*** Collected: *09-12-02 0:00:00* By:
Matrix: ***SO***

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Code	Prep Date	Run Date
0209373-17A		**ASTM D2216**					By:	MDE		
MO0216	WC.2002.1477.19		Moisture	10.9	%	1	0.1	H	10-09-02	10-09-02
0209373-17A		**EPA 218.4 Hex. Chromium Dry Weight**					By:	NJL		
W02392	WC.2002.1329.30		Chromium, Hexavalent	5.97	mg / kg	1	1		09-30-02	09-30-02
0209373-17A		**SW846 3050A/6020 ICP-MS Dry Weight**					By:	JWB		
M021283	MT.2002.1110.62	7429-90-5	Aluminum	5180	mg / Kg	10	0.5		09-23-02	09-24-02
M021283	MT.2002.1110.62	7440-36-0	Antimony	ND	mg / Kg	10	0.05		09-23-02	09-24-02
M021283	MT.2002.1110.62	7440-38-2	Arsenic	1.47	mg / Kg	10	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.62	7440-39-3	Barium	39.6	mg / Kg	10	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.62	7440-41-7	Beryllium	0.488	mg / Kg	10	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.62	7440-42-8	Boron	ND	mg / Kg	10	0.15		09-23-02	09-24-02
M021283	MT.2002.1110.62	7440-43-9	Cadmium	ND	mg / Kg	10	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.62	7440-70-2	Calcium	2200	mg / Kg	10	0.5		09-23-02	09-24-02
M021283	MT.2002.1110.62	7440-47-3	Chromium	6.25	mg / Kg	10	0.05		09-23-02	09-24-02
M021283	MT.2002.1110.62	7440-48-4	Cobalt	1.30	mg / Kg	10	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.62	7440-50-8	Copper	5.44	mg / Kg	10	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.61	7439-89-6	Iron	8340	mg / Kg	100	0.5		09-23-02	09-24-02
M021283	MT.2002.1110.62	7439-92-1	Lead	6.84	mg / Kg	10	0.025		09-23-02	09-24-02
M021283	MT.2002.1133.87	7440-22-4	Lithium	8.33	mg / Kg	10	0.05		09-23-02	10-01-02
M021283	MT.2002.1110.62	7439-95-4	Magnesium	1080	mg / Kg	10	0.5		09-23-02	09-24-02
M021283	MT.2002.1110.61	7439-96-5	Manganese	204	mg / Kg	100	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.62	7439-98-7	Molybdenum	1.12	mg / Kg	10	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.62	7440-02-0	Nickel	3.24	mg / Kg	10	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.62	7440-09-7	Potassium	770	mg / Kg	10	0.5		09-23-02	09-24-02
M021283	MT.2002.1110.62	7782-49-2	Selenium	0.556	mg / Kg	10	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.62	7440-21-3	Silicon	403	mg / Kg	10	1	E	09-23-02	09-24-02
M021283	MT.2002.1110.62	7440-22-4	Silver	ND	mg / Kg	10	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.62	7440-23-5	Sodium	343	mg / Kg	10	0.5		09-23-02	09-24-02
M021283	MT.2002.1110.62	7439-89-6	Strontium	41.4	mg / Kg	10	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.62	7440-28-0	Thallium	ND	mg / Kg	10	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.62	7440-31-5	Tin	1.84	mg / Kg	10	0.025	B	09-23-02	09-24-02
M021283	MT.2002.1110.61	7440-32-6	Titanium	272	mg / Kg	100	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.62	7440-61-1	Uranium	0.505	mg / Kg	10	0.025		09-23-02	09-24-02
M021283	MT.2002.1110.62	7440-62-2	Vanadium	7.59	mg / Kg	10	0.05		09-23-02	09-24-02
M021283	MT.2002.1110.62	7440-66-6	Zinc	43.1	mg / Kg	10	0.25		09-23-02	09-24-02
0209373-17A		**SW846 7471 CVAA Dry Weight**					By:	JRE		
M021285	MT.2002.1103.60	7439-97-6	Mercury	ND	mg / Kg	1	0.05		09-23-02	09-23-02

Assaigai Analytical Laboratories, Inc.

Certificate of Analysis

Client: **LANL-DDP03-0271-014,RM100 E SI**

Project: **XURP 0450 3219 0000, 1199S/1203S**

Order: **0209373** **LOS40** Receipt: **09-17-02**

Unless otherwise noted, all samples were received in acceptable condition and all sampling was performed by client or client representative. Sample result of ND indicates Not Detected, ie result is less than the sample specific Detection Limit. Sample specific Detection Limit is determined by multiplying the sample Dilution Factor by the listed Reporting Detection Limit. All results relate only to the items tested. Any miscellaneous workorder information or foonotes will appear below.

1 This sample was utilized for the matrix spike and duplicate. Please note that the recoveries were outside of QC criteria, suggesting matrix interference problems. This should be taken into account when reviewing the data.

MEMO: Hexavalent Chromium was analyzed by zeroing the spectrophotometer on an undeveloped aliquot of sample, then reading the developed sample. This method was utilized in attempt to eliminate the high bias attributed to the sample extract turbidity. However, the reported values may still be biased high due to this high turbidity.

Assaigai Analytical Laboratories, Inc.

Quality Control Summary

Client: **LANL-DDP03-0271-014,RM100 E SI**
Project: **XURP 0450 3219 0000, 1199S/1203S**
Order: **0209373 LOS40**

Explanation of codes	
D	*Not applicable due to sample dilution*
L	*Not applicable due to MDL proximity*

Type: ***LCS: Lab Control Spike*** Matrix: ***SOLID***

Run Sequence	CAS #	Analyte	Result	Units	Range	Dilution Factor	Detection Limit	Code	Run Date
W02392		**EPA 218.4 Hex. Chromium by Chelation Extraction**						**W02392-002**	
WC.2002.1319.3		Chromium, Hexavalent	101	% Recovery	80 - 120	1	NA		09-27-02
M021283		**SW846 3050A/6020 ICP-MS**						**M021283-002**	
MT.2002.1110.12	7429-90-5	Aluminum	102	% Recovery	80 - 120	1	NA		09-24-02
MT.2002.1110.12	7440-36-0	Antimony	102	% Recovery	80 - 120	1	NA		09-24-02
MT.2002.1110.12	7440-38-2	Arsenic	105	% Recovery	80 - 120	1	NA		09-24-02
MT.2002.1110.12	7440-39-3	Barium	103	% Recovery	80 - 120	1	NA		09-24-02
MT.2002.1110.12	7440-41-7	Beryllium	96	% Recovery	80 - 120	1	NA		09-24-02
MT.2002.1110.12	7440-42-8	Boron	96	% Recovery	80 - 120	1	NA		09-24-02
MT.2002.1110.12	7440-43-9	Cadmium	102	% Recovery	80 - 120	1	NA		09-24-02
MT.2002.1110.12	7440-70-2	Calcium	102	% Recovery	80 - 120	1	NA		09-24-02
MT.2002.1110.12	7440-47-3	Chromium	104	% Recovery	80 - 120	1	NA		09-24-02
MT.2002.1110.12	7440-48-4	Cobalt	103	% Recovery	80 - 120	1	NA		09-24-02
MT.2002.1110.12	7440-50-8	Copper	105	% Recovery	80 - 120	1	NA		09-24-02
MT.2002.1110.12	7439-89-6	Iron	108	% Recovery	80 - 120	1	NA		09-24-02
MT.2002.1110.12	7439-92-1	Lead	100	% Recovery	80 - 120	1	NA		09-24-02
MT.2002.1110.12	7439-95-4	Magnesium	102	% Recovery	80 - 120	1	NA		09-24-02
MT.2002.1110.12	7439-96-5	Manganese	105	% Recovery	80 - 120	1	NA		09-24-02
MT.2002.1110.12	7439-98-7	Molybdenum	97	% Recovery	80 - 120	1	NA		09-24-02
MT.2002.1110.12	7440-02-0	Nickel	104	% Recovery	80 - 120	1	NA		09-24-02
MT.2002.1110.12	7440-09-7	Potassium	105	% Recovery	80 - 120	1	NA		09-24-02
MT.2002.1110.12	7782-49-2	Selenium	106	% Recovery	80 - 120	1	NA		09-24-02
MT.2002.1110.12	7440-21-3	Silicon	106	% Recovery	80 - 120	1	NA		09-24-02
MT.2002.1110.12	7440-22-4	Silver	102	% Recovery	80 - 120	1	NA		09-24-02
MT.2002.1110.12	7440-23-5	Sodium	102	% Recovery	80 - 120	1	NA		09-24-02
MT.2002.1110.12	7439-89-6	Strontium	103	% Recovery	80 - 120	1	NA		09-24-02
MT.2002.1110.12	7440-28-0	Thallium	99	% Recovery	80 - 120	1	NA		09-24-02
MT.2002.1110.12	7440-31-5	Tin	115	% Recovery	80 - 120	1	NA		09-24-02
MT.2002.1110.12	7440-32-6	Titanium	103	% Recovery	80 - 120	1	NA		09-24-02
MT.2002.1110.12	7440-61-1	Uranium	100	% Recovery	80 - 120	1	NA		09-24-02
MT.2002.1110.12	7440-62-2	Vanadium	103	% Recovery	80 - 120	1	NA		09-24-02
MT.2002.1110.12	7440-66-6	Zinc	108	% Recovery	80 - 120	1	NA		09-24-02
M021283		**SW846 3050A/6020 ICP-MS**						**M021283-004**	
MT.2002.1133.61	7440-22-4	Lithium	92	% Recovery	80 - 120	1	NA		10-01-02
M021285		**SW846 7471 CVAA**						**M021285-002**	
MT.2002.1103.36	7439-97-6	Mercury	98	% Recovery	90 - 110	1	NA		09-23-02

Type: ***LCSD: Lab Control Spike Duplicate Precision*** Matrix: ***SOLID***

Run Sequence	CAS #	Analyte	Result	Units	Range	Dilution Factor	Detection Limit	Code	Run Date
W02392		**EPA 218.4 Hex. Chromium by Chelation Extraction**						**W02392-003**	
WC.2002.1319.4		Chromium, Hexavalent	< 1	RPD	0 - 20	1	NA		09-27-02

Assaigai Analytical Laboratories, Inc.

Quality Control Summary

Client: **LANL-DDP03-0271-014,RM100 E SI**
Project: **XURP 0450 3219 0000, 1199S/1203S**
Order: **0209373 LOS40**

Explanation of codes	
D	*Not applicable due to sample dilution*
L	*Not applicable due to MDL proximity*

Type: ***LCSD: Lab Control Spike Duplicate Precision*** Matrix: ***SOLID***

Run Sequence	CAS #	Analyte	Result	Units	Range	Dilution Factor	Detection Limit	Code	Run Date
M021283		**SW846 3050A/6020 ICP-MS**						**M021283-003**	
MT.2002.1110.13	7429-90-5	Aluminum	3	RPD	0 - 20	1	NA		09-24-02
MT.2002.1110.13	7440-36-0	Antimony	< 1	RPD	0 - 20	1	NA		09-24-02
MT.2002.1110.13	7440-38-2	Arsenic	< 1	RPD	0 - 20	1	NA		09-24-02
MT.2002.1110.13	7440-39-3	Barium	< 1	RPD	0 - 20	1	NA		09-24-02
MT.2002.1110.13	7440-41-7	Beryllium	< 1	RPD	0 - 20	1	NA		09-24-02
MT.2002.1110.13	7440-42-8	Boron	4	RPD	0 - 20	1	NA		09-24-02
MT.2002.1110.13	7440-43-9	Cadmium	< 1	RPD	0 - 20	1	NA		09-24-02
MT.2002.1110.13	7440-70-2	Calcium	2	RPD	0 - 20	1	NA		09-24-02
MT.2002.1110.13	7440-47-3	Chromium	1	RPD	0 - 20	1	NA		09-24-02
MT.2002.1110.13	7440-48-4	Cobalt	< 1	RPD	0 - 20	1	NA		09-24-02
MT.2002.1110.13	7440-50-8	Copper	< 1	RPD	0 - 20	1	NA		09-24-02
MT.2002.1110.13	7439-89-6	Iron	< 1	RPD	0 - 20	1	NA		09-24-02
MT.2002.1110.13	7439-92-1	Lead	< 1	RPD	0 - 20	1	NA		09-24-02
MT.2002.1110.13	7439-95-4	Magnesium	2	RPD	0 - 20	1	NA		09-24-02
MT.2002.1110.13	7439-96-5	Manganese	< 1	RPD	0 - 20	1	NA		09-24-02
MT.2002.1110.13	7439-98-7	Molybdenum	< 1	RPD	0 - 20	1	NA		09-24-02
MT.2002.1110.13	7440-02-0	Nickel	< 1	RPD	0 - 20	1	NA		09-24-02
MT.2002.1110.13	7440-09-7	Potassium	2	RPD	0 - 20	1	NA		09-24-02
MT.2002.1110.13	7782-49-2	Selenium	< 1	RPD	0 - 20	1	NA		09-24-02
MT.2002.1110.13	7440-21-3	Silicon	1	RPD	0 - 20	1	NA		09-24-02
MT.2002.1110.13	7440-22-4	Silver	< 1	RPD	0 - 20	1	NA		09-24-02
MT.2002.1110.13	7440-23-5	Sodium	2	RPD	0 - 20	1	NA		09-24-02
MT.2002.1110.13	7439-89-6	Strontium	< 1	RPD	0 - 20	1	NA		09-24-02
MT.2002.1110.13	7440-28-0	Thallium	< 1	RPD	0 - 20	1	NA		09-24-02
MT.2002.1110.13	7440-31-5	Tin	< 1	RPD	0 - 20	1	NA		09-24-02
MT.2002.1110.13	7440-32-6	Titanium	< 1	RPD	0 - 20	1	NA		09-24-02
MT.2002.1110.13	7440-61-1	Uranium	< 1	RPD	0 - 20	1	NA		09-24-02
MT.2002.1110.13	7440-62-2	Vanadium	1	RPD	0 - 20	1	NA		09-24-02
MT.2002.1110.13	7440-66-6	Zinc	< 1	RPD	0 - 20	1	NA		09-24-02
M021283		**SW846 3050A/6020 ICP-MS**						**M021283-005**	
MT.2002.1133.62	7440-22-4	Lithium	4	RPD	0 - 20	1	NA		10-01-02
M021285		**SW846 7471 CVAA**						**M021285-003**	
MT.2002.1103.37	7439-97-6	Mercury	2	RPD	0 - 20	1	NA		09-23-02

Type: ***LCSD: Lab Control Spike Duplicate Accuracy*** Matrix: ***SOLID***

Run Sequence	CAS #	Analyte	Result	Units	Range	Dilution Factor	Detection Limit	Code	Run Date
W02392		**EPA 218.4 Hex. Chromium by Chelation Extraction**						**W02392-003**	
WC.2002.1319.4		Chromium, Hexavalent	102	% Recovery	80 - 120	1	NA		09-27-02
M021283		**SW846 3050A/6020 ICP-MS**						**M021283-003**	
MT.2002.1110.13	7429-90-5	Aluminum	105	% Recovery	80 - 120	1	NA		09-24-02

Assaigai Analytical Laboratories, Inc.

Quality Control Summary

Client: **LANL-DDP03-0271-014,RM100 E SI**
Project: **XURP 0450 3219 0000, 1199S/1203S**
Order: **0209373 LOS40**

Explanation of codes	
D	*Not applicable due to sample dilution*
L	*Not applicable due to MDL proximity*

Type: ***LCSD: Lab Control Spike Duplicate Accuracy*** Matrix: ***SOLID***

Run Sequence	CAS #	Analyte	Result	Units	Range	Dilution Factor	Detection Limit	Code	Run Date
M021283		**SW846 3050A/6020 ICP-MS**						**M021283-003**	
MT.2002.1110.13	7440-36-0	Antimony	103	% Recovery	80 - 120	1	NA		09-24-02
MT.2002.1110.13	7440-38-2	Arsenic	106	% Recovery	80 - 120	1	NA		09-24-02
MT.2002.1110.13	7440-39-3	Barium	104	% Recovery	80 - 120	1	NA		09-24-02
MT.2002.1110.13	7440-41-7	Beryllium	95	% Recovery	80 - 120	1	NA		09-24-02
MT.2002.1110.13	7440-42-8	Boron	100	% Recovery	80 - 120	1	NA		09-24-02
MT.2002.1110.13	7440-43-9	Cadmium	101	% Recovery	80 - 120	1	NA		09-24-02
MT.2002.1110.13	7440-70-2	Calcium	105	% Recovery	80 - 120	1	NA		09-24-02
MT.2002.1110.13	7440-47-3	Chromium	102	% Recovery	80 - 120	1	NA		09-24-02
MT.2002.1110.13	7440-48-4	Cobalt	104	% Recovery	80 - 120	1	NA		09-24-02
MT.2002.1110.13	7440-50-8	Copper	106	% Recovery	80 - 120	1	NA		09-24-02
MT.2002.1110.13	7439-89-6	Iron	108	% Recovery	80 - 120	1	NA		09-24-02
MT.2002.1110.13	7439-92-1	Lead	100	% Recovery	80 - 120	1	NA		09-24-02
MT.2002.1110.13	7439-95-4	Magnesium	100	% Recovery	80 - 120	1	NA		09-24-02
MT.2002.1110.13	7439-96-5	Manganese	106	% Recovery	80 - 120	1	NA		09-24-02
MT.2002.1110.13	7439-98-7	Molybdenum	97	% Recovery	80 - 120	1	NA		09-24-02
MT.2002.1110.13	7440-02-0	Nickel	105	% Recovery	80 - 120	1	NA		09-24-02
MT.2002.1110.13	7440-09-7	Potassium	102	% Recovery	80 - 120	1	NA		09-24-02
MT.2002.1110.13	7782-49-2	Selenium	106	% Recovery	80 - 120	1	NA		09-24-02
MT.2002.1110.13	7440-21-3	Silicon	107	% Recovery	80 - 120	1	NA		09-24-02
MT.2002.1110.13	7440-22-4	Silver	101	% Recovery	80 - 120	1	NA		09-24-02
MT.2002.1110.13	7440-23-5	Sodium	100	% Recovery	80 - 120	1	NA		09-24-02
MT.2002.1110.13	7439-89-6	Strontium	103	% Recovery	80 - 120	1	NA		09-24-02
MT.2002.1110.13	7440-28-0	Thallium	98	% Recovery	80 - 120	1	NA		09-24-02
MT.2002.1110.13	7440-31-5	Tin	116	% Recovery	80 - 120	1	NA		09-24-02
MT.2002.1110.13	7440-32-6	Titanium	102	% Recovery	80 - 120	1	NA		09-24-02
MT.2002.1110.13	7440-61-1	Uranium	100	% Recovery	80 - 120	1	NA		09-24-02
MT.2002.1110.13	7440-62-2	Vanadium	102	% Recovery	80 - 120	1	NA		09-24-02
MT.2002.1110.13	7440-66-6	Zinc	109	% Recovery	80 - 120	1	NA		09-24-02
M021283		**SW846 3050A/6020 ICP-MS**						**M021283-005**	
MT.2002.1133.62	7440-22-4	Lithium	89	% Recovery	80 - 120	1	NA		10-01-02
M021285		**SW846 7471 CVAA**						**M021285-003**	
MT.2002.1103.37	7439-97-6	Mercury	100	% Recovery	90 - 110	1	NA		09-23-02

Type: ***MB: Method Blank*** Matrix: ***SOLID***

Run Sequence	CAS #	Analyte	Result	Units	Range	Dilution Factor	Detection Limit	Code	Run Date
MO0216		**ASTM D2216**						**02.1477-1**	
WC.2002.1477.1		Moisture	ND	%		1	0.1		10-09-02
W02392		**EPA 218.4 Hex. Chromium by Chelation Extraction**						**W02392-001**	
WC.2002.1319.2		Chromium, Hexavalent	ND	mg / kg		1	1		09-27-02

Assaigai Analytical Laboratories, Inc.

Quality Control Summary

Client: **LANL-DDP03-0271-014,RM100 E SI**
Project: **XURP 0450 3219 0000, 1199S/1203S**
Order: **0209373 LOS40**

Explanation of codes	
D	*Not applicable due to sample dilution*
L	*Not applicable due to MDL proximity*

Type: ***MB: Method Blank*** Matrix: ***SOLID***

Run Sequence	CAS #	Analyte	Result	Units	Range	Dilution Factor	Detection Limit	Code	Run Date
W02392		**EPA 218.4 Hex. Chromium by Chelation Extraction**						**W02392-018**	
WC.2002.1329.2		Chromium, Hexavalent	ND	mg / kg		1	1		09-30-02
M021283		**SW846 3050A/6020 ICP-MS**						**M021283-001**	
MT.2002.1110.11	7429-90-5	Aluminum	2.48	mg / Kg		1	0.5		09-24-02
MT.2002.1110.11	7440-36-0	Antimony	ND	mg / Kg		1	0.05		09-24-02
MT.2002.1110.11	7440-38-2	Arsenic	ND	mg / Kg		1	0.025		09-24-02
MT.2002.1110.11	7440-39-3	Barium	ND	mg / Kg		1	0.025		09-24-02
MT.2002.1110.11	7440-41-7	Beryllium	ND	mg / Kg		1	0.025		09-24-02
MT.2002.1110.11	7440-42-8	Boron	ND	mg / Kg		1	0.15		09-24-02
MT.2002.1110.11	7440-43-9	Cadmium	ND	mg / Kg		1	0.025		09-24-02
MT.2002.1110.11	7440-70-2	Calcium	4.07	mg / Kg		1	0.5		09-24-02
MT.2002.1110.11	7440-47-3	Chromium	ND	mg / Kg		1	0.05		09-24-02
MT.2002.1110.11	7440-48-4	Cobalt	ND	mg / Kg		1	0.025		09-24-02
MT.2002.1110.11	7440-50-8	Copper	0.033	mg / Kg		1	0.025		09-24-02
MT.2002.1110.11	7439-89-6	Iron	1.43	mg / Kg		1	0.5		09-24-02
MT.2002.1110.11	7439-92-1	Lead	0.033	mg / Kg		1	0.025		09-24-02
MT.2002.1133.60	7440-22-4	Lithium	ND	mg / Kg		1	0.05		10-01-02
MT.2002.1110.11	7439-95-4	Magnesium	1.05	mg / Kg		1	0.5		09-24-02
MT.2002.1110.11	7439-96-5	Manganese	0.074	mg / Kg		1	0.025		09-24-02
MT.2002.1110.11	7439-98-7	Molybdenum	0.083	mg / Kg		1	0.025		09-24-02
MT.2002.1110.11	7440-02-0	Nickel	ND	mg / Kg		1	0.025		09-24-02
MT.2002.1110.11	7440-09-7	Potassium	1.68	mg / Kg		1	0.5		09-24-02
MT.2002.1110.11	7782-49-2	Selenium	ND	mg / Kg		1	0.025		09-24-02
MT.2002.1110.11	7440-21-3	Silicon	ND	mg / Kg		1	1		09-24-02
MT.2002.1110.11	7440-22-4	Silver	ND	mg / Kg		1	0.025		09-24-02
MT.2002.1110.11	7440-23-5	Sodium	1.58	mg / Kg		1	0.5		09-24-02
MT.2002.1110.11	7439-89-6	Strontium	ND	mg / Kg		1	0.025		09-24-02
MT.2002.1110.11	7440-28-0	Thallium	ND	mg / Kg		1	0.025		09-24-02
MT.2002.1110.11	7440-31-5	Tin	0.671	mg / Kg		1	0.025		09-24-02
MT.2002.1110.11	7440-32-6	Titanium	0.082	mg / Kg		1	0.025		09-24-02
MT.2002.1110.11	7440-61-1	Uranium	ND	mg / Kg		1	0.025		09-24-02
MT.2002.1110.11	7440-62-2	Vanadium	ND	mg / Kg		1	0.05		09-24-02
MT.2002.1110.11	7440-66-6	Zinc	ND	mg / Kg		1	0.25		09-24-02
M021285		**SW846 7471 CVAA**						**M021285-001**	
MT.2002.1103.35	7439-97-6	Mercury	ND	mg / Kg		1	0.05		09-23-02

Type: ***MD: Matrix Duplicate*** Matrix: ***SOLID***

Run Sequence	CAS #	Analyte	Result	Units	Range	Dilution Factor	Detection Limit	Code	Run Date
MO0216		**ASTM D2216**						**02.1477-3**	
WC.2002.1477.3		Moisture	5	RPD		1	NA		10-09-02

Assaigai Analytical Laboratories, Inc.

Quality Control Summary

Client: **LANL-DDR03-0271-014,RM100 E SI**
Project: **XURP 0450 3219 0000, 1199S/1203S**
Order: **0209373 LOS40**

Explanation of codes	
D	*Not applicable due to sample dilution*
L	*Not applicable due to MDL proximity*

Type: ***MS: Matrix Spike*** Matrix: ***SOLID***

Run Sequence	CAS #	Analyte	Result	Units	Range	Dilution Factor	Detection Limit	Code	Run Date
W02392		**EPA 218.4 Hex. Chromium by Chelation Extraction**						**W02392-007**	
WC.2002.1319.8		Chromium, Hexavalent	79	% Recovery	80 - 120	1	NA		09-27-02
M021283		**SW846 3050A/6020 ICP-MS**						**M021283-007**	
MT.2002.1110.17	7429-90-5	Aluminum	1840	% Recovery	80 - 120	10	NA		09-24-02
MT.2002.1110.17	7440-36-0	Antimony	45	% Recovery	80 - 120	10	NA		09-24-02
MT.2002.1110.17	7440-38-2	Arsenic	105	% Recovery	80 - 120	10	NA		09-24-02
MT.2002.1110.17	7440-39-3	Barium	155	% Recovery	80 - 120	10	NA		09-24-02
MT.2002.1110.17	7440-41-7	Beryllium	101	% Recovery	80 - 120	10	NA		09-24-02
MT.2002.1110.17	7440-42-8	Boron	94	% Recovery	80 - 120	10	NA		09-24-02
MT.2002.1110.17	7440-43-9	Cadmium	106	% Recovery	80 - 120	10	NA		09-24-02
MT.2002.1110.17	7440-70-2	Calcium	205	% Recovery	80 - 120	10	NA		09-24-02
MT.2002.1110.17	7440-47-3	Chromium	109	% Recovery	80 - 120	10	NA		09-24-02
MT.2002.1110.17	7440-48-4	Cobalt	104	% Recovery	80 - 120	10	NA		09-24-02
MT.2002.1110.17	7440-50-8	Copper	105	% Recovery	80 - 120	10	NA		09-24-02
MT.2002.1110.16	7439-89-6	Iron	2500	% Recovery	80 - 120	97	NA		09-24-02
MT.2002.1110.17	7439-92-1	Lead	107	% Recovery	80 - 120	10	NA		09-24-02
MT.2002.1110.17	7439-95-4	Magnesium	398	% Recovery	80 - 120	10	NA		09-24-02
MT.2002.1110.16	7439-96-5	Manganese	353	% Recovery	80 - 120	97	NA		09-24-02
MT.2002.1110.17	7439-98-7	Molybdenum	94	% Recovery	80 - 120	10	NA		09-24-02
MT.2002.1110.17	7440-02-0	Nickel	106	% Recovery	80 - 120	10	NA		09-24-02
MT.2002.1110.17	7440-09-7	Potassium	400	% Recovery	80 - 120	10	NA		09-24-02
MT.2002.1110.17	7782-49-2	Selenium	107	% Recovery	80 - 120	10	NA		09-24-02
MT.2002.1110.17	7440-21-3	Silicon	326	% Recovery	80 - 120	10	NA		09-24-02
MT.2002.1110.17	7440-22-4	Silver	102	% Recovery	80 - 120	10	NA		09-24-02
MT.2002.1110.17	7440-23-5	Sodium	122	% Recovery	80 - 120	10	NA		09-24-02
MT.2002.1110.17	7439-89-6	Strontium	201	% Recovery	80 - 120	10	NA		09-24-02
MT.2002.1110.17	7440-28-0	Thallium	98	% Recovery	80 - 120	10	NA		09-24-02
MT.2002.1110.17	7440-31-5	Tin	111	% Recovery	80 - 120	10	NA		09-24-02
MT.2002.1110.16	7440-32-6	Titanium	1250	% Recovery	80 - 120	97	NA		09-24-02
MT.2002.1110.17	7440-61-1	Uranium	104	% Recovery	80 - 120	10	NA		09-24-02
MT.2002.1110.17	7440-62-2	Vanadium	116	% Recovery	80 - 120	10	NA		09-24-02
MT.2002.1110.17	7440-66-6	Zinc	128	% Recovery	80 - 120	10	NA		09-24-02
M021283		**SW846 3050A/6020 ICP-MS**						**M021283-009**	
MT.2002.1133.64	7440-22-4	Lithium	29	% Recovery	80 - 120	10	NA		10-01-02
M021285		**SW846 7471 CVAA**						**M021285-005**	
MT.2002.1103.39	7439-97-6	Mercury	100	% Recovery	90 - 110	1	NA		09-23-02

Type: ***MSD: Matrix Spike Duplicate Precision*** Matrix: ***SOLID***

Run Sequence	CAS #	Analyte	Result	Units	Range	Dilution Factor	Detection Limit	Code	Run Date
W02392		**EPA 218.4 Hex. Chromium by Chelation Extraction**						**W02392-009**	
WC.2002.1319.10		Chromium, Hexavalent	< 1	RPD	0 - 20	1	NA		09-27-02

Assaigai Analytical Laboratories, Inc.

Quality Control Summary

Client: **LANL-DDR03-0271-014,RM100 E SI**
Project: **XURP 0450 3219 0000, 1199S/1203S**
Order: **0209373 LOS40**

Explanation of codes	
D	*Not applicable due to sample dilution*
L	*Not applicable due to MDL proximity*

Type: ***MSD: Matrix Spike Duplicate Precision*** Matrix: ***SOLID***

Run Sequence	CAS #	Analyte	Result	Units	Range	Dilution Factor	Detection Limit	Code	Run Date
M021283		**SW846 3050A/6020 ICP-MS**						**M021283-008**	
MT.2002.1110.21	7429-90-5	Aluminum	32	RPD	0 - 20	10	NA		09-24-02
MT.2002.1110.21	7440-36-0	Antimony	10	RPD	0 - 20	10	NA		09-24-02
MT.2002.1110.21	7440-38-2	Arsenic	2	RPD	0 - 20	10	NA		09-24-02
MT.2002.1110.21	7440-39-3	Barium	5	RPD	0 - 20	10	NA		09-24-02
MT.2002.1110.21	7440-41-7	Beryllium	3	RPD	0 - 20	10	NA		09-24-02
MT.2002.1110.21	7440-42-8	Boron	< 1	RPD	0 - 20	10	NA		09-24-02
MT.2002.1110.21	7440-43-9	Cadmium	< 1	RPD	0 - 20	10	NA		09-24-02
MT.2002.1110.21	7440-70-2	Calcium	86	RPD	0 - 20	10	NA		09-24-02
MT.2002.1110.21	7440-47-3	Chromium	< 1	RPD	0 - 20	10	NA		09-24-02
MT.2002.1110.21	7440-48-4	Cobalt	4	RPD	0 - 20	10	NA		09-24-02
MT.2002.1110.21	7440-50-8	Copper	6	RPD	0 - 20	10	NA		09-24-02
MT.2002.1110.18	7439-89-6	Iron	16	RPD	0 - 20	96	NA		09-24-02
MT.2002.1110.21	7439-92-1	Lead	42	RPD	0 - 20	10	NA		09-24-02
MT.2002.1110.21	7439-95-4	Magnesium	28	RPD	0 - 20	10	NA		09-24-02
MT.2002.1110.18	7439-96-5	Manganese	112	RPD	0 - 20	96	NA		09-24-02
MT.2002.1110.21	7439-98-7	Molybdenum	< 1	RPD	0 - 20	10	NA		09-24-02
MT.2002.1110.21	7440-02-0	Nickel	13	RPD	0 - 20	10	NA		09-24-02
MT.2002.1110.21	7440-09-7	Potassium	26	RPD	0 - 20	10	NA		09-24-02
MT.2002.1110.21	7782-49-2	Selenium	3	RPD	0 - 20	10	NA		09-24-02
MT.2002.1110.21	7440-21-3	Silicon	20	RPD	0 - 20	10	NA		09-24-02
MT.2002.1110.21	7440-22-4	Silver	< 1	RPD	0 - 20	10	NA		09-24-02
MT.2002.1110.21	7440-23-5	Sodium	11	RPD	0 - 20	10	NA		09-24-02
MT.2002.1110.21	7439-89-6	Strontium	5	RPD	0 - 20	10	NA		09-24-02
MT.2002.1110.21	7440-28-0	Thallium	3	RPD	0 - 20	10	NA		09-24-02
MT.2002.1110.21	7440-31-5	Tin	< 1	RPD	0 - 20	10	NA		09-24-02
MT.2002.1110.18	7440-32-6	Titanium	29	RPD	0 - 20	96	NA		09-24-02
MT.2002.1110.21	7440-61-1	Uranium	2	RPD	0 - 20	10	NA		09-24-02
MT.2002.1110.21	7440-62-2	Vanadium	7	RPD	0 - 20	10	NA		09-24-02
MT.2002.1110.21	7440-66-6	Zinc	2	RPD	0 - 20	10	NA		09-24-02
M021283		**SW846 3050A/6020 ICP-MS**						**M021283-010**	
MT.2002.1133.67	7440-22-4	Lithium	123	RPD	0 - 20	9	NA		10-01-02
M021285		**SW846 7471 CVAA**						**M021285-006**	
MT.2002.1103.67	7439-97-6	Mercury	< 1	RPD	0 - 20	1	NA		09-23-02

Type: ***MSD: Matrix Spike Duplicate Accuracy*** Matrix: ***SOLID***

Run Sequence	CAS #	Analyte	Result	Units	Range	Dilution Factor	Detection Limit	Code	Run Date
W02392		**EPA 218.4 Hex. Chromium by Chelation Extraction**						**W02392-009**	
WC.2002.1319.10		Chromium, Hexavalent	80	% Recovery	80 - 120	1	NA		09-27-02
M021283		**SW846 3050A/6020 ICP-MS**						**M021283-008**	
MT.2002.1110.21	7429-90-5	Aluminum	1330	% Recovery	80 - 120	10	NA		09-24-02

Assaigai Analytical Laboratories, Inc.

Quality Control Summary

Client: **LANL-DDP03-0271-014,RM100 E SI**
Project: **XURP 0450 3219 0000, 1199S/1203S**
Order: **0209373 LOS40**

Explanation of codes	
D	*Not applicable due to sample dilution*
L	*Not applicable due to MDL proximity*

Type: ***MSD: Matrix Spike Duplicate Accuracy*** Matrix: ***SOLID***

Run Sequence	CAS #	Analyte	Result	Units	Range	Dilution Factor	Detection Limit	Code	Run Date
M021283		**SW846 3050A/6020 ICP-MS**						**M021283-008**	
MT.2002.1110.21	7440-36-0	Antimony	50	% Recovery	80 - 120	10	NA		09-24-02
MT.2002.1110.21	7440-38-2	Arsenic	107	% Recovery	80 - 120	10	NA		09-24-02
MT.2002.1110.21	7440-39-3	Barium	148	% Recovery	80 - 120	10	NA		09-24-02
MT.2002.1110.21	7440-41-7	Beryllium	103	% Recovery	80 - 120	10	NA		09-24-02
MT.2002.1110.21	7440-42-8	Boron	93	% Recovery	80 - 120	10	NA		09-24-02
MT.2002.1110.21	7440-43-9	Cadmium	106	% Recovery	80 - 120	10	NA		09-24-02
MT.2002.1110.21	7440-70-2	Calcium	513	% Recovery	80 - 120	10	NA		09-24-02
MT.2002.1110.21	7440-47-3	Chromium	109	% Recovery	80 - 120	10	NA		09-24-02
MT.2002.1110.21	7440-48-4	Cobalt	108	% Recovery	80 - 120	10	NA		09-24-02
MT.2002.1110.21	7440-50-8	Copper	112	% Recovery	80 - 120	10	NA		09-24-02
MT.2002.1110.18	7439-89-6	Iron	1790	% Recovery	80 - 120	96	NA		09-24-02
MT.2002.1110.21	7439-92-1	Lead	165	% Recovery	80 - 120	10	NA		09-24-02
MT.2002.1110.21	7439-95-4	Magnesium	288	% Recovery	80 - 120	10	NA		09-24-02
MT.2002.1110.18	7439-96-5	Manganese	804	% Recovery	80 - 120	96	NA		09-24-02
MT.2002.1110.21	7439-98-7	Molybdenum	95	% Recovery	80 - 120	10	NA		09-24-02
MT.2002.1110.21	7440-02-0	Nickel	121	% Recovery	80 - 120	10	NA		09-24-02
MT.2002.1110.21	7440-09-7	Potassium	309	% Recovery	80 - 120	10	NA		09-24-02
MT.2002.1110.21	7782-49-2	Selenium	111	% Recovery	80 - 120	10	NA		09-24-02
MT.2002.1110.21	7440-21-3	Silicon	396	% Recovery	80 - 120	10	NA		09-24-02
MT.2002.1110.21	7440-22-4	Silver	102	% Recovery	80 - 120	10	NA		09-24-02
MT.2002.1110.21	7440-23-5	Sodium	109	% Recovery	80 - 120	10	NA		09-24-02
MT.2002.1110.21	7439-89-6	Strontium	211	% Recovery	80 - 120	10	NA		09-24-02
MT.2002.1110.21	7440-28-0	Thallium	101	% Recovery	80 - 120	10	NA		09-24-02
MT.2002.1110.21	7440-31-5	Tin	112	% Recovery	80 - 120	10	NA		09-24-02
MT.2002.1110.18	7440-32-6	Titanium	1360	% Recovery	80 - 120	96	NA		09-24-02
MT.2002.1110.21	7440-61-1	Uranium	106	% Recovery	80 - 120	10	NA		09-24-02
MT.2002.1110.21	7440-62-2	Vanadium	124	% Recovery	80 - 120	10	NA		09-24-02
MT.2002.1110.21	7440-66-6	Zinc	131	% Recovery	80 - 120	10	NA		09-24-02
M021283		**SW846 3050A/6020 ICP-MS**						**M021283-010**	
MT.2002.1133.67	7440-22-4	Lithium	121	% Recovery	80 - 120	9	NA		10-01-02
M021285		**SW846 7471 CVAA**						**M021285-006**	
MT.2002.1103.67	7439-97-6	Mercury	99	% Recovery	90 - 110	1	NA		09-23-02

Monday, September 16, 2002

CHAIN OF CUSTODY DOCUMENT NUMBER: 1199SC

Los Alamos
NATIONAL LABORATORY

REQUEST NUMBER: 1199S

ANALYSIS TYPE: INORGANIC

TTN: Elvin Chavez
Assaigai Analytical Laboratory
7300 Jefferson NE
Albuquerque, NM 87109

ORIGINAL

SAMPLE ID	CONT ID	CONTAINER DESCRIPTION 0209373	ORDER TEMPLATE CODE	PRESERVATIVE	MATRIX
RE03-02-49270	1	250 ML GLASS	METALS+7196	ICE	S
RE03-02-49271	1	250 ML GLASS	METALS+7196	ICE	S
RE03-02-49272	1	250 ML GLASS	METALS+7196	ICE	S
RE03-02-49273	1	250 ML GLASS	METALS+7196	ICE	S
RE03-02-49274	1	250 ML GLASS	METALS+7196	ICE	S
RE03-02-49275	1	250 ML GLASS	METALS+7196	ICE	S
RE03-02-49276	1	250 ML GLASS	METALS+7196	ICE	S
RE03-02-49277	1	250 ML GLASS	METALS+7196	ICE	S
RE03-02-49278	1	250 ML GLASS	METALS+7196	ICE	S
RE03-02-49279	1	250 ML GLASS	METALS+7196	ICE	S
RE03-02-49280	1	250 ML GLASS	METALS+7196	ICE	S
RE03-02-49281	1	250 ML GLASS	METALS+7196	ICE	S
RE03-02-49282	1	250 ML GLASS	METALS+7196	ICE	S
RE03-02-49283	1	250 ML GLASS	METALS+7196	ICE	S
RE03-02-49284	1	250 ML GLASS	METALS+7196	ICE	S
RE03-02-49285	1	250 ML GLASS	METALS+7196	ICE	S
RE03-02-49286	1	250 ML GLASS	METALS+7196	ICE	S
RE03-02-49287	1	250 ML GLASS 01A	METALS+7196	ICE	S
RE03-02-49288	1	250 ML GLASS 02A	METALS+7196	ICE	S
RE03-02-49289	1	250 ML GLASS 03A	METALS+7196	ICE	S
RE03-02-49290	1	250 ML GLASS 04A	METALS+7196	ICE	S
RE03-02-49291	1	250 ML GLASS 05A	METALS+7196	ICE	S
RE03-02-49292	1	250 ML GLASS 06A	METALS+7196	ICE	S
RE03-02-49293	1	250 ML GLASS 07A	METALS+7196	ICE	S
RE03-02-49294	1	250 ML GLASS 08A	METALS+7196	ICE	S
RE03-02-49295	1	250 ML GLASS 09A	METALS+7196	ICE	S
RE03-02-49296	1	250 ML GLASS 10A	METALS+7196	ICE	S
RE03-02-49297	1	250 ML GLASS 11A	METALS+7196	ICE	S
RE03-02-49298	1	250 ML GLASS 12A	METALS+7196	ICE	S
RE03-02-49299	1	250 ML GLASS 13A	METALS+7196	ICE	S
RE03-02-49300	1	250 ML GLASS 14A	METALS+7196	ICE	S
RE03-02-49301	1	250 ML GLASS 15A	METALS+7196	ICE	S

Relinquished By:		Date	Time	Received By:		Date	Time
PRINTED NAME	SIGNATURE	9-16-0.	15.23.	PRINTED NAME	SIGNATURE	9/16/02	1523
Elvin J. Chavez		9/17/02	750	M Wrase		9/17/02	750 ~~9/17/02~~ 9/17/02
PRINTED NAME	SIGNATURE			PRINTED NAME	SIGNATURE		
PRINTED NAME	SIGNATURE			PRINTED NAME	SIGNATURE		

Received for DISPOSAL By:		Date	Time	Remarks:
PRINTED NAME	SIGNATURE			COC split into 2 AAL ORDERS # 02093614 0209373 W 9/19/02

Monday, September 16, 2002

CHAIN OF CUSTODY DOCUMENT NUMBER: 1203SC

Los Alamos
NATIONAL LABORATORY

REQUEST NUMBER: 1203S

ANALYSIS TYPE: INORGANIC

ATTN: Elvin Chavez
Assaigai Analytical Laboratory
7300 Jefferson NE
Albuquerque, NM 87109

ORIGINAL

SAMPLE ID	CONT ID	CONTAINER DESCRIPTION 0209373	ORDER TEMPLATE CODE	PRESERVATIVE	MATRIX
RE03-02-49530	1	250 ML GLASS 16A	METALS+7196	ICE	S
RE03-02-49531	1	250 ML GLASS 17A	METALS+7196	ICE	S

Final Page of CHAIN OF CUSTODY DOCUMENT FOR REQUEST NUMBER 1203S

Relinquished By: PRINTED NAME / SIGNATURE	Date	Time	Received By: PRINTED NAME / SIGNATURE	Date	Time
[illegible]	9-16-02	15 23	Elvin J. Chavez	9/16/02	1523
Elvin J Chavez	9/17/02	750	M Wrase	9-17-02	750
PRINTED NAME / SIGNATURE			PRINTED NAME / SIGNATURE		

Received for DISPOSAL By: PRINTED NAME / SIGNATURE	Date	Time	Remarks:

Monday, September 16, 2002

REQUEST NUMBER: 1199S

ANALYSIS TYPE: INORGANIC

Los Alamos
NATIONAL LABORATORY

ATTN: Elvin Chavez
Assaigai Analytical Laboratory
7300 Jefferson NE
Albuquerque, NM 87109

209373

Please analyze the enclosed samples according to the schedule indicated:

SHIP DATE: 09/16/2002
REPORT DUE: 10/16/2002
TURN AROUND REQ'D: 30

RAD SCREENING: NOT REQ
COMMENTS:

These samples are on:

LANL Request Number: 1199S
Per Agreement Number:
Project Cost Code: XURP04503219

LANL ER SMO CONTACT:
Signature:

METHOD CODE	SAMPLE ID	CONT ID	SAMPLE MATRIX	DATE SAMPLED	COMMENTS
SW-846:7196A	RE03-02-49301	1	S	09/12/2002	
SW-846:7471A	RE03-02-49301	1	S	09/12/2002	
SW-846:7471A	RE03-02-49300	1	S	09/12/2002	
SW-846:6010B	RE03-02-49301	1	S	09/12/2002	
SW-846:6020	RE03-02-49301	1	S	09/12/2002	
SW-846:6010B	RE03-02-49300	1	S	09/12/2002	
SW-846:6020	RE03-02-49300	1	S	09/12/2002	
SW-846:7196A	RE03-02-49300	1	S	09/12/2002	
SW-846:6020	RE03-02-49299	1	S	09/12/2002	
SW-846:7196A	RE03-02-49299	1	S	09/12/2002	
SW-846:7471A	RE03-02-49299	1	S	09/12/2002	
SW-846:7196A	RE03-02-49298	1	S	09/12/2002	
SW-846:7471A	RE03-02-49298	1	S	09/12/2002	
SW-846:6010B	RE03-02-49299	1	S	09/12/2002	
SW-846:7471A	RE03-02-49297	1	S	09/12/2002	
SW-846:6010B	RE03-02-49298	1	S	09/12/2002	
SW-846:6020	RE03-02-49298	1	S	09/12/2002	
SW-846:6010B	RE03-02-49297	1	S	09/12/2002	
SW-846:6020	RE03-02-49297	1	S	09/12/2002	
SW-846:7196A	RE03-02-49297	1	S	09/12/2002	
SW-846:6020	RE03-02-49296	1	S	09/12/2002	
SW-846:7196A	RE03-02-49296	1	S	09/12/2002	
SW-846:7471A	RE03-02-49296	1	S	09/12/2002	
SW-846:7196A	RE03-02-49295	1	S	09/12/2002	
SW-846:7471A	RE03-02-49295	1	S	09/12/2002	
SW-846:6010B	RE03-02-49296	1	S	09/12/2002	
SW-846:7471A	RE03-02-49294	1	S	09/12/2002	
SW-846:6010B	RE03-02-49295	1	S	09/12/2002	
SW-846:6020	RE03-02-49295	1	S	09/12/2002	
SW-846:6010B	RE03-02-49294	1	S	09/12/2002	
SW-846:6020	RE03-02-49294	1	S	09/12/2002	
SW-846:7196A	RE03-02-49294	1	S	09/12/2002	
SW-846:6020	RE03-02-49293	1	S	09/12/2002	
SW-846:7196A	RE03-02-49293	1	S	09/12/2002	
SW-846:7471A	RE03-02-49293	1	S	09/12/2002	
SW-846:7196A	RE03-02-49292	1	S	09/12/2002	
SW-846:7471A	RE03-02-49292	1	S	09/12/2002	
SW-846:6010B	RE03-02-49293	1	S	09/12/2002	

Monday, September 16, 2002

REQUEST NUMBER: 1199S

ANALYSIS TYPE: INORGANIC

Los Alamos
NATIONAL LABORATORY

ATTN: Elvin Chavez
Assaigai Analytical Laboratory
7300 Jefferson NE
Albuquerque, NM 87109

0209373

Please analyze the enclosed samples according to the schedule indicated:

SHIP DATE: 09/16/2002
REPORT DUE: 10/16/2002
TURN AROUND REQ'D: 30

RAD SCREENING: NOT REQ
COMMENTS:

These samples are on:

LANL Request Number: 1199S
Per Agreement Number:
Project Cost Code: XURP04503219

LANL ER SMO CONTACT:
Signature:

METHOD CODE	SAMPLE ID	CONT ID	SAMPLE MATRIX	DATE SAMPLED	COMMENTS
SW-846:7471A	RE03-02-49291	1	S	09/12/2002	
SW-846:6010B	RE03-02-49292	1	S	09/12/2002	
SW-846:6020	RE03-02-49292	1	S	09/12/2002	
SW-846:6010B	RE03-02-49291	1	S	09/12/2002	
SW-846:6020	RE03-02-49291	1	S	09/12/2002	
SW-846:7196A	RE03-02-49291	1	S	09/12/2002	
SW-846:6020	RE03-02-49290	1	S	09/12/2002	
SW-846:7196A	RE03-02-49290	1	S	09/12/2002	
SW-846:7471A	RE03-02-49290	1	S	09/12/2002	
SW-846:7196A	RE03-02-49289	1	S	09/12/2002	
SW-846:7471A	RE03-02-49289	1	S	09/12/2002	
SW-846:6010B	RE03-02-49290	1	S	09/12/2002	
SW-846:7471A	RE03-02-49288	1	S	09/12/2002	
SW-846:6010B	RE03-02-49289	1	S	09/12/2002	
SW-846:6020	RE03-02-49289	1	S	09/12/2002	
SW-846:6010B	RE03-02-49288	1	S	09/12/2002	
SW-846:6020	RE03-02-49288	1	S	09/12/2002	
SW-846:7196A	RE03-02-49288	1	S	09/12/2002	
SW-846:6020	RE03-02-49287	1	S	09/12/2002	
SW-846:7196A	RE03-02-49287	1	S	09/12/2002	
SW-846:7471A	RE03-02-49287	1	S	09/12/2002	
SW-846:7196A	RE03-02-49286	1	S	09/12/2002	
SW-846:7471A	RE03-02-49286	1	S	09/12/2002	
SW-846:6010B	RE03-02-49287	1	S	09/12/2002	
SW-846:7471A	RE03-02-49285	1	S	09/12/2002	
SW-846:6010B	RE03-02-49286	1	S	09/12/2002	
SW-846:6020	RE03-02-49286	1	S	09/12/2002	
SW-846:6010B	RE03-02-49285	1	S	09/12/2002	
SW-846:6020	RE03-02-49285	1	S	09/12/2002	
SW-846:7196A	RE03-02-49285	1	S	09/12/2002	
SW-846:6020	RE03-02-49284	1	S	09/12/2002	
SW-846:7196A	RE03-02-49284	1	S	09/12/2002	
SW-846:7471A	RE03-02-49284	1	S	09/12/2002	
SW-846:7196A	RE03-02-49283	1	S	09/12/2002	
SW-846:7471A	RE03-02-49283	1	S	09/12/2002	
SW-846:6010B	RE03-02-49284	1	S	09/12/2002	
SW-846:7471A	RE03-02-49282	1	S	09/12/2002	
SW-846:6010B	RE03-02-49283	1	S	09/12/2002	

Monday, September 16, 2002

REQUEST NUMBER: 1199S

ANALYSIS TYPE: INORGANIC

Los Alamos
NATIONAL LABORATORY

0209373

ATTN: Elvin Chavez
Assaigai Analytical Laboratory
7300 Jefferson NE
Albuquerque, NM 87109

Please analyze the enclosed samples according to the schedule indicated:

SHIP DATE: 09/16/2002
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These samples are on:

LANL Request Number: 1199S
Per Agreement Number:
Project Cost Code: XURP04503219

LANL ER SMO CONTACT:
Signature:

METHOD CODE	SAMPLE ID	CONT ID	SAMPLE MATRIX	DATE SAMPLED	COMMENTS
SW-846:6020	RE03-02-49283	1	S	09/12/2002	
SW-846:6010B	RE03-02-49282	1	S	09/12/2002	
SW-846:6020	RE03-02-49282	1	S	09/12/2002	
SW-846:7196A	RE03-02-49282	1	S	09/12/2002	
SW-846:6020	RE03-02-49281	1	S	09/12/2002	
SW-846:7196A	RE03-02-49281	1	S	09/12/2002	
SW-846:7471A	RE03-02-49281	1	S	09/12/2002	
SW-846:7196A	RE03-02-49280	1	S	09/12/2002	
SW-846:7471A	RE03-02-49280	1	S	09/12/2002	
SW-846:6010B	RE03-02-49281	1	S	09/12/2002	
SW-846:7471A	RE03-02-49279	1	S	09/12/2002	
SW-846:6010B	RE03-02-49280	1	S	09/12/2002	
SW-846:6020	RE03-02-49280	1	S	09/12/2002	
SW-846:6010B	RE03-02-49279	1	S	09/12/2002	
SW-846:6020	RE03-02-49279	1	S	09/12/2002	
SW-846:7196A	RE03-02-49279	1	S	09/12/2002	
SW-846:6020	RE03-02-49278	1	S	09/12/2002	
SW-846:7196A	RE03-02-49278	1	S	09/12/2002	
SW-846:7471A	RE03-02-49278	1	S	09/12/2002	
SW-846:7196A	RE03-02-49277	1	S	09/12/2002	
SW-846:7471A	RE03-02-49277	1	S	09/12/2002	
SW-846:6010B	RE03-02-49278	1	S	09/12/2002	
SW-846:7471A	RE03-02-49276	1	S	09/12/2002	
SW-846:6010B	RE03-02-49277	1	S	09/12/2002	
SW-846:6020	RE03-02-49277	1	S	09/12/2002	
SW-846:6010B	RE03-02-49276	1	S	09/12/2002	
SW-846:6020	RE03-02-49276	1	S	09/12/2002	
SW-846:7196A	RE03-02-49276	1	S	09/12/2002	
SW-846:6020	RE03-02-49275	1	S	09/12/2002	
SW-846:7196A	RE03-02-49275	1	S	09/12/2002	
SW-846:7471A	RE03-02-49275	1	S	09/12/2002	
SW-846:7196A	RE03-02-49274	1	S	09/12/2002	
SW-846:7471A	RE03-02-49274	1	S	09/12/2002	
SW-846:6010B	RE03-02-49275	1	S	09/12/2002	
SW-846:7471A	RE03-02-49273	1	S	09/12/2002	
SW-846:6010B	RE03-02-49274	1	S	09/12/2002	
SW-846:6020	RE03-02-49274	1	S	09/12/2002	
SW-846:6010B	RE03-02-49273	1	S	09/12/2002	

Monday, September 16, 2002

REQUEST NUMBER: 1199S

ANALYSIS TYPE: INORGANIC

Los Alamos
NATIONAL LABORATORY

0209373

ATTN: Elvin Chavez
Assaigai Analytical Laboratory
7300 Jefferson NE
Albuquerque, NM 87109

Please analyze the enclosed samples according to the schedule indicated:

SHIP DATE: 09/16/2002
REPORT DUE: 10/16/2002
TURN AROUND REQ'D: 30

RAD SCREENING: NOT REQ
COMMENTS:

These samples are on:

LANL Request Number: 1199S
Per Agreement Number:
Project Cost Code: XURP04503219

LANL ER SMO CONTACT:
Signature:

METHOD CODE	SAMPLE ID	CONT ID	SAMPLE MATRIX	DATE SAMPLED	COMMENTS
SW-846:6020	RE03-02-49273	1	S	09/12/2002	
SW-846:7196A	RE03-02-49273	1	S	09/12/2002	
SW-846:6020	RE03-02-49272	1	S	09/12/2002	
SW-846:7196A	RE03-02-49272	1	S	09/12/2002	
SW-846:7471A	RE03-02-49272	1	S	09/12/2002	
SW-846:7196A	RE03-02-49271	1	S	09/12/2002	
SW-846:7471A	RE03-02-49271	1	S	09/12/2002	
SW-846:6010B	RE03-02-49272	1	S	09/12/2002	
SW-846:7471A	RE03-02-49270	1	S	09/12/2002	
SW-846:6010B	RE03-02-49271	1	S	09/12/2002	
SW-846:6020	RE03-02-49271	1	S	09/12/2002	
SW-846:6010B	RE03-02-49270	1	S	09/12/2002	
SW-846:6020	RE03-02-49270	1	S	09/12/2002	
SW-846:7196A	RE03-02-49270	1	S	09/12/2002	

Final Page of REQUEST NUMBER 1199S

Data Validation Cover Sheet

Section I. Data Record Package Identification

Request Number: 1199S Validation Date: 05-Dec-02 Lab Code: _____

Contract Laboratory Name: Assaigai

Validator: Keith Greene Organization: RRES

Analytical Suite(s): (check all that apply)

- ☐ Volatile Organics
- ☐ Semivolatile Organics
- ☐ Organochlorine Pesticides/Polychlorinated Biphenyls
- ☒ Other: 7196A (describe)
- ☐ High Explosives
- ☒ Inorganics
- ☐ Radiochemistry

Section II. Completeness Check

Yes	No	n/a	(check one)	Yes	No	n/a	(check one)
☒	☐	☐	1. Chain-of-custody form(s)	☒	☐	☐	6. Raw/BSS data
☒	☐	☐	2. Case narrative	☒	☐	☐	7. Quality control forms
☒	☐	☐	3. Sample result forms	☒	☐	☐	8. Quantitation reports
☐	☐	☒	4. Sample chromatograms	☐	☐	☒	9. TICs forms
☐	☐	☒	5. Standard chromatograms	☐	☐	☒	10. TICs mass spectra

Identify any samples in the assigned Request Number that are missing:

_____ _____ _____ _____ _____ _____ _____ _____

_____ _____ _____ _____ _____ _____ _____ _____

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed upon date of resolution and contract laboratory point of contact): Cr 6+ - Several samples are qualified not detected (U, I4a) because the uncorrected samples (sample without reagents) had a higher absorbance than the samples with reagents.

Metals - The raw data is reported without Correction for moisture, but the EDD is, values were verified.

(Attach additional comment sheets as necessary)

Validator's signature: [signature] Date: 12/5/02

ER-SOPs 15.01–15.08

Los Alamos
Environmental Restoration Project

DATA VALIDATION COVER SHEET (Example)

SECTION I.

REQUEST NUMBER: 11995 COST CODE: _____

VALIDATION DATE: _____

LAB NAME: ASSA IGAT LAB CODE: _____

VALIDATOR: _____ ORGANIZATION: _____

ANALYTICAL SUITE: ___ VOLATILES ___ HIGH EXPLOSIVES

___ SEMIVOLATILES ✓ INORGANICS

___ PESTICIDES/AROCLORS ___ RADIOCHEMISTRY

OTHER (describe) _____

SECTION II. COMPLETENESS CHECKLIST

Item	Present? (Y/N/NA)	Item	Present? (Y/N/NA)
1. COC form(s)		2. Case Narrative	
3. Sample Results		4. Sample Chromatograms	
5. Standard Chromatograms		6. Quantitation Reports	
7. QC Forms			

Identify any samples in the assigned Request Number that are missing:

_____ _____ _____ _____ _____ _____

_____ _____ _____ _____ _____ _____

Comments: include information about requests to the laboratory and agreed upon date of resolution and lab contact: (Attach additional comment sheets as necessary)

_____

_____

_____

Signature/1st validation: _____ Date/1st validation: _____

Signature/2nd validation: _____ Date/2nd validation: _____

ASSAIGAI ANALYTICAL LABORATORIES, INC.
P.O. Box 90430 • Albuquerque, New Mexico 87199 • (505) 345-8964 • FAX (505) 345-7259
3332 Wedgewood, E-5 • El Paso, Texas 79925 • (915) 593-6000 • FAX (915) 593-7820
127 Eastgate Drive, 212-C • Los Alamos, New Mexico 87544 • (505) 662-2558

November 4, 2002

LANL-DDP03-0271-014, RM100 E SI
P.O. Box 1663, MS H865
Los Alamos, NM 87544

Dear Keith Greene,

Please find enclosed Assaigai Analytical Laboratories, Inc. Level IV data package for LANL request numbers 1199S. The original chain of custody was sent on October 25, 2002. A copy of the chain of custody has been enclosed in the data package. Electronic data results were e-mailed to kgreene@lanl.gov on 10/24/02. If you have any questions please call me at (505) 345-8964.

Respectfully,

John P. Morris

Member:
American Council of
Independent Laboratories, Inc.

REPRODUCTION OF THIS REPORT IN LESS THAN FULL REQUIRES THE WRITTEN CONSENT OF AAL.
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PRODUCT ENDORSEMENT BY THE NATIONAL VOLUNTARY LABORATORY ACCREDITATION PROGRAM.

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Monday, September 16, 2002

CHAIN OF CUSTODY DOCUMENT NUMBER: 1199SC

Los Alamos
NATIONAL LABORATORY

REQUEST NUMBER: 1199S

ANALYSIS TYPE: INORGANIC

ATTN: Elvin Chavez
Assaigai Analytical Laboratory
7300 Jefferson NE
Albuquerque, NM 87109

ORIGINAL

SAMPLE ID	CONT ID	CONTAINER DESCRIPTION 0209373	ORDER TEMPLATE CODE	PRESERVATIVE	MATRIX
RE03-02-49270	1	250 ML GLASS	METALS+7196	ICE	S
RE03-02-49271	1	250 ML GLASS	METALS+7196	ICE	S
RE03-02-49272	1	250 ML GLASS	METALS+7196	ICE	S
RE03-02-49273	1	250 ML GLASS	METALS+7196	ICE	S
RE03-02-49274	1	250 ML GLASS	METALS+7196	ICE	S
RE03-02-49275	1	250 ML GLASS	METALS+7196	ICE	S
RE03-02-49276	1	250 ML GLASS	METALS+7196	ICE	S
RE03-02-49277	1	250 ML GLASS	METALS+7196	ICE	S
RE03-02-49278	1	250 ML GLASS	METALS+7196	ICE	S
RE03-02-49279	1	250 ML GLASS	METALS+7196	ICE	S
RE03-02-49280	1	250 ML GLASS	METALS+7196	ICE	S
RE03-02-49281	1	250 ML GLASS	METALS+7196	ICE	S
RE03-02-49282	1	250 ML GLASS	METALS+7196	ICE	S
RE03-02-49283	1	250 ML GLASS	METALS+7196	ICE	S
RE03-02-49284	1	250 ML GLASS	METALS+7196	ICE	S
RE03-02-49285	1	250 ML GLASS	METALS+7196	ICE	S
RE03-02-49286	1	250 ML GLASS	METALS+7196	ICE	S
RE03-02-49287	1	250 ML GLASS 01A	METALS+7196	ICE	S
RE03-02-49288	1	250 ML GLASS 02A	METALS+7196	ICE	S
RE03-02-49289	1	250 ML GLASS 03A	METALS+7196	ICE	S
RE03-02-49290	1	250 ML GLASS 04A	METALS+7196	ICE	S
RE03-02-49291	1	250 ML GLASS 05A	METALS+7196	ICE	S
RE03-02-49292	1	250 ML GLASS 06A	METALS+7196	ICE	S
RE03-02-49293	1	250 ML GLASS 07A	METALS+7196	ICE	S
RE03-02-49294	1	250 ML GLASS 08A	METALS+7196	ICE	S
RE03-02-49295	1	250 ML GLASS 09A	METALS+7196	ICE	S
RE03-02-49296	1	250 ML GLASS 10A	METALS+7196	ICE	S
RE03-02-49297	1	250 ML GLASS 11A	METALS+7196	ICE	S
RE03-02-49298	1	250 ML GLASS 12A	METALS+7196	ICE	S
RE03-02-49299	1	250 ML GLASS 13A	METALS+7196	ICE	S
RE03-02-49300	1	250 ML GLASS 14A	METALS+7196	ICE	S
RE03-02-49301	1	250 ML GLASS 15A	METALS+7196	ICE	S

Relinquished By: PRINTED NAME / SIGNATURE	Date	Time	Received By: PRINTED NAME / SIGNATURE	Date	Time
	9-16-01	15.23.		9/16/02	0523
Elvin J. Chavez	9/17/02	750	M Wrage	9/17/02	750 8:02 MW 9/19/02
PRINTED NAME / SIGNATURE			PRINTED NAME / SIGNATURE		

Received for DISPOSAL By: PRINTED NAME / SIGNATURE — Date — Time

Remarks: COC split into 2 AALI ORDERS # 0209364 & 0209373 MW 9/19/02

Monday, September 16, 2002

REQUEST NUMBER: 1199S

ANALYSIS TYPE: INORGANIC

Los Alamos
NATIONAL LABORATORY

ATTN: Elvin Chavez
Assaigai Analytical Laboratory
7300 Jefferson NE
Albuquerque, NM 87109

0209373

Please analyze the enclosed samples according to the schedule indicated:

SHIP DATE: 09/16/2002
REPORT DUE: 10/16/2002
TURN AROUND REQ'D: 30

RAD SCREENING: NOT REQ
COMMENTS:

These samples are on:

LANL Request Number: 1199S
Per Agreement Number:
Project Cost Code: XURP04503219

LANL ER SMO CONTACT:
Signature:

METHOD CODE	SAMPLE ID	CONT ID	SAMPLE MATRIX	DATE SAMPLED	COMMENTS
SW-846:7196A	RE03-02-49301	1	S	09/12/2002	
SW-846:7471A	RE03-02-49301	1	S	09/12/2002	
SW-846:7471A	RE03-02-49300	1	S	09/12/2002	
SW-846:6010B	RE03-02-49301	1	S	09/12/2002	
SW-846:6020	RE03-02-49301	1	S	09/12/2002	
SW-846:6010B	RE03-02-49300	1	S	09/12/2002	
SW-846:6020	RE03-02-49300	1	S	09/12/2002	
SW-846:7196A	RE03-02-49300	1	S	09/12/2002	
SW-846:6020	RE03-02-49299	1	S	09/12/2002	
SW-846:7196A	RE03-02-49299	1	S	09/12/2002	
SW-846:7471A	RE03-02-49299	1	S	09/12/2002	
SW-846:7196A	RE03-02-49298	1	S	09/12/2002	
SW-846:7471A	RE03-02-49298	1	S	09/12/2002	
SW-846:6010B	RE03-02-49299	1	S	09/12/2002	
SW-846:7471A	RE03-02-49297	1	S	09/12/2002	
SW-846:6010B	RE03-02-49298	1	S	09/12/2002	
SW-846:6020	RE03-02-49298	1	S	09/12/2002	
SW-846:6010B	RE03-02-49297	1	S	09/12/2002	
SW-846:6020	RE03-02-49297	1	S	09/12/2002	
SW-846:7196A	RE03-02-49297	1	S	09/12/2002	
SW-846:6020	RE03-02-49296	1	S	09/12/2002	
SW-846:7196A	RE03-02-49296	1	S	09/12/2002	
SW-846:7471A	RE03-02-49296	1	S	09/12/2002	
SW-846:7196A	RE03-02-49295	1	S	09/12/2002	
SW-846:7471A	RE03-02-49295	1	S	09/12/2002	
SW-846:6010B	RE03-02-49296	1	S	09/12/2002	
SW-846:7471A	RE03-02-49294	1	S	09/12/2002	
SW-846:6010B	RE03-02-49295	1	S	09/12/2002	
SW-846:6020	RE03-02-49295	1	S	09/12/2002	
SW-846:6010B	RE03-02-49294	1	S	09/12/2002	
SW-846:6020	RE03-02-49294	1	S	09/12/2002	
SW-846:7196A	RE03-02-49294	1	S	09/12/2002	
SW-846:6020	RE03-02-49293	1	S	09/12/2002	
SW-846:7196A	RE03-02-49293	1	S	09/12/2002	
SW-846:7471A	RE03-02-49293	1	S	09/12/2002	
SW-846:7196A	RE03-02-49292	1	S	09/12/2002	
SW-846:7471A	RE03-02-49292	1	S	09/12/2002	
SW-846:6010B	RE03-02-49293	1	S	09/12/2002	

Monday, September 16, 2002

REQUEST NUMBER: 1199S

ANALYSIS TYPE: INORGANIC

Los Alamos
NATIONAL LABORATORY

ATTN: Elvin Chavez
Assaigai Analytical Laboratory
7300 Jefferson NE
Albuquerque, NM 87109

0209373

Please analyze the enclosed samples according to the schedule indicated:

These samples are on:

SHIP DATE: 09/16/2002
REPORT DUE: 10/16/2002
TURN AROUND REQ'D: 30

LANL Request Number: 1199S
Per Agreement Number:
Project Cost Code: XURP04503219

RAD SCREENING: NOT REQ
COMMENTS:

LANL ER SMO CONTACT:
Signature:

METHOD CODE	SAMPLE ID	CONT ID	SAMPLE MATRIX	DATE SAMPLED	COMMENTS
SW-846:7471A	RE03-02-49291	1	S	09/12/2002	
SW-846:6010B	RE03-02-49292	1	S	09/12/2002	
SW-846:6020	RE03-02-49292	1	S	09/12/2002	
SW-846:6010B	RE03-02-49291	1	S	09/12/2002	
SW-846:6020	RE03-02-49291	1	S	09/12/2002	
SW-846:7196A	RE03-02-49291	1	S	09/12/2002	
SW-846:6020	RE03-02-49290	1	S	09/12/2002	
SW-846:7196A	RE03-02-49290	1	S	09/12/2002	
SW-846:7471A	RE03-02-49290	1	S	09/12/2002	
SW-846:7196A	RE03-02-49289	1	S	09/12/2002	
SW-846:7471A	RE03-02-49289	1	S	09/12/2002	
SW-846:6010B	RE03-02-49290	1	S	09/12/2002	
SW-846:7471A	RE03-02-49288	1	S	09/12/2002	
SW-846:6010B	RE03-02-49289	1	S	09/12/2002	
SW-846:6020	RE03-02-49289	1	S	09/12/2002	
SW-846:6010B	RE03-02-49288	1	S	09/12/2002	
SW-846:6020	RE03-02-49288	1	S	09/12/2002	
SW-846:7196A	RE03-02-49288	1	S	09/12/2002	
SW-846:6020	RE03-02-49287	1	S	09/12/2002	
SW-846:7196A	RE03-02-49287	1	S	09/12/2002	
SW-846:7471A	RE03-02-49287	1	S	09/12/2002	
SW-846:7196A	RE03-02-49286	1	S	09/12/2002	
SW-846:7471A	RE03-02-49286	1	S	09/12/2002	
SW-846:6010B	RE03-02-49287	1	S	09/12/2002	
SW-846:7471A	RE03-02-49285	1	S	09/12/2002	
SW-846:6010B	RE03-02-49286	1	S	09/12/2002	
SW-846:6020	RE03-02-49286	1	S	09/12/2002	
SW-846:6010B	RE03-02-49285	1	S	09/12/2002	
SW-846:6020	RE03-02-49285	1	S	09/12/2002	
SW-846:7196A	RE03-02-49285	1	S	09/12/2002	
SW-846:6020	RE03-02-49284	1	S	09/12/2002	
SW-846:7196A	RE03-02-49284	1	S	09/12/2002	
SW-846:7471A	RE03-02-49284	1	S	09/12/2002	
SW-846:7196A	RE03-02-49283	1	S	09/12/2002	
SW-846:7471A	RE03-02-49283	1	S	09/12/2002	
SW-846:6010B	RE03-02-49284	1	S	09/12/2002	
SW-846:7471A	RE03-02-49282	1	S	09/12/2002	
SW-846:6010B	RE03-02-49283	1	S	09/12/2002	

Monday, September 16, 2002

REQUEST NUMBER: 1199S

ANALYSIS TYPE: INORGANIC

Los Alamos
NATIONAL LABORATORY

0209373

ATTN: Elvin Chavez
Assaigai Analytical Laboratory
7300 Jefferson NE
Albuquerque, NM 87109

Please analyze the enclosed samples according to the schedule indicated:

SHIP DATE: 09/16/2002
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TURN AROUND REQ'D: 30

RAD SCREENING: NOT REQ
COMMENTS:

These samples are on:

LANL Request Number: 1199S
Per Agreement Number:
Project Cost Code: XURP04503219

LANL ER SMO CONTACT:
Signature:

METHOD CODE	SAMPLE ID	CONT ID	SAMPLE MATRIX	DATE SAMPLED	COMMENTS
SW-846:6020	RE03-02-49283	1	S	09/12/2002	
SW-846:6010B	RE03-02-49282	1	S	09/12/2002	
SW-846:6020	RE03-02-49282	1	S	09/12/2002	
SW-846:7196A	RE03-02-49282	1	S	09/12/2002	
SW-846:6020	RE03-02-49281	1	S	09/12/2002	
SW-846:7196A	RE03-02-49281	1	S	09/12/2002	
SW-846:7471A	RE03-02-49281	1	S	09/12/2002	
SW-846:7196A	RE03-02-49280	1	S	09/12/2002	
SW-846:7471A	RE03-02-49280	1	S	09/12/2002	
SW-846:6010B	RE03-02-49281	1	S	09/12/2002	
SW-846:7471A	RE03-02-49279	1	S	09/12/2002	
SW-846:6010B	RE03-02-49280	1	S	09/12/2002	
SW-846:6020	RE03-02-49280	1	S	09/12/2002	
SW-846:6010B	RE03-02-49279	1	S	09/12/2002	
SW-846:6020	RE03-02-49279	1	S	09/12/2002	
SW-846:7196A	RE03-02-49279	1	S	09/12/2002	
SW-846:6020	RE03-02-49278	1	S	09/12/2002	
SW-846:7196A	RE03-02-49278	1	S	09/12/2002	
SW-846:7471A	RE03-02-49278	1	S	09/12/2002	
SW-846:7196A	RE03-02-49277	1	S	09/12/2002	
SW-846:7471A	RE03-02-49277	1	S	09/12/2002	
SW-846:6010B	RE03-02-49278	1	S	09/12/2002	
SW-846:7471A	RE03-02-49276	1	S	09/12/2002	
SW-846:6010B	RE03-02-49277	1	S	09/12/2002	
SW-846:6020	RE03-02-49277	1	S	09/12/2002	
SW-846:6010B	RE03-02-49276	1	S	09/12/2002	
SW-846:6020	RE03-02-49276	1	S	09/12/2002	
SW-846:7196A	RE03-02-49276	1	S	09/12/2002	
SW-846:6020	RE03-02-49275	1	S	09/12/2002	
SW-846:7196A	RE03-02-49275	1	S	09/12/2002	
SW-846:7471A	RE03-02-49275	1	S	09/12/2002	
SW-846:7196A	RE03-02-49274	1	S	09/12/2002	
SW-846:7471A	RE03-02-49274	1	S	09/12/2002	
SW-846:6010B	RE03-02-49275	1	S	09/12/2002	
SW-846:7471A	RE03-02-49273	1	S	09/12/2002	
SW-846:6010B	RE03-02-49274	1	S	09/12/2002	
SW-846:6020	RE03-02-49274	1	S	09/12/2002	
SW-846:6010B	RE03-02-49273	1	S	09/12/2002	

Monday, September 16, 2002

REQUEST NUMBER: 1199S

ANALYSIS TYPE: INORGANIC

Los Alamos
NATIONAL LABORATORY

0209373

ATTN: Elvin Chavez
Assaigai Analytical Laboratory
7300 Jefferson NE
Albuquerque, NM 87109

Please analyze the enclosed samples according to the schedule indicated:

SHIP DATE: 09/16/2002
REPORT DUE: 10/16/2002
TURN AROUND REQ'D: 30

RAD SCREENING: NOT REQ
COMMENTS:

These samples are on:

LANL Request Number: 1199S
Per Agreement Number:
Project Cost Code: XURP04503219

LANL ER SMO CONTACT:
Signature:

METHOD CODE	SAMPLE ID	CONT ID	SAMPLE MATRIX	DATE SAMPLED	COMMENTS
SW-846:6020	RE03-02-49273	1	S	09/12/2002	
SW-846:7196A	RE03-02-49273	1	S	09/12/2002	
SW-846:6020	RE03-02-49272	1	S	09/12/2002	
SW-846:7196A	RE03-02-49272	1	S	09/12/2002	
SW-846:7471A	RE03-02-49272	1	S	09/12/2002	
SW-846:7196A	RE03-02-49271	1	S	09/12/2002	
SW-846:7471A	RE03-02-49271	1	S	09/12/2002	
SW-846:6010B	RE03-02-49272	1	S	09/12/2002	
SW-846:7471A	RE03-02-49270	1	S	09/12/2002	
SW-846:6010B	RE03-02-49271	1	S	09/12/2002	
SW-846:6020	RE03-02-49271	1	S	09/12/2002	
SW-846:6010B	RE03-02-49270	1	S	09/12/2002	
SW-846:6020	RE03-02-49270	1	S	09/12/2002	
SW-846:7196A	RE03-02-49270	1	S	09/12/2002	

Final Page of REQUEST NUMBER 1199S

ASSAIGAI ANALYTICAL LABORATORIES, INC.
P.O. Box 90430 • Albuquerque, New Mexico 87199 • (505) 345-8964 • FAX (505) 345-7259
3332 Wedgewood, E-5 • El Paso, Texas 79925 • (915) 593-6000 • FAX (915) 593-7820
127 Eastgate Drive, 212-C • Los Alamos, New Mexico 87544 • (505) 662-2558

QC NARRATIVE FOR PROJECT 1199S

GENERAL

On 9/17/02 Assaigai Analytical Laboratories, Inc. (AALI) received seventeen soil samples from Los Alamos National Labs. The samples were received on ice in a "milk crate" rather than a cooler. AALI requires all samples to be preserved at 4 °C ± 2, therefore a non-conformance report was issued for these samples. The only samples that would be affected by this non-conformance event are the Hg and Cr (VI). Keith Greene performed the sampling for Los Alamos National Labs (Request number: 1199S). The analyses requested were Hexavalent Chromium by EPA 218.4 (Chelation Extaction), Metals: Al, Sb, As, Ba, Be, B, Cd, Cr, Co, Cu, Fe, Pb, Li, Mg, Mn, Mo, Ni, K, Se, Si, Ag, Na, Sr, Tl, Sn, Ti, U, V & Zn SW846-3050A/6020, and Hg by SW846-7471A.

INITIAL/CONTINUING CALIBRATION (ICV & CCV)

The ICV for the SW846-6020 analysis was inadvertently spiked at 100 ppb instead of the usual 120 ppb, therefore the ICV was flagged as out of criteria. The ICV recovery for the 100 ppb spike is 106% which is within the required ± 10% criteria. All results are valid as reported.

The CCV percent recoveries for Si were outside of the SW846-6020 QC criteria. The sample results were flagged with an "E" for estimated value.

All other initial and continuing calibrations met all QA/QC criteria for analytes of interest in the other analyses requested.

METHOD BLANK (MB)

The method blank for the SW846-6020 analysis was positive for Al, As, Ba, Ca, Cr, Cu, Fe, Pb, Mg, Mn, Mo, K, Na, and Ti. The reported sample results are greater than five times the method blank level, and therefore, valid as reported.

The method blank was also positive for Sn, but in this case the reported sample result is not greater than five time the blank level, and is therefore, flagged with a "B" for blank contamination.

All other laboratory method blanks associated with the analyses were free of target analytes.

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American Council of
Independent Laboratories, Inc.

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THIS REPORT MAY NOT BE USED IN ANY MANNER BY THE CLIENT OR ANY OTHER THIRD PARTY TO CLAIM
PRODUCT ENDORSEMENT BY THE NATIONAL VOLUNTARY LABORATORY ACCREDITATION PROGRAM.

LABORATORY CONTROL SAMPLE AND DUPLICATE (LCS/LCSD)

The LCS/LCSD recoveries and RPDs associated with all analyses were within AALI's QC criteria limits.

MATRIX SPIKE AND DUPLICATE (MS/MSD)

The MS recovery for Hg was not within AALI's QC limits. The out of criteria MS recovery was due to the non-homogeneous nature of the sample. Sample RE3-02-49280 was utilized for the Hg matrix spike/matrix spike duplicate.

The MS/MSD recoveries and associated RPDs for Al, Ba, Cr, Cu, Fe, Li, Si, Ti, Na, Mg, K, Ca, and Zn are out of QC criteria due to the high sample concentration relative to the spike value and to the non-homogeneous nature of the sample. Sample RE3-02-49280 was utilized for the SW846 6020 matrix spike/matrix spike duplicate.

MS/MSD recoveries and RPDs associated with all other analyses requested were within AALI's QC limits.

METHODS

All analyses were performed at AALI utilize procedures published in the following manuals, as well as all the latest promulgated updates.

1. Standard Methods for the Examination of Water and Wastewater, 18th Edition, 1992.
2. SW-846, Test Methods for Eval. Solid Waste: Physical/Chemical Methods, 3rd Ed, USEPA, 1986.
3. Annual Book of ASTM Standards.
4. EPA-600/4-79-020 Methods for Chemical Analysis of Water and Wastes, Revised March 1983.
5. EPA-600/4-82-057 Methods for Organic Chemical Analysis of Municipal & Industrial Wastewater, 1982.
6. NIOSH Manual of Analytical Methods, 3rd Edition, 1984.
7. Guidelines Establishing Test Procedures for the Analysis of Pollutants under the Clean Water Act, 40 CFR Part 136, October 1984.

This narrative was prepared by: _____ QA/QC Department

11.4.02
Date

MT.2002. 1103

ASSAIGAI ANALYTICAL LABORATORIES, INC.

001

Metals Cover Sheet

	Analyst			Reviewer		
Final Report Printout	Y	N	NA	Y	N	NA
Raw Data	Y	N	NA	Y	N	NA
Standard Summary Sheet	Y	N	NA	Y	N	NA

Batch	NCR Analyst	NCR Reviewer	Parabellum Analyst	Parabellum Reviewer	Digestion Log Analyst	Digestion Log Reviewer	TCLP Log Analyst	TCLP Log Reviewer
M021284	Y – N – NA NCR #	Y – N – NA	Y – N – NA	Y – N – NA	Y – N – NA	Y – N – NA	Y – N – NA	Y – N – NA
M021285	Y – N – NA NCR #	Y – N – NA	Y – N – NA	Y – N – NA	Y – N – NA	Y – N – NA	Y – N – NA	Y – N – NA
	Y – N – NA NCR #	Y – N – NA	Y – N – NA	Y – N – NA	Y – N – NA	Y – N – NA	Y – N – NA	Y – N – NA
	Y – N – NA NCR #	Y – N – NA	Y – N – NA	Y – N – NA	Y – N – NA	Y – N – NA	Y – N – NA	Y – N – NA
	Y – N – NA NCR #	Y – N – NA	Y – N – NA	Y – N – NA	Y – N – NA	Y – N – NA	Y – N – NA	Y – N – NA

Dept. Funnel/Prepared By JS
Date 9/23/02

Final Funnel/Reviewed By CJ
Date 9/23/02

Comments

QC Review

Assaigai Analytical Laboratories, Inc.

Run Group Cover Sheet

Run Group	MT.2002.1103
Reviewed:	9/23/02 12:53:54 PM
By:	JRE

Calc Method	PEHG
Import Source	FIM01
Instrument:	PE-FIMS

Calibration Mode	NATIVE
Calculation Mode	NORMAL
Spike Dilution Mode	NORMAL

RAW QUANT FLAGS	
a	*all result information keyed in manually*
d	*data from instrument keyed in manually*
i	*integration of peak performed manually*
q	*qdelete of peak*
r	*response factor postquant adjustment*

003

Assaigai Analytical Laboratories, Inc.

Laboratory Logbook

Run Group MT.2002.1103
Import Source FIM01
Instrument: PE-FIMS

o	Run#	Acquisition Date	Data File	Vial	e	Sample Run ID	Run DF	Comment	see data file(s)	Analyst
x	1	09-23-02 9:53:57	020923_r.txt	1		Calib Blank	1			JRE
x	2	09-23-02 9:56:06	020923_r.txt	2		Standard 1	1			JRE
x	3	09-23-02 9:58:15	020923_r.txt	3		Standard 2	1			JRE
x	4	09-23-02 10:00:23	020923_r.txt	4		Standard 3	1			JRE
x	5	09-23-02 10:02:34	020923_r.txt	5		Standard 4	1			JRE
x	6	09-23-02 10:04:42	020923_r.txt	6		Standard 5	1			JRE
	7	09-23-02 10:06:49	020923_r.txt	7		[STD-ICV]	1			JRE
	8	09-23-02 10:08:58	020923_r.txt	8		[CB]	1			JRE
	9	09-23-02 10:11:09	020923_r.txt	9		M021284-001	1			JRE
	10	09-23-02 10:13:18	020923_r.txt	10		M021284-002	1			JRE
	11	09-23-02 10:15:27	020923_r.txt	11		M021284-003	1			JRE
	12	09-23-02 10:17:35	020923_r.txt	12		M021284-004	1			JRE
	13	09-23-02 10:19:43	020923_r.txt	13		M021284-005	1			JRE
x	14	09-23-02 10:21:51	020923_r.txt	14		M021284-006	1			JRE
	15	09-23-02 10:24:00	020923_r.txt	15		M021284-007	1			JRE
	16	09-23-02 10:26:08	020923_r.txt	16		M021284-008	1			JRE
	17	09-23-02 10:28:20	020923_r.txt	17		M021284-009	1			JRE
	18	09-23-02 10:30:29	020923_r.txt	18		M021284-010	1			JRE
	19	09-23-02 10:32:41	020923_r.txt	19		[STD-CCV]	1			JRE
	20	09-23-02 10:34:49	020923_r.txt	20		[CB]	1			JRE
	21	09-23-02 10:37:00	020923_r.txt	21		M021284-011	1			JRE
	22	09-23-02 10:39:08	020923_r.txt	22		M021284-012	1			JRE
	23	09-23-02 10:41:17	020923_r.txt	23		M021284-013	1			JRE
	24	09-23-02 10:43:25	020923_r.txt	24		M021284-014	1			JRE
	25	09-23-02 10:45:33	020923_r.txt	25		M021284-015	1			JRE
	26	09-23-02 10:47:42	020923_r.txt	26		M021284-016	1			JRE
	27	09-23-02 10:49:50	020923_r.txt	27		M021284-017	1			JRE
	28	09-23-02 10:51:58	020923_r.txt	28		M021284-018	1			JRE
	29	09-23-02 10:54:07	020923_r.txt	29		M021284-019	1			JRE
	30	09-23-02 10:56:16	020923_r.txt	30		M021284-020	1			JRE
	31	09-23-02 10:58:23	020923_r.txt	31		[STD-CCV]	1			JRE
	32	09-23-02 11:00:32	020923_r.txt	32		[CB]	1			JRE
	33	09-23-02 11:02:39	020923_r.txt	33		M021284-021	1			JRE
	34	09-23-02 11:04:48	020923_r.txt	34		M021284-022	1			JRE
	35	09-23-02 11:06:56	020923_r.txt	35		M021285-001	1			JRE

Coyote 2001: Calculation 1.0.020729144500

Report Date 9/23/02 12:54:18 PM

Assaigai Analytical Laboratories, Inc.

Laboratory Logbook

Run Group MT.2002.1103
Import Source FIM01
Instrument: PE-FIMS

o	Run#	Acquisition Date	Data File	Vial	e	Sample Run ID	Run DF	Comment	see data file(s)	Analyst
	36	09-23-02 11:09:08	020923_r.txt	36		M021285-002	1			JRE
	37	09-23-02 11:11:17	020923_r.txt	37		M021285-003	1			JRE
	38	09-23-02 11:13:26	020923_r.txt	38		M021285-004	1			JRE
	39	09-23-02 11:15:33	020923_r.txt	39		M021285-005	1			JRE
x	40	09-23-02 11:17:42	020923_r.txt	40		M021285-006	1			JRE
	41	09-23-02 11:19:51	020923_r.txt	41		M021285-007	1			JRE
	42	09-23-02 11:22:00	020923_r.txt	42		M021285-008	1			JRE
	43	09-23-02 11:24:11	020923_r.txt	43		[STD-CCV]	1			JRE
	44	09-23-02 11:26:19	020923_r.txt	44		[CB]	1			JRE
	~~45~~	~~09-23-02 11:28:30~~	~~020923_r.txt~~	~~45~~		~~M021285-009~~	~~1~~			~~JRE~~
	46	09-23-02 11:30:39	020923_r.txt	46		M021285-010	1			JRE
	47	09-23-02 11:32:47	020923_r.txt	47		M021285-011	1			JRE
	48	09-23-02 11:34:56	020923_r.txt	48		M021285-012	1			JRE
	49	09-23-02 11:37:04	020923_r.txt	49		M021285-013	1			JRE
	50	09-23-02 11:39:13	020923_r.txt	50		M021285-014	1			JRE
	51	09-23-02 11:41:21	020923_r.txt	51		M021285-015	1			JRE
	52	09-23-02 11:43:29	020923_r.txt	52		M021285-016	1			JRE
	53	09-23-02 11:45:38	020923_r.txt	53		M021285-017	1			JRE
	54	09-23-02 11:47:50	020923_r.txt	54		M021285-018	1			JRE
	55	09-23-02 11:50:01	020923_r.txt	55		[STD-CCV]	1			JRE
	56	09-23-02 11:52:10	020923_r.txt	56		[CB]	1			JRE
	57	09-23-02 11:54:22	020923_r.txt	57		M021285-019	1			JRE
	58	09-23-02 11:56:30	020923_r.txt	58		M021285-020	1			JRE
	59	09-23-02 11:58:39	020923_r.txt	59		M021285-021	1			JRE
	60	09-23-02 12:00:48	020923_r.txt	60		M021285-022	1			JRE
	61	09-23-02 12:02:58	020923_r.txt	61		[STD-CCV]	1			JRE
	62	09-23-02 12:05:07	020923_r.txt	62		[CB]	1			JRE
	63	09-23-02 12:10:13	020923_r.txt	63		[STD-ICV]	1			JRE
	64	09-23-02 12:12:22	020923_r.txt	64		[CB]	1			JRE
x	65	09-23-02 12:14:34	020923_r.txt	65		M021284-005	1			JRE
	~~66~~	~~09-23-02 12:16:42~~	~~020923_r.txt~~	~~66~~		~~M021284-006~~	~~1~~			JRE
	67	09-23-02 12:18:50	020923_r.txt	67		M021285-006	1			JRE
	68	09-23-02 12:21:00	020923_r.txt	68		[STD-CCV]	1			JRE
	69	09-23-02 12:23:09	020923_r.txt	69		[CB]	1			JRE

005

Department: METALS
Prep Method: 7471
Matrix: SOLID
Batch ID: M021284

Assaigai Laboratories
Sample Preparation Log
Report Revision 011023

Prep Method: Hg Cold Vapor Solids & Oils

Sample Count: 17
Batch Start Timestamp: 09/23/02 8:56:37

Prep ID:	Sample ID:	Aliquot:	Units:	Initial By:	Total Volume:	Units:	Final By:	Prep DF:	Surrogate ID:	Spike ID:	Spike By:	Prep Timestamp:	Comments:
M021284-001	[MB]	1.00	G	JRE	50	ML	JRE	1			JRE	09/23/02 8:22:44	90C @ 8:22AM
M021284-002	[LCS]	1.00	G	JRE	50	ML	JRE	1		MT-0706-02	JRE	09/23/02 8:22:44	
M021284-003	[LCSD]	1.00	G	JRE	50	ML	JRE	1		MT-0706-02	JRE	09/23/02 8:22:44	
M021284-004	0209364-01A[M]	1.037	G	JRE	50	ML	JRE	0.9643			JRE	09/23/02 8:22:44	
M021284-005	0209364-01A[MS]	1.039	G	JRE	50	ML	JRE	0.9625		MT-0706-02	JRE	09/23/02 8:22:44	
M021284-006	0209364-01A[MSD]	1.082	G	JRE	50	ML	JRE	0.9242		MT-0706-02	JRE	09/23/02 8:22:44	
M021284-007	0209364-02A	1.003	G	JRE	50	ML	JRE	0.997			JRE	09/23/02 8:22:44	
M021284-008	0209364-03A	1.07	G	JRE	50	ML	JRE	0.9346			JRE	09/23/02 8:22:44	
M021284-009	0209364-04A	1.067	G	JRE	50	ML	JRE	0.9372			JRE	09/23/02 8:22:44	
M021284-010	0209364-05A	1.039	G	JRE	50	ML	JRE	0.9625			JRE	09/23/02 8:22:44	
M021284-011	0209364-06A	1.044	G	JRE	50	ML	JRE	0.9579			JRE	09/23/02 8:22:44	
M021284-012	0209364-07A	1.018	G	JRE	50	ML	JRE	0.9823			JRE	09/23/02 8:22:44	
M021284-013	0209364-08A	1.024	G	JRE	50	ML	JRE	0.9766			JRE	09/23/02 8:22:44	
M021284-014	0209364-09A	1.031	G	JRE	50	ML	JRE	0.9699			JRE	09/23/02 8:22:44	
M021284-015	0209364-10A	1.037	G	JRE	50	ML	JRE	0.9643			JRE	09/23/02 8:22:44	
M021284-016	0209364-11A	1.033	G	JRE	50	ML	JRE	0.9681			JRE	09/23/02 8:22:44	
M021284-017	0209364-12A	1.045	G	JRE	50	ML	JRE	0.9569			JRE	09/23/02 8:22:44	
M021284-018	0209364-13A	1.067	G	JRE	50	ML	JRE	0.9372			JRE	09/23/02 8:22:44	
M021284-019	0209364-14A	1.066	G	JRE	50	ML	JRE	0.9381			JRE	09/23/02 8:22:44	
M021284-020	0209364-15A	1.025	G	JRE	50	ML	JRE	0.9756			JRE	09/23/02 8:22:44	
M021284-021	0209364-16A	1.081	G	JRE	50	ML	JRE	0.9251			JRE	09/23/02 8:22:44	
M021284-022	0209364-17A	1.021	G	JRE	50	ML	JRE	0.9794			JRE	09/23/02 8:22:44	HNO3-X20045; HCL-42117

Department: METALS
Prep Method: 7471
Matrix: SOLID
Batch ID: M021285

Assaigai Laboratories
Sample Preparation Log
Report Revision 011023

Prep Method: Hg Cold Vapor Solids & Oils

Sample Count: 17
Batch Start Timestamp: 09/23/02 9:04:21

Prep ID:	Sample ID:	Aliquot:	Units:	Initial By:	Total Volume:	Units:	Final By:	Prep DF:	Surrogate ID:	Spike ID:	Spike By:	Prep Timestamp:	Comments:
M021285-001	[MB]	1.00	G	JRE	50	ML	JRE	1			JRE	09/23/02 8:22:25	90C @ 8:22AM
M021285-002	[LCS]	1.00	G	JRE	50	ML	JRE	1		MT-0706-02	JRE	09/23/02 8:22:25	
M021285-003	[LCSD]	1.00	G	JRE	50	ML	JRE	1		MT-0706-02	JRE	09/23/02 8:22:25	
M021285-004	0209373-01A[M]	1.071	G	JRE	50	ML	JRE	0.9337			JRE	09/23/02 8:22:25	
M021285-005	0209373-01A[MS]	1.034	G	JRE	50	ML	JRE	0.9671		MT-0706-02	JRE	09/23/02 8:22:25	
M021285-006	0209373-01A[MSD]	1.067	G	JRE	50	ML	JRE	0.9372		MT-0706-02	JRE	09/23/02 8:22:25	
M021285-007	0209373-02A	1.036	G	JRE	50	ML	JRE	0.9653			JRE	09/23/02 8:22:25	
M021285-008	0209373-03A	1.072	G	JRE	50	ML	JRE	0.9328			JRE	09/23/02 8:22:25	
M021285-009	0209373-04A	1.001	G	JRE	50	ML	JRE	0.999			JRE	09/23/02 8:22:25	
M021285-010	0209373-05A	1.021	G	JRE	50	ML	JRE	0.9794			JRE	09/23/02 8:22:25	
M021285-011	0209373-06A	1.064	G	JRE	50	ML	JRE	0.9398			JRE	09/23/02 8:22:25	
M021285-012	0209373-07A	1.085	G	JRE	50	ML	JRE	0.9217			JRE	09/23/02 8:22:25	
M021285-013	0209373-08A	1.071	G	JRE	50	ML	JRE	0.9337			JRE	09/23/02 8:22:25	
M021285-014	0209373-09A	1.093	G	JRE	50	ML	JRE	0.9149			JRE	09/23/02 8:22:25	
M021285-015	0209373-10A	1.083	G	JRE	50	ML	JRE	0.9234			JRE	09/23/02 8:22:25	
M021285-016	0209373-11A	1.025	G	JRE	50	ML	JRE	0.9756			JRE	09/23/02 8:22:25	
M021285-017	0209373-12A	1.053	G	JRE	50	ML	JRE	0.9497			JRE	09/23/02 8:22:25	
M021285-018	0209373-13A	1.058	G	JRE	50	ML	JRE	0.9452			JRE	09/23/02 8:22:25	
M021285-019	0209373-14A	1.068	G	JRE	50	ML	JRE	0.9363			JRE	09/23/02 8:22:25	
M021285-020	0209373-15A	1.006	G	JRE	50	ML	JRE	0.994			JRE	09/23/02 8:22:25	
M021285-021	0209373-16A	1.007	G	JRE	50	ML	JRE	0.993			JRE	09/23/02 8:22:25	
M021285-022	0209373-17A	1.092	G	JRE	50	ML	JRE	0.9158			JRE	09/23/02 8:22:25	HNO3-X20045; HCL-42117

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ASSAIGAI ANALYTICAL LABORATORIES, INC.
Metals Digestion Log book

- ☐ DG001-Rev.5 (3005A)
- ☐ DG002-Rev.5 (3010A)
- ☐ DG003-Rev.1 (11.1.1)
- ☐ DG003-Rev.1 (11.2.1)
- ☐ DG003-Rev.1 (11.2.2)
- ☐ DG004-Rev.6 (3050A)
- ☐ DG005-Rev.6 (4.1.1)
- ☐ DG005-Rev.6 (4.1.3)
- ☐ DG005-Rev.6 (4.1.4)
- ☐ DG005-Rev.6 (IDW)
- ☐ DG005-Rev.6 (AADW)
- ☐ DG006-Rev.5 (7082)
- ☐ DG007- Rev.5 (206.2/270.2)
- ☐ DG008-Rev.2 (1311)
- ☐ DG009-Rev.2 (1311)
- ☐ DG010-Rev.4 (7056)
- ☐ DG011-Rev.1 (MS 3050A)
- ☐ MT001-Rev.6 (7470/245.1)
- ☑ MT002-Rev.8 (7471)
- ☐ OTHER _____

Batch ID: M021285
Dig. Date: 9/23/02
Start Time: 8:22 Am
Temp: 90°C
Initials: [illegible]

Sample Number	Aliquot/wt (mL/g)	Final Volume (mL)	Spike ID	DF	Comments
MB	NA	50		1x	90°C @ 8:22 Am
LCS			MT-0706-02		
LCSD					
0209373-01A	1.071			0.9337	
-01AMS	1.034		MT-0706-02	0.9671	
-01AMSD	1.067			0.9372	
-02A	1.036			0.9653	
-03A	1.072			0.9328	
-04A	1.001			0.9990	
-05A	1.021			0.9794	
-06A	1.064			0.9398	
-07A	1.085			0.9217	
-08A	1.071			0.9337	
-09A	1.093			0.9149	
-10A	1.083			0.9234	
-11A	1.025			0.9756	
-12A	1.053			0.9497	
-13A	1.058			0.9452	
-14A	1.068			0.9363	
-15A	1.006			0.9940	
-16A	1.007			0.9930	
-17A	1.092			0.9158	HNO_3-X20045, HCL-42117.
			9/23/02		

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ASSAIGAI ANALYTICAL LABORATORIES, INC.

Metals Digestion Log book

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- ☐ DG001-Rev.5 (3005A)
- ☐ DG002-Rev.5 (3010A)
- ☐ DG003-Rev.1 (11.1.1)
- ☐ DG003-Rev.1 (11.2.1)
- ☐ DG003-Rev.1 (11.2.2)
- ☐ DG004-Rev.6 (3050A)
- ☐ DG005-Rev.6 (4.1.1)
- ☐ DG005-Rev.6 (4.1.3)
- ☐ DG005-Rev.6 (4.1.4)
- ☐ DG005-Rev.6 (IDW)
- ☐ DG005-Rev.6 (AADW)
- ☐ DG006-Rev.5 (7082)
- ☐ DG007- Rev.5 (206.2/270.2)
- ☐ DG008-Rev.2 (1311)
- ☐ DG009-Rev.2 (1311)
- ☐ DG010-Rev.4 (7056)
- ☐ DG011-Rev.1 (MS 3050A)
- ☐ MT001-Rev.6 (7470/245.1)
- ☑ MT002-Rev.8 (7471)
- ☐ OTHER _____

Batch ID: M021284
Dig. Date: 9/23/02
Start Time: 8:22 Am
Temp: 90°C
Initials: JB

Sample Number	Aliquot/wt (mL/g)	Final Volume (mL)	Spike ID	DF	Comments
MB	NA	50		1x	90°C @ 8:22 Am
LCS			MT-0706-02		
LCSD					
0209364-01A ms	1.037			0.9643	
-01A msd	1.037		MT-0706-02	0.9625	
-01A msD	1.082			0.9242	
-02A	1.003			0.9970	
-03A	1.070			0.9346	
-04A	1.067			0.9372	
-05A	1.039			0.9625	
-06A	1.044			0.9579	
-07A	1.018			0.9823	
-08A	1.024			0.9766	
-09A	1.031			0.9699	
-10A	1.037			0.9643	
-11A	1.033			0.9681	
-12A	1.045			0.9569	
-13A	1.067			0.9372	
-14A	1.066			0.9381	
-15A	1.025			0.9756	
-16A	1.081			0.9251	
-17A	1.021			0.9794	HWO7-720045, HCC-42117.
			JB 9/23/02		

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Assaigai Analytical Laboratories, Inc.

Analytical Result Summary

Run Group	MT.2002.1103	Import ID	020923_r.txt
Analyst	JRE	Quant Meth	
Calc Method	PEHG	Calibration	
Analyte	Hg	Quant	

r	#	e	Run ID	Prep ID	Matrix	Signal m	Raw Quant	As	Run DF	Prep DF	MRL	Report	As	Prepared	Analyzed	Qual	f
x	7		[STD-ICV]		LAB	0.051683	0.00604	ppm	1	1	1	101	% Recovery		09-23-02 10:06:49		
x	8		[CB]		LAB	-1.1E-05	0	ppm	1	1	0.0002	< 0.0002	mg / L		09-23-02 10:08:58		
x	9		M021284-001	[MB]	SOLID	0.000133	0.00002	ppm	1	1	0.05	< 0.05	mg / Kg	09-23-02 8:22:44	09-23-02 10:11:09		
x	10		M021284-002	[LCS]	SOLID	0.051190	0.00598	ppm	1	1	1	100	% Recovery	09-23-02 8:22:44	09-23-02 10:13:18		
x	11		M021284-003	[LCSD]	SOLID	0.050527	0.0059	ppm	1	1	1	1	RPD	09-23-02 8:22:44	09-23-02 10:15:27		
x	11		M021284-003	[LCSD]	SOLID	0.050527	0.0059	ppm	1	1	1	98	% Recovery	09-23-02 8:22:44	09-23-02 10:15:27		
x	12		M021284-004	0209364-01A[M]	SOLID	0.015749	0.00184	ppm	1	0.9643	0.05	0.09	mg / Kg	09-23-02 8:22:44	09-23-02 10:17:35		
x	13		M021284-005	0209364-01A[MS]	SOLID	0.085976	0.01004	ppm	1	0.9625	1	137	% Recovery	09-23-02 8:22:44	09-23-02 10:19:43		x
x	15		M021284-007	0209364-02A	SOLID	0.001122	0.00013	ppm	1	0.997	0.05	< 0.05	mg / Kg	09-23-02 8:22:44	09-23-02 10:24:00		
x	16		M021284-008	0209364-03A	SOLID	0.005587	0.00065	ppm	1	0.9346	0.05	< 0.05	mg / Kg	09-23-02 8:22:44	09-23-02 10:26:08		
~~x~~	~~17~~		~~M021284-009~~	~~0209364-04A~~	~~SOLID~~	~~0.001106~~	~~0.00013~~	~~ppm~~	~~1~~	~~0.9372~~	~~0.05~~	~~< 0.05~~	~~mg / Kg~~	~~09-23-02 8:22:44~~	~~09-23-02 10:28:20~~		
x	18		M021284-010	0209364-05A	SOLID	0.001328	0.00016	ppm	1	0.9625	0.05	< 0.05	mg / Kg	09-23-02 8:22:44	09-23-02 10:30:29		
x	19		[STD-CCV]		LAB	0.051303	0.00599	ppm	1	1	1	100	% Recovery		09-23-02 10:32:41		
x	20		[CB]		LAB	-5.5E-05	-0.00001	ppm	1	1	0.0002	< 0.0002	mg / L		09-23-02 10:34:49		
x	21		M021284-011	0209364-06A	SOLID	0.006816	0.0008	ppm	1	0.9579	0.05	< 0.05	mg / Kg	09-23-02 8:22:44	09-23-02 10:37:00		
x	22		M021284-012	0209364-07A	SOLID	0.001776	0.00021	ppm	1	0.9823	0.05	< 0.05	mg / Kg	09-23-02 8:22:44	09-23-02 10:39:08		
x	23		M021284-013	0209364-08A	SOLID	0.003130	0.00037	ppm	1	0.9766	0.05	< 0.05	mg / Kg	09-23-02 8:22:44	09-23-02 10:41:17		
x	24		M021284-014	0209364-09A	SOLID	0.004745	0.00055	ppm	1	0.9699	0.05	< 0.05	mg / Kg	09-23-02 8:22:44	09-23-02 10:43:25		
x	25		M021284-015	0209364-10A	SOLID	0.005165	0.0006	ppm	1	0.9643	0.05	< 0.05	mg / Kg	09-23-02 8:22:44	09-23-02 10:45:33		
x	26		M021284-016	0209364-11A	SOLID	0.001432	0.00017	ppm	1	0.9681	0.05	< 0.05	mg / Kg	09-23-02 8:22:44	09-23-02 10:47:42		
x	27		M021284-017	0209364-12A	SOLID	0.002916	0.00034	ppm	1	0.9569	0.05	< 0.05	mg / Kg	09-23-02 8:22:44	09-23-02 10:49:50		
x	28		M021284-018	0209364-13A	SOLID	0.002164	0.00025	ppm	1	0.9372	0.05	< 0.05	mg / Kg	09-23-02 8:22:44	09-23-02 10:51:58		
x	29		M021284-019	0209364-14A	SOLID	0.006872	0.0008	ppm	1	0.9381	0.05	< 0.05	mg / Kg	09-23-02 8:22:44	09-23-02 10:54:07		
x	30		M021284-020	0209364-15A	SOLID	0.001074	0.00013	ppm	1	0.9756	0.05	< 0.05	mg / Kg	09-23-02 8:22:44	09-23-02 10:56:16		
x	31		[STD-CCV]		LAB	0.050976	0.00596	ppm	1	1	1	99	% Recovery		09-23-02 10:58:23		
x	32		[CB]		LAB	-5.5E-05	-0.00001	ppm	1	1	0.0002	< 0.0002	mg / L		09-23-02 11:00:32		
x	33		M021284-021	0209364-16A	SOLID	0.001120	0.00013	ppm	1	0.9251	0.05	< 0.05	mg / Kg	09-23-02 8:22:44	09-23-02 11:02:39		
x	34		M021284-022	0209364-17A	SOLID	0.001424	0.00017	ppm	1	0.9794	0.05	< 0.05	mg / Kg	09-23-02 8:22:44	09-23-02 11:04:48		
x	35		M021285-001	[MB]	SOLID	-9.6E-05	-0.00001	ppm	1	1	0.05	< 0.05	mg / Kg	09-23-02 8:22:25	09-23-02 11:06:56		
x	36		M021285-002	[LCS]	SOLID	0.050336	0.00588	ppm	1	1	1	98	% Recovery	09-23-02 8:22:25	09-23-02 11:09:08		
x	37		M021285-003	[LCSD]	SOLID	0.051555	0.00602	ppm	1	1	1	2	RPD	09-23-02 8:22:25	09-23-02 11:11:17		
x	37		M021285-003	[LCSD]	SOLID	0.051555	0.00602	ppm	1	1	1	100	% Recovery	09-23-02 8:22:25	09-23-02 11:11:17		
x	38		M021285-004	0209373-01A[M]	SOLID	0.001198	0.00014	ppm	1	0.9337	0.05	< 0.05	mg / Kg	09-23-02 8:22:25	09-23-02 11:13:26		
x	39		M021285-005	0209373-01A[MS]	SOLID	0.052441	0.00613	ppm	1	0.9671	1	100	% Recovery	09-23-02 8:22:25	09-23-02 11:15:33		
x	41		M021285-007	0209373-02A	SOLID	0.00121	0.00014	ppm	1	0.9653	0.05	< 0.05	mg / Kg	09-23-02 8:22:25	09-23-02 11:19:51		
x	42		M021285-008	0209373-03A	SOLID	0.005601	0.00065	ppm	1	0.9328	0.05	< 0.05	mg / Kg	09-23-02 8:22:25	09-23-02 11:22:00		
x	43		[STD-CCV]		LAB	0.050981	0.00596	ppm	1	1	1	99	% Recovery		09-23-02 11:24:11		
x	44		[CB]		LAB	-0.00011	-0.00001	ppm	1	1	0.0002	< 0.0002	mg / L		09-23-02 11:26:19		
~~x~~	~~45~~		~~M021285-009~~	~~0209373-04A~~	~~SOLID~~	~~0.001449~~	~~0.00017~~	~~ppm~~	~~1~~	~~0.999~~	~~0.05~~	~~< 0.05~~	~~mg / Kg~~	~~09-23-02 8:22:25~~	~~09-23-02 11:28:30~~		
x	46		M021285-010	0209373-05A	SOLID	0.005444	0.00064	ppm	1	0.9794	0.05	< 0.05	mg / Kg	09-23-02 8:22:25	09-23-02 11:30:39		
x	47		M021285-011	0209373-06A	SOLID	0.001584	0.00019	ppm	1	0.9398	0.05	< 0.05	mg / Kg	09-23-02 8:22:25	09-23-02 11:32:47		
x	48		M021285-012	0209373-07A	SOLID	0.006684	0.00078	ppm	1	0.9217	0.05	< 0.05	mg / Kg	09-23-02 8:22:25	09-23-02 11:34:56		
x	49		M021285-013	0209373-08A	SOLID	0.000124	0.00001	ppm	1	0.9337	0.05	< 0.05	mg / Kg	09-23-02 8:22:25	09-23-02 11:37:04		
x	50		M021285-014	0209373-09A	SOLID	0.000257	0.00003	ppm	1	0.9149	0.05	< 0.05	mg / Kg	09-23-02 8:22:25	09-23-02 11:39:13		

Batch M021284 MS out due to a non homogeneous Sample

010

Assaigai Analytical Laboratories, Inc.

Analytical Result Summary

Run Group	MT.2002.1103	Import ID	020923_r.txt
Analyst	JRE	Quant Meth	
Calc Method	PEHG	Calibration	
Analyte	Hg	Quant	

r	#	e	Run ID	Prep ID	Matrix	Signal m	Raw Quant	As	Run DF	Prep DF	MRL	Report	As	Prepared	Analyzed	Qual	f
x	51		M021285-015	0209373-10A	SOLID	0.005753	0.00067	ppm	1	0.9234	0.05	< 0.05	mg / Kg	09-23-02 8:22:25	09-23-02 11:41:21		
x	52		M021285-016	0209373-11A	SOLID	0.001133	0.00013	ppm	1	0.9756	0.05	< 0.05	mg / Kg	09-23-02 8:22:25	09-23-02 11:43:29		
x	53		M021285-017	0209373-12A	SOLID	0.002159	0.00025	ppm	1	0.9497	0.05	< 0.05	mg / Kg	09-23-02 8:22:25	09-23-02 11:45:38		
x	54		M021285-018	0209373-13A	SOLID	0.005785	0.00068	ppm	1	0.9452	0.05	< 0.05	mg / Kg	09-23-02 8:22:25	09-23-02 11:47:50		
x	55		[STD-CCV]		LAB	0.050348	0.00588	ppm	1	1	1	98	% Recovery		09-23-02 11:50:01		
x	56		[CB]		LAB	-0.00009	-0.00001	ppm	1	1	0.0002	< 0.0002	mg / L		09-23-02 11:52:10		
x	57		M021285-019	0209373-14A	SOLID	0.001099	0.00013	ppm	1	0.9363	0.05	< 0.05	mg / Kg	09-23-02 8:22:25	09-23-02 11:54:22		
x	58		M021285-020	0209373-15A	SOLID	0.003904	0.00046	ppm	1	0.994	0.05	< 0.05	mg / Kg	09-23-02 8:22:25	09-23-02 11:56:30		
x	59		M021285-021	0209373-16A	SOLID	0.001339	0.00016	ppm	1	0.993	0.05	< 0.05	mg / Kg	09-23-02 8:22:25	09-23-02 11:58:39		
x	60		M021285-022	0209373-17A	SOLID	0.002538	0.0003	ppm	1	0.9158	0.05	< 0.05	mg / Kg	09-23-02 8:22:25	09-23-02 12:00:48		
x	61		[STD-CCV]		LAB	0.050581	0.00591	ppm	1	1	1	98	% Recovery		09-23-02 12:02:58		
x	62		[CB]		LAB	0.00011	0.00001	ppm	1	1	0.0002	< 0.0002	mg / L		09-23-02 12:05:07		
x	63		[STD-ICV]		LAB	0.051298	0.00598	ppm	1	1	1	100	% Recovery		09-23-02 12:10:13		
x	64		[CB]		LAB	-8.1E-05	-0.00001	ppm	1	1	0.0002	< 0.0002	mg / L		09-23-02 12:12:22		
x	66		M021284-006	0209364-01A[MSD]	SOLID	0.063722	0.00744	ppm	1	0.9242	1	39	RPD	09-23-02 8:22:44	09-23-02 12:16:42		x
x	66		M021284-006	0209364-01A[MSD]	SOLID	0.063722	0.00744	ppm	1	0.9242	1	92	% Recovery	09-23-02 8:22:44	09-23-02 12:16:42		
x	67		M021285-006	0209373-01A[MSD]	SOLID	0.05227	0.00609	ppm	1	0.9372	1	< 1	RPD	09-23-02 8:22:25	09-23-02 12:18:50		
x	67		M021285-006	0209373-01A[MSD]	SOLID	0.05227	0.00609	ppm	1	0.9372	1	99	% Recovery	09-23-02 8:22:25	09-23-02 12:18:50		
x	68		[STD-CCV]		LAB	0.051367	0.00598	ppm	1	1	1	100	% Recovery		09-23-02 12:21:00		
x	69		[CB]		LAB	-9.5E-05	-0.00001	ppm	1	1	0.0002	< 0.0002	mg / L		09-23-02 12:23:09		

HG STANDARDS

CALIBRATION CURVE

Source: 1000 ppm AAP-003-02 EXP08/04

Working Curve

0.20PPM	MT-0704-02	EXP9/30/02
0.40 ppm	MT-0705-02	EXP9/30/02
0.60 ppm	MT-0706-02	EXP9/30/02
0.80 ppm	MT-0707-02	EXP9/30/02
1.00 ppm	MT-0708-02	EXP9/30/02

INITIAL CALIBRATION VERIFICATION

Source: 100 ppm AAQC-01-02 EXP12/02

Working ICV

0.60 ppm MT-0709-02 EXP9/30/02

**Note: All standards are diluted by factor of 100x during the digestion process, for final calibration concentrations of: 0.002, 0.004, 0.006, 0.008, 0.010. The ICV has a final concentration of 0.006. (all concentration are in ppm)

Method Name: HG-2
Method Description:
Element: Hg

Date: 09/23/2002
Technique:FI-MHS
Calibration Type:
Hg, Zero Intercept: Linear
Wavelength: 253.7 nm
Sample Info Name: 020923.SIF Results Data Set Name: 020923.RDS

Element: Hg Seq. No.: 1 AS Loc.: 1 Date: 09/23/2002
Sample ID: Calib Blank

Repl #	SampleConc mg/L	StndConc mg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1			0.0004	0.0009	0.0004	09:52:49	No
2			0.0004	-0.0016	0.0004	09:53:23	No
3			0.0005	0.0006	0.0005	09:53:57	No
Mean:			0.0004				
SD :			0.0000				
%RSD:			7.9960				

Auto-zero performed.

Element: Hg Seq. No.: 2 AS Loc.: 2 Date: 09/23/2002
Sample ID: Standard 1

Repl #	SampleConc mg/L	StndConc mg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1			0.0174	0.0877	0.0178	09:54:58	No
2			0.0169	0.0852	0.0173	09:55:32	No
3			0.0172	0.0862	0.0176	09:56:06	No
Mean:			0.0172				
SD :			0.0003				
%RSD:			1.5228				

[Hg] Standard number 1 applied. [0.0020]
Correlation Coefficient: 1.00000 Slope: 8.58268

Element: Hg Seq. No.: 3 AS Loc.: 3 Date: 09/23/2002
Sample ID: Standard 2

Repl #	SampleConc mg/L	StndConc mg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1			0.0352	0.1723	0.0356	09:57:06	No
2			0.0343	0.1688	0.0348	09:57:40	No
3			0.0342	0.1680	0.0346	09:58:15	No
Mean:			0.0346				
SD :			0.0005				
%RSD:			1.5147				

[Hg] Standard number 2 applied. [0.0040]
Correlation Coefficient: 0.99997 Slope: 8.62757

Element: Hg Seq. No.: 4 AS Loc.: 4 Date: 09/23/2002
Sample ID: Standard 3

Repl #	SampleConc mg/L	StndConc mg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1			0.0533	0.2589	0.0538	09:59:15	No
2			0.0513	0.2521	0.0517	09:59:49	No
3			0.0519	0.2524	0.0523	10:00:23	No
Mean:			0.0522				

SD : 0.0011
%RSD: 2.0428
[Hg] Standard number 3 applied. [0.0060]
Correlation Coefficient: 0.99995 Slope: 8.66983

==========

Element: Hg Seq. No.: 5 AS Loc.: 5 Date: 09/23/2002
Sample ID: Standard 4

Repl #	SampleConc mg/L	StndConc mg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1			0.0683	0.3332	0.0687	10:01:25	No
2			0.0671	0.3270	0.0675	10:02:00	No
3			0.0664	0.3232	0.0668	10:02:34	No
Mean:			0.0673				
SD :			0.0010				
%RSD:			1.4219				

[Hg] Standard number 4 applied. [0.0080]
Correlation Coefficient: 0.99927 Slope: 8.53167

==========

Element: Hg Seq. No.: 6 AS Loc.: 6 Date: 09/23/2002
Sample ID: Standard 5

Repl #	SampleConc mg/L	StndConc mg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1			0.0872	0.4225	0.0876	10:03:33	No
2			0.0851	0.4164	0.0855	10:04:07	No
3			0.0856	0.4159	0.0860	10:04:42	No
Mean:			0.0859				
SD :			0.0011				
%RSD:			1.2936				

[Hg] Standard number 5 applied. [0.010]
Correlation Coefficient: 0.99960 Slope: 8.56020

Calibration data for Hg

Standard ID	Mean Signal (Pk Height)	Entered Concentration (mg/L)	Calculated Concentration (mg/L)	Standard Deviation	%RSD
Calib Blank	0.0004	-----	----	----	----
Standard 1	0.0172	0.00200	0.0020	0.000261	1.5
Standard 2	0.0346	0.00400	0.0040	0.000523	1.5
Standard 3	0.0522	0.00600	0.0061	0.001066	2.0
Standard 4	0.0673	0.00800	0.0079	0.000956	1.4
Standard 5	0.0859	0.01000	0.010	0.001112	1.3
Calib Blank	0.0004	-----	----	----	----

Correlation Coefficient: 0.99960 Slope: 8.56020 ----

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Element: Hg Seq. No.: 7 AS Loc.: 7 Date: 09/23/2002
Sample ID: [STD-ICV]

Repl #	SampleConc mg/L	StndConc mg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0061	0.0061	0.0525	0.2552	0.0529	10:05:41	No
2	0.0060	0.0060	0.0512	0.2486	0.0516	10:06:15	No
3	0.0060	0.0060	0.0514	0.2503	0.0518	10:06:49	No
Mean:	0.0060	0.0060	0.0517				
SD :	0.000083	0.000083	0.0007				
%RSD:	1.4	1.4	1.3696				

QC value within specified limits.

==========

Element: Hg Seq. No.: 8 AS Loc.: 8 Date: 09/23/2002

Sample ID: [CB]

Repl #	SampleConc mg/L	StndConc mg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.00003	0.00003	0.0002	0.0029	0.0006	10:07:49	No
2	-0.00001	-0.00001	-0.0001	0.0003	0.0004	10:08:24	No
3	-0.00002	-0.00002	-0.0002	-0.0023	0.0002	10:08:58	No
Mean:	0.00000	0.00000	0.0000				
SD :	0.000024	0.000024	0.0002				
%RSD:	1900	1900	1850.6257				

QC value within specified limits.

Element: Hg Seq. No.: 9 AS Loc.: 9 Date: 09/23/2002
Sample ID: M021284-001

Repl #	SampleConc mg/L	StndConc mg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.00003	0.00003	0.0002	0.0028	0.0007	10:10:01	No
2	0.00002	0.00002	0.0002	0.0016	0.0006	10:10:35	No
3	0.00000	0.00000	0.0000	0.0007	0.0004	10:11:09	No
Mean:	0.00002	0.00002	0.0001				
SD :	0.000015	0.000015	0.0001				
%RSD:	97	97	97.0572				

MB

Element: Hg Seq. No.: 10 AS Loc.: 10 Date: 09/23/2002
Sample ID: M021284-002

Repl #	SampleConc mg/L	StndConc mg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0060	0.0060	0.0517	0.2514	0.0521	10:12:10	No
2	0.0059	0.0059	0.0507	0.2466	0.0511	10:12:44	No
3	0.0060	0.0060	0.0512	0.2464	0.0516	10:13:18	No
Mean:	0.0060	0.0060	0.0512				
SD :	0.000057	0.000057	0.0005				
%RSD:	1.0	1.0	0.9604				

LCS

Element: Hg Seq. No.: 11 AS Loc.: 11 Date: 09/23/2002
Sample ID: M021284-003

Repl #	SampleConc mg/L	StndConc mg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0060	0.0060	0.0509	0.2497	0.0514	10:14:18	No
2	0.0059	0.0059	0.0505	0.2469	0.0509	10:14:53	No
3	0.0059	0.0059	0.0501	0.2446	0.0506	10:15:27	No
Mean:	0.0059	0.0059	0.0505				
SD :	0.000046	0.000046	0.0004				
%RSD:	0.8	0.8	0.7854				

LCSD

Element: Hg Seq. No.: 12 AS Loc.: 12 Date: 09/23/2002
Sample ID: M021284-004

Repl #	SampleConc mg/L	StndConc mg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0019	0.0019	0.0161	0.0802	0.0165	10:16:27	No
2	0.0018	0.0018	0.0156	0.0779	0.0160	10:17:01	No
3	0.0018	0.0018	0.0156	0.0779	0.0160	10:17:35	No
Mean:	0.0018	0.0018	0.0157				
SD :	0.000035	0.000035	0.0003				
%RSD:	1.9	1.9	1.8794				

M

Element: Hg Seq. No.: 13 AS Loc.: 13 Date: 09/23/2002

Sample ID: M021284-005

Repl #	SampleConc mg/L	StndConc mg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.010	0.010	0.0870	0.4229	0.0874	10:18:34	No
2	0.010	0.010	0.0857	0.4212	0.0862	10:19:09	No
3	0.0100	0.0100	0.0852	0.4169	0.0857	10:19:43	No
Mean:	0.010	0.010	0.0860				
SD :	0.00010	0.00010	0.0009				
%RSD:	1.0	1.0	1.0335				

MS

Element: Hg Seq. No.: 14 AS Loc.: 14 Date: 09/23/2002
Sample ID: M021284-006

Repl #	SampleConc mg/L	StndConc mg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0077	0.0077	0.0659	0.3223	0.0663	10:20:43	No
2	0.0077	0.0077	0.0656	0.3167	0.0660	10:21:17	No
3	-0.00002	-0.00002	-0.0001	-0.0008	0.0003	10:21:51	No
Mean:	0.0051	0.0051	0.0438				
SD :	0.0044	0.0044	0.0380				
%RSD:	87	87	86.8789				

MSD *Rerun

Element: Hg Seq. No.: 15 AS Loc.: 15 Date: 09/23/2002
Sample ID: M021284-007

Repl #	SampleConc mg/L	StndConc mg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.00014	0.00014	0.0012	0.0051	0.0016	10:22:51	No
2	0.00013	0.00013	0.0011	0.0066	0.0015	10:23:26	No
3	0.00013	0.00013	0.0011	0.0056	0.0015	10:24:00	No
Mean:	0.00013	0.00013	0.0011				
SD :	0.000004	0.000004	0.0000				
%RSD:	3.0	3.0	3.0118				

Element: Hg Seq. No.: 16 AS Loc.: 16 Date: 09/23/2002
Sample ID: M021284-008

Repl #	SampleConc mg/L	StndConc mg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.00066	0.00066	0.0056	0.0277	0.0061	10:25:00	No
2	0.00065	0.00065	0.0055	0.0277	0.0060	10:25:34	No
3	0.00065	0.00065	0.0056	0.0281	0.0060	10:26:08	No
Mean:	0.00065	0.00065	0.0056				
SD :	0.000005	0.000005	0.0000				
%RSD:	0.7	0.7	0.7469				

Element: Hg Seq. No.: 17 AS Loc.: 17 Date: 09/23/2002
Sample ID: M021284-009

Repl #	SampleConc mg/L	StndConc mg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.00013	0.00013	0.0011	0.0059	0.0015	10:27:12	No
2	0.00013	0.00013	0.0011	0.0063	0.0015	10:27:46	No
3	0.00013	0.00013	0.0011	0.0053	0.0015	10:28:20	No
Mean:	0.00013	0.00013	0.0011				
SD :	0.000001	0.000001	0.0000				
%RSD:	0.5	0.5	0.5088				

Element: Hg Seq. No.: 18 AS Loc.: 18 Date: 09/23/2002
Sample ID: M021284-010

Repl #	SampleConc mg/L	StndConc mg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.00017	0.00017	0.0015	0.0080	0.0019	10:29:20	No
2	0.00016	0.00016	0.0013	0.0081	0.0018	10:29:55	No
3	0.00014	0.00014	0.0012	0.0056	0.0016	10:30:29	No
Mean:	0.00016	0.00016	0.0013				
SD :	0.000019	0.000019	0.0002				
%RSD:	12	12	12.2896				

Element: Hg Seq. No.: 19 AS Loc.: 7 Date: 09/23/2002
Sample ID: [STD-CCV]

Repl #	SampleConc mg/L	StndConc mg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0061	0.0061	0.0520	0.2527	0.0525	10:31:32	No
2	0.0059	0.0059	0.0508	0.2441	0.0512	10:32:06	No
3	0.0060	0.0060	0.0511	0.2457	0.0515	10:32:41	No
Mean:	0.0060	0.0060	0.0513				
SD :	0.000077	0.000077	0.0007				
%RSD:	1.3	1.3	1.2870				

QC value within specified limits.

Element: Hg Seq. No.: 20 AS Loc.: 8 Date: 09/23/2002
Sample ID: [CB]

Repl #	SampleConc mg/L	StndConc mg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.00001	-0.00001	0.0000	0.0007	0.0004	10:33:41	No
2	0.00000	0.00000	0.0000	0.0016	0.0004	10:34:15	No
3	-0.00002	-0.00002	-0.0001	0.0004	0.0003	10:34:49	No
Mean:	-0.00001	-0.00001	-0.0001				
SD :	0.000008	0.000008	0.0001				
%RSD:	130	130	126.4769				

QC value within specified limits.

Element: Hg Seq. No.: 21 AS Loc.: 19 Date: 09/23/2002
Sample ID: M021284-011

Repl #	SampleConc mg/L	StndConc mg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.00082	0.00082	0.0070	0.0354	0.0074	10:35:52	No
2	0.00080	0.00080	0.0068	0.0328	0.0072	10:36:26	No
3	0.00078	0.00078	0.0066	0.0325	0.0071	10:37:00	No
Mean:	0.00080	0.00080	0.0068				
SD :	0.000021	0.000021	0.0002				
%RSD:	2.6	2.6	2.5898				

Element: Hg Seq. No.: 22 AS Loc.: 20 Date: 09/23/2002
Sample ID: M021284-012

Repl #	SampleConc mg/L	StndConc mg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.00020	0.00020	0.0017	0.0082	0.0021	10:38:00	No
2	0.00020	0.00020	0.0017	0.0091	0.0022	10:38:34	No
3	0.00022	0.00022	0.0019	0.0098	0.0023	10:39:08	No
Mean:	0.00021	0.00021	0.0018				
SD :	0.000014	0.000014	0.0001				
%RSD:	6.8	6.8	6.7503				

Element: Hg Seq. No.: 23 AS Loc.: 21 Date: 09/23/2002

Sample ID: M021284-013

Repl #	SampleConc mg/L	StndConc mg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.00040	0.00040	0.0034	0.0176	0.0038	10:40:08	No
2	0.00038	0.00038	0.0033	0.0185	0.0037	10:40:42	No
3	0.00032	0.00032	0.0027	0.0123	0.0031	10:41:17	No
Mean:	0.00037	0.00037	0.0031				
SD :	0.000043	0.000043	0.0004				
%RSD:	12	12	11.7039				

Element: Hg Seq. No.: 24 AS Loc.: 22 Date: 09/23/2002
Sample ID: M021284-014

Repl #	SampleConc mg/L	StndConc mg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.00051	0.00051	0.0043	0.0207	0.0048	10:42:17	No
2	0.00058	0.00058	0.0050	0.0236	0.0054	10:42:51	No
3	0.00057	0.00057	0.0049	0.0204	0.0054	10:43:25	No
Mean:	0.00055	0.00055	0.0047				
SD :	0.000042	0.000042	0.0004				
%RSD:	7.5	7.5	7.5227				

Element: Hg Seq. No.: 25 AS Loc.: 23 Date: 09/23/2002
Sample ID: M021284-015

Repl #	SampleConc mg/L	StndConc mg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.00058	0.00058	0.0050	0.0250	0.0054	10:44:24	No
2	0.00065	0.00065	0.0056	0.0226	0.0060	10:44:58	No
3	0.00058	0.00058	0.0049	0.0268	0.0054	10:45:33	No
Mean:	0.00060	0.00060	0.0052				
SD :	0.000041	0.000041	0.0004				
%RSD:	6.8	6.8	6.8471				

Element: Hg Seq. No.: 26 AS Loc.: 24 Date: 09/23/2002
Sample ID: M021284-016

Repl #	SampleConc mg/L	StndConc mg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.00020	0.00020	0.0017	0.0221	0.0022	10:46:33	No
2	0.00018	0.00018	0.0015	-0.0006	0.0020	10:47:07	No
3	0.00012	0.00012	0.0010	0.0005	0.0015	10:47:42	No
Mean:	0.00017	0.00017	0.0014				
SD :	0.000042	0.000042	0.0004				
%RSD:	25	25	25.0973				

Element: Hg Seq. No.: 27 AS Loc.: 25 Date: 09/23/2002
Sample ID: M021284-017

Repl #	SampleConc mg/L	StndConc mg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.00031	0.00031	0.0027	0.0097	0.0031	10:48:41	No
2	0.00035	0.00035	0.0030	0.0102	0.0034	10:49:16	No
3	0.00036	0.00036	0.0031	0.0121	0.0035	10:49:50	No
Mean:	0.00034	0.00034	0.0029				
SD :	0.000027	0.000027	0.0002				
%RSD:	7.8	7.8	7.8034				

Element: Hg Seq. No.: 28 AS Loc.: 26 Date: 09/23/2002
Sample ID: M021284-018

Repl #	SampleConc mg/L	StndConc mg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.00029	0.00029	0.0025	0.0152	0.0029	10:50:50	No
2	0.00023	0.00023	0.0019	0.0083	0.0024	10:51:24	No
3	0.00024	0.00024	0.0021	0.0157	0.0025	10:51:58	No
Mean:	0.00025	0.00025	0.0022				
SD :	0.000035	0.000035	0.0003				
%RSD:	14	14	13.9269				

Element: Hg Seq. No.: 29 AS Loc.: 27 Date: 09/23/2002
Sample ID: M021284-019

Repl #	SampleConc mg/L	StndConc mg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.00080	0.00080	0.0069	0.0357	0.0073	10:52:59	No
2	0.00080	0.00080	0.0068	0.0337	0.0073	10:53:33	No
3	0.00081	0.00081	0.0069	0.0350	0.0073	10:54:07	No
Mean:	0.00080	0.00080	0.0069				
SD :	0.000005	0.000005	0.0000				
%RSD:	0.6	0.6	0.6173				

Element: Hg Seq. No.: 30 AS Loc.: 28 Date: 09/23/2002
Sample ID: M021284-020

Repl #	SampleConc mg/L	StndConc mg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.00013	0.00013	0.0011	0.0080	0.0016	10:55:07	No
2	0.00011	0.00011	0.0010	0.0054	0.0014	10:55:42	No
3	0.00013	0.00013	0.0011	0.0067	0.0015	10:56:16	No
Mean:	0.00013	0.00013	0.0011				
SD :	0.000010	0.000010	0.0001				
%RSD:	8.0	8.0	7.9977				

Element: Hg Seq. No.: 31 AS Loc.: 7 Date: 09/23/2002
Sample ID: [STD-CCV]

Repl #	SampleConc mg/L	StndConc mg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0060	0.0060	0.0510	0.2493	0.0514	10:57:15	No
2	0.0060	0.0060	0.0510	0.2478	0.0514	10:57:49	No
3	0.0060	0.0060	0.0509	0.2491	0.0514	10:58:23	No
Mean:	0.0060	0.0060	0.0510				
SD :	0.000003	0.000003	0.0000				
%RSD:							

QC value within specified limits.

Element: Hg Seq. No.: 32 AS Loc.: 8 Date: 09/23/2002
Sample ID: [CB]

Repl #	SampleConc mg/L	StndConc mg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.00002	-0.00002	-0.0002	-0.0018	0.0002	10:59:23	No
2	0.00000	0.00000	0.0000	0.0002	0.0004	10:59:57	No
3	0.00001	0.00001	0.0001	0.0017	0.0005	11:00:32	No
Mean:	-0.00001	-0.00001	-0.0001				
SD :	0.000017	0.000017	0.0001				
%RSD:	260	260	258.0099				

QC value within specified limits.

Element: Hg Seq. No.: 33 AS Loc.: 29 Date: 09/23/2002

Sample ID: M021284-021

Repl #	SampleConc mg/L	StndConc mg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.00014	0.00014	0.0012	0.0070	0.0016	11:01:31	No
2	0.00014	0.00014	0.0012	0.0093	0.0016	11:02:05	No
3	0.00012	0.00012	0.0010	0.0053	0.0014	11:02:39	No
Mean:	0.00013	0.00013	0.0011				
SD :	0.000013	0.000013	0.0001				
%RSD:	9.7	9.7	9.7383				

Element: Hg Seq. No.: 34 AS Loc.: 30 Date: 09/23/2002
Sample ID: M021284-022

Repl #	SampleConc mg/L	StndConc mg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.00018	0.00018	0.0015	0.0092	0.0019	11:03:40	No
2	0.00018	0.00018	0.0015	0.0094	0.0019	11:04:14	No
3	0.00015	0.00015	0.0013	0.0056	0.0017	11:04:48	No
Mean:	0.00017	0.00017	0.0014				
SD :	0.000017	0.000017	0.0001				
%RSD:	10	10	10.3874				

Element: Hg Seq. No.: 35 AS Loc.: 31 Date: 09/23/2002
Sample ID: M021285-001

Repl #	SampleConc mg/L	StndConc mg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.00000	0.00000	0.0000	0.0001	0.0004	11:05:48	No
2	-0.00002	-0.00002	-0.0001	0.0001	0.0003	11:06:22	No
3	-0.00001	-0.00001	-0.0001	0.0009	0.0003	11:06:56	No
Mean:	-0.00001	-0.00001	-0.0001				
SD :	0.000006	0.000006	0.0001				
%RSD:	58	58	57.8260				

MB

Element: Hg Seq. No.: 36 AS Loc.: 32 Date: 09/23/2002
Sample ID: M021285-002

Repl #	SampleConc mg/L	StndConc mg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0059	0.0059	0.0506	0.2482	0.0511	11:08:00	No
2	0.0059	0.0059	0.0505	0.2459	0.0509	11:08:34	No
3	0.0058	0.0058	0.0499	0.2402	0.0503	11:09:08	No
Mean:	0.0059	0.0059	0.0503				
SD :	0.000045	0.000045	0.0004				
%RSD:	0.8	0.8	0.7632				

LCS

Element: Hg Seq. No.: 37 AS Loc.: 33 Date: 09/23/2002
Sample ID: M021285-003

Repl #	SampleConc mg/L	StndConc mg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0060	0.0060	0.0517	0.2513	0.0521	11:10:08	No
2	0.0061	0.0061	0.0518	0.2506	0.0522	11:10:42	No
3	0.0060	0.0060	0.0512	0.2491	0.0516	11:11:17	No
Mean:	0.0060	0.0060	0.0516				
SD :	0.000040	0.000040	0.0003				
%RSD:	0.7	0.7	0.6717				

LCSD

Element: Hg Seq. No.: 38 AS Loc.: 34 Date: 09/23/2002
Sample ID: M021285-004

Repl #	SampleConc mg/L	StndConc mg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.00014	0.00014	0.0012	0.0066	0.0016	11:12:17	No
2	0.00014	0.00014	0.0012	0.0085	0.0016	11:12:51	No
3	0.00014	0.00014	0.0012	0.0059	0.0016	11:13:26	No
Mean:	0.00014	0.00014	0.0012				
SD :	0.000003	0.000003	0.0000				
%RSD:	1.8	1.8	1.8144				

M

Element: Hg Seq. No.: 39 AS Loc.: 35 Date: 09/23/2002
Sample ID: M021285-005

Repl #	SampleConc mg/L	StndConc mg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0062	0.0062	0.0527	0.2582	0.0532	11:14:25	No
2	0.0061	0.0061	0.0522	0.2560	0.0526	11:14:59	No
3	0.0061	0.0061	0.0524	0.2590	0.0529	11:15:33	No
Mean:	0.0061	0.0061	0.0524				
SD :	0.000033	0.000033	0.0003				
%RSD:	0.5	0.5	0.5369				

MS

Element: Hg Seq. No.: 40 AS Loc.: 36 Date: 09/23/2002
Sample ID: M021285-006

Repl #	SampleConc mg/L	StndConc mg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0062	0.0062	0.0534	0.2637	0.0539	11:16:33	No
2	0.0063	0.0063	0.0537	0.2621	0.0541	11:17:08	No
3	-0.00005	-0.00005	-0.0004	-0.0021	0.0000	11:17:42	No
Mean:	0.0042	0.0042	0.0356				
SD :	0.0036	0.0036	0.0312				
%RSD:	88	88	87.6182				

MSD

*Rerun Autosampler ERROR

Element: Hg Seq. No.: 41 AS Loc.: 37 Date: 09/23/2002
Sample ID: M021285-007

Repl #	SampleConc mg/L	StndConc mg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.00016	0.00016	0.0013	0.0108	0.0018	11:18:42	No
2	0.00014	0.00014	0.0012	0.0059	0.0016	11:19:17	No
3	0.00013	0.00013	0.0011	0.0057	0.0016	11:19:51	No
Mean:	0.00014	0.00014	0.0012				
SD :	0.000013	0.000013	0.0001				
%RSD:	8.9	8.9	8.8825				

Element: Hg Seq. No.: 42 AS Loc.: 38 Date: 09/23/2002
Sample ID: M021285-008

Repl #	SampleConc mg/L	StndConc mg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.00066	0.00066	0.0057	0.0298	0.0061	11:20:51	No
2	0.00066	0.00066	0.0056	0.0291	0.0061	11:21:26	No
3	0.00064	0.00064	0.0055	0.0288	0.0059	11:22:00	No
Mean:	0.00065	0.00065	0.0056				
SD :	0.000011	0.000011	0.0001				
%RSD:	1.6	1.6	1.6386				

Element: Hg Seq. No.: 43 AS Loc.: 7 Date: 09/23/2002
Sample ID: [STD-CCV]

Repl #	SampleConc mg/L	StndConc mg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0060	0.0060	0.0513	0.2488	0.0517	11:23:02	No
2	0.0060	0.0060	0.0511	0.2502	0.0515	11:23:37	No
3	0.0059	0.0059	0.0505	0.2461	0.0509	11:24:11	No
Mean:	0.0060	0.0060	0.0510				
SD :	0.000049	0.000049	0.0004				
%RSD:	0.8	0.8	0.8162				

QC value within specified limits.

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Element: Hg Seq. No.: 44 AS Loc.: 8 Date: 09/23/2002
Sample ID: [CB]

Repl #	SampleConc mg/L	StndConc mg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.00001	-0.00001	-0.0001	0.0000	0.0003	11:25:11	No
2	-0.00001	-0.00001	-0.0001	0.0015	0.0003	11:25:45	No
3	-0.00001	-0.00001	-0.0001	0.0014	0.0003	11:26:19	No
Mean:	-0.00001	-0.00001	-0.0001				
SD :	0.000002	0.000002	0.0000				
%RSD:	15	15	15.1939				

QC value within specified limits.

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Element: Hg Seq. No.: 45 AS Loc.: 39 Date: 09/23/2002
Sample ID: M021285-009

Repl #	SampleConc mg/L	StndConc mg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.00018	0.00018	0.0015	0.0093	0.0019	11:27:22	No
2	0.00017	0.00017	0.0014	0.0085	0.0019	11:27:56	No
3	0.00016	0.00016	0.0014	0.0080	0.0018	11:28:30	No
Mean:	0.00017	0.00017	0.0014				
SD :	0.000006	0.000006	0.0001				
%RSD:	3.6	3.6	3.5578				

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Element: Hg Seq. No.: 46 AS Loc.: 40 Date: 09/23/2002
Sample ID: M021285-010

Repl #	SampleConc mg/L	StndConc mg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.00064	0.00064	0.0054	0.0294	0.0059	11:29:30	No
2	0.00064	0.00064	0.0055	0.0288	0.0059	11:30:04	No
3	0.00063	0.00063	0.0054	0.0282	0.0059	11:30:39	No
Mean:	0.00064	0.00064	0.0054				
SD :	0.000001	0.000001	0.0000				
%RSD:	0.2	0.2	0.2012				

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Element: Hg Seq. No.: 47 AS Loc.: 41 Date: 09/23/2002
Sample ID: M021285-011

Repl #	SampleConc mg/L	StndConc mg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.00018	0.00018	0.0016	0.0093	0.0020	11:31:39	No
2	0.00019	0.00019	0.0016	0.0103	0.0020	11:32:13	No
3	0.00019	0.00019	0.0016	0.0093	0.0020	11:32:47	No
Mean:	0.00019	0.00019	0.0016				
SD :	0.000002	0.000002	0.0000				
%RSD:	1.0	1.0	1.0036				

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Element: Hg Seq. No.: 48 AS Loc.: 42 Date: 09/23/2002
Sample ID: M021285-012

Repl #	SampleConc mg/L	StndConc mg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.00077	0.00077	0.0066	0.0340	0.0071	11:33:47	No
2	0.00078	0.00078	0.0067	0.0345	0.0071	11:34:22	No
3	0.00079	0.00079	0.0068	0.0355	0.0072	11:34:56	No
Mean:	0.00078	0.00078	0.0067				
SD :	0.000009	0.000009	0.0001				
%RSD:	1.1	1.1	1.1422				

Element: Hg Seq. No.: 49 AS Loc.: 43 Date: 09/23/2002
Sample ID: M021285-013

Repl #	SampleConc mg/L	StndConc mg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.00004	0.00004	0.0003	0.0014	0.0007	11:35:56	No
2	0.00000	0.00000	0.0000	0.0030	0.0004	11:36:30	No
3	0.00001	0.00001	0.0001	0.0035	0.0005	11:37:04	No
Mean:	0.00001	0.00001	0.0001				
SD :	0.000018	0.000018	0.0002				
%RSD:	130	130	127.2240				

Element: Hg Seq. No.: 50 AS Loc.: 44 Date: 09/23/2002
Sample ID: M021285-014

Repl #	SampleConc mg/L	StndConc mg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.00004	0.00004	0.0003	0.0030	0.0008	11:38:05	No
2	0.00003	0.00003	0.0002	0.0035	0.0007	11:38:39	No
3	0.00002	0.00002	0.0002	0.0038	0.0006	11:39:13	No
Mean:	0.00003	0.00003	0.0003				
SD :	0.000007	0.000007	0.0001				
%RSD:	24	24	24.3216				

Element: Hg Seq. No.: 51 AS Loc.: 45 Date: 09/23/2002
Sample ID: M021285-015

Repl #	SampleConc mg/L	StndConc mg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.00066	0.00066	0.0057	0.0293	0.0061	11:40:12	No
2	0.00067	0.00067	0.0057	0.0304	0.0062	11:40:46	No
3	0.00068	0.00068	0.0059	0.0303	0.0063	11:41:21	No
Mean:	0.00067	0.00067	0.0058				
SD :	0.000012	0.000012	0.0001				
%RSD:	1.8	1.8	1.7849				

Element: Hg Seq. No.: 52 AS Loc.: 46 Date: 09/23/2002
Sample ID: M021285-016

Repl #	SampleConc mg/L	StndConc mg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.00014	0.00014	0.0012	0.0060	0.0016	11:42:21	No
2	0.00013	0.00013	0.0011	0.0070	0.0015	11:42:55	No
3	0.00013	0.00013	0.0011	0.0062	0.0015	11:43:29	No
Mean:	0.00013	0.00013	0.0011				
SD :	0.000004	0.000004	0.0000				
%RSD:	2.8	2.8	2.7723				

Element: Hg Seq. No.: 53 AS Loc.: 47 Date: 09/23/2002
Sample ID: M021285-017

Repl #	SampleConc mg/L	StndConc mg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.00026	0.00026	0.0022	0.0129	0.0026	11:44:29	No
2	0.00024	0.00024	0.0021	0.0112	0.0025	11:45:03	No
3	0.00026	0.00026	0.0022	0.0124	0.0026	11:45:38	No
Mean:	0.00025	0.00025	0.0022				
SD :	0.000008	0.000008	0.0001				
%RSD:	3.1	3.1	3.1479				

Element: Hg Seq. No.: 54 AS Loc.: 48 Date: 09/23/2002
Sample ID: M021285-018

Repl #	SampleConc mg/L	StndConc mg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.00068	0.00068	0.0058	0.0315	0.0063	11:46:41	No
2	0.00069	0.00069	0.0059	0.0302	0.0063	11:47:15	No
3	0.00066	0.00066	0.0056	0.0285	0.0061	11:47:50	No
Mean:	0.00068	0.00068	0.0058				
SD :	0.000016	0.000016	0.0001				
%RSD:	2.4	2.4	2.3993				

Element: Hg Seq. No.: 55 AS Loc.: 7 Date: 09/23/2002
Sample ID: [STD-CCV]

Repl #	SampleConc mg/L	StndConc mg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0059	0.0059	0.0504	0.2478	0.0508	11:48:53	No
2	0.0059	0.0059	0.0505	0.2472	0.0509	11:49:27	No
3	0.0059	0.0059	0.0501	0.2454	0.0506	11:50:01	No
Mean:	0.0059	0.0059	0.0503				
SD :	0.000022	0.000022	0.0002				
%RSD:	0.4	0.4	0.3722				

QC value within specified limits.

Element: Hg Seq. No.: 56 AS Loc.: 8 Date: 09/23/2002
Sample ID: [CB]

Repl #	SampleConc mg/L	StndConc mg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.00001	-0.00001	-0.0001	0.0007	0.0004	11:51:01	No
2	-0.00001	-0.00001	-0.0001	0.0007	0.0003	11:51:35	No
3	-0.00001	-0.00001	-0.0001	0.0007	0.0003	11:52:10	No
Mean:	-0.00001	-0.00001	-0.0001				
SD :	0.000002	0.000002	0.0000				
%RSD:	18	18	17.7883				

QC value within specified limits.

Element: Hg Seq. No.: 57 AS Loc.: 49 Date: 09/23/2002
Sample ID: M021285-019

Repl #	SampleConc mg/L	StndConc mg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.00013	0.00013	0.0011	0.0067	0.0016	11:53:14	No
2	0.00013	0.00013	0.0011	0.0062	0.0015	11:53:48	No
3	0.00013	0.00013	0.0011	0.0062	0.0015	11:54:22	No
Mean:	0.00013	0.00013	0.0011				
SD :	0.000002	0.000002	0.0000				
%RSD:	1.8	1.8	1.8307				

Element: Hg Seq. No.: 58 AS Loc.: 50 Date: 09/23/2002
Sample ID: M021285-020

Repl #	SampleConc mg/L	StndConc mg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.00046	0.00046	0.0039	0.0210	0.0043	11:55:22	No
2	0.00046	0.00046	0.0039	0.0209	0.0043	11:55:56	No
3	0.00045	0.00045	0.0039	0.0199	0.0043	11:56:30	No
Mean:	0.00046	0.00046	0.0039				
SD :	0.000002	0.000002	0.0000				
%RSD:	0.5	0.5	0.5452				

Element: Hg Seq. No.: 59 AS Loc.: 51 Date: 09/23/2002
Sample ID: M021285-021

Repl #	SampleConc mg/L	StndConc mg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.00015	0.00015	0.0013	0.0078	0.0017	11:57:30	No
2	0.00015	0.00015	0.0013	0.0063	0.0017	11:58:05	No
3	0.00017	0.00017	0.0015	0.0079	0.0019	11:58:39	No
Mean:	0.00016	0.00016	0.0013				
SD :	0.000012	0.000012	0.0001				
%RSD:	7.8	7.8	7.7987				

Element: Hg Seq. No.: 60 AS Loc.: 52 Date: 09/23/2002
Sample ID: M021285-022

Repl #	SampleConc mg/L	StndConc mg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.00030	0.00030	0.0026	0.0131	0.0030	11:59:39	No
2	0.00030	0.00030	0.0026	0.0139	0.0030	12:00:13	No
3	0.00028	0.00028	0.0024	0.0121	0.0028	12:00:48	No
Mean:	0.00030	0.00030	0.0025				
SD :	0.000012	0.000012	0.0001				
%RSD:	4.2	4.2	4.2064				

Element: Hg Seq. No.: 61 AS Loc.: 7 Date: 09/23/2002
Sample ID: [STD-CCV]

Repl #	SampleConc mg/L	StndConc mg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0059	0.0059	0.0508	0.2506	0.0512	12:01:50	No
2	0.0059	0.0059	0.0507	0.2497	0.0511	12:02:24	No
3	0.0059	0.0059	0.0503	0.2479	0.0507	12:02:58	No
Mean:	0.0059	0.0059	0.0506				
SD :	0.000032	0.000032	0.0003				
%RSD:	0.5	0.5	0.5361				

QC value within specified limits.

Element: Hg Seq. No.: 62 AS Loc.: 8 Date: 09/23/2002
Sample ID: [CB]

Repl #	SampleConc mg/L	StndConc mg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.00001	0.00001	0.0001	-0.0015	0.0005	12:03:58	No
2	0.00005	0.00005	0.0004	0.0042	0.0009	12:04:33	No
3	-0.00002	-0.00002	-0.0002	-0.0052	0.0002	12:05:07	No
Mean:	0.00001	0.00001	0.0001				
SD :	0.000036	0.000036	0.0003				
%RSD:	280	280	279.6010				

QC value within specified limits.

Element: Hg Seq. No.: 63 AS Loc.: 7 Date: 09/23/2002
Sample ID: [STD-ICV]

Repl #	SampleConc mg/L	StndConc mg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored

Element: Hg Seq. No.: 63 AS Loc.: 7 Date: 09/23/2002
Sample ID: [STD-ICV]

Repl #	SampleConc mg/L	StndConc mg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0060	0.0060	0.0515	0.2556	0.0519	12:09:05	No
2	0.0060	0.0060	0.0513	0.2543	0.0518	12:09:39	No
3	0.0060	0.0060	0.0511	0.2524	0.0515	12:10:13	No
Mean:	0.0060	0.0060	0.0513				
SD :	0.000021	0.000021	0.0002				
%RSD:	0.3	0.3	0.3417				

QC value within specified limits.

Element: Hg Seq. No.: 64 AS Loc.: 8 Date: 09/23/2002
Sample ID: [CB]

Repl #	SampleConc mg/L	StndConc mg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.00001	-0.00001	-0.0001	0.0015	0.0004	12:11:14	No
2	-0.00001	-0.00001	-0.0001	0.0010	0.0004	12:11:48	No
3	-0.00001	-0.00001	-0.0001	0.0004	0.0003	12:12:22	No
Mean:	-0.00001	-0.00001	-0.0001				
SD :	0.000003	0.000003	0.0000				
%RSD:	27	27	27.3669				

QC value within specified limits.

Element: Hg Seq. No.: 65 AS Loc.: 53 Date: 09/23/2002
Sample ID: M021284-005

Repl #	SampleConc mg/L	StndConc mg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0099	0.0099	0.0846	0.4214	0.0850	12:13:25	No
2	0.0099	0.0099	0.0843	0.4188	0.0848	12:13:59	No
3	0.0099	0.0099	0.0843	0.4187	0.0847	12:14:34	No
Mean:	0.0099	0.0099	0.0844				
SD :	0.000022	0.000022	0.0002				
%RSD:	0.2	0.2	0.2212				

MS

Element: Hg Seq. No.: 66 AS Loc.: 54 Date: 09/23/2002
Sample ID: M021284-006

Repl #	SampleConc mg/L	StndConc mg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0074	0.0074	0.0635	0.3158	0.0639	12:15:34	No
2	0.0075	0.0075	0.0639	0.3173	0.0643	12:16:08	No
3	0.0074	0.0074	0.0638	0.3151	0.0642	12:16:42	No
Mean:	0.0074	0.0074	0.0637				
SD :	0.000021	0.000021	0.0002				
%RSD:	0.3	0.3	0.2852				

MSD

Element: Hg Seq. No.: 67 AS Loc.: 55 Date: 09/23/2002
Sample ID: M021285-006

Repl #	SampleConc mg/L	StndConc mg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0061	0.0061	0.0523	0.2595	0.0527	12:17:41	No

MSD

2	0.0061	0.0061	0.0523	0.2589	0.0527	12:18:15	No
3	0.0061	0.0061	0.0522	0.2577	0.0526	12:18:50	No
Mean:	0.0061	0.0061	0.0523				
SD :	0.000007	0.000007	0.0001				
%RSD:	0.1	0.1	0.1125				

Element: Hg Seq. No.: 68 AS Loc.: 7 Date: 09/23/2002
Sample ID: [STD-CCV]

Repl #	SampleConc mg/L	StndConc mg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0060	0.0060	0.0515	0.2554	0.0519	12:19:52	No
2	0.0060	0.0060	0.0513	0.2542	0.0517	12:20:26	No
3	0.0060	0.0060	0.0513	0.2545	0.0518	12:21:00	No
Mean:	0.0060	0.0060	0.0514				
SD :	0.000015	0.000015	0.0001				
%RSD:	0.2	0.2	0.2423				

QC value within specified limits.

Element: Hg Seq. No.: 69 AS Loc.: 8 Date: 09/23/2002
Sample ID: [CB]

Repl #	SampleConc mg/L	StndConc mg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.00001	-0.00001	-0.0001	0.0010	0.0004	12:22:00	No
2	-0.00002	-0.00002	-0.0002	-0.0007	0.0003	12:22:35	No
3	-0.00001	-0.00001	-0.0001	0.0010	0.0004	12:23:09	No
Mean:	-0.00001	-0.00001	-0.0001				
SD :	0.000006	0.000006	0.0001				
%RSD:	54	54	54.2868				

QC value within specified limits.

MT.2002. 1109

ASSAIGAI ANALYTICAL LABORATORIES, INC.

Metals Cover Sheet

	Analyst			Reviewer		
Final Report Printout	Y	N	NA	Y	N	NA
Raw Data	Y	N	NA	Y	N	NA
Standard Summary Sheet	Y	N	NA	Y	N	NA

Batch	NCR Analyst	NCR Reviewer	Parabellum Analyst	Parabellum Reviewer	Digestion Log Analyst	Digestion Log Reviewer	TCLP Log Analyst	TCLP Log Reviewer
M021282	Y-N-NA NCR # MT-02-219	Y-N-NA	Y-N-NA	Y-N-NA	Y-N-NA	Y-N-NA	Y-N-NA	Y-N-NA
	Y-N-NA NCR #	Y-N-NA	Y-N-NA	Y-N-NA	Y-N-NA	Y-N-NA	Y-N-NA	Y-N-NA
	Y-N-NA NCR #	Y-N-NA	Y-N-NA	Y-N-NA	Y-N-NA	Y-N-NA	Y-N-NA	Y-N-NA
	Y-N-NA NCR #	Y-N-NA	Y-N-NA	Y-N-NA	Y-N-NA	Y-N-NA	Y-N-NA	Y-N-NA
	Y-N-NA NCR #	Y-N-NA	Y-N-NA	Y-N-NA	Y-N-NA	Y-N-NA	Y-N-NA	Y-N-NA

Dept. Funnel/Prepared By SB
Date 9/24/02

Final Funnel/Reviewed By CJ
Date 9/25/02

Comments

QC Review

Assaigai Analytical Laboratories, Inc.
QC NON-CONFORMANCE REPORT (NCR)

MT-02-219

Preparation/Analysis 6020

Batch ID # M021282

Out-of-Control Event Codes

1 Initial Calibration Verification (ICV)	6 Laboratory Control Sample (LCS) Precision (RPD)
2 Calibration Blank (CB)	7 Matrix Spike (MS) Accuracy (%Rec)
3 Continuing Calibration Verification (CCV)	8 Matrix Spike (MS) Precision (RPD)
4 Method Blank (MB)	9 Sample Duplicate
5 Laboratory Control Sample (LCS) Accuracy (%Rec)	10 Other

Rev:	Groups	Analyst	Date	Review	Date
A	MT. 2002. 1109	JB	9/24/02	CJ	9/25/02

Event Codes: 10

Workorders: 02093604

Rev:	Groups	Analyst	Date	Review	Date

Event Codes:

Workorders:

Rev:	Groups	Analyst	Date	Review	Date

Event Codes:

Workorders:

Rev:	Groups	Analyst	Date	Review	Date

Event Codes:

Workorders:

QC Non-Conformance Report (NCR)

NCR# MT-02-219

SW846 6020
Batch ID: M021282
Group: MT.2002.1109
Date: 09/24/2002
Work Orders: 0209364

EVENT # 10:

The percent recovery for Si in all CCV's was outside of method criteria, high.

ACTION # 10:

The COA will be flagged with an "E" (estimated value) to alert the client of the event. No further action is required.

Prepared by John W. Biava
09/24/2002
JB 9/24/02
CJ 9/25/02

Assaigai Analytical Laboratories, Inc.

Run Group Cover Sheet

Run Group	MT.2002.1109
Reviewed:	9/24/2002 4:02:39 PM
By:	JWB

Calc Method	6020
Import Source	HPC02
Instrument:	HP4500 - Instru

Calibration Mode	NATIVE
Calculation Mode	NORMAL
Spike Dilution Mode	NORMAL

RAW QUANT FLAGS	
a	*all result information keyed in manually*
d	*data from instrument keyed in manually*
i	*integration of peak performed manually*
q	*qdelete of peak*
r	*response factor postquant adjustment*

Assalgai Analytical Laboratories, Inc.

Laboratory Logbook

Run Group MT.2002.1109
Import Source HPC02
Instrument: HP4500 - Instru

o	Run#	Acquisition Date	Data File	Vial	e	Sample Run ID	Run DF	Comment	see data file(s)	Analyst
x	1	09-23-02 17:25:00	002CALB.D#	1		CAL BLANK	1			CJ
x	2	09-23-02 17:34:00	003CALI.D#	1		0.2/1/10 CAL	1			CJ
x	3	09-23-02 17:43:00	004CALI.D#	1		2/10/100 CAL	1			CJ
x	4	09-23-02 17:52:00	005CALI.D#	1		10/100/1000 CAL	1			CJ
x	5	09-23-02 18:01:00	006CALI.D#	1		-/200/10000 CAL	1			CJ
	6	09-23-02 18:10:00	007CCB_.D#	1		[CB]	1			CJ
	7	09-23-02 18:19:00	008ICV_.D#	1		[STD-ICV]	1			CJ
x	8	09-23-02 18:29:00	009ICSA.D#	1		[ICSA]	1			CJ
x	9	09-23-02 18:38:00	010ICSB.D#	1		[ICSAB]	1			CJ
x	10	09-23-02 18:47:00	011CCB_.D#	1		BLANK	1			CJ
	11	09-23-02 18:56:00	012SMPL.D#	1		M021282-001	1 ,			CJ
	12	09-23-02 19:05:00	013SMPL.D#	1		M021282-002	1 ,			CJ
	13	09-23-02 19:14:00	014SMPL.D#	1		M021282-003	1 ,			CJ
	14	09-23-02 19:24:00	015SMPL.D#	1		M021282-006	10 ,			CJ
	15	09-23-02 19:33:00	016SMPL.D#	1		M021282-006	100 ,			CJ
	16	09-23-02 19:42:00	017SMPL.D#	1		M021282-007	10 ,			CJ
	17	09-23-02 19:51:00	018SMPL.D#	1		M021282-007	100 ,			CJ
	18	09-23-02 20:00:00	019SMPL.D#	1		M021282-008	10 ,			CJ
	19	09-23-02 20:10:00	020CCV_.D#	1		[STD-CCV]	1			CJ
	20	09-23-02 20:19:00	021CCB_.D#	1		[CB]	1			CJ
	21	09-23-02 20:28:00	022SMPL.D#	1		M021282-008	100 ,			CJ
	22	09-23-02 20:37:00	023SMPL.D#	1		M021282-011	10 ,			CJ
	23	09-23-02 20:46:00	024SMPL.D#	1		M021282-011	100 ,			CJ
	24	09-23-02 20:55:00	025SMPL.D#	1		M021282-012	10 ,			CJ
	25	09-23-02 21:05:00	026SMPL.D#	1		M021282-012	100 ,			CJ
	26	09-23-02 21:14:00	027SMPL.D#	1		M021282-013	10 ,			CJ
	27	09-23-02 21:23:00	028SMPL.D#	1		M021282-013	100 ,			CJ
	28	09-23-02 21:32:00	029SMPL.D#	1		M021282-014	10 ,			CJ
	29	09-23-02 21:42:00	030SMPL.D#	1		M021282-014	100 ,			CJ
	30	09-23-02 21:51:00	031SMPL.D#	1		M021282-015	10 ,			CJ
	31	09-23-02 22:00:00	032CCV_.D#	1		[STD-CCV]	1			CJ
	32	09-23-02 22:09:00	033CCB_.D#	1		[CB]	1			CJ
	33	09-23-02 22:18:00	034SMPL.D#	1		M021282-015	100 ,			CJ
	34	09-23-02 22:28:00	035SMPL.D#	1		M021282-016	10 ,			CJ
	35	09-23-02 22:37:00	036SMPL.D#	1		M021282-016	100 ,			CJ

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Assaigai Analytical Laboratories, Inc.

Laboratory Logbook

Run Group MT.2002.1109
Import Source HPC02
Instrument: HP4500 - Instru

o	Run#	Acquisition Date	Data File	Vial	e	Sample Run ID	Run DF	Comment	see data file(s)	Analyst
	36	09-23-02 22:46:00	037SMPL.D#	1		M021282-017	10 ,			CJ
	37	09-23-02 22:55:00	038SMPL.D#	1		M021282-017	100 ,			CJ
	38	09-23-02 23:05:00	039SMPL.D#	1		M021282-018	10 ,			CJ
	39	09-23-02 23:14:00	040SMPL.D#	1		M021282-018	100 ,			CJ
	40	09-23-02 23:23:00	041SMPL.D#	1		M021282-019	10 ,			CJ
	41	09-23-02 23:32:00	042SMPL.D#	1		M021282-019	100 ,			CJ
	42	09-23-02 23:42:00	043SMPL.D#	1		M021282-020	10 ,			CJ
	43	09-23-02 23:51:00	044CCV_.D#	1		[STD-CCV]	1			CJ
	44	09-24-02 0:00:00	045CCB_.D#	1		[CB]	1			CJ
	45	09-24-02 0:09:00	046SMPL.D#	1		M021282-020	100 ,			CJ
	46	09-24-02 0:18:00	047SMPL.D#	1		M021282-021	10 ,			CJ
	47	09-24-02 0:28:00	048SMPL.D#	1		M021282-021	100 ,			CJ
	48	09-24-02 0:37:00	049SMPL.D#	1		M021282-022	10 ,			CJ
	49	09-24-02 0:46:00	050SMPL.D#	1		M021282-022	100 ,			CJ
	50	09-24-02 0:55:00	051SMPL.D#	1		M021282-023	10 ,			CJ
	51	09-24-02 1:05:00	052SMPL.D#	1		M021282-023	100 ,			CJ
	52	09-24-02 1:14:00	053SMPL.D#	1		M021282-024	10 ,			CJ
	53	09-24-02 1:23:00	054SMPL.D#	1		M021282-024	100 ,			CJ
	54	09-24-02 1:41:00	056CCV_.D#	1		[STD-CCV]	1			CJ
	55	09-24-02 1:50:00	057CCB_.D#	1		[CB]	1			CJ
x	56	09-24-02 1:59:00	058ICSA.D#	1		[ICSA]	1			CJ
x	57	09-24-02 2:08:00	059ICSB.D#	1		[ICSAB]	1			CJ
x	58	09-24-02 2:18:00	060BLNK.D#	1		BLANK	1			CJ
	59	09-24-02 2:27:00	061SMPL.D#	1		M021282-025	10 ,			CJ
	60	09-24-02 2:36:00	062SMPL.D#	1		M021282-025	100 ,			CJ
	61	09-24-02 2:45:00	063SMPL.D#	1		M021282-026	10 ,			CJ
	62	09-24-02 2:54:00	064SMPL.D#	1		M021282-026	100 ,			CJ
	63	09-24-02 3:04:00	065CCV_.D#	1		[STD-CCV]	1			CJ
	64	09-24-02 3:13:00	066CCB_.D#	1		[CB]	1			CJ

Department: METALS
Prep Method: MS3050
Matrix: SOLID
Batch ID: M021282

Assaigai Laboratories
Sample Preparation Log
Report Revision 011023

Prep Method: ICP/MS 6020 Solid Digestion

Sample Count: 17
Batch Start Timestamp: 09/23/02 8:33:55

Prep ID:	Sample ID:	Aliquot:	Units:	Initial By:	Total Volume:	Units:	Final By:	Prep DF:	Surrogate ID:	Spike ID:	Spike By:	Prep Timestamp:	Comments:
M021282-001	[MB]	1.00	G	JRE	50	ML	JRE	1			JRE	09/23/02 8:08:00	90C @ 8:08AM
M021282-002	[LCS]	1.00	G	JRE	50	ML	JRE	1			JRE	09/23/02 8:08:00	LCS, LCSD, MS, MSD SPIKED W/
M021282-003	[LCSD]	1.00	G	JRE	50	ML	JRE	1			JRE	09/23/02 8:08:00	MT-0691-02 Ag @ 2.5ML/50ML
M021282-004	Li [LCS]	1.00	G	JRE	50	ML	JRE	1			JRE	09/23/02 8:08:00	MT-0692-02 TRACE @ 2.5ML/50ML
M021282-005	Li [LCSD]	1.00	G	JRE	50	ML	JRE	1			JRE	09/23/02 8:08:00	MT-0693-02 CATION @ 1.0ML/50ML
M021282-006	0209364-01A[M]	1.006	G	JRE	50	ML	JRE	0.994			JRE	09/23/02 8:08:00	MT-0717-02 LI @ 0.5ML/50ML
M021282-007	0209364-01A[MS]	1.07	G	JRE	50	ML	JRE	0.9346			JRE	09/23/02 8:08:00	
M021282-008	0209364-01A[MSD]	1.035	G	JRE	50	ML	JRE	0.9662			JRE	09/23/02 8:08:00	
M021282-009	0209364-01A[MS]	1.037	G	JRE	50	ML	JRE	0.9643			JRE	09/23/02 8:08:00	
M021282-010	0209364-01A[MSD]	1.059	G	JRE	50	ML	JRE	0.9443			JRE	09/23/02 8:08:00	
M021282-011	0209364-02A	1.009	G	JRE	50	ML	JRE	0.9911			JRE	09/23/02 8:08:00	
M021282-012	0209364-03A	1.017	G	JRE	50	ML	JRE	0.9833			JRE	09/23/02 8:08:00	
M021282-013	0209364-04A	1.065	G	JRE	50	ML	JRE	0.939			JRE	09/23/02 8:08:00	
M021282-014	0209364-05A	1.043	G	JRE	50	ML	JRE	0.9588			JRE	09/23/02 8:08:00	
M021282-015	0209364-06A	1.027	G	JRE	50	ML	JRE	0.9737			JRE	09/23/02 8:08:00	
M021282-016	0209364-07A	1.001	G	JRE	50	ML	JRE	0.999			JRE	09/23/02 8:08:00	
M021282-017	0209364-08A	1.061	G	JRE	50	ML	JRE	0.9425			JRE	09/23/02 8:08:00	
M021282-018	0209364-09A	1.067	G	JRE	50	ML	JRE	0.9372			JRE	09/23/02 8:08:00	
M021282-019	0209364-10A	1.052	G	JRE	50	ML	JRE	0.9506			JRE	09/23/02 8:08:00	
M021282-020	0209364-11A	1.031	G	JRE	50	ML	JRE	0.9699			JRE	09/23/02 8:08:00	
M021282-021	0209364-12A	1.032	G	JRE	50	ML	JRE	0.969			JRE	09/23/02 8:08:00	
M021282-022	0209364-13A	1.085	G	JRE	50	ML	JRE	0.9217			JRE	09/23/02 8:08:00	
M021282-023	0209364-14A	1.055	G	JRE	50	ML	JRE	0.9479			JRE	09/23/02 8:08:00	
M021282-024	0209364-15A	1.056	G	JRE	50	ML	JRE	0.947			JRE	09/23/02 8:08:00	
M021282-025	0209364-16A	1.026	G	JRE	50	ML	JRE	0.9747			JRE	09/23/02 8:08:00	
M021282-026	0209364-17A	1.069	G	JRE	50	ML	JRE	0.9355			JRE	09/23/02 8:08:00	HNO3-X20045; HCL-42117; H2O2-41215135

033

CB [CB]

Assaigai Analytical Laboratories, Inc.

Analytical Result Summary

034

Run Group	MT.2002.1109	6
Calc Method	6020	
Prep Method	LAB	
Prep Matrix	LAB	

		By	Dilution
Prepared			1
Analyzed	09-23-02 18:10:00	CJ	1
Calibration	09-23-02 18:08:00		
Quant	09-23-02 18:17:00	007CCB .D#	

r	C#	Analyte	QMass	m	Raw Quant	As	MRL	Report	As	Qual	f
	3	Be-9	9		0.05	ppb	0.001	< 0.001	mg / L		
	4	B-11	11		-0.4	ppb	0.001	< 0.001	mg / L		
	5	Na-23	23		3.13	ppb	0.01	< 0.010	mg / L		
	6	Mg-24	24		2.32	ppb	0.01	< 0.010	mg / L		
	7	Mg-25	25		2.22	ppb	0.01	< 0.010	mg / L		
	8	Mg-26	26		2.33	ppb	0.01	< 0.010	mg / L		
	9	Al-27	27		1.81	ppb	0.01	< 0.010	mg / L		
	10	Si-28	28		-2.42	ppb	0.001	< 0.001	mg / L		
	11	K-39	39		-2.72	ppb	0.01	< 0.010	mg / L		
	13	Ca-43	43		0.96	ppb	0.01	< 0.010	mg / L		
	14	Ca-44	44		2.21	ppb	0.01	< 0.010	mg / L		
	16	Ti-47	47		0.02	ppb	0.001	< 0.001	mg / L		
	17	V-51	51		0.1	ppb	0.001	< 0.001	mg / L		
	18	Cr-52	52		0.53	ppb	0.001	< 0.001	mg / L		
	19	Cr-53	53		-0.02	ppb	0.001	< 0.001	mg / L		
	20	Fe-54	54		-4.3	ppb	0.01	< 0.010	mg / L		
	21	Mn-55	55		0.04	ppb	0.001	< 0.001	mg / L		
	22	Fe-57	57		2.06	ppb	0.01	< 0.010	mg / L		
	23	Co-59	59		-0.26	ppb	0.001	< 0.001	mg / L		
	24	Ni-60	60		0.07	ppb	0.001	< 0.001	mg / L		
	25	Cu-63	63		0.07	ppb	0.001	< 0.001	mg / L		
	26	Cu-65	65		0.04	ppb	0.001	< 0.001	mg / L		
	27	Zn-66	66		0.04	ppb	0.001	< 0.001	mg / L		
	28	Zn-67	67		-0.37	ppb	0.001	< 0.001	mg / L		
	29	Zn-68	68		0.08	ppb	0.001	< 0.001	mg / L		
	32	As-75	75		0.44	ppb	0.001	< 0.001	mg / L		
	34	Se-82	82		0.24	ppb	0.001	< 0.001	mg / L		
	37	Sr-87	87		0.05	ppb	0.001	< 0.001	mg / L		
	40	Mo-95	95		-0.62	ppb	0.001	< 0.001	mg / L		
	41	Mo-98	98		-0.6	ppb	0.001	< 0.001	mg / L		
	43	Ag-107	107		0.01	ppb	0.001	< 0.001	mg / L		
	45	Ag-109	109		0.02	ppb	0.001	< 0.001	mg / L		
	46	Cd-111	111		0.02	ppb	0.001	< 0.001	mg / L		
	47	Cd-114	114		0.05	ppb	0.001	< 0.001	mg / L		
	50	Sn-120	120		-1.59	ppb	0.001	< 0.001	mg / L		
	51	Sb-121	121		-0.65	ppb	0.001	< 0.001	mg / L		
	52	Sb-123	123		-0.52	ppb	0.001	< 0.001	mg / L		
	53	Ba-135	135		0.07	ppb	0.001	< 0.001	mg / L		
	54	Tb-159	159		0	ppb	0.001	< 0.001	mg / L		
	55	Au-197	197		0.47	ppb	0.001	< 0.001	mg / L		
	56	Tl-205	205		0.28	ppb	0.001	< 0.001	mg / L		
	59	Pb-208	208		-0.28	ppb	0.001	< 0.001	mg / L		
	61	U-238	238		0.06	ppb	0.001	< 0.001	mg / L		

STD-ICV [STD-ICV]

Run Group	MT.2002.109	7
Calc Method	6020	
Prep Method	LAB	
Prep Matrix	LAB	

Assaigai Analytical Laboratories, Inc.

Analytical Result Summary

035

		By	Dilution
Prepared			1
Analyzed	09-23-02 18:19:00	CJ	1
Calibration	09-23-02 18:08:00		
Quant	09-23-02 18:26:00		008ICV .D#

r	C#	Analyte	QMass	m	Raw Quant	As	MRL	Report	As	Qual	f
	3	Be-9	9		117.7	ppb	1	98	% Recovery		
	4	B-11	11		125.9	ppb	1	105	% Recovery		
	5	Na-23	23		1289	ppb	1	107	% Recovery		
	6	Mg-24	24		1308	ppb	1	109	% Recovery		
	7	Mg-25	25		1409	ppb	1	117	% Recovery		x
	8	Mg-26	26		1410	ppb	1	118	% Recovery		x
	9	Al-27	27		1312	ppb	1	109	% Recovery		
	10	Si-28	28		1302	ppb	1	108	% Recovery		
	11	K-39	39		1284	ppb	1	107	% Recovery		
	13	Ca-43	43		1310	ppb	1	109	% Recovery		
	14	Ca-44	44		1323	ppb	1	110	% Recovery		
	16	Ti-47	47		126.5	ppb	1	105	% Recovery		
	17	V-51	51		127	ppb	1	106	% Recovery		
	18	Cr-52	52		126.2	ppb	1	105	% Recovery		
	19	Cr-53	53		117.2	ppb	1	98	% Recovery		
	20	Fe-54	54		1432	ppb	1	119	% Recovery		x
	21	Mn-55	55		123.6	ppb	1	103	% Recovery		
	22	Fe-57	57		1345	ppb	1	112	% Recovery		x
	23	Co-59	59		127.2	ppb	1	106	% Recovery		
	24	Ni-60	60		127.4	ppb	1	106	% Recovery		
	25	Cu-63	63		128.5	ppb	1	107	% Recovery		
	26	Cu-65	65		129.4	ppb	1	108	% Recovery		
	27	Zn-66	66		125.5	ppb	1	104	% Recovery		
	28	Zn-67	67		121.5	ppb	1	101	% Recovery		
	29	Zn-68	68		125.3	ppb	1	104	% Recovery		
	32	As-75	75		124.9	ppb	1	104	% Recovery		
	34	Se-82	82		125.1	ppb	1	104	% Recovery		
	37	Sr-87	87		123.5	ppb	1	103	% Recovery		
	40	Mo-95	95		121.4	ppb	1	101	% Recovery		
	41	Mo-98	98		121.4	ppb	1	101	% Recovery		
	43	Ag-107	107		122.1	ppb	1	102	% Recovery		
	45	Ag-109	109		122.3	ppb	1	102	% Recovery		
	46	Cd-111	111		124.8	ppb	1	104	% Recovery		
	47	Cd-114	114		124.7	ppb	1	104	% Recovery		
	50	Sn-120	120		123.6	ppb	1	103	% Recovery		
	51	Sb-121	121		122.6	ppb	1	102	% Recovery		
	52	Sb-123	123		123.7	ppb	1	103	% Recovery		
	53	Ba-135	135		124.5	ppb	1	104	% Recovery		
	54	Tb-159	159		0	ppb	1	< 1	% Recovery		x
	55	Au-197	197		119.9	ppb	1	100	% Recovery		
	56	Tl-205	205		121.5	ppb	1	101	% Recovery		
	59	Pb-208	208		122.6	ppb	1	102	% Recovery		
	61	U-238	238		121.3	ppb	1	101	% Recovery		

MB M021282-001

Assaigai Analytical Laboratories, Inc.

Analytical Result Summary

036

Run Group	MT.2002.1109	11
Calc Method	6020	
Prep Method	MS3050	
Prep Matrix	SOLID	

[MB]

		By	Dilution
Prepared	09-23-02 8:08:00	JRE	1
Analyzed	09-23-02 18:56:00	CJ	1
Calibration	09-23-02 18:08:00		
Quant	09-23-02 19:03:00		012SMPL.D#

r	C#	Analyte	QMass	m	Raw Quant	As	MRL	Report	As	Qual	f
x	3	Be-9	9		0.01	ppb	0.025	< 0.025	mg / Kg		
	4	B-11	11		-3.36	ppb	0.15	< 0.150	mg / Kg		
	5	Na-23	23		29.27	ppb	0.5	1.46	mg / Kg		x
	6	Mg-24	24		21.5	ppb	0.5	1.08	mg / Kg		x
	7	Mg-25	25		21.62	ppb	0.5	1.08	mg / Kg		x
	8	Mg-26	26		21.85	ppb	0.5	1.09	mg / Kg		x
x	9	Al-27	27		24.48	ppb	0.5	1.22	mg / Kg		x
x	10	Si-28	28		12.93	ppb	1	< 1.00	mg / Kg		
	11	K-39	39		28.29	ppb	0.5	1.41	mg / Kg		x
	13	Ca-43	43		133.6	ppb	0.5	6.68	mg / Kg		x
	14	Ca-44	44		132.6	ppb	0.5	6.63	mg / Kg		x
x	16	Ti-47	47		1.21	ppb	0.025	0.060	mg / Kg		x
	17	V-51	51		0.31	ppb	0.05	< 0.050	mg / Kg		
x	18	Cr-52	52		1.29	ppb	0.05	0.064	mg / Kg		x
	19	Cr-53	53		36.42	ppb	0.25	1.82	mg / Kg		x
	20	Fe-54	54		21.61	ppb	0.5	1.08	mg / Kg		x
x	21	Mn-55	55		0.77	ppb	0.025	0.038	mg / Kg		x
	22	Fe-57	57		31.96	ppb	0.5	1.60	mg / Kg		x
x	23	Co-59	59		-0.32	ppb	0.025	< 0.025	mg / Kg		
x	24	Ni-60	60		0.35	ppb	0.025	< 0.025	mg / Kg		
x	25	Cu-63	63		0.92	ppb	0.025	0.046	mg / Kg		x
	26	Cu-65	65		0.89	ppb	0.025	0.044	mg / Kg		x
	27	Zn-66	66		9.84	ppb	0.25	0.492	mg / Kg		x
	28	Zn-67	67		11.74	ppb	0.25	0.587	mg / Kg		x
	29	Zn-68	68		9.71	ppb	0.25	0.486	mg / Kg		x
x	32	As-75	75		0.58	ppb	0.025	0.029	mg / Kg		x
x	34	Se-82	82		-0.07	ppb	0.025	< 0.025	mg / Kg		
x	37	Sr-87	87		0.12	ppb	0.025	< 0.025	mg / Kg		
x	40	Mo-95	95		0.48	ppb	0.025	< 0.025	mg / Kg		
	41	Mo-98	98		0.56	ppb	0.025	0.028	mg / Kg		x
x	43	Ag-107	107		-0.04	ppb	0.025	< 0.025	mg / Kg		
	45	Ag-109	109		-0.04	ppb	0.025	< 0.025	mg / Kg		
x	46	Cd-111	111		-0.04	ppb	0.025	< 0.025	mg / Kg		
	47	Cd-114	114		0.24	ppb	0.025	< 0.025	mg / Kg		
x	50	Sn-120	120		12.34	ppb	0.025	0.617	mg / Kg		
x	51	Sb-121	121		-1.21	ppb	0.05	< 0.050	mg / Kg		
	52	Sb-123	123		-1.07	ppb	0.05	< 0.050	mg / Kg		
x	53	Ba-135	135		2.55	ppb	0.025	0.128	mg / Kg		x
	54	Tb-159	159		0	ppb	0.001	< 0.001	mg / Kg		
	55	Au-197	197		0.04	ppb	0.025	< 0.025	mg / Kg		
x	56	Tl-205	205		-0.45	ppb	0.025	< 0.025	mg / Kg		
x	59	Pb-208	208		-0.27	ppb	0.025	< 0.025	mg / Kg		
x	61	U-238	238		-0.01	ppb	0.025	< 0.025	mg / Kg		

Coyote 2001: Calculation 1.0.020729144500

Report Date 9/24/2002 4:03:53 PM

LCS M021282-002

Assaigai Analytical Laboratories, Inc.

Analytical Result Summary

037

[LCS]

Run Group	MT.2002.1109	12	
Calc Method	6020		
Prep Method	MS3050		
Prep Matrix	SOLID		

		By	Dilution
Prepared	09-23-02 8:08:00	JRE	1
Analyzed	09-23-02 19:05:00	CJ	1
Calibration	09-23-02 18:08:00		
Quant	09-23-02 19:12:00	013SMPL.D#	

r	C#	Analyte	QMass	m	Raw Quant	As	MRL	Report	As	Qual	f
x	3	Be-9	9		96.54	ppb	1	96	% Recovery		
	4	B-11	11		97.78	ppb	1	98	% Recovery		
	5	Na-23	23		1106	ppb	1	111	% Recovery		
	6	Mg-24	24		1090	ppb	1	109	% Recovery		
	7	Mg-25	25		1143	ppb	1	114	% Recovery		
	8	Mg-26	26		1135	ppb	1	114	% Recovery		
x	9	Al-27	27		1094	ppb	1	109	% Recovery		
x	10	Si-28	28		1046	ppb	1	105	% Recovery		
	11	K-39	39		1077	ppb	1	108	% Recovery		
	13	Ca-43	43		1238	ppb	1	124	% Recovery		x
	14	Ca-44	44		1236	ppb	1	124	% Recovery		x
x	16	Ti-47	47		101.1	ppb	1	101	% Recovery		
	17	V-51	51		100.5	ppb	1	100	% Recovery		
x	18	Cr-52	52		101.2	ppb	1	101	% Recovery		
	19	Cr-53	53		97.68	ppb	1	98	% Recovery		
	20	Fe-54	54		1148	ppb	1	115	% Recovery		
x	21	Mn-55	55		99.37	ppb	1	99	% Recovery		
	22	Fe-57	57		1107	ppb	1	111	% Recovery		
x	23	Co-59	59		100.7	ppb	1	101	% Recovery		
x	24	Ni-60	60		102.2	ppb	1	102	% Recovery		
x	25	Cu-63	63		102.6	ppb	1	103	% Recovery		
	26	Cu-65	65		102.3	ppb	1	102	% Recovery		
	27	Zn-66	66		121	ppb	1	121	% Recovery		x
	28	Zn-67	67		117.8	ppb	1	118	% Recovery		
	29	Zn-68	68		120.8	ppb	1	121	% Recovery		x
x	32	As-75	75		104.2	ppb	1	104	% Recovery		
x	34	Se-82	82		103.3	ppb	1	103	% Recovery		
x	37	Sr-87	87		99.23	ppb	1	99	% Recovery		
x	40	Mo-95	95		96.69	ppb	1	97	% Recovery		
	41	Mo-98	98		96.47	ppb	1	96	% Recovery		
x	43	Ag-107	107		97.01	ppb	1	97	% Recovery		
	45	Ag-109	109		97.54	ppb	1	98	% Recovery		
x	46	Cd-111	111		100.1	ppb	1	100	% Recovery		
	47	Cd-114	114		100.4	ppb	1	100	% Recovery		
x	50	Sn-120	120		111.9	ppb	1	112	% Recovery		
x	51	Sb-121	121		98.9	ppb	1	99	% Recovery		
	52	Sb-123	123		99.95	ppb	1	100	% Recovery		
x	53	Ba-135	135		101.3	ppb	1	101	% Recovery		
	54	Tb-159	159		0	ppb	1	< 1	% Recovery		x
	55	Au-197	197		99.98	ppb	1	100	% Recovery		
x	56	Tl-205	205		95.91	ppb	1	96	% Recovery		
x	59	Pb-208	208		97.82	ppb	1	98	% Recovery		
x	61	U-238	238		96.62	ppb	1	97	% Recovery		

LCSDD M021282-003

Assaigai Analytical Laboratories, Inc.

Analytical Result Summary

[LCSD]- **038**

Run Group	MT.2002.1109	13
Calc Method	6020	
Prep Method	MS3050	
Prep Matrix	SOLID	

		By	Dilution
Prepared	09-23-02 8:08:00	JRE	1
Analyzed	09-23-02 19:14:00	CJ	1
Calibration	09-23-02 18:08:00		
Quant	09-23-02 19:22:00	014SMPL.D#	

r	C#	Analyte	QMass	m	Raw Quant	As	MRL	Report	As	Qual	f
x	3	Be-9	9		95.95	ppb	1	< 1	RPD		
	4	B-11	11		106.1	ppb	1	8	RPD		
	5	Na-23	23		1143	ppb	1	3	RPD		
	6	Mg-24	24		1154	ppb	1	6	RPD		
	7	Mg-25	25		1208	ppb	1	6	RPD		
	8	Mg-26	26		1182	ppb	1	4	RPD		
x	9	Al-27	27		1155	ppb	1	5	RPD		
x	10	Si-28	28		1120	ppb	1	7	RPD		
	11	K-39	39		1115	ppb	1	3	RPD		
	13	Ca-43	43		1137	ppb	1	8	RPD		
	14	Ca-44	44		1153	ppb	1	7	RPD		
x	16	Ti-47	47		104.1	ppb	1	3	RPD		
	17	V-51	51		102.3	ppb	1	2	RPD		
x	18	Cr-52	52		102.4	ppb	1	1	RPD		
	19	Cr-53	53		95.48	ppb	1	2	RPD		
	20	Fe-54	54		1204	ppb	1	5	RPD		
x	21	Mn-55	55		102.3	ppb	1	3	RPD		
	22	Fe-57	57		1149	ppb	1	4	RPD		
x	23	Co-59	59		103.8	ppb	1	3	RPD		
x	24	Ni-60	60		103.8	ppb	1	2	RPD		
x	25	Cu-63	63		103.7	ppb	1	1	RPD		
	26	Cu-65	65		104.4	ppb	1	2	RPD		
	27	Zn-66	66		108.6	ppb	1	11	RPD		
	28	Zn-67	67		105.7	ppb	1	11	RPD		
	29	Zn-68	68		108.4	ppb	1	11	RPD		
x	32	As-75	75		106	ppb	1	2	RPD		
x	34	Se-82	82		103.9	ppb	1	< 1	RPD		
x	37	Sr-87	87		100.9	ppb	1	2	RPD		
x	40	Mo-95	95		100.3	ppb	1	4	RPD		
	41	Mo-98	98		99.79	ppb	1	3	RPD		
x	43	Ag-107	107		101.2	ppb	1	4	RPD		
	45	Ag-109	109		101.3	ppb	1	4	RPD		
x	46	Cd-111	111		102.7	ppb	1	2	RPD		
	47	Cd-114	114		103	ppb	1	2	RPD		
x	50	Sn-120	120		113.9	ppb	1	2	RPD		
x	51	Sb-121	121		101.3	ppb	1	2	RPD		
	52	Sb-123	123		101.8	ppb	1	2	RPD		
x	53	Ba-135	135		103.9	ppb	1	2	RPD		
	54	Tb-159	159		0	ppb	1	NA	RPD		
	55	Au-197	197		102	ppb	1	2	RPD		
x	56	Tl-205	205		98.76	ppb	1	3	RPD		
x	59	Pb-208	208		100.6	ppb	1	3	RPD		
x	61	U-238	238		98.48	ppb	1	2	RPD		

LCSDS M021282-003

Assaigai Analytical Laboratories, Inc.

Analytical Result Summary

Run Group	MT.2002.1109	13
Calc Method	6020	
Prep Method	MS3050	
Prep Matrix	SOLID	

[LCSD] . **039** *By* *Dilution*

Prepared	09-23-02 8:08:00	JRE	1
Analyzed	09-23-02 19:14:00	CJ	1
Calibration	09-23-02 18:08:00		
Quant	09-23-02 19:22:00	014SMPL.D#	

r	C#	Analyte	QMass	m	Raw Quant	As	MRL	Report	As	Qual	f
x	3	Be-9	9		95.95	ppb	1	96	% Recovery		
	4	B-11	11		106.1	ppb	1	106	% Recovery		
	5	Na-23	23		1143	ppb	1	114	% Recovery		
	6	Mg-24	24		1154	ppb	1	115	% Recovery		
	7	Mg-25	25		1208	ppb	1	121	% Recovery		x
	8	Mg-26	26		1182	ppb	1	118	% Recovery		
x	9	Al-27	27		1155	ppb	1	116	% Recovery		
x	10	Si-28	28		1120	ppb	1	112	% Recovery		
	11	K-39	39		1115	ppb	1	112	% Recovery		
	13	Ca-43	43		1137	ppb	1	114	% Recovery		
	14	Ca-44	44		1153	ppb	1	115	% Recovery		
x	16	Ti-47	47		104.1	ppb	1	104	% Recovery		
	17	V-51	51		102.3	ppb	1	102	% Recovery		
x	18	Cr-52	52		102.4	ppb	1	102	% Recovery		
	19	Cr-53	53		95.48	ppb	1	95	% Recovery		
	20	Fe-54	54		1204	ppb	1	120	% Recovery		
x	21	Mn-55	55		102.3	ppb	1	102	% Recovery		
	22	Fe-57	57		1149	ppb	1	115	% Recovery		
x	23	Co-59	59		103.8	ppb	1	104	% Recovery		
x	24	Ni-60	60		103.8	ppb	1	104	% Recovery		
x	25	Cu-63	63		103.7	ppb	1	104	% Recovery		
	26	Cu-65	65		104.4	ppb	1	104	% Recovery		
	27	Zn-66	66		108.6	ppb	1	109	% Recovery		
	28	Zn-67	67		105.7	ppb	1	106	% Recovery		
	29	Zn-68	68		108.4	ppb	1	108	% Recovery		
x	32	As-75	75		106	ppb	1	106	% Recovery		
x	34	Se-82	82		103.9	ppb	1	104	% Recovery		
x	37	Sr-87	87		100.9	ppb	1	101	% Recovery		
x	40	Mo-95	95		100.3	ppb	1	100	% Recovery		
	41	Mo-98	98		99.79	ppb	1	100	% Recovery		
x	43	Ag-107	107		101.2	ppb	1	101	% Recovery		
	45	Ag-109	109		101.3	ppb	1	101	% Recovery		
x	46	Cd-111	111		102.7	ppb	1	103	% Recovery		
	47	Cd-114	114		103	ppb	1	103	% Recovery		
x	50	Sn-120	120		113.9	ppb	1	114	% Recovery		
x	51	Sb-121	121		101.3	ppb	1	101	% Recovery		
	52	Sb-123	123		101.8	ppb	1	102	% Recovery		
x	53	Ba-135	135		103.9	ppb	1	104	% Recovery		
	54	Tb-159	159		0	ppb	1	< 1	% Recovery		x
	55	Au-197	197		102	ppb	1	102	% Recovery		
x	56	Tl-205	205		98.76	ppb	1	99	% Recovery		
x	59	Pb-208	208		100.6	ppb	1	101	% Recovery		
x	61	U-238	238		98.48	ppb	1	98	% Recovery		

M M021282-006

Assaigai Analytical Laboratories, Inc.

Analytical Result Summary

0209364-01A[M] 04U By *Dilution*

Run Group	MT.2002.1109	14
Calc Method	6020	
Prep Method	MS3050	
Prep Matrix	SOLID	

Prepared	09-23-02 8:08:00	JRE	0.994
Analyzed	09-23-02 19:24:00	CJ	10
Calibration	09-23-02 18:08:00		
Quant	09-23-02 19:31:00		015SMPL.D#

r	C#	Analyte	QMass	m	Raw Quant	As	MRL	Report	As	Qual	f
x	3	Be-9	9		0.73	ppb	0.025	0.363	mg / Kg		
	4	B-11	11		0.04	ppb	0.15	< 1.49	mg / Kg		
	5	Na-23	23		276.1	ppb	0.5	137	mg / Kg		
	6	Mg-24	24		3131	ppb	0.5	1560	mg / Kg		
	7	Mg-25	25		3221	ppb	0.5	1600	mg / Kg		
	8	Mg-26	26		3163	ppb	0.5	1570	mg / Kg		
	9	Al-27	27		11550	ppb	0.5	5740	mg / Kg		x
x	10	Si-28	28		852.5	ppb	1	424	mg / Kg	E	
	11	K-39	39		1738	ppb	0.5	864	mg / Kg		
	13	Ca-43	43		6109	ppb	0.5	3040	mg / Kg		
	14	Ca-44	44		6049	ppb	0.5	3010	mg / Kg		
	16	Ti-47	47		409.4	ppb	0.025	203	mg / Kg		x
	17	V-51	51		19.19	ppb	0.05	9.54	mg / Kg		
	18	Cr-52	52		276.9	ppb	0.05	138	mg / Kg		x
	19	Cr-53	53		280.2	ppb	0.25	139	mg / Kg		x
	20	Fe-54	54		14390	ppb	0.5	7150	mg / Kg		x
	21	Mn-55	55		375.3	ppb	0.025	186	mg / Kg		x
	22	Fe-57	57		14100	ppb	0.5	7010	mg / Kg		x
x	23	Co-59	59		3.65	ppb	0.025	1.81	mg / Kg		
x	24	Ni-60	60		9.54	ppb	0.025	4.74	mg / Kg		
x	25	Cu-63 >5x MB	63		46.29	ppb	0.025	23.0	mg / Kg		
	26	Cu-65	65		46.97	ppb	0.025	23.3	mg / Kg		
	27	Zn-66	66		173.7	ppb	0.25	86.3	mg / Kg		
	28	Zn-67	67		172.3	ppb	0.25	85.6	mg / Kg		
	29	Zn-68	68		171.4	ppb	0.25	85.2	mg / Kg		
x	32	As-75 >5x MB	75		7.64	ppb	0.025	3.80	mg / Kg		
x	34	Se-82	82		0.87	ppb	0.025	0.432	mg / Kg		
x	37	Sr-87	87		91.88	ppb	0.025	45.7	mg / Kg		
x	40	Mo-95	95		0.8	ppb	0.025	0.398	mg / Kg		
	41	Mo-98	98		0.82	ppb	0.025	0.408	mg / Kg		
x	43	Ag-107	107		11.43	ppb	0.025	5.68	mg / Kg		
	45	Ag-109	109		11.45	ppb	0.025	5.69	mg / Kg		
x	46	Cd-111	111		1.22	ppb	0.025	0.606	mg / Kg		
	47	Cd-114	114		1.07	ppb	0.025	0.532	mg / Kg		
x	50	Sn-120 >5x MB	120		6.65	ppb	0.025	3.30	mg / Kg		
x	51	Sb-121	121		-1.11	ppb	0.05	< 0.497	mg / Kg		
	52	Sb-123	123		-0.97	ppb	0.05	< 0.497	mg / Kg		
x	53	Ba-135 >5x MB	135		169.2	ppb	0.025	84.1	mg / Kg		
	54	Tb-159	159		0	ppb	0.001	< 0.010	mg / Kg		
	55	Au-197	197		0.64	ppb	0.025	0.318	mg / Kg		
x	56	Tl-205	205		0.24	ppb	0.025	< 0.248	mg / Kg		
x	59	Pb-208	208		37.66	ppb	0.025	18.7	mg / Kg		
x	61	U-238	238		2.5	ppb	0.025	1.24	mg / Kg		

M M021282-006

Assaigai Analytical Laboratories, Inc.

0209364-01A[M] 041

Analytical Result Summary

Run Group	MT.2002.1109	15
Calc Method	6020	
Prep Method	MS3050	
Prep Matrix	SOLID	

		By	Dilution
Prepared	09-23-02 8:08:00	JRE	0.994
Analyzed	09-23-02 19:33:00	CJ	100
Calibration	09-23-02 18:08:00		
Quant	09-23-02 19:40:00	016SMPL.D#	

r	C#	Analyte	QMass	m	Raw Quant	As	MRL	Report	As	Qual	f
	3	Be-9	9		0.08	ppb	0.025	< 2.48	mg / Kg		
	4	B-11	11		-3.66	ppb	0.15	< 14.9	mg / Kg		
	5	Na-23	23		26.79	ppb	0.5	133	mg / Kg		
	6	Mg-24	24		351.5	ppb	0.5	1750	mg / Kg		
	7	Mg-25	25		358.1	ppb	0.5	1780	mg / Kg		
	8	Mg-26	26		356.4	ppb	0.5	1770	mg / Kg		
x	9	Al-27 >5x MB	27		1251	ppb	0.5	6220	mg / Kg		
	10	Si-28	28		76.04	ppb	1	378	mg / Kg		
	11	K-39	39		180.8	ppb	0.5	899	mg / Kg		
	13	Ca-43	43		624.4	ppb	0.5	3100	mg / Kg		
	14	Ca-44	44		640	ppb	0.5	3180	mg / Kg		
x	16	Ti-47 >5x MB	47		42.63	ppb	0.025	212	mg / Kg		
	17	V-51	51		2.23	ppb	0.05	11.1	mg / Kg		
x	18	Cr-52 >5x MB	52		29.9	ppb	0.05	149	mg / Kg		
	19	Cr-53	53		32.24	ppb	0.25	160	mg / Kg		
	20	Fe-54	54		1571	ppb	0.5	7810	mg / Kg		
x	21	Mn-55 >5x MB	55		40.91	ppb	0.025	203	mg / Kg		
	22	Fe-57	57		1526	ppb	0.5	7580	mg / Kg		
	23	Co-59	59		0.08	ppb	0.025	< 2.48	mg / Kg		
	24	Ni-60	60		1.02	ppb	0.025	5.07	mg / Kg		
	25	Cu-63	63		4.99	ppb	0.025	24.8	mg / Kg		
	26	Cu-65	65		5.03	ppb	0.025	25.0	mg / Kg		
	27	Zn-66	66		18.48	ppb	0.25	91.8	mg / Kg		
	28	Zn-67	67		17.49	ppb	0.25	86.9	mg / Kg		
	29	Zn-68	68		17.94	ppb	0.25	89.2	mg / Kg		
	32	As-75	75		1.3	ppb	0.025	6.46	mg / Kg		
	34	Se-82	82		0.05	ppb	0.025	< 2.48	mg / Kg		
	37	Sr-87	87		9.43	ppb	0.025	46.9	mg / Kg		
	40	Mo-95	95		-0.54	ppb	0.025	< 2.48	mg / Kg		
	41	Mo-98	98		-0.51	ppb	0.025	< 2.48	mg / Kg		
	43	Ag-107	107		1.13	ppb	0.025	5.62	mg / Kg		
	45	Ag-109	109		1.13	ppb	0.025	5.62	mg / Kg		
	46	Cd-111	111		0.13	ppb	0.025	< 2.48	mg / Kg		
	47	Cd-114	114		0.11	ppb	0.025	< 2.48	mg / Kg		
	50	Sn-120	120		-0.89	ppb	0.025	< 2.48	mg / Kg		
	51	Sb-121	121		-1.22	ppb	0.05	< 4.97	mg / Kg		
	52	Sb-123	123		-1.08	ppb	0.05	< 4.97	mg / Kg		
	53	Ba-135	135		17.1	ppb	0.025	85.0	mg / Kg		
	54	Tb-159	159		0	ppb	0.001	< 0.099	mg / Kg		
	55	Au-197	197		0.07	ppb	0.025	< 2.48	mg / Kg		
	56	Tl-205	205		-0.27	ppb	0.025	< 2.48	mg / Kg		
	59	Pb-208	208		3.47	ppb	0.025	17.2	mg / Kg		
	61	U-238	238		0.24	ppb	0.025	< 2.48	mg / Kg		

MS M021282-007

Assalgai Analytical Laboratories, Inc.

Analytical Result Summary

0209364-01A[MS] 042

Run Group	MT.2002.1109	16
Calc Method	6020	
Prep Method	MS3050	
Prep Matrix	SOLID	

		By	Dilution
Prepared	09-23-02 8:08:00	JRE	0.9346
Analyzed	09-23-02 19:42:00	CJ	10
Calibration	09-23-02 18:08:00		
Quant	09-23-02 19:49:00	017SMPL.D#	

r	C#	Analyte	QMass	m	Raw Quant	As	MRL	Report	As	Qual	f
x	3	Be-9	9		11.52	ppb	1	107	% Recovery		
	4	B-11	11		10.54	ppb	1	105	% Recovery		
	5	Na-23	23		446.4	ppb	1	153	% Recovery		x
	6	Mg-24	24		4299	ppb	1	969	% Recovery		x
	7	Mg-25	25		4260	ppb	1	834	% Recovery		x
	8	Mg-26	26		4317	ppb	1	953	% Recovery		x
	9	Al-27	27		15720	ppb	1	3440	% Recovery		x
x	10	Si-28	28		1219	ppb	1	312	% Recovery		x
	11	K-39	39		2657	ppb	1	808	% Recovery		x
	13	Ca-43	43		7116	ppb	1	618	% Recovery		x
	14	Ca-44	44		7073	ppb	1	639	% Recovery		x
	16	Ti-47	47		600.6	ppb	1	1650	% Recovery		x
	17	V-51	51		33.46	ppb	1	130	% Recovery		x
	18	Cr-52	52		326.8	ppb	1	323	% Recovery		x
	19	Cr-53	53		331.8	ppb	1	338	% Recovery		x
	20	Fe-54	54		18580	ppb	1	3270	% Recovery		x
	21	Mn-55	55		388	ppb	1	< 1	% Recovery		x
	22	Fe-57	57		17780	ppb	1	2780	% Recovery		x
x	23	Co-59	59		14.23	ppb	1	103	% Recovery		
x	24	Ni-60	60		20.62	ppb	1	105	% Recovery		
x	25	Cu-63	63		63.01	ppb	1	138	% Recovery		x
	26	Cu-65	65		63.51	ppb	1	136	% Recovery		x
	27	Zn-66	66		212.5	ppb	1	277	% Recovery		x
	28	Zn-67	67		209.5	ppb	1	262	% Recovery		x
	29	Zn-68	68		206.7	ppb	1	244	% Recovery		x
x	32	As-75	75		18.05	ppb	1	99	% Recovery		
x	34	Se-82	82		11.91	ppb	1	110	% Recovery		
x	37	Sr-87	87		130.4	ppb	1	327	% Recovery		x
x	40	Mo-95	95		11	ppb	1	101	% Recovery		
	41	Mo-98	98		11.09	ppb	1	102	% Recovery		
x	43	Ag-107	107		21.89	ppb	1	97	% Recovery		
	45	Ag-109	109		21.86	ppb	1	97	% Recovery		
x	46	Cd-111	111		12.1	ppb	1	108	% Recovery		
	47	Cd-114	114		11.8	ppb	1	107	% Recovery		
x	50	Sn-120	120		19.02	ppb	1	119	% Recovery		
x	51	Sb-121	121		2.88	ppb	1	29	% Recovery		x
	52	Sb-123	123		3.14	ppb	1	31	% Recovery		x
x	53	Ba-135	135		207.9	ppb	1	279	% Recovery		x
	54	Tb-159	159		0	ppb	1	< 1	% Recovery		x
	55	Au-197	197		10.64	ppb	1	100	% Recovery		
x	56	Tl-205	205		9.7	ppb	1	94	% Recovery		
x	59	Pb-208	208		51.39	ppb	1	113	% Recovery		
x	61	U-238	238		12.82	ppb	1	102	% Recovery		

MS/MSD are out of criteria due to a non-homogeneous sample matrix. CJ 9/25/02

MS M021282-007

Assaigai Analytical Laboratories, Inc.

Analytical Result Summary

0209364-01A[MS] 043

Run Group	MT.2002.1109	17				By	Dilution
Calc Method	6020			Prepared	09-23-02 8:08:00	JRE	0.9346
Prep Method	MS3050			Analyzed	09-23-02 19:51:00	CJ	100
Prep Matrix	SOLID			Calibration	09-23-02 18:08:00		
				Quant	09-23-02 19:58:00		018SMPL.D#

r	C#	Analyte	QMass	m	Raw Quant	As	MRL	Report	As	Qual	f
	3	Be-9	9		1.09	ppb	1	101	% Recovery		
	4	B-11	11		-2.68	ppb	1	< 1	% Recovery		x
	5	Na-23	23		42.22	ppb	1	128	% Recovery		x
	6	Mg-24	24		459.5	ppb	1	1260	% Recovery		x
	7	Mg-25	25		473.5	ppb	1	1310	% Recovery		x
	8	Mg-26	26		464	ppb	1	1280	% Recovery		x
x	9	Al-27	27		1629	ppb	1	4000	% Recovery		x
	10	Si-28	28		93.14	ppb	1	25	% Recovery		x
	11	K-39	39		247.4	ppb	1	625	% Recovery		x
	13	Ca-43	43		706.6	ppb	1	568	% Recovery		x
	14	Ca-44	44		702.1	ppb	1	587	% Recovery		x
x	16	Ti-47	47		61.52	ppb	1	1800	% Recovery		x
	17	V-51	51		3.2	ppb	1	116	% Recovery		
x	18	Cr-52	52		33.4	ppb	1	395	% Recovery		x
	19	Cr-53	53		33.4	ppb	1	360	% Recovery		x
	20	Fe-54	54		1921	ppb	1	3900	% Recovery		x
x	21	Mn-55	55		40.9	ppb	1	98	% Recovery		
	22	Fe-57	57		1903	ppb	1	4030	% Recovery		x
	23	Co-59	59		1.18	ppb	1	79	% Recovery		x
	24	Ni-60	60		2.22	ppb	1	120	% Recovery		
	25	Cu-63	63		6.72	ppb	1	180	% Recovery		x
	26	Cu-65	65		6.77	ppb	1	177	% Recovery		x
	27	Zn-66	66		19.51	ppb	1	103	% Recovery		
	28	Zn-67	67		18.5	ppb	1	17	% Recovery		x
	29	Zn-68	68		18.75	ppb	1	52	% Recovery		x
	32	As-75	75		2.19	ppb	1	138	% Recovery		x
	34	Se-82	82		1.05	ppb	1	96	% Recovery		
	37	Sr-87	87		12.87	ppb	1	310	% Recovery		x
	40	Mo-95	95		0.27	ppb	1	18	% Recovery		x
	41	Mo-98	98		0.29	ppb	1	20	% Recovery		x
	43	Ag-107	107		2.06	ppb	1	84	% Recovery		
	45	Ag-109	109		2.04	ppb	1	82	% Recovery		
	46	Cd-111	111		1.15	ppb	1	102	% Recovery		
	47	Cd-114	114		1.12	ppb	1	101	% Recovery		
	50	Sn-120	120		0.15	ppb	1	< 1	% Recovery		x
	51	Sb-121	121		-0.91	ppb	1	< 1	% Recovery		x
	52	Sb-123	123		-0.71	ppb	1	< 1	% Recovery		x
	53	Ba-135	135		19.36	ppb	1	136	% Recovery		x
	54	Tb-159	159		0	ppb	1	< 1	% Recovery		x
	55	Au-197	197		0.98	ppb	1	91	% Recovery		
	56	Tl-205	205		0.63	ppb	1	60	% Recovery		x
	59	Pb-208	208		4.61	ppb	1	60	% Recovery		x
	61	U-238	238		1.22	ppb	1	95	% Recovery		

MSDD M021282-008

Assaigai Analytical Laboratories, Inc.

Analytical Result Summary

044

0209364-01A[MSD]

Run Group	MT.2002.1109	18
Calc Method	6020	
Prep Method	MS3050	
Prep Matrix	SOLID	

		By	Dilution
Prepared	09-23-02 8:08:00	JRE	0.9662
Analyzed	09-23-02 20:00:00	CJ	10
Calibration	09-23-02 18:08:00		
Quant	09-23-02 20:08:00		019SMPL.D#

r	C#	Analyte	QMass	m	Raw Quant	As	MRL	Report	As	Qual	f
x	3	Be-9	9		10.91	ppb	1	6	RPD		
	4	B-11	11		10.06	ppb	1	5	RPD		
	5	Na-23	23		482.3	ppb	1	26	RPD		x
	6	Mg-24	24		3705	ppb	1	67	RPD		x
	7	Mg-25	25		3653	ppb	1	84	RPD		x
	8	Mg-26	26		3739	ppb	1	65	RPD		x
	9	Al-27	27		13760	ppb	1	59	RPD		x
x	10	Si-28	28		1011	ppb	1	80	RPD		x
	11	K-39	39		2313	ppb	1	42	RPD		x
	13	Ca-43	43		6239	ppb	1	232	RPD		x
	14	Ca-44	44		6146	ppb	1	255	RPD		x
	16	Ti-47	47		558.5	ppb	1	18	RPD		x
	17	V-51	51		27.74	ppb	1	48	RPD		x
	18	Cr-52	52		310.7	ppb	1	22	RPD		x
	19	Cr-53	53		326.3	ppb	1	12	RPD		x
	20	Fe-54	54		16090	ppb	1	87	RPD		x
	21	Mn-55	55		410.7	ppb	1	533	RPD		x
	22	Fe-57	57		15690	ppb	1	81	RPD		x
x	23	Co-59	59		13.77	ppb	1	3	RPD		
x	24	Ni-60	60		19.73	ppb	1	5	RPD		
x	25	Cu-63	63		58.52	ppb	1	23	RPD		x
	26	Cu-65	65		59.13	ppb	1	22	RPD		x
	27	Zn-66	66		211.9	ppb	1	18	RPD		x
	28	Zn-67	67		207.2	ppb	1	13	RPD		x
	29	Zn-68	68		207.9	ppb	1	26	RPD		x
x	32	As-75	75		16.24	ppb	1	17	RPD		
x	34	Se-82	82		10.91	ppb	1	9	RPD		
x	37	Sr-87	87		117.4	ppb	1	35	RPD		x
x	40	Mo-95	95		10.67	ppb	1	3	RPD		
	41	Mo-98	98		10.7	ppb	1	4	RPD		
x	43	Ag-107	107		21.27	ppb	1	2	RPD		
	45	Ag-109	109		21.46	ppb	1	< 1	RPD		
x	46	Cd-111	111		11.24	ppb	1	8	RPD		
	47	Cd-114	114		11.53	ppb	1	2	RPD		
x	50	Sn-120	120		20.62	ppb	1	14	RPD		
x	51	Sb-121	121		2.94	ppb	1	2	RPD		
	52	Sb-123	123		3.07	ppb	1	2	RPD		
x	53	Ba-135	135		179.5	ppb	1	135	RPD		x
	54	Tb-159	159		0	ppb	1	NA	RPD		
	55	Au-197	197		9.81	ppb	1	8	RPD		
x	56	Tl-205	205		9.26	ppb	1	5	RPD		
x	59	Pb-208	208		51.75	ppb	1	14	RPD		
x	61	U-238	238		12.85	ppb	1	1	RPD		

MSDS M021282-008

Assalgai Analytical Laboratories, Inc.

Analytical Result Summary

0209364-01A[MSD] 045

Run Group	MT.2002.1109	18
Calc Method	6020	
Prep Method	MS3050	
Prep Matrix	SOLID	

		By	Dilution
Prepared	09-23-02 8:08:00	JRE	0.9662
Analyzed	09-23-02 20:00:00	CJ	10
Calibration	09-23-02 18:08:00		
Quant	09-23-02 20:08:00		019SMPL.D#

r	C#	Analyte	QMass	m	Raw Quant	As	MRL	Report	As	Qual	f
x	3	Be-9	9		10.91	ppb	1	102	% Recovery		
	4	B-11	11		10.06	ppb	1	100	% Recovery		
	5	Na-23	23		482.3	ppb	1	198	% Recovery		x
	6	Mg-24	24		3705	ppb	1	484	% Recovery		x
	7	Mg-25	25		3653	ppb	1	339	% Recovery		x
	8	Mg-26	26		3739	ppb	1	485	% Recovery		x
	9	Al-27	27		13760	ppb	1	1880	% Recovery		x
x	10	Si-28	28		1011	ppb	1	134	% Recovery		x
	11	K-39	39		2313	ppb	1	525	% Recovery		x
	13	Ca-43	43		6239	ppb	1	< 1	% Recovery		x
	14	Ca-44	44		6146	ppb	1	< 1	% Recovery		x
	16	Ti-47	47		558.5	ppb	1	1370	% Recovery		x
	17	V-51	51		27.74	ppb	1	80	% Recovery		
	18	Cr-52	52		310.7	ppb	1	258	% Recovery		x
	19	Cr-53	53		326.3	ppb	1	380	% Recovery		x
	20	Fe-54	54		16090	ppb	1	1280	% Recovery		x
	21	Mn-55	55		410.7	ppb	1	246	% Recovery		x
	22	Fe-57	57		15690	ppb	1	1180	% Recovery		x
x	23	Co-59	59		13.77	ppb	1	100	% Recovery		
x	24	Ni-60	60		19.73	ppb	1	99	% Recovery		
x	25	Cu-63	63		58.52	ppb	1	109	% Recovery		
	26	Cu-65	65		59.13	ppb	1	108	% Recovery		
	27	Zn-66	66		211.9	ppb	1	332	% Recovery		x
	28	Zn-67	67		207.2	ppb	1	299	% Recovery		x
	29	Zn-68	68		207.9	ppb	1	316	% Recovery		x
x	32	As-75	75		16.24	ppb	1	84	% Recovery		
x	34	Se-82	82		10.91	ppb	1	100	% Recovery		
x	37	Sr-87	87		117.4	ppb	1	229	% Recovery		x
x	40	Mo-95	95		10.67	ppb	1	98	% Recovery		
	41	Mo-98	98		10.7	ppb	1	98	% Recovery		
x	43	Ag-107	107		21.27	ppb	1	95	% Recovery		
	45	Ag-109	109		21.46	ppb	1	97	% Recovery		
x	46	Cd-111	111		11.24	ppb	1	100	% Recovery		
	47	Cd-114	114		11.53	ppb	1	104	% Recovery		
x	50	Sn-120	120		20.62	ppb	1	138	% Recovery		x
x	51	Sb-121	121		2.94	ppb	1	29	% Recovery		x
	52	Sb-123	123		3.07	ppb	1	31	% Recovery		x
x	53	Ba-135	135		179.5	ppb	1	54	% Recovery		x
	54	Tb-159	159		0	ppb	1	< 1	% Recovery		x
	55	Au-197	197		9.81	ppb	1	92	% Recovery		
x	56	Tl-205	205		9.26	ppb	1	90	% Recovery		
x	59	Pb-208	208		51.75	ppb	1	130	% Recovery		x
x	61	U-238	238		12.85	ppb	1	103	% Recovery		

STD-CCV [STD-CCV]

Assaigai Analytical Laboratories, Inc.

046

Analytical Result Summary

Run Group	MT.2002.1109	19
Calc Method	6020	
Prep Method	LAB	
Prep Matrix	LAB	

		By	Dilution
Prepared			1
Analyzed	09-23-02 20:10:00	CJ	1
Calibration	09-23-02 18:08:00		
Quant	09-23-02 20:17:00		020CCV .D#

r	C#	Analyte	QMass	m	Raw Quant	As	MRL	Report	As	Qual	f
	3	Be-9	9		99.49	ppb	1	99	% Recovery		
	4	B-11	11		111.1	ppb	1	111	% Recovery		x
	5	Na-23	23		1178	ppb	1	118	% Recovery		x
	6	Mg-24	24		1168	ppb	1	117	% Recovery		x
	7	Mg-25	25		1240	ppb	1	124	% Recovery		x
	8	Mg-26	26		1225	ppb	1	122	% Recovery		x
	9	Al-27	27		1168	ppb	1	117	% Recovery		x
	10	Si-28	28		1157	ppb	1	116	% Recovery		x
	11	K-39	39		1158	ppb	1	116	% Recovery		x
	13	Ca-43	43		1170	ppb	1	117	% Recovery		x
	14	Ca-44	44		1147	ppb	1	115	% Recovery		x
	16	Ti-47	47		109.7	ppb	1	110	% Recovery		
	17	V-51	51		110.6	ppb	1	111	% Recovery		x
	18	Cr-52	52		109.6	ppb	1	110	% Recovery		
	19	Cr-53	53		99	ppb	1	99	% Recovery		
	20	Fe-54	54		1262	ppb	1	126	% Recovery		x
	21	Mn-55	55		105.8	ppb	1	106	% Recovery		
	22	Fe-57	57		1160	ppb	1	116	% Recovery		x
	23	Co-59	59		107.7	ppb	1	108	% Recovery		
	24	Ni-60	60		107.7	ppb	1	108	% Recovery		
	25	Cu-63	63		107.9	ppb	1	108	% Recovery		
	26	Cu-65	65		108.3	ppb	1	108	% Recovery		
	27	Zn-66	66		105.2	ppb	1	105	% Recovery		
	28	Zn-67	67		101.1	ppb	1	101	% Recovery		
	29	Zn-68	68		104.2	ppb	1	104	% Recovery		
	32	As-75	75		106.2	ppb	1	106	% Recovery		
	34	Se-82	82		104.4	ppb	1	104	% Recovery		
	37	Sr-87	87		102.2	ppb	1	102	% Recovery		
	40	Mo-95	95		101.4	ppb	1	101	% Recovery		
	41	Mo-98	98		101.6	ppb	1	102	% Recovery		
	43	Ag-107	107		101.8	ppb	1	102	% Recovery		
	45	Ag-109	109		102.2	ppb	1	102	% Recovery		
	46	Cd-111	111		104.3	ppb	1	104	% Recovery		
	47	Cd-114	114		103.9	ppb	1	104	% Recovery		
	50	Sn-120	120		103.2	ppb	1	103	% Recovery		
	51	Sb-121	121		102.4	ppb	1	102	% Recovery		
	52	Sb-123	123		103.1	ppb	1	103	% Recovery		
	53	Ba-135	135		103.9	ppb	1	104	% Recovery		
	54	Tb-159	159		0	ppb	1	< 1	% Recovery		x
	55	Au-197	197		100.9	ppb	1	101	% Recovery		
	56	Tl-205	205		100.5	ppb	1	100	% Recovery		
	59	Pb-208	208		102.9	ppb	1	103	% Recovery		
	61	U-238	238		101.7	ppb	1	102	% Recovery		

CB [CB]

Assaigai Analytical Laboratories, Inc.

Analytical Result Summary

047

Run Group	MT.2002.1109	20
Calc Method	6020	
Prep Method	LAB	
Prep Matrix	LAB	

		By	Dilution
Prepared			1
Analyzed	09-23-02 20:19:00	CJ	1
Calibration	09-23-02 18:08:00		
Quant	09-23-02 20:26:00	021CCB	D#

r	C#	Analyte	QMass	m	Raw Quant	As	MRL	Report	As	Qual	f
	3	Be-9	9		0.02	ppb	0.001	< 0.001	mg / L		
	4	B-11	11		-1.26	ppb	0.001	< 0.001	mg / L		
	5	Na-23	23		2.09	ppb	0.01	< 0.010	mg / L		
	6	Mg-24	24		0.83	ppb	0.01	< 0.010	mg / L		
	7	Mg-25	25		0.8	ppb	0.01	< 0.010	mg / L		
	8	Mg-26	26		0.78	ppb	0.01	< 0.010	mg / L		
	9	Al-27	27		1.1	ppb	0.01	< 0.010	mg / L		
	10	Si-28	28		-0.53	ppb	0.001	< 0.001	mg / L		
	11	K-39	39		-9.11	ppb	0.01	< 0.010	mg / L		
	13	Ca-43	43		1.67	ppb	0.01	< 0.010	mg / L		
	14	Ca-44	44		2.67	ppb	0.01	< 0.010	mg / L		
	16	Ti-47	47		-0.11	ppb	0.001	< 0.001	mg / L		
	17	V-51	51		-0.11	ppb	0.001	< 0.001	mg / L		
	18	Cr-52	52		0.48	ppb	0.001	< 0.001	mg / L		
	19	Cr-53	53		3.84	ppb	0.001	0.004	mg / L		x
	20	Fe-54	54		2.53	ppb	0.01	< 0.010	mg / L		
	21	Mn-55	55		0.07	ppb	0.001	< 0.001	mg / L		
	22	Fe-57	57		1	ppb	0.01	< 0.010	mg / L		
	23	Co-59	59		-0.3	ppb	0.001	< 0.001	mg / L		
	24	Ni-60	60		0.02	ppb	0.001	< 0.001	mg / L		
	25	Cu-63	63		0.02	ppb	0.001	< 0.001	mg / L		
	26	Cu-65	65		0.01	ppb	0.001	< 0.001	mg / L		
	27	Zn-66	66		0.04	ppb	0.001	< 0.001	mg / L		
	28	Zn-67	67		0.36	ppb	0.001	< 0.001	mg / L		
	29	Zn-68	68		-0.06	ppb	0.001	< 0.001	mg / L		
	32	As-75	75		0.32	ppb	0.001	< 0.001	mg / L		
	34	Se-82	82		-0.01	ppb	0.001	< 0.001	mg / L		
	37	Sr-87	87		0.03	ppb	0.001	< 0.001	mg / L		
	40	Mo-95	95		-0.72	ppb	0.001	< 0.001	mg / L		
	41	Mo-98	98		-0.68	ppb	0.001	< 0.001	mg / L		
	43	Ag-107	107		-0.03	ppb	0.001	< 0.001	mg / L		
	45	Ag-109	109		-0.03	ppb	0.001	< 0.001	mg / L		
	46	Cd-111	111		0.03	ppb	0.001	< 0.001	mg / L		
	47	Cd-114	114		0.01	ppb	0.001	< 0.001	mg / L		
	50	Sn-120	120		-1.72	ppb	0.001	< 0.001	mg / L		
	51	Sb-121	121		-0.82	ppb	0.001	< 0.001	mg / L		
	52	Sb-123	123		-0.7	ppb	0.001	< 0.001	mg / L		
	53	Ba-135	135		0.03	ppb	0.001	< 0.001	mg / L		
	54	Tb-159	159		0	ppb	0.001	< 0.001	mg / L		
	55	Au-197	197		0.48	ppb	0.001	< 0.001	mg / L		
	56	Tl-205	205		0.21	ppb	0.001	< 0.001	mg / L		
	59	Pb-208	208		-0.31	ppb	0.001	< 0.001	mg / L		
	61	U-238	238		0.02	ppb	0.001	< 0.001	mg / L		

MSDD M021282-008

Assaigai Analytical Laboratories, Inc.

Analytical Result Summary

Run Group	MT.2002.1109	21
Calc Method	6020	
Prep Method	MS3050	
Prep Matrix	SOLID	

0209364-01A[MSD]

		By	Dilution
Prepared	09-23-02 8:08:00	JRE	0.9662
Analyzed	09-23-02 20:28:00	CJ	100
Calibration	09-23-02 18:08:00		
Quant	09-23-02 20:35:00		022SMPL.D#

r	C#	Analyte	QMass	m	Raw Quant	As	MRL	Report	As	Qual	f
	3	Be-9	9		1.04	ppb	1	11	RPD		
	4	B-11	11		-2.89	ppb	1	202	RPD		x
	5	Na-23	23		51.48	ppb	1	41	RPD		x
	6	Mg-24	24		416	ppb	1	3	RPD		
	7	Mg-25	25		410.7	ppb	1	5	RPD		
	8	Mg-26	26		409.7	ppb	1	12	RPD		
x	9	Al-27	27		1453	ppb	1	26	RPD		x
	10	Si-28	28		98.7	ppb	1	96	RPD		x
	11	K-39	39		227.3	ppb	1	50	RPD		x
	13	Ca-43	43		650.5	ppb	1	95	RPD		x
	14	Ca-44	44		646.9	ppb	1	89	RPD		x
x	16	Ti-47	47		59.42	ppb	1	5	RPD		
	17	V-51	51		3.66	ppb	1	25	RPD		x
x	18	Cr-52	52		33.97	ppb	1	52	RPD		x
	19	Cr-53	53		29.15	ppb	1	165	RPD		x
	20	Fe-54	54		1761	ppb	1	15	RPD		
x	21	Mn-55	55		45.7	ppb	1	275	RPD		x
	22	Fe-57	57		1747	ppb	1	6	RPD		
	23	Co-59	59		1.17	ppb	1	26	RPD		x
	24	Ni-60	60		2.14	ppb	1	10	RPD		
	25	Cu-63	63		6.5	ppb	1	23	RPD		x
	26	Cu-65	65		6.48	ppb	1	19	RPD		
	27	Zn-66	66		20.89	ppb	1	8	RPD		
	28	Zn-67	67		19.76	ppb	1	25	RPD		x
	29	Zn-68	68		20.28	ppb	1	8	RPD		
	32	As-75	75		1.99	ppb	1	19	RPD		
	34	Se-82	82		1.13	ppb	1	5	RPD		
	37	Sr-87	87		12.5	ppb	1	7	RPD		
	40	Mo-95	95		0.3	ppb	1	129	RPD		x
	41	Mo-98	98		0.3	ppb	1	130	RPD		x
	43	Ag-107	107		2.12	ppb	1	3	RPD		
	45	Ag-109	109		2.11	ppb	1	4	RPD		
	46	Cd-111	111		1.18	ppb	1	2	RPD		
	47	Cd-114	114		1.14	ppb	1	3	RPD		
	50	Sn-120	120		0.49	ppb	1	278	RPD		x
	51	Sb-121	121		-0.76	ppb	1	200	RPD		x
	52	Sb-123	123		-0.61	ppb	1	200	RPD		x
	53	Ba-135	135		18.24	ppb	1	108	RPD		x
	54	Tb-159	159		0	ppb	1	NA	RPD		
	55	Au-197	197		1.06	ppb	1	< 1	RPD		
	56	Tl-205	205		0.66	ppb	1	39	RPD		x
	59	Pb-208	208		4.98	ppb	1	2	RPD		
	61	U-238	238		1.3	ppb	1	2	RPD		

MSDS M021282-008

Assaigai Analytical Laboratories, Inc.

Analytical Result Summary

049

0209364-01A[MSD]

Run Group	MT.2002.1109	21
Calc Method	6020	
Prep Method	MS3050	
Prep Matrix	SOLID	

		By	Dilution
Prepared	09-23-02 8:08:00	JRE	0.9662
Analyzed	09-23-02 20:28:00	CJ	100
Calibration	09-23-02 18:08:00		
Quant	09-23-02 20:35:00	022SMPL.D#	

r	C#	Analyte	QMass	m	Raw Quant	As	MRL	Report	As	Qual	f
	3	Be-9	9		1.04	ppb	1	96	% Recovery		
	4	B-11	11		-2.89	ppb	1	< 1	% Recovery		x
	5	Na-23	23		51.48	ppb	1	231	% Recovery		x
	6	Mg-24	24		416	ppb	1	939	% Recovery		x
	7	Mg-25	25		410.7	ppb	1	793	% Recovery		x
	8	Mg-26	26		409.7	ppb	1	843	% Recovery		x
x	9	Al-27	27		1453	ppb	1	2650	% Recovery		x
	10	Si-28	28		98.7	ppb	1	110	% Recovery		
	11	K-39	39		227.3	ppb	1	485	% Recovery		x
	13	Ca-43	43		650.5	ppb	1	220	% Recovery		x
	14	Ca-44	44		646.9	ppb	1	246	% Recovery		x
x	16	Ti-47	47		59.42	ppb	1	1730	% Recovery		x
	17	V-51	51		3.66	ppb	1	168	% Recovery		x
x	18	Cr-52	52		33.97	ppb	1	548	% Recovery		x
	19	Cr-53	53		29.15	ppb	1	32	% Recovery		x
	20	Fe-54	54		1761	ppb	1	2800	% Recovery		x
x	21	Mn-55	55		45.7	ppb	1	709	% Recovery		x
	22	Fe-57	57		1747	ppb	1	2960	% Recovery		x
	23	Co-59	59		1.17	ppb	1	79	% Recovery		x
	24	Ni-60	60		2.14	ppb	1	116	% Recovery		
	25	Cu-63	63		6.5	ppb	1	174	% Recovery		x
	26	Cu-65	65		6.48	ppb	1	165	% Recovery		x
	27	Zn-66	66		20.89	ppb	1	302	% Recovery		x
	28	Zn-67	67		19.76	ppb	1	203	% Recovery		x
	29	Zn-68	68		20.28	ppb	1	264	% Recovery		x
	32	As-75	75		1.99	ppb	1	120	% Recovery		
	34	Se-82	82		1.13	ppb	1	104	% Recovery		
	37	Sr-87	87		12.5	ppb	1	305	% Recovery		x
	40	Mo-95	95		0.3	ppb	1	22	% Recovery		x
	41	Mo-98	98		0.3	ppb	1	22	% Recovery		x
	43	Ag-107	107		2.12	ppb	1	94	% Recovery		
	45	Ag-109	109		2.11	ppb	1	93	% Recovery		
	46	Cd-111	111		1.18	ppb	1	105	% Recovery		
	47	Cd-114	114		1.14	ppb	1	103	% Recovery		
	50	Sn-120	120		0.49	ppb	1	< 1	% Recovery		x
	51	Sb-121	121		-0.76	ppb	1	< 1	% Recovery		x
	52	Sb-123	123		-0.61	ppb	1	< 1	% Recovery		x
	53	Ba-135	135		18.24	ppb	1	83	% Recovery		
	54	Tb-159	159		0	ppb	1	< 1	% Recovery		x
	55	Au-197	197		1.06	ppb	1	99	% Recovery		
	56	Tl-205	205		0.66	ppb	1	64	% Recovery		x
	59	Pb-208	208		4.98	ppb	1	110	% Recovery		
	61	U-238	238		1.3	ppb	1	104	% Recovery		

FRAC M021282-011

Assaigai Analytical Laboratories, Inc.

Analytical Result Summary

0209364-02A

Run Group	MT.2002.1109	22
Calc Method	6020	
Prep Method	MS3050	
Prep Matrix	SOLID	

		By	Dilution
Prepared	09-23-02 8:08:00	JRE	0.9911
Analyzed	09-23-02 20:37:00	CJ	10
Calibration	09-23-02 18:08:00		
Quant	09-23-02 20:44:00	023SMPL.D#	

r	C#	Analyte	QMass	m	Raw Quant	As	MRL	Report	As	Qual	f
x	3	Be-9	9		0.98	ppb	0.025	0.486	mg / Kg		
	4	B-11	11		-1.56	ppb	0.15	< 1.49	mg / Kg		
	5	Na-23	23		325.1	ppb	0.5	161	mg / Kg		
	6	Mg-24	24		1630	ppb	0.5	808	mg / Kg		
	7	Mg-25	25		1724	ppb	0.5	854	mg / Kg		
	8	Mg-26	26		1708	ppb	0.5	846	mg / Kg		
	9	Al-27	27		11670	ppb	0.5	5780	mg / Kg		x
x	10	Si-28	28		411.6	ppb	1	204	mg / Kg	E	
	11	K-39	39		1479	ppb	0.5	733	mg / Kg		
	13	Ca-43	43		2121	ppb	0.5	1050	mg / Kg		
	14	Ca-44	44		2104	ppb	0.5	1040	mg / Kg		
	16	Ti-47	47		300.1	ppb	0.025	149	mg / Kg		x
	17	V-51	51		9.84	ppb	0.05	4.88	mg / Kg		
x	18	Cr-52 >5x MB	52		6.17	ppb	0.05	3.06	mg / Kg		
	19	Cr-53	53		-4.79	ppb	0.25	< 2.48	mg / Kg		
	20	Fe-54	54		13740	ppb	0.5	6810	mg / Kg		x
	21	Mn-55	55		328.7	ppb	0.025	163	mg / Kg		x
	22	Fe-57	57		13870	ppb	0.5	6870	mg / Kg		x
x	23	Co-59	59		1.54	ppb	0.025	0.763	mg / Kg		
x	24	Ni-60	60		4.83	ppb	0.025	2.39	mg / Kg		
x	25	Cu-63 >5x MB	63		4.7	ppb	0.025	2.33	mg / Kg		
	26	Cu-65	65		4.81	ppb	0.025	2.38	mg / Kg		
	27	Zn-66	66		54.44	ppb	0.25	27.0	mg / Kg		
	28	Zn-67	67		55.81	ppb	0.25	27.6	mg / Kg		
	29	Zn-68	68		49.43	ppb	0.25	24.5	mg / Kg		
x	32	As-75 >5x MB	75		2.57	ppb	0.025	1.27	mg / Kg		
x	34	Se-82	82		1	ppb	0.025	0.496	mg / Kg		
x	37	Sr-87	87		75.18	ppb	0.025	37.2	mg / Kg		
x	40	Mo-95	95		1.38	ppb	0.025	0.684	mg / Kg		
	41	Mo-98	98		1.38	ppb	0.025	0.674	mg / Kg		
x	43	Ag-107	107		-0.01	ppb	0.025	< 0.248	mg / Kg		
	45	Ag-109	109		-0.01	ppb	0.025	< 0.248	mg / Kg		
OK x	46	Cd-111	111		0.23	ppb	0.025	< 0.248	mg / Kg		
	47	Cd-114	114		0.02	ppb	0.025	< 0.248	mg / Kg		
	50	Sn-120 (B)	120		1.94	ppb	0.025	0.961	mg / Kg		
x	51	Sb-121	121		-1.13	ppb	0.05	< 0.496	mg / Kg		
	52	Sb-123	123		-1	ppb	0.05	< 0.496	mg / Kg		
x	53	Ba-135 >5x MB	135		92.58	ppb	0.025	45.9	mg / Kg		
	54	Tb-159	159		0	ppb	0.001	< 0.010	mg / Kg		
	55	Au-197	197		-0.07	ppb	0.025	< 0.248	mg / Kg		
x	56	Tl-205	205		-0.16	ppb	0.025	< 0.248	mg / Kg		
x	59	Pb-208	208		17.75	ppb	0.025	8.80	mg / Kg		
x	61	U-238	238		0.89	ppb	0.025	0.441	mg / Kg		

FRAC M021282-011

Assaigai Analytical Laboratories, Inc.

Analytical Result Summary

0209364-02A

051

Run Group	MT.2002.109	23
Calc Method	6020	
Prep Method	MS3050	
Prep Matrix	SOLID	

		By	Dilution
Prepared	09-23-02 8:08:00	JRE	0.9911
Analyzed	09-23-02 20:46:00	CJ	100
Calibration	09-23-02 18:08:00		
Quant	09-23-02 20:53:00	024SMPL.D#	

r	C#	Analyte	QMass	m	Raw Quant	As	MRL	Report	As	Qual	f
	3	Be-9	9		0.08	ppb	0.025	< 2.48	mg / Kg		
	4	B-11	11		-4.23	ppb	0.15	< 14.9	mg / Kg		
	5	Na-23	23		29.21	ppb	0.5	145	mg / Kg		
	6	Mg-24	24		178.4	ppb	0.5	884	mg / Kg		
	7	Mg-25	25		178.8	ppb	0.5	886	mg / Kg		
	8	Mg-26	26		181.7	ppb	0.5	900	mg / Kg		
x	9	Al-27 >5x MB	27		1219	ppb	0.5	6040	mg / Kg		
	10	Si-28	28		54.56	ppb	1	270	mg / Kg		
	11	K-39	39		143.2	ppb	0.5	710	mg / Kg		
	13	Ca-43	43		204	ppb	0.5	1010	mg / Kg		
	14	Ca-44	44		202.4	ppb	0.5	1000	mg / Kg		
x	16	Ti-47 >5x MB	47		30.65	ppb	0.025	152	mg / Kg		
	17	V-51	51		1.42	ppb	0.05	7.04	mg / Kg		
	18	Cr-52	52		0.35	ppb	0.05	< 4.96	mg / Kg		
	19	Cr-53	53		-15.11	ppb	0.25	< 24.8	mg / Kg		
	20	Fe-54	54		1384	ppb	0.5	6860	mg / Kg		
x	21	Mn-55 >5x MB	55		33.7	ppb	0.025	167	mg / Kg		
	22	Fe-57	57		1388	ppb	0.5	6880	mg / Kg		
	23	Co-59	59		-0.16	ppb	0.025	< 2.48	mg / Kg		
	24	Ni-60	60		0.47	ppb	0.025	< 2.48	mg / Kg		
	25	Cu-63	63		0.46	ppb	0.025	< 2.48	mg / Kg		
	26	Cu-65	65		0.48	ppb	0.025	< 2.48	mg / Kg		
	27	Zn-66	66		4.16	ppb	0.25	< 24.8	mg / Kg		
	28	Zn-67	67		2.46	ppb	0.25	< 24.8	mg / Kg		
	29	Zn-68	68		3.55	ppb	0.25	< 24.8	mg / Kg		
	32	As-75	75		0.76	ppb	0.025	3.77	mg / Kg		
	34	Se-82	82		-0.05	ppb	0.025	< 2.48	mg / Kg		
	37	Sr-87	87		7.67	ppb	0.025	38.0	mg / Kg		
	40	Mo-95	95		-0.78	ppb	0.025	< 2.48	mg / Kg		
	41	Mo-98	98		-0.74	ppb	0.025	< 2.48	mg / Kg		
	43	Ag-107	107		-0.05	ppb	0.025	< 2.48	mg / Kg		
	45	Ag-109	109		-0.05	ppb	0.025	< 2.48	mg / Kg		
	46	Cd-111	111		-0.01	ppb	0.025	< 2.48	mg / Kg		
	47	Cd-114	114		-0.04	ppb	0.025	< 2.48	mg / Kg		
	50	Sn-120	120		-1.43	ppb	0.025	< 2.48	mg / Kg		
	51	Sb-121	121		-1.26	ppb	0.05	< 4.96	mg / Kg		
	52	Sb-123	123		-1.11	ppb	0.05	< 4.96	mg / Kg		
	53	Ba-135	135		8.93	ppb	0.025	44.2	mg / Kg		
	54	Tb-159	159		0	ppb	0.001	< 0.099	mg / Kg		
	55	Au-197	197		-0.16	ppb	0.025	< 2.48	mg / Kg		
	56	Tl-205	205		-0.46	ppb	0.025	< 2.48	mg / Kg		
	59	Pb-208	208		1.36	ppb	0.025	6.74	mg / Kg		
	61	U-238	238		0.06	ppb	0.025	< 2.48	mg / Kg		

FRAC M021282-012

Assaigai Analytical Laboratories, Inc.

Analytical Result Summary

0209364-03A

			By	Dilution
Prepared	09-23-02 8:08:00		JRE	0.9833
Analyzed	09-23-02 20:55:00		CJ	10
Calibration	09-23-02 18:08:00			
Quant	09-23-02 21:03:00		025SMPL.D#	

Run Group	MT.2002.1109 24
Calc Method	6020
Prep Method	MS3050
Prep Matrix	SOLID

r	C#	Analyte	QMass	m	Raw Quant	As	MRL	Report	As	Qual	f
x	3	Be-9	9		0.78	ppb	0.025	0.383	mg / Kg		
	4	B-11	11		-1.49	ppb	0.15	< 1.47	mg / Kg		
	5	Na-23	23		163.8	ppb	0.5	80.5	mg / Kg		
	6	Mg-24	24		1839	ppb	0.5	904	mg / Kg		
	7	Mg-25	25		1921	ppb	0.5	944	mg / Kg		
	8	Mg-26	26		1890	ppb	0.5	929	mg / Kg		
	9	Al-27	27		11180	ppb	0.5	5500	mg / Kg		x
x	10	Si-28 >5x CB	28		591.8	ppb	1	291	mg / Kg	E	
	11	K-39	39		1641	ppb	0.5	807	mg / Kg		
	13	Ca-43	43		2563	ppb	0.5	1260	mg / Kg		
	14	Ca-44	44		2533	ppb	0.5	1240	mg / Kg		
	16	Ti-47	47		218.4	ppb	0.025	107	mg / Kg		x
	17	V-51	51		12.55	ppb	0.05	6.17	mg / Kg		
x	18	Cr-52 >5x MB	52		75.85	ppb	0.05	37.3	mg / Kg		
	19	Cr-53	53		66.68	ppb	0.25	32.8	mg / Kg		
	20	Fe-54	54		9646	ppb	0.5	4740	mg / Kg		
	21	Mn-55	55		236.3	ppb	0.025	116	mg / Kg		x
	22	Fe-57	57		9729	ppb	0.5	4780	mg / Kg		
x	23	Co-59	59		2.1	ppb	0.025	1.03	mg / Kg		
x	24	Ni-60	60		6.44	ppb	0.025	3.17	mg / Kg		
x	25	Cu-63 >5x MB	63		36.39	ppb	0.025	17.9	mg / Kg		
	26	Cu-65	65		36.59	ppb	0.025	18.0	mg / Kg		
	27	Zn-66	66		88.23	ppb	0.25	43.4	mg / Kg		
	28	Zn-67	67		88.47	ppb	0.25	43.5	mg / Kg		
	29	Zn-68	68		83.91	ppb	0.25	41.2	mg / Kg		
x	32	As-75 >5x MB	75		2.79	ppb	0.025	1.37	mg / Kg		
x	34	Se-82	82		1.01	ppb	0.025	0.496	mg / Kg		
x	37	Sr-87	87		71.48	ppb	0.025	35.1	mg / Kg		
x	40	Mo-95	95		-0.3	ppb	0.025	< 0.246	mg / Kg		
	41	Mo-98	98		-0.33	ppb	0.025	< 0.246	mg / Kg		
x	43	Ag-107	107		2.65	ppb	0.025	1.30	mg / Kg		
	45	Ag-109	109		2.63	ppb	0.025	1.29	mg / Kg		
x	46	Cd-111	111		0.47	ppb	0.025	< 0.246	mg / Kg		
	47	Cd-114	114		0.3	ppb	0.025	< 0.246	mg / Kg		
x	50	Sn-120 (B)	120		2.15	ppb	0.025	1.06	mg / Kg		
x	51	Sb-121	121		-1.21	ppb	0.05	< 0.492	mg / Kg		
	52	Sb-123	123		-1.05	ppb	0.05	< 0.492	mg / Kg		
x	53	Ba-135 >5x MB	135		85.36	ppb	0.025	42.0	mg / Kg		
	54	Tb-159	159		0	ppb	0.001	< 0.010	mg / Kg		
	55	Au-197	197		-0.04	ppb	0.025	< 0.246	mg / Kg		
x	56	Tl-205	205		-0.38	ppb	0.025	< 0.246	mg / Kg		
x	59	Pb-208	208		29.71	ppb	0.025	14.6	mg / Kg		
x	61	U-238	238		1.42	ppb	0.025	0.698	mg / Kg		

FRAC M021282-012

Assaigai Analytical Laboratories, Inc.

Analytical Result Summary

0209364-03A

053

Run Group	MT.2002.1109	25		
Calc Method	6020			
Prep Method	MS3050			
Prep Matrix	SOLID			

		By	Dilution
Prepared	09-23-02 8:08:00	JRE	0.9833
Analyzed	09-23-02 21:05:00	CJ	100
Calibration	09-23-02 18:08:00		
Quant	09-23-02 21:12:00	026SMPL.D#	

r	C#	Analyte	QMass	m	Raw Quant	As	MRL	Report	As	Qual	f
	3	Be-9	9		0.06	ppb	0.025	< 2.46	mg / Kg		
	4	B-11	11		-4.24	ppb	0.15	< 14.7	mg / Kg		
	5	Na-23	23		14.11	ppb	0.5	69.4	mg / Kg		
	6	Mg-24	24		217.6	ppb	0.5	1070	mg / Kg		
	7	Mg-25	25		218.2	ppb	0.5	1070	mg / Kg		
	8	Mg-26	26		220.1	ppb	0.5	1080	mg / Kg		
x	9	Al-27 >5x MB	27		1299	ppb	0.5	6390	mg / Kg		
	10	Si-28	28		86.64	ppb	1	426	mg / Kg		
	11	K-39	39		169.5	ppb	0.5	833	mg / Kg		
	13	Ca-43	43		282	ppb	0.5	1390	mg / Kg		
	14	Ca-44	44		280.4	ppb	0.5	1380	mg / Kg		
x	16	Ti-47 >5x MB	47		24.29	ppb	0.025	119	mg / Kg		
	17	V-51	51		1.13	ppb	0.05	5.56	mg / Kg		
	18	Cr-52	52		8.02	ppb	0.05	39.4	mg / Kg		
	19	Cr-53	53		-6.12	ppb	0.25	< 24.6	mg / Kg		
	20	Fe-54	54		1082	ppb	0.5	5320	mg / Kg		
x	21	Mn-55 >5x MB	55		26	ppb	0.025	128	mg / Kg		
	22	Fe-57	57		1097	ppb	0.5	5390	mg / Kg		
	23	Co-59	59		-0.09	ppb	0.025	< 2.46	mg / Kg		
	24	Ni-60	60		0.72	ppb	0.025	3.54	mg / Kg		
	25	Cu-63	63		4.04	ppb	0.025	19.9	mg / Kg		
	26	Cu-65	65		4.09	ppb	0.025	20.1	mg / Kg		
	27	Zn-66	66		8.54	ppb	0.25	42.0	mg / Kg		
	28	Zn-67	67		6.82	ppb	0.25	33.5	mg / Kg		
	29	Zn-68	68		7.82	ppb	0.25	38.4	mg / Kg		
	32	As-75	75		0.61	ppb	0.025	3.00	mg / Kg		
	34	Se-82	82		-0.05	ppb	0.025	< 2.46	mg / Kg		
	37	Sr-87	87		7.83	ppb	0.025	38.5	mg / Kg		
	40	Mo-95	95		-0.93	ppb	0.025	< 2.46	mg / Kg		
	41	Mo-98	98		-0.9	ppb	0.025	< 2.46	mg / Kg		
	43	Ag-107	107		0.25	ppb	0.025	< 2.46	mg / Kg		
	45	Ag-109	109		0.24	ppb	0.025	< 2.46	mg / Kg		
	46	Cd-111	111		0.04	ppb	0.025	< 2.46	mg / Kg		
	47	Cd-114	114		0.01	ppb	0.025	< 2.46	mg / Kg		
	50	Sn-120	120		-1.35	ppb	0.025	< 2.46	mg / Kg		
	51	Sb-121	121		-1.27	ppb	0.05	< 4.92	mg / Kg		
	52	Sb-123	123		-1.13	ppb	0.05	< 4.92	mg / Kg		
	53	Ba-135	135		9.01	ppb	0.025	44.3	mg / Kg		
	54	Tb-159	159		0	ppb	0.001	< 0.098	mg / Kg		
	55	Au-197	197		-0.19	ppb	0.025	< 2.46	mg / Kg		
	56	Tl-205	205		-0.52	ppb	0.025	< 2.46	mg / Kg		
	59	Pb-208	208		2.88	ppb	0.025	14.2	mg / Kg		
	61	U-238	238		0.12	ppb	0.025	< 2.46	mg / Kg		

FRAC M021282-013

Assaigai Analytical Laboratories, Inc.

Analytical Result Summary

0209364-04A

054

			By	Dilution
Prepared	09-23-02 8:08:00		JRE	0.939
Analyzed	09-23-02 21:14:00		CJ	10
Calibration	09-23-02 18:08:00			
Quant	09-23-02 21:21:00		027SMPL.D#	

Run Group	MT.2002.1109 26
Calc Method	6020
Prep Method	MS3050
Prep Matrix	SOLID

r	C#	Analyte		QMass	m	Raw Quant	As	MRL	Report	As	Qual	f
x	3	Be-9		9		0.97	ppb	0.025	0.455	mg / Kg		
	4	B-11		11		-1.65	ppb	0.15	< 1.41	mg / Kg		
	5	Na-23		23		304.5	ppb	0.5	143	mg / Kg		
	6	Mg-24		24		1621	ppb	0.5	761	mg / Kg		
	7	Mg-25		25		1693	ppb	0.5	795	mg / Kg		
	8	Mg-26		26		1676	ppb	0.5	787	mg / Kg		
	9	Al-27		27		12020	ppb	0.5	5640	mg / Kg		x
x	10	Si-28	>5x CB	28		432.9	ppb	1	203	mg / Kg	E	
	11	K-39		39		1516	ppb	0.5	712	mg / Kg		
	13	Ca-43		43		1816	ppb	0.5	852	mg / Kg		
	14	Ca-44		44		1785	ppb	0.5	838	mg / Kg		
	16	Ti-47		47		331.3	ppb	0.025	156	mg / Kg		x
	17	V-51		51		10.85	ppb	0.05	5.09	mg / Kg		
x	18	Cr-52	>5x MB	52		6.03	ppb	0.05	2.83	mg / Kg		
	19	Cr-53		53		-7.37	ppb	0.25	< 2.35	mg / Kg		
	20	Fe-54		54		14070	ppb	0.5	6600	mg / Kg		x
	21	Mn-55		55		357.9	ppb	0.025	168	mg / Kg		x
	22	Fe-57		57		13960	ppb	0.5	6550	mg / Kg		x
x	23	Co-59		59		1.72	ppb	0.025	0.808	mg / Kg		
x	24	Ni-60		60		5	ppb	0.025	2.35	mg / Kg		
x	25	Cu-63	>5x MB	63		4.72	ppb	0.025	2.22	mg / Kg		
	26	Cu-65		65		4.82	ppb	0.025	2.26	mg / Kg		
	27	Zn-66		66		54.9	ppb	0.25	25.8	mg / Kg		
	28	Zn-67		67		55.88	ppb	0.25	26.2	mg / Kg		
	29	Zn-68		68		49.87	ppb	0.25	23.4	mg / Kg		
x	32	As-75	>5x MB	75		2.55	ppb	0.025	1.20	mg / Kg		
x	34	Se-82		82		1.41	ppb	0.025	0.662	mg / Kg		
x	37	Sr-87		87		74.73	ppb	0.025	35.1	mg / Kg		
x	40	Mo-95		95		1.33	ppb	0.025	0.624	mg / Kg		
	41	Mo-98		98		1.37	ppb	0.025	0.643	mg / Kg		
x	43	Ag-107		107		-0.02	ppb	0.025	< 0.235	mg / Kg		
	45	Ag-109		109		-0.02	ppb	0.025	< 0.235	mg / Kg		
x	46	Cd-111		111		0.34	ppb	0.025	< 0.235	mg / Kg		
	47	Cd-114		114		-0.03	ppb	0.025	< 0.235	mg / Kg		
x	50	Sn-120	(B)	120		2.19	ppb	0.025	1.03	mg / Kg		
x	51	Sb-121		121		-1.22	ppb	0.05	< 0.470	mg / Kg		
	52	Sb-123		123		-1.04	ppb	0.05	< 0.470	mg / Kg		
x	53	Ba-135	>5x MB	135		72.27	ppb	0.025	33.9	mg / Kg		
	54	Tb-159		159		0	ppb	0.001	< 0.009	mg / Kg		
	55	Au-197		197		-0.15	ppb	0.025	< 0.235	mg / Kg		
x	56	Tl-205		205		-0.18	ppb	0.025	< 0.235	mg / Kg		
x	59	Pb-208		208		21.54	ppb	0.025	10.1	mg / Kg		
x	61	U-238		238		0.96	ppb	0.025	0.451	mg / Kg		

FRAC M021282-013

Assaigai Analytical Laboratories, Inc.

Analytical Result Summary

0209364-04A

			By	Dilution
Prepared	09-23-02 8:08:00		JRE	0.939
Analyzed	09-23-02 21:23:00		CJ	100
Calibration	09-23-02 18:08:00			
Quant	09-23-02 21:30:00			028SMPL.D#

Run Group	MT.2002,1109	27
Calc Method	6020	
Prep Method	MS3050	
Prep Matrix	SOLID	

r	C#	Analyte	QMass	m	Raw Quant	As	MRL	Report	As	Qual	f
	3	Be-9	9		0.09	ppb	0.025	< 2.35	mg / Kg		
	4	B-11	11		-4.26	ppb	0.15	< 14.1	mg / Kg		
	5	Na-23	23		28.96	ppb	0.5	136	mg / Kg		
	6	Mg-24	24		182	ppb	0.5	854	mg / Kg		
	7	Mg-25	25		182.2	ppb	0.5	855	mg / Kg		
	8	Mg-26	26		181.7	ppb	0.5	853	mg / Kg		
x	9	Al-27 >5x MB	27		1280	ppb	0.5	6010	mg / Kg		
	10	Si-28	28		76.84	ppb	1	361	mg / Kg		
	11	K-39	39		159.4	ppb	0.5	748	mg / Kg		
	13	Ca-43	43		173.3	ppb	0.5	814	mg / Kg		
	14	Ca-44	44		173.5	ppb	0.5	814	mg / Kg		
x	16	Ti-47 >5x MB	47		34.46	ppb	0.025	162	mg / Kg		
	17	V-51	51		1.11	ppb	0.05	5.21	mg / Kg		
	18	Cr-52	52		0.41	ppb	0.05	< 4.70	mg / Kg		
	19	Cr-53	53		-13.55	ppb	0.25	< 23.5	mg / Kg		
	20	Fe-54	54		1511	ppb	0.5	7090	mg / Kg		
x	21	Mn-55 >5x MB	55		38.01	ppb	0.025	178	mg / Kg		
	22	Fe-57	57		1479	ppb	0.5	6940	mg / Kg		
	23	Co-59	59		-0.14	ppb	0.025	< 2.35	mg / Kg		
	24	Ni-60	60		0.5	ppb	0.025	< 2.35	mg / Kg		
	25	Cu-63	63		0.48	ppb	0.025	< 2.35	mg / Kg		
	26	Cu-65	65		0.48	ppb	0.025	< 2.35	mg / Kg		
	27	Zn-66	66		4.14	ppb	0.25	< 23.5	mg / Kg		
	28	Zn-67	67		2.23	ppb	0.25	< 23.5	mg / Kg		
	29	Zn-68	68		3.42	ppb	0.25	< 23.5	mg / Kg		
	32	As-75	75		0.44	ppb	0.025	< 2.35	mg / Kg		
	34	Se-82	82		0.05	ppb	0.025	< 2.35	mg / Kg		
	37	Sr-87	87		7.6	ppb	0.025	35.7	mg / Kg		
	40	Mo-95	95		-0.79	ppb	0.025	< 2.35	mg / Kg		
	41	Mo-98	98		-0.74	ppb	0.025	< 2.35	mg / Kg		
	43	Ag-107	107		-0.05	ppb	0.025	< 2.35	mg / Kg		
	45	Ag-109	109		-0.05	ppb	0.025	< 2.35	mg / Kg		
	46	Cd-111	111		-0.04	ppb	0.025	< 2.35	mg / Kg		
	47	Cd-114	114		-0.03	ppb	0.025	< 2.35	mg / Kg		
	50	Sn-120	120		-1.4	ppb	0.025	< 2.35	mg / Kg		
	51	Sb-121	121		-1.28	ppb	0.05	< 4.70	mg / Kg		
	52	Sb-123	123		-1.14	ppb	0.05	< 4.70	mg / Kg		
	53	Ba-135	135		6.98	ppb	0.025	32.8	mg / Kg		
	54	Tb-159	159		0	ppb	0.001	< 0.094	mg / Kg		
	55	Au-197	197		-0.18	ppb	0.025	< 2.35	mg / Kg		
	56	Tl-205	205		-0.5	ppb	0.025	< 2.35	mg / Kg		
	59	Pb-208	208		1.76	ppb	0.025	8.26	mg / Kg		
	61	U-238	238		0.06	ppb	0.025	< 2.35	mg / Kg		

FRAC M021282-014

Assaigai Analytical Laboratories, Inc.

Analytical Result Summary

0209364-05A 056

Run Group	MT.2002.1109	28
Calc Method	6020	
Prep Method	MS3050	
Prep Matrix	SOLID	

		By	Dilution
Prepared	09-23-02 8:08:00	JRE	0.9588
Analyzed	09-23-02 21:32:00	CJ	10
Calibration	09-23-02 18:08:00		
Quant	09-23-02 21:40:00		029SMPL.D#

r	C#	Analyte	QMass	m	Raw Quant	As	MRL	Report	As	Qual	f
x	3	Be-9	9		1.26	ppb	0.025	0.604	mg / Kg		
	4	B-11	11		-1.61	ppb	0.15	< 1.44	mg / Kg		
	5	Na-23	23		323.6	ppb	0.5	155	mg / Kg		
	6	Mg-24	24		2011	ppb	0.5	964	mg / Kg		
	7	Mg-25	25		2126	ppb	0.5	1020	mg / Kg		
	8	Mg-26	26		2146	ppb	0.5	1030	mg / Kg		
	9	Al-27	27		13230	ppb	0.5	6340	mg / Kg		x
x	10	Si-28 >5x CB	28		407.2	ppb	1	195	mg / Kg	E	
	11	K-39	39		1806	ppb	0.5	866	mg / Kg		
	13	Ca-43	43		2265	ppb	0.5	1080	mg / Kg		
	14	Ca-44	44		2244	ppb	0.5	1080	mg / Kg		
	16	Ti-47	47		370	ppb	0.025	177	mg / Kg		x
	17	V-51	51		13.71	ppb	0.05	6.57	mg / Kg		
x	18	Cr-52 >5x MB	52		7.36	ppb	0.05	3.53	mg / Kg		
	19	Cr-53	53		-6.5	ppb	0.25	< 2.40	mg / Kg		
	20	Fe-54	54		16670	ppb	0.5	7990	mg / Kg		x
	21	Mn-55	55		310.4	ppb	0.025	149	mg / Kg		x
	22	Fe-57	57		16590	ppb	0.5	7950	mg / Kg		x
x	23	Co-59	59		1.89	ppb	0.025	0.906	mg / Kg		
x	24	Ni-60	60		5.39	ppb	0.025	2.58	mg / Kg		
x	25	Cu-63 >5x MB	63		5.28	ppb	0.025	2.53	mg / Kg		
	26	Cu-65	65		5.47	ppb	0.025	2.62	mg / Kg		
	27	Zn-66	66		72	ppb	0.25	34.5	mg / Kg		
	28	Zn-67	67		73.21	ppb	0.25	35.1	mg / Kg		
	29	Zn-68	68		65.82	ppb	0.25	31.6	mg / Kg		
x	32	As-75 >5x MB	75		2.54	ppb	0.025	1.22	mg / Kg		
x	34	Se-82	82		1.49	ppb	0.025	0.714	mg / Kg		
x	37	Sr-87	87		95.01	ppb	0.025	45.5	mg / Kg		
x	40	Mo-95	95		1.87	ppb	0.025	0.896	mg / Kg		
	41	Mo-98	98		1.84	ppb	0.025	0.882	mg / Kg		
x	43	Ag-107	107		-0.02	ppb	0.025	< 0.240	mg / Kg		
	45	Ag-109	109		-0.02	ppb	0.025	< 0.240	mg / Kg		
x	46	Cd-111	111		0.34	ppb	0.025	< 0.240	mg / Kg		
	47	Cd-114	114		-0.01	ppb	0.025	< 0.240	mg / Kg		
x	50	Sn-120 (B)	120		2.27	ppb	0.025	1.09	mg / Kg		
x	51	Sb-121	121		-1.24	ppb	0.05	< 0.479	mg / Kg		
	52	Sb-123	123		-1.09	ppb	0.05	< 0.479	mg / Kg		
x	53	Ba-135 >5x MB	135		103.8	ppb	0.025	49.8	mg / Kg		
	54	Tb-159	159		0	ppb	0.001	< 0.010	mg / Kg		
	55	Au-197	197		-0.14	ppb	0.025	< 0.240	mg / Kg		
x	56	Tl-205	205		-0.25	ppb	0.025	< 0.240	mg / Kg		
x	59	Pb-208	208		18.77	ppb	0.025	9.00	mg / Kg		
x	61	U-238	238		0.9	ppb	0.025	0.431	mg / Kg		

FRAC M021282-014

Assaigai Analytical Laboratories, Inc.

Analytical Result Summary

0209364-05A

Run Group	MT.2002.1109	29
Calc Method	6020	
Prep Method	MS3050	
Prep Matrix	SOLID	

		By	Dilution
Prepared	09-23-02 8:08:00	JRE	0.9588
Analyzed	09-23-02 21:42:00	CJ	100
Calibration	09-23-02 18:08:00		
Quant	09-23-02 21:49:00	030SMPL.D#	

r	C#	Analyte	QMass	m	Raw Quant	As	MRL	Report	As	Qual	f
	3	Be-9	9		0.12	ppb	0.025	< 2.40	mg / Kg		
	4	B-11	11		-4.36	ppb	0.15	< 14.4	mg / Kg		
	5	Na-23	23		35.06	ppb	0.5	168	mg / Kg		
	6	Mg-24	24		245.9	ppb	0.5	1180	mg / Kg		
	7	Mg-25	25		249	ppb	0.5	1190	mg / Kg		
	8	Mg-26	26		247.4	ppb	0.5	1190	mg / Kg		
x	9	Al-27 >5x MB	27		1572	ppb	0.5	7540	mg / Kg		
	10	Si-28	28		54.46	ppb	1	261	mg / Kg		
	11	K-39	39		206.9	ppb	0.5	992	mg / Kg		
	13	Ca-43	43		240.5	ppb	0.5	1150	mg / Kg		
	14	Ca-44	44		247.9	ppb	0.5	1190	mg / Kg		
x	16	Ti-47 >5x MB	47		42.29	ppb	0.025	203	mg / Kg		
	17	V-51	51		1.33	ppb	0.05	6.38	mg / Kg		
	18	Cr-52	52		0.62	ppb	0.05	< 4.79	mg / Kg		
	19	Cr-53	53		-11.38	ppb	0.25	< 24.0	mg / Kg		
	20	Fe-54	54		1924	ppb	0.5	9220	mg / Kg		
x	21	Mn-55 >5x MB	55		35.49	ppb	0.025	170	mg / Kg		
	22	Fe-57	57		1904	ppb	0.5	9130	mg / Kg		
	23	Co-59	59		-0.09	ppb	0.025	< 2.40	mg / Kg		
	24	Ni-60	60		0.61	ppb	0.025	2.92	mg / Kg		
	25	Cu-63	63		0.61	ppb	0.025	2.92	mg / Kg		
	26	Cu-65	65		0.61	ppb	0.025	2.92	mg / Kg		
	27	Zn-66	66		6.75	ppb	0.25	32.4	mg / Kg		
	28	Zn-67	67		5.05	ppb	0.25	24.2	mg / Kg		
	29	Zn-68	68		5.93	ppb	0.25	28.4	mg / Kg		
	32	As-75	75		0.41	ppb	0.025	< 2.40	mg / Kg		
	34	Se-82	82		0.15	ppb	0.025	< 2.40	mg / Kg		
	37	Sr-87	87		10.55	ppb	0.025	50.6	mg / Kg		
	40	Mo-95	95		-0.7	ppb	0.025	< 2.40	mg / Kg		
	41	Mo-98	98		-0.68	ppb	0.025	< 2.40	mg / Kg		
	43	Ag-107	107		-0.06	ppb	0.025	< 2.40	mg / Kg		
	45	Ag-109	109		-0.05	ppb	0.025	< 2.40	mg / Kg		
	46	Cd-111	111		0.03	ppb	0.025	< 2.40	mg / Kg		
	47	Cd-114	114		-0.04	ppb	0.025	< 2.40	mg / Kg		
	50	Sn-120	120		-1.34	ppb	0.025	< 2.40	mg / Kg		
	51	Sb-121	121		-1.29	ppb	0.05	< 4.79	mg / Kg		
	52	Sb-123	123		-1.14	ppb	0.05	< 4.79	mg / Kg		
	53	Ba-135	135		11.27	ppb	0.025	54.0	mg / Kg		
	54	Tb-159	159		0	ppb	0.001	< 0.096	mg / Kg		
	55	Au-197	197		-0.2	ppb	0.025	< 2.40	mg / Kg		
	56	Tl-205	205		-0.52	ppb	0.025	< 2.40	mg / Kg		
	59	Pb-208	208		1.69	ppb	0.025	8.10	mg / Kg		
	61	U-238	238		0.06	ppb	0.025	< 2.40	mg / Kg		

FRAC M021282-015

Assaigai Analytical Laboratories, Inc.

Analytical Result Summary

0209364-06A

			By	Dilution
Prepared	09-23-02 8:08:00		JRE	0.9737
Analyzed	09-23-02 21:51:00		CJ	10
Calibration	09-23-02 18:08:00			
Quant	09-23-02 21:58:00		031SMPL.D#	

Run Group	MT.2002.1109 30
Calc Method	6020
Prep Method	MS3050
Prep Matrix	SOLID

r	C#	Analyte	QMass	m	Raw Quant	As	MRL	Report	As	Qual	f
x	3	Be-9	9		1.01	ppb	0.025	0.492	mg / Kg		
	4	B-11	11		-1.37	ppb	0.15	< 1.46	mg / Kg		
	5	Na-23	23		267	ppb	0.5	130	mg / Kg		
	6	Mg-24	24		2203	ppb	0.5	1070	mg / Kg		
	7	Mg-25	25		2308	ppb	0.5	1120	mg / Kg		
	8	Mg-26	26		2337	ppb	0.5	1140	mg / Kg		
	9	Al-27	27		13420	ppb	0.5	6530	mg / Kg		x
x	10	Si-28 >5x CB	28		483.2	ppb	1	235	mg / Kg	E	
	11	K-39	39		1575	ppb	0.5	767	mg / Kg		
	13	Ca-43	43		3934	ppb	0.5	1920	mg / Kg		
	14	Ca-44	44		3880	ppb	0.5	1890	mg / Kg		
	16	Ti-47	47		512.9	ppb	0.025	250	mg / Kg		x
	17	V-51	51		17.52	ppb	0.05	8.53	mg / Kg		
x	18	Cr-52 >5x MB	52		15.32	ppb	0.05	7.46	mg / Kg		
	19	Cr-53	53		6.06	ppb	0.25	2.95	mg / Kg		
	20	Fe-54	54		17040	ppb	0.5	8300	mg / Kg		x
	21	Mn-55	55		341.2	ppb	0.025	166	mg / Kg		x
	22	Fe-57	57		16620	ppb	0.5	8090	mg / Kg		x
x	23	Co-59	59		2.79	ppb	0.025	1.36	mg / Kg		
x	24	Ni-60	60		7.16	ppb	0.025	3.48	mg / Kg		
x	25	Cu-63 >5x MB	63		7.48	ppb	0.025	3.64	mg / Kg		
	26	Cu-65	65		7.67	ppb	0.025	3.73	mg / Kg		
	27	Zn-66	66		73.58	ppb	0.25	35.8	mg / Kg		
	28	Zn-67	67		74.86	ppb	0.25	36.4	mg / Kg		
	29	Zn-68	68		67.32	ppb	0.25	32.8	mg / Kg		
x	32	As-75 >5x MB	75		3.07	ppb	0.025	1.49	mg / Kg		
x	34	Se-82	82		1.18	ppb	0.025	0.574	mg / Kg		
x	37	Sr-87	87		81.02	ppb	0.025	39.4	mg / Kg		
x	40	Mo-95	95		0.71	ppb	0.025	0.346	mg / Kg		
	41	Mo-98	98		0.67	ppb	0.025	0.326	mg / Kg		
x	43	Ag-107	107		0.69	ppb	0.025	0.336	mg / Kg		
	45	Ag-109	109		0.66	ppb	0.025	0.321	mg / Kg		
x	46	Cd-111	111		0.39	ppb	0.025	< 0.243	mg / Kg		
	47	Cd-114	114		0.04	ppb	0.025	< 0.243	mg / Kg		
x	50	Sn-120 (B)	120		1.55	ppb	0.025	0.755	mg / Kg		
x	51	Sb-121	121		-1.22	ppb	0.05	< 0.487	mg / Kg		
	52	Sb-123	123		-1.07	ppb	0.05	< 0.487	mg / Kg		
x	53	Ba-135 >5x MB	135		96.01	ppb	0.025	46.7	mg / Kg		
	54	Tb-159	159		0	ppb	0.001	< 0.010	mg / Kg		
	55	Au-197	197		-0.12	ppb	0.025	< 0.243	mg / Kg		
x	56	Tl-205	205		-0.36	ppb	0.025	< 0.243	mg / Kg		
x	59	Pb-208	208		30.57	ppb	0.025	14.9	mg / Kg		
x	61	U-238	238		0.87	ppb	0.025	0.424	mg / Kg		

STD-CCV [STD-CCV]

Assaigai Analytical Laboratories, Inc.

Analytical Result Summary

059

Run Group	MT.2002.1109	31
Calc Method	6020	
Prep Method	LAB	
Prep Matrix	LAB	

		By	Dilution
Prepared			1
Analyzed	09-23-02 22:00:00	CJ	1
Calibration	09-23-02 18:08:00		
Quant	09-23-02 22:07:00		032CCV .D#

r	C#	Analyte	QMass	m	Raw Quant	As	MRL	Report	As	Qual	f
	3	Be-9	9		95.95	ppb	1	96	% Recovery		
	4	B-11	11		105.2	ppb	1	105	% Recovery		
	5	Na-23	23		1115	ppb	1	112	% Recovery		x
	6	Mg-24	24		1134	ppb	1	113	% Recovery		x
	7	Mg-25	25		1190	ppb	1	119	% Recovery		x
	8	Mg-26	26		1168	ppb	1	117	% Recovery		x
	9	Al-27	27		1112	ppb	1	111	% Recovery		x
	10	Si-28	28		1115	ppb	1	112	% Recovery		x
	11	K-39	39		1085	ppb	1	108	% Recovery		
	13	Ca-43	43		1088	ppb	1	109	% Recovery		
	14	Ca-44	44		1088	ppb	1	109	% Recovery		
	16	Ti-47	47		103.8	ppb	1	104	% Recovery		
	17	V-51	51		104.2	ppb	1	104	% Recovery		
	18	Cr-52	52		103.7	ppb	1	104	% Recovery		
	19	Cr-53	53		91.73	ppb	1	92	% Recovery		
	20	Fe-54	54		1166	ppb	1	117	% Recovery		x
	21	Mn-55	55		101	ppb	1	101	% Recovery		
	22	Fe-57	57		1109	ppb	1	111	% Recovery		x
	23	Co-59	59		102.6	ppb	1	103	% Recovery		
	24	Ni-60	60		102.8	ppb	1	103	% Recovery		
	25	Cu-63	63		102.8	ppb	1	103	% Recovery		
	26	Cu-65	65		104.2	ppb	1	104	% Recovery		
	27	Zn-66	66		102.6	ppb	1	103	% Recovery		
	28	Zn-67	67		98.93	ppb	1	99	% Recovery		
	29	Zn-68	68		102.2	ppb	1	102	% Recovery		
	32	As-75	75		103.7	ppb	1	104	% Recovery		
	34	Se-82	82		100.9	ppb	1	101	% Recovery		
	37	Sr-87	87		100.4	ppb	1	100	% Recovery		
	40	Mo-95	95		97.74	ppb	1	98	% Recovery		
	41	Mo-98	98		98.09	ppb	1	98	% Recovery		
	43	Ag-107	107		98.51	ppb	1	98	% Recovery		
	45	Ag-109	109		98.8	ppb	1	99	% Recovery		
	46	Cd-111	111		101	ppb	1	101	% Recovery		
	47	Cd-114	114		100.4	ppb	1	100	% Recovery		
	50	Sn-120	120		99.9	ppb	1	100	% Recovery		
	51	Sb-121	121		98.92	ppb	1	99	% Recovery		
	52	Sb-123	123		100.3	ppb	1	100	% Recovery		
	53	Ba-135	135		100.1	ppb	1	100	% Recovery		
	54	Tb-159	159		0	ppb	1	< 1	% Recovery		x
	55	Au-197	197		97.33	ppb	1	97	% Recovery		
	56	Tl-205	205		97.42	ppb	1	97	% Recovery		
	59	Pb-208	208		99.36	ppb	1	99	% Recovery		
	61	U-238	238		98.57	ppb	1	98	% Recovery		

CB [CB]

Assaigai Analytical Laboratories, Inc.

Analytical Result Summary

Run Group	MT.2002.1109	32
Calc Method	6020	
Prep Method	LAB	
Prep Matrix	LAB	

		By	Dilution
Prepared			1
Analyzed	09-23-02 22:09:00	CJ	1
Calibration	09-23-02 18:08:00		
Quant	09-23-02 22:16:00	033CCB .D#	

r	C#	Analyte	QMass	m	Raw Quant	As	MRL	Report	As	Qual	f
	3	Be-9	9		0.02	ppb	0.001	< 0.001	mg / L		
	4	B-11	11		-1.1	ppb	0.001	< 0.001	mg / L		
	5	Na-23	23		0.54	ppb	0.01	< 0.010	mg / L		
	6	Mg-24	24		0.15	ppb	0.01	< 0.010	mg / L		
	7	Mg-25	25		0.08	ppb	0.01	< 0.010	mg / L		
	8	Mg-26	26		0.11	ppb	0.01	< 0.010	mg / L		
	9	Al-27	27		0.78	ppb	0.01	< 0.010	mg / L		
	10	Si-28	28		9.12	ppb	0.001	0.009	mg / L		x
	11	K-39	39		-8.21	ppb	0.01	< 0.010	mg / L		
	13	Ca-43	43		-1.3	ppb	0.01	< 0.010	mg / L		
	14	Ca-44	44		2.25	ppb	0.01	< 0.010	mg / L		
	16	Ti-47	47		-0.06	ppb	0.001	< 0.001	mg / L		
	17	V-51	51		0.1	ppb	0.001	< 0.001	mg / L		
	18	Cr-52	52		0.4	ppb	0.001	< 0.001	mg / L		
	19	Cr-53	53		6.64	ppb	0.001	0.007	mg / L		x
	20	Fe-54	54		4.58	ppb	0.01	< 0.010	mg / L		
	21	Mn-55	55		0.06	ppb	0.001	< 0.001	mg / L		
	22	Fe-57	57		2.82	ppb	0.01	< 0.010	mg / L		
	23	Co-59	59		-0.31	ppb	0.001	< 0.001	mg / L		
	24	Ni-60	60		0.03	ppb	0.001	< 0.001	mg / L		
	25	Cu-63	63		0.01	ppb	0.001	< 0.001	mg / L		
	26	Cu-65	65		0	ppb	0.001	< 0.001	mg / L		
	27	Zn-66	66		-0.03	ppb	0.001	< 0.001	mg / L		
	28	Zn-67	67		0.37	ppb	0.001	< 0.001	mg / L		
	29	Zn-68	68		-0.06	ppb	0.001	< 0.001	mg / L		
	32	As-75	75		0.61	ppb	0.001	< 0.001	mg / L		
	34	Se-82	82		0.03	ppb	0.001	< 0.001	mg / L		
	37	Sr-87	87		0.04	ppb	0.001	< 0.001	mg / L		
	40	Mo-95	95		-0.83	ppb	0.001	< 0.001	mg / L		
	41	Mo-98	98		-0.79	ppb	0.001	< 0.001	mg / L		
	43	Ag-107	107		-0.03	ppb	0.001	< 0.001	mg / L		
	45	Ag-109	109		-0.03	ppb	0.001	< 0.001	mg / L		
	46	Cd-111	111		-0.01	ppb	0.001	< 0.001	mg / L		
	47	Cd-114	114		-0.01	ppb	0.001	< 0.001	mg / L		
	50	Sn-120	120		-1.74	ppb	0.001	< 0.001	mg / L		
	51	Sb-121	121		-0.92	ppb	0.001	< 0.001	mg / L		
	52	Sb-123	123		-0.79	ppb	0.001	< 0.001	mg / L		
	53	Ba-135	135		0.03	ppb	0.001	< 0.001	mg / L		
	54	Tb-159	159		0	ppb	0.001	< 0.001	mg / L		
	55	Au-197	197		0.32	ppb	0.001	< 0.001	mg / L		
	56	Tl-205	205		-0.01	ppb	0.001	< 0.001	mg / L		
	59	Pb-208	208		-0.33	ppb	0.001	< 0.001	mg / L		
	61	U-238	238		0.01	ppb	0.001	< 0.001	mg / L		

FRAC M021282-015

Assaigai Analytical Laboratories, Inc.

Analytical Result Summary

0209364-06A

			By	Dilution
Prepared	09-23-02 8:08:00		JRE	0.9737
Analyzed	09-23-02 22:18:00		CJ	100
Calibration	09-23-02 18:08:00			
Quant	09-23-02 22:25:00		034SMPL.D#	

Run Group	MT.2002.1109 33
Calc Method	6020
Prep Method	MS3050
Prep Matrix	SOLID

r	C#	Analyte	QMass	m	Raw Quant	As	MRL	Report	As	Qual	f
	3	Be-9	9		0.09	ppb	0.025	< 2.43	mg / Kg		
	4	B-11	11		-4.08	ppb	0.15	< 14.6	mg / Kg		
	5	Na-23	23		21.89	ppb	0.5	106	mg / Kg		
	6	Mg-24	24		249.4	ppb	0.5	1210	mg / Kg		
	7	Mg-25	25		251	ppb	0.5	1220	mg / Kg		
	8	Mg-26	26		254.1	ppb	0.5	1240	mg / Kg		
x	9	Al-27 >5x MB	27		1421	ppb	0.5	6920	mg / Kg		
	10	Si-28	28		65.41	ppb	1	318	mg / Kg		
	11	K-39	39		165.1	ppb	0.5	804	mg / Kg		
	13	Ca-43	43		403.5	ppb	0.5	1960	mg / Kg		
	14	Ca-44	44		399.7	ppb	0.5	1940	mg / Kg		
x	16	Ti-47 >5x MB	47		53.57	ppb	0.025	261	mg / Kg		
	17	V-51	51		1.75	ppb	0.05	8.52	mg / Kg		
	18	Cr-52	52		1.67	ppb	0.05	8.13	mg / Kg		
	19	Cr-53	53		-5.81	ppb	0.25	< 24.3	mg / Kg		
	20	Fe-54	54		1867	ppb	0.5	9090	mg / Kg		
x	21	Mn-55 >5x MB	55		37.07	ppb	0.025	180	mg / Kg		
	22	Fe-57	57		1818	ppb	0.5	8850	mg / Kg		
	23	Co-59	59		-0.01	ppb	0.025	< 2.43	mg / Kg		
	24	Ni-60	60		0.75	ppb	0.025	3.65	mg / Kg		
	25	Cu-63	63		0.86	ppb	0.025	4.19	mg / Kg		
	26	Cu-65	65		0.84	ppb	0.025	4.09	mg / Kg		
	27	Zn-66	66		5.92	ppb	0.25	28.8	mg / Kg		
	28	Zn-67	67		4.91	ppb	0.25	< 24.3	mg / Kg		
	29	Zn-68	68		5.07	ppb	0.25	24.7	mg / Kg		
	32	As-75	75		0.6	ppb	0.025	2.92	mg / Kg		
	34	Se-82	82		-0.04	ppb	0.025	< 2.43	mg / Kg		
	37	Sr-87	87		8.4	ppb	0.025	40.9	mg / Kg		
	40	Mo-95	95		-0.78	ppb	0.025	< 2.43	mg / Kg		
	41	Mo-98	98		-0.77	ppb	0.025	< 2.43	mg / Kg		
	43	Ag-107	107		0.02	ppb	0.025	< 2.43	mg / Kg		
	45	Ag-109	109		0.02	ppb	0.025	< 2.43	mg / Kg		
	46	Cd-111	111		0.02	ppb	0.025	< 2.43	mg / Kg		
	47	Cd-114	114		-0.02	ppb	0.025	< 2.43	mg / Kg		
	50	Sn-120	120		-1.47	ppb	0.025	< 2.43	mg / Kg		
	51	Sb-121	121		-1.2	ppb	0.05	< 4.87	mg / Kg		
	52	Sb-123	123		-1.05	ppb	0.05	< 4.87	mg / Kg		
	53	Ba-135	135		9.36	ppb	0.025	45.6	mg / Kg		
	54	Tb-159	159		0	ppb	0.001	< 0.097	mg / Kg		
	55	Au-197	197		-0.09	ppb	0.025	< 2.43	mg / Kg		
	56	Tl-205	205		-0.38	ppb	0.025	< 2.43	mg / Kg		
	59	Pb-208	208		2.68	ppb	0.025	13.0	mg / Kg		
	61	U-238	238		0.07	ppb	0.025	< 2.43	mg / Kg		

FRAC M021282-016

Assaigai Analytical Laboratories, Inc.

Analytical Result Summary

0209364-07A

			By	Dilution
Prepared	09-23-02 8:08:00	JRE		0.999
Analyzed	09-23-02 22:28:00	CJ		10
Calibration	09-23-02 18:08:00			
Quant	09-23-02 22:35:00		035SMPL.D#	

Run Group	MT.2002.1109 34
Calc Method	6020
Prep Method	MS3050
Prep Matrix	SOLID

r	C#	Analyte	QMass	m	Raw Quant	As	MRL	Report	As	Qual	f
x	3	Be-9	9		0.98	ppb	0.025	0.490	mg / Kg		
	4	B-11	11		-3.08	ppb	0.15	< 1.50	mg / Kg		
	5	Na-23	23		184	ppb	0.5	91.9	mg / Kg		
	6	Mg-24	24		1617	ppb	0.5	808	mg / Kg		
	7	Mg-25	25		1661	ppb	0.5	830	mg / Kg		
	8	Mg-26	26		1644	ppb	0.5	821	mg / Kg		
x	9	Al-27 >5x MB	27		6253	ppb	0.5	3120	mg / Kg		
x	10	Si-28 >5x CB	28		331.3	ppb	1	165	mg / Kg	E	
	11	K-39	39		1032	ppb	0.5	515	mg / Kg		
	13	Ca-43	43		1482	ppb	0.5	740	mg / Kg		
	14	Ca-44	44		1481	ppb	0.5	740	mg / Kg		
	16	Ti-47	47		748.7	ppb	0.025	374	mg / Kg		x
	17	V-51	51		11.31	ppb	0.05	5.65	mg / Kg		
x	18	Cr-52 >5x MB	52		7.82	ppb	0.05	3.91	mg / Kg		
	19	Cr-53	53		-12.57	ppb	0.25	< 2.50	mg / Kg		
	20	Fe-54	54		16150	ppb	0.5	8070	mg / Kg		x
	21	Mn-55	55		424.8	ppb	0.025	212	mg / Kg		x
	22	Fe-57	57		16330	ppb	0.5	8160	mg / Kg		x
x	23	Co-59	59		1.69	ppb	0.025	0.844	mg / Kg		
x	24	Ni-60	60		4.91	ppb	0.025	2.45	mg / Kg		
x	25	Cu-63 >5x MB	63		4.31	ppb	0.025	2.15	mg / Kg		
	26	Cu-65	65		4.45	ppb	0.025	2.22	mg / Kg		
	27	Zn-66	66		67.6	ppb	0.25	33.8	mg / Kg		
	28	Zn-67	67		62.17	ppb	0.25	31.0	mg / Kg		
	29	Zn-68	68		63.06	ppb	0.25	31.5	mg / Kg		
x	32	As-75 >5x MB	75		2.18	ppb	0.025	1.09	mg / Kg		
x	34	Se-82	82		1.06	ppb	0.025	0.529	mg / Kg		
x	37	Sr-87	87		43.93	ppb	0.025	21.9	mg / Kg		
x	40	Mo-95	95		2.57	ppb	0.025	1.28	mg / Kg		
	41	Mo-98	98		2.54	ppb	0.025	1.27	mg / Kg		
x	43	Ag-107	107		0.05	ppb	0.025	< 0.250	mg / Kg		
	45	Ag-109	109		0.06	ppb	0.025	< 0.250	mg / Kg		
x	46	Cd-111	111		0.34	ppb	0.025	< 0.250	mg / Kg		
	47	Cd-114	114		0.06	ppb	0.025	< 0.250	mg / Kg		
x	50	Sn-120 (B)	120		2.12	ppb	0.025	1.06	mg / Kg		
x	51	Sb-121	121		-1.2	ppb	0.05	< 0.500	mg / Kg		
	52	Sb-123	123		-1.06	ppb	0.05	< 0.500	mg / Kg		
x	53	Ba-135 >5x MB	135		41.29	ppb	0.025	20.6	mg / Kg		
	54	Tb-159	159		0	ppb	0.001	< 0.010	mg / Kg		
	55	Au-197	197		-0.13	ppb	0.025	< 0.250	mg / Kg		
x	56	Tl-205	205		-0.37	ppb	0.025	< 0.250	mg / Kg		
x	59	Pb-208	208		15.05	ppb	0.025	7.52	mg / Kg		
x	61	U-238	238		0.68	ppb	0.025	0.340	mg / Kg		

FRAC M021282-016

Run Group	MT.2002.1109	35
Calc Method	6020	
Prep Method	MS3050	
Prep Matrix	SOLID	

Assaigai Analytical Laboratories, Inc.

Analytical Result Summary

0209364-07A

		By	Dilution
Prepared	09-23-02 8:08:00	JRE	0.999
Analyzed	09-23-02 22:37:00	CJ	100
Calibration	09-23-02 18:08:00		
Quant	09-23-02 22:44:00	036SMPL.D#	

r	C#	Analyte	QMass	m	Raw Quant	As	MRL	Report	As	Qual	f
	3	Be-9	9		0.08	ppb	0.025	< 2.50	mg / Kg		
	4	B-11	11		-4.67	ppb	0.15	< 15.0	mg / Kg		
	5	Na-23	23		13.88	ppb	0.5	69.3	mg / Kg		
	6	Mg-24	24		180.6	ppb	0.5	902	mg / Kg		
	7	Mg-25	25		179.9	ppb	0.5	899	mg / Kg		
	8	Mg-26	26		180.7	ppb	0.5	902	mg / Kg		
	9	Al-27	27		694.1	ppb	0.5	3470	mg / Kg		
	10	Si-28	28		57.18	ppb	1	286	mg / Kg		
	11	K-39	39		112.7	ppb	0.5	563	mg / Kg		
	13	Ca-43	43		142	ppb	0.5	709	mg / Kg		
	14	Ca-44	44		140.9	ppb	0.5	704	mg / Kg		
x	16	Ti-47 >5x MB	47		78.95	ppb	0.025	394	mg / Kg		
	17	V-51	51		1.29	ppb	0.05	6.44	mg / Kg		
	18	Cr-52	52		0.66	ppb	0.05	< 5.00	mg / Kg		
	19	Cr-53	53		-13.61	ppb	0.25	< 25.0	mg / Kg		
	20	Fe-54	54		1761	ppb	0.5	8800	mg / Kg		
x	21	Mn-55 >5x MB	55		45.7	ppb	0.025	228	mg / Kg		
	22	Fe-57	57		1712	ppb	0.5	8550	mg / Kg		
	23	Co-59	59		-0.14	ppb	0.025	< 2.50	mg / Kg		
	24	Ni-60	60		0.51	ppb	0.025	2.55	mg / Kg		
	25	Cu-63	63		0.44	ppb	0.025	< 2.50	mg / Kg		
	26	Cu-65	65		0.43	ppb	0.025	< 2.50	mg / Kg		
	27	Zn-66	66		5.34	ppb	0.25	26.7	mg / Kg		
	28	Zn-67	67		2.39	ppb	0.25	< 25.0	mg / Kg		
	29	Zn-68	68		4.68	ppb	0.25	< 25.0	mg / Kg		
	32	As-75	75		0.33	ppb	0.025	< 2.50	mg / Kg		
	34	Se-82	82		-0.06	ppb	0.025	< 2.50	mg / Kg		
	37	Sr-87	87		4.42	ppb	0.025	22.1	mg / Kg		
	40	Mo-95	95		-0.66	ppb	0.025	< 2.50	mg / Kg		
	41	Mo-98	98		-0.64	ppb	0.025	< 2.50	mg / Kg		
	43	Ag-107	107		-0.05	ppb	0.025	< 2.50	mg / Kg		
	45	Ag-109	109		-0.04	ppb	0.025	< 2.50	mg / Kg		
	46	Cd-111	111		0.04	ppb	0.025	< 2.50	mg / Kg		
	47	Cd-114	114		-0.02	ppb	0.025	< 2.50	mg / Kg		
	50	Sn-120	120		-1.42	ppb	0.05	< 5.00	mg / Kg		
	51	Sb-121	121		-1.27	ppb	0.05	< 5.00	mg / Kg		
	52	Sb-123	123		-1.13	ppb	0.025	20.3	mg / Kg		
	53	Ba-135	135		4.06	ppb	0.001	< 0.100	mg / Kg		
	54	Tb-159	159		0	ppb	0.025	< 2.50	mg / Kg		
	55	Au-197	197		-0.19	ppb	0.025	< 2.50	mg / Kg		
	56	Tl-205	205		-0.51	ppb	0.025	5.79	mg / Kg		
	59	Pb-208	208		1.16	ppb	0.025	< 2.50	mg / Kg		
	61	U-238	238		0.04	ppb	0.025	< 2.50	mg / Kg		

FRAC M021282-017

Assaigai Analytical Laboratories, Inc.

Analytical Result Summary

0209364-08A

Run Group	MT.2002.1109	36
Calc Method	6020	
Prep Method	MS3050	
Prep Matrix	SOLID	

		By	Dilution
Prepared	09-23-02 8:08:00	JRE	0.9425
Analyzed	09-23-02 22:46:00	CJ	10
Calibration	09-23-02 18:08:00		
Quant	09-23-02 22:53:00	037SMPL.D#	

r	C#	Analyte	QMass	m	Raw Quant	As	MRL	Report	As	Qual	f
x	3	Be-9	9		1.32	ppb	0.025	0.622	mg / Kg		
	4	B-11	11		-1.83	ppb	0.15	< 1.41	mg / Kg		
	5	Na-23	23		287.3	ppb	0.5	135	mg / Kg		
	6	Mg-24	24		2516	ppb	0.5	1180	mg / Kg		
	7	Mg-25	25		2609	ppb	0.5	1230	mg / Kg		
	8	Mg-26	26		2590	ppb	0.5	1220	mg / Kg		
	9	Al-27	27		15900	ppb	0.5	7490	mg / Kg		x
x	10	Si-28 >5x CB	28		371.6	ppb	1	175	mg / Kg	E	
	11	K-39	39		1519	ppb	0.5	716	mg / Kg		
	13	Ca-43	43		5269	ppb	0.5	2480	mg / Kg		
	14	Ca-44	44		4945	ppb	0.5	2330	mg / Kg		
	16	Ti-47	47		594.4	ppb	0.025	280	mg / Kg		x
	17	V-51	51		18.84	ppb	0.05	8.88	mg / Kg		
x	18	Cr-52 >5x MB	52		10.6	ppb	0.05	5.00	mg / Kg		
	19	Cr-53	53		3.12	ppb	0.25	< 2.36	mg / Kg		
	20	Fe-54	54		21020	ppb	0.5	9900	mg / Kg		x
	21	Mn-55	55		289.4	ppb	0.025	136	mg / Kg		x
	22	Fe-57	57		20800	ppb	0.5	9800	mg / Kg		x
x	23	Co-59	59		2.74	ppb	0.025	1.29	mg / Kg		
x	24	Ni-60	60		7.98	ppb	0.025	3.76	mg / Kg		
x	25	Cu-63 >5x MB	63		7.91	ppb	0.025	3.73	mg / Kg		
	26	Cu-65	65		8.2	ppb	0.025	3.86	mg / Kg		
	27	Zn-66	66		131.6	ppb	0.25	62.0	mg / Kg		
	28	Zn-67	67		129.5	ppb	0.25	61.0	mg / Kg		
	29	Zn-68	68		124.2	ppb	0.25	58.5	mg / Kg		
x	32	As-75 >5x MB	75		4.76	ppb	0.025	2.24	mg / Kg		
x	34	Se-82	82		1.28	ppb	0.025	0.603	mg / Kg		
x	37	Sr-87	87		76.37	ppb	0.025	36.0	mg / Kg		
x	40	Mo-95	95		2.67	ppb	0.025	1.26	mg / Kg		
	41	Mo-98	98		2.64	ppb	0.025	1.24	mg / Kg		
x	43	Ag-107	107		0.13	ppb	0.025	< 0.236	mg / Kg		
	45	Ag-109	109		0.14	ppb	0.025	< 0.236	mg / Kg		
x	46	Cd-111	111		0.44	ppb	0.025	< 0.236	mg / Kg		
	47	Cd-114	114		0.03	ppb	0.025	< 0.236	mg / Kg		
x	50	Sn-120 (B)	120		2.24	ppb	0.025	1.06	mg / Kg		
x	51	Sb-121	121		-1.2	ppb	0.05	< 0.471	mg / Kg		
	52	Sb-123	123		-1.06	ppb	0.05	< 0.471	mg / Kg		
x	53	Ba-135 >5x MB	135		104.1	ppb	0.025	49.0	mg / Kg		
	54	Tb-159	159		0	ppb	0.001	< 0.009	mg / Kg		
	55	Au-197	197		-0.12	ppb	0.025	< 0.236	mg / Kg		
x	56	Tl-205	205		-0.29	ppb	0.025	< 0.236	mg / Kg		
x	59	Pb-208	208		15.35	ppb	0.025	7.23	mg / Kg		
x	61	U-238	238		0.68	ppb	0.025	0.320	mg / Kg		

FRAC M021282-017

Assaigai Analytical Laboratories, Inc.

Analytical Result Summary

0209364-08A 065 By Dilution

Run Group	MT.2002.1109	37
Calc Method	6020	
Prep Method	MS3050	
Prep Matrix	SOLID	

Prepared	09-23-02 8:08:00	JRE	0.9425
Analyzed	09-23-02 22:55:00	CJ	100
Calibration	09-23-02 18:08:00		
Quant	09-23-02 23:03:00		038SMPL.D#

r	C#	Analyte	QMass	m	Raw Quant	As	MRL	Report	As	Qual	f
	3	Be-9	9		0.1	ppb	0.025	< 2.36	mg / Kg		
	4	B-11	11		-4.51	ppb	0.15	< 14.1	mg / Kg		
	5	Na-23	23		22.81	ppb	0.5	107	mg / Kg		
	6	Mg-24	24		251.9	ppb	0.5	1190	mg / Kg		
	7	Mg-25	25		253.6	ppb	0.5	1200	mg / Kg		
	8	Mg-26	26		253.9	ppb	0.5	1200	mg / Kg		
x	9	Al-27 >5x MB	27		1566	ppb	0.5	7390	mg / Kg		
	10	Si-28	28		51.41	ppb	1	242	mg / Kg		
	11	K-39	39		140.5	ppb	0.5	662	mg / Kg		
	13	Ca-43	43		485.4	ppb	0.5	2290	mg / Kg		
	14	Ca-44	44		485.3	ppb	0.5	2290	mg / Kg		
x	16	Ti-47 >5x MB	47		58.84	ppb	0.025	277	mg / Kg		
	17	V-51	51		1.97	ppb	0.05	9.28	mg / Kg		
	18	Cr-52	52		1	ppb	0.05	4.71	mg / Kg		
	19	Cr-53	53		-3.03	ppb	0.25	< 23.6	mg / Kg		
	20	Fe-54	54		2066	ppb	0.5	9740	mg / Kg		
x	21	Mn-55 >5x MB	55		27.77	ppb	0.025	131	mg / Kg		
	22	Fe-57	57		2063	ppb	0.5	9720	mg / Kg		
	23	Co-59	59		-0.07	ppb	0.025	< 2.36	mg / Kg		
	24	Ni-60	60		0.77	ppb	0.025	3.63	mg / Kg		
	25	Cu-63	63		0.76	ppb	0.025	3.58	mg / Kg		
	26	Cu-65	65		0.79	ppb	0.025	3.72	mg / Kg		
	27	Zn-66	66		11.04	ppb	0.25	52.0	mg / Kg		
	28	Zn-67	67		9.64	ppb	0.25	45.4	mg / Kg		
	29	Zn-68	68		10.05	ppb	0.25	47.4	mg / Kg		
	32	As-75	75		0.73	ppb	0.025	3.44	mg / Kg		
	34	Se-82	82		-0.03	ppb	0.025	< 2.36	mg / Kg		
	37	Sr-87	87		7.22	ppb	0.025	34.0	mg / Kg		
	40	Mo-95	95		-0.71	ppb	0.025	< 2.36	mg / Kg		
	41	Mo-98	98		-0.69	ppb	0.025	< 2.36	mg / Kg		
	43	Ag-107	107		-0.05	ppb	0.025	< 2.36	mg / Kg		
	45	Ag-109	109		-0.04	ppb	0.025	< 2.36	mg / Kg		
	46	Cd-111	111		0.03	ppb	0.025	< 2.36	mg / Kg		
	47	Cd-114	114		-0.03	ppb	0.025	< 2.36	mg / Kg		
	50	Sn-120	120		-1.42	ppb	0.025	< 2.36	mg / Kg		
	51	Sb-121	121		-1.29	ppb	0.05	< 4.71	mg / Kg		
	52	Sb-123	123		-1.15	ppb	0.05	< 4.71	mg / Kg		
	53	Ba-135	135		8.99	ppb	0.025	42.4	mg / Kg		
	54	Tb-159	159		0	ppb	0.001	< 0.094	mg / Kg		
	55	Au-197	197		-0.17	ppb	0.025	< 2.36	mg / Kg		
	56	Tl-205	205		-0.52	ppb	0.025	< 2.36	mg / Kg		
	59	Pb-208	208		1.04	ppb	0.025	4.90	mg / Kg		
	61	U-238	238		0.04	ppb	0.025	< 2.36	mg / Kg		

FRAC M021282-018

Assaigai Analytical Laboratories, Inc.

Analytical Result Summary

0209364-09A

Run Group	MT.2002.1109	38
Calc Method	6020	
Prep Method	MS3050	
Prep Matrix	SOLID	

		By	Dilution
Prepared	09-23-02 8:08:00	JRE	0.9372
Analyzed	09-23-02 23:05:00	CJ	10
Calibration	09-23-02 18:08:00		
Quant	09-23-02 23:12:00		039SMPL.D#

r	C#	Analyte	QMass	m	Raw Quant	As	MRL	Report	As	Qual	f
x	3	Be-9	9		0.8	ppb	0.025	0.375	mg / Kg		
	4	B-11	11		-1.68	ppb	0.15	< 1.40	mg / Kg		
	5	Na-23	23		196.6	ppb	0.5	92.1	mg / Kg		
	6	Mg-24	24		1630	ppb	0.5	764	mg / Kg		
	7	Mg-25	25		1718	ppb	0.5	805	mg / Kg		
	8	Mg-26	26		1699	ppb	0.5	796	mg / Kg		
x	9	Al-27 >5xMB	27		7464	ppb	0.5	3500	mg / Kg		
x	10	Si-28 >5x CB	28		451.8	ppb	1	212	mg / Kg	E	
	11	K-39	39		1185	ppb	0.5	555	mg / Kg		
	13	Ca-43	43		2288	ppb	0.5	1070	mg / Kg		
	14	Ca-44	44		2270	ppb	0.5	1060	mg / Kg		
	16	Ti-47	47		447.8	ppb	0.025	210	mg / Kg		x
	17	V-51	51		10.56	ppb	0.05	4.95	mg / Kg		
x	18	Cr-52 >5 x MB	52		36.65	ppb	0.05	17.2	mg / Kg		
	19	Cr-53	53		28.51	ppb	0.25	13.4	mg / Kg		
	20	Fe-54	54		14340	ppb	0.5	6720	mg / Kg		x
	21	Mn-55	55		359.6	ppb	0.025	168	mg / Kg		x
	22	Fe-57	57		14520	ppb	0.5	6800	mg / Kg		x
x	23	Co-59	59		1.85	ppb	0.025	0.867	mg / Kg		
x	24	Ni-60	60		5.78	ppb	0.025	2.71	mg / Kg		
x	25	Cu-63 >5x MB	63		21.19	ppb	0.025	9.93	mg / Kg		
	26	Cu-65	65		21.49	ppb	0.025	10.1	mg / Kg		
	27	Zn-66	66		249.4	ppb	0.25	117	mg / Kg		x
	28	Zn-67	67		235.4	ppb	0.25	110	mg / Kg		x
	29	Zn-68	68		245.6	ppb	0.25	115	mg / Kg		x
x	32	As-75 >5x MB	75		4.58	ppb	0.025	2.15	mg / Kg		
x	34	Se-82	82		1.22	ppb	0.025	0.572	mg / Kg		
x	37	Sr-87	87		47.11	ppb	0.025	22.1	mg / Kg		
x	40	Mo-95	95		2.86	ppb	0.025	1.34	mg / Kg		
	41	Mo-98	98		2.75	ppb	0.025	1.29	mg / Kg		
x	43	Ag-107	107		2.19	ppb	0.025	1.03	mg / Kg		
	45	Ag-109	109		2.16	ppb	0.025	1.01	mg / Kg		
x	46	Cd-111	111		0.6	ppb	0.025	0.281	mg / Kg		
	47	Cd-114	114		0.41	ppb	0.025	< 0.234	mg / Kg		
x	50	Sn-120 (b)	120		2.08	ppb	0.025	0.975	mg / Kg		
x	51	Sb-121	121		-1.19	ppb	0.05	< 0.469	mg / Kg		
	52	Sb-123	123		-1.02	ppb	0.05	< 0.469	mg / Kg		
x	53	Ba-135 >5x MB	135		54.84	ppb	0.025	25.7	mg / Kg		
	54	Tb-159	159		0	ppb	0.001	< 0.009	mg / Kg		
	55	Au-197	197		-0.04	ppb	0.025	< 0.234	mg / Kg		
x	56	Tl-205	205		-0.44	ppb	0.025	< 0.234	mg / Kg		
x	59	Pb-208	208		35.06	ppb	0.025	16.4	mg / Kg		
x	61	U-238	238		0.94	ppb	0.025	0.440	mg / Kg		

FRAC M021282-018

Assaigai Analytical Laboratories, Inc.

Analytical Result Summary

0209364-09A

067

Run Group	MT.2002.1109	39
Calc Method	6020	
Prep Method	MS3050	
Prep Matrix	SOLID	

		By	Dilution
Prepared	09-23-02 8:08:00	JRE	0.9372
Analyzed	09-23-02 23:14:00	CJ	100
Calibration	09-23-02 18:08:00		
Quant	09-23-02 23:21:00	040SMPL.D#	

r	C#	Analyte	QMass	m	Raw Quant	As	MRL	Report	As	Qual	f
	3	Be-9	9		0.06	ppb	0.025	< 2.34	mg / Kg		
	4	B-11	11		-4.46	ppb	0.15	< 14.0	mg / Kg		
	5	Na-23	23		12.37	ppb	0.5	58.0	mg / Kg		
	6	Mg-24	24		156.8	ppb	0.5	735	mg / Kg		
	7	Mg-25	25		155.8	ppb	0.5	730	mg / Kg		
	8	Mg-26	26		155.5	ppb	0.5	729	mg / Kg		
	9	Al-27	27		676.7	ppb	0.5	3170	mg / Kg		
	10	Si-28	28		57.56	ppb	1	270	mg / Kg		
	11	K-39	39		107.4	ppb	0.5	503	mg / Kg		
	13	Ca-43	43		198.4	ppb	0.5	930	mg / Kg		
	14	Ca-44	44		195.1	ppb	0.5	914	mg / Kg		
x	16	Ti-47 >5x MB	47		41.56	ppb	0.025	195	mg / Kg		
	17	V-51	51		0.76	ppb	0.05	< 4.69	mg / Kg		
	18	Cr-52	52		3.36	ppb	0.05	15.7	mg / Kg		
	19	Cr-53	53		-4.22	ppb	0.25	< 23.4	mg / Kg		
	20	Fe-54	54		1309	ppb	0.5	6130	mg / Kg		
x	21	Mn-55 >5x MB	55		33.38	ppb	0.025	156	mg / Kg		
	22	Fe-57	57		1317	ppb	0.5	6170	mg / Kg		
	23	Co-59	59		-0.15	ppb	0.025	< 2.34	mg / Kg		
	24	Ni-60	60		0.54	ppb	0.025	2.53	mg / Kg		
	25	Cu-63	63		1.9	ppb	0.025	8.90	mg / Kg		
	26	Cu-65	65		1.96	ppb	0.025	9.18	mg / Kg		
	27	Zn-66	66		21.37	ppb	0.25	100	mg / Kg		
	28	Zn-67	67		18.47	ppb	0.25	86.6	mg / Kg		
	29	Zn-68	68		20.81	ppb	0.25	97.5	mg / Kg		
	32	As-75	75		0.55	ppb	0.025	2.58	mg / Kg		
	34	Se-82	82		0.09	ppb	0.025	< 2.34	mg / Kg		
	37	Sr-87	87		4.29	ppb	0.025	20.1	mg / Kg		
	40	Mo-95	95		-0.71	ppb	0.025	< 2.34	mg / Kg		
	41	Mo-98	98		-0.71	ppb	0.025	< 2.34	mg / Kg		
	43	Ag-107	107		0.13	ppb	0.025	< 2.34	mg / Kg		
	45	Ag-109	109		0.14	ppb	0.025	< 2.34	mg / Kg		
	46	Cd-111	111		0.01	ppb	0.025	< 2.34	mg / Kg		
	47	Cd-114	114		0	ppb	0.025	< 2.34	mg / Kg		
	50	Sn-120	120		-1.45	ppb	0.025	< 2.34	mg / Kg		
	51	Sb-121	121		-1.3	ppb	0.05	< 4.69	mg / Kg		
	52	Sb-123	123		-1.15	ppb	0.05	< 4.69	mg / Kg		
	53	Ba-135	135		4.73	ppb	0.025	22.2	mg / Kg		
	54	Tb-159	159		0	ppb	0.001	< 0.094	mg / Kg		
	55	Au-197	197		-0.21	ppb	0.025	< 2.34	mg / Kg		
	56	Tl-205	205		-0.55	ppb	0.025	< 2.34	mg / Kg		
	59	Pb-208	208		2.77	ppb	0.025	13.0	mg / Kg		
	61	U-238	238		0.05	ppb	0.025	< 2.34	mg / Kg		

FRAC M021282-019

Assaigai Analytical Laboratories, Inc.

Analytical Result Summary

0209364-10A

			By	Dilution
Prepared	09-23-02 8:08:00		JRE	0.9506
Analyzed	09-23-02 23:23:00		CJ	10
Calibration	09-23-02 18:08:00			
Quant	09-23-02 23:30:00		041SMPL.D#	

Run Group	MT.2002.1109 40
Calc Method	6020
Prep Method	MS3050
Prep Matrix	SOLID

r	C#	Analyte		QMass	m	Raw Quant	As	MRL	Report	As	Qual	f
x	3	Be-9		9		1.02	ppb	0.025	0.485	mg / Kg		
	4	B-11		11		-1.5	ppb	0.15	< 1.42	mg / Kg		
	5	Na-23		23		195	ppb	0.5	92.7	mg / Kg		
	6	Mg-24		24		2129	ppb	0.5	1010	mg / Kg		
	7	Mg-25		25		2236	ppb	0.5	1060	mg / Kg		
	8	Mg-26		26		2183	ppb	0.5	1040	mg / Kg		
	9	Al-27		27		11040	ppb	0.5	5250	mg / Kg		x
x	10	Si-28	>5x CB	28		435.1	ppb	1	207	mg / Kg	E	
	11	K-39		39		2153	ppb	0.5	1020	mg / Kg		
	13	Ca-43		43		2573	ppb	0.5	1220	mg / Kg		
	14	Ca-44		44		2580	ppb	0.5	1230	mg / Kg		
	16	Ti-47		47		533.3	ppb	0.025	253	mg / Kg		x
	17	V-51		51		14.75	ppb	0.05	7.01	mg / Kg		
x	18	Cr-52	>5x MB	52		24.56	ppb	0.05	11.7	mg / Kg		
	19	Cr-53		53		14.21	ppb	0.25	6.75	mg / Kg		
	20	Fe-54		54		16510	ppb	0.5	7850	mg / Kg		x
	21	Mn-55		55		371.1	ppb	0.025	176	mg / Kg		x
	22	Fe-57		57		16690	ppb	0.5	7930	mg / Kg		x
x	23	Co-59		59		2.01	ppb	0.025	0.955	mg / Kg		
x	24	Ni-60		60		6.3	ppb	0.025	2.99	mg / Kg		
x	25	Cu-63		63		11.79	ppb	0.025	5.60	mg / Kg		
	26	Cu-65		65		12.02	ppb	0.025	5.71	mg / Kg		
	27	Zn-66		66		224.7	ppb	0.25	107	mg / Kg		x
	28	Zn-67		67		214.3	ppb	0.25	102	mg / Kg		x
	29	Zn-68		68		219.5	ppb	0.25	104	mg / Kg		x
x	32	As-75	>5x MB	75		3.6	ppb	0.025	1.71	mg / Kg		
x	34	Se-82		82		1.21	ppb	0.025	0.575	mg / Kg		
x	37	Sr-87		87		66.4	ppb	0.025	31.6	mg / Kg		
x	40	Mo-95		95		2.36	ppb	0.025	1.12	mg / Kg		
	41	Mo-98		98		2.27	ppb	0.025	1.08	mg / Kg		
x	43	Ag-107		107		1.23	ppb	0.025	0.585	mg / Kg		
	45	Ag-109		109		1.2	ppb	0.025	0.570	mg / Kg		
x	46	Cd-111		111		0.65	ppb	0.025	0.309	mg / Kg		
	47	Cd-114		114		0.33	ppb	0.025	< 0.238	mg / Kg		
x	50	Sn-120	(B)	120		1.98	ppb	0.025	0.941	mg / Kg		
x	51	Sb-121		121		-1.22	ppb	0.05	< 0.475	mg / Kg		
	52	Sb-123		123		-1.08	ppb	0.05	< 0.475	mg / Kg		
x	53	Ba-135	>5x MB	135		80.64	ppb	0.025	38.3	mg / Kg		
	54	Tb-159		159		0	ppb	0.001	< 0.010	mg / Kg		
	55	Au-197		197		-0.09	ppb	0.025	< 0.238	mg / Kg		
x	56	Tl-205		205		-0.41	ppb	0.025	< 0.238	mg / Kg		
x	59	Pb-208		208		25.81	ppb	0.025	12.3	mg / Kg		
x	61	U-238		238		0.86	ppb	0.025	0.409	mg / Kg		

FRAC M021282-019

Assaigai Analytical Laboratories, Inc.

Analytical Result Summary

0209364-10A

			By	Dilution
Run Group	MT.2002.1109	41		
Calc Method	6020			
Prep Method	MS3050			
Prep Matrix	SOLID			

Prepared	09-23-02 8:08:00	JRE	0.9506
Analyzed	09-23-02 23:32:00	CJ	100
Calibration	09-23-02 18:08:00		
Quant	09-23-02 23:40:00		042SMPL.D#

r	C#	Analyte	QMass	m	Raw Quant	As	MRL	Report	As	Qual	f
	3	Be-9	9		0.09	ppb	0.025	< 2.38	mg / Kg		
	4	B-11	11		-4.43	ppb	0.15	< 14.2	mg / Kg		
	5	Na-23	23		15.32	ppb	0.5	72.8	mg / Kg		
	6	Mg-24	24		226.9	ppb	0.5	1080	mg / Kg		
	7	Mg-25	25		231.4	ppb	0.5	1100	mg / Kg		
	8	Mg-26	26		230.9	ppb	0.5	1100	mg / Kg		
x	9	Al-27 >5x MB	27		1173	ppb	0.5	5580	mg / Kg		
	10	Si-28	28		63.62	ppb	1	302	mg / Kg		
	11	K-39	39		217.3	ppb	0.5	1030	mg / Kg		
	13	Ca-43	43		263.3	ppb	0.5	1250	mg / Kg		
	14	Ca-44	44		266.5	ppb	0.5	1270	mg / Kg		
x	16	Ti-47 >5x MB	47		57.07	ppb	0.025	271	mg / Kg		
	17	V-51	51		1.77	ppb	0.05	8.41	mg / Kg		
	18	Cr-52	52		2.52	ppb	0.05	12.0	mg / Kg		
	19	Cr-53	53		-7.37	ppb	0.25	< 23.8	mg / Kg		
	20	Fe-54	54		1783	ppb	0.5	8470	mg / Kg		
x	21	Mn-55 >5x MB	55		39.75	ppb	0.025	189	mg / Kg		
	22	Fe-57	57		1753	ppb	0.5	8330	mg / Kg		
	23	Co-59	59		-0.11	ppb	0.025	< 2.38	mg / Kg		
	24	Ni-60	60		0.67	ppb	0.025	3.18	mg / Kg		
	25	Cu-63	63		1.25	ppb	0.025	5.94	mg / Kg		
	26	Cu-65	65		1.24	ppb	0.025	5.89	mg / Kg		
	27	Zn-66	66		22.13	ppb	0.25	105	mg / Kg		
	28	Zn-67	67		19.11	ppb	0.25	90.8	mg / Kg		
	29	Zn-68	68		21.23	ppb	0.25	101	mg / Kg		
	32	As-75	75		0.4	ppb	0.025	< 2.38	mg / Kg		
	34	Se-82	82		0.06	ppb	0.025	< 2.38	mg / Kg		
	37	Sr-87	87		6.86	ppb	0.025	32.6	mg / Kg		
	40	Mo-95	95		-0.71	ppb	0.025	< 2.38	mg / Kg		
	41	Mo-98	98		-0.66	ppb	0.025	< 2.38	mg / Kg		
	43	Ag-107	107		0.06	ppb	0.025	< 2.38	mg / Kg		
	45	Ag-109	109		0.08	ppb	0.025	< 2.38	mg / Kg		
	46	Cd-111	111		0.01	ppb	0.025	< 2.38	mg / Kg		
	47	Cd-114	114		0.01	ppb	0.025	< 2.38	mg / Kg		
	50	Sn-120	120		-1.42	ppb	0.025	< 2.38	mg / Kg		
	51	Sb-121	121		-1.3	ppb	0.05	< 4.75	mg / Kg		
	52	Sb-123	123		-1.16	ppb	0.05	< 4.75	mg / Kg		
	53	Ba-135	135		8.07	ppb	0.025	38.4	mg / Kg		
	54	Tb-159	159		0	ppb	0.001	< 0.095	mg / Kg		
	55	Au-197	197		-0.2	ppb	0.025	< 2.38	mg / Kg		
	56	Tl-205	205		-0.55	ppb	0.025	< 2.38	mg / Kg		
	59	Pb-208	208		2.26	ppb	0.025	10.7	mg / Kg		
	61	U-238	238		0.06	ppb	0.025	< 2.38	mg / Kg		

FRAC M021282-020

Assaigai Analytical Laboratories, Inc.

Analytical Result Summary

0209364-11A By 07J

Run Group	MT.2002.1109	42
Calc Method	6020	
Prep Method	MS3050	
Prep Matrix	SOLID	

Prepared	09-23-02 8:08:00	JRE	0.9699
Analyzed	09-23-02 23:42:00	CJ	10
Calibration	09-23-02 18:08:00		
Quant	09-23-02 23:49:00		043SMPL.D#

r	C#	Analyte	QMass	m	Raw Quant	As	MRL	Report	As	Qual	f
x	3	Be-9	9		0.61	ppb	0.025	0.296	mg / Kg		
	4	B-11	11		-3.78	ppb	0.15	< 1.45	mg / Kg		
	5	Na-23	23		144.7	ppb	0.5	70.2	mg / Kg		
	6	Mg-24	24		820.4	ppb	0.5	398	mg / Kg		
	7	Mg-25	25		837.5	ppb	0.5	406	mg / Kg		
	8	Mg-26	26		820.1	ppb	0.5	398	mg / Kg		
x	9	Al-27 >5x MB	27		3153	ppb	0.5	1530	mg / Kg		
x	10	Si-28 >5x CB	28		354.3	ppb	1	172	mg / Kg	E	
	11	K-39	39		567.5	ppb	0.5	275	mg / Kg		
	13	Ca-43	43		1137	ppb	0.5	551	mg / Kg		
	14	Ca-44	44		1124	ppb	0.5	545	mg / Kg		
	16	Ti-47	47		299.3	ppb	0.025	145	mg / Kg		x
	17	V-51	51		6.64	ppb	0.05	3.22	mg / Kg		
x	18	Cr-52 >5x MB	52		9.06	ppb	0.05	4.39	mg / Kg		
	19	Cr-53	53		-1.09	ppb	0.25	< 2.42	mg / Kg		
	20	Fe-54	54		8839	ppb	0.5	4290	mg / Kg		
	21	Mn-55	55		288.8	ppb	0.025	140	mg / Kg		x
	22	Fe-57	57		8957	ppb	0.5	4340	mg / Kg		
x	23	Co-59	59		0.81	ppb	0.025	0.393	mg / Kg		
x	24	Ni-60	60		2.6	ppb	0.025	1.26	mg / Kg		
x	25	Cu-63 >5x MB	63		8.39	ppb	0.025	4.07	mg / Kg		
	26	Cu-65	65		8.59	ppb	0.025	4.16	mg / Kg		
	27	Zn-66	66		53.59	ppb	0.25	26.0	mg / Kg		
	28	Zn-67	67		49.16	ppb	0.25	23.8	mg / Kg		
	29	Zn-68	68		51.18	ppb	0.25	24.8	mg / Kg		
x	32	As-75 >5x MB	75		1.68	ppb	0.025	0.815	mg / Kg		
x	34	Se-82	82		0.88	ppb	0.025	0.427	mg / Kg		
x	37	Sr-87	87		20.05	ppb	0.025	9.72	mg / Kg		
x	40	Mo-95	95		0.29	ppb	0.025	< 0.242	mg / Kg		
	41	Mo-98	98		0.36	ppb	0.025	< 0.242	mg / Kg		
x	43	Ag-107	107		0.19	ppb	0.025	< 0.242	mg / Kg		
	45	Ag-109	109		0.19	ppb	0.025	< 0.242	mg / Kg		
x	46	Cd-111	111		0.24	ppb	0.025	< 0.242	mg / Kg		
	47	Cd-114	114		0.03	ppb	0.025	< 0.242	mg / Kg		
x	50	Sn-120 ID	120		0.18	ppb	0.025	< 0.242	mg / Kg		
x	51	Sb-121	121		-1.27	ppb	0.05	< 0.485	mg / Kg		
	52	Sb-123	123		-1.11	ppb	0.05	< 0.485	mg / Kg		
x	53	Ba-135 >5x MB	135		39.45	ppb	0.025	19.1	mg / Kg		
	54	Tb-159	159		0	ppb	0.001	< 0.010	mg / Kg		
	55	Au-197	197		-0.17	ppb	0.025	< 0.242	mg / Kg		
x	56	Tl-205	205		-0.54	ppb	0.025	< 0.242	mg / Kg		
x	59	Pb-208	208		7.08	ppb	0.025	3.43	mg / Kg		
x	61	U-238	238		0.68	ppb	0.025	0.330	mg / Kg		

STD-CCV [STD-CCV]

Assaigai Analytical Laboratories, Inc.

Analytical Result Summary

Run Group	MT.2002.1109	43
Calc Method	6020	
Prep Method	LAB	
Prep Matrix	LAB	

		By	Dilution
Prepared			1
Analyzed	09-23-02 23:51:00	CJ	1
Calibration	09-23-02 18:08:00		
Quant	09-23-02 23:58:00	044CCV	.D#

r	C#	Analyte	QMass	m	Raw Quant	As	MRL	Report	As	Qual	f
	3	Be-9	9		92.63	ppb	1	93	% Recovery		
	4	B-11	11		107.3	ppb	1	107	% Recovery		
	5	Na-23	23		1135	ppb	1	114	% Recovery		x
	6	Mg-24	24		1154	ppb	1	115	% Recovery		x
	7	Mg-25	25		1185	ppb	1	118	% Recovery		x
	8	Mg-26	26		1181	ppb	1	118	% Recovery		x
	9	Al-27	27		1112	ppb	1	111	% Recovery		x
	10	Si-28	28		1112	ppb	1	111	% Recovery		x
	11	K-39	39		1065	ppb	1	106	% Recovery		
	13	Ca-43	43		1102	ppb	1	110	% Recovery		
	14	Ca-44	44		1097	ppb	1	110	% Recovery		
	16	Ti-47	47		103.2	ppb	1	103	% Recovery		
	17	V-51	51		103.4	ppb	1	103	% Recovery		
	18	Cr-52	52		104.4	ppb	1	104	% Recovery		
	19	Cr-53	53		95.56	ppb	1	96	% Recovery		
	20	Fe-54	54		1164	ppb	1	116	% Recovery		x
	21	Mn-55	55		99.71	ppb	1	100	% Recovery		
	22	Fe-57	57		1094	ppb	1	109	% Recovery		
	23	Co-59	59		102.5	ppb	1	102	% Recovery		
	24	Ni-60	60		103.1	ppb	1	103	% Recovery		
	25	Cu-63	63		102.8	ppb	1	103	% Recovery		
	26	Cu-65	65		103.3	ppb	1	103	% Recovery		
	27	Zn-66	66		102.4	ppb	1	102	% Recovery		
	28	Zn-67	67		99.19	ppb	1	99	% Recovery		
	29	Zn-68	68		102.5	ppb	1	102	% Recovery		
	32	As-75	75		103.5	ppb	1	104	% Recovery		
	34	Se-82	82		101.6	ppb	1	102	% Recovery		
	37	Sr-87	87		98.88	ppb	1	99	% Recovery		
	40	Mo-95	95		98.17	ppb	1	98	% Recovery		
	41	Mo-98	98		97.82	ppb	1	98	% Recovery		
	43	Ag-107	107		97.53	ppb	1	98	% Recovery		
	45	Ag-109	109		98.68	ppb	1	99	% Recovery		
	46	Cd-111	111		101.3	ppb	1	101	% Recovery		
	47	Cd-114	114		100.4	ppb	1	100	% Recovery		
	50	Sn-120	120		99.36	ppb	1	99	% Recovery		
	51	Sb-121	121		100.1	ppb	1	100	% Recovery		
	52	Sb-123	123		101.1	ppb	1	101	% Recovery		
	53	Ba-135	135		101.1	ppb	1	101	% Recovery		
	54	Tb-159	159		0	ppb	1	< 1	% Recovery		x
	55	Au-197	197		97.05	ppb	1	97	% Recovery		
	56	Tl-205	205		97.46	ppb	1	97	% Recovery		
	59	Pb-208	208		99.56	ppb	1	100	% Recovery		
	61	U-238	238		98.62	ppb	1	99	% Recovery		

CB [CB]

Assaigai Analytical Laboratories, Inc.

Analytical Result Summary

Run Group	MT.2002.1109	44
Calc Method	6020	
Prep Method	LAB	
Prep Matrix	LAB	

		By	Dilution
Prepared			1
Analyzed	09-24-02 0:00:00	CJ	1
Calibration	09-23-02 18:08:00		
Quant	09-24-02 0:07:00	045CCB .D#	

r	C#	Analyte	QMass	m	Raw Quant	As	MRL	Report	As	Qual	f
	3	Be-9	9		0.01	ppb	0.001	< 0.001	mg / L		
	4	B-11	11		-1.32	ppb	0.001	< 0.001	mg / L		
	5	Na-23	23		0.1	ppb	0.01	< 0.010	mg / L		
	6	Mg-24	24		-0.06	ppb	0.01	< 0.010	mg / L		
	7	Mg-25	25		0.01	ppb	0.01	< 0.010	mg / L		
	8	Mg-26	26		-0.01	ppb	0.01	< 0.010	mg / L		
	9	Al-27	27		0.01	ppb	0.01	< 0.010	mg / L		
	10	Si-28	28		26.32	ppb	0.001	0.026	mg / L		x
	11	K-39	39		-3.85	ppb	0.01	< 0.010	mg / L		
	13	Ca-43	43		0.09	ppb	0.01	< 0.010	mg / L		
	14	Ca-44	44		1.81	ppb	0.01	< 0.010	mg / L		
	16	Ti-47	47		-0.04	ppb	0.001	< 0.001	mg / L		
	17	V-51	51		0.66	ppb	0.001	< 0.001	mg / L		
	18	Cr-52	52		0.54	ppb	0.001	< 0.001	mg / L		
	19	Cr-53	53		8.39	ppb	0.001	0.008	mg / L		x
	20	Fe-54	54		11.52	ppb	0.01	0.012	mg / L		x
	21	Mn-55	55		0.07	ppb	0.001	< 0.001	mg / L		
	22	Fe-57	57		6.44	ppb	0.01	< 0.010	mg / L		
	23	Co-59	59		-0.31	ppb	0.001	< 0.001	mg / L		
	24	Ni-60	60		0.03	ppb	0.001	< 0.001	mg / L		
	25	Cu-63	63		0.01	ppb	0.001	< 0.001	mg / L		
	26	Cu-65	65		-0.01	ppb	0.001	< 0.001	mg / L		
	27	Zn-66	66		0.02	ppb	0.001	< 0.001	mg / L		
	28	Zn-67	67		0.59	ppb	0.001	< 0.001	mg / L		
	29	Zn-68	68		-0.05	ppb	0.001	< 0.001	mg / L		
	32	As-75	75		0.43	ppb	0.001	< 0.001	mg / L		
	34	Se-82	82		-0.12	ppb	0.001	< 0.001	mg / L		
	37	Sr-87	87		0.01	ppb	0.001	< 0.001	mg / L		
	40	Mo-95	95		-0.84	ppb	0.001	< 0.001	mg / L		
	41	Mo-98	98		-0.8	ppb	0.001	< 0.001	mg / L		
	43	Ag-107	107		-0.04	ppb	0.001	< 0.001	mg / L		
	45	Ag-109	109		-0.03	ppb	0.001	< 0.001	mg / L		
	46	Cd-111	111		0.01	ppb	0.001	< 0.001	mg / L		
	47	Cd-114	114		-0.01	ppb	0.001	< 0.001	mg / L		
	50	Sn-120	120		-1.74	ppb	0.001	< 0.001	mg / L		
	51	Sb-121	121		-1.07	ppb	0.001	< 0.001	mg / L		
	52	Sb-123	123		-0.92	ppb	0.001	< 0.001	mg / L		
	53	Ba-135	135		0.03	ppb	0.001	< 0.001	mg / L		
	54	Tb-159	159		0	ppb	0.001	< 0.001	mg / L		
	55	Au-197	197		0.22	ppb	0.001	< 0.001	mg / L		
	56	Tl-205	205		-0.04	ppb	0.001	< 0.001	mg / L		
	59	Pb-208	208		-0.32	ppb	0.001	< 0.001	mg / L		
	61	U-238	238		0	ppb	0.001	< 0.001	mg / L		

FRAC M021282-020

Assaigai Analytical Laboratories, Inc.

Analytical Result Summary

0209364-11A 073

Run Group	MT.2002.1109	45
Calc Method	6020	
Prep Method	MS3050	
Prep Matrix	SOLID	

		By	Dilution
Prepared	09-23-02 8:08:00	JRE	0.9699
Analyzed	09-24-02 0:09:00	CJ	100
Calibration	09-23-02 18:08:00		
Quant	09-24-02 0:16:00		046SMPL.D#

r	C#	Analyte	QMass	m	Raw Quant	As	MRL	Report	As	Qual	f
	3	Be-9	9		0.06	ppb	0.025	< 2.42	mg / Kg		
	4	B-11	11		-4.27	ppb	0.15	< 14.5	mg / Kg		
	5	Na-23	23		8	ppb	0.5	< 48.5	mg / Kg		
	6	Mg-24	24		79.3	ppb	0.5	384	mg / Kg		
	7	Mg-25	25		80.12	ppb	0.5	388	mg / Kg		
	8	Mg-26	26		79.11	ppb	0.5	384	mg / Kg		
	9	Al-27	27		318.1	ppb	0.5	1540	mg / Kg		
	10	Si-28	28		59.53	ppb	1	289	mg / Kg		
	11	K-39	39		53.45	ppb	0.5	259	mg / Kg		
	13	Ca-43	43		95.25	ppb	0.5	462	mg / Kg		
	14	Ca-44	44		94.79	ppb	0.5	460	mg / Kg		
x	16	Ti-47 >5x MB	47		29.27	ppb	0.025	142	mg / Kg		
	17	V-51	51		0.97	ppb	0.05	< 4.85	mg / Kg		
	18	Cr-52	52		1.01	ppb	0.05	4.90	mg / Kg		
	19	Cr-53	53		0.22	ppb	0.25	< 24.2	mg / Kg		
	20	Fe-54	54		887.1	ppb	0.5	4300	mg / Kg		
x	21	Mn-55 >5x MB	55		28.93	ppb	0.025	140	mg / Kg		
	22	Fe-57	57		871.8	ppb	0.5	4230	mg / Kg		
	23	Co-59	59		-0.24	ppb	0.025	< 2.42	mg / Kg		
	24	Ni-60	60		0.27	ppb	0.025	< 2.42	mg / Kg		
	25	Cu-63	63		0.81	ppb	0.025	3.93	mg / Kg		
	26	Cu-65	65		0.85	ppb	0.025	4.12	mg / Kg		
	27	Zn-66	66		3.69	ppb	0.25	< 24.2	mg / Kg		
	28	Zn-67	67		2.59	ppb	0.25	< 24.2	mg / Kg		
	29	Zn-68	68		3.34	ppb	0.25	< 24.2	mg / Kg		
	32	As-75	75		0.65	ppb	0.025	3.15	mg / Kg		
	34	Se-82	82		-0.04	ppb	0.025	< 2.42	mg / Kg		
	37	Sr-87	87		1.95	ppb	0.025	9.46	mg / Kg		
	40	Mo-95	95		-0.85	ppb	0.025	< 2.42	mg / Kg		
	41	Mo-98	98		-0.84	ppb	0.025	< 2.42	mg / Kg		
	43	Ag-107	107		-0.02	ppb	0.025	< 2.42	mg / Kg		
	45	Ag-109	109		-0.02	ppb	0.025	< 2.42	mg / Kg		
	46	Cd-111	111		-0.01	ppb	0.025	< 2.42	mg / Kg		
	47	Cd-114	114		-0.02	ppb	0.025	< 2.42	mg / Kg		
	50	Sn-120	120		-1.59	ppb	0.025	< 2.42	mg / Kg		
	51	Sb-121	121		-1.24	ppb	0.05	< 4.85	mg / Kg		
	52	Sb-123	123		-1.08	ppb	0.05	< 4.85	mg / Kg		
	53	Ba-135	135		3.63	ppb	0.025	17.6	mg / Kg		
	54	Tb-159	159		0	ppb	0.001	< 0.097	mg / Kg		
	55	Au-197	197		-0.08	ppb	0.025	< 2.42	mg / Kg		
	56	Tl-205	205		-0.38	ppb	0.025	< 2.42	mg / Kg		
	59	Pb-208	208		0.31	ppb	0.025	< 2.42	mg / Kg		
	61	U-238	238		0.04	ppb	0.025	< 2.42	mg / Kg		

FRAC M021282-021

Assaigai Analytical Laboratories, Inc.

Analytical Result Summary

0209364-12A

			By	Dilution
Prepared	09-23-02 8:08:00		JRE	0.969
Analyzed	09-24-02 0:18:00		CJ	10
Calibration	09-23-02 18:08:00			
Quant	09-24-02 0:26:00		047SMPL.D#	

Run Group	MT.2002.1109	46
Calc Method	6020	
Prep Method	MS3050	
Prep Matrix	SOLID	

r	C#	Analyte	QMass	m	Raw Quant	As	MRL	Report	As	Qual	f
x	3	Be-9	9		0.72	ppb	0.025	0.349	mg / Kg		
	4	B-11	11		-1.81	ppb	0.15	< 1.45	mg / Kg		
	5	Na-23	23		199.7	ppb	0.5	96.8	mg / Kg		
	6	Mg-24	24		1466	ppb	0.5	710	mg / Kg		
	7	Mg-25	25		1534	ppb	0.5	743	mg / Kg		
	8	Mg-26	26		1512	ppb	0.5	732	mg / Kg		
x	9	Al-27 >5x MB	27		5650	ppb	0.5	2740	mg / Kg		
x	10	Si-28 >5x CB	28		419.6	ppb	1	203	mg / Kg	E	
	11	K-39	39		930.2	ppb	0.5	451	mg / Kg		
	13	Ca-43	43		2595	ppb	0.5	1260	mg / Kg		
	14	Ca-44	44		2565	ppb	0.5	1240	mg / Kg		
	16	Ti-47	47		332.7	ppb	0.025	161	mg / Kg		x
	17	V-51	51		10.64	ppb	0.05	5.16	mg / Kg		
x	18	Cr-52 >5x MB	52		27.69	ppb	0.05	13.4	mg / Kg		
	19	Cr-53	53		28.16	ppb	0.25	13.6	mg / Kg		
	20	Fe-54	54		10780	ppb	0.5	5220	mg / Kg		x
	21	Mn-55	55		327.8	ppb	0.025	159	mg / Kg		x
	22	Fe-57	57		11030	ppb	0.5	5340	mg / Kg		x
x	23	Co-59	59		1.49	ppb	0.025	0.722	mg / Kg		
x	24	Ni-60	60		4.22	ppb	0.025	2.04	mg / Kg		
x	25	Cu-63 >5x MB	63		27.42	ppb	0.025	13.3	mg / Kg		
	26	Cu-65	65		27.6	ppb	0.025	13.4	mg / Kg		
	27	Zn-66	66		65.99	ppb	0.25	32.0	mg / Kg		
	28	Zn-67	67		63.73	ppb	0.25	30.9	mg / Kg		
	29	Zn-68	68		63.35	ppb	0.25	30.7	mg / Kg		
x	32	As-75 >5x MB	75		2.69	ppb	0.025	1.30	mg / Kg		
x	34	Se-82	82		0.79	ppb	0.025	0.383	mg / Kg		
x	37	Sr-87	87		39.06	ppb	0.025	18.9	mg / Kg		
x	40	Mo-95	95		1.38	ppb	0.025	0.669	mg / Kg		
	41	Mo-98	98		1.47	ppb	0.025	0.712	mg / Kg		
x	43	Ag-107	107		0.64	ppb	0.025	0.310	mg / Kg		
	45	Ag-109	109		0.66	ppb	0.025	0.320	mg / Kg		
x	46	Cd-111	111		0.28	ppb	0.025	< 0.242	mg / Kg		
	47	Cd-114	114		0.12	ppb	0.025	< 0.242	mg / Kg		
x	50	Sn-120 (B)	120		0.77	ppb	0.025	0.373	mg / Kg		
x	51	Sb-121	121		-1.19	ppb	0.05	< 0.484	mg / Kg		
	52	Sb-123	123		-1.05	ppb	0.05	< 0.484	mg / Kg		
x	53	Ba-135 >5x MB	135		71.61	ppb	0.025	34.7	mg / Kg		
	54	Tb-159	159		0	ppb	0.001	< 0.010	mg / Kg		
	55	Au-197	197		-0.14	ppb	0.025	< 0.242	mg / Kg		
x	56	Tl-205	205		-0.41	ppb	0.025	< 0.242	mg / Kg		
x	59	Pb-208	208		13.16	ppb	0.025	6.38	mg / Kg		
x	61	U-238	238		0.67	ppb	0.025	0.325	mg / Kg		

FRAC M021282-021

Assaigai Analytical Laboratories, Inc.

Analytical Result Summary

0209364-12A

Run Group	MT.2002.1109	47
Calc Method	6020	
Prep Method	MS3050	
Prep Matrix	SOLID	

		By	Dilution
Prepared	09-23-02 8:08:00	JRE	0.969
Analyzed	09-24-02 0:28:00	CJ	100
Calibration	09-23-02 18:08:00		
Quant	09-24-02 0:35:00		048SMPL.D#

r	C#	Analyte	QMass	m	Raw Quant	As	MRL	Report	As	Qual	f
	3	Be-9	9		0.05	ppb	0.025	< 2.42	mg / Kg		
	4	B-11	11		-4.25	ppb	0.15	< 14.5	mg / Kg		
	5	Na-23	23		11.61	ppb	0.5	56.2	mg / Kg		
	6	Mg-24	24		136.7	ppb	0.5	662	mg / Kg		
	7	Mg-25	25		137.3	ppb	0.5	665	mg / Kg		
	8	Mg-26	26		139.3	ppb	0.5	675	mg / Kg		
	9	Al-27	27		523.6	ppb	0.5	2540	mg / Kg		
	10	Si-28	28		68.49	ppb	1	332	mg / Kg		
	11	K-39	39		79.05	ppb	0.5	383	mg / Kg		
	13	Ca-43	43		213.8	ppb	0.5	1040	mg / Kg		
	14	Ca-44	44		218.3	ppb	0.5	1060	mg / Kg		
x	16	Ti-47 >5x MB	47		30.63	ppb	0.025	148	mg / Kg		
	17	V-51	51		1.24	ppb	0.05	6.01	mg / Kg		
	18	Cr-52	52		2.74	ppb	0.05	13.3	mg / Kg		
	19	Cr-53	53		5.5	ppb	0.25	26.6	mg / Kg		
	20	Fe-54	54		1039	ppb	0.5	5030	mg / Kg		
x	21	Mn-55 >5x MB	55		30.84	ppb	0.025	149	mg / Kg		
	22	Fe-57	57		1003	ppb	0.5	4860	mg / Kg		
	23	Co-59	59		-0.19	ppb	0.025	< 2.42	mg / Kg		
	24	Ni-60	60		0.4	ppb	0.025	< 2.42	mg / Kg		
	25	Cu-63	63		2.52	ppb	0.025	12.2	mg / Kg		
	26	Cu-65	65		2.58	ppb	0.025	12.5	mg / Kg		
	27	Zn-66	66		4.53	ppb	0.25	< 24.2	mg / Kg		
	28	Zn-67	67		3.24	ppb	0.25	< 24.2	mg / Kg		
	29	Zn-68	68		4.14	ppb	0.25	< 24.2	mg / Kg		
	32	As-75	75		0.82	ppb	0.025	3.97	mg / Kg		
	34	Se-82	82		-0.13	ppb	0.025	< 2.42	mg / Kg		
	37	Sr-87	87		3.45	ppb	0.025	16.7	mg / Kg		
	40	Mo-95	95		-0.84	ppb	0.025	< 2.42	mg / Kg		
	41	Mo-98	98		-0.8	ppb	0.025	< 2.42	mg / Kg		
	43	Ag-107	107		0.01	ppb	0.025	< 2.42	mg / Kg		
	45	Ag-109	109		0.01	ppb	0.025	< 2.42	mg / Kg		
	46	Cd-111	111		-0.03	ppb	0.025	< 2.42	mg / Kg		
	47	Cd-114	114		-0.03	ppb	0.025	< 2.42	mg / Kg		
	50	Sn-120	120		-1.53	ppb	0.025	< 2.42	mg / Kg		
	51	Sb-121	121		-1.28	ppb	0.05	< 4.84	mg / Kg		
	52	Sb-123	123		-1.14	ppb	0.05	< 4.84	mg / Kg		
	53	Ba-135	135		6.3	ppb	0.025	30.5	mg / Kg		
	54	Tb-159	159		0	ppb	0.001	< 0.097	mg / Kg		
	55	Au-197	197		-0.17	ppb	0.025	< 2.42	mg / Kg		
	56	Tl-205	205		-0.52	ppb	0.025	< 2.42	mg / Kg		
	59	Pb-208	208		0.8	ppb	0.025	3.88	mg / Kg		
	61	U-238	238		0.02	ppb	0.025	< 2.42	mg / Kg		

FRAC M021282-022

Assaigai Analytical Laboratories, Inc.

Analytical Result Summary

0209364-13A

Run Group	MT.2002.1109	48
Calc Method	6020	
Prep Method	MS3050	
Prep Matrix	SOLID	

		By	Dilution
Prepared	09-23-02 8:08:00	JRE	0.9217
Analyzed	09-24-02 0:37:00	CJ	10
Calibration	09-23-02 18:08:00		
Quant	09-24-02 0:44:00		049SMPL.D#

r	C#	Analyte	QMass	m	Raw Quant	As	MRL	Report	As	Qual	f
x	3	Be-9	9		0.74	ppb	0.025	0.341	mg / Kg		
	4	B-11	11		-2.69	ppb	0.15	< 1.38	mg / Kg		
	5	Na-23	23		278.2	ppb	0.5	128	mg / Kg		
	6	Mg-24	24		1744	ppb	0.5	804	mg / Kg		
	7	Mg-25	25		1681	ppb	0.5	775	mg / Kg		
	8	Mg-26	26		1815	ppb	0.5	836	mg / Kg		
	9	Al-27	27		11980	ppb	0.5	5520	mg / Kg		x
x	10	Si-28 >5x CB	28		533.4	ppb	1	246	mg / Kg	E	
	11	K-39	39		1402	ppb	0.5	646	mg / Kg		
	13	Ca-43	43		2165	ppb	0.5	998	mg / Kg		
	14	Ca-44	44		2144	ppb	0.5	988	mg / Kg		
	16	Ti-47	47		560.2	ppb	0.025	258	mg / Kg		x
	17	V-51	51		18.48	ppb	0.05	8.52	mg / Kg		
x	18	Cr-52 >5x MB	52		9.51	ppb	0.05	4.38	mg / Kg		
	19	Cr-53	53		-1.71	ppb	0.25	< 2.30	mg / Kg		
	20	Fe-54	54		15820	ppb	0.5	7290	mg / Kg		x
	21	Mn-55	55		372.5	ppb	0.025	172	mg / Kg		x
	22	Fe-57	57		16030	ppb	0.5	7390	mg / Kg		x
x	23	Co-59	59		5.85	ppb	0.025	2.70	mg / Kg		
x	24	Ni-60	60		6.36	ppb	0.025	2.93	mg / Kg		
x	25	Cu-63 >5x MB	63		4.15	ppb	0.025	1.91	mg / Kg		
	26	Cu-65	65		4.36	ppb	0.025	2.01	mg / Kg		
	27	Zn-66	66		49.36	ppb	0.25	22.7	mg / Kg		
	28	Zn-67	67		50.2	ppb	0.25	23.1	mg / Kg		
	29	Zn-68	68		43.44	ppb	0.25	20.0	mg / Kg		
x	32	As-75 >5x MB	75		3.39	ppb	0.025	1.56	mg / Kg		
x	34	Se-82	82		1.07	ppb	0.025	0.493	mg / Kg		
x	37	Sr-87	87		72.11	ppb	0.025	33.2	mg / Kg		
x	40	Mo-95	95		0.82	ppb	0.025	0.378	mg / Kg		
	41	Mo-98	98		0.78	ppb	0.025	0.359	mg / Kg		
x	43	Ag-107	107		0.12	ppb	0.025	< 0.230	mg / Kg		
	45	Ag-109	109		0.11	ppb	0.025	< 0.230	mg / Kg		
x	46	Cd-111	111		0.37	ppb	0.025	< 0.230	mg / Kg		
	47	Cd-114	114		-0.08	ppb	0.025	< 0.230	mg / Kg		
x	50	Sn-120 (4)	120		1.81	ppb	0.025	0.834	mg / Kg		
x	51	Sb-121	121		-1.24	ppb	0.05	< 0.461	mg / Kg		
	52	Sb-123	123		-1.08	ppb	0.05	< 0.461	mg / Kg		
x	53	Ba-135 >5x MB	135		71.79	ppb	0.025	33.1	mg / Kg		
	54	Tb-159	159		0	ppb	0.001	< 0.009	mg / Kg		
	55	Au-197	197		-0.17	ppb	0.025	< 0.230	mg / Kg		
x	56	Tl-205	205		-0.35	ppb	0.025	< 0.230	mg / Kg		
x	59	Pb-208	208		17.41	ppb	0.025	8.02	mg / Kg		
x	61	U-238	238		0.92	ppb	0.025	0.424	mg / Kg		

FRAC M021282-022

Assaigai Analytical Laboratories, Inc.

Analytical Result Summary

077

0209364-13A

Run Group	MT.2002.1109	49
Calc Method	6020	
Prep Method	MS3050	
Prep Matrix	SOLID	

		By	Dilution
Prepared	09-23-02 8:08:00	JRE	0.9217
Analyzed	09-24-02 0:46:00	CJ	100
Calibration	09-23-02 18:08:00		
Quant	09-24-02 0:53:00		050SMPL.D#

r	C#	Analyte	QMass	m	Raw Quant	As	MRL	Report	As	Qual	f
	3	Be-9	9		0.06	ppb	0.025	< 2.30	mg / Kg		
	4	B-11	11		-4.45	ppb	0.15	< 13.8	mg / Kg		
	5	Na-23	23		25.96	ppb	0.5	120	mg / Kg		
	6	Mg-24	24		209.3	ppb	0.5	964	mg / Kg		
	7	Mg-25	25		210	ppb	0.5	968	mg / Kg		
	8	Mg-26	26		212.7	ppb	0.5	980	mg / Kg		
x	9	Al-27 >5x MB	27		1355	ppb	0.5	6240	mg / Kg		
	10	Si-28	28		76.96	ppb	1	355	mg / Kg		
	11	K-39	39		157.2	ppb	0.5	724	mg / Kg		
	13	Ca-43	43		229.9	ppb	0.5	1060	mg / Kg		
	14	Ca-44	44		235.6	ppb	0.5	1080	mg / Kg		
x	16	Ti-47 >5x MB	47		64.96	ppb	0.025	299	mg / Kg		
	17	V-51	51		1.84	ppb	0.05	8.48	mg / Kg		
	18	Cr-52	52		0.86	ppb	0.05	< 4.61	mg / Kg		
	19	Cr-53	53		-12.69	ppb	0.25	< 23.0	mg / Kg		
	20	Fe-54	54		1849	ppb	0.5	8520	mg / Kg		
x	21	Mn-55 >5x MB	55		43.39	ppb	0.025	200	mg / Kg		
	22	Fe-57	57		1814	ppb	0.5	8360	mg / Kg		
	23	Co-59	59		0.37	ppb	0.025	< 2.30	mg / Kg		
	24	Ni-60	60		0.74	ppb	0.025	3.41	mg / Kg		
	25	Cu-63	63		0.47	ppb	0.025	< 2.30	mg / Kg		
	26	Cu-65	65		0.49	ppb	0.025	< 2.30	mg / Kg		
	27	Zn-66	66		3.99	ppb	0.25	< 23.0	mg / Kg		
	28	Zn-67	67		2.19	ppb	0.25	< 23.0	mg / Kg		
	29	Zn-68	68		3.22	ppb	0.25	< 23.0	mg / Kg		
	32	As-75	75		0.64	ppb	0.025	2.95	mg / Kg		
	34	Se-82	82		0.05	ppb	0.025	< 2.30	mg / Kg		
	37	Sr-87	87		7.9	ppb	0.025	36.4	mg / Kg		
	40	Mo-95	95		-0.86	ppb	0.025	< 2.30	mg / Kg		
	41	Mo-98	98		-0.83	ppb	0.025	< 2.30	mg / Kg		
	43	Ag-107	107		-0.04	ppb	0.025	< 2.30	mg / Kg		
	45	Ag-109	109		-0.04	ppb	0.025	< 2.30	mg / Kg		
	46	Cd-111	111		0.02	ppb	0.025	< 2.30	mg / Kg		
	47	Cd-114	114		-0.03	ppb	0.025	< 2.30	mg / Kg		
	50	Sn-120	120		-1.39	ppb	0.025	< 2.30	mg / Kg		
	51	Sb-121	121		-1.3	ppb	0.05	< 4.61	mg / Kg		
	52	Sb-123	123		-1.16	ppb	0.05	< 4.61	mg / Kg		
	53	Ba-135	135		7.71	ppb	0.025	35.5	mg / Kg		
	54	Tb-159	159		0	ppb	0.001	< 0.092	mg / Kg		
	55	Au-197	197		-0.18	ppb	0.025	< 2.30	mg / Kg		
	56	Tl-205	205		-0.54	ppb	0.025	< 2.30	mg / Kg		
	59	Pb-208	208		1.52	ppb	0.025	7.00	mg / Kg		
	61	U-238	238		0.07	ppb	0.025	< 2.30	mg / Kg		

Coyote 2001: Calculation 1.0.020729144500

Report Date 9/24/2002 4:04:35 PM

FRAC M021282-023

Assaigai Analytical Laboratories, Inc.

Analytical Result Summary

0209364-14A

Run Group	MT.20021109	50
Calc Method	6020	
Prep Method	MS3050	
Prep Matrix	SOLID	

		By	Dilution
Prepared	09-23-02 8:08:00	JRE	0.9479
Analyzed	09-24-02 0:55:00	CJ	10
Calibration	09-23-02 18:08:00		
Quant	09-24-02 1:02:00	051SMPL.D#	

r	C#	Analyte	QMass	m	Raw Quant	As	MRL	Report	As	Qual	f
x	3	Be-9	9		1.19	ppb	0.025	0.564	mg / Kg		
	4	B-11	11		-1.09	ppb	0.15	< 1.42	mg / Kg		
	5	Na-23	23		217.3	ppb	0.5	103	mg / Kg		
	6	Mg-24	24		2934	ppb	0.5	1390	mg / Kg		
	7	Mg-25	25		2960	ppb	0.5	1400	mg / Kg		
	8	Mg-26	26		2886	ppb	0.5	1370	mg / Kg		
	9	Al-27	27		18270	ppb	0.5	8660	mg / Kg		x
x	10	Si-28 >5x CB	28		495.3	ppb	1	235	mg / Kg	E	
	11	K-39	39		1924	ppb	0.5	912	mg / Kg		
	13	Ca-43	43		3203	ppb	0.5	1520	mg / Kg		
	14	Ca-44	44		3149	ppb	0.5	1490	mg / Kg		
	16	Ti-47	47		535	ppb	0.025	254	mg / Kg		x
	17	V-51	51		26.26	ppb	0.05	12.4	mg / Kg		
x	18	Cr-52 >5x MB	52		83.47	ppb	0.05	39.6	mg / Kg		
	19	Cr-53	53		75.73	ppb	0.25	35.9	mg / Kg		
	20	Fe-54	54		21060	ppb	0.5	9980	mg / Kg		x
	21	Mn-55	55		394.1	ppb	0.025	187	mg / Kg		x
	22	Fe-57	57		20760	ppb	0.5	9840	mg / Kg		x
x	23	Co-59	59		4.59	ppb	0.025	2.18	mg / Kg		
x	24	Ni-60	60		9.69	ppb	0.025	4.59	mg / Kg		
x	25	Cu-63 >5x MB	63		16.05	ppb	0.025	7.61	mg / Kg		
	26	Cu-65	65		16.18	ppb	0.025	7.67	mg / Kg		
	27	Zn-66	66		95.31	ppb	0.25	45.2	mg / Kg		
	28	Zn-67	67		97.53	ppb	0.25	46.2	mg / Kg		
	29	Zn-68	68		87.45	ppb	0.25	41.4	mg / Kg		
x	32	As-75 >5x MB	75		5.27	ppb	0.025	2.50	mg / Kg		
x	34	Se-82	82		1.16	ppb	0.025	0.550	mg / Kg		
x	37	Sr-87	87		108.4	ppb	0.025	51.4	mg / Kg		
x	40	Mo-95	95		1.31	ppb	0.025	0.621	mg / Kg		
	41	Mo-98	98		1.27	ppb	0.025	0.602	mg / Kg		
x	43	Ag-107	107		2.98	ppb	0.025	1.41	mg / Kg		
	45	Ag-109	109		3	ppb	0.025	1.42	mg / Kg		
x	46	Cd-111	111		0.71	ppb	0.025	0.336	mg / Kg		
	47	Cd-114	114		0.27	ppb	0.025	< 0.237	mg / Kg		
x	50	Sn-120 (B)	120		3.6	ppb	0.025	1.71	mg / Kg		
x	51	Sb-121	121		-1.22	ppb	0.05	< 0.474	mg / Kg		
	52	Sb-123	123		-1.09	ppb	0.05	< 0.474	mg / Kg		
x	53	Ba-135 >5x MB	135		124.3	ppb	0.025	58.9	mg / Kg		
	54	Tb-159	159		0	ppb	0.001	< 0.009	mg / Kg		
	55	Au-197	197		-0.09	ppb	0.025	< 0.237	mg / Kg		
x	56	Tl-205	205		-0.28	ppb	0.025	< 0.237	mg / Kg		
x	59	Pb-208	208		29.31	ppb	0.025	13.9	mg / Kg		
x	61	U-238	238		1.44	ppb	0.025	0.682	mg / Kg		

FRAC M021282-023

Assaigai Analytical Laboratories, Inc.

Analytical Result Summary

0209364-14A

Run Group	MT.2002.1109	51
Calc Method	6020	
Prep Method	MS3050	
Prep Matrix	SOLID	

		By	Dilution
Prepared	09-23-02 8:08:00	JRE	0.9479
Analyzed	09-24-02 1:05:00	CJ	100
Calibration	09-23-02 18:08:00		
Quant	09-24-02 1:12:00	052SMPL.D#	

r	C#	Analyte	QMass	m	Raw Quant	As	MRL	Report	As	Qual	f
	3	Be-9	9		0.12	ppb	0.025	< 2.37	mg / Kg		
	4	B-11	11		-4.13	ppb	0.15	< 14.2	mg / Kg		
	5	Na-23	23		19.09	ppb	0.5	90.5	mg / Kg		
	6	Mg-24	24		324.9	ppb	0.5	1540	mg / Kg		
	7	Mg-25	25		326.7	ppb	0.5	1550	mg / Kg		
	8	Mg-26	26		331	ppb	0.5	1570	mg / Kg		
x	9	Al-27 >5x MB	27		2067	ppb	0.5	9800	mg / Kg		
	10	Si-28	28		90.5	ppb	1	429	mg / Kg		
	11	K-39	39		219.1	ppb	0.5	1040	mg / Kg		
	13	Ca-43	43		346.8	ppb	0.5	1640	mg / Kg		
	14	Ca-44	44		346.8	ppb	0.5	1640	mg / Kg		
x	16	Ti-47 >5x MB	47		59.37	ppb	0.025	281	mg / Kg		
	17	V-51	51		2.78	ppb	0.05	13.2	mg / Kg		
	18	Cr-52	52		9.36	ppb	0.05	44.4	mg / Kg		
	19	Cr-53	53		0.81	ppb	0.25	< 23.7	mg / Kg		
	20	Fe-54	54		2421	ppb	0.5	11500	mg / Kg		
x	21	Mn-55 >5x MB	55		44.75	ppb	0.025	212	mg / Kg		
	22	Fe-57	57		2359	ppb	0.5	11200	mg / Kg		
	23	Co-59	59		0.19	ppb	0.025	< 2.37	mg / Kg		
	24	Ni-60	60		1.12	ppb	0.025	5.31	mg / Kg		
	25	Cu-63	63		1.81	ppb	0.025	8.58	mg / Kg		
	26	Cu-65	65		1.75	ppb	0.025	8.29	mg / Kg		
	27	Zn-66	66		8.83	ppb	0.25	41.8	mg / Kg		
	28	Zn-67	67		7.44	ppb	0.25	35.3	mg / Kg		
	29	Zn-68	68		7.86	ppb	0.25	37.2	mg / Kg		
	32	As-75	75		1.14	ppb	0.025	5.40	mg / Kg		
	34	Se-82	82		0.05	ppb	0.025	< 2.37	mg / Kg		
	37	Sr-87	87		11.63	ppb	0.025	55.1	mg / Kg		
	40	Mo-95	95		-0.82	ppb	0.025	< 2.37	mg / Kg		
	41	Mo-98	98		-0.8	ppb	0.025	< 2.37	mg / Kg		
	43	Ag-107	107		0.26	ppb	0.025	< 2.37	mg / Kg		
	45	Ag-109	109		0.26	ppb	0.025	< 2.37	mg / Kg		
	46	Cd-111	111		0.04	ppb	0.025	< 2.37	mg / Kg		
	47	Cd-114	114		0.01	ppb	0.025	< 2.37	mg / Kg		
	50	Sn-120	120		-1.21	ppb	0.025	< 2.37	mg / Kg		
	51	Sb-121	121		-1.31	ppb	0.05	< 4.74	mg / Kg		
	52	Sb-123	123		-1.16	ppb	0.05	< 4.74	mg / Kg		
	53	Ba-135	135		12.52	ppb	0.025	59.3	mg / Kg		
	54	Tb-159	159		0	ppb	0.001	< 0.095	mg / Kg		
	55	Au-197	197		-0.19	ppb	0.025	< 2.37	mg / Kg		
	56	Tl-205	205		-0.54	ppb	0.025	< 2.37	mg / Kg		
	59	Pb-208	208		2.73	ppb	0.025	12.9	mg / Kg		
	61	U-238	238		0.11	ppb	0.025	< 2.37	mg / Kg		

FRAC M021282-024

Assaigai Analytical Laboratories, Inc.

Analytical Result Summary

0209364-15A

080

Run Group	MT.2002.1109	52
Calc Method	6020	
Prep Method	MS3050	
Prep Matrix	SOLID	

		By	Dilution
Prepared	09-23-02 8:08:00	JRE	0.947
Analyzed	09-24-02 1:14:00	CJ	10
Calibration	09-23-02 18:08:00		
Quant	09-24-02 1:21:00	053SMPL.D#	

r	C#	Analyte	QMass	m	Raw Quant	As	MRL	Report	As	Qual	f
x	3	Be-9	9		0.91	ppb	0.025	0.431	mg / Kg		
	4	B-11	11		-2.22	ppb	0.15	< 1.42	mg / Kg		
	5	Na-23	23		276.3	ppb	0.5	131	mg / Kg		
	6	Mg-24	24		1421	ppb	0.5	673	mg / Kg		
	7	Mg-25	25		1491	ppb	0.5	706	mg / Kg		
	8	Mg-26	26		1506	ppb	0.5	713	mg / Kg		
x	9	Al-27 >5x MB	27		10050	ppb	0.5	4760	mg / Kg		
x	10	Si-28 >5x CB	28		488.6	ppb	1	231	mg / Kg	E	
	11	K-39	39		1303	ppb	0.5	617	mg / Kg		
	13	Ca-43	43		1889	ppb	0.5	894	mg / Kg		
	14	Ca-44	44		1905	ppb	0.5	902	mg / Kg		
	16	Ti-47	47		328.7	ppb	0.025	156	mg / Kg		x
	17	V-51	51		9.66	ppb	0.05	4.57	mg / Kg		
x	18	Cr-52 >5x MB	52		5.35	ppb	0.05	2.53	mg / Kg		
	19	Cr-53	53		-4.93	ppb	0.25	< 2.37	mg / Kg		
	20	Fe-54	54		13560	ppb	0.5	6420	mg / Kg		x
	21	Mn-55	55		330.4	ppb	0.025	156	mg / Kg		x
	22	Fe-57	57		13860	ppb	0.5	6560	mg / Kg		x
x	23	Co-59	59		1.28	ppb	0.025	0.606	mg / Kg		
x	24	Ni-60 >5x MB for Cu	60		4.33	ppb	0.025	2.05	mg / Kg		
x	25	Cu-63 ↓	63		4.21	ppb	0.025	1.99	mg / Kg		
	26	Cu-65	65		4.31	ppb	0.025	2.04	mg / Kg		
	27	Zn-66	66		57.83	ppb	0.25	27.4	mg / Kg		
	28	Zn-67	67		57.84	ppb	0.25	27.3	mg / Kg		
	29	Zn-68	68		53.4	ppb	0.25	25.3	mg / Kg		
x	32	As-75 >5x MB	75		2.04	ppb	0.025	0.966	mg / Kg		
x	34	Se-82	82		0.98	ppb	0.025	0.464	mg / Kg		
x	37	Sr-87	87		65.65	ppb	0.025	31.1	mg / Kg		
x	40	Mo-95	95		1.63	ppb	0.025	0.772	mg / Kg		
	41	Mo-98	98		1.62	ppb	0.025	0.767	mg / Kg		
x	43	Ag-107	107		-0.03	ppb	0.025	< 0.237	mg / Kg		
	45	Ag-109	109		-0.01	ppb	0.025	< 0.237	mg / Kg		
x	46	Cd-111	111		0.25	ppb	0.025	< 0.237	mg / Kg		
	47	Cd-114	114		-0.01	ppb	0.025	< 0.237	mg / Kg		
x	50	Sn-120 (B)	120		1.86	ppb	0.025	0.881	mg / Kg		
x	51	Sb-121	121		-1.25	ppb	0.05	< 0.474	mg / Kg		
	52	Sb-123	123		-1.11	ppb	0.05	< 0.474	mg / Kg		
x	53	Ba-135 >5x MB	135		64.77	ppb	0.025	30.7	mg / Kg		
	54	Tb-159	159		0	ppb	0.001	< 0.009	mg / Kg		
	55	Au-197	197		-0.19	ppb	0.025	< 0.237	mg / Kg		
x	56	Tl-205	205		-0.36	ppb	0.025	< 0.237	mg / Kg		
x	59	Pb-208	208		19.45	ppb	0.025	9.21	mg / Kg		
x	61	U-238	238		0.81	ppb	0.025	0.384	mg / Kg		

FRAC M021282-024

Assaigai Analytical Laboratories, Inc.

Analytical Result Summary

0209364-15A

081

Run Group	MT.2002.1109	53		Prepared	09-23-02 8:08:00	JRE	0.947
Calc Method	6020			Analyzed	09-24-02 1:23:00	CJ	100
Prep Method	MS3050			Calibration	09-23-02 18:08:00		
Prep Matrix	SOLID			Quant	09-24-02 1:30:00		054SMPL.D#

r	C#	Analyte	QMass	m	Raw Quant	As	MRL	Report	As	Qual	f
	3	Be-9	9		0.07	ppb	0.025	< 2.37	mg / Kg		
	4	B-11	11		-4.35	ppb	0.15	< 14.2	mg / Kg		
	5	Na-23	23		24.84	ppb	0.5	117	mg / Kg		
	6	Mg-24	24		157.5	ppb	0.5	746	mg / Kg		
	7	Mg-25	25		156.9	ppb	0.5	743	mg / Kg		
	8	Mg-26	26		158.3	ppb	0.5	750	mg / Kg		
	9	Al-27	27		1039	ppb	0.5	4920	mg / Kg		
	10	Si-28	28		91.42	ppb	1	433	mg / Kg		
	11	K-39	39		139.2	ppb	0.5	659	mg / Kg		
	13	Ca-43	43		179.4	ppb	0.5	849	mg / Kg		
	14	Ca-44	44		184.7	ppb	0.5	874	mg / Kg		
x	16	Ti-47 >5x MB	47		34.46	ppb	0.025	163	mg / Kg		
	17	V-51	51		1.04	ppb	0.05	4.92	mg / Kg		
	18	Cr-52	52		0.37	ppb	0.05	< 4.74	mg / Kg		
	19	Cr-53	53		-12.19	ppb	0.25	< 23.7	mg / Kg		
	20	Fe-54	54		1476	ppb	0.5	6990	mg / Kg		
x	21	Mn-55 >5x MB	55		35.43	ppb	0.025	168	mg / Kg		
	22	Fe-57	57		1450	ppb	0.5	6860	mg / Kg		
	23	Co-59	59		-0.19	ppb	0.025	< 2.37	mg / Kg		
	24	Ni-60	60		0.45	ppb	0.025	< 2.37	mg / Kg		
	25	Cu-63	63		0.41	ppb	0.025	< 2.37	mg / Kg		
	26	Cu-65	65		0.41	ppb	0.025	< 2.37	mg / Kg		
	27	Zn-66	66		4.42	ppb	0.25	< 23.7	mg / Kg		
	28	Zn-67	67		2.39	ppb	0.25	< 23.7	mg / Kg		
	29	Zn-68	68		3.9	ppb	0.25	< 23.7	mg / Kg		
	32	As-75	75		0.37	ppb	0.025	< 2.37	mg / Kg		
	34	Se-82	82		0.05	ppb	0.025	< 2.37	mg / Kg		
	37	Sr-87	87		6.67	ppb	0.025	31.6	mg / Kg		
	40	Mo-95	95		-0.83	ppb	0.025	< 2.37	mg / Kg		
	41	Mo-98	98		-0.79	ppb	0.025	< 2.37	mg / Kg		
	43	Ag-107	107		-0.06	ppb	0.025	< 2.37	mg / Kg		
	45	Ag-109	109		-0.06	ppb	0.025	< 2.37	mg / Kg		
	46	Cd-111	111		-0.01	ppb	0.025	< 2.37	mg / Kg		
	47	Cd-114	114		-0.03	ppb	0.025	< 2.37	mg / Kg		
	50	Sn-120	120		-1.41	ppb	0.025	< 2.37	mg / Kg		
	51	Sb-121	121		-1.31	ppb	0.05	< 4.74	mg / Kg		
	52	Sb-123	123		-1.16	ppb	0.05	< 4.74	mg / Kg		
	53	Ba-135	135		6.36	ppb	0.025	30.1	mg / Kg		
	54	Tb-159	159		0	ppb	0.001	< 0.095	mg / Kg		
	55	Au-197	197		-0.22	ppb	0.025	< 2.37	mg / Kg		
	56	Tl-205	205		-0.55	ppb	0.025	< 2.37	mg / Kg		
	59	Pb-208	208		1.59	ppb	0.025	7.53	mg / Kg		
	61	U-238	238		0.05	ppb	0.025	< 2.37	mg / Kg		

STD-CCV [STD-CCV]

Assaigai Analytical Laboratories, Inc.

Analytical Result Summary

Run Group	MT.2002.1109	54
Calc Method	6020	
Prep Method	LAB	
Prep Matrix	LAB	

		By	Dilution
Prepared			1
Analyzed	09-24-02 1:41:00	CJ	1
Calibration	09-23-02 18:08:00		
Quant	09-24-02 1:48:00	056CCV_.D#	

r	C#	Analyte	QMass	m	Raw Quant	As	MRL	Report	As	Qual	f
	3	Be-9	9		94.23	ppb	1	94	% Recovery		
	4	B-11	11		103.9	ppb	1	104	% Recovery		
	5	Na-23	23		1169	ppb	1	117	% Recovery		x
	6	Mg-24	24		1163	ppb	1	116	% Recovery		x
	7	Mg-25	25		1207	ppb	1	121	% Recovery		x
	8	Mg-26	26		1200	ppb	1	120	% Recovery		x
	9	Al-27	27		1143	ppb	1	114	% Recovery		x
	10	Si-28	28		1188	ppb	1	119	% Recovery		x
	11	K-39	39		1130	ppb	1	113	% Recovery		x
	13	Ca-43	43		1127	ppb	1	113	% Recovery		x
	14	Ca-44	44		1123	ppb	1	112	% Recovery		x
	16	Ti-47	47		105.6	ppb	1	106	% Recovery		
	17	V-51	51		106.6	ppb	1	107	% Recovery		
	18	Cr-52	52		107.5	ppb	1	108	% Recovery		
	19	Cr-53	53		101.5	ppb	1	102	% Recovery		
	20	Fe-54	54		1244	ppb	1	124	% Recovery		x
	21	Mn-55	55		104.2	ppb	1	104	% Recovery		
	22	Fe-57	57		1135	ppb	1	114	% Recovery		x
	23	Co-59	59		107	ppb	1	107	% Recovery		
	24	Ni-60	60		106.7	ppb	1	107	% Recovery		
	25	Cu-63	63		107	ppb	1	107	% Recovery		
	26	Cu-65	65		106.3	ppb	1	106	% Recovery		
	27	Zn-66	66		103.9	ppb	1	104	% Recovery		
	28	Zn-67	67		99.98	ppb	1	100	% Recovery		
	29	Zn-68	68		104.4	ppb	1	104	% Recovery		
	32	As-75	75		105.5	ppb	1	106	% Recovery		
	34	Se-82	82		103.2	ppb	1	103	% Recovery		
	37	Sr-87	87		101.2	ppb	1	101	% Recovery		
	40	Mo-95	95		100.4	ppb	1	100	% Recovery		
	41	Mo-98	98		100.5	ppb	1	100	% Recovery		
	43	Ag-107	107		100.8	ppb	1	101	% Recovery		
	45	Ag-109	109		100.7	ppb	1	101	% Recovery		
	46	Cd-111	111		103.4	ppb	1	103	% Recovery		
	47	Cd-114	114		103.5	ppb	1	104	% Recovery		
	50	Sn-120	120		102.2	ppb	1	102	% Recovery		
	51	Sb-121	121		103.4	ppb	1	103	% Recovery		
	52	Sb-123	123		103.3	ppb	1	103	% Recovery		
	53	Ba-135	135		104.5	ppb	1	104	% Recovery		
	54	Tb-159	159		0	ppb	1	< 1	% Recovery		x
	55	Au-197	197		101	ppb	1	101	% Recovery		
	56	Tl-205	205		100.2	ppb	1	100	% Recovery		
	59	Pb-208	208		102.3	ppb	1	102	% Recovery		
	61	U-238	238		101.1	ppb	1	101	% Recovery		

CB [CB]

Assaigai Analytical Laboratories, Inc.

Analytical Result Summary

Run Group	MT.2002.1109	55
Calc Method	6020	
Prep Method	LAB	
Prep Matrix	LAB	

		By	Dilution
Prepared			1
Analyzed	09-24-02 1:50:00	CJ	1
Calibration	09-23-02 18:08:00		
Quant	09-24-02 1:57:00		057CCB .D#

r	C#	Analyte	QMass	m	Raw Quant	As	MRL	Report	As	Qual	f
	3	Be-9	9		0.01	ppb	0.001	< 0.001	mg / L		
	4	B-11	11		-1.01	ppb	0.001	< 0.001	mg / L		
	5	Na-23	23		-0.13	ppb	0.01	< 0.010	mg / L		
	6	Mg-24	24		0.03	ppb	0.01	< 0.010	mg / L		
	7	Mg-25	25		-0.05	ppb	0.01	< 0.010	mg / L		
	8	Mg-26	26		0.03	ppb	0.01	< 0.010	mg / L		
	9	Al-27	27		-0.24	ppb	0.01	< 0.010	mg / L		
	10	Si-28	28		39.59	ppb	0.001	0.040	mg / L		x
	11	K-39	39		-2.78	ppb	0.01	< 0.010	mg / L		
	13	Ca-43	43		0.04	ppb	0.01	< 0.010	mg / L		
	14	Ca-44	44		2.74	ppb	0.01	< 0.010	mg / L		
	16	Ti-47	47		-0.18	ppb	0.001	< 0.001	mg / L		
	17	V-51	51		0.25	ppb	0.001	< 0.001	mg / L		
	18	Cr-52	52		0.57	ppb	0.001	< 0.001	mg / L		
	19	Cr-53	53		14.5	ppb	0.001	0.014	mg / L		x
	20	Fe-54	54		32.82	ppb	0.01	0.033	mg / L		x
	21	Mn-55	55		0.08	ppb	0.001	< 0.001	mg / L		
	22	Fe-57	57		8.75	ppb	0.01	< 0.010	mg / L		
	23	Co-59	59		-0.18	ppb	0.001	< 0.001	mg / L		
	24	Ni-60	60		0.03	ppb	0.001	< 0.001	mg / L		
	25	Cu-63	63		0.01	ppb	0.001	< 0.001	mg / L		
	26	Cu-65	65		0	ppb	0.001	< 0.001	mg / L		
	27	Zn-66	66		0.04	ppb	0.001	< 0.001	mg / L		
	28	Zn-67	67		0.9	ppb	0.001	< 0.001	mg / L		
	29	Zn-68	68		-0.04	ppb	0.001	< 0.001	mg / L		
	32	As-75	75		0.64	ppb	0.001	< 0.001	mg / L		
	34	Se-82	82		0.08	ppb	0.001	< 0.001	mg / L		
	37	Sr-87	87		0.01	ppb	0.001	< 0.001	mg / L		
	40	Mo-95	95		-0.83	ppb	0.001	< 0.001	mg / L		
	41	Mo-98	98		-0.82	ppb	0.001	< 0.001	mg / L		
	43	Ag-107	107		-0.03	ppb	0.001	< 0.001	mg / L		
	45	Ag-109	109		-0.03	ppb	0.001	< 0.001	mg / L		
	46	Cd-111	111		-0.02	ppb	0.001	< 0.001	mg / L		
	47	Cd-114	114		-0.02	ppb	0.001	< 0.001	mg / L		
	50	Sn-120	120		-1.71	ppb	0.001	< 0.001	mg / L		
	51	Sb-121	121		-1.15	ppb	0.001	< 0.001	mg / L		
	52	Sb-123	123		-0.99	ppb	0.001	< 0.001	mg / L		
	53	Ba-135	135		0.03	ppb	0.001	< 0.001	mg / L		
	54	Tb-159	159		0	ppb	0.001	< 0.001	mg / L		
	55	Au-197	197		0.26	ppb	0.001	< 0.001	mg / L		
	56	Tl-205	205		0.13	ppb	0.001	< 0.001	mg / L		
	59	Pb-208	208		-0.19	ppb	0.001	< 0.001	mg / L		
	61	U-238	238		0.01	ppb	0.001	< 0.001	mg / L		

FRAC M021282-025

Assaigai Analytical Laboratories, Inc.

Analytical Result Summary

0209364-16A

084

Run Group	MT.2002.1109	59
Calc Method	6020	
Prep Method	MS3050	
Prep Matrix	SOLID	

		By	Dilution
Prepared	09-23-02 8:08:00	JRE	0.9747
Analyzed	09-24-02 2:27:00	CJ	10
Calibration	09-23-02 18:08:00		
Quant	09-24-02 2:34:00	061SMPL.D#	

r	C#	Analyte	QMass	m	Raw Quant	As	MRL	Report	As	Qual	f
x	3	Be-9	9		0.91	ppb	0.025	0.443	mg / Kg		
	4	B-11	11		-1.29	ppb	0.15	< 1.46	mg / Kg		
	5	Na-23	23		312.8	ppb	0.5	152	mg / Kg		
	6	Mg-24	24		1501	ppb	0.5	731	mg / Kg		
	7	Mg-25	25		1547	ppb	0.5	754	mg / Kg		
	8	Mg-26	26		1527	ppb	0.5	744	mg / Kg		
x	9	Al-27 >5x MB	27		10930	ppb	0.5	5330	mg / Kg		
x	10	Si-28 >5x CB	28		543.9	ppb	1	265	mg / Kg	E	
	11	K-39	39		1410	ppb	0.5	687	mg / Kg		
	13	Ca-43	43		2204	ppb	0.5	1070	mg / Kg		
	14	Ca-44	44		2193	ppb	0.5	1070	mg / Kg		
	16	Ti-47	47		291.5	ppb	0.025	142	mg / Kg		x
	17	V-51	51		9.86	ppb	0.05	4.80	mg / Kg		
x	18	Cr-52 >5x MB	52		5.62	ppb	0.05	2.74	mg / Kg		
	19	Cr-53	53		-7.46	ppb	0.25	< 2.44	mg / Kg		
	20	Fe-54	54		12450	ppb	0.5	6070	mg / Kg		x
	21	Mn-55	55		351.2	ppb	0.025	171	mg / Kg		x
	22	Fe-57	57		12170	ppb	0.5	5930	mg / Kg		x
x	23	Co-59	59		1.87	ppb	0.025	0.911	mg / Kg		
x	24	Ni-60	60		4.66	ppb	0.025	2.27	mg / Kg		
x	25	Cu-63 >5x MB	63		4.15	ppb	0.025	2.02	mg / Kg		
	26	Cu-65	65		4.29	ppb	0.025	2.09	mg / Kg		
	27	Zn-66	66		49.07	ppb	0.25	23.9	mg / Kg		
	28	Zn-67	67		49.71	ppb	0.25	24.2	mg / Kg		
	29	Zn-68	68		43.63	ppb	0.25	21.3	mg / Kg		
x	32	As-75 >5x MB	75		3.14	ppb	0.025	1.53	mg / Kg		
x	34	Se-82	82		1.03	ppb	0.025	0.502	mg / Kg		
x	37	Sr-87	87		69.69	ppb	0.025	34.0	mg / Kg		
x	40	Mo-95	95		2.85	ppb	0.025	1.39	mg / Kg		
	41	Mo-98	98		2.87	ppb	0.025	1.40	mg / Kg		
x	43	Ag-107	107		-0.02	ppb	0.025	< 0.244	mg / Kg		
	45	Ag-109	109		-0.03	ppb	0.025	< 0.244	mg / Kg		
x	46	Cd-111	111		0.23	ppb	0.025	< 0.244	mg / Kg		
	47	Cd-114	114		0	ppb	0.025	< 0.244	mg / Kg		
x	50	Sn-120 (B)	120		2.18	ppb	0.025	1.05	mg / Kg		
x	51	Sb-121	121		-1.26	ppb	0.05	< 0.487	mg / Kg		
	52	Sb-123	123		-1.1	ppb	0.05	< 0.487	mg / Kg		
x	53	Ba-135 >5x MB	135		70.41	ppb	0.025	34.3	mg / Kg		
	54	Tb-159	159		0	ppb	0.001	< 0.010	mg / Kg		
	55	Au-197	197		-0.17	ppb	0.025	< 0.244	mg / Kg		
x	56	Tl-205	205		-0.3	ppb	0.025	< 0.244	mg / Kg		
x	59	Pb-208	208		18.99	ppb	0.025	9.25	mg / Kg		
x	61	U-238	238		0.86	ppb	0.025	0.419	mg / Kg		

FRAC M021282-025

Assaigai Analytical Laboratories, Inc.

Analytical Result Summary

0209364-16A

			By	Dilution
Prepared	09-23-02 8:08:00		JRE	0.9747
Analyzed	09-24-02 2:36:00		CJ	100
Calibration	09-23-02 18:08:00			
Quant	09-24-02 2:43:00			062SMPL.D#

Run Group	MT.2002.1109	60
Calc Method	6020	
Prep Method	MS3050	
Prep Matrix	SOLID	

r	C#	Analyte	QMass	m	Raw Quant	As	MRL	Report	As	Qual	f
	3	Be-9	9		0.05	ppb	0.025	< 2.44	mg / Kg		
	4	B-11	11		-4.11	ppb	0.15	< 14.6	mg / Kg		
	5	Na-23	23		30.39	ppb	0.5	148	mg / Kg		
	6	Mg-24	24		126.6	ppb	0.5	617	mg / Kg		
	7	Mg-25	25		127.6	ppb	0.5	622	mg / Kg		
	8	Mg-26	26		129	ppb	0.5	629	mg / Kg		
	9	Al-27	27		828.4	ppb	0.5	4040	mg / Kg		
	10	Si-28	28		90.92	ppb	1	443	mg / Kg		
	11	K-39	39		113.1	ppb	0.5	551	mg / Kg		
	13	Ca-43	43		160.5	ppb	0.5	782	mg / Kg		
	14	Ca-44	44		162.8	ppb	0.5	793	mg / Kg		
x	16	Ti-47 >5x MB	47		22.01	ppb	0.025	107	mg / Kg		
	17	V-51	51		0.65	ppb	0.05	< 4.87	mg / Kg		
	18	Cr-52	52		0.21	ppb	0.05	< 4.87	mg / Kg		
	19	Cr-53	53		-16.01	ppb	0.25	< 24.4	mg / Kg		
	20	Fe-54	54		965.1	ppb	0.5	4700	mg / Kg		
x	21	Mn-55 >5x MB	55		26.08	ppb	0.025	127	mg / Kg		
	22	Fe-57	57		959.6	ppb	0.5	4680	mg / Kg		
	23	Co-59	59		-0.17	ppb	0.025	< 2.44	mg / Kg		
	24	Ni-60	60		0.36	ppb	0.025	< 2.44	mg / Kg		
	25	Cu-63	63		0.31	ppb	0.025	< 2.44	mg / Kg		
	26	Cu-65	65		0.31	ppb	0.025	< 2.44	mg / Kg		
	27	Zn-66	66		2.14	ppb	0.25	< 24.4	mg / Kg		
	28	Zn-67	67		0.22	ppb	0.25	< 24.4	mg / Kg		
	29	Zn-68	68		1.61	ppb	0.25	< 24.4	mg / Kg		
	32	As-75	75		0.47	ppb	0.025	< 2.44	mg / Kg		
	34	Se-82	82		-0.14	ppb	0.025	< 2.44	mg / Kg		
	37	Sr-87	87		5.19	ppb	0.025	25.3	mg / Kg		
	40	Mo-95	95		0.04	ppb	0.025	< 2.44	mg / Kg		
	41	Mo-98	98		0.11	ppb	0.025	< 2.44	mg / Kg		
	43	Ag-107	107		-0.05	ppb	0.025	< 2.44	mg / Kg		
	45	Ag-109	109		-0.05	ppb	0.025	< 2.44	mg / Kg		
	46	Cd-111	111		-0.01	ppb	0.025	< 2.44	mg / Kg		
	47	Cd-114	114		-0.02	ppb	0.025	< 2.44	mg / Kg		
	50	Sn-120	120		-1.48	ppb	0.025	< 2.44	mg / Kg		
	51	Sb-121	121		-1.32	ppb	0.05	< 4.87	mg / Kg		
	52	Sb-123	123		-1.17	ppb	0.05	< 4.87	mg / Kg		
	53	Ba-135	135		5.18	ppb	0.025	25.2	mg / Kg		
	54	Tb-159	159		0	ppb	0.001	< 0.097	mg / Kg		
	55	Au-197	197		-0.2	ppb	0.025	< 2.44	mg / Kg		
	56	Tl-205	205		-0.52	ppb	0.025	< 2.44	mg / Kg		
	59	Pb-208	208		1.02	ppb	0.025	4.97	mg / Kg		
	61	U-238	238		0.04	ppb	0.025	< 2.44	mg / Kg		

FRAC M021282-026

Assaigai Analytical Laboratories, Inc.

Analytical Result Summary

0209364-17A

Run Group	MT.2002.1109	61
Calc Method	6020	
Prep Method	MS3050	
Prep Matrix	SOLID	

		By	Dilution
Prepared	09-23-02 8:08:00	JRE	0.9355
Analyzed	09-24-02 2:45:00	CJ	10
Calibration	09-23-02 18:08:00		
Quant	09-24-02 2:52:00		063SMPL.D#

r	C#	Analyte	QMass	m	Raw Quant	As	MRL	Report	As	Qual	f
x	3	Be-9	9		0.9	ppb	0.025	0.421	mg / Kg		
	4	B-11	11		-1.74	ppb	0.15	< 1.40	mg / Kg		
	5	Na-23	23		281.6	ppb	0.5	132	mg / Kg		
	6	Mg-24	24		1423	ppb	0.5	666	mg / Kg		
	7	Mg-25	25		1511	ppb	0.5	707	mg / Kg		
	8	Mg-26	26		1481	ppb	0.5	693	mg / Kg		
x	9	Al-27 >5x MB	27		10490	ppb	0.5	4910	mg / Kg		
x	10	Si-28 >5x CB	28		512.1	ppb	1	240	mg / Kg	E	
	11	K-39	39		1353	ppb	0.5	633	mg / Kg		
	13	Ca-43	43		2112	ppb	0.5	988	mg / Kg		
	14	Ca-44	44		2084	ppb	0.5	975	mg / Kg		
	16	Ti-47	47		281.5	ppb	0.025	132	mg / Kg		x
	17	V-51	51		9.2	ppb	0.05	4.30	mg / Kg		
x	18	Cr-52 >5x MB	52		5.33	ppb	0.05	2.49	mg / Kg		
	19	Cr-53	53		-8.28	ppb	0.25	< 2.34	mg / Kg		
	20	Fe-54	54		12090	ppb	0.5	5650	mg / Kg		x
	21	Mn-55	55		332	ppb	0.025	155	mg / Kg		x
	22	Fe-57	57		12330	ppb	0.5	5770	mg / Kg		x
x	23	Co-59	59		1.85	ppb	0.025	0.865	mg / Kg		
x	24	Ni-60	60		4.66	ppb	0.025	2.18	mg / Kg		
x	25	Cu-63 >5x MB	63		4.14	ppb	0.025	1.94	mg / Kg		
	26	Cu-65	65		4.24	ppb	0.025	1.98	mg / Kg		
	27	Zn-66	66		48.13	ppb	0.25	22.5	mg / Kg		
	28	Zn-67	67		49.11	ppb	0.25	23.0	mg / Kg		
	29	Zn-68	68		42.99	ppb	0.25	20.1	mg / Kg		
x	32	As-75 >5x MB	75		2.57	ppb	0.025	1.20	mg / Kg		
x	34	Se-82	82		0.83	ppb	0.025	0.388	mg / Kg		
x	37	Sr-87	87		67.38	ppb	0.025	31.5	mg / Kg		
x	40	Mo-95	95		1.53	ppb	0.025	0.716	mg / Kg		
	41	Mo-98	98		1.52	ppb	0.025	0.711	mg / Kg		
x	43	Ag-107	107		-0.02	ppb	0.025	< 0.234	mg / Kg		
	45	Ag-109	109		-0.03	ppb	0.025	< 0.234	mg / Kg		
x	46	Cd-111	111		0.23	ppb	0.025	< 0.234	mg / Kg		
	47	Cd-114	114		-0.02	ppb	0.025	< 0.234	mg / Kg		
x	50	Sn-120 (B)	120		2.08	ppb	0.025	0.973	mg / Kg		
x	51	Sb-121	121		-1.27	ppb	0.05	< 0.468	mg / Kg		
	52	Sb-123	123		-1.12	ppb	0.05	< 0.468	mg / Kg		
x	53	Ba-135 >5x MB	135		68.25	ppb	0.025	31.9	mg / Kg		
	54	Tb-159	159		0	ppb	0.001	< 0.009	mg / Kg		
	55	Au-197	197		-0.21	ppb	0.025	< 0.234	mg / Kg		
x	56	Tl-205	205		-0.33	ppb	0.025	< 0.234	mg / Kg		
x	59	Pb-208	208		18.17	ppb	0.025	8.50	mg / Kg		
x	61	U-238	238		0.79	ppb	0.025	0.370	mg / Kg		

FRAC M021282-026

Assaigai Analytical Laboratories, Inc.

Analytical Result Summary

0209364-17A

087

Run Group	MT.2002.1109	62
Calc Method	6020	
Prep Method	MS3050	
Prep Matrix	SOLID	

		By	Dilution
Prepared	09-23-02 8:08:00	JRE	0.9355
Analyzed	09-24-02 2:54:00	CJ	100
Calibration	09-23-02 18:08:00		
Quant	09-24-02 3:01:00		064SMPL.D#

r	C#	Analyte	QMass	m	Raw Quant	As	MRL	Report	As	Qual	f
	3	Be-9	9		0.09	ppb	0.025	< 2.34	mg / Kg		
	4	B-11	11		-4.05	ppb	0.15	< 14.0	mg / Kg		
	5	Na-23	23		32.78	ppb	0.5	153	mg / Kg		
	6	Mg-24	24		175.2	ppb	0.5	819	mg / Kg		
	7	Mg-25	25		174.5	ppb	0.5	816	mg / Kg		
	8	Mg-26	26		174.5	ppb	0.5	816	mg / Kg		
	9	Al-27	27		1230	ppb	0.5	5750	mg / Kg		
	10	Si-28	28		111.6	ppb	1	522	mg / Kg		
	11	K-39	39		156.7	ppb	0.5	733	mg / Kg		
	13	Ca-43	43		231.4	ppb	0.5	1080	mg / Kg		
	14	Ca-44	44		231.7	ppb	0.5	1080	mg / Kg		
x	16	Ti-47 >5x MB	47		33.5	ppb	0.025	157	mg / Kg		
	17	V-51	51		1.07	ppb	0.05	5.00	mg / Kg		
	18	Cr-52	52		0.4	ppb	0.05	< 4.68	mg / Kg		
	19	Cr-53	53		-16.26	ppb	0.25	< 23.4	mg / Kg		
	20	Fe-54	54		1435	ppb	0.5	6710	mg / Kg		
x	21	Mn-55 >5x MB	55		39.03	ppb	0.025	182	mg / Kg		
	22	Fe-57	57		1401	ppb	0.5	6550	mg / Kg		
	23	Co-59	59		-0.11	ppb	0.025	< 2.34	mg / Kg		
	24	Ni-60	60		0.54	ppb	0.025	2.52	mg / Kg		
	25	Cu-63	63		0.47	ppb	0.025	< 2.34	mg / Kg		
	26	Cu-65	65		0.48	ppb	0.025	< 2.34	mg / Kg		
	27	Zn-66	66		4.03	ppb	0.25	< 23.4	mg / Kg		
	28	Zn-67	67		2.29	ppb	0.25	< 23.4	mg / Kg		
	29	Zn-68	68		3.31	ppb	0.25	< 23.4	mg / Kg		
	32	As-75	75		0.57	ppb	0.025	2.67	mg / Kg		
	34	Se-82	82		-0.05	ppb	0.025	< 2.34	mg / Kg		
	37	Sr-87	87		7.69	ppb	0.025	36.0	mg / Kg		
	40	Mo-95	95		-0.45	ppb	0.025	< 2.34	mg / Kg		
	41	Mo-98	98		-0.41	ppb	0.025	< 2.34	mg / Kg		
	43	Ag-107	107		-0.06	ppb	0.025	< 2.34	mg / Kg		
	45	Ag-109	109		-0.05	ppb	0.025	< 2.34	mg / Kg		
	46	Cd-111	111		0	ppb	0.025	< 2.34	mg / Kg		
	47	Cd-114	114		-0.04	ppb	0.025	< 2.34	mg / Kg		
	50	Sn-120	120		-1.36	ppb	0.025	< 2.34	mg / Kg		
	51	Sb-121	121		-1.33	ppb	0.05	< 4.68	mg / Kg		
	52	Sb-123	123		-1.17	ppb	0.05	< 4.68	mg / Kg		
	53	Ba-135	135		7.46	ppb	0.025	34.9	mg / Kg		
	54	Tb-159	159		0	ppb	0.001	< 0.094	mg / Kg		
	55	Au-197	197		-0.2	ppb	0.025	< 2.34	mg / Kg		
	56	Tl-205	205		-0.54	ppb	0.025	< 2.34	mg / Kg		
	59	Pb-208	208		1.68	ppb	0.025	7.86	mg / Kg		
	61	U-238	238		0.05	ppb	0.025	< 2.34	mg / Kg		

STD-CCV [STD-CCV]

Assaigai Analytical Laboratories, Inc.

Analytical Result Summary

088

Run Group	MT.2002.1109	63
Calc Method	6020	
Prep Method	LAB	
Prep Matrix	LAB	

		By	Dilution
Prepared			1
Analyzed	09-24-02 3:04:00	CJ	1
Calibration	09-23-02 18:08:00		
Quant	09-24-02 3:11:00	065CCV_.D#	

r	C#	Analyte	QMass	m	Raw Quant	As	MRL	Report	As	Qual	f
	3	Be-9	9		94.38	ppb	1	94	% Recovery		
	4	B-11	11		100.9	ppb	1	101	% Recovery		
	5	Na-23	23		1138	ppb	1	114	% Recovery		x
	6	Mg-24	24		1130	ppb	1	113	% Recovery		x
	7	Mg-25	25		1178	ppb	1	118	% Recovery		x
	8	Mg-26	26		1156	ppb	1	116	% Recovery		x
	9	Al-27	27		1114	ppb	1	111	% Recovery		x
	10	Si-28	28		1152	ppb	1	115	% Recovery		x
	11	K-39	39		1097	ppb	1	110	% Recovery		
	13	Ca-43	43		1079	ppb	1	108	% Recovery		
	14	Ca-44	44		1083	ppb	1	108	% Recovery		
	16	Ti-47	47		103	ppb	1	103	% Recovery		
	17	V-51	51		102.8	ppb	1	103	% Recovery		
	18	Cr-52	52		102.7	ppb	1	103	% Recovery		
	19	Cr-53	53		88.56	ppb	1	88	% Recovery		x
	20	Fe-54	54		1172	ppb	1	117	% Recovery		x
	21	Mn-55	55		99.14	ppb	1	99	% Recovery		
	22	Fe-57	57		1074	ppb	1	107	% Recovery		
	23	Co-59	59		101	ppb	1	101	% Recovery		
	24	Ni-60	60		101.7	ppb	1	102	% Recovery		
	25	Cu-63	63		101.8	ppb	1	102	% Recovery		
	26	Cu-65	65		102.1	ppb	1	102	% Recovery		
	27	Zn-66	66		100.7	ppb	1	101	% Recovery		
	28	Zn-67	67		97.29	ppb	1	97	% Recovery		
	29	Zn-68	68		101.5	ppb	1	102	% Recovery		
	32	As-75	75		102.5	ppb	1	102	% Recovery		
	34	Se-82	82		100.7	ppb	1	101	% Recovery		
	37	Sr-87	87		98.39	ppb	1	98	% Recovery		
	40	Mo-95	95		97.67	ppb	1	98	% Recovery		
	41	Mo-98	98		97.36	ppb	1	97	% Recovery		
	43	Ag-107	107		97.37	ppb	1	97	% Recovery		
	45	Ag-109	109		97.29	ppb	1	97	% Recovery		
	46	Cd-111	111		100.3	ppb	1	100	% Recovery		
	47	Cd-114	114		99.6	ppb	1	100	% Recovery		
	50	Sn-120	120		99.54	ppb	1	100	% Recovery		
	51	Sb-121	121		100.7	ppb	1	101	% Recovery		
	52	Sb-123	123		101.5	ppb	1	102	% Recovery		
	53	Ba-135	135		100.8	ppb	1	101	% Recovery		
	54	Tb-159	159		0	ppb	1	< 1	% Recovery		x
	55	Au-197	197		96.98	ppb	1	97	% Recovery		
	56	Tl-205	205		95.94	ppb	1	96	% Recovery		
	59	Pb-208	208		98.08	ppb	1	98	% Recovery		
	61	U-238	238		97	ppb	1	97	% Recovery		

CB [CB]

Assaigai Analytical Laboratories, Inc.

Analytical Result Summary

Run Group	MT.2002.1109	64
Calc Method	6020	
Prep Method	LAB	
Prep Matrix	LAB	

		By	Dilution
Prepared			1
Analyzed	09-24-02 3:13:00	CJ	1
Calibration	09-23-02 18:08:00		
Quant	09-24-02 3:20:00	066CCB .D#	

r	C#	Analyte	QMass	m	Raw Quant	As	MRL	Report	As	Qual	f
	3	Be-9	9		0.02	ppb	0.001	< 0.001	mg / L		
	4	B-11	11		-1.47	ppb	0.001	< 0.001	mg / L		
	5	Na-23	23		2.4	ppb	0.01	< 0.010	mg / L		
	6	Mg-24	24		1.06	ppb	0.01	< 0.010	mg / L		
	7	Mg-25	25		1.04	ppb	0.01	< 0.010	mg / L		
	8	Mg-26	26		1.15	ppb	0.01	< 0.010	mg / L		
	9	Al-27	27		1.17	ppb	0.01	< 0.010	mg / L		
	10	Si-28	28		69.98	ppb	0.001	0.070	mg / L		x
	11	K-39	39		0.39	ppb	0.01	< 0.010	mg / L		
	13	Ca-43	43		2.64	ppb	0.01	< 0.010	mg / L		
	14	Ca-44	44		4.27	ppb	0.01	< 0.010	mg / L		
	16	Ti-47	47		-0.03	ppb	0.001	< 0.001	mg / L		
	17	V-51	51		0.12	ppb	0.001	< 0.001	mg / L		
	18	Cr-52	52		0.51	ppb	0.001	< 0.001	mg / L		
	19	Cr-53	53		-1.17	ppb	0.001	< 0.001	mg / L		
	20	Fe-54	54		53.45	ppb	0.01	0.053	mg / L		x
	21	Mn-55	55		0.1	ppb	0.001	< 0.001	mg / L		
	22	Fe-57	57		16.37	ppb	0.01	0.016	mg / L		x
	23	Co-59	59		-0.3	ppb	0.001	< 0.001	mg / L		
	24	Ni-60	60		0.04	ppb	0.001	< 0.001	mg / L		
	25	Cu-63	63		0.01	ppb	0.001	< 0.001	mg / L		
	26	Cu-65	65		0	ppb	0.001	< 0.001	mg / L		
	27	Zn-66	66		0.02	ppb	0.001	< 0.001	mg / L		
	28	Zn-67	67		-0.64	ppb	0.001	< 0.001	mg / L		
	29	Zn-68	68		0.15	ppb	0.001	< 0.001	mg / L		
	32	As-75	75		0.51	ppb	0.001	< 0.001	mg / L		
	34	Se-82	82		-0.05	ppb	0.001	< 0.001	mg / L		
	37	Sr-87	87		0.03	ppb	0.001	< 0.001	mg / L		
	40	Mo-95	95		-0.62	ppb	0.001	< 0.001	mg / L		
	41	Mo-98	98		-0.6	ppb	0.001	< 0.001	mg / L		
	43	Ag-107	107		-0.04	ppb	0.001	< 0.001	mg / L		
	45	Ag-109	109		-0.03	ppb	0.001	< 0.001	mg / L		
	46	Cd-111	111		0.01	ppb	0.001	< 0.001	mg / L		
	47	Cd-114	114		-0.01	ppb	0.001	< 0.001	mg / L		
	50	Sn-120	120		-1.73	ppb	0.001	< 0.001	mg / L		
	51	Sb-121	121		-1.23	ppb	0.001	< 0.001	mg / L		
	52	Sb-123	123		-1.08	ppb	0.001	< 0.001	mg / L		
	53	Ba-135	135		0.05	ppb	0.001	< 0.001	mg / L		
	54	Tb-159	159		0	ppb	0.001	< 0.001	mg / L		
	55	Au-197	197		0.21	ppb	0.001	< 0.001	mg / L		
	56	Tl-205	205		-0.03	ppb	0.001	< 0.001	mg / L		
	59	Pb-208	208		-0.32	ppb	0.001	< 0.001	mg / L		
	61	U-238	238		0.01	ppb	0.001	< 0.001	mg / L		

Tune Sample Report

File : D:\HPCHEM\1\DATA\SEP2302.17A\001TUNE.D
Acquired : Sep 23 02 05:17 pm using AcqMethod QCTUNE.M
Operator : CJ
Sample Name: 6020/200.8 TUNE MIX
Misc Info :
Vial Number: 1101
CurrentMeth: D:\HPCHEM\1\METHODS\QCTUNE.M
BkgFile : --------
Sample Type: TUNE
Dilution : 1.000000

Minimum Response Criteria (cps/ppb)

Element	RSD(%)	Actual	Required	Flag
59	2.30	191745	> 200	
7	3.81	248476	> 20	
115	1.17	220742	> 100	
205	1.19	100613	> 10	
102		0(cps)	< 25(cps)	

Ion Ratio Criteria

	Actual	Required	Flag
59/59	1.00	1.00 - 1.00	
7/59	1.30	0.10 - 5.00	
115/59	1.15	0.10 - 10.00	
205/59	0.52	0.10 - 5.00	

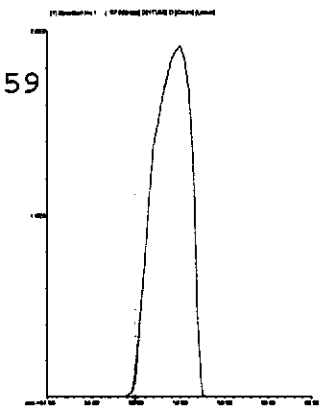

Mass Calib:59.00
W-50%: 0.60
W-10%: 0.70

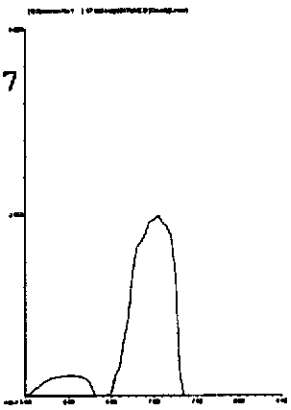

Mass Calib:7.05
W-50%: 0.60
W-10%: 0.80

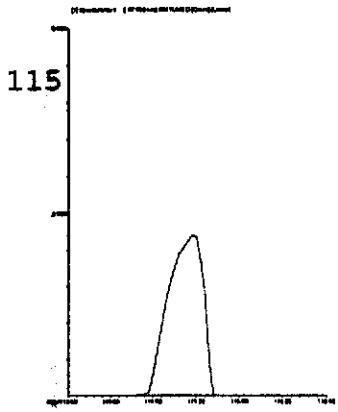

Mass Calib:114.95
W-50%: 0.55
W-10%: 0.65

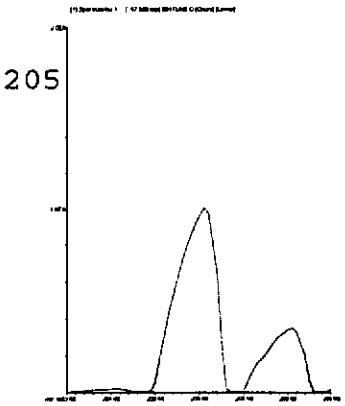

Mass Calib:205.05
W-50%: 0.55

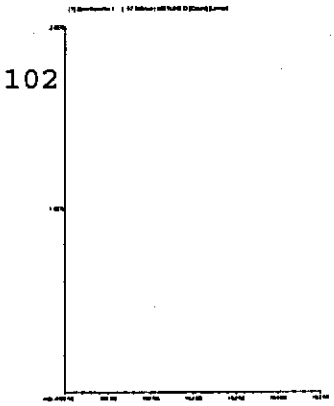

Background

US EPA Method 200.8 Tune Verification

Acquired : Sep 23 02 05:17 pm using AcqMethod QCTUNE.M
Data File Name: D:\HPCHEM\1\DATA\Sep2302.17A\001TUNE.D

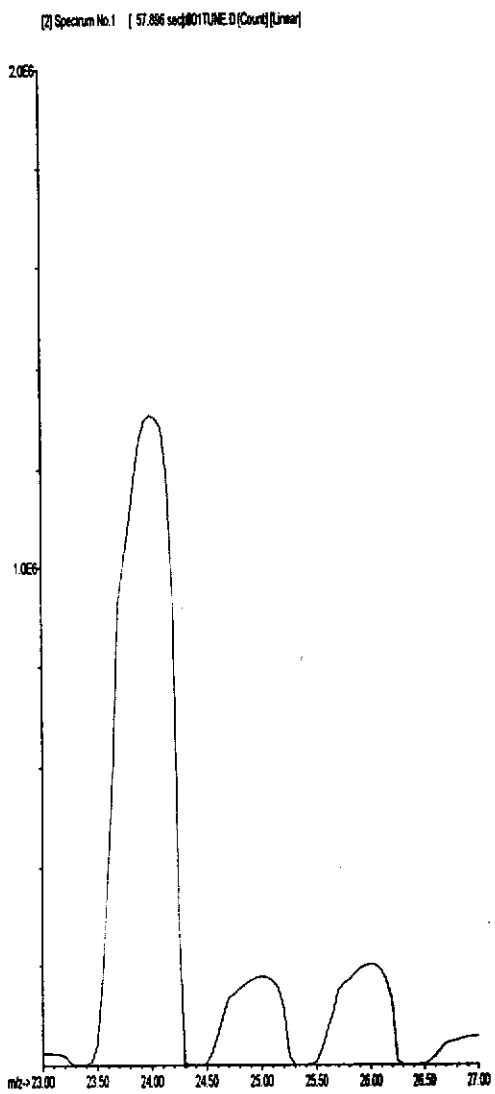

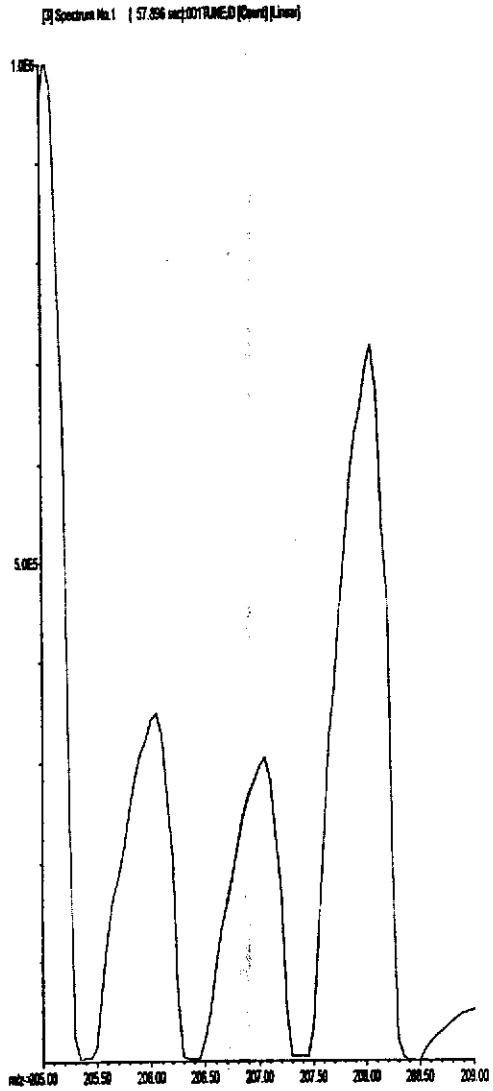

Element and Mass	Mass Assignment		PeakElement at 5and Mass Heig	Mass Assignment		Peak Width at 5% Peak Height
Mg 24	24.00	0.70	Pb 206	206.05	0.70	
Mg 25	25.00	0.70	Pb 207	207.05	0.75	
Mg 26	26.00	0.65	Pb 208	208.05	0.70	

* Does not meet EPA Method 200.8 specification.

Spectrum No.1 [57.896 sec]:001TUNE.D
Acquired : Sep 23 02 05:17 pm using AcqMethod QCTUNE.M
Bkg file : --------
Interference Correction: OFF

Mass[amu]	Element	Count	n	SD	RSD[%]
5		5854.80 P	5	130.20	2.22
6		3216598.00 P	5	92490.00	2.88
7	Li	26761440.00 A	5	839900.00	3.14
8		11.80 P	5	4.60	39.02
23		306591.20 P	5	8374.00	2.73
24		14212860.00 A	5	253800.00	1.79
25		1916919.00 P	5	15340.00	0.80
26		2143746.00 P	5	38270.00	1.79
27		596361.90 P	5	17780.00	2.98
58		170911.60 P	5	8392.00	4.91
59	Co	19438570.00 A	5	300700.00	1.55
60		495.42 P	5	34.25	6.91
101		18.40 P	5	5.55	30.16
103		818.63 P	5	24.91	3.04
114		360605.80 P	5	28080.00	7.79
115	In	20539750.00 A	5	376800.00	1.83
116		11010.76 P	5	1641.00	14.91
204		289002.00 P	5	4129.00	1.43
205	Tl	10046050.00 A	5	86120.00	0.86
206		3500166.00 P	5	27890.00	0.80
207		3009187.00 P	5	22180.00	0.74
208		7177218.00 A	5	52380.00	0.73
209		526848.70 P	5	5203.00	0.99

File : D:\HPCHEM\1\DATA\Sep2302.17A\002CALB.D\002CALB.D#
Acquired : Sep 23 02 05:25 pm using AcqMethod 6020.M
Operator : CJ
Sample Name: CAL BLANK
Misc Info :
Vial Number: 1102
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: CALBLK
Dilution : 1.000000

Mass	Element	Count	n	SD	RSD[%]
6	Li	323473.10 P	3	6554.00	2.03
7	(Li)	21648.99 P	3	1137.00	5.25
9	Be	11.00 P	3	2.65	24.05
11	B	7087.67 P	3	569.70	8.04
23	Na	69309.70 P	3	847.50	1.22
24	Mg	5585.59 P	3	291.70	5.22
25	Mg	731.40 P	3	39.58	5.41
26	Mg	885.78 P	3	86.80	9.80
27	Al	24304.26 P	3	2783.00	11.45
28	Si	487254.20 P	3	5156.00	1.06
39	K	360801.80 P	3	9669.00	2.68
43	Ca	272.11 P	3	23.17	8.52
44	Ca	3907.28 P	3	97.29	2.49
45	Sc	284788.20 P	3	879.90	0.31
47	Ti	262.02 P	3	24.34	9.29
51	V	5717.65 P	3	1278.00	22.36
52	Cr	13081.68 P	3	167.30	1.28
53	Cr	28324.27 P	3	1758.00	6.21
54	Fe	143491.00 P	3	2804.00	1.95
55	Mn	2068.70 P	3	43.68	2.11
57	Fe	7218.91 P	3	125.60	1.74
59	Co	1741.40 P	3	351.50	20.18
60	Ni	71.34 P	3	6.66	9.33
63	Cu	145.67 P	3	22.37	15.36
65	Cu	76.67 P	3	8.62	11.25
66	Zn	7304.27 P	3	89.48	1.23
67	Zn	2985.84 P	3	195.10	6.53
68	Zn	9631.43 P	3	101.30	1.05
69	(Zn)	861.34 P	3	63.54	7.38
72	Ge	409592.90 P	3	4861.00	1.19
75	As	3215.49 P	3	2675.00	83.19
77	(As)	85233.02 P	3	1313.00	1.54
82	Se	126.00 P	3	71.42	56.68
83	(Se)	1399.01 P	3	70.70	5.05

File : D:\HPCHEM\1\DATA\Sep2302.17A\002CALB.D\002CALB.D#
Acquired : Sep 23 02 05:25 pm using AcqMethod 6020.M
Operator : CJ
Sample Name: CAL BLANK
Misc Info :
Vial Number: 1102
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: CALBLK
Dilution : 1.000000

Mass	Element	Count	n	SD	RSD[%]
86	(Ca)	112.00 P	3	6.25	5.58
87	Sr	19.33 P	3	6.81	35.21
88	(Ca)	132.00 P	3	16.52	12.52
89	Y	306711.90 P	3	5279.00	1.72
95	Mo	1049.44 P	3	146.20	13.93
98	Mo	1617.57 P	3	273.80	16.93
106	(Cd)	70.67 P	3	5.03	7.12
107	Ag	151.01 P	3	33.78	22.37
108	(Cd)	8.00 P	3	1.00	12.50
109	Ag	131.00 P	3	38.98	29.75
111	Cd	56.09 P	3	6.35	11.33
114	Cd	25.98 P	3	7.28	28.03
115	In	228520.90 P	3	2740.00	1.20
118	(In)	2326.13 P	3	230.50	9.91
120	Sn	3065.12 P	3	301.70	9.84
121	Sb	1241.15 P	3	252.20	20.32
123	Sb	987.43 P	3	211.30	21.40
135	Ba	19.33 P	3	3.22	16.63
159	Tb	241631.00 P	3	5560.00	2.30
197	Au	50.67 P	3	0.58	1.14
205	Tl	1516.91 P	3	250.30	16.50
206	(Pb)	337.69 P	3	67.17	19.89
207	(Pb)	296.35 P	3	51.60	17.41
208	Pb	1379.11 P	3	233.20	16.91
209	Bi	120489.90 P	3	1995.00	1.66
238	U	156.67 P	3	18.04	11.51

Calibration QC Report

File : D:\HPCHEM\1\DATA\Sep2302.17A\003CALI.D\003CALI.D#
Acquired : Sep 23 02 05:34 pm using AcqMethod 6020.M
Operator : CJ
Sample Name: 0.2/1/10 CAL
Misc Info :
Vial Number: 1103
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: CALIB
Dilution : 1.000000

Mass	Element	Count	n	SD	RSD[%]
6	Li	312632.50 P	3	8564.00	2.74
7	(Li)	18343.88 P	3	607.70	3.31
9	Be	1127.12 P	3	26.67	2.37
11	B	6852.96 P	3	36.09	0.53
23	Na	100540.80 P	3	2698.00	2.68
24	Mg	40533.53 P	3	1503.00	3.71
25	Mg	5376.70 P	3	97.44	1.81
26	Mg	6056.01 P	3	24.64	0.41
27	Al	53315.27 P	3	710.10	1.33
28	Si	492868.40 P	3	10180.00	2.07
39	K	396053.10 P	3	9567.00	2.42
43	Ca	201.86 P	3	24.54	12.16
44	Ca	3057.82 P	3	73.94	2.42
45	Sc	283889.40 P	3	4954.00	1.75
47	Ti	588.07 P	3	16.53	2.81
51	V	11015.47 P	3	1700.00	15.44
52	Cr	17980.81 P	3	269.20	1.50
53	Cr	34361.68 P	3	424.60	1.24
54	Fe	143952.70 P	3	1911.00	1.33
55	Mn	7243.09 P	3	149.70	2.07
57	Fe	8093.04 P	3	174.90	2.16
59	Co	5826.69 P	3	118.90	2.04
60	Ni	1083.78 P	3	39.01	3.60
63	Cu	2398.15 P	3	77.75	3.24
65	Cu	1137.48 P	3	84.65	7.44
66	Zn	4801.68 P	3	44.71	0.93
67	Zn	3011.64 P	3	51.39	1.71
68	Zn	7818.68 P	3	133.10	1.70
69	(Zn)	3034.40 P	3	28.19	0.93
72	Ge	411578.30 P	3	3785.00	0.92
75	As	12666.76 P	3	3274.00	25.85
77	(As)	92384.10 P	3	1193.00	1.29
82	Se	685.34 P	3	46.49	6.78
83	(Se)	1353.67 P	3	61.23	4.52
86	(Ca)	707.39 P	3	24.83	3.51

Calibration QC Report

File : D:\HPCHEM\1\DATA\Sep2302.17A\003CALI.D\003CALI.D#
Acquired : Sep 23 02 05:34 pm using AcqMethod 6020.M
Operator : CJ
Sample Name: 0.2/1/10 CAL
Misc Info :
Vial Number: 1103
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: CALIB
Dilution : 1.000000

Mass	Element	Count	n	SD	RSD[%]
87	Sr	443.69 P	3	13.28	2.99
88	(Ca)	5167.44 P	3	18.60	0.36
89	Y	305145.00 P	3	3484.00	1.14
95	Mo	1399.51 P	3	105.40	7.53
98	Mo	2237.10 P	3	219.70	9.82
106	(Cd)	101.34 P	3	13.61	13.43
107	Ag	2200.74 P	3	22.73	1.03
108	(Cd)	25.00 P	3	7.21	28.84
109	Ag	2049.36 P	3	60.25	2.94
111	Cd	381.11 P	3	18.54	4.87
114	Cd	769.86 P	3	32.96	4.28
115	In	227631.00 P	3	3304.00	1.45
118	(In)	2113.71 P	3	142.60	6.75
120	Sn	2765.64 P	3	173.30	6.27
121	Sb	1503.20 P	3	72.04	4.79
123	Sb	1143.45 P	3	35.24	3.08
135	Ba	298.01 P	3	26.00	8.72
159	Tb	242467.70 P	3	4941.00	2.04
197	Au	192.67 P	3	5.03	2.61
205	Tl	3110.80 P	3	35.71	1.15
206	(Pb)	1024.43 P	3	76.53	7.47
207	(Pb)	851.07 P	3	8.54	1.00
208	Pb	3948.20 P	3	184.70	4.68
209	Bi	121859.90 P	3	2008.00	1.65
238	U	3646.74 P	3	49.55	1.36

Calibration QC Report

File : D:\HPCHEM\1\DATA\Sep2302.17A\003CALI.D\003CALI.D#
Acquired : Sep 23 02 05:34 pm using AcqMethod 6020.M
Operator : CJ
Sample Name: 0.2/1/10 CAL
Misc Info :
Vial Number: 1103
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: CALIB
Dilution : 1.000000

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	1078240	1042108	Pass
45	949294	946298	Pass
72	136531	137193	Pass
115	761736	758770	Pass
209	401633	406200	Pass

Internal Standards referenced to 002CALB.D#

0 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

Calibration QC Report

File : D:\HPCHEM\1\DATA\Sep2302.17A\004CALI.D\004CALI.D#
Acquired : Sep 23 02 05:43 pm using AcqMethod 6020.M
Operator : CJ
Sample Name: 2/10/100 CAL
Misc Info :
Vial Number: 1104
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: CALIB
Dilution : 1.000000

Mass	Element	Count	n	SD	RSD[%]
6	Li	342856.10 A	3	5919.00	1.73
7	(Li)	17989.99 P	3	406.30	2.26
9	Be	11899.46 P	3	176.90	1.49
11	B	17017.02 P	3	258.30	1.52
23	Na	620387.30 P	3	7219.00	1.16
24	Mg	357233.90 P	3	7622.00	2.13
25	Mg	46933.34 P	3	1230.00	2.62
26	Mg	53725.64 P	3	1726.00	3.21
27	Al	445334.80 P	3	8136.00	1.83
28	Si	698410.30 P	3	11910.00	1.71
39	K	845067.70 P	3	8583.00	1.02
43	Ca	971.44 P	3	59.40	6.11
44	Ca	15040.44 P	3	168.90	1.12
45	Sc	287705.20 P	3	4008.00	1.39
47	Ti	4506.00 P	3	147.90	3.28
51	V	63115.07 P	3	1644.00	2.61
52	Cr	62584.06 P	3	546.50	0.87
53	Cr	43038.97 P	3	863.40	2.01
54	Fe	176921.80 P	3	1574.00	0.89
55	Mn	59709.31 P	3	417.50	0.70
57	Fe	17554.65 P	3	251.70	1.43
59	Co	52426.67 P	3	238.30	0.45
60	Ni	11083.20 P	3	118.90	1.07
63	Cu	24809.61 P	3	489.40	1.97
65	Cu	11671.87 P	3	158.10	1.35
66	Zn	37931.89 P	3	250.00	0.66
67	Zn	8607.58 P	3	45.52	0.53
68	Zn	30621.23 P	3	119.80	0.39
69	(Zn)	23877.37 P	3	596.30	2.50
72	Ge	410749.30 P	3	8078.00	1.97
75	As	89584.80 P	3	912.60	1.02
77	(As)	102527.50 P	3	1929.00	1.88
82	Se	5923.52 P	3	62.01	1.05
83	(Se)	1368.67 P	3	31.66	2.31
86	(Ca)	6283.80 P	3	115.40	1.84

Calibration QC Report

File : D:\HPCHEM\1\DATA\Sep2302.17A\006CALI.D\006CALI.D#
Acquired : Sep 23 02 06:01 pm using AcqMethod 6020.M
Operator : CJ
Sample Name: -/200/10000 CAL
Misc Info :
Vial Number: 1106
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: CALIB
Dilution : 1.000000

Mass	Element	Count	n	SD	RSD[%]
87	Sr	85593.17 P	3	955.00	1.12
88	(Ca)	1018975.00 P	3	14380.00	1.41
89	Y	297224.10 P	3	4732.00	1.59
95	Mo	172260.10 P	3	1742.00	1.01
98	Mo	271820.80 P	3	3358.00	1.24
106	(Cd)	5893.42 P	3	83.67	1.42
107	Ag	426639.30 P	3	3441.00	0.81
108	(Cd)	4360.20 P	3	161.50	3.70
109	Ag	394193.60 P	3	5101.00	1.29
111	Cd	61272.56 P	3	572.10	0.93
114	Cd	138719.50 P	3	617.30	0.45
115	In	219487.70 P	3	2386.00	1.09
118	(In)	233698.50 P	3	3234.00	1.38
120	Sn	312197.20 P	3	3949.00	1.27
121	Sb	199718.90 P	3	2585.00	1.29
123	Sb	152400.50 P	3	2438.00	1.60
135	Ba	60147.55 P	3	642.00	1.07
159	Tb	234912.60 P	3	2736.00	1.16
197	Au	29598.35 P	3	29.42	0.10
205	Tl	470004.20 P	3	5158.00	1.10
206	(Pb)	160902.20 P	3	836.60	0.52
207	(Pb)	138469.30 P	3	1318.00	0.95
208	Pb	635395.90 P	3	4678.00	0.74
209	Bi	116566.80 P	3	709.60	0.61
238	U	706010.10 P	3	8325.00	1.18

Calibration QC Report

File : D:\HPCHEM\1\DATA\Sep2302.17A\006CALI.D\006CALI.D#
Acquired : Sep 23 02 06:01 pm using AcqMethod 6020.M
Operator : CJ
Sample Name: -/200/10000 CAL
Misc Info :
Vial Number: 1106
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: CALIB
Dilution : 1.000000

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	1078240	1073420	Pass
45	949294	993323	Pass
72	136531	136477	Pass
115	761736	731626	Pass
209	401633	388556	Pass

Internal Standards referenced to 002CALB.D#

0 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

Blank QC Report

File : D:\HPCHEM\1\DATA\Sep2302.17A\007CCB_D\007CCB_D#
Acquired : Sep 23 02 06:10 pm using AcqMethod 6020.M
Operator : CJ
Sample Name: [CB]
Misc Info :
Vial Number: 1102
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: CCB
Dilution : 1.000000

Element		Concentration	CRDL Limit	Flag
Be	9	0.054 µg/L	1.00	Pass
B	11	-0.395 µg/L	1.00	Pass
Na	23	3.128 µg/L	10.00	Pass
Mg	24	2.322 µg/L	10.00	Pass
Mg	25	2.222 µg/L	10.00	Pass
Mg	26	2.329 µg/L	10.00	Pass
Al	27	1.808 µg/L	10.00	Pass
Si	28	-2.424 µg/L	10.00	Pass
K	39	-2.719 µg/L	10.00	Pass
Ca	43	0.963 µg/L	10.00	Pass
Ca	44	2.209 µg/L	10.00	Pass
Ti	47	0.023 µg/L	1.00	Pass
V	51	0.101 µg/L	1.00	Pass
Cr	52	0.528 µg/L	1.00	Pass
Cr	53	-0.020 µg/L	1.00	Pass
Fe	54	-4.296 µg/L	10.00	Pass
Mn	55	0.036 µg/L	1.00	Pass
Fe	57	2.061 µg/L	10.00	Pass
Co	59	-0.259 µg/L	1.00	Pass
Ni	60	0.067 µg/L	1.00	Pass
Cu	63	0.067 µg/L	1.00	Pass
Cu	65	0.042 µg/L	1.00	Pass
Zn	66	0.038 µg/L	1.00	Pass
Zn	67	-0.372 µg/L	1.00	Pass
Zn	68	0.083 µg/L	1.00	Pass
As	75	0.436 µg/L	1.00	Pass
Se	82	0.240 µg/L	1.00	Pass
Sr	87	0.051 µg/L	1.00	Pass
Mo	95	-0.616 µg/L	1.00	Pass
Mo	98	-0.597 µg/L	1.00	Pass
Ag	107	0.006 µg/L	1.00	Pass
Ag	109	0.021 µg/L	1.00	Pass
Cd	111	0.017 µg/L	1.00	Pass
Cd	114	0.051 µg/L	1.00	Pass
Sn	120	-1.588 µg/L	1.00	*Fail*
Sb	121	-0.653 µg/L	1.00	Pass
Sb	123	-0.515 µg/L	1.00	Pass

Ba 135	0.070 µg/L	1.00	Pass
Au 197	0.469 µg/L	1.00	Pass
Tl 205	0.278 µg/L	1.00	Pass

Blank QC Report

File : D:\HPCHEM\1\DATA\Sep2302.17A\007CCB_D\007CCB_D#
Acquired : Sep 23 02 06:10 pm using AcqMethod 6020.M
Operator : CJ
Sample Name: [CB]
Misc Info :
Vial Number: 1102
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: CCB
Dilution : 1.000000

Pb 208	-0.280 µg/L	1.00	Pass
U 238	0.062 µg/L	1.00	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	1078240	1028846	Pass
45	949294	954680	Pass
72	136531	135897	Pass
115	761736	748291	Pass
209	401633	403379	Pass

Internal Standards referenced to 002CALB.D#

1 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

ICV QC Report

File : D:\HPCHEM\1\DATA\Sep2302.17A\008ICV_D\008ICV_D#
Acquired : Sep 23 02 06:19 pm using AcqMethod 6020.M
Operator : CJ
Sample Name: [STD-ICV]
Misc Info :
Vial Number: 1107
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: ICV
Dilution : 1.000000

ICV Mix #1

Element		Concentration	Expected	QC Range	Flag
Be	9	117.700 µg/L	120.00	108.00-132.00	Pass
B	11	125.900 µg/L	120.00	108.00-132.00	Pass
Na	23	1289.000 µg/L	1200.00	1080.00-1320.00	Pass
Mg	24	1308.000 µg/L	1200.00	1080.00-1320.00	Pass
Mg	25	1409.000 µg/L	1200.00	1080.00-1320.00	*Fail*
Mg	26	1410.000 µg/L	1200.00	1080.00-1320.00	*Fail*
Al	27	1312.000 µg/L	1200.00	1080.00-1320.00	Pass
Si	28	1302.000 µg/L	1200.00	1080.00-1320.00	Pass
K	39	1284.000 µg/L	1200.00	1080.00-1320.00	Pass
Ca	43	1310.000 µg/L	1200.00	1080.00-1320.00	Pass
Ca	44	1323.000 µg/L	1200.00	1080.00-1320.00	*Fail*
Ti	47	126.500 µg/L	120.00	108.00-132.00	Pass
V	51	127.000 µg/L	120.00	108.00-132.00	Pass
Cr	52	126.200 µg/L	120.00	108.00-132.00	Pass
Cr	53	117.200 µg/L	120.00	108.00-132.00	Pass
Fe	54	1432.000 µg/L	1200.00	1080.00-1320.00	*Fail*
Mn	55	123.600 µg/L	120.00	108.00-132.00	Pass
Fe	57	1345.000 µg/L	1200.00	1080.00-1320.00	*Fail*
Co	59	127.200 µg/L	120.00	108.00-132.00	Pass
Ni	60	127.400 µg/L	120.00	108.00-132.00	Pass
Cu	63	128.500 µg/L	120.00	108.00-132.00	Pass
Cu	65	129.400 µg/L	120.00	108.00-132.00	Pass
Zn	66	125.500 µg/L	120.00	108.00-132.00	Pass
Zn	67	121.500 µg/L	120.00	108.00-132.00	Pass
Zn	68	125.300 µg/L	120.00	108.00-132.00	Pass
As	75	124.900 µg/L	120.00	108.00-132.00	Pass
Se	82	125.100 µg/L	120.00	108.00-132.00	Pass
Sr	87	123.500 µg/L	120.00	108.00-132.00	Pass
Mo	95	121.400 µg/L	120.00	108.00-132.00	Pass
Mo	98	121.400 µg/L	120.00	108.00-132.00	Pass
Ag	107	122.100 µg/L	120.00	108.00-132.00	Pass
Ag	109	122.300 µg/L	120.00	108.00-132.00	Pass
Cd	111	124.800 µg/L	120.00	108.00-132.00	Pass
Cd	114	124.700 µg/L	120.00	108.00-132.00	Pass
Sn	120	123.600 µg/L	120.00	108.00-132.00	Pass

Sb 121	122.600 µg/L	120.00	108.00-132.00	Pass
Sb 123	123.700 µg/L	120.00	108.00-132.00	Pass
Ba 135	124.500 µg/L	120.00	108.00-132.00	Pass

ICV QC Report

File : D:\HPCHEM\1\DATA\Sep2302.17A\008ICV_D\008ICV_.D#
Acquired : Sep 23 02 06:19 pm using AcqMethod 6020.M
Operator : CJ
Sample Name: [STD-ICV]
Misc Info :
Vial Number: 1107
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: ICV
Dilution : 1.000000

Au 197	119.900 µg/L	120.00	108.00-132.00	Pass
Tl 205	121.500 µg/L	120.00	108.00-132.00	Pass
Pb 208	122.600 µg/L	120.00	108.00-132.00	Pass
U 238	121.300 µg/L	120.00	108.00-132.00	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	1078240	1080766	Pass
45	949294	931551	Pass
72	136531	132260	Pass
115	761736	723303	Pass
209	401633	393505	Pass

Internal Standards referenced to 002CALB.D#

5 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

Interference Check A QC Report

File : D:\HPCHEM\1\DATA\Sep2302.17A\009ICSA.D\009ICSA.D#
Acquired : Sep 23 02 06:29 pm using AcqMethod 6020.M
Operator : CJ
Sample Name: [ICSA]
Misc Info :
Vial Number: 1303
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: ICS_A_
Dilution : 1.000000

Element		Concentration	Expected	CRDL Range Conc	%Range Conc	Flag
Be	9	0.087 µg/L	0.00	-1.00-1.00	0-0	Pass
B	11	3.177 µg/L	0.00	-1.00-1.00	0-0	*Fail*
Na	23	----- µg/L	100000.00	1.00E+5-1.00E+5	8.00E+4-1.20E+5	OverRng
Mg	24	----- µg/L	100000.00	1.00E+5-1.00E+5	8.00E+4-1.20E+5	OverRng
Mg	25	139600.000 µg/L	100000.00	1.00E+5-1.00E+5	8.00E+4-1.20E+5	*Fail*
Mg	26	142100.000 µg/L	100000.00	1.00E+5-1.00E+5	8.00E+4-1.20E+5	*Fail*
Al	27	----- µg/L	100000.00	1.00E+5-1.00E+5	8.00E+4-1.20E+5	OverRng
Si	28	91.430 µg/L	0.00	-10.00-10.00	0-0	*Fail*
K	39	----- µg/L	100000.00	1.00E+5-1.00E+5	8.00E+4-1.20E+5	OverRng
Ca	43	161000.000 µg/L	100000.00	1.00E+5-1.00E+5	8.00E+4-1.20E+5	*Fail*
Ca	44	156500.000 µg/L	100000.00	1.00E+5-1.00E+5	8.00E+4-1.20E+5	*Fail*
Ti	47	3016.000 µg/L	2000.00	1999.00-2001.00	1600-2400	*Fail*
V	51	0.624 µg/L	0.00	-1.00-1.00	0-0	Pass
Cr	52	3.291 µg/L	0.00	-1.00-1.00	0-0	*Fail*
Cr	53	30.620 µg/L	0.00	-1.00-1.00	0-0	*Fail*
Fe	54	158800.000 µg/L	100000.00	1.00E+5-1.00E+5	8.00E+4-1.20E+5	*Fail*
Mn	55	2.436 µg/L	0.00	-1.00-1.00	0-0	*Fail*
Fe	57	156900.000 µg/L	100000.00	1.00E+5-1.00E+5	8.00E+4-1.20E+5	*Fail*
Co	59	0.238 µg/L	0.00	-1.00-1.00	0-0	Pass
Ni	60	3.625 µg/L	0.00	-1.00-1.00	0-0	*Fail*
Cu	63	14.410 µg/L	0.00	-1.00-1.00	0-0	*Fail*
Cu	65	7.037 µg/L	0.00	-1.00-1.00	0-0	*Fail*
Zn	66	55.280 µg/L	0.00	-1.00-1.00	0-0	*Fail*
Zn	67	183.900 µg/L	0.00	-1.00-1.00	0-0	*Fail*
Zn	68	48.570 µg/L	0.00	-1.00-1.00	0-0	*Fail*
As	75	0.417 µg/L	0.00	-1.00-1.00	0-0	Pass
Se	82	-3.904 µg/L	0.00	-1.00-1.00	0-0	*Fail*
Sr	87	9.522 µg/L	0.00	-1.00-1.00	0-0	*Fail*
Mo	95	2917.000 µg/L	2000.00	1999.00-2001.00	1600-2400	*Fail*
Mo	98	2922.000 µg/L	2000.00	1999.00-2001.00	1600-2400	*Fail*
Ag	107	0.853 µg/L	0.00	-1.00-1.00	0-0	Pass
Ag	109	0.888 µg/L	0.00	-1.00-1.00	0-0	Pass
Cd	111	0.016 µg/L	0.00	-1.00-1.00	0-0	Pass
Cd	114	0.075 µg/L	0.00	-1.00-1.00	0-0	Pass
Sn	120	-1.314 µg/L	0.00	-1.00-1.00	0-0	*Fail*
Sb	121	3.768 µg/L	0.00	-1.00-1.00	0-0	*Fail*
Sb	123	3.901 µg/L	0.00	-1.00-1.00	0-0	*Fail*

Ba 135	2.213 µg/L	0.00	-1.00-1.00	0-0	*Fail*
Au 197	0.694 µg/L	0.00	-1.00-1.00	0-0	Pass
Tl 205	0.097 µg/L	0.00	-1.00-1.00	0-0	Pass

Interference Check A QC Report

File : D:\HPCHEM\1\DATA\Sep2302.17A\009ICSA.D\009ICSA.D#
Acquired : Sep 23 02 06:29 pm using AcqMethod 6020.M
Operator : CJ
Sample Name: [ICSA]
Misc Info :
Vial Number: 1303
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : ---------
Sample Type: ICS_A_
Dilution : 1.000000

Pb 208	6.086 µg/L	0.00	-1.00-1.00	0-0	*Fail*
U 238	0.142 µg/L	0.00	-1.00-1.00	0-0	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	1078240	756460	Pass
45	949294	788709	Pass
72	136531	148047	Pass
115	761736	673155	Pass
209	401633	351471	Pass

Internal Standards referenced to 002CALB.D#

27 Element Failures! Maximum Number of Allowed Failures (20) Exceeded!
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

Interference Check AB QC Report

File : D:\HPCHEM\1\DATA\Sep2302.17A\010ICSB.D\010ICSB.D#
Acquired : Sep 23 02 06:38 pm using AcqMethod 6020.M
Operator : CJ
Sample Name: [ICSAB]
Misc Info :
Vial Number: 1304
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: ICS_AB
Dilution : 1.000000

Element		Concentration	Expected	CRDL Range Conc	%Range Conc	Flag
Be	9	0.040 µg/L	0.00	-1.00-1.00	0-0	Pass
B	11	3.097 µg/L	0.00	-1.00-1.00	0-0	*Fail*
Na	23	----- µg/L	100000.00	1.00E+5-1.00E+5	8.00E+4-1.20E+5	OverRng
Mg	24	----- µg/L	100000.00	1.00E+5-1.00E+5	8.00E+4-1.20E+5	OverRng
Mg	25	150300.000 µg/L	100000.00	1.00E+5-1.00E+5	8.00E+4-1.20E+5	*Fail*
Mg	26	155100.000 µg/L	100000.00	1.00E+5-1.00E+5	8.00E+4-1.20E+5	*Fail*
Al	27	----- µg/L	100000.00	1.00E+5-1.00E+5	8.00E+4-1.20E+5	OverRng
Si	28	117.200 µg/L	0.00	-10.00-10.00	0-0	*Fail*
K	39	----- µg/L	100000.00	1.00E+5-1.00E+5	8.00E+4-1.20E+5	OverRng
Ca	43	170800.000 µg/L	100000.00	1.00E+5-1.00E+5	8.00E+4-1.20E+5	*Fail*
Ca	44	168800.000 µg/L	100000.00	1.00E+5-1.00E+5	8.00E+4-1.20E+5	*Fail*
Ti	47	3203.000 µg/L	2000.00	1999.00-2001.00	1600-2400	*Fail*
V	51	0.720 µg/L	0.00	-1.00-1.00	0-0	Pass
Cr	52	35.130 µg/L	20.00	19.00-21.00	16-24	*Fail*
Cr	53	71.970 µg/L	20.00	19.00-21.00	16-24	*Fail*
Fe	54	170100.000 µg/L	100000.00	1.00E+5-1.00E+5	8.00E+4-1.20E+5	*Fail*
Mn	55	35.820 µg/L	20.00	19.00-21.00	16-24	*Fail*
Fe	57	169200.000 µg/L	100000.00	1.00E+5-1.00E+5	8.00E+4-1.20E+5	*Fail*
Co	59	33.530 µg/L	20.00	19.00-21.00	16-24	*Fail*
Ni	60	35.680 µg/L	20.00	19.00-21.00	16-24	*Fail*
Cu	63	51.580 µg/L	20.00	19.00-21.00	16-24	*Fail*
Cu	65	44.140 µg/L	20.00	19.00-21.00	16-24	*Fail*
Zn	66	40.340 µg/L	20.00	19.00-21.00	16-24	*Fail*
Zn	67	175.700 µg/L	20.00	19.00-21.00	16-24	*Fail*
Zn	68	32.670 µg/L	20.00	19.00-21.00	16-24	*Fail*
As	75	26.760 µg/L	20.00	19.00-21.00	16-24	*Fail*
Se	82	-3.866 µg/L	0.00	-1.00-1.00	0-0	*Fail*
Sr	87	9.493 µg/L	0.00	-1.00-1.00	0-0	*Fail*
Mo	95	3039.000 µg/L	2000.00	1999.00-2001.00	1600-2400	*Fail*
Mo	98	3061.000 µg/L	2000.00	1999.00-2001.00	1600-2400	*Fail*
Ag	107	28.220 µg/L	20.00	19.00-21.00	16-24	*Fail*
Ag	109	28.090 µg/L	20.00	19.00-21.00	16-24	*Fail*
Cd	111	31.930 µg/L	20.00	19.00-21.00	16-24	*Fail*
Cd	114	30.930 µg/L	20.00	19.00-21.00	16-24	*Fail*
Sn	120	0.925 µg/L	0.00	-1.00-1.00	0-0	Pass
Sb	121	3.503 µg/L	0.00	-1.00-1.00	0-0	*Fail*
Sb	123	3.702 µg/L	0.00	-1.00-1.00	0-0	*Fail*

Ba 135	2.375 µg/L	0.00	-1.00-1.00	0-0	*Fail*
Au 197	0.104 µg/L	0.00	-1.00-1.00	0-0	Pass
Tl 205	-0.304 µg/L	0.00	-1.00-1.00	0-0	Pass

Interference Check AB QC Report

File : D:\HPCHEM\1\DATA\Sep2302.17A\010ICSB.D\010ICSB.D#
Acquired : Sep 23 02 06:38 pm using AcqMethod 6020.M
Operator : CJ
Sample Name: [ICSAB]
Misc Info :
Vial Number: 1304
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : ---------
Sample Type: ICS_AB
Dilution : 1.000000

Pb 208	6.709 µg/L	0.00	-1.00-1.00	0-0	*Fail*
U 238	0.079 µg/L	0.00	-1.00-1.00	0-0	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	1078240	717778	Pass
45	949294	715147	Pass
72	136531	142159	Pass
115	761736	631980	Pass
209	401633	332939	Pass

Internal Standards referenced to 002CALB.D#

32 Element Failures! Maximum Number of Allowed Failures (20) Exceeded!
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

Blank QC Report

File : D:\HPCHEM\1\DATA\Sep2302.17A\011CCB_.D\011CCB_.D#
Acquired : Sep 23 02 06:47 pm using AcqMethod 6020.M
Operator : CJ
Sample Name: BLANK
Misc Info :
Vial Number: 1
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: CCB
Dilution : 1.000000

Element		Concentration	CRDL Limit	Flag
Be	9	0.043 µg/L	1.00	Pass
B	11	-2.855 µg/L	1.00	*Fail*
Na	23	73.570 µg/L	10.00	*Fail*
Mg	24	59.620 µg/L	10.00	*Fail*
Mg	25	59.470 µg/L	10.00	*Fail*
Mg	26	60.940 µg/L	10.00	*Fail*
Al	27	61.420 µg/L	10.00	*Fail*
Si	28	-26.610 µg/L	10.00	*Fail*
K	39	49.450 µg/L	10.00	*Fail*
Ca	43	49.520 µg/L	10.00	*Fail*
Ca	44	52.190 µg/L	10.00	*Fail*
Ti	47	1.751 µg/L	1.00	*Fail*
V	51	-0.154 µg/L	1.00	Pass
Cr	52	-0.885 µg/L	1.00	Pass
Cr	53	-25.770 µg/L	1.00	*Fail*
Fe	54	-195.500 µg/L	10.00	*Fail*
Mn	55	-0.091 µg/L	1.00	Pass
Fe	57	63.330 µg/L	10.00	*Fail*
Co	59	-0.273 µg/L	1.00	Pass
Ni	60	0.025 µg/L	1.00	Pass
Cu	63	0.277 µg/L	1.00	Pass
Cu	65	0.249 µg/L	1.00	Pass
Zn	66	-1.311 µg/L	1.00	*Fail*
Zn	67	-2.896 µg/L	1.00	*Fail*
Zn	68	-1.646 µg/L	1.00	*Fail*
As	75	-0.247 µg/L	1.00	Pass
Se	82	-0.089 µg/L	1.00	Pass
Sr	87	0.076 µg/L	1.00	Pass
Mo	95	2.090 µg/L	1.00	*Fail*
Mo	98	2.176 µg/L	1.00	*Fail*
Ag	107	0.003 µg/L	1.00	Pass
Ag	109	0.002 µg/L	1.00	Pass
Cd	111	0.004 µg/L	1.00	Pass
Cd	114	0.027 µg/L	1.00	Pass
Sn	120	-1.688 µg/L	1.00	*Fail*
Sb	121	-1.257 µg/L	1.00	*Fail*
Sb	123	-1.103 µg/L	1.00	*Fail*

Ba 135	0.058 µg/L	1.00	Pass
Au 197	-0.035 µg/L	1.00	Pass
Tl 205	-0.403 µg/L	1.00	Pass

Blank QC Report

File : D:\HPCHEM\1\DATA\Sep2302.17A\011CCB_D\011CCB_D#
Acquired : Sep 23 02 06:47 pm using AcqMethod 6020.M
Operator : CJ
Sample Name: BLANK
Misc Info :
Vial Number: 1
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: CCB
Dilution : 1.000000

Pb 208	-0.330 µg/L	1.00	Pass
U 238	0.024 µg/L	1.00	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	1078240	859319	Pass
45	949294	886219	Pass
72	136531	143705	Pass
115	761736	816290	Pass
209	401633	471712	Pass

Internal Standards referenced to 002CALB.D#

22 Element Failures! Maximum Number of Allowed Failures (20) Exceeded!
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2302.17A\012SMPL.D\012SMPL.D#
Acquired : Sep 23 02 06:56 pm using AcqMethod 6020.M
Operator : CJ
Sample Name: M021282-001
Misc Info : ,
Vial Number: 2101
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 1.000000

9 Al 1.22
16 Ti 0.06
18 Cr 0.064
21 Mn 0.038
25 Cu 0.046
27 Zn 0.492
32 As 0.029
50 Sn 0.617
53 Ba 0.128

Element		Concentration	Cal Conc	LRS Conc	Flag
Be	9	0.006 µg/L	200.000	1000	Pass
B	11	-3.362 µg/L	200.000	0	Pass
Na	23	29.270 µg/L	10000.000	20000	Pass
Mg	24	21.500 µg/L	10000.000	20000	Pass
Mg	25	21.620 µg/L	10000.000	20000	Pass
Mg	26	21.850 µg/L	10000.000	20000	Pass
Al	27	24.480 µg/L	10000.000	20000	Pass
Si	28	12.930 µg/L	10000.000	0	Pass
K	39	28.290 µg/L	10000.000	20000	Pass
Ca	43	133.600 µg/L	10000.000	20000	Pass
Ca	44	132.600 µg/L	10000.000	20000	Pass
Ti	47	1.209 µg/L	200.000	1000	Pass
V	51	0.311 µg/L	200.000	1000	Pass
Cr	52	1.289 µg/L	200.000	1000	Pass
Cr	53	36.420 µg/L	200.000	1000	Pass
Fe	54	21.610 µg/L	10000.000	20000	Pass
Mn	55	0.773 µg/L	200.000	1000	Pass
Fe	57	31.960 µg/L	10000.000	20000	Pass
Co	59	-0.319 µg/L	200.000	1000	Pass
Ni	60	0.350 µg/L	200.000	1000	Pass
Cu	63	0.915 µg/L	200.000	1000	Pass
Cu	65	0.893 µg/L	200.000	1000	Pass
Zn	66	9.839 µg/L	200.000	1000	Pass
Zn	67	11.740 µg/L	200.000	1000	Pass
Zn	68	9.707 µg/L	200.000	1000	Pass
As	75	0.581 µg/L	200.000	1000	Pass
Se	82	-0.072 µg/L	200.000	1000	Pass
Sr	87	0.122 µg/L	200.000	1000	Pass
Mo	95	0.475 µg/L	200.000	1000	Pass
Mo	98	0.556 µg/L	200.000	1000	Pass
Ag	107	-0.045 µg/L	200.000	1000	Pass
Ag	109	-0.043 µg/L	200.000	1000	Pass
Cd	111	-0.037 µg/L	200.000	1000	Pass
Cd	114	0.242 µg/L	200.000	1000	Pass
Sn	120	12.340 µg/L	200.000	1000	Pass
Sb	121	-1.212 µg/L	200.000	1000	Pass
Sb	123	-1.069 µg/L	200.000	1000	Pass

Ba 135	2.549 µg/L	200.000	1000	Pass
Au 197	0.040 µg/L	200.000	0	Pass
Tl 205	-0.447 µg/L	200.000	1000	Pass

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2302.17A\012SMPL.D\012SMPL.D#
Acquired : Sep 23 02 06:56 pm using AcqMethod 6020.M
Operator : CJ
Sample Name: M021282-001
Misc Info : ,
Vial Number: 2101
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 1.000000

Pb 208	-0.273 µg/L	200.000	1000	Pass
U 238	-0.014 µg/L	200.000	1000	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	1078240	987501	Pass
45	949294	847141	Pass
72	136531	123693	Pass
115	761736	670472	Pass
209	401633	374608	Pass

Internal Standards referenced to 002CALB.D#

0 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2302.17A\013SMPL.D\013SMPL.D#
Acquired : Sep 23 02 07:05 pm using AcqMethod 6020.M
Operator : CJ
Sample Name: M021282-002
Misc Info : ,
Vial Number: 2102
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 1.000000

Element		Concentration	Cal Conc	LRS Conc	Flag
Be	9	96.540 µg/L	200.000	1000	Pass
B	11	97.780 µg/L	200.000	0	Pass
Na	23	1106.000 µg/L	10000.000	20000	Pass
Mg	24	1090.000 µg/L	10000.000	20000	Pass
Mg	25	1143.000 µg/L	10000.000	20000	Pass
Mg	26	1135.000 µg/L	10000.000	20000	Pass
Al	27	1094.000 µg/L	10000.000	20000	Pass
Si	28	1046.000 µg/L	10000.000	0	Pass
K	39	1077.000 µg/L	10000.000	20000	Pass
Ca	43	1238.000 µg/L	10000.000	20000	Pass
Ca	44	1236.000 µg/L	10000.000	20000	Pass
Ti	47	101.100 µg/L	200.000	1000	Pass
V	51	100.500 µg/L	200.000	1000	Pass
Cr	52	101.200 µg/L	200.000	1000	Pass
Cr	53	97.680 µg/L	200.000	1000	Pass
Fe	54	1148.000 µg/L	10000.000	20000	Pass
Mn	55	99.370 µg/L	200.000	1000	Pass
Fe	57	1107.000 µg/L	10000.000	20000	Pass
Co	59	100.700 µg/L	200.000	1000	Pass
Ni	60	102.200 µg/L	200.000	1000	Pass
Cu	63	102.600 µg/L	200.000	1000	Pass
Cu	65	102.300 µg/L	200.000	1000	Pass
Zn	66	121.000 µg/L	200.000	1000	Pass
Zn	67	117.800 µg/L	200.000	1000	Pass
Zn	68	120.800 µg/L	200.000	1000	Pass
As	75	104.200 µg/L	200.000	1000	Pass
Se	82	103.300 µg/L	200.000	1000	Pass
Sr	87	99.230 µg/L	200.000	1000	Pass
Mo	95	96.690 µg/L	200.000	1000	Pass
Mo	98	96.470 µg/L	200.000	1000	Pass
Ag	107	97.010 µg/L	200.000	1000	Pass
Ag	109	97.540 µg/L	200.000	1000	Pass
Cd	111	100.100 µg/L	200.000	1000	Pass
Cd	114	100.400 µg/L	200.000	1000	Pass
Sn	120	111.900 µg/L	200.000	1000	Pass
Sb	121	98.900 µg/L	200.000	1000	Pass
Sb	123	99.950 µg/L	200.000	1000	Pass

Ba 135	101.300 µg/L	200.000	1000	Pass
Au 197	99.980 µg/L	200.000	0	Pass
Tl 205	95.910 µg/L	200.000	1000	Pass

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2302.17A\013SMPL.D\013SMPL.D#
Acquired : Sep 23 02 07:05 pm using AcqMethod 6020.M
Operator : CJ
Sample Name: M021282-002
Misc Info : ,
Vial Number: 2102
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 1.000000

Pb 208	97.820 µg/L	200.000	1000	Pass
U 238	96.620 µg/L	200.000	1000	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	1078240	1018749	Pass
45	949294	889436	Pass
72	136531	123449	Pass
115	761736	679387	Pass
209	401633	375859	Pass

Internal Standards referenced to 002CALB.D#

0 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2302.17A\014SMPL.D\014SMPL.D#
Acquired : Sep 23 02 07:14 pm using AcqMethod 6020.M
Operator : CJ
Sample Name: M021282-003
Misc Info : ,
Vial Number: 2103
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 1.000000

Element		Concentration	Cal Conc	LRS Conc	Flag
Be	9	95.950 µg/L	200.000	1000	Pass
B	11	106.100 µg/L	200.000	0	Pass
Na	23	1143.000 µg/L	10000.000	20000	Pass
Mg	24	1154.000 µg/L	10000.000	20000	Pass
Mg	25	1208.000 µg/L	10000.000	20000	Pass
Mg	26	1182.000 µg/L	10000.000	20000	Pass
Al	27	1155.000 µg/L	10000.000	20000	Pass
Si	28	1120.000 µg/L	10000.000	0	Pass
K	39	1115.000 µg/L	10000.000	20000	Pass
Ca	43	1137.000 µg/L	10000.000	20000	Pass
Ca	44	1153.000 µg/L	10000.000	20000	Pass
Ti	47	104.100 µg/L	200.000	1000	Pass
V	51	102.300 µg/L	200.000	1000	Pass
Cr	52	102.400 µg/L	200.000	1000	Pass
Cr	53	95.480 µg/L	200.000	1000	Pass
Fe	54	1204.000 µg/L	10000.000	20000	Pass
Mn	55	102.300 µg/L	200.000	1000	Pass
Fe	57	1149.000 µg/L	10000.000	20000	Pass
Co	59	103.800 µg/L	200.000	1000	Pass
Ni	60	103.800 µg/L	200.000	1000	Pass
Cu	63	103.700 µg/L	200.000	1000	Pass
Cu	65	104.400 µg/L	200.000	1000	Pass
Zn	66	108.600 µg/L	200.000	1000	Pass
Zn	67	105.700 µg/L	200.000	1000	Pass
Zn	68	108.400 µg/L	200.000	1000	Pass
As	75	106.000 µg/L	200.000	1000	Pass
Se	82	103.900 µg/L	200.000	1000	Pass
Sr	87	100.900 µg/L	200.000	1000	Pass
Mo	95	100.300 µg/L	200.000	1000	Pass
Mo	98	99.790 µg/L	200.000	1000	Pass
Ag	107	101.200 µg/L	200.000	1000	Pass
Ag	109	101.300 µg/L	200.000	1000	Pass
Cd	111	102.700 µg/L	200.000	1000	Pass
Cd	114	103.000 µg/L	200.000	1000	Pass
Sn	120	113.900 µg/L	200.000	1000	Pass
Sb	121	101.300 µg/L	200.000	1000	Pass
Sb	123	101.800 µg/L	200.000	1000	Pass

Ba 135	103.900 µg/L	200.000	1000	Pass
Au 197	102.000 µg/L	200.000	0	Pass
Tl 205	98.760 µg/L	200.000	1000	Pass

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2302.17A\014SMPL.D\014SMPL.D#
Acquired : Sep 23 02 07:14 pm using AcqMethod 6020.M
Operator : CJ
Sample Name: M021282-003
Misc Info : ,
Vial Number: 2103
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 1.000000

Pb 208	100.600 µg/L	200.000	1000	Pass
U 238	98.480 µg/L	200.000	1000	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	1078240	1066065	Pass
45	949294	872647	Pass
72	136531	121998	Pass
115	761736	654741	Pass
209	401633	360944	Pass

Internal Standards referenced to 002CALB.D#

0 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2302.17A\015SMPL.D\015SMPL.D#
Acquired : Sep 23 02 07:24 pm using AcqMethod 6020.M
Operator : CJ
Sample Name: M021282-006
Misc Info : ,
Vial Number: 2104
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 10.000000

Element		Concentration	Cal Conc	LRS Conc	Flag
Be	9	7.316 µg/L	200.000	1000	Pass
B	11	0.435 µg/L	200.000	0	Pass
Na	23	2761.000 µg/L	10000.000	20000	Pass
Mg	24	31310.000 µg/L	10000.000	20000	Pass
Mg	25	32210.000 µg/L	10000.000	20000	Pass
Mg	26	31630.000 µg/L	10000.000	20000	Pass
Al	27	115500.000 µg/L	10000.000	20000	>Cal std
Si	28	8525.000 µg/L	10000.000	0	Pass
K	39	17380.000 µg/L	10000.000	20000	Pass
Ca	43	61090.000 µg/L	10000.000	20000	Pass
Ca	44	60490.000 µg/L	10000.000	20000	Pass
Ti	47	4094.000 µg/L	200.000	1000	>Cal std
V	51	191.900 µg/L	200.000	1000	Pass
Cr	52	2769.000 µg/L	200.000	1000	>Cal std
Cr	53	2802.000 µg/L	200.000	1000	>Cal std
Fe	54	143900.000 µg/L	10000.000	20000	>Cal std
Mn	55	3753.000 µg/L	200.000	1000	>Cal std
Fe	57	141000.000 µg/L	10000.000	20000	>Cal std
Co	59	36.530 µg/L	200.000	1000	Pass
Ni	60	95.400 µg/L	200.000	1000	Pass
Cu	63	462.900 µg/L	200.000	1000	Pass
Cu	65	469.700 µg/L	200.000	1000	Pass
Zn	66	1737.000 µg/L	200.000	1000	Pass
Zn	67	1723.000 µg/L	200.000	1000	Pass
Zn	68	1714.000 µg/L	200.000	1000	Pass
As	75	76.360 µg/L	200.000	1000	Pass
Se	82	8.697 µg/L	200.000	1000	Pass
Sr	87	918.800 µg/L	200.000	1000	Pass
Mo	95	8.039 µg/L	200.000	1000	Pass
Mo	98	8.212 µg/L	200.000	1000	Pass
Ag	107	114.300 µg/L	200.000	1000	Pass
Ag	109	114.500 µg/L	200.000	1000	Pass
Cd	111	12.210 µg/L	200.000	1000	Pass
Cd	114	10.700 µg/L	200.000	1000	Pass
Sn	120	66.520 µg/L	200.000	1000	Pass
Sb	121	-11.080 µg/L	200.000	1000	Pass
Sb	123	-9.661 µg/L	200.000	1000	Pass

Ba 135	1692.000 µg/L	200.000	1000	Pass
Au 197	6.358 µg/L	200.000	0	Pass
Tl 205	2.362 µg/L	200.000	1000	Pass

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2302.17A\015SMPL.D\015SMPL.D#
Acquired : Sep 23 02 07:24 pm using AcqMethod 6020.M
Operator : CJ
Sample Name: M021282-006
Misc Info : ,
Vial Number: 2104
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 10.000000

Pb 208	376.600 µg/L	200.000	1000	Pass
U 238	25.010 µg/L	200.000	1000	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	1078240	1030964	Pass
45	949294	935320	Pass
72	136531	126185	Pass
115	761736	670282	Pass
209	401633	369937	Pass

Internal Standards referenced to 002CALB.D#

7 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2302.17A\016SMPL.D\016SMPL.D#
Acquired : Sep 23 02 07:33 pm using AcqMethod 6020.M
Operator : CJ
Sample Name: M021282-006
Misc Info : ,
Vial Number: 2105
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 100.000000

Element		Concentration	Cal Conc	LRS Conc	Flag
Be	9	7.585 µg/L	200.000	1000	Pass
B	11	-366.200 µg/L	200.000	0	Pass
Na	23	2679.000 µg/L	10000.000	20000	Pass
Mg	24	35150.000 µg/L	10000.000	20000	Pass
Mg	25	35810.000 µg/L	10000.000	20000	Pass
Mg	26	35640.000 µg/L	10000.000	20000	Pass
Al	27	125100.000 µg/L	10000.000	20000	Pass
Si	28	7604.000 µg/L	10000.000	0	Pass
K	39	18080.000 µg/L	10000.000	20000	Pass
Ca	43	62440.000 µg/L	10000.000	20000	Pass
Ca	44	64000.000 µg/L	10000.000	20000	Pass
Ti	47	4263.000 µg/L	200.000	1000	Pass
V	51	223.400 µg/L	200.000	1000	Pass
Cr	52	2990.000 µg/L	200.000	1000	Pass
Cr	53	3224.000 µg/L	200.000	1000	Pass
Fe	54	157100.000 µg/L	10000.000	20000	Pass
Mn	55	4091.000 µg/L	200.000	1000	Pass
Fe	57	152600.000 µg/L	10000.000	20000	Pass
Co	59	8.382 µg/L	200.000	1000	Pass
Ni	60	102.200 µg/L	200.000	1000	Pass
Cu	63	499.400 µg/L	200.000	1000	Pass
Cu	65	503.300 µg/L	200.000	1000	Pass
Zn	66	1848.000 µg/L	200.000	1000	Pass
Zn	67	1749.000 µg/L	200.000	1000	Pass
Zn	68	1794.000 µg/L	200.000	1000	Pass
As	75	129.500 µg/L	200.000	1000	Pass
Se	82	5.496 µg/L	200.000	1000	Pass
Sr	87	942.600 µg/L	200.000	1000	Pass
Mo	95	-53.970 µg/L	200.000	1000	Pass
Mo	98	-51.250 µg/L	200.000	1000	Pass
Ag	107	113.200 µg/L	200.000	1000	Pass
Ag	109	113.400 µg/L	200.000	1000	Pass
Cd	111	12.920 µg/L	200.000	1000	Pass
Cd	114	10.860 µg/L	200.000	1000	Pass
Sn	120	-89.170 µg/L	200.000	1000	Pass
Sb	121	-122.300 µg/L	200.000	1000	Pass
Sb	123	-108.100 µg/L	200.000	1000	Pass

Ba 135	1710.000 µg/L	200.000	1000	Pass
Au 197	6.966 µg/L	200.000	0	Pass
Tl 205	-26.970 µg/L	200.000	1000	Pass

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2302.17A\016SMPL.D\016SMPL.D#
Acquired : Sep 23 02 07:33 pm using AcqMethod 6020.M
Operator : CJ
Sample Name: M021282-006
Misc Info : ,
Vial Number: 2105
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 100.000000

Pb 208	347.300 µg/L	200.000	1000	Pass
U 238	24.440 µg/L	200.000	1000	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	1078240	1060668	Pass
45	949294	846947	Pass
72	136531	118505	Pass
115	761736	636418	Pass
209	401633	353258	Pass

Internal Standards referenced to 002CALB.D#

0 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2302.17A\017SMPL.D\017SMPL.D#
Acquired : Sep 23 02 07:42 pm using AcqMethod 6020.M
Operator : CJ
Sample Name: M021282-007
Misc Info : ,
Vial Number: 2106
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 10.000000

Element		Concentration	Cal Conc	LRS Conc	Flag
Be	9	115.200 µg/L	200.000	1000	Pass
B	11	105.400 µg/L	200.000	0	Pass
Na	23	4464.000 µg/L	10000.000	20000	Pass
Mg	24	42990.000 µg/L	10000.000	20000	Pass
Mg	25	42600.000 µg/L	10000.000	20000	Pass
Mg	26	43170.000 µg/L	10000.000	20000	Pass
Al	27	157200.000 µg/L	10000.000	20000	>Cal std
Si	28	12190.000 µg/L	10000.000	0	Pass
K	39	26570.000 µg/L	10000.000	20000	Pass
Ca	43	71160.000 µg/L	10000.000	20000	Pass
Ca	44	70730.000 µg/L	10000.000	20000	Pass
Ti	47	6006.000 µg/L	200.000	1000	>Cal std
V	51	334.600 µg/L	200.000	1000	Pass
Cr	52	3268.000 µg/L	200.000	1000	>Cal std
Cr	53	3318.000 µg/L	200.000	1000	>Cal std
Fe	54	185800.000 µg/L	10000.000	20000	>Cal std
Mn	55	3880.000 µg/L	200.000	1000	>Cal std
Fe	57	177800.000 µg/L	10000.000	20000	>Cal std
Co	59	142.300 µg/L	200.000	1000	Pass
Ni	60	206.200 µg/L	200.000	1000	Pass
Cu	63	630.100 µg/L	200.000	1000	Pass
Cu	65	635.100 µg/L	200.000	1000	Pass
Zn	66	2125.000 µg/L	200.000	1000	>Cal std
Zn	67	2095.000 µg/L	200.000	1000	>Cal std
Zn	68	2067.000 µg/L	200.000	1000	>Cal std
As	75	180.500 µg/L	200.000	1000	Pass
Se	82	119.100 µg/L	200.000	1000	Pass
Sr	87	1304.000 µg/L	200.000	1000	Pass
Mo	95	110.000 µg/L	200.000	1000	Pass
Mo	98	110.900 µg/L	200.000	1000	Pass
Ag	107	218.900 µg/L	200.000	1000	Pass
Ag	109	218.600 µg/L	200.000	1000	Pass
Cd	111	121.000 µg/L	200.000	1000	Pass
Cd	114	118.000 µg/L	200.000	1000	Pass
Sn	120	190.200 µg/L	200.000	1000	Pass
Sb	121	28.820 µg/L	200.000	1000	Pass
Sb	123	31.360 µg/L	200.000	1000	Pass

Ba 135	2079.000 µg/L	200.000	1000	>Cal std
Au 197	106.400 µg/L	200.000	0	Pass
Tl 205	97.030 µg/L	200.000	1000	Pass

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2302.17A\017SMPL.D\017SMPL.D#
Acquired : Sep 23 02 07:42 pm using AcqMethod 6020.M
Operator : CJ
Sample Name: M021282-007
Misc Info : ,
Vial Number: 2106
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 10.000000

Pb 208	513.900 µg/L	200.000	1000	Pass
U 238	128.200 µg/L	200.000	1000	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	1078240	987979	Pass
45	949294	939042	Pass
72	136531	120653	Pass
115	761736	625430	Pass
209	401633	351917	Pass

Internal Standards referenced to 002CALB.D#

11 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2302.17A\018SMPL.D\018SMPL.D#
Acquired : Sep 23.02 07:51 pm using AcqMethod 6020.M
Operator : CJ
Sample Name: M021282-007
Misc Info : ,
Vial Number: 2107
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 100.000000

Element		Concentration	Cal Conc	LRS Conc	Flag
Be	9	109.000 µg/L	200.000	1000	Pass
B	11	-267.900 µg/L	200.000	0	Pass
Na	23	4222.000 µg/L	10000.000	20000	Pass
Mg	24	45950.000 µg/L	10000.000	20000	Pass
Mg	25	47350.000 µg/L	10000.000	20000	Pass
Mg	26	46400.000 µg/L	10000.000	20000	Pass
Al	27	162900.000 µg/L	10000.000	20000	Pass
Si	28	9314.000 µg/L	10000.000	0	Pass
K	39	24740.000 µg/L	10000.000	20000	Pass
Ca	43	70660.000 µg/L	10000.000	20000	Pass
Ca	44	70210.000 µg/L	10000.000	20000	Pass
Ti	47	6152.000 µg/L	200.000	1000	Pass
V	51	320.300 µg/L	200.000	1000	Pass
Cr	52	3340.000 µg/L	200.000	1000	Pass
Cr	53	3340.000 µg/L	200.000	1000	Pass
Fe	54	192100.000 µg/L	10000.000	20000	Pass
Mn	55	4090.000 µg/L	200.000	1000	Pass
Fe	57	190300.000 µg/L	10000.000	20000	Pass
Co	59	118.400 µg/L	200.000	1000	Pass
Ni	60	221.900 µg/L	200.000	1000	Pass
Cu	63	672.300 µg/L	200.000	1000	Pass
Cu	65	676.600 µg/L	200.000	1000	Pass
Zn	66	1951.000 µg/L	200.000	1000	Pass
Zn	67	1850.000 µg/L	200.000	1000	Pass
Zn	68	1875.000 µg/L	200.000	1000	Pass
As	75	219.200 µg/L	200.000	1000	Pass
Se	82	105.000 µg/L	200.000	1000	Pass
Sr	87	1287.000 µg/L	200.000	1000	Pass
Mo	95	27.010 µg/L	200.000	1000	Pass
Mo	98	29.080 µg/L	200.000	1000	Pass
Ag	107	205.500 µg/L	200.000	1000	Pass
Ag	109	203.600 µg/L	200.000	1000	Pass
Cd	111	114.800 µg/L	200.000	1000	Pass
Cd	114	112.200 µg/L	200.000	1000	Pass
Sn	120	14.970 µg/L	200.000	1000	Pass
Sb	121	-90.920 µg/L	200.000	1000	Pass
Sb	123	-71.280 µg/L	200.000	1000	Pass

Ba 135	1936.000 µg/L	200.000	1000	Pass
Au 197	97.550 µg/L	200.000	0	Pass
Tl 205	62.600 µg/L	200.000	1000	Pass

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2302.17A\018SMPL.D\018SMPL.D#
Acquired : Sep 23 02 07:51 pm using AcqMethod 6020.M
Operator : CJ
Sample Name: M021282-007
Misc Info : ,
Vial Number: 2107
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : ---------
Sample Type: ---------
Dilution : 100.000000

Pb 208	460.700 µg/L	200.000	1000	Pass
U 238	122.100 µg/L	200.000	1000	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	1078240	1015853	Pass
45	949294	866915	Pass
72	136531	120462	Pass
115	761736	657337	Pass
209	401633	357993	Pass

Internal Standards referenced to 002CALB.D#

0 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2302.17A\019SMPL.D\019SMPL.D#
Acquired : Sep 23 02 08:00 pm using AcqMethod 6020.M
Operator : CJ
Sample Name: M021282-008
Misc Info : ,
Vial Number: 2108
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 10.000000

Element		Concentration	Cal Conc	LRS Conc	Flag
Be	9	109.100 µg/L	200.000	1000	Pass
B	11	100.600 µg/L	200.000	0	Pass
Na	23	4823.000 µg/L	10000.000	20000	Pass
Mg	24	37050.000 µg/L	10000.000	20000	Pass
Mg	25	36530.000 µg/L	10000.000	20000	Pass
Mg	26	37390.000 µg/L	10000.000	20000	Pass
Al	27	137600.000 µg/L	10000.000	20000	>Cal std
Si	28	10110.000 µg/L	10000.000	0	Pass
K	39	23130.000 µg/L	10000.000	20000	Pass
Ca	43	62390.000 µg/L	10000.000	20000	Pass
Ca	44	61460.000 µg/L	10000.000	20000	Pass
Ti	47	5585.000 µg/L	200.000	1000	>Cal std
V	51	277.400 µg/L	200.000	1000	Pass
Cr	52	3107.000 µg/L	200.000	1000	>Cal std
Cr	53	3263.000 µg/L	200.000	1000	>Cal std
Fe	54	160900.000 µg/L	10000.000	20000	>Cal std
Mn	55	4107.000 µg/L	200.000	1000	>Cal std
Fe	57	156900.000 µg/L	10000.000	20000	>Cal std
Co	59	137.700 µg/L	200.000	1000	Pass
Ni	60	197.300 µg/L	200.000	1000	Pass
Cu	63	585.200 µg/L	200.000	1000	Pass
Cu	65	591.300 µg/L	200.000	1000	Pass
Zn	66	2119.000 µg/L	200.000	1000	>Cal std
Zn	67	2072.000 µg/L	200.000	1000	>Cal std
Zn	68	2079.000 µg/L	200.000	1000	>Cal std
As	75	162.400 µg/L	200.000	1000	Pass
Se	82	109.100 µg/L	200.000	1000	Pass
Sr	87	1174.000 µg/L	200.000	1000	Pass
Mo	95	106.700 µg/L	200.000	1000	Pass
Mo	98	107.000 µg/L	200.000	1000	Pass
Ag	107	212.700 µg/L	200.000	1000	Pass
Ag	109	214.600 µg/L	200.000	1000	Pass
Cd	111	112.400 µg/L	200.000	1000	Pass
Cd	114	115.300 µg/L	200.000	1000	Pass
Sn	120	206.200 µg/L	200.000	1000	Pass
Sb	121	29.440 µg/L	200.000	1000	Pass
Sb	123	30.710 µg/L	200.000	1000	Pass

Ba 135	1795.000 µg/L	200.000	1000	Pass
Au 197	98.070 µg/L	200.000	0	Pass
Tl 205	92.630 µg/L	200.000	1000	Pass

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2302.17A\019SMPL.D\019SMPL.D#
Acquired : Sep 23 02 08:00 pm using AcqMethod 6020.M
Operator : CJ
Sample Name: M021282-008
Misc Info : ,
Vial Number: 2108
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 10.000000

Pb 208	517.500 µg/L	200.000	1000	Pass
U 238	128.500 µg/L	200.000	1000	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	1078240	1017249	Pass
45	949294	929522	Pass
72	136531	123977	Pass
115	761736	649726	Pass
209	401633	364411	Pass

Internal Standards referenced to 002CALB.D#

10 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

CCV QC Report

File : D:\HPCHEM\1\DATA\Sep2302.17A\020CCV_D\020CCV_.D#
Acquired : Sep 23 02 08:10 pm using AcqMethod 6020.M
Operator : CJ
Sample Name: [STD-CCV]
Misc Info :
Vial Number: 1105
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: CCV
Dilution : 1.000000

CCV Mix #1

Element		Concentration	Expected	QC Range	Flag
Be	9	99.490 µg/L	100.00	90.00-110.00	Pass
B	11	111.100 µg/L	100.00	90.00-110.00	*Fail*
Na	23	1178.000 µg/L	1000.00	900.00-1100.00	*Fail*
Mg	24	1166.000 µg/L	1000.00	900.00-1100.00	*Fail*
Mg	25	1240.000 µg/L	1000.00	900.00-1100.00	*Fail*
Mg	26	1225.000 µg/L	1000.00	900.00-1100.00	*Fail*
Al	27	1166.000 µg/L	1000.00	900.00-1100.00	*Fail*
Si	28	1157.000 µg/L	1000.00	900.00-1100.00	*Fail*
K	39	1156.000 µg/L	1000.00	900.00-1100.00	*Fail*
Ca	43	1170.000 µg/L	1000.00	900.00-1100.00	*Fail*
Ca	44	1147.000 µg/L	1000.00	900.00-1100.00	*Fail*
Ti	47	109.700 µg/L	100.00	90.00-110.00	Pass
V	51	110.600 µg/L	100.00	90.00-110.00	*Fail*
Cr	52	109.600 µg/L	100.00	90.00-110.00	Pass
Cr	53	99.000 µg/L	100.00	90.00-110.00	Pass
Fe	54	1262.000 µg/L	1000.00	900.00-1100.00	*Fail*
Mn	55	105.800 µg/L	100.00	90.00-110.00	Pass
Fe	57	1160.000 µg/L	1000.00	900.00-1100.00	*Fail*
Co	59	107.700 µg/L	100.00	90.00-110.00	Pass
Ni	60	107.700 µg/L	100.00	90.00-110.00	Pass
Cu	63	107.900 µg/L	100.00	90.00-110.00	Pass
Cu	65	108.300 µg/L	100.00	90.00-110.00	Pass
Zn	66	105.200 µg/L	100.00	90.00-110.00	Pass
Zn	67	101.100 µg/L	100.00	90.00-110.00	Pass
Zn	68	104.200 µg/L	100.00	90.00-110.00	Pass
As	75	106.200 µg/L	100.00	90.00-110.00	Pass
Se	82	104.400 µg/L	100.00	90.00-110.00	Pass
Sr	87	102.200 µg/L	100.00	90.00-110.00	Pass
Mo	95	101.400 µg/L	100.00	90.00-110.00	Pass
Mo	98	101.600 µg/L	100.00	90.00-110.00	Pass
Ag	107	101.800 µg/L	100.00	90.00-110.00	Pass
Ag	109	102.200 µg/L	100.00	90.00-110.00	Pass
Cd	111	104.300 µg/L	100.00	90.00-110.00	Pass
Cd	114	103.900 µg/L	100.00	90.00-110.00	Pass
Sn	120	103.200 µg/L	100.00	90.00-110.00	Pass

Sb 121	102.400 µg/L	100.00	90.00-110.00	Pass
Sb 123	103.100 µg/L	100.00	90.00-110.00	Pass
Ba 135	103.900 µg/L	100.00	90.00-110.00	Pass

CCV QC Report

File : D:\HPCHEM\1\DATA\Sep2302.17A\020CCV_.D\020CCV_.D#
Acquired : Sep 23 02 08:10 pm using AcqMethod 6020.M
Operator : CJ
Sample Name: [STD-CCV]
Misc Info :
Vial Number: 1105
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: CCV
Dilution : 1.000000

Au 197	100.900 µg/L	100.00	90.00-110.00	Pass
Tl 205	100.500 µg/L	100.00	90.00-110.00	Pass
Pb 208	102.900 µg/L	100.00	90.00-110.00	Pass
U 238	101.700 µg/L	100.00	90.00-110.00	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	1078240	1011938	Pass
45	949294	828122	Pass
72	136531	117750	Pass
115	761736	633302	Pass
209	401633	347273	Pass

Internal Standards referenced to 002CALB.D#

13 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

Blank QC Report

135

File : D:\HPCHEM\1\DATA\Sep2302.17A\021CCB_.D\021CCB_.D#
Acquired : Sep 23 02 08:19 pm using AcqMethod 6020.M
Operator : CJ
Sample Name: [CB]
Misc Info :
Vial Number: 1102
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: CCB
Dilution : 1.000000

Element	Concentration	CRDL Limit	Flag
Be 9	0.020 µg/L	1.00	Pass
B 11	-1.259 µg/L	1.00	*Fail*
Na 23	2.085 µg/L	10.00	Pass
Mg 24	0.832 µg/L	10.00	Pass
Mg 25	0.799 µg/L	10.00	Pass
Mg 26	0.778 µg/L	10.00	Pass
Al 27	1.099 µg/L	10.00	Pass
Si 28	-0.535 µg/L	10.00	Pass
K 39	-9.107 µg/L	10.00	Pass
Ca 43	1.674 µg/L	10.00	Pass
Ca 44	2.668 µg/L	10.00	Pass
Ti 47	-0.109 µg/L	1.00	Pass
V 51	-0.108 µg/L	1.00	Pass
Cr 52	0.475 µg/L	1.00	Pass
Cr 53	3.838 µg/L	1.00	*Fail*
Fe 54	2.531 µg/L	10.00	Pass
Mn 55	0.073 µg/L	1.00	Pass
Fe 57	1.000 µg/L	10.00	Pass
Co 59	-0.303 µg/L	1.00	Pass
Ni 60	0.022 µg/L	1.00	Pass
Cu 63	0.020 µg/L	1.00	Pass
Cu 65	0.006 µg/L	1.00	Pass
Zn 66	0.035 µg/L	1.00	Pass
Zn 67	0.358 µg/L	1.00	Pass
Zn 68	-0.064 µg/L	1.00	Pass
As 75	0.321 µg/L	1.00	Pass
Se 82	-0.005 µg/L	1.00	Pass
Sr 87	0.035 µg/L	1.00	Pass
Mo 95	-0.715 µg/L	1.00	Pass
Mo 98	-0.676 µg/L	1.00	Pass
Ag 107	-0.034 µg/L	1.00	Pass
Ag 109	-0.026 µg/L	1.00	Pass
Cd 111	0.026 µg/L	1.00	Pass
Cd 114	0.007 µg/L	1.00	Pass
Sn 120	-1.723 µg/L	1.00	*Fail*
Sb 121	-0.821 µg/L	1.00	Pass
Sb 123	-0.698 µg/L	1.00	Pass

Ba 135	0.028 µg/L	1.00	Pass
Au 197	0.476 µg/L	1.00	Pass
Tl 205	0.212 µg/L	1.00	Pass

Blank QC Report

File : D:\HPCHEM\1\DATA\Sep2302.17A\021CCB_D\021CCB_D#
Acquired : Sep 23 02 08:19 pm using AcqMethod 6020.M
Operator : CJ
Sample Name: [CB]
Misc Info :
Vial Number: 1102
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: CCB
Dilution : 1.000000

Pb 208	−0.314 µg/L	1.00	Pass
U 238	0.016 µg/L	1.00	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	1078240	997349	Pass
45	949294	867342	Pass
72	136531	119338	Pass
115	761736	647589	Pass
209	401633	351667	Pass

Internal Standards referenced to 002CALB.D#

3 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2302.17A\022SMPL.D\022SMPL.D#
Acquired : Sep 23 02 08:28 pm using AcqMethod 6020.M
Operator : CJ
Sample Name: M021282-008
Misc Info : ,
Vial Number: 2109
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 100.000000

Element		Concentration	Cal Conc	LRS Conc	Flag
Be	9	103.800 µg/L	200.000	1000	Pass
B	11	-288.900 µg/L	200.000	0	Pass
Na	23	5148.000 µg/L	10000.000	20000	Pass
Mg	24	41600.000 µg/L	10000.000	20000	Pass
Mg	25	41070.000 µg/L	10000.000	20000	Pass
Mg	26	40970.000 µg/L	10000.000	20000	Pass
Al	27	145300.000 µg/L	10000.000	20000	Pass
Si	28	9870.000 µg/L	10000.000	0	Pass
K	39	22730.000 µg/L	10000.000	20000	Pass
Ca	43	65050.000 µg/L	10000.000	20000	Pass
Ca	44	64690.000 µg/L	10000.000	20000	Pass
Ti	47	5942.000 µg/L	200.000	1000	Pass
V	51	366.000 µg/L	200.000	1000	Pass
Cr	52	3397.000 µg/L	200.000	1000	Pass
Cr	53	2915.000 µg/L	200.000	1000	Pass
Fe	54	176100.000 µg/L	10000.000	20000	Pass
Mn	55	4570.000 µg/L	200.000	1000	Pass
Fe	57	174700.000 µg/L	10000.000	20000	Pass
Co	59	116.700 µg/L	200.000	1000	Pass
Ni	60	213.900 µg/L	200.000	1000	Pass
Cu	63	649.700 µg/L	200.000	1000	Pass
Cu	65	648.000 µg/L	200.000	1000	Pass
Zn	66	2089.000 µg/L	200.000	1000	Pass
Zn	67	1976.000 µg/L	200.000	1000	Pass
Zn	68	2028.000 µg/L	200.000	1000	Pass
As	75	199.400 µg/L	200.000	1000	Pass
Se	82	113.100 µg/L	200.000	1000	Pass
Sr	87	1250.000 µg/L	200.000	1000	Pass
Mo	95	29.710 µg/L	200.000	1000	Pass
Mo	98	30.200 µg/L	200.000	1000	Pass
Ag	107	211.600 µg/L	200.000	1000	Pass
Ag	109	210.800 µg/L	200.000	1000	Pass
Cd	111	117.900 µg/L	200.000	1000	Pass
Cd	114	114.200 µg/L	200.000	1000	Pass
Sn	120	48.580 µg/L	200.000	1000	Pass
Sb	121	-75.700 µg/L	200.000	1000	Pass
Sb	123	-61.350 µg/L	200.000	1000	Pass

Ba 135	1824.000 µg/L	200.000	1000	Pass
Au 197	106.200 µg/L	200.000	0	Pass
Tl 205	65.930 µg/L	200.000	1000	Pass

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2302.17A\022SMPL.D\022SMPL.D#
Acquired : Sep 23 02 08:28 pm using AcqMethod 6020.M
Operator : CJ
Sample Name: M021282-008
Misc Info : ,
Vial Number: 2109
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 100.000000

Pb 208	497.700 µg/L	200.000	1000	Pass
U 238	129.700 µg/L	200.000	1000	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	1078240	1040165	Pass
45	949294	888523	Pass
72	136531	122502	Pass
115	761736	665328	Pass
209	401633	363727	Pass

Internal Standards referenced to 002CALB.D#

0 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2302.17A\023SMPL.D\023SMPL.D#
Acquired : Sep 23 02 08:37 pm using AcqMethod 6020.M
Operator : CJ
Sample Name: M021282-011
Misc Info : ,
Vial Number: 2110
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 10.000000

Element		Concentration	Cal Conc	LRS Conc	Flag
Be	9	9.812 µg/L	200.000	1000	Pass
B	11	-15.630 µg/L	200.000	0	Pass
Na	23	3251.000 µg/L	10000.000	20000	Pass
Mg	24	16300.000 µg/L	10000.000	20000	Pass
Mg	25	17240.000 µg/L	10000.000	20000	Pass
Mg	26	17080.000 µg/L	10000.000	20000	Pass
Al	27	116700.000 µg/L	10000.000	20000	>Cal std
Si	28	4116.000 µg/L	10000.000	0	Pass
K	39	14790.000 µg/L	10000.000	20000	Pass
Ca	43	21210.000 µg/L	10000.000	20000	Pass
Ca	44	21040.000 µg/L	10000.000	20000	Pass
Ti	47	3001.000 µg/L	200.000	1000	>Cal std
V	51	98.370 µg/L	200.000	1000	Pass
Cr	52	61.660 µg/L	200.000	1000	Pass
Cr	53	-47.940 µg/L	200.000	1000	Pass
Fe	54	137400.000 µg/L	10000.000	20000	>Cal std
Mn	55	3287.000 µg/L	200.000	1000	>Cal std
Fe	57	138700.000 µg/L	10000.000	20000	>Cal std
Co	59	15.370 µg/L	200.000	1000	Pass
Ni	60	48.330 µg/L	200.000	1000	Pass
Cu	63	47.020 µg/L	200.000	1000	Pass
Cu	65	48.090 µg/L	200.000	1000	Pass
Zn	66	544.400 µg/L	200.000	1000	Pass
Zn	67	558.100 µg/L	200.000	1000	Pass
Zn	68	494.300 µg/L	200.000	1000	Pass
As	75	25.670 µg/L	200.000	1000	Pass
Se	82	10.010 µg/L	200.000	1000	Pass
Sr	87	751.800 µg/L	200.000	1000	Pass
Mo	95	13.750 µg/L	200.000	1000	Pass
Mo	98	13.580 µg/L	200.000	1000	Pass
Ag	107	-0.086 µg/L	200.000	1000	Pass
Ag	109	-0.108 µg/L	200.000	1000	Pass
Cd	111	2.302 µg/L	200.000	1000	Pass
Cd	114	0.213 µg/L	200.000	1000	Pass
Sn	120	19.370 µg/L	200.000	1000	Pass
Sb	121	-11.270 µg/L	200.000	1000	Pass
Sb	123	-10.040 µg/L	200.000	1000	Pass

Ba 135	925.800 µg/L	200.000	1000	Pass
Au 197	-0.651 µg/L	200.000	0	Pass
Tl 205	-1.552 µg/L	200.000	1000	Pass

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2302.17A\023SMPL.D\023SMPL.D#
Acquired : Sep 23 02 08:37 pm using AcqMethod 6020.M
Operator : CJ
Sample Name: M021282-011
Misc Info : ,
Vial Number: 2110
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 10.000000

Pb 208	177.500 µg/L	200.000	1000	Pass
U 238	8.919 µg/L	200.000	1000	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	1078240	973459	Pass
45	949294	879601	Pass
72	136531	121826	Pass
115	761736	635028	Pass
209	401633	351946	Pass

Internal Standards referenced to 002CALB.D#

5 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2302.17A\024SMPL.D\024SMPL.D#
Acquired : Sep 23 02- 08:46 pm using AcqMethod 6020.M
Operator : CJ
Sample Name: M021282-011
Misc Info : ,
Vial Number: 2111
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 100.000000

Element		Concentration	Cal Conc	LRS Conc	Flag
Be	9	8.218 µg/L	200.000	1000	Pass
B	11	-423.000 µg/L	200.000	0	Pass
Na	23	2921.000 µg/L	10000.000	20000	Pass
Mg	24	17840.000 µg/L	10000.000	20000	Pass
Mg	25	17880.000 µg/L	10000.000	20000	Pass
Mg	26	18170.000 µg/L	10000.000	20000	Pass
Al	27	121900.000 µg/L	10000.000	20000	Pass
Si	28	5456.000 µg/L	10000.000	0	Pass
K	39	14320.000 µg/L	10000.000	20000	Pass
Ca	43	20400.000 µg/L	10000.000	20000	Pass
Ca	44	20240.000 µg/L	10000.000	20000	Pass
Ti	47	3065.000 µg/L	200.000	1000	Pass
V	51	142.000 µg/L	200.000	1000	Pass
Cr	52	34.780 µg/L	200.000	1000	Pass
Cr	53	-1511.000 µg/L	200.000	1000	Pass
Fe	54	138400.000 µg/L	10000.000	20000	Pass
Mn	55	3370.000 µg/L	200.000	1000	Pass
Fe	57	138800.000 µg/L	10000.000	20000	Pass
Co	59	-16.470 µg/L	200.000	1000	Pass
Ni	60	47.270 µg/L	200.000	1000	Pass
Cu	63	46.420 µg/L	200.000	1000	Pass
Cu	65	47.670 µg/L	200.000	1000	Pass
Zn	66	416.200 µg/L	200.000	1000	Pass
Zn	67	246.000 µg/L	200.000	1000	Pass
Zn	68	355.400 µg/L	200.000	1000	Pass
As	75	75.610 µg/L	200.000	1000	Pass
Se	82	-4.786 µg/L	200.000	1000	Pass
Sr	87	767.000 µg/L	200.000	1000	Pass
Mo	95	-77.910 µg/L	200.000	1000	Pass
Mo	98	-74.020 µg/L	200.000	1000	Pass
Ag	107	-4.891 µg/L	200.000	1000	Pass
Ag	109	-4.613 µg/L	200.000	1000	Pass
Cd	111	-1.061 µg/L	200.000	1000	Pass
Cd	114	-3.561 µg/L	200.000	1000	Pass
Sn	120	-142.600 µg/L	200.000	1000	Pass
Sb	121	-125.600 µg/L	200.000	1000	Pass
Sb	123	-111.200 µg/L	200.000	1000	Pass

Ba 135	893.300 µg/L	200.000	1000	Pass
Au 197	-15.850 µg/L	200.000	0	Pass
Tl 205	-46.070 µg/L	200.000	1000	Pass

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2302.17A\024SMPL.D\024SMPL.D#
Acquired : Sep 23 02 08:46 pm using AcqMethod 6020.M
Operator : CJ
Sample Name: M021282-011
Misc Info : ,
Vial Number: 2111
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 100.000000

Pb 208	135.700 µg/L	200.000	1000	Pass
U 238	5.530 µg/L	200.000	1000	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	1078240	1024829	Pass
45	949294	867223	Pass
72	136531	119317	Pass
115	761736	649830	Pass
209	401633	355836	Pass

Internal Standards referenced to 002CALB.D#

0 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2302.17A\025SMPL.D\025SMPL.D#
Acquired : Sep 23 02 08:55 pm using AcqMethod 6020.M
Operator : CJ
Sample Name: M021282-012
Misc Info : ,
Vial Number: 2112
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 10.000000

Element		Concentration	Cal Conc	LRS Conc	Flag
Be	9	7.814 µg/L	200.000	1000	Pass
B	11	-14.940 µg/L	200.000	0	Pass
Na	23	1638.000 µg/L	10000.000	20000	Pass
Mg	24	18390.000 µg/L	10000.000	20000	Pass
Mg	25	19210.000 µg/L	10000.000	20000	Pass
Mg	26	18900.000 µg/L	10000.000	20000	Pass
Al	27	111800.000 µg/L	10000.000	20000	>Cal std
Si	28	5918.000 µg/L	10000.000	0	Pass
K	39	16410.000 µg/L	10000.000	20000	Pass
Ca	43	25630.000 µg/L	10000.000	20000	Pass
Ca	44	25330.000 µg/L	10000.000	20000	Pass
Ti	47	2184.000 µg/L	200.000	1000	>Cal std
V	51	125.500 µg/L	200.000	1000	Pass
Cr	52	758.500 µg/L	200.000	1000	Pass
Cr	53	666.800 µg/L	200.000	1000	Pass
Fe	54	96460.000 µg/L	10000.000	20000	Pass
Mn	55	2363.000 µg/L	200.000	1000	>Cal std
Fe	57	97290.000 µg/L	10000.000	20000	Pass
Co	59	20.980 µg/L	200.000	1000	Pass
Ni	60	64.380 µg/L	200.000	1000	Pass
Cu	63	363.900 µg/L	200.000	1000	Pass
Cu	65	365.900 µg/L	200.000	1000	Pass
Zn	66	882.300 µg/L	200.000	1000	Pass
Zn	67	884.700 µg/L	200.000	1000	Pass
Zn	68	839.100 µg/L	200.000	1000	Pass
As	75	27.850 µg/L	200.000	1000	Pass
Se	82	10.100 µg/L	200.000	1000	Pass
Sr	87	714.800 µg/L	200.000	1000	Pass
Mo	95	-3.031 µg/L	200.000	1000	Pass
Mo	98	-3.273 µg/L	200.000	1000	Pass
Ag	107	26.490 µg/L	200.000	1000	Pass
Ag	109	26.280 µg/L	200.000	1000	Pass
Cd	111	4.682 µg/L	200.000	1000	Pass
Cd	114	2.969 µg/L	200.000	1000	Pass
Sn	120	21.450 µg/L	200.000	1000	Pass
Sb	121	-12.090 µg/L	200.000	1000	Pass
Sb	123	-10.500 µg/L	200.000	1000	Pass

Ba 135	853.600 µg/L	200.000	1000	Pass
Au 197	-0.436 µg/L	200.000	0	Pass
Tl 205	-3.836 µg/L	200.000	1000	Pass

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2302.17A\025SMPL.D\025SMPL.D#
Acquired : Sep 23 02 08:55 pm using AcqMethod 6020.M
Operator : CJ
Sample Name: M021282-012
Misc Info : ,
Vial Number: 2112
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 10.000000

Pb 208	297.100 µg/L	200.000	1000	Pass
U 238	14.170 µg/L	200.000	1000	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	1078240	1026509	Pass
45	949294	904567	Pass
72	136531	124300	Pass
115	761736	666619	Pass
209	401633	368952	Pass

Internal Standards referenced to 002CALB.D#

3 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

Sample QC Report

145

File : D:\HPCHEM\1\DATA\Sep2302.17A\026SMPL.D\026SMPL.D#
Acquired : Sep 23 02 09:05 pm using AcqMethod 6020.M
Operator : CJ
Sample Name: M021282-012
Misc Info : ,
Vial Number: 2201
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 100.000000

Element		Concentration	Cal Conc	LRS Conc	Flag
Be	9	7.823 µg/L	200.000	1000	Pass
B	11	-424.300 µg/L	200.000	0	Pass
Na	23	1411.000 µg/L	10000.000	20000	Pass
Mg	24	21760.000 µg/L	10000.000	20000	Pass
Mg	25	21820.000 µg/L	10000.000	20000	Pass
Mg	26	22010.000 µg/L	10000.000	20000	Pass
Al	27	129900.000 µg/L	10000.000	20000	Pass
Si	28	8664.000 µg/L	10000.000	0	Pass
K	39	16950.000 µg/L	10000.000	20000	Pass
Ca	43	28200.000 µg/L	10000.000	20000	Pass
Ca	44	28040.000 µg/L	10000.000	20000	Pass
Ti	47	2429.000 µg/L	200.000	1000	Pass
V	51	112.700 µg/L	200.000	1000	Pass
Cr	52	802.000 µg/L	200.000	1000	Pass
Cr	53	-612.200 µg/L	200.000	1000	Pass
Fe	54	108200.000 µg/L	10000.000	20000	Pass
Mn	55	2600.000 µg/L	200.000	1000	Pass
Fe	57	109700.000 µg/L	10000.000	20000	Pass
Co	59	-8.603 µg/L	200.000	1000	Pass
Ni	60	72.420 µg/L	200.000	1000	Pass
Cu	63	404.100 µg/L	200.000	1000	Pass
Cu	65	409.200 µg/L	200.000	1000	Pass
Zn	66	853.900 µg/L	200.000	1000	Pass
Zn	67	681.500 µg/L	200.000	1000	Pass
Zn	68	781.600 µg/L	200.000	1000	Pass
As	75	61.260 µg/L	200.000	1000	Pass
Se	82	-5.197 µg/L	200.000	1000	Pass
Sr	87	783.400 µg/L	200.000	1000	Pass
Mo	95	-92.780 µg/L	200.000	1000	Pass
Mo	98	-90.090 µg/L	200.000	1000	Pass
Ag	107	24.520 µg/L	200.000	1000	Pass
Ag	109	23.970 µg/L	200.000	1000	Pass
Cd	111	3.515 µg/L	200.000	1000	Pass
Cd	114	1.125 µg/L	200.000	1000	Pass
Sn	120	-135.000 µg/L	200.000	1000	Pass
Sb	121	-127.100 µg/L	200.000	1000	Pass
Sb	123	-113.400 µg/L	200.000	1000	Pass

Ba 135	900.500 µg/L	200.000	1000	Pass
Au 197	-19.140 µg/L	200.000	0	Pass
Tl 205	-51.810 µg/L	200.000	1000	Pass

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2302.17A\026SMPL.D\026SMPL.D#
Acquired : Sep 23 02 09:05 pm using AcqMethod 6020.M
Operator : CJ
Sample Name: M021282-012
Misc Info : ,
Vial Number: 2201
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 100.000000

Pb 208	287.600 µg/L	200.000	1000	Pass
U 238	11.950 µg/L	200.000	1000	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	1078240	1003939	Pass
45	949294	848327	Pass
72	136531	117947	Pass
115	761736	639718	Pass
209	401633	352353	Pass

Internal Standards referenced to 002CALB.D#

0 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2302.17A\027SMPL.D\027SMPL.D#
Acquired : Sep 23 02 09:14 pm using AcqMethod 6020.M
Operator : CJ
Sample Name: M021282-013
Misc Info : ,
Vial Number: 2202
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 10.000000

Element		Concentration	Cal Conc	LRS Conc	Flag
Be	9	9.660 µg/L	200.000	1000	Pass
B	11	-16.490 µg/L	200.000	0	Pass
Na	23	3045.000 µg/L	10000.000	20000	Pass
Mg	24	16210.000 µg/L	10000.000	20000	Pass
Mg	25	16930.000 µg/L	10000.000	20000	Pass
Mg	26	16760.000 µg/L	10000.000	20000	Pass
Al	27	120200.000 µg/L	10000.000	20000	>Cal std
Si	28	4329.000 µg/L	10000.000	0	Pass
K	39	15160.000 µg/L	10000.000	20000	Pass
Ca	43	18160.000 µg/L	10000.000	20000	Pass
Ca	44	17850.000 µg/L	10000.000	20000	Pass
Ti	47	3313.000 µg/L	200.000	1000	>Cal std
V	51	108.500 µg/L	200.000	1000	Pass
Cr	52	60.270 µg/L	200.000	1000	Pass
Cr	53	-73.740 µg/L	200.000	1000	Pass
Fe	54	140700.000 µg/L	10000.000	20000	>Cal std
Mn	55	3579.000 µg/L	200.000	1000	>Cal std
Fe	57	139600.000 µg/L	10000.000	20000	>Cal std
Co	59	17.190 µg/L	200.000	1000	Pass
Ni	60	50.040 µg/L	200.000	1000	Pass
Cu	63	47.160 µg/L	200.000	1000	Pass
Cu	65	48.190 µg/L	200.000	1000	Pass
Zn	66	549.000 µg/L	200.000	1000	Pass
Zn	67	558.800 µg/L	200.000	1000	Pass
Zn	68	498.700 µg/L	200.000	1000	Pass
As	75	25.530 µg/L	200.000	1000	Pass
Se	82	14.080 µg/L	200.000	1000	Pass
Sr	87	747.300 µg/L	200.000	1000	Pass
Mo	95	13.300 µg/L	200.000	1000	Pass
Mo	98	13.680 µg/L	200.000	1000	Pass
Ag	107	-0.158 µg/L	200.000	1000	Pass
Ag	109	-0.244 µg/L	200.000	1000	Pass
Cd	111	3.412 µg/L	200.000	1000	Pass
Cd	114	-0.337 µg/L	200.000	1000	Pass
Sn	120	21.850 µg/L	200.000	1000	Pass
Sb	121	-12.230 µg/L	200.000	1000	Pass
Sb	123	-10.430 µg/L	200.000	1000	Pass

Ba 135	722.700 µg/L	200.000	1000	Pass
Au 197	-1.469 µg/L	200.000	0	Pass
Tl 205	-1.814 µg/L	200.000	1000	Pass

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2302.17A\027SMPL.D\027SMPL.D#
Acquired : Sep 23 02 09:14 pm using AcqMethod 6020.M
Operator : CJ
Sample Name: M021282-013
Misc Info : ,
Vial Number: 2202
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 10.000000

Pb 208	215.400 µg/L	200.000	1000	Pass
U 238	9.590 µg/L	200.000	1000	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	1078240	965040	Pass
45	949294	878383	Pass
72	136531	122651	Pass
115	761736	630593	Pass
209	401633	352559	Pass

Internal Standards referenced to 002CALB.D#

5 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

Sample QC Report

149

File : D:\HPCHEM\1\DATA\Sep2302.17A\028SMPL.D\028SMPL.D#
Acquired : Sep 23 02 09:23 pm using AcqMethod 6020.M
Operator : CJ
Sample Name: M021282-013
Misc Info : ,
Vial Number: 2203
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 100.000000

Element		Concentration	Cal Conc	LRS Conc	Flag
Be	9	9.445 µg/L	200.000	1000	Pass
B	11	-426.000 µg/L	200.000	0	Pass
Na	23	2896.000 µg/L	10000.000	20000	Pass
Mg	24	18200.000 µg/L	10000.000	20000	Pass
Mg	25	18220.000 µg/L	10000.000	20000	Pass
Mg	26	18170.000 µg/L	10000.000	20000	Pass
Al	27	128000.000 µg/L	10000.000	20000	Pass
Si	28	7684.000 µg/L	10000.000	0	Pass
K	39	15940.000 µg/L	10000.000	20000	Pass
Ca	43	17330.000 µg/L	10000.000	20000	Pass
Ca	44	17350.000 µg/L	10000.000	20000	Pass
Ti	47	3446.000 µg/L	200.000	1000	Pass
V	51	110.500 µg/L	200.000	1000	Pass
Cr	52	40.960 µg/L	200.000	1000	Pass
Cr	53	-1355.000 µg/L	200.000	1000	Pass
Fe	54	151100.000 µg/L	10000.000	20000	Pass
Mn	55	3801.000 µg/L	200.000	1000	Pass
Fe	57	147900.000 µg/L	10000.000	20000	Pass
Co	59	-13.920 µg/L	200.000	1000	Pass
Ni	60	49.710 µg/L	200.000	1000	Pass
Cu	63	48.000 µg/L	200.000	1000	Pass
Cu	65	47.870 µg/L	200.000	1000	Pass
Zn	66	414.300 µg/L	200.000	1000	Pass
Zn	67	223.400 µg/L	200.000	1000	Pass
Zn	68	342.400 µg/L	200.000	1000	Pass
As	75	43.990 µg/L	200.000	1000	Pass
Se	82	4.730 µg/L	200.000	1000	Pass
Sr	87	760.300 µg/L	200.000	1000	Pass
Mo	95	-78.930 µg/L	200.000	1000	Pass
Mo	98	-74.390 µg/L	200.000	1000	Pass
Ag	107	-5.442 µg/L	200.000	1000	Pass
Ag	109	-5.401 µg/L	200.000	1000	Pass
Cd	111	-3.859 µg/L	200.000	1000	Pass
Cd	114	-3.400 µg/L	200.000	1000	Pass
Sn	120	-139.900 µg/L	200.000	1000	Pass
Sb	121	-128.000 µg/L	200.000	1000	Pass
Sb	123	-114.300 µg/L	200.000	1000	Pass

Ba 135	697.800 µg/L	200.000	1000	Pass
Au 197	-17.950 µg/L	200.000	0	Pass
Tl 205	-50.290 µg/L	200.000	1000	Pass

Sample QC Report

150

File : D:\HPCHEM\1\DATA\Sep2302.17A\028SMPL.D\028SMPL.D#
Acquired : Sep 23 02 09:23 pm using AcqMethod 6020.M
Operator : CJ
Sample Name: M021282-013
Misc Info : ,
Vial Number: 2203
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 100.000000

Pb 208	176.400 µg/L	200.000	1000	Pass
U 238	6.176 µg/L	200.000	1000	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	1078240	1007486	Pass
45	949294	828056	Pass
72	136531	117075	Pass
115	761736	619551	Pass
209	401633	343393	Pass

Internal Standards referenced to 002CALB.D#

0 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2302.17A\029SMPL.D\029SMPL.D#
Acquired : Sep 23 02 09:32 pm using AcqMethod 6020.M
Operator : CJ
Sample Name: M021282-014
Misc Info : ,
Vial Number: 2204
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 10.000000

Element		Concentration	Cal Conc	LRS Conc	Flag
Be	9	12.620 µg/L	200.000	1000	Pass
B	11	-16.060 µg/L	200.000	0	Pass
Na	23	3236.000 µg/L	10000.000	20000	Pass
Mg	24	20110.000 µg/L	10000.000	20000	Pass
Mg	25	21260.000 µg/L	10000.000	20000	Pass
Mg	26	21460.000 µg/L	10000.000	20000	Pass
Al	27	132300.000 µg/L	10000.000	20000	>Cal std
Si	28	4072.000 µg/L	10000.000	0	Pass
K	39	18060.000 µg/L	10000.000	20000	Pass
Ca	43	22650.000 µg/L	10000.000	20000	Pass
Ca	44	22440.000 µg/L	10000.000	20000	Pass
Ti	47	3700.000 µg/L	200.000	1000	>Cal std
V	51	137.100 µg/L	200.000	1000	Pass
Cr	52	73.600 µg/L	200.000	1000	Pass
Cr	53	-64.990 µg/L	200.000	1000	Pass
Fe	54	166700.000 µg/L	10000.000	20000	>Cal std
Mn	55	3104.000 µg/L	200.000	1000	>Cal std
Fe	57	165900.000 µg/L	10000.000	20000	>Cal std
Co	59	18.890 µg/L	200.000	1000	Pass
Ni	60	53.880 µg/L	200.000	1000	Pass
Cu	63	52.820 µg/L	200.000	1000	Pass
Cu	65	54.730 µg/L	200.000	1000	Pass
Zn	66	720.000 µg/L	200.000	1000	Pass
Zn	67	732.100 µg/L	200.000	1000	Pass
Zn	68	658.200 µg/L	200.000	1000	Pass
As	75	25.350 µg/L	200.000	1000	Pass
Se	82	14.910 µg/L	200.000	1000	Pass
Sr	87	950.100 µg/L	200.000	1000	Pass
Mo	95	18.670 µg/L	200.000	1000	Pass
Mo	98	18.440 µg/L	200.000	1000	Pass
Ag	107	-0.161 µg/L	200.000	1000	Pass
Ag	109	-0.213 µg/L	200.000	1000	Pass
Cd	111	3.398 µg/L	200.000	1000	Pass
Cd	114	-0.135 µg/L	200.000	1000	Pass
Sn	120	22.700 µg/L	200.000	1000	Pass
Sb	121	-12.370 µg/L	200.000	1000	Pass
Sb	123	-10.880 µg/L	200.000	1000	Pass

Ba 135	1038.000 µg/L	200.000	1000	Pass
Au 197	-1.420 µg/L	200.000	0	Pass
Tl 205	-2.477 µg/L	200.000	1000	Pass

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2302.17A\029SMPL.D\029SMPL.D#
Acquired : Sep 23 02 09:32 pm using AcqMethod 6020.M
Operator : CJ
Sample Name: M021282-014
Misc Info : ,
Vial Number: 2204
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 10.000000

Pb 208	187.700 µg/L	200.000	1000	Pass
U 238	8.980 µg/L	200.000	1000	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	1078240	982895	Pass
45	949294	933505	Pass
72	136531	126133	Pass
115	761736	660060	Pass
209	401633	361924	Pass

Internal Standards referenced to 002CALB.D#

5 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

Sample QC Report

153

File : D:\HPCHEM\1\DATA\Sep2302.17A\030SMPL.D\030SMPL.D#
Acquired : Sep 23 02 09:42 pm using AcqMethod 6020.M
Operator : CJ
Sample Name: M021282-014
Misc Info : ,
Vial Number: 2205
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 100.000000

Element		Concentration	Cal Conc	LRS Conc	Flag
Be	9	11.850 µg/L	200.000	1000	Pass
B	11	-435.500 µg/L	200.000	0	Pass
Na	23	3506.000 µg/L	10000.000	20000	Pass
Mg	24	24590.000 µg/L	10000.000	20000	Pass
Mg	25	24900.000 µg/L	10000.000	20000	Pass
Mg	26	24740.000 µg/L	10000.000	20000	Pass
Al	27	157200.000 µg/L	10000.000	20000	Pass
Si	28	5446.000 µg/L	10000.000	0	Pass
K	39	20690.000 µg/L	10000.000	20000	Pass
Ca	43	24050.000 µg/L	10000.000	20000	Pass
Ca	44	24790.000 µg/L	10000.000	20000	Pass
Ti	47	4229.000 µg/L	200.000	1000	Pass
V	51	132.600 µg/L	200.000	1000	Pass
Cr	52	62.470 µg/L	200.000	1000	Pass
Cr	53	-1138.000 µg/L	200.000	1000	Pass
Fe	54	192400.000 µg/L	10000.000	20000	Pass
Mn	55	3549.000 µg/L	200.000	1000	Pass
Fe	57	190400.000 µg/L	10000.000	20000	Pass
Co	59	-8.964 µg/L	200.000	1000	Pass
Ni	60	60.690 µg/L	200.000	1000	Pass
Cu	63	60.860 µg/L	200.000	1000	Pass
Cu	65	61.060 µg/L	200.000	1000	Pass
Zn	66	674.900 µg/L	200.000	1000	Pass
Zn	67	504.500 µg/L	200.000	1000	Pass
Zn	68	593.400 µg/L	200.000	1000	Pass
As	75	40.520 µg/L	200.000	1000	Pass
Se	82	15.360 µg/L	200.000	1000	Pass
Sr	87	1055.000 µg/L	200.000	1000	Pass
Mo	95	-70.460 µg/L	200.000	1000	Pass
Mo	98	-68.400 µg/L	200.000	1000	Pass
Ag	107	-5.842 µg/L	200.000	1000	Pass
Ag	109	-5.241 µg/L	200.000	1000	Pass
Cd	111	2.525 µg/L	200.000	1000	Pass
Cd	114	-3.623 µg/L	200.000	1000	Pass
Sn	120	-133.700 µg/L	200.000	1000	Pass
Sb	121	-128.500 µg/L	200.000	1000	Pass
Sb	123	-114.200 µg/L	200.000	1000	Pass

Ba 135	1127.000 µg/L	200.000	1000	Pass
Au 197	-20.410 µg/L	200.000	0	Pass
Tl 205	-51.810 µg/L	200.000	1000	Pass

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2302.17A\030SMPL.D\030SMPL.D#
Acquired : Sep 23 02 09:42 pm using AcqMethod 6020.M
Operator : CJ
Sample Name: M021282-014
Misc Info : ,
Vial Number: 2205
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 100.000000

Pb 208	168.900 µg/L	200.000	1000	Pass
U 238	6.327 µg/L	200.000	1000	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	1078240	1026635	Pass
45	949294	850681	Pass
72	136531	117608	Pass
115	761736	630559	Pass
209	401633	346572	Pass

Internal Standards referenced to 002CALB.D#

0 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2302.17A\031SMPL.D\031SMPL.D#
Acquired : Sep 23 02 09:51 pm using AcqMethod 6020.M
Operator : CJ
Sample Name: M021282-015
Misc Info : ,
Vial Number: 2206
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 10.000000

Element		Concentration	Cal Conc	LRS Conc	Flag
Be	9	10.120 µg/L	200.000	1000	Pass
B	11	-13.710 µg/L	200.000	0	Pass
Na	23	2670.000 µg/L	10000.000	20000	Pass
Mg	24	22030.000 µg/L	10000.000	20000	Pass
Mg	25	23080.000 µg/L	10000.000	20000	Pass
Mg	26	23370.000 µg/L	10000.000	20000	Pass
Al	27	134200.000 µg/L	10000.000	20000	>Cal std
Si	28	4832.000 µg/L	10000.000	0	Pass
K	39	15750.000 µg/L	10000.000	20000	Pass
Ca	43	39340.000 µg/L	10000.000	20000	Pass
Ca	44	38800.000 µg/L	10000.000	20000	Pass
Ti	47	5129.000 µg/L	200.000	1000	>Cal std
V	51	175.200 µg/L	200.000	1000	Pass
Cr	52	153.200 µg/L	200.000	1000	Pass
Cr	53	60.610 µg/L	200.000	1000	Pass
Fe	54	170400.000 µg/L	10000.000	20000	>Cal std
Mn	55	3412.000 µg/L	200.000	1000	>Cal std
Fe	57	166200.000 µg/L	10000.000	20000	>Cal std
Co	59	27.900 µg/L	200.000	1000	Pass
Ni	60	71.640 µg/L	200.000	1000	Pass
Cu	63	74.810 µg/L	200.000	1000	Pass
Cu	65	76.670 µg/L	200.000	1000	Pass
Zn	66	735.800 µg/L	200.000	1000	Pass
Zn	67	748.600 µg/L	200.000	1000	Pass
Zn	68	673.200 µg/L	200.000	1000	Pass
As	75	30.700 µg/L	200.000	1000	Pass
Se	82	11.800 µg/L	200.000	1000	Pass
Sr	87	810.200 µg/L	200.000	1000	Pass
Mo	95	7.092 µg/L	200.000	1000	Pass
Mo	98	6.701 µg/L	200.000	1000	Pass
Ag	107	6.920 µg/L	200.000	1000	Pass
Ag	109	6.649 µg/L	200.000	1000	Pass
Cd	111	3.949 µg/L	200.000	1000	Pass
Cd	114	0.440 µg/L	200.000	1000	Pass
Sn	120	15.540 µg/L	200.000	1000	Pass
Sb	121	-12.210 µg/L	200.000	1000	Pass
Sb	123	-10.700 µg/L	200.000	1000	Pass

Ba 135	960.100 µg/L	200.000	1000	Pass
Au 197	−1.152 µg/L	200.000	0	Pass
Tl 205	−3.588 µg/L	200.000	1000	Pass

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2302.17A\031SMPL.D\031SMPL.D#
Acquired : Sep 23 02 09:51 pm using AcqMethod 6020.M
Operator : CJ
Sample Name: M021282-015
Misc Info : ,
Vial Number: 2206
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 10.000000

Pb 208	305.700 µg/L	200.000	1000	Pass
U 238	8.725 µg/L	200.000	1000	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	1078240	996204	Pass
45	949294	915044	Pass
72	136531	122875	Pass
115	761736	636498	Pass
209	401633	352484	Pass

Internal Standards referenced to 002CALB.D#

5 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

CCV QC Report

File : D:\HPCHEM\1\DATA\Sep2302.17A\032CCV_.D\032CCV_.D#
Acquired : Sep 23 02 10:00 pm using AcqMethod 6020.M
Operator : CJ
Sample Name: [STD-CCV]
Misc Info :
Vial Number: 1105
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: CCV
Dilution : 1.000000

CCV Mix #1

Element	Concentration	Expected	QC Range	Flag
Be 9	95.950 µg/L	100.00	90.00-110.00	Pass
B 11	105.200 µg/L	100.00	90.00-110.00	Pass
Na 23	1115.000 µg/L	1000.00	900.00-1100.00	*Fail*
Mg 24	1134.000 µg/L	1000.00	900.00-1100.00	*Fail*
Mg 25	1190.000 µg/L	1000.00	900.00-1100.00	*Fail*
Mg 26	1168.000 µg/L	1000.00	900.00-1100.00	*Fail*
Al 27	1112.000 µg/L	1000.00	900.00-1100.00	*Fail*
Si 28	1115.000 µg/L	1000.00	900.00-1100.00	*Fail*
K 39	1085.000 µg/L	1000.00	900.00-1100.00	Pass
Ca 43	1088.000 µg/L	1000.00	900.00-1100.00	Pass
Ca 44	1088.000 µg/L	1000.00	900.00-1100.00	Pass
Ti 47	103.800 µg/L	100.00	90.00-110.00	Pass
V 51	104.200 µg/L	100.00	90.00-110.00	Pass
Cr 52	103.700 µg/L	100.00	90.00-110.00	Pass
Cr 53	91.730 µg/L	100.00	90.00-110.00	Pass
Fe 54	1166.000 µg/L	1000.00	900.00-1100.00	*Fail*
Mn 55	101.000 µg/L	100.00	90.00-110.00	Pass
Fe 57	1109.000 µg/L	1000.00	900.00-1100.00	*Fail*
Co 59	102.600 µg/L	100.00	90.00-110.00	Pass
Ni 60	102.800 µg/L	100.00	90.00-110.00	Pass
Cu 63	102.800 µg/L	100.00	90.00-110.00	Pass
Cu 65	104.200 µg/L	100.00	90.00-110.00	Pass
Zn 66	102.600 µg/L	100.00	90.00-110.00	Pass
Zn 67	98.930 µg/L	100.00	90.00-110.00	Pass
Zn 68	102.200 µg/L	100.00	90.00-110.00	Pass
As 75	103.700 µg/L	100.00	90.00-110.00	Pass
Se 82	100.900 µg/L	100.00	90.00-110.00	Pass
Sr 87	100.400 µg/L	100.00	90.00-110.00	Pass
Mo 95	97.740 µg/L	100.00	90.00-110.00	Pass
Mo 98	98.090 µg/L	100.00	90.00-110.00	Pass
Ag 107	98.510 µg/L	100.00	90.00-110.00	Pass
Ag 109	98.800 µg/L	100.00	90.00-110.00	Pass
Cd 111	101.000 µg/L	100.00	90.00-110.00	Pass
Cd 114	100.400 µg/L	100.00	90.00-110.00	Pass
Sn 120	99.900 µg/L	100.00	90.00-110.00	Pass

Sb 121	98.920 µg/L	100.00	90.00-110.00	Pass
Sb 123	100.300 µg/L	100.00	90.00-110.00	Pass
Ba 135	100.100 µg/L	100.00	90.00-110.00	Pass

CCV QC Report

File : D:\HPCHEM\1\DATA\Sep2302.17A\032CCV_.D\032CCV_.D#
Acquired : Sep 23 02 10:00 pm using AcqMethod 6020.M
Operator : CJ
Sample Name: [STD-CCV]
Misc Info :
Vial Number: 1105
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: CCV
Dilution : 1.000000

Au 197	97.330 µg/L	100.00	90.00-110.00	Pass
Tl 205	97.420 µg/L	100.00	90.00-110.00	Pass
Pb 208	99.360 µg/L	100.00	90.00-110.00	Pass
U 238	98.570 µg/L	100.00	90.00-110.00	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	1078240	1051559	Pass
45	949294	845296	Pass
72	136531	117685	Pass
115	761736	637957	Pass
209	401633	348876	Pass

Internal Standards referenced to 002CALB.D#

8 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

Blank QC Report

File : D:\HPCHEM\1\DATA\Sep2302.17A\033CCB_D\033CCB_.D#
Acquired : Sep 23 02 10:09 pm using AcqMethod 6020.M
Operator : CJ
Sample Name: [CB]
Misc Info :
Vial Number: 1102
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: CCB
Dilution : 1.000000

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Element	Concentration	CRDL Limit	Flag
Be 9	0.022 µg/L	1.00	Pass
B 11	-1.102 µg/L	1.00	*Fail*
Na 23	0.541 µg/L	10.00	Pass
Mg 24	0.148 µg/L	10.00	Pass
Mg 25	0.079 µg/L	10.00	Pass
Mg 26	0.112 µg/L	10.00	Pass
Al 27	0.780 µg/L	10.00	Pass
Si 28	9.116 µg/L	10.00	Pass
K 39	-8.211 µg/L	10.00	Pass
Ca 43	-1.299 µg/L	10.00	Pass
Ca 44	2.251 µg/L	10.00	Pass
Ti 47	-0.064 µg/L	1.00	Pass
V 51	0.103 µg/L	1.00	Pass
Cr 52	0.395 µg/L	1.00	Pass
Cr 53	6.640 µg/L	1.00	*Fail*
Fe 54	4.580 µg/L	10.00	Pass
Mn 55	0.060 µg/L	1.00	Pass
Fe 57	2.815 µg/L	10.00	Pass
Co 59	-0.312 µg/L	1.00	Pass
Ni 60	0.030 µg/L	1.00	Pass
Cu 63	0.010 µg/L	1.00	Pass
Cu 65	0.002 µg/L	1.00	Pass
Zn 66	-0.027 µg/L	1.00	Pass
Zn 67	0.375 µg/L	1.00	Pass
Zn 68	-0.084 µg/L	1.00	Pass
As 75	0.614 µg/L	1.00	Pass
Se 82	0.028 µg/L	1.00	Pass
Sr 87	0.037 µg/L	1.00	Pass
Mo 95	-0.832 µg/L	1.00	Pass
Mo 98	-0.788 µg/L	1.00	Pass
Ag 107	-0.033 µg/L	1.00	Pass
Ag 109	-0.032 µg/L	1.00	Pass
Cd 111	-0.012 µg/L	1.00	Pass
Cd 114	-0.011 µg/L	1.00	Pass
Sn 120	-1.736 µg/L	1.00	*Fail*
Sb 121	-0.922 µg/L	1.00	Pass
Sb 123	-0.790 µg/L	1.00	Pass

Ba 135	0.026 µg/L	1.00	Pass
Au 197	0.320 µg/L	1.00	Pass
Tl 205	-0.012 µg/L	1.00	Pass

Blank QC Report

File : D:\HPCHEM\1\DATA\Sep2302.17A\033CCB_D\033CCB_D#
Acquired : Sep 23 02 10:09 pm using AcqMethod 6020.M
Operator : CJ
Sample Name: [CB]
Misc Info :
Vial Number: 1102
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : ---------
Sample Type: CCB
Dilution : 1.000000

Pb 208	-0.326 µg/L	1.00	Pass
U 238	0.008 µg/L	1.00	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	1078240	995483	Pass
45	949294	826555	Pass
72	136531	115098	Pass
115	761736	625243	Pass
209	401633	336972	Pass

Internal Standards referenced to 002CALB.D#

3 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2302.17A\034SMPL.D\034SMPL.D#
Acquired : Sep 23 02 10:18 pm using AcqMethod 6020.M
Operator : CJ
Sample Name: M021282-015
Misc Info : ,
Vial Number: 2207
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 100.000000

Element		Concentration	Cal Conc	LRS Conc	Flag
Be	9	8.756 µg/L	200.000	1000	Pass
B	11	-408.300 µg/L	200.000	0	Pass
Na	23	2189.000 µg/L	10000.000	20000	Pass
Mg	24	24940.000 µg/L	10000.000	20000	Pass
Mg	25	25100.000 µg/L	10000.000	20000	Pass
Mg	26	25410.000 µg/L	10000.000	20000	Pass
Al	27	142100.000 µg/L	10000.000	20000	Pass
Si	28	6541.000 µg/L	10000.000	0	Pass
K	39	16510.000 µg/L	10000.000	20000	Pass
Ca	43	40350.000 µg/L	10000.000	20000	Pass
Ca	44	39970.000 µg/L	10000.000	20000	Pass
Ti	47	5357.000 µg/L	200.000	1000	Pass
V	51	175.400 µg/L	200.000	1000	Pass
Cr	52	166.600 µg/L	200.000	1000	Pass
Cr	53	-580.500 µg/L	200.000	1000	Pass
Fe	54	186700.000 µg/L	10000.000	20000	Pass
Mn	55	3707.000 µg/L	200.000	1000	Pass
Fe	57	181800.000 µg/L	10000.000	20000	Pass
Co	59	-1.376 µg/L	200.000	1000	Pass
Ni	60	74.970 µg/L	200.000	1000	Pass
Cu	63	85.790 µg/L	200.000	1000	Pass
Cu	65	83.610 µg/L	200.000	1000	Pass
Zn	66	592.300 µg/L	200.000	1000	Pass
Zn	67	491.100 µg/L	200.000	1000	Pass
Zn	68	507.200 µg/L	200.000	1000	Pass
As	75	60.350 µg/L	200.000	1000	Pass
Se	82	-4.137 µg/L	200.000	1000	Pass
Sr	87	840.400 µg/L	200.000	1000	Pass
Mo	95	-78.460 µg/L	200.000	1000	Pass
Mo	98	-77.430 µg/L	200.000	1000	Pass
Ag	107	1.953 µg/L	200.000	1000	Pass
Ag	109	2.219 µg/L	200.000	1000	Pass
Cd	111	2.184 µg/L	200.000	1000	Pass
Cd	114	-1.816 µg/L	200.000	1000	Pass
Sn	120	-146.500 µg/L	200.000	1000	Pass
Sb	121	-119.500 µg/L	200.000	1000	Pass
Sb	123	-104.600 µg/L	200.000	1000	Pass

Ba 135	935.800 µg/L	200.000	1000	Pass
Au 197	-8.686 µg/L	200.000	0	Pass
Tl 205	-37.850 µg/L	200.000	1000	Pass

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2302.17A\034SMPL.D\034SMPL.D#
Acquired : Sep 23 02 10:18 pm using AcqMethod 6020.M
Operator : CJ
Sample Name: M021282-015
Misc Info : ,
Vial Number: 2207
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 100.000000

Pb 208	268.200 µg/L	200.000	1000	Pass
U 238	7.203 µg/L	200.000	1000	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	1078240	996962	Pass
45	949294	818490	Pass
72	136531	115219	Pass
115	761736	617298	Pass
209	401633	337094	Pass

Internal Standards referenced to 002CALB.D#

0 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2302.17A\035SMPL.D\035SMPL.D#
Acquired : Sep 23 02 10:28 pm using AcqMethod 6020.M
Operator : CJ
Sample Name: M021282-016
Misc Info : ,
Vial Number: 2208
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 10.000000

Element		Concentration	Cal Conc	LRS Conc	Flag
Be	9	9.756 µg/L	200.000	1000	Pass
B	11	-30.840 µg/L	200.000	0	Pass
Na	23	1840.000 µg/L	10000.000	20000	Pass
Mg	24	16170.000 µg/L	10000.000	20000	Pass
Mg	25	16610.000 µg/L	10000.000	20000	Pass
Mg	26	16440.000 µg/L	10000.000	20000	Pass
Al	27	62530.000 µg/L	10000.000	20000	Pass
Si	28	3313.000 µg/L	10000.000	0	Pass
K	39	10320.000 µg/L	10000.000	20000	Pass
Ca	43	14820.000 µg/L	10000.000	20000	Pass
Ca	44	14810.000 µg/L	10000.000	20000	Pass
Ti	47	7487.000 µg/L	200.000	1000	>Cal std
V	51	113.100 µg/L	200.000	1000	Pass
Cr	52	78.210 µg/L	200.000	1000	Pass
Cr	53	-125.700 µg/L	200.000	1000	Pass
Fe	54	161500.000 µg/L	10000.000	20000	>Cal std
Mn	55	4248.000 µg/L	200.000	1000	>Cal std
Fe	57	163300.000 µg/L	10000.000	20000	>Cal std
Co	59	16.880 µg/L	200.000	1000	Pass
Ni	60	49.070 µg/L	200.000	1000	Pass
Cu	63	43.070 µg/L	200.000	1000	Pass
Cu	65	44.520 µg/L	200.000	1000	Pass
Zn	66	676.000 µg/L	200.000	1000	Pass
Zn	67	621.700 µg/L	200.000	1000	Pass
Zn	68	630.600 µg/L	200.000	1000	Pass
As	75	21.790 µg/L	200.000	1000	Pass
Se	82	10.590 µg/L	200.000	1000	Pass
Sr	87	439.300 µg/L	200.000	1000	Pass
Mo	95	25.700 µg/L	200.000	1000	Pass
Mo	98	25.410 µg/L	200.000	1000	Pass
Ag	107	0.515 µg/L	200.000	1000	Pass
Ag	109	0.554 µg/L	200.000	1000	Pass
Cd	111	3.358 µg/L	200.000	1000	Pass
Cd	114	0.646 µg/L	200.000	1000	Pass
Sn	120	21.170 µg/L	200.000	1000	Pass
Sb	121	-12.040 µg/L	200.000	1000	Pass
Sb	123	-10.600 µg/L	200.000	1000	Pass

Ba 135	412.900 µg/L	200.000	1000	Pass
Au 197	-1.314 µg/L	200.000	0	Pass
Tl 205	-3.725 µg/L	200.000	1000	Pass

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2302.17A\035SMPL.D\035SMPL.D#
Acquired : Sep 23 02 10:28 pm using AcqMethod 6020.M
Operator : CJ
Sample Name: M021282-016
Misc Info : ,
Vial Number: 2208
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 10.000000

Pb 208	150.500 µg/L	200.000	1000	Pass
U 238	6.776 µg/L	200.000	1000	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	1078240	1001062	Pass
45	949294	919682	Pass
72	136531	122821	Pass
115	761736	642794	Pass
209	401633	364913	Pass

Internal Standards referenced to 002CALB.D#

4 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2302.17A\036SMPL.D\036SMPL.D#
Acquired : Sep 23 02 10:37 pm using AcqMethod 6020.M
Operator : CJ
Sample Name: M021282-016
Misc Info : ,
Vial Number: 2209
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 100.000000

Element		Concentration	Cal Conc	LRS Conc	Flag
Be	9	8.121 µg/L	200.000	1000	Pass
B	11	-466.700 µg/L	200.000	0	Pass
Na	23	1388.000 µg/L	10000.000	20000	Pass
Mg	24	18060.000 µg/L	10000.000	20000	Pass
Mg	25	17990.000 µg/L	10000.000	20000	Pass
Mg	26	18070.000 µg/L	10000.000	20000	Pass
Al	27	69410.000 µg/L	10000.000	20000	Pass
Si	28	5718.000 µg/L	10000.000	0	Pass
K	39	11270.000 µg/L	10000.000	20000	Pass
Ca	43	14200.000 µg/L	10000.000	20000	Pass
Ca	44	14090.000 µg/L	10000.000	20000	Pass
Ti	47	7895.000 µg/L	200.000	1000	Pass
V	51	128.900 µg/L	200.000	1000	Pass
Cr	52	66.380 µg/L	200.000	1000	Pass
Cr	53	-1361.000 µg/L	200.000	1000	Pass
Fe	54	176100.000 µg/L	10000.000	20000	Pass
Mn	55	4570.000 µg/L	200.000	1000	Pass
Fe	57	171200.000 µg/L	10000.000	20000	Pass
Co	59	-14.320 µg/L	200.000	1000	Pass
Ni	60	51.160 µg/L	200.000	1000	Pass
Cu	63	44.460 µg/L	200.000	1000	Pass
Cu	65	42.690 µg/L	200.000	1000	Pass
Zn	66	533.800 µg/L	200.000	1000	Pass
Zn	67	238.900 µg/L	200.000	1000	Pass
Zn	68	468.400 µg/L	200.000	1000	Pass
As	75	32.640 µg/L	200.000	1000	Pass
Se	82	-5.909 µg/L	200.000	1000	Pass
Sr	87	441.700 µg/L	200.000	1000	Pass
Mo	95	-66.160 µg/L	200.000	1000	Pass
Mo	98	-64.130 µg/L	200.000	1000	Pass
Ag	107	-5.252 µg/L	200.000	1000	Pass
Ag	109	-3.837 µg/L	200.000	1000	Pass
Cd	111	3.747 µg/L	200.000	1000	Pass
Cd	114	-1.958 µg/L	200.000	1000	Pass
Sn	120	-141.600 µg/L	200.000	1000	Pass
Sb	121	-127.400 µg/L	200.000	1000	Pass
Sb	123	-112.700 µg/L	200.000	1000	Pass

Ba 135	405.700 µg/L	200.000	1000	Pass
Au 197	-18.840 µg/L	200.000	0	Pass
Tl 205	-50.890 µg/L	200.000	1000	Pass

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2302.17A\036SMPL.D\036SMPL.D#
Acquired : Sep 23 02 10:37 pm using AcqMethod 6020.M
Operator : CJ
Sample Name: M021282-016
Misc Info : ,
Vial Number: 2209
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 100.000000

Pb 208	115.900 µg/L	200.000	1000	Pass
U 238	3.639 µg/L	200.000	1000	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	1078240	1055736	Pass
45	949294	828755	Pass
72	136531	113979	Pass
115	761736	610349	Pass
209	401633	332587	Pass

Internal Standards referenced to 002CALB.D#

0 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2302.17A\037SMPL.D\037SMPL.D#
Acquired : Sep 23 02 10:46 pm using AcqMethod 6020.M
Operator : CJ
Sample Name: M021282-017
Misc Info : ,
Vial Number: 2210
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 10.000000

Element		Concentration	Cal Conc	LRS Conc	Flag
Be	9	13.240 µg/L	200.000	1000	Pass
B	11	-18.330 µg/L	200.000	0	Pass
Na	23	2873.000 µg/L	10000.000	20000	Pass
Mg	24	25160.000 µg/L	10000.000	20000	Pass
Mg	25	26090.000 µg/L	10000.000	20000	Pass
Mg	26	25900.000 µg/L	10000.000	20000	Pass
Al	27	159000.000 µg/L	10000.000	20000	>Cal std
Si	28	3716.000 µg/L	10000.000	0	Pass
K	39	15190.000 µg/L	10000.000	20000	Pass
Ca	43	52690.000 µg/L	10000.000	20000	Pass
Ca	44	49450.000 µg/L	10000.000	20000	Pass
Ti	47	5944.000 µg/L	200.000	1000	>Cal std
V	51	188.400 µg/L	200.000	1000	Pass
Cr	52	106.000 µg/L	200.000	1000	Pass
Cr	53	31.180 µg/L	200.000	1000	Pass
Fe	54	210200.000 µg/L	10000.000	20000	>LRS
Mn	55	2894.000 µg/L	200.000	1000	>Cal std
Fe	57	208000.000 µg/L	10000.000	20000	>LRS
Co	59	27.360 µg/L	200.000	1000	Pass
Ni	60	79.840 µg/L	200.000	1000	Pass
Cu	63	79.100 µg/L	200.000	1000	Pass
Cu	65	82.040 µg/L	200.000	1000	Pass
Zn	66	1316.000 µg/L	200.000	1000	Pass
Zn	67	1295.000 µg/L	200.000	1000	Pass
Zn	68	1242.000 µg/L	200.000	1000	Pass
As	75	47.550 µg/L	200.000	1000	Pass
Se	82	12.760 µg/L	200.000	1000	Pass
Sr	87	763.700 µg/L	200.000	1000	Pass
Mo	95	26.670 µg/L	200.000	1000	Pass
Mo	98	26.420 µg/L	200.000	1000	Pass
Ag	107	1.268 µg/L	200.000	1000	Pass
Ag	109	1.377 µg/L	200.000	1000	Pass
Cd	111	4.400 µg/L	200.000	1000	Pass
Cd	114	0.302 µg/L	200.000	1000	Pass
Sn	120	22.430 µg/L	200.000	1000	Pass
Sb	121	-12.030 µg/L	200.000	1000	Pass
Sb	123	-10.550 µg/L	200.000	1000	Pass

Ba 135	1041.000 µg/L	200.000	1000	Pass
Au 197	-1.221 µg/L	200.000	0	Pass
Tl 205	-2.924 µg/L	200.000	1000	Pass

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2302.17A\037SMPL.D\037SMPL.D#
Acquired : Sep 23 02 10:46 pm using AcqMethod 6020.M
Operator : CJ
Sample Name: M021282-017
Misc Info : ,
Vial Number: 2210
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 10.000000

Pb 208	153.500 µg/L	200.000	1000	Pass
U 238	6.849 µg/L	200.000	1000	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	1078240	988075	Pass
45	949294	899783	Pass
72	136531	119223	Pass
115	761736	603064	Pass
209	401633	335465	Pass

Internal Standards referenced to 002CALB.D#

5 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

Calibration QC Report

File : D:\HPCHEM\1\DATA\Sep2302.17A\004CALI.D\004CALI.D#
Acquired : Sep 23 02 05:43 pm using AcqMethod 6020.M
Operator : CJ
Sample Name: 2/10/100 CAL
Misc Info :
Vial Number: 1104
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: CALIB
Dilution : 1.000000

Mass	Element	Count	n	SD	RSD[%]
87	Sr	4516.96 P	3	71.65	1.59
88	(Ca)	54018.13 P	3	262.70	0.49
89	Y	300541.20 P	3	5202.00	1.73
95	Mo	9310.75 P	3	37.29	0.40
98	Mo	14919.39 P	3	210.10	1.41
106	(Cd)	377.69 P	3	17.04	4.51
107	Ag	23099.74 P	3	412.10	1.78
108	(Cd)	245.68 P	3	6.51	2.65
109	Ag	21381.31 P	3	44.75	0.21
111	Cd	3401.64 P	3	33.40	0.98
114	Cd	7544.95 P	3	19.90	0.26
115	In	224870.60 P	3	5171.00	2.30
118	(In)	13008.04 P	3	368.90	2.84
120	Sn	17500.57 P	3	263.10	1.50
121	Sb	10998.76 P	3	144.10	1.31
123	Sb	8398.17 P	3	46.78	0.56
135	Ba	3203.50 P	3	142.40	4.44
159	Tb	239512.20 P	3	7256.00	3.03
197	Au	1537.21 P	3	38.70	2.52
205	Tl	25282.59 P	3	628.60	2.49
206	(Pb)	8694.19 P	3	18.62	0.21
207	(Pb)	7539.76 P	3	113.50	1.51
208	Pb	34504.78 P	3	219.80	0.64
209	Bi	121196.30 P	3	3341.00	2.76
238	U	37128.07 P	3	451.60	1.22

Calibration QC Report

File : D:\HPCHEM\1\DATA\Sep2302.17A\004CALI.D\004CALI.D#
Acquired : Sep 23 02 05:43 pm using AcqMethod 6020.M
Operator : CJ
Sample Name: 2/10/100 CAL
Misc Info :
Vial Number: 1104
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: CALIB
Dilution : 1.000000

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	1078240	1142854	Pass
45	949294	959017	Pass
72	136531	136916	Pass
115	761736	749569	Pass
209	401633	403988	Pass

Internal Standards referenced to 002CALB.D#

0 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

Calibration QC Report

File : D:\HPCHEM\1\DATA\Sep2302.17A\005CALI.D\005CALI.D#
Acquired : Sep 23 02 05:52 pm using AcqMethod 6020.M
Operator : CJ
Sample Name: 10/100/1000 CAL
Misc Info :
Vial Number: 1105
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: CALIB
Dilution : 1.000000

Mass	Element	Count	n	SD	RSD[%]
6	Li	313825.90 P	3	8870.00	2.83
7	(Li)	16711.63 P	3	334.00	2.00
9	Be	113375.10 P	3	2734.00	2.41
11	B	115917.20 P	3	2259.00	1.95
23	Na	5610906.00 A	3	130500.00	2.33
24	Mg	3448395.00 A	3	43360.00	1.26
25	Mg	467003.90 P	3	4468.00	0.96
26	Mg	527079.50 P	3	7672.00	1.46
27	Al	4348725.00 A	3	26660.00	0.61
28	Si	2669147.00 A	3	17580.00	0.66
39	K	5187874.00 A	3	112400.00	2.17
43	Ca	8512.19 P	3	377.60	4.44
44	Ca	136204.00 P	3	3155.00	2.32
45	Sc	273678.80 P	3	4229.00	1.55
47	Ti	40877.84 P	3	646.60	1.58
51	V	542962.10 P	3	5137.00	0.95
52	Cr	459891.80 P	3	768.30	0.17
53	Cr	72891.48 P	3	263.70	0.36
54	Fe	432140.80 P	3	434.90	0.10
55	Mn	557202.20 P	3	5513.00	0.99
57	Fe	113812.40 P	3	536.10	0.47
59	Co	498354.90 P	3	5643.00	1.13
60	Ni	105646.10 P	3	1703.00	1.61
63	Cu	236805.70 P	3	3915.00	1.65
65	Cu	111221.90 P	3	1331.00	1.20
66	Zn	352524.30 P	3	4604.00	1.31
67	Zn	55297.18 P	3	36.95	0.07
68	Zn	247674.70 P	3	3066.00	1.24
69	(Zn)	215058.70 P	3	478.10	0.22
72	Ge	396771.90 P	3	3213.00	0.81
75	As	797339.30 P	3	2213.00	0.28
77	(As)	132666.90 P	3	837.80	0.63
82	Se	56218.09 P	3	446.90	0.79
83	(Se)	1414.01 P	3	61.49	4.35
86	(Ca)	60212.55 P	3	1062.00	1.76

Calibration QC Report

File : D:\HPCHEM\1\DATA\Sep2302.17A\005CALI.D\005CALI.D#
Acquired : Sep 23 02 05:52 pm using AcqMethod 6020.M
Operator : CJ
Sample Name: 10/100/1000 CAL
Misc Info :
Vial Number: 1105
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: CALIB
Dilution : 1.000000

Mass	Element	Count	n	SD	RSD[%]
87	Sr	43413.97 P	3	269.00	0.62
88	(Ca)	517407.80 P	3	4403.00	0.85
89	Y	287335.10 P	3	2439.00	0.85
95	Mo	87790.57 P	3	721.10	0.82
98	Mo	138229.30 P	3	1870.00	1.35
106	(Cd)	3190.84 P	3	42.58	1.33
107	Ag	219120.30 P	3	2763.00	1.26
108	(Cd)	2274.10 P	3	25.74	1.13
109	Ag	202587.80 P	3	2310.00	1.14
111	Cd	32711.34 P	3	447.60	1.37
114	Cd	73221.45 P	3	617.50	0.84
115	In	217107.10 P	3	2691.00	1.24
118	(In)	121940.00 P	3	1729.00	1.42
120	Sn	163164.70 P	3	2826.00	1.73
121	Sb	103755.50 P	3	1401.00	1.35
123	Sb	79300.74 P	3	1635.00	2.06
135	Ba	31226.63 P	3	517.70	1.66
159	Tb	233495.70 P	3	3141.00	1.35
197	Au	15570.89 P	3	351.70	2.26
205	Tl	245265.40 P	3	4208.00	1.72
206	(Pb)	84789.74 P	3	1163.00	1.37
207	(Pb)	72933.02 P	3	1232.00	1.69
208	Pb	335914.90 P	3	4914.00	1.46
209	Bi	118777.60 P	3	1053.00	0.89
238	U	366418.50 P	3	6200.00	1.69

Calibration QC Report

File : D:\HPCHEM\1\DATA\Sep2302.17A\005CALI.D\005CALI.D#
Acquired : Sep 23 02 05:52 pm using AcqMethod 6020.M
Operator : CJ
Sample Name: 10/100/1000 CAL
Misc Info :
Vial Number: 1105
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: CALIB
Dilution : 1.000000

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	1078240	1046086	Pass
45	949294	912263	Pass
72	136531	132257	Pass
115	761736	723690	Pass
209	401633	395925	Pass

Internal Standards referenced to 002CALB.D#

0 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

Calibration QC Report

File : D:\HPCHEM\1\DATA\Sep2302.17A\006CALI.D\006CALI.D#
Acquired : Sep 23 02 06:01 pm using AcqMethod 6020.M
Operator : CJ
Sample Name: -/200/10000 CAL
Misc Info :
Vial Number: 1106
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: CALIB
Dilution : 1.000000

Mass	Element	Count	n	SD	RSD[%]
6	Li	322026.10 A	3	15940.00	4.95
7	(Li)	17981.22 P	3	288.70	1.61
9	Be	232164.40 P	3	3268.00	1.41
11	B	231381.80 P	3	5474.00	2.37
23	Na	54183540.00 A	3	1261000.00	2.33
24	Mg	33166480.00 A	3	1130000.00	3.41
25	Mg	4294830.00 A	3	123900.00	2.89
26	Mg	4864411.00 A	3	98820.00	2.03
27	Al	40669960.00 A	3	503900.00	1.24
28	Si	21663290.00 A	3	530300.00	2.45
39	K	47874760.00 A	3	589300.00	1.23
43	Ca	81899.74 P	3	1063.00	1.30
44	Ca	1299566.00 P	3	17140.00	1.32
45	Sc	297996.90 P	3	6391.00	2.14
47	Ti	81890.36 P	3	1060.00	1.29
51	V	1074050.00 P	3	8452.00	0.79
52	Cr	901381.10 P	3	2747.00	0.30
53	Cr	127022.70 P	3	2059.00	1.62
54	Fe	2677888.00 A	3	59590.00	2.23
55	Mn	1104272.00 P	3	26050.00	2.36
57	Fe	1004274.00 P	3	27500.00	2.74
59	Co	971288.10 P	3	13730.00	1.41
60	Ni	206819.40 P	3	1632.00	0.79
63	Cu	461693.40 P	3	8372.00	1.81
65	Cu	213280.60 P	3	4957.00	2.32
66	Zn	677678.10 P	3	6633.00	0.98
67	Zn	109663.70 P	3	1327.00	1.21
68	Zn	472595.20 P	3	5144.00	1.09
69	(Zn)	432297.80 P	3	4572.00	1.06
72	Ge	409431.00 P	3	2680.00	0.65
75	As	1534790.00 P	3	14420.00	0.94
77	(As)	190809.30 P	3	679.30	0.36
82	Se	108840.70 P	3	1001.00	0.92
83	(Se)	1476.01 P	3	61.05	4.14
86	(Ca)	117207.30 P	3	1149.00	0.98

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2302.17A\038SMPL.D\038SMPL.D#
Acquired : Sep 23 02 10:55 pm using AcqMethod 6020.M
Operator : CJ
Sample Name: M021282-017
Misc Info : ,
Vial Number: 2211
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 100.000000

Element		Concentration	Cal Conc	LRS Conc	Flag
Be	9	10.330 µg/L	200.000	1000	Pass
B	11	-451.100 µg/L	200.000	0	Pass
Na	23	2281.000 µg/L	10000.000	20000	Pass
Mg	24	25190.000 µg/L	10000.000	20000	Pass
Mg	25	25360.000 µg/L	10000.000	20000	Pass
Mg	26	25390.000 µg/L	10000.000	20000	Pass
Al	27	156800.000 µg/L	10000.000	20000	Pass
Si	28	5141.000 µg/L	10000.000	0	Pass
K	39	14050.000 µg/L	10000.000	20000	Pass
Ca	43	48540.000 µg/L	10000.000	20000	Pass
Ca	44	48530.000 µg/L	10000.000	20000	Pass
Ti	47	5884.000 µg/L	200.000	1000	Pass
V	51	196.500 µg/L	200.000	1000	Pass
Cr	52	100.300 µg/L	200.000	1000	Pass
Cr	53	-302.500 µg/L	200.000	1000	Pass
Fe	54	206600.000 µg/L	10000.000	20000	Pass
Mn	55	2777.000 µg/L	200.000	1000	Pass
Fe	57	206300.000 µg/L	10000.000	20000	Pass
Co	59	-6.693 µg/L	200.000	1000	Pass
Ni	60	77.110 µg/L	200.000	1000	Pass
Cu	63	75.730 µg/L	200.000	1000	Pass
Cu	65	78.870 µg/L	200.000	1000	Pass
Zn	66	1104.000 µg/L	200.000	1000	Pass
Zn	67	964.300 µg/L	200.000	1000	Pass
Zn	68	1005.000 µg/L	200.000	1000	Pass
As	75	73.200 µg/L	200.000	1000	Pass
Se	82	-2.622 µg/L	200.000	1000	Pass
Sr	87	721.900 µg/L	200.000	1000	Pass
Mo	95	-71.130 µg/L	200.000	1000	Pass
Mo	98	-68.510 µg/L	200.000	1000	Pass
Ag	107	-4.829 µg/L	200.000	1000	Pass
Ag	109	-4.342 µg/L	200.000	1000	Pass
Cd	111	3.357 µg/L	200.000	1000	Pass
Cd	114	-3.360 µg/L	200.000	1000	Pass
Sn	120	-142.200 µg/L	200.000	1000	Pass
Sb	121	-128.700 µg/L	200.000	1000	Pass
Sb	123	-114.500 µg/L	200.000	1000	Pass

Ba 135	899.300 µg/L	200.000	1000	Pass
Au 197	-17.390 µg/L	200.000	0	Pass
Tl 205	-52.090 µg/L	200.000	1000	Pass

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2302.17A\038SMPL.D\038SMPL.D#
Acquired : Sep 23 02 10:55 pm using AcqMethod 6020.M
Operator : CJ
Sample Name: M021282-017
Misc Info : ,
Vial Number: 2211
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : ---------
Sample Type: ---------
Dilution : 100.000000

Pb 208	103.700 µg/L	200.000	1000	Pass
U 238	3.690 µg/L	200.000	1000	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	1078240	1043231	Pass
45	949294	845506	Pass
72	136531	114589	Pass
115	761736	616871	Pass
209	401633	335346	Pass

Internal Standards referenced to 002CALB.D#

0 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2302.17A\039SMPL.D\039SMPL.D#
Acquired : Sep 23 02 11:05 pm using AcqMethod 6020.M
Operator : CJ
Sample Name: M021282-018
Misc Info : ,
Vial Number: 2212
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 10.000000

Element		Concentration	Cal Conc	LRS Conc	Flag
Be	9	8.004 µg/L	200.000	1000	Pass
B	11	-16.770 µg/L	200.000	0	Pass
Na	23	1966.000 µg/L	10000.000	20000	Pass
Mg	24	16300.000 µg/L	10000.000	20000	Pass
Mg	25	17180.000 µg/L	10000.000	20000	Pass
Mg	26	16990.000 µg/L	10000.000	20000	Pass
Al	27	74640.000 µg/L	10000.000	20000	Pass
Si	28	4518.000 µg/L	10000.000	0	Pass
K	39	11850.000 µg/L	10000.000	20000	Pass
Ca	43	22880.000 µg/L	10000.000	20000	Pass
Ca	44	22700.000 µg/L	10000.000	20000	Pass
Ti	47	4478.000 µg/L	200.000	1000	>Cal std
V	51	105.600 µg/L	200.000	1000	Pass
Cr	52	366.500 µg/L	200.000	1000	Pass
Cr	53	285.100 µg/L	200.000	1000	Pass
Fe	54	143400.000 µg/L	10000.000	20000	>Cal std
Mn	55	3596.000 µg/L	200.000	1000	>Cal std
Fe	57	145200.000 µg/L	10000.000	20000	>Cal std
Co	59	18.470 µg/L	200.000	1000	Pass
Ni	60	57.820 µg/L	200.000	1000	Pass
Cu	63	211.900 µg/L	200.000	1000	Pass
Cu	65	214.900 µg/L	200.000	1000	Pass
Zn	66	2494.000 µg/L	200.000	1000	>Cal std
Zn	67	2354.000 µg/L	200.000	1000	>Cal std
Zn	68	2456.000 µg/L	200.000	1000	>Cal std
As	75	45.800 µg/L	200.000	1000	Pass
Se	82	12.240 µg/L	200.000	1000	Pass
Sr	87	471.100 µg/L	200.000	1000	Pass
Mo	95	28.620 µg/L	200.000	1000	Pass
Mo	98	27.450 µg/L	200.000	1000	Pass
Ag	107	21.870 µg/L	200.000	1000	Pass
Ag	109	21.600 µg/L	200.000	1000	Pass
Cd	111	6.012 µg/L	200.000	1000	Pass
Cd	114	4.053 µg/L	200.000	1000	Pass
Sn	120	20.750 µg/L	200.000	1000	Pass
Sb	121	-11.870 µg/L	200.000	1000	Pass
Sb	123	-10.190 µg/L	200.000	1000	Pass

Ba 135	548.400 µg/L	200.000	1000	Pass
Au 197	-0.415 µg/L	200.000	0	Pass
Tl 205	-4.447 µg/L	200.000	1000	Pass

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2302.17A\039SMPL.D\039SMPL.D#
Acquired : Sep 23 02 11:05 pm using AcqMethod 6020.M
Operator : CJ
Sample Name: M021282-018
Misc Info : ,
Vial Number: 2212
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 10.000000

Pb 208	350.600 µg/L	200.000	1000	Pass
U 238	9.419 µg/L	200.000	1000	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	1078240	1006274	Pass
45	949294	860830	Pass
72	136531	117999	Pass
115	761736	612052	Pass
209	401633	339133	Pass

Internal Standards referenced to 002CALB.D#

7 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

Sample QC Report

173

File : D:\HPCHEM\1\DATA\Sep2302.17A\040SMPL.D\040SMPL.D#
Acquired : Sep 23 02 11:14 pm using AcqMethod 6020.M
Operator : CJ
Sample Name: M021282-018
Misc Info : ,
Vial Number: 2301
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 100.000000

Element		Concentration	Cal Conc	LRS Conc	Flag
Be	9	6.034 µg/L	200.000	1000	Pass
B	11	-445.700 µg/L	200.000	0	Pass
Na	23	1237.000 µg/L	10000.000	20000	Pass
Mg	24	15680.000 µg/L	10000.000	20000	Pass
Mg	25	15580.000 µg/L	10000.000	20000	Pass
Mg	26	15550.000 µg/L	10000.000	20000	Pass
Al	27	67670.000 µg/L	10000.000	20000	Pass
Si	28	5756.000 µg/L	10000.000	0	Pass
K	39	10740.000 µg/L	10000.000	20000	Pass
Ca	43	19840.000 µg/L	10000.000	20000	Pass
Ca	44	19510.000 µg/L	10000.000	20000	Pass
Ti	47	4156.000 µg/L	200.000	1000	Pass
V	51	75.780 µg/L	200.000	1000	Pass
Cr	52	336.100 µg/L	200.000	1000	Pass
Cr	53	-421.800 µg/L	200.000	1000	Pass
Fe	54	130900.000 µg/L	10000.000	20000	Pass
Mn	55	3338.000 µg/L	200.000	1000	Pass
Fe	57	131700.000 µg/L	10000.000	20000	Pass
Co	59	-15.440 µg/L	200.000	1000	Pass
Ni	60	53.820 µg/L	200.000	1000	Pass
Cu	63	189.900 µg/L	200.000	1000	Pass
Cu	65	196.000 µg/L	200.000	1000	Pass
Zn	66	2137.000 µg/L	200.000	1000	Pass
Zn	67	1847.000 µg/L	200.000	1000	Pass
Zn	68	2081.000 µg/L	200.000	1000	Pass
As	75	55.470 µg/L	200.000	1000	Pass
Se	82	9.393 µg/L	200.000	1000	Pass
Sr	87	429.400 µg/L	200.000	1000	Pass
Mo	95	-71.060 µg/L	200.000	1000	Pass
Mo	98	-71.020 µg/L	200.000	1000	Pass
Ag	107	12.710 µg/L	200.000	1000	Pass
Ag	109	13.940 µg/L	200.000	1000	Pass
Cd	111	0.767 µg/L	200.000	1000	Pass
Cd	114	0.266 µg/L	200.000	1000	Pass
Sn	120	-145.000 µg/L	200.000	1000	Pass
Sb	121	-130.200 µg/L	200.000	1000	Pass
Sb	123	-115.200 µg/L	200.000	1000	Pass

Ba 135	473.300 µg/L	200.000	1000	Pass
Au 197	-20.760 µg/L	200.000	0	Pass
Tl 205	-55.200 µg/L	200.000	1000	Pass

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2302.17A\040SMPL.D\040SMPL.D#
Acquired : Sep 23 02 11:14 pm using AcqMethod 6020.M
Operator : CJ
Sample Name: M021282-018
Misc Info : ,
Vial Number: 2301
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : ---------
Sample Type: ---------
Dilution : 100.000000

Pb 208	277.400 µg/L	200.000	1000	Pass
U 238	4.979 µg/L	200.000	1000	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	1078240	1020201	Pass
45	949294	822980	Pass
72	136531	112666	Pass
115	761736	608151	Pass
209	401633	328522	Pass

Internal Standards referenced to 002CALB.D#

0 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2302.17A\041SMPL.D\041SMPL.D#
Acquired : Sep 23 02 11:23 pm using AcqMethod 6020.M
Operator : CJ
Sample Name: M021282-019
Misc Info : ,
Vial Number: 2302
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 10.000000

Element		Concentration	Cal Conc	LRS Conc	Flag
Be	9	10.230 µg/L	200.000	1000	Pass
B	11	-14.970 µg/L	200.000	0	Pass
Na	23	1950.000 µg/L	10000.000	20000	Pass
Mg	24	21290.000 µg/L	10000.000	20000	Pass
Mg	25	22360.000 µg/L	10000.000	20000	Pass
Mg	26	21830.000 µg/L	10000.000	20000	Pass
Al	27	110400.000 µg/L	10000.000	20000	>Cal std
Si	28	4351.000 µg/L	10000.000	0	Pass
K	39	21530.000 µg/L	10000.000	20000	Pass
Ca	43	25730.000 µg/L	10000.000	20000	Pass
Ca	44	25800.000 µg/L	10000.000	20000	Pass
Ti	47	5333.000 µg/L	200.000	1000	>Cal std
V	51	147.500 µg/L	200.000	1000	Pass
Cr	52	245.600 µg/L	200.000	1000	Pass
Cr	53	142.100 µg/L	200.000	1000	Pass
Fe	54	165100.000 µg/L	10000.000	20000	>Cal std
Mn	55	3711.000 µg/L	200.000	1000	>Cal std
Fe	57	166900.000 µg/L	10000.000	20000	>Cal std
Co	59	20.110 µg/L	200.000	1000	Pass
Ni	60	63.020 µg/L	200.000	1000	Pass
Cu	63	117.900 µg/L	200.000	1000	Pass
Cu	65	120.200 µg/L	200.000	1000	Pass
Zn	66	2247.000 µg/L	200.000	1000	>Cal std
Zn	67	2143.000 µg/L	200.000	1000	>Cal std
Zn	68	2195.000 µg/L	200.000	1000	>Cal std
As	75	36.040 µg/L	200.000	1000	Pass
Se	82	12.120 µg/L	200.000	1000	Pass
Sr	87	664.000 µg/L	200.000	1000	Pass
Mo	95	23.560 µg/L	200.000	1000	Pass
Mo	98	22.660 µg/L	200.000	1000	Pass
Ag	107	12.250 µg/L	200.000	1000	Pass
Ag	109	11.950 µg/L	200.000	1000	Pass
Cd	111	6.455 µg/L	200.000	1000	Pass
Cd	114	3.343 µg/L	200.000	1000	Pass
Sn	120	19.780 µg/L	200.000	1000	Pass
Sb	121	-12.220 µg/L	200.000	1000	Pass
Sb	123	-10.820 µg/L	200.000	1000	Pass

Ba 135	806.400 µg/L	200.000	1000	Pass
Au 197	-0.901 µg/L	200.000	0	Pass
Tl 205	-4.083 µg/L	200.000	1000	Pass

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2302.17A\041SMPL.D\041SMPL.D#
Acquired : Sep 23 02 11:23 pm using AcqMethod 6020.M
Operator : CJ
Sample Name: M021282-019
Misc Info : ,
Vial Number: 2302
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 10.000000

Pb 208	258.100 µg/L	200.000	1000	Pass
U 238	8.646 µg/L	200.000	1000	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	1078240	994841	Pass
45	949294	891326	Pass
72	136531	119271	Pass
115	761736	613985	Pass
209	401633	340157	Pass

Internal Standards referenced to 002CALB.D#

8 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

Sample QC Report

177

File : D:\HPCHEM\1\DATA\Sep2302.17A\042SMPL.D\042SMPL.D#
Acquired : Sep 23 02 11:32 pm using AcqMethod 6020.M
Operator : CJ
Sample Name: M021282-019
Misc Info : ,
Vial Number: 2303
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 100.000000

Element		Concentration	Cal Conc	LRS Conc	Flag
Be	9	8.751 µg/L	200.000	1000	Pass
B	11	-443.000 µg/L	200.000	0	Pass
Na	23	1532.000 µg/L	10000.000	20000	Pass
Mg	24	22690.000 µg/L	10000.000	20000	Pass
Mg	25	23140.000 µg/L	10000.000	20000	Pass
Mg	26	23090.000 µg/L	10000.000	20000	Pass
Al	27	117300.000 µg/L	10000.000	20000	Pass
Si	28	6362.000 µg/L	10000.000	0	Pass
K	39	21730.000 µg/L	10000.000	20000	Pass
Ca	43	26330.000 µg/L	10000.000	20000	Pass
Ca	44	26650.000 µg/L	10000.000	20000	Pass
Ti	47	5707.000 µg/L	200.000	1000	Pass
V	51	177.300 µg/L	200.000	1000	Pass
Cr	52	251.900 µg/L	200.000	1000	Pass
Cr	53	-736.900 µg/L	200.000	1000	Pass
Fe	54	178300.000 µg/L	10000.000	20000	Pass
Mn	55	3975.000 µg/L	200.000	1000	Pass
Fe	57	175300.000 µg/L	10000.000	20000	Pass
Co	59	-11.220 µg/L	200.000	1000	Pass
Ni	60	66.980 µg/L	200.000	1000	Pass
Cu	63	124.500 µg/L	200.000	1000	Pass
Cu	65	123.700 µg/L	200.000	1000	Pass
Zn	66	2213.000 µg/L	200.000	1000	Pass
Zn	67	1911.000 µg/L	200.000	1000	Pass
Zn	68	2123.000 µg/L	200.000	1000	Pass
As	75	39.540 µg/L	200.000	1000	Pass
Se	82	5.852 µg/L	200.000	1000	Pass
Sr	87	685.900 µg/L	200.000	1000	Pass
Mo	95	-70.560 µg/L	200.000	1000	Pass
Mo	98	-65.780 µg/L	200.000	1000	Pass
Ag	107	6.341 µg/L	200.000	1000	Pass
Ag	109	8.105 µg/L	200.000	1000	Pass
Cd	111	1.474 µg/L	200.000	1000	Pass
Cd	114	0.566 µg/L	200.000	1000	Pass
Sn	120	-141.600 µg/L	200.000	1000	Pass
Sb	121	-130.400 µg/L	200.000	1000	Pass
Sb	123	-115.600 µg/L	200.000	1000	Pass

Ba 135	807.400 µg/L	200.000	1000	Pass
Au 197	-20.240 µg/L	200.000	0	Pass
Tl 205	-55.440 µg/L	200.000	1000	Pass

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2302.17A\042SMPL.D\042SMPL.D#
Acquired : Sep 23 02 11:32 pm using AcqMethod 6020.M
Operator : CJ
Sample Name: M021282-019
Misc Info : ,
Vial Number: 2303
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 100.000000

Pb 208	225.700 µg/L	200.000	1000	Pass
U 238	5.601 µg/L	200.000	1000	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	1078240	1002561	Pass
45	949294	821028	Pass
72	136531	112450	Pass
115	761736	599992	Pass
209	401633	328450	Pass

Internal Standards referenced to 002CALB.D#

0 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2302.17A\043SMPL.D\043SMPL.D#
Acquired : Sep 23 02 11:42 pm using AcqMethod 6020.M
Operator : CJ
Sample Name: M021282-020
Misc Info : ,
Vial Number: 2304
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 10.000000

Element	Concentration	Cal Conc	LRS Conc	Flag
Be 9	6.076 µg/L	200.000	1000	Pass
B 11	-37.800 µg/L	200.000	0	Pass
Na 23	1447.000 µg/L	10000.000	20000	Pass
Mg 24	8204.000 µg/L	10000.000	20000	Pass
Mg 25	8375.000 µg/L	10000.000	20000	Pass
Mg 26	8201.000 µg/L	10000.000	20000	Pass
Al 27	31530.000 µg/L	10000.000	20000	Pass
Si 28	3543.000 µg/L	10000.000	0	Pass
K 39	5675.000 µg/L	10000.000	20000	Pass
Ca 43	11370.000 µg/L	10000.000	20000	Pass
Ca 44	11240.000 µg/L	10000.000	20000	Pass
Ti 47	2993.000 µg/L	200.000	1000	>Cal std
V 51	66.440 µg/L	200.000	1000	Pass
Cr 52	90.580 µg/L	200.000	1000	Pass
Cr 53	-10.940 µg/L	200.000	1000	Pass
Fe 54	88390.000 µg/L	10000.000	20000	Pass
Mn 55	2888.000 µg/L	200.000	1000	>Cal std
Fe 57	89570.000 µg/L	10000.000	20000	Pass
Co 59	8.070 µg/L	200.000	1000	Pass
Ni 60	26.020 µg/L	200.000	1000	Pass
Cu 63	83.860 µg/L	200.000	1000	Pass
Cu 65	85.850 µg/L	200.000	1000	Pass
Zn 66	535.900 µg/L	200.000	1000	Pass
Zn 67	491.600 µg/L	200.000	1000	Pass
Zn 68	511.800 µg/L	200.000	1000	Pass
As 75	16.840 µg/L	200.000	1000	Pass
Se 82	8.771 µg/L	200.000	1000	Pass
Sr 87	200.500 µg/L	200.000	1000	Pass
Mo 95	2.929 µg/L	200.000	1000	Pass
Mo 98	3.569 µg/L	200.000	1000	Pass
Ag 107	1.928 µg/L	200.000	1000	Pass
Ag 109	1.947 µg/L	200.000	1000	Pass
Cd 111	2.395 µg/L	200.000	1000	Pass
Cd 114	0.297 µg/L	200.000	1000	Pass
Sn 120	1.844 µg/L	200.000	1000	Pass
Sb 121	-12.720 µg/L	200.000	1000	Pass
Sb 123	-11.100 µg/L	200.000	1000	Pass

Ba 135	394.500 µg/L	200.000	1000	Pass
Au 197	-1.701 µg/L	200.000	0	Pass
Tl 205	-5.364 µg/L	200.000	1000	Pass

Sample QC Report

180

File : D:\HPCHEM\1\DATA\Sep2302.17A\043SMPL.D\043SMPL.D#
Acquired : Sep 23 02 11:42 pm using AcqMethod 6020.M
Operator : CJ
Sample Name: M021282-020
Misc Info : ,
Vial Number: 2304
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 10.000000

Pb 208	70.800 µg/L	200.000	1000	Pass
U 238	6.758 µg/L	200.000	1000	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	1078240	987856	Pass
45	949294	863424	Pass
72	136531	115550	Pass
115	761736	607035	Pass
209	401633	332832	Pass

Internal Standards referenced to 002CALB.D#

2 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

CCV QC Report

File : D:\HPCHEM\1\DATA\Sep2302.17A\044CCV_D\044CCV_D#
Acquired : Sep 23 02 11:51 pm using AcqMethod 6020.M
Operator : CJ
Sample Name: [STD-CCV]
Misc Info :
Vial Number: 1105
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: CCV
Dilution : 1.000000

CCV Mix #1

Element	Concentration	Expected	QC Range	Flag
Be 9	92.630 µg/L	100.00	90.00-110.00	Pass
B 11	107.300 µg/L	100.00	90.00-110.00	Pass
Na 23	1135.000 µg/L	1000.00	900.00-1100.00	*Fail*
Mg 24	1154.000 µg/L	1000.00	900.00-1100.00	*Fail*
Mg 25	1185.000 µg/L	1000.00	900.00-1100.00	*Fail*
Mg 26	1181.000 µg/L	1000.00	900.00-1100.00	*Fail*
Al 27	1112.000 µg/L	1000.00	900.00-1100.00	*Fail*
Si 28	1112.000 µg/L	1000.00	900.00-1100.00	*Fail*
K 39	1065.000 µg/L	1000.00	900.00-1100.00	Pass
Ca 43	1102.000 µg/L	1000.00	900.00-1100.00	*Fail*
Ca 44	1097.000 µg/L	1000.00	900.00-1100.00	Pass
Ti 47	103.200 µg/L	100.00	90.00-110.00	Pass
V 51	103.400 µg/L	100.00	90.00-110.00	Pass
Cr 52	104.400 µg/L	100.00	90.00-110.00	Pass
Cr 53	95.560 µg/L	100.00	90.00-110.00	Pass
Fe 54	1164.000 µg/L	1000.00	900.00-1100.00	*Fail*
Mn 55	99.710 µg/L	100.00	90.00-110.00	Pass
Fe 57	1094.000 µg/L	1000.00	900.00-1100.00	Pass
Co 59	102.500 µg/L	100.00	90.00-110.00	Pass
Ni 60	103.100 µg/L	100.00	90.00-110.00	Pass
Cu 63	102.800 µg/L	100.00	90.00-110.00	Pass
Cu 65	103.300 µg/L	100.00	90.00-110.00	Pass
Zn 66	102.400 µg/L	100.00	90.00-110.00	Pass
Zn 67	99.190 µg/L	100.00	90.00-110.00	Pass
Zn 68	102.500 µg/L	100.00	90.00-110.00	Pass
As 75	103.500 µg/L	100.00	90.00-110.00	Pass
Se 82	101.600 µg/L	100.00	90.00-110.00	Pass
Sr 87	98.880 µg/L	100.00	90.00-110.00	Pass
Mo 95	98.170 µg/L	100.00	90.00-110.00	Pass
Mo 98	97.820 µg/L	100.00	90.00-110.00	Pass
Ag 107	97.530 µg/L	100.00	90.00-110.00	Pass
Ag 109	98.680 µg/L	100.00	90.00-110.00	Pass
Cd 111	101.300 µg/L	100.00	90.00-110.00	Pass
Cd 114	100.400 µg/L	100.00	90.00-110.00	Pass
Sn 120	99.360 µg/L	100.00	90.00-110.00	Pass

Sb 121	100.100 µg/L	100.00	90.00-110.00	Pass
Sb 123	101.100 µg/L	100.00	90.00-110.00	Pass
Ba 135	101.100 µg/L	100.00	90.00-110.00	Pass

CCV QC Report

182

File : D:\HPCHEM\1\DATA\Sep2302.17A\044CCV_D\044CCV_D#
Acquired : Sep 23 02 11:51 pm using AcqMethod 6020.M
Operator : CJ
Sample Name: [STD-CCV]
Misc Info :
Vial Number: 1105
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: CCV
Dilution : 1.000000

Au 197	97.050 µg/L	100.00	90.00-110.00	Pass
Tl 205	97.460 µg/L	100.00	90.00-110.00	Pass
Pb 208	99.560 µg/L	100.00	90.00-110.00	Pass
U 238	98.620 µg/L	100.00	90.00-110.00	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	1078240	987041	Pass
45	949294	781630	Pass
72	136531	109947	Pass
115	761736	591852	Pass
209	401633	324267	Pass

Internal Standards referenced to 002CALB.D#

8 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

Blank QC Report

183

File : D:\HPCHEM\1\DATA\Sep2302.17A\045CCB_D\045CCB_D#
Acquired : Sep 24 02 00:00 am using AcqMethod 6020.M
Operator : CJ
Sample Name: [CB]
Misc Info :
Vial Number: 1102
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: CCB
Dilution : 1.000000

Element	Concentration	CRDL Limit	Flag
Be 9	0.014 µg/L	1.00	Pass
B 11	-1.319 µg/L	1.00	*Fail*
Na 23	0.097 µg/L	10.00	Pass
Mg 24	-0.063 µg/L	10.00	Pass
Mg 25	0.012 µg/L	10.00	Pass
Mg 26	-0.010 µg/L	10.00	Pass
Al 27	0.006 µg/L	10.00	Pass
Si 28	26.320 µg/L	10.00	*Fail*
K 39	-3.852 µg/L	10.00	Pass
Ca 43	0.085 µg/L	10.00	Pass
Ca 44	1.811 µg/L	10.00	Pass
Ti 47	-0.036 µg/L	1.00	Pass
V 51	0.663 µg/L	1.00	Pass
Cr 52	0.536 µg/L	1.00	Pass
Cr 53	8.390 µg/L	1.00	*Fail*
Fe 54	11.520 µg/L	10.00	*Fail*
Mn 55	0.067 µg/L	1.00	Pass
Fe 57	6.437 µg/L	10.00	Pass
Co 59	-0.310 µg/L	1.00	Pass
Ni 60	0.031 µg/L	1.00	Pass
Cu 63	0.011 µg/L	1.00	Pass
Cu 65	-0.008 µg/L	1.00	Pass
Zn 66	0.023 µg/L	1.00	Pass
Zn 67	0.587 µg/L	1.00	Pass
Zn 68	-0.051 µg/L	1.00	Pass
As 75	0.434 µg/L	1.00	Pass
Se 82	-0.118 µg/L	1.00	Pass
Sr 87	0.015 µg/L	1.00	Pass
Mo 95	-0.845 µg/L	1.00	Pass
Mo 98	-0.803 µg/L	1.00	Pass
Ag 107	-0.039 µg/L	1.00	Pass
Ag 109	-0.029 µg/L	1.00	Pass
Cd 111	0.011 µg/L	1.00	Pass
Cd 114	-0.007 µg/L	1.00	Pass
Sn 120	-1.742 µg/L	1.00	*Fail*
Sb 121	-1.070 µg/L	1.00	*Fail*
Sb 123	-0.917 µg/L	1.00	Pass

Ba 135	0.034 µg/L	1.00	Pass
Au 197	0.225 µg/L	1.00	Pass
Tl 205	-0.040 µg/L	1.00	Pass

Blank QC Report

File : D:\HPCHEM\1\DATA\Sep2302.17A\045CCB_.D\045CCB_.D#
Acquired : Sep 24 02 00:00 am using AcqMethod 6020.M
Operator : CJ
Sample Name: [CB]
Misc Info :
Vial Number: 1102
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: CCB
Dilution : 1.000000

Pb 208	-0.319 µg/L	1.00	Pass
U 238	0.002 µg/L	1.00	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	1078240	967248	Pass
45	949294	752438	Pass
72	136531	106018	Pass
115	761736	565228	Pass
209	401633	308095	Pass

Internal Standards referenced to 002CALB.D#

6 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

Sample QC Report

185

File : D:\HPCHEM\1\DATA\Sep2302.17A\046SMPL.D\046SMPL.D#
Acquired : Sep 24 02 00:09 am using AcqMethod 6020.M
Operator : CJ
Sample Name: M021282-020
Misc Info : ,
Vial Number: 2305
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 100.000000

Element	Concentration	Cal Conc	LRS Conc	Flag
Be 9	5.648 µg/L	200.000	1000	Pass
B 11	-427.400 µg/L	200.000	0	Pass
Na 23	799.600 µg/L	10000.000	20000	Pass
Mg 24	7930.000 µg/L	10000.000	20000	Pass
Mg 25	8012.000 µg/L	10000.000	20000	Pass
Mg 26	7911.000 µg/L	10000.000	20000	Pass
Al 27	31810.000 µg/L	10000.000	20000	Pass
Si 28	5953.000 µg/L	10000.000	0	Pass
K 39	5345.000 µg/L	10000.000	20000	Pass
Ca 43	9525.000 µg/L	10000.000	20000	Pass
Ca 44	9479.000 µg/L	10000.000	20000	Pass
Ti 47	2927.000 µg/L	200.000	1000	Pass
V 51	97.180 µg/L	200.000	1000	Pass
Cr 52	100.900 µg/L	200.000	1000	Pass
Cr 53	21.960 µg/L	200.000	1000	Pass
Fe 54	88710.000 µg/L	10000.000	20000	Pass
Mn 55	2893.000 µg/L	200.000	1000	Pass
Fe 57	87180.000 µg/L	10000.000	20000	Pass
Co 59	-24.160 µg/L	200.000	1000	Pass
Ni 60	26.810 µg/L	200.000	1000	Pass
Cu 63	80.840 µg/L	200.000	1000	Pass
Cu 65	84.850 µg/L	200.000	1000	Pass
Zn 66	369.100 µg/L	200.000	1000	Pass
Zn 67	258.600 µg/L	200.000	1000	Pass
Zn 68	333.900 µg/L	200.000	1000	Pass
As 75	65.030 µg/L	200.000	1000	Pass
Se 82	-4.465 µg/L	200.000	1000	Pass
Sr 87	194.800 µg/L	200.000	1000	Pass
Mo 95	-85.020 µg/L	200.000	1000	Pass
Mo 98	-83.760 µg/L	200.000	1000	Pass
Ag 107	-2.483 µg/L	200.000	1000	Pass
Ag 109	-2.123 µg/L	200.000	1000	Pass
Cd 111	-0.915 µg/L	200.000	1000	Pass
Cd 114	-2.071 µg/L	200.000	1000	Pass
Sn 120	-158.600 µg/L	200.000	1000	Pass
Sb 121	-123.900 µg/L	200.000	1000	Pass
Sb 123	-108.200 µg/L	200.000	1000	Pass

Ba 135	363.400 µg/L	200.000	1000	Pass
Au 197	-8.089 µg/L	200.000	0	Pass
Tl 205	-38.160 µg/L	200.000	1000	Pass

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2302.17A\046SMPL.D\046SMPL.D#
Acquired : Sep 24 02 00:09 am using AcqMethod 6020.M
Operator : CJ
Sample Name: M021282-020
Misc Info : ,
Vial Number: 2305
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 100.000000

Pb 208	30.960 µg/L	200.000	1000	Pass
U 238	3.662 µg/L	200.000	1000	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	1078240	978008	Pass
45	949294	792083	Pass
72	136531	110111	Pass
115	761736	589848	Pass
209	401633	322005	Pass

Internal Standards referenced to 002CALB.D#

0 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2302.17A\047SMPL.D\047SMPL.D#
Acquired : Sep 24 02 00:18 am using AcqMethod 6020.M
Operator : CJ
Sample Name: M021282-021
Misc Info : ,
Vial Number: 2306
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 10.000000

Element		Concentration	Cal Conc	LRS Conc	Flag
Be	9	7.211 µg/L	200.000	1000	Pass
B	11	-18.080 µg/L	200.000	0	Pass
Na	23	1997.000 µg/L	10000.000	20000	Pass
Mg	24	14660.000 µg/L	10000.000	20000	Pass
Mg	25	15340.000 µg/L	10000.000	20000	Pass
Mg	26	15120.000 µg/L	10000.000	20000	Pass
Al	27	56500.000 µg/L	10000.000	20000	Pass
Si	28	4196.000 µg/L	10000.000	0	Pass
K	39	9302.000 µg/L	10000.000	20000	Pass
Ca	43	25950.000 µg/L	10000.000	20000	Pass
Ca	44	25650.000 µg/L	10000.000	20000	Pass
Ti	47	3327.000 µg/L	200.000	1000	>Cal std
V	51	106.400 µg/L	200.000	1000	Pass
Cr	52	276.900 µg/L	200.000	1000	Pass
Cr	53	281.600 µg/L	200.000	1000	Pass
Fe	54	107800.000 µg/L	10000.000	20000	>Cal std
Mn	55	3278.000 µg/L	200.000	1000	>Cal std
Fe	57	110300.000 µg/L	10000.000	20000	>Cal std
Co	59	14.930 µg/L	200.000	1000	Pass
Ni	60	42.190 µg/L	200.000	1000	Pass
Cu	63	274.200 µg/L	200.000	1000	Pass
Cu	65	276.000 µg/L	200.000	1000	Pass
Zn	66	659.900 µg/L	200.000	1000	Pass
Zn	67	637.300 µg/L	200.000	1000	Pass
Zn	68	633.500 µg/L	200.000	1000	Pass
As	75	26.920 µg/L	200.000	1000	Pass
Se	82	7.871 µg/L	200.000	1000	Pass
Sr	87	390.600 µg/L	200.000	1000	Pass
Mo	95	13.790 µg/L	200.000	1000	Pass
Mo	98	14.700 µg/L	200.000	1000	Pass
Ag	107	6.421 µg/L	200.000	1000	Pass
Ag	109	6.607 µg/L	200.000	1000	Pass
Cd	111	2.797 µg/L	200.000	1000	Pass
Cd	114	1.158 µg/L	200.000	1000	Pass
Sn	120	7.712 µg/L	200.000	1000	Pass
Sb	121	-11.900 µg/L	200.000	1000	Pass
Sb	123	-10.530 µg/L	200.000	1000	Pass

Ba 135	716.100 µg/L	200.000	1000	Pass
Au 197	-1.378 µg/L	200.000	0	Pass
Tl 205	-4.095 µg/L	200.000	1000	Pass

Sample QC Report

188

File : D:\HPCHEM\1\DATA\Sep2302.17A\047SMPL.D\047SMPL.D#
Acquired : Sep 24 02 00:18 am using AcqMethod 6020.M
Operator : CJ
Sample Name: M021282-021
Misc Info : ,
Vial Number: 2306
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 10.000000

Pb 208	131.600 µg/L	200.000	1000	Pass
U 238	6.709 µg/L	200.000	1000	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	1078240	957896	Pass
45	949294	844137	Pass
72	136531	114347	Pass
115	761736	599572	Pass
209	401633	330123	Pass

Internal Standards referenced to 002CALB.D#

4 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2302.17A\048SMPL.D\048SMPL.D#
Acquired : Sep 24 02 00:28 am using AcqMethod 6020.M
Operator : CJ
Sample Name: M021282-021
Misc Info : ,
Vial Number: 2307
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 100.000000

Element		Concentration	Cal Conc	LRS Conc	Flag
Be	9	4.994 µg/L	200.000	1000	Pass
B	11	-425.100 µg/L	200.000	0	Pass
Na	23	1161.000 µg/L	10000.000	20000	Pass
Mg	24	13670.000 µg/L	10000.000	20000	Pass
Mg	25	13730.000 µg/L	10000.000	20000	Pass
Mg	26	13930.000 µg/L	10000.000	20000	Pass
Al	27	52360.000 µg/L	10000.000	20000	Pass
Si	28	6849.000 µg/L	10000.000	0	Pass
K	39	7905.000 µg/L	10000.000	20000	Pass
Ca	43	21380.000 µg/L	10000.000	20000	Pass
Ca	44	21830.000 µg/L	10000.000	20000	Pass
Ti	47	3063.000 µg/L	200.000	1000	Pass
V	51	123.500 µg/L	200.000	1000	Pass
Cr	52	273.800 µg/L	200.000	1000	Pass
Cr	53	549.800 µg/L	200.000	1000	Pass
Fe	54	103900.000 µg/L	10000.000	20000	Pass
Mn	55	3084.000 µg/L	200.000	1000	Pass
Fe	57	100300.000 µg/L	10000.000	20000	Pass
Co	59	-18.910 µg/L	200.000	1000	Pass
Ni	60	40.460 µg/L	200.000	1000	Pass
Cu	63	251.600 µg/L	200.000	1000	Pass
Cu	65	257.700 µg/L	200.000	1000	Pass
Zn	66	453.200 µg/L	200.000	1000	Pass
Zn	67	324.100 µg/L	200.000	1000	Pass
Zn	68	414.100 µg/L	200.000	1000	Pass
As	75	81.690 µg/L	200.000	1000	Pass
Se	82	-13.300 µg/L	200.000	1000	Pass
Sr	87	345.200 µg/L	200.000	1000	Pass
Mo	95	-83.560 µg/L	200.000	1000	Pass
Mo	98	-80.300 µg/L	200.000	1000	Pass
Ag	107	0.860 µg/L	200.000	1000	Pass
Ag	109	1.452 µg/L	200.000	1000	Pass
Cd	111	-3.048 µg/L	200.000	1000	Pass
Cd	114	-2.666 µg/L	200.000	1000	Pass
Sn	120	-153.000 µg/L	200.000	1000	Pass
Sb	121	-127.900 µg/L	200.000	1000	Pass
Sb	123	-113.500 µg/L	200.000	1000	Pass

Ba 135	630.100 µg/L	200.000	1000	Pass
Au 197	-17.340 µg/L	200.000	0	Pass
Tl 205	-51.860 µg/L	200.000	1000	Pass

Sample QC Report

190

File : D:\HPCHEM\1\DATA\Sep2302.17A\048SMPL.D\048SMPL.D#
Acquired : Sep 24 02 00:28 am using AcqMethod 6020.M
Operator : CJ
Sample Name: M021282-021
Misc Info : ,
Vial Number: 2307
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 100.000000

Pb 208	79.750 µg/L	200.000	1000	Pass
U 238	2.074 µg/L	200.000	1000	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	1078240	984772	Pass
45	949294	770134	Pass
72	136531	107418	Pass
115	761736	571884	Pass
209	401633	312641	Pass

Internal Standards referenced to 002CALB.D#

0 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2302.17A\049SMPL.D\049SMPL.D#
Acquired : Sep 24 02 00:37 am using AcqMethod 6020.M
Operator : CJ
Sample Name: M021282-022
Misc Info : ,
Vial Number: 2308
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 10.000000

Element		Concentration	Cal Conc	LRS Conc	Flag
Be	9	7.446 µg/L	200.000	1000	Pass
B	11	-26.880 µg/L	200.000	0	Pass
Na	23	2782.000 µg/L	10000.000	20000	Pass
Mg	24	17440.000 µg/L	10000.000	20000	Pass
Mg	25	16810.000 µg/L	10000.000	20000	Pass
Mg	26	18150.000 µg/L	10000.000	20000	Pass
Al	27	119800.000 µg/L	10000.000	20000	>Cal std
Si	28	5334.000 µg/L	10000.000	0	Pass
K	39	14020.000 µg/L	10000.000	20000	Pass
Ca	43	21650.000 µg/L	10000.000	20000	Pass
Ca	44	21440.000 µg/L	10000.000	20000	Pass
Ti	47	5602.000 µg/L	200.000	1000	>Cal std
V	51	184.800 µg/L	200.000	1000	Pass
Cr	52	95.080 µg/L	200.000	1000	Pass
Cr	53	-17.120 µg/L	200.000	1000	Pass
Fe	54	158200.000 µg/L	10000.000	20000	>Cal std
Mn	55	3725.000 µg/L	200.000	1000	>Cal std
Fe	57	160300.000 µg/L	10000.000	20000	>Cal std
Co	59	58.470 µg/L	200.000	1000	Pass
Ni	60	63.640 µg/L	200.000	1000	Pass
Cu	63	41.530 µg/L	200.000	1000	Pass
Cu	65	43.580 µg/L	200.000	1000	Pass
Zn	66	493.600 µg/L	200.000	1000	Pass
Zn	67	502.000 µg/L	200.000	1000	Pass
Zn	68	434.400 µg/L	200.000	1000	Pass
As	75	33.880 µg/L	200.000	1000	Pass
Se	82	10.720 µg/L	200.000	1000	Pass
Sr	87	721.100 µg/L	200.000	1000	Pass
Mo	95	8.161 µg/L	200.000	1000	Pass
Mo	98	7.802 µg/L	200.000	1000	Pass
Ag	107	1.220 µg/L	200.000	1000	Pass
Ag	109	1.102 µg/L	200.000	1000	Pass
Cd	111	3.677 µg/L	200.000	1000	Pass
Cd	114	-0.838 µg/L	200.000	1000	Pass
Sn	120	18.110 µg/L	200.000	1000	Pass
Sb	121	-12.390 µg/L	200.000	1000	Pass
Sb	123	-10.810 µg/L	200.000	1000	Pass

Ba 135	717.900 µg/L	200.000	1000	Pass
Au 197	-1.696 µg/L	200.000	0	Pass
Tl 205	-3.523 µg/L	200.000	1000	Pass

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2302.17A\049SMPL.D\049SMPL.D#
Acquired : Sep 24 02 00:37 am using AcqMethod 6020.M
Operator : CJ
Sample Name: M021282-022
Misc Info : ,
Vial Number: 2308
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 10.000000

Pb 208	174.100 µg/L	200.000	1000	Pass
U 238	9.196 µg/L	200.000	1000	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	1078240	925440	Pass
45	949294	866675	Pass
72	136531	116235	Pass
115	761736	608799	Pass
209	401633	332538	Pass

Internal Standards referenced to 002CALB.D#

5 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2302.17A\050SMPL.D\050SMPL.D#
Acquired : Sep 24 02 00:46 am using AcqMethod 6020.M
Operator : CJ
Sample Name: M021282-022
Misc Info : ,
Vial Number: 2309
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 100.000000

Element		Concentration	Cal Conc	LRS Conc	Flag
Be	9	6.302 µg/L	200.000	1000	Pass
B	11	-444.600 µg/L	200.000	0	Pass
Na	23	2596.000 µg/L	10000.000	20000	Pass
Mg	24	20930.000 µg/L	10000.000	20000	Pass
Mg	25	21000.000 µg/L	10000.000	20000	Pass
Mg	26	21270.000 µg/L	10000.000	20000	Pass
Al	27	135500.000 µg/L	10000.000	20000	Pass
Si	28	7696.000 µg/L	10000.000	0	Pass
K	39	15720.000 µg/L	10000.000	20000	Pass
Ca	43	22990.000 µg/L	10000.000	20000	Pass
Ca	44	23560.000 µg/L	10000.000	20000	Pass
Ti	47	6496.000 µg/L	200.000	1000	Pass
V	51	183.900 µg/L	200.000	1000	Pass
Cr	52	86.480 µg/L	200.000	1000	Pass
Cr	53	-1269.000 µg/L	200.000	1000	Pass
Fe	54	184900.000 µg/L	10000.000	20000	Pass
Mn	55	4339.000 µg/L	200.000	1000	Pass
Fe	57	181400.000 µg/L	10000.000	20000	Pass
Co	59	37.090 µg/L	200.000	1000	Pass
Ni	60	73.690 µg/L	200.000	1000	Pass
Cu	63	47.180 µg/L	200.000	1000	Pass
Cu	65	48.750 µg/L	200.000	1000	Pass
Zn	66	399.400 µg/L	200.000	1000	Pass
Zn	67	219.100 µg/L	200.000	1000	Pass
Zn	68	321.500 µg/L	200.000	1000	Pass
As	75	64.240 µg/L	200.000	1000	Pass
Se	82	4.734 µg/L	200.000	1000	Pass
Sr	87	790.100 µg/L	200.000	1000	Pass
Mo	95	-86.040 µg/L	200.000	1000	Pass
Mo	98	-83.410 µg/L	200.000	1000	Pass
Ag	107	-4.075 µg/L	200.000	1000	Pass
Ag	109	-4.126 µg/L	200.000	1000	Pass
Cd	111	1.896 µg/L	200.000	1000	Pass
Cd	114	-2.914 µg/L	200.000	1000	Pass
Sn	120	-139.400 µg/L	200.000	1000	Pass
Sb	121	-130.100 µg/L	200.000	1000	Pass
Sb	123	-115.900 µg/L	200.000	1000	Pass

Ba 135	771.300 µg/L	200.000	1000	Pass
Au 197	-18.480 µg/L	200.000	0	Pass
Tl 205	-54.000 µg/L	200.000	1000	Pass

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2302.17A\050SMPL.D\050SMPL.D#
Acquired : Sep 24 02 00:46 am using AcqMethod 6020.M
Operator : CJ
Sample Name: M021282-022
Misc Info : ,
Vial Number: 2309
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 100.000000

Pb 208	151.600 µg/L	200.000	1000	Pass
U 238	6.675 µg/L	200.000	1000	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	1078240	1010655	Pass
45	949294	808013	Pass
72	136531	110816	Pass
115	761736	595491	Pass
209	401633	323204	Pass

Internal Standards referenced to 002CALB.D#

0 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2302.17A\051SMPL.D\051SMPL.D#
Acquired : Sep 24 02 00:55 am using AcqMethod 6020.M
Operator : CJ
Sample Name: M021282-023
Misc Info : ,
Vial Number: 2310
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 10.000000

195

Element		Concentration	Cal Conc	LRS Conc	Flag
Be	9	11.880 µg/L	200.000	1000	Pass
B	11	-10.850 µg/L	200.000	0	Pass
Na	23	2173.000 µg/L	10000.000	20000	Pass
Mg	24	29340.000 µg/L	10000.000	20000	Pass
Mg	25	29600.000 µg/L	10000.000	20000	Pass
Mg	26	28860.000 µg/L	10000.000	20000	Pass
Al	27	182700.000 µg/L	10000.000	20000	>Cal std
Si	28	4953.000 µg/L	10000.000	0	Pass
K	39	19240.000 µg/L	10000.000	20000	Pass
Ca	43	32030.000 µg/L	10000.000	20000	Pass
Ca	44	31490.000 µg/L	10000.000	20000	Pass
Ti	47	5350.000 µg/L	200.000	1000	>Cal std
V	51	262.600 µg/L	200.000	1000	Pass
Cr	52	834.700 µg/L	200.000	1000	Pass
Cr	53	757.300 µg/L	200.000	1000	Pass
Fe	54	210600.000 µg/L	10000.000	20000	>LRS
Mn	55	3941.000 µg/L	200.000	1000	>Cal std
Fe	57	207600.000 µg/L	10000.000	20000	>LRS
Co	59	45.880 µg/L	200.000	1000	Pass
Ni	60	96.880 µg/L	200.000	1000	Pass
Cu	63	160.500 µg/L	200.000	1000	Pass
Cu	65	161.800 µg/L	200.000	1000	Pass
Zn	66	953.100 µg/L	200.000	1000	Pass
Zn	67	975.300 µg/L	200.000	1000	Pass
Zn	68	874.500 µg/L	200.000	1000	Pass
As	75	52.680 µg/L	200.000	1000	Pass
Se	82	11.590 µg/L	200.000	1000	Pass
Sr	87	1084.000 µg/L	200.000	1000	Pass
Mo	95	13.080 µg/L	200.000	1000	Pass
Mo	98	12.700 µg/L	200.000	1000	Pass
Ag	107	29.790 µg/L	200.000	1000	Pass
Ag	109	29.960 µg/L	200.000	1000	Pass
Cd	111	7.094 µg/L	200.000	1000	Pass
Cd	114	2.733 µg/L	200.000	1000	Pass
Sn	120	35.970 µg/L	200.000	1000	Pass
Sb	121	-12.240 µg/L	200.000	1000	Pass
Sb	123	-10.900 µg/L	200.000	1000	Pass

Ba 135	1243.000 µg/L	200.000	1000	Pass
Au 197	-0.940 µg/L	200.000	0	Pass
Tl 205	-2.830 µg/L	200.000	1000	Pass

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2302.17A\051SMPL.D\051SMPL.D#
Acquired : Sep 24 02 00:55 am using AcqMethod 6020.M
Operator : CJ
Sample Name: M021282-023
Misc Info : ,
Vial Number: 2310
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 10.000000

Pb 208	293.100 µg/L	200.000	1000	Pass
U 238	14.360 µg/L	200.000	1000	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	1078240	911431	Pass
45	949294	839742	Pass
72	136531	114911	Pass
115	761736	585630	Pass
209	401633	329759	Pass

Internal Standards referenced to 002CALB.D#

5 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2302.17A\052SMPL.D\052SMPL.D#
Acquired : Sep 24 02 01:05 am using AcqMethod 6020.M
Operator : Cu
Sample Name: M021282-023
Misc Info : ,
Vial Number: 2311
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 100.000000

Element		Concentration	Cal Conc	LRS Conc	Flag
Be	9	11.710 µg/L	200.000	1000	Pass
B	11	-412.900 µg/L	200.000	0	Pass
Na	23	1909.000 µg/L	10000.000	20000	Pass
Mg	24	32490.000 µg/L	10000.000	20000	Pass
Mg	25	32670.000 µg/L	10000.000	20000	Pass
Mg	26	33100.000 µg/L	10000.000	20000	Pass
Al	27	206700.000 µg/L	10000.000	20000	Pass
Si	28	9050.000 µg/L	10000.000	0	Pass
K	39	21910.000 µg/L	10000.000	20000	Pass
Ca	43	34680.000 µg/L	10000.000	20000	Pass
Ca	44	34680.000 µg/L	10000.000	20000	Pass
Ti	47	5937.000 µg/L	200.000	1000	Pass
V	51	277.900 µg/L	200.000	1000	Pass
Cr	52	936.400 µg/L	200.000	1000	Pass
Cr	53	80.610 µg/L	200.000	1000	Pass
Fe	54	242100.000 µg/L	10000.000	20000	Pass
Mn	55	4475.000 µg/L	200.000	1000	Pass
Fe	57	235900.000 µg/L	10000.000	20000	Pass
Co	59	18.680 µg/L	200.000	1000	Pass
Ni	60	112.100 µg/L	200.000	1000	Pass
Cu	63	180.900 µg/L	200.000	1000	Pass
Cu	65	175.400 µg/L	200.000	1000	Pass
Zn	66	883.300 µg/L	200.000	1000	Pass
Zn	67	744.000 µg/L	200.000	1000	Pass
Zn	68	786.400 µg/L	200.000	1000	Pass
As	75	113.500 µg/L	200.000	1000	Pass
Se	82	4.600 µg/L	200.000	1000	Pass
Sr	87	1163.000 µg/L	200.000	1000	Pass
Mo	95	-81.860 µg/L	200.000	1000	Pass
Mo	98	-79.990 µg/L	200.000	1000	Pass
Ag	107	26.270 µg/L	200.000	1000	Pass
Ag	109	25.530 µg/L	200.000	1000	Pass
Cd	111	4.484 µg/L	200.000	1000	Pass
Cd	114	1.347 µg/L	200.000	1000	Pass
Sn	120	-120.800 µg/L	200.000	1000	Pass
Sb	121	-130.600 µg/L	200.000	1000	Pass
Sb	123	-115.900 µg/L	200.000	1000	Pass

Ba 135	1252.000 µg/L	200.000	1000	Pass
Au 197	-18.700 µg/L	200.000	0	Pass
Tl 205	-53.580 µg/L	200.000	1000	Pass

Sample QC Report

198

File : D:\HPCHEM\1\DATA\Sep2302.17A\052SMPL.D\052SMPL.D#
Acquired : Sep 24 02 01:05 am using AcqMethod 6020.M
Operator : CJ
Sample Name: M021282-023
Misc Info : ,
Vial Number: 2311
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 100.000000

Pb 208	272.600 µg/L	200.000	1000	Pass
U 238	11.030 µg/L	200.000	1000	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	1078240	904039	Pass
45	949294	751629	Pass
72	136531	106255	Pass
115	761736	569779	Pass
209	401633	311735	Pass

Internal Standards referenced to 002CALB.D#

0 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2302.17A\053SMPL.D\053SMPL.D#
Acquired : Sep 24 02 01:14 am using AcqMethod 6020.M
Operator : CJ
Sample Name: M021282-024
Misc Info : ,
Vial Number: 2312
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 10.000000

199

Element		Concentration	Cal Conc	LRS Conc	Flag
Be	9	9.061 µg/L	200.000	1000	Pass
B	11	-22.170 µg/L	200.000	0	Pass
Na	23	2763.000 µg/L	10000.000	20000	Pass
Mg	24	14210.000 µg/L	10000.000	20000	Pass
Mg	25	14910.000 µg/L	10000.000	20000	Pass
Mg	26	15060.000 µg/L	10000.000	20000	Pass
Al	27	100500.000 µg/L	10000.000	20000	>Cal std
Si	28	4886.000 µg/L	10000.000	0	Pass
K	39	13030.000 µg/L	10000.000	20000	Pass
Ca	43	18890.000 µg/L	10000.000	20000	Pass
Ca	44	19050.000 µg/L	10000.000	20000	Pass
Ti	47	3287.000 µg/L	200.000	1000	>Cal std
V	51	96.550 µg/L	200.000	1000	Pass
Cr	52	53.530 µg/L	200.000	1000	Pass
Cr	53	-49.300 µg/L	200.000	1000	Pass
Fe	54	135600.000 µg/L	10000.000	20000	>Cal std
Mn	55	3304.000 µg/L	200.000	1000	>Cal std
Fe	57	138600.000 µg/L	10000.000	20000	>Cal std
Co	59	12.770 µg/L	200.000	1000	Pass
Ni	60	43.330 µg/L	200.000	1000	Pass
Cu	63	42.100 µg/L	200.000	1000	Pass
Cu	65	43.100 µg/L	200.000	1000	Pass
Zn	66	578.300 µg/L	200.000	1000	Pass
Zn	67	576.400 µg/L	200.000	1000	Pass
Zn	68	534.000 µg/L	200.000	1000	Pass
As	75	20.380 µg/L	200.000	1000	Pass
Se	82	9.806 µg/L	200.000	1000	Pass
Sr	87	656.500 µg/L	200.000	1000	Pass
Mo	95	16.330 µg/L	200.000	1000	Pass
Mo	98	16.240 µg/L	200.000	1000	Pass
Ag	107	-0.257 µg/L	200.000	1000	Pass
Ag	109	-0.099 µg/L	200.000	1000	Pass
Cd	111	2.468 µg/L	200.000	1000	Pass
Cd	114	-0.066 µg/L	200.000	1000	Pass
Sn	120	18.590 µg/L	200.000	1000	Pass
Sb	121	-12.490 µg/L	200.000	1000	Pass
Sb	123	-11.110 µg/L	200.000	1000	Pass

Ba 135	647.700 µg/L	200.000	1000	Pass
Au 197	-1.850 µg/L	200.000	0	Pass
Tl 205	-3.600 µg/L	200.000	1000	Pass

Sample QC Report

20

File : D:\HPCHEM\1\DATA\Sep2302.17A\053SMPL.D\053SMPL.D#
Acquired : Sep 24 02 01:14 am using AcqMethod 6020.M
Operator : CJ
Sample Name: M021282-024
Misc Info : ,
Vial Number: 2312
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 10.000000

Pb 208	194.500 µg/L	200.000	1000	Pass
U 238	8.102 µg/L	200.000	1000	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	1078240	883099	Pass
45	949294	791363	Pass
72	136531	110632	Pass
115	761736	578929	Pass
209	401633	317868	Pass

Internal Standards referenced to 002CALB.D#

5 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2302.17A\054SMPL.D\054SMPL.D#
Acquired : Sep 24 02 01:23 am using AcqMethod 6020.M
Operator : CJ
Sample Name: M021282-024
Misc Info : ,
Vial Number: 2401
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 100.000000

201

Element		Concentration	Cal Conc	LRS Conc	Flag
Be	9	6.754 µg/L	200.000	1000	Pass
B	11	-435.400 µg/L	200.000	0	Pass
Na	23	2464.000 µg/L	10000.000	20000	Pass
Mg	24	15750.000 µg/L	10000.000	20000	Pass
Mg	25	15690.000 µg/L	10000.000	20000	Pass
Mg	26	15830.000 µg/L	10000.000	20000	Pass
Al	27	103900.000 µg/L	10000.000	20000	Pass
Si	28	9142.000 µg/L	10000.000	0	Pass
K	39	13920.000 µg/L	10000.000	20000	Pass
Ca	43	17940.000 µg/L	10000.000	20000	Pass
Ca	44	18470.000 µg/L	10000.000	20000	Pass
Ti	47	3446.000 µg/L	200.000	1000	Pass
V	51	103.500 µg/L	200.000	1000	Pass
Cr	52	36.840 µg/L	200.000	1000	Pass
Cr	53	-1219.000 µg/L	200.000	1000	Pass
Fe	54	147600.000 µg/L	10000.000	20000	Pass
Mn	55	3543.000 µg/L	200.000	1000	Pass
Fe	57	145000.000 µg/L	10000.000	20000	Pass
Co	59	-19.470 µg/L	200.000	1000	Pass
Ni	60	45.140 µg/L	200.000	1000	Pass
Cu	63	41.090 µg/L	200.000	1000	Pass
Cu	65	40.610 µg/L	200.000	1000	Pass
Zn	66	441.500 µg/L	200.000	1000	Pass
Zn	67	239.200 µg/L	200.000	1000	Pass
Zn	68	390.000 µg/L	200.000	1000	Pass
As	75	36.510 µg/L	200.000	1000	Pass
Se	82	5.443 µg/L	200.000	1000	Pass
Sr	87	666.900 µg/L	200.000	1000	Pass
Mo	95	-82.730 µg/L	200.000	1000	Pass
Mo	98	-79.490 µg/L	200.000	1000	Pass
Ag	107	-5.853 µg/L	200.000	1000	Pass
Ag	109	-5.759 µg/L	200.000	1000	Pass
Cd	111	-0.677 µg/L	200.000	1000	Pass
Cd	114	-3.448 µg/L	200.000	1000	Pass
Sn	120	-141.200 µg/L	200.000	1000	Pass
Sb	121	-131.100 µg/L	200.000	1000	Pass
Sb	123	-116.200 µg/L	200.000	1000	Pass

Ba 135	636.300 µg/L	200.000	1000	Pass
Au 197	-21.610 µg/L	200.000	0	Pass
Tl 205	-54.990 µg/L	200.000	1000	Pass

Sample QC Report

202

File : D:\HPCHEM\1\DATA\Sep2302.17A\054SMPL.D\054SMPL.D#
Acquired : Sep 24 02 01:23 am using AcqMethod 6020.M
Operator : CJ
Sample Name: M021282-024
Misc Info : ,
Vial Number: 2401
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 100.000000

Pb 208	159.300 µg/L	200.000	1000	Pass
U 238	4.592 µg/L	200.000	1000	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	1078240	912692	Pass
45	949294	734541	Pass
72	136531	104988	Pass
115	761736	560606	Pass
209	401633	306575	Pass

Internal Standards referenced to 002CALB.D#

0 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

Tune Sample Report

File : D:\HPCHEM\1\DATA\SEP2302.17A\055TUNE.D
Acquired : Sep 24 02 01:32 am using AcqMethod QCTUNE.M
Operator : CJ
Sample Name: 6020/200.8 TUNE MIX
Misc Info :
Vial Number: 1101
CurrentMeth: D:\HPCHEM\1\METHODS\QCTUNE.M
BkgFile : --------
Sample Type: TUNE
Dilution : 1.000000

Minimum Response Criteria (cps/ppb)

Element	RSD(%)	Actual	Required	Flag
59	1.54	142030	> 200	
7	1.90	185085	> 20	
115	1.80	172384	> 100	
205	1.42	78225	> 10	
102		0(cps)	< 25(cps)	

Ion Ratio Criteria

	Actual	Required	Flag
59/59	1.00	1.00 - 1.00	
7/59	1.30	0.10 - 5.00	
115/59	1.21	0.10 - 10.00	
205/59	0.55	0.10 - 5.00	

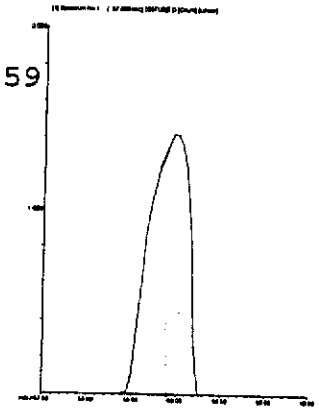

Mass Calib:58.95
W-50%: 0.60
W-10%: 0.70

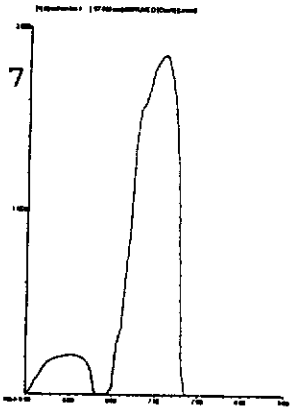

Mass Calib:7.10
W-50%: 0.60
W-10%: 0.80

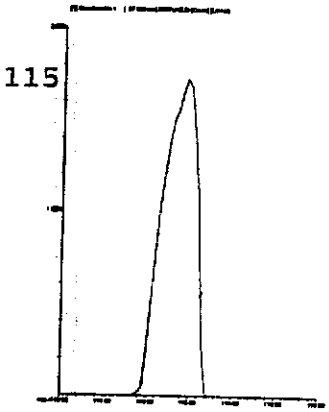

Mass Calib:114.95
W-50%: 0.55
W-10%: 0.65

Mass Calib:205.05
W-50%: 0.55
W-10%: 0.75

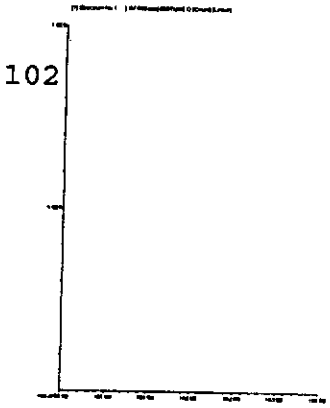

Background

US EPA Method 200.8 Tune Verification

Acquired : Sep 24 02 01:32 am using AcqMethod QCTUNE.M
Data File Name: D:\HPCHEM\1\DATA\Sep2302.17A\055TUNE.D

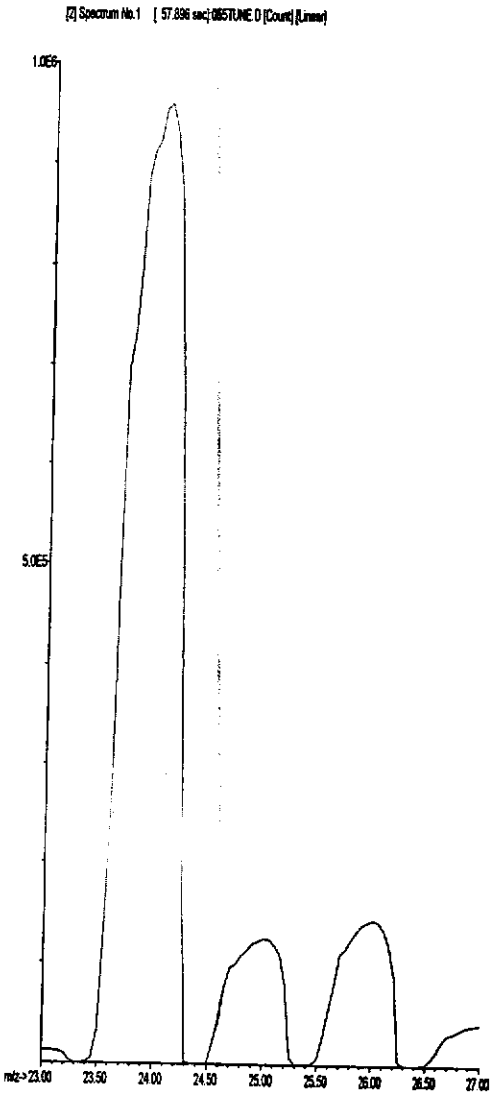

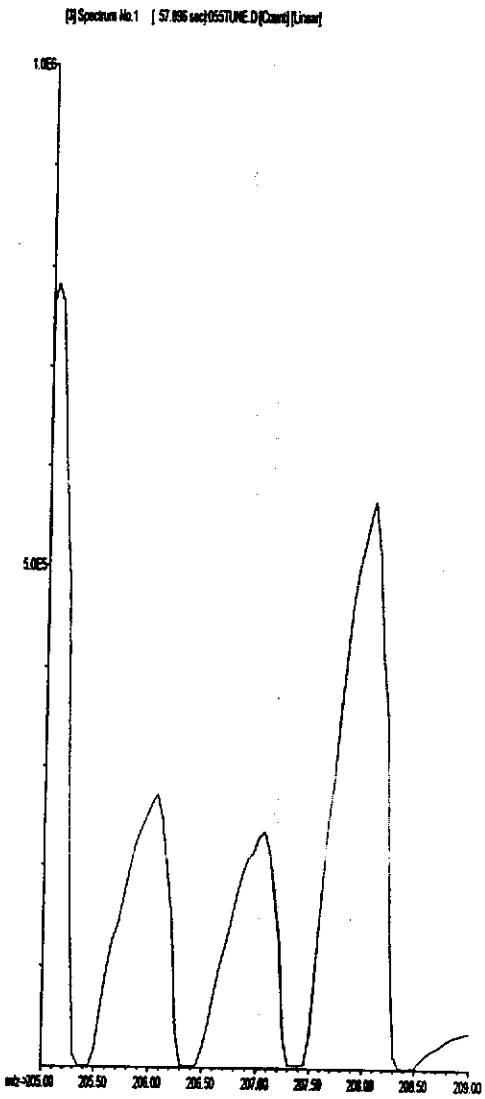

Element and Mass	Mass Assignment		PeakElement at 5and Mass Heig	Mass Assignment		Peak Width at 5% Peak Height
Mg 24	24.05	0.70	Pb 206	206.05	0.75	
Mg 25	25.00	0.70	Pb 207	207.05	0.75	
Mg 26	26.00	0.65	Pb 208	208.05	0.75	

* Does not meet EPA Method 200.8 specification.

Spectrum No.1 [57.896 sec]:055TUNE.D
Acquired : Sep 24 02 01:32 am using AcqMethod QCTUNE.M
Bkg file : --------
Interference Correction: OFF

Mass[amu]	Element	Count	n	SD	RSD[%]
5		5573.05 P	5	225.70	4.05
6		2517803.00 P	5	36930.00	1.47
7	Li	20312550.00 A	5	256600.00	1.26
8		7.20 P	5	2.39	33.16
23		179425.30 P	5	1935.00	1.08
24		10435200.00 A	5	174900.00	1.68
25		1368328.00 P	5	22350.00	1.63
26		1552793.00 P	5	31180.00	2.01
27		438000.20 P	5	5151.00	1.18
58		150523.60 P	5	9051.00	6.01
59	Co	14453750.00 A	5	127500.00	0.88
60		247.81 P	5	12.38	4.99
101		15.60 P	5	2.07	13.29
103		623.62 P	5	14.66	2.35
114		327301.10 P	5	22710.00	6.94
115	In	15693360.00 A	5	232000.00	1.48
116		753.23 P	5	35.28	4.68
204		236558.50 P	5	3593.00	1.52
205	Tl	7828599.00 A	5	49000.00	0.63
206		2673464.00 P	5	16650.00	0.62
207		2305424.00 P	5	12660.00	0.55
208		5588763.00 A	5	57800.00	1.03
209		382979.30 P	5	3969.00	1.04

CCV QC Report

File : D:\HPCHEM\1\DATA\Sep2302.17A\056CCV_D\056CCV_D#
Acquired : Sep 24 02 01:41 am using AcqMethod 6020.M
Operator : CJ
Sample Name: [STD-CCV]
Misc Info :
Vial Number: 1105
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: CCV
Dilution : 1.000000

CCV Mix #1

Element	Concentration	Expected	QC Range	Flag
Be 9	94.230 µg/L	100.00	90.00-110.00	Pass
B 11	103.900 µg/L	100.00	90.00-110.00	Pass
Na 23	1169.000 µg/L	1000.00	900.00-1100.00	*Fail*
Mg 24	1163.000 µg/L	1000.00	900.00-1100.00	*Fail*
Mg 25	1207.000 µg/L	1000.00	900.00-1100.00	*Fail*
Mg 26	1200.000 µg/L	1000.00	900.00-1100.00	*Fail*
Al 27	1143.000 µg/L	1000.00	900.00-1100.00	*Fail*
Si 28	1188.000 µg/L	1000.00	900.00-1100.00	*Fail*
K 39	1130.000 µg/L	1000.00	900.00-1100.00	*Fail*
Ca 43	1127.000 µg/L	1000.00	900.00-1100.00	*Fail*
Ca 44	1123.000 µg/L	1000.00	900.00-1100.00	*Fail*
Ti 47	105.600 µg/L	100.00	90.00-110.00	Pass
V 51	106.600 µg/L	100.00	90.00-110.00	Pass
Cr 52	107.500 µg/L	100.00	90.00-110.00	Pass
Cr 53	101.500 µg/L	100.00	90.00-110.00	Pass
Fe 54	1244.000 µg/L	1000.00	900.00-1100.00	*Fail*
Mn 55	104.200 µg/L	100.00	90.00-110.00	Pass
Fe 57	1135.000 µg/L	1000.00	900.00-1100.00	*Fail*
Co 59	107.000 µg/L	100.00	90.00-110.00	Pass
Ni 60	106.700 µg/L	100.00	90.00-110.00	Pass
Cu 63	107.000 µg/L	100.00	90.00-110.00	Pass
Cu 65	106.300 µg/L	100.00	90.00-110.00	Pass
Zn 66	103.900 µg/L	100.00	90.00-110.00	Pass
Zn 67	99.980 µg/L	100.00	90.00-110.00	Pass
Zn 68	104.400 µg/L	100.00	90.00-110.00	Pass
As 75	105.500 µg/L	100.00	90.00-110.00	Pass
Se 82	103.200 µg/L	100.00	90.00-110.00	Pass
Sr 87	101.200 µg/L	100.00	90.00-110.00	Pass
Mo 95	100.400 µg/L	100.00	90.00-110.00	Pass
Mo 98	100.500 µg/L	100.00	90.00-110.00	Pass
Ag 107	100.800 µg/L	100.00	90.00-110.00	Pass
Ag 109	100.700 µg/L	100.00	90.00-110.00	Pass
Cd 111	103.400 µg/L	100.00	90.00-110.00	Pass
Cd 114	103.500 µg/L	100.00	90.00-110.00	Pass
Sn 120	102.200 µg/L	100.00	90.00-110.00	Pass

Sb 121	103.400 µg/L	100.00	90.00-110.00	Pass
Sb 123	103.300 µg/L	100.00	90.00-110.00	Pass
Ba 135	104.500 µg/L	100.00	90.00-110.00	Pass

CCV QC Report

File : D:\HPCHEM\1\DATA\Sep2302.17A\056CCV_.D\056CCV_.D#
Acquired : Sep 24 02 01:41 am using AcqMethod 6020.M
Operator : CJ
Sample Name: [STD-CCV]
Misc Info :
Vial Number: 1105
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: CCV
Dilution : 1.000000

Au 197	101.000 µg/L	100.00	90.00-110.00	Pass
Tl 205	100.200 µg/L	100.00	90.00-110.00	Pass
Pb 208	102.300 µg/L	100.00	90.00-110.00	Pass
U 238	101.100 µg/L	100.00	90.00-110.00	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	1078240	916328	Pass
45	949294	735707	Pass
72	136531	105641	Pass
115	761736	565417	Pass
209	401633	307534	Pass

Internal Standards referenced to 002CALB.D#

11 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

Blank QC Report

20

File : D:\HPCHEM\1\DATA\Sep2302.17A\057CCB_D\057CCB_D#
Acquired : Sep 24 02 01:50 am using AcqMethod 6020.M
Operator : CJ
Sample Name: [CB]
Misc Info :
Vial Number: 1102
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: CCB
Dilution : 1.000000

Element		Concentration	CRDL Limit	Flag
Be	9	0.013 µg/L	1.00	Pass
B	11	-1.005 µg/L	1.00	*Fail*
Na	23	-0.127 µg/L	10.00	Pass
Mg	24	0.026 µg/L	10.00	Pass
Mg	25	-0.049 µg/L	10.00	Pass
Mg	26	0.034 µg/L	10.00	Pass
Al	27	-0.240 µg/L	10.00	Pass
Si	28	39.590 µg/L	10.00	*Fail*
K	39	-2.779 µg/L	10.00	Pass
Ca	43	0.042 µg/L	10.00	Pass
Ca	44	2.735 µg/L	10.00	Pass
Ti	47	-0.177 µg/L	1.00	Pass
V	51	0.252 µg/L	1.00	Pass
Cr	52	0.568 µg/L	1.00	Pass
Cr	53	14.500 µg/L	1.00	*Fail*
Fe	54	32.820 µg/L	10.00	*Fail*
Mn	55	0.056 µg/L	1.00	Pass
Fe	57	8.749 µg/L	10.00	Pass
Co	59	-0.183 µg/L	1.00	Pass
Ni	60	0.032 µg/L	1.00	Pass
Cu	63	0.009 µg/L	1.00	Pass
Cu	65	-0.003 µg/L	1.00	Pass
Zn	66	0.043 µg/L	1.00	Pass
Zn	67	0.897 µg/L	1.00	Pass
Zn	68	-0.036 µg/L	1.00	Pass
As	75	0.643 µg/L	1.00	Pass
Se	82	0.084 µg/L	1.00	Pass
Sr	87	0.015 µg/L	1.00	Pass
Mo	95	-0.826 µg/L	1.00	Pass
Mo	98	-0.817 µg/L	1.00	Pass
Ag	107	-0.032 µg/L	1.00	Pass
Ag	109	-0.031 µg/L	1.00	Pass
Cd	111	-0.020 µg/L	1.00	Pass
Cd	114	-0.017 µg/L	1.00	Pass
Sn	120	-1.711 µg/L	1.00	*Fail*
Sb	121	-1.152 µg/L	1.00	*Fail*
Sb	123	-0.989 µg/L	1.00	Pass

Ba 135	0.033 µg/L	1.00	Pass
Au 197	0.257 µg/L	1.00	Pass
Tl 205	0.131 µg/L	1.00	Pass

Blank QC Report

File : D:\HPCHEM\1\DATA\Sep2302.17A\057CCB_D\057CCB_D#
Acquired : Sep 24 02 01:50 am using AcqMethod 6020.M
Operator : CJ
Sample Name: [CB]
Misc Info :
Vial Number: 1102
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: CCB
Dilution : 1.000000

Pb 208	-0.195 µg/L	1.00	Pass
U 238	0.009 µg/L	1.00	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	1078240	897765	Pass
45	949294	736165	Pass
72	136531	104462	Pass
115	761736	557221	Pass
209	401633	302890	Pass

Internal Standards referenced to 002CALB.D#

6 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

Interference Check A QC Report

210

File : D:\HPCHEM\1\DATA\Sep2302.17A\058ICSA.D\058ICSA.D#
Acquired : Sep 24 02 01:59 am using AcqMethod 6020.M
Operator : CJ
Sample Name: [ICSA]
Misc Info :
Vial Number: 1303
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: ICS_A_
Dilution : 1.000000

Element		Concentration	Expected	CRDL Range Conc	%Range Conc	Flag
Be	9	0.057 µg/L	0.00	-1.00-1.00	0-0	Pass
B	11	3.086 µg/L	0.00	-1.00-1.00	0-0	*Fail*
Na	23	----- µg/L	100000.00	1.00E+5-1.00E+5	8.00E+4-1.20E+5	OverRng
Mg	24	----- µg/L	100000.00	1.00E+5-1.00E+5	8.00E+4-1.20E+5	OverRng
Mg	25	151800.000 µg/L	100000.00	1.00E+5-1.00E+5	8.00E+4-1.20E+5	*Fail*
Mg	26	154900.000 µg/L	100000.00	1.00E+5-1.00E+5	8.00E+4-1.20E+5	*Fail*
Al	27	----- µg/L	100000.00	1.00E+5-1.00E+5	8.00E+4-1.20E+5	OverRng
Si	28	131.200 µg/L	0.00	-10.00-10.00	0-0	*Fail*
K	39	----- µg/L	100000.00	1.00E+5-1.00E+5	8.00E+4-1.20E+5	OverRng
Ca	43	167100.000 µg/L	100000.00	1.00E+5-1.00E+5	8.00E+4-1.20E+5	*Fail*
Ca	44	165000.000 µg/L	100000.00	1.00E+5-1.00E+5	8.00E+4-1.20E+5	*Fail*
Ti	47	3134.000 µg/L	2000.00	1999.00-2001.00	1600-2400	*Fail*
V	51	0.948 µg/L	0.00	-1.00-1.00	0-0	Pass
Cr	52	3.609 µg/L	0.00	-1.00-1.00	0-0	*Fail*
Cr	53	27.840 µg/L	0.00	-1.00-1.00	0-0	*Fail*
Fe	54	163400.000 µg/L	100000.00	1.00E+5-1.00E+5	8.00E+4-1.20E+5	*Fail*
Mn	55	2.555 µg/L	0.00	-1.00-1.00	0-0	*Fail*
Fe	57	161100.000 µg/L	100000.00	1.00E+5-1.00E+5	8.00E+4-1.20E+5	*Fail*
Co	59	0.299 µg/L	0.00	-1.00-1.00	0-0	Pass
Ni	60	3.765 µg/L	0.00	-1.00-1.00	0-0	*Fail*
Cu	63	14.700 µg/L	0.00	-1.00-1.00	0-0	*Fail*
Cu	65	7.186 µg/L	0.00	-1.00-1.00	0-0	*Fail*
Zn	66	53.090 µg/L	0.00	-1.00-1.00	0-0	*Fail*
Zn	67	177.600 µg/L	0.00	-1.00-1.00	0-0	*Fail*
Zn	68	46.360 µg/L	0.00	-1.00-1.00	0-0	*Fail*
As	75	0.123 µg/L	0.00	-1.00-1.00	0-0	Pass
Se	82	-4.254 µg/L	0.00	-1.00-1.00	0-0	*Fail*
Sr	87	8.886 µg/L	0.00	-1.00-1.00	0-0	*Fail*
Mo	95	3111.000 µg/L	2000.00	1999.00-2001.00	1600-2400	*Fail*
Mo	98	3098.000 µg/L	2000.00	1999.00-2001.00	1600-2400	*Fail*
Ag	107	0.884 µg/L	0.00	-1.00-1.00	0-0	Pass
Ag	109	0.895 µg/L	0.00	-1.00-1.00	0-0	Pass
Cd	111	-0.001 µg/L	0.00	-1.00-1.00	0-0	Pass
Cd	114	0.044 µg/L	0.00	-1.00-1.00	0-0	Pass
Sn	120	-1.414 µg/L	0.00	-1.00-1.00	0-0	*Fail*
Sb	121	3.179 µg/L	0.00	-1.00-1.00	0-0	*Fail*
Sb	123	3.303 µg/L	0.00	-1.00-1.00	0-0	*Fail*

Ba 135	2.417 µg/L	0.00	-1.00-1.00	0-0	*Fail*
Au 197	0.216 µg/L	0.00	-1.00-1.00	0-0	Pass
Tl 205	-0.325 µg/L	0.00	-1.00-1.00	0-0	Pass

211

Interference Check A QC Report

File : D:\HPCHEM\1\DATA\Sep2302.17A\058ICSA.D\058ICSA.D#
Acquired : Sep 24 02 01:59 am using AcqMethod 6020.M
Operator : CJ
Sample Name: [ICSA]
Misc Info :
Vial Number: 1303
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : ---------
Sample Type: ICS_A_
Dilution : 1.000000

Pb 208	6.266 µg/L	0.00	-1.00-1.00	0-0	*Fail*
U 238	0.086 µg/L	0.00	-1.00-1.00	0-0	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	1078240	682652	Pass
45	949294	655722	Pass
72	136531	130051	Pass
115	761736	525886	Pass
209	401633	272607	Pass

Internal Standards referenced to 002CALB.D#

27 Element Failures! Maximum Number of Allowed Failures (20) Exceeded!
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

Interference Check AB QC Report

212

File : D:\HPCHEM\1\DATA\Sep2302.17A\059ICSB.D\059ICSB.D#
Acquired : Sep 24 02 02:08 am using AcqMethod 6020.M
Operator : CJ
Sample Name: [ICSAB]
Misc Info :
Vial Number: 1304
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: ICS_AB
Dilution : 1.000000

Element		Concentration	Expected	CRDL Range Conc	%Range Conc	Flag
Be	9	0.024 µg/L	0.00	-1.00-1.00	0-0	Pass
B	11	2.919 µg/L	0.00	-1.00-1.00	0-0	*Fail*
Na	23	----- µg/L	100000.00	1.00E+5-1.00E+5	8.00E+4-1.20E+5	OverRng
Mg	24	----- µg/L	100000.00	1.00E+5-1.00E+5	8.00E+4-1.20E+5	OverRng
Mg	25	148700.000 µg/L	100000.00	1.00E+5-1.00E+5	8.00E+4-1.20E+5	*Fail*
Mg	26	152700.000 µg/L	100000.00	1.00E+5-1.00E+5	8.00E+4-1.20E+5	*Fail*
Al	27	----- µg/L	100000.00	1.00E+5-1.00E+5	8.00E+4-1.20E+5	OverRng
Si	28	146.900 µg/L	0.00	-10.00-10.00	0-0	*Fail*
K	39	----- µg/L	100000.00	1.00E+5-1.00E+5	8.00E+4-1.20E+5	OverRng
Ca	43	170700.000 µg/L	100000.00	1.00E+5-1.00E+5	8.00E+4-1.20E+5	*Fail*
Ca	44	168600.000 µg/L	100000.00	1.00E+5-1.00E+5	8.00E+4-1.20E+5	*Fail*
Ti	47	3187.000 µg/L	2000.00	1999.00-2001.00	1600-2400	*Fail*
V	51	1.319 µg/L	0.00	-1.00-1.00	0-0	*Fail*
Cr	52	34.660 µg/L	20.00	19.00-21.00	16-24	*Fail*
Cr	53	65.990 µg/L	20.00	19.00-21.00	16-24	*Fail*
Fe	54	163900.000 µg/L	100000.00	1.00E+5-1.00E+5	8.00E+4-1.20E+5	*Fail*
Mn	55	33.760 µg/L	20.00	19.00-21.00	16-24	*Fail*
Fe	57	162700.000 µg/L	100000.00	1.00E+5-1.00E+5	8.00E+4-1.20E+5	*Fail*
Co	59	31.820 µg/L	20.00	19.00-21.00	16-24	*Fail*
Ni	60	34.040 µg/L	20.00	19.00-21.00	16-24	*Fail*
Cu	63	49.640 µg/L	20.00	19.00-21.00	16-24	*Fail*
Cu	65	42.710 µg/L	20.00	19.00-21.00	16-24	*Fail*
Zn	66	37.300 µg/L	20.00	19.00-21.00	16-24	*Fail*
Zn	67	165.000 µg/L	20.00	19.00-21.00	16-24	*Fail*
Zn	68	30.510 µg/L	20.00	19.00-21.00	16-24	*Fail*
As	75	25.540 µg/L	20.00	19.00-21.00	16-24	*Fail*
Se	82	-3.892 µg/L	0.00	-1.00-1.00	0-0	*Fail*
Sr	87	8.642 µg/L	0.00	-1.00-1.00	0-0	*Fail*
Mo	95	3094.000 µg/L	2000.00	1999.00-2001.00	1600-2400	*Fail*
Mo	98	3074.000 µg/L	2000.00	1999.00-2001.00	1600-2400	*Fail*
Ag	107	27.700 µg/L	20.00	19.00-21.00	16-24	*Fail*
Ag	109	27.720 µg/L	20.00	19.00-21.00	16-24	*Fail*
Cd	111	31.260 µg/L	20.00	19.00-21.00	16-24	*Fail*
Cd	114	30.430 µg/L	20.00	19.00-21.00	16-24	*Fail*
Sn	120	0.837 µg/L	0.00	-1.00-1.00	0-0	Pass
Sb	121	3.237 µg/L	0.00	-1.00-1.00	0-0	*Fail*
Sb	123	3.432 µg/L	0.00	-1.00-1.00	0-0	*Fail*

Ba 135	2.316 µg/L	0.00	-1.00-1.00	0-0	*Fail*
Au 197	-0.057 µg/L	0.00	-1.00-1.00	0-0	Pass
Tl 205	-0.440 µg/L	0.00	-1.00-1.00	0-0	Pass

Interference Check AB QC Report

File : D:\HPCHEM\1\DATA\Sep2302.17A\059ICSB.D\059ICSB.D#
Acquired : Sep 24 02 02:08 am using AcqMethod 6020.M
Operator : CJ
Sample Name: [ICSAB]
Misc Info :
Vial Number: 1304
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: ICS_AB
Dilution : 1.000000

Pb 208	6.656 µg/L	0.00	-1.00-1.00	0-0	*Fail*
U 238	0.048 µg/L	0.00	-1.00-1.00	0-0	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	1078240	685132	Pass
45	949294	633658	Pass
72	136531	128894	Pass
115	761736	517378	Pass
209	401633	268417	Pass

Internal Standards referenced to 002CALB.D#

33 Element Failures! Maximum Number of Allowed Failures (20) Exceeded!
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

Blank QC Report

214

File : D:\HPCHEM\1\DATA\Sep2302.17A\060BLNK.D\060BLNK.D#
Acquired : Sep 24 02 02:18 am using AcqMethod 6020.M
Operator : CJ
Sample Name: BLANK
Misc Info :
Vial Number: 1
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: BLANK
Dilution : 1.000000

Element	Concentration	CRDL Limit	Flag
Be 9	0.007 µg/L	1.00	Pass
B 11	-1.041 µg/L	1.00	*Fail*
Na 23	59.360 µg/L	10.00	*Fail*
Mg 24	56.880 µg/L	10.00	*Fail*
Mg 25	57.870 µg/L	10.00	*Fail*
Mg 26	58.120 µg/L	10.00	*Fail*
Al 27	59.000 µg/L	10.00	*Fail*
Si 28	30.580 µg/L	10.00	*Fail*
K 39	52.030 µg/L	10.00	*Fail*
Ca 43	44.320 µg/L	10.00	*Fail*
Ca 44	45.040 µg/L	10.00	*Fail*
Ti 47	1.837 µg/L	1.00	*Fail*
V 51	-0.104 µg/L	1.00	Pass
Cr 52	-0.873 µg/L	1.00	Pass
Cr 53	-18.110 µg/L	1.00	*Fail*
Fe 54	-156.000 µg/L	10.00	*Fail*
Mn 55	-0.064 µg/L	1.00	Pass
Fe 57	71.750 µg/L	10.00	*Fail*
Co 59	-0.307 µg/L	1.00	Pass
Ni 60	0.002 µg/L	1.00	Pass
Cu 63	0.132 µg/L	1.00	Pass
Cu 65	0.150 µg/L	1.00	Pass
Zn 66	-1.542 µg/L	1.00	*Fail*
Zn 67	-2.830 µg/L	1.00	*Fail*
Zn 68	-1.711 µg/L	1.00	*Fail*
As 75	-0.089 µg/L	1.00	Pass
Se 82	-0.223 µg/L	1.00	Pass
Sr 87	0.004 µg/L	1.00	Pass
Mo 95	2.328 µg/L	1.00	*Fail*
Mo 98	2.419 µg/L	1.00	*Fail*
Ag 107	-0.036 µg/L	1.00	Pass
Ag 109	-0.031 µg/L	1.00	Pass
Cd 111	-0.038 µg/L	1.00	Pass
Cd 114	-0.010 µg/L	1.00	Pass
Sn 120	-1.802 µg/L	1.00	*Fail*
Sb 121	-1.331 µg/L	1.00	*Fail*
Sb 123	-1.188 µg/L	1.00	*Fail*

Ba 135	−0.005 µg/L	1.00	Pass
Au 197	−0.187 µg/L	1.00	Pass
Tl 205	−0.521 µg/L	1.00	Pass

Blank QC Report

File : D:\HPCHEM\1\DATA\Sep2302.17A\060BLNK.D\060BLNK.D#
Acquired : Sep 24 02 02:18 am using AcqMethod 6020.M
Operator : CJ
Sample Name: BLANK
Misc Info :
Vial Number: 1
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: BLANK
Dilution : 1.000000

Pb 208	−0.354 µg/L	1.00	Pass
U 238	−0.024 µg/L	1.00	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	1078240	734008	Pass
45	949294	707721	Pass
72	136531	116425	Pass
115	761736	627784	Pass
209	401633	360546	Pass

Internal Standards referenced to 002CALB.D#

22 Element Failures! Maximum Number of Allowed Failures (20) Exceeded!
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

Sample QC Report

21t

File : D:\HPCHEM\1\DATA\Sep2302.17A\061SMPL.D\061SMPL.D#
Acquired : Sep 24 02 02:27 am using AcqMethod 6020.M
Operator : CJ
Sample Name: M021282-025
Misc Info : ,
Vial Number: 2402
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 10.000000

Element		Concentration	Cal Conc	LRS Conc	Flag
Be	9	9.141 µg/L	200.000	1000	Pass
B	11	-12.890 µg/L	200.000	0	Pass
Na	23	3128.000 µg/L	10000.000	20000	Pass
Mg	24	15010.000 µg/L	10000.000	20000	Pass
Mg	25	15470.000 µg/L	10000.000	20000	Pass
Mg	26	15270.000 µg/L	10000.000	20000	Pass
Al	27	109300.000 µg/L	10000.000	20000	>Cal std
Si	28	5439.000 µg/L	10000.000	0	Pass
K	39	14100.000 µg/L	10000.000	20000	Pass
Ca	43	22040.000 µg/L	10000.000	20000	Pass
Ca	44	21930.000 µg/L	10000.000	20000	Pass
Ti	47	2915.000 µg/L	200.000	1000	>Cal std
V	51	98.550 µg/L	200.000	1000	Pass
Cr	52	56.230 µg/L	200.000	1000	Pass
Cr	53	-74.620 µg/L	200.000	1000	Pass
Fe	54	124500.000 µg/L	10000.000	20000	>Cal std
Mn	55	3512.000 µg/L	200.000	1000	>Cal std
Fe	57	121700.000 µg/L	10000.000	20000	>Cal std
Co	59	18.650 µg/L	200.000	1000	Pass
Ni	60	46.570 µg/L	200.000	1000	Pass
Cu	63	41.530 µg/L	200.000	1000	Pass
Cu	65	42.930 µg/L	200.000	1000	Pass
Zn	66	490.700 µg/L	200.000	1000	Pass
Zn	67	497.100 µg/L	200.000	1000	Pass
Zn	68	436.300 µg/L	200.000	1000	Pass
As	75	31.390 µg/L	200.000	1000	Pass
Se	82	10.270 µg/L	200.000	1000	Pass
Sr	87	696.900 µg/L	200.000	1000	Pass
Mo	95	28.470 µg/L	200.000	1000	Pass
Mo	98	28.720 µg/L	200.000	1000	Pass
Ag	107	-0.247 µg/L	200.000	1000	Pass
Ag	109	-0.283 µg/L	200.000	1000	Pass
Cd	111	2.330 µg/L	200.000	1000	Pass
Cd	114	-0.020 µg/L	200.000	1000	Pass
Sn	120	21.580 µg/L	200.000	1000	Pass
Sb	121	-12.550 µg/L	200.000	1000	Pass
Sb	123	-11.000 µg/L	200.000	1000	Pass

Ba 135	704.100 µg/L	200.000	1000	Pass
Au 197	-1.702 µg/L	200.000	0	Pass
Tl 205	-3.010 µg/L	200.000	1000	Pass

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2302.17A\061SMPL.D\061SMPL.D#
Acquired : Sep 24 02 02:27 am using AcqMethod 6020.M
Operator : CJ
Sample Name: M021282-025
Misc Info : ,
Vial Number: 2402
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 10.000000

Pb 208	189.900 µg/L	200.000	1000	Pass
U 238	8.621 µg/L	200.000	1000	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	1078240	913522	Pass
45	949294	813305	Pass
72	136531	108200	Pass
115	761736	556538	Pass
209	401633	306218	Pass

Internal Standards referenced to 002CALB.D#

5 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

Sample QC Report

21

File : D:\HPCHEM\1\DATA\Sep2302.17A\062SMPL.D\062SMPL.D#
Acquired : Sep 24 02 02:36 am using AcqMethod 6020.M
Operator : CJ
Sample Name: M021282-025
Misc Info : ,
Vial Number: 2403
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 100.000000

Element		Concentration	Cal Conc	LRS Conc	Flag
Be	9	5.389 µg/L	200.000	1000	Pass
B	11	-410.800 µg/L	200.000	0	Pass
Na	23	3039.000 µg/L	10000.000	20000	Pass
Mg	24	12660.000 µg/L	10000.000	20000	Pass
Mg	25	12760.000 µg/L	10000.000	20000	Pass
Mg	26	12900.000 µg/L	10000.000	20000	Pass
Al	27	82840.000 µg/L	10000.000	20000	Pass
Si	28	9092.000 µg/L	10000.000	0	Pass
K	39	11310.000 µg/L	10000.000	20000	Pass
Ca	43	16050.000 µg/L	10000.000	20000	Pass
Ca	44	16280.000 µg/L	10000.000	20000	Pass
Ti	47	2201.000 µg/L	200.000	1000	Pass
V	51	65.450 µg/L	200.000	1000	Pass
Cr	52	20.870 µg/L	200.000	1000	Pass
Cr	53	-1601.000 µg/L	200.000	1000	Pass
Fe	54	96510.000 µg/L	10000.000	20000	Pass
Mn	55	2608.000 µg/L	200.000	1000	Pass
Fe	57	95960.000 µg/L	10000.000	20000	Pass
Co	59	-16.910 µg/L	200.000	1000	Pass
Ni	60	36.320 µg/L	200.000	1000	Pass
Cu	63	30.820 µg/L	200.000	1000	Pass
Cu	65	30.980 µg/L	200.000	1000	Pass
Zn	66	213.800 µg/L	200.000	1000	Pass
Zn	67	21.970 µg/L	200.000	1000	Pass
Zn	68	160.700 µg/L	200.000	1000	Pass
As	75	47.220 µg/L	200.000	1000	Pass
Se	82	-14.310 µg/L	200.000	1000	Pass
Sr	87	518.700 µg/L	200.000	1000	Pass
Mo	95	4.469 µg/L	200.000	1000	Pass
Mo	98	10.680 µg/L	200.000	1000	Pass
Ag	107	-5.270 µg/L	200.000	1000	Pass
Ag	109	-5.306 µg/L	200.000	1000	Pass
Cd	111	-0.775 µg/L	200.000	1000	Pass
Cd	114	-2.182 µg/L	200.000	1000	Pass
Sn	120	-148.000 µg/L	200.000	1000	Pass
Sb	121	-131.500 µg/L	200.000	1000	Pass
Sb	123	-117.300 µg/L	200.000	1000	Pass

Ba 135	517.700 µg/L	200.000	1000	Pass
Au 197	-20.020 µg/L	200.000	0	Pass
Tl 205	-51.790 µg/L	200.000	1000	Pass

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2302.17A\062SMPL.D\062SMPL.D#
Acquired : Sep 24 02 02:36 am using AcqMethod 6020.M
Operator : CJ
Sample Name: M021282-025
Misc Info : ,
Vial Number: 2403
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 100.000000

Pb 208	101.900 µg/L	200.000	1000	Pass
U 238	3.505 µg/L	200.000	1000	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	1078240	877864	Pass
45	949294	747818	Pass
72	136531	102701	Pass
115	761736	543531	Pass
209	401633	295277	Pass

Internal Standards referenced to 002CALB.D#

0 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

Sample QC Report

220

File : D:\HPCHEM\1\DATA\Sep2302.17A\063SMPL.D\063SMPL.D#
Acquired : Sep 24 02 02:45 am using AcqMethod 6020.M
Operator : CJ
Sample Name: M021282-026
Misc Info : ,
Vial Number: 2404
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 10.000000

Element		Concentration	Cal Conc	LRS Conc	Flag
Be	9	8.977 µg/L	200.000	1000	Pass
B	11	-17.410 µg/L	200.000	0	Pass
Na	23	2816.000 µg/L	10000.000	20000	Pass
Mg	24	14230.000 µg/L	10000.000	20000	Pass
Mg	25	15110.000 µg/L	10000.000	20000	Pass
Mg	26	14810.000 µg/L	10000.000	20000	Pass
Al	27	104900.000 µg/L	10000.000	20000	>Cal std
Si	28	5121.000 µg/L	10000.000	0	Pass
K	39	13530.000 µg/L	10000.000	20000	Pass
Ca	43	21120.000 µg/L	10000.000	20000	Pass
Ca	44	20840.000 µg/L	10000.000	20000	Pass
Ti	47	2815.000 µg/L	200.000	1000	>Cal std
V	51	92.010 µg/L	200.000	1000	Pass
Cr	52	53.250 µg/L	200.000	1000	Pass
Cr	53	-82.810 µg/L	200.000	1000	Pass
Fe	54	120900.000 µg/L	10000.000	20000	>Cal std
Mn	55	3320.000 µg/L	200.000	1000	>Cal std
Fe	57	123300.000 µg/L	10000.000	20000	>Cal std
Co	59	18.470 µg/L	200.000	1000	Pass
Ni	60	46.630 µg/L	200.000	1000	Pass
Cu	63	41.420 µg/L	200.000	1000	Pass
Cu	65	42.370 µg/L	200.000	1000	Pass
Zn	66	481.300 µg/L	200.000	1000	Pass
Zn	67	491.100 µg/L	200.000	1000	Pass
Zn	68	429.900 µg/L	200.000	1000	Pass
As	75	25.670 µg/L	200.000	1000	Pass
Se	82	8.306 µg/L	200.000	1000	Pass
Sr	87	673.800 µg/L	200.000	1000	Pass
Mo	95	15.280 µg/L	200.000	1000	Pass
Mo	98	15.240 µg/L	200.000	1000	Pass
Ag	107	-0.241 µg/L	200.000	1000	Pass
Ag	109	-0.288 µg/L	200.000	1000	Pass
Cd	111	2.294 µg/L	200.000	1000	Pass
Cd	114	-0.157 µg/L	200.000	1000	Pass
Sn	120	20.750 µg/L	200.000	1000	Pass
Sb	121	-12.660 µg/L	200.000	1000	Pass
Sb	123	-11.220 µg/L	200.000	1000	Pass

Ba 135	682.500 µg/L	200.000	1000	Pass
Au 197	-2.133 µg/L	200.000	0	Pass
Tl 205	-3.255 µg/L	200.000	1000	Pass

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2302.17A\063SMPL.D\063SMPL.D#
Acquired : Sep 24 02 02:45 am using AcqMethod 6020.M
Operator : CJ
Sample Name: M021282-026
Misc Info : ,
Vial Number: 2404
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 10.000000

Pb 208	181.700 µg/L	200.000	1000	Pass
U 238	7.923 µg/L	200.000	1000	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	1078240	867607	Pass
45	949294	788551	Pass
72	136531	107702	Pass
115	761736	559077	Pass
209	401633	307191	Pass

Internal Standards referenced to 002CALB.D#

5 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

Sample QC Report

222

File : D:\HPCHEM\1\DATA\Sep2302.17A\064SMPL.D\064SMPL.D#
Acquired : Sep 24 02 02:54 am using AcqMethod 6020.M
Operator : CJ
Sample Name: M021282-026
Misc Info : ,
Vial Number: 2405
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 100.000000

Element		Concentration	Cal Conc	LRS Conc	Flag
Be	9	8.783 µg/L	200.000	1000	Pass
B	11	-404.700 µg/L	200.000	0	Pass
Na	23	3278.000 µg/L	10000.000	20000	Pass
Mg	24	17520.000 µg/L	10000.000	20000	Pass
Mg	25	17450.000 µg/L	10000.000	20000	Pass
Mg	26	17450.000 µg/L	10000.000	20000	Pass
Al	27	123000.000 µg/L	10000.000	20000	Pass
Si	28	11160.000 µg/L	10000.000	0	Pass
K	39	15670.000 µg/L	10000.000	20000	Pass
Ca	43	23140.000 µg/L	10000.000	20000	Pass
Ca	44	23170.000 µg/L	10000.000	20000	Pass
Ti	47	3350.000 µg/L	200.000	1000	Pass
V	51	106.500 µg/L	200.000	1000	Pass
Cr	52	40.420 µg/L	200.000	1000	Pass
Cr	53	-1626.000 µg/L	200.000	1000	Pass
Fe	54	143500.000 µg/L	10000.000	20000	Pass
Mn	55	3903.000 µg/L	200.000	1000	Pass
Fe	57	140100.000 µg/L	10000.000	20000	Pass
Co	59	-10.530 µg/L	200.000	1000	Pass
Ni	60	54.310 µg/L	200.000	1000	Pass
Cu	63	47.330 µg/L	200.000	1000	Pass
Cu	65	48.330 µg/L	200.000	1000	Pass
Zn	66	403.300 µg/L	200.000	1000	Pass
Zn	67	229.100 µg/L	200.000	1000	Pass
Zn	68	330.600 µg/L	200.000	1000	Pass
As	75	57.310 µg/L	200.000	1000	Pass
Se	82	-4.544 µg/L	200.000	1000	Pass
Sr	87	769.300 µg/L	200.000	1000	Pass
Mo	95	-44.920 µg/L	200.000	1000	Pass
Mo	98	-40.910 µg/L	200.000	1000	Pass
Ag	107	-5.638 µg/L	200.000	1000	Pass
Ag	109	-5.181 µg/L	200.000	1000	Pass
Cd	111	-0.019 µg/L	200.000	1000	Pass
Cd	114	-3.510 µg/L	200.000	1000	Pass
Sn	120	-136.400 µg/L	200.000	1000	Pass
Sb	121	-132.700 µg/L	200.000	1000	Pass
Sb	123	-117.400 µg/L	200.000	1000	Pass

Ba 135	745.500 µg/L	200.000	1000	Pass
Au 197	-19.580 µg/L	200.000	0	Pass
Tl 205	-53.840 µg/L	200.000	1000	Pass

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2302.17A\064SMPL.D\064SMPL.D#
Acquired : Sep 24 02 02:54 am using AcqMethod 6020.M
Operator : CJ
Sample Name: M021282-026
Misc Info : ,
Vial Number: 2405
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 100.000000

Pb 208	168.200 µg/L	200.000	1000	Pass
U 238	5.027 µg/L	200.000	1000	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	1078240	890973	Pass
45	949294	743420	Pass
72	136531	102945	Pass
115	761736	546429	Pass
209	401633	299178	Pass

Internal Standards referenced to 002CALB.D#

0 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

CCV QC Report

File : D:\HPCHEM\1\DATA\Sep2302.17A\065CCV_D\065CCV_D#
Acquired : Sep 24 02 03:04 am using AcqMethod 6020.M
Operator : CJ
Sample Name: [STD-CCV]
Misc Info :
Vial Number: 1105
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: CCV
Dilution : 1.000000

CCV Mix #1

Element		Concentration	Expected	QC Range	Flag
Be	9	94.380 µg/L	100.00	90.00-110.00	Pass
B	11	100.900 µg/L	100.00	90.00-110.00	Pass
Na	23	1138.000 µg/L	1000.00	900.00-1100.00	*Fail*
Mg	24	1130.000 µg/L	1000.00	900.00-1100.00	*Fail*
Mg	25	1176.000 µg/L	1000.00	900.00-1100.00	*Fail*
Mg	26	1156.000 µg/L	1000.00	900.00-1100.00	*Fail*
Al	27	1114.000 µg/L	1000.00	900.00-1100.00	*Fail*
Si	28	1152.000 µg/L	1000.00	900.00-1100.00	*Fail*
K	39	1097.000 µg/L	1000.00	900.00-1100.00	Pass
Ca	43	1079.000 µg/L	1000.00	900.00-1100.00	Pass
Ca	44	1083.000 µg/L	1000.00	900.00-1100.00	Pass
Ti	47	103.000 µg/L	100.00	90.00-110.00	Pass
V	51	102.800 µg/L	100.00	90.00-110.00	Pass
Cr	52	102.700 µg/L	100.00	90.00-110.00	Pass
Cr	53	88.560 µg/L	100.00	90.00-110.00	*Fail*
Fe	54	1172.000 µg/L	1000.00	900.00-1100.00	*Fail*
Mn	55	99.140 µg/L	100.00	90.00-110.00	Pass
Fe	57	1074.000 µg/L	1000.00	900.00-1100.00	Pass
Co	59	101.000 µg/L	100.00	90.00-110.00	Pass
Ni	60	101.700 µg/L	100.00	90.00-110.00	Pass
Cu	63	101.800 µg/L	100.00	90.00-110.00	Pass
Cu	65	102.100 µg/L	100.00	90.00-110.00	Pass
Zn	66	100.700 µg/L	100.00	90.00-110.00	Pass
Zn	67	97.290 µg/L	100.00	90.00-110.00	Pass
Zn	68	101.500 µg/L	100.00	90.00-110.00	Pass
As	75	102.500 µg/L	100.00	90.00-110.00	Pass
Se	82	100.700 µg/L	100.00	90.00-110.00	Pass
Sr	87	98.390 µg/L	100.00	90.00-110.00	Pass
Mo	95	97.670 µg/L	100.00	90.00-110.00	Pass
Mo	98	97.360 µg/L	100.00	90.00-110.00	Pass
Ag	107	97.370 µg/L	100.00	90.00-110.00	Pass
Ag	109	97.290 µg/L	100.00	90.00-110.00	Pass
Cd	111	100.300 µg/L	100.00	90.00-110.00	Pass
Cd	114	99.600 µg/L	100.00	90.00-110.00	Pass
Sn	120	99.540 µg/L	100.00	90.00-110.00	Pass

Sb 121	100.700 µg/L	100.00	90.00-110.00	Pass
Sb 123	101.500 µg/L	100.00	90.00-110.00	Pass
Ba 135	100.800 µg/L	100.00	90.00-110.00	Pass

CCV QC Report

File : D:\HPCHEM\1\DATA\Sep2302.17A\065CCV_D\065CCV_D#
Acquired : Sep 24 02 03:04 am using AcqMethod 6020.M
Operator : CJ
Sample Name: [STD-CCV]
Misc Info :
Vial Number: 1105
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: CCV
Dilution : 1.000000

Au 197	96.980 µg/L	100.00	90.00-110.00	Pass
Tl 205	95.940 µg/L	100.00	90.00-110.00	Pass
Pb 208	98.080 µg/L	100.00	90.00-110.00	Pass
U 238	97.000 µg/L	100.00	90.00-110.00	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	1078240	858813	Pass
45	949294	715078	Pass
72	136531	100894	Pass
115	761736	539429	Pass
209	401633	298668	Pass

Internal Standards referenced to 002CALB.D#

8 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

Blank QC Report

File : D:\HPCHEM\1\DATA\Sep2302.17A\066CCB_.D\066CCB_.D#
Acquired : Sep 24 02 03:13 am using AcqMethod 6020.M
Operator : CJ
Sample Name: [CB]
Misc Info :
Vial Number: 1102
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: CCB
Dilution : 1.000000

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Element	Concentration	CRDL Limit	Flag
Be 9	0.018 µg/L	1.00	Pass
B 11	−1.466 µg/L	1.00	*Fail*
Na 23	2.404 µg/L	10.00	Pass
Mg 24	1.059 µg/L	10.00	Pass
Mg 25	1.042 µg/L	10.00	Pass
Mg 26	1.145 µg/L	10.00	Pass
Al 27	1.174 µg/L	10.00	Pass
Si 28	69.980 µg/L	10.00	*Fail*
K 39	0.393 µg/L	10.00	Pass
Ca 43	2.644 µg/L	10.00	Pass
Ca 44	4.268 µg/L	10.00	Pass
Ti 47	−0.025 µg/L	1.00	Pass
V 51	0.122 µg/L	1.00	Pass
Cr 52	0.509 µg/L	1.00	Pass
Cr 53	−1.172 µg/L	1.00	*Fail*
Fe 54	53.450 µg/L	10.00	*Fail*
Mn 55	0.104 µg/L	1.00	Pass
Fe 57	16.370 µg/L	10.00	*Fail*
Co 59	−0.303 µg/L	1.00	Pass
Ni 60	0.041 µg/L	1.00	Pass
Cu 63	0.012 µg/L	1.00	Pass
Cu 65	0.001 µg/L	1.00	Pass
Zn 66	0.019 µg/L	1.00	Pass
Zn 67	−0.645 µg/L	1.00	Pass
Zn 68	0.145 µg/L	1.00	Pass
As 75	0.514 µg/L	1.00	Pass
Se 82	−0.055 µg/L	1.00	Pass
Sr 87	0.030 µg/L	1.00	Pass
Mo 95	−0.624 µg/L	1.00	Pass
Mo 98	−0.597 µg/L	1.00	Pass
Ag 107	−0.035 µg/L	1.00	Pass
Ag 109	−0.026 µg/L	1.00	Pass
Cd 111	0.011 µg/L	1.00	Pass
Cd 114	−0.006 µg/L	1.00	Pass
Sn 120	−1.732 µg/L	1.00	*Fail*
Sb 121	−1.230 µg/L	1.00	*Fail*
Sb 123	−1.077 µg/L	1.00	*Fail*

Ba 135	0.052 µg/L	1.00	Pass
Au 197	0.208 µg/L	1.00	Pass
Tl 205	-0.026 µg/L	1.00	Pass

Blank QC Report

File : D:\HPCHEM\1\DATA\Sep2302.17A\066CCB_D\066CCB_D#
Acquired : Sep 24 02 03:13 am using AcqMethod 6020.M
Operator : CJ
Sample Name: [CB]
Misc Info :
Vial Number: 1102
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: CCB
Dilution : 1.000000

Pb 208	-0.320 µg/L	1.00	Pass
U 238	0.011 µg/L	1.00	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	1078240	773261	Pass
45	949294	657919	Pass
72	136531	94598	Pass
115	761736	504213	Pass
209	401633	277474	Pass

Internal Standards referenced to 002CALB.D#

8 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

MT.2002. 1110

ASSAIGAI ANALYTICAL LABORATORIES, INC.

Metals Cover Sheet

	Analyst			Reviewer		
Final Report Printout	Y	N	NA	Y	N	NA
Raw Data	Y	N	NA	Y	N	NA
Standard Summary Sheet	Y	N	NA	Y	N	NA

Batch	NCR Analyst	NCR Reviewer	Parabellum Analyst	Parabellum Reviewer	Digestion Log Analyst	Digestion Log Reviewer	TCLP Log Analyst	TCLP Log Reviewer
M021283	Y - N - NA NCR #	Y - N - NA	Y - N - NA	Y - N - NA	Y - N - NA	Y - N - NA	Y - N - NA	Y - N - NA
	Y - N - NA NCR #	Y - N - NA	Y - N - NA	Y - N - NA	Y - N - NA	Y - N - NA	Y - N - NA	Y - N - NA
	Y - N - NA NCR #	Y - N - NA	Y - N - NA	Y - N - NA	Y - N - NA	Y - N - NA	Y - N - NA	Y - N - NA
	Y - N - NA NCR #	Y - N - NA	Y - N - NA	Y - N - NA	Y - N - NA	Y - N - NA	Y - N - NA	Y - N - NA
	Y - N - NA NCR #	Y - N - NA	Y - N - NA	Y - N - NA	Y - N - NA	Y - N - NA	Y - N - NA	Y - N - NA

Dept. Funnel/Prepared By SB
Date 9/25/02

Final Funnel/Reviewed By CJ
Date 9/25/02

Comments

QC Review

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Assaigai Analytical Laboratories, Inc.

QC NON-CONFORMANCE REPORT (NCR)

MT-02-220

Preparation/Analysis	SW846 6020
Batch ID #	M021283

Out-of-Control Event Codes

1	Initial Calibration Verification (ICV)	6	Laboratory Control Sample (LCS) Precision (RPD)
2	Calibration Blank (CB)	7	Matrix Spike (MS) Accuracy (%Rec)
3	Continuing Calibration Verification (CCV)	8	Matrix Spike (MS) Precision (RPD)
4	Method Blank (MB)	9	Sample Duplicate
5	Laboratory Control Sample (LCS) Accuracy (%Rec)	10	Other

Rev:	Groups	Analyst	Date	Review	Date
A	MT.2002.1110	SB	9/25/02	[illegible]	9/25/02

Event Codes: 10

Workorders: 0209373

Rev:	Groups	Analyst	Date	Review	Date

Event Codes:

Workorders:

Rev:	Groups	Analyst	Date	Review	Date

Event Codes:

Workorders:

Rev:	Groups	Analyst	Date	Review	Date

Event Codes:

Workorders:

QC Non-Conformance Report (NCR)

NCR# MT-02-220

SW846 6020
Batch ID: M021283
Group: MT.2002.1110
Date: 09/25/2002
Work Orders: 0209373

EVENT # 10:

The percent recovery for Si in the ICV and in all CCV's was outside of method criteria, high.

ACTION # 10:

The COA will be flagged with an "E" (estimated value) to alert the client of the event. No further action is required.

Prepared by John W. Biava
09/25/2002 JB 9/25/02

CJ 9/25/02

Assaigai Analytical Laboratories, Inc.

Run Group Cover Sheet

Run Group	MT.2002.1110
Reviewed:	9/25/2002 9:48:20 AM
By:	JWB

Calc Method	6020
Import Source	HPC02
Instrument:	HP4500 - Instru

Calibration Mode	NATIVE
Calculation Mode	NORMAL
Spike Dilution Mode	NORMAL

RAW QUANT FLAGS	
a	*all result information keyed in manually*
d	*data from instrument keyed in manually*
i	*integration of peak performed manually*
q	*qdelete of peak*
r	*response factor postquant adjustment*

Assalgai Analytical Laboratories, Inc.

Laboratory Logbook

Run Group MT.2002.1110
Import Source HPC02
Instrument: HP4500 - Instru

o	Run#	Acquisition Date	Data File	Vial	e	Sample Run ID	Run DF	Comment	see data file(s)	Analyst
x	1	09-24-02 10:03:00	002CALB.D#	1		CAL BLANK	1			JWB
x	2	09-24-02 10:12:00	003CALI.D#	1		0.2/1/10 CAL	1			JWB
x	3	09-24-02 10:21:00	004CALI.D#	1		2/10/100 CAL	1			JWB
x	4	09-24-02 10:30:00	005CALI.D#	1		10/100/1000 CAL	1			JWB
x	5	09-24-02 10:39:00	006CALI.D#	1		-/200/10000 CAL	1			JWB
	6	09-24-02 10:48:00	007CCB_.D#	1		[CB]	1			JWB
	7	09-24-02 10:57:00	008ICV_.D#	1		[STD-ICV]	1			JWB
x	8	09-24-02 11:06:00	009ICSA.D#	1		[ICSA]	1			JWB
x	9	09-24-02 11:16:00	010ICSB.D#	1		[ICSAB]	1			JWB
x	10	09-24-02 11:25:00	011CCB_.D#	1		BLANK	1			JWB
	11	09-24-02 11:34:00	012SMPL.D#	1		M021283-001	1 ,			JWB
	12	09-24-02 11:43:00	013SMPL.D#	1		M021283-002	1 ,			JWB
	13	09-24-02 11:52:00	014SMPL.D#	1		M021283-003	1 ,			JWB
	14	09-24-02 12:02:00	015SMPL.D#	1		M021283-006	100 ,			JWB
	15	09-24-02 12:11:00	016SMPL.D#	1		M021283-006	10 ,			JWB
	16	09-24-02 12:20:00	017SMPL.D#	1		M021283-007	100 ,			JWB
	17	09-24-02 12:29:00	018SMPL.D#	1		M021283-007	10 ,			JWB
	18	09-24-02 12:38:00	019SMPL.D#	1		M021283-008	100 ,			JWB
	19	09-24-02 12:47:00	020CCV_.D#	1		[STD-CCV]	1			JWB
	20	09-24-02 12:57:00	021CCB_.D#	1		[CB]	1			JWB
	21	09-24-02 13:06:00	022SMPL.D#	1		M021283-008	10 ,			JWB
	22	09-24-02 13:15:00	023SMPL.D#	1		M021283-011	100 ,			JWB
	23	09-24-02 13:24:00	024SMPL.D#	1		M021283-011	10 ,			JWB
	24	09-24-02 13:33:00	025SMPL.D#	1		M021283-012	100 ,			JWB
	25	09-24-02 13:43:00	026SMPL.D#	1		M021283-012	10 ,			JWB
	26	09-24-02 13:52:00	027SMPL.D#	1		M021283-013	100 ,			JWB
	27	09-24-02 14:01:00	028SMPL.D#	1		M021283-013	10 ,			JWB
	28	09-24-02 14:10:00	029SMPL.D#	1		M021283-014	100 ,			JWB
	29	09-24-02 14:19:00	030SMPL.D#	1		M021283-014	10 ,			JWB
	30	09-24-02 14:29:00	031SMPL.D#	1		M021283-015	100 ,			JWB
	31	09-24-02 14:38:00	032CCV_.D#	1		[STD-CCV]	1			JWB
	32	09-24-02 14:47:00	033CCB_.D#	1		[CB]	1			JWB
	33	09-24-02 14:56:00	034SMPL.D#	1		M021283-015	10 ,			JWB
	34	09-24-02 15:06:00	035SMPL.D#	1		M021283-016	100 ,			JWB
	35	09-24-02 15:15:00	036SMPL.D#	1		M021283-016	10 ,			JWB

Coyote 2001: Calculation 1.0.020729144500

Report Date 9/25/2002 9:49:25 AM

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Assaigai Analytical Laboratories, Inc.

Laboratory Logbook

Run Group MT.2002.1110
Import Source HPC02
Instrument: HP4500 - Instru

o	Run#	Acquisition Date	Data File	Vial	e	Sample Run ID	Run DF	Comment	see data file(s)	Analyst
	36	09-24-02 15:24:00	037SMPL.D#	1		M021283-017	100	,		JWB
	37	09-24-02 15:33:00	038SMPL.D#	1		M021283-017	10	,		JWB
	38	09-24-02 15:42:00	039SMPL.D#	1		M021283-018	100	,		JWB
	39	09-24-02 15:52:00	040SMPL.D#	1		M021283-018	10	,		JWB
	40	09-24-02 16:01:00	041SMPL.D#	1		M021283-019	100	,		JWB
	41	09-24-02 16:10:00	042SMPL.D#	1		M021283-019	10	,		JWB
	42	09-24-02 16:20:00	043SMPL.D#	1		M021283-020	100	,		JWB
	43	09-24-02 16:29:00	044CCV_.D#	1		[STD-CCV]	1			JWB
	44	09-24-02 16:38:00	045CCB_.D#	1		[CB]	1			JWB
	45	09-24-02 16:47:00	046SMPL.D#	1		M021283-020	10	,		JWB
	46	09-24-02 16:56:00	047SMPL.D#	1		M021283-021	100	,		JWB
	47	09-24-02 17:05:00	048SMPL.D#	1		M021283-021	10	,		JWB
	48	09-24-02 17:15:00	049SMPL.D#	1		M021283-022	100	,		JWB
	49	09-24-02 17:24:00	050SMPL.D#	1		M021283-022	10	,		JWB
	50	09-24-02 17:33:00	051SMPL.D#	1		M021283-023	100	,		JWB
	51	09-24-02 17:42:00	052SMPL.D#	1		M021283-023	10	,		JWB
	52	09-24-02 17:52:00	053SMPL.D#	1		M021283-024	100	,		JWB
	53	09-24-02 18:01:00	054SMPL.D#	1		M021283-024	10	,		JWB
	54	09-24-02 18:19:00	056CCV_.D#	1		[STD-CCV]	1			JWB
	55	09-24-02 18:28:00	057CCB_.D#	1		[CB]	1			JWB
x	56	09-24-02 18:37:00	058ICSA.D#	1		[ICSA]	1			JWB
x	57	09-24-02 18:46:00	059ICSB.D#	1		[ICSAB]	1			JWB
x	58	09-24-02 18:56:00	060BLNK.D#	1		BLANK	1			JWB
	59	09-24-02 19:05:00	061SMPL.D#	1		M021283-025	100	,		JWB
	60	09-24-02 19:14:00	062SMPL.D#	1		M021283-025	10	,		JWB
	61	09-24-02 19:23:00	063SMPL.D#	1		M021283-026	100	,		JWB
	62	09-24-02 19:32:00	064SMPL.D#	1		M021283-026	10	,		JWB
	63	09-24-02 19:41:00	065CCV_.D#	1		[STD-CCV]	1			JWB
	64	09-24-02 19:51:00	066CCB_.D#	1		[CB]	1			JWB

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Department: METALS
Prep Method: MS3050
Matrix: SOLID
Batch ID: M021283

Assaigai Laboratories
Sample Preparation Log
Report Revision 011023

Prep Method: ICP/MS 6020 Solid Digestion

Sample Count: 17
Batch Start Timestamp: 09/23/02 8:44:45

Prep ID:	Sample ID:	Aliquot:	Units:	Initial By:	Total Volume:	Units:	Final By:	Prep DF:	Surrogate ID:	Spike ID:	Spike By:	Prep Timestamp:	Comments:
M021283-001	[MB]	1.00	G	JRE	50	ML	JRE	1			JRE	09/23/02 8:08:51	90C @ 8:08AM
M021283-002	[LCS]	1.00	G	JRE	50	ML	JRE	1			JRE	09/23/02 8:08:51	LCS, LCSD, MS, MSD SPIKED W/
M021283-003	[LCSD]	1.00	G	JRE	50	ML	JRE	1			JRE	09/23/02 8:08:51	MT-0691-02 Ag @ 2.5ML/50ML
M021283-004	Li [LCS]	1.00	G	JRE	50	ML	JRE	1			JRE	09/23/02 8:08:51	MT-0692-02 TRACE @ 2.5ML/50ML
M021283-005	Li [LCSD]	1.00	G	JRE	50	ML	JRE	1			JRE	09/23/02 8:08:51	MT-0693-02 CATION @ 1.0ML/50ML
M021283-006	0209373-01A[M]	1.05	G	JRE	50	ML	JRE	0.9524			JRE	09/23/02 8:08:51	MT-0717-02 Li @ 0.5ML/50ML
M021283-007	0209373-01A[MS]	1.031	G	JRE	50	ML	JRE	0.9699			JRE	09/23/02 8:08:51	
M021283-008	0209373-01A[MSD]	1.045	G	JRE	50	ML	JRE	0.9569			JRE	09/23/02 8:08:51	
M021283-009	0209373-01A[MS]	1.029	G	JRE	50	ML	JRE	0.9718			JRE	09/23/02 8:08:51	
M021283-010	0209373-01A[MSD]	1.058	G	JRE	50	ML	JRE	0.9452			JRE	09/23/02 8:08:51	
M021283-011	0209373-02A	1.074	G	JRE	50	ML	JRE	0.9311			JRE	09/23/02 8:08:51	
M021283-012	0209373-03A	1.025	G	JRE	50	ML	JRE	0.9756			JRE	09/23/02 8:08:51	
M021283-013	0209373-04A	1.012	G	JRE	50	ML	JRE	0.9881			JRE	09/23/02 8:08:51	
M021283-014	0209373-05A	1.044	G	JRE	50	ML	JRE	0.9579			JRE	09/23/02 8:08:51	
M021283-015	0209373-06A	1.011	G	JRE	50	ML	JRE	0.9891			JRE	09/23/02 8:08:51	
M021283-016	0209373-07A	1.009	G	JRE	50	ML	JRE	0.9911			JRE	09/23/02 8:08:51	
M021283-017	0209373-08A	1.019	G	JRE	50	ML	JRE	0.9814			JRE	09/23/02 8:08:51	
M021283-018	0209373-09A	1.074	G	JRE	50	ML	JRE	0.9311			JRE	09/23/02 8:08:51	
M021283-019	0209373-10A	1.033	G	JRE	50	ML	JRE	0.9681			JRE	09/23/02 8:08:51	
M021283-020	0209373-11A	1.003	G	JRE	50	ML	JRE	0.997			JRE	09/23/02 8:08:51	
M021283-021	0209373-12A	1.012	G	JRE	50	ML	JRE	0.9881			JRE	09/23/02 8:08:51	
M021283-022	0209373-13A	1.039	G	JRE	50	ML	JRE	0.9625			JRE	09/23/02 8:08:51	
M021283-023	0209373-14A	1.014	G	JRE	50	ML	JRE	0.9862			JRE	09/23/02 8:08:51	
M021283-024	0209373-15A	1.084	G	JRE	50	ML	JRE	0.9225			JRE	09/23/02 8:08:51	
M021283-025	0209373-16A	1.041	G	JRE	50	ML	JRE	0.9606			JRE	09/23/02 8:08:51	
M021283-026	0209373-17A	1.00	G	JRE	50	ML	JRE	1			JRE	09/23/02 8:08:51	HNO3-X20045; HCL-42117; H2O2-41215135

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CB [CB]

Assaigai Analytical Laboratories, Inc.

Analytical Result Summary

Run Group	MT.2002.1110	6
Calc Method	6020	
Prep Method	LAB	
Prep Matrix	LAB	

		By	Dilution
Prepared			1
Analyzed	09-24-02 10:48:00	JWB	1
Calibration	09-24-02 10:46:00		
Quant	09-24-02 10:55:00	007CCB .D#	

r	C#	Analyte	QMass	m	Raw Quant	As	MRL	Report	As	Qual	f
	3	Be-9	9		0.06	ppb	0.001	< 0.001	mg / L		
	4	B-11	11		1.36	ppb	0.001	0.001	mg / L		x
	5	Na-23	23		2.53	ppb	0.01	< 0.010	mg / L		
	6	Mg-24	24		2.14	ppb	0.01	< 0.010	mg / L		
	7	Mg-25	25		2.12	ppb	0.01	< 0.010	mg / L		
	8	Mg-26	26		2.22	ppb	0.01	< 0.010	mg / L		
	9	Al-27	27		2.34	ppb	0.01	< 0.010	mg / L		
	10	Si-28	28		-28.07	ppb	0.001	< 0.001	mg / L		
	11	K-39	39		0.95	ppb	0.01	< 0.010	mg / L		
	13	Ca-43	43		2.48	ppb	0.01	< 0.010	mg / L		
	14	Ca-44	44		2.24	ppb	0.01	< 0.010	mg / L		
	16	Ti-47	47		0.43	ppb	0.001	< 0.001	mg / L		
	17	V-51	51		0.65	ppb	0.001	< 0.001	mg / L		
	18	Cr-52	52		0.62	ppb	0.001	< 0.001	mg / L		
	19	Cr-53	53		13.41	ppb	0.001	0.013	mg / L		x
	20	Fe-54	54		-20.36	ppb	0.01	< 0.010	mg / L		
	21	Mn-55	55		-0.05	ppb	0.001	< 0.001	mg / L		
	22	Fe-57	57		-0.15	ppb	0.01	< 0.010	mg / L		
	23	Co-59	59		-0.23	ppb	0.001	< 0.001	mg / L		
	24	Ni-60	60		0.04	ppb	0.001	< 0.001	mg / L		
	25	Cu-63	63		0.07	ppb	0.001	< 0.001	mg / L		
	26	Cu-65	65		0.04	ppb	0.001	< 0.001	mg / L		
	27	Zn-66	66		0.06	ppb	0.001	< 0.001	mg / L		
	28	Zn-67	67		1.57	ppb	0.001	0.002	mg / L		x
	29	Zn-68	68		-0.1	ppb	0.001	< 0.001	mg / L		
	32	As-75	75		0.64	ppb	0.001	< 0.001	mg / L		
	34	Se-82	82		0.36	ppb	0.001	< 0.001	mg / L		
	37	Sr-87	87		0.07	ppb	0.001	< 0.001	mg / L		
	40	Mo-95	95		0.38	ppb	0.001	< 0.001	mg / L		
	41	Mo-98	98		0.41	ppb	0.001	< 0.001	mg / L		
	43	Ag-107	107		0.06	ppb	0.001	< 0.001	mg / L		
	45	Ag-109	109		0.06	ppb	0.001	< 0.001	mg / L		
	46	Cd-111	111		0.1	ppb	0.001	< 0.001	mg / L		
	47	Cd-114	114		0.06	ppb	0.001	< 0.001	mg / L		
	50	Sn-120	120		0.05	ppb	0.001	< 0.001	mg / L		
	51	Sb-121	121		0.29	ppb	0.001	< 0.001	mg / L		
	52	Sb-123	123		0.33	ppb	0.001	< 0.001	mg / L		
	53	Ba-135	135		0.06	ppb	0.001	< 0.001	mg / L		
	54	Tb-159	159		0	ppb	0.001	< 0.001	mg / L		
	55	Au-197	197		0.89	ppb	0.001	< 0.001	mg / L		
	56	Tl-205	205		0.73	ppb	0.001	< 0.001	mg / L		
	59	Pb-208	208		-0.23	ppb	0.001	< 0.001	mg / L		
	61	U-238	238		0.08	ppb	0.001	< 0.001	mg / L		

STD-ICV [STD-ICV]

Assalgai Analytical Laboratories, Inc.

Analytical Result Summary

Run Group	MT.2002.1110	7
Calc Method	6020	
Prep Method	LAB	
Prep Matrix	LAB	

		By	Dilution
Prepared			1
Analyzed	09-24-02 10:57:00	JWB	1
Calibration	09-24-02 10:46:00		
Quant	09-24-02 11:04:00		008ICV .D#

r	C#	Analyte	QMass	m	Raw Quant	As	MRL	Report	As	Qual	f
	3	Be-9	9		115.5	ppb	1	96	% Recovery		
	4	B-11	11		127	ppb	1	106	% Recovery		
	5	Na-23	23		1303	ppb	1	108	% Recovery		
	6	Mg-24	24		1293	ppb	1	108	% Recovery		
	7	Mg-25	25		1372	ppb	1	114	% Recovery		x
	8	Mg-26	26		1330	ppb	1	111	% Recovery		x
	9	Al-27	27		1308	ppb	1	109	% Recovery		
	10	Si-28	28		1399	ppb	1	116	% Recovery		x
	11	K-39	39		1289	ppb	1	107	% Recovery		
	13	Ca-43	43		1248	ppb	1	104	% Recovery		
	14	Ca-44	44		1241	ppb	1	103	% Recovery		
	16	Ti-47	47		119.8	ppb	1	100	% Recovery		
	17	V-51	51		117.7	ppb	1	98	% Recovery		
	18	Cr-52	52		117.5	ppb	1	98	% Recovery		
	19	Cr-53	53		115.2	ppb	1	96	% Recovery		
	20	Fe-54	54		1282	ppb	1	107	% Recovery		
	21	Mn-55	55		117.9	ppb	1	98	% Recovery		
	22	Fe-57	57		1249	ppb	1	104	% Recovery		
	23	Co-59	59		119.2	ppb	1	99	% Recovery		
	24	Ni-60	60		120.2	ppb	1	100	% Recovery		
	25	Cu-63	63		118.2	ppb	1	98	% Recovery		
	26	Cu-65	65		119.8	ppb	1	100	% Recovery		
	27	Zn-66	66		119.7	ppb	1	100	% Recovery		
	28	Zn-67	67		117.4	ppb	1	98	% Recovery		
	29	Zn-68	68		120.4	ppb	1	100	% Recovery		
	32	As-75	75		118.4	ppb	1	99	% Recovery		
	34	Se-82	82		119.3	ppb	1	99	% Recovery		
	37	Sr-87	87		118.2	ppb	1	98	% Recovery		
	40	Mo-95	95		116.2	ppb	1	97	% Recovery		
	41	Mo-98	98		116.2	ppb	1	97	% Recovery		
	43	Ag-107	107		123.3	ppb	1	103	% Recovery		
	45	Ag-109	109		123.1	ppb	1	102	% Recovery		
	46	Cd-111	111		116.5	ppb	1	97	% Recovery		
	47	Cd-114	114		117.4	ppb	1	98	% Recovery		
	50	Sn-120	120		115.7	ppb	1	96	% Recovery		
	51	Sb-121	121		113.4	ppb	1	94	% Recovery		
	52	Sb-123	123		113.4	ppb	1	94	% Recovery		
	53	Ba-135	135		114.3	ppb	1	95	% Recovery		
	54	Tb-159	159		0	ppb	1	< 1	% Recovery		x
	55	Au-197	197		529.5	ppb	1	441	% Recovery		x
	56	Tl-205	205		116.3	ppb	1	97	% Recovery		
	59	Pb-208	208		117.4	ppb	1	98	% Recovery		
	61	U-238	238		114.5	ppb	1	95	% Recovery		

MB M021283-001

Assaigai Analytical Laboratories, Inc.

Analytical Result Summary

[MB]

Run Group	MT.2002.1110	11
Calc Method	6020	
Prep Method	MS3050	
Prep Matrix	SOLID	

		By	Dilution
Prepared	09-23-02 8:08:51	JRE	1
Analyzed	09-24-02 11:34:00	JWB	1
Calibration	09-24-02 10:46:00		
Quant	09-24-02 11:41:00		012SMPL.D#

r	C#	Analyte	QMass	m	Raw Quant	As	MRL	Report	As	Qual	f
x	3	Be-9	9		0.01	ppb	0.025	< 0.025	mg / Kg		
x	4	B-11	11		-1.11	ppb	0.15	< 0.150	mg / Kg		
x	5	Na-23	23		31.51	ppb	0.5	1.58	mg / Kg		x
x	6	Mg-24	24		21.01	ppb	0.5	1.05	mg / Kg		x
	7	Mg-25	25		21.06	ppb	0.5	1.05	mg / Kg		x
	8	Mg-26	26		21.01	ppb	0.5	1.05	mg / Kg		x
x	9	Al-27	27		49.71	ppb	0.5	2.48	mg / Kg		x
x	10	Si-28	28		-11.34	ppb	1	< 1.00	mg / Kg		
x	11	K-39	39		33.71	ppb	0.5	1.68	mg / Kg		x
x	13	Ca-43	43		81.34	ppb	0.5	4.07	mg / Kg		x
	14	Ca-44	44		80.73	ppb	0.5	4.04	mg / Kg		x
x	16	Ti-47	47		1.65	ppb	0.025	0.082	mg / Kg		x
x	17	V-51	51		0.53	ppb	0.05	< 0.050	mg / Kg		
x	18	Cr-52	52		0.79	ppb	0.05	< 0.050	mg / Kg		
	19	Cr-53	53		14.06	ppb	0.25	0.703	mg / Kg		x
	20	Fe-54	54		-17.99	ppb	0.5	< 0.500	mg / Kg		
x	21	Mn-55	55		1.48	ppb	0.025	0.074	mg / Kg		x
x	22	Fe-57	57		28.53	ppb	0.5	1.43	mg / Kg		x
x	23	Co-59	59		-0.28	ppb	0.025	< 0.025	mg / Kg		
x	24	Ni-60	60		0.15	ppb	0.025	< 0.025	mg / Kg		
x	25	Cu-63	63		0.66	ppb	0.025	0.033	mg / Kg		x
	26	Cu-65	65		0.66	ppb	0.025	0.033	mg / Kg		x
x	27	Zn-66	66		4.84	ppb	0.25	< 0.250	mg / Kg		
	28	Zn-67	67		5.54	ppb	0.25	0.277	mg / Kg		x
	29	Zn-68	68		4.55	ppb	0.25	< 0.250	mg / Kg		
x	32	As-75	75		0.28	ppb	0.025	< 0.025	mg / Kg		
x	34	Se-82	82		0	ppb	0.025	< 0.025	mg / Kg		
x	37	Sr-87	87		0.16	ppb	0.025	< 0.025	mg / Kg		
x	40	Mo-95	95		1.66	ppb	0.025	0.083	mg / Kg		x
	41	Mo-98	98		1.72	ppb	0.025	0.086	mg / Kg		x
x	43	Ag-107	107		-0.02	ppb	0.025	< 0.025	mg / Kg		
	45	Ag-109	109		-0.01	ppb	0.025	< 0.025	mg / Kg		
x	46	Cd-111	111		0.04	ppb	0.025	< 0.025	mg / Kg		
	47	Cd-114	114		0.23	ppb	0.025	< 0.025	mg / Kg		
x	50	Sn-120	120		13.42	ppb	0.025	0.671	mg / Kg		x
x	51	Sb-121	121		-0.08	ppb	0.05	< 0.050	mg / Kg		
	52	Sb-123	123		-0.03	ppb	0.05	< 0.050	mg / Kg		
x	53	Ba-135	135		0.41	ppb	0.025	< 0.025	mg / Kg		
	54	Tb-159	159		0	ppb	0.001	< 0.001	mg / Kg		
	55	Au-197	197		0.41	ppb	0.025	< 0.025	mg / Kg		
x	56	Tl-205	205		-0.23	ppb	0.025	< 0.025	mg / Kg		
x	59	Pb-208	208		0.66	ppb	0.025	0.033	mg / Kg		x
x	61	U-238	238		0.01	ppb	0.025	< 0.025	mg / Kg		

LCS M021283-002

Assaigai Analytical Laboratories, Inc.

Analytical Result Summary

[LCS] - 238

Run Group	MT.2002.1110	12	
Calc Method	6020		
Prep Method	MS3050		
Prep Matrix	SOLID		

		By	Dilution
Prepared	09-23-02 8:08:51	JRE	1
Analyzed	09-24-02 11:43:00	JWB	1
Calibration	09-24-02 10:46:00		
Quant	09-24-02 11:50:00	013SMPL.D#	

r	C#	Analyte	QMass	m	Raw Quant	As	MRL	Report	As	Qual	f
x	3	Be-9	9		95.58	ppb	1	96	% Recovery		
x	4	B-11	11		96.28	ppb	1	96	% Recovery		
x	5	Na-23	23		1022	ppb	1	102	% Recovery		
x	6	Mg-24	24		1021	ppb	1	102	% Recovery		
	7	Mg-25	25		1062	ppb	1	106	% Recovery		
	8	Mg-26	26		1032	ppb	1	103	% Recovery		
x	9	Al-27	27		1019	ppb	1	102	% Recovery		
x	10	Si-28	28		1063	ppb	1	106	% Recovery		
x	11	K-39	39		1046	ppb	1	105	% Recovery		
x	13	Ca-43	43		1024	ppb	1	102	% Recovery		
	14	Ca-44	44		1033	ppb	1	103	% Recovery		
x	16	Ti-47	47		102.8	ppb	1	103	% Recovery		
x	17	V-51	51		102.7	ppb	1	103	% Recovery		
x	18	Cr-52	52		103.8	ppb	1	104	% Recovery		
	19	Cr-53	53		103.2	ppb	1	103	% Recovery		
	20	Fe-54	54		1085	ppb	1	108	% Recovery		
x	21	Mn-55	55		105	ppb	1	105	% Recovery		
x	22	Fe-57	57		1078	ppb	1	108	% Recovery		
x	23	Co-59	59		103	ppb	1	103	% Recovery		
x	24	Ni-60	60		104.4	ppb	1	104	% Recovery		
x	25	Cu-63	63		105.1	ppb	1	105	% Recovery		
	26	Cu-65	65		106.6	ppb	1	107	% Recovery		
x	27	Zn-66	66		108.1	ppb	1	108	% Recovery		
	28	Zn-67	67		105.3	ppb	1	105	% Recovery		
	29	Zn-68	68		108.3	ppb	1	108	% Recovery		
x	32	As-75	75		104.9	ppb	1	105	% Recovery		
x	34	Se-82	82		106.3	ppb	1	106	% Recovery		
x	37	Sr-87	87		103.1	ppb	1	103	% Recovery		
x	40	Mo-95	95		97.27	ppb	1	97	% Recovery		
	41	Mo-98	98		97.97	ppb	1	98	% Recovery		
x	43	Ag-107	107		101.7	ppb	1	102	% Recovery		
	45	Ag-109	109		102	ppb	1	102	% Recovery		
x	46	Cd-111	111		101.7	ppb	1	102	% Recovery		
	47	Cd-114	114		102.5	ppb	1	102	% Recovery		
x	50	Sn-120	120		115.2	ppb	1	115	% Recovery		
x	51	Sb-121	121		102.2	ppb	1	102	% Recovery		
	52	Sb-123	123		102.1	ppb	1	102	% Recovery		
x	53	Ba-135	135		103.4	ppb	1	103	% Recovery		
	54	Tb-159	159		0	ppb	1	< 1	% Recovery		x
	55	Au-197	197		100.7	ppb	1	101	% Recovery		
x	56	Tl-205	205		98.61	ppb	1	99	% Recovery		
x	59	Pb-208	208		100.4	ppb	1	100	% Recovery		
x	61	U-238	238		100.3	ppb	1	100	% Recovery		

LCSDD M021283-003

Assaigai Analytical Laboratories, Inc.

Analytical Result Summary

[LCSD] 239

Run Group	MT.20021110	13
Calc Method	6020	
Prep Method	MS3050	
Prep Matrix	SOLID	

		By	Dilution
Prepared	09-23-02 8:08:51	JRE	1
Analyzed	09-24-02 11:52:00	JWB	1
Calibration	09-24-02 10:46:00		
Quant	09-24-02 11:59:00	014SMPL.D#	

r	C#	Analyte	QMass	m	Raw Quant	As	MRL	Report	As	Qual	f
x	3	Be-9	9		95.24	ppb	1	< 1	RPD		
x	4	B-11	11		99.85	ppb	1	4	RPD		
x	5	Na-23	23		1001	ppb	1	2	RPD		
x	6	Mg-24	24		995.6	ppb	1	2	RPD		
	7	Mg-25	25		1065	ppb	1	< 1	RPD		
	8	Mg-26	26		1043	ppb	1	1	RPD		
x	9	Al-27	27		1052	ppb	1	3	RPD		
x	10	Si-28	28		1074	ppb	1	1	RPD		
x	11	K-39	39		1021	ppb	1	2	RPD		
x	13	Ca-43	43		1050	ppb	1	2	RPD		
	14	Ca-44	44		1085	ppb	1	5	RPD		
x	16	Ti-47	47		102.1	ppb	1	< 1	RPD		
x	17	V-51	51		101.6	ppb	1	1	RPD		
x	18	Cr-52	52		102.5	ppb	1	1	RPD		
	19	Cr-53	53		100.1	ppb	1	3	RPD		
	20	Fe-54	54		1100	ppb	1	1	RPD		
x	21	Mn-55	55		106	ppb	1	< 1	RPD		
x	22	Fe-57	57		1076	ppb	1	< 1	RPD		
x	23	Co-59	59		103.8	ppb	1	< 1	RPD		
x	24	Ni-60	60		104.8	ppb	1	< 1	RPD		
x	25	Cu-63	63		105.9	ppb	1	< 1	RPD		
	26	Cu-65	65		106.8	ppb	1	< 1	RPD		
x	27	Zn-66	66		108.8	ppb	1	< 1	RPD		
	28	Zn-67	67		106.3	ppb	1	< 1	RPD		
	29	Zn-68	68		108.4	ppb	1	< 1	RPD		
x	32	As-75	75		105.7	ppb	1	< 1	RPD		
x	34	Se-82	82		105.7	ppb	1	< 1	RPD		
x	37	Sr-87	87		102.7	ppb	1	< 1	RPD		
x	40	Mo-95	95		97.09	ppb	1	< 1	RPD		
	41	Mo-98	98		98.57	ppb	1	< 1	RPD		
x	43	Ag-107	107		101.4	ppb	1	< 1	RPD		
	45	Ag-109	109		102.2	ppb	1	< 1	RPD		
x	46	Cd-111	111		100.9	ppb	1	< 1	RPD		
	47	Cd-114	114		102.7	ppb	1	< 1	RPD		
x	50	Sn-120	120		115.5	ppb	1	< 1	RPD		
x	51	Sb-121	121		103.2	ppb	1	< 1	RPD		
	52	Sb-123	123		103.1	ppb	1	< 1	RPD		
x	53	Ba-135	135		104	ppb	1	< 1	RPD		
	54	Tb-159	159		0	ppb	1	NA	RPD		
	55	Au-197	197		99.39	ppb	1	1	RPD		
x	56	Tl-205	205		98.39	ppb	1	< 1	RPD		
x	59	Pb-208	208		99.66	ppb	1	< 1	RPD		
x	61	U-238	238		100.1	ppb	1	< 1	RPD		

LCSDS M021283-003

Assaigai Analytical Laboratories Inc.

Analytical Result Summary

[LCSD] - 240

Run Group	MT.2002.1110	13
Calc Method	6020	
Prep Method	MS3050	
Prep Matrix	SOLID	

		By	Dilution
Prepared	09-23-02 8:08:51	JRE	1
Analyzed	09-24-02 11:52:00	JWB	1
Calibration	09-24-02 10:46:00		
Quant	09-24-02 11:59:00	014SMPL.D#	

r	C#	Analyte	QMass	m	Raw Quant	As	MRL	Report	As	Qual	f
x	3	Be-9	9		95.24	ppb	1	95	% Recovery		
x	4	B-11	11		99.85	ppb	1	100	% Recovery		
x	5	Na-23	23		1001	ppb	1	100	% Recovery		
x	6	Mg-24	24		995.6	ppb	1	100	% Recovery		
	7	Mg-25	25		1065	ppb	1	106	% Recovery		
	8	Mg-26	26		1043	ppb	1	104	% Recovery		
x	9	Al-27	27		1052	ppb	1	105	% Recovery		
x	10	Si-28	28		1074	ppb	1	107	% Recovery		
x	11	K-39	39		1021	ppb	1	102	% Recovery		
x	13	Ca-43	43		1050	ppb	1	105	% Recovery		
	14	Ca-44	44		1085	ppb	1	108	% Recovery		
x	16	Ti-47	47		102.1	ppb	1	102	% Recovery		
x	17	V-51	51		101.6	ppb	1	102	% Recovery		
x	18	Cr-52	52		102.5	ppb	1	102	% Recovery		
	19	Cr-53	53		100.1	ppb	1	100	% Recovery		
	20	Fe-54	54		1100	ppb	1	110	% Recovery		
x	21	Mn-55	55		106	ppb	1	106	% Recovery		
x	22	Fe-57	57		1076	ppb	1	108	% Recovery		
x	23	Co-59	59		103.8	ppb	1	104	% Recovery		
x	24	Ni-60	60		104.8	ppb	1	105	% Recovery		
x	25	Cu-63	63		105.9	ppb	1	106	% Recovery		
	26	Cu-65	65		106.8	ppb	1	107	% Recovery		
x	27	Zn-66	66		108.8	ppb	1	109	% Recovery		
	28	Zn-67	67		106.3	ppb	1	106	% Recovery		
	29	Zn-68	68		108.4	ppb	1	108	% Recovery		
x	32	As-75	75		105.7	ppb	1	106	% Recovery		
x	34	Se-82	82		105.7	ppb	1	106	% Recovery		
x	37	Sr-87	87		102.7	ppb	1	103	% Recovery		
x	40	Mo-95	95		97.09	ppb	1	97	% Recovery		
	41	Mo-98	98		98.57	ppb	1	98	% Recovery		
x	43	Ag-107	107		101.4	ppb	1	101	% Recovery		
	45	Ag-109	109		102.2	ppb	1	102	% Recovery		
x	46	Cd-111	111		100.9	ppb	1	101	% Recovery		
	47	Cd-114	114		102.7	ppb	1	103	% Recovery		
x	50	Sn-120	120		115.5	ppb	1	116	% Recovery		
x	51	Sb-121	121		103.2	ppb	1	103	% Recovery		
	52	Sb-123	123		103.1	ppb	1	103	% Recovery		
x	53	Ba-135	135		104	ppb	1	104	% Recovery		
	54	Tb-159	159		0	ppb	1	< 1	% Recovery		x
	55	Au-197	197		99.39	ppb	1	99	% Recovery		
x	56	Tl-205	205		98.39	ppb	1	98	% Recovery		
x	59	Pb-208	208		99.66	ppb	1	100	% Recovery		
x	61	U-238	238		100.1	ppb	1	100	% Recovery		

M M021283-006

Assaigai Analytical Laboratories, Inc.

Analytical Result Summary

0209373-01A[M]

Run Group	MT.2002.1110	14
Calc Method	6020	
Prep Method	MS3050	
Prep Matrix	SOLID	

		By	Dilution
Prepared	09-23-02 8:08:51	JRE	0.9524
Analyzed	09-24-02 12:02:00	JWB	100
Calibration	09-24-02 10:46:00		
Quant	09-24-02 12:09:00	015SMPL.D#	

r	C#	Analyte	QMass	m	Raw Quant	As	MRL	Report	As	Qual	f
	3	Be-9	9		0.1	ppb	0.025	< 2.38	mg / Kg		
	4	B-11	11		-0.58	ppb	0.15	< 14.3	mg / Kg		
	5	Na-23	23		36.12	ppb	0.5	172	mg / Kg		
	6	Mg-24	24		152.6	ppb	0.5	727	mg / Kg		
	7	Mg-25	25		153.6	ppb	0.5	731	mg / Kg		
	8	Mg-26	26		149.6	ppb	0.5	712	mg / Kg		
	9	Al-27	27		1011	ppb	0.5	4810	mg / Kg		
	10	Si-28	28		184.7	ppb	1	880	mg / Kg		
	11	K-39	39		138.4	ppb	0.5	659	mg / Kg		
	13	Ca-43	43		178.9	ppb	0.5	852	mg / Kg		
	14	Ca-44	44		183.7	ppb	0.5	875	mg / Kg		
x	16	Ti-47 >5x MB	47		29.85	ppb	0.025	142	mg / Kg		
	17	V-51	51		0.82	ppb	0.05	< 4.76	mg / Kg		
	18	Cr-52	52		0.91	ppb	0.05	< 4.76	mg / Kg		
	19	Cr-53	53		0.62	ppb	0.25	< 23.8	mg / Kg		
	20	Fe-54	54		1266	ppb	0.5	6030	mg / Kg		
x	21	Mn-55 >5x MB	55		32.21	ppb	0.025	153	mg / Kg		
x	22	Fe-57 >5x MB	57		1271	ppb	0.5	6050	mg / Kg		
	23	Co-59	59		-0.06	ppb	0.025	< 2.38	mg / Kg		
	24	Ni-60	60		0.5	ppb	0.025	2.38	mg / Kg		
	25	Cu-63	63		0.62	ppb	0.025	2.95	mg / Kg		
	26	Cu-65	65		0.61	ppb	0.025	2.90	mg / Kg		
	27	Zn-66	66		7.14	ppb	0.25	34.0	mg / Kg		
	28	Zn-67	67		7.24	ppb	0.25	34.5	mg / Kg		
	29	Zn-68	68		6.64	ppb	0.25	31.6	mg / Kg		
	32	As-75	75		0.06	ppb	0.025	< 2.38	mg / Kg		
	34	Se-82	82		0.26	ppb	0.025	< 2.38	mg / Kg		
	37	Sr-87	87		7.26	ppb	0.025	34.6	mg / Kg		
	40	Mo-95	95		0.85	ppb	0.025	4.05	mg / Kg		
	41	Mo-98	98		0.79	ppb	0.025	3.76	mg / Kg		
	43	Ag-107	107		0	ppb	0.025	< 2.38	mg / Kg		
	45	Ag-109	109		0	ppb	0.025	< 2.38	mg / Kg		
	46	Cd-111	111		0.04	ppb	0.025	< 2.38	mg / Kg		
	47	Cd-114	114		0.05	ppb	0.025	< 2.38	mg / Kg		
	50	Sn-120	120		0.36	ppb	0.025	< 2.38	mg / Kg		
	51	Sb-121	121		0	ppb	0.05	< 4.76	mg / Kg		
	52	Sb-123	123		0.08	ppb	0.05	< 4.76	mg / Kg		
	53	Ba-135	135		7.07	ppb	0.025	33.7	mg / Kg		
	54	Tb-159	159		0	ppb	0.001	< 0.095	mg / Kg		
	55	Au-197	197		0.68	ppb	0.025	3.24	mg / Kg		
	56	Tl-205	205		0.44	ppb	0.025	< 2.38	mg / Kg		
	59	Pb-208	208		1.39	ppb	0.025	6.62	mg / Kg		
	61	U-238	238		0.13	ppb	0.025	< 2.38	mg / Kg		

M M021283-006

Assaigai Analytical Laboratories, Inc.

Analytical Result Summary

0209373-01A[M] 242

Run Group	MT.2002.1110	15
Calc Method	6020	
Prep Method	MS3050	
Prep Matrix	SOLID	

		By	Dilution
Prepared	09-23-02 8:08:51	JRE	0.9524
Analyzed	09-24-02 12:11:00	JWB	10
Calibration	09-24-02 10:46:00		
Quant	09-24-02 12:16:00	016SMPL.D#	

r	C#	Analyte	QMass	m	Raw Quant	As	MRL	Report	As	Qual	f
x	3	Be-9	9		0.8	ppb	0.025	0.381	mg / Kg		
x	4	B-11 DD	11		0.9	ppb	0.15	< 1.43	mg / Kg		
x	5	Na-23 >5x MB	23		241.2	ppb	0.5	115	mg / Kg		
x	6	Mg-24	24		1305	ppb	0.5	621	mg / Kg		
	7	Mg-25	25		1407	ppb	0.5	670	mg / Kg		
	8	Mg-26	26		1377	ppb	0.5	656	mg / Kg		
x	9	Al-27 >5x MB	27		9915	ppb	0.5	4720	mg / Kg		
x	10	Si-28 (E) >	28		532.7	ppb	1	254	mg / Kg		
x	11	K-39 >5x MB	39		1287	ppb	0.5	613	mg / Kg		
x	13	Ca-43 >5x MB	43		1596	ppb	0.5	760	mg / Kg		
	14	Ca-44	44		1584	ppb	0.5	754	mg / Kg		
	16	Ti-47	47		290.5	ppb	0.025	138	mg / Kg		x
x	17	V-51	51		9.91	ppb	0.05	4.72	mg / Kg		
x	18	Cr-52	52		5.92	ppb	0.05	2.82	mg / Kg		
	19	Cr-53	53		4.74	ppb	0.25	< 2.38	mg / Kg		
	20	Fe-54	54		11630	ppb	0.5	5540	mg / Kg		x
	21	Mn-55	55		314.4	ppb	0.025	150	mg / Kg		x
	22	Fe-57	57		12070	ppb	0.5	5750	mg / Kg		x
x	23	Co-59	59		1.56	ppb	0.025	0.743	mg / Kg		
x	24	Ni-60	60		4.47	ppb	0.025	2.13	mg / Kg		
x	25	Cu-63 >5x MB	63		4.37	ppb	0.025	2.08	mg / Kg		
	26	Cu-65	65		4.41	ppb	0.025	2.10	mg / Kg		
x	27	Zn-66	66		54.01	ppb	0.25	25.7	mg / Kg		
	28	Zn-67	67		53.14	ppb	0.25	25.3	mg / Kg		
	29	Zn-68	68		49.68	ppb	0.25	23.6	mg / Kg		
x	32	As-75	75		1.91	ppb	0.025	0.910	mg / Kg		
x	34	Se-82	82		0.82	ppb	0.025	0.390	mg / Kg		
x	37	Sr-87	87		70.53	ppb	0.025	33.6	mg / Kg		
x	40	Mo-95 >5x MB	95		2.53	ppb	0.025	1.20	mg / Kg		
	41	Mo-98	98		2.54	ppb	0.025	1.21	mg / Kg		
x	43	Ag-107	107		0.01	ppb	0.025	< 0.238	mg / Kg		
	45	Ag-109	109		0.01	ppb	0.025	< 0.238	mg / Kg		
x	46	Cd-111	111		0.2	ppb	0.025	< 0.238	mg / Kg		
	47	Cd-114	114		0.1	ppb	0.025	< 0.238	mg / Kg		
1 x	50	Sn-120 (B)	120		3.5	ppb	0.025	1.67	mg / Kg		
x	51	Sb-121	121		0	ppb	0.05	< 0.476	mg / Kg		
	52	Sb-123	123		0.07	ppb	0.05	< 0.476	mg / Kg		
x	53	Ba-135	135		73.87	ppb	0.025	35.2	mg / Kg		
	54	Tb-159	159		0	ppb	0.001	< 0.010	mg / Kg		
	55	Au-197	197		0.36	ppb	0.025	< 0.238	mg / Kg		
x	56	Tl-205	205		0.23	ppb	0.025	< 0.238	mg / Kg		
x	59	Pb-208 >5x MB	208		16.39	ppb	0.025	7.80	mg / Kg		
x	61	U-238	238		0.91	ppb	0.025	0.433	mg / Kg		

MS M021283-007

Assaigai Analytical Laboratories, Inc.

Analytical Result Summary

0209373-01A[MS]

Run Group	MT.2002.1110	16
Calc Method	6020	
Prep Method	MS3050	
Prep Matrix	SOLID	

		By	Dilution
Prepared	09-23-02 8:08:51	JRE	0.9699
Analyzed	09-24-02 12:20:00	JWB	100
Calibration	09-24-02 10:46:00		
Quant	09-24-02 12:27:00		017SMPL.D#

r	C#	Analyte	QMass	m	Raw Quant	As	MRL	Report	As	Qual	f
	3	Be-9	9		1.08	ppb	1	100	% Recovery		
	4	B-11	11		-0.01	ppb	1	< 1	% Recovery		x
	5	Na-23	23		45.28	ppb	1	216	% Recovery		x
	6	Mg-24	24		188.6	ppb	1	605	% Recovery		x
	7	Mg-25	25		194.5	ppb	1	563	% Recovery		x
	8	Mg-26	26		191.6	ppb	1	564	% Recovery		x
	9	Al-27	27		1228	ppb	1	2540	% Recovery		x
	10	Si-28	28		246.1	ppb	1	1940	% Recovery		x
	11	K-39	39		181.7	ppb	1	553	% Recovery		x
	13	Ca-43	43		204.3	ppb	1	476	% Recovery		x
	14	Ca-44	44		203.7	ppb	1	482	% Recovery		x
x	16	Ti-47	47		40.99	ppb	1	1250	% Recovery		x
	17	V-51	51		1.99	ppb	1	102	% Recovery		
	18	Cr-52	52		1.83	ppb	1	125	% Recovery		x
	19	Cr-53	53		-0.71	ppb	1	< 1	% Recovery		x
	20	Fe-54	54		1406	ppb	1	2640	% Recovery		x
x	21	Mn-55	55		34.4	ppb	1	353	% Recovery		x
x	22	Fe-57	57		1435	ppb	1	2500	% Recovery		x
	23	Co-59	59		1.03	ppb	1	88	% Recovery		
	24	Ni-60	60		1.61	ppb	1	117	% Recovery		
	25	Cu-63	63		1.64	ppb	1	121	% Recovery		x
	26	Cu-65	65		1.7	ppb	1	127	% Recovery		x
	27	Zn-66	66		8.27	ppb	1	297	% Recovery		x
	28	Zn-67	67		8.12	ppb	1	290	% Recovery		x
	29	Zn-68	68		7.61	ppb	1	273	% Recovery		x
	32	As-75	75		1.24	ppb	1	105	% Recovery		
	34	Se-82	82		1.23	ppb	1	115	% Recovery		
	37	Sr-87	87		9	ppb	1	207	% Recovery		x
	40	Mo-95	95		1.35	ppb	1	110	% Recovery		
	41	Mo-98	98		1.37	ppb	1	112	% Recovery		
	43	Ag-107	107		1.02	ppb	1	102	% Recovery		
	45	Ag-109	109		1	ppb	1	100	% Recovery		
	46	Cd-111	111		1	ppb	1	98	% Recovery		
	47	Cd-114	114		1.05	ppb	1	104	% Recovery		
	50	Sn-120	120		1.4	ppb	1	106	% Recovery		
	51	Sb-121	121		0.37	ppb	1	37	% Recovery		x
	52	Sb-123	123		0.49	ppb	1	48	% Recovery		x
	53	Ba-135	135		8.79	ppb	1	154	% Recovery		x
	54	Tb-159	159		0	ppb	1	< 1	% Recovery		x
	55	Au-197	197		1.19	ppb	1	115	% Recovery		
	56	Tl-205	205		0.83	ppb	1	81	% Recovery		
	59	Pb-208	208		2.43	ppb	1	82	% Recovery		
	61	U-238	238		1.16	ppb	1	107	% Recovery		

(1) * Zn, Sr, Ba Ti, Mn, Fe, Na, Mg, Al, Si, K, Ca are outside of QA/QC criteria due to the high sample concentration relative to the spike level.

(2) * ~~Zn~~ gB 9/25/02 Sb is outside of QA/QC criteria due to matrix interference.

gB 9/25/02

MS M021283-007

Assalgai Analytical Laboratories, Inc.

Analytical Result Summary

0209373-01A[MS]

244

Run Group	MT.2002.1110	17
Calc Method	6020	
Prep Method	MS3050	
Prep Matrix	SOLID	

		By	Dilution
Prepared	09-23-02 8:08:51	JRE	0.9699
Analyzed	09-24-02 12:29:00	JWB	10
Calibration	09-24-02 10:46:00		
Quant	09-24-02 12:36:00		018SMPL.D#

r	C#	Analyte	QMass	m	Raw Quant	As	MRL	Report	As	Qual	f
x	3	Be-9	9		10.86	ppb	1	101	% Recovery		
x	4	B-11	11		10.24	ppb	1	94	% Recovery		
x	5	Na-23	23		359.2	ppb	1	122	% Recovery		x
x	6	Mg-24	24		1679	ppb	1	398	% Recovery		x
	7	Mg-25	25		1715	ppb	1	333	% Recovery		x
	8	Mg-26	26		1686	ppb	1	334	% Recovery		x
x	9	Al-27	27		11580	ppb	1	1840	% Recovery		x
x	10	Si-28	28		848.6	ppb	1	326	% Recovery		x
x	11	K-39	39		1664	ppb	1	400	% Recovery		x
x	13	Ca-43	43		1772	ppb	1	205	% Recovery		x
	14	Ca-44	44		1780	ppb	1	225	% Recovery		x
	16	Ti-47	47		386.6	ppb	1	1010	% Recovery		x
x	17	V-51	51		21.31	ppb	1	116	% Recovery		
x	18	Cr-52	52		16.69	ppb	1	109	% Recovery		
	19	Cr-53	53		16.5	ppb	1	118	% Recovery		
	20	Fe-54	54		13120	ppb	1	1700	% Recovery		x
	21	Mn-55	55		331.5	ppb	1	228	% Recovery		x
	22	Fe-57	57		13380	ppb	1	1530	% Recovery		x
x	23	Co-59	59		11.91	ppb	1	104	% Recovery		
x	24	Ni-60	60		15.01	ppb	1	106	% Recovery		
x	25	Cu-63	63		14.84	ppb	1	105	% Recovery		
	26	Cu-65	65		15.58	ppb	1	112	% Recovery		
x	27	Zn-66	66		65.87	ppb	1	128	% Recovery		x
	28	Zn-67	67		65.2	ppb	1	130	% Recovery		x
	29	Zn-68	68		61.02	ppb	1	122	% Recovery		x
x	32	As-75	75		12.4	ppb	1	105	% Recovery		
x	34	Se-82	82		11.53	ppb	1	107	% Recovery		
x	37	Sr-87	87		89.33	ppb	1	201	% Recovery		x
x	40	Mo-95	95		11.88	ppb	1	94	% Recovery		
	41	Mo-98	98		11.74	ppb	1	92	% Recovery		
x	43	Ag-107	107		10.19	ppb	1	102	% Recovery		
	45	Ag-109	109		10.32	ppb	1	103	% Recovery		
x	46	Cd-111	111		10.85	ppb	1	106	% Recovery		
	47	Cd-114	114		10.59	ppb	1	105	% Recovery		
x	50	Sn-120	120		14.58	ppb	1	111	% Recovery		
x	51	Sb-121	121		4.49	ppb	1	45	% Recovery		x
	52	Sb-123	123		4.66	ppb	1	46	% Recovery		x
x	53	Ba-135	135		88.05	ppb	1	155	% Recovery		x
	54	Tb-159	159		0	ppb	1	< 1	% Recovery		x
	55	Au-197	197		10.24	ppb	1	99	% Recovery		
x	56	Tl-205	205		10	ppb	1	98	% Recovery		
x	59	Pb-208	208		26.79	ppb	1	107	% Recovery		
x	61	U-238	238		11.29	ppb	1	104	% Recovery		

(1), (2) gB 9/25/02

MSDD M021283-008

Assaigai Analytical Laboratories, Inc.

Analytical Result Summary

0209373-01A[MSD]

Run Group	MT.2002.1110	18
Calc Method	6020	
Prep Method	MS3050	
Prep Matrix	SOLID	

		By	Dilution
Prepared	09-23-02 8:08:51	JRE	0.9569
Analyzed	09-24-02 12:38:00	JWB	100
Calibration	09-24-02 10:46:00		
Quant	09-24-02 12:45:00		019SMPL.D#

r	C#	Analyte	QMass	m	Raw Quant	As	MRL	Report	As	Qual	f
	3	Be-9	9		1.01	ppb	1	8	RPD		
	4	B-11	11		-0.34	ppb	1	242	RPD		x
	5	Na-23	23		46.11	ppb	1	57	RPD		x
	6	Mg-24	24		185	ppb	1	32	RPD		x
	7	Mg-25	25		185.2	ppb	1	30	RPD		x
	8	Mg-26	26		182.5	ppb	1	31	RPD		x
	9	Al-27	27		1216	ppb	1	22	RPD		x
	10	Si-28	28		257.3	ppb	1	145	RPD		x
	11	K-39	39		175.5	ppb	1	17	RPD		
	13	Ca-43	43		248	ppb	1	125	RPD		x
	14	Ca-44	44		236.4	ppb	1	111	RPD		x
x	16	Ti-47	47		42.51	ppb	1	29	RPD		x
	17	V-51	51		2.57	ppb	1	31	RPD		x
	18	Cr-52	52		1.8	ppb	1	11	RPD		
	19	Cr-53	53		-1.43	ppb	1	465	RPD		x
	20	Fe-54	54		1343	ppb	1	9	RPD		
x	21	Mn-55	55		39.33	ppb	1	112	RPD		x
x	22	Fe-57	57		1380	ppb	1	16	RPD		
	23	Co-59	59		1.02	ppb	1	18	RPD		
	24	Ni-60	60		1.81	ppb	1	25	RPD		x
	25	Cu-63	63		1.63	ppb	1	12	RPD		
	26	Cu-65	65		1.68	ppb	1	10	RPD		
	27	Zn-66	66		8.56	ppb	1	85	RPD		x
	28	Zn-67	67		8.52	ppb	1	85	RPD		x
	29	Zn-68	68		7.93	ppb	1	84	RPD		x
	32	As-75	75		1.17	ppb	1	7	RPD		
	34	Se-82	82		1.21	ppb	1	5	RPD		
	37	Sr-87	87		9.2	ppb	1	8	RPD		
	40	Mo-95	95		1.36	ppb	1	16	RPD		
	41	Mo-98	98		1.31	ppb	1	13	RPD		
	43	Ag-107	107		1.01	ppb	1	< 1	RPD		
	45	Ag-109	109		1.02	ppb	1	1	RPD		
	46	Cd-111	111		1.05	ppb	1	3	RPD		
	47	Cd-114	114		1.01	ppb	1	5	RPD		
	50	Sn-120	120		1.36	ppb	1	10	RPD		
	51	Sb-121	121		0.44	ppb	1	2	RPD		
	52	Sb-123	123		0.43	ppb	1	8	RPD		
	53	Ba-135	135		8.78	ppb	1	8	RPD		
	54	Tb-159	159		0	ppb	1	NA	RPD		
	55	Au-197	197		1.13	ppb	1	10	RPD		
	56	Tl-205	205		0.84	ppb	1	18	RPD		
	59	Pb-208	208		2.98	ppb	1	23	RPD		x
	61	U-238	238		1.14	ppb	1	< 1	RPD		

(1), (2) SB 9/25/02

MSDS M021283-008

Assaigai Analytical Laboratories, Inc.

Analytical Result Summary

0209373-01A[MSD]

Run Group	MT.2002.1110	18
Calc Method	6020	
Prep Method	MS3050	
Prep Matrix	SOLID	

		By	Dilution
Prepared	09-23-02 8:08:51	JRE	0.9569
Analyzed	09-24-02 12:38:00	JWB	100
Calibration	09-24-02 10:46:00		
Quant	09-24-02 12:45:00		019SMPL.D#

r	C#	Analyte	QMass	m	Raw Quant	As	MRL	Report	As	Qual	f
	3	Be-9	9		1.01	ppb	1	93	% Recovery		
	4	B-11	11		-0.34	ppb	1	< 1	% Recovery		x
	5	Na-23	23		46.11	ppb	1	221	% Recovery		x
	6	Mg-24	24		185	ppb	1	551	% Recovery		x
	7	Mg-25	25		185.2	ppb	1	452	% Recovery		x
	8	Mg-26	26		182.5	ppb	1	454	% Recovery		x
	9	Al-27	27		1216	ppb	1	2290	% Recovery		x
	10	Si-28	28		257.3	ppb	1	2040	% Recovery		x
	11	K-39	39		175.5	ppb	1	474	% Recovery		x
	13	Ca-43	43		248	ppb	1	892	% Recovery		x
	14	Ca-44	44		236.4	ppb	1	788	% Recovery		x
x	16	Ti-47	47		42.51	ppb	1	1360	% Recovery		x
	17	V-51	51		2.57	ppb	1	158	% Recovery		x
	18	Cr-52	52		1.8	ppb	1	121	% Recovery		x
	19	Cr-53	53		-1.43	ppb	1	< 1	% Recovery		x
	20	Fe-54	54		1343	ppb	1	1860	% Recovery		x
x	21	Mn-55	55		39.33	ppb	1	804	% Recovery		x
x	22	Fe-57	57		1380	ppb	1	1790	% Recovery		x
	23	Co-59	59		1.02	ppb	1	86	% Recovery		
	24	Ni-60	60		1.81	ppb	1	136	% Recovery		x
	25	Cu-63	63		1.63	ppb	1	120	% Recovery		
	26	Cu-65	65		1.68	ppb	1	124	% Recovery		x
	27	Zn-66	66		8.56	ppb	1	318	% Recovery		x
	28	Zn-67	67		8.52	ppb	1	323	% Recovery		x
	29	Zn-68	68		7.93	ppb	1	298	% Recovery		x
	32	As-75	75		1.17	ppb	1	98	% Recovery		
	34	Se-82	82		1.21	ppb	1	113	% Recovery		
	37	Sr-87	87		9.2	ppb	1	218	% Recovery		x
	40	Mo-95	95		1.36	ppb	1	111	% Recovery		
	41	Mo-98	98		1.31	ppb	1	106	% Recovery		
	43	Ag-107	107		1.01	ppb	1	101	% Recovery		
	45	Ag-109	109		1.02	ppb	1	102	% Recovery		
	46	Cd-111	111		1.05	ppb	1	103	% Recovery		
	47	Cd-114	114		1.01	ppb	1	100	% Recovery		
	50	Sn-120	120		1.36	ppb	1	101	% Recovery		
	51	Sb-121	121		0.44	ppb	1	44	% Recovery		x
	52	Sb-123	123		0.43	ppb	1	42	% Recovery		x
	53	Ba-135	135		8.78	ppb	1	143	% Recovery		x
	54	Tb-159	159		0	ppb	1	< 1	% Recovery		x
	55	Au-197	197		1.13	ppb	1	109	% Recovery		
	56	Tl-205	205		0.84	ppb	1	82	% Recovery		
	59	Pb-208	208		2.98	ppb	1	135	% Recovery		x
	61	U-238	238		1.14	ppb	1	105	% Recovery		

(1), (2) JB 9/25/02

STD-CCV [STD-CCV]

Assaigai Analytical Laboratories, Inc.

Analytical Result Summary

Run Group	MT.2002.1110	19
Calc Method	6020	
Prep Method	LAB	
Prep Matrix	LAB	

		By	Dilution
Prepared			1
Analyzed	09-24-02 12:47:00	JWB	1
Calibration	09-24-02 10:46:00		
Quant	09-24-02 12:55:00	020CCV_D#	

r	C#	Analyte	QMass	m	Raw Quant	As	MRL	Report	As	Qual	f
	3	Be-9	9		94.53	ppb	1	94	% Recovery		
	4	B-11	11		96.49	ppb	1	96	% Recovery		
	5	Na-23	23		992.1	ppb	1	99	% Recovery		
	6	Mg-24	24		1005	ppb	1	100	% Recovery		
	7	Mg-25	25		1055	ppb	1	106	% Recovery		
	8	Mg-26	26		1025	ppb	1	102	% Recovery		
	9	Al-27	27		1032	ppb	1	103	% Recovery		
	10	Si-28	28		1101	ppb	1	110	% Recovery		
	11	K-39	39		1034	ppb	1	103	% Recovery		
	13	Ca-43	43		1019	ppb	1	102	% Recovery		
	14	Ca-44	44		999.7	ppb	1	100	% Recovery		
	16	Ti-47	47		103.5	ppb	1	104	% Recovery		
	17	V-51	51		103.9	ppb	1	104	% Recovery		
	18	Cr-52	52		103.9	ppb	1	104	% Recovery		
	19	Cr-53	53		96.3	ppb	1	96	% Recovery		
	20	Fe-54	54		1107	ppb	1	111	% Recovery		x
	21	Mn-55	55		106.5	ppb	1	106	% Recovery		
	22	Fe-57	57		1079	ppb	1	108	% Recovery		
	23	Co-59	59		105.4	ppb	1	105	% Recovery		
	24	Ni-60	60		106.6	ppb	1	107	% Recovery		
	25	Cu-63	63		106.3	ppb	1	106	% Recovery		
	26	Cu-65	65		107.6	ppb	1	108	% Recovery		
	27	Zn-66	66		103.4	ppb	1	103	% Recovery		
	28	Zn-67	67		99.78	ppb	1	100	% Recovery		
	29	Zn-68	68		103.2	ppb	1	103	% Recovery		
	32	As-75	75		101.9	ppb	1	102	% Recovery		
	34	Se-82	82		105.6	ppb	1	106	% Recovery		
	37	Sr-87	87		102.9	ppb	1	103	% Recovery		
	40	Mo-95	95		95.76	ppb	1	96	% Recovery		
	41	Mo-98	98		96.75	ppb	1	97	% Recovery		
	43	Ag-107	107		100.1	ppb	1	100	% Recovery		
	45	Ag-109	109		100.4	ppb	1	100	% Recovery		
	46	Cd-111	111		101.1	ppb	1	101	% Recovery		
	47	Cd-114	114		101.9	ppb	1	102	% Recovery		
	50	Sn-120	120		102.7	ppb	1	103	% Recovery		
	51	Sb-121	121		102.3	ppb	1	102	% Recovery		
	52	Sb-123	123		103.3	ppb	1	103	% Recovery		
	53	Ba-135	135		102.4	ppb	1	102	% Recovery		
	54	Tb-159	159		0	ppb	1	< 1	% Recovery		x
	55	Au-197	197		99.25	ppb	1	99	% Recovery		
	56	Tl-205	205		97.93	ppb	1	98	% Recovery		
	59	Pb-208	208		99.89	ppb	1	100	% Recovery		
	61	U-238	238		100.8	ppb	1	101	% Recovery		

CB [CB]

Assaigai Analytical Laboratories, Inc.

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Analytical Result Summary

Run Group	MT.2002.1110	20
Calc Method	6020	
Prep Method	LAB	
Prep Matrix	LAB	

		By	Dilution
Prepared			1
Analyzed	09-24-02 12:57:00	JWB	1
Calibration	09-24-02 10:46:00		
Quant	09-24-02 13:04:00		021CCB .D#

r	C#	Analyte	QMass	m	Raw Quant	As	MRL	Report	As	Qual	f
	3	Be-9	9		0.03	ppb	0.001	< 0.001	mg / L		
	4	B-11	11		0.01	ppb	0.001	< 0.001	mg / L		
	5	Na-23	23		0.21	ppb	0.01	< 0.010	mg / L		
	6	Mg-24	24		0.46	ppb	0.01	< 0.010	mg / L		
	7	Mg-25	25		0.47	ppb	0.01	< 0.010	mg / L		
	8	Mg-26	26		0.43	ppb	0.01	< 0.010	mg / L		
	9	Al-27	27		2.98	ppb	0.01	< 0.010	mg / L		
	10	Si-28	28		-2.43	ppb	0.001	< 0.001	mg / L		
	11	K-39	39		2.22	ppb	0.01	< 0.010	mg / L		
	13	Ca-43	43		5.18	ppb	0.01	< 0.010	mg / L		
	14	Ca-44	44		1.33	ppb	0.01	< 0.010	mg / L		
	16	Ti-47	47		0.07	ppb	0.001	< 0.001	mg / L		
	17	V-51	51		0.1	ppb	0.001	< 0.001	mg / L		
	18	Cr-52	52		0.38	ppb	0.001	< 0.001	mg / L		
	19	Cr-53	53		5.05	ppb	0.001	0.005	mg / L		x
	20	Fe-54	54		35.2	ppb	0.01	0.035	mg / L		x
	21	Mn-55	55		0.08	ppb	0.001	< 0.001	mg / L		
	22	Fe-57	57		3.55	ppb	0.01	< 0.010	mg / L		
	23	Co-59	59		-0.27	ppb	0.001	< 0.001	mg / L		
	24	Ni-60	60		-0.02	ppb	0.001	< 0.001	mg / L		
	25	Cu-63	63		0.01	ppb	0.001	< 0.001	mg / L		
	26	Cu-65	65		0.03	ppb	0.001	< 0.001	mg / L		
	27	Zn-66	66		0.05	ppb	0.001	< 0.001	mg / L		
	28	Zn-67	67		0.61	ppb	0.001	< 0.001	mg / L		
	29	Zn-68	68		-0.05	ppb	0.001	< 0.001	mg / L		
	32	As-75	75		0.19	ppb	0.001	< 0.001	mg / L		
	34	Se-82	82		0.04	ppb	0.001	< 0.001	mg / L		
	37	Sr-87	87		0.03	ppb	0.001	< 0.001	mg / L		
	40	Mo-95	95		0.33	ppb	0.001	< 0.001	mg / L		
	41	Mo-98	98		0.3	ppb	0.001	< 0.001	mg / L		
	43	Ag-107	107		0.03	ppb	0.001	< 0.001	mg / L		
	45	Ag-109	109		0.02	ppb	0.001	< 0.001	mg / L		
	46	Cd-111	111		0.05	ppb	0.001	< 0.001	mg / L		
	47	Cd-114	114		0.04	ppb	0.001	< 0.001	mg / L		
	50	Sn-120	120		-0.02	ppb	0.001	< 0.001	mg / L		
	51	Sb-121	121		0.23	ppb	0.001	< 0.001	mg / L		
	52	Sb-123	123		0.27	ppb	0.001	< 0.001	mg / L		
	53	Ba-135	135		0.05	ppb	0.001	< 0.001	mg / L		
	54	Tb-159	159		0	ppb	0.001	< 0.001	mg / L		
	55	Au-197	197		0.48	ppb	0.001	< 0.001	mg / L		
	56	Tl-205	205		0.28	ppb	0.001	< 0.001	mg / L		
	59	Pb-208	208		-0.25	ppb	0.001	< 0.001	mg / L		
	61	U-238	238		0.04	ppb	0.001	< 0.001	mg / L		

MSDD M021283-008

Assaigai Analytical Laboratories, Inc.

Analytical Result Summary

0209373-01A[MSD]

Run Group	MT.20021110	21
Calc Method	6020	
Prep Method	MS3050	
Prep Matrix	SOLID	

		By	Dilution
Prepared	09-23-02 8:08:51	JRE	0.9569
Analyzed	09-24-02 13:06:00	JWB	10
Calibration	09-24-02 10:46:00		
Quant	09-24-02 13:13:00	022SMPL.D#	

r	C#	Analyte	QMass	m	Raw Quant	As	MRL	Report	As	Qual	f
x	3	Be-9	9		11.14	ppb	1	3	RPD		
x	4	B-11	11		10.16	ppb	1	< 1	RPD		
x	5	Na-23	23		349.2	ppb	1	11	RPD		
x	6	Mg-24	24		1600	ppb	1	28	RPD		x
	7	Mg-25	25		1695	ppb	1	12	RPD		
	8	Mg-26	26		1658	ppb	1	15	RPD		
x	9	Al-27	27		11200	ppb	1	32	RPD		x
x	10	Si-28	28		926.5	ppb	1	20	RPD		
x	11	K-39	39		1590	ppb	1	26	RPD		x
x	13	Ca-43	43		2101	ppb	1	86	RPD		x
	14	Ca-44	44		2081	ppb	1	77	RPD		x
	16	Ti-47	47		385.3	ppb	1	5	RPD		x
x	17	V-51	51		22.29	ppb	1	7	RPD		
x	18	Cr-52	52		16.81	ppb	1	< 1	RPD		
	19	Cr-53	53		17.48	ppb	1	7	RPD		
	20	Fe-54	54		12820	ppb	1	31	RPD		x
	21	Mn-55	55		389.6	ppb	1	108	RPD		x
	22	Fe-57	57		13420	ppb	1	8	RPD		x
x	23	Co-59	59		12.33	ppb	1	4	RPD		
x	24	Ni-60	60		16.54	ppb	1	13	RPD		
x	25	Cu-63	63		15.5	ppb	1	6	RPD		
	26	Cu-65	65		15.59	ppb	1	< 1	RPD		
x	27	Zn-66	66		66.89	ppb	1	2	RPD		
	28	Zn-67	67		66.94	ppb	1	8	RPD		
	29	Zn-68	68		62.49	ppb	1	6	RPD		
x	32	As-75	75		12.61	ppb	1	2	RPD		
x	34	Se-82	82		11.88	ppb	1	3	RPD		
x	37	Sr-87	87		91.31	ppb	1	5	RPD		
x	40	Mo-95	95		11.99	ppb	1	< 1	RPD		
	41	Mo-98	98		11.98	ppb	1	2	RPD		
x	43	Ag-107	107		10.19	ppb	1	< 1	RPD		
	45	Ag-109	109		10.29	ppb	1	< 1	RPD		
x	46	Cd-111	111		10.77	ppb	1	< 1	RPD		
	47	Cd-114	114		10.59	ppb	1	< 1	RPD		
x	50	Sn-120	120		14.68	ppb	1	< 1	RPD		
x	51	Sb-121	121		4.98	ppb	1	10	RPD		
	52	Sb-123	123		5.09	ppb	1	9	RPD		
x	53	Ba-135	135		88.28	ppb	1	5	RPD		
	54	Tb-159	159		0	ppb	1	NA	RPD		
	55	Au-197	197		10.1	ppb	1	1	RPD		
x	56	Tl-205	205		10.33	ppb	1	3	RPD		
x	59	Pb-208	208		32.78	ppb	1	42	RPD		x
x	61	U-238	238		11.49	ppb	1	2	RPD		

(1), (2) SB 9/25/02

MSDS M021283-008

Assaigai Analytical Laboratories, Inc.

Analytical Result Summary

0209373-01A[MSD]

Run Group	MT.2002.1110	21
Calc Method	6020	
Prep Method	MS3050	
Prep Matrix	SOLID	

		By	Dilution
Prepared	09-23-02 8:08:51	JRE	0.9569
Analyzed	09-24-02 13:06:00	JWB	10
Calibration	09-24-02 10:46:00		
Quant	09-24-02 13:13:00	022SMPL.D#	

r	C#	Analyte	QMass	m	Raw Quant	As	MRL	Report	As	Qual	f
x	3	Be-9	9		11.14	ppb	1	103	% Recovery		
x	4	B-11	11		10.16	ppb	1	93	% Recovery		
x	5	Na-23	23		349.2	ppb	1	109	% Recovery		
	6	Mg-24	24		1600	ppb	1	301	% Recovery		x
	7	Mg-25	25		1695	ppb	1	295	% Recovery		x
x	8	Mg-26	26		1658	ppb	1	288	% Recovery		x
x	9	Al-27	27		11200	ppb	1	1330	% Recovery		x
x	10	Si-28	28		926.5	ppb	1	396	% Recovery		x
x	11	K-39	39		1590	ppb	1	309	% Recovery		x
x	13	Ca-43	43		2101	ppb	1	513	% Recovery		x
	14	Ca-44	44		2081	ppb	1	504	% Recovery		x
	16	Ti-47	47		385.3	ppb	1	962	% Recovery		x
x	17	V-51	51		22.29	ppb	1	124	% Recovery		x
x	18	Cr-52	52		16.81	ppb	1	109	% Recovery		
	19	Cr-53	53		17.48	ppb	1	128	% Recovery		x
	20	Fe-54	54		12820	ppb	1	1240	% Recovery		x
	21	Mn-55	55		389.6	ppb	1	767	% Recovery		x
	22	Fe-57	57		13420	ppb	1	1410	% Recovery		x
x	23	Co-59	59		12.33	ppb	1	108	% Recovery		
x	24	Ni-60	60		16.54	ppb	1	121	% Recovery		x
x	25	Cu-63	63		15.5	ppb	1	112	% Recovery		
	26	Cu-65	65		15.59	ppb	1	112	% Recovery		
x	27	Zn-66	66		66.89	ppb	1	131	% Recovery		x
	28	Zn-67	67		66.94	ppb	1	140	% Recovery		x
	29	Zn-68	68		62.49	ppb	1	130	% Recovery		x
x	32	As-75	75		12.61	ppb	1	107	% Recovery		
x	34	Se-82	82		11.88	ppb	1	111	% Recovery		
x	37	Sr-87	87		91.31	ppb	1	211	% Recovery		x
x	40	Mo-95	95		11.99	ppb	1	95	% Recovery		
	41	Mo-98	98		11.98	ppb	1	94	% Recovery		
x	43	Ag-107	107		10.19	ppb	1	102	% Recovery		
	45	Ag-109	109		10.29	ppb	1	103	% Recovery		
x	46	Cd-111	111		10.77	ppb	1	106	% Recovery		
	47	Cd-114	114		10.59	ppb	1	105	% Recovery		
x	50	Sn-120	120		14.68	ppb	1	112	% Recovery		
x	51	Sb-121	121		4.98	ppb	1	50	% Recovery		x
	52	Sb-123	123		5.09	ppb	1	50	% Recovery		x
x	53	Ba-135	135		88.28	ppb	1	148	% Recovery		x
	54	Tb-159	159		0	ppb	1	< 1	% Recovery		x
	55	Au-197	197		10.1	ppb	1	97	% Recovery		
x	56	Tl-205	205		10.33	ppb	1	101	% Recovery		
x	59	Pb-208	208		32.78	ppb	1	165	% Recovery		x
x	61	U-238	238		11.49	ppb	1	106	% Recovery		

(1), (2) JB 9/25/02

FRAC M021283-011

Assalgai Analytical Laboratories, Inc.

Analytical Result Summary

0209373-02A

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Run Group	MT.2002.1110	22
Calc Method	6020	
Prep Method	MS3050	
Prep Matrix	SOLID	

		By	Dilution
Prepared	09-23-02 8:08:51	JRE	0.9311
Analyzed	09-24-02 13:15:00	JWB	100
Calibration	09-24-02 10:46:00		
Quant	09-24-02 13:22:00	023SMPL.D#	

r	C#	Analyte	QMass	m	Raw Quant	As	MRL	Report	As	Qual	f
	3	Be-9	9		0.1	ppb	0.025	< 2.33	mg / Kg		
	4	B-11	11		-1.37	ppb	0.15	< 14.0	mg / Kg		
	5	Na-23	23		32.24	ppb	0.5	150	mg / Kg		
	6	Mg-24	24		127.4	ppb	0.5	593	mg / Kg		
	7	Mg-25	25		130.1	ppb	0.5	606	mg / Kg		
	8	Mg-26	26		131.3	ppb	0.5	611	mg / Kg		
	9	Al-27	27		856.7	ppb	0.5	3990	mg / Kg		
	10	Si-28	28		236.8	ppb	1	1100	mg / Kg		
	11	K-39	39		118.4	ppb	0.5	551	mg / Kg		
	13	Ca-43	43		197.6	ppb	0.5	920	mg / Kg		
	14	Ca-44	44		193.3	ppb	0.5	900	mg / Kg		
x	16	Ti-47 >5x MB	47		33.45	ppb	0.025	156	mg / Kg		
	17	V-51	51		0.77	ppb	0.05	< 4.66	mg / Kg		
	18	Cr-52	52		0.75	ppb	0.05	< 4.66	mg / Kg		
	19	Cr-53	53		-0.44	ppb	0.25	< 23.3	mg / Kg		
	20	Fe-54	54		1292	ppb	0.5	6010	mg / Kg		
x	21	Mn-55 >5x MB	55		37.72	ppb	0.025	176	mg / Kg		
x	22	Fe-57 >5x MB	57		1320	ppb	0.5	6140	mg / Kg		
	23	Co-59	59		-0.13	ppb	0.025	< 2.33	mg / Kg		
	24	Ni-60	60		0.47	ppb	0.025	< 2.33	mg / Kg		
	25	Cu-63	63		0.47	ppb	0.025	< 2.33	mg / Kg		
	26	Cu-65	65		0.54	ppb	0.025	2.51	mg / Kg		
	27	Zn-66	66		7.47	ppb	0.25	34.8	mg / Kg		
	28	Zn-67	67		7.28	ppb	0.25	33.9	mg / Kg		
	29	Zn-68	68		7.08	ppb	0.25	33.0	mg / Kg		
	32	As-75	75		0.05	ppb	0.025	< 2.33	mg / Kg		
	34	Se-82	82		0.06	ppb	0.025	< 2.33	mg / Kg		
	37	Sr-87	87		6.08	ppb	0.025	28.3	mg / Kg		
	40	Mo-95	95		0.35	ppb	0.025	< 2.33	mg / Kg		
	41	Mo-98	98		0.34	ppb	0.025	< 2.33	mg / Kg		
	43	Ag-107	107		-0.03	ppb	0.025	< 2.33	mg / Kg		
	45	Ag-109	109		-0.03	ppb	0.025	< 2.33	mg / Kg		
	46	Cd-111	111		0.03	ppb	0.025	< 2.33	mg / Kg		
	47	Cd-114	114		0.02	ppb	0.025	< 2.33	mg / Kg		
	50	Sn-120	120		0.34	ppb	0.025	< 2.33	mg / Kg		
	51	Sb-121	121		-0.06	ppb	0.05	< 4.66	mg / Kg		
	52	Sb-123	123		0.01	ppb	0.05	< 4.66	mg / Kg		
	53	Ba-135	135		6.13	ppb	0.025	28.5	mg / Kg		
	54	Tb-159	159		0	ppb	0.001	< 0.093	mg / Kg		
	55	Au-197	197		0.18	ppb	0.025	< 2.33	mg / Kg		
	56	Tl-205	205		-0.14	ppb	0.025	< 2.33	mg / Kg		
	59	Pb-208	208		1.1	ppb	0.025	5.12	mg / Kg		
	61	U-238	238		0.08	ppb	0.025	< 2.33	mg / Kg		

FRAC M021283-011

Assaigai Analytical Laboratories, Inc.

Analytical Result Summary

0209373-02A

Run Group	MT.2002.1110	23
Calc Method	6020	
Prep Method	MS3050	
Prep Matrix	SOLID	

		By	Dilution
Prepared	09-23-02 8:08:51	JRE	0.9311
Analyzed	09-24-02 13:24:00	JWB	10
Calibration	09-24-02 10:46:00		
Quant	09-24-02 13:31:00		024SMPL.D#

r	C#	Analyte	QMass	m	Raw Quant	As	MRL	Report	As	Qual	f
x	3	Be-9	9		0.89	ppb	0.025	0.414	mg / Kg		
x	4	B-11	11		0.19	ppb	0.15	< 1.40	mg / Kg		
x	5	Na-23 >5x MB	23		245.4	ppb	0.5	114	mg / Kg		
x	6	Mg-24 >5x MB	24		1139	ppb	0.5	530	mg / Kg		
	7	Mg-25	25		1189	ppb	0.5	554	mg / Kg		
	8	Mg-26	26		1170	ppb	0.5	545	mg / Kg		
x	9	Al-27 >5x MB	27		8023	ppb	0.5	3740	mg / Kg		
x	10	Si-28 (E)	28		527.5	ppb	1	246	mg / Kg		
x	11	K-39 >5x MB	39		1084	ppb	0.5	505	mg / Kg		
x	13	Ca-43 >5x MB	43		1711	ppb	0.5	796	mg / Kg		
	14	Ca-44	44		1697	ppb	0.5	790	mg / Kg		
	16	Ti-47	47		326.1	ppb	0.025	152	mg / Kg		x
x	17	V-51	51		8.55	ppb	0.05	3.98	mg / Kg		
x	18	Cr-52	52		5.02	ppb	0.05	2.34	mg / Kg		
	19	Cr-53	53		9.36	ppb	0.25	4.36	mg / Kg		
	20	Fe-54	54		12070	ppb	0.5	5620	mg / Kg		x
	21	Mn-55	55		363.7	ppb	0.025	169	mg / Kg		x
	22	Fe-57	57		12500	ppb	0.5	5820	mg / Kg		x
x	23	Co-59	59		1.22	ppb	0.025	0.568	mg / Kg		
x	24	Ni-60	60		4.16	ppb	0.025	1.94	mg / Kg		
x	25	Cu-63 >5x MB	63		4.05	ppb	0.025	1.88	mg / Kg		
	26	Cu-65	65		4.15	ppb	0.025	1.93	mg / Kg		
x	27	Zn-66	66		57	ppb	0.25	26.5	mg / Kg		
	28	Zn-67	67		55.48	ppb	0.25	25.8	mg / Kg		
	29	Zn-68	68		53.7	ppb	0.25	25.0	mg / Kg		
x	32	As-75	75		1.97	ppb	0.025	0.917	mg / Kg		
x	34	Se-82	82		0.8	ppb	0.025	0.372	mg / Kg		
x	37	Sr-87	87		59.19	ppb	0.025	27.6	mg / Kg		
x	40	Mo-95 >5x MB	95		2.43	ppb	0.025	1.13	mg / Kg		
	41	Mo-98	98		2.39	ppb	0.025	1.11	mg / Kg		
x	43	Ag-107	107		0	ppb	0.025	< 0.233	mg / Kg		
	45	Ag-109	109		-0.01	ppb	0.025	< 0.233	mg / Kg		
x	46	Cd-111	111		0.2	ppb	0.025	< 0.233	mg / Kg		
	47	Cd-114	114		0.03	ppb	0.025	< 0.233	mg / Kg		
x	50	Sn-120 (B)	120		3.69	ppb	0.025	1.72	mg / Kg		
x	51	Sb-121	121		-0.03	ppb	0.05	< 0.466	mg / Kg		
	52	Sb-123	123		0.05	ppb	0.05	< 0.466	mg / Kg		
x	53	Ba-135	135		62.88	ppb	0.025	29.3	mg / Kg		
	54	Tb-159	159		0	ppb	0.001	< 0.009	mg / Kg		
	55	Au-197	197		0.11	ppb	0.025	< 0.233	mg / Kg		
x	56	Tl-205	205		-0.05	ppb	0.025	< 0.233	mg / Kg		
x	59	Pb-208 >5x MB	208		13.58	ppb	0.025	6.32	mg / Kg		
x	61	U-238	238		0.87	ppb	0.025	0.405	mg / Kg		

FRAC M021283-012

Assaigai Analytical Laboratories, Inc.

Analytical Result Summary

0209373-03A

Run Group	MT.2002.1110	24
Calc Method	6020	
Prep Method	MS3050	
Prep Matrix	SOLID	

		By	Dilution
Prepared	09-23-02 8:08:51	JRE	0.9756
Analyzed	09-24-02 13:33:00	JWB	100
Calibration	09-24-02 10:46:00		
Quant	09-24-02 13:41:00		025SMPL.D#

r	C#	Analyte	QMass	m	Raw Quant	As	MRL	Report	As	Qual	f
	3	Be-9	9		0.11	ppb	0.025	< 2.44	mg / Kg		
	4	B-11	11		-1.54	ppb	0.15	< 14.6	mg / Kg		
	5	Na-23	23		31.87	ppb	0.5	155	mg / Kg		
	6	Mg-24	24		250.2	ppb	0.5	1220	mg / Kg		
	7	Mg-25	25		252.5	ppb	0.5	1230	mg / Kg		
	8	Mg-26	26		245.7	ppb	0.5	1200	mg / Kg		
x	9	Al-27 >5x MB	27		1352	ppb	0.5	6600	mg / Kg		
	10	Si-28	28		208.5	ppb	1	1020	mg / Kg		
	11	K-39	39		168.8	ppb	0.5	823	mg / Kg		
	13	Ca-43	43		609.9	ppb	0.5	2980	mg / Kg		
	14	Ca-44	44		601.6	ppb	0.5	2930	mg / Kg		
x	16	Ti-47 >5x MB	47		53.79	ppb	0.025	262	mg / Kg		
	17	V-51	51		1.95	ppb	0.05	9.51	mg / Kg		
	18	Cr-52	52		2.43	ppb	0.05	11.8	mg / Kg		
	19	Cr-53	53		8.89	ppb	0.25	43.4	mg / Kg		
	20	Fe-54	54		1860	ppb	0.5	9070	mg / Kg		
x	21	Mn-55 >5x MB	55		41.45	ppb	0.025	202	mg / Kg		
x	22	Fe-57 >5x MB	57		1900	ppb	0.5	9270	mg / Kg		
	23	Co-59	59		0.1	ppb	0.025	< 2.44	mg / Kg		
	24	Ni-60	60		0.79	ppb	0.025	3.85	mg / Kg		
	25	Cu-63	63		0.92	ppb	0.025	4.49	mg / Kg		
	26	Cu-65	65		0.95	ppb	0.025	4.63	mg / Kg		
	27	Zn-66	66		10.29	ppb	0.25	50.2	mg / Kg		
	28	Zn-67	67		10.54	ppb	0.25	51.4	mg / Kg		
	29	Zn-68	68		9.68	ppb	0.25	47.2	mg / Kg		
	32	As-75	75		0.4	ppb	0.025	< 2.44	mg / Kg		
	34	Se-82	82		0.24	ppb	0.025	< 2.44	mg / Kg		
	37	Sr-87	87		9.41	ppb	0.025	45.9	mg / Kg		
	40	Mo-95	95		0.21	ppb	0.025	< 2.44	mg / Kg		
	41	Mo-98	98		0.2	ppb	0.025	< 2.44	mg / Kg		
	43	Ag-107	107		0.05	ppb	0.025	< 2.44	mg / Kg		
	45	Ag-109	109		0.05	ppb	0.025	< 2.44	mg / Kg		
	46	Cd-111	111		0.02	ppb	0.025	< 2.44	mg / Kg		
	47	Cd-114	114		0.03	ppb	0.025	< 2.44	mg / Kg		
	50	Sn-120	120		0.3	ppb	0.025	< 2.44	mg / Kg		
	51	Sb-121	121		-0.07	ppb	0.05	< 4.88	mg / Kg		
	52	Sb-123	123		-0.02	ppb	0.05	< 4.88	mg / Kg		
	53	Ba-135	135		10.4	ppb	0.025	50.7	mg / Kg		
	54	Tb-159	159		0	ppb	0.001	< 0.098	mg / Kg		
	55	Au-197	197		0.01	ppb	0.025	< 2.44	mg / Kg		
	56	Tl-205	205		-0.26	ppb	0.025	< 2.44	mg / Kg		
	59	Pb-208	208		2.72	ppb	0.025	13.3	mg / Kg		
	61	U-238	238		0.09	ppb	0.025	< 2.44	mg / Kg		

FRAC M021283-012

Assaigai Analytical Laboratories, Inc.

Analytical Result Summary

0209373-03A

Run Group	MT.2002.1110	25
Calc Method	6020	
Prep Method	MS3050	
Prep Matrix	SOLID	

		By	Dilution
Prepared	09-23-02 8:08:51	JRE	0.9756
Analyzed	09-24-02 13:43:00	JWB	10
Calibration	09-24-02 10:46:00		
Quant	09-24-02 13:50:00		026SMPL.D#

r	C#	Analyte	QMass	m	Raw Quant	As	MRL	Report	As	Qual	f
x	3	Be-9	9		1	ppb	0.025	0.488	mg / Kg		
x	4	B-11	11		1.19	ppb	0.15	< 1.46	mg / Kg		
x	5	Na-23 >5x MB	23		268.7	ppb	0.5	131	mg / Kg		
x	6	Mg-24 >5x MB	24		2275	ppb	0.5	1110	mg / Kg		
	7	Mg-25	25		2342	ppb	0.5	1140	mg / Kg		
	8	Mg-26	26		2304	ppb	0.5	1120	mg / Kg		
	9	Al-27	27		13460	ppb	0.5	6560	mg / Kg		x
x	10	Si-28 (E)	28		514.2	ppb	1	251	mg / Kg		
x	11	K-39 >5x MB	39		1557	ppb	0.5	760	mg / Kg		
x	13	Ca-43 >5x MB	43		5708	ppb	0.5	2780	mg / Kg		
	14	Ca-44	44		5658	ppb	0.5	2760	mg / Kg		
	16	Ti-47	47		516.2	ppb	0.025	252	mg / Kg		x
x	17	V-51	51		18.72	ppb	0.05	9.13	mg / Kg		
x	18	Cr-52	52		20.21	ppb	0.05	9.86	mg / Kg		
	19	Cr-53	53		31.88	ppb	0.25	15.6	mg / Kg		
	20	Fe-54	54		17600	ppb	0.5	8580	mg / Kg		x
	21	Mn-55	55		405.5	ppb	0.025	198	mg / Kg		x
	22	Fe-57	57		18080	ppb	0.5	8820	mg / Kg		x
x	23	Co-59	59		3.4	ppb	0.025	1.66	mg / Kg		
x	24	Ni-60	60		8.16	ppb	0.025	3.98	mg / Kg		
x	25	Cu-63 >5x MB	63		8.51	ppb	0.025	4.15	mg / Kg		
	26	Cu-65	65		8.86	ppb	0.025	4.32	mg / Kg		
x	27	Zn-66	66		88.14	ppb	0.25	43.0	mg / Kg		
	28	Zn-67	67		87.86	ppb	0.25	42.8	mg / Kg		
	29	Zn-68	68		82.46	ppb	0.25	40.2	mg / Kg		
x	32	As-75	75		3.03	ppb	0.025	1.48	mg / Kg		
x	34	Se-82	82		0.91	ppb	0.025	0.444	mg / Kg		
x	37	Sr-87	87		90.79	ppb	0.025	44.3	mg / Kg		
x	40	Mo-95 >5x MB	95		1.75	ppb	0.025	0.854	mg / Kg		
	41	Mo-98	98		1.72	ppb	0.025	0.839	mg / Kg		
x	43	Ag-107	107		0.8	ppb	0.025	0.390	mg / Kg		
	45	Ag-109	109		0.81	ppb	0.025	0.395	mg / Kg		
x	46	Cd-111	111		0.45	ppb	0.025	< 0.244	mg / Kg		
	47	Cd-114	114		0.1	ppb	0.025	< 0.244	mg / Kg		
x	50	Sn-120 (B)	120		3.27	ppb	0.025	1.60	mg / Kg		
x	51	Sb-121	121		-0.04	ppb	0.05	< 0.488	mg / Kg		
	52	Sb-123	123		0.02	ppb	0.05	< 0.488	mg / Kg		
x	53	Ba-135	135		104.2	ppb	0.025	50.8	mg / Kg		
	54	Tb-159	159		0	ppb	0.001	< 0.010	mg / Kg		
	55	Au-197	197		0.05	ppb	0.025	< 0.244	mg / Kg		
x	56	Tl-205	205		-0.08	ppb	0.025	< 0.244	mg / Kg		
x	59	Pb-208 >5x MB	208		29.88	ppb	0.025	14.6	mg / Kg		
x	61	U-238	238		0.87	ppb	0.025	0.424	mg / Kg		

FRAC M021283-013

Assaigai Analytical Laboratories, Inc.

Analytical Result Summary

0209373-04A

Run Group	MT.2002.1110	26
Calc Method	6020	
Prep Method	MS3050	
Prep Matrix	SOLID	

		By	Dilution
Prepared	09-23-02 8:08:51	JRE	0.9881
Analyzed	09-24-02 13:52:00	JWB	100
Calibration	09-24-02 10:46:00		
Quant	09-24-02 13:59:00		027SMPL.D#

r	C#	Analyte	QMass	m	Raw Quant	As	MRL	Report	As	Qual	f
	3	Be-9	9		0.11	ppb	0.025	< 2.47	mg / Kg		
	4	B-11	11		-1.67	ppb	0.15	< 14.8	mg / Kg		
	5	Na-23	23		29.12	ppb	0.5	144	mg / Kg		
	6	Mg-24	24		157	ppb	0.5	776	mg / Kg		
	7	Mg-25	25		156.3	ppb	0.5	772	mg / Kg		
	8	Mg-26	26		156.1	ppb	0.5	771	mg / Kg		
	9	Al-27	27		672.9	ppb	0.5	3320	mg / Kg		
	10	Si-28	28		214.5	ppb	1	1060	mg / Kg		
	11	K-39	39		100.6	ppb	0.5	497	mg / Kg		
	13	Ca-43	43		169.3	ppb	0.5	836	mg / Kg		
	14	Ca-44	44		175.8	ppb	0.5	868	mg / Kg		
x	16	Ti-47 >5x MB	47		88.08	ppb	0.025	435	mg / Kg		
	17	V-51	51		1.36	ppb	0.05	6.72	mg / Kg		
	18	Cr-52	52		0.98	ppb	0.05	< 4.94	mg / Kg		
	19	Cr-53	53		4.23	ppb	0.25	< 24.7	mg / Kg		
	20	Fe-54	54		1811	ppb	0.5	8950	mg / Kg		
x	21	Mn-55 >5x MB	55		52.99	ppb	0.025	262	mg / Kg		
x	22	Fe-57 >5x MB	57		1873	ppb	0.5	9250	mg / Kg		
	23	Co-59	59		-0.08	ppb	0.025	< 2.47	mg / Kg		
	24	Ni-60	60		0.66	ppb	0.025	3.26	mg / Kg		
	25	Cu-63	63		0.5	ppb	0.025	2.47	mg / Kg		
	26	Cu-65	65		0.54	ppb	0.025	2.67	mg / Kg		
	27	Zn-66	66		9.29	ppb	0.25	45.9	mg / Kg		
	28	Zn-67	67		9.05	ppb	0.25	44.7	mg / Kg		
	29	Zn-68	68		8.76	ppb	0.25	43.3	mg / Kg		
	32	As-75	75		0.46	ppb	0.025	< 2.47	mg / Kg		
	34	Se-82	82		0.1	ppb	0.025	< 2.47	mg / Kg		
	37	Sr-87	87		4.69	ppb	0.025	23.2	mg / Kg		
	40	Mo-95	95		0.47	ppb	0.025	< 2.47	mg / Kg		
	41	Mo-98	98		0.51	ppb	0.025	2.52	mg / Kg		
	43	Ag-107	107		-0.02	ppb	0.025	< 2.47	mg / Kg		
	45	Ag-109	109		-0.02	ppb	0.025	< 2.47	mg / Kg		
	46	Cd-111	111		0.03	ppb	0.025	< 2.47	mg / Kg		
	47	Cd-114	114		-0.01	ppb	0.025	< 2.47	mg / Kg		
	50	Sn-120	120		0.35	ppb	0.025	< 2.47	mg / Kg		
	51	Sb-121	121		-0.1	ppb	0.05	< 4.94	mg / Kg		
	52	Sb-123	123		-0.02	ppb	0.05	< 4.94	mg / Kg		
	53	Ba-135	135		4.47	ppb	0.025	22.1	mg / Kg		
	54	Tb-159	159		0	ppb	0.001	< 0.099	mg / Kg		
	55	Au-197	197		0	ppb	0.025	< 2.47	mg / Kg		
	56	Tl-205	205		-0.31	ppb	0.025	< 2.47	mg / Kg		
	59	Pb-208	208		1.54	ppb	0.025	7.61	mg / Kg		
	61	U-238	238		0.07	ppb	0.025	< 2.47	mg / Kg		

FRAC M021283-013

Assaigai Analytical Laboratories, Inc.

Analytical Result Summary

0209373-04A

Run Group	MT.2002.1110	27
Calc Method	6020	
Prep Method	MS3050	
Prep Matrix	SOLID	

		By	Dilution
Prepared	09-23-02 8:08:51	JRE	0.9881
Analyzed	09-24-02 14:01:00	JWB	10
Calibration	09-24-02 10:46:00		
Quant	09-24-02 14:08:00	028SMPL.D#	

r	C#	Analyte	QMass	m	Raw Quant	As	MRL	Report	As	Qual	f
x	3	Be-9	9		1.12	ppb	0.025	0.553	mg / Kg		
x	4	B-11	11		-0.36	ppb	0.15	< 1.48	mg / Kg		
x	5	Na-23 >5x MB	23		237.6	ppb	0.5	117	mg / Kg		
	6	Mg-24	24		1394	ppb	0.5	689	mg / Kg		
	7	Mg-25	25		1471	ppb	0.5	727	mg / Kg		
x	8	Mg-26	26		1407	ppb	0.5	695	mg / Kg		
x	9	Al-27 >5x MB	27		6134	ppb	0.5	3030	mg / Kg		
x	10	Si-28 E	28		505.2	ppb	1	250	mg / Kg		
x	11	K-39 >5x MB	39		919.5	ppb	0.5	454	mg / Kg		
x	13	Ca-43 >5x MB	43		1521	ppb	0.5	751	mg / Kg		
	14	Ca-44	44		1511	ppb	0.5	746	mg / Kg		
	16	Ti-47	47		847.3	ppb	0.025	419	mg / Kg		x
x	17	V-51	51		11.49	ppb	0.05	5.68	mg / Kg		
x	18	Cr-52	52		8.38	ppb	0.05	4.14	mg / Kg		
	19	Cr-53	53		7.39	ppb	0.25	3.65	mg / Kg		
	20	Fe-54	54		17690	ppb	0.5	8740	mg / Kg		x
	21	Mn-55	55		524.6	ppb	0.025	259	mg / Kg		x
	22	Fe-57	57		18310	ppb	0.5	9050	mg / Kg		x
x	23	Co-59	59		1.95	ppb	0.025	0.963	mg / Kg		
x	24	Ni-60	60		6.14	ppb	0.025	3.03	mg / Kg		
x	25	Cu-63 >5x MB	63		4.43	ppb	0.025	2.19	mg / Kg		
	26	Cu-65	65		4.58	ppb	0.025	2.26	mg / Kg		
x	27	Zn-66	66		76.95	ppb	0.25	38.0	mg / Kg		
	28	Zn-67	67		72.6	ppb	0.25	35.9	mg / Kg		
	29	Zn-68	68		73.14	ppb	0.25	36.1	mg / Kg		
x	32	As-75	75		1.85	ppb	0.025	0.914	mg / Kg		
x	34	Se-82	82		1	ppb	0.025	0.494	mg / Kg		
x	37	Sr-87	87		45.76	ppb	0.025	22.6	mg / Kg		
x	40	Mo-95 >5x MB	95		4.85	ppb	0.025	2.40	mg / Kg		
	41	Mo-98	98		4.82	ppb	0.025	2.38	mg / Kg		
x	43	Ag-107	107		0.07	ppb	0.025	< 0.247	mg / Kg		
	45	Ag-109	109		0.07	ppb	0.025	< 0.247	mg / Kg		
x	46	Cd-111	111		0.28	ppb	0.025	< 0.247	mg / Kg		
	47	Cd-114	114		0.13	ppb	0.025	< 0.247	mg / Kg		
x	50	Sn-120 S	120		4.09	ppb	0.025	2.02	mg / Kg		
x	51	Sb-121	121		-0.03	ppb	0.05	< 0.494	mg / Kg		
	52	Sb-123	123		0.02	ppb	0.05	< 0.494	mg / Kg		
x	53	Ba-135	135		44.81	ppb	0.025	22.1	mg / Kg		
	54	Tb-159	159		0	ppb	0.001	< 0.010	mg / Kg		
	55	Au-197	197		0	ppb	0.025	< 0.247	mg / Kg		
x	56	Tl-205	205		-0.18	ppb	0.025	< 0.247	mg / Kg		
x	59	Pb-208 >5x MB	208		17.33	ppb	0.025	8.56	mg / Kg		
x	61	U-238	238		0.72	ppb	0.025	0.356	mg / Kg		

FRAC M021283-014

Assaigai Analytical Laboratories, Inc.

Analytical Result Summary

0209373-05A

Run Group	MT.2002.1110	28
Calc Method	6020	
Prep Method	MS3050	
Prep Matrix	SOLID	

		By	Dilution
Prepared	09-23-02 8:08:51	JRE	0.9579
Analyzed	09-24-02 14:10:00	JWB	100
Calibration	09-24-02 10:46:00		
Quant	09-24-02 14:17:00		029SMPL.D#

r	C#	Analyte	QMass	m	Raw Quant	As	MRL	Report	As	Qual	f
	3	Be-9	9		0.1	ppb	0.025	< 2.39	mg / Kg		
	4	B-11	11		-1.63	ppb	0.15	< 14.4	mg / Kg		
	5	Na-23	23		28.62	ppb	0.5	137	mg / Kg		
	6	Mg-24	24		205.2	ppb	0.5	983	mg / Kg		
	7	Mg-25	25		210	ppb	0.5	1000	mg / Kg		
	8	Mg-26	26		210.8	ppb	0.5	1010	mg / Kg		
	9	Al-27	27		975.4	ppb	0.5	4670	mg / Kg		
	10	Si-28	28		235.4	ppb	1	1130	mg / Kg		
	11	K-39	39		115.9	ppb	0.5	555	mg / Kg		
	13	Ca-43	43		258.4	ppb	0.5	1240	mg / Kg		
	14	Ca-44	44		259.6	ppb	0.5	1240	mg / Kg		
x	16	Ti-47 >5x MB	47		66.35	ppb	0.025	318	mg / Kg		
	17	V-51	51		1.21	ppb	0.05	5.80	mg / Kg		
	18	Cr-52	52		1.03	ppb	0.05	4.93	mg / Kg		
	19	Cr-53	53		3.18	ppb	0.25	< 23.9	mg / Kg		
	20	Fe-54	54		1872	ppb	0.5	8960	mg / Kg		
x	21	Mn-55 >5x MB	55		36.59	ppb	0.025	175	mg / Kg		
x	22	Fe-57 >5x MB	57		1887	ppb	0.5	9040	mg / Kg		
	23	Co-59	59		-0.02	ppb	0.025	< 2.39	mg / Kg		
	24	Ni-60	60		0.77	ppb	0.025	3.69	mg / Kg		
	25	Cu-63	63		0.57	ppb	0.025	2.73	mg / Kg		
	26	Cu-65	65		0.55	ppb	0.025	2.63	mg / Kg		
	27	Zn-66	66		8.93	ppb	0.25	42.8	mg / Kg		
	28	Zn-67	67		8.6	ppb	0.25	41.2	mg / Kg		
	29	Zn-68	68		8.51	ppb	0.25	40.8	mg / Kg		
	32	As-75	75		0.2	ppb	0.025	< 2.39	mg / Kg		
	34	Se-82	82		0.14	ppb	0.025	< 2.39	mg / Kg		
	37	Sr-87	87		5.17	ppb	0.025	24.8	mg / Kg		
	40	Mo-95	95		0.34	ppb	0.025	< 2.39	mg / Kg		
	41	Mo-98	98		0.33	ppb	0.025	< 2.39	mg / Kg		
	43	Ag-107	107		-0.03	ppb	0.025	< 2.39	mg / Kg		
	45	Ag-109	109		-0.03	ppb	0.025	< 2.39	mg / Kg		
	46	Cd-111	111		0	ppb	0.025	< 2.39	mg / Kg		
	47	Cd-114	114		-0.01	ppb	0.025	< 2.39	mg / Kg		
	50	Sn-120	120		0.3	ppb	0.025	< 2.39	mg / Kg		
	51	Sb-121	121		-0.1	ppb	0.05	< 4.79	mg / Kg		
	52	Sb-123	123		-0.04	ppb	0.05	< 4.79	mg / Kg		
	53	Ba-135	135		7.71	ppb	0.025	36.9	mg / Kg		
	54	Tb-159	159		0	ppb	0.001	< 0.096	mg / Kg		
	55	Au-197	197		-0.03	ppb	0.025	< 2.39	mg / Kg		
	56	Tl-205	205		-0.3	ppb	0.025	< 2.39	mg / Kg		
	59	Pb-208	208		1.41	ppb	0.025	6.75	mg / Kg		
	61	U-238	238		0.07	ppb	0.025	< 2.39	mg / Kg		

FRAC M021283-014

Assaigai Analytical Laboratories, Inc.

Analytical Result Summary

0209373-05A

Run Group	MT.20021110	29I
Calc Method	6020	
Prep Method	MS3050	
Prep Matrix	SOLID	

		By	Dilution
Prepared	09-23-02 8:08:51	JRE	0.9579
Analyzed	09-24-02 14:19:00	JWB	10
Calibration	09-24-02 10:46:00		
Quant	09-24-02 14:27:00	030SMPL.D#	

r	C#	Analyte	QMass	m	Raw Quant	As	MRL	Report	As	Qual	f
x	3	Be-9	9		1.11	ppb	0.025	0.532	mg / Kg		
x	4	B-11	11		-0.59	ppb	0.15	< 1.44	mg / Kg		
x	5	Na-23 >5x MB	23		227.2	ppb	0.5	109	mg / Kg		
	6	Mg-24	24		1802	ppb	0.5	863	mg / Kg		
	7	Mg-25	25		1833	ppb	0.5	878	mg / Kg		
x	8	Mg-26 >5x MB	26		1822	ppb	0.5	873	mg / Kg		
x	9	Al-27 >5x MB	27		8744	ppb	0.5	4190	mg / Kg		
x	10	Si-28	28		441.4	ppb	1	211	mg / Kg		
x	11	K-39 >5x MB	39		1024	ppb	0.5	490	mg / Kg		
x	13	Ca-43 >5x MB	43		2291	ppb	0.5	1100	mg / Kg		
	14	Ca-44	44		2272	ppb	0.5	1090	mg / Kg		
	16	Ti-47	47		606.8	ppb	0.025	291	mg / Kg		x
x	17	V-51	51		13.26	ppb	0.05	6.35	mg / Kg		
x	18	Cr-52	52		7.4	ppb	0.05	3.54	mg / Kg		
	19	Cr-53	53		10.02	ppb	0.25	4.80	mg / Kg		
	20	Fe-54	54		16620	ppb	0.5	7960	mg / Kg		x
	21	Mn-55	55		335.8	ppb	0.025	161	mg / Kg		x
	22	Fe-57	57		17140	ppb	0.5	8210	mg / Kg		x
x	23	Co-59	59		2.25	ppb	0.025	1.08	mg / Kg		
x	24	Ni-60	60		7.13	ppb	0.025	3.41	mg / Kg		
x	25	Cu-63 >5x MB	63		4.24	ppb	0.025	2.03	mg / Kg		
	26	Cu-65	65		4.28	ppb	0.025	2.05	mg / Kg		
x	27	Zn-66	66		73.48	ppb	0.25	35.2	mg / Kg		
	28	Zn-67	67		71.42	ppb	0.25	34.2	mg / Kg		
	29	Zn-68	68		68.21	ppb	0.25	32.7	mg / Kg		
x	32	As-75	75		2.22	ppb	0.025	1.06	mg / Kg		
x	34	Se-82	82		1.35	ppb	0.025	0.646	mg / Kg		
x	37	Sr-87	87		49.5	ppb	0.025	23.7	mg / Kg		
x	40	Mo-95 >5x MB	95		3.15	ppb	0.025	1.51	mg / Kg		
	41	Mo-98	98		3.17	ppb	0.025	1.52	mg / Kg		
x	43	Ag-107	107		0.05	ppb	0.025	< 0.239	mg / Kg		
	45	Ag-109	109		0.03	ppb	0.025	< 0.239	mg / Kg		
x	46	Cd-111	111		0.26	ppb	0.025	< 0.239	mg / Kg		
	47	Cd-114	114		-0.01	ppb	0.025	< 0.239	mg / Kg		
x	50	Sn-120 (a)	120		3.41	ppb	0.025	1.63	mg / Kg		
x	51	Sb-121	121		-0.01	ppb	0.05	< 0.479	mg / Kg		
	52	Sb-123	123		0.03	ppb	0.05	< 0.479	mg / Kg		
x	53	Ba-135	135		74.58	ppb	0.025	35.7	mg / Kg		
	54	Tb-159	159		0	ppb	0.001	< 0.010	mg / Kg		
	55	Au-197	197		-0.03	ppb	0.025	< 0.239	mg / Kg		
x	56	Tl-205	205		-0.06	ppb	0.025	< 0.239	mg / Kg		
x	59	Pb-208 >5x MB	208		16.57	ppb	0.025	7.94	mg / Kg		
x	61	U-238	238		0.68	ppb	0.025	0.326	mg / Kg		

FRAC M021283-015

Assaigai Analytical Laboratories, Inc.

Analytical Result Summary

0209373-06A

Run Group	MT.2002.1110	30
Calc Method	6020	
Prep Method	MS3050	
Prep Matrix	SOLID	

		By	Dilution
Prepared	09-23-02 8:08:51	JRE	0.9891
Analyzed	09-24-02 14:29:00	JWB	100
Calibration	09-24-02 10:46:00		
Quant	09-24-02 14:36:00		031SMPL.D#

r	C#	Analyte	QMass	m	Raw Quant	As	MRL	Report	As	Qual	f
	3	Be-9	9		0.09	ppb	0.025	< 2.47	mg / Kg		
	4	B-11	11		-1.72	ppb	0.15	< 14.8	mg / Kg		
	5	Na-23	23		21.81	ppb	0.5	108	mg / Kg		
	6	Mg-24	24		140.2	ppb	0.5	693	mg / Kg		
	7	Mg-25	25		139.8	ppb	0.5	691	mg / Kg		
	8	Mg-26	26		136.1	ppb	0.5	673	mg / Kg		
	9	Al-27	27		501.7	ppb	0.5	2480	mg / Kg		
	10	Si-28	28		224.9	ppb	1	1110	mg / Kg		
	11	K-39	39		89.67	ppb	0.5	443	mg / Kg		
	13	Ca-43	43		162.6	ppb	0.5	804	mg / Kg		
	14	Ca-44	44		165.4	ppb	0.5	818	mg / Kg		
x	16	Ti-47 >5x MB	47		81.27	ppb	0.025	402	mg / Kg		
	17	V-51	51		1.37	ppb	0.05	6.78	mg / Kg		
	18	Cr-52	52		2.02	ppb	0.05	9.99	mg / Kg		
	19	Cr-53	53		3.95	ppb	0.25	< 24.7	mg / Kg		
	20	Fe-54	54		1594	ppb	0.5	7880	mg / Kg		
x	21	Mn-55 >5x MB	55		46.95	ppb	0.025	232	mg / Kg		
x	22	Fe-57 >5x MB	57		1636	ppb	0.5	8090	mg / Kg		
	23	Co-59	59		-0.11	ppb	0.025	< 2.47	mg / Kg		
	24	Ni-60	60		0.5	ppb	0.025	2.47	mg / Kg		
	25	Cu-63	63		1.08	ppb	0.025	5.34	mg / Kg		
	26	Cu-65	65		1.12	ppb	0.025	5.54	mg / Kg		
	27	Zn-66	66		16.19	ppb	0.25	80.1	mg / Kg		
	28	Zn-67	67		15.29	ppb	0.25	75.6	mg / Kg		
	29	Zn-68	68		15.8	ppb	0.25	78.1	mg / Kg		
	32	As-75	75		0.39	ppb	0.025	< 2.47	mg / Kg		
	34	Se-82	82		0.02	ppb	0.025	< 2.47	mg / Kg		
	37	Sr-87	87		4.25	ppb	0.025	21.0	mg / Kg		
	40	Mo-95	95		0.33	ppb	0.025	< 2.47	mg / Kg		
	41	Mo-98	98		0.37	ppb	0.025	< 2.47	mg / Kg		
	43	Ag-107	107		0.02	ppb	0.025	< 2.47	mg / Kg		
	45	Ag-109	109		0.01	ppb	0.025	< 2.47	mg / Kg		
	46	Cd-111	111		0.03	ppb	0.025	< 2.47	mg / Kg		
	47	Cd-114	114		0.02	ppb	0.025	< 2.47	mg / Kg		
	50	Sn-120	120		0.33	ppb	0.025	< 2.47	mg / Kg		
	51	Sb-121	121		-0.11	ppb	0.05	< 4.94	mg / Kg		
	52	Sb-123	123		-0.03	ppb	0.05	< 4.94	mg / Kg		
	53	Ba-135	135		6.74	ppb	0.025	33.3	mg / Kg		
	54	Tb-159	159		0	ppb	0.001	< 0.099	mg / Kg		
	55	Au-197	197		0.01	ppb	0.025	< 2.47	mg / Kg		
	56	Tl-205	205		-0.34	ppb	0.025	< 2.47	mg / Kg		
	59	Pb-208	208		1.16	ppb	0.025	5.74	mg / Kg		
	61	U-238	238		0.07	ppb	0.025	< 2.47	mg / Kg		

STD-CCV [STD-CCV]

Assaigai Analytical Laboratories, Inc.

Analytical Result Summary

26U

Run Group	MT.2002.1110	31
Calc Method	6020	
Prep Method	LAB	
Prep Matrix	LAB	

		By	Dilution
Prepared			1
Analyzed	09-24-02 14:38:00	JWB	1
Calibration	09-24-02 10:46:00		
Quant	09-24-02 14:45:00		032CCV .D#

r	C#	Analyte	QMass	m	Raw Quant	As	MRL	Report	As	Qual	f
	3	Be-9	9		96.99	ppb	1	97	% Recovery		
	4	B-11	11		98.09	ppb	1	98	% Recovery		
	5	Na-23	23		972	ppb	1	97	% Recovery		
	6	Mg-24	24		1036	ppb	1	104	% Recovery		
	7	Mg-25	25		1039	ppb	1	104	% Recovery		
	8	Mg-26	26		1018	ppb	1	102	% Recovery		
	9	Al-27	27		1000	ppb	1	100	% Recovery		
	10	Si-28	28		1112	ppb	1	111	% Recovery		x
	11	K-39	39		1000	ppb	1	100	% Recovery		
	13	Ca-43	43		976.3	ppb	1	98	% Recovery		
	14	Ca-44	44		1008	ppb	1	101	% Recovery		
	16	Ti-47	47		103.8	ppb	1	104	% Recovery		
	17	V-51	51		104.2	ppb	1	104	% Recovery		
	18	Cr-52	52		104.3	ppb	1	104	% Recovery		
	19	Cr-53	53		102.5	ppb	1	102	% Recovery		
	20	Fe-54	54		1122	ppb	1	112	% Recovery		x
	21	Mn-55	55		105.9	ppb	1	106	% Recovery		
	22	Fe-57	57		1076	ppb	1	108	% Recovery		
	23	Co-59	59		106.1	ppb	1	106	% Recovery		
	24	Ni-60	60		104.8	ppb	1	105	% Recovery		
	25	Cu-63	63		107.1	ppb	1	107	% Recovery		
	26	Cu-65	65		107.7	ppb	1	108	% Recovery		
	27	Zn-66	66		99.76	ppb	1	100	% Recovery		
	28	Zn-67	67		97.4	ppb	1	97	% Recovery		
	29	Zn-68	68		100.1	ppb	1	100	% Recovery		
	32	As-75	75		99.4	ppb	1	99	% Recovery		
	34	Se-82	82		102.4	ppb	1	102	% Recovery		
	37	Sr-87	87		99.36	ppb	1	99	% Recovery		
	40	Mo-95	95		94.01	ppb	1	94	% Recovery		
	41	Mo-98	98		94.89	ppb	1	95	% Recovery		
	43	Ag-107	107		99.03	ppb	1	99	% Recovery		
	45	Ag-109	109		99.24	ppb	1	99	% Recovery		
	46	Cd-111	111		100.4	ppb	1	100	% Recovery		
	47	Cd-114	114		100.5	ppb	1	100	% Recovery		
	50	Sn-120	120		100.5	ppb	1	100	% Recovery		
	51	Sb-121	121		100.3	ppb	1	100	% Recovery		
	52	Sb-123	123		100.2	ppb	1	100	% Recovery		
	53	Ba-135	135		101.1	ppb	1	101	% Recovery		
	54	Tb-159	159		0	ppb	1	< 1	% Recovery		x
	55	Au-197	197		97.96	ppb	1	98	% Recovery		
	56	Tl-205	205		97.81	ppb	1	98	% Recovery		
	59	Pb-208	208		99.32	ppb	1	99	% Recovery		
	61	U-238	238		99.72	ppb	1	100	% Recovery		

Assaigai Analytical Laboratories, Inc.

Analytical Result Summary

Run Group	MT.2002.1110	32
Calc Method	6020	
Prep Method	LAB	
Prep Matrix	LAB	

		By	Dilution
Prepared			1
Analyzed	09-24-02 14:47:00	JWB	1
Calibration	09-24-02 10:46:00		
Quant	09-24-02 14:54:00	033CCB .D#	

r	C#	Analyte	QMass	m	Raw Quant	As	MRL	Report	As	Qual	f
	3	Be-9	9		0.02	ppb	0.001	< 0.001	mg / L		
	4	B-11	11		-0.01	ppb	0.001	< 0.001	mg / L		
	5	Na-23	23		0.24	ppb	0.01	< 0.010	mg / L		
	6	Mg-24	24		0.51	ppb	0.01	< 0.010	mg / L		
	7	Mg-25	25		0.57	ppb	0.01	< 0.010	mg / L		
	8	Mg-26	26		0.45	ppb	0.01	< 0.010	mg / L		
	9	Al-27	27		3.24	ppb	0.01	< 0.010	mg / L		
	10	Si-28	28		5.06	ppb	0.001	0.005	mg / L		x
	11	K-39	39		2.92	ppb	0.01	< 0.010	mg / L		
	13	Ca-43	43		1.95	ppb	0.01	< 0.010	mg / L		
	14	Ca-44	44		1.93	ppb	0.01	< 0.010	mg / L		
	16	Ti-47	47		0.12	ppb	0.001	< 0.001	mg / L		
	17	V-51	51		0.37	ppb	0.001	< 0.001	mg / L		
	18	Cr-52	52		0.47	ppb	0.001	< 0.001	mg / L		
	19	Cr-53	53		7.38	ppb	0.001	0.007	mg / L		x
	20	Fe-54	54		27	ppb	0.01	0.027	mg / L		x
	21	Mn-55	55		0.08	ppb	0.001	< 0.001	mg / L		
	22	Fe-57	57		4.75	ppb	0.01	< 0.010	mg / L		
	23	Co-59	59		-0.27	ppb	0.001	< 0.001	mg / L		
	24	Ni-60	60		-0.04	ppb	0.001	< 0.001	mg / L		
	25	Cu-63	63		0.02	ppb	0.001	< 0.001	mg / L		
	26	Cu-65	65		0.02	ppb	0.001	< 0.001	mg / L		
	27	Zn-66	66		0.05	ppb	0.001	< 0.001	mg / L		
	28	Zn-67	67		0.58	ppb	0.001	< 0.001	mg / L		
	29	Zn-68	68		-0.1	ppb	0.001	< 0.001	mg / L		
	32	As-75	75		0.33	ppb	0.001	< 0.001	mg / L		
	34	Se-82	82		0.39	ppb	0.001	< 0.001	mg / L		
	37	Sr-87	87		0.05	ppb	0.001	< 0.001	mg / L		
	40	Mo-95	95		0.26	ppb	0.001	< 0.001	mg / L		
	41	Mo-98	98		0.23	ppb	0.001	< 0.001	mg / L		
	43	Ag-107	107		0.02	ppb	0.001	< 0.001	mg / L		
	45	Ag-109	109		0.03	ppb	0.001	< 0.001	mg / L		
	46	Cd-111	111		0.01	ppb	0.001	< 0.001	mg / L		
	47	Cd-114	114		0.04	ppb	0.001	< 0.001	mg / L		
	50	Sn-120	120		0	ppb	0.001	< 0.001	mg / L		
	51	Sb-121	121		0.19	ppb	0.001	< 0.001	mg / L		
	52	Sb-123	123		0.3	ppb	0.001	< 0.001	mg / L		
	53	Ba-135	135		0.07	ppb	0.001	< 0.001	mg / L		
	54	Tb-159	159		0	ppb	0.001	< 0.001	mg / L		
	55	Au-197	197		0.39	ppb	0.001	< 0.001	mg / L		
	56	Tl-205	205		0.23	ppb	0.001	< 0.001	mg / L		
	59	Pb-208	208		-0.26	ppb	0.001	< 0.001	mg / L		
	61	U-238	238		0.04	ppb	0.001	< 0.001	mg / L		

FRAC M021283-015

Assaigai Analytical Laboratories, Inc.

Analytical Result Summary

0209373-06A

Run Group	MT.2002.1110	33
Calc Method	6020	
Prep Method	MS3050	
Prep Matrix	SOLID	

		By	Dilution
Prepared	09-23-02 8:08:51	JRE	0.9891
Analyzed	09-24-02 14:56:00	JWB	10
Calibration	09-24-02 10:46:00		
Quant	09-24-02 15:04:00	034SMPL.D#	

r	C#	Analyte	QMass	m	Raw Quant	As	MRL	Report	As	Qual	f
x	3	Be-9	9		0.82	ppb	0.025	0.406	mg / Kg		
x	4	B-11	11		-0.28	ppb	0.15	< 1.48	mg / Kg		
x	5	Na-23 >5x MB	23		175.1	ppb	0.5	86.6	mg / Kg		
	6	Mg-24	24		1256	ppb	0.5	621	mg / Kg		
	7	Mg-25	25		1324	ppb	0.5	655	mg / Kg		
x	8	Mg-26 >5x MB	26		1296	ppb	0.5	641	mg / Kg		
x	9	Al-27 >5x MB	27		4763	ppb	0.5	2360	mg / Kg		
x	10	Si-28	28		449	ppb	1	222	mg / Kg		
x	11	K-39 >5x MB	39		830.6	ppb	0.5	411	mg / Kg		
x	13	Ca-43 >5x MB	43		1503	ppb	0.5	743	mg / Kg		
	14	Ca-44	44		1464	ppb	0.5	724	mg / Kg		
	16	Ti-47	47		759.5	ppb	0.025	376	mg / Kg		x
x	17	V-51	51		10.54	ppb	0.05	5.21	mg / Kg		
x	18	Cr-52	52		17.25	ppb	0.05	8.53	mg / Kg		
	19	Cr-53	53		16.46	ppb	0.25	8.14	mg / Kg		
	20	Fe-54	54		14980	ppb	0.5	7410	mg / Kg		x
	21	Mn-55	55		451.4	ppb	0.025	223	mg / Kg		x
	22	Fe-57	57		15300	ppb	0.5	7570	mg / Kg		x
x	23	Co-59	59		1.5	ppb	0.025	0.742	mg / Kg		
x	24	Ni-60	60		4.94	ppb	0.025	2.44	mg / Kg		
x	25	Cu-63 >5x MB	63		9.45	ppb	0.025	4.67	mg / Kg		
	26	Cu-65	65		9.64	ppb	0.025	4.77	mg / Kg		
x	27	Zn-66	66		143.2	ppb	0.25	70.8	mg / Kg		
	28	Zn-67	67		134.9	ppb	0.25	66.7	mg / Kg		
	29	Zn-68	68		140.8	ppb	0.25	69.6	mg / Kg		
x	32	As-75	75		3.02	ppb	0.025	1.49	mg / Kg		
x	34	Se-82	82		1.14	ppb	0.025	0.564	mg / Kg		
x	37	Sr-87	87		40.85	ppb	0.025	20.2	mg / Kg		
x	40	Mo-95 >5x MB	95		3.75	ppb	0.025	1.85	mg / Kg		
	41	Mo-98	98		3.85	ppb	0.025	1.90	mg / Kg		
x	43	Ag-107	107		0.49	ppb	0.025	< 0.247	mg / Kg		
	45	Ag-109	109		0.46	ppb	0.025	< 0.247	mg / Kg		
x	46	Cd-111	111		0.42	ppb	0.025	< 0.247	mg / Kg		
	47	Cd-114	114		0.25	ppb	0.025	< 0.247	mg / Kg		
x	50	Sn-120 (S)	120		3.71	ppb	0.025	1.83	mg / Kg		
x	51	Sb-121	121		0.06	ppb	0.05	< 0.494	mg / Kg		
	52	Sb-123	123		0.15	ppb	0.05	< 0.494	mg / Kg		
x	53	Ba-135	135		67.2	ppb	0.025	33.2	mg / Kg		
	54	Tb-159	159		0	ppb	0.001	< 0.010	mg / Kg		
	55	Au-197	197		0.24	ppb	0.025	< 0.247	mg / Kg		
x	56	Tl-205	205		-0.03	ppb	0.025	< 0.247	mg / Kg		
x	59	Pb-208 >5x MB	208		13.47	ppb	0.025	6.66	mg / Kg		
x	61	U-238	238		0.67	ppb	0.025	0.331	mg / Kg		

FRAC M021283-016

Assaigai Analytical Laboratories, Inc.

Analytical Result Summary

0209373-07A

263

Run Group	MT.2002.1110	34
Calc Method	6020	
Prep Method	MS3050	
Prep Matrix	SOLID	

		By	Dilution
Prepared	09-23-02 8:08:51	JRE	0.9911
Analyzed	09-24-02 15:06:00	JWB	100
Calibration	09-24-02 10:46:00		
Quant	09-24-02 15:13:00	035SMPL.D#	

r	C#	Analyte	QMass	m	Raw Quant	As	MRL	Report	As	Qual	f
	3	Be-9	9		0.12	ppb	0.025	< 2.48	mg / Kg		
	4	B-11	11		-1.33	ppb	0.15	< 14.9	mg / Kg		
	5	Na-23	23		41.49	ppb	0.5	206	mg / Kg		
	6	Mg-24	24		233	ppb	0.5	1150	mg / Kg		
	7	Mg-25	25		238.6	ppb	0.5	1180	mg / Kg		
	8	Mg-26	26		231.6	ppb	0.5	1150	mg / Kg		
	9	Al-27	27		1114	ppb	0.5	5520	mg / Kg		
	10	Si-28	28		171.4	ppb	1	849	mg / Kg		
	11	K-39	39		167.7	ppb	0.5	831	mg / Kg		
	13	Ca-43	43		353.4	ppb	0.5	1750	mg / Kg		
	14	Ca-44	44		349.9	ppb	0.5	1730	mg / Kg		
x	16	Ti-47 >5x MB	47		64.95	ppb	0.025	322	mg / Kg		
	17	V-51	51		1.71	ppb	0.05	8.47	mg / Kg		
	18	Cr-52	52		4.6	ppb	0.05	22.8	mg / Kg		
	19	Cr-53	53		10.68	ppb	0.25	52.9	mg / Kg		
	20	Fe-54	54		1839	ppb	0.5	9110	mg / Kg		
x	21	Mn-55 >5x MB	55		41.47	ppb	0.025	206	mg / Kg		
x	22	Fe-57 >5x MB	57		1873	ppb	0.5	9280	mg / Kg		
	23	Co-59	59		0.04	ppb	0.025	< 2.48	mg / Kg		
	24	Ni-60	60		0.83	ppb	0.025	4.11	mg / Kg		
	25	Cu-63	63		1.89	ppb	0.025	9.36	mg / Kg		
	26	Cu-65	65		1.84	ppb	0.025	9.12	mg / Kg		
	27	Zn-66	66		16.26	ppb	0.25	80.6	mg / Kg		
	28	Zn-67	67		15.82	ppb	0.25	78.4	mg / Kg		
	29	Zn-68	68		15.58	ppb	0.25	77.2	mg / Kg		
	32	As-75	75		0.53	ppb	0.025	2.63	mg / Kg		
	34	Se-82	82		0.11	ppb	0.025	< 2.48	mg / Kg		
	37	Sr-87	87		6.5	ppb	0.025	32.2	mg / Kg		
	40	Mo-95	95		0.35	ppb	0.025	< 2.48	mg / Kg		
	41	Mo-98	98		0.35	ppb	0.025	< 2.48	mg / Kg		
	43	Ag-107	107		0.1	ppb	0.025	< 2.48	mg / Kg		
	45	Ag-109	109		0.1	ppb	0.025	< 2.48	mg / Kg		
	46	Cd-111	111		0.01	ppb	0.025	< 2.48	mg / Kg		
	47	Cd-114	114		0.03	ppb	0.025	< 2.48	mg / Kg		
	50	Sn-120	120		0.31	ppb	0.025	< 2.48	mg / Kg		
	51	Sb-121	121		-0.06	ppb	0.05	< 4.96	mg / Kg		
	52	Sb-123	123		-0.01	ppb	0.05	< 4.96	mg / Kg		
	53	Ba-135	135		8.14	ppb	0.025	40.3	mg / Kg		
	54	Tb-159	159		0	ppb	0.001	< 0.099	mg / Kg		
	55	Au-197	197		0.05	ppb	0.025	< 2.48	mg / Kg		
	56	Tl-205	205		-0.27	ppb	0.025	< 2.48	mg / Kg		
	59	Pb-208	208		2.6	ppb	0.025	12.9	mg / Kg		
	61	U-238	238		0.1	ppb	0.025	< 2.48	mg / Kg		

FRAC M021283-016

Assaigai Analytical Laboratories, Inc.

Analytical Result Summary

0209373-07A

Run Group	MT.2002.1110	35
Calc Method	6020	
Prep Method	MS3050	
Prep Matrix	SOLID	

		By	Dilution
Prepared	09-23-02 8:08:51	JRE	0.9911
Analyzed	09-24-02 15:15:00	JWB	10
Calibration	09-24-02 10:46:00		
Quant	09-24-02 15:22:00		036SMPL.D#

r	C#	Analyte	QMass	m	Raw Quant	As	MRL	Report	As	Qual	f
x	3	Be-9	9		1.02	ppb	0.025	0.505	mg / Kg		
x	4	B-11	11		0.9	ppb	0.15	< 1.49	mg / Kg		
x	5	Na-23 >5x MB	23		344.6	ppb	0.5	171	mg / Kg		
	6	Mg-24	24		2025	ppb	0.5	1000	mg / Kg		
	7	Mg-25	25		2118	ppb	0.5	1050	mg / Kg		
x	8	Mg-26 >5x MB	26		2077	ppb	0.5	1030	mg / Kg		
x	9	Al-27 >5x MB	27		9894	ppb	0.5	4900	mg / Kg		
x	10	Si-28 E	28		451.4	ppb	1	224	mg / Kg		
x	11	K-39 >5x MB	39		1520	ppb	0.5	753	mg / Kg		
x	13	Ca-43 >5x MB	43		3251	ppb	0.5	1610	mg / Kg		
	14	Ca-44	44		3219	ppb	0.5	1600	mg / Kg		
	16	Ti-47	47		610.7	ppb	0.025	303	mg / Kg		x
x	17	V-51	51		15.79	ppb	0.05	7.82	mg / Kg		
x	18	Cr-52	52		40.99	ppb	0.05	20.3	mg / Kg		
	19	Cr-53	53		48.06	ppb	0.25	23.8	mg / Kg		
	20	Fe-54	54		17340	ppb	0.5	8590	mg / Kg		x
	21	Mn-55	55		392.2	ppb	0.025	194	mg / Kg		x
	22	Fe-57	57		17450	ppb	0.5	8650	mg / Kg		x
x	23	Co-59	59		2.92	ppb	0.025	1.45	mg / Kg		
x	24	Ni-60	60		8.14	ppb	0.025	4.03	mg / Kg		
x	25	Cu-63 >5x MB	63		14.21	ppb	0.025	7.04	mg / Kg		
	26	Cu-65	65		14.11	ppb	0.025	6.99	mg / Kg		
x	27	Zn-66	66		145.5	ppb	0.25	72.1	mg / Kg		
	28	Zn-67	67		139.1	ppb	0.25	68.9	mg / Kg		
	29	Zn-68	68		142.1	ppb	0.25	70.4	mg / Kg		
x	32	As-75	75		3.48	ppb	0.025	1.72	mg / Kg		
x	34	Se-82	82		1.11	ppb	0.025	0.550	mg / Kg		
x	37	Sr-87	87		65.94	ppb	0.025	32.7	mg / Kg		
x	40	Mo-95 >5x MB	95		3.31	ppb	0.025	1.64	mg / Kg		
	41	Mo-98	98		3.28	ppb	0.025	1.62	mg / Kg		
x	43	Ag-107	107		1.29	ppb	0.025	0.639	mg / Kg		
	45	Ag-109	109		1.25	ppb	0.025	0.619	mg / Kg		
x	46	Cd-111	111		0.56	ppb	0.025	0.278	mg / Kg		
	47	Cd-114	114		0.34	ppb	0.025	< 0.248	mg / Kg		
x	50	Sn-120 ~~>5x MB~~ B	120		3.54	ppb	0.025	1.75	mg / Kg		
x	51	Sb-121 gB 9/25/02	121		-0.02	ppb	0.05	< 0.496	mg / Kg		
	52	Sb-123	123		0.05	ppb	0.05	< 0.496	mg / Kg		
x	53	Ba-135	135		82.92	ppb	0.025	41.1	mg / Kg		
	54	Tb-159	159		0	ppb	0.001	< 0.010	mg / Kg		
	55	Au-197	197		0.07	ppb	0.025	< 0.248	mg / Kg		
x	56	Tl-205	205		-0.16	ppb	0.025	< 0.248	mg / Kg		
x	59	Pb-208 >5x MB	208		28.3	ppb	0.025	14.0	mg / Kg		
x	61	U-238	238		1	ppb	0.025	0.496	mg / Kg		

FRAC M021283-017

Assaigai Analytical Laboratories, Inc.

Analytical Result Summary

0209373-08A

Run Group	MT.2002.1110	36
Calc Method	6020	
Prep Method	MS3050	
Prep Matrix	SOLID	

		By	Dilution
Prepared	09-23-02 8:08:51	JRE	0.9814
Analyzed	09-24-02 15:24:00	JWB	100
Calibration	09-24-02 10:46:00		
Quant	09-24-02 15:31:00		037SMPL.D#

r	C#	Analyte	QMass	m	Raw Quant	As	MRL	Report	As	Qual	f
	3	Be-9	9		0.05	ppb	0.025	< 2.45	mg / Kg		
	4	B-11	11		-1.78	ppb	0.15	< 14.7	mg / Kg		
	5	Na-23	23		18.39	ppb	0.5	90.2	mg / Kg		
	6	Mg-24	24		35.97	ppb	0.5	176	mg / Kg		
	7	Mg-25	25		35.94	ppb	0.5	176	mg / Kg		
	8	Mg-26	26		34.88	ppb	0.5	171	mg / Kg		
	9	Al-27	27		137.3	ppb	0.5	674	mg / Kg		
	10	Si-28	28		172.5	ppb	1	846	mg / Kg		
	11	K-39	39		26.73	ppb	0.5	131	mg / Kg		
	13	Ca-43	43		72.58	ppb	0.5	356	mg / Kg		
	14	Ca-44	44		70.88	ppb	0.5	348	mg / Kg		
	16	Ti-47	47		19.85	ppb	0.025	97.4	mg / Kg		
	17	V-51	51		0.64	ppb	0.05	< 4.91	mg / Kg		
	18	Cr-52	52		0.5	ppb	0.05	< 4.91	mg / Kg		
	19	Cr-53	53		4.56	ppb	0.25	< 24.5	mg / Kg		
	20	Fe-54	54		656.1	ppb	0.5	3220	mg / Kg		
x	21	Mn-55 >5x MB	55		33.56	ppb	0.025	165	mg / Kg		
	22	Fe-57	57		684.3	ppb	0.5	3360	mg / Kg		
	23	Co-59	59		-0.25	ppb	0.025	< 2.45	mg / Kg		
	24	Ni-60	60		0.09	ppb	0.025	< 2.45	mg / Kg		
	25	Cu-63	63		0.91	ppb	0.025	4.46	mg / Kg		
	26	Cu-65	65		0.87	ppb	0.025	4.27	mg / Kg		
	27	Zn-66	66		6.53	ppb	0.25	32.0	mg / Kg		
	28	Zn-67	67		6.43	ppb	0.25	31.6	mg / Kg		
	29	Zn-68	68		6	ppb	0.25	29.4	mg / Kg		
	32	As-75	75		0.11	ppb	0.025	< 2.45	mg / Kg		
	34	Se-82	82		0.29	ppb	0.025	< 2.45	mg / Kg		
	37	Sr-87	87		0.99	ppb	0.025	4.86	mg / Kg		
	40	Mo-95	95		0.11	ppb	0.025	< 2.45	mg / Kg		
	41	Mo-98	98		0.12	ppb	0.025	< 2.45	mg / Kg		
	43	Ag-107	107		-0.02	ppb	0.025	< 2.45	mg / Kg		
	45	Ag-109	109		-0.02	ppb	0.025	< 2.45	mg / Kg		
	46	Cd-111	111		0.05	ppb	0.025	< 2.45	mg / Kg		
	47	Cd-114	114		0.03	ppb	0.025	< 2.45	mg / Kg		
	50	Sn-120	120		0.1	ppb	0.025	< 2.45	mg / Kg		
	51	Sb-121	121		-0.09	ppb	0.05	< 4.91	mg / Kg		
	52	Sb-123	123		-0.03	ppb	0.05	< 4.91	mg / Kg		
	53	Ba-135	135		1.9	ppb	0.025	9.32	mg / Kg		
	54	Tb-159	159		0	ppb	0.001	< 0.098	mg / Kg		
	55	Au-197	197		-0.02	ppb	0.025	< 2.45	mg / Kg		
	56	Tl-205	205		-0.33	ppb	0.025	< 2.45	mg / Kg		
	59	Pb-208	208		0.24	ppb	0.025	< 2.45	mg / Kg		
	61	U-238	238		0.08	ppb	0.025	< 2.45	mg / Kg		

FRAC M021283-017

Assaigai Analytical Laboratories, Inc.

Analytical Result Summary

0209373-08A By 266 Dilution

Run Group	MT.20021110	37
Calc Method	6020	
Prep Method	MS3050	
Prep Matrix	SOLID	

Prepared	09-23-02 8:08:51	JRE	0.9814
Analyzed	09-24-02 15:33:00	JWB	10
Calibration	09-24-02 10:46:00		
Quant	09-24-02 15:40:00	038SMPL.D#	

r	C#	Analyte		QMass	m	Raw Quant	As	MRL	Report	As	Qual	f
x	3	Be-9		9		0.69	ppb	0.025	0.338	mg / Kg		
x	4	B-11		11		-1.33	ppb	0.15	< 1.47	mg / Kg		
x	5	Na-23	>5x MB	23		139.7	ppb	0.5	68.5	mg / Kg		
x	6	Mg-24	>5x MB	24		315.8	ppb	0.5	155	mg / Kg		
	7	Mg-25		25		317	ppb	0.5	156	mg / Kg		
	8	Mg-26		26		316	ppb	0.5	155	mg / Kg		
x	9	Al-27	>5x MB	27		1314	ppb	0.5	645	mg / Kg		
x	10	Si-28	E	28		372.5	ppb	1	183	mg / Kg		
x	11	K-39	>5x MB	39		282.8	ppb	0.5	139	mg / Kg		
x	13	Ca-43	>5x MB	43		586.6	ppb	0.5	288	mg / Kg		
	14	Ca-44		44		590.3	ppb	0.5	290	mg / Kg		
x	16	Ti-47	>5x MB	47		195.3	ppb	0.025	95.8	mg / Kg		
x	17	V-51		51		3.15	ppb	0.05	1.54	mg / Kg		
x	18	Cr-52		52		3.26	ppb	0.05	1.60	mg / Kg		
	19	Cr-53		53		6.13	ppb	0.25	3.01	mg / Kg		
	20	Fe-54		54		6659	ppb	0.5	3270	mg / Kg		
	21	Mn-55		55		337.4	ppb	0.025	166	mg / Kg		x
x	22	Fe-57		57		6815	ppb	0.5	3340	mg / Kg		
x	23	Co-59		59		0.21	ppb	0.025	< 0.245	mg / Kg		
x	24	Ni-60		60		1.08	ppb	0.025	0.530	mg / Kg		
x	25	Cu-63	>5x MB	63		3.98	ppb	0.025	1.95	mg / Kg		
	26	Cu-65		65		4.07	ppb	0.025	2.00	mg / Kg		
x	27	Zn-66		66		47.66	ppb	0.25	23.4	mg / Kg		
	28	Zn-67		67		44.6	ppb	0.25	21.9	mg / Kg		
	29	Zn-68		68		46.46	ppb	0.25	22.8	mg / Kg		
x	32	As-75		75		0.94	ppb	0.025	0.461	mg / Kg		
x	34	Se-82		82		0.75	ppb	0.025	0.368	mg / Kg		
x	37	Sr-87		87		8.82	ppb	0.025	4.33	mg / Kg		
x	40	Mo-95	>5x MB	95		1.34	ppb	0.025	0.658	mg / Kg		
	41	Mo-98		98		1.34	ppb	0.025	0.658	mg / Kg		
x	43	Ag-107		107		0.13	ppb	0.025	< 0.245	mg / Kg		
	45	Ag-109		109		0.14	ppb	0.025	< 0.245	mg / Kg		
x	46	Cd-111		111		0.27	ppb	0.025	< 0.245	mg / Kg		
	47	Cd-114		114		0.09	ppb	0.025	< 0.245	mg / Kg		
x	50	Sn-120	B	120		1.55	ppb	0.025	0.760	mg / Kg		
x	51	Sb-121		121		-0.08	ppb	0.05	< 0.491	mg / Kg		
	52	Sb-123		123		-0.01	ppb	0.05	< 0.491	mg / Kg		
x	53	Ba-135		135		19.69	ppb	0.025	9.66	mg / Kg		
	54	Tb-159		159		0	ppb	0.001	< 0.010	mg / Kg		
	55	Au-197		197		0.03	ppb	0.025	< 0.245	mg / Kg		
x	56	Tl-205		205		-0.32	ppb	0.025	< 0.245	mg / Kg		
x	59	Pb-208	>5x MB	208		4.71	ppb	0.025	2.31	mg / Kg		
x	61	U-238		238		0.79	ppb	0.025	0.388	mg / Kg		

FRAC M021283-018

Assaigai Analytical Laboratories, Inc.

Analytical Result Summary

0209373-09A

Run Group	MT.20021110	38
Calc Method	6020	
Prep Method	MS3050	
Prep Matrix	SOLID	

		By	Dilution
Prepared	09-23-02 8:08:51	JRE	0.9311
Analyzed	09-24-02 15:42:00	JWB	100
Calibration	09-24-02 10:46:00		
Quant	09-24-02 15:49:00		039SMPL.D#

r	C#	Analyte	QMass	m	Raw Quant	As	MRL	Report	As	Qual	f
	3	Be-9	9		0.08	ppb	0.025	< 2.33	mg / Kg		
	4	B-11	11		-1.89	ppb	0.15	< 14.0	mg / Kg		
	5	Na-23	23		17.44	ppb	0.5	81.2	mg / Kg		
	6	Mg-24	24		30.19	ppb	0.5	140	mg / Kg		
	7	Mg-25	25		30.11	ppb	0.5	140	mg / Kg		
	8	Mg-26	26		30.47	ppb	0.5	142	mg / Kg		
	9	Al-27	27		144.7	ppb	0.5	674	mg / Kg		
	10	Si-28	28		212.6	ppb	1	990	mg / Kg		
	11	K-39	39		24.96	ppb	0.5	116	mg / Kg		
	13	Ca-43	43		72.53	ppb	0.5	338	mg / Kg		
	14	Ca-44	44		72.13	ppb	0.5	336	mg / Kg		
	16	Ti-47	47		20.04	ppb	0.025	93.3	mg / Kg		
	17	V-51	51		0.15	ppb	0.05	< 4.66	mg / Kg		
	18	Cr-52	52		0.28	ppb	0.05	< 4.66	mg / Kg		
	19	Cr-53	53		1.52	ppb	0.25	< 23.3	mg / Kg		
	20	Fe-54	54		684.6	ppb	0.5	3190	mg / Kg		
x	21	Mn-55 >5x MB	55		36.31	ppb	0.025	169	mg / Kg		
	22	Fe-57	57		713	ppb	0.5	3320	mg / Kg		
	23	Co-59	59		-0.25	ppb	0.025	< 2.33	mg / Kg		
	24	Ni-60	60		0.1	ppb	0.025	< 2.33	mg / Kg		
	25	Cu-63	63		0.78	ppb	0.025	3.63	mg / Kg		
	26	Cu-65	65		0.78	ppb	0.025	3.63	mg / Kg		
	27	Zn-66	66		6.49	ppb	0.25	30.2	mg / Kg		
	28	Zn-67	67		6.03	ppb	0.25	28.1	mg / Kg		
	29	Zn-68	68		6.15	ppb	0.25	28.6	mg / Kg		
	32	As-75	75		0.07	ppb	0.025	< 2.33	mg / Kg		
	34	Se-82	82		0.24	ppb	0.025	< 2.33	mg / Kg		
	37	Sr-87	87		0.84	ppb	0.025	3.91	mg / Kg		
	40	Mo-95	95		0.08	ppb	0.025	< 2.33	mg / Kg		
	41	Mo-98	98		0.07	ppb	0.025	< 2.33	mg / Kg		
	43	Ag-107	107		-0.03	ppb	0.025	< 2.33	mg / Kg		
	45	Ag-109	109		-0.03	ppb	0.025	< 2.33	mg / Kg		
	46	Cd-111	111		0.02	ppb	0.025	< 2.33	mg / Kg		
	47	Cd-114	114		0	ppb	0.025	< 2.33	mg / Kg		
	50	Sn-120	120		0.12	ppb	0.025	< 2.33	mg / Kg		
	51	Sb-121	121		-0.12	ppb	0.05	< 4.66	mg / Kg		
	52	Sb-123	123		-0.06	ppb	0.05	< 4.66	mg / Kg		
	53	Ba-135	135		2	ppb	0.025	9.31	mg / Kg		
	54	Tb-159	159		0	ppb	0.001	< 0.093	mg / Kg		
	55	Au-197	197		0	ppb	0.025	< 2.33	mg / Kg		
	56	Tl-205	205		-0.35	ppb	0.025	< 2.33	mg / Kg		
	59	Pb-208	208		0.22	ppb	0.025	< 2.33	mg / Kg		
	61	U-238	238		0.09	ppb	0.025	< 2.33	mg / Kg		

FRAC M021283-018

Assaigai Analytical Laboratories, Inc.

Analytical Result Summary

0209373-09A

Run Group	MT.2002.1110	39
Calc Method	6020	
Prep Method	MS3050	
Prep Matrix	SOLID	

		By	Dilution
Prepared	09-23-02 8:08:51	JRE	0.9311
Analyzed	09-24-02 15:52:00	JWB	10
Calibration	09-24-02 10:46:00		
Quant	09-24-02 15:59:00		040SMPL.D#

r	C#	Analyte	QMass	m	Raw Quant	As	MRL	Report	As	Qual	f
x	3	Be-9	9		0.72	ppb	0.025	0.335	mg / Kg		
x	4	B-11	11		-1.67	ppb	0.15	< 1.40	mg / Kg		
x	5	Na-23 >5x MB	23		135.6	ppb	0.5	63.1	mg / Kg		
x	6	Mg-24 >5x MB	24		258.9	ppb	0.5	120	mg / Kg		
	7	Mg-25	25		259.1	ppb	0.5	121	mg / Kg		
	8	Mg-26	26		254.3	ppb	0.5	118	mg / Kg		
x	9	Al-27 >5x MB	27		1046	ppb	0.5	487	mg / Kg		
x	10	Si-28 (E)	28		400.1	ppb	1	186	mg / Kg		
x	11	K-39 >5x MB	39		237.3	ppb	0.5	110	mg / Kg		
x	13	Ca-43 >5x MB	43		579.9	ppb	0.5	270	mg / Kg		
	14	Ca-44	44		582.4	ppb	0.5	271	mg / Kg		
x	16	Ti-47 >5x MB	47		196.9	ppb	0.025	91.7	mg / Kg		
x	17	V-51	51		2.35	ppb	0.05	1.09	mg / Kg		
x	18	Cr-52	52		1.48	ppb	0.05	0.689	mg / Kg		
	19	Cr-53	53		3.23	ppb	0.25	< 2.33	mg / Kg		
	20	Fe-54	54		6885	ppb	0.5	3200	mg / Kg		
	21	Mn-55	55		358.9	ppb	0.025	167	mg / Kg		x
x	22	Fe-57 >5x MB	57		7058	ppb	0.5	3280	mg / Kg		
x	23	Co-59	59		0.22	ppb	0.025	< 0.233	mg / Kg		
x	24	Ni-60	60		1.06	ppb	0.025	0.493	mg / Kg		
x	25	Cu-63 >5x MB	63		3.16	ppb	0.025	1.47	mg / Kg		
	26	Cu-65	65		3.3	ppb	0.025	1.54	mg / Kg		
x	27	Zn-66	66		50.63	ppb	0.25	23.6	mg / Kg		
	28	Zn-67	67		47.61	ppb	0.25	22.2	mg / Kg		
	29	Zn-68	68		49.8	ppb	0.25	23.2	mg / Kg		
x	32	As-75	75		0.48	ppb	0.025	< 0.233	mg / Kg		
x	34	Se-82	82		0.92	ppb	0.025	0.428	mg / Kg		
x	37	Sr-87	87		7.49	ppb	0.025	3.49	mg / Kg		
x	40	Mo-95 >5x MB	95		1.2	ppb	0.025	0.559	mg / Kg		
	41	Mo-98	98		1.19	ppb	0.025	0.554	mg / Kg		
x	43	Ag-107	107		0	ppb	0.025	< 0.233	mg / Kg		
	45	Ag-109	109		0.02	ppb	0.025	< 0.233	mg / Kg		
x	46	Cd-111	111		0.16	ppb	0.025	< 0.233	mg / Kg		
	47	Cd-114	114		0.07	ppb	0.025	< 0.233	mg / Kg		
x	50	Sn-120 (B)	120		1.65	ppb	0.025	0.768	mg / Kg		
x	51	Sb-121	121		-0.07	ppb	0.05	< 0.466	mg / Kg		
	52	Sb-123	123		-0.03	ppb	0.05	< 0.466	mg / Kg		
x	53	Ba-135	135		19.56	ppb	0.025	9.11	mg / Kg		
	54	Tb-159	159		0	ppb	0.001	< 0.009	mg / Kg		
	55	Au-197	197		-0.01	ppb	0.025	< 0.233	mg / Kg		
x	56	Tl-205	205		-0.34	ppb	0.025	< 0.233	mg / Kg		
x	59	Pb-208 >5x MB	208		4.58	ppb	0.025	2.13	mg / Kg		
x	61	U-238	238		0.86	ppb	0.025	0.400	mg / Kg		

FRAC M021283-019

Assaigai Analytical Laboratories, Inc.

Analytical Result Summary

0209373-10A

269

Run Group	MT.2002.1110	40
Calc Method	6020	
Prep Method	MS3050	
Prep Matrix	SOLID	

		By	Dilution
Prepared	09-23-02 8:08:51	JRE	0.9681
Analyzed	09-24-02 16:01:00	JWB	100
Calibration	09-24-02 10:46:00		
Quant	09-24-02 16:08:00		041SMPL.D#

r	C#	Analyte	QMass	m	Raw Quant	As	MRL	Report	As	Qual	f
	3	Be-9	9		0.1	ppb	0.025	< 2.42	mg / Kg		
	4	B-11	11		-1.75	ppb	0.15	< 14.5	mg / Kg		
	5	Na-23	23		22.99	ppb	0.5	111	mg / Kg		
	6	Mg-24	24		257.5	ppb	0.5	1250	mg / Kg		
	7	Mg-25	25		260.6	ppb	0.5	1260	mg / Kg		
	8	Mg-26	26		251.4	ppb	0.5	1220	mg / Kg		
x	9	Al-27 >5x MB	27		1667	ppb	0.5	8070	mg / Kg		
	10	Si-28	28		195.4	ppb	1	946	mg / Kg		
	11	K-39	39		160.6	ppb	0.5	777	mg / Kg		
	13	Ca-43	43		239.1	ppb	0.5	1160	mg / Kg		
	14	Ca-44	44		237.5	ppb	0.5	1150	mg / Kg		
x	16	Ti-47 >5x MB	47		63.84	ppb	0.025	309	mg / Kg		
	17	V-51	51		2.57	ppb	0.05	12.4	mg / Kg		
	18	Cr-52	52		3.78	ppb	0.05	18.3	mg / Kg		
	19	Cr-53	53		6.97	ppb	0.25	33.7	mg / Kg		
	20	Fe-54	54		2210	ppb	0.5	10700	mg / Kg		
x	21	Mn-55 >5x MB	55		50.32	ppb	0.025	244	mg / Kg		
x	22	Fe-57 >5x MB	57		2198	ppb	0.5	10600	mg / Kg		
	23	Co-59	59		0.14	ppb	0.025	< 2.42	mg / Kg		
	24	Ni-60	60		0.96	ppb	0.025	4.65	mg / Kg		
	25	Cu-63	63		0.97	ppb	0.025	4.70	mg / Kg		
	26	Cu-65	65		0.98	ppb	0.025	4.74	mg / Kg		
	27	Zn-66	66		11.45	ppb	0.25	55.4	mg / Kg		
	28	Zn-67	67		11.36	ppb	0.25	55.0	mg / Kg		
	29	Zn-68	68		10.51	ppb	0.25	50.9	mg / Kg		
	32	As-75	75		0.31	ppb	0.025	< 2.42	mg / Kg		
	34	Se-82	82		-0.11	ppb	0.025	< 2.42	mg / Kg		
	37	Sr-87	87		8.88	ppb	0.025	43.0	mg / Kg		
	40	Mo-95	95		0.19	ppb	0.025	< 2.42	mg / Kg		
	41	Mo-98	98		0.2	ppb	0.025	< 2.42	mg / Kg		
	43	Ag-107	107		0.02	ppb	0.025	< 2.42	mg / Kg		
	45	Ag-109	109		0.02	ppb	0.025	< 2.42	mg / Kg		
	46	Cd-111	111		0.06	ppb	0.025	< 2.42	mg / Kg		
	47	Cd-114	114		0.04	ppb	0.025	< 2.42	mg / Kg		
	50	Sn-120	120		0.31	ppb	0.025	< 2.42	mg / Kg		
	51	Sb-121	121		-0.12	ppb	0.05	< 4.84	mg / Kg		
	52	Sb-123	123		-0.06	ppb	0.05	< 4.84	mg / Kg		
	53	Ba-135	135		11.77	ppb	0.025	57.0	mg / Kg		
	54	Tb-159	159		0	ppb	0.001	< 0.097	mg / Kg		
	55	Au-197	197		-0.07	ppb	0.025	< 2.42	mg / Kg		
	56	Tl-205	205		-0.34	ppb	0.025	< 2.42	mg / Kg		
	59	Pb-208	208		2.97	ppb	0.025	14.4	mg / Kg		
	61	U-238	238		0.08	ppb	0.025	< 2.42	mg / Kg		

FRAC M021283-019

Assaigai Analytical Laboratories, Inc.

Analytical Result Summary

0209373-10A

270

Run Group	MT.2002.1110	41
Calc Method	6020	
Prep Method	MS3050	
Prep Matrix	SOLID	

		By	Dilution
Prepared	09-23-02 8:08:51	JRE	0.9681
Analyzed	09-24-02 16:10:00	JWB	10
Calibration	09-24-02 10:46:00		
Quant	09-24-02 16:18:00		042SMPL.D#

r	C#	Analyte	QMass	m	Raw Quant	As	MRL	Report	As	Qual	f
x	3	Be-9	9		1.07	ppb	0.025	0.518	mg / Kg		
x	4	B-11	11		0.39	ppb	0.15	< 1.45	mg / Kg		
x	5	Na-23 >5x MB	23		166.9	ppb	0.5	80.8	mg / Kg		
x	6	Mg-24 >5x MB	24		2311	ppb	0.5	1120	mg / Kg		
	7	Mg-25	25		2373	ppb	0.5	1150	mg / Kg		
	8	Mg-26	26		2322	ppb	0.5	1120	mg / Kg		
	9	Al-27	27		14990	ppb	0.5	7260	mg / Kg		x
x	10	Si-28 (E)	28		508	ppb	1	246	mg / Kg		
x	11	K-39 >5x MB	39		1494	ppb	0.5	723	mg / Kg		
x	13	Ca-43 >5x MB	43		2146	ppb	0.5	1040	mg / Kg		
	14	Ca-44	44		2151	ppb	0.5	1040	mg / Kg		
	16	Ti-47	47		596.9	ppb	0.025	289	mg / Kg		x
x	17	V-51	51		21.85	ppb	0.05	10.6	mg / Kg		
x	18	Cr-52	52		33.1	ppb	0.05	16.0	mg / Kg		
	19	Cr-53	53		36.46	ppb	0.25	17.6	mg / Kg		
	20	Fe-54	54		19770	ppb	0.5	9570	mg / Kg		x
	21	Mn-55	55		476.5	ppb	0.025	231	mg / Kg		x
	22	Fe-57	57		20400	ppb	0.5	9870	mg / Kg		x
x	23	Co-59	59		3.6	ppb	0.025	1.74	mg / Kg		
x	24	Ni-60	60		8.7	ppb	0.025	4.21	mg / Kg		
x	25	Cu-63 >5x MB	63		8.05	ppb	0.025	3.90	mg / Kg		
	26	Cu-65	65		8.29	ppb	0.025	4.01	mg / Kg		
x	27	Zn-66	66		97.64	ppb	0.25	47.3	mg / Kg		
	28	Zn-67	67		96.22	ppb	0.25	46.6	mg / Kg		
	29	Zn-68	68		91.19	ppb	0.25	44.1	mg / Kg		
x	32	As-75	75		3.16	ppb	0.025	1.53	mg / Kg		
x	34	Se-82	82		0.9	ppb	0.025	0.436	mg / Kg		
x	37	Sr-87	87		84.63	ppb	0.025	41.0	mg / Kg		
x	40	Mo-95 >5x MB	95		2.29	ppb	0.025	1.11	mg / Kg		
	41	Mo-98	98		2.3	ppb	0.025	1.11	mg / Kg		
x	43	Ag-107	107		0.52	ppb	0.025	0.252	mg / Kg		
	45	Ag-109	109		0.52	ppb	0.025	0.252	mg / Kg		
x	46	Cd-111	111		0.49	ppb	0.025	< 0.242	mg / Kg		
	47	Cd-114	114		0.25	ppb	0.025	< 0.242	mg / Kg		
x	50	Sn-120 (B)	120		3.74	ppb	0.025	1.81	mg / Kg		
x	51	Sb-121	121		-0.04	ppb	0.05	< 0.484	mg / Kg		
	52	Sb-123	123		0.02	ppb	0.05	< 0.484	mg / Kg		
x	53	Ba-135	135		117.6	ppb	0.025	56.9	mg / Kg		
	54	Tb-159	159		0	ppb	0.001	< 0.010	mg / Kg		
	55	Au-197	197		0.05	ppb	0.025	< 0.242	mg / Kg		
x	56	Tl-205	205		-0.02	ppb	0.025	< 0.242	mg / Kg		
x	59	Pb-208 >5x MB	208		31.48	ppb	0.025	15.2	mg / Kg		
x	61	U-238	238		0.88	ppb	0.025	0.426	mg / Kg		

FRAC M021283-020

Assaigai Analytical Laboratories, Inc.

Analytical Result Summary

0209373-11A

271

Run Group	MT.2002.1110	42
Calc Method	6020	
Prep Method	MS3050	
Prep Matrix	SOLID	

		By	Dilution
Prepared	09-23-02 8:08:51	JRE	0.997
Analyzed	09-24-02 16:20:00	JWB	100
Calibration	09-24-02 10:46:00		
Quant	09-24-02 16:27:00		043SMPL.D#

r	C#	Analyte	QMass	m	Raw Quant	As	MRL	Report	As	Qual	f
	3	Be-9	9		0.09	ppb	0.025	< 2.49	mg / Kg		
	4	B-11	11		-1.94	ppb	0.15	< 15.0	mg / Kg		
	5	Na-23	23		31.1	ppb	0.5	155	mg / Kg		
	6	Mg-24	24		115.6	ppb	0.5	576	mg / Kg		
	7	Mg-25	25		118.3	ppb	0.5	590	mg / Kg		
	8	Mg-26	26		115.2	ppb	0.5	574	mg / Kg		
	9	Al-27	27		537.2	ppb	0.5	2680	mg / Kg		
	10	Si-28	28		179.1	ppb	1	893	mg / Kg		
	11	K-39	39		83.7	ppb	0.5	417	mg / Kg		
	13	Ca-43	43		159.7	ppb	0.5	796	mg / Kg		
	14	Ca-44	44		160.5	ppb	0.5	800	mg / Kg		
x	16	Ti-47 >5x MB	47		72.64	ppb	0.025	362	mg / Kg		
	17	V-51	51		0.82	ppb	0.05	< 4.98	mg / Kg		
	18	Cr-52	52		0.76	ppb	0.05	< 4.98	mg / Kg		
	19	Cr-53	53		4.57	ppb	0.25	< 24.9	mg / Kg		
	20	Fe-54	54		1467	ppb	0.5	7310	mg / Kg		
x	21	Mn-55 >5x MB	55		51.16	ppb	0.025	255	mg / Kg		
x	22	Fe-57 >5x MB	57		1488	ppb	0.5	7420	mg / Kg		
	23	Co-59	59		-0.13	ppb	0.025	< 2.49	mg / Kg		
	24	Ni-60	60		0.69	ppb	0.025	3.44	mg / Kg		
	25	Cu-63	63		0.35	ppb	0.025	< 2.49	mg / Kg		
	26	Cu-65	65		0.36	ppb	0.025	< 2.49	mg / Kg		
	27	Zn-66	66		7.57	ppb	0.25	37.7	mg / Kg		
	28	Zn-67	67		7.24	ppb	0.25	36.1	mg / Kg		
	29	Zn-68	68		7.1	ppb	0.25	35.4	mg / Kg		
	32	As-75	75		0.45	ppb	0.025	< 2.49	mg / Kg		
	34	Se-82	82		0.21	ppb	0.025	< 2.49	mg / Kg		
	37	Sr-87	87		2.91	ppb	0.025	14.5	mg / Kg		
	40	Mo-95	95		0.14	ppb	0.025	< 2.49	mg / Kg		
	41	Mo-98	98		0.13	ppb	0.025	< 2.49	mg / Kg		
	43	Ag-107	107		-0.03	ppb	0.025	< 2.49	mg / Kg		
	45	Ag-109	109		-0.03	ppb	0.025	< 2.49	mg / Kg		
	46	Cd-111	111		-0.02	ppb	0.025	< 2.49	mg / Kg		
	47	Cd-114	114		0.01	ppb	0.025	< 2.49	mg / Kg		
	50	Sn-120	120		0.45	ppb	0.025	< 2.49	mg / Kg		
	51	Sb-121	121		-0.11	ppb	0.05	< 4.98	mg / Kg		
	52	Sb-123	123		-0.05	ppb	0.05	< 4.98	mg / Kg		
	53	Ba-135	135		4.56	ppb	0.025	22.7	mg / Kg		
	54	Tb-159	159		0	ppb	0.001	< 0.100	mg / Kg		
	55	Au-197	197		-0.03	ppb	0.025	< 2.49	mg / Kg		
	56	Tl-205	205		-0.35	ppb	0.025	< 2.49	mg / Kg		
	59	Pb-208	208		0.6	ppb	0.025	2.99	mg / Kg		
	61	U-238	238		0.07	ppb	0.025	< 2.49	mg / Kg		

STD-CCV [STD-CCV]

Assaigai Analytical Laboratories, Inc.

Analytical Result Summary

272 By Dilution

Run Group	MT.2002.1110	43
Calc Method	6020	
Prep Method	LAB	
Prep Matrix	LAB	

Prepared			1
Analyzed	09-24-02 16:29:00	JWB	1
Calibration	09-24-02 10:46:00		
Quant	09-24-02 16:36:00		044CCV .D#

r	C#	Analyte	QMass	m	Raw Quant	As	MRL	Report	As	Qual	f
	3	Be-9	9		94.03	ppb	1	94	% Recovery		
	4	B-11	11		99.13	ppb	1	99	% Recovery		
	5	Na-23	23		972.9	ppb	1	97	% Recovery		
	6	Mg-24	24		985.6	ppb	1	98	% Recovery		
	7	Mg-25	25		1070	ppb	1	107	% Recovery		
	8	Mg-26	26		1025	ppb	1	102	% Recovery		
	9	Al-27	27		987.2	ppb	1	99	% Recovery		
	10	Si-28	28		1128	ppb	1	113	% Recovery		x
	11	K-39	39		1023	ppb	1	102	% Recovery		
	13	Ca-43	43		1005	ppb	1	100	% Recovery		
	14	Ca-44	44		1011	ppb	1	101	% Recovery		
	16	Ti-47	47		103.3	ppb	1	103	% Recovery		
	17	V-51	51		102.6	ppb	1	103	% Recovery		
	18	Cr-52	52		103.5	ppb	1	104	% Recovery		
	19	Cr-53	53		105.4	ppb	1	105	% Recovery		
	20	Fe-54	54		1108	ppb	1	111	% Recovery		x
	21	Mn-55	55		105	ppb	1	105	% Recovery		
	22	Fe-57	57		1080	ppb	1	108	% Recovery		
	23	Co-59	59		105.7	ppb	1	106	% Recovery		
	24	Ni-60	60		106	ppb	1	106	% Recovery		
	25	Cu-63	63		106.6	ppb	1	107	% Recovery		
	26	Cu-65	65		107.6	ppb	1	108	% Recovery		
	27	Zn-66	66		101.8	ppb	1	102	% Recovery		
	28	Zn-67	67		100.5	ppb	1	100	% Recovery		
	29	Zn-68	68		102.2	ppb	1	102	% Recovery		
	32	As-75	75		102.1	ppb	1	102	% Recovery		
	34	Se-82	82		103.7	ppb	1	104	% Recovery		
	37	Sr-87	87		101.8	ppb	1	102	% Recovery		
	40	Mo-95	95		94.4	ppb	1	94	% Recovery		
	41	Mo-98	98		94.81	ppb	1	95	% Recovery		
	43	Ag-107	107		99.4	ppb	1	99	% Recovery		
	45	Ag-109	109		99.94	ppb	1	100	% Recovery		
	46	Cd-111	111		101.1	ppb	1	101	% Recovery		
	47	Cd-114	114		101.6	ppb	1	102	% Recovery		
	50	Sn-120	120		101.7	ppb	1	102	% Recovery		
	51	Sb-121	121		100.8	ppb	1	101	% Recovery		
	52	Sb-123	123		101.6	ppb	1	102	% Recovery		
	53	Ba-135	135		102.6	ppb	1	103	% Recovery		
	54	Tb-159	159		0	ppb	1	< 1	% Recovery		x
	55	Au-197	197		100.2	ppb	1	100	% Recovery		
	56	Tl-205	205		97.94	ppb	1	98	% Recovery		
	59	Pb-208	208		99.43	ppb	1	99	% Recovery		
	61	U-238	238		99.33	ppb	1	99	% Recovery		

CB [CB]

Assaigai Analytical Laboratories, Inc.

Analytical Result Summary

Run Group	MT.2002.1110	44
Calc Method	6020	
Prep Method	LAB	
Prep Matrix	LAB	

		By	Dilution
Prepared			1
Analyzed	09-24-02 16:38:00	JWB	1
Calibration	09-24-02 10:46:00		
Quant	09-24-02 16:45:00	045CCB	.D#

r	C#	Analyte	QMass	m	Raw Quant	As	MRL	Report	As	Qual	f
	3	Be-9	9		0.02	ppb	0.001	< 0.001	mg / L		
	4	B-11	11		0.09	ppb	0.001	< 0.001	mg / L		
	5	Na-23	23		0.04	ppb	0.01	< 0.010	mg / L		
	6	Mg-24	24		0.41	ppb	0.01	< 0.010	mg / L		
	7	Mg-25	25		0.48	ppb	0.01	< 0.010	mg / L		
	8	Mg-26	26		0.43	ppb	0.01	< 0.010	mg / L		
	9	Al-27	27		3.34	ppb	0.01	< 0.010	mg / L		
	10	Si-28	28		14.75	ppb	0.001	0.015	mg / L		x
	11	K-39	39		3.79	ppb	0.01	< 0.010	mg / L		
	13	Ca-43	43		2.72	ppb	0.01	< 0.010	mg / L		
	14	Ca-44	44		1.46	ppb	0.01	< 0.010	mg / L		
	16	Ti-47	47		0.14	ppb	0.001	< 0.001	mg / L		
	17	V-51	51		0.35	ppb	0.001	< 0.001	mg / L		
	18	Cr-52	52		0.69	ppb	0.001	< 0.001	mg / L		
	19	Cr-53	53		17.46	ppb	0.001	0.017	mg / L		x
	20	Fe-54	54		49.13	ppb	0.01	0.049	mg / L		x
	21	Mn-55	55		0.09	ppb	0.001	< 0.001	mg / L		
	22	Fe-57	57		7.92	ppb	0.01	< 0.010	mg / L		
	23	Co-59	59		-0.27	ppb	0.001	< 0.001	mg / L		
	24	Ni-60	60		-0.03	ppb	0.001	< 0.001	mg / L		
	25	Cu-63	63		0.05	ppb	0.001	< 0.001	mg / L		
	26	Cu-65	65		0.02	ppb	0.001	< 0.001	mg / L		
	27	Zn-66	66		0.06	ppb	0.001	< 0.001	mg / L		
	28	Zn-67	67		1.39	ppb	0.001	0.001	mg / L		x
	29	Zn-68	68		0.13	ppb	0.001	< 0.001	mg / L		
	32	As-75	75		0.76	ppb	0.001	< 0.001	mg / L		
	34	Se-82	82		0.43	ppb	0.001	< 0.001	mg / L		
	37	Sr-87	87		0.06	ppb	0.001	< 0.001	mg / L		
	40	Mo-95	95		0.23	ppb	0.001	< 0.001	mg / L		
	41	Mo-98	98		0.23	ppb	0.001	< 0.001	mg / L		
	43	Ag-107	107		0.03	ppb	0.001	< 0.001	mg / L		
	45	Ag-109	109		0.03	ppb	0.001	< 0.001	mg / L		
	46	Cd-111	111		0.02	ppb	0.001	< 0.001	mg / L		
	47	Cd-114	114		0.04	ppb	0.001	< 0.001	mg / L		
	50	Sn-120	120		0.03	ppb	0.001	< 0.001	mg / L		
	51	Sb-121	121		0.16	ppb	0.001	< 0.001	mg / L		
	52	Sb-123	123		0.26	ppb	0.001	< 0.001	mg / L		
	53	Ba-135	135		0.04	ppb	0.001	< 0.001	mg / L		
	54	Tb-159	159		0	ppb	0.001	< 0.001	mg / L		
	55	Au-197	197		0.41	ppb	0.001	< 0.001	mg / L		
	56	Tl-205	205		0.24	ppb	0.001	< 0.001	mg / L		
	59	Pb-208	208		-0.25	ppb	0.001	< 0.001	mg / L		
	61	U-238	238		0.05	ppb	0.001	< 0.001	mg / L		

FRAC M021283-020

Assaigai Analytical Laboratories, Inc.

Analytical Result Summary

0209373-11A

			By	Dilution
Prepared	09-23-02 8:08:51		JRE	0.997
Analyzed	09-24-02 16:47:00		JWB	10
Calibration	09-24-02 10:46:00			
Quant	09-24-02 16:54:00			046SMPL.D#

Run Group	MT.2002.1110	45
Calc Method	6020	
Prep Method	MS3050	
Prep Matrix	SOLID	

r	C#	Analyte	QMass	m	Raw Quant	As	MRL	Report	As	Qual	f
x	3	Be-9	9		0.8	ppb	0.025	0.399	mg / Kg		
x	4	B-11	11		-1.35	ppb	0.15	< 1.50	mg / Kg		
x	5	Na-23 >5x MB	23		235.2	ppb	0.5	117	mg / Kg		
x	6	Mg-24 >5x MB	24		1045	ppb	0.5	521	mg / Kg		
	7	Mg-25	25		1065	ppb	0.5	531	mg / Kg		
	8	Mg-26	26		1043	ppb	0.5	520	mg / Kg		
x	9	Al-27 >5x MB	27		5066	ppb	0.5	2520	mg / Kg		
x	10	Si-28 (E)	28		465.2	ppb	1	232	mg / Kg		
x	11	K-39 >5x MB	39		789.6	ppb	0.5	394	mg / Kg		
x	13	Ca-43 >5x MB	43		1396	ppb	0.5	696	mg / Kg		
	14	Ca-44	44		1377	ppb	0.5	686	mg / Kg		
	16	Ti-47	47		697.1	ppb	0.025	348	mg / Kg		x
x	17	V-51	51		7.8	ppb	0.05	3.89	mg / Kg		
x	18	Cr-52	52		4.93	ppb	0.05	2.46	mg / Kg		
	19	Cr-53	53		9.04	ppb	0.25	4.51	mg / Kg		
	20	Fe-54	54		13990	ppb	0.5	6970	mg / Kg		x
	21	Mn-55	55		516.2	ppb	0.025	257	mg / Kg		x
	22	Fe-57	57		14430	ppb	0.5	7190	mg / Kg		x
x	23	Co-59	59		1.33	ppb	0.025	0.663	mg / Kg		
x	24	Ni-60	60		6.63	ppb	0.025	3.30	mg / Kg		
x	25	Cu-63 >5x MB	63		2.34	ppb	0.025	1.17	mg / Kg		
	26	Cu-65	65		2.42	ppb	0.025	1.21	mg / Kg		
x	27	Zn-66	66		59.92	ppb	0.25	29.9	mg / Kg		
	28	Zn-67	67		56.94	ppb	0.25	28.4	mg / Kg		
	29	Zn-68	68		57.16	ppb	0.25	28.5	mg / Kg		
x	32	As-75	75		1.83	ppb	0.025	0.912	mg / Kg		
x	34	Se-82	82		1.46	ppb	0.025	0.728	mg / Kg		
x	37	Sr-87	87		28.65	ppb	0.025	14.3	mg / Kg		
x	40	Mo-95 >5x MB	95		2.08	ppb	0.025	1.04	mg / Kg		
	41	Mo-98	98		2	ppb	0.025	0.997	mg / Kg		
x	43	Ag-107	107		0.02	ppb	0.025	< 0.249	mg / Kg		
	45	Ag-109	109		0.02	ppb	0.025	< 0.249	mg / Kg		
x	46	Cd-111	111		0.24	ppb	0.025	< 0.249	mg / Kg		
	47	Cd-114	114		0.02	ppb	0.025	< 0.249	mg / Kg		
x	50	Sn-120 (B)	120		4.86	ppb	0.025	2.42	mg / Kg		
x	51	Sb-121	121		-0.01	ppb	0.05	< 0.498	mg / Kg		
	52	Sb-123	123		0.05	ppb	0.05	< 0.498	mg / Kg		
x	53	Ba-135	135		44.79	ppb	0.025	22.3	mg / Kg		
	54	Tb-159	159		0	ppb	0.001	< 0.010	mg / Kg		
	55	Au-197	197		0.12	ppb	0.025	< 0.249	mg / Kg		
x	56	Tl-205	205		-0.02	ppb	0.025	< 0.249	mg / Kg		
x	59	Pb-208 >5x MB	208		8.72	ppb	0.025	4.35	mg / Kg		
x	61	U-238	238		0.67	ppb	0.025	0.334	mg / Kg		

FRAC M021283-021

Assaigai Analytical Laboratories, Inc.

Analytical Result Summary

0209373-12A

			By	Dilution
Prepared	09-23-02 8:08:51	JRE		0.9881
Analyzed	09-24-02 16:56:00	JWB		100
Calibration	09-24-02 10:46:00			
Quant	09-24-02 17:03:00		047SMPL.D#	

Run Group	MT.2002.1110 46
Calc Method	6020
Prep Method	MS3050
Prep Matrix	SOLID

r	C#	Analyte	QMass	m	Raw Quant	As	MRL	Report	As	Qual	f
	3	Be-9	9		0.08	ppb	0.025	< 2.47	mg / Kg		
	4	B-11	11		-1.46	ppb	0.15	< 14.8	mg / Kg		
	5	Na-23	23		67.47	ppb	0.5	333	mg / Kg		
	6	Mg-24	24		188.6	ppb	0.5	932	mg / Kg		
	7	Mg-25	25		190.3	ppb	0.5	940	mg / Kg		
	8	Mg-26	26		189.2	ppb	0.5	935	mg / Kg		
	9	Al-27	27		919.7	ppb	0.5	4540	mg / Kg		
	10	Si-28	28		209.1	ppb	1	1030	mg / Kg		
	11	K-39	39		129.1	ppb	0.5	638	mg / Kg		
	13	Ca-43	43		683.1	ppb	0.5	3380	mg / Kg		
	14	Ca-44	44		658.3	ppb	0.5	3250	mg / Kg		
x	16	Ti-47 >5x MB	47		46.27	ppb	0.025	229	mg / Kg		
	17	V-51	51		1.72	ppb	0.05	8.50	mg / Kg		
	18	Cr-52	52		1.56	ppb	0.05	7.71	mg / Kg		
	19	Cr-53	53		15.99	ppb	0.25	79.0	mg / Kg		
	20	Fe-54	54		1456	ppb	0.5	7190	mg / Kg		
x	21	Mn-55 >5x MB	55		39.54	ppb	0.025	195	mg / Kg		
x	22	Fe-57 >5x MB	57		1471	ppb	0.5	7270	mg / Kg		
	23	Co-59	59		-0.04	ppb	0.025	< 2.47	mg / Kg		
	24	Ni-60	60		0.57	ppb	0.025	2.82	mg / Kg		
	25	Cu-63	63		1.06	ppb	0.025	5.24	mg / Kg		
	26	Cu-65	65		1.08	ppb	0.025	5.34	mg / Kg		
	27	Zn-66	66		9.38	ppb	0.25	46.3	mg / Kg		
	28	Zn-67	67		10.03	ppb	0.25	49.6	mg / Kg		
	29	Zn-68	68		9.09	ppb	0.25	44.9	mg / Kg		
	32	As-75	75		0.49	ppb	0.025	< 2.47	mg / Kg		
	34	Se-82	82		0.25	ppb	0.025	< 2.47	mg / Kg		
	37	Sr-87	87		7.09	ppb	0.025	35.0	mg / Kg		
	40	Mo-95	95		0.17	ppb	0.025	< 2.47	mg / Kg		
	41	Mo-98	98		0.16	ppb	0.025	< 2.47	mg / Kg		
	43	Ag-107	107		-0.01	ppb	0.025	< 2.47	mg / Kg		
	45	Ag-109	109		-0.01	ppb	0.025	< 2.47	mg / Kg		
	46	Cd-111	111		0.03	ppb	0.025	< 2.47	mg / Kg		
	47	Cd-114	114		0.01	ppb	0.025	< 2.47	mg / Kg		
	50	Sn-120	120		0.3	ppb	0.025	< 2.47	mg / Kg		
	51	Sb-121	121		-0.07	ppb	0.05	< 4.94	mg / Kg		
	52	Sb-123	123		0.01	ppb	0.05	< 4.94	mg / Kg		
	53	Ba-135	135		6.98	ppb	0.025	34.5	mg / Kg		
	54	Tb-159	159		0	ppb	0.001	< 0.099	mg / Kg		
	55	Au-197	197		-0.02	ppb	0.025	< 2.47	mg / Kg		
	56	Tl-205	205		-0.27	ppb	0.025	< 2.47	mg / Kg		
	59	Pb-208	208		1.38	ppb	0.025	6.82	mg / Kg		
	61	U-238	238		0.09	ppb	0.025	< 2.47	mg / Kg		

FRAC M021283-021

Assaigai Analytical Laboratories, Inc.

Analytical Result Summary

0209373-12A

			By	Dilution
Prepared	09-23-02 8:08:51		JRE	0.9881
Analyzed	09-24-02 17:05:00		JWB	10
Calibration	09-24-02 10:46:00			
Quant	09-24-02 17:13:00		048SMPL.D#	

Run Group	MT.2002.1110	47
Calc Method	6020	
Prep Method	MS3050	
Prep Matrix	SOLID	

r	C#	Analyte	QMass	m	Raw Quant	As	MRL	Report	As	Qual	f
x	3	Be-9	9		0.85	ppb	0.025	0.420	mg / Kg		
x	4	B-11	11		0.61	ppb	0.15	< 1.48	mg / Kg		
x	5	Na-23 >5x MB	23		593.7	ppb	0.5	293	mg / Kg		
x	6	Mg-24 >5x MB	24		1713	ppb	0.5	846	mg / Kg		
	7	Mg-25	25		1859	ppb	0.5	918	mg / Kg		
	8	Mg-26	26		1823	ppb	0.5	901	mg / Kg		
x	9	Al-27 >5x MB	27		8685	ppb	0.5	4290	mg / Kg		
x	10	Si-28 (E)	28		630.3	ppb	1	311	mg / Kg		
x	11	K-39 >5x MB	39		1204	ppb	0.5	595	mg / Kg		
x	13	Ca-43 >5x MB	43		6239	ppb	0.5	3080	mg / Kg		
	14	Ca-44	44		6175	ppb	0.5	3050	mg / Kg		
	16	Ti-47	47		441.1	ppb	0.025	218	mg / Kg		x
x	17	V-51	51		12.77	ppb	0.05	6.31	mg / Kg		
x	18	Cr-52	52		10.23	ppb	0.05	5.05	mg / Kg		
	19	Cr-53	53		31.95	ppb	0.25	15.8	mg / Kg		
	20	Fe-54	54		13590	ppb	0.5	6710	mg / Kg		x
	21	Mn-55	55		387.2	ppb	0.025	191	mg / Kg		x
	22	Fe-57	57		14030	ppb	0.5	6930	mg / Kg		x
x	23	Co-59	59		2.16	ppb	0.025	1.07	mg / Kg		
x	24	Ni-60	60		5.45	ppb	0.025	2.69	mg / Kg		
x	25	Cu-63 >5x MB	63		8.54	ppb	0.025	4.22	mg / Kg		
	26	Cu-65	65		8.7	ppb	0.025	4.30	mg / Kg		
x	27	Zn-66	66		74.96	ppb	0.25	37.0	mg / Kg		
	28	Zn-67	67		74.84	ppb	0.25	37.0	mg / Kg		
	29	Zn-68	68		71.96	ppb	0.25	35.6	mg / Kg		
x	32	As-75	75		2.55	ppb	0.025	1.26	mg / Kg		
x	34	Se-82	82		1.13	ppb	0.025	0.558	mg / Kg		
x	37	Sr-87	87		70.47	ppb	0.025	34.8	mg / Kg		
x	40	Mo-95 >5x MB	95		1.78	ppb	0.025	0.879	mg / Kg		
	41	Mo-98	98		1.82	ppb	0.025	0.899	mg / Kg		
x	43	Ag-107	107		0.17	ppb	0.025	< 0.247	mg / Kg		
	45	Ag-109	109		0.17	ppb	0.025	< 0.247	mg / Kg		
x	46	Cd-111	111		0.26	ppb	0.025	< 0.247	mg / Kg		
	47	Cd-114	114		0.09	ppb	0.025	< 0.247	mg / Kg		
x	50	Sn-120 (B)	120		3.42	ppb	0.025	1.69	mg / Kg		
x	51	Sb-121	121		-0.05	ppb	0.05	< 0.494	mg / Kg		
	52	Sb-123	123		0	ppb	0.05	< 0.494	mg / Kg		
x	53	Ba-135	135		70.64	ppb	0.025	34.9	mg / Kg		
	54	Tb-159	159		0	ppb	0.001	< 0.010	mg / Kg		
	55	Au-197	197		0.04	ppb	0.025	< 0.247	mg / Kg		
x	56	Tl-205	205		-0.16	ppb	0.025	< 0.247	mg / Kg		
x	59	Pb-208 >5x MB	208		16.17	ppb	0.025	7.99	mg / Kg		
x	61	U-238	238		0.87	ppb	0.025	0.430	mg / Kg		

FRAC M021283-022

Assaigai Analytical Laboratories, Inc.

Analytical Result Summary

0209373-13A By 277 Dilution

Run Group	MT.2002.1110	48
Calc Method	6020	
Prep Method	MS3050	
Prep Matrix	SOLID	

Prepared	09-23-02 8:08:51	JRE	0.9625
Analyzed	09-24-02 17:15:00	JWB	100
Calibration	09-24-02 10:46:00		
Quant	09-24-02 17:22:00		049SMPL.D#

r	C#	Analyte	QMass	m	Raw Quant	As	MRL	Report	As	Qual	f
	3	Be-9	9		0.1	ppb	0.025	< 2.41	mg / Kg		
	4	B-11	11		-1.35	ppb	0.15	< 14.4	mg / Kg		
	5	Na-23	23		21.11	ppb	0.5	102	mg / Kg		
	6	Mg-24	24		276.2	ppb	0.5	1330	mg / Kg		
	7	Mg-25	25		282.2	ppb	0.5	1360	mg / Kg		
	8	Mg-26	26		280.5	ppb	0.5	1350	mg / Kg		
x	9	Al-27 >5x MB	27		1819	ppb	0.5	8750	mg / Kg		
	10	Si-28	28		175.2	ppb	1	843	mg / Kg		
	11	K-39	39		184.8	ppb	0.5	889	mg / Kg		
	13	Ca-43	43		291.4	ppb	0.5	1400	mg / Kg		
	14	Ca-44	44		283.6	ppb	0.5	1360	mg / Kg		
x	16	Ti-47 >5x MB	47		59.52	ppb	0.025	286	mg / Kg		
	17	V-51	51		3.07	ppb	0.05	14.8	mg / Kg		
	18	Cr-52	52		3.62	ppb	0.05	17.4	mg / Kg		
	19	Cr-53	53		25.44	ppb	0.25	122	mg / Kg		
	20	Fe-54	54		2276	ppb	0.5	11000	mg / Kg		
x	21	Mn-55 >5x MB	55		47.71	ppb	0.025	230	mg / Kg		
x	22	Fe-57 >5x MB	57		2295	ppb	0.5	11000	mg / Kg		
	23	Co-59	59		0.17	ppb	0.025	< 2.41	mg / Kg		
	24	Ni-60	60		1.01	ppb	0.025	4.86	mg / Kg		
	25	Cu-63	63		0.97	ppb	0.025	4.67	mg / Kg		
	26	Cu-65	65		1.04	ppb	0.025	5.00	mg / Kg		
	27	Zn-66	66		9.48	ppb	0.25	45.6	mg / Kg		
	28	Zn-67	67		10.91	ppb	0.25	52.5	mg / Kg		
	29	Zn-68	68		8.76	ppb	0.25	42.2	mg / Kg		
	32	As-75	75		0.58	ppb	0.025	2.79	mg / Kg		
	34	Se-82	82		0.15	ppb	0.025	< 2.41	mg / Kg		
	37	Sr-87	87		10.33	ppb	0.025	49.7	mg / Kg		
	40	Mo-95	95		0.21	ppb	0.025	< 2.41	mg / Kg		
	41	Mo-98	98		0.16	ppb	0.025	< 2.41	mg / Kg		
	43	Ag-107	107		0.02	ppb	0.025	< 2.41	mg / Kg		
	45	Ag-109	109		0.02	ppb	0.025	< 2.41	mg / Kg		
	46	Cd-111	111		0.06	ppb	0.025	< 2.41	mg / Kg		
	47	Cd-114	114		0.04	ppb	0.025	< 2.41	mg / Kg		
	50	Sn-120	120		0.34	ppb	0.025	< 2.41	mg / Kg		
	51	Sb-121	121		-0.09	ppb	0.05	< 4.81	mg / Kg		
	52	Sb-123	123		-0.04	ppb	0.05	< 4.81	mg / Kg		
	53	Ba-135	135		13.48	ppb	0.025	64.9	mg / Kg		
	54	Tb-159	159		0	ppb	0.001	< 0.096	mg / Kg		
	55	Au-197	197		-0.04	ppb	0.025	< 2.41	mg / Kg		
	56	Tl-205	205		-0.3	ppb	0.025	< 2.41	mg / Kg		
	59	Pb-208	208		3.14	ppb	0.025	15.1	mg / Kg		
	61	U-238	238		0.08	ppb	0.025	< 2.41	mg / Kg		

FRAC M021283-022

Assaigai Analytical Laboratories, Inc.

Analytical Result Summary

0209373-13A By 278 Dilution

Run Group	MT.2002.1110	49	
Calc Method	6020		
Prep Method	MS3050		
Prep Matrix	SOLID		

Prepared	09-23-02 8:08:51	JRE	0.9625
Analyzed	09-24-02 17:24:00	JWB	10
Calibration	09-24-02 10:46:00		
Quant	09-24-02 17:31:00	050SMPL.D#	

r	C#	Analyte	QMass	m	Raw Quant	As	MRL	Report	As	Qual	f
x	3	Be-9	9		1.22	ppb	0.025	0.587	mg / Kg		
x	4	B-11	11		0.97	ppb	0.15	< 1.44	mg / Kg		
x	5	Na-23 >5x MB	23		177.4	ppb	0.5	85.4	mg / Kg		
x	6	Mg-24 >5x MB	24		2498	ppb	0.5	1200	mg / Kg		
	7	Mg-25	25		2598	ppb	0.5	1250	mg / Kg		
	8	Mg-26	26		2498	ppb	0.5	1200	mg / Kg		
	9	Al-27	27		16940	ppb	0.5	8150	mg / Kg		x
x	10	Si-28 (E)	28		448.1	ppb	1	216	mg / Kg		
x	11	K-39 >5x MB	39		1610	ppb	0.5	775	mg / Kg		
x	13	Ca-43 >5x MB	43		2502	ppb	0.5	1200	mg / Kg		
	14	Ca-44	44		2504	ppb	0.5	1200	mg / Kg		
	16	Ti-47	47		557	ppb	0.025	268	mg / Kg		x
x	17	V-51	51		23.09	ppb	0.05	11.1	mg / Kg		
x	18	Cr-52	52		29	ppb	0.05	14.0	mg / Kg		
	19	Cr-53	53		37.62	ppb	0.25	18.1	mg / Kg		
	20	Fe-54	54		20310	ppb	0.5	9770	mg / Kg		x
	21	Mn-55	55		431	ppb	0.025	207	mg / Kg		x
	22	Fe-57	57		21420	ppb	0.5	10300	mg / Kg		x
x	23	Co-59	59		4.05	ppb	0.025	1.95	mg / Kg		
x	24	Ni-60	60		9.5	ppb	0.025	4.57	mg / Kg		
x	25	Cu-63 >5x MB	63		8.32	ppb	0.025	4.00	mg / Kg		
	26	Cu-65	65		8.47	ppb	0.025	4.08	mg / Kg		
x	27	Zn-66	66		80.57	ppb	0.25	38.8	mg / Kg		
	28	Zn-67	67		82.06	ppb	0.25	39.5	mg / Kg		
	29	Zn-68	68		72.73	ppb	0.25	35.0	mg / Kg		
x	32	As-75	75		4.21	ppb	0.025	2.02	mg / Kg		
x	34	Se-82	82		1.01	ppb	0.025	0.486	mg / Kg		
x	37	Sr-87	87		100.4	ppb	0.025	48.3	mg / Kg		
x	40	Mo-95 >5x MB	95		2.22	ppb	0.025	1.07	mg / Kg		
	41	Mo-98	98		2.17	ppb	0.025	1.04	mg / Kg		
x	43	Ag-107	107		0.48	ppb	0.025	< 0.241	mg / Kg		
	45	Ag-109	109		0.48	ppb	0.025	< 0.241	mg / Kg		
x	46	Cd-111	111		0.46	ppb	0.025	< 0.241	mg / Kg		
	47	Cd-114	114		0.19	ppb	0.025	< 0.241	mg / Kg		
x	50	Sn-120	120		3.7	ppb	0.025	1.78	mg / Kg		
x	51	Sb-121 (B)	121		-0.03	ppb	0.05	< 0.481	mg / Kg		
	52	Sb-123	123		0	ppb	0.05	< 0.481	mg / Kg		
x	53	Ba-135	135		135.2	ppb	0.025	65.1	mg / Kg		
	54	Tb-159	159		0	ppb	0.001	< 0.010	mg / Kg		
	55	Au-197	197		0.03	ppb	0.025	< 0.241	mg / Kg		
x	56	Tl-205	205		0.04	ppb	0.025	< 0.241	mg / Kg		
x	59	Pb-208 >5x MB	208		33.02	ppb	0.025	15.9	mg / Kg		
x	61	U-238	238		0.8	ppb	0.025	0.385	mg / Kg		

Coyote 2001: Calculation 1.0.020729144500

Report Date 9/25/2002 9:50:09 AM

FRAC M021283-023

Assaigai Analytical Laboratories, Inc.

Analytical Result Summary

0209373-14A

Run Group	MT.2002.1110	50
Calc Method	6020	
Prep Method	MS3050	
Prep Matrix	SOLID	

		By	Dilution
Prepared	09-23-02 8:08:51	JRE	0.9862
Analyzed	09-24-02 17:33:00	JWB	100
Calibration	09-24-02 10:46:00		
Quant	09-24-02 17:40:00	051SMPL.D#	

r	C#	Analyte		QMass	m	Raw Quant	As	MRL	Report	As	Qual	f
	3	Be-9		9		0.08	ppb	0.025	< 2.46	mg / Kg		
	4	B-11		11		-1.66	ppb	0.15	< 14.8	mg / Kg		
	5	Na-23		23		28.97	ppb	0.5	143	mg / Kg		
	6	Mg-24		24		116	ppb	0.5	572	mg / Kg		
	7	Mg-25		25		118.4	ppb	0.5	584	mg / Kg		
	8	Mg-26		26		116.4	ppb	0.5	574	mg / Kg		
	9	Al-27		27		864.8	ppb	0.5	4260	mg / Kg		
	10	Si-28		28		207.3	ppb	1	1020	mg / Kg		
	11	K-39		39		107.1	ppb	0.5	528	mg / Kg		
	13	Ca-43		43		181.9	ppb	0.5	897	mg / Kg		
	14	Ca-44		44		185.7	ppb	0.5	916	mg / Kg		
x	16	Ti-47	>5x MB	47		33.21	ppb	0.025	164	mg / Kg		
	17	V-51		51		1.55	ppb	0.05	7.64	mg / Kg		
	18	Cr-52		52		0.97	ppb	0.05	< 4.93	mg / Kg		
	19	Cr-53		53		8.52	ppb	0.25	42.0	mg / Kg		
	20	Fe-54		54		1211	ppb	0.5	5970	mg / Kg		
x	21	Mn-55	>5x MB	55		36.2	ppb	0.025	178	mg / Kg		
x	22	Fe-57	>5x MB	57		1210	ppb	0.5	5970	mg / Kg		
	23	Co-59		59		-0.15	ppb	0.025	< 2.46	mg / Kg		
	24	Ni-60		60		0.34	ppb	0.025	< 2.46	mg / Kg		
	25	Cu-63		63		0.45	ppb	0.025	< 2.46	mg / Kg		
	26	Cu-65		65		0.44	ppb	0.025	< 2.46	mg / Kg		
	27	Zn-66		66		6.61	ppb	0.25	32.6	mg / Kg		
	28	Zn-67		67		6.84	ppb	0.25	33.7	mg / Kg		
	29	Zn-68		68		6.21	ppb	0.25	30.6	mg / Kg		
	32	As-75		75		0.62	ppb	0.025	3.06	mg / Kg		
	34	Se-82		82		0.15	ppb	0.025	< 2.46	mg / Kg		
	37	Sr-87		87		5.47	ppb	0.025	27.0	mg / Kg		
	40	Mo-95		95		0.14	ppb	0.025	< 2.46	mg / Kg		
	41	Mo-98		98		0.13	ppb	0.025	< 2.46	mg / Kg		
	43	Ag-107		107		-0.02	ppb	0.025	< 2.46	mg / Kg		
	45	Ag-109		109		-0.03	ppb	0.025	< 2.46	mg / Kg		
	46	Cd-111		111		0	ppb	0.025	< 2.46	mg / Kg		
	47	Cd-114		114		0.03	ppb	0.025	< 2.46	mg / Kg		
	50	Sn-120		120		0.32	ppb	0.025	< 2.46	mg / Kg		
	51	Sb-121		121		-0.1	ppb	0.05	< 4.93	mg / Kg		
	52	Sb-123		123		-0.05	ppb	0.05	< 4.93	mg / Kg		
	53	Ba-135		135		5.15	ppb	0.025	25.4	mg / Kg		
	54	Tb-159		159		0	ppb	0.001	< 0.099	mg / Kg		
	55	Au-197		197		-0.06	ppb	0.025	< 2.46	mg / Kg		
	56	Tl-205		205		-0.34	ppb	0.025	< 2.46	mg / Kg		
	59	Pb-208		208		0.7	ppb	0.025	3.45	mg / Kg		
	61	U-238		238		0.08	ppb	0.025	< 2.46	mg / Kg		

FRAC M021283-023

Assaigai Analytical Laboratories, Inc.

Analytical Result Summary

0209373-14A By 28U Dilution

Run Group	MT.2002.1110	51
Calc Method	6020	
Prep Method	MS3050	
Prep Matrix	SOLID	

Prepared	09-23-02 8:08:51	JRE	0.9862
Analyzed	09-24-02 17:42:00	JWB	10
Calibration	09-24-02 10:46:00		
Quant	09-24-02 17:50:00	052SMPL.D#	

r	C#	Analyte	QMass	m	Raw Quant	As	MRL	Report	As	Qual	f
x	3	Be-9	9		0.84	ppb	0.025	0.414	mg / Kg		
x	4	B-11	11		-0.29	ppb	0.15	< 1.48	mg / Kg		
x	5	Na-23 >5x MB	23		246.3	ppb	0.5	121	mg / Kg		
x	6	Mg-24 >5x MB	24		1047	ppb	0.5	516	mg / Kg		
	7	Mg-25	25		1106	ppb	0.5	545	mg / Kg		
	8	Mg-26	26		1080	ppb	0.5	532	mg / Kg		
x	9	Al-27 >5x MB	27		8105	ppb	0.5	4000	mg / Kg		
x	10	Si-28 (E)	28		460.2	ppb	1	227	mg / Kg		
x	11	K-39 >5x MB	39		951.4	ppb	0.5	469	mg / Kg		
x	13	Ca-43 >5x MB	43		1667	ppb	0.5	822	mg / Kg		
	14	Ca-44	44		1662	ppb	0.5	820	mg / Kg		
	16	Ti-47	47		317.4	ppb	0.025	156	mg / Kg		x
x	17	V-51	51		8.53	ppb	0.05	4.21	mg / Kg		
x	18	Cr-52	52		5.14	ppb	0.05	2.53	mg / Kg		
	19	Cr-53	53		18.32	ppb	0.25	9.03	mg / Kg		
	20	Fe-54	54		11140	ppb	0.5	5490	mg / Kg		x
	21	Mn-55	55		335.8	ppb	0.025	166	mg / Kg		x
	22	Fe-57	57		11750	ppb	0.5	5790	mg / Kg		x
x	23	Co-59	59		1.12	ppb	0.025	0.552	mg / Kg		
x	24	Ni-60	60		3.52	ppb	0.025	1.74	mg / Kg		
x	25	Cu-63 >5x MB	63		11.34	ppb	0.025	5.59	mg / Kg		
	26	Cu-65	65		11.44	ppb	0.025	5.64	mg / Kg		
x	27	Zn-66	66		51.78	ppb	0.25	25.5	mg / Kg		
	28	Zn-67	67		51.54	ppb	0.25	25.4	mg / Kg		
	29	Zn-68	68		47.94	ppb	0.25	23.6	mg / Kg		
x	32	As-75	75		2.16	ppb	0.025	1.06	mg / Kg		
x	34	Se-82	82		0.92	ppb	0.025	0.454	mg / Kg		
x	37	Sr-87	87		52.9	ppb	0.025	26.1	mg / Kg		
x	40	Mo-95 >5x MB	95		1.65	ppb	0.025	0.814	mg / Kg		
	41	Mo-98	98		1.57	ppb	0.025	0.774	mg / Kg		
x	43	Ag-107	107		0.05	ppb	0.025	< 0.246	mg / Kg		
	45	Ag-109	109		0.05	ppb	0.025	< 0.246	mg / Kg		
x	46	Cd-111	111		0.2	ppb	0.025	< 0.246	mg / Kg		
	47	Cd-114	114		0.06	ppb	0.025	< 0.246	mg / Kg		
x	50	Sn-120 (B)	120		3.43	ppb	0.025	1.69	mg / Kg		
x	51	Sb-121	121		-0.07	ppb	0.05	< 0.493	mg / Kg		
	52	Sb-123	123		-0.01	ppb	0.05	< 0.493	mg / Kg		
x	53	Ba-135	135		51.05	ppb	0.025	25.2	mg / Kg		
	54	Tb-159	159		0	ppb	0.001	< 0.010	mg / Kg		
	55	Au-197	197		-0.06	ppb	0.025	< 0.246	mg / Kg		
x	56	Tl-205	205		-0.27	ppb	0.025	< 0.246	mg / Kg		
x	59	Pb-208 >5x MB	208		9.38	ppb	0.025	4.62	mg / Kg		
x	61	U-238	238		0.82	ppb	0.025	0.404	mg / Kg		

FRAC M021283-024

Assaigai Analytical Laboratories, Inc.

Analytical Result Summary

0209373-15A

Run Group	MT.2002.110	52	
Calc Method	6020		
Prep Method	MS3050		
Prep Matrix	SOLID		

		By	Dilution
Prepared	09-23-02 8:08:51	JRE	0.9225
Analyzed	09-24-02 17:52:00	JWB	100
Calibration	09-24-02 10:46:00		
Quant	09-24-02 17:59:00	053SMPL.D#	

r	C#	Analyte	QMass	m	Raw Quant	As	MRL	Report	As	Qual	f
	3	Be-9	9		0.08	ppb	0.025	< 2.31	mg / Kg		
	4	B-11	11		-1.6	ppb	0.15	< 13.8	mg / Kg		
	5	Na-23	23		131.9	ppb	0.5	608	mg / Kg		
	6	Mg-24	24		152.8	ppb	0.5	705	mg / Kg		
	7	Mg-25	25		152.2	ppb	0.5	702	mg / Kg		
	8	Mg-26	26		151.7	ppb	0.5	700	mg / Kg		
	9	Al-27	27		856.7	ppb	0.5	3950	mg / Kg		
	10	Si-28	28		173.3	ppb	1	799	mg / Kg		
	11	K-39	39		122.5	ppb	0.5	565	mg / Kg		
	13	Ca-43	43		170	ppb	0.5	784	mg / Kg		
	14	Ca-44	44		170.3	ppb	0.5	786	mg / Kg		
x	16	Ti-47 >5x MB	47		57.8	ppb	0.025	267	mg / Kg		
	17	V-51	51		1.6	ppb	0.05	7.38	mg / Kg		
	18	Cr-52	52		3.41	ppb	0.05	15.7	mg / Kg		
	19	Cr-53	53		12.77	ppb	0.25	58.9	mg / Kg		
	20	Fe-54	54		1652	ppb	0.5	7620	mg / Kg		
x	21	Mn-55 >5x MB	55		51.3	ppb	0.025	237	mg / Kg		
x	22	Fe-57 >5x MB	57		1632	ppb	0.5	7530	mg / Kg		
	23	Co-59	59		-0.02	ppb	0.025	< 2.31	mg / Kg		
	24	Ni-60	60		0.97	ppb	0.025	4.47	mg / Kg		
	25	Cu-63	63		2.52	ppb	0.025	11.6	mg / Kg		
	26	Cu-65	65		2.49	ppb	0.025	11.5	mg / Kg		
	27	Zn-66	66		15.7	ppb	0.25	72.4	mg / Kg		
	28	Zn-67	67		15.41	ppb	0.25	71.1	mg / Kg		
	29	Zn-68	68		15.54	ppb	0.25	71.7	mg / Kg		
	32	As-75	75		0.33	ppb	0.025	< 2.31	mg / Kg		
	34	Se-82	82		0.13	ppb	0.025	< 2.31	mg / Kg		
	37	Sr-87	87		5.23	ppb	0.025	24.1	mg / Kg		
	40	Mo-95	95		0.13	ppb	0.025	< 2.31	mg / Kg		
	41	Mo-98	98		0.14	ppb	0.025	< 2.31	mg / Kg		
	43	Ag-107	107		0.1	ppb	0.025	< 2.31	mg / Kg		
	45	Ag-109	109		0.09	ppb	0.025	< 2.31	mg / Kg		
	46	Cd-111	111		0.09	ppb	0.025	< 2.31	mg / Kg		
	47	Cd-114	114		0.07	ppb	0.025	< 2.31	mg / Kg		
	50	Sn-120	120		0.31	ppb	0.025	< 2.31	mg / Kg		
	51	Sb-121	121		-0.1	ppb	0.05	< 4.61	mg / Kg		
	52	Sb-123	123		-0.05	ppb	0.05	< 4.61	mg / Kg		
	53	Ba-135	135		6.3	ppb	0.025	29.0	mg / Kg		
	54	Tb-159	159		0	ppb	0.001	< 0.092	mg / Kg		
	55	Au-197	197		-0.03	ppb	0.025	< 2.31	mg / Kg		
	56	Tl-205	205		-0.33	ppb	0.025	< 2.31	mg / Kg		
	59	Pb-208	208		3	ppb	0.025	13.8	mg / Kg		
	61	U-238	238		0.09	ppb	0.025	< 2.31	mg / Kg		

FRAC M021283-024

Assaigai Analytical Laboratories, Inc.

Analytical Result Summary

0209373-15A

			By	Dilution
Prepared	09-23-02 8:08:51	JRE		0.9225
Analyzed	09-24-02 18:01:00	JWB		10
Calibration	09-24-02 10:46:00			
Quant	09-24-02 18:08:00		054SMPL.D#	

Run Group	MT.2002.1110	53
Calc Method	6020	
Prep Method	MS3050	
Prep Matrix	SOLID	

r	C#	Analyte	QMass	m	Raw Quant	As	MRL	Report	As	Qual	f
x	3	Be-9	9		0.77	ppb	0.025	0.355	mg / Kg		
x	4	B-11	11		-0.63	ppb	0.15	< 1.38	mg / Kg		
x	5	Na-23 >5x MB	23		993.7	ppb	0.5	458	mg / Kg		
x	6	Mg-24 >5x MB	24		1343	ppb	0.5	619	mg / Kg		
	7	Mg-25	25		1402	ppb	0.5	647	mg / Kg		
	8	Mg-26	26		1380	ppb	0.5	636	mg / Kg		
x	9	Al-27 >5x MB	27		7436	ppb	0.5	3430	mg / Kg		
x	10	Si-28 (E)	28		504.5	ppb	1	233	mg / Kg		
x	11	K-39 >5x MB	39		1085	ppb	0.5	500	mg / Kg		
x	13	Ca-43 >5x MB	43		1458	ppb	0.5	672	mg / Kg		
	14	Ca-44	44		1435	ppb	0.5	662	mg / Kg		
	16	Ti-47	47		565.2	ppb	0.025	261	mg / Kg		x
x	17	V-51	51		16.75	ppb	0.05	7.73	mg / Kg		
x	18	Cr-52	52		29.72	ppb	0.05	13.7	mg / Kg		
	19	Cr-53	53		34.92	ppb	0.25	16.1	mg / Kg		
	20	Fe-54	54		15200	ppb	0.5	7010	mg / Kg		x
	21	Mn-55	55		506.5	ppb	0.025	234	mg / Kg		x
	22	Fe-57	57		15980	ppb	0.5	7370	mg / Kg		x
x	23	Co-59	59		2.53	ppb	0.025	1.17	mg / Kg		
x	24	Ni-60	60		9.14	ppb	0.025	4.22	mg / Kg		
x	25	Cu-63 >5x MB	63		22.2	ppb	0.025	10.2	mg / Kg		
	26	Cu-65	65		22.62	ppb	0.025	10.4	mg / Kg		
x	27	Zn-66	66		119.8	ppb	0.25	55.2	mg / Kg		
	28	Zn-67	67		115.7	ppb	0.25	53.4	mg / Kg		
	29	Zn-68	68		117.4	ppb	0.25	54.2	mg / Kg		
x	32	As-75	75		2.81	ppb	0.025	1.30	mg / Kg		
x	34	Se-82	82		1.05	ppb	0.025	0.484	mg / Kg		
x	37	Sr-87	87		51.78	ppb	0.025	23.9	mg / Kg		
x	40	Mo-95 >5x MB	95		1.77	ppb	0.025	0.816	mg / Kg		
	41	Mo-98	98		1.76	ppb	0.025	0.812	mg / Kg		
x	43	Ag-107	107		1.1	ppb	0.025	0.507	mg / Kg		
	45	Ag-109	109		1.18	ppb	0.025	0.544	mg / Kg		
x	46	Cd-111	111		0.83	ppb	0.025	0.383	mg / Kg		
	47	Cd-114	114		0.6	ppb	0.025	0.277	mg / Kg		
x	50	Sn-120 (B)	120		3.63	ppb	0.025	1.67	mg / Kg		
x	51	Sb-121	121		-0.05	ppb	0.05	< 0.461	mg / Kg		
	52	Sb-123	123		0	ppb	0.05	< 0.461	mg / Kg		
x	53	Ba-135	135		62.44	ppb	0.025	28.8	mg / Kg		
	54	Tb-159	159		0	ppb	0.001	< 0.009	mg / Kg		
	55	Au-197	197		0	ppb	0.025	< 0.231	mg / Kg		
x	56	Tl-205	205		-0.07	ppb	0.025	< 0.231	mg / Kg		
x	59	Pb-208 >5x MB	208		31.53	ppb	0.025	14.5	mg / Kg		
x	61	U-238	238		0.85	ppb	0.025	0.392	mg / Kg		

STD-CCV [STD-CCV]

Run Group	MT.2002.1110	54
Calc Method	6020	
Prep Method	LAB	
Prep Matrix	LAB	

Assaigai Analytical Laboratories, Inc.

Analytical Result Summary

		By	Dilution
Prepared			1
Analyzed	09-24-02 18:19:00	JWB	1
Calibration	09-24-02 10:46:00		
Quant	09-24-02 18:26:00	056CCV .D#	

r	C#	Analyte	QMass	m	Raw Quant	As	MRL	Report	As	Qual	f
	3	Be-9	9		93.86	ppb	1	94	% Recovery		
	4	B-11	11		98.9	ppb	1	99	% Recovery		
	5	Na-23	23		999.8	ppb	1	100	% Recovery		
	6	Mg-24	24		988.8	ppb	1	99	% Recovery		
	7	Mg-25	25		1071	ppb	1	107	% Recovery		
	8	Mg-26	26		1038	ppb	1	104	% Recovery		
	9	Al-27	27		1006	ppb	1	101	% Recovery		
	10	Si-28	28		1058	ppb	1	106	% Recovery		
	11	K-39	39		1029	ppb	1	103	% Recovery		
	13	Ca-43	43		993.2	ppb	1	99	% Recovery		
	14	Ca-44	44		1010	ppb	1	101	% Recovery		
	16	Ti-47	47		104.3	ppb	1	104	% Recovery		
	17	V-51	51		104.2	ppb	1	104	% Recovery		
	18	Cr-52	52		106.5	ppb	1	106	% Recovery		
	19	Cr-53	53		115.2	ppb	1	115	% Recovery		x
	20	Fe-54	54		1186	ppb	1	119	% Recovery		x
	21	Mn-55	55		107.7	ppb	1	108	% Recovery		
	22	Fe-57	57		1100	ppb	1	110	% Recovery		
	23	Co-59	59		107.5	ppb	1	108	% Recovery		
	24	Ni-60	60		107.2	ppb	1	107	% Recovery		
	25	Cu-63	63		107.6	ppb	1	108	% Recovery		
	26	Cu-65	65		109.1	ppb	1	109	% Recovery		
	27	Zn-66	66		103.6	ppb	1	104	% Recovery		
	28	Zn-67	67		103.3	ppb	1	103	% Recovery		
	29	Zn-68	68		104.8	ppb	1	105	% Recovery		
	32	As-75	75		105.8	ppb	1	106	% Recovery		
	34	Se-82	82		106.9	ppb	1	107	% Recovery		
	37	Sr-87	87		103.9	ppb	1	104	% Recovery		
	40	Mo-95	95		94.6	ppb	1	95	% Recovery		
	41	Mo-98	98		95.69	ppb	1	96	% Recovery		
	43	Ag-107	107		99.62	ppb	1	100	% Recovery		
	45	Ag-109	109		99.85	ppb	1	100	% Recovery		
	46	Cd-111	111		100.4	ppb	1	100	% Recovery		
	47	Cd-114	114		100.7	ppb	1	101	% Recovery		
	50	Sn-120	120		101.5	ppb	1	102	% Recovery		
	51	Sb-121	121		101.3	ppb	1	101	% Recovery		
	52	Sb-123	123		101.4	ppb	1	101	% Recovery		
	53	Ba-135	135		103	ppb	1	103	% Recovery		
	54	Tb-159	159		0	ppb	1	< 1	% Recovery		x
	55	Au-197	197		99.27	ppb	1	99	% Recovery		
	58	Tl-205	205		98.41	ppb	1	98	% Recovery		
	59	Pb-208	208		100.1	ppb	1	100	% Recovery		
	61	U-238	238		99.41	ppb	1	99	% Recovery		

CB [CB]

Assaigai Analytical Laboratories, Inc.

Analytical Result Summary

Run Group	MT.2002.1110	55
Calc Method	6020	
Prep Method	LAB	
Prep Matrix	LAB	

		By	Dilution
Prepared			1
Analyzed	09-24-02 18:28:00	JWB	1
Calibration	09-24-02 10:46:00		
Quant	09-24-02 18:35:00		057CCB .D#

r	C#	Analyte	QMass	m	Raw Quant	As	MRL	Report	As	Qual	f
	3	Be-9	9		0.03	ppb	0.001	< 0.001	mg / L		
	4	B-11	11		0.23	ppb	0.001	< 0.001	mg / L		
	5	Na-23	23		0.02	ppb	0.01	< 0.010	mg / L		
	6	Mg-24	24		0.37	ppb	0.01	< 0.010	mg / L		
	7	Mg-25	25		0.4	ppb	0.01	< 0.010	mg / L		
	8	Mg-26	26		0.41	ppb	0.01	< 0.010	mg / L		
	9	Al-27	27		3.17	ppb	0.01	< 0.010	mg / L		
	10	Si-28	28		46.07	ppb	0.001	0.046	mg / L		x
	11	K-39	39		6.38	ppb	0.01	< 0.010	mg / L		
	13	Ca-43	43		3.14	ppb	0.01	< 0.010	mg / L		
	14	Ca-44	44		1.47	ppb	0.01	< 0.010	mg / L		
	16	Ti-47	47		0	ppb	0.001	< 0.001	mg / L		
	17	V-51	51		0.75	ppb	0.001	< 0.001	mg / L		
	18	Cr-52	52		0.87	ppb	0.001	< 0.001	mg / L		
	19	Cr-53	53		25.54	ppb	0.001	0.026	mg / L		x
	20	Fe-54	54		74.32	ppb	0.01	0.074	mg / L		x
	21	Mn-55	55		0.09	ppb	0.001	< 0.001	mg / L		
	22	Fe-57	57		12.01	ppb	0.01	0.012	mg / L		x
	23	Co-59	59		-0.14	ppb	0.001	< 0.001	mg / L		
	24	Ni-60	60		-0.02	ppb	0.001	< 0.001	mg / L		
	25	Cu-63	63		0.03	ppb	0.001	< 0.001	mg / L		
	26	Cu-65	65		0.02	ppb	0.001	< 0.001	mg / L		
	27	Zn-66	66		0.07	ppb	0.001	< 0.001	mg / L		
	28	Zn-67	67		2.29	ppb	0.001	0.002	mg / L		x
	29	Zn-68	68		0.25	ppb	0.001	< 0.001	mg / L		
	32	As-75	75		0.57	ppb	0.001	< 0.001	mg / L		
	34	Se-82	82		0.17	ppb	0.001	< 0.001	mg / L		
	37	Sr-87	87		0.03	ppb	0.001	< 0.001	mg / L		
	40	Mo-95	95		0.2	ppb	0.001	< 0.001	mg / L		
	41	Mo-98	98		0.21	ppb	0.001	< 0.001	mg / L		
	43	Ag-107	107		0.02	ppb	0.001	< 0.001	mg / L		
	45	Ag-109	109		0.02	ppb	0.001	< 0.001	mg / L		
	46	Cd-111	111		0.02	ppb	0.001	< 0.001	mg / L		
	47	Cd-114	114		0.06	ppb	0.001	< 0.001	mg / L		
	50	Sn-120	120		0.02	ppb	0.001	< 0.001	mg / L		
	51	Sb-121	121		0.08	ppb	0.001	< 0.001	mg / L		
	52	Sb-123	123		0.11	ppb	0.001	< 0.001	mg / L		
	53	Ba-135	135		0.02	ppb	0.001	< 0.001	mg / L		
	54	Tb-159	159		0	ppb	0.001	< 0.001	mg / L		
	55	Au-197	197		0.5	ppb	0.001	< 0.001	mg / L		
	56	Tl-205	205		0.32	ppb	0.001	< 0.001	mg / L		
	59	Pb-208	208		-0.12	ppb	0.001	< 0.001	mg / L		
	61	U-238	238		0.04	ppb	0.001	< 0.001	mg / L		

STD-CCV [STD-CCV]

Assaigai Analytical Laboratories, Inc.

Analytical Result Summary

Run Group	MT.2002.1110	63
Calc Method	6020	
Prep Method	LAB	
Prep Matrix	LAB	

		By	Dilution
Prepared			1
Analyzed	09-24-02 19:41:00	JWB	1
Calibration	09-24-02 10:46:00		
Quant	09-24-02 19:49:00	065CCV .D#	

r	C#	Analyte	QMass	m	Raw Quant	As	MRL	Report	As	Qual	f
	3	Be-9	9		95.92	ppb	1	96	% Recovery		
	4	B-11	11		102	ppb	1	102	% Recovery		
	5	Na-23	23		1009	ppb	1	101	% Recovery		
	6	Mg-24	24		1083	ppb	1	108	% Recovery		
	7	Mg-25	25		1091	ppb	1	109	% Recovery		
	8	Mg-26	26		1062	ppb	1	106	% Recovery		
	9	Al-27	27		1027	ppb	1	103	% Recovery		
	10	Si-28	28		1155	ppb	1	116	% Recovery		x
	11	K-39	39		1044	ppb	1	104	% Recovery		
	13	Ca-43	43		1021	ppb	1	102	% Recovery		
	14	Ca-44	44		1015	ppb	1	102	% Recovery		
	16	Ti-47	47		103.6	ppb	1	104	% Recovery		
	17	V-51	51		103.2	ppb	1	103	% Recovery		
	18	Cr-52	52		102.8	ppb	1	103	% Recovery		
	19	Cr-53	53		101	ppb	1	101	% Recovery		
	20	Fe-54	54		1110	ppb	1	111	% Recovery		x
	21	Mn-55	55		102.7	ppb	1	103	% Recovery		
	22	Fe-57	57		1040	ppb	1	104	% Recovery		
	23	Co-59	59		102.4	ppb	1	102	% Recovery		
	24	Ni-60	60		104.2	ppb	1	104	% Recovery		
	25	Cu-63	63		103.9	ppb	1	104	% Recovery		
	26	Cu-65	65		105.4	ppb	1	105	% Recovery		
	27	Zn-66	66		103	ppb	1	103	% Recovery		
	28	Zn-67	67		101.7	ppb	1	102	% Recovery		
	29	Zn-68	68		103.4	ppb	1	103	% Recovery		
	32	As-75	75		103.8	ppb	1	104	% Recovery		
	34	Se-82	82		104.3	ppb	1	104	% Recovery		
	37	Sr-87	87		100.8	ppb	1	101	% Recovery		
	40	Mo-95	95		95.45	ppb	1	95	% Recovery		
	41	Mo-98	98		95.91	ppb	1	96	% Recovery		
	43	Ag-107	107		98.94	ppb	1	99	% Recovery		
	45	Ag-109	109		99.34	ppb	1	99	% Recovery		
	46	Cd-111	111		98.61	ppb	1	99	% Recovery		
	47	Cd-114	114		99.17	ppb	1	99	% Recovery		
	50	Sn-120	120		100	ppb	1	100	% Recovery		
	51	Sb-121	121		99.58	ppb	1	100	% Recovery		
	52	Sb-123	123		100.5	ppb	1	100	% Recovery		
	53	Ba-135	135		100.4	ppb	1	100	% Recovery		
	54	Tb-159	159		0	ppb	1	< 1	% Recovery		x
	55	Au-197	197		97.4	ppb	1	97	% Recovery		
	56	Tl-205	205		96.53	ppb	1	96	% Recovery		
	59	Pb-208	208		98.23	ppb	1	98	% Recovery		
	61	U-238	238		97.25	ppb	1	97	% Recovery		

CB [CB]

Assaigai Analytical Laboratories, Inc.

Analytical Result Summary

Run Group	MT.2002.1110	64
Calc Method	6020	
Prep Method	LAB	
Prep Matrix	LAB	

		By	Dilution
Prepared			1
Analyzed	09-24-02 19:51:00	JWB	1
Calibration	09-24-02 10:46:00		
Quant	09-24-02 19:58:00	068CCB .D#	

r	C#	Analyte	QMass	m	Raw Quant	As	MRL	Report	As	Qual	f
	3	Be-9	9		0.03	ppb	0.001	< 0.001	mg/L		
	4	B-11	11		-0.08	ppb	0.001	< 0.001	mg/L		
	5	Na-23	23		2.68	ppb	0.01	< 0.010	mg/L		
	6	Mg-24	24		2.33	ppb	0.01	< 0.010	mg/L		
	7	Mg-25	25		2.33	ppb	0.01	< 0.010	mg/L		
	8	Mg-26	26		2.29	ppb	0.01	< 0.010	mg/L		
	9	Al-27	27		5.78	ppb	0.01	< 0.010	mg/L		
	10	Si-28	28		28.27	ppb	0.001	0.028	mg/L		x
	11	K-39	39		6.46	ppb	0.01	< 0.010	mg/L		
	13	Ca-43	43		3.26	ppb	0.01	< 0.010	mg/L		
	14	Ca-44	44		3.48	ppb	0.01	< 0.010	mg/L		
	16	Ti-47	47		0.24	ppb	0.001	< 0.001	mg/L		
	17	V-51	51		0.7	ppb	0.001	< 0.001	mg/L		
	18	Cr-52	52		0.75	ppb	0.001	< 0.001	mg/L		
	19	Cr-53	53		15.46	ppb	0.001	0.015	mg/L		x
	20	Fe-54	54		49.88	ppb	0.01	0.050	mg/L		x
	21	Mn-55	55		0.08	ppb	0.001	< 0.001	mg/L		
	22	Fe-57	57		10.92	ppb	0.01	0.011	mg/L		x
	23	Co-59	59		-0.27	ppb	0.001	< 0.001	mg/L		
	24	Ni-60	60		-0.04	ppb	0.001	< 0.001	mg/L		
	25	Cu-63	63		0.04	ppb	0.001	< 0.001	mg/L		
	26	Cu-65	65		0.01	ppb	0.001	< 0.001	mg/L		
	27	Zn-66	66		0.06	ppb	0.001	< 0.001	mg/L		
	28	Zn-67	67		1.59	ppb	0.001	0.002	mg/L		x
	29	Zn-68	68		0.16	ppb	0.001	< 0.001	mg/L		
	32	As-75	75		0.24	ppb	0.001	< 0.001	mg/L		
	34	Se-82	82		0.25	ppb	0.001	< 0.001	mg/L		
	37	Sr-87	87		0.04	ppb	0.001	< 0.001	mg/L		
	40	Mo-95	95		0.43	ppb	0.001	< 0.001	mg/L		
	41	Mo-98	98		0.45	ppb	0.001	< 0.001	mg/L		
	43	Ag-107	107		0.02	ppb	0.001	< 0.001	mg/L		
	45	Ag-109	109		0.02	ppb	0.001	< 0.001	mg/L		
	46	Cd-111	111		0.02	ppb	0.001	< 0.001	mg/L		
	47	Cd-114	114		0.05	ppb	0.001	< 0.001	mg/L		
	50	Sn-120	120		-0.03	ppb	0.001	< 0.001	mg/L		
	51	Sb-121	121		0	ppb	0.001	< 0.001	mg/L		
	52	Sb-123	123		0.07	ppb	0.001	< 0.001	mg/L		
	53	Ba-135	135		0.04	ppb	0.001	< 0.001	mg/L		
	54	Tb-159	159		0	ppb	0.001	< 0.001	mg/L		
	55	Au-197	197		0.42	ppb	0.001	< 0.001	mg/L		
	56	Tl-205	205		0.16	ppb	0.001	< 0.001	mg/L		
	59	Pb-208	208		-0.25	ppb	0.001	< 0.001	mg/L		
	61	U-238	238		0.04	ppb	0.001	< 0.001	mg/L		

Tune Sample Report

File : D:\HPCHEM\1\DATA\SEP2402.09A\001TUNE.D
Acquired : Sep 24 02 09:55 am using AcqMethod QCTUNE.M
Operator : JWB
Sample Name: 6020/200.8 TUNE MIX
Misc Info :
Vial Number: 1101
CurrentMeth: D:\HPCHEM\1\METHODS\QCTUNE.M
BkgFile : --------
Sample Type: TUNE
Dilution : 1.000000

Minimum Response Criteria (cps/ppb)

Element	RSD(%)	Actual	Required	Flag
59	2.71	99901	> 200	
7	7.41	134944	> 20	
115	2.08	124339	> 100	
205	3.24	60833	> 10	
102		0(cps)	< 25(cps)	

Ion Ratio Criteria

	Actual	Required	Flag
59/59	1.00	1.00 - 1.00	
7/59	1.35	0.10 - 5.00	
115/59	1.24	0.10 - 10.00	
205/59	0.61	0.10 - 5.00	

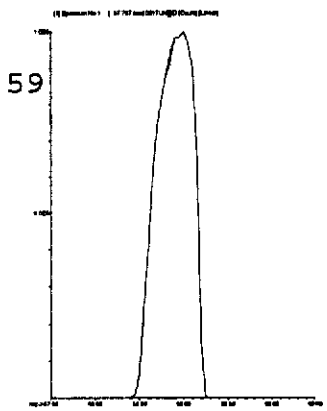

Mass Calib:59.00
W-50%: 0.60
W-10%: 0.70

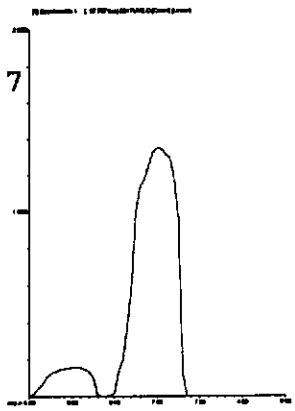

Mass Calib:7.00
W-50%: 0.60
W-10%: 0.80

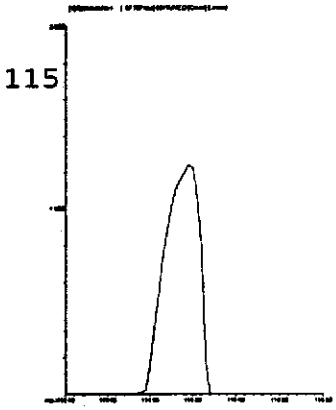

Mass Calib:114.95
W-50%: 0.55
W-10%: 0.65

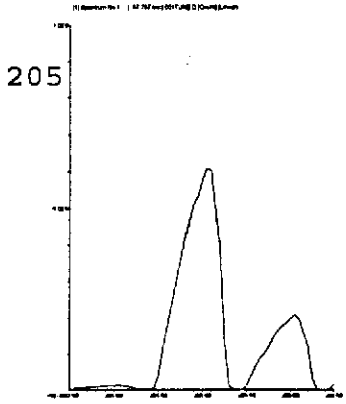

Mass Calib:205.05
W-50%: 0.55
W-10%: 0.75

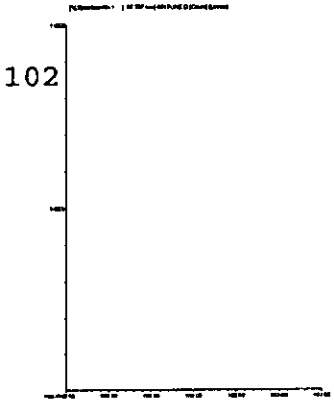

Background

US EPA Method 200.8 Tune Verification

Acquired : Sep 24 02 09:55 am using AcqMethod QCTUNE.M
Data File Name: D:\HPCHEM\1\DATA\Sep2402.09A\001TUNE.D

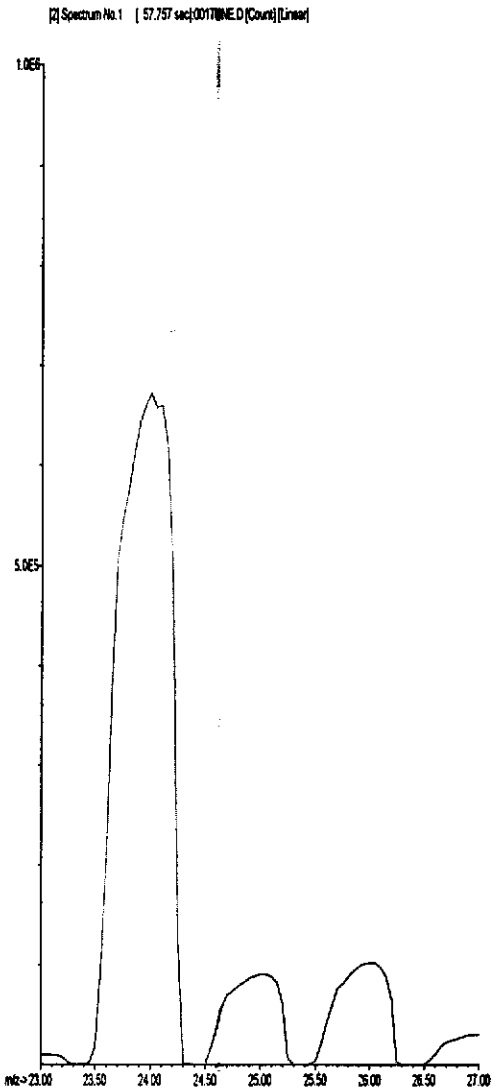

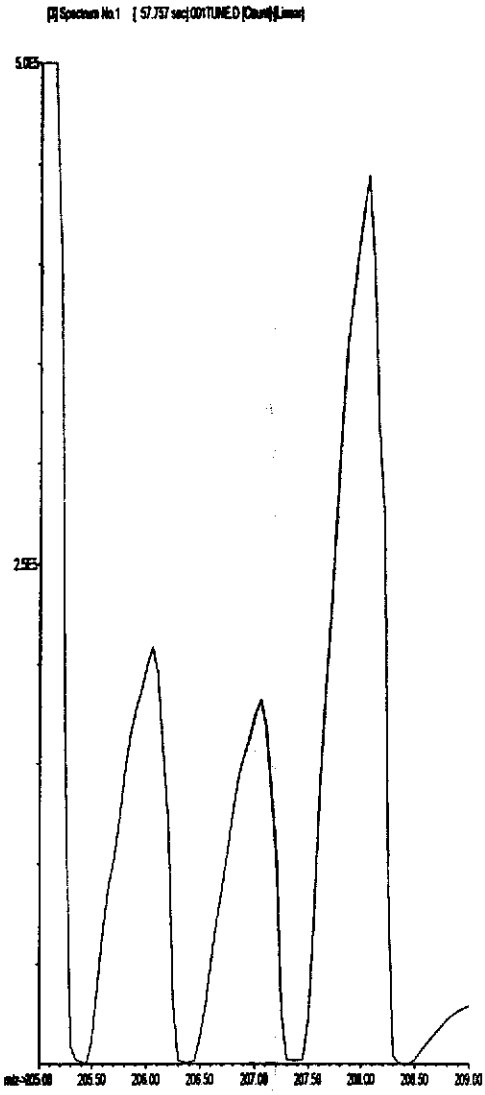

Element and Mass	Mass Assignment	Peak Width at 5% Peak Height	PeakElement at 5and Mass Heig	Mass Assignment	Peak Width at 5% Peak Height
Mg 24	24.00	0.70	Pb 206	206.05	0.75
Mg 25	25.00	0.70	Pb 207	207.05	0.75
Mg 26	26.05	0.65	Pb 208	208.05	0.70

* Does not meet EPA Method 200.8 specification.

Spectrum No.1 [57.757 sec]:001TUNE.D
Acquired : Sep 24 02 09:55 am using AcqMethod QCTUNE.M
Bkg file : --------
Interference Correction: OFF

Mass[amu]	Element	Count	n	SD	RSD[%]
5		2784.33 P	5	240.00	8.62
6		1818083.00 P	5	59800.00	3.29
7	Li	14766940.00 A	5	704700.00	4.77
8		7.80 P	5	2.78	35.58
23		133101.70 P	5	3585.00	2.69
24		7469096.00 A	5	293100.00	3.92
25		1006407.00 P	5	34050.00	3.38
26		1112756.00 P	5	35870.00	3.22
27		325384.30 P	5	18460.00	5.67
58		85735.27 P	5	5410.00	6.31
59	Co	10317040.00 A	5	267800.00	2.60
60		249.61 P	5	26.12	10.47
101		16.80 P	5	2.17	12.90
103		413.01 P	5	16.70	4.04
114		192770.00 P	5	15810.00	8.20
115	In	11493700.00 A	5	281600.00	2.45
116		530.62 P	5	8.88	1.67
204		168650.00 P	5	1864.00	1.11
205	Tl	5948684.00 A	5	89960.00	1.51
206		2027890.00 P	5	30820.00	1.52
207		1750641.00 P	5	27130.00	1.55
208		4300020.00 P	5	72490.00	1.69
209		301416.00 P	5	2494.00	0.83

Calibration Blank QC Report

File : D:\HPCHEM\1\DATA\Sep2402.09A\002CALB.D\002CALB.D#
Acquired : Sep 24 02 10:03 am using AcqMethod 6020.M
Operator : JWB
Sample Name: CAL BLANK
Misc Info :
Vial Number: 1102
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: CALBLK
Dilution : 1.000000

Mass	Element	Count	n	SD	RSD[%]
6	Li	166633.50 P	3	9264.00	5.56
7	(Li)	11419.22 P	3	482.30	4.22
9	Be	0.00 P	3	0.00	0.00
11	B	2115.41 P	3	15.53	0.73
23	Na	16766.61 P	3	458.40	2.73
24	Mg	1273.16 P	3	68.58	5.39
25	Mg	165.34 P	3	14.22	8.60
26	Mg	222.01 P	3	19.16	8.63
27	Al	2669.62 P	3	112.40	4.21
28	Si	331482.90 P	3	2893.00	0.87
39	K	200100.00 P	3	6408.00	3.20
43	Ca	67.90 P	3	5.36	7.89
44	Ca	883.96 P	3	26.93	3.05
45	Sc	138949.70 P	3	1192.00	0.86
47	Ti	113.35 P	3	26.85	23.69
51	V	2040.09 P	3	1073.00	52.59
52	Cr	5465.76 P	3	69.79	1.28
53	Cr	8601.68 P	3	281.60	3.27
54	Fe	79656.84 P	3	1365.00	1.71
55	Mn	1285.82 P	3	13.43	1.04
57	Fe	3756.65 P	3	59.97	1.60
59	Co	764.06 P	3	135.10	17.69
60	Ni	57.00 P	3	7.21	12.65
63	Cu	55.67 P	3	6.11	10.98
65	Cu	23.00 P	3	2.00	8.70
66	Zn	452.41 P	3	40.70	9.00
67	Zn	293.76 P	3	7.08	2.41
68	Zn	3642.08 P	3	36.44	1.00
69	(Zn)	153.33 P	3	15.53	10.13
72	Ge	239590.40 P	3	5281.00	2.20
75	As	458.54 P	3	336.90	73.48
77	(As)	36513.00 P	3	275.20	0.75
82	Se	-16.00 P	3	39.51	246.94
83	(Se)	1114.67 P	3	21.94	1.97

File : D:\HPCHEM\1\DATA\Sep2402.09A\002CALB.D\002CALB.D#
Acquired : Sep 24 02 10:03 am using AcqMethod 6020.M
Operator : JWB
Sample Name: CAL BLANK
Misc Info :
Vial Number: 1102
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: CALBLK
Dilution : 1.000000

Mass	Element	Count	n	SD	RSD[%]
86	(Ca)	88.67 P	3	8.51	9.59
87	Sr	4.00 P	3	2.00	50.00
88	(Ca)	22.33 P	3	7.51	33.61
89	Y	159432.40 P	3	5126.00	3.21
95	Mo	82.34 P	3	23.18	28.15
98	Mo	135.00 P	3	18.68	13.84
106	(Cd)	35.00 P	3	9.85	28.14
107	Ag	46.67 P	3	4.04	8.66
108	(Cd)	10.00 P	3	5.00	50.00
109	Ag	45.67 P	3	3.06	6.69
111	Cd	23.03 P	3	12.18	52.88
114	Cd	-3.57 P	3	8.28	231.87
115	In	125094.20 P	3	2548.00	2.04
118	(In)	131.00 P	3	7.55	5.76
120	Sn	183.34 P	3	11.24	6.13
121	Sb	62.34 P	3	10.12	16.23
123	Sb	57.67 P	3	6.35	11.01
135	Ba	4.67 P	3	2.89	61.86
159	Tb	139199.40 P	3	3711.00	2.67
197	Au	14.33 P	3	5.51	38.42
205	Tl	573.04 P	3	43.32	7.56
206	(Pb)	152.34 P	3	18.58	12.20
207	(Pb)	123.34 P	3	17.93	14.53
208	Pb	576.69 P	3	64.47	11.18
209	Bi	69722.48 P	3	1998.00	2.87
238	U	11.00 P	3	2.00	18.18

Calibration QC Report

File : D:\HPCHEM\1\DATA\Sep2402.09A\003CALI.D\003CALI.D#
Acquired : Sep 24 02 10:12 am using AcqMethod 6020.M
Operator : JWB
Sample Name: 0.2/1/10 CAL
Misc Info :
Vial Number: 1103
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: CALIB
Dilution : 1.000000

Mass	Element	Count	n	SD	RSD[%]
6	Li	158937.50 P	3	6233.00	3.92
7	(Li)	9630.98 P	3	188.20	1.95
9	Be	474.69 P	3	22.06	4.65
11	B	2192.78 P	3	15.18	0.69
23	Na	39766.76 P	3	354.80	0.89
24	Mg	16756.35 P	3	210.70	1.26
25	Mg	2127.73 P	3	39.90	1.88
26	Mg	2471.20 P	3	29.88	1.21
27	Al	22111.33 P	3	391.50	1.77
28	Si	300195.30 P	3	6325.00	2.11
39	K	205517.90 P	3	974.70	0.47
43	Ca	107.30 P	3	10.76	10.02
44	Ca	1417.34 P	3	9.04	0.64
45	Sc	124126.30 P	3	2471.00	1.99
47	Ti	264.35 P	3	15.01	5.68
51	V	4784.41 P	3	227.90	4.76
52	Cr	6894.47 P	3	205.20	2.98
53	Cr	7945.62 P	3	65.73	0.83
54	Fe	73831.40 P	3	394.60	0.53
55	Mn	3605.40 P	3	80.46	2.23
57	Fe	3814.06 P	3	75.99	1.99
59	Co	2521.54 P	3	106.50	4.22
60	Ni	522.70 P	3	17.22	3.29
63	Cu	1114.12 P	3	38.52	3.46
65	Cu	508.36 P	3	20.01	3.94
66	Zn	2059.85 P	3	52.68	2.56
67	Zn	502.58 P	3	36.58	7.28
68	Zn	4369.88 P	3	33.07	0.76
69	(Zn)	888.34 P	3	64.39	7.25
72	Ge	210206.80 P	3	2778.00	1.32
75	As	5105.18 P	3	735.20	14.40
77	(As)	33889.99 P	3	293.10	0.86
82	Se	232.00 P	3	30.51	13.15
83	(Se)	1027.67 P	3	34.93	3.40
86	(Ca)	351.68 P	3	29.20	8.30

Calibration QC Report

File : D:\HPCHEM\1\DATA\Sep2402.09A\003CALI.D\003CALI.D#
Acquired : Sep 24 02 10:12 am using AcqMethod 6020.M
Operator : JWB
Sample Name: 0.2/1/10 CAL
Misc Info :
Vial Number: 1103
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: CALIB
Dilution : 1.000000

Mass	Element	Count	n	SD	RSD[%]
87	Sr	199.34 P	3	12.66	6.35
88	(Ca)	2392.81 P	3	24.01	1.00
89	Y	142388.10 P	3	2096.00	1.47
95	Mo	493.36 P	3	2.89	0.59
98	Mo	754.39 P	3	37.17	4.93
106	(Cd)	44.00 P	3	6.08	13.82
107	Ag	1042.77 P	3	18.61	1.78
108	(Cd)	18.00 P	3	3.46	19.24
109	Ag	975.09 P	3	6.93	0.71
111	Cd	178.74 P	3	19.27	10.78
114	Cd	367.61 P	3	12.05	3.28
115	In	110772.30 P	3	1963.00	1.77
118	(In)	677.38 P	3	52.21	7.71
120	Sn	916.42 P	3	14.19	1.55
121	Sb	567.04 P	3	40.96	7.22
123	Sb	443.02 P	3	18.68	4.22
135	Ba	158.01 P	3	3.00	1.90
159	Tb	125137.20 P	3	4194.00	3.35
197	Au	83.67 P	3	9.07	10.85
205	Tl	1371.84 P	3	17.68	1.29
206	(Pb)	473.69 P	3	8.62	1.82
207	(Pb)	414.35 P	3	16.29	3.93
208	Pb	1866.14 P	3	23.39	1.25
209	Bi	62758.48 P	3	1009.00	1.61
238	U	1805.28 P	3	52.45	2.91

Calibration QC Report

File : D:\HPCHEM\1\DATA\Sep2402.09A\003CALI.D\003CALI.D#
Acquired : Sep 24 02 10:12 am using AcqMethod 6020.M
Operator : JWB
Sample Name: 0.2/1/10 CAL
Misc Info :
Vial Number: 1103
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: CALIB
Dilution : 1.000000

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	555445	529792	Pass
45	463166	413754	Pass
72	79864	70069	Pass
115	416981	369241	Pass
209	232408	209195	Pass

Internal Standards referenced to 002CALB.D#

0 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

Calibration QC Report

File : D:\HPCHEM\1\DATA\Sep2402.09A\004CALI.D\004CALI.D#
Acquired : Sep 24 02 10:21 am using AcqMethod 6020.M
Operator : JWB
Sample Name: 2/10/100 CAL
Misc Info :
Vial Number: 1104
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: CALIB
Dilution : 1.000000

Mass	Element	Count	n	SD	RSD[%]
6	Li	163128.90 P	3	4038.00	2.48
7	(Li)	9380.20 P	3	296.60	3.16
9	Be	5380.46 P	3	219.90	4.09
11	B	6727.27 P	3	262.10	3.90
23	Na	261369.90 P	3	2934.00	1.12
24	Mg	154179.80 P	3	3894.00	2.53
25	Mg	20263.57 P	3	169.10	0.83
26	Mg	23123.58 P	3	401.40	1.74
27	Al	184341.20 P	3	3772.00	2.05
28	Si	391052.00 P	3	8254.00	2.11
39	K	395209.00 P	3	903.00	0.23
43	Ca	407.74 P	3	14.17	3.48
44	Ca	6607.13 P	3	164.80	2.49
45	Sc	126020.70 P	3	1104.00	0.88
47	Ti	1996.68 P	3	35.82	1.79
51	V	27567.24 P	3	947.60	3.44
52	Cr	26372.44 P	3	219.50	0.83
53	Cr	12099.62 P	3	399.80	3.30
54	Fe	86090.55 P	3	1877.00	2.18
55	Mn	27399.89 P	3	263.20	0.96
57	Fe	8331.62 P	3	170.20	2.04
59	Co	24038.55 P	3	157.60	0.66
60	Ni	5134.11 P	3	63.23	1.23
63	Cu	11641.21 P	3	89.50	0.77
65	Cu	5441.71 P	3	82.78	1.52
66	Zn	19217.77 P	3	298.90	1.56
67	Zn	3148.06 P	3	79.74	2.53
68	Zn	16087.47 P	3	308.10	1.92
69	(Zn)	8240.53 P	3	240.50	2.92
72	Ge	211502.80 P	3	490.60	0.23
75	As	42918.11 P	3	535.90	1.25
77	(As)	39253.78 P	3	368.50	0.94
82	Se	2888.72 P	3	87.83	3.04
83	(Se)	1010.00 P	3	7.55	0.75
86	(Ca)	3047.76 P	3	37.66	1.24

Calibration QC Report

File : D:\HPCHEM\1\DATA\Sep2402.09A\004CALI.D\004CALI.D#
Acquired : Sep 24 02 10:21 am using AcqMethod 6020.M
Operator : JWB
Sample Name: 2/10/100 CAL
Misc Info :
Vial Number: 1104
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: CALIB
Dilution : 1.000000

Mass	Element	Count	n	SD	RSD[%]
87	Sr	2088.37 P	3	92.29	4.42
88	(Ca)	25463.91 P	3	210.70	0.83
89	Y	144508.00 P	3	1850.00	1.28
95	Mo	4482.94 P	3	133.50	2.98
98	Mo	7171.03 P	3	181.80	2.54
106	(Cd)	194.01 P	3	19.98	10.30
107	Ag	11157.97 P	3	154.40	1.38
108	(Cd)	121.00 P	3	3.61	2.98
109	Ag	10508.57 P	3	187.40	1.78
111	Cd	1777.22 P	3	68.50	3.85
114	Cd	3908.16 P	3	34.43	0.88
115	In	113652.70 P	3	980.60	0.86
118	(In)	6389.55 P	3	158.40	2.48
120	Sn	8601.79 P	3	179.60	2.09
121	Sb	5656.89 P	3	72.73	1.29
123	Sb	4374.53 P	3	136.50	3.12
135	Ba	1634.24 P	3	54.08	3.31
159	Tb	127651.70 P	3	2206.00	1.73
197	Au	931.42 P	3	49.87	5.35
205	Tl	12834.00 P	3	332.00	2.59
206	(Pb)	4492.95 P	3	105.00	2.34
207	(Pb)	3923.24 P	3	69.78	1.78
208	Pb	17812.69 P	3	370.70	2.08
209	Bi	63577.92 P	3	1250.00	1.97
238	U	19465.99 P	3	275.90	1.42

Calibration QC Report

File : D:\HPCHEM\1\DATA\Sep2402.09A\004CALI.D\004CALI.D#
Acquired : Sep 24 02 10:21 am using AcqMethod 6020.M
Operator : JWB
Sample Name: 2/10/100 CAL
Misc Info :
Vial Number: 1104
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : ---------
Sample Type: CALIB
Dilution : 1.000000

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	555445	543763	Pass
45	463166	420069	Pass
72	79864	70501	Pass
115	416981	378842	Pass
209	232408	211926	Pass

Internal Standards referenced to 002CALB.D#

0 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

Calibration QC Report

File : D:\HPCHEM\1\DATA\Sep2402.09A\005CALI.D\005CALI.D#
Acquired : Sep 24 02 10:30 am using AcqMethod 6020.M
Operator : JWB
Sample Name: 10/100/1000 CAL
Misc Info :
Vial Number: 1105
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: CALIB
Dilution : 1.000000

Mass	Element	Count	n	SD	RSD[%]
6	Li	159806.30 P	3	3075.00	1.92
7	(Li)	9092.16 P	3	246.70	2.71
9	Be	53873.54 P	3	135.80	0.25
11	B	50771.69 P	3	1428.00	2.81
23	Na	2540261.00 A	3	30640.00	1.21
24	Mg	1554727.00 A	3	20660.00	1.33
25	Mg	213886.20 P	3	4871.00	2.28
26	Mg	237150.20 P	3	7141.00	3.01
27	Al	1852589.00 A	3	24900.00	1.34
28	Si	1362210.00 P	3	14420.00	1.06
39	K	2295210.00 A	3	44340.00	1.93
43	Ca	3740.26 P	3	208.70	5.58
44	Ca	60804.79 P	3	835.60	1.37
45	Sc	129524.70 P	3	3448.00	2.66
47	Ti	18575.03 P	3	241.60	1.30
51	V	253277.20 P	3	5067.00	2.00
52	Cr	215763.20 P	3	3532.00	1.64
53	Cr	35758.36 P	3	417.60	1.17
54	Fe	211467.50 P	3	6718.00	3.18
55	Mn	264240.50 P	3	5635.00	2.13
57	Fe	54116.63 P	3	1216.00	2.25
59	Co	237927.70 P	3	5580.00	2.35
60	Ni	50384.94 P	3	801.70	1.59
63	Cu	113872.20 P	3	2482.00	2.18
65	Cu	53142.82 P	3	697.20	1.31
66	Zn	184340.00 P	3	1735.00	0.94
67	Zn	28607.96 P	3	496.60	1.74
68	Zn	130133.50 P	3	2046.00	1.57
69	(Zn)	79249.85 P	3	1898.00	2.39
72	Ge	218900.80 P	3	5301.00	2.42
75	As	398607.50 P	3	7575.00	1.90
77	(As)	63837.65 P	3	514.70	0.81
82	Se	28760.98 P	3	569.10	1.98
83	(Se)	1064.34 P	3	13.32	1.25
86	(Ca)	29246.66 P	3	581.30	1.99

Calibration QC Report

File : D:\HPCHEM\1\DATA\Sep2402.09A\005CALI.D\005CALI.D#
Acquired : Sep 24 02 10:30 am using AcqMethod 6020.M
Operator : JWB
Sample Name: 10/100/1000 CAL
Misc Info :
Vial Number: 1105
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: CALIB
Dilution : 1.000000

Mass	Element	Count	n	SD	RSD[%]
87	Sr	21327.81 P	3	526.60	2.47
88	(Ca)	253308.10 P	3	5557.00	2.19
89	Y	147973.60 P	3	4777.00	3.23
95	Mo	43793.32 P	3	774.20	1.77
98	Mo	70257.45 P	3	1891.00	2.69
106	(Cd)	1595.56 P	3	90.99	5.70
107	Ag	110376.20 P	3	2132.00	1.93
108	(Cd)	1179.13 P	3	74.97	6.36
109	Ag	102588.00 P	3	2865.00	2.79
111	Cd	17027.70 P	3	245.10	1.44
114	Cd	38658.03 P	3	837.50	2.17
115	In	115829.20 P	3	4669.00	4.03
118	(In)	62601.18 P	3	868.80	1.39
120	Sn	84171.60 P	3	2165.00	2.57
121	Sb	55861.32 P	3	1123.00	2.01
123	Sb	43411.11 P	3	1166.00	2.69
135	Ba	16367.89 P	3	382.20	2.34
159	Tb	131977.20 P	3	5662.00	4.29
197	Au	7745.67 P	3	101.10	1.30
205	Tl	127561.90 P	3	4304.00	3.37
206	(Pb)	44853.50 P	3	1270.00	2.83
207	(Pb)	38732.72 P	3	955.70	2.47
208	Pb	177815.90 P	3	4248.00	2.39
209	Bi	65861.53 P	3	2442.00	3.71
238	U	194866.30 P	3	5066.00	2.60

Calibration QC Report

File : D:\HPCHEM\1\DATA\Sep2402.09A\005CALI.D\005CALI.D#
Acquired : Sep 24 02 10:30 am using AcqMethod 6020.M
Operator : JWB
Sample Name: 10/100/1000 CAL
Misc Info :
Vial Number: 1105
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: CALIB
Dilution : 1.000000

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	555445	532688	Pass
45	463166	431749	Pass
72	79864	72967	Pass
115	416981	386097	Pass
209	232408	219538	Pass

Internal Standards referenced to 002CALB.D#

0 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

Calibration QC Report

File : D:\HPCHEM\1\DATA\Sep2402.09A\006CALI.D\006CALI.D#
Acquired : Sep 24 02 10:39 am using AcqMethod 6020.M
Operator : JWB
Sample Name: -/200/10000 CAL
Misc Info :
Vial Number: 1106
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: CALIB
Dilution : 1.000000

Mass	Element	Count	n	SD	RSD[%]
6	Li	167709.60 P	3	9180.00	5.47
7	(Li)	9358.06 P	3	140.30	1.50
9	Be	115622.10 P	3	3852.00	3.33
11	B	106100.00 P	3	4495.00	4.24
23	Na	27829970.00 A	3	399000.00	1.43
24	Mg	17235700.00 A	3	337200.00	1.96
25	Mg	2213634.00 A	3	70460.00	3.18
26	Mg	2558787.00 A	3	102300.00	4.00
27	Al	20738950.00 A	3	188500.00	0.91
28	Si	11001780.00 A	3	424700.00	3.86
39	K	24020000.00 A	3	679000.00	2.83
43	Ca	42169.27 P	3	1588.00	3.77
44	Ca	670581.40 P	3	27740.00	4.14
45	Sc	145860.00 P	3	3839.00	2.63
47	Ti	40615.53 P	3	1561.00	3.84
51	V	541882.10 P	3	19070.00	3.52
52	Cr	457494.20 P	3	13330.00	2.91
53	Cr	65142.98 P	3	2013.00	3.09
54	Fe	1484043.00 P	3	52220.00	3.52
55	Mn	562942.30 P	3	16700.00	2.97
57	Fe	544371.40 P	3	19590.00	3.60
59	Co	503071.10 P	3	17910.00	3.56
60	Ni	105752.30 P	3	4003.00	3.78
63	Cu	240640.20 P	3	8136.00	3.38
65	Cu	111114.70 P	3	4107.00	3.70
66	Zn	383313.40 P	3	10700.00	2.79
67	Zn	60725.72 P	3	1470.00	2.42
68	Zn	266743.90 P	3	6208.00	2.33
69	(Zn)	179977.60 P	3	6985.00	3.88
72	Ge	229976.60 P	3	4275.00	1.86
75	As	849156.90 P	3	21590.00	2.54
77	(As)	98521.18 P	3	1328.00	1.35
82	Se	59973.64 P	3	1002.00	1.67
83	(Se)	1130.34 P	3	6.03	0.53
86	(Ca)	61925.20 P	3	2143.00	3.46

302

File : D:\HPCHEM\1\DATA\Sep2402.09A\006CALI.D\006CALI.D#
Acquired : Sep 24 02 10:39 am using AcqMethod 6020.M
Operator : JWB
Sample Name: -/200/10000 CAL
Misc Info :
Vial Number: 1106
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: CALIB
Dilution : 1.000000

Mass	Element	Count	n	SD	RSD[%]
87	Sr	45295.49 P	3	1486.00	3.28
88	(Ca)	537102.80 P	3	16780.00	3.13
89	Y	156752.50 P	3	4392.00	2.80
95	Mo	93731.77 P	3	2545.00	2.71
98	Mo	147547.60 P	3	3435.00	2.33
106	(Cd)	3302.90 P	3	67.70	2.05
107	Ag	226342.70 P	3	5558.00	2.46
108	(Cd)	2421.16 P	3	140.40	5.80
109	Ag	210491.80 P	3	4152.00	1.97
111	Cd	34686.07 P	3	698.40	2.01
114	Cd	78382.38 P	3	1898.00	2.42
115	In	120079.60 P	3	2509.00	2.09
118	(In)	128820.80 P	3	3248.00	2.52
120	Sn	173321.30 P	3	3676.00	2.12
121	Sb	115643.60 P	3	2357.00	2.04
123	Sb	89246.04 P	3	2176.00	2.44
135	Ba	33597.64 P	3	854.60	2.54
159	Tb	135218.60 P	3	2343.00	1.73
197	Au	17945.93 P	3	398.40	2.22
205	Tl	260469.60 P	3	8302.00	3.19
206	(Pb)	90092.71 P	3	2223.00	2.47
207	(Pb)	77613.45 P	3	1804.00	2.32
208	Pb	357424.40 P	3	8086.00	2.26
209	Bi	65724.38 P	3	1761.00	2.68
238	U	396302.00 P	3	11750.00	2.96

Calibration QC Report

File : D:\HPCHEM\1\DATA\Sep2402.09A\006CALI.D\006CALI.D#
Acquired : Sep 24 02 10:39 am using AcqMethod 6020.M
Operator : JWB
Sample Name: -/200/10000 CAL
Misc Info :
Vial Number: 1106
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: CALIB
Dilution : 1.000000

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	555445	559032	Pass
45	463166	486200	Pass
72	79864	76659	Pass
115	416981	400265	Pass
209	232408	219081	Pass

Internal Standards referenced to 002CALB.D#

0 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

Blank QC Report

File : D:\HPCHEM\1\DATA\Sep2402.09A\007CCB_.D\007CCB_.D#
Acquired : Sep 24 02 10:48 am using AcqMethod 6020.M
Operator : JWB
Sample Name: [CB]
Misc Info :
Vial Number: 1102
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: CCB
Dilution : 1.000000

Element		Concentration	CRDL Limit	Flag
Be	9	0.058 µg/L	1.00	Pass
B	11	1.357 µg/L	1.00	*Fail*
Na	23	2.529 µg/L	10.00	Pass
Mg	24	2.139 µg/L	10.00	Pass
Mg	25	2.120 µg/L	10.00	Pass
Mg	26	2.218 µg/L	10.00	Pass
Al	27	2.342 µg/L	10.00	Pass
Si	28	-28.070 µg/L	10.00	*Fail*
K	39	0.948 µg/L	10.00	Pass
Ca	43	2.476 µg/L	10.00	Pass
Ca	44	2.236 µg/L	10.00	Pass
Ti	47	0.430 µg/L	1.00	Pass
V	51	0.652 µg/L	1.00	Pass
Cr	52	0.618 µg/L	1.00	Pass
Cr	53	13.410 µg/L	1.00	*Fail*
Fe	54	-20.360 µg/L	10.00	*Fail*
Mn	55	-0.053 µg/L	1.00	Pass
Fe	57	-0.154 µg/L	10.00	Pass
Co	59	-0.230 µg/L	1.00	Pass
Ni	60	0.036 µg/L	1.00	Pass
Cu	63	0.067 µg/L	1.00	Pass
Cu	65	0.044 µg/L	1.00	Pass
Zn	66	0.064 µg/L	1.00	Pass
Zn	67	1.573 µg/L	1.00	*Fail*
Zn	68	-0.101 µg/L	1.00	Pass
As	75	0.636 µg/L	1.00	Pass
Se	82	0.363 µg/L	1.00	Pass
Sr	87	0.067 µg/L	1.00	Pass
Mo	95	0.380 µg/L	1.00	Pass
Mo	98	0.409 µg/L	1.00	Pass
Ag	107	0.056 µg/L	1.00	Pass
Ag	109	0.057 µg/L	1.00	Pass
Cd	111	0.097 µg/L	1.00	Pass
Cd	114	0.060 µg/L	1.00	Pass
Sn	120	0.055 µg/L	1.00	Pass
Sb	121	0.290 µg/L	1.00	Pass
Sb	123	0.332 µg/L	1.00	Pass

Ba 135	0.061 µg/L	1.00	Pass
Au 197	0.892 µg/L	1.00	Pass
Tl 205	0.732 µg/L	1.00	Pass

Blank QC Report

File : D:\HPCHEM\1\DATA\Sep2402.09A\007CCB_D\007CCB_D#
Acquired : Sep 24 02 10:48 am using AcqMethod 6020.M
Operator : JWB
Sample Name: [CB]
Misc Info :
Vial Number: 1102
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: CCB
Dilution : 1.000000

Pb 208	−0.226 µg/L	1.00	Pass
U 238	0.077 µg/L	1.00	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	555445	613018	Pass
45	463166	488201	Pass
72	79864	75707	Pass
115	416981	398786	Pass
209	232408	219419	Pass

Internal Standards referenced to 002CALB.D#

5 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

ICV QC Report

File : D:\HPCHEM\1\DATA\Sep2402.09A\008ICV_D\008ICV_D#
Acquired : Sep 24 02 10:57 am using AcqMethod 6020.M
Operator : JWB
Sample Name: [STD-ICV]
Misc Info :
Vial Number: 1107
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : ---------
Sample Type: ICV
Dilution : 1.000000

ICV Mix #1

Element		Concentration	Expected	QC Range	Flag
Be	9	115.500 µg/L	120.00	108.00-132.00	Pass
B	11	127.000 µg/L	120.00	108.00-132.00	Pass
Na	23	1303.000 µg/L	1200.00	1080.00-1320.00	Pass
Mg	24	1293.000 µg/L	1200.00	1080.00-1320.00	Pass
Mg	25	1372.000 µg/L	1200.00	1080.00-1320.00	*Fail*
Mg	26	1330.000 µg/L	1200.00	1080.00-1320.00	*Fail*
Al	27	1308.000 µg/L	1200.00	1080.00-1320.00	Pass
Si	28	1399.000 µg/L	1200.00	1080.00-1320.00	*Fail*
K	39	1289.000 µg/L	1200.00	1080.00-1320.00	Pass
Ca	43	1248.000 µg/L	1200.00	1080.00-1320.00	Pass
Ca	44	1241.000 µg/L	1200.00	1080.00-1320.00	Pass
Ti	47	119.800 µg/L	120.00	108.00-132.00	Pass
V	51	117.700 µg/L	120.00	108.00-132.00	Pass
Cr	52	117.500 µg/L	120.00	108.00-132.00	Pass
Cr	53	115.200 µg/L	120.00	108.00-132.00	Pass
Fe	54	1282.000 µg/L	1200.00	1080.00-1320.00	Pass
Mn	55	117.900 µg/L	120.00	108.00-132.00	Pass
Fe	57	1249.000 µg/L	1200.00	1080.00-1320.00	Pass
Co	59	119.200 µg/L	120.00	108.00-132.00	Pass
Ni	60	120.200 µg/L	120.00	108.00-132.00	Pass
Cu	63	118.200 µg/L	120.00	108.00-132.00	Pass
Cu	65	119.800 µg/L	120.00	108.00-132.00	Pass
Zn	66	119.700 µg/L	120.00	108.00-132.00	Pass
Zn	67	117.400 µg/L	120.00	108.00-132.00	Pass
Zn	68	120.400 µg/L	120.00	108.00-132.00	Pass
As	75	118.400 µg/L	120.00	108.00-132.00	Pass
Se	82	119.300 µg/L	120.00	108.00-132.00	Pass
Sr	87	118.200 µg/L	120.00	108.00-132.00	Pass
Mo	95	116.200 µg/L	120.00	108.00-132.00	Pass
Mo	98	116.200 µg/L	120.00	108.00-132.00	Pass
Ag	107	123.300 µg/L	120.00	108.00-132.00	Pass
Ag	109	123.100 µg/L	120.00	108.00-132.00	Pass
Cd	111	116.500 µg/L	120.00	108.00-132.00	Pass
Cd	114	117.400 µg/L	120.00	108.00-132.00	Pass
Sn	120	115.700 µg/L	120.00	108.00-132.00	Pass

Sb 121	113.400 µg/L	120.00	108.00-132.00	Pass
Sb 123	113.400 µg/L	120.00	108.00-132.00	Pass
Ba 135	114.300 µg/L	120.00	108.00-132.00	Pass

ICV QC Report

File : D:\HPCHEM\1\DATA\Sep2402.09A\008ICV_D\008ICV_D#
Acquired : Sep 24 02 10:57 am using AcqMethod 6020.M
Operator : JWB
Sample Name: [STD-ICV]
Misc Info :
Vial Number: 1107
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: ICV
Dilution : 1.000000

Au 197	529.500 µg/L	120.00	108.00-132.00	*Fail*
Tl 205	116.300 µg/L	120.00	108.00-132.00	Pass
Pb 208	117.400 µg/L	120.00	108.00-132.00	Pass
U 238	114.500 µg/L	120.00	108.00-132.00	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	555445	594013	Pass
45	463166	466661	Pass
72	79864	73559	Pass
115	416981	389448	Pass
209	232408	217695	Pass

Internal Standards referenced to 002CALB.D#

4 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

Interference Check A QC Report

303

File : D:\HPCHEM\1\DATA\Sep2402.09A\009ICSA.D\009ICSA.D#
Acquired : Sep 24 02 11:06 am using AcqMethod 6020.M
Operator : JWB
Sample Name: [ICSA]
Misc Info :
Vial Number: 1303
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: ICS_A_
Dilution : 1.000000

Element		Concentration	Expected	CRDL Range Conc	%Range Conc	Flag
Be	9	0.083 µg/L	0.00	-1.00-1.00	0-0	Pass
B	11	6.527 µg/L	0.00	-1.00-1.00	0-0	*Fail*
Na	23	----- µg/L	100000.00	1.00E+5-1.00E+5	8.00E+4-1.20E+5	OverRng
Mg	24	131200.000 µg/L	100000.00	1.00E+5-1.00E+5	8.00E+4-1.20E+5	*Fail*
Mg	25	138700.000 µg/L	100000.00	1.00E+5-1.00E+5	8.00E+4-1.20E+5	*Fail*
Mg	26	135500.000 µg/L	100000.00	1.00E+5-1.00E+5	8.00E+4-1.20E+5	*Fail*
Al	27	133700.000 µg/L	100000.00	1.00E+5-1.00E+5	8.00E+4-1.20E+5	*Fail*
Si	28	61.620 µg/L	0.00	-10.00-10.00	0-0	*Fail*
K	39	----- µg/L	100000.00	1.00E+5-1.00E+5	8.00E+4-1.20E+5	OverRng
Ca	43	153800.000 µg/L	100000.00	1.00E+5-1.00E+5	8.00E+4-1.20E+5	*Fail*
Ca	44	151100.000 µg/L	100000.00	1.00E+5-1.00E+5	8.00E+4-1.20E+5	*Fail*
Ti	47	3010.000 µg/L	2000.00	1999.00-2001.00	1600-2400	*Fail*
V	51	0.415 µg/L	0.00	-1.00-1.00	0-0	Pass
Cr	52	3.580 µg/L	0.00	-1.00-1.00	0-0	*Fail*
Cr	53	28.660 µg/L	0.00	-1.00-1.00	0-0	*Fail*
Fe	54	147200.000 µg/L	100000.00	1.00E+5-1.00E+5	8.00E+4-1.20E+5	*Fail*
Mn	55	2.426 µg/L	0.00	-1.00-1.00	0-0	*Fail*
Fe	57	150900.000 µg/L	100000.00	1.00E+5-1.00E+5	8.00E+4-1.20E+5	*Fail*
Co	59	0.216 µg/L	0.00	-1.00-1.00	0-0	Pass
Ni	60	3.701 µg/L	0.00	-1.00-1.00	0-0	*Fail*
Cu	63	11.980 µg/L	0.00	-1.00-1.00	0-0	*Fail*
Cu	65	6.533 µg/L	0.00	-1.00-1.00	0-0	*Fail*
Zn	66	53.390 µg/L	0.00	-1.00-1.00	0-0	*Fail*
Zn	67	141.100 µg/L	0.00	-1.00-1.00	0-0	*Fail*
Zn	68	48.670 µg/L	0.00	-1.00-1.00	0-0	*Fail*
As	75	0.922 µg/L	0.00	-1.00-1.00	0-0	Pass
Se	82	-2.627 µg/L	0.00	-1.00-1.00	0-0	*Fail*
Sr	87	9.400 µg/L	0.00	-1.00-1.00	0-0	*Fail*
Mo	95	2922.000 µg/L	2000.00	1999.00-2001.00	1600-2400	*Fail*
Mo	98	2990.000 µg/L	2000.00	1999.00-2001.00	1600-2400	*Fail*
Ag	107	0.932 µg/L	0.00	-1.00-1.00	0-0	Pass
Ag	109	0.935 µg/L	0.00	-1.00-1.00	0-0	Pass
Cd	111	0.161 µg/L	0.00	-1.00-1.00	0-0	Pass
Cd	114	0.139 µg/L	0.00	-1.00-1.00	0-0	Pass
Sn	120	0.367 µg/L	0.00	-1.00-1.00	0-0	Pass
Sb	121	4.563 µg/L	0.00	-1.00-1.00	0-0	*Fail*
Sb	123	4.671 µg/L	0.00	-1.00-1.00	0-0	*Fail*

Ba	135	2.234 µg/L	0.00	-1.00-1.00	0-0	*Fail*
Au	197	2.450 µg/L	0.00	-1.00-1.00	0-0	*Fail*
Tl	205	0.308 µg/L	0.00	-1.00-1.00	0-0	Pass

Interference Check A QC Report

File : D:\HPCHEM\1\DATA\Sep2402.09A\009ICSA.D\009ICSA.D#
Acquired : Sep 24 02 11:06 am using AcqMethod 6020.M
Operator : JWB
Sample Name: [ICSA]
Misc Info :
Vial Number: 1303
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: ICS_A_
Dilution : 1.000000

Pb	208	6.266 µg/L	0.00	-1.00-1.00	0-0	*Fail*
U	238	0.164 µg/L	0.00	-1.00-1.00	0-0	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	555445	423114	Pass
45	463166	380088	Pass
72	79864	82039	Pass
115	416981	358083	Pass
209	232408	194322	Pass

Internal Standards referenced to 002CALB.D#

29 Element Failures! Maximum Number of Allowed Failures (20) Exceeded!
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

Interference Check AB QC Report

310

File : D:\HPCHEM\1\DATA\Sep2402.09A\010ICSB.D\010ICSB.D#
Acquired : Sep 24 02 11:16 am using AcqMethod 6020.M
Operator : JWB
Sample Name: [ICSAB]
Misc Info :
Vial Number: 1304
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: ICS_AB
Dilution : 1.000000

Element		Concentration	Expected	CRDL Range Conc	%Range Conc	Flag
Be	9	0.047 µg/L	0.00	-1.00-1.00	0-0	Pass
B	11	5.532 µg/L	0.00	-1.00-1.00	0-0	*Fail*
Na	23	----- µg/L	100000.00	1.00E+5-1.00E+5	8.00E+4-1.20E+5	OverRng
Mg	24	----- µg/L	100000.00	1.00E+5-1.00E+5	8.00E+4-1.20E+5	OverRng
Mg	25	136900.000 µg/L	100000.00	1.00E+5-1.00E+5	8.00E+4-1.20E+5	*Fail*
Mg	26	134900.000 µg/L	100000.00	1.00E+5-1.00E+5	8.00E+4-1.20E+5	*Fail*
Al	27	----- µg/L	100000.00	1.00E+5-1.00E+5	8.00E+4-1.20E+5	OverRng
Si	28	57.220 µg/L	0.00	-10.00-10.00	0-0	*Fail*
K	39	----- µg/L	100000.00	1.00E+5-1.00E+5	8.00E+4-1.20E+5	OverRng
Ca	43	157700.000 µg/L	100000.00	1.00E+5-1.00E+5	8.00E+4-1.20E+5	*Fail*
Ca	44	151200.000 µg/L	100000.00	1.00E+5-1.00E+5	8.00E+4-1.20E+5	*Fail*
Ti	47	3112.000 µg/L	2000.00	1999.00-2001.00	1600-2400	*Fail*
V	51	0.484 µg/L	0.00	-1.00-1.00	0-0	Pass
Cr	52	34.620 µg/L	20.00	19.00-21.00	16-24	*Fail*
Cr	53	56.340 µg/L	20.00	19.00-21.00	16-24	*Fail*
Fe	54	153600.000 µg/L	100000.00	1.00E+5-1.00E+5	8.00E+4-1.20E+5	*Fail*
Mn	55	34.630 µg/L	20.00	19.00-21.00	16-24	*Fail*
Fe	57	160300.000 µg/L	100000.00	1.00E+5-1.00E+5	8.00E+4-1.20E+5	*Fail*
Co	59	32.850 µg/L	20.00	19.00-21.00	16-24	*Fail*
Ni	60	34.800 µg/L	20.00	19.00-21.00	16-24	*Fail*
Cu	63	48.900 µg/L	20.00	19.00-21.00	16-24	*Fail*
Cu	65	43.670 µg/L	20.00	19.00-21.00	16-24	*Fail*
Zn	66	38.080 µg/L	20.00	19.00-21.00	16-24	*Fail*
Zn	67	128.800 µg/L	20.00	19.00-21.00	16-24	*Fail*
Zn	68	32.450 µg/L	20.00	19.00-21.00	16-24	*Fail*
As	75	25.630 µg/L	20.00	19.00-21.00	16-24	*Fail*
Se	82	-2.515 µg/L	0.00	-1.00-1.00	0-0	*Fail*
Sr	87	9.475 µg/L	0.00	-1.00-1.00	0-0	*Fail*
Mo	95	2898.000 µg/L	2000.00	1999.00-2001.00	1600-2400	*Fail*
Mo	98	2960.000 µg/L	2000.00	1999.00-2001.00	1600-2400	*Fail*
Ag	107	28.160 µg/L	20.00	19.00-21.00	16-24	*Fail*
Ag	109	28.160 µg/L	20.00	19.00-21.00	16-24	*Fail*
Cd	111	30.410 µg/L	20.00	19.00-21.00	16-24	*Fail*
Cd	114	29.920 µg/L	20.00	19.00-21.00	16-24	*Fail*
Sn	120	2.545 µg/L	0.00	-1.00-1.00	0-0	*Fail*
Sb	121	4.282 µg/L	0.00	-1.00-1.00	0-0	*Fail*
Sb	123	4.515 µg/L	0.00	-1.00-1.00	0-0	*Fail*

Ba 135	2.273 µg/L	0.00	-1.00-1.00	0-0	*Fail*
Au 197	0.797 µg/L	0.00	-1.00-1.00	0-0	Pass
Tl 205	-0.114 µg/L	0.00	-1.00-1.00	0-0	Pass

Interference Check AB QC Report

File : D:\HPCHEM\1\DATA\Sep2402.09A\010ICSB.D\010ICSB.D#
Acquired : Sep 24 02 11:16 am using AcqMethod 6020.M
Operator : JWB
Sample Name: [ICSAB]
Misc Info :
Vial Number: 1304
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: ICS_AB
Dilution : 1.000000

Pb 208	6.656 µg/L	0.00	-1.00-1.00	0-0	*Fail*
U 238	0.098 µg/L	0.00	-1.00-1.00	0-0	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	555445	376637	Pass
45	463166	338743	Pass
72	79864	78810	Pass
115	416981	355384	Pass
209	232408	202136	Pass

Internal Standards referenced to 002CALB.D#

33 Element Failures! Maximum Number of Allowed Failures (20) Exceeded!
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

Blank QC Report

312

File : D:\HPCHEM\1\DATA\Sep2402.09A\011CCB_D\011CCB_D#
Acquired : Sep 24 02 11:25 am using AcqMethod 6020.M
Operator : JWB
Sample Name: BLANK
Misc Info :
Vial Number: 1
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: CCB
Dilution : 1.000000

Element		Concentration	CRDL Limit	Flag
Be	9	0.025 µg/L	1.00	Pass
B	11	0.139 µg/L	1.00	Pass
Na	23	64.790 µg/L	10.00	*Fail*
Mg	24	50.520 µg/L	10.00	*Fail*
Mg	25	51.480 µg/L	10.00	*Fail*
Mg	26	52.300 µg/L	10.00	*Fail*
Al	27	58.020 µg/L	10.00	*Fail*
Si	28	-48.500 µg/L	10.00	*Fail*
K	39	46.270 µg/L	10.00	*Fail*
Ca	43	60.640 µg/L	10.00	*Fail*
Ca	44	57.380 µg/L	10.00	*Fail*
Ti	47	1.880 µg/L	1.00	*Fail*
V	51	-0.120 µg/L	1.00	Pass
Cr	52	-0.326 µg/L	1.00	Pass
Cr	53	-1.203 µg/L	1.00	*Fail*
Fe	54	-133.600 µg/L	10.00	*Fail*
Mn	55	-0.028 µg/L	1.00	Pass
Fe	57	50.330 µg/L	10.00	*Fail*
Co	59	-0.252 µg/L	1.00	Pass
Ni	60	-0.014 µg/L	1.00	Pass
Cu	63	0.182 µg/L	1.00	Pass
Cu	65	0.191 µg/L	1.00	Pass
Zn	66	0.435 µg/L	1.00	Pass
Zn	67	0.994 µg/L	1.00	Pass
Zn	68	0.076 µg/L	1.00	Pass
As	75	0.131 µg/L	1.00	Pass
Se	82	0.108 µg/L	1.00	Pass
Sr	87	0.063 µg/L	1.00	Pass
Mo	95	3.507 µg/L	1.00	*Fail*
Mo	98	3.536 µg/L	1.00	*Fail*
Ag	107	-0.001 µg/L	1.00	Pass
Ag	109	-0.004 µg/L	1.00	Pass
Cd	111	0.021 µg/L	1.00	Pass
Cd	114	0.049 µg/L	1.00	Pass
Sn	120	-0.036 µg/L	1.00	Pass
Sb	121	-0.075 µg/L	1.00	Pass
Sb	123	-0.014 µg/L	1.00	Pass

Ba 135	0.054 µg/L	1.00	Pass
Au 197	0.393 µg/L	1.00	Pass
Tl 205	-0.211 µg/L	1.00	Pass

Blank QC Report

File : D:\HPCHEM\1\DATA\Sep2402.09A\011CCB_D\011CCB_D#
Acquired : Sep 24 02 11:25 am using AcqMethod 6020.M
Operator : JWB
Sample Name: BLANK
Misc Info :
Vial Number: 1
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: CCB
Dilution : 1.000000

Pb 208	-0.237 µg/L	1.00	Pass
U 238	0.029 µg/L	1.00	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	555445	453018	Pass
45	463166	396184	Pass
72	79864	69079	Pass
115	416981	396255	Pass
209	232408	239629	Pass

Internal Standards referenced to 002CALB.D#

15 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2402.09A\012SMPL.D\012SMPL.D#
Acquired : Sep 24 02 11:34 am using AcqMethod 6020.M
Operator : JWB
Sample Name: M021283-001
Misc Info : ,
Vial Number: 2101
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 1.000000

Element	Concentration	Cal Conc	LRS Conc	Flag
Be 9	0.005 µg/L	200.000	1000	Pass
B 11	-1.110 µg/L	200.000	0	Pass
Na 23	31.510 µg/L	10000.000	20000	Pass
Mg 24	21.010 µg/L	10000.000	20000	Pass
Mg 25	21.060 µg/L	10000.000	20000	Pass
Mg 26	21.010 µg/L	10000.000	20000	Pass
Al 27	49.710 µg/L	10000.000	20000	Pass
Si 28	-11.340 µg/L	10000.000	0	Pass
K 39	33.710 µg/L	10000.000	20000	Pass
Ca 43	81.340 µg/L	10000.000	20000	Pass
Ca 44	80.730 µg/L	10000.000	20000	Pass
Ti 47	1.653 µg/L	200.000	1000	Pass
V 51	0.525 µg/L	200.000	1000	Pass
Cr 52	0.786 µg/L	200.000	1000	Pass
Cr 53	14.060 µg/L	200.000	1000	Pass
Fe 54	-17.990 µg/L	10000.000	20000	Pass
Mn 55	1.479 µg/L	200.000	1000	Pass
Fe 57	28.530 µg/L	10000.000	20000	Pass
Co 59	-0.277 µg/L	200.000	1000	Pass
Ni 60	0.154 µg/L	200.000	1000	Pass
Cu 63	0.659 µg/L	200.000	1000	Pass
Cu 65	0.657 µg/L	200.000	1000	Pass
Zn 66	4.838 µg/L	200.000	1000	Pass
Zn 67	5.543 µg/L	200.000	1000	Pass
Zn 68	4.549 µg/L	200.000	1000	Pass
As 75	0.280 µg/L	200.000	1000	Pass
Se 82	0.001 µg/L	200.000	1000	Pass
Sr 87	0.158 µg/L	200.000	1000	Pass
Mo 95	1.655 µg/L	200.000	1000	Pass
Mo 98	1.717 µg/L	200.000	1000	Pass
Ag 107	-0.023 µg/L	200.000	1000	Pass
Ag 109	-0.015 µg/L	200.000	1000	Pass
Cd 111	0.043 µg/L	200.000	1000	Pass
Cd 114	0.235 µg/L	200.000	1000	Pass
Sn 120	13.420 µg/L	200.000	1000	Pass
Sb 121	-0.077 µg/L	200.000	1000	Pass
Sb 123	-0.030 µg/L	200.000	1000	Pass

Ba 135	0.409 µg/L	200.000	1000	Pass
Au 197	0.414 µg/L	200.000	0	Pass
Tl 205	-0.228 µg/L	200.000	1000	Pass

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2402.09A\012SMPL.D\012SMPL.D#
Acquired : Sep 24 02 11:34 am using AcqMethod 6020.M
Operator : JWB
Sample Name: M021283-001
Misc Info : ,
Vial Number: 2101
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 1.000000

Pb 208	0.662 µg/L	200.000	1000	Pass
U 238	0.012 µg/L	200.000	1000	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	555445	494528	Pass
45	463166	396932	Pass
72	79864	65499	Pass
115	416981	362301	Pass
209	232408	217673	Pass

Internal Standards referenced to 002CALB.D#

0 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2402.09A\013SMPL.D\013SMPL.D#
Acquired : Sep 24 02 11:43 am using AcqMethod 6020.M
Operator : JWB
Sample Name: M021283-002
Misc Info : ,
Vial Number: 2102
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 1.000000

Element	Concentration	Cal Conc	LRS Conc	Flag
Be 9	95.580 µg/L	200.000	1000	Pass
B 11	96.280 µg/L	200.000	0	Pass
Na 23	1022.000 µg/L	10000.000	20000	Pass
Mg 24	1021.000 µg/L	10000.000	20000	Pass
Mg 25	1062.000 µg/L	10000.000	20000	Pass
Mg 26	1032.000 µg/L	10000.000	20000	Pass
Al 27	1019.000 µg/L	10000.000	20000	Pass
Si 28	1063.000 µg/L	10000.000	0	Pass
K 39	1046.000 µg/L	10000.000	20000	Pass
Ca 43	1024.000 µg/L	10000.000	20000	Pass
Ca 44	1033.000 µg/L	10000.000	20000	Pass
Ti 47	102.800 µg/L	200.000	1000	Pass
V 51	102.700 µg/L	200.000	1000	Pass
Cr 52	103.800 µg/L	200.000	1000	Pass
Cr 53	103.200 µg/L	200.000	1000	Pass
Fe 54	1085.000 µg/L	10000.000	20000	Pass
Mn 55	105.000 µg/L	200.000	1000	Pass
Fe 57	1078.000 µg/L	10000.000	20000	Pass
Co 59	103.000 µg/L	200.000	1000	Pass
Ni 60	104.400 µg/L	200.000	1000	Pass
Cu 63	105.100 µg/L	200.000	1000	Pass
Cu 65	106.600 µg/L	200.000	1000	Pass
Zn 66	108.100 µg/L	200.000	1000	Pass
Zn 67	105.300 µg/L	200.000	1000	Pass
Zn 68	108.300 µg/L	200.000	1000	Pass
As 75	104.900 µg/L	200.000	1000	Pass
Se 82	106.300 µg/L	200.000	1000	Pass
Sr 87	103.100 µg/L	200.000	1000	Pass
Mo 95	97.270 µg/L	200.000	1000	Pass
Mo 98	97.970 µg/L	200.000	1000	Pass
Ag 107	101.700 µg/L	200.000	1000	Pass
Ag 109	102.000 µg/L	200.000	1000	Pass
Cd 111	101.700 µg/L	200.000	1000	Pass
Cd 114	102.500 µg/L	200.000	1000	Pass
Sn 120	115.200 µg/L	200.000	1000	Pass
Sb 121	102.200 µg/L	200.000	1000	Pass
Sb 123	102.100 µg/L	200.000	1000	Pass

Ba 135	103.400 µg/L	200.000	1000	Pass
Au 197	100.700 µg/L	200.000	0	Pass
Tl 205	98.610 µg/L	200.000	1000	Pass

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2402.09A\013SMPL.D\013SMPL.D#
Acquired : Sep 24 02 11:43 am using AcqMethod 6020.M
Operator : JWB
Sample Name: M021283-002
Misc Info : ,
Vial Number: 2102
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 1.000000

Pb 208	100.400 µg/L	200.000	1000	Pass
U 238	100.300 µg/L	200.000	1000	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	555445	479588	Pass
45	463166	391252	Pass
72	79864	64012	Pass
115	416981	359690	Pass
209	232408	215574	Pass

Internal Standards referenced to 002CALB.D#

0 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2402.09A\014SMPL.D\014SMPL.D#
Acquired : Sep 24 02 11:52 am using AcqMethod 6020.M
Operator : JWB
Sample Name: M021283-003
Misc Info : ,
Vial Number: 2103
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 1.000000

Element		Concentration	Cal Conc	LRS Conc	Flag
Be	9	95.240 µg/L	200.000	1000	Pass
B	11	99.850 µg/L	200.000	0	Pass
Na	23	1001.000 µg/L	10000.000	20000	Pass
Mg	24	995.600 µg/L	10000.000	20000	Pass
Mg	25	1065.000 µg/L	10000.000	20000	Pass
Mg	26	1043.000 µg/L	10000.000	20000	Pass
Al	27	1052.000 µg/L	10000.000	20000	Pass
Si	28	1074.000 µg/L	10000.000	0	Pass
K	39	1021.000 µg/L	10000.000	20000	Pass
Ca	43	1050.000 µg/L	10000.000	20000	Pass
Ca	44	1085.000 µg/L	10000.000	20000	Pass
Ti	47	102.100 µg/L	200.000	1000	Pass
V	51	101.600 µg/L	200.000	1000	Pass
Cr	52	102.500 µg/L	200.000	1000	Pass
Cr	53	100.100 µg/L	200.000	1000	Pass
Fe	54	1100.000 µg/L	10000.000	20000	Pass
Mn	55	106.000 µg/L	200.000	1000	Pass
Fe	57	1076.000 µg/L	10000.000	20000	Pass
Co	59	103.800 µg/L	200.000	1000	Pass
Ni	60	104.800 µg/L	200.000	1000	Pass
Cu	63	105.900 µg/L	200.000	1000	Pass
Cu	65	106.800 µg/L	200.000	1000	Pass
Zn	66	108.800 µg/L	200.000	1000	Pass
Zn	67	106.300 µg/L	200.000	1000	Pass
Zn	68	108.400 µg/L	200.000	1000	Pass
As	75	105.700 µg/L	200.000	1000	Pass
Se	82	105.700 µg/L	200.000	1000	Pass
Sr	87	102.700 µg/L	200.000	1000	Pass
Mo	95	97.090 µg/L	200.000	1000	Pass
Mo	98	98.570 µg/L	200.000	1000	Pass
Ag	107	101.400 µg/L	200.000	1000	Pass
Ag	109	102.200 µg/L	200.000	1000	Pass
Cd	111	100.900 µg/L	200.000	1000	Pass
Cd	114	102.700 µg/L	200.000	1000	Pass
Sn	120	115.500 µg/L	200.000	1000	Pass
Sb	121	103.200 µg/L	200.000	1000	Pass
Sb	123	103.100 µg/L	200.000	1000	Pass

Ba 135	104.000 µg/L	200.000	1000	Pass
Au 197	99.390 µg/L	200.000	0	Pass
Tl 205	98.390 µg/L	200.000	1000	Pass

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2402.09A\014SMPL.D\014SMPL.D#
Acquired : Sep 24 02 11:52 am using AcqMethod 6020.M
Operator : JWB
Sample Name: M021283-003
Misc Info : ,
Vial Number: 2103
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 1.000000

Pb 208	99.660 µg/L	200.000	1000	Pass
U 238	100.100 µg/L	200.000	1000	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	555445	478276	Pass
45	463166	386987	Pass
72	79864	63751	Pass
115	416981	353689	Pass
209	232408	213937	Pass

Internal Standards referenced to 002CALB.D#

0 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2402.09A\015SMPL.D\015SMPL.D#
Acquired : Sep 24 02 00:02 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: M021283-006
Misc Info : ,
Vial Number: 2104
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 100.000000

320

Element		Concentration	Cal Conc	LRS Conc	Flag
Be	9	10.140 µg/L	200.000	1000	Pass
B	11	-58.440 µg/L	200.000	0	Pass
Na	23	3612.000 µg/L	10000.000	20000	Pass
Mg	24	15260.000 µg/L	10000.000	20000	Pass
Mg	25	15360.000 µg/L	10000.000	20000	Pass
Mg	26	14960.000 µg/L	10000.000	20000	Pass
Al	27	101100.000 µg/L	10000.000	20000	Pass
Si	28	18470.000 µg/L	10000.000	0	Pass
K	39	13840.000 µg/L	10000.000	20000	Pass
Ca	43	17890.000 µg/L	10000.000	20000	Pass
Ca	44	18370.000 µg/L	10000.000	20000	Pass
Ti	47	2985.000 µg/L	200.000	1000	Pass
V	51	81.520 µg/L	200.000	1000	Pass
Cr	52	91.450 µg/L	200.000	1000	Pass
Cr	53	62.300 µg/L	200.000	1000	Pass
Fe	54	126600.000 µg/L	10000.000	20000	Pass
Mn	55	3221.000 µg/L	200.000	1000	Pass
Fe	57	127100.000 µg/L	10000.000	20000	Pass
Co	59	-6.004 µg/L	200.000	1000	Pass
Ni	60	49.820 µg/L	200.000	1000	Pass
Cu	63	61.530 µg/L	200.000	1000	Pass
Cu	65	60.510 µg/L	200.000	1000	Pass
Zn	66	714.200 µg/L	200.000	1000	Pass
Zn	67	724.000 µg/L	200.000	1000	Pass
Zn	68	664.200 µg/L	200.000	1000	Pass
As	75	5.701 µg/L	200.000	1000	Pass
Se	82	25.550 µg/L	200.000	1000	Pass
Sr	87	726.300 µg/L	200.000	1000	Pass
Mo	95	84.540 µg/L	200.000	1000	Pass
Mo	98	78.910 µg/L	200.000	1000	Pass
Ag	107	-0.424 µg/L	200.000	1000	Pass
Ag	109	-0.227 µg/L	200.000	1000	Pass
Cd	111	3.992 µg/L	200.000	1000	Pass
Cd	114	4.674 µg/L	200.000	1000	Pass
Sn	120	35.610 µg/L	200.000	1000	Pass
Sb	121	-0.300 µg/L	200.000	1000	Pass
Sb	123	7.616 µg/L	200.000	1000	Pass

Ba 135	707.000 µg/L	200.000	1000	Pass
Au 197	68.470 µg/L	200.000	0	Pass
Tl 205	43.500 µg/L	200.000	1000	Pass

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2402.09A\015SMPL.D\015SMPL.D#
Acquired : Sep 24 02 00:02 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: M021283-006
Misc Info : ,
Vial Number: 2104
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 100.000000

Pb 208	139.300 µg/L	200.000	1000	Pass
U 238	13.030 µg/L	200.000	1000	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	555445	446109	Pass
45	463166	366308	Pass
72	79864	61287	Pass
115	416981	350832	Pass
209	232408	211245	Pass

Internal Standards referenced to 002CALB.D#

0 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2402.09A\016SMPL.D\016SMPL.D#
Acquired : Sep 24 02 00:11 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: M021283-006
Misc Info : ,
Vial Number: 2105
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 10.000000

322

Element		Concentration	Cal Conc	LRS Conc	Flag
Be	9	8.019 µg/L	200.000	1000	Pass
B	11	8.961 µg/L	200.000	0	Pass
Na	23	2412.000 µg/L	10000.000	20000	Pass
Mg	24	13050.000 µg/L	10000.000	20000	Pass
Mg	25	14070.000 µg/L	10000.000	20000	Pass
Mg	26	13770.000 µg/L	10000.000	20000	Pass
Al	27	99150.000 µg/L	10000.000	20000	Pass
Si	28	5327.000 µg/L	10000.000	0	Pass
K	39	12870.000 µg/L	10000.000	20000	Pass
Ca	43	15960.000 µg/L	10000.000	20000	Pass
Ca	44	15840.000 µg/L	10000.000	20000	Pass
Ti	47	2905.000 µg/L	200.000	1000	>Cal std
V	51	99.140 µg/L	200.000	1000	Pass
Cr	52	59.240 µg/L	200.000	1000	Pass
Cr	53	47.390 µg/L	200.000	1000	Pass
Fe	54	116300.000 µg/L	10000.000	20000	>Cal std
Mn	55	3144.000 µg/L	200.000	1000	>Cal std
Fe	57	120700.000 µg/L	10000.000	20000	>Cal std
Co	59	15.550 µg/L	200.000	1000	Pass
Ni	60	44.690 µg/L	200.000	1000	Pass
Cu	63	43.700 µg/L	200.000	1000	Pass
Cu	65	44.080 µg/L	200.000	1000	Pass
Zn	66	540.100 µg/L	200.000	1000	Pass
Zn	67	531.400 µg/L	200.000	1000	Pass
Zn	68	496.800 µg/L	200.000	1000	Pass
As	75	19.130 µg/L	200.000	1000	Pass
Se	82	8.161 µg/L	200.000	1000	Pass
Sr	87	705.300 µg/L	200.000	1000	Pass
Mo	95	25.340 µg/L	200.000	1000	Pass
Mo	98	25.390 µg/L	200.000	1000	Pass
Ag	107	0.102 µg/L	200.000	1000	Pass
Ag	109	0.087 µg/L	200.000	1000	Pass
Cd	111	1.973 µg/L	200.000	1000	Pass
Cd	114	0.982 µg/L	200.000	1000	Pass
Sn	120	34.980 µg/L	200.000	1000	Pass
Sb	121	-0.037 µg/L	200.000	1000	Pass
Sb	123	0.689 µg/L	200.000	1000	Pass

Ba 135	738.700 µg/L	200.000	1000	Pass
Au 197	3.552 µg/L	200.000	0	Pass
Tl 205	2.318 µg/L	200.000	1000	Pass

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2402.09A\016SMPL.D\016SMPL.D#
Acquired : Sep 24 02 00:11 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: M021283-006
Misc Info : ,
Vial Number: 2105
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 10.000000

Pb 208	163.900 µg/L	200.000	1000	Pass
U 238	9.141 µg/L	200.000	1000	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	555445	432896	Pass
45	463166	378468	Pass
72	79864	61885	Pass
115	416981	345432	Pass
209	232408	211462	Pass

Internal Standards referenced to 002CALB.D#

4 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2402.09A\017SMPL.D\017SMPL.D#
Acquired : Sep 24 02 00:20 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: M021283-007
Misc Info : ,
Vial Number: 2106
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 100.000000

324

Element		Concentration	Cal Conc	LRS Conc	Flag
Be	9	107.800 µg/L	200.000	1000	Pass
B	11	-0.754 µg/L	200.000	0	Pass
Na	23	4528.000 µg/L	10000.000	20000	Pass
Mg	24	18860.000 µg/L	10000.000	20000	Pass
Mg	25	19450.000 µg/L	10000.000	20000	Pass
Mg	26	19160.000 µg/L	10000.000	20000	Pass
Al	27	122800.000 µg/L	10000.000	20000	Pass
Si	28	24610.000 µg/L	10000.000	0	Pass
K	39	18170.000 µg/L	10000.000	20000	Pass
Ca	43	20430.000 µg/L	10000.000	20000	Pass
Ca	44	20370.000 µg/L	10000.000	20000	Pass
Ti	47	4099.000 µg/L	200.000	1000	Pass
V	51	198.800 µg/L	200.000	1000	Pass
Cr	52	182.800 µg/L	200.000	1000	Pass
Cr	53	-71.140 µg/L	200.000	1000	Pass
Fe	54	140600.000 µg/L	10000.000	20000	Pass
Mn	55	3440.000 µg/L	200.000	1000	Pass
Fe	57	143500.000 µg/L	10000.000	20000	Pass
Co	59	103.300 µg/L	200.000	1000	Pass
Ni	60	160.700 µg/L	200.000	1000	Pass
Cu	63	163.500 µg/L	200.000	1000	Pass
Cu	65	170.300 µg/L	200.000	1000	Pass
Zn	66	827.200 µg/L	200.000	1000	Pass
Zn	67	812.300 µg/L	200.000	1000	Pass
Zn	68	761.200 µg/L	200.000	1000	Pass
As	75	124.400 µg/L	200.000	1000	Pass
Se	82	123.000 µg/L	200.000	1000	Pass
Sr	87	900.300 µg/L	200.000	1000	Pass
Mo	95	134.900 µg/L	200.000	1000	Pass
Mo	98	136.600 µg/L	200.000	1000	Pass
Ag	107	101.900 µg/L	200.000	1000	Pass
Ag	109	100.100 µg/L	200.000	1000	Pass
Cd	111	99.780 µg/L	200.000	1000	Pass
Cd	114	104.500 µg/L	200.000	1000	Pass
Sn	120	140.300 µg/L	200.000	1000	Pass
Sb	121	36.510 µg/L	200.000	1000	Pass
Sb	123	49.240 µg/L	200.000	1000	Pass

Ba 135	879.200 µg/L	200.000	1000	Pass
Au 197	119.200 µg/L	200.000	0	Pass
Tl 205	82.770 µg/L	200.000	1000	Pass

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2402.09A\017SMPL.D\017SMPL.D#
Acquired : Sep 24 02 00:20 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: M021283-007
Misc Info : ,
Vial Number: 2106
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 100.000000

Pb 208	243.400 µg/L	200.000	1000	Pass
U 238	115.700 µg/L	200.000	1000	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	555445	426625	Pass
45	463166	343230	Pass
72	79864	59126	Pass
115	416981	335389	Pass
209	232408	203050	Pass

Internal Standards referenced to 002CALB.D#

0 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2402.09A\018SMPL.D\018SMPL.D#
Acquired : Sep 24 02 00:29 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: M021283-007
Misc Info : ,
Vial Number: 2107
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 10.000000

Element		Concentration	Cal Conc	LRS Conc	Flag
Be	9	108.600 µg/L	200.000	1000	Pass
B	11	102.400 µg/L	200.000	0	Pass
Na	23	3592.000 µg/L	10000.000	20000	Pass
Mg	24	16790.000 µg/L	10000.000	20000	Pass
Mg	25	17150.000 µg/L	10000.000	20000	Pass
Mg	26	16860.000 µg/L	10000.000	20000	Pass
Al	27	115800.000 µg/L	10000.000	20000	>Cal std
Si	28	8486.000 µg/L	10000.000	0	Pass
K	39	16640.000 µg/L	10000.000	20000	Pass
Ca	43	17720.000 µg/L	10000.000	20000	Pass
Ca	44	17800.000 µg/L	10000.000	20000	Pass
Ti	47	3866.000 µg/L	200.000	1000	>Cal std
V	51	213.100 µg/L	200.000	1000	Pass
Cr	52	166.900 µg/L	200.000	1000	Pass
Cr	53	165.000 µg/L	200.000	1000	Pass
Fe	54	131200.000 µg/L	10000.000	20000	>Cal std
Mn	55	3315.000 µg/L	200.000	1000	>Cal std
Fe	57	133800.000 µg/L	10000.000	20000	>Cal std
Co	59	119.100 µg/L	200.000	1000	Pass
Ni	60	150.100 µg/L	200.000	1000	Pass
Cu	63	148.400 µg/L	200.000	1000	Pass
Cu	65	155.800 µg/L	200.000	1000	Pass
Zn	66	658.700 µg/L	200.000	1000	Pass
Zn	67	652.000 µg/L	200.000	1000	Pass
Zn	68	610.200 µg/L	200.000	1000	Pass
As	75	124.000 µg/L	200.000	1000	Pass
Se	82	115.300 µg/L	200.000	1000	Pass
Sr	87	893.300 µg/L	200.000	1000	Pass
Mo	95	118.800 µg/L	200.000	1000	Pass
Mo	98	117.400 µg/L	200.000	1000	Pass
Ag	107	101.900 µg/L	200.000	1000	Pass
Ag	109	103.200 µg/L	200.000	1000	Pass
Cd	111	108.500 µg/L	200.000	1000	Pass
Cd	114	105.900 µg/L	200.000	1000	Pass
Sn	120	145.800 µg/L	200.000	1000	Pass
Sb	121	44.880 µg/L	200.000	1000	Pass
Sb	123	46.620 µg/L	200.000	1000	Pass

Ba	135	880.500 µg/L	200.000	1000	Pass
Au	197	102.400 µg/L	200.000	0	Pass
Tl	205	100.000 µg/L	200.000	1000	Pass

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2402.09A\018SMPL.D\018SMPL.D#
Acquired : Sep 24 02 00:29 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: M021283-007
Misc Info : ,
Vial Number: 2107
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 10.000000

Pb	208	267.900 µg/L	200.000	1000	Pass
U	238	112.900 µg/L	200.000	1000	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	555445	429902	Pass
45	463166	381100	Pass
72	79864	62580	Pass
115	416981	347940	Pass
209	232408	212157	Pass

Internal Standards referenced to 002CALB.D#

5 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2402.09A\019SMPL.D\019SMPL.D#
Acquired : Sep 24 02 00:38 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: M021283-008
Misc Info : ,
Vial Number: 2108
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 100.000000

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Element		Concentration	Cal Conc	LRS Conc	Flag
Be	9	100.800 µg/L	200.000	1000	Pass
B	11	-34.390 µg/L	200.000	0	Pass
Na	23	4611.000 µg/L	10000.000	20000	Pass
Mg	24	18500.000 µg/L	10000.000	20000	Pass
Mg	25	18520.000 µg/L	10000.000	20000	Pass
Mg	26	18250.000 µg/L	10000.000	20000	Pass
Al	27	121600.000 µg/L	10000.000	20000	Pass
Si	28	25730.000 µg/L	10000.000	0	Pass
K	39	17550.000 µg/L	10000.000	20000	Pass
Ca	43	24800.000 µg/L	10000.000	20000	Pass
Ca	44	23640.000 µg/L	10000.000	20000	Pass
Ti	47	4251.000 µg/L	200.000	1000	Pass
V	51	257.100 µg/L	200.000	1000	Pass
Cr	52	179.800 µg/L	200.000	1000	Pass
Cr	53	-142.500 µg/L	200.000	1000	Pass
Fe	54	134300.000 µg/L	10000.000	20000	Pass
Mn	55	3933.000 µg/L	200.000	1000	Pass
Fe	57	138000.000 µg/L	10000.000	20000	Pass
Co	59	102.100 µg/L	200.000	1000	Pass
Ni	60	181.100 µg/L	200.000	1000	Pass
Cu	63	163.200 µg/L	200.000	1000	Pass
Cu	65	167.600 µg/L	200.000	1000	Pass
Zn	66	856.100 µg/L	200.000	1000	Pass
Zn	67	851.600 µg/L	200.000	1000	Pass
Zn	68	793.100 µg/L	200.000	1000	Pass
As	75	116.600 µg/L	200.000	1000	Pass
Se	82	120.500 µg/L	200.000	1000	Pass
Sr	87	920.200 µg/L	200.000	1000	Pass
Mo	95	135.500 µg/L	200.000	1000	Pass
Mo	98	130.500 µg/L	200.000	1000	Pass
Ag	107	100.900 µg/L	200.000	1000	Pass
Ag	109	101.900 µg/L	200.000	1000	Pass
Cd	111	105.300 µg/L	200.000	1000	Pass
Cd	114	101.100 µg/L	200.000	1000	Pass
Sn	120	135.700 µg/L	200.000	1000	Pass
Sb	121	43.570 µg/L	200.000	1000	Pass
Sb	123	42.960 µg/L	200.000	1000	Pass

Ba 135	878.400 µg/L	200.000	1000	Pass
Au 197	112.800 µg/L	200.000	0	Pass
Tl 205	83.630 µg/L	200.000	1000	Pass

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2402.09A\019SMPL.D\019SMPL.D#
Acquired : Sep 24 02 00:38 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: M021283-008
Misc Info : ,
Vial Number: 2108
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 100.000000

Pb 208	297.900 µg/L	200.000	1000	Pass
U 238	114.300 µg/L	200.000	1000	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	555445	422097	Pass
45	463166	357918	Pass
72	79864	60123	Pass
115	416981	343271	Pass
209	232408	207007	Pass

Internal Standards referenced to 002CALB.D#

0 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

CCV QC Report

330

File : D:\HPCHEM\1\DATA\Sep2402.09A\020CCV_D\020CCV_D#
Acquired : Sep 24 02 00:47 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: [STD-CCV]
Misc Info :
Vial Number: 1105
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: CCV
Dilution : 1.000000

CCV Mix #1

Element		Concentration	Expected	QC Range	Flag
Be	9	94.530 µg/L	100.00	90.00-110.00	Pass
B	11	96.490 µg/L	100.00	90.00-110.00	Pass
Na	23	992.100 µg/L	1000.00	900.00-1100.00	Pass
Mg	24	1005.000 µg/L	1000.00	900.00-1100.00	Pass
Mg	25	1055.000 µg/L	1000.00	900.00-1100.00	Pass
Mg	26	1025.000 µg/L	1000.00	900.00-1100.00	Pass
Al	27	1032.000 µg/L	1000.00	900.00-1100.00	Pass
Si	28	1101.000 µg/L	1000.00	900.00-1100.00	*Fail*
K	39	1034.000 µg/L	1000.00	900.00-1100.00	Pass
Ca	43	1019.000 µg/L	1000.00	900.00-1100.00	Pass
Ca	44	999.700 µg/L	1000.00	900.00-1100.00	Pass
Ti	47	103.500 µg/L	100.00	90.00-110.00	Pass
V	51	103.900 µg/L	100.00	90.00-110.00	Pass
Cr	52	103.900 µg/L	100.00	90.00-110.00	Pass
Cr	53	96.300 µg/L	100.00	90.00-110.00	Pass
Fe	54	1107.000 µg/L	1000.00	900.00-1100.00	*Fail*
Mn	55	106.500 µg/L	100.00	90.00-110.00	Pass
Fe	57	1079.000 µg/L	1000.00	900.00-1100.00	Pass
Co	59	105.400 µg/L	100.00	90.00-110.00	Pass
Ni	60	106.600 µg/L	100.00	90.00-110.00	Pass
Cu	63	106.300 µg/L	100.00	90.00-110.00	Pass
Cu	65	107.600 µg/L	100.00	90.00-110.00	Pass
Zn	66	103.400 µg/L	100.00	90.00-110.00	Pass
Zn	67	99.780 µg/L	100.00	90.00-110.00	Pass
Zn	68	103.200 µg/L	100.00	90.00-110.00	Pass
As	75	101.900 µg/L	100.00	90.00-110.00	Pass
Se	82	105.600 µg/L	100.00	90.00-110.00	Pass
Sr	87	102.900 µg/L	100.00	90.00-110.00	Pass
Mo	95	95.760 µg/L	100.00	90.00-110.00	Pass
Mo	98	96.750 µg/L	100.00	90.00-110.00	Pass
Ag	107	100.100 µg/L	100.00	90.00-110.00	Pass
Ag	109	100.400 µg/L	100.00	90.00-110.00	Pass
Cd	111	101.100 µg/L	100.00	90.00-110.00	Pass
Cd	114	101.900 µg/L	100.00	90.00-110.00	Pass
Sn	120	102.700 µg/L	100.00	90.00-110.00	Pass

Sb 121	102.300 µg/L	100.00	90.00-110.00	Pass
Sb 123	103.300 µg/L	100.00	90.00-110.00	Pass
Ba 135	102.400 µg/L	100.00	90.00-110.00	Pass

CCV QC Report

File : D:\HPCHEM\1\DATA\Sep2402.09A\020CCV_.D\020CCV_.D#
Acquired : Sep 24 02 00:47 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: [STD-CCV]
Misc Info :
Vial Number: 1105
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: CCV
Dilution : 1.000000

Au 197	99.250 µg/L	100.00	90.00-110.00	Pass
Tl 205	97.930 µg/L	100.00	90.00-110.00	Pass
Pb 208	99.890 µg/L	100.00	90.00-110.00	Pass
U 238	100.800 µg/L	100.00	90.00-110.00	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	555445	430309	Pass
45	463166	356654	Pass
72	79864	60762	Pass
115	416981	343463	Pass
209	232408	207609	Pass

Internal Standards referenced to 002CALB.D#

2 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

Blank QC Report

File : D:\HPCHEM\1\DATA\Sep2402.09A\021CCB_.D\021CCB_.D#
Acquired : Sep 24 02 00:57 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: [CB]
Misc Info :
Vial Number: 1102
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: CCB
Dilution : 1.000000

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Element	Concentration	CRDL Limit	Flag
Be 9	0.034 µg/L	1.00	Pass
B 11	0.011 µg/L	1.00	Pass
Na 23	0.209 µg/L	10.00	Pass
Mg 24	0.463 µg/L	10.00	Pass
Mg 25	0.475 µg/L	10.00	Pass
Mg 26	0.430 µg/L	10.00	Pass
Al 27	2.979 µg/L	10.00	Pass
Si 28	-2.434 µg/L	10.00	Pass
K 39	2.223 µg/L	10.00	Pass
Ca 43	5.176 µg/L	10.00	Pass
Ca 44	1.329 µg/L	10.00	Pass
Ti 47	0.071 µg/L	1.00	Pass
V 51	0.099 µg/L	1.00	Pass
Cr 52	0.384 µg/L	1.00	Pass
Cr 53	5.045 µg/L	1.00	*Fail*
Fe 54	35.200 µg/L	10.00	*Fail*
Mn 55	0.079 µg/L	1.00	Pass
Fe 57	3.552 µg/L	10.00	Pass
Co 59	-0.269 µg/L	1.00	Pass
Ni 60	-0.019 µg/L	1.00	Pass
Cu 63	0.010 µg/L	1.00	Pass
Cu 65	0.030 µg/L	1.00	Pass
Zn 66	0.046 µg/L	1.00	Pass
Zn 67	0.611 µg/L	1.00	Pass
Zn 68	-0.046 µg/L	1.00	Pass
As 75	0.189 µg/L	1.00	Pass
Se 82	0.044 µg/L	1.00	Pass
Sr 87	0.030 µg/L	1.00	Pass
Mo 95	0.326 µg/L	1.00	Pass
Mo 98	0.297 µg/L	1.00	Pass
Ag 107	0.029 µg/L	1.00	Pass
Ag 109	0.023 µg/L	1.00	Pass
Cd 111	0.049 µg/L	1.00	Pass
Cd 114	0.039 µg/L	1.00	Pass
Sn 120	-0.018 µg/L	1.00	Pass
Sb 121	0.227 µg/L	1.00	Pass
Sb 123	0.273 µg/L	1.00	Pass

Ba 135	0.050 µg/L	1.00	Pass
Au 197	0.478 µg/L	1.00	Pass
Tl 205	0.278 µg/L	1.00	Pass

Blank QC Report

File : D:\HPCHEM\1\DATA\Sep2402.09A\021CCB_.D\021CCB_.D#
Acquired : Sep 24 02 00:57 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: [CB]
Misc Info :
Vial Number: 1102
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: CCB
Dilution : 1.000000

Pb 208	−0.255 µg/L	1.00	Pass
U 238	0.045 µg/L	1.00	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	555445	404477	Pass
45	463166	344240	Pass
72	79864	58106	Pass
115	416981	332352	Pass
209	232408	199638	Pass

Internal Standards referenced to 002CALB.D#

2 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2402.09A\022SMPL.D\022SMPL.D#
Acquired : Sep 24 02 01:06 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: M021283-008
Misc Info : ,
Vial Number: 2109
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 10.000000

334

Element		Concentration	Cal Conc	LRS Conc	Flag
Be	9	111.400 µg/L	200.000	1000	Pass
B	11	101.600 µg/L	200.000	0	Pass
Na	23	3492.000 µg/L	10000.000	20000	Pass
Mg	24	16000.000 µg/L	10000.000	20000	Pass
Mg	25	16950.000 µg/L	10000.000	20000	Pass
Mg	26	16580.000 µg/L	10000.000	20000	Pass
Al	27	112000.000 µg/L	10000.000	20000	>Cal std
Si	28	9265.000 µg/L	10000.000	0	Pass
K	39	15900.000 µg/L	10000.000	20000	Pass
Ca	43	21010.000 µg/L	10000.000	20000	Pass
Ca	44	20810.000 µg/L	10000.000	20000	Pass
Ti	47	3853.000 µg/L	200.000	1000	>Cal std
V	51	222.900 µg/L	200.000	1000	Pass
Cr	52	168.100 µg/L	200.000	1000	Pass
Cr	53	174.800 µg/L	200.000	1000	Pass
Fe	54	128200.000 µg/L	10000.000	20000	>Cal std
Mn	55	3896.000 µg/L	200.000	1000	>Cal std
Fe	57	134200.000 µg/L	10000.000	20000	>Cal std
Co	59	123.300 µg/L	200.000	1000	Pass
Ni	60	165.400 µg/L	200.000	1000	Pass
Cu	63	155.000 µg/L	200.000	1000	Pass
Cu	65	155.900 µg/L	200.000	1000	Pass
Zn	66	668.900 µg/L	200.000	1000	Pass
Zn	67	669.400 µg/L	200.000	1000	Pass
Zn	68	624.900 µg/L	200.000	1000	Pass
As	75	126.100 µg/L	200.000	1000	Pass
Se	82	118.800 µg/L	200.000	1000	Pass
Sr	87	913.100 µg/L	200.000	1000	Pass
Mo	95	119.900 µg/L	200.000	1000	Pass
Mo	98	119.800 µg/L	200.000	1000	Pass
Ag	107	101.900 µg/L	200.000	1000	Pass
Ag	109	102.900 µg/L	200.000	1000	Pass
Cd	111	107.700 µg/L	200.000	1000	Pass
Cd	114	105.900 µg/L	200.000	1000	Pass
Sn	120	146.800 µg/L	200.000	1000	Pass
Sb	121	49.760 µg/L	200.000	1000	Pass
Sb	123	50.870 µg/L	200.000	1000	Pass

Ba 135	882.800 µg/L	200.000	1000	Pass
Au 197	101.000 µg/L	200.000	0	Pass
Tl 205	103.300 µg/L	200.000	1000	Pass

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2402.09A\022SMPL.D\022SMPL.D#
Acquired : Sep 24 02 01:06 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: M021283-008
Misc Info : ,
Vial Number: 2109
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 10.000000

Pb 208	327.800 µg/L	200.000	1000	Pass
U 238	114.900 µg/L	200.000	1000	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	555445	396721	Pass
45	463166	369973	Pass
72	79864	61009	Pass
115	416981	343526	Pass
209	232408	210581	Pass

Internal Standards referenced to 002CALB.D#

5 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2402.09A\023SMPL.D\023SMPL.D#
Acquired : Sep 24 02 01:15 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: M021283-011
Misc Info : ,
Vial Number: 2202
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 100.000000

336

Element		Concentration	Cal Conc	LRS Conc	Flag
Be	9	9.613 µg/L	200.000	1000	Pass
B	11	-137.000 µg/L	200.000	0	Pass
Na	23	3224.000 µg/L	10000.000	20000	Pass
Mg	24	12740.000 µg/L	10000.000	20000	Pass
Mg	25	13010.000 µg/L	10000.000	20000	Pass
Mg	26	13130.000 µg/L	10000.000	20000	Pass
Al	27	85670.000 µg/L	10000.000	20000	Pass
Si	28	23680.000 µg/L	10000.000	0	Pass
K	39	11840.000 µg/L	10000.000	20000	Pass
Ca	43	19760.000 µg/L	10000.000	20000	Pass
Ca	44	19330.000 µg/L	10000.000	20000	Pass
Ti	47	3345.000 µg/L	200.000	1000	Pass
V	51	77.460 µg/L	200.000	1000	Pass
Cr	52	74.560 µg/L	200.000	1000	Pass
Cr	53	-44.230 µg/L	200.000	1000	Pass
Fe	54	129200.000 µg/L	10000.000	20000	Pass
Mn	55	3772.000 µg/L	200.000	1000	Pass
Fe	57	132000.000 µg/L	10000.000	20000	Pass
Co	59	-13.150 µg/L	200.000	1000	Pass
Ni	60	46.790 µg/L	200.000	1000	Pass
Cu	63	47.240 µg/L	200.000	1000	Pass
Cu	65	54.220 µg/L	200.000	1000	Pass
Zn	66	746.700 µg/L	200.000	1000	Pass
Zn	67	728.000 µg/L	200.000	1000	Pass
Zn	68	707.700 µg/L	200.000	1000	Pass
As	75	4.776 µg/L	200.000	1000	Pass
Se	82	5.503 µg/L	200.000	1000	Pass
Sr	87	608.300 µg/L	200.000	1000	Pass
Mo	95	34.890 µg/L	200.000	1000	Pass
Mo	98	33.760 µg/L	200.000	1000	Pass
Ag	107	-2.921 µg/L	200.000	1000	Pass
Ag	109	-2.685 µg/L	200.000	1000	Pass
Cd	111	2.535 µg/L	200.000	1000	Pass
Cd	114	2.125 µg/L	200.000	1000	Pass
Sn	120	34.320 µg/L	200.000	1000	Pass
Sb	121	-5.855 µg/L	200.000	1000	Pass
Sb	123	1.147 µg/L	200.000	1000	Pass

Ba 135	613.300 µg/L	200.000	1000	Pass
Au 197	17.860 µg/L	200.000	0	Pass
Tl 205	-14.420 µg/L	200.000	1000	Pass

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2402.09A\023SMPL.D\023SMPL.D#
Acquired : Sep 24 02 01:15 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: M021283-011
Misc Info : ,
Vial Number: 2202
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 100.000000

Pb 208	109.500 µg/L	200.000	1000	Pass
U 238	8.149 µg/L	200.000	1000	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	555445	400245	Pass
45	463166	345711	Pass
72	79864	59334	Pass
115	416981	344139	Pass
209	232408	207662	Pass

Internal Standards referenced to 002CALB.D#

0 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

Sample QC Report

338

File : D:\HPCHEM\1\DATA\Sep2402.09A\024SMPL.D\024SMPL.D#
Acquired : Sep 24 02 01:24 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: M021283-011
Misc Info : ,
Vial Number: 2203
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 10.000000

Element		Concentration	Cal Conc	LRS Conc	Flag
Be	9	8.852 µg/L	200.000	1000	Pass
B	11	1.941 µg/L	200.000	0	Pass
Na	23	2454.000 µg/L	10000.000	20000	Pass
Mg	24	11390.000 µg/L	10000.000	20000	Pass
Mg	25	11890.000 µg/L	10000.000	20000	Pass
Mg	26	11700.000 µg/L	10000.000	20000	Pass
Al	27	80230.000 µg/L	10000.000	20000	Pass
Si	28	5275.000 µg/L	10000.000	0	Pass
K	39	10840.000 µg/L	10000.000	20000	Pass
Ca	43	17110.000 µg/L	10000.000	20000	Pass
Ca	44	16970.000 µg/L	10000.000	20000	Pass
Ti	47	3261.000 µg/L	200.000	1000	>Cal std
V	51	85.530 µg/L	200.000	1000	Pass
Cr	52	50.210 µg/L	200.000	1000	Pass
Cr	53	93.610 µg/L	200.000	1000	Pass
Fe	54	120700.000 µg/L	10000.000	20000	>Cal std
Mn	55	3637.000 µg/L	200.000	1000	>Cal std
Fe	57	125000.000 µg/L	10000.000	20000	>Cal std
Co	59	12.210 µg/L	200.000	1000	Pass
Ni	60	41.590 µg/L	200.000	1000	Pass
Cu	63	40.510 µg/L	200.000	1000	Pass
Cu	65	41.520 µg/L	200.000	1000	Pass
Zn	66	570.000 µg/L	200.000	1000	Pass
Zn	67	554.800 µg/L	200.000	1000	Pass
Zn	68	537.000 µg/L	200.000	1000	Pass
As	75	19.740 µg/L	200.000	1000	Pass
Se	82	8.041 µg/L	200.000	1000	Pass
Sr	87	591.900 µg/L	200.000	1000	Pass
Mo	95	24.310 µg/L	200.000	1000	Pass
Mo	98	23.910 µg/L	200.000	1000	Pass
Ag	107	-0.045 µg/L	200.000	1000	Pass
Ag	109	-0.089 µg/L	200.000	1000	Pass
Cd	111	1.967 µg/L	200.000	1000	Pass
Cd	114	0.296 µg/L	200.000	1000	Pass
Sn	120	36.940 µg/L	200.000	1000	Pass
Sb	121	-0.285 µg/L	200.000	1000	Pass
Sb	123	0.513 µg/L	200.000	1000	Pass

Ba 135	628.800 µg/L	200.000	1000	Pass
Au 197	1.140 µg/L	200.000	0	Pass
Tl 205	-0.456 µg/L	200.000	1000	Pass

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2402.09A\024SMPL.D\024SMPL.D#
Acquired : Sep 24 02 01:24 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: M021283-011
Misc Info : ,
Vial Number: 2203
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 10.000000

Pb 208	135.800 µg/L	200.000	1000	Pass
U 238	8.672 µg/L	200.000	1000	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	555445	391982	Pass
45	463166	360727	Pass
72	79864	59363	Pass
115	416981	337010	Pass
209	232408	204884	Pass

Internal Standards referenced to 002CALB.D#

4 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

Sample QC Report

340

File : D:\HPCHEM\1\DATA\Sep2402.09A\025SMPL.D\025SMPL.D#
Acquired : Sep 24 02 01:33 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: M021283-012
Misc Info : ,
Vial Number: 2204
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 100.000000

Element		Concentration	Cal Conc	LRS Conc	Flag
Be	9	10.500 µg/L	200.000	1000	Pass
B	11	-153.800 µg/L	200.000	0	Pass
Na	23	3187.000 µg/L	10000.000	20000	Pass
Mg	24	25020.000 µg/L	10000.000	20000	Pass
Mg	25	25250.000 µg/L	10000.000	20000	Pass
Mg	26	24570.000 µg/L	10000.000	20000	Pass
Al	27	135200.000 µg/L	10000.000	20000	Pass
Si	28	20850.000 µg/L	10000.000	0	Pass
K	39	16880.000 µg/L	10000.000	20000	Pass
Ca	43	60990.000 µg/L	10000.000	20000	Pass
Ca	44	60160.000 µg/L	10000.000	20000	Pass
Ti	47	5379.000 µg/L	200.000	1000	Pass
V	51	195.200 µg/L	200.000	1000	Pass
Cr	52	243.300 µg/L	200.000	1000	Pass
Cr	53	889.000 µg/L	200.000	1000	Pass
Fe	54	186000.000 µg/L	10000.000	20000	Pass
Mn	55	4145.000 µg/L	200.000	1000	Pass
Fe	57	190000.000 µg/L	10000.000	20000	Pass
Co	59	9.890 µg/L	200.000	1000	Pass
Ni	60	79.080 µg/L	200.000	1000	Pass
Cu	63	91.650 µg/L	200.000	1000	Pass
Cu	65	94.660 µg/L	200.000	1000	Pass
Zn	66	1029.000 µg/L	200.000	1000	Pass
Zn	67	1054.000 µg/L	200.000	1000	Pass
Zn	68	968.000 µg/L	200.000	1000	Pass
As	75	40.470 µg/L	200.000	1000	Pass
Se	82	24.110 µg/L	200.000	1000	Pass
Sr	87	941.100 µg/L	200.000	1000	Pass
Mo	95	21.150 µg/L	200.000	1000	Pass
Mo	98	19.570 µg/L	200.000	1000	Pass
Ag	107	5.458 µg/L	200.000	1000	Pass
Ag	109	5.389 µg/L	200.000	1000	Pass
Cd	111	2.273 µg/L	200.000	1000	Pass
Cd	114	2.869 µg/L	200.000	1000	Pass
Sn	120	29.910 µg/L	200.000	1000	Pass
Sb	121	-7.481 µg/L	200.000	1000	Pass
Sb	123	-1.745 µg/L	200.000	1000	Pass

Ba	135	1040.000 µg/L	200.000	1000	Pass
Au	197	0.953 µg/L	200.000	0	Pass
Tl	205	-26.430 µg/L	200.000	1000	Pass

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2402.09A\025SMPL.D\025SMPL.D#
Acquired : Sep 24 02 01:33 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: M021283-012
Misc Info : ,
Vial Number: 2204
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 100.000000

Pb	208	272.300 µg/L	200.000	1000	Pass
U	238	8.702 µg/L	200.000	1000	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	555445	387307	Pass
45	463166	336660	Pass
72	79864	57586	Pass
115	416981	334354	Pass
209	232408	203399	Pass

Internal Standards referenced to 002CALB.D#

0 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

Sample QC Report

342

File : D:\HPCHEM\1\DATA\Sep2402.09A\026SMPL.D\026SMPL.D#
Acquired : Sep 24 02 01:43 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: M021283-012
Misc Info : ,
Vial Number: 2205
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : ---------
Sample Type: ---------
Dilution : 10.000000

Element		Concentration	Cal Conc	LRS Conc	Flag
Be	9	9.994 µg/L	200.000	1000	Pass
B	11	11.940 µg/L	200.000	0	Pass
Na	23	2687.000 µg/L	10000.000	20000	Pass
Mg	24	22750.000 µg/L	10000.000	20000	Pass
Mg	25	23420.000 µg/L	10000.000	20000	Pass
Mg	26	23040.000 µg/L	10000.000	20000	Pass
Al	27	134600.000 µg/L	10000.000	20000	>Cal std
Si	28	5142.000 µg/L	10000.000	0	Pass
K	39	15570.000 µg/L	10000.000	20000	Pass
Ca	43	57080.000 µg/L	10000.000	20000	Pass
Ca	44	56580.000 µg/L	10000.000	20000	Pass
Ti	47	5162.000 µg/L	200.000	1000	>Cal std
V	51	187.200 µg/L	200.000	1000	Pass
Cr	52	202.100 µg/L	200.000	1000	Pass
Cr	53	318.800 µg/L	200.000	1000	Pass
Fe	54	176000.000 µg/L	10000.000	20000	>Cal std
Mn	55	4055.000 µg/L	200.000	1000	>Cal std
Fe	57	180800.000 µg/L	10000.000	20000	>Cal std
Co	59	33.980 µg/L	200.000	1000	Pass
Ni	60	81.570 µg/L	200.000	1000	Pass
Cu	63	85.130 µg/L	200.000	1000	Pass
Cu	65	88.550 µg/L	200.000	1000	Pass
Zn	66	881.400 µg/L	200.000	1000	Pass
Zn	67	878.600 µg/L	200.000	1000	Pass
Zn	68	824.600 µg/L	200.000	1000	Pass
As	75	30.340 µg/L	200.000	1000	Pass
Se	82	9.105 µg/L	200.000	1000	Pass
Sr	87	907.900 µg/L	200.000	1000	Pass
Mo	95	17.470 µg/L	200.000	1000	Pass
Mo	98	17.240 µg/L	200.000	1000	Pass
Ag	107	8.000 µg/L	200.000	1000	Pass
Ag	109	8.079 µg/L	200.000	1000	Pass
Cd	111	4.534 µg/L	200.000	1000	Pass
Cd	114	1.019 µg/L	200.000	1000	Pass
Sn	120	32.670 µg/L	200.000	1000	Pass
Sb	121	-0.385 µg/L	200.000	1000	Pass
Sb	123	0.181 µg/L	200.000	1000	Pass

Ba 135	1042.000 µg/L	200.000	1000	Pass
Au 197	0.505 µg/L	200.000	0	Pass
Tl 205	-0.800 µg/L	200.000	1000	Pass

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2402.09A\026SMPL.D\026SMPL.D#
Acquired : Sep 24 02 01:43 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: M021283-012
Misc Info : ,
Vial Number: 2205
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 10.000000

Pb 208	298.800 µg/L	200.000	1000	Pass
U 238	8.663 µg/L	200.000	1000	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	555445	417807	Pass
45	463166	368252	Pass
72	79864	60915	Pass
115	416981	342706	Pass
209	232408	211146	Pass

Internal Standards referenced to 002CALB.D#

5 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2402.09A\027SMPL.D\027SMPL.D#
Acquired : Sep 24 02 01:52 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: M021283-013
Misc Info : ,
Vial Number: 2206
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 100.000000

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Element		Concentration	Cal Conc	LRS Conc	Flag
Be	9	10.760 µg/L	200.000	1000	Pass
B	11	-167.300 µg/L	200.000	0	Pass
Na	23	2912.000 µg/L	10000.000	20000	Pass
Mg	24	15700.000 µg/L	10000.000	20000	Pass
Mg	25	15630.000 µg/L	10000.000	20000	Pass
Mg	26	15610.000 µg/L	10000.000	20000	Pass
Al	27	67290.000 µg/L	10000.000	20000	Pass
Si	28	21450.000 µg/L	10000.000	0	Pass
K	39	10060.000 µg/L	10000.000	20000	Pass
Ca	43	16930.000 µg/L	10000.000	20000	Pass
Ca	44	17580.000 µg/L	10000.000	20000	Pass
Ti	47	8808.000 µg/L	200.000	1000	Pass
V	51	136.000 µg/L	200.000	1000	Pass
Cr	52	98.000 µg/L	200.000	1000	Pass
Cr	53	422.600 µg/L	200.000	1000	Pass
Fe	54	181100.000 µg/L	10000.000	20000	Pass
Mn	55	5299.000 µg/L	200.000	1000	Pass
Fe	57	187300.000 µg/L	10000.000	20000	Pass
Co	59	-7.734 µg/L	200.000	1000	Pass
Ni	60	65.980 µg/L	200.000	1000	Pass
Cu	63	50.220 µg/L	200.000	1000	Pass
Cu	65	53.670 µg/L	200.000	1000	Pass
Zn	66	929.400 µg/L	200.000	1000	Pass
Zn	67	904.700 µg/L	200.000	1000	Pass
Zn	68	875.600 µg/L	200.000	1000	Pass
As	75	46.260 µg/L	200.000	1000	Pass
Se	82	10.330 µg/L	200.000	1000	Pass
Sr	87	468.700 µg/L	200.000	1000	Pass
Mo	95	46.960 µg/L	200.000	1000	Pass
Mo	98	50.600 µg/L	200.000	1000	Pass
Ag	107	-2.288 µg/L	200.000	1000	Pass
Ag	109	-2.188 µg/L	200.000	1000	Pass
Cd	111	2.876 µg/L	200.000	1000	Pass
Cd	114	-0.577 µg/L	200.000	1000	Pass
Sn	120	34.750 µg/L	200.000	1000	Pass
Sb	121	-10.000 µg/L	200.000	1000	Pass
Sb	123	-2.130 µg/L	200.000	1000	Pass

Ba 135	446.500 µg/L	200.000	1000	Pass
Au 197	0.184 µg/L	200.000	0	Pass
Tl 205	-31.290 µg/L	200.000	1000	Pass

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2402.09A\027SMPL.D\027SMPL.D#
Acquired : Sep 24 02 01:52 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: M021283-013
Misc Info : ,
Vial Number: 2206
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 100.000000

Pb 208	153.600 µg/L	200.000	1000	Pass
U 238	7.313 µg/L	200.000	1000	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	555445	449108	Pass
45	463166	362500	Pass
72	79864	60496	Pass
115	416981	340595	Pass
209	232408	206725	Pass

Internal Standards referenced to 002CALB.D#

0 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2402.09A\028SMPL.D\028SMPL.D#
Acquired : Sep 24 02 02:01 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: M021283-013
Misc Info : ,
Vial Number: 2207
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 10.000000

Element		Concentration	Cal Conc	LRS Conc	Flag
Be	9	11.230 µg/L	200.000	1000	Pass
B	11	-3.596 µg/L	200.000	0	Pass
Na	23	2376.000 µg/L	10000.000	20000	Pass
Mg	24	13940.000 µg/L	10000.000	20000	Pass
Mg	25	14710.000 µg/L	10000.000	20000	Pass
Mg	26	14070.000 µg/L	10000.000	20000	Pass
Al	27	61340.000 µg/L	10000.000	20000	Pass
Si	28	5052.000 µg/L	10000.000	0	Pass
K	39	9195.000 µg/L	10000.000	20000	Pass
Ca	43	15210.000 µg/L	10000.000	20000	Pass
Ca	44	15110.000 µg/L	10000.000	20000	Pass
Ti	47	8473.000 µg/L	200.000	1000	>Cal std
V	51	114.900 µg/L	200.000	1000	Pass
Cr	52	83.840 µg/L	200.000	1000	Pass
Cr	53	73.900 µg/L	200.000	1000	Pass
Fe	54	176900.000 µg/L	10000.000	20000	>Cal std
Mn	55	5246.000 µg/L	200.000	1000	>Cal std
Fe	57	183100.000 µg/L	10000.000	20000	>Cal std
Co	59	19.510 µg/L	200.000	1000	Pass
Ni	60	61.400 µg/L	200.000	1000	Pass
Cu	63	44.280 µg/L	200.000	1000	Pass
Cu	65	45.770 µg/L	200.000	1000	Pass
Zn	66	769.500 µg/L	200.000	1000	Pass
Zn	67	726.000 µg/L	200.000	1000	Pass
Zn	68	731.400 µg/L	200.000	1000	Pass
As	75	18.530 µg/L	200.000	1000	Pass
Se	82	10.010 µg/L	200.000	1000	Pass
Sr	87	457.600 µg/L	200.000	1000	Pass
Mo	95	48.490 µg/L	200.000	1000	Pass
Mo	98	48.160 µg/L	200.000	1000	Pass
Ag	107	0.716 µg/L	200.000	1000	Pass
Ag	109	0.741 µg/L	200.000	1000	Pass
Cd	111	2.760 µg/L	200.000	1000	Pass
Cd	114	1.269 µg/L	200.000	1000	Pass
Sn	120	40.890 µg/L	200.000	1000	Pass
Sb	121	-0.329 µg/L	200.000	1000	Pass
Sb	123	0.206 µg/L	200.000	1000	Pass

Ba 135	448.100 µg/L	200.000	1000	Pass
Au 197	-0.001 µg/L	200.000	0	Pass
Tl 205	-1.822 µg/L	200.000	1000	Pass

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2402.09A\028SMPL.D\028SMPL.D#
Acquired : Sep 24 02 02:01 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: M021283-013
Misc Info : ,
Vial Number: 2207
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 10.000000

Pb 208	173.300 µg/L	200.000	1000	Pass
U 238	7.235 µg/L	200.000	1000	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	555445	422205	Pass
45	463166	370394	Pass
72	79864	60757	Pass
115	416981	334946	Pass
209	232408	214672	Pass

Internal Standards referenced to 002CALB.D#

4 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2402.09A\029SMPL.D\029SMPL.D#
Acquired : Sep 24 02 02:10 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: M021283-014
Misc Info : ,
Vial Number: 2208
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 100.000000

Element		Concentration	Cal Conc	LRS Conc	Flag
Be	9	10.200 µg/L	200.000	1000	Pass
B	11	-162.600 µg/L	200.000	0	Pass
Na	23	2862.000 µg/L	10000.000	20000	Pass
Mg	24	20520.000 µg/L	10000.000	20000	Pass
Mg	25	21000.000 µg/L	10000.000	20000	Pass
Mg	26	21080.000 µg/L	10000.000	20000	Pass
Al	27	97540.000 µg/L	10000.000	20000	Pass
Si	28	23540.000 µg/L	10000.000	0	Pass
K	39	11590.000 µg/L	10000.000	20000	Pass
Ca	43	25840.000 µg/L	10000.000	20000	Pass
Ca	44	25960.000 µg/L	10000.000	20000	Pass
Ti	47	6635.000 µg/L	200.000	1000	Pass
V	51	121.100 µg/L	200.000	1000	Pass
Cr	52	103.300 µg/L	200.000	1000	Pass
Cr	53	316.300 µg/L	200.000	1000	Pass
Fe	54	187200.000 µg/L	10000.000	20000	Pass
Mn	55	3659.000 µg/L	200.000	1000	Pass
Fe	57	188700.000 µg/L	10000.000	20000	Pass
Co	59	-1.892 µg/L	200.000	1000	Pass
Ni	60	76.550 µg/L	200.000	1000	Pass
Cu	63	56.830 µg/L	200.000	1000	Pass
Cu	65	55.100 µg/L	200.000	1000	Pass
Zn	66	892.700 µg/L	200.000	1000	Pass
Zn	67	860.000 µg/L	200.000	1000	Pass
Zn	68	851.200 µg/L	200.000	1000	Pass
As	75	20.400 µg/L	200.000	1000	Pass
Se	82	13.890 µg/L	200.000	1000	Pass
Sr	87	516.500 µg/L	200.000	1000	Pass
Mo	95	34.070 µg/L	200.000	1000	Pass
Mo	98	32.620 µg/L	200.000	1000	Pass
Ag	107	-2.709 µg/L	200.000	1000	Pass
Ag	109	-3.168 µg/L	200.000	1000	Pass
Cd	111	0.380 µg/L	200.000	1000	Pass
Cd	114	-1.195 µg/L	200.000	1000	Pass
Sn	120	29.690 µg/L	200.000	1000	Pass
Sb	121	-9.812 µg/L	200.000	1000	Pass
Sb	123	-4.485 µg/L	200.000	1000	Pass

Ba 135	770.600 µg/L	200.000	1000	Pass
Au 197	-3.454 µg/L	200.000	0	Pass
Tl 205	-29.900 µg/L	200.000	1000	Pass

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2402.09A\029SMPL.D\029SMPL.D#
Acquired : Sep 24 02 02:10 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: M021283-014
Misc Info : ,
Vial Number: 2208
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 100.000000

Pb 208	140.600 µg/L	200.000	1000	Pass
U 238	6.515 µg/L	200.000	1000	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	555445	437916	Pass
45	463166	346895	Pass
72	79864	58772	Pass
115	416981	332950	Pass
209	232408	200541	Pass

Internal Standards referenced to 002CALB.D#

0 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

Sample QC Report

350

File : D:\HPCHEM\1\DATA\Sep2402.09A\030SMPL.D\030SMPL.D#
Acquired : Sep 24 02 02:19 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: M021283-014
Misc Info : ,
Vial Number: 2209
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 10.000000

Element		Concentration	Cal Conc	LRS Conc	Flag
Be	9	11.070 µg/L	200.000	1000	Pass
B	11	-5.903 µg/L	200.000	0	Pass
Na	23	2272.000 µg/L	10000.000	20000	Pass
Mg	24	18020.000 µg/L	10000.000	20000	Pass
Mg	25	18330.000 µg/L	10000.000	20000	Pass
Mg	26	18220.000 µg/L	10000.000	20000	Pass
Al	27	87440.000 µg/L	10000.000	20000	Pass
Si	28	4414.000 µg/L	10000.000	0	Pass
K	39	10240.000 µg/L	10000.000	20000	Pass
Ca	43	22910.000 µg/L	10000.000	20000	Pass
Ca	44	22720.000 µg/L	10000.000	20000	Pass
Ti	47	6068.000 µg/L	200.000	1000	>Cal std
V	51	132.600 µg/L	200.000	1000	Pass
Cr	52	73.970 µg/L	200.000	1000	Pass
Cr	53	100.200 µg/L	200.000	1000	Pass
Fe	54	166200.000 µg/L	10000.000	20000	>Cal std
Mn	55	3358.000 µg/L	200.000	1000	>Cal std
Fe	57	171400.000 µg/L	10000.000	20000	>Cal std
Co	59	22.540 µg/L	200.000	1000	Pass
Ni	60	71.270 µg/L	200.000	1000	Pass
Cu	63	42.350 µg/L	200.000	1000	Pass
Cu	65	42.800 µg/L	200.000	1000	Pass
Zn	66	734.800 µg/L	200.000	1000	Pass
Zn	67	714.200 µg/L	200.000	1000	Pass
Zn	68	682.100 µg/L	200.000	1000	Pass
As	75	22.200 µg/L	200.000	1000	Pass
Se	82	13.480 µg/L	200.000	1000	Pass
Sr	87	495.000 µg/L	200.000	1000	Pass
Mo	95	31.450 µg/L	200.000	1000	Pass
Mo	98	31.710 µg/L	200.000	1000	Pass
Ag	107	0.489 µg/L	200.000	1000	Pass
Ag	109	0.315 µg/L	200.000	1000	Pass
Cd	111	2.580 µg/L	200.000	1000	Pass
Cd	114	-0.056 µg/L	200.000	1000	Pass
Sn	120	34.070 µg/L	200.000	1000	Pass
Sb	121	-0.140 µg/L	200.000	1000	Pass
Sb	123	0.295 µg/L	200.000	1000	Pass

Ba 135	745.800 µg/L	200.000	1000	Pass
Au 197	-0.285 µg/L	200.000	0	Pass
Tl 205	-0.557 µg/L	200.000	1000	Pass

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2402.09A\030SMPL.D\030SMPL.D#
Acquired : Sep 24 02 02:19 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: M021283-014
Misc Info : ,
Vial Number: 2209
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 10.000000

Pb 208	165.700 µg/L	200.000	1000	Pass
U 238	6.827 µg/L	200.000	1000	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	555445	451525	Pass
45	463166	423765	Pass
72	79864	67028	Pass
115	416981	370048	Pass
209	232408	222835	Pass

Internal Standards referenced to 002CALB.D#

4 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2402.09A\031SMPL.D\031SMPL.D#
Acquired : Sep 24 02 02:29 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: M021283-015
Misc Info : ,
Vial Number: 2210
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 100.000000

Element		Concentration	Cal Conc	LRS Conc	Flag
Be	9	8.697 µg/L	200.000	1000	Pass
B	11	-171.900 µg/L	200.000	0	Pass
Na	23	2181.000 µg/L	10000.000	20000	Pass
Mg	24	14020.000 µg/L	10000.000	20000	Pass
Mg	25	13980.000 µg/L	10000.000	20000	Pass
Mg	26	13610.000 µg/L	10000.000	20000	Pass
Al	27	50170.000 µg/L	10000.000	20000	Pass
Si	28	22490.000 µg/L	10000.000	0	Pass
K	39	8967.000 µg/L	10000.000	20000	Pass
Ca	43	16260.000 µg/L	10000.000	20000	Pass
Ca	44	16540.000 µg/L	10000.000	20000	Pass
Ti	47	8127.000 µg/L	200.000	1000	Pass
V	51	137.300 µg/L	200.000	1000	Pass
Cr	52	201.800 µg/L	200.000	1000	Pass
Cr	53	395.200 µg/L	200.000	1000	Pass
Fe	54	159400.000 µg/L	10000.000	20000	Pass
Mn	55	4695.000 µg/L	200.000	1000	Pass
Fe	57	163600.000 µg/L	10000.000	20000	Pass
Co	59	-10.510 µg/L	200.000	1000	Pass
Ni	60	49.740 µg/L	200.000	1000	Pass
Cu	63	107.600 µg/L	200.000	1000	Pass
Cu	65	112.400 µg/L	200.000	1000	Pass
Zn	66	1619.000 µg/L	200.000	1000	Pass
Zn	67	1529.000 µg/L	200.000	1000	Pass
Zn	68	1580.000 µg/L	200.000	1000	Pass
As	75	39.250 µg/L	200.000	1000	Pass
Se	82	1.510 µg/L	200.000	1000	Pass
Sr	87	425.400 µg/L	200.000	1000	Pass
Mo	95	33.490 µg/L	200.000	1000	Pass
Mo	98	37.360 µg/L	200.000	1000	Pass
Ag	107	1.999 µg/L	200.000	1000	Pass
Ag	109	0.936 µg/L	200.000	1000	Pass
Cd	111	3.053 µg/L	200.000	1000	Pass
Cd	114	2.223 µg/L	200.000	1000	Pass
Sn	120	33.330 µg/L	200.000	1000	Pass
Sb	121	-10.550 µg/L	200.000	1000	Pass
Sb	123	-3.361 µg/L	200.000	1000	Pass

Ba 135	673.600 µg/L	200.000	1000	Pass
Au 197	1.251 µg/L	200.000	0	Pass
Tl 205	-33.750 µg/L	200.000	1000	Pass

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2402.09A\031SMPL.D\031SMPL.D#
Acquired : Sep 24 02 02:29 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: M021283-015
Misc Info : ,
Vial Number: 2210
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 100.000000

Pb 208	115.700 µg/L	200.000	1000	Pass
U 238	6.917 µg/L	200.000	1000	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	555445	470329	Pass
45	463166	373801	Pass
72	79864	63310	Pass
115	416981	350262	Pass
209	232408	208674	Pass

Internal Standards referenced to 002CALB.D#

0 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

CCV QC Report

File : D:\HPCHEM\1\DATA\Sep2402.09A\032CCV_D\032CCV_D#
Acquired : Sep 24 02 02:38 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: [STD-CCV]
Misc Info :
Vial Number: 1105
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: CCV
Dilution : 1.000000

CCV Mix #1

Element	Concentration	Expected	QC Range	Flag
Be 9	96.990 µg/L	100.00	90.00-110.00	Pass
B 11	98.090 µg/L	100.00	90.00-110.00	Pass
Na 23	972.000 µg/L	1000.00	900.00-1100.00	Pass
Mg 24	1036.000 µg/L	1000.00	900.00-1100.00	Pass
Mg 25	1039.000 µg/L	1000.00	900.00-1100.00	Pass
Mg 26	1018.000 µg/L	1000.00	900.00-1100.00	Pass
Al 27	1000.000 µg/L	1000.00	900.00-1100.00	Pass
Si 28	1112.000 µg/L	1000.00	900.00-1100.00	*Fail*
K 39	1000.000 µg/L	1000.00	900.00-1100.00	Pass
Ca 43	976.300 µg/L	1000.00	900.00-1100.00	Pass
Ca 44	1008.000 µg/L	1000.00	900.00-1100.00	Pass
Ti 47	103.800 µg/L	100.00	90.00-110.00	Pass
V 51	104.200 µg/L	100.00	90.00-110.00	Pass
Cr 52	104.300 µg/L	100.00	90.00-110.00	Pass
Cr 53	102.500 µg/L	100.00	90.00-110.00	Pass
Fe 54	1122.000 µg/L	1000.00	900.00-1100.00	*Fail*
Mn 55	105.900 µg/L	100.00	90.00-110.00	Pass
Fe 57	1076.000 µg/L	1000.00	900.00-1100.00	Pass
Co 59	106.100 µg/L	100.00	90.00-110.00	Pass
Ni 60	104.800 µg/L	100.00	90.00-110.00	Pass
Cu 63	107.100 µg/L	100.00	90.00-110.00	Pass
Cu 65	107.700 µg/L	100.00	90.00-110.00	Pass
Zn 66	99.760 µg/L	100.00	90.00-110.00	Pass
Zn 67	97.400 µg/L	100.00	90.00-110.00	Pass
Zn 68	100.100 µg/L	100.00	90.00-110.00	Pass
As 75	99.400 µg/L	100.00	90.00-110.00	Pass
Se 82	102.400 µg/L	100.00	90.00-110.00	Pass
Sr 87	99.360 µg/L	100.00	90.00-110.00	Pass
Mo 95	94.010 µg/L	100.00	90.00-110.00	Pass
Mo 98	94.890 µg/L	100.00	90.00-110.00	Pass
Ag 107	99.030 µg/L	100.00	90.00-110.00	Pass
Ag 109	99.240 µg/L	100.00	90.00-110.00	Pass
Cd 111	100.400 µg/L	100.00	90.00-110.00	Pass
Cd 114	100.500 µg/L	100.00	90.00-110.00	Pass
Sn 120	100.500 µg/L	100.00	90.00-110.00	Pass

Sb 121	100.300 µg/L	100.00	90.00-110.00	Pass
Sb 123	100.200 µg/L	100.00	90.00-110.00	Pass
Ba 135	101.100 µg/L	100.00	90.00-110.00	Pass

CCV QC Report

File : D:\HPCHEM\1\DATA\Sep2402.09A\032CCV_.D\032CCV_.D#
Acquired : Sep 24 02 02:38 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: [STD-CCV]
Misc Info :
Vial Number: 1105
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : ---------
Sample Type: CCV
Dilution : 1.000000

Au 197	97.960 µg/L	100.00	90.00-110.00	Pass
Tl 205	97.810 µg/L	100.00	90.00-110.00	Pass
Pb 208	99.320 µg/L	100.00	90.00-110.00	Pass
U 238	99.720 µg/L	100.00	90.00-110.00	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	555445	451479	Pass
45	463166	370066	Pass
72	79864	64258	Pass
115	416981	356093	Pass
209	232408	212235	Pass

Internal Standards referenced to 002CALB.D#

2 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

Blank QC Report

File : D:\HPCHEM\1\DATA\Sep2402.09A\033CCB_.D\033CCB_.D#
Acquired : Sep 24 02 02:47 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: [CB]
Misc Info :
Vial Number: 1102
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: CCB
Dilution : 1.000000

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Element		Concentration	CRDL Limit	Flag
Be	9	0.023 µg/L	1.00	Pass
B	11	-0.011 µg/L	1.00	Pass
Na	23	0.245 µg/L	10.00	Pass
Mg	24	0.505 µg/L	10.00	Pass
Mg	25	0.566 µg/L	10.00	Pass
Mg	26	0.445 µg/L	10.00	Pass
Al	27	3.241 µg/L	10.00	Pass
Si	28	5.061 µg/L	10.00	Pass
K	39	2.924 µg/L	10.00	Pass
Ca	43	1.949 µg/L	10.00	Pass
Ca	44	1.931 µg/L	10.00	Pass
Ti	47	0.121 µg/L	1.00	Pass
V	51	0.369 µg/L	1.00	Pass
Cr	52	0.472 µg/L	1.00	Pass
Cr	53	7.383 µg/L	1.00	*Fail*
Fe	54	27.000 µg/L	10.00	*Fail*
Mn	55	0.080 µg/L	1.00	Pass
Fe	57	4.751 µg/L	10.00	Pass
Co	59	-0.274 µg/L	1.00	Pass
Ni	60	-0.039 µg/L	1.00	Pass
Cu	63	0.024 µg/L	1.00	Pass
Cu	65	0.025 µg/L	1.00	Pass
Zn	66	0.053 µg/L	1.00	Pass
Zn	67	0.576 µg/L	1.00	Pass
Zn	68	-0.097 µg/L	1.00	Pass
As	75	0.334 µg/L	1.00	Pass
Se	82	0.390 µg/L	1.00	Pass
Sr	87	0.052 µg/L	1.00	Pass
Mo	95	0.261 µg/L	1.00	Pass
Mo	98	0.229 µg/L	1.00	Pass
Ag	107	0.025 µg/L	1.00	Pass
Ag	109	0.027 µg/L	1.00	Pass
Cd	111	0.009 µg/L	1.00	Pass
Cd	114	0.038 µg/L	1.00	Pass
Sn	120	-0.004 µg/L	1.00	Pass
Sb	121	0.190 µg/L	1.00	Pass
Sb	123	0.296 µg/L	1.00	Pass

Ba 135	0.075 µg/L	1.00	Pass
Au 197	0.394 µg/L	1.00	Pass
Tl 205	0.227 µg/L	1.00	Pass

Blank QC Report

File : D:\HPCHEM\1\DATA\Sep2402.09A\033CCB_D\033CCB_D#
Acquired : Sep 24 02 02:47 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: [CB]
Misc Info :
Vial Number: 1102
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: CCB
Dilution : 1.000000

Pb 208	-0.259 µg/L	1.00	Pass
U 238	0.041 µg/L	1.00	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	555445	450532	Pass
45	463166	361295	Pass
72	79864	62621	Pass
115	416981	344831	Pass
209	232408	204337	Pass

Internal Standards referenced to 002CALB.D#

2 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2402.09A\034SMPL.D\034SMPL.D#
Acquired : Sep 24 02 02:56 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: M021283-015
Misc Info : ,
Vial Number: 2211
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 10.000000

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Element		Concentration	Cal Conc	LRS Conc	Flag
Be	9	8.197 µg/L	200.000	1000	Pass
B	11	-2.827 µg/L	200.000	0	Pass
Na	23	1751.000 µg/L	10000.000	20000	Pass
Mg	24	12560.000 µg/L	10000.000	20000	Pass
Mg	25	13240.000 µg/L	10000.000	20000	Pass
Mg	26	12960.000 µg/L	10000.000	20000	Pass
Al	27	47630.000 µg/L	10000.000	20000	Pass
Si	28	4490.000 µg/L	10000.000	0	Pass
K	39	8306.000 µg/L	10000.000	20000	Pass
Ca	43	15030.000 µg/L	10000.000	20000	Pass
Ca	44	14640.000 µg/L	10000.000	20000	Pass
Ti	47	7595.000 µg/L	200.000	1000	>Cal std
V	51	105.400 µg/L	200.000	1000	Pass
Cr	52	172.500 µg/L	200.000	1000	Pass
Cr	53	164.600 µg/L	200.000	1000	Pass
Fe	54	149800.000 µg/L	10000.000	20000	>Cal std
Mn	55	4514.000 µg/L	200.000	1000	>Cal std
Fe	57	153000.000 µg/L	10000.000	20000	>Cal std
Co	59	14.960 µg/L	200.000	1000	Pass
Ni	60	49.420 µg/L	200.000	1000	Pass
Cu	63	94.500 µg/L	200.000	1000	Pass
Cu	65	96.430 µg/L	200.000	1000	Pass
Zn	66	1432.000 µg/L	200.000	1000	Pass
Zn	67	1349.000 µg/L	200.000	1000	Pass
Zn	68	1408.000 µg/L	200.000	1000	Pass
As	75	30.230 µg/L	200.000	1000	Pass
Se	82	11.440 µg/L	200.000	1000	Pass
Sr	87	408.500 µg/L	200.000	1000	Pass
Mo	95	37.470 µg/L	200.000	1000	Pass
Mo	98	38.460 µg/L	200.000	1000	Pass
Ag	107	4.866 µg/L	200.000	1000	Pass
Ag	109	4.646 µg/L	200.000	1000	Pass
Cd	111	4.215 µg/L	200.000	1000	Pass
Cd	114	2.531 µg/L	200.000	1000	Pass
Sn	120	37.100 µg/L	200.000	1000	Pass
Sb	121	0.646 µg/L	200.000	1000	Pass
Sb	123	1.539 µg/L	200.000	1000	Pass

Ba 135	672.000 µg/L	200.000	1000	Pass
Au 197	2.382 µg/L	200.000	0	Pass
Tl 205	-0.309 µg/L	200.000	1000	Pass

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2402.09A\034SMPL.D\034SMPL.D#
Acquired : Sep 24 02 02:56 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: M021283-015
Misc Info : ,
Vial Number: 2211
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : ---------
Sample Type: ---------
Dilution : 10.000000

Pb 208	134.700 µg/L	200.000	1000	Pass
U 238	6.749 µg/L	200.000	1000	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	555445	490724	Pass
45	463166	424121	Pass
72	79864	68895	Pass
115	416981	362383	Pass
209	232408	221178	Pass

Internal Standards referenced to 002CALB.D#

4 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

Sample QC Report

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File : D:\HPCHEM\1\DATA\Sep2402.09A\035SMPL.D\035SMPL.D#
Acquired : Sep 24 02 03:06 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: M021283-016
Misc Info : ,
Vial Number: 2212
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 100.000000

Element		Concentration	Cal Conc	LRS Conc	Flag
Be	9	11.720 µg/L	200.000	1000	Pass
B	11	-133.100 µg/L	200.000	0	Pass
Na	23	4149.000 µg/L	10000.000	20000	Pass
Mg	24	23300.000 µg/L	10000.000	20000	Pass
Mg	25	23860.000 µg/L	10000.000	20000	Pass
Mg	26	23160.000 µg/L	10000.000	20000	Pass
Al	27	111400.000 µg/L	10000.000	20000	Pass
Si	28	17140.000 µg/L	10000.000	0	Pass
K	39	16770.000 µg/L	10000.000	20000	Pass
Ca	43	35340.000 µg/L	10000.000	20000	Pass
Ca	44	34990.000 µg/L	10000.000	20000	Pass
Ti	47	6495.000 µg/L	200.000	1000	Pass
V	51	170.800 µg/L	200.000	1000	Pass
Cr	52	459.600 µg/L	200.000	1000	Pass
Cr	53	1068.000 µg/L	200.000	1000	Pass
Fe	54	183900.000 µg/L	10000.000	20000	Pass
Mn	55	4147.000 µg/L	200.000	1000	Pass
Fe	57	187300.000 µg/L	10000.000	20000	Pass
Co	59	4.425 µg/L	200.000	1000	Pass
Ni	60	83.370 µg/L	200.000	1000	Pass
Cu	63	188.900 µg/L	200.000	1000	Pass
Cu	65	184.400 µg/L	200.000	1000	Pass
Zn	66	1626.000 µg/L	200.000	1000	Pass
Zn	67	1582.000 µg/L	200.000	1000	Pass
Zn	68	1558.000 µg/L	200.000	1000	Pass
As	75	53.090 µg/L	200.000	1000	Pass
Se	82	10.620 µg/L	200.000	1000	Pass
Sr	87	650.000 µg/L	200.000	1000	Pass
Mo	95	35.260 µg/L	200.000	1000	Pass
Mo	98	35.210 µg/L	200.000	1000	Pass
Ag	107	9.992 µg/L	200.000	1000	Pass
Ag	109	10.410 µg/L	200.000	1000	Pass
Cd	111	1.092 µg/L	200.000	1000	Pass
Cd	114	3.103 µg/L	200.000	1000	Pass
Sn	120	30.620 µg/L	200.000	1000	Pass
Sb	121	-6.369 µg/L	200.000	1000	Pass
Sb	123	-1.439 µg/L	200.000	1000	Pass

Ba	135	813.500 µg/L	200.000	1000	Pass
Au	197	5.066 µg/L	200.000	0	Pass
Tl	205	-26.910 µg/L	200.000	1000	Pass

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2402.09A\035SMPL.D\035SMPL.D#
Acquired : Sep 24 02 03:06 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: M021283-016
Misc Info : ,
Vial Number: 2212
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 100.000000

Pb	208	260.000 µg/L	200.000	1000	Pass
U	238	10.210 µg/L	200.000	1000	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	555445	502700	Pass
45	463166	387615	Pass
72	79864	65140	Pass
115	416981	357004	Pass
209	232408	211103	Pass

Internal Standards referenced to 002CALB.D#

0 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2402.09A\036SMPL.D\036SMPL.D#
Acquired : Sep 24 02 03:15 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: M021283-016
Misc Info : ,
Vial Number: 2301
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 10.000000

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Element		Concentration	Cal Conc	LRS Conc	Flag
Be	9	10.160 µg/L	200.000	1000	Pass
B	11	8.990 µg/L	200.000	0	Pass
Na	23	3446.000 µg/L	10000.000	20000	Pass
Mg	24	20250.000 µg/L	10000.000	20000	Pass
Mg	25	21180.000 µg/L	10000.000	20000	Pass
Mg	26	20770.000 µg/L	10000.000	20000	Pass
Al	27	98940.000 µg/L	10000.000	20000	Pass
Si	28	4514.000 µg/L	10000.000	0	Pass
K	39	15200.000 µg/L	10000.000	20000	Pass
Ca	43	32510.000 µg/L	10000.000	20000	Pass
Ca	44	32190.000 µg/L	10000.000	20000	Pass
Ti	47	6107.000 µg/L	200.000	1000	>Cal std
V	51	157.900 µg/L	200.000	1000	Pass
Cr	52	409.900 µg/L	200.000	1000	Pass
Cr	53	480.600 µg/L	200.000	1000	Pass
Fe	54	173400.000 µg/L	10000.000	20000	>Cal std
Mn	55	3922.000 µg/L	200.000	1000	>Cal std
Fe	57	174500.000 µg/L	10000.000	20000	>Cal std
Co	59	29.180 µg/L	200.000	1000	Pass
Ni	60	81.430 µg/L	200.000	1000	Pass
Cu	63	142.100 µg/L	200.000	1000	Pass
Cu	65	141.100 µg/L	200.000	1000	Pass
Zn	66	1455.000 µg/L	200.000	1000	Pass
Zn	67	1391.000 µg/L	200.000	1000	Pass
Zn	68	1421.000 µg/L	200.000	1000	Pass
As	75	34.800 µg/L	200.000	1000	Pass
Se	82	11.070 µg/L	200.000	1000	Pass
Sr	87	659.400 µg/L	200.000	1000	Pass
Mo	95	33.110 µg/L	200.000	1000	Pass
Mo	98	32.750 µg/L	200.000	1000	Pass
Ag	107	12.900 µg/L	200.000	1000	Pass
Ag	109	12.470 µg/L	200.000	1000	Pass
Cd	111	5.635 µg/L	200.000	1000	Pass
Cd	114	3.418 µg/L	200.000	1000	Pass
Sn	120	35.380 µg/L	200.000	1000	Pass
Sb	121	-0.214 µg/L	200.000	1000	Pass
Sb	123	0.515 µg/L	200.000	1000	Pass

Ba 135	829.200 µg/L	200.000	1000	Pass
Au 197	0.710 µg/L	200.000	0	Pass
Tl 205	-1.624 µg/L	200.000	1000	Pass

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2402.09A\036SMPL.D\036SMPL.D#
Acquired : Sep 24 02 03:15 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: M021283-016
Misc Info : ,
Vial Number: 2301
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : ---------
Sample Type: ---------
Dilution : 10.000000

Pb 208	283.000 µg/L	200.000	1000	Pass
U 238	9.977 µg/L	200.000	1000	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	555445	478717	Pass
45	463166	419952	Pass
72	79864	67915	Pass
115	416981	364341	Pass
209	232408	221685	Pass

Internal Standards referenced to 002CALB.D#

4 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2402.09A\037SMPL.D\037SMPL.D#
Acquired : Sep 24 02 03:24 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: M021283-017
Misc Info : ,
Vial Number: 2302
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 100.000000

364

Element		Concentration	Cal Conc	LRS Conc	Flag
Be	9	5.330 µg/L	200.000	1000	Pass
B	11	-177.900 µg/L	200.000	0	Pass
Na	23	1839.000 µg/L	10000.000	20000	Pass
Mg	24	3597.000 µg/L	10000.000	20000	Pass
Mg	25	3594.000 µg/L	10000.000	20000	Pass
Mg	26	3488.000 µg/L	10000.000	20000	Pass
Al	27	13730.000 µg/L	10000.000	20000	Pass
Si	28	17250.000 µg/L	10000.000	0	Pass
K	39	2673.000 µg/L	10000.000	20000	Pass
Ca	43	7258.000 µg/L	10000.000	20000	Pass
Ca	44	7088.000 µg/L	10000.000	20000	Pass
Ti	47	1985.000 µg/L	200.000	1000	Pass
V	51	63.670 µg/L	200.000	1000	Pass
Cr	52	50.100 µg/L	200.000	1000	Pass
Cr	53	456.200 µg/L	200.000	1000	Pass
Fe	54	65610.000 µg/L	10000.000	20000	Pass
Mn	55	3356.000 µg/L	200.000	1000	Pass
Fe	57	68430.000 µg/L	10000.000	20000	Pass
Co	59	-24.960 µg/L	200.000	1000	Pass
Ni	60	8.584 µg/L	200.000	1000	Pass
Cu	63	91.160 µg/L	200.000	1000	Pass
Cu	65	87.380 µg/L	200.000	1000	Pass
Zn	66	652.800 µg/L	200.000	1000	Pass
Zn	67	642.600 µg/L	200.000	1000	Pass
Zn	68	599.500 µg/L	200.000	1000	Pass
As	75	10.920 µg/L	200.000	1000	Pass
Se	82	29.310 µg/L	200.000	1000	Pass
Sr	87	98.800 µg/L	200.000	1000	Pass
Mo	95	10.800 µg/L	200.000	1000	Pass
Mo	98	11.720 µg/L	200.000	1000	Pass
Ag	107	-1.968 µg/L	200.000	1000	Pass
Ag	109	-1.722 µg/L	200.000	1000	Pass
Cd	111	4.859 µg/L	200.000	1000	Pass
Cd	114	3.471 µg/L	200.000	1000	Pass
Sn	120	10.450 µg/L	200.000	1000	Pass
Sb	121	-8.943 µg/L	200.000	1000	Pass
Sb	123	-2.913 µg/L	200.000	1000	Pass

Ba	135	190.200 µg/L	200.000	1000	Pass
Au	197	-1.968 µg/L	200.000	0	Pass
Tl	205	-32.910 µg/L	200.000	1000	Pass

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2402.09A\037SMPL.D\037SMPL.D#
Acquired : Sep 24 02 03:24 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: M021283-017
Misc Info : ,
Vial Number: 2302
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: ---------
Dilution : 100.000000

Pb	208	23.640 µg/L	200.000	1000	Pass
U	238	7.990 µg/L	200.000	1000	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	555445	534126	Pass
45	463166	418368	Pass
72	79864	67287	Pass
115	416981	368925	Pass
209	232408	215012	Pass

Internal Standards referenced to 002CALB.D#

0 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2402.09A\038SMPL.D\038SMPL.D#
Acquired : Sep 24 02 03:33 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: M021283-017
Misc Info : ,
Vial Number: 2303
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 10.000000

366

Element		Concentration	Cal Conc	LRS Conc	Flag
Be	9	6.913 µg/L	200.000	1000	Pass
B	11	-13.280 µg/L	200.000	0	Pass
Na	23	1397.000 µg/L	10000.000	20000	Pass
Mg	24	3158.000 µg/L	10000.000	20000	Pass
Mg	25	3170.000 µg/L	10000.000	20000	Pass
Mg	26	3160.000 µg/L	10000.000	20000	Pass
Al	27	13140.000 µg/L	10000.000	20000	Pass
Si	28	3725.000 µg/L	10000.000	0	Pass
K	39	2828.000 µg/L	10000.000	20000	Pass
Ca	43	5866.000 µg/L	10000.000	20000	Pass
Ca	44	5903.000 µg/L	10000.000	20000	Pass
Ti	47	1953.000 µg/L	200.000	1000	Pass
V	51	31.520 µg/L	200.000	1000	Pass
Cr	52	32.570 µg/L	200.000	1000	Pass
Cr	53	61.310 µg/L	200.000	1000	Pass
Fe	54	66590.000 µg/L	10000.000	20000	Pass
Mn	55	3374.000 µg/L	200.000	1000	>Cal std
Fe	57	68150.000 µg/L	10000.000	20000	Pass
Co	59	2.139 µg/L	200.000	1000	Pass
Ni	60	10.840 µg/L	200.000	1000	Pass
Cu	63	39.780 µg/L	200.000	1000	Pass
Cu	65	40.740 µg/L	200.000	1000	Pass
Zn	66	476.600 µg/L	200.000	1000	Pass
Zn	67	446.000 µg/L	200.000	1000	Pass
Zn	68	464.600 µg/L	200.000	1000	Pass
As	75	9.437 µg/L	200.000	1000	Pass
Se	82	7.543 µg/L	200.000	1000	Pass
Sr	87	88.180 µg/L	200.000	1000	Pass
Mo	95	13.360 µg/L	200.000	1000	Pass
Mo	98	13.440 µg/L	200.000	1000	Pass
Ag	107	1.319 µg/L	200.000	1000	Pass
Ag	109	1.390 µg/L	200.000	1000	Pass
Cd	111	2.715 µg/L	200.000	1000	Pass
Cd	114	0.869 µg/L	200.000	1000	Pass
Sn	120	15.480 µg/L	200.000	1000	Pass
Sb	121	-0.827 µg/L	200.000	1000	Pass
Sb	123	-0.107 µg/L	200.000	1000	Pass

Ba 135	196.900 µg/L	200.000	1000	Pass
Au 197	0.264 µg/L	200.000	0	Pass
Tl 205	-3.243 µg/L	200.000	1000	Pass

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2402.09A\038SMPL.D\038SMPL.D#
Acquired : Sep 24 02 03:33 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: M021283-017
Misc Info : ,
Vial Number: 2303
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 10.000000

Pb 208	47.110 µg/L	200.000	1000	Pass
U 238	7.929 µg/L	200.000	1000	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	555445	544091	Pass
45	463166	426574	Pass
72	79864	68954	Pass
115	416981	369385	Pass
209	232408	216156	Pass

Internal Standards referenced to 002CALB.D#

1 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2402.09A\039SMPL.D\039SMPL.D#
Acquired : Sep 24 02 03:42 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: M021283-018
Misc Info : ,
Vial Number: 2304
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 100.000000

Element		Concentration	Cal Conc	LRS Conc	Flag
Be	9	7.924 µg/L	200.000	1000	Pass
B	11	-189.000 µg/L	200.000	0	Pass
Na	23	1744.000 µg/L	10000.000	20000	Pass
Mg	24	3019.000 µg/L	10000.000	20000	Pass
Mg	25	3011.000 µg/L	10000.000	20000	Pass
Mg	26	3047.000 µg/L	10000.000	20000	Pass
Al	27	14470.000 µg/L	10000.000	20000	Pass
Si	28	21260.000 µg/L	10000.000	0	Pass
K	39	2496.000 µg/L	10000.000	20000	Pass
Ca	43	7253.000 µg/L	10000.000	20000	Pass
Ca	44	7213.000 µg/L	10000.000	20000	Pass
Ti	47	2004.000 µg/L	200.000	1000	Pass
V	51	15.380 µg/L	200.000	1000	Pass
Cr	52	27.870 µg/L	200.000	1000	Pass
Cr	53	152.300 µg/L	200.000	1000	Pass
Fe	54	68460.000 µg/L	10000.000	20000	Pass
Mn	55	3631.000 µg/L	200.000	1000	Pass
Fe	57	71300.000 µg/L	10000.000	20000	Pass
Co	59	-25.190 µg/L	200.000	1000	Pass
Ni	60	9.536 µg/L	200.000	1000	Pass
Cu	63	78.030 µg/L	200.000	1000	Pass
Cu	65	77.970 µg/L	200.000	1000	Pass
Zn	66	649.300 µg/L	200.000	1000	Pass
Zn	67	602.700 µg/L	200.000	1000	Pass
Zn	68	615.000 µg/L	200.000	1000	Pass
As	75	7.039 µg/L	200.000	1000	Pass
Se	82	24.430 µg/L	200.000	1000	Pass
Sr	87	83.580 µg/L	200.000	1000	Pass
Mo	95	8.141 µg/L	200.000	1000	Pass
Mo	98	7.318 µg/L	200.000	1000	Pass
Ag	107	-3.098 µg/L	200.000	1000	Pass
Ag	109	-3.036 µg/L	200.000	1000	Pass
Cd	111	2.450 µg/L	200.000	1000	Pass
Cd	114	-0.116 µg/L	200.000	1000	Pass
Sn	120	12.010 µg/L	200.000	1000	Pass
Sb	121	-11.930 µg/L	200.000	1000	Pass
Sb	123	-6.347 µg/L	200.000	1000	Pass

Ba 135	199.500 µg/L	200.000	1000	Pass
Au 197	-0.153 µg/L	200.000	0	Pass
Tl 205	-34.710 µg/L	200.000	1000	Pass

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2402.09A\039SMPL.D\039SMPL.D#
Acquired : Sep 24 02 03:42 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: M021283-018
Misc Info : ,
Vial Number: 2304
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 100.000000

Pb 208	21.510 µg/L	200.000	1000	Pass
U 238	8.672 µg/L	200.000	1000	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	555445	531135	Pass
45	463166	403485	Pass
72	79864	65638	Pass
115	416981	361180	Pass
209	232408	211481	Pass

Internal Standards referenced to 002CALB.D#

0 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2402.09A\040SMPL.D\040SMPL.D#
Acquired : Sep 24 02 03:52 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: M021283-018
Misc Info : ,
Vial Number: 2305
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 10.000000

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Element		Concentration	Cal Conc	LRS Conc	Flag
Be	9	7.207 µg/L	200.000	1000	Pass
B	11	-16.670 µg/L	200.000	0	Pass
Na	23	1356.000 µg/L	10000.000	20000	Pass
Mg	24	2589.000 µg/L	10000.000	20000	Pass
Mg	25	2591.000 µg/L	10000.000	20000	Pass
Mg	26	2543.000 µg/L	10000.000	20000	Pass
Al	27	10460.000 µg/L	10000.000	20000	Pass
Si	28	4001.000 µg/L	10000.000	0	Pass
K	39	2373.000 µg/L	10000.000	20000	Pass
Ca	43	5799.000 µg/L	10000.000	20000	Pass
Ca	44	5824.000 µg/L	10000.000	20000	Pass
Ti	47	1969.000 µg/L	200.000	1000	Pass
V	51	23.520 µg/L	200.000	1000	Pass
Cr	52	14.800 µg/L	200.000	1000	Pass
Cr	53	32.310 µg/L	200.000	1000	Pass
Fe	54	68850.000 µg/L	10000.000	20000	Pass
Mn	55	3589.000 µg/L	200.000	1000	>Cal std
Fe	57	70580.000 µg/L	10000.000	20000	Pass
Co	59	2.198 µg/L	200.000	1000	Pass
Ni	60	10.590 µg/L	200.000	1000	Pass
Cu	63	31.610 µg/L	200.000	1000	Pass
Cu	65	32.970 µg/L	200.000	1000	Pass
Zn	66	506.300 µg/L	200.000	1000	Pass
Zn	67	476.100 µg/L	200.000	1000	Pass
Zn	68	498.000 µg/L	200.000	1000	Pass
As	75	4.766 µg/L	200.000	1000	Pass
Se	82	9.189 µg/L	200.000	1000	Pass
Sr	87	74.910 µg/L	200.000	1000	Pass
Mo	95	11.990 µg/L	200.000	1000	Pass
Mo	98	11.860 µg/L	200.000	1000	Pass
Ag	107	-0.005 µg/L	200.000	1000	Pass
Ag	109	0.173 µg/L	200.000	1000	Pass
Cd	111	1.627 µg/L	200.000	1000	Pass
Cd	114	0.748 µg/L	200.000	1000	Pass
Sn	120	16.450 µg/L	200.000	1000	Pass
Sb	121	-0.700 µg/L	200.000	1000	Pass
Sb	123	-0.268 µg/L	200.000	1000	Pass

Ba 135	195.600 µg/L	200.000	1000	Pass
Au 197	-0.121 µg/L	200.000	0	Pass
Tl 205	-3.394 µg/L	200.000	1000	Pass

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2402.09A\040SMPL.D\040SMPL.D#
Acquired : Sep 24 02 03:52 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: M021283-018
Misc Info : ,
Vial Number: 2305
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 10.000000

Pb 208	45.750 µg/L	200.000	1000	Pass
U 238	8.625 µg/L	200.000	1000	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	555445	476702	Pass
45	463166	391972	Pass
72	79864	63964	Pass
115	416981	350477	Pass
209	232408	209447	Pass

Internal Standards referenced to 002CALB.D#

1 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2402.09A\041SMPL.D\041SMPL.D#
Acquired : Sep 24 02 04:01 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: M021283-019
Misc Info : ,
Vial Number: 2306
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 100.000000

Element		Concentration	Cal Conc	LRS Conc	Flag
Be	9	9.583 µg/L	200.000	1000	Pass
B	11	-175.300 µg/L	200.000	0	Pass
Na	23	2299.000 µg/L	10000.000	20000	Pass
Mg	24	25750.000 µg/L	10000.000	20000	Pass
Mg	25	26060.000 µg/L	10000.000	20000	Pass
Mg	26	25140.000 µg/L	10000.000	20000	Pass
Al	27	166700.000 µg/L	10000.000	20000	Pass
Si	28	19540.000 µg/L	10000.000	0	Pass
K	39	16060.000 µg/L	10000.000	20000	Pass
Ca	43	23910.000 µg/L	10000.000	20000	Pass
Ca	44	23750.000 µg/L	10000.000	20000	Pass
Ti	47	6384.000 µg/L	200.000	1000	Pass
V	51	257.400 µg/L	200.000	1000	Pass
Cr	52	378.200 µg/L	200.000	1000	Pass
Cr	53	696.900 µg/L	200.000	1000	Pass
Fe	54	221000.000 µg/L	10000.000	20000	Pass
Mn	55	5032.000 µg/L	200.000	1000	Pass
Fe	57	219800.000 µg/L	10000.000	20000	Pass
Co	59	13.960 µg/L	200.000	1000	Pass
Ni	60	95.560 µg/L	200.000	1000	Pass
Cu	63	97.310 µg/L	200.000	1000	Pass
Cu	65	98.380 µg/L	200.000	1000	Pass
Zn	66	1145.000 µg/L	200.000	1000	Pass
Zn	67	1136.000 µg/L	200.000	1000	Pass
Zn	68	1051.000 µg/L	200.000	1000	Pass
As	75	30.620 µg/L	200.000	1000	Pass
Se	82	-11.320 µg/L	200.000	1000	Pass
Sr	87	887.800 µg/L	200.000	1000	Pass
Mo	95	19.100 µg/L	200.000	1000	Pass
Mo	98	19.880 µg/L	200.000	1000	Pass
Ag	107	2.053 µg/L	200.000	1000	Pass
Ag	109	1.869 µg/L	200.000	1000	Pass
Cd	111	5.530 µg/L	200.000	1000	Pass
Cd	114	3.711 µg/L	200.000	1000	Pass
Sn	120	31.390 µg/L	200.000	1000	Pass
Sb	121	-11.500 µg/L	200.000	1000	Pass
Sb	123	-5.754 µg/L	200.000	1000	Pass

Ba	135	1177.000 µg/L	200.000	1000	Pass
Au	197	-6.800 µg/L	200.000	0	Pass
Tl	205	-33.620 µg/L	200.000	1000	Pass

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2402.09A\041SMPL.D\041SMPL.D#
Acquired : Sep 24 02 04:01 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: M021283-019
Misc Info : ,
Vial Number: 2306
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 100.000000

Pb	208	296.900 µg/L	200.000	1000	Pass
U	238	8.469 µg/L	200.000	1000	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	555445	492589	Pass
45	463166	385595	Pass
72	79864	62920	Pass
115	416981	350891	Pass
209	232408	208102	Pass

Internal Standards referenced to 002CALB.D#

0 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2402.09A\042SMPL.D\042SMPL.D#
Acquired : Sep 24 02 04:10 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: M021283-019
Misc Info : ,
Vial Number: 2307
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 10.000000

Element		Concentration	Cal Conc	LRS Conc	Flag
Be	9	10.720 µg/L	200.000	1000	Pass
B	11	3.877 µg/L	200.000	0	Pass
Na	23	1669.000 µg/L	10000.000	20000	Pass
Mg	24	23110.000 µg/L	10000.000	20000	Pass
Mg	25	23730.000 µg/L	10000.000	20000	Pass
Mg	26	23220.000 µg/L	10000.000	20000	Pass
Al	27	149900.000 µg/L	10000.000	20000	>Cal std
Si	28	5080.000 µg/L	10000.000	0	Pass
K	39	14940.000 µg/L	10000.000	20000	Pass
Ca	43	21460.000 µg/L	10000.000	20000	Pass
Ca	44	21510.000 µg/L	10000.000	20000	Pass
Ti	47	5969.000 µg/L	200.000	1000	>Cal std
V	51	218.500 µg/L	200.000	1000	Pass
Cr	52	331.000 µg/L	200.000	1000	Pass
Cr	53	364.600 µg/L	200.000	1000	Pass
Fe	54	197700.000 µg/L	10000.000	20000	>Cal std
Mn	55	4765.000 µg/L	200.000	1000	>Cal std
Fe	57	204000.000 µg/L	10000.000	20000	>LRS
Co	59	35.960 µg/L	200.000	1000	Pass
Ni	60	87.000 µg/L	200.000	1000	Pass
Cu	63	80.480 µg/L	200.000	1000	Pass
Cu	65	82.870 µg/L	200.000	1000	Pass
Zn	66	976.400 µg/L	200.000	1000	Pass
Zn	67	962.200 µg/L	200.000	1000	Pass
Zn	68	911.900 µg/L	200.000	1000	Pass
As	75	31.580 µg/L	200.000	1000	Pass
Se	82	8.996 µg/L	200.000	1000	Pass
Sr	87	846.300 µg/L	200.000	1000	Pass
Mo	95	22.920 µg/L	200.000	1000	Pass
Mo	98	22.980 µg/L	200.000	1000	Pass
Ag	107	5.246 µg/L	200.000	1000	Pass
Ag	109	5.196 µg/L	200.000	1000	Pass
Cd	111	4.909 µg/L	200.000	1000	Pass
Cd	114	2.537 µg/L	200.000	1000	Pass
Sn	120	37.370 µg/L	200.000	1000	Pass
Sb	121	-0.434 µg/L	200.000	1000	Pass
Sb	123	0.196 µg/L	200.000	1000	Pass

Ba 135	1176.000 µg/L	200.000	1000	Pass
Au 197	0.457 µg/L	200.000	0	Pass
Tl 205	-0.228 µg/L	200.000	1000	Pass

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2402.09A\042SMPL.D\042SMPL.D#
Acquired : Sep 24 02 04:10 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: M021283-019
Misc Info : ,
Vial Number: 2307
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 10.000000

Pb 208	314.800 µg/L	200.000	1000	Pass
U 238	8.760 µg/L	200.000	1000	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	555445	475488	Pass
45	463166	414745	Pass
72	79864	65850	Pass
115	416981	351424	Pass
209	232408	212057	Pass

Internal Standards referenced to 002CALB.D#

5 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2402.09A\043SMPL.D\043SMPL.D#
Acquired : Sep 24 02 04:20 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: M021283-020
Misc Info : ,
Vial Number: 2308
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 100.000000

Element		Concentration	Cal Conc	LRS Conc	Flag
Be	9	9.339 µg/L	200.000	1000	Pass
B	11	-194.000 µg/L	200.000	0	Pass
Na	23	3110.000 µg/L	10000.000	20000	Pass
Mg	24	11560.000 µg/L	10000.000	20000	Pass
Mg	25	11830.000 µg/L	10000.000	20000	Pass
Mg	26	11520.000 µg/L	10000.000	20000	Pass
Al	27	53720.000 µg/L	10000.000	20000	Pass
Si	28	17910.000 µg/L	10000.000	0	Pass
K	39	8370.000 µg/L	10000.000	20000	Pass
Ca	43	15970.000 µg/L	10000.000	20000	Pass
Ca	44	16050.000 µg/L	10000.000	20000	Pass
Ti	47	7264.000 µg/L	200.000	1000	Pass
V	51	82.350 µg/L	200.000	1000	Pass
Cr	52	76.320 µg/L	200.000	1000	Pass
Cr	53	456.800 µg/L	200.000	1000	Pass
Fe	54	146700.000 µg/L	10000.000	20000	Pass
Mn	55	5116.000 µg/L	200.000	1000	Pass
Fe	57	148800.000 µg/L	10000.000	20000	Pass
Co	59	-12.840 µg/L	200.000	1000	Pass
Ni	60	69.130 µg/L	200.000	1000	Pass
Cu	63	35.430 µg/L	200.000	1000	Pass
Cu	65	35.940 µg/L	200.000	1000	Pass
Zn	66	757.200 µg/L	200.000	1000	Pass
Zn	67	724.100 µg/L	200.000	1000	Pass
Zn	68	709.800 µg/L	200.000	1000	Pass
As	75	44.850 µg/L	200.000	1000	Pass
Se	82	20.570 µg/L	200.000	1000	Pass
Sr	87	291.000 µg/L	200.000	1000	Pass
Mo	95	13.960 µg/L	200.000	1000	Pass
Mo	98	12.980 µg/L	200.000	1000	Pass
Ag	107	-2.975 µg/L	200.000	1000	Pass
Ag	109	-2.969 µg/L	200.000	1000	Pass
Cd	111	-1.602 µg/L	200.000	1000	Pass
Cd	114	0.642 µg/L	200.000	1000	Pass
Sn	120	44.870 µg/L	200.000	1000	Pass
Sb	121	-10.910 µg/L	200.000	1000	Pass
Sb	123	-5.420 µg/L	200.000	1000	Pass

Ba 135	456.400 µg/L	200.000	1000	Pass
Au 197	-3.019 µg/L	200.000	0	Pass
Tl 205	-34.630 µg/L	200.000	1000	Pass

Sample QC Report

377

File : D:\HPCHEM\1\DATA\Sep2402.09A\043SMPL.D\043SMPL.D#
Acquired : Sep 24 02 04:20 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: M021283-020
Misc Info : ,
Vial Number: 2308
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 100.000000

Pb 208	60.340 µg/L	200.000	1000	Pass
U 238	6.514 µg/L	200.000	1000	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	555445	484563	Pass
45	463166	380767	Pass
72	79864	62974	Pass
115	416981	351723	Pass
209	232408	206667	Pass

Internal Standards referenced to 002CALB.D#

0 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

CCV QC Report

File : D:\HPCHEM\1\DATA\Sep2402.09A\044CCV_D\044CCV_D#
Acquired : Sep 24 02 04:29 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: [STD-CCV]
Misc Info :
Vial Number: 1105
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: CCV
Dilution : 1.000000

CCV Mix #1

Element		Concentration	Expected	QC Range	Flag
Be	9	94.030 µg/L	100.00	90.00-110.00	Pass
B	11	99.130 µg/L	100.00	90.00-110.00	Pass
Na	23	972.900 µg/L	1000.00	900.00-1100.00	Pass
Mg	24	985.600 µg/L	1000.00	900.00-1100.00	Pass
Mg	25	1070.000 µg/L	1000.00	900.00-1100.00	Pass
Mg	26	1025.000 µg/L	1000.00	900.00-1100.00	Pass
Al	27	987.200 µg/L	1000.00	900.00-1100.00	Pass
Si	28	1128.000 µg/L	1000.00	900.00-1100.00	*Fail*
K	39	1023.000 µg/L	1000.00	900.00-1100.00	Pass
Ca	43	1005.000 µg/L	1000.00	900.00-1100.00	Pass
Ca	44	1011.000 µg/L	1000.00	900.00-1100.00	Pass
Ti	47	103.300 µg/L	100.00	90.00-110.00	Pass
V	51	102.600 µg/L	100.00	90.00-110.00	Pass
Cr	52	103.500 µg/L	100.00	90.00-110.00	Pass
Cr	53	105.400 µg/L	100.00	90.00-110.00	Pass
Fe	54	1108.000 µg/L	1000.00	900.00-1100.00	*Fail*
Mn	55	105.000 µg/L	100.00	90.00-110.00	Pass
Fe	57	1080.000 µg/L	1000.00	900.00-1100.00	Pass
Co	59	105.700 µg/L	100.00	90.00-110.00	Pass
Ni	60	106.000 µg/L	100.00	90.00-110.00	Pass
Cu	63	106.600 µg/L	100.00	90.00-110.00	Pass
Cu	65	107.600 µg/L	100.00	90.00-110.00	Pass
Zn	66	101.800 µg/L	100.00	90.00-110.00	Pass
Zn	67	100.500 µg/L	100.00	90.00-110.00	Pass
Zn	68	102.200 µg/L	100.00	90.00-110.00	Pass
As	75	102.100 µg/L	100.00	90.00-110.00	Pass
Se	82	103.700 µg/L	100.00	90.00-110.00	Pass
Sr	87	101.800 µg/L	100.00	90.00-110.00	Pass
Mo	95	94.400 µg/L	100.00	90.00-110.00	Pass
Mo	98	94.810 µg/L	100.00	90.00-110.00	Pass
Ag	107	99.400 µg/L	100.00	90.00-110.00	Pass
Ag	109	99.940 µg/L	100.00	90.00-110.00	Pass
Cd	111	101.100 µg/L	100.00	90.00-110.00	Pass
Cd	114	101.600 µg/L	100.00	90.00-110.00	Pass
Sn	120	101.700 µg/L	100.00	90.00-110.00	Pass

Sb 121	100.800 µg/L	100.00	90.00-110.00	Pass
Sb 123	101.600 µg/L	100.00	90.00-110.00	Pass
Ba 135	102.600 µg/L	100.00	90.00-110.00	Pass

CCV QC Report

File : D:\HPCHEM\1\DATA\Sep2402.09A\044CCV_D\044CCV_D#
Acquired : Sep 24 02 04:29 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: [STD-CCV]
Misc Info :
Vial Number: 1105
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: CCV
Dilution : 1.000000

Au 197	100.200 µg/L	100.00	90.00-110.00	Pass
Tl 205	97.940 µg/L	100.00	90.00-110.00	Pass
Pb 208	99.430 µg/L	100.00	90.00-110.00	Pass
U 238	99.330 µg/L	100.00	90.00-110.00	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	555445	432540	Pass
45	463166	355241	Pass
72	79864	61185	Pass
115	416981	342985	Pass
209	232408	205558	Pass

Internal Standards referenced to 002CALB.D#

2 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

Blank QC Report

38U.

File : D:\HPCHEM\1\DATA\Sep2402.09A\045CCB_D\045CCB_D#
Acquired : Sep 24 02 04:38 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: [CB]
Misc Info :
Vial Number: 1102
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: CCB
Dilution : 1.000000

Element	Concentration	CRDL Limit	Flag
Be 9	0.025 µg/L	1.00	Pass
B 11	0.088 µg/L	1.00	Pass
Na 23	0.035 µg/L	10.00	Pass
Mg 24	0.406 µg/L	10.00	Pass
Mg 25	0.483 µg/L	10.00	Pass
Mg 26	0.433 µg/L	10.00	Pass
Al 27	3.335 µg/L	10.00	Pass
Si 28	14.750 µg/L	10.00	*Fail*
K 39	3.789 µg/L	10.00	Pass
Ca 43	2.716 µg/L	10.00	Pass
Ca 44	1.456 µg/L	10.00	Pass
Ti 47	0.141 µg/L	1.00	Pass
V 51	0.354 µg/L	1.00	Pass
Cr 52	0.692 µg/L	1.00	Pass
Cr 53	17.460 µg/L	1.00	*Fail*
Fe 54	49.130 µg/L	10.00	*Fail*
Mn 55	0.088 µg/L	1.00	Pass
Fe 57	7.922 µg/L	10.00	Pass
Co 59	-0.274 µg/L	1.00	Pass
Ni 60	-0.029 µg/L	1.00	Pass
Cu 63	0.049 µg/L	1.00	Pass
Cu 65	0.022 µg/L	1.00	Pass
Zn 66	0.057 µg/L	1.00	Pass
Zn 67	1.388 µg/L	1.00	*Fail*
Zn 68	0.128 µg/L	1.00	Pass
As 75	0.755 µg/L	1.00	Pass
Se 82	0.430 µg/L	1.00	Pass
Sr 87	0.063 µg/L	1.00	Pass
Mo 95	0.229 µg/L	1.00	Pass
Mo 98	0.232 µg/L	1.00	Pass
Ag 107	0.026 µg/L	1.00	Pass
Ag 109	0.031 µg/L	1.00	Pass
Cd 111	0.021 µg/L	1.00	Pass
Cd 114	0.035 µg/L	1.00	Pass
Sn 120	0.025 µg/L	1.00	Pass
Sb 121	0.160 µg/L	1.00	Pass
Sb 123	0.258 µg/L	1.00	Pass

Ba 135	0.035 µg/L	1.00	Pass
Au 197	0.406 µg/L	1.00	Pass
Tl 205	0.245 µg/L	1.00	Pass

Blank QC Report

File : D:\HPCHEM\1\DATA\Sep2402.09A\045CCB_.D\045CCB_.D#
Acquired : Sep 24 02 04:38 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: [CB]
Misc Info :
Vial Number: 1102
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: CCB
Dilution : 1.000000

Pb 208	−0.248 µg/L	1.00	Pass
U 238	0.045 µg/L	1.00	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	555445	447366	Pass
45	463166	357000	Pass
72	79864	59338	Pass
115	416981	334884	Pass
209	232408	196696	Pass

Internal Standards referenced to 002CALB.D#

4 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2402.09A\046SMPL.D\046SMPL.D#
Acquired : Sep 24 02 04:47 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: M021283-020
Misc Info : ,
Vial Number: 2309
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 10.000000

Element		Concentration	Cal Conc	LRS Conc	Flag
Be	9	8.037 µg/L	200.000	1000	Pass
B	11	-13.540 µg/L	200.000	0	Pass
Na	23	2352.000 µg/L	10000.000	20000	Pass
Mg	24	10450.000 µg/L	10000.000	20000	Pass
Mg	25	10650.000 µg/L	10000.000	20000	Pass
Mg	26	10430.000 µg/L	10000.000	20000	Pass
Al	27	50660.000 µg/L	10000.000	20000	Pass
Si	28	4652.000 µg/L	10000.000	0	Pass
K	39	7896.000 µg/L	10000.000	20000	Pass
Ca	43	13960.000 µg/L	10000.000	20000	Pass
Ca	44	13770.000 µg/L	10000.000	20000	Pass
Ti	47	6971.000 µg/L	200.000	1000	>Cal std
V	51	77.980 µg/L	200.000	1000	Pass
Cr	52	49.250 µg/L	200.000	1000	Pass
Cr	53	90.390 µg/L	200.000	1000	Pass
Fe	54	139900.000 µg/L	10000.000	20000	>Cal std
Mn	55	5162.000 µg/L	200.000	1000	>Cal std
Fe	57	144300.000 µg/L	10000.000	20000	>Cal std
Co	59	13.300 µg/L	200.000	1000	Pass
Ni	60	66.250 µg/L	200.000	1000	Pass
Cu	63	23.410 µg/L	200.000	1000	Pass
Cu	65	24.160 µg/L	200.000	1000	Pass
Zn	66	599.200 µg/L	200.000	1000	Pass
Zn	67	569.400 µg/L	200.000	1000	Pass
Zn	68	571.600 µg/L	200.000	1000	Pass
As	75	18.330 µg/L	200.000	1000	Pass
Se	82	14.610 µg/L	200.000	1000	Pass
Sr	87	286.500 µg/L	200.000	1000	Pass
Mo	95	20.820 µg/L	200.000	1000	Pass
Mo	98	20.040 µg/L	200.000	1000	Pass
Ag	107	0.237 µg/L	200.000	1000	Pass
Ag	109	0.213 µg/L	200.000	1000	Pass
Cd	111	2.355 µg/L	200.000	1000	Pass
Cd	114	0.178 µg/L	200.000	1000	Pass
Sn	120	48.580 µg/L	200.000	1000	Pass
Sb	121	-0.064 µg/L	200.000	1000	Pass
Sb	123	0.550 µg/L	200.000	1000	Pass

Ba 135	447.900 µg/L	200.000	1000	Pass
Au 197	1.190 µg/L	200.000	0	Pass
Tl 205	-0.198 µg/L	200.000	1000	Pass

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2402.09A\046SMPL.D\046SMPL.D#
Acquired : Sep 24 02 04:47 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: M021283-020
Misc Info : ,
Vial Number: 2309
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 10.000000

Pb 208	87.230 µg/L	200.000	1000	Pass
U 238	6.732 µg/L	200.000	1000	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	555445	414555	Pass
45	463166	367876	Pass
72	79864	60184	Pass
115	416981	336995	Pass
209	232408	203523	Pass

Internal Standards referenced to 002CALB.D#

4 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2402.09A\047SMPL.D\047SMPL.D#
Acquired : Sep 24 02 04:56 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: M021283-021
Misc Info : ,
Vial Number: 2310
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 100.000000

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Element		Concentration	Cal Conc	LRS Conc	Flag
Be	9	8.160 µg/L	200.000	1000	Pass
B	11	-146.200 µg/L	200.000	0	Pass
Na	23	6747.000 µg/L	10000.000	20000	Pass
Mg	24	18860.000 µg/L	10000.000	20000	Pass
Mg	25	19030.000 µg/L	10000.000	20000	Pass
Mg	26	18920.000 µg/L	10000.000	20000	Pass
Al	27	91970.000 µg/L	10000.000	20000	Pass
Si	28	20910.000 µg/L	10000.000	0	Pass
K	39	12910.000 µg/L	10000.000	20000	Pass
Ca	43	68310.000 µg/L	10000.000	20000	Pass
Ca	44	65830.000 µg/L	10000.000	20000	Pass
Ti	47	4627.000 µg/L	200.000	1000	Pass
V	51	171.600 µg/L	200.000	1000	Pass
Cr	52	156.000 µg/L	200.000	1000	Pass
Cr	53	1599.000 µg/L	200.000	1000	Pass
Fe	54	145600.000 µg/L	10000.000	20000	Pass
Mn	55	3954.000 µg/L	200.000	1000	Pass
Fe	57	147100.000 µg/L	10000.000	20000	Pass
Co	59	-4.158 µg/L	200.000	1000	Pass
Ni	60	57.260 µg/L	200.000	1000	Pass
Cu	63	106.400 µg/L	200.000	1000	Pass
Cu	65	107.500 µg/L	200.000	1000	Pass
Zn	66	937.900 µg/L	200.000	1000	Pass
Zn	67	1003.000 µg/L	200.000	1000	Pass
Zn	68	908.500 µg/L	200.000	1000	Pass
As	75	48.680 µg/L	200.000	1000	Pass
Se	82	25.330 µg/L	200.000	1000	Pass
Sr	87	708.600 µg/L	200.000	1000	Pass
Mo	95	17.160 µg/L	200.000	1000	Pass
Mo	98	16.150 µg/L	200.000	1000	Pass
Ag	107	-1.433 µg/L	200.000	1000	Pass
Ag	109	-1.211 µg/L	200.000	1000	Pass
Cd	111	3.398 µg/L	200.000	1000	Pass
Cd	114	1.242 µg/L	200.000	1000	Pass
Sn	120	29.720 µg/L	200.000	1000	Pass
Sb	121	-6.502 µg/L	200.000	1000	Pass
Sb	123	0.582 µg/L	200.000	1000	Pass

Ba	135	697.600 µg/L	200.000	1000	Pass
Au	197	-1.644 µg/L	200.000	0	Pass
Tl	205	-26.620 µg/L	200.000	1000	Pass

Sample QC Report

385

File : D:\HPCHEM\1\DATA\Sep2402.09A\047SMPL.D\047SMPL.D#
Acquired : Sep 24 02 04:56 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: M021283-021
Misc Info : ,
Vial Number: 2310
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : ---------
Sample Type: ---------
Dilution : 100.000000

Pb	208	138.100 µg/L	200.000	1000	Pass
U	238	8.618 µg/L	200.000	1000	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	555445	432227	Pass
45	463166	351998	Pass
72	79864	58090	Pass
115	416981	331361	Pass
209	232408	198536	Pass

Internal Standards referenced to 002CALB.D#

0 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

Sample QC Report

386

File : D:\HPCHEM\1\DATA\Sep2402.09A\048SMPL.D\048SMPL.D#
Acquired : Sep 24 02 05:05 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: M021283-021
Misc Info : ,
Vial Number: 2311
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 10.000000

Element		Concentration	Cal Conc	LRS Conc	Flag
Be	9	8.517 µg/L	200.000	1000	Pass
B	11	6.138 µg/L	200.000	0	Pass
Na	23	5937.000 µg/L	10000.000	20000	Pass
Mg	24	17130.000 µg/L	10000.000	20000	Pass
Mg	25	18590.000 µg/L	10000.000	20000	Pass
Mg	26	18230.000 µg/L	10000.000	20000	Pass
Al	27	86850.000 µg/L	10000.000	20000	Pass
Si	28	6303.000 µg/L	10000.000	0	Pass
K	39	12040.000 µg/L	10000.000	20000	Pass
Ca	43	62390.000 µg/L	10000.000	20000	Pass
Ca	44	61750.000 µg/L	10000.000	20000	Pass
Ti	47	4411.000 µg/L	200.000	1000	>Cal std
V	51	127.700 µg/L	200.000	1000	Pass
Cr	52	102.300 µg/L	200.000	1000	Pass
Cr	53	319.500 µg/L	200.000	1000	Pass
Fe	54	135900.000 µg/L	10000.000	20000	>Cal std
Mn	55	3872.000 µg/L	200.000	1000	>Cal std
Fe	57	140300.000 µg/L	10000.000	20000	>Cal std
Co	59	21.580 µg/L	200.000	1000	Pass
Ni	60	54.500 µg/L	200.000	1000	Pass
Cu	63	85.440 µg/L	200.000	1000	Pass
Cu	65	87.030 µg/L	200.000	1000	Pass
Zn	66	749.600 µg/L	200.000	1000	Pass
Zn	67	748.400 µg/L	200.000	1000	Pass
Zn	68	719.600 µg/L	200.000	1000	Pass
As	75	25.480 µg/L	200.000	1000	Pass
Se	82	11.270 µg/L	200.000	1000	Pass
Sr	87	704.700 µg/L	200.000	1000	Pass
Mo	95	17.820 µg/L	200.000	1000	Pass
Mo	98	18.220 µg/L	200.000	1000	Pass
Ag	107	1.684 µg/L	200.000	1000	Pass
Ag	109	1.681 µg/L	200.000	1000	Pass
Cd	111	2.598 µg/L	200.000	1000	Pass
Cd	114	0.870 µg/L	200.000	1000	Pass
Sn	120	34.180 µg/L	200.000	1000	Pass
Sb	121	-0.478 µg/L	200.000	1000	Pass
Sb	123	0.033 µg/L	200.000	1000	Pass

Ba 135	706.400 µg/L	200.000	1000	Pass
Au 197	0.437 µg/L	200.000	0	Pass
Tl 205	-1.580 µg/L	200.000	1000	Pass

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2402.09A\048SMPL.D\048SMPL.D#
Acquired : Sep 24 02 05:05 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: M021283-021
Misc Info : ,
Vial Number: 2311
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : ---------
Sample Type: ---------
Dilution : 10.000000

Pb 208	161.700 µg/L	200.000	1000	Pass
U 238	8.666 µg/L	200.000	1000	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	555445	474552	Pass
45	463166	405633	Pass
72	79864	65193	Pass
115	416981	359408	Pass
209	232408	215167	Pass

Internal Standards referenced to 002CALB.D#

4 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2402.09A\049SMPL.D\049SMPL.D#
Acquired : Sep 24 02 05:15 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: M021283-022
Misc Info : ,
Vial Number: 2312
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 100.000000

Element		Concentration	Cal Conc	LRS Conc	Flag
Be	9	10.300 µg/L	200.000	1000	Pass
B	11	-135.100 µg/L	200.000	0	Pass
Na	23	2111.000 µg/L	10000.000	20000	Pass
Mg	24	27620.000 µg/L	10000.000	20000	Pass
Mg	25	28220.000 µg/L	10000.000	20000	Pass
Mg	26	28050.000 µg/L	10000.000	20000	Pass
Al	27	181900.000 µg/L	10000.000	20000	Pass
Si	28	17520.000 µg/L	10000.000	0	Pass
K	39	18480.000 µg/L	10000.000	20000	Pass
Ca	43	29140.000 µg/L	10000.000	20000	Pass
Ca	44	28360.000 µg/L	10000.000	20000	Pass
Ti	47	5952.000 µg/L	200.000	1000	Pass
V	51	307.000 µg/L	200.000	1000	Pass
Cr	52	361.800 µg/L	200.000	1000	Pass
Cr	53	2544.000 µg/L	200.000	1000	Pass
Fe	54	227600.000 µg/L	10000.000	20000	Pass
Mn	55	4771.000 µg/L	200.000	1000	Pass
Fe	57	229500.000 µg/L	10000.000	20000	Pass
Co	59	17.460 µg/L	200.000	1000	Pass
Ni	60	100.900 µg/L	200.000	1000	Pass
Cu	63	96.850 µg/L	200.000	1000	Pass
Cu	65	103.600 µg/L	200.000	1000	Pass
Zn	66	947.800 µg/L	200.000	1000	Pass
Zn	67	1091.000 µg/L	200.000	1000	Pass
Zn	68	876.000 µg/L	200.000	1000	Pass
As	75	57.670 µg/L	200.000	1000	Pass
Se	82	14.840 µg/L	200.000	1000	Pass
Sr	87	1033.000 µg/L	200.000	1000	Pass
Mo	95	20.800 µg/L	200.000	1000	Pass
Mo	98	16.120 µg/L	200.000	1000	Pass
Ag	107	1.957 µg/L	200.000	1000	Pass
Ag	109	2.258 µg/L	200.000	1000	Pass
Cd	111	5.617 µg/L	200.000	1000	Pass
Cd	114	4.456 µg/L	200.000	1000	Pass
Sn	120	33.820 µg/L	200.000	1000	Pass
Sb	121	-9.125 µg/L	200.000	1000	Pass
Sb	123	-3.725 µg/L	200.000	1000	Pass

Ba 135	1348.000 µg/L	200.000	1000	Pass
Au 197	-3.697 µg/L	200.000	0	Pass
Tl 205	-29.580 µg/L	200.000	1000	Pass

Sample QC Report

389

File : D:\HPCHEM\1\DATA\Sep2402.09A\049SMPL.D\049SMPL.D#
Acquired : Sep 24 02 05:15 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: M021283-022
Misc Info : ,
Vial Number: 2312
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : ---------
Sample Type: ---------
Dilution : 100.000000

Pb 208	314.300 µg/L	200.000	1000	Pass
U 238	8.471 µg/L	200.000	1000	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	555445	443758	Pass
45	463166	367034	Pass
72	79864	59963	Pass
115	416981	341079	Pass
209	232408	203769	Pass

Internal Standards referenced to 002CALB.D#

0 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

Sample QC Report

39u

File : D:\HPCHEM\1\DATA\Sep2402.09A\050SMPL.D\050SMPL.D#
Acquired : Sep 24 02 05:24 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: M021283-022
Misc Info : ,
Vial Number: 2401
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 10.000000

Element		Concentration	Cal Conc	LRS Conc	Flag
Be	9	12.160 µg/L	200.000	1000	Pass
B	11	9.749 µg/L	200.000	0	Pass
Na	23	1774.000 µg/L	10000.000	20000	Pass
Mg	24	24980.000 µg/L	10000.000	20000	Pass
Mg	25	25980.000 µg/L	10000.000	20000	Pass
Mg	26	24980.000 µg/L	10000.000	20000	Pass
Al	27	169400.000 µg/L	10000.000	20000	>Cal std
Si	28	4481.000 µg/L	10000.000	0	Pass
K	39	16100.000 µg/L	10000.000	20000	Pass
Ca	43	25020.000 µg/L	10000.000	20000	Pass
Ca	44	25040.000 µg/L	10000.000	20000	Pass
Ti	47	5570.000 µg/L	200.000	1000	>Cal std
V	51	230.900 µg/L	200.000	1000	Pass
Cr	52	290.000 µg/L	200.000	1000	Pass
Cr	53	376.200 µg/L	200.000	1000	Pass
Fe	54	203100.000 µg/L	10000.000	20000	>LRS
Mn	55	4310.000 µg/L	200.000	1000	>Cal std
Fe	57	214200.000 µg/L	10000.000	20000	>LRS
Co	59	40.520 µg/L	200.000	1000	Pass
Ni	60	94.980 µg/L	200.000	1000	Pass
Cu	63	83.150 µg/L	200.000	1000	Pass
Cu	65	84.650 µg/L	200.000	1000	Pass
Zn	66	805.700 µg/L	200.000	1000	Pass
Zn	67	820.600 µg/L	200.000	1000	Pass
Zn	68	727.300 µg/L	200.000	1000	Pass
As	75	42.110 µg/L	200.000	1000	Pass
Se	82	10.140 µg/L	200.000	1000	Pass
Sr	87	1004.000 µg/L	200.000	1000	Pass
Mo	95	22.240 µg/L	200.000	1000	Pass
Mo	98	21.670 µg/L	200.000	1000	Pass
Ag	107	4.817 µg/L	200.000	1000	Pass
Ag	109	4.839 µg/L	200.000	1000	Pass
Cd	111	4.609 µg/L	200.000	1000	Pass
Cd	114	1.864 µg/L	200.000	1000	Pass
Sn	120	36.970 µg/L	200.000	1000	Pass
Sb	121	-0.337 µg/L	200.000	1000	Pass
Sb	123	0.042 µg/L	200.000	1000	Pass

Ba 135	1352.000 µg/L	200.000	1000	Pass
Au 197	0.252 µg/L	200.000	0	Pass
Tl 205	0.391 µg/L	200.000	1000	Pass

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2402.09A\050SMPL.D\050SMPL.D#
Acquired : Sep 24 02 05:24 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: M021283-022
Misc Info : ,
Vial Number: 2401
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 10.000000

Pb 208	330.200 µg/L	200.000	1000	Pass
U 238	7.973 µg/L	200.000	1000	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	555445	451472	Pass
45	463166	415136	Pass
72	79864	64511	Pass
115	416981	351973	Pass
209	232408	212306	Pass

Internal Standards referenced to 002CALB.D#

5 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2402.09A\051SMPL.D\051SMPL.D#
Acquired : Sep 24 02 05:33 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: M021283-023
Misc Info : ,
Vial Number: 2402
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 100.000000

Element	Concentration	Cal Conc	LRS Conc	Flag
Be 9	8.338 µg/L	200.000	1000	Pass
B 11	-165.700 µg/L	200.000	0	Pass
Na 23	2897.000 µg/L	10000.000	20000	Pass
Mg 24	11600.000 µg/L	10000.000	20000	Pass
Mg 25	11840.000 µg/L	10000.000	20000	Pass
Mg 26	11640.000 µg/L	10000.000	20000	Pass
Al 27	86480.000 µg/L	10000.000	20000	Pass
Si 28	20730.000 µg/L	10000.000	0	Pass
K 39	10710.000 µg/L	10000.000	20000	Pass
Ca 43	18190.000 µg/L	10000.000	20000	Pass
Ca 44	18570.000 µg/L	10000.000	20000	Pass
Ti 47	3321.000 µg/L	200.000	1000	Pass
V 51	155.400 µg/L	200.000	1000	Pass
Cr 52	96.860 µg/L	200.000	1000	Pass
Cr 53	852.100 µg/L	200.000	1000	Pass
Fe 54	121100.000 µg/L	10000.000	20000	Pass
Mn 55	3620.000 µg/L	200.000	1000	Pass
Fe 57	121000.000 µg/L	10000.000	20000	Pass
Co 59	-14.660 µg/L	200.000	1000	Pass
Ni 60	34.170 µg/L	200.000	1000	Pass
Cu 63	44.540 µg/L	200.000	1000	Pass
Cu 65	44.480 µg/L	200.000	1000	Pass
Zn 66	661.400 µg/L	200.000	1000	Pass
Zn 67	683.800 µg/L	200.000	1000	Pass
Zn 68	621.000 µg/L	200.000	1000	Pass
As 75	61.890 µg/L	200.000	1000	Pass
Se 82	15.430 µg/L	200.000	1000	Pass
Sr 87	546.700 µg/L	200.000	1000	Pass
Mo 95	13.740 µg/L	200.000	1000	Pass
Mo 98	13.200 µg/L	200.000	1000	Pass
Ag 107	-2.312 µg/L	200.000	1000	Pass
Ag 109	-2.882 µg/L	200.000	1000	Pass
Cd 111	-0.060 µg/L	200.000	1000	Pass
Cd 114	2.893 µg/L	200.000	1000	Pass
Sn 120	31.700 µg/L	200.000	1000	Pass
Sb 121	-10.130 µg/L	200.000	1000	Pass
Sb 123	-4.621 µg/L	200.000	1000	Pass

Ba 135	514.500 µg/L	200.000	1000	Pass
Au 197	-5.959 µg/L	200.000	0	Pass
Tl 205	-33.840 µg/L	200.000	1000	Pass

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2402.09A\051SMPL.D\051SMPL.D#
Acquired : Sep 24 02 05:33 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: M021283-023
Misc Info : ,
Vial Number: 2402
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 100.000000

Pb 208	69.900 µg/L	200.000	1000	Pass
U 238	8.431 µg/L	200.000	1000	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	555445	446648	Pass
45	463166	360151	Pass
72	79864	59954	Pass
115	416981	338091	Pass
209	232408	200221	Pass

Internal Standards referenced to 002CALB.D#

0 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

Sample QC Report

394

File : D:\HPCHEM\1\DATA\Sep2402.09A\052SMPL.D\052SMPL.D#
Acquired : Sep 24 02 05:42 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: M021283-023
Misc Info : ,
Vial Number: 2403
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 10.000000

Element		Concentration	Cal Conc	LRS Conc	Flag
Be	9	8.403 µg/L	200.000	1000	Pass
B	11	-2.908 µg/L	200.000	0	Pass
Na	23	2463.000 µg/L	10000.000	20000	Pass
Mg	24	10470.000 µg/L	10000.000	20000	Pass
Mg	25	11060.000 µg/L	10000.000	20000	Pass
Mg	26	10800.000 µg/L	10000.000	20000	Pass
Al	27	81050.000 µg/L	10000.000	20000	Pass
Si	28	4602.000 µg/L	10000.000	0	Pass
K	39	9514.000 µg/L	10000.000	20000	Pass
Ca	43	16670.000 µg/L	10000.000	20000	Pass
Ca	44	16620.000 µg/L	10000.000	20000	Pass
Ti	47	3174.000 µg/L	200.000	1000	>Cal std
V	51	85.260 µg/L	200.000	1000	Pass
Cr	52	51.390 µg/L	200.000	1000	Pass
Cr	53	183.200 µg/L	200.000	1000	Pass
Fe	54	111400.000 µg/L	10000.000	20000	>Cal std
Mn	55	3358.000 µg/L	200.000	1000	>Cal std
Fe	57	117500.000 µg/L	10000.000	20000	>Cal std
Co	59	11.190 µg/L	200.000	1000	Pass
Ni	60	35.180 µg/L	200.000	1000	Pass
Cu	63	113.400 µg/L	200.000	1000	Pass
Cu	65	114.400 µg/L	200.000	1000	Pass
Zn	66	517.800 µg/L	200.000	1000	Pass
Zn	67	515.400 µg/L	200.000	1000	Pass
Zn	68	479.400 µg/L	200.000	1000	Pass
As	75	21.580 µg/L	200.000	1000	Pass
Se	82	9.181 µg/L	200.000	1000	Pass
Sr	87	529.000 µg/L	200.000	1000	Pass
Mo	95	16.540 µg/L	200.000	1000	Pass
Mo	98	15.710 µg/L	200.000	1000	Pass
Ag	107	0.547 µg/L	200.000	1000	Pass
Ag	109	0.475 µg/L	200.000	1000	Pass
Cd	111	1.954 µg/L	200.000	1000	Pass
Cd	114	0.587 µg/L	200.000	1000	Pass
Sn	120	34.260 µg/L	200.000	1000	Pass
Sb	121	-0.680 µg/L	200.000	1000	Pass
Sb	123	-0.052 µg/L	200.000	1000	Pass

Ba 135	510.500 µg/L	200.000	1000	Pass
Au 197	-0.582 µg/L	200.000	0	Pass
Tl 205	-2.666 µg/L	200.000	1000	Pass

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2402.09A\052SMPL.D\052SMPL.D#
Acquired : Sep 24 02 05:42 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: M021283-023
Misc Info : ,
Vial Number: 2403
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 10.000000

Pb 208	93.820 µg/L	200.000	1000	Pass
U 238	8.188 µg/L	200.000	1000	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	555445	445859	Pass
45	463166	402432	Pass
72	79864	64320	Pass
115	416981	355250	Pass
209	232408	214718	Pass

Internal Standards referenced to 002CALB.D#

4 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2402.09A\053SMPL.D\053SMPL.D#
Acquired : Sep 24 02 05:52 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: M021283-024
Misc Info : ,
Vial Number: 2404
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 100.000000

Element		Concentration	Cal Conc	LRS Conc	Flag
Be	9	8.150 µg/L	200.000	1000	Pass
B	11	-160.200 µg/L	200.000	0	Pass
Na	23	13190.000 µg/L	10000.000	20000	Pass
Mg	24	15280.000 µg/L	10000.000	20000	Pass
Mg	25	15220.000 µg/L	10000.000	20000	Pass
Mg	26	15170.000 µg/L	10000.000	20000	Pass
Al	27	85670.000 µg/L	10000.000	20000	Pass
Si	28	17330.000 µg/L	10000.000	0	Pass
K	39	12250.000 µg/L	10000.000	20000	Pass
Ca	43	17000.000 µg/L	10000.000	20000	Pass
Ca	44	17030.000 µg/L	10000.000	20000	Pass
Ti	47	5780.000 µg/L	200.000	1000	Pass
V	51	160.200 µg/L	200.000	1000	Pass
Cr	52	341.100 µg/L	200.000	1000	Pass
Cr	53	1277.000 µg/L	200.000	1000	Pass
Fe	54	165200.000 µg/L	10000.000	20000	Pass
Mn	55	5130.000 µg/L	200.000	1000	Pass
Fe	57	163200.000 µg/L	10000.000	20000	Pass
Co	59	-2.201 µg/L	200.000	1000	Pass
Ni	60	96.610 µg/L	200.000	1000	Pass
Cu	63	252.200 µg/L	200.000	1000	Pass
Cu	65	248.900 µg/L	200.000	1000	Pass
Zn	66	1570.000 µg/L	200.000	1000	Pass
Zn	67	1541.000 µg/L	200.000	1000	Pass
Zn	68	1554.000 µg/L	200.000	1000	Pass
As	75	33.120 µg/L	200.000	1000	Pass
Se	82	12.610 µg/L	200.000	1000	Pass
Sr	87	522.900 µg/L	200.000	1000	Pass
Mo	95	12.610 µg/L	200.000	1000	Pass
Mo	98	13.570 µg/L	200.000	1000	Pass
Ag	107	9.890 µg/L	200.000	1000	Pass
Ag	109	8.849 µg/L	200.000	1000	Pass
Cd	111	8.957 µg/L	200.000	1000	Pass
Cd	114	6.561 µg/L	200.000	1000	Pass
Sn	120	31.410 µg/L	200.000	1000	Pass
Sb	121	-9.996 µg/L	200.000	1000	Pass
Sb	123	-4.642 µg/L	200.000	1000	Pass

Ba 135	629.700 µg/L	200.000	1000	Pass
Au 197	-3.100 µg/L	200.000	0	Pass
Tl 205	-32.700 µg/L	200.000	1000	Pass

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2402.09A\053SMPL.D\053SMPL.D#
Acquired : Sep 24 02 05:52 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: M021283-024
Misc Info : ,
Vial Number: 2404
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 100.000000

Pb 208	299.900 µg/L	200.000	1000	Pass
U 238	8.609 µg/L	200.000	1000	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	555445	459893	Pass
45	463166	372115	Pass
72	79864	60540	Pass
115	416981	343423	Pass
209	232408	201207	Pass

Internal Standards referenced to 002CALB.D#

0 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

Sample QC Report

398

File : D:\HPCHEM\1\DATA\Sep2402.09A\054SMPL.D\054SMPL.D#
Acquired : Sep 24 02 06:01 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: M021283-024
Misc Info : ,
Vial Number: 2405
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 10.000000

Element		Concentration	Cal Conc	LRS Conc	Flag
Be	9	7.685 µg/L	200.000	1000	Pass
B	11	-6.275 µg/L	200.000	0	Pass
Na	23	9937.000 µg/L	10000.000	20000	Pass
Mg	24	13430.000 µg/L	10000.000	20000	Pass
Mg	25	14020.000 µg/L	10000.000	20000	Pass
Mg	26	13800.000 µg/L	10000.000	20000	Pass
Al	27	74360.000 µg/L	10000.000	20000	Pass
Si	28	5045.000 µg/L	10000.000	0	Pass
K	39	10850.000 µg/L	10000.000	20000	Pass
Ca	43	14580.000 µg/L	10000.000	20000	Pass
Ca	44	14350.000 µg/L	10000.000	20000	Pass
Ti	47	5652.000 µg/L	200.000	1000	>Cal std
V	51	167.500 µg/L	200.000	1000	Pass
Cr	52	297.200 µg/L	200.000	1000	Pass
Cr	53	349.200 µg/L	200.000	1000	Pass
Fe	54	152000.000 µg/L	10000.000	20000	>Cal std
Mn	55	5065.000 µg/L	200.000	1000	>Cal std
Fe	57	159800.000 µg/L	10000.000	20000	>Cal std
Co	59	25.250 µg/L	200.000	1000	Pass
Ni	60	91.370 µg/L	200.000	1000	Pass
Cu	63	222.000 µg/L	200.000	1000	Pass
Cu	65	226.200 µg/L	200.000	1000	Pass
Zn	66	1198.000 µg/L	200.000	1000	Pass
Zn	67	1157.000 µg/L	200.000	1000	Pass
Zn	68	1174.000 µg/L	200.000	1000	Pass
As	75	28.140 µg/L	200.000	1000	Pass
Se	82	10.540 µg/L	200.000	1000	Pass
Sr	87	517.800 µg/L	200.000	1000	Pass
Mo	95	17.680 µg/L	200.000	1000	Pass
Mo	98	17.560 µg/L	200.000	1000	Pass
Ag	107	10.970 µg/L	200.000	1000	Pass
Ag	109	11.750 µg/L	200.000	1000	Pass
Cd	111	8.280 µg/L	200.000	1000	Pass
Cd	114	6.001 µg/L	200.000	1000	Pass
Sn	120	36.260 µg/L	200.000	1000	Pass
Sb	121	-0.504 µg/L	200.000	1000	Pass
Sb	123	0.034 µg/L	200.000	1000	Pass

Ba 135	624.400 µg/L	200.000	1000	Pass
Au 197	0.026 µg/L	200.000	0	Pass
Tl 205	-0.737 µg/L	200.000	1000	Pass

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2402.09A\054SMPL.D\054SMPL.D#
Acquired : Sep 24 02 06:01 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: M021283-024
Misc Info : ,
Vial Number: 2405
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 10.000000

Pb 208	315.300 µg/L	200.000	1000	Pass
U 238	8.516 µg/L	200.000	1000	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	555445	381505	Pass
45	463166	352219	Pass
72	79864	58234	Pass
115	416981	330291	Pass
209	232408	200171	Pass

Internal Standards referenced to 002CALB.D#

4 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

Tune Sample Report

40J

File : D:\HPCHEM\1\DATA\SEP2402.09A\055TUNE.D
Acquired : Sep 24 02 06:10 pm using AcqMethod QCTUNE.M
Operator : JWB
Sample Name: 6020/200.8 TUNE MIX
Misc Info :
Vial Number: 1101
CurrentMeth: D:\HPCHEM\1\METHODS\QCTUNE.M
BkgFile : --------
Sample Type: TUNE
Dilution : 1.000000

Minimum Response Criteria (cps/ppb)

Element	RSD(%)	Actual	Required	Flag
59	0.89	73609	> 200	
7	6.82	98161	> 20	
115	1.53	101764	> 100	
205	1.09	51146	> 10	
102		0(cps)	< 25(cps)	

Ion Ratio Criteria

	Actual	Required	Flag
59/59	1.00	1.00 - 1.00	
7/59	1.33	0.10 - 5.00	
115/59	1.38	0.10 - 10.00	
205/59	0.69	0.10 - 5.00	

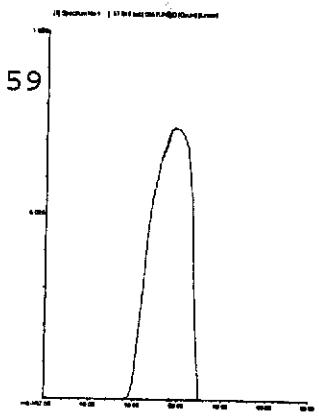

Mass Calib:58.95
W-50%: 0.60
W-10%: 0.70

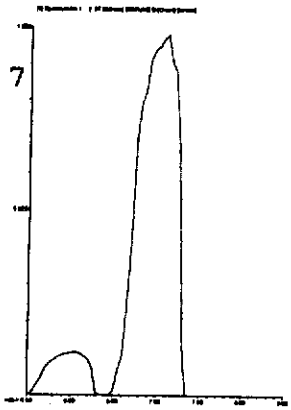

Mass Calib:7.10
W-50%: 0.60
W-10%: 0.75

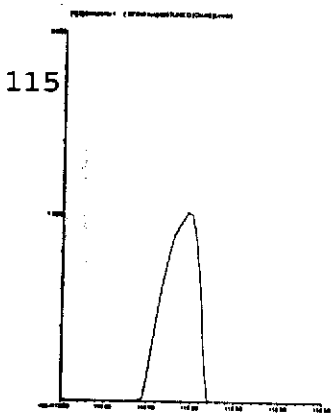

Mass Calib:114.95
W-50%: 0.55
W-10%: 0.65

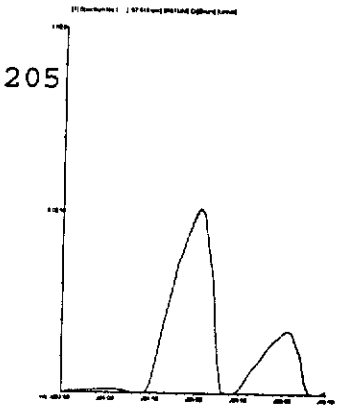

Mass Calib:205.05
W-50%: 0.55
W-10%: 0.75

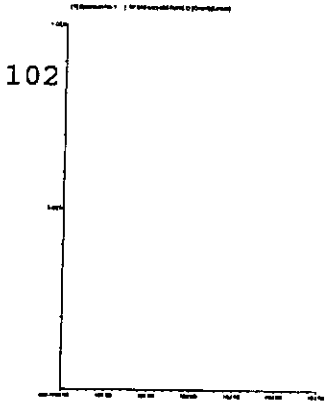

Background

US EPA Method 200.8 Tune Verification

Acquired : Sep 24 02 06:10 pm using AcqMethod QCTUNE.M
Data File Name: D:\HPCHEM\1\DATA\Sep2402.09A\055TUNE.D

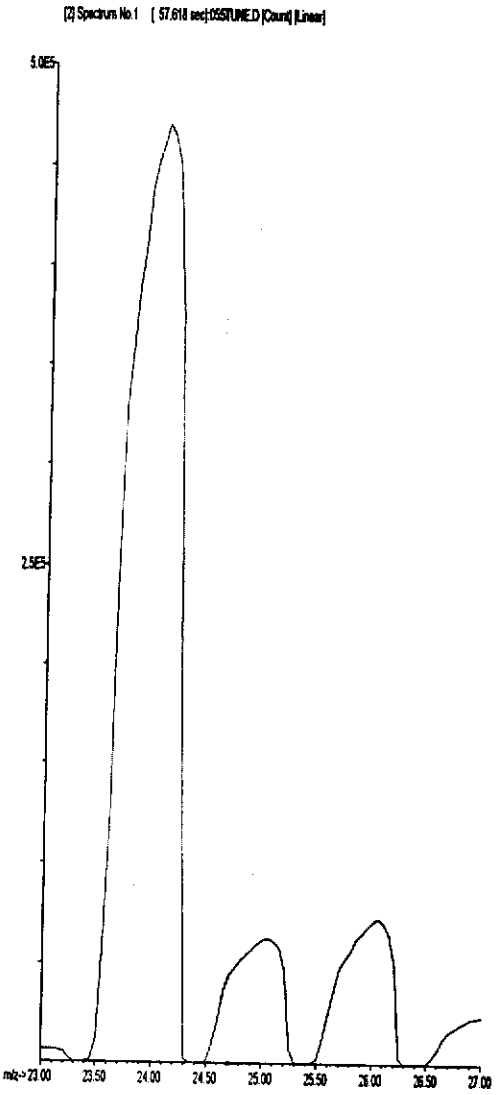

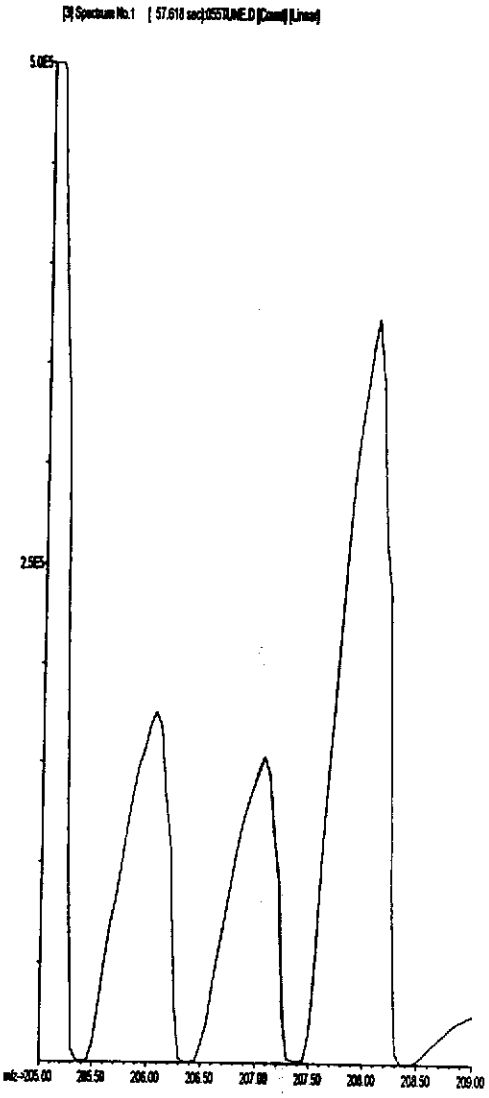

Element and Mass	Mass Assignment		PeakElement at 5and Mass Heig	Mass Assignment		Peak Width at 5% Peak Height
Mg 24	24.05	0.70	Pb 206	206.05	0.75	
Mg 25	25.05	0.70	Pb 207	207.05	0.75	
Mg 26	26.05	0.65	Pb 208	208.05	0.70	

* Does not meet EPA Method 200.8 specification.

Spectrum No.1 [57.618 sec]:055TUNE.D
Acquired : Sep 24 02 06:10 pm using AcqMethod QCTUNE.M
Bkg file : --------
Interference Correction: OFF

Mass[amu]	Element	Count	n	SD	RSD[%]
5		1764.24 P	5	149.30	8.46
6		1309948.00 P	5	22720.00	1.73
7	Li	10473410.00 A	5	298100.00	2.85
8		6.20 P	5	3.12	50.23
23		87065.80 P	5	2201.00	2.53
24		5159410.00 A	5	116700.00	2.26
25		682808.30 P	5	29280.00	4.29
26		760845.10 P	5	14530.00	1.91
27		256691.10 P	5	3633.00	1.42
58		57676.58 P	5	5625.00	9.75
59	Co	7705158.00 A	5	104600.00	1.36
60		142.80 P	5	20.90	14.64
101		11.80 P	5	1.30	11.05
103		304.61 P	5	13.99	4.59
114		158027.30 P	5	15770.00	9.98
115	In	9377831.00 A	5	214600.00	2.29
116		455.21 P	5	20.48	4.50
204		133419.70 P	5	797.10	0.60
205	Tl	4943935.00 P	5	53790.00	1.09
206		1680365.00 P	5	16980.00	1.01
207		1451827.00 P	5	15340.00	1.06
208		3573600.00 P	5	35910.00	1.00
209		252036.60 P	5	2937.00	1.17

CCV QC Report

File : D:\HPCHEM\1\DATA\Sep2402.09A\056CCV_D\056CCV_.D#
Acquired : Sep 24 02 06:19 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: [STD-CCV]
Misc Info :
Vial Number: 1105
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : ---------
Sample Type: CCV
Dilution : 1.000000

403

CCV Mix #1

Element	Concentration	Expected	QC Range	Flag
Be 9	93.660 µg/L	100.00	90.00-110.00	Pass
B 11	98.900 µg/L	100.00	90.00-110.00	Pass
Na 23	999.800 µg/L	1000.00	900.00-1100.00	Pass
Mg 24	988.800 µg/L	1000.00	900.00-1100.00	Pass
Mg 25	1071.000 µg/L	1000.00	900.00-1100.00	Pass
Mg 26	1038.000 µg/L	1000.00	900.00-1100.00	Pass
Al 27	1006.000 µg/L	1000.00	900.00-1100.00	Pass
Si 28	1058.000 µg/L	1000.00	900.00-1100.00	Pass
K 39	1029.000 µg/L	1000.00	900.00-1100.00	Pass
Ca 43	993.200 µg/L	1000.00	900.00-1100.00	Pass
Ca 44	1010.000 µg/L	1000.00	900.00-1100.00	Pass
Ti 47	104.300 µg/L	100.00	90.00-110.00	Pass
V 51	104.200 µg/L	100.00	90.00-110.00	Pass
Cr 52	106.500 µg/L	100.00	90.00-110.00	Pass
Cr 53	115.200 µg/L	100.00	90.00-110.00	*Fail*
Fe 54	1186.000 µg/L	1000.00	900.00-1100.00	*Fail*
Mn 55	107.700 µg/L	100.00	90.00-110.00	Pass
Fe 57	1100.000 µg/L	1000.00	900.00-1100.00	Pass
Co 59	107.500 µg/L	100.00	90.00-110.00	Pass
Ni 60	107.200 µg/L	100.00	90.00-110.00	Pass
Cu 63	107.600 µg/L	100.00	90.00-110.00	Pass
Cu 65	109.100 µg/L	100.00	90.00-110.00	Pass
Zn 66	103.600 µg/L	100.00	90.00-110.00	Pass
Zn 67	103.300 µg/L	100.00	90.00-110.00	Pass
Zn 68	104.800 µg/L	100.00	90.00-110.00	Pass
As 75	105.800 µg/L	100.00	90.00-110.00	Pass
Se 82	106.900 µg/L	100.00	90.00-110.00	Pass
Sr 87	103.900 µg/L	100.00	90.00-110.00	Pass
Mo 95	94.600 µg/L	100.00	90.00-110.00	Pass
Mo 98	95.690 µg/L	100.00	90.00-110.00	Pass
Ag 107	99.620 µg/L	100.00	90.00-110.00	Pass
Ag 109	99.850 µg/L	100.00	90.00-110.00	Pass
Cd 111	100.400 µg/L	100.00	90.00-110.00	Pass
Cd 114	100.700 µg/L	100.00	90.00-110.00	Pass
Sn 120	101.500 µg/L	100.00	90.00-110.00	Pass

Sb 121	101.300 µg/L	100.00	90.00-110.00	Pass
Sb 123	101.400 µg/L	100.00	90.00-110.00	Pass
Ba 135	103.000 µg/L	100.00	90.00-110.00	Pass

CCV QC Report

404

File : D:\HPCHEM\1\DATA\Sep2402.09A\056CCV_.D\056CCV_.D#
Acquired : Sep 24 02 06:19 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: [STD-CCV]
Misc Info :
Vial Number: 1105
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: CCV
Dilution : 1.000000

Au 197	99.270 µg/L	100.00	90.00-110.00	Pass
Tl 205	98.410 µg/L	100.00	90.00-110.00	Pass
Pb 208	100.100 µg/L	100.00	90.00-110.00	Pass
U 238	99.410 µg/L	100.00	90.00-110.00	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	555445	434015	Pass
45	463166	347243	Pass
72	79864	59360	Pass
115	416981	340369	Pass
209	232408	200206	Pass

Internal Standards referenced to 002CALB.D#

2 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

Blank QC Report

File : D:\HPCHEM\1\DATA\Sep2402.09A\057CCB_.D\057CCB_.D#
Acquired : Sep 24 02 06:28 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: [CB]
Misc Info :
Vial Number: 1102
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: CCB
Dilution : 1.000000

405

Element		Concentration	CRDL Limit	Flag
Be	9	0.028 µg/L	1.00	Pass
B	11	0.232 µg/L	1.00	Pass
Na	23	0.020 µg/L	10.00	Pass
Mg	24	0.373 µg/L	10.00	Pass
Mg	25	0.403 µg/L	10.00	Pass
Mg	26	0.409 µg/L	10.00	Pass
Al	27	3.167 µg/L	10.00	Pass
Si	28	46.070 µg/L	10.00	*Fail*
K	39	6.382 µg/L	10.00	Pass
Ca	43	3.135 µg/L	10.00	Pass
Ca	44	1.470 µg/L	10.00	Pass
Ti	47	-0.001 µg/L	1.00	Pass
V	51	0.753 µg/L	1.00	Pass
Cr	52	0.865 µg/L	1.00	Pass
Cr	53	25.540 µg/L	1.00	*Fail*
Fe	54	74.320 µg/L	10.00	*Fail*
Mn	55	0.090 µg/L	1.00	Pass
Fe	57	12.010 µg/L	10.00	*Fail*
Co	59	-0.145 µg/L	1.00	Pass
Ni	60	-0.022 µg/L	1.00	Pass
Cu	63	0.028 µg/L	1.00	Pass
Cu	65	0.023 µg/L	1.00	Pass
Zn	66	0.069 µg/L	1.00	Pass
Zn	67	2.289 µg/L	1.00	*Fail*
Zn	68	0.246 µg/L	1.00	Pass
As	75	0.574 µg/L	1.00	Pass
Se	82	0.171 µg/L	1.00	Pass
Sr	87	0.033 µg/L	1.00	Pass
Mo	95	0.199 µg/L	1.00	Pass
Mo	98	0.206 µg/L	1.00	Pass
Ag	107	0.022 µg/L	1.00	Pass
Ag	109	0.021 µg/L	1.00	Pass
Cd	111	0.020 µg/L	1.00	Pass
Cd	114	0.058 µg/L	1.00	Pass
Sn	120	0.022 µg/L	1.00	Pass
Sb	121	0.085 µg/L	1.00	Pass
Sb	123	0.111 µg/L	1.00	Pass

Ba 135	0.019 µg/L	1.00	Pass
Au 197	0.499 µg/L	1.00	Pass
Tl 205	0.321 µg/L	1.00	Pass

Blank QC Report

File : D:\HPCHEM\1\DATA\Sep2402.09A\057CCB_.D\057CCB_.D#
Acquired : Sep 24 02 06:28 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: [CB]
Misc Info :
Vial Number: 1102
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: CCB
Dilution : 1.000000

Pb 208	−0.121 µg/L	1.00	Pass
U 238	0.040 µg/L	1.00	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	555445	418027	Pass
45	463166	340047	Pass
72	79864	56968	Pass
115	416981	329191	Pass
209	232408	193476	Pass

Internal Standards referenced to 002CALB.D#

5 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

Interference Check A QC Report

File : D:\HPCHEM\1\DATA\Sep2402.09A\058ICSA.D\058ICSA.D#
Acquired : Sep 24 02 06:37 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: [ICSA]
Misc Info :
Vial Number: 1303
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: ICS_A_
Dilution : 1.000000

Element		Concentration	Expected	CRDL Range Conc	%Range Conc	Flag
Be	9	0.054 µg/L	0.00	-1.00-1.00	0-0	Pass
B	11	5.198 µg/L	0.00	-1.00-1.00	0-0	*Fail*
Na	23	----- µg/L	100000.00	1.00E+5-1.00E+5	8.00E+4-1.20E+5	OverRng
Mg	24	----- µg/L	100000.00	1.00E+5-1.00E+5	8.00E+4-1.20E+5	OverRng
Mg	25	138700.000 µg/L	100000.00	1.00E+5-1.00E+5	8.00E+4-1.20E+5	*Fail*
Mg	26	139400.000 µg/L	100000.00	1.00E+5-1.00E+5	8.00E+4-1.20E+5	*Fail*
Al	27	----- µg/L	100000.00	1.00E+5-1.00E+5	8.00E+4-1.20E+5	OverRng
Si	28	103.200 µg/L	0.00	-10.00-10.00	0-0	*Fail*
K	39	----- µg/L	100000.00	1.00E+5-1.00E+5	8.00E+4-1.20E+5	OverRng
Ca	43	153900.000 µg/L	100000.00	1.00E+5-1.00E+5	8.00E+4-1.20E+5	*Fail*
Ca	44	152500.000 µg/L	100000.00	1.00E+5-1.00E+5	8.00E+4-1.20E+5	*Fail*
Ti	47	3047.000 µg/L	2000.00	1999.00-2001.00	1600-2400	*Fail*
V	51	0.842 µg/L	0.00	-1.00-1.00	0-0	Pass
Cr	52	3.912 µg/L	0.00	-1.00-1.00	0-0	*Fail*
Cr	53	28.540 µg/L	0.00	-1.00-1.00	0-0	*Fail*
Fe	54	151300.000 µg/L	100000.00	1.00E+5-1.00E+5	8.00E+4-1.20E+5	*Fail*
Mn	55	2.600 µg/L	0.00	-1.00-1.00	0-0	*Fail*
Fe	57	155200.000 µg/L	100000.00	1.00E+5-1.00E+5	8.00E+4-1.20E+5	*Fail*
Co	59	0.311 µg/L	0.00	-1.00-1.00	0-0	Pass
Ni	60	3.612 µg/L	0.00	-1.00-1.00	0-0	*Fail*
Cu	63	12.820 µg/L	0.00	-1.00-1.00	0-0	*Fail*
Cu	65	6.916 µg/L	0.00	-1.00-1.00	0-0	*Fail*
Zn	66	54.340 µg/L	0.00	-1.00-1.00	0-0	*Fail*
Zn	67	146.200 µg/L	0.00	-1.00-1.00	0-0	*Fail*
Zn	68	49.610 µg/L	0.00	-1.00-1.00	0-0	*Fail*
As	75	-0.202 µg/L	0.00	-1.00-1.00	0-0	Pass
Se	82	-3.172 µg/L	0.00	-1.00-1.00	0-0	*Fail*
Sr	87	9.640 µg/L	0.00	-1.00-1.00	0-0	*Fail*
Mo	95	2853.000 µg/L	2000.00	1999.00-2001.00	1600-2400	*Fail*
Mo	98	2945.000 µg/L	2000.00	1999.00-2001.00	1600-2400	*Fail*
Ag	107	0.925 µg/L	0.00	-1.00-1.00	0-0	Pass
Ag	109	0.939 µg/L	0.00	-1.00-1.00	0-0	Pass
Cd	111	-0.046 µg/L	0.00	-1.00-1.00	0-0	Pass
Cd	114	0.044 µg/L	0.00	-1.00-1.00	0-0	Pass
Sn	120	0.350 µg/L	0.00	-1.00-1.00	0-0	Pass
Sb	121	4.212 µg/L	0.00	-1.00-1.00	0-0	*Fail*
Sb	123	4.190 µg/L	0.00	-1.00-1.00	0-0	*Fail*

Ba 135	2.373 µg/L	0.00	-1.00-1.00	0-0	*Fail*
Au 197	0.467 µg/L	0.00	-1.00-1.00	0-0	Pass
Tl 205	-0.077 µg/L	0.00	-1.00-1.00	0-0	Pass

Interference Check A QC Report

408

File : D:\HPCHEM\1\DATA\Sep2402.09A\058ICSA.D\058ICSA.D#
Acquired : Sep 24 02 06:37 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: [ICSA]
Misc Info :
Vial Number: 1303
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: ICS_A_
Dilution : 1.000000

Pb 208	6.218 µg/L	0.00	-1.00-1.00	0-0	*Fail*
U 238	0.119 µg/L	0.00	-1.00-1.00	0-0	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	555445	351386	Pass
45	463166	329325	Pass
72	79864	73093	Pass
115	416981	333966	Pass
209	232408	187075	Pass

Internal Standards referenced to 002CALB.D#

26 Element Failures! Maximum Number of Allowed Failures (20) Exceeded!
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

Interference Check AB QC Report

File : D:\HPCHEM\1\DATA\Sep2402.09A\059ICSB.D\059ICSB.D#
Acquired : Sep 24 02 06:46 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: [ICSAB]
Misc Info :
Vial Number: 1304
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: ICS_AB
Dilution : 1.000000

403

Element		Concentration	Expected	CRDL Range Conc	%Range Conc	Flag
Be	9	0.037 µg/L	0.00	-1.00-1.00	0-0	Pass
B	11	4.618 µg/L	0.00	-1.00-1.00	0-0	*Fail*
Na	23	----- µg/L	100000.00	1.00E+5-1.00E+5	8.00E+4-1.20E+5	OverRng
Mg	24	130000.000 µg/L	100000.00	1.00E+5-1.00E+5	8.00E+4-1.20E+5	*Fail*
Mg	25	133300.000 µg/L	100000.00	1.00E+5-1.00E+5	8.00E+4-1.20E+5	*Fail*
Mg	26	135400.000 µg/L	100000.00	1.00E+5-1.00E+5	8.00E+4-1.20E+5	*Fail*
Al	27	----- µg/L	100000.00	1.00E+5-1.00E+5	8.00E+4-1.20E+5	OverRng
Si	28	126.500 µg/L	0.00	-10.00-10.00	0-0	*Fail*
K	39	----- µg/L	100000.00	1.00E+5-1.00E+5	8.00E+4-1.20E+5	OverRng
Ca	43	158000.000 µg/L	100000.00	1.00E+5-1.00E+5	8.00E+4-1.20E+5	*Fail*
Ca	44	154400.000 µg/L	100000.00	1.00E+5-1.00E+5	8.00E+4-1.20E+5	*Fail*
Ti	47	3163.000 µg/L	2000.00	1999.00-2001.00	1600-2400	*Fail*
V	51	0.518 µg/L	0.00	-1.00-1.00	0-0	Pass
Cr	52	35.260 µg/L	20.00	19.00-21.00	16-24	*Fail*
Cr	53	58.560 µg/L	20.00	19.00-21.00	16-24	*Fail*
Fe	54	159500.000 µg/L	100000.00	1.00E+5-1.00E+5	8.00E+4-1.20E+5	*Fail*
Mn	55	35.880 µg/L	20.00	19.00-21.00	16-24	*Fail*
Fe	57	161300.000 µg/L	100000.00	1.00E+5-1.00E+5	8.00E+4-1.20E+5	*Fail*
Co	59	33.250 µg/L	20.00	19.00-21.00	16-24	*Fail*
Ni	60	34.170 µg/L	20.00	19.00-21.00	16-24	*Fail*
Cu	63	49.180 µg/L	20.00	19.00-21.00	16-24	*Fail*
Cu	65	43.780 µg/L	20.00	19.00-21.00	16-24	*Fail*
Zn	66	38.200 µg/L	20.00	19.00-21.00	16-24	*Fail*
Zn	67	131.400 µg/L	20.00	19.00-21.00	16-24	*Fail*
Zn	68	33.190 µg/L	20.00	19.00-21.00	16-24	*Fail*
As	75	25.190 µg/L	20.00	19.00-21.00	16-24	*Fail*
Se	82	-2.677 µg/L	0.00	-1.00-1.00	0-0	*Fail*
Sr	87	9.517 µg/L	0.00	-1.00-1.00	0-0	*Fail*
Mo	95	2880.000 µg/L	2000.00	1999.00-2001.00	1600-2400	*Fail*
Mo	98	2977.000 µg/L	2000.00	1999.00-2001.00	1600-2400	*Fail*
Ag	107	28.290 µg/L	20.00	19.00-21.00	16-24	*Fail*
Ag	109	28.240 µg/L	20.00	19.00-21.00	16-24	*Fail*
Cd	111	31.060 µg/L	20.00	19.00-21.00	16-24	*Fail*
Cd	114	30.320 µg/L	20.00	19.00-21.00	16-24	*Fail*
Sn	120	2.540 µg/L	0.00	-1.00-1.00	0-0	*Fail*
Sb	121	4.258 µg/L	0.00	-1.00-1.00	0-0	*Fail*
Sb	123	4.434 µg/L	0.00	-1.00-1.00	0-0	*Fail*

Ba 135	2.302 µg/L	0.00	-1.00-1.00	0-0	*Fail*
Au 197	0.110 µg/L	0.00	-1.00-1.00	0-0	Pass
Tl 205	-0.247 µg/L	0.00	-1.00-1.00	0-0	Pass

Interference Check AB QC Report

410

File : D:\HPCHEM\1\DATA\Sep2402.09A\059ICSB.D\059ICSB.D#
Acquired : Sep 24 02 06:46 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: [ICSAB]
Misc Info :
Vial Number: 1304
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: ICS_AB
Dilution : 1.000000

Pb 208	6.654 µg/L	0.00	-1.00-1.00	0-0	*Fail*
U 238	0.087 µg/L	0.00	-1.00-1.00	0-0	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	555445	322369	Pass
45	463166	298305	Pass
72	79864	70875	Pass
115	416981	318916	Pass
209	232408	182259	Pass

Internal Standards referenced to 002CALB.D#

34 Element Failures! Maximum Number of Allowed Failures (20) Exceeded!
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

Blank QC Report

File : D:\HPCHEM\1\DATA\Sep2402.09A\060BLNK.D\060BLNK.D#
Acquired : Sep 24 02 06:56 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: BLANK
Misc Info :
Vial Number: 1
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : ---------
Sample Type: BLANK
Dilution : 1.000000

411

Element		Concentration	CRDL Limit	Flag
Be	9	0.023 µg/L	1.00	Pass
B	11	0.540 µg/L	1.00	Pass
Na	23	54.870 µg/L	10.00	*Fail*
Mg	24	46.980 µg/L	10.00	*Fail*
Mg	25	48.370 µg/L	10.00	*Fail*
Mg	26	48.070 µg/L	10.00	*Fail*
Al	27	54.070 µg/L	10.00	*Fail*
Si	28	17.370 µg/L	10.00	*Fail*
K	39	49.740 µg/L	10.00	*Fail*
Ca	43	51.780 µg/L	10.00	*Fail*
Ca	44	55.440 µg/L	10.00	*Fail*
Ti	47	1.762 µg/L	1.00	*Fail*
V	51	0.226 µg/L	1.00	Pass
Cr	52	-0.182 µg/L	1.00	Pass
Cr	53	0.701 µg/L	1.00	Pass
Fe	54	-82.490 µg/L	10.00	*Fail*
Mn	55	0.025 µg/L	1.00	Pass
Fe	57	62.660 µg/L	10.00	*Fail*
Co	59	-0.246 µg/L	1.00	Pass
Ni	60	-0.039 µg/L	1.00	Pass
Cu	63	0.149 µg/L	1.00	Pass
Cu	65	0.143 µg/L	1.00	Pass
Zn	66	0.389 µg/L	1.00	Pass
Zn	67	1.016 µg/L	1.00	*Fail*
Zn	68	0.533 µg/L	1.00	Pass
As	75	-0.184 µg/L	1.00	Pass
Se	82	0.160 µg/L	1.00	Pass
Sr	87	0.044 µg/L	1.00	Pass
Mo	95	4.561 µg/L	1.00	*Fail*
Mo	98	4.612 µg/L	1.00	*Fail*
Ag	107	-0.011 µg/L	1.00	Pass
Ag	109	-0.010 µg/L	1.00	Pass
Cd	111	-0.011 µg/L	1.00	Pass
Cd	114	0.024 µg/L	1.00	Pass
Sn	120	-0.085 µg/L	1.00	Pass
Sb	121	-0.115 µg/L	1.00	Pass
Sb	123	-0.056 µg/L	1.00	Pass

Ba 135	0.035 µg/L	1.00	Pass
Au 197	0.055 µg/L	1.00	Pass
Tl 205	-0.295 µg/L	1.00	Pass

Blank QC Report

File : D:\HPCHEM\1\DATA\Sep2402.09A\060BLNK.D\060BLNK.D#
Acquired : Sep 24 02 06:56 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: BLANK
Misc Info :
Vial Number: 1
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: BLANK
Dilution : 1.000000

Pb 208	-0.230 µg/L	1.00	Pass
U 238	0.021 µg/L	1.00	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	555445	385526	Pass
45	463166	350812	Pass
72	79864	62693	Pass
115	416981	360796	Pass
209	232408	218609	Pass

Internal Standards referenced to 002CALB.D#

15 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

CCV QC Report

File : D:\HPCHEM\1\DATA\Sep2402.09A\065CCV_D\065CCV_D#
Acquired : Sep 24 02 07:41 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: [STD-CCV]
Misc Info :
Vial Number: 1105
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : ---------
Sample Type: CCV
Dilution : 1.000000

CCV Mix #1

Element		Concentration	Expected	QC Range	Flag
Be	9	95.920 µg/L	100.00	90.00-110.00	Pass
B	11	102.000 µg/L	100.00	90.00-110.00	Pass
Na	23	1009.000 µg/L	1000.00	900.00-1100.00	Pass
Mg	24	1083.000 µg/L	1000.00	900.00-1100.00	Pass
Mg	25	1091.000 µg/L	1000.00	900.00-1100.00	Pass
Mg	26	1062.000 µg/L	1000.00	900.00-1100.00	Pass
Al	27	1027.000 µg/L	1000.00	900.00-1100.00	Pass
Si	28	1155.000 µg/L	1000.00	900.00-1100.00	*Fail*
K	39	1044.000 µg/L	1000.00	900.00-1100.00	Pass
Ca	43	1021.000 µg/L	1000.00	900.00-1100.00	Pass
Ca	44	1015.000 µg/L	1000.00	900.00-1100.00	Pass
Ti	47	103.600 µg/L	100.00	90.00-110.00	Pass
V	51	103.200 µg/L	100.00	90.00-110.00	Pass
Cr	52	102.800 µg/L	100.00	90.00-110.00	Pass
Cr	53	101.000 µg/L	100.00	90.00-110.00	Pass
Fe	54	1110.000 µg/L	1000.00	900.00-1100.00	*Fail*
Mn	55	102.700 µg/L	100.00	90.00-110.00	Pass
Fe	57	1040.000 µg/L	1000.00	900.00-1100.00	Pass
Co	59	102.400 µg/L	100.00	90.00-110.00	Pass
Ni	60	104.200 µg/L	100.00	90.00-110.00	Pass
Cu	63	103.900 µg/L	100.00	90.00-110.00	Pass
Cu	65	105.400 µg/L	100.00	90.00-110.00	Pass
Zn	66	103.000 µg/L	100.00	90.00-110.00	Pass
Zn	67	101.700 µg/L	100.00	90.00-110.00	Pass
Zn	68	103.400 µg/L	100.00	90.00-110.00	Pass
As	75	103.800 µg/L	100.00	90.00-110.00	Pass
Se	82	104.300 µg/L	100.00	90.00-110.00	Pass
Sr	87	100.800 µg/L	100.00	90.00-110.00	Pass
Mo	95	95.450 µg/L	100.00	90.00-110.00	Pass
Mo	98	95.910 µg/L	100.00	90.00-110.00	Pass
Ag	107	98.940 µg/L	100.00	90.00-110.00	Pass
Ag	109	99.340 µg/L	100.00	90.00-110.00	Pass
Cd	111	98.610 µg/L	100.00	90.00-110.00	Pass
Cd	114	99.170 µg/L	100.00	90.00-110.00	Pass
Sn	120	100.000 µg/L	100.00	90.00-110.00	Pass

Sb 121	99.580 µg/L	100.00	90.00-110.00	Pass
Sb 123	100.500 µg/L	100.00	90.00-110.00	Pass
Ba 135	100.400 µg/L	100.00	90.00-110.00	Pass

CCV QC Report

File : D:\HPCHEM\1\DATA\Sep2402.09A\065CCV_D\065CCV_D#
Acquired : Sep 24 02 07:41 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: [STD-CCV]
Misc Info :
Vial Number: 1105
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : ---------
Sample Type: CCV
Dilution : 1.000000

Au 197	97.400 µg/L	100.00	90.00-110.00	Pass
Tl 205	96.530 µg/L	100.00	90.00-110.00	Pass
Pb 208	98.230 µg/L	100.00	90.00-110.00	Pass
U 238	97.250 µg/L	100.00	90.00-110.00	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	555445	467122	Pass
45	463166	374912	Pass
72	79864	60828	Pass
115	416981	332085	Pass
209	232408	197495	Pass

Internal Standards referenced to 002CALB.D#

2 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

Blank QC Report

File : D:\HPCHEM\1\DATA\Sep2402.09A\066CCB_.D\066CCB_.D#
Acquired : Sep 24 02 07:51 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: [CB]
Misc Info :
Vial Number: 1102
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: CCB
Dilution : 1.000000

Element	Concentration	CRDL Limit	Flag
Be 9	0.034 µg/L	1.00	Pass
B 11	-0.082 µg/L	1.00	Pass
Na 23	2.681 µg/L	10.00	Pass
Mg 24	2.326 µg/L	10.00	Pass
Mg 25	2.331 µg/L	10.00	Pass
Mg 26	2.286 µg/L	10.00	Pass
Al 27	5.782 µg/L	10.00	Pass
Si 28	28.270 µg/L	10.00	*Fail*
K 39	6.463 µg/L	10.00	Pass
Ca 43	3.256 µg/L	10.00	Pass
Ca 44	3.478 µg/L	10.00	Pass
Ti 47	0.242 µg/L	1.00	Pass
V 51	0.705 µg/L	1.00	Pass
Cr 52	0.754 µg/L	1.00	Pass
Cr 53	15.460 µg/L	1.00	*Fail*
Fe 54	49.880 µg/L	10.00	*Fail*
Mn 55	0.081 µg/L	1.00	Pass
Fe 57	10.920 µg/L	10.00	*Fail*
Co 59	-0.269 µg/L	1.00	Pass
Ni 60	-0.038 µg/L	1.00	Pass
Cu 63	0.037 µg/L	1.00	Pass
Cu 65	0.006 µg/L	1.00	Pass
Zn 66	0.065 µg/L	1.00	Pass
Zn 67	1.585 µg/L	1.00	*Fail*
Zn 68	0.159 µg/L	1.00	Pass
As 75	0.243 µg/L	1.00	Pass
Se 82	0.252 µg/L	1.00	Pass
Sr 87	0.038 µg/L	1.00	Pass
Mo 95	0.431 µg/L	1.00	Pass
Mo 98	0.447 µg/L	1.00	Pass
Ag 107	0.023 µg/L	1.00	Pass
Ag 109	0.018 µg/L	1.00	Pass
Cd 111	0.020 µg/L	1.00	Pass
Cd 114	0.051 µg/L	1.00	Pass
Sn 120	-0.025 µg/L	1.00	Pass
Sb 121	0.003 µg/L	1.00	Pass
Sb 123	0.070 µg/L	1.00	Pass

Ba 135	0.043 µg/L	1.00	Pass
Au 197	0.417 µg/L	1.00	Pass
Tl 205	0.165 µg/L	1.00	Pass

Blank QC Report

416

File : D:\HPCHEM\1\DATA\Sep2402.09A\066CCB_D\066CCB_D#
Acquired : Sep 24 02 07:51 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: [CB]
Misc Info :
Vial Number: 1102
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: CCB
Dilution : 1.000000

Pb 208	−0.245 µg/L	1.00	Pass
U 238	0.043 µg/L	1.00	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	555445	450889	Pass
45	463166	363027	Pass
72	79864	57872	Pass
115	416981	318362	Pass
209	232408	186977	Pass

Internal Standards referenced to 002CALB.D#

5 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

MT.2002. 1118

ASSAIGAI ANALYTICAL LABORATORIES, INC.

Metals Cover Sheet

	Analyst			Reviewer		
Final Report Printout	Y	N	NA	Y	N	NA
Raw Data	Y	N	NA	Y	N	NA
Standard Summary Sheet	Y	N	NA	Y	N	NA

Batch	NCR Analyst	NCR Reviewer	Parabellum Analyst	Parabellum Reviewer	Digestion Log Analyst	Digestion Log Reviewer	TCLP Log Analyst	TCLP Log Reviewer
M021082	Y-N-NA NCR #	Y-N-NA	Y-N-NA	Y-N-NA	Y-N-NA	Y-N-NA	Y-N-NA	Y-N-NA
	Y-N-NA NCR #	Y-N-NA	Y-N-NA	Y-N-NA	Y-N-NA	Y-N-NA	Y-N-NA	Y-N-NA
	Y-N-NA NCR #	Y-N-NA	Y-N-NA	Y-N-NA	Y-N-NA	Y-N-NA	Y-N-NA	Y-N-NA
	Y-N-NA NCR #	Y-N-NA	Y-N-NA	Y-N-NA	Y-N-NA	Y-N-NA	Y-N-NA	Y-N-NA
	Y-N-NA NCR #	Y-N-NA	Y-N-NA	Y-N-NA	Y-N-NA	Y-N-NA	Y-N-NA	Y-N-NA

Dept. Funnel/Prepared By SB
Date 9/26/02

Final Funnel/Reviewed By CJ
Date 9/26/02

Comments

QC Review

Assaigai Analytical Laboratories, Inc.

Run Group Cover Sheet

Run Group	MT.2002.1118
Reviewed:	9/26/2002 8:25:40 AM
By:	JWB

Calc Method	6020
Import Source	HPC02
Instrument:	HP4500 - Instru

Calibration Mode	NATIVE
Calculation Mode	NORMAL
Spike Dilution Mode	NORMAL

RAW QUANT FLAGS	
a	*all result information keyed in manually*
d	*data from instrument keyed in manually*
i	*integration of peak performed manually*
q	*qdelete of peak*
r	*response factor postquant adjustment*

Assaigai Analytical Laboratories, Inc.

Laboratory Logbook

Run Group MT.2002.1118
Import Source HPC02
Instrument: HP4500 - Instru

o	Run#	Acquisition Date	Data File	Vial	e	Sample Run ID	Run DF	Comment	see data file(s)	Analyst
x	1	09-25-02 16:32:00	002CALB.D#	1		CAL BLANK	1			JWB
x	2	09-25-02 16:41:00	003CALI.D#	1		0.2/1/10 CAL	1			JWB
x	3	09-25-02 16:50:00	004CALI.D#	1		2/10/100 CAL	1			JWB
x	4	09-25-02 16:59:00	005CALI.D#	1		10/100/1000 CAL	1			JWB
x	5	09-25-02 17:08:00	006CALI.D#	1		-/200/10000 CAL	1			JWB
	6	09-25-02 17:17:00	007CCB_.D#	1		[CB]	1			JWB
	7	09-25-02 17:26:00	008ICV_.D#	1		[STD-ICV]	1			JWB
x	8	09-25-02 17:35:00	009ICSA.D#	1		[ICSA]	1			JWB
x	9	09-25-02 17:45:00	010ICSB.D#	1		[ICSAB]	1			JWB
x	10	09-25-02 17:54:00	011CCB_.D#	1		BLANK	1			JWB
	11	09-25-02 18:03:00	012SMPL.D#	1		M021282-001	1			JWB
	12	09-25-02 18:12:00	013SMPL.D#	1		M021282-002	1			JWB
	13	09-25-02 18:21:00	014SMPL.D#	1		M021282-003	1			JWB
	14	09-25-02 18:30:00	015SMPL.D#	1		M021282-006	100			JWB
	15	09-25-02 18:39:00	016SMPL.D#	1		M021282-007	100			JWB
	16	09-25-02 18:49:00	017SMPL.D#	1		M021282-008	100			JWB
	17	09-25-02 18:58:00	018SMPL.D#	1		M021282-011	100			JWB
	18	09-25-02 19:07:00	019SMPL.D#	1		M021282-012	100			JWB
	19	09-25-02 19:16:00	020CCV_.D#	1		[STD-CCV]	1			JWB
	20	09-25-02 19:25:00	021CCB_.D#	1		[CB]	1			JWB
	21	09-25-02 19:34:00	022SMPL.D#	1		M021282-013	100			JWB
	22	09-25-02 19:43:00	023SMPL.D#	1		M021282-014	100			JWB
	23	09-25-02 19:52:00	024SMPL.D#	1		M021282-015	100			JWB
	24	09-25-02 20:02:00	025SMPL.D#	1		M021282-016	100			JWB
	25	09-25-02 20:11:00	026SMPL.D#	1		M021282-017	100			JWB
	26	09-25-02 20:20:00	027SMPL.D#	1		M021282-018	100			JWB
	27	09-25-02 20:29:00	028SMPL.D#	1		M021282-019	100			JWB
	28	09-25-02 20:38:00	029SMPL.D#	1		M021282-020	100			JWB
	29	09-25-02 20:47:00	030SMPL.D#	1		M021282-021	100			JWB
	30	09-25-02 20:56:00	031SMPL.D#	1		M021282-022	100			JWB
	31	09-25-02 21:05:00	032CCV_.D#	1		[STD-CCV]	1			JWB
	32	09-25-02 21:15:00	033CCB_.D#	1		[CB]	1			JWB
	33	09-25-02 21:24:00	034SMPL.D#	1		M021282-023	100			JWB
	34	09-25-02 21:33:00	035SMPL.D#	1		M021282-024	100			JWB
	35	09-25-02 21:42:00	036SMPL.D#	1		M021282-025	100			JWB

Coyote 2001: Calculation 1.0.020729144500

Report Date 9/26/2002 8:26:08 AM

Assaigai Analytical Laboratories, Inc.

Laboratory Logbook

Run Group MT.2002.1118
Import Source HPC02
Instrument: HP4500 - Instru

o	Run#	Acquisition Date	Data File	Vial	e	Sample Run ID	Run DF	Comment	see data file(s)	Analyst
	36	09-25-02 21:51:00	037SMPL.D#	1		M021282-026	100	,		JWB
	37	09-25-02 22:00:00	038SMPL.D#	1		M021282-006	10	,		JWB
	38	09-25-02 22:09:00	039SMPL.D#	1		M021282-007	10	,		JWB
	39	09-25-02 22:19:00	040SMPL.D#	1		M021282-008	10	,		JWB
	40	09-25-02 22:28:00	041SMPL.D#	1		M021282-011	10	,		JWB
	41	09-25-02 22:37:00	042SMPL.D#	1		M021282-012	10	,		JWB
	42	09-25-02 22:47:00	043SMPL.D#	1		M021282-013	10	,		JWB
	43	09-25-02 22:56:00	044CCV_.D#	1		[STD-CCV]	1			JWB
	44	09-25-02 23:05:00	045CCB_.D#	1		[CB]	1			JWB
	45	09-25-02 23:14:00	046SMPL.D#	1		M021282-014	10	,		JWB
	46	09-25-02 23:23:00	047SMPL.D#	1		M021282-015	10	,		JWB
	47	09-25-02 23:33:00	048SMPL.D#	1		M021282-016	10	,		JWB
	48	09-25-02 23:42:00	049SMPL.D#	1		M021282-017	10	,		JWB
	49	09-25-02 23:51:00	050SMPL.D#	1		M021282-018	10	,		JWB
	50	09-26-02 0:01:00	051SMPL.D#	1		M021282-019	10	,		JWB
	51	09-26-02 0:10:00	052SMPL.D#	1		M021282-020	10	,		JWB
	52	09-26-02 0:19:00	053SMPL.D#	1		M021282-021	10	,		JWB
	53	09-26-02 0:29:00	054SMPL.D#	1		M021282-022	10	,		JWB
	54	09-26-02 0:46:00	056CCV_.D#	1		[STD-CCV]	1			JWB
	55	09-26-02 0:55:00	057CCB_.D#	1		[CB]	1			JWB
x	56	09-26-02 1:04:00	058ICSA.D#	1		[ICSA]	1			JWB
x	57	09-26-02 1:14:00	059ICSB.D#	1		[ICSAB]	1			JWB
x	58	09-26-02 1:23:00	060BLNK.D#	1		BLANK	1			JWB
	59	09-26-02 1:32:00	061SMPL.D#	1		M021282-023	10	,		JWB
	60	09-26-02 1:41:00	062SMPL.D#	1		M021282-024	10	,		JWB
	61	09-26-02 1:51:00	063SMPL.D#	1		M021282-025	10	,		JWB
	62	09-26-02 2:00:00	064SMPL.D#	1		M021282-026	10	,		JWB
	63	09-26-02 2:09:00	065CCV_.D#	1		[STD-CCV]	1			JWB
	64	09-26-02 2:18:00	066CCB_.D#	1		[CB]	1			JWB

420

Department: METALS
Prep Method: MS3050
Matrix: SOLID
Batch ID: M021282

Assaigai Laboratories
Sample Preparation Log
Report Revision 011023

Prep Method: ICP/MS 6020 Solid Digestion

Sample Count: 17
Batch Start Timestamp: 09/23/02 8:33:55

Prep ID:	Sample ID:	Aliquot:	Units:	Initial By:	Total Volume:	Units:	Final By:	Prep DF:	Surrogate ID:	Spike ID:	Spike By:	Prep Timestamp:	Comments:
M021282-001	[MB]	1.00	G	JRE	50	ML	JRE	1			JRE	09/23/02 8:08:00	90C @ 8:08AM
M021282-002	[LCS]	1.00	G	JRE	50	ML	JRE	1			JRE	09/23/02 8:08:00	LCS, LCSD, MS, MSD SPIKED W/
M021282-003	[LCSD]	1.00	G	JRE	50	ML	JRE	1			JRE	09/23/02 8:08:00	MT-0691-02 Ag @ 2.5ML/50ML
M021282-004	Li [LCS]	1.00	G	JRE	50	ML	JRE	1			JRE	09/23/02 8:08:00	MT-0692-02 TRACE @ 2.5ML/50ML
M021282-005	Li [LCSD]	1.00	G	JRE	50	ML	JRE	1			JRE	09/23/02 8:08:00	MT-0693-02 CATION @ 1.0ML/50ML
M021282-006	0209364-01A[M]	1.006	G	JRE	50	ML	JRE	0.994			JRE	09/23/02 8:08:00	MT-0717-02 LI @ 0.5ML/50ML
M021282-007	0209364-01A[MS]	1.07	G	JRE	50	ML	JRE	0.9346			JRE	09/23/02 8:08:00	
M021282-008	0209364-01A[MSD]	1.035	G	JRE	50	ML	JRE	0.9662			JRE	09/23/02 8:08:00	
M021282-009	0209364-01A[MS]	1.037	G	JRE	50	ML	JRE	0.9643			JRE	09/23/02 8:08:00	
M021282-010	0209364-01A[MSD]	1.059	G	JRE	50	ML	JRE	0.9443			JRE	09/23/02 8:08:00	
M021282-011	0209364-02A	1.009	G	JRE	50	ML	JRE	0.9911			JRE	09/23/02 8:08:00	
M021282-012	0209364-03A	1.017	G	JRE	50	ML	JRE	0.9833			JRE	09/23/02 8:08:00	
M021282-013	0209364-04A	1.065	G	JRE	50	ML	JRE	0.939			JRE	09/23/02 8:08:00	
M021282-014	0209364-05A	1.043	G	JRE	50	ML	JRE	0.9588			JRE	09/23/02 8:08:00	
M021282-015	0209364-06A	1.027	G	JRE	50	ML	JRE	0.9737			JRE	09/23/02 8:08:00	
M021282-016	0209364-07A	1.001	G	JRE	50	ML	JRE	0.999			JRE	09/23/02 8:08:00	
M021282-017	0209364-08A	1.061	G	JRE	50	ML	JRE	0.9425			JRE	09/23/02 8:08:00	
M021282-018	0209364-09A	1.067	G	JRE	50	ML	JRE	0.9372			JRE	09/23/02 8:08:00	
M021282-019	0209364-10A	1.052	G	JRE	50	ML	JRE	0.9506			JRE	09/23/02 8:08:00	
M021282-020	0209364-11A	1.031	G	JRE	50	ML	JRE	0.9699			JRE	09/23/02 8:08:00	
M021282-021	0209364-12A	1.032	G	JRE	50	ML	JRE	0.969			JRE	09/23/02 8:08:00	
M021282-022	0209364-13A	1.085	G	JRE	50	ML	JRE	0.9217			JRE	09/23/02 8:08:00	
M021282-023	0209364-14A	1.055	G	JRE	50	ML	JRE	0.9479			JRE	09/23/02 8:08:00	
M021282-024	0209364-15A	1.056	G	JRE	50	ML	JRE	0.947			JRE	09/23/02 8:08:00	
M021282-025	0209364-16A	1.026	G	JRE	50	ML	JRE	0.9747			JRE	09/23/02 8:08:00	
M021282-026	0209364-17A	1.069	G	JRE	50	ML	JRE	0.9355			JRE	09/23/02 8:08:00	HNO3-X20045; HCL-42117; H2O2-41215135

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CB [CB]

Assaigai Analytical Laboratories, Inc.

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Analytical Result Summary

Run Group	MT.2002.1118	6
Calc Method	6020	
Prep Method	LAB	
Prep Matrix	LAB	

		By	Dilution
Prepared			1
Analyzed	09-25-02 17:17:00	JWB	1
Calibration	09-25-02 17:15:00		
Quant	09-25-02 17:24:00	007CCB .D#	

r	C#	Analyte	QMass	m	Raw Quant	As	MRL	Report	As	Qual	f
	3	Be-9	9		0.05	ppb	0.001	< 0.001	mg / L		
	4	B-11	11		1.39	ppb	0.001	0.001	mg / L		x
	5	Na-23	23		3.13	ppb	0.01	< 0.010	mg / L		
	6	Mg-24	24		1.86	ppb	0.01	< 0.010	mg / L		
	7	Mg-25	25		1.94	ppb	0.01	< 0.010	mg / L		
	8	Mg-26	26		1.84	ppb	0.01	< 0.010	mg / L		
	9	Al-27	27		3.17	ppb	0.01	< 0.010	mg / L		
	10	Si-28	28		-15.16	ppb	0.001	< 0.001	mg / L		
	11	K-39	39		4.91	ppb	0.01	< 0.010	mg / L		
	13	Ca-43	43		3.54	ppb	0.01	< 0.010	mg / L		
	14	Ca-44	44		2.49	ppb	0.01	< 0.010	mg / L		
	16	Ti-47	47		0.17	ppb	0.001	< 0.001	mg / L		
	17	V-51	51		-0.24	ppb	0.001	< 0.001	mg / L		
	18	Cr-52	52		0.35	ppb	0.001	< 0.001	mg / L		
	19	Cr-53	53		2.55	ppb	0.001	0.002	mg / L		x
	20	Fe-54	54		2.16	ppb	0.01	< 0.010	mg / L		
	21	Mn-55	55		-0.02	ppb	0.001	< 0.001	mg / L		
	22	Fe-57	57		6.03	ppb	0.01	< 0.010	mg / L		
	23	Co-59	59		-0.3	ppb	0.001	< 0.001	mg / L		
	24	Ni-60	60		0.06	ppb	0.001	< 0.001	mg / L		
	25	Cu-63	63		0.04	ppb	0.001	< 0.001	mg / L		
	26	Cu-65	65		0.02	ppb	0.001	< 0.001	mg / L		
	27	Zn-66	66		0	ppb	0.001	< 0.001	mg / L		
	28	Zn-67	67		0.21	ppb	0.001	< 0.001	mg / L		
	29	Zn-68	68		0.03	ppb	0.001	< 0.001	mg / L		
	32	As-75	75		0.39	ppb	0.001	< 0.001	mg / L		
	34	Se-82	82		0.53	ppb	0.001	< 0.001	mg / L		
	37	Sr-87	87		0.05	ppb	0.001	< 0.001	mg / L		
	40	Mo-95	95		0.39	ppb	0.001	< 0.001	mg / L		
	41	Mo-98	98		0.38	ppb	0.001	< 0.001	mg / L		
	43	Ag-107	107		0.05	ppb	0.001	< 0.001	mg / L		
	45	Ag-109	109		0.05	ppb	0.001	< 0.001	mg / L		
	46	Cd-111	111		0.07	ppb	0.001	< 0.001	mg / L		
	47	Cd-114	114		0.07	ppb	0.001	< 0.001	mg / L		
	50	Sn-120	120		0.05	ppb	0.001	< 0.001	mg / L		
	51	Sb-121	121		0.46	ppb	0.001	< 0.001	mg / L		
	52	Sb-123	123		0.15	ppb	0.001	< 0.001	mg / L		
	53	Ba-135	135		0.05	ppb	0.001	< 0.001	mg / L		
	54	Tb-159	159		0	ppb	0.001	< 0.001	mg / L		
	55	Au-197	197		0.5	ppb	0.001	< 0.001	mg / L		
	56	Tl-205	205		0.15	ppb	0.001	< 0.001	mg / L		
	59	Pb-208	208		-0.28	ppb	0.001	< 0.001	mg / L		
	61	U-238	238		0.08	ppb	0.001	< 0.001	mg / L		

STD-ICV [STD-ICV]

Assaigai Analytical Laboratories, Inc.

Analytical Result Summary

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Run Group	MT.2002.1118	7
Calc Method	6020	
Prep Method	LAB	
Prep Matrix	LAB	

		By	Dilution
Prepared			1
Analyzed	09-25-02 17:26:00	JWB	1
Calibration	09-25-02 17:15:00		
Quant	09-25-02 17:33:00		008ICV .D#

r	C#	Analyte	QMass	m	Raw Quant	As	MRL	Report	As	Qual	f
	3	Be-9	9		110.6	ppb	1	92	% Recovery		
	4	B-11	11		110.8	ppb	1	92	% Recovery		
	5	Na-23	23		1188	ppb	1	99	% Recovery		
	6	Mg-24	24		1159	ppb	1	96	% Recovery		
	7	Mg-25	25		1204	ppb	1	100	% Recovery		
	8	Mg-26	26		1203	ppb	1	100	% Recovery		
	9	Al-27	27		1192	ppb	1	99	% Recovery		
	10	Si-28	28		1238	ppb	1	103	% Recovery		
	11	K-39	39		1164	ppb	1	97	% Recovery		
	13	Ca-43	43		1222	ppb	1	102	% Recovery		
	14	Ca-44	44		1186	ppb	1	99	% Recovery		
	16	Ti-47	47		109.8	ppb	1	92	% Recovery		
	17	V-51	51		108.9	ppb	1	91	% Recovery		
	18	Cr-52	52		109.5	ppb	1	91	% Recovery		
	19	Cr-53	53		95.23	ppb	1	79	% Recovery		x
	20	Fe-54	54		1177	ppb	1	98	% Recovery		
	21	Mn-55	55		110.8	ppb	1	92	% Recovery		
	22	Fe-57	57		1173	ppb	1	98	% Recovery		
	23	Co-59	59		113.9	ppb	1	95	% Recovery		
	24	Ni-60	60		113.5	ppb	1	94	% Recovery		
	25	Cu-63	63		112.3	ppb	1	94	% Recovery		
	26	Cu-65	65		112.9	ppb	1	94	% Recovery		
	27	Zn-66	66		114.3	ppb	1	95	% Recovery		
	28	Zn-67	67		110.3	ppb	1	92	% Recovery		
	29	Zn-68	68		114.6	ppb	1	96	% Recovery		
	32	As-75	75		110.5	ppb	1	92	% Recovery		
	34	Se-82	82		113.8	ppb	1	95	% Recovery		
	37	Sr-87	87		115.4	ppb	1	96	% Recovery		
	40	Mo-95	95		109.3	ppb	1	91	% Recovery		
	41	Mo-98	98		109	ppb	1	91	% Recovery		
	43	Ag-107	107		115.6	ppb	1	96	% Recovery		
	45	Ag-109	109		115.3	ppb	1	96	% Recovery		
	46	Cd-111	111		110.8	ppb	1	92	% Recovery		
	47	Cd-114	114		110.2	ppb	1	92	% Recovery		
	50	Sn-120	120		107.6	ppb	1	90	% Recovery		
	51	Sb-121	121		107.2	ppb	1	89	% Recovery		x
	52	Sb-123	123		106.7	ppb	1	89	% Recovery		x
	53	Ba-135	135		107.1	ppb	1	89	% Recovery		x
	54	Tb-159	159		0	ppb	1	< 1	% Recovery		x
	55	Au-197	197		481.8	ppb	1	402	% Recovery		x
	56	Tl-205	205		111.7	ppb	1	93	% Recovery		
	59	Pb-208	208		111.4	ppb	1	93	% Recovery		
	61	U-238	238		108.2	ppb	1	90	% Recovery		

MB M021282-001

Assaigai Analytical Laboratories, Inc.

Analytical Result Summary

[MB] 424 By 4 Dilution

Run Group	MT.2002.1118	11
Calc Method	6020	
Prep Method	MS3050	
Prep Matrix	SOLID	

Prepared	09-23-02 8:08:00	JRE	1
Analyzed	09-25-02 18:03:00	JWB	1
Calibration	09-25-02 17:15:00		
Quant	09-25-02 18:10:00	012SMPL.D#	

r	C#	Analyte	QMass	m	Raw Quant	As	MRL	Report	As	Qual	f
	3	Be-9	9		0	ppb	0.025	< 0.025	mg / Kg		
x	4	B-11	11		-0.79	ppb	0.15	< 0.150	mg / Kg		
x	5	Na-23	23		31.97	ppb	0.5	1.60	mg / Kg		x
x	6	Mg-24	24		21.83	ppb	0.5	1.09	mg / Kg		x
	7	Mg-25	25		22.62	ppb	0.5	1.13	mg / Kg		x
	8	Mg-26	26		22.48	ppb	0.5	1.12	mg / Kg		x
	9	Al-27	27		23.64	ppb	0.5	1.18	mg / Kg		x
	10	Si-28	28		-33.5	ppb	1	< 1.00	mg / Kg		
x	11	K-39	39		33.4	ppb	0.5	1.67	mg / Kg		x
x	13	Ca-43	43		60.04	ppb	0.5	3.00	mg / Kg		x
	14	Ca-44	44		61.03	ppb	0.5	3.05	mg / Kg		x
	16	Ti-47	47		1.22	ppb	0.025	0.061	mg / Kg		x
x	17	V-51	51		0.04	ppb	0.05	< 0.050	mg / Kg		
	18	Cr-52	52		0.85	ppb	0.05	< 0.050	mg / Kg		
	19	Cr-53	53		21.04	ppb	0.25	1.05	mg / Kg		x
	20	Fe-54	54		-8.08	ppb	0.5	< 0.500	mg / Kg		
	21	Mn-55	55		0.4	ppb	0.025	< 0.025	mg / Kg		
x	22	Fe-57	57		25.76	ppb	0.5	1.29	mg / Kg		x
	23	Co-59	59		-0.35	ppb	0.025	< 0.025	mg / Kg		
	24	Ni-60	60		0.25	ppb	0.025	< 0.025	mg / Kg		
	25	Cu-63	63		0.8	ppb	0.025	0.040	mg / Kg		x
	26	Cu-65	65		0.76	ppb	0.025	0.038	mg / Kg		x
x	27	Zn-66	66		3.64	ppb	0.25	< 0.250	mg / Kg		
	28	Zn-67	67		4.4	ppb	0.25	< 0.250	mg / Kg		
	29	Zn-68	68		3.13	ppb	0.25	< 0.250	mg / Kg		
	32	As-75	75		0.52	ppb	0.025	0.026	mg / Kg		x
	34	Se-82	82		0.22	ppb	0.025	< 0.025	mg / Kg		
	37	Sr-87	87		0.07	ppb	0.025	< 0.025	mg / Kg		
	40	Mo-95	95		1.56	ppb	0.025	0.078	mg / Kg		x
	41	Mo-98	98		1.53	ppb	0.025	0.076	mg / Kg		x
	43	Ag-107	107		-0.02	ppb	0.025	< 0.025	mg / Kg		
	45	Ag-109	109		-0.01	ppb	0.025	< 0.025	mg / Kg		
	46	Cd-111	111		0	ppb	0.025	< 0.025	mg / Kg		
	47	Cd-114	114		0.2	ppb	0.025	< 0.025	mg / Kg		
	50	Sn-120	120		13.16	ppb	0.025	0.658	mg / Kg		x
	51	Sb-121	121		0.29	ppb	0.05	< 0.050	mg / Kg		
	52	Sb-123	123		-0.03	ppb	0.05	< 0.050	mg / Kg		
	53	Ba-135	135		2.61	ppb	0.025	0.130	mg / Kg		x
	54	Tb-159	159		0	ppb	0.001	< 0.001	mg / Kg		
	55	Au-197	197		0.18	ppb	0.025	< 0.025	mg / Kg		
	56	Tl-205	205		-0.36	ppb	0.025	< 0.025	mg / Kg		
	59	Pb-208	208		-0.29	ppb	0.025	< 0.025	mg / Kg		
	61	U-238	238		-0.01	ppb	0.025	< 0.025	mg / Kg		

LCS M021282-002

Assaigai Analytical Laboratories, Inc.

Analytical Result Summary

Run Group	MT.2002.1118	12
Calc Method	6020	
Prep Method	MS3050	
Prep Matrix	SOLID	

[LCS]

		By	Dilution
Prepared	09-23-02 8:08:00	JRE	1
Analyzed	09-25-02 18:12:00	JWB	1
Calibration	09-25-02 17:15:00		
Quant	09-25-02 18:19:00		013SMPL.D#

r	C#	Analyte	QMass	m	Raw Quant	As	MRL	Report	As	Qual	f
	3	Be-9	9		100.8	ppb	1	101	% Recovery		
x	4	B-11	11		92.34	ppb	1	92	% Recovery		
x	5	Na-23	23		958.3	ppb	1	96	% Recovery		
x	6	Mg-24	24		932.3	ppb	1	93	% Recovery		
	7	Mg-25	25		992.4	ppb	1	99	% Recovery		
	8	Mg-26	26		981.2	ppb	1	98	% Recovery		
	9	Al-27	27		963.9	ppb	1	96	% Recovery		
	10	Si-28	28		860.7	ppb	1	86	% Recovery		
x	11	K-39	39		980.5	ppb	1	98	% Recovery		
x	13	Ca-43	43		1034	ppb	1	103	% Recovery		
	14	Ca-44	44		1040	ppb	1	104	% Recovery		
	16	Ti-47	47		98.62	ppb	1	99	% Recovery		
x	17	V-51	51		100.3	ppb	1	100	% Recovery		
	18	Cr-52	52		100.7	ppb	1	101	% Recovery		
	19	Cr-53	53		93.87	ppb	1	94	% Recovery		
	20	Fe-54	54		1020	ppb	1	102	% Recovery		
	21	Mn-55	55		100.2	ppb	1	100	% Recovery		
x	22	Fe-57	57		1039	ppb	1	104	% Recovery		
	23	Co-59	59		101.5	ppb	1	102	% Recovery		
	24	Ni-60	60		101.8	ppb	1	102	% Recovery		
	25	Cu-63	63		103	ppb	1	103	% Recovery		
	26	Cu-65	65		103.9	ppb	1	104	% Recovery		
x	27	Zn-66	66		106.9	ppb	1	107	% Recovery		
	28	Zn-67	67		101.7	ppb	1	102	% Recovery		
	29	Zn-68	68		105.2	ppb	1	105	% Recovery		
	32	As-75	75		100.1	ppb	1	100	% Recovery		
	34	Se-82	82		102	ppb	1	102	% Recovery		
	37	Sr-87	87		98.47	ppb	1	98	% Recovery		
	40	Mo-95	95		93.37	ppb	1	93	% Recovery		
	41	Mo-98	98		94.15	ppb	1	94	% Recovery		
	43	Ag-107	107		96.51	ppb	1	96	% Recovery		
	45	Ag-109	109		96.21	ppb	1	96	% Recovery		
	46	Cd-111	111		98.44	ppb	1	98	% Recovery		
	47	Cd-114	114		99.22	ppb	1	99	% Recovery		
	50	Sn-120	120		111.1	ppb	1	111	% Recovery		
	51	Sb-121	121		99.47	ppb	1	99	% Recovery		
	52	Sb-123	123		99.7	ppb	1	100	% Recovery		
	53	Ba-135	135		101.3	ppb	1	101	% Recovery		
	54	Tb-159	159		0	ppb	1	< 1	% Recovery		x
	55	Au-197	197		90.19	ppb	1	90	% Recovery		
	56	Tl-205	205		94.69	ppb	1	95	% Recovery		
	59	Pb-208	208		96.77	ppb	1	97	% Recovery		
	61	U-238	238		97.14	ppb	1	97	% Recovery		

LCSDD M021282-003

Assaigai Analytical Laboratories, Inc.

Analytical Result Summary

[LCSD] By Dilution

Run Group	MT.2002.1118	13
Calc Method	6020	
Prep Method	MS3050	
Prep Matrix	SOLID	

Prepared	09-23-02 8:08:00	JRE	1
Analyzed	09-25-02 18:21:00	JWB	1
Calibration	09-25-02 17:15:00		
Quant	09-25-02 18:28:00		014SMPL.D#

r	C#	Analyte	QMass	m	Raw Quant	As	MRL	Report	As	Qual	f
	3	Be-9	9		99.03	ppb	1	2	RPD		
x	4	B-11	11		94.78	ppb	1	3	RPD		
x	5	Na-23	23		988.1	ppb	1	3	RPD		
x	6	Mg-24	24		978.3	ppb	1	5	RPD		
	7	Mg-25	25		998.3	ppb	1	< 1	RPD		
	8	Mg-26	26		982.7	ppb	1	< 1	RPD		
	9	Al-27	27		987.8	ppb	1	2	RPD		
	10	Si-28	28		916.5	ppb	1	6	RPD		
x	11	K-39	39		980.5	ppb	1	< 1	RPD		
x	13	Ca-43	43		1042	ppb	1	< 1	RPD		
	14	Ca-44	44		1027	ppb	1	1	RPD		
	16	Ti-47	47		99.19	ppb	1	< 1	RPD		
x	17	V-51	51		99.54	ppb	1	< 1	RPD		
	18	Cr-52	52		100.6	ppb	1	< 1	RPD		
	19	Cr-53	53		89.01	ppb	1	5	RPD		
	20	Fe-54	54		1046	ppb	1	2	RPD		
	21	Mn-55	55		99.56	ppb	1	< 1	RPD		
x	22	Fe-57	57		1053	ppb	1	1	RPD		
	23	Co-59	59		100.2	ppb	1	1	RPD		
	24	Ni-60	60		100.8	ppb	1	< 1	RPD		
	25	Cu-63	63		102.1	ppb	1	< 1	RPD		
	26	Cu-65	65		103.5	ppb	1	< 1	RPD		
x	27	Zn-66	66		104.7	ppb	1	2	RPD		
	28	Zn-67	67		100.4	ppb	1	1	RPD		
	29	Zn-68	68		103.7	ppb	1	1	RPD		
	32	As-75	75		99.37	ppb	1	< 1	RPD		
	34	Se-82	82		100.5	ppb	1	1	RPD		
	37	Sr-87	87		98.57	ppb	1	< 1	RPD		
	40	Mo-95	95		94.13	ppb	1	< 1	RPD		
	41	Mo-98	98		94.37	ppb	1	< 1	RPD		
	43	Ag-107	107		97.78	ppb	1	1	RPD		
	45	Ag-109	109		98.25	ppb	1	2	RPD		
	46	Cd-111	111		96.97	ppb	1	2	RPD		
	47	Cd-114	114		98.08	ppb	1	1	RPD		
	50	Sn-120	120		109.7	ppb	1	1	RPD		
	51	Sb-121	121		97.8	ppb	1	2	RPD		
	52	Sb-123	123		98.43	ppb	1	1	RPD		
	53	Ba-135	135		100.1	ppb	1	1	RPD		
	54	Tb-159	159		0	ppb	1	NA	RPD		
	55	Au-197	197		89.26	ppb	1	1	RPD		
	56	Tl-205	205		94.35	ppb	1	< 1	RPD		
	59	Pb-208	208		96.71	ppb	1	< 1	RPD		
	61	U-238	238		96.48	ppb	1	< 1	RPD		

LCSDS M021282-003

Assaigai Analytical Laboratories, Inc.

Analytical Result Summary

[LCSD] 427

Run Group	MT.2002.1118	13
Calc Method	6020	
Prep Method	MS3050	
Prep Matrix	SOLID	

		By	Dilution
Prepared	09-23-02 8:08:00	JRE	1
Analyzed	09-25-02 18:21:00	JWB	1
Calibration	09-25-02 17:15:00		
Quant	09-25-02 18:28:00	014SMPL.D#	

r	C#	Analyte	QMass	m	Raw Quant	As	MRL	Report	As	Qual	f
	3	Be-9	9		99.03	ppb	1	99	% Recovery		
x	4	B-11	11		94.78	ppb	1	95	% Recovery		
x	5	Na-23	23		988.1	ppb	1	99	% Recovery		
x	6	Mg-24	24		978.3	ppb	1	98	% Recovery		
	7	Mg-25	25		998.3	ppb	1	100	% Recovery		
	8	Mg-26	26		982.7	ppb	1	98	% Recovery		
	9	Al-27	27		987.8	ppb	1	99	% Recovery		
	10	Si-28	28		916.5	ppb	1	92	% Recovery		
x	11	K-39	39		980.5	ppb	1	98	% Recovery		
x	13	Ca-43	43		1042	ppb	1	104	% Recovery		
	14	Ca-44	44		1027	ppb	1	103	% Recovery		
	16	Ti-47	47		99.19	ppb	1	99	% Recovery		
x	17	V-51	51		99.54	ppb	1	100	% Recovery		
	18	Cr-52	52		100.6	ppb	1	101	% Recovery		
	19	Cr-53	53		89.01	ppb	1	89	% Recovery		
	20	Fe-54	54		1046	ppb	1	105	% Recovery		
	21	Mn-55	55		99.56	ppb	1	100	% Recovery		
x	22	Fe-57	57		1053	ppb	1	105	% Recovery		
	23	Co-59	59		100.2	ppb	1	100	% Recovery		
	24	Ni-60	60		100.8	ppb	1	101	% Recovery		
	25	Cu-63	63		102.1	ppb	1	102	% Recovery		
	26	Cu-65	65		103.5	ppb	1	104	% Recovery		
x	27	Zn-66	66		104.7	ppb	1	105	% Recovery		
	28	Zn-67	67		100.4	ppb	1	100	% Recovery		
	29	Zn-68	68		103.7	ppb	1	104	% Recovery		
	32	As-75	75		99.37	ppb	1	99	% Recovery		
	34	Se-82	82		100.5	ppb	1	100	% Recovery		
	37	Sr-87	87		98.57	ppb	1	98	% Recovery		
	40	Mo-95	95		94.13	ppb	1	94	% Recovery		
	41	Mo-98	98		94.37	ppb	1	94	% Recovery		
	43	Ag-107	107		97.78	ppb	1	98	% Recovery		
	45	Ag-109	109		98.25	ppb	1	98	% Recovery		
	46	Cd-111	111		96.97	ppb	1	97	% Recovery		
	47	Cd-114	114		98.08	ppb	1	98	% Recovery		
	50	Sn-120	120		109.7	ppb	1	110	% Recovery		
	51	Sb-121	121		97.8	ppb	1	98	% Recovery		
	52	Sb-123	123		98.43	ppb	1	98	% Recovery		
	53	Ba-135	135		100.1	ppb	1	100	% Recovery		
	54	Tb-159	159		0	ppb	1	< 1	% Recovery		x
	55	Au-197	197		89.26	ppb	1	89	% Recovery		
	56	Tl-205	205		94.35	ppb	1	94	% Recovery		
	59	Pb-208	208		96.71	ppb	1	97	% Recovery		
	61	U-238	238		96.48	ppb	1	96	% Recovery		

M

M021282-006

Assaigai Analytical Laboratories, Inc.

Analytical Result Summary

0209364-01A[M] 428

Run Group	MT.2002.1118	14
Calc Method	6020	
Prep Method	MS3050	
Prep Matrix	SOLID	

		By	Dilution
Prepared	09-23-02 8:08:00	JRE	0.994
Analyzed	09-25-02 18:30:00	JWB	100
Calibration	09-25-02 17:15:00		
Quant	09-25-02 18:37:00		015SMPL.D#

r	C#	Analyte	QMass	m	Raw Quant	As	MRL	Report	As	Qual	f
	3	Be-9	9		0.1	ppb	0.025	< 2.48	mg / Kg		
	4	B-11	11		-0.13	ppb	0.15	< 14.9	mg / Kg		
	5	Na-23	23		32.63	ppb	0.5	162	mg / Kg		
	6	Mg-24	24		298.9	ppb	0.5	1480	mg / Kg		
	7	Mg-25	25		298.7	ppb	0.5	1480	mg / Kg		
	8	Mg-26	26		299.8	ppb	0.5	1490	mg / Kg		
	9	Al-27	27		1065	ppb	0.5	5290	mg / Kg		
	10	Si-28	28		87.09	ppb	1	433	mg / Kg		
	11	K-39	39		163.2	ppb	0.5	811	mg / Kg		
	13	Ca-43	43		591.7	ppb	0.5	2940	mg / Kg		
	14	Ca-44	44		600.2	ppb	0.5	2980	mg / Kg		
	16	Ti-47	47		43.22	ppb	0.025	215	mg / Kg		
	17	V-51	51		1.9	ppb	0.05	9.44	mg / Kg		
	18	Cr-52	52		29.05	ppb	0.05	144	mg / Kg		
	19	Cr-53	53		20.92	ppb	0.25	104	mg / Kg		
	20	Fe-54	54		1391	ppb	0.5	6910	mg / Kg		
	21	Mn-55	55		41.39	ppb	0.025	206	mg / Kg		
x	22	Fe-57 >5x MB	57		1438	ppb	0.5	7150	mg / Kg		
	23	Co-59	59		0.09	ppb	0.025	< 2.48	mg / Kg		
	24	Ni-60	60		1.07	ppb	0.025	5.32	mg / Kg		
	25	Cu-63	63		5.09	ppb	0.025	25.3	mg / Kg		
	26	Cu-65	65		5.08	ppb	0.025	25.2	mg / Kg		
	27	Zn-66	66		18.3	ppb	0.25	91.0	mg / Kg		
	28	Zn-67	67		17.27	ppb	0.25	85.8	mg / Kg		
	29	Zn-68	68		17.32	ppb	0.25	86.1	mg / Kg		
	32	As-75	75		0.91	ppb	0.025	4.52	mg / Kg		
	34	Se-82	82		0.37	ppb	0.025	< 2.48	mg / Kg		
	37	Sr-87	87		9.47	ppb	0.025	47.1	mg / Kg		
	40	Mo-95	95		0.75	ppb	0.025	3.73	mg / Kg		
	41	Mo-98	98		0.7	ppb	0.025	3.48	mg / Kg		
	43	Ag-107	107		1.19	ppb	0.025	5.91	mg / Kg		
	45	Ag-109	109		1.2	ppb	0.025	5.96	mg / Kg		
	46	Cd-111	111		0.1	ppb	0.025	< 2.48	mg / Kg		
	47	Cd-114	114		0.14	ppb	0.025	< 2.48	mg / Kg		
	50	Sn-120	120		0.83	ppb	0.025	4.12	mg / Kg		
	51	Sb-121	121		0.37	ppb	0.05	< 4.97	mg / Kg		
	52	Sb-123	123		0.06	ppb	0.05	< 4.97	mg / Kg		
	53	Ba-135	135		17.22	ppb	0.025	85.6	mg / Kg		
	54	Tb-159	159		0	ppb	0.001	< 0.099	mg / Kg		
	55	Au-197	197		0.37	ppb	0.025	< 2.48	mg / Kg		
	56	Tl-205	205		0.12	ppb	0.025	< 2.48	mg / Kg		
	59	Pb-208	208		3.52	ppb	0.025	17.5	mg / Kg		
	61	U-238	238		0.29	ppb	0.025	< 2.48	mg / Kg		

MS M021282-007

Assaigai Analytical Laboratories, Inc.

Analytical Result Summary

0209364-01A[MS] By 429 Dilution

Run Group	MT.2002.1118	15
Calc Method	6020	
Prep Method	MS3050	
Prep Matrix	SOLID	

Prepared	09-23-02 8:08:00	JRE	0.9346
Analyzed	09-25-02 18:39:00	JWB	100
Calibration	09-25-02 17:15:00		
Quant	09-25-02 18:47:00		016SMPL.D#

r	C#	Analyte	QMass	m	Raw Quant	As	MRL	Report	As	Qual	f
	3	Be-9	9		1.12	ppb	1	104	% Recovery		
	4	B-11	11		0.52	ppb	1	29	% Recovery		x
	5	Na-23	23		48.38	ppb	1	216	% Recovery		x
	6	Mg-24	24		405.3	ppb	1	1060	% Recovery		x
	7	Mg-25	25		402.7	ppb	1	1040	% Recovery		x
	8	Mg-26	26		399.2	ppb	1	1030	% Recovery		x
	9	Al-27	27		1396	ppb	1	2820	% Recovery		x
	10	Si-28	28		102.6	ppb	1	452	% Recovery		x
	11	K-39	39		238.1	ppb	1	723	% Recovery		x
	13	Ca-43	43		656.6	ppb	1	638	% Recovery		x
	14	Ca-44	44		660.5	ppb	1	750	% Recovery		x
	16	Ti-47	47		59.34	ppb	1	1730	% Recovery		x
	17	V-51	51		3.01	ppb	1	99	% Recovery		
	18	Cr-52	52		32.91	ppb	1	453	% Recovery		x
	19	Cr-53	53		30.53	ppb	1	129	% Recovery		x
	20	Fe-54	54		1676	ppb	1	3010	% Recovery		x
	21	Mn-55	55		40.43	ppb	1	92	% Recovery		
x	22	Fe-57 >5x MB	57		1766	ppb	1	3610	% Recovery		x
	23	Co-59	59		1.13	ppb	1	77	% Recovery		x
	24	Ni-60	60		2.22	ppb	1	126	% Recovery		x
	25	Cu-63	63		6.64	ppb	1	192	% Recovery		x
	26	Cu-65	65		6.75	ppb	1	195	% Recovery		x
	27	Zn-66	66		21.87	ppb	1	386	% Recovery		x
	28	Zn-67	67		20.93	ppb	1	310	% Recovery		x
	29	Zn-68	68		20.39	ppb	1	298	% Recovery		x
	32	As-75	75		2.05	ppb	1	125	% Recovery		x
	34	Se-82	82		1.34	ppb	1	124	% Recovery		x
	37	Sr-87	87		13.11	ppb	1	357	% Recovery		x
	40	Mo-95	95		1.41	ppb	1	129	% Recovery		x
	41	Mo-98	98		1.37	ppb	1	125	% Recovery		x
	43	Ag-107	107		2.07	ppb	1	87	% Recovery		
	45	Ag-109	109		2.07	ppb	1	87	% Recovery		
	46	Cd-111	111		1.19	ppb	1	108	% Recovery		
	47	Cd-114	114		1.13	ppb	1	102	% Recovery		
	50	Sn-120	120		1.87	ppb	1	102	% Recovery		
	51	Sb-121	121		0.67	ppb	1	63	% Recovery		x
	52	Sb-123	123		0.37	ppb	1	37	% Recovery		x
	53	Ba-135	135		19.14	ppb	1	164	% Recovery		x
	54	Tb-159	159		0	ppb	1	< 1	% Recovery		x
	55	Au-197	197		1.03	ppb	1	102	% Recovery		
	56	Tl-205	205		0.76	ppb	1	76	% Recovery		x
	59	Pb-208	208		4.58	ppb	1	68	% Recovery		x
	61	U-238	238		1.21	ppb	1	95	% Recovery		

(1) *Fe fails due to the high sample concentration relative to the spike value
SB 9/26/02

MSDD M021282-008

Assaigai Analytical Laboratories, Inc.

Analytical Result Summary

0209364-01A[MSD] By Dilution 43U

Run Group	MT.2002.1118	16
Calc Method	6020	
Prep Method	MS3050	
Prep Matrix	SOLID	

Prepared	09-23-02 8:08:00	JRE	0.9662
Analyzed	09-25-02 18:49:00	JWB	100
Calibration	09-25-02 17:15:00		
Quant	09-25-02 18:56:00		017SMPL.D#

r	C#	Analyte	QMass	m	Raw Quant	As	MRL	Report	As	Qual	f
	3	Be-9	9		1.09	ppb	1	2	RPD		
	4	B-11	11		0.47	ppb	1	128	RPD		x
	5	Na-23	23		47.74	ppb	1	52	RPD		x
	6	Mg-24	24		368.1	ppb	1	2	RPD		
	7	Mg-25	25		370.2	ppb	1	10	RPD		
	8	Mg-26	26		370.2	ppb	1	11	RPD		
	9	Al-27	27		1272	ppb	1	15	RPD		
	10	Si-28	28		105.8	ppb	1	156	RPD		x
	11	K-39	39		222.4	ppb	1	7	RPD		
	13	Ca-43	43		619.5	ppb	1	48	RPD		x
	14	Ca-44	44		624.1	ppb	1	83	RPD		x
	16	Ti-47	47		58.44	ppb	1	28	RPD		x
	17	V-51	51		2.76	ppb	1	33	RPD		x
	18	Cr-52	52		33.84	ppb	1	105	RPD		x
	19	Cr-53	53		32.96	ppb	1	98	RPD		x
	20	Fe-54	54		1597	ppb	1	11	RPD		
	21	Mn-55	55		46.08	ppb	1	399	RPD		x
x	22	Fe-57 >5x MB	57		1647	ppb	1	36	RPD		x
	23	Co-59	59		1.18	ppb	1	16	RPD		
	24	Ni-60	60		2.18	ppb	1	24	RPD		x
	25	Cu-63	63		6.6	ppb	1	56	RPD		x
	26	Cu-65	65		6.59	ppb	1	50	RPD		x
	27	Zn-66	66		23.41	ppb	1	113	RPD		x
	28	Zn-67	67		22.56	ppb	1	103	RPD		x
	29	Zn-68	68		22.04	ppb	1	104	RPD		x
	32	As-75	75		1.76	ppb	1	5	RPD		
	34	Se-82	82		1.3	ppb	1	20	RPD		
	37	Sr-87	87		12.59	ppb	1	15	RPD		
	40	Mo-95	95		1.38	ppb	1	28	RPD		x
	41	Mo-98	98		1.32	ppb	1	24	RPD		x
	43	Ag-107	107		2.21	ppb	1	19	RPD		
	45	Ag-109	109		2.21	ppb	1	21	RPD		x
	46	Cd-111	111		1.14	ppb	1	3	RPD		
	47	Cd-114	114		1.16	ppb	1	5	RPD		
	50	Sn-120	120		2.19	ppb	1	26	RPD		x
	51	Sb-121	121		0.71	ppb	1	60	RPD		x
	52	Sb-123	123		0.38	ppb	1	7	RPD		
	53	Ba-135	135		18.42	ppb	1	10	RPD		
	54	Tb-159	159		0	ppb	1	NA	RPD		
	55	Au-197	197		0.91	ppb	1	5	RPD		
	56	Tl-205	205		0.69	ppb	1	28	RPD		x
	59	Pb-208	208		5.06	ppb	1	34	RPD		x
	61	U-238	238		1.31	ppb	1	10	RPD		

(i) gB 9/26/02

MSDS M021282-008

Assaigai Analytical Laboratories, Inc.

Analytical Result Summary

0209364-01A[MSD]

431

Run Group	MT.2002.1118	16
Calc Method	6020	
Prep Method	MS3050	
Prep Matrix	SOLID	

		By	Dilution
Prepared	09-23-02 8:08:00	JRE	0.9862
Analyzed	09-25-02 18:49:00	JWB	100
Calibration	09-25-02 17:15:00		
Quant	09-25-02 18:56:00		017SMPL.D#

r	C#	Analyte	QMass	m	Raw Quant	As	MRL	Report	As	Qual	f
	3	Be-9	9		1.09	ppb	1	102	% Recovery		
	4	B-11	11		0.47	ppb	1	24	% Recovery		x
	5	Na-23	23		47.74	ppb	1	219	% Recovery		x
	6	Mg-24	24		368.1	ppb	1	782	% Recovery		x
	7	Mg-25	25		370.2	ppb	1	813	% Recovery		x
	8	Mg-26	26		370.2	ppb	1	834	% Recovery		x
	9	Al-27	27		1272	ppb	1	1950	% Recovery		x
	10	Si-28	28		105.8	ppb	1	503	% Recovery		x
	11	K-39	39		222.4	ppb	1	620	% Recovery		x
	13	Ca-43	43		619.5	ppb	1	461	% Recovery		x
	14	Ca-44	44		624.1	ppb	1	577	% Recovery		x
	16	Ti-47	47		58.44	ppb	1	1780	% Recovery		x
	17	V-51	51		2.76	ppb	1	81	% Recovery		
	18	Cr-52	52		33.84	ppb	1	639	% Recovery		x
	19	Cr-53	53		32.96	ppb	1	468	% Recovery		x
	20	Fe-54	54		1597	ppb	1	2670	% Recovery		x
	21	Mn-55	55		46.08	ppb	1	786	% Recovery		x
x	22	Fe-57 >5x MB	57		1647	ppb	1	2880	% Recovery		x
	23	Co-59	59		1.18	ppb	1	84	% Recovery		
	24	Ni-60	60		2.18	ppb	1	125	% Recovery		x
	25	Cu-63	63		6.6	ppb	1	204	% Recovery		x
	26	Cu-65	65		6.59	ppb	1	194	% Recovery		x
	27	Zn-66	66		23.41	ppb	1	599	% Recovery		x
	28	Zn-67	67		22.56	ppb	1	532	% Recovery		x
	29	Zn-68	68		22.04	ppb	1	520	% Recovery		x
	32	As-75	75		1.76	ppb	1	99	% Recovery		
	34	Se-82	82		1.3	ppb	1	120	% Recovery		
	37	Sr-87	87		12.59	ppb	1	336	% Recovery		x
	40	Mo-95	95		1.38	ppb	1	126	% Recovery		x
	41	Mo-98	98		1.32	ppb	1	120	% Recovery		
	43	Ag-107	107		2.21	ppb	1	105	% Recovery		
	45	Ag-109	109		2.21	ppb	1	105	% Recovery		
	46	Cd-111	111		1.14	ppb	1	103	% Recovery		
	47	Cd-114	114		1.16	ppb	1	106	% Recovery		
	50	Sn-120	120		2.19	ppb	1	137	% Recovery		x
	51	Sb-121	121		0.71	ppb	1	68	% Recovery		x
	52	Sb-123	123		0.38	ppb	1	38	% Recovery		x
	53	Ba-135	135		18.42	ppb	1	150	% Recovery		x
	54	Tb-159	159		0	ppb	1	< 1	% Recovery		x
	55	Au-197	197		0.91	ppb	1	90	% Recovery		
	56	Tl-205	205		0.69	ppb	1	69	% Recovery		x
	59	Pb-208	208		5.06	ppb	1	128	% Recovery		x
	61	U-238	238		1.31	ppb	1	106	% Recovery		

(1) SB 9/26/02

FRAC M021282-011

Assaigai Analytical Laboratories, Inc.

Analytical Result Summary

0209364-02A

432

Run Group	MT.2002.1118	17
Calc Method	6020	
Prep Method	MS3050	
Prep Matrix	SOLID	

		By	Dilution
Prepared	09-23-02 8:08:00	JRE	0.9911
Analyzed	09-25-02 18:58:00	JWB	100
Calibration	09-25-02 17:15:00		
Quant	09-25-02 19:05:00	018SMPL.D#	

r	C#	Analyte	QMass	m	Raw Quant	As	MRL	Report	As	Qual	f
	3	Be-9	9		0.09	ppb	0.025	< 2.48	mg / Kg		
	4	B-11	11		-0.91	ppb	0.15	< 14.9	mg / Kg		
	5	Na-23	23		31.28	ppb	0.5	155	mg / Kg		
	6	Mg-24	24		147.5	ppb	0.5	731	mg / Kg		
	7	Mg-25	25		146.9	ppb	0.5	728	mg / Kg		
	8	Mg-26	26		148.2	ppb	0.5	734	mg / Kg		
	9	Al-27	27		1036	ppb	0.5	5130	mg / Kg		
	10	Si-28	28		50.11	ppb	1	248	mg / Kg		
	11	K-39	39		128.4	ppb	0.5	636	mg / Kg		
	13	Ca-43	43		190.7	ppb	0.5	945	mg / Kg		
	14	Ca-44	44		194.7	ppb	0.5	965	mg / Kg		
	16	Ti-47	47		28.44	ppb	0.025	141	mg / Kg		
	17	V-51	51		0.05	ppb	0.05	< 4.96	mg / Kg		
	18	Cr-52	52		0.26	ppb	0.05	< 4.96	mg / Kg		
	19	Cr-53	53		-13.16	ppb	0.25	< 24.8	mg / Kg		
	20	Fe-54	54		1154	ppb	0.5	5720	mg / Kg		
	21	Mn-55	55		32.48	ppb	0.025	161	mg / Kg		
x	22	Fe-57 >5x MB	57		1256	ppb	0.5	6230	mg / Kg		
	23	Co-59	59		-0.19	ppb	0.025	< 2.48	mg / Kg		
	24	Ni-60	60		0.47	ppb	0.025	< 2.48	mg / Kg		
	25	Cu-63	63		0.45	ppb	0.025	< 2.48	mg / Kg		
	26	Cu-65	65		0.46	ppb	0.025	< 2.48	mg / Kg		
	27	Zn-66	66		6.31	ppb	0.25	31.3	mg / Kg		
	28	Zn-67	67		4.83	ppb	0.25	< 24.8	mg / Kg		
	29	Zn-68	68		5.11	ppb	0.25	25.3	mg / Kg		
	32	As-75	75		0.43	ppb	0.025	< 2.48	mg / Kg		
	34	Se-82	82		0.22	ppb	0.025	< 2.48	mg / Kg		
	37	Sr-87	87		7.37	ppb	0.025	36.5	mg / Kg		
	40	Mo-95	95		0.37	ppb	0.025	< 2.48	mg / Kg		
	41	Mo-98	98		0.37	ppb	0.025	< 2.48	mg / Kg		
	43	Ag-107	107		-0.03	ppb	0.025	< 2.48	mg / Kg		
	45	Ag-109	109		-0.02	ppb	0.025	< 2.48	mg / Kg		
	46	Cd-111	111		0.03	ppb	0.025	< 2.48	mg / Kg		
	47	Cd-114	114		0.03	ppb	0.025	< 2.48	mg / Kg		
	50	Sn-120	120		0.27	ppb	0.025	< 2.48	mg / Kg		
	51	Sb-121	121		0.29	ppb	0.05	< 4.96	mg / Kg		
	52	Sb-123	123		-0.02	ppb	0.05	< 4.96	mg / Kg		
	53	Ba-135	135		8.65	ppb	0.025	42.9	mg / Kg		
	54	Tb-159	159		0	ppb	0.001	< 0.099	mg / Kg		
	55	Au-197	197		0.04	ppb	0.025	< 2.48	mg / Kg		
	56	Tl-205	205		-0.33	ppb	0.025	< 2.48	mg / Kg		
	59	Pb-208	208		1.34	ppb	0.025	6.64	mg / Kg		
	61	U-238	238		0.06	ppb	0.025	< 2.48	mg / Kg		

FRAC M021282-012

Assaigai Analytical Laboratories, Inc.

Analytical Result Summary

0209364-03A

Run Group	MT.2002.1118	18
Calc Method	6020	
Prep Method	MS3050	
Prep Matrix	SOLID	

		By	Dilution
Prepared	09-23-02 8:08:00	JRE	0.9833
Analyzed	09-25-02 19:07:00	JWB	100
Calibration	09-25-02 17:15:00		
Quant	09-25-02 19:14:00		019SMPL.D#

r	C#	Analyte	QMass	m	Raw Quant	As	MRL	Report	As	Qual	f
	3	Be-9	9		0.08	ppb	0.025	< 2.46	mg / Kg		
	4	B-11	11		-0.94	ppb	0.15	< 14.7	mg / Kg		
	5	Na-23	23		18.23	ppb	0.5	89.6	mg / Kg		
	6	Mg-24	24		174.6	ppb	0.5	858	mg / Kg		
	7	Mg-25	25		175.4	ppb	0.5	862	mg / Kg		
	8	Mg-26	26		175	ppb	0.5	860	mg / Kg		
	9	Al-27	27		1088	ppb	0.5	5350	mg / Kg		
	10	Si-28	28		65.5	ppb	1	322	mg / Kg		
	11	K-39	39		152.1	ppb	0.5	748	mg / Kg		
	13	Ca-43	43		243.4	ppb	0.5	1200	mg / Kg		
	14	Ca-44	44		253.2	ppb	0.5	1240	mg / Kg		
	16	Ti-47	47		22.77	ppb	0.025	112	mg / Kg		
	17	V-51	51		0.9	ppb	0.05	< 4.92	mg / Kg		
	18	Cr-52	52		7.84	ppb	0.05	38.5	mg / Kg		
	19	Cr-53	53		-7.79	ppb	0.25	< 24.6	mg / Kg		
	20	Fe-54	54		904.1	ppb	0.5	4440	mg / Kg		
	21	Mn-55	55		24.42	ppb	0.025	120	mg / Kg		
	22	Fe-57	57		967.3	ppb	0.5	4760	mg / Kg		
	23	Co-59	59		-0.11	ppb	0.025	< 2.46	mg / Kg		
	24	Ni-60	60		0.71	ppb	0.025	3.49	mg / Kg		
	25	Cu-63	63		3.95	ppb	0.025	19.4	mg / Kg		
	26	Cu-65	65		3.98	ppb	0.025	19.6	mg / Kg		
	27	Zn-66	66		10.17	ppb	0.25	50.0	mg / Kg		
	28	Zn-67	67		8.4	ppb	0.25	41.3	mg / Kg		
	29	Zn-68	68		8.92	ppb	0.25	43.8	mg / Kg		
	32	As-75	75		0.24	ppb	0.025	< 2.46	mg / Kg		
	34	Se-82	82		0.22	ppb	0.025	< 2.46	mg / Kg		
	37	Sr-87	87		7.62	ppb	0.025	37.5	mg / Kg		
	40	Mo-95	95		0.27	ppb	0.025	< 2.46	mg / Kg		
	41	Mo-98	98		0.22	ppb	0.025	< 2.46	mg / Kg		
	43	Ag-107	107		0.23	ppb	0.025	< 2.46	mg / Kg		
	45	Ag-109	109		0.24	ppb	0.025	< 2.46	mg / Kg		
	46	Cd-111	111		0.06	ppb	0.025	< 2.46	mg / Kg		
	47	Cd-114	114		0.04	ppb	0.025	< 2.46	mg / Kg		
	50	Sn-120	120		0.34	ppb	0.025	< 2.46	mg / Kg		
	51	Sb-121	121		0.29	ppb	0.05	< 4.92	mg / Kg		
	52	Sb-123	123		-0.03	ppb	0.05	< 4.92	mg / Kg		
	53	Ba-135	135		8.92	ppb	0.025	43.8	mg / Kg		
	54	Tb-159	159		0	ppb	0.001	< 0.098	mg / Kg		
	55	Au-197	197		0.02	ppb	0.025	< 2.46	mg / Kg		
	56	Tl-205	205		-0.37	ppb	0.025	< 2.46	mg / Kg		
	59	Pb-208	208		2.74	ppb	0.025	13.5	mg / Kg		
	61	U-238	238		0.12	ppb	0.025	< 2.46	mg / Kg		

STD-CCV [STD-CCV]

Assaigai Analytical Laboratories, Inc.

Analytical Result Summary

434

Run Group	MT.2002.1118	19
Calc Method	8020	
Prep Method	LAB	
Prep Matrix	LAB	

		By	Dilution
Prepared			1
Analyzed	09-25-02 19:16:00	JWB	1
Calibration	09-25-02 17:15:00		
Quant	09-25-02 19:23:00	020CCV .D#	

r	C#	Analyte	QMass	m	Raw Quant	As	MRL	Report	As	Qual	f
	3	Be-9	9		97.91	ppb	1	98	% Recovery		
	4	B-11	11		96.06	ppb	1	96	% Recovery		
	5	Na-23	23		974.9	ppb	1	97	% Recovery		
	6	Mg-24	24		976.3	ppb	1	98	% Recovery		
	7	Mg-25	25		1008	ppb	1	101	% Recovery		
	8	Mg-26	26		994.8	ppb	1	99	% Recovery		
	9	Al-27	27		978.9	ppb	1	98	% Recovery		
	10	Si-28	28		892.2	ppb	1	89	% Recovery		x
	11	K-39	39		976.2	ppb	1	98	% Recovery		
	13	Ca-43	43		1021	ppb	1	102	% Recovery		
	14	Ca-44	44		994	ppb	1	99	% Recovery		
	16	Ti-47	47		98.92	ppb	1	99	% Recovery		
	17	V-51	51		98.83	ppb	1	99	% Recovery		
	18	Cr-52	52		99.88	ppb	1	100	% Recovery		
	19	Cr-53	53		82.2	ppb	1	82	% Recovery		x
	20	Fe-54	54		979.8	ppb	1	98	% Recovery		
	21	Mn-55	55		98.73	ppb	1	99	% Recovery		
	22	Fe-57	57		992.2	ppb	1	99	% Recovery		
	23	Co-59	59		99.58	ppb	1	100	% Recovery		
	24	Ni-60	60		98.82	ppb	1	99	% Recovery		
	25	Cu-63	63		99.92	ppb	1	100	% Recovery		
	26	Cu-65	65		101.6	ppb	1	102	% Recovery		
	27	Zn-66	66		100.9	ppb	1	101	% Recovery		
	28	Zn-67	67		96.81	ppb	1	97	% Recovery		
	29	Zn-68	68		98.78	ppb	1	99	% Recovery		
	32	As-75	75		100.1	ppb	1	100	% Recovery		
	34	Se-82	82		101.1	ppb	1	101	% Recovery		
	37	Sr-87	87		100.7	ppb	1	101	% Recovery		
	40	Mo-95	95		95.81	ppb	1	96	% Recovery		
	41	Mo-98	98		96.3	ppb	1	96	% Recovery		
	43	Ag-107	107		99.21	ppb	1	99	% Recovery		
	45	Ag-109	109		98.7	ppb	1	99	% Recovery		
	46	Cd-111	111		97.72	ppb	1	98	% Recovery		
	47	Cd-114	114		99.38	ppb	1	99	% Recovery		
	50	Sn-120	120		99.8	ppb	1	100	% Recovery		
	51	Sb-121	121		98.99	ppb	1	99	% Recovery		
	52	Sb-123	123		99.56	ppb	1	100	% Recovery		
	53	Ba-135	135		100.4	ppb	1	100	% Recovery		
	54	Tb-159	159		0	ppb	1	< 1	% Recovery		x
	55	Au-197	197		96.2	ppb	1	96	% Recovery		
	56	Tl-205	205		96.8	ppb	1	97	% Recovery		
	59	Pb-208	208		98.97	ppb	1	99	% Recovery		
	61	U-238	238		99.1	ppb	1	99	% Recovery		

CB [CB]

Assaigai Analytical Laboratories, Inc.

Analytical Result Summary

Run Group	MT.2002.1118	20
Calc Method	6020	
Prep Method	LAB	
Prep Matrix	LAB	

		By	Dilution
Prepared			1
Analyzed	09-25-02 19:25:00	JWB	1
Calibration	09-25-02 17:15:00		
Quant	09-25-02 19:32:00		021CCB .D#

r	C#	Analyte	QMass	m	Raw Quant	As	MRL	Report	As	Qual	f
	3	Be-9	9		0.03	ppb	0.001	< 0.001	mg / L		
	4	B-11	11		0.17	ppb	0.001	< 0.001	mg / L		
	5	Na-23	23		1.17	ppb	0.01	< 0.010	mg / L		
	6	Mg-24	24		0.27	ppb	0.01	< 0.010	mg / L		
	7	Mg-25	25		0.27	ppb	0.01	< 0.010	mg / L		
	8	Mg-26	26		0.13	ppb	0.01	< 0.010	mg / L		
	9	Al-27	27		1.12	ppb	0.01	< 0.010	mg / L		
	10	Si-28	28		-73.8	ppb	0.001	< 0.001	mg / L		
	11	K-39	39		-6.66	ppb	0.01	< 0.010	mg / L		
	13	Ca-43	43		-1.39	ppb	0.01	< 0.010	mg / L		
	14	Ca-44	44		-2.18	ppb	0.01	< 0.010	mg / L		
	16	Ti-47	47		-0.08	ppb	0.001	< 0.001	mg / L		
	17	V-51	51		-0.32	ppb	0.001	< 0.001	mg / L		
	18	Cr-52	52		0.08	ppb	0.001	< 0.001	mg / L		
	19	Cr-53	53		-5.91	ppb	0.001	< 0.001	mg / L		
	20	Fe-54	54		-58.98	ppb	0.01	< 0.010	mg / L		
	21	Mn-55	55		-0.04	ppb	0.001	< 0.001	mg / L		
	22	Fe-57	57		-8.56	ppb	0.01	< 0.010	mg / L		
	23	Co-59	59		-0.33	ppb	0.001	< 0.001	mg / L		
	24	Ni-60	60		0	ppb	0.001	< 0.001	mg / L		
	25	Cu-63	63		0	ppb	0.001	< 0.001	mg / L		
	26	Cu-65	65		-0.01	ppb	0.001	< 0.001	mg / L		
	27	Zn-66	66		-0.04	ppb	0.001	< 0.001	mg / L		
	28	Zn-67	67		-0.35	ppb	0.001	< 0.001	mg / L		
	29	Zn-68	68		-0.81	ppb	0.001	< 0.001	mg / L		
	32	As-75	75		0.08	ppb	0.001	< 0.001	mg / L		
	34	Se-82	82		0.33	ppb	0.001	< 0.001	mg / L		
	37	Sr-87	87		0.05	ppb	0.001	< 0.001	mg / L		
	40	Mo-95	95		0.37	ppb	0.001	< 0.001	mg / L		
	41	Mo-98	98		0.33	ppb	0.001	< 0.001	mg / L		
	43	Ag-107	107		0.03	ppb	0.001	< 0.001	mg / L		
	45	Ag-109	109		0.03	ppb	0.001	< 0.001	mg / L		
	46	Cd-111	111		0	ppb	0.001	< 0.001	mg / L		
	47	Cd-114	114		0.04	ppb	0.001	< 0.001	mg / L		
	50	Sn-120	120		-0.01	ppb	0.001	< 0.001	mg / L		
	51	Sb-121	121		0.43	ppb	0.001	< 0.001	mg / L		
	52	Sb-123	123		0.11	ppb	0.001	< 0.001	mg / L		
	53	Ba-135	135		0.01	ppb	0.001	< 0.001	mg / L		
	54	Tb-159	159		0	ppb	0.001	< 0.001	mg / L		
	55	Au-197	197		0.46	ppb	0.001	< 0.001	mg / L		
	56	Tl-205	205		0.14	ppb	0.001	< 0.001	mg / L		
	59	Pb-208	208		-0.32	ppb	0.001	< 0.001	mg / L		
	61	U-238	238		0.04	ppb	0.001	< 0.001	mg / L		

FRAC M021282-013

Assaigai Analytical Laboratories, Inc.

Analytical Result Summary

0209364-04A

436

Run Group	MT.2002.1118	21
Calc Method	6020	
Prep Method	MS3050	
Prep Matrix	SOLID	

		By	Dilution
Prepared	09-23-02 8:08:00	JRE	0.939
Analyzed	09-25-02 19:34:00	JWB	100
Calibration	09-25-02 17:15:00		
Quant	09-25-02 19:41:00		022SMPL.D#

r	C#	Analyte	QMass	m	Raw Quant	As	MRL	Report	As	Qual	f
	3	Be-9	9		0.1	ppb	0.025	< 2.35	mg / Kg		
	4	B-11	11		-0.94	ppb	0.15	< 14.1	mg / Kg		
	5	Na-23	23		31.27	ppb	0.5	147	mg / Kg		
	6	Mg-24	24		146.5	ppb	0.5	688	mg / Kg		
	7	Mg-25	25		143.6	ppb	0.5	674	mg / Kg		
	8	Mg-26	26		141.8	ppb	0.5	666	mg / Kg		
	9	Al-27	27		1022	ppb	0.5	4800	mg / Kg		
	10	Si-28	28		36.46	ppb	1	171	mg / Kg		
	11	K-39	39		126.7	ppb	0.5	595	mg / Kg		
	13	Ca-43	43		152.4	ppb	0.5	715	mg / Kg		
	14	Ca-44	44		160.1	ppb	0.5	752	mg / Kg		
	16	Ti-47	47		31.06	ppb	0.025	146	mg / Kg		
	17	V-51	51		0.14	ppb	0.05	< 4.70	mg / Kg		
	18	Cr-52	52		0.11	ppb	0.05	< 4.70	mg / Kg		
	19	Cr-53	53		-19.99	ppb	0.25	< 23.5	mg / Kg		
	20	Fe-54	54		1159	ppb	0.5	5440	mg / Kg		
	21	Mn-55	55		34.29	ppb	0.025	161	mg / Kg		
x	22	Fe-57 >5x MB	57		1244	ppb	0.5	5840	mg / Kg		
	23	Co-59	59		-0.17	ppb	0.025	< 2.35	mg / Kg		
	24	Ni-60	60		0.46	ppb	0.025	< 2.35	mg / Kg		
	25	Cu-63	63		0.43	ppb	0.025	< 2.35	mg / Kg		
	26	Cu-65	65		0.43	ppb	0.025	< 2.35	mg / Kg		
	27	Zn-66	66		6.37	ppb	0.25	29.9	mg / Kg		
	28	Zn-67	67		4.29	ppb	0.25	< 23.5	mg / Kg		
	29	Zn-68	68		5.1	ppb	0.25	23.9	mg / Kg		
	32	As-75	75		0.27	ppb	0.025	< 2.35	mg / Kg		
	34	Se-82	82		0.27	ppb	0.025	< 2.35	mg / Kg		
	37	Sr-87	87		7.38	ppb	0.025	34.6	mg / Kg		
	40	Mo-95	95		0.31	ppb	0.025	< 2.35	mg / Kg		
	41	Mo-98	98		0.33	ppb	0.025	< 2.35	mg / Kg		
	43	Ag-107	107		-0.03	ppb	0.025	< 2.35	mg / Kg		
	45	Ag-109	109		-0.02	ppb	0.025	< 2.35	mg / Kg		
	46	Cd-111	111		0.01	ppb	0.025	< 2.35	mg / Kg		
	47	Cd-114	114		0.01	ppb	0.025	< 2.35	mg / Kg		
	50	Sn-120	120		0.29	ppb	0.025	< 2.35	mg / Kg		
	51	Sb-121	121		0.3	ppb	0.05	< 4.70	mg / Kg		
	52	Sb-123	123		0	ppb	0.05	< 4.70	mg / Kg		
	53	Ba-135	135		6.64	ppb	0.025	31.2	mg / Kg		
	54	Tb-159	159		0	ppb	0.001	< 0.094	mg / Kg		
	55	Au-197	197		0.08	ppb	0.025	< 2.35	mg / Kg		
	56	Tl-205	205		-0.22	ppb	0.025	< 2.35	mg / Kg		
	59	Pb-208	208		1.7	ppb	0.025	7.98	mg / Kg		
	61	U-238	238		0.08	ppb	0.025	< 2.35	mg / Kg		

FRAC M021282-014

Assaigai Analytical Laboratories, Inc.

Analytical Result Summary

0209364-05A By Dilution 437

Run Group	MT.2002.1118	22
Calc Method	6020	
Prep Method	MS3050	
Prep Matrix	SOLID	

Prepared	09-23-02 8:08:00	JRE	0.9588
Analyzed	09-25-02 19:43:00	JWB	100
Calibration	09-25-02 17:15:00		
Quant	09-25-02 19:50:00		023SMPL.D#

r	C#	Analyte	QMass	m	Raw Quant	As	MRL	Report	As	Qual	f
	3	Be-9	9		0.13	ppb	0.025	< 2.40	mg / Kg		
	4	B-11	11		-0.95	ppb	0.15	< 14.4	mg / Kg		
	5	Na-23	23		38.8	ppb	0.5	186	mg / Kg		
	6	Mg-24	24		210.2	ppb	0.5	1010	mg / Kg		
	7	Mg-25	25		207.7	ppb	0.5	996	mg / Kg		
	8	Mg-26	26		206.2	ppb	0.5	988	mg / Kg		
	9	Al-27	27		1326	ppb	0.5	6360	mg / Kg		
	10	Si-28	28		59.23	ppb	1	284	mg / Kg		
	11	K-39	39		181.5	ppb	0.5	870	mg / Kg		
	13	Ca-43	43		231.9	ppb	0.5	1110	mg / Kg		
	14	Ca-44	44		232.6	ppb	0.5	1120	mg / Kg		
	16	Ti-47	47		40.72	ppb	0.025	195	mg / Kg		
	17	V-51	51		1.14	ppb	0.05	5.46	mg / Kg		
	18	Cr-52	52		0.31	ppb	0.05	< 4.79	mg / Kg		
	19	Cr-53	53		-21.52	ppb	0.25	< 24.0	mg / Kg		
	20	Fe-54	54		1617	ppb	0.5	7750	mg / Kg		
	21	Mn-55	55		34.02	ppb	0.025	163	mg / Kg		
x	22	Fe-57 >5x MB	57		1704	ppb	0.5	8170	mg / Kg		
	23	Co-59	59		-0.13	ppb	0.025	< 2.40	mg / Kg		
	24	Ni-60	60		0.56	ppb	0.025	2.68	mg / Kg		
	25	Cu-63	63		0.59	ppb	0.025	2.83	mg / Kg		
	26	Cu-65	65		0.61	ppb	0.025	2.92	mg / Kg		
	27	Zn-66	66		9.13	ppb	0.25	43.8	mg / Kg		
	28	Zn-67	67		7.25	ppb	0.25	34.8	mg / Kg		
	29	Zn-68	68		7.56	ppb	0.25	36.2	mg / Kg		
	32	As-75	75		0.28	ppb	0.025	< 2.40	mg / Kg		
	34	Se-82	82		0.29	ppb	0.025	< 2.40	mg / Kg		
	37	Sr-87	87		10.51	ppb	0.025	50.4	mg / Kg		
	40	Mo-95	95		0.37	ppb	0.025	< 2.40	mg / Kg		
	41	Mo-98	98		0.37	ppb	0.025	< 2.40	mg / Kg		
	43	Ag-107	107		-0.03	ppb	0.025	< 2.40	mg / Kg		
	45	Ag-109	109		-0.02	ppb	0.025	< 2.40	mg / Kg		
	46	Cd-111	111		0.02	ppb	0.025	< 2.40	mg / Kg		
	47	Cd-114	114		0.01	ppb	0.025	< 2.40	mg / Kg		
	50	Sn-120	120		0.35	ppb	0.025	< 2.40	mg / Kg		
	51	Sb-121	121		0.33	ppb	0.05	< 4.79	mg / Kg		
	52	Sb-123	123		0	ppb	0.05	< 4.79	mg / Kg		
	53	Ba-135	135		10.96	ppb	0.025	52.5	mg / Kg		
	54	Tb-159	159		0	ppb	0.001	< 0.096	mg / Kg		
	55	Au-197	197		0.05	ppb	0.025	< 2.40	mg / Kg		
	56	Tl-205	205		-0.29	ppb	0.025	< 2.40	mg / Kg		
	59	Pb-208	208		1.66	ppb	0.025	7.98	mg / Kg		
	61	U-238	238		0.08	ppb	0.025	< 2.40	mg / Kg		

FRAC M021282-015

Assaigai Analytical Laboratories, Inc.

Analytical Result Summary

0209364-06A By 438

Run Group	MT.2002.1118	23
Calc Method	6020	
Prep Method	MS3050	
Prep Matrix	SOLID	

Prepared	09-23-02 8:08:00	JRE	0.9737
Analyzed	09-25-02 19:52:00	JWB	100
Calibration	09-25-02 17:15:00		
Quant	09-25-02 19:59:00	024SMPL.D#	

r	C#	Analyte		QMass	m	Raw Quant	As	MRL	Report	As	Qual	f
	3	Be-9		9		0.1	ppb	0.025	< 2.43	mg / Kg		
x	4	B-11		11		-0.96	ppb	0.15	< 14.6	mg / Kg		
x	5	Na-23	>5x MB	23		28.78	ppb	0.5	140	mg / Kg		
x	6	Mg-24	>5x MB	24		220.4	ppb	0.5	1070	mg / Kg		
	7	Mg-25		25		216.9	ppb	0.5	1060	mg / Kg		
	8	Mg-26		26		217.1	ppb	0.5	1060	mg / Kg		
	9	Al-27		27		1301	ppb	0.5	6330	mg / Kg		
	10	Si-28		28		44.3	ppb	1	216	mg / Kg		
x	11	K-39	>5x MB	39		152	ppb	0.5	740	mg / Kg		
x	13	Ca-43	>5x MB	43		391.8	ppb	0.5	1910	mg / Kg		
	14	Ca-44		44		392.5	ppb	0.5	1910	mg / Kg		
	16	Ti-47		47		52.91	ppb	0.025	258	mg / Kg		
x	17	V-51		51		1.39	ppb	0.05	6.77	mg / Kg		
	18	Cr-52		52		1.36	ppb	0.05	6.62	mg / Kg		
	19	Cr-53		53		-15.91	ppb	0.25	< 24.3	mg / Kg		
	20	Fe-54		54		1582	ppb	0.5	7700	mg / Kg		
	21	Mn-55		55		35.99	ppb	0.025	175	mg / Kg		
x	22	Fe-57	>5x MB	57		1672	ppb	0.5	8140	mg / Kg		
	23	Co-59		59		-0.05	ppb	0.025	< 2.43	mg / Kg		
	24	Ni-60		60		0.8	ppb	0.025	3.89	mg / Kg		
	25	Cu-63		63		0.76	ppb	0.025	3.70	mg / Kg		
	26	Cu-65		65		0.78	ppb	0.025	3.80	mg / Kg		
	27	Zn-66		66		9.61	ppb	0.25	46.8	mg / Kg		
	28	Zn-67		67		7.99	ppb	0.25	38.9	mg / Kg		
	29	Zn-68		68		7.92	ppb	0.25	38.6	mg / Kg		
	32	As-75		75		0.31	ppb	0.025	< 2.43	mg / Kg		
	34	Se-82		82		0.27	ppb	0.025	< 2.43	mg / Kg		
	37	Sr-87		87		8.78	ppb	0.025	42.7	mg / Kg		
	40	Mo-95		95		0.2	ppb	0.025	< 2.43	mg / Kg		
	41	Mo-98		98		0.19	ppb	0.025	< 2.43	mg / Kg		
	43	Ag-107		107		0.03	ppb	0.025	< 2.43	mg / Kg		
	45	Ag-109		109		0.05	ppb	0.025	< 2.43	mg / Kg		
	46	Cd-111		111		0.03	ppb	0.025	< 2.43	mg / Kg		
	47	Cd-114		114		0.02	ppb	0.025	< 2.43	mg / Kg		
	50	Sn-120		120		0.23	ppb	0.025	< 2.43	mg / Kg		
	51	Sb-121		121		0.29	ppb	0.05	< 4.87	mg / Kg		
	52	Sb-123		123		-0.03	ppb	0.05	< 4.87	mg / Kg		
	53	Ba-135		135		9.56	ppb	0.025	46.5	mg / Kg		
	54	Tb-159		159		0	ppb	0.001	< 0.097	mg / Kg		
	55	Au-197		197		0.01	ppb	0.025	< 2.43	mg / Kg		
	56	Tl-205		205		-0.35	ppb	0.025	< 2.43	mg / Kg		
	59	Pb-208		208		2.76	ppb	0.025	13.4	mg / Kg		
	61	U-238		238		0.06	ppb	0.025	< 2.43	mg / Kg		

FRAC M021282-016

Assaigai Analytical Laboratories, Inc.

Analytical Result Summary

0209364-07A

Run Group	MT.20021118	24
Calc Method	6020	
Prep Method	MS3050	
Prep Matrix	SOLID	

		By	Dilution
Prepared	09-23-02 8:08:00	JRE	0.999
Analyzed	09-25-02 20:02:00	JWB	100
Calibration	09-25-02 17:15:00		
Quant	09-25-02 20:09:00		025SMPL.D#

r	C#	Analyte	QMass	m	Raw Quant	As	MRL	Report	As	Qual	f
	3	Be-9	9		0.11	ppb	0.025	< 2.50	mg / Kg		
	4	B-11	11		-0.98	ppb	0.15	< 15.0	mg / Kg		
	5	Na-23	23		22.82	ppb	0.5	114	mg / Kg		
	6	Mg-24	24		161.6	ppb	0.5	807	mg / Kg		
	7	Mg-25	25		159.5	ppb	0.5	797	mg / Kg		
	8	Mg-26	26		158.5	ppb	0.5	792	mg / Kg		
	9	Al-27	27		626.6	ppb	0.5	3130	mg / Kg		
	10	Si-28	28		34.13	ppb	1	170	mg / Kg		
	11	K-39	39		98.47	ppb	0.5	492	mg / Kg		
	13	Ca-43	43		146.3	ppb	0.5	731	mg / Kg		
	14	Ca-44	44		150	ppb	0.5	749	mg / Kg		
	16	Ti-47	47		79.31	ppb	0.025	396	mg / Kg		
	17	V-51	51		1.18	ppb	0.05	5.89	mg / Kg		
	18	Cr-52	52		0.52	ppb	0.05	< 5.00	mg / Kg		
	19	Cr-53	53		-19.08	ppb	0.25	< 25.0	mg / Kg		
	20	Fe-54	54		1528	ppb	0.5	7630	mg / Kg		
	21	Mn-55	55		46.57	ppb	0.025	233	mg / Kg		
x	22	Fe-57 >5x 17B	57		1631	ppb	0.5	8150	mg / Kg		
	23	Co-59	59		-0.16	ppb	0.025	< 2.50	mg / Kg		
	24	Ni-60	60		0.5	ppb	0.025	< 2.50	mg / Kg		
	25	Cu-63	63		0.45	ppb	0.025	< 2.50	mg / Kg		
	26	Cu-65	65		0.43	ppb	0.025	< 2.50	mg / Kg		
	27	Zn-66	66		7.92	ppb	0.25	39.6	mg / Kg		
	28	Zn-67	67		5.27	ppb	0.25	26.3	mg / Kg		
	29	Zn-68	68		6.62	ppb	0.25	33.1	mg / Kg		
	32	As-75	75		0.42	ppb	0.025	< 2.50	mg / Kg		
	34	Se-82	82		0.35	ppb	0.025	< 2.50	mg / Kg		
	37	Sr-87	87		4.85	ppb	0.025	24.2	mg / Kg		
	40	Mo-95	95		0.39	ppb	0.025	< 2.50	mg / Kg		
	41	Mo-98	98		0.4	ppb	0.025	< 2.50	mg / Kg		
	43	Ag-107	107		-0.03	ppb	0.025	< 2.50	mg / Kg		
	45	Ag-109	109		-0.02	ppb	0.025	< 2.50	mg / Kg		
	46	Cd-111	111		0.01	ppb	0.025	< 2.50	mg / Kg		
	47	Cd-114	114		0	ppb	0.025	< 2.50	mg / Kg		
	50	Sn-120	120		0.28	ppb	0.025	< 2.50	mg / Kg		
	51	Sb-121	121		0.29	ppb	0.05	< 5.00	mg / Kg		
	52	Sb-123	123		-0.05	ppb	0.05	< 5.00	mg / Kg		
	53	Ba-135	135		4.18	ppb	0.025	20.9	mg / Kg		
	54	Tb-159	159		0	ppb	0.001	< 0.100	mg / Kg		
	55	Au-197	197		0	ppb	0.025	< 2.50	mg / Kg		
	56	Tl-205	205		-0.37	ppb	0.025	< 2.50	mg / Kg		
	59	Pb-208	208		1.29	ppb	0.025	6.44	mg / Kg		
	61	U-238	238		0.05	ppb	0.025	< 2.50	mg / Kg		

FRAC M021282-017

Assaigai Analytical Laboratories, Inc.

Analytical Result Summary

0209364-08A

44U

Run Group	MT.2002.1118	25
Calc Method	6020	
Prep Method	MS3050	
Prep Matrix	SOLID	

		By	Dilution
Prepared	09-23-02 8:08:00	JRE	0.9425
Analyzed	09-25-02 20:11:00	JWB	100
Calibration	09-25-02 17:15:00		
Quant	09-25-02 20:18:00		026SMPL.D#

r	C#	Analyte	QMass	m	Raw Quant	As	MRL	Report	As	Qual	f
	3	Be-9	9		0.13	ppb	0.025	< 2.36	mg / Kg		
x	4	B-11	11		-0.95	ppb	0.15	< 14.1	mg / Kg		
x	5	Na-23 >5x MB	23		31.54	ppb	0.5	149	mg / Kg		
x	6	Mg-24 >5x MB	24		250	ppb	0.5	1180	mg / Kg		
	7	Mg-25	25		247.3	ppb	0.5	1160	mg / Kg		
	8	Mg-26	26		243.3	ppb	0.5	1150	mg / Kg		
	9	Al-27	27		1554	ppb	0.5	7320	mg / Kg		
	10	Si-28	28		36.84	ppb	1	174	mg / Kg		
X	11	K-39 >5x MB	39		141.9	ppb	0.5	669	mg / Kg		
x	13	Ca-43 >5x MB	43		517.2	ppb	0.5	2440	mg / Kg		
	14	Ca-44	44		517.5	ppb	0.5	2440	mg / Kg		
	16	Ti-47	47		63.18	ppb	0.025	298	mg / Kg		
x	17	V-51	51		1.79	ppb	0.05	8.44	mg / Kg		
	18	Cr-52	52		0.9	ppb	0.05	< 4.71	mg / Kg		
	19	Cr-53	53		-10.11	ppb	0.25	< 23.6	mg / Kg		
	20	Fe-54	54		2042	ppb	0.5	9620	mg / Kg		
	21	Mn-55	55		30.78	ppb	0.025	145	mg / Kg		
x	22	Fe-57 >5x MB	57		2130	ppb	0.5	10000	mg / Kg		
	23	Co-59	59		-0.04	ppb	0.025	< 2.36	mg / Kg		
	24	Ni-60	60		0.88	ppb	0.025	4.15	mg / Kg		
	25	Cu-63	63		0.9	ppb	0.025	4.24	mg / Kg		
	26	Cu-65	65		0.88	ppb	0.025	4.15	mg / Kg		
	27	Zn-66	66		14.93	ppb	0.25	70.4	mg / Kg		
	28	Zn-67	67		13.44	ppb	0.25	63.3	mg / Kg		
	29	Zn-68	68		13.23	ppb	0.25	62.3	mg / Kg		
	32	As-75	75		0.51	ppb	0.025	2.40	mg / Kg		
	34	Se-82	82		0.38	ppb	0.025	< 2.36	mg / Kg		
	37	Sr-87	87		8.42	ppb	0.025	39.7	mg / Kg		
	40	Mo-95	95		0.38	ppb	0.025	< 2.36	mg / Kg		
	41	Mo-98	98		0.38	ppb	0.025	< 2.36	mg / Kg		
	43	Ag-107	107		-0.02	ppb	0.025	< 2.36	mg / Kg		
	45	Ag-109	109		-0.01	ppb	0.025	< 2.36	mg / Kg		
	46	Cd-111	111		0.04	ppb	0.025	< 2.36	mg / Kg		
	47	Cd-114	114		0.02	ppb	0.025	< 2.36	mg / Kg		
	50	Sn-120	120		0.33	ppb	0.025	< 2.36	mg / Kg		
	51	Sb-121	121		0.29	ppb	0.05	< 4.71	mg / Kg		
	52	Sb-123	123		-0.04	ppb	0.05	< 4.71	mg / Kg		
	53	Ba-135	135		10.03	ppb	0.025	47.3	mg / Kg		
	54	Tb-159	159		0	ppb	0.001	< 0.094	mg / Kg		
	55	Au-197	197		-0.02	ppb	0.025	< 2.36	mg / Kg		
	56	Tl-205	205		-0.38	ppb	0.025	< 2.36	mg / Kg		
	59	Pb-208	208		1.23	ppb	0.025	5.80	mg / Kg		
	61	U-238	238		0.05	ppb	0.025	< 2.36	mg / Kg		

Coyote 2001: Calculation 1.0.020729144500

Report Date 9/26/2002 8:26:33 AM

FRAC M021282-018

Assaigai Analytical Laboratories, Inc.

Analytical Result Summary

0209364-09A

441

Run Group	MT.2002.1118	26
Calc Method	6020	
Prep Method	MS3050	
Prep Matrix	SOLID	

		By	Dilution
Prepared	09-23-02 8:08:00	JRE	0.9372
Analyzed	09-25-02 20:20:00	JWB	100
Calibration	09-25-02 17:15:00		
Quant	09-25-02 20:27:00		027SMPL_D#

r	C#	Analyte		QMass	m	Raw Quant	As	MRL	Report	As	Qual	f
	3	Be-9		9		0.09	ppb	0.025	< 2.34	mg / Kg		
x	4	B-11		11		-1.15	ppb	0.15	< 14.0	mg / Kg		
x	5	Na-23	>5x MB	23		20.31	ppb	0.5	95.2	mg / Kg		
x	6	Mg-24	>5x MB	24		151.3	ppb	0.5	709	mg / Kg		
	7	Mg-25		25		150.8	ppb	0.5	707	mg / Kg		
	8	Mg-26		26		151.6	ppb	0.5	710	mg / Kg		
	9	Al-27		27		681.5	ppb	0.5	3190	mg / Kg		
	10	Si-28		28		40.99	ppb	1	192	mg / Kg		
x	11	K-39	>5x MB	39		106.4	ppb	0.5	498	mg / Kg		
x	13	Ca-43	>5x MB	43		216.3	ppb	0.5	1010	mg / Kg		
	14	Ca-44		44		221.8	ppb	0.5	1040	mg / Kg		
	16	Ti-47		47		45.54	ppb	0.025	213	mg / Kg		
x	17	V-51		51		0.91	ppb	0.05	< 4.69	mg / Kg		
	18	Cr-52		52		3.48	ppb	0.05	16.3	mg / Kg		
	19	Cr-53		53		-9.6	ppb	0.25	< 23.4	mg / Kg		
	20	Fe-54		54		1276	ppb	0.5	5980	mg / Kg		
	21	Mn-55		55		37.57	ppb	0.025	176	mg / Kg		
x	22	Fe-57	>5x MB	57		1364	ppb	0.5	6390	mg / Kg		
	23	Co-59		59		-0.15	ppb	0.025	< 2.34	mg / Kg		
	24	Ni-60		60		0.57	ppb	0.025	2.67	mg / Kg		
	25	Cu-63		63		2.19	ppb	0.025	10.3	mg / Kg		
	26	Cu-65		65		2.24	ppb	0.025	10.5	mg / Kg		
	27	Zn-66		66		26.41	ppb	0.25	124	mg / Kg		
	28	Zn-67		67		23.22	ppb	0.25	109	mg / Kg		
	29	Zn-68		68		24.91	ppb	0.25	117	mg / Kg		
	32	As-75		75		0.36	ppb	0.025	< 2.34	mg / Kg		
	34	Se-82		82		0.13	ppb	0.025	< 2.34	mg / Kg		
	37	Sr-87		87		4.94	ppb	0.025	23.1	mg / Kg		
	40	Mo-95		95		0.4	ppb	0.025	< 2.34	mg / Kg		
	41	Mo-98		98		0.39	ppb	0.025	< 2.34	mg / Kg		
	43	Ag-107		107		0.18	ppb	0.025	< 2.34	mg / Kg		
	45	Ag-109		109		0.18	ppb	0.025	< 2.34	mg / Kg		
	46	Cd-111		111		0.07	ppb	0.025	< 2.34	mg / Kg		
	47	Cd-114		114		0.04	ppb	0.025	< 2.34	mg / Kg		
	50	Sn-120		120		0.32	ppb	0.025	< 2.34	mg / Kg		
	51	Sb-121		121		0.29	ppb	0.05	< 4.69	mg / Kg		
	52	Sb-123		123		-0.03	ppb	0.05	< 4.69	mg / Kg		
	53	Ba-135		135		5.45	ppb	0.025	25.5	mg / Kg		
	54	Tb-159		159		0	ppb	0.001	< 0.094	mg / Kg		
	55	Au-197		197		-0.04	ppb	0.025	< 2.34	mg / Kg		
	56	Tl-205		205		-0.39	ppb	0.025	< 2.34	mg / Kg		
	59	Pb-208		208		3.23	ppb	0.025	15.1	mg / Kg		
	61	U-238		238		0.08	ppb	0.025	< 2.34	mg / Kg		

FRAC M021282-019

Assaigai Analytical Laboratories, Inc.

Analytical Result Summary

0209364-10A By Dilution

Run Group	MT.2002.1118	27
Calc Method	6020	
Prep Method	MS3050	
Prep Matrix	SOLID	

Prepared	09-23-02 8:08:00	JRE	0.9506
Analyzed	09-25-02 20:29:00	JWB	100
Calibration	09-25-02 17:15:00		
Quant	09-25-02 20:36:00		028SMPL.D#

r	C#	Analyte		QMass	m	Raw Quant	As	MRL	Report	As	Qual	f
	3	Be-9		9		0.1	ppb	0.025	< 2.38	mg / Kg		
x	4	B-11		11		-0.97	ppb	0.15	< 14.2	mg / Kg		
x	5	Na-23	>5x MB	23		24.68	ppb	0.5	117	mg / Kg		
x	6	Mg-24	>5x MB	24		222	ppb	0.5	1060	mg / Kg		
	7	Mg-25		25		220	ppb	0.5	1040	mg / Kg		
	8	Mg-26		26		219.7	ppb	0.5	1040	mg / Kg		
	9	Al-27		27		1151	ppb	0.5	5470	mg / Kg		
	10	Si-28		28		52.7	ppb	1	250	mg / Kg		
x	11	K-39	>5x MB	39		221.4	ppb	0.5	1050	mg / Kg		
x	13	Ca-43	>5x MB	43		271.2	ppb	0.5	1290	mg / Kg		
	14	Ca-44		44		278.2	ppb	0.5	1320	mg / Kg		
	16	Ti-47		47		59.18	ppb	0.025	281	mg / Kg		
x	17	V-51		51		1.39	ppb	0.05	6.61	mg / Kg		
	18	Cr-52		52		2.6	ppb	0.05	12.4	mg / Kg		
	19	Cr-53		53		-10.68	ppb	0.25	< 23.8	mg / Kg		
	20	Fe-54		54		1654	ppb	0.5	7860	mg / Kg		
	21	Mn-55		55		42.54	ppb	0.025	202	mg / Kg		
x	22	Fe-57	>5x MB	57		1745	ppb	0.5	8290	mg / Kg		
	23	Co-59		59		-0.1	ppb	0.025	< 2.38	mg / Kg		
	24	Ni-60		60		0.69	ppb	0.025	3.28	mg / Kg		
	25	Cu-63		63		1.31	ppb	0.025	6.23	mg / Kg		
	26	Cu-65		65		1.31	ppb	0.025	6.23	mg / Kg		
x	27	Zn-66		66		25.58	ppb	0.25	122	mg / Kg		
	28	Zn-67		67		22.91	ppb	0.25	109	mg / Kg		
	29	Zn-68		68		23.95	ppb	0.25	114	mg / Kg		
	32	As-75		75		0.47	ppb	0.025	< 2.38	mg / Kg		
	34	Se-82		82		0.31	ppb	0.025	< 2.38	mg / Kg		
	37	Sr-87		87		7.51	ppb	0.025	35.7	mg / Kg		
	40	Mo-95		95		0.35	ppb	0.025	< 2.38	mg / Kg		
	41	Mo-98		98		0.31	ppb	0.025	< 2.38	mg / Kg		
	43	Ag-107		107		0.1	ppb	0.025	< 2.38	mg / Kg		
	45	Ag-109		109		0.1	ppb	0.025	< 2.38	mg / Kg		
	46	Cd-111		111		0.04	ppb	0.025	< 2.38	mg / Kg		
	47	Cd-114		114		0.04	ppb	0.025	< 2.38	mg / Kg		
	50	Sn-120		120		0.3	ppb	0.025	< 2.38	mg / Kg		
	51	Sb-121		121		0.27	ppb	0.05	< 4.75	mg / Kg		
	52	Sb-123		123		-0.03	ppb	0.05	< 4.75	mg / Kg		
	53	Ba-135		135		8.41	ppb	0.025	40.0	mg / Kg		
	54	Tb-159		159		0	ppb	0.001	< 0.095	mg / Kg		
	55	Au-197		197		-0.03	ppb	0.025	< 2.38	mg / Kg		
	56	Tl-205		205		-0.4	ppb	0.025	< 2.38	mg / Kg		
	59	Pb-208		208		2.53	ppb	0.025	12.0	mg / Kg		
	61	U-238		238		0.08	ppb	0.025	< 2.38	mg / Kg		

FRAC M021282-020

Assaigai Analytical Laboratories, Inc.

Analytical Result Summary

0209364-11A By 443 Dilution

Run Group	MT.2002.1118	28
Calc Method	6020	
Prep Method	MS3050	
Prep Matrix	SOLID	

Prepared	09-23-02 8:08:00	JRE	0.9699
Analyzed	09-25-02 20:38:00	JWB	100
Calibration	09-25-02 17:15:00		
Quant	09-25-02 20:45:00		029SMPL.D#

r	C#	Analyte	QMass	m	Raw Quant	As	MRL	Report	As	Qual	f
	3	Be-9	9		0.05	ppb	0.025	< 2.42	mg / Kg		
	4	B-11	11		-1.26	ppb	0.15	< 14.5	mg / Kg		
	5	Na-23	23		15.68	ppb	0.5	76.0	mg / Kg		
	6	Mg-24	24		72.48	ppb	0.5	352	mg / Kg		
	7	Mg-25	25		71.66	ppb	0.5	348	mg / Kg		
	8	Mg-26	26		71.74	ppb	0.5	348	mg / Kg		
	9	Al-27	27		272.1	ppb	0.5	1320	mg / Kg		
	10	Si-28	28		38.45	ppb	1	186	mg / Kg		
	11	K-39	39		49.67	ppb	0.5	241	mg / Kg		
	13	Ca-43	43		101.7	ppb	0.5	493	mg / Kg		
	14	Ca-44	44		101.9	ppb	0.5	494	mg / Kg		
	16	Ti-47	47		28.28	ppb	0.025	137	mg / Kg		
	17	V-51	51		0.66	ppb	0.05	< 4.85	mg / Kg		
	18	Cr-52	52		0.68	ppb	0.05	< 4.85	mg / Kg		
	19	Cr-53	53		-12.39	ppb	0.25	< 24.2	mg / Kg		
	20	Fe-54	54		716.5	ppb	0.5	3470	mg / Kg		
	21	Mn-55	55		27.99	ppb	0.025	136	mg / Kg		
	22	Fe-57	57		791.7	ppb	0.5	3840	mg / Kg		
	23	Co-59	59		-0.26	ppb	0.025	< 2.42	mg / Kg		
	24	Ni-60	60		0.23	ppb	0.025	< 2.42	mg / Kg		
	25	Cu-63	63		0.8	ppb	0.025	3.88	mg / Kg		
	26	Cu-65	65		0.8	ppb	0.025	3.88	mg / Kg		
	27	Zn-66	66		6.07	ppb	0.25	29.4	mg / Kg		
	28	Zn-67	67		3.76	ppb	0.25	< 24.2	mg / Kg		
	29	Zn-68	68		4.88	ppb	0.25	< 24.2	mg / Kg		
	32	As-75	75		0.36	ppb	0.025	< 2.42	mg / Kg		
	34	Se-82	82		0.14	ppb	0.025	< 2.42	mg / Kg		
	37	Sr-87	87		1.94	ppb	0.025	9.41	mg / Kg		
	40	Mo-95	95		0.14	ppb	0.025	< 2.42	mg / Kg		
	41	Mo-98	98		0.11	ppb	0.025	< 2.42	mg / Kg		
	43	Ag-107	107		-0.02	ppb	0.025	< 2.42	mg / Kg		
	45	Ag-109	109		0	ppb	0.025	< 2.42	mg / Kg		
	46	Cd-111	111		0	ppb	0.025	< 2.42	mg / Kg		
	47	Cd-114	114		0.01	ppb	0.025	< 2.42	mg / Kg		
	50	Sn-120	120		0.07	ppb	0.025	< 2.42	mg / Kg		
	51	Sb-121	121		0.28	ppb	0.05	< 4.85	mg / Kg		
	52	Sb-123	123		-0.06	ppb	0.05	< 4.85	mg / Kg		
	53	Ba-135	135		3.6	ppb	0.025	17.4	mg / Kg		
	54	Tb-159	159		0	ppb	0.001	< 0.097	mg / Kg		
	55	Au-197	197		-0.03	ppb	0.025	< 2.42	mg / Kg		
	56	Tl-205	205		-0.41	ppb	0.025	< 2.42	mg / Kg		
	59	Pb-208	208		0.33	ppb	0.025	< 2.42	mg / Kg		
	61	U-238	238		0.04	ppb	0.025	< 2.42	mg / Kg		

FRAC M021282-021

Assaigai Analytical Laboratories, Inc.

Analytical Result Summary

0209364-12A

Run Group	MT.2002.1118	29
Calc Method	6020	
Prep Method	MS3050	
Prep Matrix	SOLID	

		By	Dilution
Prepared	09-23-02 8:08:00	JRE	0.969
Analyzed	09-25-02 20:47:00	JWB	100
Calibration	09-25-02 17:15:00		
Quant	09-25-02 20:54:00	030SMPL.D#	

r	C#	Analyte	QMass	m	Raw Quant	As	MRL	Report	As	Qual	f
	3	Be-9	9		0.07	ppb	0.025	< 2.42	mg / Kg		
	4	B-11	11		-1.2	ppb	0.15	< 14.5	mg / Kg		
	5	Na-23	23		21.91	ppb	0.5	106	mg / Kg		
	6	Mg-24	24		144.4	ppb	0.5	700	mg / Kg		
	7	Mg-25	25		144	ppb	0.5	698	mg / Kg		
	8	Mg-26	26		142.4	ppb	0.5	690	mg / Kg		
	9	Al-27	27		516.9	ppb	0.5	2500	mg / Kg		
	10	Si-28	28		47.34	ppb	1	229	mg / Kg		
	11	K-39	39		81.39	ppb	0.5	394	mg / Kg		
	13	Ca-43	43		245.2	ppb	0.5	1190	mg / Kg		
	14	Ca-44	44		252.7	ppb	0.5	1220	mg / Kg		
	16	Ti-47	47		34.3	ppb	0.025	166	mg / Kg		
	17	V-51	51		0.78	ppb	0.05	< 4.84	mg / Kg		
	18	Cr-52	52		2.71	ppb	0.05	13.1	mg / Kg		
	19	Cr-53	53		-7.67	ppb	0.25	< 24.2	mg / Kg		
	20	Fe-54	54		987.7	ppb	0.5	4780	mg / Kg		
	21	Mn-55	55		35.24	ppb	0.025	171	mg / Kg		
	22	Fe-57	57		1061	ppb	0.5	5140	mg / Kg		
	23	Co-59	59		-0.17	ppb	0.025	< 2.42	mg / Kg		
	24	Ni-60	60		0.42	ppb	0.025	< 2.42	mg / Kg		
	25	Cu-63	63		2.88	ppb	0.025	14.0	mg / Kg		
	26	Cu-65	65		2.85	ppb	0.025	13.8	mg / Kg		
	27	Zn-66	66		7.85	ppb	0.25	38.0	mg / Kg		
	28	Zn-67	67		5.92	ppb	0.25	28.7	mg / Kg		
	29	Zn-68	68		6.58	ppb	0.25	31.9	mg / Kg		
	32	As-75	75		0.65	ppb	0.025	3.15	mg / Kg		
	34	Se-82	82		0.23	ppb	0.025	< 2.42	mg / Kg		
	37	Sr-87	87		4.06	ppb	0.025	19.7	mg / Kg		
	40	Mo-95	95		0.26	ppb	0.025	< 2.42	mg / Kg		
	41	Mo-98	98		0.24	ppb	0.025	< 2.42	mg / Kg		
	43	Ag-107	107		0.03	ppb	0.025	< 2.42	mg / Kg		
	45	Ag-109	109		0.04	ppb	0.025	< 2.42	mg / Kg		
	46	Cd-111	111		0.03	ppb	0.025	< 2.42	mg / Kg		
	47	Cd-114	114		0.02	ppb	0.025	< 2.42	mg / Kg		
	50	Sn-120	120		0.16	ppb	0.025	< 2.42	mg / Kg		
	51	Sb-121	121		0.27	ppb	0.05	< 4.84	mg / Kg		
	52	Sb-123	123		-0.05	ppb	0.05	< 4.84	mg / Kg		
	53	Ba-135	135		7.32	ppb	0.025	35.5	mg / Kg		
	54	Tb-159	159		0	ppb	0.001	< 0.097	mg / Kg		
	55	Au-197	197		-0.04	ppb	0.025	< 2.42	mg / Kg		
	56	Tl-205	205		-0.42	ppb	0.025	< 2.42	mg / Kg		
	59	Pb-208	208		1.04	ppb	0.025	5.04	mg / Kg		
	61	U-238	238		0.05	ppb	0.025	< 2.42	mg / Kg		

FRAC M021282-022

Assaigai Analytical Laboratories, Inc.

Analytical Result Summary

0209364-13A By 445 Dilution

Run Group	MT.2002.1118	30
Calc Method	6020	
Prep Method	MS3050	
Prep Matrix	SOLID	

Prepared	09-23-02 8:08:00	JRE	0.9217
Analyzed	09-25-02 20:56:00	JWB	100
Calibration	09-25-02 17:15:00		
Quant	09-25-02 21:03:00		031SMPL.D#

r	C#	Analyte	QMass	m	Raw Quant	As	MRL	Report	As	Qual	f
	3	Be-9	9		0.07	ppb	0.025	< 2.30	mg / Kg		
	4	B-11	11		-1.28	ppb	0.15	< 13.8	mg / Kg		
	5	Na-23	23		36.02	ppb	0.5	166	mg / Kg		
	6	Mg-24	24		184	ppb	0.5	848	mg / Kg		
	7	Mg-25	25		184	ppb	0.5	848	mg / Kg		
	8	Mg-26	26		184.2	ppb	0.5	849	mg / Kg		
	9	Al-27	27		1185	ppb	0.5	5460	mg / Kg		
	10	Si-28	28		53.63	ppb	1	247	mg / Kg		
	11	K-39	39		138.1	ppb	0.5	636	mg / Kg		
	13	Ca-43	43		223.2	ppb	0.5	1030	mg / Kg		
	14	Ca-44	44		227.9	ppb	0.5	1050	mg / Kg		
	16	Ti-47	47		59.68	ppb	0.025	275	mg / Kg		
	17	V-51	51		1.48	ppb	0.05	6.82	mg / Kg		
	18	Cr-52	52		0.81	ppb	0.05	< 4.61	mg / Kg		
	19	Cr-53	53		-11.86	ppb	0.25	< 23.0	mg / Kg		
	20	Fe-54	54		1555	ppb	0.5	7160	mg / Kg		
	21	Mn-55	55		41.98	ppb	0.025	193	mg / Kg		
x	22	Fe-57 >5x MB	57		1652	ppb	0.5	7610	mg / Kg		
	23	Co-59	59		0.32	ppb	0.025	< 2.30	mg / Kg		
	24	Ni-60	60		0.69	ppb	0.025	3.18	mg / Kg		
	25	Cu-63	63		0.43	ppb	0.025	< 2.30	mg / Kg		
	26	Cu-65	65		0.42	ppb	0.025	< 2.30	mg / Kg		
	27	Zn-66	66		6.32	ppb	0.25	29.1	mg / Kg		
	28	Zn-67	67		4.52	ppb	0.25	< 23.0	mg / Kg		
	29	Zn-68	68		4.61	ppb	0.25	< 23.0	mg / Kg		
	32	As-75	75		0.63	ppb	0.025	2.90	mg / Kg		
	34	Se-82	82		0.43	ppb	0.025	< 2.30	mg / Kg		
	37	Sr-87	87		7.96	ppb	0.025	36.7	mg / Kg		
	40	Mo-95	95		0.18	ppb	0.025	< 2.30	mg / Kg		
	41	Mo-98	98		0.16	ppb	0.025	< 2.30	mg / Kg		
	43	Ag-107	107		-0.02	ppb	0.025	< 2.30	mg / Kg		
	45	Ag-109	109		-0.02	ppb	0.025	< 2.30	mg / Kg		
	46	Cd-111	111		0.07	ppb	0.025	< 2.30	mg / Kg		
	47	Cd-114	114		0	ppb	0.025	< 2.30	mg / Kg		
	50	Sn-120	120		0.28	ppb	0.025	< 2.30	mg / Kg		
	51	Sb-121	121		0.27	ppb	0.05	< 4.61	mg / Kg		
	52	Sb-123	123		-0.03	ppb	0.05	< 4.61	mg / Kg		
	53	Ba-135	135		7.51	ppb	0.025	34.6	mg / Kg		
	54	Tb-159	159		0	ppb	0.001	< 0.092	mg / Kg		
	55	Au-197	197		-0.03	ppb	0.025	< 2.30	mg / Kg		
	56	Tl-205	205		-0.4	ppb	0.025	< 2.30	mg / Kg		
	59	Pb-208	208		1.49	ppb	0.025	6.87	mg / Kg		
	61	U-238	238		0.08	ppb	0.025	< 2.30	mg / Kg		

STD-CCV [STD-CCV]

Assaigai Analytical Laboratories, Inc.

Analytical Result Summary

446

Run Group	MT.2002.1118	31
Calc Method	6020	
Prep Method	LAB	
Prep Matrix	LAB	

		By	Dilution
Prepared			1
Analyzed	09-25-02 21:05:00	JWB	1
Calibration	09-25-02 17:15:00		
Quant	09-25-02 21:13:00		032CCV .D#

r	C#	Analyte	QMass	m	Raw Quant	As	MRL	Report	As	Qual	f
	3	Be-9	9		97.54	ppb	1	98	% Recovery		
	4	B-11	11		102.3	ppb	1	102	% Recovery		
	5	Na-23	23		1010	ppb	1	101	% Recovery		
	6	Mg-24	24		1023	ppb	1	102	% Recovery		
	7	Mg-25	25		1035	ppb	1	104	% Recovery		
	8	Mg-26	26		1010	ppb	1	101	% Recovery		
	9	Al-27	27		988.2	ppb	1	99	% Recovery		
	10	Si-28	28		911.8	ppb	1	91	% Recovery		
	11	K-39	39		990.9	ppb	1	99	% Recovery		
	13	Ca-43	43		992.2	ppb	1	99	% Recovery		
	14	Ca-44	44		996	ppb	1	100	% Recovery		
	16	Ti-47	47		99.95	ppb	1	100	% Recovery		
	17	V-51	51		99.28	ppb	1	99	% Recovery		
	18	Cr-52	52		99.42	ppb	1	99	% Recovery		
	19	Cr-53	53		85.23	ppb	1	85	% Recovery		x
	20	Fe-54	54		980.5	ppb	1	98	% Recovery		
	21	Mn-55	55		98.44	ppb	1	98	% Recovery		
	22	Fe-57	57		994.8	ppb	1	99	% Recovery		
	23	Co-59	59		99.67	ppb	1	100	% Recovery		
	24	Ni-60	60		98.66	ppb	1	99	% Recovery		
	25	Cu-63	63		98.66	ppb	1	99	% Recovery		
	26	Cu-65	65		100.1	ppb	1	100	% Recovery		
	27	Zn-66	66		100.7	ppb	1	101	% Recovery		
	28	Zn-67	67		97.78	ppb	1	98	% Recovery		
	29	Zn-68	68		99.09	ppb	1	99	% Recovery		
	32	As-75	75		99.51	ppb	1	100	% Recovery		
	34	Se-82	82		100	ppb	1	100	% Recovery		
	37	Sr-87	87		99.4	ppb	1	99	% Recovery		
	40	Mo-95	95		95.31	ppb	1	95	% Recovery		
	41	Mo-98	98		95.47	ppb	1	95	% Recovery		
	43	Ag-107	107		98.36	ppb	1	98	% Recovery		
	45	Ag-109	109		98.39	ppb	1	98	% Recovery		
	46	Cd-111	111		98.33	ppb	1	98	% Recovery		
	47	Cd-114	114		98.68	ppb	1	99	% Recovery		
	50	Sn-120	120		98.51	ppb	1	98	% Recovery		
	51	Sb-121	121		98.77	ppb	1	99	% Recovery		
	52	Sb-123	123		98.4	ppb	1	98	% Recovery		
	53	Ba-135	135		98.68	ppb	1	99	% Recovery		
	54	Tb-159	159		0	ppb	1	< 1	% Recovery		x
	55	Au-197	197		94.54	ppb	1	94	% Recovery		
	56	Tl-205	205		96.12	ppb	1	96	% Recovery		
	59	Pb-208	208		98.19	ppb	1	98	% Recovery		
	61	U-238	238		98.78	ppb	1	99	% Recovery		

CB [CB]

Assaigai Analytical Laboratories, Inc.

Analytical Result Summary

447

Run Group	MT.2002.1118	32
Calc Method	6020	
Prep Method	LAB	
Prep Matrix	LAB	

		By	Dilution
Prepared			1
Analyzed	09-25-02 21:15:00	JWB	1
Calibration	09-25-02 17:15:00		
Quant	09-25-02 21:22:00	033CCB	.D#

r	C#	Analyte	QMass	m	Raw Quant	As	MRL	Report	As	Qual	f
	3	Be-9	9		0.03	ppb	0.001	< 0.001	mg / L		
	4	B-11	11		0.06	ppb	0.001	< 0.001	mg / L		
	5	Na-23	23		0.78	ppb	0.01	< 0.010	mg / L		
	6	Mg-24	24		0.01	ppb	0.01	< 0.010	mg / L		
	7	Mg-25	25		-0.02	ppb	0.01	< 0.010	mg / L		
	8	Mg-26	26		-0.1	ppb	0.01	< 0.010	mg / L		
	9	Al-27	27		0.71	ppb	0.01	< 0.010	mg / L		
	10	Si-28	28		-85.04	ppb	0.001	< 0.001	mg / L		
	11	K-39	39		-9.51	ppb	0.01	< 0.010	mg / L		
	13	Ca-43	43		-5.73	ppb	0.01	< 0.010	mg / L		
	14	Ca-44	44		-2.85	ppb	0.01	< 0.010	mg / L		
	16	Ti-47	47		0.31	ppb	0.001	< 0.001	mg / L		
	17	V-51	51		-0.09	ppb	0.001	< 0.001	mg / L		
	18	Cr-52	52		0.08	ppb	0.001	< 0.001	mg / L		
	19	Cr-53	53		-3.56	ppb	0.001	< 0.001	mg / L		
	20	Fe-54	54		-67.72	ppb	0.01	< 0.010	mg / L		
	21	Mn-55	55		-0.07	ppb	0.001	< 0.001	mg / L		
	22	Fe-57	57		-11.07	ppb	0.01	< 0.010	mg / L		
	23	Co-59	59		-0.33	ppb	0.001	< 0.001	mg / L		
	24	Ni-60	60		0	ppb	0.001	< 0.001	mg / L		
	25	Cu-63	63		-0.01	ppb	0.001	< 0.001	mg / L		
	26	Cu-65	65		-0.01	ppb	0.001	< 0.001	mg / L		
	27	Zn-66	66		-0.06	ppb	0.001	< 0.001	mg / L		
	28	Zn-67	67		-0.13	ppb	0.001	< 0.001	mg / L		
	29	Zn-68	68		-1.01	ppb	0.001	< 0.001	mg / L		
	32	As-75	75		0.17	ppb	0.001	< 0.001	mg / L		
	34	Se-82	82		0.54	ppb	0.001	< 0.001	mg / L		
	37	Sr-87	87		0.03	ppb	0.001	< 0.001	mg / L		
	40	Mo-95	95		0.23	ppb	0.001	< 0.001	mg / L		
	41	Mo-98	98		0.24	ppb	0.001	< 0.001	mg / L		
	43	Ag-107	107		0.03	ppb	0.001	< 0.001	mg / L		
	45	Ag-109	109		0.04	ppb	0.001	< 0.001	mg / L		
	46	Cd-111	111		0.01	ppb	0.001	< 0.001	mg / L		
	47	Cd-114	114		0.05	ppb	0.001	< 0.001	mg / L		
	50	Sn-120	120		-0.04	ppb	0.001	< 0.001	mg / L		
	51	Sb-121	121		0.39	ppb	0.001	< 0.001	mg / L		
	52	Sb-123	123		0.07	ppb	0.001	< 0.001	mg / L		
	53	Ba-135	135		0.03	ppb	0.001	< 0.001	mg / L		
	54	Tb-159	159		0	ppb	0.001	< 0.001	mg / L		
	55	Au-197	197		0.4	ppb	0.001	< 0.001	mg / L		
	56	Tl-205	205		0.1	ppb	0.001	< 0.001	mg / L		
	59	Pb-208	208		-0.32	ppb	0.001	< 0.001	mg / L		
	61	U-238	238		0.04	ppb	0.001	< 0.001	mg / L		

FRAC M021282-023

Assaigai Analytical Laboratories, Inc.

Analytical Result Summary

0209364-14A

440

Run Group	MT.2002.1118	33	Prepared	09-23-02 8:08:00	JRE	0.9479
Calc Method	6020		Analyzed	09-25-02 21:24:00	JWB	100
Prep Method	MS3050		Calibration	09-25-02 17:15:00		
Prep Matrix	SOLID		Quant	09-25-02 21:31:00		034SMPL.D#

r	C#	Analyte	QMass	m	Raw Quant	As	MRL	Report	As	Qual	f
	3	Be-9	9		0.12	ppb	0.025	< 2.37	mg / Kg		
	4	B-11	11		-0.87	ppb	0.15	< 14.2	mg / Kg		
	5	Na-23	23		23.51	ppb	0.5	111	mg / Kg		
	6	Mg-24	24		272.1	ppb	0.5	1290	mg / Kg		
	7	Mg-25	25		272	ppb	0.5	1290	mg / Kg		
	8	Mg-26	26		274.2	ppb	0.5	1300	mg / Kg		
	9	Al-27	27		1698	ppb	0.5	8050	mg / Kg		
	10	Si-28	28		31.95	ppb	1	151	mg / Kg		
	11	K-39	39		172.2	ppb	0.5	816	mg / Kg		
	13	Ca-43	43		308.6	ppb	0.5	1460	mg / Kg		
	14	Ca-44	44		311.6	ppb	0.5	1480	mg / Kg		
	16	Ti-47	47		53.13	ppb	0.025	252	mg / Kg		
	17	V-51	51		2.1	ppb	0.05	9.95	mg / Kg		
	18	Cr-52	52		8.09	ppb	0.05	38.3	mg / Kg		
	19	Cr-53	53		-8.32	ppb	0.25	< 23.7	mg / Kg		
	20	Fe-54	54		1904	ppb	0.5	9020	mg / Kg		
	21	Mn-55	55		40.47	ppb	0.025	192	mg / Kg		
x	22	Fe-57 >5x MB	57		2020	ppb	0.5	9570	mg / Kg		
	23	Co-59	59		0.14	ppb	0.025	< 2.37	mg / Kg		
	24	Ni-60	60		0.94	ppb	0.025	4.45	mg / Kg		
	25	Cu-63	63		1.67	ppb	0.025	7.91	mg / Kg		
	26	Cu-65	65		1.65	ppb	0.025	7.82	mg / Kg		
	27	Zn-66	66		10.78	ppb	0.25	51.1	mg / Kg		
	28	Zn-67	67		9.39	ppb	0.25	44.5	mg / Kg		
	29	Zn-68	68		8.92	ppb	0.25	42.3	mg / Kg		
	32	As-75	75		0.53	ppb	0.025	2.51	mg / Kg		
	34	Se-82	82		0.21	ppb	0.025	< 2.37	mg / Kg		
	37	Sr-87	87		11.14	ppb	0.025	52.8	mg / Kg		
	40	Mo-95	95		0.26	ppb	0.025	< 2.37	mg / Kg		
	41	Mo-98	98		0.25	ppb	0.025	< 2.37	mg / Kg		
	43	Ag-107	107		0.26	ppb	0.025	< 2.37	mg / Kg		
	45	Ag-109	109		0.29	ppb	0.025	< 2.37	mg / Kg		
	46	Cd-111	111		0.08	ppb	0.025	< 2.37	mg / Kg		
	47	Cd-114	114		0.08	ppb	0.025	< 2.37	mg / Kg		
	50	Sn-120	120		0.42	ppb	0.025	< 2.37	mg / Kg		
	51	Sb-121	121		0.29	ppb	0.05	< 4.74	mg / Kg		
	52	Sb-123	123		-0.01	ppb	0.05	< 4.74	mg / Kg		
	53	Ba-135	135		11.66	ppb	0.025	55.3	mg / Kg		
	54	Tb-159	159		0	ppb	0.001	< 0.095	mg / Kg		
	55	Au-197	197		0.09	ppb	0.025	< 2.37	mg / Kg		
	56	Tl-205	205		-0.26	ppb	0.025	< 2.37	mg / Kg		
	59	Pb-208	208		2.59	ppb	0.025	12.3	mg / Kg		
	61	U-238	238		0.13	ppb	0.025	< 2.37	mg / Kg		

FRAC M021282-024

Assaigai Analytical Laboratories, Inc.

Analytical Result Summary

0209364-15A By 449

Run Group	MT.2002.1118	34
Calc Method	6020	
Prep Method	MS3050	
Prep Matrix	SOLID	

Prepared	09-23-02 8:08:00	JRE	0.947
Analyzed	09-25-02 21:33:00	JWB	100
Calibration	09-25-02 17:15:00		
Quant	09-25-02 21:40:00	035SMPL.D#	

r	C#	Analyte	QMass	m	Raw Quant	As	MRL	Report	As	Qual	f
	3	Be-9	9		0.09	ppb	0.025	< 2.37	mg / Kg		
	4	B-11	11		-1.09	ppb	0.15	< 14.2	mg / Kg		
	5	Na-23	23		30.7	ppb	0.5	145	mg / Kg		
	6	Mg-24	24		138.7	ppb	0.5	657	mg / Kg		
	7	Mg-25	25		136.9	ppb	0.5	648	mg / Kg		
	8	Mg-26	26		135.4	ppb	0.5	641	mg / Kg		
	9	Al-27	27		931	ppb	0.5	4410	mg / Kg		
	10	Si-28	28		55.27	ppb	1	262	mg / Kg		
	11	K-39	39		111.2	ppb	0.5	526	mg / Kg		
	13	Ca-43	43		188	ppb	0.5	890	mg / Kg		
	14	Ca-44	44		182.5	ppb	0.5	864	mg / Kg		
	16	Ti-47	47		33.28	ppb	0.025	158	mg / Kg		
	17	V-51	51		0.82	ppb	0.05	< 4.74	mg / Kg		
	18	Cr-52	52		0.15	ppb	0.05	< 4.74	mg / Kg		
	19	Cr-53	53		-17.95	ppb	0.25	< 23.7	mg / Kg		
	20	Fe-54	54		1186	ppb	0.5	5620	mg / Kg		
	21	Mn-55	55		33.77	ppb	0.025	160	mg / Kg		
x	22	Fe-57 >5x MB	57		1283	ppb	0.5	6070	mg / Kg		
	23	Co-59	59		-0.2	ppb	0.025	< 2.37	mg / Kg		
	24	Ni-60	60		0.42	ppb	0.025	< 2.37	mg / Kg		
	25	Cu-63	63		0.4	ppb	0.025	< 2.37	mg / Kg		
	26	Cu-65	65		0.43	ppb	0.025	< 2.37	mg / Kg		
	27	Zn-66	66		6.92	ppb	0.25	32.8	mg / Kg		
	28	Zn-67	67		4.93	ppb	0.25	< 23.7	mg / Kg		
	29	Zn-68	68		5.46	ppb	0.25	25.8	mg / Kg		
	32	As-75	75		0.34	ppb	0.025	< 2.37	mg / Kg		
	34	Se-82	82		0.37	ppb	0.025	< 2.37	mg / Kg		
	37	Sr-87	87		7.05	ppb	0.025	33.4	mg / Kg		
	40	Mo-95	95		0.27	ppb	0.025	< 2.37	mg / Kg		
	41	Mo-98	98		0.25	ppb	0.025	< 2.37	mg / Kg		
	43	Ag-107	107		-0.03	ppb	0.025	< 2.37	mg / Kg		
	45	Ag-109	109		-0.02	ppb	0.025	< 2.37	mg / Kg		
	46	Cd-111	111		0.04	ppb	0.025	< 2.37	mg / Kg		
	47	Cd-114	114		0.02	ppb	0.025	< 2.37	mg / Kg		
	50	Sn-120	120		0.25	ppb	0.025	< 2.37	mg / Kg		
	51	Sb-121	121		0.3	ppb	0.05	< 4.74	mg / Kg		
	52	Sb-123	123		-0.03	ppb	0.05	< 4.74	mg / Kg		
	53	Ba-135	135		6.18	ppb	0.025	29.3	mg / Kg		
	54	Tb-159	159		0	ppb	0.001	< 0.095	mg / Kg		
	55	Au-197	197		0.03	ppb	0.025	< 2.37	mg / Kg		
	56	Tl-205	205		-0.32	ppb	0.025	< 2.37	mg / Kg		
	59	Pb-208	208		1.63	ppb	0.025	7.72	mg / Kg		
	61	U-238	238		0.07	ppb	0.025	< 2.37	mg / Kg		

FRAC M021282-025

Assaigai Analytical Laboratories, Inc.

Analytical Result Summary

0209364-16A

450

Run Group	MT.20021118	35	Prepared	09-23-02 8:08:00	JRE	0.9747
Calc Method	6020		Analyzed	09-25-02 21:42:00	JWB	100
Prep Method	MS3050		Calibration	09-25-02 17:15:00		
Prep Matrix	SOLID		Quant	09-25-02 21:49:00		036SMPL.D#

By Dilution

r	C#	Analyte	QMass	m	Raw Quant	As	MRL	Report	As	Qual	f
	3	Be-9	9		0.09	ppb	0.025	< 2.44	mg / Kg		
	4	B-11	11		-1.1	ppb	0.15	< 14.6	mg / Kg		
	5	Na-23	23		27.72	ppb	0.5	135	mg / Kg		
	6	Mg-24	24		132.8	ppb	0.5	647	mg / Kg		
	7	Mg-25	25		132.4	ppb	0.5	645	mg / Kg		
	8	Mg-26	26		132.5	ppb	0.5	646	mg / Kg		
	9	Al-27	27		1007	ppb	0.5	4910	mg / Kg		
	10	Si-28	28		61.67	ppb	1	300	mg / Kg		
	11	K-39	39		116.1	ppb	0.5	566	mg / Kg		
	13	Ca-43	43		196	ppb	0.5	955	mg / Kg		
	14	Ca-44	44		197.4	ppb	0.5	962	mg / Kg		
	16	Ti-47	47		28.51	ppb	0.025	139	mg / Kg		
	17	V-51	51		0.57	ppb	0.05	< 4.87	mg / Kg		
	18	Cr-52	52		0.02	ppb	0.05	< 4.87	mg / Kg		
	19	Cr-53	53		-19.64	ppb	0.25	< 24.4	mg / Kg		
	20	Fe-54	54		1050	ppb	0.5	5120	mg / Kg		
	21	Mn-55	55		34.06	ppb	0.025	166	mg / Kg		
x	22	Fe-57 >5x MB	57		1139	ppb	0.5	5550	mg / Kg		
	23	Co-59	59		-0.15	ppb	0.025	< 2.44	mg / Kg		
	24	Ni-60	60		0.46	ppb	0.025	< 2.44	mg / Kg		
	25	Cu-63	63		0.4	ppb	0.025	< 2.44	mg / Kg		
	26	Cu-65	65		0.42	ppb	0.025	< 2.44	mg / Kg		
	27	Zn-66	66		5.85	ppb	0.25	28.5	mg / Kg		
	28	Zn-67	67		3.9	ppb	0.25	< 24.4	mg / Kg		
	29	Zn-68	68		4.4	ppb	0.25	< 24.4	mg / Kg		
	32	As-75	75		0.32	ppb	0.025	< 2.44	mg / Kg		
	34	Se-82	82		0.28	ppb	0.025	< 2.44	mg / Kg		
	37	Sr-87	87		6.97	ppb	0.025	34.0	mg / Kg		
	40	Mo-95	95		0.19	ppb	0.025	< 2.44	mg / Kg		
	41	Mo-98	98		0.18	ppb	0.025	< 2.44	mg / Kg		
	43	Ag-107	107		-0.04	ppb	0.025	< 2.44	mg / Kg		
	45	Ag-109	109		-0.03	ppb	0.025	< 2.44	mg / Kg		
	46	Cd-111	111		0	ppb	0.025	< 2.44	mg / Kg		
	47	Cd-114	114		0.01	ppb	0.025	< 2.44	mg / Kg		
	50	Sn-120	120		0.29	ppb	0.025	< 2.44	mg / Kg		
	51	Sb-121	121		0.28	ppb	0.05	< 4.87	mg / Kg		
	52	Sb-123	123		-0.04	ppb	0.05	< 4.87	mg / Kg		
	53	Ba-135	135		6.67	ppb	0.025	32.5	mg / Kg		
	54	Tb-159	159		0	ppb	0.001	< 0.097	mg / Kg		
	55	Au-197	197		0.01	ppb	0.025	< 2.44	mg / Kg		
	56	Tl-205	205		-0.36	ppb	0.025	< 2.44	mg / Kg		
	59	Pb-208	208		1.46	ppb	0.025	7.12	mg / Kg		
	61	U-238	238		0.06	ppb	0.025	< 2.44	mg / Kg		

FRAC M021282-026

Assaigai Analytical Laboratories, Inc.

Analytical Result Summary

0209364-17A By Dilution 451

Run Group	MT.20021118	36
Calc Method	6020	
Prep Method	MS3050	
Prep Matrix	SOLID	

Prepared	09-23-02 8:08:00	JRE	0.9355
Analyzed	09-25-02 21:51:00	JWB	100
Calibration	09-25-02 17:15:00		
Quant	09-25-02 21:58:00		037SMPL.D#

r	C#	Analyte	QMass	m	Raw Quant	As	MRL	Report	As	Qual	f
	3	Be-9	9		0.1	ppb	0.025	< 2.34	mg / Kg		
X	4	B-11	11		-1.05	ppb	0.15	< 14.0	mg / Kg		
	5	Na-23	23		25.48	ppb	0.5	119	mg / Kg		
	6	Mg-24	24		255.7	ppb	0.5	1200	mg / Kg		
	7	Mg-25	25		251.5	ppb	0.5	1180	mg / Kg		
	8	Mg-26	26		250.3	ppb	0.5	1170	mg / Kg		
	9	Al-27	27		1589	ppb	0.5	7430	mg / Kg		
	10	Si-28	28		163.7	ppb	1	766	mg / Kg		
	11	K-39	39		206.9	ppb	0.5	968	mg / Kg		
	13	Ca-43	43		437.3	ppb	0.5	2040	mg / Kg		
	14	Ca-44	44		431.5	ppb	0.5	2020	mg / Kg		
	16	Ti-47	47		29.36	ppb	0.025	137	mg / Kg		
	17	V-51	51		1.2	ppb	0.05	5.61	mg / Kg		
	18	Cr-52	52		0.67	ppb	0.05	< 4.68	mg / Kg		
	19	Cr-53	53		-17.78	ppb	0.25	< 23.4	mg / Kg		
	20	Fe-54	54		1076	ppb	0.5	5030	mg / Kg		
	21	Mn-55	55		28.22	ppb	0.025	132	mg / Kg		
x	22	Fe-57 >5x MB	57		1168	ppb	0.5	5460	mg / Kg		
	23	Co-59	59		0	ppb	0.025	< 2.34	mg / Kg		
	24	Ni-60	60		0.77	ppb	0.025	3.60	mg / Kg		
	25	Cu-63	63		0.74	ppb	0.025	3.46	mg / Kg		
	26	Cu-65	65		0.77	ppb	0.025	3.60	mg / Kg		
	27	Zn-66	66		5.19	ppb	0.25	24.3	mg / Kg		
	28	Zn-67	67		3.94	ppb	0.25	< 23.4	mg / Kg		
	29	Zn-68	68		3.5	ppb	0.25	< 23.4	mg / Kg		
	32	As-75	75		0.13	ppb	0.025	< 2.34	mg / Kg		
	34	Se-82	82		0.29	ppb	0.025	< 2.34	mg / Kg		
	37	Sr-87	87		11.46	ppb	0.025	53.6	mg / Kg		
	40	Mo-95	95		0.07	ppb	0.025	< 2.34	mg / Kg		
	41	Mo-98	98		0.07	ppb	0.025	< 2.34	mg / Kg		
	43	Ag-107	107		-0.02	ppb	0.025	< 2.34	mg / Kg		
	45	Ag-109	109		-0.01	ppb	0.025	< 2.34	mg / Kg		
	46	Cd-111	111		0.02	ppb	0.025	< 2.34	mg / Kg		
	47	Cd-114	114		0	ppb	0.025	< 2.34	mg / Kg		
	50	Sn-120	120		0.11	ppb	0.025	< 2.34	mg / Kg		
	51	Sb-121	121		0.28	ppb	0.05	< 4.68	mg / Kg		
	52	Sb-123	123		-0.03	ppb	0.05	< 4.68	mg / Kg		
	53	Ba-135	135		11.65	ppb	0.025	54.5	mg / Kg		
	54	Tb-159	159		0	ppb	0.001	< 0.094	mg / Kg		
	55	Au-197	197		-0.07	ppb	0.025	< 2.34	mg / Kg		
	56	Tl-205	205		-0.38	ppb	0.025	< 2.34	mg / Kg		
	59	Pb-208	208		1.59	ppb	0.025	7.44	mg / Kg		
	61	U-238	238		0.09	ppb	0.025	< 2.34	mg / Kg		

M M021282-006

Assaigai Analytical Laboratories, Inc.

Analytical Result Summary

0209364-01A[M] By 452 Dilution

Run Group	MT.20021118	37
Calc Method	6020	
Prep Method	MS3050	
Prep Matrix	SOLID	

Prepared	09-23-02 8:08:00	JRE	0.994
Analyzed	09-25-02 22:00:00	JWB	10
Calibration	09-25-02 17:15:00		
Quant	09-25-02 22:07:00		038SMPL.D#

r	C#	Analyte	QMass	m	Raw Quant	As	MRL	Report	As	Qual	f
	3	Be-9	9		0.71	ppb	0.025	0.353	mg / Kg		
x	4	B-11	11		2.19	ppb	0.15	< 1.49	mg / Kg		
x	5	Na-23 >5x MB	23		251.4	ppb	0.5	125	mg / Kg		
x	6	Mg-24 >5x MB	24		2818	ppb	0.5	1400	mg / Kg		
	7	Mg-25	25		2808	ppb	0.5	1400	mg / Kg		
	8	Mg-26	26		2788	ppb	0.5	1380	mg / Kg		
	9	Al-27	27		10470	ppb	0.5	5200	mg / Kg		
	10	Si-28	28		539.2	ppb	1	268	mg / Kg		
x	11	K-39 >5x MB	39		1559	ppb	0.5	775	mg / Kg		
x	13	Ca-43 >5x MB	43		5573	ppb	0.5	2770	mg / Kg		
	14	Ca-44	44		5505	ppb	0.5	2740	mg / Kg		
	16	Ti-47	47		395.1	ppb	0.025	196	mg / Kg		x
x	17	V-51	51		18.97	ppb	0.05	9.43	mg / Kg		
	18	Cr-52	52		266.8	ppb	0.05	133	mg / Kg		x
	19	Cr-53	53		274.9	ppb	0.25	137	mg / Kg		x
	20	Fe-54	54		12930	ppb	0.5	6430	mg / Kg		x
	21	Mn-55	55		371.5	ppb	0.025	185	mg / Kg		x
	22	Fe-57	57		13210	ppb	0.5	6560	mg / Kg		x
	23	Co-59	59		3.35	ppb	0.025	1.66	mg / Kg		
	24	Ni-60	60		9.01	ppb	0.025	4.48	mg / Kg		
	25	Cu-63	63		44.36	ppb	0.025	22.0	mg / Kg		
	26	Cu-65	65		45.16	ppb	0.025	22.4	mg / Kg		
x	27	Zn-66	66		169.3	ppb	0.25	84.1	mg / Kg		
	28	Zn-67	67		167.6	ppb	0.25	83.3	mg / Kg		
	29	Zn-68	68		163.7	ppb	0.25	81.4	mg / Kg		
	32	As-75	75		7.5	ppb	0.025	3.73	mg / Kg		
	34	Se-82	82		0.98	ppb	0.025	0.487	mg / Kg		
	37	Sr-87	87		89.7	ppb	0.025	44.6	mg / Kg		
	40	Mo-95	95		1.14	ppb	0.025	0.567	mg / Kg		
	41	Mo-98	98		1.12	ppb	0.025	0.557	mg / Kg		
	43	Ag-107	107		11.28	ppb	0.025	5.61	mg / Kg		
	45	Ag-109	109		11.24	ppb	0.025	5.59	mg / Kg		
	46	Cd-111	111		1.08	ppb	0.025	0.537	mg / Kg		
	47	Cd-114	114		1.01	ppb	0.025	0.502	mg / Kg		
	50	Sn-120	120		7.94	ppb	0.025	3.95	mg / Kg		
	51	Sb-121	121		0.33	ppb	0.05	< 0.497	mg / Kg		
	52	Sb-123	123		0.03	ppb	0.05	< 0.497	mg / Kg		
	53	Ba-135	135		164.5	ppb	0.025	81.8	mg / Kg		
	54	Tb-159	159		0	ppb	0.001	< 0.010	mg / Kg		
	55	Au-197	197		0.11	ppb	0.025	< 0.248	mg / Kg		
	56	Tl-205	205		-0.25	ppb	0.025	< 0.248	mg / Kg		
	59	Pb-208	208		36.71	ppb	0.025	18.2	mg / Kg		
	61	U-238	238		2.45	ppb	0.025	1.22	mg / Kg		

MS M021282-007

Assaigai Analytical Laboratories, Inc.

Analytical Result Summary

0209364-01A[MS]

Run Group	MT.20021118	38
Calc Method	6020	
Prep Method	MS3050	
Prep Matrix	SOLID	

		By	Dilution
Prepared	09-23-02 8:08:00	JRE	0.9346
Analyzed	09-25-02 22:09:00	JWB	10
Calibration	09-25-02 17:15:00		
Quant	09-25-02 22:17:00		039SMPL.D#

r	C#	Analyte	QMass	m	Raw Quant	As	MRL	Report	As	Qual	f
	3	Be-9	9		11.1	ppb	1	103	% Recovery		
x	4	B-11	11		13.43	ppb	1	111	% Recovery		
x	5	Na-23	23		395.7	ppb	1	128	% Recovery		x
x	6	Mg-24	24		3793	ppb	1	796	% Recovery		x
	7	Mg-25	25		3886	ppb	1	899	% Recovery		x
	8	Mg-26	26		3715	ppb	1	750	% Recovery		x
	9	Al-27	27		13410	ppb	1	2270	% Recovery		x
	10	Si-28	28		635.5	ppb	1	62	% Recovery		x
x	11	K-39	39		2325	ppb	1	667	% Recovery		x
x	13	Ca-43	43		6210	ppb	1	282	% Recovery		x
	14	Ca-44	44		6095	ppb	1	240	% Recovery		x
	16	Ti-47	47		554.1	ppb	1	1340	% Recovery		x
x	17	V-51	51		31.47	ppb	1	113	% Recovery		
	18	Cr-52	52		303.7	ppb	1	199	% Recovery		x
	19	Cr-53	53		308.5	ppb	1	161	% Recovery		x
	20	Fe-54	54		16130	ppb	1	2380	% Recovery		x
	21	Mn-55	55		369	ppb	1	< 1	% Recovery		x
	22	Fe-57	57		16040	ppb	1	1990	% Recovery		x
	23	Co-59	59		13.39	ppb	1	98	% Recovery		
	24	Ni-60	60		19.42	ppb	1	98	% Recovery		
	25	Cu-63	63		58.66	ppb	1	115	% Recovery		
	26	Cu-65	65		59.67	ppb	1	116	% Recovery		
x	27	Zn-66	66		196.7	ppb	1	166	% Recovery		x
	28	Zn-67	67		195.3	ppb	1	170	% Recovery		x
	29	Zn-68	68		190.4	ppb	1	163	% Recovery		x
	32	As-75	75		17.41	ppb	1	94	% Recovery		
	34	Se-82	82		10.89	ppb	1	98	% Recovery		
	37	Sr-87	87		124.4	ppb	1	290	% Recovery		x
	40	Mo-95	95		10.72	ppb	1	95	% Recovery		
	41	Mo-98	98		10.7	ppb	1	95	% Recovery		
	43	Ag-107	107		20.65	ppb	1	86	% Recovery		
	45	Ag-109	109		20.5	ppb	1	85	% Recovery		
	46	Cd-111	111		11.11	ppb	1	100	% Recovery		
	47	Cd-114	114		11.13	ppb	1	100	% Recovery		
	50	Sn-120	120		19.02	ppb	1	106	% Recovery		
	51	Sb-121	121		3.98	ppb	1	36	% Recovery		x
	52	Sb-123	123		3.55	ppb	1	35	% Recovery		x
	53	Ba-135	135		191.5	ppb	1	165	% Recovery		x
	54	Tb-159	159		0	ppb	1	< 1	% Recovery		x
	55	Au-197	197		8.69	ppb	1	86	% Recovery		
	56	Tl-205	205		9.19	ppb	1	92	% Recovery		
	59	Pb-208	208		48.14	ppb	1	91	% Recovery		
	61	U-238	238		12.18	ppb	1	96	% Recovery		

(5) *Na, Mg, K, Ca + Zn fail due to the high sample concentration relative to the spike value. SB 9/26/02

MSDD M021282-008

Assaigai Analytical Laboratories, Inc.

Analytical Result Summary

0209364-01A[MSD] By 454 Dilution

Run Group	MT.20021118	39
Calc Method	6020	
Prep Method	MS3050	
Prep Matrix	SOLID	

Prepared	09-23-02 8:08:00	JRE	0.9662
Analyzed	09-25-02 22:19:00	JWB	10
Calibration	09-25-02 17:15:00		
Quant	09-25-02 22:26:00		040SMPL.D#

r	C#	Analyte	QMass	m	Raw Quant	As	MRL	Report	As	Qual	f
	3	Be-9	9		10.99	ppb	1	< 1	RPD		
x	4	B-11	11		12.62	ppb	1	7	RPD		
x	5	Na-23	23		379.4	ppb	1	6	RPD		
x	6	Mg-24	24		3343	ppb	1	57	RPD		x
	7	Mg-25	25		3329	ppb	1	68	RPD		x
	8	Mg-26	26		3195	ppb	1	79	RPD		x
	9	Al-27	27		11750	ppb	1	80	RPD		x
	10	Si-28	28		602.4	ppb	1	26	RPD		x
x	11	K-39	39		2039	ppb	1	42	RPD		x
x	13	Ca-43	43		5617	ppb	1	481	RPD		x
	14	Ca-44	44		5591	ppb	1	374	RPD		x
	16	Ti-47	47		529.9	ppb	1	8	RPD		x
x	17	V-51	51		27.73	ppb	1	32	RPD		x
	18	Cr-52	52		302.6	ppb	1	34	RPD		x
	19	Cr-53	53		316.3	ppb	1	70	RPD		x
	20	Fe-54	54		14470	ppb	1	68	RPD		x
	21	Mn-55	55		404.2	ppb	1	2320	RPD		x
	22	Fe-57	57		14890	ppb	1	42	RPD		x
	23	Co-59	59		13.12	ppb	1	2	RPD		
	24	Ni-60	60		18.93	ppb	1	2	RPD		
	25	Cu-63	63		56.92	ppb	1	2	RPD		
	26	Cu-65	65		57.72	ppb	1	3	RPD		
x	27	Zn-66	66		205.3	ppb	1	61	RPD		x
	28	Zn-67	67		201.2	ppb	1	51	RPD		x
	29	Zn-68	68		198.1	ppb	1	58	RPD		x
	32	As-75	75		15.39	ppb	1	20	RPD		
	34	Se-82	82		10.82	ppb	1	< 1	RPD		
	37	Sr-87	87		115	ppb	1	24	RPD		x
	40	Mo-95	95		10.9	ppb	1	2	RPD		
	41	Mo-98	98		10.85	ppb	1	2	RPD		
	43	Ag-107	107		20.72	ppb	1	5	RPD		
	45	Ag-109	109		20.8	ppb	1	8	RPD		
	46	Cd-111	111		11.12	ppb	1	< 1	RPD		
	47	Cd-114	114		11.06	ppb	1	< 1	RPD		
	50	Sn-120	120		21.14	ppb	1	20	RPD		
	51	Sb-121	121		4.12	ppb	1	4	RPD		
	52	Sb-123	123		3.99	ppb	1	12	RPD		
	53	Ba-135	135		172.2	ppb	1	139	RPD		x
	54	Tb-159	159		0	ppb	1	NA	RPD		
	55	Au-197	197		9	ppb	1	4	RPD		
	56	Tl-205	205		9.01	ppb	1	2	RPD		
	59	Pb-208	208		50	ppb	1	29	RPD		x
	61	U-238	238		12.49	ppb	1	4	RPD		

(2) gB 9/26/02

MSDS M021282-008

Assaigai Analytical Laboratories, Inc.

Analytical Result Summary

0209364-01A[MSD] By Dilution 455

Run Group	MT.2002.1118	39
Calc Method	6020	
Prep Method	MS3050	
Prep Matrix	SOLID	

Prepared	09-23-02 8:08:00	JRE	0.9662
Analyzed	09-25-02 22:19:00	JWB	10
Calibration	09-25-02 17:15:00		
Quant	09-25-02 22:26:00		040SMPL.D#

r	C#	Analyte	QMass	m	Raw Quant	As	MRL	Report	As	Qual	f
	3	Be-9	9		10.99	ppb	1	102	% Recovery		
x	4	B-11	11		12.62	ppb	1	104	% Recovery		
x	5	Na-23	23		379.4	ppb	1	121	% Recovery		x
x	6	Mg-24	24		3343	ppb	1	444	% Recovery		x
	7	Mg-25	25		3329	ppb	1	440	% Recovery		x
	8	Mg-26	26		3195	ppb	1	327	% Recovery		x
	9	Al-27	27		11750	ppb	1	978	% Recovery		x
	10	Si-28	28		602.4	ppb	1	48	% Recovery		x
x	11	K-39	39		2039	ppb	1	435	% Recovery		x
x	13	Ca-43	43		5617	ppb	1	< 1	% Recovery		x
	14	Ca-44	44		5591	ppb	1	< 1	% Recovery		x
	16	Ti-47	47		529.9	ppb	1	1230	% Recovery		x
x	17	V-51	51		27.73	ppb	1	82	% Recovery		
	18	Cr-52	52		302.6	ppb	1	281	% Recovery		x
	19	Cr-53	53		316.3	ppb	1	335	% Recovery		x
	20	Fe-54	54		14470	ppb	1	1170	% Recovery		x
	21	Mn-55	55		404.2	ppb	1	220	% Recovery		x
	22	Fe-57	57		14890	ppb	1	1300	% Recovery		x
	23	Co-59	59		13.12	ppb	1	97	% Recovery		
	24	Ni-60	60		18.93	ppb	1	97	% Recovery		
	25	Cu-63	63		56.92	ppb	1	113	% Recovery		
	26	Cu-65	65		57.72	ppb	1	112	% Recovery		
x	27	Zn-66	66		205.3	ppb	1	311	% Recovery		x
	28	Zn-67	67		201.2	ppb	1	288	% Recovery		x
	29	Zn-68	68		198.1	ppb	1	297	% Recovery		x
	32	As-75	75		15.39	ppb	1	77	% Recovery		x
	34	Se-82	82		10.82	ppb	1	98	% Recovery		
	37	Sr-87	87		115	ppb	1	227	% Recovery		x
	40	Mo-95	95		10.9	ppb	1	97	% Recovery		
	41	Mo-98	98		10.85	ppb	1	97	% Recovery		
	43	Ag-107	107		20.72	ppb	1	91	% Recovery		
	45	Ag-109	109		20.8	ppb	1	92	% Recovery		
	46	Cd-111	111		11.12	ppb	1	100	% Recovery		
	47	Cd-114	114		11.06	ppb	1	100	% Recovery		
	50	Sn-120	120		21.14	ppb	1	130	% Recovery		x
	51	Sb-121	121		4.12	ppb	1	38	% Recovery		x
	52	Sb-123	123		3.99	ppb	1	40	% Recovery		x
	53	Ba-135	135		172.2	ppb	1	30	% Recovery		x
	54	Tb-159	159		0	ppb	1	< 1	% Recovery		x
	55	Au-197	197		9	ppb	1	89	% Recovery		
	56	Tl-205	205		9.01	ppb	1	90	% Recovery		
	59	Pb-208	208		50	ppb	1	122	% Recovery		x
	61	U-238	238		12.49	ppb	1	100	% Recovery		

(2) JB 9/26/02

FRAC M021282-011

Assaigai Analytical Laboratories, Inc.

Analytical Result Summary

0209364-02A

456

Run Group	MT.2002.1118	40
Calc Method	6020	
Prep Method	MS3050	
Prep Matrix	SOLID	

		By	Dilution
Prepared	09-23-02 8:08:00	JRE	0.9911
Analyzed	09-25-02 22:28:00	JWB	10
Calibration	09-25-02 17:15:00		
Quant	09-25-02 22:35:00		041SMPL.D#

r	C#	Analyte		QMass	m	Raw Quant	As	MRL	Report	As	Qual	f
	3	Be-9		9		0.97	ppb	0.025	0.481	mg / Kg		
x	4	B-11		11		1.44	ppb	0.15	< 1.49	mg / Kg		
x	5	Na-23	>5x MB	23		272.1	ppb	0.5	135	mg / Kg		
x	6	Mg-24	>5x MB	24		1472	ppb	0.5	729	mg / Kg		
	7	Mg-25		25		1479	ppb	0.5	733	mg / Kg		
	8	Mg-26		26		1467	ppb	0.5	727	mg / Kg		
	9	Al-27		27		10260	ppb	0.5	5080	mg / Kg		
	10	Si-28		28		387.2	ppb	1	192	mg / Kg		
x	11	K-39	>5x MB	39		1348	ppb	0.5	668	mg / Kg		
x	13	Ca-43	>5x MB	43		1905	ppb	0.5	944	mg / Kg		
	14	Ca-44		44		1891	ppb	0.5	937	mg / Kg		
	16	Ti-47		47		284.4	ppb	0.025	141	mg / Kg		x
x	17	V-51		51		9.08	ppb	0.05	4.50	mg / Kg		
	18	Cr-52		52		5.72	ppb	0.05	2.83	mg / Kg		
	19	Cr-53		53		-3.69	ppb	0.25	< 2.48	mg / Kg		
	20	Fe-54		54		11900	ppb	0.5	5900	mg / Kg		x
	21	Mn-55		55		315.4	ppb	0.025	156	mg / Kg		x
	22	Fe-57		57		12530	ppb	0.5	6210	mg / Kg		x
	23	Co-59		59		1.38	ppb	0.025	0.684	mg / Kg		
	24	Ni-60		60		4.67	ppb	0.025	2.31	mg / Kg		
	25	Cu-63		63		4.46	ppb	0.025	2.21	mg / Kg		
	26	Cu-65		65		4.58	ppb	0.025	2.27	mg / Kg		
x	27	Zn-66		66		53.68	ppb	0.25	26.6	mg / Kg		
	28	Zn-67		67		55.41	ppb	0.25	27.4	mg / Kg		
	29	Zn-68		68		47.71	ppb	0.25	23.6	mg / Kg		
	32	As-75		75		2.43	ppb	0.025	1.20	mg / Kg		
	34	Se-82		82		1.1	ppb	0.025	0.545	mg / Kg		
	37	Sr-87		87		73.59	ppb	0.025	36.5	mg / Kg		
	40	Mo-95		95		2.08	ppb	0.025	1.03	mg / Kg		
	41	Mo-98		98		2.07	ppb	0.025	1.02	mg / Kg		
	43	Ag-107		107		0	ppb	0.025	< 0.248	mg / Kg		
	45	Ag-109		109		0.01	ppb	0.025	< 0.248	mg / Kg		
	46	Cd-111		111		0.24	ppb	0.025	< 0.248	mg / Kg		
	47	Cd-114		114		0.01	ppb	0.025	< 0.248	mg / Kg		
	50	Sn-120		120		3.43	ppb	0.025	1.70	mg / Kg		
	51	Sb-121		121		0.36	ppb	0.05	< 0.496	mg / Kg		
	52	Sb-123		123		0.02	ppb	0.05	< 0.496	mg / Kg		
	53	Ba-135		135		87.4	ppb	0.025	43.3	mg / Kg		
	54	Tb-159		159		0	ppb	0.001	< 0.010	mg / Kg		
	55	Au-197		197		0.07	ppb	0.025	< 0.248	mg / Kg		
	56	Tl-205		205		-0.11	ppb	0.025	< 0.248	mg / Kg		
	59	Pb-208		208		16.91	ppb	0.025	8.38	mg / Kg		
	61	U-238		238		0.85	ppb	0.025	0.421	mg / Kg		

FRAC M021282-012

Assaigai Analytical Laboratories, Inc.

Analytical Result Summary

0209364-03A

457

Run Group	MT.2002.1118	41
Calc Method	6020	
Prep Method	MS3050	
Prep Matrix	SOLID	

		By	Dilution
Prepared	09-23-02 8:08:00	JRE	0.9833
Analyzed	09-25-02 22:37:00	JWB	10
Calibration	09-25-02 17:15:00		
Quant	09-25-02 22:44:00	042SMPL.D#	

r	C#	Analyte	QMass	m	Raw Quant	As	MRL	Report	As	Qual	f
	3	Be-9	9		0.77	ppb	0.025	0.378	mg / Kg		
x	4	B-11	11		1.61	ppb	0.15	< 1.47	mg / Kg		
x	5	Na-23 >5x MB	23		139.5	ppb	0.5	68.6	mg / Kg		
x	6	Mg-24 >5x MB	24		1592	ppb	0.5	783	mg / Kg		
	7	Mg-25	25		1651	ppb	0.5	812	mg / Kg		
	8	Mg-26	26		1622	ppb	0.5	797	mg / Kg		
	9	Al-27	27		9906	ppb	0.5	4870	mg / Kg		
	10	Si-28	28		374.1	ppb	1	184	mg / Kg		
x	11	K-39 >5x MB	39		1444	ppb	0.5	710	mg / Kg		
x	13	Ca-43 >5x MB	43		2328	ppb	0.5	1140	mg / Kg		
	14	Ca-44	44		2314	ppb	0.5	1140	mg / Kg		
	16	Ti-47	47		204.5	ppb	0.025	100	mg / Kg		x
x	17	V-51	51		11.12	ppb	0.05	5.47	mg / Kg		
	18	Cr-52	52		71.23	ppb	0.05	35.0	mg / Kg		
	19	Cr-53	53		65.81	ppb	0.25	32.4	mg / Kg		
	20	Fe-54	54		8651	ppb	0.5	4250	mg / Kg		
	21	Mn-55	55		216.7	ppb	0.025	106	mg / Kg		x
x	22	Fe-57 >5x MB	57		8848	ppb	0.5	4350	mg / Kg		
	23	Co-59	59		1.95	ppb	0.025	0.959	mg / Kg		
	24	Ni-60	60		5.99	ppb	0.025	2.94	mg / Kg		
	25	Cu-63	63		34.13	ppb	0.025	16.8	mg / Kg		
	26	Cu-65	65		34.51	ppb	0.025	17.0	mg / Kg		
x	27	Zn-66	66		86.75	ppb	0.25	42.6	mg / Kg		
	28	Zn-67	67		88.44	ppb	0.25	43.5	mg / Kg		
	29	Zn-68	68		82.06	ppb	0.25	40.3	mg / Kg		
	32	As-75	75		2.83	ppb	0.025	1.39	mg / Kg		
	34	Se-82	82		1.15	ppb	0.025	0.565	mg / Kg		
	37	Sr-87	87		71.04	ppb	0.025	34.9	mg / Kg		
	40	Mo-95	95		0.59	ppb	0.025	0.290	mg / Kg		
	41	Mo-98	98		0.6	ppb	0.025	0.295	mg / Kg		
	43	Ag-107	107		2.64	ppb	0.025	1.30	mg / Kg		
	45	Ag-109	109		2.64	ppb	0.025	1.30	mg / Kg		
	46	Cd-111	111		0.44	ppb	0.025	< 0.246	mg / Kg		
	47	Cd-114	114		0.3	ppb	0.025	< 0.246	mg / Kg		
	50	Sn-120	120		3.74	ppb	0.025	1.84	mg / Kg		
	51	Sb-121	121		0.33	ppb	0.05	< 0.492	mg / Kg		
	52	Sb-123	123		0.01	ppb	0.05	< 0.492	mg / Kg		
	53	Ba-135	135		82.28	ppb	0.025	40.4	mg / Kg		
	54	Tb-159	159		0	ppb	0.001	< 0.010	mg / Kg		
	55	Au-197	197		0.04	ppb	0.025	< 0.246	mg / Kg		
	58	Tl-205	205		-0.27	ppb	0.025	< 0.246	mg / Kg		
	59	Pb-208	208		28.77	ppb	0.025	-14.1	mg / Kg		
	61	U-238	238		1.38	ppb	0.025	0.678	mg / Kg		

FRAC M021282-013

Assaigai Analytical Laboratories, Inc.

Analytical Result Summary

0209364-04A

Run Group	MT.20021118	42
Calc Method	6020	
Prep Method	MS3050	
Prep Matrix	SOLID	

		By	Dilution
Prepared	09-23-02 8:08:00	JRE	0.939
Analyzed	09-25-02 22:47:00	JWB	10
Calibration	09-25-02 17:15:00		
Quant	09-25-02 22:54:00		043SMPL.D#

r	C#	Analyte	QMass	m	Raw Quant	As	MRL	Report	As	Qual	f
	3	Be-9	9		0.97	ppb	0.025	0.455	mg / Kg		
x	4	B-11	11		1.36	ppb	0.15	< 1.41	mg / Kg		
x	5	Na-23 >5x MB	23		281.9	ppb	0.5	132	mg / Kg		
x	6	Mg-24 >5x MB	24		1421	ppb	0.5	667	mg / Kg		
	7	Mg-25	25		1468	ppb	0.5	689	mg / Kg		
	8	Mg-26	26		1449	ppb	0.5	680	mg / Kg		
	9	Al-27	27		10320	ppb	0.5	4840	mg / Kg		
	10	Si-28	28		288.3	ppb	1	135	mg / Kg		
x	11	K-39 >5x MB	39		1348	ppb	0.5	633	mg / Kg		
x	13	Ca-43 >5x MB	43		1595	ppb	0.5	749	mg / Kg		
	14	Ca-44	44		1575	ppb	0.5	739	mg / Kg		
	16	Ti-47	47		304.4	ppb	0.025	143	mg / Kg		x
x	17	V-51	51		9.74	ppb	0.05	4.57	mg / Kg		
	18	Cr-52	52		5.34	ppb	0.05	2.51	mg / Kg		
	19	Cr-53	53		-9.38	ppb	0.25	< 2.35	mg / Kg		
	20	Fe-54	54		12120	ppb	0.5	5690	mg / Kg		x
	21	Mn-55	55		340.8	ppb	0.025	160	mg / Kg		x
	22	Fe-57	57		12200	ppb	0.5	5730	mg / Kg		x
	23	Co-59	59		1.45	ppb	0.025	0.681	mg / Kg		
	24	Ni-60	60		4.49	ppb	0.025	2.11	mg / Kg		
	25	Cu-63	63		4.32	ppb	0.025	2.03	mg / Kg		
	26	Cu-65	65		4.37	ppb	0.025	2.05	mg / Kg		
x	27	Zn-66	66		54.22	ppb	0.25	25.4	mg / Kg		
	28	Zn-67	67		55.05	ppb	0.25	25.8	mg / Kg		
	29	Zn-68	68		48.3	ppb	0.25	22.7	mg / Kg		
	32	As-75	75		2.57	ppb	0.025	1.21	mg / Kg		
	34	Se-82	82		1.46	ppb	0.025	0.685	mg / Kg		
	37	Sr-87	87		72.58	ppb	0.025	34.1	mg / Kg		
	40	Mo-95	95		2.17	ppb	0.025	1.02	mg / Kg		
	41	Mo-98	98		2.03	ppb	0.025	0.953	mg / Kg		
	43	Ag-107	107		0	ppb	0.025	< 0.235	mg / Kg		
	45	Ag-109	109		0.01	ppb	0.025	< 0.235	mg / Kg		
	46	Cd-111	111		0.31	ppb	0.025	< 0.235	mg / Kg		
	47	Cd-114	114		0.03	ppb	0.025	< 0.235	mg / Kg		
	50	Sn-120	120		3.59	ppb	0.025	1.68	mg / Kg		
	51	Sb-121	121		0.33	ppb	0.05	< 0.470	mg / Kg		
	52	Sb-123	123		0.02	ppb	0.05	< 0.470	mg / Kg		
	53	Ba-135	135		67.21	ppb	0.025	31.6	mg / Kg		
	54	Tb-159	159		0	ppb	0.001	< 0.009	mg / Kg		
	55	Au-197	197		0	ppb	0.025	< 0.235	mg / Kg		
	56	Tl-205	205		-0.08	ppb	0.025	< 0.235	mg / Kg		
	59	Pb-208	208		20.56	ppb	0.025	9.65	mg / Kg		
	61	U-238	238		0.95	ppb	0.025	0.446	mg / Kg		

STD-CCV [STD-CCV]

Assaigai Analytical Laboratories, Inc.

453

Analytical Result Summary

Run Group	MT.2002.1118	43
Calc Method	6020	
Prep Method	LAB	
Prep Matrix	LAB	

		By	Dilution
Prepared			1
Analyzed	09-25-02 22:56:00	JWB	1
Calibration	09-25-02 17:15:00		
Quant	09-25-02 23:03:00	044CCV	.D#

r	C#	Analyte	QMass	m	Raw Quant	As	MRL	Report	As	Qual	f
	3	Be-9	9		96.08	ppb	1	96	% Recovery		
	4	B-11	11		99.12	ppb	1	99	% Recovery		
	5	Na-23	23		987.3	ppb	1	99	% Recovery		
	6	Mg-24	24		982.2	ppb	1	98	% Recovery		
	7	Mg-25	25		1012	ppb	1	101	% Recovery		
	8	Mg-26	26		992.3	ppb	1	99	% Recovery		
	9	Al-27	27		971.7	ppb	1	97	% Recovery		
	10	Si-28	28		895.3	ppb	1	90	% Recovery		
	11	K-39	39		960.7	ppb	1	96	% Recovery		
	13	Ca-43	43		1022	ppb	1	102	% Recovery		
	14	Ca-44	44		990	ppb	1	99	% Recovery		
	16	Ti-47	47		96.95	ppb	1	97	% Recovery		
	17	V-51	51		96.54	ppb	1	96	% Recovery		
	18	Cr-52	52		97.23	ppb	1	97	% Recovery		
	19	Cr-53	53		81.97	ppb	1	82	% Recovery		x
	20	Fe-54	54		936.4	ppb	1	94	% Recovery		
	21	Mn-55	55		95.39	ppb	1	95	% Recovery		
	22	Fe-57	57		964.2	ppb	1	96	% Recovery		
	23	Co-59	59		96.37	ppb	1	96	% Recovery		
	24	Ni-60	60		95.97	ppb	1	96	% Recovery		
	25	Cu-63	63		96.53	ppb	1	96	% Recovery		
	26	Cu-65	65		97.33	ppb	1	97	% Recovery		
	27	Zn-66	66		99.3	ppb	1	99	% Recovery		
	28	Zn-67	67		96.26	ppb	1	96	% Recovery		
	29	Zn-68	68		97.3	ppb	1	97	% Recovery		
	32	As-75	75		98.26	ppb	1	98	% Recovery		
	34	Se-82	82		98.36	ppb	1	98	% Recovery		
	37	Sr-87	87		99.17	ppb	1	99	% Recovery		
	40	Mo-95	95		93.48	ppb	1	93	% Recovery		
	41	Mo-98	98		93.58	ppb	1	94	% Recovery		
	43	Ag-107	107		95.54	ppb	1	96	% Recovery		
	45	Ag-109	109		95.45	ppb	1	95	% Recovery		
	46	Cd-111	111		94.09	ppb	1	94	% Recovery		
	47	Cd-114	114		94.69	ppb	1	95	% Recovery		
	50	Sn-120	120		95.57	ppb	1	96	% Recovery		
	51	Sb-121	121		95.22	ppb	1	95	% Recovery		
	52	Sb-123	123		95.51	ppb	1	96	% Recovery		
	53	Ba-135	135		96.12	ppb	1	96	% Recovery		
	54	Tb-159	159		0	ppb	1	< 1	% Recovery		x
	55	Au-197	197		92.4	ppb	1	92	% Recovery		
	56	Tl-205	205		94.2	ppb	1	94	% Recovery		
	59	Pb-208	208		95.78	ppb	1	96	% Recovery		
	61	U-238	238		96	ppb	1	96	% Recovery		

CB [CB]

Assaigai Analytical Laboratories, Inc.

Analytical Result Summary

46

Run Group	MT.2002.1118	44
Calc Method	6020	
Prep Method	LAB	
Prep Matrix	LAB	

		By	Dilution
Prepared			1
Analyzed	09-25-02 23:05:00	JWB	1
Calibration	09-25-02 17:15:00		
Quant	09-25-02 23:12:00	045CCB .D#	

r	C#	Analyte	QMass	m	Raw Quant	As	MRL	Report	As	Qual	f
	3	Be-9	9		0.03	ppb	0.001	< 0.001	mg / L		
	4	B-11	11		-0.01	ppb	0.001	< 0.001	mg / L		
	5	Na-23	23		0.75	ppb	0.01	< 0.010	mg / L		
	6	Mg-24	24		0.31	ppb	0.01	< 0.010	mg / L		
	7	Mg-25	25		0.35	ppb	0.01	< 0.010	mg / L		
	8	Mg-26	26		0.17	ppb	0.01	< 0.010	mg / L		
	9	Al-27	27		2.63	ppb	0.01	< 0.010	mg / L		
	10	Si-28	28		-75.22	ppb	0.001	< 0.001	mg / L		
	11	K-39	39		-10.22	ppb	0.01	< 0.010	mg / L		
	13	Ca-43	43		-5.18	ppb	0.01	< 0.010	mg / L		
	14	Ca-44	44		-2.16	ppb	0.01	< 0.010	mg / L		
	16	Ti-47	47		0.07	ppb	0.001	< 0.001	mg / L		
	17	V-51	51		-0.19	ppb	0.001	< 0.001	mg / L		
	18	Cr-52	52		0.17	ppb	0.001	< 0.001	mg / L		
	19	Cr-53	53		5.04	ppb	0.001	0.005	mg / L		x
	20	Fe-54	54		-71.25	ppb	0.01	< 0.010	mg / L		
	21	Mn-55	55		-0.02	ppb	0.001	< 0.001	mg / L		
	22	Fe-57	57		-9.32	ppb	0.01	< 0.010	mg / L		
	23	Co-59	59		-0.33	ppb	0.001	< 0.001	mg / L		
	24	Ni-60	60		0	ppb	0.001	< 0.001	mg / L		
	25	Cu-63	63		0	ppb	0.001	< 0.001	mg / L		
	26	Cu-65	65		-0.02	ppb	0.001	< 0.001	mg / L		
	27	Zn-66	66		-0.06	ppb	0.001	< 0.001	mg / L		
	28	Zn-67	67		0.59	ppb	0.001	< 0.001	mg / L		
	29	Zn-68	68		-0.98	ppb	0.001	< 0.001	mg / L		
	32	As-75	75		0.38	ppb	0.001	< 0.001	mg / L		
	34	Se-82	82		0.3	ppb	0.001	< 0.001	mg / L		
	37	Sr-87	87		0.05	ppb	0.001	< 0.001	mg / L		
	40	Mo-95	95		0.24	ppb	0.001	< 0.001	mg / L		
	41	Mo-98	98		0.22	ppb	0.001	< 0.001	mg / L		
	43	Ag-107	107		0.03	ppb	0.001	< 0.001	mg / L		
	45	Ag-109	109		0.03	ppb	0.001	< 0.001	mg / L		
	46	Cd-111	111		0.06	ppb	0.001	< 0.001	mg / L		
	47	Cd-114	114		0.04	ppb	0.001	< 0.001	mg / L		
	50	Sn-120	120		-0.02	ppb	0.001	< 0.001	mg / L		
	51	Sb-121	121		0.37	ppb	0.001	< 0.001	mg / L		
	52	Sb-123	123		0.05	ppb	0.001	< 0.001	mg / L		
	53	Ba-135	135		0.07	ppb	0.001	< 0.001	mg / L		
	54	Tb-159	159		0	ppb	0.001	< 0.001	mg / L		
	55	Au-197	197		0.45	ppb	0.001	< 0.001	mg / L		
	56	Tl-205	205		0.11	ppb	0.001	< 0.001	mg / L		
	59	Pb-208	208		-0.32	ppb	0.001	< 0.001	mg / L		
	61	U-238	238		0.04	ppb	0.001	< 0.001	mg / L		

FRAC M021282-014

Assaigai Analytical Laboratories, Inc.

Analytical Result Summary

0209364-05A

			By	Dilution
Prepared	09-23-02 8:08:00	JRE		0.9588
Analyzed	09-25-02 23:14:00	JWB		10
Calibration	09-25-02 17:15:00			
Quant	09-25-02 23:21:00		046SMPL.D#	

Run Group	MT.2002.1118 45
Calc Method	6020
Prep Method	MS3050
Prep Matrix	SOLID

r	C#	Analyte	QMass	m	Raw Quant	As	MRL	Report	As	Qual	f
	3	Be-9	9		1.28	ppb	0.025	0.614	mg / Kg		
x	4	B-11	11		1.78	ppb	0.15	< 1.44	mg / Kg		
x	5	Na-23 >5x MB	23		304.6	ppb	0.5	146	mg / Kg		
x	6	Mg-24 >5x MB	24		1834	ppb	0.5	879	mg / Kg		
	7	Mg-25	25		1858	ppb	0.5	891	mg / Kg		
	8	Mg-26	26		1826	ppb	0.5	875	mg / Kg		
	9	Al-27	27		11760	ppb	0.5	5640	mg / Kg		x
	10	Si-28	28		299.4	ppb	1	144	mg / Kg		
x	11	K-39 >5x MB	39		1668	ppb	0.5	800	mg / Kg		
x	13	Ca-43 >5x MB	43		2022	ppb	0.5	969	mg / Kg		
	14	Ca-44	44		2025	ppb	0.5	971	mg / Kg		
	16	Ti-47	47		351.7	ppb	0.025	169	mg / Kg		x
x	17	V-51	51		12.69	ppb	0.05	6.08	mg / Kg		
	18	Cr-52	52		6.98	ppb	0.05	3.35	mg / Kg		
	19	Cr-53	53		-6.99	ppb	0.25	< 2.40	mg / Kg		
	20	Fe-54	54		14580	ppb	0.5	6990	mg / Kg		x
	21	Mn-55	55		295.8	ppb	0.025	142	mg / Kg		x
	22	Fe-57	57		14670	ppb	0.5	7030	mg / Kg		x
	23	Co-59	59		1.69	ppb	0.025	0.810	mg / Kg		
	24	Ni-60	60		5.1	ppb	0.025	2.44	mg / Kg		
	25	Cu-63	63		4.97	ppb	0.025	2.38	mg / Kg		
	26	Cu-65	65		5.15	ppb	0.025	2.47	mg / Kg		
x	27	Zn-66	66		71.35	ppb	0.25	34.2	mg / Kg		
	28	Zn-67	67		72.99	ppb	0.25	35.0	mg / Kg		
	29	Zn-68	68		64.9	ppb	0.25	31.1	mg / Kg		
	32	As-75	75		2.71	ppb	0.025	1.30	mg / Kg		
	34	Se-82	82		1.52	ppb	0.025	0.729	mg / Kg		
	37	Sr-87	87		92.07	ppb	0.025	44.1	mg / Kg		
	40	Mo-95	95		2.66	ppb	0.025	1.28	mg / Kg		
	41	Mo-98	98		2.69	ppb	0.025	1.29	mg / Kg		
	43	Ag-107	107		0.02	ppb	0.025	< 0.240	mg / Kg		
	45	Ag-109	109		0.01	ppb	0.025	< 0.240	mg / Kg		
	46	Cd-111	111		0.38	ppb	0.025	< 0.240	mg / Kg		
	47	Cd-114	114		0.01	ppb	0.025	< 0.240	mg / Kg		
	50	Sn-120	120		3.68	ppb	0.025	1.76	mg / Kg		
	51	Sb-121	121		0.36	ppb	0.05	< 0.479	mg / Kg		
	52	Sb-123	123		0.03	ppb	0.05	< 0.479	mg / Kg		
	53	Ba-135	135		99.62	ppb	0.025	47.8	mg / Kg		
	54	Tb-159	159		0	ppb	0.001	< 0.010	mg / Kg		
	55	Au-197	197		0.11	ppb	0.025	< 0.240	mg / Kg		
	56	Tl-205	205		0.08	ppb	0.025	< 0.240	mg / Kg		
	59	Pb-208	208		18.4	ppb	0.025	8.82	mg / Kg		
	61	U-238	238		0.92	ppb	0.025	0.441	mg / Kg		

FRAC M021282-015

Assaigai Analytical Laboratories, Inc.

Analytical Result Summary

0209364-06A

462

Run Group	MT.2002.1118	46
Calc Method	6020	
Prep Method	MS3050	
Prep Matrix	SOLID	

		By	Dilution
Prepared	09-23-02 8:08:00	JRE	0.9737
Analyzed	09-25-02 23:23:00	JWB	10
Calibration	09-25-02 17:15:00		
Quant	09-25-02 23:30:00	047SMPL.D#	

r	C#	Analyte	QMass	m	Raw Quant	As	MRL	Report	As	Qual	f
	3	Be-9	9		0.99	ppb	0.025	0.482	mg / Kg		
	4	B-11	11		1.78	ppb	0.15	< 1.46	mg / Kg		
	5	Na-23	23		243.2	ppb	0.5	118	mg / Kg		
	6	Mg-24	24		2041	ppb	0.5	994	mg / Kg		
	7	Mg-25	25		2024	ppb	0.5	985	mg / Kg		
	8	Mg-26	26		1975	ppb	0.5	962	mg / Kg		
	9	Al-27	27		11980	ppb	0.5	5830	mg / Kg		x
	10	Si-28	28		331	ppb	1	161	mg / Kg		
	11	K-39	39		1424	ppb	0.5	693	mg / Kg		
	13	Ca-43	43		3513	ppb	0.5	1710	mg / Kg		
	14	Ca-44	44		3455	ppb	0.5	1680	mg / Kg		
	16	Ti-47	47		476.7	ppb	0.025	232	mg / Kg		x
	17	V-51	51		16.26	ppb	0.05	7.92	mg / Kg		
	18	Cr-52	52		14.63	ppb	0.05	7.12	mg / Kg		
	19	Cr-53	53		6.12	ppb	0.25	2.98	mg / Kg		
	20	Fe-54	54		14460	ppb	0.5	7040	mg / Kg		x
	21	Mn-55	55		326.2	ppb	0.025	159	mg / Kg		x
	22	Fe-57	57		14780	ppb	0.5	7200	mg / Kg		x
	23	Co-59	59		2.49	ppb	0.025	1.21	mg / Kg		
	24	Ni-60	60		6.59	ppb	0.025	3.21	mg / Kg		
	25	Cu-63	63		6.91	ppb	0.025	3.36	mg / Kg		
	26	Cu-65	65		7.08	ppb	0.025	3.45	mg / Kg		
x	27	Zn-66	66		71.11	ppb	0.25	34.6	mg / Kg		
	28	Zn-67	67		73.63	ppb	0.25	35.8	mg / Kg		
	29	Zn-68	68		63.89	ppb	0.25	31.1	mg / Kg		
	32	As-75	75		3.22	ppb	0.025	1.57	mg / Kg		
	34	Se-82	82		1.28	ppb	0.025	0.623	mg / Kg		
	37	Sr-87	87		78.8	ppb	0.025	38.4	mg / Kg		
	40	Mo-95	95		1.58	ppb	0.025	0.769	mg / Kg		
	41	Mo-98	98		1.57	ppb	0.025	0.764	mg / Kg		
	43	Ag-107	107		0.69	ppb	0.025	0.336	mg / Kg		
	45	Ag-109	109		0.68	ppb	0.025	0.331	mg / Kg		
	46	Cd-111	111		0.38	ppb	0.025	< 0.243	mg / Kg		
	47	Cd-114	114		0.05	ppb	0.025	< 0.243	mg / Kg		
	50	Sn-120	120		2.95	ppb	0.025	1.44	mg / Kg		
	51	Sb-121	121		0.36	ppb	0.05	< 0.487	mg / Kg		
	52	Sb-123	123		0.03	ppb	0.05	< 0.487	mg / Kg		
	53	Ba-135	135		89.85	ppb	0.025	43.7	mg / Kg		
	54	Tb-159	159		0	ppb	0.001	< 0.010	mg / Kg		
	55	Au-197	197		0.08	ppb	0.025	< 0.243	mg / Kg		
	56	Tl-205	205		-0.14	ppb	0.025	< 0.243	mg / Kg		
	59	Pb-208	208		29.03	ppb	0.025	14.1	mg / Kg		
	61	U-238	238		0.85	ppb	0.025	0.414	mg / Kg		

FRAC M021282-016

Assaigai Analytical Laboratories, Inc.

Analytical Result Summary

0209364-07A

			By	Dilution
Run Group	MT.2002.1118	47		
Calc Method	6020			
Prep Method	MS3050			
Prep Matrix	SOLID			
Prepared	09-23-02 8:08:00		JRE	0.999
Analyzed	09-25-02 23:33:00		JWB	10
Calibration	09-25-02 17:15:00			
Quant	09-25-02 23:40:00		048SMPL.D#	

r	C#	Analyte	QMass	m	Raw Quant	As	MRL	Report	As	Qual	f
	3	Be-9	9		0.97	ppb	0.025	0.484	mg / Kg		
x	4	B-11	11		0.13	ppb	0.15	< 1.50	mg / Kg		
x	5	Na-23 >5x MB	23		174.6	ppb	0.5	87.2	mg / Kg		
x	6	Mg-24 >5x MB	24		1455	ppb	0.5	727	mg / Kg		
	7	Mg-25	25		1482	ppb	0.5	740	mg / Kg		
	8	Mg-26	26		1457	ppb	0.5	728	mg / Kg		
	9	Al-27	27		5715	ppb	0.5	2850	mg / Kg		
	10	Si-28	28		265.9	ppb	1	133	mg / Kg		
x	11	K-39 >5x MB	39		952.8	ppb	0.5	476	mg / Kg		
x	13	Ca-43 >5x MB	43		1396	ppb	0.5	697	mg / Kg		
	14	Ca-44	44		1374	ppb	0.5	686	mg / Kg		
	16	Ti-47	47		718	ppb	0.025	359	mg / Kg		x
x	17	V-51	51		10.36	ppb	0.05	5.17	mg / Kg		
	18	Cr-52	52		7.84	ppb	0.05	3.92	mg / Kg		
	19	Cr-53	53		-9.59	ppb	0.25	< 2.50	mg / Kg		
	20	Fe-54	54		14380	ppb	0.5	7180	mg / Kg		x
	21	Mn-55	55		409.4	ppb	0.025	204	mg / Kg		x
	22	Fe-57	57		14770	ppb	0.5	7380	mg / Kg		x
	23	Co-59	59		1.55	ppb	0.025	0.774	mg / Kg		
	24	Ni-60	60		4.7	ppb	0.025	2.35	mg / Kg		
	25	Cu-63	63		4.08	ppb	0.025	2.04	mg / Kg		
	26	Cu-65	65		4.36	ppb	0.025	2.18	mg / Kg		
x	27	Zn-66	66		66.53	ppb	0.25	33.2	mg / Kg		
	28	Zn-67	67		61.75	ppb	0.25	30.8	mg / Kg		
	29	Zn-68	68		61.34	ppb	0.25	30.6	mg / Kg		
	32	As-75	75		2.19	ppb	0.025	1.09	mg / Kg		
	34	Se-82	82		1.45	ppb	0.025	0.724	mg / Kg		
	37	Sr-87	87		43.87	ppb	0.025	21.9	mg / Kg		
	40	Mo-95	95		3.52	ppb	0.025	1.76	mg / Kg		
	41	Mo-98	98		3.44	ppb	0.025	1.72	mg / Kg		
	43	Ag-107	107		0.08	ppb	0.025	< 0.250	mg / Kg		
	45	Ag-109	109		0.1	ppb	0.025	< 0.250	mg / Kg		
	46	Cd-111	111		0.35	ppb	0.025	< 0.250	mg / Kg		
	47	Cd-114	114		0.06	ppb	0.025	< 0.250	mg / Kg		
	50	Sn-120	120		3.69	ppb	0.025	1.84	mg / Kg		
	51	Sb-121	121		0.34	ppb	0.05	< 0.500	mg / Kg		
	52	Sb-123	123		0.01	ppb	0.05	< 0.500	mg / Kg		
	53	Ba-135	135		39.69	ppb	0.025	19.8	mg / Kg		
	54	Tb-159	159		0	ppb	0.001	< 0.010	mg / Kg		
	55	Au-197	197		0.03	ppb	0.025	< 0.250	mg / Kg		
	56	Tl-205	205		-0.24	ppb	0.025	< 0.250	mg / Kg		
	59	Pb-208	208		14.71	ppb	0.025	7.35	mg / Kg		
	61	U-238	238		0.68	ppb	0.025	0.340	mg / Kg		

FRAC M021282-017

Assaigai Analytical Laboratories, Inc.

Analytical Result Summary

0209364-08A

Run Group	MT.2002.1118	48
Calc Method	6020	
Prep Method	MS3050	
Prep Matrix	SOLID	

		By	Dilution
Prepared	09-23-02 8:08:00	JRE	0.9425
Analyzed	09-25-02 23:42:00	JWB	10
Calibration	09-25-02 17:15:00		
Quant	09-25-02 23:49:00	049SMPL.D#	

r	C#	Analyte	QMass	m	Raw Quant	As	MRL	Report	As	Qual	f
	3	Be-9	9		1.27	ppb	0.025	0.598	mg / Kg		
	4	B-11	11		1.71	ppb	0.15	< 1.41	mg / Kg		
	5	Na-23	23		251.4	ppb	0.5	118	mg / Kg		
	6	Mg-24	24		2207	ppb	0.5	1040	mg / Kg		
	7	Mg-25	25		2248	ppb	0.5	1060	mg / Kg		
	8	Mg-26	26		2214	ppb	0.5	1040	mg / Kg		
	9	Al-27	27		14040	ppb	0.5	6620	mg / Kg		x
	10	Si-28	28		282.5	ppb	1	133	mg / Kg		
	11	K-39	39		1360	ppb	0.5	641	mg / Kg		
	13	Ca-43	43		4610	ppb	0.5	2170	mg / Kg		
	14	Ca-44	44		4545	ppb	0.5	2140	mg / Kg		
	16	Ti-47	47		557.7	ppb	0.025	263	mg / Kg		x
	17	V-51	51		16.98	ppb	0.05	8.00	mg / Kg		
	18	Cr-52	52		9.42	ppb	0.05	4.44	mg / Kg		
	19	Cr-53	53		3.05	ppb	0.25	< 2.36	mg / Kg		
	20	Fe-54	54		18180	ppb	0.5	8570	mg / Kg		x
	21	Mn-55	55		266.2	ppb	0.025	125	mg / Kg		x
	22	Fe-57	57		18320	ppb	0.5	8630	mg / Kg		x
	23	Co-59	59		2.42	ppb	0.025	1.14	mg / Kg		
	24	Ni-60	60		7.33	ppb	0.025	3.45	mg / Kg		
	25	Cu-63	63		7.19	ppb	0.025	3.39	mg / Kg		
	26	Cu-65	65		7.35	ppb	0.025	3.46	mg / Kg		
x	27	Zn-66	66		123.4	ppb	0.25	58.2	mg / Kg		
	28	Zn-67	67		122.9	ppb	0.25	57.9	mg / Kg		
	29	Zn-68	68		114.6	ppb	0.25	54.0	mg / Kg		
	32	As-75	75		4.38	ppb	0.025	2.06	mg / Kg		
	34	Se-82	82		1.45	ppb	0.025	0.683	mg / Kg		
	37	Sr-87	87		73.45	ppb	0.025	34.6	mg / Kg		
	40	Mo-95	95		3.42	ppb	0.025	1.61	mg / Kg		
	41	Mo-98	98		3.4	ppb	0.025	1.60	mg / Kg		
	43	Ag-107	107		0.16	ppb	0.025	< 0.236	mg / Kg		
	45	Ag-109	109		0.14	ppb	0.025	< 0.236	mg / Kg		
	46	Cd-111	111		0.41	ppb	0.025	< 0.236	mg / Kg		
	47	Cd-114	114		0.03	ppb	0.025	< 0.236	mg / Kg		
	50	Sn-120	120		3.63	ppb	0.025	1.71	mg / Kg		
	51	Sb-121	121		0.35	ppb	0.05	< 0.471	mg / Kg		
	52	Sb-123	123		0.03	ppb	0.05	< 0.471	mg / Kg		
	53	Ba-135	135		95.39	ppb	0.025	45.0	mg / Kg		
	54	Tb-159	159		0	ppb	0.001	< 0.009	mg / Kg		
	55	Au-197	197		0.01	ppb	0.025	< 0.236	mg / Kg		
	56	Tl-205	205		-0.16	ppb	0.025	< 0.236	mg / Kg		
	59	Pb-208	208		14.45	ppb	0.025	6.81	mg / Kg		
	61	U-238	238		0.67	ppb	0.025	0.316	mg / Kg		

FRAC M021282-018

Assaigai Analytical Laboratories, Inc.

Analytical Result Summary

0209364-09A 465

Run Group	MT.2002.1118	49
Calc Method	6020	
Prep Method	MS3050	
Prep Matrix	SOLID	

		By	Dilution
Prepared	09-23-02 8:08:00	JRE	0.9372
Analyzed	09-25-02 23:51:00	JWB	10
Calibration	09-25-02 17:15:00		
Quant	09-25-02 23:58:00	050SMPL.D#	

r	C#	Analyte	QMass	m	Raw Quant	As	MRL	Report	As	Qual	f
	3	Be-9	9		0.82	ppb	0.025	0.384	mg / Kg		
	4	B-11	11		1.58	ppb	0.15	< 1.40	mg / Kg		
	5	Na-23	23		177.6	ppb	0.5	83.2	mg / Kg		
	6	Mg-24	24		1454	ppb	0.5	681	mg / Kg		
	7	Mg-25	25		1478	ppb	0.5	692	mg / Kg		
	8	Mg-26	26		1437	ppb	0.5	673	mg / Kg		
	9	Al-27	27		6532	ppb	0.5	3060	mg / Kg		
	10	Si-28	28		304.6	ppb	1	143	mg / Kg		
	11	K-39	39		1058	ppb	0.5	496	mg / Kg		
	13	Ca-43	43		2062	ppb	0.5	966	mg / Kg		
	14	Ca-44	44		2060	ppb	0.5	965	mg / Kg		
	16	Ti-47	47		424.1	ppb	0.025	199	mg / Kg		x
	17	V-51	51		10.43	ppb	0.05	4.89	mg / Kg		
	18	Cr-52	52		33.79	ppb	0.05	15.8	mg / Kg		
	19	Cr-53	53		25.96	ppb	0.25	12.2	mg / Kg		
	20	Fe-54	54		12390	ppb	0.5	5800	mg / Kg		x
	21	Mn-55	55		340.1	ppb	0.025	159	mg / Kg		x
	22	Fe-57	57		12610	ppb	0.5	5910	mg / Kg		x
	23	Co-59	59		1.68	ppb	0.025	0.787	mg / Kg		
	24	Ni-60	60		5.15	ppb	0.025	2.41	mg / Kg		
	25	Cu-63	63		19.25	ppb	0.025	9.02	mg / Kg		
	26	Cu-65	65		19.57	ppb	0.025	9.17	mg / Kg		
x	27	Zn-66	66		237.7	ppb	0.25	111	mg / Kg		x
	28	Zn-67	67		225.8	ppb	0.25	106	mg / Kg		x
	29	Zn-68	68		232	ppb	0.25	109	mg / Kg		x
	32	As-75	75		4.37	ppb	0.025	2.05	mg / Kg		
	34	Se-82	82		1.43	ppb	0.025	0.670	mg / Kg		
	37	Sr-87	87		46.29	ppb	0.025	21.7	mg / Kg		
	40	Mo-95	95		3.63	ppb	0.025	1.70	mg / Kg		
	41	Mo-98	98		3.62	ppb	0.025	1.70	mg / Kg		
	43	Ag-107	107		2.16	ppb	0.025	1.01	mg / Kg		
	45	Ag-109	109		2.15	ppb	0.025	1.01	mg / Kg		
	46	Cd-111	111		0.7	ppb	0.025	0.328	mg / Kg		
	47	Cd-114	114		0.5	ppb	0.025	0.234	mg / Kg		
	50	Sn-120	120		3.57	ppb	0.025	1.67	mg / Kg		
	51	Sb-121	121		0.4	ppb	0.05	< 0.469	mg / Kg		
	52	Sb-123	123		0.08	ppb	0.05	< 0.469	mg / Kg		
	53	Ba-135	135		52.33	ppb	0.025	24.5	mg / Kg		
	54	Tb-159	159		0	ppb	0.001	< 0.009	mg / Kg		
	55	Au-197	197		0.09	ppb	0.025	< 0.234	mg / Kg		
	56	Tl-205	205		-0.28	ppb	0.025	< 0.234	mg / Kg		
	59	Pb-208	208		33.96	ppb	0.025	15.9	mg / Kg		
	61	U-238	238		0.97	ppb	0.025	0.454	mg / Kg		

FRAC M021282-019

Assaigai Analytical Laboratories, Inc.

Analytical Result Summary

0209364-10A By 466

Run Group	MT.2002.1118	50
Calc Method	6020	
Prep Method	MS3050	
Prep Matrix	SOLID	

Prepared	09-23-02 8:08:00	JRE	0.9506
Analyzed	09-26-02 0:01:00	JWB	10
Calibration	09-25-02 17:15:00		
Quant	09-26-02 0:08:00	051SMPL.D#	

r	C#	Analyte	QMass	m	Raw Quant	As	MRL	Report	As	Qual	f
	3	Be-9	9		0.96	ppb	0.025	0.456	mg / Kg		
	4	B-11	11		2.04	ppb	0.15	< 1.42	mg / Kg		
	5	Na-23	23		199.7	ppb	0.5	94.9	mg / Kg		
	6	Mg-24	24		1966	ppb	0.5	934	mg / Kg		
	7	Mg-25	25		2013	ppb	0.5	957	mg / Kg		
	8	Mg-26	26		1975	ppb	0.5	939	mg / Kg		
	9	Al-27	27		10350	ppb	0.5	4920	mg / Kg		
	10	Si-28	28		350.8	ppb	1	167	mg / Kg		
	11	K-39	39		2001	ppb	0.5	951	mg / Kg		
	13	Ca-43	43		2519	ppb	0.5	1200	mg / Kg		
	14	Ca-44	44		2463	ppb	0.5	1170	mg / Kg		
	16	Ti-47	47		523	ppb	0.025	248	mg / Kg		x
	17	V-51	51		15.03	ppb	0.05	7.14	mg / Kg		
	18	Cr-52	52		24.25	ppb	0.05	11.5	mg / Kg		
	19	Cr-53	53		13.1	ppb	0.25	6.23	mg / Kg		
	20	Fe-54	54		14890	ppb	0.5	7080	mg / Kg		x
	21	Mn-55	55		371.1	ppb	0.025	176	mg / Kg		x
	22	Fe-57	57		14910	ppb	0.5	7090	mg / Kg		x
	23	Co-59	59		1.92	ppb	0.025	0.912	mg / Kg		
	24	Ni-60	60		6.09	ppb	0.025	2.89	mg / Kg		
	25	Cu-63	63		11	ppb	0.025	5.23	mg / Kg		
	26	Cu-65	65		11.43	ppb	0.025	5.43	mg / Kg		
	27	Zn-66	66		222	ppb	0.25	106	mg / Kg		x
	28	Zn-67	67		212.2	ppb	0.25	101	mg / Kg		x
	29	Zn-68	68		214	ppb	0.25	102	mg / Kg		x
	32	As-75	75		3.42	ppb	0.025	1.62	mg / Kg		
	34	Se-82	82		1.42	ppb	0.025	0.675	mg / Kg		
	37	Sr-87	87		67.9	ppb	0.025	32.3	mg / Kg		
	40	Mo-95	95		3.3	ppb	0.025	1.57	mg / Kg		
	41	Mo-98	98		3.28	ppb	0.025	1.56	mg / Kg		
	43	Ag-107	107		1.27	ppb	0.025	0.604	mg / Kg		
	45	Ag-109	109		1.28	ppb	0.025	0.608	mg / Kg		
	46	Cd-111	111		0.68	ppb	0.025	0.323	mg / Kg		
	47	Cd-114	114		0.38	ppb	0.025	< 0.238	mg / Kg		
	50	Sn-120	120		3.65	ppb	0.025	1.73	mg / Kg		
	51	Sb-121	121		0.34	ppb	0.05	< 0.475	mg / Kg		
	52	Sb-123	123		0.01	ppb	0.05	< 0.475	mg / Kg		
	53	Ba-135	135		79.02	ppb	0.025	37.6	mg / Kg		
	54	Tb-159	159		0	ppb	0.001	< 0.010	mg / Kg		
	55	Au-197	197		0.05	ppb	0.025	< 0.238	mg / Kg		
	56	Tl-205	205		-0.24	ppb	0.025	< 0.238	mg / Kg		
	59	Pb-208	208		26.11	ppb	0.025	12.4	mg / Kg		
	61	U-238	238		0.91	ppb	0.025	0.432	mg / Kg		

FRAC M021282-020

Assaigai Analytical Laboratories, Inc.

Analytical Result Summary

0209364-11A By 467

Run Group	MT.2002.1118	51
Calc Method	6020	
Prep Method	MS3050	
Prep Matrix	SOLID	

			Dilution
Prepared	09-23-02 8:08:00	JRE	0.9699
Analyzed	09-26-02 0:10:00	JWB	10
Calibration	09-25-02 17:15:00		
Quant	09-26-02 0:17:00		052SMPL.D#

r	C#	Analyte		QMass	m	Raw Quant	As	MRL	Report	As	Qual	f
	3	Be-9		9		0.62	ppb	0.025	0.301	mg / Kg		
x	4	B-11		11		-0.24	ppb	0.15	< 1.45	mg / Kg		
x	5	Na-23	>5x MB	23		144.1	ppb	0.5	69.9	mg / Kg		
x	6	Mg-24	>5x MB	24		769.9	ppb	0.5	373	mg / Kg		
	7	Mg-25		25		787.6	ppb	0.5	382	mg / Kg		
	8	Mg-26		26		787.4	ppb	0.5	382	mg / Kg		
	9	Al-27		27		3034	ppb	0.5	1470	mg / Kg		
	10	Si-28		28		326.3	ppb	1	158	mg / Kg		
x	11	K-39	>5x MB	39		564.1	ppb	0.5	274	mg / Kg		
x	13	Ca-43	>5x MB	43		1100	ppb	0.5	533	mg / Kg		
	14	Ca-44		44		1091	ppb	0.5	529	mg / Kg		
	16	Ti-47		47		305.4	ppb	0.025	148	mg / Kg		x
x	17	V-51		51		6.8	ppb	0.05	3.30	mg / Kg		
	18	Cr-52		52		9.18	ppb	0.05	4.45	mg / Kg		
	19	Cr-53		53		-1.72	ppb	0.25	< 2.42	mg / Kg		
	20	Fe-54		54		8443	ppb	0.5	4090	mg / Kg		
	21	Mn-55		55		299	ppb	0.025	145	mg / Kg		x
x	22	Fe-57	>5x MB	57		8717	ppb	0.5	4230	mg / Kg		
	23	Co-59		59		0.84	ppb	0.025	0.407	mg / Kg		
	24	Ni-60		60		2.78	ppb	0.025	1.35	mg / Kg		
	25	Cu-63		63		8.49	ppb	0.025	4.12	mg / Kg		
	26	Cu-65		65		8.76	ppb	0.025	4.25	mg / Kg		
x	27	Zn-66		66		56.12	ppb	0.25	27.2	mg / Kg		
	28	Zn-67		67		52.03	ppb	0.25	25.2	mg / Kg		
	29	Zn-68		68		52.81	ppb	0.25	25.6	mg / Kg		
	32	As-75		75		1.46	ppb	0.025	0.708	mg / Kg		
	34	Se-82		82		1.11	ppb	0.025	0.538	mg / Kg		
	37	Sr-87		87		20.22	ppb	0.025	9.81	mg / Kg		
	40	Mo-95		95		1.4	ppb	0.025	0.679	mg / Kg		
	41	Mo-98		98		1.31	ppb	0.025	0.635	mg / Kg		
	43	Ag-107		107		0.22	ppb	0.025	< 0.242	mg / Kg		
	45	Ag-109		109		0.26	ppb	0.025	< 0.242	mg / Kg		
	46	Cd-111		111		0.35	ppb	0.025	< 0.242	mg / Kg		
	47	Cd-114		114		0.1	ppb	0.025	< 0.242	mg / Kg		
	50	Sn-120		120		1.86	ppb	0.025	0.902	mg / Kg		
	51	Sb-121		121		0.32	ppb	0.05	< 0.485	mg / Kg		
	52	Sb-123		123		0	ppb	0.05	< 0.485	mg / Kg		
	53	Ba-135		135		39.97	ppb	0.025	19.4	mg / Kg		
	54	Tb-159		159		0	ppb	0.001	< 0.010	mg / Kg		
	55	Au-197		197		-0.04	ppb	0.025	< 0.242	mg / Kg		
	56	Tl-205		205		-0.36	ppb	0.025	< 0.242	mg / Kg		
	59	Pb-208		208		7.22	ppb	0.025	3.50	mg / Kg		
	61	U-238		238		0.69	ppb	0.025	0.335	mg / Kg		

FRAC M021282-021

Assaigai Analytical Laboratories, Inc.

Analytical Result Summary

0209364-12A

Run Group	MT.2002.1118	52
Calc Method	6020	
Prep Method	MS3050	
Prep Matrix	SOLID	

		By	Dilution
Prepared	09-23-02 8:08:00	JRE	0.969
Analyzed	09-26-02 0:19:00	JWB	10
Calibration	09-25-02 17:15:00		
Quant	09-26-02 0:27:00	053SMPL.D#	

r	C#	Analyte	QMass	m	Raw Quant	As	MRL	Report	As	Qual	f
	3	Be-9	9		0.66	ppb	0.025	0.320	mg / Kg		
x	4	B-11	11		1.13	ppb	0.15	< 1.45	mg / Kg		
x	5	Na-23 >5x MB	23		183.7	ppb	0.5	89.0	mg / Kg		
x	6	Mg-24 >5x MB	24		1342	ppb	0.5	650	mg / Kg		
	7	Mg-25	25		1342	ppb	0.5	650	mg / Kg		
	8	Mg-26	26		1311	ppb	0.5	635	mg / Kg		
	9	Al-27	27		4938	ppb	0.5	2390	mg / Kg		
	10	Si-28	28		325.4	ppb	1	158	mg / Kg		
x	11	K-39 >5x MB	39		788.2	ppb	0.5	382	mg / Kg		
x	13	Ca-43 >5x MB	43		2399	ppb	0.5	1160	mg / Kg		
	14	Ca-44	44		2359	ppb	0.5	1140	mg / Kg		
	16	Ti-47	47		324.4	ppb	0.025	157	mg / Kg		x
x	17	V-51	51		10.4	ppb	0.05	5.04	mg / Kg		
	18	Cr-52	52		26.65	ppb	0.05	12.9	mg / Kg		
	19	Cr-53	53		28.2	ppb	0.25	13.7	mg / Kg		
	20	Fe-54	54		9656	ppb	0.5	4680	mg / Kg		
	21	Mn-55	55		329.7	ppb	0.025	160	mg / Kg		x
x	22	Fe-57 >5x MB	57		9791	ppb	0.5	4740	mg / Kg		
	23	Co-59	59		1.4	ppb	0.025	0.678	mg / Kg		
	24	Ni-60	60		4.05	ppb	0.025	1.96	mg / Kg		
	25	Cu-63	63		26.33	ppb	0.025	12.8	mg / Kg		
	26	Cu-65	65		26.43	ppb	0.025	12.8	mg / Kg		
x	27	Zn-66	66		66.45	ppb	0.25	32.2	mg / Kg		
	28	Zn-67	67		64.82	ppb	0.25	31.4	mg / Kg		
	29	Zn-68	68		62.43	ppb	0.25	30.2	mg / Kg		
	32	As-75	75		2.47	ppb	0.025	1.20	mg / Kg		
	34	Se-82	82		0.96	ppb	0.025	0.465	mg / Kg		
	37	Sr-87	87		38.57	ppb	0.025	18.7	mg / Kg		
	40	Mo-95	95		2.46	ppb	0.025	1.19	mg / Kg		
	41	Mo-98	98		2.33	ppb	0.025	1.13	mg / Kg		
	43	Ag-107	107		0.64	ppb	0.025	0.310	mg / Kg		
	45	Ag-109	109		0.65	ppb	0.025	0.315	mg / Kg		
	46	Cd-111	111		0.34	ppb	0.025	< 0.242	mg / Kg		
	47	Cd-114	114		0.13	ppb	0.025	< 0.242	mg / Kg		
	50	Sn-120	120		2.28	ppb	0.025	1.10	mg / Kg		
	51	Sb-121	121		0.34	ppb	0.05	< 0.484	mg / Kg		
	52	Sb-123	123		0.03	ppb	0.05	< 0.484	mg / Kg		
	53	Ba-135	135		69.66	ppb	0.025	33.8	mg / Kg		
	54	Tb-159	159		0	ppb	0.001	< 0.010	mg / Kg		
	55	Au-197	197		-0.03	ppb	0.025	< 0.242	mg / Kg		
	56	Tl-205	205		-0.33	ppb	0.025	< 0.242	mg / Kg		
	59	Pb-208	208		13.01	ppb	0.025	6.30	mg / Kg		
	61	U-238	238		0.7	ppb	0.025	0.339	mg / Kg		

FRAC M021282-022

Assaigai Analytical Laboratories, Inc.

Analytical Result Summary

0209364-13A By Dilution 469

Run Group	MT.2002.1118	53
Calc Method	6020	
Prep Method	MS3050	
Prep Matrix	SOLID	

Prepared	09-23-02 8:08:00	JRE	0.9217
Analyzed	09-26-02 0:29:00	JWB	10
Calibration	09-25-02 17:15:00		
Quant	09-26-02 0:36:00		054SMPL.D#

r	C#	Analyte	QMass	m	Raw Quant	As	MRL	Report	As	Qual	f
	3	Be-9	9		0.76	ppb	0.025	0.350	mg / Kg		
x	4	B-11	11		0.59	ppb	0.15	< 1.38	mg / Kg		
x	5	Na-23 >5x MB	23		252.7	ppb	0.5	116	mg / Kg		
x	6	Mg-24 >5x MB	24		1641	ppb	0.5	756	mg / Kg		
	7	Mg-25	25		1668	ppb	0.5	769	mg / Kg		
	8	Mg-26	26		1629	ppb	0.5	751	mg / Kg		
	9	Al-27	27		10900	ppb	0.5	5020	mg / Kg		
	10	Si-28	28		318	ppb	1	146	mg / Kg		
x	11	K-39 >5x MB	39		1316	ppb	0.5	606	mg / Kg		
x	13	Ca-43 >5x MB	43		2066	ppb	0.5	952	mg / Kg		
	14	Ca-44	44		2050	ppb	0.5	945	mg / Kg		
	16	Ti-47	47		550.6	ppb	0.025	254	mg / Kg		x
x	17	V-51	51		18.24	ppb	0.05	8.40	mg / Kg		
	18	Cr-52	52		9.3	ppb	0.05	4.28	mg / Kg		
	19	Cr-53	53		-2.19	ppb	0.25	< 2.30	mg / Kg		
	20	Fe-54	54		14320	ppb	0.5	6600	mg / Kg		x
	21	Mn-55	55		371.1	ppb	0.025	171	mg / Kg		x
	22	Fe-57	57		14870	ppb	0.5	6850	mg / Kg		x
	23	Co-59	59		5.66	ppb	0.025	2.61	mg / Kg		
	24	Ni-60	60		6.17	ppb	0.025	2.84	mg / Kg		
	25	Cu-63	63		4.01	ppb	0.025	1.85	mg / Kg		
	26	Cu-65	65		4.17	ppb	0.025	1.92	mg / Kg		
x	27	Zn-66	66		51.02	ppb	0.25	23.5	mg / Kg		
	28	Zn-67	67		51.79	ppb	0.25	23.9	mg / Kg		
	29	Zn-68	68		44.28	ppb	0.25	20.4	mg / Kg		
	32	As-75	75		3.77	ppb	0.025	1.74	mg / Kg		
	34	Se-82	82		1.11	ppb	0.025	0.512	mg / Kg		
	37	Sr-87	87		71.98	ppb	0.025	33.2	mg / Kg		
	40	Mo-95	95		1.89	ppb	0.025	0.871	mg / Kg		
	41	Mo-98	98		1.78	ppb	0.025	0.820	mg / Kg		
	43	Ag-107	107		0.15	ppb	0.025	< 0.230	mg / Kg		
	45	Ag-109	109		0.15	ppb	0.025	< 0.230	mg / Kg		
	46	Cd-111	111		0.46	ppb	0.025	< 0.230	mg / Kg		
	47	Cd-114	114		-0.02	ppb	0.025	< 0.230	mg / Kg		
	50	Sn-120	120		3.58	ppb	0.025	1.65	mg / Kg		
	51	Sb-121	121		0.31	ppb	0.05	< 0.461	mg / Kg		
	52	Sb-123	123		0.01	ppb	0.05	< 0.461	mg / Kg		
	53	Ba-135	135		72.17	ppb	0.025	33.2	mg / Kg		
	54	Tb-159	159		0	ppb	0.001	< 0.009	mg / Kg		
	55	Au-197	197		-0.01	ppb	0.025	< 0.230	mg / Kg		
	56	Tl-205	205		-0.23	ppb	0.025	< 0.230	mg / Kg		
	59	Pb-208	208		17.58	ppb	0.025	8.10	mg / Kg		
	61	U-238	238		0.96	ppb	0.025	0.442	mg / Kg		

47U

STD-CCV [STD-CCV]

Assaigai Analytical Laboratories, Inc.

Analytical Result Summary

Run Group	MT.2002.1118	54
Calc Method	6020	
Prep Method	LAB	
Prep Matrix	LAB	

		By	Dilution
Prepared			1
Analyzed	09-26-02 0:46:00	JWB	1
Calibration	09-25-02 17:15:00		
Quant	09-26-02 0:53:00		056CCV .D#

r	C#	Analyte	QMass	m	Raw Quant	As	MRL	Report	As	Qual	f
	3	Be-9	9		89.83	ppb	1	90	% Recovery		
	4	B-11	11		107.2	ppb	1	107	% Recovery		
	5	Na-23	23		1031	ppb	1	103	% Recovery		
	6	Mg-24	24		997.2	ppb	1	100	% Recovery		
	7	Mg-25	25		1029	ppb	1	103	% Recovery		
	8	Mg-26	26		1009	ppb	1	101	% Recovery		
	9	Al-27	27		1013	ppb	1	101	% Recovery		
	10	Si-28	28		930.4	ppb	1	93	% Recovery		
	11	K-39	39		985.7	ppb	1	98	% Recovery		
	13	Ca-43	43		1015	ppb	1	102	% Recovery		
	14	Ca-44	44		999.6	ppb	1	100	% Recovery		
	16	Ti-47	47		97.76	ppb	1	98	% Recovery		
	17	V-51	51		97.23	ppb	1	97	% Recovery		
	18	Cr-52	52		97.81	ppb	1	98	% Recovery		
	19	Cr-53	53		93.75	ppb	1	94	% Recovery		
	20	Fe-54	54		929.6	ppb	1	93	% Recovery		
	21	Mn-55	55		95.01	ppb	1	95	% Recovery		
	22	Fe-57	57		949.9	ppb	1	95	% Recovery		
	23	Co-59	59		95.48	ppb	1	95	% Recovery		
	24	Ni-60	60		95.51	ppb	1	96	% Recovery		
	25	Cu-63	63		95.13	ppb	1	95	% Recovery		
	26	Cu-65	65		95.84	ppb	1	96	% Recovery		
	27	Zn-66	66		99.38	ppb	1	99	% Recovery		
	28	Zn-67	67		97.09	ppb	1	97	% Recovery		
	29	Zn-68	68		97.12	ppb	1	97	% Recovery		
	32	As-75	75		98.75	ppb	1	99	% Recovery		
	34	Se-82	82		98.49	ppb	1	98	% Recovery		
	37	Sr-87	87		98.6	ppb	1	99	% Recovery		
	40	Mo-95	95		93.33	ppb	1	93	% Recovery		
	41	Mo-98	98		93.99	ppb	1	94	% Recovery		
	43	Ag-107	107		95.86	ppb	1	96	% Recovery		
	45	Ag-109	109		96.11	ppb	1	96	% Recovery		
	46	Cd-111	111		94.42	ppb	1	94	% Recovery		
	47	Cd-114	114		95.28	ppb	1	95	% Recovery		
	50	Sn-120	120		95.81	ppb	1	96	% Recovery		
	51	Sb-121	121		94.71	ppb	1	95	% Recovery		
	52	Sb-123	123		95.04	ppb	1	95	% Recovery		
	53	Ba-135	135		94.63	ppb	1	95	% Recovery		
	54	Tb-159	159		0	ppb	1	< 1	% Recovery		x
	55	Au-197	197		92.82	ppb	1	93	% Recovery		
	56	Tl-205	205		95.57	ppb	1	96	% Recovery		
	59	Pb-208	208		97.51	ppb	1	98	% Recovery		
	61	U-238	238		97.2	ppb	1	97	% Recovery		

CB [CB]

Assaigai Analytical Laboratories, Inc.

Analytical Result Summary

Run Group	MT.2002.1118	55
Calc Method	6020	
Prep Method	LAB	
Prep Matrix	LAB	

		By	Dilution
Prepared			1
Analyzed	09-26-02 0:55:00	JWB	1
Calibration	09-25-02 17:15:00		
Quant	09-26-02 1:02:00		057CCB .D#

r	C#	Analyte	QMass	m	Raw Quant	As	MRL	Report	As	Qual	f
	3	Be-9	9		0.03	ppb	0.001	< 0.001	mg / L		
	4	B-11	11		0.26	ppb	0.001	< 0.001	mg / L		
	5	Na-23	23		0.79	ppb	0.01	< 0.010	mg / L		
	6	Mg-24	24		0.2	ppb	0.01	< 0.010	mg / L		
	7	Mg-25	25		0.19	ppb	0.01	< 0.010	mg / L		
	8	Mg-26	26		0.11	ppb	0.01	< 0.010	mg / L		
	9	Al-27	27		1.63	ppb	0.01	< 0.010	mg / L		
	10	Si-28	28		-68.48	ppb	0.001	< 0.001	mg / L		
	11	K-39	39		-8.57	ppb	0.01	< 0.010	mg / L		
	13	Ca-43	43		-5.92	ppb	0.01	< 0.010	mg / L		
	14	Ca-44	44		-2.11	ppb	0.01	< 0.010	mg / L		
	16	Ti-47	47		0.08	ppb	0.001	< 0.001	mg / L		
	17	V-51	51		0.31	ppb	0.001	< 0.001	mg / L		
	18	Cr-52	52		0.26	ppb	0.001	< 0.001	mg / L		
	19	Cr-53	53		12.43	ppb	0.001	0.012	mg / L		x
	20	Fe-54	54		-70.89	ppb	0.01	< 0.010	mg / L		
	21	Mn-55	55		-0.05	ppb	0.001	< 0.001	mg / L		
	22	Fe-57	57		-7.18	ppb	0.01	< 0.010	mg / L		
	23	Co-59	59		-0.18	ppb	0.001	< 0.001	mg / L		
	24	Ni-60	60		0	ppb	0.001	< 0.001	mg / L		
	25	Cu-63	63		-0.01	ppb	0.001	< 0.001	mg / L		
	26	Cu-65	65		-0.02	ppb	0.001	< 0.001	mg / L		
	27	Zn-66	66		-0.05	ppb	0.001	< 0.001	mg / L		
	28	Zn-67	67		1.52	ppb	0.001	0.002	mg / L		x
	29	Zn-68	68		-0.96	ppb	0.001	< 0.001	mg / L		
	32	As-75	75		0.45	ppb	0.001	< 0.001	mg / L		
	34	Se-82	82		0.32	ppb	0.001	< 0.001	mg / L		
	37	Sr-87	87		0.06	ppb	0.001	< 0.001	mg / L		
	40	Mo-95	95		0.22	ppb	0.001	< 0.001	mg / L		
	41	Mo-98	98		0.22	ppb	0.001	< 0.001	mg / L		
	43	Ag-107	107		0.03	ppb	0.001	< 0.001	mg / L		
	45	Ag-109	109		0.04	ppb	0.001	< 0.001	mg / L		
	46	Cd-111	111		0.02	ppb	0.001	< 0.001	mg / L		
	47	Cd-114	114		0.03	ppb	0.001	< 0.001	mg / L		
	50	Sn-120	120		0	ppb	0.001	< 0.001	mg / L		
	51	Sb-121	121		0.36	ppb	0.001	< 0.001	mg / L		
	52	Sb-123	123		0.06	ppb	0.001	< 0.001	mg / L		
	53	Ba-135	135		0.02	ppb	0.001	< 0.001	mg / L		
	54	Tb-159	159		0	ppb	0.001	< 0.001	mg / L		
	55	Au-197	197		0.41	ppb	0.001	< 0.001	mg / L		
	56	Tl-205	205		0.29	ppb	0.001	< 0.001	mg / L		
	59	Pb-208	208		-0.16	ppb	0.001	< 0.001	mg / L		
	61	U-238	238		0.04	ppb	0.001	< 0.001	mg / L		

FRAC M021282-023

Assaigai Analytical Laboratories, Inc.

Analytical Result Summary

0209364-14A By 472 Dilution

Run Group	MT.20021118	59
Calc Method	6020	
Prep Method	MS3050	
Prep Matrix	SOLID	

Prepared	09-23-02 8:08:00	JRE	0.9479
Analyzed	09-26-02 1:32:00	JWB	10
Calibration	09-25-02 17:15:00		
Quant	09-26-02 1:39:00		061SMPL.D#

r	C#	Analyte	QMass	m	Raw Quant	As	MRL	Report	As	Qual	f
	3	Be-9	9		1.12	ppb	0.025	0.531	mg / Kg		
x	4	B-11 ND	11		2.47	ppb	0.15	< 1.42	mg / Kg		
x	5	Na-23 > 5x MB	23		219.3	ppb	0.5	104	mg / Kg		
x	6	Mg-24 > 5x MB	24		2645	ppb	0.5	1250	mg / Kg		
	7	Mg-25	25		2731	ppb	0.5	1290	mg / Kg		
	8	Mg-26	26		2660	ppb	0.5	1260	mg / Kg		
	9	Al-27	27		16600	ppb	0.5	7870	mg / Kg		x
	10	Si-28	28		268.9	ppb	1	127	mg / Kg		
x	11	K-39 > 5x MB	39		1799	ppb	0.5	853	mg / Kg		
x	13	Ca-43 > 5x MB	43		2935	ppb	0.5	1390	mg / Kg		
	14	Ca-44	44		2906	ppb	0.5	1380	mg / Kg		
	16	Ti-47	47		496.6	ppb	0.025	235	mg / Kg		x
x	17	V-51	51		23.93	ppb	0.05	11.3	mg / Kg		
	18	Cr-52	52		77.41	ppb	0.05	36.7	mg / Kg		
	19	Cr-53	53		66.73	ppb	0.25	31.6	mg / Kg		
	20	Fe-54	54		18220	ppb	0.5	8640	mg / Kg		x
	21	Mn-55	55		377.4	ppb	0.025	179	mg / Kg		x
	22	Fe-57	57		18190	ppb	0.5	8620	mg / Kg		x
	23	Co-59	59		4.05	ppb	0.025	1.92	mg / Kg		
	24	Ni-60	60		8.75	ppb	0.025	4.15	mg / Kg		
	25	Cu-63	63		14.46	ppb	0.025	6.85	mg / Kg		
	26	Cu-65	65		14.63	ppb	0.025	6.93	mg / Kg		
x	27	Zn-66	66		93.7	ppb	0.25	44.4	mg / Kg		
	28	Zn-67	67		98.33	ppb	0.25	46.6	mg / Kg		
	29	Zn-68	68		84.99	ppb	0.25	40.3	mg / Kg		
	32	As-75	75		5.05	ppb	0.025	2.39	mg / Kg		
	34	Se-82	82		1.31	ppb	0.025	0.621	mg / Kg		
	37	Sr-87	87		108.1	ppb	0.025	51.2	mg / Kg		
	40	Mo-95	95		3.92	ppb	0.025	1.86	mg / Kg		
	41	Mo-98	98		3.88	ppb	0.025	1.84	mg / Kg		
	43	Ag-107	107		2.95	ppb	0.025	1.40	mg / Kg		
	45	Ag-109	109		2.99	ppb	0.025	1.42	mg / Kg		
	46	Cd-111	111		0.75	ppb	0.025	0.355	mg / Kg		
	47	Cd-114	114		0.37	ppb	0.025	< 0.237	mg / Kg		
	50	Sn-120	120		5.03	ppb	0.025	2.38	mg / Kg		
	51	Sb-121	121		0.34	ppb	0.05	< 0.474	mg / Kg		
	52	Sb-123	123		0.02	ppb	0.05	< 0.474	mg / Kg		
	53	Ba-135	135		119.3	ppb	0.025	56.5	mg / Kg		
	54	Tb-159	159		0	ppb	0.001	< 0.009	mg / Kg		
	55	Au-197	197		0.1	ppb	0.025	< 0.237	mg / Kg		
	56	Tl-205	205		-0.08	ppb	0.025	< 0.237	mg / Kg		
	59	Pb-208	208		29.17	ppb	0.025	13.8	mg / Kg		
	61	U-238	238		1.44	ppb	0.025	0.682	mg / Kg		

FRAC M021282-024

Assaigai Analytical Laboratories, Inc.

Analytical Result Summary

0209364-15A

473

			By	Dilution
Prepared	09-23-02 8:08:00		JRE	0.947
Analyzed	09-26-02 1:41:00		JWB	10
Calibration	09-25-02 17:15:00			
Quant	09-26-02 1:49:00		062SMPL.D#	

Run Group	MT.2002.1118 60
Calc Method	6020
Prep Method	MS3050
Prep Matrix	SOLID

r	C#	Analyte	QMass	m	Raw Quant	As	MRL	Report	As	Qual	f
	3	Be-9	9		0.85	ppb	0.025	0.402	mg / Kg		
x	4	B-11 ND	11		1.35	ppb	0.15	< 1.42	mg / Kg		
x	5	Na-23 >5x MB	23		287.4	ppb	0.5	136	mg / Kg		
x	6	Mg-24 >5x MB	24		1371	ppb	0.5	649	mg / Kg		
	7	Mg-25	25		1397	ppb	0.5	661	mg / Kg		
	8	Mg-26	26		1359	ppb	0.5	643	mg / Kg		
	9	Al-27	27		9217	ppb	0.5	4360	mg / Kg		
	10	Si-28	28		339.8	ppb	1	161	mg / Kg		
x	11	K-39 >5x MB	39		1221	ppb	0.5	578	mg / Kg		
x	13	Ca-43 >5x MB	43		1825	ppb	0.5	864	mg / Kg		
	14	Ca-44	44		1788	ppb	0.5	846	mg / Kg		
	16	Ti-47	47		315.4	ppb	0.025	149	mg / Kg		x
x	17	V-51	51		8.69	ppb	0.05	4.11	mg / Kg		
	18	Cr-52	52		5.02	ppb	0.05	2.38	mg / Kg		
	19	Cr-53	53		-5.78	ppb	0.25	< 2.37	mg / Kg		
	20	Fe-54	54		11970	ppb	0.5	5670	mg / Kg		x
	21	Mn-55	55		320.8	ppb	0.025	152	mg / Kg		x
	22	Fe-57	57		11780	ppb	0.5	5580	mg / Kg		x
	23	Co-59	59		1.13	ppb	0.025	0.535	mg / Kg		
	24	Ni-60	60		3.9	ppb	0.025	1.85	mg / Kg		
	25	Cu-63	63		3.73	ppb	0.025	1.77	mg / Kg		
	26	Cu-65	65		3.93	ppb	0.025	1.86	mg / Kg		
x	27	Zn-66	66		57.72	ppb	0.25	27.3	mg / Kg		
	28	Zn-67	67		58.27	ppb	0.25	27.6	mg / Kg		
	29	Zn-68	68		52.14	ppb	0.25	24.7	mg / Kg		
	32	As-75	75		2.09	ppb	0.025	0.990	mg / Kg		
	34	Se-82	82		1.33	ppb	0.025	0.630	mg / Kg		
	37	Sr-87	87		66.8	ppb	0.025	31.6	mg / Kg		
	40	Mo-95	95		3.52	ppb	0.025	1.67	mg / Kg		
	41	Mo-98	98		3.57	ppb	0.025	1.69	mg / Kg		
	43	Ag-107	107		0.01	ppb	0.025	< 0.237	mg / Kg		
	45	Ag-109	109		0.01	ppb	0.025	< 0.237	mg / Kg		
	46	Cd-111	111		0.35	ppb	0.025	< 0.237	mg / Kg		
	47	Cd-114	114		0.02	ppb	0.025	< 0.237	mg / Kg		
	50	Sn-120	120		3.41	ppb	0.025	1.61	mg / Kg		
	51	Sb-121	121		0.32	ppb	0.05	< 0.474	mg / Kg		
	52	Sb-123	123		-0.01	ppb	0.05	< 0.474	mg / Kg		
	53	Ba-135	135		61.51	ppb	0.025	29.1	mg / Kg		
	54	Tb-159	159		0	ppb	0.001	< 0.009	mg / Kg		
	55	Au-197	197		-0.03	ppb	0.025	< 0.237	mg / Kg		
	56	Tl-205	205		-0.14	ppb	0.025	< 0.237	mg / Kg		
	59	Pb-208	208		19.33	ppb	0.025	9.15	mg / Kg		
	61	U-238	238		0.82	ppb	0.025	0.388	mg / Kg		

FRAC M021282-025

Assaigai Analytical Laboratories, Inc.

Analytical Result Summary

0209364-16A

Run Group	MT.2002.1118	61
Calc Method	6020	
Prep Method	MS3050	
Prep Matrix	SOLID	

		By	Dilution
Prepared	09-23-02 8:08:00	JRE	0.9747
Analyzed	09-26-02 1:51:00	JWB	10
Calibration	09-25-02 17:15:00		
Quant	09-26-02 1:58:00	063SMPL.D#	

r	C#	Analyte	QMass	m	Raw Quant	As	MRL	Report	As	Qual	f
	3	Be-9	9		0.86	ppb	0.025	0.419	mg / Kg		
x	4	B-11 ND	11		1.56	ppb	0.15	< 1.46	mg / Kg		
x	5	Na-23 >5x MB	23		277.8	ppb	0.5	135	mg / Kg		
x	6	Mg-24 >5x MB	24		1385	ppb	0.5	675	mg / Kg		
	7	Mg-25	25		1393	ppb	0.5	679	mg / Kg		
	8	Mg-26	26		1366	ppb	0.5	666	mg / Kg		
	9	Al-27	27		9817	ppb	0.5	4780	mg / Kg		
	10	Si-28	28		519	ppb	1	253	mg / Kg		
x	11	K-39 >5x MB	39		1266	ppb	0.5	617	mg / Kg		
x	13	Ca-43 >5x MB	43		2033	ppb	0.5	991	mg / Kg		
	14	Ca-44	44		1992	ppb	0.5	971	mg / Kg		
	16	Ti-47	47		285.6	ppb	0.025	139	mg / Kg		x
x	17	V-51	51		9.48	ppb	0.05	4.62	mg / Kg		
	18	Cr-52	52		5.27	ppb	0.05	2.57	mg / Kg		
	19	Cr-53	53		-4.7	ppb	0.25	< 2.44	mg / Kg		
	20	Fe-54	54		10950	ppb	0.5	5340	mg / Kg		x
	21	Mn-55	55		329.3	ppb	0.025	160	mg / Kg		x
	22	Fe-57	57		10790	ppb	0.5	5260	mg / Kg		x
	23	Co-59	59		1.69	ppb	0.025	0.824	mg / Kg		
	24	Ni-60	60		4.4	ppb	0.025	2.14	mg / Kg		
	25	Cu-63	63		3.77	ppb	0.025	1.84	mg / Kg		
	26	Cu-65	65		3.9	ppb	0.025	1.90	mg / Kg		
x	27	Zn-66	66		48.88	ppb	0.25	23.8	mg / Kg		
	28	Zn-67	67		50.45	ppb	0.25	24.6	mg / Kg		
	29	Zn-68	68		42.58	ppb	0.25	20.8	mg / Kg		
	32	As-75	75		2.87	ppb	0.025	1.40	mg / Kg		
	34	Se-82	82		1.38	ppb	0.025	0.672	mg / Kg		
	37	Sr-87	87		68.68	ppb	0.025	33.5	mg / Kg		
	40	Mo-95	95		2.66	ppb	0.025	1.30	mg / Kg		
	41	Mo-98	98		2.59	ppb	0.025	1.26	mg / Kg		
	43	Ag-107	107		0	ppb	0.025	< 0.244	mg / Kg		
	45	Ag-109	109		0	ppb	0.025	< 0.244	mg / Kg		
	46	Cd-111	111		0.28	ppb	0.025	< 0.244	mg / Kg		
	47	Cd-114	114		0.04	ppb	0.025	< 0.244	mg / Kg		
	50	Sn-120	120		3.66	ppb	0.025	1.78	mg / Kg		
	51	Sb-121	121		0.31	ppb	0.05	< 0.487	mg / Kg		
	52	Sb-123	123		0	ppb	0.05	< 0.487	mg / Kg		
	53	Ba-135	135		66.25	ppb	0.025	32.3	mg / Kg		
	54	Tb-159	159		0	ppb	0.001	< 0.010	mg / Kg		
	55	Au-197	197		-0.03	ppb	0.025	< 0.244	mg / Kg		
	56	Tl-205	205		-0.18	ppb	0.025	< 0.244	mg / Kg		
	59	Pb-208	208		18.34	ppb	0.025	8.94	mg / Kg		
	61	U-238	238		0.83	ppb	0.025	0.404	mg / Kg		

FRAC M021282-026

Assaigai Analytical Laboratories, Inc.

Analytical Result Summary

0209364-17A By Dilution 475

Run Group	MT.20021118	62
Calc Method	6020	
Prep Method	MS3050	
Prep Matrix	SOLID	

Prepared	09-23-02 8:08:00	JRE	0.9355
Analyzed	09-26-02 2:00:00	JWB	10
Calibration	09-25-02 17:15:00		
Quant	09-26-02 2:07:00	064SMPL.D#	

r	C#	Analyte	QMass	m	Raw Quant	As	MRL	Report	As	Qual	f
	3	Be-9	9		1.03	ppb	0.025	0.482	mg / Kg		
	4	B-11 Not Reported	11		3.09	ppb	0.15	1.44	mg / Kg		
x	5	Na-23 >5x MB	23		225.1	ppb	0.5	105	mg / Kg		
x	6	Mg-24 >5x MB	24		2538	ppb	0.5	1190	mg / Kg		
	7	Mg-25	25		2487	ppb	0.5	1160	mg / Kg		
	8	Mg-26	26		2418	ppb	0.5	1130	mg / Kg		
	9	Al-27	27		15460	ppb	0.5	7230	mg / Kg		x
	10	Si-28	28		1273	ppb	1	595	mg / Kg		
x	11	K-39 >5x MB	39		2109	ppb	0.5	986	mg / Kg		
x	13	Ca-43 >5x MB	43		4198	ppb	0.5	1960	mg / Kg		
	14	Ca-44	44		4187	ppb	0.5	1960	mg / Kg		
	16	Ti-47	47		281.9	ppb	0.025	132	mg / Kg		x
x	17	V-51	51		16.64	ppb	0.05	7.78	mg / Kg		
	18	Cr-52	52		10.67	ppb	0.05	4.99	mg / Kg		
	19	Cr-53	53		2.76	ppb	0.25	< 2.34	mg / Kg		
	20	Fe-54	54		10660	ppb	0.5	4980	mg / Kg		x
	21	Mn-55	55		263	ppb	0.025	123	mg / Kg		x
	22	Fe-57	57		10590	ppb	0.5	4950	mg / Kg		x
	23	Co-59	59		3.07	ppb	0.025	1.44	mg / Kg		
	24	Ni-60	60		6.92	ppb	0.025	3.24	mg / Kg		
	25	Cu-63	63		5.94	ppb	0.025	2.78	mg / Kg		
	26	Cu-65	65		6.07	ppb	0.025	2.84	mg / Kg		
x	27	Zn-66	66		40.87	ppb	0.25	19.1	mg / Kg		
	28	Zn-67	67		49.32	ppb	0.25	23.1	mg / Kg		
	29	Zn-68	68		33.47	ppb	0.25	15.6	mg / Kg		
	32	As-75	75		2.73	ppb	0.025	1.28	mg / Kg		
	34	Se-82	82		1.39	ppb	0.025	0.650	mg / Kg		
	37	Sr-87	87		110.7	ppb	0.025	51.8	mg / Kg		
	40	Mo-95	95		1.08	ppb	0.025	0.505	mg / Kg		
	41	Mo-98	98		1.11	ppb	0.025	0.519	mg / Kg		
	43	Ag-107	107		0.16	ppb	0.025	< 0.234	mg / Kg		
	45	Ag-109	109		0.15	ppb	0.025	< 0.234	mg / Kg		
	46	Cd-111	111		0.4	ppb	0.025	< 0.234	mg / Kg		
	47	Cd-114	114		0.01	ppb	0.025	< 0.234	mg / Kg		
	50	Sn-120	120		1.97	ppb	0.025	0.921	mg / Kg		
	51	Sb-121	121		0.31	ppb	0.05	< 0.468	mg / Kg		
	52	Sb-123	123		0	ppb	0.05	< 0.468	mg / Kg		
	53	Ba-135	135		115.1	ppb	0.025	53.8	mg / Kg		
	54	Tb-159	159		0	ppb	0.001	< 0.009	mg / Kg		
	55	Au-197	197		0.02	ppb	0.025	< 0.234	mg / Kg		
	56	Tl-205	205		-0.25	ppb	0.025	< 0.234	mg / Kg		
	59	Pb-208	208		19.48	ppb	0.025	9.11	mg / Kg		
	61	U-238	238		1.09	ppb	0.025	0.510	mg / Kg		

STD-CCV [STD-CCV]

Assaigai Analytical Laboratories, Inc.

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Analytical Result Summary

Run Group	MT.2002.1118	63
Calc Method	6020	
Prep Method	LAB	
Prep Matrix	LAB	

		By	Dilution
Prepared			1
Analyzed	09-26-02 2:09:00	JWB	1
Calibration	09-25-02 17:15:00		
Quant	09-26-02 2:16:00	065CCV	.D#

r	C#	Analyte	QMass	m	Raw Quant	As	MRL	Report	As	Qual	f
	3	Be-9	9		91.15	ppb	1	91	% Recovery		
	4	B-11	11		113.3	ppb	1	113	% Recovery		x
	5	Na-23	23		1068	ppb	1	107	% Recovery		
	6	Mg-24	24		1048	ppb	1	105	% Recovery		
	7	Mg-25	25		1075	ppb	1	108	% Recovery		
	8	Mg-26	26		1031	ppb	1	103	% Recovery		
	9	Al-27	27		1024	ppb	1	102	% Recovery		
	10	Si-28	28		928.9	ppb	1	93	% Recovery		
	11	K-39	39		1010	ppb	1	101	% Recovery		
	13	Ca-43	43		1042	ppb	1	104	% Recovery		
	14	Ca-44	44		1023	ppb	1	102	% Recovery		
	16	Ti-47	47		99.67	ppb	1	100	% Recovery		
	17	V-51	51		98.8	ppb	1	99	% Recovery		
	18	Cr-52	52		99.44	ppb	1	99	% Recovery		
	19	Cr-53	53		87.87	ppb	1	88	% Recovery		x
	20	Fe-54	54		938.1	ppb	1	94	% Recovery		
	21	Mn-55	55		94.24	ppb	1	94	% Recovery		
	22	Fe-57	57		953.2	ppb	1	95	% Recovery		
	23	Co-59	59		93.84	ppb	1	94	% Recovery		
	24	Ni-60	60		93.06	ppb	1	93	% Recovery		
	25	Cu-63	63		92.8	ppb	1	93	% Recovery		
	26	Cu-65	65		93.91	ppb	1	94	% Recovery		
	27	Zn-66	66		98.75	ppb	1	99	% Recovery		
	28	Zn-67	67		96.37	ppb	1	96	% Recovery		
	29	Zn-68	68		96.83	ppb	1	97	% Recovery		
	32	As-75	75		98.75	ppb	1	99	% Recovery		
	34	Se-82	82		99.11	ppb	1	99	% Recovery		
	37	Sr-87	87		100.1	ppb	1	100	% Recovery		
	40	Mo-95	95		97.43	ppb	1	97	% Recovery		
	41	Mo-98	98		97.4	ppb	1	97	% Recovery		
	43	Ag-107	107		98.05	ppb	1	98	% Recovery		
	45	Ag-109	109		98.04	ppb	1	98	% Recovery		
	46	Cd-111	111		96	ppb	1	96	% Recovery		
	47	Cd-114	114		96.54	ppb	1	96	% Recovery		
	50	Sn-120	120		97.2	ppb	1	97	% Recovery		
	51	Sb-121	121		95.74	ppb	1	96	% Recovery		
	52	Sb-123	123		96.28	ppb	1	96	% Recovery		
	53	Ba-135	135		95.49	ppb	1	95	% Recovery		
	54	Tb-159	159		0	ppb	1	< 1	% Recovery		x
	55	Au-197	197		92.53	ppb	1	92	% Recovery		
	56	Tl-205	205		96.93	ppb	1	97	% Recovery		
	59	Pb-208	208		98.38	ppb	1	98	% Recovery		
	61	U-238	238		99.58	ppb	1	100	% Recovery		

CB [CB]

Assaigai Analytical Laboratories, Inc.

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Analytical Result Summary

Run Group	MT.2002.1118	64
Calc Method	6020	
Prep Method	LAB	
Prep Matrix	LAB	

		By	Dilution
Prepared			1
Analyzed	09-26-02 2:18:00	JWB	1
Calibration	09-25-02 17:15:00		
Quant	09-26-02 2:25:00	066CCB	.D#

r	C#	Analyte	QMass	m	Raw Quant	As	MRL	Report	As	Qual	f
	3	Be-9	9		0.03	ppb	0.001	< 0.001	mg / L		
	4	B-11	11		0.29	ppb	0.001	< 0.001	mg / L		
	5	Na-23	23		3.69	ppb	0.01	< 0.010	mg / L		
	6	Mg-24	24		1.7	ppb	0.01	< 0.010	mg / L		
	7	Mg-25	25		1.73	ppb	0.01	< 0.010	mg / L		
	8	Mg-26	26		1.4	ppb	0.01	< 0.010	mg / L		
	9	Al-27	27		4.32	ppb	0.01	< 0.010	mg / L		
	10	Si-28	28		-90.87	ppb	0.001	< 0.001	mg / L		
	11	K-39	39		-8.84	ppb	0.01	< 0.010	mg / L		
	13	Ca-43	43		-3.05	ppb	0.01	< 0.010	mg / L		
	14	Ca-44	44		-0.58	ppb	0.01	< 0.010	mg / L		
	16	Ti-47	47		0.19	ppb	0.001	< 0.001	mg / L		
	17	V-51	51		0.55	ppb	0.001	< 0.001	mg / L		
	18	Cr-52	52		0.15	ppb	0.001	< 0.001	mg / L		
	19	Cr-53	53		3.84	ppb	0.001	0.004	mg / L		x
	20	Fe-54	54		-97.68	ppb	0.01	< 0.010	mg / L		
	21	Mn-55	55		-0.08	ppb	0.001	< 0.001	mg / L		
	22	Fe-57	57		-7.55	ppb	0.01	< 0.010	mg / L		
	23	Co-59	59		-0.33	ppb	0.001	< 0.001	mg / L		
	24	Ni-60	60		0.01	ppb	0.001	< 0.001	mg / L		
	25	Cu-63	63		-0.01	ppb	0.001	< 0.001	mg / L		
	26	Cu-65	65		-0.01	ppb	0.001	< 0.001	mg / L		
	27	Zn-66	66		-0.06	ppb	0.001	< 0.001	mg / L		
	28	Zn-67	67		1.05	ppb	0.001	0.001	mg / L		x
	29	Zn-68	68		-1.15	ppb	0.001	< 0.001	mg / L		
	32	As-75	75		0.77	ppb	0.001	< 0.001	mg / L		
	34	Se-82	82		0.41	ppb	0.001	< 0.001	mg / L		
	37	Sr-87	87		0.05	ppb	0.001	< 0.001	mg / L		
	40	Mo-95	95		0.5	ppb	0.001	< 0.001	mg / L		
	41	Mo-98	98		0.47	ppb	0.001	< 0.001	mg / L		
	43	Ag-107	107		0.04	ppb	0.001	< 0.001	mg / L		
	45	Ag-109	109		0.04	ppb	0.001	< 0.001	mg / L		
	46	Cd-111	111		0.03	ppb	0.001	< 0.001	mg / L		
	47	Cd-114	114		0.05	ppb	0.001	< 0.001	mg / L		
	50	Sn-120	120		-0.05	ppb	0.001	< 0.001	mg / L		
	51	Sb-121	121		0.37	ppb	0.001	< 0.001	mg / L		
	52	Sb-123	123		0.06	ppb	0.001	< 0.001	mg / L		
	53	Ba-135	135		0.05	ppb	0.001	< 0.001	mg / L		
	54	Tb-159	159		0	ppb	0.001	< 0.001	mg / L		
	55	Au-197	197		0.44	ppb	0.001	< 0.001	mg / L		
	56	Tl-205	205		0.16	ppb	0.001	< 0.001	mg / L		
	59	Pb-208	208		-0.31	ppb	0.001	< 0.001	mg / L		
	61	U-238	238		0.05	ppb	0.001	< 0.001	mg / L		

Tune Sample Report

File : D:\HPCHEM\1\DATA\Sep2502.16A\001TUNE.D
Acquired : Sep 25 02 04:24 pm using AcqMethod QCTUNE.M
Operator : JWB
Sample Name: 6020/200.8 TUNE MIX
Misc Info :
Vial Number: 1101
CurrentMeth: D:\HPCHEM\1\METHODS\QCTUNE.M
BkgFile : --------
Sample Type: TUNE
Dilution : 1.000000

Minimum Response Criteria (cps/ppb)

Element	RSD(%)	Actual	Required	Flag
59	0.73	126310	> 200	
7	2.18	181974	> 20	
115	1.10	144175	> 100	
205	2.45	64952	> 10	
102		0(cps)	< 25(cps)	

Ion Ratio Criteria

	Actual	Required	Flag
59/59	1.00	1.00 - 1.00	
7/59	1.44	0.10 - 5.00	
115/59	1.14	0.10 - 10.00	
205/59	0.51	0.10 - 5.00	

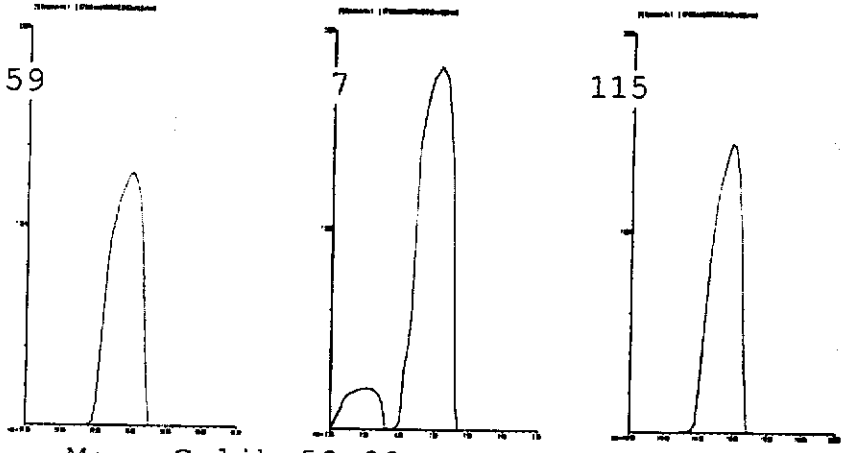

Mass Calib:	59.00	Mass Calib:	7.05	Mass Calib:	114.95
W-50%:	0.60	W-50%:	0.60	W-50%:	0.55
W-10%:	0.70	W-10%:	0.80	W-10%:	0.65

205 102

US EPA Method 200.8 Tune Verification

Acquired : Sep 25 02 04:24 pm using AcqMethod QCTUNE.M
Data File Name: D:\HPCHEM\1\DATA\Sep2502.16A\001TUNE.D

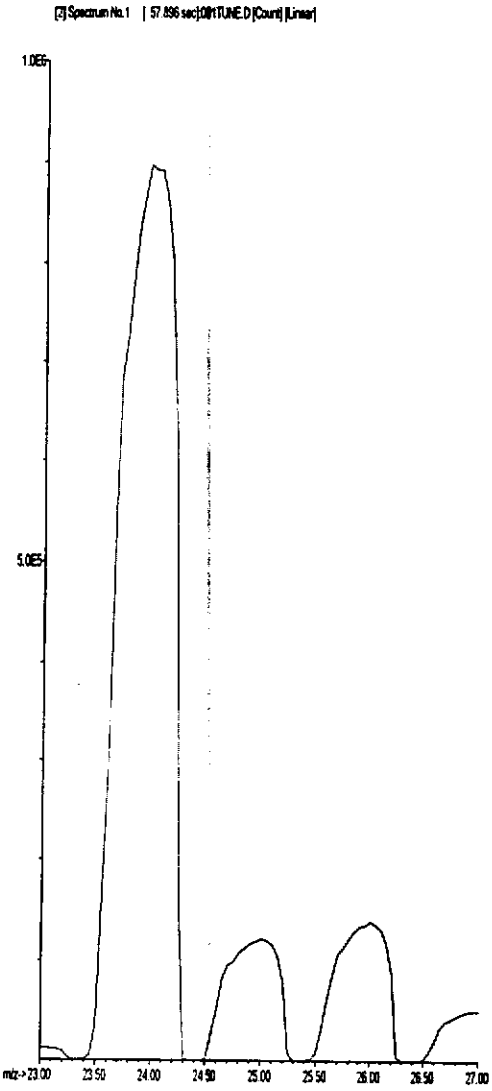

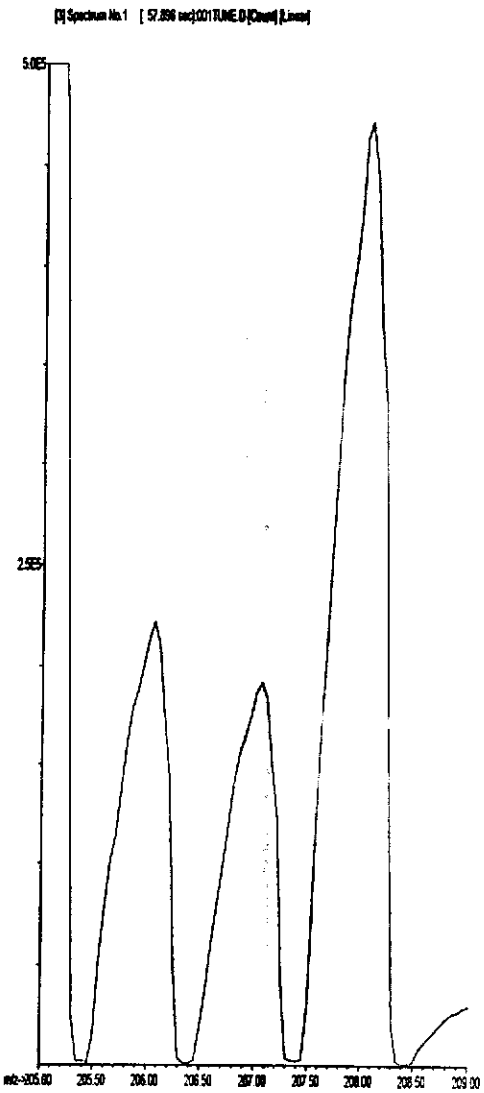

Element and Mass	Mass Assignment		PeakElement at 5and Mass Heig	Mass Assignment		Peak Width at 5% Peak Height
Mg 24	23.95	0.70	Pb 206	206.05	0.75	
Mg 25	25.00	0.70	Pb 207	207.05	0.75	
Mg 26	26.00	0.65	Pb 208	208.05	0.75	

* Does not meet EPA Method 200.8 specification.

Spectrum No.1 [57.896 sec]:001TUNE.D
Acquired : Sep 25 02 04:24 pm using AcqMethod QCTUNE.M
Bkg file : --------
Interference Correction: OFF

Mass[amu]	Element	Count	n	SD	RSD[%]
5		5682.35 P	5	351.90	6.19
6		2451256.00 P	5	43060.00	1.76
7	Li	20352810.00 A	5	586700.00	2.88
8		11.80 P	5	2.78	23.52
23		177818.80 P	5	5552.00	3.12
24		10039390.00 A	5	234700.00	2.34
25		1361232.00 P	5	15620.00	1.15
26		1529479.00 P	5	32480.00	2.12
27		556426.10 P	5	5451.00	0.98
58		157923.50 P	5	8088.00	5.12
59	Co	13208730.00 A	5	232400.00	1.76
60		265.61 P	5	17.34	6.53
101		16.60 P	5	6.88	41.43
103		530.62 P	5	19.42	3.66
114		290336.00 P	5	23620.00	8.14
115	In	13583750.00 A	5	164400.00	1.21
116		682.62 P	5	31.32	4.59
204		198445.60 P	5	2052.00	1.03
205	Tl	6738942.00 A	5	71700.00	1.06
206		2248533.00 P	5	19360.00	0.86
207		1945282.00 P	5	15480.00	0.80
208		4835513.00 A	5	40660.00	0.84
209		320750.70 P	5	3446.00	1.07

Calibration Blank QC Report

File : D:\HPCHEM\1\DATA\Sep2502.16A\002CALB.D\002CALB.D#
Acquired : Sep 25 02 04:32 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: CAL BLANK
Misc Info :
Vial Number: 1102
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: CALBLK
Dilution : 1.000000

Mass	Element	Count	n	SD	RSD[%]
6	Li	223895.80 P	3	4538.00	2.03
7	(Li)	14981.06 P	3	345.50	2.31
9	Be	3.67 P	3	1.16	31.49
11	B	2283.47 P	3	42.59	1.87
23	Na	22773.53 P	3	817.90	3.59
24	Mg	4193.49 P	3	804.10	19.17
25	Mg	541.37 P	3	134.30	24.81
26	Mg	729.06 P	3	108.30	14.86
27	Al	20524.88 P	3	756.60	3.69
28	Si	532298.30 P	3	7668.00	1.44
39	K	281473.30 P	3	2191.00	0.78
43	Ca	151.84 P	3	10.65	7.02
44	Ca	2176.75 P	3	53.46	2.46
45	Sc	177943.70 P	3	480.20	0.27
47	Ti	157.72 P	3	23.04	14.61
51	V	5112.21 P	3	2005.00	39.23
52	Cr	9241.05 P	3	149.40	1.62
53	Cr	19041.05 P	3	403.10	2.12
54	Fe	114757.10 P	3	1112.00	0.97
55	Mn	1853.29 P	3	45.05	2.43
57	Fe	6144.12 P	3	77.54	1.26
59	Co	1157.13 P	3	68.48	5.92
60	Ni	47.00 P	3	6.00	12.77
63	Cu	144.00 P	3	14.73	10.23
65	Cu	74.00 P	3	12.12	16.38
66	Zn	1135.36 P	3	66.20	5.83
67	Zn	1500.44 P	3	133.50	8.89
68	Zn	5414.10 P	3	109.40	2.02
69	(Zn)	580.67 P	3	17.90	3.08
72	Ge	264066.80 P	3	1847.00	0.70
75	As	1076.14 P	3	2783.00	258.58
77	(As)	60144.91 P	3	553.70	0.92
82	Se	-20.67 P	3	24.21	117.17
83	(Se)	1261.01 P	3	20.30	1.61

File : D:\HPCHEM\1\DATA\Sep2502.16A\002CALB.D\002CALB.D#
Acquired : Sep 25 02 04:32 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: CAL BLANK
Misc Info :
Vial Number: 1102
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: CALBLK
Dilution : 1.000000

Mass	Element	Count	n	SD	RSD[%]
86	(Ca)	108.34 P	3	6.43	5.93
87	Sr	16.67 P	3	5.13	30.79
88	(Ca)	166.01 P	3	8.54	5.15
89	Y	187278.70 P	3	2521.00	1.35
95	Mo	80.34 P	3	12.74	15.86
98	Mo	136.34 P	3	20.11	14.75
106	(Cd)	38.67 P	3	2.08	5.38
107	Ag	67.67 P	3	1.53	2.26
108	(Cd)	12.00 P	3	2.65	22.05
109	Ag	52.33 P	3	8.74	16.69
111	Cd	27.92 P	3	3.58	12.83
114	Cd	-2.73 P	3	3.16	115.56
115	In	140403.60 P	3	1754.00	1.25
118	(In)	147.00 P	3	3.61	2.45
120	Sn	212.01 P	3	2.65	1.25
121	Sb	72.67 P	3	6.11	8.41
123	Sb	51.00 P	3	4.58	8.99
135	Ba	13.00 P	3	4.00	30.77
159	Tb	145204.90 P	3	2973.00	2.05
197	Au	13.00 P	3	1.73	13.32
205	Tl	667.05 P	3	45.18	6.77
206	(Pb)	193.34 P	3	21.22	10.98
207	(Pb)	163.34 P	3	22.81	13.97
208	Pb	763.70 P	3	51.40	6.73
209	Bi	70125.65 P	3	1228.00	1.75
238	U	62.34 P	3	2.08	3.34

Calibration QC Report

File : D:\HPCHEM\1\DATA\Sep2502.16A\003CALI.D\003CALI.D#
Acquired : Sep 25 02 04:41 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: 0.2/1/10 CAL
Misc Info :
Vial Number: 1103
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : ---------
Sample Type: CALIB
Dilution : 1.000000

Mass	Element	Count	n	SD	RSD[%]
6	Li	232811.40 P	3	2877.00	1.24
7	(Li)	13286.62 P	3	297.70	2.24
9	Be	744.72 P	3	28.57	3.84
11	B	3047.15 P	3	98.71	3.24
23	Na	61654.37 P	3	1804.00	2.93
24	Mg	27050.62 P	3	1235.00	4.56
25	Mg	3587.07 P	3	200.30	5.59
26	Mg	4201.46 P	3	279.90	6.66
27	Al	49570.10 P	3	2283.00	4.61
28	Si	541881.50 P	3	9680.00	1.79
39	K	323171.80 P	3	9735.00	3.01
43	Ca	172.15 P	3	6.92	4.02
44	Ca	2497.82 P	3	109.10	4.37
45	Sc	183513.20 P	3	5057.00	2.76
47	Ti	396.37 P	3	26.56	6.70
51	V	8442.63 P	3	1614.00	19.11
52	Cr	12619.41 P	3	136.80	1.08
53	Cr	22560.81 P	3	337.40	1.50
54	Fe	119844.90 P	3	659.50	0.55
55	Mn	5274.21 P	3	63.29	1.20
57	Fe	7002.67 P	3	43.56	0.62
59	Co	3558.04 P	3	88.95	2.50
60	Ni	748.06 P	3	31.77	4.25
63	Cu	1637.24 P	3	31.52	1.93
65	Cu	744.72 P	3	29.78	4.00
66	Zn	3331.34 P	3	31.29	0.94
67	Zn	2019.86 P	3	26.23	1.30
68	Zn	6854.78 P	3	174.00	2.54
69	(Zn)	2005.36 P	3	28.18	1.41
72	Ge	267366.60 P	3	1146.00	0.43
75	As	8173.67 P	3	1173.00	14.35
77	(As)	67684.83 P	3	544.00	0.80
82	Se	415.00 P	3	13.75	3.31
83	(Se)	1233.67 P	3	13.61	1.10
86	(Ca)	459.36 P	3	13.05	2.84

Calibration QC Report

File : D:\HPCHEM\1\DATA\Sep2502.16A\003CALI.D\003CALI.D#
Acquired : Sep 25 02 04:41 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: 0.2/1/10 CAL
Misc Info :
Vial Number: 1103
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: CALIB
Dilution : 1.000000

Mass	Element	Count	n	SD	RSD[%]
87	Sr	282.35 P	3	3.79	1.34
88	(Ca)	3319.89 P	3	72.84	2.19
89	Y	189024.70 P	3	354.10	0.19
95	Mo	668.05 P	3	11.36	1.70
98	Mo	974.42 P	3	25.80	2.65
106	(Cd)	62.33 P	3	7.10	11.38
107	Ag	1361.50 P	3	49.55	3.64
108	(Cd)	22.33 P	3	6.81	30.48
109	Ag	1290.48 P	3	50.67	3.93
111	Cd	245.59 P	3	12.90	5.25
114	Cd	438.97 P	3	12.20	2.78
115	In	139589.30 P	3	1699.00	1.22
118	(In)	896.41 P	3	58.46	6.52
120	Sn	1177.46 P	3	29.03	2.47
121	Sb	667.71 P	3	23.29	3.49
123	Sb	508.03 P	3	3.61	0.71
135	Ba	200.01 P	3	13.75	6.87
159	Tb	144245.30 P	3	1544.00	1.07
197	Au	108.67 P	3	7.37	6.78
205	Tl	1575.89 P	3	35.81	2.27
206	(Pb)	560.37 P	3	24.01	4.28
207	(Pb)	483.69 P	3	13.80	2.85
208	Pb	2199.86 P	3	40.71	1.85
209	Bi	70391.63 P	3	365.30	0.52
238	U	2017.01 P	3	37.99	1.88

Calibration QC Report

File : D:\HPCHEM\1\DATA\Sep2502.16A\003CALI.D\003CALI.D#
Acquired : Sep 25 02 04:41 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: 0.2/1/10 CAL
Misc Info :
Vial Number: 1103
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : ---------
Sample Type: CALIB
Dilution : 1.000000

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	746319	776038	Pass
45	593146	611711	Pass
72	88022	89122	Pass
115	468012	465297	Pass
209	233752	234639	Pass

Internal Standards referenced to 002CALB.D#

0 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

Calibration QC Report

File : D:\HPCHEM\1\DATA\Sep2502.16A\004CALI.D\004CALI.D#
Acquired : Sep 25 02 04:50 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: 2/10/100 CAL
Misc Info :
Vial Number: 1104
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: CALIB
Dilution : 1.000000

Mass	Element	Count	n	SD	RSD[%]
6	Li	249522.30 P	3	2209.00	0.89
7	(Li)	13193.66 P	3	237.70	1.80
9	Be	8033.23 P	3	81.80	1.02
11	B	10431.67 P	3	239.10	2.29
23	Na	420705.40 P	3	6340.00	1.51
24	Mg	248865.10 P	3	4819.00	1.94
25	Mg	32362.43 P	3	264.50	0.82
26	Mg	37329.11 P	3	294.80	0.79
27	Al	314112.40 P	3	4916.00	1.56
28	Si	691229.70 P	3	10670.00	1.54
39	K	627067.50 P	3	18310.00	2.92
43	Ca	698.71 P	3	39.52	5.66
44	Ca	10642.68 P	3	91.98	0.86
45	Sc	184466.00 P	3	1591.00	0.86
47	Ti	3010.44 P	3	28.02	0.93
51	V	42486.46 P	3	323.70	0.76
52	Cr	41662.63 P	3	374.90	0.90
53	Cr	30298.91 P	3	447.70	1.48
54	Fe	136219.90 P	3	1384.00	1.02
55	Mn	38998.16 P	3	226.50	0.58
57	Fe	13207.34 P	3	76.97	0.58
59	Co	34322.38 P	3	705.50	2.06
60	Ni	7321.21 P	3	49.38	0.67
63	Cu	16561.74 P	3	170.10	1.03
65	Cu	7507.42 P	3	140.60	1.87
66	Zn	25065.49 P	3	114.90	0.46
67	Zn	5717.53 P	3	186.10	3.25
68	Zn	21841.08 P	3	166.50	0.76
69	(Zn)	15430.15 P	3	172.30	1.12
72	Ge	272456.00 P	3	3165.00	1.16
75	As	60769.55 P	3	1805.00	2.97
77	(As)	75892.27 P	3	2037.00	2.68
82	Se	3871.42 P	3	77.02	1.99
83	(Se)	1234.67 P	3	34.27	2.78
86	(Ca)	4184.08 P	3	79.80	1.91

Calibration QC Report

File : D:\HPCHEM\1\DATA\Sep2502.16A\004CALI.D\004CALI.D#
Acquired : Sep 25 02 04:50 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: 2/10/100 CAL
Misc Info :
Vial Number: 1104
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: CALIB
Dilution : 1.000000

Mass	Element	Count	n	SD	RSD[%]
87	Sr	2914.04 P	3	9.87	0.34
88	(Ca)	34751.39 P	3	278.80	0.80
89	Y	189939.20 P	3	3934.00	2.07
95	Mo	5904.09 P	3	69.56	1.18
98	Mo	9263.66 P	3	84.12	0.91
106	(Cd)	247.01 P	3	7.00	2.83
107	Ag	14464.04 P	3	227.60	1.57
108	(Cd)	161.67 P	3	11.68	7.22
109	Ag	13358.71 P	3	55.64	0.42
111	Cd	2171.05 P	3	37.94	1.75
114	Cd	4858.78 P	3	39.33	0.81
115	In	139655.20 P	3	2663.00	1.91
118	(In)	8016.01 P	3	115.40	1.44
120	Sn	10786.01 P	3	82.01	0.76
121	Sb	6886.73 P	3	95.74	1.39
123	Sb	5258.86 P	3	84.37	1.60
135	Ba	2050.36 P	3	75.14	3.66
159	Tb	144067.00 P	3	3373.00	2.34
197	Au	1080.11 P	3	43.97	4.07
205	Tl	14980.21 P	3	270.40	1.81
206	(Pb)	5227.17 P	3	65.65	1.26
207	(Pb)	4462.59 P	3	56.14	1.26
208	Pb	20689.76 P	3	188.30	0.91
209	Bi	71213.50 P	3	719.50	1.01
238	U	21898.57 P	3	334.80	1.53

Calibration QC Report

File : D:\HPCHEM\1\DATA\Sep2502.16A\005CALI.D\005CALI.D#
Acquired : Sep 25 02 04:59 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: 10/100/1000 CAL
Misc Info :
Vial Number: 1105
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : ---------
Sample Type: CALIB
Dilution : 1.000000

Mass	Element	Count	n	SD	RSD[%]
6	Li	243785.90 P	3	3135.00	1.29
7	(Li)	12671.84 P	3	437.30	3.45
9	Be	81024.78 P	3	3415.00	4.21
11	B	81203.68 P	3	1516.00	1.87
23	Na	4017273.00 A	3	96280.00	2.40
24	Mg	2501249.00 A	3	89170.00	3.56
25	Mg	338119.80 P	3	4579.00	1.35
26	Mg	381770.60 P	3	4556.00	1.19
27	Al	3139052.00 A	3	41030.00	1.31
28	Si	2140627.00 A	3	59490.00	2.78
39	K	3710440.00 A	3	97610.00	2.63
43	Ca	6224.14 P	3	41.69	0.67
44	Ca	94909.39 P	3	469.50	0.49
45	Sc	190555.40 P	3	4674.00	2.45
47	Ti	28204.39 P	3	191.40	0.68
51	V	373661.20 P	3	6020.00	1.61
52	Cr	315474.80 P	3	4361.00	1.38
53	Cr	51888.50 P	3	1782.00	3.43
54	Fe	312896.10 P	3	2700.00	0.86
55	Mn	374440.20 P	3	3951.00	1.06
57	Fe	78320.88 P	3	1130.00	1.44
59	Co	337216.00 P	3	6681.00	1.98
60	Ni	71842.46 P	3	716.00	1.00
63	Cu	160784.70 P	3	1664.00	1.03
65	Cu	74210.65 P	3	522.60	0.70
66	Zn	240286.20 P	3	3472.00	1.44
67	Zn	37965.50 P	3	253.70	0.67
68	Zn	168845.20 P	3	1318.00	0.78
69	(Zn)	144118.40 P	3	1816.00	1.26
72	Ge	276745.00 P	3	1603.00	0.58
75	As	555429.00 P	3	3584.00	0.65
77	(As)	96800.50 P	3	994.40	1.03
82	Se	38338.50 P	3	84.00	0.22
83	(Se)	1298.67 P	3	59.68	4.60
86	(Ca)	39955.77 P	3	636.60	1.59

Calibration QC Report

File : D:\HPCHEM\1\DATA\Sep2502.16A\005CALI.D\005CALI.D#
Acquired : Sep 25 02 04:59 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: 10/100/1000 CAL
Misc Info :
Vial Number: 1105
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: CALIB
Dilution : 1.000000

Mass	Element	Count	n	SD	RSD[%]
87	Sr	28673.49 P	3	396.20	1.38
88	(Ca)	341695.80 P	3	4276.00	1.25
89	Y	195033.10 P	3	2404.00	1.23
95	Mo	58008.89 P	3	670.10	1.16
98	Mo	91068.07 P	3	1295.00	1.42
106	(Cd)	2062.03 P	3	48.07	2.33
107	Ag	141956.10 P	3	1929.00	1.36
108	(Cd)	1491.19 P	3	59.87	4.01
109	Ag	131972.70 P	3	1944.00	1.47
111	Cd	21095.21 P	3	188.80	0.89
114	Cd	46939.38 P	3	444.10	0.95
115	In	143148.50 P	3	1879.00	1.31
118	(In)	77883.05 P	3	930.30	1.19
120	Sn	104494.60 P	3	1604.00	1.53
121	Sb	67394.83 P	3	921.40	1.37
123	Sb	51140.15 P	3	948.90	1.86
135	Ba	19878.89 P	3	284.60	1.43
159	Tb	148993.10 P	3	1874.00	1.26
197	Au	10468.76 P	3	203.20	1.94
205	Tl	148678.10 P	3	2866.00	1.93
206	(Pb)	51133.82 P	3	947.70	1.85
207	(Pb)	44150.95 P	3	667.90	1.51
208	Pb	203194.80 P	3	3465.00	1.71
209	Bi	72825.54 P	3	791.50	1.09
238	U	218619.40 P	3	4371.00	2.00

Calibration QC Report

File : D:\HPCHEM\1\DATA\Sep2502.16A\005CALI.D\005CALI.D#
Acquired : Sep 25 02 04:59 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: 10/100/1000 CAL
Misc Info :
Vial Number: 1105
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: CALIB
Dilution : 1.000000

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	746319	812620	Pass
45	593146	635185	Pass
72	88022	92248	Pass
115	468012	477162	Pass
209	233752	242752	Pass

Internal Standards referenced to 002CALB.D#

0 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

Calibration QC Report

File : D:\HPCHEM\1\DATA\Sep2502.16A\006CALI.D\006CALI.D#
Acquired : Sep 25 02 05:08 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: -/200/10000 CAL
Misc Info :
Vial Number: 1106
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: CALIB
Dilution : 1.000000

Mass	Element	Count	n	SD	RSD[%]
6	Li	241690.80 P	3	1502.00	0.62
7	(Li)	12769.26 P	3	149.90	1.17
9	Be	165908.00 P	3	2186.00	1.32
11	B	170579.70 P	3	5369.00	3.15
23	Na	42241530.00 A	3	1214000.00	2.87
24	Mg	26054400.00 A	3	1339000.00	5.14
25	Mg	3393608.00 A	3	119900.00	3.53
26	Mg	3875746.00 A	3	139300.00	3.59
27	Al	31986490.00 A	3	1026000.00	3.21
28	Si	17331350.00 A	3	226400.00	1.31
39	K	36609310.00 A	3	251500.00	0.69
43	Ca	61309.57 P	3	2231.00	3.64
44	Ca	964908.90 P	3	34250.00	3.55
45	Sc	198196.10 P	3	2186.00	1.10
47	Ti	58714.49 P	3	679.90	1.16
51	V	757158.50 P	3	7715.00	1.02
52	Cr	623178.00 P	3	10000.00	1.61
53	Cr	87928.44 P	3	700.40	0.80
54	Fe	2008252.00 A	3	28870.00	1.44
55	Mn	754410.90 P	3	6815.00	0.90
57	Fe	717010.20 P	3	7752.00	1.08
59	Co	659274.30 P	3	9604.00	1.46
60	Ni	140884.80 P	3	2202.00	1.56
63	Cu	313658.50 P	3	4044.00	1.29
65	Cu	143854.40 P	3	2156.00	1.50
66	Zn	464553.00 P	3	5731.00	1.23
67	Zn	75034.66 P	3	1091.00	1.45
68	Zn	326946.00 P	3	3570.00	1.09
69	(Zn)	297274.00 P	3	4723.00	1.59
72	Ge	275405.50 P	3	2412.00	0.88
75	As	1081464.00 P	3	11290.00	1.04
77	(As)	137948.40 P	3	1270.00	0.92
82	Se	75108.18 P	3	690.10	0.92
83	(Se)	1316.67 P	3	24.03	1.82
86	(Ca)	78376.73 P	3	1263.00	1.61

Calibration QC Report

File : D:\HPCHEM\1\DATA\Sep2502.16A\006CALI.D\006CALI.D#
Acquired : Sep 25 02 05:08 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: -/200/10000 CAL
Misc Info :
Vial Number: 1106
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: CALIB
Dilution : 1.000000

Mass	Element	Count	n	SD	RSD[%]
87	Sr	56483.75 P	3	523.30	0.93
88	(Ca)	673169.30 P	3	9833.00	1.46
89	Y	186448.90 P	3	2424.00	1.30
95	Mo	114761.60 P	3	2150.00	1.87
98	Mo	180101.00 P	3	3079.00	1.71
106	(Cd)	3789.16 P	3	52.24	1.38
107	Ag	271757.10 P	3	5180.00	1.91
108	(Cd)	2868.01 P	3	40.30	1.40
109	Ag	252382.20 P	3	1552.00	0.61
111	Cd	40056.18 P	3	445.80	1.11
114	Cd	89676.56 P	3	986.10	1.10
115	In	134725.20 P	3	526.50	0.39
118	(In)	150062.10 P	3	2406.00	1.60
120	Sn	201998.60 P	3	2929.00	1.45
121	Sb	130186.40 P	3	1453.00	1.12
123	Sb	98898.48 P	3	1253.00	1.27
135	Ba	38897.77 P	3	393.80	1.01
159	Tb	140815.60 P	3	1640.00	1.16
197	Au	19963.72 P	3	291.30	1.46
205	Tl	286783.10 P	3	4490.00	1.57
206	(Pb)	97934.76 P	3	1595.00	1.63
207	(Pb)	84820.21 P	3	868.90	1.02
208	Pb	390225.80 P	3	4841.00	1.24
209	Bi	69206.78 P	3	895.50	1.29
238	U	428069.00 P	3	5993.00	1.40

Calibration QC Report

File : D:\HPCHEM\1\DATA\Sep2502.16A\006CALI.D\006CALI.D#
Acquired : Sep 25 02 05:08 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: -/200/10000 CAL
Misc Info :
Vial Number: 1106
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : ---------
Sample Type: CALIB
Dilution : 1.000000

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	746319	805636	Pass
45	593146	660654	Pass
72	88022	91802	Pass
115	468012	449084	Pass
209	233752	230689	Pass

Internal Standards referenced to 002CALB.D#

0 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

Blank QC Report

File : D:\HPCHEM\1\DATA\Sep2502.16A\007CCB_D\007CCB_D#
Acquired : Sep 25 02 05:17 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: [CB]
Misc Info :
Vial Number: 1102
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: CCB
Dilution : 1.000000

Element	Concentration	CRDL Limit	Flag
Be 9	0.054 µg/L	1.00	Pass
B 11	1.390 µg/L	1.00	*Fail*
Na 23	3.126 µg/L	10.00	Pass
Mg 24	1.858 µg/L	10.00	Pass
Mg 25	1.937 µg/L	10.00	Pass
Mg 26	1.844 µg/L	10.00	Pass
Al 27	3.169 µg/L	10.00	Pass
Si 28	-15.160 µg/L	10.00	*Fail*
K 39	4.906 µg/L	10.00	Pass
Ca 43	3.542 µg/L	10.00	Pass
Ca 44	2.489 µg/L	10.00	Pass
Ti 47	0.168 µg/L	1.00	Pass
V 51	-0.236 µg/L	1.00	Pass
Cr 52	0.346 µg/L	1.00	Pass
Cr 53	2.550 µg/L	1.00	*Fail*
Fe 54	2.155 µg/L	10.00	Pass
Mn 55	-0.025 µg/L	1.00	Pass
Fe 57	6.033 µg/L	10.00	Pass
Co 59	-0.299 µg/L	1.00	Pass
Ni 60	0.056 µg/L	1.00	Pass
Cu 63	0.043 µg/L	1.00	Pass
Cu 65	0.025 µg/L	1.00	Pass
Zn 66	0.001 µg/L	1.00	Pass
Zn 67	0.207 µg/L	1.00	Pass
Zn 68	0.031 µg/L	1.00	Pass
As 75	0.390 µg/L	1.00	Pass
Se 82	0.527 µg/L	1.00	Pass
Sr 87	0.047 µg/L	1.00	Pass
Mo 95	0.388 µg/L	1.00	Pass
Mo 98	0.376 µg/L	1.00	Pass
Ag 107	0.053 µg/L	1.00	Pass
Ag 109	0.055 µg/L	1.00	Pass
Cd 111	0.073 µg/L	1.00	Pass
Cd 114	0.071 µg/L	1.00	Pass
Sn 120	0.049 µg/L	1.00	Pass
Sb 121	0.460 µg/L	1.00	Pass
Sb 123	0.146 µg/L	1.00	Pass

Ba 135	0.045 µg/L	1.00	Pass
Au 197	0.498 µg/L	1.00	Pass
Tl 205	0.151 µg/L	1.00	Pass

Blank QC Report

File : D:\HPCHEM\1\DATA\Sep2502.16A\007CCB_D\007CCB_D#
Acquired : Sep 25 02 05:17 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: [CB]
Misc Info :
Vial Number: 1102
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: CCB
Dilution : 1.000000

Pb 208	-0.284 µg/L	1.00	Pass
U 238	0.077 µg/L	1.00	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	746319	753964	Pass
45	593146	620947	Pass
72	88022	91281	Pass
115	468012	460644	Pass
209	233752	235431	Pass

Internal Standards referenced to 002CALB.D#

3 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

ICV QC Report

File : D:\HPCHEM\1\DATA\Sep2502.16A\008ICV_D\008ICV_.D#
Acquired : Sep 25 02 05:26 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: [STD-ICV]
Misc Info :
Vial Number: 1107
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: ICV
Dilution : 1.000000

ICV Mix #1

Element		Concentration	Expected	QC Range	Flag
Be	9	110.600 µg/L	120.00	108.00-132.00	Pass
B	11	110.800 µg/L	120.00	108.00-132.00	Pass
Na	23	1188.000 µg/L	1200.00	1080.00-1320.00	Pass
Mg	24	1159.000 µg/L	1200.00	1080.00-1320.00	Pass
Mg	25	1204.000 µg/L	1200.00	1080.00-1320.00	Pass
Mg	26	1203.000 µg/L	1200.00	1080.00-1320.00	Pass
Al	27	1192.000 µg/L	1200.00	1080.00-1320.00	Pass
Si	28	1238.000 µg/L	1200.00	1080.00-1320.00	Pass
K	39	1164.000 µg/L	1200.00	1080.00-1320.00	Pass
Ca	43	1222.000 µg/L	1200.00	1080.00-1320.00	Pass
Ca	44	1186.000 µg/L	1200.00	1080.00-1320.00	Pass
Ti	47	109.800 µg/L	120.00	108.00-132.00	Pass
V	51	108.900 µg/L	120.00	108.00-132.00	Pass
Cr	52	109.500 µg/L	120.00	108.00-132.00	Pass
Cr	53	95.230 µg/L	120.00	108.00-132.00	*Fail*
Fe	54	1177.000 µg/L	1200.00	1080.00-1320.00	Pass
Mn	55	110.800 µg/L	120.00	108.00-132.00	Pass
Fe	57	1173.000 µg/L	1200.00	1080.00-1320.00	Pass
Co	59	113.900 µg/L	120.00	108.00-132.00	Pass
Ni	60	113.500 µg/L	120.00	108.00-132.00	Pass
Cu	63	112.300 µg/L	120.00	108.00-132.00	Pass
Cu	65	112.900 µg/L	120.00	108.00-132.00	Pass
Zn	66	114.300 µg/L	120.00	108.00-132.00	Pass
Zn	67	110.300 µg/L	120.00	108.00-132.00	Pass
Zn	68	114.600 µg/L	120.00	108.00-132.00	Pass
As	75	110.500 µg/L	120.00	108.00-132.00	Pass
Se	82	113.800 µg/L	120.00	108.00-132.00	Pass
Sr	87	115.400 µg/L	120.00	108.00-132.00	Pass
Mo	95	109.300 µg/L	120.00	108.00-132.00	Pass
Mo	98	109.000 µg/L	120.00	108.00-132.00	Pass
Ag	107	115.600 µg/L	120.00	108.00-132.00	Pass
Ag	109	115.300 µg/L	120.00	108.00-132.00	Pass
Cd	111	110.800 µg/L	120.00	108.00-132.00	Pass
Cd	114	110.200 µg/L	120.00	108.00-132.00	Pass
Sn	120	107.600 µg/L	120.00	108.00-132.00	*Fail*

Sb 121	107.200 µg/L	120.00	108.00-132.00	*Fail*
Sb 123	106.700 µg/L	120.00	108.00-132.00	*Fail*
Ba 135	107.100 µg/L	120.00	108.00-132.00	*Fail*

ICV QC Report

File : D:\HPCHEM\1\DATA\Sep2502.16A\008ICV_.D\008ICV_.D#
Acquired : Sep 25 02 05:26 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: [STD-ICV]
Misc Info :
Vial Number: 1107
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: ICV
Dilution : 1.000000

Au 197	481.800 µg/L	120.00	108.00-132.00	*Fail*
Tl 205	111.700 µg/L	120.00	108.00-132.00	Pass
Pb 208	111.400 µg/L	120.00	108.00-132.00	Pass
U 238	108.200 µg/L	120.00	108.00-132.00	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	746319	864508	Pass
45	593146	685000	Pass
72	88022	94952	Pass
115	468012	490815	Pass
209	233752	250504	Pass

Internal Standards referenced to 002CALB.D#

6 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

Interference Check A QC Report

498

File : D:\HPCHEM\1\DATA\Sep2502.16A\009ICSA.D\009ICSA.D#
Acquired : Sep 25 02 05:35 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: [ICSA]
Misc Info :
Vial Number: 1303
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: ICS_A_
Dilution : 1.000000

Element		Concentration	Expected	CRDL Range Conc	%Range Conc	Flag
Be	9	0.107 µg/L	0.00	-1.00-1.00	0-0	Pass
B	11	7.417 µg/L	0.00	-1.00-1.00	0-0	*Fail*
Na	23	----- µg/L	100000.00	1.00E+5-1.00E+5	8.00E+4-1.20E+5	OverRng
Mg	24	----- µg/L	100000.00	1.00E+5-1.00E+5	8.00E+4-1.20E+5	OverRng
Mg	25	139400.000 µg/L	100000.00	1.00E+5-1.00E+5	8.00E+4-1.20E+5	*Fail*
Mg	26	141400.000 µg/L	100000.00	1.00E+5-1.00E+5	8.00E+4-1.20E+5	*Fail*
Al	27	----- µg/L	100000.00	1.00E+5-1.00E+5	8.00E+4-1.20E+5	OverRng
Si	28	57.020 µg/L	0.00	-10.00-10.00	0-0	*Fail*
K	39	----- µg/L	100000.00	1.00E+5-1.00E+5	8.00E+4-1.20E+5	OverRng
Ca	43	154900.000 µg/L	100000.00	1.00E+5-1.00E+5	8.00E+4-1.20E+5	*Fail*
Ca	44	154800.000 µg/L	100000.00	1.00E+5-1.00E+5	8.00E+4-1.20E+5	*Fail*
Ti	47	3065.000 µg/L	2000.00	1999.00-2001.00	1600-2400	*Fail*
V	51	0.343 µg/L	0.00	-1.00-1.00	0-0	Pass
Cr	52	3.915 µg/L	0.00	-1.00-1.00	0-0	*Fail*
Cr	53	21.760 µg/L	0.00	-1.00-1.00	0-0	*Fail*
Fe	54	154000.000 µg/L	100000.00	1.00E+5-1.00E+5	8.00E+4-1.20E+5	*Fail*
Mn	55	2.616 µg/L	0.00	-1.00-1.00	0-0	*Fail*
Fe	57	159100.000 µg/L	100000.00	1.00E+5-1.00E+5	8.00E+4-1.20E+5	*Fail*
Co	59	0.245 µg/L	0.00	-1.00-1.00	0-0	Pass
Ni	60	4.272 µg/L	0.00	-1.00-1.00	0-0	*Fail*
Cu	63	15.080 µg/L	0.00	-1.00-1.00	0-0	*Fail*
Cu	65	7.558 µg/L	0.00	-1.00-1.00	0-0	*Fail*
Zn	66	53.070 µg/L	0.00	-1.00-1.00	0-0	*Fail*
Zn	67	172.800 µg/L	0.00	-1.00-1.00	0-0	*Fail*
Zn	68	45.790 µg/L	0.00	-1.00-1.00	0-0	*Fail*
As	75	-0.103 µg/L	0.00	-1.00-1.00	0-0	Pass
Se	82	-4.849 µg/L	0.00	-1.00-1.00	0-0	*Fail*
Sr	87	9.182 µg/L	0.00	-1.00-1.00	0-0	*Fail*
Mo	95	3025.000 µg/L	2000.00	1999.00-2001.00	1600-2400	*Fail*
Mo	98	3006.000 µg/L	2000.00	1999.00-2001.00	1600-2400	*Fail*
Ag	107	0.935 µg/L	0.00	-1.00-1.00	0-0	Pass
Ag	109	0.943 µg/L	0.00	-1.00-1.00	0-0	Pass
Cd	111	0.213 µg/L	0.00	-1.00-1.00	0-0	Pass
Cd	114	0.116 µg/L	0.00	-1.00-1.00	0-0	Pass
Sn	120	0.383 µg/L	0.00	-1.00-1.00	0-0	Pass
Sb	121	4.513 µg/L	0.00	-1.00-1.00	0-0	*Fail*
Sb	123	4.322 µg/L	0.00	-1.00-1.00	0-0	*Fail*

Ba 135	2.233 µg/L	0.00	-1.00-1.00	0-0	*Fail*
Au 197	1.484 µg/L	0.00	-1.00-1.00	0-0	*Fail*
Tl 205	0.019 µg/L	0.00	-1.00-1.00	0-0	Pass

Interference Check A QC Report

File : D:\HPCHEM\1\DATA\Sep2502.16A\009ICSA.D\009ICSA.D#
Acquired : Sep 25 02 05:35 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: [ICSA]
Misc Info :
Vial Number: 1303
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : ---------
Sample Type: ICS_A
Dilution : 1.000000

Pb 208	6.271 µg/L	0.00	-1.00-1.00	0-0	*Fail*
U 238	0.149 µg/L	0.00	-1.00-1.00	0-0	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	746319	601446	Pass
45	593146	539204	Pass
72	88022	113057	*Fail*
115	468012	440029	Pass
209	233752	219153	Pass

Internal Standards referenced to 002CALB.D#

27 Element Failures! Maximum Number of Allowed Failures (20) Exceeded!
1 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

Interference Check AB QC Report

50

File : D:\HPCHEM\1\DATA\Sep2502.16A\010ICSB.D\010ICSB.D#
Acquired : Sep 25 02 05:45 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: [ICSAB]
Misc Info :
Vial Number: 1304
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: ICS_AB
Dilution : 1.000000

Element		Concentration	Expected	CRDL Range Conc	%Range Conc	Flag
Be	9	0.045 µg/L	0.00	-1.00-1.00	0-0	Pass
B	11	5.251 µg/L	0.00	-1.00-1.00	0-0	*Fail*
Na	23	----- µg/L	100000.00	1.00E+5-1.00E+5	8.00E+4-1.20E+5	OverRng
Mg	24	----- µg/L	100000.00	1.00E+5-1.00E+5	8.00E+4-1.20E+5	OverRng
Mg	25	130800.000 µg/L	100000.00	1.00E+5-1.00E+5	8.00E+4-1.20E+5	*Fail*
Mg	26	133000.000 µg/L	100000.00	1.00E+5-1.00E+5	8.00E+4-1.20E+5	*Fail*
Al	27	----- µg/L	100000.00	1.00E+5-1.00E+5	8.00E+4-1.20E+5	OverRng
Si	28	53.940 µg/L	0.00	-10.00-10.00	0-0	*Fail*
K	39	----- µg/L	100000.00	1.00E+5-1.00E+5	8.00E+4-1.20E+5	OverRng
Ca	43	156600.000 µg/L	100000.00	1.00E+5-1.00E+5	8.00E+4-1.20E+5	*Fail*
Ca	44	153000.000 µg/L	100000.00	1.00E+5-1.00E+5	8.00E+4-1.20E+5	*Fail*
Ti	47	3077.000 µg/L	2000.00	1999.00-2001.00	1600-2400	*Fail*
V	51	-0.158 µg/L	0.00	-1.00-1.00	0-0	Pass
Cr	52	35.320 µg/L	20.00	19.00-21.00	16-24	*Fail*
Cr	53	49.680 µg/L	20.00	19.00-21.00	16-24	*Fail*
Fe	54	160000.000 µg/L	100000.00	1.00E+5-1.00E+5	8.00E+4-1.20E+5	*Fail*
Mn	55	35.990 µg/L	20.00	19.00-21.00	16-24	*Fail*
Fe	57	168700.000 µg/L	100000.00	1.00E+5-1.00E+5	8.00E+4-1.20E+5	*Fail*
Co	59	34.300 µg/L	20.00	19.00-21.00	16-24	*Fail*
Ni	60	36.290 µg/L	20.00	19.00-21.00	16-24	*Fail*
Cu	63	53.830 µg/L	20.00	19.00-21.00	16-24	*Fail*
Cu	65	46.130 µg/L	20.00	19.00-21.00	16-24	*Fail*
Zn	66	37.770 µg/L	20.00	19.00-21.00	16-24	*Fail*
Zn	67	161.700 µg/L	20.00	19.00-21.00	16-24	*Fail*
Zn	68	30.780 µg/L	20.00	19.00-21.00	16-24	*Fail*
As	75	22.330 µg/L	20.00	19.00-21.00	16-24	Pass
Se	82	-4.095 µg/L	0.00	-1.00-1.00	0-0	*Fail*
Sr	87	9.085 µg/L	0.00	-1.00-1.00	0-0	*Fail*
Mo	95	2890.000 µg/L	2000.00	1999.00-2001.00	1600-2400	*Fail*
Mo	98	2901.000 µg/L	2000.00	1999.00-2001.00	1600-2400	*Fail*
Ag	107	27.480 µg/L	20.00	19.00-21.00	16-24	*Fail*
Ag	109	27.450 µg/L	20.00	19.00-21.00	16-24	*Fail*
Cd	111	30.120 µg/L	20.00	19.00-21.00	16-24	*Fail*
Cd	114	29.650 µg/L	20.00	19.00-21.00	16-24	*Fail*
Sn	120	2.597 µg/L	0.00	-1.00-1.00	0-0	*Fail*
Sb	121	4.665 µg/L	0.00	-1.00-1.00	0-0	*Fail*
Sb	123	4.448 µg/L	0.00	-1.00-1.00	0-0	*Fail*

Ba 135	2.433 µg/L	0.00	-1.00-1.00	0-0	*Fail*
Au 197	0.486 µg/L	0.00	-1.00-1.00	0-0	Pass
Tl 205	-0.251 µg/L	0.00	-1.00-1.00	0-0	Pass

Interference Check AB QC Report

501

File : D:\HPCHEM\1\DATA\Sep2502.16A\010ICSB.D\010ICSB.D#
Acquired : Sep 25 02 05:45 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: [ICSAB]
Misc Info :
Vial Number: 1304
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: ICS_AB
Dilution : 1.000000

Pb 208	6.639 µg/L	0.00	-1.00-1.00	0-0	*Fail*
U 238	0.078 µg/L	0.00	-1.00-1.00	0-0	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	746319	483816	Pass
45	593146	463847	Pass
72	88022	106540	*Fail*
115	468012	434639	Pass
209	233752	223377	Pass

Internal Standards referenced to 002CALB.D#

32 Element Failures! Maximum Number of Allowed Failures (20) Exceeded!
1 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

Blank QC Report

5.02

File : D:\HPCHEM\1\DATA\Sep2502.16A\011CCB_D\011CCB_.D#
Acquired : Sep 25 02 05:54 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: BLANK
Misc Info :
Vial Number: 1
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: CCB
Dilution : 1.000000

Element	Concentration	CRDL Limit	Flag
Be 9	0.017 µg/L	1.00	Pass
B 11	1.040 µg/L	1.00	*Fail*
Na 23	54.470 µg/L	10.00	*Fail*
Mg 24	45.160 µg/L	10.00	*Fail*
Mg 25	44.360 µg/L	10.00	*Fail*
Mg 26	44.930 µg/L	10.00	*Fail*
Al 27	44.010 µg/L	10.00	*Fail*
Si 28	61.600 µg/L	10.00	*Fail*
K 39	42.780 µg/L	10.00	*Fail*
Ca 43	41.940 µg/L	10.00	*Fail*
Ca 44	42.780 µg/L	10.00	*Fail*
Ti 47	1.773 µg/L	1.00	*Fail*
V 51	-0.503 µg/L	1.00	Pass
Cr 52	-0.523 µg/L	1.00	Pass
Cr 53	-10.910 µg/L	1.00	*Fail*
Fe 54	-128.700 µg/L	10.00	*Fail*
Mn 55	-0.057 µg/L	1.00	Pass
Fe 57	44.870 µg/L	10.00	*Fail*
Co 59	-0.340 µg/L	1.00	Pass
Ni 60	0.005 µg/L	1.00	Pass
Cu 63	0.070 µg/L	1.00	Pass
Cu 65	0.058 µg/L	1.00	Pass
Zn 66	-0.028 µg/L	1.00	Pass
Zn 67	-0.964 µg/L	1.00	Pass
Zn 68	-0.588 µg/L	1.00	Pass
As 75	0.087 µg/L	1.00	Pass
Se 82	0.119 µg/L	1.00	Pass
Sr 87	-0.019 µg/L	1.00	Pass
Mo 95	3.239 µg/L	1.00	*Fail*
Mo 98	3.186 µg/L	1.00	*Fail*
Ag 107	-0.020 µg/L	1.00	Pass
Ag 109	-0.010 µg/L	1.00	Pass
Cd 111	0.007 µg/L	1.00	Pass
Cd 114	0.031 µg/L	1.00	Pass
Sn 120	-0.066 µg/L	1.00	Pass
Sb 121	0.286 µg/L	1.00	Pass
Sb 123	-0.029 µg/L	1.00	Pass

Ba 135	0.002 µg/L	1.00	Pass
Au 197	0.221 µg/L	1.00	Pass
Tl 205	-0.339 µg/L	1.00	Pass

Blank QC Report

File : D:\HPCHEM\1\DATA\Sep2502.16A\011CCB_.D\011CCB_.D#
Acquired : Sep 25 02 05:54 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: BLANK
Misc Info :
Vial Number: 1
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: CCB
Dilution : 1.000000

Pb 208	-0.338 µg/L	1.00	Pass
U 238	-0.011 µg/L	1.00	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	746319	621584	Pass
45	593146	564999	Pass
72	88022	90273	Pass
115	468012	477238	Pass
209	233752	264576	Pass

Internal Standards referenced to 002CALB.D#

16 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2502.16A\012SMPL.D\012SMPL.D#
Acquired : Sep 25 02 06:03 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: M021282-001
Misc Info : ,
Vial Number: 2101
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 1.000000

Element		Concentration	Cal Conc	LRS Conc	Flag
Be	9	0.002 µg/L	200.000	1000	Pass
B	11	-0.793 µg/L	200.000	0	Pass
Na	23	31.970 µg/L	10000.000	20000	Pass
Mg	24	21.830 µg/L	10000.000	20000	Pass
Mg	25	22.620 µg/L	10000.000	20000	Pass
Mg	26	22.480 µg/L	10000.000	20000	Pass
Al	27	23.640 µg/L	10000.000	20000	Pass
Si	28	-33.500 µg/L	10000.000	0	Pass
K	39	33.400 µg/L	10000.000	20000	Pass
Ca	43	60.040 µg/L	10000.000	20000	Pass
Ca	44	61.030 µg/L	10000.000	20000	Pass
Ti	47	1.217 µg/L	200.000	1000	Pass
V	51	0.042 µg/L	200.000	1000	Pass
Cr	52	0.852 µg/L	200.000	1000	Pass
Cr	53	21.040 µg/L	200.000	1000	Pass
Fe	54	-8.079 µg/L	10000.000	20000	Pass
Mn	55	0.395 µg/L	200.000	1000	Pass
Fe	57	25.760 µg/L	10000.000	20000	Pass
Co	59	-0.354 µg/L	200.000	1000	Pass
Ni	60	0.249 µg/L	200.000	1000	Pass
Cu	63	0.796 µg/L	200.000	1000	Pass
Cu	65	0.761 µg/L	200.000	1000	Pass
Zn	66	3.643 µg/L	200.000	1000	Pass
Zn	67	4.397 µg/L	200.000	1000	Pass
Zn	68	3.129 µg/L	200.000	1000	Pass
As	75	0.519 µg/L	200.000	1000	Pass
Se	82	0.219 µg/L	200.000	1000	Pass
Sr	87	0.066 µg/L	200.000	1000	Pass
Mo	95	1.563 µg/L	200.000	1000	Pass
Mo	98	1.532 µg/L	200.000	1000	Pass
Ag	107	-0.021 µg/L	200.000	1000	Pass
Ag	109	-0.013 µg/L	200.000	1000	Pass
Cd	111	0.000 µg/L	200.000	1000	Pass
Cd	114	0.196 µg/L	200.000	1000	Pass
Sn	120	13.160 µg/L	200.000	1000	Pass
Sb	121	0.290 µg/L	200.000	1000	Pass
Sb	123	-0.026 µg/L	200.000	1000	Pass

Ba 135	2.606 µg/L	200.000	1000	Pass
Au 197	0.179 µg/L	200.000	0	Pass
Tl 205	-0.363 µg/L	200.000	1000	Pass

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2502.16A\012SMPL.D\012SMPL.D#
Acquired : Sep 25 02 06:03 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: M021282-001
Misc Info : ,
Vial Number: 2101
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 1.000000

Pb 208	-0.287 µg/L	200.000	1000	Pass
U 238	-0.015 µg/L	200.000	1000	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	746319	681878	Pass
45	593146	563886	Pass
72	88022	85536	Pass
115	468012	441075	Pass
209	233752	240889	Pass

Internal Standards referenced to 002CALB.D#

0 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2502.16A\013SMPL.D\013SMPL.D#
Acquired : Sep 25 02 06:12 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: MD21282-002
Misc Info : ,
Vial Number: 2102
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 1.000000

Element		Concentration	Cal Conc	LRS Conc	Flag
Be	9	100.800 µg/L	200.000	1000	Pass
B	11	92.340 µg/L	200.000	0	Pass
Na	23	958.300 µg/L	10000.000	20000	Pass
Mg	24	932.300 µg/L	10000.000	20000	Pass
Mg	25	992.400 µg/L	10000.000	20000	Pass
Mg	26	981.200 µg/L	10000.000	20000	Pass
Al	27	963.900 µg/L	10000.000	20000	Pass
Si	28	860.700 µg/L	10000.000	0	Pass
K	39	980.500 µg/L	10000.000	20000	Pass
Ca	43	1034.000 µg/L	10000.000	20000	Pass
Ca	44	1040.000 µg/L	10000.000	20000	Pass
Ti	47	98.620 µg/L	200.000	1000	Pass
V	51	100.300 µg/L	200.000	1000	Pass
Cr	52	100.700 µg/L	200.000	1000	Pass
Cr	53	93.870 µg/L	200.000	1000	Pass
Fe	54	1020.000 µg/L	10000.000	20000	Pass
Mn	55	100.200 µg/L	200.000	1000	Pass
Fe	57	1039.000 µg/L	10000.000	20000	Pass
Co	59	101.500 µg/L	200.000	1000	Pass
Ni	60	101.800 µg/L	200.000	1000	Pass
Cu	63	103.000 µg/L	200.000	1000	Pass
Cu	65	103.900 µg/L	200.000	1000	Pass
Zn	66	106.900 µg/L	200.000	1000	Pass
Zn	67	101.700 µg/L	200.000	1000	Pass
Zn	68	105.200 µg/L	200.000	1000	Pass
As	75	100.100 µg/L	200.000	1000	Pass
Se	82	102.000 µg/L	200.000	1000	Pass
Sr	87	98.470 µg/L	200.000	1000	Pass
Mo	95	93.370 µg/L	200.000	1000	Pass
Mo	98	94.150 µg/L	200.000	1000	Pass
Ag	107	96.510 µg/L	200.000	1000	Pass
Ag	109	96.210 µg/L	200.000	1000	Pass
Cd	111	98.440 µg/L	200.000	1000	Pass
Cd	114	99.220 µg/L	200.000	1000	Pass
Sn	120	111.100 µg/L	200.000	1000	Pass
Sb	121	99.470 µg/L	200.000	1000	Pass
Sb	123	99.700 µg/L	200.000	1000	Pass

Ba 135	101.300 µg/L	200.000	1000	Pass
Au 197	90.190 µg/L	200.000	0	Pass
Tl 205	94.690 µg/L	200.000	1000	Pass

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2502.16A\013SMPL.D\013SMPL.D#
Acquired : Sep 25 02 06:12 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: M021282-002
Misc Info : ,
Vial Number: 2102
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 1.000000

Pb 208	96.770 µg/L	200.000	1000	Pass
U 238	97.140 µg/L	200.000	1000	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	746319	681366	Pass
45	593146	567890	Pass
72	88022	83872	Pass
115	468012	435295	Pass
209	233752	239688	Pass

Internal Standards referenced to 002CALB.D#

0 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2502.16A\014SMPL.D\014SMPL.D#
Acquired : Sep 25 02 06:21 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: M021282-003
Misc Info : ,
Vial Number: 2103
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 1.000000

Element	Concentration	Cal Conc	LRS Conc	Flag
Be 9	99.030 µg/L	200.000	1000	Pass
B 11	94.780 µg/L	200.000	0	Pass
Na 23	988.100 µg/L	10000.000	20000	Pass
Mg 24	978.300 µg/L	10000.000	20000	Pass
Mg 25	998.300 µg/L	10000.000	20000	Pass
Mg 26	982.700 µg/L	10000.000	20000	Pass
Al 27	987.800 µg/L	10000.000	20000	Pass
Si 28	916.500 µg/L	10000.000	0	Pass
K 39	980.500 µg/L	10000.000	20000	Pass
Ca 43	1042.000 µg/L	10000.000	20000	Pass
Ca 44	1027.000 µg/L	10000.000	20000	Pass
Ti 47	99.190 µg/L	200.000	1000	Pass
V 51	99.540 µg/L	200.000	1000	Pass
Cr 52	100.600 µg/L	200.000	1000	Pass
Cr 53	89.010 µg/L	200.000	1000	Pass
Fe 54	1046.000 µg/L	10000.000	20000	Pass
Mn 55	99.560 µg/L	200.000	1000	Pass
Fe 57	1053.000 µg/L	10000.000	20000	Pass
Co 59	100.200 µg/L	200.000	1000	Pass
Ni 60	100.800 µg/L	200.000	1000	Pass
Cu 63	102.100 µg/L	200.000	1000	Pass
Cu 65	103.500 µg/L	200.000	1000	Pass
Zn 66	104.700 µg/L	200.000	1000	Pass
Zn 67	100.400 µg/L	200.000	1000	Pass
Zn 68	103.700 µg/L	200.000	1000	Pass
As 75	99.370 µg/L	200.000	1000	Pass
Se 82	100.500 µg/L	200.000	1000	Pass
Sr 87	98.570 µg/L	200.000	1000	Pass
Mo 95	94.130 µg/L	200.000	1000	Pass
Mo 98	94.370 µg/L	200.000	1000	Pass
Ag 107	97.780 µg/L	200.000	1000	Pass
Ag 109	98.250 µg/L	200.000	1000	Pass
Cd 111	96.970 µg/L	200.000	1000	Pass
Cd 114	98.080 µg/L	200.000	1000	Pass
Sn 120	109.700 µg/L	200.000	1000	Pass
Sb 121	97.800 µg/L	200.000	1000	Pass
Sb 123	98.430 µg/L	200.000	1000	Pass

Ba 135	100.100 µg/L	200.000	1000	Pass
Au 197	89.260 µg/L	200.000	0	Pass
Tl 205	94.350 µg/L	200.000	1000	Pass

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2502.16A\014SMPL.D\014SMPL.D#
Acquired : Sep 25 02 06:21 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: M021282-003
Misc Info : ,
Vial Number: 2103
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 1.000000

Pb 208	96.710 µg/L	200.000	1000	Pass
U 238	96.480 µg/L	200.000	1000	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	746319	701353	Pass
45	593146	579946	Pass
72	88022	85053	Pass
115	468012	436832	Pass
209	233752	239925	Pass

Internal Standards referenced to 002CALB.D#

0 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

Sample QC Report

51u

File : D:\HPCHEM\1\DATA\Sep2502.16A\015SMPL.D\015SMPL.D#
Acquired : Sep 25 02 06:30 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: M021282-006
Misc Info : ,
Vial Number: 2104
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 100.000000

Element		Concentration	Cal Conc	LRS Conc	Flag
Be	9	10.290 µg/L	200.000	1000	Pass
B	11	-12.720 µg/L	200.000	0	Pass
Na	23	3263.000 µg/L	10000.000	20000	Pass
Mg	24	29890.000 µg/L	10000.000	20000	Pass
Mg	25	29870.000 µg/L	10000.000	20000	Pass
Mg	26	29980.000 µg/L	10000.000	20000	Pass
Al	27	106500.000 µg/L	10000.000	20000	Pass
Si	28	8709.000 µg/L	10000.000	0	Pass
K	39	16320.000 µg/L	10000.000	20000	Pass
Ca	43	59170.000 µg/L	10000.000	20000	Pass
Ca	44	60020.000 µg/L	10000.000	20000	Pass
Ti	47	4322.000 µg/L	200.000	1000	Pass
V	51	189.700 µg/L	200.000	1000	Pass
Cr	52	2905.000 µg/L	200.000	1000	Pass
Cr	53	2092.000 µg/L	200.000	1000	Pass
Fe	54	139100.000 µg/L	10000.000	20000	Pass
Mn	55	4139.000 µg/L	200.000	1000	Pass
Fe	57	143800.000 µg/L	10000.000	20000	Pass
Co	59	9.265 µg/L	200.000	1000	Pass
Ni	60	106.700 µg/L	200.000	1000	Pass
Cu	63	508.600 µg/L	200.000	1000	Pass
Cu	65	507.600 µg/L	200.000	1000	Pass
Zn	66	1830.000 µg/L	200.000	1000	Pass
Zn	67	1727.000 µg/L	200.000	1000	Pass
Zn	68	1732.000 µg/L	200.000	1000	Pass
As	75	90.890 µg/L	200.000	1000	Pass
Se	82	36.710 µg/L	200.000	1000	Pass
Sr	87	947.400 µg/L	200.000	1000	Pass
Mo	95	74.970 µg/L	200.000	1000	Pass
Mo	98	70.350 µg/L	200.000	1000	Pass
Ag	107	118.900 µg/L	200.000	1000	Pass
Ag	109	120.300 µg/L	200.000	1000	Pass
Cd	111	9.578 µg/L	200.000	1000	Pass
Cd	114	14.280 µg/L	200.000	1000	Pass
Sn	120	82.920 µg/L	200.000	1000	Pass
Sb	121	36.940 µg/L	200.000	1000	Pass
Sb	123	5.901 µg/L	200.000	1000	Pass

Ba	135	1722.000 µg/L	200.000	1000	Pass
Au	197	37.200 µg/L	200.000	0	Pass
Tl	205	11.900 µg/L	200.000	1000	Pass

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2502.16A\015SMPL.D\015SMPL.D#
Acquired : Sep 25 02 06:30 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: M021282-006
Misc Info : ,
Vial Number: 2104
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : ---------
Sample Type: ---------
Dilution : 100.000000

Pb	208	352.200 µg/L	200.000	1000	Pass
U	238	28.810 µg/L	200.000	1000	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	746319	721225	Pass
45	593146	607936	Pass
72	88022	86768	Pass
115	468012	447910	Pass
209	233752	241921	Pass

Internal Standards referenced to 002CALB.D#

0 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2502.16A\016SMPL.D\016SMPL.D#
Acquired : Sep 25 02 06:39 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: M021282-007
Misc Info : ,
Vial Number: 2106
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 100.000000

Element	Concentration	Cal Conc	LRS Conc	Flag
Be 9	111.700 µg/L	200.000	1000	Pass
B 11	51.910 µg/L	200.000	0	Pass
Na 23	4838.000 µg/L	10000.000	20000	Pass
Mg 24	40530.000 µg/L	10000.000	20000	Pass
Mg 25	40270.000 µg/L	10000.000	20000	Pass
Mg 26	39920.000 µg/L	10000.000	20000	Pass
Al 27	139600.000 µg/L	10000.000	20000	Pass
Si 28	10260.000 µg/L	10000.000	0	Pass
K 39	23810.000 µg/L	10000.000	20000	Pass
Ca 43	65660.000 µg/L	10000.000	20000	Pass
Ca 44	66050.000 µg/L	10000.000	20000	Pass
Ti 47	5934.000 µg/L	200.000	1000	Pass
V 51	301.200 µg/L	200.000	1000	Pass
Cr 52	3291.000 µg/L	200.000	1000	Pass
Cr 53	3053.000 µg/L	200.000	1000	Pass
Fe 54	167600.000 µg/L	10000.000	20000	Pass
Mn 55	4043.000 µg/L	200.000	1000	Pass
Fe 57	176600.000 µg/L	10000.000	20000	Pass
Co 59	113.300 µg/L	200.000	1000	Pass
Ni 60	221.900 µg/L	200.000	1000	Pass
Cu 63	663.600 µg/L	200.000	1000	Pass
Cu 65	674.700 µg/L	200.000	1000	Pass
Zn 66	2187.000 µg/L	200.000	1000	Pass
Zn 67	2093.000 µg/L	200.000	1000	Pass
Zn 68	2039.000 µg/L	200.000	1000	Pass
As 75	204.700 µg/L	200.000	1000	Pass
Se 82	133.900 µg/L	200.000	1000	Pass
Sr 87	1311.000 µg/L	200.000	1000	Pass
Mo 95	140.900 µg/L	200.000	1000	Pass
Mo 98	137.300 µg/L	200.000	1000	Pass
Ag 107	206.700 µg/L	200.000	1000	Pass
Ag 109	206.900 µg/L	200.000	1000	Pass
Cd 111	119.200 µg/L	200.000	1000	Pass
Cd 114	112.500 µg/L	200.000	1000	Pass
Sn 120	187.200 µg/L	200.000	1000	Pass
Sb 121	67.350 µg/L	200.000	1000	Pass
Sb 123	36.900 µg/L	200.000	1000	Pass

Ba 135	1914.000 µg/L	200.000	1000	Pass
Au 197	102.600 µg/L	200.000	0	Pass
Tl 205	76.370 µg/L	200.000	1000	Pass

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2502.16A\016SMPL.D\016SMPL.D#
Acquired : Sep 25 02 06:39 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: M021282-007
Misc Info : ,
Vial Number: 2106
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 100.000000

Pb 208	457.500 µg/L	200.000	1000	Pass
U 238	120.600 µg/L	200.000	1000	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	746319	752649	Pass
45	593146	623778	Pass
72	88022	87171	Pass
115	468012	452905	Pass
209	233752	244561	Pass

Internal Standards referenced to 002CALB.D#

0 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2502.16A\017SMPL.D\017SMPL.D#
Acquired : Sep 25 02 06:49 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: M021282-008
Misc Info : ,
Vial Number: 2108
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : ---------
Sample Type: ---------
Dilution : 100.000000

Element		Concentration	Cal Conc	LRS Conc	Flag
Be	9	109.000 µg/L	200.000	1000	Pass
B	11	47.020 µg/L	200.000	0	Pass
Na	23	4774.000 µg/L	10000.000	20000	Pass
Mg	24	36810.000 µg/L	10000.000	20000	Pass
Mg	25	37020.000 µg/L	10000.000	20000	Pass
Mg	26	37020.000 µg/L	10000.000	20000	Pass
Al	27	127200.000 µg/L	10000.000	20000	Pass
Si	28	10580.000 µg/L	10000.000	0	Pass
K	39	22240.000 µg/L	10000.000	20000	Pass
Ca	43	61950.000 µg/L	10000.000	20000	Pass
Ca	44	62410.000 µg/L	10000.000	20000	Pass
Ti	47	5844.000 µg/L	200.000	1000	Pass
V	51	275.900 µg/L	200.000	1000	Pass
Cr	52	3384.000 µg/L	200.000	1000	Pass
Cr	53	3296.000 µg/L	200.000	1000	Pass
Fe	54	159700.000 µg/L	10000.000	20000	Pass
Mn	55	4608.000 µg/L	200.000	1000	Pass
Fe	57	164700.000 µg/L	10000.000	20000	Pass
Co	59	117.500 µg/L	200.000	1000	Pass
Ni	60	218.000 µg/L	200.000	1000	Pass
Cu	63	660.200 µg/L	200.000	1000	Pass
Cu	65	659.200 µg/L	200.000	1000	Pass
Zn	66	2341.000 µg/L	200.000	1000	Pass
Zn	67	2256.000 µg/L	200.000	1000	Pass
Zn	68	2204.000 µg/L	200.000	1000	Pass
As	75	176.400 µg/L	200.000	1000	Pass
Se	82	129.500 µg/L	200.000	1000	Pass
Sr	87	1259.000 µg/L	200.000	1000	Pass
Mo	95	137.500 µg/L	200.000	1000	Pass
Mo	98	132.000 µg/L	200.000	1000	Pass
Ag	107	220.600 µg/L	200.000	1000	Pass
Ag	109	221.000 µg/L	200.000	1000	Pass
Cd	111	113.900 µg/L	200.000	1000	Pass
Cd	114	116.000 µg/L	200.000	1000	Pass
Sn	120	218.500 µg/L	200.000	1000	Pass
Sb	121	70.740 µg/L	200.000	1000	Pass
Sb	123	37.620 µg/L	200.000	1000	Pass

Ba 135	1842.000 µg/L	200.000	1000	Pass
Au 197	91.050 µg/L	200.000	0	Pass
Tl 205	68.670 µg/L	200.000	1000	Pass

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2502.16A\017SMPL.D\017SMPL.D#
Acquired : Sep 25 02 06:49 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: M021282-008
Misc Info : ,
Vial Number: 2108
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 100.000000

Pb 208	506.000 µg/L	200.000	1000	Pass
U 238	130.800 µg/L	200.000	1000	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	746319	748408	Pass
45	593146	597831	Pass
72	88022	84882	Pass
115	468012	437893	Pass
209	233752	239016	Pass

Internal Standards referenced to 002CALB.D#

0 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2502.16A\018SMPL.D\018SMPL.D#
Acquired : Sep 25 02 06:58 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: M021282-011
Misc Info : ,
Vial Number: 2202
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 100.000000

Element		Concentration	Cal Conc	LRS Conc	Flag
Be	9	8.885 µg/L	200.000	1000	Pass
B	11	-90.790 µg/L	200.000	0	Pass
Na	23	3128.000 µg/L	10000.000	20000	Pass
Mg	24	14750.000 µg/L	10000.000	20000	Pass
Mg	25	14690.000 µg/L	10000.000	20000	Pass
Mg	26	14820.000 µg/L	10000.000	20000	Pass
Al	27	103600.000 µg/L	10000.000	20000	Pass
Si	28	5011.000 µg/L	10000.000	0	Pass
K	39	12840.000 µg/L	10000.000	20000	Pass
Ca	43	19070.000 µg/L	10000.000	20000	Pass
Ca	44	19470.000 µg/L	10000.000	20000	Pass
Ti	47	2844.000 µg/L	200.000	1000	Pass
V	51	5.403 µg/L	200.000	1000	Pass
Cr	52	26.270 µg/L	200.000	1000	Pass
Cr	53	-1316.000 µg/L	200.000	1000	Pass
Fe	54	115400.000 µg/L	10000.000	20000	Pass
Mn	55	3248.000 µg/L	200.000	1000	Pass
Fe	57	125800.000 µg/L	10000.000	20000	Pass
Co	59	-19.160 µg/L	200.000	1000	Pass
Ni	60	46.800 µg/L	200.000	1000	Pass
Cu	63	44.980 µg/L	200.000	1000	Pass
Cu	65	46.060 µg/L	200.000	1000	Pass
Zn	66	630.800 µg/L	200.000	1000	Pass
Zn	67	483.300 µg/L	200.000	1000	Pass
Zn	68	511.100 µg/L	200.000	1000	Pass
As	75	42.610 µg/L	200.000	1000	Pass
Se	82	21.930 µg/L	200.000	1000	Pass
Sr	87	737.100 µg/L	200.000	1000	Pass
Mo	95	37.110 µg/L	200.000	1000	Pass
Mo	98	36.790 µg/L	200.000	1000	Pass
Ag	107	-3.358 µg/L	200.000	1000	Pass
Ag	109	-2.335 µg/L	200.000	1000	Pass
Cd	111	2.837 µg/L	200.000	1000	Pass
Cd	114	3.384 µg/L	200.000	1000	Pass
Sn	120	27.300 µg/L	200.000	1000	Pass
Sb	121	28.660 µg/L	200.000	1000	Pass
Sb	123	-2.307 µg/L	200.000	1000	Pass

Ba 135	864.800 µg/L	200.000	1000	Pass
Au 197	4.391 µg/L	200.000	0	Pass
Tl 205	-32.660 µg/L	200.000	1000	Pass

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2502.16A\018SMPL.D\018SMPL.D#
Acquired : Sep 25 02 06:58 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: M021282-011
Misc Info : ,
Vial Number: 2202
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 100.000000

Pb 208	134.200 µg/L	200.000	1000	Pass
U 238	6.261 µg/L	200.000	1000	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	746319	753011	Pass
45	593146	618840	Pass
72	88022	86274	Pass
115	468012	446301	Pass
209	233752	241325	Pass

Internal Standards referenced to 002CALB.D#

0 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2502.16A\019SMPL.D\019SMPL.D#
Acquired : Sep 25 02 07:07 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: M021282-012
Misc Info : ,
Vial Number: 2204
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 100.000000

Element		Concentration	Cal Conc	LRS Conc	Flag
Be	9	8.232 µg/L	200.000	1000	Pass
B	11	-94.000 µg/L	200.000	0	Pass
Na	23	1823.000 µg/L	10000.000	20000	Pass
Mg	24	17460.000 µg/L	10000.000	20000	Pass
Mg	25	17540.000 µg/L	10000.000	20000	Pass
Mg	26	17500.000 µg/L	10000.000	20000	Pass
Al	27	108800.000 µg/L	10000.000	20000	Pass
Si	28	6550.000 µg/L	10000.000	0	Pass
K	39	15210.000 µg/L	10000.000	20000	Pass
Ca	43	24340.000 µg/L	10000.000	20000	Pass
Ca	44	25320.000 µg/L	10000.000	20000	Pass
Ti	47	2277.000 µg/L	200.000	1000	Pass
V	51	89.720 µg/L	200.000	1000	Pass
Cr	52	783.600 µg/L	200.000	1000	Pass
Cr	53	-779.000 µg/L	200.000	1000	Pass
Fe	54	90410.000 µg/L	10000.000	20000	Pass
Mn	55	2442.000 µg/L	200.000	1000	Pass
Fe	57	96730.000 µg/L	10000.000	20000	Pass
Co	59	-10.730 µg/L	200.000	1000	Pass
Ni	60	71.000 µg/L	200.000	1000	Pass
Cu	63	394.800 µg/L	200.000	1000	Pass
Cu	65	398.200 µg/L	200.000	1000	Pass
Zn	66	1017.000 µg/L	200.000	1000	Pass
Zn	67	839.800 µg/L	200.000	1000	Pass
Zn	68	892.100 µg/L	200.000	1000	Pass
As	75	23.930 µg/L	200.000	1000	Pass
Se	82	21.870 µg/L	200.000	1000	Pass
Sr	87	762.300 µg/L	200.000	1000	Pass
Mo	95	26.730 µg/L	200.000	1000	Pass
Mo	98	21.560 µg/L	200.000	1000	Pass
Ag	107	23.460 µg/L	200.000	1000	Pass
Ag	109	24.470 µg/L	200.000	1000	Pass
Cd	111	5.888 µg/L	200.000	1000	Pass
Cd	114	4.097 µg/L	200.000	1000	Pass
Sn	120	33.550 µg/L	200.000	1000	Pass
Sb	121	28.540 µg/L	200.000	1000	Pass
Sb	123	-2.694 µg/L	200.000	1000	Pass

Ba 135	891.900 µg/L	200.000	1000	Pass
Au 197	2.080 µg/L	200.000	0	Pass
Tl 205	-36.570 µg/L	200.000	1000	Pass

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2502.16A\019SMPL.D\019SMPL.D#
Acquired : Sep 25 02 07:07 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: M021282-012
Misc Info : ,
Vial Number: 2204
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 100.000000

Pb 208	273.800 µg/L	200.000	1000	Pass
U 238	12.300 µg/L	200.000	1000	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	746319	735891	Pass
45	593146	599042	Pass
72	88022	84311	Pass
115	468012	436264	Pass
209	233752	237056	Pass

Internal Standards referenced to 002CALB.D#

0 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

CCV QC Report

File : D:\HPCHEM\1\DATA\Sep2502.16A\020CCV_D\020CCV_D#
Acquired : Sep 25 02 07:16 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: [STD-CCV]
Misc Info :
Vial Number: 1105
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: CCV
Dilution : 1.000000

CCV Mix #1

Element	Concentration	Expected	QC Range	Flag
Be 9	97.910 µg/L	100.00	90.00-110.00	Pass
B 11	96.060 µg/L	100.00	90.00-110.00	Pass
Na 23	974.900 µg/L	1000.00	900.00-1100.00	Pass
Mg 24	976.300 µg/L	1000.00	900.00-1100.00	Pass
Mg 25	1008.000 µg/L	1000.00	900.00-1100.00	Pass
Mg 26	994.800 µg/L	1000.00	900.00-1100.00	Pass
Al 27	978.900 µg/L	1000.00	900.00-1100.00	Pass
Si 28	892.200 µg/L	1000.00	900.00-1100.00	*Fail*
K 39	976.200 µg/L	1000.00	900.00-1100.00	Pass
Ca 43	1021.000 µg/L	1000.00	900.00-1100.00	Pass
Ca 44	994.000 µg/L	1000.00	900.00-1100.00	Pass
Ti 47	98.920 µg/L	100.00	90.00-110.00	Pass
V 51	98.830 µg/L	100.00	90.00-110.00	Pass
Cr 52	99.880 µg/L	100.00	90.00-110.00	Pass
Cr 53	82.200 µg/L	100.00	90.00-110.00	*Fail*
Fe 54	979.800 µg/L	1000.00	900.00-1100.00	Pass
Mn 55	98.730 µg/L	100.00	90.00-110.00	Pass
Fe 57	992.200 µg/L	1000.00	900.00-1100.00	Pass
Co 59	99.580 µg/L	100.00	90.00-110.00	Pass
Ni 60	98.820 µg/L	100.00	90.00-110.00	Pass
Cu 63	99.920 µg/L	100.00	90.00-110.00	Pass
Cu 65	101.600 µg/L	100.00	90.00-110.00	Pass
Zn 66	100.900 µg/L	100.00	90.00-110.00	Pass
Zn 67	96.810 µg/L	100.00	90.00-110.00	Pass
Zn 68	98.780 µg/L	100.00	90.00-110.00	Pass
As 75	100.100 µg/L	100.00	90.00-110.00	Pass
Se 82	101.100 µg/L	100.00	90.00-110.00	Pass
Sr 87	100.700 µg/L	100.00	90.00-110.00	Pass
Mo 95	95.810 µg/L	100.00	90.00-110.00	Pass
Mo 98	96.300 µg/L	100.00	90.00-110.00	Pass
Ag 107	99.210 µg/L	100.00	90.00-110.00	Pass
Ag 109	98.700 µg/L	100.00	90.00-110.00	Pass
Cd 111	97.720 µg/L	100.00	90.00-110.00	Pass
Cd 114	99.380 µg/L	100.00	90.00-110.00	Pass
Sn 120	99.800 µg/L	100.00	90.00-110.00	Pass

Sb 121	98.990 µg/L	100.00	90.00-110.00	Pass
Sb 123	99.560 µg/L	100.00	90.00-110.00	Pass
Ba 135	100.400 µg/L	100.00	90.00-110.00	Pass

CCV QC Report

File : D:\HPCHEM\1\DATA\Sep2502.16A\020CCV_.D\020CCV_.D#
Acquired : Sep 25 02 07:16 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: [STD-CCV]
Misc Info :
Vial Number: 1105
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: CCV
Dilution : 1.000000

Au 197	96.200 µg/L	100.00	90.00-110.00	Pass
Tl 205	96.800 µg/L	100.00	90.00-110.00	Pass
Pb 208	98.970 µg/L	100.00	90.00-110.00	Pass
U 238	99.100 µg/L	100.00	90.00-110.00	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	746319	774822	Pass
45	593146	614228	Pass
72	88022	85842	Pass
115	468012	439689	Pass
209	233752	238979	Pass

Internal Standards referenced to 002CALB.D#

2 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

Blank QC Report

File : D:\HPCHEM\1\DATA\Sep2502.16A\021CCB_D\021CCB_D#
Acquired : Sep 25 02 07:25 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: [CB]
Misc Info :
Vial Number: 1102
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: CCB
Dilution : 1.000000

Element		Concentration	CRDL Limit	Flag
Be	9	0.031 µg/L	1.00	Pass
B	11	0.171 µg/L	1.00	Pass
Na	23	1.169 µg/L	10.00	Pass
Mg	24	0.272 µg/L	10.00	Pass
Mg	25	0.266 µg/L	10.00	Pass
Mg	26	0.134 µg/L	10.00	Pass
Al	27	1.122 µg/L	10.00	Pass
Si	28	-73.800 µg/L	10.00	*Fail*
K	39	-6.658 µg/L	10.00	Pass
Ca	43	-1.394 µg/L	10.00	Pass
Ca	44	-2.182 µg/L	10.00	Pass
Ti	47	-0.076 µg/L	1.00	Pass
V	51	-0.319 µg/L	1.00	Pass
Cr	52	0.076 µg/L	1.00	Pass
Cr	53	-5.910 µg/L	1.00	*Fail*
Fe	54	-58.980 µg/L	10.00	*Fail*
Mn	55	-0.036 µg/L	1.00	Pass
Fe	57	-8.556 µg/L	10.00	Pass
Co	59	-0.330 µg/L	1.00	Pass
Ni	60	0.003 µg/L	1.00	Pass
Cu	63	0.004 µg/L	1.00	Pass
Cu	65	-0.011 µg/L	1.00	Pass
Zn	66	-0.044 µg/L	1.00	Pass
Zn	67	-0.347 µg/L	1.00	Pass
Zn	68	-0.812 µg/L	1.00	Pass
As	75	0.080 µg/L	1.00	Pass
Se	82	0.330 µg/L	1.00	Pass
Sr	87	0.048 µg/L	1.00	Pass
Mo	95	0.365 µg/L	1.00	Pass
Mo	98	0.333 µg/L	1.00	Pass
Ag	107	0.031 µg/L	1.00	Pass
Ag	109	0.032 µg/L	1.00	Pass
Cd	111	0.003 µg/L	1.00	Pass
Cd	114	0.045 µg/L	1.00	Pass
Sn	120	-0.006 µg/L	1.00	Pass
Sb	121	0.434 µg/L	1.00	Pass
Sb	123	0.112 µg/L	1.00	Pass

Ba 135	0.005 µg/L	1.00	Pass
Au 197	0.459 µg/L	1.00	Pass
Tl 205	0.135 µg/L	1.00	Pass

Blank QC Report

File : D:\HPCHEM\1\DATA\Sep2502.16A\021CCB_.D\021CCB_.D#
Acquired : Sep 25 02 07:25 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: [CB]
Misc Info :
Vial Number: 1102
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: CCB
Dilution : 1.000000

Pb 208	-0.323 µg/L	1.00	Pass
U 238	0.041 µg/L	1.00	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	746319	752402	Pass
45	593146	617660	Pass
72	88022	85747	Pass
115	468012	444652	Pass
209	233752	238774	Pass

Internal Standards referenced to 002CALB.D#

3 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2502.16A\022SMPL.D\022SMPL.D#
Acquired : Sep 25 02 07:34 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: M021282-013
Misc Info : ,
Vial Number: 2206
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 100.000000

Element		Concentration	Cal Conc	LRS Conc	Flag
Be	9	10.490 µg/L	200.000	1000	Pass
B	11	-93.960 µg/L	200.000	0	Pass
Na	23	3127.000 µg/L	10000.000	20000	Pass
Mg	24	14650.000 µg/L	10000.000	20000	Pass
Mg	25	14360.000 µg/L	10000.000	20000	Pass
Mg	26	14180.000 µg/L	10000.000	20000	Pass
Al	27	102200.000 µg/L	10000.000	20000	Pass
Si	28	3646.000 µg/L	10000.000	0	Pass
K	39	12670.000 µg/L	10000.000	20000	Pass
Ca	43	15240.000 µg/L	10000.000	20000	Pass
Ca	44	16010.000 µg/L	10000.000	20000	Pass
Ti	47	3106.000 µg/L	200.000	1000	Pass
V	51	13.750 µg/L	200.000	1000	Pass
Cr	52	10.520 µg/L	200.000	1000	Pass
Cr	53	-1999.000 µg/L	200.000	1000	Pass
Fe	54	115900.000 µg/L	10000.000	20000	Pass
Mn	55	3429.000 µg/L	200.000	1000	Pass
Fe	57	124400.000 µg/L	10000.000	20000	Pass
Co	59	-17.420 µg/L	200.000	1000	Pass
Ni	60	46.460 µg/L	200.000	1000	Pass
Cu	63	42.610 µg/L	200.000	1000	Pass
Cu	65	43.430 µg/L	200.000	1000	Pass
Zn	66	637.400 µg/L	200.000	1000	Pass
Zn	67	428.900 µg/L	200.000	1000	Pass
Zn	68	509.700 µg/L	200.000	1000	Pass
As	75	26.750 µg/L	200.000	1000	Pass
Se	82	27.280 µg/L	200.000	1000	Pass
Sr	87	737.800 µg/L	200.000	1000	Pass
Mo	95	31.220 µg/L	200.000	1000	Pass
Mo	98	32.500 µg/L	200.000	1000	Pass
Ag	107	-2.910 µg/L	200.000	1000	Pass
Ag	109	-1.669 µg/L	200.000	1000	Pass
Cd	111	1.178 µg/L	200.000	1000	Pass
Cd	114	0.617 µg/L	200.000	1000	Pass
Sn	120	28.670 µg/L	200.000	1000	Pass
Sb	121	30.350 µg/L	200.000	1000	Pass
Sb	123	-0.248 µg/L	200.000	1000	Pass

Ba 135	663.700 µg/L	200.000	1000	Pass
Au 197	7.500 µg/L	200.000	0	Pass
Tl 205	-22.440 µg/L	200.000	1000	Pass

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2502.16A\022SMPL.D\022SMPL.D#
Acquired : Sep 25 02 07:34 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: M021282-013
Misc Info : ,
Vial Number: 2206
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 100.000000

Pb 208	169.600 µg/L	200.000	1000	Pass
U 238	7.869 µg/L	200.000	1000	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	746319	780327	Pass
45	593146	643799	Pass
72	88022	88502	Pass
115	468012	457827	Pass
209	233752	245831	Pass

Internal Standards referenced to 002CALB.D#

0 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2502.16A\023SMPL.D\023SMPL.D#
Acquired : Sep 25 02 07:43 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: M021282-014
Misc Info : ,
Vial Number: 2208
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 100.000000

Element		Concentration	Cal Conc	LRS Conc	Flag
Be	9	13.080 µg/L	200.000	1000	Pass
B	11	-95.480 µg/L	200.000	0	Pass
Na	23	3880.000 µg/L	10000.000	20000	Pass
Mg	24	21020.000 µg/L	10000.000	20000	Pass
Mg	25	20770.000 µg/L	10000.000	20000	Pass
Mg	26	20620.000 µg/L	10000.000	20000	Pass
Al	27	132600.000 µg/L	10000.000	20000	Pass
Si	28	5923.000 µg/L	10000.000	0	Pass
K	39	18150.000 µg/L	10000.000	20000	Pass
Ca	43	23190.000 µg/L	10000.000	20000	Pass
Ca	44	23260.000 µg/L	10000.000	20000	Pass
Ti	47	4072.000 µg/L	200.000	1000	Pass
V	51	113.500 µg/L	200.000	1000	Pass
Cr	52	30.530 µg/L	200.000	1000	Pass
Cr	53	-2152.000 µg/L	200.000	1000	Pass
Fe	54	161700.000 µg/L	10000.000	20000	Pass
Mn	55	3402.000 µg/L	200.000	1000	Pass
Fe	57	170400.000 µg/L	10000.000	20000	Pass
Co	59	-12.810 µg/L	200.000	1000	Pass
Ni	60	55.980 µg/L	200.000	1000	Pass
Cu	63	59.020 µg/L	200.000	1000	Pass
Cu	65	61.240 µg/L	200.000	1000	Pass
Zn	66	913.300 µg/L	200.000	1000	Pass
Zn	67	724.800 µg/L	200.000	1000	Pass
Zn	68	755.800 µg/L	200.000	1000	Pass
As	75	27.820 µg/L	200.000	1000	Pass
Se	82	28.930 µg/L	200.000	1000	Pass
Sr	87	1051.000 µg/L	200.000	1000	Pass
Mo	95	37.020 µg/L	200.000	1000	Pass
Mo	98	37.210 µg/L	200.000	1000	Pass
Ag	107	-2.977 µg/L	200.000	1000	Pass
Ag	109	-2.369 µg/L	200.000	1000	Pass
Cd	111	1.780 µg/L	200.000	1000	Pass
Cd	114	1.397 µg/L	200.000	1000	Pass
Sn	120	35.160 µg/L	200.000	1000	Pass
Sb	121	32.840 µg/L	200.000	1000	Pass
Sb	123	-0.454 µg/L	200.000	1000	Pass

Ba 135	1096.000 µg/L	200.000	1000	Pass
Au 197	4.738 µg/L	200.000	0	Pass
Tl 205	-29.180 µg/L	200.000	1000	Pass

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2502.16A\023SMPL.D\023SMPL.D#
Acquired : Sep 25 02 07:43 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: M021282-014
Misc Info : ,
Vial Number: 2208
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 100.000000

Pb 208	165.700 µg/L	200.000	1000	Pass
U 238	7.936 µg/L	200.000	1000	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	746319	790458	Pass
45	593146	645938	Pass
72	88022	88638	Pass
115	468012	455337	Pass
209	233752	245429	Pass

Internal Standards referenced to 002CALB.D#

0 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2502.16A\024SMPL.D\024SMPL.D#
Acquired : Sep 25 02 07:52 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: M021282-015
Misc Info : ,
Vial Number: 2210
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 100.000000

Element		Concentration	Cal Conc	LRS Conc	Flag
Be	9	9.844 µg/L	200.000	1000	Pass
B	11	-96.340 µg/L	200.000	0	Pass
Na	23	2878.000 µg/L	10000.000	20000	Pass
Mg	24	22040.000 µg/L	10000.000	20000	Pass
Mg	25	21690.000 µg/L	10000.000	20000	Pass
Mg	26	21710.000 µg/L	10000.000	20000	Pass
Al	27	130100.000 µg/L	10000.000	20000	Pass
Si	28	4430.000 µg/L	10000.000	0	Pass
K	39	15200.000 µg/L	10000.000	20000	Pass
Ca	43	39180.000 µg/L	10000.000	20000	Pass
Ca	44	39250.000 µg/L	10000.000	20000	Pass
Ti	47	5291.000 µg/L	200.000	1000	Pass
V	51	138.700 µg/L	200.000	1000	Pass
Cr	52	135.900 µg/L	200.000	1000	Pass
Cr	53	-1591.000 µg/L	200.000	1000	Pass
Fe	54	158200.000 µg/L	10000.000	20000	Pass
Mn	55	3599.000 µg/L	200.000	1000	Pass
Fe	57	167200.000 µg/L	10000.000	20000	Pass
Co	59	-5.431 µg/L	200.000	1000	Pass
Ni	60	80.020 µg/L	200.000	1000	Pass
Cu	63	76.350 µg/L	200.000	1000	Pass
Cu	65	77.950 µg/L	200.000	1000	Pass
Zn	66	961.300 µg/L	200.000	1000	Pass
Zn	67	798.700 µg/L	200.000	1000	Pass
Zn	68	792.400 µg/L	200.000	1000	Pass
As	75	30.990 µg/L	200.000	1000	Pass
Se	82	26.900 µg/L	200.000	1000	Pass
Sr	87	877.800 µg/L	200.000	1000	Pass
Mo	95	19.960 µg/L	200.000	1000	Pass
Mo	98	18.880 µg/L	200.000	1000	Pass
Ag	107	3.377 µg/L	200.000	1000	Pass
Ag	109	4.697 µg/L	200.000	1000	Pass
Cd	111	2.584 µg/L	200.000	1000	Pass
Cd	114	2.081 µg/L	200.000	1000	Pass
Sn	120	23.150 µg/L	200.000	1000	Pass
Sb	121	28.950 µg/L	200.000	1000	Pass
Sb	123	-3.460 µg/L	200.000	1000	Pass

Ba 135	956.200 µg/L	200.000	1000	Pass
Au 197	1.468 µg/L	200.000	0	Pass
Tl 205	-35.070 µg/L	200.000	1000	Pass

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2502.16A\024SMPL.D\024SMPL.D#
Acquired : Sep 25 02 07:52 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: M021282-015
Misc Info : ,
Vial Number: 2210
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 100.000000

Pb 208	276.300 µg/L	200.000	1000	Pass
U 238	6.310 µg/L	200.000	1000	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	746319	795373	Pass
45	593146	642451	Pass
72	88022	87626	Pass
115	468012	450430	Pass
209	233752	241592	Pass

Internal Standards referenced to 002CALB.D#

0 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2502.16A\025SMPL.D\025SMPL.D#
Acquired : Sep 25 02 08:02 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: M021282-016
Misc Info : ,
Vial Number: 2212
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : ---------
Sample Type: ---------
Dilution : 100.000000

Element		Concentration	Cal Conc	LRS Conc	Flag
Be	9	10.940 µg/L	200.000	1000	Pass
B	11	-98.180 µg/L	200.000	0	Pass
Na	23	2282.000 µg/L	10000.000	20000	Pass
Mg	24	16160.000 µg/L	10000.000	20000	Pass
Mg	25	15950.000 µg/L	10000.000	20000	Pass
Mg	26	15850.000 µg/L	10000.000	20000	Pass
Al	27	62660.000 µg/L	10000.000	20000	Pass
Si	28	3413.000 µg/L	10000.000	0	Pass
K	39	9847.000 µg/L	10000.000	20000	Pass
Ca	43	14630.000 µg/L	10000.000	20000	Pass
Ca	44	15000.000 µg/L	10000.000	20000	Pass
Ti	47	7931.000 µg/L	200.000	1000	Pass
V	51	117.500 µg/L	200.000	1000	Pass
Cr	52	51.640 µg/L	200.000	1000	Pass
Cr	53	-1908.000 µg/L	200.000	1000	Pass
Fe	54	152800.000 µg/L	10000.000	20000	Pass
Mn	55	4657.000 µg/L	200.000	1000	Pass
Fe	57	163100.000 µg/L	10000.000	20000	Pass
Co	59	-16.090 µg/L	200.000	1000	Pass
Ni	60	49.540 µg/L	200.000	1000	Pass
Cu	63	45.140 µg/L	200.000	1000	Pass
Cu	65	43.410 µg/L	200.000	1000	Pass
Zn	66	792.400 µg/L	200.000	1000	Pass
Zn	67	526.900 µg/L	200.000	1000	Pass
Zn	68	662.400 µg/L	200.000	1000	Pass
As	75	41.670 µg/L	200.000	1000	Pass
Se	82	34.720 µg/L	200.000	1000	Pass
Sr	87	485.000 µg/L	200.000	1000	Pass
Mo	95	38.960 µg/L	200.000	1000	Pass
Mo	98	40.280 µg/L	200.000	1000	Pass
Ag	107	-2.722 µg/L	200.000	1000	Pass
Ag	109	-1.810 µg/L	200.000	1000	Pass
Cd	111	1.186 µg/L	200.000	1000	Pass
Cd	114	-0.277 µg/L	200.000	1000	Pass
Sn	120	28.110 µg/L	200.000	1000	Pass
Sb	121	29.360 µg/L	200.000	1000	Pass
Sb	123	-4.715 µg/L	200.000	1000	Pass

Ba 135	417.800 µg/L	200.000	1000	Pass
Au 197	-0.377 µg/L	200.000	0	Pass
Tl 205	-37.060 µg/L	200.000	1000	Pass

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2502.16A\025SMPL.D\025SMPL.D#
Acquired : Sep 25 02 08:02 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: M021282-016
Misc Info : ,
Vial Number: 2212
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 100.000000

Pb 208	128.800 µg/L	200.000	1000	Pass
U 238	5.063 µg/L	200.000	1000	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	746319	793693	Pass
45	593146	633414	Pass
72	88022	86819	Pass
115	468012	447659	Pass
209	233752	240484	Pass

Internal Standards referenced to 002CALB.D#

0 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2502.16A\026SMPL.D\026SMPL.D#
Acquired : Sep 25 02 08:11 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: M021282-017
Misc Info : ,
Vial Number: 2302
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 100.000000

Element		Concentration	Cal Conc	LRS Conc	Flag
Be	9	12.770 µg/L	200.000	1000	Pass
B	11	-95.330 µg/L	200.000	0	Pass
Na	23	3154.000 µg/L	10000.000	20000	Pass
Mg	24	25000.000 µg/L	10000.000	20000	Pass
Mg	25	24730.000 µg/L	10000.000	20000	Pass
Mg	26	24330.000 µg/L	10000.000	20000	Pass
Al	27	155400.000 µg/L	10000.000	20000	Pass
Si	28	3684.000 µg/L	10000.000	0	Pass
K	39	14190.000 µg/L	10000.000	20000	Pass
Ca	43	51720.000 µg/L	10000.000	20000	Pass
Ca	44	51750.000 µg/L	10000.000	20000	Pass
Ti	47	6318.000 µg/L	200.000	1000	Pass
V	51	178.700 µg/L	200.000	1000	Pass
Cr	52	89.940 µg/L	200.000	1000	Pass
Cr	53	-1011.000 µg/L	200.000	1000	Pass
Fe	54	204200.000 µg/L	10000.000	20000	Pass
Mn	55	3078.000 µg/L	200.000	1000	Pass
Fe	57	213000.000 µg/L	10000.000	20000	Pass
Co	59	-3.592 µg/L	200.000	1000	Pass
Ni	60	88.160 µg/L	200.000	1000	Pass
Cu	63	90.370 µg/L	200.000	1000	Pass
Cu	65	87.740 µg/L	200.000	1000	Pass
Zn	66	1493.000 µg/L	200.000	1000	Pass
Zn	67	1344.000 µg/L	200.000	1000	Pass
Zn	68	1323.000 µg/L	200.000	1000	Pass
As	75	51.360 µg/L	200.000	1000	Pass
Se	82	38.230 µg/L	200.000	1000	Pass
Sr	87	842.200 µg/L	200.000	1000	Pass
Mo	95	37.710 µg/L	200.000	1000	Pass
Mo	98	38.240 µg/L	200.000	1000	Pass
Ag	107	-1.708 µg/L	200.000	1000	Pass
Ag	109	-1.150 µg/L	200.000	1000	Pass
Cd	111	3.891 µg/L	200.000	1000	Pass
Cd	114	1.813 µg/L	200.000	1000	Pass
Sn	120	32.730 µg/L	200.000	1000	Pass
Sb	121	28.950 µg/L	200.000	1000	Pass
Sb	123	-3.665 µg/L	200.000	1000	Pass

Ba 135	1003.000 µg/L	200.000	1000	Pass
Au 197	-1.864 µg/L	200.000	0	Pass
Tl 205	-37.640 µg/L	200.000	1000	Pass

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2502.16A\026SMPL.D\026SMPL.D#
Acquired : Sep 25 02 08:11 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: M021282-017
Misc Info : ,
Vial Number: 2302
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 100.000000

Pb 208	123.300 µg/L	200.000	1000	Pass
U 238	5.123 µg/L	200.000	1000	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	746319	779002	Pass
45	593146	619210	Pass
72	88022	85697	Pass
115	468012	440494	Pass
209	233752	238027	Pass

Internal Standards referenced to 002CALB.D#

0 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2502.16A\027SMPL.D\027SMPL.D#
Acquired : Sep 25 02 08:20 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: M021282-018
Misc Info : ,
Vial Number: 2304
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 100.000000

Element		Concentration	Cal Conc	LRS Conc	Flag
Be	9	8.797 µg/L	200.000	1000	Pass
B	11	-115.200 µg/L	200.000	0	Pass
Na	23	2031.000 µg/L	10000.000	20000	Pass
Mg	24	15130.000 µg/L	10000.000	20000	Pass
Mg	25	15080.000 µg/L	10000.000	20000	Pass
Mg	26	15160.000 µg/L	10000.000	20000	Pass
Al	27	68150.000 µg/L	10000.000	20000	Pass
Si	28	4099.000 µg/L	10000.000	0	Pass
K	39	10640.000 µg/L	10000.000	20000	Pass
Ca	43	21630.000 µg/L	10000.000	20000	Pass
Ca	44	22180.000 µg/L	10000.000	20000	Pass
Ti	47	4554.000 µg/L	200.000	1000	Pass
V	51	91.200 µg/L	200.000	1000	Pass
Cr	52	348.300 µg/L	200.000	1000	Pass
Cr	53	-960.000 µg/L	200.000	1000	Pass
Fe	54	127600.000 µg/L	10000.000	20000	Pass
Mn	55	3757.000 µg/L	200.000	1000	Pass
Fe	57	136400.000 µg/L	10000.000	20000	Pass
Co	59	-15.150 µg/L	200.000	1000	Pass
Ni	60	57.430 µg/L	200.000	1000	Pass
Cu	63	219.300 µg/L	200.000	1000	Pass
Cu	65	223.900 µg/L	200.000	1000	Pass
Zn	66	2641.000 µg/L	200.000	1000	Pass
Zn	67	2322.000 µg/L	200.000	1000	Pass
Zn	68	2491.000 µg/L	200.000	1000	Pass
As	75	36.410 µg/L	200.000	1000	Pass
Se	82	13.190 µg/L	200.000	1000	Pass
Sr	87	493.700 µg/L	200.000	1000	Pass
Mo	95	39.730 µg/L	200.000	1000	Pass
Mo	98	38.980 µg/L	200.000	1000	Pass
Ag	107	18.050 µg/L	200.000	1000	Pass
Ag	109	18.150 µg/L	200.000	1000	Pass
Cd	111	6.606 µg/L	200.000	1000	Pass
Cd	114	3.900 µg/L	200.000	1000	Pass
Sn	120	31.860 µg/L	200.000	1000	Pass
Sb	121	29.100 µg/L	200.000	1000	Pass
Sb	123	-3.190 µg/L	200.000	1000	Pass

Ba 135	545.300 µg/L	200.000	1000	Pass
Au 197	-4.405 µg/L	200.000	0	Pass
Tl 205	-38.740 µg/L	200.000	1000	Pass

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2502.16A\027SMPL.D\027SMPL.D#
Acquired : Sep 25 02 08:20 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: M021282-018
Misc Info : ,
Vial Number: 2304
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 100.000000

Pb 208	323.400 µg/L	200.000	1000	Pass
U 238	7.671 µg/L	200.000	1000	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	746319	808049	Pass
45	593146	628297	Pass
72	88022	85576	Pass
115	468012	441695	Pass
209	233752	236757	Pass

Internal Standards referenced to 002CALB.D#

0 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

Sample QC Report

536

File : D:\HPCHEM\1\DATA\Sep2502.16A\028SMPL.D\028SMPL.D#
Acquired : Sep 25 02 08:29 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: M021282-019
Misc Info : ,
Vial Number: 2306
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 100.000000

Element		Concentration	Cal Conc	LRS Conc	Flag
Be	9	9.534 µg/L	200.000	1000	Pass
B	11	-96.830 µg/L	200.000	0	Pass
Na	23	2468.000 µg/L	10000.000	20000	Pass
Mg	24	22200.000 µg/L	10000.000	20000	Pass
Mg	25	22000.000 µg/L	10000.000	20000	Pass
Mg	26	21970.000 µg/L	10000.000	20000	Pass
Al	27	115100.000 µg/L	10000.000	20000	Pass
Si	28	5270.000 µg/L	10000.000	0	Pass
K	39	22140.000 µg/L	10000.000	20000	Pass
Ca	43	27120.000 µg/L	10000.000	20000	Pass
Ca	44	27820.000 µg/L	10000.000	20000	Pass
Ti	47	5918.000 µg/L	200.000	1000	Pass
V	51	139.200 µg/L	200.000	1000	Pass
Cr	52	259.800 µg/L	200.000	1000	Pass
Cr	53	-1068.000 µg/L	200.000	1000	Pass
Fe	54	165400.000 µg/L	10000.000	20000	Pass
Mn	55	4254.000 µg/L	200.000	1000	Pass
Fe	57	174500.000 µg/L	10000.000	20000	Pass
Co	59	-10.290 µg/L	200.000	1000	Pass
Ni	60	69.170 µg/L	200.000	1000	Pass
Cu	63	131.200 µg/L	200.000	1000	Pass
Cu	65	131.100 µg/L	200.000	1000	Pass
Zn	66	2558.000 µg/L	200.000	1000	Pass
Zn	67	2291.000 µg/L	200.000	1000	Pass
Zn	68	2395.000 µg/L	200.000	1000	Pass
As	75	46.830 µg/L	200.000	1000	Pass
Se	82	31.350 µg/L	200.000	1000	Pass
Sr	87	751.400 µg/L	200.000	1000	Pass
Mo	95	34.780 µg/L	200.000	1000	Pass
Mo	98	31.050 µg/L	200.000	1000	Pass
Ag	107	9.586 µg/L	200.000	1000	Pass
Ag	109	10.340 µg/L	200.000	1000	Pass
Cd	111	4.066 µg/L	200.000	1000	Pass
Cd	114	3.572 µg/L	200.000	1000	Pass
Sn	120	29.750 µg/L	200.000	1000	Pass
Sb	121	27.180 µg/L	200.000	1000	Pass
Sb	123	-3.373 µg/L	200.000	1000	Pass

Ba 135	840.700 µg/L	200.000	1000	Pass
Au 197	-2.708 µg/L	200.000	0	Pass
Tl 205	-40.460 µg/L	200.000	1000	Pass

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2502.16A\028SMPL.D\028SMPL.D#
Acquired : Sep 25 02 08:29 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: M021282-019
Misc Info : ,
Vial Number: 2306
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 100.000000

Pb 208	252.800 µg/L	200.000	1000	Pass
U 238	7.756 µg/L	200.000	1000	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	746319	793494	Pass
45	593146	617563	Pass
72	88022	84995	Pass
115	468012	435080	Pass
209	233752	234549	Pass

Internal Standards referenced to 002CALB.D#

0 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2502.16A\029SMPL.D\029SMPL.D#
Acquired : Sep 25 02 08:38 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: M021282-020
Misc Info : ,
Vial Number: 2308
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 100.000000

Element		Concentration	Cal Conc	LRS Conc	Flag
Be	9	4.849 µg/L	200.000	1000	Pass
B	11	-126.100 µg/L	200.000	0	Pass
Na	23	1568.000 µg/L	10000.000	20000	Pass
Mg	24	7248.000 µg/L	10000.000	20000	Pass
Mg	25	7166.000 µg/L	10000.000	20000	Pass
Mg	26	7174.000 µg/L	10000.000	20000	Pass
Al	27	27210.000 µg/L	10000.000	20000	Pass
Si	28	3845.000 µg/L	10000.000	0	Pass
K	39	4967.000 µg/L	10000.000	20000	Pass
Ca	43	10170.000 µg/L	10000.000	20000	Pass
Ca	44	10190.000 µg/L	10000.000	20000	Pass
Ti	47	2828.000 µg/L	200.000	1000	Pass
V	51	65.540 µg/L	200.000	1000	Pass
Cr	52	68.020 µg/L	200.000	1000	Pass
Cr	53	-1239.000 µg/L	200.000	1000	Pass
Fe	54	71650.000 µg/L	10000.000	20000	Pass
Mn	55	2799.000 µg/L	200.000	1000	Pass
Fe	57	79170.000 µg/L	10000.000	20000	Pass
Co	59	-26.200 µg/L	200.000	1000	Pass
Ni	60	23.250 µg/L	200.000	1000	Pass
Cu	63	80.000 µg/L	200.000	1000	Pass
Cu	65	80.430 µg/L	200.000	1000	Pass
Zn	66	606.600 µg/L	200.000	1000	Pass
Zn	67	375.900 µg/L	200.000	1000	Pass
Zn	68	488.300 µg/L	200.000	1000	Pass
As	75	35.870 µg/L	200.000	1000	Pass
Se	82	14.000 µg/L	200.000	1000	Pass
Sr	87	194.300 µg/L	200.000	1000	Pass
Mo	95	13.710 µg/L	200.000	1000	Pass
Mo	98	11.280 µg/L	200.000	1000	Pass
Ag	107	-1.711 µg/L	200.000	1000	Pass
Ag	109	-0.285 µg/L	200.000	1000	Pass
Cd	111	0.226 µg/L	200.000	1000	Pass
Cd	114	1.007 µg/L	200.000	1000	Pass
Sn	120	6.606 µg/L	200.000	1000	Pass
Sb	121	28.370 µg/L	200.000	1000	Pass
Sb	123	-5.528 µg/L	200.000	1000	Pass

Ba 135	360.200 µg/L	200.000	1000	Pass
Au 197	-2.972 µg/L	200.000	0	Pass
Tl 205	-40.670 µg/L	200.000	1000	Pass

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2502.16A\029SMPL.D\029SMPL.D#
Acquired : Sep 25 02 08:38 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: MQ21282-020
Misc Info : ,
Vial Number: 2308
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 100.000000

Pb 208	33.200 µg/L	200.000	1000	Pass
U 238	4.304 µg/L	200.000	1000	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	746319	801131	Pass
45	593146	606963	Pass
72	88022	84547	Pass
115	468012	433614	Pass
209	233752	232559	Pass

Internal Standards referenced to 002CALB.D#

0 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

Sample QC Report

54U

File : D:\HPCHEM\1\DATA\Sep2502.16A\030SMPL.D\030SMPL.D#
Acquired : Sep 25 02 08:47 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: M021282-021
Misc Info : ,
Vial Number: 2310
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 100.000000

Element		Concentration	Cal Conc	LRS Conc	Flag
Be	9	6.774 µg/L	200.000	1000	Pass
B	11	-119.500 µg/L	200.000	0	Pass
Na	23	2191.000 µg/L	10000.000	20000	Pass
Mg	24	14440.000 µg/L	10000.000	20000	Pass
Mg	25	14400.000 µg/L	10000.000	20000	Pass
Mg	26	14240.000 µg/L	10000.000	20000	Pass
Al	27	51690.000 µg/L	10000.000	20000	Pass
Si	28	4734.000 µg/L	10000.000	0	Pass
K	39	8139.000 µg/L	10000.000	20000	Pass
Ca	43	24520.000 µg/L	10000.000	20000	Pass
Ca	44	25270.000 µg/L	10000.000	20000	Pass
Ti	47	3430.000 µg/L	200.000	1000	Pass
V	51	78.050 µg/L	200.000	1000	Pass
Cr	52	271.300 µg/L	200.000	1000	Pass
Cr	53	-767.100 µg/L	200.000	1000	Pass
Fe	54	98770.000 µg/L	10000.000	20000	Pass
Mn	55	3524.000 µg/L	200.000	1000	Pass
Fe	57	106100.000 µg/L	10000.000	20000	Pass
Co	59	-17.420 µg/L	200.000	1000	Pass
Ni	60	41.700 µg/L	200.000	1000	Pass
Cu	63	288.200 µg/L	200.000	1000	Pass
Cu	65	285.100 µg/L	200.000	1000	Pass
Zn	66	784.600 µg/L	200.000	1000	Pass
Zn	67	592.400 µg/L	200.000	1000	Pass
Zn	68	657.600 µg/L	200.000	1000	Pass
As	75	65.040 µg/L	200.000	1000	Pass
Se	82	23.350 µg/L	200.000	1000	Pass
Sr	87	406.000 µg/L	200.000	1000	Pass
Mo	95	25.600 µg/L	200.000	1000	Pass
Mo	98	23.960 µg/L	200.000	1000	Pass
Ag	107	3.489 µg/L	200.000	1000	Pass
Ag	109	3.922 µg/L	200.000	1000	Pass
Cd	111	3.054 µg/L	200.000	1000	Pass
Cd	114	2.395 µg/L	200.000	1000	Pass
Sn	120	15.590 µg/L	200.000	1000	Pass
Sb	121	26.580 µg/L	200.000	1000	Pass
Sb	123	-4.579 µg/L	200.000	1000	Pass

Ba 135	732.200 µg/L	200.000	1000	Pass
Au 197	-3.738 µg/L	200.000	0	Pass
Tl 205	-42.120 µg/L	200.000	1000	Pass

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2502.16A\030SMPL.D\030SMPL.D#
Acquired : Sep 25 02 08:47 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: M021282-021
Misc Info : ,
Vial Number: 2310
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 100.000000

Pb 208	103.800 µg/L	200.000	1000	Pass
U 238	4.870 µg/L	200.000	1000	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	746319	834193	Pass
45	593146	627822	Pass
72	88022	85275	Pass
115	468012	436361	Pass
209	233752	236091	Pass

Internal Standards referenced to 002CALB.D#

0 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

Sample QC Report

542

File : D:\HPCHEM\1\DATA\Sep2502.16A\031SMPL.D\031SMPL.D#
Acquired : Sep 25 02 08:56 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: M021282-022
Misc Info : ,
Vial Number: 2312
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 100.000000

Element		Concentration	Cal Conc	LRS Conc	Flag
Be	9	6.933 µg/L	200.000	1000	Pass
B	11	-127.900 µg/L	200.000	0	Pass
Na	23	3602.000 µg/L	10000.000	20000	Pass
Mg	24	18400.000 µg/L	10000.000	20000	Pass
Mg	25	18400.000 µg/L	10000.000	20000	Pass
Mg	26	18420.000 µg/L	10000.000	20000	Pass
Al	27	118500.000 µg/L	10000.000	20000	Pass
Si	28	5363.000 µg/L	10000.000	0	Pass
K	39	13810.000 µg/L	10000.000	20000	Pass
Ca	43	22320.000 µg/L	10000.000	20000	Pass
Ca	44	22790.000 µg/L	10000.000	20000	Pass
Ti	47	5968.000 µg/L	200.000	1000	Pass
V	51	147.600 µg/L	200.000	1000	Pass
Cr	52	80.670 µg/L	200.000	1000	Pass
Cr	53	-1186.000 µg/L	200.000	1000	Pass
Fe	54	155500.000 µg/L	10000.000	20000	Pass
Mn	55	4198.000 µg/L	200.000	1000	Pass
Fe	57	165200.000 µg/L	10000.000	20000	Pass
Co	59	32.480 µg/L	200.000	1000	Pass
Ni	60	69.200 µg/L	200.000	1000	Pass
Cu	63	42.790 µg/L	200.000	1000	Pass
Cu	65	42.370 µg/L	200.000	1000	Pass
Zn	66	632.400 µg/L	200.000	1000	Pass
Zn	67	452.000 µg/L	200.000	1000	Pass
Zn	68	460.500 µg/L	200.000	1000	Pass
As	75	62.740 µg/L	200.000	1000	Pass
Se	82	43.070 µg/L	200.000	1000	Pass
Sr	87	796.000 µg/L	200.000	1000	Pass
Mo	95	18.150 µg/L	200.000	1000	Pass
Mo	98	15.760 µg/L	200.000	1000	Pass
Ag	107	-2.182 µg/L	200.000	1000	Pass
Ag	109	-1.697 µg/L	200.000	1000	Pass
Cd	111	6.547 µg/L	200.000	1000	Pass
Cd	114	0.458 µg/L	200.000	1000	Pass
Sn	120	28.070 µg/L	200.000	1000	Pass
Sb	121	26.540 µg/L	200.000	1000	Pass
Sb	123	-3.189 µg/L	200.000	1000	Pass

Ba 135	750.500 µg/L	200.000	1000	Pass
Au 197	-2.707 µg/L	200.000	0	Pass
Tl 205	-40.210 µg/L	200.000	1000	Pass

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2502.16A\031SMPL.D\031SMPL.D#
Acquired : Sep 25 02 08:56 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: M021282-022
Misc Info : ,
Vial Number: 2312
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 100.000000

Pb 208	148.900 µg/L	200.000	1000	Pass
U 238	7.656 µg/L	200.000	1000	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	746319	826479	Pass
45	593146	622762	Pass
72	88022	84935	Pass
115	468012	435943	Pass
209	233752	234415	Pass

Internal Standards referenced to 002CALB.D#

0 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

CCV QC Report

544

File : D:\HPCHEM\1\DATA\Sep2502.16A\032CCV_D\032CCV_.D#
Acquired : Sep 25 02 09:05 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: [STD-CCV]
Misc Info :
Vial Number: 1105
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: CCV
Dilution : 1.000000

CCV Mix #1

Element		Concentration	Expected	QC Range	Flag
Be	9	97.540 µg/L	100.00	90.00-110.00	Pass
B	11	102.300 µg/L	100.00	90.00-110.00	Pass
Na	23	1010.000 µg/L	1000.00	900.00-1100.00	Pass
Mg	24	1023.000 µg/L	1000.00	900.00-1100.00	Pass
Mg	25	1035.000 µg/L	1000.00	900.00-1100.00	Pass
Mg	26	1010.000 µg/L	1000.00	900.00-1100.00	Pass
Al	27	988.200 µg/L	1000.00	900.00-1100.00	Pass
Si	28	911.800 µg/L	1000.00	900.00-1100.00	Pass
K	39	990.900 µg/L	1000.00	900.00-1100.00	Pass
Ca	43	992.200 µg/L	1000.00	900.00-1100.00	Pass
Ca	44	996.000 µg/L	1000.00	900.00-1100.00	Pass
Ti	47	99.950 µg/L	100.00	90.00-110.00	Pass
V	51	99.280 µg/L	100.00	90.00-110.00	Pass
Cr	52	99.420 µg/L	100.00	90.00-110.00	Pass
Cr	53	85.230 µg/L	100.00	90.00-110.00	*Fail*
Fe	54	980.500 µg/L	1000.00	900.00-1100.00	Pass
Mn	55	98.440 µg/L	100.00	90.00-110.00	Pass
Fe	57	994.800 µg/L	1000.00	900.00-1100.00	Pass
Co	59	99.670 µg/L	100.00	90.00-110.00	Pass
Ni	60	98.660 µg/L	100.00	90.00-110.00	Pass
Cu	63	98.660 µg/L	100.00	90.00-110.00	Pass
Cu	65	100.100 µg/L	100.00	90.00-110.00	Pass
Zn	66	100.700 µg/L	100.00	90.00-110.00	Pass
Zn	67	97.780 µg/L	100.00	90.00-110.00	Pass
Zn	68	99.090 µg/L	100.00	90.00-110.00	Pass
As	75	99.510 µg/L	100.00	90.00-110.00	Pass
Se	82	100.000 µg/L	100.00	90.00-110.00	Pass
Sr	87	99.400 µg/L	100.00	90.00-110.00	Pass
Mo	95	95.310 µg/L	100.00	90.00-110.00	Pass
Mo	98	95.470 µg/L	100.00	90.00-110.00	Pass
Ag	107	98.360 µg/L	100.00	90.00-110.00	Pass
Ag	109	98.390 µg/L	100.00	90.00-110.00	Pass
Cd	111	98.330 µg/L	100.00	90.00-110.00	Pass
Cd	114	98.680 µg/L	100.00	90.00-110.00	Pass
Sn	120	98.510 µg/L	100.00	90.00-110.00	Pass

Sb 121	98.770 µg/L	100.00	90.00-110.00	Pass
Sb 123	98.400 µg/L	100.00	90.00-110.00	Pass
Ba 135	98.680 µg/L	100.00	90.00-110.00	Pass

CCV QC Report

File : D:\HPCHEM\1\DATA\Sep2502.16A\032CCV_D\032CCV_D#
Acquired : Sep 25 02 09:05 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: [STD-CCV]
Misc Info :
Vial Number: 1105
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: CCV
Dilution : 1.000000

Au 197	94.540 µg/L	100.00	90.00-110.00	Pass
Tl 205	96.120 µg/L	100.00	90.00-110.00	Pass
Pb 208	98.190 µg/L	100.00	90.00-110.00	Pass
U 238	98.780 µg/L	100.00	90.00-110.00	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	746319	806722	Pass
45	593146	617698	Pass
72	88022	84918	Pass
115	468012	432752	Pass
209	233752	236137	Pass

Internal Standards referenced to 002CALB.D#

1 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

Blank QC Report

File : D:\HPCHEM\1\DATA\Sep2502.16A\033CCB_.D\033CCB_.D#
Acquired : Sep 25 02 09:15 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: [CB]
Misc Info :
Vial Number: 1102
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: CCB
Dilution : 1.000000

Element	Concentration	CRDL Limit	Flag
Be 9	0.029 µg/L	1.00	Pass
B 11	0.060 µg/L	1.00	Pass
Na 23	0.777 µg/L	10.00	Pass
Mg 24	0.012 µg/L	10.00	Pass
Mg 25	-0.025 µg/L	10.00	Pass
Mg 26	-0.099 µg/L	10.00	Pass
Al 27	0.712 µg/L	10.00	Pass
Si 28	-85.040 µg/L	10.00	*Fail*
K 39	-9.508 µg/L	10.00	Pass
Ca 43	-5.732 µg/L	10.00	Pass
Ca 44	-2.853 µg/L	10.00	Pass
Ti 47	0.313 µg/L	1.00	Pass
V 51	-0.094 µg/L	1.00	Pass
Cr 52	0.078 µg/L	1.00	Pass
Cr 53	-3.560 µg/L	1.00	*Fail*
Fe 54	-67.720 µg/L	10.00	*Fail*
Mn 55	-0.070 µg/L	1.00	Pass
Fe 57	-11.070 µg/L	10.00	*Fail*
Co 59	-0.333 µg/L	1.00	Pass
Ni 60	0.002 µg/L	1.00	Pass
Cu 63	-0.006 µg/L	1.00	Pass
Cu 65	-0.009 µg/L	1.00	Pass
Zn 66	-0.064 µg/L	1.00	Pass
Zn 67	-0.131 µg/L	1.00	Pass
Zn 68	-1.009 µg/L	1.00	*Fail*
As 75	0.169 µg/L	1.00	Pass
Se 82	0.542 µg/L	1.00	Pass
Sr 87	0.028 µg/L	1.00	Pass
Mo 95	0.229 µg/L	1.00	Pass
Mo 98	0.236 µg/L	1.00	Pass
Ag 107	0.031 µg/L	1.00	Pass
Ag 109	0.040 µg/L	1.00	Pass
Cd 111	0.010 µg/L	1.00	Pass
Cd 114	0.051 µg/L	1.00	Pass
Sn 120	-0.039 µg/L	1.00	Pass
Sb 121	0.393 µg/L	1.00	Pass
Sb 123	0.073 µg/L	1.00	Pass

Ba 135	0.034 µg/L	1.00	Pass
Au 197	0.400 µg/L	1.00	Pass
Tl 205	0.104 µg/L	1.00	Pass

Blank QC Report

547

File : D:\HPCHEM\1\DATA\Sep2502.16A\033CCB_.D\033CCB_.D#
Acquired : Sep 25 02 09:15 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: [CB]
Misc Info :
Vial Number: 1102
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: CCB
Dilution : 1.000000

Pb 208	-0.322 µg/L	1.00	Pass
U 238	0.042 µg/L	1.00	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	746319	821368	Pass
45	593146	635408	Pass
72	88022	85486	Pass
115	468012	441469	Pass
209	233752	236749	Pass

Internal Standards referenced to 002CALB.D#

5 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2502.16A\034SMPL.D\034SMPL.D#
Acquired : Sep 25 02 09:24 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: M021282-023
Misc Info : ,
Vial Number: 2402
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 100.000000

Element		Concentration	Cal Conc	LRS Conc	Flag
Be	9	11.750 µg/L	200.000	1000	Pass
B	11	-87.170 µg/L	200.000	0	Pass
Na	23	2351.000 µg/L	10000.000	20000	Pass
Mg	24	27210.000 µg/L	10000.000	20000	Pass
Mg	25	27200.000 µg/L	10000.000	20000	Pass
Mg	26	27420.000 µg/L	10000.000	20000	Pass
Al	27	169800.000 µg/L	10000.000	20000	Pass
Si	28	3195.000 µg/L	10000.000	0	Pass
K	39	17220.000 µg/L	10000.000	20000	Pass
Ca	43	30860.000 µg/L	10000.000	20000	Pass
Ca	44	31160.000 µg/L	10000.000	20000	Pass
Ti	47	5313.000 µg/L	200.000	1000	Pass
V	51	210.100 µg/L	200.000	1000	Pass
Cr	52	808.800 µg/L	200.000	1000	Pass
Cr	53	-832.400 µg/L	200.000	1000	Pass
Fe	54	190400.000 µg/L	10000.000	20000	Pass
Mn	55	4047.000 µg/L	200.000	1000	Pass
Fe	57	202000.000 µg/L	10000.000	20000	Pass
Co	59	13.840 µg/L	200.000	1000	Pass
Ni	60	94.370 µg/L	200.000	1000	Pass
Cu	63	167.200 µg/L	200.000	1000	Pass
Cu	65	165.000 µg/L	200.000	1000	Pass
Zn	66	1078.000 µg/L	200.000	1000	Pass
Zn	67	939.000 µg/L	200.000	1000	Pass
Zn	68	891.600 µg/L	200.000	1000	Pass
As	75	53.460 µg/L	200.000	1000	Pass
Se	82	21.390 µg/L	200.000	1000	Pass
Sr	87	1114.000 µg/L	200.000	1000	Pass
Mo	95	26.480 µg/L	200.000	1000	Pass
Mo	98	25.460 µg/L	200.000	1000	Pass
Ag	107	26.030 µg/L	200.000	1000	Pass
Ag	109	28.690 µg/L	200.000	1000	Pass
Cd	111	7.674 µg/L	200.000	1000	Pass
Cd	114	6.265 µg/L	200.000	1000	Pass
Sn	120	41.520 µg/L	200.000	1000	Pass
Sb	121	29.360 µg/L	200.000	1000	Pass
Sb	123	-1.369 µg/L	200.000	1000	Pass

Ba 135	1166.000 µg/L	200.000	1000	Pass
Au 197	9.170 µg/L	200.000	0	Pass
Tl 205	-26.100 µg/L	200.000	1000	Pass

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2502.16A\034SMPL.D\034SMPL.D#
Acquired : Sep 25 02 09:24 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: M021282-023
Misc Info : ,
Vial Number: 2402
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 100.000000

Pb 208	259.000 µg/L	200.000	1000	Pass
U 238	13.300 µg/L	200.000	1000	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	746319	832925	Pass
45	593146	656168	Pass
72	88022	88155	Pass
115	468012	453983	Pass
209	233752	241628	Pass

Internal Standards referenced to 002CALB.D#

0 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

Sample QC Report

55u

File : D:\HPCHEM\1\DATA\Sep2502.16A\035SMPL.D\035SMPL.D#
Acquired : Sep 25 02 09:33 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: M021282-024
Misc Info : ,
Vial Number: 2404
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 100.000000

Element		Concentration	Cal Conc	LRS Conc	Flag
Be	9	8.613 µg/L	200.000	1000	Pass
B	11	-109.100 µg/L	200.000	0	Pass
Na	23	3070.000 µg/L	10000.000	20000	Pass
Mg	24	13870.000 µg/L	10000.000	20000	Pass
Mg	25	13690.000 µg/L	10000.000	20000	Pass
Mg	26	13540.000 µg/L	10000.000	20000	Pass
Al	27	93100.000 µg/L	10000.000	20000	Pass
Si	28	5527.000 µg/L	10000.000	0	Pass
K	39	11120.000 µg/L	10000.000	20000	Pass
Ca	43	18800.000 µg/L	10000.000	20000	Pass
Ca	44	18250.000 µg/L	10000.000	20000	Pass
Ti	47	3328.000 µg/L	200.000	1000	Pass
V	51	82.100 µg/L	200.000	1000	Pass
Cr	52	14.810 µg/L	200.000	1000	Pass
Cr	53	-1795.000 µg/L	200.000	1000	Pass
Fe	54	118600.000 µg/L	10000.000	20000	Pass
Mn	55	3377.000 µg/L	200.000	1000	Pass
Fe	57	128300.000 µg/L	10000.000	20000	Pass
Co	59	-20.470 µg/L	200.000	1000	Pass
Ni	60	41.600 µg/L	200.000	1000	Pass
Cu	63	39.620 µg/L	200.000	1000	Pass
Cu	65	42.820 µg/L	200.000	1000	Pass
Zn	66	692.200 µg/L	200.000	1000	Pass
Zn	67	492.600 µg/L	200.000	1000	Pass
Zn	68	545.900 µg/L	200.000	1000	Pass
As	75	34.280 µg/L	200.000	1000	Pass
Se	82	36.680 µg/L	200.000	1000	Pass
Sr	87	705.000 µg/L	200.000	1000	Pass
Mo	95	26.790 µg/L	200.000	1000	Pass
Mo	98	25.020 µg/L	200.000	1000	Pass
Ag	107	-3.465 µg/L	200.000	1000	Pass
Ag	109	-2.448 µg/L	200.000	1000	Pass
Cd	111	3.799 µg/L	200.000	1000	Pass
Cd	114	2.320 µg/L	200.000	1000	Pass
Sn	120	24.950 µg/L	200.000	1000	Pass
Sb	121	29.850 µg/L	200.000	1000	Pass
Sb	123	-3.090 µg/L	200.000	1000	Pass

Ba 135	617.500 µg/L	200.000	1000	Pass
Au 197	3.300 µg/L	200.000	0	Pass
Tl 205	-32.220 µg/L	200.000	1000	Pass

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2502.16A\035SMPL.D\035SMPL.D#
Acquired : Sep 25 02 09:33 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: M021282-024
Misc Info : ,
Vial Number: 2404
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 100.000000

Pb 208	163.200 µg/L	200.000	1000	Pass
U 238	6.547 µg/L	200.000	1000	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	746319	830420	Pass
45	593146	643435	Pass
72	88022	87252	Pass
115	468012	448647	Pass
209	233752	238233	Pass

Internal Standards referenced to 002CALB.D#

0 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

Sample QC Report

552

File : D:\HPCHEM\1\DATA\Sep2502.16A\036SMPL.D\036SMPL.D#
Acquired : Sep 25 02 09:42 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: M021282-025
Misc Info : ,
Vial Number: 2406
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : ---------
Sample Type: ---------
Dilution : 100.000000

Element		Concentration	Cal Conc	LRS Conc	Flag
Be	9	8.783 µg/L	200.000	1000	Pass
B	11	-110.100 µg/L	200.000	0	Pass
Na	23	2772.000 µg/L	10000.000	20000	Pass
Mg	24	13280.000 µg/L	10000.000	20000	Pass
Mg	25	13240.000 µg/L	10000.000	20000	Pass
Mg	26	13250.000 µg/L	10000.000	20000	Pass
Al	27	100700.000 µg/L	10000.000	20000	Pass
Si	28	6167.000 µg/L	10000.000	0	Pass
K	39	11610.000 µg/L	10000.000	20000	Pass
Ca	43	19600.000 µg/L	10000.000	20000	Pass
Ca	44	19740.000 µg/L	10000.000	20000	Pass
Ti	47	2851.000 µg/L	200.000	1000	Pass
V	51	56.570 µg/L	200.000	1000	Pass
Cr	52	1.948 µg/L	200.000	1000	Pass
Cr	53	-1964.000 µg/L	200.000	1000	Pass
Fe	54	105000.000 µg/L	10000.000	20000	Pass
Mn	55	3406.000 µg/L	200.000	1000	Pass
Fe	57	113900.000 µg/L	10000.000	20000	Pass
Co	59	-15.290 µg/L	200.000	1000	Pass
Ni	60	46.090 µg/L	200.000	1000	Pass
Cu	63	40.170 µg/L	200.000	1000	Pass
Cu	65	41.870 µg/L	200.000	1000	Pass
Zn	66	585.300 µg/L	200.000	1000	Pass
Zn	67	389.700 µg/L	200.000	1000	Pass
Zn	68	439.900 µg/L	200.000	1000	Pass
As	75	31.540 µg/L	200.000	1000	Pass
Se	82	28.150 µg/L	200.000	1000	Pass
Sr	87	697.200 µg/L	200.000	1000	Pass
Mo	95	19.170 µg/L	200.000	1000	Pass
Mo	98	18.020 µg/L	200.000	1000	Pass
Ag	107	-3.501 µg/L	200.000	1000	Pass
Ag	109	-2.594 µg/L	200.000	1000	Pass
Cd	111	-0.313 µg/L	200.000	1000	Pass
Cd	114	1.172 µg/L	200.000	1000	Pass
Sn	120	28.700 µg/L	200.000	1000	Pass
Sb	121	27.810 µg/L	200.000	1000	Pass
Sb	123	-3.641 µg/L	200.000	1000	Pass

Ba 135	666.700 µg/L	200.000	1000	Pass
Au 197	0.671 µg/L	200.000	0	Pass
Tl 205	-36.230 µg/L	200.000	1000	Pass

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2502.16A\036SMPL.D\036SMPL.D#
Acquired : Sep 25 02 09:42 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: M021282-025
Misc Info : ,
Vial Number: 2406
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : ---------
Sample Type: ---------
Dilution : 100.000000

Pb 208	146.200 µg/L	200.000	1000	Pass
U 238	5.735 µg/L	200.000	1000	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	746319	811565	Pass
45	593146	635025	Pass
72	88022	86209	Pass
115	468012	443511	Pass
209	233752	238718	Pass

Internal Standards referenced to 002CALB.D#

0 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

Sample QC Report

554

File : D:\HPCHEM\1\DATA\Sep2502.16A\037SMPL.D\037SMPL.D#
Acquired : Sep 25 02 09:51 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: M021282-026
Misc Info : ,
Vial Number: 2408
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 100.000000

Element		Concentration	Cal Conc	LRS Conc	Flag
Be	9	10.270 µg/L	200.000	1000	Pass
B	11	-104.900 µg/L	200.000	0	Pass
Na	23	2548.000 µg/L	10000.000	20000	Pass
Mg	24	25570.000 µg/L	10000.000	20000	Pass
Mg	25	25150.000 µg/L	10000.000	20000	Pass
Mg	26	25030.000 µg/L	10000.000	20000	Pass
Al	27	158900.000 µg/L	10000.000	20000	Pass
Si	28	16370.000 µg/L	10000.000	0	Pass
K	39	20690.000 µg/L	10000.000	20000	Pass
Ca	43	43730.000 µg/L	10000.000	20000	Pass
Ca	44	43150.000 µg/L	10000.000	20000	Pass
Ti	47	2936.000 µg/L	200.000	1000	Pass
V	51	119.900 µg/L	200.000	1000	Pass
Cr	52	67.440 µg/L	200.000	1000	Pass
Cr	53	-1778.000 µg/L	200.000	1000	Pass
Fe	54	107600.000 µg/L	10000.000	20000	Pass
Mn	55	2822.000 µg/L	200.000	1000	Pass
Fe	57	116800.000 µg/L	10000.000	20000	Pass
Co	59	-0.364 µg/L	200.000	1000	Pass
Ni	60	77.270 µg/L	200.000	1000	Pass
Cu	63	74.040 µg/L	200.000	1000	Pass
Cu	65	76.680 µg/L	200.000	1000	Pass
Zn	66	519.100 µg/L	200.000	1000	Pass
Zn	67	394.400 µg/L	200.000	1000	Pass
Zn	68	349.700 µg/L	200.000	1000	Pass
As	75	12.850 µg/L	200.000	1000	Pass
Se	82	28.930 µg/L	200.000	1000	Pass
Sr	87	1146.000 µg/L	200.000	1000	Pass
Mo	95	7.413 µg/L	200.000	1000	Pass
Mo	98	6.517 µg/L	200.000	1000	Pass
Ag	107	-2.327 µg/L	200.000	1000	Pass
Ag	109	-1.012 µg/L	200.000	1000	Pass
Cd	111	1.765 µg/L	200.000	1000	Pass
Cd	114	-0.410 µg/L	200.000	1000	Pass
Sn	120	10.530 µg/L	200.000	1000	Pass
Sb	121	27.610 µg/L	200.000	1000	Pass
Sb	123	-3.425 µg/L	200.000	1000	Pass

Ba 135	1165.000 µg/L	200.000	1000	Pass
Au 197	-6.717 µg/L	200.000	0	Pass
Tl 205	-38.330 µg/L	200.000	1000	Pass

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2502.16A\037SMPL.D\037SMPL.D#
Acquired : Sep 25 02 09:51 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: M021282-026
Misc Info : ,
Vial Number: 2408
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 100.000000

Pb 208	159.200 µg/L	200.000	1000	Pass
U 238	8.869 µg/L	200.000	1000	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	746319	802276	Pass
45	593146	635927	Pass
72	88022	86374	Pass
115	468012	443163	Pass
209	233752	237613	Pass

Internal Standards referenced to 002CALB.D#

0 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2502.16A\038SMPL.D\038SMPL.D#
Acquired : Sep 25 02 10:00 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: M021282-006
Misc Info : ,
Vial Number: 2105
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : ---------
Sample Type: ---------
Dilution : 10.000000

Element		Concentration	Cal Conc	LRS Conc	Flag
Be	9	7.116 µg/L	200.000	1000	Pass
B	11	21.920 µg/L	200.000	0	Pass
Na	23	2514.000 µg/L	10000.000	20000	Pass
Mg	24	28180.000 µg/L	10000.000	20000	Pass
Mg	25	28080.000 µg/L	10000.000	20000	Pass
Mg	26	27880.000 µg/L	10000.000	20000	Pass
Al	27	104700.000 µg/L	10000.000	20000	>Cal std
Si	28	5392.000 µg/L	10000.000	0	Pass
K	39	15590.000 µg/L	10000.000	20000	Pass
Ca	43	55730.000 µg/L	10000.000	20000	Pass
Ca	44	55050.000 µg/L	10000.000	20000	Pass
Ti	47	3951.000 µg/L	200.000	1000	>Cal std
V	51	189.700 µg/L	200.000	1000	Pass
Cr	52	2668.000 µg/L	200.000	1000	>Cal std
Cr	53	2749.000 µg/L	200.000	1000	>Cal std
Fe	54	129300.000 µg/L	10000.000	20000	>Cal std
Mn	55	3715.000 µg/L	200.000	1000	>Cal std
Fe	57	132100.000 µg/L	10000.000	20000	>Cal std
Co	59	33.520 µg/L	200.000	1000	Pass
Ni	60	90.060 µg/L	200.000	1000	Pass
Cu	63	443.600 µg/L	200.000	1000	Pass
Cu	65	451.600 µg/L	200.000	1000	Pass
Zn	66	1693.000 µg/L	200.000	1000	Pass
Zn	67	1676.000 µg/L	200.000	1000	Pass
Zn	68	1637.000 µg/L	200.000	1000	Pass
As	75	74.980 µg/L	200.000	1000	Pass
Se	82	9.811 µg/L	200.000	1000	Pass
Sr	87	897.000 µg/L	200.000	1000	Pass
Mo	95	11.380 µg/L	200.000	1000	Pass
Mo	98	11.220 µg/L	200.000	1000	Pass
Ag	107	112.800 µg/L	200.000	1000	Pass
Ag	109	112.400 µg/L	200.000	1000	Pass
Cd	111	10.810 µg/L	200.000	1000	Pass
Cd	114	10.050 µg/L	200.000	1000	Pass
Sn	120	79.390 µg/L	200.000	1000	Pass
Sb	121	3.303 µg/L	200.000	1000	Pass
Sb	123	0.250 µg/L	200.000	1000	Pass

Ba 135	1645.000 µg/L	200.000	1000	Pass
Au 197	1.085 µg/L	200.000	0	Pass
Tl 205	-2.489 µg/L	200.000	1000	Pass

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2502.16A\038SMPL.D\038SMPL.D#
Acquired : Sep 25 02 10:00 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: M021282-006
Misc Info : ,
Vial Number: 2105
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 10.000000

Pb 208	367.100 µg/L	200.000	1000	Pass
U 238	24.480 µg/L	200.000	1000	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	746319	850583	Pass
45	593146	691688	Pass
72	88022	91321	Pass
115	468012	453409	Pass
209	233752	247537	Pass

Internal Standards referenced to 002CALB.D#

7 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

Sample QC Report

558

File : D:\HPCHEM\1\DATA\Sep2502.16A\039SMPL.D\039SMPL.D#
Acquired : Sep 25 02 10:09 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: M021282-007
Misc Info : ,
Vial Number: 2107
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 10.000000

Element		Concentration	Cal Conc	LRS Conc	Flag
Be	9	111.000 µg/L	200.000	1000	Pass
B	11	134.300 µg/L	200.000	0	Pass
Na	23	3957.000 µg/L	10000.000	20000	Pass
Mg	24	37930.000 µg/L	10000.000	20000	Pass
Mg	25	38860.000 µg/L	10000.000	20000	Pass
Mg	26	37150.000 µg/L	10000.000	20000	Pass
Al	27	134100.000 µg/L	10000.000	20000	>Cal std
Si	28	6355.000 µg/L	10000.000	0	Pass
K	39	23250.000 µg/L	10000.000	20000	Pass
Ca	43	62100.000 µg/L	10000.000	20000	Pass
Ca	44	60950.000 µg/L	10000.000	20000	Pass
Ti	47	5541.000 µg/L	200.000	1000	>Cal std
V	51	314.700 µg/L	200.000	1000	Pass
Cr	52	3037.000 µg/L	200.000	1000	>Cal std
Cr	53	3085.000 µg/L	200.000	1000	>Cal std
Fe	54	161300.000 µg/L	10000.000	20000	>Cal std
Mn	55	3690.000 µg/L	200.000	1000	>Cal std
Fe	57	160400.000 µg/L	10000.000	20000	>Cal std
Co	59	133.900 µg/L	200.000	1000	Pass
Ni	60	194.200 µg/L	200.000	1000	Pass
Cu	63	586.600 µg/L	200.000	1000	Pass
Cu	65	596.700 µg/L	200.000	1000	Pass
Zn	66	1967.000 µg/L	200.000	1000	Pass
Zn	67	1953.000 µg/L	200.000	1000	Pass
Zn	68	1904.000 µg/L	200.000	1000	Pass
As	75	174.100 µg/L	200.000	1000	Pass
Se	82	108.900 µg/L	200.000	1000	Pass
Sr	87	1244.000 µg/L	200.000	1000	Pass
Mo	95	107.200 µg/L	200.000	1000	Pass
Mo	98	107.000 µg/L	200.000	1000	Pass
Ag	107	206.500 µg/L	200.000	1000	Pass
Ag	109	205.000 µg/L	200.000	1000	Pass
Cd	111	111.100 µg/L	200.000	1000	Pass
Cd	114	111.300 µg/L	200.000	1000	Pass
Sn	120	190.200 µg/L	200.000	1000	Pass
Sb	121	39.770 µg/L	200.000	1000	Pass
Sb	123	35.450 µg/L	200.000	1000	Pass

Ba 135	1915.000 µg/L	200.000	1000	Pass
Au 197	86.860 µg/L	200.000	0	Pass
Tl 205	91.920 µg/L	200.000	1000	Pass

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2502.16A\039SMPL.D\039SMPL.D#
Acquired : Sep 25 02 10:09 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: M021282-007
Misc Info : ,
Vial Number: 2107
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 10.000000

Pb 208	481.400 µg/L	200.000	1000	Pass
U 238	121.800 µg/L	200.000	1000	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	746319	875045	Pass
45	593146	719725	*Fail*
72	88022	92732	Pass
115	468012	452966	Pass
209	233752	247743	Pass

Internal Standards referenced to 002CALB.D#

7 Element Failures. Maximum Number of Failures Allowed (20)
1 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

Sample QC Report

56J

File : D:\HPCHEM\1\DATA\Sep2502.16A\040SMPL.D\040SMPL.D#
Acquired : Sep 25 02 10:19 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: M021282-008
Misc Info : ,
Vial Number: 2109
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 10.000000

Element		Concentration	Cal Conc	LRS Conc	Flag
Be	9	109.900 µg/L	200.000	1000	Pass
B	11	126.200 µg/L	200.000	0	Pass
Na	23	3794.000 µg/L	10000.000	20000	Pass
Mg	24	33430.000 µg/L	10000.000	20000	Pass
Mg	25	33290.000 µg/L	10000.000	20000	Pass
Mg	26	31950.000 µg/L	10000.000	20000	Pass
Al	27	117500.000 µg/L	10000.000	20000	>Cal std
Si	28	6024.000 µg/L	10000.000	0	Pass
K	39	20390.000 µg/L	10000.000	20000	Pass
Ca	43	56170.000 µg/L	10000.000	20000	Pass
Ca	44	55910.000 µg/L	10000.000	20000	Pass
Ti	47	5299.000 µg/L	200.000	1000	>Cal std
V	51	277.300 µg/L	200.000	1000	Pass
Cr	52	3026.000 µg/L	200.000	1000	>Cal std
Cr	53	3163.000 µg/L	200.000	1000	>Cal std
Fe	54	144700.000 µg/L	10000.000	20000	>Cal std
Mn	55	4042.000 µg/L	200.000	1000	>Cal std
Fe	57	148900.000 µg/L	10000.000	20000	>Cal std
Co	59	131.200 µg/L	200.000	1000	Pass
Ni	60	189.300 µg/L	200.000	1000	Pass
Cu	63	569.200 µg/L	200.000	1000	Pass
Cu	65	577.200 µg/L	200.000	1000	Pass
Zn	66	2053.000 µg/L	200.000	1000	>Cal std
Zn	67	2012.000 µg/L	200.000	1000	>Cal std
Zn	68	1981.000 µg/L	200.000	1000	Pass
As	75	153.900 µg/L	200.000	1000	Pass
Se	82	108.200 µg/L	200.000	1000	Pass
Sr	87	1150.000 µg/L	200.000	1000	Pass
Mo	95	109.000 µg/L	200.000	1000	Pass
Mo	98	108.500 µg/L	200.000	1000	Pass
Ag	107	207.200 µg/L	200.000	1000	Pass
Ag	109	208.000 µg/L	200.000	1000	Pass
Cd	111	111.200 µg/L	200.000	1000	Pass
Cd	114	110.600 µg/L	200.000	1000	Pass
Sn	120	211.400 µg/L	200.000	1000	Pass
Sb	121	41.150 µg/L	200.000	1000	Pass
Sb	123	39.910 µg/L	200.000	1000	Pass

Ba 135	1722.000 µg/L	200.000	1000	Pass
Au 197	90.010 µg/L	200.000	0	Pass
Tl 205	90.090 µg/L	200.000	1000	Pass

Sample QC Report

561

File : D:\HPCHEM\1\DATA\Sep2502.16A\040SMPL.D\040SMPL.D#
Acquired : Sep 25 02 10:19 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: M021282-008
Misc Info : ,
Vial Number: 2109
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 10.000000

Pb 208	500.000 µg/L	200.000	1000	Pass
U 238	124.900 µg/L	200.000	1000	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	746319	844793	Pass
45	593146	687783	Pass
72	88022	90410	Pass
115	468012	444790	Pass
209	233752	245757	Pass

Internal Standards referenced to 002CALB.D#

9 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

Sample QC Report

562

File : D:\HPCHEM\1\DATA\Sep2502.16A\041SMPL.D\041SMPL.D#
Acquired : Sep 25 02 10:28 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: M021282-011
Misc Info : ,
Vial Number: 2203
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 10.000000

Element		Concentration	Cal Conc	LRS Conc	Flag
Be	9	9.747 µg/L	200.000	1000	Pass
B	11	14.440 µg/L	200.000	0	Pass
Na	23	2721.000 µg/L	10000.000	20000	Pass
Mg	24	14720.000 µg/L	10000.000	20000	Pass
Mg	25	14790.000 µg/L	10000.000	20000	Pass
Mg	26	14670.000 µg/L	10000.000	20000	Pass
Al	27	102600.000 µg/L	10000.000	20000	>Cal std
Si	28	3872.000 µg/L	10000.000	0	Pass
K	39	13480.000 µg/L	10000.000	20000	Pass
Ca	43	19050.000 µg/L	10000.000	20000	Pass
Ca	44	18910.000 µg/L	10000.000	20000	Pass
Ti	47	2844.000 µg/L	200.000	1000	>Cal std
V	51	90.830 µg/L	200.000	1000	Pass
Cr	52	57.190 µg/L	200.000	1000	Pass
Cr	53	-36.870 µg/L	200.000	1000	Pass
Fe	54	119000.000 µg/L	10000.000	20000	>Cal std
Mn	55	3154.000 µg/L	200.000	1000	>Cal std
Fe	57	125300.000 µg/L	10000.000	20000	>Cal std
Co	59	13.820 µg/L	200.000	1000	Pass
Ni	60	46.740 µg/L	200.000	1000	Pass
Cu	63	44.560 µg/L	200.000	1000	Pass
Cu	65	45.820 µg/L	200.000	1000	Pass
Zn	66	536.800 µg/L	200.000	1000	Pass
Zn	67	554.100 µg/L	200.000	1000	Pass
Zn	68	477.100 µg/L	200.000	1000	Pass
As	75	24.310 µg/L	200.000	1000	Pass
Se	82	11.020 µg/L	200.000	1000	Pass
Sr	87	735.900 µg/L	200.000	1000	Pass
Mo	95	20.820 µg/L	200.000	1000	Pass
Mo	98	20.650 µg/L	200.000	1000	Pass
Ag	107	0.017 µg/L	200.000	1000	Pass
Ag	109	0.068 µg/L	200.000	1000	Pass
Cd	111	2.420 µg/L	200.000	1000	Pass
Cd	114	0.113 µg/L	200.000	1000	Pass
Sn	120	34.300 µg/L	200.000	1000	Pass
Sb	121	3.581 µg/L	200.000	1000	Pass
Sb	123	0.237 µg/L	200.000	1000	Pass

Ba 135	874.000 µg/L	200.000	1000	Pass
Au 197	0.733 µg/L	200.000	0	Pass
Tl 205	-1.122 µg/L	200.000	1000	Pass

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2502.16A\041SMPL.D\041SMPL.D#
Acquired : Sep 25 02 10:28 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: M021282-011
Misc Info : ,
Vial Number: 2203
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 10.000000

Pb 208	169.100 µg/L	200.000	1000	Pass
U 238	8.526 µg/L	200.000	1000	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	746319	798775	Pass
45	593146	638907	Pass
72	88022	87893	Pass
115	468012	432194	Pass
209	233752	233998	Pass

Internal Standards referenced to 002CALB.D#

5 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

Sample QC Report

564

File : D:\HPCHEM\1\DATA\Sep2502.16A\042SMPL.D\042SMPL.D#
Acquired : Sep 25 02 10:37 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: M021282-012
Misc Info : ,
Vial Number: 2205
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 10.000000

Element		Concentration	Cal Conc	LRS Conc	Flag
Be	9	7.722 µg/L	200.000	1000	Pass
B	11	16.060 µg/L	200.000	0	Pass
Na	23	1395.000 µg/L	10000.000	20000	Pass
Mg	24	15920.000 µg/L	10000.000	20000	Pass
Mg	25	16510.000 µg/L	10000.000	20000	Pass
Mg	26	16220.000 µg/L	10000.000	20000	Pass
Al	27	99060.000 µg/L	10000.000	20000	Pass
Si	28	3741.000 µg/L	10000.000	0	Pass
K	39	14440.000 µg/L	10000.000	20000	Pass
Ca	43	23280.000 µg/L	10000.000	20000	Pass
Ca	44	23140.000 µg/L	10000.000	20000	Pass
Ti	47	2045.000 µg/L	200.000	1000	>Cal std
V	51	111.200 µg/L	200.000	1000	Pass
Cr	52	712.300 µg/L	200.000	1000	Pass
Cr	53	658.100 µg/L	200.000	1000	Pass
Fe	54	86510.000 µg/L	10000.000	20000	Pass
Mn	55	2167.000 µg/L	200.000	1000	>Cal std
Fe	57	88480.000 µg/L	10000.000	20000	Pass
Co	59	19.520 µg/L	200.000	1000	Pass
Ni	60	59.910 µg/L	200.000	1000	Pass
Cu	63	341.300 µg/L	200.000	1000	Pass
Cu	65	345.100 µg/L	200.000	1000	Pass
Zn	66	867.500 µg/L	200.000	1000	Pass
Zn	67	884.400 µg/L	200.000	1000	Pass
Zn	68	820.600 µg/L	200.000	1000	Pass
As	75	28.330 µg/L	200.000	1000	Pass
Se	82	11.480 µg/L	200.000	1000	Pass
Sr	87	710.400 µg/L	200.000	1000	Pass
Mo	95	5.896 µg/L	200.000	1000	Pass
Mo	98	6.006 µg/L	200.000	1000	Pass
Ag	107	26.400 µg/L	200.000	1000	Pass
Ag	109	26.350 µg/L	200.000	1000	Pass
Cd	111	4.402 µg/L	200.000	1000	Pass
Cd	114	2.960 µg/L	200.000	1000	Pass
Sn	120	37.410 µg/L	200.000	1000	Pass
Sb	121	3.342 µg/L	200.000	1000	Pass
Sb	123	0.089 µg/L	200.000	1000	Pass

Ba 135	822.800 µg/L	200.000	1000	Pass
Au 197	0.413 µg/L	200.000	0	Pass
Tl 205	-2.656 µg/L	200.000	1000	Pass

Sample QC Report

565

File : D:\HPCHEM\1\DATA\Sep2502.16A\042SMPL.D\042SMPL.D#
Acquired : Sep 25 02 10:37 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: M021282-012
Misc Info : ,
Vial Number: 2205
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 10.000000

Pb 208	287.700 µg/L	200.000	1000	Pass
U 238	13.830 µg/L	200.000	1000	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	746319	814430	Pass
45	593146	665402	Pass
72	88022	88351	Pass
115	468012	439975	Pass
209	233752	240519	Pass

Internal Standards referenced to 002CALB.D#

2 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2502.16A\043SMPL.D\043SMPL.D#
Acquired : Sep 25 02 10:47 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: M021282-013
Misc Info : ,
Vial Number: 2207
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 10.000000

Element		Concentration	Cal Conc	LRS Conc	Flag
Be	9	9.708 µg/L	200.000	1000	Pass
B	11	13.600 µg/L	200.000	0	Pass
Na	23	2819.000 µg/L	10000.000	20000	Pass
Mg	24	14210.000 µg/L	10000.000	20000	Pass
Mg	25	14680.000 µg/L	10000.000	20000	Pass
Mg	26	14490.000 µg/L	10000.000	20000	Pass
Al	27	103200.000 µg/L	10000.000	20000	>Cal std
Si	28	2883.000 µg/L	10000.000	0	Pass
K	39	13480.000 µg/L	10000.000	20000	Pass
Ca	43	15950.000 µg/L	10000.000	20000	Pass
Ca	44	15750.000 µg/L	10000.000	20000	Pass
Ti	47	3044.000 µg/L	200.000	1000	>Cal std
V	51	97.400 µg/L	200.000	1000	Pass
Cr	52	53.430 µg/L	200.000	1000	Pass
Cr	53	-93.830 µg/L	200.000	1000	Pass
Fe	54	121200.000 µg/L	10000.000	20000	>Cal std
Mn	55	3406.000 µg/L	200.000	1000	>Cal std
Fe	57	122000.000 µg/L	10000.000	20000	>Cal std
Co	59	14.470 µg/L	200.000	1000	Pass
Ni	60	44.870 µg/L	200.000	1000	Pass
Cu	63	43.160 µg/L	200.000	1000	Pass
Cu	65	43.730 µg/L	200.000	1000	Pass
Zn	66	542.200 µg/L	200.000	1000	Pass
Zn	67	550.500 µg/L	200.000	1000	Pass
Zn	68	483.000 µg/L	200.000	1000	Pass
As	75	25.700 µg/L	200.000	1000	Pass
Se	82	14.570 µg/L	200.000	1000	Pass
Sr	87	725.800 µg/L	200.000	1000	Pass
Mo	95	21.740 µg/L	200.000	1000	Pass
Mo	98	20.340 µg/L	200.000	1000	Pass
Ag	107	0.040 µg/L	200.000	1000	Pass
Ag	109	0.080 µg/L	200.000	1000	Pass
Cd	111	3.050 µg/L	200.000	1000	Pass
Cd	114	0.297 µg/L	200.000	1000	Pass
Sn	120	35.900 µg/L	200.000	1000	Pass
Sb	121	3.306 µg/L	200.000	1000	Pass
Sb	123	0.176 µg/L	200.000	1000	Pass

Ba 135	672.100 µg/L	200.000	1000	Pass
Au 197	-0.039 µg/L	200.000	0	Pass
Tl 205	-0.772 µg/L	200.000	1000	Pass

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2502.16A\043SMPL.D\043SMPL.D#
Acquired : Sep 25 02 10:47 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: M021282-013
Misc Info : ,
Vial Number: 2207
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 10.000000

Pb 208	205.600 µg/L	200.000	1000	Pass
U 238	9.502 µg/L	200.000	1000	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	746319	837142	Pass
45	593146	684309	Pass
72	88022	90749	Pass
115	468012	442171	Pass
209	233752	240407	Pass

Internal Standards referenced to 002CALB.D#

5 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

CCV QC Report

File : D:\HPCHEM\1\DATA\Sep2502.16A\044CCV_D\044CCV_D#
Acquired : Sep 25 02 10:56 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: [STD-CCV]
Misc Info :
Vial Number: 1105
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: CCV
Dilution : 1.000000

CCV Mix #1

Element	Concentration	Expected	QC Range	Flag
Be 9	96.080 µg/L	100.00	90.00-110.00	Pass
B 11	99.120 µg/L	100.00	90.00-110.00	Pass
Na 23	987.300 µg/L	1000.00	900.00-1100.00	Pass
Mg 24	982.200 µg/L	1000.00	900.00-1100.00	Pass
Mg 25	1012.000 µg/L	1000.00	900.00-1100.00	Pass
Mg 26	992.300 µg/L	1000.00	900.00-1100.00	Pass
Al 27	971.700 µg/L	1000.00	900.00-1100.00	Pass
Si 28	895.300 µg/L	1000.00	900.00-1100.00	*Fail*
K 39	960.700 µg/L	1000.00	900.00-1100.00	Pass
Ca 43	1022.000 µg/L	1000.00	900.00-1100.00	Pass
Ca 44	990.000 µg/L	1000.00	900.00-1100.00	Pass
Ti 47	96.950 µg/L	100.00	90.00-110.00	Pass
V 51	96.540 µg/L	100.00	90.00-110.00	Pass
Cr 52	97.230 µg/L	100.00	90.00-110.00	Pass
Cr 53	81.970 µg/L	100.00	90.00-110.00	*Fail*
Fe 54	936.400 µg/L	1000.00	900.00-1100.00	Pass
Mn 55	95.390 µg/L	100.00	90.00-110.00	Pass
Fe 57	964.200 µg/L	1000.00	900.00-1100.00	Pass
Co 59	96.370 µg/L	100.00	90.00-110.00	Pass
Ni 60	95.970 µg/L	100.00	90.00-110.00	Pass
Cu 63	96.530 µg/L	100.00	90.00-110.00	Pass
Cu 65	97.330 µg/L	100.00	90.00-110.00	Pass
Zn 66	99.300 µg/L	100.00	90.00-110.00	Pass
Zn 67	96.260 µg/L	100.00	90.00-110.00	Pass
Zn 68	97.300 µg/L	100.00	90.00-110.00	Pass
As 75	98.260 µg/L	100.00	90.00-110.00	Pass
Se 82	98.360 µg/L	100.00	90.00-110.00	Pass
Sr 87	99.170 µg/L	100.00	90.00-110.00	Pass
Mo 95	93.480 µg/L	100.00	90.00-110.00	Pass
Mo 98	93.580 µg/L	100.00	90.00-110.00	Pass
Ag 107	95.540 µg/L	100.00	90.00-110.00	Pass
Ag 109	95.450 µg/L	100.00	90.00-110.00	Pass
Cd 111	94.090 µg/L	100.00	90.00-110.00	Pass
Cd 114	94.690 µg/L	100.00	90.00-110.00	Pass
Sn 120	95.570 µg/L	100.00	90.00-110.00	Pass

Sb 121	95.220 µg/L	100.00	90.00-110.00	Pass
Sb 123	95.510 µg/L	100.00	90.00-110.00	Pass
Ba 135	96.120 µg/L	100.00	90.00-110.00	Pass

CCV QC Report

File : D:\HPCHEM\1\DATA\Sep2502.16A\044CCV_D\044CCV_D#
Acquired : Sep 25 02 10:56 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: [STD-CCV]
Misc Info :
Vial Number: 1105
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: CCV
Dilution : 1.000000

Au 197	92.400 µg/L	100.00	90.00-110.00	Pass
Tl 205	94.200 µg/L	100.00	90.00-110.00	Pass
Pb 208	95.780 µg/L	100.00	90.00-110.00	Pass
U 238	96.000 µg/L	100.00	90.00-110.00	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	746319	827979	Pass
45	593146	641608	Pass
72	88022	86676	Pass
115	468012	444936	Pass
209	233752	240047	Pass

Internal Standards referenced to 002CALB.D#

2 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

Blank QC Report

57.0

File : D:\HPCHEM\1\DATA\Sep2502.16A\045CCB_.D\045CCB_.D#
Acquired : Sep 25 02 11:05 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: [CB]
Misc Info :
Vial Number: 1102
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: CCB
Dilution : 1.000000

Element	Concentration	CRDL Limit	Flag
Be 9	0.029 µg/L	1.00	Pass
B 11	-0.014 µg/L	1.00	Pass
Na 23	0.752 µg/L	10.00	Pass
Mg 24	0.314 µg/L	10.00	Pass
Mg 25	0.354 µg/L	10.00	Pass
Mg 26	0.175 µg/L	10.00	Pass
Al 27	2.627 µg/L	10.00	Pass
Si 28	-75.220 µg/L	10.00	*Fail*
K 39	-10.220 µg/L	10.00	*Fail*
Ca 43	-5.182 µg/L	10.00	Pass
Ca 44	-2.160 µg/L	10.00	Pass
Ti 47	0.075 µg/L	1.00	Pass
V 51	-0.187 µg/L	1.00	Pass
Cr 52	0.168 µg/L	1.00	Pass
Cr 53	5.035 µg/L	1.00	*Fail*
Fe 54	-71.250 µg/L	10.00	*Fail*
Mn 55	-0.023 µg/L	1.00	Pass
Fe 57	-9.323 µg/L	10.00	Pass
Co 59	-0.329 µg/L	1.00	Pass
Ni 60	0.004 µg/L	1.00	Pass
Cu 63	0.004 µg/L	1.00	Pass
Cu 65	-0.017 µg/L	1.00	Pass
Zn 66	-0.061 µg/L	1.00	Pass
Zn 67	0.593 µg/L	1.00	Pass
Zn 68	-0.978 µg/L	1.00	Pass
As 75	0.383 µg/L	1.00	Pass
Se 82	0.303 µg/L	1.00	Pass
Sr 87	0.054 µg/L	1.00	Pass
Mo 95	0.243 µg/L	1.00	Pass
Mo 98	0.218 µg/L	1.00	Pass
Ag 107	0.027 µg/L	1.00	Pass
Ag 109	0.030 µg/L	1.00	Pass
Cd 111	0.058 µg/L	1.00	Pass
Cd 114	0.038 µg/L	1.00	Pass
Sn 120	-0.019 µg/L	1.00	Pass
Sb 121	0.366 µg/L	1.00	Pass
Sb 123	0.049 µg/L	1.00	Pass

Ba 135	0.067 µg/L	1.00	Pass
Au 197	0.447 µg/L	1.00	Pass
Tl 205	0.112 µg/L	1.00	Pass

Blank QC Report

File : D:\HPCHEM\1\DATA\Sep2502.16A\045CCB_.D\045CCB_.D#
Acquired : Sep 25 02 11:05 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: [CB]
Misc Info :
Vial Number: 1102
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: CCB
Dilution : 1.000000

Pb 208	-0.315 µg/L	1.00	Pass
U 238	0.036 µg/L	1.00	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	746319	860597	Pass
45	593146	627319	Pass
72	88022	84572	Pass
115	468012	431332	Pass
209	233752	230877	Pass

Internal Standards referenced to 002CALB.D#

4 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

Sample QC Report

572

File : D:\HPCHEM\1\DATA\Sep2502.16A\046SMPL.D\046SMPL.D#
Acquired : Sep 25 02 11:14 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: M021282-014
Misc Info : ,
Vial Number: 2209
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 10.000000

Element		Concentration	Cal Conc	LRS Conc	Flag
Be	9	12.790 µg/L	200.000	1000	Pass
B	11	17.830 µg/L	200.000	0	Pass
Na	23	3046.000 µg/L	10000.000	20000	Pass
Mg	24	18340.000 µg/L	10000.000	20000	Pass
Mg	25	18580.000 µg/L	10000.000	20000	Pass
Mg	26	18260.000 µg/L	10000.000	20000	Pass
Al	27	117600.000 µg/L	10000.000	20000	>Cal std
Si	28	2994.000 µg/L	10000.000	0	Pass
K	39	16680.000 µg/L	10000.000	20000	Pass
Ca	43	20220.000 µg/L	10000.000	20000	Pass
Ca	44	20250.000 µg/L	10000.000	20000	Pass
Ti	47	3517.000 µg/L	200.000	1000	>Cal std
V	51	126.900 µg/L	200.000	1000	Pass
Cr	52	69.800 µg/L	200.000	1000	Pass
Cr	53	-69.920 µg/L	200.000	1000	Pass
Fe	54	145800.000 µg/L	10000.000	20000	>Cal std
Mn	55	2958.000 µg/L	200.000	1000	>Cal std
Fe	57	146700.000 µg/L	10000.000	20000	>Cal std
Co	59	16.930 µg/L	200.000	1000	Pass
Ni	60	50.950 µg/L	200.000	1000	Pass
Cu	63	49.660 µg/L	200.000	1000	Pass
Cu	65	51.450 µg/L	200.000	1000	Pass
Zn	66	713.500 µg/L	200.000	1000	Pass
Zn	67	729.900 µg/L	200.000	1000	Pass
Zn	68	649.000 µg/L	200.000	1000	Pass
As	75	27.090 µg/L	200.000	1000	Pass
Se	82	15.190 µg/L	200.000	1000	Pass
Sr	87	920.700 µg/L	200.000	1000	Pass
Mo	95	26.600 µg/L	200.000	1000	Pass
Mo	98	26.850 µg/L	200.000	1000	Pass
Ag	107	0.199 µg/L	200.000	1000	Pass
Ag	109	0.116 µg/L	200.000	1000	Pass
Cd	111	3.767 µg/L	200.000	1000	Pass
Cd	114	0.107 µg/L	200.000	1000	Pass
Sn	120	36.820 µg/L	200.000	1000	Pass
Sb	121	3.648 µg/L	200.000	1000	Pass
Sb	123	0.321 µg/L	200.000	1000	Pass

Ba 135	996.200 µg/L	200.000	1000	Pass
Au 197	1.136 µg/L	200.000	0	Pass
Tl 205	0.790 µg/L	200.000	1000	Pass

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2502.16A\046SMPL.D\046SMPL.D#
Acquired : Sep. 25 02 11:14 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: M021282-014
Misc Info : ,
Vial Number: 2209
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 10.000000

Pb 208	184.000 µg/L	200.000	1000	Pass
U 238	9.160 µg/L	200.000	1000	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	746319	831611	Pass
45	593146	707265	Pass
72	88022	92217	Pass
115	468012	451057	Pass
209	233752	242083	Pass

Internal Standards referenced to 002CALB.D#

5 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2502.16A\047SMPL.D\047SMPL.D#
Acquired : Sep 25 02 11:23 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: M021282-015
Misc Info : ,
Vial Number: 2211
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 10.000000

Element		Concentration	Cal Conc	LRS Conc	Flag
Be	9	9.852 µg/L	200.000	1000	Pass
B	11	17.750 µg/L	200.000	0	Pass
Na	23	2432.000 µg/L	10000.000	20000	Pass
Mg	24	20410.000 µg/L	10000.000	20000	Pass
Mg	25	20240.000 µg/L	10000.000	20000	Pass
Mg	26	19750.000 µg/L	10000.000	20000	Pass
Al	27	119800.000 µg/L	10000.000	20000	>Cal std
Si	28	3310.000 µg/L	10000.000	0	Pass
K	39	14240.000 µg/L	10000.000	20000	Pass
Ca	43	35130.000 µg/L	10000.000	20000	Pass
Ca	44	34550.000 µg/L	10000.000	20000	Pass
Ti	47	4767.000 µg/L	200.000	1000	>Cal std
V	51	162.600 µg/L	200.000	1000	Pass
Cr	52	146.300 µg/L	200.000	1000	Pass
Cr	53	61.150 µg/L	200.000	1000	Pass
Fe	54	144600.000 µg/L	10000.000	20000	>Cal std
Mn	55	3262.000 µg/L	200.000	1000	>Cal std
Fe	57	147800.000 µg/L	10000.000	20000	>Cal std
Co	59	24.910 µg/L	200.000	1000	Pass
Ni	60	65.870 µg/L	200.000	1000	Pass
Cu	63	69.140 µg/L	200.000	1000	Pass
Cu	65	70.840 µg/L	200.000	1000	Pass
Zn	66	711.100 µg/L	200.000	1000	Pass
Zn	67	736.300 µg/L	200.000	1000	Pass
Zn	68	638.900 µg/L	200.000	1000	Pass
As	75	32.160 µg/L	200.000	1000	Pass
Se	82	12.800 µg/L	200.000	1000	Pass
Sr	87	788.000 µg/L	200.000	1000	Pass
Mo	95	15.800 µg/L	200.000	1000	Pass
Mo	98	15.720 µg/L	200.000	1000	Pass
Ag	107	6.855 µg/L	200.000	1000	Pass
Ag	109	6.755 µg/L	200.000	1000	Pass
Cd	111	3.829 µg/L	200.000	1000	Pass
Cd	114	0.464 µg/L	200.000	1000	Pass
Sn	120	29.450 µg/L	200.000	1000	Pass
Sb	121	3.592 µg/L	200.000	1000	Pass
Sb	123	0.277 µg/L	200.000	1000	Pass

Ba 135	898.500 µg/L	200.000	1000	Pass
Au 197	0.778 µg/L	200.000	0	Pass
Tl 205	-1.361 µg/L	200.000	1000	Pass

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2502.16A\047SMPL.D\047SMPL.D#
Acquired : Sep 25 02 11:23 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: M021282-015
Misc Info : ,
Vial Number: 2211
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 10.000000

Pb 208	290.300 µg/L	200.000	1000	Pass
U 238	8.527 µg/L	200.000	1000	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	746319	889785	Pass
45	593146	719744	*Fail*
72	88022	93251	Pass
115	468012	452558	Pass
209	233752	245775	Pass

Internal Standards referenced to 002CALB.D#

5 Element Failures. Maximum Number of Failures Allowed (20)
1 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2502.16A\048SMPL.D\048SMPL.D#
Acquired : Sep 25 02 11:33 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: M021282-016
Misc Info : ,
Vial Number: 2301
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 10.000000

Element		Concentration	Cal Conc	LRS Conc	Flag
Be	9	9.747 µg/L	200.000	1000	Pass
B	11	1.301 µg/L	200.000	0	Pass
Na	23	1746.000 µg/L	10000.000	20000	Pass
Mg	24	14550.000 µg/L	10000.000	20000	Pass
Mg	25	14820.000 µg/L	10000.000	20000	Pass
Mg	26	14570.000 µg/L	10000.000	20000	Pass
Al	27	57150.000 µg/L	10000.000	20000	Pass
Si	28	2659.000 µg/L	10000.000	0	Pass
K	39	9528.000 µg/L	10000.000	20000	Pass
Ca	43	13960.000 µg/L	10000.000	20000	Pass
Ca	44	13740.000 µg/L	10000.000	20000	Pass
Ti	47	7180.000 µg/L	200.000	1000	>Cal std
V	51	103.600 µg/L	200.000	1000	Pass
Cr	52	78.410 µg/L	200.000	1000	Pass
Cr	53	-95.850 µg/L	200.000	1000	Pass
Fe	54	143800.000 µg/L	10000.000	20000	>Cal std
Mn	55	4094.000 µg/L	200.000	1000	>Cal std
Fe	57	147700.000 µg/L	10000.000	20000	>Cal std
Co	59	15.520 µg/L	200.000	1000	Pass
Ni	60	46.960 µg/L	200.000	1000	Pass
Cu	63	40.830 µg/L	200.000	1000	Pass
Cu	65	43.590 µg/L	200.000	1000	Pass
Zn	66	665.300 µg/L	200.000	1000	Pass
Zn	67	617.500 µg/L	200.000	1000	Pass
Zn	68	613.400 µg/L	200.000	1000	Pass
As	75	21.890 µg/L	200.000	1000	Pass
Se	82	14.460 µg/L	200.000	1000	Pass
Sr	87	438.700 µg/L	200.000	1000	Pass
Mo	95	35.230 µg/L	200.000	1000	Pass
Mo	98	34.420 µg/L	200.000	1000	Pass
Ag	107	0.760 µg/L	200.000	1000	Pass
Ag	109	1.028 µg/L	200.000	1000	Pass
Cd	111	3.472 µg/L	200.000	1000	Pass
Cd	114	0.573 µg/L	200.000	1000	Pass
Sn	120	36.870 µg/L	200.000	1000	Pass
Sb	121	3.388 µg/L	200.000	1000	Pass
Sb	123	0.079 µg/L	200.000	1000	Pass

Ba 135	396.900 µg/L	200.000	1000	Pass
Au 197	0.273 µg/L	200.000	0	Pass
Tl 205	-2.396 µg/L	200.000	1000	Pass

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2502.16A\048SMPL.D\048SMPL.D#
Acquired : Sep 25 02 11:33 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: M021282-016
Misc Info : ,
Vial Number: 2301
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --+------
Sample Type: --+------
Dilution : 10.000000

Pb 208	147.100 µg/L	200.000	1000	Pass
U 238	6.796 µg/L	200.000	1000	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	746319	890215	Pass
45	593146	703899	Pass
72	88022	91125	Pass
115	468012	442127	Pass
209	233752	246987	Pass

Internal Standards referenced to 002CALB.D#

4 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2502.16A\049SMPL.D\049SMPL.D#
Acquired : Sep 25 02 11:42 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: M021282-017
Misc Info : ,
Vial Number: 2303
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 10.000000

Element		Concentration	Cal Conc	LRS Conc	Flag
Be	9	12.720 µg/L	200.000	1000	Pass
B	11	17.090 µg/L	200.000	0	Pass
Na	23	2514.000 µg/L	10000.000	20000	Pass
Mg	24	22070.000 µg/L	10000.000	20000	Pass
Mg	25	22480.000 µg/L	10000.000	20000	Pass
Mg	26	22140.000 µg/L	10000.000	20000	Pass
Al	27	140400.000 µg/L	10000.000	20000	>Cal std
Si	28	2825.000 µg/L	10000.000	0	Pass
K	39	13600.000 µg/L	10000.000	20000	Pass
Ca	43	46100.000 µg/L	10000.000	20000	Pass
Ca	44	45450.000 µg/L	10000.000	20000	Pass
Ti	47	5577.000 µg/L	200.000	1000	>Cal std
V	51	169.800 µg/L	200.000	1000	Pass
Cr	52	94.200 µg/L	200.000	1000	Pass
Cr	53	30.530 µg/L	200.000	1000	Pass
Fe	54	181800.000 µg/L	10000.000	20000	>Cal std
Mn	55	2662.000 µg/L	200.000	1000	>Cal std
Fe	57	183200.000 µg/L	10000.000	20000	>Cal std
Co	59	24.180 µg/L	200.000	1000	Pass
Ni	60	73.270 µg/L	200.000	1000	Pass
Cu	63	71.850 µg/L	200.000	1000	Pass
Cu	65	73.490 µg/L	200.000	1000	Pass
Zn	66	1234.000 µg/L	200.000	1000	Pass
Zn	67	1229.000 µg/L	200.000	1000	Pass
Zn	68	1146.000 µg/L	200.000	1000	Pass
As	75	43.830 µg/L	200.000	1000	Pass
Se	82	14.510 µg/L	200.000	1000	Pass
Sr	87	734.500 µg/L	200.000	1000	Pass
Mo	95	34.160 µg/L	200.000	1000	Pass
Mo	98	33.950 µg/L	200.000	1000	Pass
Ag	107	1.614 µg/L	200.000	1000	Pass
Ag	109	1.410 µg/L	200.000	1000	Pass
Cd	111	4.107 µg/L	200.000	1000	Pass
Cd	114	0.272 µg/L	200.000	1000	Pass
Sn	120	36.250 µg/L	200.000	1000	Pass
Sb	121	3.468 µg/L	200.000	1000	Pass
Sb	123	0.269 µg/L	200.000	1000	Pass

Ba 135	953.900 µg/L	200.000	1000	Pass
Au 197	0.101 µg/L	200.000	0	Pass
Tl 205	-1.591 µg/L	200.000	1000	Pass

57

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2502.16A\049SMPL.D\049SMPL.D#
Acquired : Sep 25 02 11:42 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: M021282-017
Misc Info : ,
Vial Number: 2303
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 10.000000

Pb 208	144.500 µg/L	200.000	1000	Pass
U 238	6.666 µg/L	200.000	1000	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	746319	956776	*Fail*
45	593146	748308	*Fail*
72	88022	94071	Pass
115	468012	447500	Pass
209	233752	243433	Pass

Internal Standards referenced to 002CALB.D#

5 Element Failures. Maximum Number of Failures Allowed (20)
2 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

Sample QC Report

58J

File : D:\HPCHEM\1\DATA\Sep2502.16A\050SMPL.D\050SMPL.D#
Acquired : Sep 25 02 11:51 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: M021282-018
Misc Info : ,
Vial Number: 2305
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 10.000000

Element		Concentration	Cal Conc	LRS Conc	Flag
Be	9	8.236 µg/L	200.000	1000	Pass
B	11	15.820 µg/L	200.000	0	Pass
Na	23	1776.000 µg/L	10000.000	20000	Pass
Mg	24	14540.000 µg/L	10000.000	20000	Pass
Mg	25	14780.000 µg/L	10000.000	20000	Pass
Mg	26	14370.000 µg/L	10000.000	20000	Pass
Al	27	65320.000 µg/L	10000.000	20000	Pass
Si	28	3046.000 µg/L	10000.000	0	Pass
K	39	10580.000 µg/L	10000.000	20000	Pass
Ca	43	20620.000 µg/L	10000.000	20000	Pass
Ca	44	20600.000 µg/L	10000.000	20000	Pass
Ti	47	4241.000 µg/L	200.000	1000	>Cal std
V	51	104.300 µg/L	200.000	1000	Pass
Cr	52	337.900 µg/L	200.000	1000	Pass
Cr	53	259.600 µg/L	200.000	1000	Pass
Fe	54	123900.000 µg/L	10000.000	20000	>Cal std
Mn	55	3401.000 µg/L	200.000	1000	>Cal std
Fe	57	126100.000 µg/L	10000.000	20000	>Cal std
Co	59	16.790 µg/L	200.000	1000	Pass
Ni	60	51.500 µg/L	200.000	1000	Pass
Cu	63	192.500 µg/L	200.000	1000	Pass
Cu	65	195.700 µg/L	200.000	1000	Pass
Zn	66	2377.000 µg/L	200.000	1000	>Cal std
Zn	67	2258.000 µg/L	200.000	1000	>Cal std
Zn	68	2320.000 µg/L	200.000	1000	>Cal std
As	75	43.730 µg/L	200.000	1000	Pass
Se	82	14.280 µg/L	200.000	1000	Pass
Sr	87	462.900 µg/L	200.000	1000	Pass
Mo	95	36.330 µg/L	200.000	1000	Pass
Mo	98	36.200 µg/L	200.000	1000	Pass
Ag	107	21.550 µg/L	200.000	1000	Pass
Ag	109	21.480 µg/L	200.000	1000	Pass
Cd	111	6.950 µg/L	200.000	1000	Pass
Cd	114	5.002 µg/L	200.000	1000	Pass
Sn	120	35.700 µg/L	200.000	1000	Pass
Sb	121	4.005 µg/L	200.000	1000	Pass
Sb	123	0.803 µg/L	200.000	1000	Pass

Ba 135	523.300 µg/L	200.000	1000	Pass
Au 197	0.878 µg/L	200.000	0	Pass
Tl 205	-2.779 µg/L	200.000	1000	Pass

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2502.16A\050SMPL.D\050SMPL.D#
Acquired : Sep 25 02 11:51 pm using AcqMethod 6020.M
Operator : JWB
Sample Name: M021282-018
Misc Info : ,
Vial Number: 2305
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 10.000000

Pb 208	339.600 µg/L	200.000	1000	Pass
U 238	9.713 µg/L	200.000	1000	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	746319	944392	*Fail*
45	593146	725733	*Fail*
72	88022	92311	Pass
115	468012	444182	Pass
209	233752	241839	Pass

Internal Standards referenced to 002CALB.D#

7 Element Failures. Maximum Number of Failures Allowed (20)
2 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

Sample QC Report

582

File : D:\HPCHEM\1\DATA\Sep2502.16A\051SMPL.D\051SMPL.D#
Acquired : Sep 26 02 00:01 am using AcqMethod 6020.M
Operator : JWB
Sample Name: M021282-019
Misc Info : ,
Vial Number: 2307
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 10.000000

Element		Concentration	Cal Conc	LRS Conc	Flag
Be	9	9.585 µg/L	200.000	1000	Pass
B	11	20.400 µg/L	200.000	0	Pass
Na	23	1997.000 µg/L	10000.000	20000	Pass
Mg	24	19660.000 µg/L	10000.000	20000	Pass
Mg	25	20130.000 µg/L	10000.000	20000	Pass
Mg	26	19750.000 µg/L	10000.000	20000	Pass
Al	27	103500.000 µg/L	10000.000	20000	>Cal std
Si	28	3508.000 µg/L	10000.000	0	Pass
K	39	20010.000 µg/L	10000.000	20000	Pass
Ca	43	25190.000 µg/L	10000.000	20000	Pass
Ca	44	24630.000 µg/L	10000.000	20000	Pass
Ti	47	5230.000 µg/L	200.000	1000	>Cal std
V	51	150.300 µg/L	200.000	1000	Pass
Cr	52	242.500 µg/L	200.000	1000	Pass
Cr	53	131.000 µg/L	200.000	1000	Pass
Fe	54	148900.000 µg/L	10000.000	20000	>Cal std
Mn	55	3711.000 µg/L	200.000	1000	>Cal std
Fe	57	149100.000 µg/L	10000.000	20000	>Cal std
Co	59	19.220 µg/L	200.000	1000	Pass
Ni	60	60.860 µg/L	200.000	1000	Pass
Cu	63	110.000 µg/L	200.000	1000	Pass
Cu	65	114.300 µg/L	200.000	1000	Pass
Zn	66	2220.000 µg/L	200.000	1000	>Cal std
Zn	67	2122.000 µg/L	200.000	1000	>Cal std
Zn	68	2140.000 µg/L	200.000	1000	>Cal std
As	75	34.220 µg/L	200.000	1000	Pass
Se	82	14.220 µg/L	200.000	1000	Pass
Sr	87	679.000 µg/L	200.000	1000	Pass
Mo	95	32.950 µg/L	200.000	1000	Pass
Mo	98	32.840 µg/L	200.000	1000	Pass
Ag	107	12.720 µg/L	200.000	1000	Pass
Ag	109	12.770 µg/L	200.000	1000	Pass
Cd	111	6.843 µg/L	200.000	1000	Pass
Cd	114	3.784 µg/L	200.000	1000	Pass
Sn	120	36.450 µg/L	200.000	1000	Pass
Sb	121	3.381 µg/L	200.000	1000	Pass
Sb	123	0.095 µg/L	200.000	1000	Pass

Ba 135	790.200 µg/L	200.000	1000	Pass
Au 197	0.523 µg/L	200.000	0	Pass
Tl 205	-2.429 µg/L	200.000	1000	Pass

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2502.16A\051SMPL.D\051SMPL.D#
Acquired : Sep 26 02 00:01 am using AcqMethod 6020.M
Operator : JWB
Sample Name: M021282-019
Misc Info : ,
Vial Number: 2307
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 10.000000

Pb 208	261.100 µg/L	200.000	1000	Pass
U 238	9.083 µg/L	200.000	1000	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	746319	1006744	*Fail*
45	593146	750222	*Fail*
72	88022	93798	Pass
115	468012	448730	Pass
209	233752	242742	Pass

Internal Standards referenced to 002CALB.D#

8 Element Failures. Maximum Number of Failures Allowed (20)
2 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2502.16A\052SMPL.D\052SMPL.D#
Acquired : Sep 26 02 00:10 am using AcqMethod 6020.M
Operator : JWB
Sample Name: M021282-020
Misc Info : ,
Vial Number: 2309
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 10.000000

Element		Concentration	Cal Conc	LRS Conc	Flag
Be	9	6.159 µg/L	200.000	1000	Pass
B	11	-2.364 µg/L	200.000	0	Pass
Na	23	1441.000 µg/L	10000.000	20000	Pass
Mg	24	7699.000 µg/L	10000.000	20000	Pass
Mg	25	7876.000 µg/L	10000.000	20000	Pass
Mg	26	7874.000 µg/L	10000.000	20000	Pass
Al	27	30340.000 µg/L	10000.000	20000	Pass
Si	28	3263.000 µg/L	10000.000	0	Pass
K	39	5641.000 µg/L	10000.000	20000	Pass
Ca	43	11000.000 µg/L	10000.000	20000	Pass
Ca	44	10910.000 µg/L	10000.000	20000	Pass
Ti	47	3054.000 µg/L	200.000	1000	>Cal std
V	51	68.000 µg/L	200.000	1000	Pass
Cr	52	91.770 µg/L	200.000	1000	Pass
Cr	53	-17.180 µg/L	200.000	1000	Pass
Fe	54	84430.000 µg/L	10000.000	20000	Pass
Mn	55	2990.000 µg/L	200.000	1000	>Cal std
Fe	57	87170.000 µg/L	10000.000	20000	Pass
Co	59	8.426 µg/L	200.000	1000	Pass
Ni	60	27.800 µg/L	200.000	1000	Pass
Cu	63	84.850 µg/L	200.000	1000	Pass
Cu	65	87.550 µg/L	200.000	1000	Pass
Zn	66	561.200 µg/L	200.000	1000	Pass
Zn	67	520.300 µg/L	200.000	1000	Pass
Zn	68	528.100 µg/L	200.000	1000	Pass
As	75	14.580 µg/L	200.000	1000	Pass
Se	82	11.140 µg/L	200.000	1000	Pass
Sr	87	202.200 µg/L	200.000	1000	Pass
Mo	95	13.950 µg/L	200.000	1000	Pass
Mo	98	13.060 µg/L	200.000	1000	Pass
Ag	107	2.233 µg/L	200.000	1000	Pass
Ag	109	2.565 µg/L	200.000	1000	Pass
Cd	111	3.451 µg/L	200.000	1000	Pass
Cd	114	0.992 µg/L	200.000	1000	Pass
Sn	120	18.570 µg/L	200.000	1000	Pass
Sb	121	3.233 µg/L	200.000	1000	Pass
Sb	123	-0.038 µg/L	200.000	1000	Pass

Ba 135	399.700 µg/L	200.000	1000	Pass
Au 197	-0.405 µg/L	200.000	0	Pass
Tl 205	-3.606 µg/L	200.000	1000	Pass

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2502.16A\052SMPL.D\052SMPL.D#
Acquired : Sep 26 02 00:10 am using AcqMethod 6020.M
Operator : JWB
Sample Name: M021282-020
Misc Info : ,
Vial Number: 2309
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 10.000000

Pb 208	72.220 µg/L	200.000	1000	Pass
U 238	6.856 µg/L	200.000	1000	Pass

Internal Standard QC Report

ISTD m/z	Ref Counts	Sample Counts	Flag
6	746319	847023	Pass
45	593146	632406	Pass
72	88022	85058	Pass
115	468012	419832	Pass
209	233752	226830	Pass

Internal Standards referenced to 002CALB.D#

2 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2502.16A\053SMPL.D\053SMPL.D#
Acquired : Sep 26 02 00:19 am using AcqMethod 6020.M
Operator : JWB
Sample Name: M021282-021
Misc Info : ,
Vial Number: 2311
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : ---------
Sample Type: --------
Dilution : 10.000000

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Element		Concentration	Cal Conc	LRS Conc	Flag
Be	9	6.629 µg/L	200.000	1000	Pass
B	11	11.300 µg/L	200.000	0	Pass
Na	23	1837.000 µg/L	10000.000	20000	Pass
Mg	24	13420.000 µg/L	10000.000	20000	Pass
Mg	25	13420.000 µg/L	10000.000	20000	Pass
Mg	26	13110.000 µg/L	10000.000	20000	Pass
Al	27	49380.000 µg/L	10000.000	20000	Pass
Si	28	3254.000 µg/L	10000.000	0	Pass
K	39	7882.000 µg/L	10000.000	20000	Pass
Ca	43	23990.000 µg/L	10000.000	20000	Pass
Ca	44	23590.000 µg/L	10000.000	20000	Pass
Ti	47	3244.000 µg/L	200.000	1000	>Cal std
V	51	104.000 µg/L	200.000	1000	Pass
Cr	52	266.500 µg/L	200.000	1000	Pass
Cr	53	282.000 µg/L	200.000	1000	Pass
Fe	54	96560.000 µg/L	10000.000	20000	Pass
Mn	55	3297.000 µg/L	200.000	1000	>Cal std
Fe	57	97910.000 µg/L	10000.000	20000	Pass
Co	59	14.040 µg/L	200.000	1000	Pass
Ni	60	40.450 µg/L	200.000	1000	Pass
Cu	63	263.300 µg/L	200.000	1000	Pass
Cu	65	264.300 µg/L	200.000	1000	Pass
Zn	66	664.500 µg/L	200.000	1000	Pass
Zn	67	648.200 µg/L	200.000	1000	Pass
Zn	68	624.300 µg/L	200.000	1000	Pass
As	75	24.660 µg/L	200.000	1000	Pass
Se	82	9.631 µg/L	200.000	1000	Pass
Sr	87	385.700 µg/L	200.000	1000	Pass
Mo	95	24.550 µg/L	200.000	1000	Pass
Mo	98	23.270 µg/L	200.000	1000	Pass
Ag	107	6.430 µg/L	200.000	1000	Pass
Ag	109	6.451 µg/L	200.000	1000	Pass
Cd	111	3.352 µg/L	200.000	1000	Pass
Cd	114	1.331 µg/L	200.000	1000	Pass
Sn	120	22.840 µg/L	200.000	1000	Pass
Sb	121	3.364 µg/L	200.000	1000	Pass
Sb	123	0.265 µg/L	200.000	1000	Pass

Ba 135	696.600 µg/L	200.000	1000	Pass
Au 197	-0.260 µg/L	200.000	0	Pass
Tl 205	-3.343 µg/L	200.000	1000	Pass

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2502.16A\053SMPL.D\053SMPL.D#
Acquired : Sep 26 02 00:19 am using AcqMethod 6020.M
Operator : JWB
Sample Name: M021282-021
Misc Info : ,
Vial Number: 2311
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 10.000000

Pb 208	130.100 µg/L	200.000	1000	Pass
U 238	6.997 µg/L	200.000	1000	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	746319	841549	Pass
45	593146	635738	Pass
72	88022	83964	Pass
115	468012	413538	Pass
209	233752	224382	Pass

Internal Standards referenced to 002CALB.D#

2 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

Sample QC Report

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File : D:\HPCHEM\1\DATA\Sep2502.16A\054SMPL.D\054SMPL.D#
Acquired : Sep 26 02 00:29 am using AcqMethod 6020.M
Operator : JWB
Sample Name: M021282-022
Misc Info : ,
Vial Number: 2401
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 10.000000

Element		Concentration	Cal Conc	LRS Conc	Flag
Be	9	7.570 µg/L	200.000	1000	Pass
B	11	5.894 µg/L	200.000	0	Pass
Na	23	2527.000 µg/L	10000.000	20000	Pass
Mg	24	16410.000 µg/L	10000.000	20000	Pass
Mg	25	16680.000 µg/L	10000.000	20000	Pass
Mg	26	16290.000 µg/L	10000.000	20000	Pass
Al	27	109000.000 µg/L	10000.000	20000	>Cal std
Si	28	3180.000 µg/L	10000.000	0	Pass
K	39	13160.000 µg/L	10000.000	20000	Pass
Ca	43	20660.000 µg/L	10000.000	20000	Pass
Ca	44	20500.000 µg/L	10000.000	20000	Pass
Ti	47	5506.000 µg/L	200.000	1000	>Cal std
V	51	182.400 µg/L	200.000	1000	Pass
Cr	52	92.970 µg/L	200.000	1000	Pass
Cr	53	-21.870 µg/L	200.000	1000	Pass
Fe	54	143200.000 µg/L	10000.000	20000	>Cal std
Mn	55	3711.000 µg/L	200.000	1000	>Cal std
Fe	57	148700.000 µg/L	10000.000	20000	>Cal std
Co	59	56.590 µg/L	200.000	1000	Pass
Ni	60	61.740 µg/L	200.000	1000	Pass
Cu	63	40.130 µg/L	200.000	1000	Pass
Cu	65	41.740 µg/L	200.000	1000	Pass
Zn	66	510.200 µg/L	200.000	1000	Pass
Zn	67	517.900 µg/L	200.000	1000	Pass
Zn	68	442.800 µg/L	200.000	1000	Pass
As	75	37.710 µg/L	200.000	1000	Pass
Se	82	11.060 µg/L	200.000	1000	Pass
Sr	87	719.800 µg/L	200.000	1000	Pass
Mo	95	18.870 µg/L	200.000	1000	Pass
Mo	98	17.790 µg/L	200.000	1000	Pass
Ag	107	1.452 µg/L	200.000	1000	Pass
Ag	109	1.452 µg/L	200.000	1000	Pass
Cd	111	4.642 µg/L	200.000	1000	Pass
Cd	114	-0.243 µg/L	200.000	1000	Pass
Sn	120	35.840 µg/L	200.000	1000	Pass
Sb	121	3.144 µg/L	200.000	1000	Pass
Sb	123	0.092 µg/L	200.000	1000	Pass

Ba 135	721.700 µg/L	200.000	1000	Pass
Au 197	-0.110 µg/L	200.000	0	Pass
Tl 205	-2.272 µg/L	200.000	1000	Pass

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2502.16A\054SMPL.D\054SMPL.D#
Acquired : Sep 26 02 00:29 am using AcqMethod 6020.M
Operator : JWB
Sample Name: M021282-022
Misc Info : ,
Vial Number: 2401
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 10.000000

Pb 208	175.800 µg/L	200.000	1000	Pass
U 238	9.635 µg/L	200.000	1000	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	746319	846242	Pass
45	593146	680998	Pass
72	88022	88128	Pass
115	468012	424136	Pass
209	233752	229378	Pass

Internal Standards referenced to 002CALB.D#

5 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

File : D:\HPCHEM\1\DATA\Sep2502.16A\055TUNE.D
Acquired : Sep 26 02 00:38 am using AcqMethod QCTUNE.M
Operator : JWB
Sample Name: 6020/200.8 TUNE MIX
Misc Info :
Vial Number: 1101
CurrentMeth: D:\HPCHEM\1\METHODS\QCTUNE.M
BkgFile : --------
Sample Type: TUNE
Dilution : 1.000000

Minimum Response Criteria (cps/ppb)

Element	RSD(%)	Actual	Required	Flag
59	2.42	119629	> 200	
7	4.56	196834	> 20	
115	2.28	127234	> 100	
205	2.95	59308	> 10	
102		0(cps)	< 25(cps)	

Ion Ratio Criteria

	Actual	Required	Flag
59/59	1.00	1.00 - 1.00	
7/59	1.65	0.10 - 5.00	
115/59	1.06	0.10 - 10.00	
205/59	0.50	0.10 - 5.00	

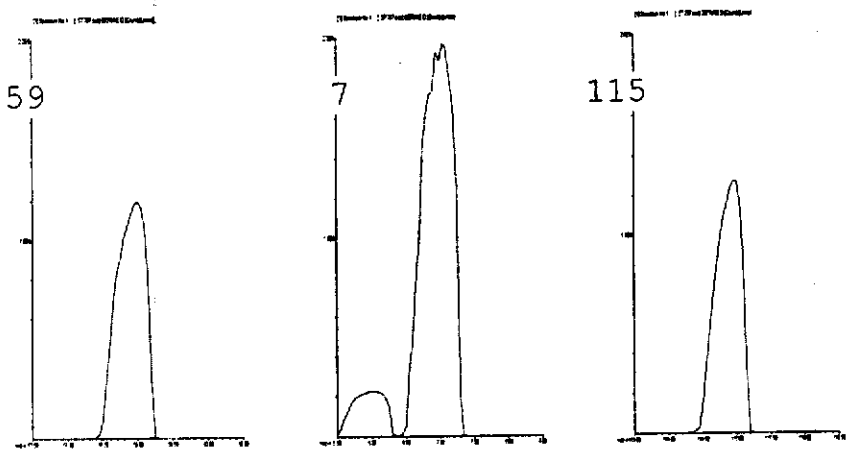

Mass Calib:	59.00	Mass Calib:	7.05	Mass Calib:	114.95
W-50%:	0.60	W-50%:	0.60	W-50%:	0.50
W-10%:	0.70	W-10%:	0.80	W-10%:	0.65

205 102

US EPA Method 200.8 Tune Verification

Acquired : Sep 26 02 00:38 am using AcqMethod QCTUNE.M
Data File Name: D:\HPCHEM\1\DATA\Sep2502.16A\055TUNE.D

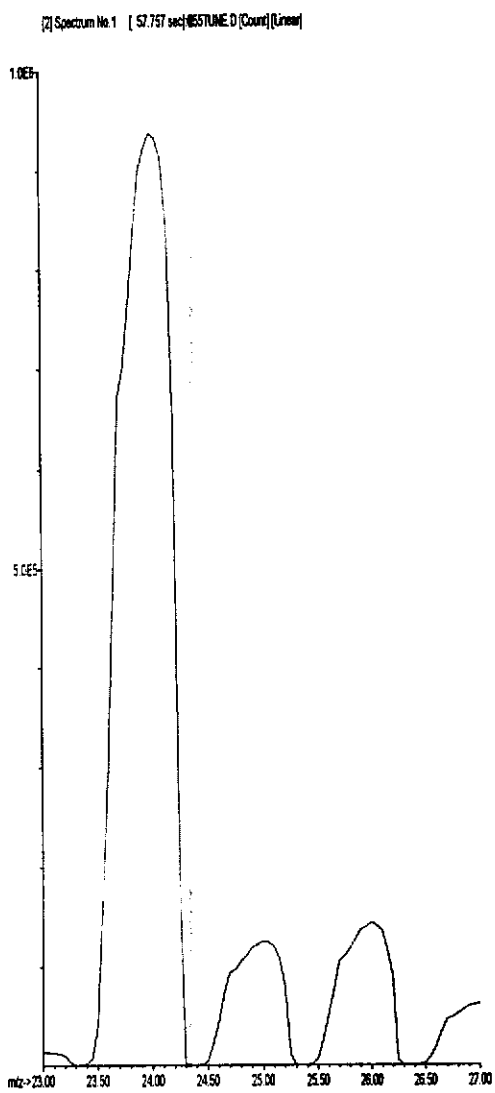

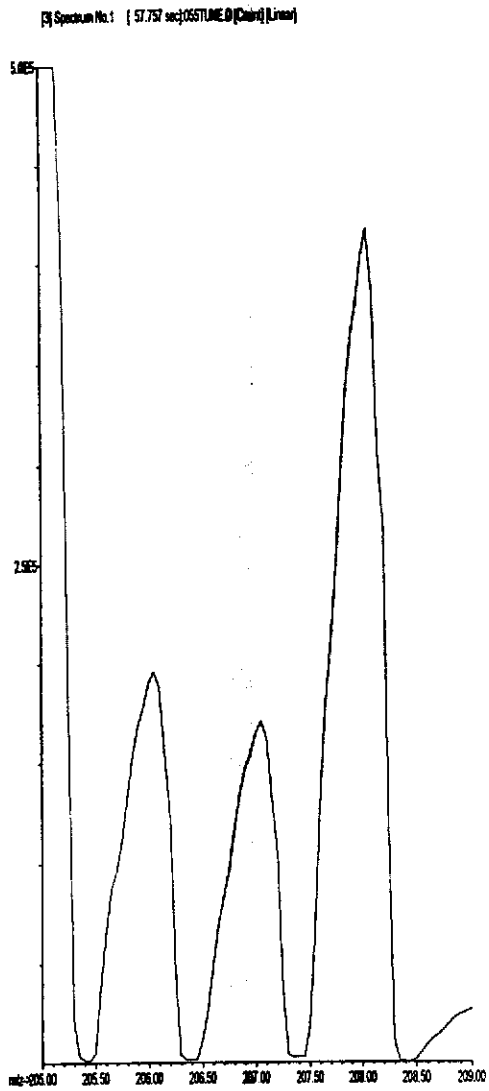

Element and Mass	Mass Assignment		PeakElement at 5and Mass Heig	Mass Assignment	Peak Width at 5% Peak Height
Mg 24	24.00	0.70	Pb 206	206.05	0.70
Mg 25	25.00	0.70	Pb 207	207.05	0.75
Mg 26	26.00	0.65	Pb 208	208.05	0.70

* Does not meet EPA Method 200.8 specification.

Spectrum No.1 [57.757 sec]:055TUNE.D
Acquired : Sep 26 02 00:38 am using AcqMethod QCTUNE.M
Bkg file : ---------
Interference Correction: OFF

Mass[amu]	Element	Count	n	SD	RSD[%]
5		6754.44 P	5	401.40	5.94
6		2712485.00 P	5	137200.00	5.06
7	Li	21778370.00 A	5	938500.00	4.31
8		5.60 P	5	2.61	46.57
23		194766.60 P	5	8866.00	4.55
24		10213380.00 A	5	338500.00	3.31
25		1361426.00 P	5	32860.00	2.41
26		1523673.00 P	5	50420.00	3.31
27		656820.40 P	5	8403.00	1.28
58		119488.90 P	5	9085.00	7.60
59	Co	12055670.00 A	5	314000.00	2.60
60		222.41 P	5	9.94	4.47
101		14.60 P	5	1.14	7.81
103		475.81 P	5	25.77	5.42
114		190932.80 P	5	19720.00	10.33
115	In	11691680.00 A	5	285500.00	2.44
116		582.62 P	5	39.83	6.84
204		160000.70 P	5	2674.00	1.67
205	Tl	5949828.00 A	5	106200.00	1.78
206		1946779.00 P	5	32210.00	1.65
207		1676241.00 P	5	27100.00	1.62
208		4113225.00 P	5	64400.00	1.57
209		277562.80 P	5	5842.00	2.10

CCV QC Report

File : D:\HPCHEM\1\DATA\Sep2502.16A\056CCV_D\056CCV_D#
Acquired : Sep 26 02 00:46 am using AcqMethod 6020.M
Operator : JWB
Sample Name: [STD-CCV]
Misc Info :
Vial Number: 1105
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: CCV
Dilution : 1.000000

CCV Mix #1

Element		Concentration	Expected	QC Range	Flag
Be	9	89.830 µg/L	100.00	90.00-110.00	*Fail*
B	11	107.200 µg/L	100.00	90.00-110.00	Pass
Na	23	1031.000 µg/L	1000.00	900.00-1100.00	Pass
Mg	24	997.200 µg/L	1000.00	900.00-1100.00	Pass
Mg	25	1029.000 µg/L	1000.00	900.00-1100.00	Pass
Mg	26	1009.000 µg/L	1000.00	900.00-1100.00	Pass
Al	27	1013.000 µg/L	1000.00	900.00-1100.00	Pass
Si	28	930.400 µg/L	1000.00	900.00-1100.00	Pass
K	39	985.700 µg/L	1000.00	900.00-1100.00	Pass
Ca	43	1015.000 µg/L	1000.00	900.00-1100.00	Pass
Ca	44	999.600 µg/L	1000.00	900.00-1100.00	Pass
Ti	47	97.760 µg/L	100.00	90.00-110.00	Pass
V	51	97.230 µg/L	100.00	90.00-110.00	Pass
Cr	52	97.810 µg/L	100.00	90.00-110.00	Pass
Cr	53	93.750 µg/L	100.00	90.00-110.00	Pass
Fe	54	929.600 µg/L	1000.00	900.00-1100.00	Pass
Mn	55	95.010 µg/L	100.00	90.00-110.00	Pass
Fe	57	949.900 µg/L	1000.00	900.00-1100.00	Pass
Co	59	95.480 µg/L	100.00	90.00-110.00	Pass
Ni	60	95.510 µg/L	100.00	90.00-110.00	Pass
Cu	63	95.130 µg/L	100.00	90.00-110.00	Pass
Cu	65	95.840 µg/L	100.00	90.00-110.00	Pass
Zn	66	99.380 µg/L	100.00	90.00-110.00	Pass
Zn	67	97.090 µg/L	100.00	90.00-110.00	Pass
Zn	68	97.120 µg/L	100.00	90.00-110.00	Pass
As	75	98.750 µg/L	100.00	90.00-110.00	Pass
Se	82	98.490 µg/L	100.00	90.00-110.00	Pass
Sr	87	98.600 µg/L	100.00	90.00-110.00	Pass
Mo	95	93.330 µg/L	100.00	90.00-110.00	Pass
Mo	98	93.990 µg/L	100.00	90.00-110.00	Pass
Ag	107	95.860 µg/L	100.00	90.00-110.00	Pass
Ag	109	96.110 µg/L	100.00	90.00-110.00	Pass
Cd	111	94.420 µg/L	100.00	90.00-110.00	Pass
Cd	114	95.280 µg/L	100.00	90.00-110.00	Pass
Sn	120	95.810 µg/L	100.00	90.00-110.00	Pass

Sb 121	94.710 µg/L	100.00	90.00-110.00	Pass
Sb 123	95.040 µg/L	100.00	90.00-110.00	Pass
Ba 135	94.630 µg/L	100.00	90.00-110.00	Pass

CCV QC Report

File : D:\HPCHEM\1\DATA\Sep2502.16A\056CCV_D\056CCV_D#
Acquired : Sep 26 02 00:46 am using AcqMethod 6020.M
Operator : JWB
Sample Name: [STD-CCV]
Misc Info :
Vial Number: 1105
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: CCV
Dilution : 1.000000

Au 197	92.820 µg/L	100.00	90.00-110.00	Pass
Tl 205	95.570 µg/L	100.00	90.00-110.00	Pass
Pb 208	97.510 µg/L	100.00	90.00-110.00	Pass
U 238	97.200 µg/L	100.00	90.00-110.00	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	746319	942534	*Fail*
45	593146	647581	Pass
72	88022	84802	Pass
115	468012	432453	Pass
209	233752	229089	Pass

Internal Standards referenced to 002CALB.D#

1 Element Failures. Maximum Number of Failures Allowed (20)
1 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

Blank QC Report

File : D:\HPCHEM\1\DATA\Sep2502.16A\057CCB_.D\057CCB_.D#
Acquired : Sep 26 02 00:55 am using AcqMethod 6020.M
Operator : JWB
Sample Name: [CB]
Misc Info :
Vial Number: 1102
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : ---------
Sample Type: CCB
Dilution : 1.000000

Element	Concentration	CRDL Limit	Flag
Be 9	0.033 µg/L	1.00	Pass
B 11	0.255 µg/L	1.00	Pass
Na 23	0.793 µg/L	10.00	Pass
Mg 24	0.198 µg/L	10.00	Pass
Mg 25	0.189 µg/L	10.00	Pass
Mg 26	0.112 µg/L	10.00	Pass
Al 27	1.630 µg/L	10.00	Pass
Si 28	-68.480 µg/L	10.00	*Fail*
K 39	-8.565 µg/L	10.00	Pass
Ca 43	-5.917 µg/L	10.00	Pass
Ca 44	-2.113 µg/L	10.00	Pass
Ti 47	0.082 µg/L	1.00	Pass
V 51	0.312 µg/L	1.00	Pass
Cr 52	0.262 µg/L	1.00	Pass
Cr 53	12.430 µg/L	1.00	*Fail*
Fe 54	-70.890 µg/L	10.00	*Fail*
Mn 55	-0.053 µg/L	1.00	Pass
Fe 57	-7.182 µg/L	10.00	Pass
Co 59	-0.183 µg/L	1.00	Pass
Ni 60	0.000 µg/L	1.00	Pass
Cu 63	-0.015 µg/L	1.00	Pass
Cu 65	-0.018 µg/L	1.00	Pass
Zn 66	-0.047 µg/L	1.00	Pass
Zn 67	1.521 µg/L	1.00	*Fail*
Zn 68	-0.961 µg/L	1.00	Pass
As 75	0.446 µg/L	1.00	Pass
Se 82	0.319 µg/L	1.00	Pass
Sr 87	0.056 µg/L	1.00	Pass
Mo 95	0.223 µg/L	1.00	Pass
Mo 98	0.215 µg/L	1.00	Pass
Ag 107	0.029 µg/L	1.00	Pass
Ag 109	0.039 µg/L	1.00	Pass
Cd 111	0.023 µg/L	1.00	Pass
Cd 114	0.031 µg/L	1.00	Pass
Sn 120	0.002 µg/L	1.00	Pass
Sb 121	0.363 µg/L	1.00	Pass
Sb 123	0.064 µg/L	1.00	Pass

Ba 135	0.024 µg/L	1.00	Pass
Au 197	0.410 µg/L	1.00	Pass
Tl 205	0.289 µg/L	1.00	Pass

Blank QC Report

File : D:\HPCHEM\1\DATA\Sep2502.16A\057CCB_D\057CCB_D#
Acquired : Sep 26 02 00:55 am using AcqMethod 6020.M
Operator : JWB
Sample Name: [CB]
Misc Info :
Vial Number: 1102
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : ---------
Sample Type: CCB
Dilution : 1.000000

Pb 208	−0.156 µg/L	1.00	Pass
U 238	0.042 µg/L	1.00	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	746319	842970	Pass
45	593146	605036	Pass
72	88022	80112	Pass
115	468012	405784	Pass
209	233752	215142	Pass

Internal Standards referenced to 002CALB.D#

4 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

Interference Check A QC Report

File : D:\HPCHEM\1\DATA\Sep2502.16A\058ICSA.D\058ICSA.D#
Acquired : Sep 26 02 01:04 am using AcqMethod 6020.M
Operator : JWB
Sample Name: [ICSA]
Misc Info :
Vial Number: 1303
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: ICS_A_
Dilution : 1.000000

597

Element		Concentration	Expected	CRDL Range Conc	%Range Conc	Flag
Be	9	0.069 µg/L	0.00	-1.00-1.00	0-0	Pass
B	11	6.257 µg/L	0.00	-1.00-1.00	0-0	*Fail*
Na	23	----- µg/L	100000.00	1.00E+5-1.00E+5	8.00E+4-1.20E+5	OverRng
Mg	24	----- µg/L	100000.00	1.00E+5-1.00E+5	8.00E+4-1.20E+5	OverRng
Mg	25	136100.000 µg/L	100000.00	1.00E+5-1.00E+5	8.00E+4-1.20E+5	*Fail*
Mg	26	136600.000 µg/L	100000.00	1.00E+5-1.00E+5	8.00E+4-1.20E+5	*Fail*
Al	27	----- µg/L	100000.00	1.00E+5-1.00E+5	8.00E+4-1.20E+5	OverRng
Si	28	8.594 µg/L	0.00	-10.00-10.00	0-0	Pass
K	39	----- µg/L	100000.00	1.00E+5-1.00E+5	8.00E+4-1.20E+5	OverRng
Ca	43	146100.000 µg/L	100000.00	1.00E+5-1.00E+5	8.00E+4-1.20E+5	*Fail*
Ca	44	143800.000 µg/L	100000.00	1.00E+5-1.00E+5	8.00E+4-1.20E+5	*Fail*
Ti	47	2854.000 µg/L	2000.00	1999.00-2001.00	1600-2400	*Fail*
V	51	0.060 µg/L	0.00	-1.00-1.00	0-0	Pass
Cr	52	3.113 µg/L	0.00	-1.00-1.00	0-0	*Fail*
Cr	53	23.810 µg/L	0.00	-1.00-1.00	0-0	*Fail*
Fe	54	136900.000 µg/L	100000.00	1.00E+5-1.00E+5	8.00E+4-1.20E+5	*Fail*
Mn	55	2.346 µg/L	0.00	-1.00-1.00	0-0	*Fail*
Fe	57	138700.000 µg/L	100000.00	1.00E+5-1.00E+5	8.00E+4-1.20E+5	*Fail*
Co	59	0.256 µg/L	0.00	-1.00-1.00	0-0	Pass
Ni	60	4.232 µg/L	0.00	-1.00-1.00	0-0	*Fail*
Cu	63	13.150 µg/L	0.00	-1.00-1.00	0-0	*Fail*
Cu	65	6.575 µg/L	0.00	-1.00-1.00	0-0	*Fail*
Zn	66	48.630 µg/L	0.00	-1.00-1.00	0-0	*Fail*
Zn	67	161.100 µg/L	0.00	-1.00-1.00	0-0	*Fail*
Zn	68	41.400 µg/L	0.00	-1.00-1.00	0-0	*Fail*
As	75	-0.570 µg/L	0.00	-1.00-1.00	0-0	Pass
Se	82	-6.483 µg/L	0.00	-1.00-1.00	0-0	*Fail*
Sr	87	8.231 µg/L	0.00	-1.00-1.00	0-0	*Fail*
Mo	95	2881.000 µg/L	2000.00	1999.00-2001.00	1600-2400	*Fail*
Mo	98	2891.000 µg/L	2000.00	1999.00-2001.00	1600-2400	*Fail*
Ag	107	0.898 µg/L	0.00	-1.00-1.00	0-0	Pass
Ag	109	0.909 µg/L	0.00	-1.00-1.00	0-0	Pass
Cd	111	0.132 µg/L	0.00	-1.00-1.00	0-0	Pass
Cd	114	0.182 µg/L	0.00	-1.00-1.00	0-0	Pass
Sn	120	0.235 µg/L	0.00	-1.00-1.00	0-0	Pass
Sb	121	4.156 µg/L	0.00	-1.00-1.00	0-0	*Fail*
Sb	123	3.801 µg/L	0.00	-1.00-1.00	0-0	*Fail*

Ba 135	2.158 µg/L	0.00	-1.00-1.00	0-0	*Fail*
Au 197	0.432 µg/L	0.00	-1.00-1.00	0-0	Pass
Tl 205	-0.135 µg/L	0.00	-1.00-1.00	0-0	Pass

598

Interference Check A QC Report

File : D:\HPCHEM\1\DATA\Sep2502.16A\058ICSA.D\058ICSA.D#
Acquired : Sep 26 02 01:04 am using AcqMethod 6020.M
Operator : JWB
Sample Name: [ICSA]
Misc Info :
Vial Number: 1303
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: ICS_A_
Dilution : 1.000000

Pb 208	5.968 µg/L	0.00	-1.00-1.00	0-0	*Fail*
U 238	0.116 µg/L	0.00	-1.00-1.00	0-0	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	746319	673384	Pass
45	593146	580746	Pass
72	88022	112682	*Fail*
115	468012	412782	Pass
209	233752	206427	Pass

Internal Standards referenced to 002CALB.D#

25 Element Failures! Maximum Number of Allowed Failures (20) Exceeded!
1 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

Interference Check AB QC Report

599

File : D:\HPCHEM\1\DATA\Sep2502.16A\059ICSB.D\059ICSB.D#
Acquired : Sep 26 02 01:14 am using AcqMethod 6020.M
Operator : JWB
Sample Name: [ICSAB]
Misc Info :
Vial Number: 1304
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: ICS_AB
Dilution : 1.000000

Element		Concentration	Expected	CRDL Range Conc	%Range Conc	Flag
Be	9	0.038 µg/L	0.00	-1.00-1.00	0-0	Pass
B	11	6.069 µg/L	0.00	-1.00-1.00	0-0	*Fail*
Na	23	----- µg/L	100000.00	1.00E+5-1.00E+5	8.00E+4-1.20E+5	OverRng
Mg	24	----- µg/L	100000.00	1.00E+5-1.00E+5	8.00E+4-1.20E+5	OverRng
Mg	25	135800.000 µg/L	100000.00	1.00E+5-1.00E+5	8.00E+4-1.20E+5	*Fail*
Mg	26	138800.000 µg/L	100000.00	1.00E+5-1.00E+5	8.00E+4-1.20E+5	*Fail*
Al	27	----- µg/L	100000.00	1.00E+5-1.00E+5	8.00E+4-1.20E+5	OverRng
Si	28	7.757 µg/L	0.00	-10.00-10.00	0-0	Pass
K	39	----- µg/L	100000.00	1.00E+5-1.00E+5	8.00E+4-1.20E+5	OverRng
Ca	43	149700.000 µg/L	100000.00	1.00E+5-1.00E+5	8.00E+4-1.20E+5	*Fail*
Ca	44	149700.000 µg/L	100000.00	1.00E+5-1.00E+5	8.00E+4-1.20E+5	*Fail*
Ti	47	2953.000 µg/L	2000.00	1999.00-2001.00	1600-2400	*Fail*
V	51	-0.172 µg/L	0.00	-1.00-1.00	0-0	Pass
Cr	52	31.740 µg/L	20.00	19.00-21.00	16-24	*Fail*
Cr	53	55.600 µg/L	20.00	19.00-21.00	16-24	*Fail*
Fe	54	142800.000 µg/L	100000.00	1.00E+5-1.00E+5	8.00E+4-1.20E+5	*Fail*
Mn	55	31.440 µg/L	20.00	19.00-21.00	16-24	*Fail*
Fe	57	145500.000 µg/L	100000.00	1.00E+5-1.00E+5	8.00E+4-1.20E+5	*Fail*
Co	59	29.890 µg/L	20.00	19.00-21.00	16-24	*Fail*
Ni	60	32.110 µg/L	20.00	19.00-21.00	16-24	*Fail*
Cu	63	46.330 µg/L	20.00	19.00-21.00	16-24	*Fail*
Cu	65	39.730 µg/L	20.00	19.00-21.00	16-24	*Fail*
Zn	66	35.300 µg/L	20.00	19.00-21.00	16-24	*Fail*
Zn	67	151.800 µg/L	20.00	19.00-21.00	16-24	*Fail*
Zn	68	27.770 µg/L	20.00	19.00-21.00	16-24	*Fail*
As	75	21.160 µg/L	20.00	19.00-21.00	16-24	Pass
Se	82	-6.166 µg/L	0.00	-1.00-1.00	0-0	*Fail*
Sr	87	8.377 µg/L	0.00	-1.00-1.00	0-0	*Fail*
Mo	95	2966.000 µg/L	2000.00	1999.00-2001.00	1600-2400	*Fail*
Mo	98	2955.000 µg/L	2000.00	1999.00-2001.00	1600-2400	*Fail*
Ag	107	27.080 µg/L	20.00	19.00-21.00	16-24	*Fail*
Ag	109	26.820 µg/L	20.00	19.00-21.00	16-24	*Fail*
Cd	111	29.210 µg/L	20.00	19.00-21.00	16-24	*Fail*
Cd	114	28.690 µg/L	20.00	19.00-21.00	16-24	*Fail*
Sn	120	2.359 µg/L	0.00	-1.00-1.00	0-0	*Fail*
Sb	121	4.380 µg/L	0.00	-1.00-1.00	0-0	*Fail*
Sb	123	4.065 µg/L	0.00	-1.00-1.00	0-0	*Fail*

Ba 135	2.229 µg/L	0.00	-1.00-1.00	0-0	*Fail*
Au 197	0.137 µg/L	0.00	-1.00-1.00	0-0	Pass
Tl 205	-0.285 µg/L	0.00	-1.00-1.00	0-0	Pass

600

Interference Check AB QC Report

File : D:\HPCHEM\1\DATA\Sep2502.16A\059ICSB.D\059ICSB.D#
Acquired : Sep 26 02 01:14 am using AcqMethod 6020.M
Operator : JWB
Sample Name: [ICSAB]
Misc Info :
Vial Number: 1304
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: ICS_AB
Dilution : 1.000000

Pb 208	6.554 µg/L	0.00	-1.00-1.00	0-0	*Fail*
U 238	0.080 µg/L	0.00	-1.00-1.00	0-0	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	746319	658452	Pass
45	593146	555769	Pass
72	88022	113036	*Fail*
115	468012	404323	Pass
209	233752	203201	Pass

Internal Standards referenced to 002CALB.D#

31 Element Failures! Maximum Number of Allowed Failures (20) Exceeded!
1 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

Blank QC Report

601

File : D:\HPCHEM\1\DATA\Sep2502.16A\060BLNK.D\060BLNK.D#
Acquired : Sep 26 02 01:23 am using AcqMethod 6020.M
Operator : JWB
Sample Name: BLANK
Misc Info :
Vial Number: 1
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: BLANK
Dilution : 1.000000

Element		Concentration	CRDL Limit	Flag
Be	9	0.009 µg/L	1.00	Pass
B	11	1.896 µg/L	1.00	*Fail*
Na	23	72.310 µg/L	10.00	*Fail*
Mg	24	61.720 µg/L	10.00	*Fail*
Mg	25	61.340 µg/L	10.00	*Fail*
Mg	26	61.090 µg/L	10.00	*Fail*
Al	27	61.710 µg/L	10.00	*Fail*
Si	28	-115.800 µg/L	10.00	*Fail*
K	39	44.950 µg/L	10.00	*Fail*
Ca	43	53.840 µg/L	10.00	*Fail*
Ca	44	53.280 µg/L	10.00	*Fail*
Ti	47	2.065 µg/L	1.00	*Fail*
V	51	-0.750 µg/L	1.00	Pass
Cr	52	-1.001 µg/L	1.00	*Fail*
Cr	53	-12.170 µg/L	1.00	*Fail*
Fe	54	-230.500 µg/L	10.00	*Fail*
Mn	55	-0.173 µg/L	1.00	Pass
Fe	57	49.250 µg/L	10.00	*Fail*
Co	59	-0.333 µg/L	1.00	Pass
Ni	60	-0.024 µg/L	1.00	Pass
Cu	63	0.053 µg/L	1.00	Pass
Cu	65	0.053 µg/L	1.00	Pass
Zn	66	-0.007 µg/L	1.00	Pass
Zn	67	-0.413 µg/L	1.00	Pass
Zn	68	-1.088 µg/L	1.00	*Fail*
As	75	0.082 µg/L	1.00	Pass
Se	82	0.273 µg/L	1.00	Pass
Sr	87	-0.015 µg/L	1.00	Pass
Mo	95	3.598 µg/L	1.00	*Fail*
Mo	98	3.579 µg/L	1.00	*Fail*
Ag	107	-0.021 µg/L	1.00	Pass
Ag	109	-0.008 µg/L	1.00	Pass
Cd	111	0.029 µg/L	1.00	Pass
Cd	114	0.035 µg/L	1.00	Pass
Sn	120	-0.128 µg/L	1.00	Pass
Sb	121	0.269 µg/L	1.00	Pass
Sb	123	-0.054 µg/L	1.00	Pass

Ba 135	-0.006 µg/L	1.00	Pass
Au 197	0.053 µg/L	1.00	Pass
Tl 205	-0.356 µg/L	1.00	Pass

Blank QC Report

602

File : D:\HPCHEM\1\DATA\Sep2502.16A\060BLNK.D\060BLNK.D#
Acquired : Sep 26 02 01:23 am using AcqMethod 6020.M
Operator : JWB
Sample Name: BLANK
Misc Info :
Vial Number: 1
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: BLANK
Dilution : 1.000000

Pb 208	-0.317 µg/L	1.00	Pass
U 238	-0.013 µg/L	1.00	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	746319	789268	Pass
45	593146	639257	Pass
72	88022	90396	Pass
115	468012	462831	Pass
209	233752	254428	Pass

Internal Standards referenced to 002CALB.D#

18 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

Sample QC Report

603

File : D:\HPCHEM\1\DATA\Sep2502.16A\061SMPL.D\061SMPL.D#
Acquired : Sep 26 02 01:32 am using AcqMethod 6020.M
Operator : JWB
Sample Name: M021282-023
Misc Info : ,
Vial Number: 2403
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 10.000000

Element		Concentration	Cal Conc	LRS Conc	Flag
Be	9	11.220 µg/L	200.000	1000	Pass
B	11	24.650 µg/L	200.000	0	Pass
Na	23	2193.000 µg/L	10000.000	20000	Pass
Mg	24	26450.000 µg/L	10000.000	20000	Pass
Mg	25	27310.000 µg/L	10000.000	20000	Pass
Mg	26	26600.000 µg/L	10000.000	20000	Pass
Al	27	166000.000 µg/L	10000.000	20000	>Cal std
Si	28	2689.000 µg/L	10000.000	0	Pass
K	39	17990.000 µg/L	10000.000	20000	Pass
Ca	43	29350.000 µg/L	10000.000	20000	Pass
Ca	44	29060.000 µg/L	10000.000	20000	Pass
Ti	47	4966.000 µg/L	200.000	1000	>Cal std
V	51	239.300 µg/L	200.000	1000	Pass
Cr	52	774.100 µg/L	200.000	1000	Pass
Cr	53	667.300 µg/L	200.000	1000	Pass
Fe	54	182200.000 µg/L	10000.000	20000	>Cal std
Mn	55	3774.000 µg/L	200.000	1000	>Cal std
Fe	57	181900.000 µg/L	10000.000	20000	>Cal std
Co	59	40.530 µg/L	200.000	1000	Pass
Ni	60	87.520 µg/L	200.000	1000	Pass
Cu	63	144.600 µg/L	200.000	1000	Pass
Cu	65	146.300 µg/L	200.000	1000	Pass
Zn	66	937.000 µg/L	200.000	1000	Pass
Zn	67	983.300 µg/L	200.000	1000	Pass
Zn	68	849.900 µg/L	200.000	1000	Pass
As	75	50.460 µg/L	200.000	1000	Pass
Se	82	13.110 µg/L	200.000	1000	Pass
Sr	87	1081.000 µg/L	200.000	1000	Pass
Mo	95	39.210 µg/L	200.000	1000	Pass
Mo	98	38.820 µg/L	200.000	1000	Pass
Ag	107	29.510 µg/L	200.000	1000	Pass
Ag	109	29.910 µg/L	200.000	1000	Pass
Cd	111	7.484 µg/L	200.000	1000	Pass
Cd	114	3.665 µg/L	200.000	1000	Pass
Sn	120	50.270 µg/L	200.000	1000	Pass
Sb	121	3.435 µg/L	200.000	1000	Pass
Sb	123	0.195 µg/L	200.000	1000	Pass

Ba 135	1193.000 µg/L	200.000	1000	Pass
Au 197	0.991 µg/L	200.000	0	Pass
Tl 205	-0.827 µg/L	200.000	1000	Pass

604

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2502.16A\061SMPL.D\061SMPL.D#
Acquired : Sep 26 02 01:32 am using AcqMethod 6020.M
Operator : JWB
Sample Name: M021282-023
Misc Info : ,
Vial Number: 2403
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 10.000000

Pb 208	291.700 µg/L	200.000	1000	Pass
U 238	14.420 µg/L	200.000	1000	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	746319	893819	Pass
45	593146	697294	Pass
72	88022	86397	Pass
115	468012	406933	Pass
209	233752	226796	Pass

Internal Standards referenced to 002CALB.D#

5 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

Sample QC Report

605

File : D:\HPCHEM\1\DATA\Sep2502.16A\062SMPL.D\062SMPL.D#
Acquired : Sep 26 02 01:41 am using AcqMethod 6020.M
Operator : JWB
Sample Name: M021282-024
Misc Info : ,
Vial Number: 2405
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 10.000000

Element		Concentration	Cal Conc	LRS Conc	Flag
Be	9	8.487 µg/L	200.000	1000	Pass
B	11	13.490 µg/L	200.000	0	Pass
Na	23	2874.000 µg/L	10000.000	20000	Pass
Mg	24	13710.000 µg/L	10000.000	20000	Pass
Mg	25	13970.000 µg/L	10000.000	20000	Pass
Mg	26	13590.000 µg/L	10000.000	20000	Pass
Al	27	92170.000 µg/L	10000.000	20000	Pass
Si	28	3398.000 µg/L	10000.000	0	Pass
K	39	12210.000 µg/L	10000.000	20000	Pass
Ca	43	18250.000 µg/L	10000.000	20000	Pass
Ca	44	17880.000 µg/L	10000.000	20000	Pass
Ti	47	3154.000 µg/L	200.000	1000	>Cal std
V	51	86.860 µg/L	200.000	1000	Pass
Cr	52	50.220 µg/L	200.000	1000	Pass
Cr	53	-57.750 µg/L	200.000	1000	Pass
Fe	54	119700.000 µg/L	10000.000	20000	>Cal std
Mn	55	3208.000 µg/L	200.000	1000	>Cal std
Fe	57	117800.000 µg/L	10000.000	20000	>Cal std
Co	59	11.260 µg/L	200.000	1000	Pass
Ni	60	39.040 µg/L	200.000	1000	Pass
Cu	63	37.260 µg/L	200.000	1000	Pass
Cu	65	39.330 µg/L	200.000	1000	Pass
Zn	66	577.200 µg/L	200.000	1000	Pass
Zn	67	582.700 µg/L	200.000	1000	Pass
Zn	68	521.400 µg/L	200.000	1000	Pass
As	75	20.910 µg/L	200.000	1000	Pass
Se	82	13.270 µg/L	200.000	1000	Pass
Sr	87	668.000 µg/L	200.000	1000	Pass
Mo	95	35.200 µg/L	200.000	1000	Pass
Mo	98	35.660 µg/L	200.000	1000	Pass
Ag	107	0.056 µg/L	200.000	1000	Pass
Ag	109	0.070 µg/L	200.000	1000	Pass
Cd	111	3.502 µg/L	200.000	1000	Pass
Cd	114	0.228 µg/L	200.000	1000	Pass
Sn	120	34.080 µg/L	200.000	1000	Pass
Sb	121	3.226 µg/L	200.000	1000	Pass
Sb	123	-0.078 µg/L	200.000	1000	Pass

Ba 135	615.100 µg/L	200.000	1000	Pass
Au 197	-0.280 µg/L	200.000	0	Pass
Tl 205	-1.447 µg/L	200.000	1000	Pass

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2502.16A\062SMPL.D\062SMPL.D#
Acquired : Sep 26 02 01:41 am using AcqMethod 6020.M
Operator : JWB
Sample Name: M021282-024
Misc Info : ,
Vial Number: 2405
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 10.000000

Pb 208	193.300 µg/L	200.000	1000	Pass
U 238	8.183 µg/L	200.000	1000	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	746319	916074	*Fail*
45	593146	676026	Pass
72	88022	85102	Pass
115	468012	406113	Pass
209	233752	221393	Pass

Internal Standards referenced to 002CALB.D#

4 Element Failures. Maximum Number of Failures Allowed (20)
1 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

Sample QC Report

607

File : D:\HPCHEM\1\DATA\Sep2502.16A\063SMPL.D\063SMPL.D#
Acquired : Sep 26 02 01:51 am using AcqMethod 6020.M
Operator : JWB
Sample Name: M021282-025
Misc Info : ,
Vial Number: 2407
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 10.000000

Element		Concentration	Cal Conc	LRS Conc	Flag
Be	9	8.611 µg/L	200.000	1000	Pass
B	11	15.560 µg/L	200.000	0	Pass
Na	23	2778.000 µg/L	10000.000	20000	Pass
Mg	24	13850.000 µg/L	10000.000	20000	Pass
Mg	25	13930.000 µg/L	10000.000	20000	Pass
Mg	26	13660.000 µg/L	10000.000	20000	Pass
Al	27	98170.000 µg/L	10000.000	20000	Pass
Si	28	5190.000 µg/L	10000.000	0	Pass
K	39	12660.000 µg/L	10000.000	20000	Pass
Ca	43	20330.000 µg/L	10000.000	20000	Pass
Ca	44	19920.000 µg/L	10000.000	20000	Pass
Ti	47	2856.000 µg/L	200.000	1000	>Cal std
V	51	94.800 µg/L	200.000	1000	Pass
Cr	52	52.650 µg/L	200.000	1000	Pass
Cr	53	-47.040 µg/L	200.000	1000	Pass
Fe	54	109500.000 µg/L	10000.000	20000	>Cal std
Mn	55	3293.000 µg/L	200.000	1000	>Cal std
Fe	57	107900.000 µg/L	10000.000	20000	>Cal std
Co	59	16.900 µg/L	200.000	1000	Pass
Ni	60	43.960 µg/L	200.000	1000	Pass
Cu	63	37.740 µg/L	200.000	1000	Pass
Cu	65	38.950 µg/L	200.000	1000	Pass
Zn	66	488.800 µg/L	200.000	1000	Pass
Zn	67	504.500 µg/L	200.000	1000	Pass
Zn	68	425.800 µg/L	200.000	1000	Pass
As	75	28.650 µg/L	200.000	1000	Pass
Se	82	13.800 µg/L	200.000	1000	Pass
Sr	87	686.800 µg/L	200.000	1000	Pass
Mo	95	26.570 µg/L	200.000	1000	Pass
Mo	98	25.890 µg/L	200.000	1000	Pass
Ag	107	0.006 µg/L	200.000	1000	Pass
Ag	109	0.023 µg/L	200.000	1000	Pass
Cd	111	2.791 µg/L	200.000	1000	Pass
Cd	114	0.444 µg/L	200.000	1000	Pass
Sn	120	36.550 µg/L	200.000	1000	Pass
Sb	121	3.058 µg/L	200.000	1000	Pass
Sb	123	-0.035 µg/L	200.000	1000	Pass

Ba 135	662.500 µg/L	200.000	1000	Pass
Au 197	-0.297 µg/L	200.000	0	Pass
Tl 205	-1.754 µg/L	200.000	1000	Pass

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2502.16A\063SMPL.D\063SMPL.D#
Acquired : Sep 26 02 01:51 am using AcqMethod 6020.M
Operator : JWB
Sample Name: M021282-025
Misc Info : ,
Vial Number: 2407
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 10.000000

Pb 208	183.400 µg/L	200.000	1000	Pass
U 238	8.251 µg/L	200.000	1000	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	746319	966645	*Fail*
45	593146	694995	Pass
72	88022	86240	Pass
115	468012	414889	Pass
209	233752	225558	Pass

Internal Standards referenced to 002CALB.D#

4 Element Failures. Maximum Number of Failures Allowed (20)
1 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

Sample QC Report

609

File : D:\HPCHEM\1\DATA\Sep2502.16A\064SMPL.D\064SMPL.D#
Acquired : Sep 26 02 02:00 am using AcqMethod 6020.M
Operator : JWB
Sample Name: M021282-026
Misc Info : ,
Vial Number: 2409
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 10.000000

Element		Concentration	Cal Conc	LRS Conc	Flag
Be	9	10.300 µg/L	200.000	1000	Pass
B	11	30.860 µg/L	200.000	0	Pass
Na	23	2251.000 µg/L	10000.000	20000	Pass
Mg	24	25380.000 µg/L	10000.000	20000	Pass
Mg	25	24870.000 µg/L	10000.000	20000	Pass
Mg	26	24180.000 µg/L	10000.000	20000	Pass
Al	27	154600.000 µg/L	10000.000	20000	>Cal std
Si	28	12730.000 µg/L	10000.000	0	Pass
K	39	21090.000 µg/L	10000.000	20000	Pass
Ca	43	41980.000 µg/L	10000.000	20000	Pass
Ca	44	41870.000 µg/L	10000.000	20000	Pass
Ti	47	2819.000 µg/L	200.000	1000	>Cal std
V	51	166.400 µg/L	200.000	1000	Pass
Cr	52	106.700 µg/L	200.000	1000	Pass
Cr	53	27.640 µg/L	200.000	1000	Pass
Fe	54	106600.000 µg/L	10000.000	20000	>Cal std
Mn	55	2630.000 µg/L	200.000	1000	>Cal std
Fe	57	105900.000 µg/L	10000.000	20000	>Cal std
Co	59	30.670 µg/L	200.000	1000	Pass
Ni	60	69.190 µg/L	200.000	1000	Pass
Cu	63	59.410 µg/L	200.000	1000	Pass
Cu	65	60.670 µg/L	200.000	1000	Pass
Zn	66	408.700 µg/L	200.000	1000	Pass
Zn	67	493.200 µg/L	200.000	1000	Pass
Zn	68	334.700 µg/L	200.000	1000	Pass
As	75	27.270 µg/L	200.000	1000	Pass
Se	82	13.880 µg/L	200.000	1000	Pass
Sr	87	1107.000 µg/L	200.000	1000	Pass
Mo	95	10.770 µg/L	200.000	1000	Pass
Mo	98	11.070 µg/L	200.000	1000	Pass
Ag	107	1.600 µg/L	200.000	1000	Pass
Ag	109	1.539 µg/L	200.000	1000	Pass
Cd	111	4.043 µg/L	200.000	1000	Pass
Cd	114	0.059 µg/L	200.000	1000	Pass
Sn	120	19.660 µg/L	200.000	1000	Pass
Sb	121	3.132 µg/L	200.000	1000	Pass
Sb	123	0.018 µg/L	200.000	1000	Pass

Ba 135	1151.000 µg/L	200.000	1000	Pass
Au 197	0.189 µg/L	200.000	0	Pass
Tl 205	-2.460 µg/L	200.000	1000	Pass

Sample QC Report

610

File : D:\HPCHEM\1\DATA\Sep2502.16A\064SMPL.D\064SMPL.D#
Acquired : Sep 26 02 02:00 am using AcqMethod 6020.M
Operator : JWB
Sample Name: M021282-026
Misc Info : ,
Vial Number: 2409
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: --------
Dilution : 10.000000

Pb 208	194.800 µg/L	200.000	1000	Pass
U 238	10.900 µg/L	200.000	1000	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	746319	947859	*Fail*
45	593146	708783	Pass
72	88022	86122	Pass
115	468012	412031	Pass
209	233752	224669	Pass

Internal Standards referenced to 002CALB.D#

5 Element Failures. Maximum Number of Failures Allowed (20)
1 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

CCV QC Report

File : D:\HPCHEM\1\DATA\Sep2502.16A\065CCV_D\065CCV_.D#
Acquired : Sep 26 02 02:09 am using AcqMethod 6020.M
Operator : JWB
Sample Name: [STD-CCV]
Misc Info :
Vial Number: 1105
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: CCV
Dilution : 1.000000

611

CCV Mix #1

Element	Concentration	Expected	QC Range	Flag
Be 9	91.150 µg/L	100.00	90.00-110.00	Pass
B 11	113.300 µg/L	100.00	90.00-110.00	*Fail*
Na 23	1068.000 µg/L	1000.00	900.00-1100.00	Pass
Mg 24	1048.000 µg/L	1000.00	900.00-1100.00	Pass
Mg 25	1075.000 µg/L	1000.00	900.00-1100.00	Pass
Mg 26	1031.000 µg/L	1000.00	900.00-1100.00	Pass
Al 27	1024.000 µg/L	1000.00	900.00-1100.00	Pass
Si 28	928.900 µg/L	1000.00	900.00-1100.00	Pass
K 39	1010.000 µg/L	1000.00	900.00-1100.00	Pass
Ca 43	1042.000 µg/L	1000.00	900.00-1100.00	Pass
Ca 44	1023.000 µg/L	1000.00	900.00-1100.00	Pass
Ti 47	99.670 µg/L	100.00	90.00-110.00	Pass
V 51	98.800 µg/L	100.00	90.00-110.00	Pass
Cr 52	99.440 µg/L	100.00	90.00-110.00	Pass
Cr 53	87.870 µg/L	100.00	90.00-110.00	*Fail*
Fe 54	938.100 µg/L	1000.00	900.00-1100.00	Pass
Mn 55	94.240 µg/L	100.00	90.00-110.00	Pass
Fe 57	953.200 µg/L	1000.00	900.00-1100.00	Pass
Co 59	93.840 µg/L	100.00	90.00-110.00	Pass
Ni 60	93.060 µg/L	100.00	90.00-110.00	Pass
Cu 63	92.800 µg/L	100.00	90.00-110.00	Pass
Cu 65	93.910 µg/L	100.00	90.00-110.00	Pass
Zn 66	98.750 µg/L	100.00	90.00-110.00	Pass
Zn 67	96.370 µg/L	100.00	90.00-110.00	Pass
Zn 68	96.830 µg/L	100.00	90.00-110.00	Pass
As 75	98.750 µg/L	100.00	90.00-110.00	Pass
Se 82	99.110 µg/L	100.00	90.00-110.00	Pass
Sr 87	100.100 µg/L	100.00	90.00-110.00	Pass
Mo 95	97.430 µg/L	100.00	90.00-110.00	Pass
Mo 98	97.400 µg/L	100.00	90.00-110.00	Pass
Ag 107	98.050 µg/L	100.00	90.00-110.00	Pass
Ag 109	98.040 µg/L	100.00	90.00-110.00	Pass
Cd 111	96.000 µg/L	100.00	90.00-110.00	Pass
Cd 114	96.540 µg/L	100.00	90.00-110.00	Pass
Sn 120	97.200 µg/L	100.00	90.00-110.00	Pass

Sb 121	95.740 µg/L	100.00	90.00-110.00	Pass
Sb 123	96.280 µg/L	100.00	90.00-110.00	Pass
Ba 135	95.490 µg/L	100.00	90.00-110.00	Pass

613

CCV QC Report

File : D:\HPCHEM\1\DATA\Sep2502.16A\065CCV_D\065CCV_D#
Acquired : Sep 26 02 02:09 am using AcqMethod 6020.M
Operator : JWB
Sample Name: [STD-CCV]
Misc Info :
Vial Number: 1105
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: CCV
Dilution : 1.000000

Au 197	92.530 µg/L	100.00	90.00-110.00	Pass
Tl 205	96.930 µg/L	100.00	90.00-110.00	Pass
Pb 208	98.380 µg/L	100.00	90.00-110.00	Pass
U 238	99.580 µg/L	100.00	90.00-110.00	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	746319	981596	*Fail*
45	593146	654146	Pass
72	88022	82504	Pass
115	468012	410621	Pass
209	233752	221679	Pass

Internal Standards referenced to 002CALB.D#

2 Element Failures. Maximum Number of Failures Allowed (20)
1 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

Blank QC Report

614

File : D:\HPCHEM\1\DATA\Sep2502.16A\066CCB_.D\066CCB_.D#
Acquired : Sep 26 02 02:18 am using AcqMethod 6020.M
Operator : JWB
Sample Name: [CB]
Misc Info :
Vial Number: 1102
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: CCB
Dilution : 1.000000

Element	Concentration	CRDL Limit	Flag
Be 9	0.026 µg/L	1.00	Pass
B 11	0.291 µg/L	1.00	Pass
Na 23	3.693 µg/L	10.00	Pass
Mg 24	1.701 µg/L	10.00	Pass
Mg 25	1.727 µg/L	10.00	Pass
Mg 26	1.395 µg/L	10.00	Pass
Al 27	4.315 µg/L	10.00	Pass
Si 28	-90.870 µg/L	10.00	*Fail*
K 39	-8.841 µg/L	10.00	Pass
Ca 43	-3.048 µg/L	10.00	Pass
Ca 44	-0.584 µg/L	10.00	Pass
Ti 47	0.194 µg/L	1.00	Pass
V 51	0.549 µg/L	1.00	Pass
Cr 52	0.152 µg/L	1.00	Pass
Cr 53	3.839 µg/L	1.00	*Fail*
Fe 54	-97.680 µg/L	10.00	*Fail*
Mn 55	-0.079 µg/L	1.00	Pass
Fe 57	-7.549 µg/L	10.00	Pass
Co 59	-0.328 µg/L	1.00	Pass
Ni 60	0.013 µg/L	1.00	Pass
Cu 63	-0.008 µg/L	1.00	Pass
Cu 65	-0.013 µg/L	1.00	Pass
Zn 66	-0.059 µg/L	1.00	Pass
Zn 67	1.047 µg/L	1.00	*Fail*
Zn 68	-1.149 µg/L	1.00	*Fail*
As 75	0.769 µg/L	1.00	Pass
Se 82	0.407 µg/L	1.00	Pass
Sr 87	0.050 µg/L	1.00	Pass
Mo 95	0.498 µg/L	1.00	Pass
Mo 98	0.473 µg/L	1.00	Pass
Ag 107	0.041 µg/L	1.00	Pass
Ag 109	0.042 µg/L	1.00	Pass
Cd 111	0.034 µg/L	1.00	Pass
Cd 114	0.050 µg/L	1.00	Pass
Sn 120	-0.046 µg/L	1.00	Pass
Sb 121	0.365 µg/L	1.00	Pass
Sb 123	0.062 µg/L	1.00	Pass

Ba 135	0.046 µg/L	1.00	Pass
Au 197	0.437 µg/L	1.00	Pass
Tl 205	0.164 µg/L	1.00	Pass

Blank QC Report

File : D:\HPCHEM\1\DATA\Sep2502.16A\066CCB_.D\066CCB_.D#
Acquired : Sep 26 02 02:18 am using AcqMethod 6020.M
Operator : JWB
Sample Name: [CB]
Misc Info :
Vial Number: 1102
CurrentMeth: D:\HPCHEM\1\METHODS\6020.M
BkgFile : --------
Sample Type: CCB
Dilution : 1.000000

Pb 208	−0.306 µg/L	1.00	Pass
U 238	0.046 µg/L	1.00	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
6	746319	928480	*Fail*
45	593146	647691	Pass
72	88022	80974	Pass
115	468012	401923	Pass
209	233752	218266	Pass

Internal Standards referenced to 002CALB.D#

5 Element Failures. Maximum Number of Failures Allowed (20)
1 ISTD Failures. Maximum Number of ISTD Failures Allowed (10)

MT.2002. 1133

ASSAIGAI ANALYTICAL LABORATORIES, INC.

Metals Cover Sheet

	Analyst			Reviewer		
Final Report Printout	Y	N	NA	Y	N	NA
Raw Data	Y	N	NA	Y	N	NA
Standard Summary Sheet	Y	N	NA	Y	N	NA

Batch	NCR	Parabellum		Digestion Log		TCLP Log	
	Analyst / Reviewer	Analyst	Reviewer	Analyst	Reviewer	Analyst	Reviewer
M021282	Y-N-NA / Y-N-NA NCR # MT-02-224	Y-N-NA	Y-N-NA	Y-N-NA	Y-N-NA	Y-N-NA	Y-N-NA
M021283	Y-N-NA / Y-N-NA NCR # MT-02-221	Y-N-NA	Y-N-NA	Y-N-NA	Y-N-NA	Y-N-NA	Y-N-NA
	Y-N-NA / Y-N-NA NCR #	Y-N-NA	Y-N-NA	Y-N-NA	Y-N-NA	Y-N-NA	Y-N-NA
	Y-N-NA / Y-N-NA NCR #	Y-N-NA	Y-N-NA	Y-N-NA	Y-N-NA	Y-N-NA	Y-N-NA
	Y-N-NA / Y-N-NA NCR #	Y-N-NA	Y-N-NA	Y-N-NA	Y-N-NA	Y-N-NA	Y-N-NA

Dept. Funnel/Prepared By [signature]
Date 10/1/02

Final Funnel/Reviewed By [signature] SB 10/1/02
Date 10/1/02

Comments

QC Review

MT-02-224

Assaigai Analytical Laboratories, Inc.
QC NON-CONFORMANCE REPORT (NCR)

Preparation/Analysis	6020
Batch ID #	M021282, M021283

Out-of-Control Event Codes

1 Initial Calibration Verification (ICV)	6 Laboratory Control Sample (LCS) Precision (RPD)
2 Calibration Blank (CB)	7 Matrix Spike (MS) Accuracy (%Rec)
3 Continuing Calibration Verification (CCV)	8 Matrix Spike (MS) Precision (RPD)
4 Method Blank (MB)	9 Sample Duplicate
5 Laboratory Control Sample (LCS) Accuracy (%Rec)	10 Other

Rev:	Groups	Analyst	Date	Review	Date
	MT.2002.1133	CJ	10/1/02	SB	10/1/02
Event Codes: 1					
Workorders: 9364, 9373					

Rev:	Groups	Analyst	Date	Review	Date
Event Codes:					
Workorders:					

Rev:	Groups	Analyst	Date	Review	Date
Event Codes:					
Workorders:					

Rev:	Groups	Analyst	Date	Review	Date
Event Codes:					
Workorders:					

COPY

QC Non-Conformance Report (NCR)

NCR# MT-02-224

SW846 6020

Batch ID:	**M021282, M021283**
Group:	**MT.2002.1133**
Date:	**10/01/2002**
Work Orders:	**0209364, 0209373**

EVENT # 1:

The ICV was inadvertently spiked at 100 ppb instead of the usual 120 ppb therefore the ICV was flagged as being out of criteria.

ACTION # 1:

The ICV recovery for the 100 ppb spike is 106% which is within the ± 10% criteria. All data is valid as reported.

COPY

Prepared by Craig Jones
10/01/2002

CJ 10/1/02

SB 10/1/02

Assaigai Analytical Laboratories, Inc.

Run Group Cover Sheet

Run Group	MT.2002.1133
Reviewed:	10/1/2002 12:53:39 PM
By:	CWJ

Calc Method	6020
Import Source	HPC02
Instrument:	HP4500 - Instru

Calibration Mode	NATIVE
Calculation Mode	NORMAL
Spike Dilution Mode	NORMAL

RAW QUANT FLAGS	
a	*all result information keyed in manually*
d	*data from instrument keyed in manually*
i	*integration of peak performed manually*
q	*qdelete of peak*
r	*response factor postquant adjustment*

Assalgal Analytical Laboratories, Inc.

Laboratory Logbook

Run Group MT.2002.1133
Import Source HPC02
Instrument: HP4500 - Instru

o	Run#	Acquisition Date	Data File	Vial	e	Sample Run ID	Run DF	Comment	see data file(s)	Analyst
x	1	09-27-02 16:17:00	002CALB.D#	1		CAL BLANK	1			JWB
x	2	09-27-02 16:20:00	003CALI.D#	1		0.2/1/10 CAL	1			JWB
x	3	09-27-02 16:24:00	004CALI.D#	1		2/10/100 CAL	1			JWB
x	4	09-27-02 16:27:00	005CALI.D#	1		10/100/1000 CAL	1			JWB
x	5	09-27-02 16:31:00	006CALI.D#	1		-/200/10000 CAL	1			JWB
	6	09-27-02 16:35:00	007CCB_.D#	1		[CB]	1			JWB
	7	09-27-02 16:38:00	008ICV_.D#	1		[STD-ICV]	1			JWB
x	8	09-27-02 16:42:00	009ICSA.D#	1		[ICSA]	1			JWB
x	9	09-27-02 16:45:00	010ICSB.D#	1		[ICSAB]	1			JWB
x	10	09-27-02 16:49:00	011CCB_.D#	1		BLANK	1			JWB
	11	09-27-02 16:52:00	012SMPL.D#	1		M021282-001	1 ,			JWB
	12	09-27-02 16:55:00	013SMPL.D#	1		M021282-004	1 ,			JWB
	13	09-27-02 16:59:00	014SMPL.D#	1		M021282-005	1 ,			JWB
	14	09-27-02 17:03:00	015SMPL.D#	1		M021282-006	10 ,			JWB
	15	09-27-02 17:06:00	016SMPL.D#	1		M021282-009	10 ,			JWB
	16	09-27-02 17:10:00	017SMPL.D#	1		M021282-010	10 ,			JWB
	17	09-27-02 17:13:00	018SMPL.D#	1		M021282-011	10 ,			JWB
	18	09-27-02 17:17:00	019SMPL.D#	1		M021282-012	10 ,			JWB
	19	09-27-02 17:20:00	020CCV_.D#	1		[STD-CCV]	1			JWB
	20	09-27-02 17:24:00	021CCB_.D#	1		[CB]	1			JWB
	21	09-27-02 17:27:00	022SMPL.D#	1		M021282-013	10 ,			JWB
	22	09-27-02 17:31:00	023SMPL.D#	1		M021282-014	10 ,			JWB
	23	09-27-02 17:34:00	024SMPL.D#	1		M021282-015	10 ,			JWB
	24	09-27-02 17:38:00	025SMPL.D#	1		M021282-016	10 ,			JWB
	25	09-27-02 17:41:00	026SMPL.D#	1		M021282-017	10 ,			JWB
	26	09-27-02 17:45:00	027SMPL.D#	1		M021282-018	10 ,			JWB
	27	09-27-02 17:48:00	028SMPL.D#	1		M021282-019	10 ,			JWB
	28	09-27-02 17:52:00	029SMPL.D#	1		M021282-020	10 ,			JWB
	29	09-27-02 17:55:00	030SMPL.D#	1		M021282-021	10 ,			JWB
	30	09-27-02 17:59:00	031SMPL.D#	1		M021282-022	10 ,			JWB
	31	09-27-02 18:02:00	032CCV_.D#	1		[STD-CCV]	1			JWB
	32	09-27-02 18:06:00	033CCB_.D#	1		[CB]	1			JWB
x	33	09-30-02 14:33:00	002CALB.D#	1		CAL BLANK	1			CJ
x	34	09-30-02 14:37:00	003CALI.D#	1		0.2/1/10 CAL	1			CJ
x	35	09-30-02 14:40:00	004CALI.D#	1		2/10/100 CAL	1			CJ

Laboratory Logbook

Run Group MT.2002.1133
Import Source HPC02
Instrument: HP4500 - Instru

o	Run#	Acquisition Date	Data File	Vial	e	Sample Run ID	Run DF	Comment	see data file(s)	Analyst
x	36	09-30-02 14:44:00	005CALI.D#	1		10/100/1000 CAL	1			CJ
x	37	09-30-02 14:47:00	006CALI.D#	1		-/200/10000 CAL	1			CJ
	38	09-30-02 14:51:00	007CCB_.D#	1		[CB]	1			CJ
	39	09-30-02 14:55:00	008ICV_.D#	1		[STD-ICV]	1			CJ
x	40	09-30-02 14:58:00	009ICSA.D#	1		[ICSA]	1			CJ
x	41	09-30-02 15:02:00	010ICSB.D#	1		[ICSAB]	1			CJ
x	42	09-30-02 15:06:00	011CCB_.D#	1		BLANK	1			CJ
	43	09-30-02 15:09:00	012SMPL.D#	1		M021282-022	10 ,			CJ
	44	09-30-02 15:13:00	013SMPL.D#	1		M021282-023	10 ,			CJ
	45	09-30-02 15:16:00	014SMPL.D#	1		M021282-024	10 ,			CJ
	46	09-30-02 15:20:00	015SMPL.D#	1		M021282-025	10 ,			CJ
	47	09-30-02 15:24:00	016SMPL.D#	1		M021282-026	10 ,			CJ
	48	09-30-02 15:27:00	017SMPL.D#	1		[STD-CCV]	1 ,			CJ
	49	09-30-02 15:31:00	018SMPL.D#	1		[CB]	1 ,			CJ
x	50	10-01-02 9:14:00	002CALB.D#	1		CAL BLANK	1			CJ
x	51	10-01-02 9:18:00	003CALI.D#	1		0.2/1/10 CAL	1			CJ
x	52	10-01-02 9:21:00	004CALI.D#	1		2/10/100 CAL	1			CJ
x	53	10-01-02 9:25:00	005CALI.D#	1		10/100/1000 CAL	1			CJ
x	54	10-01-02 9:29:00	006CALI.D#	1		-/200/10000 CAL	1			CJ
	55	10-01-02 9:32:00	007CCB_.D#	1		[CB]	1			CJ
	56	10-01-02 9:36:00	008ICV_.D#	1		[STD-ICV]	1			CJ
x	57	10-01-02 9:39:00	009ICSA.D#	1		[ICSA]	1			CJ
x	58	10-01-02 9:43:00	010ICSB.D#	1		[ICSAB]	1			CJ
x	59	10-01-02 9:47:00	011CCB_.D#	1		BLANK	1			CJ
	60	10-01-02 9:50:00	012SMPL.D#	1		M021283-001	1 ,			CJ
	61	10-01-02 9:54:00	013SMPL.D#	1		M021283-004	1 ,			CJ
	62	10-01-02 9:57:00	014SMPL.D#	1		M021283-005	1 ,			CJ
	63	10-01-02 10:01:00	015SMPL.D#	1		M021283-006	10 ,			CJ
	64	10-01-02 10:05:00	016SMPL.D#	1		M021283-009	10 ,			CJ
	65	10-01-02 10:08:00	017SMPL.D#	1		[STD-CCV]	1 ,			CJ
	66	10-01-02 10:12:00	018SMPL.D#	1		[CB]	1 ,			CJ
	67	10-01-02 10:16:00	019SMPL.D#	1		M021283-010	10 ,			CJ
	68	10-01-02 10:21:00	001SMPL.D#	1		M021283-011	10 ,			CJ
	69	10-01-02 10:24:00	002SMPL.D#	1		M021283-012	10 ,			CJ
	70	10-01-02 10:28:00	003SMPL.D#	1		M021283-013	10 ,			CJ

Assaigai Analytical Laboratories, Inc.

Laboratory Logbook

Run Group MT.2002.1133
Import Source HPC02
Instrument: HP4500 - Instru

o	Run#	Acquisition Date	Data File	Vial	e	Sample Run ID	Run DF	Comment	see data file(s)	Analyst
	71	10-01-02 10:32:00	004SMPL.D#	1		M021283-014	10	,		CJ
	72	10-01-02 10:35:00	005SMPL.D#	1		[STD-CCV]	1	,		CJ
	73	10-01-02 10:39:00	006SMPL.D#	1		[CB]	1	,		CJ
	74	10-01-02 10:42:00	007SMPL.D#	1		M021283-015	10	,		CJ
	75	10-01-02 10:46:00	008SMPL.D#	1		M021283-016	10	,		CJ
	76	10-01-02 10:50:00	009SMPL.D#	1		M021283-017	10	,		CJ
	77	10-01-02 10:53:00	010SMPL.D#	1		M021283-018	10	,		CJ
	78	10-01-02 10:57:00	011SMPL.D#	1		M021283-019	10	,		CJ
	79	10-01-02 11:01:00	012SMPL.D#	1		[STD-CCV]	1	,		CJ
	80	10-01-02 11:04:00	013SMPL.D#	1		[CB]	1	,		CJ
	81	10-01-02 11:08:00	014SMPL.D#	1		M021283-020	10	,		CJ
	82	10-01-02 11:11:00	015SMPL.D#	1		M021283-021	10	,		CJ
	83	10-01-02 11:15:00	016SMPL.D#	1		M021283-022	10	,		CJ
	84	10-01-02 11:19:00	017SMPL.D#	1		M021283-023	10	,		CJ
	85	10-01-02 11:22:00	018SMPL.D#	1		M021283-024	10	,		CJ
	86	10-01-02 11:26:00	019SMPL.D#	1		M021283-025	10	,		CJ
	87	10-01-02 11:30:00	020SMPL.D#	1		M021283-026	10	,		CJ
	88	10-01-02 11:33:00	021CCV_.D#	1		[STD-CCV]	1			CJ
	89	10-01-02 11:37:00	022CCB_.D#	1		[CB]	1			CJ

6.22

Department: METALS
Prep Method: MS3050
Matrix: SOLID
Batch ID: M021283

Assaigai Laboratories
Sample Preparation Log
Report Revision 011023

Prep Method: ICP/MS 6020 Solid Digestion

Sample Count: 17
Batch Start Timestamp: 09/23/02 8:44:45

Prep ID:	Sample ID:	Aliquot:	Units:	Initial By:	Total Volume:	Units:	Final By:	Prep DF:	Surrogate ID:	Spike ID:	Spike By:	Prep Timestamp:	Comments:
M021283-001	[MB]	1.00	G	JRE	50	ML	JRE	1			JRE	09/23/02 8:08:51	90C @ 8:08AM
M021283-002	[LCS]	1.00	G	JRE	50	ML	JRE	1			JRE	09/23/02 8:08:51	LCS, LCSD, MS, MSD SPIKED W/
M021283-003	[LCSD]	1.00	G	JRE	50	ML	JRE	1			JRE	09/23/02 8:08:51	MT-0691-02 Ag @ 2.5ML/50ML
M021283-004	LI [LCS]	1.00	G	JRE	50	ML	JRE	1			JRE	09/23/02 8:08:51	MT-0692-02 TRACE @ 2.5ML/50ML
M021283-005	LI [LCSD]	1.00	G	JRE	50	ML	JRE	1			JRE	09/23/02 8:08:51	MT-0693-02 CATION @ 1.0ML/50ML
M021283-006	0209373-01A[M]	1.05	G	JRE	50	ML	JRE	0.9524			JRE	09/23/02 8:08:51	MT-0717-02 LI @ 0.5ML/50ML
M021283-007	0209373-01A[MS]	1.031	G	JRE	50	ML	JRE	0.9699			JRE	09/23/02 8:08:51	
M021283-008	0209373-01A[MSD]	1.045	G	JRE	50	ML	JRE	0.9569			JRE	09/23/02 8:08:51	
M021283-009	0209373-01A[MS]	1.029	G	JRE	50	ML	JRE	0.9718			JRE	09/23/02 8:08:51	
M021283-010	0209373-01A[MSD]	1.058	G	JRE	50	ML	JRE	0.9452			JRE	09/23/02 8:08:51	
M021283-011	0209373-02A	1.074	G	JRE	50	ML	JRE	0.9311			JRE	09/23/02 8:08:51	
M021283-012	0209373-03A	1.025	G	JRE	50	ML	JRE	0.9756			JRE	09/23/02 8:08:51	
M021283-013	0209373-04A	1.012	G	JRE	50	ML	JRE	0.9881			JRE	09/23/02 8:08:51	
M021283-014	0209373-05A	1.044	G	JRE	50	ML	JRE	0.9579			JRE	09/23/02 8:08:51	
M021283-015	0209373-06A	1.011	G	JRE	50	ML	JRE	0.9891			JRE	09/23/02 8:08:51	
M021283-016	0209373-07A	1.009	G	JRE	50	ML	JRE	0.9911			JRE	09/23/02 8:08:51	
M021283-017	0209373-08A	1.019	G	JRE	50	ML	JRE	0.9814			JRE	09/23/02 8:08:51	
M021283-018	0209373-09A	1.074	G	JRE	50	ML	JRE	0.9311			JRE	09/23/02 8:08:51	
M021283-019	0209373-10A	1.033	G	JRE	50	ML	JRE	0.9681			JRE	09/23/02 8:08:51	
M021283-020	0209373-11A	1.003	G	JRE	50	ML	JRE	0.997			JRE	09/23/02 8:08:51	
M021283-021	0209373-12A	1.012	G	JRE	50	ML	JRE	0.9881			JRE	09/23/02 8:08:51	
M021283-022	0209373-13A	1.039	G	JRE	50	ML	JRE	0.9625			JRE	09/23/02 8:08:51	
M021283-023	0209373-14A	1.014	G	JRE	50	ML	JRE	0.9862			JRE	09/23/02 8:08:51	
M021283-024	0209373-15A	1.084	G	JRE	50	ML	JRE	0.9225			JRE	09/23/02 8:08:51	
M021283-025	0209373-16A	1.041	G	JRE	50	ML	JRE	0.9606			JRE	09/23/02 8:08:51	
M021283-026	0209373-17A	1.00	G	JRE	50	ML	JRE	1			JRE	09/23/02 8:08:51	HNO3-X20045; HCL-42117; H2O2-41215135

623

Department: METALS
Prep Method: MS3050
Matrix: SOLID
Batch ID: M021282

Assaigai Laboratories
Sample Preparation Log
Report Revision 011023

Prep Method: ICP/MS 6020 Solid Digestion

Sample Count: 17
Batch Start Timestamp: 09/23/02 8:33:55

Prep ID:	Sample ID:	Aliquot:	Units:	Initial By:	Total Volume:	Units:	Final By:	Prep DF:	Surrogate ID:	Spike ID:	Spike By:	Prep Timestamp:	Comments:
M021282-001	[MB]	1.00	G	JRE	50	ML	JRE	1			JRE	09/23/02 8:08:00	90C @ 8:08AM
M021282-002	[LCS]	1.00	G	JRE	50	ML	JRE	1			JRE	09/23/02 8:08:00	LCS, LCSD, MS, MSD SPIKED W/
M021282-003	[LCSD]	1.00	G	JRE	50	ML	JRE	1			JRE	09/23/02 8:08:00	MT-0691-02 Ag @ 2.5ML/50ML
M021282-004	Li [LCS]	1.00	G	JRE	50	ML	JRE	1			JRE	09/23/02 8:08:00	MT-0692-02 TRACE @ 2.5ML/50ML
M021282-005	Li [LCSD]	1.00	G	JRE	50	ML	JRE	1			JRE	09/23/02 8:08:00	MT-0693-02 CATION @ 1.0ML/50ML
M021282-006	0209364-01A[M]	1.006	G	JRE	50	ML	JRE	0.994			JRE	09/23/02 8:08:00	MT-0717-02 Li @ 0.5ML/50ML
M021282-007	0209364-01A[MS]	1.07	G	JRE	50	ML	JRE	0.9346			JRE	09/23/02 8:08:00	
M021282-008	0209364-01A[MSD]	1.035	G	JRE	50	ML	JRE	0.9662			JRE	09/23/02 8:08:00	
M021282-009	0209364-01A[MS]	1.037	G	JRE	50	ML	JRE	0.9643			JRE	09/23/02 8:08:00	
M021282-010	0209364-01A[MSD]	1.059	G	JRE	50	ML	JRE	0.9443			JRE	09/23/02 8:08:00	
M021282-011	0209364-02A	1.009	G	JRE	50	ML	JRE	0.9911			JRE	09/23/02 8:08:00	
M021282-012	0209364-03A	1.017	G	JRE	50	ML	JRE	0.9833			JRE	09/23/02 8:08:00	
M021282-013	0209364-04A	1.065	G	JRE	50	ML	JRE	0.939			JRE	09/23/02 8:08:00	
M021282-014	0209364-05A	1.043	G	JRE	50	ML	JRE	0.9588			JRE	09/23/02 8:08:00	
M021282-015	0209364-06A	1.027	G	JRE	50	ML	JRE	0.9737			JRE	09/23/02 8:08:00	
M021282-016	0209364-07A	1.001	G	JRE	50	ML	JRE	0.999			JRE	09/23/02 8:08:00	
M021282-017	0209364-08A	1.061	G	JRE	50	ML	JRE	0.9425			JRE	09/23/02 8:08:00	
M021282-018	0209364-09A	1.067	G	JRE	50	ML	JRE	0.9372			JRE	09/23/02 8:08:00	
M021282-019	0209364-10A	1.052	G	JRE	50	ML	JRE	0.9506			JRE	09/23/02 8:08:00	
M021282-020	0209364-11A	1.031	G	JRE	50	ML	JRE	0.9699			JRE	09/23/02 8:08:00	
M021282-021	0209364-12A	1.032	G	JRE	50	ML	JRE	0.969			JRE	09/23/02 8:08:00	
M021282-022	0209364-13A	1.085	G	JRE	50	ML	JRE	0.9217			JRE	09/23/02 8:08:00	
M021282-023	0209364-14A	1.055	G	JRE	50	ML	JRE	0.9479			JRE	09/23/02 8:08:00	
M021282-024	0209364-15A	1.056	G	JRE	50	ML	JRE	0.947			JRE	09/23/02 8:08:00	
M021282-025	0209364-16A	1.026	G	JRE	50	ML	JRE	0.9747			JRE	09/23/02 8:08:00	
M021282-026	0209364-17A	1.069	G	JRE	50	ML	JRE	0.9355			JRE	09/23/02 8:08:00	HNO3-X20045; HCL-42117; H2O2-41215135

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Assaigai Analytical Laboratories, Inc.

Analytical Result Summary

Run Group	MT.2002.1133	Import ID	007CCB_.D#
Analyst	JWB	Quant Meth	
Calc Method	6020	Calibration	09-27-02 16:33:00
Analyte	Li-7	Quant	09-27-02 16:36:00

r	#	e	Run ID	Prep ID	Matrix	Signal m	Raw Quant	As	Run DF	Prep DF	MRL	Report	As	Prepared	Analyzed	Qual	f
x	6		[CB]		LAB	3	-2.28	ppb	1	1	0.001	< 0.001	mg / L		09-27-02 16:35:00		
x	7		[STD-ICV]		LAB	384	106.8	ppb	1	1	1	106.8 ~~89~~	% Recovery		09-27-02 16:38:00		x
x	11		M021282-001	[MB]	SOLID	1	-2.91	ppb	1	1	0.05	< 0.050	mg / Kg	09-23-02 8:08:00	09-27-02 16:52:00		
x	12		M021282-004	Li [LCS]	SOLID	346	95.82	ppb	1	1	1	96	% Recovery	09-23-02 8:08:00	09-27-02 16:55:00		
x	13		M021282-005	Li [LCSD]	SOLID	361	100.1	ppb	1	1	1	4	RPD	09-23-02 8:08:00	09-27-02 16:59:00		
x	13		M021282-005	Li [LCSD]	SOLID	361	100.1	ppb	1	1	1	100	% Recovery	09-23-02 8:08:00	09-27-02 16:59:00		
x	14		M021282-006	0209364-01A[M]	SOLID	54	12.33	ppb	10	0.994	0.05	6.13	mg / Kg	09-23-02 8:08:00	09-27-02 17:03:00		
x	15		M021282-009	0209364-01A[MS]	SOLID	140	36.94	ppb	10	0.9643	1	242	% Recovery	09-23-02 8:08:00	09-27-02 17:06:00		x
x	16		M021282-010	0209364-01A[MSD]	SOLID	79	19.39	ppb	10	0.9443	1	116	RPD	09-23-02 8:08:00	09-27-02 17:10:00		x
x	16		M021282-010	0209364-01A[MSD]	SOLID	79	19.39	ppb	10	0.9443	1	64	% Recovery	09-23-02 8:08:00	09-27-02 17:10:00		x
x	17		M021282-011	0209364-02A	SOLID	28	4.74	ppb	10	0.9911	0.05	2.35	mg / Kg	09-23-02 8:08:00	09-27-02 17:13:00		
x	18		M021282-012	0209364-03A	SOLID	25	3.89	ppb	10	0.9833	0.05	1.91	mg / Kg	09-23-02 8:08:00	09-27-02 17:17:00		
x	19		[STD-CCV]		LAB	344	95.29	ppb	1	1	1	95	% Recovery		09-27-02 17:20:00		
x	20		[CB]		LAB	2	-2.77	ppb	1	1	0.001	< 0.001	mg / L		09-27-02 17:24:00		
x	21		M021282-013	0209364-04A	SOLID	31	5.64	ppb	10	0.939	0.05	2.65	mg / Kg	09-23-02 8:08:00	09-27-02 17:27:00		
x	22		M021282-014	0209364-05A	SOLID	69	16.59	ppb	10	0.9588	0.05	7.95	mg / Kg	09-23-02 8:08:00	09-27-02 17:31:00		
x	23		M021282-015	0209364-06A	SOLID	52	11.71	ppb	10	0.9737	0.05	5.70	mg / Kg	09-23-02 8:08:00	09-27-02 17:34:00		
x	24		M021282-016	0209364-07A	SOLID	61	14.21	ppb	10	0.999	0.05	7.10	mg / Kg	09-23-02 8:08:00	09-27-02 17:38:00		
x	25		M021282-017	0209364-08A	SOLID	93	23.38	ppb	10	0.9425	0.05	11.0	mg / Kg	09-23-02 8:08:00	09-27-02 17:41:00		
x	26		M021282-018	0209364-09A	SOLID	54	12.16	ppb	10	0.9372	0.05	5.70	mg / Kg	09-23-02 8:08:00	09-27-02 17:45:00		
x	27		M021282-019	0209364-10A	SOLID	74	18	ppb	10	0.9506	0.05	8.56	mg / Kg	09-23-02 8:08:00	09-27-02 17:48:00		
x	28		M021282-020	0209364-11A	SOLID	32	5.91	ppb	10	0.9699	0.05	2.87	mg / Kg	09-23-02 8:08:00	09-27-02 17:52:00		
x	29		M021282-021	0209364-12A	SOLID	36	7.06	ppb	10	0.969	0.05	3.42	mg / Kg	09-23-02 8:08:00	09-27-02 17:55:00		
	30		M021282-022	0209364-13A	SOLID	52	11.72	ppb	10	0.9217	0.05	5.40	mg / Kg	09-23-02 8:08:00	09-27-02 17:59:00		
x	31		[STD-CCV]		LAB	362	100.5	ppb	1	1	1	100	% Recovery		09-27-02 18:02:00		
x	32		[CB]		LAB	1	-2.84	ppb	1	1	0.001	< 0.001	mg / L		09-27-02 18:06:00		
x	38		[CB]		LAB	3	-2.5	ppb	1	1	0.001	< 0.001	mg / L		09-30-02 14:51:00		
x	39		[STD-ICV]		LAB	397	110.6	ppb	1	1	1	92	% Recovery		09-30-02 14:55:00		
x	43		M021282-022	0209364-13A	SOLID	70	16.61	ppb	10	0.9217	0.05	7.65	mg / Kg	09-23-02 8:08:00	09-30-02 15:09:00		
x	44		M021282-023	0209364-14A	SOLID	94	23.69	ppb	10	0.9479	0.05	11.2	mg / Kg	09-23-02 8:08:00	09-30-02 15:13:00		
x	45		M021282-024	0209364-15A	SOLID	64	12.01	ppb	10	0.947	0.05	5.69	mg / Kg	09-23-02 8:08:00	09-30-02 15:16:00		
x	46		M021282-025	0209364-16A	SOLID	43	8.86	ppb	10	0.9747	0.05	4.32	mg / Kg	09-23-02 8:08:00	09-30-02 15:20:00		
x	47		M021282-026	0209364-17A	SOLID	55	12.44	ppb	10	0.9355	0.05	5.82	mg / Kg	09-23-02 8:08:00	09-30-02 15:24:00		
x	48		[STD-CCV]		LAB	323	89.52	ppb	1	1	1	90	% Recovery		09-30-02 15:27:00		
x	49		[CB]		LAB	3	-2.54	ppb	1	1	0.001	< 0.001	mg / L		09-30-02 15:31:00		
x	55		[CB]		LAB	0	-0.71	ppb	1	1	0.001	< 0.001	mg / L		10-01-02 9:32:00		
x	56		[STD-ICV]		LAB	98	115.9	ppb	1	1	1	96	% Recovery		10-01-02 9:36:00		
x	60		M021283-001	[MB]	SOLID	0	-0.96	ppb	1	1	0.05	< 0.050	mg / Kg	09-23-02 8:08:51	10-01-02 9:50:00		
x	61		M021283-004	Li [LCS]	SOLID	78	92.56	ppb	1	1	1	92	% Recovery	09-23-02 8:08:51	10-01-02 9:54:00		
x	62		M021283-005	Li [LCSD]	SOLID	75	88.88	ppb	1	1	1	4	RPD	09-23-02 8:08:51	10-01-02 9:57:00		
x	62		M021283-005	Li [LCSD]	SOLID	75	88.88	ppb	1	1	1	89	% Recovery	09-23-02 8:08:51	10-01-02 9:57:00		
x	63		M021283-006	0209373-01A[M]	SOLID	10	10.32	ppb	10	0.9524	0.05	4.91	mg / Kg	09-23-02 8:08:51	10-01-02 10:01:00		
x	64		M021283-009	0209373-01A[MS]	SOLID	12	12.99	ppb	10	0.9718	1	29	% Recovery	09-23-02 8:08:51	10-01-02 10:05:00		x
x	65		[STD-CCV]		LAB	78	92.35	ppb	1	1	1	92	% Recovery		10-01-02 10:08:00		

M021282 M021283 MS/MSD/RPD are out of criteria due to the non homogeneous sample matrix.

Assaigai Analytical Laboratories, Inc.

Analytical Result Summary

Run Group	MT.2002.1133	Import ID	018SMPL.D#
Analyst	CJ	Quant Meth	
Calc Method	6020	Calibration	10-01-02 9:30:00
Analyte	Li-7	Quant	10-01-02 10:14:00

r	#	e	Run ID	Prep ID	Matrix	Signal m	Raw Quant	As	Run DF	Prep DF	MRL	Report	As	Prepared	Analyzed	Qual	f
x	66		[CB]		LAB	0	-0.94	ppb	1	1	0.001	< 0.001	mg / L		10-01-02 10:12:00		
x	67		M021283-010	0209373-01A[MSD]	SOLID	20	22.48	ppb	10	0.9452	1	123	RPD	09-23-02 8:08:51	10-01-02 10:16:00		x
x	67		M021283-010	0209373-01A[MSD]	SOLID	20	22.48	ppb	10	0.9452	1	121	% Recovery	09-23-02 8:08:51	10-01-02 10:16:00		x
x	68		M021283-011	0209373-02A	SOLID	10	11.03	ppb	10	0.9311	0.05	5.14	mg / Kg	09-23-02 8:08:51	10-01-02 10:21:00		
x	69		M021283-012	0209373-03A	SOLID	20	23.31	ppb	10	0.9756	0.05	11.4	mg / Kg	09-23-02 8:08:51	10-01-02 10:24:00		
x	70		M021283-013	0209373-04A	SOLID	23	26.19	ppb	10	0.9881	0.05	12.9	mg / Kg	09-23-02 8:08:51	10-01-02 10:28:00		
x	71		M021283-014	0209373-05A	SOLID	29	33.92	ppb	10	0.9579	0.05	16.2	mg / Kg	09-23-02 8:08:51	10-01-02 10:32:00		
x	72		[STD-CCV]		LAB	77	90.49	ppb	1	1	1	90	% Recovery		10-01-02 10:35:00		
x	73		[CB]		LAB	0	-0.99	ppb	1	1	0.001	< 0.001	mg / L		10-01-02 10:39:00		
x	74		M021283-015	0209373-06A	SOLID	24	27.62	ppb	10	0.9891	0.05	13.6	mg / Kg	09-23-02 8:08:51	10-01-02 10:42:00		
x	75		M021283-016	0209373-07A	SOLID	22	24.81	ppb	10	0.9911	0.05	12.3	mg / Kg	09-23-02 8:08:51	10-01-02 10:46:00		
x	76		M021283-017	0209373-08A	SOLID	6	6.51	ppb	10	0.9814	0.05	3.19	mg / Kg	09-23-02 8:08:51	10-01-02 10:50:00		
x	77		M021283-018	0209373-09A	SOLID	6	5.78	ppb	10	0.9311	0.05	2.69	mg / Kg	09-23-02 8:08:51	10-01-02 10:53:00		
x	78		M021283-019	0209373-10A	SOLID	28	31.85	ppb	10	0.9681	0.05	15.4	mg / Kg	09-23-02 8:08:51	10-01-02 10:57:00		
x	79		[STD-CCV]		LAB	79	93.1	ppb	1	1	1	93	% Recovery		10-01-02 11:01:00		
x	80		[CB]		LAB	0	-1.01	ppb	1	1	0.001	< 0.001	mg / L		10-01-02 11:04:00		
x	81		M021283-020	0209373-11A	SOLID	19	21.26	ppb	10	0.997	0.05	10.6	mg / Kg	09-23-02 8:08:51	10-01-02 11:08:00		
x	82		M021283-021	0209373-12A	SOLID	14	15.29	ppb	10	0.9681	0.05	7.94	mg / Kg	09-23-02 8:08:51	10-01-02 11:11:00		
x	83		M021283-022	0209373-13A	SOLID	28	32.69	ppb	10	0.9625	0.05	16.8	mg / Kg	09-23-02 8:08:51	10-01-02 11:15:00		
x	84		M021283-023	0209373-14A	SOLID	9	9.71	ppb	10	0.9862	0.05	4.79	mg / Kg	09-23-02 8:08:51	10-01-02 11:19:00		
x	85		M021283-024	0209373-15A	SOLID	21	23.63	ppb	10	0.9226	0.05	10.8	mg / Kg	09-23-02 8:08:51	10-01-02 11:22:00		
x	86		M021283-025	0209373-16A	SOLID	26	[illegible]	ppb	10	0.9926	0.05	13.9	mg / Kg	09-23-02 8:08:51	10-01-02 11:26:00		
x	87		M021283-026	0209373-17A	SOLID	13	14.85	ppb	10	1	0.05	7.42	mg / Kg	09-23-02 8:08:51	10-01-02 11:30:00		
x	88		[STD-CCV]		LAB	78	92.37	ppb	1	1	1	92	% Recovery		10-01-02 11:33:00		
x	89		[CB]		LAB	0	-1.05	ppb	1	1	0.001	< 0.001	mg / L		10-01-02 11:37:00		

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Tune Sample Report

File : D:\HPCHEM\1\DATA\Sep2702.16A\001TUNE.D
Acquired : Sep 27 02 04:09 pm using AcqMethod QCTUNE.M
Operator : JWB
Sample Name: 6020/200.8 TUNE MIX
Misc Info :
Vial Number: 1101
CurrentMeth: D:\HPCHEM\1\METHODS\QCTUNE.M
BkgFile : --------
Sample Type: TUNE
Dilution : 1.000000

Minimum Response Criteria (cps/ppb)

Element	RSD(%)	Actual	Required	Flag
59	2.15	222789	> 200	
7	3.25	586805	> 20	
115	1.27	182543	> 100	
205	2.25	82974	> 10	
102		0(cps)	< 25(cps)	

Ion Ratio Criteria

	Actual	Required	Flag
59/59	1.00	1.00 - 1.00	
7/59	2.63	0.10 - 5.00	
115/59	0.82	0.10 - 10.00	
205/59	0.37	0.10 - 5.00	

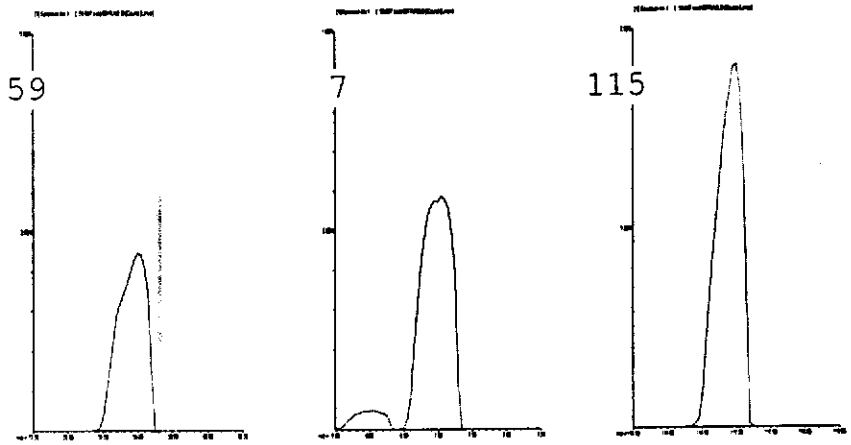

Mass Calib:	59.00	Mass Calib:	7.05	Mass Calib:	115.00
W-50%:	0.55	W-50%:	0.60	W-50%:	0.50
W-10%:	0.70	W-10%:	0.80	W-10%:	0.65

205 102

US EPA Method 200.8 Tune Verification

Acquired : Sep 27 02 04:09 pm using AcqMethod QCTUNE.M
Data File Name: D:\HPCHEM\1\DATA\Sep2702.16A\001TUNE.D

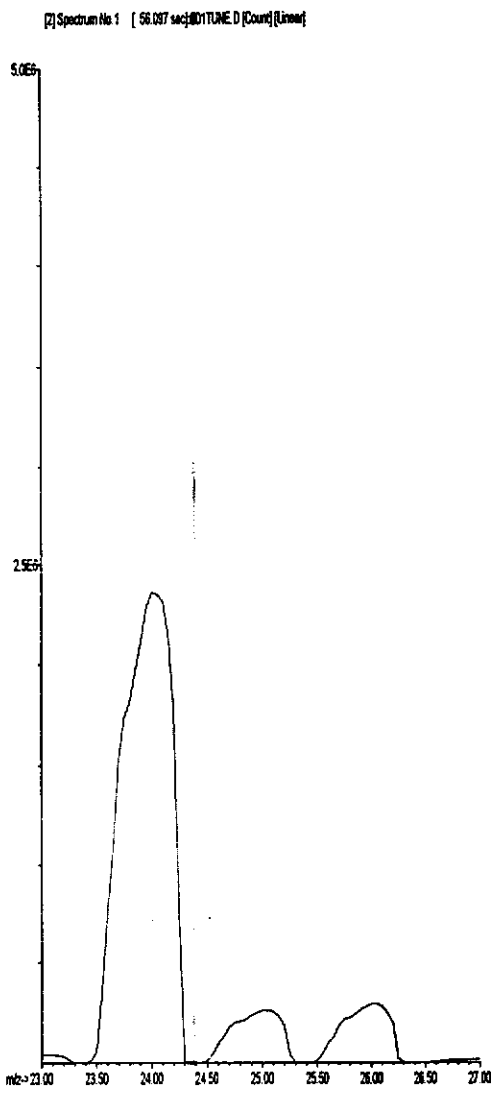

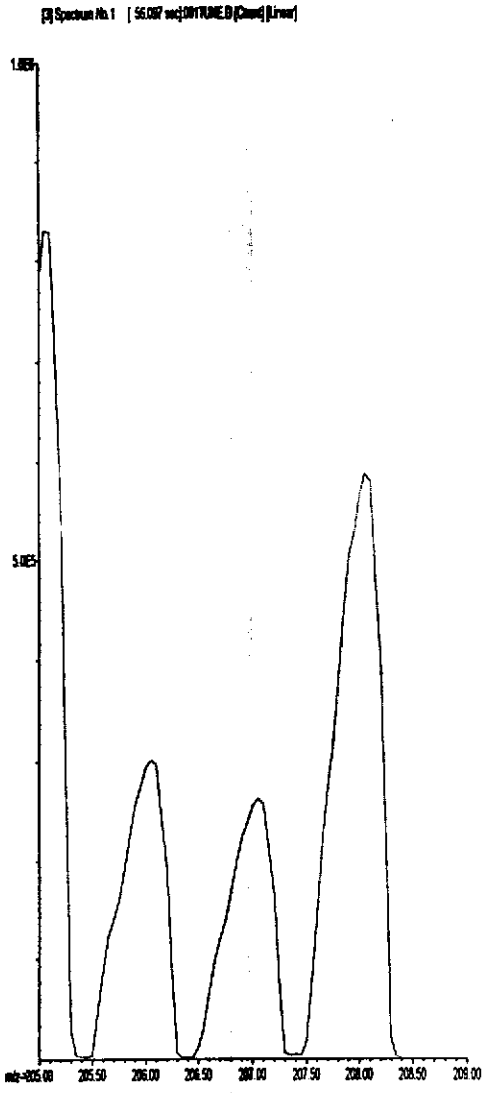

Element and Mass	Mass Assignment		PeakElement at 5and Mass Heig	Mass Assignment		Peak Width at 5% Peak Height
Mg 24	24.00	0.70	Pb 206	206.05	0.70	
Mg 25	25.05	0.70	Pb 207	207.05	0.70	
Mg 26	26.05	0.70	Pb 208	208.05	0.70	

* Does not meet EPA Method 200.8 specification.

Spectrum No.1 [56.097 sec]:001TUNE.D
Acquired : Sep 27 02 04:09 pm using AcqMethod QCTUNE.M
Bkg file : --------
Interference Correction: OFF

Mass[amu]	Element	Count	n	SD	RSD[%]
5		5808.19 P	5	153.10	2.64
6		5223308.00 A	5	201300.00	3.85
7	Li	64488410.00 A	5	1978000.00	3.07
8		8.80 P	5	1.79	20.33
23		506839.30 P	5	11140.00	2.20
24		25278860.00 A	5	406000.00	1.61
25		2747068.00 P	5	69650.00	2.54
26		2971898.00 P	5	71500.00	2.41
27		162109.80 P	5	3501.00	2.16
58		197949.70 P	5	7322.00	3.70
59	Co	21975840.00 A	5	525500.00	2.39
60		420.42 P	5	22.77	5.42
101		38.80 P	5	5.02	12.94
103		1031366.00 P	5	13760.00	1.33
114		215424.50 P	5	14410.00	6.69
115	In	16154520.00 A	5	361400.00	2.24
116		159.20 P	5	24.62	15.47
204		223132.80 P	5	2054.00	0.92
205	Tl	8074093.00 A	5	120600.00	1.49
206		2927315.00 P	5	36970.00	1.26
207		2522681.00 P	5	31500.00	1.25
208		5743047.00 A	5	77610.00	1.35
209		97.80 P	5	5.81	5.94

Calibration Blank QC Report

630

File : D:\HPCHEM\1\DATA\Sep2702.16A\002CALB.D\002CALB.D#
Acquired : Sep 27 02 04:17 pm using AcqMethod LI-RH.M
Operator : JWB
Sample Name: CAL BLANK
Misc Info :
Vial Number: 1102
CurrentMeth: D:\HPCHEM\1\METHODS\LI-RH.M
BkgFile : --------
Sample Type: CALBLK
Dilution : 1.000000

Mass	Element	Count	n	SD	RSD[%]
7	Li	61996.58 P	3	8499.00	13.71
103	Rh	271923.80 P	3	1707.00	0.63

Calibration QC Report

File : D:\HPCHEM\1\DATA\Sep2702.16A\003CALI.D\003CALI.D#
Acquired : Sep 27 02 04:20 pm using AcqMethod LI-RH.M
Operator : JWB
Sample Name: 0.2/1/10 CAL
Misc Info :
Vial Number: 1103
CurrentMeth: D:\HPCHEM\1\METHODS\LI-RH.M
BkgFile : --------
Sample Type: CALIB
Dilution : 1.000000

Mass	Element	Count	n	SD	RSD[%]
7	Li	55442.50 P	3	5896.00	10.63
103	Rh	265519.50 P	3	2362.00	0.89

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
103	906413	885065	Pass

Internal Standards referenced to 002CALB.D#

0 ISTD Failures. Maximum Number of ISTD Failures Allowed (5)

Calibration QC Report

File : D:\HPCHEM\1\DATA\Sep2702.16A\004CALI.D\004CALI.D#
Acquired : Sep 27 02 04:24 pm using AcqMethod LI-RH.M
Operator : JWB
Sample Name: 2/10/100 CAL
Misc Info :
Vial Number: 1104
CurrentMeth: D:\HPCHEM\1\METHODS\LI-RH.M
BkgFile : --------
Sample Type: CALIB
Dilution : 1.000000

Mass	Element	Count	n	SD	RSD[%]
7	Li	182131.10 P	3	4022.00	2.21
103	Rh	262802.30 P	3	3765.00	1.43

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
103	906413	876007	Pass

Internal Standards referenced to 002CALB.D#

0 ISTD Failures. Maximum Number of ISTD Failures Allowed (5)

Calibration QC Report

File : D:\HPCHEM\1\DATA\Sep2702.16A\005CALI.D\005CALI.D#
Acquired : Sep 27 02 04:27 pm using AcqMethod LI-RH.M
Operator : JWB
Sample Name: 10/100/1000 CAL
Misc Info :
Vial Number: 1105
CurrentMeth: D:\HPCHEM\1\METHODS\LI-RH.M
BkgFile : --------
Sample Type: CALIB
Dilution : 1.000000

Mass	Element	Count	n	SD	RSD[%]
7	Li	1765402.00 A	3	61490.00	3.48
103	Rh	265771.30 P	3	766.30	0.29

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
103	906413	885904	Pass

Internal Standards referenced to 002CALB.D#

0 ISTD Failures. Maximum Number of ISTD Failures Allowed (5)

Calibration QC Report

File : D:\HPCHEM\1\DATA\Sep2702.16A\006CALI.D\006CALI.D#
Acquired : Sep 27 02 04:31 pm using AcqMethod LI-RH.M
Operator : JWB
Sample Name: -/200/10000 CAL
Misc Info :
Vial Number: 1106
CurrentMeth: D:\HPCHEM\1\METHODS\LI-RH.M
BkgFile : --------
Sample Type: CALIB
Dilution : 1.000000

Mass	Element	Count	n	SD	RSD[%]
7	Li	3951109.00 A	3	46490.00	1.18
103	Rh	272878.80 P	3	1486.00	0.54

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
103	906413	909596	Pass

Internal Standards referenced to 002CALB.D#

0 ISTD Failures. Maximum Number of ISTD Failures Allowed (5)

Blank QC Report

File : D:\HPCHEM\1\DATA\Sep2702.16A\007CCB_D\007CCB_D#
Acquired : Sep 27 02 04:35 pm using AcqMethod LI-RH.M
Operator : JWB
Sample Name: [CB]
Misc Info :
Vial Number: 1102
CurrentMeth: D:\HPCHEM\1\METHODS\LI-RH.M
BkgFile : --------
Sample Type: CCB
Dilution : 1.000000

Element	Concentration	CRDL Limit	Flag
Li 7	-2.283 µg/L	1.00	*Fail*

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
103	906413	883630	Pass

Internal Standards referenced to 002CALB.D#

1 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (5)

ICV QC Report

File : D:\HPCHEM\1\DATA\Sep2702.16A\008ICV_.D\008ICV_.D#
Acquired : Sep 27 02 04:38 pm using AcqMethod LI-RH.M
Operator : JWB
Sample Name: [STD-ICV]
Misc Info :
Vial Number: 1107
CurrentMeth: D:\HPCHEM\1\METHODS\LI-RH.M
BkgFile : --------
Sample Type: ICV
Dilution : 1.000000

ICV Mix #1

Element	Concentration	Expected	QC Range	Flag
Li 7	106.800 µg/L	120.00	108.00-132.00	*Fail*

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
103	906413	897208	Pass

Internal Standards referenced to 002CALB.D#

1 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (5)

Interference Check A QC Report

File : D:\HPCHEM\1\DATA\Sep2702.16A\009ICSA.D\009ICSA.D#
Acquired : Sep 27 02 04:42 pm using AcqMethod LI-RH.M
Operator : JWB
Sample Name: [ICSA]
Misc Info :
Vial Number: 1303
CurrentMeth: D:\HPCHEM\1\METHODS\LI-RH.M
BkgFile : --------
Sample Type: ICS_A_
Dilution : 1.000000

Element	Concentration	Expected	CRDL Range Conc	%Range Conc	Flag
Li 7	-2.951 µg/L	0.00	-1.00-1.00	0-0	*Fail*

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
103	906413	759446	Pass

Internal Standards referenced to 002CALB.D#

1 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (5)

Interference Check AB QC Report

638

File : D:\HPCHEM\1\DATA\Sep2702.16A\010ICSB.D\010ICSB.D#
Acquired : Sep 27 02 04:45 pm using AcqMethod LI-RH.M
Operator : JWB
Sample Name: [ICSAB]
Misc Info :
Vial Number: 1304
CurrentMeth: D:\HPCHEM\1\METHODS\LI-RH.M
BkgFile : --------
Sample Type: ICS_AB
Dilution : 1.000000

Element	Concentration	Expected	CRDL Range Conc	%Range Conc	Flag
Li 7	-3.222 µg/L	0.00	-1.00-1.00	0-0	*Fail*

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
103	906413	1255473	Pass

Internal Standards referenced to 002CALB.D#

1 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (5)

Blank QC Report

File : D:\HPCHEM\1\DATA\Sep2702.16A\011CCB_D\011CCB_D#
Acquired : Sep 27 02 04:49 pm using AcqMethod LI-RH.M
Operator : JWB
Sample Name: BLANK
Misc Info :
Vial Number: 1
CurrentMeth: D:\HPCHEM\1\METHODS\LI-RH.M
BkgFile : --------
Sample Type: CCB
Dilution : 1.000000

Element	Concentration	CRDL Limit	Flag
Li 7	-3.065 µg/L	1.00	*Fail*

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
103	906413	1059547	Pass

Internal Standards referenced to 002CALB.D#

1 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (5)

Sample QC Report

640

File : D:\HPCHEM\1\DATA\Sep2702.16A\012SMPL.D\012SMPL.D#
Acquired : Sep 27 02 04:52 pm using AcqMethod LI-RH.M
Operator : JWB
Sample Name: M021282-001
Misc Info : ,
Vial Number: 2101
CurrentMeth: D:\HPCHEM\1\METHODS\LI-RH.M
BkgFile : --------
Sample Type: --------
Dilution : 1.000000

Element	Concentration	Cal Conc	LRS Conc	Flag
Li 7	-2.910 µg/L	200.000	0	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
103	906413	898791	Pass

Internal Standards referenced to 002CALB.D#

0 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (5)

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2702.16A\013SMPL.D\013SMPL.D#
Acquired : Sep 27 02 04:55 pm using AcqMethod LI-RH.M
Operator : JWB
Sample Name: M021282-004
Misc Info : ,
Vial Number: 2102
CurrentMeth: D:\HPCHEM\1\METHODS\LI-RH.M
BkgFile : --------
Sample Type: --------
Dilution : 1.000000

Element	Concentration	Cal Conc	LRS Conc	Flag
Li 7	95.820 µg/L	200.000	0	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
103	906413	926171	Pass

Internal Standards referenced to 002CALB.D#

0 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (5)

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2702.16A\014SMPL.D\014SMPL.D#
Acquired : Sep 27 02 04:59 pm using AcqMethod LI-RH.M
Operator : JWB
Sample Name: M021282-005
Misc Info : ,
Vial Number: 2103
CurrentMeth: D:\HPCHEM\1\METHODS\LI-RH.M
BkgFile : --------
Sample Type: --------
Dilution : 1.000000

Element	Concentration	Cal Conc	LRS Conc	Flag
Li 7	100.100 µg/L	200.000	0	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
103	906413	933714	Pass

Internal Standards referenced to 002CALB.D#

0 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (5)

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2702.16A\015SMPL.D\015SMPL.D#
Acquired : Sep 27 02 05:03 pm using AcqMethod LI-RH.M
Operator : JWB
Sample Name: M021282-006
Misc Info : ,
Vial Number: 2104
CurrentMeth: D:\HPCHEM\1\METHODS\LI-RH.M
BkgFile : ---------
Sample Type: ---------
Dilution : 10.000000

Element	Concentration	Cal Conc	LRS Conc	Flag
Li 7	123.300 µg/L	200.000	0	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
103	906413	920810	Pass

Internal Standards referenced to 002CALB.D#

0 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (5)

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2702.16A\016SMPL.D\016SMPL.D#
Acquired : Sep 27 02 05:06 pm using AcqMethod LI-RH.M
Operator : JWB
Sample Name: M021282-009
Misc Info : ,
Vial Number: 2105
CurrentMeth: D:\HPCHEM\1\METHODS\LI-RH.M
BkgFile : --------
Sample Type: --------
Dilution : 10.000000

644

Element	Concentration	Cal Conc	LRS Conc	Flag
Li 7	369.400 µg/L	200.000	0	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
103	906413	914763	Pass

Internal Standards referenced to 002CALB.D#

0 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (5)

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2702.16A\017SMPL.D\017SMPL.D#
Acquired : Sep 27 02 05:10 pm using AcqMethod LI-RH.M
Operator : JWB
Sample Name: M021282-010
Misc Info : ,
Vial Number: 2106
CurrentMeth: D:\HPCHEM\1\METHODS\LI-RH.M
BkgFile : ---------
Sample Type: ---------
Dilution : 10.000000

Element	Concentration	Cal Conc	LRS Conc	Flag
Li 7	193.900 µg/L	200.000	0	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
103	906413	838485	Pass

Internal Standards referenced to 002CALB.D#

0 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (5)

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2702.16A\018SMPL.D\018SMPL.D#
Acquired : Sep 27 02 05:13 pm using AcqMethod LI-RH.M
Operator : JWB
Sample Name: M021282-011
Misc Info : ,
Vial Number: 2107
CurrentMeth: D:\HPCHEM\1\METHODS\LI-RH.M
BkgFile : --------
Sample Type: --------
Dilution : 10.000000

Element	Concentration	Cal Conc	LRS Conc	Flag
Li 7	47.350 µg/L	200.000	0	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
103	906413	924124	Pass

Internal Standards referenced to 002CALB.D#

0 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (5)

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2702.16A\019SMPL.D\019SMPL.D#
Acquired : Sep 27 02 05:17 pm using AcqMethod LI-RH.M
Operator : JWB
Sample Name: M021282-012
Misc Info : ,
Vial Number: 2108
CurrentMeth: D:\HPCHEM\1\METHODS\LI-RH.M
BkgFile : --------
Sample Type: --------
Dilution : 10.000000

Element	Concentration	Cal Conc	LRS Conc	Flag
Li 7	38.860 µg/L	200.000	0	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
103	906413	948025	Pass

Internal Standards referenced to 002CALB.D#

0 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (5)

CCV QC Report

File : D:\HPCHEM\1\DATA\Sep2702.16A\020CCV_.D\020CCV_.D#
Acquired : Sep 27 02 05:20 pm using AcqMethod LI-RH.M
Operator : JWB
Sample Name: [STD-CCV]
Misc Info :
Vial Number: 1105
CurrentMeth: D:\HPCHEM\1\METHODS\LI-RH.M
BkgFile : --------
Sample Type: CCV
Dilution : 1.000000

CCV Mix #1

Element	Concentration	Expected	QC Range	Flag
Li 7	95.290 µg/L	100.00	90.00-110.00	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
103	906413	915677	Pass

Internal Standards referenced to 002CALB.D#

0 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (5)

Blank QC Report

File : D:\HPCHEM\1\DATA\Sep2702.16A\021CCB_D\021CCB_D#
Acquired : Sep 27 02 05:24 pm using AcqMethod LI-RH.M
Operator : JWB
Sample Name: [CB]
Misc Info :
Vial Number: 1102
CurrentMeth: D:\HPCHEM\1\METHODS\LI-RH.M
BkgFile : --------
Sample Type: CCB
Dilution : 1.000000

Element	Concentration	CRDL Limit	Flag
Li 7	-2.773 µg/L	1.00	*Fail*

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
103	906413	910577	Pass

Internal Standards referenced to 002CALB.D#

1 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (5)

65U

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2702.16A\022SMPL.D\022SMPL.D#
Acquired : Sep 27 02 05:27 pm using AcqMethod LI-RH.M
Operator : JWB
Sample Name: M021282-013
Misc Info : ,
Vial Number: 2109
CurrentMeth: D:\HPCHEM\1\METHODS\LI-RH.M
BkgFile : --------
Sample Type: --------
Dilution : 10.000000

Element	Concentration	Cal Conc	LRS Conc	Flag
Li 7	56.420 µg/L	200.000	0	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
103	906413	928765	Pass

Internal Standards referenced to 002CALB.D#

0 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (5)

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2702.16A\023SMPL.D\023SMPL.D#
Acquired : Sep 27 02 05:31 pm using AcqMethod LI-RH.M
Operator : JWB
Sample Name: M021282-014
Misc Info : ,
Vial Number: 2110
CurrentMeth: D:\HPCHEM\1\METHODS\LI-RH.M
BkgFile : --------
Sample Type: --------
Dilution : 10.000000

Element	Concentration	Cal Conc	LRS Conc	Flag
Li 7	165.900 µg/L	200.000	0	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
103	906413	924997	Pass

Internal Standards referenced to 002CALB.D#

0 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (5)

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2702.16A\024SMPL.D\024SMPL.D#
Acquired : Sep 27 02 05:34 pm using AcqMethod LI-RH.M
Operator : JWB
Sample Name: M021282-015
Misc Info : ,
Vial Number: 2111
CurrentMeth: D:\HPCHEM\1\METHODS\LI-RH.M
BkgFile : --------
Sample Type: --------
Dilution : 10.000000

Element	Concentration	Cal Conc	LRS Conc	Flag
Li 7	117.100 µg/L	200.000	0	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
103	906413	929392	Pass

Internal Standards referenced to 002CALB.D#

0 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (5)

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2702.16A\025SMPL.D\025SMPL.D#
Acquired : Sep 27 02 05:38 pm using AcqMethod LI-RH.M
Operator : JWB
Sample Name: M021282-016
Misc Info : ,
Vial Number: 2112
CurrentMeth: D:\HPCHEM\1\METHODS\LI-RH.M
BkgFile : --------
Sample Type: --------
Dilution : 10.000000

Element	Concentration	Cal Conc	LRS Conc	Flag
Li 7	142.100 µg/L	200.000	0	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
103	906413	908693	Pass

Internal Standards referenced to 002CALB.D#

0 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (5)

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2702.16A\026SMPL.D\026SMPL.D#
Acquired : Sep 27 02 05:41 pm using AcqMethod LI-RH.M
Operator : JWB
Sample Name: M021282-017
Misc Info : ,
Vial Number: 2201
CurrentMeth: D:\HPCHEM\1\METHODS\LI-RH.M
BkgFile : --------
Sample Type: --------
Dilution : 10.000000

Element	Concentration	Cal Conc	LRS Conc	Flag
Li 7	233.800 µg/L	200.000	0	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
103	906413	865671	Pass

Internal Standards referenced to 002CALB.D#

0 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (5)

Sample QC Report

655

File : D:\HPCHEM\1\DATA\Sep2702.16A\027SMPL.D\027SMPL.D#
Acquired : Sep 27 02 05:45 pm using AcqMethod LI-RH.M
Operator : JWB
Sample Name: M021282-018
Misc Info : ,
Vial Number: 2202
CurrentMeth: D:\HPCHEM\1\METHODS\LI-RH.M
BkgFile : --------
Sample Type: --------
Dilution : 10.000000

Element	Concentration	Cal Conc	LRS Conc	Flag
Li 7	121.600 µg/L	200.000	0	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
103	906413	857235	Pass

Internal Standards referenced to 002CALB.D#

0 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (5)

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2702.16A\028SMPL.D\028SMPL.D#
Acquired : Sep 27 02 05:48 pm using AcqMethod LI-RH.M
Operator : JWB
Sample Name: M021282-019
Misc Info : ,
Vial Number: 2203
CurrentMeth: D:\HPCHEM\1\METHODS\LI-RH.M
BkgFile : --------
Sample Type: --------
Dilution : 10.000000

Element	Concentration	Cal Conc	LRS Conc	Flag
Li 7	180.000 µg/L	200.000	0	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
103	906413	851694	Pass

Internal Standards referenced to 002CALB.D#

0 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (5)

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2702.16A\029SMPL.D\029SMPL.D#
Acquired : Sep 27 02 05:52 pm using AcqMethod LI-RH.M
Operator : JWB
Sample Name: M021282-020
Misc Info : ,
Vial Number: 2204
CurrentMeth: D:\HPCHEM\1\METHODS\LI-RH.M
BkgFile : --------
Sample Type: --------
Dilution : 10.000000

Element	Concentration	Cal Conc	LRS Conc	Flag
Li 7	59.090 µg/L	200.000	0	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
103	906413	801791	Pass

Internal Standards referenced to 002CALB.D#

0 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (5)

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2702.16A\030SMPL.D\030SMPL.D#
Acquired : Sep 27 02 05:55 pm using AcqMethod LI-RH.M
Operator : JWB
Sample Name: M021282-021
Misc Info : ,
Vial Number: 2205
CurrentMeth: D:\HPCHEM\1\METHODS\LI-RH.M
BkgFile : --------
Sample Type: --------
Dilution : 10.000000

Element	Concentration	Cal Conc	LRS Conc	Flag
Li 7	70.640 µg/L	200.000	0	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
103	906413	866316	Pass

Internal Standards referenced to 002CALB.D#

0 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (5)

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2702.16A\031SMPL.D\031SMPL.D#
Acquired : Sep 27 02 05:59 pm using AcqMethod LI-RH.M
Operator : JWB
Sample Name: M021282-022
Misc Info : ,
Vial Number: 2206
CurrentMeth: D:\HPCHEM\1\METHODS\LI-RH.M
BkgFile : --------
Sample Type: --------
Dilution : 10.000000

Element	Concentration	Cal Conc	LRS Conc	Flag
Li 7	117.200 µg/L	200.000	0	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
103	906413	853771	Pass

Internal Standards referenced to 002CALB.D#

0 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (5)

CCV QC Report

66u

File : D:\HPCHEM\1\DATA\Sep2702.16A\032CCV_.D\032CCV_.D#
Acquired : Sep 27 02 06:02 pm using AcqMethod LI-RH.M
Operator : JWB
Sample Name: [STD-CCV]
Misc Info :
Vial Number: 1105
CurrentMeth: D:\HPCHEM\1\METHODS\LI-RH.M
BkgFile : --------
Sample Type: CCV
Dilution : 1.000000

CCV Mix #1

Element	Concentration	Expected	QC Range	Flag
Li 7	100.500 µg/L	100.00	90.00-110.00	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
103	906413	912691	Pass

Internal Standards referenced to 002CALB.D#

0 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (5)

Blank QC Report

File : D:\HPCHEM\1\DATA\Sep2702.16A\033CCB_.D\033CCB_.D#
Acquired : Sep 27 02 06:06 pm using AcqMethod LI-RH.M
Operator : JWB
Sample Name: [CB]
Misc Info :
Vial Number: 1102
CurrentMeth: D:\HPCHEM\1\METHODS\LI-RH.M
BkgFile : --------
Sample Type: CCB
Dilution : 1.000000

Element	Concentration	CRDL Limit	Flag
Li 7	-2.843 µg/L	1.00	*Fail*

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
103	906413	878210	Pass

Internal Standards referenced to 002CALB.D#

1 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (5)

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2702.16A\034SMPL.D\034SMPL.D#
Acquired : Sep 27 02 06:09 pm using AcqMethod LI-RH.M
Operator : JWB
Sample Name: M021282-023
Misc Info : ,
Vial Number: 2207
CurrentMeth: D:\HPCHEM\1\METHODS\LI-RH.M
BkgFile : --------
Sample Type: --------
Dilution : 10.000000

Element	Concentration	Cal Conc	LRS Conc	Flag
Li 7	193.000 µg/L	200.000	0	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
103	906413	877702	Pass

Internal Standards referenced to 002CALB.D#

0 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (5)

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2702.16A\035SMPL.D\035SMPL.D#
Acquired : Sep 27 02 06:13 pm using AcqMethod LI-RH.M
Operator : JWB
Sample Name: M021282-024
Misc Info : ,
Vial Number: 2208
CurrentMeth: D:\HPCHEM\1\METHODS\LI-RH.M
BkgFile : --------
Sample Type: --------
Dilution : 10.000000

Element	Concentration	Cal Conc	LRS Conc	Flag
Li 7	79.620 µg/L	200.000	0	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
103	906413	869571	Pass

Internal Standards referenced to 002CALB.D#

0 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (5)

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2702.16A\036SMPL.D\036SMPL.D#
Acquired : Sep 27 02 06:16 pm using AcqMethod LI-RH.M
Operator : JWB
Sample Name: M021282-025
Misc Info : ,
Vial Number: 2209
CurrentMeth: D:\HPCHEM\1\METHODS\LI-RH.M
BkgFile : --------
Sample Type: --------
Dilution : 10.000000

Element	Concentration	Cal Conc	LRS Conc	Flag
Li 7	55.290 µg/L	200.000	0	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
103	906413	861035	Pass

Internal Standards referenced to 002CALB.D#

0 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (5)

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2702.16A\037SMPL.D\037SMPL.D#
Acquired : Sep 27 02 06:20 pm using AcqMethod LI-RH.M
Operator : JWB
Sample Name: M021282-026
Misc Info : ,
Vial Number: 2210
CurrentMeth: D:\HPCHEM\1\METHODS\LI-RH.M
BkgFile : --------
Sample Type: --------
Dilution : 10.000000

Element	Concentration	Cal Conc	LRS Conc	Flag
Li 7	89.860 µg/L	200.000	0	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
103	906413	861308	Pass

Internal Standards referenced to 002CALB.D#

0 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (5)

Sample QC Report

666

File : D:\HPCHEM\1\DATA\Sep2702.16A\038SMPL.D\038SMPL.D#
Acquired : Sep 27 02 06:23 pm using AcqMethod LI-RH.M
Operator : JWB
Sample Name: M021283-001
Misc Info : ,
Vial Number: 2211
CurrentMeth: D:\HPCHEM\1\METHODS\LI-RH.M
BkgFile : --------
Sample Type: --------
Dilution : 1.000000

Element	Concentration	Cal Conc	LRS Conc	Flag
Li 7	-3.096 µg/L	200.000	0	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
103	906413	892809	Pass

Internal Standards referenced to 002CALB.D#

0 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (5)

Sample QC Report

667

File : D:\HPCHEM\1\DATA\Sep2702.16A\039SMPL.D\039SMPL.D#
Acquired : Sep 27 02 06:27 pm using AcqMethod LI-RH.M
Operator : JWB
Sample Name: M021283-004
Misc Info : ,
Vial Number: 2212
CurrentMeth: D:\HPCHEM\1\METHODS\LI-RH.M
BkgFile : --------
Sample Type: --------
Dilution : 1.000000

Element	Concentration	Cal Conc	LRS Conc	Flag
Li 7	88.500 µg/L	200.000	0	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
103	906413	914850	Pass

Internal Standards referenced to 002CALB.D#

0 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (5)

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2702.16A\040SMPL.D\040SMPL.D#
Acquired : Sep 27 02 06:31 pm using AcqMethod LI-RH.M
Operator : JWB
Sample Name: M021283-005
Misc Info : ,
Vial Number: 2301
CurrentMeth: D:\HPCHEM\1\METHODS\LI-RH.M
BkgFile : --------
Sample Type: --------
Dilution : 1.000000

668

Element	Concentration	Cal Conc	LRS Conc	Flag
Li 7	96.150 µg/L	200.000	0	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
103	906413	927836	Pass

Internal Standards referenced to 002CALB.D#

0 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (5)

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2702.16A\041SMPL.D\041SMPL.D#
Acquired : Sep 27 02 06:34 pm using AcqMethod LI-RH.M
Operator : JWB
Sample Name: M021283-006
Misc Info : ,
Vial Number: 2302
CurrentMeth: D:\HPCHEM\1\METHODS\LI-RH.M
BkgFile : --------
Sample Type: --------
Dilution : 10.000000

Element	Concentration	Cal Conc	LRS Conc	Flag
Li 7	52.610 µg/L	200.000	0	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
103	906413	879365	Pass

Internal Standards referenced to 002CALB.D#

0 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (5)

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2702.16A\042SMPL.D\042SMPL.D#
Acquired : Sep 27 02 06:38 pm using AcqMethod LI-RH.M
Operator : JWB
Sample Name: M021283-009
Misc Info : ,
Vial Number: 2303
CurrentMeth: D:\HPCHEM\1\METHODS\LI-RH.M
BkgFile : --------
Sample Type: --------
Dilution : 10.000000

Element	Concentration	Cal Conc	LRS Conc	Flag
Li 7	68.770 µg/L	200.000	0	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
103	906413	886259	Pass

Internal Standards referenced to 002CALB.D#

0 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (5)

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2702.16A\043SMPL.D\043SMPL.D#
Acquired : Sep 27 02 06:41 pm using AcqMethod LI-RH.M
Operator : JWB
Sample Name: M021283-010
Misc Info : ,
Vial Number: 2304
CurrentMeth: D:\HPCHEM\1\METHODS\LI-RH.M
BkgFile : --------
Sample Type: --------
Dilution : 10.000000

Element	Concentration	Cal Conc	LRS Conc	Flag
Li 7	149.100 µg/L	200.000	0	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
103	906413	908303	Pass

Internal Standards referenced to 002CALB.D#

0 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (5)

CCV QC Report

File : D:\HPCHEM\1\DATA\Sep2702.16A\044CCV_D\044CCV_.D#
Acquired : Sep 27 02 06:45 pm using AcqMethod LI-RH.M
Operator : JWB
Sample Name: [STD-CCV]
Misc Info :
Vial Number: 1105
CurrentMeth: D:\HPCHEM\1\METHODS\LI-RH.M
BkgFile : --------
Sample Type: CCV
Dilution : 1.000000

CCV Mix #1

Element	Concentration	Expected	QC Range	Flag
Li 7	82.930 µg/L	100.00	90.00-110.00	*Fail*

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
103	906413	968317	Pass

Internal Standards referenced to 002CALB.D#

1 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (5)

Blank QC Report

File : D:\HPCHEM\1\DATA\Sep2702.16A\045CCB_.D\045CCB_.D#
Acquired : Sep 27 02 06:48 pm using AcqMethod LI-RH.M
Operator : JWB
Sample Name: [CB]
Misc Info :
Vial Number: 1102
CurrentMeth: D:\HPCHEM\1\METHODS\LI-RH.M
BkgFile : --------
Sample Type: CCB
Dilution : 1.000000

Element	Concentration	CRDL Limit	Flag
Li 7	-2.895 µg/L	1.00	*Fail*

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
103	906413	892275	Pass

Internal Standards referenced to 002CALB.D#

1 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (5)

Sample QC Report

674

File : D:\HPCHEM\1\DATA\Sep2702.16A\046SMPL.D\046SMPL.D#
Acquired : Sep 27 02 06:52 pm using AcqMethod LI-RH.M
Operator : JWB
Sample Name: M021283-011
Misc Info : ,
Vial Number: 2305
CurrentMeth: D:\HPCHEM\1\METHODS\LI-RH.M
BkgFile : --------
Sample Type: --------
Dilution : 10.000000

Element	Concentration	Cal Conc	LRS Conc	Flag
Li 7	58.620 µg/L	200.000	0	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
103	906413	874931	Pass

Internal Standards referenced to 002CALB.D#

0 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (5)

Sample QC Report

675

File : D:\HPCHEM\1\DATA\Sep2702.16A\047SMPL.D\047SMPL.D#
Acquired : Sep 27 02 06:55 pm using AcqMethod LI-RH.M
Operator : JWB
Sample Name: M021283-012
Misc Info : ,
Vial Number: 2306
CurrentMeth: D:\HPCHEM\1\METHODS\LI-RH.M
BkgFile : --------
Sample Type: --------
Dilution : 10.000000

Element	Concentration	Cal Conc	LRS Conc	Flag
Li 7	145.600 µg/L	200.000	0	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
103	906413	864494	Pass

Internal Standards referenced to 002CALB.D#

0 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (5)

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2702.16A\048SMPL.D\048SMPL.D#
Acquired : Sep 27 02 06:59 pm using AcqMethod LI-RH.M
Operator : JWB
Sample Name: M021283-013
Misc Info : ,
Vial Number: 2307
CurrentMeth: D:\HPCHEM\1\METHODS\LI-RH.M
BkgFile : --------
Sample Type: --------
Dilution : 10.000000

Element	Concentration	Cal Conc	LRS Conc	Flag
Li 7	182.400 µg/L	200.000	0	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
103	906413	866337	Pass

Internal Standards referenced to 002CALB.D#

0 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (5)

Sample QC Report

677

File : D:\HPCHEM\1\DATA\Sep2702.16A\049SMPL.D\049SMPL.D#
Acquired : Sep 27 02 07:02 pm using AcqMethod LI-RH.M
Operator : JWB
Sample Name: M021283-014
Misc Info : ,
Vial Number: 2308
CurrentMeth: D:\HPCHEM\1\METHODS\LI-RH.M
BkgFile : --------
Sample Type: --------
Dilution : 10.000000

Element	Concentration	Cal Conc	LRS Conc	Flag
Li 7	235.700 µg/L	200.000	0	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
103	906413	867069	Pass

Internal Standards referenced to 002CALB.D#

0 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (5)

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2702.16A\050SMPL.D\050SMPL.D#
Acquired : Sep 27 02 07:06 pm using AcqMethod LI-RH.M
Operator : JWB
Sample Name: M021283-015
Misc Info : ,
Vial Number: 2309
CurrentMeth: D:\HPCHEM\1\METHODS\LI-RH.M
BkgFile : --------
Sample Type: --------
Dilution : 10.000000

Element	Concentration	Cal Conc	LRS Conc	Flag
Li 7	188.000 µg/L	200.000	0	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
103	906413	882284	Pass

Internal Standards referenced to 002CALB.D#

0 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (5)

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2702.16A\051SMPL.D\051SMPL.D#
Acquired : Sep 27 02 07:09 pm using AcqMethod LI-RH.M
Operator : JWB
Sample Name: M021283-016
Misc Info : ,
Vial Number: 2310
CurrentMeth: D:\HPCHEM\1\METHODS\LI-RH.M
BkgFile : --------
Sample Type: --------
Dilution : 10.000000

Element	Concentration	Cal Conc	LRS Conc	Flag
Li 7	156.800 µg/L	200.000	0	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
103	906413	854781	Pass

Internal Standards referenced to 002CALB.D#

0 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (5)

Sample QC Report

68J.

File : D:\HPCHEM\1\DATA\Sep2702.16A\052SMPL.D\052SMPL.D#
Acquired : Sep 27 02 07:13 pm using AcqMethod LI-RH.M
Operator : JWB
Sample Name: M021283-017
Misc Info : ,
Vial Number: 2311
CurrentMeth: D:\HPCHEM\1\METHODS\LI-RH.M
BkgFile : --------
Sample Type: --------
Dilution : 10.000000

Element	Concentration	Cal Conc	LRS Conc	Flag
Li 7	31.010 µg/L	200.000	0	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
103	906413	882085	Pass

Internal Standards referenced to 002CALB.D#

0 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (5)

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2702.16A\053SMPL.D\053SMPL.D#
Acquired : Sep 27 02 07:16 pm using AcqMethod LI-RH.M
Operator : JWB
Sample Name: M021283-018
Misc Info : ,
Vial Number: 2312
CurrentMeth: D:\HPCHEM\1\METHODS\LI-RH.M
BkgFile : --------
Sample Type: --------
Dilution : 10.000000

Element	Concentration	Cal Conc	LRS Conc	Flag
Li 7	30.990 µg/L	200.000	0	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
103	906413	870596	Pass

Internal Standards referenced to 002CALB.D#

0 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (5)

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2702.16A\054SMPL.D\054SMPL.D#
Acquired : Sep 27 02 07:20 pm using AcqMethod LI-RH.M
Operator : JWB
Sample Name: M021283-019
Misc Info : ,
Vial Number: 2401
CurrentMeth: D:\HPCHEM\1\METHODS\LI-RH.M
BkgFile : --------
Sample Type: --------
Dilution : 10.000000

Element	Concentration	Cal Conc	LRS Conc	Flag
Li 7	229.100 µg/L	200.000	0	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
103	906413	869467	Pass

Internal Standards referenced to 002CALB.D#

0 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (5)

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2702.16A\055SMPL.D\055SMPL.D#
Acquired : Sep 27 02 07:23 pm using AcqMethod LI-RH.M
Operator : JWB
Sample Name: M021283-020
Misc Info : ,
Vial Number: 2402
CurrentMeth: D:\HPCHEM\1\METHODS\LI-RH.M
BkgFile : --------
Sample Type: --------
Dilution : 10.000000

683

Element	Concentration	Cal Conc	LRS Conc	Flag
Li 7	149.100 µg/L	200.000	0	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
103	906413	872243	Pass

Internal Standards referenced to 002CALB.D#

0 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (5)

CCV QC Report

684

File : D:\HPCHEM\1\DATA\Sep2702.16A\056CCV_D\056CCV_D#
Acquired : Sep 27 02 07:27 pm using AcqMethod LI-RH.M
Operator : JWB
Sample Name: [STD-CCV]
Misc Info :
Vial Number: 1105
CurrentMeth: D:\HPCHEM\1\METHODS\LI-RH.M
BkgFile : --------
Sample Type: CCV
Dilution : 1.000000

CCV Mix #1

Element	Concentration	Expected	QC Range	Flag
Li 7	110.800 µg/L	100.00	90.00-110.00	*Fail*

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
103	906413	899620	Pass

Internal Standards referenced to 002CALB.D#

1 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (5)

Blank QC Report

File : D:\HPCHEM\1\DATA\Sep2702.16A\057CCB_.D\057CCB_.D#
Acquired : Sep 27 02 07:30 pm using AcqMethod LI-RH.M
Operator : JWB
Sample Name: [CB]
Misc Info :
Vial Number: 1102
CurrentMeth: D:\HPCHEM\1\METHODS\LI-RH.M
BkgFile : --------
Sample Type: CCB
Dilution : 1.000000

Element	Concentration	CRDL Limit	Flag
Li 7	-1.874 µg/L	1.00	*Fail*

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
103	906413	724140	Pass

Internal Standards referenced to 002CALB.D#

1 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (5)

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2702.16A\058SMPL.D\058SMPL.D#
Acquired : Sep 27 02 07:33 pm using AcqMethod LI-RH.M
Operator : JWB
Sample Name: M021283-021
Misc Info : ,
Vial Number: 2403
CurrentMeth: D:\HPCHEM\1\METHODS\LI-RH.M
BkgFile : --------
Sample Type: --------
Dilution : 10.000000

Element	Concentration	Cal Conc	LRS Conc	Flag
Li 7	223.900 µg/L	200.000	0	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
103	906413	510373	Pass

Internal Standards referenced to 002CALB.D#

0 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (5)

Sample QC Report

687

File : D:\HPCHEM\1\DATA\Sep2702.16A\059SMPL.D\059SMPL.D#
Acquired : Sep 27 02 07:37 pm using AcqMethod LI-RH.M
Operator : JWB
Sample Name: M021283-022
Misc Info : ,
Vial Number: 2404
CurrentMeth: D:\HPCHEM\1\METHODS\LI-RH.M
BkgFile : --------
Sample Type: --------
Dilution : 10.000000

Element	Concentration	Cal Conc	LRS Conc	Flag
Li 7	691.600 µg/L	200.000	0	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
103	906413	380389	Pass

Internal Standards referenced to 002CALB.D#

0 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (5)

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2702.16A\060SMPL.D\060SMPL.D#
Acquired : Sep 27 02 07:40 pm using AcqMethod LI-RH.M
Operator : JWB
Sample Name: M021283-023
Misc Info : ,
Vial Number: 2405
CurrentMeth: D:\HPCHEM\1\METHODS\LI-RH.M
BkgFile : --------
Sample Type: --------
Dilution : 10.000000

688

Element	Concentration	Cal Conc	LRS Conc	Flag
Li 7	495.700 µg/L	200.000	0	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
103	906413	294460	Pass

Internal Standards referenced to 002CALB.D#

0 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (5)

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep2702.16A\061SMPL.D\061SMPL.D#
Acquired : Sep 27 02 07:43 pm using AcqMethod LI-RH.M
Operator : JWB
Sample Name: M021283-024
Misc Info : ,
Vial Number: 2406
CurrentMeth: D:\HPCHEM\1\METHODS\LI-RH.M
BkgFile : --------
Sample Type: --------
Dilution : 10.000000

Element	Concentration	Cal Conc	LRS Conc	Flag
Li 7	1220.000 µg/L	200.000	0	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
103	906413	225860	*Fail*

Internal Standards referenced to 002CALB.D#

0 Element Failures. Maximum Number of Failures Allowed (20)
1 ISTD Failures. Maximum Number of ISTD Failures Allowed (5)

CCV QC Report

69J

File : D:\HPCHEM\1\DATA\Sep2702.16A\064CCV_.D\064CCV_.D#
Acquired : Sep 27 02 07:53 pm using AcqMethod LI-RH.M
Operator : JWB
Sample Name: [STD-CCV]
Misc Info :
Vial Number: 1105
CurrentMeth: D:\HPCHEM\1\METHODS\LI-RH.M
BkgFile : --------
Sample Type: CCV
Dilution : 1.000000

CCV Mix #1

Element	Concentration	Expected	QC Range	Flag
Li 7	966.100 µg/L	100.00	90.00-110.00	*Fail*

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
103	906413	141290	*Fail*

Internal Standards referenced to 002CALB.D#

1 Element Failures. Maximum Number of Failures Allowed (20)
1 ISTD Failures. Maximum Number of ISTD Failures Allowed (5)

Blank QC Report

691

File : D:\HPCHEM\1\DATA\Sep2702.16A\065CCB_.D\065CCB_.D#
Acquired : Sep 27 02 07:56 pm using AcqMethod LI-RH.M
Operator : JWB
Sample Name: [CB]
Misc Info :
Vial Number: 1102
CurrentMeth: D:\HPCHEM\1\METHODS\LI-RH.M
BkgFile : --------
Sample Type: CCB
Dilution : 1.000000

Element	Concentration	CRDL Limit	Flag
Li 7	257.200 µg/L	1.00	*Fail*

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
103	906413	132141	*Fail*

Internal Standards referenced to 002CALB.D#

1 Element Failures. Maximum Number of Failures Allowed (20)
1 ISTD Failures. Maximum Number of ISTD Failures Allowed (5)

Tune Sample Report

692

File : D:\HPCHEM\1\DATA\Sep3002.14A\001TUNE.D
Acquired : Sep 30 02 02:25 pm using AcqMethod QCTUNE.M
Operator : CJ
Sample Name: 6020/200.8 TUNE MIX
Misc Info :
Vial Number: 1101
CurrentMeth: D:\HPCHEM\1\METHODS\QCTUNE.M
BkgFile : --------
Sample Type: TUNE
Dilution : 1.000000

Minimum Response Criteria (cps/ppb)

Element	RSD(%)	Actual	Required	Flag
59	3.92	75147	> 200	
7	2.73	195539	> 20	
115	3.19	62798	> 100	
205	1.98	32820	> 10	
102		0(cps)	< 25(cps)	

Ion Ratio Criteria

	Actual	Required	Flag
59/59	1.00	1.00 - 1.00	
7/59	2.60	0.10 - 5.00	
115/59	0.84	0.10 - 10.00	
205/59	0.44	0.10 - 5.00	

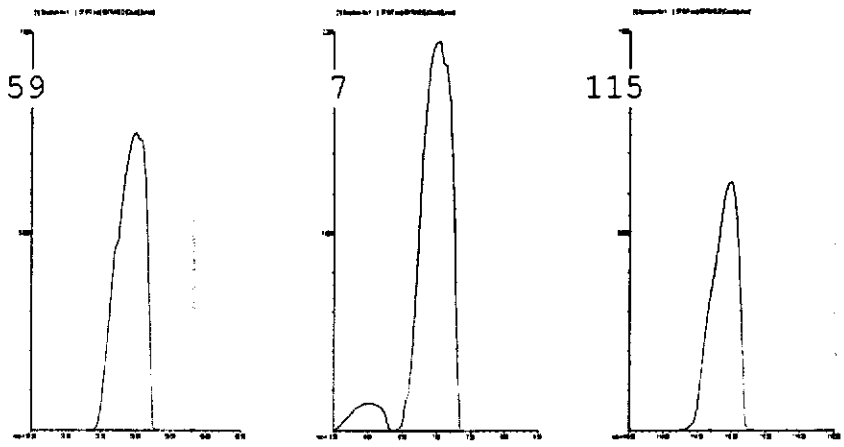

Mass Calib:	59.00	Mass Calib:	7.05	Mass Calib:	115.00
W-50%:	0.55	W-50%:	0.60	W-50%:	0.50
W-10%:	0.70	W-10%:	0.75	W-10%:	0.65

205 102

US EPA Method 200.8 Tune Verification

Acquired : Sep 30 02 02:25 pm using AcqMethod QCTUNE.M
Data File Name: D:\HPCHEM\1\DATA\Sep3002.14A\001TUNE.D

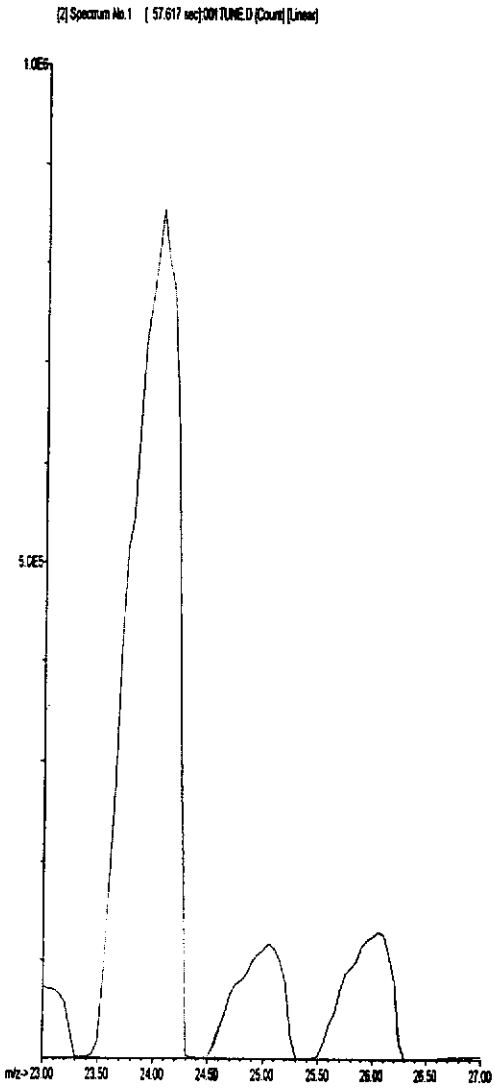

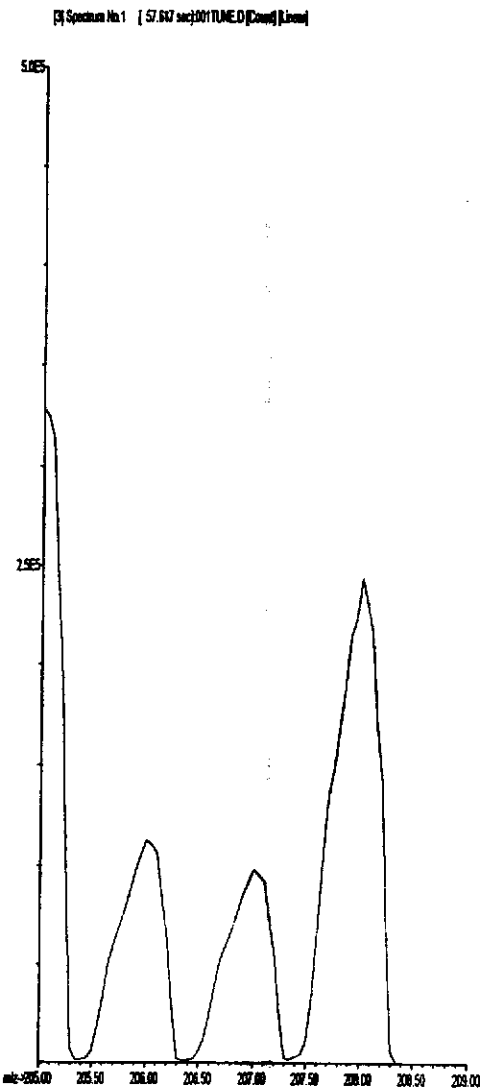

Element and Mass	Mass Assignment		PeakElement at 5and Mass Heig	Mass Assignment		Peak Width at 5% Peak Height
Mg 24	24.05	0.70	Pb 206	206.00	0.75	
Mg 25	25.05	0.70	Pb 207	207.00	0.75	
Mg 26	26.05	0.70	Pb 208	208.00	0.70	

* Does not meet EPA Method 200.8 specification.

Spectrum No.1 [57.617 sec]:001TUNE.D
Acquired : Sep 30 02 02:25 pm using AcqMethod QCTUNE.M
Bkg file : --------
Interference Correction: OFF

694

Mass[amu]	Element	Count	n	SD	RSD[%]
5		2185.76 P	5	100.20	4.58
6		1465115.00 P	5	53090.00	3.62
7	Li	20079900.00 A	5	570500.00	2.84
8		12.00 P	5	1.58	13.18
23		780114.50 P	5	113900.00	14.60
24		8298557.00 A	5	70970.00	0.86
25		1144388.00 P	5	20000.00	1.75
26		1269519.00 P	5	19490.00	1.54
27		30788.58 P	5	2089.00	6.79
58		70573.59 P	5	2836.00	4.02
59	Co	7438760.00 A	5	204200.00	2.75
60		187.00 P	5	31.29	16.73
101		25.80 P	5	3.27	12.68
103		347370.90 P	5	6764.00	1.95
114		95147.11 P	5	6119.00	6.43
115	In	5560992.00 A	5	206500.00	3.71
116		186.00 P	5	19.55	10.51
204		97065.62 P	5	575.80	0.59
205	Tl	3276596.00 P	5	61900.00	1.89
206		1110091.00 P	5	19120.00	1.72
207		963340.50 P	5	16800.00	1.74
208		2356718.00 P	5	44150.00	1.87
209		58.60 P	5	7.40	12.63

Calibration Blank QC Report

695

File : D:\HPCHEM\1\DATA\Sep3002.14A\002CALB.D\002CALB.D#
Acquired : Sep 30 02 02:33 pm using AcqMethod LI-RH.M
Operator : CJ
Sample Name: CAL BLANK
Misc Info :
Vial Number: 1102
CurrentMeth: D:\HPCHEM\1\METHODS\LI-RH.M
BkgFile : --------
Sample Type: CALBLK
Dilution : 1.000000

Mass	Element	Count	n	SD	RSD[%]
7	Li	111677.30 P	3	6569.00	5.88
103	Rh	461673.10 P	3	5446.00	1.18

Calibration QC Report

696

File : D:\HPCHEM\1\DATA\Sep3002.14A\003CALI.D\003CALI.D#
Acquired : Sep 30 02 02:37 pm using AcqMethod LI-RH.M
Operator : CJ
Sample Name: 0.2/1/10 CAL
Misc Info :
Vial Number: 1103
CurrentMeth: D:\HPCHEM\1\METHODS\LI-RH.M
BkgFile : --------
Sample Type: CALIB
Dilution : 1.000000

Mass	Element	Count	n	SD	RSD[%]
7	Li	89205.12 P	3	7556.00	8.47
103	Rh	443907.00 P	3	4934.00	1.11

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
103	307782	295938	Pass

Internal Standards referenced to 002CALB.D#

0 ISTD Failures. Maximum Number of ISTD Failures Allowed (5)

Calibration QC Report

File : D:\HPCHEM\1\DATA\Sep3002.14A\004CALI.D\004CALI.D#
Acquired : Sep 30 02 02:40 pm using AcqMethod LI-RH.M
Operator : CJ
Sample Name: 2/10/100 CAL
Misc Info :
Vial Number: 1104
CurrentMeth: D:\HPCHEM\1\METHODS\LI-RH.M
BkgFile : --------
Sample Type: CALIB
Dilution : 1.000000

Mass	Element	Count	n	SD	RSD[%]
7	Li	342087.80 P	3	6716.00	1.96
103	Rh	450954.40 P	3	8517.00	1.89

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
103	307782	300636	Pass

Internal Standards referenced to 002CALB.D#

0 ISTD Failures. Maximum Number of ISTD Failures Allowed (5)

Calibration QC Report

File : D:\HPCHEM\1\DATA\Sep3002.14A\005CALI.D\005CALI.D#
Acquired : Sep 30 02 02:44 pm using AcqMethod LI-RH.M
Operator : CJ
Sample Name: 10/100/1000 CAL
Misc Info :
Vial Number: 1105
CurrentMeth: D:\HPCHEM\1\METHODS\LI-RH.M
BkgFile : --------
Sample Type: CALIB
Dilution : 1.000000

Mass	Element	Count		n	SD	RSD[%]
7	Li	3068557.00	P	3	33940.00	1.11
103	Rh	444759.40	P	3	3561.00	0.80

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
103	307782	296506	Pass

Internal Standards referenced to 002CALB.D#

0 ISTD Failures. Maximum Number of ISTD Failures Allowed (5)

Calibration QC Report

File : D:\HPCHEM\1\DATA\Sep3002.14A\006CALI.D\006CALI.D#
Acquired : Sep 30 02 02:47 pm using AcqMethod LI-RH.M
Operator : CJ
Sample Name: -/200/10000 CAL
Misc Info :
Vial Number: 1106
CurrentMeth: D:\HPCHEM\1\METHODS\LI-RH.M
BkgFile : --------
Sample Type: CALIB
Dilution : 1.000000

Mass	Element	Count	n	SD	RSD[%]
7	Li	6268498.00 P	3	99790.00	1.59
103	Rh	438293.30 P	3	14620.00	3.34

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
103	307782	292196	Pass

Internal Standards referenced to 002CALB.D#

0 ISTD Failures. Maximum Number of ISTD Failures Allowed (5)

Blank QC Report

70J

File : D:\HPCHEM\1\DATA\Sep3002.14A\007CCB_D\007CCB_D#
Acquired : Sep 30 02 02:51 pm using AcqMethod LI-RH.M
Operator : CJ
Sample Name: [CB]
Misc Info :
Vial Number: 1102
CurrentMeth: D:\HPCHEM\1\METHODS\LI-RH.M
BkgFile : --------
Sample Type: CCB
Dilution : 1.000000

Element	Concentration	CRDL Limit	Flag
Li 7	-2.496 µg/L	1.00	*Fail*

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
103	307782	294450	Pass

Internal Standards referenced to 002CALB.D#

1 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (5)

ICV QC Report

File : D:\HPCHEM\1\DATA\Sep3002.14A\008ICV_D\008ICV_D#
Acquired : Sep 30 02 02:55 pm using AcqMethod LI-RH.M
Operator : CJ
Sample Name: [STD-ICV]
Misc Info :
Vial Number: 1107
CurrentMeth: D:\HPCHEM\1\METHODS\LI-RH.M
BkgFile : --------
Sample Type: ICV
Dilution : 1.000000

ICV Mix #1

Element	Concentration	Expected	QC Range	Flag
Li 7	110.600 µg/L	120.00	108.00-132.00	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
103	307782	306978	Pass

Internal Standards referenced to 002CALB.D#

0 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (5)

Interference Check A QC Report

File : D:\HPCHEM\1\DATA\Sep3002.14A\009ICSA.D\009ICSA.D#
Acquired : Sep 30 02 02:58 pm using AcqMethod LI-RH.M
Operator : CJ
Sample Name: [ICSA]
Misc Info :
Vial Number: 1303
CurrentMeth: D:\HPCHEM\1\METHODS\LI-RH.M
BkgFile : ---------
Sample Type: ICS_A_
Dilution : 1.000000

Element	Concentration	Expected	CRDL Range Conc	%Range Conc	Flag
Li 7	-3.193 µg/L	0.00	-1.00-1.00	0-0	*Fail*

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
103	307782	288715	Pass

Internal Standards referenced to 002CALB.D#

1 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (5)

Interference Check AB QC Report

7.03

File : D:\HPCHEM\1\DATA\Sep3002.14A\010ICSB.D\010ICSB.D#
Acquired : Sep 30 02 03:02 pm using AcqMethod LI-RH.M
Operator : CJ
Sample Name: [ICSAB]
Misc Info :
Vial Number: 1304
CurrentMeth: D:\HPCHEM\1\METHODS\LI-RH.M
BkgFile : --------
Sample Type: ICS_AB
Dilution : 1.000000

Element	Concentration	Expected	CRDL Range Conc	%Range Conc	Flag
Li 7	-3.260 µg/L	0.00	-1.00-1.00	0-0	*Fail*

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
103	307782	302360	Pass

Internal Standards referenced to 002CALB.D#

1 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (5)

Blank QC Report

File : D:\HPCHEM\1\DATA\Sep3002.14A\011CCB_D\011CCB_D#
Acquired : Sep 30 02 03:06 pm using AcqMethod LI-RH.M
Operator : CJ
Sample Name: BLANK
Misc Info :
Vial Number: 1
CurrentMeth: D:\HPCHEM\1\METHODS\LI-RH.M
BkgFile : --------
Sample Type: CCB
Dilution : 1.000000

Element	Concentration	CRDL Limit	Flag
Li 7	-3.402 µg/L	1.00	*Fail*

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
103	307782	341833	Pass

Internal Standards referenced to 002CALB.D#

1 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (5)

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep3002.14A\012SMPL.D\012SMPL.D#
Acquired : Sep 30 02 03:09 pm using AcqMethod LI-RH.M
Operator : CJ
Sample Name: M021282-022
Misc Info : ,
Vial Number: 2101
CurrentMeth: D:\HPCHEM\1\METHODS\LI-RH.M
BkgFile : --------
Sample Type: --------
Dilution : 10.000000

Element	Concentration	Cal Conc	LRS Conc	Flag
Li 7	166.100 µg/L	200.000	0	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
103	307782	284235	Pass

Internal Standards referenced to 002CALB.D#

0 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (5)

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep3002.14A\013SMPL.D\013SMPL.D#
Acquired : Sep 30 02 03:13 pm using AcqMethod LI-RH.M
Operator : CJ
Sample Name: M021282-023
Misc Info : ,
Vial Number: 2102
CurrentMeth: D:\HPCHEM\1\METHODS\LI-RH.M
BkgFile : --------
Sample Type: --------
Dilution : 10.000000

Element	Concentration	Cal Conc	LRS Conc	Flag
Li 7	236.900 µg/L	200.000	0	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
103	307782	282550	Pass

Internal Standards referenced to 002CALB.D#

0 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (5)

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep3002.14A\014SMPL.D\014SMPL.D#
Acquired : Sep 30 02 03:16 pm using AcqMethod LI-RH.M
Operator : CJ
Sample Name: M021282-024
Misc Info : ,
Vial Number: 2103
CurrentMeth: D:\HPCHEM\1\METHODS\LI-RH.M
BkgFile : --------
Sample Type: --------
Dilution : 10.000000

707

Element	Concentration	Cal Conc	LRS Conc	Flag
Li 7	120.100 µg/L	200.000	0	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
103	307782	285349	Pass

Internal Standards referenced to 002CALB.D#

0 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (5)

Sample QC Report

708

File : D:\HPCHEM\1\DATA\Sep3002.14A\015SMPL.D\015SMPL.D#
Acquired : Sep 30 02 03:20 pm using AcqMethod LI-RH.M
Operator : CJ
Sample Name: M021282-025
Misc Info : ,
Vial Number: 2104
CurrentMeth: D:\HPCHEM\1\METHODS\LI-RH.M
BkgFile : --------
Sample Type: --------
Dilution : 10.000000

Element	Concentration	Cal Conc	LRS Conc	Flag
Li 7	88.560 µg/L	200.000	0	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
103	307782	278933	Pass

Internal Standards referenced to 002CALB.D#

0 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (5)

Sample QC Report

709

File : D:\HPCHEM\1\DATA\Sep3002.14A\016SMPL.D\016SMPL.D#
Acquired : Sep 30 02 03:24 pm using AcqMethod LI-RH.M
Operator : CJ
Sample Name: M021282-026
Misc Info : ,
Vial Number: 2105
CurrentMeth: D:\HPCHEM\1\METHODS\LI-RH.M
BkgFile : --------
Sample Type: --------
Dilution : 10.000000

Element	Concentration	Cal Conc	LRS Conc	Flag
Li 7	124.400 µg/L	200.000	0	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
103	307782	279537	Pass

Internal Standards referenced to 002CALB.D#

0 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (5)

Sample QC Report

File : D:\HPCHEM\1\DATA\Sep3002.14A\017SMPL.D\017SMPL.D#
Acquired : Sep 30 02 03:27 pm using AcqMethod LI-RH.M
Operator : CJ
Sample Name: [STD-CCV]
Misc Info : ,
Vial Number: 1105
CurrentMeth: D:\HPCHEM\1\METHODS\LI-RH.M
BkgFile : --------
Sample Type: --------
Dilution : 1.000000

71U

Element	Concentration	Cal Conc	LRS Conc	Flag
Li 7	89.520 µg/L	200.000	0	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
103	307782	285553	Pass

Internal Standards referenced to 002CALB.D#

0 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (5)

Sample QC Report

711

File : D:\HPCHEM\1\DATA\Sep3002.14A\018SMPL.D\018SMPL.D#
Acquired : Sep 30 02 03:31 pm using AcqMethod LI-RH.M
Operator : CJ
Sample Name: [CB]
Misc Info : ,
Vial Number: 1102
CurrentMeth: D:\HPCHEM\1\METHODS\LI-RH.M
BkgFile : --------
Sample Type: --------
Dilution : 1.000000

Element	Concentration	Cal Conc	LRS Conc	Flag
Li 7	-2.540 µg/L	200.000	0	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
103	307782	276622	Pass

Internal Standards referenced to 002CALB.D#

0 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (5)

Tune Sample Report

File : D:\HPCHEM\1\DATA\Oct0102.09A\001TUNE.D
Acquired : Oct 1 02 09:06 am using AcqMethod QCTUNE.M
Operator : CJ
Sample Name: 6020/200.8 TUNE MIX
Misc Info :
Vial Number: 1101
CurrentMeth: D:\HPCHEM\1\METHODS\QCTUNE.M
BkgFile : --------
Sample Type: TUNE
Dilution : 1.000000

Minimum Response Criteria (cps/ppb)

Element	RSD(%)	Actual	Required	Flag
59	0.87	128851	> 200	
7	2.01	136713	> 20	
115	2.26	158025	> 100	
205	3.23	74148	> 10	
102		0(cps)	< 25(cps)	

Ion Ratio Criteria

	Actual	Required	Flag
59/59	1.00	1.00 - 1.00	
7/59	1.06	0.10 - 5.00	
115/59	1.23	0.10 - 10.00	
205/59	0.58	0.10 - 5.00	

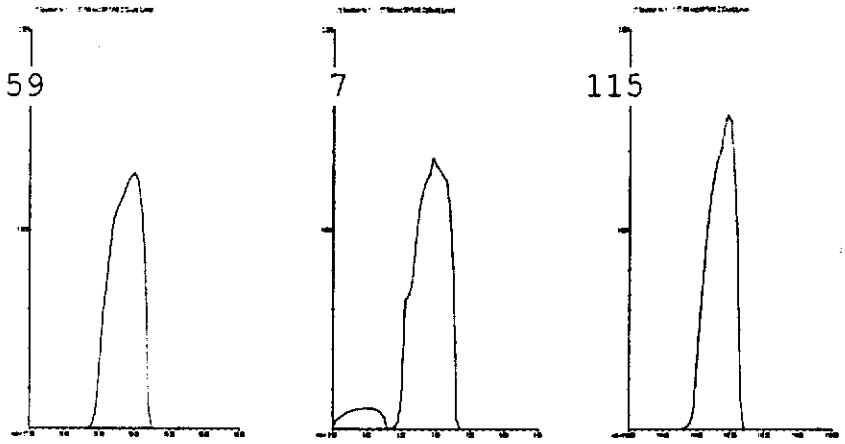

Mass Calib:	59.00	Mass Calib:	6.95	Mass Calib:	114.95
W-50%:	0.60	W-50%:	0.60	W-50%:	0.55
W-10%:	0.70	W-10%:	0.75	W-10%:	0.65

205 102

US EPA Method 200.8 Tune Verification

Acquired : Oct 1 02 09:06 am using AcqMethod QCTUNE.M
Data File Name: D:\HPCHEM\1\DATA\Oct0102.09A\001TUNE.D

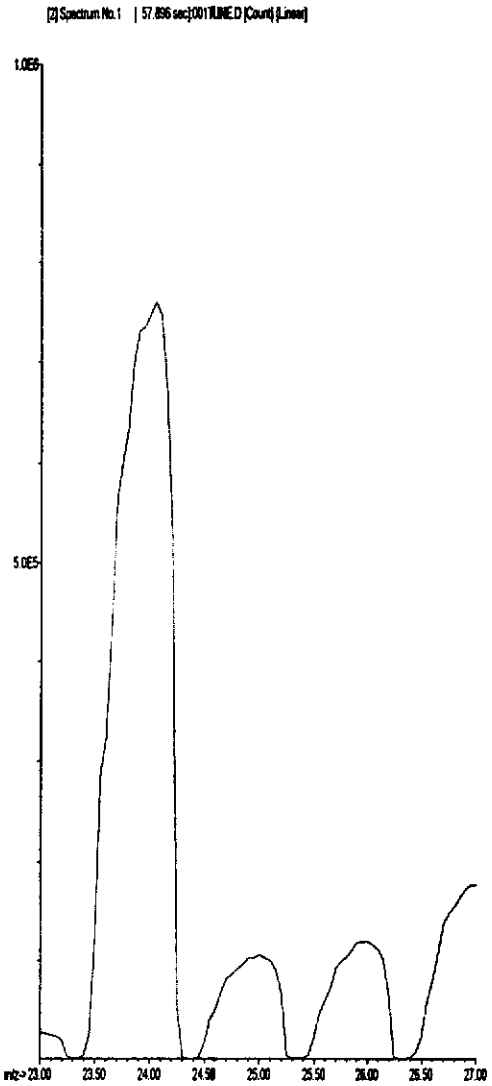

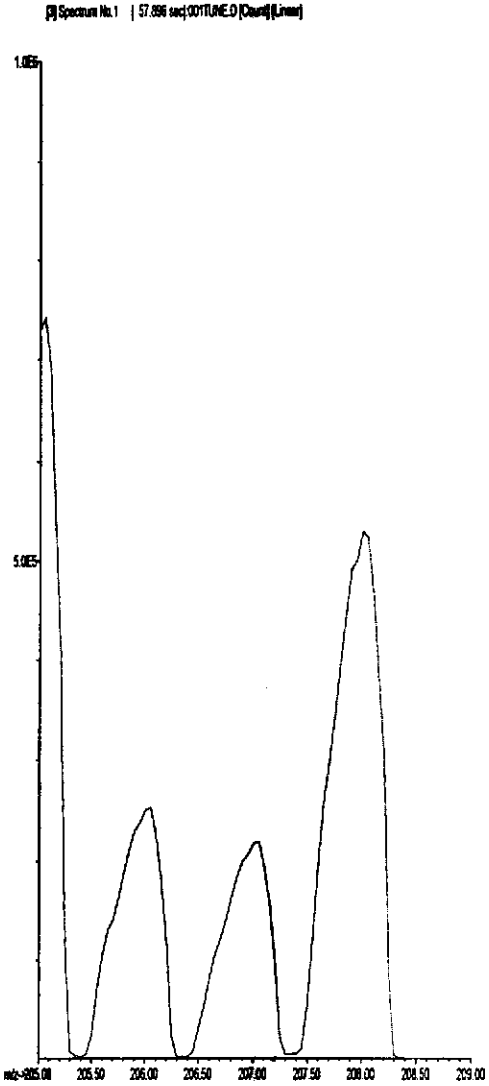

Element and Mass	Mass Assignment	PeakHeig	Element at 5and Mass	Mass Assignment	Peak Width at 5% Peak Height
Mg 24	24.05	0.75	Pb 206	206.05	0.75
Mg 25	25.00	0.70	Pb 207	207.05	0.75
Mg 26	26.00	0.70	Pb 208	208.00	0.75

* Does not meet EPA Method 200.8 specification.

Spectrum No.1 [57.896 sec]:001TUNE.D
Acquired : Oct 1 02 09:06 am using AcqMethod QCTUNE.M
Bkg file : --------
Interference Correction: OFF

Mass[amu]	Element	Count	n	SD	RSD[%]
5		11513.07 P	5	428.30	3.72
6		1452769.00 P	5	11310.00	0.78
7	Li	16229080.00 A	5	371600.00	2.29
8		7.40 P	5	1.82	24.55
23		447753.60 P	5	21020.00	4.70
24		8526057.00 A	5	176800.00	2.07
25		1209559.00 P	5	36470.00	3.01
26		1362402.00 P	5	24540.00	1.80
27		1959527.00 P	5	45080.00	2.30
58		425713.00 P	5	9267.00	2.18
59	Co	13765470.00 A	5	86450.00	0.63
60		1158.25 P	5	30.89	2.67
101		38.80 P	5	3.27	8.43
103		1020272.00 P	5	4756.00	0.47
114		482087.40 P	5	34970.00	7.25
115	In	14669810.00 A	5	298900.00	2.04
116		685.03 P	5	37.81	5.52
204		276730.90 P	5	5401.00	1.95
205	Tl	7539033.00 A	5	76480.00	1.01
206		2564819.00 P	5	36360.00	1.42
207		2230377.00 P	5	33900.00	1.52
208		5361205.00 A	5	87530.00	1.63
209		99.60 P	5	27.37	27.48

Calibration Blank QC Report

File : D:\HPCHEM\1\DATA\Oct0102.09A\002CALB.D\002CALB.D#
Acquired : Oct 1 02 09:14 am using AcqMethod LI-RH.M
Operator : CJ
Sample Name: CAL BLANK
Misc Info :
Vial Number: 1102
CurrentMeth: D:\HPCHEM\1\METHODS\LI-RH.M
BkgFile : --------
Sample Type: CALBLK
Dilution : 1.000000

715

Mass	Element	Count	n	SD	RSD[%]
7	Li	26130.98 P	3	421.00	1.61
103	Rh	1251102.00 P	3	8941.00	0.71

Calibration QC Report

File : D:\HPCHEM\1\DATA\Oct0102.09A\003CALI.D\003CALI.D#
Acquired : Oct 1 02 09:18 am using AcqMethod LI-RH.M
Operator : CJ
Sample Name: 0.2/1/10 CAL
Misc Info :
Vial Number: 1103
CurrentMeth: D:\HPCHEM\1\METHODS\LI-RH.M
BkgFile : --------
Sample Type: CALIB
Dilution : 1.000000

Mass	Element	Count	n	SD	RSD[%]
7	Li	41169.56 P	3	988.20	2.40
103	Rh	1191228.00 P	3	11370.00	0.95

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
103	834068	794152	Pass

Internal Standards referenced to 002CALB.D#

0 ISTD Failures. Maximum Number of ISTD Failures Allowed (5)

Calibration QC Report

717

File : D:\HPCHEM\1\DATA\Oct0102.09A\004CALI.D\004CALI.D#
Acquired : Oct 1 02 09:21 am using AcqMethod LI-RH.M
Operator : CJ
Sample Name: 2/10/100 CAL
Misc Info :
Vial Number: 1104
CurrentMeth: D:\HPCHEM\1\METHODS\LI-RH.M
BkgFile : --------
Sample Type: CALIB
Dilution : 1.000000

Mass	Element	Count	n	SD	RSD[%]
7	Li	228646.80 P	3	6481.00	2.83
103	Rh	1233876.00 P	3	6770.00	0.55

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
103	834068	822584	Pass

Internal Standards referenced to 002CALB.D#

0 ISTD Failures. Maximum Number of ISTD Failures Allowed (5)

Calibration QC Report

File : D:\HPCHEM\1\DATA\Oct0102.09A\005CALI.D\005CALI.D#
Acquired : Oct 1 02 09:25 am using AcqMethod LI-RH.M
Operator : CJ
Sample Name: 10/100/1000 CAL
Misc Info :
Vial Number: 1105
CurrentMeth: D:\HPCHEM\1\METHODS\LI-RH.M
BkgFile : --------
Sample Type: CALIB
Dilution : 1.000000

Mass	Element	Count	n	SD	RSD[%]
7	Li	2073297.00 P	3	56690.00	2.73
103	Rh	1226218.00 P	3	3763.00	0.31

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
103	834068	817479	Pass

Internal Standards referenced to 002CALB.D#

0 ISTD Failures. Maximum Number of ISTD Failures Allowed (5)

Calibration QC Report

File : D:\HPCHEM\1\DATA\Oct0102.09A\006CALI.D\006CALI.D#
Acquired : Oct 1 02 09:29 am using AcqMethod LI-RH.M
Operator : CJ
Sample Name: -/200/10000 CAL
Misc Info :
Vial Number: 1106
CurrentMeth: D:\HPCHEM\1\METHODS\LI-RH.M
BkgFile : --------
Sample Type: CALIB
Dilution : 1.000000

Mass	Element	Count	n	SD	RSD[%]
7	Li	4161147.00 P	3	65340.00	1.57
103	Rh	1239074.00 P	3	17760.00	1.43

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
103	834068	826049	Pass

Internal Standards referenced to 002CALB.D#

0 ISTD Failures. Maximum Number of ISTD Failures Allowed (5)

720

Blank QC Report

File : D:\HPCHEM\1\DATA\Oct0102.09A\007CCB_D\007CCB_.D#
Acquired : Oct 1 02 09:32 am using AcqMethod LI-RH.M
Operator : CJ
Sample Name: [CB]
Misc Info :
Vial Number: 1102
CurrentMeth: D:\HPCHEM\1\METHODS\LI-RH.M
BkgFile : --------
Sample Type: CCB
Dilution : 1.000000

Element	Concentration	CRDL Limit	Flag
Li 7	-0.706 µg/L	1.00	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
103	834068	799362	Pass

Internal Standards referenced to 002CALB.D#

0 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (5)

ICV QC Report

File : D:\HPCHEM\1\DATA\Oct0102.09A\008ICV_.D\008ICV_.D#
Acquired : Oct 1 02 09:36 am using AcqMethod LI-RH.M
Operator : CJ
Sample Name: [STD-ICV]
Misc Info :
Vial Number: 1107
CurrentMeth: D:\HPCHEM\1\METHODS\LI-RH.M
BkgFile : --------
Sample Type: ICV
Dilution : 1.000000

721

ICV Mix #1

Element	Concentration	Expected	QC Range	Flag
Li 7	115.900 µg/L	120.00	108.00-132.00	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
103	834068	834709	Pass

Internal Standards referenced to 002CALB.D#

0 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (5)

Interference Check A QC Report

File : D:\HPCHEM\1\DATA\Oct0102.09A\009ICSA.D\009ICSA.D#
Acquired : Oct 1 02 09:39 am using AcqMethod LI-RH.M
Operator : CJ
Sample Name: [ICSA]
Misc Info :
Vial Number: 1303
CurrentMeth: D:\HPCHEM\1\METHODS\LI-RH.M
BkgFile : --------
Sample Type: ICS_A_
Dilution : 1.000000

722

Element	Concentration	Expected	CRDL Range Conc	%Range Conc	Flag
Li 7	-0.964 µg/L	0.00	-1.00-1.00	0-0	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
103	834068	791929	Pass

Internal Standards referenced to 002CALB.D#

0 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (5)

Interference Check AB QC Report

723

File : D:\HPCHEM\1\DATA\Oct0102.09A\010ICSB.D\010ICSB.D#
Acquired : Oct 1 02 09:43 am using AcqMethod LI-RH.M
Operator : CJ
Sample Name: [ICSAB]
Misc Info :
Vial Number: 1304
CurrentMeth: D:\HPCHEM\1\METHODS\LI-RH.M
BkgFile : --------
Sample Type: ICS_AB
Dilution : 1.000000

Element	Concentration	Expected	CRDL Range Conc	%Range Conc	Flag
Li 7	-1.037 µg/L	0.00	-1.00-1.00	0-0	*Fail*

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
103	834068	787240	Pass

Internal Standards referenced to 002CALB.D#

1 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (5)

Blank QC Report

File : D:\HPCHEM\1\DATA\Oct0102.09A\011CCB_.D\011CCB_.D#
Acquired : Oct 1 02 09:47 am using AcqMethod LI-RH.M
Operator : CJ
Sample Name: BLANK
Misc Info :
Vial Number: 1
CurrentMeth: D:\HPCHEM\1\METHODS\LI-RH.M
BkgFile : --------
Sample Type: CCB
Dilution : 1.000000

724

Element	Concentration	CRDL Limit	Flag
Li 7	-1.081 µg/L	1.00	*Fail*

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
103	834068	899795	Pass

Internal Standards referenced to 002CALB.D#

1 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (5)

Sample QC Report

File : D:\HPCHEM\1\DATA\Oct0102.09A\012SMPL.D\012SMPL.D#
Acquired : Oct 1 02 09:50 am using AcqMethod LI-RH.M
Operator : CJ
Sample Name: M021283-001
Misc Info : ,
Vial Number: 2106
CurrentMeth: D:\HPCHEM\1\METHODS\LI-RH.M
BkgFile : --------
Sample Type: --------
Dilution : 1.000000

725

Element	Concentration	Cal Conc	LRS Conc	Flag
Li 7	-0.955 µg/L	200.000	0	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
103	834068	843434	Pass

Internal Standards referenced to 002CALB.D#

0 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (5)

Sample QC Report

File : D:\HPCHEM\1\DATA\Oct0102.09A\013SMPL.D\013SMPL.D#
Acquired : Oct 1 02 09:54 am using AcqMethod LI-RH.M
Operator : CJ
Sample Name: M021283-004
Misc Info : ,
Vial Number: 2107
CurrentMeth: D:\HPCHEM\1\METHODS\LI-RH.M
BkgFile : --------
Sample Type: --------
Dilution : 1.000000

726

Element	Concentration	Cal Conc	LRS Conc	Flag
Li 7	92.560 µg/L	200.000	0	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
103	834068	840041	Pass

Internal Standards referenced to 002CALB.D#

0 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (5)

Sample QC Report

File : D:\HPCHEM\1\DATA\Oct0102.09A\014SMPL.D\014SMPL.D#
Acquired : Oct 1 02 09:57 am using AcqMethod LI-RH.M
Operator : CJ
Sample Name: M021283-005
Misc Info : ,
Vial Number: 2108
CurrentMeth: D:\HPCHEM\1\METHODS\LI-RH.M
BkgFile : --------
Sample Type: --------
Dilution : 1.000000

Element	Concentration	Cal Conc	LRS Conc	Flag
Li 7	88.880 µg/L	200.000	0	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
103	834068	843299	Pass

Internal Standards referenced to 002CALB.D#

0 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (5)

Sample QC Report

File : D:\HPCHEM\1\DATA\Oct0102.09A\015SMPL.D\015SMPL.D#
Acquired : Oct 1 02 10:01 am using AcqMethod LI-RH.M
Operator : CJ
Sample Name: M021283-006
Misc Info : ,
Vial Number: 2109
CurrentMeth: D:\HPCHEM\1\METHODS\LI-RH.M
BkgFile : --------
Sample Type: --------
Dilution : 10.000000

Element	Concentration	Cal Conc	LRS Conc	Flag
Li 7	103.200 µg/L	200.000	0	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
103	834068	808247	Pass

Internal Standards referenced to 002CALB.D#

0 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (5)

Sample QC Report

File : D:\HPCHEM\1\DATA\Oct0102.09A\016SMPL.D\016SMPL.D#
Acquired : Oct 1 02 10:05 am using AcqMethod LI-RH.M
Operator : CJ
Sample Name: M021283-009
Misc Info : ,
Vial Number: 2110
CurrentMeth: D:\HPCHEM\1\METHODS\LI-RH.M
BkgFile : --------
Sample Type: --------
Dilution : 10.000000

Element	Concentration	Cal Conc	LRS Conc	Flag
Li 7	129.900 µg/L	200.000	0	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
103	834068	797296	Pass

Internal Standards referenced to 002CALB.D#

0 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (5)

Sample QC Report

File : D:\HPCHEM\1\DATA\Oct0102.09A\017SMPL.D\017SMPL.D#
Acquired : Oct 1 02 10:08 am using AcqMethod LI-RH.M
Operator : CJ
Sample Name: [STD-CCV]
Misc Info : ,
Vial Number: 1105
CurrentMeth: D:\HPCHEM\1\METHODS\LI-RH.M
BkgFile : --------
Sample Type: --------
Dilution : 1.000000

Element	Concentration	Cal Conc	LRS Conc	Flag
Li 7	92.350 µg/L	200.000	0	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
103	834068	832841	Pass

Internal Standards referenced to 002CALB.D#

0 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (5)

Sample QC Report

File : D:\HPCHEM\1\DATA\Oct0102.09A\018SMPL.D\018SMPL.D#
Acquired : Oct 1 02 10:12 am using AcqMethod LI-RH.M
Operator : CJ
Sample Name: [CB]
Misc Info : ,
Vial Number: 1102
CurrentMeth: D:\HPCHEM\1\METHODS\LI-RH.M
BkgFile : --------
Sample Type: --------
Dilution : 1.000000

Element	Concentration	Cal Conc	LRS Conc	Flag
Li 7	-0.941 µg/L	200.000	0	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
103	834068	848544	Pass

Internal Standards referenced to 002CALB.D#

0 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (5)

Sample QC Report

File : D:\HPCHEM\1\DATA\Oct0102.09A\019SMPL.D\019SMPL.D#
Acquired : Oct 1 02 10:16 am using AcqMethod LI-RH.M
Operator : CJ
Sample Name: M021283-010
Misc Info : ,
Vial Number: 2111
CurrentMeth: D:\HPCHEM\1\METHODS\LI-RH.M
BkgFile : --------
Sample Type: --------
Dilution : 10.000000

732

Element	Concentration	Cal Conc	LRS Conc	Flag
Li 7	224.800 µg/L	200.000	0	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
103	834068	810433	Pass

Internal Standards referenced to 002CALB.D#

0 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (5)

Sample QC Report

File : D:\HPCHEM\1\DATA\Oct0102.10A\001SMPL.D\001SMPL.D#
Acquired : Oct 1 02 10:21 am using AcqMethod LI-RH.M
Operator : CJ
Sample Name: M021283-011
Misc Info : ,
Vial Number: 2112
CurrentMeth: D:\HPCHEM\1\METHODS\LI-RH.M
BkgFile : --------
Sample Type: --------
Dilution : 10.000000

Element	Concentration	Cal Conc	LRS Conc	Flag
Li 7	110.300 µg/L	200.000	0	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
103	834068	812913	Pass

Internal Standards referenced to 002CALB.D#

0 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (5)

Sample QC Report

File : D:\HPCHEM\1\DATA\Oct0102.10A\002SMPL.D\002SMPL.D#
Acquired : Oct 1 02 10:24 am using AcqMethod LI-RH.M
Operator : CJ
Sample Name: M021283-012
Misc Info : ,
Vial Number: 2201
CurrentMeth: D:\HPCHEM\1\METHODS\LI-RH.M
BkgFile : --------
Sample Type: --------
Dilution : 10.000000

Element	Concentration	Cal Conc	LRS Conc	Flag
Li 7	233.100 µg/L	200.000	0	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
103	834068	800928	Pass

Internal Standards referenced to 002CALB.D#

0 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (5)

Sample QC Report

735

File : D:\HPCHEM\1\DATA\Oct0102.10A\003SMPL.D\003SMPL.D#
Acquired : Oct 1 02 10:28 am using AcqMethod LI-RH.M
Operator : CJ
Sample Name: M021283-013
Misc Info : ,
Vial Number: 2202
CurrentMeth: D:\HPCHEM\1\METHODS\LI-RH.M
BkgFile : --------
Sample Type: --------
Dilution : 10.000000

Element	Concentration	Cal Conc	LRS Conc	Flag
Li 7	261.900 µg/L	200.000	0	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
103	834068	817800	Pass

Internal Standards referenced to 002CALB.D#

0 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (5)

Sample QC Report

File : D:\HPCHEM\1\DATA\Oct0102.10A\004SMPL.D\004SMPL.D#
Acquired : Oct 1 02 10:32 am using AcqMethod LI-RH.M
Operator : CJ
Sample Name: M021283-014
Misc Info : ,
Vial Number: 2203
CurrentMeth: D:\HPCHEM\1\METHODS\LI-RH.M
BkgFile : --------
Sample Type: --------
Dilution : 10.000000

736

Element	Concentration	Cal Conc	LRS Conc	Flag
Li 7	339.200 µg/L	200.000	0	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
103	834068	813265	Pass

Internal Standards referenced to 002CALB.D#

0 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (5)

Sample QC Report

File : D:\HPCHEM\1\DATA\Oct0102.10A\005SMPL.D\005SMPL.D#
Acquired : Oct 1 02 10:35 am using AcqMethod LI-RH.M
Operator : CJ
Sample Name: [STD-CCV]
Misc Info : ,
Vial Number: 1105
CurrentMeth: D:\HPCHEM\1\METHODS\LI-RH.M
BkgFile : ---------
Sample Type: ---------
Dilution : 1.000000

Element	Concentration	Cal Conc	LRS Conc	Flag
Li 7	90.490 µg/L	200.000	0	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
103	834068	827865	Pass

Internal Standards referenced to 002CALB.D#

0 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (5)

Sample QC Report

File : D:\HPCHEM\1\DATA\Oct0102.10A\006SMPL.D\006SMPL.D#
Acquired : Oct 1 02 10:39 am using AcqMethod LI-RH.M
Operator : CJ
Sample Name: [CB]
Misc Info : ,
Vial Number: 1102
CurrentMeth: D:\HPCHEM\1\METHODS\LI-RH.M
BkgFile : --------
Sample Type: --------
Dilution : 1.000000

Element	Concentration	Cal Conc	LRS Conc	Flag
Li 7	-0.989 µg/L	200.000	0	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
103	834068	844083	Pass

Internal Standards referenced to 002CALB.D#

0 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (5)

Sample QC Report

File : D:\HPCHEM\1\DATA\Oct0102.10A\007SMPL.D\007SMPL.D#
Acquired : Oct 1 02 10:42 am using AcqMethod LI-RH.M
Operator : CJ
Sample Name: M021283-015
Misc Info : ,
Vial Number: 2204
CurrentMeth: D:\HPCHEM\1\METHODS\LI-RH.M
BkgFile : --------
Sample Type: --------
Dilution : 10.000000

Element	Concentration	Cal Conc	LRS Conc	Flag
Li 7	276.200 µg/L	200.000	0	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
103	834068	812854	Pass

Internal Standards referenced to 002CALB.D#

0 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (5)

Sample QC Report

File : D:\HPCHEM\1\DATA\Oct0102.10A\008SMPL.D\008SMPL.D#
Acquired : Oct 1 02 10:46 am using AcqMethod LI-RH.M
Operator : CJ
Sample Name: M021283-016
Misc Info : ,
Vial Number: 2205
CurrentMeth: D:\HPCHEM\1\METHODS\LI-RH.M
BkgFile : --------
Sample Type: --------
Dilution : 10.000000

Element	Concentration	Cal Conc	LRS Conc	Flag
Li 7	248.100 µg/L	200.000	0	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
103	834068	804389	Pass

Internal Standards referenced to 002CALB.D#

0 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (5)

Sample QC Report

741

File : D:\HPCHEM\1\DATA\Oct0102.10A\009SMPL.D\009SMPL.D#
Acquired : Oct 1 02 10:50 am using AcqMethod LI-RH.M
Operator : CJ
Sample Name: M021283-017
Misc Info : ,
Vial Number: 2206
CurrentMeth: D:\HPCHEM\1\METHODS\LI-RH.M
BkgFile : --------
Sample Type: --------
Dilution : 10.000000

Element	Concentration	Cal Conc	LRS Conc	Flag
Li 7	65.140 µg/L	200.000	0	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
103	834068	800018	Pass

Internal Standards referenced to 002CALB.D#

0 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (5)

Sample QC Report

742

File : D:\HPCHEM\1\DATA\Oct0102.10A\010SMPL.D\010SMPL.D#
Acquired : Oct 1 02 10:53 am using AcqMethod LI-RH.M
Operator : CJ
Sample Name: M021283-018
Misc Info : ,
Vial Number: 2207
CurrentMeth: D:\HPCHEM\1\METHODS\LI-RH.M
BkgFile : --------
Sample Type: --------
Dilution : 10.000000

Element	Concentration	Cal Conc	LRS Conc	Flag
Li 7	57.820 µg/L	200.000	0	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
103	834068	817157	Pass

Internal Standards referenced to 002CALB.D#

0 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (5)

Sample QC Report

743

File : D:\HPCHEM\1\DATA\Oct0102.10A\011SMPL.D\011SMPL.D#
Acquired : Oct 1 02 10:57 am using AcqMethod LI-RH.M
Operator : CJ
Sample Name: M021283-019
Misc Info : ,
Vial Number: 2208
CurrentMeth: D:\HPCHEM\1\METHODS\LI-RH.M
BkgFile : --------
Sample Type: --------
Dilution : 10.000000

Element	Concentration	Cal Conc	LRS Conc	Flag
Li 7	318.500 µg/L	200.000	0	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
103	834068	814546	Pass

Internal Standards referenced to 002CALB.D#

0 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (5)

Sample QC Report

File : D:\HPCHEM\1\DATA\Oct0102.10A\012SMPL.D\012SMPL.D#
Acquired : Oct 1 02 11:01 am using AcqMethod LI-RH.M
Operator : CJ
Sample Name: [STD-CCV]
Misc Info : ,
Vial Number: 1105
CurrentMeth: D:\HPCHEM\1\METHODS\LI-RH.M
BkgFile : --------
Sample Type: --------
Dilution : 1.000000

Element	Concentration	Cal Conc	LRS Conc	Flag
Li 7	93.100 µg/L	200.000	0	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
103	834068	843571	Pass

Internal Standards referenced to 002CALB.D#

0 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (5)

Sample QC Report

File : D:\HPCHEM\1\DATA\Oct0102.10A\013SMPL.D\013SMPL.D#
Acquired : Oct 1 02 11:04 am using AcqMethod LI-RH.M
Operator : CJ
Sample Name: [CB]
Misc Info : ,
Vial Number: 1102
CurrentMeth: D:\HPCHEM\1\METHODS\LI-RH.M
BkgFile : --------
Sample Type: --------
Dilution : 1.000000

Element	Concentration	Cal Conc	LRS Conc	Flag
Li 7	-1.008 µg/L	200.000	0	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
103	834068	829438	Pass

Internal Standards referenced to 002CALB.D#

0 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (5)

Sample QC Report

File : D:\HPCHEM\1\DATA\Oct0102.10A\014SMPL.D\014SMPL.D#
Acquired : Oct 1 02 11:08 am using AcqMethod LI-RH.M
Operator : CJ
Sample Name: M021283-020
Misc Info : ,
Vial Number: 2209
CurrentMeth: D:\HPCHEM\1\METHODS\LI-RH.M
BkgFile : --------
Sample Type: ---------
Dilution : 10.000000

746

Element	Concentration	Cal Conc	LRS Conc	Flag
Li 7	212.600 µg/L	200.000	0	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
103	834068	809798	Pass

Internal Standards referenced to 002CALB.D#

0 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (5)

Sample QC Report

747

File : D:\HPCHEM\1\DATA\Oct0102.10A\015SMPL.D\015SMPL.D#
Acquired : Oct 1 02 11:11 am using AcqMethod Li-RH.M
Operator : CJ
Sample Name: M021283-021
Misc Info : ,
Vial Number: 2210
CurrentMeth: D:\HPCHEM\1\METHODS\LI-RH.M
BkgFile : --------
Sample Type: --------
Dilution : 10.000000

Element	Concentration	Cal Conc	LRS Conc	Flag
Li 7	152.600 µg/L	200.000	0	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
103	834068	792987	Pass

Internal Standards referenced to 002CALB.D#

0 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (5)

Sample QC Report

748

File : D:\HPCHEM\1\DATA\Oct0102.10A\016SMPL.D\016SMPL.D#
Acquired : Oct 1 02 11:15 am using AcqMethod LI-RH.M
Operator : CJ
Sample Name: M021283-022
Misc Info : ,
Vial Number: 2211
CurrentMeth: D:\HPCHEM\1\METHODS\LI-RH.M
BkgFile : --------
Sample Type: --------
Dilution : 10.000000

Element	Concentration	Cal Conc	LRS Conc	Flag
Li 7	328.900 µg/L	200.000	0	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
103	834068	787419	Pass

Internal Standards referenced to 002CALB.D#

0 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (5)

Sample QC Report

File : D:\HPCHEM\1\DATA\Oct0102.10A\017SMPL.D\017SMPL.D#
Acquired : Oct 1 02 11:19 am using AcqMethod LI-RH.M
Operator : CJ
Sample Name: M021283-023
Misc Info : ,
Vial Number: 2212
CurrentMeth: D:\HPCHEM\1\METHODS\LI-RH.M
BkgFile : --------
Sample Type: --------
Dilution : 10.000000

749

Element	Concentration	Cal Conc	LRS Conc	Flag
Li 7	97.050 µg/L	200.000	0	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
103	834068	795360	Pass

Internal Standards referenced to 002CALB.D#

0 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (5)

Sample QC Report

750

File : D:\HPCHEM\1\DATA\Oct0102.10A\018SMPL.D\018SMPL.D#
Acquired : Oct 1 02 11:22 am using AcqMethod LI-RH.M
Operator : CJ
Sample Name: M021283-024
Misc Info : ,
Vial Number: 2301
CurrentMeth: D:\HPCHEM\1\METHODS\LI-RH.M
BkgFile : --------
Sample Type: --------
Dilution : 10.000000

Element	Concentration	Cal Conc	LRS Conc	Flag
Li 7	235.300 µg/L	200.000	0	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
103	834068	780859	Pass

Internal Standards referenced to 002CALB.D#

0 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (5)

CCV QC Report

751

File : D:\HPCHEM\1\DATA\Oct0102.10A\021CCV_.D\021CCV_.D#
Acquired : Oct 1 02 11:33 am using AcqMethod LI-RH.M
Operator : CJ
Sample Name: [STD-CCV]
Misc Info :
Vial Number: 1105
CurrentMeth: D:\HPCHEM\1\METHODS\LI-RH.M
BkgFile : --------
Sample Type: CCV
Dilution : 1.000000

CCV Mix #1

Element	Concentration	Expected	QC Range	Flag
Li 7	92.370 µg/L	100.00	90.00-110.00	Pass

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
103	834068	795867	Pass

Internal Standards referenced to 002CALB.D#

0 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (5)

Blank QC Report

752

File : D:\HPCHEM\1\DATA\Oct0102.10A\022CCB_.D\022CCB_.D#
Acquired : Oct 1 02 11:37 am using AcqMethod LI-RH.M
Operator : CJ
Sample Name: [CB]
Misc Info :
Vial Number: 1102
CurrentMeth: D:\HPCHEM\1\METHODS\LI-RH.M
BkgFile : --------
Sample Type: CCB
Dilution : 1.000000

Element	Concentration	CRDL Limit	Flag
Li 7	-1.049 µg/L	1.00	*Fail*

Internal Standard QC Report

ISTD m/z	Ref. Counts	Sample Counts	Flag
103	834068	785002	Pass

Internal Standards referenced to 002CALB.D#

1 Element Failures. Maximum Number of Failures Allowed (20)
0 ISTD Failures. Maximum Number of ISTD Failures Allowed (5)

Assaigai Analytical Laboratories, Inc.

Run Group Cover Sheet

Run Group	WC.2002.1317
Reviewed:	9/27/2002 3:43:28 PM
By:	NJL

Calc Method	ABS
Import Source	LOL01
Instrument:	U1100B

Calibration Mode	LIBRARY
Calculation Mode	NORMAL
Spike Dilution Mode	NORMAL

RAW QUANT FLAGS	
a	*all result information keyed in manually*
d	*data from instrument keyed in manually*
i	*integration of peak performed manually*
q	*qdelete of peak*
r	*response factor postquant adjustment*

CALIBRATION LIBRARY REPORT

Calc Method	Analyte	ClassCode	Tracking Group	Analzyed	Signal	Ref Conc
ABS	CR6	STD-CAL1	WC.2002.873	7/30/2002 11:28:31 AM	0.002	0
ABS	CR6	STD-CAL2	WC.2002.873	7/30/2002 11:29:29 AM	0.013	0.01
ABS	CR6	STD-CAL3	WC.2002.873	7/30/2002 11:30:42 AM	0.103	0.125
ABS	CR6	STD-CAL4	WC.2002.873	7/30/2002 11:31:44 AM	0.217	0.25
ABS	CR6	STD-CAL5	WC.2002.873	7/30/2002 11:32:48 AM	0.417	0.5
ABS	CR6	STD-CAL6	WC.2002.873	7/30/2002 11:33:58 AM	0.815	1

Dept. Review + Funnel: SB 10/6/02.

Assaigai Analytical Laboratories, Inc.

Laboratory Logbook

Run Group WC.2002.1317
Import Source LOL01
Instrument: U1100B

o	Run#	Acquisition Date	Data File	Vial	e	Sample Run ID	Run DF	Comment	see data file(s)	Analyst
	1	09-24-02 17:03:25	02092609.222	1		[STD-CCV]	1			NJL
	2	09-24-02 17:04:29	02092609.222	2		W02387-001	1			NJL
	3	09-24-02 17:05:27	02092609.222	3		W02387-002	1			NJL
	4	09-24-02 17:06:22	02092609.222	4		W02387-003	1			NJL
	5	09-25-02 13:42:36	02092609.222	5		W02387-004	1			NJL
	6	09-25-02 13:43:46	02092609.222	6		W02387-005	1			NJL
	7	09-25-02 13:46:36	02092609.222	7		W02387-006	1			NJL
	8	09-25-02 13:48:30	02092609.222	8		W02387-007	1			NJL
	9	09-25-02 13:50:13	02092609.222	9		W02387-008	1			NJL
	10	09-25-02 13:52:13	02092609.222	10		W02387-009	1			NJL
	11	09-25-02 13:54:35	02092609.222	11		W02387-010	1			NJL
	12	09-25-02 13:56:10	02092609.222	12		[STD-CCV]	1			NJL
	13	09-25-02 13:58:13	02092609.222	13		W02387-011	1			NJL
	14	09-25-02 13:59:55	02092609.222	14		ERROR	1			NJL
	15	09-25-02 14:00:20	02092609.222	15		W02387-012	1			NJL
	16	09-25-02 14:01:29	02092609.222	16		W02387-013	1			NJL
	17	09-25-02 14:03:03	02092609.222	17		W02387-014	1			NJL
	18	09-25-02 14:04:01	02092609.222	18		W02387-015	1			NJL
	19	09-25-02 14:05:49	02092609.222	19		W02387-016	1			NJL
	20	09-25-02 14:07:26	02092609.222	20		W02387-017	1			NJL
	21	09-25-02 14:08:29	02092609.222	21		W02387-018	1			NJL
	22	09-25-02 14:10:33	02092609.222	22		W02387-019	1			NJL
	23	09-25-02 14:11:54	02092609.222	23		W02387-020	1			NJL
	24	09-25-02 14:12:42	02092609.222	24		[STD-CCV]	1			NJL
	25	09-25-02 14:15:15	02092609.222	25		ERROR	1			NJL
	26	09-25-02 14:15:20	02092609.222	26		W02387-021	1			NJL
	27	09-25-02 14:18:54	02092609.222	27		W02387-022	1			NJL
	28	09-25-02 14:20:16	02092609.222	28		[STD-CCV]	1			NJL

754

Zy 9/27/02

Department: WETCHEM
Prep Method: HEXCR6
Matrix: SOLID
Batch ID: W02387

Assaigai Laboratories
Sample Preparation Log
Report Revision 011023

Prep Method: Hexavalent Chromium Prep

Sample Count: 7
Batch Start Timestamp: 09/26/02 8:59:43

Prep ID:	Sample ID:	Aliquot:	Units:	Initial By:	Total Volume:	Units:	Final By:	Prep DF:	Surrogate ID:	Spike ID:	Spike By:	Prep Timestamp:	Comments:
W02387-001	[MB]	1.00	g	NJL	100	ml	NJL	1			NJL	09/24/02 11:15:00	
W02387-002	[LCS]	1.00	g	NJL	100	ml	NJL	1		WC-134-02	NJL	09/24/02 11:15:00	100uL
W02387-003	[LCSD]	1.00	g	NJL	100	ml	NJL	1		WC-134-02	NJL	09/24/02 11:15:00	100uL
W02387-004	0209364-01A[M]	1.00	g	NJL	100	ml	NJL	1			NJL	09/24/02 11:15:00	
W02387-005	0209364-01A[M]	1.00	g	NJL	100	ml	NJL	1			NJL	09/24/02 11:15:00	
W02387-006	0209364-01A[MS]	1.00	g	NJL	100	ml	NJL	1		WC-134-02	NJL	09/24/02 11:15:00	100uL
W02387-007	0209364-01A[MS]	1.00	g	NJL	100	ml	NJL	1		WC-134-02	NJL	09/24/02 11:15:00	100uL
W02387-008	0209364-01A[MSD]	1.00	g	NJL	100	ml	NJL	1		WC-134-02	NJL	09/24/02 11:15:00	100uL
W02387-009	0209364-01A[MSD]	1.00	g	NJL	100	ml	NJL	1		WC-134-02	NJL	09/24/02 11:15:00	100uL
W02387-010	0209364-02A	1.00	g	NJL	100	ml	NJL	1			NJL	09/24/02 11:15:00	
W02387-011	0209364-02A	1.00	g	NJL	100	ml	NJL	1			NJL	09/24/02 11:15:00	
W02387-012	0209364-03A	1.00	g	NJL	100	ml	NJL	1			NJL	09/24/02 11:15:00	
W02387-013	0209364-03A	1.00	g	NJL	100	ml	NJL	1			NJL	09/24/02 11:15:00	
W02387-014	0209364-04A	1.00	g	NJL	100	ml	NJL	1			NJL	09/24/02 11:15:00	
W02387-015	0209364-04A	1.00	g	NJL	100	ml	NJL	1			NJL	09/24/02 11:15:00	
W02387-016	[MB]	1.00	g	NJL	100	ml	NJL	1			NJL	09/25/02 11:10:00	
W02387-017	0209364-05A	1.00	g	NJL	100	ml	NJL	1			NJL	09/25/02 11:10:00	
W02387-018	0209364-05A	1.00	g	NJL	100	ml	NJL	1			NJL	09/25/02 11:10:00	
W02387-019	0209364-06A	1.00	g	NJL	100	ml	NJL	1			NJL	09/25/02 11:10:00	
W02387-020	0209364-06A	1.00	g	NJL	100	ml	NJL	1			NJL	09/25/02 11:10:00	
W02387-021	0209364-07A	1.00	g	NJL	100	ml	NJL	1			NJL	09/25/02 11:10:00	
W02387-022	0209364-07A	1.00	g	NJL	100	ml	NJL	1			NJL	09/25/02 11:10:00	

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Ny 9/26/02

ASSAIGAI ANALYTICAL LABORATORIES, INC.
Wet Chemistry Logbook

Hexavalent Chromium EPA 218.4 (Section 2.3) WC013rev#3
DL = 0.01 mg/L

Batch ID: W02387
Analyst: [illegible]

Sample Number	Sample Volume (mL)	Final Volume (mL)	Final DF	pH	Date/Time	Comments/Standard Prep#	
MB	1.0g/50mL DF	100	1X	1.27	9/24/02 @ 1115		
[LCS]	1.0g			1.25		WC-134-02 /100ul	
[LCSD]				1.28			
9364-01A [M]	1.0g			1.26		UNDEVELOPED	18
				1.26		DEVELOPED	
[MS]				1.27		undeloped WC-134-02/100ul	18
				1.27		Developed	
[MSD]				1.22		Undeveloped	18
				1.22		Developed	
9364-02A				1.28		Undeveloped	11
				1.28		Developed	
-03A				1.28		Undeveloped	13
				1.28		Developed	
-04A				1.27		Undeveloped	
				1.27		Developed	
[STD-CCV]				1.28		WC-133-02 /100ul	
[MB]	1.0g/50mL DF	100	1X	1.24	9/25/02 @ 1110		
9364-05A	1.0g			1.21		undeveloped	
				1.21		Developed	
-06A				1.23		Undeveloped	
				1.21		Developed	
-07A				1.25		Undeveloped	
				1.26		Developed	
[STD-CCV]	50	100	1X	1.27		WC-133-02 /100ul	

Assalgal Analytical Laboratories, Inc.

Analytical Result Summary

Run Group	WC.2002.1317	Import ID	02092609.222
Analyst	NJL	Quant Meth	
Calc Method	ABS	Calibration	07-30-02 11:28:31
Analyte	CR6	Quant	09-27-02 15:38:24

r	#	e	Run ID	Prep ID	Matrix	Signal m	Raw Quant	As	Run DF	Prep DF	MRL	Report	As	Prepared	Analyzed	Qual	f
	1		[STD-CCV]		LAB	0.418	0.5071	ppm	1	1	1	101	% Recovery		09-24-02 17:03:25		
x	2		W02387-001	[MB]	SOLID	-0.001	-0.0083	ppm	1	1	1	< 1.00	mg / kg	09-24-02 11:15:00	09-24-02 17:04:29		
x	3		W02387-002	[LCS]	SOLID	0.431	0.523	ppm	1	1	1	105	% Recovery	09-24-02 11:15:00	09-24-02 17:05:27		
x	4		W02387-003	[LCSD]	SOLID	0.427	0.5181	ppm	1	1	1	< 1	RPD	09-24-02 11:15:00	09-24-02 17:06:22		
x	4		W02387-003	[LCSD]	SOLID	0.427	0.5181	ppm	1	1	1	104	% Recovery	09-24-02 11:15:00	09-24-02 17:06:22		
✓	5		W02387-004	0209364-01A[M]	SOLID	0.019	0.0163	ppm	1	1	1	1.63	mg / kg	09-24-02 11:15:00	09-25-02 13:42:36		
x	6		W02387-005	0209364-01A[M]	SOLID	0.036	0.0372	ppm	1	1	1	3.72	mg / kg	09-24-02 11:15:00	09-25-02 13:43:46		
✓	7		W02387-006	0209364-01A[MS]	SOLID	0.032	0.0323	ppm	1	1	1	< 1	% Recovery	09-24-02 11:15:00	09-25-02 13:46:36		✓
x	8		W02387-007	0209364-01A[MS]	SOLID	0.378	0.4579	ppm	1	1	1	84	% Recovery	09-24-02 11:15:00	09-25-02 13:48:30		
✓	9		W02387-008	0209364-01A[MSD]	SOLID	0.02	0.0176	ppm	1	1	1	220	RPD	09-24-02 11:15:00	09-25-02 13:50:13		✓
✓	9		W02387-008	0209364-01A[MSD]	SOLID	0.02	0.0176	ppm	1	1	1	< 1	% Recovery	09-24-02 11:15:00	09-25-02 13:50:13		✓
x	10		W02387-009	0209364-01A[MSD]	SOLID	0.376	0.4554	ppm	1	1	1	< 1	RPD	09-24-02 11:15:00	09-25-02 13:52:13		
x	10		W02387-009	0209364-01A(MSD)	SOLID	0.376	0.4554	ppm	1	1	1	84	% Recovery	09-24-02 11:15:00	09-25-02 13:52:13		
✓	11		W02387-010	0209364-02A	SOLID	0.018	0.0151	ppm	1	1	1	1.51	mg / kg	09-24-02 11:15:00	09-25-02 13:54:35		
	12		[STD-CCV]		LAB	0.422	0.512	ppm	1	1	1	102	% Recovery		09-25-02 13:56:10		
x	13		W02387-011	0209364-02A	SOLID	0.016	0.0126	ppm	1	1	1	1.26	mg / kg	09-24-02 11:15:00	09-25-02 13:58:13		
	14		ERROR		LAB	0	-0.007	ppm	1	1	0.005	< 0.005	mg / L		09-25-02 13:59:55		
✓	15		W02387-012	0209364-03A	SOLID	0.019	0.0163	ppm	1	1	1	1.63	mg / kg	09-24-02 11:15:00	09-25-02 14:00:20		
x	16		W02387-013	0209364-03A	SOLID	0.089	0.0778	ppm	1	1	1	7.78	mg / kg	09-24-02 11:15:00	09-25-02 14:01:29		
✓	17		W02387-014	0209364-04A	SOLID	0.024	0.0225	ppm	1	1	1	2.25	mg / kg	09-24-02 11:15:00	09-25-02 14:03:03		
x	18		W02387-015	0209364-04A	SOLID	0.042	0.0446	ppm	1	1	1	4.46	mg / kg	09-24-02 11:15:00	09-25-02 14:04:01		
x	19		W02387-016	[MB]	SOLID	0	-0.007	ppm	1	1	1	< 1.00	mg / kg	09-25-02 11:10:00	09-25-02 14:05:49		
✓	20		W02387-017	0209364-05A	SOLID	0.027	0.0282	ppm	1	1	1	2.82	mg / kg	09-25-02 11:10:00	09-25-02 14:07:39		
x	21		W02387-018	0209364-05A	SOLID	0.031	0.0311	ppm	1	1	1	3.11	mg / kg	09-25-02 11:10:00	09-25-02 14:08:29		
✓	22		W02387-019	0209364-06A	SOLID	0.025	0.0237	ppm	1	1	1	2.37	mg / kg	09-25-02 11:10:00	09-25-02 14:10:33		
x	23		W02387-020	0209364-06A	SOLID	0.046	0.0495	ppm	1	1	1	4.95	mg / kg	09-25-02 11:10:00	09-25-02 14:11:54		
	24		[STD-CCV]		LAB	0.4	0.4849	ppm	1	1	1	97	% Recovery		09-25-02 14:12:42		
	25		ERROR		LAB	0.153	0.1811	ppm	1	1	0.005	0.181	mg / L		09-25-02 14:15:15		
✓	26		W02387-021	0209364-07A	SOLID	0.054	0.0594	ppm	1	1	1	5.94	mg / kg	09-25-02 11:10:00	09-25-02 14:15:20		
x	27		W02387-022	0209364-07A	SOLID	-0.002	-0.0095	ppm	1	1	1	< 1.00	mg / kg	09-25-02 11:10:00	09-25-02 14:18:54		
	28		[STD-CCV]		LAB	0.413	0.5009	ppm	1	1	1	100	% Recovery		09-25-02 14:20:16		

10 x-outs
QB 10/6/03

3x-outs
QB 10/6/03

NJL 9/27/02

Coyote 2001: Calculation 1.0.020730151000

Report Date 9/27/2002 3:43:35 PM

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ASSAIGAI ANALYTICAL LABORATORIES, INC.
Wet Chemistry Logbook

Ultra Violet/Visible Spectrophotometer Runlog

Date/Initials	Analysis	Batch ID#	Sample ID	ABS	Matrix	Prep DF	Run DF	Comments
9/24/02 - MP	CR6/SOLID	W02387	BLANK	0.000	SOLID	1X	1X	λ 540 nm
			[STD-CCV]	0.418				WC-133-02
			[MB]	-0.001				
			[LCS]	0.431				WC-134-02
			[LCSD]	0.427				↓
			9364-01A[MS]	0.019				UNDEVELOPED ZEROED
			↓ ↓	0.036				DEVELOPED
			BLANK ~~01A MS~~	0.000				
			9364-01A[MSD]	0.032				undeveloped/zeroed WC-134-02
			↓	0.378				Developed/WC-134-02
			BLANK	0.000				
			9364-01A[MSD]	0.020				undeveloped/zeroed WC-134-02
			↓	0.376				Developed/WC-134-02
			BLANK	0.000				
			9364-02A	0.018				Undeveloped
			BLANK	0.000				
			[STD-CCV]	0.422				WC-133-02
			9364-02A	0.000				UNDEVELOPED ZEROED
			↓	0.016				Developed
			~~9364-03A~~ BLANK	0.000				
			~~9365~~-03A	0.019				undeveloped/zeroed
			9364 ↓	0.069				Developed
			~~9364-04~~ BLANK	0.000				
			9364-04A	0.024				Undeveloped/zeroed
			↓	0.042				Developed
			BLANK	0.000				
			[MB]	0.000				
			9364-05A	0.027				Undeveloped/zeroed
			↓	0.031				Developed
			BLANK	0.000				
			9364-06A	0.025				Undeveloped/zeroed
			↓	0.046				Developed
			BLANK	0.000				
			[STD-CCV]	0.400				WC-133-02

* Runlog for this batch continued on logbook page # 039

ASSAIGAI ANALYTICAL LABORATORIES, INC.

Wet Chemistry Logbook

* continued from logbook page # 037

Ultra Violet/Visible Spectrophotometer Runlog

Date/Initials	Analysis	Batch ID#	Sample ID	ABS	Matrix	Prep DF	Run DF	Comments
9/24/02 - LG	CR6/SOLID	WO2387	9364-07A	0.054	SOLID	1X	1X	
				-0.002				
			BLANK	0.000				
			[STD-CCV]	0.413			1X	WC-133-02

LG 9/25/02

Assaigai Analytical Laboratories, Inc.

Run Group Cover Sheet

Run Group	WC.2002.1319
Reviewed:	9/27/2002 3:45:44 PM
By:	NJL

Calc Method	ABS
Import Source	LOL01
Instrument:	U1100B

Calibration Mode	LIBRARY
Calculation Mode	NORMAL
Spike Dilution Mode	NORMAL

RAW QUANT FLAGS	
a	*all result information keyed in manually*
d	*data from instrument keyed in manually*
i	*integration of peak performed manually*
q	*qdelete of peak*
r	*response factor postquant adjustment*

CALIBRATION LIBRARY REPORT

Calc Method	Analyte	ClassCode	Tracking Group	Analzyed	Signal	Ref Conc
ABS	CR6	STD-CAL1	WC.2002.873	7/30/2002 11:28:31 AM	0.002	0
ABS	CR6	STD-CAL2	WC.2002.873	7/30/2002 11:29:29 AM	0.013	0.01
ABS	CR6	STD-CAL3	WC.2002.873	7/30/2002 11:30:42 AM	0.103	0.125
ABS	CR6	STD-CAL4	WC.2002.873	7/30/2002 11:31:44 AM	0.217	0.25
ABS	CR6	STD-CAL5	WC.2002.873	7/30/2002 11:32:48 AM	0.417	0.5
ABS	CR6	STD-CAL6	WC.2002.873	7/30/2002 11:33:58 AM	0.815	1

Dept. Review + Funnel: SB 10/10/02

Assalgal Analytical Laboratories, Inc.

Laboratory Logbook

Run Group WC.2002.1319
Import Source LOL01
Instrument: U1100B

o	Run#	Acquisition Date	Data File	Vial	e	Sample Run ID	Run DF	Comment	see data file(s)	Analyst
	1	09-27-02 14:21:43	02092714.479	1		[STD-CCV]	1			NJL
	2	09-27-02 14:22:35	02092714.479	2		W02392-001	1			NJL
	3	09-27-02 14:23:20	02092714.479	3		W02392-002	1			NJL
	4	09-27-02 14:24:13	02092714.479	4		W02392-003	1			NJL
	5	09-27-02 14:25:16	02092714.479	5		W02392-004	1			NJL
	6	09-27-02 14:26:11	02092714.479	6		W02392-005	1			NJL
	7	09-27-02 14:27:47	02092714.479	7		W02392-006	1			NJL
	8	09-27-02 14:29:03	02092714.479	8		W02392-007	1			NJL
	9	09-27-02 14:30:34	02092714.479	9		W02392-008	1			NJL
	10	09-27-02 14:31:45	02092714.479	10		W02392-009	1			NJL
	11	09-27-02 14:33:40	02092714.479	11		[STD-CCV]	1			NJL
	12	09-27-02 14:34:46	02092714.479	12		W02392-010	1			NJL
	13	09-27-02 14:37:08	02092714.479	13		W02392-011	1			NJL
	14	09-27-02 14:38:31	02092714.479	14		W02392-012	1			NJL
	15	09-27-02 14:39:29	02092714.479	15		W02392-013	1			NJL
	16	09-27-02 14:41:24	02092714.479	16		W02392-014	1			NJL
	17	09-27-02 14:42:29	02092714.479	17		W02392-015	1			NJL
	18	09-27-02 14:44:09	02092714.479	18		W02392-016	1			NJL
	19	09-27-02 14:46:03	02092714.479	19		W02392-017	1			NJL
	20	09-27-02 14:47:30	02092714.479	20		[STD-CCV]	1			NJL

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NJL 9/27/02

Department: WETCHEM
Prep Method: HEXCR6
Matrix: SOLID
Batch ID: W02392

Assaigai Laboratories
Sample Preparation Log
Report Revision 011023

Prep Method: Hexavalent Chromium Prep

Sample Count: 5
Batch Start Timestamp: 09/27/02 13:34:48

Prep ID:	Sample ID:	Aliquot:	Units:	Initial By:	Total Volume:	Units:	Final By:	Prep DF:	Surrogate ID:	Spike ID:	Spike By:	Prep Timestamp:	Comments:
W02392-001	[MB]	1.00 g		NJL	100 ml		NJL	1			NJL	09/27/02 10:30:00	
W02392-002	[LCS]	1.00 g		NJL	100 ml		NJL	1		WC-134-02	NJL	09/27/02 10:30:00	100uL
W02392-003	[LCSD]	1.00 g		NJL	100 ml		NJL	1		WC-134-02	NJL	09/27/02 10:30:00	100uL
W02392-004	0209373-01A[M]	1.00 g		NJL	100 ml		NJL	1			NJL	09/27/02 10:30:00	
W02392-005	0209373-01A[M]	1.00 g		NJL	100 ml		NJL	1			NJL	09/27/02 10:30:00	
W02392-006	0209373-01A[MS]	1.00 g		NJL	100 ml		NJL	1		WC-134-02	NJL	09/27/02 10:30:00	100uL
W02392-007	0209373-01A[MS]	1.00 g		NJL	100 ml		NJL	1		WC-134-02	NJL	09/27/02 10:30:00	100uL
W02392-008	0209373-01A[MSD]	1.00 g		NJL	100 ml		NJL	1		WC-134-02	NJL	09/27/02 10:30:00	100uL
W02392-009	0209373-01A[MSD]	1.00 g		NJL	100 ml		NJL	1		WC-134-02	NJL	09/27/02 10:30:00	100uL
W02392-010	0209373-02A	1.00 g		NJL	100 ml		NJL	1			NJL	09/27/02 10:30:00	
W02392-011	0209373-02A	1.00 g		NJL	100 ml		NJL	1			NJL	09/27/02 10:30:00	
W02392-012	0209373-03A	1.00 g		NJL	100 ml		NJL	1			NJL	09/27/02 11:40:00	
W02392-013	0209373-03A	1.00 g		NJL	100 ml		NJL	1			NJL	09/27/02 11:40:00	
W02392-014	0209373-04A	1.00 g		NJL	100 ml		NJL	1			NJL	09/27/02 11:40:00	
W02392-015	0209373-04A	1.00 g		NJL	100 ml		NJL	1			NJL	09/27/02 11:40:00	
W02392-016	0209373-05A	1.00 g		NJL	100 ml		NJL	1			NJL	09/27/02 12:00:00	
W02392-017	0209373-05A	1.00 g		NJL	100 ml		NJL	1			NJL	09/27/02 12:00:00	

NJ 9/27/02

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Coyote 2001: Parabellum 1.0.020712160500

Report Date 9/27/2002 1:44:17 PM

ASSAIGAI ANALYTICAL LABORATORIES, INC.
Wet Chemistry Logbook

Hexavalent Chromium EPA 218.4 (Section 2.3) WC013rev#3
DL = 0.01 mg/L

Batch ID: WO2392
Analyst: [illegible]

Sample Number	Sample Volume (mL)	Final Volume (mL)	Final DF	pH	Date/Time	Comments/Standard Prep#	
[MB]	50	100	1X	1.21	9/27/02@1030		
[LCS]	↓	↓	↓	1.25	↓	WC-134-02 100 ul	
[LCSD]	↓	↓	↓	1.24	↓	↓	
9373-01A [M]	1.0g	↓	↓	1.28	↓	↓	18
↓	↓	↓	↓	1.25	↓	↓	↓
[MS]	↓	↓	↓	1.25	↓	WC-134-02 100 ul	18
↓	↓	↓	↓	1.26	↓	↓	↓
[MSD]	↓	↓	↓	1.27	↓	↓	18
↓	↓	↓	↓	1.22	↓	↓	↓
9373-02A	↓	↓	↓	1.22	↓	↓	18
↓	↓	↓	↓	1.23	↓	↓	↓
[STD-CCV]	~~50~~ 9/27/02	↓	1X	1.24	↓	WC-133-02 100 ul	
9373-03A	1.0g	100	1X	1.25	9/27/02@1140	↓	22
↓	↓	↓	↓	1.25	↓	↓	↓
-04A	↓	↓	↓	1.25	↓	↓	18
↓	↓	↓	↓	1.25	↓	↓	↓
9373-05A	1.0g	100	1X	1.22	9/27/02@1200	↓	18
↓	↓	↓	↓	1.26	↓	↓	↓

Assalgal Analytical Laboratories, Inc.

Analytical Result Summary

Run Group	WC.2002.1319	Import ID	02092714.479
Analyst	NJL	Quant Meth	
Calc Method	ABS	Calibration	07-30-02 11:28:31
Analyte	CR6	Quant	09-27-02 15:44:51

r	#	e	Run ID	Prep ID	Matrix	Signal m	Raw Quant	As	Run DF	Prep DF	MRL	Report	As	Prepared	Analyzed	Qual	f
	1		[STD-CCV]		LAB	0.424	0.5144	ppm	1	1	1	103	% Recovery		09-27-02 14:21:43		
x	2		W02392-001	[MB]	SOLID	-0.004	-0.012	ppm	1	1	1	< 1.00	mg / kg	09-27-02 10:30:00	09-27-02 14:22:35		
x	3		W02392-002	[LCS]	SOLID	0.418	0.5071	ppm	1	1	1	101	% Recovery	09-27-02 10:30:00	09-27-02 14:23:20		
x	4		W02392-003	[LCSD]	SOLID	0.419	0.5083	ppm	1	1	1	< 1	RPD	09-27-02 10:30:00	09-27-02 14:24:13		
x	4		W02392-003	[LCSD]	SOLID	0.419	0.5083	ppm	1	1	1	102	% Recovery	09-27-02 10:30:00	09-27-02 14:24:13		
x	5		W02392-004	0209373-01A[M]	SOLID	0.011	0.0065	ppm	1	1	1	< 1.00	mg / kg	09-27-02 10:30:00	09-27-02 14:25:16		
x	6		W02392-005	0209373-01A[M]	SOLID	0.02	0.0176	ppm	1	1	1	• 1.76	mg / kg	09-27-02 10:30:00	09-27-02 14:26:11		
x	7		W02392-006	0209373-01A[MS]	SOLID	0.021	0.0188	ppm	1	1	1	< 1	% Recovery	09-27-02 10:30:00	09-27-02 14:27:47		x
x	8		W02392-007	0209373-01A[MS]	SOLID	0.343	0.4148	ppm	1	1	1	79	% Recovery	09-27-02 10:30:00	09-27-02 14:29:03		x
x	9		W02392-008	0209373-01A[MSD]	SOLID	0.019	0.0163	ppm	1	1	1	201	RPD	09-27-02 10:30:00	09-27-02 14:30:34		x SB 10/6/02
x	9		W02392-008	0209373-01A[MSD]	SOLID	0.019	0.0163	ppm	1	1	1	< 1	% Recovery	09-27-02 10:30:00	09-27-02 14:30:34		x
x	10		W02392-009	0209373-01A[MSD]	SOLID	0.346	0.4185	ppm	1	1	1	< 1	RPD	09-27-02 10:30:00	09-27-02 14:31:45		
x	10		W02392-009	0209373-01A[MSD]	SOLID	0.346	0.4185	ppm	1	1	1	80	% Recovery	09-27-02 10:30:00	09-27-02 14:31:45		
	11		[STD-CCV]		LAB	0.429	0.5206	ppm	1	1	1	104	% Recovery		09-27-02 14:33:40		
x	12		W02392-010	0209373-02A	SOLID	0.015	0.0114	ppm	1	1	1	• 1.14	mg / kg	09-27-02 10:30:00	09-27-02 14:34:46		
x	13		W02392-011	0209373-02A	SOLID	-0.015	-0.0255	ppm	1	1	1	< 1.00	mg / kg	09-27-02 10:30:00	09-27-02 14:37:08		
x	14		W02392-012	0209373-03A	SOLID	0.011	0.0065	ppm	1	1	1	< 1.00	mg / kg	09-27-02 11:40:00	09-27-02 14:38:31		
x	15		W02392-013	0209373-03A	SOLID	0.032	0.0323	ppm	1	1	1	• 3.23	mg / kg	09-27-02 11:40:00	09-27-02 14:39:29		
x	16		W02392-014	0209373-04A	SOLID	0.022	0.02	ppm	1	1	1	2.00	mg / kg	09-27-02 11:40:00	09-27-02 14:41:24		
x	17		W02392-015	0209373-04A	SOLID	0.017	0.0139	ppm	1	1	1	• 1.39	mg / kg	09-27-02 11:40:00	09-27-02 14:42:29		
x	18		W02392-016	0209373-05A	SOLID	0.007	0.0016	ppm	1	1	1	< 1.00	mg / kg	09-27-02 12:00:00	09-27-02 14:44:09		
x	19		W02392-017	0209373-05A	SOLID	0.032	0.0323	ppm	1	1	1	• 3.23	mg / kg	09-27-02 12:00:00	09-27-02 14:46:03		
	20		[STD-CCV]		LAB	0.427	0.5181	ppm	1	1	1	104	% Recovery		09-27-02 14:47:30		

~~NCR # WC-02-142~~
BBB
10/8/02

* The % recovery of the MS is outside of QA/QC criteria due to matrix interference.
SB 10/6/02

764

YG 9/27/02

Coyote 2001: Calculation 1.0.020730151000

Report Date 9/27/2002 3:45:52 PM

ASSAIGAI ANALYTICAL LABORATORIES, INC.
Wet Chemistry Logbook

Ultra Violet/Visible Spectrophotometer Runlog

Date/Initials	Analysis	Batch ID#	Sample ID	ABS	Matrix	Prep DF	Run DF	Comments
9/27/02 - WG	CR6/SOLID	W02392	BLANK	0.000	SOLID	1X	1X	
			[STD-CCV]	0.424				WC-133-02
			[MB]	-0.004				
			[LCS]	0.418				WC-134-02
			[LCSD]	0.419				↓
			9373-01A[M]	0.011				Undeveloped/zeroed
			↓	0.020				Developed
			BLANK	0.000				
			9373-01A[MS]	0.021				~~undeveloped/zeroed~~ WC-134-02
			↓	0.343				Developed ↓
			BLANK	0.000				
			9373-01A[MSD]	0.019				undeveloped/zeroed WC-134-02
			↓	0.346				Developed ↓
			BLANK	0.000				
			[STD-CCV]	0.429				WC-133-02
			9373-02A	0.015				Undeveloped/zeroed
			↓	-0.015				Developed
			BLANK	0.000				
			9373-03A	0.011				Undeveloped/zeroed
			↓	0.032				Developed
			BLANK	0.000				
			9373-04A	0.022				Undeveloped/zeroed
			↓	0.017				Developed
			BLANK	0.000				
			9373-05A	0.007				Undeveloped/zeroed
			↓	0.032				Developed
			BLANK	0.000				
			[STD-CCV]	0.427				WC-133-02

WG 9/27/02

Assaigai Analytical Laboratories, Inc.

Run Group Cover Sheet

Run Group	WC.2002.1320
Reviewed:	9/27/2002 4:18:10 PM
By:	JPB

Calc Method	ABS
Import Source	LOL01
Instrument:	U1100B

Calibration Mode	LIBRARY
Calculation Mode	NORMAL
Spike Dilution Mode	NORMAL

RAW QUANT FLAGS	
a	*all result information keyed in manually*
d	*data from instrument keyed in manually*
i	*integration of peak performed manually*
q	*qdelete of peak*
r	*response factor postquant adjustment*

CALIBRATION LIBRARY REPORT

Calc Method	Analyte	ClassCode	Tracking Group	Analzyed	Signal	Ref Conc
ABS	CR6	STD-CAL1	WC.2002.873	7/30/2002 11:28:31 AM	0.002	0
ABS	CR6	STD-CAL2	WC.2002.873	7/30/2002 11:29:29 AM	0.013	0.01
ABS	CR6	STD-CAL3	WC.2002.873	7/30/2002 11:30:42 AM	0.103	0.125
ABS	CR6	STD-CAL4	WC.2002.873	7/30/2002 11:31:44 AM	0.217	0.25
ABS	CR6	STD-CAL5	WC.2002.873	7/30/2002 11:32:48 AM	0.417	0.5
ABS	CR6	STD-CAL6	WC.2002.873	7/30/2002 11:33:58 AM	0.815	1

Dept. Review + Funnel: JB 10/6/02.

Assalgal Analytical Laboratories, Inc.

Laboratory Logbook

Run Group WC.2002.1320
Import Source LOL01
Instrument: U1100B

o	Run#	Acquisition Date	Data File	Vial	e	Sample Run ID	Run DF	Comment	see data file(s)	Analyst
	1	09-26-02 14:41:59	02092615.332	1		[STD-CCV]	1			NJL
	2	09-26-02 14:42:58	02092615.332	2		ERROR	1			NJL
	3	09-26-02 14:43:10	02092615.332	3		W02387-023	1			NJL
	4	09-26-02 14:46:56	02092615.332	4		ERROR	1			NJL
	5	09-26-02 14:50:10	02092615.332	5		W02387-024	1			NJL
	6	09-26-02 14:51:19	02092615.332	6		W02387-025	1			NJL
	7	09-26-02 14:53:10	02092615.332	7		W02387-026	1			NJL
	8	09-26-02 14:54:21	02092615.332	8		W02387-027	1			NJL
	9	09-26-02 14:57:52	02092615.332	9		W02387-028	1			NJL
	10	09-26-02 14:59:04	02092615.332	10		ERROR	1			NJL
	11	09-26-02 14:59:08	02092615.332	11		W02387-029	1			NJL
	12	09-26-02 15:01:22	02092615.332	12		W02387-030	1			NJL
	13	09-26-02 15:02:13	02092615.332	13		W02387-031	1			NJL
	14	09-26-02 15:06:29	02092615.332	14		[STD-CCV]	1			NJL
	15	09-26-02 15:07:25	02092615.332	15		W02387-032	1			NJL
	16	09-26-02 15:09:06	02092615.332	16		W02387-033	1			NJL
	17	09-26-02 15:12:04	02092615.332	17		W02387-034	1			NJL
	18	09-26-02 15:15:23	02092615.332	18		W02387-035	1			NJL
	19	09-26-02 15:16:53	02092615.332	19		W02387-036	1			NJL
	20	09-26-02 15:18:10	02092615.332	20		W02387-037	1			NJL
	21	09-26-02 15:19:47	02092615.332	21		W02387-038	1			NJL
	22	09-26-02 15:20:58	02092615.332	22		W02387-039	1			NJL
	23	09-26-02 15:22:52	02092615.332	23		W02387-040	1			NJL
	24	09-26-02 15:25:43	02092615.332	24		W02387-041	1			NJL
	25	09-26-02 15:27:02	02092615.332	25		[STD-CCV]	1			NJL
	26	09-26-02 15:28:37	02092615.332	26		W02387-042	1			NJL
	27	09-26-02 15:29:38	02092615.332	27		ERROR	1			NJL
	28	09-26-02 15:29:46	02092615.332	28		W02387-043	1			NJL
	29	09-26-02 15:31:57	02092615.332	29		[STD-CCV]	1			NJL

ly 9/27/02

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Department: WETCHEM
Prep Method: HEXCR6
Matrix: SOLID
Batch ID: W02387

Assaigai Laboratories
Sample Preparation Log
Report Revision 011023

Prep Method: Hexavalent Chromium Prep

Sample Count: 17
Batch Start Timestamp: 09/26/02 8:59:43

Prep ID:	Sample ID:	Aliquot:	Units:	Initial By:	Total Volume:	Units:	Final By:	Prep DF:	Surrogate ID:	Spike ID:	Spike By:	Prep Timestamp:	Comments:
W02387-001	[MB]	1.00	g	NJL	100	ml	NJL	1			NJL	09/24/02 11:15:00	
W02387-002	[LCS]	1.00	g	NJL	100	ml	NJL	1		WC-134-02	NJL	09/24/02 11:15:00	100uL
W02387-003	[LCSD]	1.00	g	NJL	100	ml	NJL	1		WC-134-02	NJL	09/24/02 11:15:00	100uL
W02387-004	0209364-01A[M]	1.00	g	NJL	100	ml	NJL	1			NJL	09/24/02 11:15:00	
W02387-005	0209364-01A[M]	1.00	g	NJL	100	ml	NJL	1			NJL	09/24/02 11:15:00	
W02387-006	0209364-01A[MS]	1.00	g	NJL	100	ml	NJL	1		WC-134-02	NJL	09/24/02 11:15:00	100uL
W02387-007	0209364-01A[MS]	1.00	g	NJL	100	ml	NJL	1		WC-134-02	NJL	09/24/02 11:15:00	100uL
W02387-008	0209364-01A[MSD]	1.00	g	NJL	100	ml	NJL	1		WC-134-02	NJL	09/24/02 11:15:00	100uL
W02387-009	0209364-01A[MSD]	1.00	g	NJL	100	ml	NJL	1		WC-134-02	NJL	09/24/02 11:15:00	100uL
W02387-010	0209364-02A	1.00	g	NJL	100	ml	NJL	1			NJL	09/24/02 11:15:00	
W02387-011	0209364-02A	1.00	g	NJL	100	ml	NJL	1			NJL	09/24/02 11:15:00	
W02387-012	0209364-03A	1.00	g	NJL	100	ml	NJL	1			NJL	09/24/02 11:15:00	
W02387-013	0209364-03A	1.00	g	NJL	100	ml	NJL	1			NJL	09/24/02 11:15:00	
W02387-014	0209364-04A	1.00	g	NJL	100	ml	NJL	1			NJL	09/24/02 11:15:00	
W02387-015	0209364-04A	1.00	g	NJL	100	ml	NJL	1			NJL	09/24/02 11:15:00	
W02387-016	[MB]	1.00	g	NJL	100	ml	NJL	1			NJL	09/25/02 11:10:00	
W02387-017	0209364-05A	1.00	g	NJL	100	ml	NJL	1			NJL	09/25/02 11:10:00	
W02387-018	0209364-05A	1.00	g	NJL	100	ml	NJL	1			NJL	09/25/02 11:10:00	
W02387-019	0209364-06A	1.00	g	NJL	100	ml	NJL	1			NJL	09/25/02 11:10:00	
W02387-020	0209364-06A	1.00	g	NJL	100	ml	NJL	1			NJL	09/25/02 11:10:00	
W02387-021	0209364-07A	1.00	g	NJL	100	ml	NJL	1			NJL	09/25/02 11:10:00	
W02387-022	0209364-07A	1.00	g	NJL	100	ml	NJL	1			NJL	09/25/02 11:10:00	
W02387-023	[MB]	1.00	g	NJL	100	ml	NJL	1			NJL	09/26/02 10:40:00	
W02387-024	0209364-08A	1.00	g	NJL	100	ml	NJL	1			NJL	09/26/02 10:40:00	
W02387-025	0209364-08A	1.00	g	NJL	100	ml	NJL	1			NJL	09/26/02 10:40:00	
W02387-026	0209364-09A	1.00	g	NJL	100	ml	NJL	1			NJL	09/26/02 10:40:00	
W02387-027	0209364-09A	1.00	g	NJL	100	ml	NJL	1			NJL	09/26/02 10:40:00	
W02387-028	0209364-10A	1.00	g	NJL	100	ml	NJL	1			NJL	09/26/02 10:40:00	
W02387-029	0209364-10A	1.00	g	NJL	100	ml	NJL	1			NJL	09/26/02 10:40:00	
W02387-030	0209364-11A	1.00	g	NJL	100	ml	NJL	1			NJL	09/26/02 10:40:00	
W02387-031	0209364-11A	1.00	g	NJL	100	ml	NJL	1			NJL	09/26/02 10:40:00	
W02387-032	0209364-12A	1.00	g	NJL	100	ml	NJL	1			NJL	09/26/02 10:40:00	
W02387-033	0209364-12A	1.00	g	NJL	100	ml	NJL	1			NJL	09/26/02 10:40:00	
W02387-034	0209364-13A	1.00	g	NJL	100	ml	NJL	1			NJL	09/26/02 11:25:00	
W02387-035	0209364-13A	1.00	g	NJL	100	ml	NJL	1			NJL	09/26/02 11:25:00	
W02387-036	0209364-14A	1.00	g	NJL	100	ml	NJL	1			NJL	09/26/02 11:25:00	
W02387-037	0209364-14A	1.00	g	NJL	100	ml	NJL	1			NJL	09/26/02 11:25:00	
W02387-038	0209364-15A	1.00	g	NJL	100	ml	NJL	1			NJL	09/26/02 11:25:00	
W02387-039	0209364-15A	1.00	g	NJL	100	ml	NJL	1			NJL	09/26/02 11:25:00	

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NJ 9/26/02

Coyote 2001: Parabellum 1.0.020712160500

Report Date 9/26/2002 1:55:51 PM

Department: WETCHEM
Prep Method: HEXCR6
Matrix: SOLID
Batch ID: W02387

Assaigai Laboratories
Sample Preparation Log
Report Revision 011023

Prep Method: Hexavalent Chromium Prep

Sample Count: 17
Batch Start Timestamp: 09/26/02 8:59:43

Prep ID:	Sample ID:	Aliquot:	Units:	Initial By:	Total Volume:	Units:	Final By:	Prep DF:	Surrogate ID:	Spike ID:	Spike By:	Prep Timestamp:	Comments:
W02387-040	0209364-16A	1.00	g	NJL	100	ml	NJL	1			NJL	09/26/02 13:15:00	
W02387-041	0209364-16A	1.00	g	NJL	100	ml	NJL	1			NJL	09/26/02 13:15:00	
W02387-042	0209364-17A	1.00	g	NJL	100	ml	NJL	1			NJL	09/26/02 13:15:00	
W02387-043	0209364-17A	1.00	g	NJL	100	ml	NJL	1			NJL	09/26/02 13:15:00	

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NJL 9/26/02

Coyote 2001: Parabellum 1.0.020712160500

Report Date 9/26/2002 1:55:51 PM

ASSAIGAI ANALYTICAL LABORATORIES, INC.
Wet Chemistry Logbook

Hexavalent Chromium EPA 218.4 (Section 2.3) WC013rev#3
DL = 0.01 mg/L

Batch ID: W02387
Analyst: [illegible]

*PAGE 1 of 2

Sample Number	Sample Volume (mL)	Final Volume (mL)	Final DF	pH	Date/Time	Comments/Standard Prep#	
MB	~~1.0g/50mL~~	100	1X	1.27	9/24/02 @ 1115		
[LCS]	1.0g			1.25		WC-134-02 /100ml	
[LCSD]	↓			1.28		↓	
9364-01A [M]	1.0g			1.26		UNDEVELOPED	18
↓				1.26		DEVELOPED	
[MS]				1.27		Undeloped WC-134-02/100ml	18
↓				1.27		Developed	
[MSD]				1.22		Undeveloped	18
↓				1.22		Developed	
9364-02A				1.28		Undeveloped	11
↓				1.28		Developed	
-03A				1.28		Undeveloped	15
↓				1.28		Developed	
-04A				1.27		Undeveloped	
↓				1.27		Developed	
[STD-CCV]				1.28		WC-133-02 /100ml	
[MB]	~~1.0g/50mL~~	100	1X	1.24	9/25/02 @ 1110		
9364-05A	1.0g			1.21		undeveloped	
↓				1.21		Developed	
-06A				1.23		Undeveloped	
↓				1.21		Developed	
-07A				1.25		Undeveloped	
↓				1.26		Developed	
[STD-CCV]	50	100	1X	1.27		WC-133-02 /100ml	
[MB]	50	100	1X	1.15	9/26/02 @ 1040		
9364-08A	1.0g			1.22		Undeveloped	19
↓				1.23		Developed	↓
-09A				1.27		Undeveloped	11
↓				1.28		Developed	↓

ASSAIGAI ANALYTICAL LABORATORIES, INC.
Wet Chemistry Logbook

Hexavalent Chromium EPA 218.4 (Section 2.3) WC013rev#3
DL = 0.01 mg/L

Batch ID: W02387
Analyst: hy

Page 2 of 2

Sample Number	Sample Volume (mL)	Final Volume (mL)	Final DF	pH	Date/Time	Comments/Standard Prep#
9364-10A	1.0g	100	1X	1.18	9/26/02@1040	Developed
↓	↓	↓	↓	1.18	↓	Undeveloped
-11A	↓	↓	↓	1.24	↓	Developed
↓	↓	↓	↓	1.22	↓	Undeveloped
-12A	↓	↓	↓	1.23	↓	Developed
↓	↓	↓	↓	1.21	↓	Undeveloped
STD-CCV	50	100	1X	1.24	↓	WC-133-02 / 100ml
9364-13A	1.0g	↓	↓	1.20	9/26/02@1125	Developed
↓	↓	↓	↓	1.19	↓	Undeveloped
-14A	↓	↓	↓	1.21	↓	Developed
↓	↓	↓	↓	1.21	↓	Undeveloped
-15A	↓	↓	↓	1.24	↓	Developed
↓	↓	↓	↓	1.22	↓	Undeveloped
9364-16A	1.0g	100	1X	1.26	9/26/02@1315	Developed
↓	↓	↓	↓	1.23	↓	Undeveloped
-17A	↓	↓	↓	1.23	↓	Developed
↓	↓	↓	↓	1.20	↓	Undeveloped

Assalgal Analytical Laboratories, Inc.

Analytical Result Summary

Run Group	WC.2002.1320	Import ID	02092615.332
Analyst	NJL	Quant Meth	
Calc Method	ABS	Calibration	07-30-02 11:28:31
Analyte	CR6	Quant	09-27-02 16:17:33

r	#	e	Run ID	Prep ID	Matrix	Signal m	Raw Quant	As	Run DF	Prep DF	MRL	Report	As	Prepared	Analyzed	Qual	f
	1		[STD-CCV]		LAB	0.424	0.5144	ppm	1	1	1	103	% Recovery		09-26-02 14:41:59		
	2		ERROR		LAB	0	-0.007	ppm	1	1	0.005	< 0.005	mg / L		09-26-02 14:42:58		
x	3		W02387-023	[MB]	SOLID	0.005	-0.0009	ppm	1	1	1	< 1.00	mg / kg	09-26-02 10:40:00	09-26-02 14:43:10		
	4		ERROR		LAB	0.031	0.0311	ppm	1	1	0.005	0.031	mg / L		09-26-02 14:46:56		
✗	5		W02387-024	0209364-08A	SOLID	0.015	0.0114	ppm	1	1	1	1.14	mg / kg	09-26-02 10:40:00	09-26-02 14:50:10		
x	6		W02387-025	0209364-08A	SOLID	0.012	0.0077	ppm	1	1	1	< 1.00	mg / kg	09-26-02 10:40:00	09-26-02 14:51:19		
✗	7		W02387-026	0209364-09A	SOLID	0.012	0.0077	ppm	1	1	1	< 1.00	mg / kg	09-26-02 10:40:00	09-26-02 14:53:10		
x	8		W02387-027	0209364-09A	SOLID	0.027	0.0262	ppm	1	1	1	2.62	mg / kg	09-26-02 10:40:00	09-26-02 14:54:21		
✗	9		W02387-028	0209364-10A	SOLID	0.017	0.0139	ppm	1	1	1	1.39	mg / kg	09-26-02 10:40:00	09-26-02 14:57:52		
	10		ERROR		LAB	0.106	0.1233	ppm	1	1	0.005	0.123	mg / L		09-26-02 14:59:04		
x	11		W02387-029	0209364-10A	SOLID	0.007	0.0016	ppm	1	1	1	< 1.00	mg / kg	09-26-02 10:40:00	09-26-02 14:59:08		
✗	12		W02387-030	0209364-11A	SOLID	0.02	0.0176	ppm	1	1	1	1.76	mg / kg	09-26-02 10:40:00	09-26-02 15:01:22		
x	13		W02387-031	0209364-11A	SOLID	0.058	0.0643	ppm	1	1	1	6.43	mg / kg	09-26-02 10:40:00	09-26-02 15:02:13		
	14		[STD-CCV]		LAB	0.424	0.5144	ppm	1	1	1	103	% Recovery		09-26-02 15:06:29		
✗	15		W02387-032	0209364-12A	SOLID	0.014	0.0102	ppm	1	1	1	1.02	mg / kg	09-26-02 10:40:00	09-26-02 15:07:25		
x	16		W02387-033	0209364-12A	SOLID	0.083	0.095	ppm	1	1	1	9.50	mg / kg	09-26-02 10:40:00	09-26-02 15:09:06		
✗	17		W02387-034	0209364-13A	SOLID	0.01	0.0053	ppm	1	1	1	< 1.00	mg / kg	09-26-02 11:25:00	09-26-02 15:12:04		
x	18		W02387-035	0209364-13A	SOLID	0.011	0.0065	ppm	1	1	1	< 1.00	mg / kg	09-26-02 11:25:00	09-26-02 15:15:23		
✗	19		W02387-036	0209364-14A	SOLID	0.008	0.0028	ppm	1	1	1	< 1.00	mg / kg	09-26-02 11:25:00	09-26-02 15:16:53		
x	20		W02387-037	0209364-14A	SOLID	0.022	0.02	ppm	1	1	1	2.00	mg / kg	09-26-02 11:25:00	09-26-02 15:18:10		
✗	21		W02387-038	0209364-15A	SOLID	0.024	0.0225	ppm	1	1	1	2.25	mg / kg	09-26-02 11:25:00	09-26-02 15:19:47		
x	22		W02387-039	0209364-15A	SOLID	0.019	0.0193	ppm	1	1	1	1.93	mg / kg	09-26-02 11:25:00	09-26-02 15:20:58		
✗	23		W02387-040	0209364-16A	SOLID	0.062	0.0668	ppm	1	1	1	6.68	mg / kg	09-26-02 13:15:00	09-26-02 15:22:28		
x	24		W02387-041	0209364-16A	SOLID	-0.028	-0.0437	ppm	1	1	1	< 1.00	mg / kg	09-26-02 13:15:00	09-26-02 15:23:43		
	25		[STD-CCV]		LAB	0.423	0.5132	ppm	1	1	1	103	% Recovery		09-26-02 15:27:02		
✗	26		W02387-042	0209364-17A	SOLID	0.035	0.036	ppm	1	1	1	3.60	mg / kg	09-26-02 13:15:00	09-26-02 15:28:37		
	27		ERROR		LAB	0.103	0.1196	ppm	1	1	0.005	0.120	mg / L		09-26-02 15:29:38		
x	28		W02387-043	0209364-17A	SOLID	0.005	-0.0009	ppm	1	1	1	< 1.00	mg / kg	09-26-02 13:15:00	09-26-02 15:29:46		
	29		[STD-CCV]		LAB	0.423	0.5132	ppm	1	1	1	103	% Recovery		09-26-02 15:31:57		

10 x-outs
SB 10/6/02

YG 9/27/02

Coyote 2001: Calculation 1.0.020730151000

Report Date 9/27/2002 4:18:17 PM

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ASSAIGAI ANALYTICAL LABORATORIES, INC.

Wet Chemistry Logbook

* BATCH CONTINUED ON NEXT PAGE (Page 1 of 2)

Ultra Violet/Visible Spectrophotometer Runlog

Date/Initials	Analysis	Batch ID#	Sample ID	ABS	Matrix	Prep DF	Run DF	Comments
9/26/02 - JY	CR6/SOLID	W02387	BLANK	0.000	SOLID	1X	1X	
			[STD-CCV]	0.424				WC-133-02
			[MB]	0.005				
			9364-09A	0.015				Undeveloped/zeroed
			↓ ↓	0.012				Developed
			BLANK	0.000				
			9364-09A	0.012				Undeveloped/zeroed
			↓	0.027				Developed
			BLANK	0.000				
			9364-10A	0.017				Undeveloped/zeroed
			↓	0.067				Developed
			BLANK	0.000				
			9364-11A	0.020				Undeveloped/zeroed
			↓	0.058				Developed
			BLANK	0.000				
			[STD-CCV]	0.424				WC-133-02
			9364-12A	0.014				Undeveloped/zeroed
			↓	0.083				Developed
			BLANK	0.000				
			9364-13A	0.010				Undeveloped/zeroed
			↓	0.011				Developed
			BLANK	0.000				
			9364-14A	0.008				Undeveloped/zeroed
			↓	0.022				Developed
			BLANK	0.000				
			9364-15A	0.024				Undeveloped/zeroed
			↓	0.019				Developed
			BLANK	0.000				
			9364-16A	0.052				Undeveloped/zeroed
			↓	0.029				Developed
			BLANK	0.000				
			[STD-CCV]	0.423				WC-133-02
			9364-17A	0.035				Undeveloped/zeroed
			↓	0.005				Developed

ASSAIGAI ANALYTICAL LABORATORIES, INC.

Wet Chemistry Logbook

*CONTINUED FROM PAGE BEFORE (Page 2 of 2) 042

Ultra Violet/Visible Spectrophotometer Runlog

Date/Initials	Analysis	Batch ID#	Sample ID	ABS	Matrix	Prep DF	Run DF	Comments
9/26/02 - MJ	CR6/SOLID	W02387	BLANK	0.000	SOLID	1X	1X	
↓	↓	↓	[STD-CCV]	0.423	↓	↓	↓	WC-133-02

MJ 9/26/02

Assaigai Analytical Laboratories, Inc.

Run Group Cover Sheet

Run Group	WC.2002.1329
Reviewed:	10/1/2002 8:04:26 AM
By:	NJL

Calc Method	ABS
Import Source	LOL01
Instrument:	U1100B

Calibration Mode	LIBRARY
Calculation Mode	NORMAL
Spike Dilution Mode	NORMAL

RAW QUANT FLAGS	
a	*all result information keyed in manually*
d	*data from instrument keyed in manually*
i	*integration of peak performed manually*
q	*qdelete of peak*
r	*response factor postquant adjustment*

CALIBRATION LIBRARY REPORT

Calc Method	Analyte	ClassCode	Tracking Group	Analzyed	Signal	Ref Conc
ABS	CR6	STD-CAL1	WC.2002.873	7/30/2002 11:28:31 AM	0.002	0
ABS	CR6	STD-CAL2	WC.2002.873	7/30/2002 11:29:29 AM	0.013	0.01
ABS	CR6	STD-CAL3	WC.2002.873	7/30/2002 11:30:42 AM	0.103	0.125
ABS	CR6	STD-CAL4	WC.2002.873	7/30/2002 11:31:44 AM	0.217	0.25
ABS	CR6	STD-CAL5	WC.2002.873	7/30/2002 11:32:48 AM	0.417	0.5
ABS	CR6	STD-CAL6	WC.2002.873	7/30/2002 11:33:58 AM	0.815	1

Dept. Review + Funnel: gB 10/6/02

Assalgal Analytical Laboratories, Inc.

Laboratory Logbook

Run Group WC.2002.1329
Import Source LOL01
Instrument: U1100B

o	Run#	Acquisition Date	Data File	Vial	e	Sample Run ID	Run DF	Comment	see data file(s)	Analyst
	1	09-30-02 15:37:15	02093016.228	1		[STD-CCV]	1			NJL
	2	09-30-02 15:38:18	02093016.228	2		W02392-018	1			NJL
	3	09-30-02 15:41:01	02093016.228	3		ERROR	1			NJL
	4	09-30-02 15:42:28	02093016.228	4		ERROR	1			NJL
	5	09-30-02 15:45:09	02093016.228	5		W02392-019	1			NJL
	6	09-30-02 15:46:06	02093016.228	6		W02392-020	1			NJL
	7	09-30-02 15:48:57	02093016.228	7		W02392-021	1			NJL
	8	09-30-02 15:50:02	02093016.228	8		W02392-022	1			NJL
	9	09-30-02 15:51:29	02093016.228	9		W02392-023	1			NJL
	10	09-30-02 15:53:04	02093016.228	10		W02392-024	1			NJL
	11	09-30-02 15:54:21	02093016.228	11		W02392-025	1			NJL
	12	09-30-02 15:55:19	02093016.228	12		W02392-026	1			NJL
	13	09-30-02 15:56:39	02093016.228	13		[STD-CCV]	1			NJL
	14	09-30-02 15:58:48	02093016.228	14		W02392-027	1			NJL
	15	09-30-02 15:59:48	02093016.228	15		W02392-028	1			NJL
	16	09-30-02 16:01:21	02093016.228	16		W02392-029	1			NJL
	17	09-30-02 16:02:22	02093016.228	17		W02392-030	1			NJL
	18	09-30-02 16:03:57	02093016.228	18		W02392-031	1			NJL
	19	09-30-02 16:05:13	02093016.228	19		W02392-032	1			NJL
	20	09-30-02 16:06:50	02093016.228	20		W02392-033	1			NJL
	21	09-30-02 16:07:54	02093016.228	21		W02392-034	1			NJL
	22	09-30-02 16:09:43	02093016.228	22		W02392-035	1			NJL
	23	09-30-02 16:10:39	02093016.228	23		W02392-036	1			NJL
	24	09-30-02 16:12:10	02093016.228	24		[STD-CCV]	1			NJL
	25	09-30-02 16:14:50	02093016.228	25		W02392-037	1			NJL
	26	09-30-02 16:16:02	02093016.228	26		W02392-038	1			NJL
	27	09-30-02 16:17:40	02093016.228	27		W02392-039	1			NJL
	28	09-30-02 16:18:40	02093016.228	28		W02392-040	1			NJL
	29	09-30-02 16:20:08	02093016.228	29		W02392-041	1			NJL
	30	09-30-02 16:20:59	02093016.228	30		W02392-042	1			NJL
	31	09-30-02 16:22:24	02093016.228	31		[STD-CCV]	1			NJL

NJL 10/1/02

Coyote 2001: Calculation 1.0.020730151000

Report Date 10/1/2002 8:04:32 AM

Department: WETCHEM
Prep Method: 1311-3500
Matrix: SOLID
Batch ID: W02392

Assalgai Laboratories
Sample Preparation Log
Report Revision 011023

Prep Method: Hexavalent Chromium Prep

Sample Count: 17
Batch Start Timestamp: 09/27/02 13:34:48

Prep ID:	Sample ID:	Aliquot:	Units:	Initial By:	Total Volume:	Units:	Final By:	Prep DF:	Surrogate ID:	Spike ID:	Spike By:	Prep Timestamp:	Comments:
W02392-001	[MB]	1.00	g	NJL	100	ml	NJL	1			NJL	09/27/02 10:30:00	
W02392-002	[LCS]	1.00	g	NJL	100	ml	NJL	1		WC-134-02	NJL	09/27/02 10:30:00	100uL
W02392-003	[LCSD]	1.00	g	NJL	100	ml	NJL	1		WC-134-02	NJL	09/27/02 10:30:00	100uL
W02392-004	0209373-01A[M]	1.00	g	NJL	100	ml	NJL	1			NJL	09/27/02 10:30:00	
W02392-005	0209373-01A[M]	1.00	g	NJL	100	ml	NJL	1			NJL	09/27/02 10:30:00	
W02392-006	0209373-01A[MS]	1.00	g	NJL	100	ml	NJL	1		WC-134-02	NJL	09/27/02 10:30:00	100uL
W02392-007	0209373-01A[MS]	1.00	g	NJL	100	ml	NJL	1		WC-134-02	NJL	09/27/02 10:30:00	100uL
W02392-008	0209373-01A[MSD]	1.00	g	NJL	100	ml	NJL	1		WC-134-02	NJL	09/27/02 10:30:00	100uL
W02392-009	0209373-01A[MSD]	1.00	g	NJL	100	ml	NJL	1		WC-134-02	NJL	09/27/02 10:30:00	100uL
W02392-010	0209373-02A	1.00	g	NJL	100	ml	NJL	1			NJL	09/27/02 10:30:00	
W02392-011	0209373-02A	1.00	g	NJL	100	ml	NJL	1			NJL	09/27/02 10:30:00	
W02392-012	0209373-03A	1.00	g	NJL	100	ml	NJL	1			NJL	09/27/02 11:40:00	
W02392-013	0209373-03A	1.00	g	NJL	100	ml	NJL	1			NJL	09/27/02 11:40:00	
W02392-014	0209373-04A	1.00	g	NJL	100	ml	NJL	1			NJL	09/27/02 11:40:00	
W02392-015	0209373-04A	1.00	g	NJL	100	ml	NJL	1			NJL	09/27/02 11:40:00	
W02392-016	0209373-05A	1.00	g	NJL	100	ml	NJL	1			NJL	09/27/02 12:00:00	
W02392-017	0209373-05A	1.00	g	NJL	100	ml	NJL	1			NJL	09/27/02 12:00:00	
W02392-018	[MB]	1.00	g	NJL	100	ml	NJL	1			NJL	09/30/02 10:30:00	
W02392-019	0209373-06A	1.00	g	NJL	100	ml	NJL	1			NJL	09/30/02 10:30:00	
W02392-020	0209373-06A	1.00	g	NJL	100	ml	NJL	1			NJL	09/30/02 10:30:00	
W02392-021	0209373-07A	1.00	g	NJL	100	ml	NJL	1			NJL	09/30/02 10:30:00	
W02392-022	0209373-07A	1.00	g	NJL	100	ml	NJL	1			NJL	09/30/02 10:30:00	
W02392-023	0209373-08A	1.00	g	NJL	100	ml	NJL	1			NJL	09/30/02 10:30:00	
W02392-024	0209373-08A	1.00	g	NJL	100	ml	NJL	1			NJL	09/30/02 10:30:00	
W02392-025	0209373-09A	1.00	g	NJL	100	ml	NJL	1			NJL	09/30/02 10:30:00	
W02392-026	0209373-09A	1.00	g	NJL	100	ml	NJL	1			NJL	09/30/02 10:30:00	
W02392-027	0209373-10A	1.00	g	NJL	100	ml	NJL	1			NJL	09/30/02 10:30:00	
W02392-028	0209373-10A	1.00	g	NJL	100	ml	NJL	1			NJL	09/30/02 10:30:00	
W02392-029	0209373-11A	1.00	g	NJL	100	ml	NJL	1			NJL	09/30/02 10:30:00	
W02392-030	0209373-11A	1.00	g	NJL	100	ml	NJL	1			NJL	09/30/02 10:30:00	
W02392-031	0209373-12A	1.00	g	NJL	100	ml	NJL	1			NJL	09/30/02 13:00:00	
W02392-032	0209373-12A	1.00	g	NJL	100	ml	NJL	1			NJL	09/30/02 13:00:00	
W02392-033	0209373-13A	1.00	g	NJL	100	ml	NJL	1			NJL	09/30/02 13:00:00	
W02392-034	0209373-13A	1.00	g	NJL	100	ml	NJL	1			NJL	09/30/02 13:00:00	
W02392-035	0209373-14A	1.00	g	NJL	100	ml	NJL	1			NJL	09/30/02 13:00:00	
W02392-036	0209373-14A	1.00	g	NJL	100	ml	NJL	1			NJL	09/30/02 13:00:00	
W02392-037	0209373-15A	1.00	g	NJL	100	ml	NJL	1			NJL	09/30/02 13:00:00	
W02392-038	0209373-15A	1.00	g	NJL	100	ml	NJL	1			NJL	09/30/02 13:00:00	
W02392-039	0209373-16A	1.00	g	NJL	100	ml	NJL	1			NJL	09/30/02 13:00:00	

NJL 9/30/02

Coyote 2001: Parabellum 1.0.020712160500

Report Date 9/30/2002 3:04:00 PM

Department: WETCHEM
Prep Method: 1311-3500
Matrix: SOLID
Batch ID: W02392

Assaigai Laboratories
Sample Preparation Log
Report Revision 011023

Prep Method: Hexavalent Chromium Prep

Sample Count: 17
Batch Start Timestamp: 09/27/02 13:34:48

Prep ID:	Sample ID:	Aliquot:	Units:	Initial By:	Total Volume:	Units:	Final By:	Prep DF:	Surrogate ID:	Spike ID:	Spike By:	Prep Timestamp:	Comments:
W02392-040	0209373-16A	1.00	g	NJL	100	ml	NJL	1			NJL	09/30/02 13:00:00	
W02392-041	0209373-17A	1.00	g	NJL	100	ml	NJL	1			NJL	09/30/02 13:00:00	
W02392-042	0209373-17A	1.00	g	NJL	100	ml	NJL	1			NJL	09/30/02 13:00:00	

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NJL 9/30/02

Coyote 2001: Parabellum 1.0.020712160500

Report Date 9/30/2002 3:04:00 PM

ASSAIGAI ANALYTICAL LABORATORIES, INC.
Wet Chemistry Logbook

Hexavalent Chromium EPA 218.4 (Section 2.3) WC013rev#3
DL = 0.01 mg/L

Batch ID: W02392
Analyst: [illegible]

Sample Number	Sample Volume (mL)	Final Volume (mL)	Final DF	pH	Date/Time	Comments/Standard Prep#
[MB]	50	100	1X	1.21	9/27/02 @ 1030	
[LCS]	↓	↓	↓	1.25	↓	WC-134-02 100 ul
[LCSD]	↓			1.24		↓
9373-01A [M]	1.0g			1.28		Undeveloped
↓	↓			1.25		Developed
[MS]				1.25		Undeveloped WC-134-02 100 ul
↓				1.26		Developed
[MSD]				1.22		Undeveloped
↓	↓			1.22		Developed
9373-02A				1.22		Undeveloped
↓	↓	↓	↓	1.23	↓	Developed
[STD-CCV]	~~50~~ 50	↓	1X	1.24	↓	WC-133-02 100 ul
9373-03A	1.0g	100	1X	1.25	9/27/02 @ 1140	Undeveloped
↓	↓	↓	↓	1.25	↓	Developed
-04A				1.25		Undeveloped
↓	↓	↓	↓	1.25	↓	Developed
9373-05A	1.0g	100	1X	1.22	9/27/02 @ 1200	Undeveloped
↓	↓	↓	↓	1.26	↓	Developed
[MB]	50mL	100	1X	1.25	9/30/02 @ 1030	
9373-06A	1.0g			1.25		Undeveloped
↓	↓			1.26		Developed
-07A				1.25		Undeveloped
↓				1.27		Developed
-08A				1.26		Undeveloped
↓				1.25		Developed
-09A				1.12		Undeveloped
↓				1.15		Developed
-10A				1.28		Undeveloped
↓	↓	↓	↓	1.29	↓	Developed

ASSAIGAI ANALYTICAL LABORATORIES, INC.
Wet Chemistry Logbook

Hexavalent Chromium EPA 218.4 (Section 2.3) WC013rev#3
DL = 0.01 mg/L

Batch ID: W02392
Analyst: IY

Sample Number	Sample Volume (mL)	Final Volume (mL)	Final DF	pH	Date/Time	Comments/Standard Prep#
9373-11A	1.0g	100	1X	1.19	9/30/02 @ 1030	Undeveloped
↓	↓	↓	↓	1.18	↓	Developed
[STD-CCV]	↓	↓	↓	1.27	↓	WC-137-02 @ 100 uL
9373-12A	1.0g	100	1X	1.25	9/30/02 @ 1300	Undeveloped
↓	↓	↓	↓	1.25	↓	Developed
-13A	↓	↓	↓	1.25	↓	Undeveloped
↓	↓	↓	↓	1.23	↓	Developed
-14A	↓	↓	↓	1.27	↓	Undeveloped
↓	↓	↓	↓	1.28	↓	Developed
-15A	↓	↓	↓	1.27	↓	Undeveloped
-15A	↓	↓	↓	1.24	↓	Developed
~~-16A~~	↓	↓	↓	1.25	↓	Undeveloped
~~-17A~~ 16A	↓	↓	↓	1.23	↓	Developed
~~-17A~~	↓	↓	↓	1.28	↓	Undeveloped
17A	↓	↓	↓	1.26	↓	Developed

Assalgal Analytical Laboratories, Inc.

Analytical Result Summary

Run Group	WC.2002.1329	Import ID	02093016.228
Analyst	NJL	Quant Meth	
Calc Method	ABS	Calibration	07-30-02 11:28:31
Analyte	CR6	Quant	10-01-02 8:03:33

r	#	e	Run ID	Prep ID	Matrix	Signal m	Raw Quant	As	Run DF	Prep DF	MRL	Report	As	Prepared	Analyzed	Qual	f
	1		[STD-CCV]		LAB	0.411	0.4984	ppm	1	1	1	100	% Recovery		09-30-02 15:37:15		
x	2		W02392-018	[MB]	SOLID	-0.002	-0.0095	ppm	1	1	1	< 1.00	mg / kg	09-30-02 10:30:00	09-30-02 15:38:18		
	3		ERROR		LAB	0.009	0.004	ppm	1	1	0.005	< 0.005	mg / L		09-30-02 15:41:01		
	4		ERROR		LAB	0.03	0.0299	ppm	1	1	0.005	0.030	mg / L		09-30-02 15:42:28		
✓	5		W02392-019	0209373-06A	SOLID	0.045	0.0483	ppm	1	1	1	4.83	mg / kg	09-30-02 10:30:00	09-30-02 15:45:09		
x	6		W02392-020	0209373-06A	SOLID	-0.017	-0.0279	ppm	1	1	1	< 1.00	mg / kg	09-30-02 10:30:00	09-30-02 15:46:06		
✓	7		W02392-021	0209373-07A	SOLID	0.035	0.036	ppm	1	1	1	3.60	mg / kg	09-30-02 10:30:00	09-30-02 15:48:57		
x	8		W02392-022	0209373-07A	SOLID	-0.007	-0.0156	ppm	1	1	1	< 1.00	mg / kg	09-30-02 10:30:00	09-30-02 15:50:02		
✓	9		W02392-023	0209373-08A	SOLID	0.015	0.0114	ppm	1	1	1	1.14	mg / kg	09-30-02 10:30:00	09-30-02 15:51:29		
x	10		W02392-024	0209373-08A	SOLID	0.043	0.0459	ppm	1	1	1	4.59	mg / kg	09-30-02 10:30:00	09-30-02 15:53:04		
✓	11		W02392-025	0209373-09A	SOLID	0.01	0.0053	ppm	1	1	1	< 1.00	mg / kg	09-30-02 10:30:00	09-30-02 15:54:21		
x	12		W02392-026	0209373-09A	SOLID	0.016	0.0126	ppm	1	1	1	1.26	mg / kg	09-30-02 10:30:00	09-30-02 15:55:19		
	13		[STD-CCV]		LAB	0.415	0.5034	ppm	1	1	1	101	% Recovery		09-30-02 15:56:39		
✓	14		W02392-027	0209373-10A	SOLID	0.005	-0.0009	ppm	1	1	1	< 1.00	mg / kg	09-30-02 10:30:00	09-30-02 15:58:48		
x	15		W02392-028	0209373-10A	SOLID	0.018	0.0151	ppm	1	1	1	1.51	mg / kg	09-30-02 10:30:00	09-30-02 15:59:48		
✓	16		W02392-029	0209373-11A	SOLID	0.005	-0.0009	ppm	1	1	1	< 1.00	mg / kg	09-30-02 10:30:00	09-30-02 16:01:21		
x	17		W02392-030	0209373-11A	SOLID	0.016	0.0126	ppm	1	1	1	1.26	mg / kg	09-30-02 10:30:00	09-30-02 16:02:22		
✓	18		W02392-031	0209373-12A	SOLID	0.005	-0.0009	ppm	1	1	1	< 1.00	mg / kg	09-30-02 13:00:00	09-30-02 16:03:57		
x	19		W02392-032	0209373-12A	SOLID	0.032	0.0323	ppm	1	1	1	3.23	mg / kg	09-30-02 13:00:00	09-30-02 16:05:13		
✓	20		W02392-033	0209373-13A	SOLID	0.018	0.0151	ppm	1	1	1	1.51	mg / kg	09-30-02 13:00:00	09-30-02 16:06:50		
x	21		W02392-034	0209373-13A	SOLID	0.002	-0.0046	ppm	1	1	1	< 1.00	mg / kg	09-30-02 13:00:00	09-30-02 16:07:54		
✓	22		W02392-035	0209373-14A	SOLID	0.012	0.0077	ppm	1	1	1	< 1.00	mg / kg	09-30-02 13:00:00	09-30-02 16:09:43		
x	23		W02392-036	0209373-14A	SOLID	0.021	0.0188	ppm	1	1	1	1.88	mg / kg	09-30-02 13:00:00	09-30-02 16:10:00		
	24		[STD-CCV]		LAB	0.414	0.5021	ppm	1	1	1	100	% Recovery		09-30-02 16:12:10		
✓	25		W02392-037	0209373-15A	SOLID	0.009	0.004	ppm	1	1	1	< 1.00	mg / kg	09-30-02 13:00:00	09-30-02 16:14:50		
x	26		W02392-038	0209373-15A	SOLID	0.039	0.0409	ppm	1	1	1	4.09	mg / kg	09-30-02 13:00:00	09-30-02 16:16:02		
✓	27		W02392-039	0209373-16A	SOLID	0.007	0.0016	ppm	1	1	1	< 1.00	mg / kg	09-30-02 13:00:00	09-30-02 16:17:40		
x	28		W02392-040	0209373-16A	SOLID	0.02	0.0176	ppm	1	1	1	1.76	mg / kg	09-30-02 13:00:00	09-30-02 16:18:40		
✓	29		W02392-041	0209373-17A	SOLID	0.013	0.009	ppm	1	1	1	< 1.00	mg / kg	09-30-02 13:00:00	09-30-02 16:20:08		
x	30		W02392-042	0209373-17A	SOLID	0.049	0.0532	ppm	1	1	1	5.32	mg / kg	09-30-02 13:00:00	09-30-02 16:20:59		
	31		[STD-CCV]		LAB	0.41	0.4972	ppm	1	1	1	99	% Recovery		09-30-02 16:22:24		

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Jg 10/1/02

ASSAIGAI ANALYTICAL LABORATORIES, INC.
Wet Chemistry Logbook

Ultra Violet/Visible Spectrophotometer Runlog

Date/Initials	Analysis	Batch ID#	Sample ID	ABS	Matrix	Prep DF	Run DF	Comments
9/30/02 - MJ	$CR6^+$/SOLID	W02392	BLANK	0.000	SOLID	1X	1X	λ 540 nm
			[STD-CCV]	0.411				WC-133-02
			[MB]	-0.002				
			9373-06A	0.045				Undeveloped/zeroed
			↓	-0.017				Developed
			BLANK	0.000				
			9373-07A	0.035				Undeveloped/zeroed
			↓	-0.007				Developed
			BLANK	0.000				
			9373-08A	0.015				Undeveloped/zeroed
			↓	0.043				Developed
			BLANK	0.000				
			9373-09A	0.010				Undeveloped/zeroed
			↓	0.016				Developed
			BLANK	0.000				
			[STD-CCV]	0.415				WC-133-02
			9373-10A	0.005				Undeveloped/zeroed
			↓	0.018				Developed
			BLANK	0.000				
			9373-11A	0.005				Undeveloped/zeroed
			↓	0.016				Developed
			BLANK	0.000				
			9373-12A	0.005				Undeveloped/zeroed
			↓	0.032				Developed
			BLANK	0.000				
			9373-13A	0.018				Undeveloped/zeroed
			↓	0.002				Developed
			BLANK	0.000				
			9373-14A	0.012				Undeveloped/zeroed
			↓	0.021				Developed
			BLANK	0.000				
			[STD-CCV]	0.414				WC-133-02
			9373-15A	0.009				Undeveloped/zeroed
			↓	0.039				Developed

* BATCH CONTINUED ON NEXT PAGE

ASSAIGAI ANALYTICAL LABORATORIES, INC.

Wet Chemistry Logbook

* BATCH CONTINUED FROM LAST PAGE

Ultra Violet/Visible Spectrophotometer Runlog

Date/Initials	Analysis	Batch ID#	Sample ID	ABS	Matrix	Prep DF	Run DF	Comments
9/30/02 - LY	CR6+/SOLID	W02392	BLANK	0.000	SOLID	1X	1X	λ 540 nm
			9373-16A	0.007				Undeveloped / Zeroed
				0.020				Developed
			BLANK	0.000				
			9373-17A	0.013				Undeveloped / zeroed
				0.049				Developed
			BLANK	0.000				
			[STD-CCV]	0.410				WC-133-02

LY 9/30/02

Assaigai Analytical Laboratories, Inc.

Quality Control Summary

Client: LANL-DDP03-0271-014,RM100 E SI
Project: XURP 0460 3219 0000, 1199S
Order: 0209364 LOS40

Explanation of codes	
D	Not applicable due to sample dilution
L	Not applicable due to MDL proximity

Type: *LCS: Lab Control Spike* Matrix: *SOLID*

Run Sequence	CAS #	Analyte	Result	Units	Range	Dilution Factor	Detection Limit	Code	Run Date
W02387		**EPA 218.4 Hex. Chromium by Chelation Extraction**						**W02387-002**	
WC.2002.1317.3		Chromium, Hexavalent	105	% Recovery	80 - 120	1	NA		09-24-02
M021282		**SW846 3050A/6020 ICP-MS**						**M021282-002**	
MT.2002.1109.12	7429-90-5	Aluminum	109	% Recovery	80 - 120	1	NA		09-23-02
MT.2002.1109.12	7440-36-0	Antimony	99	% Recovery	80 - 120	1	NA		09-23-02
MT.2002.1109.12	7440-38-2	Arsenic	104	% Recovery	80 - 120	1	NA		09-23-02
MT.2002.1109.12	7440-39-3	Barium	101	% Recovery	80 - 120	1	NA		09-23-02
MT.2002.1109.12	7440-41-7	Beryllium	96	% Recovery	80 - 120	1	NA		09-23-02
MT.2002.1118.12	7440-42-8	Boron	92	% Recovery	80 - 120	1	NA		09-25-02
MT.2002.1109.12	7440-43-9	Cadmium	100	% Recovery	80 - 120	1	NA		09-23-02
MT.2002.1118.12	7440-70-2	Calcium	103	% Recovery	80 - 120	1	NA		09-25-02
MT.2002.1109.12	7440-47-3	Chromium	101	% Recovery	80 - 120	1	NA		09-23-02
MT.2002.1109.12	7440-48-4	Cobalt	101	% Recovery	80 - 120	1	NA		09-23-02
MT.2002.1109.12	7440-50-8	Copper	103	% Recovery	80 - 120	1	NA		09-23-02
MT.2002.1118.12	7439-89-6	Iron	104	% Recovery	80 - 120	1	NA		09-25-02
MT.2002.1109.12	7439-92-1	Lead	98	% Recovery	80 - 120	1	NA		09-23-02
MT.2002.1118.12	7439-95-4	Magnesium	93	% Recovery	80 - 120	1	NA		09-25-02
MT.2002.1109.12	7439-96-5	Manganese	99	% Recovery	80 - 120	1	NA		09-23-02
MT.2002.1109.12	7439-98-7	Molybdenum	97	% Recovery	80 - 120	1	NA		09-23-02
MT.2002.1109.12	7440-02-0	Nickel	102	% Recovery	80 - 120	1	NA		09-23-02
MT.2002.1118.12	7440-09-7	Potassium	98	% Recovery	80 - 120	1	NA		09-25-02
MT.2002.1109.12	7782-49-2	Selenium	103	% Recovery	80 - 120	1	NA		09-23-02
MT.2002.1109.12	7440-21-3	Silicon	105	% Recovery	80 - 120	1	NA		09-23-02
MT.2002.1109.12	7440-22-4	Silver	97	% Recovery	80 - 120	1	NA		09-23-02
MT.2002.1118.12	7440-23-5	Sodium	96	% Recovery	80 - 120	1	NA		09-25-02
MT.2002.1109.12	7439-89-6	Strontium	99	% Recovery	80 - 120	1	NA		09-23-02
MT.2002.1109.12	7440-28-0	Thallium	96	% Recovery	80 - 120	1	NA		09-23-02
MT.2002.1109.12	7440-31-5	Tin	112	% Recovery	80 - 120	1	NA		09-23-02
MT.2002.1109.12	7440-32-6	Titanium	101	% Recovery	80 - 120	1	NA		09-23-02
MT.2002.1109.12	7440-61-1	Uranium	97	% Recovery	80 - 120	1	NA		09-23-02
MT.2002.1118.12	7440-62-2	Vanadium	100	% Recovery	80 - 120	1	NA		09-25-02
MT.2002.1118.12	7440-66-6	Zinc	107	% Recovery	80 - 120	1	NA		09-25-02
M021282		**SW846 3050A/6020 ICP-MS**						**M021282-004**	
MT.2002.1133.12	7440-22-4	Lithium	96	% Recovery	80 - 120	1	NA		09-27-02
M021284		**SW846 7471 CVAA**						**M021284-002**	
MT.2002.1103.10	7439-97-6	Mercury	100	% Recovery	90 - 110	1	NA		09-23-02

Type: *LCSD: Lab Control Spike Duplicate Precision* Matrix: *SOLID*

Run Sequence	CAS #	Analyte	Result	Units	Range	Dilution Factor	Detection Limit	Code	Run Date
W02387		**EPA 218.4 Hex. Chromium by Chelation Extraction**						**W02387-003**	
WC.2002.1317.4		Chromium, Hexavalent	< 1	RPD	0 - 20	1	NA		09-24-02

Assaigai Analytical Laboratories, Inc.

Quality Control Summary

785

Client: LANL-DDP03-0271-014,RM100 E SI
Project: XURP 0460 3219 0000, 1199S
Order: 0209364 LOS40

Explanation of codes	
D	Not applicable due to sample dilution
L	Not applicable due to MDL proximity

Type: *LCSD: Lab Control Spike Duplicate Precision* Matrix: *SOLID*

Run Sequence	CAS #	Analyte	Result	Units	Range	Dilution Factor	Detection Limit	Code	Run Date
M021282		**SW846 3050A/6020 ICP-MS**						**M021282-003**	
MT.2002.1109.13	7429-90-5	Aluminum	5	RPD	0 - 20	1	NA		09-23-02
MT.2002.1109.13	7440-36-0	Antimony	2	RPD	0 - 20	1	NA		09-23-02
MT.2002.1109.13	7440-38-2	Arsenic	2	RPD	0 - 20	1	NA		09-23-02
MT.2002.1109.13	7440-39-3	Barium	2	RPD	0 - 20	1	NA		09-23-02
MT.2002.1109.13	7440-41-7	Beryllium	< 1	RPD	0 - 20	1	NA		09-23-02
MT.2002.1118.13	7440-42-8	Boron	3	RPD	0 - 20	1	NA		09-25-02
MT.2002.1109.13	7440-43-9	Cadmium	2	RPD	0 - 20	1	NA		09-23-02
MT.2002.1118.13	7440-70-2	Calcium	< 1	RPD	0 - 20	1	NA		09-25-02
MT.2002.1109.13	7440-47-3	Chromium	1	RPD	0 - 20	1	NA		09-23-02
MT.2002.1109.13	7440-48-4	Cobalt	3	RPD	0 - 20	1	NA		09-23-02
MT.2002.1109.13	7440-50-8	Copper	1	RPD	0 - 20	1	NA		09-23-02
MT.2002.1118.13	7439-89-6	Iron	1	RPD	0 - 20	1	NA		09-25-02
MT.2002.1109.13	7439-92-1	Lead	3	RPD	0 - 20	1	NA		09-23-02
MT.2002.1118.13	7439-95-4	Magnesium	5	RPD	0 - 20	1	NA		09-25-02
MT.2002.1109.13	7439-96-5	Manganese	3	RPD	0 - 20	1	NA		09-23-02
MT.2002.1109.13	7439-98-7	Molybdenum	4	RPD	0 - 20	1	NA		09-23-02
MT.2002.1109.13	7440-02-0	Nickel	2	RPD	0 - 20	1	NA		09-23-02
MT.2002.1118.13	7440-09-7	Potassium	< 1	RPD	0 - 20	1	NA		09-25-02
MT.2002.1109.13	7782-49-2	Selenium	< 1	RPD	0 - 20	1	NA		09-23-02
MT.2002.1109.13	7440-21-3	Silicon	7	RPD	0 - 20	1	NA		09-23-02
MT.2002.1109.13	7440-22-4	Silver	4	RPD	0 - 20	1	NA		09-23-02
MT.2002.1118.13	7440-23-5	Sodium	3	RPD	0 - 20	1	NA		09-25-02
MT.2002.1109.13	7439-89-6	Strontium	2	RPD	0 - 20	1	NA		09-23-02
MT.2002.1109.13	7440-28-0	Thallium	3	RPD	0 - 20	1	NA		09-23-02
MT.2002.1109.13	7440-31-5	Tin	2	RPD	0 - 20	1	NA		09-23-02
MT.2002.1109.13	7440-32-6	Titanium	3	RPD	0 - 20	1	NA		09-23-02
MT.2002.1109.13	7440-61-1	Uranium	2	RPD	0 - 20	1	NA		09-23-02
MT.2002.1118.13	7440-62-2	Vanadium	< 1	RPD	0 - 20	1	NA		09-25-02
MT.2002.1118.13	7440-66-6	Zinc	2	RPD	0 - 20	1	NA		09-25-02
M021282		**SW846 3050A/6020 ICP-MS**						**M021282-005**	
MT.2002.1133.13	7440-22-4	Lithium	4	RPD	0 - 20	1	NA		09-27-02
M021284		**SW846 7471 CVAA**						**M021284-003**	
MT.2002.1103.11	7439-97-6	Mercury	1	RPD	0 - 20	1	NA		09-23-02

Type: *LCSD: Lab Control Spike Duplicate Accuracy* Matrix: *SOLID*

Run Sequence	CAS #	Analyte	Result	Units	Range	Dilution Factor	Detection Limit	Code	Run Date
W02387		**EPA 218.4 Hex. Chromium by Chelation Extraction**						**W02387-003**	
WC.2002.1317.4		Chromium, Hexavalent	104	% Recovery	80 - 120	1	NA		09-24-02
M021282		**SW846 3050A/6020 ICP-MS**						**M021282-003**	
MT.2002.1109.13	7429-90-5	Aluminum	116	% Recovery	80 - 120	1	NA		09-23-02

Assaigai Analytical Laboratories, Inc.

Quality Control Summary

786

Client: LANL-DDP03-0271-014,RM100 E SI
Project: XURP 0460 3219 0000, 1199S
Order: 0209364 LOS40

Explanation of codes	
D	Not applicable due to sample dilution
L	Not applicable due to MDL proximity

Type: *LCSD: Lab Control Spike Duplicate Accuracy* Matrix: *SOLID*

Run Sequence	CAS #	Analyte	Result	Units	Range	Dilution Factor	Detection Limit	Code	Run Date
M021282		**SW846 3050A/6020 ICP-MS**						**M021282-003**	
MT.2002.1109.13	7440-36-0	Antimony	101	% Recovery	80 - 120	1	NA		09-23-02
MT.2002.1109.13	7440-38-2	Arsenic	106	% Recovery	80 - 120	1	NA		09-23-02
MT.2002.1109.13	7440-39-3	Barium	104	% Recovery	80 - 120	1	NA		09-23-02
MT.2002.1109.13	7440-41-7	Beryllium	96	% Recovery	80 - 120	1	NA		09-23-02
MT.2002.1118.13	7440-42-8	Boron	95	% Recovery	80 - 120	1	NA		09-25-02
MT.2002.1109.13	7440-43-9	Cadmium	103	% Recovery	80 - 120	1	NA		09-23-02
MT.2002.1118.13	7440-70-2	Calcium	104	% Recovery	80 - 120	1	NA		09-25-02
MT.2002.1109.13	7440-47-3	Chromium	102	% Recovery	80 - 120	1	NA		09-23-02
MT.2002.1109.13	7440-48-4	Cobalt	104	% Recovery	80 - 120	1	NA		09-23-02
MT.2002.1109.13	7440-50-8	Copper	104	% Recovery	80 - 120	1	NA		09-23-02
MT.2002.1118.13	7439-89-6	Iron	105	% Recovery	80 - 120	1	NA		09-25-02
MT.2002.1109.13	7439-92-1	Lead	101	% Recovery	80 - 120	1	NA		09-23-02
MT.2002.1118.13	7439-95-4	Magnesium	98	% Recovery	80 - 120	1	NA		09-25-02
MT.2002.1109.13	7439-96-5	Manganese	102	% Recovery	80 - 120	1	NA		09-23-02
MT.2002.1109.13	7439-98-7	Molybdenum	100	% Recovery	80 - 120	1	NA		09-23-02
MT.2002.1109.13	7440-02-0	Nickel	104	% Recovery	80 - 120	1	NA		09-23-02
MT.2002.1118.13	7440-09-7	Potassium	98	% Recovery	80 - 120	1	NA		09-25-02
MT.2002.1109.13	7782-49-2	Selenium	104	% Recovery	80 - 120	1	NA		09-23-02
MT.2002.1109.13	7440-21-3	Silicon	112	% Recovery	80 - 120	1	NA		09-23-02
MT.2002.1109.13	7440-22-4	Silver	101	% Recovery	80 - 120	1	NA		09-23-02
MT.2002.1118.13	7440-23-5	Sodium	99	% Recovery	80 - 120	1	NA		09-25-02
MT.2002.1109.13	7439-89-6	Strontium	101	% Recovery	80 - 120	1	NA		09-23-02
MT.2002.1109.13	7440-28-0	Thallium	99	% Recovery	80 - 120	1	NA		09-23-02
MT.2002.1109.13	7440-31-5	Tin	114	% Recovery	80 - 120	1	NA		09-23-02
MT.2002.1109.13	7440-32-6	Titanium	104	% Recovery	80 - 120	1	NA		09-23-02
MT.2002.1109.13	7440-61-1	Uranium	98	% Recovery	80 - 120	1	NA		09-23-02
MT.2002.1118.13	7440-62-2	Vanadium	100	% Recovery	80 - 120	1	NA		09-25-02
MT.2002.1118.13	7440-66-6	Zinc	105	% Recovery	80 - 120	1	NA		09-25-02
M021282		**SW846 3050A/6020 ICP-MS**						**M021282-005**	
MT.2002.1133.13	7440-22-4	Lithium	100	% Recovery	80 - 120	1	NA		09-27-02
M021284		**SW846 7471 CVAA**						**M021284-003**	
MT.2002.1103.11	7439-97-6	Mercury	98	% Recovery	90 - 110	1	NA		09-23-02

Type: *MB: Method Blank* Matrix: *SOLID*

Run Sequence	CAS #	Analyte	Result	Units	Range	Dilution Factor	Detection Limit	Code	Run Date
MO0215		**ASTM D2216**						**02.1476-1**	
WC.2002.1476.1		Moisture	ND	%		1	0.1		10-09-02
W02387		**EPA 218.4 Hex. Chromium by Chelation Extraction**						**W02387-001**	
WC.2002.1317.2		Chromium, Hexavalent	ND	mg / kg		1	1		09-24-02

Assaigai Analytical Laboratories, Inc.

Quality Control Summary

787

Client: **LANL-DDP03-0271-014,RM100 E SI**
Project: **XURP 0460 3219 0000, 1199S**
Order: **0209364 LOS40**

Explanation of codes	
D	*Not applicable due to sample dilution*
L	*Not applicable due to MDL proximity*

Type: ***MB: Method Blank*** Matrix: ***SOLID***

Run Sequence	CAS #	Analyte	Result	Units	Range	Dilution Factor	Detection Limit	Code	Run Date
W02387		**EPA 218.4 Hex. Chromium by Chelation Extraction**						**W02387-016**	
WC.2002.1317.19		Chromium, Hexavalent	ND	mg / kg		1	1		09-25-02
W02387		**EPA 218.4 Hex. Chromium by Chelation Extraction**						**W02387-023**	
WC.2002.1320.3		Chromium, Hexavalent	ND	mg / kg		1	1		09-26-02
M021282		**SW846 3050A/6020 ICP-MS**						**M021282-001**	
MT.2002.1109.11	7429-90-5	Aluminum	1.22	mg / Kg		1	0.5		09-23-02
MT.2002.1109.11	7440-36-0	Antimony	ND	mg / Kg		1	0.05		09-23-02
MT.2002.1109.11	7440-38-2	Arsenic	0.029	mg / Kg		1	0.025		09-23-02
MT.2002.1109.11	7440-39-3	Barium	0.128	mg / Kg		1	0.025		09-23-02
MT.2002.1109.11	7440-41-7	Beryllium	ND	mg / Kg		1	0.025		09-23-02
MT.2002.1118.11	7440-42-8	Boron	ND	mg / Kg		1	0.15		09-25-02
MT.2002.1109.11	7440-43-9	Cadmium	ND	mg / Kg		1	0.025		09-23-02
MT.2002.1118.11	7440-70-2	Calcium	3.00	mg / Kg		1	0.5		09-25-02
MT.2002.1109.11	7440-47-3	Chromium	0.064	mg / Kg		1	0.05		09-23-02
MT.2002.1109.11	7440-48-4	Cobalt	ND	mg / Kg		1	0.025		09-23-02
MT.2002.1109.11	7440-50-8	Copper	0.046	mg / Kg		1	0.025		09-23-02
MT.2002.1118.11	7439-89-6	Iron	1.29	mg / Kg		1	0.5		09-25-02
MT.2002.1109.11	7439-92-1	Lead	ND	mg / Kg		1	0.025		09-23-02
MT.2002.1133.11	7440-22-4	Lithium	ND	mg / Kg		1	0.05		09-27-02
MT.2002.1118.11	7439-95-4	Magnesium	1.09	mg / Kg		1	0.5		09-25-02
MT.2002.1109.11	7439-96-5	Manganese	0.038	mg / Kg		1	0.025		09-23-02
MT.2002.1109.11	7439-98-7	Molybdenum	ND	mg / Kg		1	0.025		09-23-02
MT.2002.1109.11	7440-02-0	Nickel	ND	mg / Kg		1	0.025		09-23-02
MT.2002.1118.11	7440-09-7	Potassium	1.67	mg / Kg		1	0.5		09-25-02
MT.2002.1109.11	7782-49-2	Selenium	ND	mg / Kg		1	0.025		09-23-02
MT.2002.1109.11	7440-21-3	Silicon	ND	mg / Kg		1	1		09-23-02
MT.2002.1109.11	7440-22-4	Silver	ND	mg / Kg		1	0.025		09-23-02
MT.2002.1118.11	7440-23-5	Sodium	1.60	mg / Kg		1	0.5		09-25-02
MT.2002.1109.11	7439-89-6	Strontium	ND	mg / Kg		1	0.025		09-23-02
MT.2002.1109.11	7440-28-0	Thallium	ND	mg / Kg		1	0.025		09-23-02
MT.2002.1109.11	7440-31-5	Tin	0.617	mg / Kg		1	0.025		09-23-02
MT.2002.1109.11	7440-32-6	Titanium	0.060	mg / Kg		1	0.025		09-23-02
MT.2002.1109.11	7440-61-1	Uranium	ND	mg / Kg		1	0.025		09-23-02
MT.2002.1118.11	7440-62-2	Vanadium	ND	mg / Kg		1	0.05		09-25-02
MT.2002.1118.11	7440-66-6	Zinc	ND	mg / Kg		1	0.25		09-25-02
M021284		**SW846 7471 CVAA**						**M021284-001**	
MT.2002.1103.9	7439-97-6	Mercury	ND	mg / Kg		1	0.05		09-23-02

Assaigai Analytical Laboratories, Inc.

Quality Control Summary

788

Client: LANL-DDP03-0271-014,RM100 E SI
Project: XURP 0460 3219 0000, 1199S
Order: 0209364 LOS40

Explanation of codes	
D	Not applicable due to sample dilution
L	Not applicable due to MDL proximity

Type: **MD: Matrix Duplicate** Matrix: **SOLID**

Run Sequence	CAS #	Analyte	Result	Units	Range	Dilution Factor	Detection Limit	Code	Run Date
MO0215		**ASTM D2216**						**02.1476-3**	
WC.2002.1476.3		Moisture	22	RPD		1	NA		10-09-02

Type: **MS: Matrix Spike** Matrix: **SOLID**

Run Sequence	CAS #	Analyte	Result	Units	Range	Dilution Factor	Detection Limit	Code	Run Date
W02387		**EPA 218.4 Hex. Chromium by Chelation Extraction**						**W02387-007**	
WC.2002.1317.8		Chromium, Hexavalent	84	% Recovery	80 - 120	1	NA		09-25-02
M021282		**SW846 3050A/6020 ICP-MS**						**M021282-007**	
MT.2002.1109.17	7429-90-5	Aluminum	4000	% Recovery	80 - 120	93	NA		09-23-02
MT.2002.1109.16	7440-36-0	Antimony	29	% Recovery	80 - 120	9	NA		09-23-02
MT.2002.1109.16	7440-38-2	Arsenic	99	% Recovery	80 - 120	9	NA		09-23-02
MT.2002.1109.16	7440-39-3	Barium	279	% Recovery	80 - 120	9	NA		09-23-02
MT.2002.1109.16	7440-41-7	Beryllium	107	% Recovery	80 - 120	9	NA		09-23-02
MT.2002.1118.38	7440-42-8	Boron	111	% Recovery	80 - 120	9	NA		09-25-02
MT.2002.1109.16	7440-43-9	Cadmium	108	% Recovery	80 - 120	9	NA		09-23-02
MT.2002.1118.38	7440-70-2	Calcium	282	% Recovery	80 - 120	9	NA		09-25-02
MT.2002.1109.17	7440-47-3	Chromium	395	% Recovery	80 - 120	93	NA		09-23-02
MT.2002.1109.16	7440-48-4	Cobalt	103	% Recovery	80 - 120	9	NA		09-23-02
MT.2002.1109.16	7440-50-8	Copper	138	% Recovery	80 - 120	9	NA		09-23-02
MT.2002.1118.15	7439-89-6	Iron	3610	% Recovery	80 - 120	93	NA		09-25-02
MT.2002.1109.16	7439-92-1	Lead	113	% Recovery	80 - 120	9	NA		09-23-02
MT.2002.1118.38	7439-95-4	Magnesium	796	% Recovery	80 - 120	9	NA		09-25-02
MT.2002.1109.17	7439-96-5	Manganese	98	% Recovery	80 - 120	93	NA		09-23-02
MT.2002.1109.16	7439-98-7	Molybdenum	101	% Recovery	80 - 120	9	NA		09-23-02
MT.2002.1109.16	7440-02-0	Nickel	105	% Recovery	80 - 120	9	NA		09-23-02
MT.2002.1118.38	7440-09-7	Potassium	667	% Recovery	80 - 120	9	NA		09-25-02
MT.2002.1109.16	7782-49-2	Selenium	110	% Recovery	80 - 120	9	NA		09-23-02
MT.2002.1109.16	7440-21-3	Silicon	312	% Recovery	80 - 120	9	NA		09-23-02
MT.2002.1109.16	7440-22-4	Silver	97	% Recovery	80 - 120	9	NA		09-23-02
MT.2002.1118.38	7440-23-5	Sodium	128	% Recovery	80 - 120	9	NA		09-25-02
MT.2002.1109.16	7439-89-6	Strontium	327	% Recovery	80 - 120	9	NA		09-23-02
MT.2002.1109.16	7440-28-0	Thallium	94	% Recovery	80 - 120	9	NA		09-23-02
MT.2002.1109.16	7440-31-5	Tin	119	% Recovery	80 - 120	9	NA		09-23-02
MT.2002.1109.17	7440-32-6	Titanium	1800	% Recovery	80 - 120	93	NA		09-23-02
MT.2002.1109.16	7440-61-1	Uranium	102	% Recovery	80 - 120	9	NA		09-23-02
MT.2002.1118.38	7440-62-2	Vanadium	113	% Recovery	80 - 120	9	NA		09-25-02
MT.2002.1118.38	7440-66-6	Zinc	166	% Recovery	80 - 120	9	NA		09-25-02
M021282		**SW846 3050A/6020 ICP-MS**						**M021282-009**	
MT.2002.1133.15	7440-22-4	Lithium	242	% Recovery	80 - 120	10	NA		09-27-02
M021284		**SW846 7471 CVAA**						**M021284-005**	
MT.2002.1103.13	7439-97-6	Mercury	137	% Recovery	90 - 110	1	NA		09-23-02

Assaigai Analytical Laboratories, Inc.

Quality Control Summary

789

Client: LANL-DDP03-0271-014,RM100 E SI
Project: XURP 0460 3219 0000, 1199S
Order: 0209364 LOS40

Explanation of codes	
D	Not applicable due to sample dilution
L	Not applicable due to MDL proximity

Type: *MSD: Matrix Spike Duplicate Precision* Matrix: *SOLID*

Run Sequence	CAS #	Analyte	Result	Units	Range	Dilution Factor	Detection Limit	Code	Run Date
W02387		**EPA 218.4 Hex. Chromium by Chelation Extraction**						**W02387-009**	
WC.2002.1317.10		Chromium, Hexavalent	< 1	RPD	0 - 20	1	NA		09-25-02
M021282		**SW846 3050A/6020 ICP-MS**						**M021282-008**	
MT.2002.1109.21	7429-90-5	Aluminum	26	RPD	0 - 20	97	NA		09-23-02
MT.2002.1109.18	7440-36-0	Antimony	2	RPD	0 - 20	10	NA		09-23-02
MT.2002.1109.18	7440-38-2	Arsenic	17	RPD	0 - 20	10	NA		09-23-02
MT.2002.1109.18	7440-39-3	Barium	135	RPD	0 - 20	10	NA		09-23-02
MT.2002.1109.18	7440-41-7	Beryllium	6	RPD	0 - 20	10	NA		09-23-02
MT.2002.1118.39	7440-42-8	Boron	7	RPD	0 - 20	10	NA		09-25-02
MT.2002.1109.18	7440-43-9	Cadmium	8	RPD	0 - 20	10	NA		09-23-02
MT.2002.1118.39	7440-70-2	Calcium	481	RPD	0 - 20	10	NA		09-25-02
MT.2002.1109.21	7440-47-3	Chromium	52	RPD	0 - 20	97	NA		09-23-02
MT.2002.1109.18	7440-48-4	Cobalt	3	RPD	0 - 20	10	NA		09-23-02
MT.2002.1109.18	7440-50-8	Copper	23	RPD	0 - 20	10	NA		09-23-02
MT.2002.1118.16	7439-89-6	Iron	36	RPD	0 - 20	97	NA		09-25-02
MT.2002.1109.18	7439-92-1	Lead	14	RPD	0 - 20	10	NA		09-23-02
MT.2002.1118.39	7439-95-4	Magnesium	57	RPD	0 - 20	10	NA		09-25-02
MT.2002.1109.21	7439-96-5	Manganese	275	RPD	0 - 20	97	NA		09-23-02
MT.2002.1109.18	7439-98-7	Molybdenum	3	RPD	0 - 20	10	NA		09-23-02
MT.2002.1109.18	7440-02-0	Nickel	5	RPD	0 - 20	10	NA		09-23-02
MT.2002.1118.39	7440-09-7	Potassium	42	RPD	0 - 20	10	NA		09-25-02
MT.2002.1109.18	7782-49-2	Selenium	9	RPD	0 - 20	10	NA		09-23-02
MT.2002.1109.18	7440-21-3	Silicon	80	RPD	0 - 20	10	NA		09-23-02
MT.2002.1109.18	7440-22-4	Silver	2	RPD	0 - 20	10	NA		09-23-02
MT.2002.1118.39	7440-23-5	Sodium	6	RPD	0 - 20	10	NA		09-25-02
MT.2002.1109.18	7439-89-6	Strontium	35	RPD	0 - 20	10	NA		09-23-02
MT.2002.1109.18	7440-28-0	Thallium	5	RPD	0 - 20	10	NA		09-23-02
MT.2002.1109.18	7440-31-5	Tin	14	RPD	0 - 20	10	NA		09-23-02
MT.2002.1109.21	7440-32-6	Titanium	5	RPD	0 - 20	97	NA		09-23-02
MT.2002.1109.18	7440-61-1	Uranium	1	RPD	0 - 20	10	NA		09-23-02
MT.2002.1118.39	7440-62-2	Vanadium	32	RPD	0 - 20	10	NA		09-25-02
MT.2002.1118.39	7440-66-6	Zinc	61	RPD	0 - 20	10	NA		09-25-02
M021282		**SW846 3050A/6020 ICP-MS**						**M021282-010**	
MT.2002.1133.16	7440-22-4	Lithium	116	RPD	0 - 20	9	NA		09-27-02
M021284		**SW846 7471 CVAA**						**M021284-006**	
MT.2002.1103.66	7439-97-6	Mercury	39	RPD	0 - 20	1	NA		09-23-02

Assaigai Analytical Laboratories, Inc.

Quality Control Summary

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Client: **LANL-DDP03-0271-014,RM100 E SI**
Project: **XURP 0460 3219 0000, 1199S**
Order: **0209364 LOS40**

Explanation of codes	
D	*Not applicable due to sample dilution*
L	*Not applicable due to MDL proximity*

Type: ***MSD: Matrix Spike Duplicate Accuracy*** Matrix: ***SOLID***

Run Sequence	CAS #	Analyte	Result	Units	Range	Dilution Factor	Detection Limit	Code	Run Date
W02387		**EPA 218.4 Hex. Chromium by Chelation Extraction**						**W02387-009**	
WC.2002.1317.10		Chromium, Hexavalent	84	% Recovery	80 - 120	1	NA		09-25-02
M021282		**SW846 3050A/6020 ICP-MS**						**M021282-008**	
MT.2002.1109.21	7429-90-5	Aluminum	2650	% Recovery	80 - 120	97	NA		09-23-02
MT.2002.1109.18	7440-36-0	Antimony	29	% Recovery	80 - 120	10	NA		09-23-02
MT.2002.1109.18	7440-38-2	Arsenic	84	% Recovery	80 - 120	10	NA		09-23-02
MT.2002.1109.18	7440-39-3	Barium	54	% Recovery	80 - 120	10	NA		09-23-02
MT.2002.1109.18	7440-41-7	Beryllium	102	% Recovery	80 - 120	10	NA		09-23-02
MT.2002.1118.39	7440-42-8	Boron	104	% Recovery	80 - 120	10	NA		09-25-02
MT.2002.1109.18	7440-43-9	Cadmium	100	% Recovery	80 - 120	10	NA		09-23-02
MT.2002.1118.39	7440-70-2	Calcium	< 1	% Recovery	80 - 120	10	NA		09-25-02
MT.2002.1109.21	7440-47-3	Chromium	548	% Recovery	80 - 120	97	NA		09-23-02
MT.2002.1109.18	7440-48-4	Cobalt	100	% Recovery	80 - 120	10	NA		09-23-02
MT.2002.1109.18	7440-50-8	Copper	109	% Recovery	80 - 120	10	NA		09-23-02
MT.2002.1118.16	7439-89-6	Iron	2880	% Recovery	80 - 120	97	NA		09-25-02
MT.2002.1109.18	7439-92-1	Lead	130	% Recovery	80 - 120	10	NA		09-23-02
MT.2002.1118.39	7439-95-4	Magnesium	444	% Recovery	80 - 120	10	NA		09-25-02
MT.2002.1109.21	7439-96-5	Manganese	709	% Recovery	80 - 120	97	NA		09-23-02
MT.2002.1109.18	7439-98-7	Molybdenum	98	% Recovery	80 - 120	10	NA		09-23-02
MT.2002.1109.18	7440-02-0	Nickel	99	% Recovery	80 - 120	10	NA		09-23-02
MT.2002.1118.39	7440-09-7	Potassium	435	% Recovery	80 - 120	10	NA		09-25-02
MT.2002.1109.18	7782-49-2	Selenium	100	% Recovery	80 - 120	10	NA		09-23-02
MT.2002.1109.18	7440-21-3	Silicon	134	% Recovery	80 - 120	10	NA		09-23-02
MT.2002.1109.18	7440-22-4	Silver	95	% Recovery	80 - 120	10	NA		09-23-02
MT.2002.1118.39	7440-23-5	Sodium	121	% Recovery	80 - 120	10	NA		09-25-02
MT.2002.1109.18	7439-89-6	Strontium	229	% Recovery	80 - 120	10	NA		09-23-02
MT.2002.1109.18	7440-28-0	Thallium	90	% Recovery	80 - 120	10	NA		09-23-02
MT.2002.1109.18	7440-31-5	Tin	138	% Recovery	80 - 120	10	NA		09-23-02
MT.2002.1109.21	7440-32-6	Titanium	1730	% Recovery	80 - 120	97	NA		09-23-02
MT.2002.1109.18	7440-61-1	Uranium	103	% Recovery	80 - 120	10	NA		09-23-02
MT.2002.1118.39	7440-62-2	Vanadium	82	% Recovery	80 - 120	10	NA		09-25-02
MT.2002.1118.39	7440-66-6	Zinc	311	% Recovery	80 - 120	10	NA		09-25-02
M021282		**SW846 3050A/6020 ICP-MS**						**M021282-010**	
MT.2002.1133.16	7440-22-4	Lithium	64	% Recovery	80 - 120	9	NA		09-27-02
M021284		**SW846 7471 CVAA**						**M021284-006**	
MT.2002.1103.66	7439-97-6	Mercury	92	% Recovery	90 - 110	1	NA		09-23-02

Friday, February 05, 2010

REQUEST NUMBER: 10-1648

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

These Samples are on:

LANL Request Number:10-1648

Per Agreement Number:126310011

Project Cost Code: MR2A0515BYDO

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 2/5/2010

TURNAROUND/REPORT DUE: 2/15/2010

TURNAROUND REQ'D: 10 Days

RAD SCREENING: Not Required

LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:

Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8082	1	RE03-10-12113	SWP	2/4/2010	
		1	RE03-10-12114	SWP	2/4/2010	
		1	RE03-10-12115	SWP	2/4/2010	

Final Page of REQUEST NUMBER 10-1648

Friday, February 05, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1648

REQUEST NUMBER: 10-1648

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 2/15/2010

TURNAROUND REQ'D: 10

LAB REQUEST COMMENTS:

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE03-10-12114	1	8 IN RESEALABLE POLY BAG	PCBS	None	SWP
RE03-10-12115	1	8 IN RESEALABLE POLY BAG	PCBS	None	SWP
RE03-10-12113	1	8 IN RESEALABLE POLY BAG	PCBS	None	SWP

Relinquished By:		**Date**	**Time**	**Received By:**		**Date**	**Time**
		2/5/10	1400				
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

Received for DISPOSAL By:		**Date**	**Time**	**Remarks:**
Printed Name	Signature			

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2611 **EVENT NAME:** SWMU 46-002

SAMPLE ID: RE03-10-12113 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		2-4-10	MEDIA:	NA	ok
TIME COLLECTED (HH:MM)		1400	SUB-MEDIA:	OTHER	
PRS ID:	03-003(g)	ok	SAMPLE TECH CODE:	M	
LOCATION ID:	03-611413		FIELD QC TYPE:	NA	
LOCATION TYPE:	GENERIC		FIELD PREP:	NA	
TOP DEPTH:	0	0 ft	SAMPLE USAGE:	INV	
BOTTOM DEPTH:	0	0 ft	SCREEN/PORT DESC:		
FIELD MATRIX:	SWP		EXCAVATED: YES / NO / NA		NA

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: _____ WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: _____ BOREHOLE DIRECTION: _____

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
			1 ea 1x125 ml Jar			
1		PCBS	1 EA 8 IN ~~RESEALABLE POLY~~ BAG JLJ 2-4-10	None	Y	

SAMPLE DESC: 2-in square cotton Gauze pad dipped in Hexane, then swiped across exposed concrete transformer pad over 100 cm² area.

SAMPLE COMMENTS: 10 day turnaround

LOCATION DESC: SW corner transformer pad

FIELD SCREENING/MEASUREMENT RESULTS: PID = NA

α = dpm Samples AND A
β =

COLLECTED BY (PRINT) J. Jordan **REVIEWED BY (PRINT)** J. ROMERO

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) J. ROMERO (Signature)	02/04/10 1640	(Printed Name) Sherri Sherwood (Signature) Sherri Sherwood	02/04/10 1640
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name) (Signature)		(Printed Name) (Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2611 **EVENT NAME:** SWMU 46-002

SAMPLE ID: RE03-10-12114 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		2-4-10	MEDIA:	NA	OK
TIME COLLECTED (HH:MM)		1405	SUB-MEDIA:	OTHER	
PRS ID:	03-003(g)	OK	SAMPLE TECH CODE:	M	
LOCATION ID:	03-611414		FIELD QC TYPE:	NA	
LOCATION TYPE:	GENERIC		FIELD PREP:	NA	
TOP DEPTH:	0	Off	SAMPLE USAGE:	INV	
BOTTOM DEPTH:	0	Off	SCREEN/PORT DESC:		NA
FIELD MATRIX:	SWP		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: ~~WATER FLOWING: YES / NO / NA~~

BOREHOLE: YES / NO / NA ~~BOREHOLE DECLINATION:~~ ~~BOREHOLE DIRECTION:~~

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
			JRT	2-4-10		
1		PCBS	1 EA 8 IN ~~RESEALABLE POLY BAG~~ 125 ml Jar	None	Y	

SAMPLE DESC: 2-in Square cotton Gauze Pad dipped in Hexane, then Swiped across exposed Concrete transformer Pad over 100 cm² area

SAMPLE COMMENTS: 10 day Turnaround

LOCATION DESC: NW corner transformer Pad

FIELD SCREENING/MEASUREMENT RESULTS: PID = NA

α = dpm Samples MDA

β = ↓

COLLECTED BY (PRINT) James Jordan **REVIEWED BY (PRINT)** J. Romero

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) J. Romero	02/04/10 1640	(Printed Name) Sherri Sherwood	02/04/10 1640
(Signature)		(Signature) Sherri Sherwood	
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2611 **EVENT NAME:** SWMU 46-002

SAMPLE ID: RE03-10-12115 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		2-4-10	MEDIA:	NA	ok
TIME COLLECTED (HH:MM)		1410	SUB-MEDIA:	OTHER	
PRS ID:	03-003(g)	ok	SAMPLE TECH CODE:	M	
LOCATION ID:	03-611415		FIELD QC TYPE:	NA	
LOCATION TYPE:	GENERIC		FIELD PREP:	NA	
TOP DEPTH:	0	0ft	SAMPLE USAGE:	INV	
BOTTOM DEPTH:	0	0 ft	SCREEN/PORT DESC:		NA
FIELD MATRIX:	SWP		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: ~~WATER FLOWING: YES / NO / NA~~

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
			JW 2-4-10			
1		PCBS	1 EA 8 IN ~~RESEALABLE POLY BAG~~ 125 ml Jar	None	Y	

SAMPLE DESC: 2-in square cotton Gauze Pad dipped in Hexane, then swiped across exposed concrete transformer Pad

SAMPLE COMMENTS: over 100 cm² area

10 day Turn Around

LOCATION DESC: East central portion transformer Pad

FIELD SCREENING/MEASUREMENT RESULTS: PID = NA
α = 13 dpm
β = 1551 ↓
Samples < MDA

COLLECTED BY (PRINT) James L. Jordan **REVIEWED BY (PRINT)** J. ROMERO

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) J. ROMERO	02/04/10	(Printed Name) Sherri Sherwood	02/04/10
(Signature)	1640	(Signature)	1640
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

DATA VALIDATION COVER SHEET

5116-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-1648 VALIDATION DATE: 03/03/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Kris Chupka ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☒ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS

☒ Other (describe): Polychlorinated Biphenyls

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

None

Reviewed by: Mary Donivan Level: II Date: 03/04/10

VALIDATOR'S SIGNATURE: DATE: 03/03/10

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2

Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, P9	J-, P9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, P9	J-, P9a
☐	☒	☐	3. The affected analytes are regarded as rejected because the analytical holding time was exceeded.	R, P9b	R, P9b
☐	☒	☐	4. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, P7	J, P7
☐	☒	☐	5. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, P7a	J, P7a
☐	☒	☐	6. The Initial Calibration Verification (ICV) and/or Continuing Calibration Verification (CCV) were recovered outside the method-specific limits.	UJ, P7c	J, P7c
☐	☒	☐	7. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, P7d	J, P7d
☐	☒	☐	8. The multicomponent standard was not analyzed within 72 hours of the initial analysis.	R, P7e	J, P7e
☐	☒	☐	9. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, P7f	R, P7f
☐	☐	☒	10. The breakdown criteria have been exceeded. This can cause low bias in reported results. If compound is detected, qualify J-. If compound is not present, but breakdown products are present, qualify R. If no compounds or breakdown products are present, qualify UJ	UJ, R, P13	J-, P13

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2

Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
			(4,4' DDT and Endrin).		
☐	☐	☒	11. The breakdown criteria have been exceeded. This can cause high bias in the reported results and potential false positive results for the breakdown products Endrin ketone, Endrin aldehyde, DDD, and DDE.	UJ, P13a	J+, P13a
☐	☐	☒	12. The breakdown documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P13b	R, P13b
☐	☒	☐	13. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, P4	N/A
☐	☒	☐	14. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was greater than 5X.	N/A	J, P4a
☐	☐	☒	15. The sample result is ≤5X the concentration of the related analyte in the instrument blank and continuing calibration blank.	UJ, P4b	N/A
☐	☐	☒	16. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	UJ, P4d	N/A
☐	☒	☐	17. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P4e	R, P4e
☐	☒	☐	18. The analyte RT shifted by more than 0.05 minutes from the mid-level standard of the initial calibration.	R, P0	J, P0
☐	☒	☐	19. Required retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P0b	R, P0b

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2

Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	20. The surrogate is <10%R. Follow the external laboratory limits located within the associated data package.	R, P3	J-, P3
☐	☒	☐	21. The surrogate is < the Lower Acceptance Level (LAL) but ≥10%R. Follow the external laboratory limits located within the associated data package.	UJ, P3a	J-, P3a
☐	☒	☐	22. The surrogate %R value is > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, P3b
☐	☒	☐	23. At least one surrogate is > the Upper Acceptance Limit (UAL) and one surrogate is < the LAL. Follow the external laboratory limits located within the associated data package.	UJ, P3c	J, P3c
☐	☒	☐	24. Required surrogate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P3d	R, P3d
☐	☒	☐	25. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, P12	J-, P12
☐	☒	☐	26. The LCS percent recovery was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, P12a	J-, P12a
☐	☒	☐	27. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, P12b
☐	☒	☐	28. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P12c	R, P12c
☐	☒	☐	29. The analyte was not confirmed on a second dissimilar column.	N/A	R, P8

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2

Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	30. The second dissimilar column documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P8a	R, P8a
☐	☒	☐	31. Duplicate, Dilution, or reanalysis.	UJ, P88	J, P88
☐	☐	☒	32. The affected analytes have elevated detection limits and may not meet project DQOs because the sample was diluted without any target analytees identified due to matrix interference. Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.	UJ, R, P15	R, P15
☒	☐	☐	33. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB, NQ, NQ
☐	☒	☐	34. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.	UJ, R, P19	J, R, P19

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10-1648**	**Date Collected:**	**02/04/2010 12:00**	**Matrix:**	**SWP**
Lab Sample ID:	**246429003**	**Date Received:**	**02/06/2010 09:15**		
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-10-12113**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**950900**	**Inst:**	**ECD8A.I**	**Dilution:**	**5**
Run Date:	**02/10/2010 12:27**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**02/09/2010 21:55**	**Aliquot:**	**1 Filter**	**Final Volume:**	**1 mL**
Data File:	**021f2101.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	021b2101.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	0.500	ug/Filter	0.167	0.500	1
11104-28-2	Aroclor-1221	U	0.500	ug/Filter	0.167	0.500	1
11141-16-5	Aroclor-1232	U	0.500	ug/Filter	0.167	0.500	1
53469-21-9	Aroclor-1242	U	0.500	ug/Filter	0.167	0.500	1
12672-29-6	Aroclor-1248	U	0.500	ug/Filter	0.167	0.500	1
11097-69-1	Aroclor-1254	U	0.500	ug/Filter	0.167	0.500	1
11096-82-5	Aroclor-1260		4.44	ug/Filter	0.167	0.500	2

KWC
03/03/10

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10-1648	**Date Collected:**	02/04/2010 12:00	**Matrix:**	SWP
Lab Sample ID:	246429001	**Date Received:**	02/06/2010 09:15		
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-10-12114	**Method:**	SW846 8082	**SOP Ref:**	GL-OA-E-040
Batch ID:	950900	**Inst:**	ECD8A.I	**Dilution:**	20
Run Date:	02/10/2010 12:02	**Analyst:**	JAOC	**Inj. Vol:**	1 uL
Prep Date:	02/09/2010 21:55	**Aliquot:**	1 Filter	**Final Volume:**	1 mL
Data File:	019f1901.d	**Column:**	1 CLP1	**Level:**	LOW
	019b1901.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	2.00	ug/Filter	0.666	2.00	1
11104-28-2	Aroclor-1221	U	2.00	ug/Filter	0.666	2.00	1
11141-16-5	Aroclor-1232	U	2.00	ug/Filter	0.666	2.00	1
53469-21-9	Aroclor-1242	U	2.00	ug/Filter	0.666	2.00	1
12672-29-6	Aroclor-1248	U	2.00	ug/Filter	0.666	2.00	1
11097-69-1	Aroclor-1254	U	2.00	ug/Filter	0.666	2.00	1
11096-82-5	Aroclor-1260		39.2	ug/Filter	0.666	2.00	2

KWC
03/03/10

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10-1648	**Date Collected:**	02/04/2010 12:00	**Matrix:**	SWP
Lab Sample ID:	246429002	**Date Received:**	02/06/2010 09:15		
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-10-12115	**Method:**	SW846 8082	**SOP Ref:**	GL-OA-E-040
Batch ID:	950900	**Inst:**	ECD8A.I	**Dilution:**	5
Run Date:	02/10/2010 12:14	**Analyst:**	JAOC	**Inj. Vol:**	1 uL
Prep Date:	02/09/2010 21:55	**Aliquot:**	1 Filter	**Final Volume:**	1 mL
Data File:	020f2001.d	**Column:**	1 CLP1	**Level:**	LOW
	020b2001.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	0.500	ug/Filter	0.167	0.500	1
11104-28-2	Aroclor-1221	U	0.500	ug/Filter	0.167	0.500	1
11141-16-5	Aroclor-1232	U	0.500	ug/Filter	0.167	0.500	1
53469-21-9	Aroclor-1242	U	0.500	ug/Filter	0.167	0.500	1
12672-29-6	Aroclor-1248	U	0.500	ug/Filter	0.167	0.500	1
11097-69-1	Aroclor-1254	U	0.500	ug/Filter	0.167	0.500	1
11096-82-5	Aroclor-1260		6.66	ug/Filter	0.167	0.500	2

KWC
03/03/10

Friday, February 05, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1648

REQUEST NUMBER: 10-1648

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Valerie Davis

TURNAROUND/REPORT DUE: 2/15/2010

TURNAROUND REQ'D: 10

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

LAB REQUEST COMMENTS: 246429 %

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE03-10-12114	1	8 IN RESEALABLE POLY BAG	PCBS	None	SWP
RE03-10-12115	1	8 IN RESEALABLE POLY BAG	PCBS	None	SWP
RE03-10-12113	1	8 IN RESEALABLE POLY BAG	PCBS	None	SWP

Relinquished By:		Date	Time	Received By:		Date	Time
Printed Name	Signature	2/5/10	1400	Patricia Dover-Dent	P. N. Dent	2/6/10	09:15
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

Received for DISPOSAL By: **Date** **Time** **Remarks:**

Printed Name Signature

Friday, February 05, 2010

REQUEST NUMBER: 10-1648

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis
General Engineering Laboratories, Inc., Charleston, SC.
2040 Savage Rd
Charleston, SC 29407

These Samples are on:
LANL Request Number:10-1648
Per Agreement Number:126310011
Project Cost Code: MR2A0515BYDO

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 2/5/2010
TURNAROUND/REPORT DUE: 2/15/2010
TURNAROUND REQ'D: 10 Days

RAD SCREENING: Not Required
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8082	1	RE03-10-12113	SWP	2/4/2010	
		1	RE03-10-12114	SWP	2/4/2010	
		1	RE03-10-12115	SWP	2/4/2010	

Final Page of REQUEST NUMBER 10-1648

GEL Laboratories LLC

a member of The GEL Group INC

PO Box 30712 Charleston, SC 29417
2040 Savage Road Charleston, SC 29407

P 843.556.8171 F 843.766.1178

www.gel.com

February 12, 2010

Ms. Joylene Valdez
Los Alamos National Laboratory
PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545

Re: LANL ER Project
Work Order: 246429
SDG: 10-1648

Dear Ms. Valdez:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the following analytical results for the sample(s) we received on February 06, 2010, and analyzed for GC Semivolatile PCB. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 4485.

Sincerely,

for

Valerie Davis
Project Manager

Purchase Order: 72733-001-09
Chain of Custody: 10-1648
Enclosures

problem solved

Los Alamos National Laboratory (72733-001-09)
LANL ER Project
Work Order #: 246429
SDG: 10-1648

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- Miscellaneous Data.....129

Case Narrative

Case Narrative for
Los Alamos National Laboratory (72733-001-09)
LANL ER Project
Workorder #: 246429
SDG # : 10-1648

February 12, 2010

Laboratory Identification:

GEL Laboratories LLC
2040 Savage Road
Charleston, South Carolina 29407
(843) 556-8171

Summary

Sample receipt The samples arrived at GEL Laboratories LLC, Charleston, South Carolina on February 06, 2010 for analysis. The samples were prepared/analyzed within the required holding time. Shipping container temperatures were checked, documented, and within specifications. The samples were screened according to GEL Standard Operating Procedure. The samples were delivered with proper chain of custody documentation and signatures. All sample containers arrived without any visible signs of tampering or breakage. Containers were checked for pH, where appropriate, and matched the preservative as documented on the accompanying chain of custody. Shipping container temperature was within specification (0 - 6C).

Sample Identification The laboratory received the following samples:

Laboratory ID	Client ID
246429001	RE03-10-12114
246429002	RE03-10-12115
246429003	RE03-10-12113

Case Narrative

Sample analyses were conducted using methodology as outlined in GEL Laboratories, LLC (GEL) Standard Operating Procedures. Any technical or administrative problems during analysis, data review, and reduction are contained in the analytical case narratives in the enclosed data package.

Data Package The enclosed data package contains the following sections: Case Narrative, Chain of Custody, Cooler Receipt Checklist, Data Package Qualifier Definitions and data from the following fractions: GC Semivolatile PCB.

I certify that this data report is in compliance with the terms and conditions of the subcontract and task order, both technically and for completeness, for other than the conditions detailed in the attached case narrative.

for

Valerie Davis

Project Manager

List of current GEL Certifications as of 12 February 2010

State	Certification
Arizona	AZ0668
Arkansas	88–0651
CLIA	42D0904046
California – NELAP	01151CA
Colorado	GEL
Connecticut	PH–0169
Dept. of Navy	NFESC 413
EPA Region 5	WG–15J
Florida – NELAP	E87156
Georgia	E87156 (FL/NELAP)
Georgia DW	967
Hawaii	N/A
ISO 17025	2567.01
Idaho	SC00012
Illinois – NELAP	200029
Indiana	C–SC–01
Kansas – NELAP	E–10332
Kentucky	90129
Louisiana – NELAP	03046
Maryland	270
Massachusetts	M–SC012
Nevada	SC00012
New Jersey – NELAP	SC002
New Mexico	FL NELAP E87156
New York – NELAP	11501
North Carolina	233
North Carolina DW	45709
Oklahoma	9904
Pennsylvania – NELAP	68–00485
South Carolina	10120001/10120002
Tennessee	TN 02934
Texas – NELAP	T104704235–07B–TX
U.S. Dept. of Agriculture	S–52597
Utah – NELAP	GEL
Vermont	VT87156
Virginia	00151
Washington	C1641

Chain of Custody and Supporting Documentation

Friday, February 05, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1648

REQUEST NUMBER: 10-1648

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 2/15/2010

TURNAROUND REQ'D: 10

LAB REQUEST COMMENTS: 246429 %

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE03-10-12114	1	8 IN RESEALABLE POLY BAG	PCBS	None	SWP
RE03-10-12115	1	8 IN RESEALABLE POLY BAG	PCBS	None	SWP
RE03-10-12113	1	8 IN RESEALABLE POLY BAG	PCBS	None	SWP

Relinquished By:		Date	Time	Received By:		Date	Time
[illegible]	[illegible]	2/5/10	1400	Patricia Dover-Dent	[illegible]	2/6/10	09:15
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

Received for DISPOSAL By: **Date** **Time** **Remarks:**

Printed Name Signature

Friday, February 05, 2010

REQUEST NUMBER: 10-1648

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis
General Engineering Laboratories, Inc., Charleston, SC.
2040 Savage Rd
Charleston, SC 29407

These Samples are on:
LANL Request Number:10-1648
Per Agreement Number:126310011
Project Cost Code: MR2A0515BYDO

Please analyse the enclosed samples
according to the schedule indicated:

SHIP DATE: 2/5/2010
TURNAROUND/REPORT DUE: 2/15/2010
TURNAROUND REQ'D: 10 Days

RAD SCREENING: Not Required
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8082	1	RE03-10-12113	SWP	2/4/2010	
		1	RE03-10-12114	SWP	2/4/2010	
		1	RE03-10-12115	SWP	2/4/2010	

Final Page of REQUEST NUMBER 10-1648

GEL Laboratories LLC

SAMPLE RECEIPT & REVIEW FORM

Client: LANL	**SDG/ARCOC/Work Order: 10-1648**
Received By: Patricia Dover-Dent	**Date Received: February 6, 2009**

Suspected Hazard Information	**Yes**	**No**	*If Counts > x2 area background on samples not marked "radioactive", contact the Radiation Safety Group of further investigation.
COC/Samples marked as radioactive?		X	Maximum Counts Observed*: **80 CPM**
Classified Radioactive II by RSO?		X	
COC/Samples marked containing PCBs?		X	
Shipped as a DOT Hazardous?		X	Hazard Class Shipped: UN#:
Samples identified as Foreign Soil?		X	

	Sample Receipt Criteria	**Yes**	**NA**	**No**	**Comments/Qualifiers (Required for Non-Conforming Items)**
1	Shipping containers received intact and sealed?	X			Circle Applicable: seals broken damaged container leaking container other (describe)
2	Samples requiring cold preservation within 0 ≤ 6 deg. C?	X			Preservation Method: ice bags **blue ice** dry ice **none** other (describe **2-6** **12,15C**
3	Chain of custody documents included with shipment?	X			
4	Sample containers intact and sealed?	X			Circle Applicable: seals broken damaged container leaking container other (describe)
5	Samples requiring chemical preservation at proper pH?		X		Sample ID's, containers affected and observed pH: If Preservation added, Lot#:
6	VOA vials free of headspace (defined as < 6mm bubble)?		X		Sample ID's and containers affected:
7	Are Encore containers present?			X	(If yes, immediately deliver to Volatiles laboratory)
8	Samples received within holding time?	X			Id's and tests affected:
9	Sample ID's on COC match ID's on bottles?	X			Sample ID's and containers affected:
10	Date & time on COC match date & time on bottles?			X	Sample ID's affected: **time written on containers, not on COC**
11	Number of containers received match number indicated on COC?	X			Sample ID's affected:
12	COC form is properly signed in relinquished/received sections?	X			

Comments: FEDEX#S

7209 7849 9293 2C	**7209 7849 9282 4C**	**7209 7849 9179 15C**
7209 7849 9271 3C	**7209 7849 9180 5C**	**7209 7849 9227 15C**
7209 7849 9308 3C	**7209 7849 9216 5C**	
7209 7849 9319 3C	**7209 7849 9205 5C**	
7209 7849 9260 3C	**7209 7849 9190 6C**	
7209 7849 9250 3C	**7209 7849 9238 6C**	
7209 7849 9249 4C	**7209 7849 9157 12C**	
7209 7849 9341 4C	**7209 7849 9146 12C**	

PM (or PMA) review: Initials MS Date 2/8/10

ORIGIN ID: SAFA (505) 665-9960
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 05FEB10
ACTWGT: 56.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR2A0515BYD0

2

FedEx Express

2 of 2 ### SATURDAY ### A1
MPS# 7209 7849 9293 PRIORITY OVERNIGHT
0263
MstrN 7209 7849 9282 0201

29407
SC-US
CHS

X0 CHSA

ORIGIN ID: SAFA (505) 665-9960
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 05FEB10
ACTWGT: 56.0 LB MAN
CAD: 0014176/CAFE2449

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2 of 2 ### SATURDAY ### A1
MPS# 7209 7849 9271 PRIORITY OVERNIGHT
0263
MstrN 7209 7849 9260 0201

29407
SC-US
CHS

X0 CHSA

LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

CAD: 0014176/CAFE2449

BILL SENDER

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REF: 6B010AMR1A015AGWL0

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1 of 2 ### SATURDAY ### A1
TRK# 7209 7849 9308 PRIORITY OVERNIGHT
0201
MASTER

29407
SC-US
CHS

X0 CHSA

JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 05FEB10
ACTWGT: 56.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR1A015AGWL0

3

FedEx Express

2 of 2 ### SATURDAY ### A1
MPS# 7209 7849 9319 PRIORITY OVERNIGHT
0263
MstrN 7209 7849 9308 0201

29407
SC-US
CHS

X0 CHSA

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

ACTWGT: 51.0 LB MAN
CAD: 0014175/CAFE2449

BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: SB010AMR3A05529E00

3°

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SATURDAY ### A1
PRIORITY OVERNIGHT

1 of 2
TRK# 0201 7209 7849 9260
MM MASTER MM

29407
SC-US
CHS

X0 CHSA

Part # 156148-434 NAIT V3 09-09

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 16FEB10
ACTWGT: 46.0 LB MAN
CAD: 0014175/CAFE2449

BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: SB010AMR3A05529E00

3°

FedEx Express

SATURDAY ### A1
PRIORITY OVERNIGHT

3 of 3
MPS# 0263 7209 7849 9250
Mstr# 7209 7849 9238 0201

29407
SC-US
CHS

X0 CHSA

Part # 156148-434 NAIT V3 09-09

JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 16FEB10
ACTWGT: 49.0 LB MAN
CAD: 0014175/CAFE2449

BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: SB010AMR3A05529E00

4°

FedEx Express

SATURDAY ### A1
PRIORITY OVERNIGHT

2 of 3
MPS# 0263 7209 7849 9249
Mstr# 7209 7849 9238 0201

29407
SC-US
CHS

X0 CHSA

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 16FEB10
ACTWGT: 53.0 LB
CAD: 0014175/CAFE2449

BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: SB010MR1A015AGWK0

4°

FedEx Express

SATURDAY ### A1
PRIORITY OVERNIGHT

TRK# 0201 7209 7849 9341

29407
SC-US
CHS

X0 CHSA

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 05FEB10
ACTWGT: 64.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

4°

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR2A05158YD0

FedEx Express

SATURDAY ### A1
PRIORITY OVERNIGHT

TRK# 0201 7209 7849 9282
MASTER

X0 CHSA

29407
SC-US
CHS

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 05FEB10
ACTWGT: 53.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

5°

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR3A0532VA00

FedEx Express

2 of 3
SATURDAY ### A1
PRIORITY OVERNIGHT

TRK# 0201 7209 7849 9180
Mstr# 7209 7849 9179 0201

X0 CHSA

29407
SC-US
CHS

TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

0014176/CAFE2449

BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

5°

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR3A0532VA00

FedEx Express

2 of 3
SATURDAY ### A1
PRIORITY OVERNIGHT

TRK# 0201 7209 7849 9216
Mstr# 7209 7849 9205 0201

X0 CHSA

29407
SC-US
CHS

JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 05FEB10
ACTWGT: 50.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

5°

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR3A0532VA00

FedEx Express

1 of 3
SATURDAY ### A1
PRIORITY OVERNIGHT

TRK# 0201 7209 7849 9205
MASTER

X0 CHSA

29407
SC-US
CHS

ORIGIN ID: SAFA (505) 665-9969
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 05FEB10
ACTWGT: 52.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

°VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR3A0532VA00

6°

FedEx Express

3 of 3
MPS# 0263 7209 7849 9190
Mstr# 7209 7849 9179 0201

SATURDAY ### A1
PRIORITY OVERNIGHT

X0 CHSA

29407
SC-US
CHS

Part # 156140-434 NRAT V3 09-08

JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

ACTWGT: 61.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

°VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR3A0552QE00

6°

FedEx Express

1 of 3
TRK# 0201 7209 7849 9238
NM MASTER NM

SATURDAY ### A1
PRIORITY OVERNIGHT

X0 CHSA

29407
SC-US
CHS

JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 05FEB10
ACTWGT: 61.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

°VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AAREW0140T500

12°

FedEx Express

3 of 3
MPS# 0263 7209 7849 9157
Mstr# 7209 7849 9135 0201

SATURDAY ### A1
PRIORITY OVERNIGHT

X0 CHSA

29407
SC-US
CHS

ORIGIN ID: SAFA (505) 665-9969
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US.

SHIP DATE: 05FEB10
ACTWGT: 60.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

°VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AAREW0140T500

12°

FedEx Express

2 of 3
MPS# 0263 7209 7849 9146
Mstr# 7209 7849 9135 0201

SATURDAY ### A1
PRIORITY OVERNIGHT

X0 CHSA

29407
SC-US
CHS

ORIGIN ID: SAFA (505) 665-9968
JOVLENE VALDEZ
LOS ALAMOS NATL LAB
TA0 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 08FEB10
ACTWGT: 45.0 LB MAN
CAD: 8014170/CAFE2449

BILL SENDER

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2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR3A0532VA00

15°

FedEx Express

1 of 3

SATURDAY ### A1
PRIORITY OVERNIGHT

TRK# 0201 7209 7849 9179

MASTER

X0 CHSA

29407
SC-US
CHS

LOS ALAMOS, NM 87545
UNITED STATES US

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR3A0532VA00

15°

FedEx Express

3 of 3

SATURDAY ### A1
PRIORITY OVERNIGHT

TRK# 0263 7209 7849 9227

Master# 7209 7849 9205 0201

X0 CHSA

29407
SC-US
CHS

Data Review Qualifier Flag Definition Sheet

Data Review Qualifier Definitions

Qualifier	Explanation
*	A quality control analyte recovery is outside of specified acceptance criteria
**	Analyte is a surrogate compound
<	Result is less than value reported
>	Result is greater than value reported
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL
A	The TIC is a suspected aldol-condensation product
B	Target analyte was detected in the associated blank
B	Metals-Either presence of analyte detected in the associated blank, or MDL/IDL < sample value < PQL
BD	Results are either below the MDC or tracer recovery is low
C	Analyte has been confirmed by GC/MS analysis
D	Results are reported from a diluted aliquot of the sample
d	5-day BOD-The 2:1 depletion requirement was not met for this sample
E	Organics-Concentration of the target analyte exceeds the instrument calibration range
E	Metals-%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
H	Analytical holding time was exceeded
h	Preparation or preservation holding time was exceeded
J	Value is estimated
N	Metals-The Matrix spike sample recovery is not within specified control limits
N	Organics-Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A	Spike recovery limits do not apply. Sample concentration exceeds spike concentration by 4X or more
ND	Analyte concentration is not detected above the reporting limit
UI	Gamma Spectroscopy-Uncertain identification
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
Z	Paint Filter Test-Particulates passed through the filter, however no free liquids were observed.

GC SEMIVOLATILE PCB ANALYSIS

PCB Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-1648

Method/Analysis Information

Procedure:	**Analysis of Polychlorinated Biphenyls by ECD**
Analytical Method:	SW846 8082
Prep Method:	SW846 3550B
Analytical Batch Number:	950900
Prep Batch Number:	950899

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 8082:

Sample ID	Client ID
246429001	RE03-10-12114
246429002	RE03-10-12115
246429003	RE03-10-12113
1202037817	Method Blank (MB)
1202037818	Laboratory Control Sample (LCS)
1202037819	Laboratory Control Sample Duplicate (LCSD)

The samples in this SDG were analyzed on an "as received" basis.

Preparation/Analytical Method Verification

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-040 REV# 14.

Raw data reports are processed and reviewed by the analyst using the Target software package. False positives have been removed from the Target quantitation reports per standard operating procedures (SOP) section 23.0.

Calibration Information

Please note that the 'Cal Date' indicated on each quantitation report reflects the date and time of the most recent calibrated analyte(s) in the Target processing method. Since the laboratory may calibrate with multiple solutions on different days using the same processing method, the Target software will update the 'Cal Date' to the last calibration file, date and time. The correct dates and times for all calibration files are located on the Calibration History report in the Standard Data section in the data package.

Due to software limitations, the Calibration Summary Form 6 may not indicate all the calibration files comprising the initial calibration. A complete list of the initial calibration data files are shown in the Calibration History report located in the Standard Data section of the data package.

Initial Calibration
All initial calibration requirements have been met for this sample delivery group (SDG).

The linear equation used in Target and indicated on the initial calibration summary form is not a conventional linear equation (slope intercept formula) and does not match the equation found in SW-846 method 8000B. The x and y axes are inversed in Target, so that the instrument response is treated as the independent variable (x) and the concentration ratio is treated as the dependent variable (y). The equation used in Target to calculate sample results is adjusted to account for the linear equation inversion and reciprocal slope. The adjusted calculation has been independently verified to produce valid results.

Continuing Calibration Verification (CCV) Requirements
All associated calibration verification standard(s) (ICV or CCV) met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Surrogate Recoveries
All surrogate recoveries were within the established acceptance criteria for this SDG.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

Laboratory Control Sample Duplicate (LCSD) Recovery
The LCSD spike recoveries met the acceptance limits.

LCS/LCSD Relative Percent Difference (RPD) Statement
The RPD between the LCS and LCSD met the acceptance limits.

QC Sample Designation
The matrix spike and matrix spike duplicate analysis was not performed for this batch. The LCS and LCSD analysis was performed to measure the precision and accuracy for the batch.

Technical Information

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP. All sample extracts were cleaned using alumina.

Sample Dilutions
Samples 246429001 (RE03-10-12114) (1:20), 246429002 (RE03-10-12115) (1:5) and 246429003 (RE03-10-12113) (1:5) were diluted due to the presence of over-range target analytes.

Sample Re-extraction/Re-analysis
Re-extractions or re-analyses were not required in this SDG.

Miscellaneous Information

Electronic Package Comment

The following package was generated using an electronic data processing program referred to as "virtual packaging". In an effort to increase quality and efficiency, the laboratory is developing systems to eventually generate all data packages electronically. The following change from "traditional" packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. An electronic signature page inserted after the case narrative of each electronic package will indicate the analyst, reviewer, and report specialist names associated with the generation of the data and package. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Data Exception (DER) Documentation
Data exception report (DER) is for documentation of any procedural anomalies that may deviate from referenced SOP or contractual document. A DER was not required for this SDG.

Manual Integration
Certain standards and samples may have required manual integration to correctly position the baseline as set in the calibration standard injections. If manual integration was performed, copies of all manual integration peak profiles are included in the raw data section of this PCB fraction.

Additional Comments
The additional comments field is used to address special issues associated with each analysis, clarify method/contractual issues pertaining to the analysis, and to list any report documents generated as a result of sample analysis or review. The following additional comments were required:

The higher results from either column have been chosen and reported in the data package for the client samples, MB and LCS. The data reported for the LCSD is from the same analytical column as the LCS.

The data reported on the form I and III may differ slightly from the data reported on the form X. This is due to software limitations in rounding differences between the forms.

Aroclors quantitated on the raw data report by the Target data system do not necessarily represent positive Aroclor identification. In order for positive identification to be made, the Aroclor must match in pattern and retention time; as well as quantitate relatively close between the primary and confirmation columns, as specified in SW846 method 8000. When these conditions are not met, the Aroclor is reported as a non-detect on the data report. These situations will be noted on the raw data as DMP, representing does not match pattern, or DNC does not confirm.

Due to software limitation, the Form VIIs will display the results either in the % difference or % drift depending on the type of the calibration curve. If the curve of all analytes is generated using an average response factor (RF), the Form VII will display results using the %difference calculation (RF). If the curve of one or more analytes is generated using a linear curve, the Form VII will display results using the % drift calculation (by concentration) for all analytes.

System Configuration

The Semi-Volatiles-PCB analysis was performed on the following instrument configuration:

Instrument ID	Instrument	System Configuration	Column ID	Column Description
ECD8A.I_1	HP Gas Chromatograph	HP6890 Series ECD	Rtx-CLP I	30m x 0.25mm, 0.25um (Rtx-CLPesticide I)
ECD8A.I_2	HP Gas Chromatograph	HP6890 Series ECD	Rtx-CLP II	30m x 0.25mm, 0.20um (Rtx-CLPesticide II)

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Jimmi Cao Date: 2/12/10

Roadmap for LANL 10-1648 PCB

This roadmap was analyzed by jen01212 on 02-10-2010, 15:27.
This roadmap was reviewed by jcb on 02-11-2010, 15:26.
This roadmap was packaged by yml on 02-12-2010, 10:48.
This roadmap was validated by jim01140 on 02-12-2010, 14:16.

Front Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd8a.i/021010.b/019f1901.d	246429001	sample	10-FEB-2010	12:02	10-1648.sub	RE03-10-12114	20.00000	950900	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd8a.i/021010.b/020f2001.d	246429002	sample	10-FEB-2010	12:14	10-1648.sub	RE03-10-12115	5.00000	950900	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd8a.i/021010.b/021f2101.d	246429003	sample	10-FEB-2010	12:27	10-1648.sub	RE03-10-12113	5.00000	950900	UPLOAD BOTH, USE HIGHER

Back Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd8a.i/021010.b/019b1901.d	246429001	sample	10-FEB-2010	12:02	10-1648.sub	RE03-10-12114	20.00000	950900	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd8a.i/021010.b/020b2001.d	246429002	sample	10-FEB-2010	12:14	10-1648.sub	RE03-10-12115	5.00000	950900	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd8a.i/021010.b/021b2101.d	246429003	sample	10-FEB-2010	12:27	10-1648.sub	RE03-10-12113	5.00000	950900	UPLOAD BOTH, USE HIGHER

Front QC Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd8a.i/021010.b/016f1601.d	1202037817	mb	10-FEB-2010	11:25	10-1648.sub	PBLK01	1.00000	950900	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd8a.i/021010.b/017f1701.d	1202037818	lcs	10-FEB-2010	11:37	10-1648.sub	PBLK01LCS	1.00000	950900	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd8a.i/021010.b/018f1801.d	1202037819	lcsd	10-FEB-2010	11:50	10-1648.sub	PBLK01LCSD	1.00000	950900	UPLOAD BOTH, USE HIGHER

Back QC Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd8a.i/021010.b/016b1601.d	1202037817	mb	10-FEB-2010	11:25	10-1648.sub	PBLK01	1.00000	950900	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd8a.i/021010.b/017b1701.d	1202037818	lcs	10-FEB-2010	11:37	10-1648.sub	PBLK01LCS	1.00000	950900	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd8a.i/021010.b/018b1801.d	1202037819	lcsd	10-FEB-2010	11:50	10-1648.sub	PBLK01LCSD	1.00000	950900	UPLOAD BOTH, USE HIGHER

SAMPLE DATA SUMMARY

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–1648**	**Date Collected:**	**02/04/2010 12:00**	**Matrix:**	**SWP**
Lab Sample ID:	**246429003**	**Date Received:**	**02/06/2010 09:15**		
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03–10–12113**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**950900**	**Inst:**	**ECD8A.I**	**Dilution:**	**5**
Run Date:	**02/10/2010 12:27**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**02/09/2010 21:55**	**Aliquot:**	**1 Filter**	**Final Volume:**	**1 mL**
Data File:	**021f2101.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	021b2101.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	0.500	ug/Filter	0.167	0.500	1
11104–28–2	Aroclor–1221	U	0.500	ug/Filter	0.167	0.500	1
11141–16–5	Aroclor–1232	U	0.500	ug/Filter	0.167	0.500	1
53469–21–9	Aroclor–1242	U	0.500	ug/Filter	0.167	0.500	1
12672–29–6	Aroclor–1248	U	0.500	ug/Filter	0.167	0.500	1
11097–69–1	Aroclor–1254	U	0.500	ug/Filter	0.167	0.500	1
11096–82–5	Aroclor–1260		4.44	ug/Filter	0.167	0.500	2

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–1648**	**Date Collected:**	**02/04/2010 12:00**	**Matrix:**	**SWP**
Lab Sample ID:	**246429001**	**Date Received:**	**02/06/2010 09:15**		
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03–10–12114**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**950900**	**Inst:**	**ECD8A.I**	**Dilution:**	**20**
Run Date:	**02/10/2010 12:02**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**02/09/2010 21:55**	**Aliquot:**	**1 Filter**	**Final Volume:**	**1 mL**
Data File:	**019f1901.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	019b1901.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	2.00	ug/Filter	0.666	2.00	1
11104–28–2	Aroclor–1221	U	2.00	ug/Filter	0.666	2.00	1
11141–16–5	Aroclor–1232	U	2.00	ug/Filter	0.666	2.00	1
53469–21–9	Aroclor–1242	U	2.00	ug/Filter	0.666	2.00	1
12672–29–6	Aroclor–1248	U	2.00	ug/Filter	0.666	2.00	1
11097–69–1	Aroclor–1254	U	2.00	ug/Filter	0.666	2.00	1
11096–82–5	Aroclor–1260		39.2	ug/Filter	0.666	2.00	2

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–1648**	**Date Collected:**	**02/04/2010 12:00**	**Matrix:**	**SWP**
Lab Sample ID:	**246429002**	**Date Received:**	**02/06/2010 09:15**		
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03–10–12115**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**950900**	**Inst:**	**ECD8A.I**	**Dilution:**	**5**
Run Date:	**02/10/2010 12:14**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**02/09/2010 21:55**	**Aliquot:**	**1 Filter**	**Final Volume:**	**1 mL**
Data File:	**020f2001.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	020b2001.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	0.500	ug/Filter	0.167	0.500	1
11104–28–2	Aroclor–1221	U	0.500	ug/Filter	0.167	0.500	1
11141–16–5	Aroclor–1232	U	0.500	ug/Filter	0.167	0.500	1
53469–21–9	Aroclor–1242	U	0.500	ug/Filter	0.167	0.500	1
12672–29–6	Aroclor–1248	U	0.500	ug/Filter	0.167	0.500	1
11097–69–1	Aroclor–1254	U	0.500	ug/Filter	0.167	0.500	1
11096–82–5	Aroclor–1260		6.66	ug/Filter	0.167	0.500	2

QUALITY CONTROL SUMMARY

PCB

Surrogate Recovery Report

SDG Number: 10-1648

Matrix Type: FILTER

CAP Column (1) : CLP1 **CAP Column (2) : CLP2**

Sample ID	Client ID	4CMX 1 %REC #		4CMX 2 %REC #		DCB 1 %REC #		DCB 2 %REC #	
1202037817	MB for batch 950899	55		52		61		58	
1202037818	LCS for batch 950899	68		65		77		72	
1202037819	LCSD for batch 950899	73		70		77		74	
246429001	RE03-10-12114	92	D	79	D	114	D	108	D
246429002	RE03-10-12115	85	D	78	D	98	D	95	D
246429003	RE03-10-12113	79	D	73	D	96	D	87	D

Surrogate	Acceptance Limits
4CMX = 4cmx	(32%-120%)
DCB = Decachlorobiphenyl	(30%-116%)

* Recovery outside Acceptance Limits

\# Column to be used to flag recovery values

D Sample Diluted

PCB

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1648
Client ID: LCS for batch 950899
Lab Sample ID: 1202037818
Instrument: ECD8A.I
Analyst: JAOC
Inj. Vol: 1 uL

Sample Type: Laboratory Control Sample
Matrix: SWIPE
Analysis Date: 02/10/2010 11:37
Prep Batch ID: 950899
Batch ID: 950900
Dilution: 1

CAS No		Parmname	Amount Added ug/Filter	Sample Conc. ug/Filter	Spike Conc. ug/Filter	Recovery %	Acceptance Limits
12674-11-2	LCS	Aroclor-1016	1.00	0.0	0.626	63	39-102
11096-82-5	LCS	Aroclor-1260	1.00	0.0	0.724	72	45-118

PCB

Quality Control Summary
Spike Recovery Report

SDG Number: **10-1648**
Client ID: **LCSD for batch 950899**
Lab Sample ID: **1202037819**
Instrument: **ECD8A.I**
Analyst: **JAOC**
Inj. Vol: **1 uL**

Sample Type: **Laboratory Control Sample Duplicate**
Matrix: **SWIPE**
Analysis Date: **02/10/2010 11:50**
Dilution: **1**
Prep Batch ID: **950899**
Batch ID: **950900**

CAS No	Parmname	Amount Added ug/Filter	Sample Conc. ug/Filter	Spike Conc. ug/Filter	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
12674-11-2	LCSD Aroclor-1016	1.00	0.0	0.661	66	39-102	5	0-21
11096-82-5	LCSD Aroclor-1260	1.00	0.0	0.756	76	45-118	4	0-22

Method Blank Summary

SDG Number:	10–1648	Client:	LANL010	Matrix:	SWIPE
Client ID:	MB for batch 950899	Instrument ID:	ECD8A.I_2 ECD8A.I_1	Data File:	016b1601.d 016f1601.d
Lab Sample ID:	1202037817				
Column:	CLP2 CLP1	Prep Date:	02/09/2010 21:55	Analyzed:	02/10/10 11:25
		Level:	LOW		

This method blank applies to the following samples and quality control samples:

	Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01	LCS for batch 950899	1202037818	017f1701.d 017b1701.d	02/10/10	1137
02	LCSD for batch 950899	1202037819	018f1801.d 018b1801.d	02/10/10	1150
03	RE03–10–12114	246429001	019f1901.d 019b1901.d	02/10/10	1202
04	RE03–10–12115	246429002	020f2001.d 020b2001.d	02/10/10	1214
05	RE03–10–12113	246429003	021f2101.d 021b2101.d	02/10/10	1227

SAMPLE DATA

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–1648**	**Date Collected:**	**02/04/2010 12:00**	**Matrix:**	**SWP**
Lab Sample ID:	**246429003**	**Date Received:**	**02/06/2010 09:15**		
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03–10–12113**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**950900**	**Inst:**	**ECD8A.I**	**Dilution:**	**5**
Run Date:	**02/10/2010 12:27**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**02/09/2010 21:55**	**Aliquot:**	**1 Filter**	**Final Volume:**	**1 mL**
Data File:	**021f2101.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	021b2101.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	0.500	ug/Filter	0.167	0.500	1
11104–28–2	Aroclor–1221	U	0.500	ug/Filter	0.167	0.500	1
11141–16–5	Aroclor–1232	U	0.500	ug/Filter	0.167	0.500	1
53469–21–9	Aroclor–1242	U	0.500	ug/Filter	0.167	0.500	1
12672–29–6	Aroclor–1248	U	0.500	ug/Filter	0.167	0.500	1
11097–69–1	Aroclor–1254	U	0.500	ug/Filter	0.167	0.500	1
11096–82–5	Aroclor–1260		4.44	ug/Filter	0.167	0.500	2

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/021010.b/021f2101.d
Lab Smp Id: 246429003 Client Smp ID: RE03-10-12113
Inj Date : 10-FEB-2010 12:27
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |246429003|5|
Misc Info : |ECD82P_1F|950900|SVA|LANL|SWIPE|RE03-10-12113|||
Comment :
Method : /chem/ecd8a.i/021010.b/ECD8-F-8082-020310a.m
Meth Date : 10-Feb-2010 13:33 jen01212 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:25 Cal File: 036f3601.d
Als bottle: 21
Dil Factor: 5.00000
Integrator: Falcon Compound Sublist: 10-1648.sub
Target Version: 3.50 Sample Matrix: Filter
Processing Host: hpclpl

Concentration Formula: Amt * DF * Uf * Vt/ Vi * CpndVariable

Name	Value	Description
DF	5.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	0.00100	Volume of final extract (L)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Fi)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.255	2.254	0.001	4149688	31.5791	0.16	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.246	6.247	-0.001	3833680	38.3439	0.19	80.00- 120.00	100.00
6 Aroclor-1254					CAS #: 11097-69-1		
3.838	3.837	0.001	662631	138.482	0.69	80.00- 120.00	100.00
4.026	4.025	0.001	910731	138.632	0.69	114.85- 154.85	137.44
4.216	4.221	-0.005	832453	162.015	0.81	83.76- 123.76	125.63
4.308	4.307	0.001	852973	96.9586	0.48	158.12- 198.12	128.73
4.505	4.503	0.002	849473	122.869	0.61	118.15- 158.15	128.20
			Average of Peak Concentrations =		0.66		

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Fi)	TARGET RANGE	RATIO
7 Aroclor-1260					CAS #: 11096-82-5		
4.436	4.437	-0.001	3407046	505.574	2.5	80.00- 120.00	100.00
4.632	4.633	-0.001	7431179	724.301	3.6	132.17- 172.17	218.11
4.908	4.908	0.000	6228390	1016.08	5.1	72.33- 112.33	182.81
5.080	5.081	-0.001	6175028	966.984	4.8	79.49- 119.49	181.24
5.491	5.491	0.000	7415490	1081.01	5.4	92.03- 132.03	217.65
			Average of Peak Concentrations =		4.3		

Data File: /chem/ecd8a.i/021010.b/021f2101.d

Date : 10-FEB-2010 12:27

Client ID: RE03-10-12113

Sample Info: 1246429003151

Volume Injected (uL): 1.0

Column phase: CLP1

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25

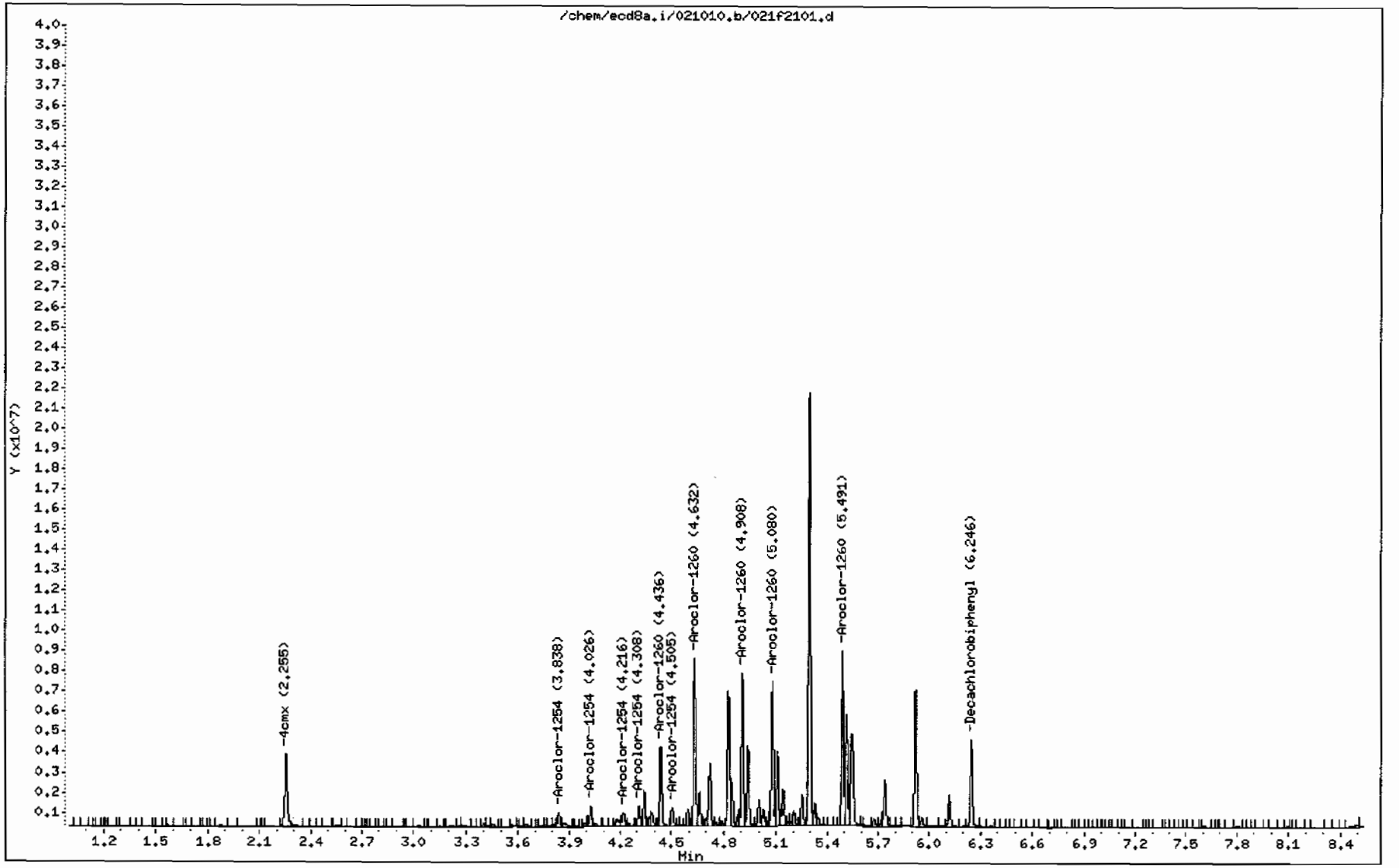

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/021010.b/021b2101.d
Lab Smp Id: 246429003 Client Smp ID: RE03-10-12113
Inj Date : 10-FEB-2010 12:27
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |246429003|5|
Misc Info : |ECD82P_1F|950900|SVA|LANL|SWIPE|RE03-10-12113|||
Comment :
Method : /chem/ecd8a.i/021010.b/ECD8-B-8082-020310a.m
Meth Date : 10-Feb-2010 13:34 jen01212 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:25 Cal File: 036b3601.d
Als bottle: 21
Dil Factor: 5.00000
Integrator: Falcon Compound Sublist: 10-1648.sub
Target Version: 3.50 Sample Matrix: Filter
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/Vi * CpndVariable

Name	Value	Description
DF	5.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	0.00100	Volume of final extract (L)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Fi)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.487	2.486	0.001	2530959	29.1440	0.14	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.838	6.839	-0.001	2268492	34.9840	0.17	80.00- 120.00	100.00
7 Aroclor-1260					CAS #: 11096-82-5		
4.921	4.921	0.000	2159765	528.782	2.6	80.00- 120.00	100.00
5.070	5.070	0.000	3809341	766.636	3.8	100.39- 140.39	176.38
5.386	5.387	-0.001	3937215	1039.28	5.2	72.54- 112.54	182.30
5.593	5.594	-0.001	3808381	963.389	4.8	76.57- 116.57	176.33
6.025	6.026	-0.001	7102935	1140.59	5.7	133.23- 173.23	328.88

Average of Peak Concentrations = 4.4

Data File: /chem/ecd8a.i/021010.b/021b2101.d

Date : 10-FEB-2010 12:27

Client ID: RE03-10-12113

Sample Info: |246429003151

Volume Injected (uL): 1.0

Column phase: CLP2

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25

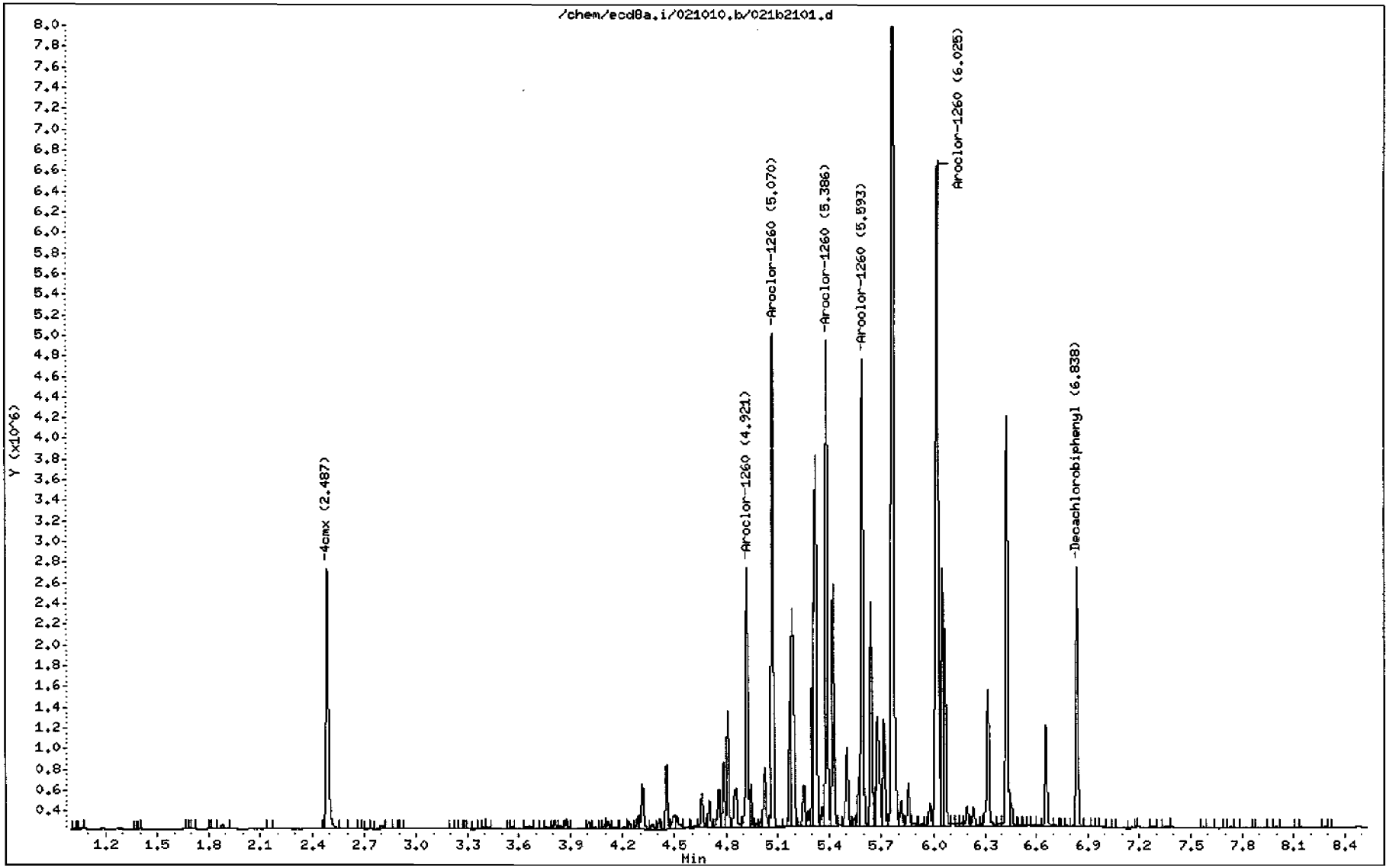

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10-1648**	**Date Collected:**	**02/04/2010 12:00**	**Matrix:**	**SWP**
Lab Sample ID:	**246429001**	**Date Received:**	**02/06/2010 09:15**		
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-10-12114**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**950900**	**Inst:**	**ECD8A.I**	**Dilution:**	**20**
Run Date:	**02/10/2010 12:02**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**02/09/2010 21:55**	**Aliquot:**	**1 Filter**	**Final Volume:**	**1 mL**
Data File:	**019f1901.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	019b1901.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	2.00	ug/Filter	0.666	2.00	1
11104-28-2	Aroclor-1221	U	2.00	ug/Filter	0.666	2.00	1
11141-16-5	Aroclor-1232	U	2.00	ug/Filter	0.666	2.00	1
53469-21-9	Aroclor-1242	U	2.00	ug/Filter	0.666	2.00	1
12672-29-6	Aroclor-1248	U	2.00	ug/Filter	0.666	2.00	1
11097-69-1	Aroclor-1254	U	2.00	ug/Filter	0.666	2.00	1
11096-82-5	Aroclor-1260		39.2	ug/Filter	0.666	2.00	2

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/021010.b/019f1901.d
Lab Smp Id: 246429001 Client Smp ID: RE03-10-12114
Inj Date : 10-FEB-2010 12:02
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |246429001|20|
Misc Info : |ECD82P_1F|950900|SVA|LANL|SWIPE|RE03-10-12114|||
Comment :
Method : /chem/ecd8a.i/021010.b/ECD8-F-8082-020310a.m
Meth Date : 10-Feb-2010 13:33 jen01212 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:25 Cal File: 036f3601.d
Als bottle: 19
Dil Factor: 20.00000
Integrator: Falcon Compound Sublist: 10-1648.sub
Target Version: 3.50 Sample Matrix: Filter
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/ Vi * CpndVariable

Name	Value	Description
DF	20.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	0.00100	Volume of final extract (L)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Fi)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.255	2.254	0.001	1211021	9.21587	0.18	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.248	6.247	0.001	1139907	11.4012	0.23	80.00- 120.00	100.00
7 Aroclor-1260					CAS #: 11096-82-5		
4.437	4.437	0.000	6867793	1019.12	20.4	80.00- 120.00	100.00
4.633	4.633	0.000	16085826	1567.85	31.4	132.17- 172.17	234.22
4.908	4.908	0.000	14322628	2336.54	46.7	72.33- 112.33	208.55
5.079	5.081	-0.002	12559600	1966.78	39.3	79.49- 119.49	182.88
5.491	5.491	0.000	16078498	2343.89	46.9	92.03- 132.03	234.11
Average of Peak Concentrations =					36.9		

Data File: /chem/ecd8a.i/021010.b/019f1901.d
Date : 10-FEB-2010 12:02
Client ID: RE03-10-12114
Sample Info: 1246429001!201
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecd8a.i
Operator: JADC
Column diameter: 0.25

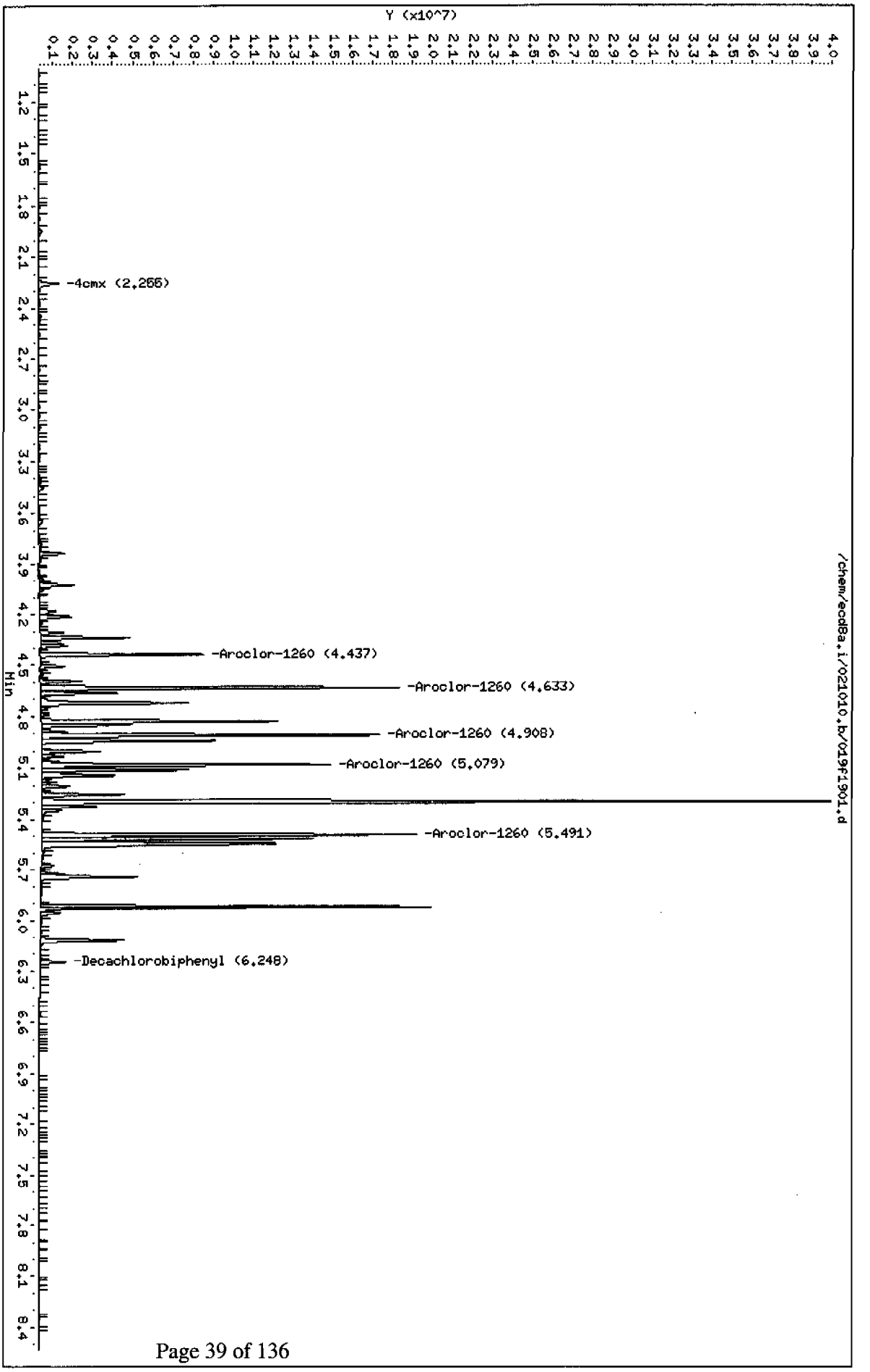

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/021010.b/019b1901.d
Lab Smp Id: 246429001 Client Smp ID: RE03-10-12114
Inj Date : 10-FEB-2010 12:02
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |246429001|20|
Misc Info : |ECD82P_1F|950900|SVA|LANL|SWIPE|RE03-10-12114|||
Comment :
Method : /chem/ecd8a.i/021010.b/ECD8-B-8082-020310a.m
Meth Date : 10-Feb-2010 13:34 jen01212 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:25 Cal File: 036b3601.d
Als bottle: 19
Dil Factor: 20.00000
Integrator: Falcon Compound Sublist: 10-1648.sub
Target Version: 3.50 Sample Matrix: Filter
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/Vi * CpndVariable

Name	Value	Description
DF	20.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	0.00100	Volume of final extract (L)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Fi)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.487	2.486	0.001	689862	7.94375	0.16	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.839	6.839	0.000	702233	10.8296	0.22	80.00- 120.00	100.00
7 Aroclor-1260					CAS #: 11096-82-5		
4.921	4.921	0.000	4395117	1076.07	21.5	80.00- 120.00	100.00
5.069	5.070	-0.001	8553595	1721.43	34.4	100.39- 140.39	194.62
5.386	5.387	-0.001	9091068	2399.70	48.0	72.54- 112.54	206.84
5.594	5.594	0.000	7762941	1963.76	39.3	76.57- 116.57	176.63
6.024	6.026	-0.002	16397904	2633.17	52.7	133.23- 173.23	373.09

Average of Peak Concentrations = 39.2

Data File: /chem/ecd8a.i/021010.b/019b1901.d
Date : 10-FEB-2010 12:02
Client ID: RE03-10-12114
Sample Info: |2464290011201
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd8a.i

Operator: JAOC
Column diameter: 0.25

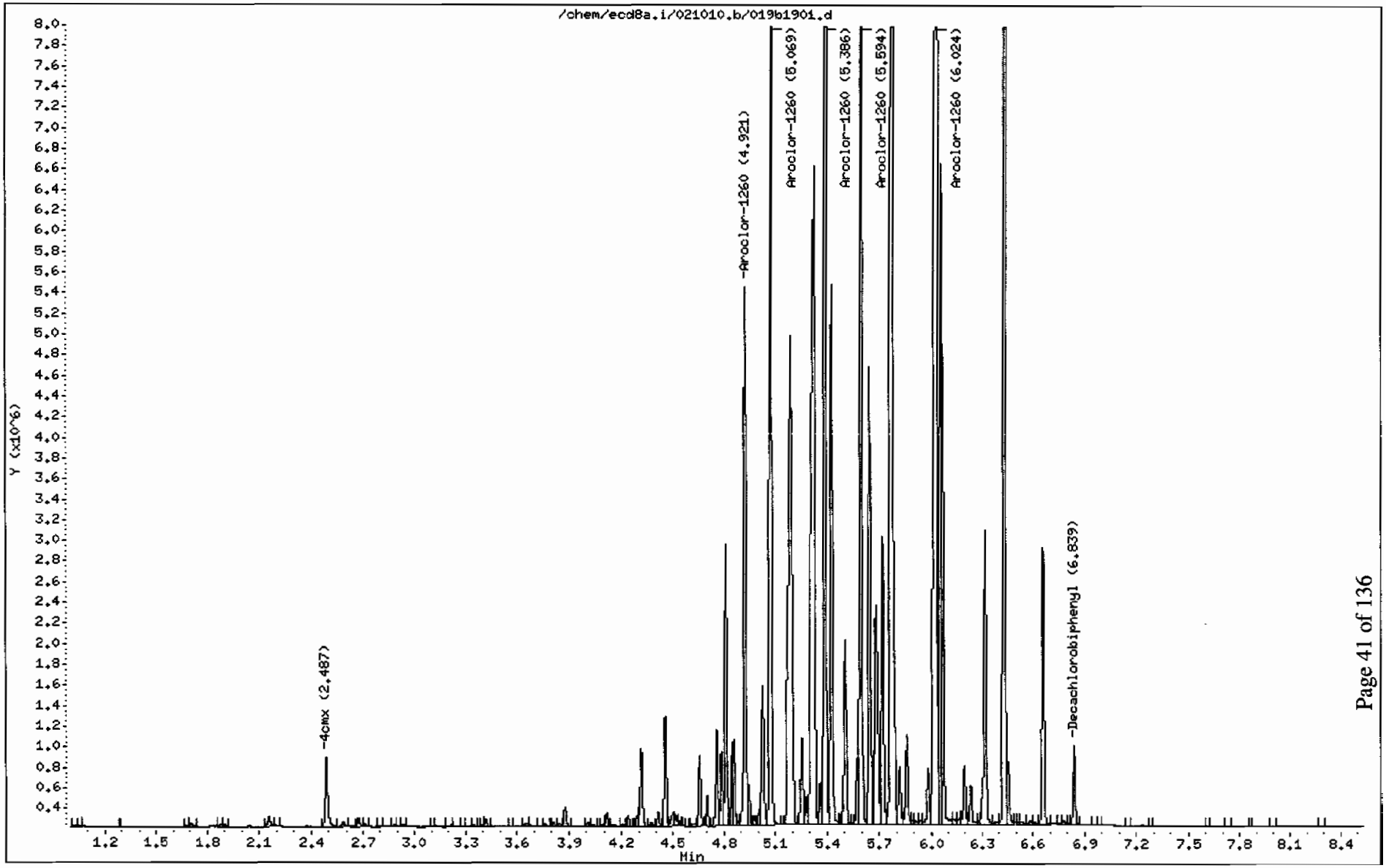

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–1648**	**Date Collected:**	**02/04/2010 12:00**	**Matrix:**	**SWP**
Lab Sample ID:	**246429002**	**Date Received:**	**02/06/2010 09:15**		
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03–10–12115**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**950900**	**Inst:**	**ECD8A.I**	**Dilution:**	**5**
Run Date:	**02/10/2010 12:14**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**02/09/2010 21:55**	**Aliquot:**	**1 Filter**	**Final Volume:**	**1 mL**
Data File:	**020f2001.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	020b2001.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	0.500	ug/Filter	0.167	0.500	1
11104–28–2	Aroclor–1221	U	0.500	ug/Filter	0.167	0.500	1
11141–16–5	Aroclor–1232	U	0.500	ug/Filter	0.167	0.500	1
53469–21–9	Aroclor–1242	U	0.500	ug/Filter	0.167	0.500	1
12672–29–6	Aroclor–1248	U	0.500	ug/Filter	0.167	0.500	1
11097–69–1	Aroclor–1254	U	0.500	ug/Filter	0.167	0.500	1
11096–82–5	Aroclor–1260		6.66	ug/Filter	0.167	0.500	2

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RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/021010.b/020f2001.d
Lab Smp Id: 246429002 Client Smp ID: RE03-10-12115
Inj Date : 10-FEB-2010 12:14
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |246429002|5|
Misc Info : |ECD82P_1F|950900|SVA|LANL|SWIPE|RE03-10-12115|||
Comment :
Method : /chem/ecd8a.i/021010.b/ECD8-F-8082-020310a.m
Meth Date : 10-Feb-2010 13:33 jen01212 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:25 Cal File: 036f3601.d
Als bottle: 20
Dil Factor: 5.00000
Integrator: Falcon Compound Sublist: 10-1648.sub
Target Version: 3.50 Sample Matrix: Filter
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/ Vi * CpndVariable

Name	Value	Description
DF	5.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	0.00100	Volume of final extract (L)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Fi)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.255	2.254	0.001	4477740	34.0756	0.17	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.246	6.247	-0.001	3928184	39.2892	0.20	80.00- 120.00	100.00
7 Aroclor-1260					CAS #: 11096-82-5		
4.436	4.437	-0.001	5209165	772.991	3.9	80.00- 120.00	100.00
4.632	4.633	-0.001	10852015	1057.72	5.3	132.17- 172.17	208.33
4.907	4.908	-0.001	8935286	1457.67	7.3	72.33- 112.33	171.53
5.079	5.081	-0.002	8919449	1396.75	7.0	79.49- 119.49	171.23
5.490	5.491	-0.001	10969382	1599.09	8.0	92.03- 132.03	210.58
Average of Peak Concentrations =					6.3		

Data File: /chem/ecd8a.i/021010.b/020f2001.d

Date : 10-FEB-2010 12:14

Client ID: RE03-10-12115

Sample Info: 1246429002151

Volume Injected (uL): 1.0

Column phase: CLP1

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25

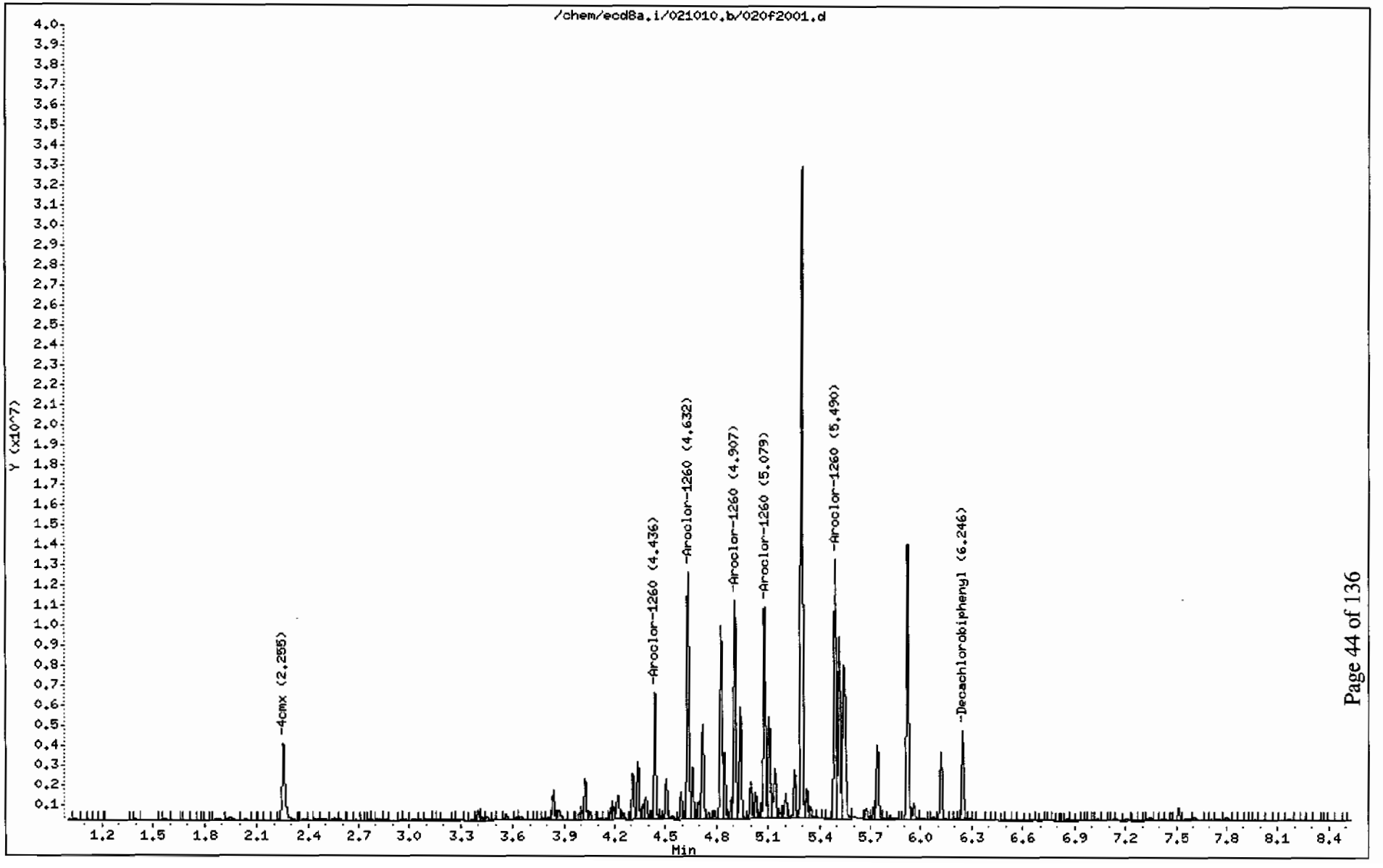

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/021010.b/020b2001.d
Lab Smp Id: 246429002 Client Smp ID: RE03-10-12115
Inj Date : 10-FEB-2010 12:14
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |246429002|5|
Misc Info : |ECD82P_1F|950900|SVA|LANL|SWIPE|RE03-10-12115|||
Comment :
Method : /chem/ecd8a.i/021010.b/ECD8-B-8082-020310a.m
Meth Date : 10-Feb-2010 13:34 jen01212 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:25 Cal File: 036b3601.d
Als bottle: 20
Dil Factor: 5.00000
Integrator: Falcon Compound Sublist: 10-1648.sub
Target Version: 3.50 Sample Matrix: Filter
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/Vi * CpndVariable

Name	Value	Description
DF	5.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	0.00100	Volume of final extract (L)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Fi)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.487	2.486	0.001	2697678	31.0637	0.16	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.837	6.839	-0.002	2451223	37.8020	0.19	80.00- 120.00	100.00
7 Aroclor-1260					CAS #: 11096-82-5		
4.920	4.921	-0.001	3459791	847.071	4.2	80.00- 120.00	100.00
5.069	5.070	-0.001	5520772	1111.06	5.6	100.39- 140.39	159.57
5.386	5.387	-0.001	5754555	1518.99	7.6	72.54- 112.54	166.33
5.593	5.594	-0.001	5536458	1400.53	7.0	76.57- 116.57	160.02
6.024	6.026	-0.002	11108359	1783.78	8.9	133.23- 173.23	321.07

Average of Peak Concentrations = 6.7

Data File: /chem/ecd8a.i/021010.b/020b2001.d

Date : 10-FEB-2010 12:14

Client ID: RE03-10-12115

Sample Info: |246429002|5|

Volume Injected (uL): 1.0

Column phase: CLP2

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25

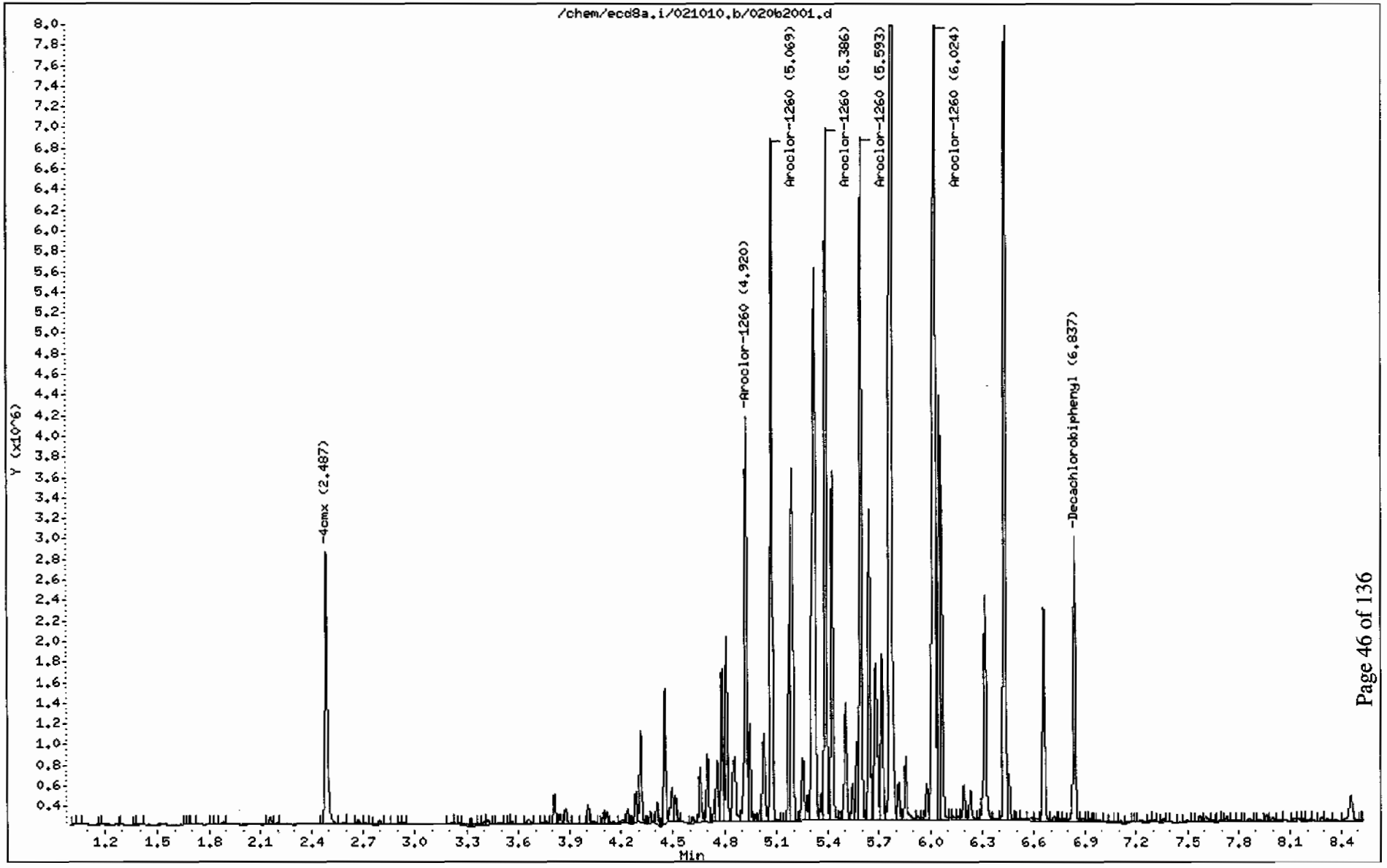

STANDARDS DATA

Report Date: 10-Feb-2010 13:48

Calibration History

Method : /chem/ecd8a.i/021010.b/ECD8-F-8082-020310a.m
Start Cal Date: 03-FEB-2010 10:24
End Cal Date : 03-FEB-2010 17:25

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 100.00000		
03-FEB-2010 15:46	AR1262	/chem/ecd8a.i/020310a.b/028f2801.d
03-FEB-2010 14:07	AR1248	/chem/ecd8a.i/020310a.b/020f2001.d
03-FEB-2010 12:53	AR1242	/chem/ecd8a.i/020310a.b/014f1401.d
03-FEB-2010 11:39	AR1254	/chem/ecd8a.i/020310a.b/008f0801.d
03-FEB-2010 10:24	AR1660	/chem/ecd8a.i/020310a.b/002f0201.d
Cal Level: 2 , Cal Amount: 250.00000		
03-FEB-2010 15:58	AR1262	/chem/ecd8a.i/020310a.b/029f2901.d
03-FEB-2010 14:19	AR1248	/chem/ecd8a.i/020310a.b/021f2101.d
03-FEB-2010 13:05	AR1242	/chem/ecd8a.i/020310a.b/015f1501.d
03-FEB-2010 11:51	AR1254	/chem/ecd8a.i/020310a.b/009f0901.d
03-FEB-2010 10:37	AR1660	/chem/ecd8a.i/020310a.b/003f0301.d
Cal Level: 3 , Cal Amount: 500.00000		
03-FEB-2010 16:11	AR1262	/chem/ecd8a.i/020310a.b/030f3001.d
03-FEB-2010 14:32	AR1248	/chem/ecd8a.i/020310a.b/022f2201.d
03-FEB-2010 13:18	AR1242	/chem/ecd8a.i/020310a.b/016f1601.d
03-FEB-2010 12:03	AR1254	/chem/ecd8a.i/020310a.b/010f1001.d
03-FEB-2010 10:49	AR1660	/chem/ecd8a.i/020310a.b/004f0401.d
Cal Level: 4 , Cal Amount: 1000.00000		
03-FEB-2010 17:25	DDT	/chem/ecd8a.i/020310a.b/036f3601.d
03-FEB-2010 17:00	AR1268	/chem/ecd8a.i/020310a.b/034f3401.d
03-FEB-2010 16:23	AR1262	/chem/ecd8a.i/020310a.b/031f3101.d
03-FEB-2010 15:34	AR1221	/chem/ecd8a.i/020310a.b/027f2701.d
03-FEB-2010 15:21	AR1232	/chem/ecd8a.i/020310a.b/026f2601.d
03-FEB-2010 14:44	AR1248	/chem/ecd8a.i/020310a.b/023f2301.d
03-FEB-2010 13:30	AR1242	/chem/ecd8a.i/020310a.b/017f1701.d
03-FEB-2010 12:16	AR1254	/chem/ecd8a.i/020310a.b/011f1101.d
03-FEB-2010 11:01	AR1660	/chem/ecd8a.i/020310a.b/005f0501.d
Cal Level: 5 , Cal Amount: 4000.00000		
03-FEB-2010 16:36	AR1262	/chem/ecd8a.i/020310a.b/032f3201.d
03-FEB-2010 14:57	AR1248	/chem/ecd8a.i/020310a.b/024f2401.d
03-FEB-2010 13:42	AR1242	/chem/ecd8a.i/020310a.b/018f1801.d
03-FEB-2010 12:28	AR1254	/chem/ecd8a.i/020310a.b/012f1201.d
03-FEB-2010 11:14	AR1660	/chem/ecd8a.i/020310a.b/006f0601.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 1000		
10-FEB-2010 12:39	AR1660	/chem/ecd8a.i/021010.b/022f2201.d
Ccal Level: 4 , Ccal Amount: 1000		
10-FEB-2010 11:00	AR1660	/chem/ecd8a.i/021010.b/014f1401.d
Ccal Level: 4 , Ccal Amount: 1000		
10-FEB-2010 09:58	AR1268	/chem/ecd8a.i/021010.b/009f0901.d
Ccal Level: 4 , Ccal Amount: 1000		
10-FEB-2010 09:46	AR1262	/chem/ecd8a.i/021010.b/008f0801.d
Ccal Level: 4 , Ccal Amount: 1000		
10-FEB-2010 09:34	AR1221	/chem/ecd8a.i/021010.b/007f0701.d
Ccal Level: 4 , Ccal Amount: 1000		
10-FEB-2010 09:21	AR1232	/chem/ecd8a.i/021010.b/006f0601.d
Ccal Level: 4 , Ccal Amount: 1000		
10-FEB-2010 09:09	AR1248	/chem/ecd8a.i/021010.b/005f0501.d
Ccal Level: 4 , Ccal Amount: 1000		
10-FEB-2010 08:56	AR1242	/chem/ecd8a.i/021010.b/004f0401.d
Ccal Level: 4 , Ccal Amount: 1000		
10-FEB-2010 08:44	AR1254	/chem/ecd8a.i/021010.b/003f0301.d
Ccal Level: 4 , Ccal Amount: 1000		
10-FEB-2010 08:32	AR1660	/chem/ecd8a.i/021010.b/002f0201.d

Report Date: 10-Feb-2010 13:48

Calibration History

Method : /chem/ecd8a.i/021010.b/ECD8-B-8082-020310a.m
Start Cal Date: 03-FEB-2010 10:24
End Cal Date : 03-FEB-2010 17:25

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 100.00000		
03-FEB-2010 15:46	AR1262	/chem/ecd8a.i/020310a.b/028b2801.d
03-FEB-2010 14:07	AR1248	/chem/ecd8a.i/020310a.b/020b2001.d
03-FEB-2010 12:53	AR1242	/chem/ecd8a.i/020310a.b/014b1401.d
03-FEB-2010 11:39	AR1254	/chem/ecd8a.i/020310a.b/008b0801.d
03-FEB-2010 10:24	AR1660	/chem/ecd8a.i/020310a.b/002b0201.d
Cal Level: 2 , Cal Amount: 250.00000		
03-FEB-2010 15:58	AR1262	/chem/ecd8a.i/020310a.b/029b2901.d
03-FEB-2010 14:19	AR1248	/chem/ecd8a.i/020310a.b/021b2101.d
03-FEB-2010 13:05	AR1242	/chem/ecd8a.i/020310a.b/015b1501.d
03-FEB-2010 11:51	AR1254	/chem/ecd8a.i/020310a.b/009b0901.d
03-FEB-2010 10:37	AR1660	/chem/ecd8a.i/020310a.b/003b0301.d
Cal Level: 3 , Cal Amount: 500.00000		
03-FEB-2010 16:11	AR1262	/chem/ecd8a.i/020310a.b/030b3001.d
03-FEB-2010 14:32	AR1248	/chem/ecd8a.i/020310a.b/022b2201.d
03-FEB-2010 13:18	AR1242	/chem/ecd8a.i/020310a.b/016b1601.d
03-FEB-2010 12:03	AR1254	/chem/ecd8a.i/020310a.b/010b1001.d
03-FEB-2010 10:49	AR1660	/chem/ecd8a.i/020310a.b/004b0401.d
Cal Level: 4 , Cal Amount: 1000.00000		
03-FEB-2010 17:25	DDT	/chem/ecd8a.i/020310a.b/036b3601.d
03-FEB-2010 17:00	AR1268	/chem/ecd8a.i/020310a.b/034b3401.d
03-FEB-2010 16:23	AR1262	/chem/ecd8a.i/020310a.b/031b3101.d
03-FEB-2010 15:34	AR1221	/chem/ecd8a.i/020310a.b/027b2701.d
03-FEB-2010 15:21	AR1232	/chem/ecd8a.i/020310a.b/026b2601.d
03-FEB-2010 14:44	AR1248	/chem/ecd8a.i/020310a.b/023b2301.d
03-FEB-2010 13:30	AR1242	/chem/ecd8a.i/020310a.b/017b1701.d
03-FEB-2010 12:16	AR1254	/chem/ecd8a.i/020310a.b/011b1101.d
03-FEB-2010 11:01	AR1660	/chem/ecd8a.i/020310a.b/005b0501.d
Cal Level: 5 , Cal Amount: 4000.00000		
03-FEB-2010 16:36	AR1262	/chem/ecd8a.i/020310a.b/032b3201.d
03-FEB-2010 14:57	AR1248	/chem/ecd8a.i/020310a.b/024b2401.d
03-FEB-2010 13:42	AR1242	/chem/ecd8a.i/020310a.b/018b1801.d
03-FEB-2010 12:28	AR1254	/chem/ecd8a.i/020310a.b/012b1201.d
03-FEB-2010 11:14	AR1660	/chem/ecd8a.i/020310a.b/006b0601.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

| Ccal Level: 4 , Ccal Amount: 1000 |

10-FEB-2010 12:39	AR1660	/chem/ecd8a.i/021010.b/022b2201.d
Ccal Level: 4 , Ccal Amount: 1000		
10-FEB-2010 11:00	AR1660	/chem/ecd8a.i/021010.b/014b1401.d
Ccal Level: 4 , Ccal Amount: 1000		
10-FEB-2010 09:58	AR1268	/chem/ecd8a.i/021010.b/009b0901.d
Ccal Level: 4 , Ccal Amount: 1000		
10-FEB-2010 09:46	AR1262	/chem/ecd8a.i/021010.b/008b0801.d
Ccal Level: 4 , Ccal Amount: 1000		
10-FEB-2010 09:34	AR1221	/chem/ecd8a.i/021010.b/007b0701.d
Ccal Level: 4 , Ccal Amount: 1000		
10-FEB-2010 09:21	AR1232	/chem/ecd8a.i/021010.b/006b0601.d
Ccal Level: 4 , Ccal Amount: 1000		
10-FEB-2010 09:09	AR1248	/chem/ecd8a.i/021010.b/005b0501.d
Ccal Level: 4 , Ccal Amount: 1000		
10-FEB-2010 08:56	AR1242	/chem/ecd8a.i/021010.b/004b0401.d
Ccal Level: 4 , Ccal Amount: 1000		
10-FEB-2010 08:44	AR1254	/chem/ecd8a.i/021010.b/003b0301.d
Ccal Level: 4 , Ccal Amount: 1000		
10-FEB-2010 08:32	AR1660	/chem/ecd8a.i/021010.b/002b0201.d

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COMPOUND LISTING

Method file : /chem/ecd8a.i/021010.b/ECD8-F-8082-020310a.m
Quant Method : ESTD Target Version : 3.50
Last Update : 10-Feb-2010 13:33 Number of Cpnds : 15
Data Type : GC MULTI COMP

Global Integrator : Falcon

Chromat Events	Values
Initial:Start Threshold	758.000000
Initial:End Threshold	379.000000
Initial:Area Threshold	734.000000
Initial:P-P Resolution	1.000000
Initial:Bunch Factor	2.000000
Initial:Negative Peaks	OFF
Initial:Tension	1.500000
6.500:Bunch Factor	2.000000

Compound	RT	RT Window	RF
1 Aroclor-1016	2.812	2.782-2.842	4.665e+03
	3.165	3.135-3.195	5.770e+03
	3.308	3.278-3.338	2.454e+03
	3.401	3.371-3.431	2.198e+03
	3.562	3.532-3.592	3.142e+03
2 Aroclor-1221	1.855	1.825-1.885	1.100e+03
	2.395	2.365-2.425	1.460e+03
	2.541	2.511-2.571	3.385e+03
3 Aroclor-1232	2.541	2.511-2.571	2.601e+03
	2.813	2.783-2.843	2.261e+03
	3.309	3.279-3.339	1.243e+03
	3.563	3.533-3.593	1.479e+03
	3.625	3.595-3.655	9.227e+02
4 Aroclor-1242	2.813	2.783-2.843	3.974e+03
	3.165	3.135-3.195	4.796e+03
	3.401	3.371-3.431	1.805e+03
	3.418	3.388-3.448	1.889e+03
	3.563	3.533-3.593	2.645e+03
5 Aroclor-1248	3.150	3.120-3.180	2.990e+03
	3.401	3.371-3.431	3.823e+03
	3.562	3.532-3.592	5.000e+03
	3.869	3.839-3.899	5.990e+03
	4.028	3.998-4.058	4.826e+03

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd8a.i/021010.b/ECD8-F-8082-020310a.m

Compound	RT	RT Window	RF
6 Aroclor-1254	3.837	3.807-3.867	4.785e+03
	4.025	3.995-4.055	6.569e+03
	4.221	4.191-4.251	5.138e+03
	4.307	4.277-4.337	8.797e+03
	4.503	4.473-4.533	6.914e+03
7 Aroclor-1260	4.437	4.407-4.467	6.739e+03
	4.633	4.603-4.663	1.026e+04
	4.908	4.878-4.938	6.130e+03
	5.081	5.051-5.111	6.386e+03
	5.491	5.461-5.521	6.860e+03
8 Aroclor-1262	4.338	4.308-4.368	3.367e+03
	4.437	4.407-4.467	5.243e+03
	4.632	4.602-4.662	7.103e+03
	4.907	4.877-4.937	8.580e+03
	5.080	5.050-5.110	7.966e+03
9 Aroclor-1268	5.515	5.485-5.545	1.632e+04
	5.542	5.512-5.572	1.572e+04
	5.675	5.645-5.705	1.207e+04
	5.922	5.892-5.952	6.023e+03
	6.118	6.088-6.148	3.601e+04
M 10 Aroclor-Total	1.000	0.980-1.020	
$ 11 4cmx	2.254	2.224-2.284	1.314e+05
$ 12 Decachlorobiphenyl	6.247	6.217-6.277	9.998e+04
13 4,4'-DDT	4.852	4.832-4.872	2.393e+04
14 4,4'-DDD	4.658	4.638-4.678	1.570e+05
15 4,4'-DDE	4.234	4.214-4.254	1.340e+05

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd8a.i/021010.b/ECD8-B-8082-020310a.m
Quant Method : ESTD Target Version : 3.50
Last Update : 10-Feb-2010 13:34 Number of Cpnds : 15
Data Type : GC MULTI COMP

Global Integrator : Falcon

Chromat Events	Values
Initial:Start Threshold	733.000000
Initial:End Threshold	366.500000
Initial:Area Threshold	522.000000
Initial:P-P Resolution	0.000000
Initial:Bunch Factor	2.000000
Initial:Negative Peaks	OFF
Initial:Tension	2.000000
9.000:Bunch Factor	2.000000

Compound	RT	RT Window	RF
1 Aroclor-1016	3.560	3.530-3.590	3.766e+03
	3.660	3.630-3.690	2.494e+03
	3.736	3.706-3.766	1.515e+03
	3.811	3.781-3.841	1.493e+03
	4.007	3.977-4.037	2.036e+03
2 Aroclor-1221	2.727	2.697-2.757	8.949e+02
	2.840	2.810-2.870	5.569e+02
	2.889	2.859-2.919	2.060e+03
3 Aroclor-1232	3.207	3.177-3.237	1.515e+03
	3.561	3.531-3.591	1.744e+03
	3.661	3.631-3.691	1.176e+03
	3.736	3.706-3.766	7.101e+02
	3.811	3.781-3.841	6.182e+02
4 Aroclor-1242	3.207	3.177-3.237	2.677e+03
	3.561	3.531-3.591	3.126e+03
	3.660	3.630-3.690	2.127e+03
	4.007	3.977-4.037	1.703e+03
	4.097	4.067-4.127	1.567e+03
5 Aroclor-1248	3.659	3.629-3.689	1.427e+03
	3.811	3.781-3.841	2.467e+03
	4.007	3.977-4.037	3.089e+03
	4.285	4.255-4.315	3.647e+03
	4.317	4.287-4.347	4.004e+03

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd8a.i/021010.b/ECD8-B-8082-020310a.m

	Compound	RT	RT Window	RF
	6 Aroclor-1254	4.314	4.284-4.344	3.450e+03
		4.452	4.422-4.482	3.910e+03
		4.782	4.752-4.812	5.500e+03
		4.943	4.913-4.973	4.011e+03
		5.069	5.039-5.099	2.549e+03
	7 Aroclor-1260	4.921	4.891-4.951	4.084e+03
		5.070	5.040-5.100	4.969e+03
		5.387	5.357-5.417	3.788e+03
		5.594	5.564-5.624	3.953e+03
		6.026	5.996-6.056	6.227e+03
	8 Aroclor-1262	4.921	4.891-4.951	3.276e+03
		5.069	5.039-5.099	3.827e+03
		5.387	5.357-5.417	5.446e+03
		5.593	5.563-5.623	5.047e+03
		6.022	5.992-6.052	7.196e+03
	9 Aroclor-1268	6.020	5.990-6.050	1.138e+04
		6.053	6.023-6.083	1.041e+04
		6.231	6.201-6.261	8.192e+03
		6.429	6.399-6.459	4.057e+03
		6.658	6.628-6.688	2.464e+04
M	10 Aroclor-Total	1.000	0.980-1.020	
$	11 4cmx	2.486	2.456-2.516	8.684e+04
$	12 Decachlorobiphenyl	6.839	6.809-6.869	6.484e+04
	13 4,4'-DDT	5.323	5.303-5.343	1.460e+04
	14 4,4'-DDD	5.102	5.082-5.122	1.001e+05
	15 4,4'-DDE	4.691	4.671-4.711	8.898e+04

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 03-FEB-2010 10:24
End Cal Date : 03-FEB-2010 17:25
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd8a.i/021010.b/ECD8-F-8082-020310a.m
Cal Date : 10-Feb-2010 13:33 jen01212
Curve Type : Average

Calibration File Names:
Level 1: /chem/ecd8a.i/020310a.b/028f2801.d
Level 2: /chem/ecd8a.i/020310a.b/029f2901.d
Level 3: /chem/ecd8a.i/020310a.b/030f3001.d
Level 4: /chem/ecd8a.i/020310a.b/036f3601.d
Level 5: /chem/ecd8a.i/020310a.b/032f3201.d

Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
1 Aroclor-1016(1)	5614	5138	4704	4321	3545	4665	16.943
(2)	6383	6264	5935	5475	4791	5770	11.275
(3)	2817	2639	2454	2319	2042	2454	12.124
(4)	2629	2406	2216	2019	1720	2198	15.914
(5)	3708	3411	3117	2938	2537	3142	14.248
2 Aroclor-1221(1)	+++++	+++++	+++++	1100	+++++	1100	0.000
(2)	+++++	+++++	+++++	1460	+++++	1460	0.000
(3)	+++++	+++++	+++++	3385	+++++	3385	0.000
3 Aroclor-1232(1)	+++++	+++++	+++++	2601	+++++	2601	0.000
(2)	+++++	+++++	+++++	2261	+++++	2261	0.000
(3)	+++++	+++++	+++++	1243	+++++	1243	0.000
(4)	+++++	+++++	+++++	1479	+++++	1479	0.000
(5)	+++++	+++++	+++++	923	+++++	923	0.000
4 Aroclor-1242(1)	4726	4372	4070	3706	2998	3974	16.680
(2)	5172	5152	4949	4680	4027	4796	9.873
(3)	2139	1968	1820	1683	1417	1805	15.251
(4)	2229	2050	1908	1759	1500	1889	14.735
(5)	3065	2855	2678	2500	2127	2645	13.507
5 Aroclor-1248(1)	3599	3150	2999	2805	2397	2990	14.793
(2)	4688	4030	3804	3549	3043	3823	15.884
(3)	6028	5281	4903	4737	4053	5000	14.533
(4)	7068	6330	5909	5676	4965	5990	13.024
(5)	5743	5075	4737	4591	3986	4826	13.394
6 Aroclor-1254(1)	5857	5096	4715	4450	3806	4785	15.921
(2)	7961	7038	6468	6172	5208	6569	15.558
(3)	6032	5571	5105	4741	4242	5138	13.582
(4)	10107	9649	8877	8173	7180	8797	13.271
(5)	7953	7619	6996	6322	5678	6914	13.452

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 03-FEB-2010 10:24
End Cal Date : 03-FEB-2010 17:25
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd8a.i/021010.b/ECD8-F-8082-020310a.m
Cal Date : 10-Feb-2010 13:33 jen01212
Curve Type : Average

Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
7 Aroclor-1260(1)	7706	7225	6868	6425	5470	6739	12.628
(2)	11735	10983	10481	9771	8329	10260	12.630
(3)	7075	6577	6171	5792	5035	6130	12.657
(4)	7317	6857	6397	6058	5301	6386	12.066
(5)	7655	7335	6855	6540	5914	6860	9.924
8 Aroclor-1262(1)	3851	3558	3311	3256	2859	3367	10.954
(2)	5935	5551	5239	5102	4386	5243	10.995
(3)	7996	7523	7022	6963	6012	7103	10.414
(4)	9555	9028	8567	8433	7318	8580	9.694
(5)	8875	8357	7946	7802	6850	7966	9.421
9 Aroclor-1268(1)	+++++	+++++	+++++	16324	+++++	16324	0.000
(2)	+++++	+++++	+++++	15723	+++++	15723	0.000
(3)	+++++	+++++	+++++	12075	+++++	12075	0.000
(4)	+++++	+++++	+++++	6023	+++++	6023	0.000
(5)	+++++	+++++	+++++	36012	+++++	36012	0.000
M 10 Aroclor-Total	+++++	+++++	+++++	+++++	+++++	+++++	+++++
13 4,4'-DDT	+++++	+++++	+++++	23929	+++++	23929	0.000
14 4,4'-DDD	+++++	+++++	+++++	157020	+++++	157020	0.000
15 4,4'-DDE	+++++	+++++	+++++	133975	+++++	133975	0.000
$ 11 4cmx	141196	137660	133177	129355	115643	131406	7.521
$ 12 Decachlorobiphenyl	111693	106508	99006	96244	86457	99981	9.718

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 03-FEB-2010 10:24
End Cal Date : 03-FEB-2010 17:25
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd8a.i/021010.b/ECD8-B-8082-020310a.m
Cal Date : 10-Feb-2010 13:34 jen01212
Curve Type : Average

Calibration File Names:
Level 1: /chem/ecd8a.i/020310a.b/028b2801.d
Level 2: /chem/ecd8a.i/020310a.b/029b2901.d
Level 3: /chem/ecd8a.i/020310a.b/030b3001.d
Level 4: /chem/ecd8a.i/020310a.b/036b3601.d
Level 5: /chem/ecd8a.i/020310a.b/032b3201.d

Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	$\overline{RRF}$	% RSD
1 Aroclor-1016(1)	3955	3879	3768	3829	3401	3766	5.726
(2)	2683	2623	2522	2463	2181	2494	7.814
(3)	1588	1565	1522	1510	1392	1515	5.000
(4)	1644	1573	1498	1453	1297	1493	8.812
(5)	2161	2107	2068	2025	1817	2036	6.473
2 Aroclor-1221(1)	+++++	+++++	+++++	895	+++++	895	0.000
(2)	+++++	+++++	+++++	557	+++++	557	0.000
(3)	+++++	+++++	+++++	2060	+++++	2060	0.000
3 Aroclor-1232(1)	+++++	+++++	+++++	1515	+++++	1515	0.000
(2)	+++++	+++++	+++++	1744	+++++	1744	0.000
(3)	+++++	+++++	+++++	1176	+++++	1176	0.000
(4)	+++++	+++++	+++++	710	+++++	710	0.000
(5)	+++++	+++++	+++++	618	+++++	618	0.000
4 Aroclor-1242(1)	2949	2857	2758	2609	2213	2677	10.779
(2)	3213	3196	3180	3232	2808	3126	5.721
(3)	2287	2232	2178	2099	1842	2127	8.178
(4)	1820	1782	1741	1678	1497	1703	7.463
(5)	1675	1595	1607	1522	1434	1567	5.872
5 Aroclor-1248(1)	1621	1511	1422	1366	1213	1427	10.773
(2)	2779	2594	2491	2383	2090	2467	10.392
(3)	3403	3233	3131	3022	2657	3089	9.043
(4)	3964	3788	3692	3588	3204	3647	7.785
(5)	4333	4155	4060	3948	3526	4004	7.553
6 Aroclor-1254(1)	3700	3695	3475	3389	2993	3450	8.395
(2)	4204	4194	3940	3836	3377	3910	8.648
(3)	5766	5885	5570	5452	4827	5500	7.494
(4)	4254	4252	4044	3942	3562	4011	7.104
(5)	2775	2711	2546	2462	2250	2549	8.187

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 03-FEB-2010 10:24
End Cal Date : 03-FEB-2010 17:25
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd8a.i/021010.b/ECD8-B-8082-020310a.m
Cal Date : 10-Feb-2010 13:34 jen01212
Curve Type : Average

Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
7 Aroclor-1260(1)	4328	4278	4140	4064	3611	4084	6.976
(2)	5221	5198	5036	4963	4428	4969	6.467
(3)	3970	3947	3809	3790	3427	3788	5.744
(4)	4121	4108	3975	3957	3605	3953	5.268
(5)	6395	6455	6249	6250	5789	6227	4.190
8 Aroclor-1262(1)	3545	3367	3269	3249	2948	3276	6.635
(2)	4038	3929	3844	3825	3498	3827	5.277
(3)	5683	5613	5515	5463	4958	5446	5.255
(4)	5266	5178	5090	5067	4633	5047	4.838
(5)	7327	7356	7286	7270	6740	7196	3.572
9 Aroclor-1268(1)	+++++	+++++	+++++	11384	+++++	11384	0.000
(2)	+++++	+++++	+++++	10412	+++++	10412	0.000
(3)	+++++	+++++	+++++	8192	+++++	8192	0.000
(4)	+++++	+++++	+++++	4057	+++++	4057	0.000
(5)	+++++	+++++	+++++	24640	+++++	24640	0.000
M 10 Aroclor-Total	+++++	+++++	+++++	+++++	+++++	+++++	+++++
13 4,4'-DDT	+++++	+++++	+++++	14596	+++++	14596	0.000
14 4,4'-DDD	+++++	+++++	+++++	100145	+++++	100145	0.000
15 4,4'-DDE	+++++	+++++	+++++	88982	+++++	88982	0.000
$ 11 4cmx	86244	88409	88291	88885	82388	86843	3.097
$ 12 Decachlorobiphenyl	68541	67257	64616	64263	59541	64844	5.342

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1648

Instrument ID: ECD8A Calibration Date: 02/10/10 Time: 0832

Lab File ID: 002F0201 Init. Calib. Date(s): 02/03/10 02/03/10

Heated Purge: (Y/N) N Init. Calib. Times: 1024 1114

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	4664.624	4728.387	0.01	1.4	15.0
(2)	5769.588	6033.609	0.01	4.6	15.0
(3)	2454.201	2499.099	0.01	1.8	15.0
(4)	2198.179	2189.238	0.01	-0.4	15.0
(5)	3142.156	3185.892	0.01	1.4	15.0
Aroclor-1260	6738.969	6873.767	0.01	2.0	15.0
(2)	10259.796	10253.627	0.01	-0.1	15.0
(3)	6129.851	6067.208	0.01	-1.0	15.0
(4)	6385.867	6442.816	0.01	0.9	15.0
(5)	6859.759	7173.614	0.01	4.6	15.0
4cmx	131406.10	142367.42	0.01	8.3	15.0
Decachlorobiphenyl	99981.358	103907.59	0.01	3.9	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1648

Instrument ID: ECD8A Calibration Date: 02/10/10 Time: 0832

Lab File ID: 002B0201 Init. Calib. Date(s): 02/03/10 02/03/10

Heated Purge: (Y/N) N Init. Calib. Times: 1024 1114

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	3766.401	3956.240	0.01	5.0	15.0
(2)	2494.427	2568.315	0.01	3.0	15.0
(3)	1515.492	1543.342	0.01	1.8	15.0
(4)	1493.163	1489.864	0.01	-0.2	15.0
(5)	2035.618	2080.426	0.01	2.2	15.0
Aroclor-1260	4084.417	4560.159	0.01	11.6	15.0
(2)	4968.902	5490.511	0.01	10.5	15.0
(3)	3788.418	4210.225	0.01	11.1	15.0
(4)	3953.106	4378.289	0.01	10.8	15.0
(5)	6227.437	6915.244	0.01	11.0	15.0
4cmx	86843.352	92798.530	0.01	6.8	15.0
Decachlorobiphenyl	64843.758	67383.900	0.01	3.9	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1648

Instrument ID: ECD8A Calibration Date: 02/10/10 Time: 1100

Lab File ID: 014F1401 Init. Calib. Date(s): 02/03/10 02/03/10

Heated Purge: (Y/N) N Init. Calib. Times: 1024 1114

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	4664.624	4711.063	0.01	1.0	15.0
(2)	5769.588	5825.156	0.01	1.0	15.0
(3)	2454.201	2468.656	0.01	0.6	15.0
(4)	2198.179	2199.731	0.01	0.1	15.0
(5)	3142.156	3183.356	0.01	1.3	15.0
Aroclor-1260	6738.969	6997.967	0.01	3.8	15.0
(2)	10259.796	10524.233	0.01	2.6	15.0
(3)	6129.851	6405.028	0.01	4.5	15.0
(4)	6385.867	6847.051	0.01	7.2	15.0
(5)	6859.759	7737.788	0.01	12.8	15.0
4cmx	131406.10	140473.16	0.01	6.9	15.0
Decachlorobiphenyl	99981.358	107299.14	0.01	7.3	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1648

Instrument ID: ECD8A Calibration Date: 02/10/10 Time: 1100

Lab File ID: 014B1401 Init. Calib. Date(s): 02/03/10 02/03/10

Heated Purge: (Y/N) N Init. Calib. Times: 1024 1114

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	3766.401	3605.868	0.01	-4.3	15.0
(2)	2494.427	2449.440	0.01	-1.8	15.0
(3)	1515.492	1472.722	0.01	-2.8	15.0
(4)	1493.163	1418.692	0.01	-5.0	15.0
(5)	2035.618	1984.387	0.01	-2.5	15.0
Aroclor-1260	4084.417	4340.015	0.01	6.2	15.0
(2)	4968.902	5208.072	0.01	4.8	15.0
(3)	3788.418	4004.843	0.01	5.7	15.0
(4)	3953.106	4159.377	0.01	5.2	15.0
(5)	6227.437	6624.128	0.01	6.4	15.0
4cmx	86843.352	88420.650	0.01	1.8	15.0
Decachlorobiphenyl	64843.758	64377.100	0.01	-0.7	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1648

Instrument ID: ECD8A Calibration Date: 02/10/10 Time: 1239

Lab File ID: 022F2201 Init. Calib. Date(s): 02/03/10 02/03/10

Heated Purge: (Y/N) N Init. Calib. Times: 1024 1114

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	4664.624	4641.317	0.01	-0.5	15.0
(2)	5769.588	5817.537	0.01	0.8	15.0
(3)	2454.201	2430.677	0.01	-1.0	15.0
(4)	2198.179	2145.267	0.01	-2.4	15.0
(5)	3142.156	3118.932	0.01	-0.7	15.0
Aroclor-1260	6738.969	6835.342	0.01	1.4	15.0
(2)	10259.796	10401.362	0.01	1.4	15.0
(3)	6129.851	6311.130	0.01	3.0	15.0
(4)	6385.867	6800.156	0.01	6.5	15.0
(5)	6859.759	7657.668	0.01	11.6	15.0
4cmx	131406.10	138566.23	0.01	5.4	15.0
Decachlorobiphenyl	99981.358	107377.69	0.01	7.4	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1648

Instrument ID: ECD8A Calibration Date: 02/10/10 Time: 1239

Lab File ID: 022B2201 Init. Calib. Date(s): 02/03/10 02/03/10

Heated Purge: (Y/N) N Init. Calib. Times: 1024 1114

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	3766.401	3754.225	0.01	-0.3	15.0
(2)	2494.427	2443.839	0.01	-2.0	15.0
(3)	1515.492	1471.737	0.01	-2.9	15.0
(4)	1493.163	1414.066	0.01	-5.3	15.0
(5)	2035.618	1980.787	0.01	-2.7	15.0
Aroclor-1260	4084.417	4341.343	0.01	6.3	15.0
(2)	4968.902	5226.733	0.01	5.2	15.0
(3)	3788.418	4017.340	0.01	6.0	15.0
(4)	3953.106	4192.305	0.01	6.0	15.0
(5)	6227.437	6652.075	0.01	6.8	15.0
4cmx	86843.352	88236.130	0.01	1.6	15.0
Decachlorobiphenyl	64843.758	64773.210	0.01	-0.1	15.0

FORM VII PEST

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/021010.b/002f0201.d
Lab Smp Id: WAR100203-60 01 Client Smp ID: AR166001
Inj Date : 10-FEB-2010 08:32
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR100203-60 01
Misc Info : |1660
Comment :
Method : /chem/ecd8a.i/021010.b/ECD8-F-8082-020310a.m
Meth Date : 10-Feb-2010 13:33 jen01212 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:25 Cal File: 036f3601.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.254	2.254	0.000	14236742	100.000	108	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.247	6.247	0.000	10390759	100.000	104	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.812	2.812	0.000	4728387	1000.00	1010	80.00- 120.00	100.00
3.165	3.165	0.000	6033608	1000.00	1040	105.34- 145.34	127.60
3.308	3.308	0.000	2499099	1000.00	1020	32.37- 72.37	52.85
3.401	3.401	0.000	2189238	1000.00	996	26.22- 66.22	46.30
3.562	3.562	0.000	3185891	1000.00	1010	47.20- 87.20	67.38
Average of Peak Amounts =					1.02e+03		
7 Aroclor-1260					CAS #: 11096-82-5		
4.437	4.437	0.000	6873767	1000.00	1020	80.00- 120.00	100.00
4.633	4.633	0.000	10253626	1000.00	999	132.17- 172.17	149.17
4.908	4.908	0.000	6067208	1000.00	990	72.33- 112.33	88.27
5.081	5.081	0.000	6442815	1000.00	1010	79.49- 119.49	93.73
5.491	5.491	0.000	7173614	1000.00	1040	92.03- 132.03	104.36
Average of Peak Amounts =					1.01e+03		

Data File: /chem/ecd8a.i/021010.b/0026f0201.d
Date : 10-FEB-2010 08:32
Client ID: AR166001
Sample Info: IWAR100203-60 01

Column phase: CLP1

Instrument: ecd8a.i

Operator: JAOC
Column diameter: 0.25

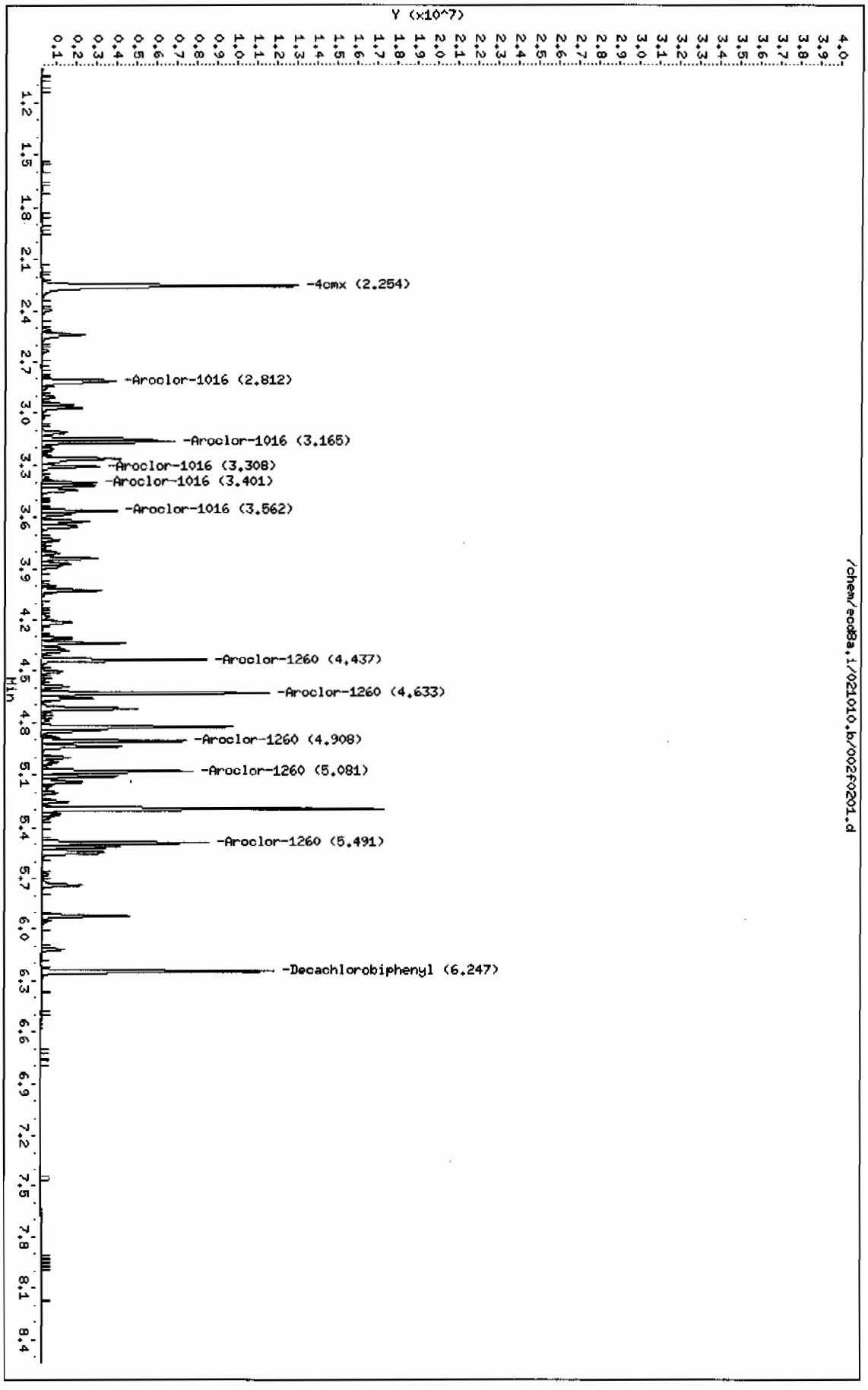

/chem/ecd8a.i/021010.b/0026f0201.d

Page 1

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RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/021010.b/002b0201.d
Lab Smp Id: WAR100203-60 01 Client Smp ID: AR166001
Inj Date : 10-FEB-2010 08:32
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR100203-60 01
Misc Info : |1660
Comment :
Method : /chem/ecd8a.i/021010.b/ECD8-B-8082-020310a.m
Meth Date : 10-Feb-2010 13:34 jen01212 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:25 Cal File: 036b3601.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.486	2.486	0.000	9279853	100.000	107	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.839	6.839	0.000	6738390	100.000	104	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.560	3.560	0.000	3956239	1000.00	1050	80.00- 120.00	100.00
3.660	3.660	0.000	2568315	1000.00	1030	45.10- 85.10	64.92
3.736	3.736	0.000	1543341	1000.00	1020	19.20- 59.20	39.01
3.811	3.811	0.000	1489863	1000.00	998	17.67- 57.67	37.66
4.007	4.007	0.000	2080426	1000.00	1020	32.76- 72.76	52.59
Average of Peak Amounts =					1.02e+03		
7 Aroclor-1260					CAS #: 11096-82-5		
4.921	4.921	0.000	4560158	1000.00	1120	80.00- 120.00	100.00
5.070	5.070	0.000	5490511	1000.00	1100	100.39- 140.39	120.40
5.387	5.387	0.000	4210224	1000.00	1110	72.54- 112.54	92.33
5.594	5.594	0.000	4378288	1000.00	1110	76.57- 116.57	96.01
6.026	6.026	0.000	6915243	1000.00	1110	133.23- 173.23	151.64
Average of Peak Amounts =					1.11e+03		

Data File: /chem/ecd8a.i/021010.b/002b0201.d

Date : 10-FEB-2010 08:32

Client ID: AR166001

Sample Info: IWAR100203-60 01

Column phase: CLP2

Instrument: ecd8a.i

Operator: JADC

Column diameter: 0.25

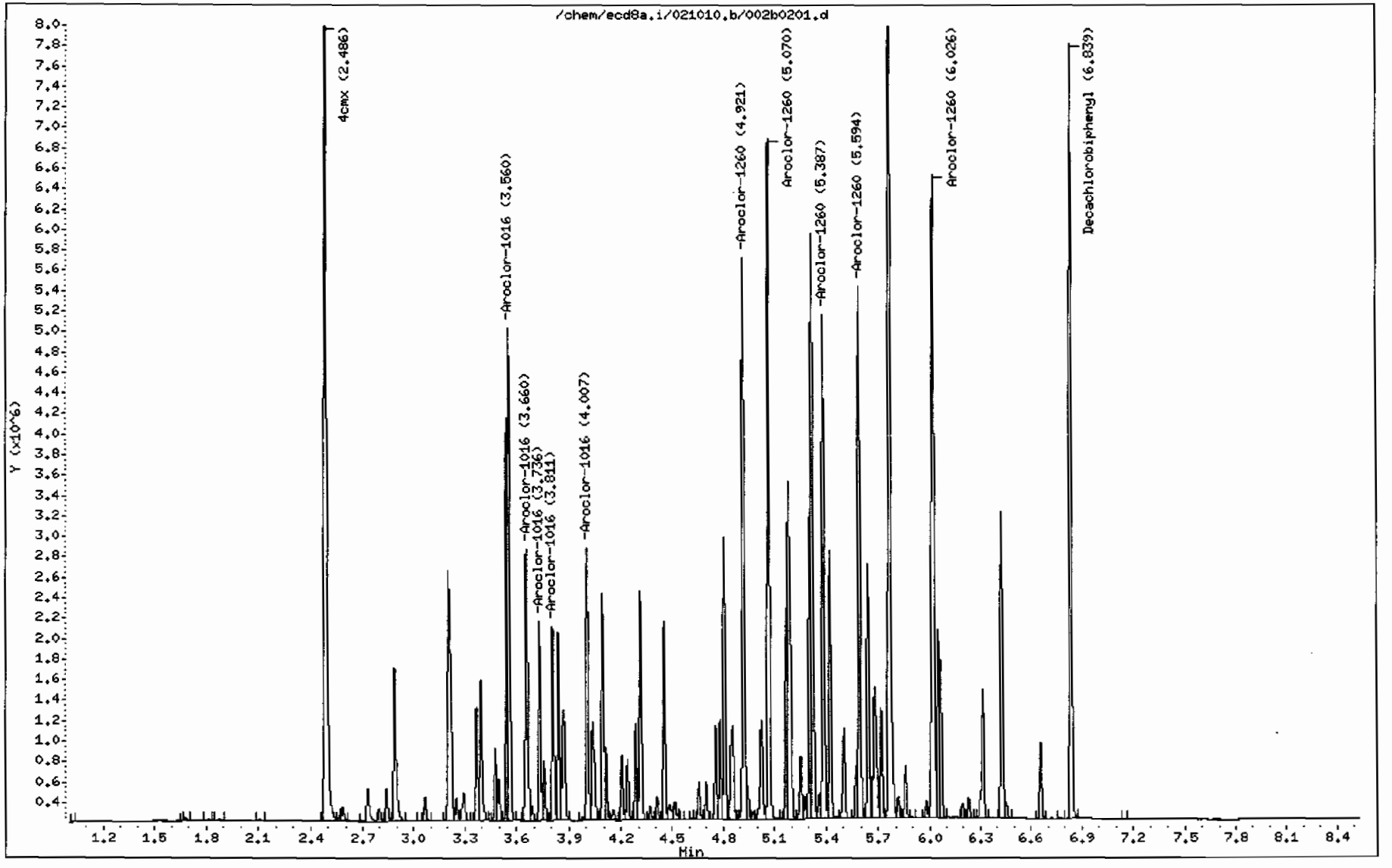

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/021010.b/003f0301.d
Lab Smp Id: WAR100201-54 Client Smp ID: AR125401
Inj Date : 10-FEB-2010 08:44
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR100201-54
Misc Info : |1254
Comment :
Method : /chem/ecd8a.i/021010.b/ECD8-F-8082-020310a.m
Meth Date : 10-Feb-2010 13:33 jen01212 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:25 Cal File: 036f3601.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1254.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
6 Aroclor-1254					CAS #: 11097-69-1		
3.837	3.837	0.000	5101877	1000.00	1070	80.00- 120.00	100.00
4.025	4.025	0.000	6879896	1000.00	1050	114.85- 154.85	134.85
4.221	4.221	0.000	5293616	1000.00	1030	83.76- 123.76	103.76
4.307	4.307	0.000	9087624	1000.00	1030	158.12- 198.12	178.12
4.503	4.503	0.000	7048150	1000.00	1020	118.15- 158.15	138.15

Average of Peak Amounts = 1.04e+03

Data File: /chem/ecd8a.i/021010.b/003f0301.d
Date : 10-FEB-2010 08:44
Client ID: AR125401
Sample Info: IWAR100201-54

Column phase: CLP1

Instrument: ecd8a.i

Operator: JAOC
Column diameter: 0.25

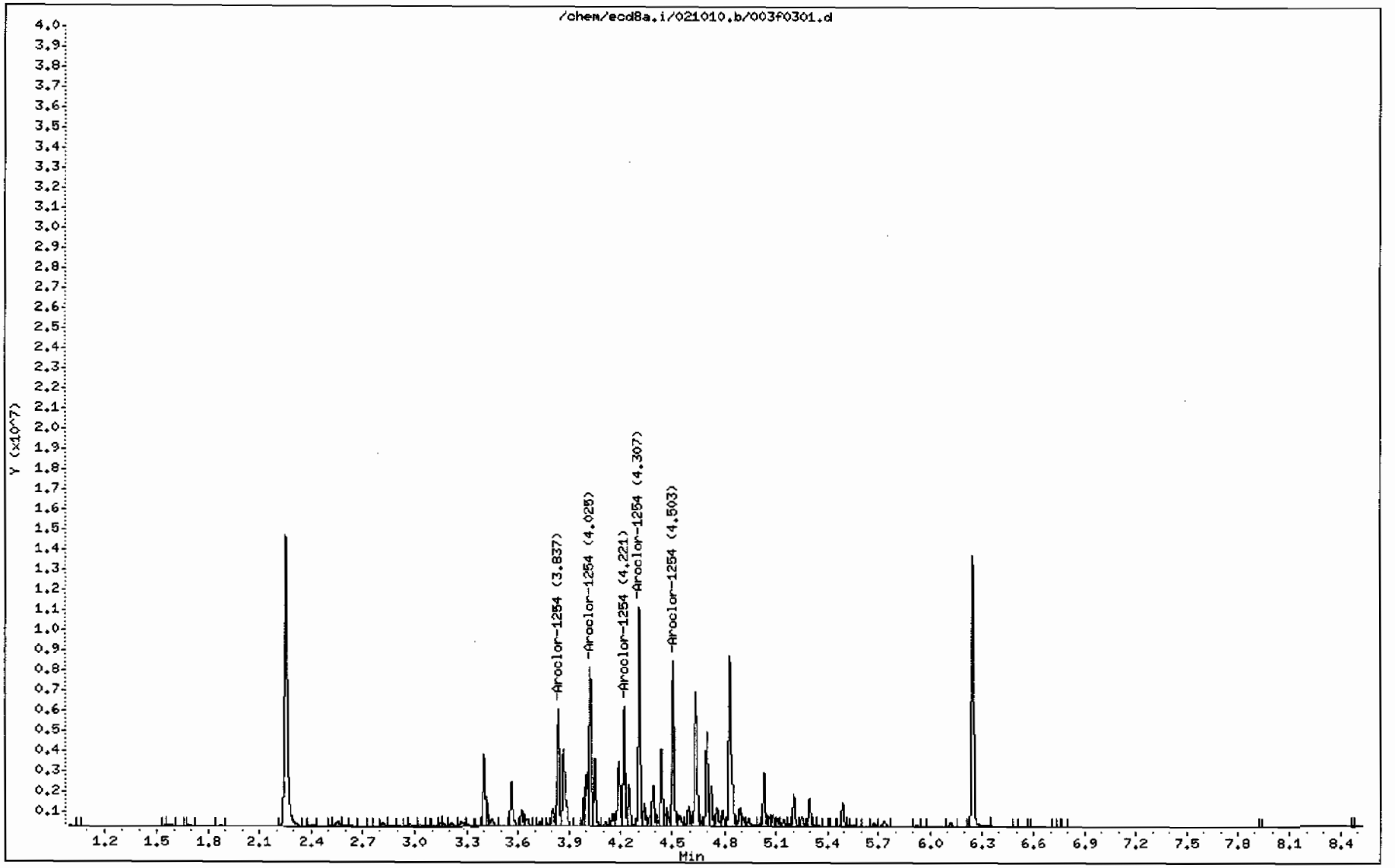

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/021010.b/003b0301.d
Lab Smp Id: WAR100201-54 Client Smp ID: AR125401
Inj Date : 10-FEB-2010 08:44
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR100201-54
Misc Info : |1254
Comment :
Method : /chem/ecd8a.i/021010.b/ECD8-B-8082-020310a.m
Meth Date : 10-Feb-2010 13:34 jen01212 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:25 Cal File: 036b3601.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1254.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
6 Aroclor-I254					CAS #: 11097-69-1		
4.314	4.314	0.000	3755038	1000.00	1090	80.00- 120.00	100.00
4.452	4.452	0.000	4215493	1000.00	1080	92.26- 132.26	112.26
4.782	4.782	0.000	5999075	1000.00	1090	139.76- 179.76	159.76
4.943	4.943	0.000	4319272	1000.00	1080	95.03- 135.03	115.03
5.069	5.069	0.000	2739695	1000.00	1070	52.96- 92.96	72.96

Average of Peak Amounts = 1.08e+03

Data File: /chem/ecd8a.i/021010.b/003b0301.d
Date : 10-FEB-2010 08:44
Client ID: AR125401
Sample Info: IWAR100201-54

Column phase: CLP2

Instrument: ecd8a.i

Operator: JAOC
Column diameter: 0.25

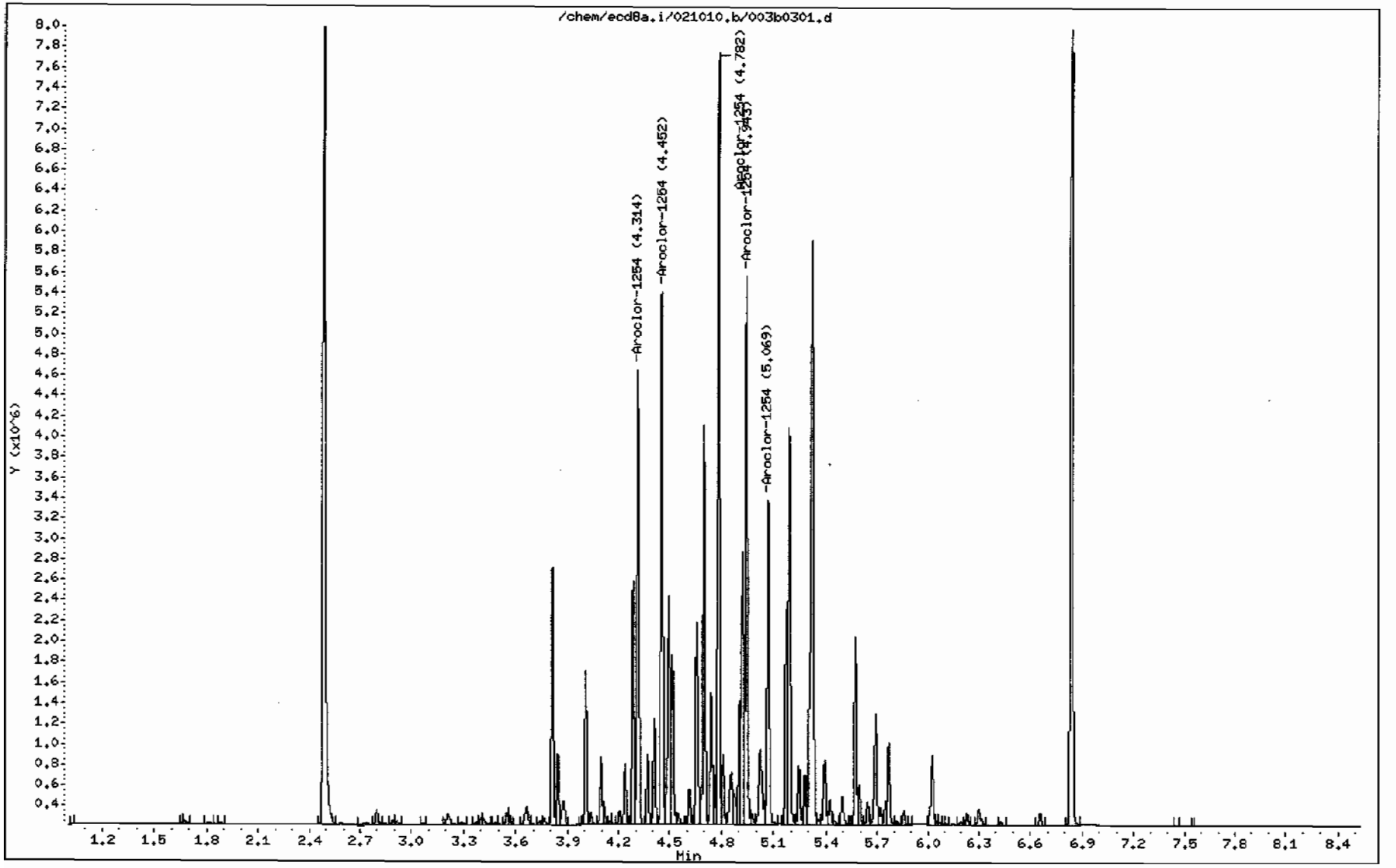

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/021010.b/004f0401.d
Lab Smp Id: WAR091217-42 Client Smp ID: AR124201
Inj Date : 10-FEB-2010 08:56
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR091217-42
Misc Info : |1242
Comment :
Method : /chem/ecd8a.i/021010.b/ECD8-F-8082-020310a.m
Meth Date : 10-Feb-2010 13:33 jen01212 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:25 Cal File: 036f3601.d
Als bottle: 4 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1242.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
4 Aroclor-1242					CAS #: 53469-21-9		
2.813	2.813	0.000	4074174	1000.00	1020	80.00- 120.00	100.00
3.165	3.165	0.000	4919933	1000.00	1020	100.76- 140.76	120.76
3.401	3.401	0.000	1781366	1000.00	987	23.72- 63.72	43.72
3.418	3.418	0.000	1914890	1000.00	1010	27.00- 67.00	47.00
3.563	3.563	0.000	2666555	1000.00	1010	45.45- 85.45	65.45

Average of Peak Amounts = 1.01e+03

Data File: /chem/ecd8a.i/021010.b/004f0401.d

Date : 10-FEB-2010 08:56

Client ID: AR124201

Sample Info: IWAR091217-42

Column phase: CLP1

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25

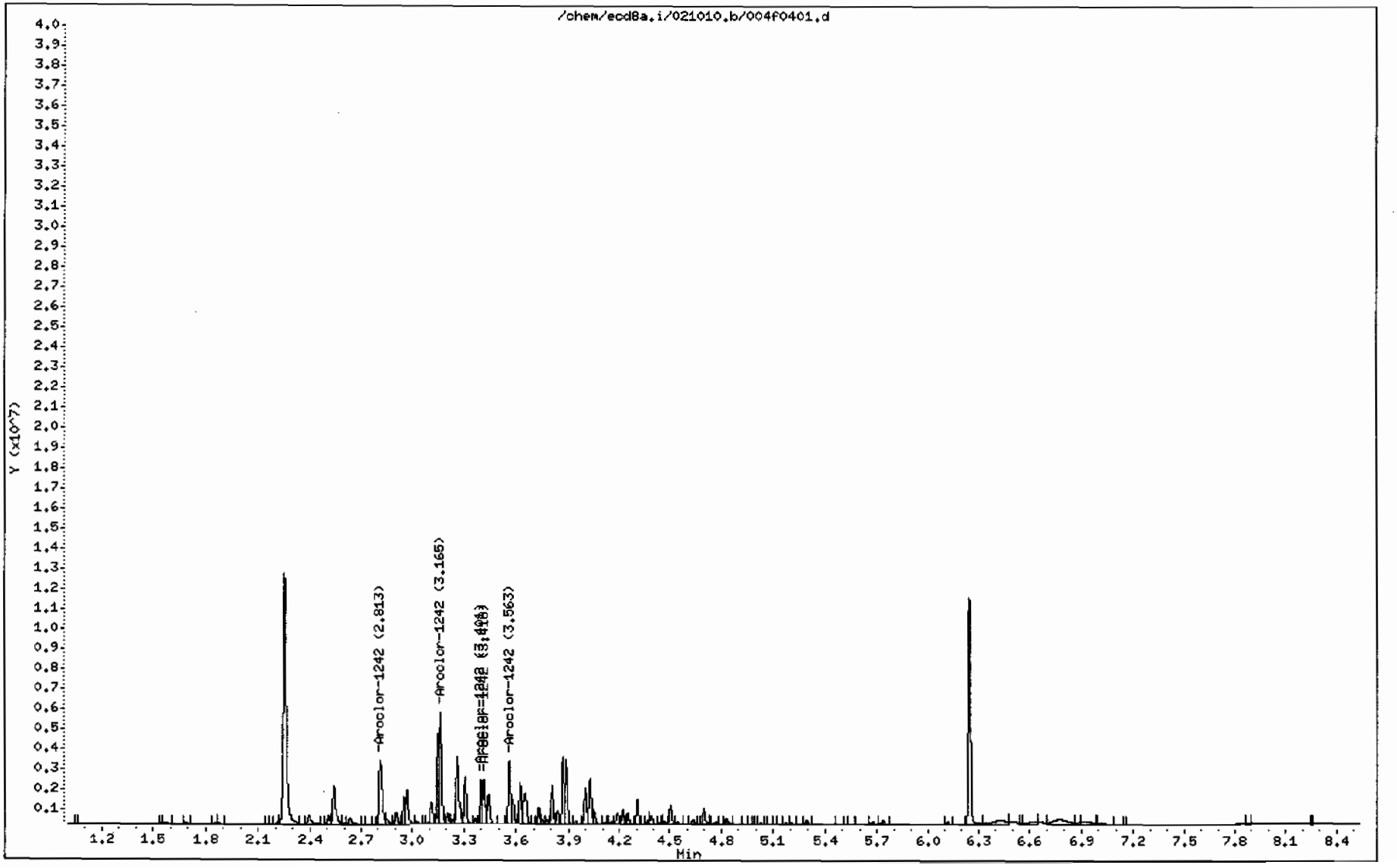

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/021010.b/004b0401.d
Lab Smp Id: WAR091217-42 Client Smp ID: AR124201
Inj Date : 10-FEB-2010 08:56
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR091217-42
Misc Info : |1242
Comment :
Method : /chem/ecd8a.i/021010.b/ECD8-B-8082-020310a.m
Meth Date : 10-Feb-2010 13:34 jen01212 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:25 Cal File: 036b3601.d
Als bottle: 4 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1242.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
4 Aroclor-1242					CAS #: 53469-21-9		
3.207	3.207	0.000	2702546	1000.00	1010	80.00- 120.00	100.00
3.561	3.561	0.000	3216588	1000.00	1030	99.02- 139.02	119.02
3.660	3.660	0.000	2193445	1000.00	1030	61.16- 101.16	81.16
4.007	4.007	0.000	1721256	1000.00	1010	43.69- 83.69	63.69
4.097	4.097	0.000	1622066	1000.00	1040	40.02- 80.02	60.02

Average of Peak Amounts = 1.02e+03

Data File: /chem/ecd8a.i/021010.b/004b0401.d
Date : 10-FEB-2010 08:56
Client ID: AR124201
Sample Info: !WAR091217-42

Column phase: CLP2

Instrument: ecd8a.i

Operator: JAOC
Column diameter: 0.25

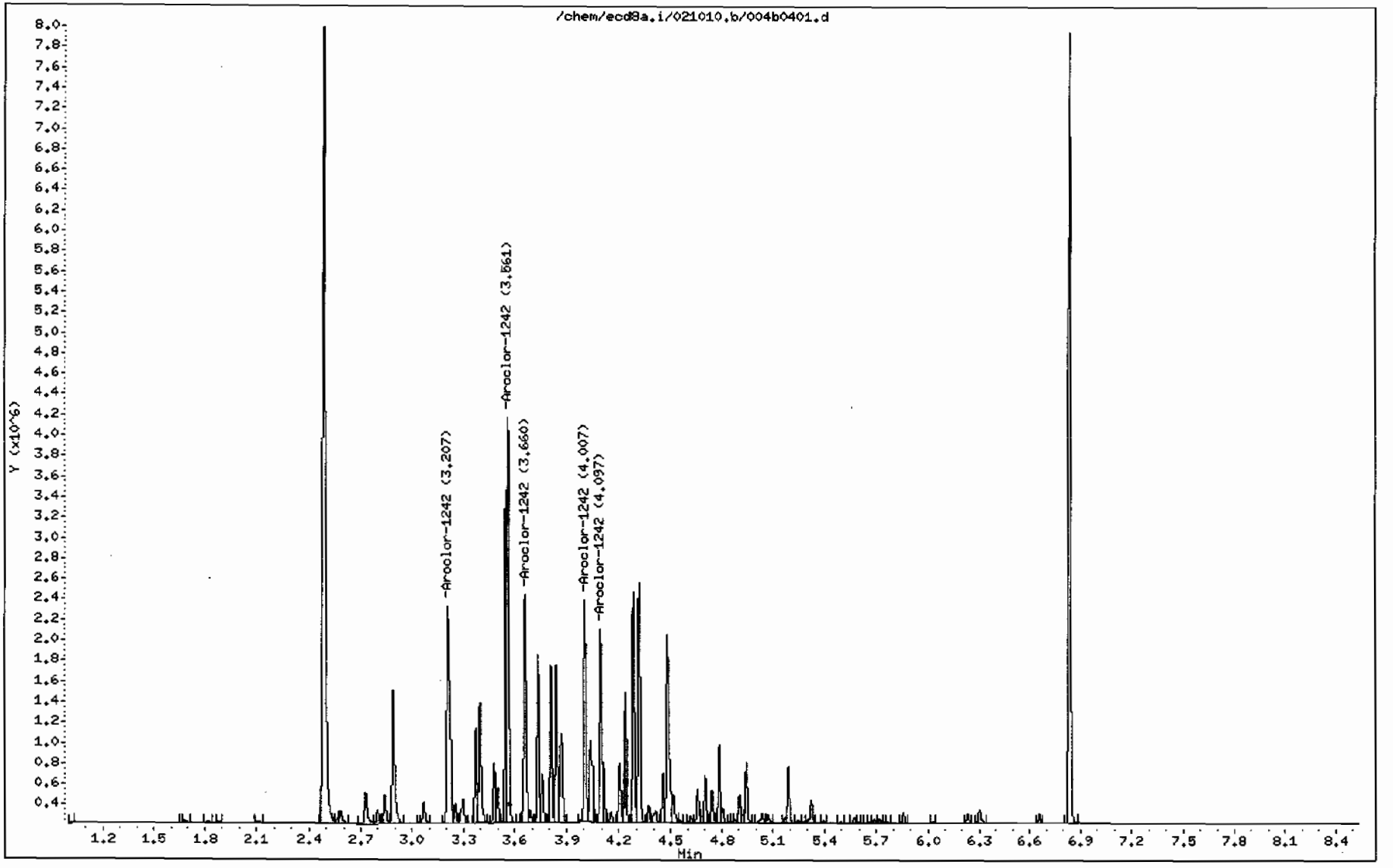

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/021010.b/005f0501.d
Lab Smp Id: WAR091217-48 Client Smp ID: AR124801
Inj Date : 10-FEB-2010 09:09
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR091217-48
Misc Info : |1248
Comment :
Method : /chem/ecd8a.i/021010.b/ECD8-F-8082-020310a.m
Meth Date : 10-Feb-2010 13:33 jen01212 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:25 Cal File: 036f3601.d
Als bottle: 5 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1248.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 Aroclor-1248					CAS #: 12672-29-6		
3.150	3.150	0.000	2777021	1000.00	929	80.00- 120.00	100.00
3.401	3.401	0.000	3480821	1000.00	910	105.34- 145.34	125.34
3.562	3.562	0.000	4616426	1000.00	923	146.24- 186.24	166.24
3.869	3.869	0.000	5529161	1000.00	923	179.10- 219.10	199.10
4.028	4.028	0.000	4430910	1000.00	918	139.56- 179.56	159.56
Average of Peak Amounts =					921		

Data File: /chem/ecd8a.i/021010.b/005f0501.d

Date : 10-FEB-2010 09:09

Client ID: AR124801

Sample Info: IWAR091217-48

Column phase: CLP1

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25

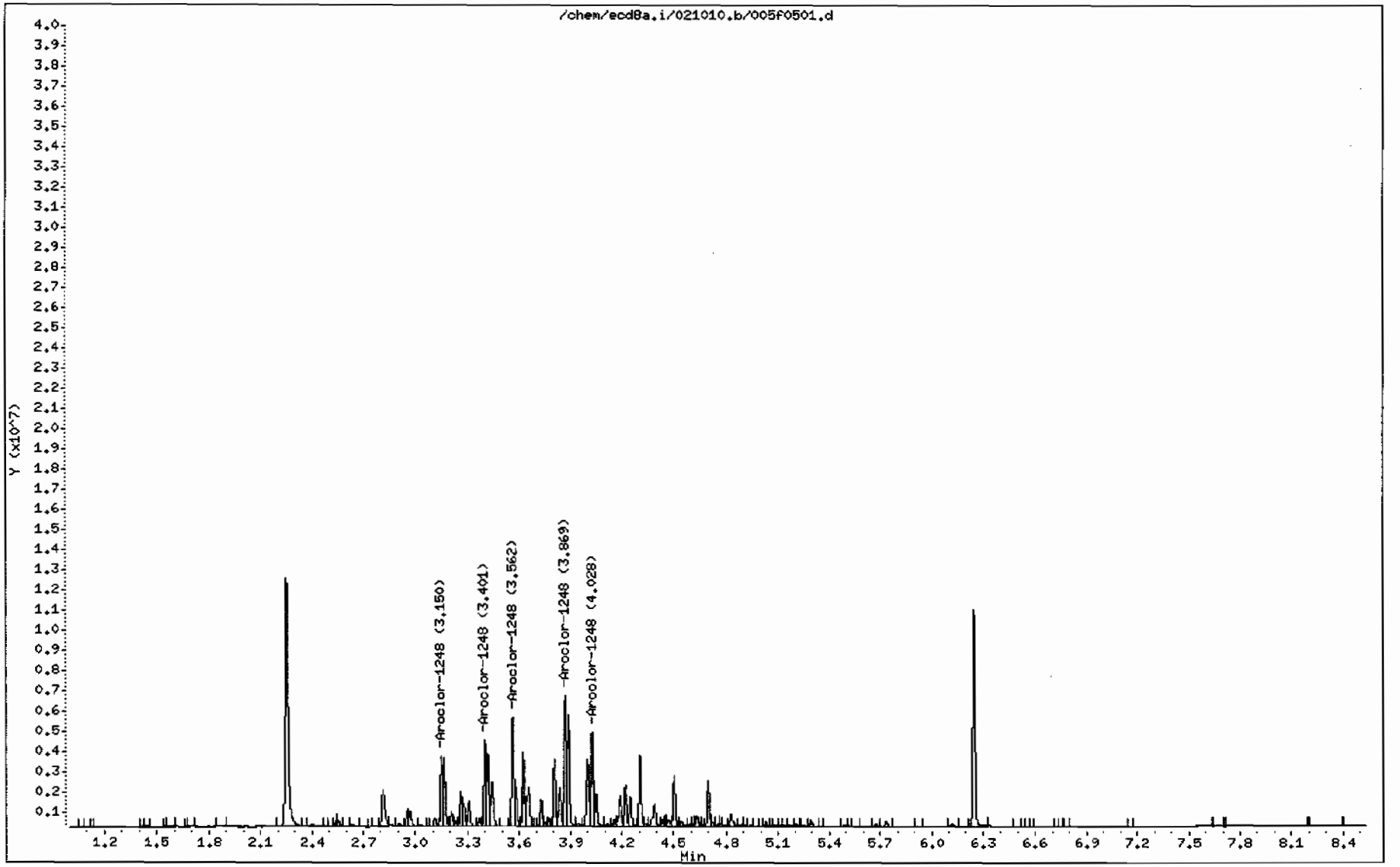

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/021010.b/005b0501.d
Lab Smp Id: WAR091217-48 Client Smp ID: AR124801
Inj Date : 10-FEB-2010 09:09
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR091217-48
Misc Info : |1248
Comment :
Method : /chem/ecd8a.i/021010.b/ECD8-B-8082-020310a.m
Meth Date : 10-Feb-2010 13:34 jen01212 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:25 Cal File: 036b3601.d
Als bottle: 5 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1248.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 Aroclor-1248					CAS #: 12672-29-6		
3.659	3.659	0.000	1350762	1000.00	947	80.00- 120.00	100.00
3.811	3.811	0.000	2276552	1000.00	923	148.54- 188.54	168.54
4.007	4.007	0.000	2890618	1000.00	936	194.00- 234.00	214.00
4.285	4.285	0.000	3369719	1000.00	924	229.47- 269.47	249.47
4.317	4.317	0.000	3695677	1000.00	923	253.60- 293.60	273.60
Average of Peak Amounts					930		

Data File: /chem/ecd8a.i/021010.b/005b0501.d
Date : 10-FEB-2010 09:09
Client ID: AR124801
Sample Info: IWAR091217-48

Column phase: CLP2

Instrument: ecd8a.i

Operator: JAOC
Column diameter: 0.25

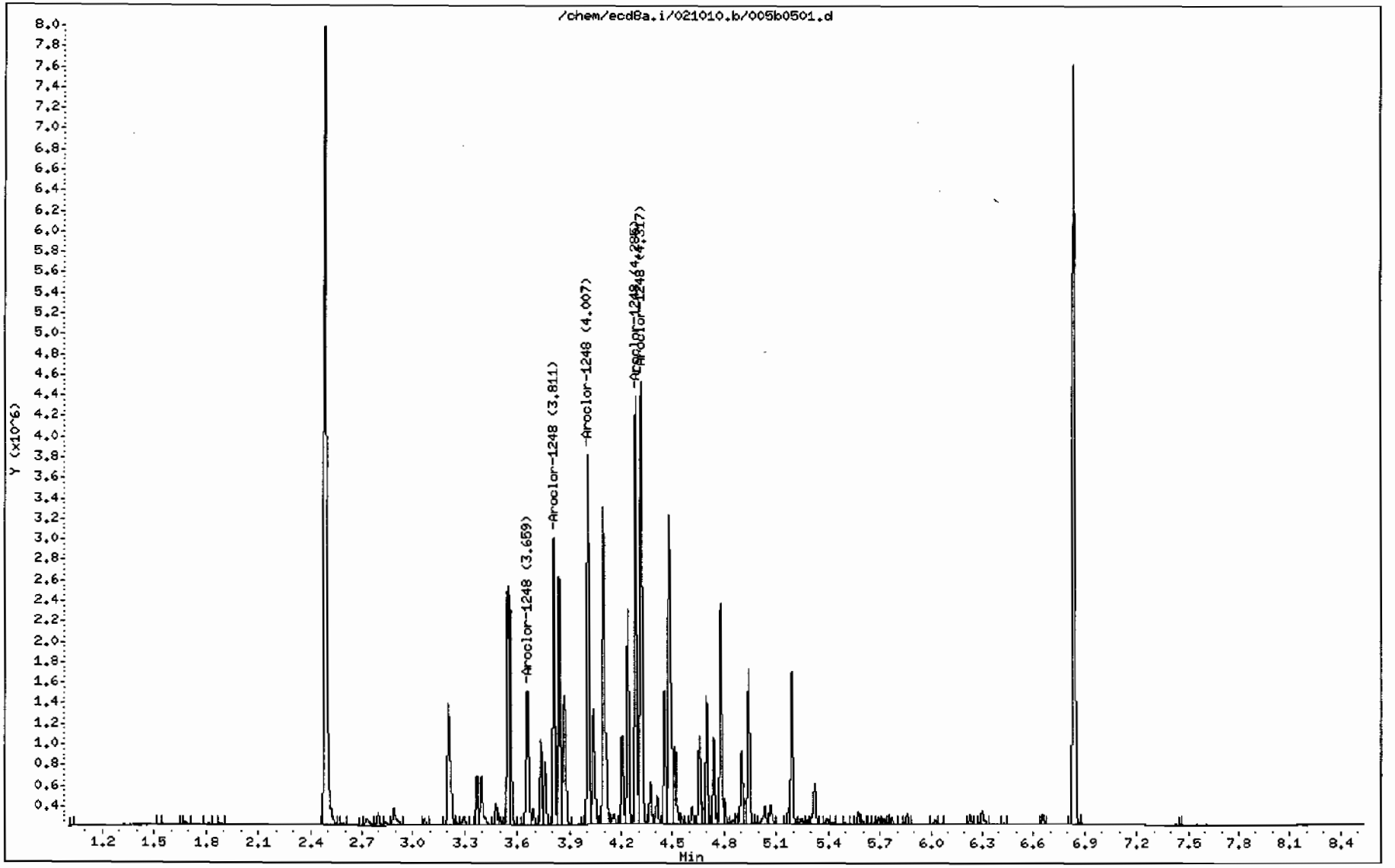

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/021010.b/006f0601.d
Lab Smp Id: WAR100104-32 Client Smp ID: AR123201
Inj Date : 10-FEB-2010 09:21
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR100104-32
Misc Info : |1232
Comment :
Method : /chem/ecd8a.i/021010.b/ECD8-F-8082-020310a.m
Meth Date : 10-Feb-2010 13:33 jen01212 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:25 Cal File: 036f3601.d
Als bottle: 6 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1232.sub
Target Version: 3.50 Sample Matrix: None

				AMOUNTS			
				CAL-AMT	ON-COL		
RT	EXP RT	DLT RT	RESPONSE	(ug/L)	(ug/L)	TARGET RANGE	RATIO
3 Aroclor-1232					CAS #: 11141-16-5		
2.541	2.541	0.000	2752672	1000.00	1060	80.00- 120.00	100.00
2.813	2.813	0.000	2387006	1000.00	1060	66.72- 106.72	86.72
3.309	3.309	0.000	1254305	1000.00	1010	25.57- 65.57	45.57
3.563	3.563	0.000	1505365	1000.00	1020	34.69- 74.69	54.69
3.625	3.625	0.000	909556	1000.00	986	13.04- 53.04	33.04

Average of Peak Amounts = 1.03e+03

Data File: /chem/ecd8a.i/021010.b/006f0601.d

Date : 10-FEB-2010 09:21

Client ID: AR123201

Sample Info: !WAR100104-32

Column phase: CLP1

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25

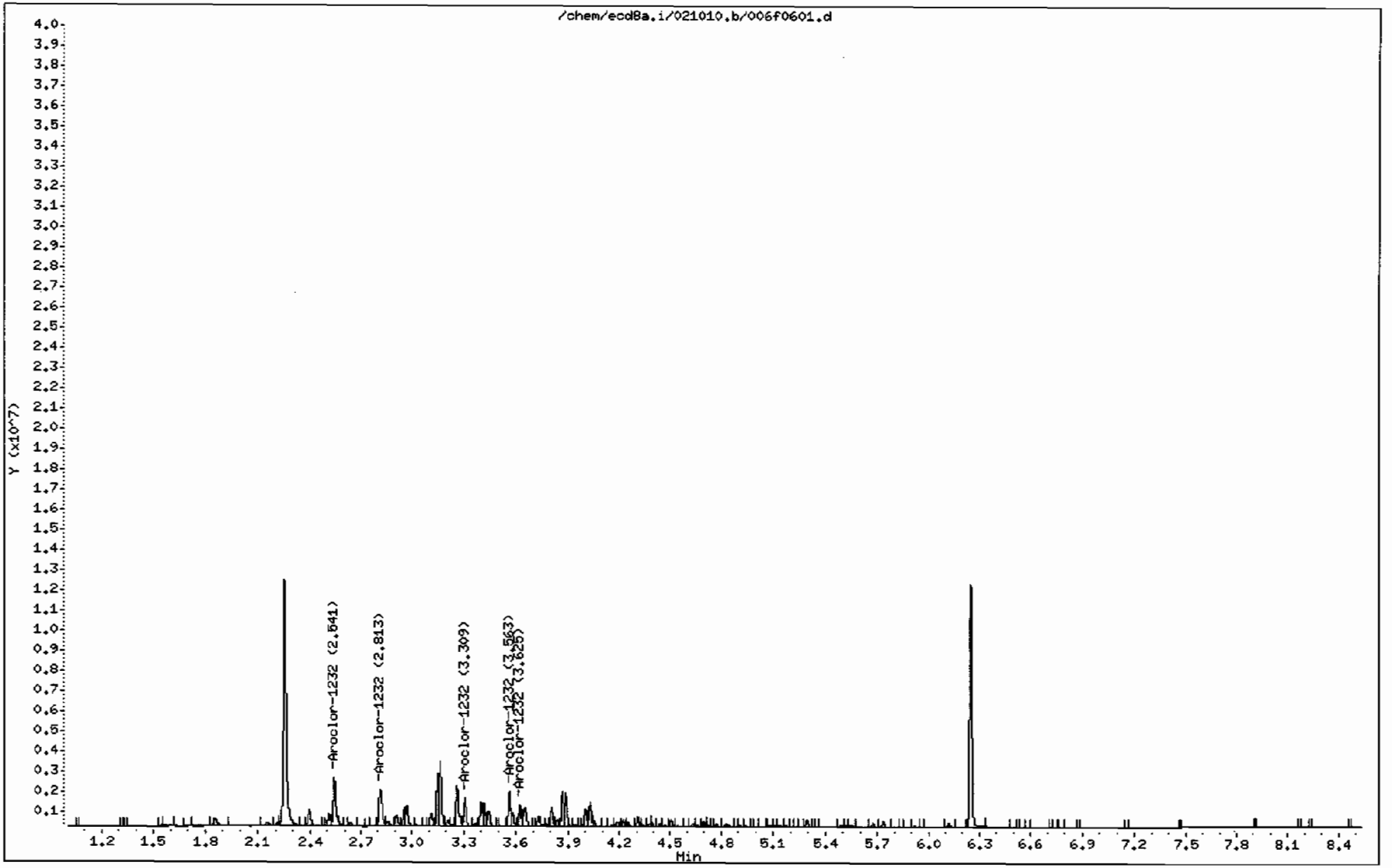

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/021010.b/006b0601.d
Lab Smp Id: WAR100104-32 Client Smp ID: AR123201
Inj Date : 10-FEB-2010 09:21
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR100104-32
Misc Info : |1232
Comment :
Method : /chem/ecd8a.i/021010.b/ECD8-B-8082-020310a.m
Meth Date : 10-Feb-2010 13:34 jen01212 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:25 Cal File: 036b3601.d
Als bottle: 6 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1232.sub
Target Version: 3.50 Sample Matrix: None

				AMOUNTS			
				CAL-AMT	ON-COL		
RT	EXP RT	DLT RT	RESPONSE	(ug/L)	(ug/L)	TARGET RANGE	RATIO
3 Aroclor-1232					CAS #: 11141-16-5		
3.207	3.207	0.000	1634342	1000.00	1080	80.00- 120.00	100.00
3.561	3.561	0.000	1868294	1000.00	1070	94.31- 134.31	114.31
3.661	3.661	0.000	1285542	1000.00	1090	58.66- 98.66	78.66
3.736	3.736	0.000	760861	1000.00	1070	26.55- 66.55	46.55
3.811	3.811	0.000	657695	1000.00	1060	20.24- 60.24	40.24

Average of Peak Amounts = 1.08e+03

Data File: /chem/ecd8a.i/021010.b/006b0601.d

Date : 10-FEB-2010 09:21

Client ID: AR123201

Sample Info: IWAR100104-32

Column phase: CLP2

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25

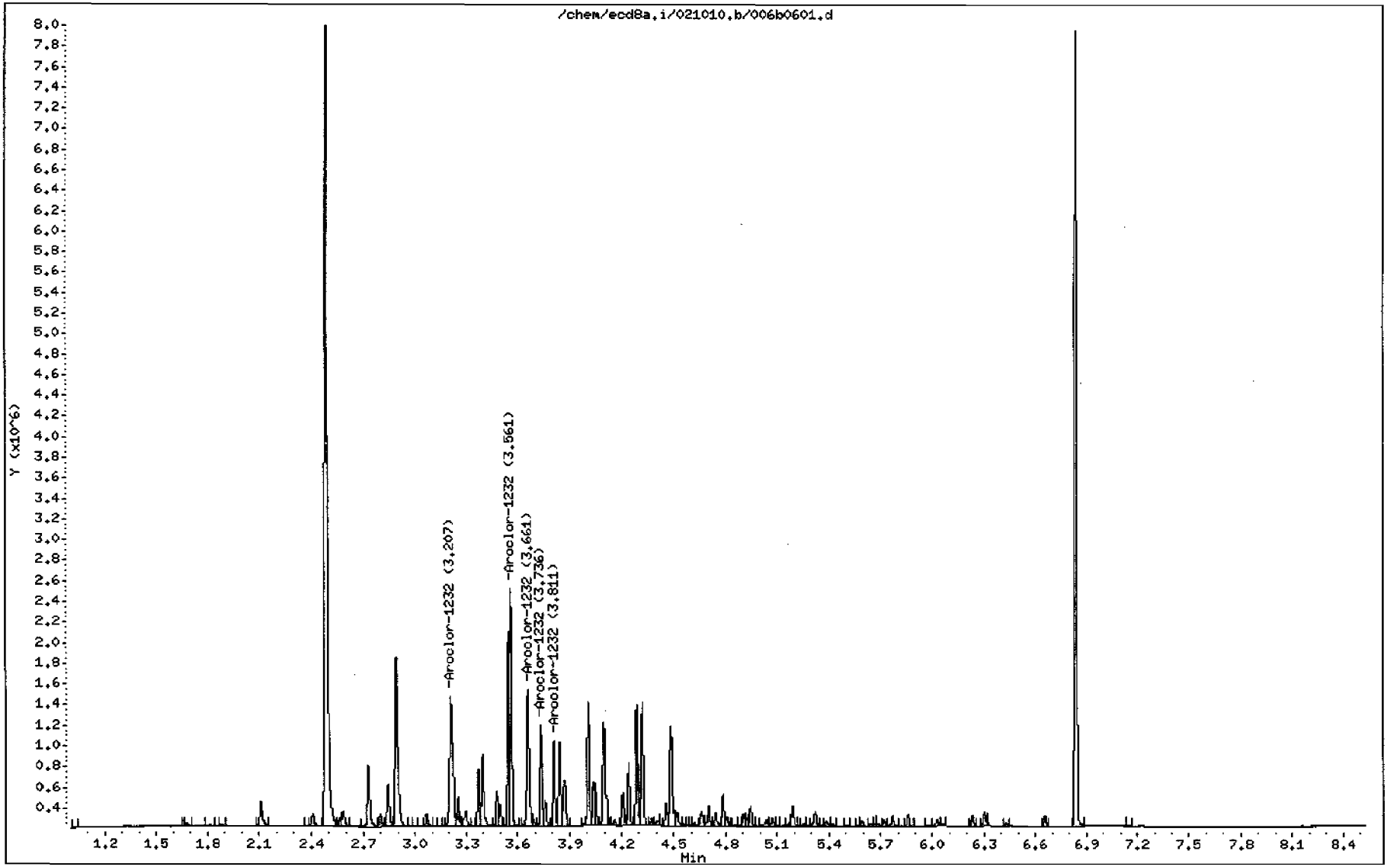

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/021010.b/007f0701.d
Lab Smp Id: WAR100104-21 Client Smp ID: AR122101
Inj Date : 10-FEB-2010 09:34
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR100104-21
Misc Info : |1221
Comment :
Method : /chem/ecd8a.i/021010.b/ECD8-F-8082-020310a.m
Meth Date : 10-Feb-2010 13:33 jen01212 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:25 Cal File: 036f3601.d
Als bottle: 7 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1221.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
2 Aroclor-1221					CAS #: 11104-28-2		
1.855	1.855	0.000	1156017	1000.00	1050	80.00- 120.00	100.00
2.395	2.395	0.000	1529107	1000.00	1050	112.27- 152.27	132.27
2.541	2.541	0.000	3508082	1000.00	1040	283.46- 323.46	303.46

Average of Peak Amounts = 1.04e+03

Data File: /chem/ecd8a.i/021010.b/007f0701.d

Date : 10-FEB-2010 09:34

Client ID: AR122101

Sample Info: IWAR100104-21

Column phase: CLP1

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25

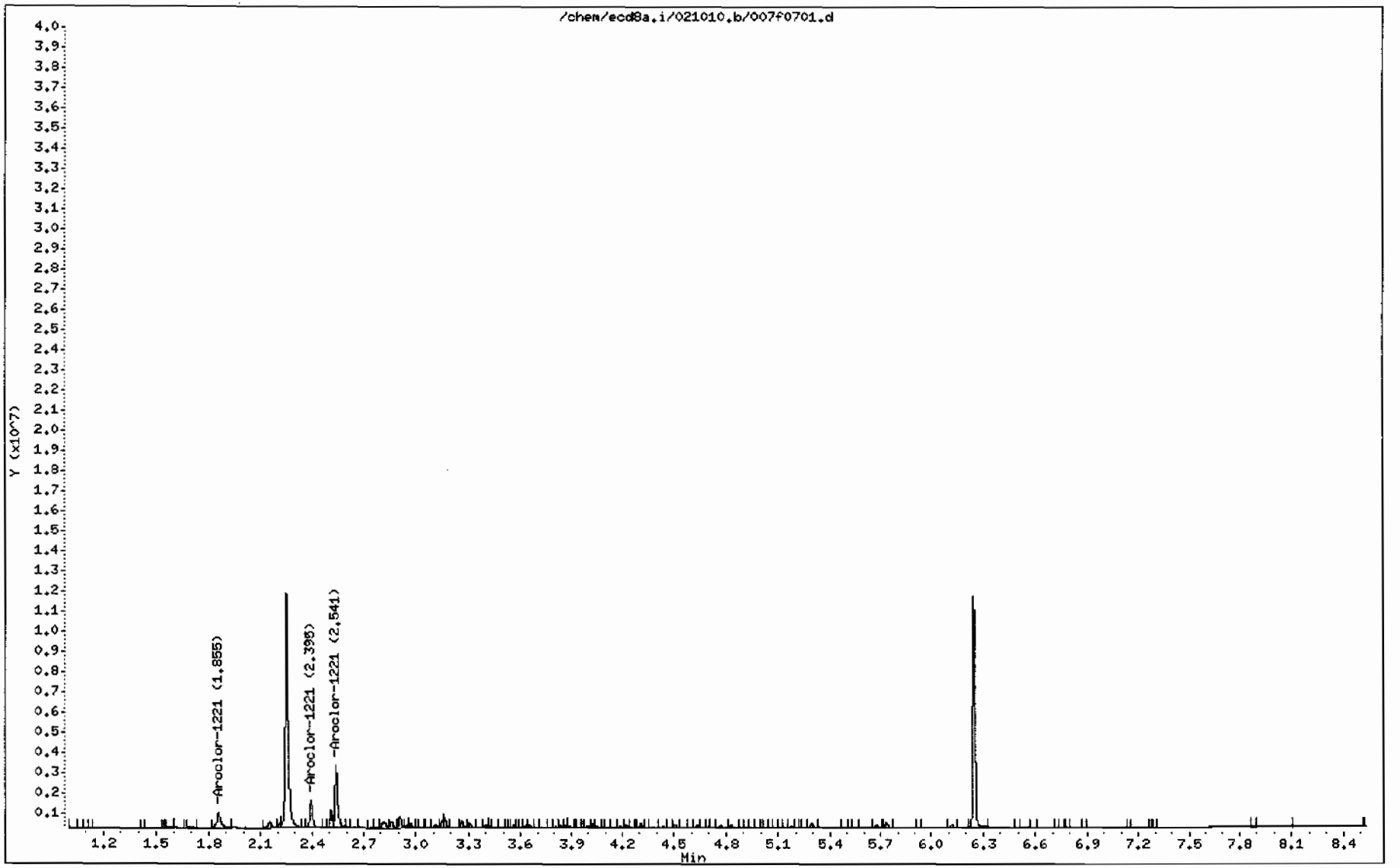

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/021010.b/007b0701.d
Lab Smp Id: WAR100104-21 Client Smp ID: AR122101
Inj Date : 10-FEB-2010 09:34
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR100104-21
Misc Info : |1221
Comment :
Method : /chem/ecd8a.i/021010.b/ECD8-B-8082-020310a.m
Meth Date : 10-Feb-2010 13:34 jen01212 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:25 Cal File: 036b3601.d
Als bottle: 7 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1221.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
2 Aroclor-1221					CAS #: 11104-28-2		
2.727	2.727	0.000	1030132	1000.00	1150	80.00- 120.00	100.00
2.840	2.840	0.000	614516	1000.00	1100	39.65- 79.65	59.65
2.889	2.889	0.000	2205750	1000.00	1070	194.12- 234.12	214.12

Average of Peak Amounts = 1.11e+03

Data File: /chem/ecd8a.i/021010.b/007b0701.d

Date : 10-FEB-2010 09:34

Client ID: AR122101

Sample Info: IWAR100104-21

Column phase: CLP2

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25

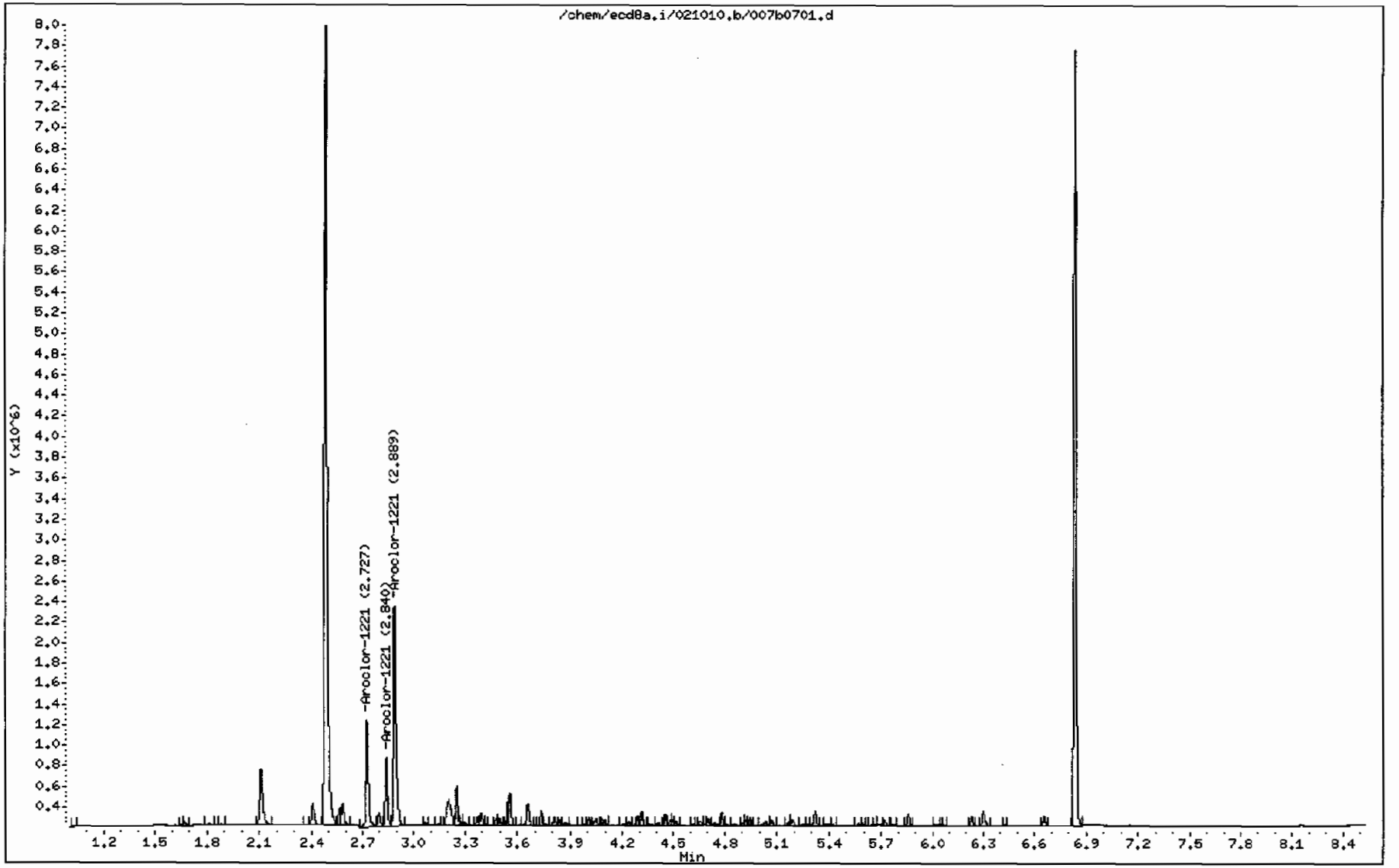

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/021010.b/014f1401.d
Lab Smp Id: WAR100203-60 02 Client Smp ID: AR166002
Inj Date : 10-FEB-2010 11:00
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR100203-60 02
Misc Info : |1660
Comment :
Method : /chem/ecd8a.i/021010.b/ECD8-F-8082-020310a.m
Meth Date : 10-Feb-2010 13:33 jen01212 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:25 Cal File: 036f3601.d
Als bottle: 14 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.255	2.254	0.001	14047316	100.000	107	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.247	6.247	0.000	10729914	100.000	107	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.812	2.812	0.000	4711063	1000.00	1010	80.00- 120.00	100.00
3.165	3.165	0.000	5825155	1000.00	1010	105.34- 145.34	123.65
3.308	3.308	0.000	2468655	1000.00	1000	32.37- 72.37	52.40
3.401	3.401	0.000	2199731	1000.00	1000	26.22- 66.22	46.69
3.562	3.562	0.000	3183355	1000.00	1010	47.20- 87.20	67.57
Average of Peak Amounts =					1.01e+03		
7 Aroclor-1260					CAS #: 11096-82-5		
4.437	4.437	0.000	6997966	1000.00	1040	80.00- 120.00	100.00
4.632	4.633	-0.001	10524233	1000.00	1020	132.17- 172.17	150.39
4.908	4.908	0.000	6405028	1000.00	1040	72.33- 112.33	91.53
5.080	5.081	-0.001	6847051	1000.00	1070	79.49- 119.49	97.84
5.492	5.491	0.001	7737788	1000.00	1130	92.03- 132.03	110.57
Average of Peak Amounts =					1.06e+03		

Data File: /chem/ecd8a.i/021010.b/014f1401.d

Date : 10-FEB-2010 11:00

Client ID: AR166002

Sample Info: IWAR100203-60 02

Column phase: CLP1

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25

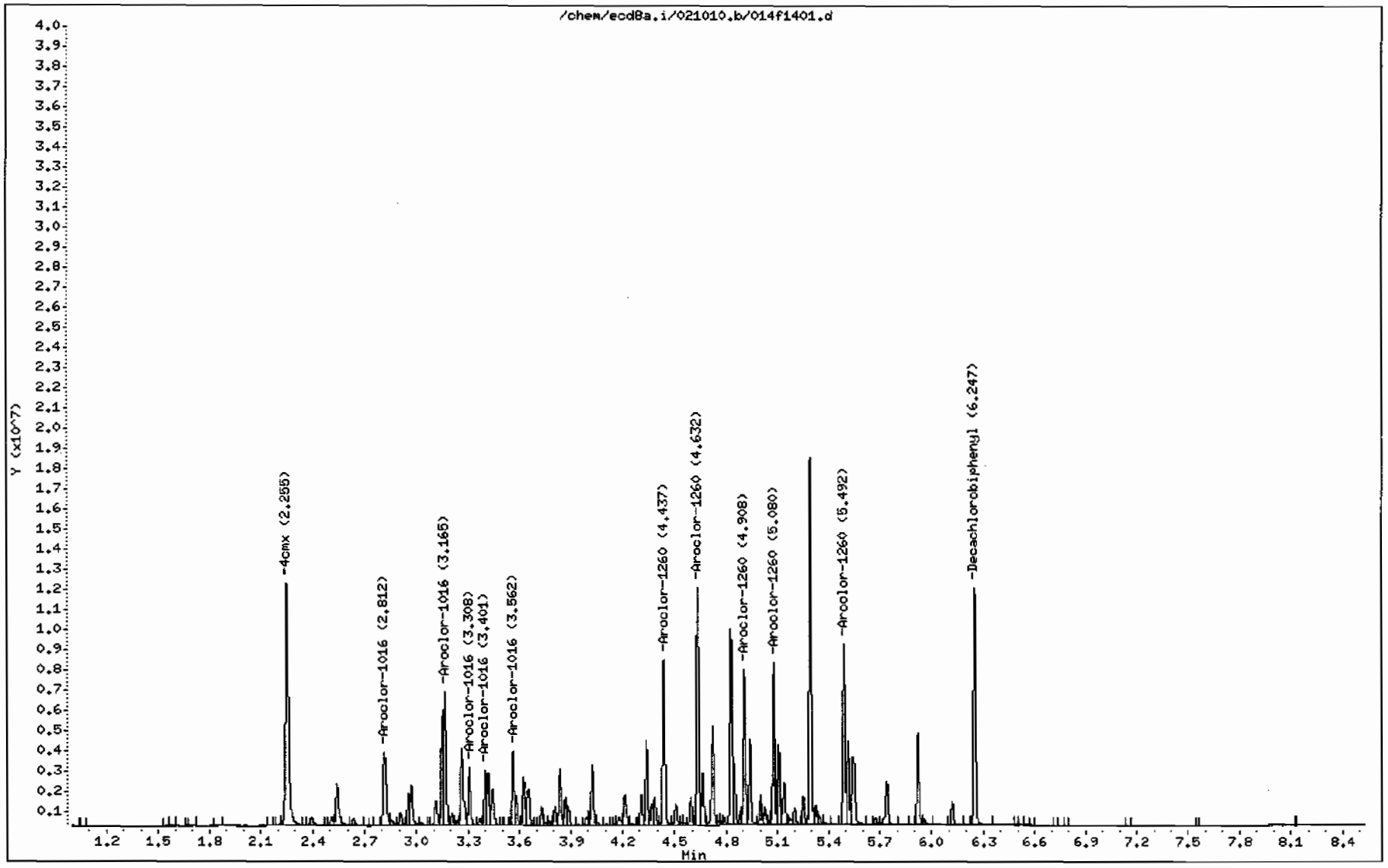

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/021010.b/014b1401.d
Lab Smp Id: WAR100203-60 02 Client Smp ID: AR166002
Inj Date : 10-FEB-2010 11:00
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR100203-60 02
Misc Info : |1660
Comment :
Method : /chem/ecd8a.i/021010.b/ECD8-B-8082-020310a.m
Meth Date : 10-Feb-2010 13:34 jen01212 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:25 Cal File: 036b3601.d
Als bottle: 14 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.487	2.486	0.001	8842065	100.000	102	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.838	6.839	-0.001	6437710	100.000	99.3	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.561	3.560	0.001	3605867	1000.00	957	80.00- 120.00	100.00
3.660	3.660	0.000	2449440	1000.00	982	45.10- 85.10	67.93
3.736	3.736	0.000	1472722	1000.00	972	19.20- 59.20	40.84
3.811	3.811	0.000	1418691	1000.00	950	17.67- 57.67	39.34
4.007	4.007	0.000	1984386	1000.00	975	32.76- 72.76	55.03
Average of Peak Amounts =					967		
7 Aroclor-1260					CAS #: 11096-82-5		
4.921	4.921	0.000	4340014	1000.00	1060	80.00- 120.00	100.00
5.069	5.070	-0.001	5208072	1000.00	1050	100.39- 140.39	120.00
5.387	5.387	0.000	4004843	1000.00	1060	72.54- 112.54	92.28
5.593	5.594	-0.001	4159376	1000.00	1050	76.57- 116.57	95.84
6.025	6.026	-0.001	6624127	1000.00	1060	133.23- 173.23	152.63
Average of Peak Amounts =					1.06e+03		

Data File: /chem/ecd8a.i/021010.b/014b1401.d
Date : 10-FEB-2010 11:00
Client ID: AR166002
Sample Info: IWAR100203-60 02

Column phase: CLP2

Instrument: ecd8a.i

Operator: JAOC
Column diameter: 0.25

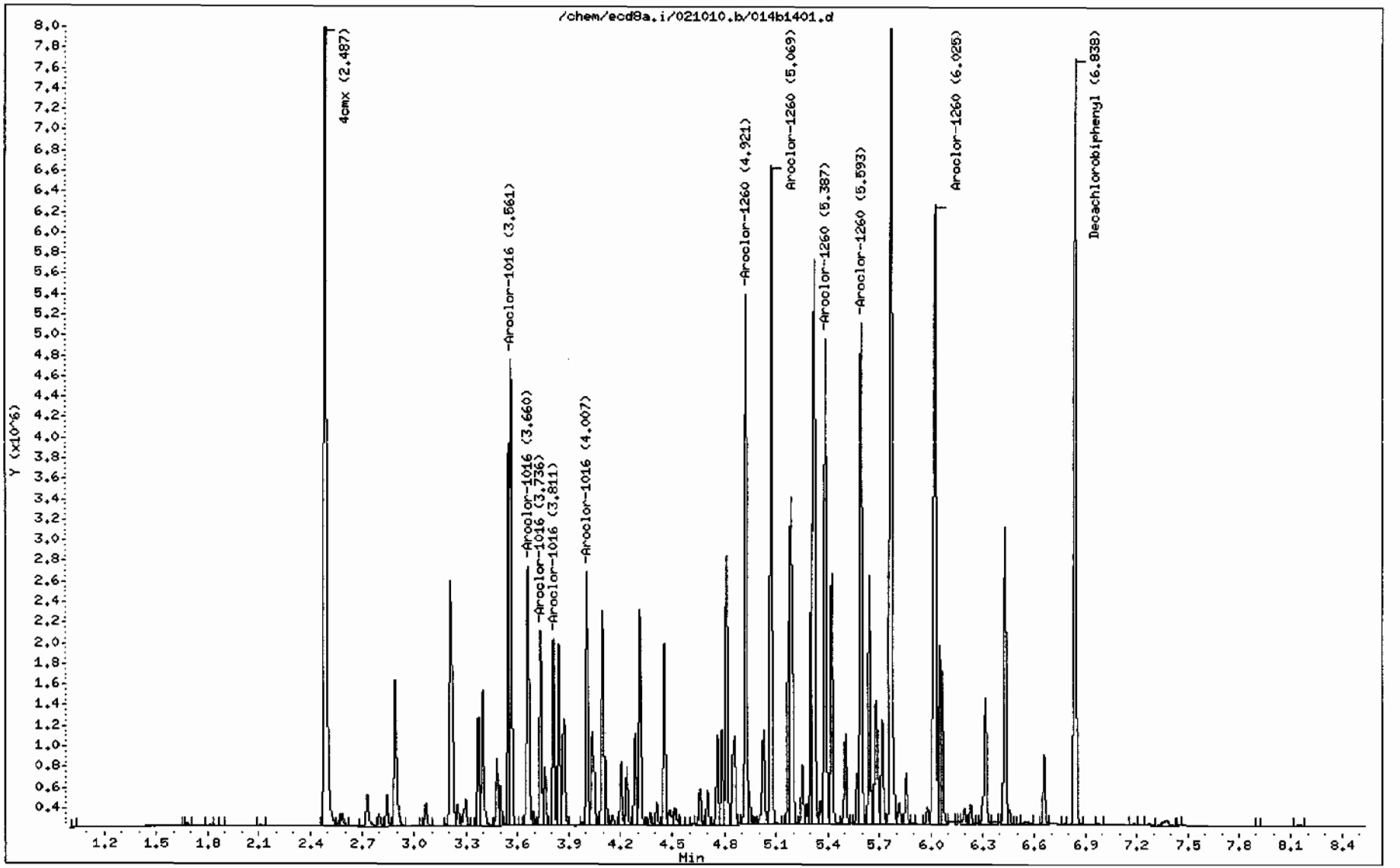

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/021010.b/022f2201.d
Lab Smp Id: WAR100203-60 03 Client Smp ID: AR166003
Inj Date : 10-FEB-2010 12:39
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR100203-60 03
Misc Info : |1660
Comment :
Method : /chem/ecd8a.i/021010.b/ECD8-F-8082-020310a.m
Meth Date : 10-Feb-2010 13:33 jen01212 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:25 Cal File: 036f3601.d
Als bottle: 22 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.255	2.254	0.001	13856623	100.000	105	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.247	6.247	0.000	10737769	100.000	107	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.813	2.812	0.001	4641317	1000.00	995	80.00- 120.00	100.00
3.165	3.165	0.000	5817536	1000.00	1010	105.34- 145.34	125.34
3.308	3.308	0.000	2430676	1000.00	990	32.37- 72.37	52.37
3.400	3.401	-0.001	2145266	1000.00	976	26.22- 66.22	46.22
3.563	3.562	0.001	3118932	1000.00	993	47.20- 87.20	67.20
Average of Peak Amounts =					992		
7 Aroclor-1260					CAS #: 11096-82-5		
4.437	4.437	0.000	6835341	1000.00	1010	80.00- 120.00	100.00
4.633	4.633	0.000	10401362	1000.00	1010	132.17- 172.17	152.17
4.908	4.908	0.000	6311130	1000.00	1030	72.33- 112.33	92.33
5.080	5.081	-0.001	6800155	1000.00	1060	79.49- 119.49	99.49
5.491	5.491	0.000	7657667	1000.00	1120	92.03- 132.03	112.03
Average of Peak Amounts =					1.05e+03		

Data File: /chem/ecd8a.i/021010.b/022f2201.d

Page 1

Date : 10-FEB-2010 12:39

Client ID: AR166003

Instrument: ecd8a.i

Sample Info: IWAR100203-60 03

Operator: JAOC

Column phase: CLP1

Column diameter: 0.25

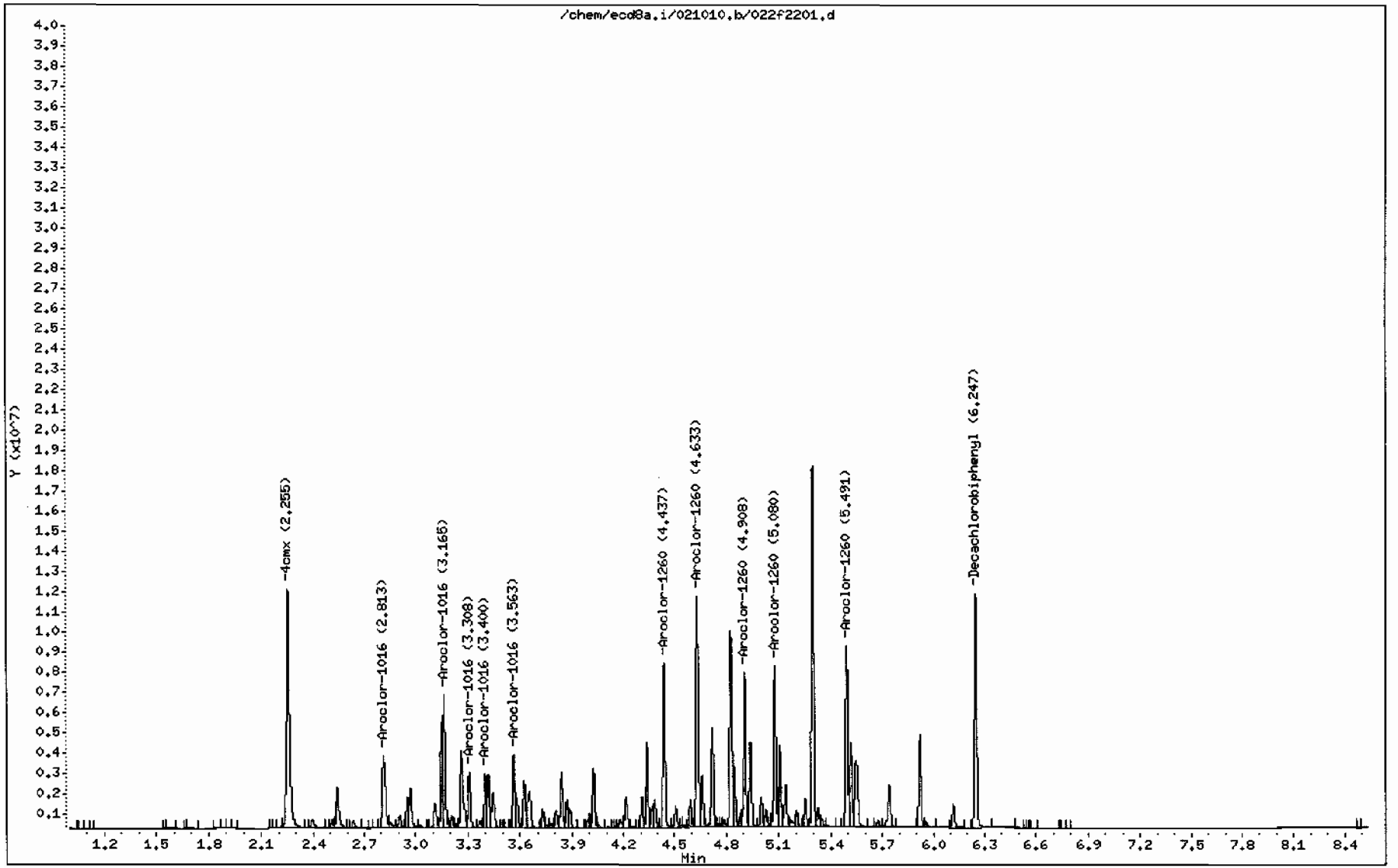

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/021010.b/022b2201.d
Lab Smp Id: WAR100203-60 03 Client Smp ID: AR166003
Inj Date : 10-FEB-2010 12:39
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR100203-60 03
Misc Info : |1660
Comment :
Method : /chem/ecd8a.i/021010.b/ECD8-B-8082-020310a.m
Meth Date : 10-Feb-2010 13:34 jen01212 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:25 Cal File: 036b3601.d
Als bottle: 22 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.488	2.486	0.002	8823613	100.000	102	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.839	6.839	0.000	6477321	100.000	99.9	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.560	3.560	0.000	3754225	1000.00	997	80.00- 120.00	100.00
3.660	3.660	0.000	2443839	1000.00	980	45.10- 85.10	65.10
3.736	3.736	0.000	1471737	1000.00	971	19.20- 59.20	39.20
3.811	3.811	0.000	1414065	1000.00	947	17.67- 57.67	37.67
4.008	4.007	0.001	1980787	1000.00	973	32.76- 72.76	52.76
Average of Peak Amounts =					974		
7 Aroclor-1260					CAS #: 11096-82-5		
4.921	4.921	0.000	4341343	1000.00	1060	80.00- 120.00	100.00
5.070	5.070	0.000	5226732	1000.00	1050	100.39- 140.39	120.39
5.386	5.387	-0.001	4017340	1000.00	1060	72.54- 112.54	92.54
5.594	5.594	0.000	4192305	1000.00	1060	76.57- 116.57	96.57
6.025	6.026	-0.001	6652075	1000.00	1070	133.23- 173.23	153.23
Average of Peak Amounts =					1.06e+03		

Data File: /chem/ecd8a.i/021010.b/022b2201.d
Date : 10-FEB-2010 12:39
Client ID: AR166003
Sample Info: IWAR100203-60 03

Column phase: CLP2

Page 1

Instrument: ecd8a.i

Operator: JAOC
Column diameter: 0.25

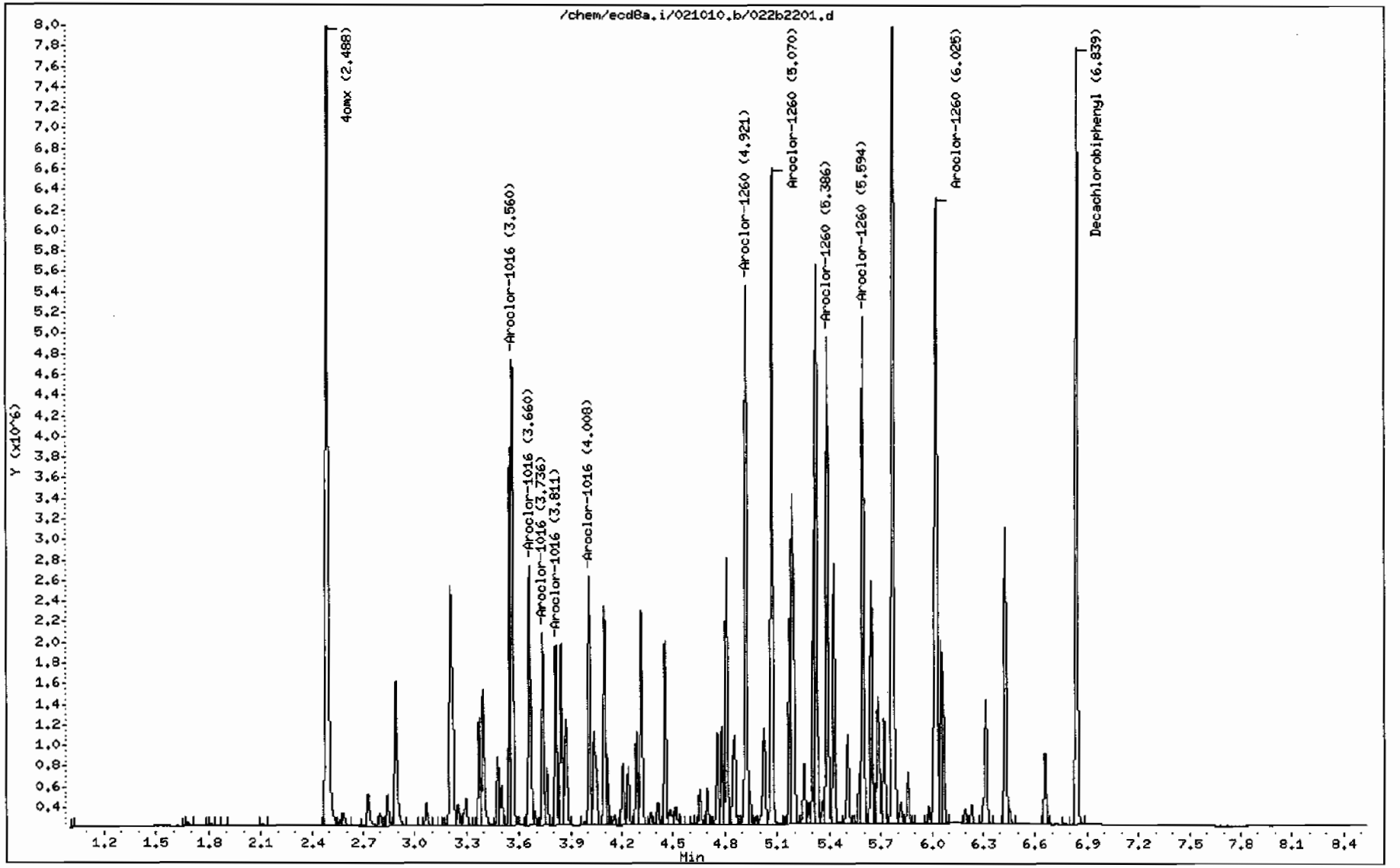

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1648

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 02/03/10 02/03/10

Instrument ID: ECD8A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.26 DCB: 6.25

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR091130-99	02/03/10	1012	2.25	6.24
02	AR166001	WAR100203-01	02/03/10	1024	2.26	6.25
03	AR166002	WAR100203-02	02/03/10	1037	2.26	6.25
04	AR166003	WAR100203-03	02/03/10	1049	2.26	6.25
05	AR166004	WAR100203-04	02/03/10	1101	2.26	6.25
06	AR166005	IAR100104-01	02/03/10	1114	2.26	6.25
07	AR166001	WAR100203-60	02/03/10	1126	2.26	6.25
08	AR125401	WAR100203-05	02/03/10	1139		
09	AR125402	WAR100203-06	02/03/10	1151		
10	AR125403	WAR100203-07	02/03/10	1203		
11	AR125404	WAR100203-08	02/03/10	1216		
12	AR125405	IAR091027-01	02/03/10	1228		
13	AR125401	WAR091216-54	02/03/10	1240		
14	AR124201	WAR100203-09	02/03/10	1253		
15	AR124202	WAR100203-10	02/03/10	1305		
16	AR124203	WAR100203-11	02/03/10	1318		
17	AR124204	WAR100203-12	02/03/10	1330		
18	AR124205	IAR091111-01	02/03/10	1342		
19	AR124201	WAR091217-42	02/03/10	1355		
20	AR124801	WAR100203-13	02/03/10	1407		
21	AR124802	WAR100203-14	02/03/10	1419		
22	AR124803	WAR100203-15	02/03/10	1432		
23	AR124804	WAR100203-16	02/03/10	1444		
24	AR124805	IAR091027-02	02/03/10	1457		
25	AR124801	WAR091217-48	02/03/10	1509		
26	AR123201	WAR100104-32	02/03/10	1521		
27	AR122101	WAR100104-21	02/03/10	1534		
28	AR126201	WAR100203-17	02/03/10	1546		
29	AR126202	WAR100203-18	02/03/10	1558		
30	AR126203	WAR100203-19	02/03/10	1611		
31	AR126204	WAR100203-20	02/03/10	1623		
32	AR126205	IAR100104-04	02/03/10	1636		

QC LIMITS
S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1648

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 02/03/10 02/03/10

Instrument ID: ECD8A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.26 DCB: 6.25

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	AR126201	WAR100104-62	02/03/10	1648		
02	AR126801	WAR091107-68	02/03/10	1700		
03	AR124801	WAR091217-48	02/03/10	1713		
04	DDTANALOGSTD	WAR091219-DD	02/03/10	1725		
05	PIBLK02	WAR091130-99	02/03/10	1738	2.26	6.25
06	ZZZZZ	ZZZZZ	02/03/10	1750	2.26	6.25
07	ZZZZZ	ZZZZZ	02/03/10	1802	2.26	6.25
08	ZZZZZ	ZZZZZ	02/03/10	1815	2.26	6.25
09	ZZZZZ	ZZZZZ	02/03/10	1827	2.26	6.25
10	ZZZZZ	ZZZZZ	02/03/10	1839	2.26	6.25
11	ZZZZZ	ZZZZZ	02/03/10	1852	2.26	6.25
12	ZZZZZ	ZZZZZ	02/03/10	1904	2.26	6.25
13	ZZZZZ	ZZZZZ	02/03/10	1916	2.26	6.25
14	ZZZZZ	ZZZZZ	02/03/10	1929	2.26	6.25
15	ZZZZZ	ZZZZZ	02/03/10	1941	2.26	6.25
16	AR166002	WAR100203-60	02/03/10	1954	2.26	6.25
17	PIBLK03	WAR091130-99	02/03/10	2006	2.26	6.25
18	ZZZZZ	ZZZZZ	02/03/10	2018	2.26	6.25
19	ZZZZZ	ZZZZZ	02/03/10	2031	2.26	6.25
20	ZZZZZ	ZZZZZ	02/03/10	2043	2.26	6.25
21	ZZZZZ	ZZZZZ	02/03/10	2055	2.26	6.25
22	AR166003	WAR100203-60	02/03/10	2108	2.26	6.25
23	PIBLK04	WAR091130-99	02/03/10	2120	2.26	6.25
24	ZZZZZ	ZZZZZ	02/03/10	2133	2.26	6.25
25	ZZZZZ	ZZZZZ	02/03/10	2145	2.26	6.25
26	ZZZZZ	ZZZZZ	02/03/10	2157	2.26	6.25
27	AR166004	WAR100203-60	02/03/10	2210	2.26	6.25
28	PIBLK05	WAR091130-99	02/03/10	2222	2.26	6.25
29	ZZZZZ	ZZZZZ	02/03/10	2234	2.26	6.25
30	ZZZZZ	ZZZZZ	02/03/10	2247	2.26	6.25
31	ZZZZZ	ZZZZZ	02/03/10	2259		
32	ZZZZZ	ZZZZZ	02/03/10	2312		

QC LIMITS
S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1648

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 02/03/10 02/03/10

Instrument ID: ECD8A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.49 DCB: 6.84

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR091130-99	02/03/10	1012	2.49	6.84
02	AR166001	WAR100203-01	02/03/10	1024	2.49	6.84
03	AR166002	WAR100203-02	02/03/10	1037	2.49	6.84
04	AR166003	WAR100203-03	02/03/10	1049	2.49	6.84
05	AR166004	WAR100203-04	02/03/10	1101	2.49	6.84
06	AR166005	IAR100104-01	02/03/10	1114	2.49	6.84
07	AR166001	WAR100203-60	02/03/10	1126	2.49	6.84
08	AR125401	WAR100203-05	02/03/10	1139		
09	AR125402	WAR100203-06	02/03/10	1151		
10	AR125403	WAR100203-07	02/03/10	1203		
11	AR125404	WAR100203-08	02/03/10	1216		
12	AR125405	IAR091027-01	02/03/10	1228		
13	AR125401	WAR091216-54	02/03/10	1240		
14	AR124201	WAR100203-09	02/03/10	1253		
15	AR124202	WAR100203-10	02/03/10	1305		
16	AR124203	WAR100203-11	02/03/10	1318		
17	AR124204	WAR100203-12	02/03/10	1330		
18	AR124205	IAR091111-01	02/03/10	1342		
19	AR124201	WAR091217-42	02/03/10	1355		
20	AR124801	WAR100203-13	02/03/10	1407		
21	AR124802	WAR100203-14	02/03/10	1419		
22	AR124803	WAR100203-15	02/03/10	1432		
23	AR124804	WAR100203-16	02/03/10	1444		
24	AR124805	IAR091027-02	02/03/10	1457		
25	AR124801	WAR091217-48	02/03/10	1509		
26	AR123201	WAR100104-32	02/03/10	1521		
27	AR122101	WAR100104-21	02/03/10	1534		
28	AR126201	WAR100203-17	02/03/10	1546		
29	AR126202	WAR100203-18	02/03/10	1558		
30	AR126203	WAR100203-19	02/03/10	1611		
31	AR126204	WAR100203-20	02/03/10	1623		
32	AR126205	IAR100104-04	02/03/10	1636		

QC LIMITS
S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1648

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 02/03/10 02/03/10

Instrument ID: ECD8A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.49 DCB: 6.84

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	AR126201	WAR100104-62	02/03/10	1648		
02	AR126801	WAR091107-68	02/03/10	1700		
03	AR124801	WAR091217-48	02/03/10	1713		
04	DDTANALOGSTD	WAR091219-DD	02/03/10	1725		
05	PIBLK02	WAR091130-99	02/03/10	1738	2.49	6.84
06	ZZZZZ	ZZZZZ	02/03/10	1750	2.49	6.84
07	ZZZZZ	ZZZZZ	02/03/10	1802	2.49	6.84
08	ZZZZZ	ZZZZZ	02/03/10	1815	2.49	6.84
09	ZZZZZ	ZZZZZ	02/03/10	1827	2.49	6.84
10	ZZZZZ	ZZZZZ	02/03/10	1839	2.49	6.84
11	ZZZZZ	ZZZZZ	02/03/10	1852	2.49	6.84
12	ZZZZZ	ZZZZZ	02/03/10	1904	2.49	6.84
13	ZZZZZ	ZZZZZ	02/03/10	1916	2.49	6.84
14	ZZZZZ	ZZZZZ	02/03/10	1929	2.49	6.84
15	ZZZZZ	ZZZZZ	02/03/10	1941	2.49	6.84
16	AR166002	WAR100203-60	02/03/10	1954	2.49	6.84
17	PIBLK03	WAR091130-99	02/03/10	2006	2.49	6.84
18	ZZZZZ	ZZZZZ	02/03/10	2018	2.49	6.84
19	ZZZZZ	ZZZZZ	02/03/10	2031	2.49	6.84
20	ZZZZZ	ZZZZZ	02/03/10	2043	2.49	6.84
21	ZZZZZ	ZZZZZ	02/03/10	2055	2.49	6.84
22	AR166003	WAR100203-60	02/03/10	2108	2.49	6.84
23	PIBLK04	WAR091130-99	02/03/10	2120	2.49	6.84
24	ZZZZZ	ZZZZZ	02/03/10	2133	2.49	6.84
25	ZZZZZ	ZZZZZ	02/03/10	2145	2.49	6.84
26	ZZZZZ	ZZZZZ	02/03/10	2157	2.49	6.84
27	AR166004	WAR100203-60	02/03/10	2210	2.49	6.84
28	PIBLK05	WAR091130-99	02/03/10	2222	2.49	6.84
29	ZZZZZ	ZZZZZ	02/03/10	2234	2.49	6.84
30	ZZZZZ	ZZZZZ	02/03/10	2247	2.49	6.84
31	ZZZZZ	ZZZZZ	02/03/10	2259		
32	ZZZZZ	ZZZZZ	02/03/10	2312		

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1648

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 02/03/10 02/03/10

Instrument ID: ECD8A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.25 DCB: 6.25

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR100105-99	02/10/10	0819	2.25	6.25
02	AR166001	WAR100203-60	02/10/10	0832	2.25	6.25
03	AR125401	WAR100201-54	02/10/10	0844		
04	AR124201	WAR091217-42	02/10/10	0856		
05	AR124801	WAR091217-48	02/10/10	0909		
06	AR123201	WAR100104-32	02/10/10	0921		
07	AR122101	WAR100104-21	02/10/10	0934		
08	AR126201	WAR100104-62	02/10/10	0946		
09	AR126801	WAR100107-68	02/10/10	0958		
10	DDTANALOGSTD	WAR091219-DD	02/10/10	1011		
11	PIBLK02	WAR100105-99	02/10/10	1023	2.25	6.25
12	ZZZZZ	ZZZZZ	02/10/10	1035	2.25	6.25
13	ZZZZZ	ZZZZZ	02/10/10	1048	2.25	6.25
14	AR166002	WAR100203-60	02/10/10	1100	2.25	6.25
15	PIBLK03	WAR100105-99	02/10/10	1113	2.25	6.25
16	PBLK01	1202037817	02/10/10	1125	2.25	6.25
17	PBLK01LCS	1202037818	02/10/10	1137	2.25	6.25
18	PBLK01LCSD	1202037819	02/10/10	1150	2.26	6.25
19	RE03-10-12114	246429001	02/10/10	1202	2.26	6.25
20	RE03-10-12115	246429002	02/10/10	1214	2.25	6.25
21	RE03-10-12113	246429003	02/10/10	1227	2.25	6.25
22	AR166003	WAR100203-60	02/10/10	1239	2.25	6.25
23						
24						
25						
26						
27						
28						
29						
30						
31						
32						

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1648

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 02/03/10 02/03/10

Instrument ID: ECD8A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.49 DCB: 6.84

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR100105-99	02/10/10	0819	2.49	6.84
02	AR166001	WAR100203-60	02/10/10	0832	2.49	6.84
03	AR125401	WAR100201-54	02/10/10	0844		
04	AR124201	WAR091217-42	02/10/10	0856		
05	AR124801	WAR091217-48	02/10/10	0909		
06	AR123201	WAR100104-32	02/10/10	0921		
07	AR122101	WAR100104-21	02/10/10	0934		
08	AR126201	WAR100104-62	02/10/10	0946		
09	AR126801	WAR100107-68	02/10/10	0958		
10	DDTANALOGSTD	WAR091219-DD	02/10/10	1011		
11	PIBLK02	WAR100105-99	02/10/10	1023	2.49	6.84
12	ZZZZZ	ZZZZZ	02/10/10	1035	2.49	6.84
13	ZZZZZ	ZZZZZ	02/10/10	1048	2.49	6.84
14	AR166002	WAR100203-60	02/10/10	1100	2.49	6.84
15	PIBLK03	WAR100105-99	02/10/10	1113	2.49	6.84
16	PBLK01	1202037817	02/10/10	1125	2.49	6.84
17	PBLK01LCS	1202037818	02/10/10	1137	2.49	6.84
18	PBLK01LCSD	1202037819	02/10/10	1150	2.49	6.84
19	RE03-10-12114	246429001	02/10/10	1202	2.49	6.84
20	RE03-10-12115	246429002	02/10/10	1214	2.49	6.84
21	RE03-10-12113	246429003	02/10/10	1227	2.49	6.84
22	AR166003	WAR100203-60	02/10/10	1239	2.49	6.84
23						
24						
25						
26						
27						
28						
29						
30						
31						
32						

QC LIMITS
S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

Identification Summary

SDG Number: 10–1648 **Client ID:** LCS for batch 950899

Lab Sample ID: 1202037818

Data File: 017f1701.d **Data File:** 017b1701.d

Inst: ECD8A.I_1 **Inst:** ECD8A.I_2

Column: CLP1 **Column:** CLP2

Analyzed: 10–FEB–10 11:37 **Analyzed:** 10–FEB–10 11:37

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor–1016							7.94
Column 1	1	2.81	2.78 – 2.84	.622		ug/Filter	
	2	3.16	3.13 – 3.19	.645		ug/Filter	
	3	3.31	3.28 – 3.34	.6		ug/Filter	
	4	3.4	3.37 – 3.43	.641		ug/Filter	
	5	3.56	3.53 – 3.59	.621		ug/Filter	
					.626		
Column 2	1	3.56	3.53 – 3.59	.577		ug/Filter	
	2	3.66	3.63 – 3.69	.588		ug/Filter	
	3	3.74	3.71 – 3.77	.557		ug/Filter	
	4	3.81	3.78 – 3.84	.585		ug/Filter	
	5	4.01	3.98 – 4.04	.583		ug/Filter	
					.578		
Aroclor–1260							2.07
Column 1	1	4.44	4.41 – 4.47	.678		ug/Filter	
	2	4.63	4.6 – 4.66	.699		ug/Filter	
	3	4.91	4.88 – 4.94	.728		ug/Filter	
	4	5.08	5.05 – 5.11	.733		ug/Filter	
	5	5.49	5.46 – 5.52	.782		ug/Filter	
					.724		
Column 2	1	4.92	4.89 – 4.95	.688		ug/Filter	
	2	5.07	5.04 – 5.1	.701		ug/Filter	
	3	5.39	5.36 – 5.42	.721		ug/Filter	
	4	5.59	5.56 – 5.62	.701		ug/Filter	
	5	6.02	6 – 6.06	.734		ug/Filter	
					.709		

Identification Summary

SDG Number: 10–1648 **Client ID:** LCSD for batch 950899

Lab Sample ID: 1202037819

Data File:	018f1801.d	**Data File:**	018b1801.d
Inst:	ECD8A.I_1	**Inst:**	ECD8A.I_2
Column:	CLP1	**Column:**	CLP2
Analyzed:	10–FEB–10 11:50	**Analyzed:**	10–FEB–10 11:50

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor–1016							6.27
Column 1	1	2.81	2.78 – 2.84	.662		ug/Filter	
	2	3.17	3.13 – 3.19	.668		ug/Filter	
	3	3.31	3.28 – 3.34	.634		ug/Filter	
	4	3.4	3.37 – 3.43	.683		ug/Filter	
	5	3.56	3.53 – 3.59	.66		ug/Filter	
					.662		
Column 2	1	3.56	3.53 – 3.59	.636		ug/Filter	
	2	3.66	3.63 – 3.69	.629		ug/Filter	
	3	3.74	3.71 – 3.77	.596		ug/Filter	
	4	3.81	3.78 – 3.84	.623		ug/Filter	
	5	4.01	3.98 – 4.04	.622		ug/Filter	
					.621		
Aroclor–1260							2.09
Column 1	1	4.44	4.41 – 4.47	.717		ug/Filter	
	2	4.63	4.6 – 4.66	.734		ug/Filter	
	3	4.91	4.88 – 4.94	.759		ug/Filter	
	4	5.08	5.05 – 5.11	.76		ug/Filter	
	5	5.49	5.46 – 5.52	.808		ug/Filter	
					.756		
Column 2	1	4.92	4.89 – 4.95	.725		ug/Filter	
	2	5.07	5.04 – 5.1	.722		ug/Filter	
	3	5.39	5.36 – 5.42	.758		ug/Filter	
	4	5.59	5.56 – 5.62	.732		ug/Filter	
	5	6.02	6 – 6.06	.763		ug/Filter	
					.74		

Identification Summary

SDG Number: 10–1648 **Client ID:** RE03–10–12113

Lab Sample ID: 246429003

Data File: 021f2101.d **Data File:** 021b2101.d

Inst: ECD8A.I_1 **Inst:** ECD8A.I_2

Column: CLP1 **Column:** CLP2

Analyzed: 10–FEB–10 12:27 **Analyzed:** 10–FEB–10 12:27

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor–1260							3.31
Column 1	1	4.44	4.41 – 4.47	2.53		ug/Filter	
	2	4.63	4.6 – 4.66	3.62		ug/Filter	
	3	4.91	4.88 – 4.94	5.08		ug/Filter	
	4	5.08	5.05 – 5.11	4.83		ug/Filter	
	5	5.49	5.46 – 5.52	5.41		ug/Filter	
					4.29		
Column 2	1	4.92	4.89 – 4.95	2.64		ug/Filter	
	2	5.07	5.04 – 5.1	3.83		ug/Filter	
	3	5.39	5.36 – 5.42	5.2		ug/Filter	
	4	5.59	5.56 – 5.62	4.82		ug/Filter	
	5	6.02	6 – 6.06	5.7		ug/Filter	
					4.44		

Identification Summary

SDG Number: 10-1648 **Client ID:** RE03-10-12114

Lab Sample ID: 246429001

Data File:	019f1901.d	**Data File:**	019b1901.d
Inst:	ECD8A.I_1	**Inst:**	ECD8A.I_2
Column:	CLP1	**Column:**	CLP2
Analyzed:	10-FEB-10 12:02	**Analyzed:**	10-FEB-10 12:02

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor-1260							5.89
Column 1	1	4.44	4.41 – 4.47	20.4		ug/Filter	
	2	4.63	4.6 – 4.66	31.4		ug/Filter	
	3	4.91	4.88 – 4.94	46.7		ug/Filter	
	4	5.08	5.05 – 5.11	39.3		ug/Filter	
	5	5.49	5.46 – 5.52	46.9		ug/Filter	
					36.9		
Column 2	1	4.92	4.89 – 4.95	21.5		ug/Filter	
	2	5.07	5.04 – 5.1	34.4		ug/Filter	
	3	5.39	5.36 – 5.42	48		ug/Filter	
	4	5.59	5.56 – 5.62	39.3		ug/Filter	
	5	6.02	6 – 6.06	52.7		ug/Filter	
					39.2		

Identification Summary

SDG Number: 10–1648 **Client ID:** RE03–10–12115

Lab Sample ID: 246429002

Data File:	020f2001.d	**Data File:**	020b2001.d
Inst:	ECD8A.I_1	**Inst:**	ECD8A.I_2
Column:	CLP1	**Column:**	CLP2
Analyzed:	10–FEB–10 12:14	**Analyzed:**	10–FEB–10 12:14

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor–1260							5.83
Column 1	1	4.44	4.41 – 4.47	3.86		ug/Filter	
	2	4.63	4.6 – 4.66	5.29		ug/Filter	
	3	4.91	4.88 – 4.94	7.29		ug/Filter	
	4	5.08	5.05 – 5.11	6.98		ug/Filter	
	5	5.49	5.46 – 5.52	8		ug/Filter	
					6.28		
Column 2	1	4.92	4.89 – 4.95	4.24		ug/Filter	
	2	5.07	5.04 – 5.1	5.56		ug/Filter	
	3	5.39	5.36 – 5.42	7.59		ug/Filter	
	4	5.59	5.56 – 5.62	7		ug/Filter	
	5	6.02	6 – 6.06	8.92		ug/Filter	
					6.66		

QUALITY CONTROL DATA

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10-1648**			**Matrix:**	**SWIPE**
Lab Sample ID:	**1202037817**				
Client Sample:	**QC for batch 950899**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 950899**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**950900**	**Inst:**	**ECD8A.I**	**Dilution:**	**1**
Run Date:	**02/10/2010 11:25**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**02/09/2010 21:55**	**Aliquot:**	**1 Filter**	**Final Volume:**	**1 mL**
Data File:	**016f1601.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	016b1601.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	0.100	ug/Filter	0.0333	0.100	1
11104-28-2	Aroclor-1221	U	0.100	ug/Filter	0.0333	0.100	1
11141-16-5	Aroclor-1232	U	0.100	ug/Filter	0.0333	0.100	1
53469-21-9	Aroclor-1242	U	0.100	ug/Filter	0.0333	0.100	1
12672-29-6	Aroclor-1248	U	0.100	ug/Filter	0.0333	0.100	1
11097-69-1	Aroclor-1254	U	0.100	ug/Filter	0.0333	0.100	1
11096-82-5	Aroclor-1260	U	0.100	ug/Filter	0.0333	0.100	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/021010.b/016f1601.d
Lab Smp Id: 1202037817 Client Smp ID: PBLK01
Inj Date : 10-FEB-2010 11:25
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |1202037817|1|
Misc Info : |ECD82P_1F|950900|SVA|QC A|SWIPE|MB|||
Comment :
Method : /chem/ecd8a.i/021010.b/ECD8-F-8082-020310a.m
Meth Date : 10-Feb-2010 13:33 jen01212 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:25 Cal File: 036f3601.d
Als bottle: 16 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1648.sub
Target Version: 3.50 Sample Matrix: Filter
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/ Vi * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	0.00100	Volume of final extract (L)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Fi)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.255	2.254	0.001	14465535	110.083	0.11	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.247	6.247	0.000	12181919	121.842	0.12	80.00- 120.00	100.00

Data File: /chem/ecd8a.i/021010.b/016f1601.d

Page 1

Date : 10-FEB-2010 11:25

Client ID: PBLK01

Instrument: ecd8a.i

Sample Info: |1202037817|1|

Volume Injected (uL): 1.0

Operator: JAOC

Column phase: CLP1

Column diameter: 0.25

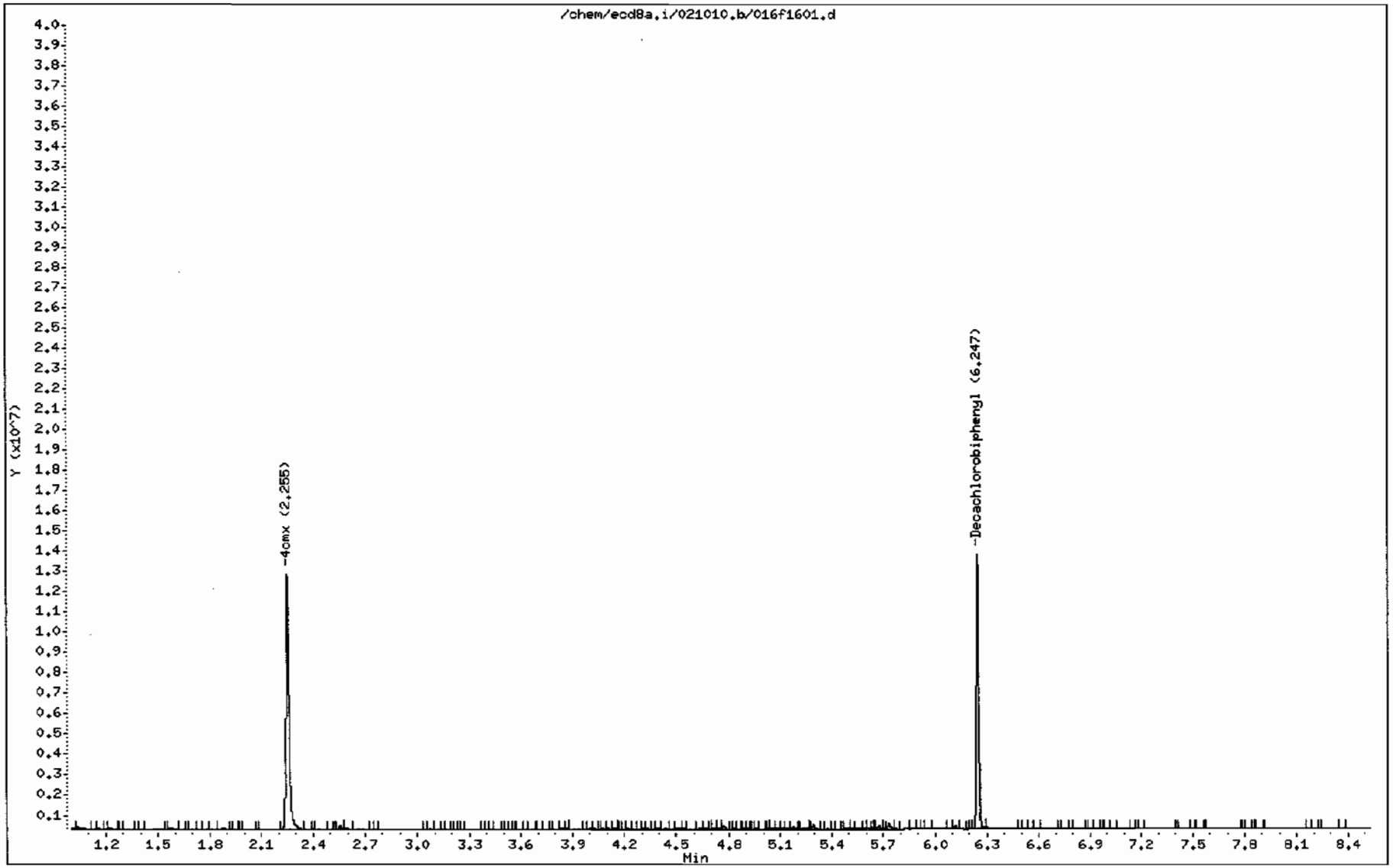

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/021010.b/016b1601.d
Lab Smp Id: 1202037817 Client Smp ID: PBLK01
Inj Date : 10-FEB-2010 11:25
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |1202037817|1|
Misc Info : |ECD82P_1F|950900|SVA|QC A|SWIPE|MB|||
Comment :
Method : /chem/ecd8a.i/021010.b/ECD8-B-8082-020310a.m
Meth Date : 10-Feb-2010 13:34 jen01212 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:25 Cal File: 036b3601.d
Als bottle: 16 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1648.sub
Target Version: 3.50 Sample Matrix: Filter
Processing Host: hpclpl

Concentration Formula: Amt * DF * Uf * Vt/Vi * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	0.00100	Volume of final extract (L)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Fi)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.487	2.486	0.001	9069483	104.435	0.10	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.838	6.839	-0.001	7570699	116.753	0.12	80.00- 120.00	100.00

Data File: /chem/ecd8a.i/021010.b/016b1601.d

Date : 10-FEB-2010 11:25

Client ID: PBLK01

Sample Info: |1202037817|1|

Volume Injected (uL): 1.0

Column phase: CLP2

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25

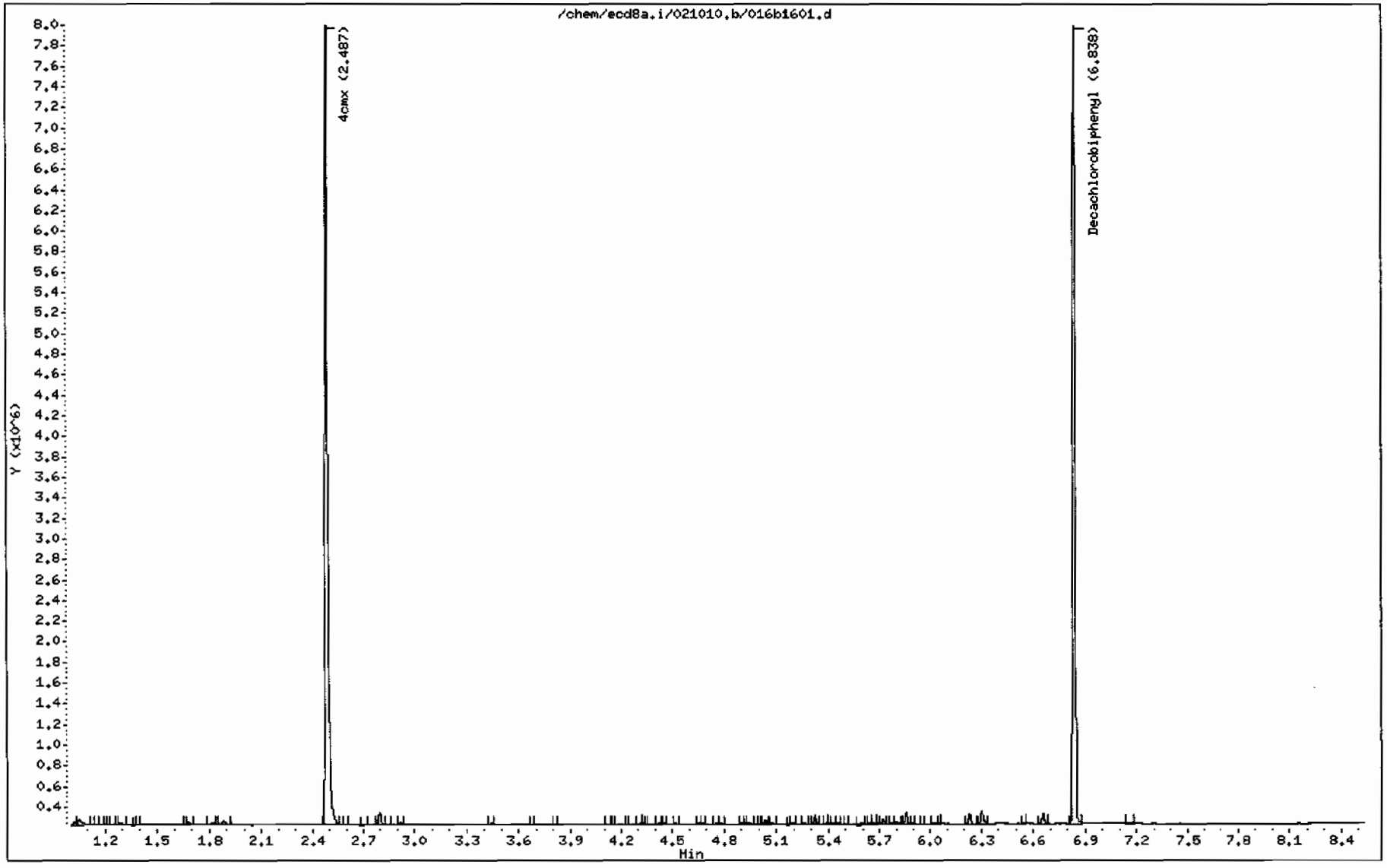

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10-1648**			**Matrix:**	**SWIPE**
Lab Sample ID:	**1202037818**				
Client Sample:	**QC for batch 950899**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 950899**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**950900**	**Inst:**	**ECD8A.I**	**Dilution:**	**1**
Run Date:	**02/10/2010 11:37**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**02/09/2010 21:55**	**Aliquot:**	**1 Filter**	**Final Volume:**	**1 mL**
Data File:	**017f1701.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	017b1701.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016		0.626	ug/Filter	0.0333	0.100	1
11104-28-2	Aroclor-1221	U	0.100	ug/Filter	0.0333	0.100	1
11141-16-5	Aroclor-1232	U	0.100	ug/Filter	0.0333	0.100	1
53469-21-9	Aroclor-1242	U	0.100	ug/Filter	0.0333	0.100	1
12672-29-6	Aroclor-1248	U	0.100	ug/Filter	0.0333	0.100	1
11097-69-1	Aroclor-1254	U	0.100	ug/Filter	0.0333	0.100	1
11096-82-5	Aroclor-1260		0.724	ug/Filter	0.0333	0.100	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/021010.b/017f1701.d
Lab Smp Id: 1202037818 Client Smp ID: PBLK01LCS
Inj Date : 10-FEB-2010 11:37
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |1202037818|1|
Misc Info : |ECD82P_1F|950900|SVA|QC A|SWIPE|LCS|||
Comment :
Method : /chem/ecd8a.i/021010.b/ECD8-F-8082-020310a.m
Meth Date : 10-Feb-2010 13:33 jen01212 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:25 Cal File: 036f3601.d
Als bottle: 17 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1648.sub
Target Version: 3.50 Sample Matrix: Filter
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/ Vi * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	0.00100	Volume of final extract (L)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Fi)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.255	2.254	0.001	17842157	135.779	0.14	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.246	6.247	-0.001	15320303	153.232	0.15	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.812	2.812	0.000	2902267	622.187	0.62	80.00- 120.00	100.00
3.165	3.165	0.000	3719248	644.630	0.64	105.34- 145.34	128.15
3.308	3.308	0.000	1473382	600.351	0.60	32.37- 72.37	50.77
3.400	3.401	-0.001	1409421	641.176	0.64	26.22- 66.22	48.56
3.562	3.562	0.000	1949779	620.523	0.62	47.20- 87.20	67.18

Average of Peak Concentrations = 0.62

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Fi)	TARGET RANGE	RATIO
7 Aroclor-1260					CAS #: 11096-82-5		
4.436	4.437	-0.001	4569760	678.110	0.68	80.00- 120.00	100.00
4.632	4.633	-0.001	7168359	698.684	0.70	132.17- 172.17	156.87
4.907	4.908	-0.001	4459573	727.517	0.73	72.33- 112.33	97.59
5.079	5.081	-0.002	4679310	732.760	0.73	79.49- 119.49	102.40
5.490	5.491	-0.001	5364046	781.958	0.78	92.03- 132.03	117.38
			Average of Peak Concentrations =		0.72		

Data File: /chem/ecd8a.i/021010.b/017f1701.d
Date : 10-FEB-2010 11:37
Client ID: PBLK01LCS
Sample Info: |1202037818|1|
Volume Injected (uL): 1.0
Column phase: CLP1

Page 1

Instrument: ecd8a.i

Operator: JAOC
Column diameter: 0.25

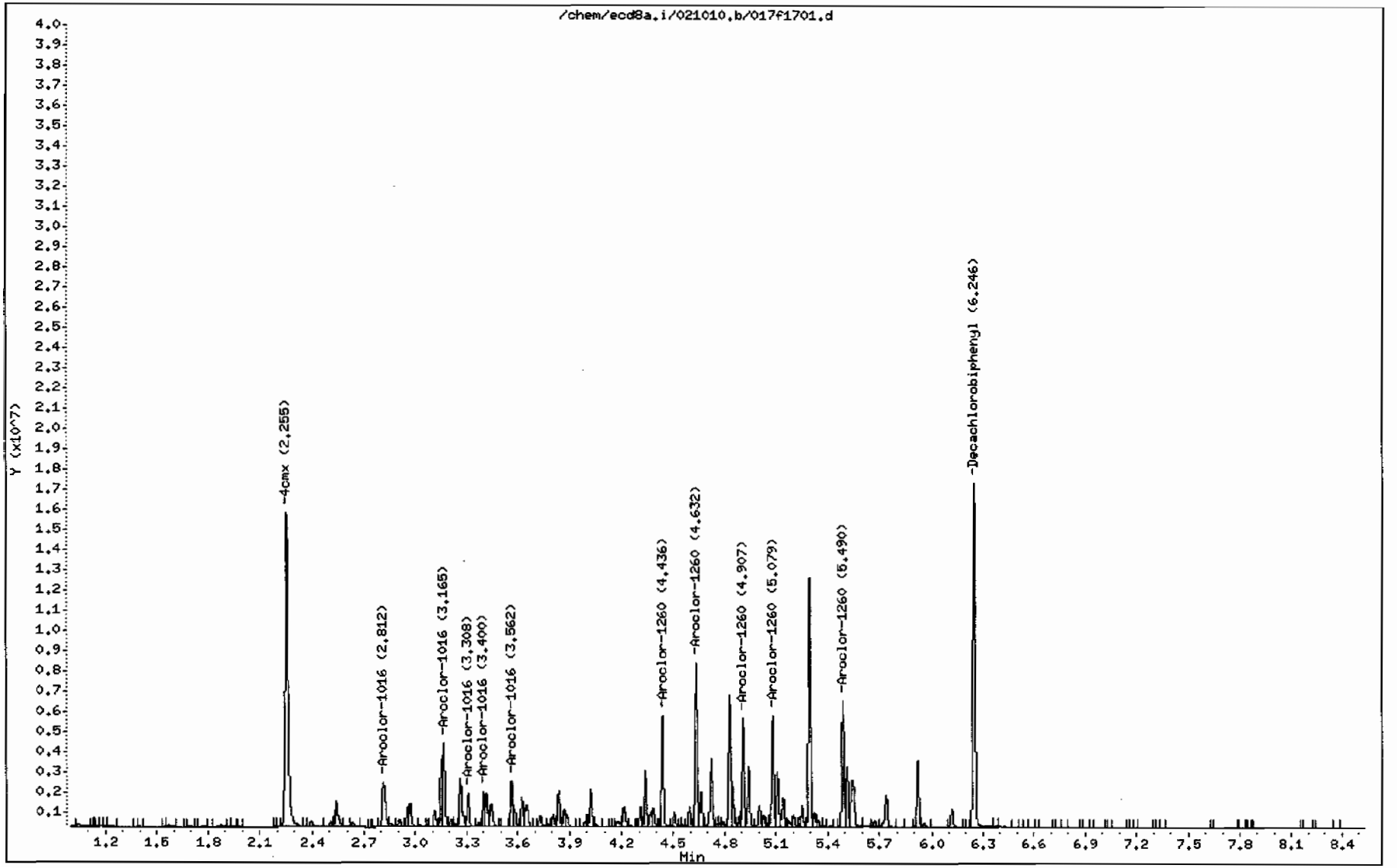

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/021010.b/017b1701.d
Lab Smp Id: 1202037818 Client Smp ID: PBLK01LCS
Inj Date : 10-FEB-2010 11:37
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |1202037818|1|
Misc Info : |ECD82P_1F|950900|SVA|QC A|SWIPE|LCS|||
Comment :
Method : /chem/ecd8a.i/021010.b/ECD8-B-8082-020310a.m
Meth Date : 10-Feb-2010 13:34 jen01212 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:25 Cal File: 036b3601.d
Als bottle: 17 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1648.sub
Target Version: 3.50 Sample Matrix: Filter
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/Vi * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	0.00100	Volume of final extract (L)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Fi)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.487	2.486	0.001	11251901	129.565	0.13	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.838	6.839	-0.001	9377143	144.611	0.14	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.560	3.560	0.000	2171462	576.535	0.58	80.00- 120.00	100.00
3.659	3.660	-0.001	1466463	587.896	0.59	45.10- 85.10	67.53
3.735	3.736	-0.001	843790	556.776	0.56	19.20- 59.20	38.86
3.810	3.811	-0.001	874048	585.367	0.58	17.67- 57.67	40.25
4.007	4.007	0.000	1187298	583.262	0.58	32.76- 72.76	54.68

Average of Peak Concentrations = 0.58

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Fi)	TARGET RANGE	RATIO
7 Aroclor-1260					CAS #: 11096-82-5		
4.920	4.921	-0.001	2811953	688.459	0.69	80.00- 120.00	100.00
5.069	5.070	-0.001	3481311	700.620	0.70	100.39- 140.39	123.80
5.385	5.387	-0.002	2730494	720.748	0.72	72.54- 112.54	97.10
5.593	5.594	-0.001	2769693	700.637	0.70	76.57- 116.57	98.50
6.025	6.026	-0.001	4573442	734.402	0.73	133.23- 173.23	162.64
			Average of Peak Concentrations =		0.71		

Data File: /chem/ecd8a.i/021010.b/017b1701.d
Date : 10-FEB-2010 11:37
Client ID: PBLK01LCS
Sample Info: |1202037818|1|
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd8a.i
Operator: JADC
Column diameter: 0.25

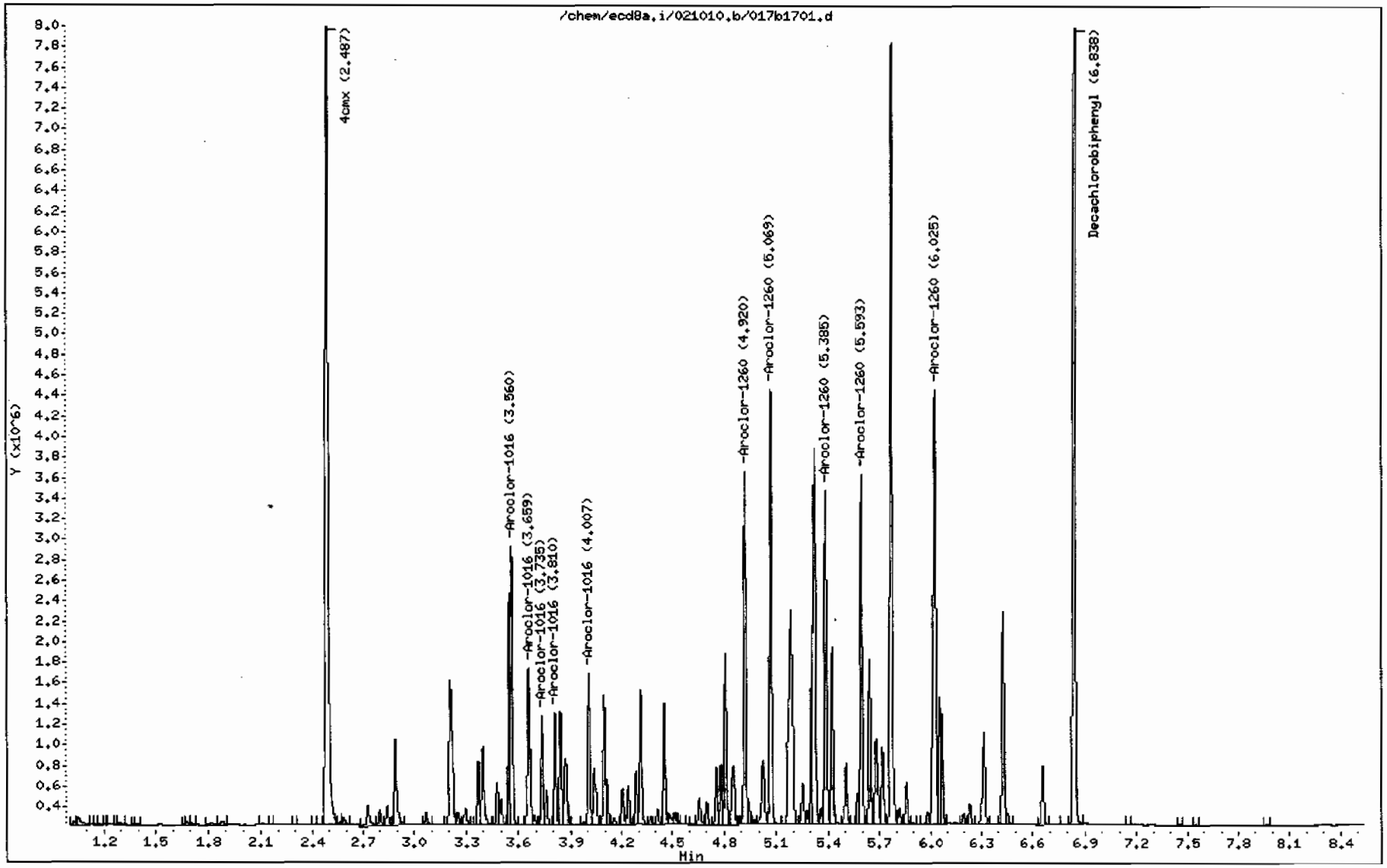

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–1648**			**Matrix:**	**SWIPE**
Lab Sample ID:	**1202037819**				
Client Sample:	**QC for batch 950899**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCSD for batch 950899**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**950900**	**Inst:**	**ECD8A.I**	**Dilution:**	**1**
Run Date:	**02/10/2010 11:50**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**02/09/2010 21:55**	**Aliquot:**	**1 Filter**	**Final Volume:**	**1 mL**
Data File:	**018f1801.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	018b1801.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016		0.661	ug/Filter	0.0333	0.100	1
11104–28–2	Aroclor–1221	U	0.100	ug/Filter	0.0333	0.100	1
11141–16–5	Aroclor–1232	U	0.100	ug/Filter	0.0333	0.100	1
53469–21–9	Aroclor–1242	U	0.100	ug/Filter	0.0333	0.100	1
12672–29–6	Aroclor–1248	U	0.100	ug/Filter	0.0333	0.100	1
11097–69–1	Aroclor–1254	U	0.100	ug/Filter	0.0333	0.100	1
11096–82–5	Aroclor–1260		0.756	ug/Filter	0.0333	0.100	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/021010.b/018f1801.d
Lab Smp Id: 1202037819 Client Smp ID: PBLK01LCSD
Inj Date : 10-FEB-2010 11:50
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |1202037819|1|
Misc Info : |ECD82P_1F|950900|SVA|QC A|SWIPE|LCSD|||
Comment :
Method : /chem/ecd8a.i/021010.b/ECD8-F-8082-020310a.m
Meth Date : 10-Feb-2010 13:33 jen01212 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:25 Cal File: 036f3601.d
Als bottle: 18 QC Sample: LCSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1648.sub
Target Version: 3.50 Sample Matrix: Filter
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/ Vi * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	0.00100	Volume of final extract (L)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Fi)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.255	2.254	0.001	19297646	146.855	0.15	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.247	6.247	0.000	15413736	154.166	0.15	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.813	2.812	0.001	3090032	662.440	0.66	80.00- 120.00	100.00
3.165	3.165	0.000	3853368	667.876	0.67	105.34- 145.34	124.70
3.308	3.308	0.000	1557032	634.435	0.63	32.37- 72.37	50.39
3.400	3.401	-0.001	1501375	683.008	0.68	26.22- 66.22	48.59
3.563	3.562	0.001	2073209	659.805	0.66	47.20- 87.20	67.09

Average of Peak Concentrations = 0.66

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Fi)	TARGET RANGE	RATIO
7 Aroclor-1260					CAS #: 11096-82-5		
4.437	4.437	0.000	4833871	717.301	0.72	80.00- 120.00	100.00
4.633	4.633	0.000	7528360	733.773	0.73	132.17- 172.17	155.74
4.908	4.908	0.000	4652204	758.942	0.76	72.33- 112.33	96.24
5.080	5.081	-0.001	4852617	759.900	0.76	79.49- 119.49	100.39
5.491	5.491	0.000	5542067	807.910	0.81	92.03- 132.03	114.65
			Average of Peak Concentrations =		0.76		

Data File: /chem/ecd8a.i/021010.b/018f1801.d
Date : 10-FEB-2010 11:50
Client ID: PBLK01LCSD
Sample Info: |120203781911|
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecd8a.i
Operator: JAOC
Column diameter: 0.25

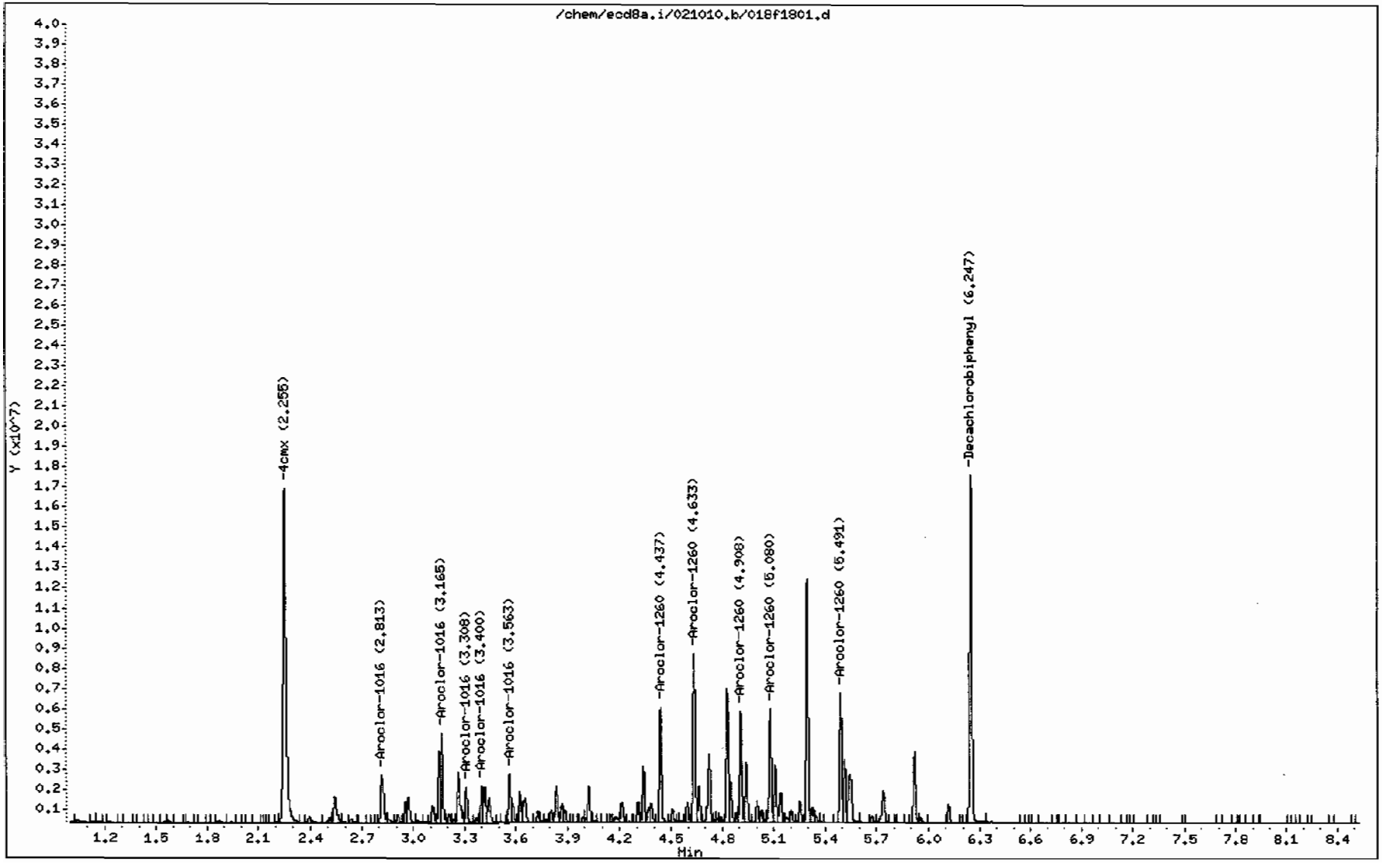

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/021010.b/018b1801.d
Lab Smp Id: 1202037819 Client Smp ID: PBLK01LCSD
Inj Date : 10-FEB-2010 11:50
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |1202037819|1|
Misc Info : |ECD82P_1F|950900|SVA|QC A|SWIPE|LCSD|||
Comment :
Method : /chem/ecd8a.i/021010.b/ECD8-B-8082-020310a.m
Meth Date : 10-Feb-2010 13:34 jen01212 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:25 Cal File: 036b3601.d
Als bottle: 18 QC Sample: LCSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1648.sub
Target Version: 3.50 Sample Matrix: Filter
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/Vi * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	0.00100	Volume of final extract (L)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Fi)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.488	2.486	0.002	12166639	140.099	0.14	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.838	6.839	-0.001	9546243	147.219	0.15	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.560	3.560	0.000	2397172	636.462	0.64	80.00- 120.00	100.00
3.659	3.660	-0.001	1569939	629.379	0.63	45.10- 85.10	65.49
3.736	3.736	0.000	903260	596.018	0.60	19.20- 59.20	37.68
3.811	3.811	0.000	930241	623.000	0.62	17.67- 57.67	38.81
4.008	4.007	0.001	1265246	621.554	0.62	32.76- 72.76	52.78

Average of Peak Concentrations = 0.62

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Fi)	TARGET RANGE	RATIO
7 Aroclor-1260					CAS #: 11096-82-5		
4.921	4.921	0.000	2962821	725.396	0.72	80.00- 120.00	100.00
5.069	5.070	-0.001	3586494	721.788	0.72	100.39- 140.39	121.05
5.386	5.387	-0.001	2871708	758.023	0.76	72.54- 112.54	96.92
5.593	5.594	-0.001	2892297	731.652	0.73	76.57- 116.57	97.62
6.024	6.026	-0.002	4749707	762.707	0.76	133.23- 173.23	160.31
Average of Peak Concentrations =					0.74		

Data File: /chem/ecd8a.i/021010.b/018b1801.d
Date : 10-FEB-2010 11:50
Client ID: PBLK01LCSD
Sample Info: |1202037819|1|
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd8a.i
Operator: JAOC
Column diameter: 0.25

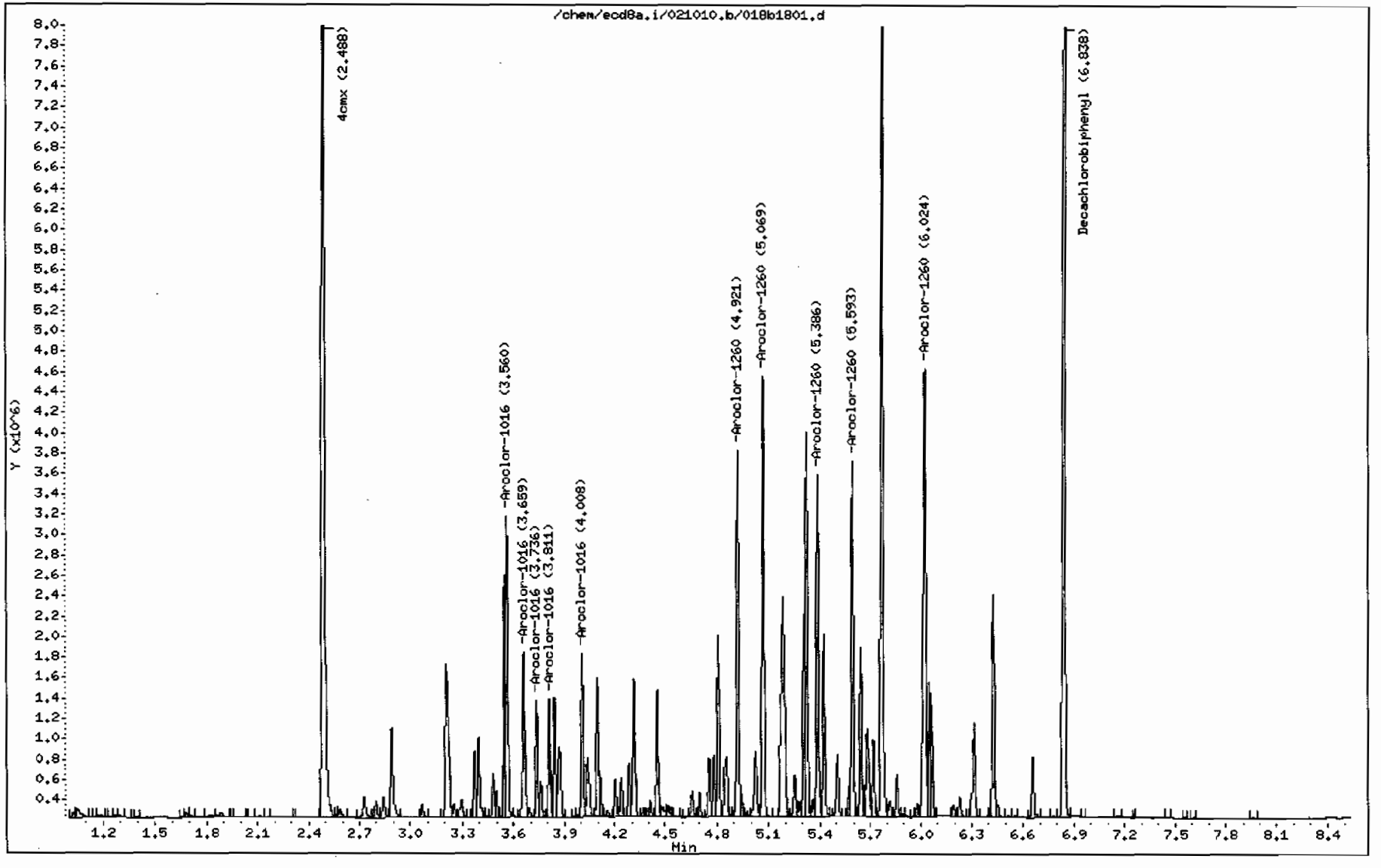

MISCELLANEOUS DATA

GEL ORGANIC RUN LOG INSTRUMENT ID: ECD8

DATE: 02/04/2010 METHOD: ECD8-F-8082-020310a.m OPERATOR:JAOC REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT DA699
ALUMINA LOT 1240553-A
COPPER LOT 236547-A

Calibration & QC Information
Initial Calibration Dates: See Calibration History and Standards Log
Initial Calibration Std ID's: See Calibration History and Standards Log
GEL SOP GL-OA-E-040
EPA Method: 8082 Polychlorinated Biphenyls PCBs by Gas Chromatography
Sequence Number: /chem/ecd8a.i/020310a.b Injection Volume: 1.0 ul

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001f0101.d	WAR091130-99 01	JAOC	03-FEB-2010 10:12		020310a	1.0		CLEAN
002f0201.d	WAR100203-01 60	JAOC	03-FEB-2010 10:24		020310a	1.0		1660 LEVEL 1
003f0301.d	WAR100203-02 60	JAOC	03-FEB-2010 10:37		020310a	1.0		1660 LEVEL 2
004f0401.d	WAR100203-03 60	JAOC	03-FEB-2010 10:49		020310a	1.0		1660 LEVEL 3
005f0501.d	WAR100203-04 60	JAOC	03-FEB-2010 11:01		020310a	1.0		1660 LEVEL 4
006f0601.d	IAR100104-01 60	JAOC	03-FEB-2010 11:14		020310a	1.0		1660 LEVEL 5
007f0701.d	WAR100203-60 01	JAOC	03-FEB-2010 11:26		020310a	1.0		PASSES BOTH COLUMNS
008f0801.d	WAR100203-05 54	JAOC	03-FEB-2010 11:39		020310a	1.0		1254 LEVEL 1
009f0901.d	WAR100203-06 54	JAOC	03-FEB-2010 11:51		020310a	1.0		1254 LEVEL 2
010f1001.d	WAR100203-07 54	JAOC	03-FEB-2010 12:03		020310a	1.0		1254 LEVEL 3
011f1101.d	WAR100203-08 54	JAOC	03-FEB-2010 12:16		020310a	1.0		1254 LEVEL 4
012f1201.d	IAR091027-01 54	JAOC	03-FEB-2010 12:28		020310a	1.0		1254 LEVEL 5
013f1301.d	WAR100201-54	JAOC	03-FEB-2010 12:40		020310a	1.0		PASSES BOTH COLUMNS
014f1401.d	WAR100203-09 42	JAOC	03-FEB-2010 12:53		020310a	1.0		1242 LEVEL 1
015f1501.d	WAR100203-10 42	JAOC	03-FEB-2010 13:05		020310a	1.0		1242 LEVEL 2

Instrument Batch: /chem/ecd8a.i/020310a.b Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
016f1601.d	WAR100203-11 42	JAOC	03-FEB-2010 13:18		020310a	1.0		1242 LEVEL 3
017f1701.d	WAR100203-12 42	JAOC	03-FEB-2010 13:30		020310a	1.0		1242 LEVEL 4

018f1801.d	IAR091111-01 42	JAOC	03-FEB-2010 13:42		020310a	1.0		1242 LEVEL 5
019f1901.d	WAR091217-42	JAOC	03-FEB-2010 13:55		020310a	1.0		PASSES BOTH COLUMNS
020f2001.d	WAR100203-13 48	JAOC	03-FEB-2010 14:07		020310a	1.0		1248 LEVEL 1
021f2101.d	WAR100203-14 48	JAOC	03-FEB-2010 14:19		020310a	1.0		1248 LEVEL 2
022f2201.d	WAR100203-15 48	JAOC	03-FEB-2010 14:32		020310a	1.0		1248 LEVEL 3
023f2301.d	WAR100203-16 48	JAOC	03-FEB-2010 14:44		020310a	1.0		1248 LEVEL 4
024f2401.d	IAR091027-02 48	JAOC	03-FEB-2010 14:57		020310a	1.0		1248 LEVEL 5
025f2501.d	WAR091217-48	JAOC	03-FEB-2010 15:09		020310a	1.0		DUSE RE-RUN
026f2601.d	WAR100104-32	JAOC	03-FEB-2010 15:21		020310a	1.0		PATTERN ONLY
027f2701.d	WAR100104-21	JAOC	03-FEB-2010 15:34		020310a	1.0		PATTERN ONLY
028f2801.d	WAR100203-17 62	JAOC	03-FEB-2010 15:46		020310a	1.0		1262 LEVEL 1
029f2901.d	WAR100203-18 62	JAOC	03-FEB-2010 15:58		020310a	1.0		1262 LEVEL 2
030f3001.d	WAR100203-19 62	JAOC	03-FEB-2010 16:11		020310a	1.0		1262 LEVEL 3
031f3101.d	WAR100203-20 62	JAOC	03-FEB-2010 16:23		020310a	1.0		1262 LEVEL 4
032f3201.d	IAR100104-04 62	JAOC	03-FEB-2010 16:36		020310a	1.0		1262 LEVEL 5
033f3301.d	WAR100104-62	JAOC	03-FEB-2010 16:48		020310a	1.0		PASSES BOTH COLUMNS
034f3401.d	WAR091107-68	JAOC	03-FEB-2010 17:00		020310a	1.0		PATTERN ONLY
035f3501.d	WAR091217-48	JAOC	03-FEB-2010 17:13		020310a	1.0		PASSES BOTH COLUMNS

Instrument Batch: /chem/ecd8a.i/020310a.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
036f3601.d	WAR091219-DDT	JAOC	03-FEB-2010 17:25		020310a	1.0		DDT
037f3701.d	WAR091130-99 02	JAOC	03-FEB-2010 17:38		020310a	1.0		CLEAN
038f3801.d	1202026314	JAOC	03-FEB-2010 17:50	946047	2010AR1262MDL-L	1.0	QC A	UPLOAD BOTH, USE BOTH
039f3901.d	1202026315	JAOC	03-FEB-2010 18:02	946047	2010AR1262MDL-L	1.0	QC A	UPLOAD BOTH, USE BOTH
040f4001.d	243859001	JAOC	03-FEB-2010 18:15	946047	2010AR1262MDL-L	1.0	QCQA	UPLOAD BOTH, USE BOTH
041f4101.d	243859002	JAOC	03-FEB-2010 18:27	946047	2010AR1262MDL-L	1.0	QCQA	UPLOAD BOTH, USE BOTH

042f4201.d	243859003	JAOC	03-FEB-2010 18:39	946047	2010AR1262MDL-L	1.0	QCQA	UPLOAD BOTH, USE BOTH
043f4301.d	243859004	JAOC	03-FEB-2010 18:52	946047	2010AR1262MDL-L	1.0	QCQA	UPLOAD BOTH, USE BOTH
044f4401.d	243859005	JAOC	03-FEB-2010 19:04	946047	2010AR1262MDL-L	1.0	QCQA	UPLOAD BOTH, USE BOTH
045f4501.d	243859006	JAOC	03-FEB-2010 19:16	946047	2010AR1262MDL-L	1.0	QCQA	UPLOAD BOTH, USE BOTH
046f4601.d	243859007	JAOC	03-FEB-2010 19:29	946047	2010AR1262MDL-L	1.0	QCQA	UPLOAD BOTH, USE BOTH
047f4701.d	243859008	JAOC	03-FEB-2010 19:41	946047	2010AR1262MDL-L	1.0	QCQA	UPLOAD BOTH, USE BOTH
048f4801.d	WAR100203-60 02	JAOC	03-FEB-2010 19:54		020310a	1.0		PASSES BOTH COLUMNS
049f4901.d	WAR091130-99 03	JAOC	03-FEB-2010 20:06		020310a	1.0		CLEAN
050f5001.d	243865001	JAOC	03-FEB-2010 20:18	946047	2010MDLVECD81262-L	1.0	QCQA	UPLOAD BOTH, USE BOTH
051f5101.d	243865002	JAOC	03-FEB-2010 20:31	946047	2010MDLVECD81262-L	1.0	QCQA	UPLOAD BOTH, USE BOTH
052f5201.d	243865003	JAOC	03-FEB-2010 20:43	946047	2010MDLVECD81262-L	1.0	QCQA	UPLOAD BOTH, USE BOTH
053f5301.d	243865004	JAOC	03-FEB-2010 20:55	946047	2010MDLVECD81262-L	1.0	QCQA	UPLOAD BOTH, USE BOTH
054f5401.d	WAR100203-60 03	JAOC	03-FEB-2010 21:08		020310a	1.0		PASSES BOTH COLUMNS
055f5501.d	WAR091130-99 04	JAOC	03-FEB-2010 21:20		020310a	1.0		CLEAN

Instrument Batch: /chem/ecd8a.i/020310a.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
056f5601.d	245679008	JAOC	03-FEB-2010 21:33	947574	10-1449	5.0	LANL	UPLOAD BOTH, USE HIGHER
057f5701.d	245679011	JAOC	03-FEB-2010 21:45	947574	10-1449	10.0	LANL	UPLOAD BOTH, USE HIGHER
058f5801.d	245686001	JAOC	03-FEB-2010 21:57	947574	10-1432	1.0	LANL	UPLOAD BOTH, USE HIGHER
059f5901.d	WAR100203-60 04	JAOC	03-FEB-2010 22:10		020310a	1.0		PASSES BOTH COLUMNS
060f6001.d	WAR091130-99 05	JAOC	03-FEB-2010 22:22		020310a	1.0		CLEAN
061f6101.d	1202030643	JAOC	03-FEB-2010 22:34	947944	245873	1.0	QC A	UPLOAD BOTH, USE HIGHER
062f6201.d	1202030644	JAOC	03-FEB-2010 22:47	947944	245873	1.0	QC A	UPLOAD BOTH, USE HIGHER
063f6301.d	245873001	JAOC	03-FEB-2010 22:59	947944	245873	50.0	GEEL	UPLOAD BOTH, USE HIGHER
064f6401.d	1202030645	JAOC	03-FEB-2010 23:12	947944	245873	50.0	QC A	UPLOAD BOTH, USE HIGHER
065f6501.d	1202030646	JAOC	03-FEB-2010 23:24	947944	245873	50.0	QC A	UPLOAD BOTH, USE HIGHER
066f6601.d	245873002	JAOC	03-FEB-2010 23:36	947944	245873	1.0	GEEL	UPLOAD BOTH, USE HIGHER

067f6701.d	WAR100203-60 05	JAOC	03-FEB-2010 23:49		020310a	1.0	PASSES BOTH COLUMNS
068f6801.d	WAR091130-99 06	JAOC	04-FEB-2010 00:01		020310a	1.0	CLEAN

GEL ORGANIC RUN LOG INSTRUMENT ID: ECD8

DATE: 02/10/2010 METHOD: ECD8-F-8082-020310a.m OPERATOR:JAOC REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT DA699
ALUMINA LOT 1240553-A
COPPER LOT 236547-A

Calibration & QC Information
Initial Calibration Dates: See Calibration History and Standards Log
Initial Calibration Std ID's: See Calibration History and Standards Log
GEL SOP GL-OA-E-040
EPA Method: 8082 Polychlorinated Biphenyls PCBs by Gas Chromatography
Sequence Number: /chem/ecd8a.i/021010.b Injection Volume: 1.0 ul

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001f0101.d	WAR100105-99 01	JAOC	10-FEB-2010 08:19		021010	1.0		CLEAN
002f0201.d	WAR100203-60 01	JAOC	10-FEB-2010 08:32		021010	1.0		PASSES BOTH COLUMNS
003f0301.d	WAR100201-54	JAOC	10-FEB-2010 08:44		021010	1.0		PASSES BOTH COLUMNS
004f0401.d	WAR091217-42	JAOC	10-FEB-2010 08:56		021010	1.0		PASSES BOTH COLUMNS
005f0501.d	WAR091217-48	JAOC	10-FEB-2010 09:09		021010	1.0		PASSES BOTH COLUMNS
006f0601.d	WAR100104-32	JAOC	10-FEB-2010 09:21		021010	1.0		PASSES BOTH COLUMNS
007f0701.d	WAR100104-21	JAOC	10-FEB-2010 09:34		021010	1.0		PATTERN ONLY
008f0801.d	WAR100104-62	JAOC	10-FEB-2010 09:46		021010	1.0		PATTERN ONLY
009f0901.d	WAR100107-68	JAOC	10-FEB-2010 09:58		021010	1.0		PATTERN ONLY
010f1001.d	WAR091219-DDT	JAOC	10-FEB-2010 10:11		021010	1.0		DDT
011f1101.d	WAR100105-99 02	JAOC	10-FEB-2010 10:23		021010	1.0		CLEAN
012f1201.d	246310001	JAOC	10-FEB-2010 10:35	949971	246310	50.0	SSFL	UPLOAD BOTH, USE HIGHER
013f1301.d	246310002	JAOC	10-FEB-2010 10:48	949971	246310	5.0	SSFL	UPLOAD BOTH, USE HIGHER
014f1401.d	WAR100203-60 02	JAOC	10-FEB-2010 11:00		021010	1.0		PASSES BOTH COLUMNS
015f1501.d	WAR100105-99 03	JAOC	10-FEB-2010 11:13		021010	1.0		CLEAN

Instrument Batch: /chem/ecd8a.i/021010.b Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
016f1601.d	1202037817	JAOC	10-FEB-2010 11:25	950900	10-1648	1.0	QC A	UPLOAD BOTH, USE HIGHER
017f1701.d	1202037818	JAOC	10-FEB-2010 11:37	950900	10-1648	1.0	QC A	UPLOAD BOTH, USE HIGHER

018f1801.d	1202037819	JAOC	10-FEB-2010 11:50	950900	10-1648		1.0	QC A	UPLOAD BOTH, USE HIGHER
019f1901.d	246429001	JAOC	10-FEB-2010 12:02	950900	10-1648		20.0	LANL	UPLOAD BOTH, USE HIGHER
020f2001.d	246429002	JAOC	10-FEB-2010 12:14	950900	10-1648		5.0	LANL	UPLOAD BOTH, USE HIGHER
021f2101.d	246429003	JAOC	10-FEB-2010 12:27	950900	10-1648		5.0	LANL	UPLOAD BOTH, USE HIGHER
022f2201.d	WAR100203-60 03	JAOC	10-FEB-2010 12:39		021010		1.0		PASSES BOTH COLUMNS

Prep Logbook

Extraction of Semivolatile and Nonvolatile Organic Compounds from Soil, Sludge, and Other Miscellaneous Solid Samples

Batch ID: 950899 **Verified by:** _____

Analyst: Andrew Schwemin **Lab SOP:** GL–OA–E–010 REV# 18

Method: SW846 3550B **Instrument:** Semi–Volatiles Manual

Sample ID	Run Date	Aliquot (Filter)	Clean Up	Prior to Clean up (mL)	Amount Cleaned (mL)	After Clean up (mL)	Prepped Aliquot (mL)	Prepped Factor (mL/Filter)
1202037817 MB	09–FEB–2010 21:55:00	1	H2SO4/KMn2		2	9	1	1
1202037818 LCS	09–FEB–2010 21:55:00	1	H2SO4/KMn2		2	9	1	1
1202037819 LCSD	09–FEB–2010 21:55:00	1	H2SO4/KMn2		2	9	1	1
246429001	09–FEB–2010 21:55:00	1	H2SO4/KMn2		2	9	1	1
246429002	09–FEB–2010 21:55:00	1	H2SO4/KMn2		2	9	1	1
246429003	09–FEB–2010 21:55:00	1	H2SO4/KMn2		2	9	1	1

Type	Sample Id	Description	Serial Number	Spike Amt	Units
LCS	1202037818	PCB Laboratory Control	WE100126–07	1	mL
LCSD	1202037819	PCB Laboratory Control	WE100126–07	1	mL
SURR	All	PEST LOW LEVEL SURROGATE 200 UG/L	UE100127–15	1	mL
REGNT	All	1:1 sulfuric acid	1260695a	5	mL
REGNT	All	Acetone	1264558	150	mL
REGNT	All	Hexane	1264562–B2	150	mL
REGNT	All	5% Potassium Permanganate	B1202457–F	5	mL
SOURC	All	SODIUM SULFATE	1114730	30	g

Comments:

Clean up Date: 2/9/10

Clean up Initials: AJS

Verified By: AV

Final Solvent: Hexane

Clean Up SOP: GL–OA–E–036

Wednesday, February 03, 2010

REQUEST NUMBER: 10-1604

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis
General Engineering Laboratories, Inc., Charleston, SC.
2040 Savage Rd
Charleston, SC 29407

These Samples are on:
LANL Request Number:10-1604
Per Agreement Number:126310011
Project Cost Code: MR2A054196D0

Please analyse the enclosed samples
according to the schedule indicated:

SHIP DATE: 2/3/2010
TURNAROUND/REPORT DUE: 3/5/2010
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Not Required
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:6010B	1	RE03-10-12247	S	2/2/2010	Plus, B, Li, Si, Ti, U
		1	RE03-10-12248	S	2/2/2010	Plus, B, Li, Si, Ti, U
	SW-846:8082	1	RE03-10-12247	S	2/2/2010	
		1	RE03-10-12248	S	2/2/2010	
	SW-846:8260B	1	RE03-10-12247	S	2/2/2010	
		1	RE03-10-12248	S	2/2/2010	
	SW-846:8270C	1	RE03-10-12247	S	2/2/2010	
		1	RE03-10-12248	S	2/2/2010	
	SW-846:9012A	1	RE03-10-12247	S	2/2/2010	Plus, B, Li, Si, Ti, U

Wednesday, February 03, 2010

REQUEST NUMBER: 10-1604

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:9012A	1	RE03-10-12248	S	2/2/2010	Plus, B, Li, Si, Ti, U

Final Page of REQUEST NUMBER 10-1604

Wednesday, February 03, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1604

REQUEST NUMBER: 10-1604

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 3/5/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS:

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE03-10-12247	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-10-12247	1	AMBER GLASS	8270C+8082	Ice	S
RE03-10-12247	1	POLY	Metals+CN - GEL	Ice	S
RE03-10-12248	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-10-12248	1	AMBER GLASS	8270C+8082	Ice	S
RE03-10-12248	1	POLY	Metals+CN - GEL	Ice	S

Relinquished By:		Date	Time	Received By:		Date	Time
[illegible]	[illegible]	2/18/10	1400				
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

Received for DISPOSAL By:		Date	Time	Remarks:
Printed Name	Signature			

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2274 **EVENT NAME:** Soil Sampling at CU 03-015-00, Part 2

SAMPLE ID: RE03-10-12247 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		2/2/10	MEDIA:	ALLH	ok
TIME COLLECTED (HH:MM)		1445	SUB-MEDIA:	SOIL	NA
PRS ID:	03-052(b)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	03-608339	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC		FIELD PREP:	NA	
TOP DEPTH:	~~1~~ JS 2-2-10	7 ft	SAMPLE USAGE:	INV	
BOTTOM DEPTH:	~~2~~	8 ft	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	S		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+8082	250 ML AMBER GLASS	Ice	Y	
1		Metals+CN - GEL	125 ML POLY	Ice	Y	Plus, B, Li, Si, Ti, U
~~0~~		~~AMENDMENT~~		None		
0		AMENDMENT		None 2/2/10		
0		AMENDMENT		None		
0		AMENDMENT		None		

SAMPLE DESC: Brown silty sand fill (7.5 YR 4/4)

SAMPLE COMMENTS: ~~Material is silty clay, moist, brown dark brown (7.5 yr 3/2) 03-52b-2~~

LOCATION DESC: 52b - 2

FIELD SCREENING/MEASUREMENT RESULTS: BACKGROUND Samples < MDA

α: 18

β: 978

COLLECTED BY (PRINT) D. Thomas

REVIEWED BY (PRINT) M. Shendo

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) M. Shendo	2/2/10	(Printed Name) Sherri Sherwood	2/2/10
(Signature) [signature]	1630	(Signature) Sherri Sherwood	1630
IQUISHED BY	Date/Time	RECEIVED BY	Date/Time
d Name)		(Printed Name)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2274 **EVENT NAME:** Soil Sampling at CU 03-015-00, Part 2

SAMPLE ID: RE03-10-12248 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		2/2/10	MEDIA:	~~ALL~~ MR 2/2/10	QBT3
TIME COLLECTED (HH:MM)		1458	SUB-MEDIA:	SOIL	NA
PRS ID:	03-052(b)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	03-608339	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	~~4~~ 9 JW 2-2-10	10 ft	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	~~5~~	11 ft	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	S		EXCAVATED: YES / NO / (NA)		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / (NA)

BOREHOLE: YES / NO / (NA) BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+8082	250 ML AMBER GLASS	Ice	Y	
1		Metals+CN - GEL	125 ML POLY	Ice	Y	Plus, B, Li, Si, Ti, U
~~0~~		AMENDMENT		None		
0		AMENDMENT		None MR 2/2/10		
0		AMENDMENT		None		
0		AMENDMENT		None		

SAMPLE DESC: gray tuff (5 YR 6/1)

SAMPLE COMMENTS: ~~Material is silty sand with clay. Brown (7.5 yr 4/3).~~ Hit tuff @ 9'
~~03-52b-2~~ MR 2/2/10

LOCATION DESC: 526 - 2

FIELD SCREENING/MEASUREMENT RESULTS:

BACKGROUND samples LMDA
α: 18
β: 978

COLLECTED BY (PRINT) D. Thomas REVIEWED BY (PRINT) M. Shenda

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) M. Shenda	2/2/10	(Printed Name) Sherri Sherwood	2/2/10
(Signature) [signature]	1630	(Signature) Sherri Sherwood	1630
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	

'DATA VALIDATION COVER SHEET

5114-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY

Section I.

REQUEST NUMBER: 10-1604 VALIDATION DATE: 03/15/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Peter Steves ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☒ OTHER (DESCRIBE): VOCs

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☒	☐	☐	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☒	☐	☐	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. The CCV %Ds were >20% for chloromethane, bromomethane, trichlorofluoromethane and acetone. The associated sample results were NDs and, thus, were qualified UJ,V7c.

Reviewed by: Monica Dymerski **Level I** **Date:** 03/16/10

VALIDATOR'S SIGNATURE: Mr. Peter Steves DATE: 03/15/10

VOLATILE ORGANIC COMPOUND (VOC) ANALYTICAL DATA VALIDATION CHECKLIST

5114-2 Volatile Organic Compound (VOC) Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, V9	J-, V9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, V9a	J-, V9a
☐	☐	☒	3. The instrument performance sample did not pass method acceptance criteria.	R, V16	R, V16
☐	☐	☒	4. Samples were analyzed outside specific method tune time criteria.	N/A	J, V16b
☐	☐	☒	5. The required instrument performance sample information is missing. Contact the SMO or external laboratory for information.	R, V16c	R, V16c
☐	☒	☐	6. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ or R, V7	J, V7
☐	☒	☐	7. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, V7a	J, V7a
☐	☒	☐	8. The affected analytes were analyzed with an RRF of <0.05 in the initial calibration and/or CCV.	R, V7b	J, V7b
☒	☐	☐	9. The Initial Calibration Verification (ICV) and/or Continuing Calibration Verification (CCV) were recovered outside the method-specific limits.	UJ, V7c	J, V7c
☐	☒	☐	10. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, V7d	J, V7d
☐	☒	☐	11. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, V7f	R, V7f

VOLATILE ORGANIC COMPOUND (VOC) ANALYTICAL DATA VALIDATION CHECKLIST

5114-2

Volatile Organic Compound (VOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	12. The sample result is ≤5X (10X for common organic laboratory contaminants) the concentration of the related analyte in the method blank.	U, V4	N/A
☐	☒	☐	13. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X (10X for common laboratory contaminants).	N/A	J, V4a
☐	☐	☒	14. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, and/or equipment blank.	U, V4d	N/A
☐	☒	☐	15. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V4e	R, V4e
☐	☒	☐	16. The IS retention time has shifted by more than 30 seconds.	UJ, V0	J, V0
☐	☐	☒	17. Analyte is positively confirmed but outside the IS retention time window; however, spectral matches must be provided.	N/A	J, V0a
☐	☒	☐	18. Required IS retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V0b	R, V0b
☐	☐	☒	19. The quantitating IS are count is <10% of the expected value, which indicates increased potential for false negative results and other possible problems with sample quantitation. Follow method-specific windows.	R, V1a	J, V1a
☐	☐	☒	20. The IS area count for the quantitating IS is <50% but >10% for organics window relation to the previous continuing calibration. Follow the method-specific windows.	UJ, V1b	J, V1b

VOLATILE ORGANIC COMPOUND (VOC) ANALYTICAL DATA VALIDATION CHECKLIST

5114-2 Volatile Organic Compound (VOC) Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	21. The IS area count for the quantitating IS is >200% of the area count for the previous organic continuing calibration. Follow the method-specific windows.	UJ, V1c	J, V1c
☐	☐	☒	22. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V1d	R, V1d
☐	☒	☐	23. The surrogate is <10%R. Follow the external laboratory limits located within the associated data package.	R, V3	J-, V3
☐	☒	☐	24. The surrogate is < the Lower Acceptance Limit (LAL) but ≥10%R. Follow the external laboratory limits located within the associated data package.	UJ, V3a	J-, V3a
☐	☒	☐	25. The surrogate %R is > the Upper Acceptance Limit (UAL) Follow the external laboratory limits located within the associated data package.	N/A	J+, V3b
☐	☒	☐	26. At least one surrogate is > the UAL and one surrogate is < the LAL. Follow the external laboratory limits located within the associated data package.	UJ, V3c	J, V3c
☐	☒	☐	27. Required surrogate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V3d	R, V3d
☐	☒	☐	28. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, V12	J-, V12
☐	☒	☐	29. The LCS percent recovery was < the LAL but > 10%. Follow the external laboratory limits located within the associated data package.	UV, V12a	J-, V12a
☐	☒	☐	30. The LCS percent recover was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, V12b

VOLATILE ORGANIC COMPOUND (VOC) ANALYTICAL DATA VALIDATION CHECKLIST

5114-2

Volatile Organic Compound (VOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	31. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V12c	R, V12c
☐	☐	☒	32. The affected analyte is considered not detected because mass spectrum did not meet specifications.	N/A	U, V8
☐	☐	☒	33. The mass spectrum column documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V8a	R, V8a
☐	☒	☐	34. Duplicate, dilution, or reanalysis.	UJ, V88	J, V88
☐	☐	☒	35. The affected analytes have elevated detection limits and may not meet project DQOs because the sample was diluted without any target analytees identified due to matrix interference. Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.	UJ, R, V15	R, V15
☒	☐	☐	36. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB, NQ, NQ
☐	☒	☐	37. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.	UJ, R, V19	J, R, V19

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1604	Date Collected:	02/02/2010 12:00	Matrix:	S
Lab Sample ID:	246333001	Date Received:	02/05/2010 09:00	%Moisture:	15.4
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-10-12247	Method:	SW846 8260B	SOP Ref:	GL-OA-E-038
Batch ID:	949891	Inst:	VOA2.I	Dilution:	1
Run Date:	02/05/2010 20:10	Analyst:	CDS1	Purge Vol:	5 mL
Prep Date:	02/05/2010 16:30	Aliquot:	5 g	Final Volume:	5 mL
Data File:	020510V2.b\2X529.D	Column:	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
75-71-8	Dichlorodifluoromethane	U	1.18	ug/kg	0.402	1.18	
74-87-3	Chloromethane	U	1.18	ug/kg	0.354	1.18	UJ,V7c
75-01-4	Vinyl chloride	U	1.18	ug/kg	0.354	1.18	
74-83-9	Bromomethane	U	1.18	ug/kg	0.354	1.18	UJ,V7c
75-00-3	Chloroethane	U	1.18	ug/kg	0.354	1.18	
75-69-4	Trichlorofluoromethane	U	1.18	ug/kg	0.354	1.18	UJ,V7c
67-64-1	Acetone	U	5.91	ug/kg	1.96	5.91	UJ,V7c
75-35-4	1,1-Dichloroethylene	U	1.18	ug/kg	0.354	1.18	
74-88-4	Iodomethane	U	5.91	ug/kg	1.89	5.91	
75-09-2	Methylene chloride	U	5.91	ug/kg	2.36	5.91	
75-15-0	Carbon disulfide	U	5.91	ug/kg	1.48	5.91	
156-60-5	trans-1,2-Dichloroethylene	U	1.18	ug/kg	0.354	1.18	
75-34-3	1,1-Dichloroethane	U	1.18	ug/kg	0.354	1.18	
78-93-3	2-Butanone	U	5.91	ug/kg	1.77	5.91	
156-59-2	cis-1,2-Dichloroethylene	U	1.18	ug/kg	0.354	1.18	
594-20-7	2,2-Dichloropropane	U	1.18	ug/kg	0.354	1.18	
67-66-3	Chloroform	U	1.18	ug/kg	0.354	1.18	
74-97-5	Bromochloromethane	U	1.18	ug/kg	0.390	1.18	
71-55-6	1,1,1-Trichloroethane	U	1.18	ug/kg	0.354	1.18	
563-58-6	1,1-Dichloropropene	U	1.18	ug/kg	0.354	1.18	
56-23-5	Carbon tetrachloride	U	1.18	ug/kg	0.354	1.18	
107-06-2	1,2-Dichloroethane	U	1.18	ug/kg	0.354	1.18	
71-43-2	Benzene	U	1.18	ug/kg	0.354	1.18	
79-01-6	Trichloroethylene	U	1.18	ug/kg	0.390	1.18	
78-87-5	1,2-Dichloropropane	U	1.18	ug/kg	0.354	1.18	
75-27-4	Bromodichloromethane	U	1.18	ug/kg	0.354	1.18	
74-95-3	Dibromomethane	U	1.18	ug/kg	0.354	1.18	
108-10-1	4-Methyl-2-pentanone	U	5.91	ug/kg	1.48	5.91	
10061-01-5	cis-1,3-Dichloropropylene	U	1.18	ug/kg	0.354	1.18	
108-88-3	Toluene	U	1.18	ug/kg	0.354	1.18	
10061-02-6	trans-1,3-Dichloropropylene	U	1.18	ug/kg	0.354	1.18	
79-00-5	1,1,2-Trichloroethane	U	1.18	ug/kg	0.354	1.18	
591-78-6	2-Hexanone	U	5.91	ug/kg	1.77	5.91	
142-28-9	1,3-Dichloropropane	U	1.18	ug/kg	0.354	1.18	
127-18-4	Tetrachloroethylene	U	1.18	ug/kg	0.354	1.18	
124-48-1	Dibromochloromethane	U	1.18	ug/kg	0.354	1.18	
106-93-4	1,2-Dibromoethane	U	1.18	ug/kg	0.354	1.18	
108-90-7	Chlorobenzene	U	1.18	ug/kg	0.354	1.18	

P.S. 3/15/10

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1604	Date Collected:	02/02/2010 12:00	Matrix:	S
Lab Sample ID:	246333001	Date Received:	02/05/2010 09:00	%Moisture:	15.4
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-10-12247	Method:	SW846 8260B	SOP Ref:	GL-OA-E-038
Batch ID:	949891	Inst:	VOA2.I	Dilution:	1
Run Date:	02/05/2010 20:10	Analyst:	CDS1	Purge Vol:	5 mL
Prep Date:	02/05/2010 16:30	Aliquot:	5 g	Final Volume:	5 mL
Data File:	020510V2.b\2X529.D	Column:	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.18	ug/kg	0.354	1.18
179601-23-1	m,p-Xylenes	U	2.36	ug/kg	0.354	2.36
95-47-6	o-Xylene	U	1.18	ug/kg	0.354	1.18
100-42-5	Styrene	U	1.18	ug/kg	0.354	1.18
75-25-2	Bromoform	U	1.18	ug/kg	0.354	1.18
79-34-5	1,1,2,2-Tetrachloroethane	U	1.18	ug/kg	0.354	1.18
96-18-4	1,2,3-Trichloropropane	U	1.18	ug/kg	0.354	1.18
108-86-1	Bromobenzene	U	1.18	ug/kg	0.354	1.18
103-65-1	n-Propylbenzene	U	1.18	ug/kg	0.354	1.18
95-49-8	2-Chlorotoluene	U	1.18	ug/kg	0.354	1.18
98-82-8	Isopropylbenzene	U	1.18	ug/kg	0.354	1.18
108-67-8	1,3,5-Trimethylbenzene	U	1.18	ug/kg	0.354	1.18
106-43-4	4-Chlorotoluene	U	1.18	ug/kg	0.354	1.18
98-06-6	tert-Butylbenzene	U	1.18	ug/kg	0.354	1.18
95-63-6	1,2,4-Trimethylbenzene	U	1.18	ug/kg	0.354	1.18
135-98-8	sec-Butylbenzene	U	1.18	ug/kg	0.354	1.18
99-87-6	4-Isopropyltoluene	U	1.18	ug/kg	0.354	1.18
541-73-1	1,3-Dichlorobenzene	U	1.18	ug/kg	0.354	1.18
106-46-7	1,4-Dichlorobenzene	U	1.18	ug/kg	0.354	1.18
104-51-8	n-Butylbenzene	U	1.18	ug/kg	0.354	1.18
96-12-8	1,2-Dibromo-3-chloropropane	U	1.18	ug/kg	0.354	1.18
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.91	ug/kg	1.89	5.91
630-20-6	1,1,1,2-Tetrachloroethane	U	1.18	ug/kg	0.354	1.18
95-50-1	1,2-Dichlorobenzene	U	1.18	ug/kg	0.354	1.18

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown	4.32	6.19	ug/kg	0	J

P.S. 3/15/10

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1604	Date Collected:	02/02/2010 12:00	Matrix:	S
Lab Sample ID:	246333002	Date Received:	02/05/2010 09:00	%Moisture:	9.9
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-10-12248	Method:	SW846 8260B	SOP Ref:	GL-OA-E-038
Batch ID:	949891	Inst:	VOA2.I	Dilution:	1
Run Date:	02/05/2010 20:39	Analyst:	CDS1	Purge Vol:	5 mL
Prep Date:	02/05/2010 16:33	Aliquot:	5 g	Final Volume:	5 mL
Data File:	020510V2.b\2X530.D	Column:	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
75-71-8	Dichlorodifluoromethane	U	1.11	ug/kg	0.377	1.11	
74-87-3	Chloromethane	U	1.11	ug/kg	0.333	1.11	UJ,V7c
75-01-4	Vinyl chloride	U	1.11	ug/kg	0.333	1.11	
74-83-9	Bromomethane	U	1.11	ug/kg	0.333	1.11	UJ,V7c
75-00-3	Chloroethane	U	1.11	ug/kg	0.333	1.11	
75-69-4	Trichlorofluoromethane	U	1.11	ug/kg	0.333	1.11	UJ,V7c
67-64-1	Acetone	U	5.55	ug/kg	1.84	5.55	UJ,V7c
75-35-4	1,1-Dichloroethylene	U	1.11	ug/kg	0.333	1.11	
74-88-4	Iodomethane	U	5.55	ug/kg	1.78	5.55	
75-09-2	Methylene chloride	U	5.55	ug/kg	2.22	5.55	
75-15-0	Carbon disulfide	U	5.55	ug/kg	1.39	5.55	
156-60-5	trans-1,2-Dichloroethylene	U	1.11	ug/kg	0.333	1.11	
75-34-3	1,1-Dichloroethane	U	1.11	ug/kg	0.333	1.11	
78-93-3	2-Butanone	U	5.55	ug/kg	1.67	5.55	
156-59-2	cis-1,2-Dichloroethylene	U	1.11	ug/kg	0.333	1.11	
594-20-7	2,2-Dichloropropane	U	1.11	ug/kg	0.333	1.11	
67-66-3	Chloroform	U	1.11	ug/kg	0.333	1.11	
74-97-5	Bromochloromethane	U	1.11	ug/kg	0.366	1.11	
71-55-6	1,1,1-Trichloroethane	U	1.11	ug/kg	0.333	1.11	
563-58-6	1,1-Dichloropropene	U	1.11	ug/kg	0.333	1.11	
56-23-5	Carbon tetrachloride	U	1.11	ug/kg	0.333	1.11	
107-06-2	1,2-Dichloroethane	U	1.11	ug/kg	0.333	1.11	
71-43-2	Benzene	U	1.11	ug/kg	0.333	1.11	
79-01-6	Trichloroethylene	U	1.11	ug/kg	0.366	1.11	
78-87-5	1,2-Dichloropropane	U	1.11	ug/kg	0.333	1.11	
75-27-4	Bromodichloromethane	U	1.11	ug/kg	0.333	1.11	
74-95-3	Dibromomethane	U	1.11	ug/kg	0.333	1.11	
108-10-1	4-Methyl-2-pentanone	U	5.55	ug/kg	1.39	5.55	
10061-01-5	cis-1,3-Dichloropropylene	U	1.11	ug/kg	0.333	1.11	
108-88-3	Toluene	U	1.11	ug/kg	0.333	1.11	
10061-02-6	trans-1,3-Dichloropropylene	U	1.11	ug/kg	0.333	1.11	
79-00-5	1,1,2-Trichloroethane	U	1.11	ug/kg	0.333	1.11	
591-78-6	2-Hexanone	U	5.55	ug/kg	1.67	5.55	
142-28-9	1,3-Dichloropropane	U	1.11	ug/kg	0.333	1.11	
127-18-4	Tetrachloroethylene	U	1.11	ug/kg	0.333	1.11	
124-48-1	Dibromochloromethane	U	1.11	ug/kg	0.333	1.11	
106-93-4	1,2-Dibromoethane	U	1.11	ug/kg	0.333	1.11	
108-90-7	Chlorobenzene	U	1.11	ug/kg	0.333	1.11	

P.S. 3/15/10

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1604	Date Collected:	02/02/2010 12:00	Matrix:	S
Lab Sample ID:	246333002	Date Received:	02/05/2010 09:00	%Moisture:	9.9
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-10-12248	Method:	SW846 8260B	SOP Ref:	GL-OA-E-038
Batch ID:	949891	Inst:	VOA2.I	Dilution:	1
Run Date:	02/05/2010 20:39	Analyst:	CDS1	Purge Vol:	5 mL
Prep Date:	02/05/2010 16:33	Aliquot:	5 g	Final Volume:	5 mL
Data File:	020510V2.b\2X530.D	Column:	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.11	ug/kg	0.333	1.11
179601-23-1	m,p-Xylenes	U	2.22	ug/kg	0.333	2.22
95-47-6	o-Xylene	U	1.11	ug/kg	0.333	1.11
100-42-5	Styrene	U	1.11	ug/kg	0.333	1.11
75-25-2	Bromoform	U	1.11	ug/kg	0.333	1.11
79-34-5	1,1,2,2-Tetrachloroethane	U	1.11	ug/kg	0.333	1.11
96-18-4	1,2,3-Trichloropropane	U	1.11	ug/kg	0.333	1.11
108-86-1	Bromobenzene	U	1.11	ug/kg	0.333	1.11
103-65-1	n-Propylbenzene	U	1.11	ug/kg	0.333	1.11
95-49-8	2-Chlorotoluene	U	1.11	ug/kg	0.333	1.11
98-82-8	Isopropylbenzene	U	1.11	ug/kg	0.333	1.11
108-67-8	1,3,5-Trimethylbenzene	U	1.11	ug/kg	0.333	1.11
106-43-4	4-Chlorotoluene	U	1.11	ug/kg	0.333	1.11
98-06-6	tert-Butylbenzene	U	1.11	ug/kg	0.333	1.11
95-63-6	1,2,4-Trimethylbenzene	U	1.11	ug/kg	0.333	1.11
135-98-8	sec-Butylbenzene	U	1.11	ug/kg	0.333	1.11
99-87-6	4-Isopropyltoluene	U	1.11	ug/kg	0.333	1.11
541-73-1	1,3-Dichlorobenzene	U	1.11	ug/kg	0.333	1.11
106-46-7	1,4-Dichlorobenzene	U	1.11	ug/kg	0.333	1.11
104-51-8	n-Butylbenzene	U	1.11	ug/kg	0.333	1.11
96-12-8	1,2-Dibromo-3-chloropropane	U	1.11	ug/kg	0.333	1.11
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.55	ug/kg	1.78	5.55
630-20-6	1,1,1,2-Tetrachloroethane	U	1.11	ug/kg	0.333	1.11
95-50-1	1,2-Dichlorobenzene	U	1.11	ug/kg	0.333	1.11

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown	4.32	6.89	ug/kg	0	J
	unknown siloxane	19.16	6.83	ug/kg	0	J

P.S. 3/15/10

DATA VALIDATION COVER SHEET

5115-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-1604 VALIDATION DATE: 03/15/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Peter Steves ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☒ OTHER (DESCRIBE): SVOCs

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☒	☐	☐	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☒	☐	☐	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. The ICV and/or CCV %Ds were > 20% for n-methyl-n-nitrosomethylamine; pyridine; bis(2-chloroethyl)ether; bis(2-chloroisopropyl)ether; benzyl alcohol; nitrobenzene; isophorone; bis(2-chloroethoxy)methane; benzoic acid; naphthalene; 4-nitrophenol; fluorene; 2-methyl-4,6-dinitrophenol; indeno(1,2,3-cd)pyrene; dibenzo(a,h)anthracene and benzo(ghi)perylene; The associated sample results were NDs and, thus, were qualified UJ,SV7c.
2. The LCS %R was < the laboratory LAL but ≥10% for benzyl alcohol. The associated sample results were NDs and, thus, were qualified UJ,V12a.
3. The MS/MSD %Rs and/or RPDs for several compounds did not meet laboratory acceptance criteria. Since the analysis of an MS or MSD was not required for SVOCs, no sample data were qualified as a result.

Reviewed by: Monica Dymerski **Level I** **Date:** 03/16/10

VALIDATOR'S SIGNATURE: Mr. Peter Steves DATE: 03/15/10

SEMIVOLATILE ORGANIC COMPOUND (SVOC) ANALYTICAL DATA VALIDATION CHECKLIST

5115-2

Semivolatile Organic Compound (SVOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, SV9	J-, SV9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, SV9a	J-, SV9a
☐	☒	☐	3. The affected analytes are regarded as rejected because the analytical holding time was exceeded.	R, SV9b	R, SV9b
☐	☐	☒	4. The instrument performance sample did not pass method acceptance criteria.	R, SV16	R, SV16
☐	☐	☒	5. Samples were analyzed outside specific method tune time criteria.	N/A	J, SV16b
☐	☐	☒	6. The required instrument performance sample information is missing. Contact the SMO or external laboratory for information.	R, SV16c	R, SV16c
☐	☒	☐	7. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, SV7	J, SV7
☐	☒	☐	8. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, SV7a	J, SV7a
☐	☒	☐	9. The affected analytes were analyzed with an RRF of <0.05 in the initial calibration and/or Continuing Calibration Verification (CCV).	R, SV7b	J, SV7b
☒	☐	☐	10. The Initial Calibration Verification (ICV) and/or CCV were recovered outside the method-specific limits.	UJ, SV7c	J, SV7c
☐	☒	☐	11. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, SV7d	J, SV7d

SEMIVOLATILE ORGANIC COMPOUND (SVOC) ANALYTICAL DATA VALIDATION CHECKLIST

5115-2

Semivolatile Organic Compound (SVOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST 1947

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	12. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, SV7f	R, SV7f
☐	☒	☐	13. The sample result is ≤5X (10X for common organic laboratory contaminates) the concentration of the related analyte in the method blank.	U, SV4	J, V4a
☐	☒	☐	14. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was greater than 5X (10X for common laboratory contaminates).	N/A	J, SV4a
☐	☐	☒	15. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	UJ, SV4d	N/A
☐	☒	☐	16. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV4e	R, SV4e
☐	☒	☐	17. The IS retention time has shifted by more than 30 seconds.	UJ, SV0	J, SV0
☐	☐	☒	18. Analyte is positively confirmed but outside the IS retention time window; however, spectral matches must be provided.	N/A	J, SV0a
☐	☒	☐	19. Required IS retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV0b	R, SV0b
☐	☐	☒	20. The quantitating IS area count is <10% of the expected value, which indicates increased potential for false negative results and other possible problems with sample quantitation. Follow method-specific windows.	R, SV1a	J, SV1a

SEMIVOLATILE ORGANIC COMPOUND (SVOC) ANALYTICAL DATA VALIDATION CHECKLIST

5115-2

Semivolatile Organic Compound (SVOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	21. The IS area count for the quantitating IS is <50% but >10% for organics window relation to the previous continuing calibration. Follow method-specific windows.	UJ, SV1b	J, SV1b
☐	☐	☒	22. The IS area count for the quantitating IS is >200% of the area count for the previous continuing calibration. Follow method-specific windows.	UJ, SV1c	J, SV1c
☐	☐	☒	23. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV1d	R, SV1d
☐	☒	☐	24. The surrogate is <10%R. Follow the external laboratory limits located within the associated data package.	R, SV3	J-, SV3
☐	☒	☐	25. The surrogate is < the Lower Acceptance Level (LAL) but ≥10%R. Follow the external laboratory limits located within the associated data package.	UJ, SV3a	J-, SV3a
☐	☒	☐	26. The surrogate %R value is > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, SV3b
☐	☒	☐	27. At least one surrogate is > the Upper Acceptance Limit (UAL) and one surrogate is < the LAL. Follow the external laboratory limits located within the associated data package.	UJ, SV3c	J, SV3c
☐	☒	☐	28. Required surrogate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV3d	R, SV3d
☐	☒	☐	29. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, SV12	J-, SV12

SEMIVOLATILE ORGANIC COMPOUND (SVOC) ANALYTICAL DATA VALIDATION CHECKLIST

5115-2

Semivolatile Organic Compound (SVOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☒	☐	☐	30. The LCS percent recovery was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, SV12a	J-, SV12a
☐	☒	☐	31. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, SV12b
☐	☒	☐	32. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV12c	R, SV12c
☐	☐	☒	33. The affected analyte is considered not detected because mass spectrum did not meet specifications.	N/A	U, SV8
☐	☐	☒	34. The mass spectrum column documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV8a	R, SV8a
☐	☒	☐	35. Duplicate, dilution, or reanalysis.	UJ, SV88	J, SV88
☐	☐	☒	36. The affected analytes have elevated detection limits and may not meet project DQOs because the sample was diluted without any target analytees identified due to matrix interference. Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.	UJ, R, SV15	R, SV15
☒	☐	☐	37. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB, NQ, NQ
☐	☒	☐	38. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.	UJ, R, SV19	J, R, SV19

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1604	Date Collected:	02/02/2010 12:00	Matrix:	S
Lab Sample ID:	246333001	Date Received:	02/05/2010 09:00	%Moisture:	15.4
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-10-12247	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	949740	Inst:	MSD7.I	Dilution:	1
Run Date:	02/08/2010 13:59	Analyst:	JMB3	Inj. Vol:	.5 uL
Prep Date:	02/05/2010 19:48	Aliquot:	30.15 g	Final Volume:	1 mL
Data File:	s7b0810.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
62-75-9	N-Methyl-N-nitrosomethylamine	U	392	ug/kg	78.4	392	UJ,SV7c
108-95-2	Phenol	U	392	ug/kg	78.4	392	
95-57-8	2-Chlorophenol	U	392	ug/kg	78.4	392	
106-46-7	1,4-Dichlorobenzene	U	392	ug/kg	78.4	392	
621-64-7	N-Nitrosodipropylamine	U	392	ug/kg	78.4	392	
59-50-7	4-Chloro-3-methylphenol	U	392	ug/kg	78.4	392	
83-32-9	Acenaphthene	U	39.2	ug/kg	12.9	39.2	
121-14-2	2,4-Dinitrotoluene	U	392	ug/kg	39.2	392	
100-02-7	4-Nitrophenol	U	392	ug/kg	129	392	UJ,SV7c
87-86-5	Pentachlorophenol	U	392	ug/kg	98.0	392	
129-00-0	Pyrene	U	39.2	ug/kg	11.8	39.2	
110-86-1	Pyridine	U	392	ug/kg	78.4	392	UJ,SV7c
62-53-3	Aniline	U	392	ug/kg	118	392	
111-44-4	bis(2-Chloroethyl) ether	U	392	ug/kg	78.4	392	UJ,SV7c
541-73-1	1,3-Dichlorobenzene	U	392	ug/kg	78.4	392	
100-51-6	Benzyl alcohol	U	392	ug/kg	118	392	UJ,SV7c
95-50-1	1,2-Dichlorobenzene	U	392	ug/kg	78.4	392	
108-60-1	bis(2-Chloroisopropyl)ether	U	392	ug/kg	78.4	392	UJ,SV7c
95-48-7	o-Cresol	U	392	ug/kg	78.4	392	
65794-96-9	m,p-Cresols	U	392	ug/kg	118	392	
67-72-1	Hexachloroethane	U	392	ug/kg	78.4	392	
98-95-3	Nitrobenzene	U	392	ug/kg	78.4	392	UJ,SV7c
78-59-1	Isophorone	U	392	ug/kg	78.4	392	UJ,SV7c
88-75-5	2-Nitrophenol	U	392	ug/kg	78.4	392	
105-67-9	2,4-Dimethylphenol	U	392	ug/kg	137	392	
111-91-1	bis(2-Chloroethoxy)methane	U	392	ug/kg	78.4	392	UJ,SV7c
120-83-2	2,4-Dichlorophenol	U	392	ug/kg	78.4	392	
65-85-0	Benzoic acid	U	784	ug/kg	196	784	UJ,SV7c
91-20-3	Naphthalene	U	39.2	ug/kg	11.8	39.2	UJ,SV7c
106-47-8	4-Chloroaniline	U	392	ug/kg	78.4	392	
87-68-3	Hexachlorobutadiene	U	392	ug/kg	78.4	392	
91-57-6	2-Methylnaphthalene	U	39.2	ug/kg	7.84	39.2	
77-47-4	Hexachlorocyclopentadiene	U	392	ug/kg	78.4	392	
88-06-2	2,4,6-Trichlorophenol	U	392	ug/kg	78.4	392	
95-95-4	2,4,5-Trichlorophenol	U	392	ug/kg	78.4	392	
91-58-7	2-Chloronaphthalene	U	39.2	ug/kg	12.9	39.2	
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	392	ug/kg	78.4	392	
99-09-2	3-Nitroaniline	U	392	ug/kg	78.4	392	

P.S. 3/15/10

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1604	Date Collected:	02/02/2010 12:00	Matrix:	S
Lab Sample ID:	246333001	Date Received:	02/05/2010 09:00	%Moisture:	15.4
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-10-12247	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	949740	Inst:	MSD7.I	Dilution:	1
Run Date:	02/08/2010 13:59	Analyst:	JMB3	Inj. Vol:	.5 uL
Prep Date:	02/05/2010 19:48	Aliquot:	30.15 g	Final Volume:	1 mL
Data File:	s7b0810.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
	m-Nitroaniline						
131-11-3	Dimethylphthalate	U	392	ug/kg	78.4	392	
606-20-2	2,6-Dinitrotoluene	U	392	ug/kg	39.2	392	
208-96-8	Acenaphthylene	U	39.2	ug/kg	11.8	39.2	
51-28-5	2,4-Dinitrophenol	U	784	ug/kg	149	784	
132-64-9	Dibenzofuran	U	392	ug/kg	78.4	392	
84-66-2	Diethylphthalate	U	392	ug/kg	78.4	392	
86-73-7	Fluorene	U	39.2	ug/kg	11.8	39.2	UJ,SV7c
7005-72-3	4-Chlorophenylphenylether	U	392	ug/kg	78.4	392	
534-52-1	2-Methyl-4,6-dinitrophenol	U	392	ug/kg	78.4	392	UJ,SV7c
100-01-6	4-Nitroaniline	U	392	ug/kg	118	392	
	p-Nitroaniline						
122-39-4	Diphenylamine	U	392	ug/kg	78.4	392	
122-66-7	Azobenzene	U	392	ug/kg	78.4	392	
	1,2-Diphenylhydrazine						
101-55-3	4-Bromophenylphenylether	U	392	ug/kg	78.4	392	
118-74-1	Hexachlorobenzene	U	392	ug/kg	78.4	392	
85-01-8	Phenanthrene	U	39.2	ug/kg	11.8	39.2	
120-12-7	Anthracene	U	39.2	ug/kg	7.84	39.2	
84-74-2	Di-n-butylphthalate	U	392	ug/kg	78.4	392	
206-44-0	Fluoranthene	U	39.2	ug/kg	11.8	39.2	
85-68-7	Butylbenzylphthalate	U	392	ug/kg	78.4	392	
56-55-3	Benzo(a)anthracene	U	39.2	ug/kg	11.8	39.2	
91-94-1	3,3'-Dichlorobenzidine	U	392	ug/kg	118	392	
218-01-9	Chrysene	U	39.2	ug/kg	11.8	39.2	
117-81-7	bis(2-Ethylhexyl)phthalate	U	392	ug/kg	78.4	392	
117-84-0	Di-n-octylphthalate	U	392	ug/kg	78.4	392	
205-99-2	Benzo(b)fluoranthene	U	39.2	ug/kg	11.8	39.2	
207-08-9	Benzo(k)fluoranthene	U	39.2	ug/kg	11.8	39.2	
50-32-8	Benzo(a)pyrene	U	39.2	ug/kg	11.8	39.2	
193-39-5	Indeno(1,2,3-cd)pyrene	U	39.2	ug/kg	11.8	39.2	UJ,SV7c
53-70-3	Dibenzo(a,h)anthracene	U	39.2	ug/kg	11.8	39.2	↓
191-24-2	Benzo(ghi)perylene	U	39.2	ug/kg	11.8	39.2	↓
120-82-1	1,2,4-Trichlorobenzene	U	392	ug/kg	78.4	392	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.82	260	ug/kg		J

P.S. 3/15/10

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1604	Date Collected:	02/02/2010 12:00	Matrix:	S
Lab Sample ID:	246333002	Date Received:	02/05/2010 09:00	%Moisture:	9.9
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-10-12248	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	949740	Inst:	MSD7.I	Dilution:	1
Run Date:	02/08/2010 15:04	Analyst:	JMB3	Inj. Vol:	.5 uL
Prep Date:	02/05/2010 19:48	Aliquot:	30.01 g	Final Volume:	1 mL
Data File:	s7b0813.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
62-75-9	N-Methyl-N-nitrosomethylamine	U	370	ug/kg	74.0	370	UJ,SV7c
108-95-2	Phenol	U	370	ug/kg	74.0	370	
95-57-8	2-Chlorophenol	U	370	ug/kg	74.0	370	
106-46-7	1,4-Dichlorobenzene	U	370	ug/kg	74.0	370	
621-64-7	N-Nitrosodipropylamine	U	370	ug/kg	74.0	370	
59-50-7	4-Chloro-3-methylphenol	U	370	ug/kg	74.0	370	
83-32-9	Acenaphthene	U	37.0	ug/kg	12.2	37.0	
121-14-2	2,4-Dinitrotoluene	U	370	ug/kg	37.0	370	
100-02-7	4-Nitrophenol	U	370	ug/kg	122	370	UJ,SV7c
87-86-5	Pentachlorophenol	U	370	ug/kg	92.5	370	
129-00-0	Pyrene	U	37.0	ug/kg	11.1	37.0	
110-86-1	Pyridine	U	370	ug/kg	74.0	370	UJ,SV7c
62-53-3	Aniline	U	370	ug/kg	111	370	
111-44-4	bis(2-Chloroethyl) ether	U	370	ug/kg	74.0	370	UJ,SV7c
541-73-1	1,3-Dichlorobenzene	U	370	ug/kg	74.0	370	
100-51-6	Benzyl alcohol	U	370	ug/kg	111	370	UJ,SV7c
95-50-1	1,2-Dichlorobenzene	U	370	ug/kg	74.0	370	
108-60-1	bis(2-Chloroisopropyl)ether	U	370	ug/kg	74.0	370	UJ,SV7c
95-48-7	o-Cresol	U	370	ug/kg	74.0	370	
65794-96-9	m,p-Cresols	U	370	ug/kg	111	370	
67-72-1	Hexachloroethane	U	370	ug/kg	74.0	370	
98-95-3	Nitrobenzene	U	370	ug/kg	74.0	370	UJ,SV7c
78-59-1	Isophorone	U	370	ug/kg	74.0	370	UJ,SV7c
88-75-5	2-Nitrophenol	U	370	ug/kg	74.0	370	
105-67-9	2,4-Dimethylphenol	U	370	ug/kg	129	370	
111-91-1	bis(2-Chloroethoxy)methane	U	370	ug/kg	74.0	370	UJ,SV7c
120-83-2	2,4-Dichlorophenol	U	370	ug/kg	74.0	370	
65-85-0	Benzoic acid	U	740	ug/kg	185	740	UJ,SV7c
91-20-3	Naphthalene	U	37.0	ug/kg	11.1	37.0	UJ,SV7c
106-47-8	4-Chloroaniline	U	370	ug/kg	74.0	370	
87-68-3	Hexachlorobutadiene	U	370	ug/kg	74.0	370	
91-57-6	2-Methylnaphthalene	U	37.0	ug/kg	7.40	37.0	
77-47-4	Hexachlorocyclopentadiene	U	370	ug/kg	74.0	370	
88-06-2	2,4,6-Trichlorophenol	U	370	ug/kg	74.0	370	
95-95-4	2,4,5-Trichlorophenol	U	370	ug/kg	74.0	370	
91-58-7	2-Chloronaphthalene	U	37.0	ug/kg	12.2	37.0	
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	370	ug/kg	74.0	370	
99-09-2	3-Nitroaniline	U	370	ug/kg	74.0	370	

P.S. 3/15/10

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1604	Date Collected:	02/02/2010 12:00	Matrix:	S
Lab Sample ID:	246333002	Date Received:	02/05/2010 09:00	%Moisture:	9.9
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-10-12248	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	949740	Inst:	MSD7.I	Dilution:	1
Run Date:	02/08/2010 15:04	Analyst:	JMB3	Inj. Vol:	.5 uL
Prep Date:	02/05/2010 19:48	Aliquot:	30.01 g	Final Volume:	1 mL
Data File:	s7b0813.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
	m-Nitroaniline						
131-11-3	Dimethylphthalate	U	370	ug/kg	74.0	370	
606-20-2	2,6-Dinitrotoluene	U	370	ug/kg	37.0	370	
208-96-8	Acenaphthylene	U	37.0	ug/kg	11.1	37.0	
51-28-5	2,4-Dinitrophenol	U	740	ug/kg	141	740	
132-64-9	Dibenzofuran	U	370	ug/kg	74.0	370	
84-66-2	Diethylphthalate	U	370	ug/kg	74.0	370	
86-73-7	Fluorene	U	37.0	ug/kg	11.1	37.0	UJ,SV7c
7005-72-3	4-Chlorophenylphenylether	U	370	ug/kg	74.0	370	
534-52-1	2-Methyl-4,6-dinitrophenol	U	370	ug/kg	74.0	370	UJ,SV7c
100-01-6	4-Nitroaniline	U	370	ug/kg	111	370	
	p-Nitroaniline						
122-39-4	Diphenylamine	U	370	ug/kg	74.0	370	
122-66-7	Azobenzene	U	370	ug/kg	74.0	370	
	1,2-Diphenylhydrazine						
101-55-3	4-Bromophenylphenylether	U	370	ug/kg	74.0	370	
118-74-1	Hexachlorobenzene	U	370	ug/kg	74.0	370	
85-01-8	Phenanthrene	U	37.0	ug/kg	11.1	37.0	
120-12-7	Anthracene	U	37.0	ug/kg	7.40	37.0	
84-74-2	Di-n-butylphthalate	U	370	ug/kg	74.0	370	
206-44-0	Fluoranthene	U	37.0	ug/kg	11.1	37.0	
85-68-7	Butylbenzylphthalate	U	370	ug/kg	74.0	370	
56-55-3	Benzo(a)anthracene	U	37.0	ug/kg	11.1	37.0	
91-94-1	3,3'-Dichlorobenzidine	U	370	ug/kg	111	370	
218-01-9	Chrysene	U	37.0	ug/kg	11.1	37.0	
117-81-7	bis(2-Ethylhexyl)phthalate	U	370	ug/kg	74.0	370	
117-84-0	Di-n-octylphthalate	U	370	ug/kg	74.0	370	
205-99-2	Benzo(b)fluoranthene	U	37.0	ug/kg	11.1	37.0	
207-08-9	Benzo(k)fluoranthene	U	37.0	ug/kg	11.1	37.0	
50-32-8	Benzo(a)pyrene	U	37.0	ug/kg	11.1	37.0	
193-39-5	Indeno(1,2,3-cd)pyrene	U	37.0	ug/kg	11.1	37.0	UJ,SV7c
53-70-3	Dibenzo(a,h)anthracene	U	37.0	ug/kg	11.1	37.0	
191-24-2	Benzo(ghi)perylene	U	37.0	ug/kg	11.1	37.0	
120-82-1	1,2,4-Trichlorobenzene	U	370	ug/kg	74.0	370	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.82	208	ug/kg		J

P.S. 3/15/10

DATA VALIDATION COVER SHEET

5116-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-1604 VALIDATION DATE: 03/15/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Peter Steves ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☒ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE): PCBs

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

None

Reviewed by: Monica Dymerski **Level I** **Date:** 03/16/10

VALIDATOR'S SIGNATURE: Mr. Peter Steves DATE: 03/15/10

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2

Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, P9	J-, P9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, P9	J-, P9a
☐	☒	☐	3. The affected analytes are regarded as rejected because the analytical holding time was exceeded.	R, P9b	R, P9b
☐	☒	☐	4. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, P7	J, P7
☐	☒	☐	5. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, P7a	J, P7a
☐	☒	☐	6. The Initial Calibration Verification (ICV) and/or Continuing Calibration Verification (CCV) were recovered outside the method-specific limits.	UJ, P7c	J, P7c
☐	☒	☐	7. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, P7d	J, P7d
☐	☐	☒	8. The multicomponent standard was not analyzed within 72 hours of the initial analysis.	R, P7e	J, P7e
☐	☒	☐	9. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, P7f	R, P7f
☐	☐	☒	10. The breakdown criteria have been exceeded. This can cause low bias in reported results. If compound is detected, qualify J-. If compound is not present, but breakdown products are present, qualify R. If no compounds or breakdown products are present, qualify UJ (4,4' DDT and Endrin).	UJ, R, P13	J-, P13

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2

Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	11. The breakdown criteria have been exceeded. This can cause high bias in the reported results and potential false positive results for the breakdown products Endrin ketone, Endrin aldehyde, DDD, and DDE.	UJ, P13a	J+, P13a
☐	☐	☒	12. The breakdown documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P13b	R, P13b
☐	☒	☐	13. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, P4	N/A
☐	☒	☐	14. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was greater than 5X.	N/A	J, P4a
☐	☐	☒	15. The sample result is ≤5X the concentration of the related analyte in the instrument blank and continuing calibration blank.	UJ, P4b	N/A
☐	☐	☒	16. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	UJ, P4d	N/A
☐	☒	☐	17. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P4e	R, P4e
☐	☒	☐	18. The analyte RT shifted by more than 0.05 minutes from the mid-level standard of the initial calibration.	R, P0	J, P0
☐	☒	☐	19. Required retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P0b	R, P0b
☐	☒	☐	20. The surrogate is <10%R. Follow the external laboratory limits located within the associated data package.	R, P3	J-, P3

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2

Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	21. The surrogate is < the Lower Acceptance Level (LAL) but ≥10%R. Follow the external laboratory limits located within the associated data package.	UJ, P3a	J-, P3a
☐	☒	☐	22. The surrogate %R value is > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, P3b
☐	☒	☐	23. At least one surrogate is > the Upper Acceptance Limit (UAL) and one surrogate is < the LAL. Follow the external laboratory limits located within the associated data package.	UJ, P3c	J, P3c
☐	☒	☐	24. Required surrogate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P3d	R, P3d
☐	☒	☐	25. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, P12	J-, P12
☐	☒	☐	26. The LCS percent recovery was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, P12a	J-, P12a
☐	☒	☐	27. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, P12b
☐	☒	☐	28. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P12c	R, P12c
☐	☐	☒	29. The analyte was not confirmed on a second dissimilar column.	N/A	R, P8
☐	☐	☒	30. The second dissimilar column documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P8a	R, P8a
☐	☒	☐	31. Duplicate, Dilution, or reanalysis.	UJ, P88	J, P88

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2 Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	32. The affected analytes have elevated detection limits and may not meet project DQOs because the sample was diluted without any target analytees identified due to matrix interference. Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.	UJ, R, P15	R, P15
☒	☐	☐	33. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB, NQ, NQ
☐	☒	☐	34. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.	UJ, R, P19	J, R, P19

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10-1604	**Date Collected:**	02/02/2010 12:00	**Matrix:**	S
Lab Sample ID:	246333001	**Date Received:**	02/05/2010 09:00	**%Moisture:**	15.4
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-10-12247	**Method:**	SW846 8082	**SOP Ref:**	GL-OA-E-040
Batch ID:	949745	**Inst:**	ECD1A.I	**Dilution:**	1
Run Date:	02/08/2010 11:27	**Analyst:**	YS1	**Inj. Vol:**	1 uL
Prep Date:	02/05/2010 18:41	**Aliquot:**	30.18 g	**Final Volume:**	1 mL
Data File:	029f2901.d	**Column:**	1 CLP1	**Level:**	LOW
	029b2901.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.92	ug/kg	1.30	3.92	1
11104-28-2	Aroclor-1221	U	3.92	ug/kg	1.30	3.92	1
11141-16-5	Aroclor-1232	U	3.92	ug/kg	1.30	3.92	1
53469-21-9	Aroclor-1242	U	3.92	ug/kg	1.30	3.92	1
12672-29-6	Aroclor-1248	U	3.92	ug/kg	1.30	3.92	1
11097-69-1	Aroclor-1254	U	3.92	ug/kg	1.30	3.92	1
11096-82-5	Aroclor-1260	U	3.92	ug/kg	1.30	3.92	1

P.S. 3/15/10

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10-1604**	**Date Collected:**	**02/02/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**246333002**	**Date Received:**	**02/05/2010 09:00**	**%Moisture:**	**9.9**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-10-12248**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**949745**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**02/08/2010 12:05**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**02/05/2010 18:41**	**Aliquot:**	**30.03 g**	**Final Volume:**	**1 mL**
Data File:	**032f3201.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	032b3201.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.70	ug/kg	1.23	3.70	1
11104-28-2	Aroclor-1221	U	3.70	ug/kg	1.23	3.70	1
11141-16-5	Aroclor-1232	U	3.70	ug/kg	1.23	3.70	1
53469-21-9	Aroclor-1242	U	3.70	ug/kg	1.23	3.70	1
12672-29-6	Aroclor-1248	U	3.70	ug/kg	1.23	3.70	1
11097-69-1	Aroclor-1254	U	3.70	ug/kg	1.23	3.70	1
11096-82-5	Aroclor-1260	U	3.70	ug/kg	1.23	3.70	1

P.S. 3/15/10

DATA VALIDATION COVER SHEET

5118-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-1604 VALIDATION DATE: 03/15/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Peter Steves ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☒ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE):

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☐	☐	☒	8. QUANTITATION REPORTS
☐	☐	☒	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. The MS %R was <10% for Si. Thus, the associated results were qualified R,I6. The MS %R was < the laboratory LAL but ≥10% for Se. The associated sample results were NDs and, thus, were qualified UJ,I6a. The MS %Rs were > the laboratory UAL for Ba, Mn, Li and Ni. The associated sample results were detects and, thus, were qualified J+,I6b. The MS %Rs were > the laboratory UAL for Al, Ca, Fe, and Ti. However, the associated parent sample concentrations were >4X the spike concentrations. Thus, the associated sample results were not qualified, based on professional judgment.
2. In the MB, Sb, Ba, Fe and V were detected. The Sb results were NDs and, thus, were not qualified. The V result for sample RE03-10-12248 was a detect >5X but ≤50X the MB concentration and, thus, was qualified J,I4a. The remaining associated results were detects >50X and, thus, were not qualified, based on professional judgment.
3. In the ICB/CCBs, Sb was detected. The associated sample results were NDs and, thus, were not qualified.
4. The RPD between the duplicate and its parent sample for Si was >35%, and the duplicate and parent sample results were ≥5X the RLs. The associated sample results were detects and, thus, were qualified J,I10a.

Reviewed by: Monica Dymerski **Level I** **Date:** 03/16/10

VALIDATOR'S SIGNATURE: Mr. Peter Steves DATE: 03/15/10

DATA VALIDATION COVER SHEET	
5118-1 **Data Validation Cover Sheet**	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943
Form 5118-1, Revision 0.0	LOS ALAMOS Environmental Restoration Project

METALS ANALYTICAL DATA VALIDATION CHECKLIST

5118-2

Metals Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, I9	J-, I9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, I9a	J-, I9a
☐	☐	☒	3. The instrument performance sample did not pass method acceptance criteria.	R, I16	R, I16
☐	☐	☒	4. The mass calibration is not within 0.1 amu or %RSD is >5% for any isotope (Be, Mg, Co, In, Pb).	UJ, I16a	J, I16a
☐	☐	☒	5. Samples were analyzed outside specific method tune time criteria.	N/A	J, I16b
☐	☐	☒	6. The required instrument performance sample information is missing. Contact the SMO or external laboratory for information.	R, I16c	R, I16c
☐	☒	☐	7. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, I7	J, I7
☐	☒	☐	8. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, I7a	J, I7a
☐	☒	☐	9. The initial Calibration Verification (ICV) and/or Continuing Calibration Verification (CCV) were recovered outside the method-specific limits.	UJ, I7c	J, I7c
☐	☒	☐	10. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, I7d	J, I7d
☐	☒	☐	11. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, I7f	R, I7f
☐	☒	☐	12. Metals interference check sample percent recover value is <50%.	R, I2	J-, I2

METALS ANALYTICAL DATA VALIDATION CHECKLIST

5118-2

Metals Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	13. Metals interference check sample percent recovery value is ≥50% and <80%	UJ, I2a	J-, I2a
☐	☒	☐	14. Metals interference check sample percent recovery value is >120%.	N/A	J+, I2b
☐	☒	☐	15. Metals interference check sample was not analyzed with the samples.	R, I2c	R, I2c
☒	☐	☐	16. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, I4	N/A
☒	☐	☐	17. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X.	N/A	J, I4a
☒	☐	☐	18. The sample result is ≤5X the concentration of the related analyte in the instrument blank and continuing calibration blank.	U, I4b	N/A
☐	☒	☐	19. Continuing calibration blanks were not analyzed at the appropriate method frequency.	UJ, I4c	J, I4c
☐	☐	☒	20. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	U, I4d	N/A
☐	☒	☐	21. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, I4e	R, I4e
☒	☐	☐	22. The associated matrix spike recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I6	R, I6
☒	☐	☐	23. The associated matrix spike recovery was <the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I6a	J+, I6a
☒	☐	☐	24. The associated matrix spike recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	UJ, I6b	J+, I6b

METALS ANALYTICAL DATA VALIDATION CHECKLIST

5118-2

Metals Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	25. Required matrix spike information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. If the LCS information is present, do not Reject. Qualify data based on the LCS information.	R, I6c	R, I6c
☒	☐	☐	26. The sample and the duplicate sample results were ≥5X the RL and the duplicate RPD was >20% for water samples and >35% for soil samples.	UJ, I10a	J, I10a
☐	☒	☐	27. The duplicate sample was not prepared and/or analyzed with the samples for unspecified reasons. The duplicate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	UJ, I10d	J, I10d
☐	☒	☐	28. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I12	R, I12
☐	☒	☐	29. The LCS percent recover was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I12a	J-, I12a
☐	☒	☐	30. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, I12b
☐	☒	☐	31. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. Do not Reject if MS/MSD information is present. Qualify according to MS/MSD criteria.	R, I12c	R, I12c
☐	☐	☒	32. The quantitating IS area count is <10% for metals window in relation to the initial calibration blank. Follow the method-specific windows.	R, I1a	J, I1a

METALS ANALYTICAL DATA VALIDATION CHECKLIST	
5118-2 Metals Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	33. The IS area count for the quantitating IS is <60% but >10% for metals window in relation to the initial calibration blank. Follow the method-specific windows.	UJ, I1b	J, I1b
☐	☐	☒	34. The IS area count for the quantitating IS is >125% in relation to the metals initial calibration blank. Follow method-specific windows.	UJ, I1c	J, I1c
☐	☐	☒	35. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, I1d	R, I1d
☐	☐	☒	36. Serial dilution sample RPD was >10% and the sample result was >50X the MDL (>100X the MDL for ICPMS). Qualify ONLY the sample used for the serial dilution.	UJ, I18	J, I18
☐	☐	☒	37. Serial dilution sample was not analyzed with the samples.	UJ, I18a	J, I18
☐	☐	☒	38. The sample result was reported as detected between the IDL and the EDL.	N/A	J, I1
☐	☒	☐	39. Duplicate, dilution, or reanalysis.	UJ, I88	J, I88
☒	☐	☐	40. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB, NQ, NQ
☐	☒	☐	41. The LANL project chemist identified quality deficiencies in the reported data that require further qualification. This code can ONLY be used and/or under advisement by the LANL project chemist.	UJ, R, I19	J, R, I19

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1604 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 246333001 **BASIS:** Dry Weight **DATE COLLECTED** 02-FEB-10

CLIENT ID: RE03-10-12247 **LEVEL:** Low **DATE RECEIVED** 05-FEB-10

MATRIX: SOIL **%SOLIDS:** 85

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	20600000	ug/Kg		7740	22800	22800	1	P	HSC	02/08/10 12:31	020810A-1	949911
7440-36-0	Antimony	1140	ug/Kg	U	376	1140	1140	1	P	HSC	02/08/10 12:31	020810A-1	949911
7440-38-2	Arsenic	0.912	mg/kg	J	0.236	1.18	1.18	2	MS	BAJ	02/08/10 21:04	100208-3	949913
7440-39-3	Barium J+,I6b	62600	ug/Kg	N	114	569	569	1	P	HSC	02/08/10 12:31	020810A-1	949911
7440-41-7	Beryllium	1.07	mg/kg		0.0236	0.118	0.118	2	MS	BAJ	02/08/10 21:04	100208-3	949913
7440-42-8	Boron	4470	ug/Kg	J	1140	5690	5690	1	P	HSC	02/08/10 12:31	020810A-1	949911
7440-43-9	Cadmium	569	ug/Kg	U	114	569	569	1	P	HSC	02/08/10 12:31	020810A-1	949911
7440-70-2	Calcium	2850000	ug/Kg		9110	28500	28500	1	P	HSC	02/08/10 12:31	020810A-1	949911
7440-47-3	Chromium	10500	ug/Kg		171	569	569	1	P	HSC	02/08/10 12:31	020810A-1	949911
7440-48-4	Cobalt	3160	ug/Kg	*	171	569	569	1	P	HSC	02/08/10 12:31	020810A-1	949911
7440-50-8	Copper	7310	ug/Kg		340	1130	1130	1	P	HSC	02/11/10 14:05	021110-2	951404
7439-89-6	Iron	15500000	ug/Kg		9110	28500	28500	1	P	HSC	02/08/10 12:31	020810A-1	949911
7439-92-1	Lead	14900	ug/Kg		285	1140	1140	1	P	HSC	02/08/10 12:31	020810A-1	949911
7439-93-2	Lithium J+,I6b	16.2	mg/kg	N	0.473	2.36	2.36	2	MS	BAJ	02/09/10 12:45	100209-4	949913
7439-95-4	Magnesium	3410000	ug/Kg		9680	34100	34100	1	P	HSC	02/08/10 12:31	020810A-1	949911
7439-96-5	Manganese J+,I6b	137000	ug/Kg	*N	228	1140	1140	1	P	HSC	02/08/10 12:31	020810A-1	949911
7439-97-6	Mercury	12.9	ug/kg	U	4.39	12.9	12.9	1	AV	JXLI	02/09/10 10:28	020910S1-9	950299
7440-02-0	Nickel J+,I6b	6.92	mg/kg	N	0.118	0.473	0.473	2	MS	BAJ	02/08/10 21:04	100208-3	949913
7440-09-7	Potassium	2320000	ug/Kg	*	7290	28500	28500	1	P	HSC	02/08/10 12:31	020810A-1	949911
7782-49-2	Selenium UJ,I6a	1.18	mg/kg	UN	0.591	1.18	1.18	2	MS	BAJ	02/08/10 21:04	100208-3	949913
7440-21-3	Silicon R,I6	1600000	ug/Kg	*N	1710	11400	11400	1	P	HSC	02/08/10 12:31	020810A-1	949911
7440-22-4	Silver	633	ug/Kg		114	569	569	1	P	HSC	02/08/10 12:31	020810A-1	949911
7440-23-5	Sodium	287000	ug/Kg		7970	28500	28500	1	P	HSC	02/08/10 12:31	020810A-1	949911
7440-28-0	Thallium	0.345	mg/kg		0.0709	0.236	0.236	2	MS	BAJ	02/09/10 15:27	100209-8	949913
7440-32-6	Titanium	306000	ug/Kg	*	114	569	569	1	P	HSC	02/08/10 12:31	020810A-1	949911
7440-61-1	Uranium	0.711	mg/kg		0.0156	0.0473	0.0473	2	MS	BAJ	02/09/10 13:59	100209-7	949913
7440-62-2	Vanadium	14500	ug/Kg		113	566	566	1	P	HSC	02/11/10 14:05	021110-2	951404
7440-66-6	Zinc	30500	ug/Kg		376	1140	1140	1	P	HSC	02/08/10 12:31	020810A-1	949911

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
949911	949910	SW846 3050B	0.519	g	50	mL	02/07/10	BCD1
949913	949912	SW846 3050B	0.5	g	50	mL	02/07/10	BCD1
950299	950298	SW846 7471A Prep	0.549	g	30	mL	02/08/10	TXB3

P.S. 3/15/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1604 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 246333002 **BASIS:** Dry Weight **DATE COLLECTED** 02-FEB-10

CLIENT ID: RE03-10-12248 **LEVEL:** Low **DATE RECEIVED** 05-FEB-10

MATRIX: SOIL **%SOLIDS:** 90.1

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	1010000	ug/Kg		7500	22100	22100	1	P	HSC	02/08/10 13:06	020810A-1	949911
7440-36-0	Antimony	1100	ug/Kg	U	364	1100	1100	1	P	HSC	02/08/10 13:06	020810A-1	949911
7440-38-2	Arsenic	1.15	mg/kg		0.216	1.08	1.08	2	MS	BAJ	02/08/10 21:35	100208-3	949913
7440-39-3	Barium J+,I6b	23300	ug/Kg	N	110	552	552	1	P	HSC	02/08/10 13:06	020810A-1	949911
7440-41-7	Beryllium	0.179	mg/kg		0.0216	0.108	0.108	2	MS	BAJ	02/08/10 21:35	100208-3	949913
7440-42-8	Boron	5520	ug/Kg	U	1100	5520	5520	1	P	HSC	02/08/10 13:06	020810A-1	949911
7440-43-9	Cadmium	552	ug/Kg	U	110	552	552	1	P	HSC	02/08/10 13:06	020810A-1	949911
7440-70-2	Calcium	1030000	ug/Kg		8830	27600	27600	1	P	HSC	02/08/10 13:06	020810A-1	949911
7440-47-3	Chromium	4100	ug/Kg		166	552	552	1	P	HSC	02/08/10 13:06	020810A-1	949911
7440-48-4	Cobalt	1110	ug/Kg	*	166	552	552	1	P	HSC	02/08/10 13:06	020810A-1	949911
7440-50-8	Copper	1630	ug/Kg		329	1100	1100	1	P	HSC	02/11/10 14:40	021110-2	951404
7439-89-6	Iron	11200000	ug/Kg		8830	27600	27600	1	P	HSC	02/08/10 13:06	020810A-1	949911
7439-92-1	Lead	3280	ug/Kg		276	1100	1100	1	P	HSC	02/08/10 13:06	020810A-1	949911
7439-93-2	Lithium J+,I6b	14.4	mg/kg	N	0.431	2.16	2.16	2	MS	BAJ	02/09/10 12:56	100209-4	949913
7439-95-4	Magnesium	633000	ug/Kg		9380	33100	33100	1	P	HSC	02/08/10 13:06	020810A-1	949911
7439-96-5	Manganese J+,I6b	320000	ug/Kg	*N	221	1100	1100	1	P	HSC	02/08/10 13:06	020810A-1	949911
7439-97-6	Mercury	12.1	ug/kg	U	4.11	12.1	12.1	1	AV	JXL1	02/09/10 10:40	020910S1-9	950299
7440-02-0	Nickel J+,I6b	1.99	mg/kg	N	0.108	0.431	0.431	2	MS	BAJ	02/08/10 21:35	100208-3	949913
7440-09-7	Potassium	466000	ug/Kg	*	7060	27600	27600	1	P	HSC	02/08/10 13:06	020810A-1	949911
7782-49-2	Selenium UJ,I6a	1.08	mg/kg	UN	0.539	1.08	1.08	2	MS	BAJ	02/08/10 21:35	100208-3	949913
7440-21-3	Silicon R,I6	502000	ug/Kg	*N	1660	11000	11000	1	P	HSC	02/08/10 13:06	020810A-1	949911
7440-22-4	Silver	510	ug/Kg	J	110	552	552	1	P	HSC	02/08/10 13:06	020810A-1	949911
7440-23-5	Sodium	191000	ug/Kg		7730	27600	27600	1	P	HSC	02/08/10 13:06	020810A-1	949911
7440-28-0	Thallium	0.216	mg/kg	U	0.0647	0.216	0.216	2	MS	BAJ	02/09/10 15:50	100209-8	949913
7440-32-6	Titanium	726000	ug/Kg	*	110	552	552	1	P	HSC	02/08/10 13:06	020810A-1	949911
7440-61-1	Uranium	0.445	mg/kg		0.0142	0.0431	0.0431	2	MS	BAJ	02/09/10 14:07	100209-7	949913
7440-62-2	Vanadium J,I4a	5350	ug/Kg		110	549	549	1	P	HSC	02/11/10 14:40	021110-2	951404
7440-66-6	Zinc	49900	ug/Kg		364	1100	1100	1	P	HSC	02/08/10 13:06	020810A-1	949911

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
949911	949910	SW846 3050B	0.503	g	50	mL	02/07/10	BCD1
949913	949912	SW846 3050B	0.515	g	50	mL	02/07/10	BCD1
950299	950298	SW846 7471A Prep	0.551	g	30	mL	02/08/10	TXB3

P.S. 3/15/10

DATA VALIDATION COVER SHEET

5120-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY

Section I.

REQUEST NUMBER: 10-1604 VALIDATION DATE: 03/15/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Peter Steves ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☒ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE): Total CN only

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☐	☐	☒	8. QUANTITATION REPORTS
☐	☐	☒	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. It should be noted that the matrix QC analysis was performed on a LANL sample from another RN. No sample data were qualified as a result.

Reviewed by: Monica Dymerski **Level I** **Date:** 03/16/10

VALIDATOR'S SIGNATURE: ## Mr. Peter Steves DATE: 03/15/10

GENERAL CHEMISTRY ANALYTICAL DATA VALIDATION CHECKLIST

5120-2

General Chemistry Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, I9	J-, I9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, I9a	J-, I9a
☐	☐	☒	3. The affected analytes are regarded as rejected because the analytical holding time was exceeded.	R, I9b	R, I9b
☐	☒	☐	4. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, I7	J, I7
☐	☒	☐	5. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, I7a	J, I7a
☐	☒	☐	6. The ICV and/or CCV were recovered outside the method specific limits.	UJ, I7c	J, I7c
☐	☒	☐	7. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, I7d	J, I7d
☐	☒	☐	8. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, I7f	R, I7f
☐	☐	☒	9. The interference check sample percent recovery value is <50%.	R, I2	J-, I2
☐	☐	☒	10. The interference check sample percent recovery value is ≥50% and <80%.	UJ, I2a	J-, I2a
☐	☐	☒	11. The interference check sample percent recovery value is >120%.	N/A	J+, I2b
☐	☐	☒	12. The interference check sample was not analyzed with the samples.	R, I2c	R, I2c
☐	☒	☐	13. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, I4	N/A

GENERAL CHEMISTRY ANALYTICAL DATA VALIDATION CHECKLIST

5120-2

General Chemistry Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	14. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X.	N/A	J, I4a
☐	☒	☐	15. The sample result is ≤5X the concentration of the related analyte in the instrument blank and continuing calibration blank.	U, I4b	N/A
☐	☒	☐	16. Continuing calibration blanks were not analyzed at the appropriate method frequency.	UJ, I4c	J, I4c
☐	☐	☒	17. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	U, I4d	N/A
☐	☒	☐	18. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, I4e	R, I4e
☐	☒	☐	19. The associate matrix spike recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I6	R, I6
☐	☒	☐	20. The associated matrix spike recovery was below the Lower Acceptance Limit (LAL) but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I6a	J-, I6a
☐	☒	☐	21. The associated matrix spike recovery was above the Upper Acceptance Limit (UAL). Follow the external laboratory limits located within the associated data package.	UJ, I6b	J+, I6b
☐	☒	☐	22. Required matrix spike information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. If LCS information is present, do not reject. Qualify data based on LCS information.	R, I6c	R, I6c
☐	☒	☐	23. The sample and/or the duplicate sample results RPD is not within the acceptance limits. Follow the external laboratory limits located within the associated data package.	UJ, I10b	J, I10b

GENERAL CHEMISTRY ANALYTICAL DATA VALIDATION CHECKLIST	
5120-2 **General Chemistry Analytical Data Validation Checklist**	Records Use only Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	24. The duplicate sample was not prepared and/or analyzed with the samples for unspecified reasons. The duplicate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	UJ, I10d	J, I10d
☐	☒	☐	25. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I12	R, I12
☐	☒	☐	26. The LCS percent recover was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I12a	J-, I12a
☐	☒	☐	27. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, I12b
☐	☒	☐	28. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. Do not Reject if MS/MSD information is present. Qualify according to MS/MSD criteria.	R, I12c	R, I12c
☐	☒	☐	29. Duplicate, dilution, or reanalysis	UJ, I88	J, I88
☐	☒	☐	30. The LANL project chemist identified quality deficiencies in the reported data that require further qualification. This code can ONLY be used and/or under advisement by the LANL project chemist.	UJ, R, I19	J, R, I19
☒	☐	☐	31. Qualification of data via data validation does not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB NQ, NQ (no qualification)

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 11, 2010

Client SDG: 10-1604

Client Sample ID:	RE03-10-12247	Project:	LANL01004
Sample ID:	246333001	Client ID:	LANL010
Matrix:	S		
Collect Date:	02-FEB-10 12:00		
Receive Date:	05-FEB-10		
Collector:	Client		
Moisture:	15.4%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	74.4	274	ug/kg	1	AXC2 02/09/10	1241	949513	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/08/10	1432	949512

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

P.S. 3/15/10

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 11, 2010

Client SDG: 10-1604

Client Sample ID:	RE03-10-12248	Project:	LANL01004
Sample ID:	246333002	Client ID:	LANL010
Matrix:	S		
Collect Date:	02-FEB-10 12:00		
Receive Date:	05-FEB-10		
Collector:	Client		
Moisture:	9.93%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	75.5	278	ug/kg	1	AXC2 02/09/10	1242	949513	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/08/10	1432	949512

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

P.S. 3/15/10

Wednesday, February 03, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1604

REQUEST NUMBER: 10-1604

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 3/5/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS: 246333

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE03-10-12247	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-10-12247	1	AMBER GLASS	8270C+8082	Ice	S
RE03-10-12247	1	POLY	Metals+CN - GEL	Ice	S
RE03-10-12248	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-10-12248	1	AMBER GLASS	8270C+8082	Ice	S
RE03-10-12248	1	POLY	Metals+CN - GEL	Ice	S

Relinquished By:		Date	Time	Received By:		Date	Time
Printed Name	Signature	2/[illegible]/10	1400	Dionne Francis	Signature	2/5/10	0900
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

Received for DISPOSAL By: Date Time **Remarks:**

Printed Name Signature

Wednesday, February 03, 2010

REQUEST NUMBER: 10-1604

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

These Samples are on:

LANL Request Number:10-1604

Per Agreement Number:126310011

Project Cost Code: MR2A054196D0

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 2/3/2010

TURNAROUND/REPORT DUE: 3/5/2010

TURNAROUND REQ'D: 30 Days

RAD SCREENING: Not Required

LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:

Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:6010B	1	RE03-10-12247	S	2/2/2010	Plus, B, Li, Si, Ti, U
		1	RE03-10-12248	S	2/2/2010	Plus, B, Li, Si, Ti, U
	SW-846:8082	1	RE03-10-12247	S	2/2/2010	
		1	RE03-10-12248	S	2/2/2010	
	SW-846:8260B	1	RE03-10-12247	S	2/2/2010	
		1	RE03-10-12248	S	2/2/2010	
	SW-846:8270C	1	RE03-10-12247	S	2/2/2010	
		1	RE03-10-12248	S	2/2/2010	
	SW-846:9012A	1	RE03-10-12247	S	2/2/2010	Plus, B, Li, Si, Ti, U

Wednesday, February 03, 2010

REQUEST NUMBER: 10-1604

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:9012A	1	RE03-10-12248	S	2/2/2010	Plus, B, Li, Si, Ti, U

Final Page of REQUEST NUMBER 10-1604

GEL Laboratories LLC

a member of The GEL Group INC

PO Box 30712 Charleston, SC 29417
2040 Savage Road Charleston, SC 29407
P 843.556.8171 F 843.766.1178

www.gel.com

February 10, 2010

Ms. Joylene Valdez
Los Alamos National Laboratory
PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545

Re: LANL ER Project
Work Order: 246333
SDG: 10-1604

Dear Ms. Valdez:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the following analytical results for the sample(s) we received on February 05, 2010, and analyzed for GC Semivolatile PCB, GC/MS Semivolatile, GC/MS Volatile, General Chemistry and Metals. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 4485.

Sincerely,

for

Valerie Davis
Project Manager

Purchase Order: 72733-001-09
Chain of Custody: 10-1604
Enclosures

problem solved

Los Alamos National Laboratory (72733-001-09)
LANL ER Project
Work Order #: 246333
SDG: 10-1604

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Quality Control Summary..... 435
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Miscellaneous..... 900

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Case Narrative..... 950
Sample Data Summary..... 955
Quality Control Summary..... 959
Instrument QC Data Summary..... 962
Cyanide, Total..... 964

Case Narrative

Case Narrative for
Los Alamos National Laboratory (72733-001-09)
LANL ER Project
Workorder #: 246333
SDG # : 10-1604

February 10, 2010

Laboratory Identification:

GEL Laboratories LLC
2040 Savage Road
Charleston, South Carolina 29407
(843) 556-8171

Summary

Sample receipt The samples arrived at GEL Laboratories LLC, Charleston, South Carolina on February 05, 2010 for analysis. The samples were prepared/analyzed within the required holding time. Shipping container temperatures were checked, documented, and within specifications. The samples were screened according to GEL Standard Operating Procedure. The samples were delivered with proper chain of custody documentation and signatures. All sample containers arrived without any visible signs of tampering or breakage. Containers were checked for pH, where appropriate, and matched the preservative as documented on the accompanying chain of custody. Shipping container temperature was within specification (0 - 6C).

Sample Identification The laboratory received the following samples:

Laboratory ID	Client ID
246333001	RE03-10-12247
246333002	RE03-10-12248

Case Narrative

Sample analyses were conducted using methodology as outlined in GEL Laboratories, LLC (GEL) Standard Operating Procedures. Any technical or administrative problems during analysis, data review, and reduction are contained in the analytical case narratives in the enclosed data package.

Data Package The enclosed data package contains the following sections: Case Narrative, Chain of Custody, Cooler Receipt Checklist, Data Package Qualifier Definitions and data from the following fractions: GC Semivolatile PCB, GC/MS Semivolatile, GC/MS Volatile, General Chemistry and Metals.

I certify that this data report is in compliance with the terms and conditions of the subcontract and task order, both technically and for completeness, for other than the conditions detailed in the attached case narrative.

for D Francis

Valerie Davis

Project Manager

List of current GEL Certifications as of 10 February 2010

State	Certification
Arizona	AZ0668
Arkansas	88–0651
CLIA	42D0904046
California – NELAP	01151CA
Colorado	GEL
Connecticut	PH–0169
Dept. of Navy	NFESC 413
EPA Region 5	WG–15J
Florida – NELAP	E87156
Georgia	E87156 (FL/NELAP)
Georgia DW	967
Hawaii	N/A
ISO 17025	2567.01
Idaho	SC00012
Illinois – NELAP	200029
Indiana	C–SC–01
Kansas – NELAP	E–10332
Kentucky	90129
Louisiana – NELAP	03046
Maryland	270
Massachusetts	M–SC012
Nevada	SC00012
New Jersey – NELAP	SC002
New Mexico	FL NELAP E87156
New York – NELAP	11501
North Carolina	233
North Carolina DW	45709
Oklahoma	9904
Pennsylvania – NELAP	68–00485
South Carolina	10120001/10120002
Tennessee	TN 02934
Texas – NELAP	T104704235–07B–TX
U.S. Dept. of Agriculture	S–52597
Utah – NELAP	GEL
Vermont	VT87156
Virginia	00151
Washington	C1641

Chain of Custody and Supporting Documentation

Wednesday, February 03, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1604

REQUEST NUMBER: 10-1604

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 3/5/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS: 246333

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE03-10-12247	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-10-12247	1	AMBER GLASS	8270C+8082	Ice	S
RE03-10-12247	1	POLY	Metals+CN - GEL	Ice	S
RE03-10-12248	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-10-12248	1	AMBER GLASS	8270C+8082	Ice	S
RE03-10-12248	1	POLY	Metals+CN - GEL	Ice	S

Relinquished By:		Date	Time	Received By:		Date	Time
[illegible]	[illegible]	2/18/10	1400	DIONNE FRANCIS	[illegible]	2/5/10	0900
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

Received for DISPOSAL By: **Date** **Time** **Remarks:**

Printed Name Signature

Wednesday, February 03, 2010

REQUEST NUMBER: 10-1604

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

These Samples are on:

LANL Request Number:10-1604

Per Agreement Number:126310011

Project Cost Code: MR2A054196D0

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 2/3/2010

TURNAROUND/REPORT DUE: 3/5/2010

TURNAROUND REQ'D: 30 Days

RAD SCREENING: Not Required

LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:

Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:6010B	1	RE03-10-12247	S	2/2/2010	Plus, B, Li, Si, Ti, U
		1	RE03-10-12248	S	2/2/2010	Plus, B, Li, Si, Ti, U
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		1	RE03-10-12248	S	2/2/2010	
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		1	RE03-10-12248	S	2/2/2010	
	SW-846:8270C	1	RE03-10-12247	S	2/2/2010	
		1	RE03-10-12248	S	2/2/2010	
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Wednesday, February 03, 2010

REQUEST NUMBER: 10-1604

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:9012A	1	RE03-10-12248	S	2/2/2010	Plus, B, Li, Si, Ti, U

Final Page of REQUEST NUMBER 10-1604

GEL Laboratories LLC

SAMPLE RECEIPT & REVIEW FORM

Client: LANL	**SDG/ARCOC/Work Order: 10-1604**
Received By: Greg Tyler	**Date Received: 2/05/10**

Suspected Hazard Information	**Yes**	**No**	*If Counts > x2 area background on samples not marked "radioactive", contact the Radiation Safety Group of further investigation.
COC/Samples marked as radioactive?		X	Maximum Counts Observed*: **80cpm**
Classified Radioactive II by RSO?		X	
COC/Samples marked containing PCBs?		X	
Shipped as a DOT Hazardous?		X	Hazard Class Shipped: UN#:
Samples identified as Foreign Soil?		X	

	Sample Receipt Criteria	**Yes**	**NA**	**No**	**Comments/Qualifiers (Required for Non-Conforming Items)**
1	Shipping containers received intact and sealed?	X			Circle Applicable: seals broken damaged container leaking container other (describe)
2	Samples requiring cold preservation within 0 ≤ 6 deg. C?	X			Preservation Method: ice bags **blue ice 3-6C** dry ice **9-14C** **none** other
3	Chain of custody documents included with shipment?	X			
4	Sample containers intact and sealed?	X			Circle Applicable: seals broken damaged container leaking container other (describe)
5	Samples requiring chemical preservation at proper pH?		X		Sample ID's, containers affected and observed pH: If Preservation added, Lot#:
6	VOA vials free of headspace (defined as < 6mm bubble)?		X		Sample ID's and containers affected:
7	Are Encore containers present?			X	(If yes, immediately deliver to Volatiles laboratory)
8	Samples received within holding time?	X			Id's and tests affected:
9	Sample ID's on COC match ID's on bottles?	X			Sample ID's and containers affected:
10	Date & time on COC match date & time on bottles?		X		Sample ID's affected: **No time on Chain of Custody.**
11	Number of containers received match number indicated on COC?	X			Sample ID's affected:
12	COC form is properly signed in relinquished/received sections?	X			

Comments:

Fed Ex Tracking Numbers:

7209 7849 9021 3C	**7209 7849 8963 4C**	**7209 7849 8724 6C**	**7209 7849 8665 12C**
7209 7849 9065 3C	**7209 7849 8805 4C**	**7209 7849 9043 6C**	**7209 7849 8676 13C**
7209 7849 9010 3C	**7209 7849 8779 4C**	**7209 7849 8827 6C**	**7209 7849 9000 14C**
7209 7849 8780 4C	**7209 7849 8838 5C**	**7209 7849 9124 6C**	
7209 7849 8735 4C	**7209 7849 8816 5C**	**7209 7849 8941 9C**	
7209 7849 8713 4C	**7209 7849 8790 5C**	**7209 7849 8952 10C**	
7209 7849 8746 4C	**7209 7849 9054 6C**	**7209 7849 8687 11C**	
7209 7849 8974 4C	**7209 7849 8702 6C**	**7209 7849 8698 12C**	

PM (or PMA) review: Initials P. D. M. Date 2-6-10

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 04FEB10
ACTWGT: 52.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

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(843) 556-8171
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JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

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JOYLENE VALDEZ
LOS ALAMOS NATL LAB
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UNITED STATES US

SHIP DATE: 04FEB10
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ORIGIN ID: SAFA (505) 665-9969
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03
LOS ALAMOS, NM 87545
UNITED STATES US

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ACTWGT: 50.0 LB MAN
CAD: 0014176/CAFE2449
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TA00 BLDG 1237 DPU 03
LOS ALAMOS, NM 87545
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JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03
LOS ALAMOS, NM 87545
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ACTWGT: 57.0 LB MAN
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JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03
LOS ALAMOS, NM 87545
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CAD: 0014176/CAFE2449
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JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03
LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 04FEB10
ACTWGT: 54.0 LB MAN
CAD: 0014176/CAFE2449
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GENERAL ENGINEERING LAB
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ORIGIN ID: SAFA (505) 665-9060
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03
LOS ALAMOS, NM 87545
UNITED STATES US

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ORIGIN ID: SAFR (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 04FEB10
ACTWGT: 51.0 LB MAN
CAD: 0014176/CAFE2449

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2040 SAVAGE RD

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REF: 6B010AMR1A015AGWK0

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PRIORITY OVERNIGHT

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ORIGIN ID: SAFR (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 04FEB10
ACTWGT: 50.0 LB MAN
CAD: 0014176/CAFE2449

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2040 SAVAGE RD

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MPS# 7209 7849 8702
Mstr# 7209 7849 8687

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ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 04FEB10
ACTWGT: 40.0 LB MAN
CAD: 0014176/CAFE2449

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Part # 156148-434 NAIT V3 09-08

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 04FEB10
ACTWGT: 59.0 LB MAN
CAD: 0014176/CAFE2449

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Part # 156148-434 NAIT V3 09-08

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 04FEB10
ACTWGT: 50.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR1A015AGMK0

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2 of 2
TPS# 7209 7849 8827
0263
Master# 7209 7849 8816 0201

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PRIORITY OVERNIGHT

29407
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ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 04FEB10
ACTWGT: 57.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR1A015AGMK0

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0201

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PRIORITY OVERNIGHT

29407
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CHS

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ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 04FEB10
ACTWGT: 50.0 LB MAN
CAD: 0014176/CAFE2449

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VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 566-8171
REF: 6B010AMR3A0520A00

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1 of 2

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PRIORITY OVERNIGHT

TRK# 0201 7209 7849 8941
MASTER

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SC-US
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ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 04FEB10
ACTWGT: 61.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 566-8171
REF: 6B010AMR3A0520A00

10

FedEx Express

2 of 2

FRI - 05FEB A1
PRIORITY OVERNIGHT

MPS# 0263 7209 7849 8952
Matr# 7209 7849 8941 0201

XX CHSA

29407
SC-US
CHS

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 04FEB10
ACTWGT: 52.0 LB MAN
CAD: 0014176/CAFE2449

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CHARLESTON SC 29407
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REF: 6B010AMR3A0520A00

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1 of 3

FRI - 05FEB A1
PRIORITY OVERNIGHT

TRK# 0201 7209 7849 8687
MASTER

XX CHSA

29407
SC-US
CHS

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 04FEB10
ACTWGT: 40.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
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REF: 6B010AMR3A0520A00

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2 of 3

FRI - 05FEB A1
PRIORITY OVERNIGHT

MPS# 0263 7209 7849 8698
Matr# 7209 7849 8687 0201

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CHS

SHIP DATE:
ACTWGT: 62.0 LB MAN
CAD: 6014176/CAFE2449

BILL SENDER

ILERIE DAVIS
NERAL ENGINEERING LAB
40 SAVAGE RD

HARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR3A0520A00

12°

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FRI - 05FEB A
PRIORITY OVERNIGHT

1 of 2
TPS# 7209 7849 8665
MASTER

29407
SC-US
CHS

XX CHSA

ORIGIN ID: SGEA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

ACTWGT: 62.0 LB MAN
CAD: 6014176/CAFE2449

BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR3A0520A00

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PRIORITY OVERNIGHT

2 of 2
TPS# 7209 7849 8676
Matr# 7209 7849 8665

29407
SC-US
CHS

XX CHSA

Part # 156148-434 NRIT V3 09-09

JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 04FEB10
ACTWGT: 36.0 LB MAN
CAD: 6014176/CAFE2449

BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR1A015AGNK0

14°

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FRI - 05FEB A1
PRIORITY OVERNIGHT

2 of 3
TPS# 7209 7849 9000
Matr# 7209 7849 8996

29407
SC-US
CHS

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Data Review Qualifier Flag Definition Sheet

Data Review Qualifier Definitions

Qualifier	Explanation
*	A quality control analyte recovery is outside of specified acceptance criteria
**	Analyte is a surrogate compound
<	Result is less than value reported
>	Result is greater than value reported
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL
A	The TIC is a suspected aldol-condensation product
B	Target analyte was detected in the associated blank
B	Metals-Either presence of analyte detected in the associated blank, or MDL/IDL < sample value < PQL
BD	Results are either below the MDC or tracer recovery is low
C	Analyte has been confirmed by GC/MS analysis
D	Results are reported from a diluted aliquot of the sample
d	5-day BOD-The 2:1 depletion requirement was not met for this sample
E	Organics-Concentration of the target analyte exceeds the instrument calibration range
E	Metals-%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
H	Analytical holding time was exceeded
h	Preparation or preservation holding time was exceeded
J	Value is estimated
N	Metals-The Matrix spike sample recovery is not within specified control limits
N	Organics-Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A	Spike recovery limits do not apply. Sample concentration exceeds spike concentration by 4X or more
ND	Analyte concentration is not detected above the reporting limit
UI	Gamma Spectroscopy-Uncertain identification
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
Z	Paint Filter Test-Particulates passed through the filter, however no free liquids were observed.

GC/MS Volatile Analysis

Case Narrative

ChemStation Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-1604

Method/Analysis Information

Procedure:	Volatile Organic Compounds (VOC) by Gas Chromatograph/Mass Spectrometer
Analytical Method:	SW846 8260B
Prep Method:	SW846 5030
Analytical Batch Number:	949891
Prep Batch Number:	949888

Sample Analysis

The following client and quality control samples were analyzed to complete this SDG using the methods referenced in the Analysis Information section:

Sample ID	Client ID
246333001	RE03-10-12247
246333002	RE03-10-12248
1202035181	Method Blank (MB)
1202035184	Laboratory Control Sample (LCS)
1202035185	Laboratory Control Sample (LCS)
1202035182	246333001(RE03-10-12247) Post Spike (PS)
1202035183	246333001(RE03-10-12247) Post Spike Duplicate (PSD)

NOTE: For volatile organic analyses the matrix spike designations may be indicated as "PS" or "PSD". The "PS" designation (post spike) indicates that the matrix was fortified prior to analysis but after applying any prep factors, such as a dilution. The laboratory considers the MS/MSD and PS/PSD designations interchangeable.
The samples in this SDG were analyzed on a "dry weight" basis.

Preparation/Analytical Method Verification

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-038 REV# 14.

Raw data reports are processed and reviewed by the analyst using the Chemstation software package. False positives have been removed from the quantitation reports per standard operating procedures (SOP) section 19.1.2. False positive analytes are designated on the quantitation report with a 'd' qualifier.

Calibration Information

Please note that the 'Cal Date' indicated on each quantitation report reflects the date and time of the most recent calibrated analyte(s) in the processing method. Since the laboratory may calibrate with multiple solutions on different days using the same processing method, the software will update the 'Cal Date' to the last calibration file, date and time. The correct dates and times for all calibration files are located on the Calibration History report in the Standard Data section in the data package.

The surrogate compounds were calibrated using a minimum five-point calibration curve. The surrogates were added by the auto sampler at a concentration of 50 ug/L. GEL Laboratories LLC will not have surrogate recoveries reported for Dibromofluoromethane. This is due to increased regulations for this analyte and an industry shortage.

A complete list of the initial calibration data files are shown in the Calibration History report located in the Standard Data section of the data package.

Initial Calibration
All initial calibration requirements have been met for this sample delivery groups (SDG). A second source initial calibration verification (ICV) was included in the standard section directly behind the initial calibration.

Continuing Calibration Verification Requirements
All associated calibration verification standard(s) (ICV or CCV) met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Surrogate Recoveries
Surrogate recoveries in all client and quality control samples were within the acceptance limits.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

QC Sample Designation
Sample 246333001 (RE03-10-12247) was designated for spike analysis in this SDG.

Matrix Spike (PS) Recovery Statement
The spike recoveries for this SDG were within the required acceptance limits.

Matrix Spike Duplicate (PSD) Recovery Statement
The spike duplicate recoveries for this SDG were within the required acceptance limits.

Relative Percent Difference (RPD) Statement
The RPD(s) between the matrix spike pair met the acceptance limits.

Internal Standard (ISTD) Acceptance
The internal standard responses in all client and quality control samples met the required acceptance criteria.

Technical Information

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection or sample receipt. Those holding times expressed in hours are calculated in the ALPHALIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Sample Preservation and Integrity
All samples met the sample preservation and integrity requirements.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-extraction/Re-analysis
Re-analyses were not required for samples in this SDG.

Miscellaneous Information

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate

all data packages electronically. The following change from traditional packages should be noted: Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. An electronic signature page inserted after the case narrative will include the data validator's signature and title. The signature page also includes the data qualifiers used in the fractional package. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Data Exception (DER) Documentation
A Data Exception Document was not required for this SDG.

Manual Integrations
Data files associated with the initial calibration, continuing calibration check, and samples did not require manual integrations.

TIC Comment
Tentatively identified compounds (TIC) were required for this SDG. The tentatively identified compounds included some silanols. These compounds were due to column or septum bleed and were not native to the affected samples. Please note that non-requested target analytes that are reported on the quantitation reports will not be present on the Form I. These detected analytes are included in the calibrated method and as a result cannot be reported on the TIC quantitation report.

Additional Comments
Additional comments were not required for this SDG.

Residual Chlorine
Residual Chlorine was not detected in any of the samples in this SDG.

System Configuration
The Volatile-GC/MS analysis was performed on the following instrument configuration:

Instrument ID	Instrument	System Configuration	Column ID	Column Description	P & T Trap
VOA2.I	Gas Chromatograph/Mass Spectrometer	HP7890N/HP5975C	DB-624	J&W, 60m x 0.25mm x 1.4um	Trap 10

Certification Statement
Where the analytical method has been performed under NELAP certification, the analysis has met all the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis Report
for

LANL010 Los Alamos National Laboratory (72733-001-09)

Client SDG: 10-1604 GEL Work Order: 246333

The Qualifiers in this report are defined as follows:

* A quality control analyte recovery is outside of specified acceptance criteria

** Analyte is a surrogate compound

U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

Review/Validation

GEL requires all analytical data to be verified by a qualified data reviewer. In addition, all CLP-like deliverables receive a third level review of the fractional data package.

The following data validator verified the information presented in this case narrative:

Signature: Erin Haubert **Name: Erin Haubert**

Date: 10 FEB 2010 **Title: Data Validator**

Sample Data Summary

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1604**	**Date Collected:**	**02/02/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**246333001**	**Date Received:**	**02/05/2010 09:00**	**%Moisture:**	**15.4**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-10-12247**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**949891**	**Inst:**	**VOA2.I**	**Dilution:**	**1**
Run Date:	**02/05/2010 20:10**	**Analyst:**	**CDS1**	**Purge Vol:**	**5 mL**
Prep Date:	**02/05/2010 16:30**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**020510V2.b\2X529.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.18	ug/kg	0.402	1.18
74-87-3	Chloromethane	U	1.18	ug/kg	0.354	1.18
75-01-4	Vinyl chloride	U	1.18	ug/kg	0.354	1.18
74-83-9	Bromomethane	U	1.18	ug/kg	0.354	1.18
75-00-3	Chloroethane	U	1.18	ug/kg	0.354	1.18
75-69-4	Trichlorofluoromethane	U	1.18	ug/kg	0.354	1.18
67-64-1	Acetone	U	5.91	ug/kg	1.96	5.91
75-35-4	1,1-Dichloroethylene	U	1.18	ug/kg	0.354	1.18
74-88-4	Iodomethane	U	5.91	ug/kg	1.89	5.91
75-09-2	Methylene chloride	U	5.91	ug/kg	2.36	5.91
75-15-0	Carbon disulfide	U	5.91	ug/kg	1.48	5.91
156-60-5	trans-1,2-Dichloroethylene	U	1.18	ug/kg	0.354	1.18
75-34-3	1,1-Dichloroethane	U	1.18	ug/kg	0.354	1.18
78-93-3	2-Butanone	U	5.91	ug/kg	1.77	5.91
156-59-2	cis-1,2-Dichloroethylene	U	1.18	ug/kg	0.354	1.18
594-20-7	2,2-Dichloropropane	U	1.18	ug/kg	0.354	1.18
67-66-3	Chloroform	U	1.18	ug/kg	0.354	1.18
74-97-5	Bromochloromethane	U	1.18	ug/kg	0.390	1.18
71-55-6	1,1,1-Trichloroethane	U	1.18	ug/kg	0.354	1.18
563-58-6	1,1-Dichloropropene	U	1.18	ug/kg	0.354	1.18
56-23-5	Carbon tetrachloride	U	1.18	ug/kg	0.354	1.18
107-06-2	1,2-Dichloroethane	U	1.18	ug/kg	0.354	1.18
71-43-2	Benzene	U	1.18	ug/kg	0.354	1.18
79-01-6	Trichloroethylene	U	1.18	ug/kg	0.390	1.18
78-87-5	1,2-Dichloropropane	U	1.18	ug/kg	0.354	1.18
75-27-4	Bromodichloromethane	U	1.18	ug/kg	0.354	1.18
74-95-3	Dibromomethane	U	1.18	ug/kg	0.354	1.18
108-10-1	4-Methyl-2-pentanone	U	5.91	ug/kg	1.48	5.91
10061-01-5	cis-1,3-Dichloropropylene	U	1.18	ug/kg	0.354	1.18
108-88-3	Toluene	U	1.18	ug/kg	0.354	1.18
10061-02-6	trans-1,3-Dichloropropylene	U	1.18	ug/kg	0.354	1.18
79-00-5	1,1,2-Trichloroethane	U	1.18	ug/kg	0.354	1.18
591-78-6	2-Hexanone	U	5.91	ug/kg	1.77	5.91
142-28-9	1,3-Dichloropropane	U	1.18	ug/kg	0.354	1.18
127-18-4	Tetrachloroethylene	U	1.18	ug/kg	0.354	1.18
124-48-1	Dibromochloromethane	U	1.18	ug/kg	0.354	1.18
106-93-4	1,2-Dibromoethane	U	1.18	ug/kg	0.354	1.18
108-90-7	Chlorobenzene	U	1.18	ug/kg	0.354	1.18

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1604**	**Date Collected:**	**02/02/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**246333001**	**Date Received:**	**02/05/2010 09:00**	**%Moisture:**	**15.4**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-10-12247**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**949891**	**Inst:**	**VOA2.I**	**Dilution:**	**1**
Run Date:	**02/05/2010 20:10**	**Analyst:**	**CDS1**	**Purge Vol:**	**5 mL**
Prep Date:	**02/05/2010 16:30**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**020510V2.b\2X529.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.18	ug/kg	0.354	1.18
179601-23-1	m,p-Xylenes	U	2.36	ug/kg	0.354	2.36
95-47-6	o-Xylene	U	1.18	ug/kg	0.354	1.18
100-42-5	Styrene	U	1.18	ug/kg	0.354	1.18
75-25-2	Bromoform	U	1.18	ug/kg	0.354	1.18
79-34-5	1,1,2,2-Tetrachloroethane	U	1.18	ug/kg	0.354	1.18
96-18-4	1,2,3-Trichloropropane	U	1.18	ug/kg	0.354	1.18
108-86-1	Bromobenzene	U	1.18	ug/kg	0.354	1.18
103-65-1	n-Propylbenzene	U	1.18	ug/kg	0.354	1.18
95-49-8	2-Chlorotoluene	U	1.18	ug/kg	0.354	1.18
98-82-8	Isopropylbenzene	U	1.18	ug/kg	0.354	1.18
108-67-8	1,3,5-Trimethylbenzene	U	1.18	ug/kg	0.354	1.18
106-43-4	4-Chlorotoluene	U	1.18	ug/kg	0.354	1.18
98-06-6	tert-Butylbenzene	U	1.18	ug/kg	0.354	1.18
95-63-6	1,2,4-Trimethylbenzene	U	1.18	ug/kg	0.354	1.18
135-98-8	sec-Butylbenzene	U	1.18	ug/kg	0.354	1.18
99-87-6	4-Isopropyltoluene	U	1.18	ug/kg	0.354	1.18
541-73-1	1,3-Dichlorobenzene	U	1.18	ug/kg	0.354	1.18
106-46-7	1,4-Dichlorobenzene	U	1.18	ug/kg	0.354	1.18
104-51-8	n-Butylbenzene	U	1.18	ug/kg	0.354	1.18
96-12-8	1,2-Dibromo-3-chloropropane	U	1.18	ug/kg	0.354	1.18
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.91	ug/kg	1.89	5.91
630-20-6	1,1,1,2-Tetrachloroethane	U	1.18	ug/kg	0.354	1.18
95-50-1	1,2-Dichlorobenzene	U	1.18	ug/kg	0.354	1.18

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown	4.32	6.19	ug/kg	0	J

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1604	**Date Collected:**	02/02/2010 12:00	**Matrix:**	S
Lab Sample ID:	246333002	**Date Received:**	02/05/2010 09:00	**%Moisture:**	9.9
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-10-12248	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	949891	**Inst:**	VOA2.I	**Dilution:**	1
Run Date:	02/05/2010 20:39	**Analyst:**	CDS1	**Purge Vol:**	5 mL
Prep Date:	02/05/2010 16:33	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	020510V2.b\2X530.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.11	ug/kg	0.377	1.11
74-87-3	Chloromethane	U	1.11	ug/kg	0.333	1.11
75-01-4	Vinyl chloride	U	1.11	ug/kg	0.333	1.11
74-83-9	Bromomethane	U	1.11	ug/kg	0.333	1.11
75-00-3	Chloroethane	U	1.11	ug/kg	0.333	1.11
75-69-4	Trichlorofluoromethane	U	1.11	ug/kg	0.333	1.11
67-64-1	Acetone	U	5.55	ug/kg	1.84	5.55
75-35-4	1,1-Dichloroethylene	U	1.11	ug/kg	0.333	1.11
74-88-4	Iodomethane	U	5.55	ug/kg	1.78	5.55
75-09-2	Methylene chloride	U	5.55	ug/kg	2.22	5.55
75-15-0	Carbon disulfide	U	5.55	ug/kg	1.39	5.55
156-60-5	trans-1,2-Dichloroethylene	U	1.11	ug/kg	0.333	1.11
75-34-3	1,1-Dichloroethane	U	1.11	ug/kg	0.333	1.11
78-93-3	2-Butanone	U	5.55	ug/kg	1.67	5.55
156-59-2	cis-1,2-Dichloroethylene	U	1.11	ug/kg	0.333	1.11
594-20-7	2,2-Dichloropropane	U	1.11	ug/kg	0.333	1.11
67-66-3	Chloroform	U	1.11	ug/kg	0.333	1.11
74-97-5	Bromochloromethane	U	1.11	ug/kg	0.366	1.11
71-55-6	1,1,1-Trichloroethane	U	1.11	ug/kg	0.333	1.11
563-58-6	1,1-Dichloropropene	U	1.11	ug/kg	0.333	1.11
56-23-5	Carbon tetrachloride	U	1.11	ug/kg	0.333	1.11
107-06-2	1,2-Dichloroethane	U	1.11	ug/kg	0.333	1.11
71-43-2	Benzene	U	1.11	ug/kg	0.333	1.11
79-01-6	Trichloroethylene	U	1.11	ug/kg	0.366	1.11
78-87-5	1,2-Dichloropropane	U	1.11	ug/kg	0.333	1.11
75-27-4	Bromodichloromethane	U	1.11	ug/kg	0.333	1.11
74-95-3	Dibromomethane	U	1.11	ug/kg	0.333	1.11
108-10-1	4-Methyl-2-pentanone	U	5.55	ug/kg	1.39	5.55
10061-01-5	cis-1,3-Dichloropropylene	U	1.11	ug/kg	0.333	1.11
108-88-3	Toluene	U	1.11	ug/kg	0.333	1.11
10061-02-6	trans-1,3-Dichloropropylene	U	1.11	ug/kg	0.333	1.11
79-00-5	1,1,2-Trichloroethane	U	1.11	ug/kg	0.333	1.11
591-78-6	2-Hexanone	U	5.55	ug/kg	1.67	5.55
142-28-9	1,3-Dichloropropane	U	1.11	ug/kg	0.333	1.11
127-18-4	Tetrachloroethylene	U	1.11	ug/kg	0.333	1.11
124-48-1	Dibromochloromethane	U	1.11	ug/kg	0.333	1.11
106-93-4	1,2-Dibromoethane	U	1.11	ug/kg	0.333	1.11
108-90-7	Chlorobenzene	U	1.11	ug/kg	0.333	1.11

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1604**	**Date Collected:**	**02/02/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**246333002**	**Date Received:**	**02/05/2010 09:00**	**%Moisture:**	**9.9**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-10-12248**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**949891**	**Inst:**	**VOA2.I**	**Dilution:**	**1**
Run Date:	**02/05/2010 20:39**	**Analyst:**	**CDS1**	**Purge Vol:**	**5 mL**
Prep Date:	**02/05/2010 16:33**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**020510V2.b\2X530.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.11	ug/kg	0.333	1.11
179601-23-1	m,p-Xylenes	U	2.22	ug/kg	0.333	2.22
95-47-6	o-Xylene	U	1.11	ug/kg	0.333	1.11
100-42-5	Styrene	U	1.11	ug/kg	0.333	1.11
75-25-2	Bromoform	U	1.11	ug/kg	0.333	1.11
79-34-5	1,1,2,2-Tetrachloroethane	U	1.11	ug/kg	0.333	1.11
96-18-4	1,2,3-Trichloropropane	U	1.11	ug/kg	0.333	1.11
108-86-1	Bromobenzene	U	1.11	ug/kg	0.333	1.11
103-65-1	n-Propylbenzene	U	1.11	ug/kg	0.333	1.11
95-49-8	2-Chlorotoluene	U	1.11	ug/kg	0.333	1.11
98-82-8	Isopropylbenzene	U	1.11	ug/kg	0.333	1.11
108-67-8	1,3,5-Trimethylbenzene	U	1.11	ug/kg	0.333	1.11
106-43-4	4-Chlorotoluene	U	1.11	ug/kg	0.333	1.11
98-06-6	tert-Butylbenzene	U	1.11	ug/kg	0.333	1.11
95-63-6	1,2,4-Trimethylbenzene	U	1.11	ug/kg	0.333	1.11
135-98-8	sec-Butylbenzene	U	1.11	ug/kg	0.333	1.11
99-87-6	4-Isopropyltoluene	U	1.11	ug/kg	0.333	1.11
541-73-1	1,3-Dichlorobenzene	U	1.11	ug/kg	0.333	1.11
106-46-7	1,4-Dichlorobenzene	U	1.11	ug/kg	0.333	1.11
104-51-8	n-Butylbenzene	U	1.11	ug/kg	0.333	1.11
96-12-8	1,2-Dibromo-3-chloropropane	U	1.11	ug/kg	0.333	1.11
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.55	ug/kg	1.78	5.55
630-20-6	1,1,1,2-Tetrachloroethane	U	1.11	ug/kg	0.333	1.11
95-50-1	1,2-Dichlorobenzene	U	1.11	ug/kg	0.333	1.11

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown	4.32	6.89	ug/kg	0	J
	unknown siloxane	19.16	6.83	ug/kg	0	J

Quality Control Summary

Volatile

Surrogate Recovery Report

SDG Number: 10-1604

Matrix Type: SOLID

Sample ID	Client ID	DCED4 %REC	TOL %REC	BFB %REC
1202035184	LCS for batch 949888	112	95	96
1202035185	LCS for batch 949888	106	92	96
1202035181	MB for batch 949888	112	92	98
246333001	RE03-10-12247	111	93	96
246333002	RE03-10-12248	116	91	96
1202035182	RE03-10-12247PS	113	94	96
1202035183	RE03-10-12247PSD	111	92	94

Surrogate		Acceptance Limits
DCED4	= 1,2-Dichloroethane-d4	(66%-134%)
TOL	= Toluene-d8	(71%-128%)
BFB	= Bromofluorobenzene	(65%-130%)

* Recovery outside Acceptance Limits

\# Column to be used to flag recovery values

D Sample Diluted

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1604
Client ID: RE03-10-12247PS
Lab Sample ID: 1202035182
Instrument: VOA2.I
Analyst: CDS1
Purge Vol: 5 mL

Sample Type: Post Spike
Matrix: S
%Moisture: 15.4
Analysis Date: 02/06/2010 02:26
Prep Batch ID 949888
Batch ID: 949891
Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
75-71-8	PS	Dichlorodifluoromethane	50.0	0.00	U	38.0	76	39-148
74-87-3	PS	Chloromethane	50.0	0.00	U	44.4	89	42-131
75-01-4	PS	Vinyl chloride	50.0	0.00	U	43.3	87	50-127
74-83-9	PS	Bromomethane	50.0	0.00	U	52.1	104	26-135
75-00-3	PS	Chloroethane	50.0	0.00	U	40.3	81	54-128
75-69-4	PS	Trichlorofluoromethane	50.0	0.00	U	48.4	97	55-138
67-64-1	PS	Acetone	250	0.00	U	123	49	20-144
75-35-4	PS	1,1-Dichloroethylene	50.0	0.00	U	43.5	87	55-128
74-88-4	PS	Iodomethane	250	0.00	U	199	79	47-132
75-09-2	PS	Methylene chloride	50.0	0.00	U	37.0	74	56-123
75-15-0	PS	Carbon disulfide	250	0.00	U	201	80	53-133
156-60-5	PS	trans-1,2-Dichloroethylene	50.0	0.00	U	43.9	88	57-119
75-34-3	PS	1,1-Dichloroethane	50.0	0.00	U	42.7	85	62-125
78-93-3	PS	2-Butanone	250	0.00	U	142	57	30-150
156-59-2	PS	cis-1,2-Dichloroethylene	50.0	0.00	U	44.4	89	60-124
594-20-7	PS	2,2-Dichloropropane	50.0	0.00	U	43.8	88	56-129
67-66-3	PS	Chloroform	50.0	0.00	U	45.4	91	62-120
74-97-5	PS	Bromochloromethane	50.0	0.00	U	38.2	76	51-135
71-55-6	PS	1,1,1-Trichloroethane	50.0	0.00	U	49.8	100	58-129
563-58-6	PS	1,1-Dichloropropene	50.0	0.00	U	43.0	86	59-126
56-23-5	PS	Carbon tetrachloride	50.0	0.00	U	50.9	102	55-132
107-06-2	PS	1,2-Dichloroethane	50.0	0.00	U	47.4	95	54-121

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1604
Client ID: RE03-10-12247PS
Lab Sample ID: 1202035182
Instrument: VOA2.I
Analyst: CDS1
Purge Vol: 5 mL

Sample Type: Post Spike
Matrix: S
%Moisture: 15.4
Analysis Date: 02/06/2010 02:26
Prep Batch ID: 949888
Batch ID: 949891
Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
71-43-2	PS	Benzene	50.0	0.00	U	38.6	77	58-120
79-01-6	PS	Trichloroethylene	50.0	0.00	U	42.8	86	54-130
78-87-5	PS	1,2-Dichloropropane	50.0	0.00	U	41.4	83	59-121
75-27-4	PS	Bromodichloromethane	50.0	0.00	U	47.6	95	57-130
74-95-3	PS	Dibromomethane	50.0	0.00	U	41.6	83	57-124
108-10-1	PS	4-Methyl-2-pentanone	250	0.00	U	180	72	40-137
10061-01-5	PS	cis-1,3-Dichloropropylene	50.0	0.00	U	42.1	84	50-131
108-88-3	PS	Toluene	50.0	0.00	U	39.2	78	54-119
10061-02-6	PS	trans-1,3-Dichloropropylene	50.0	0.00	U	44.1	88	47-133
79-00-5	PS	1,1,2-Trichloroethane	50.0	0.00	U	39.0	78	60-130
591-78-6	PS	2-Hexanone	250	0.00	U	151	60	30-139
142-28-9	PS	1,3-Dichloropropane	50.0	0.00	U	39.5	79	59-125
127-18-4	PS	Tetrachloroethylene	50.0	0.00	U	40.1	80	50-126
124-48-1	PS	Dibromochloromethane	50.0	0.00	U	44.9	90	54-131
106-93-4	PS	1,2-Dibromoethane	50.0	0.00	U	40.0	80	55-127
108-90-7	PS	Chlorobenzene	50.0	0.00	U	39.7	79	50-130
100-41-4	PS	Ethylbenzene	50.0	0.00	U	41.3	83	50-121
179601-23-1	PS	m,p-Xylenes	100	0.00	U	78.3	78	47-125
95-47-6	PS	o-Xylene	50.0	0.00	U	38.7	77	51-127
100-42-5	PS	Styrene	50.0	0.00	U	39.4	79	41-136
75-25-2	PS	Bromoform	50.0	0.00	U	43.4	87	48-143
79-34-5	PS	1,1,2,2-Tetrachloroethane	50.0	0.00	U	36.9	74	52-129

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1604
Client ID: RE03-10-12247PS
Lab Sample ID: 1202035182
Instrument: VOA2.I
Analyst: CDS1
Purge Vol: 5 mL

Sample Type: Post Spike
Matrix: S
%Moisture: 15.4
Analysis Date: 02/06/2010 02:26
Dilution: 1
Prep Batch ID: 949888
Batch ID: 949891

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
96-18-4	PS	1,2,3-Trichloropropane	50.0	0.00	U	39.4	79	56-139
108-86-1	PS	Bromobenzene	50.0	0.00	U	39.5	79	54-125
103-65-1	PS	n-Propylbenzene	50.0	0.00	U	40.6	81	46-127
95-49-8	PS	2-Chlorotoluene	50.0	0.00	U	38.7	77	47-130
98-82-8	PS	Isopropylbenzene	50.0	0.00	U	40.3	81	42-126
108-67-8	PS	1,3,5-Trimethylbenzene	50.0	0.00	U	40.0	80	44-132
106-43-4	PS	4-Chlorotoluene	50.0	0.00	U	40.7	81	46-127
98-06-6	PS	tert-Butylbenzene	50.0	0.00	U	38.7	77	48-136
95-63-6	PS	1,2,4-Trimethylbenzene	50.0	0.00	U	39.5	79	42-132
135-98-8	PS	sec-Butylbenzene	50.0	0.00	U	39.8	80	47-130
99-87-6	PS	4-Isopropyltoluene	50.0	0.00	U	39.4	79	36-142
541-73-1	PS	1,3-Dichlorobenzene	50.0	0.00	U	38.2	76	41-130
106-46-7	PS	1,4-Dichlorobenzene	50.0	0.00	U	37.4	75	41-126
104-51-8	PS	n-Butylbenzene	50.0	0.00	U	39.3	79	37-136
96-12-8	PS	1,2-Dibromo-3-chloropropane	50.0	0.00	U	35.5	71	42-143
630-20-6	PS	1,1,1,2-Tetrachloroethane	50.0	0.00	U	43.8	88	58-127
95-50-1	PS	1,2-Dichlorobenzene	50.0	0.00	U	37.6	75	42-128

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1604
Client ID: RE03-10-12247PSD
Lab Sample ID: 1202035183
Instrument: VOA2.I
Analyst: CDS1
Purge Vol: 5 mL

Sample Type: Post Spike Duplicate
Matrix: S
%Moisture: 15.4
Analysis Date: 02/06/2010 02:56 **Dilution:** 1
Prep Batch ID: 949888
Batch ID: 949891

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
75-71-8	PSD	Dichlorodifluoromethane	50.0	0.00	U	37.1	74	39-148	2	0-19
74-87-3	PSD	Chloromethane	50.0	0.00	U	45.0	90	42-131	1	0-23
75-01-4	PSD	Vinyl chloride	50.0	0.00	U	43.0	86	50-127	1	0-23
74-83-9	PSD	Bromomethane	50.0	0.00	U	58.9	118	26-135	12	0-22
75-00-3	PSD	Chloroethane	50.0	0.00	U	39.7	79	54-128	1	0-25
75-69-4	PSD	Trichlorofluoromethane	50.0	0.00	U	46.9	94	55-138	3	0-21
67-64-1	PSD	Acetone	250	0.00	U	115	46	20-144	7	0-22
75-35-4	PSD	1,1-Dichloroethylene	50.0	0.00	U	42.2	84	55-128	3	0-20
74-88-4	PSD	Iodomethane	250	0.00	U	192	77	47-132	3	0-20
75-09-2	PSD	Methylene chloride	50.0	0.00	U	36.2	72	56-123	2	0-20
75-15-0	PSD	Carbon disulfide	250	0.00	U	197	79	53-133	2	0-22
156-60-5	PSD	trans-1,2-Dichloroethylene	50.0	0.00	U	42.0	84	57-119	4	0-20
75-34-3	PSD	1,1-Dichloroethane	50.0	0.00	U	41.4	83	62-125	3	0-20
78-93-3	PSD	2-Butanone	250	0.00	U	135	54	30-150	5	0-21
156-59-2	PSD	cis-1,2-Dichloroethylene	50.0	0.00	U	42.2	84	60-124	5	0-20
594-20-7	PSD	2,2-Dichloropropane	50.0	0.00	U	42.2	84	56-129	4	0-20
67-66-3	PSD	Chloroform	50.0	0.00	U	43.5	87	62-120	4	0-25
74-97-5	PSD	Bromochloromethane	50.0	0.00	U	36.8	74	51-135	4	0-20
71-55-6	PSD	1,1,1-Trichloroethane	50.0	0.00	U	47.5	95	58-129	5	0-20
563-58-6	PSD	1,1-Dichloropropene	50.0	0.00	U	41.5	83	59-126	4	0-20
56-23-5	PSD	Carbon tetrachloride	50.0	0.00	U	48.5	97	55-132	5	0-20
107-06-2	PSD	1,2-Dichloroethane	50.0	0.00	U	45.3	91	54-121	5	0-20

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1604
Client ID: RE03-10-12247PSD
Lab Sample ID: 1202035183
Instrument: VOA2.I
Analyst: CDS1
Purge Vol: 5 mL

Sample Type: Post Spike Duplicate
Matrix: S
%Moisture: 15.4
Analysis Date: 02/06/2010 02:56
Dilution: 1
Prep Batch ID: 949888
Batch ID: 949891

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
71-43-2	PSD	Benzene	50.0	0.00	U	37.3	75	58-120	4	0-20
79-01-6	PSD	Trichloroethylene	50.0	0.00	U	41.2	82	54-130	4	0-23
78-87-5	PSD	1,2-Dichloropropane	50.0	0.00	U	39.5	79	59-121	5	0-20
75-27-4	PSD	Bromodichloromethane	50.0	0.00	U	45.6	91	57-130	4	0-20
74-95-3	PSD	Dibromomethane	50.0	0.00	U	39.4	79	57-124	5	0-20
108-10-1	PSD	4-Methyl-2-pentanone	250	0.00	U	172	69	40-137	4	0-25
10061-01-5	PSD	cis-1,3-Dichloropropylene	50.0	0.00	U	40.4	81	50-131	4	0-20
108-88-3	PSD	Toluene	50.0	0.00	U	37.4	75	54-119	5	0-23
10061-02-6	PSD	trans-1,3-Dichloropropylene	50.0	0.00	U	42.0	84	47-133	5	0-24
79-00-5	PSD	1,1,2-Trichloroethane	50.0	0.00	U	36.9	74	60-130	6	0-20
591-78-6	PSD	2-Hexanone	250	0.00	U	141	56	30-139	7	0-21
142-28-9	PSD	1,3-Dichloropropane	50.0	0.00	U	37.7	75	59-125	4	0-20
127-18-4	PSD	Tetrachloroethylene	50.0	0.00	U	38.2	76	50-126	5	0-20
124-48-1	PSD	Dibromochloromethane	50.0	0.00	U	42.9	86	54-131	4	0-23
106-93-4	PSD	1,2-Dibromoethane	50.0	0.00	U	38.2	76	55-127	5	0-23
108-90-7	PSD	Chlorobenzene	50.0	0.00	U	38.2	76	50-130	4	0-24
100-41-4	PSD	Ethylbenzene	50.0	0.00	U	39.4	79	50-121	5	0-24
179601-23-1	PSD	m,p-Xylenes	100	0.00	U	75.0	75	47-125	4	0-25
95-47-6	PSD	o-Xylene	50.0	0.00	U	36.9	74	51-127	5	0-24
100-42-5	PSD	Styrene	50.0	0.00	U	37.4	75	41-136	5	0-24
75-25-2	PSD	Bromoform	50.0	0.00	U	40.3	81	48-143	7	0-20
79-34-5	PSD	1,1,2,2-Tetrachloroethane	50.0	0.00	U	34.7	69	52-129	6	0-20

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1604
Client ID: RE03-10-12247PSD
Lab Sample ID: 1202035183
Instrument: VOA2.I
Analyst: CDS1
Purge Vol: 5 mL

Sample Type: Post Spike Duplicate
Matrix: S
%Moisture: 15.4
Analysis Date: 02/06/2010 02:56
Dilution: 1
Prep Batch ID: 949888
Batch ID: 949891

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
96-18-4	PSD	1,2,3-Trichloropropane	50.0	0.00	U	37.3	75	56-139	5	0-34
108-86-1	PSD	Bromobenzene	50.0	0.00	U	36.9	74	54-125	7	0-22
103-65-1	PSD	n-Propylbenzene	50.0	0.00	U	37.8	76	46-127	7	0-25
95-49-8	PSD	2-Chlorotoluene	50.0	0.00	U	36.5	73	47-130	6	0-24
98-82-8	PSD	Isopropylbenzene	50.0	0.00	U	37.8	76	42-126	7	0-22
108-67-8	PSD	1,3,5-Trimethylbenzene	50.0	0.00	U	37.2	74	44-132	7	0-25
106-43-4	PSD	4-Chlorotoluene	50.0	0.00	U	37.9	76	46-127	7	0-26
98-06-6	PSD	tert-Butylbenzene	50.0	0.00	U	35.9	72	48-136	7	0-24
95-63-6	PSD	1,2,4-Trimethylbenzene	50.0	0.00	U	36.9	74	42-132	7	0-26
135-98-8	PSD	sec-Butylbenzene	50.0	0.00	U	37.2	74	47-130	7	0-27
99-87-6	PSD	4-Isopropyltoluene	50.0	0.00	U	36.1	72	36-142	9	0-27
541-73-1	PSD	1,3-Dichlorobenzene	50.0	0.00	U	35.7	71	41-130	7	0-25
106-46-7	PSD	1,4-Dichlorobenzene	50.0	0.00	U	34.7	69	41-126	7	0-25
104-51-8	PSD	n-Butylbenzene	50.0	0.00	U	35.9	72	37-136	9	0-29
96-12-8	PSD	1,2-Dibromo-3-chloropropane	50.0	0.00	U	33.9	68	42-143	4	0-21
630-20-6	PSD	1,1,1,2-Tetrachloroethane	50.0	0.00	U	41.6	83	58-127	5	0-20
95-50-1	PSD	1,2-Dichlorobenzene	50.0	0.00	U	35.0	70	42-128	7	0-24

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: **10-1604**
Client ID: **LCS for batch 949888**
Lab Sample ID: **1202035184**
Instrument: **VOA2.I**
Analyst: **CDS1**
Purge Vol: **5 mL**

Sample Type: **Laboratory Control Sample**
Matrix: **SOIL**
Analysis Date: **02/05/2010 18:14**
Dilution: **1**
Prep Batch ID: **949888**
Batch ID: **949891**

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
75-71-8	LCS	Dichlorodifluoromethane	50.0	0.0	37.8	76	52-151
74-87-3	LCS	Chloromethane	50.0	0.0	43.3	87	56-130
75-01-4	LCS	Vinyl chloride	50.0	0.0	42.3	85	66-130
74-83-9	LCS	Bromomethane	50.0	0.0	57.3	115	70-126
75-00-3	LCS	Chloroethane	50.0	0.0	40.0	80	67-129
75-69-4	LCS	Trichlorofluoromethane	50.0	0.0	48.1	96	73-143
67-64-1	LCS	Acetone	250	0.0	230	92	30-140
75-35-4	LCS	1,1-Dichloroethylene	50.0	0.0	42.5	85	71-129
74-88-4	LCS	Iodomethane	250	0.0	197	79	72-125
75-09-2	LCS	Methylene chloride	50.0	0.0	37.3	75	64-121
75-15-0	LCS	Carbon disulfide	250	0.0	207	83	70-133
156-60-5	LCS	trans-1,2-Dichloroethylene	50.0	0.0	42.9	86	73-120
75-34-3	LCS	1,1-Dichloroethane	50.0	0.0	41.7	83	73-120
78-93-3	LCS	2-Butanone	250	0.0	211	85	32-145
156-59-2	LCS	cis-1,2-Dichloroethylene	50.0	0.0	43.5	87	74-124
594-20-7	LCS	2,2-Dichloropropane	50.0	0.0	48.4	97	73-134
67-66-3	LCS	Chloroform	50.0	0.0	44.0	88	74-120
74-97-5	LCS	Bromochloromethane	50.0	0.0	38.6	77	73-122
71-55-6	LCS	1,1,1-Trichloroethane	50.0	0.0	48.3	97	74-132
563-58-6	LCS	1,1-Dichloropropene	50.0	0.0	43.8	88	79-128
56-23-5	LCS	Carbon tetrachloride	50.0	0.0	49.7	99	75-135
107-06-2	LCS	1,2-Dichloroethane	50.0	0.0	45.8	92	65-120

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1604
Client ID: LCS for batch 949888
Lab Sample ID: 1202035184
Instrument: VOA2.I
Analyst: CDS1
Purge Vol: 5 mL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 02/05/2010 18:14
Dilution: 1
Prep Batch ID: 949888
Batch ID: 949891

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
71-43-2	LCS	Benzene	50.0	0.0	39.1	78	74-120
79-01-6	LCS	Trichloroethylene	50.0	0.0	43.2	86	77-124
78-87-5	LCS	1,2-Dichloropropane	50.0	0.0	40.8	82	73-120
75-27-4	LCS	Bromodichloromethane	50.0	0.0	46.6	93	75-128
74-95-3	LCS	Dibromomethane	50.0	0.0	41.5	83	75-120
108-10-1	LCS	4-Methyl-2-pentanone	250	0.0	201	81	63-133
10061-01-5	LCS	cis-1,3-Dichloropropylene	50.0	0.0	43.8	88	78-127
108-88-3	LCS	Toluene	50.0	0.0	40.1	80	74-120
10061-02-6	LCS	trans-1,3-Dichloropropylene	50.0	0.0	45.5	91	70-125
79-00-5	LCS	1,1,2-Trichloroethane	50.0	0.0	39.8	80	75-120
591-78-6	LCS	2-Hexanone	250	0.0	206	82	40-153
142-28-9	LCS	1,3-Dichloropropane	50.0	0.0	40.0	80	73-120
127-18-4	LCS	Tetrachloroethylene	50.0	0.0	41.6	83	72-126
124-48-1	LCS	Dibromochloromethane	50.0	0.0	45.1	90	74-126
106-93-4	LCS	1,2-Dibromoethane	50.0	0.0	41.0	82	79-120
108-90-7	LCS	Chlorobenzene	50.0	0.0	40.7	81	76-120
100-41-4	LCS	Ethylbenzene	50.0	0.0	42.2	84	74-120
179601-23-1	LCS	m,p-Xylenes	100	0.0	80.8	81	76-120
95-47-6	LCS	o-Xylene	50.0	0.0	39.6	79	76-122
100-42-5	LCS	Styrene	50.0	0.0	40.0	80	75-125
75-25-2	LCS	Bromoform	50.0	0.0	44.0	88	68-135
79-34-5	LCS	1,1,2,2-Tetrachloroethane	50.0	0.0	38.4	77	72-122

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1604
Client ID: LCS for batch 949888
Lab Sample ID: 1202035184
Instrument: VOA2.I
Analyst: CDS1
Purge Vol: 5 mL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 02/05/2010 18:14
Dilution: 1
Prep Batch ID: 949888
Batch ID: 949891

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
96-18-4	LCS	1,2,3-Trichloropropane	50.0	0.0	40.4	81	72-129
108-86-1	LCS	Bromobenzene	50.0	0.0	39.7	79	74-120
103-65-1	LCS	n-Propylbenzene	50.0	0.0	41.9	84	70-120
95-49-8	LCS	2-Chlorotoluene	50.0	0.0	39.3	79	70-120
98-82-8	LCS	Isopropylbenzene	50.0	0.0	41.5	83	60-121
108-67-8	LCS	1,3,5-Trimethylbenzene	50.0	0.0	41.1	82	71-121
106-43-4	LCS	4-Chlorotoluene	50.0	0.0	41.7	83	71-120
98-06-6	LCS	tert-Butylbenzene	50.0	0.0	39.8	80	75-123
95-63-6	LCS	1,2,4-Trimethylbenzene	50.0	0.0	40.7	81	73-120
135-98-8	LCS	sec-Butylbenzene	50.0	0.0	41.3	83	74-123
99-87-6	LCS	4-Isopropyltoluene	50.0	0.0	41.4	83	76-127
541-73-1	LCS	1,3-Dichlorobenzene	50.0	0.0	39.6	79	75-120
106-46-7	LCS	1,4-Dichlorobenzene	50.0	0.0	38.9	78	73-120
104-51-8	LCS	n-Butylbenzene	50.0	0.0	41.7	83	73-128
96-12-8	LCS	1,2-Dibromo-3-chloropropane	50.0	0.0	38.3	77	69-136
630-20-6	LCS	1,1,1,2-Tetrachloroethane	50.0	0.0	43.2	86	75-124
95-50-1	LCS	1,2-Dichlorobenzene	50.0	0.0	38.4	77	75-120

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: **10-1604**
Client ID: **LCS for batch 949888**
Lab Sample ID: **1202035185**
Instrument: **VOA2.I**
Analyst: **CDS1**
Purge Vol: **5 mL**

Sample Type: **Laboratory Control Sample**
Matrix: **SOIL**
Analysis Date: **02/05/2010 18:43**
Dilution: 1
Prep Batch ID: **949888**
Batch ID: **949891**

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
76-13-1	LCS	1,1,2-Trichloro-1,2,2-Trifluor *Trichlorotrifluoroethane*	250	0.0	274	110	67-140

Method Blank Summary

SDG Number:	10-1604	Client:	LANL010	Matrix:	SOIL
Client ID:	MB for batch 949888	Instrument ID:	VOA2.I	Data File:	020510V2.b\2X528BA.D
Lab Sample ID:	1202035181	Prep Date:	02/05/2010 15:30	Analyzed:	02/05/10 19:41
Column:	DB-624				

This method blank applies to the following samples and quality control samples:

Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01 LCS for batch 949888	1202035184	020510V2.b\2X525LSA.D	02/05/10	1814
02 LCS for batch 949888	1202035185	020510V2.b\2X526SLSA.D	02/05/10	1843
03 RE03-10-12247	246333001	020510V2.b\2X529.D	02/05/10	2010
04 RE03-10-12248	246333002	020510V2.b\2X530.D	02/05/10	2039
05 RE03-10-12247PS	1202035182	020510V2.b\2X542.D	02/06/10	0226
06 RE03-10-12247PSD	1202035183	020510V2.b\2X543.D	02/06/10	0256

Instrument Performance Check

BFB

Lab Name GEL Laboratories LLC **Client SDG:** 10-1604

Instrument ID: VOA2.I **Injection Date/Time:** 05-FEB-10 16:50

Column Description: DB-624 **Lab File ID** 020510V2.b\2X522.D

m/e	Ion Abundance Criteria	% Relative Abundance
50	15.0 - 40.0% of mass 95	23.8
75	30.0 - 60.0% of mass 95	50.6
95	Base Peak, 100% Relative Abundance	100
96	5.0 - 9.0% of mass 95	7.5
173	Less than 2.0% of mass 174	0.8
174	50.0 - 100.0% of mass 95	61.4
175	5.0 -9.0% of mass 174	6.6
176	95.0 - 101.0% of mass 174	98.4
177	5.0 - 9.0% of mass 176	5.9

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
CCVMIX[A]02	W2VM100205-05	020510V2.b\2X523.D	05-FEB-10 17:16
BLK01LCS	1202035184	020510V2.b\2X525LSA.D	05-FEB-10 18:14
CCVMIX[B]03	W2VM100205-08	020510V2.b\2X526.D	05-FEB-10 18:43
BLK01SLCS	1202035185	020510V2.b\2X526SLSA.D	05-FEB-10 18:43
BLK01	1202035181	020510V2.b\2X528BA.D	05-FEB-10 19:41
RE03-10-12247	246333001	020510V2.b\2X529.D	05-FEB-10 20:10
RE03-10-12248	246333002	020510V2.b\2X530.D	05-FEB-10 20:39
RE03-10-12247MS	1202035182	020510V2.b\2X542.D	06-FEB-10 02:26
RE03-10-12247MSD	1202035183	020510V2.b\2X543.D	06-FEB-10 02:56

Instrument Performance Check

BFB

Lab Name GEL Laboratories LLC **Client SDG:** 10-1604

Instrument ID: VOA2.I **Injection Date/Time:** 26-JAN-10 13:21

Column Description: DB-624 **Lab File ID** 012610V2.b\2W201.D

m/e	Ion Abundance Criteria	% Relative Abundance
50	15.0 - 40.0% of mass 95	20.6
75	30.0 - 60.0% of mass 95	44.7
95	Base Peak, 100% Relative Abundance	100
96	5.0 - 9.0% of mass 95	6.9
173	Less than 2.0% of mass 174	0.7
174	50.0 - 100.0% of mass 95	66.7
175	5.0 -9.0% of mass 174	7.5
176	95.0 - 101.0% of mass 174	100.3
177	5.0 - 9.0% of mass 176	6

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
ICALMIX[A]	W2VM100126-01	012610V2.b\2W203.D	26-JAN-10 14:16
ICALMIX[A]	W2VM100126-02	012610V2.b\2W204.D	26-JAN-10 14:45
ICALMIX[A]	W2VM100126-03	012610V2.b\2W205.D	26-JAN-10 15:14
ICALMIX[A]	W2VM100126-04	012610V2.b\2W206.D	26-JAN-10 15:43
ICALMIX[A]	W2VM100126-05	012610V2.b\2W207.D	26-JAN-10 16:12
ICALMIX[A]	W2VM100126-06	012610V2.b\2W208.D	26-JAN-10 16:41
ICALMIX[A]	W2VM100126-07	012610V2.b\2W209.D	26-JAN-10 17:10
ICALMIX[A]	W2VM100126-08	012610V2.b\2W211.D	26-JAN-10 18:08
ICVMIX[A]01	W2VM100126-10	012610V2.b\2W213.D	26-JAN-10 19:05
ICALMIX[B]	W2VM100126-11	012610V2.b\2W215.D	26-JAN-10 20:03
ICALMIX[B]	W2VM100126-12	012610V2.b\2W216.D	26-JAN-10 20:32
ICALMIX[B]	W2VM100126-13	012610V2.b\2W217.D	26-JAN-10 21:01
ICALMIX[B]	W2VM100126-14	012610V2.b\2W218.D	26-JAN-10 21:31
ICALMIX[B]	W2VM100126-15	012610V2.b\2W219.D	26-JAN-10 22:00
ICALMIX[B]	W2VM100126-16	012610V2.b\2W220.D	26-JAN-10 22:30
ICALMIX[B]	W2VM100126-17	012610V2.b\2W221.D	26-JAN-10 22:59
ICVMIX[B]02	W2VM100126-18	012610V2.b\2W224.D	27-JAN-10 00:26

Internal Standard
Area and RT Summary

Lab Name : GEL Laboratories LLC

Instrument: VOA2.I

GC Column: DB-624

Client SDG: 10-1604

STD Analysis Time: 05-FEB-10 17:16

Data File: C:\msdchem\1\DATA\020510V2.b\2X523.D

	Fluorobenzene				Chlorobenzene-d5				1,4-Dichlorobenzene-d4			
	Area	#	RT	#	Area	#	RT	#	Area	#	RT	#
12 Hour STD	1572099		12.4		1246122		16.0		709380		18.5	
Upper Limit	3144198		12.9		2492244		16.5		1418760		19.0	
Lower Limit	786050		11.9		623061		15.5		354690		18.0	
Sample ID												
BLK01LCS	1663685		12.4		1313430		16.0		758245		18.5	
BLK01SLCS	1705125		12.4		1320757		16.0		745441		18.5	
BLK01	1579693		12.4		1232161		16.0		686376		18.5	
RE03-10-12247	1479846		12.4		1136017		16.0		637307		18.5	
RE03-10-12248	1447151		12.4		1136889		16.0		635341		18.5	
RE03-10-12247MS	1481274		12.4		1170184		16.0		671576		18.5	
RE03-10-12247MSD	1514825		12.4		1199283		16.0		698386		18.5	

Area Upper Limit = +100% of internal standard area
Area Lower Limit = - 50% of internal standard area

RT Upper Limit = + 0.50 minutes of internal standard RT
RT Lower Limit = - 0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Value outside of QC Limits

Sample Data

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1604	Date Collected:	02/02/2010 12:00	Matrix:	S
Lab Sample ID:	246333001	Date Received:	02/05/2010 09:00	%Moisture:	15.4
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-10-12247	Method:	SW846 8260B	SOP Ref:	GL-OA-E-038
Batch ID:	949891	Inst:	VOA2.I	Dilution:	1
Run Date:	02/05/2010 20:10	Analyst:	CDS1	Purge Vol:	5 mL
Prep Date:	02/05/2010 16:30	Aliquot:	5 g	Final Volume:	5 mL
Data File:	020510V2.b\2X529.D	Column:	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.18	ug/kg	0.402	1.18
74-87-3	Chloromethane	U	1.18	ug/kg	0.354	1.18
75-01-4	Vinyl chloride	U	1.18	ug/kg	0.354	1.18
74-83-9	Bromomethane	U	1.18	ug/kg	0.354	1.18
75-00-3	Chloroethane	U	1.18	ug/kg	0.354	1.18
75-69-4	Trichlorofluoromethane	U	1.18	ug/kg	0.354	1.18
67-64-1	Acetone	U	5.91	ug/kg	1.96	5.91
75-35-4	1,1-Dichloroethylene	U	1.18	ug/kg	0.354	1.18
74-88-4	Iodomethane	U	5.91	ug/kg	1.89	5.91
75-09-2	Methylene chloride	U	5.91	ug/kg	2.36	5.91
75-15-0	Carbon disulfide	U	5.91	ug/kg	1.48	5.91
156-60-5	trans-1,2-Dichloroethylene	U	1.18	ug/kg	0.354	1.18
75-34-3	1,1-Dichloroethane	U	1.18	ug/kg	0.354	1.18
78-93-3	2-Butanone	U	5.91	ug/kg	1.77	5.91
156-59-2	cis-1,2-Dichloroethylene	U	1.18	ug/kg	0.354	1.18
594-20-7	2,2-Dichloropropane	U	1.18	ug/kg	0.354	1.18
67-66-3	Chloroform	U	1.18	ug/kg	0.354	1.18
74-97-5	Bromochloromethane	U	1.18	ug/kg	0.390	1.18
71-55-6	1,1,1-Trichloroethane	U	1.18	ug/kg	0.354	1.18
563-58-6	1,1-Dichloropropene	U	1.18	ug/kg	0.354	1.18
56-23-5	Carbon tetrachloride	U	1.18	ug/kg	0.354	1.18
107-06-2	1,2-Dichloroethane	U	1.18	ug/kg	0.354	1.18
71-43-2	Benzene	U	1.18	ug/kg	0.354	1.18
79-01-6	Trichloroethylene	U	1.18	ug/kg	0.390	1.18
78-87-5	1,2-Dichloropropane	U	1.18	ug/kg	0.354	1.18
75-27-4	Bromodichloromethane	U	1.18	ug/kg	0.354	1.18
74-95-3	Dibromomethane	U	1.18	ug/kg	0.354	1.18
108-10-1	4-Methyl-2-pentanone	U	5.91	ug/kg	1.48	5.91
10061-01-5	cis-1,3-Dichloropropylene	U	1.18	ug/kg	0.354	1.18
108-88-3	Toluene	U	1.18	ug/kg	0.354	1.18
10061-02-6	trans-1,3-Dichloropropylene	U	1.18	ug/kg	0.354	1.18
79-00-5	1,1,2-Trichloroethane	U	1.18	ug/kg	0.354	1.18
591-78-6	2-Hexanone	U	5.91	ug/kg	1.77	5.91
142-28-9	1,3-Dichloropropane	U	1.18	ug/kg	0.354	1.18
127-18-4	Tetrachloroethylene	U	1.18	ug/kg	0.354	1.18
124-48-1	Dibromochloromethane	U	1.18	ug/kg	0.354	1.18
106-93-4	1,2-Dibromoethane	U	1.18	ug/kg	0.354	1.18
108-90-7	Chlorobenzene	U	1.18	ug/kg	0.354	1.18

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1604	**Date Collected:**	02/02/2010 12:00	**Matrix:**	S
Lab Sample ID:	246333001	**Date Received:**	02/05/2010 09:00	**%Moisture:**	15.4
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-10-12247	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	949891	**Inst:**	VOA2.I	**Dilution:**	1
Run Date:	02/05/2010 20:10	**Analyst:**	CDS1	**Purge Vol:**	5 mL
Prep Date:	02/05/2010 16:30	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	020510V2.b\2X529.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.18	ug/kg	0.354	1.18
179601-23-1	m,p-Xylenes	U	2.36	ug/kg	0.354	2.36
95-47-6	o-Xylene	U	1.18	ug/kg	0.354	1.18
100-42-5	Styrene	U	1.18	ug/kg	0.354	1.18
75-25-2	Bromoform	U	1.18	ug/kg	0.354	1.18
79-34-5	1,1,2,2-Tetrachloroethane	U	1.18	ug/kg	0.354	1.18
96-18-4	1,2,3-Trichloropropane	U	1.18	ug/kg	0.354	1.18
108-86-1	Bromobenzene	U	1.18	ug/kg	0.354	1.18
103-65-1	n-Propylbenzene	U	1.18	ug/kg	0.354	1.18
95-49-8	2-Chlorotoluene	U	1.18	ug/kg	0.354	1.18
98-82-8	Isopropylbenzene	U	1.18	ug/kg	0.354	1.18
108-67-8	1,3,5-Trimethylbenzene	U	1.18	ug/kg	0.354	1.18
106-43-4	4-Chlorotoluene	U	1.18	ug/kg	0.354	1.18
98-06-6	tert-Butylbenzene	U	1.18	ug/kg	0.354	1.18
95-63-6	1,2,4-Trimethylbenzene	U	1.18	ug/kg	0.354	1.18
135-98-8	sec-Butylbenzene	U	1.18	ug/kg	0.354	1.18
99-87-6	4-Isopropyltoluene	U	1.18	ug/kg	0.354	1.18
541-73-1	1,3-Dichlorobenzene	U	1.18	ug/kg	0.354	1.18
106-46-7	1,4-Dichlorobenzene	U	1.18	ug/kg	0.354	1.18
104-51-8	n-Butylbenzene	U	1.18	ug/kg	0.354	1.18
96-12-8	1,2-Dibromo-3-chloropropane	U	1.18	ug/kg	0.354	1.18
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.91	ug/kg	1.89	5.91
630-20-6	1,1,1,2-Tetrachloroethane	U	1.18	ug/kg	0.354	1.18
95-50-1	1,2-Dichlorobenzene	U	1.18	ug/kg	0.354	1.18

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown	4.32	6.19	ug/kg	0	J

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\020510V2.b\
Data File : 2X529.D
Acq On : 5 Feb 2010 8:10 pm
Operator : CDS1
InstName : VOA2
Sample : |246333001|949891|1|VOAF|1|VOA8260BS|
Misc : LANL 5g - soil
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Feb 06 06:33:16 2010
Quant Method : C:\msdchem\1\DATA\012610V2.b\VOA2-8260-012610.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Jan 27 06:34:30 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	12.425	12.437	1.000	96	1479811	50.00	ug/L	-0.01
41) Chlorobenzene-d5	15.970	15.970	1.000	117	1135651	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	18.461	18.461	1.000	152	637024	50.00	ug/L	0.00
82) B Fluorobenzene	12.425	12.437	1.000	96	1479846	50.00	ug/L	-0.01
103) B Chlorobenzene-d5	15.970	15.970	1.000	117	1136017	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	18.461	18.461	1.000	152	637307	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	11.962	11.986	0.963	65	658767	55.44	ug/L	-0.02
Spiked Amount 50.000	Range 66 - 134		Recovery = 110.88%					
43) Toluene-d8	14.334	14.346	0.898	98	1452012	46.35	ug/L	-0.01
Spiked Amount 50.000	Range 71 - 128		Recovery = 92.70%					
61) Bromofluorobenzene	17.216	17.215	0.933	95	674352	47.80	ug/L	0.00
Spiked Amount 50.000	Range 65 - 130		Recovery = 95.60%					

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	0.000	4.702	0.000		0	N.D.		
3) Chloromethane	4.984	4.999	0.401	50	736	Below Cal	#	42
4) Vinyl chloride	5.251	5.266	0.423	62	749	N.D.		
5) Bromomethane	0.000	5.979	0.000		0	N.D.		
6) Chloroethane	0.000	6.223	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	6.839	0.000		0	N.D.		
8) Ethyl ether	0.000	7.409	0.000		0	N.D.		
9) Acetone	7.966	7.930	0.641	43	6546	N.D.		
10) 1,1-Dichloroethylene	0.000	7.883	0.000		0	N.D.		
11) Iodomethane	0.000	8.167	0.000		0	N.D.		
12) Acetonitrile	8.500	8.440	0.684	41	948	N.D.		
13) Methyl acetate	8.583	8.571	0.691	43	293	N.D.		
14) Carbon disulfide	8.298	8.310	0.668	76	1384	N.D.		
15) Methylene chloride	8.749	8.772	0.704	84	4797	N.D.		
16) tert-Butyl methyl ether	9.270	9.270	0.746	73	119	N.D.		
17) trans-1,2-Dichloroethy...	0.000	9.270	0.000		0	N.D.		
18) Vinyl acetate	9.994	10.006	0.804	43	232	N.D.		
19) 1,1-Dichloroethane	0.000	9.958	0.000		0	N.D.		
20) 2-Butanone	10.836	10.836	0.872	43	636	N.D.		
21) cis-1,2-Dichloroethylene	0.000	10.847	0.000		0	N.D.		
22) 2,2-Dichloropropane	0.000	10.871	0.000		0	N.D.		
23) Bromochloromethane	0.000	11.191	0.000		0	N.D.		
24) Chloroform	11.286	11.298	0.908	83	534	N.D.		
25) 1,1,1-Trichloroethane	0.000	11.595	0.000		0	N.D.		
26) Cyclohexane	11.701	11.701	0.942	56	281	N.D.		
27) 1,1-Dichloropropene	0.000	11.808	0.000		0	N.D.		
28) Carbon tetrachloride	0.000	11.832	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	12.081	0.000		0	N.D.		
31) Benzene	12.069	12.093	0.971	78	685	N.D.		
32) Cyclohexene	0.000	12.235	0.000		0	N.D.		
33) n-Butyl alcohol	0.000	12.686	0.000		0	N.D.		
34) Trichloroethylene	12.887	12.899	1.037	95	325	N.D.		
35) 1,2-Dichloropropane	0.000	13.172	0.000		0	N.D.		
36) Methylcyclohexane	0.000	13.172	0.000		0	N.D.		
37) Dibromomethane	0.000	13.314	0.000		0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\020510V2.b\
Data File : 2X529.D
Acq On : 5 Feb 2010 8:10 pm
Operator : CDS1
InstName : VOA2
Sample : |246333001|949891|1|VOAF|1|VOA8260BS|
Misc : LANL 5g - soil
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Feb 06 06:33:16 2010
Quant Method : C:\msdchem\1\DATA\012610V2.b\VOA2-8260-012610.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Jan 27 06:34:30 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
38) Bromodichloromethane	0.000	13.480	0.000		0	N.D.	
39) 2-Chloroethylvinyl ether	0.000	13.788	0.000		0	N.D.	
40) cis-1,3-Dichloropropylene	0.000	14.002	0.000		0	N.D.	
42) 4-Methyl-2-pentanone	0.000	14.144	0.000		0	N.D.	
44) Toluene	14.417	14.417	0.903	91	1380	N.D.	
45) trans-1,3-Dichloroprop...	14.607	14.618	0.915	75	110	N.D.	
46) 1,1,2-Trichloroethane	0.000	14.844	0.000		0	N.D.	
47) 2-Hexanone	15.069	15.069	0.944	43	593	N.D.	
48) 1,3-Dichloropropane	0.000	15.034	0.000		0	N.D.	
49) Tetrachloroethylene	15.057	15.057	0.943	164	320	N.D.	
50) Dibromochloromethane	0.000	15.318	0.000		0	N.D.	
51) 1,2-Dibromoethane	0.000	15.472	0.000		0	N.D.	
52) Chlorobenzene	16.006	16.006	1.002	112	725	N.D.	
53) 1,1,1,2-Tetrachloroethane	0.000	16.077	0.000		0	N.D.	
54) Ethylbenzene	16.208	16.089	1.015	91	1048	N.D.	
55) m,p-Xylenes	16.208	16.208	1.015	106	238	N.D.	
56) o-Xylene	0.000	16.658	0.000		0	N.D.	
57) Styrene	16.658	16.658	1.043	104	593	N.D.	
59) Bromoform	0.000	16.895	0.000		0	N.D.	
60) Isopropylbenzene	0.000	17.038	0.000		0	N.D.	
62) 1,1,2,2-Tetrachloroethane	0.000	17.310	0.000		0	N.D.	
63) 1,2,3-Trichloropropane	0.000	17.393	0.000		0	N.D.	
64) Bromobenzene	17.417	17.429	0.943	156	361	N.D.	
65) n-Propylbenzene	17.476	17.476	0.947	91	514	N.D.	
66) 1,3,5-Trimethylbenzene	17.642	17.642	0.956	105	260	N.D.	
67) 2-Chlorotoluene	17.714	17.607	0.960	126	283	N.D.	
68) 4-Chlorotoluene	17.714	17.714	0.960	91	1167	N.D.	
69) tert-Butylbenzene	0.000	18.010	0.000		0	N.D.	
70) 1,2,4-Trimethylbenzene	18.046	18.057	0.978	105	562	N.D.	
71) sec-Butylbenzene	0.000	18.235	0.000		0	N.D.	
72) 4-Isopropyltoluene	18.378	18.366	0.996	119	117	N.D.	
73) 1,3-Dichlorobenzene	18.413	18.401	0.997	146	1092	N.D.	
74) 1,4-Dichlorobenzene	18.496	18.496	1.002	146	1450	N.D.	
75) n-Butylbenzene	18.805	18.805	1.019	91	660	N.D.	
76) 1,2-Dichlorobenzene	18.899	18.899	1.024	146	926	N.D.	
77) 1,2-Dibromo-3-chloropr...	0.000	19.718	0.000		0	N.D.	
78) 1,2,4-Trichlorobenzene	20.690	20.690	1.121	180	870	N.D.	
79) Hexachlorobutadiene	0.000	20.868	0.000		0	N.D.	
80) Naphthalene	21.022	21.022	1.139	128	2815	N.D.	
81) 1,2,3-Trichlorobenzene	21.330	21.342	1.155	180	767	N.D.	
83) Chlorotrifluoroethylene	0.000	4.628	0.000		0	N.D.	
84) 2-Chloro-1,1,1-trifluo...	0.000	5.489	0.000		0	N.D.	
85) Acrolein	0.000	7.634	0.000		0	N.D.	
86) Trichlorotrifluoroethane	0.000	7.918	0.000		0	N.D.	
87) Isopropyl Alcohol	0.000	8.191	0.000		0	N.D.	
88) Allyl chloride	8.500	8.559	0.684	41	948	N.D.	
89) tert-Butyl Alcohol	0.000	8.926	0.000		0	N.D.	
90) Acrylonitrile	0.000	9.164	0.000		0	N.D.	
91) Isopropyl ether	0.000	10.065	0.000		0	N.D.	
92) 2-Chloro-1,3-butadiene	0.000	10.112	0.000		0	N.D.	
93) Ethyl tert-butyl ether	0.000	10.622	0.000		0	N.D.	
94) Ethyl acetate	10.931	10.919	0.880	43	120	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\020510V2.b\
Data File : 2X529.D
Acq On : 5 Feb 2010 8:10 pm
Operator : CDS1
InstName : VOA2
Sample : |246333001|949891|1|VOAF|1|VOA8260BS|
Misc : LANL 5g - soil
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Feb 06 06:33:16 2010
Quant Method : C:\msdchem\1\DATA\012610V2.b\VOA2-8260-012610.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Jan 27 06:34:30 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
95)	Propionitrile	0.000	10.907	0.000		0	N.D.	
96)	Methacrylonitrile	11.144	11.144	0.897	41	113	N.D.	
97)	Tetrahydrofuran	11.274	11.263	0.907	42	306	N.D.	
98)	Isobutyl alcohol	11.962	11.856	0.963	41	126	N.D.	
99)	Methyl tert-amyl ether	0.000	12.211	0.000		0	N.D.	
100)	Methyl methacrylate	0.000	13.243	0.000		0	N.D.	
101)	1,4-Dioxane	0.000	13.302	0.000		0	N.D.	
102)	2-Nitropropane	0.000	13.717	0.000		0	N.D.	
104)	Ethyl methacrylate	0.000	14.666	0.000		0	N.D.	
106)	1-Chlorohexane	0.000	15.911	0.000		0m	N.D.	d
107)	cis-1,4-Dichloro-2-butene	17.073	17.073	0.925	53	226	N.D.	
108)	Cyclohexanone	0.000	17.156	0.000		0	N.D.	
109)	trans-1,4-Dichloro-2-b...	17.370	17.370	0.941	53	298	N.D.	
110)	Pentachloroethane	0.000	18.058	0.000		0	N.D.	
111)	Benzyl chloride	18.603	18.603	1.008	91	923	N.D.	
112)	bis(2-Chloroisopropyl)...	19.148	19.018	1.037	45	4638	N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\020510V2.b\
Data File : 2X529.D
Acq On : 5 Feb 2010 8:10 pm
Operator : CDS1
InstName : VOA2
Sample : |246333001|949891|1|VOAF|1|VOA8260BS|
Misc : LANL 5g - soil
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Feb 06 06:33:16 2010
Quant Method : C:\msdchem\1\DATA\012610V2.b\VOA2-8260-012610.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Jan 27 06:34:30 2010
Response via : Initial Calibration
Integrator: RTE

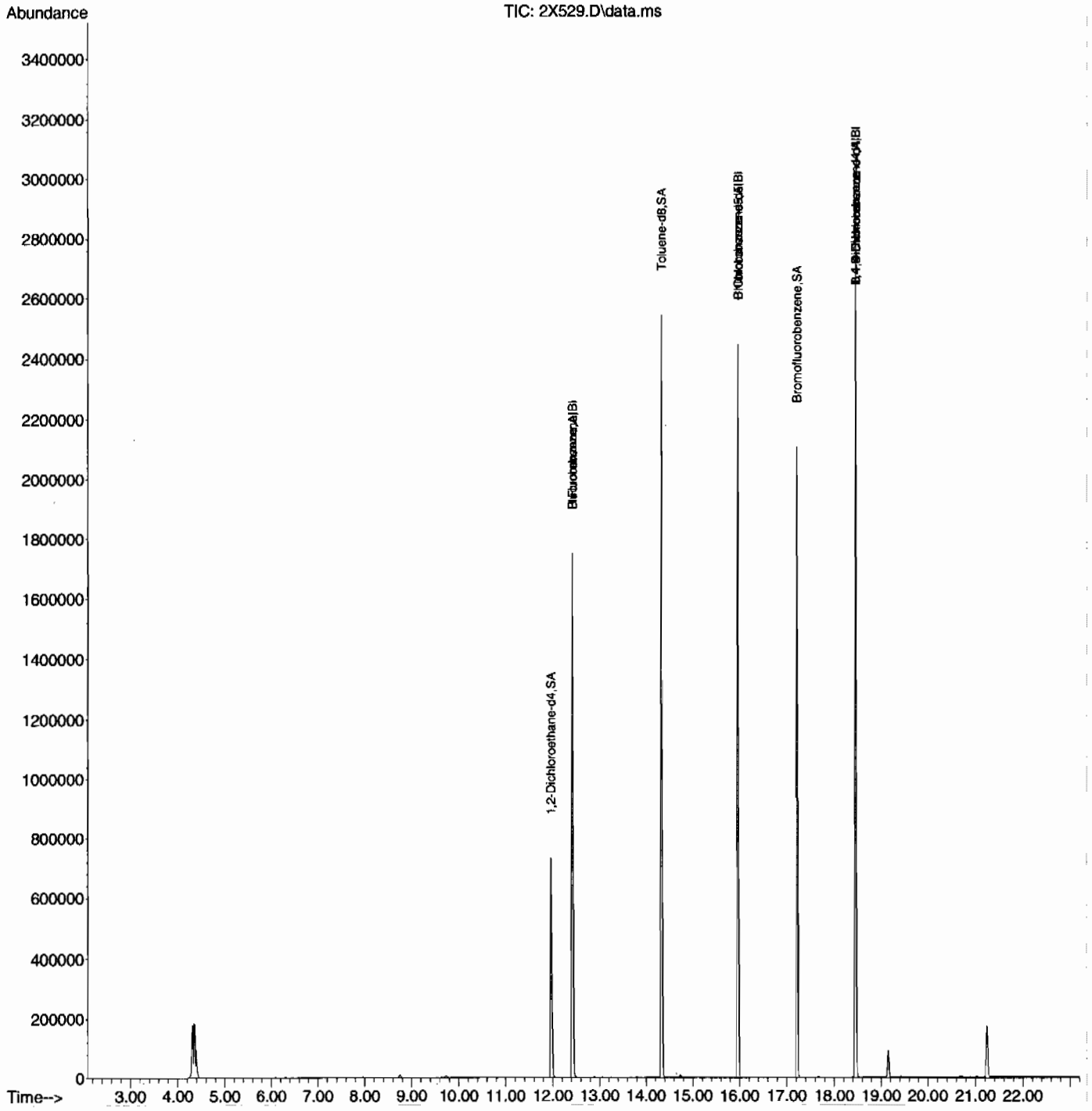

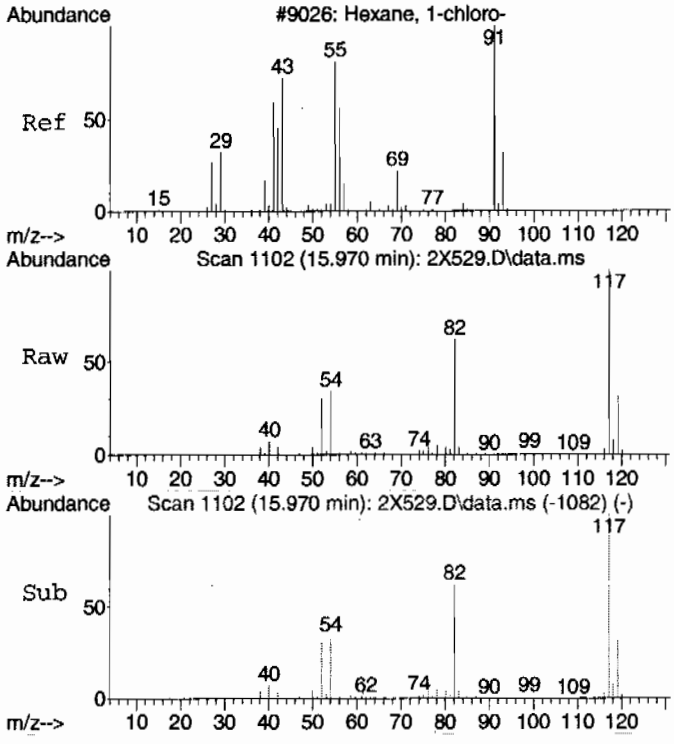

#106 BEFORE analyst DELETION
1-Chlorohexane
Concen: 2.18 ug/L
RT: 15.970 min Scan# 1102
Delta R.T. 0.059 min
Lab File: 2X529.D
Acq: 5 Feb 2010 8:10 pm

Tgt Ion: 55 Resp: 18592

Ion	Ratio	Lower	Upper
55	100		
91	15.5	115.5	175.5#
56	54.0	29.3	89.3

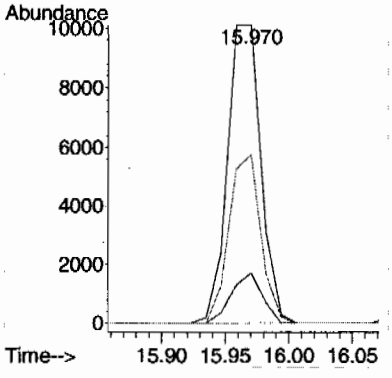

Library Search Compound Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\020510V2.b\
Data File : 2X529.D
Acq On : 5 Feb 2010 8:10 pm
Operator : CDS1
Sample : |246333001|949891|1|VOAF|1|VOA8260BS|
Misc : LANL 5g - soil
ALS Vial : 29 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\012610V2.b\VOA2-8260-012610.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

****

Peak Number 1 unknown Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.315	5.24 ug/L	370577	Fluorobenzene	12.425

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Dimethyl ether	46	C2H6O	000115-10-6	5
2	Ethyl alcohol	46	C2H6O	000064-17-5	4
3	Ethyl alcohol	46	C2H6O	000064-17-5	4
4	Ethyl alcohol	46	C2H6O	000064-17-5	4
5	Formic acid	46	CH2O2	000064-18-6	3

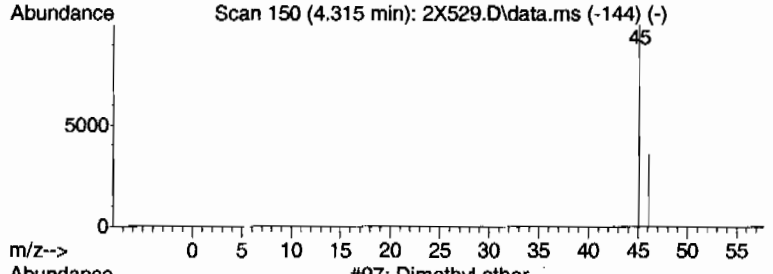

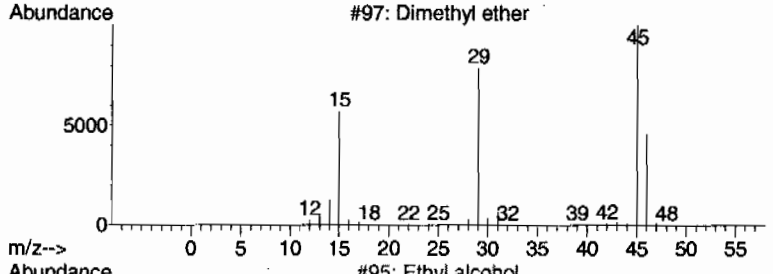

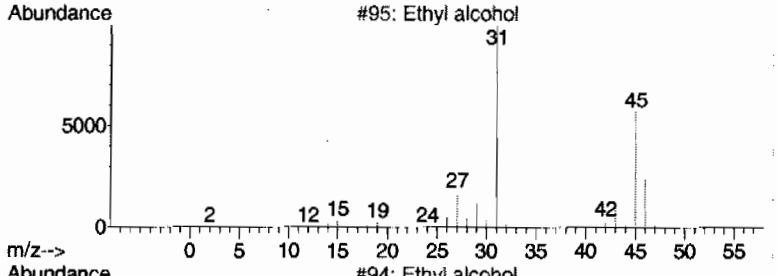

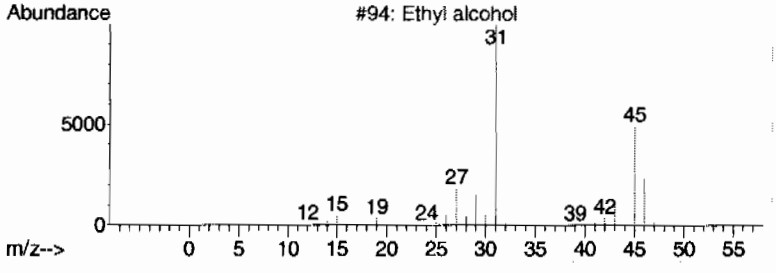

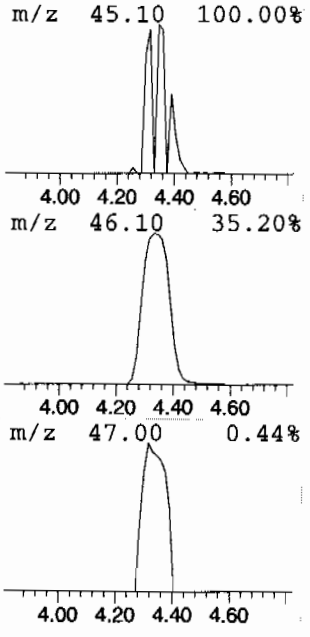

Tentatively Identified Compound (LSC) summary
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\020510V2.b\
Data File : 2X529.D
Acq On : 5 Feb 2010 8:10 pm
Operator : CDS1
Sample : |246333001|949891|1|VOAF|1|VOA8260BS|
Misc : LANL 5g - soil
ALS Vial : 29 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\012610V2.b\VOA2-8260-012610.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

TIC Top Hit name	RT	EstConc	Units	Response	--Internal Standard--- #	RT	Resp	Conc
unknown	4.315	5.2	ug/L	370577	1	12.425	3536380	50.0

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1604	**Date Collected:**	02/02/2010 12:00	**Matrix:**	S
Lab Sample ID:	246333002	**Date Received:**	02/05/2010 09:00	**%Moisture:**	9.9
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-10-12248	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	949891	**Inst:**	VOA2.I	**Dilution:**	1
Run Date:	02/05/2010 20:39	**Analyst:**	CDS1	**Purge Vol:**	5 mL
Prep Date:	02/05/2010 16:33	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	020510V2.b\2X530.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.11	ug/kg	0.377	1.11
74-87-3	Chloromethane	U	1.11	ug/kg	0.333	1.11
75-01-4	Vinyl chloride	U	1.11	ug/kg	0.333	1.11
74-83-9	Bromomethane	U	1.11	ug/kg	0.333	1.11
75-00-3	Chloroethane	U	1.11	ug/kg	0.333	1.11
75-69-4	Trichlorofluoromethane	U	1.11	ug/kg	0.333	1.11
67-64-1	Acetone	U	5.55	ug/kg	1.84	5.55
75-35-4	1,1-Dichloroethylene	U	1.11	ug/kg	0.333	1.11
74-88-4	Iodomethane	U	5.55	ug/kg	1.78	5.55
75-09-2	Methylene chloride	U	5.55	ug/kg	2.22	5.55
75-15-0	Carbon disulfide	U	5.55	ug/kg	1.39	5.55
156-60-5	trans-1,2-Dichloroethylene	U	1.11	ug/kg	0.333	1.11
75-34-3	1,1-Dichloroethane	U	1.11	ug/kg	0.333	1.11
78-93-3	2-Butanone	U	5.55	ug/kg	1.67	5.55
156-59-2	cis-1,2-Dichloroethylene	U	1.11	ug/kg	0.333	1.11
594-20-7	2,2-Dichloropropane	U	1.11	ug/kg	0.333	1.11
67-66-3	Chloroform	U	1.11	ug/kg	0.333	1.11
74-97-5	Bromochloromethane	U	1.11	ug/kg	0.366	1.11
71-55-6	1,1,1-Trichloroethane	U	1.11	ug/kg	0.333	1.11
563-58-6	1,1-Dichloropropene	U	1.11	ug/kg	0.333	1.11
56-23-5	Carbon tetrachloride	U	1.11	ug/kg	0.333	1.11
107-06-2	1,2-Dichloroethane	U	1.11	ug/kg	0.333	1.11
71-43-2	Benzene	U	1.11	ug/kg	0.333	1.11
79-01-6	Trichloroethylene	U	1.11	ug/kg	0.366	1.11
78-87-5	1,2-Dichloropropane	U	1.11	ug/kg	0.333	1.11
75-27-4	Bromodichloromethane	U	1.11	ug/kg	0.333	1.11
74-95-3	Dibromomethane	U	1.11	ug/kg	0.333	1.11
108-10-1	4-Methyl-2-pentanone	U	5.55	ug/kg	1.39	5.55
10061-01-5	cis-1,3-Dichloropropylene	U	1.11	ug/kg	0.333	1.11
108-88-3	Toluene	U	1.11	ug/kg	0.333	1.11
10061-02-6	trans-1,3-Dichloropropylene	U	1.11	ug/kg	0.333	1.11
79-00-5	1,1,2-Trichloroethane	U	1.11	ug/kg	0.333	1.11
591-78-6	2-Hexanone	U	5.55	ug/kg	1.67	5.55
142-28-9	1,3-Dichloropropane	U	1.11	ug/kg	0.333	1.11
127-18-4	Tetrachloroethylene	U	1.11	ug/kg	0.333	1.11
124-48-1	Dibromochloromethane	U	1.11	ug/kg	0.333	1.11
106-93-4	1,2-Dibromoethane	U	1.11	ug/kg	0.333	1.11
108-90-7	Chlorobenzene	U	1.11	ug/kg	0.333	1.11

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1604	**Date Collected:**	02/02/2010 12:00	**Matrix:**	S
Lab Sample ID:	246333002	**Date Received:**	02/05/2010 09:00	**%Moisture:**	9.9
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-10-12248	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	949891	**Inst:**	VOA2.I	**Dilution:**	1
Run Date:	02/05/2010 20:39	**Analyst:**	CDS1	**Purge Vol:**	5 mL
Prep Date:	02/05/2010 16:33	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	020510V2.b\2X530.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.11	ug/kg	0.333	1.11
179601-23-1	m,p-Xylenes	U	2.22	ug/kg	0.333	2.22
95-47-6	o-Xylene	U	1.11	ug/kg	0.333	1.11
100-42-5	Styrene	U	1.11	ug/kg	0.333	1.11
75-25-2	Bromoform	U	1.11	ug/kg	0.333	1.11
79-34-5	1,1,2,2-Tetrachloroethane	U	1.11	ug/kg	0.333	1.11
96-18-4	1,2,3-Trichloropropane	U	1.11	ug/kg	0.333	1.11
108-86-1	Bromobenzene	U	1.11	ug/kg	0.333	1.11
103-65-1	n-Propylbenzene	U	1.11	ug/kg	0.333	1.11
95-49-8	2-Chlorotoluene	U	1.11	ug/kg	0.333	1.11
98-82-8	Isopropylbenzene	U	1.11	ug/kg	0.333	1.11
108-67-8	1,3,5-Trimethylbenzene	U	1.11	ug/kg	0.333	1.11
106-43-4	4-Chlorotoluene	U	1.11	ug/kg	0.333	1.11
98-06-6	tert-Butylbenzene	U	1.11	ug/kg	0.333	1.11
95-63-6	1,2,4-Trimethylbenzene	U	1.11	ug/kg	0.333	1.11
135-98-8	sec-Butylbenzene	U	1.11	ug/kg	0.333	1.11
99-87-6	4-Isopropyltoluene	U	1.11	ug/kg	0.333	1.11
541-73-1	1,3-Dichlorobenzene	U	1.11	ug/kg	0.333	1.11
106-46-7	1,4-Dichlorobenzene	U	1.11	ug/kg	0.333	1.11
104-51-8	n-Butylbenzene	U	1.11	ug/kg	0.333	1.11
96-12-8	1,2-Dibromo-3-chloropropane	U	1.11	ug/kg	0.333	1.11
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.55	ug/kg	1.78	5.55
630-20-6	1,1,1,2-Tetrachloroethane	U	1.11	ug/kg	0.333	1.11
95-50-1	1,2-Dichlorobenzene	U	1.11	ug/kg	0.333	1.11

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown	4.32	6.89	ug/kg	0	J
	unknown siloxane	19.16	6.83	ug/kg	0	J

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\020510V2.b\
Data File : 2X530.D
Acq On : 5 Feb 2010 8:39 pm
Operator : CDS1
InstName : VOA2
Sample : |246333002|949891|1|VOAF|1|VOA8260BS|
Misc : LANL 5g - soil
ALS Vial : 30 Sample Multiplier: 1

Quant Time: Feb 06 06:33:57 2010
Quant Method : C:\msdchem\1\DATA\012610V2.b\VOA2-8260-012610.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Jan 27 06:34:30 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	12.437	12.437	1.000	96	1447256	50.00	ug/L	0.00
41) Chlorobenzene-d5	15.970	15.970	1.000	117	1136653	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	18.461	18.461	1.000	152	635079	50.00	ug/L	0.00
82) B Fluorobenzene	12.437	12.437	1.000	96	1447151	50.00	ug/L	0.00
103) B Chlorobenzene-d5	15.970	15.970	1.000	117	1136889	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	18.461	18.461	1.000	152	635341	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	11.986	11.986	0.964	65	672191	57.85	ug/L	0.00
Spiked Amount 50.000	Range 66 - 134		Recovery = 115.70%					
43) Toluene-d8	14.346	14.346	0.898	98	1433937	45.73	ug/L	0.00
Spiked Amount 50.000	Range 71 - 128		Recovery = 91.46%					
61) Bromofluorobenzene	17.227	17.215	0.933	95	676057	48.07	ug/L	0.01
Spiked Amount 50.000	Range 65 - 130		Recovery = 96.14%					

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	0.000	4.702	0.000		0	N.D.		
3) Chloromethane	4.984	4.999	0.401	50	546	Below Cal	#	42
4) Vinyl chloride	5.237	5.266	0.421	62	722	N.D.		
5) Bromomethane	0.000	5.979	0.000		0	N.D.		
6) Chloroethane	0.000	6.223	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	6.839	0.000		0	N.D.		
8) Ethyl ether	0.000	7.409	0.000		0	N.D.		
9) Acetone	7.990	7.930	0.642	43	5124	N.D.		
10) 1,1-Dichloroethylene	0.000	7.883	0.000		0	N.D.		
11) Iodomethane	0.000	8.167	0.000		0	N.D.		
12) Acetonitrile	8.511	8.440	0.684	41	243	N.D.		
13) Methyl acetate	0.000	8.571	0.000		0	N.D.		
14) Carbon disulfide	8.310	8.310	0.668	76	1232	N.D.		
15) Methylene chloride	8.772	8.772	0.705	84	4667	N.D.		
16) tert-Butyl methyl ether	0.000	9.270	0.000		0	N.D.		
17) trans-1,2-Dichloroethy...	0.000	9.270	0.000		0	N.D.		
18) Vinyl acetate	10.018	10.006	0.805	43	236	N.D.		
19) 1,1-Dichloroethane	0.000	9.958	0.000		0	N.D.		
20) 2-Butanone	10.859	10.836	0.873	43	652	N.D.		
21) cis-1,2-Dichloroethylene	0.000	10.847	0.000		0	N.D.		
22) 2,2-Dichloropropane	0.000	10.871	0.000		0	N.D.		
23) Bromochloromethane	0.000	11.191	0.000		0	N.D.		
24) Chloroform	11.298	11.298	0.908	83	541	N.D.		
25) 1,1,1-Trichloroethane	0.000	11.595	0.000		0	N.D.		
26) Cyclohexane	0.000	11.701	0.000		0	N.D.		
27) 1,1-Dichloropropene	0.000	11.808	0.000		0	N.D.		
28) Carbon tetrachloride	0.000	11.832	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	12.081	0.000		0	N.D.		
31) Benzene	12.093	12.093	0.972	78	672	N.D.		
32) Cyclohexene	0.000	12.235	0.000		0	N.D.		
33) n-Butyl alcohol	0.000	12.686	0.000		0	N.D.		
34) Trichloroethylene	12.911	12.899	1.038	95	480	N.D.		
35) 1,2-Dichloropropane	0.000	13.172	0.000		0	N.D.		
36) Methylcyclohexane	0.000	13.172	0.000		0	N.D.		
37) Dibromomethane	0.000	13.314	0.000		0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\020510V2.b\
Data File : 2X530.D
Acq On : 5 Feb 2010 8:39 pm
Operator : CDS1
InstName : VOA2
Sample : |246333002|949891|1|VOAF|1|VOA8260BS|
Misc : LANL 5g - soil
ALS Vial : 30 Sample Multiplier: 1

Quant Time: Feb 06 06:33:57 2010
Quant Method : C:\msdchem\1\DATA\012610V2.b\VOA2-8260-012610.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Jan 27 06:34:30 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
38) Bromodichloromethane	0.000	13.480	0.000		0	N.D.	
39) 2-Chloroethylvinyl ether	0.000	13.788	0.000		0	N.D.	
40) cis-1,3-Dichloropropylene	0.000	14.002	0.000		0	N.D.	
42) 4-Methyl-2-pentanone	0.000	14.144	0.000		0	N.D.	
44) Toluene	14.429	14.417	0.903	91	1154	N.D.	
45) trans-1,3-Dichloroprop...	0.000	14.618	0.000		0	N.D.	
46) 1,1,2-Trichloroethane	0.000	14.844	0.000		0	N.D.	
47) 2-Hexanone	15.069	15.069	0.944	43	331	N.D.	
48) 1,3-Dichloropropane	0.000	15.034	0.000		0	N.D.	
49) Tetrachloroethylene	15.069	15.057	0.944	164	371	N.D.	
50) Dibromochloromethane	0.000	15.318	0.000		0	N.D.	
51) 1,2-Dibromoethane	0.000	15.472	0.000		0	N.D.	
52) Chlorobenzene	16.006	16.006	1.002	112	681	N.D.	
53) 1,1,1,2-Tetrachloroethane	0.000	16.077	0.000		0	N.D.	
54) Ethylbenzene	16.220	16.089	1.016	91	985	N.D.	
55) m,p-Xylenes	16.220	16.208	1.016	106	342	N.D.	
56) o-Xylene	0.000	16.658	0.000		0	N.D.	
57) Styrene	16.658	16.658	1.043	104	472	N.D.	
59) Bromoform	0.000	16.895	0.000		0	N.D.	
60) Isopropylbenzene	0.000	17.038	0.000		0	N.D.	
62) 1,1,2,2-Tetrachloroethane	0.000	17.310	0.000		0	N.D.	
63) 1,2,3-Trichloropropane	0.000	17.393	0.000		0	N.D.	
64) Bromobenzene	17.429	17.429	0.944	156	364	N.D.	
65) n-Propylbenzene	17.477	17.476	0.947	91	492	N.D.	
66) 1,3,5-Trimethylbenzene	0.000	17.642	0.000		0	N.D.	
67) 2-Chlorotoluene	17.714	17.607	0.960	126	150	N.D.	
68) 4-Chlorotoluene	17.714	17.714	0.960	91	1073	N.D.	
69) tert-Butylbenzene	0.000	18.010	0.000		0	N.D.	
70) 1,2,4-Trimethylbenzene	18.058	18.057	0.978	105	307	N.D.	
71) sec-Butylbenzene	0.000	18.235	0.000		0	N.D.	
72) 4-Isopropyltoluene	18.461	18.366	1.000	119	110	N.D.	
73) 1,3-Dichlorobenzene	18.401	18.401	0.997	146	839	N.D.	
74) 1,4-Dichlorobenzene	18.496	18.496	1.002	146	1572	N.D.	
75) n-Butylbenzene	18.805	18.805	1.019	91	223	N.D.	
76) 1,2-Dichlorobenzene	18.900	18.899	1.024	146	480	N.D.	
77) 1,2-Dibromo-3-chloropr...	0.000	19.718	0.000		0	N.D.	
78) 1,2,4-Trichlorobenzene	20.690	20.690	1.121	180	946	N.D.	
79) Hexachlorobutadiene	0.000	20.868	0.000		0	N.D.	
80) Naphthalene	21.022	21.022	1.139	128	2288	N.D.	
81) 1,2,3-Trichlorobenzene	21.342	21.342	1.156	180	630	N.D.	
83) Chlorotrifluoroethylene	0.000	4.628	0.000		0	N.D.	
84) 2-Chloro-1,1,1-trifluo...	0.000	5.489	0.000		0	N.D.	
85) Acrolein	0.000	7.634	0.000		0	N.D.	
86) Trichlorotrifluoroethane	0.000	7.918	0.000		0	N.D.	
87) Isopropyl Alcohol	0.000	8.191	0.000		0	N.D.	
88) Allyl chloride	8.511	8.559	0.684	41	243	N.D.	
89) tert-Butyl Alcohol	0.000	8.926	0.000		0	N.D.	
90) Acrylonitrile	0.000	9.164	0.000		0	N.D.	
91) Isopropyl ether	0.000	10.065	0.000		0	N.D.	
92) 2-Chloro-1,3-butadiene	0.000	10.112	0.000		0	N.D.	
93) Ethyl tert-butyl ether	0.000	10.622	0.000		0	N.D.	
94) Ethyl acetate	10.859	10.919	0.873	43	652	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\020510V2.b\
Data File : 2X530.D
Acq On : 5 Feb 2010 8:39 pm
Operator : CDS1
InstName : VOA2
Sample : |246333002|949891|1|VOAF|1|VOA8260BS|
Misc : LANL 5g - soil
ALS Vial : 30 Sample Multiplier: 1

Quant Time: Feb 06 06:33:57 2010
Quant Method : C:\msdchem\1\DATA\012610V2.b\VOA2-8260-012610.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Jan 27 06:34:30 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
95) Propionitrile	0.000	10.907	0.000		0	N.D.	
96) Methacrylonitrile	0.000	11.144	0.000		0	N.D.	
97) Tetrahydrofuran	11.298	11.263	0.908	42	438	N.D.	
98) Isobutyl alcohol	11.986	11.856	0.964	41	127	N.D.	
99) Methyl tert-amyl ether	0.000	12.211	0.000		0	N.D.	
100) Methyl methacrylate	0.000	13.243	0.000		0	N.D.	
101) 1,4-Dioxane	0.000	13.302	0.000		0	N.D.	
102) 2-Nitropropane	0.000	13.717	0.000		0	N.D.	
104) Ethyl methacrylate	0.000	14.666	0.000		0	N.D.	
106) 1-Chlorohexane	0.000	15.911	0.000		0m	N.D.	d
107) cis-1,4-Dichloro-2-butene	0.000	17.073	0.000		0	N.D.	
108) Cyclohexanone	0.000	17.156	0.000		0	N.D.	
109) trans-1,4-Dichloro-2-b...	17.370	17.370	0.941	53	161	N.D.	
110) Pentachloroethane	0.000	18.058	0.000		0	N.D.	
111) Benzyl chloride	18.603	18.603	1.008	91	600	N.D.	
112) bis(2-Chloroisopropyl)...	0.000	19.018	0.000		0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\020510V2.b\
Data File : 2X530.D
Acq On : 5 Feb 2010 8:39 pm
Operator : CDS1
InstName : VOA2
Sample : |246333002|949891|1|VOAF|1|VOA8260BS|
Misc : LANL 5g - soil
ALS Vial : 30 Sample Multiplier: 1

Quant Time: Feb 06 06:33:57 2010
Quant Method : C:\msdchem\1\DATA\012610V2.b\VOA2-8260-012610.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Jan 27 06:34:30 2010
Response via : Initial Calibration
Integrator: RTE

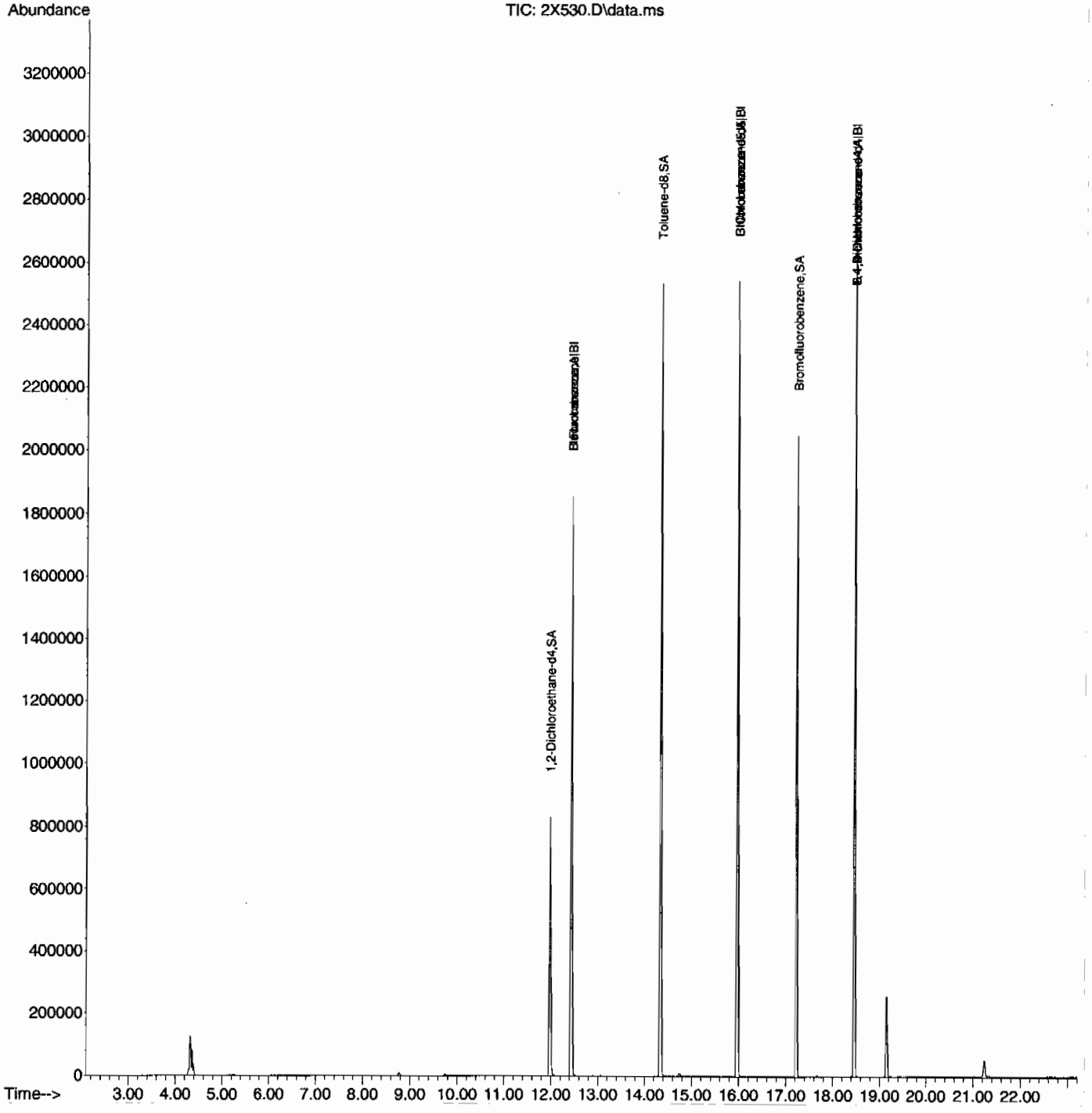

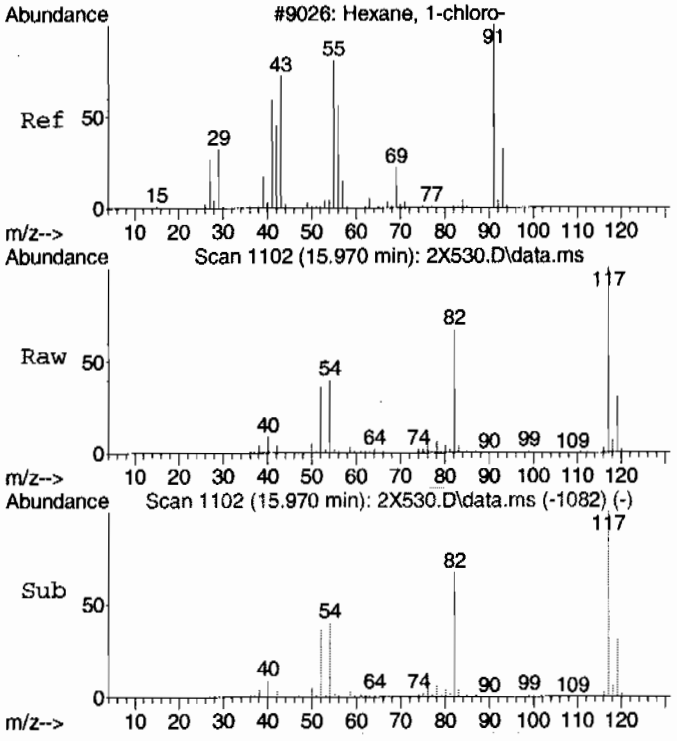

#106 BEFORE analyst DELETION
1-Chlorohexane
Concen: 2.19 ug/L
RT: 15.970 min Scan# 1102
Delta R.T. 0.059 min
Lab File: 2X530.D
Acq: 5 Feb 2010 8:39 pm

Tgt Ion: 55 Resp: 18663

Ion	Ratio	Lower	Upper
55	100		
91	15.2	115.5	175.5#
56	55.0	29.3	89.3

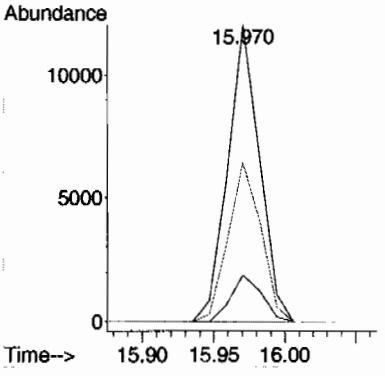

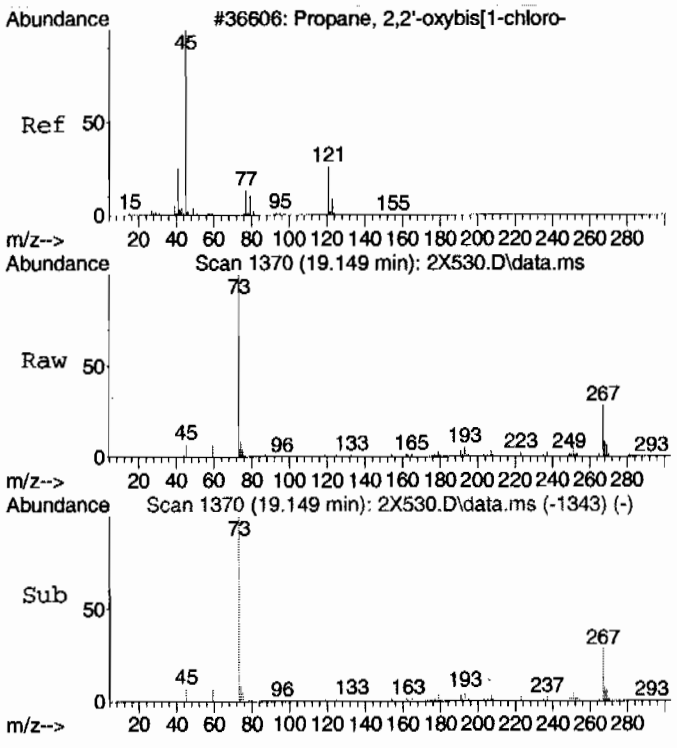

#112 BEFORE analyst DELETION
bis(2-Chloroisopropyl)ether
Concen: 2.12 ug/L
RT: 19.149 min Scan# 1370
Delta R.T. 0.131 min
Lab File: 2X530.D
Acq: 5 Feb 2010 8:39 pm

Tgt Ion: 45 Resp: 12414

Ion	Ratio	Lower	Upper
45	100		
121	0.0	0.0	57.6

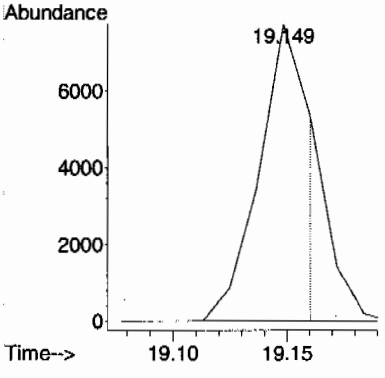

Library Search Compound Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\020510V2.b\
Data File : 2X530.D
Acq On : 5 Feb 2010 8:39 pm
Operator : CDS1
Sample : |246333002|949891|1|VOAF|1|VOA8260BS|
Misc : LANL 5g - soil
ALS Vial : 30 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\012610V2.b\VOA2-8260-012610.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

****
Peak Number 1 unknown Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.316	6.21 ug/L	433367	Fluorobenzene	12.437

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Dimethyl ether	46	C2H6O	000115-10-6	5
2	Ethyl alcohol	46	C2H6O	000064-17-5	4
3	Ethyl alcohol	46	C2H6O	000064-17-5	4
4	Ethyl alcohol	46	C2H6O	000064-17-5	4
5	Formic acid	46	CH2O2	000064-18-6	3

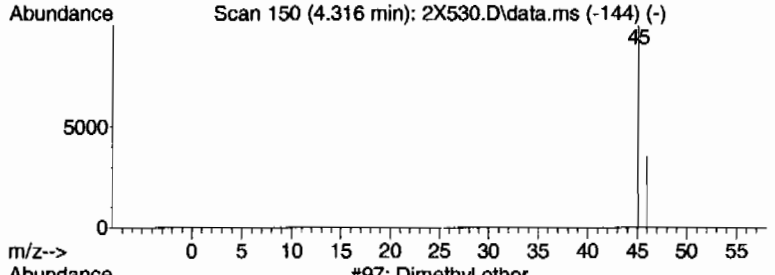

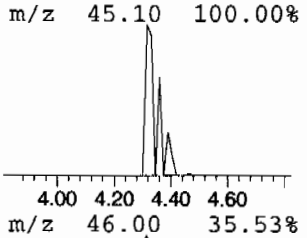

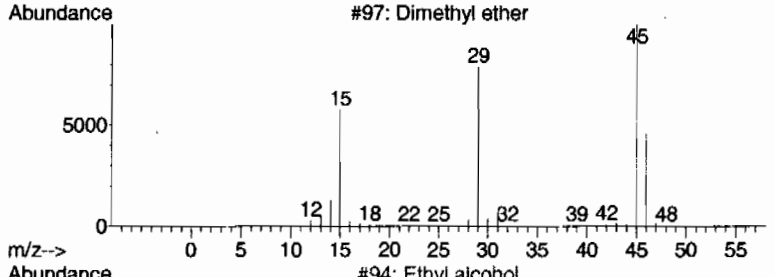

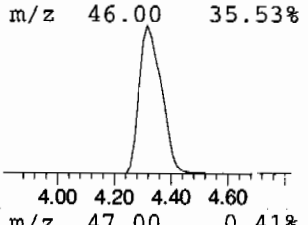

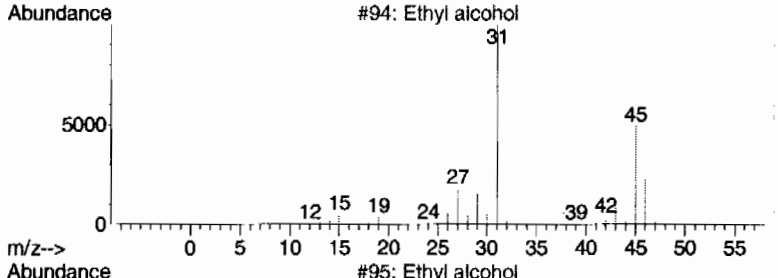

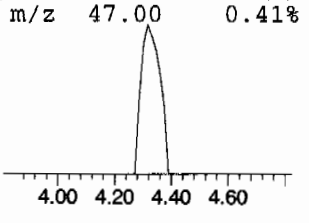

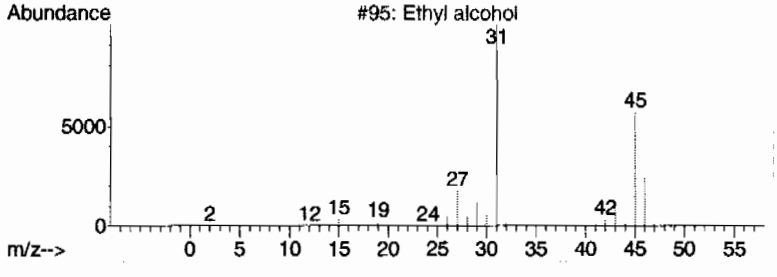

Library Search Compound Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\020510V2.b\
Data File : 2X530.D
Acq On : 5 Feb 2010 8:39 pm
Operator : CDS1
Sample : |246333002|949891|1|VOAF|1|VOA8260BS|
Misc : LANL 5g - soil
ALS Vial : 30 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\012610V2.b\VOA2-8260-012610.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

****
Peak Number 2 unknown siloxane Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
19.160	6.15 ug/L	546141	B 1,4-Dichlorobenzene-d4	18.461

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzoic acid, 4-[(trimethylsilyl...	282	C13H22O3Si2	002078-13-9	59
2	3-Hydroxymandelic acid, ethyl es...	340	C16H28O4Si2	1000071-88-9	53
3	Butanamide, 2,2,3,3,4,4,4-heptaf...	493	C18H26F7NO3Si2	055471-01-7	45
4	4-Hydroxymandelic acid, ethyl es...	340	C16H28O4Si2	1000071-53-3	45
5	7H-Dibenzo(a,g)carbazole	267	C20H13N	000207-84-1	43

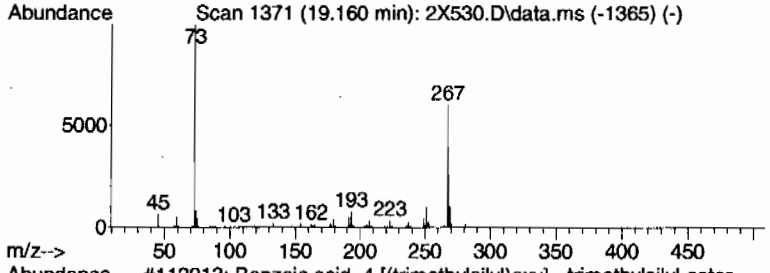

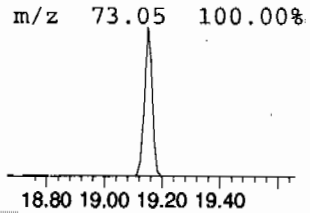

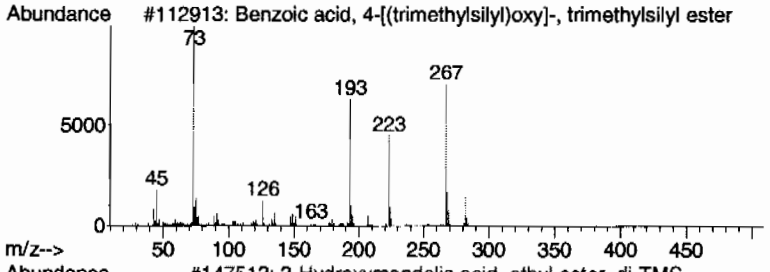

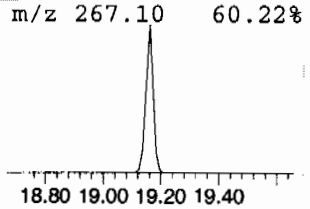

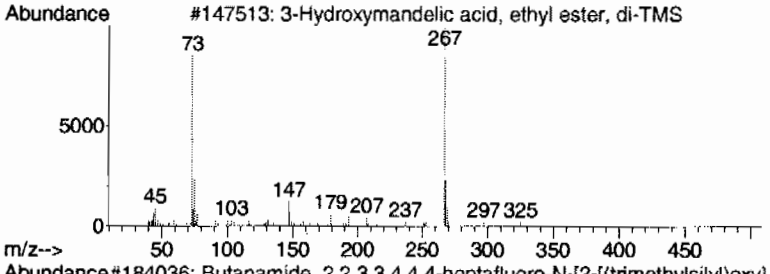

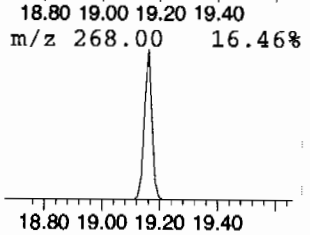

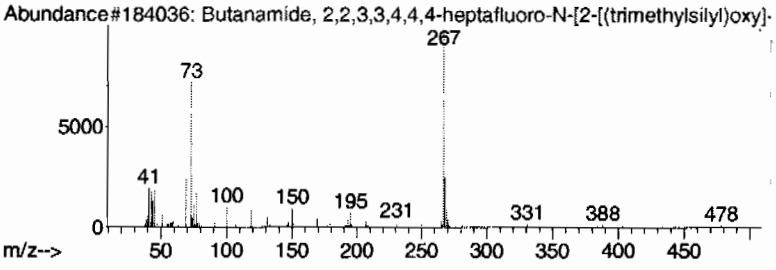

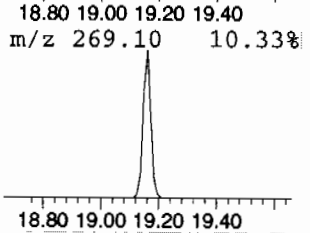

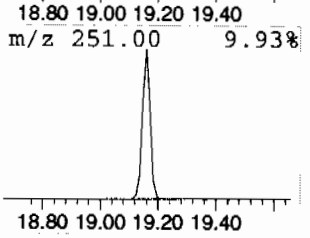

Tentatively Identified Compound (LSC) summary
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\020510V2.b\
Data File : 2X530.D
Acq On : 5 Feb 2010 8:39 pm
Operator : CDS1
Sample : |246333002|949891|1|VOAF|1|VOA8260BS|
Misc : LANL 5g - soil
ALS Vial : 30 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\012610V2.b\VOA2-8260-012610.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

TIC Top Hit name	RT	EstConc	Units	Response	--Internal Standard--- #	RT	Resp	Conc
unknown	4.316	6.2	ug/L	433367	1	12.437	3490440	50.0
unknown siloxane	19.160	6.2	ug/L	546141	6	18.461	4440430	50.0

Standards

EPA 524.2/Low level SW846 8260B and Regular level 8260B and EPA 624
Calibration Standard Concentration Levels

	Level 1	Level 1a	Level 2	Level 3	Level 4 #	Level 5	Level 6	Level 7 !	Level 7a
Fluorobenzene (IS)									
1,2-Dichloroethane-d4(surr)		0.5	1	2	5	10	20	50	100
Dichlorodifluoromethane		0.5	1	2	5	10	20	50	100
Chloromethane		0.5	1	2	5	10	20	50	100
Vinyl chloride		0.5	1	2	5	10	20	50	100
Bromomethane		0.5	1	2	5	10	20	50	100
Chloroethane		0.5	1	2	5	10	20	50	100
Trichlorofluoromethane		0.5	1	2	5	10	20	50	100
1,1-Dichloroethene		0.5	1	2	5	10	20	50	100
Acetone	1	2.5	5	10	25	50	100	250	500
Iodomethane	1	2.5	5	10	25	50	100	250	500
Carbon disulfide	1	2.5	5	10	25	50	100	250	500
Methylene chloride		0.5	1	2	5	10	20	50	100
trans-1,2-Dichloroethene		0.5	1	2	5	10	20	50	100
1,1-Dichloroethane		0.5	1	2	5	10	20	50	100
Ethyl ether		0.5	1	2	5	10	20	50	100
Vinyl acetate	1	2.5	5	10	25	50	100	250	500
cis-1,2-Dichloroethene		0.5	1	2	5	10	20	50	100
1,2-Dichloroethene (total)		1	2	4	10	20	40	100	200
Cyclohexene		0.5	1	2	5	10	20	50	100
2-Chloroethylvinyl ether			5	10	25	50	100	250	500
2,2-Dichloropropane		0.5	1	2	5	10	20	50	100
2-Butanone	1	2.5	5	10	25	50	100	250	500
Bromochloromethane		0.5	1	2	5	10	20	50	100
Chloroform		0.5	1	2	5	10	20	50	100
1,1,1-Trichloroethane		0.5	1	2	5	10	20	50	100
1,1-Dichloropropene		0.5	1	2	5	10	20	50	100
Carbon tetrachloride		0.5	1	2	5	10	20	50	100
Benzene		0.5	1	2	5	10	20	50	100
1,2-Dichloroethane		0.5	1	2	5	10	20	50	100
Trichloroethene		0.5	1	2	5	10	20	50	100
1,2-Dichloropropane		0.5	1	2	5	10	20	50	100
Dibromomethane		0.5	1	2	5	10	20	50	100
Bromodichloromethane		0.5	1	2	5	10	20	50	100
cis-1,3-Dichloropropene		0.5	1	2	5	10	20	50	100
tert-Butylmethylether		0.5	1	2	5	10	20	50	100
Ethyl Ether			1	2	5	10	20	50	100
Acetonitrile			25	50	125	250	500	1250	2500
Methyl acetate			5	10	25	50	100	250	500
Cyclohexane			1	2	5	10	20	50	100
Methylcyclohexane			1	2	5	10	20	50	100
n-Butyl alcohol			50	100	250	500	1000	2500	5000
2-Nitropropane			5	10	25	50	100	250	500
Ethyl acetate			5	10	25	50	100	250	500
Acrolein			5	10	25	50	100	250	500
Trichlorotrifluoroethane			5	10	25	50	100	250	500
Allyl chloride			5	10	25	50	100	250	500
Acrylonitrile			5	10	25	50	100	250	500
1,4-Dioxane			50	100	250	500	1000	2500	5000
Isobutyl alcohol			50	100	250	500	1000	2500	5000
Methacrylonitrile			5	10	25	50	100	250	500
Propionitrile			5	10	25	50	100	250	500
Methyl methacrylate			5	10	25	50	100	250	500
Chlorotrifluoroethylene			5	10	25	50	100	250	500
2-Chloro-1,1,1-trifluoroethane			5	10	25	50	100	250	500

tert-Butyl alcohol			50	100	250	500	1000	2500	5000
Isopropyl ether			1	2	5	10	20	50	100
Ethyl tert-butyl ether			1	2	5	10	20	50	100
Isopropyl alcohol			50	100	250	500	1000	2500	5000
Methyl tert-amyl ether			1	2	5	10	20	50	100
1-Chlorohexane			1	2	5	10	20	50	100
2-Chloro-1,3-butadiene(chloroprene)			1	2	5	10	20	50	100
Chlorobenzene-d5 (IS)									
Toluene-d8 (surr)		0.5	1	2	5	10	20	50	100
4-Methyl-2-pentanone	1	2.5	5	10	25	50	100	250	500
Toluene		0.5	1	2	5	10	20	50	100
trans-1,3-Dichloropropene		0.5	1	2	5	10	20	50	100
1,1,2-Trichloroethane		0.5	1	2	5	10	20	50	100
Tetrachloroethene		0.5	1	2	5	10	20	50	100
1,3-Dichloropropane		0.5	1	2	5	10	20	50	100
2-Hexanone	1	2.5	5	10	25	50	20	250	500
Dibromochloromethane		0.5	1	2	5	10	20	50	100
1,2-Dibromoethane		0.5	1	2	5	10	20	50	100
Chlorobenzene		0.5	1	2	5	10	20	50	100
1,1,1,2-Tetrachloroethane		0.5	1	2	5	10	20	50	100
Ethylbenzene		0.5	1	2	5	10	20	50	100
m,p-Xylene		1	2	4	10	20	20	100	200
o-Xylene		0.5	1	2	5	10	20	50	100
Xylenes (total)		1.5	3	6	15	30	60	150	300
Stryene		0.5	1	2	5	10	20	50	100
Cyclohexanone			50	100	250	500	1000	2500	5000
Ethyl methacrylate			5	10	25	50	100	250	500
1,4-Dichlorobenzene-d4 (IS)									
Bromofluorobenzene (surr)		0.5	1	2	5	10	20	50	100
Bromoform		0.5	1	2	5	10	20	50	100
Isopropylbenzene		0.5	1	2	5	10	20	50	100
1,1,2,2-Tetrachloroethane		0.5	1	2	5	10	20	50	100
Bromobenzene		0.5	1	2	5	10	20	50	100
1,2,3-Trichloropropane		0.5	1	2	5	10	20	50	100
n-Propylbenzene		0.5	1	2	5	10	20	50	100
2-Chlorotoluene		0.5	1	2	5	10	20	50	100
1,3,5-Trimethylbenzene		0.5	1	2	5	10	20	50	100
4-Chlorotoluene		0.5	1	2	5	10	20	50	100
1,2,4-Trimethylbenzene		0.5	1	2	5	10	20	50	100
sec-Butylbenzene		0.5	1	2	5	10	20	50	100
1,3-Dichlorobenzene		0.5	1	2	5	10	20	50	100
tert-Butylbenzene		0.5	1	2	5	10	20	50	100
Isopropyltoluene		0.5	1	2	5	10	20	50	100
1,4-Dichlorobenzene		0.5	1	2	5	10	20	50	100
n-Butylbenzene		0.5	1	2	5	10	20	50	100
1,2-Dichlorobenzene		0.5	1	2	5	10	20	50	100
1,2-Dibromo-3-chloropropa		0.5	1	2	5	10	20	50	100
1,2,4-Trichlorobenzene		0.5	1	2	5	10	20	50	100
Hexachlorobutadiene		0.5	1	2	5	10	20	50	100
Naphthalene		0.5	1	2	5	10	20	50	100
1,2,3-Trichlorobenzene		0.5	1	2	5	10	20	50	100
cis-1,4-Dichloro-2-butene			5	10	25	50	100	250	500
trans-1,4-Dichloro-2-butene			5	10	25	50	100	250	500
Tetrahydrofuran			5	10	25	50	100	250	500
Pentachloroethane			5	10	25	50	100	250	500
Benzyl chloride			5	10	25	50	100	250	500
bis(2-Chloro-isopropyl)ether			5	10	25	50	100	250	500

Method	PQL	Concentration range
EPA 524.2	Level 1a	Levels 1a -> 7a
SW 846 8260B low level	Level 1a	Levels 1-> 7a
EPA 624	Level 2	Levels 2-> 7a
SW846 8260B	Level 2	Levels 2-> 7a

#: Indicates calibration verification concentration level used for low level analysis

!: Indicates calibration verification concentration level used for regular level analysis

Calibration History Report VOA2
GEL Laboratories, LLC

Method File : C:\msdchem\1\DATA\012610V2.b\VOA2-8260-012610.M
Last Update : Wed Jan 27 06:34:30 2010
Integrator : (RTE Integrator) Response via : Initial Calibration

Cal Lvl:8 Amt:-1 Last Updated with: C:\msdchem\1\DATA\012610V2.b\2W211.D

Injection Date	Mix	Calibration File
26 Jan 2010 6:08 pm	A	C:\msdchem\1\DATA\012610V2.b\2W211.D

Cal Lvl:1 Amt:1 Last Updated with: C:\msdchem\1\DATA\012610V2.b\2W215.D

Injection Date	Mix	Calibration File
26 Jan 2010 2:16 pm	A	C:\msdchem\1\DATA\012610V2.b\2W203.D
26 Jan 2010 8:03 pm	B	C:\msdchem\1\DATA\012610V2.b\2W215.D

Cal Lvl:2 Amt:2 Last Updated with: C:\msdchem\1\DATA\012610V2.b\2W216.D

Injection Date	Mix	Calibration File
26 Jan 2010 2:45 pm	A	C:\msdchem\1\DATA\012610V2.b\2W204.D
26 Jan 2010 8:32 pm	B	C:\msdchem\1\DATA\012610V2.b\2W216.D

Cal Lvl:3 Amt:5 Last Updated with: C:\msdchem\1\DATA\012610V2.b\2W217.D

Injection Date	Mix	Calibration File
26 Jan 2010 3:14 pm	A	C:\msdchem\1\DATA\012610V2.b\2W205.D
26 Jan 2010 9:01 pm	B	C:\msdchem\1\DATA\012610V2.b\2W217.D

Cal Lvl:4 Amt:10 Last Updated with: C:\msdchem\1\DATA\012610V2.b\2W218.D

Injection Date	Mix	Calibration File
26 Jan 2010 3:43 pm	A	C:\msdchem\1\DATA\012610V2.b\2W206.D
26 Jan 2010 9:31 pm	B	C:\msdchem\1\DATA\012610V2.b\2W218.D

Cal Lvl:5 Amt:20 Last Updated with: C:\msdchem\1\DATA\012610V2.b\2W219.D

Injection Date	Mix	Calibration File
26 Jan 2010 4:12 pm	A	C:\msdchem\1\DATA\012610V2.b\2W207.D
26 Jan 2010 10:00 pm	B	C:\msdchem\1\DATA\012610V2.b\2W219.D

Cal Lvl:6 Amt:50 Last Updated with: C:\msdchem\1\DATA\012610V2.b\2W208.D

Injection Date	Mix	Calibration File
26 Jan 2010 4:41 pm	A	C:\msdchem\1\DATA\012610V2.b\2W208.D
26 Jan 2010 10:30 pm	B	C:\msdchem\1\DATA\012610V2.b\2W220.D

Cal Lvl:7 Amt:100 Last Updated with: C:\msdchem\1\DATA\012610V2.b\2W221.D

Injection Date	Mix	Calibration File
26 Jan 2010 5:10 pm	A	C:\msdchem\1\DATA\012610V2.b\2W209.D
26 Jan 2010 10:59 pm	B	C:\msdchem\1\DATA\012610V2.b\2W221.D

Response Factor Report VOA2
GEL Laboratories, LLC

Method File : C:\msdchem\1\DATA\012610V2.b\VOA2-8260-012610.M
Last Update : Wed Jan 27 06:34:30 2010
Integrator : (RTE Integrator) Response via : Initial Calibration

For Linear Calibration: y = concentration ratio, x = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
2)MA Dichlorodifluoromethane	0.1985649	0.2139003 0.2128286	0.2531483	0.2635661	0.2160459	0.2022349	0.2229	AVRG		11.3161
3)MPA Chloromethane 0.0018 | 0.2253 | 0.00	330197	9592 691533	17070	37247	68871	134976		LINR		0.9998
4)MCA Vinyl chloride	0.2174661	0.2627568 0.2192669	0.2567393	0.2379569	0.2238764	0.2150206	0.2333	AVRG		8.4093
5)MA Bromomethane 0.0045 | 0.0953 | 0.00	146541	4312 296146	9553	20929	36535	70871		LINR		0.9984
6)MA Chloroethane	0.1657977	0.1868183 0.1646286	0.1880960	0.1712410	0.1669456	0.1652499	0.1727	AVRG		5.9804
7)MA Trichlorofluoromethane	0.3928494	0.4193289 0.3914469	0.4285032	0.4077759	0.3977261	0.3901055	0.4040	AVRG		3.7324
8)MA Ethyl ether	0.2143537	0.2296868 0.2115100	0.2218479	0.2186263	0.2174425	0.2116588	0.2179	AVRG		2.9485
9)MA Acetone	0.1725253	0.2413157 0.1852129	0.2030780	0.1848068	0.1730412	0.1829600	0.1918	AVRG		12.5403
10)MCA 1,1-Dichloroethylene	0.4226496	0.3749294 0.4353661	0.4273292	0.4297169	0.4438787	0.4513930	0.4265	AVRG		5.8116
11)MA Iodomethane	0.3668172	0.3460714 0.3601672	0.3755842	0.3766052	0.3818152	0.3913138	0.3712	AVRG		4.0231
12)MA Acetonitrile	0.0319888	0.0361810 0.0326195	0.0385888	0.0340982	0.0326597	0.0352234	0.0345	AVRG		6.8484
13)MA Methyl acetate	0.2105565	0.2333000 0.2074561	0.2150941	0.2133973	0.1991907	0.2094806	0.2126	AVRG		4.9155
14)MA Carbon disulfide	0.6855247	0.5959472 0.6902649	0.6813028	0.6851963	0.7097949	0.7263313	0.6821	AVRG		6.0553
15)MA Methylene chloride	0.2339800	0.2323941	0.2961368	0.2577889	0.2478037	0.2484830	0.2528	AVRG		9.2227
16)MA tert-Butyl methyl ether	0.6796718	0.7070583 0.6735647	0.7928172	0.6872722	0.7377047	0.7074337	0.7122	AVRG		5.8374

Response Factor Report VOA2
GEL Laboratories, LLC

Method File : C:\msdchem\1\DATA\012610V2.b\VOA2-8260-012610.M
Last Update : Wed Jan 27 06:34:30 2010
Integrator : (RTE Integrator) Response via : Initial Calibration

For Linear Calibration: y = concentration ratio, x = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
17)MA trans-1,2-Dichloroethyle	0.3969764	0.3575438 0.3954487	0.4042812	0.4031871	0.4099419	0.4262564	0.3991	AVRG		5.2593
18)MA Vinyl acetate	0.5048679	0.5311341 0.4940727	0.5355772	0.5217355	0.5401007	0.5432491	0.5244	AVRG		3.5510
19)MPA 1,1-Dichloroethane	0.4697292	0.4552568 0.4707222	0.4771889	0.4716135	0.4788689	0.4954603	0.4741	AVRG		2.5548
20)MA 2-Butanone	0.2011581	0.2304489 0.2216936	0.2105432	0.2127282	0.2006813	0.2136806	0.2130	AVRG		4.9931
21)MA cis-1,2-Dichloroethylene	0.4478846	0.4192269 0.4373175	0.4604769	0.4594065	0.4617908	0.4717313	0.4511	AVRG		3.9582
22)MA 2,2-Dichloropropane	0.3802094	0.3395459 0.3768736	0.3691653	0.3722816	0.3812621	0.3982943	0.3739	AVRG		4.7627
23)MA Bromochloromethane	0.1207224	0.1239785 0.1192630	0.1265137	0.1240893	0.1234283	0.1270095	0.1236	AVRG		2.2796
24)MCA Chloroform	0.4677526	0.4593736 0.4647770	0.4680214	0.4703701	0.4757361	0.4925553	0.4712	AVRG		2.2599
25)MA 1,1,1-Trichloroethane	0.4441354	0.3719354 0.4496465	0.4316971	0.4382968	0.4522102	0.4671395	0.4364	AVRG		7.0072
26)MA Cyclohexane	0.4815257	0.4424643 0.4902947	0.4977163	0.4893847	0.5003325	0.5175481	0.4885	AVRG		4.7578
27)MA 1,1-Dichloropropene	0.3352269	0.2897708 0.3334249	0.3359831	0.3325214	0.3481900	0.3531357	0.3326	AVRG		6.1593
28)MA Carbon tetrachloride	0.4074317	0.3453297 0.4170839	0.3876900	0.3988869	0.4187024	0.4271835	0.4003	AVRG		6.8989
29)SA 1,2-Dichloroethane-d4	0.4000934	0.4101775 0.3865741	0.4021804	0.4090255	0.4035938	0.3986198	0.4015	AVRG		1.9556
30)MA 1,2-Dichloroethane	0.4280409	0.4385517 0.4108087	0.4473559	0.4419444	0.4336462	0.4509514	0.4359	AVRG		3.1031
31)MA Benzene	0.8588212	0.8397806 0.8464068	0.8898087	0.8855032	0.8806510	0.9055488	0.8724	AVRG		2.7945

Response Factor Report VOA2
GEL Laboratories, LLC

Method File : C:\msdchem\1\DATA\012610V2.b\VOA2-8260-012610.M
Last Update : Wed Jan 27 06:34:30 2010
Integrator : (RTE Integrator) Response via : Initial Calibration

For Linear Calibration: y = concentration ratio, x = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
32)MA Cyclohexene	0.4789135	0.4167772 0.4826397	0.4791915	0.4797331	0.4934285	0.5059585	0.4767	AVRG		5.9228
33)MA n-Butyl alcohol	0.0077157 0.0090013	0.0079790 0.0099655	0.0063610	0.0082616	0.0085481	0.0095482	0.0084	AVRG	#	13.4407
34)MA Trichloroethylene	0.2521311	0.2420710 0.2554893	0.2525959	0.2462689	0.2579058	0.2652921	0.2531	AVRG		3.0043
35)MCA 1,2-Dichloropropane	0.2436780	0.2456094 0.2376684	0.2423753	0.2453209	0.2495743	0.2598983	0.2463	AVRG		2.8413
36)MA Methylcyclohexane	0.4098931	0.3499568 0.4109786	0.4107726	0.4128043	0.4317040	0.4374229	0.4091	AVRG		6.9370
37)MA Dibromomethane	0.1537535	0.1601445 0.1518972	0.1565539	0.1543216	0.1539783	0.1630436	0.1562	AVRG		2.5531
38)MA Bromodichloromethane	0.3614664	0.3163424 0.3646998	0.3334107	0.3431209	0.3486190	0.3727076	0.3486	AVRG		5.6248
39)MA 2-Chloroethylvinyl ether	0.1574023	0.1702697 0.1534225	0.1660596	0.2046985	0.1645402	0.1621033	0.1684	AVRG		10.0754
40)MA cis-1,3-Dichloropropylen	0.3900555	0.3526106 0.3918003	0.3593591	0.3668135	0.3792067	0.4083357	0.3783	AVRG		5.2580
42)MA 4-Methyl-2-pentanone	0.1531834	0.1638930 0.1577839	0.1532839	0.1581912	0.1540770	0.1637014	0.1577	AVRG		2.9242
43)SA Toluene-d8	1.3898621	1.3724029 1.3548712	1.3854959	1.3766562	1.3982606	1.3782478	1.3794	AVRG		1.0088
44)MCA Toluene	1.2570522	1.2013345 1.2548277	1.2991501	1.2603987	1.2870941	1.3187183	1.2684	AVRG		3.0025
45)MA trans-1,3-Dichloropropyl	0.5175875	0.4538395 0.5208845	0.4456620	0.4811792	0.4929671	0.5263158	0.4912	AVRG		6.6404
46)MA 1,1,2-Trichloroethane	0.2245957	0.2205575 0.2177084	0.2234616	0.2243432	0.2203274	0.2340826	0.2236	AVRG		2.3534
47)MA 2-Hexanone	0.3841613	0.4523775 0.4337621	0.4118298	0.4204648	0.4057582	0.4371083	0.4208	AVRG		5.3848

Response Factor Report VOA2
GEL Laboratories, LLC

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Integrator : (RTE Integrator) Response via : Initial Calibration

For Linear Calibration: y = concentration ratio, x = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
48)MA 1,3-Dichloropropane	0.4717499	0.4813641 0.4604173	0.4795310	0.4785722	0.4782653	0.5038845	0.4791	AVRG		2.7262
49)MA Tetrachloroethylene	0.2586902	0.2420357 0.2470706	0.2816832	0.2701802	0.2786182	0.2814684	0.2657	AVRG		6.2366
50)MA Dibromochloromethane	0.3659113	0.2992958 0.3662480	0.3120666	0.3266180	0.3379190	0.3700525	0.3397	AVRG		8.3976
51)MA 1,2-Dibromoethane	0.3010385	0.2837286 0.3019188	0.2966800	0.2979040	0.2943209	0.3160447	0.2988	AVRG		3.2465
52)MPA Chlorobenzene	0.8385829	0.8345810 0.8367690	0.8598399	0.8511089	0.8612407	0.8961467	0.8540	AVRG		2.5217
53)MA 1,1,1,2-Tetrachloroethan	0.3390705	0.3034471 0.3308182	0.3134654	0.3268996	0.3300518	0.3494268	0.3276	AVRG		4.6761
54)MCA Ethylbenzene	1.5500842	1.4652996 1.5510876	1.5529722	1.5670323	1.5958677	1.6408975	1.5605	AVRG		3.4185
55)MA m,p-Xylenes	0.5697080	0.5513712 0.5561935	0.6023603	0.5921472	0.6046028	0.6148578	0.5845	AVRG		4.3176
56)MA o-Xylene	0.5697741	0.5655622 0.5519629	0.5968225	0.5968799	0.6003045	0.6170045	0.5855	AVRG		3.9684
57)MA Styrene	0.9626315	0.9001887 0.9425810	0.9571357	0.9809530	0.9990688	1.0264430	0.9670	AVRG		4.2076
59)MPA Bromoform	0.4535755	0.3872610 0.4722305	0.3717573	0.3858491	0.4031837	0.4496662	0.4176	AVRG		9.5500
60)MA Isopropylbenzene	2.8824608	2.6420251 2.9120492	2.7990519	2.8664819	2.9579318	3.0329336	2.8704	AVRG		4.3424
61)SA Bromofluorobenzene	1.1048437	1.1103874 1.1102938	1.1108273	1.0966936	1.1224681	1.0959255	1.1073	AVRG		0.8317
62)MPA 1,1,2,2-Tetrachloroethan	0.6774660	0.7291880 0.6878697	0.6771048	0.6707626	0.6809948	0.7185789	0.6917	AVRG		3.2920
63)MA 1,2,3-Trichloropropane	0.2195800	0.2236262 0.2184445	0.2289394	0.2243585	0.2221548	0.2293448	0.2238	AVRG		1.8844

Response Factor Report VOA2
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Integrator : (RTE Integrator) Response via : Initial Calibration

For Linear Calibration: y = concentration ratio, x = response ratio. y = b + m1(x) + m2(xE2)

Compound	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
b | m1 | m2										
64)MA Bromobenzene		0.7114069	0.7003929	0.7065173	0.7032849	0.7296111				
	0.6821523	0.6841587					0.7025	AVRG		2.3143
65)MA n-Propylbenzene		3.0726977	3.3782488	3.3543589	3.4569410	3.5184928				
	3.3518740	3.4368673					3.3671	AVRG		4.2532
66)MA 1,3,5-Trimethylbenzene		2.3113114	2.5258121	2.4757660	2.5838250	2.6332925				
	2.5063485	2.5146961					2.5073	AVRG		4.0390
67)MA 2-Chlorotoluene		0.6290688	0.6767390	0.6479059	0.6612427	0.6791922				
	0.6286929	0.6264595					0.6499	AVRG		3.5223
68)MA 4-Chlorotoluene		2.1594506	2.2313569	2.1871903	2.2229349	2.2459321				
	2.1172348	2.1555423					2.1885	AVRG		2.1538
69)MA tert-Butylbenzene		0.4253864	0.4777937	0.4774365	0.4972496	0.5071707				
	0.4754945	0.4756831					0.4766	AVRG		5.4094
70)MA 1,2,4-Trimethylbenzene		2.4099088	2.6141283	2.5726860	2.6475573	2.7370252				
	2.5586840	2.5871889					2.5896	AVRG		3.8368
71)MA sec-Butylbenzene		2.7821919	3.1578443	3.1934787	3.3496097	3.3760942				
	3.2072159	3.2796389					3.1923	AVRG		6.2094
72)MA 4-Isopropyltoluene		2.3355803	2.6068533	2.6263021	2.7403177	2.7773769				
	2.6274896	2.6495737					2.6234	AVRG		5.4178
73)MA 1,3-Dichlorobenzene		1.3347088	1.3734334	1.3545195	1.3791876	1.3978774				
	1.3053615	1.2939622					1.3484	AVRG		2.8823
74)MA 1,4-Dichlorobenzene		1.4792809	1.4131412	1.4158455	1.3963694	1.4191186				
	1.3182710	1.3083451					1.3929	AVRG		4.3290
75)MA n-Butylbenzene		2.3278110	2.5556031	2.6228487	2.6778666	2.7464505				
	2.5895269	2.6314783					2.5931	AVRG		5.0981
76)MA 1,2-Dichlorobenzene		1.3252576	1.3426264	1.3363049	1.3606679	1.3716970				
	1.2919209	1.2730794					1.3288	AVRG		2.6750
77)MA 1,2-Dibromo-3-chloroprop		0.1587490	0.1493613	0.1575874	0.1628092	0.1812182				
	0.1777681	0.1869454					0.1678	AVRG		8.4188
78)MA 1,2,4-Trichlorobenzene		1.0773625	1.0833676	1.0401156	1.0420552	1.0595811				
	0.9882272	0.9657560					1.0366	AVRG		4.2740

Response Factor Report VOA2
GEL Laboratories, LLC

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Integrator : (RTE Integrator) Response via : Initial Calibration

For Linear Calibration: y = concentration ratio, x = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
79)MA Hexachlorobutadiene	0.6215477	0.5581044 0.6255337	0.6202458	0.6334658	0.6491368	0.6703695	0.6255	AVRG		5.5463
80)MA Naphthalene	2.4524293	2.7654520 2.4555118	2.5878326	2.5485283	2.5297579	2.6263447	2.5666	AVRG		4.2271
81)MA 1,2,3-Trichlorobenzene	0.8983698	0.9869348 0.8831544	0.9807045	0.9655865	0.9610033	0.9833087	0.9513	AVRG		4.4810
83)B Chlorotrifluoroethylene	0.1531727	0.1324587 0.1683452	0.1378271	0.1233241	0.1415706	0.1790911	0.1480	AVRG		13.5235
84)B 2-Chloro-1,1,1-trifluoro	0.2770547	0.2424874 0.2722764	0.2464703	0.2317548	0.2632302	0.2621247	0.2565	AVRG		6.4804
85)B Acrolein	0.0420697	0.0353152 0.0379853	0.0364335	0.0396205	0.0415805	0.0436628	0.0395	AVRG		7.8312
86)B Trichlorotrifluoroethane	0.0947630	0.1141250 0.0926320	0.0943101	0.0998763	0.1044784	0.1012363	0.1002	AVRG		7.4561
87)B Isopropyl Alcohol	0.0220385	0.0181567 0.0217749	0.0189679	0.0180836	0.0213862	0.0233086	0.0205	AVRG		10.2046
88)B Allyl chloride	0.4187541	0.4530598 0.4003862	0.4242130	0.4411105	0.4477075	0.4423457	0.4325	AVRG		4.3399
89)B tert-Butyl Alcohol	0.0348199	0.0291125 0.0350718	0.0303574	0.0285600	0.0332527	0.0369805	0.0326	AVRG		10.0333
90)B Acrylonitrile	0.1028354	0.0932659 0.1000128	0.0973142	0.1008376	0.1040496	0.1068218	0.1007	AVRG		4.4482
91)B Isopropyl ether	0.9135929	0.8546448 0.9622447	0.8653448	0.8241449	0.9228072	0.9319770	0.8964	AVRG		5.4885
92)B 2-Chloro-1,3-butadiene	0.4693244	0.4495601 0.4737251	0.4374440	0.4690104	0.4774770	0.4888603	0.4665	AVRG		3.7317
93)B Ethyl tert-butyl ether	0.8390352	0.7134965 0.9097000	0.7577141	0.7383292	0.8282787	0.8514797	0.8054	AVRG		8.7609
94)B Ethyl acetate	0.2693964	0.2301854 0.2616547	0.2445418	0.2654428	0.2752320	0.2819569	0.2612	AVRG		6.9064

Response Factor Report VOA2
GEL Laboratories, LLC

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Integrator : (RTE Integrator) Response via : Initial Calibration

For Linear Calibration: y = concentration ratio, x = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
95)B Propionitrile		0.0377279	0.0415354	0.0400125	0.0421981	0.0437790				
	0.0416822	0.0392411					0.0409	AVRG		4.9517
96)B Methacrylonitrile		0.1583022	0.1647207	0.1713944	0.1760610	0.1793771				
	0.1714250	0.1654692					0.1695	AVRG		4.2560
97)B Tetrahydrofuran		0.0800823	0.0834956	0.0838586	0.0856780	0.0889640				
	0.0856121	0.0823265					0.0843	AVRG		3.3521
98)B Isobutyl alcohol		0.0088248	0.0099077	0.0102648	0.0109999	0.0118494				
	0.0115374	0.0109439					0.0106	AVRG		9.7709
99)B Methyl tert-amyl ether		0.5546508	0.5654890	0.5571104	0.6297180	0.6659993				
	0.6617176	0.7152101					0.6214	AVRG		10.2198
100)B Methyl methacrylate		0.1330088	0.1457273	0.1540790	0.1601675	0.1622543				
	0.1558117	0.1516509					0.1518	AVRG		6.5352
101)B 1,4-Dioxane		0.0021654	0.0026552	0.0026030	0.0029696	0.0027612				
	0.0027089	0.0023896					0.0026	AVRG	#	10.0274
102)B 2-Nitropropane		9837	21558	62615	138737	300269				
-0.0049 | 0.1000 | 0.00	760549	1558736						LINR		0.9999
104)B Ethyl methacrylate		0.3400759	0.3575182	0.3974558	0.4145251	0.4206926				
	0.3968453	0.3902994					0.3882	AVRG		7.5622
106)B 1-Chlorohexane		0.6377519	0.6577566	0.6108525	0.6943179	0.6831648				
	0.6880251	0.7143295					0.6695	AVRG		5.3653
107)B cis-1,4-Dichloro-2-buten		0.2556393	0.2765720	0.2980138	0.3079661	0.3183005				
	0.3020404	0.2948181					0.2933	AVRG		7.1498
108)B Cyclohexanone		0.0795210	0.0959774	0.0920961	0.1013865	0.1006645				
	0.0967638	0.0937685					0.0943	AVRG		7.7817
109)B trans-1,4-Dichloro-2-but		0.2439013	0.2651635	0.2863979	0.2975622	0.3036110				
	0.2886722	0.2761848					0.2802	AVRG		7.3130
110)B Pentachloroethane		0.2736345	0.2193507	0.3314041	0.2824944	0.3222300				
	0.2578439	0.2660263					0.2790	AVRG		13.7500
111)B Benzyl chloride		0.9409771	1.0439261	1.1881989	1.2680815	1.3035063				
	1.2558631	1.2281905					1.1755	AVRG		11.3423

Response Factor Report VOA2
GEL Laboratories, LLC

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Integrator : (RTE Integrator) Response via : Initial Calibration

For Linear Calibration: y = concentration ratio, x = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
12)B bis(2-Chloroisopropyl)et		0.3981910	0.4410500	0.4506691	0.4816599	0.5104452				
	0.4877663	0.4630630					0.4618	AVRG		7.9248

#) = Out of Range

Continuing Calibration Summary

Client SDG: 10-1604

Instrument ID: VOA2.I **Injection Date** 26-JAN-10 19:05

Data File: 012610V2.b\2W213.D **Init. Cal. Date(s)** 26-JAN-10 14:16 - 26-JAN-10 22:59

Lab Sample ID W2VM100126-10 **Quant Type** ISTD **Method:** 012610V2.b\VOA2-8260-012610.M

	Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type	
S	1,2-Dichloroethane-d4	0.4015	0.39199		.01		-2.36862	30		Averaged	
S	Toluene-d8	1.3794	1.39645		.01		1.23604	30		Averaged	
S	Bromofluorobenzene	1.1073	1.10777		.01		0.04245	30		Averaged	
	Dichlorodifluoromethane	0.2229	0.20821		.01		-6.5904	30		Averaged	
	Chloromethane	50	46.09	50			-7.82	30		Linear	spcc
	Vinyl chloride	0.2333	0.21133		.01		-9.41706	20		Averaged	ccc
	Bromomethane	50	54.12	50			8.24	30		Linear	
	Chloroethane	0.1727	0.16287		.01		-5.69195	30		Averaged	
	Trichlorofluoromethane	0.404	0.39521		.01		-2.17574	30		Averaged	
	Ethyl ether	0.2179	0.20408		.01		-6.34236	30		Averaged	
	1,1-Dichloroethylene	0.4265	0.40142		.01		-5.88042	20		Averaged	ccc
	Acetone	0.1918	0.16685		.01		-13.00834	40		Averaged	
	Iodomethane	0.3712	0.345		.01		-7.05819	30		Averaged	
	Carbon disulfide	0.6821	0.69305		.01		1.60534	30		Averaged	
	Acetonitrile	0.0345	0.03205		.01		-7.10145	30		Averaged	
	Methyl acetate	0.2126	0.19466		.01		-8.43838	40		Averaged	
	Methylene chloride	0.2528	0.22567		.01		-10.7318	30		Averaged	
	trans-1,2-Dichloroethylene	0.3991	0.38682		.01		-3.07692	30		Averaged	
	tert-Butyl methyl ether	0.7122	0.63961		.01		-10.19236	30		Averaged	
	1,1-Dichloroethane	0.4741	0.465		.1		-1.91943	30		Averaged	spcc
	Vinyl acetate	0.5244	0.51141		.01		-2.47712	40		Averaged	
	2-Butanone	0.213	0.19832		.01		-6.89202	40		Averaged	
	cis-1,2-Dichloroethylene	0.4511	0.43619		.01		-3.30525	30		Averaged	
	2,2-Dichloropropane	0.3739	0.36722		.01		-1.78657	30		Averaged	
	Bromochloromethane	0.1236	0.11737		.01		-5.04045	30		Averaged	
	Chloroform	0.4712	0.45941		.01		-2.50212	20		Averaged	ccc
	1,1,1-Trichloroethane	0.4364	0.44079		.01		1.00596	30		Averaged	
	Cyclohexane	0.4885	0.48832		.01		-0.03685	30		Averaged	
	1,1-Dichloropropene	0.3326	0.34132		.01		2.62177	30		Averaged	
	Carbon tetrachloride	0.4003	0.40647		.01		1.54134	30		Averaged	
	1,2-Dichloroethane	0.4359	0.41075		.01		-5.76967	30		Averaged	
	Benzene	0.8724	0.84853		.01		-2.73613	30		Averaged	
	Cyclohexene	0.4767	0.46795		.01		-1.83554	30		Averaged	
	n-Butyl alcohol	0.0084	0.00935		.01		11.30952	40		Averaged	
	Trichloroethylene	0.2531	0.25251		.01		-0.23311	30		Averaged	
	1,2-Dichloropropane	0.2463	0.2416		.01		-1.90824	20		Averaged	ccc
	Methylcyclohexane	0.4091	0.41371		.01		1.12686	30		Averaged	

Continuing Calibration Summary

Instrument ID: VOA2.I **Injection Dat** 26-JAN-10 19:05

Data File: 012610V2.b\2W213.D **Init. Cal. Date(s)** 26-JAN-10 14:16 26-JAN-10 22:59

Lab Sample ID W2VM100126-10 **Quant Type** ISTD **Method:** 012610V2.b\VOA2-8260-012610.M

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type	
Dibromomethane	0.1562	0.14638		.01		-6.28681	30		Averaged	
Bromodichloromethane	0.3486	0.35481		.01		1.78141	30		Averaged	
2-Chloroethylvinyl ether	0.1684	0.15491		.01		-8.01069	30		Averaged	
cis-1,3-Dichloropropylene	0.3783	0.3776		.01		-0.18504	30		Averaged	
4-Methyl-2-pentanone	0.1577	0.1536		.01		-2.59987	40		Averaged	
Toluene	1.2684	1.25688		.01		-0.90823	20		Averaged	ccc
trans-1,3-Dichloropropylene	0.4912	0.50304		.01		2.41042	30		Averaged	
1,1,2-Trichloroethane	0.2236	0.21819		.01		-2.4195	30		Averaged	
1,3-Dichloropropane	0.4791	0.45744		.01		-4.52098	30		Averaged	
Tetrachloroethylene	0.2657	0.26162		.01		-1.53557	30		Averaged	
2-Hexanone	0.4208	0.3919		.01		-6.86787	40		Averaged	
Dibromochloromethane	0.3397	0.35187		.01		3.58257	30		Averaged	
1,2-Dibromoethane	0.2988	0.295		.01		-1.27175	30		Averaged	
Chlorobenzene	0.854	0.8488		.3		-0.6089	30		Averaged	spcc
1,1,1,2-Tetrachloroethane	0.3276	0.33393		.01		1.93223	30		Averaged	
Ethylbenzene	1.5605	1.54755		.01		-0.82986	20		Averaged	ccc
m,p-Xylenes	0.5845	0.57576		.01		-1.4953	30		Averaged	
o-Xylene	0.5855	0.56697		.01		-3.16482	30		Averaged	
Styrene	0.967	0.96118		.01		-0.60186	30		Averaged	
Bromoform	0.4176	0.43937		.1		5.21312	30		Averaged	spcc
Isopropylbenzene	2.8704	2.90796		.01		1.30853	30		Averaged	
1,1,2,2-Tetrachloroethane	0.6917	0.66068		.3		-4.4846	30		Averaged	spcc
1,2,3-Trichloropropane	0.2238	0.21539		.01		-3.75782	30		Averaged	
Bromobenzene	0.7025	0.68918		.01		-1.89609	30		Averaged	
n-Propylbenzene	3.3671	3.35074		.01		-0.48588	30		Averaged	
2-Chlorotoluene	0.6499	0.63363		.01		-2.50346	30		Averaged	
1,3,5-Trimethylbenzene	2.5073	2.49369		.01		-0.54281	30		Averaged	
4-Chlorotoluene	2.1885	2.13978		.01		-2.22618	30		Averaged	
tert-Butylbenzene	0.4766	0.47728		.01		0.14268	30		Averaged	
1,2,4-Trimethylbenzene	2.5896	2.5554		.01		-1.32067	30		Averaged	
sec-Butylbenzene	3.1923	3.24312		.01		1.59196	30		Averaged	
4-Isopropyltoluene	2.6234	2.6386		.01		0.5794	30		Averaged	
1,3-Dichlorobenzene	1.3484	1.30967		.01		-2.87229	30		Averaged	
1,4-Dichlorobenzene	1.3929	1.3233		.01		-4.99677	30		Averaged	
n-Butylbenzene	2.5931	2.60228		.01		0.35402	30		Averaged	
1,2-Dichlorobenzene	1.3288	1.26885		.01		-4.51159	30		Averaged	
1,2-Dibromo-3-chloropropane	0.1678	0.17546		.01		4.56496	30		Averaged	

Continuing Calibration Summary

Instrument ID: VOA2.I **Injection Date** 26-JAN-10 19:05

Data File: 012610V2.b\2W213.D **Init. Cal. Date(s)** 26-JAN-10 14:16 26-JAN-10 22:59

Lab Sample ID W2VM100126-10 **Quant Type** ISTD **Method:** 012610V2.b\VOA2-8260-012610.M

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
1,2,4-Trichlorobenzene	1.0366	0.97524		.01		-5.91935	30		Averaged
Hexachlorobutadiene	0.6255	0.62961		.01		0.65707	30		Averaged
Naphthalene	2.5666	2.41412		.01		-5.94093	30		Averaged
1,2,3-Trichlorobenzene	0.9513	0.91787		.01		-3.51414	30		Averaged

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\012610V2.b\
Data File : 2W213.D
Acq On : 26 Jan 2010 7:05 pm
Operator : CDS1
InstName : VOA2
Sample : |W2VM100126-10|ICV|1|VOAF|1|
Misc : LCS 5ML MIX[A] ULT 1214-01I/0126-01
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Jan 27 07:33:41 2010
Quant Method : C:\msdchem\1\DATA\012610V2.b\VOA2-8260-012610.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Jan 27 06:34:30 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	12.425	12.437	1.000	96	1514057	50.00	ug/L	-0.01
41) Chlorobenzene-d5	15.970	15.970	1.000	117	1133567	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	18.461	18.461	1.000	152	635268	50.00	ug/L	0.00
82) B Fluorobenzene	12.425	12.437	1.000	96	1513789	50.00	ug/L	-0.01
103) B Chlorobenzene-d5	15.970	15.970	1.000	117	1133567	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	18.461	18.461	1.000	152	635545	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	11.974	11.986	0.964	65	593488	48.82	ug/L	-0.01
43) Toluene-d8	14.346	14.346	0.898	98	1582964	50.62	ug/L	0.00
61) Bromofluorobenzene	17.216	17.215	0.933	95	703728	50.02	ug/L	0.00
Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	4.687	4.702	0.378	85	315249	46.71	ug/L	100
3) Chloromethane	4.999	4.999	0.402	50	317092	46.09	ug/L	100
4) Vinyl chloride	5.252	5.266	0.423	62	319968	45.29	ug/L	100
5) Bromomethane	5.980	5.979	0.481	94	163139	54.12	ug/L	98
6) Chloroethane	6.223	6.223	0.500	64	246600	47.16	ug/L	99
7) Trichlorofluoromethane	6.827	6.839	0.550	101	598376	48.92	ug/L	100
8) Ethyl ether	7.409	7.409	0.596	59	308985	46.83	ug/L	100
9) Acetone	7.930	7.930	0.638	43	1263109	217.43	ug/L	99
10) 1,1-Dichloroethylene	7.871	7.883	0.634	61	607775	47.06	ug/L	100
11) Iodomethane	8.156	8.167	0.657	142	2611767	232.36	ug/L	99
12) Acetonitrile	8.440	8.440	0.679	41	1213299	1162.06	ug/L	100
13) Methyl acetate	8.571	8.571	0.689	43	1473595	228.86	ug/L	100
14) Carbon disulfide	8.310	8.310	0.668	76	5246567	254.03	ug/L	100
15) Methylene chloride	8.760	8.772	0.705	84	341674	44.64	ug/L	99
16) tert-Butyl methyl ether	9.270	9.270	0.745	73	968399	44.90	ug/L	100
17) trans-1,2-Dichloroethy...	9.258	9.270	0.745	61	585665	48.46	ug/L	100
18) Vinyl acetate	10.006	10.006	0.805	43	3871550	243.81	ug/L	100
19) 1,1-Dichloroethane	9.946	9.958	0.801	63	704036	49.04	ug/L	99
20) 2-Butanone	10.824	10.836	0.871	43	1501336	232.78	ug/L	100
21) cis-1,2-Dichloroethylene	10.848	10.847	0.872	61	660416	48.35	ug/L	99
22) 2,2-Dichloropropane	10.871	10.871	0.874	77	555997	49.10	ug/L	100
23) Bromochloromethane	11.191	11.191	0.900	128	177709	47.49	ug/L	99
24) Chloroform	11.286	11.298	0.908	83	695571	48.75	ug/L	100
25) 1,1,1-Trichloroethane	11.595	11.595	0.932	97	667376	50.50	ug/L	100
26) Cyclohexane	11.701	11.701	0.941	56	739344	49.98	ug/L	100
27) 1,1-Dichloropropene	11.808	11.808	0.949	75	516777	51.31	ug/L	98
28) Carbon tetrachloride	11.832	11.832	0.951	117	615415	50.77	ug/L	99
30) 1,2-Dichloroethane	12.081	12.081	0.971	62	621896	47.11	ug/L	100
31) Benzene	12.093	12.093	0.972	78	1284726	48.63	ug/L	100
32) Cyclohexene	12.235	12.235	0.984	67	708497	49.09	ug/L	100
33) n-Butyl alcohol	12.686	12.686	1.020	56	1414963	5547.91	ug/L	99
34) Trichloroethylene	12.899	12.899	1.037	95	382322	49.88	ug/L	100
35) 1,2-Dichloropropane	13.172	13.172	1.059	63	365793	49.04	ug/L	100
36) Methylcyclohexane	13.172	13.172	1.059	83	626374	50.57	ug/L	99
37) Dibromomethane	13.314	13.314	1.071	93	221632	46.84	ug/L	98
38) Bromodichloromethane	13.480	13.480	1.084	83	537201	50.89	ug/L	100
39) 2-Chloroethylvinyl ether	13.788	13.788	1.109	63	1172715	230.03	ug/L	100
40) cis-1,3-Dichloropropylene	14.002	14.002	1.126	75	571709	49.91	ug/L	100

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\012610V2.b\
Data File : 2W213.D
Acq On : 26 Jan 2010 7:05 pm
Operator : CDS1
InstName : VOA2
Sample : |W2VM100126-10|ICV|1|VOAF|1|
Misc : LCS 5ML MIX[A] ULT 1214-01I/0126-01
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Jan 27 07:33:41 2010
Quant Method : C:\msdchem\1\DATA\012610V2.b\VOA2-8260-012610.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Jan 27 06:34:30 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
42) 4-Methyl-2-pentanone	14.144	14.144	0.886	58	870564	243.45	ug/L	99
44) Toluene	14.417	14.417	0.903	91	1424757	49.55	ug/L	99
45) trans-1,3-Dichloroprop...	14.619	14.618	0.915	75	570234	51.21	ug/L	99
46) 1,1,2-Trichloroethane	14.844	14.844	0.929	83	247334	48.79	ug/L	99
47) 2-Hexanone	15.069	15.069	0.944	43	2221221	232.84	ug/L	99
48) 1,3-Dichloropropane	15.034	15.034	0.941	76	518540	47.74	ug/L	98
49) Tetrachloroethylene	15.057	15.057	0.943	164	296562	49.24	ug/L	99
50) Dibromochloromethane	15.318	15.318	0.959	129	398869	51.79	ug/L	99
51) 1,2-Dibromoethane	15.472	15.472	0.969	107	334401	49.36	ug/L	98
52) Chlorobenzene	16.006	16.006	1.002	112	962175	49.69	ug/L	100
53) 1,1,1,2-Tetrachloroethane	16.077	16.077	1.007	131	378527	50.97	ug/L	100
54) Ethylbenzene	16.089	16.089	1.007	91	1754252	49.59	ug/L	99
55) m,p-Xylenes	16.208	16.208	1.015	106	1305319	98.51	ug/L	98
56) o-Xylene	16.658	16.658	1.043	106	642700	48.42	ug/L	100
57) Styrene	16.658	16.658	1.043	104	1089558	49.70	ug/L	99
59) Bromoform	16.895	16.895	0.915	173	279118	52.60	ug/L	100
60) Isopropylbenzene	17.038	17.038	0.923	105	1847333	50.65	ug/L	100
62) 1,1,2,2-Tetrachloroethane	17.310	17.310	0.938	83	419711	47.76	ug/L	100
63) 1,2,3-Trichloropropane	17.393	17.393	0.942	110	136829	48.13	ug/L	98
64) Bromobenzene	17.429	17.429	0.944	156	437816	49.05	ug/L	98
65) n-Propylbenzene	17.476	17.476	0.947	91	2128615	49.76	ug/L	99
66) 1,3,5-Trimethylbenzene	17.642	17.642	0.956	105	1584160	49.73	ug/L	99
67) 2-Chlorotoluene	17.607	17.607	0.954	126	402523	48.75	ug/L	99
68) 4-Chlorotoluene	17.714	17.714	0.960	91	1359335	48.89	ug/L	100
69) tert-Butylbenzene	18.010	18.010	0.976	134	303201	50.07	ug/L	99
70) 1,2,4-Trimethylbenzene	18.058	18.057	0.978	105	1623362	49.34	ug/L	100
71) sec-Butylbenzene	18.235	18.235	0.988	105	2060248	50.80	ug/L	99
72) 4-Isopropyltoluene	18.366	18.366	0.995	119	1676216	50.29	ug/L	100
73) 1,3-Dichlorobenzene	18.401	18.401	0.997	146	831994	48.56	ug/L	100
74) 1,4-Dichlorobenzene	18.496	18.496	1.002	146	840652	47.50	ug/L	100
75) n-Butylbenzene	18.805	18.805	1.019	91	1653148	50.18	ug/L	100
76) 1,2-Dichlorobenzene	18.899	18.899	1.024	146	806060	47.74	ug/L	100
77) 1,2-Dibromo-3-chloropr...	19.718	19.718	1.068	157	111463	52.29	ug/L	100
78) 1,2,4-Trichlorobenzene	20.690	20.690	1.121	180	619540	47.04	ug/L	99
79) Hexachlorobutadiene	20.868	20.868	1.130	225	399969	50.33	ug/L	100
80) Naphthalene	21.022	21.022	1.139	128	1533614	47.03	ug/L	100
81) 1,2,3-Trichlorobenzene	21.342	21.342	1.156	180	583096	48.24	ug/L	99
83) Chlorotrifluoroethylene	0.000	4.628	0.372		0	N.D.		
84) 2-Chloro-1,1,1-trifluo...	0.000	5.489	0.441		0	N.D.		
85) Acrolein	7.586	7.634	0.614		0m	N.D.	d	
86) Trichlorotrifluoroethane	0.000	7.918	0.637		0	N.D.		
87) Isopropyl Alcohol	8.085	8.191	0.659		0m	N.D.	d	
88) Allyl chloride	0.000	8.559	0.688		0	N.D.		
89) tert-Butyl Alcohol	8.938	8.926	0.718		0m	N.D.	d	
90) Acrylonitrile	9.270	9.164	0.737		0m	N.D.	d	
91) Isopropyl ether	10.006	10.065	0.809		0m	N.D.	d	
92) 2-Chloro-1,3-butadiene	10.207	10.112	0.813		0m	N.D.	d	
93) Ethyl tert-butyl ether	10.622	10.622	0.854		0m	N.D.	d	
94) Ethyl acetate	10.824	10.919	0.878		0m	N.D.	d	
95) Propionitrile	10.824	10.907	0.877		0m	N.D.	d	
96) Methacrylonitrile	0.000	11.144	0.896		0	N.D.		
97) Tetrahydrofuran	11.286	11.263	0.906		0m	N.D.	d	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\012610V2.b\
Data File : 2W213.D
Acq On : 26 Jan 2010 7:05 pm
Operator : CDS1
InstName : VOA2
Sample : |W2VM100126-10|ICV|1|VOAF|1|
Misc : LCS 5ML MIX[A] ULT 1214-01I/0126-01
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Jan 27 07:33:41 2010
Quant Method : C:\msdchem\1\DATA\012610V2.b\VOA2-8260-012610.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Jan 27 06:34:30 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
98) Isobutyl alcohol	0.000	11.856	0.953		0	N.D.	
99) Methyl tert-amyl ether	12.235	12.211	0.982		0m	N.D.	d
100) Methyl methacrylate	13.172	13.243	1.065		0m	N.D.	d
101) 1,4-Dioxane	13.314	13.302	1.070		0m	N.D.	d
102) 2-Nitropropane	13.788	13.717	1.103		0m	N.D.	d
104) Ethyl methacrylate	14.607	14.666	0.918		0m	N.D.	d
106) 1-Chlorohexane	15.970	15.911	0.862		0m	N.D.	d
107) cis-1,4-Dichloro-2-butene	17.038	17.073	0.925		0m	N.D.	d
108) Cyclohexanone	17.168	17.156	0.929		0m	N.D.	d
109) trans-1,4-Dichloro-2-b...	17.476	17.370	0.941		0m	N.D.	d
110) Pentachloroethane	18.058	18.058	0.978		0m	N.D.	d
111) Benzyl chloride	18.603	18.603	1.008		0m	N.D.	d
112) bis(2-Chloroisopropyl)...	19.148	19.018	1.030		0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\012610V2.b\
Data File : 2W213.D
Acq On : 26 Jan 2010 7:05 pm
Operator : CDS1
InstName : VOA2
Sample : |W2VM100126-10|ICV|1|VOAF|1|
Misc : LCS 5ML MIX[A] ULT 1214-01I/0126-01
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Jan 27 07:33:41 2010
Quant Method : C:\msdchem\1\DATA\012610V2.b\VOA2-8260-012610.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Jan 27 06:34:30 2010
Response via : Initial Calibration
Integrator: RTE

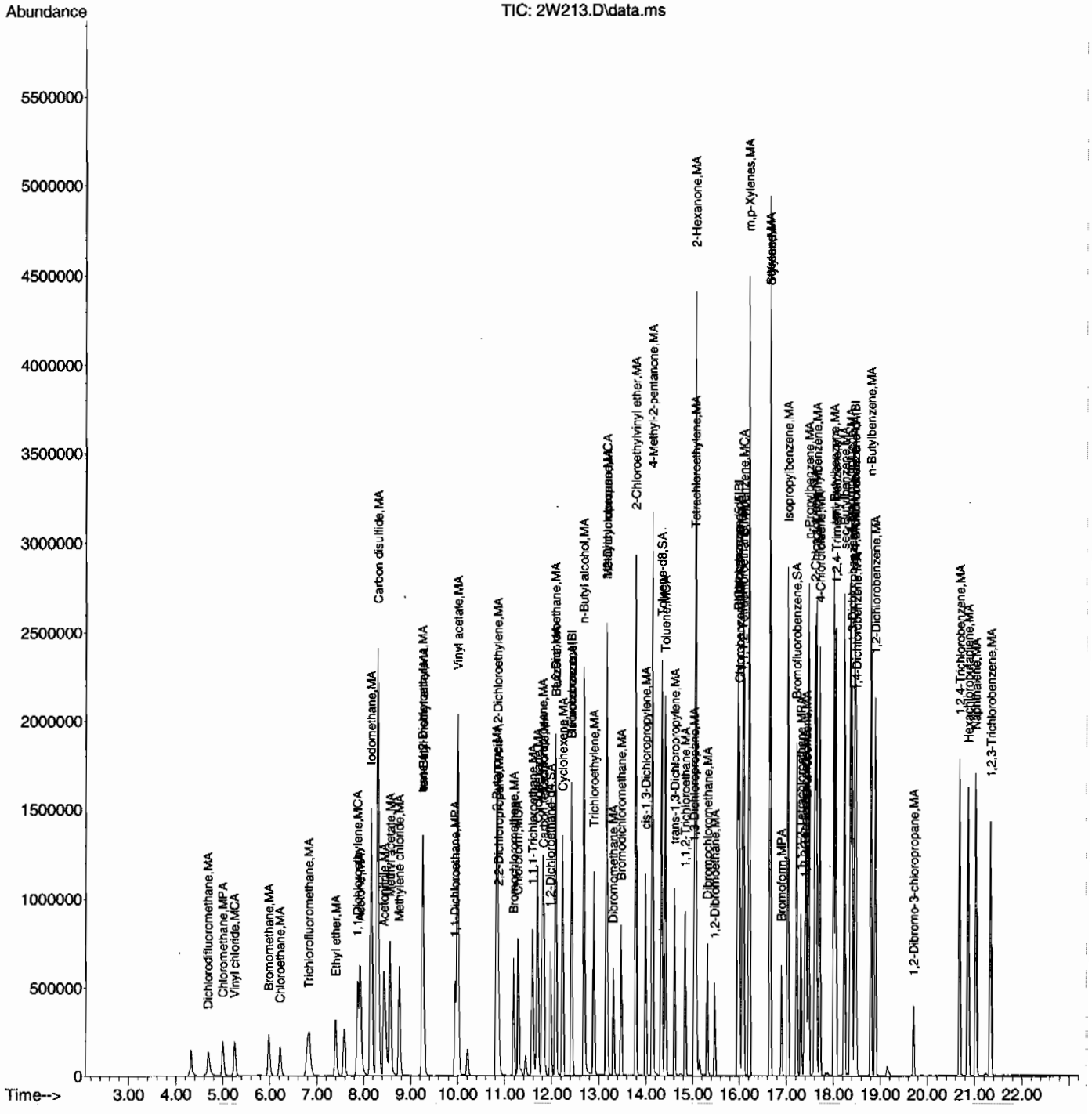

Continuing Calibration Summary

Client SDG: 10-1604

Instrument ID: VOA2.I **Injection Date** 27-JAN-10 00:26

Data File: 012610V2.b\2W224.D **Init. Cal. Date(s)** 26-JAN-10 14:16 - 26-JAN-10 22:59

Lab Sample ID W2VM100126-18 **Quant Type** ISTD **Method:** 012610V2.b\VOA2-8260-012610.M

	Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
S	1,2-Dichloroethane-d4	0.4015	0.39412		.01		-1.83811	30		Averaged
S	Toluene-d8	1.3794	1.40086		.01		1.55575	30		Averaged
S	Bromofluorobenzene	1.1073	1.09443		.01		-1.16229	30		Averaged
	Chlorotrifluoroethylene	0.148	0.12398		.01		-16.22973	30		Averaged
	2-Chloro-1,1,1-trifluoroethane	0.2565	0.26742		.01		4.25731	30		Averaged
	Acrolein	0.0395	0.03987		.01		0.93671	30		Averaged
	Trichlorotrifluoroethane	0.1002	0.10409		.01		3.88224	30		Averaged
	Isopropyl Alcohol	0.0205	0.02104		.01		2.63415	40		Averaged
	Allyl chloride	0.4325	0.42502		.01		-1.72948	30		Averaged
	tert-Butyl Alcohol	0.0326	0.03308		.01		1.47239	40		Averaged
	Acrylonitrile	0.1007	0.10461		.01		3.88282	30		Averaged
	Isopropyl ether	0.8964	0.89769		.01		0.14391	30		Averaged
	2-Chloro-1,3-butadiene	0.4665	0.51494		.01		10.38371	30		Averaged
	Ethyl tert-butyl ether	0.8054	0.83003		.01		3.05811	30		Averaged
	Propionitrile	0.0409	0.04149		.01		1.44254	30		Averaged
	Ethyl acetate	0.2612	0.26112		.01		-0.03063	40		Averaged
	Methacrylonitrile	0.1695	0.17064		.01		0.67257	30		Averaged
	Tetrahydrofuran	0.0843	0.08778		.01		4.12811	30		Averaged
	Isobutyl alcohol	0.0106	0.01111		.01		4.81132	40		Averaged
	Methyl tert-amyl ether	0.6214	0.63831		.01		2.72127	30		Averaged
	Methyl methacrylate	0.1518	0.15425		.01		1.61397	30		Averaged
	1,4-Dioxane	0.0026	0.0027		.01		3.84615	40		Averaged
	2-Nitropropane	250	251.52	250			0.608	30		Linear
	Ethyl methacrylate	0.3882	0.40709		.01		4.86605	30		Averaged
	1-Chlorohexane	0.6695	0.67584		.01		0.94698	30		Averaged
	cis-1,4-Dichloro-2-butene	0.2933	0.30832		.01		5.12104	30		Averaged
	Cyclohexanone	0.0943	0.03569		.01		-62.1527	40	*	Averaged
	trans-1,4-Dichloro-2-butene	0.2802	0.29401		.01		4.92862	30		Averaged
	Pentachloroethane	0.279	0.25449		.01		-8.78495	30		Averaged
	Benzyl chloride	1.1755	1.11543		.01		-5.11017	30		Averaged
	bis(2-Chloroisopropyl)ether	0.4618	0.48009		.01		3.96059	30		Averaged

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\012610V2.b\
Data File : 2W224.D
Acq On : 27 Jan 2010 12:26 am
Operator : CDS1
InstName : VOA2
Sample : |W2VM100126-18|ICV|1|VOAF|1|
Misc : LCS 5ML - MIX[B] 1023-08B/1209-08E
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Jan 27 07:34:06 2010
Quant Method : C:\msdchem\1\DATA\012610V2.b\VOA2-8260-012610.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Jan 27 06:34:30 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	12.437	12.437	1.000	96	1571991	50.00	ug/L	0.00
41) Chlorobenzene-d5	15.971	15.970	1.000	117	1176180	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	18.461	18.461	1.000	152	668237	50.00	ug/L	0.00
82) B Fluorobenzene	12.437	12.437	1.000	96	1571666	50.00	ug/L	0.00
103) B Chlorobenzene-d5	15.971	15.970	1.000	117	1176838	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	18.461	18.461	1.000	152	668353	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	11.986	11.986	0.964	65	619554	49.09	ug/L	0.00
43) Toluene-d8	14.346	14.346	0.898	98	1647669	50.78	ug/L	0.00
61) Bromofluorobenzene	17.228	17.215	0.933	95	731338	49.42	ug/L	0.01

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	4.628	4.702	0.378		0m	N.D.	d	
3) Chloromethane	4.999	4.999	0.402		0m	N.D.	d	
4) Vinyl chloride	5.252	5.266	0.423		0m	N.D.	d	
5) Bromomethane	0.000	5.979	0.481		0	N.D.		
6) Chloroethane	0.000	6.223	0.500		0	N.D.		
7) Trichlorofluoromethane	0.000	6.839	0.550		0	N.D.		
8) Ethyl ether	0.000	7.409	0.596		0	N.D.		
9) Acetone	7.931	7.930	0.638		0m	N.D.	d	
10) 1,1-Dichloroethylene	7.931	7.883	0.634		0m	N.D.	d	
11) Iodomethane	8.180	8.167	0.657		0m	N.D.	d	
12) Acetonitrile	8.559	8.440	0.679		0m	N.D.	d	
13) Methyl acetate	8.595	8.571	0.689		0m	N.D.	d	
14) Carbon disulfide	8.322	8.310	0.668		0m	N.D.	d	
15) Methylene chloride	8.784	8.772	0.705		0m	N.D.	d	
16) tert-Butyl methyl ether	9.294	9.270	0.745		0m	N.D.	d	
17) trans-1,2-Dichloroethy...	0.000	9.270	0.745		0	N.D.		
18) Vinyl acetate	10.077	10.006	0.805		0m	N.D.	d	
19) 1,1-Dichloroethane	0.000	9.958	0.801		0	N.D.		
20) 2-Butanone	10.931	10.836	0.871		0m	N.D.	d	
21) cis-1,2-Dichloroethylene	10.931	10.847	0.872		0m	N.D.	d	
22) 2,2-Dichloropropane	10.883	10.871	0.874		0m	N.D.	d	
23) Bromochloromethane	0.000	11.191	0.900		0	N.D.		
24) Chloroform	11.298	11.298	0.908		0m	N.D.	d	
25) 1,1,1-Trichloroethane	0.000	11.595	0.932		0	N.D.		
26) Cyclohexane	11.725	11.701	0.941		0m	N.D.	d	
27) 1,1-Dichloropropene	11.868	11.808	0.949		0m	N.D.	d	
28) Carbon tetrachloride	0.000	11.832	0.951		0	N.D.		
30) 1,2-Dichloroethane	12.211	12.081	0.971		0m	N.D.	d	
31) Benzene	12.105	12.093	0.972		0m	N.D.	d	
32) Cyclohexene	12.223	12.235	0.984		0m	N.D.	d	
33) n-Butyl alcohol	12.709	12.686	1.020		0m	N.D.	d	
34) Trichloroethylene	12.911	12.899	1.037		0m	N.D.	d	
35) 1,2-Dichloropropane	0.000	13.172	1.059		0	N.D.		
36) Methylcyclohexane	13.243	13.172	1.059		0m	N.D.	d	
37) Dibromomethane	0.000	13.314	1.071		0	N.D.		
38) Bromodichloromethane	0.000	13.480	1.084		0	N.D.		
39) 2-Chloroethylvinyl ether	13.800	13.788	1.109		0m	N.D.	d	
40) cis-1,3-Dichloropropylene	14.014	14.002	1.126		0m	N.D.	d	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\012610V2.b\
Data File : 2W224.D
Acq On : 27 Jan 2010 12:26 am
Operator : CDS1
InstName : VOA2
Sample : |W2VM100126-18|ICV|1|VOAF|1|
Misc : LCS 5ML - MIX[B] 1023-08B/1209-08E
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Jan 27 07:34:06 2010
Quant Method : C:\msdchem\1\DATA\012610V2.b\VOA2-8260-012610.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Jan 27 06:34:30 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
42) 4-Methyl-2-pentanone	0.000	14.144	0.886		0	N.D.		
44) Toluene	14.429	14.417	0.903		0m	N.D.	d	
45) trans-1,3-Dichloroprop...	14.619	14.618	0.915		0m	N.D.	d	
46) 1,1,2-Trichloroethane	0.000	14.844	0.929		0	N.D.		
47) 2-Hexanone	15.069	15.069	0.944		0m	N.D.	d	
48) 1,3-Dichloropropane	15.093	15.034	0.941		0m	N.D.	d	
49) Tetrachloroethylene	15.069	15.057	0.943		0m	N.D.	d	
50) Dibromochloromethane	0.000	15.318	0.959		0	N.D.		
51) 1,2-Dibromoethane	15.484	15.472	0.969		0m	N.D.	d	
52) Chlorobenzene	16.006	16.006	1.002		0m	N.D.	d	
53) 1,1,1,2-Tetrachloroethane	16.077	16.077	1.007		0m	N.D.	d	
54) Ethylbenzene	16.101	16.089	1.007		0m	N.D.	d	
55) m,p-Xylenes	16.220	16.208	1.015		0m	N.D.	d	
56) o-Xylene	0.000	16.658	1.043		0	N.D.		
57) Styrene	16.658	16.658	1.043		0m	N.D.	d	
59) Bromoform	0.000	16.895	0.915		0	N.D.		
60) Isopropylbenzene	17.038	17.038	0.923		0m	N.D.	d	
62) 1,1,2,2-Tetrachloroethane	17.370	17.310	0.938		0m	N.D.	d	
63) 1,2,3-Trichloropropane	0.000	17.393	0.942		0	N.D.		
64) Bromobenzene	17.429	17.429	0.944		0m	N.D.	d	
65) n-Propylbenzene	17.477	17.476	0.947		0m	N.D.	d	
66) 1,3,5-Trimethylbenzene	17.643	17.642	0.956		0m	N.D.	d	
67) 2-Chlorotoluene	17.607	17.607	0.954		0m	N.D.	d	
68) 4-Chlorotoluene	17.714	17.714	0.960		0m	N.D.	d	
69) tert-Butylbenzene	18.058	18.010	0.976		0m	N.D.	d	
70) 1,2,4-Trimethylbenzene	18.081	18.057	0.978		0m	N.D.	d	
71) sec-Butylbenzene	18.236	18.235	0.988		0m	N.D.	d	
72) 4-Isopropyltoluene	18.366	18.366	0.995		0m	N.D.	d	
73) 1,3-Dichlorobenzene	18.402	18.401	0.997		0m	N.D.	d	
74) 1,4-Dichlorobenzene	18.496	18.496	1.002		0m	N.D.	d	
75) n-Butylbenzene	0.000	18.805	1.019		0	N.D.		
76) 1,2-Dichlorobenzene	18.900	18.899	1.024		0m	N.D.	d	
77) 1,2-Dibromo-3-chloropr...	0.000	19.718	1.068		0	N.D.		
78) 1,2,4-Trichlorobenzene	20.690	20.690	1.121		0m	N.D.	d	
79) Hexachlorobutadiene	20.868	20.868	1.130		0m	N.D.	d	
80) Naphthalene	21.022	21.022	1.139		0m	N.D.	d	
81) 1,2,3-Trichlorobenzene	21.331	21.342	1.156		0m	N.D.	d	
83) Chlorotrifluoroethylene	4.628	4.628	0.372	116	584588	125.69	ug/L	97
84) 2-Chloro-1,1,1-trifluo...	5.489	5.489	0.441	118	1260879	156.39	ug/L	89
85) Acrolein	7.646	7.634	0.614	56	313297	252.18	ug/L	97
86) Trichlorotrifluoroethane	7.931	7.918	0.637	85	817995	259.70	ug/L #	79
87) Isopropyl Alcohol	8.203	8.191	0.659	45	1653019	2561.41	ug/L	97
88) Allyl chloride	8.559	8.559	0.688	41	3339922	245.67	ug/L	95
89) tert-Butyl Alcohol	8.950	8.926	0.718	59	2599234	2537.02	ug/L	99
90) Acrylonitrile	9.176	9.164	0.737	53	822058	259.62	ug/L	97
91) Isopropyl ether	10.077	10.065	0.809	45	1410872	50.07	ug/L	98
92) 2-Chloro-1,3-butadiene	10.124	10.112	0.813	53	809321	55.19	ug/L	84
93) Ethyl tert-butyl ether	10.634	10.622	0.854	59	1304532	51.53	ug/L	95
94) Ethyl acetate	10.931	10.919	0.878	43	2051975	249.92	ug/L	99
95) Propionitrile	10.919	10.907	0.877	54	326074	253.74	ug/L	99
96) Methacrylonitrile	11.156	11.144	0.896	41	1340970	251.63	ug/L	97
97) Tetrahydrofuran	11.275	11.263	0.906	42	689773	260.35	ug/L	95

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\012610V2.b\
Data File : 2W224.D
Acq On : 27 Jan 2010 12:26 am
Operator : CDS1
InstName : VOA2
Sample : |W2VM100126-18|ICV|1|VOAF|1|
Misc : LCS 5ML - MIX[B] 1023-08B/1209-08E
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Jan 27 07:34:06 2010
Quant Method : C:\msdchem\1\DATA\012610V2.b\VOA2-8260-012610.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Jan 27 06:34:30 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units		
98) Isobutyl alcohol	11.868	11.856	0.953	41	873452	2616.95	ug/L		97
99) Methyl tert-amyl ether	12.211	12.211	0.982	73	1003203	51.36	ug/L		91
100) Methyl methacrylate	13.243	13.243	1.065	69	1212161	254.01	ug/L		92
101) 1,4-Dioxane	13.314	13.302	1.070	88	212161	2588.45	ug/L		84
102) 2-Nitropropane	13.729	13.717	1.103	43	783032	251.52	ug/L		95
104) Ethyl methacrylate	14.678	14.666	0.918	69	2395401	262.16	ug/L		97
106) 1-Chlorohexane	15.911	15.911	0.862	55	451701	50.48	ug/L	#	78
107) cis-1,4-Dichloro-2-butene	17.073	17.073	0.925	53	1030320	262.77	ug/L		93
108) Cyclohexanone	17.168	17.156	0.929	42	596304	473.01	ug/L		90
109) trans-1,4-Dichloro-2-b...	17.370	17.370	0.941	53	982528	262.31	ug/L		90
110) Pentachloroethane	18.070	18.058	0.978	167	850450	228.04	ug/L		97
111) Benzyl chloride	18.603	18.603	1.008	91	3727500	237.22	ug/L		92
112) bis(2-Chloroisopropyl)...	19.018	19.018	1.030	45	1604349	259.88	ug/L		89

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\012610V2.b\
Data File : 2W224.D
Acq On : 27 Jan 2010 12:26 am
Operator : CDS1
InstName : VOA2
Sample : |W2VM100126-18|ICV|1|VOAF|1|
Misc : LCS 5ML - MIX[B] 1023-08B/1209-08E
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Jan 27 07:34:06 2010
Quant Method : C:\msdchem\1\DATA\012610V2.b\VOA2-8260-012610.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Jan 27 06:34:30 2010
Response via : Initial Calibration
Integrator: RTE

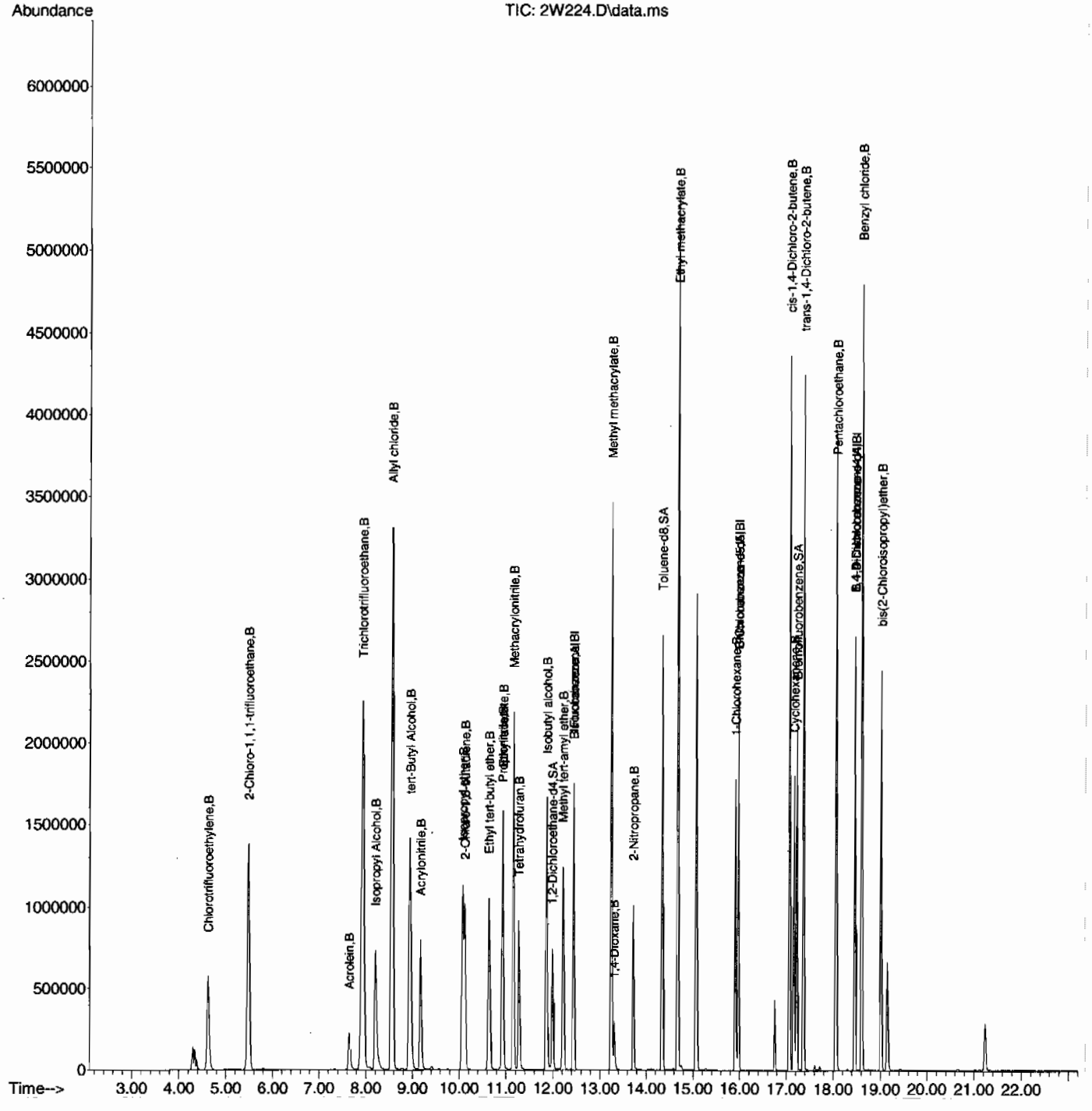

Continuing Calibration Summary

Client SDG: 10-1604

Instrument ID: VOA2.I **Injection Date** 05-FEB-10 17:16

Data File: 020510V2.b\2X523.D **Init. Cal. Date(s)** 26-JAN-10 14:16 - 26-JAN-10 22:59

Lab Sample ID W2VM100205-05 **Quant Type** ISTD **Method:** 012610V2.b\VOA2-8260-012610.M

	Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type	
S	1,2-Dichloroethane-d4	0.4015	0.4587		.01		14.24658	30		Averaged	
S	Toluene-d8	1.3794	1.3089		.01		-5.11092	30		Averaged	
S	Bromofluorobenzene	1.1073	1.07785		.01		-2.65962	30		Averaged	
	Dichlorodifluoromethane	0.2229	0.23475		.01		5.31629	30		Averaged	
	Chloromethane	50	60.2	50			20.4	30		Linear	spcc
	Vinyl chloride	0.2333	0.25159		.01		7.83969	20		Averaged	ccc
	Bromomethane	50	72.38	50			44.76	30	*	Linear	
	Chloroethane	0.1727	0.1725		.01		-0.11581	30		Averaged	
	Trichlorofluoromethane	0.404	0.48486		.01		20.01485	30		Averaged	
	Ethyl ether	0.2179	0.21511		.01		-1.2804	30		Averaged	
	1,1-Dichloroethylene	0.4265	0.44918		.01		5.3177	20		Averaged	ccc
	Acetone	0.1918	0.23801		.01		24.09281	40		Averaged	
	Iodomethane	0.3712	0.35193		.01		-5.19127	30		Averaged	
	Carbon disulfide	0.6821	0.62913		.01		-7.76572	30		Averaged	
	Acetonitrile	0.0345	0.03076		.01		-10.84058	30		Averaged	
	Methyl acetate	0.2126	0.20231		.01		-4.84008	40		Averaged	
	Methylene chloride	0.2528	0.22148		.01		-12.38924	30		Averaged	
	trans-1,2-Dichloroethylene	0.3991	0.41457		.01		3.87622	30		Averaged	
	tert-Butyl methyl ether	0.7122	0.66059		.01		-7.24656	30		Averaged	
	1,1-Dichloroethane	0.4741	0.46922		.1		-1.02932	30		Averaged	spcc
	Vinyl acetate	0.5244	0.59301		.01		13.08352	40		Averaged	
	2-Butanone	0.213	0.23249		.01		9.15023	40		Averaged	
	cis-1,2-Dichloroethylene	0.4511	0.46807		.01		3.76192	30		Averaged	
	2,2-Dichloropropane	0.3739	0.43052		.01		15.14309	30		Averaged	
	Bromochloromethane	0.1236	0.11218		.01		-9.23948	30		Averaged	
	Chloroform	0.4712	0.49667		.01		5.40535	20		Averaged	ccc
	1,1,1-Trichloroethane	0.4364	0.50261		.01		15.17186	30		Averaged	
	Cyclohexane	0.4885	0.46984		.01		-3.81986	30		Averaged	
	1,1-Dichloropropene	0.3326	0.33993		.01		2.20385	30		Averaged	
	Carbon tetrachloride	0.4003	0.47228		.01		17.98151	30		Averaged	
	1,2-Dichloroethane	0.4359	0.48027		.01		10.17894	30		Averaged	
	Benzene	0.8724	0.79267		.01		-9.13916	30		Averaged	
	Cyclohexene	0.4767	0.45855		.01		-3.80743	30		Averaged	
	n-Butyl alcohol	0.0084	0.00793		.01		-5.59524	40		Averaged	
	Trichloroethylene	0.2531	0.25824		.01		2.03082	30		Averaged	
	1,2-Dichloropropane	0.2463	0.23492		.01		-4.62038	20		Averaged	ccc
	Methylcyclohexane	0.4091	0.38971		.01		-4.73967	30		Averaged	

Continuing Calibration Summary

Instrument ID: VOA2.I **Injection Date** 05-FEB-10 17:16

Data File: 020510V2.b\2X523.D **Init. Cal. Date(s)** 26-JAN-10 14:16 26-JAN-10 22:59

Lab Sample ID W2VM100205-05 **Quant Type** ISTD **Method:** 012610V2.b\VOA2-8260-012610.M

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type	
Dibromomethane	0.1562	0.15363		.01		-1.64533	30		Averaged	
Bromodichloromethane	0.3486	0.38929		.01		11.6724	30		Averaged	
2-Chloroethylvinyl ether	0.1684	0.15313		.01		-9.0677	30		Averaged	
cis-1,3-Dichloropropylene	0.3783	0.39137		.01		3.45493	30		Averaged	
4-Methyl-2-pentanone	0.1577	0.14406		.01		-8.64933	40		Averaged	
Toluene	1.2684	1.18575		.01		-6.51608	20		Averaged	ccc
trans-1,3-Dichloropropylene	0.4912	0.52574		.01		7.03176	30		Averaged	
1,1,2-Trichloroethane	0.2236	0.20277		.01		-9.31574	30		Averaged	
1,3-Dichloropropane	0.4791	0.4412		.01		-7.91067	30		Averaged	
Tetrachloroethylene	0.2657	0.25422		.01		-4.32066	30		Averaged	
2-Hexanone	0.4208	0.45196		.01		7.40494	40		Averaged	
Dibromochloromethane	0.3397	0.3627		.01		6.77068	30		Averaged	
1,2-Dibromoethane	0.2988	0.27973		.01		-6.3822	30		Averaged	
Chlorobenzene	0.854	0.80198		.3		-6.09133	30		Averaged	spcc
1,1,1,2-Tetrachloroethane	0.3276	0.33488		.01		2.22222	30		Averaged	
Ethylbenzene	1.5605	1.55195		.01		-0.5479	20		Averaged	ccc
m,p-Xylenes	0.5845	0.55399		.01		-5.21985	30		Averaged	
o-Xylene	0.5855	0.54287		.01		-7.28096	30		Averaged	
Styrene	0.967	0.91767		.01		-5.10134	30		Averaged	
Bromoform	0.4176	0.43161		.1		3.35489	30		Averaged	spcc
Isopropylbenzene	2.8704	2.79837		.01		-2.50941	30		Averaged	
1,1,2,2-Tetrachloroethane	0.6917	0.59912		.3		-13.38442	30		Averaged	spcc
1,2,3-Trichloropropane	0.2238	0.20295		.01		-9.31635	30		Averaged	
Bromobenzene	0.7025	0.64992		.01		-7.4847	30		Averaged	
n-Propylbenzene	3.3671	3.35696		.01		-0.30115	30		Averaged	
2-Chlorotoluene	0.6499	0.59804		.01		-7.97969	30		Averaged	
1,3,5-Trimethylbenzene	2.5073	2.46421		.01		-1.71858	30		Averaged	
4-Chlorotoluene	2.1885	2.1728		.01		-0.71739	30		Averaged	
tert-Butylbenzene	0.4766	0.44294		.01		-7.06253	30		Averaged	
1,2,4-Trimethylbenzene	2.5896	2.51428		.01		-2.90856	30		Averaged	
sec-Butylbenzene	3.1923	3.11608		.01		-2.38762	30		Averaged	
4-Isopropyltoluene	2.6234	2.54191		.01		-3.10627	30		Averaged	
1,3-Dichlorobenzene	1.3484	1.25265		.01		-7.10101	30		Averaged	
1,4-Dichlorobenzene	1.3929	1.26616		.01		-9.099	30		Averaged	
n-Butylbenzene	2.5931	2.58564		.01		-0.28769	30		Averaged	
1,2-Dichlorobenzene	1.3288	1.18974		.01		-10.46508	30		Averaged	
1,2-Dibromo-3-chloropropane	0.1678	0.13909		.01		-17.10965	30		Averaged	

Continuing Calibration Summary

Instrument ID: VOA2.I **Injection Dat** 05-FEB-10 17:16

Data File: 020510V2.b\2X523.D **Init. Cal. Date(s)** 26-JAN-10 14:16 26-JAN-10 22:59

Lab Sample ID W2VM100205-05 **Quant Type** ISTD **Method:** 012610V2.b\VOA2-8260-012610.M

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
1,2,4-Trichlorobenzene	1.0366	0.89849		.01		-13.32336	30		Averaged
Hexachlorobutadiene	0.6255	0.60351		.01		-3.51559	30		Averaged
Naphthalene	2.5666	2.03121		.01		-20.85989	30		Averaged
1,2,3-Trichlorobenzene	0.9513	0.80975		.01		-14.87964	30		Averaged

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\020510V2.b\
Data File : 2X523.D
Acq On : 5 Feb 2010 5:16 pm
Operator : CDS1
InstName : VOA2
Sample : |W2VM100205-05|CCV|1|VOAF|1|
Misc : CCV 5ML - MIX[A]0106-07B+202-07A
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Feb 05 17:47:32 2010
Quant Method : C:\msdchem\1\DATA\012610V2.b\VOA2-8260-012610.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Jan 27 06:34:30 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	12.413	12.437	1.000	96	1572519	50.00	ug/L	-0.02
41) Chlorobenzene-d5	15.970	15.970	1.000	117	1246122	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	18.461	18.461	1.000	152	709279	50.00	ug/L	0.00
82) B Fluorobenzene	12.413	12.437	1.000	96	1572099	50.00	ug/L	-0.02
103) B Chlorobenzene-d5	15.970	15.970	1.000	117	1246122	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	18.461	18.461	1.000	152	709380	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	11.962	11.986	0.964	65	721321	57.13	ug/L	-0.02
43) Toluene-d8	14.334	14.346	0.898	98	1631049	47.44	ug/L	-0.01
61) Bromofluorobenzene	17.216	17.215	0.933	95	764493	48.67	ug/L	0.00
Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	4.702	4.702	0.379	85	369142	52.66	ug/L	99
3) Chloromethane	4.999	4.999	0.403	50	429330	60.20	ug/L	99
4) Vinyl chloride	5.252	5.266	0.423	62	395628	53.92	ug/L	99
5) Bromomethane	5.980	5.979	0.482	94	224200	72.38	ug/L	100
6) Chloroethane	6.211	6.223	0.500	64	271260	49.95	ug/L	100
7) Trichlorofluoromethane	6.828	6.839	0.550	101	762451	60.01	ug/L	100
8) Ethyl ether	7.385	7.409	0.595	59	338269	49.37	ug/L	91
9) Acetone	7.907	7.930	0.637	43	1871365	310.15	ug/L	93
10) 1,1-Dichloroethylene	7.859	7.883	0.633	61	706350	52.66	ug/L	95
11) Iodomethane	8.144	8.167	0.656	142	2767116	237.03	ug/L	90
12) Acetonitrile	8.417	8.440	0.678	41	1209265	1115.14	ug/L	99
13) Methyl acetate	8.547	8.571	0.689	43	1590678	237.86	ug/L	96
14) Carbon disulfide	8.286	8.310	0.668	76	4946589	230.60	ug/L	100
15) Methylene chloride	8.749	8.772	0.705	84	348275	43.81	ug/L	86
16) tert-Butyl methyl ether	9.247	9.270	0.745	73	1038794	46.38	ug/L	100
17) trans-1,2-Dichloroethy...	9.247	9.270	0.745	61	651919	51.94	ug/L	93
18) Vinyl acetate	9.982	10.006	0.804	43	4662592	282.71	ug/L	96
19) 1,1-Dichloroethane	9.934	9.958	0.800	63	737861	49.48	ug/L	100
20) 2-Butanone	10.812	10.836	0.871	43	1827996	272.89	ug/L	93
21) cis-1,2-Dichloroethylene	10.824	10.847	0.872	61	736050	51.88	ug/L	93
22) 2,2-Dichloropropane	10.848	10.871	0.874	77	677007	57.56	ug/L	94
23) Bromochloromethane	11.168	11.191	0.900	128	176409	45.39	ug/L	89
24) Chloroform	11.274	11.298	0.908	83	781029	52.70	ug/L	100
25) 1,1,1-Trichloroethane	11.583	11.595	0.933	97	790370	57.58	ug/L	99
26) Cyclohexane	11.690	11.701	0.942	56	738838	48.09	ug/L	95
27) 1,1-Dichloropropene	11.796	11.808	0.950	75	534554	51.10	ug/L	90
28) Carbon tetrachloride	11.820	11.832	0.952	117	742666	58.99	ug/L	99
30) 1,2-Dichloroethane	12.069	12.081	0.972	62	755226	55.09	ug/L	100
31) Benzene	12.069	12.093	0.972	78	1246485	45.43	ug/L	94
32) Cyclohexene	12.223	12.235	0.985	67	721078	48.10	ug/L	92
33) n-Butyl alcohol	12.674	12.686	1.021	56	1247297	4708.69	ug/L	91
34) Trichloroethylene	12.887	12.899	1.038	95	406085	51.01	ug/L	96
35) 1,2-Dichloropropane	13.160	13.172	1.060	63	369414	47.69	ug/L	100
36) Methylcyclohexane	13.160	13.172	1.060	83	612833	47.63	ug/L	93
37) Dibromomethane	13.302	13.314	1.072	93	241593	49.17	ug/L	96
38) Bromodichloromethane	13.468	13.480	1.085	83	612167	55.83	ug/L	100
39) 2-Chloroethylvinyl ether	13.777	13.788	1.110	63	1204019	227.39	ug/L	99
40) cis-1,3-Dichloropropylene	13.990	14.002	1.127	75	615441	51.73	ug/L	90

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\020510V2.b\
Data File : 2X523.D
Acq On : 5 Feb 2010 5:16 pm
Operator : CDS1
InstName : VOA2
Sample : |W2VM100205-05|CCV|1|VOAF|1|
Misc : CCV 5ML - MIX[A]0106-07B+202-07A
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Feb 05 17:47:32 2010
Quant Method : C:\msdchem\1\DATA\012610V2.b\VOA2-8260-012610.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Jan 27 06:34:30 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
42) 4-Methyl-2-pentanone	14.132	14.144	0.885	58	897605	228.34	ug/L	85
44) Toluene	14.417	14.417	0.903	91	1477586	46.74	ug/L	100
45) trans-1,3-Dichloroprop...	14.607	14.618	0.915	75	655134	53.52	ug/L	95
46) 1,1,2-Trichloroethane	14.832	14.844	0.929	83	252679	45.35	ug/L	98
47) 2-Hexanone	15.069	15.069	0.944	43	2815965	268.52	ug/L	94
48) 1,3-Dichloropropane	15.034	15.034	0.941	76	549786	46.04	ug/L #	78
49) Tetrachloroethylene	15.057	15.057	0.943	164	316785	47.84	ug/L	97
50) Dibromochloromethane	15.306	15.318	0.958	129	451963	53.38	ug/L	99
51) 1,2-Dibromoethane	15.472	15.472	0.969	107	348581	46.81	ug/L	100
52) Chlorobenzene	15.994	16.006	1.001	112	999368	46.95	ug/L	96
53) 1,1,1,2-Tetrachloroethane	16.065	16.077	1.006	131	417298	51.11	ug/L	98
54) Ethylbenzene	16.089	16.089	1.007	91	1933922	49.73	ug/L	97
55) m,p-Xylenes	16.208	16.208	1.015	106	1380680	94.79	ug/L	93
56) o-Xylene	16.658	16.658	1.043	106	676483	46.36	ug/L	93
57) Styrene	16.658	16.658	1.043	104	1143534	47.45	ug/L	92
59) Bromoform	16.895	16.895	0.915	173	306130	51.67	ug/L	99
60) Isopropylbenzene	17.038	17.038	0.923	105	1984825	48.74	ug/L	98
62) 1,1,2,2-Tetrachloroethane	17.310	17.310	0.938	83	424941	43.31	ug/L	99
63) 1,2,3-Trichloropropane	17.393	17.393	0.942	110	143950	45.35	ug/L #	89
64) Bromobenzene	17.417	17.429	0.943	156	460972	46.26	ug/L	98
65) n-Propylbenzene	17.476	17.476	0.947	91	2381020	49.85	ug/L	98
66) 1,3,5-Trimethylbenzene	17.631	17.642	0.955	105	1747811	49.14	ug/L	97
67) 2-Chlorotoluene	17.607	17.607	0.954	126	424178	46.01	ug/L	90
68) 4-Chlorotoluene	17.714	17.714	0.960	91	1541121	49.64	ug/L	97
69) tert-Butylbenzene	18.010	18.010	0.976	134	314171	46.47	ug/L #	90
70) 1,2,4-Trimethylbenzene	18.046	18.057	0.978	105	1783329	48.55	ug/L	97
71) sec-Butylbenzene	18.235	18.235	0.988	105	2210167	48.81	ug/L	99
72) 4-Isopropyltoluene	18.366	18.366	0.995	119	1802924	48.45	ug/L	97
73) 1,3-Dichlorobenzene	18.401	18.401	0.997	146	888479	46.45	ug/L	99
74) 1,4-Dichlorobenzene	18.484	18.496	1.001	146	898064	45.45	ug/L	99
75) n-Butylbenzene	18.805	18.805	1.019	91	1833937	49.86	ug/L	98
76) 1,2-Dichlorobenzene	18.900	18.899	1.024	146	843856	44.77	ug/L	99
77) 1,2-Dibromo-3-chloropr...	19.718	19.718	1.068	157	98651	41.45	ug/L	92
78) 1,2,4-Trichlorobenzene	20.690	20.690	1.121	180	637283	43.34	ug/L	99
79) Hexachlorobutadiene	20.868	20.868	1.130	225	428055	48.24	ug/L	100
80) Naphthalene	21.022	21.022	1.139	128	1440693	39.57	ug/L	100
81) 1,2,3-Trichlorobenzene	21.342	21.342	1.156	180	574340	42.56	ug/L	100
83) Chlorotrifluoroethylene	0.000	4.628	0.000		0	N.D.		
84) 2-Chloro-1,1,1-trifluo...	0.000	5.489	0.000		0	N.D.		
85) Acrolein	7.575	7.634	0.610		0m	N.D.	d	
86) Trichlorotrifluoroethane	7.907	7.918	0.637		0m	N.D.	d	
87) Isopropyl Alcohol	8.286	8.191	0.668		0m	N.D.	d	
88) Allyl chloride	0.000	8.559	0.000		0	N.D.		
89) tert-Butyl Alcohol	8.927	8.926	0.719		0m	N.D.	d	
90) Acrylonitrile	9.152	9.164	0.737		0m	N.D.	d	
91) Isopropyl ether	9.982	10.065	0.804		0m	N.D.	d	
92) 2-Chloro-1,3-butadiene	10.089	10.112	0.813		0m	N.D.	d	
93) Ethyl tert-butyl ether	0.000	10.622	0.000		0	N.D.		
94) Ethyl acetate	10.812	10.919	0.871		0m	N.D.	d	
95) Propionitrile	10.800	10.907	0.870		0m	N.D.	d	
96) Methacrylonitrile	11.120	11.144	0.896		0m	N.D.	d	
97) Tetrahydrofuran	11.263	11.263	0.907		0m	N.D.	d	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\020510V2.b\
Data File : 2X523.D
Acq On : 5 Feb 2010 5:16 pm
Operator : CDS1
InstName : VOA2
Sample : |W2VM100205-05|CCV|1|VOAF|1|
Misc : CCV 5ML - MIX[A]0106-07B+202-07A
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Feb 05 17:47:32 2010
Quant Method : C:\msdchem\1\DATA\012610V2.b\VOA2-8260-012610.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Jan 27 06:34:30 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
98) Isobutyl alcohol	11.950	11.856	0.963		0m	N.D.	d
99) Methyl tert-amyl ether	12.223	12.211	0.985		0m	N.D.	d
100) Methyl methacrylate	13.160	13.243	1.060		0m	N.D.	d
101) 1,4-Dioxane	13.302	13.302	1.072		0m	N.D.	d
102) 2-Nitropropane	13.777	13.717	1.110		0m	N.D.	d
104) Ethyl methacrylate	14.666	14.666	0.918		0m	N.D.	d
106) 1-Chlorohexane	15.959	15.911	0.864		0m	N.D.	d
107) cis-1,4-Dichloro-2-butene	17.026	17.073	0.922		0m	N.D.	d
108) Cyclohexanone	17.168	17.156	0.930		0m	N.D.	d
109) trans-1,4-Dichloro-2-b...	17.358	17.370	0.940		0m	N.D.	d
110) Pentachloroethane	18.058	18.058	0.978		0m	N.D.	d
111) Benzyl chloride	18.603	18.603	1.008		0m	N.D.	d
112) bis(2-Chloroisopropyl)...	19.149	19.018	1.037		0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\020510V2.b\
Data File : 2X523.D
Acq On : 5 Feb 2010 5:16 pm
Operator : CDS1
InstName : VOA2
Sample : |W2VM100205-05|CCV|1|VOAF|1|
Misc : CCV 5ML - MIX[A]0106-07B+202-07A
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Feb 05 17:47:32 2010
Quant Method : C:\msdchem\1\DATA\012610V2.b\VOA2-8260-012610.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Jan 27 06:34:30 2010
Response via : Initial Calibration
Integrator: RTE

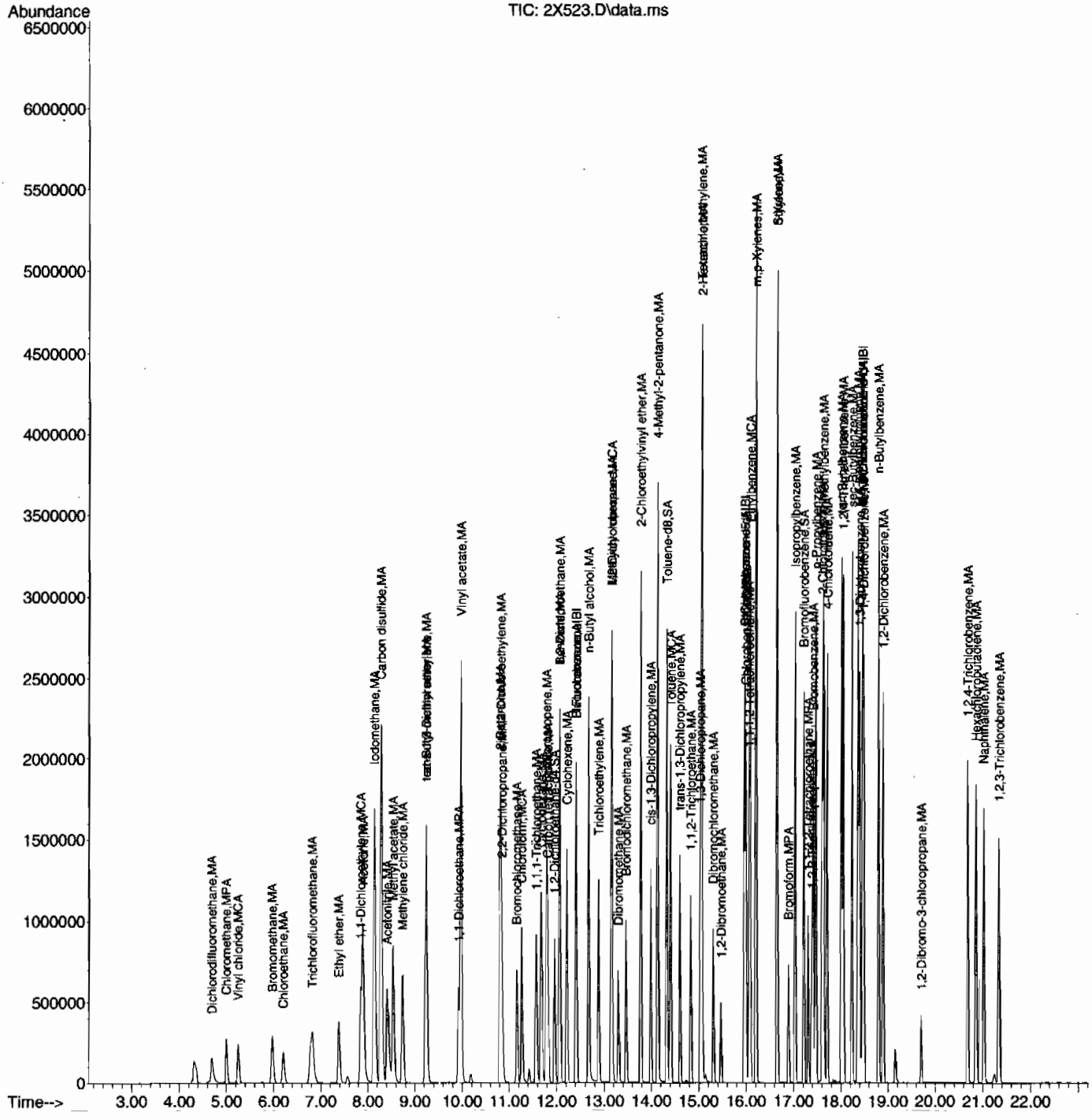

Continuing Calibration Summary

Client SDG: 10-1604

Instrument ID: VOA2.I **Injection Date** 05-FEB-10 18:43

Data File: 020510V2.b\2X526.D **Init. Cal. Date(s)** 26-JAN-10 14:16 - 26-JAN-10 22:59

Lab Sample ID W2VM100205-08 **Quant Type** ISTD **Method:** 012610V2.b\VOA2-8260-012610.M

	Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
S	1,2-Dichloroethane-d4	0.4015	0.42654		.01		6.23661	30		Averaged
S	Toluene-d8	1.3794	1.268		.01		-8.07598	30		Averaged
S	Bromofluorobenzene	1.1073	1.06723		.01		-3.61871	30		Averaged
	Acrolein	0.0395	0.039		.01		-1.26582	30		Averaged
	Trichlorotrifluoroethane	0.1002	0.10984		.01		9.62076	30		Averaged
	Allyl chloride	0.4325	0.42291		.01		-2.21734	30		Averaged
	Acrylonitrile	0.1007	0.08609		.01		-14.50844	30		Averaged
	2-Chloro-1,3-butadiene	0.4665	0.47483		.01		1.78564	30		Averaged
	Propionitrile	0.0409	0.03396		.01		-16.96822	30		Averaged
	Ethyl acetate	0.2612	0.23563		.01		-9.78943	40		Averaged
	Methacrylonitrile	0.1695	0.15367		.01		-9.33923	30		Averaged
	Tetrahydrofuran	0.0843	0.07561		.01		-10.30842	30		Averaged
	Isobutyl alcohol	0.0106	0.00945		.01		-10.84906	40		Averaged
	Methyl methacrylate	0.1518	0.13191		.01		-13.10277	30		Averaged
	1,4-Dioxane	0.0026	0.00219		.01		-15.76923	40		Averaged
	2-Nitropropane	250	243.68	250			-2.528	30		Linear
	Ethyl methacrylate	0.3882	0.35177		.01		-9.38434	30		Averaged
	cis-1,4-Dichloro-2-butene	0.2933	0.31886		.01		8.71463	30		Averaged
	Cyclohexanone	0.0943	0.02622		.01		-72.19512	40	*	Averaged
	trans-1,4-Dichloro-2-butene	0.2802	0.30602		.01		9.21485	30		Averaged
	Pentachloroethane	0.279	0.37398		.01		34.04301	30	*	Averaged
	Benzyl chloride	1.1755	1.4205		.01		20.84219	30		Averaged
	bis(2-Chloroisopropyl)ether	0.4618	0.40606		.01		-12.07016	30		Averaged

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\020510V2.b\
Data File : 2X526.D
Acq On : 5 Feb 2010 6:43 pm
Operator : CDS1
InstName : VOA2
Sample : |W2VM100205-08|CCV|1|VOAF|1|VOA8260BS|
Misc : CCV 5g - SOIL MIX[B] 0118-08B
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Feb 06 06:28:55 2010
Quant Method : C:\msdchem\1\DATA\012610V2.b\VOA2-8260-012610.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Jan 27 06:34:30 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	12.425	12.437	1.000	96	1705291	50.00	ug/L	-0.01
41) Chlorobenzene-d5	15.971	15.970	1.000	117	1320757	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	18.461	18.461	1.000	152	745258	50.00	ug/L	0.00
82) B Fluorobenzene	12.425	12.437	1.000	96	1705125	50.00	ug/L	-0.01
103) B Chlorobenzene-d5	15.971	15.970	1.000	117	1320757	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	18.461	18.461	1.000	152	745441	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	11.974	11.986	0.964	65	727372	53.12	ug/L	-0.01
43) Toluene-d8	14.334	14.346	0.898	98	1674721	45.96	ug/L	-0.01
61) Bromofluorobenzene	17.216	17.215	0.933	95	795363	48.19	ug/L	0.00

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	4.687	4.702	0.377		0m	N.D.	d	
3) Chloromethane	4.984	4.999	0.401		0m	N.D.	d	
4) Vinyl chloride	5.252	5.266	0.423		0m	N.D.	d	
5) Bromomethane	5.980	5.979	0.481		0m	N.D.	d	
6) Chloroethane	6.211	6.223	0.500		0m	N.D.	d	
7) Trichlorofluoromethane	6.792	6.839	0.547		0m	N.D.	d	
8) Ethyl ether	7.421	7.409	0.597		0m	N.D.	d	
9) Acetone	7.907	7.930	0.636		0m	N.D.	d	
10) 1,1-Dichloroethylene	7.907	7.883	0.636		0m	N.D.	d	
11) Iodomethane	8.156	8.167	0.656		0m	N.D.	d	
12) Acetonitrile	8.535	8.440	0.687		0m	N.D.	d	
13) Methyl acetate	8.571	8.571	0.690		0m	N.D.	d	
14) Carbon disulfide	8.298	8.310	0.668		0m	N.D.	d	
15) Methylene chloride	8.761	8.772	0.705		0m	N.D.	d	
16) tert-Butyl methyl ether	9.270	9.270	0.746		0m	N.D.	d	
17) trans-1,2-Dichloroethy...	9.247	9.270	0.744		0m	N.D.	d	
18) Vinyl acetate	10.006	10.006	0.805		0m	N.D.	d	
19) 1,1-Dichloroethane	9.946	9.958	0.801		0m	N.D.	d	
20) 2-Butanone	10.907	10.836	0.878		0m	N.D.	d	
21) cis-1,2-Dichloroethylene	10.907	10.847	0.878		0m	N.D.	d	
22) 2,2-Dichloropropane	10.860	10.871	0.874		0m	N.D.	d	
23) Bromochloromethane	11.192	11.191	0.901		0m	N.D.	d	
24) Chloroform	11.286	11.298	0.908		0m	N.D.	d	
25) 1,1,1-Trichloroethane	11.583	11.595	0.932		0m	N.D.	d	
26) Cyclohexane	11.690	11.701	0.941		0m	N.D.	d	
27) 1,1-Dichloropropene	11.844	11.808	0.953		0m	N.D.	d	
28) Carbon tetrachloride	11.832	11.832	0.952		0m	N.D.	d	
30) 1,2-Dichloroethane	12.069	12.081	0.971		0m	N.D.	d	
31) Benzene	12.081	12.093	0.972		0m	N.D.	d	
32) Cyclohexene	12.223	12.235	0.984		0m	N.D.	d	
33) n-Butyl alcohol	12.686	12.686	1.021		0m	N.D.	d	
34) Trichloroethylene	12.899	12.899	1.038		0m	N.D.	d	
35) 1,2-Dichloropropane	13.172	13.172	1.060		0m	N.D.	d	
36) Methylcyclohexane	13.172	13.172	1.060		0m	N.D.	d	
37) Dibromomethane	13.314	13.314	1.072		0m	N.D.	d	
38) Bromodichloromethane	13.480	13.480	1.085		0m	N.D.	d	
39) 2-Chloroethylvinyl ether	13.789	13.788	1.110		0m	N.D.	d	
40) cis-1,3-Dichloropropylene	14.002	14.002	1.127		0m	N.D.	d	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\020510V2.b\
Data File : 2X526.D
Acq On : 5 Feb 2010 6:43 pm
Operator : CDS1
InstName : VOA2
Sample : |W2VM100205-08|CCV|1|VOAF|1|VOA8260BS|
Misc : CCV 5g - SOIL MIX[B] 0118-08B
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Feb 06 06:28:55 2010
Quant Method : C:\msdchem\1\DATA\012610V2.b\VOA2-8260-012610.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Jan 27 06:34:30 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
42) 4-Methyl-2-pentanone	14.144	14.144	0.886		0m	N.D.	d	
44) Toluene	14.417	14.417	0.903		0m	N.D.	d	
45) trans-1,3-Dichloroprop...	14.607	14.618	0.915		0m	N.D.	d	
46) 1,1,2-Trichloroethane	14.832	14.844	0.929		0m	N.D.	d	
47) 2-Hexanone	15.069	15.069	0.944		0m	N.D.	d	
48) 1,3-Dichloropropane	15.034	15.034	0.941		0m	N.D.	d	
49) Tetrachloroethylene	15.057	15.057	0.943		0m	N.D.	d	
50) Dibromochloromethane	15.318	15.318	0.959		0m	N.D.	d	
51) 1,2-Dibromoethane	15.472	15.472	0.969		0m	N.D.	d	
52) Chlorobenzene	16.006	16.006	1.002		0m	N.D.	d	
53) 1,1,1,2-Tetrachloroethane	16.077	16.077	1.007		0m	N.D.	d	
54) Ethylbenzene	16.089	16.089	1.007		0m	N.D.	d	
55) m,p-Xylenes	16.208	16.208	1.015		0m	N.D.	d	
56) o-Xylene	16.658	16.658	1.043		0m	N.D.	d	
57) Styrene	16.658	16.658	1.043		0m	N.D.	d	
59) Bromoform	16.895	16.895	0.915		0m	N.D.	d	
60) Isopropylbenzene	17.038	17.038	0.923		0m	N.D.	d	
62) 1,1,2,2-Tetrachloroethane	17.311	17.310	0.938		0m	N.D.	d	
63) 1,2,3-Trichloropropane	17.394	17.393	0.942		0m	N.D.	d	
64) Bromobenzene	17.417	17.429	0.943		0m	N.D.	d	
65) n-Propylbenzene	17.477	17.476	0.947		0m	N.D.	d	
66) 1,3,5-Trimethylbenzene	17.643	17.642	0.956		0m	N.D.	d	
67) 2-Chlorotoluene	17.607	17.607	0.954		0m	N.D.	d	
68) 4-Chlorotoluene	17.714	17.714	0.960		0m	N.D.	d	
69) tert-Butylbenzene	18.058	18.010	0.978		0m	N.D.	d	
70) 1,2,4-Trimethylbenzene	18.058	18.057	0.978		0m	N.D.	d	
71) sec-Butylbenzene	18.236	18.235	0.988		0m	N.D.	d	
72) 4-Isopropyltoluene	18.366	18.366	0.995		0m	N.D.	d	
73) 1,3-Dichlorobenzene	18.402	18.401	0.997		0m	N.D.	d	
74) 1,4-Dichlorobenzene	18.496	18.496	1.002		0m	N.D.	d	
75) n-Butylbenzene	18.805	18.805	1.019		0m	N.D.	d	
76) 1,2-Dichlorobenzene	18.900	18.899	1.024		0m	N.D.	d	
77) 1,2-Dibromo-3-chloropr...	19.706	19.718	1.067		0m	N.D.	d	
78) 1,2,4-Trichlorobenzene	20.690	20.690	1.121		0m	N.D.	d	
79) Hexachlorobutadiene	20.868	20.868	1.130		0m	N.D.	d	
80) Naphthalene	21.022	21.022	1.139		0m	N.D.	d	
81) 1,2,3-Trichlorobenzene	21.342	21.342	1.156		0m	N.D.	d	
83) Chlorotrifluoroethylene	0.000	4.628	0.000		0	N.D.		
84) 2-Chloro-1,1,1-trifluo...	0.000	5.489	0.000		0	N.D.		
85) Acrolein	7.622	7.634	0.613	56	332475	246.67	ug/L	96
86) Trichlorotrifluoroethane	7.907	7.918	0.636	85	936470	274.05	ug/L #	73
87) Isopropyl Alcohol	8.203	8.191	0.660	45	19487	N.D.		
88) Allyl chloride	8.535	8.559	0.687	41	3605552	244.45	ug/L	96
89) tert-Butyl Alcohol	8.938	8.926	0.719	59	280	N.D.		
90) Acrylonitrile	9.152	9.164	0.737	53	733939	213.65	ug/L	94
91) Isopropyl ether	10.101	10.065	0.813	45	481	N.D.		
92) 2-Chloro-1,3-butadiene	10.101	10.112	0.813	53	809640	50.89	ug/L	74
93) Ethyl tert-butyl ether	0.000	10.622	0.000		0	N.D.		
94) Ethyl acetate	10.907	10.919	0.878	43	2008882	225.52	ug/L	96
95) Propionitrile	10.895	10.907	0.877	54	289566	207.69	ug/L	99
96) Methacrylonitrile	11.132	11.144	0.896	41	1310121	226.60	ug/L	99
97) Tetrahydrofuran	11.251	11.263	0.906	42	644664	224.27	ug/L	88

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\020510V2.b\
Data File : 2X526.D
Acq On : 5 Feb 2010 6:43 pm
Operator : CDS1
InstName : VOA2
Sample : |W2VM100205-08|CCV|1|VOAF|1|VOA8260BS|
Misc : CCV 5g - SOIL MIX[B] 0118-08B
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Feb 06 06:28:55 2010
Quant Method : C:\msdchem\1\DATA\012610V2.b\VOA2-8260-012610.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Jan 27 06:34:30 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
98)	Isobutyl alcohol	11.844	11.856	0.953	41	805263	2223.81	ug/L	99
99)	Methyl tert-amyl ether	0.000	12.211	0.000		0	N.D.		
100)	Methyl methacrylate	13.231	13.243	1.065	69	1124613	217.22	ug/L #	79
101)	1,4-Dioxane	13.302	13.302	1.071	88	186441	2096.62	ug/L	77
102)	2-Nitropropane	13.717	13.717	1.104	43	822784	243.68	ug/L	95
104)	Ethyl methacrylate	14.666	14.666	0.918	69	2322999	226.54	ug/L	88
106)	1-Chlorohexane	0.000	15.911	0.000		0m	N.D.	d	
107)	cis-1,4-Dichloro-2-butene	17.073	17.073	0.925	53	1188440	271.75	ug/L	94
108)	Cyclohexanone	17.156	17.156	0.929	42	488587	347.48	ug/L	92
109)	trans-1,4-Dichloro-2-b...	17.370	17.370	0.941	53	1140612	273.03	ug/L	82
110)	Pentachloroethane	18.058	18.058	0.978	167	1393884	335.11	ug/L	93
111)	Benzyl chloride	18.603	18.603	1.008	91	5294489	302.10	ug/L	90
112)	bis(2-Chloroisopropyl)...	19.018	19.018	1.030	45	1513470	219.81	ug/L	86

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\020510V2.b\
Data File : 2X526.D
Acq On : 5 Feb 2010 6:43 pm
Operator : CDS1
InstName : VOA2
Sample : |W2VM100205-08|CCV|1|VOAF|1|VOA8260BS|
Misc : CCV 5g - SOIL MIX[B] 0118-08B
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Feb 06 06:28:55 2010
Quant Method : C:\msdchem\1\DATA\012610V2.b\VOA2-8260-012610.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Jan 27 06:34:30 2010
Response via : Initial Calibration
Integrator: RTE

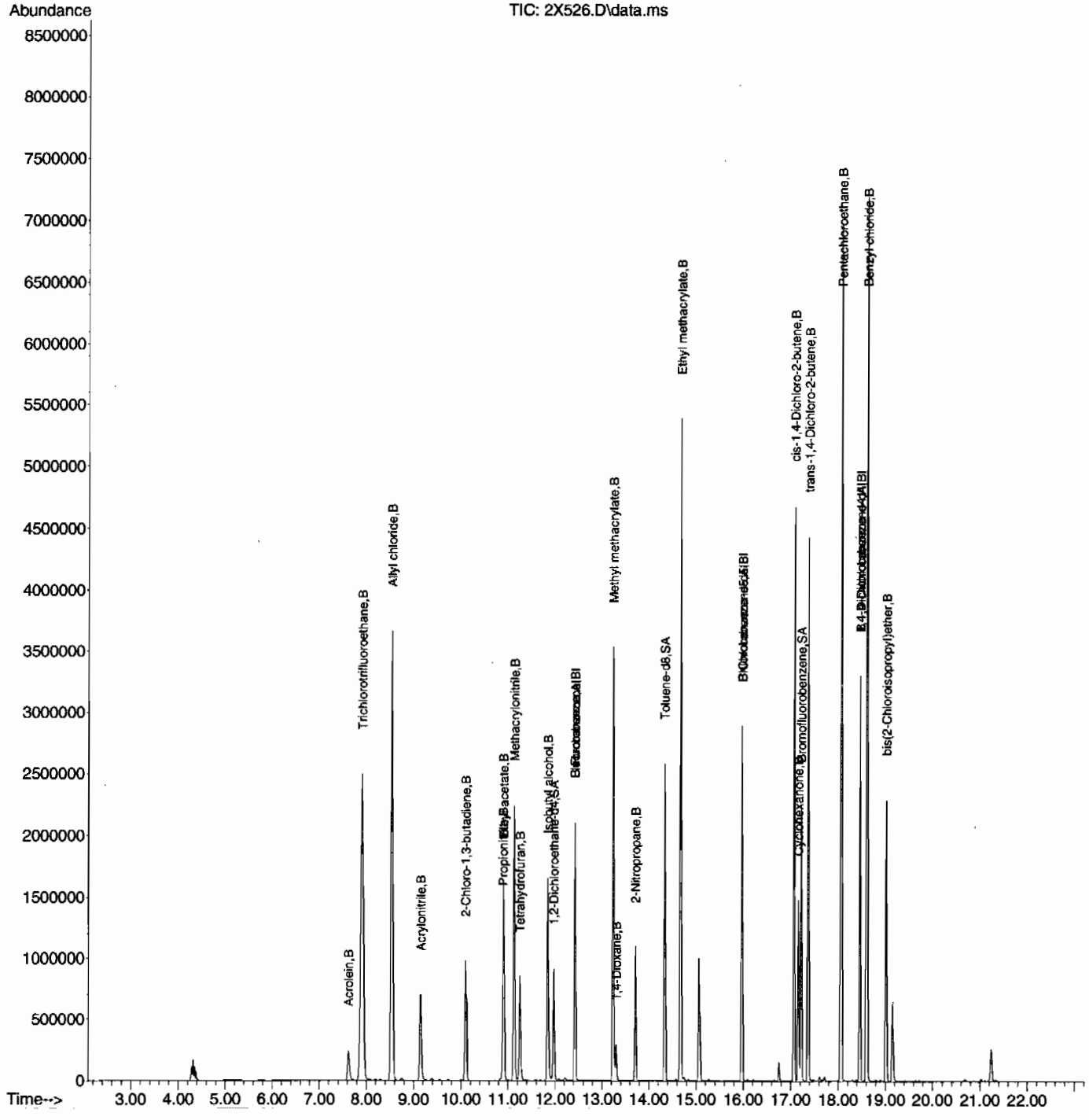

Quality Control Data

Tune Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\012610V2.b\
Data File : 2W201.D
Acq On : 26 Jan 2010 1:21 pm
Operator : CDS1
Sample : |UVM091216-09|BFB|1|VOAF|1|
Misc : BFB01
ALS Vial : 1 Sample Multiplier: 1

Integration File: ron.P

Method : C:\msdchem\1\DATA\012610V2.b\VOA2-8260-012610.M
Title : Volatile Organics 8260B SubList :
Last Update : Wed Jan 27 06:34:30 2010

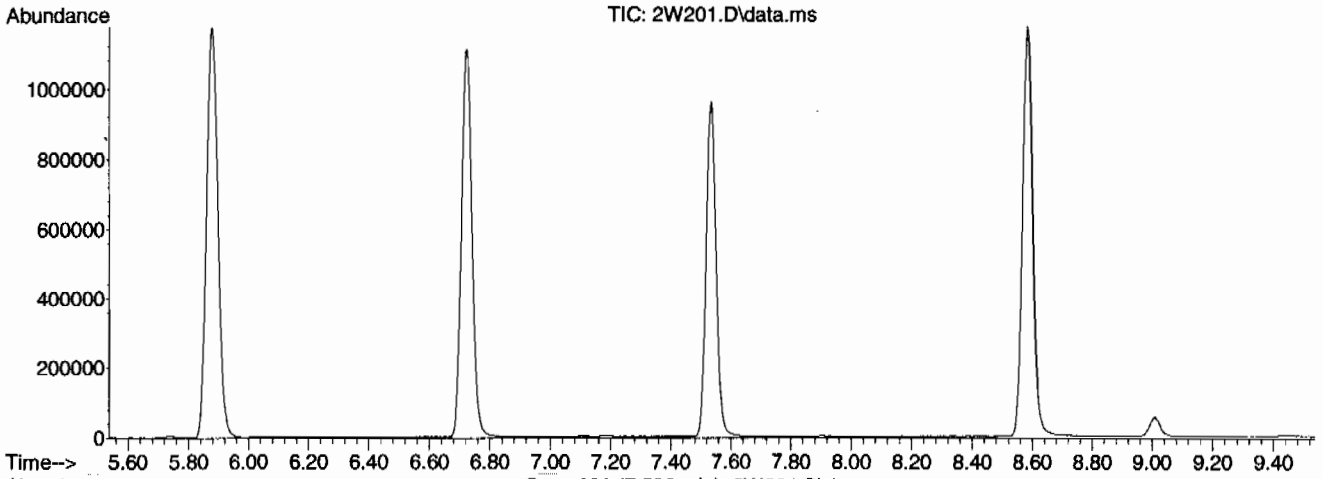

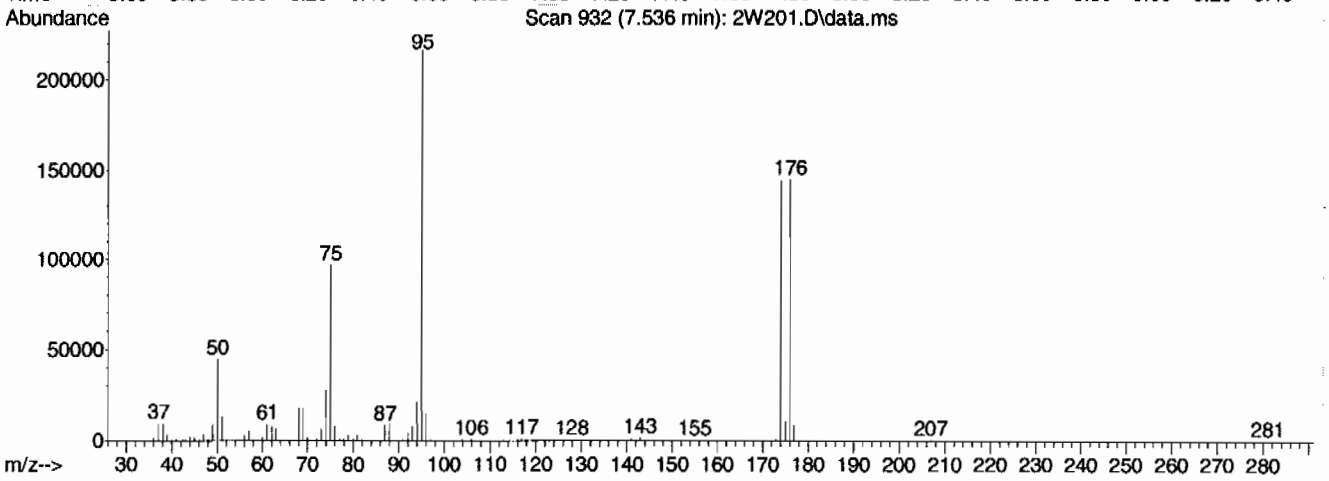

Spectrum Information: Scan 932

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	20.6	44696	PASS
75	95	30	60	44.7	96808	PASS
95	95	100	100	100.0	216512	PASS
96	95	5	9	6.9	14942	PASS
173	174	0.00	2	0.7	940	PASS
174	95	50	100	66.7	144384	PASS
175	174	5	9	7.5	10872	PASS
176	174	95	101	100.3	144768	PASS
177	176	5	9	6.0	8754	PASS

Tune Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\020510V2.b\
Data File : 2X522.D
Acq On : 5 Feb 2010 4:50 pm
Operator : CDS1
Sample : |UVM100114-02|BFB2|1|VOAF|1|
Misc : BFB01
ALS Vial : 22 Sample Multiplier: 1

Integration File: ron.P

Method : C:\msdchem\1\DATA\012610V2.b\VOA2-8260-012610.M
Title : Volatile Organics 8260B SubList :
Last Update : Wed Jan 27 06:34:30 2010

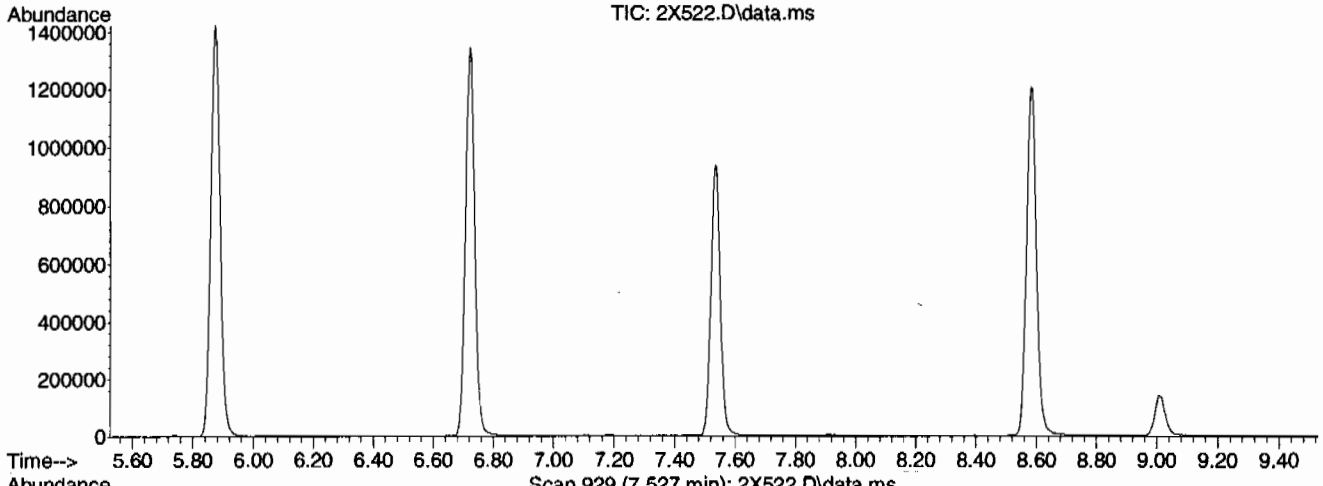

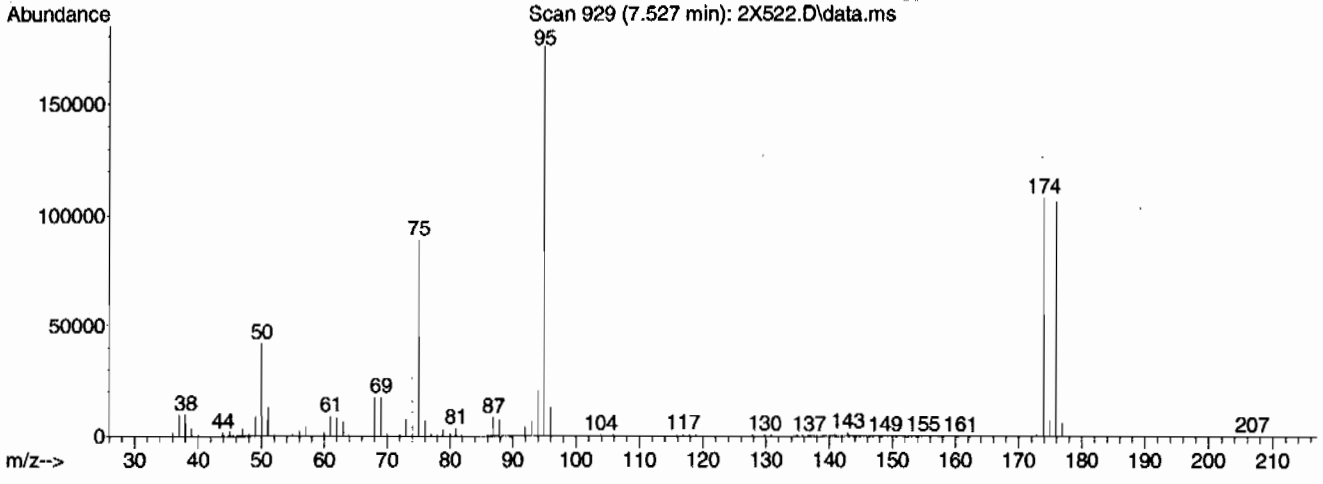

Spectrum Information: Scan 929

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	23.8	41904	PASS
75	95	30	60	50.6	89048	PASS
95	95	100	100	100.0	175872	PASS
96	95	5	9	7.5	13246	PASS
173	174	0.00	2	0.8	849	PASS
174	95	50	100	61.4	107960	PASS
175	174	5	9	6.6	7170	PASS
176	174	95	101	98.4	106272	PASS
177	176	5	9	5.9	6316	PASS

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1604**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202035181**				
Client Sample:	**QC for batch 949888**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 949888**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**949891**	**Inst:**	**VOA2.I**	**Dilution:**	**1**
Run Date:	**02/05/2010 19:41**	**Analyst:**	**CDS1**	**Purge Vol:**	**5 mL**
Prep Date:	**02/05/2010 15:30**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**020510V2.b\2X528BA.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/kg	0.340	1.00
74-87-3	Chloromethane	U	1.00	ug/kg	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/kg	0.300	1.00
74-83-9	Bromomethane	U	1.00	ug/kg	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/kg	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/kg	0.300	1.00
67-64-1	Acetone	U	5.00	ug/kg	1.66	5.00
75-35-4	1,1-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/kg	1.60	5.00
75-09-2	Methylene chloride	U	5.00	ug/kg	2.00	5.00
75-15-0	Carbon disulfide	U	5.00	ug/kg	1.25	5.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/kg	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/kg	1.50	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/kg	0.300	1.00
74-97-5	Bromochloromethane	U	1.00	ug/kg	0.330	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/kg	0.300	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/kg	0.300	1.00
56-23-5	Carbon tetrachloride	U	1.00	ug/kg	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/kg	0.300	1.00
71-43-2	Benzene	U	1.00	ug/kg	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/kg	0.330	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/kg	0.300	1.00
74-95-3	Dibromomethane	U	1.00	ug/kg	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/kg	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
108-88-3	Toluene	U	1.00	ug/kg	0.300	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/kg	0.300	1.00
591-78-6	2-Hexanone	U	5.00	ug/kg	1.50	5.00
142-28-9	1,3-Dichloropropane	U	1.00	ug/kg	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/kg	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/kg	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/kg	0.300	1.00
108-90-7	Chlorobenzene	U	1.00	ug/kg	0.300	1.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1604**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202035181**				
Client Sample:	**QC for batch 949888**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 949888**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**949891**	**Inst:**	**VOA2.I**	**Dilution:**	**1**
Run Date:	**02/05/2010 19:41**	**Analyst:**	**CDS1**	**Purge Vol:**	**5 mL**
Prep Date:	**02/05/2010 15:30**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**020510V2.b\2X528BA.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.00	ug/kg	0.300	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/kg	0.300	2.00
95-47-6	o-Xylene	U	1.00	ug/kg	0.300	1.00
100-42-5	Styrene	U	1.00	ug/kg	0.300	1.00
75-25-2	Bromoform	U	1.00	ug/kg	0.300	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/kg	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/kg	0.300	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/kg	0.300	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/kg	0.300	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/kg	0.300	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/kg	0.300	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/kg	0.300	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/kg	0.300	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/kg	0.300	1.00
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.00	ug/kg	1.60	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown	4.32	8.39	ug/kg	0	J
	unknown siloxane	19.15	5.43	ug/kg	0	J

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\020510V2.b\
Data File : 2X528BA.D
Acq On : 5 Feb 2010 7:41 pm
Operator : CDS1
InstName : VOA2
Sample : |1202035181|949891|1|VOAF|1|VOA8260BS|
Misc : BLANK 5g - soil
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Feb 06 06:30:08 2010
Quant Method : C:\msdchem\1\DATA\012610V2.b\VOA2-8260-012610.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Jan 27 06:34:30 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	12.413	12.437	1.000	96	1579865	50.00	ug/L	-0.02
41) Chlorobenzene-d5	15.970	15.970	1.000	117	1231652	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	18.461	18.461	1.000	152	685794	50.00	ug/L	0.00
82) B Fluorobenzene	12.413	12.437	1.000	96	1579693	50.00	ug/L	-0.02
103) B Chlorobenzene-d5	15.970	15.970	1.000	117	1232161	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	18.461	18.461	1.000	152	686376	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	11.962	11.986	0.964	65	710032	55.97	ug/L	-0.02
Spiked Amount 50.000	Range 66 - 134		Recovery = 111.94%					
43) Toluene-d8	14.334	14.346	0.898	98	1556376	45.80	ug/L	-0.01
Spiked Amount 50.000	Range 71 - 128		Recovery = 91.60%					
61) Bromofluorobenzene	17.216	17.215	0.933	95	742711	48.90	ug/L	0.00
Spiked Amount 50.000	Range 65 - 130		Recovery = 97.80%					

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	4.687	4.702	0.378	85	166	N.D.		
3) Chloromethane	4.984	4.999	0.402	50	660	Below Cal	#	42
4) Vinyl chloride	5.237	5.266	0.422	62	915	N.D.		
5) Bromomethane	0.000	5.979	0.000		0	N.D.		
6) Chloroethane	0.000	6.223	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	6.839	0.000		0	N.D.		
8) Ethyl ether	0.000	7.409	0.000		0	N.D.		
9) Acetone	7.966	7.930	0.642	43	2718	N.D.		
10) 1,1-Dichloroethylene	0.000	7.883	0.000		0	N.D.		
11) Iodomethane	0.000	8.167	0.000		0	N.D.		
12) Acetonitrile	8.476	8.440	0.683	41	1629	N.D.		
13) Methyl acetate	8.583	8.571	0.691	43	548	N.D.		
14) Carbon disulfide	8.286	8.310	0.668	76	2309	N.D.		
15) Methylene chloride	8.749	8.772	0.705	84	6744	N.D.		
16) tert-Butyl methyl ether	0.000	9.270	0.000		0	N.D.		
17) trans-1,2-Dichloroethy...	0.000	9.270	0.000		0	N.D.		
18) Vinyl acetate	10.006	10.006	0.806	43	689	N.D.		
19) 1,1-Dichloroethane	0.000	9.958	0.000		0	N.D.		
20) 2-Butanone	10.836	10.836	0.873	43	584	N.D.		
21) cis-1,2-Dichloroethylene	0.000	10.847	0.000		0	N.D.		
22) 2,2-Dichloropropane	0.000	10.871	0.000		0	N.D.		
23) Bromochloromethane	0.000	11.191	0.000		0	N.D.		
24) Chloroform	11.274	11.298	0.908	83	640	N.D.		
25) 1,1,1-Trichloroethane	0.000	11.595	0.000		0	N.D.		
26) Cyclohexane	0.000	11.701	0.000		0	N.D.		
27) 1,1-Dichloropropene	0.000	11.808	0.000		0	N.D.		
28) Carbon tetrachloride	0.000	11.832	0.000		0	N.D.		
30) 1,2-Dichloroethane	12.069	12.081	0.972	62	289	N.D.		
31) Benzene	12.081	12.093	0.973	78	551	N.D.		
32) Cyclohexene	0.000	12.235	0.000		0	N.D.		
33) n-Butyl alcohol	0.000	12.686	0.000		0	N.D.		
34) Trichloroethylene	12.887	12.899	1.038	95	539	N.D.		
35) 1,2-Dichloropropane	0.000	13.172	0.000		0	N.D.		
36) Methylcyclohexane	0.000	13.172	0.000		0	N.D.		
37) Dibromomethane	0.000	13.314	0.000		0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\020510V2.b\
Data File : 2X528BA.D
Acq On : 5 Feb 2010 7:41 pm
Operator : CDS1
InstName : VOA2
Sample : |1202035181|949891|1|VOAF|1|VOA8260BS|
Misc : BLANK 5g - soil
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Feb 06 06:30:08 2010
Quant Method : C:\msdchem\1\DATA\012610V2.b\VOA2-8260-012610.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Jan 27 06:34:30 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
38) Bromodichloromethane	0.000	13.480	0.000		0	N.D.	
39) 2-Chloroethylvinyl ether	0.000	13.788	0.000		0	N.D.	
40) cis-1,3-Dichloropropylene	0.000	14.002	0.000		0	N.D.	
42) 4-Methyl-2-pentanone	0.000	14.144	0.000		0	N.D.	
44) Toluene	14.417	14.417	0.903	91	1434	N.D.	
45) trans-1,3-Dichloroprop...	14.607	14.618	0.915	75	144	N.D.	
46) 1,1,2-Trichloroethane	0.000	14.844	0.000		0	N.D.	
47) 2-Hexanone	15.069	15.069	0.944	43	749	N.D.	
48) 1,3-Dichloropropane	15.034	15.034	0.941	76	131	N.D.	
49) Tetrachloroethylene	15.057	15.057	0.943	164	601	N.D.	
50) Dibromochloromethane	0.000	15.318	0.000		0	N.D.	
51) 1,2-Dibromoethane	0.000	15.472	0.000		0	N.D.	
52) Chlorobenzene	15.994	16.006	1.001	112	879	N.D.	
53) 1,1,1,2-Tetrachloroethane	0.000	16.077	0.000		0	N.D.	
54) Ethylbenzene	16.208	16.089	1.015	91	1241	N.D.	
55) m,p-Xylenes	16.219	16.208	1.016	106	606	N.D.	
56) o-Xylene	0.000	16.658	0.000		0	N.D.	
57) Styrene	16.658	16.658	1.043	104	728	N.D.	
59) Bromoform	0.000	16.895	0.000		0	N.D.	
60) Isopropylbenzene	0.000	17.038	0.000		0	N.D.	
62) 1,1,2,2-Tetrachloroethane	0.000	17.310	0.000		0	N.D.	
63) 1,2,3-Trichloropropane	0.000	17.393	0.000		0	N.D.	
64) Bromobenzene	17.417	17.429	0.943	156	418	N.D.	
65) n-Propylbenzene	17.476	17.476	0.947	91	642	N.D.	
66) 1,3,5-Trimethylbenzene	17.642	17.642	0.956	105	361	N.D.	
67) 2-Chlorotoluene	17.714	17.607	0.960	126	364	N.D.	
68) 4-Chlorotoluene	17.714	17.714	0.960	91	1671	N.D.	
69) tert-Butylbenzene	0.000	18.010	0.000		0	N.D.	
70) 1,2,4-Trimethylbenzene	18.046	18.057	0.978	105	491	N.D.	
71) sec-Butylbenzene	18.235	18.235	0.988	105	386	N.D.	
72) 4-Isopropyltoluene	18.366	18.366	0.995	119	176	N.D.	
73) 1,3-Dichlorobenzene	18.401	18.401	0.997	146	1200	N.D.	
74) 1,4-Dichlorobenzene	18.484	18.496	1.001	146	2076	N.D.	
75) n-Butylbenzene	18.805	18.805	1.019	91	881	N.D.	
76) 1,2-Dichlorobenzene	18.899	18.899	1.024	146	874	N.D.	
77) 1,2-Dibromo-3-chloropr...	0.000	19.718	0.000		0	N.D.	
78) 1,2,4-Trichlorobenzene	20.690	20.690	1.121	180	1449	N.D.	
79) Hexachlorobutadiene	0.000	20.868	0.000		0	N.D.	
80) Naphthalene	21.034	21.022	1.139	128	3790	N.D.	
81) 1,2,3-Trichlorobenzene	21.342	21.342	1.156	180	1177	N.D.	
83) Chlorotrifluoroethylene	0.000	4.628	0.000		0	N.D.	
84) 2-Chloro-1,1,1-trifluo...	0.000	5.489	0.000		0	N.D.	
85) Acrolein	0.000	7.634	0.000		0	N.D.	
86) Trichlorotrifluoroethane	0.000	7.918	0.000		0	N.D.	
87) Isopropyl Alcohol	0.000	8.191	0.000		0	N.D.	
88) Allyl chloride	8.476	8.559	0.683	41	1629	N.D.	
89) tert-Butyl Alcohol	8.938	8.926	0.720	59	112	N.D.	
90) Acrylonitrile	0.000	9.164	0.000		0	N.D.	
91) Isopropyl ether	0.000	10.065	0.000		0	N.D.	
92) 2-Chloro-1,3-butadiene	0.000	10.112	0.000		0	N.D.	
93) Ethyl tert-butyl ether	0.000	10.622	0.000		0	N.D.	
94) Ethyl acetate	10.836	10.919	0.873	43	584	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\020510V2.b\
Data File : 2X528BA.D
Acq On : 5 Feb 2010 7:41 pm
Operator : CDS1
InstName : VOA2
Sample : |1202035181|949891|1|VOAF|1|VOA8260BS|
Misc : BLANK 5g - soil
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Feb 06 06:30:08 2010
Quant Method : C:\msdchem\1\DATA\012610V2.b\VOA2-8260-012610.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Jan 27 06:34:30 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
95)	Propionitrile	0.000	10.907	0.000		0	N.D.	
96)	Methacrylonitrile	11.132	11.144	0.897	41	439	N.D.	
97)	Tetrahydrofuran	11.274	11.263	0.908	42	428	N.D.	
98)	Isobutyl alcohol	11.962	11.856	0.964	41	139	N.D.	
99)	Methyl tert-amyl ether	0.000	12.211	0.000		0	N.D.	
100)	Methyl methacrylate	0.000	13.243	0.000		0	N.D.	
101)	1,4-Dioxane	0.000	13.302	0.000		0	N.D.	
102)	2-Nitropropane	0.000	13.717	0.000		0	N.D.	
104)	Ethyl methacrylate	0.000	14.666	0.000		0	N.D.	
106)	1-Chlorohexane	0.000	15.911	0.000		0m	N.D.	d
107)	cis-1,4-Dichloro-2-butene	17.061	17.073	0.924	53	323	N.D.	
108)	Cyclohexanone	0.000	17.156	0.000		0	N.D.	
109)	trans-1,4-Dichloro-2-b...	17.358	17.370	0.940	53	589	N.D.	
110)	Pentachloroethane	0.000	18.058	0.000		0	N.D.	
111)	Benzyl chloride	18.603	18.603	1.008	91	1540	N.D.	
112)	bis(2-Chloroisopropyl)...	19.018	19.018	1.030	45	118	N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\020510V2.b\
Data File : 2X528BA.D
Acq On : 5 Feb 2010 7:41 pm
Operator : CDS1
InstName : VOA2
Sample : |1202035181|949891|1|VOAF|1|VOA8260BS|
Misc : BLANK 5g - soil
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Feb 06 06:30:08 2010
Quant Method : C:\msdchem\1\DATA\012610V2.b\VOA2-8260-012610.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Jan 27 06:34:30 2010
Response via : Initial Calibration
Integrator: RTE

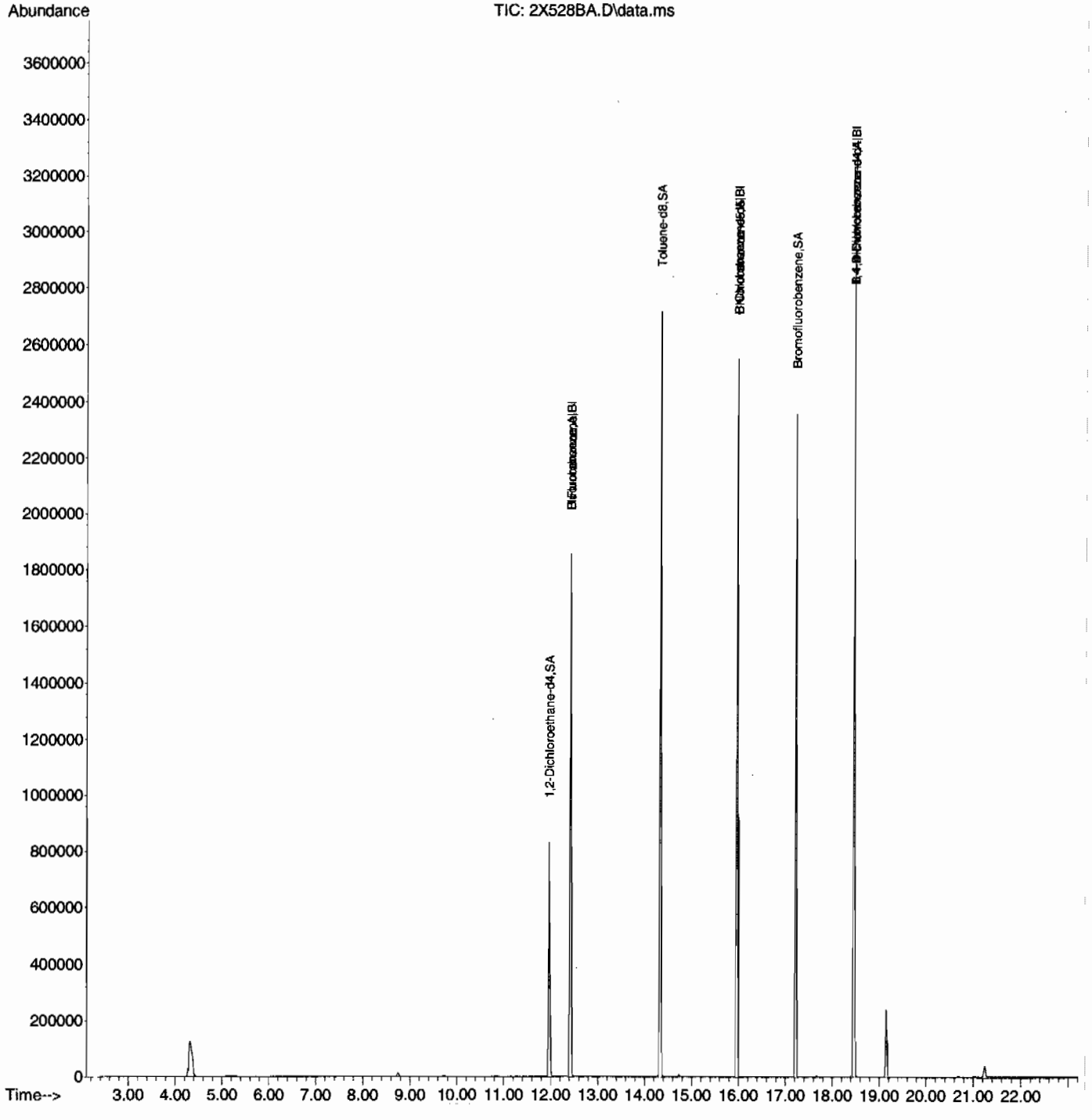

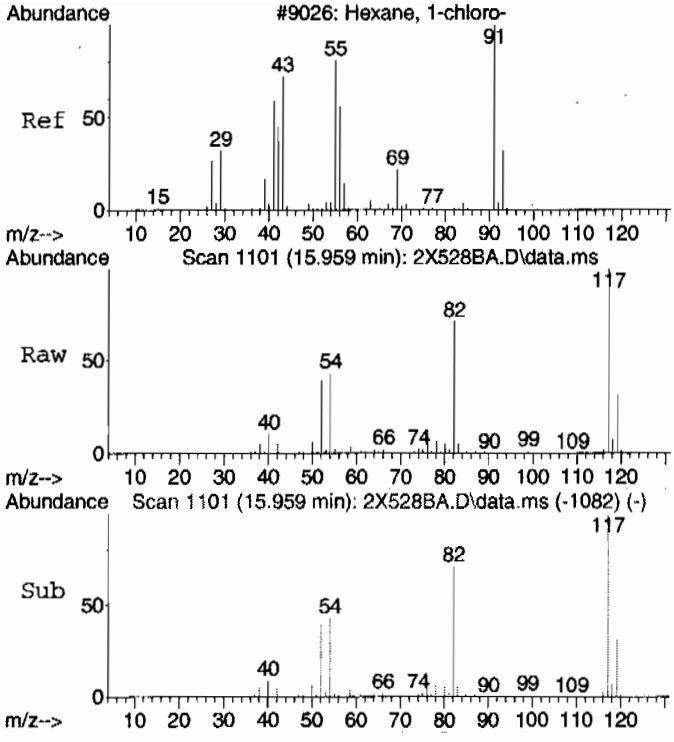

#106 BEFORE analyst DELETION
1-Chlorohexane
Concen: 2.22 ug/L
RT: 15.959 min Scan# 1101
Delta R.T. 0.048 min
Lab File: 2X528BA.D
Acq: 5 Feb 2010 7:41 pm

Tgt Ion: 55 Resp: 20367

Ion	Ratio	Lower	Upper
55	100		
91	15.0	115.5	175.5#
56	52.6	29.3	89.3

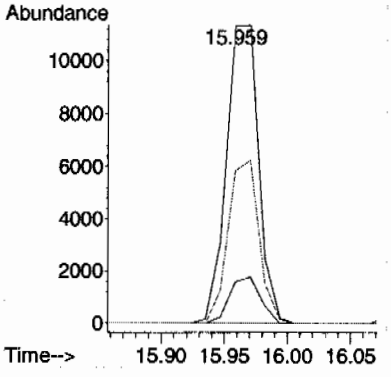

Library Search Compound Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\020510V2.b\
Data File : 2X528BA.D
Acq On : 5 Feb 2010 7:41 pm
Operator : CDS1
Sample : |1202035181|949891|1|VOAF|1|VOA8260BS|
Misc : BLANK 5g - soil
ALS Vial : 28 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\012610V2.b\VOA2-8260-012610.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

****

Peak Number 1 unknown Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.315	8.39 ug/L	627108	Fluorobenzene	12.413

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Dimethyl ether	46	C2H6O	000115-10-6	5
2	Ethyl alcohol	46	C2H6O	000064-17-5	4
3	Ethyl alcohol	46	C2H6O	000064-17-5	4
4	Ethyl alcohol	46	C2H6O	000064-17-5	4
5	Formic acid	46	CH2O2	000064-18-6	3

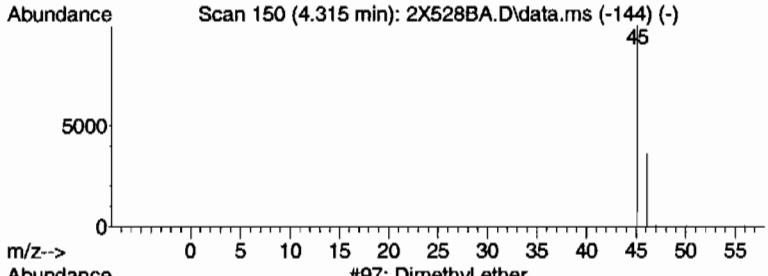

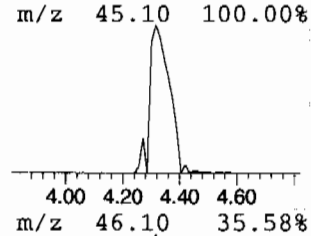

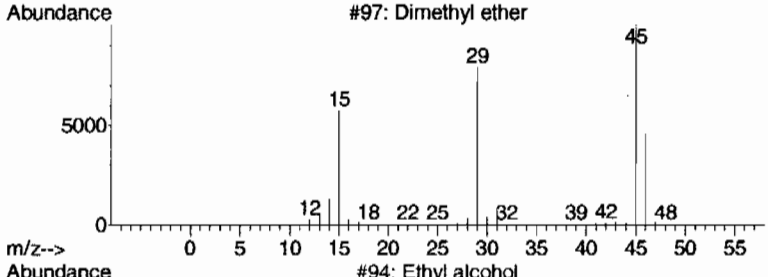

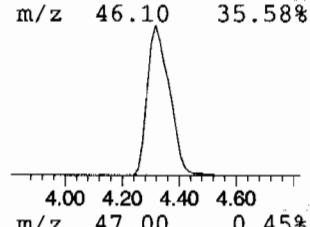

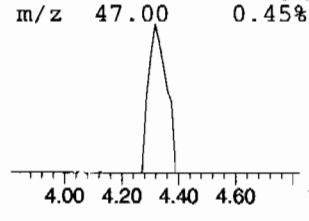

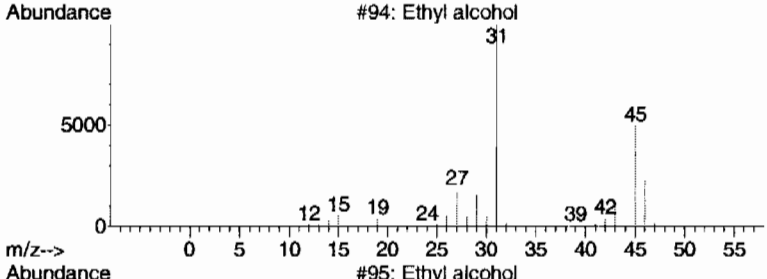

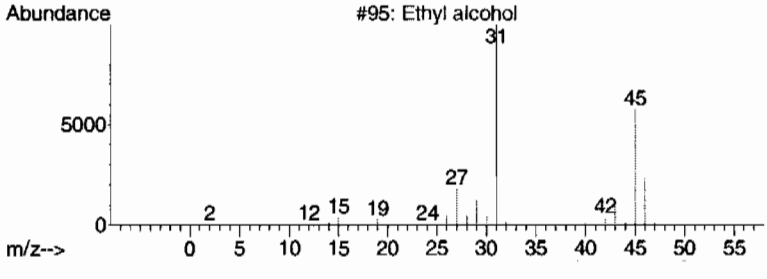

Library Search Compound Report
GEL Laboratories, LLC

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Data Path : C:\msdchem\1\DATA\020510V2.b\
Data File : 2X528BA.D
Acq On    :  5 Feb 2010   7:41 pm
Operator  : CDS1
Sample    : |1202035181|949891|1|VOAF|1|VOA8260BS|
Misc      : BLANK 5g - soil
ALS Vial  : 28   Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\012610V2.b\VOA2-8260-012610.M
Quant Title  : Volatile Organics 8260B                    SubList :

TIC Library    : C:\Database\NIST05.L
TIC Integration Parameters: default.P
```

****

Peak Number 2 unknown siloxane Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
19.148	5.43 ug/L	511295	B 1,4-Dichlorobenzene-d4	18.461

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzeneethanamine, N-[(pentafluo...	475	C21H26F5NO2Si2	055429-85-1	59
2	Benzoic acid, 4-[(trimethylsilyl...	282	C13H22O3Si2	002078-13-9	50
3	Benzoic acid, 2-[(trimethylsilyl...	282	C13H22O3Si2	003789-85-3	45
4	Benzoic acid, 2-[(trimethylsilyl...	282	C13H22O3Si2	003789-85-3	38
5	3,5-Dimethoxyphenylacetic acid, ...	268	C13H20O4Si	1000071-82-4	27

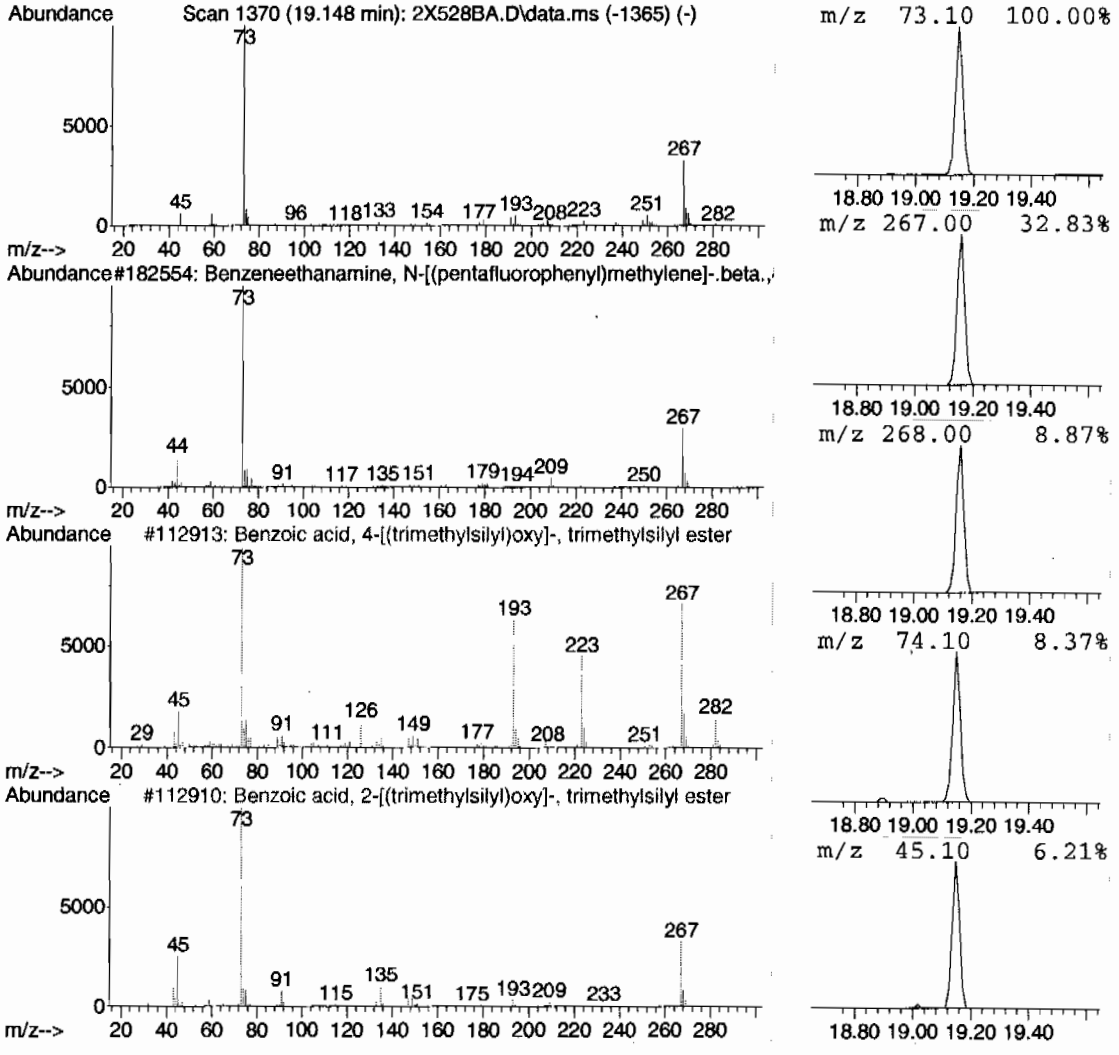

Tentatively Identified Compound (LSC) summary
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\020510V2.b\
Data File : 2X528BA.D
Acq On : 5 Feb 2010 7:41 pm
Operator : CDS1
Sample : |1202035181|949891|1|VOAF|1|VOA8260BS|
Misc : BLANK 5g - soil
ALS Vial : 28 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\012610V2.b\VOA2-8260-012610.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

TIC Top Hit name	RT	EstConc	Units	Response	--Internal Standard--- #	RT	Resp	Conc
unknown	4.315	8.4	ug/L	627108	1	12.413	3737080	50.0
unknown siloxane	19.148	5.4	ug/L	511295	6	18.461	4710390	50.0

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1604**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202035184**				
Client Sample:	**QC for batch 949888**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 949888**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**949891**	**Inst:**	**VOA2.I**	**Dilution:**	**1**
Run Date:	**02/05/2010 18:14**	**Analyst:**	**CDS1**	**Purge Vol:**	**5 mL**
Prep Date:	**02/05/2010 15:30**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**020510V2.b\2X525LSA.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane		37.8	ug/kg	0.340	1.00
74-87-3	Chloromethane		43.3	ug/kg	0.300	1.00
75-01-4	Vinyl chloride		42.3	ug/kg	0.300	1.00
74-83-9	Bromomethane		57.3	ug/kg	0.300	1.00
75-00-3	Chloroethane		40.0	ug/kg	0.300	1.00
75-69-4	Trichlorofluoromethane		48.1	ug/kg	0.300	1.00
67-64-1	Acetone		230	ug/kg	1.66	5.00
75-35-4	1,1-Dichloroethylene		42.5	ug/kg	0.300	1.00
74-88-4	Iodomethane		197	ug/kg	1.60	5.00
75-09-2	Methylene chloride		37.3	ug/kg	2.00	5.00
75-15-0	Carbon disulfide		207	ug/kg	1.25	5.00
156-60-5	trans-1,2-Dichloroethylene		42.9	ug/kg	0.300	1.00
75-34-3	1,1-Dichloroethane		41.7	ug/kg	0.300	1.00
78-93-3	2-Butanone		211	ug/kg	1.50	5.00
156-59-2	cis-1,2-Dichloroethylene		43.5	ug/kg	0.300	1.00
594-20-7	2,2-Dichloropropane		48.4	ug/kg	0.300	1.00
67-66-3	Chloroform		44.0	ug/kg	0.300	1.00
74-97-5	Bromochloromethane		38.6	ug/kg	0.330	1.00
71-55-6	1,1,1-Trichloroethane		48.3	ug/kg	0.300	1.00
563-58-6	1,1-Dichloropropene		43.8	ug/kg	0.300	1.00
56-23-5	Carbon tetrachloride		49.7	ug/kg	0.300	1.00
107-06-2	1,2-Dichloroethane		45.8	ug/kg	0.300	1.00
71-43-2	Benzene		39.1	ug/kg	0.300	1.00
79-01-6	Trichloroethylene		43.2	ug/kg	0.330	1.00
78-87-5	1,2-Dichloropropane		40.8	ug/kg	0.300	1.00
75-27-4	Bromodichloromethane		46.6	ug/kg	0.300	1.00
74-95-3	Dibromomethane		41.5	ug/kg	0.300	1.00
108-10-1	4-Methyl-2-pentanone		201	ug/kg	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene		43.8	ug/kg	0.300	1.00
108-88-3	Toluene		40.1	ug/kg	0.300	1.00
10061-02-6	trans-1,3-Dichloropropylene		45.5	ug/kg	0.300	1.00
79-00-5	1,1,2-Trichloroethane		39.8	ug/kg	0.300	1.00
591-78-6	2-Hexanone		206	ug/kg	1.50	5.00
142-28-9	1,3-Dichloropropane		40.0	ug/kg	0.300	1.00
127-18-4	Tetrachloroethylene		41.6	ug/kg	0.300	1.00
124-48-1	Dibromochloromethane		45.1	ug/kg	0.300	1.00
106-93-4	1,2-Dibromoethane		41.0	ug/kg	0.300	1.00
108-90-7	Chlorobenzene		40.7	ug/kg	0.300	1.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1604**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202035184**				
Client Sample:	**QC for batch 949888**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 949888**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**949891**	**Inst:**	**VOA2.I**	**Dilution:**	**1**
Run Date:	**02/05/2010 18:14**	**Analyst:**	**CDS1**	**Purge Vol:**	**5 mL**
Prep Date:	**02/05/2010 15:30**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**020510V2.b\2X525LSA.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene		42.2	ug/kg	0.300	1.00
179601-23-1	m,p-Xylenes		80.8	ug/kg	0.300	2.00
95-47-6	o-Xylene		39.6	ug/kg	0.300	1.00
100-42-5	Styrene		40.0	ug/kg	0.300	1.00
75-25-2	Bromoform		44.0	ug/kg	0.300	1.00
79-34-5	1,1,2,2-Tetrachloroethane		38.4	ug/kg	0.300	1.00
96-18-4	1,2,3-Trichloropropane		40.4	ug/kg	0.300	1.00
108-86-1	Bromobenzene		39.7	ug/kg	0.300	1.00
103-65-1	n-Propylbenzene		41.9	ug/kg	0.300	1.00
95-49-8	2-Chlorotoluene		39.3	ug/kg	0.300	1.00
98-82-8	Isopropylbenzene		41.5	ug/kg	0.300	1.00
108-67-8	1,3,5-Trimethylbenzene		41.1	ug/kg	0.300	1.00
106-43-4	4-Chlorotoluene		41.7	ug/kg	0.300	1.00
98-06-6	tert-Butylbenzene		39.8	ug/kg	0.300	1.00
95-63-6	1,2,4-Trimethylbenzene		40.7	ug/kg	0.300	1.00
135-98-8	sec-Butylbenzene		41.3	ug/kg	0.300	1.00
99-87-6	4-Isopropyltoluene		41.4	ug/kg	0.300	1.00
541-73-1	1,3-Dichlorobenzene		39.6	ug/kg	0.300	1.00
106-46-7	1,4-Dichlorobenzene		38.9	ug/kg	0.300	1.00
104-51-8	n-Butylbenzene		41.7	ug/kg	0.300	1.00
96-12-8	1,2-Dibromo-3-chloropropane		38.3	ug/kg	0.300	1.00
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.00	ug/kg	1.60	5.00
630-20-6	1,1,1,2-Tetrachloroethane		43.2	ug/kg	0.300	1.00
95-50-1	1,2-Dichlorobenzene		38.4	ug/kg	0.300	1.00

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\020510V2.b\
Data File : 2X525LSA.D
Acq On : 5 Feb 2010 6:14 pm
Operator : CDS1
InstName : VOA2
Sample : |1202035184|949891|1|VOAF|1|VOA8260BS|
Misc : LCS 5g - soil MIX[A]ULT 0126-01A+0202-01
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Feb 06 06:28:19 2010
Quant Method : C:\msdchem\1\DATA\012610V2.b\VOA2-8260-012610.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Jan 27 06:34:30 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	12.425	12.437	1.000	96	1664026	50.00	ug/L	-0.01
41) Chlorobenzene-d5	15.970	15.970	1.000	117	1313430	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	18.461	18.461	1.000	152	758111	50.00	ug/L	0.00
82) B Fluorobenzene	12.425	12.437	1.000	96	1663685	50.00	ug/L	-0.01
103) B Chlorobenzene-d5	15.970	15.970	1.000	117	1313430	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	18.461	18.461	1.000	152	758245	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	11.962	11.986	0.963	65	747286	55.93	ug/L	-0.02
Spiked Amount 50.000	Range 66 - 134		Recovery	=	111.86%			
43) Toluene-d8	14.334	14.346	0.898	98	1712656	47.27	ug/L	-0.01
Spiked Amount 50.000	Range 71 - 128		Recovery	=	94.54%			
61) Bromofluorobenzene	17.216	17.215	0.933	95	802718	47.81	ug/L	0.00
Spiked Amount 50.000	Range 65 - 130		Recovery	=	95.62%			

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	4.687	4.702	0.377	85	280691	37.84	ug/L	100
3) Chloromethane	4.999	4.999	0.402	50	327559	43.30	ug/L	99
4) Vinyl chloride	5.252	5.266	0.423	62	328745	42.34	ug/L	100
5) Bromomethane	5.980	5.979	0.481	94	189367	57.29	ug/L	99
6) Chloroethane	6.211	6.223	0.500	64	230001	40.02	ug/L	100
7) Trichlorofluoromethane	6.816	6.839	0.549	101	646343	48.08	ug/L	100
8) Ethyl ether	7.385	7.409	0.594	59	285483	39.37	ug/L	94
9) Acetone	7.907	7.930	0.636	43	1470002	230.23	ug/L	94
10) 1,1-Dichloroethylene	7.859	7.883	0.633	61	603839	42.54	ug/L	96
11) Iodomethane	8.144	8.167	0.655	142	2436047	197.19	ug/L	93
12) Acetonitrile	8.417	8.440	0.677	41	1171792	1021.16	ug/L	99
13) Methyl acetate	8.547	8.571	0.688	43	1462838	206.71	ug/L	97
14) Carbon disulfide	8.286	8.310	0.667	76	4702478	207.17	ug/L	100
15) Methylene chloride	8.749	8.772	0.704	84	313535	37.27	ug/L	89
16) tert-Butyl methyl ether	9.247	9.270	0.744	73	951212	40.13	ug/L	99
17) trans-1,2-Dichloroethy...	9.247	9.270	0.744	61	570047	42.92	ug/L	95
18) Vinyl acetate	9.982	10.006	0.803	43	4150752	237.84	ug/L	97
19) 1,1-Dichloroethane	9.934	9.958	0.800	63	657567	41.67	ug/L	100
20) 2-Butanone	10.812	10.836	0.870	43	1498148	211.35	ug/L	95
21) cis-1,2-Dichloroethylene	10.836	10.847	0.872	61	653164	43.51	ug/L	94
22) 2,2-Dichloropropane	10.859	10.871	0.874	77	602319	48.40	ug/L	98
23) Bromochloromethane	11.180	11.191	0.900	128	158801	38.61	ug/L	92
24) Chloroform	11.275	11.298	0.907	83	689397	43.96	ug/L	100
25) 1,1,1-Trichloroethane	11.583	11.595	0.932	97	702124	48.34	ug/L	99
26) Cyclohexane	11.690	11.701	0.941	56	678594	41.74	ug/L	96
27) 1,1-Dichloropropene	11.796	11.808	0.949	75	484997	43.81	ug/L	93
28) Carbon tetrachloride	11.820	11.832	0.951	117	662576	49.73	ug/L	99
30) 1,2-Dichloroethane	12.069	12.081	0.971	62	664672	45.82	ug/L	100
31) Benzene	12.081	12.093	0.972	78	1134995	39.09	ug/L	96
32) Cyclohexene	12.223	12.235	0.984	67	639691	40.32	ug/L	94
33) n-Butyl alcohol	12.686	12.686	1.021	56	1264996	4512.90	ug/L	94
34) Trichloroethylene	12.887	12.899	1.037	95	363701	43.18	ug/L	97
35) 1,2-Dichloropropane	13.160	13.172	1.059	63	334688	40.83	ug/L	100
36) Methylcyclohexane	13.172	13.172	1.060	83	557944	40.98	ug/L	94
37) Dibromomethane	13.302	13.314	1.071	93	215745	41.49	ug/L	98

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\020510V2.b\
Data File : 2X525LSA.D
Acq On : 5 Feb 2010 6:14 pm
Operator : CDS1
InstName : VOA2
Sample : |1202035184|949891|1|VOAF|1|VOA8260BS|
Misc : LCS 5g - soil MIX[A]ULT 0126-01A+0202-01
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Feb 06 06:28:19 2010
Quant Method : C:\msdchem\1\DATA\012610V2.b\VOA2-8260-012610.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Jan 27 06:34:30 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
38) Bromodichloromethane	13.468	13.480	1.084	83	540951	46.62	ug/L	99
39) 2-Chloroethylvinyl ether	13.777	13.788	1.109	63	1061407	189.44	ug/L	99
40) cis-1,3-Dichloropropylene	13.990	14.002	1.126	75	551558	43.81	ug/L	94
42) 4-Methyl-2-pentanone	14.132	14.144	0.885	58	834435	201.39	ug/L	88
44) Toluene	14.417	14.417	0.903	91	1334484	40.05	ug/L	99
45) trans-1,3-Dichloroprop...	14.607	14.618	0.915	75	587273	45.51	ug/L	96
46) 1,1,2-Trichloroethane	14.832	14.844	0.929	83	233688	39.79	ug/L	99
47) 2-Hexanone	15.069	15.069	0.944	43	2271585	205.51	ug/L	95
48) 1,3-Dichloropropane	15.034	15.034	0.941	76	503923	40.04	ug/L	88
49) Tetrachloroethylene	15.057	15.057	0.943	164	290392	41.61	ug/L	98
50) Dibromochloromethane	15.306	15.318	0.958	129	402270	45.08	ug/L	100
51) 1,2-Dibromoethane	15.472	15.472	0.969	107	321775	40.99	ug/L	100
52) Chlorobenzene	16.006	16.006	1.002	112	913659	40.73	ug/L	97
53) 1,1,1,2-Tetrachloroethane	16.065	16.077	1.006	131	371970	43.22	ug/L	98
54) Ethylbenzene	16.089	16.089	1.007	91	1730098	42.21	ug/L	98
55) m,p-Xylenes	16.208	16.208	1.015	106	1240140	80.77	ug/L	94
56) o-Xylene	16.658	16.658	1.043	106	608596	39.57	ug/L	95
57) Styrene	16.658	16.658	1.043	104	1017017	40.04	ug/L	94
59) Bromoform	16.895	16.895	0.915	173	278811	44.03	ug/L	100
60) Isopropylbenzene	17.038	17.038	0.923	105	1805016	41.47	ug/L	98
62) 1,1,2,2-Tetrachloroethane	17.310	17.310	0.938	83	402758	38.40	ug/L	99
63) 1,2,3-Trichloropropane	17.394	17.393	0.942	110	137032	40.39	ug/L	98
64) Bromobenzene	17.417	17.429	0.943	156	423076	39.72	ug/L	99
65) n-Propylbenzene	17.477	17.476	0.947	91	2136327	41.85	ug/L	98
66) 1,3,5-Trimethylbenzene	17.643	17.642	0.956	105	1560459	41.05	ug/L	98
67) 2-Chlorotoluene	17.607	17.607	0.954	126	387034	39.28	ug/L	91
68) 4-Chlorotoluene	17.714	17.714	0.960	91	1382758	41.67	ug/L	97
69) tert-Butylbenzene	18.010	18.010	0.976	134	287442	39.78	ug/L	92
70) 1,2,4-Trimethylbenzene	18.046	18.057	0.978	105	1597914	40.70	ug/L	97
71) sec-Butylbenzene	18.235	18.235	0.988	105	1996904	41.26	ug/L	100
72) 4-Isopropyltoluene	18.366	18.366	0.995	119	1645079	41.36	ug/L	98
73) 1,3-Dichlorobenzene	18.401	18.401	0.997	146	808998	39.57	ug/L	99
74) 1,4-Dichlorobenzene	18.496	18.496	1.002	146	820863	38.87	ug/L	99
75) n-Butylbenzene	18.805	18.805	1.019	91	1640158	41.72	ug/L	99
76) 1,2-Dichlorobenzene	18.900	18.899	1.024	146	773709	38.40	ug/L	99
77) 1,2-Dibromo-3-chloropr...	19.718	19.718	1.068	157	97379	38.28	ug/L	93
78) 1,2,4-Trichlorobenzene	20.690	20.690	1.121	180	595106	37.86	ug/L	100
79) Hexachlorobutadiene	20.868	20.868	1.130	225	385878	40.69	ug/L	100
80) Naphthalene	21.022	21.022	1.139	128	1384870	35.59	ug/L	100
81) 1,2,3-Trichlorobenzene	21.342	21.342	1.156	180	559114	38.76	ug/L	100
83) Chlorotrifluoroethylene	0.000	4.628	0.000		0	N.D.		
84) 2-Chloro-1,1,1-trifluo...	0.000	5.489	0.000		0	N.D.		
85) Acrolein	7.658	7.634	0.616		0m	N.D.	d	
86) Trichlorotrifluoroethane	7.895	7.918	0.635		0m	N.D.	d	
87) Isopropyl Alcohol	8.286	8.191	0.667		0m	N.D.	d	
88) Allyl chloride	0.000	8.559	0.000		0	N.D.		
89) tert-Butyl Alcohol	8.927	8.926	0.718		0m	N.D.	d	
90) Acrylonitrile	9.164	9.164	0.738		0m	N.D.	d	
91) Isopropyl ether	9.982	10.065	0.803		0m	N.D.	d	
92) 2-Chloro-1,3-butadiene	10.101	10.112	0.813		0m	N.D.	d	
93) Ethyl tert-butyl ether	10.610	10.622	0.854		0m	N.D.	d	
94) Ethyl acetate	10.812	10.919	0.870		0m	N.D.	d	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\020510V2.b\
Data File : 2X525LSA.D
Acq On : 5 Feb 2010 6:14 pm
Operator : CDS1
InstName : VOA2
Sample : |1202035184|949891|1|VOAF|1|VOA8260BS|
Misc : LCS 5g - soil MIX[A]ULT 0126-01A+0202-01
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Feb 06 06:28:19 2010
Quant Method : C:\msdchem\1\DATA\012610V2.b\VOA2-8260-012610.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Jan 27 06:34:30 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
95) Propionitrile	10.907	10.907	0.878		0m	N.D.	d
96) Methacrylonitrile	11.132	11.144	0.896		0m	N.D.	d
97) Tetrahydrofuran	11.275	11.263	0.907		0m	N.D.	d
98) Isobutyl alcohol	11.962	11.856	0.963		0m	N.D.	d
99) Methyl tert-amyl ether	12.223	12.211	0.984		0m	N.D.	d
100) Methyl methacrylate	13.172	13.243	1.060		0m	N.D.	d
101) 1,4-Dioxane	13.302	13.302	1.071		0m	N.D.	d
102) 2-Nitropropane	13.777	13.717	1.109		0m	N.D.	d
104) Ethyl methacrylate	14.666	14.666	0.918		0m	N.D.	d
106) 1-Chlorohexane	15.970	15.911	0.865		0m	N.D.	d
107) cis-1,4-Dichloro-2-butene	17.038	17.073	0.923		0m	N.D.	d
108) Cyclohexanone	17.168	17.156	0.930		0m	N.D.	d
109) trans-1,4-Dichloro-2-b...	17.370	17.370	0.941		0m	N.D.	d
110) Pentachloroethane	18.058	18.058	0.978		0m	N.D.	d
111) Benzyl chloride	18.603	18.603	1.008		0m	N.D.	d
112) bis(2-Chloroisopropyl)...	19.018	19.018	1.030		0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\020510V2.b\
Data File : 2X525LSA.D
Acq On : 5 Feb 2010 6:14 pm
Operator : CDS1
InstName : VOA2
Sample : |1202035184|949891|1|VOAF|1|VOA8260BS|
Misc : LCS 5g - soil MIX[A]ULT 0126-01A+0202-01
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Feb 06 06:28:19 2010
Quant Method : C:\msdchem\1\DATA\012610V2.b\VOA2-8260-012610.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Jan 27 06:34:30 2010
Response via : Initial Calibration
Integrator: RTE

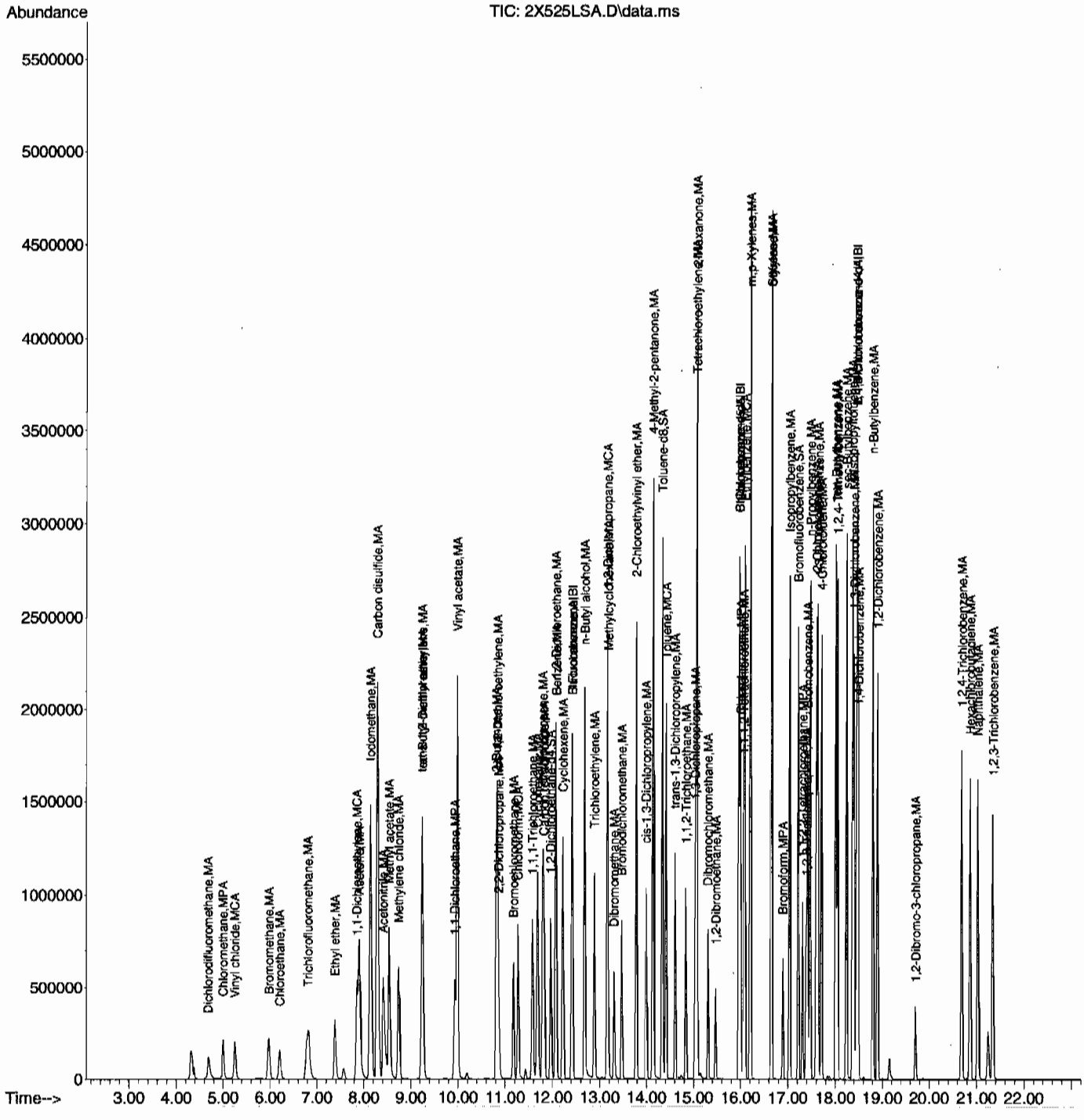

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1604**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202035185**				
Client Sample:	**QC for batch 949888**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 949888**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**949891**	**Inst:**	**VOA2.I**	**Dilution:**	**1**
Run Date:	**02/05/2010 18:43**	**Analyst:**	**CDS1**	**Purge Vol:**	**5 mL**
Prep Date:	**02/05/2010 15:30**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**020510V2.b\2X526SLSA.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/kg	0.340	1.00
74-87-3	Chloromethane	U	1.00	ug/kg	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/kg	0.300	1.00
74-83-9	Bromomethane	U	1.00	ug/kg	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/kg	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/kg	0.300	1.00
67-64-1	Acetone	U	5.00	ug/kg	1.66	5.00
75-35-4	1,1-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/kg	1.60	5.00
75-09-2	Methylene chloride	U	5.00	ug/kg	2.00	5.00
75-15-0	Carbon disulfide	U	5.00	ug/kg	1.25	5.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/kg	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/kg	1.50	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/kg	0.300	1.00
74-97-5	Bromochloromethane	U	1.00	ug/kg	0.330	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/kg	0.300	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/kg	0.300	1.00
56-23-5	Carbon tetrachloride	U	1.00	ug/kg	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/kg	0.300	1.00
71-43-2	Benzene	U	1.00	ug/kg	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/kg	0.330	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/kg	0.300	1.00
74-95-3	Dibromomethane	U	1.00	ug/kg	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/kg	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
108-88-3	Toluene	U	1.00	ug/kg	0.300	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/kg	0.300	1.00
591-78-6	2-Hexanone	U	5.00	ug/kg	1.50	5.00
142-28-9	1,3-Dichloropropane	U	1.00	ug/kg	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/kg	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/kg	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/kg	0.300	1.00
108-90-7	Chlorobenzene	U	1.00	ug/kg	0.300	1.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1604**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202035185**				
Client Sample:	**QC for batch 949888**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 949888**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**949891**	**Inst:**	**VOA2.I**	**Dilution:**	**1**
Run Date:	**02/05/2010 18:43**	**Analyst:**	**CDS1**	**Purge Vol:**	**5 mL**
Prep Date:	**02/05/2010 15:30**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**020510V2.b\2X526SLSA.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.00	ug/kg	0.300	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/kg	0.300	2.00
95-47-6	o-Xylene	U	1.00	ug/kg	0.300	1.00
100-42-5	Styrene	U	1.00	ug/kg	0.300	1.00
75-25-2	Bromoform	U	1.00	ug/kg	0.300	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/kg	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/kg	0.300	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/kg	0.300	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/kg	0.300	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/kg	0.300	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/kg	0.300	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/kg	0.300	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/kg	0.300	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/kg	0.300	1.00
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*		274	ug/kg	1.60	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\020510V2.b\
Data File : 2X526SLSA.D
Acq On : 5 Feb 2010 6:43 pm
Operator : CDS1
InstName : VOA2
Sample : |1202035185|949891|1|VOAF|1|VOA8260BS|
Misc : LCS 5g - SOIL MIX[B] 0118-08B
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Feb 06 06:29:27 2010
Quant Method : C:\msdchem\1\DATA\012610V2.b\VOA2-8260-012610.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Jan 27 06:34:30 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	12.425	12.437	1.000	96	1705291	50.00	ug/L	-0.01
41) Chlorobenzene-d5	15.971	15.970	1.000	117	1320757	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	18.461	18.461	1.000	152	745258	50.00	ug/L	0.00
82) B Fluorobenzene	12.425	12.437	1.000	96	1705125	50.00	ug/L	-0.01
103) B Chlorobenzene-d5	15.971	15.970	1.000	117	1320757	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	18.461	18.461	1.000	152	745441	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	11.974	11.986	0.964	65	727372	53.12	ug/L	-0.01
Spiked Amount 50.000	Range 66 - 134		Recovery = 106.24%					
43) Toluene-d8	14.334	14.346	0.898	98	1674721	45.96	ug/L	-0.01
Spiked Amount 50.000	Range 71 - 128		Recovery = 91.92%					
61) Bromofluorobenzene	17.216	17.215	0.933	95	795363	48.19	ug/L	0.00
Spiked Amount 50.000	Range 65 - 130		Recovery = 96.38%					

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	4.687	4.702	0.377		0m	N.D.	d	
3) Chloromethane	4.984	4.999	0.401		0m	N.D.	d	
4) Vinyl chloride	5.252	5.266	0.423		0m	N.D.	d	
5) Bromomethane	5.980	5.979	0.481		0m	N.D.	d	
6) Chloroethane	6.211	6.223	0.500		0m	N.D.	d	
7) Trichlorofluoromethane	6.792	6.839	0.547		0m	N.D.	d	
8) Ethyl ether	7.421	7.409	0.597		0m	N.D.	d	
9) Acetone	7.907	7.930	0.636		0m	N.D.	d	
10) 1,1-Dichloroethylene	7.907	7.883	0.636		0m	N.D.	d	
11) Iodomethane	8.156	8.167	0.656		0m	N.D.	d	
12) Acetonitrile	8.535	8.440	0.687		0m	N.D.	d	
13) Methyl acetate	8.571	8.571	0.690		0m	N.D.	d	
14) Carbon disulfide	8.298	8.310	0.668		0m	N.D.	d	
15) Methylene chloride	8.761	8.772	0.705		0m	N.D.	d	
16) tert-Butyl methyl ether	9.270	9.270	0.746		0m	N.D.	d	
17) trans-1,2-Dichloroethy...	9.247	9.270	0.744		0m	N.D.	d	
18) Vinyl acetate	10.006	10.006	0.805		0m	N.D.	d	
19) 1,1-Dichloroethane	9.946	9.958	0.801		0m	N.D.	d	
20) 2-Butanone	10.907	10.836	0.878		0m	N.D.	d	
21) cis-1,2-Dichloroethylene	10.907	10.847	0.878		0m	N.D.	d	
22) 2,2-Dichloropropane	10.860	10.871	0.874		0m	N.D.	d	
23) Bromochloromethane	11.192	11.191	0.901		0m	N.D.	d	
24) Chloroform	11.286	11.298	0.908		0m	N.D.	d	
25) 1,1,1-Trichloroethane	11.583	11.595	0.932		0m	N.D.	d	
26) Cyclohexane	11.690	11.701	0.941		0m	N.D.	d	
27) 1,1-Dichloropropene	11.844	11.808	0.953		0m	N.D.	d	
28) Carbon tetrachloride	11.832	11.832	0.952		0m	N.D.	d	
30) 1,2-Dichloroethane	12.069	12.081	0.971		0m	N.D.	d	
31) Benzene	12.081	12.093	0.972		0m	N.D.	d	
32) Cyclohexene	12.223	12.235	0.984		0m	N.D.	d	
33) n-Butyl alcohol	12.686	12.686	1.021		0m	N.D.	d	
34) Trichloroethylene	12.899	12.899	1.038		0m	N.D.	d	
35) 1,2-Dichloropropane	13.172	13.172	1.060		0m	N.D.	d	
36) Methylcyclohexane	13.172	13.172	1.060		0m	N.D.	d	
37) Dibromomethane	13.314	13.314	1.072		0m	N.D.	d	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\020510V2.b\
Data File : 2X526SLSA.D
Acq On : 5 Feb 2010 6:43 pm
Operator : CDS1
InstName : VOA2
Sample : |1202035185|949891|1|VOAF|1|VOA8260BS|
Misc : LCS 5g - SOIL MIX[B] 0118-08B
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Feb 06 06:29:27 2010
Quant Method : C:\msdchem\1\DATA\012610V2.b\VOA2-8260-012610.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Jan 27 06:34:30 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
38) Bromodichloromethane	13.480	13.480	1.085		0m	N.D.	d	
39) 2-Chloroethylvinyl ether	13.789	13.788	1.110		0m	N.D.	d	
40) cis-1,3-Dichloropropylene	14.002	14.002	1.127		0m	N.D.	d	
42) 4-Methyl-2-pentanone	14.144	14.144	0.886		0m	N.D.	d	
44) Toluene	14.417	14.417	0.903		0m	N.D.	d	
45) trans-1,3-Dichloroprop...	14.607	14.618	0.915		0m	N.D.	d	
46) 1,1,2-Trichloroethane	14.832	14.844	0.929		0m	N.D.	d	
47) 2-Hexanone	15.069	15.069	0.944		0m	N.D.	d	
48) 1,3-Dichloropropane	15.034	15.034	0.941		0m	N.D.	d	
49) Tetrachloroethylene	15.057	15.057	0.943		0m	N.D.	d	
50) Dibromochloromethane	15.318	15.318	0.959		0m	N.D.	d	
51) 1,2-Dibromoethane	15.472	15.472	0.969		0m	N.D.	d	
52) Chlorobenzene	16.006	16.006	1.002		0m	N.D.	d	
53) 1,1,1,2-Tetrachloroethane	16.077	16.077	1.007		0m	N.D.	d	
54) Ethylbenzene	16.089	16.089	1.007		0m	N.D.	d	
55) m,p-Xylenes	16.208	16.208	1.015		0m	N.D.	d	
56) o-Xylene	16.658	16.658	1.043		0m	N.D.	d	
57) Styrene	16.658	16.658	1.043		0m	N.D.	d	
59) Bromoform	16.895	16.895	0.915		0m	N.D.	d	
60) Isopropylbenzene	17.038	17.038	0.923		0m	N.D.	d	
62) 1,1,2,2-Tetrachloroethane	17.311	17.310	0.938		0m	N.D.	d	
63) 1,2,3-Trichloropropane	17.394	17.393	0.942		0m	N.D.	d	
64) Bromobenzene	17.417	17.429	0.943		0m	N.D.	d	
65) n-Propylbenzene	17.477	17.476	0.947		0m	N.D.	d	
66) 1,3,5-Trimethylbenzene	17.643	17.642	0.956		0m	N.D.	d	
67) 2-Chlorotoluene	17.607	17.607	0.954		0m	N.D.	d	
68) 4-Chlorotoluene	17.714	17.714	0.960		0m	N.D.	d	
69) tert-Butylbenzene	18.058	18.010	0.978		0m	N.D.	d	
70) 1,2,4-Trimethylbenzene	18.058	18.057	0.978		0m	N.D.	d	
71) sec-Butylbenzene	18.236	18.235	0.988		0m	N.D.	d	
72) 4-Isopropyltoluene	18.366	18.366	0.995		0m	N.D.	d	
73) 1,3-Dichlorobenzene	18.402	18.401	0.997		0m	N.D.	d	
74) 1,4-Dichlorobenzene	18.496	18.496	1.002		0m	N.D.	d	
75) n-Butylbenzene	18.805	18.805	1.019		0m	N.D.	d	
76) 1,2-Dichlorobenzene	18.900	18.899	1.024		0m	N.D.	d	
77) 1,2-Dibromo-3-chloropr...	19.706	19.718	1.067		0m	N.D.	d	
78) 1,2,4-Trichlorobenzene	20.690	20.690	1.121		0m	N.D.	d	
79) Hexachlorobutadiene	20.868	20.868	1.130		0m	N.D.	d	
80) Naphthalene	21.022	21.022	1.139		0m	N.D.	d	
81) 1,2,3-Trichlorobenzene	21.342	21.342	1.156		0m	N.D.	d	
83) Chlorotrifluoroethylene	0.000	4.628	0.000		0	N.D.		
84) 2-Chloro-1,1,1-trifluo...	0.000	5.489	0.000		0	N.D.		
85) Acrolein	7.622	7.634	0.613	56	332475	246.67	ug/L	96
86) Trichlorotrifluoroethane	7.907	7.918	0.636	85	936470	274.05	ug/L #	73
87) Isopropyl Alcohol	8.203	8.191	0.660	45	19487	N.D.		
88) Allyl chloride	8.535	8.559	0.687	41	3605552	244.45	ug/L	96
89) tert-Butyl Alcohol	8.938	8.926	0.719	59	280	N.D.		
90) Acrylonitrile	9.152	9.164	0.737	53	733939	213.65	ug/L	94
91) Isopropyl ether	10.101	10.065	0.813	45	481	N.D.		
92) 2-Chloro-1,3-butadiene	10.101	10.112	0.813	53	809640	50.89	ug/L	74
93) Ethyl tert-butyl ether	0.000	10.622	0.000		0	N.D.		
94) Ethyl acetate	10.907	10.919	0.878	43	2008882	225.52	ug/L	96

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\020510V2.b\
Data File : 2X526SLSA.D
Acq On : 5 Feb 2010 6:43 pm
Operator : CDS1
InstName : VOA2
Sample : |1202035185|949891|1|VOAF|1|VOA8260BS|
Misc : LCS 5g - SOIL MIX[B] 0118-08B
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Feb 06 06:29:27 2010
Quant Method : C:\msdchem\1\DATA\012610V2.b\VOA2-8260-012610.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Jan 27 06:34:30 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units		
95)	Propionitrile	10.895	10.907	0.877	54	289566	207.69	ug/L		99
96)	Methacrylonitrile	11.132	11.144	0.896	41	1310121	226.60	ug/L		99
97)	Tetrahydrofuran	11.251	11.263	0.906	42	644664	224.27	ug/L		88
98)	Isobutyl alcohol	11.844	11.856	0.953	41	805263	2223.81	ug/L		99
99)	Methyl tert-amyl ether	0.000	12.211	0.000		0	N.D.			
100)	Methyl methacrylate	13.231	13.243	1.065	69	1124613	217.22	ug/L	#	79
101)	1,4-Dioxane	13.302	13.302	1.071	88	186441	2096.62	ug/L		77
102)	2-Nitropropane	13.717	13.717	1.104	43	822784	243.68	ug/L		95
104)	Ethyl methacrylate	14.666	14.666	0.918	69	2322999	226.54	ug/L		88
106)	1-Chlorohexane	0.000	15.911	0.000		0m	N.D.	d		
107)	cis-1,4-Dichloro-2-butene	17.073	17.073	0.925	53	1188440	271.75	ug/L		94
108)	Cyclohexanone	17.156	17.156	0.929	42	488587	347.48	ug/L		92
109)	trans-1,4-Dichloro-2-b...	17.370	17.370	0.941	53	1140612	273.03	ug/L		82
110)	Pentachloroethane	18.058	18.058	0.978	167	1393884	335.11	ug/L		93
111)	Benzyl chloride	18.603	18.603	1.008	91	5294489	302.10	ug/L		90
112)	bis(2-Chloroisopropyl)...	19.018	19.018	1.030	45	1513470	219.81	ug/L		86

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\020510V2.b\
Data File : 2X526SLSA.D
Acq On : 5 Feb 2010 6:43 pm
Operator : CDS1
InstName : VOA2
Sample : |1202035185|949891|1|VOAF|1|VOA8260BS|
Misc : LCS 5g - SOIL MIX[B] 0118-08B
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Feb 06 06:29:27 2010
Quant Method : C:\msdchem\1\DATA\012610V2.b\VOA2-8260-012610.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Jan 27 06:34:30 2010
Response via : Initial Calibration
Integrator: RTE

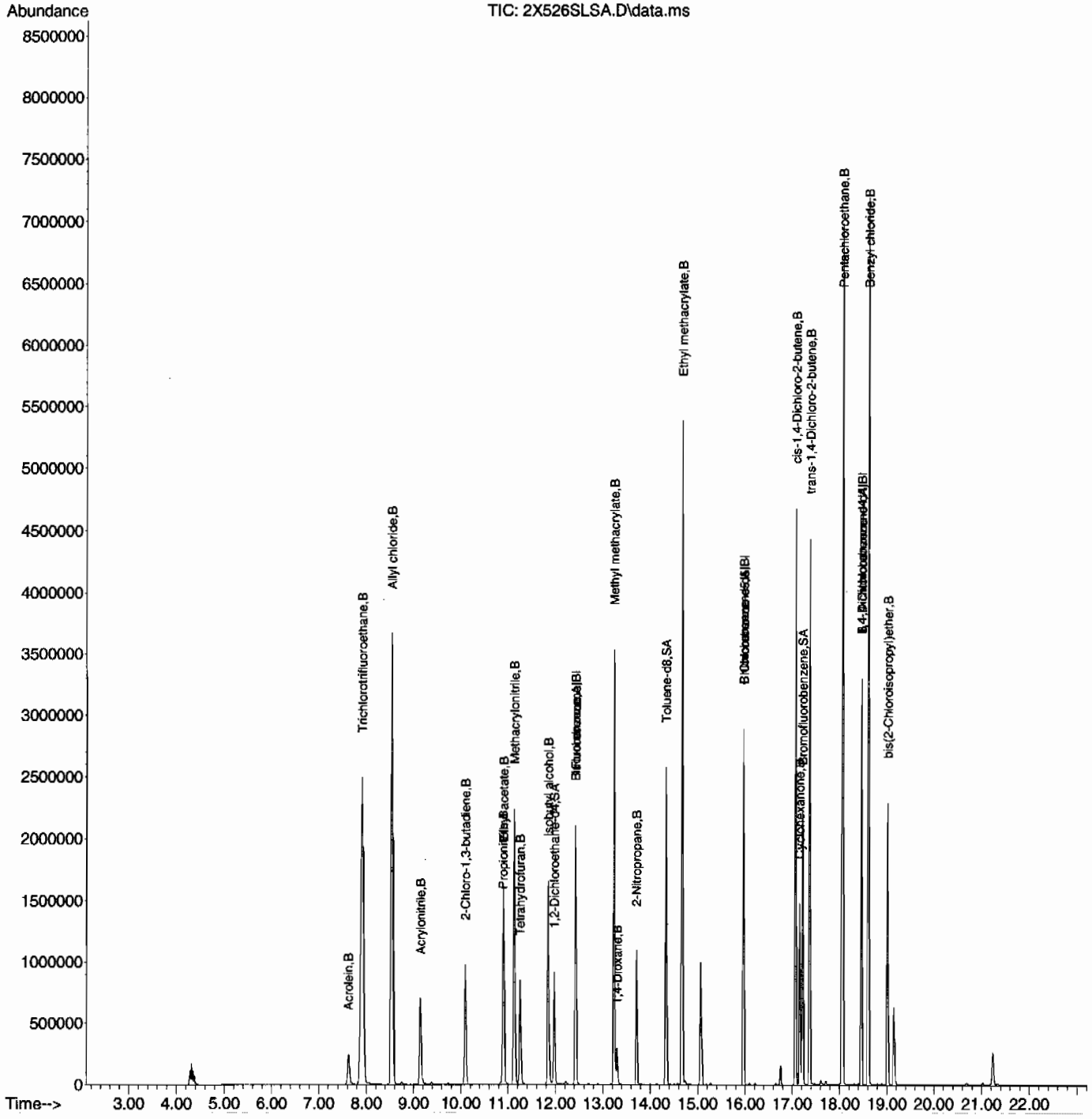

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1604	**Date Collected:**	02/02/2010 12:00	**Matrix:**	S
Lab Sample ID:	1202035182	**Date Received:**	02/05/2010 09:00	**%Moisture:**	15.4
Client Sample:	QC for batch 949888	**Client:**	LANL010	**Project:**	QC
Client ID:	RE03-10-12247PS	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	949891	**Inst:**	VOA2.I	**Dilution:**	1
Run Date:	02/06/2010 02:26	**Analyst:**	CDS1	**Purge Vol:**	5 mL
Prep Date:	02/05/2010 16:31	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	020510V2.b\2X542.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane		44.9	ug/kg	0.402	1.18
74-87-3	Chloromethane		52.4	ug/kg	0.354	1.18
75-01-4	Vinyl chloride		51.2	ug/kg	0.354	1.18
74-83-9	Bromomethane		61.6	ug/kg	0.354	1.18
75-00-3	Chloroethane		47.6	ug/kg	0.354	1.18
75-69-4	Trichlorofluoromethane		57.2	ug/kg	0.354	1.18
67-64-1	Acetone		145	ug/kg	1.96	5.91
75-35-4	1,1-Dichloroethylene		51.4	ug/kg	0.354	1.18
74-88-4	Iodomethane		235	ug/kg	1.89	5.91
75-09-2	Methylene chloride		43.7	ug/kg	2.36	5.91
75-15-0	Carbon disulfide		237	ug/kg	1.48	5.91
156-60-5	trans-1,2-Dichloroethylene		51.8	ug/kg	0.354	1.18
75-34-3	1,1-Dichloroethane		50.4	ug/kg	0.354	1.18
78-93-3	2-Butanone		168	ug/kg	1.77	5.91
156-59-2	cis-1,2-Dichloroethylene		52.4	ug/kg	0.354	1.18
594-20-7	2,2-Dichloropropane		51.8	ug/kg	0.354	1.18
67-66-3	Chloroform		53.6	ug/kg	0.354	1.18
74-97-5	Bromochloromethane		45.1	ug/kg	0.390	1.18
71-55-6	1,1,1-Trichloroethane		58.8	ug/kg	0.354	1.18
563-58-6	1,1-Dichloropropene		50.8	ug/kg	0.354	1.18
56-23-5	Carbon tetrachloride		60.1	ug/kg	0.354	1.18
107-06-2	1,2-Dichloroethane		56.0	ug/kg	0.354	1.18
71-43-2	Benzene		45.6	ug/kg	0.354	1.18
79-01-6	Trichloroethylene		50.5	ug/kg	0.390	1.18
78-87-5	1,2-Dichloropropane		48.9	ug/kg	0.354	1.18
75-27-4	Bromodichloromethane		56.2	ug/kg	0.354	1.18
74-95-3	Dibromomethane		49.1	ug/kg	0.354	1.18
108-10-1	4-Methyl-2-pentanone		212	ug/kg	1.48	5.91
10061-01-5	cis-1,3-Dichloropropylene		49.8	ug/kg	0.354	1.18
108-88-3	Toluene		46.3	ug/kg	0.354	1.18
10061-02-6	trans-1,3-Dichloropropylene		52.1	ug/kg	0.354	1.18
79-00-5	1,1,2-Trichloroethane		46.1	ug/kg	0.354	1.18
591-78-6	2-Hexanone		178	ug/kg	1.77	5.91
142-28-9	1,3-Dichloropropane		46.6	ug/kg	0.354	1.18
127-18-4	Tetrachloroethylene		47.4	ug/kg	0.354	1.18
124-48-1	Dibromochloromethane		53.0	ug/kg	0.354	1.18
106-93-4	1,2-Dibromoethane		47.3	ug/kg	0.354	1.18
108-90-7	Chlorobenzene		46.9	ug/kg	0.354	1.18

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1604**	**Date Collected:**	**02/02/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**1202035182**	**Date Received:**	**02/05/2010 09:00**	**%Moisture:**	**15.4**
Client Sample:	**QC for batch 949888**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**RE03-10-12247PS**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**949891**	**Inst:**	**VOA2.I**	**Dilution:**	**1**
Run Date:	**02/06/2010 02:26**	**Analyst:**	**CDS1**	**Purge Vol:**	**5 mL**
Prep Date:	**02/05/2010 16:31**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**020510V2.b\2X542.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene		48.8	ug/kg	0.354	1.18
179601-23-1	m,p-Xylenes		92.5	ug/kg	0.354	2.36
95-47-6	o-Xylene		45.8	ug/kg	0.354	1.18
100-42-5	Styrene		46.6	ug/kg	0.354	1.18
75-25-2	Bromoform		51.2	ug/kg	0.354	1.18
79-34-5	1,1,2,2-Tetrachloroethane		43.5	ug/kg	0.354	1.18
96-18-4	1,2,3-Trichloropropane		46.6	ug/kg	0.354	1.18
108-86-1	Bromobenzene		46.6	ug/kg	0.354	1.18
103-65-1	n-Propylbenzene		47.9	ug/kg	0.354	1.18
95-49-8	2-Chlorotoluene		45.7	ug/kg	0.354	1.18
98-82-8	Isopropylbenzene		47.6	ug/kg	0.354	1.18
108-67-8	1,3,5-Trimethylbenzene		47.2	ug/kg	0.354	1.18
106-43-4	4-Chlorotoluene		48.1	ug/kg	0.354	1.18
98-06-6	tert-Butylbenzene		45.7	ug/kg	0.354	1.18
95-63-6	1,2,4-Trimethylbenzene		46.7	ug/kg	0.354	1.18
135-98-8	sec-Butylbenzene		47.0	ug/kg	0.354	1.18
99-87-6	4-Isopropyltoluene		46.5	ug/kg	0.354	1.18
541-73-1	1,3-Dichlorobenzene		45.1	ug/kg	0.354	1.18
106-46-7	1,4-Dichlorobenzene		44.2	ug/kg	0.354	1.18
104-51-8	n-Butylbenzene		46.4	ug/kg	0.354	1.18
96-12-8	1,2-Dibromo-3-chloropropane		41.9	ug/kg	0.354	1.18
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.91	ug/kg	1.89	5.91
630-20-6	1,1,1,2-Tetrachloroethane		51.7	ug/kg	0.354	1.18
95-50-1	1,2-Dichlorobenzene		44.4	ug/kg	0.354	1.18

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\020510V2.b\
Data File : 2X542.D
Acq On : 6 Feb 2010 2:26 am
Operator : CDS1
InstName : VOA2
Sample : |1202035182|949891|1|VOAF|1|VOA8260BS|
Misc : LANL 5g - soil MS 246333001 MIX[A]
ALS Vial : 42 Sample Multiplier: 1

Quant Time: Feb 06 07:10:21 2010
Quant Method : C:\msdchem\1\DATA\012610V2.b\VOA2-8260-012610.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Jan 27 06:34:30 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	12.425	12.437	1.000	96	1481354	50.00	ug/L	-0.01
41) Chlorobenzene-d5	15.970	15.970	1.000	117	1170184	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	18.461	18.461	1.000	152	671367	50.00	ug/L	0.00
82) B Fluorobenzene	12.425	12.437	1.000	96	1481274	50.00	ug/L	-0.01
103) B Chlorobenzene-d5	15.970	15.970	1.000	117	1170184	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	18.461	18.461	1.000	152	671576	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	11.974	11.986	0.964	65	673223	56.60	ug/L	-0.01
Spiked Amount 50.000	Range 66 - 134		Recovery = 113.20%					
43) Toluene-d8	14.334	14.346	0.898	98	1509251	46.75	ug/L	-0.01
Spiked Amount 50.000	Range 71 - 128		Recovery = 93.50%					
61) Bromofluorobenzene	17.216	17.215	0.933	95	715320	48.11	ug/L	0.00
Spiked Amount 50.000	Range 65 - 130		Recovery = 96.22%					

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	4.702	4.702	0.378	85	250850	37.99	ug/L	100
3) Chloromethane	4.999	4.999	0.402	50	298716	44.36	ug/L	100
4) Vinyl chloride	5.251	5.266	0.423	62	299334	43.31	ug/L	100
5) Bromomethane	5.980	5.979	0.481	94	153917	52.10	ug/L	98
6) Chloroethane	6.223	6.223	0.501	64	206265	40.32	ug/L	98
7) Trichlorofluoromethane	6.827	6.839	0.550	101	579501	48.42	ug/L	100
8) Ethyl ether	7.397	7.409	0.595	59	253903	39.33	ug/L	92
9) Acetone	7.918	7.930	0.637	43	698481	122.89	ug/L	92
10) 1,1-Dichloroethylene	7.871	7.883	0.633	61	549480	43.49	ug/L	95
11) Iodomethane	8.156	8.167	0.656	142	2183349	198.53	ug/L	89
12) Acetonitrile	8.428	8.440	0.678	41	966061	945.69	ug/L	99
13) Methyl acetate	8.559	8.571	0.689	43	1331110	211.29	ug/L	96
14) Carbon disulfide	8.298	8.310	0.668	76	4060312	200.93	ug/L	100
15) Methylene chloride	8.760	8.772	0.705	84	276772	36.96	ug/L	84
16) tert-Butyl methyl ether	9.258	9.270	0.745	73	831425	39.40	ug/L	100
17) trans-1,2-Dichloroethy...	9.258	9.270	0.745	61	518556	43.86	ug/L	93
18) Vinyl acetate	9.994	10.006	0.804	43	1370119	88.19	ug/L	97
19) 1,1-Dichloroethane	9.946	9.958	0.801	63	599101	42.65	ug/L	99
20) 2-Butanone	10.812	10.836	0.870	43	898428	142.38	ug/L	93
21) cis-1,2-Dichloroethylene	10.836	10.847	0.872	61	592803	44.35	ug/L	93
22) 2,2-Dichloropropane	10.859	10.871	0.874	77	485322	43.81	ug/L	95
23) Bromochloromethane	11.180	11.191	0.900	128	139743	38.17	ug/L #	87
24) Chloroform	11.286	11.298	0.908	83	633812	45.40	ug/L	100
25) 1,1,1-Trichloroethane	11.583	11.595	0.932	97	643888	49.80	ug/L	99
26) Cyclohexane	11.689	11.701	0.941	56	587247	40.58	ug/L	95
27) 1,1-Dichloropropene	11.796	11.808	0.949	75	423855	43.01	ug/L	88
28) Carbon tetrachloride	11.832	11.832	0.952	117	603163	50.85	ug/L	98
30) 1,2-Dichloroethane	12.069	12.081	0.971	62	612289	47.41	ug/L	100
31) Benzene	12.081	12.093	0.972	78	998130	38.62	ug/L	94
32) Cyclohexene	12.223	12.235	0.984	67	551805	39.07	ug/L	90
33) n-Butyl alcohol	12.686	12.686	1.021	56	1014937	4067.30	ug/L	90
34) Trichloroethylene	12.887	12.899	1.037	95	320784	42.78	ug/L	96
35) 1,2-Dichloropropane	13.160	13.172	1.059	63	301832	41.36	ug/L	99
36) Methylcyclohexane	13.172	13.172	1.060	83	467981	38.61	ug/L	92
37) Dibromomethane	13.302	13.314	1.071	93	192367	41.56	ug/L	97

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\020510V2.b\
Data File : 2X542.D
Acq On : 6 Feb 2010 2:26 am
Operator : CDS1
InstName : VOA2
Sample : |1202035182|949891|1|VOAF|1|VOA8260BS|
Misc : LANL 5g - soil MS 246333001 MIX[A]
ALS Vial : 42 Sample Multiplier: 1

Quant Time: Feb 06 07:10:21 2010
Quant Method : C:\msdchem\1\DATA\012610V2.b\VOA2-8260-012610.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Jan 27 06:34:30 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units		
38) Bromodichloromethane	13.468	13.480	1.084	83	491509	47.59	ug/L		99
39) 2-Chloroethylvinyl ether	13.788	13.788	1.110	63	781167	156.61	ug/L		99
40) cis-1,3-Dichloropropylene	14.002	14.002	1.127	75	472300	42.14	ug/L		90
42) 4-Methyl-2-pentanone	14.132	14.144	0.885	58	663174	179.65	ug/L	#	84
44) Toluene	14.417	14.417	0.903	91	1162746	39.17	ug/L		99
45) trans-1,3-Dichloroprop...	14.607	14.618	0.915	75	506631	44.07	ug/L		95
46) 1,1,2-Trichloroethane	14.832	14.844	0.929	83	204066	39.00	ug/L		100
47) 2-Hexanone	15.069	15.069	0.944	43	1483011	150.59	ug/L		94
48) 1,3-Dichloropropane	15.034	15.034	0.941	76	442398	39.45	ug/L		98
49) Tetrachloroethylene	15.057	15.057	0.943	164	249544	40.13	ug/L		97
50) Dibromochloromethane	15.306	15.318	0.958	129	356823	44.88	ug/L		98
51) 1,2-Dibromoethane	15.472	15.472	0.969	107	279684	39.99	ug/L		100
52) Chlorobenzene	16.006	16.006	1.002	112	793578	39.70	ug/L		96
53) 1,1,1,2-Tetrachloroethane	16.065	16.077	1.006	131	335451	43.75	ug/L		98
54) Ethylbenzene	16.089	16.089	1.007	91	1509768	41.34	ug/L		98
55) m,p-Xylenes	16.208	16.208	1.015	106	1070723	78.28	ug/L		93
56) o-Xylene	16.658	16.658	1.043	106	530832	38.74	ug/L		92
57) Styrene	16.658	16.658	1.043	104	892026	39.42	ug/L		92
59) Bromoform	16.895	16.895	0.915	173	243175	43.36	ug/L		100
60) Isopropylbenzene	17.038	17.038	0.923	105	1553941	40.32	ug/L		98
62) 1,1,2,2-Tetrachloroethane	17.310	17.310	0.938	83	342297	36.85	ug/L		100
63) 1,2,3-Trichloropropane	17.393	17.393	0.942	110	118492	39.43	ug/L		94
64) Bromobenzene	17.417	17.429	0.943	156	372155	39.45	ug/L		98
65) n-Propylbenzene	17.476	17.476	0.947	91	1833855	40.56	ug/L		98
66) 1,3,5-Trimethylbenzene	17.631	17.642	0.955	105	1345789	39.97	ug/L		97
67) 2-Chlorotoluene	17.607	17.607	0.954	126	337523	38.68	ug/L		92
68) 4-Chlorotoluene	17.714	17.714	0.960	91	1197137	40.74	ug/L		97
69) tert-Butylbenzene	18.010	18.010	0.976	134	247605	38.69	ug/L	#	90
70) 1,2,4-Trimethylbenzene	18.046	18.057	0.978	105	1373251	39.49	ug/L		97
71) sec-Butylbenzene	18.235	18.235	0.988	105	1706347	39.81	ug/L		99
72) 4-Isopropyltoluene	18.366	18.366	0.995	119	1386307	39.36	ug/L		97
73) 1,3-Dichlorobenzene	18.401	18.401	0.997	146	691298	38.18	ug/L		99
74) 1,4-Dichlorobenzene	18.484	18.496	1.001	146	699236	37.39	ug/L		99
75) n-Butylbenzene	18.805	18.805	1.019	91	1367610	39.28	ug/L		98
76) 1,2-Dichlorobenzene	18.899	18.899	1.024	146	669904	37.55	ug/L		99
77) 1,2-Dibromo-3-chloropr...	19.718	19.718	1.068	157	79864	35.45	ug/L		90
78) 1,2,4-Trichlorobenzene	20.690	20.690	1.121	180	476582	34.24	ug/L		100
79) Hexachlorobutadiene	20.868	20.868	1.130	225	320975	38.22	ug/L		99
80) Naphthalene	21.022	21.022	1.139	128	1154567	33.50	ug/L		100
81) 1,2,3-Trichlorobenzene	21.342	21.342	1.156	180	457909	35.85	ug/L		100
83) Chlorotrifluoroethylene	0.000	4.628	0.000		0	N.D.			
84) 2-Chloro-1,1,1-trifluo...	0.000	5.489	0.000		0	N.D.			
85) Acrolein	0.000	7.634	0.000		0	N.D.			
86) Trichlorotrifluoroethane	7.907	7.918	0.636		0m	N.D.	d		
87) Isopropyl Alcohol	8.298	8.191	0.668		0m	N.D.	d		
88) Allyl chloride	0.000	8.559	0.000		0	N.D.			
89) tert-Butyl Alcohol	8.915	8.926	0.717		0m	N.D.	d		
90) Acrylonitrile	9.175	9.164	0.738		0m	N.D.	d		
91) Isopropyl ether	9.994	10.065	0.804		0m	N.D.	d		
92) 2-Chloro-1,3-butadiene	10.100	10.112	0.813		0m	N.D.	d		
93) Ethyl tert-butyl ether	10.634	10.622	0.856		0m	N.D.	d		
94) Ethyl acetate	10.812	10.919	0.870		0m	N.D.	d		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\020510V2.b\
Data File : 2X542.D
Acq On : 6 Feb 2010 2:26 am
Operator : CDS1
InstName : VOA2
Sample : |1202035182|949891|1|VOAF|1|VOA8260BS|
Misc : LANL 5g - soil MS 246333001 MIX[A]
ALS Vial : 42 Sample Multiplier: 1

Quant Time: Feb 06 07:10:21 2010
Quant Method : C:\msdchem\1\DATA\012610V2.b\VOA2-8260-012610.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Jan 27 06:34:30 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
95) Propionitrile	10.919	10.907	0.879		0m	N.D.	d
96) Methacrylonitrile	11.132	11.144	0.896		0m	N.D.	d
97) Tetrahydrofuran	11.286	11.263	0.908		0m	N.D.	d
98) Isobutyl alcohol	11.974	11.856	0.964		0m	N.D.	d
99) Methyl tert-amyl ether	12.223	12.211	0.984		0m	N.D.	d
100) Methyl methacrylate	13.172	13.243	1.060		0m	N.D.	d
101) 1,4-Dioxane	13.314	13.302	1.072		0m	N.D.	d
102) 2-Nitropropane	13.705	13.717	1.103		0m	N.D.	d
104) Ethyl methacrylate	14.666	14.666	0.918		0m	N.D.	d
106) 1-Chlorohexane	15.970	15.911	0.865		0m	N.D.	d
107) cis-1,4-Dichloro-2-butene	17.038	17.073	0.923		0m	N.D.	d
108) Cyclohexanone	17.168	17.156	0.930		0m	N.D.	d
109) trans-1,4-Dichloro-2-b...	17.358	17.370	0.940		0m	N.D.	d
110) Pentachloroethane	18.057	18.058	0.978		0m	N.D.	d
111) Benzyl chloride	18.603	18.603	1.008		0m	N.D.	d
112) bis(2-Chloroisopropyl)...	19.018	19.018	1.030		0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\020510V2.b\
Data File : 2X542.D
Acq On : 6 Feb 2010 2:26 am
Operator : CDS1
InstName : VOA2
Sample : |1202035182|949891|1|VOAF|1|VOA8260BS|
Misc : LANL 5g - soil MS 246333001 MIX[A]
ALS Vial : 42 Sample Multiplier: 1

Quant Time: Feb 06 07:10:21 2010
Quant Method : C:\msdchem\1\DATA\012610V2.b\VOA2-8260-012610.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Jan 27 06:34:30 2010
Response via : Initial Calibration
Integrator: RTE

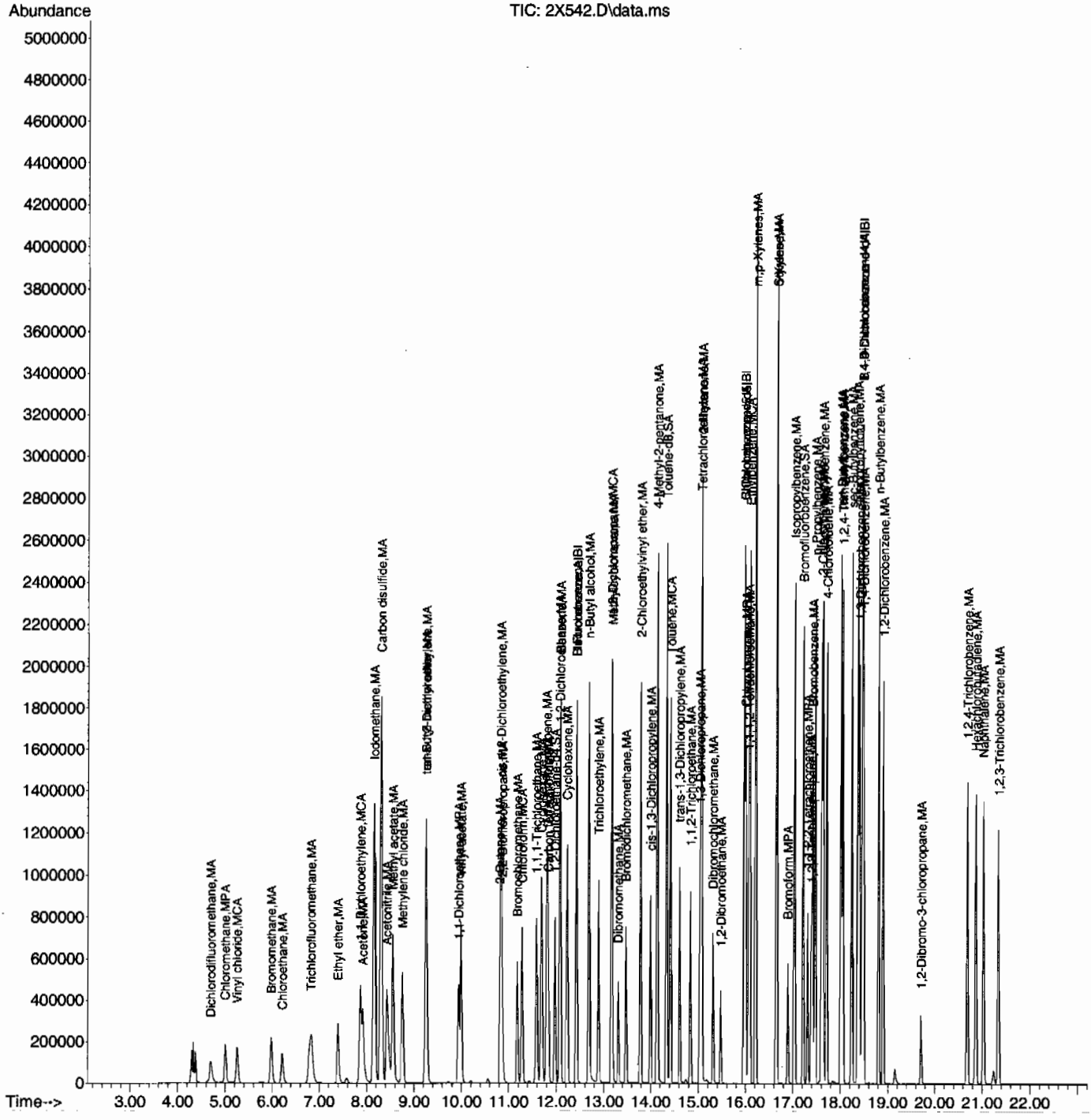

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1604	**Date Collected:**	02/02/2010 12:00	**Matrix:**	S
Lab Sample ID:	1202035183	**Date Received:**	02/05/2010 09:00	**%Moisture:**	15.4
Client Sample:	QC for batch 949888	**Client:**	LANL010	**Project:**	QC
Client ID:	RE03-10-12247PSD	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	949891	**Inst:**	VOA2.I	**Dilution:**	1
Run Date:	02/06/2010 02:56	**Analyst:**	CDS1	**Purge Vol:**	5 mL
Prep Date:	02/05/2010 16:32	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	020510V2.b\2X543.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane		43.9	ug/kg	0.402	1.18
74-87-3	Chloromethane		53.1	ug/kg	0.354	1.18
75-01-4	Vinyl chloride		50.8	ug/kg	0.354	1.18
74-83-9	Bromomethane		69.6	ug/kg	0.354	1.18
75-00-3	Chloroethane		47.0	ug/kg	0.354	1.18
75-69-4	Trichlorofluoromethane		55.4	ug/kg	0.354	1.18
67-64-1	Acetone		136	ug/kg	1.96	5.91
75-35-4	1,1-Dichloroethylene		49.9	ug/kg	0.354	1.18
74-88-4	Iodomethane		227	ug/kg	1.89	5.91
75-09-2	Methylene chloride		42.8	ug/kg	2.36	5.91
75-15-0	Carbon disulfide		233	ug/kg	1.48	5.91
156-60-5	trans-1,2-Dichloroethylene		49.6	ug/kg	0.354	1.18
75-34-3	1,1-Dichloroethane		48.9	ug/kg	0.354	1.18
78-93-3	2-Butanone		159	ug/kg	1.77	5.91
156-59-2	cis-1,2-Dichloroethylene		49.9	ug/kg	0.354	1.18
594-20-7	2,2-Dichloropropane		49.8	ug/kg	0.354	1.18
67-66-3	Chloroform		51.4	ug/kg	0.354	1.18
74-97-5	Bromochloromethane		43.5	ug/kg	0.390	1.18
71-55-6	1,1,1-Trichloroethane		56.1	ug/kg	0.354	1.18
563-58-6	1,1-Dichloropropene		49.0	ug/kg	0.354	1.18
56-23-5	Carbon tetrachloride		57.3	ug/kg	0.354	1.18
107-06-2	1,2-Dichloroethane		53.5	ug/kg	0.354	1.18
71-43-2	Benzene		44.0	ug/kg	0.354	1.18
79-01-6	Trichloroethylene		48.6	ug/kg	0.390	1.18
78-87-5	1,2-Dichloropropane		46.6	ug/kg	0.354	1.18
75-27-4	Bromodichloromethane		53.9	ug/kg	0.354	1.18
74-95-3	Dibromomethane		46.6	ug/kg	0.354	1.18
108-10-1	4-Methyl-2-pentanone		203	ug/kg	1.48	5.91
10061-01-5	cis-1,3-Dichloropropylene		47.7	ug/kg	0.354	1.18
108-88-3	Toluene		44.2	ug/kg	0.354	1.18
10061-02-6	trans-1,3-Dichloropropylene		49.6	ug/kg	0.354	1.18
79-00-5	1,1,2-Trichloroethane		43.6	ug/kg	0.354	1.18
591-78-6	2-Hexanone		166	ug/kg	1.77	5.91
142-28-9	1,3-Dichloropropane		44.6	ug/kg	0.354	1.18
127-18-4	Tetrachloroethylene		45.1	ug/kg	0.354	1.18
124-48-1	Dibromochloromethane		50.7	ug/kg	0.354	1.18
106-93-4	1,2-Dibromoethane		45.1	ug/kg	0.354	1.18
108-90-7	Chlorobenzene		45.1	ug/kg	0.354	1.18

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1604**	**Date Collected:**	**02/02/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**1202035183**	**Date Received:**	**02/05/2010 09:00**	**%Moisture:**	**15.4**
Client Sample:	**QC for batch 949888**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**RE03-10-12247PSD**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**949891**	**Inst:**	**VOA2.I**	**Dilution:**	**1**
Run Date:	**02/06/2010 02:56**	**Analyst:**	**CDS1**	**Purge Vol:**	**5 mL**
Prep Date:	**02/05/2010 16:32**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**020510V2.b\2X543.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene		46.6	ug/kg	0.354	1.18
179601-23-1	m,p-Xylenes		88.6	ug/kg	0.354	2.36
95-47-6	o-Xylene		43.6	ug/kg	0.354	1.18
100-42-5	Styrene		44.2	ug/kg	0.354	1.18
75-25-2	Bromoform		47.6	ug/kg	0.354	1.18
79-34-5	1,1,2,2-Tetrachloroethane		41.0	ug/kg	0.354	1.18
96-18-4	1,2,3-Trichloropropane		44.1	ug/kg	0.354	1.18
108-86-1	Bromobenzene		43.6	ug/kg	0.354	1.18
103-65-1	n-Propylbenzene		44.6	ug/kg	0.354	1.18
95-49-8	2-Chlorotoluene		43.2	ug/kg	0.354	1.18
98-82-8	Isopropylbenzene		44.6	ug/kg	0.354	1.18
108-67-8	1,3,5-Trimethylbenzene		43.9	ug/kg	0.354	1.18
106-43-4	4-Chlorotoluene		44.8	ug/kg	0.354	1.18
98-06-6	tert-Butylbenzene		42.5	ug/kg	0.354	1.18
95-63-6	1,2,4-Trimethylbenzene		43.6	ug/kg	0.354	1.18
135-98-8	sec-Butylbenzene		44.0	ug/kg	0.354	1.18
99-87-6	4-Isopropyltoluene		42.6	ug/kg	0.354	1.18
541-73-1	1,3-Dichlorobenzene		42.2	ug/kg	0.354	1.18
106-46-7	1,4-Dichlorobenzene		41.0	ug/kg	0.354	1.18
104-51-8	n-Butylbenzene		42.4	ug/kg	0.354	1.18
96-12-8	1,2-Dibromo-3-chloropropane		40.1	ug/kg	0.354	1.18
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.91	ug/kg	1.89	5.91
630-20-6	1,1,1,2-Tetrachloroethane		49.1	ug/kg	0.354	1.18
95-50-1	1,2-Dichlorobenzene		41.3	ug/kg	0.354	1.18

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\020510V2.b\
Data File : 2X543.D
Acq On : 6 Feb 2010 2:56 am
Operator : CDS1
InstName : VOA2
Sample : |1202035183|949891|1|VOAF|1|VOA8260BS|
Misc : LANL 5g - soil MSD 246333001 MIX[A]
ALS Vial : 43 Sample Multiplier: 1

Quant Time: Feb 06 07:10:33 2010
Quant Method : C:\msdchem\1\DATA\012610V2.b\VOA2-8260-012610.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Jan 27 06:34:30 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	12.413	12.437	1.000	96	1514979	50.00	ug/L	-0.02
41) Chlorobenzene-d5	15.970	15.970	1.000	117	1199283	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	18.461	18.461	1.000	152	698346	50.00	ug/L	0.00
82) B Fluorobenzene	12.413	12.437	1.000	96	1514825	50.00	ug/L	-0.02
103) B Chlorobenzene-d5	15.970	15.970	1.000	117	1199283	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	18.461	18.461	1.000	152	698386	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	11.962	11.986	0.964	65	672333	55.27	ug/L	-0.02
Spiked Amount 50.000	Range 66 - 134		Recovery = 110.54%					
43) Toluene-d8	14.334	14.346	0.898	98	1526792	46.15	ug/L	-0.01
Spiked Amount 50.000	Range 71 - 128		Recovery = 92.30%					
61) Bromofluorobenzene	17.216	17.215	0.933	95	727136	47.01	ug/L	0.00
Spiked Amount 50.000	Range 65 - 130		Recovery = 94.02%					
Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	4.687	4.702	0.378	85	250694	37.12	ug/L	99
3) Chloromethane	4.999	4.999	0.403	50	309627	44.97	ug/L	100
4) Vinyl chloride	5.252	5.266	0.423	62	303852	42.98	ug/L	100
5) Bromomethane	5.980	5.979	0.482	94	176983	58.88	ug/L	98
6) Chloroethane	6.211	6.223	0.500	64	207902	39.74	ug/L	99
7) Trichlorofluoromethane	6.828	6.839	0.550	101	573526	46.86	ug/L	99
8) Ethyl ether	7.385	7.409	0.595	59	245684	37.22	ug/L	92
9) Acetone	7.907	7.930	0.637	43	666873	114.72	ug/L	93
10) 1,1-Dichloroethylene	7.859	7.883	0.633	61	545709	42.23	ug/L	95
11) Iodomethane	8.144	8.167	0.656	142	2163685	192.38	ug/L	90
12) Acetonitrile	8.417	8.440	0.678	41	931231	891.36	ug/L	98
13) Methyl acetate	8.547	8.571	0.689	43	1324089	205.51	ug/L	96
14) Carbon disulfide	8.286	8.310	0.668	76	4076074	197.24	ug/L	100
15) Methylene chloride	8.737	8.772	0.704	84	277232	36.20	ug/L	86
16) tert-Butyl methyl ether	9.247	9.270	0.745	73	821183	38.05	ug/L	100
17) trans-1,2-Dichloroethy...	9.247	9.270	0.745	61	507876	42.00	ug/L	94
18) Vinyl acetate	9.982	10.006	0.804	43	1009879	63.56	ug/L	97
19) 1,1-Dichloroethane	9.934	9.958	0.800	63	594339	41.37	ug/L	99
20) 2-Butanone	10.800	10.836	0.870	43	870610	134.90	ug/L	94
21) cis-1,2-Dichloroethylene	10.824	10.847	0.872	61	577073	42.22	ug/L	94
22) 2,2-Dichloropropane	10.848	10.871	0.874	77	477722	42.16	ug/L	96
23) Bromochloromethane	11.168	11.191	0.900	128	137825	36.81	ug/L	89
24) Chloroform	11.274	11.298	0.908	83	621209	43.51	ug/L	99
25) 1,1,1-Trichloroethane	11.571	11.595	0.932	97	627992	47.49	ug/L	99
26) Cyclohexane	11.678	11.701	0.941	56	586329	39.62	ug/L	95
27) 1,1-Dichloropropene	11.784	11.808	0.949	75	418331	41.51	ug/L	91
28) Carbon tetrachloride	11.820	11.832	0.952	117	588007	48.48	ug/L	99
30) 1,2-Dichloroethane	12.069	12.081	0.972	62	598127	45.29	ug/L	100
31) Benzene	12.069	12.093	0.972	78	984882	37.26	ug/L	94
32) Cyclohexene	12.223	12.235	0.985	67	549664	38.06	ug/L	91
33) n-Butyl alcohol	12.674	12.686	1.021	56	971081	3805.18	ug/L	91
34) Trichloroethylene	12.887	12.899	1.038	95	315712	41.17	ug/L	97
35) 1,2-Dichloropropane	13.160	13.172	1.060	63	294496	39.46	ug/L	100
36) Methylcyclohexane	13.160	13.172	1.060	83	466770	37.66	ug/L	93
37) Dibromomethane	13.302	13.314	1.072	93	186630	39.42	ug/L	97

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\020510V2.b\
Data File : 2X543.D
Acq On : 6 Feb 2010 2:56 am
Operator : CDS1
InstName : VOA2
Sample : |1202035183|949891|1|VOAF|1|VOA8260BS|
Misc : LANL 5g - soil MSD 246333001 MIX[A]
ALS Vial : 43 Sample Multiplier: 1

Quant Time: Feb 06 07:10:33 2010
Quant Method : C:\msdchem\1\DATA\012610V2.b\VOA2-8260-012610.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Jan 27 06:34:30 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units		
38) Bromodichloromethane	13.468	13.480	1.085	83	481715	45.60	ug/L		100
39) 2-Chloroethylvinyl ether	13.777	13.788	1.110	63	852257	167.07	ug/L		99
40) cis-1,3-Dichloropropylene	13.990	14.002	1.127	75	462493	40.35	ug/L		91
42) 4-Methyl-2-pentanone	14.132	14.144	0.885	58	649900	171.78	ug/L		85
44) Toluene	14.405	14.417	0.902	91	1138653	37.43	ug/L		99
45) trans-1,3-Dichloroprop...	14.607	14.618	0.915	75	494365	41.96	ug/L		95
46) 1,1,2-Trichloroethane	14.832	14.844	0.929	83	197895	36.90	ug/L		99
47) 2-Hexanone	15.069	15.069	0.944	43	1421545	140.85	ug/L		94
48) 1,3-Dichloropropane	15.034	15.034	0.941	76	433619	37.73	ug/L		99
49) Tetrachloroethylene	15.057	15.057	0.943	164	243235	38.17	ug/L		98
50) Dibromochloromethane	15.306	15.318	0.958	129	349622	42.91	ug/L		99
51) 1,2-Dibromoethane	15.461	15.472	0.968	107	273636	38.18	ug/L		100
52) Chlorobenzene	15.994	16.006	1.001	112	781627	38.16	ug/L		97
53) 1,1,1,2-Tetrachloroethane	16.065	16.077	1.006	131	326553	41.56	ug/L		97
54) Ethylbenzene	16.089	16.089	1.007	91	1475169	39.41	ug/L		98
55) m,p-Xylenes	16.208	16.208	1.015	106	1050905	74.96	ug/L		93
56) o-Xylene	16.646	16.658	1.042	106	518079	36.89	ug/L		93
57) Styrene	16.658	16.658	1.043	104	868258	37.43	ug/L		92
59) Bromoform	16.895	16.895	0.915	173	235013	40.29	ug/L		99
60) Isopropylbenzene	17.038	17.038	0.923	105	1513631	37.75	ug/L		98
62) 1,1,2,2-Tetrachloroethane	17.310	17.310	0.938	83	334853	34.66	ug/L		100
63) 1,2,3-Trichloropropane	17.393	17.393	0.942	110	116663	37.33	ug/L		97
64) Bromobenzene	17.417	17.429	0.943	156	362124	36.91	ug/L		99
65) n-Propylbenzene	17.476	17.476	0.947	91	1775529	37.76	ug/L		98
66) 1,3,5-Trimethylbenzene	17.631	17.642	0.955	105	1300911	37.15	ug/L		97
67) 2-Chlorotoluene	17.607	17.607	0.954	126	331630	36.53	ug/L		94
68) 4-Chlorotoluene	17.714	17.714	0.960	91	1157924	37.88	ug/L		97
69) tert-Butylbenzene	18.010	18.010	0.976	134	239177	35.93	ug/L	#	90
70) 1,2,4-Trimethylbenzene	18.046	18.057	0.978	105	1333270	36.86	ug/L		97
71) sec-Butylbenzene	18.235	18.235	0.988	105	1660078	37.23	ug/L		99
72) 4-Isopropyltoluene	18.366	18.366	0.995	119	1322356	36.09	ug/L		97
73) 1,3-Dichlorobenzene	18.401	18.401	0.997	146	673178	35.74	ug/L		99
74) 1,4-Dichlorobenzene	18.484	18.496	1.001	146	675297	34.71	ug/L		99
75) n-Butylbenzene	18.805	18.805	1.019	91	1300639	35.91	ug/L		98
76) 1,2-Dichlorobenzene	18.900	18.899	1.024	146	649389	34.99	ug/L		98
77) 1,2-Dibromo-3-chloropr...	19.706	19.718	1.067	157	79464	33.91	ug/L		92
78) 1,2,4-Trichlorobenzene	20.690	20.690	1.121	180	452366	31.24	ug/L		99
79) Hexachlorobutadiene	20.868	20.868	1.130	225	294944	33.76	ug/L		100
80) Naphthalene	21.022	21.022	1.139	128	1113172	31.05	ug/L		100
81) 1,2,3-Trichlorobenzene	21.342	21.342	1.156	180	433720	32.64	ug/L		99
83) Chlorotrifluoroethylene	0.000	4.628	0.000		0	N.D.			
84) 2-Chloro-1,1,1-trifluo...	0.000	5.489	0.000		0	N.D.			
85) Acrolein	0.000	7.634	0.000		0	N.D.			
86) Trichlorotrifluoroethane	7.895	7.918	0.636		0m	N.D.	d		
87) Isopropyl Alcohol	8.286	8.191	0.668		0m	N.D.	d		
88) Allyl chloride	0.000	8.559	0.000		0	N.D.			
89) tert-Butyl Alcohol	8.915	8.926	0.718		0m	N.D.	d		
90) Acrylonitrile	9.152	9.164	0.737		0m	N.D.	d		
91) Isopropyl ether	9.982	10.065	0.804		0m	N.D.	d		
92) 2-Chloro-1,3-butadiene	10.089	10.112	0.813		0m	N.D.	d		
93) Ethyl tert-butyl ether	10.599	10.622	0.854		0m	N.D.	d		
94) Ethyl acetate	10.800	10.919	0.870		0m	N.D.	d		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\020510V2.b\
Data File : 2X543.D
Acq On : 6 Feb 2010 2:56 am
Operator : CDS1
InstName : VOA2
Sample : |1202035183|949891|1|VOAF|1|VOA8260BS|
Misc : LANL 5g - soil MSD 246333001 MIX[A]
ALS Vial : 43 Sample Multiplier: 1

Quant Time: Feb 06 07:10:33 2010
Quant Method : C:\msdchem\1\DATA\012610V2.b\VOA2-8260-012610.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Jan 27 06:34:30 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
95) Propionitrile	10.883	10.907	0.877		0m	N.D.	d
96) Methacrylonitrile	11.120	11.144	0.896		0m	N.D.	d
97) Tetrahydrofuran	11.263	11.263	0.907		0m	N.D.	d
98) Isobutyl alcohol	11.962	11.856	0.964		0m	N.D.	d
99) Methyl tert-amyl ether	12.223	12.211	0.985		0m	N.D.	d
100) Methyl methacrylate	13.160	13.243	1.060		0m	N.D.	d
101) 1,4-Dioxane	13.302	13.302	1.072		0m	N.D.	d
102) 2-Nitropropane	13.777	13.717	1.110		0m	N.D.	d
104) Ethyl methacrylate	14.666	14.666	0.918		0m	N.D.	d
106) 1-Chlorohexane	15.959	15.911	0.864		0m	N.D.	d
107) cis-1,4-Dichloro-2-butene	17.026	17.073	0.922		0m	N.D.	d
108) Cyclohexanone	17.156	17.156	0.929		0m	N.D.	d
109) trans-1,4-Dichloro-2-b...	17.358	17.370	0.940		0m	N.D.	d
110) Pentachloroethane	18.058	18.058	0.978		0m	N.D.	d
111) Benzyl chloride	18.603	18.603	1.008		0m	N.D.	d
112) bis(2-Chloroisopropyl)...	19.018	19.018	1.030		0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\020510V2.b\
Data File : 2X543.D
Acq On : 6 Feb 2010 2:56 am
Operator : CDS1
InstName : VOA2
Sample : |1202035183|949891|1|VOAF|1|VOA8260BS|
Misc : LANL 5g - soil MSD 246333001 MIX[A]
ALS Vial : 43 Sample Multiplier: 1

Quant Time: Feb 06 07:10:33 2010
Quant Method : C:\msdchem\1\DATA\012610V2.b\VOA2-8260-012610.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Jan 27 06:34:30 2010
Response via : Initial Calibration
Integrator: RTE

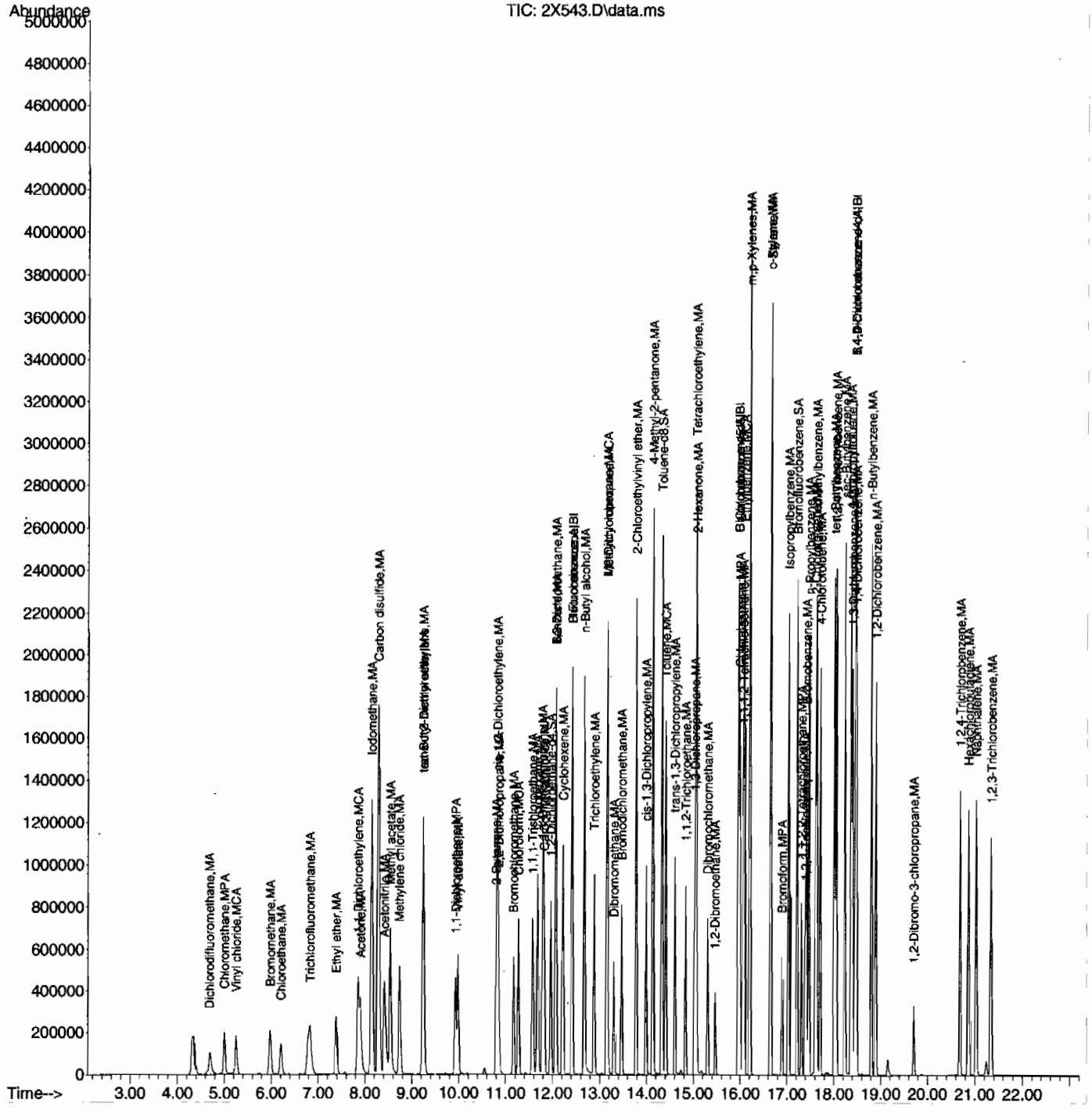

Miscellaneous

GEL Laboratories, LLC
Revision:11/22/04

ORGANIC RUN LOG - INSTRUMENT ID#VOA2

Date: 1/26/2010 Method 8260/QSM/624 Operator: CDS1

REVIEWED BY: _____
DATE: _____

HARDWARE CONFIGURATION & METHOD CONDITIONS SUMMARY No# 1

Daily Instrument Readings:
Multiplier Voltage: 1329

CALIBRATION & CC INFORMATION:

Initial Calibration Date: _____

(See pg. _____ for ICAL Std. Ids)

NaHSO4 lot # N/A

Cl test lot # N/A

Sequence Number: 012610V2

	Daily Standard Solution ID#	Volume Added for Purge (ul) Blk/ Smpl	CCV	MS/ LCS	BFB
IS	UVM100114-01	1	1	1	
SS	UVM100114-02	1	1	1	
Long ICV	W2VM100126-10			5+5	
BFB	UVM091216-09				1
Short ICV	W2VM100126-18			5+5	

Purge Amount	
5	Water Purge Vol:
	Soil Purge Wt.
	Mid level ext. MeOH Vol:
	ul
	Methanol Lot #
X	Heated Purge

Analysis Date	Time	Data File	Lab Sample ID	Client	Batch #	Wt.(g) or Vol(ml/ul)	Dil. Factor	pH	AS Slot #	Matrix w or s	Analyst	Cl test (Y/N)	Acceptable(O/X)	Comments
1/26/2010	13:21	2W201.D	UVM091216-09	--------	BFB	5mL	1	N/A	1	w	CDS1	N/A	O	
1/26/2010	13:48	2W202.D	120189------	--------	BLANK	5mL	1	N/A	2	w	CDS1	N/A	X	clean-up blank
1/26/2010	14:16	2W203.D	W2VM100126-01	VSTD001	ICAL	5uL ea.	1	N/A	3	w	CDS1	N/A	O	UVM100106-02B+UVM091217-02D
1/26/2010	14:45	2W204.D	W2VM100126-02	VSTD002	ICAL	5uL ea.	1	N/A	4	w	CDS1	N/A	O	UVM100106-03B+UVM091217-03D
1/26/2010	15:14	2W205.D	W2VM100126-03	VSTD005	ICAL	5uL ea.	1	N/A	5	w	CDS1	N/A	O	UVM100106-04B+UVM091217-04D
1/26/2010	15:43	2W206.D	W2VM100126-04	VSTD010	ICAL	5uL ea.	1	N/A	6	w	CDS1	N/A	O	UVM100106-05B+UVM091217-05D
1/26/2010	16:12	2W207.D	W2VM100126-05	VSTD020	ICAL	5uL ea.	1	N/A	7	w	CDS1	N/A	O	UVM100106-06B+UVM091217-06D
1/26/2010	16:41	2W208.D	W2VM100126-06	VSTD050	ICAL	5uL ea.	1	N/A	8	w	CDS1	N/A	O	UVM100106-07B+UVM091217-07D
1/26/2010	17:10	2W209.D	W2VM100126-07	VSTD100	ICAL	5uL ea.	1	N/A	9	w	CDS1	N/A	O	UVM100106-08B+UVM091217-08D
1/26/2010	17:39	2W210.D	120189------	--------	BLANK	5mL	1	N/A	10	w	CDS1	N/A	X	clean-up blank
1/26/2010	18:08	2W211.D	W2VM100126-08	VSTD0005	ICAL	5uL ea.	1	N/A	11	w	CDS1	N/A	O	UVM100106-01B+UVM091217-01D
1/26/2010	18:37	2W212.D	W2VM100126-09	LCS	lcs	5uL ea.	1	N/A	12	w	CDS1	N/A	X	UVM091215-01E+IVM100126-01did not meet QSM req's
1/26/2010	19:05	2W213.D	W2VM100126-10	LCS	ICV	5uL ea.	1	N/A	13	w	CDS1	N/A	O	UVM091214-01I+IVM100126-01
1/26/2010	19:34	2W214.D	120189------	--------	BLANK	5mL	1	N/A	14	w	CDS1	N/A	X	clean-up blank
1/26/2010	20:03	2W215.D	W2VM100126-11	VSTD005S	ICAL	5uL ea.	1	N/A	15	w	CDS1	N/A	O	UVM100118-01+UVM100125-01A
1/26/2010	20:32	2W216.D	W2VM100126-12	VSTD010S	ICAL	5uL ea.	1	N/A	16	w	CDS1	N/A	O	UVM100118-02+UVM100125-02A
1/26/2010	21:01	2W217.D	W2VM100126-13	VSTD025S	ICAL	5uL ea.	1	N/A	17	w	CDS1	N/A	O	UVM100118-03+UVM100125-03A
1/26/2010	21:31	2W218.D	W2VM100126-14	VSTD050S	ICAL	5uL ea.	1	N/A	18	w	CDS1	N/A	O	UVM100118-04+UVM100125-04A
1/26/2010	22:00	2W219.D	W2VM100126-15	VSTD100S	ICAL	5uL ea.	1	N/A	19	w	CDS1	N/A	O	UVM100118-05+UVM100125-05A
1/26/2010	22:30	2W220.D	W2VM100126-16	VSTD250S	ICAL	5uL ea.	1	N/A	20	w	CDS1	N/A	O	UVM100118-06+UVM100125-06A
1/26/2010	22:59	2W221.D	W2VM100126-17	VSTD500S	ICAL	5uL ea.	1	N/A	21	w	CDS1	N/A	O	UVM100118-07+UVM100125-07A
1/26/2010	23:28	2W222.D	120189------	--------	BLANK	5mL	1	N/A	22	w	CDS1	N/A	X	clean-up blank
1/26/2010	23:57	2W223.D	120189------	--------	LCS	5uL ea.	1	N/A	23	w	CDS1	N/A	X	UVM100118-08A/UVM091209-08E lot check
1/27/2010	0:26	2W224.D	W2VM100126-18	LCS	ICV	5uL ea.	1	N/A	24	w	CDS1	N/A	O	UVM091023-08B+UVM091209-08E

GEL Laboratories, LLC
Revision:11/22/04

ORGANIC RUN LOG - INSTRUMENT ID#VOA2

Date: 2/5/2010 Method 8260/624 Operator: CDS1

REVIEWED BY: _____
DATE: _____

HARDWARE CONFIGURATION & METHOD CONDITIONS SUMMARY No# 1

Daily Instrument Readings:
Multiplier Voltage: 1376

CALIBRATION & CC INFORMATION:

Initial Calibration Date: 1/26/2010

(See pg. 15 for ICAL Std. Ids)

NaHSO4 lot # N/A

Cl test lot # 9348

Sequence Number: 020510V2pm

Daily Standard Volume Added for Purge (ul)

	Solution ID#	Blk/ Smpl	CCV	MS/ LCS	BFB
CCV	W2VM100205-05		5+5		
IS	UVM100114-01	1	1	1	
SS	UVM100114-02	1	1	1	
LCS/MS	W2VM100205-06/07			5+5	
BFB	UVM100114-02				1
SHORT	W2VM100205-08		5	5	

Purge Amount

5	Water Purge Vol:
	Soil Purge Wt.
	Mid level ext. MeOH Vol:
	ul
	Methanol Lot #
X	Heated Purge

Analysis Date	Time	Data File	Lab Sample ID	Client	Batch #	Wt.(g) or Vol(ml/ul)	Dil. Factor	pH	AS Slot #	Matrix w or s	Analyst	Cl test (Y/N)	Acceptable(O/X)	Comments
5 Feb 2010	16:50	2X522.D	UVM100114-02	--------	BFB2	5mL	1	N/A	22	w	CDS1	N/A	O	
5 Feb 2010	17:16	2X523.D	W2VM100205-05	--------	CCV	5mL	1	N/A	23	w	CDS1	N/A	O	UVM100106-07B+UVM10202-07A
5 Feb 2010	17:45	2X524.D	W2VM100205-06	--------	LCS	5mL	1	N/A	24	w	CDS1	N/A	O	UVM100126-01A+IVM100202-01
5 Feb 2010	18:14	2X525.D	W2VM100205-07	--------	LCS	5g	1	N/A	25	s	CDS1	N/A	O	UVM100126-01A+IVM100202-01
5 Feb 2010	18:43	2X526.D	W2VM100205-08	--------	CCV	5g	1	N/A	26	s	CDS1	N/A	O	UVM100118-08B
5 Feb 2010	19:12	2X527.D	120203-----	--------	BLANK	5ML	1	N/A	27	w	CDS1	N/A	O	
5 Feb 2010	19:41	2X528.D	120203-----	--------	BLANK	5g	1	N/A	28	s	CDS1	N/A	O	
5 Feb 2010	20:10	2X529.D	246333001	LANL	949891	5g	1	N/A	29	s	CDS1	N/A	O	
5 Feb 2010	20:39	2X530.D	246333002	LANL	949891	5g	1	N/A	30	s	CDS1	N/A	O	
5 Feb 2010	21:08	2X531.D	246333002	LANL	949891	5g	1	N/A	31	s	CDS1	N/A	X	DUP not needed
5 Feb 2010	21:37	2X532.D	245661001	LANL	949469	5g	1	N/A	32	s	CDS1	N/A	O	soil
5 Feb 2010	22:06	2X533.D	245663001	LANL	949469	5g	1	N/A	33	s	CDS1	N/A	O	
5 Feb 2010	22:35	2X534.D	245663002	LANL	949469	5g	1	N/A	34	s	CDS1	N/A	O	
5 Feb 2010	23:04	2X535.D	245663003	LANL	949469	5g	1	N/A	35	s	CDS1	N/A	O	
5 Feb 2010	23:33	2X536.D	245663004	LANL	949469	5g	1	N/A	36	s	CDS1	N/A	O	
6 Feb 2010	00:02	2X537.D	245663005	LANL	949469	5g	1	N/A	37	s	CDS1	N/A	O	
6 Feb 2010	00:31	2X538.D	245663006	LANL	949469	5g	1	N/A	38	s	CDS1	N/A	O	
6 Feb 2010	01:00	2X539.D	245663007	LANL	949469	5g	1	N/A	39	s	CDS1	N/A	O	
6 Feb 2010	01:29	2X540.D	1202034214	LANL	949469	5g	1	N/A	40	s	CDS1	N/A	O	MS 245663001
6 Feb 2010	01:58	2X541.D	1202034215	LANL	949469	5g	1	N/A	41	s	CDS1	N/A	O	MSD 245663001
6 Feb 2010	02:26	2X542.D	1202035182	LANL	949891	5g	1	N/A	42	s	CDS1	N/A	O	MS 246333001
6 Feb 2010	02:56	2X543.D	1202035183	LANL	949891	5g	1	N/A	43	s	CDS1	N/A	O	MSD 246333001
6 Feb 2010	03:25	2X544.D	120203-----	--------	BLANK	5ML	1.	N/A	44	w	CDS1	N/A	X	clean-up blank
6 Feb 2010	03:53	2X545.D	245652004	CH2M	949470	250UL	20	PH2	45	w	CDS1	N	X	screen
6 Feb 2010	04:23	2X546.D	245652013	CH2M	949470	50UL	100	PH2	46	w	CDS1	N	X	screen
6 Feb 2010	04:52	2X547.D	245652009	CH2M	949470	100UL	50	PH2	47	w	CDS1	N	X	screen
6 Feb 2010	05:21	2X548.D	245652010	CH2M	949470	500UL	10	PH2	48	w	CDS1	N	X	screen

GC/MS Semivolatile Analysis

Semi-Volatile Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-1604

Method/Analysis Information

Procedure:	**Analysis of Semivolatile Organic Compounds by Gas Chromatography/Mass Spectrometry**
Analytical Method:	SW846 8270C
Prep Method:	SW846 3550B
Analytical Batch Number:	949740
Prep Batch Number:	949739

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 8270C:

Sample ID	Client ID
246333001	RE03-10-12247
246333002	RE03-10-12248
1202034799	Method Blank (MB)
1202034800	Laboratory Control Sample (LCS)
1202034801	246333001(RE03-10-12247) Matrix Spike (MS)
1202034802	246333001(RE03-10-12247) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on a "dry weight" basis.

Preparation/Analytical Method Verification

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-009 REV# 23.

Raw data reports are processed and reviewed by the analyst using the Target software package. False positives have been removed from the Target quantitation reports per standard operating procedures (SOP) section 18.2.

Calibration Information

Please note that the 'Cal Date' indicated on each quantitation report reflects the date and time of the most recent calibrated analyte(s) in the Target processing method. Since the laboratory may calibrate with multiple solutions on different days using the same processing method, the Target software will update the 'Cal Date' to the last calibration file, date and time. The correct dates and times for all calibration files are located on the Calibration History report in the Standard Data section in the data package.

Due to software limitations, the Calibration Summary Form 6 may not indicate all the calibration files comprising the initial calibration. A complete list of the initial calibration data files are shown in the Calibration History report located in the Standard Data section of the data package. Please note that the second level of the initial calibration (5 mg/L) is only used for n-Nitrosodipropylamine. The various calibration mixes may not be calibrated using all of the calibration levels. In addition, not all of the mixes are calibrated using the same levels.

Diphenylamine has now superseded N-Nitroso-diphenylamine as a CCC on Quantitation Reports, Initial Calibration Reports, Calibration Check Standard Reports, etc. Previous versions of EPA Method 8270 (prior to 8270C) listed N-Nitroso-diphenylamine as a CCC. However, as stated in EPA Method 8270C, Revision 3, December, 1996, Section 1.4.5, "N-Nitroso-diphenylamine decomposes in the gas chromatographic inlet and cannot be separated from Diphenylamine." Studies of these two compounds at GEL, both independent of each other and together, show that they not only co-elute, but also have similar mass spectra. N-Nitroso-diphenylamine and Diphenylamine will be reported as Diphenylamine on all reports and forms. 2,4-Toluene diisocyanate rapidly hydrolyzes in water (half-life less than 30 minutes). Therefore, recoveries of this compound from aqueous matrices should not be expected. In addition, in solid matrices, 2,4-Toluene diisocynate often reacts with alcohols and amines to produce urethane and ureas and consequently cannot usually coexist in a solution containing these materials. 2,4-Toluene diisocyanate is reported as an estimated value.

The linear equation used in Target and indicated on the initial calibration summary form is not a conventional linear equation (slope intercept formula) and does not match the equation found in SW-846 method 8000B. The x and y axes are inversed in Target, so that the instrument response is treated as the independent variable (x) and the concentration ratio is treated as the dependent variable (y). The equation used in Target to calculate sample results is adjusted to account for the linear equation inversion and reciprocal slope. The adjusted calculation has been independently verified to produce valid results.

Initial Calibration
All initial calibration requirements have been met for this sample delivery group (SDG). A second source initial calibration verification (ICV) was included in the standard section directly behind the initial calibration.

CCV Requirements
All associated calibration verification standard(s) (ICV or CCV) met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Surrogate Recoveries
All the surrogate recoveries were within the established acceptance criteria for this SDG.

Laboratory Control Sample (LCS) Recovery
The LCS(1202034800) recovered Benzyl alcohol at 11%. The limits are 27%-108%. As stated in the Method, Benzyl alcohol is a poor responder that is subject to erratic chromatography. This may account for the low recovery of the analyte in the LCS, along with the MS and MSD. The analyte also represents less than 5% of the total requested spike analyte list, which satisfied the acceptance criteria for the client. The data results have been reported.

QC Sample Designation
Sample 246333001 (RE03-10-12247) was selected for analysis as the matrix spike and matrix spike duplicate.

Matrix Spike (MS) Recovery Statement
The MS(1202034801) and MSD(1202034802) recovered spike analytes outside of the established acceptance limits. Please see the QC summary report for specific failures. Since the MS and MSD displayed similar spike recoveries, the failures were attributed to sample matrix interference. As stated in the Method, Benzyl alcohol is a poor responder that is subject to erratic chromatography. This may account for the low recovery of the analyte in the MS and MSD. The data results have been reported.

Matrix Spike Duplicate (MSD) Recovery Statement
The MS(1202034801) and MSD(1202034802) recovered spike analytes outside of the established acceptance limits. Please see the QC summary report for specific failures. Since the MS and MSD displayed similar spike recoveries, the failures were attributed to sample matrix interference. As stated in the Method, Benzyl alcohol is a poor responder that is subject to erratic chromatography. This may account for the low recovery of the analyte in the MS and MSD. The data results have been reported.

MS/MSD Relative Percent Difference (RPD) Statement
Multiple MS(1202034801)/MSD(1202034802) RPD valuer were outside of the established acceptance limits. Please see the QC summary report for specific failures. The 2,4-Dinitrophenol and N-Methyl-N-nitrosomethylamine RPD failures were attributed to matrix interference. Since 4-Nitrophenol and Naphthalene were individually within the acceptance limits for the MS and MSD, the data results have been reported.

Internal Standard (ISTD) Acceptance
The internal standard responses were within the required acceptance criteria for all samples and QC.

Technical Information

Holding Time Specifications
All samples in this SDG met the specified holding time. GEL assigns holding times based on the associated methodology that assigns the date and time from sample collection or sample receipt. Those holding times expressed in hours are calculated in the ALPHALIMS system. Those holding times expressed as days expire at midnight on the day of expiration.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-extraction/Re-analysis
Re-extractions or re-analyses were not required in this SDG except for confirmations and/or dilutions.

Miscellaneous Information

Data Exception (DER) Documentation
The following DER was generated for this SDG: 788749. It is located in the Miscellaneous Section of the data report.

Manual Integrations
Manual integrations were required for the MS(1202034801). Please see the associated raw data located in the Miscellaneous Section of the data report.

Additional Comments
Additional comments were not required for this SDG.

Electronic Package Comment
The following package was generated using an electronic data processing program referred to as "virtual packaging". In an effort to increase quality and efficiency, the laboratory is developing systems to eventually generate all data packages electronically. The following change from "traditional" packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. An

electronic signature page inserted after the case narrative of each electronic package will indicate the analyst, reviewer, and report specialist names associated with the generation of the data and package. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

System Configuration

The samples reported in this SDG were analyzed on one or more of the following instrument systems. Instrument systems are referenced in the raw data and individual form headers by the Instrument ID designations listed below:

Instrument ID	Instrument	System Configuration	Column ID	Column Description
MSD7.I	HP Mass Spectrometer	HP6890/HP5973	DB-5MS	25m x 0.2mm, 0.33um (5% Phenylmethylpolysiloxane)

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

Reviewer: Dan Lewbury **Date:** 2-11-10

Roadmap for LANL 10-1604 SVOA

This roadmap was analyzed by jos00786 on 02-09-2010, 11:46.
This roadmap was reviewed by bar00895 on 02-11-2010, 11:40.

Sample

exclude	manual	datafile	smpid	injdate	injtime	sublist	clientid	dilution	batchid	comment
☐	N	/chem/MSD7.i/s020810.b/s7b0810.d	246333001	08-FEB-2010	13:59	10-1604.sub	RE03-10-12247	1	949740	
☐	N	/chem/MSD7.i/s020810.b/s7b0813.d	246333002	08-FEB-2010	15:04	10-1604.sub	RE03-10-12248	1	949740	

QC Sample

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	batchid	comment
☐	N	/chem/MSD7.i/s020810.b/s7b0806.d	1202034799	mb	08-FEB-2010	11:04	10-1604.sub	SBLK01	1	949740	
☐	N	/chem/MSD7.i/s020810.b/s7b0807.d	1202034800	lcs	08-FEB-2010	11:25	10-1604.sub	SBLK01LCS	1	949740	
☐	N	/chem/MSD7.i/s020810.b/s7b0811.d	1202034801	ms	08-FEB-2010	14:20	10-1604.sub	RE03-10-12247MS	1	949740	
☐	N	/chem/MSD7.i/s020810.b/s7b0812.d	1202034802	msd	08-FEB-2010	14:42	10-1604.sub	RE03-10-12247MSD	1	949740	

Sample Data Summary

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1604	Date Collected:	02/02/2010 12:00	Matrix:	S
Lab Sample ID:	246333001	Date Received:	02/05/2010 09:00	%Moisture:	15.4
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-10-12247	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	949740	Inst:	MSD7.I	Dilution:	1
Run Date:	02/08/2010 13:59	Analyst:	JMB3	Inj. Vol:	.5 uL
Prep Date:	02/05/2010 19:48	Aliquot:	30.15 g	Final Volume:	1 mL
Data File:	s7b0810.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	392	ug/kg	78.4	392
108-95-2	Phenol	U	392	ug/kg	78.4	392
95-57-8	2-Chlorophenol	U	392	ug/kg	78.4	392
106-46-7	1,4-Dichlorobenzene	U	392	ug/kg	78.4	392
621-64-7	N-Nitrosodipropylamine	U	392	ug/kg	78.4	392
59-50-7	4-Chloro-3-methylphenol	U	392	ug/kg	78.4	392
83-32-9	Acenaphthene	U	39.2	ug/kg	12.9	39.2
121-14-2	2,4-Dinitrotoluene	U	392	ug/kg	39.2	392
100-02-7	4-Nitrophenol	U	392	ug/kg	129	392
87-86-5	Pentachlorophenol	U	392	ug/kg	98.0	392
129-00-0	Pyrene	U	39.2	ug/kg	11.8	39.2
110-86-1	Pyridine	U	392	ug/kg	78.4	392
62-53-3	Aniline	U	392	ug/kg	118	392
111-44-4	bis(2-Chloroethyl) ether	U	392	ug/kg	78.4	392
541-73-1	1,3-Dichlorobenzene	U	392	ug/kg	78.4	392
100-51-6	Benzyl alcohol	U	392	ug/kg	118	392
95-50-1	1,2-Dichlorobenzene	U	392	ug/kg	78.4	392
108-60-1	bis(2-Chloroisopropyl)ether	U	392	ug/kg	78.4	392
95-48-7	o-Cresol	U	392	ug/kg	78.4	392
65794-96-9	m,p-Cresols	U	392	ug/kg	118	392
67-72-1	Hexachloroethane	U	392	ug/kg	78.4	392
98-95-3	Nitrobenzene	U	392	ug/kg	78.4	392
78-59-1	Isophorone	U	392	ug/kg	78.4	392
88-75-5	2-Nitrophenol	U	392	ug/kg	78.4	392
105-67-9	2,4-Dimethylphenol	U	392	ug/kg	137	392
111-91-1	bis(2-Chloroethoxy)methane	U	392	ug/kg	78.4	392
120-83-2	2,4-Dichlorophenol	U	392	ug/kg	78.4	392
65-85-0	Benzoic acid	U	784	ug/kg	196	784
91-20-3	Naphthalene	U	39.2	ug/kg	11.8	39.2
106-47-8	4-Chloroaniline	U	392	ug/kg	78.4	392
87-68-3	Hexachlorobutadiene	U	392	ug/kg	78.4	392
91-57-6	2-Methylnaphthalene	U	39.2	ug/kg	7.84	39.2
77-47-4	Hexachlorocyclopentadiene	U	392	ug/kg	78.4	392
88-06-2	2,4,6-Trichlorophenol	U	392	ug/kg	78.4	392
95-95-4	2,4,5-Trichlorophenol	U	392	ug/kg	78.4	392
91-58-7	2-Chloronaphthalene	U	39.2	ug/kg	12.9	39.2
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	392	ug/kg	78.4	392
99-09-2	3-Nitroaniline	U	392	ug/kg	78.4	392

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1604**	**Date Collected:**	**02/02/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**246333001**	**Date Received:**	**02/05/2010 09:00**	**%Moisture:**	**15.4**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-10-12247**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**949740**	**Inst:**	**MSD7.I**	**Dilution:**	**1**
Run Date:	**02/08/2010 13:59**	**Analyst:**	**JMB3**	**Inj. Vol:**	**.5 uL**
Prep Date:	**02/05/2010 19:48**	**Aliquot:**	**30.15 g**	**Final Volume:**	**1 mL**
Data File:	**s7b0810.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	392	ug/kg	78.4	392
606-20-2	2,6-Dinitrotoluene	U	392	ug/kg	39.2	392
208-96-8	Acenaphthylene	U	39.2	ug/kg	11.8	39.2
51-28-5	2,4-Dinitrophenol	U	784	ug/kg	149	784
132-64-9	Dibenzofuran	U	392	ug/kg	78.4	392
84-66-2	Diethylphthalate	U	392	ug/kg	78.4	392
86-73-7	Fluorene	U	39.2	ug/kg	11.8	39.2
7005-72-3	4-Chlorophenylphenylether	U	392	ug/kg	78.4	392
534-52-1	2-Methyl-4,6-dinitrophenol	U	392	ug/kg	78.4	392
100-01-6	4-Nitroaniline	U	392	ug/kg	118	392
	p-Nitroaniline					
122-39-4	Diphenylamine	U	392	ug/kg	78.4	392
122-66-7	Azobenzene	U	392	ug/kg	78.4	392
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	392	ug/kg	78.4	392
118-74-1	Hexachlorobenzene	U	392	ug/kg	78.4	392
85-01-8	Phenanthrene	U	39.2	ug/kg	11.8	39.2
120-12-7	Anthracene	U	39.2	ug/kg	7.84	39.2
84-74-2	Di-n-butylphthalate	U	392	ug/kg	78.4	392
206-44-0	Fluoranthene	U	39.2	ug/kg	11.8	39.2
85-68-7	Butylbenzylphthalate	U	392	ug/kg	78.4	392
56-55-3	Benzo(a)anthracene	U	39.2	ug/kg	11.8	39.2
91-94-1	3,3'-Dichlorobenzidine	U	392	ug/kg	118	392
218-01-9	Chrysene	U	39.2	ug/kg	11.8	39.2
117-81-7	bis(2-Ethylhexyl)phthalate	U	392	ug/kg	78.4	392
117-84-0	Di-n-octylphthalate	U	392	ug/kg	78.4	392
205-99-2	Benzo(b)fluoranthene	U	39.2	ug/kg	11.8	39.2
207-08-9	Benzo(k)fluoranthene	U	39.2	ug/kg	11.8	39.2
50-32-8	Benzo(a)pyrene	U	39.2	ug/kg	11.8	39.2
193-39-5	Indeno(1,2,3-cd)pyrene	U	39.2	ug/kg	11.8	39.2
53-70-3	Dibenzo(a,h)anthracene	U	39.2	ug/kg	11.8	39.2
191-24-2	Benzo(ghi)perylene	U	39.2	ug/kg	11.8	39.2
120-82-1	1,2,4-Trichlorobenzene	U	392	ug/kg	78.4	392

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.82	260	ug/kg		J

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1604**	**Date Collected:**	**02/02/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**246333002**	**Date Received:**	**02/05/2010 09:00**	**%Moisture:**	**9.9**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-10-12248**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**949740**	**Inst:**	**MSD7.I**	**Dilution:**	**1**
Run Date:	**02/08/2010 15:04**	**Analyst:**	**JMB3**	**Inj. Vol:**	**.5 uL**
Prep Date:	**02/05/2010 19:48**	**Aliquot:**	**30.01 g**	**Final Volume:**	**1 mL**
Data File:	**s7b0813.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	370	ug/kg	74.0	370
108-95-2	Phenol	U	370	ug/kg	74.0	370
95-57-8	2-Chlorophenol	U	370	ug/kg	74.0	370
106-46-7	1,4-Dichlorobenzene	U	370	ug/kg	74.0	370
621-64-7	N-Nitrosodipropylamine	U	370	ug/kg	74.0	370
59-50-7	4-Chloro-3-methylphenol	U	370	ug/kg	74.0	370
83-32-9	Acenaphthene	U	37.0	ug/kg	12.2	37.0
121-14-2	2,4-Dinitrotoluene	U	370	ug/kg	37.0	370
100-02-7	4-Nitrophenol	U	370	ug/kg	122	370
87-86-5	Pentachlorophenol	U	370	ug/kg	92.5	370
129-00-0	Pyrene	U	37.0	ug/kg	11.1	37.0
110-86-1	Pyridine	U	370	ug/kg	74.0	370
62-53-3	Aniline	U	370	ug/kg	111	370
111-44-4	bis(2-Chloroethyl) ether	U	370	ug/kg	74.0	370
541-73-1	1,3-Dichlorobenzene	U	370	ug/kg	74.0	370
100-51-6	Benzyl alcohol	U	370	ug/kg	111	370
95-50-1	1,2-Dichlorobenzene	U	370	ug/kg	74.0	370
108-60-1	bis(2-Chloroisopropyl)ether	U	370	ug/kg	74.0	370
95-48-7	o-Cresol	U	370	ug/kg	74.0	370
65794-96-9	m,p-Cresols	U	370	ug/kg	111	370
67-72-1	Hexachloroethane	U	370	ug/kg	74.0	370
98-95-3	Nitrobenzene	U	370	ug/kg	74.0	370
78-59-1	Isophorone	U	370	ug/kg	74.0	370
88-75-5	2-Nitrophenol	U	370	ug/kg	74.0	370
105-67-9	2,4-Dimethylphenol	U	370	ug/kg	129	370
111-91-1	bis(2-Chloroethoxy)methane	U	370	ug/kg	74.0	370
120-83-2	2,4-Dichlorophenol	U	370	ug/kg	74.0	370
65-85-0	Benzoic acid	U	740	ug/kg	185	740
91-20-3	Naphthalene	U	37.0	ug/kg	11.1	37.0
106-47-8	4-Chloroaniline	U	370	ug/kg	74.0	370
87-68-3	Hexachlorobutadiene	U	370	ug/kg	74.0	370
91-57-6	2-Methylnaphthalene	U	37.0	ug/kg	7.40	37.0
77-47-4	Hexachlorocyclopentadiene	U	370	ug/kg	74.0	370
88-06-2	2,4,6-Trichlorophenol	U	370	ug/kg	74.0	370
95-95-4	2,4,5-Trichlorophenol	U	370	ug/kg	74.0	370
91-58-7	2-Chloronaphthalene	U	37.0	ug/kg	12.2	37.0
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	370	ug/kg	74.0	370
99-09-2	3-Nitroaniline	U	370	ug/kg	74.0	370

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1604	Date Collected:	02/02/2010 12:00	Matrix:	S
Lab Sample ID:	246333002	Date Received:	02/05/2010 09:00	%Moisture:	9.9
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-10-12248	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	949740	Inst:	MSD7.I	Dilution:	1
Run Date:	02/08/2010 15:04	Analyst:	JMB3	Inj. Vol:	.5 uL
Prep Date:	02/05/2010 19:48	Aliquot:	30.01 g	Final Volume:	1 mL
Data File:	s7b0813.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	370	ug/kg	74.0	370
606-20-2	2,6-Dinitrotoluene	U	370	ug/kg	37.0	370
208-96-8	Acenaphthylene	U	37.0	ug/kg	11.1	37.0
51-28-5	2,4-Dinitrophenol	U	740	ug/kg	141	740
132-64-9	Dibenzofuran	U	370	ug/kg	74.0	370
84-66-2	Diethylphthalate	U	370	ug/kg	74.0	370
86-73-7	Fluorene	U	37.0	ug/kg	11.1	37.0
7005-72-3	4-Chlorophenylphenylether	U	370	ug/kg	74.0	370
534-52-1	2-Methyl-4,6-dinitrophenol	U	370	ug/kg	74.0	370
100-01-6	4-Nitroaniline	U	370	ug/kg	111	370
	p-Nitroaniline					
122-39-4	Diphenylamine	U	370	ug/kg	74.0	370
122-66-7	Azobenzene	U	370	ug/kg	74.0	370
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	370	ug/kg	74.0	370
118-74-1	Hexachlorobenzene	U	370	ug/kg	74.0	370
85-01-8	Phenanthrene	U	37.0	ug/kg	11.1	37.0
120-12-7	Anthracene	U	37.0	ug/kg	7.40	37.0
84-74-2	Di-n-butylphthalate	U	370	ug/kg	74.0	370
206-44-0	Fluoranthene	U	37.0	ug/kg	11.1	37.0
85-68-7	Butylbenzylphthalate	U	370	ug/kg	74.0	370
56-55-3	Benzo(a)anthracene	U	37.0	ug/kg	11.1	37.0
91-94-1	3,3'-Dichlorobenzidine	U	370	ug/kg	111	370
218-01-9	Chrysene	U	37.0	ug/kg	11.1	37.0
117-81-7	bis(2-Ethylhexyl)phthalate	U	370	ug/kg	74.0	370
117-84-0	Di-n-octylphthalate	U	370	ug/kg	74.0	370
205-99-2	Benzo(b)fluoranthene	U	37.0	ug/kg	11.1	37.0
207-08-9	Benzo(k)fluoranthene	U	37.0	ug/kg	11.1	37.0
50-32-8	Benzo(a)pyrene	U	37.0	ug/kg	11.1	37.0
193-39-5	Indeno(1,2,3-cd)pyrene	U	37.0	ug/kg	11.1	37.0
53-70-3	Dibenzo(a,h)anthracene	U	37.0	ug/kg	11.1	37.0
191-24-2	Benzo(ghi)perylene	U	37.0	ug/kg	11.1	37.0
120-82-1	1,2,4-Trichlorobenzene	U	370	ug/kg	74.0	370

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.82	208	ug/kg		J

QC Summary

Semi-Volatile

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Surrogate Recovery Report

SDG Number: 10-1604

Matrix Type: SOLID

CAP Column (1) : J&W DB-5MS

Sample ID	Client ID	2FP %REC	PHL %REC	NBZ %REC	FBP %REC	TBP %REC	TPH %REC
1202034799	MB for batch 949739	59	54	60	63	84	91
1202034800	LCS for batch 949739	50	45	50	50	77	71
246333001	RE03-10-12247	54	48	53	58	78	82
1202034801	RE03-10-12247MS	56	51	60	63	95	86
1202034802	RE03-10-12247MSD	54	49	52	62	91	79
246333002	RE03-10-12248	45	41	44	49	66	73

Surrogate		Acceptance Limits
2FP	= 2-Fluorophenol	(29%-99%)
PHL	= Phenol-d5	(33%-98%)
NBZ	= Nitrobenzene-d5	(31%-105%)
FBP	= 2-Fluorobiphenyl	(25%-109%)
TBP	= 2,4,6-Tribromophenol	(37%-106%)
TPH	= p-Terphenyl-d14	(13%-150%)

* Recovery outside Acceptance Limits

\# Column to be used to flag recovery values

D Sample Diluted

Semi-Volatile
Quality Control Summary
Spike Recovery Report

SDG Number: 10-1604
Client ID: LCS for batch 949739
Lab Sample ID: 1202034800
Instrument: MSD7.I
Analyst: JMB3
Inj. Vol: .5 uL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 02/08/2010 11:25
Dilution: 1
Prep Batch ID: 949739
Batch ID: 949740

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
62-75-9	LCS	N-Methyl-N-nitrosomethylam	1670	0.0	654	39	22-114
108-95-2	LCS	Phenol	1670	0.0	822	49	39-104
95-57-8	LCS	2-Chlorophenol	1670	0.0	991	59	40-107
106-46-7	LCS	1,4-Dichlorobenzene	1670	0.0	1050	63	33-108
621-64-7	LCS	N-Nitrosodipropylamine	1670	0.0	848	51	34-113
59-50-7	LCS	4-Chloro-3-methylphenol	1670	0.0	898	54	42-114
83-32-9	LCS	Acenaphthene	1670	0.0	853	51	40-105
121-14-2	LCS	2,4-Dinitrotoluene	1670	0.0	1090	65	49-112
100-02-7	LCS	4-Nitrophenol	1670	0.0	589	35	24-113
87-86-5	LCS	Pentachlorophenol	1670	0.0	1050	63	27-116
129-00-0	LCS	Pyrene	1670	0.0	1010	61	42-113
110-86-1	LCS	Pyridine	1670	0.0	620	37	8-125
62-53-3	LCS	Aniline	1670	0.0	761	46	18-126
111-44-4	LCS	bis(2-Chloroethyl) ether	1670	0.0	714	43	32-103
541-73-1	LCS	1,3-Dichlorobenzene	1670	0.0	1000	60	32-108
100-51-6	LCS	Benzyl alcohol	1670	0.0	191	11 *	27-108
95-50-1	LCS	1,2-Dichlorobenzene	1670	0.0	1120	67	35-111
108-60-1	LCS	bis(2-Chloroisopropyl)ether	1670	0.0	774	46	28-117
95-48-7	LCS	o-Cresol	1670	0.0	1050	63	39-111
65794-96-9	LCS	m,p-Cresols	1670	0.0	1060	64	45-121
67-72-1	LCS	Hexachloroethane	1670	0.0	976	59	30-109
98-95-3	LCS	Nitrobenzene	1670	0.0	802	48	33-116

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1604
Client ID: LCS for batch 949739
Lab Sample ID: 1202034800
Instrument: MSD7.I
Analyst: JMB3
Inj. Vol: .5 uL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 02/08/2010 11:25
Dilution: 1
Prep Batch ID: 949739
Batch ID: 949740

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
78-59-1	LCS	Isophorone	1670	0.0	740	44	35-113
88-75-5	LCS	2-Nitrophenol	1670	0.0	1030	62	31-117
105-67-9	LCS	2,4-Dimethylphenol	1670	0.0	778	47	32-112
111-91-1	LCS	bis(2-Chloroethoxy)methane	1670	0.0	739	44	34-110
120-83-2	LCS	2,4-Dichlorophenol	1670	0.0	906	54	34-116
65-85-0	LCS	Benzoic acid	3330	0.0	1290	39	22-138
91-20-3	LCS	Naphthalene	1670	0.0	809	49	35-103
106-47-8	LCS	4-Chloroaniline	1670	0.0	862	52	20-118
87-68-3	LCS	Hexachlorobutadiene	1670	0.0	963	58	31-117
91-57-6	LCS	2-Methylnaphthalene	1670	0.0	938	56	38-115
77-47-4	LCS	Hexachlorocyclopentadiene	1670	0.0	973	58	22-140
88-06-2	LCS	2,4,6-Trichlorophenol	1670	0.0	978	59	40-110
95-95-4	LCS	2,4,5-Trichlorophenol	1670	0.0	1170	70	43-113
91-58-7	LCS	2-Chloronaphthalene	1670	0.0	969	58	37-111
88-74-4	LCS	2-Nitroaniline *o-Nitroaniline*	1670	0.0	889	53	41-113
99-09-2	LCS	3-Nitroaniline *m-Nitroaniline*	1670	0.0	935	56	34-125
131-11-3	LCS	Dimethylphthalate	1670	0.0	1070	64	48-122
606-20-2	LCS	2,6-Dinitrotoluene	1670	0.0	1050	63	47-107
208-96-8	LCS	Acenaphthylene	1670	0.0	934	56	44-110
51-28-5	LCS	2,4-Dinitrophenol	1670	0.0	804	48	18-127
132-64-9	LCS	Dibenzofuran	1670	0.0	930	56	49-115
84-66-2	LCS	Diethylphthalate	1670	0.0	1030	62	51-126

Semi-Volatile
Quality Control Summary
Spike Recovery Report

SDG Number: 10-1604
Client ID: LCS for batch 949739
Lab Sample ID: 1202034800
Instrument: MSD7.I
Analyst: JMB3
Inj. Vol: .5 uL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 02/08/2010 11:25
Dilution: 1
Prep Batch ID: 949739
Batch ID: 949740

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
86-73-7	LCS	Fluorene	1670	0.0	901	54	43-109
7005-72-3	LCS	4-Chlorophenylphenylether	1670	0.0	1000	60	45-115
534-52-1	LCS	2-Methyl-4,6-dinitrophenol	1670	0.0	939	56	32-117
100-01-6	LCS	4-Nitroaniline *p-Nitroaniline*	1670	0.0	1170	70	33-148
122-39-4	LCS	Diphenylamine	1670	0.0	1030	62	46-114
122-66-7	LCS	Azobenzene *1,2-Diphenylhydrazine*	1670	0.0	945	57	38-123
101-55-3	LCS	4-Bromophenylphenylether	1670	0.0	1110	67	40-119
118-74-1	LCS	Hexachlorobenzene	1670	0.0	1360	81	43-111
85-01-8	LCS	Phenanthrene	1670	0.0	1040	62	46-107
120-12-7	LCS	Anthracene	1670	0.0	1110	66	46-110
84-74-2	LCS	Di-n-butylphthalate	1670	0.0	1140	68	52-132
206-44-0	LCS	Fluoranthene	1670	0.0	1080	65	51-115
85-68-7	LCS	Butylbenzylphthalate	1670	0.0	1180	71	47-137
56-55-3	LCS	Benzo(a)anthracene	1670	0.0	1070	64	50-108
91-94-1	LCS	3,3'-Dichlorobenzidine	1670	0.0	1050	63	36-103
218-01-9	LCS	Chrysene	1670	0.0	1090	65	48-111
117-81-7	LCS	bis(2-Ethylhexyl)phthalate	1670	0.0	1270	76	48-139
117-84-0	LCS	Di-n-octylphthalate	1670	0.0	1010	61	42-141
205-99-2	LCS	Benzo(b)fluoranthene	1670	0.0	1110	67	49-114
207-08-9	LCS	Benzo(k)fluoranthene	1670	0.0	1090	66	50-116
50-32-8	LCS	Benzo(a)pyrene	1670	0.0	1110	66	54-114
193-39-5	LCS	Indeno(1,2,3-cd)pyrene	1670	0.0	1190	71	53-120

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1604
Client ID: LCS for batch 949739
Lab Sample ID: 1202034800
Instrument: MSD7.I
Analyst: JMB3
Inj. Vol: .5 uL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 02/08/2010 11:25
Dilution: 1
Prep Batch ID: 949739
Batch ID: 949740

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
53-70-3	LCS	Dibenzo(a,h)anthracene	1670	0.0	1200	72	53-121
191-24-2	LCS	Benzo(ghi)perylene	1670	0.0	1170	70	50-121
120-82-1	LCS	1,2,4-Trichlorobenzene	1670	0.0	988	59	32-114

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1604
Client ID: RE03-10-12247MS
Lab Sample ID: 1202034801
Instrument: MSD7.I
Analyst: JMB3
Inj. Vol: .5 uL

Sample Type: Matrix Spike
Matrix: S
%Moisture: 15.4
Analysis Date: 02/08/2010 14:20
Prep Batch ID: 949739
Batch ID: 949740
Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
62-75-9	MS	N-Methyl-N-nitrosomethylam	1970	0.00	U	512	26 *	27-98
108-95-2	MS	Phenol	1970	0.00	U	1130	57	33-94
95-57-8	MS	2-Chlorophenol	1970	0.00	U	1260	64	29-96
106-46-7	MS	1,4-Dichlorobenzene	1970	0.00	U	1280	65	27-96
621-64-7	MS	N-Nitrosodipropylamine	1970	0.00	U	915	47	29-102
59-50-7	MS	4-Chloro-3-methylphenol	1970	0.00	U	1330	68	29-110
83-32-9	MS	Acenaphthene	1970	0.00	U	1190	61	17-109
121-14-2	MS	2,4-Dinitrotoluene	1970	0.00	U	1540	78	33-107
100-02-7	MS	4-Nitrophenol	1970	0.00	U	1030	52	15-110
87-86-5	MS	Pentachlorophenol	1970	0.00	U	1290	66	23-110
129-00-0	MS	Pyrene	1970	0.00	U	1460	74	24-118
110-86-1	MS	Pyridine	1970	0.00	U	728	37	25-102
62-53-3	MS	Aniline	1970	0.00	U	1160	59	18-109
111-44-4	MS	bis(2-Chloroethyl) ether	1970	0.00	U	1060	54	29-96
541-73-1	MS	1,3-Dichlorobenzene	1970	0.00	U	1580	81	26-97
100-51-6	MS	Benzyl alcohol	1970	0.00	U	0.00	0 *	19-112
95-50-1	MS	1,2-Dichlorobenzene	1970	0.00	U	1560	79	30-97
108-60-1	MS	bis(2-Chloroisopropyl)ether	1970	0.00	U	1090	55	28-103
95-48-7	MS	o-Cresol	1970	0.00	U	1690	86	32-107
65794-96-9	MS	m,p-Cresols	1970	0.00	U	1320	67	33-115
67-72-1	MS	Hexachloroethane	1970	0.00	U	1340	68	25-100
98-95-3	MS	Nitrobenzene	1970	0.00	U	1220	62	27-106

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1604
Client ID: RE03-10-12247MS
Lab Sample ID: 1202034801
Instrument: MSD7.I
Analyst: JMB3
Inj. Vol: .5 uL

Sample Type: Matrix Spike
Matrix: S
%Moisture: 15.4
Analysis Date: 02/08/2010 14:20
Prep Batch ID: 949739
Batch ID: 949740
Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
78-59-1	MS	Isophorone	1970	0.00	U	1010	51	29-104
88-75-5	MS	2-Nitrophenol	1970	0.00	U	1330	68	26-102
105-67-9	MS	2,4-Dimethylphenol	1970	0.00	U	1090	55	22-104
111-91-1	MS	bis(2-Chloroethoxy)methane	1970	0.00	U	946	48	27-101
120-83-2	MS	2,4-Dichlorophenol	1970	0.00	U	1190	60	26-103
65-85-0	MS	Benzoic acid	3930	0.00	U	1060	27	13-131
91-20-3	MS	Naphthalene	1970	0.00	U	1160	59	23-103
106-47-8	MS	4-Chloroaniline	1970	0.00	U	1220	62	26-103
87-68-3	MS	Hexachlorobutadiene	1970	0.00	U	1330	68	28-101
91-57-6	MS	2-Methylnaphthalene	1970	0.00	U	1480	75	27-106
77-47-4	MS	Hexachlorocyclopentadiene	1970	0.00	U	1350	69	24-117
88-06-2	MS	2,4,6-Trichlorophenol	1970	0.00	U	1500	76	26-105
95-95-4	MS	2,4,5-Trichlorophenol	1970	0.00	U	1650	84	30-110
91-58-7	MS	2-Chloronaphthalene	1970	0.00	U	1440	73	28-102
88-74-4	MS	2-Nitroaniline *o-Nitroaniline*	1970	0.00	U	1230	62	33-106
99-09-2	MS	3-Nitroaniline *m-Nitroaniline*	1970	0.00	U	1430	73	33-116
131-11-3	MS	Dimethylphthalate	1970	0.00	U	1480	75	38-113
606-20-2	MS	2,6-Dinitrotoluene	1970	0.00	U	1450	74	29-107
208-96-8	MS	Acenaphthylene	1970	0.00	U	1400	71	25-108
51-28-5	MS	2,4-Dinitrophenol	1970	0.00	U	191	10 *	14-102
132-64-9	MS	Dibenzofuran	1970	0.00	U	1390	71	35-112
84-66-2	MS	Diethylphthalate	1970	0.00	U	1470	75	36-122

Semi-Volatile

Quality Control Summary

Spike Recovery Report

SDG Number: 10-1604
Client ID: RE03-10-12247MS
Lab Sample ID: 1202034801
Instrument: MSD7.I
Analyst: JMB3
Inj. Vol: .5 uL

Sample Type: Matrix Spike
Matrix: S
%Moisture: 15.4
Analysis Date: 02/08/2010 14:20
Prep Batch ID 949739
Batch ID: 949740
Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
86-73-7	MS	Fluorene	1970	0.00	U	1320	67	33-105
7005-72-3	MS	4-Chlorophenylphenylether	1970	0.00	U	1470	75	30-110
534-52-1	MS	2-Methyl-4,6-dinitrophenol	1970	0.00	U	922	47	26-97
100-01-6	MS	4-Nitroaniline *p-Nitroaniline*	1970	0.00	U	1720	87	28-135
122-39-4	MS	Diphenylamine	1970	0.00	U	1460	74	33-109
122-66-7	MS	Azobenzene *1,2-Diphenylhydrazine*	1970	0.00	U	1330	68	31-113
101-55-3	MS	4-Bromophenylphenylether	1970	0.00	U	1640	83	31-109
118-74-1	MS	Hexachlorobenzene	1970	0.00	U	1980	101 *	37-99
85-01-8	MS	Phenanthrene	1970	0.00	U	1570	80	29-109
120-12-7	MS	Anthracene	1970	0.00	U	1620	82	19-118
84-74-2	MS	Di-n-butylphthalate	1970	0.00	U	1640	83	39-123
206-44-0	MS	Fluoranthene	1970	0.00	U	1580	80	33-114
85-68-7	MS	Butylbenzylphthalate	1970	0.00	U	1710	87	35-131
56-55-3	MS	Benzo(a)anthracene	1970	0.00	U	1570	80	30-111
91-94-1	MS	3,3'-Dichlorobenzidine	1970	0.00	U	1630	83	30-124
218-01-9	MS	Chrysene	1970	0.00	U	1580	80	32-108
117-81-7	MS	bis(2-Ethylhexyl)phthalate	1970	0.00	U	1880	96	37-129
117-84-0	MS	Di-n-octylphthalate	1970	0.00	U	1510	77	31-143
205-99-2	MS	Benzo(b)fluoranthene	1970	0.00	U	1600	81	29-118
207-08-9	MS	Benzo(k)fluoranthene	1970	0.00	U	1640	84	32-118
50-32-8	MS	Benzo(a)pyrene	1970	0.00	U	1630	83	33-115
193-39-5	MS	Indeno(1,2,3-cd)pyrene	1970	0.00	U	1870	95	29-114

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1604
Client ID: RE03-10-12247MS
Lab Sample ID: 1202034801
Instrument: MSD7.I
Analyst: JMB3
Inj. Vol: .5 uL

Sample Type: Matrix Spike
Matrix: S
%Moisture: 15.4
Analysis Date: 02/08/2010 14:20
Prep Batch ID: 949739
Batch ID: 949740
Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
53-70-3	MS	Dibenzo(a,h)anthracene	1970	0.00	U	1860	95	27-119
191-24-2	MS	Benzo(ghi)perylene	1970	0.00	U	1810	92	28-112
120-82-1	MS	1,2,4-Trichlorobenzene	1970	0.00	U	1390	71	28-99

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1604
Client ID: RE03-10-12247MSD
Lab Sample ID: 1202034802
Instrument: MSD7.I
Analyst: JMB3
Inj. Vol: .5 uL

Sample Type: Matrix Spike Duplicate
Matrix: S
%Moisture: 15.4
Analysis Date: 02/08/2010 14:42
Dilution: 1
Prep Batch ID: 949739
Batch ID: 949740

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
62-75-9	MSD	N-Methyl-N-nitrosomethylam	1970	0.00	U	782	40	27-98	42 *	0-30
108-95-2	MSD	Phenol	1970	0.00	U	1060	54	33-94	6	0-30
95-57-8	MSD	2-Chlorophenol	1970	0.00	U	1270	65	29-96	1	0-30
106-46-7	MSD	1,4-Dichlorobenzene	1970	0.00	U	1300	66	27-96	1	0-30
621-64-7	MSD	N-Nitrosodipropylamine	1970	0.00	U	783	40	29-102	16	0-30
59-50-7	MSD	4-Chloro-3-methylphenol	1970	0.00	U	1210	62	29-110	9	0-30
83-32-9	MSD	Acenaphthene	1970	0.00	U	1300	66	17-109	8	0-30
121-14-2	MSD	2,4-Dinitrotoluene	1970	0.00	U	1670	85	33-107	8	0-30
100-02-7	MSD	4-Nitrophenol	1970	0.00	U	732	37	15-110	34 *	0-30
87-86-5	MSD	Pentachlorophenol	1970	0.00	U	1300	66	23-110	0	0-30
129-00-0	MSD	Pyrene	1970	0.00	U	1340	68	24-118	8	0-30
110-86-1	MSD	Pyridine	1970	0.00	U	842	43	25-102	14	0-30
62-53-3	MSD	Aniline	1970	0.00	U	1080	55	18-109	7	0-30
111-44-4	MSD	bis(2-Chloroethyl) ether	1970	0.00	U	900	46	29-96	16	0-30
541-73-1	MSD	1,3-Dichlorobenzene	1970	0.00	U	1220	62	26-97	26	0-30
100-51-6	MSD	Benzyl alcohol	1970	0.00	U	0.00	0 *	19-112	0	0-30
95-50-1	MSD	1,2-Dichlorobenzene	1970	0.00	U	1380	70	30-97	12	0-30
108-60-1	MSD	bis(2-Chloroisopropyl)ether	1970	0.00	U	957	49	28-103	13	0-30
95-48-7	MSD	o-Cresol	1970	0.00	U	1620	83	32-107	4	0-30
65794-96-9	MSD	m,p-Cresols	1970	0.00	U	1310	66	33-115	1	0-30
67-72-1	MSD	Hexachloroethane	1970	0.00	U	1200	61	25-100	11	0-30
98-95-3	MSD	Nitrobenzene	1970	0.00	U	1030	52	27-106	17	0-30

Semi-Volatile

Quality Control Summary

Spike Recovery Report

SDG Number: 10-1604
Client ID: RE03-10-12247MSD
Lab Sample ID: 1202034802
Instrument: MSD7.I
Analyst: JMB3
Inj. Vol: .5 uL

Sample Type: Matrix Spike Duplicate
Matrix: S
%Moisture: 15.4
Analysis Date: 02/08/2010 14:42
Dilution: 1
Prep Batch ID: 949739
Batch ID: 949740

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
78-59-1	MSD Isophorone	1970	0.00	U	960	49	29-104	5	0-30
88-75-5	MSD 2-Nitrophenol	1970	0.00	U	1300	66	26-102	3	0-30
105-67-9	MSD 2,4-Dimethylphenol	1970	0.00	U	1070	54	22-104	2	0-30
111-91-1	MSD bis(2-Chloroethoxy)methane	1970	0.00	U	750	38	27-101	23	0-30
120-83-2	MSD 2,4-Dichlorophenol	1970	0.00	U	1190	61	26-103	0	0-30
65-85-0	MSD Benzoic acid	3930	0.00	U	1190	30	13-131	12	0-30
91-20-3	MSD Naphthalene	1970	0.00	U	821	42	23-103	35 *	0-30
106-47-8	MSD 4-Chloroaniline	1970	0.00	U	1240	63	26-103	2	0-30
87-68-3	MSD Hexachlorobutadiene	1970	0.00	U	1190	60	28-101	12	0-30
91-57-6	MSD 2-Methylnaphthalene	1970	0.00	U	1230	63	27-106	18	0-30
77-47-4	MSD Hexachlorocyclopentadiene	1970	0.00	U	1330	68	24-117	2	0-30
88-06-2	MSD 2,4,6-Trichlorophenol	1970	0.00	U	1630	83	26-105	8	0-30
95-95-4	MSD 2,4,5-Trichlorophenol	1970	0.00	U	1650	84	30-110	0	0-30
91-58-7	MSD 2-Chloronaphthalene	1970	0.00	U	1280	65	28-102	12	0-30
88-74-4	MSD 2-Nitroaniline *o-Nitroaniline*	1970	0.00	U	1230	63	33-106	0	0-30
99-09-2	MSD 3-Nitroaniline *m-Nitroaniline*	1970	0.00	U	1580	80	33-116	10	0-30
131-11-3	MSD Dimethylphthalate	1970	0.00	U	1450	74	38-113	3	0-30
606-20-2	MSD 2,6-Dinitrotoluene	1970	0.00	U	1460	74	29-107	1	0-30
208-96-8	MSD Acenaphthylene	1970	0.00	U	1420	72	25-108	2	0-30
51-28-5	MSD 2,4-Dinitrophenol	1970	0.00	U	541	28	14-102	96 *	0-30
132-64-9	MSD Dibenzofuran	1970	0.00	U	1400	71	35-112	1	0-30
84-66-2	MSD Diethylphthalate	1970	0.00	U	1480	75	36-122	1	0-30

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1604
Client ID: RE03-10-12247MSD
Lab Sample ID: 1202034802
Instrument: MSD7.I
Analyst: JMB3
Inj. Vol: .5 uL

Sample Type: Matrix Spike Duplicate
Matrix: S
%Moisture: 15.4
Analysis Date: 02/08/2010 14:42
Prep Batch ID: 949739
Batch ID: 949740
Dilution: 1

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
86-73-7	MSD Fluorene	1970	0.00	U	1350	69	33-105	2	0-30
7005-72-3	MSD 4-Chlorophenylphenylether	1970	0.00	U	1410	72	30-110	4	0-30
534-52-1	MSD 2-Methyl-4,6-dinitrophenol	1970	0.00	U	950	48	26-97	3	0-30
100-01-6	MSD 4-Nitroaniline *p-Nitroaniline*	1970	0.00	U	1820	93	28-135	6	0-30
122-39-4	MSD Diphenylamine	1970	0.00	U	1320	67	33-109	11	0-30
122-66-7	MSD Azobenzene *1,2-Diphenylhydrazine*	1970	0.00	U	1230	63	31-113	8	0-30
101-55-3	MSD 4-Bromophenylphenylether	1970	0.00	U	1530	78	31-109	7	0-30
118-74-1	MSD Hexachlorobenzene	1970	0.00	U	1820	93	37-99	9	0-30
85-01-8	MSD Phenanthrene	1970	0.00	U	1420	72	29-109	10	0-30
120-12-7	MSD Anthracene	1970	0.00	U	1500	76	19-118	8	0-30
84-74-2	MSD Di-n-butylphthalate	1970	0.00	U	1520	77	39-123	8	0-30
206-44-0	MSD Fluoranthene	1970	0.00	U	1500	76	33-114	6	0-30
85-68-7	MSD Butylbenzylphthalate	1970	0.00	U	1590	81	35-131	8	0-30
56-55-3	MSD Benzo(a)anthracene	1970	0.00	U	1440	73	30-111	8	0-30
91-94-1	MSD 3,3'-Dichlorobenzidine	1970	0.00	U	1470	75	30-124	10	0-30
218-01-9	MSD Chrysene	1970	0.00	U	1510	77	32-108	4	0-30
117-81-7	MSD bis(2-Ethylhexyl)phthalate	1970	0.00	U	1750	89	37-129	7	0-30
117-84-0	MSD Di-n-octylphthalate	1970	0.00	U	1420	72	31-143	6	0-30
205-99-2	MSD Benzo(b)fluoranthene	1970	0.00	U	1570	80	29-118	2	0-30
207-08-9	MSD Benzo(k)fluoranthene	1970	0.00	U	1490	76	32-118	10	0-30
50-32-8	MSD Benzo(a)pyrene	1970	0.00	U	1520	77	33-115	7	0-30
193-39-5	MSD Indeno(1,2,3-cd)pyrene	1970	0.00	U	1760	90	29-114	6	0-30

Semi-Volatile

Quality Control Summary

Spike Recovery Report

SDG Number: 10-1604
Client ID: RE03-10-12247MSD
Lab Sample ID: 1202034802
Instrument: MSD7.I
Analyst: JMB3
Inj. Vol: .5 uL

Sample Type: Matrix Spike Duplicate
Matrix: S
%Moisture: 15.4
Analysis Date: 02/08/2010 14:42
Prep Batch ID: 949739
Batch ID: 949740
Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
53-70-3	MSD	Dibenzo(a,h)anthracene	1970	0.00	U	1770	90	27-119	5	0-30
191-24-2	MSD	Benzo(ghi)perylene	1970	0.00	U	1730	88	28-112	4	0-30
120-82-1	MSD	1,2,4-Trichlorobenzene	1970	0.00	U	1230	63	28-99	12	0-30

Method Blank Summary

SDG Number:	10-1604	Client:	LANL010	Matrix:	SOIL
Client ID:	MB for batch 949739	Instrument ID:	MSD7.I	Data File:	s7b0806.d
Lab Sample ID:	1202034799	Prep Date:	02/05/2010 19:48	Analyzed:	02/08/10 11:04
Column:	J&W DB-5MS	Level:	LOW		

This method blank applies to the following samples and quality control samples:

	Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01	LCS for batch 949739	1202034800	s7b0807.d	02/08/10	1125
02	RE03-10-12247	246333001	s7b0810.d	02/08/10	1359
03	RE03-10-12247MS	1202034801	s7b0811.d	02/08/10	1420
04	RE03-10-12247MSD	1202034802	s7b0812.d	02/08/10	1442
05	RE03-10-12248	246333002	s7b0813.d	02/08/10	1504

Instrument Performance Check

DFTPP

Lab Name GEL Laboratories LLC **Client SDG:** 10-1604

Instrument ID: MSD7.I **Injection Date/Time:** 08-FEB-10 10:03

Column Description: Phenomenex ZB-5MS **Lab File ID** /chem/MSD7.i/s020810.b/s7b0803.d

m/e	Ion Abundance Criteria	% Relative Abundance
198	Base Peak, 100% Relative Abundance	100
51	30 - 60% of mass 198	54.3
68	Less than 2% of mass 69	0
69	Mass 69 Relative Abundance	44.5
70	Less than 2% of mass 69	0.6
127	40 - 60% of mass 198	52.1
197	0 - 1% of mass 198	0
199	5 - 9% of mass 198	6.9
275	10 - 30% of mass 198	25.8
365	Greater than 1% of mass 198	3
441	Present, but less than mass 443	76.8
442	Greater than 40% of mass 198	81.8
443	17 - 23% of mass 442	19.5

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
MEGACVS	WBN100121-17.3	/chem/MSD7.i/s020810.b/s7b080	08-FEB-10 10:16
APCVS	WBN100120-03.3	/chem/MSD7.i/s020810.b/s7b080	08-FEB-10 10:43
SBLK01	1202034799	/chem/MSD7.i/s020810.b/s7b080	08-FEB-10 11:04
SBLK01LCS	1202034800	/chem/MSD7.i/s020810.b/s7b080	08-FEB-10 11:25
RE03-10-12247	246333001	/chem/MSD7.i/s020810.b/s7b081	08-FEB-10 13:59
RE03-10-12247MS	1202034801	/chem/MSD7.i/s020810.b/s7b081	08-FEB-10 14:20
RE03-10-12247MSD	1202034802	/chem/MSD7.i/s020810.b/s7b081	08-FEB-10 14:42
RE03-10-12248	246333002	/chem/MSD7.i/s020810.b/s7b081	08-FEB-10 15:04

Instrument Performance Check

DFTPP

Lab Name GEL Laboratories LLC **Client SDG:** 10-1604

Instrument ID: MSD7.I **Injection Date/Time:** 13-JAN-10 16:11

Column Description: Phenomenex ZB-5MS **Lab File ID** /chem/MSD7.i/s011310.b/s7a1301.d

m/e	Ion Abundance Criteria	% Relative Abundance
198	Base Peak, 100% Relative Abundance	100
51	30 - 60% of mass 198	57.5
68	Less than 2% of mass 69	1.3
69	Mass 69 Relative Abundance	43.2
70	Less than 2% of mass 69	0
127	40 - 60% of mass 198	49
197	0 - 1% of mass 198	0
199	5 - 9% of mass 198	6.9
275	10 - 30% of mass 198	23.2
365	Greater than 1% of mass 198	2.1
441	Present, but less than mass 443	77.5
442	Greater than 40% of mass 198	81.7
443	17 - 23% of mass 442	19.4

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
MEGA001	WBN100112-08	/chem/MSD7.i/s011310.b/s7a130	13-JAN-10 16:51
MEGA010	WBN100112-07	/chem/MSD7.i/s011310.b/s7a130	13-JAN-10 17:18
MEGA020	WBN100112-06	/chem/MSD7.i/s011310.b/s7a130	13-JAN-10 17:45
MEGA040	WBN100112-05.1	/chem/MSD7.i/s011310.b/s7a130	13-JAN-10 18:12
MEGA050	WBN100112-04	/chem/MSD7.i/s011310.b/s7a130	13-JAN-10 18:39
MEGA080	WBN100112-03	/chem/MSD7.i/s011310.b/s7a130	13-JAN-10 19:07
MEGA100	WBN100112-02	/chem/MSD7.i/s011310.b/s7a130	13-JAN-10 19:34
MEGA120	WBN100112-01	/chem/MSD7.i/s011310.b/s7a131	13-JAN-10 20:01
AP010	WBN100103-01	/chem/MSD7.i/s011310.b/s7a131	13-JAN-10 20:28
AP020	WBN100103-02	/chem/MSD7.i/s011310.b/s7a131	13-JAN-10 20:50
AP040	WBN100103-03.1	/chem/MSD7.i/s011310.b/s7a131	13-JAN-10 21:12
AP050	WBN100103-04	/chem/MSD7.i/s011310.b/s7a131	13-JAN-10 21:34
AP080	WBN100103-05	/chem/MSD7.i/s011310.b/s7a131	13-JAN-10 21:55
AP100	WBN100103-06	/chem/MSD7.i/s011310.b/s7a131	13-JAN-10 22:17
AP120	WBN100103-07	/chem/MSD7.i/s011310.b/s7a131	13-JAN-10 22:39
MEGAICV	WBN091106-09.3	/chem/MSD7.i/s011310.b/s7a132	14-JAN-10 01:32

Instrument Performance Check

DFTPP

Lab Name GEL Laboratories LLC **Client SDG:** 10-1604

Instrument ID: MSD7.I **Injection Date/Time:** 13-JAN-10 16:11

Column Description: Phenomenex ZB-5MS **Lab File ID** /chem/MSD7.i/s011310.b/s7a1301.d

m/e	Ion Abundance Criteria	% Relative Abundance
198	Base Peak, 100% Relative Abundance	100
51	30 - 60% of mass 198	57.5
68	Less than 2% of mass 69	1.3
69	Mass 69 Relative Abundance	43.2
70	Less than 2% of mass 69	0
127	40 - 60% of mass 198	49
197	0 - 1% of mass 198	0
199	5 - 9% of mass 198	6.9
275	10 - 30% of mass 198	23.2
365	Greater than 1% of mass 198	2.1
441	Present, but less than mass 443	77.5
442	Greater than 40% of mass 198	81.7
443	17 - 23% of mass 442	19.4

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
APICV	WBN100103-03.1	/chem/MSD7.i/s011310.b/s7a132	14-JAN-10 01:58

Internal Standard
Area and RT Summary

Lab Name : GEL Laboratories LLC

Instrument: MSD7.I

GC Column: J&W DB-5MS

Client SDG: 10-1604

STD Analysis Time: 08-FEB-10 10:16

Data File: s7b0804.d

	1,4-Dichlorobenzene-d4			Naphthalene-d8			Acenaphthene-d10			Phenanthrene-d10			Chrysene-d12			Perylene-d12		
	Area	#	RT #	Area	#	RT #	Area	#	RT #	Area	#	RT #	Area	#	RT #	Area	#	RT #
12 Hour STD	336767		3.77	1371193		4.64	674786		5.88	1213234		7.03	961906		9.41	734427		11.0
Upper Limit	673534		4.27	2742386		5.14	1349572		6.38	2426468		7.53	1923812		9.91	1468854		11.5
Lower Limit	168384		3.27	685597		4.14	337393		5.38	606617		6.53	480953		8.91	367214		10.5
Sample ID																		
BLK01	369778		3.77	1424019		4.63	740929		5.88	1276051		7.02	1004589		9.41	653710		10.9
BLK01LCS	355232		3.77	1420818		4.63	715060		5.88	1288563		7.03	1041434		9.41	821368		11.0
RE03-10-12247	388646		3.77	1504297		4.63	791203		5.89	1372677		7.04	1103691		9.43	812398		11.0
RE03-10-12247MS	368572		3.77	1500239		4.63	741716		5.88	1332085		7.03	1085469		9.42	888580		11.0
RE03-10-12247MSD	355501		3.76	1456632		4.63	651684		5.88	1302921		7.03	1074696		9.41	877551		11.0
RE03-10-12248	402043		3.76	1558021		4.63	822685		5.87	1476574		7.02	1159242		9.41	753064		10.9

Area Upper Limit = +100% of internal standard area
Area Lower Limit = - 50% of internal standard area

RT Upper Limit = + 0.50 minutes of internal standard RT
RT Lower Limit = - 0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Value outside of QC Limits

Sample Data

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1604	Date Collected:	02/02/2010 12:00	Matrix:	S
Lab Sample ID:	246333001	Date Received:	02/05/2010 09:00	%Moisture:	15.4
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-10-12247	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	949740	Inst:	MSD7.I	Dilution:	1
Run Date:	02/08/2010 13:59	Analyst:	JMB3	Inj. Vol:	.5 uL
Prep Date:	02/05/2010 19:48	Aliquot:	30.15 g	Final Volume:	1 mL
Data File:	s7b0810.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	392	ug/kg	78.4	392
108-95-2	Phenol	U	392	ug/kg	78.4	392
95-57-8	2-Chlorophenol	U	392	ug/kg	78.4	392
106-46-7	1,4-Dichlorobenzene	U	392	ug/kg	78.4	392
621-64-7	N-Nitrosodipropylamine	U	392	ug/kg	78.4	392
59-50-7	4-Chloro-3-methylphenol	U	392	ug/kg	78.4	392
83-32-9	Acenaphthene	U	39.2	ug/kg	12.9	39.2
121-14-2	2,4-Dinitrotoluene	U	392	ug/kg	39.2	392
100-02-7	4-Nitrophenol	U	392	ug/kg	129	392
87-86-5	Pentachlorophenol	U	392	ug/kg	98.0	392
129-00-0	Pyrene	U	39.2	ug/kg	11.8	39.2
110-86-1	Pyridine	U	392	ug/kg	78.4	392
62-53-3	Aniline	U	392	ug/kg	118	392
111-44-4	bis(2-Chloroethyl) ether	U	392	ug/kg	78.4	392
541-73-1	1,3-Dichlorobenzene	U	392	ug/kg	78.4	392
100-51-6	Benzyl alcohol	U	392	ug/kg	118	392
95-50-1	1,2-Dichlorobenzene	U	392	ug/kg	78.4	392
108-60-1	bis(2-Chloroisopropyl)ether	U	392	ug/kg	78.4	392
95-48-7	o-Cresol	U	392	ug/kg	78.4	392
65794-96-9	m,p-Cresols	U	392	ug/kg	118	392
67-72-1	Hexachloroethane	U	392	ug/kg	78.4	392
98-95-3	Nitrobenzene	U	392	ug/kg	78.4	392
78-59-1	Isophorone	U	392	ug/kg	78.4	392
88-75-5	2-Nitrophenol	U	392	ug/kg	78.4	392
105-67-9	2,4-Dimethylphenol	U	392	ug/kg	137	392
111-91-1	bis(2-Chloroethoxy)methane	U	392	ug/kg	78.4	392
120-83-2	2,4-Dichlorophenol	U	392	ug/kg	78.4	392
65-85-0	Benzoic acid	U	784	ug/kg	196	784
91-20-3	Naphthalene	U	39.2	ug/kg	11.8	39.2
106-47-8	4-Chloroaniline	U	392	ug/kg	78.4	392
87-68-3	Hexachlorobutadiene	U	392	ug/kg	78.4	392
91-57-6	2-Methylnaphthalene	U	39.2	ug/kg	7.84	39.2
77-47-4	Hexachlorocyclopentadiene	U	392	ug/kg	78.4	392
88-06-2	2,4,6-Trichlorophenol	U	392	ug/kg	78.4	392
95-95-4	2,4,5-Trichlorophenol	U	392	ug/kg	78.4	392
91-58-7	2-Chloronaphthalene	U	39.2	ug/kg	12.9	39.2
88-74-4	2-Nitroaniline	U	392	ug/kg	78.4	392
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	392	ug/kg	78.4	392

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1604	Date Collected:	02/02/2010 12:00	Matrix:	S
Lab Sample ID:	246333001	Date Received:	02/05/2010 09:00	%Moisture:	15.4
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-10-12247	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	949740	Inst:	MSD7.I	Dilution:	1
Run Date:	02/08/2010 13:59	Analyst:	JMB3	Inj. Vol:	.5 uL
Prep Date:	02/05/2010 19:48	Aliquot:	30.15 g	Final Volume:	1 mL
Data File:	s7b0810.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	392	ug/kg	78.4	392
606-20-2	2,6-Dinitrotoluene	U	392	ug/kg	39.2	392
208-96-8	Acenaphthylene	U	39.2	ug/kg	11.8	39.2
51-28-5	2,4-Dinitrophenol	U	784	ug/kg	149	784
132-64-9	Dibenzofuran	U	392	ug/kg	78.4	392
84-66-2	Diethylphthalate	U	392	ug/kg	78.4	392
86-73-7	Fluorene	U	39.2	ug/kg	11.8	39.2
7005-72-3	4-Chlorophenylphenylether	U	392	ug/kg	78.4	392
534-52-1	2-Methyl-4,6-dinitrophenol	U	392	ug/kg	78.4	392
100-01-6	4-Nitroaniline	U	392	ug/kg	118	392
	p-Nitroaniline					
122-39-4	Diphenylamine	U	392	ug/kg	78.4	392
122-66-7	Azobenzene	U	392	ug/kg	78.4	392
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	392	ug/kg	78.4	392
118-74-1	Hexachlorobenzene	U	392	ug/kg	78.4	392
85-01-8	Phenanthrene	U	39.2	ug/kg	11.8	39.2
120-12-7	Anthracene	U	39.2	ug/kg	7.84	39.2
84-74-2	Di-n-butylphthalate	U	392	ug/kg	78.4	392
206-44-0	Fluoranthene	U	39.2	ug/kg	11.8	39.2
85-68-7	Butylbenzylphthalate	U	392	ug/kg	78.4	392
56-55-3	Benzo(a)anthracene	U	39.2	ug/kg	11.8	39.2
91-94-1	3,3'-Dichlorobenzidine	U	392	ug/kg	118	392
218-01-9	Chrysene	U	39.2	ug/kg	11.8	39.2
117-81-7	bis(2-Ethylhexyl)phthalate	U	392	ug/kg	78.4	392
117-84-0	Di-n-octylphthalate	U	392	ug/kg	78.4	392
205-99-2	Benzo(b)fluoranthene	U	39.2	ug/kg	11.8	39.2
207-08-9	Benzo(k)fluoranthene	U	39.2	ug/kg	11.8	39.2
50-32-8	Benzo(a)pyrene	U	39.2	ug/kg	11.8	39.2
193-39-5	Indeno(1,2,3-cd)pyrene	U	39.2	ug/kg	11.8	39.2
53-70-3	Dibenzo(a,h)anthracene	U	39.2	ug/kg	11.8	39.2
191-24-2	Benzo(ghi)perylene	U	39.2	ug/kg	11.8	39.2
120-82-1	1,2,4-Trichlorobenzene	U	392	ug/kg	78.4	392

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.82	260	ug/kg		J

GEL Laboratories LLC

GEL Laboratories, LLC
Data file : /chem/MSD7.i/s020810.b/s7b0810.d
Lab Smp Id: 246333001 Client Smp ID: RE03-10-12247
Inj Date : 08-FEB-2010 13:59
Operator : JMB3 Inst ID: MSD7.i
Smp Info : |246333001|949740|1|SVM|1|LANL
Misc Info : |MSD8270_S|WBN100122-01|
Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness
Method : /chem/MSD7.i/s020810.b/MSD7-M8270C-AQA-011310.m
Meth Date : 09-Feb-2010 07:54 jos00786 Quant Type: ISTD
Cal Date : 15-JAN-2010 17:38 Cal File: s7a1511.d
Als bottle: 8
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-1604.sub
Target Version: 3.50
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.15000	weight of sample
M	15.36620	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.769	3.773	(1.000)	388646	40.0000	
* 29 Naphthalene-d8	136	4.631	4.635	(1.000)	1504297	40.0000	
* 46 Acenaphthene-d10	164	5.887	5.882	(1.000)	791203	40.0000	
* 67 Phenanthrene-d10	188	7.043	7.029	(1.000)	1372677	40.0000	
* 91 Chrysene-d12	240	9.427	9.412	(1.000)	1103691	40.0000	
* 98 Perylene-d12	264	10.982	10.953	(1.000)	812398	40.0000	
$ 3 2-Fluorophenol	112	2.974	2.969	(0.789)	602247	53.9255	2110
$ 5 Phenol-d5	99	3.489	3.494	(0.926)	697816	48.4623	1900
$ 20 Nitrobenzene-d5	82	4.130	4.135	(0.892)	329884	26.5843	1040
$ 39 2-Fluorobiphenyl	172	5.377	5.377	(0.913)	670681	28.7661	1130
$ 60 2,4,6-Tribromophenol	329	6.480	6.470	(1.101)	154863	77.8019	3050
$ 81 p-Terphenyl-d14	244	8.406	8.391	(0.892)	775403	41.1337	1610

ION RATIO REPORT

SV REPORT

Data file: s7b0810.d
Report Date: 02/08/2010 14:13
Lab. ID: 246333001 SampleType: SAMPLE
Injection Date: 08-FEB-2010 13:59
Operator: JMB3 Instrument: MSD7.i
Sample Info: |246333001|949740|1|SVM|1|LANL
Miscellaneous Info: |MSD8270_S|WBN100122-01|
Comment:
Method used: /chem/MSD7.i/s020810.b/MSD7-M8270C-AQA-011310.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-1604
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
4 Aniline			CAS#: 62-53-3			
66	39703	3.49	3.56	80-120	100	(T)
93	167	3.57	3.56	208-268	0	(Q)
17 N-Nitrosodipropylamine				CAS#: 621-64-7		
70	47694	4.13	4.02	80-120	100	(T)
42	34955	4.13	4.02	59-119	73	(T)
27 Benzoic acid			CAS#: 65-85-0			
105	1323	4.63	4.43	80-120	100	(T)
122	162	4.63	4.43	69-129	12	(QT)
77	4877	4.63	4.42	54-114	369	(QT)
43 Dimethylphthalate			CAS#: 131-11-3			
163	141318	5.89	5.66	80-120	100	(T)
164	791203	5.89	5.66	0- 40	560	(QT)
44 2,6-Dinitrotoluene			CAS#: 606-20-2			
165	101901	5.89	5.71	80-120	100	(T)
63	1322	5.89	5.70	54-114	1	(QT)
50 2,4-Dinitrotoluene			CAS#: 121-14-2			
165	101901	5.89	6.00	80-120	100	(T)
89	1230	5.89	6.00	37- 97	1	(QT)
63	1322	5.89	6.00	20- 80	1	(QT)

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
53	Fluorene		CAS#: 86-73-7			
166	10025	6.47	6.29	80-120	100	(T)
165	10396	6.47	6.29	62-122	104	(T)
167	3328	6.47	6.28	0- 44	33	(T)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

GEL Laboratories, LLC
Data file : /chem/MSD7.i/s020810.b/s7b0810.d
Lab Smp Id: 246333001 Client Smp ID: RE03-10-12247
Inj Date : 08-FEB-2010 13:59
Operator : JMB3 Inst ID: MSD7.i
Smp Info : |246333001|949740|1|SVM|1|LANL
Misc Info : |MSD8270_S|WBN100122-01|
Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness
Method : /chem/MSD7.i/s020810.b/MSD7-M8270C-AQA-011310.m
Meth Date : 09-Feb-2010 07:54 jos00786 Quant Type: ISTD
Cal Date : 15-JAN-2010 17:38 Cal File: s7a1511.d
Als bottle: 8
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-1604.sub
Target Version: 3.50
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.15000	weight of sample
M	15.36620	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	3.769	2403006	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown Aldol Condensate					CAS #:		
2.820	399279	6.64632707	260	0		0	10

Data File: /chem/MSD7.i/s020810.b/s7b0810.d

Page 1

Date : 08-FEB-2010 13:59

Client ID: RE03-10-12247

Instrument: MSD7.i

Sample Info: |246333001|949740|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&W DB-5MS

Column diameter: 0.20

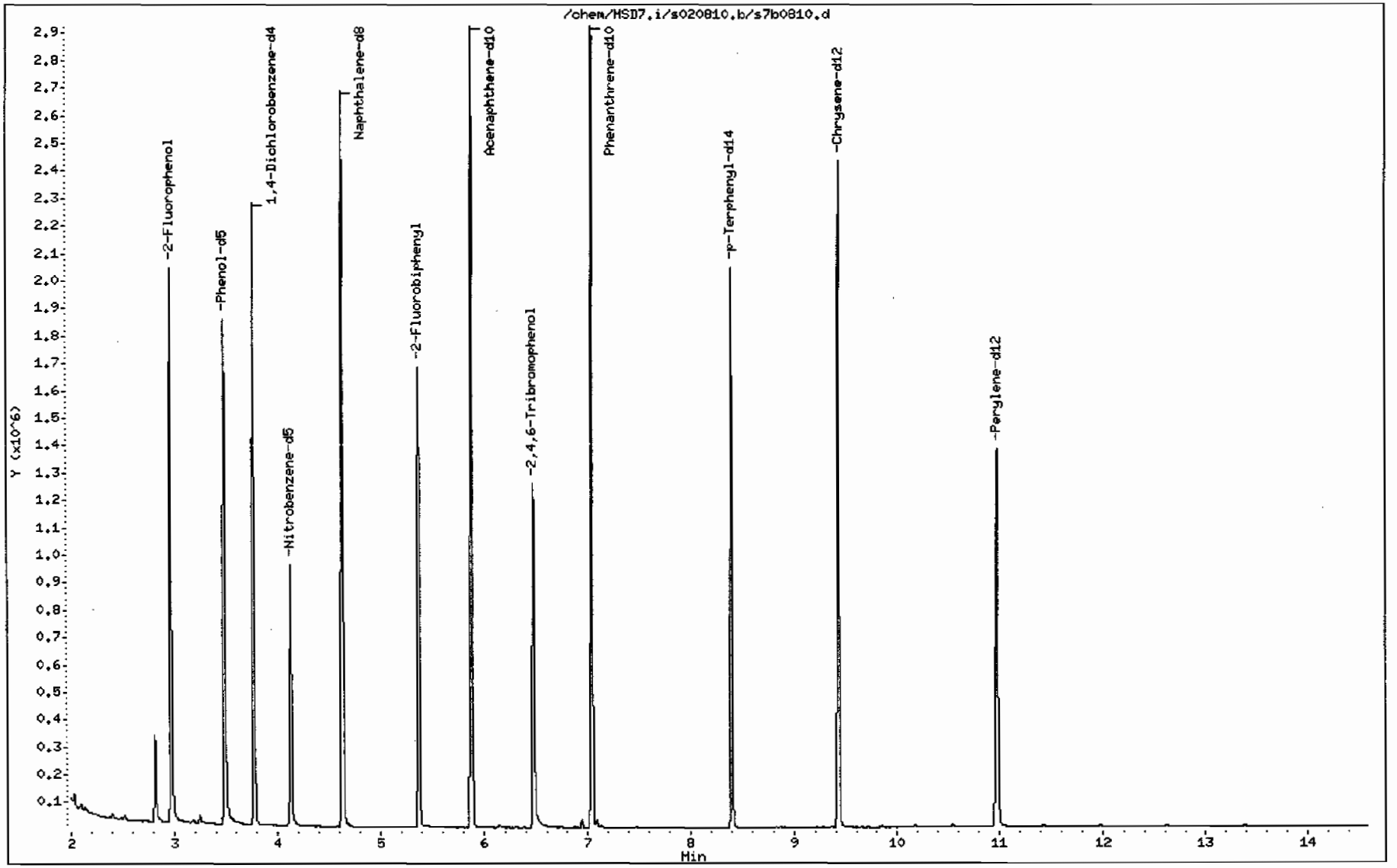

Data File: /chem/MSD7.i/s020810.b/s7b0810.d

Date : 08-FEB-2010 13:59

Client ID: RE03-10-12247

Instrument: MSD7.i

Sample Info: |246333001|949740|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	50	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7945	50	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	38	C6H12O2	116

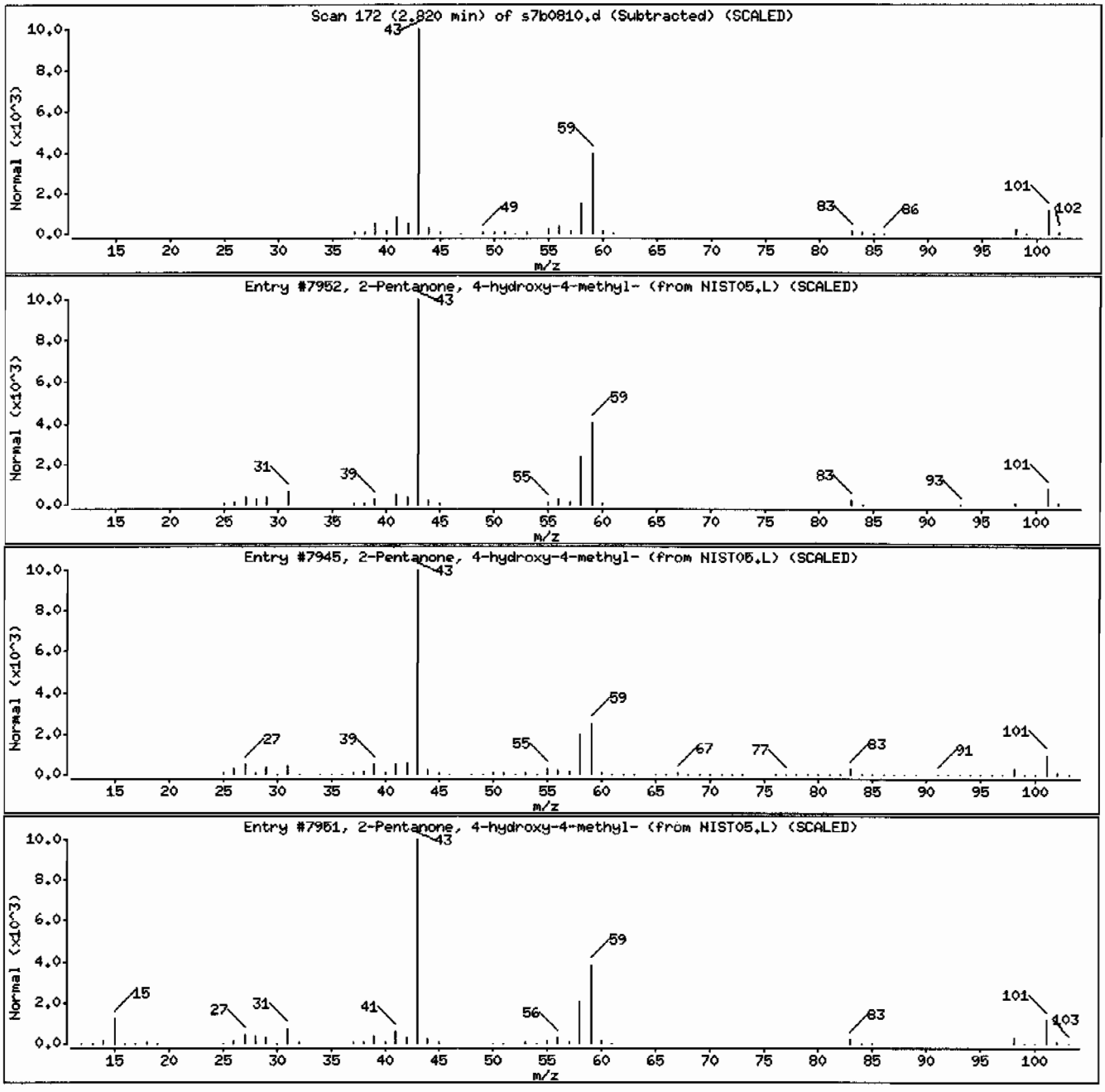

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1604	Date Collected:	02/02/2010 12:00	Matrix:	S
Lab Sample ID:	246333002	Date Received:	02/05/2010 09:00	%Moisture:	9.9
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-10-12248	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	949740	Inst:	MSD7.I	Dilution:	1
Run Date:	02/08/2010 15:04	Analyst:	JMB3	Inj. Vol:	.5 uL
Prep Date:	02/05/2010 19:48	Aliquot:	30.01 g	Final Volume:	1 mL
Data File:	s7b0813.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	370	ug/kg	74.0	370
108-95-2	Phenol	U	370	ug/kg	74.0	370
95-57-8	2-Chlorophenol	U	370	ug/kg	74.0	370
106-46-7	1,4-Dichlorobenzene	U	370	ug/kg	74.0	370
621-64-7	N-Nitrosodipropylamine	U	370	ug/kg	74.0	370
59-50-7	4-Chloro-3-methylphenol	U	370	ug/kg	74.0	370
83-32-9	Acenaphthene	U	37.0	ug/kg	12.2	37.0
121-14-2	2,4-Dinitrotoluene	U	370	ug/kg	37.0	370
100-02-7	4-Nitrophenol	U	370	ug/kg	122	370
87-86-5	Pentachlorophenol	U	370	ug/kg	92.5	370
129-00-0	Pyrene	U	37.0	ug/kg	11.1	37.0
110-86-1	Pyridine	U	370	ug/kg	74.0	370
62-53-3	Aniline	U	370	ug/kg	111	370
111-44-4	bis(2-Chloroethyl) ether	U	370	ug/kg	74.0	370
541-73-1	1,3-Dichlorobenzene	U	370	ug/kg	74.0	370
100-51-6	Benzyl alcohol	U	370	ug/kg	111	370
95-50-1	1,2-Dichlorobenzene	U	370	ug/kg	74.0	370
108-60-1	bis(2-Chloroisopropyl)ether	U	370	ug/kg	74.0	370
95-48-7	o-Cresol	U	370	ug/kg	74.0	370
65794-96-9	m,p-Cresols	U	370	ug/kg	111	370
67-72-1	Hexachloroethane	U	370	ug/kg	74.0	370
98-95-3	Nitrobenzene	U	370	ug/kg	74.0	370
78-59-1	Isophorone	U	370	ug/kg	74.0	370
88-75-5	2-Nitrophenol	U	370	ug/kg	74.0	370
105-67-9	2,4-Dimethylphenol	U	370	ug/kg	129	370
111-91-1	bis(2-Chloroethoxy)methane	U	370	ug/kg	74.0	370
120-83-2	2,4-Dichlorophenol	U	370	ug/kg	74.0	370
65-85-0	Benzoic acid	U	740	ug/kg	185	740
91-20-3	Naphthalene	U	37.0	ug/kg	11.1	37.0
106-47-8	4-Chloroaniline	U	370	ug/kg	74.0	370
87-68-3	Hexachlorobutadiene	U	370	ug/kg	74.0	370
91-57-6	2-Methylnaphthalene	U	37.0	ug/kg	7.40	37.0
77-47-4	Hexachlorocyclopentadiene	U	370	ug/kg	74.0	370
88-06-2	2,4,6-Trichlorophenol	U	370	ug/kg	74.0	370
95-95-4	2,4,5-Trichlorophenol	U	370	ug/kg	74.0	370
91-58-7	2-Chloronaphthalene	U	37.0	ug/kg	12.2	37.0
88-74-4	2-Nitroaniline	U	370	ug/kg	74.0	370
	o-Nitroaniline					
99-09-2	3-Nitroaniline	U	370	ug/kg	74.0	370

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1604	Date Collected:	02/02/2010 12:00	Matrix:	S
Lab Sample ID:	246333002	Date Received:	02/05/2010 09:00	%Moisture:	9.9
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-10-12248	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	949740	Inst:	MSD7.I	Dilution:	1
Run Date:	02/08/2010 15:04	Analyst:	JMB3	Inj. Vol:	.5 uL
Prep Date:	02/05/2010 19:48	Aliquot:	30.01 g	Final Volume:	1 mL
Data File:	s7b0813.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	370	ug/kg	74.0	370
606-20-2	2,6-Dinitrotoluene	U	370	ug/kg	37.0	370
208-96-8	Acenaphthylene	U	37.0	ug/kg	11.1	37.0
51-28-5	2,4-Dinitrophenol	U	740	ug/kg	141	740
132-64-9	Dibenzofuran	U	370	ug/kg	74.0	370
84-66-2	Diethylphthalate	U	370	ug/kg	74.0	370
86-73-7	Fluorene	U	37.0	ug/kg	11.1	37.0
7005-72-3	4-Chlorophenylphenylether	U	370	ug/kg	74.0	370
534-52-1	2-Methyl-4,6-dinitrophenol	U	370	ug/kg	74.0	370
100-01-6	4-Nitroaniline	U	370	ug/kg	111	370
	p-Nitroaniline					
122-39-4	Diphenylamine	U	370	ug/kg	74.0	370
122-66-7	Azobenzene	U	370	ug/kg	74.0	370
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	370	ug/kg	74.0	370
118-74-1	Hexachlorobenzene	U	370	ug/kg	74.0	370
85-01-8	Phenanthrene	U	37.0	ug/kg	11.1	37.0
120-12-7	Anthracene	U	37.0	ug/kg	7.40	37.0
84-74-2	Di-n-butylphthalate	U	370	ug/kg	74.0	370
206-44-0	Fluoranthene	U	37.0	ug/kg	11.1	37.0
85-68-7	Butylbenzylphthalate	U	370	ug/kg	74.0	370
56-55-3	Benzo(a)anthracene	U	37.0	ug/kg	11.1	37.0
91-94-1	3,3'-Dichlorobenzidine	U	370	ug/kg	111	370
218-01-9	Chrysene	U	37.0	ug/kg	11.1	37.0
117-81-7	bis(2-Ethylhexyl)phthalate	U	370	ug/kg	74.0	370
117-84-0	Di-n-octylphthalate	U	370	ug/kg	74.0	370
205-99-2	Benzo(b)fluoranthene	U	37.0	ug/kg	11.1	37.0
207-08-9	Benzo(k)fluoranthene	U	37.0	ug/kg	11.1	37.0
50-32-8	Benzo(a)pyrene	U	37.0	ug/kg	11.1	37.0
193-39-5	Indeno(1,2,3-cd)pyrene	U	37.0	ug/kg	11.1	37.0
53-70-3	Dibenzo(a,h)anthracene	U	37.0	ug/kg	11.1	37.0
191-24-2	Benzo(ghi)perylene	U	37.0	ug/kg	11.1	37.0
120-82-1	1,2,4-Trichlorobenzene	U	370	ug/kg	74.0	370

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.82	208	ug/kg		J

GEL Laboratories LLC

GEL Laboratories, LLC
Data file : /chem/MSD7.i/s020810.b/s7b0813.d
Lab Smp Id: 246333002 Client Smp ID: RE03-10-12248
Inj Date : 08-FEB-2010 15:04
Operator : JMB3 Inst ID: MSD7.i
Smp Info : |246333002|949740|1|SVM|1|LANL
Misc Info : |MSD8270_S|WBN100122-01|
Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness
Method : /chem/MSD7.i/s020810.b/MSD7-M8270C-AQA-011310.m
Meth Date : 09-Feb-2010 07:54 jos00786 Quant Type: ISTD
Cal Date : 15-JAN-2010 17:38 Cal File: s7a1511.d
Als bottle: 11
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-1604.sub
Target Version: 3.50
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.01000	weight of sample
M	9.93070	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.764	3.773	(1.000)	402043	40.0000	
* 29 Naphthalene-d8	136	4.626	4.635	(1.000)	1558021	40.0000	
* 46 Acenaphthene-d10	164	5.873	5.882	(1.000)	822685	40.0000	
* 67 Phenanthrene-d10	188	7.024	7.029	(1.000)	1476574	40.0000	
* 91 Chrysene-d12	240	9.407	9.412	(1.000)	1159242	40.0000	
* 98 Perylene-d12	264	10.943	10.953	(1.000)	753064	40.0000	
$ 3 2-Fluorophenol	112	2.974	2.969	(0.790)	517398	44.7843	1660
$ 5 Phenol-d5	99	3.484	3.494	(0.926)	612217	41.1008	1520
$ 20 Nitrobenzene-d5	82	4.125	4.135	(0.892)	285204	22.1911	821
$ 39 2-Fluorobiphenyl	172	5.367	5.377	(0.914)	592287	24.4316	904
$ 60 2,4,6-Tribromophenol	329	6.460	6.470	(1.100)	136004	65.7126	2430
$ 81 p-Terphenyl-d14	244	8.391	8.391	(0.892)	718414	36.2843	1340

ION RATIO REPORT

SV REPORT

Data file: s7b0813.d
Report Date: 02/08/2010 15:20
Lab. ID: 246333002 SampleType: SAMPLE
Injection Date: 08-FEB-2010 15:04
Operator: JMB3 Instrument: MSD7.i
Sample Info: |246333002|949740|1|SVM|1|LANL
Miscellaneous Info: |MSD8270_S|WBN100122-01|
Comment:
Method used: /chem/MSD7.i/s020810.b/MSD7-M8270C-AQA-011310.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-1604
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
4 Aniline		CAS#: 62-53-3				
66	34170	3.48	3.56	80-120	100	(T)
93	362	3.45	3.56	208-268	1	(QT)
17 N-Nitrosodipropylamine				CAS#: 621-64-7		
70	41438	4.12	4.02	80-120	100	(T)
42	30493	4.12	4.02	59-119	74	(T)
27 Benzoic acid			CAS#: 65-85-0			
105	1477	4.63	4.43	80-120	100	(T)
122	304	4.63	4.43	69-129	21	(QT)
77	5110	4.63	4.42	54-114	346	(QT)
43 Dimethylphthalate			CAS#: 131-11-3			
163	148128	5.88	5.66	80-120	100	(T)
164	822685	5.87	5.66	0- 40	555	(QT)
44 2,6-Dinitrotoluene			CAS#: 606-20-2			
165	107728	5.87	5.71	80-120	100	(T)
63	1437	5.87	5.70	54-114	1	(QT)
50 2,4-Dinitrotoluene			CAS#: 121-14-2			
165	107728	5.87	6.00	80-120	100	(T)
89	1342	5.87	6.00	37- 97	1	(QT)
63	1437	5.87	6.00	20- 80	1	(QT)

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
53 Fluorene			CAS#: 86-73-7			
166	8767	6.46	6.29	80-120	100	(T)
165	9089	6.46	6.29	62-122	104	(T)
167	3084	6.46	6.28	0- 44	35	(T)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

GEL Laboratories, LLC
Data file : /chem/MSD7.i/s020810.b/s7b0813.d
Lab Smp Id: 246333002 Client Smp ID: RE03-10-12248
Inj Date : 08-FEB-2010 15:04
Operator : JMB3 Inst ID: MSD7.i
Smp Info : |246333002|949740|1|SVM|1|LANL
Misc Info : |MSD8270_S|WBN100122-01|
Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness
Method : /chem/MSD7.i/s020810.b/MSD7-M8270C-AQA-011310.m
Meth Date : 09-Feb-2010 07:54 jos00786 Quant Type: ISTD
Cal Date : 15-JAN-2010 17:38 Cal File: s7a1511.d
Als bottle: 11
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-1604.sub
Target Version: 3.50
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.01000	weight of sample
M	9.93070	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	3.764	2482611	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown Aldol Condensate				CAS #:			
2.820	349441	5.63021530	208	0		0	10

Data File: /chem/MSD7.i/s020810.b/s7b0813.d
Date : 08-FEB-2010 15:04
Client ID: RE03-10-12248
Sample Info: |2463330021949740|1|SVMI1|LANL
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD7.i

Operator: JMB3
Column diameter: 0.20

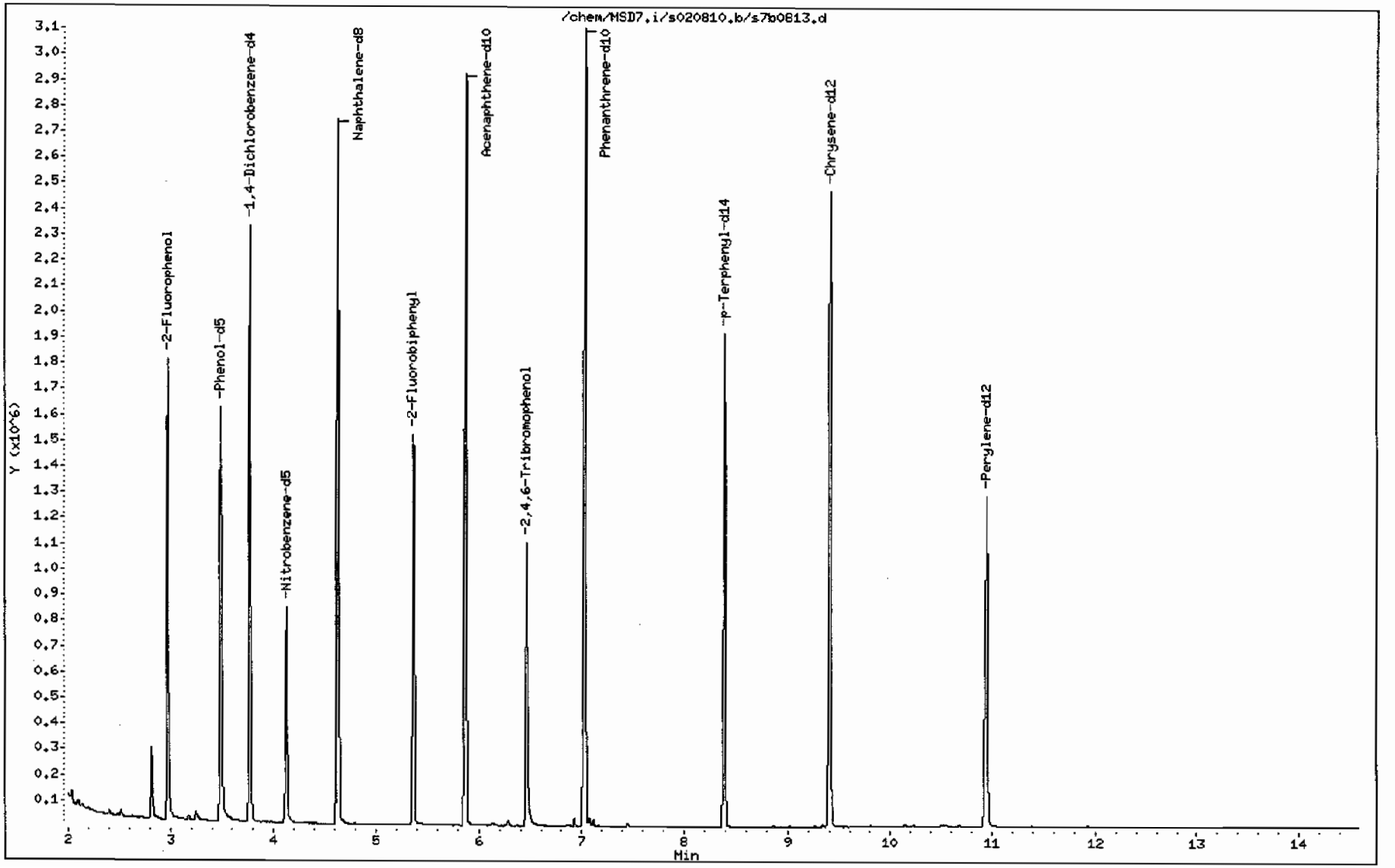

Data File: /chem/MSD7.i/s020810.b/s7b0813.d

Date : 08-FEB-2010 15:04

Client ID: RE03-10-12248

Instrument: MSD7.i

Sample Info: 1246333002194974011SVMI1ILANL

Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	59	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	50	C6H12O2	116
1-Butene, 4-ethoxy-	44611-46-3	NIST05.L	3747	23	C6H12O	100

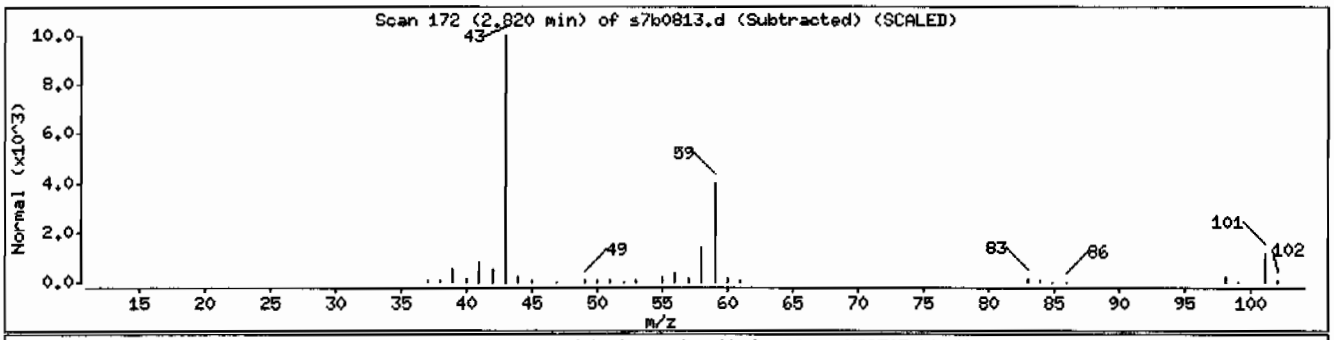

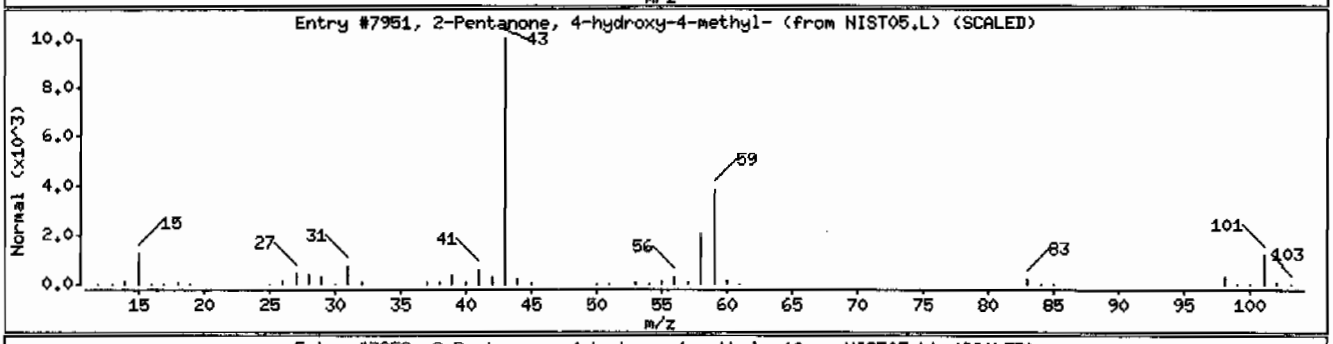

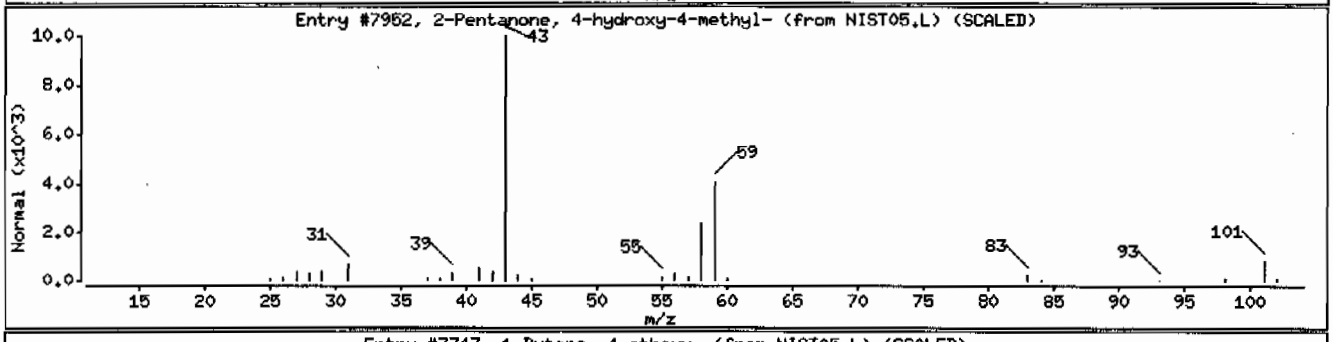

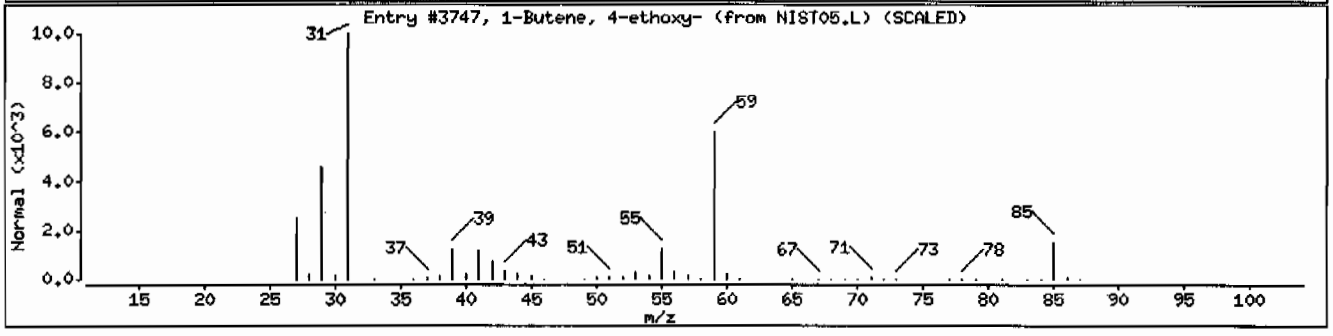

Standard Data

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
MEGA MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
1,4-Dichlorobenzene-d4 (INTERNAL STANDARD)								
Naphthalene-d8 (INTERNAL STANDARD)								
Acenaphthene-d10 (INTERNAL STANDARD)								
Phenanthrene-d10 (INTERNAL STANDARD)								
Chrysene-d12 (INTERNAL STANDARD)								
Perylene-d12 (INTERNAL STANDARD)								
2-Fluorophenol (SURROGATE)		10	20	40	50	80	100	120
Phenol-d5 (SURROGATE)		10	20	40	50	80	100	120
2-Chlorophenol-d4 (CLP SURROGATE)		10	20	40	50	80	100	120
1,2-Dichlorobenzene-d4 (CLP SURROGATE)		10	20	40	50	80	100	120
Nitrobenzene-d5 (SURROGATE)		10	20	40	50	80	100	120
2-Fluorobiphenyl (SURROGATE)		10	20	40	50	80	100	120
2,4,6-Tribromophenol (SURROGATE)		10	20	40	50	80	100	120
p-Terphenyl-d14 (SURROGATE)		10	20	40	50	80	100	120
N-Nitrosodimethylamine	1**	10	20	40	50	80	100	120
Pyridine		10	20	40	50	80	100	120
Aniline		10	20	40	50	80	100	120
Phenol		10	20	40	50	80	100	120
bis(2-Chloroethyl)ether		10	20	40	50	80	100	120
2-Chlorophenol		10	20	40	50	80	100	120
n-Decane		10	20	40	50	80	100	120
1,3-Dichlorobenzene		10	20	40	50	80	100	120
1,4-Dichlorobenzene		10	20	40	50	80	100	120
Benzyl Alcohol		10	20	40	50	80	100	120
1,2-Dichlorobenzene		10	20	40	50	80	100	120
bis(2-Chloroisopropyl)ether		10	20	40	50	80	100	120
o-Cresol (2-Methylphenol)		10	20	40	50	80	100	120
N-Nitrosodipropylamine	1**	10	20	40	50	80	100	120
m,p-Cresols (3-Methylphenol & 4-Methylphenol)		10	20	40	50	80	100	120
Hexachloroethane		10	20	40	50	80	100	120
Nitrobenzene		10	20	40	50	80	100	120
Isophorone		10	20	40	50	80	100	120
2-Nitrophenol		10	20	40	50	80	100	120
2,4-Dimethylphenol		10	20	40	50	80	100	120
bis(2-Chloroethoxy)methane		10	20	40	50	80	100	120
2,4-Dichlorophenol		10	20	40	50	80	100	120
Benzoic Acid			20	40	50	80	100	120
1,2,4-Trichlorobenzene		10	20	40	50	80	100	120
Naphthalene	1	10	20	40	50	80	100	120
alpha-Terpineol		10	20	40	50	80	100	120
4-Chloroaniline		10	20	40	50	80	100	120

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
MEGA MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Hexachlorobutadiene		10	20	40	50	80	100	120
4-Chloro-3-methylphenol		10	20	40	50	80	100	120
2-Methylnaphthalene	1	10	20	40	50	80	100	120

1-Methylnaphthalene	1	10	20	40	50	80	100	120
Hexachlorocyclopentadiene		10	20	40	50	80	100	120
2,3-Dichloroaniline		10	20	40	50	80	100	120
2,4,6-Trichlorophenol		10	20	40	50	80	100	120
2,4,5-Trichlorophenol		10	20	40	50	80	100	120
2-Chloronaphthalene	1	10	20	40	50	80	100	120
o-Nitroaniline		10	20	40	50	80	100	120
m-Nitroaniline		10	20	40	50	80	100	120
Dimethylphthalate	1**	10	20	40	50	80	100	120
2,6-Dinitrotoluene		10	20	40	50	80	100	120
Acenaphthylene	1	10	20	40	50	80	100	120
Acenaphthene	1	10	20	40	50	80	100	120
2,4-Dinitrophenol			20	40	50	80	100	120
Dibenzofuran		10	20	40	50	80	100	120
2,4-Dinitrotoluene		10	20	40	50	80	100	120
Diethylphthalate	1**	10	20	40	50	80	100	120
4-Nitrophenol		10	20	40	50	80	100	120
Fluorene	1	10	20	40	50	80	100	120
4-Chlorophenyl phenyl ether		10	20	40	50	80	100	120
2-Methyl-4,6-dinitrophenol		10	20	40	50	80	100	120
p-Nitroaniline		10	20	40	50	80	100	120
Diphenylamine		10	20	40	50	80	100	120
1,2-Diphenylhydrazine		10	20	40	50	80	100	120
4-Bromophenyl phenyether		10	20	40	50	80	100	120
Hexachlorobenzene		10	20	40	50	80	100	120
Pentachlorophenol		10	20	40	50	80	100	120
n-Octadecane		10	20	40	50	80	100	120
Phenanthrene	1	10	20	40	50	80	100	120
Anthracene	1	10	20	40	50	80	100	120
Di-n-butylphthalate	1**	10	20	40	50	80	100	120
Fluoranthene	1	10	20	40	50	80	100	120
Pyrene	1	10	20	40	50	80	100	120
Butylbenzylphthalate	1**	10	20	40	50	80	100	120
Benzo(a)anthracene	1	10	20	40	50	80	100	120
Chrysene	1	10	20	40	50	80	100	120
bis (2-Ethylhexyl) phthalate	1	10	20	40	50	80	100	120
Di-n-octylphthalate	1**	10	20	40	50	80	100	120

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
MEGA MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Benzo(b)fluoranthene	1	10	20	40	50	80	100	120
Benzo(k)fluoranthene	1	10	20	40	50	80	100	120
Benzo(a)pyrene	1	10	20	40	50	80	100	120
Indeno-(1,2,3-cd)pyrene	1	10	20	40	50	80	100	120
Dibenzo(a,h)anthracene	1	10	20	40	50	80	100	120
Benzo(ghi)perylene	1	10	20	40	50	80	100	120
m-Dinitrobenzene		10	20	40	50	80	100	120
2,3,4,6-Tetrachlorophenol		10	20	40	50	80	100	120
Dinoseb		10	20	40	50	80	100	120
Carbazole	1	10	20	40	50	80	100	120

p-Benzoquinone		10	20	40	50	80	100	120
Methoxychlor	1**	10	20	40	50	80	100	120
p-Toluidine		10	20	40	50	80	100	120
m-Toluidine		10	20	40	50	80	10	120
1,4-Dinitrobenzene		10	20	40	50	80	100	120
2-Ethoxyethanol		10	20	40	50	80	100	120
Phthalic anhydride		10	20	40	50	80	100	120
Methylenebis(2-chloroaniline)		10	20	40	50	80	100	120
Dibenzo(a,e)pyrene		10	20	40	50	80	100	120

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
AP MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Benzaldehyde		10	20	40	50	80	100	120
Acetophenone		10	20	40	50	80	100	120
Caprolactam		10	20	40	50	80	100	120
1,1'-Biphenyl		10	20	40	50	80	100	120
Atrazine		10	20	40	50	80	100	120
Benzidine		10	20	40	50	80	100	120
3,3'-Dichlorobenzidene		10	20	40	50	80	100	120
1,4-Dioxane		10	20	40	50	80	100	120
Methyl methacrylate		10	20	40	50	80	100	120
Ethyl methacrylate		10	20	40	50	80	100	120
2-Picoline		10	20	40	50	80	100	120
N-Nitrosomethylethylamine		10	20	40	50	80	100	120
Methyl methanesulfonate		10	20	40	50	80	100	120
N-Nitrosodiethylamine		10	20	40	50	80	100	120
Ethyl methanesulfonate		10	20	40	50	80	100	120
Pentachloroethane		10	20	40	50	80	100	120
N-Nitrosopyrrolidine		10	20	40	50	80	100	120
N-Nitrosomorpholine		10	20	40	50	80	100	120
o-Toluidine		10	20	40	50	80	100	120
N-Nitrosopiperidine		10	20	40	50	80	100	120
a,a-Dimethhylphenethylamine		10	20	40	50	80	100	120
2,6-Dichlorophenol		10	20	40	50	80	100	120

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
AP MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Hexachloropropene		10	20	40	50	80	100	120
p-Phenylenediamine		10	20	40	50	80	100	120
N-Nitrosodi-n-butylamine		10	20	40	50	80	100	120
Safrole		10	20	40	50	80	100	120
1,2,4,5-Tetrachlorobenzene		10	20	40	50	80	100	120
Isosafrole		10	20	40	50	80	100	120
1,4-Naphthoquinone		10	20	40	50	80	100	120
Pentachlorobenzene		10	20	40	50	80	100	120
1-Naphthylamine		10	20	40	50	80	100	120
2-Naphthylamine		10	20	40	50	80	100	120
5-Nitro-o-toluidine		10	20	40	50	80	100	120
1,3,5-Trinitrobenzene		10	20	40	50	80	100	120
Phenacetin		10	20	40	50	80	100	120
Diallate		10	20	40	50	80	100	120
cis-Diallate		1.5	3	6	7.5	12	15	18
trans-Diallate		8.5	17	34	42	68	85	102
4-Aminobiphenyl		10	20	40	50	80	100	120

Pentachloronitrobenzene		10	20	40	50	80	100	120
Pronamide		10	20	40	50	80	100	120
4-Nitroquinoline oxide		10	20	40	50	80	100	120
Methapyrilene	1**	10	20	40	50	80	100	120
Isodrin	1**	10	20	40	50	80	100	120
Aramite		10	20	40	50	80	100	120
Kepone	1**	10	20	40	50	80	100	120
p-(Dimethylamino)azobenzene		10	20	40	50	80	100	120
Chlorobenzilate		10	20	40	50	80	100	120
3,3'-Dimethylbenzidine		10	20	40	50	80	100	120
2-Acetylaminofluorene		10	20	40	50	80	100	120
7,12-Dimethylbenz(a)anthracene		10	20	40	50	80	100	120
3-Methylcholanthrene		10	20	40	50	80	100	120

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Hexachlorophene		500	1000	1250	1500	1750	2000	

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
PEST MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Tributylphosphate		10	20	40	50	80	100	120
Triethylphosphorothioate		10	20	40	50	80	100	120
Thionazin		10	20	40	50	80	100	120
Sulfotepp		10	20	40	50	80	100	120
Phorate		10	20	40	50	80	100	120
Dimethoate		10	20	40	50	80	100	120
Disulfoton		10	20	40	50	80	100	120
Methyl parathion		10	20	40	50	80	100	120
Famphur		10	20	40	50	80	100	120
Parathion		10	20	40	50	80	100	120

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
NEVADA MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
bis(Chloromethyl)ether		10	20	40	50	80	100	120
4-Chlorothiophenol		10	20	40	50	80	100	120
4-Chlorothioanisole		10	20	40	50	80	100	120
Phthalic acid		10	20	40	50	80	100	120
Hydroxymethyl phthalimide		10	20	40	50	80	100	120
Diphenyl sulfide		10	20	40	50	80	100	120
Diphenyl disulfide		10	20	40	50	80	100	120
Phenyl sulfone		10	20	40	50	80	100	120
Octachlorostyrene		10	20	40	50	80	100	120
Thiophenol		10	20	40	50	80	100	120
2,2'-Dichlorobenzil		10	20	40	50	80	100	120
bis(p-Chlorophenyl)disulfide		10	20	40	50	80	100	120

bis(p-Chlorophenyl)sulfone		10	20	40	50	80	100	120

SW846 8270C/8270D/EPA 625								
Calibration Standard Concentration Levels*								
BJCO MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
1-Hexanol		10	20	40	50	80	100	120
Quinoline		10	20	40	50	80	100	120
2,4-Toluene diisocyanate		10	20	40	50	80	100	120
1-Nitropyrene		10	20	40	50	80	100	120
5-Methylchrysene		10	20	40	50	80	100	120
Benzo(j)fluoranthene		10	20	40	50	80	100	120
Dibenzo(a,h)pyrene		10	20	40	50	80	100	120
Dibenzo(a,h)acridine		10	20	40	50	80	100	120
Dibenzo(a,j)acridine		10	20	40	50	80	100	120
Dibenzo(a,i)pyrene		10	20	40	50	80	100	120
Dibenzo(a,l)pyrene		10	20	40	50	80	100	120
7H-Dibenzo(c,g)carbazole		10	20	40	50	80	10	120

All values are mg/L without the prep factor.
# Indicates the calibration verification concentration level used
* Usual calibration levels using SCAN methodology
** This analyte included in this level at special client request.
(0210/Full list)

Report Date: 09-Feb-2010 07:53

Calibration History

Method : /chem/MSD7.i/s020810.b/MSD7-M8270C-AQA-011310.m
Start Cal Date: 13-JAN-2010 16:51
End Cal Date : 15-JAN-2010 19:06

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 1.00000		
13-JAN-2010 16:51	MEGA	/chem/MSD7.i/s011310.b/s7a1303.d
Cal Level: 2 , Cal Amount: 10.00000		
15-JAN-2010 16:53	NEV	/chem/MSD7.i/s011510.b/s7a1509.d
15-JAN-2010 14:41	HEX	/chem/MSD7.i/s011510.b/s7a1503.d
13-JAN-2010 23:00	PEST	/chem/MSD7.i/s011310.b/s7a1318.d
13-JAN-2010 20:28	AP12	/chem/MSD7.i/s011310.b/s7a1311.d
13-JAN-2010 17:18	MEGA	/chem/MSD7.i/s011310.b/s7a1304.d
Cal Level: 3 , Cal Amount: 20.00000		
15-JAN-2010 17:15	NEV	/chem/MSD7.i/s011510.b/s7a1510.d
15-JAN-2010 15:03	HEX	/chem/MSD7.i/s011510.b/s7a1504.d
13-JAN-2010 23:22	PEST	/chem/MSD7.i/s011310.b/s7a1319.d
13-JAN-2010 20:50	AP12	/chem/MSD7.i/s011310.b/s7a1312.d
13-JAN-2010 17:45	MEGA	/chem/MSD7.i/s011310.b/s7a1305.d
Cal Level: 4 , Cal Amount: 40.00000		
15-JAN-2010 17:38	NEV	/chem/MSD7.i/s011510.b/s7a1511.d
15-JAN-2010 15:25	HEX	/chem/MSD7.i/s011510.b/s7a1505.d
13-JAN-2010 23:44	PEST	/chem/MSD7.i/s011310.b/s7a1320.d
13-JAN-2010 21:12	AP12	/chem/MSD7.i/s011310.b/s7a1313.d
13-JAN-2010 18:12	MEGA	/chem/MSD7.i/s011310.b/s7a1306.d
Cal Level: 5 , Cal Amount: 50.00000		
15-JAN-2010 18:00	NEV	/chem/MSD7.i/s011510.b/s7a1512.d
15-JAN-2010 15:47	HEX	/chem/MSD7.i/s011510.b/s7a1506.d
14-JAN-2010 00:06	PEST	/chem/MSD7.i/s011310.b/s7a1321.d
13-JAN-2010 21:34	AP12	/chem/MSD7.i/s011310.b/s7a1314.d
13-JAN-2010 18:39	MEGA	/chem/MSD7.i/s011310.b/s7a1307.d
Cal Level: 6 , Cal Amount: 80.00000		
15-JAN-2010 18:22	NEV	/chem/MSD7.i/s011510.b/s7a1513.d
15-JAN-2010 16:09	HEX	/chem/MSD7.i/s011510.b/s7a1507.d
14-JAN-2010 00:27	PEST	/chem/MSD7.i/s011310.b/s7a1322.d
13-JAN-2010 21:55	AP12	/chem/MSD7.i/s011310.b/s7a1315.d
13-JAN-2010 19:07	MEGA	/chem/MSD7.i/s011310.b/s7a1308.d
Cal Level: 7 , Cal Amount: 100.00000		

15-JAN-2010 18:44	NEV	/chem/MSD7.i/s011510.b/s7a1514.d
15-JAN-2010 16:31	HEX	/chem/MSD7.i/s011510.b/s7a1508.d
14-JAN-2010 00:49	PEST	/chem/MSD7.i/s011310.b/s7a1323.d
13-JAN-2010 22:17	AP12	/chem/MSD7.i/s011310.b/s7a1316.d
13-JAN-2010 19:34	MEGA	/chem/MSD7.i/s011310.b/s7a1309.d

Cal Level: 8 , Cal Amount: 120.00000

15-JAN-2010 19:06	NEV	/chem/MSD7.i/s011510.b/s7a1515.d
14-JAN-2010 01:10	PEST	/chem/MSD7.i/s011310.b/s7a1324.d
13-JAN-2010 22:39	AP12	/chem/MSD7.i/s011310.b/s7a1317.d
13-JAN-2010 20:01	MEGA	/chem/MSD7.i/s011310.b/s7a1310.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 40.0

08-FEB-2010 10:16	MEGA	/chem/MSD7.i/s020810.b/s7b0804.d

Ccal Level: 4 , Ccal Amount: 40.0

08-FEB-2010 12:09	PEST	/chem/MSD7.i/s020810.b/s7b0809.d

Ccal Level: 4 , Ccal Amount: 40.0

08-FEB-2010 11:47	NEV	/chem/MSD7.i/s020810.b/s7b0808.d

Ccal Level: 4 , Ccal Amount: 40.0

08-FEB-2010 10:43	AP12	/chem/MSD7.i/s020810.b/s7b0805.d

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 13-JAN-2010 16:51
End Cal Date : 15-JAN-2010 19:06
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD7.i/s020810.b/MSD7-M8270C-AQA-011310.m
Cal Date : 08-Feb-2010 15:58 jos00786

Calibration File Names:
Level 1: /chem/MSD7.i/s011310.b/s7a1303.d
Level 2: /chem/MSD7.i/s011510.b/s7a1509.d
Level 3: /chem/MSD7.i/s011510.b/s7a1510.d
Level 4: /chem/MSD7.i/s011510.b/s7a1511.d
Level 5: /chem/MSD7.i/s011510.b/s7a1512.d
Level 6: /chem/MSD7.i/s011510.b/s7a1513.d
Level 7: /chem/MSD7.i/s011510.b/s7a1514.d
Level 8: /chem/MSD7.i/s011510.b/s7a1515.d

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
1 N-Methyl-N-nitrosomethylamine	+++++	0.88939	0.95815	0.83799	0.85920	0.81042					
	0.86880	0.78732					AVRG		0.85875		6.51636
2 Pyridine	+++++	1.02987	1.10461	1.02068	1.00469	0.98693					
	1.03080	0.95815					AVRG		1.01939		4.48197
4 Aniline	+++++	0.70353	0.74041	0.66330	0.64736	0.64840					
	0.65803	0.61486					AVRG		0.66799		6.19065
209 Benzaldehyde	+++++	1.07723	1.12512	0.97981	1.00602	0.89516					
	0.82614	0.79323					AVRG		0.95753		13.03078
6 Phenol	+++++	1.67278	1.72916	1.51549	1.43485	1.36271					
	1.38952	1.25963					AVRG		1.48059		11.47002

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Cal Date : 08-Feb-2010 15:58 jos00786

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
7 bis(2-Chloroethyl) ether	1.41708	1.33565	1.33998	1.18046	1.14137	1.13631					
	1.12778	1.00635					AVRG		1.21062		11.46274
8 2-Chlorophenol	+++++	1.19827	1.22018	1.04398	0.99402	0.95680					
	0.96651	0.89427					AVRG		1.03915		11.99373
203 n-Decane	+++++	2.28123	2.19400	1.70416	1.54977	1.27117					
	1.15070	1.01143					AVRG		1.59464		31.21372 <-
9 1,3-Dichlorobenzene	+++++	1.40263	1.42443	1.24307	1.18567	1.11579					
	1.11739	1.02386					AVRG		1.21612		12.40760
11 1,4-Dichlorobenzene	+++++	1.33155	1.34663	1.16385	1.11003	1.04371					
	1.03672	0.95331					AVRG		1.14083		13.17944
12 Benzyl alcohol	+++++	0.77686	0.82689	0.76125	0.72453	0.72191					
	0.75413	0.71145					AVRG		0.75386		5.30533
13 1,2-Dichlorobenzene	+++++	1.25805	1.25231	1.06509	0.99436	0.93732					
	0.94692	0.86393					AVRG		1.04543		14.88738
14 bis(2-Chloroisopropyl)ether	+++++	3.20471	3.20580	2.77341	2.56227	2.32267					
	+++++	+++++					AVRG		2.81377		13.90798
15 o-Cresol	+++++	0.95386	0.94329	0.80835	0.75725	0.70463					
	0.73009	0.65368					AVRG		0.79302		14.66533

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
16 Acetophenone	+++++	1.35738	1.36884	1.22585	1.25870	1.09153					
	1.09128	1.05992					AVRG		1.20764		10.70025
17 N-Nitrosodipropylamine	0.86492	0.94013	0.98242	0.88987	0.84977	0.83510					
	0.83506	0.75307					AVRG		0.86879		8.07907
18 m,p-Cresols	+++++	1.26385	1.30802	1.19082	1.13835	1.14633					
	1.18814	1.13057					AVRG		1.19515		5.64463
19 Hexachloroethane	+++++	0.53190	0.54536	0.48419	0.44982	0.42898					
	0.42265	0.38378					AVRG		0.46381		12.81898
21 Nitrobenzene	+++++	0.36655	0.37283	0.33243	0.31976	0.30907					
	0.29827	0.27695					AVRG		0.32512		10.78269
22 Isophorone	+++++	0.66878	0.70864	0.63949	0.63443	0.63797					
	0.63666	0.59047					AVRG		0.64520		5.60593
23 2-Nitrophenol	+++++	0.14860	0.15977	0.14342	0.13634	0.12672					
	0.12151	0.11137					AVRG		0.13539		12.35581
24 2,4-Dimethylphenol	+++++	0.29614	0.30386	0.26566	0.25248	0.23545					
	0.23015	0.20815					AVRG		0.25598		13.70766
25 bis(2-Chloroethoxy)methane	+++++	0.42635	0.43168	0.37361	0.35712	0.34544					
	0.34045	0.30816					AVRG		0.36897		12.34646

GEL Laboratories LLC

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Cal Date : 08-Feb-2010 15:58 jos00786

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
26 2,4-Dichlorophenol	+++++	0.24370	0.25806	0.24090	0.22587	0.22085					
	0.22199	0.20487					AVRG		0.23089		7.67567
27 Benzoic acid	+++++	+++++	68953	160625	219066	395943					
	501684	586086					LINR	0.21036	0.20230		0.99343
28 1,2,4-Trichlorobenzene	+++++	0.30183	0.29820	0.26362	0.25318	0.24754					
	0.23965	0.22503					AVRG		0.26129		11.10180
30 Naphthalene	1.06286	0.95932	0.93335	0.82192	0.77031	+++++					
	+++++	+++++					AVRG		0.90955		12.72868
204 alpha-Terpineol	+++++	96337	198064	325765	385112	534650					
	631152	+++++					LINR	-0.27637	0.22398		0.99075
31 4-Chloroaniline	+++++	0.42888	0.42632	0.38171	0.36333	0.35956					
	0.35268	0.32677					AVRG		0.37704		10.12971
189 Caprolactam	+++++	0.08417	0.09158	0.08852	0.09020	0.08140					
	0.08409	0.08116					AVRG		0.08588		4.90748
32 Hexachlorobutadiene	+++++	0.14838	0.15157	0.13507	0.13010	0.12994					
	0.12870	0.12024					AVRG		0.13485		8.34946
33 4-Chloro-3-methylphenol	+++++	0.26578	0.28012	0.25441	0.24095	0.24076					
	0.23376	0.21964					AVRG		0.24792		8.22932

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Method file : /chem/MSD7.i/s020810.b/MSD7-M8270C-AQA-011310.m
Cal Date : 08-Feb-2010 15:58 jos00786

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
34 2-Methylnaphthalene	0.65458	0.64736	0.65137	0.57007	0.54268	0.51249					
	0.49537	0.44887					AVRG		0.56535		14.00478
35 1-Methylnaphthalene	0.66585	0.62818	0.62691	0.54313	0.51183	0.48327					
	0.45785	+++++					AVRG		0.55957		14.45522
36 Hexachlorocyclopentadiene	+++++	0.20473	0.22730	0.21447	0.21119	0.19124					
	0.19987	0.18420					AVRG		0.20471		7.11533
208 1,1'-Biphenyl	+++++	1.50290	1.48170	1.26874	1.24499	1.06838					
	+++++	+++++					AVRG		1.31334		13.77633
205 2,3-Dichloroaniline	+++++	0.62037	0.62256	0.52439	0.49250	0.44968					
	+++++	+++++					AVRG		0.54190		14.26898
37 2,4,6-Trichlorophenol	+++++	0.30835	0.32846	0.28677	0.27488	0.26278					
	0.25503	0.23379					AVRG		0.27858		11.59940
38 2,4,5-Trichlorophenol	+++++	0.33976	0.36016	0.32375	0.30955	0.28848					
	0.28622	0.27788					AVRG		0.31226		9.79755
40 2-Chloronaphthalene	1.24281	1.14706	1.12045	0.95634	0.91959	0.85146					
	+++++	+++++					AVRG		1.03962		14.65819
42 o-Nitroaniline	+++++	0.38767	0.41862	0.38670	0.36807	0.34677					
	0.35674	0.33750					AVRG		0.37172		7.53646

GEL Laboratories LLC

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Method file : /chem/MSD7.i/s020810.b/MSD7-M8270C-AQA-011310.m
Cal Date : 08-Feb-2010 15:58 jos00786

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
41 m-Nitroaniline	+++++	0.28162	0.30235	0.28340	0.26358	0.24771					
	0.24300	0.23427					AVRG		0.26513		9.41534
43 Dimethylphthalate	+++++	1.24211	1.24477	1.09841	1.06665	1.01974					
	1.00650	0.93670					AVRG		1.08784		10.81722
44 2,6-Dinitrotoluene	+++++	0.29268	0.29790	0.26085	0.25405	0.23677					
	0.23261	0.21417					AVRG		0.25558		12.15813
45 Acenaphthylene	1.98399	1.92339	1.92246	1.64927	1.56260	1.42072					
	1.39096	+++++					AVRG		1.69334		14.75751
47 Acenaphthene	1.20824	1.11817	1.10674	0.93561	0.89201	+++++					
	+++++	+++++					AVRG		1.05215		12.65628
48 2,4-Dinitrophenol	+++++	+++++	0.07950	0.09450	0.09039	0.09304					
	0.09799	0.09685					AVRG		0.09204		7.29905
49 Dibenzofuran	+++++	1.64371	1.60402	1.41601	1.33141	1.21466					
	1.19479	+++++					AVRG		1.40077		13.63659
50 2,4-Dinitrotoluene	+++++	0.34676	0.36642	0.34118	0.33007	0.31392					
	0.31903	0.30401					AVRG		0.33163		6.47714
51 Diethylphthalate	+++++	1.38210	1.34490	1.15717	1.10702	1.01149					
	0.99129	+++++					AVRG		1.16566		14.18277

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INITIAL CALIBRATION DATA

Start Cal Date : 13-JAN-2010 16:51
End Cal Date : 15-JAN-2010 19:06
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD7.i/s020810.b/MSD7-M8270C-AQA-011310.m
Cal Date : 08-Feb-2010 15:58 jos00786

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
52 4-Nitrophenol	+++++	0.16382	0.19713	0.19653	0.19219	0.18557					
	0.19545	0.19360					AVRG		0.18919		6.25870
53 Fluorene	1.45271	1.37025	1.31251	1.09670	1.03152	+++++					
	+++++	+++++					AVRG		1.25274		14.42701
54 4-Chlorophenylphenylether	+++++	0.61811	0.61230	0.55118	0.53244	0.50780					
	0.49508	0.46433					AVRG		0.54018		10.76570
55 2-Methyl-4,6-dinitrophenol	+++++	0.06070	0.08430	0.08550	0.08582	0.09078					
	0.08989	0.08673					AVRG		0.08339		12.32680
56 p-Nitroaniline	+++++	0.26642	0.27674	0.23673	0.22126	0.20574					
	0.22613	0.22078					AVRG		0.23626		10.99270
133 Diphenylamine	+++++	0.62225	0.61372	0.51686	0.50834	0.48311					
	0.46388	0.43513					AVRG		0.52047		13.83183
58 1,2-Diphenylhydrazine	+++++	0.81952	0.79140	0.66696	0.65088	0.60977					
	0.55978	+++++					AVRG		0.68305		14.96181
59 Tributylphosphate	+++++	1.59408	1.41427	1.30943	1.29260	1.14389					
	1.05952	+++++					AVRG		1.30230		14.64426
61 4-Bromophenylphenylether	+++++	0.16837	0.17009	0.15052	0.15033	0.15091					
	0.14913	0.14260					AVRG		0.15456		6.74446

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	100 Level 7	120 Level 8										
63 Hexachlorobenzene	+++++	0.15741	0.15654	0.13831	0.13800	0.14362						
	0.14280	0.13512					AVRG		0.14454		6.21330	
207 Atrazine	+++++	0.04928	0.05219	0.04335	0.04328	0.03866						
	0.03458	+++++					AVRG		0.04356		14.94680	
65 Pentachlorophenol	+++++	0.05834	0.07419	0.07409	0.07689	0.08356						
	0.08656	0.08556					AVRG		0.07703		12.68008	
206 n-Octadecane	+++++	0.81183	0.76932	0.55747	0.51401	0.40766						
	0.34564	0.28865					AVRG		0.52780		38.27676	<-
68 Phenanthrene	1.06169	0.96897	0.94311	0.80214	0.77778	0.73410						
	+++++	+++++					AVRG		0.88130		14.59290	
69 Anthracene	0.97749	0.99425	0.96562	0.83308	0.78731	0.74902						
	0.72787	0.67672					AVRG		0.83892		14.86114	
72 Di-n-butylphthalate	+++++	1.23188	1.25296	1.05147	1.06532	0.99915						
	0.92627	0.84433					AVRG		1.05305		14.22530	
76 Fluoranthene	1.01251	1.07956	1.07171	0.97160	0.92367	0.87880						
	0.85829	0.81956					AVRG		0.95196		10.28696	
77 Benzidine	+++++	0.48589	0.51734	0.52496	0.58981	0.51829						
	0.52722	0.48814					AVRG		0.52166		6.60301	

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
79 Pyrene	1.36317	1.39178	1.37481	1.21668	1.19550	1.27581					
	1.23678	1.05881					AVRG		1.26417		8.88716
85 Butylbenzylphthalate	++++-	0.54604	0.59333	0.53894	0.54608	0.57600					
	0.54763	0.46812					AVRG		0.54516		7.20358
89 Benzo(a)anthracene	1.08297	1.00054	1.03857	0.92844	0.89862	0.92356					
	0.92390	0.88114					AVRG		0.95972		7.52938
90 3,3'-Dichlorobenzidine	++++++	0.23488	0.25322	0.26516	0.28936	0.26630					
	0.28014	0.25334					AVRG		0.26320		6.90905
92 Chrysene	1.01902	0.97100	0.98239	0.84257	0.84563	0.81969					
	0.80167	0.76776					AVRG		0.88121		10.76848
93 bis(2-Ethylhexyl)phthalate	0.57954	0.75662	0.78166	0.65092	0.64030	0.65364					
	0.59666	0.50984					AVRG		0.64615		13.86051
94 Di-n-octylphthalate	+++++	1.52803	1.55395	1.39234	1.40888	1.53648					
	1.58188	1.27498					AVRG		1.46808		7.62202
95 Benzo(b)fluoranthene	0.99697	1.03559	1.05453	0.99573	0.99395	1.04225					
	1.05968	1.13219					AVRG		1.03886		4.46238
96 Benzo(k)fluoranthene	1.00348	1.16016	1.11418	0.98134	0.92956	0.93617					
	0.99048	0.75290					AVRG		0.98353		12.57429

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
97 Benzo(a)pyrene	0.74402	0.90920	0.96341	0.88495	0.88110	0.88792					
	0.89666	0.85875					AVRG		0.87825		7.08371
99 Indeno(1,2,3-cd)pyrene	0.49720	0.63458	0.74055	0.71939	0.72120	0.71227					
	0.63955	0.61902					AVRG		0.66047		12.23896
100 Dibenzo(a,h)anthracene	0.40736	0.49800	0.57716	0.56220	0.57628	0.55605					
	0.50751	0.49933					AVRG		0.52299		11.00783
101 Benzo(ghi)perylene	0.49478	0.54446	0.60661	0.61539	0.60722	0.58574					
	0.50674	0.48832					AVRG		0.55616		9.72715
102 1,4-Dioxane	+++++	0.47498	0.47371	0.40974	0.42455	0.39057					
	0.36184	0.35143					AVRG		0.41241		11.95278
103 Methyl methacrylate	+++++	0.23561	0.25209	0.21844	0.22442	0.20613					
	0.19508	0.18669					AVRG		0.21692		10.56619
104 Ethyl methacrylate	+++++	0.95817	1.01880	0.89146	0.92137	0.86026					
	0.81216	0.79583					AVRG		0.89401		8.89277
105 2-Picoline	+++++	1.49025	1.57228	1.37238	1.39709	1.26508					
	1.19451	1.15456					AVRG		1.34945		11.37533
106 N-Nitrosomethylethylamine	+++++	0.57479	0.62408	0.57186	0.59245	0.56465					
	0.55492	0.54783					AVRG		0.57580		4.46578

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
107 Methyl methanesulfonate	+++++	0.57925	0.62031	0.55264	0.58659	0.55087					
	0.52807	0.51369					AVRG		0.56163		6.50044
108 N-Nitrosodiethylamine	+++++	0.59055	0.63974	0.57910	0.60040	0.55514					
	0.54359	0.53674					AVRG		0.57789		6.27177
109 Ethyl Methanesulfonate	+++++	0.76918	0.82036	0.75452	0.78919	0.73437					
	0.72581	0.70271					AVRG		0.75659		5.29715
110 Pentachloroethane	+++++	0.34701	0.36677	0.32523	0.33602	0.31277					
	0.30225	0.29279					AVRG		0.32612		7.96342
111 N-Nitrosopyrrolidine	+++++	0.60315	0.65188	0.60969	0.63850	0.54085					
	0.52873	0.51205					AVRG		0.58355		9.56592
113 N-Nitrosomorpholine	+++++	0.98514	1.01227	0.91453	0.94823	0.81742					
	0.74676	0.69041					AVRG		0.87354		14.15390
114 o-Toluidine	+++++	1.95525	2.00273	1.73521	1.83178	1.60899					
	1.53554	1.44650					AVRG		1.73086		12.21793
115 N-Nitrosopiperidine	+++++	0.16211	0.17290	0.16175	0.16486	0.15255					
	0.15274	0.14665					AVRG		0.15908		5.61082
116 a,a-Dimethylphenethylamine	+++++	1.05960	1.25709	1.25611	1.29819	1.19917					
	1.27980	1.18469					AVRG		1.21923		6.67792

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	100 Level 7	120 Level 8										
117 Triethylphosphorothioate	+++++	0.14496	0.14398	0.12991	0.13219	0.12275						
	0.11849	0.11738					AVRG		0.12995		8.70958	
118 2,6-Dichlorophenol	+++++	0.21183	0.22721	0.21954	0.22474	0.20280						
	0.20908	0.19772					AVRG		0.21328		5.19358	
119 Hexachloropropene	+++++	0.09224	0.10674	0.10538	0.11250	0.10209						
	0.10543	0.10009					AVRG		0.10349		6.09937	
120 p-Phenylenediamine	+++++	0.30045	0.30920	0.27829	0.28798	0.23154						
	0.22478	+++++					AVRG		0.27204		13.10502	
121 N-Nitrosodi-n-butylamine	+++++	0.27235	0.28948	0.22750	0.22678	0.20294						
	0.20668	+++++					AVRG		0.23762		14.90850	
122 Safrole	+++++	0.20303	0.21313	0.19694	0.19498	0.17454						
	0.17203	0.16348					AVRG		0.18830		9.75145	
123 1,2,4,5-Tetrachlorobenzene	+++++	0.50952	0.52359	0.45075	0.44724	0.40706						
	0.40730	0.39059					AVRG		0.44801		11.57515	
124 Isosafrole	+++++	0.39642	0.41430	0.37355	0.38043	0.33419						
	0.33847	0.32234					AVRG		0.36567		9.47221	
125 1,4-Naphthoquinone	+++++	0.41213	0.42513	0.33756	0.32954	0.27088						
	0.26238	0.24394					AVRG		0.32594		22.12794	<-

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	100 Level 7	120 Level 8									
126 m-Dinitrobenzene	+++++	0.20680	0.21820	0.20367	0.19847	0.19342					
	0.19222	0.18156					AVRG		0.19919		5.91404
127 Pentachlorobenzene	+++++	0.38028	0.38706	0.35349	0.36180	0.33082					
	0.34242	0.33537					AVRG		0.35589		6.11146
128 1-Naphthylamine	+++++	1.06054	1.07552	0.98112	1.01203	0.85440					
	0.84978	0.79498					AVRG		0.94691		11.88100
129 2-Naphthylamine	+++++	1.18810	1.18347	1.08346	1.12187	0.94800					
	0.92698	0.87536					AVRG		1.04675		12.27985
130 2,3,4,6-Tetrachlorophenol	+++++	0.25391	0.26992	0.25397	0.24723	0.24473					
	0.23287	0.21725					AVRG		0.24570		6.84971
131 5-Nitro-o-toluidine	+++++	0.29512	0.32188	0.32993	0.35065	0.31331					
	0.32529	0.30377					AVRG		0.31999		5.70075
132 Thionazin	+++++	0.21254	0.20731	0.19411	0.19772	0.17404					
	0.16464	0.15331					AVRG		0.18624		12.06404
134 Sulfotepp	+++++	0.06984	0.06785	0.06825	0.06859	0.07140					
	0.07731	0.07654					AVRG		0.07140		5.54941
135 Phorate	+++++	0.48374	0.46253	0.43051	0.41680	0.36504					
	0.35334	0.32360					AVRG		0.40508		14.67137

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	100 Level 7	120 Level 8										
136 1,3,5-Trinitrobenzene	+++++	0.10162	0.12849	0.13043	0.14376	0.13249						
	0.13672	0.11189					AVRG		0.12649		11.59269	
137 Phenacetin	+++++	0.26877	0.28872	0.27476	0.29233	0.26205						
	0.26990	0.25853					AVRG		0.27358		4.66682	
138 Diallate	+++++	0.31162	0.32003	0.26637	0.25948	0.22932						
	+++++	+++++					AVRG		0.27737		13.66115	
139 Dimethoate	+++++	0.26479	0.27398	0.26734	0.27986	0.26510						
	0.26880	0.25124					AVRG		0.26730		3.32470	
140 4-Aminobiphenyl	+++++	0.66439	0.68548	0.65711	0.67293	0.55700						
	0.53908	0.49813					AVRG		0.61059		12.54198	
141 Pentachloronitrobenzene	+++++	0.06555	0.06631	0.05633	0.05613	0.05025						
	0.04824	0.04582					AVRG		0.05552		14.57216	
142 Pronamide	+++++	0.29628	0.30157	0.24252	0.23250	0.19656						
	0.18608	0.17698					AVRG		0.23321		21.76909	<-
143 Dinoseb	+++++	0.09042	0.12821	0.13534	0.13598	0.14162						
	0.13987	0.13715					AVRG		0.12980		13.77398	
144 Disulfoton	+++++	0.41147	0.39434	0.36763	0.35634	0.31077						
	0.30175	0.27224					AVRG		0.34493		14.89085	

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	100 Level 7	120 Level 8										
145 Methyl parathion	+++++	0.17243	0.19573	0.19477	0.20506	0.19911						
	0.19997	0.18821					AVRG		0.19361		5.51936	
146 4-Nitroquinoline-1-oxide	+++++	0.02928	0.03008	0.02626	0.02758	0.02167						
	0.01941	0.01509					AVRG		0.02419		23.15445	<-
147 Methapyrilene	+++++	0.65484	0.72146	0.58985	0.58164	0.50142						
	+++++	+++++					AVRG		0.60984		13.57995	
148 Isodrin	+++++	0.12050	0.12814	0.10611	0.10575	0.09656						
	0.09280	0.09138					AVRG		0.10589		13.22846	
149 Aramite	+++++	0.04572	0.05335	0.04995	0.05102	0.04683						
	0.04586	0.04419					AVRG		0.04813		6.94603	
150 Kepone	+++++	0.06478	0.07477	0.06607	0.06941	0.06643						
	0.06654	0.06495					AVRG		0.06756		5.21469	
151 p-(Dimethylamino)azobenzene	+++++	0.33958	0.36491	0.32328	0.31587	0.28351						
	0.27935	0.28185					AVRG		0.31262		10.51808	
152 Chlorobenzilate	+++++	0.25316	0.27609	0.24099	0.22879	0.22334						
	0.22634	0.24364					AVRG		0.24177		7.66039	
153 3,3'-Dimethylbenzidine	+++++	0.58294	0.62484	0.59700	0.62812	0.56782						
	0.57564	0.53815					AVRG		0.58779		5.43298	

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	100 Level 7	120 Level 8									
154 Famphur	+++++	0.34293	0.35640	0.35333	0.36388	0.34897					
	0.35186	0.33815					AVRG		0.35079		2.42811
155 2-Acetylaminofluorene	+++++	0.22906	0.26071	0.30220	0.33870	0.31870					
	0.32600	0.28645					AVRG		0.29455		13.20654
157 7,12Dimethylbenz(a)anthracene	+++++	0.49055	0.56096	0.49107	0.47664	0.44238					
	0.47763	0.48720					AVRG		0.48949		7.29126
158 3-Methylcholanthrene	+++++	0.37469	0.40654	0.40074	0.41929	0.37655					
	0.39929	0.38314					AVRG		0.39432		4.22479
26 Phthalic anhydride	+++++	17802	63670	136080	167026	258664					
	326501	387207					LINR	0.03594	0.12452		0.99693
173 Carbazole	0.86461	0.90783	0.93259	0.81316	0.76105	0.72966					
	0.71732	0.67464					AVRG		0.80011		11.81641
174 Hexachlorophene	+++++	0.02881	0.03850	0.03998	0.04154	0.03543					
	0.04105	+++++					AVRG		0.03755		12.82216
179 Dibenzo(a,e)pyrene	+++++	0.26279	0.21194	0.28705	0.31052	0.27777					
	0.22659	+++++					AVRG		0.26278		14.22624
185 (2,3-Dibromopropyl)phosphate	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+00		0.000e+00 <-

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 13-JAN-2010 16:51
End Cal Date : 15-JAN-2010 19:06
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD7.i/s020810.b/MSD7-M8270C-AQA-011310.m
Cal Date : 08-Feb-2010 15:58 jos00786

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
184 p-Benzoquinone	+++++	0.06655	0.08086	0.08809	0.12563	0.14993					
	0.15421	0.13847					AVRG		0.11482		31.11508 <-
191 Parathion	+++++	0.04302	0.04840	0.04863	0.05311	0.05474					
	0.05775	0.05620					AVRG		0.05169		10.10344
192 Methoxychlor	+++-+	0.60262	0.68127	0.61971	0.59381	0.62438					
	0.59149	0.53427					AVRG		0.60679		7.27805
210 m-Toluidine	+++++	1.34351	1.41939	1.32580	1.35959	1.38421					
	1.48774	1.55861					AVRG		1.41126		5.99317
211 p-Toluidine	+++++	1.19092	1.16677	1.13422	1.03862	1.04792					
	1.01200	0.79991					AVRG		1.05576		12.49876
212 Cis Diallate	+++++	0.30717	0.34670	0.30098	0.30136	0.28690					
	0.29180	0.28476					AVRG		0.30281		6.94210
213 Trans Diallate	+++++	0.36662	0.37651	0.31338	0.30527	0.26979					
	+++++	+++++					AVRG		0.32631		13.66115
214 1,4-Dinitrobenzene	+++++	0.20213	0.23378	0.22604	0.21776	0.21122					
	0.21850	0.20918					AVRG		0.21694		4.91361
215 2-Ethoxyethanol	+++++	1.06285	1.16019	1.06866	0.96547	0.96788					
	0.98145	0.89824					AVRG		1.01496		8.59687

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 13-JAN-2010 16:51
End Cal Date : 15-JAN-2010 19:06
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD7.i/s020810.b/MSD7-M8270C-AQA-011310.m
Cal Date : 08-Feb-2010 15:58 jos00786

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
216 Methylenebis(2-chloroaniline)	+++++	0.12057	0.14302	0.13505	0.12980	0.13369					
	0.13289	0.13160					AVRG		0.13237		5.05871
226 2,2'-Dichlorobenzil	+++++	0.74178	0.75192	0.71371	0.70525	0.66450					
	+++++	0.61564					AVRG		0.69880		7.30389
227 4-Chlorothioanisole	+++++	0.23827	0.25288	0.24529	0.24518	0.23195					
	+++++	0.21435					AVRG		0.23799		5.70656
228 4-Chlorothiophenol	+++++	30556	101498	252564	300443	508460					
	+++++	704552					LINR	0.10496	0.20783		0.99743
229 bis(p-Chlorophenyl)sulfone	+++++	0.44120	0.42676	0.39168	0.39081	0.35974					
	+++++	0.33628					AVRG		0.39108		10.08085
230 bis(p-Chlorophenyl)disulfide	+++++	0.22646	0.21014	0.18860	0.19053	0.16462					
	+++++	0.15081					AVRG		0.18853		14.82259
231 Diphenyl disulfide	+++++	0.26541	0.25455	0.23964	0.24204	0.21486					
	+++++	0.19670					AVRG		0.23553		10.82223
232 Diphenyl sulfide	+++++	0.88267	0.85145	0.79583	0.79935	0.74037					
	+++++	0.66655					AVRG		0.78937		9.84306
233 Phenyl sulfone	+++++	0.50195	0.48312	0.45403	0.44999	0.41349					
	+++++	0.37279					AVRG		0.44589		10.52158

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 13-JAN-2010 16:51
End Cal Date : 15-JAN-2010 19:06
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD7.i/s020810.b/MSD7-M8270C-AQA-011310.m
Cal Date : 08-Feb-2010 15:58 jos00786

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
234 Hydroxymethyl phthalimide	+++++	14573	32398	48393	61372	94869					
	+++++	143033					LINR	-0.04139	0.07618		0.99267
235 Phthalic acid	+++++	12580	35505	101795	139857	206275					
	+++++	332645					LINR	0.18939	0.09753		0.99665
236 Thiophenol	+++++	55193	163704	388728	487155	762725					
	+++++	1041441					LINR	0.04425	1.11913		0.99612
237 bis(Chloromethyl)ether	+++++	1.10253	1.09460	1.01664	1.02874	0.95967					
	+++++	0.92064					AVRG		1.02047		7.06312
238 Octachlorostyrene	+++++	0.05015	0.04794	0.04706	0.04641	0.04574					
	+++++	0.04512					AVRG		0.04707		3.83116
M 222 Trichlorophenols	+++++	0.32405	0.34431	0.30526	0.29222	0.27563					
	0.27063	0.25583					AVRG		0.29542		10.60638
M 223 Tetrachlorophenols	+++++	0.25391	0.26992	0.25397	0.24723	0.24473					
	0.23287	0.21725					AVRG		0.24570		6.84971
M 224 Benzo(b,k)fluoranthene	1.00023	1.09787	1.08436	0.98853	0.96175	0.98921					
	1.02508	0.94254					AVRG		1.01120		5.45943
M 225 TTO Sum Semivolatiles	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+00		0.000e+00 <-

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 13-JAN-2010 16:51
End Cal Date : 15-JAN-2010 19:06
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD7.i/s020810.b/MSD7-M8270C-AQA-011310.m
Cal Date : 08-Feb-2010 15:58 jos00786

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	100 Level 7	120 Level 8										
$ 3 2-Fluorophenol	+++++	1.20273	1.30129	1.17488	1.13762	1.09735						
	1.10726	1.02495					AVRG		1.14944		7.67318	
$ 5 Phenol-d5	+++++	1.58928	1.64869	1.50015	1.45443	1.39964						
	1.44525	1.33643					AVRG		1.48198		7.27306	
$ 187 2-Chlorophenol-d4	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
$ 188 1,2-Dichlorobenzene-d4	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
$ 20 Nitrobenzene-d5	+++++	0.36604	0.36548	0.33575	0.32339	0.31502						
	0.31003	0.29401					AVRG		0.32996		8.34902	
$ 39 2-Fluorobiphenyl	+++++	1.36843	1.34696	1.13154	1.05987	0.98675						
	+++++	+++++					AVRG		1.17871		14.54057	
$ 60 2,4,6-Tribromophenol	+++++	0.09256	0.10381	0.09928	0.09926	0.10040						
	0.10522	0.10388					AVRG		0.10063		4.26669	
$ 81 p-Terphenyl-d14	+++++	0.72672	0.73063	0.65173	0.63774	0.71178						
	0.70500	0.61874					AVRG		0.68319		6.72022	

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 13-JAN-2010 16:51
End Cal Date : 15-JAN-2010 19:06
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD7.i/s020810.b/MSD7-M8270C-AQA-011310.m
Cal Date : 08-Feb-2010 15:58 jos00786

Curve	Formula	Units
Averaged	Amt = Rsp/ml	Response
Linear	Amt = b + Rsp/ml	Response

Data File: /chem/MSD7.i/s011310.b/s7a1325.d
Report Date: 03-Feb-2010 11:32

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD7.i
Lab File ID: s7a1325.d
Analysis Type:
Lab Sample ID: WBN091106-09.3
Method: /chem/MSD7.i/s011310.b/MSD7-M8270C-AQA-011310.m

Injection Date: 14-JAN-2010 01:32
Init. Cal. Date(s): 13-JAN-2010 14-JAN-2010
Init. Cal. Times: 16:51 01:10
Quant Type: ISTD

	COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
$	3 2-Fluorophenol	1.14944	1.19979	1.19979	0.000	4.38067	60.00000	Averaged	
$	5 Phenol-d5	1.48198	1.46736	1.46736	0.000	-0.98671	60.00000	Averaged	
$	20 Nitrobenzene-d5	0.32996	0.34065	0.34065	0.000	3.24024	60.00000	Averaged	
$	39 2-Fluorobiphenyl	1.17871	1.14576	1.14576	0.000	-2.79503	60.00000	Averaged	
$	60 2,4,6-Tribromophenol	0.10063	0.10523	0.10523	0.000	4.57101	60.00000	Averaged	
$	81 p-Terphenyl-d14	0.68319	0.69434	0.69434	0.000	1.63158	60.00000	Averaged	
	1 N-Methyl-N-nitrosomethylami	0.85875	0.84167	0.84167	0.000	-1.98906	60.00000	Averaged	
	2 Pyridine	1.01939	1.08019	1.08019	0.000	5.96476	60.00000	Averaged	
	4 Aniline	0.66799	0.67553	0.67553	0.000	1.12909	60.00000	Averaged	
	6 Phenol	1.48059	1.45713	1.45713	0.001	-1.58488	20.00000	Averaged	ccc
	7 bis(2-Chloroethyl) ether	1.21062	1.11386	1.11386	0.000	-7.99271	60.00000	Averaged	
	8 2-Chlorophenol	1.03915	1.01572	1.01572	0.000	-2.25469	60.00000	Averaged	
	203 n-Decane	1.59464	1.38841	1.38841	0.000	-12.93222	60.00000	Averaged	
	9 1,3-Dichlorobenzene	1.21612	1.23436	1.23436	0.000	1.50004	60.00000	Averaged	
	11 1,4-Dichlorobenzene	1.14083	1.12997	1.12997	0.001	-0.95180	20.00000	Averaged	ccc
	13 1,2-Dichlorobenzene	1.04543	0.98075	0.98075	0.000	-6.18639	60.00000	Averaged	
	14 bis(2-Chloroisopropyl)ether	2.81377	2.67314	2.67314	0.000	-4.99796	60.00000	Averaged	
	12 Benzyl alcohol	0.75386	0.74467	0.74467	0.000	-1.21841	60.00000	Averaged	
	15 o-Cresol	0.79302	0.75562	0.75562	0.000	-4.71607	60.00000	Averaged	
	18 m,p-Cresols	1.19515	1.18671	1.18671	0.000	-0.70651	60.00000	Averaged	
	17 N-Nitrosodipropylamine	0.86879	0.87578	0.87578	0.050	0.80426	60.00000	Averaged	spcc
	19 Hexachloroethane	0.46381	0.45922	0.45922	0.000	-0.98974	60.00000	Averaged	
	21 Nitrobenzene	0.32512	0.33012	0.33012	0.000	1.53735	60.00000	Averaged	
	22 Isophorone	0.64520	0.63755	0.63755	0.000	-1.18618	60.00000	Averaged	
	23 2-Nitrophenol	0.13539	0.14118	0.14118	0.001	4.27881	20.00000	Averaged	ccc
	24 2,4-Dimethylphenol	0.25598	0.25694	0.25694	0.000	0.37175	60.00000	Averaged	
	25 bis(2-Chloroethoxy)methane	0.36897	0.35440	0.35440	0.000	-3.94894	60.00000	Averaged	
	26 2,4-Dichlorophenol	0.23089	0.23339	0.23339	0.001	1.08396	20.00000	Averaged	ccc
	27 Benzoic acid	44.87163	40.00000	0.18438	0.000	12.17907	60.00000	Linear	
	28 1,2,4-Trichlorobenzene	0.26129	0.25789	0.25789	0.000	-1.30332	60.00000	Averaged	
	30 Naphthalene	0.90955	0.85854	0.85854	0.000	-5.60883	60.00000	Averaged	
	204 alpha-Terpineol	38.38876	40.00000	0.27686	0.000	-4.02809	60.00000	Linear	
	31 4-Chloroaniline	0.37704	0.39730	0.39730	0.000	5.37528	60.00000	Averaged	
	32 Hexachlorobutadiene	0.13485	0.13525	0.13525	0.001	0.29124	20.00000	Averaged	ccc
	33 4-Chloro-3-methylphenol	0.24792	0.24654	0.24654	0.001	-0.55793	20.00000	Averaged	ccc
	34 2-Methylnaphthalene	0.56535	0.62714	0.62714	0.000	10.93034	60.00000	Averaged	

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD7.i Injection Date: 14-JAN-2010 01:32
Lab File ID: s7a1325.d Init. Cal. Date(s): 13-JAN-2010 14-JAN-2010
Analysis Type: Init. Cal. Times: 16:51 01:10
Lab Sample ID: WBN091106-09.3 Quant Type: ISTD
Method: /chem/MSD7.i/s011310.b/MSD7-M8270C-AQA-011310.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
35 1-Methylnaphthalene	0.55957	0.57444	0.57444	0.000	2.65596	60.00000	Averaged	
36 Hexachlorocyclopentadiene	0.20471	0.18903	0.18903	0.050	-7.65838	60.00000	Averaged	spcc
205 2,3-Dichloroaniline	0.54190	0.51854	0.51854	0.000	-4.31104	60.00000	Averaged	
37 2,4,6-Trichlorophenol	0.27858	0.28344	0.28344	0.001	1.74317	20.00000	Averaged	ccc
38 2,4,5-Trichlorophenol	0.31226	0.30290	0.30290	0.000	-2.99627	60.00000	Averaged	
40 2-Chloronaphthalene	1.03962	0.95077	0.95077	0.000	-8.54689	60.00000	Averaged	
42 o-Nitroaniline	0.37172	0.38673	0.38673	0.000	4.03769	60.00000	Averaged	
41 m-Nitroaniline	0.26513	0.28498	0.28498	0.000	7.48645	60.00000	Averaged	
43 Dimethylphthalate	1.08784	1.12875	1.12875	0.000	3.76031	60.00000	Averaged	
44 2,6-Dinitrotoluene	0.25558	0.25894	0.25894	0.000	1.31460	60.00000	Averaged	
50 2,4-Dinitrotoluene	0.33163	0.35229	0.35229	0.000	6.23095	60.00000	Averaged	
45 Acenaphthylene	1.69334	1.77553	1.77553	0.000	4.85347	60.00000	Averaged	
47 Acenaphthene	1.05215	0.98231	0.98231	0.001	-6.63786	20.00000	Averaged	ccc
48 2,4-Dinitrophenol	0.09204	0.09507	0.09507	0.050	3.28585	60.00000	Averaged	spcc
49 Dibenzofuran	1.40077	1.37982	1.37982	0.000	-1.49529	60.00000	Averaged	
51 Diethylphthalate	1.16566	1.16558	1.16558	0.000	-0.00717	60.00000	Averaged	
52 4-Nitrophenol	0.18919	0.20884	0.20884	0.050	10.39134	60.00000	Averaged	spcc
53 Fluorene	1.25274	1.18582	1.18582	0.000	-5.34180	60.00000	Averaged	
54 4-Chlorophenylphenylether	0.54018	0.55809	0.55809	0.000	3.31674	60.00000	Averaged	
55 2-Methyl-4,6-dinitrophenol	0.08339	0.10609	0.10609	0.000	27.21980	60.00000	Averaged	
56 p-Nitroaniline	0.23626	0.24773	0.24773	0.000	4.85652	60.00000	Averaged	
133 Diphenylamine	0.52047	0.51293	0.51293	0.001	-1.44852	20.00000	Averaged	ccc
58 1,2-Diphenylhydrazine	0.68305	0.65986	0.65986	0.000	-3.39523	60.00000	Averaged	
61 4-Bromophenylphenylether	0.15456	0.14839	0.14839	0.000	-3.99250	60.00000	Averaged	
63 Hexachlorobenzene	0.14454	0.13629	0.13629	0.000	-5.70637	60.00000	Averaged	
65 Pentachlorophenol	0.07703	0.07569	0.07569	0.001	-1.74322	20.00000	Averaged	ccc
206 n-Octadecane	0.52780	0.51332	0.51332	0.000	-2.74265	60.00000	Averaged	
68 Phenanthrene	0.88130	0.85569	0.85569	0.000	-2.90541	60.00000	Averaged	
69 Anthracene	0.83892	0.89421	0.89421	0.000	6.59003	60.00000	Averaged	
72 Di-n-butylphthalate	1.05305	1.09163	1.09163	0.000	3.66328	60.00000	Averaged	
76 Fluoranthene	0.95196	1.06485	1.06485	0.001	11.85875	20.00000	Averaged	ccc
79 Pyrene	1.26417	1.22973	1.22973	0.000	-2.72444	60.00000	Averaged	
85 Butylbenzylphthalate	0.54516	0.53999	0.53999	0.000	-0.94829	60.00000	Averaged	
89 Benzo(a)anthracene	0.95972	0.99492	0.99492	0.000	3.66762	60.00000	Averaged	
92 Chrysene	0.88121	0.89853	0.89853	0.000	1.96484	60.00000	Averaged	
93 bis(2-Ethylhexyl)phthalate	0.64615	0.64124	0.64124	0.000	-0.75996	60.00000	Averaged	

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD7.i
Lab File ID: s7a1325.d
Analysis Type:
Lab Sample ID: WBN091106-09.3
Method: /chem/MSD7.i/s011310.b/MSD7-M8270C-AQA-011310.m

Injection Date: 14-JAN-2010 01:32
Init. Cal. Date(s): 13-JAN-2010 14-JAN-2010
Init. Cal. Times: 16:51 01:10
Quant Type: ISTD

	COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
	94 Di-n-octylphthalate	1.46808	1.31949	1.31949	0.001	-10.12118	20.00000	Averaged	ccc
	95 Benzo(b)fluoranthene	1.03886	1.03342	1.03342	0.000	-0.52354	60.00000	Averaged	
	96 Benzo(k)fluoranthene	0.98353	1.03486	1.03486	0.000	5.21859	60.00000	Averaged	
	97 Benzo(a)pyrene	0.87825	0.97124	0.97124	0.001	10.58803	20.00000	Averaged	ccc
	99 Indeno(1,2,3-cd)pyrene	0.66047	0.87420	0.87420	0.000	32.36097	60.00000	Averaged	
	100 Dibenzo(a,h)anthracene	0.52299	0.67664	0.67664	0.000	29.38074	60.00000	Averaged	
	101 Benzo(ghi)perylene	0.55616	0.74723	0.74723	0.000	34.35618	60.00000	Averaged	
	126 m-Dinitrobenzene	0.19919	0.20832	0.20832	0.000	4.58087	60.00000	Averaged	
	130 2,3,4,6-Tetrachlorophenol	0.24570	0.24766	0.24766	0.000	0.79855	60.00000	Averaged	
	143 Dinoseb	0.12980	0.13272	0.13272	0.000	2.25248	60.00000	Averaged	
	173 Carbazole	0.80011	0.84181	0.84181	0.000	5.21177	60.00000	Averaged	
	184 p-Benzoquinone	0.11482	0.18234	0.18234	0.000	58.80961	60.00000	Averaged	
	192 Methoxychlor	0.60679	0.61713	0.61713	0.000	1.70370	60.00000	Averaged	
	211 p-Toluidine	1.05576	1.12387	1.12387	0.000	6.45090	60.00000	Averaged	
	210 m-Toluidine	1.41126	1.45105	1.45105	0.000	2.81942	60.00000	Averaged	
	215 2-Ethoxyethanol	1.01496	1.07609	1.07609	0.000	6.02263	60.00000	Averaged	
	179 Dibenzo(a,e)pyrene	0.26278	0.24062	0.24062	0.000	-8.43317	60.00000	Averaged	
	26 Phthalic anhydride	58.64946	40.00000	0.17810	0.000	46.62365	60.00000	Linear	
	214 1,4-Dinitrobenzene	0.21694	0.23423	0.23423	0.000	7.96774	60.00000	Averaged	
	216 Methylenebis(2-chloroanilin	0.13237	0.15335	0.15335	0.000	15.84857	60.00000	Averaged	
M	222 Trichlorophenols	0.29542	0.29317	0.29317	0.000	-0.76161	60.00000	Averaged	
M	223 Tetrachlorophenols	0.24570	0.24766	0.24766	0.000	0.79855	60.00000	Averaged	
M	224 Benzo(b,k)fluoranthene	1.01120	1.03414	1.03414	0.000	2.26898	60.00000	Averaged	

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Data file : /chem/MSD7.i/s011310.b/s7a1325.d
Lab Smp Id: WBN091106-09.3 Client Smp ID: MEGAICV
Inj Date : 14-JAN-2010 01:32
Operator : JMB3 Inst ID: MSD7.i
Smp Info : |WBN091106-09.3|40 PPM|1|SVM|1|MEGAICV
Misc Info : |MSD8270|WBN100107-02|
Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness
Method : /chem/MSD7.i/s011310.b/MSD7-M8270C-AQA-011310.m
Meth Date : 03-Feb-2010 11:32 jos00786 Quant Type: ISTD
Cal Date : 14-JAN-2010 01:10 Cal File: s7a1324.d
Als bottle: 25 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: MEGA.sub
Target Version: 3.50
Processing Host: kilroy

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	3.798	3.798	(1.000)	326422	40.0000	
* 29 Naphthalene-d8	136	4.659	4.659	(1.000)	1191198	40.0000	
* 46 Acenaphthene-d10	164	5.907	5.907	(1.000)	626816	40.0000	
* 67 Phenanthrene-d10	188	7.053	7.053	(1.000)	1165131	40.0000	
* 91 Chrysene-d12	240	9.441	9.441	(1.000)	1021532	40.0000	
* 98 Perylene-d12	264	10.992	10.992	(1.000)	916299	40.0000	
$ 3 2-Fluorophenol	112	2.989	2.989	(0.787)	391639	40.0000	41.8
$ 5 Phenol-d5	99	3.513	3.513	(0.925)	478978	40.0000	39.6
$ 20 Nitrobenzene-d5	82	4.159	4.159	(0.893)	405785	40.0000	41.3
$ 39 2-Fluorobiphenyl	172	5.396	5.396	(0.914)	718183	40.0000	38.9
$ 60 2,4,6-Tribromophenol	329	6.489	6.489	(1.099)	65960	40.0000	41.8
$ 81 p-Terphenyl-d14	244	8.415	8.415	(0.891)	709288	40.0000	40.6
1 N-Methyl-N-nitrosomethylamine	74	2.300	2.300	(0.606)	274740	40.0000	39.2
2 Pyridine	79	2.329	2.329	(0.613)	352599	40.0000	42.4
4 Aniline	66	3.586	3.586	(0.944)	220507	40.0000	40.4
6 Phenol	94	3.523	3.523	(0.928)	475638	40.0000	39.4
7 bis(2-Chloroethyl) ether	63	3.600	3.600	(0.948)	363589	40.0000	36.8
8 2-Chlorophenol	128	3.663	3.663	(0.964)	331553	40.0000	39.1
203 n-Decane	43	3.653	3.653	(0.962)	453209	40.0000	34.8
9 1,3-Dichlorobenzene	146	3.764	3.764	(0.991)	402923	40.0000	40.6
11 1,4-Dichlorobenzene	146	3.807	3.807	(1.003)	368847	40.0000	39.6
13 1,2-Dichlorobenzene	146	3.913	3.913	(1.030)	320139	40.0000	37.5
14 bis(2-Chloroisopropyl)ether	45	3.942	3.942	(1.038)	872572	40.0000	38.0
12 Benzyl alcohol	108	3.865	3.865	(1.018)	243078	40.0000	39.5
15 o-Cresol	107	3.918	3.918	(1.032)	246652	40.0000	38.1
18 m,p-Cresols	107	4.019	4.019	(1.058)	387368	40.0000	39.7

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
17 N-Nitrosodipropylamine	70	4.043	4.043	(1.065)	285873	40.0000	40.3
19 Hexachloroethane	117	4.139	4.139	(1.090)	149900	40.0000	39.6
21 Nitrobenzene	77	4.173	4.173	(0.896)	393239	40.0000	40.6
22 Isophorone	82	4.327	4.327	(0.929)	759449	40.0000	39.5
23 2-Nitrophenol	139	4.385	4.385	(0.941)	168178	40.0000	41.7
24 2,4-Dimethylphenol	122	4.380	4.380	(0.940)	306061	40.0000	40.1
25 bis(2-Chloroethoxy)methane	93	4.448	4.448	(0.955)	422161	40.0000	38.4
26 2,4-Dichlorophenol	162	4.544	4.544	(0.975)	278019	40.0000	40.4
27 Benzoic acid	105	4.452	4.452	(0.956)	219635	40.0000	44.9
28 1,2,4-Trichlorobenzene	180	4.611	4.611	(0.990)	307196	40.0000	39.5
30 Naphthalene	128	4.674	4.674	(1.003)	1022687	40.0000	37.8
204 alpha-Terpineol	59	4.650	4.650	(0.998)	329800	40.0000	38.4
31 4-Chloroaniline	127	4.688	4.688	(1.006)	473266	40.0000	42.2
32 Hexachlorobutadiene	225	4.741	4.741	(1.018)	161106	40.0000	40.1
33 4-Chloro-3-methylphenol	107	5.001	5.001	(1.073)	293672	40.0000	39.8
34 2-Methylnaphthalene	142	5.151	5.151	(1.105)	747053	40.0000	44.4
35 1-Methylnaphthalene	142	5.228	5.228	(1.122)	684267	40.0000	41.1
36 Hexachlorocyclopentadiene	237	5.257	5.257	(0.890)	118490	40.0000	36.9
205 2,3-Dichloroaniline	161	5.348	5.348	(0.905)	325027	40.0000	38.3
37 2,4,6-Trichlorophenol	196	5.338	5.338	(0.904)	177663	40.0000	40.7
38 2,4,5-Trichlorophenol	196	5.367	5.367	(0.909)	189863	40.0000	38.8
40 2-Chloronaphthalene	162	5.502	5.502	(0.932)	595955	40.0000	36.6
42 o-Nitroaniline	65	5.560	5.560	(0.941)	242410	40.0000	41.6
41 m-Nitroaniline	138	5.854	5.854	(0.991)	178631	40.0000	43.0
43 Dimethylphthalate	163	5.675	5.675	(0.961)	707516	40.0000	41.5
44 2,6-Dinitrotoluene	165	5.728	5.728	(0.970)	162306	40.0000	40.5
50 2,4-Dinitrotoluene	165	6.017	6.017	(1.019)	220821	40.0000	42.5
45 Acenaphthylene	152	5.806	5.806	(0.983)	1112929	40.0000	41.9
47 Acenaphthene	154	5.931	5.931	(1.004)	615730	40.0000	37.3
48 2,4-Dinitrophenol	184	5.926	5.926	(1.003)	59590	40.0000	41.3
49 Dibenzofuran	168	6.051	6.051	(1.024)	864894	40.0000	39.4
51 Diethylphthalate	149	6.176	6.176	(1.046)	730603	40.0000	40.0
52 4-Nitrophenol	139	5.945	5.945	(1.007)	130907	40.0000	44.2
53 Fluorene	166	6.306	6.306	(1.068)	743290	40.0000	37.9
54 4-Chlorophenylphenylether	204	6.287	6.287	(1.064)	349822	40.0000	41.3
55 2-Methyl-4,6-dinitrophenol	198	6.326	6.326	(0.897)	123603	40.0000	50.9
56 p-Nitroaniline	138	6.311	6.311	(1.068)	155282	40.0000	41.9
133 Diphenylamine	169	6.374	6.374	(0.904)	597633	40.0000	39.4
58 1,2-Diphenylhydrazine	77	6.407	6.407	(0.908)	768825	40.0000	38.6
61 4-Bromophenylphenylether	248	6.667	6.667	(0.945)	172898	40.0000	38.4
63 Hexachlorobenzene	284	6.735	6.735	(0.955)	158800	40.0000	37.7
65 Pentachlorophenol	266	6.879	6.879	(0.975)	88184	40.0000	39.3
206 n-Octadecane	57	6.879	6.879	(0.975)	598086	40.0000	38.9
68 Phenanthrene	178	7.072	7.072	(1.003)	996996	40.0000	38.8
69 Anthracene	178	7.115	7.115	(1.009)	1041866	40.0000	42.6
72 Di-n-butylphthalate	149	7.476	7.476	(1.060)	1271891	40.0000	41.5
76 Fluoranthene	202	8.098	8.098	(1.148)	1240694	40.0000	44.7

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
79 Pyrene	202	8.309	8.309	(0.880)	1256204	40.0000	38.9
85 Butylbenzylphthalate	149	8.849	8.849	(0.937)	551619	40.0000	39.6
89 Benzo(a)anthracene	228	9.422	9.422	(0.998)	1016340	40.0000	41.5
92 Chrysene	228	9.460	9.460	(1.002)	917875	40.0000	40.8
93 bis(2-Ethylhexyl)phthalate	149	9.374	9.374	(0.993)	655044	40.0000	39.7
94 Di-n-octylphthalate	149	9.990	9.990	(0.909)	1209047	40.0000	36.0
95 Benzo(b)fluoranthene	252	10.515	10.515	(0.957)	946924	40.0000	39.8(H)
96 Benzo(k)fluoranthene	252	10.549	10.549	(0.960)	948242	40.0000	42.1
97 Benzo(a)pyrene	252	10.919	10.919	(0.993)	889946	40.0000	44.2
99 Indeno(1,2,3-cd)pyrene	276	12.585	12.585	(1.145)	801032	40.0000	52.9
100 Dibenzo(a,h)anthracene	278	12.610	12.610	(1.147)	620007	40.0000	51.8
101 Benzo(ghi)perylene	276	13.081	13.081	(1.190)	684688	40.0000	53.7
126 m-Dinitrobenzene	168	5.709	5.709	(0.967)	130576	40.0000	41.8
130 2,3,4,6-Tetrachlorophenol	232	6.128	6.128	(1.038)	155236	40.0000	40.3
143 Dinoseb	211	7.005	7.005	(0.993)	154640	40.0000	40.9
173 Carbazole	167	7.231	7.231	(1.025)	980814	40.0000	42.1
184 p-Benzoquinone	54	3.287	3.287	(0.866)	59521	40.0000	63.5
192 Methoxychlor	227	9.316	9.316	(0.987)	630419	40.0000	40.7
211 p-Toluidine	106	4.072	4.072	(1.072)	366856	40.0000	42.6
210 m-Toluidine	106	4.096	4.096	(1.079)	473656	40.0000	41.1
215 2-Ethoxyethanol	59	2.146	2.146	(0.565)	351259	40.0000	42.4
179 Dibenzo(a,e)pyrene	302	16.760	16.760	(1.525)	220476	40.0000	36.6
26 Phthalic anhydride	104	5.189	5.189	(1.114)	212147	40.0000	58.6
214 1,4-Dinitrobenzene	75	5.651	5.651	(0.957)	146819	40.0000	43.2(H)
216 Methylenebis(2-chloroaniline)	231	9.374	9.374	(0.993)	156655	40.0000	46.3
M 222 Trichlorophenols	196				367526	80.0000	79.4
M 223 Tetrachlorophenols	232				155236	40.0000	40.3
M 224 Benzo(b,k)fluoranthene	252				1895166	80.0000	81.8

QC Flag Legend

H - Operator selected an alternate compound hit.

Data File: /chem/MSD7.i/s011310.b/s7a1325.d
Date : 14-JAN-2010 01:32
Client ID: MEGAICV
Sample Info: IWEN091106-09.3140 PPM|1|SVM|1|MEGAICV
Column phase: J&W DB-5MS

Instrument: MSD7.i
Operator: JMB3
Column diameter: 0.20

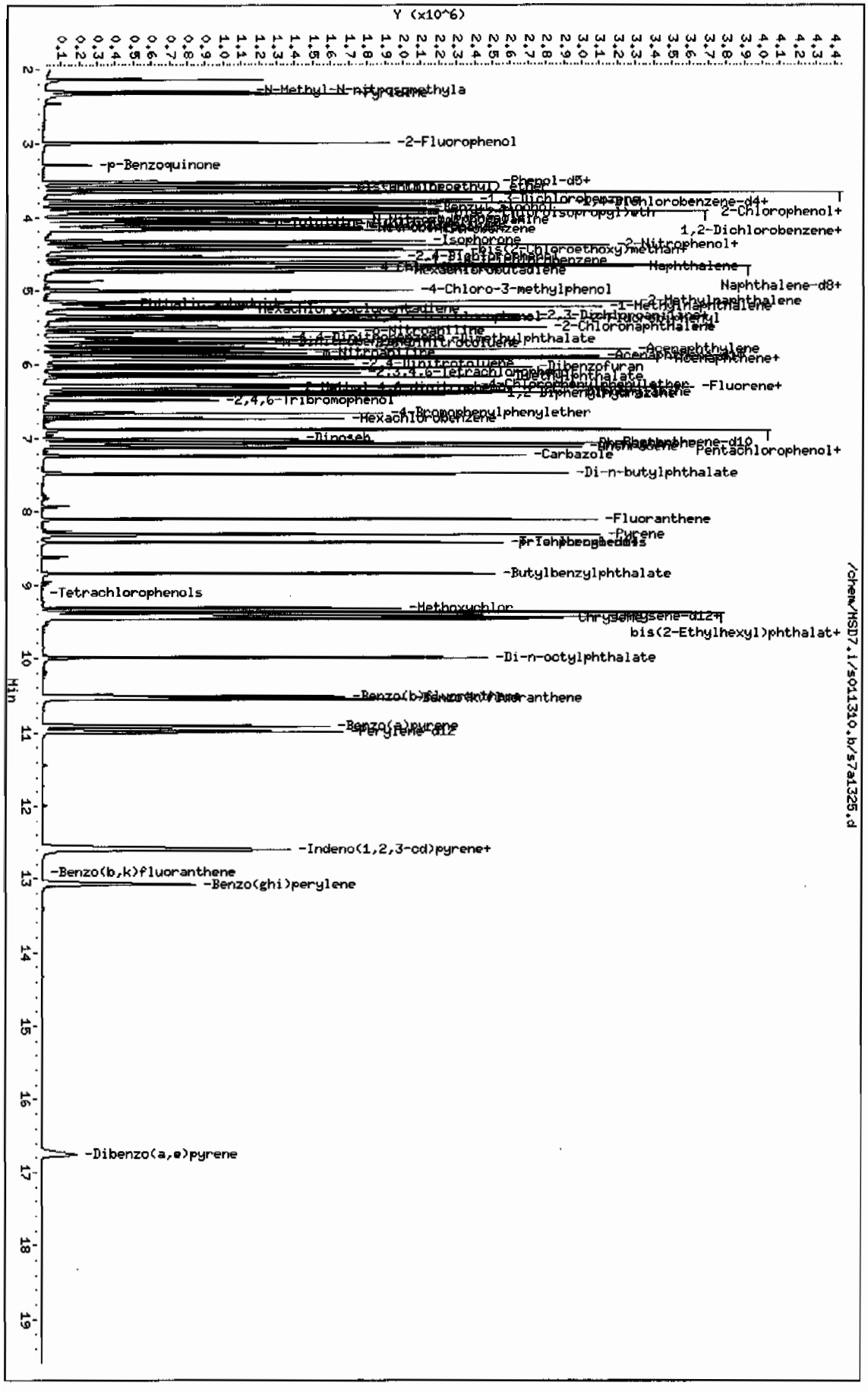

Data File: /chem/MSD7.i/s011310.b/s7a1326.d
Report Date: 18-Jan-2010 10:47

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD7.i
Lab File ID: s7a1326.d
Analysis Type:
Lab Sample ID: WBN100103-03.1 Quant Type: ISTD
Method: /chem/MSD7.i/s011310.b/MSD7-M8270C-AQA-011310.m

Injection Date: 14-JAN-2010 01:58
Init. Cal. Date(s): 13-JAN-2010 14-JAN-2010
Init. Cal. Times: 16:51 01:10

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
209 Benzaldehyde	0.95753	0.79795	0.79795	0.000	-16.66559	60.00000	Averaged
16 Acetophenone	1.20764	1.18343	1.18343	0.000	-2.00502	60.00000	Averaged
189 Caprolactam	0.08588	0.09142	0.09142	0.000	6.45623	60.00000	Averaged
208 1,1'-Biphenyl	1.31334	1.27886	1.27886	0.000	-2.62519	60.00000	Averaged
207 Atrazine	0.04356	0.04434	0.04434	0.000	1.79438	60.00000	Averaged
77 Benzidine	0.52166	0.55737	0.55737	0.000	6.84447	60.00000	Averaged
90 3,3'-Dichlorobenzidine	0.26320	0.27622	0.27622	0.000	4.94576	60.00000	Averaged
102 1,4-Dioxane	0.41241	0.49385	0.49385	0.000	19.74967	60.00000	Averaged
103 Methyl methacrylate	0.21692	0.26328	0.26328	0.000	21.37050	60.00000	Averaged
104 Ethyl methacrylate	0.89401	1.06726	1.06726	0.000	19.37916	60.00000	Averaged
105 2-Picoline	1.34945	1.29454	1.29454	0.000	-4.06902	60.00000	Averaged
106 N-Nitrosomethylethylamine	0.57580	0.56791	0.56791	0.000	-1.36887	60.00000	Averaged
107 Methyl methanesulfonate	0.56163	0.59229	0.59229	0.000	5.45765	60.00000	Averaged
108 N-Nitrosodiethylamine	0.57789	0.56124	0.56124	0.000	-2.88213	60.00000	Averaged
109 Ethyl Methanesulfonate	0.75659	0.89802	0.89802	0.000	18.69262	60.00000	Averaged
110 Pentachloroethane	0.32612	0.43308	0.43308	0.000	32.79865	60.00000	Averaged
111 N-Nitrosopyrrolidine	0.58355	0.57768	0.57768	0.000	-1.00623	60.00000	Averaged
113 N-Nitrosomorpholine	0.87354	0.89793	0.89793	0.000	2.79241	60.00000	Averaged
114 o-Toluidine	1.73086	1.63252	1.63252	0.000	-5.68176	60.00000	Averaged
115 N-Nitrosopiperidine	0.15908	0.15531	0.15531	0.000	-2.36978	60.00000	Averaged
116 a,a-Dimethylphenethylamine	1.21923	1.18799	1.18799	0.000	-2.56263	60.00000	Averaged
118 2,6-Dichlorophenol	0.21328	0.21867	0.21867	0.000	2.52837	60.00000	Averaged
119 Hexachloropropene	0.10349	0.15901	0.15901	0.000	53.64293	60.00000	Averaged
120 p-Phenylenediamine	0.27204	0.26366	0.26366	0.000	-3.08032	60.00000	Averaged
121 N-Nitrosodi-n-butylamine	0.23762	0.22372	0.22372	0.000	-5.85087	60.00000	Averaged
122 Safrole	0.18830	0.21905	0.21905	0.000	16.32677	60.00000	Averaged
123 1,2,4,5-Tetrachlorobenzene	0.44801	0.48183	0.48183	0.000	7.55083	60.00000	Averaged
124 Isosafrole	0.36567	0.48390	0.48390	0.000	32.33300	60.00000	Averaged
125 1,4-Naphthoquinone	0.32594	0.33538	0.33538	0.000	2.89769	60.00000	Averaged
127 Pentachlorobenzene	0.35589	0.35947	0.35947	0.000	1.00722	60.00000	Averaged
128 1-Naphthylamine	0.94691	0.97084	0.97084	0.000	2.52712	60.00000	Averaged
129 2-Naphthylamine	1.04675	1.09999	1.09999	0.000	5.08584	60.00000	Averaged
131 5-Nitro-o-toluidine	0.31999	0.33268	0.33268	0.000	3.96424	60.00000	Averaged
136 1,3,5-Trinitrobenzene	0.12649	0.17457	0.17457	0.000	38.02000	60.00000	Averaged
137 Phenacetin	0.27358	0.29582	0.29582	0.000	8.13090	60.00000	Averaged
138 Diallate	0.27737	0.24962	0.24962	0.000	-10.00237	60.00000	Averaged

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD7.i Injection Date: 14-JAN-2010 01:58
Lab File ID: s7a1326.d Init. Cal. Date(s): 13-JAN-2010 14-JAN-2010
Analysis Type: Init. Cal. Times: 16:51 01:10
Lab Sample ID: WBN100103-03.1 Quant Type: ISTD
Method: /chem/MSD7.i/s011310.b/MSD7-M8270C-AQA-011310.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
212 Cis Diallate	0.30281	0.37658	0.37658	0.000	24.36086	60.00000	Averaged
213 Trans Diallate	0.32631	0.29367	0.29367	0.000	-10.00237	60.00000	Averaged
140 4-Aminobiphenyl	0.61059	0.66578	0.66578	0.000	9.03960	60.00000	Averaged
141 Pentachloronitrobenzene	0.05552	0.05755	0.05755	0.000	3.66016	60.00000	Averaged
142 Pronamide	0.23321	0.24450	0.24450	0.000	4.84020	60.00000	Averaged
146 4-Nitroquinoline-1-oxide	0.02419	0.02836	0.02836	0.000	17.20387	60.00000	Averaged
147 Methapyrilene	0.60984	0.58599	0.58599	0.000	-3.91113	60.00000	Averaged
148 Isodrin	0.10589	0.09829	0.09829	0.000	-7.17455	60.00000	Averaged
149 Aramite	0.04813	0.04606	0.04606	0.000	-4.29191	60.00000	Averaged
150 Kepone	0.06756	0.06399	0.06399	0.000	-5.28343	60.00000	Averaged
151 p-(Dimethylamino)azobenzene	0.31262	0.30095	0.30095	0.000	-3.73166	60.00000	Averaged
152 Chlorobenzilate	0.24177	0.22704	0.22704	0.000	-6.09114	60.00000	Averaged
153 3,3'-Dimethylbenzidine	0.58779	0.58158	0.58158	0.000	-1.05629	60.00000	Averaged
155 2-Acetylaminofluorene	0.29455	0.31146	0.31146	0.000	5.74303	60.00000	Averaged
157 7,12Dimethylbenz(a)anthrace	0.48949	0.45941	0.45941	0.000	-6.14423	60.00000	Averaged
158 3-Methylcholanthrene	0.39432	0.42152	0.42152	0.000	6.89763	60.00000	Averaged

GEL Laboratories LLC

GEL Laboratories, LLC
Data file : /chem/MSD7.i/s011310.b/s7a1326.d
Lab Smp Id: WBN100103-03.1 Client Smp ID: APICV
Inj Date : 14-JAN-2010 01:58
Operator : JMB3 Inst ID: MSD7.i
Smp Info : |WBN100103-03.1|40 PPM|1|SVM|1|APICV
Misc Info : |MSD8270|WBN100107-02|
Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness
Method : /chem/MSD7.i/s011310.b/MSD7-M8270C-AQA-011310.m
Meth Date : 18-Jan-2010 10:47 jos00786 Quant Type: ISTD
Cal Date : 14-JAN-2010 01:10 Cal File: s7a1324.d
Als bottle: 26 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AP12.sub
Target Version: 3.50
Processing Host: kilroy

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	3.797	3.797	(1.000)	371687	40.0000	
* 29 Naphthalene-d8	136	4.655	4.655	(1.000)	1319873	40.0000	
* 46 Acenaphthene-d10	164	5.902	5.902	(1.000)	691242	40.0000	
* 67 Phenanthrene-d10	188	7.053	7.053	(1.000)	1244451	40.0000	
* 91 Chrysene-d12	240	9.431	9.431	(1.000)	1148166	40.0000	
* 98 Perylene-d12	264	10.982	10.982	(1.000)	889906	40.0000	
209 Benzaldehyde	77	3.523	3.523	(0.928)	296588	40.0000	33.3
16 Acetophenone	105	4.048	4.048	(1.066)	439866	40.0000	39.2
189 Caprolactam	113	4.934	4.934	(1.060)	120662	40.0000	42.6
208 1,1'-Biphenyl	154	5.478	5.478	(0.928)	884003	40.0000	38.9
207 Atrazine	173	6.764	6.764	(0.959)	55177	40.0000	40.7
77 Benzidine	184	8.189	8.189	(0.868)	639953	40.0000	42.7
90 3,3'-Dichlorobenzidine	252	9.369	9.369	(0.993)	317143	40.0000	42.0
102 1,4-Dioxane	88	2.151	2.151	(0.566)	183559	40.0000	47.9
103 Methyl methacrylate	100	2.146	2.146	(0.565)	97858	40.0000	48.5
104 Ethyl methacrylate	69	2.512	2.512	(0.661)	396686	40.0000	47.8
105 2-Picoline	93	2.704	2.704	(0.712)	481164	40.0000	38.4
106 N-Nitrosomethylethylamine	88	2.743	2.743	(0.722)	211086	40.0000	39.4
107 Methyl methanesulfonate	80	2.902	2.902	(0.764)	220145	40.0000	42.2
108 N-Nitrosodiethylamine	102	3.133	3.133	(0.825)	208605	40.0000	38.8
109 Ethyl Methanesulfonate	79	3.287	3.287	(0.866)	333782	40.0000	47.5
110 Pentachloroethane	167	3.624	3.624	(0.954)	160971	40.0000	53.1
111 N-Nitrosopyrrolidine	100	4.038	4.038	(1.063)	214715	40.0000	39.6
113 N-Nitrosomorpholine	56	4.057	4.057	(1.068)	333749	40.0000	41.1
114 o-Toluidine	106	4.072	4.072	(1.072)	606785	40.0000	37.7
115 N-Nitrosopiperidine	114	4.269	4.269	(0.917)	204989	40.0000	39.0

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
116 a,a-Dimethylphenethylamine	58	4.520	4.520	(0.971)	1567996	40.0000	39.0
118 2,6-Dichlorophenol	162	4.698	4.698	(1.009)	288614	40.0000	41.0
119 Hexachloropropene	213	4.727	4.727	(1.016)	209874	40.0000	61.4
120 p-Phenylenediamine	108	4.934	4.934	(1.060)	347998	40.0000	38.8
121 N-Nitrosodi-n-butylamine	84	4.905	4.905	(1.054)	295282	40.0000	37.6
122 Safrole	162	5.069	5.069	(1.089)	289113	40.0000	46.5
123 1,2,4,5-Tetrachlorobenzene	216	5.266	5.266	(0.892)	333064	40.0000	43.0
124 Isosafrole	162	5.439	5.439	(0.922)	334494	40.0000	52.9
125 1,4-Naphthoquinone	158	5.618	5.618	(0.952)	231829	40.0000	41.2
127 Pentachlorobenzene	250	6.017	6.017	(1.020)	248484	40.0000	40.4
128 1-Naphthylamine	143	6.104	6.104	(1.034)	671084	40.0000	41.0
129 2-Naphthylamine	143	6.162	6.162	(1.044)	760357	40.0000	42.0
131 5-Nitro-o-toluidine	152	6.297	6.297	(1.067)	229962	40.0000	41.6
136 1,3,5-Trinitrobenzene	75	6.547	6.547	(0.928)	217250	40.0000	55.2
137 Phenacetin	108	6.595	6.595	(0.935)	368137	40.0000	43.2(Q)
138 Diallate	86	6.576	6.576	(0.932)	310643	40.0000	36.0
212 Cis Diallate	86	6.653	6.653	(0.943)	70295	6.00000	7.5
213 Trans Diallate	86	6.576	6.576	(0.932)	310643	34.0000	30.6
140 4-Aminobiphenyl	169	6.874	6.874	(0.975)	828536	40.0000	43.6
141 Pentachloronitrobenzene	237	6.894	6.894	(0.977)	71618	40.0000	41.5(Q)
142 Pronamide	173	6.894	6.894	(0.977)	304268	40.0000	41.9
146 4-Nitroquinoline-1-oxide	101	7.707	7.707	(1.093)	35289	40.0000	46.9
147 Methapyrilene	58	7.751	7.751	(1.099)	729235	40.0000	38.4
148 Isodrin	193	7.963	7.963	(1.129)	122321	40.0000	37.1
149 Aramite	185	8.367	8.367	(1.186)	57324	40.0000	38.3
150 Kepone	272	8.940	8.940	(1.268)	79638	40.0000	37.9
151 p-(Dimethylamino)azobenzene	120	8.541	8.541	(0.906)	345546	40.0000	38.5
152 Chlorobenzilate	251	8.574	8.574	(0.909)	260679	40.0000	37.6
153 3,3'-Dimethylbenzidine	212	8.854	8.854	(0.939)	667749	40.0000	39.6
155 2-Acetylaminofluorene	181	9.099	9.099	(0.965)	357611	40.0000	42.3
157 7,12Dimethylbenz(a)anthracene	256	10.486	10.486	(0.955)	408835	40.0000	37.5
158 3-Methylcholanthrene	268	11.353	11.353	(1.034)	375112	40.0000	42.8

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: /chem/MSD7.i/s011310.b/s7a1326.d
Date : 14-JAN-2010 01:58
Client ID: APICV
Sample Info: IWBN100103-03.1|40 PPM|1|SVMI|1|APICV

Column phase: J&W DB-5MS

Page 1

Instrument: MSD7.i

Operator: JMB3
Column diameter: 0.20

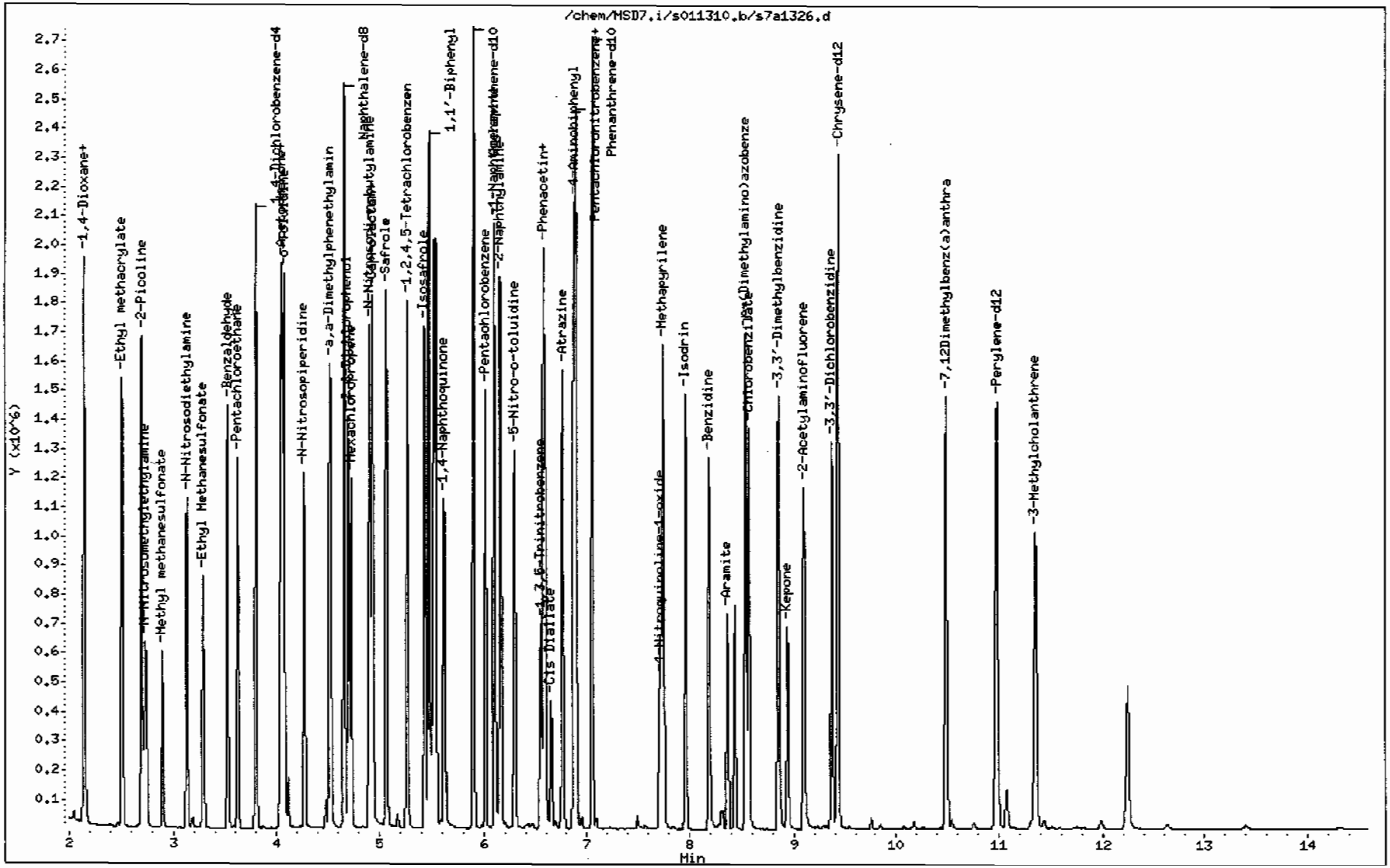

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD7.i Injection Date: 08-FEB-2010 10:16
Lab File ID: s7b0804.d Init. Cal. Date(s): 13-JAN-2010 15-JAN-2010
Analysis Type: Init. Cal. Times: 16:51 19:06
Lab Sample ID: WBN100121-17.3 Quant Type: ISTD
Method: /chem/MSD7.i/s020810.b/MSD7-M8270C-AQA-011310.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
$ 3 2-Fluorophenol	1.14944	0.98727	0.98727	0.000	-14.10837	60.00000	Averaged
$ 5 Phenol-d5	1.48198	1.16519	1.16519	0.000	-21.37590	60.00000	Averaged
$ 20 Nitrobenzene-d5	0.32996	0.24538	0.24538	0.000	-25.63356	60.00000	Averaged
$ 39 2-Fluorobiphenyl	1.17871	1.02205	1.02205	0.000	-13.29098	60.00000	Averaged
$ 60 2,4,6-Tribromophenol	0.10063	0.11343	0.11343	0.000	12.72237	60.00000	Averaged
$ 81 p-Terphenyl-d14	0.68319	0.72188	0.72188	0.000	5.66368	60.00000	Averaged
1 N-Methyl-N-nitrosomethylami	0.85875	0.64542	0.64542	0.000	-24.84252	60.00000	Averaged
2 Pyridine	1.01939	0.71318	0.71318	0.000	-30.03866	60.00000	Averaged
4 Aniline	0.66799	0.54386	0.54386	0.000	-18.58208	60.00000	Averaged
6 Phenol	1.48059	1.23547	1.23547	0.001	-16.55596	20.00000	Averaged ccc
7 bis(2-Chloroethyl) ether	1.21062	0.87682	0.87682	0.000	-27.57286	60.00000	Averaged
8 2-Chlorophenol	1.03915	1.02038	1.02038	0.000	-1.80623	60.00000	Averaged
203 n-Decane	1.59464	1.54909	1.54909	0.000	-2.85629	60.00000	Averaged
9 1,3-Dichlorobenzene	1.21612	1.17213	1.17213	0.000	-3.61741	60.00000	Averaged
11 1,4-Dichlorobenzene	1.14083	1.14303	1.14303	0.001	0.19279	20.00000	Averaged ccc
13 1,2-Dichlorobenzene	1.04543	1.04551	1.04551	0.000	0.00796	60.00000	Averaged
14 bis(2-Chloroisopropyl)ether	2.81377	2.09330	2.09330	0.000	-25.60503	60.00000	Averaged
12 Benzyl alcohol	0.75386	0.42002	0.42002	0.000	-44.28358	60.00000	Averaged
15 o-Cresol	0.79302	0.81798	0.81798	0.000	3.14650	60.00000	Averaged
18 m,p-Cresols	1.19515	1.03567	1.03567	0.000	-13.34452	60.00000	Averaged
17 N-Nitrosodipropylamine	0.86879	0.71046	0.71046	0.050	-18.22470	60.00000	Averaged spcc
19 Hexachloroethane	0.46381	0.43974	0.43974	0.000	-5.18935	60.00000	Averaged
21 Nitrobenzene	0.32512	0.25613	0.25613	0.000	-21.21989	60.00000	Averaged
22 Isophorone	0.64520	0.45557	0.45557	0.000	-29.39091	60.00000	Averaged
23 2-Nitrophenol	0.13539	0.13523	0.13523	0.001	-0.11900	20.00000	Averaged ccc
24 2,4-Dimethylphenol	0.25598	0.21433	0.21433	0.000	-16.27343	60.00000	Averaged
25 bis(2-Chloroethoxy)methane	0.36897	0.25251	0.25251	0.000	-31.56407	60.00000	Averaged
26 2,4-Dichlorophenol	0.23089	0.20448	0.20448	0.001	-11.43758	20.00000	Averaged ccc
27 Benzoic acid	24.98976	40.00000	0.08383	0.000	-37.52560	60.00000	Linear
28 1,2,4-Trichlorobenzene	0.26129	0.23022	0.23022	0.000	-11.89397	60.00000	Averaged
30 Naphthalene	0.90955	0.66296	0.66296	0.000	-27.11136	60.00000	Averaged
204 alpha-Terpineol	26.35786	40.00000	0.20950	0.000	-34.10534	60.00000	Linear
31 4-Chloroaniline	0.37704	0.31811	0.31811	0.000	-15.62817	60.00000	Averaged
32 Hexachlorobutadiene	0.13485	0.11798	0.11798	0.001	-12.51425	20.00000	Averaged ccc
33 4-Chloro-3-methylphenol	0.24792	0.21118	0.21118	0.001	-14.81708	20.00000	Averaged ccc
34 2-Methylnaphthalene	0.56535	0.49185	0.49185	0.000	-13.00129	60.00000	Averaged

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD7.i
Lab File ID: s7b0804.d
Analysis Type:
Lab Sample ID: WBN100121-17.3 Quant Type: ISTD
Method: /chem/MSD7.i/s020810.b/MSD7-M8270C-AQA-011310.m

Injection Date: 08-FEB-2010 10:16
Init. Cal. Date(s): 13-JAN-2010 15-JAN-2010
Init. Cal. Times: 16:51 19:06

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
35 1-Methylnaphthalene	0.55957	0.45362	0.45362	0.000	-18.93457	60.00000	Averaged	
36 Hexachlorocyclopentadiene	0.20471	0.16914	0.16914	0.050	-17.37626	60.00000	Averaged	spcc
205 2,3-Dichloroaniline	0.54190	0.49197	0.49197	0.000	-9.21339	60.00000	Averaged	
37 2,4,6-Trichlorophenol	0.27858	0.26680	0.26680	0.001	-4.22732	20.00000	Averaged	ccc
38 2,4,5-Trichlorophenol	0.31226	0.30836	0.30836	0.000	-1.24793	60.00000	Averaged	
40 2-Chloronaphthalene	1.03962	0.90493	0.90493	0.000	-12.95606	60.00000	Averaged	
42 o-Nitroaniline	0.37172	0.29835	0.29835	0.000	-19.73924	60.00000	Averaged	
41 m-Nitroaniline	0.26513	0.24755	0.24755	0.000	-6.63064	60.00000	Averaged	
43 Dimethylphthalate	1.08784	1.02737	1.02737	0.000	-5.55882	60.00000	Averaged	
44 2,6-Dinitrotoluene	0.25558	0.24676	0.24676	0.000	-3.45010	60.00000	Averaged	
50 2,4-Dinitrotoluene	0.33163	0.31879	0.31879	0.000	-3.87212	60.00000	Averaged	
45 Acenaphthylene	1.69334	1.44093	1.44093	0.000	-14.90616	60.00000	Averaged	
47 Acenaphthene	1.05215	0.84332	0.84332	0.001	-19.84805	20.00000	Averaged	ccc
48 2,4-Dinitrophenol	0.09204	0.08257	0.08257	0.050	-10.29724	60.00000	Averaged	spcc
49 Dibenzofuran	1.40077	1.22714	1.22714	0.000	-12.39500	60.00000	Averaged	
51 Diethylphthalate	1.16566	1.05155	1.05155	0.000	-9.78921	60.00000	Averaged	
52 4-Nitrophenol	0.18919	0.14204	0.14204	0.050	-24.92228	60.00000	Averaged	spcc
53 Fluorene	1.25274	0.99368	0.99368	0.000	-20.67922	60.00000	Averaged	
54 4-Chlorophenylphenylether	0.54018	0.48846	0.48846	0.000	-9.57468	60.00000	Averaged	
55 2-Methyl-4,6-dinitrophenol	0.08339	0.10887	0.10887	0.000	30.55977	60.00000	Averaged	
56 p-Nitroaniline	0.23626	0.22381	0.22381	0.000	-5.26727	60.00000	Averaged	
133 Diphenylamine	0.52047	0.47416	0.47416	0.001	-8.89761	20.00000	Averaged	ccc
58 1,2-Diphenylhydrazine	0.68305	0.58135	0.58135	0.000	-14.88974	60.00000	Averaged	
61 4-Bromophenylphenylether	0.15456	0.15547	0.15547	0.000	0.58391	60.00000	Averaged	
63 Hexachlorobenzene	0.14454	0.16264	0.16264	0.000	12.52032	60.00000	Averaged	
65 Pentachlorophenol	0.07703	0.07369	0.07369	0.001	-4.33457	20.00000	Averaged	ccc
206 n-Octadecane	0.52780	0.48335	0.48335	0.000	-8.42139	60.00000	Averaged	
68 Phenanthrene	0.88130	0.77940	0.77940	0.000	-11.56277	60.00000	Averaged	
69 Anthracene	0.83892	0.78793	0.78793	0.000	-6.07760	60.00000	Averaged	
72 Di-n-butylphthalate	1.05305	1.01422	1.01422	0.000	-3.68743	60.00000	Averaged	
76 Fluoranthene	0.95196	0.85613	0.85613	0.001	-10.06635	20.00000	Averaged	ccc
79 Pyrene	1.26417	1.09327	1.09327	0.000	-13.51821	60.00000	Averaged	
85 Butylbenzylphthalate	0.54516	0.54298	0.54298	0.000	-0.40012	60.00000	Averaged	
89 Benzo(a)anthracene	0.95972	0.84426	0.84426	0.000	-12.03076	60.00000	Averaged	
92 Chrysene	0.88121	0.76082	0.76082	0.000	-13.66215	60.00000	Averaged	
93 bis(2-Ethylhexyl)phthalate	0.64615	0.65857	0.65857	0.000	1.92234	60.00000	Averaged	

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD7.i
Lab File ID: s7b0804.d
Analysis Type:
Lab Sample ID: WBN100121-17.3 Quant Type: ISTD
Method: /chem/MSD7.i/s020810.b/MSD7-M8270C-AQA-011310.m

Injection Date: 08-FEB-2010 10:16
Init. Cal. Date(s): 13-JAN-2010 15-JAN-2010
Init. Cal. Times: 16:51 19:06

	COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
	94 Di-n-octylphthalate	1.46808	1.26545	1.26545	0.001	-13.80232	20.00000	Averaged	ccc
	95 Benzo(b)fluoranthene	1.03886	0.95274	0.95274	0.000	-8.28998	60.00000	Averaged	
	96 Benzo(k)fluoranthene	0.98353	0.92429	0.92429	0.000	-6.02369	60.00000	Averaged	
	97 Benzo(a)pyrene	0.87825	0.80602	0.80602	0.001	-8.22463	20.00000	Averaged	ccc
	99 Indeno(1,2,3-cd)pyrene	0.66047	0.60900	0.60900	0.000	-7.79327	60.00000	Averaged	
	100 Dibenzo(a,h)anthracene	0.52299	0.48141	0.48141	0.000	-7.94928	60.00000	Averaged	
	101 Benzo(ghi)perylene	0.55616	0.49759	0.49759	0.000	-10.53063	60.00000	Averaged	
	126 m-Dinitrobenzene	0.19919	0.18208	0.18208	0.000	-8.59204	60.00000	Averaged	
	130 2,3,4,6-Tetrachlorophenol	0.24570	0.22290	0.22290	0.000	-9.27801	60.00000	Averaged	
	143 Dinoseb	0.12980	0.12737	0.12737	0.000	-1.86963	60.00000	Averaged	
	173 Carbazole	0.80011	0.73168	0.73168	0.000	-8.55182	60.00000	Averaged	
	184 p-Benzoquinone	0.11482	0.10551	0.10551	0.000	-8.10575	60.00000	Averaged	
	192 Methoxychlor	0.60679	0.61411	0.61411	0.000	1.20532	60.00000	Averaged	
	211 p-Toluidine	1.05576	0.90482	0.90482	0.000	-14.29672	60.00000	Averaged	
	210 m-Toluidine	1.41126	1.18827	1.18827	0.000	-15.80108	60.00000	Averaged	
	215 2-Ethoxyethanol	1.01496	0.60540	0.60540	0.000	-40.35262	60.00000	Averaged	
	179 Dibenzo(a,e)pyrene	0.26278	0.15554	0.15554	0.000	-40.80830	60.00000	Averaged	
	26 Phthalic anhydride	34.34353	40.00000	0.10243	0.000	-14.14117	60.00000	Linear	
	214 1,4-Dinitrobenzene	0.21694	0.19682	0.19682	0.000	-9.27582	60.00000	Averaged	
	216 Methylenebis(2-chloroanilin	0.13237	0.14659	0.14659	0.000	10.74127	60.00000	Averaged	
M	222 Trichlorophenols	0.29542	0.28758	0.28758	0.000	-2.65272	60.00000	Averaged	
M	223 Tetrachlorophenols	0.24570	0.22290	0.22290	0.000	-9.27801	60.00000	Averaged	
M	224 Benzo(b,k)fluoranthene	1.01120	0.93851	0.93851	0.000	-7.18783	60.00000	Averaged	

GEL Laboratories LLC

GEL Laboratories, LLC
Data file : /chem/MSD7.i/s020810.b/s7b0804.d
Lab Smp Id: WBN100121-17.3 Client Smp ID: MEGACVS
Inj Date : 08-FEB-2010 10:16
Operator : JMB3 Inst ID: MSD7.i
Smp Info : |WBN100121-17.3|CVS|1|SVMF|1|MEGACVS
Misc Info : |MSD8270|WBN100122-01|
Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness
Method : /chem/MSD7.i/s020810.b/MSD7-M8270C-AQA-011310.m
Meth Date : 09-Feb-2010 07:54 jos00786 Quant Type: ISTD
Cal Date : 15-JAN-2010 17:38 Cal File: s7a1511.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: MEGA.sub
Target Version: 3.50

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	3.773	3.773	(1.000)	336767	40.0000	
* 29 Naphthalene-d8	136	4.635	4.635	(1.000)	1371193	40.0000	
* 46 Acenaphthene-d10	164	5.882	5.882	(1.000)	674786	40.0000	
* 67 Phenanthrene-d10	188	7.029	7.029	(1.000)	1213234	40.0000	
* 91 Chrysene-d12	240	9.412	9.412	(1.000)	961906	40.0000	
* 98 Perylene-d12	264	10.953	10.953	(1.000)	734427	40.0000	
$ 3 2-Fluorophenol	112	2.969	2.969	(0.787)	332481	40.0000	34.4
$ 5 Phenol-d5	99	3.494	3.494	(0.926)	392399	40.0000	31.4
$ 20 Nitrobenzene-d5	82	4.135	4.135	(0.892)	336464	40.0000	29.7
$ 39 2-Fluorobiphenyl	172	5.377	5.377	(0.914)	689663	40.0000	34.7
$ 60 2,4,6-Tribromophenol	329	6.470	6.470	(1.100)	76543	40.0000	45.1
$ 81 p-Terphenyl-d14	244	8.391	8.391	(0.892)	694385	40.0000	42.3
1 N-Methyl-N-nitrosomethylamine	74	2.295	2.295	(0.608)	217355	40.0000	30.1
2 Pyridine	79	2.329	2.329	(0.617)	240175	40.0000	28.0
4 Aniline	66	3.561	3.561	(0.944)	183154	40.0000	32.6
6 Phenol	94	3.504	3.504	(0.929)	416064	40.0000	33.4
7 bis(2-Chloroethyl) ether	63	3.576	3.576	(0.948)	295284	40.0000	29.0
8 2-Chlorophenol	128	3.639	3.639	(0.964)	343630	40.0000	39.3
203 n-Decane	43	3.624	3.624	(0.960)	521682	40.0000	38.8
9 1,3-Dichlorobenzene	146	3.740	3.740	(0.991)	394734	40.0000	38.6
11 1,4-Dichlorobenzene	146	3.783	3.783	(1.003)	384934	40.0000	40.1
13 1,2-Dichlorobenzene	146	3.889	3.889	(1.031)	352093	40.0000	40.0
14 bis(2-Chloroisopropyl)ether	45	3.918	3.918	(1.038)	704956	40.0000	29.8
12 Benzyl alcohol	108	3.846	3.846	(1.019)	141450	40.0000	22.3
15 o-Cresol	107	3.894	3.894	(1.032)	275467	40.0000	41.2
18 m,p-Cresols	107	4.000	4.000	(1.060)	348778	40.0000	34.7
17 N-Nitrosodipropylamine	70	4.019	4.019	(1.065)	239258	40.0000	32.7

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
19 Hexachloroethane	117	4.110	4.110	(1.089)	148091	40.0000	37.9
21 Nitrobenzene	77	4.149	4.149	(0.895)	351206	40.0000	31.5
22 Isophorone	82	4.303	4.303	(0.928)	624678	40.0000	28.2
23 2-Nitrophenol	139	4.361	4.361	(0.941)	185426	40.0000	40.0
24 2,4-Dimethylphenol	122	4.361	4.361	(0.941)	293883	40.0000	33.5
25 bis(2-Chloroethoxy)methane	93	4.423	4.423	(0.954)	346238	40.0000	27.4
26 2,4-Dichlorophenol	162	4.529	4.529	(0.977)	280386	40.0000	35.4
27 Benzoic acid	105	4.428	4.428	(0.955)	114947	40.0000	25.0
28 1,2,4-Trichlorobenzene	180	4.582	4.582	(0.989)	315670	40.0000	35.2
30 Naphthalene	128	4.650	4.650	(1.003)	909046	40.0000	29.2
204 alpha-Terpineol	59	4.635	4.635	(1.000)	287259	40.0000	26.4
31 4-Chloroaniline	127	4.669	4.669	(1.007)	436193	40.0000	33.7
32 Hexachlorobutadiene	225	4.717	4.717	(1.018)	161771	40.0000	35.0
33 4-Chloro-3-methylphenol	107	4.987	4.987	(1.076)	289574	40.0000	34.1
34 2-Methylnaphthalene	142	5.126	5.126	(1.106)	674417	40.0000	34.8
35 1-Methylnaphthalene	142	5.204	5.204	(1.123)	622002	40.0000	32.4
36 Hexachlorocyclopentadiene	237	5.232	5.232	(0.889)	114134	40.0000	33.0
205 2,3-Dichloroaniline	161	5.324	5.324	(0.905)	331975	40.0000	36.3
37 2,4,6-Trichlorophenol	196	5.319	5.319	(0.904)	180036	40.0000	38.3
38 2,4,5-Trichlorophenol	196	5.348	5.348	(0.909)	208077	40.0000	39.5
40 2-Chloronaphthalene	162	5.478	5.478	(0.931)	610632	40.0000	34.8
42 o-Nitroaniline	65	5.541	5.541	(0.942)	201321	40.0000	32.1
41 m-Nitroaniline	138	5.834	5.834	(0.992)	167045	40.0000	37.3
43 Dimethylphthalate	163	5.656	5.656	(0.962)	693254	40.0000	37.8
44 2,6-Dinitrotoluene	165	5.709	5.709	(0.971)	166510	40.0000	38.6
50 2,4-Dinitrotoluene	165	5.998	5.998	(1.020)	215112	40.0000	38.4
45 Acenaphthylene	152	5.781	5.781	(0.983)	972319	40.0000	34.0
47 Acenaphthene	154	5.907	5.907	(1.004)	569062	40.0000	32.1
48 2,4-Dinitrophenol	184	5.907	5.907	(1.004)	55714	40.0000	35.9
49 Dibenzofuran	168	6.027	6.027	(1.025)	828058	40.0000	35.0
51 Diethylphthalate	149	6.157	6.157	(1.047)	709573	40.0000	36.1
52 4-Nitrophenol	139	5.931	5.931	(1.008)	95844	40.0000	30.0
53 Fluorene	166	6.287	6.287	(1.069)	670522	40.0000	31.7
54 4-Chlorophenylphenylether	204	6.263	6.263	(1.065)	329604	40.0000	36.2
55 2-Methyl-4,6-dinitrophenol	198	6.306	6.306	(0.897)	132085	40.0000	52.2
56 p-Nitroaniline	138	6.292	6.292	(1.070)	151026	40.0000	37.9
133 Diphenylamine	169	6.350	6.350	(0.903)	575269	40.0000	36.4
58 1,2-Diphenylhydrazine	77	6.388	6.388	(0.909)	705311	40.0000	34.0
61 4-Bromophenylphenylether	248	6.643	6.643	(0.945)	188618	40.0000	40.2
63 Hexachlorobenzene	284	6.711	6.711	(0.955)	197319	40.0000	45.0
65 Pentachlorophenol	266	6.860	6.860	(0.976)	89403	40.0000	38.3
206 n-Octadecane	57	6.855	6.855	(0.975)	586415	40.0000	36.6
68 Phenanthrene	178	7.053	7.053	(1.003)	945591	40.0000	35.4
69 Anthracene	178	7.091	7.091	(1.009)	955948	40.0000	37.6
72 Di-n-butylphthalate	149	7.452	7.452	(1.060)	1230489	40.0000	38.5
76 Fluoranthene	202	8.073	8.073	(1.149)	1038692	40.0000	36.0
79 Pyrene	202	8.290	8.290	(0.881)	1051627	40.0000	34.6

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
85 Butylbenzylphthalate	149	8.825	8.825	(0.938)	522296	40.0000	39.8
89 Benzo(a)anthracene	228	9.398	9.398	(0.998)	812096	40.0000	35.2
92 Chrysene	228	9.436	9.436	(1.003)	731838	40.0000	34.5
93 bis(2-Ethylhexyl)phthalate	149	9.349	9.349	(0.993)	633481	40.0000	40.8
94 Di-n-octylphthalate	149	9.961	9.961	(0.909)	929379	40.0000	34.5
95 Benzo(b)fluoranthene	252	10.481	10.481	(0.957)	699718	40.0000	36.7
96 Benzo(k)fluoranthene	252	10.515	10.515	(0.960)	678823	40.0000	37.6
97 Benzo(a)pyrene	252	10.881	10.881	(0.993)	591961	40.0000	36.7
99 Indeno(1,2,3-cd)pyrene	276	12.532	12.532	(1.144)	447264	40.0000	36.9
100 Dibenzo(a,h)anthracene	278	12.547	12.547	(1.146)	353562	40.0000	36.8
101 Benzo(ghi)perylene	276	13.014	13.014	(1.188)	365444	40.0000	35.8
126 m-Dinitrobenzene	168	5.695	5.695	(0.968)	122863	40.0000	36.6
130 2,3,4,6-Tetrachlorophenol	232	6.109	6.109	(1.038)	150410	40.0000	36.3
143 Dinoseb	211	6.985	6.985	(0.994)	154533	40.0000	39.2
173 Carbazole	167	7.211	7.211	(1.026)	887702	40.0000	36.6
184 p-Benzoquinone	54	3.268	3.268	(0.866)	35533	40.0000	36.8
192 Methoxychlor	227	9.292	9.292	(0.987)	590713	40.0000	40.5
211 p-Toluidine	106	4.053	4.053	(1.074)	304715	40.0000	34.3
210 m-Toluidine	106	4.072	4.072	(1.079)	400170	40.0000	33.7
215 2-Ethoxyethanol	59	2.146	2.146	(0.569)	203878	40.0000	23.8
179 Dibenzo(a,e)pyrene	302	16.659	16.659	(1.521)	114234	40.0000	23.7
26 Phthalic anhydride	104	5.170	5.170	(1.115)	140456	40.0000	34.3
214 1,4-Dinitrobenzene	75	5.637	5.637	(0.958)	132812	40.0000	36.3
216 Methylenebis(2-chloroaniline)	231	9.349	9.349	(0.993)	141008	40.0000	44.3
M 222 Trichlorophenols	196				388113	80.0000	77.9
M 223 Tetrachlorophenols	232				150410	40.0000	36.3
M 224 Benzo(b,k)fluoranthene	252				1378541	80.0000	74.2

Data File: /chem/MSD7.i/s020810.b/s7b0804.d
Date : 08-FEB-2010 10:16
Client ID: MEGACVS
Sample Info: |WBN100121-17.3|CVS|1|SVHF|1|MEGACVS

Column phase: J&W DB-5MS

Instrument: MSD7.i
Operator: JMB3
Column diameter: 0.20

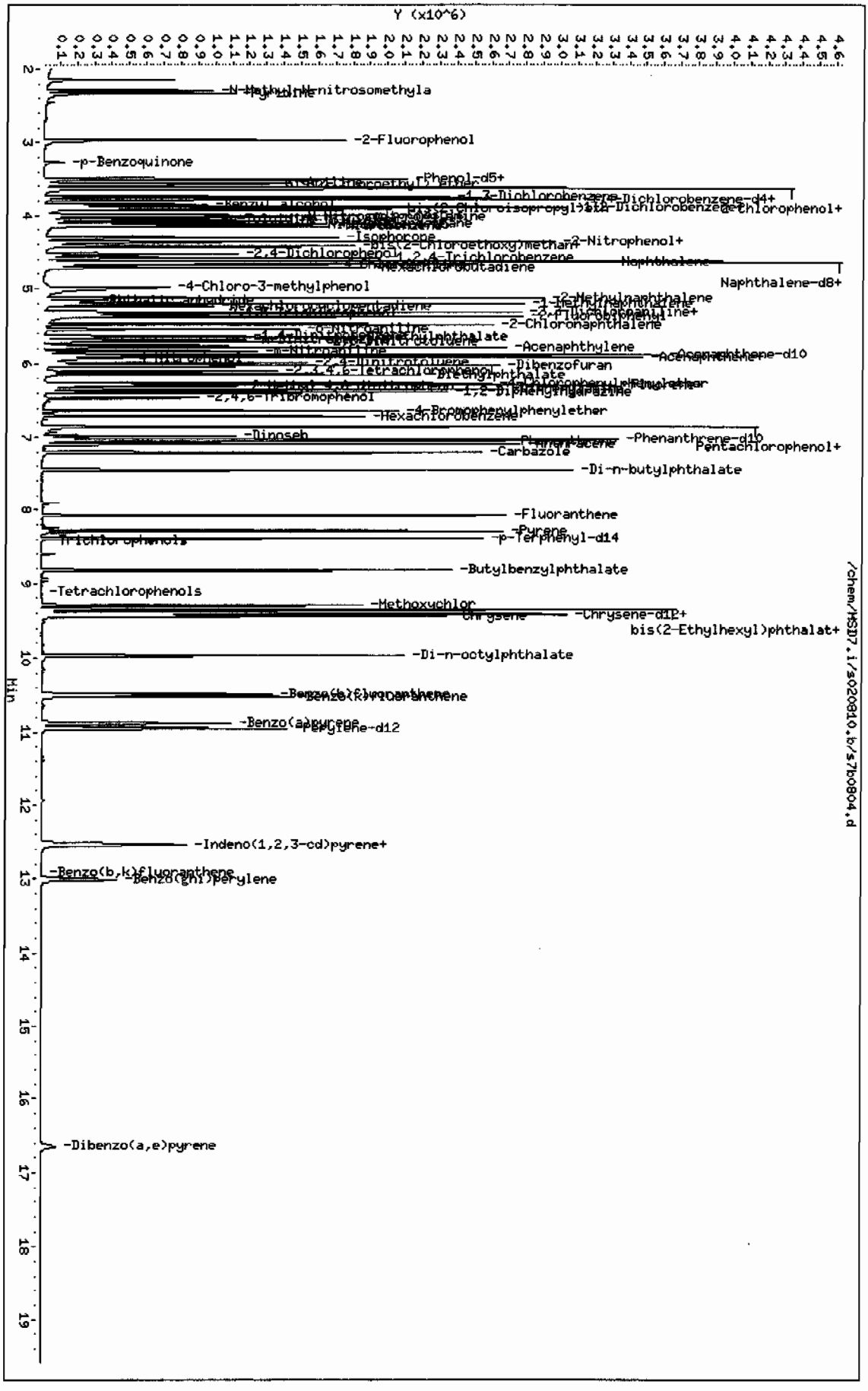

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD7.i
Lab File ID: s7b0805.d
Analysis Type:
Lab Sample ID: WBN100120-03.3 Quant Type: ISTD
Method: /chem/MSD7.i/s020810.b/MSD7-M8270C-AQA-011310.m

Injection Date: 08-FEB-2010 10:43
Init. Cal. Date(s): 13-JAN-2010 15-JAN-2010
Init. Cal. Times: 16:51 19:06

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
209 Benzaldehyde	0.95753	0.74823	0.74823	0.000	-21.85819	60.00000	Averaged
16 Acetophenone	1.20764	1.05727	1.05727	0.000	-12.45210	60.00000	Averaged
189 Caprolactam	0.08588	0.06369	0.06369	0.000	-25.83337	60.00000	Averaged
208 1,1'-Biphenyl	1.31334	1.07659	1.07659	0.000	-18.02621	60.00000	Averaged
207 Atrazine	0.04356	0.03911	0.03911	0.000	-10.20588	60.00000	Averaged
77 Benzidine	0.52166	0.44898	0.44898	0.000	-13.93242	60.00000	Averaged
90 3,3'-Dichlorobenzidine	0.26320	0.25038	0.25038	0.000	-4.87240	60.00000	Averaged
102 1,4-Dioxane	0.41241	0.32204	0.32204	0.000	-21.91219	60.00000	Averaged
103 Methyl methacrylate	0.21692	0.18510	0.18510	0.000	-14.66865	60.00000	Averaged
104 Ethyl methacrylate	0.89401	0.70779	0.70779	0.000	-20.82984	60.00000	Averaged
105 2-Picoline	1.34945	1.09503	1.09503	0.000	-18.85330	60.00000	Averaged
106 N-Nitrosomethylethylamine	0.57580	0.41758	0.41758	0.000	-27.47848	60.00000	Averaged
107 Methyl methanesulfonate	0.56163	0.43240	0.43240	0.000	-23.01072	60.00000	Averaged
108 N-Nitrosodiethylamine	0.57789	0.46613	0.46613	0.000	-19.34034	60.00000	Averaged
109 Ethyl Methanesulfonate	0.75659	0.55491	0.55491	0.000	-26.65611	60.00000	Averaged
110 Pentachloroethane	0.32612	0.28564	0.28564	0.000	-12.41330	60.00000	Averaged
111 N-Nitrosopyrrolidine	0.58355	0.48929	0.48929	0.000	-16.15307	60.00000	Averaged
113 N-Nitrosomorpholine	0.87354	0.70055	0.70055	0.000	-19.80263	60.00000	Averaged
114 o-Toluidine	1.73086	1.53544	1.53544	0.000	-11.29051	60.00000	Averaged
115 N-Nitrosopiperidine	0.15908	0.12151	0.12151	0.000	-23.61400	60.00000	Averaged
116 a,a-Dimethylphenethylamine	1.21923	0.72212	0.72212	0.000	-40.77287	60.00000	Averaged
118 2,6-Dichlorophenol	0.21328	0.17386	0.17386	0.000	-18.48030	60.00000	Averaged
119 Hexachloropropene	0.10349	0.09067	0.09067	0.000	-12.39062	60.00000	Averaged
120 p-Phenylenediamine	0.27204	0.21358	0.21358	0.000	-21.48800	60.00000	Averaged
121 N-Nitrosodi-n-butylamine	0.23762	0.16626	0.16626	0.000	-30.03059	60.00000	Averaged
122 Safrole	0.18830	0.16084	0.16084	0.000	-14.58478	60.00000	Averaged
123 1,2,4,5-Tetrachlorobenzene	0.44801	0.38874	0.38874	0.000	-13.22972	60.00000	Averaged
124 Isosafrole	0.36567	0.30676	0.30676	0.000	-16.11071	60.00000	Averaged
125 1,4-Naphthoquinone	0.32594	0.30902	0.30902	0.000	-5.18841	60.00000	Averaged
127 Pentachlorobenzene	0.35589	0.32754	0.32754	0.000	-7.96469	60.00000	Averaged
128 1-Naphthylamine	0.94691	0.85187	0.85187	0.000	-10.03662	60.00000	Averaged
129 2-Naphthylamine	1.04675	0.93143	0.93143	0.000	-11.01708	60.00000	Averaged
131 5-Nitro-o-toluidine	0.31999	0.26502	0.26502	0.000	-17.17964	60.00000	Averaged
136 1,3,5-Trinitrobenzene	0.12649	0.12533	0.12533	0.000	-0.91200	60.00000	Averaged
137 Phenacetin	0.27358	0.24115	0.24115	0.000	-11.85222	60.00000	Averaged
138 Diallate	0.27737	0.21600	0.21600	0.000	-22.12404	60.00000	Averaged

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD7.i
Lab File ID: s7b0805.d
Analysis Type:
Lab Sample ID: WBN100120-03.3
Method: /chem/MSD7.i/s020810.b/MSD7-M8270C-AQA-011310.m

Injection Date: 08-FEB-2010 10:43
Init. Cal. Date(s): 13-JAN-2010 15-JAN-2010
Init. Cal. Times: 16:51 19:06
Quant Type: ISTD

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
212 Cis Diallate	0.30281	0.21114	0.21114	0.000	-30.27231	60.00000	Averaged
213 Trans Diallate	0.32631	0.25412	0.25412	0.000	-22.12404	60.00000	Averaged
140 4-Aminobiphenyl	0.61059	0.55870	0.55870	0.000	-8.49866	60.00000	Averaged
141 Pentachloronitrobenzene	0.05552	0.05481	0.05481	0.000	-1.27871	60.00000	Averaged
142 Pronamide	0.23321	0.22588	0.22588	0.000	-3.14576	60.00000	Averaged
146 4-Nitroquinoline-1-oxide	0.02419	0.01749	0.01749	0.000	-27.72946	60.00000	Averaged
147 Methapyrilene	0.60984	0.41850	0.41850	0.000	-31.37558	60.00000	Averaged
148 Isodrin	0.10589	0.09665	0.09665	0.000	-8.72529	60.00000	Averaged
149 Aramite	0.04813	0.04397	0.04397	0.000	-8.63702	60.00000	Averaged
150 Kepone	0.06756	0.06958	0.06958	0.000	2.97863	60.00000	Averaged
151 p-(Dimethylamino)azobenzene	0.31262	0.29648	0.29648	0.000	-5.16197	60.00000	Averaged
152 Chlorobenzilate	0.24177	0.25831	0.25831	0.000	6.84104	60.00000	Averaged
153 3,3'-Dimethylbenzidine	0.58779	0.51190	0.51190	0.000	-12.91155	60.00000	Averaged
155 2-Acetylaminofluorene	0.29455	0.25862	0.25862	0.000	-12.19595	60.00000	Averaged
157 7,12Dimethylbenz(a)anthrace	0.48949	0.45427	0.45427	0.000	-7.19541	60.00000	Averaged
158 3-Methylcholanthrene	0.39432	0.31868	0.31868	0.000	-19.18172	60.00000	Averaged

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Data file : /chem/MSD7.i/s020810.b/s7b0805.d
Lab Smp Id: WBN100120-03.3 Client Smp ID: APCVS
Inj Date : 08-FEB-2010 10:43
Operator : JMB3 Inst ID: MSD7.i
Smp Info : |WBN100120-03.3|CVS|1|SVMF|1|APCVS
Misc Info : |MSD8270|WBN100122-01|
Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness
Method : /chem/MSD7.i/s020810.b/MSD7-M8270C-AQA-011310.m
Meth Date : 09-Feb-2010 07:54 jos00786 Quant Type: ISTD
Cal Date : 15-JAN-2010 17:38 Cal File: s7a1511.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AP12.sub
Target Version: 3.50

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	3.769	3.773	(1.000)	383672	40.0000	
* 29 Naphthalene-d8	136	4.630	4.635	(1.000)	1439944	40.0000	
* 46 Acenaphthene-d10	164	5.878	5.882	(1.000)	746558	40.0000	
* 67 Phenanthrene-d10	188	7.028	7.029	(1.000)	1284942	40.0000	
* 91 Chrysene-d12	240	9.407	9.412	(1.000)	1037529	40.0000	
* 98 Perylene-d12	264	10.943	10.953	(1.000)	717030	40.0000	
209 Benzaldehyde	77	3.499	3.499	(0.928)	287075	40.0000	31.2
16 Acetophenone	105	4.024	4.024	(1.068)	405644	40.0000	35.0
189 Caprolactam	113	4.910	4.910	(1.060)	91711	40.0000	29.7
208 1,1'-Biphenyl	154	5.449	5.449	(0.927)	803740	40.0000	32.8
207 Atrazine	173	6.744	6.744	(0.960)	50256	40.0000	35.9
77 Benzidine	184	8.170	8.170	(0.868)	465834	40.0000	34.4
90 3,3'-Dichlorobenzidine	252	9.349	9.349	(0.994)	259772	40.0000	38.0
102 1,4-Dioxane	88	2.151	2.151	(0.571)	123557	40.0000	31.2
103 Methyl methacrylate	100	2.146	2.146	(0.569)	71019	40.0000	34.1
104 Ethyl methacrylate	69	2.502	2.502	(0.664)	271558	40.0000	31.7
105 2-Picoline	93	2.685	2.685	(0.712)	420134	40.0000	32.4
106 N-Nitrosomethylethylamine	88	2.728	2.728	(0.724)	160212	40.0000	29.0
107 Methyl methanesulfonate	80	2.883	2.883	(0.765)	165899	40.0000	30.8
108 N-Nitrosodiethylamine	102	3.109	3.109	(0.825)	178840	40.0000	32.3
109 Ethyl Methanesulfonate	79	3.268	3.268	(0.867)	212905	40.0000	29.3
110 Pentachloroethane	167	3.595	3.595	(0.954)	109591	40.0000	35.0
111 N-Nitrosopyrrolidine	100	4.014	4.014	(1.065)	187726	40.0000	33.5
113 N-Nitrosomorpholine	56	4.033	4.033	(1.070)	268783	40.0000	32.1
114 o-Toluidine	106	4.048	4.048	(1.074)	589104	40.0000	35.5
115 N-Nitrosopiperidine	114	4.245	4.245	(0.917)	174974	40.0000	30.6
116 a,a-Dimethylphenethylamine	58	4.491	4.491	(0.970)	1039809	40.0000	23.7

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
118 2,6-Dichlorophenol	162	4.674	4.674	(1.009)	250351	40.0000	32.6
119 Hexachloropropene	213	4.703	4.703	(1.016)	130560	40.0000	35.0
120 p-Phenylenediamine	108	4.915	4.915	(1.061)	307549	40.0000	31.4
121 N-Nitrosodi-n-butylamine	84	4.881	4.881	(1.054)	239410	40.0000	28.0
122 Safrole	162	5.045	5.045	(1.089)	231599	40.0000	34.2
123 1,2,4,5-Tetrachlorobenzene	216	5.242	5.242	(0.892)	290214	40.0000	34.7
124 Isosafrole	162	5.411	5.411	(0.921)	229013	40.0000	33.6
125 1,4-Naphthoquinone	158	5.598	5.598	(0.952)	230705	40.0000	37.9
127 Pentachlorobenzene	250	5.993	5.993	(1.020)	244531	40.0000	36.8
128 1-Naphthylamine	143	6.080	6.080	(1.034)	635971	40.0000	36.0
129 2-Naphthylamine	143	6.138	6.138	(1.044)	695366	40.0000	35.6
131 5-Nitro-o-toluidine	152	6.277	6.277	(1.068)	197853	40.0000	33.1
136 1,3,5-Trinitrobenzene	75	6.537	6.537	(0.930)	161044	40.0000	39.6
137 Phenacetin	108	6.571	6.571	(0.935)	309868	40.0000	35.2(Q)
138 Diallate	86	6.552	6.552	(0.932)	277549	40.0000	31.2
212 Cis Diallate	86	6.629	6.629	(0.943)	40696	6.00000	4.2
213 Trans Diallate	86	6.552	6.552	(0.932)	277549	34.0000	26.5
140 4-Aminobiphenyl	169	6.850	6.850	(0.975)	717894	40.0000	36.6
141 Pentachloronitrobenzene	237	6.870	6.870	(0.977)	70425	40.0000	39.5(Q)
142 Pronamide	173	6.870	6.870	(0.977)	290237	40.0000	38.7
146 4-Nitroquinoline-1-oxide	101	7.688	7.688	(1.094)	22468	40.0000	28.9
147 Methapyrilene	58	7.722	7.722	(1.099)	537748	40.0000	27.4
148 Isodrin	193	7.939	7.939	(1.129)	124191	40.0000	36.5
149 Aramite	185	8.343	8.343	(1.187)	56502	40.0000	36.5
150 Kepone	272	8.911	8.911	(1.268)	89402	40.0000	41.2
151 p-(Dimethylamino)azobenzene	120	8.516	8.516	(0.905)	307610	40.0000	37.9
152 Chlorobenzilate	251	8.545	8.545	(0.908)	267999	40.0000	42.7
153 3,3'-Dimethylbenzidine	212	8.829	8.829	(0.939)	531106	40.0000	34.8
155 2-Acetylaminofluorene	181	9.075	9.075	(0.965)	268330	40.0000	35.1
157 7,12Dimethylbenz(a)anthracene	256	10.452	10.452	(0.955)	325724	40.0000	37.1
158 3-Methylcholanthrene	268	11.309	11.309	(1.033)	228505	40.0000	32.3

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: /chem/MSD7.i/s020810.b/s7b0805.d
Date : 08-FEB-2010 10:43
Client ID: APCVS
Sample Info: IWBN100120-03,3ICVS1ISVHF1IAPCVS
Column phase: J&W DB-5MS

Instrument: MSD7.i
Operator: JMB3
Column diameter: 0.20

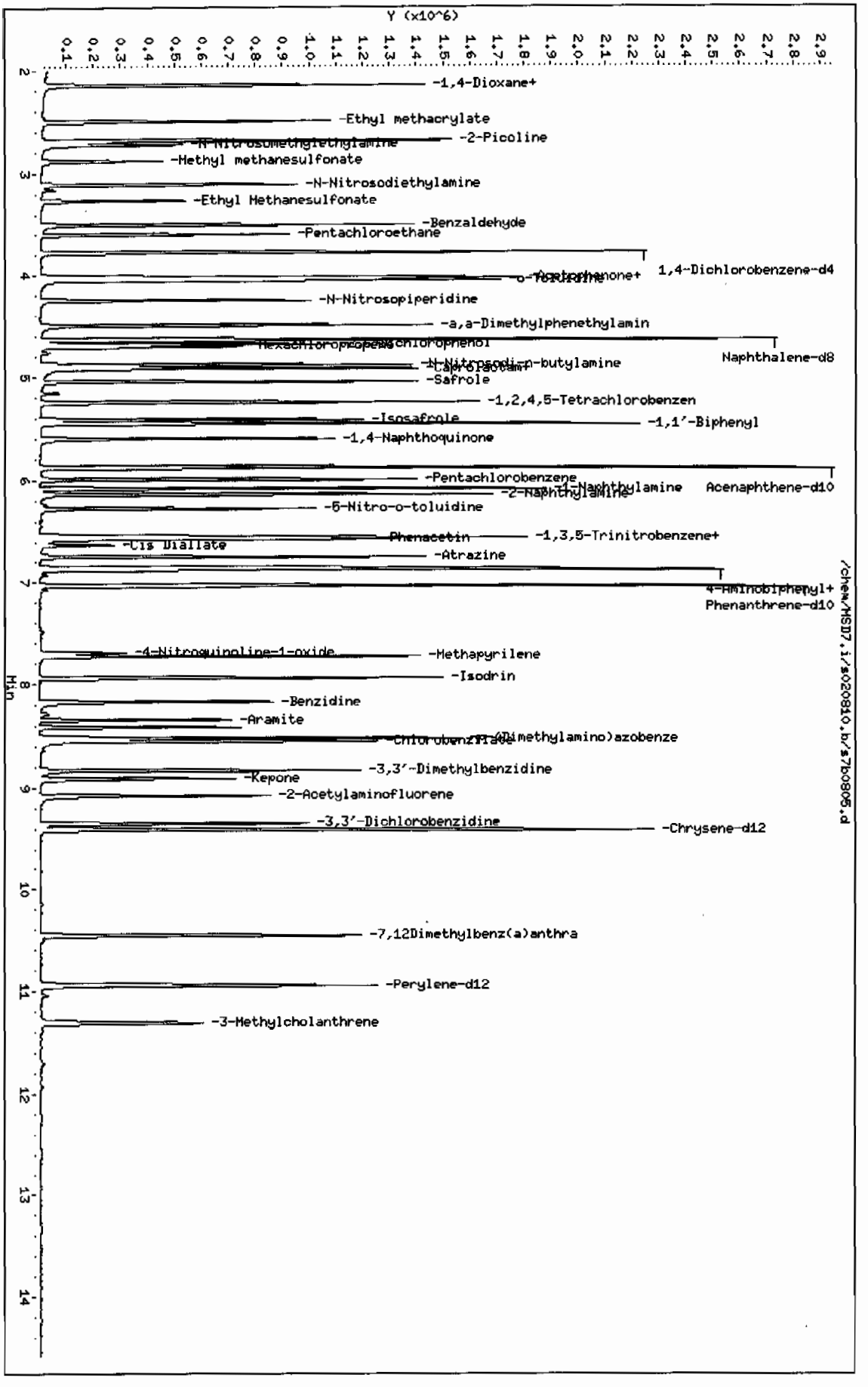

Page 1

QC Data

Data File: /chem/MSD7.i/s011310.b/s7a1301.d

Date : 13-JAN-2010 16:11

Client ID: DFTPP

Instrument: MSD7.i

Sample Info: |WBN091213-01|DFTPP|1|SVMF|1|DFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

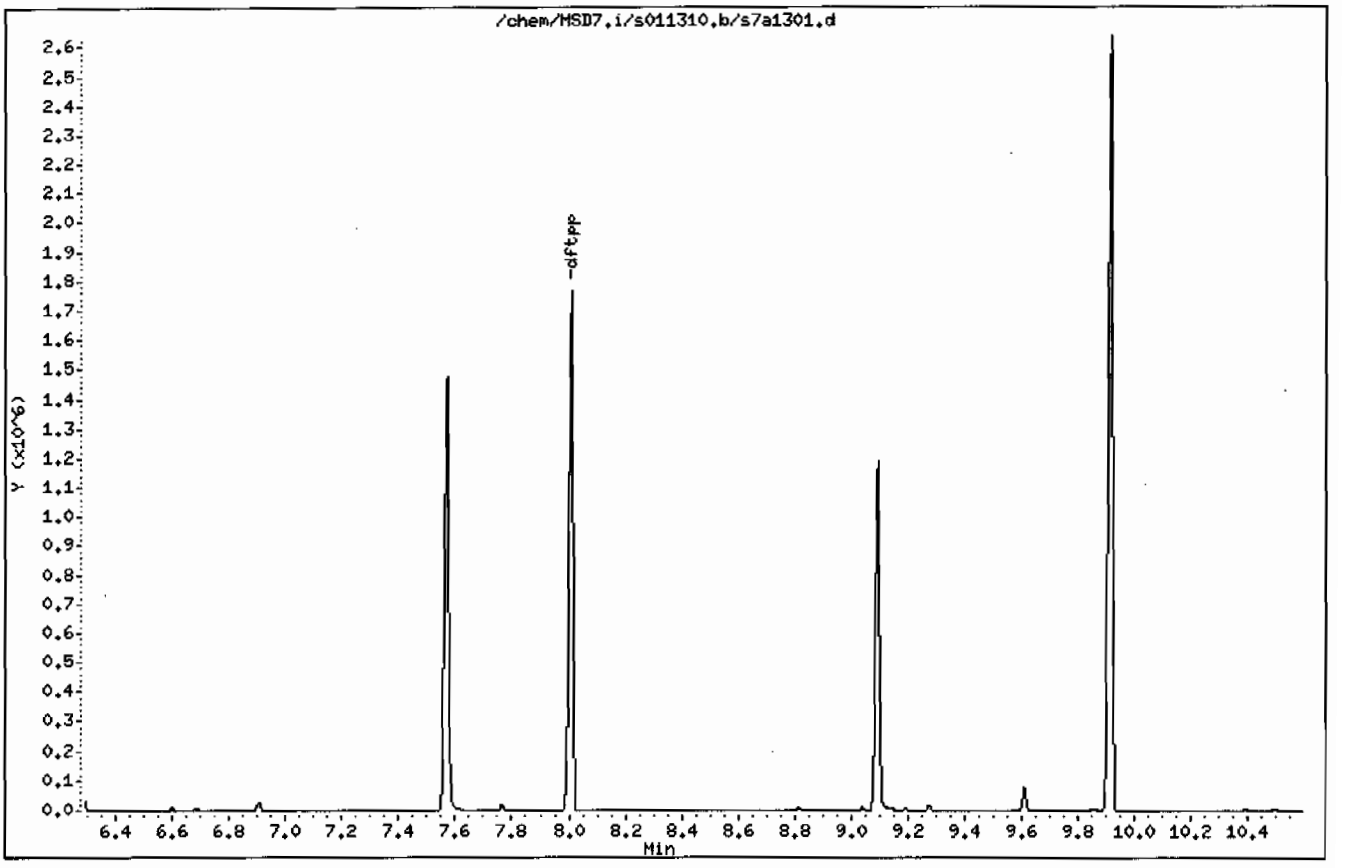

Data File: /chem/MSD7.i/s011310.b/s7a1301.d

Date : 13-JAN-2010 16:11

Client ID: DFTPP

Instrument: MSD7.i

Sample Info: |WBN091213-01|DFTPP|1|SVMF|1|DFTPP

Operator: JHB3

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

1 dftpp

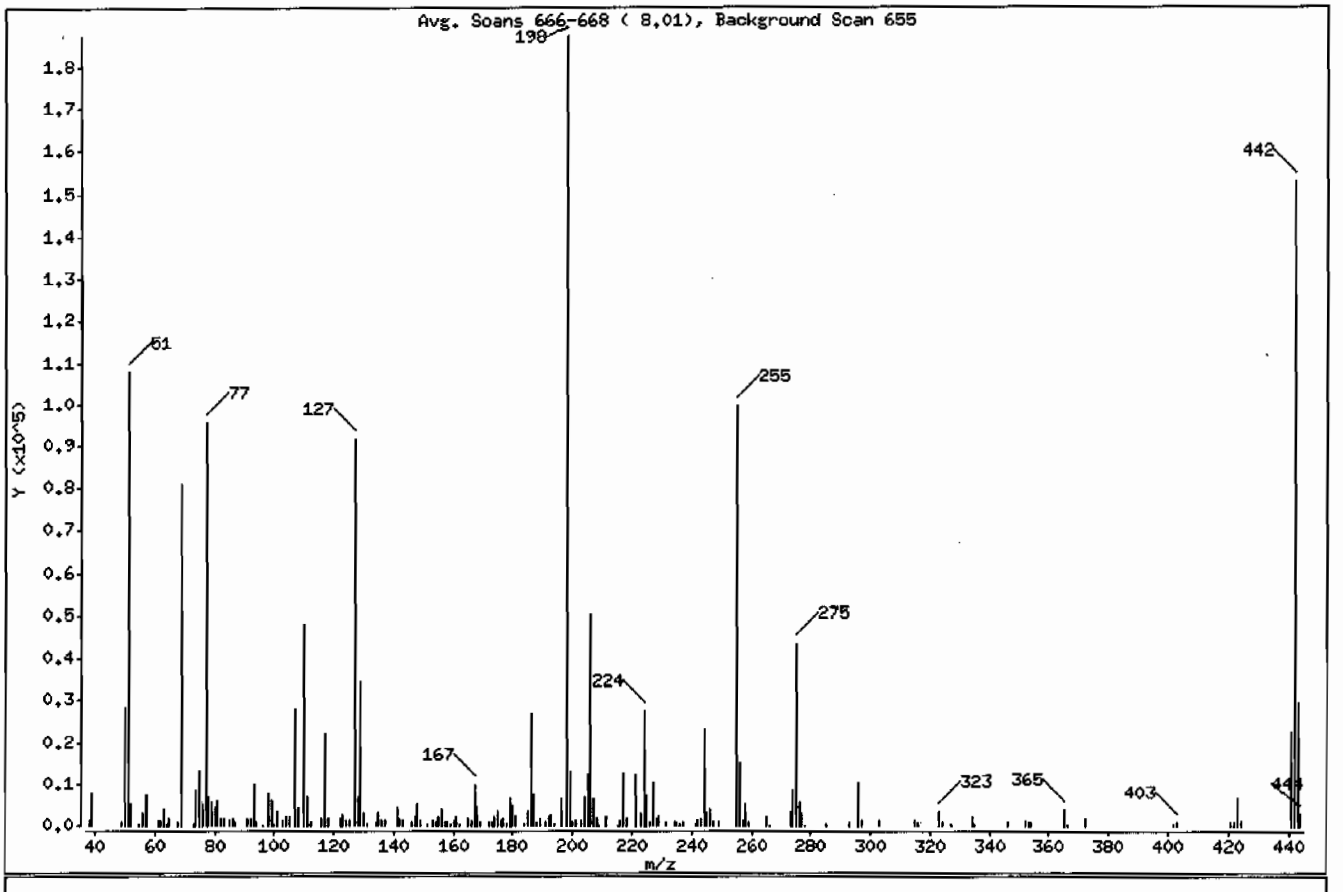

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	57.50
68	Less than 2.00% of mass 69	0.57 (1.32)
69	Mass 69 relative abundance	43.15
70	Less than 2.00% of mass 69	0.00 (0.00)
127	40.00 - 60.00% of mass 198	49.02
197	Less than 1.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.91
275	10.00 - 30.00% of mass 198	23.23
365	Greater than 1.00% of mass 198	2.10
441	Present, but less than mass 443	12.25
442	Greater than 40.00% of mass 198	81.68
443	17.00 - 23.00% of mass 442	15.81 (19.36)

Data File: /chem/MSD7.i/s011310.b/s7a1301.d

Date : 13-JAN-2010 16:11

Client ID: DFTPP

Instrument: MSD7.i

Sample Info: |WBN091213-01|DFTPP|1|SVMF|1|DFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

Data File: s7a1301.d
Spectrum: Avg. Scans 666-668 (8.01), Background Scan 655
Location of Maximum: 198.00
Number of points: 186

m/z	Y	m/z	Y	m/z	Y	m/z	Y
38.00	1370	116.00	1525	180.00	4602	246.00	3710
39.00	7646	117.00	21792	181.00	2132	247.00	806
49.00	818	118.00	1596	184.00	609	249.00	847
50.00	28320	122.00	1665	185.00	3625	255.00	99448
51.00	107728	123.00	2507	186.00	26656	256.00	15179
52.00	5375	124.00	1187	187.00	7443	257.00	1185
55.00	534	125.00	1204	188.00	731	258.00	5066
56.00	3056	127.00	91840	189.00	1598	259.00	828
57.00	7165	128.00	7070	191.00	770	265.00	2105
61.00	1103	129.00	34656	192.00	2213	266.00	170
62.00	1401	130.00	2969	193.00	2415	273.00	3335
63.00	3783	131.00	624	194.00	366	274.00	8783
64.00	585	134.00	1044	196.00	6461	275.00	43520
65.00	1676	135.00	2805	198.00	187328	276.00	5706
68.00	1067	136.00	1210	199.00	12954	277.00	3012
69.00	80840	137.00	1426	200.00	958	278.00	167
73.00	637	141.00	4327	201.00	1202	285.00	380
74.00	8473	142.00	1599	203.00	1378	293.00	735
75.00	12804	143.00	1078	204.00	6986	296.00	10501
76.00	5046	146.00	780	205.00	11954	297.00	1479
77.00	95424	147.00	2079	206.00	50216	303.00	1237
78.00	6812	148.00	5175	207.00	6512	315.00	1092
79.00	5796	149.00	1135	208.00	1570	316.00	713
80.00	4429	151.00	548	209.00	170	323.00	3590
81.00	6231	153.00	1435	211.00	2152	324.00	657
82.00	1595	154.00	1036	215.00	170	327.00	630
83.00	1520	155.00	2325	216.00	1126	334.00	2112
85.00	1085	156.00	3967	217.00	12301	335.00	387
86.00	1914	157.00	965	218.00	1792	346.00	788
87.00	818	158.00	836	221.00	12131	352.00	1085
91.00	1524	159.00	611	223.00	2913	353.00	691
92.00	1644	160.00	1433	224.00	27752	354.00	1021
93.00	10075	161.00	2151	225.00	7224	365.00	3940
94.00	706	162.00	368	226.00	840	366.00	628
96.00	174	165.00	1673	227.00	10426	372.00	1558

Data File: /chem/MSD7.i/s011310.b/s7a1301.d

Date : 13-JAN-2010 16:11

Client ID: DFTPP

Instrument: MSD7.i

Sample Info: |WBN091213-01|DFTPP|1|SVHF|1|DFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

Data File: s7a1301.d
Spectrum: Avg. Scans 666-668 (8.01), Background Scan 655
Location of Maximum: 198.00
Number of points: 186

m/z	Y	m/z	Y	m/z	Y	m/z	Y
98.00	7612	166.00	1412	228.00	1572	402.00	624
99.00	5970	167.00	9953	229.00	2350	403.00	815
100.00	600	168.00	4688	231.00	966	421.00	733
101.00	3514	169.00	808	234.00	679	422.00	758
103.00	1248	172.00	662	235.00	807	423.00	6937
104.00	2148	173.00	994	236.00	548	424.00	1351
105.00	2122	174.00	1978	237.00	820	441.00	22952
107.00	28128	175.00	3609	241.00	610	442.00	153024
108.00	4452	176.00	1112	242.00	1493	443.00	29624
110.00	47928	177.00	1694	243.00	1730	444.00	2831
111.00	7102	178.00	595	244.00	23112		
112.00	879	179.00	6315	245.00	3183		

Data File: /chem/MSD7.i/s020810.b/s7b0803.d

Page 1

Date : 08-FEB-2010 10:03

Client ID: DFTPP

Instrument: MSD7.i

Sample Info: |WBN100107-01|DFTPP|1|SVMF|1|DFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

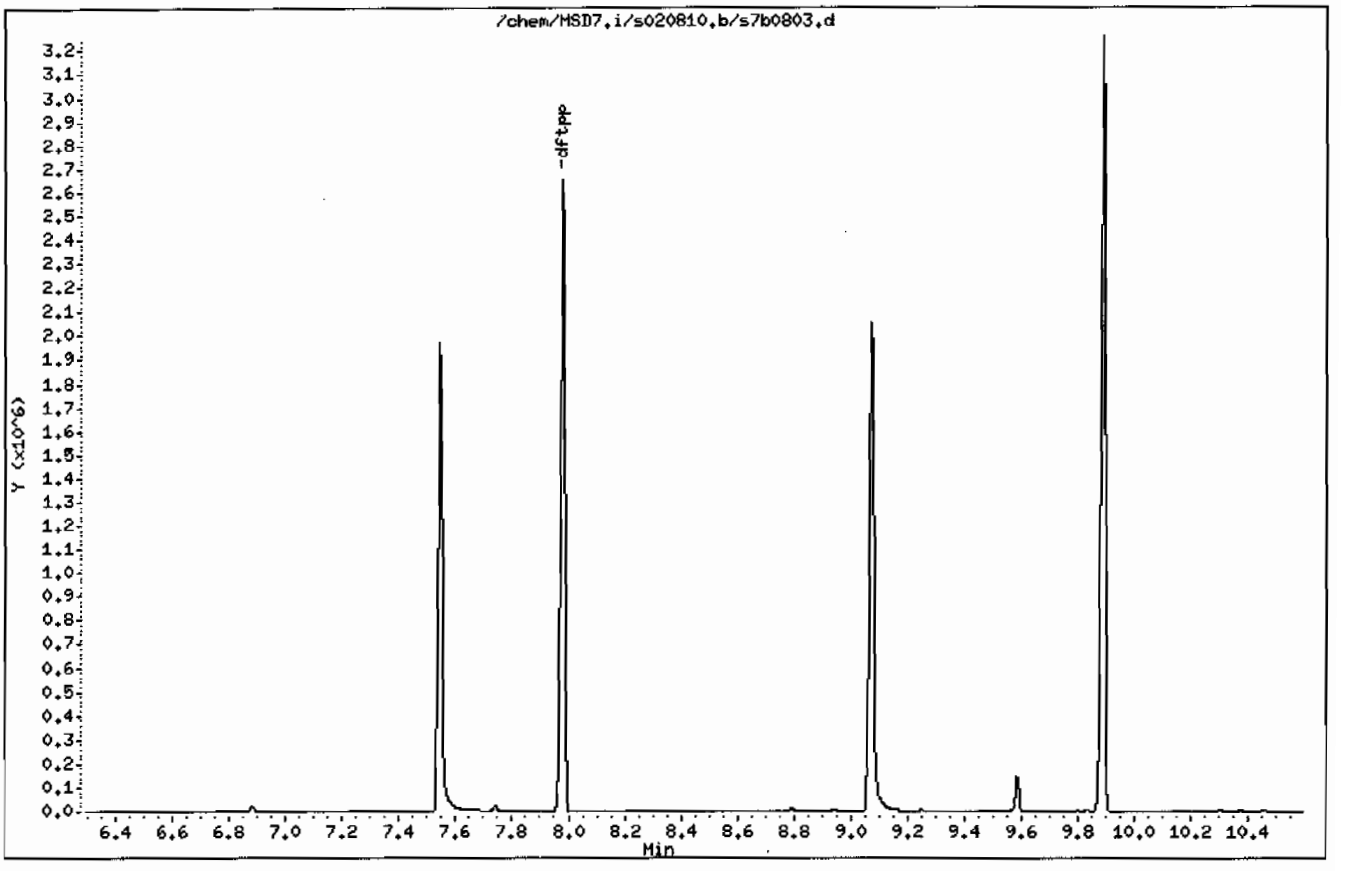

Data File: /chem/MSD7.i/s020810.b/s7b0803.d

Date : 08-FEB-2010 10:03

Client ID: DFTPP

Instrument: MSD7.i

Sample Info: |WBN100107-01|DFTPP|1|SVMF|1|DFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

1 dftpp

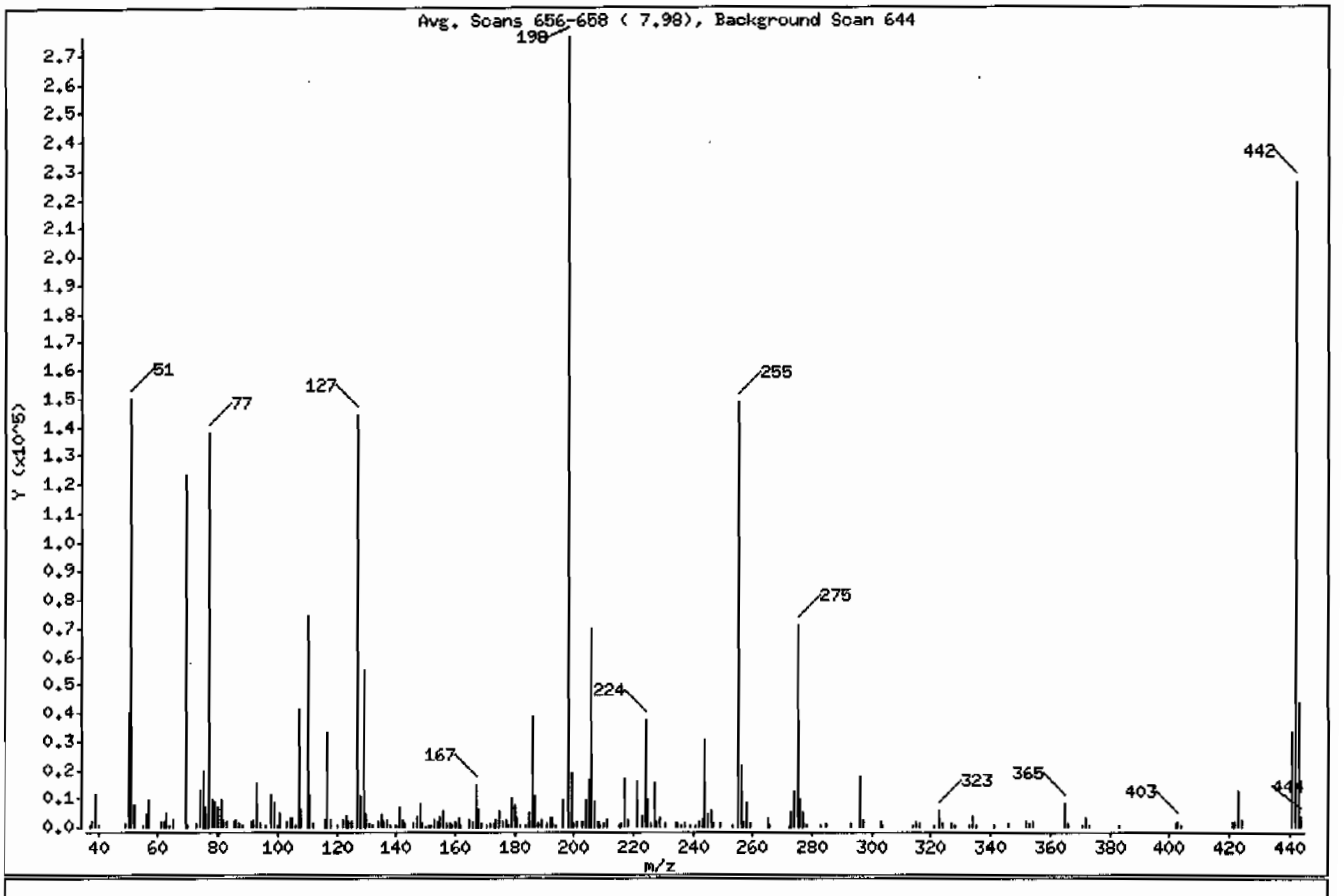

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	54.33
68	Less than 2.00% of mass 69	0.00 (0.00)
69	Mass 69 relative abundance	44.52
70	Less than 2.00% of mass 69	0.25 (0.55)
127	40.00 - 60.00% of mass 198	52.14
197	Less than 1.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.86
275	10.00 - 30.00% of mass 198	25.84
365	Greater than 1.00% of mass 198	2.99
441	Present, but less than mass 443	12.25
442	Greater than 40.00% of mass 198	81.77
443	17.00 - 23.00% of mass 442	15.96 (19.52)

Data File: /chem/MSD7.i/s020810.b/s7b0803.d

Date : 08-FEB-2010 10:03

Client ID: DFTPP

Instrument: MSD7.i

Sample Info: |WBN100107-01|DFTPP|1|SVMF|1|DFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

Data File: s7b0803.d

Spectrum: Avg. Scans 656-658 (7.98), Background Scan 644

Location of Maximum: 198.00

Number of points: 213

m/z	Y	m/z	Y	m/z	Y	m/z	Y
37.00	693	120.00	548	184.00	851	258.00	7965
38.00	2134	122.00	2646	185.00	4832	259.00	1309
39.00	11259	123.00	3986	186.00	38592	265.00	3377
40.00	356	124.00	1927	187.00	10770	266.00	735
49.00	1317	125.00	1821	188.00	1137	272.00	180
50.00	39952	127.00	144000	189.00	2294	273.00	4943
51.00	150080	128.00	10781	191.00	1188	274.00	12653
52.00	7741	129.00	55528	192.00	3231	275.00	71384
55.00	737	130.00	4670	193.00	3411	276.00	9370
56.00	4371	131.00	1002	194.00	813	277.00	5382
57.00	9490	132.00	551	196.00	9504	278.00	844
61.00	1767	134.00	1624	198.00	276224	283.00	356
62.00	1909	135.00	4282	199.00	18960	285.00	1023
63.00	5148	136.00	1871	200.00	1579	293.00	1222
64.00	752	137.00	2241	201.00	1623	296.00	17976
65.00	2373	138.00	386	203.00	1939	297.00	2408
69.00	122992	140.00	740	204.00	9691	303.00	2073
70.00	678	141.00	7119	205.00	16728	304.00	595
73.00	1070	142.00	2459	206.00	69960	314.00	933
74.00	12975	143.00	1540	207.00	8941	315.00	2055
75.00	19472	146.00	1330	208.00	2087	316.00	1089
76.00	6863	147.00	3636	209.00	709	321.00	344
77.00	137728	148.00	8435	210.00	1097	323.00	5904
78.00	9500	149.00	1535	211.00	2680	324.00	1100
79.00	9014	150.00	170	215.00	705	327.00	1060
80.00	6909	151.00	865	216.00	1567	328.00	564
81.00	9553	152.00	601	217.00	17192	333.00	569
82.00	2382	153.00	2358	218.00	2266	334.00	3801
83.00	2135	154.00	1703	221.00	16180	335.00	918
85.00	1667	155.00	3723	223.00	4032	341.00	748
86.00	2717	156.00	5739	224.00	37704	346.00	1370
87.00	1201	157.00	1256	225.00	9445	352.00	1734
88.00	366	158.00	1244	226.00	1009	353.00	1286
91.00	2058	159.00	915	227.00	15071	354.00	2005
92.00	2287	160.00	2185	228.00	2100	365.00	8251

Data File: /chem/MSD7.i/s020810.b/s7b0803.d

Date : 08-FEB-2010 10:03

Client ID: DFTPP

Instrument: MSD7.i

Sample Info: |WBN100107-01|DFTPP|1|SVMF|1|DFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

Data File: s7b0803.d
Spectrum: Avg. Scans 656-658 (7.98), Background Scan 644
Location of Maximum: 198.00
Number of points: 213

m/z	Y	m/z	Y	m/z	Y	m/z	Y
93.00	16370	161.00	3165	229.00	3138	366.00	1150
94.00	983	162.00	921	231.00	1445	371.00	340
96.00	686	165.00	2677	234.00	967	372.00	3325
98.00	11444	166.00	1906	235.00	1111	373.00	825
99.00	8433	167.00	14453	236.00	800	383.00	887
100.00	912	168.00	6405	237.00	1383	402.00	1347
101.00	5257	169.00	1242	239.00	574	403.00	1925
103.00	1902	171.00	568	241.00	927	404.00	631
104.00	3366	172.00	1182	242.00	2085	421.00	1746
105.00	3297	173.00	1531	243.00	2377	422.00	1780
106.00	774	174.00	2795	244.00	30600	423.00	12798
107.00	40992	175.00	5623	245.00	4154	424.00	2667
108.00	6244	176.00	1818	246.00	5435	441.00	33848
110.00	74608	177.00	2599	247.00	1278	442.00	225856
111.00	11225	178.00	839	249.00	1019	443.00	44096
112.00	1438	179.00	10253	253.00	740	444.00	4080
116.00	2335	180.00	7325	255.00	148800		
117.00	33200	181.00	3150	256.00	21904		
118.00	2280	182.00	575	257.00	1743		

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1604			**Matrix:**	SOIL
Lab Sample ID:	1202034799				
Client Sample:	QC for batch 949739	**Client:**	LANL010	**Project:**	QC
Client ID:	MB for batch 949739	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	949740	**Inst:**	MSD7.I	**Dilution:**	1
Run Date:	02/08/2010 11:04	**Analyst:**	JMB3	**Inj. Vol:**	.5 uL
Prep Date:	02/05/2010 19:48	**Aliquot:**	30 g	**Final Volume:**	1 mL
Data File:	s7b0806.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	333	ug/kg	66.7	333
108-95-2	Phenol	U	333	ug/kg	66.7	333
95-57-8	2-Chlorophenol	U	333	ug/kg	66.7	333
106-46-7	1,4-Dichlorobenzene	U	333	ug/kg	66.7	333
621-64-7	N-Nitrosodipropylamine	U	333	ug/kg	66.7	333
59-50-7	4-Chloro-3-methylphenol	U	333	ug/kg	66.7	333
83-32-9	Acenaphthene	U	33.3	ug/kg	11.0	33.3
121-14-2	2,4-Dinitrotoluene	U	333	ug/kg	33.3	333
100-02-7	4-Nitrophenol	U	333	ug/kg	110	333
87-86-5	Pentachlorophenol	U	333	ug/kg	83.3	333
129-00-0	Pyrene	U	33.3	ug/kg	10.0	33.3
110-86-1	Pyridine	U	333	ug/kg	66.7	333
62-53-3	Aniline	U	333	ug/kg	100	333
111-44-4	bis(2-Chloroethyl) ether	U	333	ug/kg	66.7	333
541-73-1	1,3-Dichlorobenzene	U	333	ug/kg	66.7	333
100-51-6	Benzyl alcohol	U	333	ug/kg	100	333
95-50-1	1,2-Dichlorobenzene	U	333	ug/kg	66.7	333
108-60-1	bis(2-Chloroisopropyl)ether	U	333	ug/kg	66.7	333
95-48-7	o-Cresol	U	333	ug/kg	66.7	333
65794-96-9	m,p-Cresols	U	333	ug/kg	100	333
67-72-1	Hexachloroethane	U	333	ug/kg	66.7	333
98-95-3	Nitrobenzene	U	333	ug/kg	66.7	333
78-59-1	Isophorone	U	333	ug/kg	66.7	333
88-75-5	2-Nitrophenol	U	333	ug/kg	66.7	333
105-67-9	2,4-Dimethylphenol	U	333	ug/kg	117	333
111-91-1	bis(2-Chloroethoxy)methane	U	333	ug/kg	66.7	333
120-83-2	2,4-Dichlorophenol	U	333	ug/kg	66.7	333
65-85-0	Benzoic acid	U	667	ug/kg	167	667
91-20-3	Naphthalene	U	33.3	ug/kg	10.0	33.3
106-47-8	4-Chloroaniline	U	333	ug/kg	66.7	333
87-68-3	Hexachlorobutadiene	U	333	ug/kg	66.7	333
91-57-6	2-Methylnaphthalene	U	33.3	ug/kg	6.67	33.3
77-47-4	Hexachlorocyclopentadiene	U	333	ug/kg	66.7	333
88-06-2	2,4,6-Trichlorophenol	U	333	ug/kg	66.7	333
95-95-4	2,4,5-Trichlorophenol	U	333	ug/kg	66.7	333
91-58-7	2-Chloronaphthalene	U	33.3	ug/kg	11.0	33.3
88-74-4	2-Nitroaniline	U	333	ug/kg	66.7	333
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	333	ug/kg	66.7	333

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1604**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202034799**				
Client Sample:	**QC for batch 949739**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 949739**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**949740**	**Inst:**	**MSD7.I**	**Dilution:**	**1**
Run Date:	**02/08/2010 11:04**	**Analyst:**	**JMB3**	**Inj. Vol:**	**.5 uL**
Prep Date:	**02/05/2010 19:48**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**s7b0806.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	333	ug/kg	66.7	333
606-20-2	2,6-Dinitrotoluene	U	333	ug/kg	33.3	333
208-96-8	Acenaphthylene	U	33.3	ug/kg	10.0	33.3
51-28-5	2,4-Dinitrophenol	U	667	ug/kg	127	667
132-64-9	Dibenzofuran	U	333	ug/kg	66.7	333
84-66-2	Diethylphthalate	U	333	ug/kg	66.7	333
86-73-7	Fluorene	U	33.3	ug/kg	10.0	33.3
7005-72-3	4-Chlorophenylphenylether	U	333	ug/kg	66.7	333
534-52-1	2-Methyl-4,6-dinitrophenol	U	333	ug/kg	66.7	333
100-01-6	4-Nitroaniline	U	333	ug/kg	100	333
	p-Nitroaniline					
122-39-4	Diphenylamine	U	333	ug/kg	66.7	333
122-66-7	Azobenzene	U	333	ug/kg	66.7	333
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	333	ug/kg	66.7	333
118-74-1	Hexachlorobenzene	U	333	ug/kg	66.7	333
85-01-8	Phenanthrene	U	33.3	ug/kg	10.0	33.3
120-12-7	Anthracene	U	33.3	ug/kg	6.67	33.3
84-74-2	Di-n-butylphthalate	U	333	ug/kg	66.7	333
206-44-0	Fluoranthene	U	33.3	ug/kg	10.0	33.3
85-68-7	Butylbenzylphthalate	U	333	ug/kg	66.7	333
56-55-3	Benzo(a)anthracene	U	33.3	ug/kg	10.0	33.3
91-94-1	3,3'-Dichlorobenzidine	U	333	ug/kg	100	333
218-01-9	Chrysene	U	33.3	ug/kg	10.0	33.3
117-81-7	bis(2-Ethylhexyl)phthalate	U	333	ug/kg	66.7	333
117-84-0	Di-n-octylphthalate	U	333	ug/kg	66.7	333
205-99-2	Benzo(b)fluoranthene	U	33.3	ug/kg	10.0	33.3
207-08-9	Benzo(k)fluoranthene	U	33.3	ug/kg	10.0	33.3
50-32-8	Benzo(a)pyrene	U	33.3	ug/kg	10.0	33.3
193-39-5	Indeno(1,2,3-cd)pyrene	U	33.3	ug/kg	10.0	33.3
53-70-3	Dibenzo(a,h)anthracene	U	33.3	ug/kg	10.0	33.3
191-24-2	Benzo(ghi)perylene	U	33.3	ug/kg	10.0	33.3
120-82-1	1,2,4-Trichlorobenzene	U	333	ug/kg	66.7	333

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.82	228	ug/kg		J

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Data file : /chem/MSD7.i/s020810.b/s7b0806.d
Lab Smp Id: 1202034799 Client Smp ID: SBLK01
Inj Date : 08-FEB-2010 11:04
Operator : JMB3 Inst ID: MSD7.i
Smp Info : |1202034799|949740|1|SVM|1|MB
Misc Info : |MSD8270_S|WBN100122-01|
Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness
Method : /chem/MSD7.i/s020810.b/MSD7-M8270C-AQA-011310.m
Meth Date : 09-Feb-2010 07:54 jos00786 Quant Type: ISTD
Cal Date : 15-JAN-2010 17:38 Cal File: s7a1511.d
Als bottle: 4 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-1604.sub
Target Version: 3.50
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	0.00000	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.768	3.773	(1.000)	369778	40.0000	
* 29 Naphthalene-d8	136	4.626	4.635	(1.000)	1424019	40.0000	
* 46 Acenaphthene-d10	164	5.878	5.882	(1.000)	740929	40.0000	
* 67 Phenanthrene-d10	188	7.024	7.029	(1.000)	1276051	40.0000	
* 91 Chrysene-d12	240	9.407	9.412	(1.000)	1004589	40.0000	
* 98 Perylene-d12	264	10.943	10.953	(1.000)	653710	40.0000	
$ 3 2-Fluorophenol	112	2.979	2.969	(0.790)	624762	58.7959	1960
$ 5 Phenol-d5	99	3.489	3.494	(0.926)	737533	53.8341	1790
$ 20 Nitrobenzene-d5	82	4.125	4.135	(0.892)	351990	29.9648	999
$ 39 2-Fluorobiphenyl	172	5.372	5.377	(0.914)	688200	31.5204	1050
$ 60 2,4,6-Tribromophenol	329	6.465	6.470	(1.100)	156023	83.7033	2790
$ 81 p-Terphenyl-d14	244	8.391	8.391	(0.892)	783294	45.6514	1520

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Data file : /chem/MSD7.i/s020810.b/s7b0806.d
Lab Smp Id: 1202034799 Client Smp ID: SBLK01
Inj Date : 08-FEB-2010 11:04
Operator : JMB3 Inst ID: MSD7.i
Smp Info : |1202034799|949740|1|SVM|1|MB
Misc Info : |MSD8270_S|WBN100122-01|
Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness
Method : /chem/MSD7.i/s020810.b/MSD7-M8270C-AQA-011310.m
Meth Date : 09-Feb-2010 07:54 jos00786 Quant Type: ISTD
Cal Date : 15-JAN-2010 17:38 Cal File: s7a1511.d
Als bottle: 4 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-1604.sub
Target Version: 3.50
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	0.00000	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	3.768	2307730	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown Aldol Condensate				CAS #:			
2.825	393898	6.82744490	228	0		0	10

Data File: /chem/MSD7.i/s020810.b/s7b0806.d
Date : 08-FEB-2010 11:04
Client ID: SBLK01
Sample Info: |1202034799|949740|1|SVMI1|MB
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Page 1

Instrument: MSD7.i

Operator: JMB3
Column diameter: 0.20

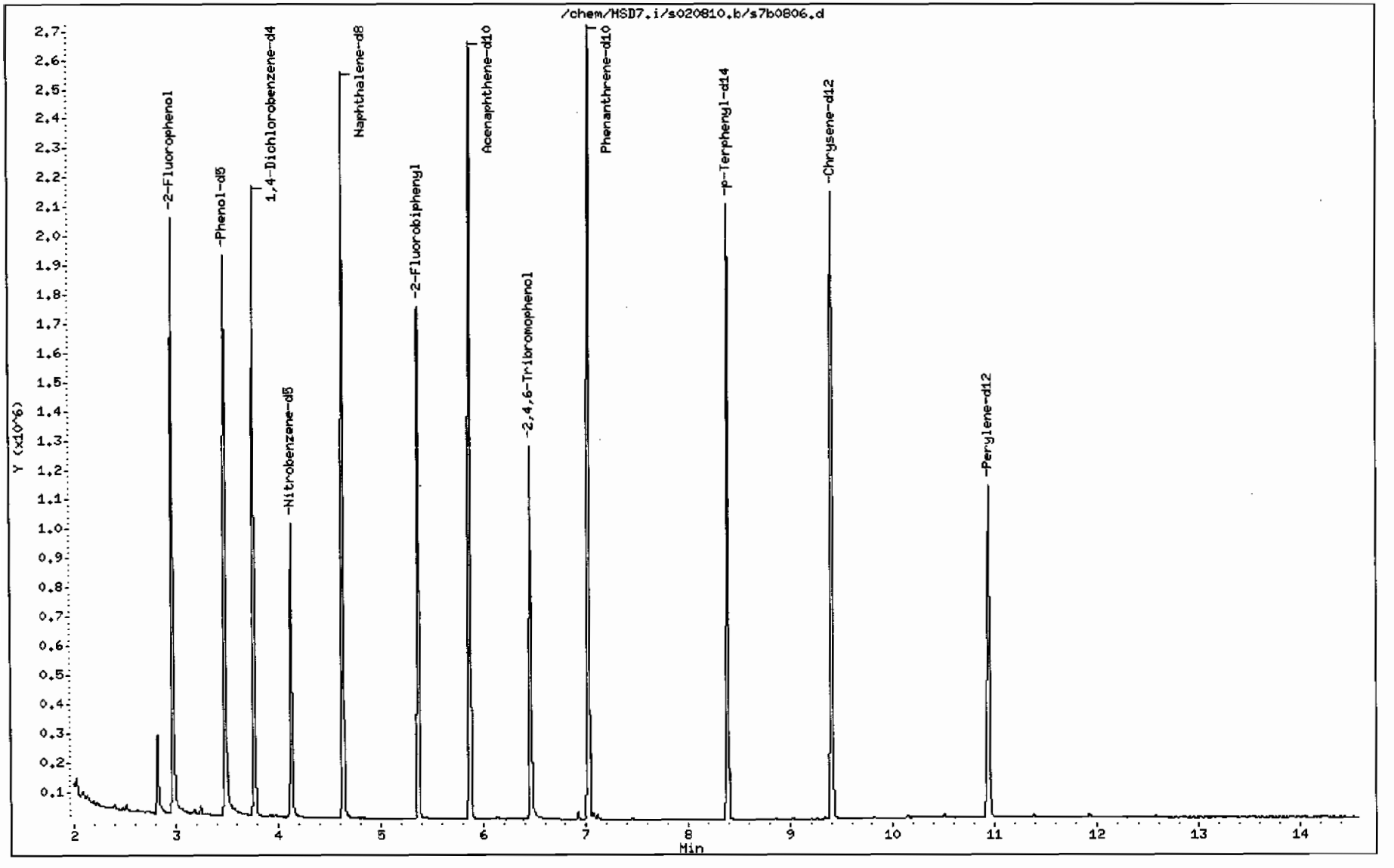

Data File: /chem/MSD7.i/s020810.b/s7b0806.d

Date : 08-FEB-2010 11:04

Client ID: SBLK01

Instrument: MSD7.i

Sample Info: |1202034799|949740|1|SVM|1|MB

Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	59	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	50	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7945	50	C6H12O2	116

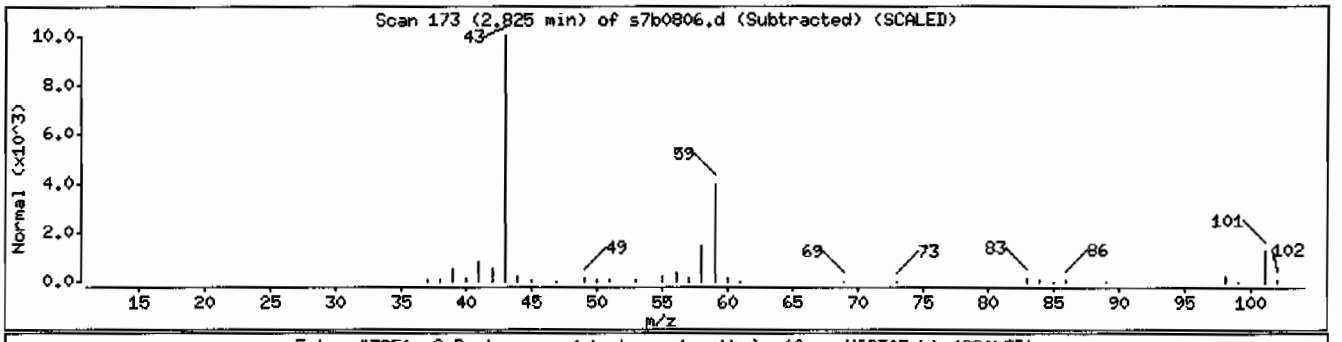

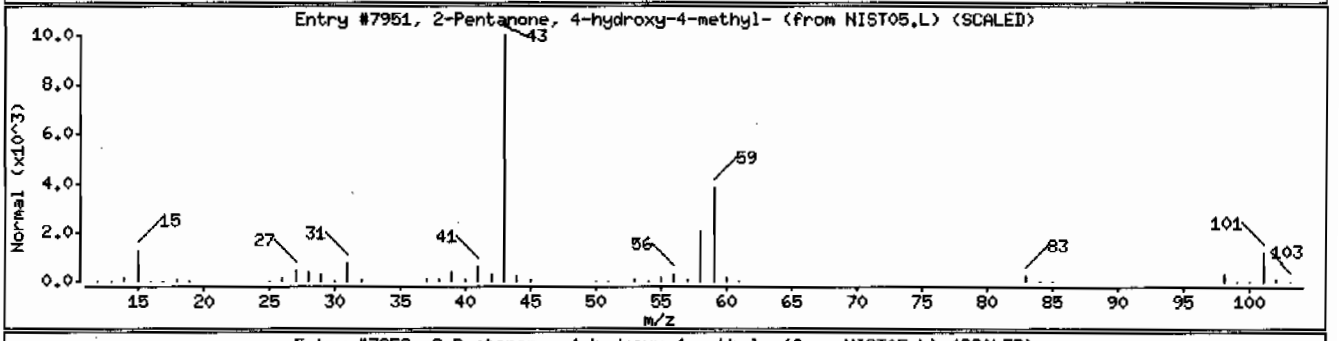

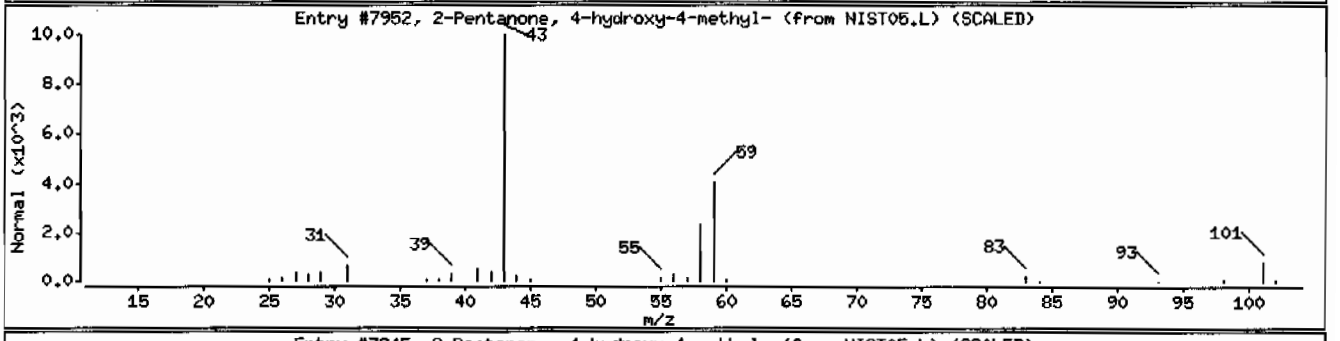

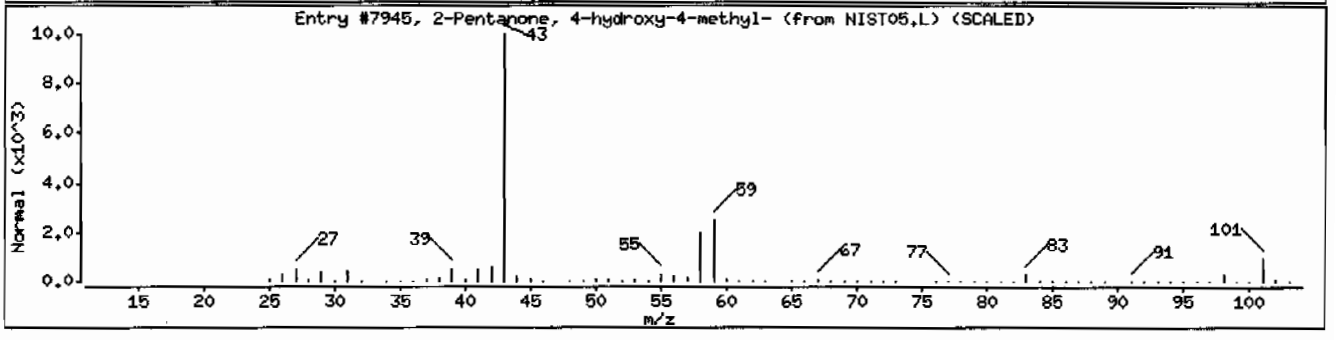

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1604			**Matrix:**	SOIL
Lab Sample ID:	1202034800				
Client Sample:	QC for batch 949739	**Client:**	LANL010	**Project:**	QC
Client ID:	LCS for batch 949739	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	949740	**Inst:**	MSD7.I	**Dilution:**	1
Run Date:	02/08/2010 11:25	**Analyst:**	JMB3	**Inj. Vol:**	.5 uL
Prep Date:	02/05/2010 19:48	**Aliquot:**	30 g	**Final Volume:**	1 mL
Data File:	s7b0807.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine		654	ug/kg	66.7	333
108-95-2	Phenol		822	ug/kg	66.7	333
95-57-8	2-Chlorophenol		991	ug/kg	66.7	333
106-46-7	1,4-Dichlorobenzene		1050	ug/kg	66.7	333
621-64-7	N-Nitrosodipropylamine		848	ug/kg	66.7	333
59-50-7	4-Chloro-3-methylphenol		898	ug/kg	66.7	333
83-32-9	Acenaphthene		853	ug/kg	11.0	33.3
121-14-2	2,4-Dinitrotoluene		1090	ug/kg	33.3	333
100-02-7	4-Nitrophenol		589	ug/kg	110	333
87-86-5	Pentachlorophenol		1050	ug/kg	83.3	333
129-00-0	Pyrene		1010	ug/kg	10.0	33.3
110-86-1	Pyridine		620	ug/kg	66.7	333
62-53-3	Aniline		761	ug/kg	100	333
111-44-4	bis(2-Chloroethyl) ether		714	ug/kg	66.7	333
541-73-1	1,3-Dichlorobenzene		1000	ug/kg	66.7	333
100-51-6	Benzyl alcohol	J	191	ug/kg	100	333
95-50-1	1,2-Dichlorobenzene		1120	ug/kg	66.7	333
108-60-1	bis(2-Chloroisopropyl)ether		774	ug/kg	66.7	333
95-48-7	o-Cresol		1050	ug/kg	66.7	333
65794-96-9	m,p-Cresols		1060	ug/kg	100	333
67-72-1	Hexachloroethane		976	ug/kg	66.7	333
98-95-3	Nitrobenzene		802	ug/kg	66.7	333
78-59-1	Isophorone		740	ug/kg	66.7	333
88-75-5	2-Nitrophenol		1030	ug/kg	66.7	333
105-67-9	2,4-Dimethylphenol		778	ug/kg	117	333
111-91-1	bis(2-Chloroethoxy)methane		739	ug/kg	66.7	333
120-83-2	2,4-Dichlorophenol		906	ug/kg	66.7	333
65-85-0	Benzoic acid		1290	ug/kg	167	667
91-20-3	Naphthalene		809	ug/kg	10.0	33.3
106-47-8	4-Chloroaniline		862	ug/kg	66.7	333
87-68-3	Hexachlorobutadiene		963	ug/kg	66.7	333
91-57-6	2-Methylnaphthalene		938	ug/kg	6.67	33.3
77-47-4	Hexachlorocyclopentadiene		973	ug/kg	66.7	333
88-06-2	2,4,6-Trichlorophenol		978	ug/kg	66.7	333
95-95-4	2,4,5-Trichlorophenol		1170	ug/kg	66.7	333
91-58-7	2-Chloronaphthalene		969	ug/kg	11.0	33.3
88-74-4	2-Nitroaniline		889	ug/kg	66.7	333
99-09-2	*o-Nitroaniline* 3-Nitroaniline		935	ug/kg	66.7	333

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1604**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202034800**				
Client Sample:	**QC for batch 949739**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 949739**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**949740**	**Inst:**	**MSD7.I**	**Dilution:**	**1**
Run Date:	**02/08/2010 11:25**	**Analyst:**	**JMB3**	**Inj. Vol:**	**.5 uL**
Prep Date:	**02/05/2010 19:48**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**s7b0807.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate		1070	ug/kg	66.7	333
606-20-2	2,6-Dinitrotoluene		1050	ug/kg	33.3	333
208-96-8	Acenaphthylene		934	ug/kg	10.0	33.3
51-28-5	2,4-Dinitrophenol		804	ug/kg	127	667
132-64-9	Dibenzofuran		930	ug/kg	66.7	333
84-66-2	Diethylphthalate		1030	ug/kg	66.7	333
86-73-7	Fluorene		901	ug/kg	10.0	33.3
7005-72-3	4-Chlorophenylphenylether		1000	ug/kg	66.7	333
534-52-1	2-Methyl-4,6-dinitrophenol		939	ug/kg	66.7	333
100-01-6	4-Nitroaniline		1170	ug/kg	100	333
	p-Nitroaniline					
122-39-4	Diphenylamine		1030	ug/kg	66.7	333
122-66-7	Azobenzene		945	ug/kg	66.7	333
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether		1110	ug/kg	66.7	333
118-74-1	Hexachlorobenzene		1360	ug/kg	66.7	333
85-01-8	Phenanthrene		1040	ug/kg	10.0	33.3
120-12-7	Anthracene		1110	ug/kg	6.67	33.3
84-74-2	Di-n-butylphthalate		1140	ug/kg	66.7	333
206-44-0	Fluoranthene		1080	ug/kg	10.0	33.3
85-68-7	Butylbenzylphthalate		1180	ug/kg	66.7	333
56-55-3	Benzo(a)anthracene		1070	ug/kg	10.0	33.3
91-94-1	3,3'-Dichlorobenzidine		1050	ug/kg	100	333
218-01-9	Chrysene		1090	ug/kg	10.0	33.3
117-81-7	bis(2-Ethylhexyl)phthalate		1270	ug/kg	66.7	333
117-84-0	Di-n-octylphthalate		1010	ug/kg	66.7	333
205-99-2	Benzo(b)fluoranthene		1110	ug/kg	10.0	33.3
207-08-9	Benzo(k)fluoranthene		1090	ug/kg	10.0	33.3
50-32-8	Benzo(a)pyrene		1110	ug/kg	10.0	33.3
193-39-5	Indeno(1,2,3-cd)pyrene		1190	ug/kg	10.0	33.3
53-70-3	Dibenzo(a,h)anthracene		1200	ug/kg	10.0	33.3
191-24-2	Benzo(ghi)perylene		1170	ug/kg	10.0	33.3
120-82-1	1,2,4-Trichlorobenzene		988	ug/kg	66.7	333

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Data file : /chem/MSD7.i/s020810.b/s7b0807.d
Lab Smp Id: 1202034800 Client Smp ID: SBLK01LCS
Inj Date : 08-FEB-2010 11:25
Operator : JMB3 Inst ID: MSD7.i
Smp Info : |1202034800|949740|1|SVM|1|LCS
Misc Info : |MSD8270_S|WBN100122-01|
Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness
Method : /chem/MSD7.i/s020810.b/MSD7-M8270C-AQA-011310.m
Meth Date : 09-Feb-2010 07:54 jos00786 Quant Type: ISTD
Cal Date : 15-JAN-2010 17:38 Cal File: s7a1511.d
Als bottle: 5 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-1604.sub
Target Version: 3.50
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	0.00000	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.768	3.773	(1.000)	355232	40.0000	
* 29 Naphthalene-d8	136	4.630	4.635	(1.000)	1420818	40.0000	
* 46 Acenaphthene-d10	164	5.878	5.882	(1.000)	715060	40.0000	
* 67 Phenanthrene-d10	188	7.028	7.029	(1.000)	1288563	40.0000	
* 91 Chrysene-d12	240	9.412	9.412	(1.000)	1041434	40.0000	
* 98 Perylene-d12	264	10.948	10.953	(1.000)	821368	40.0000	
$ 3 2-Fluorophenol	112	2.974	2.969	(0.789)	513281	50.2825	1680
$ 5 Phenol-d5	99	3.494	3.494	(0.927)	594098	45.1402	1500
$ 20 Nitrobenzene-d5	82	4.130	4.135	(0.892)	290748	24.8071	827
$ 39 2-Fluorobiphenyl	172	5.372	5.377	(0.914)	523003	24.8208	827
$ 60 2,4,6-Tribromophenol	329	6.465	6.470	(1.100)	139399	77.4904	2580
$ 81 p-Terphenyl-d14	244	8.391	8.391	(0.892)	629415	35.3853	1180

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
6 Phenol	94	3.499	3.504	(0.928)	324166	24.6536	822
8 2-Chlorophenol	128	3.634	3.639	(0.964)	274231	29.7158	990
11 1,4-Dichlorobenzene	146	3.778	3.783	(1.003)	317655	31.3533	1040
17 N-Nitrosodipropylamine	70	4.009	4.019	(1.064)	196202	25.4294	848(Q)
28 1,2,4-Trichlorobenzene	180	4.582	4.582	(0.990)	275013	29.6310	988
33 4-Chloro-3-methylphenol	107	4.996	4.987	(1.079)	237250	26.9413	898
47 Acenaphthene	154	5.902	5.907	(1.004)	481076	25.5771	852
50 2,4-Dinitrotoluene	165	5.993	5.998	(1.020)	194082	32.7381	1090
52 4-Nitrophenol	139	5.940	5.931	(1.011)	59751	17.6675	589(Q)
65 Pentachlorophenol	266	6.860	6.860	(0.976)	78351	31.5752	1050
79 Pyrene	202	8.285	8.290	(0.880)	998347	30.3323	1010
2 Pyridine	79	2.362	2.329	(0.627)	168263	18.5864	620
4 Aniline	66	3.557	3.561	(0.944)	135496	22.8406	761(Q)
7 bis(2-Chloroethyl) ether	63	3.571	3.576	(0.948)	230302	21.4208	714(Q)
9 1,3-Dichlorobenzene	146	3.735	3.740	(0.991)	325424	30.1315	1000
12 Benzyl alcohol	108	3.850	3.846	(1.022)	38369	5.73110	191(aR)
13 1,2-Dichlorobenzene	146	3.879	3.889	(1.029)	311874	33.5918	1120
14 bis(2-Chloroisopropyl)ether	45	3.913	3.918	(1.038)	580429	23.2278	774
15 o-Cresol	107	3.894	3.894	(1.033)	222861	31.6444	1050
18 m,p-Cresols	107	3.990	4.000	(1.059)	337453	31.7935	1060
19 Hexachloroethane	117	4.106	4.110	(1.089)	120584	29.2749	976
21 Nitrobenzene	77	4.144	4.149	(0.895)	277750	24.0508	802
22 Isophorone	82	4.298	4.303	(0.928)	508737	22.1982	740
23 2-Nitrophenol	139	4.356	4.361	(0.941)	148058	30.7868	1030
24 2,4-Dimethylphenol	122	4.361	4.361	(0.942)	212324	23.3511	778
25 bis(2-Chloroethoxy)methane	93	4.419	4.423	(0.954)	290576	22.1712	739
26 2,4-Dichlorophenol	162	4.529	4.529	(0.978)	223015	27.1924	906
27 Benzoic acid	105	4.433	4.428	(0.957)	217590	38.6951	1290
30 Naphthalene	128	4.645	4.650	(1.003)	784264	24.2748	809
31 4-Chloroaniline	127	4.664	4.669	(1.007)	346348	25.8614	862
32 Hexachlorobutadiene	225	4.712	4.717	(1.018)	138442	28.9018	963
34 2-Methylnaphthalene	142	5.126	5.126	(1.107)	565041	28.1374	938
36 Hexachlorocyclopentadiene	237	5.228	5.232	(0.889)	106859	29.2001	973
37 2,4,6-Trichlorophenol	196	5.319	5.319	(0.905)	146150	29.3471	978
38 2,4,5-Trichlorophenol	196	5.353	5.348	(0.911)	195435	35.0113	1170
40 2-Chloronaphthalene	162	5.478	5.478	(0.932)	540271	29.0706	969
42 o-Nitroaniline	65	5.536	5.541	(0.942)	177151	26.6588	889
41 m-Nitroaniline	138	5.829	5.834	(0.992)	132937	28.0479	935
43 Dimethylphthalate	163	5.646	5.656	(0.961)	624037	32.0895	1070
44 2,6-Dinitrotoluene	165	5.704	5.709	(0.970)	144285	31.5803	1050
45 Acenaphthylene	152	5.776	5.781	(0.983)	848313	28.0239	934
48 2,4-Dinitrophenol	184	5.906	5.907	(1.005)	39671	24.1101	804(Q)
49 Dibenzofuran	168	6.022	6.027	(1.025)	698980	27.9136	930
51 Diethylphthalate	149	6.152	6.157	(1.047)	646984	31.0483	1030
53 Fluorene	166	6.282	6.287	(1.069)	605024	27.0166	900
54 4-Chlorophenylphenylether	204	6.258	6.263	(1.065)	289737	30.0044	1000
55 2-Methyl-4,6-dinitrophenol	198	6.306	6.306	(0.897)	75663	28.1669	939

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
56 p-Nitroaniline	138	6.287	6.292	(1.070)	148746	35.2190	1170
133 Diphenylamine	169	6.349	6.350	(0.903)	516209	30.7881	1030
58 1,2-Diphenylhydrazine	77	6.383	6.388	(0.908)	623719	28.3458	945
61 4-Bromophenylphenylether	248	6.638	6.643	(0.944)	166014	33.3418	1110
63 Hexachlorobenzene	284	6.711	6.711	(0.955)	189667	40.7336	1360
68 Phenanthrene	178	7.048	7.053	(1.003)	885114	31.1767	1040
69 Anthracene	178	7.091	7.091	(1.009)	897540	33.2114	1110
72 Di-n-butylphthalate	149	7.452	7.452	(1.060)	1156150	34.0815	1140
76 Fluoranthene	202	8.073	8.073	(1.149)	992441	32.3623	1080
85 Butylbenzylphthalate	149	8.820	8.825	(0.937)	504167	35.5204	1180
89 Benzo(a)anthracene	228	9.398	9.398	(0.998)	800828	32.0497	1070
90 3,3'-Dichlorobenzidine	252	9.349	9.349	(0.993)	214911	31.3618	1040
92 Chrysene	228	9.436	9.436	(1.003)	750293	32.7023	1090
93 bis(2-Ethylhexyl)phthalate	149	9.345	9.349	(0.993)	641543	38.1349	1270
94 Di-n-octylphthalate	149	9.956	9.961	(0.909)	917660	30.4408	1010
95 Benzo(b)fluoranthene	252	10.476	10.481	(0.957)	712788	33.4137	1110
96 Benzo(k)fluoranthene	252	10.510	10.515	(0.960)	663256	32.8408	1090
97 Benzo(a)pyrene	252	10.876	10.881	(0.993)	598115	33.1657	1100
99 Indeno(1,2,3-cd)pyrene	276	12.532	12.532	(1.145)	484339	35.7124	1190
100 Dibenzo(a,h)anthracene	278	12.542	12.547	(1.146)	385939	35.9378	1200
101 Benzo(ghi)perylene	276	13.009	13.014	(1.188)	400253	35.0477	1170
1 N-Methyl-N-nitrosomethylamine	74	2.324	2.295	(0.617)	149659	19.6238	654

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
R - Spike/Surrogate failed recovery limits.

Data File: /chem/MSD7.i/s020810.b/s7b0807.d
Date : 08-FEB-2010 11:25
Client ID: SBLK01LCS
Sample Info: 1120203480019497401 1|SVM11|LCS
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD7.i
Operator: JMB3
Column diameter: 0.20

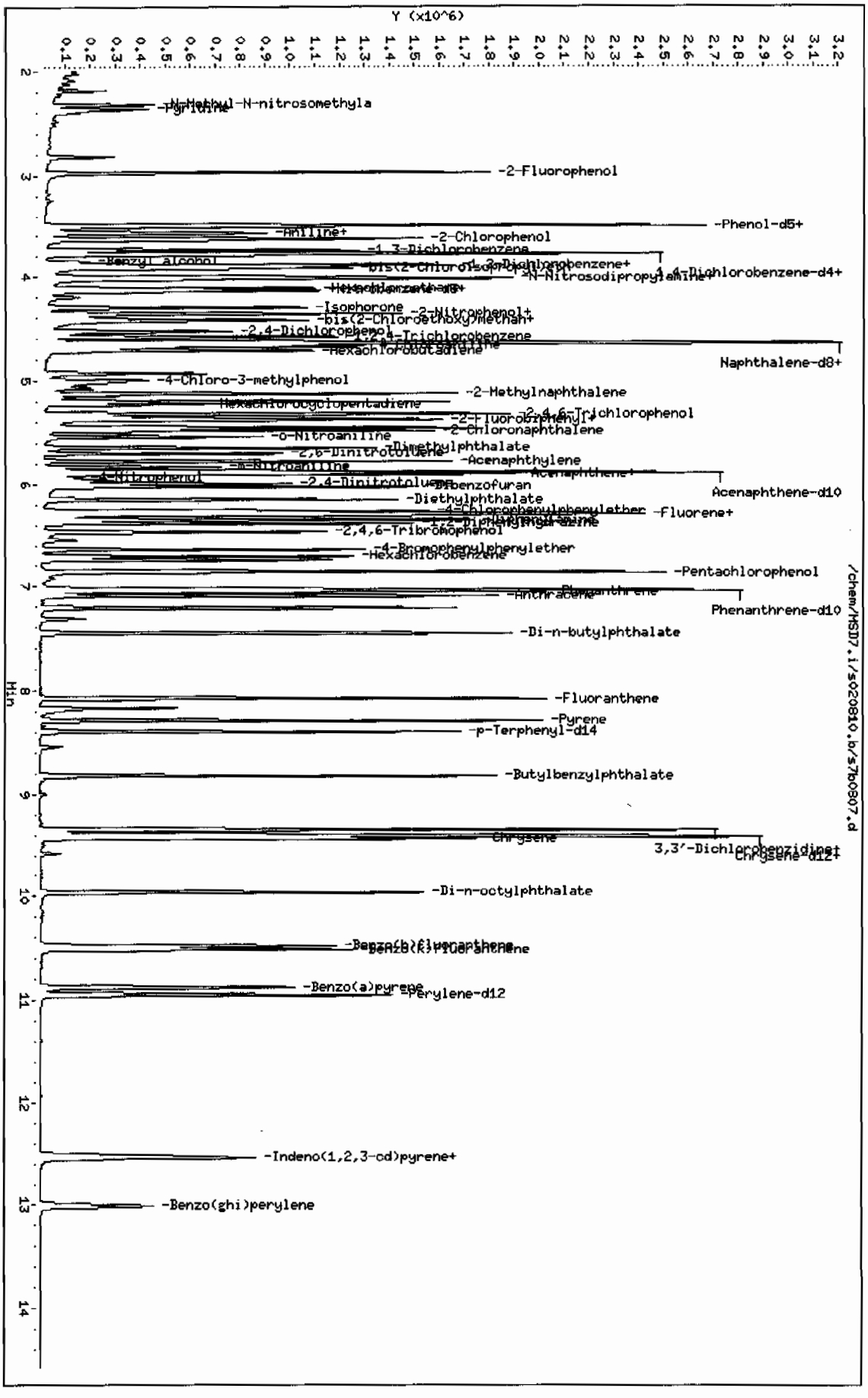

Page 1

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1604	Date Collected:	02/02/2010 12:00	Matrix:	S
Lab Sample ID:	1202034801	Date Received:	02/05/2010 09:00	%Moisture:	15.4
Client Sample:	QC for batch 949739	Client:	LANL010	Project:	QC
Client ID:	RE03-10-12247MS	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	949740	Inst:	MSD7.I	Dilution:	1
Run Date:	02/08/2010 14:20	Analyst:	JMB3	Inj. Vol:	.5 uL
Prep Date:	02/05/2010 19:48	Aliquot:	30.04 g	Final Volume:	1 mL
Data File:	s7b0811.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine		512	ug/kg	78.7	393
108-95-2	Phenol		1130	ug/kg	78.7	393
95-57-8	2-Chlorophenol		1260	ug/kg	78.7	393
106-46-7	1,4-Dichlorobenzene		1280	ug/kg	78.7	393
621-64-7	N-Nitrosodipropylamine		915	ug/kg	78.7	393
59-50-7	4-Chloro-3-methylphenol		1330	ug/kg	78.7	393
83-32-9	Acenaphthene		1190	ug/kg	13.0	39.3
121-14-2	2,4-Dinitrotoluene		1540	ug/kg	39.3	393
100-02-7	4-Nitrophenol		1030	ug/kg	130	393
87-86-5	Pentachlorophenol		1290	ug/kg	98.3	393
129-00-0	Pyrene		1460	ug/kg	11.8	39.3
110-86-1	Pyridine		728	ug/kg	78.7	393
62-53-3	Aniline		1160	ug/kg	118	393
111-44-4	bis(2-Chloroethyl) ether		1060	ug/kg	78.7	393
541-73-1	1,3-Dichlorobenzene		1580	ug/kg	78.7	393
100-51-6	Benzyl alcohol	U	393	ug/kg	118	393
95-50-1	1,2-Dichlorobenzene		1560	ug/kg	78.7	393
108-60-1	bis(2-Chloroisopropyl)ether		1090	ug/kg	78.7	393
95-48-7	o-Cresol		1690	ug/kg	78.7	393
65794-96-9	m,p-Cresols		1320	ug/kg	118	393
67-72-1	Hexachloroethane		1340	ug/kg	78.7	393
98-95-3	Nitrobenzene		1220	ug/kg	78.7	393
78-59-1	Isophorone		1010	ug/kg	78.7	393
88-75-5	2-Nitrophenol		1330	ug/kg	78.7	393
105-67-9	2,4-Dimethylphenol		1090	ug/kg	138	393
111-91-1	bis(2-Chloroethoxy)methane		946	ug/kg	78.7	393
120-83-2	2,4-Dichlorophenol		1190	ug/kg	78.7	393
65-85-0	Benzoic acid		1060	ug/kg	197	787
91-20-3	Naphthalene		1160	ug/kg	11.8	39.3
106-47-8	4-Chloroaniline		1220	ug/kg	78.7	393
87-68-3	Hexachlorobutadiene		1330	ug/kg	78.7	393
91-57-6	2-Methylnaphthalene		1480	ug/kg	7.87	39.3
77-47-4	Hexachlorocyclopentadiene		1350	ug/kg	78.7	393
88-06-2	2,4,6-Trichlorophenol		1500	ug/kg	78.7	393
95-95-4	2,4,5-Trichlorophenol		1650	ug/kg	78.7	393
91-58-7	2-Chloronaphthalene		1440	ug/kg	13.0	39.3
88-74-4	2-Nitroaniline		1230	ug/kg	78.7	393
99-09-2	*o-Nitroaniline* 3-Nitroaniline		1430	ug/kg	78.7	393

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1604	**Date Collected:**	02/02/2010 12:00	**Matrix:**	S
Lab Sample ID:	1202034801	**Date Received:**	02/05/2010 09:00	**%Moisture:**	15.4
Client Sample:	QC for batch 949739	**Client:**	LANL010	**Project:**	QC
Client ID:	RE03-10-12247MS	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	949740	**Inst:**	MSD7.I	**Dilution:**	1
Run Date:	02/08/2010 14:20	**Analyst:**	JMB3	**Inj. Vol:**	.5 uL
Prep Date:	02/05/2010 19:48	**Aliquot:**	30.04 g	**Final Volume:**	1 mL
Data File:	s7b0811.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate		1480	ug/kg	78.7	393
606-20-2	2,6-Dinitrotoluene		1450	ug/kg	39.3	393
208-96-8	Acenaphthylene		1400	ug/kg	11.8	39.3
51-28-5	2,4-Dinitrophenol	J	191	ug/kg	149	787
132-64-9	Dibenzofuran		1390	ug/kg	78.7	393
84-66-2	Diethylphthalate		1470	ug/kg	78.7	393
86-73-7	Fluorene		1320	ug/kg	11.8	39.3
7005-72-3	4-Chlorophenylphenylether		1470	ug/kg	78.7	393
534-52-1	2-Methyl-4,6-dinitrophenol		922	ug/kg	78.7	393
100-01-6	4-Nitroaniline		1720	ug/kg	118	393
	p-Nitroaniline					
122-39-4	Diphenylamine		1460	ug/kg	78.7	393
122-66-7	Azobenzene		1330	ug/kg	78.7	393
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether		1640	ug/kg	78.7	393
118-74-1	Hexachlorobenzene		1980	ug/kg	78.7	393
85-01-8	Phenanthrene		1570	ug/kg	11.8	39.3
120-12-7	Anthracene		1620	ug/kg	7.87	39.3
84-74-2	Di-n-butylphthalate		1640	ug/kg	78.7	393
206-44-0	Fluoranthene		1580	ug/kg	11.8	39.3
85-68-7	Butylbenzylphthalate		1710	ug/kg	78.7	393
56-55-3	Benzo(a)anthracene		1570	ug/kg	11.8	39.3
91-94-1	3,3'-Dichlorobenzidine		1630	ug/kg	118	393
218-01-9	Chrysene		1580	ug/kg	11.8	39.3
117-81-7	bis(2-Ethylhexyl)phthalate		1880	ug/kg	78.7	393
117-84-0	Di-n-octylphthalate		1510	ug/kg	78.7	393
205-99-2	Benzo(b)fluoranthene		1600	ug/kg	11.8	39.3
207-08-9	Benzo(k)fluoranthene		1640	ug/kg	11.8	39.3
50-32-8	Benzo(a)pyrene		1630	ug/kg	11.8	39.3
193-39-5	Indeno(1,2,3-cd)pyrene		1870	ug/kg	11.8	39.3
53-70-3	Dibenzo(a,h)anthracene		1860	ug/kg	11.8	39.3
191-24-2	Benzo(ghi)perylene		1810	ug/kg	11.8	39.3
120-82-1	1,2,4-Trichlorobenzene		1390	ug/kg	78.7	393

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Data file : /chem/MSD7.i/s020810.b/s7b0811.d
Lab Smp Id: 1202034801 Client Smp ID: RE03-10-12247MS
Inj Date : 08-FEB-2010 14:20
Operator : JMB3 Inst ID: MSD7.i
Smp Info : |1202034801|949740|1|SVM|1|MS_LANL
Misc Info : |MSD8270_S|WBN100122-01|
Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness
Method : /chem/MSD7.i/s020810.b/MSD7-M8270C-AQA-011310.m
Meth Date : 09-Feb-2010 07:54 jos00786 Quant Type: ISTD
Cal Date : 15-JAN-2010 17:38 Cal File: s7a1511.d
Als bottle: 9 QC Sample: MS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-1604.sub
Target Version: 3.50
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.04000	weight of sample
M	15.36620	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.769	3.773	(1.000)	368572	40.0000	
* 29 Naphthalene-d8	136	4.630	4.635	(1.000)	1500239	40.0000	
* 46 Acenaphthene-d10	164	5.878	5.882	(1.000)	741716	40.0000	
* 67 Phenanthrene-d10	188	7.029	7.029	(1.000)	1332085	40.0000	
* 91 Chrysene-d12	240	9.417	9.412	(1.000)	1085469	40.0000	
* 98 Perylene-d12	264	10.953	10.953	(1.000)	888580	40.0000	
$ 3 2-Fluorophenol	112	2.964	2.969	(0.787)	593241	56.0122	2200
$ 5 Phenol-d5	99	3.494	3.494	(0.927)	696492	51.0048	2010
$ 20 Nitrobenzene-d5	82	4.130	4.135	(0.892)	369180	29.8315	1170
$ 39 2-Fluorobiphenyl	172	5.372	5.377	(0.914)	688406	31.4964	1240
$ 60 2,4,6-Tribromophenol	329	6.470	6.470	(1.101)	178129	95.4614	3750
$ 81 p-Terphenyl-d14	244	8.391	8.391	(0.891)	800500	43.1779	1700

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
6 Phenol	94	3.504	3.504	(0.930)	391562	28.7014	1130
8 2-Chlorophenol	128	3.639	3.639	(0.965)	307287	32.0926	1260
11 1,4-Dichlorobenzene	146	3.778	3.783	(1.003)	342441	32.5764	1280
17 N-Nitrosodipropylamine	70	4.009	4.019	(1.064)	186160	23.2546	915(Q)
28 1,2,4-Trichlorobenzene	180	4.582	4.582	(0.990)	345724	35.2777	1390
33 4-Chloro-3-methylphenol	107	4.996	4.987	(1.079)	315214	33.8998	1330
47 Acenaphthene	154	5.902	5.907	(1.004)	591578	30.3218	1190
50 2,4-Dinitrotoluene	165	5.998	5.998	(1.020)	240582	39.1234	1540
52 4-Nitrophenol	139	5.969	5.931	(1.016)	91643	26.1236	1030(M)
65 Pentachlorophenol	266	6.865	6.860	(0.977)	84210	32.8276	1290
79 Pyrene	202	8.290	8.290	(0.880)	1273801	37.1313	1460
2 Pyridine	79	2.348	2.329	(0.623)	173920	18.5160	728
4 Aniline	66	3.557	3.561	(0.944)	181135	29.4288	1160(Q)
7 bis(2-Chloroethyl) ether	63	3.571	3.576	(0.948)	300292	26.9198	1060(Q)
9 1,3-Dichlorobenzene	146	3.735	3.740	(0.991)	451029	40.2500	1580
13 1,2-Dichlorobenzene	146	3.879	3.889	(1.029)	382296	39.6866	1560
14 bis(2-Chloroisopropyl)ether	45	3.913	3.918	(1.038)	718151	27.6990	1090
15 o-Cresol	107	3.894	3.894	(1.033)	313946	42.9642	1690(Q)
18 m,p-Cresols	107	3.995	4.000	(1.060)	370722	33.6637	1320
19 Hexachloroethane	117	4.110	4.110	(1.091)	145394	34.0206	1340
21 Nitrobenzene	77	4.144	4.149	(0.895)	377451	30.9538	1220
22 Isophorone	82	4.298	4.303	(0.928)	621392	25.6784	1010
23 2-Nitrophenol	139	4.356	4.361	(0.941)	172102	33.8919	1330
24 2,4-Dimethylphenol	122	4.361	4.361	(0.942)	265064	27.6082	1080
25 bis(2-Chloroethoxy)methane	93	4.423	4.423	(0.955)	332695	24.0411	946
26 2,4-Dichlorophenol	162	4.529	4.529	(0.978)	261795	30.2310	1190
27 Benzoic acid	105	4.428	4.428	(0.956)	140268	26.9012	1060
30 Naphthalene	128	4.650	4.650	(1.004)	1009616	29.5957	1160
31 4-Chloroaniline	127	4.669	4.669	(1.008)	437196	30.9167	1220
32 Hexachlorobutadiene	225	4.712	4.717	(1.018)	171506	33.9089	1330
34 2-Methylnaphthalene	142	5.126	5.126	(1.107)	795292	37.5067	1480
36 Hexachlorocyclopentadiene	237	5.228	5.232	(0.889)	130339	34.3362	1350
37 2,4,6-Trichlorophenol	196	5.319	5.319	(0.905)	196657	38.0698	1500
38 2,4,5-Trichlorophenol	196	5.353	5.348	(0.911)	242669	41.9107	1650
40 2-Chloronaphthalene	162	5.478	5.478	(0.932)	705034	36.5727	1440
42 o-Nitroaniline	65	5.541	5.541	(0.943)	215071	31.2021	1230
41 m-Nitroaniline	138	5.834	5.834	(0.993)	178242	36.2551	1430
43 Dimethylphthalate	163	5.647	5.656	(0.961)	760202	37.6866	1480
44 2,6-Dinitrotoluene	165	5.704	5.709	(0.970)	174463	36.8132	1450
45 Acenaphthylene	152	5.781	5.781	(0.984)	1114445	35.4925	1400
48 2,4-Dinitrophenol	184	5.916	5.907	(1.007)	8296	4.86070	191(aQR)
49 Dibenzofuran	168	6.027	6.027	(1.025)	918051	35.3446	1390
51 Diethylphthalate	149	6.152	6.157	(1.047)	806411	37.3084	1470
53 Fluorene	166	6.282	6.287	(1.069)	781104	33.6257	1320
54 4-Chlorophenylphenylether	204	6.263	6.263	(1.066)	373506	37.2892	1470
55 2-Methyl-4,6-dinitrophenol	198	6.311	6.306	(0.898)	65088	23.4385	922
56 p-Nitroaniline	138	6.292	6.292	(1.070)	191417	43.6935	1720

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
133 Diphenylamine	169	6.350	6.350	(0.903)	645418	37.2368	1460
58 1,2-Diphenylhydrazine	77	6.383	6.388	(0.908)	771955	33.9364	1330
61 4-Bromophenylphenylether	248	6.643	6.643	(0.945)	214547	41.6812	1640
63 Hexachlorobenzene	284	6.711	6.711	(0.955)	242726	50.4256	1980(R)
68 Phenanthrene	178	7.053	7.053	(1.003)	1172671	39.9559	1570
69 Anthracene	178	7.091	7.091	(1.009)	1147559	41.0755	1620
72 Di-n-butylphthalate	149	7.452	7.452	(1.060)	1463327	41.7272	1640
76 Fluoranthene	202	8.078	8.073	(1.149)	1275380	40.2298	1580
85 Butylbenzylphthalate	149	8.825	8.825	(0.937)	643931	43.5268	1710
89 Benzo(a)anthracene	228	9.398	9.398	(0.998)	1040491	39.9519	1570
90 3,3'-Dichlorobenzidine	252	9.354	9.349	(0.993)	296088	41.4551	1630
92 Chrysene	228	9.441	9.436	(1.003)	959093	40.1072	1580
93 bis(2-Ethylhexyl)phthalate	149	9.345	9.349	(0.992)	837310	47.7526	1880
94 Di-n-octylphthalate	149	9.961	9.961	(0.909)	1250435	38.3421	1510
95 Benzo(b)fluoranthene	252	10.486	10.481	(0.957)	938223	40.6548	1600
96 Benzo(k)fluoranthene	252	10.515	10.515	(0.960)	913168	41.7950	1640
97 Benzo(a)pyrene	252	10.886	10.881	(0.994)	807031	41.3652	1630
99 Indeno(1,2,3-cd)pyrene	276	12.547	12.532	(1.146)	698269	47.5920	1870
100 Dibenzo(a,h)anthracene	278	12.561	12.547	(1.147)	550845	47.4136	1860
101 Benzo(ghi)perylene	276	13.024	13.014	(1.189)	566980	45.8916	1800
1 N-Methyl-N-nitrosomethylamine	74	2.319	2.295	(0.615)	103082	13.0272	512(R)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Data File: /chem/MSD7.i/s020810.b/s7b0811.d
Date : 08-FEB-2010 14:20
Client ID: RE03-10-12247MS
Sample Info: !120203480!1949740!1!SUM!1!MS_LANL
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD7.i
Operator: JMB3
Column diameter: 0.20

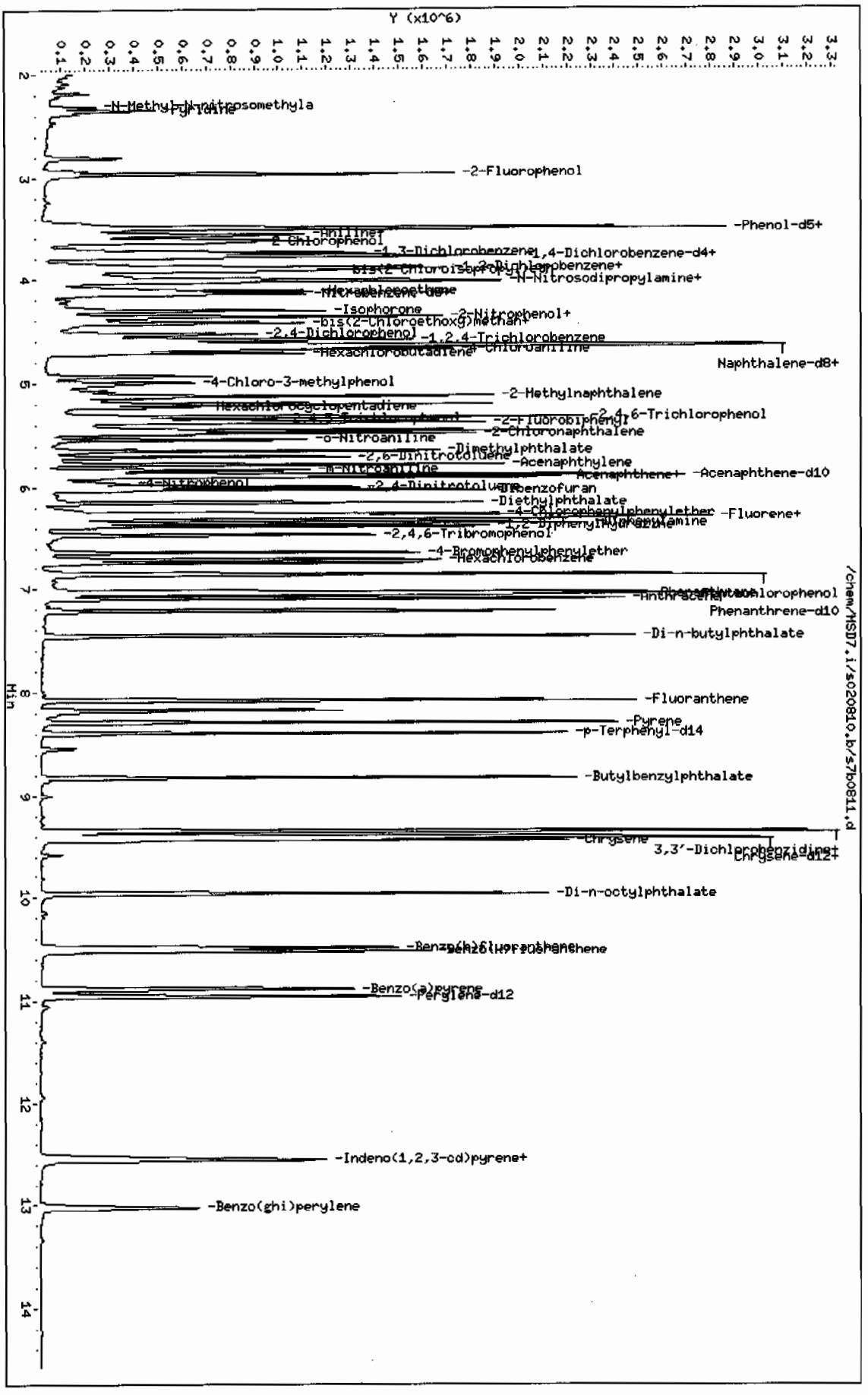

Page 1

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1604	**Date Collected:**	02/02/2010 12:00	**Matrix:**	S
Lab Sample ID:	1202034802	**Date Received:**	02/05/2010 09:00	**%Moisture:**	15.4
Client Sample:	QC for batch 949739	**Client:**	LANL010	**Project:**	QC
Client ID:	RE03-10-12247MSD	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	949740	**Inst:**	MSD7.I	**Dilution:**	1
Run Date:	02/08/2010 14:42	**Analyst:**	JMB3	**Inj. Vol:**	.5 uL
Prep Date:	02/05/2010 19:48	**Aliquot:**	30.05 g	**Final Volume:**	1 mL
Data File:	s7b0812.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine		782	ug/kg	78.6	393
108-95-2	Phenol		1060	ug/kg	78.6	393
95-57-8	2-Chlorophenol		1270	ug/kg	78.6	393
106-46-7	1,4-Dichlorobenzene		1300	ug/kg	78.6	393
621-64-7	N-Nitrosodipropylamine		783	ug/kg	78.6	393
59-50-7	4-Chloro-3-methylphenol		1210	ug/kg	78.6	393
83-32-9	Acenaphthene		1300	ug/kg	13.0	39.3
121-14-2	2,4-Dinitrotoluene		1670	ug/kg	39.3	393
100-02-7	4-Nitrophenol		732	ug/kg	130	393
87-86-5	Pentachlorophenol		1300	ug/kg	98.3	393
129-00-0	Pyrene		1340	ug/kg	11.8	39.3
110-86-1	Pyridine		842	ug/kg	78.6	393
62-53-3	Aniline		1080	ug/kg	118	393
111-44-4	bis(2-Chloroethyl) ether		900	ug/kg	78.6	393
541-73-1	1,3-Dichlorobenzene		1220	ug/kg	78.6	393
100-51-6	Benzyl alcohol	U	393	ug/kg	118	393
95-50-1	1,2-Dichlorobenzene		1380	ug/kg	78.6	393
108-60-1	bis(2-Chloroisopropyl)ether		957	ug/kg	78.6	393
95-48-7	o-Cresol		1620	ug/kg	78.6	393
65794-96-9	m,p-Cresols		1310	ug/kg	118	393
67-72-1	Hexachloroethane		1200	ug/kg	78.6	393
98-95-3	Nitrobenzene		1030	ug/kg	78.6	393
78-59-1	Isophorone		960	ug/kg	78.6	393
88-75-5	2-Nitrophenol		1300	ug/kg	78.6	393
105-67-9	2,4-Dimethylphenol		1070	ug/kg	138	393
111-91-1	bis(2-Chloroethoxy)methane		750	ug/kg	78.6	393
120-83-2	2,4-Dichlorophenol		1190	ug/kg	78.6	393
65-85-0	Benzoic acid		1190	ug/kg	197	786
91-20-3	Naphthalene		821	ug/kg	11.8	39.3
106-47-8	4-Chloroaniline		1240	ug/kg	78.6	393
87-68-3	Hexachlorobutadiene		1190	ug/kg	78.6	393
91-57-6	2-Methylnaphthalene		1230	ug/kg	7.86	39.3
77-47-4	Hexachlorocyclopentadiene		1330	ug/kg	78.6	393
88-06-2	2,4,6-Trichlorophenol		1630	ug/kg	78.6	393
95-95-4	2,4,5-Trichlorophenol		1650	ug/kg	78.6	393
91-58-7	2-Chloronaphthalene		1280	ug/kg	13.0	39.3
88-74-4	2-Nitroaniline		1230	ug/kg	78.6	393
99-09-2	*o-Nitroaniline* 3-Nitroaniline		1580	ug/kg	78.6	393

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1604	**Date Collected:**	02/02/2010 12:00	**Matrix:**	S
Lab Sample ID:	1202034802	**Date Received:**	02/05/2010 09:00	**%Moisture:**	15.4
Client Sample:	QC for batch 949739	**Client:**	LANL010	**Project:**	QC
Client ID:	RE03-10-12247MSD	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	949740	**Inst:**	MSD7.I	**Dilution:**	1
Run Date:	02/08/2010 14:42	**Analyst:**	JMB3	**Inj. Vol:**	.5 uL
Prep Date:	02/05/2010 19:48	**Aliquot:**	30.05 g	**Final Volume:**	1 mL
Data File:	s7b0812.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate		1450	ug/kg	78.6	393
606-20-2	2,6-Dinitrotoluene		1460	ug/kg	39.3	393
208-96-8	Acenaphthylene		1420	ug/kg	11.8	39.3
51-28-5	2,4-Dinitrophenol	J	541	ug/kg	149	786
132-64-9	Dibenzofuran		1400	ug/kg	78.6	393
84-66-2	Diethylphthalate		1480	ug/kg	78.6	393
86-73-7	Fluorene		1350	ug/kg	11.8	39.3
7005-72-3	4-Chlorophenylphenylether		1410	ug/kg	78.6	393
534-52-1	2-Methyl-4,6-dinitrophenol		950	ug/kg	78.6	393
100-01-6	4-Nitroaniline		1820	ug/kg	118	393
	p-Nitroaniline					
122-39-4	Diphenylamine		1320	ug/kg	78.6	393
122-66-7	Azobenzene		1230	ug/kg	78.6	393
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether		1530	ug/kg	78.6	393
118-74-1	Hexachlorobenzene		1820	ug/kg	78.6	393
85-01-8	Phenanthrene		1420	ug/kg	11.8	39.3
120-12-7	Anthracene		1500	ug/kg	7.86	39.3
84-74-2	Di-n-butylphthalate		1520	ug/kg	78.6	393
206-44-0	Fluoranthene		1500	ug/kg	11.8	39.3
85-68-7	Butylbenzylphthalate		1590	ug/kg	78.6	393
56-55-3	Benzo(a)anthracene		1440	ug/kg	11.8	39.3
91-94-1	3,3'-Dichlorobenzidine		1470	ug/kg	118	393
218-01-9	Chrysene		1510	ug/kg	11.8	39.3
117-81-7	bis(2-Ethylhexyl)phthalate		1750	ug/kg	78.6	393
117-84-0	Di-n-octylphthalate		1420	ug/kg	78.6	393
205-99-2	Benzo(b)fluoranthene		1570	ug/kg	11.8	39.3
207-08-9	Benzo(k)fluoranthene		1490	ug/kg	11.8	39.3
50-32-8	Benzo(a)pyrene		1520	ug/kg	11.8	39.3
193-39-5	Indeno(1,2,3-cd)pyrene		1760	ug/kg	11.8	39.3
53-70-3	Dibenzo(a,h)anthracene		1770	ug/kg	11.8	39.3
191-24-2	Benzo(ghi)perylene		1730	ug/kg	11.8	39.3
120-82-1	1,2,4-Trichlorobenzene		1230	ug/kg	78.6	393

GEL Laboratories LLC

GEL Laboratories, LLC
Data file : /chem/MSD7.i/s020810.b/s7b0812.d
Lab Smp Id: 1202034802 Client Smp ID: RE03-10-12247MSD
Inj Date : 08-FEB-2010 14:42
Operator : JMB3 Inst ID: MSD7.i
Smp Info : |1202034802|949740|1|SVM|1|MSD_LANL
Misc Info : |MSD8270_S|WBN100122-01|
Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness
Method : /chem/MSD7.i/s020810.b/MSD7-M8270C-AQA-011310.m
Meth Date : 09-Feb-2010 07:54 jos00786 Quant Type: ISTD
Cal Date : 15-JAN-2010 17:38 Cal File: s7a1511.d
Als bottle: 10 QC Sample: MSD
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-1604.sub
Target Version: 3.50
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.05000	weight of sample
M	15.36620	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.759	3.773	(1.000)	355501	40.0000	
* 29 Naphthalene-d8	136	4.630	4.635	(1.000)	1456632	40.0000	
* 46 Acenaphthene-d10	164	5.878	5.882	(1.000)	651684	40.0000	
* 67 Phenanthrene-d10	188	7.029	7.029	(1.000)	1302921	40.0000	
* 91 Chrysene-d12	240	9.412	9.412	(1.000)	1074696	40.0000	
* 98 Perylene-d12	264	10.953	10.953	(1.000)	877551	40.0000	
$ 3 2-Fluorophenol	112	2.969	2.969	(0.790)	549544	53.7942	2120
$ 5 Phenol-d5	99	3.489	3.494	(0.928)	646773	49.1053	1930
$ 20 Nitrobenzene-d5	82	4.130	4.135	(0.892)	309532	25.7604	1010
$ 39 2-Fluorobiphenyl	172	5.372	5.377	(0.914)	592380	30.8473	1210
$ 60 2,4,6-Tribromophenol	329	6.470	6.470	(1.101)	148550	90.6079	3560
$ 81 p-Terphenyl-d14	244	8.391	8.391	(0.892)	727821	39.6513	1560

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
6 Phenol	94	3.499	3.504	(0.931)	355193	26.9928	1060
8 2-Chlorophenol	128	3.634	3.639	(0.967)	298278	32.2970	1270
11 1,4-Dichlorobenzene	146	3.773	3.783	(1.004)	333984	32.9401	1300
17 N-Nitrosodipropylamine	70	4.009	4.019	(1.067)	153685	19.9038	783(Q)
28 1,2,4-Trichlorobenzene	180	4.582	4.582	(0.990)	297652	31.2817	1230
33 4-Chloro-3-methylphenol	107	4.992	4.987	(1.078)	278540	30.8524	1210
47 Acenaphthene	154	5.902	5.907	(1.004)	565014	32.9612	1300
50 2,4-Dinitrotoluene	165	5.998	5.998	(1.020)	230044	42.5779	1670
52 4-Nitrophenol	139	5.945	5.931	(1.011)	57342	18.6041	732(Q)
65 Pentachlorophenol	266	6.865	6.860	(0.977)	82736	32.9749	1300
79 Pyrene	202	8.285	8.290	(0.880)	1160638	34.1717	1340
2 Pyridine	79	2.367	2.329	(0.630)	193912	21.4034	842
4 Aniline	66	3.552	3.561	(0.945)	162614	27.3911	1080(Q)
7 bis(2-Chloroethyl) ether	63	3.566	3.576	(0.949)	246314	22.8928	900(Q)
9 1,3-Dichlorobenzene	146	3.730	3.740	(0.992)	335036	30.9980	1220
13 1,2-Dichlorobenzene	146	3.874	3.889	(1.031)	327010	35.1955	1380
14 bis(2-Chloroisopropyl)ether	45	3.908	3.918	(1.040)	608920	24.3495	957
15 o-Cresol	107	3.894	3.894	(1.036)	290786	41.2579	1620(Q)
18 m,p-Cresols	107	3.990	4.000	(1.061)	352679	33.2028	1300(Q)
19 Hexachloroethane	117	4.101	4.110	(1.091)	125757	30.5077	1200
21 Nitrobenzene	77	4.144	4.149	(0.895)	309277	26.1223	1030
22 Isophorone	82	4.298	4.303	(0.928)	573792	24.4212	960
23 2-Nitrophenol	139	4.356	4.361	(0.941)	162745	33.0087	1300
24 2,4-Dimethylphenol	122	4.361	4.361	(0.942)	253362	27.1793	1070
25 bis(2-Chloroethoxy)methane	93	4.419	4.423	(0.954)	256177	19.0659	750
26 2,4-Dichlorophenol	162	4.525	4.529	(0.977)	254755	30.2987	1190
27 Benzoic acid	105	4.428	4.428	(0.956)	160528	30.2048	1190
30 Naphthalene	128	4.645	4.650	(1.003)	691732	20.8843	821
31 4-Chloroaniline	127	4.664	4.669	(1.007)	432573	31.5055	1240
32 Hexachlorobutadiene	225	4.712	4.717	(1.018)	148142	30.1664	1190
34 2-Methylnaphthalene	142	5.126	5.126	(1.107)	646250	31.3902	1230
36 Hexachlorocyclopentadiene	237	5.228	5.232	(0.889)	112715	33.7956	1330
37 2,4,6-Trichlorophenol	196	5.319	5.319	(0.905)	187602	41.3341	1620
38 2,4,5-Trichlorophenol	196	5.353	5.348	(0.911)	213844	42.0347	1650
40 2-Chloronaphthalene	162	5.478	5.478	(0.932)	550886	32.5244	1280
42 o-Nitroaniline	65	5.541	5.541	(0.943)	189457	31.2834	1230
41 m-Nitroaniline	138	5.834	5.834	(0.993)	173299	40.1195	1580
43 Dimethylphthalate	163	5.646	5.656	(0.961)	651603	36.7656	1440
44 2,6-Dinitrotoluene	165	5.704	5.709	(0.970)	154162	37.0235	1460
45 Acenaphthylene	152	5.781	5.781	(0.984)	996886	36.1346	1420
48 2,4-Dinitrophenol	184	5.911	5.907	(1.006)	20639	13.7632	541(aQ)
49 Dibenzofuran	168	6.027	6.027	(1.025)	812432	35.5995	1400
51 Diethylphthalate	149	6.152	6.157	(1.047)	713800	37.5861	1480
53 Fluorene	166	6.282	6.287	(1.069)	701566	34.3741	1350
54 4-Chlorophenylphenylether	204	6.258	6.263	(1.065)	316479	35.9610	1410
55 2-Methyl-4,6-dinitrophenol	198	6.306	6.306	(0.897)	65592	24.1487	950
56 p-Nitroaniline	138	6.287	6.292	(1.070)	178023	46.2502	1820

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
133 Diphenylamine	169	6.350	6.350	(0.903)	568717	33.5461	1320
58 1,2-Diphenylhydrazine	77	6.383	6.388	(0.908)	698556	31.3971	1230
61 4-Bromophenylphenylether	248	6.643	6.643	(0.945)	195549	38.8407	1530
63 Hexachlorobenzene	284	6.711	6.711	(0.955)	218093	46.3223	1820
68 Phenanthrene	178	7.048	7.053	(1.003)	1037329	36.1356	1420
69 Anthracene	178	7.091	7.091	(1.009)	1040854	38.0900	1500
72 Di-n-butylphthalate	149	7.452	7.452	(1.060)	1323354	38.5805	1520
76 Fluoranthene	202	8.073	8.073	(1.149)	1179854	38.0496	1500
85 Butylbenzylphthalate	149	8.825	8.825	(0.938)	590991	40.3487	1590
89 Benzo(a)anthracene	228	9.398	9.398	(0.998)	946666	36.7136	1440
90 3,3'-Dichlorobenzidine	252	9.354	9.349	(0.994)	264742	37.4379	1470
92 Chrysene	228	9.436	9.436	(1.003)	908255	38.3620	1510
93 bis(2-Ethylhexyl)phthalate	149	9.345	9.349	(0.993)	773960	44.5822	1750
94 Di-n-octylphthalate	149	9.961	9.961	(0.909)	1164923	36.1690	1420
95 Benzo(b)fluoranthene	252	10.481	10.481	(0.957)	908873	39.8780	1570
96 Benzo(k)fluoranthene	252	10.515	10.515	(0.960)	817106	37.8684	1490
97 Benzo(a)pyrene	252	10.881	10.881	(0.993)	744864	38.6586	1520
99 Indeno(1,2,3-cd)pyrene	276	12.537	12.532	(1.145)	648617	44.7634	1760
100 Dibenzo(a,h)anthracene	278	12.552	12.547	(1.146)	516442	45.0111	1770
101 Benzo(ghi)perylene	276	13.019	13.014	(1.189)	537355	44.0404	1730
1 N-Methyl-N-nitrosomethylamine	74	2.334	2.295	(0.621)	151796	19.8889	782

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.

Data File: /chem/MSD7.i/s020810.b/s7b0812.d
Date : 08-FEB-2010 14:42
Client ID: REO3-10-12247MSD
Sample Info: 1120203480219497401|1SVM1|MSD_LANL
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD7.i
Operator: JMB3
Column diameter: 0.20

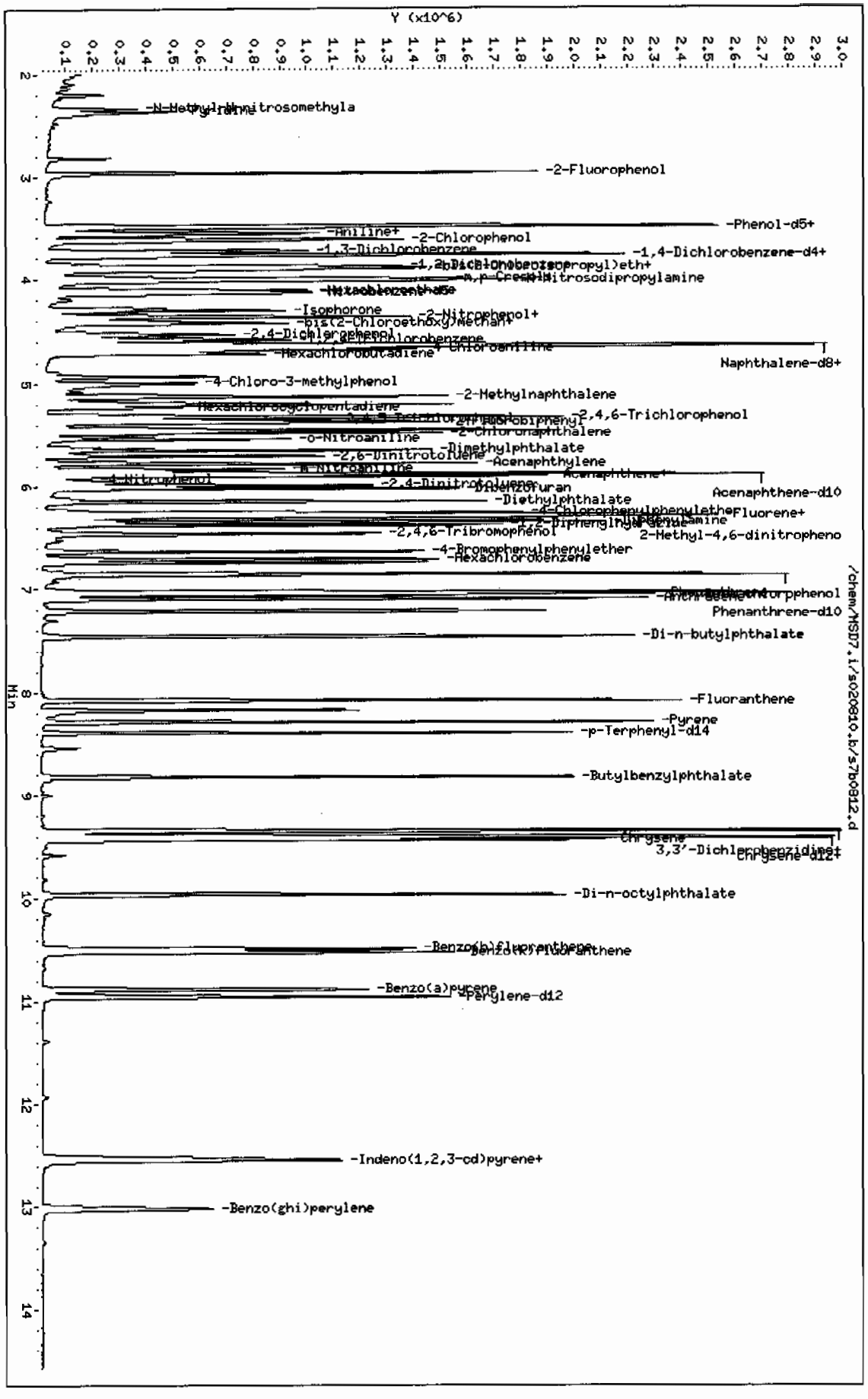

Miscellaneous Data

Prep Logbook

Extraction of Semivolatile and Nonvolatile Organic Compounds from Soil, Sludge, and Other Miscellaneous Solid Samples

Batch ID: 949739 **Verified by:** _____

Analyst: Alberto Velasco

Method: SW846 3550B

Lab SOP: GL-OA-E-010 REV# 18

Instrument: Semi-Volatiles Manual

Sample ID	Run Date	Aliquot (g)	Prepped Aliquot (mL)	Prepped Factor (mL/g)
1202034799 MB	05-FEB-2010 19:48:00	30	1	0.03333
1202034800 LCS	05-FEB-2010 19:48:00	30	1	0.03333
246333001	05-FEB-2010 19:48:00	30.15	1	0.03317
1202034801 MS (246333001)	05-FEB-2010 19:48:00	30.04	1	0.03329
1202034802 MSD (246333001)	05-FEB-2010 19:48:00	30.05	1	0.03328
246333002	05-FEB-2010 19:48:00	30.01	1	0.03332

Type	Sample Id	Description	Serial Number	Spike Amt	Units	Comments:
LCS	1202034800	BNA LCS w/o Benzidine 50ppm	UE100127-12	1	mL	Verified By: AJS
LCS	1202034800	BENZIDINE LCS	UE100203-22	1	mL	Final Solvent: CH2Cl2
MS	1202034801	BNA LCS w/o Benzidine 50ppm	UE100127-12	1	mL	
MS	1202034801	BENZIDINE LCS	UE100203-22	1	mL	
MSD	1202034802	BNA LCS w/o Benzidine 50ppm	UE100127-12	1	mL	
MSD	1202034802	BENZIDINE LCS	UE100203-22	1	mL	
SURR	All	BNA for all Surrogate	UE100203-10	1	mL	
REGNT	All	Methylene Chloride	1262945-D	150	mL	
REGNT	All	Acetone	1264558	150	mL	
SOURC	All	SODIUM SULFATE	1265308	30	g	

GEL ORGANIC RUN LOG INSTRUMENT ID: MSD7

DATE: 02/08/2010 METHOD: See raw data OPERATOR: JMB3 REVIEWED BY:_____ DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT:1239699-D
Multiplier Voltage: 1776 Emv Extr. Injection Volume: 0.5, 1.0 ul
DFTPP Solution ID: WBN100107-01 Internal Std ID: WBN100122-01
CALIBRATION & QC INFORMATION:
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.

SOP: GL-OA-E-009 Rev. 23 Sequence Number: /chem/MSD7.i/s020810.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
s7b0801.d	WBN100107-01	JMB3	08-FEB-2010 09:26	DFTPP	s020810	1.0	DFTPP	DUSE
s7b0802.d	WBN100107-01	JMB3	08-FEB-2010 09:41	DFTPP	s020810	1.0	DFTPP	DUSE
s7b0803.d	WBN100107-01	JMB3	08-FEB-2010 10:03	DFTPP	s020810	1.0	DFTPP	8270c TUNE: PASSES
s7b0804.d	WBN100121-17.3	JMB3	08-FEB-2010 10:16	CVS	s020810	1.0	MEGACVS	8270c MEGA CVS 336767
s7b0805.d	WBN100120-03.3	JMB3	08-FEB-2010 10:43	CVS	s020810	1.0	APCVS	8270c AP CVS
s7b0806.d	1202034799	JMB3	08-FEB-2010 11:04	949740	10-1604	1.0	MB	
s7b0807.d	1202034800	JMB3	08-FEB-2010 11:25	949740	10-1604	1.0	LCS	
s7b0808.d	WBN100127-08.2	JMB3	08-FEB-2010 11:47	CVS	s020810	1.0	NEVCVS	8270c NEV CVS DUSE
s7b0809.d	WBN100205-23.4	JMB3	08-FEB-2010 12:09	CVS	s020810	1.0	PESTCVS	8270c PEST CVS
s7b0810.d	246333001	JMB3	08-FEB-2010 13:59	949740	10-1604	1.0	LANL	
s7b0811.d	1202034801	JMB3	08-FEB-2010 14:20	949740	10-1604	1.0	MS_LANL	
s7b0812.d	1202034802	JMB3	08-FEB-2010 14:42	949740	10-1604	1.0	MSD_LANL	
s7b0813.d	246333002	JMB3	08-FEB-2010 15:04	949740	10-1604	1.0	LANL	
s7b0814.d	245631003	JMB3	08-FEB-2010 15:25	946353	10-1428	1.0	LANL	REPORT: rerun of s4b0521
s7b0815.d	245597006	JMB3	08-FEB-2010 15:47	946353	10-1408	1.0	LANL	REPORT: rerun of s4b0530 - fails ISTD - s1b2929 confirms
s7b0816.d	245597010	JMB3	08-FEB-2010 16:09	946353	10-1408	1.0	LANL	REPORT: rerun of s4b0531 - fails ISTD - s4b0531 confirms

Instrument Batch: /chem/MSD7.i/s020810.b

GEL ORGANIC RUN LOG INSTRUMENT ID: MSD7

DATE: 01/13/2010 METHOD: See raw data OPERATOR: JMB3 REVIEWED BY:_____ DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT:1239699-D
Multiplier Voltage: 1776 Emv Extr. Injection Volume: 0.5, 1.0 ul
DFTPP Solution ID: WBN091213-01 Internal Std ID: WBN100107-02
CALIBRATION & QC INFORMATION:
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.

SOP: GL-OA-E-009 Rev. 23 Sequence Number: /chem/MSD7.i/s011310.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
s7a1301a.d	WBN091213-01	JMB3	13-JAN-2010 15:53	DFTPP	s011310	1.0	DFTPP	DOSE
s7a1301-D.d	WBN091213-01	JMB3	13-JAN-2010 16:11	DFTPP	s011310	1.0	DFTPP	8270d TUNE: MEGA - AP - PEST
s7a1301.d	WBN091213-01	JMB3	13-JAN-2010 16:11	DFTPP	s011310	1.0	DFTPP	8270c TUNE: MEGA - AP - PEST
s7a1302.d	INST BLK	JMB3	13-JAN-2010 16:24	------	s011310	1.0	INST BLK	
s7a1303.d	WBN100112-08	JMB3	13-JAN-2010 16:51	1 PPM	s011310	1.0	MEGA001	
s7a1304.d	WBN100112-07	JMB3	13-JAN-2010 17:18	10 PPM	s011310	1.0	MEGA010	
s7a1305.d	WBN100112-06	JMB3	13-JAN-2010 17:45	20 PPM	s011310	1.0	MEGA020	
s7a1306.d	WBN100112-05.1	JMB3	13-JAN-2010 18:12	40 PPM	s011310	1.0	MEGA040	
s7a1307.d	WBN100112-04	JMB3	13-JAN-2010 18:39	50 PPM	s011310	1.0	MEGA050	
s7a1308.d	WBN100112-03	JMB3	13-JAN-2010 19:07	80 PPM	s011310	1.0	MEGA080	
s7a1309.d	WBN100112-02	JMB3	13-JAN-2010 19:34	100 PPM	s011310	1.0	MEGA100	
s7a1310.d	WBN100112-01	JMB3	13-JAN-2010 20:01	120 PPM	s011310	1.0	MEGA120	
s7a1311.d	WBN100103-01	JMB3	13-JAN-2010 20:28	10 PPM	s011310	1.0	AP010	
s7a1312.d	WBN100103-02	JMB3	13-JAN-2010 20:50	20 PPM	s011310	1.0	AP020	
s7a1313.d	WBN100103-03.1	JMB3	13-JAN-2010 21:12	40 PPM	s011310	1.0	AP040	
s7a1314.d	WBN100103-04	JMB3	13-JAN-2010 21:34	50 PPM	s011310	1.0	AP050	
s7a1315.d	WBN100103-05	JMB3	13-JAN-2010 21:55	80 PPM	s011310	1.0	AP080	
s7a1316.d	WBN100103-06	JMB3	13-JAN-2010 22:17	100 PPM	s011310	1.0	AP100	
s7a1317.d	WBN100103-07	JMB3	13-JAN-2010 22:39	120 PPM	s011310	1.0	AP120	

s7a1318.d	WBN100103-25	JMB3	13-JAN-2010 23:00	10 PPM	s011310	1.0	PEST010	
s7a1319.d	WBN100103-24	JMB3	13-JAN-2010 23:22	20 PPM	s011310	1.0	PEST020	
s7a1320.d	WBN100103-23.1	JMB3	13-JAN-2010 23:44	40 PPM	s011310	1.0	PEST040	
s7a1321.d	WBN100103-22	JMB3	14-JAN-2010 00:06	50 PPM	s011310	1.0	PEST050	
s7a1322.d	WBN100103-21	JMB3	14-JAN-2010 00:27	80 PPM	s011310	1.0	PEST080	
s7a1323.d	WBN100103-20	JMB3	14-JAN-2010 00:49	100 PPM	s011310	1.0	PEST100	
s7a1324.d	WBN100103-19	JMB3	14-JAN-2010 01:10	120 PPM	s011310	1.0	PEST120	
s7a1325-625.d	WBN091106-09.3	JMB3	14-JAN-2010 01:32	40 PPM	s011310	1.0	MEGAICV	625 MEGA ICV
s7a1325-BOE.d	WBN091106-09.3	JMB3	14-JAN-2010 01:32	40 PPM	s011310	1.0	MEGAICV	8270c BOE MEGA ICV
s7a1325-D.d	WBN091106-09.3	JMB3	14-JAN-2010 01:32	40 PPM	s011310	1.0	MEGAICV	8270d MEGA ICV
s7a1325.d	WBN091106-09.3	JMB3	14-JAN-2010 01:32	40 PPM	s011310	1.0	MEGAICV	8270c MEGA ICV
s7a1326-625.d	WBN100103-03.1	JMB3	14-JAN-2010 01:58	40 PPM	s011310	1.0	APICV	625 AP ICV
s7a1326-D.d	WBN100103-03.1	JMB3	14-JAN-2010 01:58	40 PPM	s011310	1.0	APICV	8270d AP ICV
s7a1326.d	WBN100103-03.1	JMB3	14-JAN-2010 01:58	40 PPM	s011310	1.0	APICV	8270c AP ICV
s7a1327-625.d	WBN100103-23.1	JMB3	14-JAN-2010 02:20	40 PPM	s011310	1.0	PESTICV	625 PEST ICV
s7a1327-D.d	WBN100103-23.1	JMB3	14-JAN-2010 02:20	40 PPM	s011310	1.0	PESTICV	8270d PEST ICV
s7a1327.d	WBN100103-23.1	JMB3	14-JAN-2010 02:20	40 PPM	s011310	1.0	PESTICV	8270c PEST ICV

Instrument Batch: /chem/MSD7.i/s011310.b

DER Report No.: 788749
Revision No.:

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
09-FEB-10	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
SEMIVOA GC/MS	SW846 8270C	Solid	LANL
Batch ID:	**Sample Numbers:**		
949740	See Below		

Potentially affected work order(s)(SDG): 246333(10-1604)

Application Issues:

Failed Recovery for MS/PS

Failed RPD for MS/MSD, or PS/PSD

Failed Recovery for LCS/LCSD

Failed Recovery for MSD/PSD

Specification and Requirements Exception Description:	DER Disposition:
1. The LCS(1202034800) recovered Benzyl alcohol at 11%. The limits are 27%-108%.	1. As stated in the Method, Benzyl alcohol is a poor responder that is subject to erratic chromatography. This may account for the low recovery of the analyte in the LCS, along with the MS and MSD. The analyte also represents less than 5% of the total requested spike analyte list, which satisfied the acceptance criteria for the client. The data results have been reported.
2. The MS(1202034801) and MSD(1202034802) recovered spike analytes outside of the established acceptance limits. Please see the QC summary report for specific failures.	2. Since the MS and MSD displayed similar spike recoveries, the failures were attributed to sample matrix interference. As stated in the Method, Benzyl alcohol is a poor responder that is subject to erratic chromatography. This may account for the low recovery of the analyte in the MS and MSD. The data results have been reported.
3. Multiple MS(1202034801)/MSD(1202034802) RPD valuer were outside of the established acceptance limits. Please see the QC summary report for specific failures.	3. The 2,4-Dinitrophenol and N-Methyl-N-nitrosomethylamine RPD failures were attributed to matrix interference. Since 4-Nitrophenol and Naphthalene were individually within the acceptance limits for the MS and MSD, the data results have been reported.

Originator's Name:

Josh Brooks 09-FEB-10

Data Validator/Group Leader:

Barbara Bailey 10-FEB-10

Data File: /chem/MSD7.i/s020810.b/s7b0811.d
Injection Date: 08-FEB-2010 14:20
Instrument: MSD7.i
Client Sample ID: RE03-10-12247MS

Compound: 4-Nitrophenol
CAS Number: 100-02-7

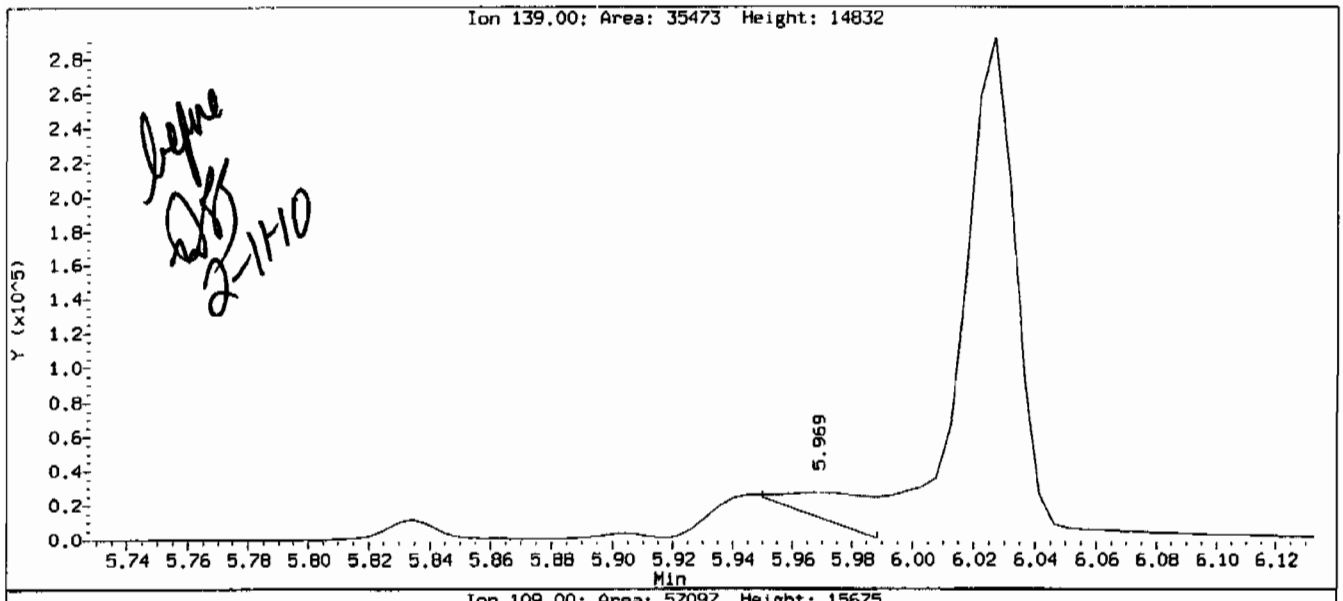

before
2-17-10

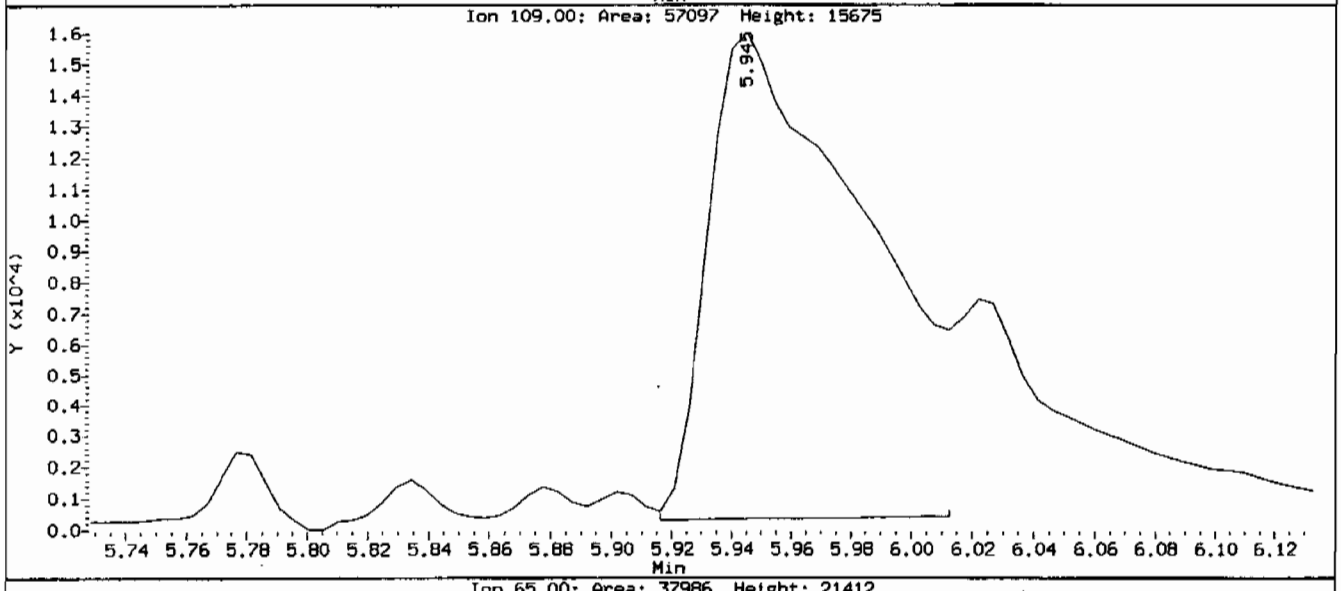

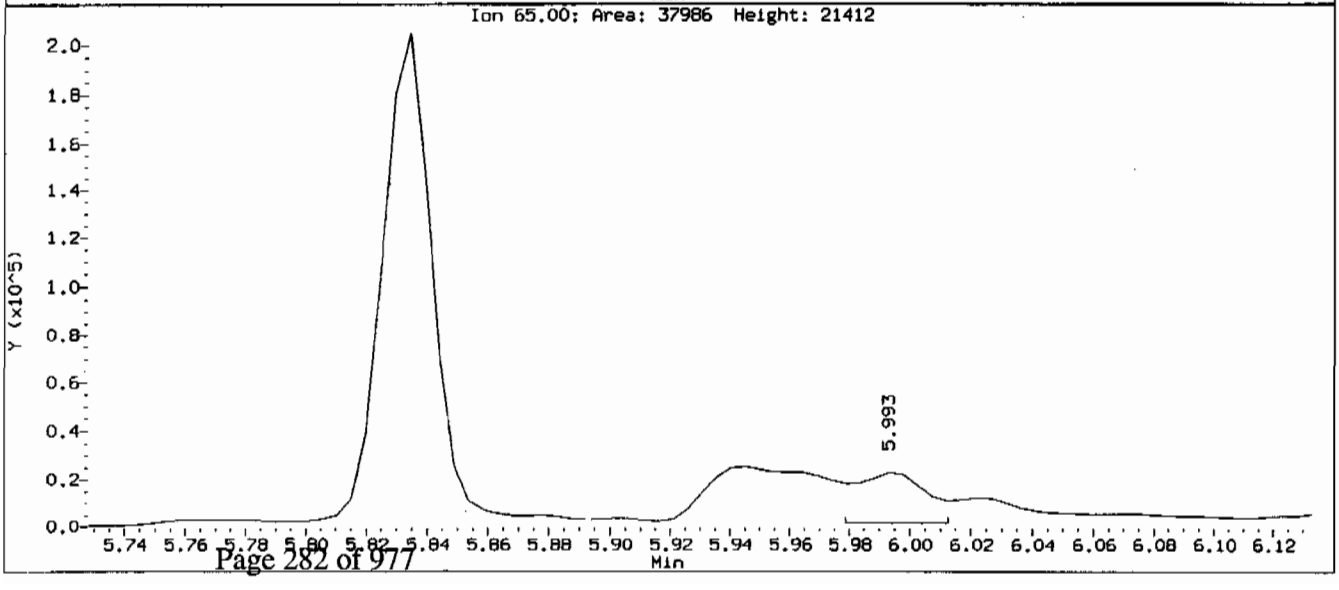

Data File: /chem/MSD7.i/s020810.b/s7b0811.d
Injection Date: 08-FEB-2010 14:20
Instrument: MSD7.i
Client Sample ID: RE03-10-12247MS

Compound: 4-Nitrophenol
CAS Number: 100-02-7

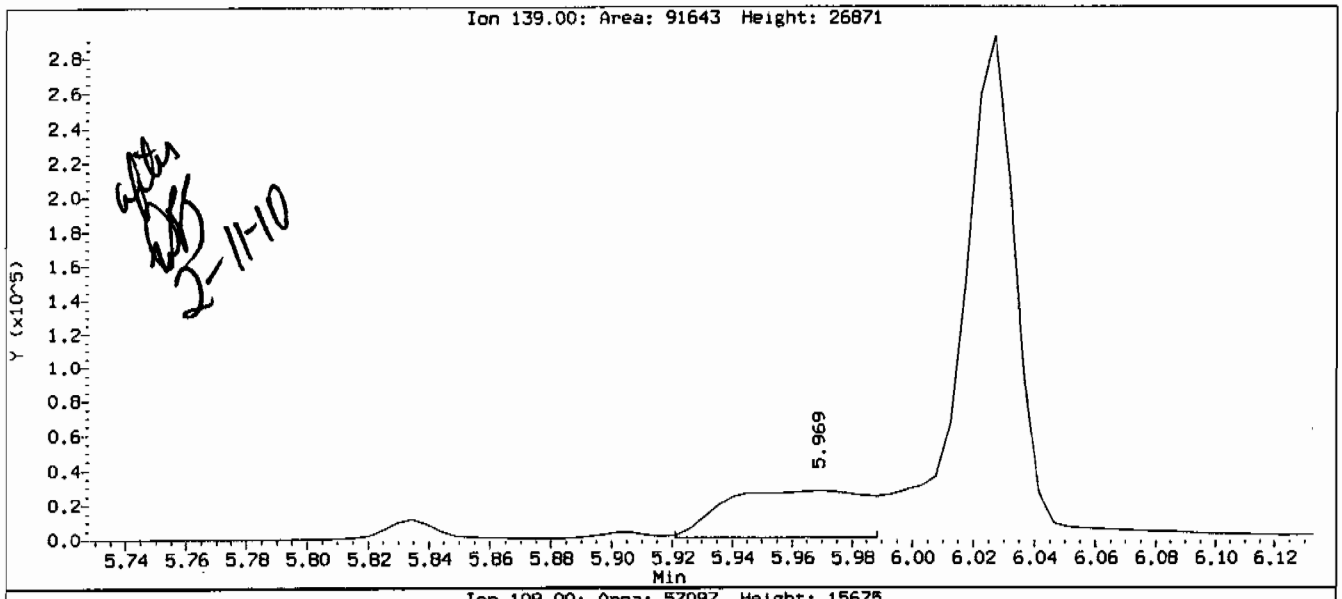

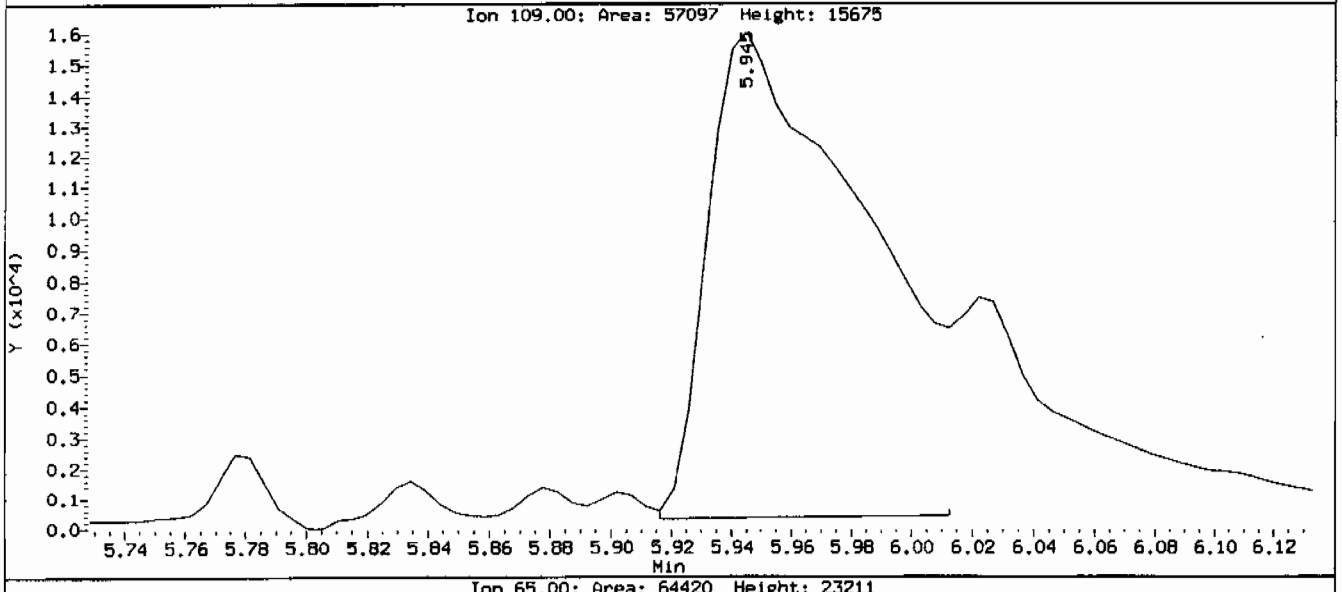

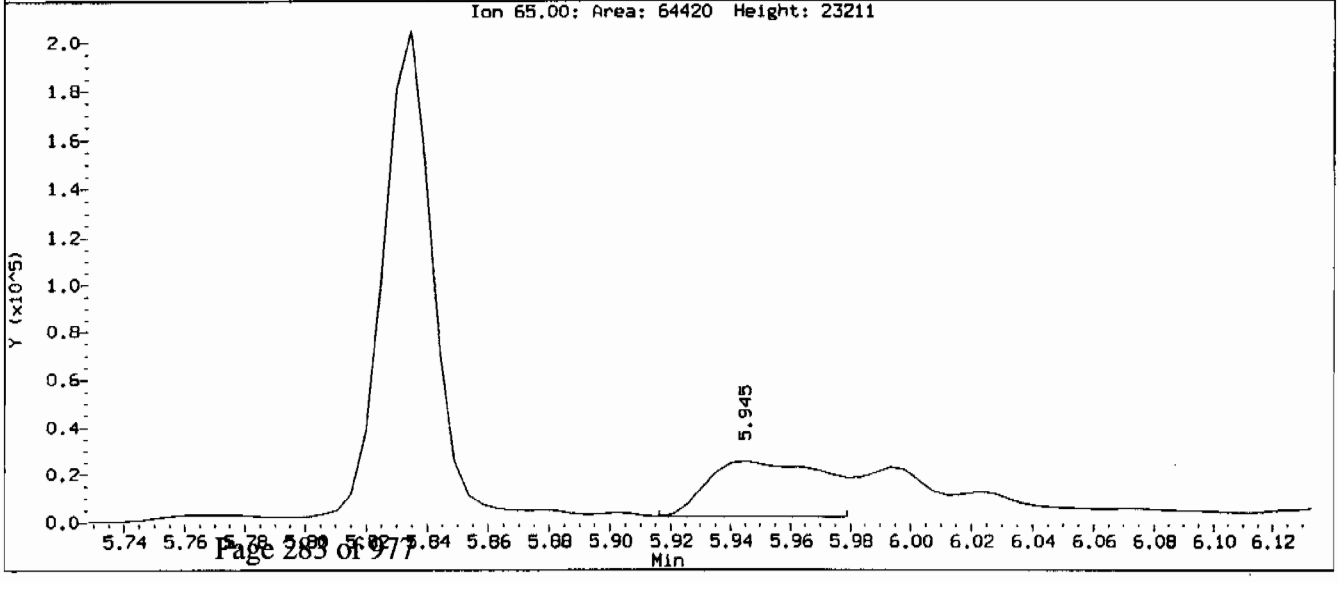

GC SEMIVOLATILE PCB ANALYSIS

PCB Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-1604

Method/Analysis Information

Procedure:	**Analysis of Polychlorinated Biphenyls by ECD**
Analytical Method:	SW846 8082
Prep Method:	SW846 3550B
Analytical Batch Number:	949745
Prep Batch Number:	949744

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 8082:

Sample ID	Client ID
246333001	RE03-10-12247
246333002	RE03-10-12248
1202034807	Method Blank (MB)
1202034808	Laboratory Control Sample (LCS)
1202034809	246333001(RE03-10-12247) Matrix Spike (MS)
1202034810	246333001(RE03-10-12247) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on a "dry weight" basis.

Preparation/Analytical Method Verification

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-040 REV# 14.

Raw data reports are processed and reviewed by the analyst using the Target software package. False positives have been removed from the Target quantitation reports per standard operating procedures (SOP) section 23.0.

Calibration Information

Please note that the 'Cal Date' indicated on each quantitation report reflects the date and time of the most recent calibrated analyte(s) in the Target processing method. Since the laboratory may calibrate with multiple solutions on different days using the same processing method, the Target software will update the 'Cal Date' to the last calibration file, date and time. The correct dates and times for all calibration files are located on the Calibration History report in the Standard Data section in the data package.

Due to software limitations, the Calibration Summary Form 6 may not indicate all the calibration files comprising the initial calibration. A complete list of the initial calibration data files are shown in the Calibration History report located in the Standard Data section of the data package.

Initial Calibration
All initial calibration requirements have been met for this sample delivery group (SDG).

The linear equation used in Target and indicated on the initial calibration summary form is not a conventional linear equation (slope intercept formula) and does not match the equation found in SW-846 method 8000B. The x and y axes are inversed in Target, so that the instrument response is treated as the independent variable (x) and the concentration ratio is treated as the dependent variable (y). The equation used in Target to calculate sample results is adjusted to account for the linear equation inversion and reciprocal slope. The adjusted calculation has been independently verified to produce valid results.

Continuing Calibration Verification (CCV) Requirements
All associated calibration verification standard(s) (ICV or CCV) met the acceptance criteria.

Two of the five quantified peaks did not meet the acceptance criteria in Aroclor-1016 standard analyzed for this SDG; however the average concentration of the five peaks met the acceptance criteria.

Surrogate recovery did not meet the acceptance criteria in the standards analyzed for this SDG; however this had no adverse effects on the data as all other standards associated with this SDG and all samples in this SDG met surrogate recovery acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Surrogate Recoveries
All surrogate recoveries were within the established acceptance criteria for this SDG.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

QC Sample Designation
Sample 246333001 (RE03-10-12247) was selected for the matrix spike and matrix spike duplicate analysis.

Matrix Spike (MS) Recovery Statement
The MS recoveries for this SDG were within the established acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recoveries for this SDG were within the established acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD between the MS and MSD met the acceptance limits.

Technical Information

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP. All sample extracts were cleaned using alumina. Additionally, copper was added to all sample extracts to remove sulfur.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-extraction/Re-analysis
Re-extractions or re-analyses were not required in this SDG.

Miscellaneous Information

Electronic Package Comment

The following package was generated using an electronic data processing program referred to as "virtual packaging". In an effort to increase quality and efficiency, the laboratory is developing systems to eventually generate all data packages electronically. The following change from "traditional" packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. An electronic signature page inserted after the case narrative of each electronic package will indicate the analyst, reviewer, and

report specialist names associated with the generation of the data and package. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Data Exception (DER) Documentation
Data exception reports (DER) is for documentation of any procedural anomalies that may deviate from referenced SOP or contractual document. A DER was not required for this SDG.

Manual Integration
Certain standards and samples may have required manual integration to correctly position the baseline as set in the calibration standard injections. If manual integration was performed, copies of all manual integration peak profiles are included in the raw data section of this PCB fraction.

Additional Comments
The additional comments field is used to address special issues associated with each analysis, clarify method/contractual issues pertaining to the analysis, and to list any report documents generated as a result of sample analysis or review. The following additional comments were required:

The higher results from either column have been chosen and reported in the data package for the client samples, MB and LCS. The data reported for the LCSD is from the same analytical column as the LCS. The data reported for the MS and MSD are from the same analytical column as the parent sample.

The data reported on the form I and III may differ slightly from the data reported on the form X. This is due to software limitations in rounding differences between the forms.

Aroclors quantitated on the raw data report by the Target data system do not necessarily represent positive Aroclor identification. In order for positive identification to be made, the Aroclor must match in pattern and retention time; as well as quantitate relatively close between the primary and confirmation columns, as specified in SW846 method 8000. When these conditions are not met, the Aroclor is reported as a non-detect on the data report. These situations will be noted on the raw data as DMP, representing does not match pattern, or DNC does not confirm.

Due to software limitation, the Form VIIs will display the results either in the % difference or % drift depending on the type of the calibration curve. If the curve of all analytes is generated using an average response factor (RF), the Form VII will display results using the %difference calculation (RF). If the curve of one or more analytes is generated using a linear curve, the Form VII will display results using the % drift calculation (by concentration) for all analytes.

System Configuration

The Semi-Volatiles-PCB analysis was performed on the following instrument configuration:

Instrument ID	Instrument	System Configuration	Column ID	Column Description
ECD1A.I_1	HP Gas Chromatograph	HP6890 Series ECD	Rtx-CLP I	30m x 0.25mm, 0.25um (Rtx-CLPesticide)
ECD1A.I_2	HP Gas Chromatograph	HP6890 Series ECD	Rtx-CLP II	30m x 0.25mm, 0.20um (Rtx-CLPesticideII)

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Jimmi Cao Date: 2/12/10

Roadmap for LANL 10-1604 PCB

This roadmap was analyzed by yip00818 on 02-09-2010, 10:07.
This roadmap was reviewed by jim01140 on 02-10-2010, 08:21.
This roadmap was packaged by yml on 02-11-2010, 14:01.
This roadmap was validated by jim01140 on 02-12-2010, 11:02.

Front Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd1a.i/020810.b/029f2901.d	246333001	sample	08-FEB-2010	11:27	10-1604.sub	RE03-10-12247	1.00000	949745	UPLOAD BOTH COLUMNS, USE HIGHER
☐	N	/chem/ecd1a.i/020810.b/032f3201.d	246333002	sample	08-FEB-2010	12:05	10-1604.sub	RE03-10-12248	1.00000	949745	UPLOAD BOTH COLUMNS, USE HIGHER

Back Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd1a.i/020810.b/029b2901.d	246333001	sample	08-FEB-2010	11:27	10-1604.sub	RE03-10-12247	1.00000	949745	UPLOAD BOTH COLUMNS, USE HIGHER
☐	N	/chem/ecd1a.i/020810.b/032b3201.d	246333002	sample	08-FEB-2010	12:05	10-1604.sub	RE03-10-12248	1.00000	949745	UPLOAD BOTH COLUMNS, USE HIGHER

Front QC Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd1a.i/020810.b/027f2701.d	1202034807	mb	08-FEB-2010	11:06	10-1604.sub	PBLK01	1.00000	949745	UPLOAD BOTH COLUMNS, USE HIGHER
☐	N	/chem/ecd1a.i/020810.b/028f2801.d	1202034808	lcs	08-FEB-2010	11:16	10-1604.sub	PBLK01LCS	1.00000	949745	UPLOAD BOTH COLUMNS, USE HIGHER
☐	N	/chem/ecd1a.i/020810.b/030f3001.d	1202034809	ms	08-FEB-2010	11:39	10-1604.sub	RE03-10-12247MS	1.00000	949745	UPLOAD BOTH COLUMNS, USE HIGHER
☐	N	/chem/ecd1a.i/020810.b/031f3101.d	1202034810	msd	08-FEB-2010	11:52	10-1604.sub	RE03-10-12247MSD	1.00000	949745	UPLOAD BOTH COLUMNS, USE HIGHER

Back QC Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd1a.i/020810.b/027b2701.d	1202034807	mb	08-FEB-2010	11:06	10-1604.sub	PBLK01	1.00000	949745	UPLOAD BOTH COLUMNS, USE HIGHER
☐	N	/chem/ecd1a.i/020810.b/028b2801.d	1202034808	lcs	08-FEB-2010	11:16	10-1604.sub	PBLK01LCS	1.00000	949745	UPLOAD BOTH COLUMNS, USE HIGHER
☐	N	/chem/ecd1a.i/020810.b/030b3001.d	1202034809	ms	08-FEB-2010	11:39	10-1604.sub	RE03-10-12247MS	1.00000	949745	UPLOAD BOTH COLUMNS, USE HIGHER
☐	N	/chem/ecd1a.i/020810.b/031b3101.d	1202034810	msd	08-FEB-2010	11:52	10-1604.sub	RE03-10-12247MSD	1.00000	949745	UPLOAD BOTH COLUMNS, USE HIGHER

SAMPLE DATA SUMMARY

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10–1604	**Date Collected:**	02/02/2010 12:00	**Matrix:**	S
Lab Sample ID:	246333001	**Date Received:**	02/05/2010 09:00	**%Moisture:**	15.4
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03–10–12247	**Method:**	SW846 8082	**SOP Ref:**	GL–OA–E–040
Batch ID:	949745	**Inst:**	ECD1A.I	**Dilution:**	1
Run Date:	02/08/2010 11:27	**Analyst:**	YS1	**Inj. Vol:**	1 uL
Prep Date:	02/05/2010 18:41	**Aliquot:**	30.18 g	**Final Volume:**	1 mL
Data File:	029f2901.d	**Column:**	1 CLP1	**Level:**	LOW
	029b2901.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	3.92	ug/kg	1.30	3.92	1
11104–28–2	Aroclor–1221	U	3.92	ug/kg	1.30	3.92	1
11141–16–5	Aroclor–1232	U	3.92	ug/kg	1.30	3.92	1
53469–21–9	Aroclor–1242	U	3.92	ug/kg	1.30	3.92	1
12672–29–6	Aroclor–1248	U	3.92	ug/kg	1.30	3.92	1
11097–69–1	Aroclor–1254	U	3.92	ug/kg	1.30	3.92	1
11096–82–5	Aroclor–1260	U	3.92	ug/kg	1.30	3.92	1

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10-1604	**Date Collected:**	02/02/2010 12:00	**Matrix:**	S
Lab Sample ID:	246333002	**Date Received:**	02/05/2010 09:00	**%Moisture:**	9.9
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-10-12248	**Method:**	SW846 8082	**SOP Ref:**	GL-OA-E-040
Batch ID:	949745	**Inst:**	ECD1A.I	**Dilution:**	1
Run Date:	02/08/2010 12:05	**Analyst:**	YS1	**Inj. Vol:**	1 uL
Prep Date:	02/05/2010 18:41	**Aliquot:**	30.03 g	**Final Volume:**	1 mL
Data File:	032f3201.d	**Column:**	1 CLP1	**Level:**	LOW
	032b3201.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.70	ug/kg	1.23	3.70	1
11104-28-2	Aroclor-1221	U	3.70	ug/kg	1.23	3.70	1
11141-16-5	Aroclor-1232	U	3.70	ug/kg	1.23	3.70	1
53469-21-9	Aroclor-1242	U	3.70	ug/kg	1.23	3.70	1
12672-29-6	Aroclor-1248	U	3.70	ug/kg	1.23	3.70	1
11097-69-1	Aroclor-1254	U	3.70	ug/kg	1.23	3.70	1
11096-82-5	Aroclor-1260	U	3.70	ug/kg	1.23	3.70	1

QUALITY CONTROL SUMMARY

PCB

Surrogate Recovery Report

SDG Number: 10-1604

Matrix Type: SOLID

CAP Column (1) : CLP1 **CAP Column (2) : CLP2**

Sample ID	Client ID	4CMX 1 %REC #	4CMX 2 %REC #	DCB 1 %REC #	DCB 2 %REC #
1202034807	MB for batch 949744	59	59	59	58
1202034808	LCS for batch 949744	58	58	59	60
246333001	RE03-10-12247	57	57	62	61
1202034809	RE03-10-12247MS	52	53	55	55
1202034810	RE03-10-12247MSD	54	54	60	60
246333002	RE03-10-12248	53	54	58	60

Surrogate	Acceptance Limits
4CMX = 4cmx	(32%-120%)
DCB = Decachlorobiphenyl	(30%-116%)

* Recovery outside Acceptance Limits

\# Column to be used to flag recovery values

D Sample Diluted

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1604
Client ID: LCS for batch 949744
Lab Sample ID: 1202034808
Instrument: ECD1A.I
Analyst: YS1
Inj. Vol: 1 uL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 02/08/2010 11:16
Dilution: 1
Prep Batch ID: 949744
Batch ID: 949745

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
12674-11-2	LCS	Aroclor-1016	33.3	0.0	19.8	59	39-102
11096-82-5	LCS	Aroclor-1260	33.3	0.0	22.7	68	45-118

PCB

Quality Control Summary
Spike Recovery Report

SDG Number: **10-1604**
Client ID: **RE03-10-12247MS**
Lab Sample ID: **1202034809**
Instrument: **ECD1A.I**
Analyst: **YS1**
Inj. Vol: **1 uL**

Sample Type: **Matrix Spike**
Matrix: **S**
%Moisture: **15.4**
Analysis Date: **02/08/2010 11:39**
Prep Batch ID: **949744**
Batch ID: **949745**
Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
12674-11-2	MS	Aroclor-1016	39.4	0.00	U	19.5	50	23-119
11096-82-5	MS	Aroclor-1260	39.4	0.00	U	24.0	61	28-124

PCB

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1604
Client ID: RE03-10-12247MSD
Lab Sample ID: 1202034810
Instrument: ECD1A.I
Analyst: YS1
Inj. Vol: 1 uL

Sample Type: Matrix Spike Duplicate
Matrix: S
%Moisture: 15.4
Analysis Date: 02/08/2010 11:52
Prep Batch ID: 949744
Batch ID: 949745
Dilution: 1

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
12674-11-2	MSD Aroclor-1016	39.1	0.00	U	20.8	53	23-119	6	0-28
11096-82-5	MSD Aroclor-1260	39.1	0.00	U	26.1	67	28-124	8	0-30

Method Blank Summary

SDG Number:	10–1604	Client:	LANL010	Matrix:	SOIL
Client ID:	MB for batch 949744	Instrument ID:	ECD1A.I_2 ECD1A.I_1	Data File:	027b2701.d 027f2701.d
Lab Sample ID:	1202034807				
Column:	CLP2 CLP1	Prep Date:	02/05/2010 18:41	Analyzed:	02/08/10 11:06
		Level:	LOW		

This method blank applies to the following samples and quality control samples:

	Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01	LCS for batch 949744	1202034808	028f2801.d 028b2801.d	02/08/10	1116
02	RE03–10–12247	246333001	029f2901.d 029b2901.d	02/08/10	1127
03	RE03–10–12247MS	1202034809	030f3001.d 030b3001.d	02/08/10	1139
04	RE03–10–12247MSD	1202034810	031f3101.d 031b3101.d	02/08/10	1152
05	RE03–10–12248	246333002	032f3201.d 032b3201.d	02/08/10	1205

SAMPLE DATA

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–1604**	**Date Collected:**	**02/02/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**246333001**	**Date Received:**	**02/05/2010 09:00**	**%Moisture:**	**15.4**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03–10–12247**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**949745**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**02/08/2010 11:27**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**02/05/2010 18:41**	**Aliquot:**	**30.18 g**	**Final Volume:**	**1 mL**
Data File:	**029f2901.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	029b2901.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	3.92	ug/kg	1.30	3.92	1
11104–28–2	Aroclor–1221	U	3.92	ug/kg	1.30	3.92	1
11141–16–5	Aroclor–1232	U	3.92	ug/kg	1.30	3.92	1
53469–21–9	Aroclor–1242	U	3.92	ug/kg	1.30	3.92	1
12672–29–6	Aroclor–1248	U	3.92	ug/kg	1.30	3.92	1
11097–69–1	Aroclor–1254	U	3.92	ug/kg	1.30	3.92	1
11096–82–5	Aroclor–1260	U	3.92	ug/kg	1.30	3.92	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/020810.b/029f2901.d
Lab Smp Id: 246333001 Client Smp ID: RE03-10-12247
Inj Date : 08-FEB-2010 11:27
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |246333001|1|
Misc Info : |ECD82P_1S|949745|SVA|LANL|SOIL|RE03-10-12247|||
Comment :
Method : /chem/ecd1a.i/020810.b/ECD1-F-8082-121409.m
Meth Date : 09-Feb-2010 07:01 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017f1701.d
Als bottle: 29
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1604.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.18000	Weight of sample extracted (g)
M	15.36620	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.965	1.965	0.000	45200058	113.383	4.4	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.276	5.277	-0.001	40064092	123.916	4.8	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/020810.b/029f2901.d
Date : 08-FEB-2010 11:27
Client ID: RE03-10-12247
Sample Info: 1246333001|1|
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1
Column diameter: 0.25

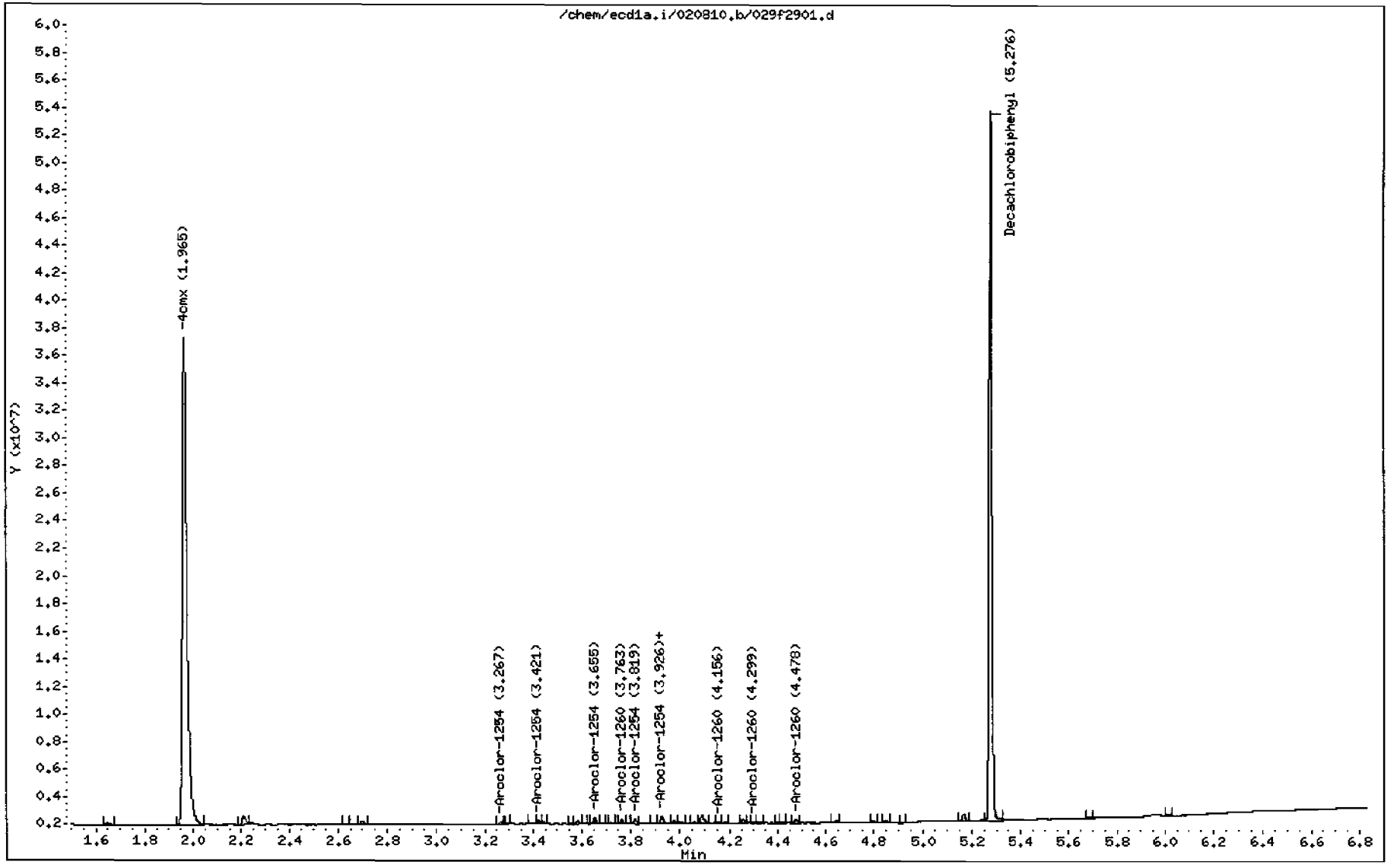

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/020810.b/029b2901.d
Lab Smp Id: 246333001 Client Smp ID: RE03-10-12247
Inj Date : 08-FEB-2010 11:27
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |246333001|1|
Misc Info : |ECD82P_1S|949745|SVA|LANL|SOIL|RE03-10-12247|||
Comment :
Method : /chem/ecd1a.i/020810.b/ECD1-B-8082-121409.m
Meth Date : 09-Feb-2010 07:01 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017b1701.d
Als bottle: 29
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1604.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.18000	Weight of sample extracted (g)
M	15.36620	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.296	2.295	0.001	32893819	114.515	4.5	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.942	5.943	-0.001	26395775	121.288	4.7	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/020810.b/029b2901.d
Date : 08-FEB-2010 11:27
Client ID: RE03-10-12247
Sample Info: 1246333001|1|
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1
Column diameter: 0.25

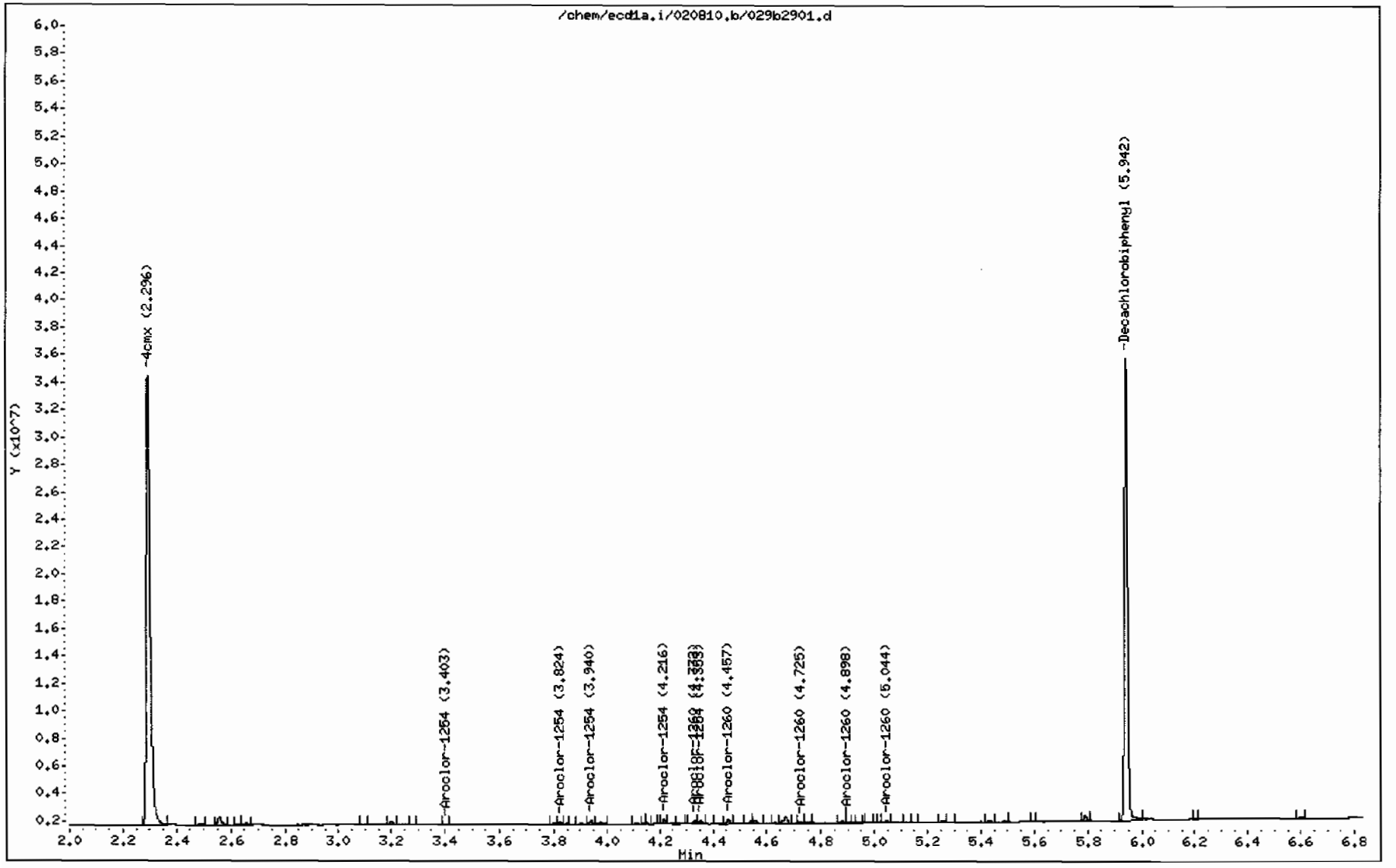

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10–1604	**Date Collected:**	02/02/2010 12:00	**Matrix:**	S
Lab Sample ID:	246333002	**Date Received:**	02/05/2010 09:00	**%Moisture:**	9.9
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03–10–12248	**Method:**	SW846 8082	**SOP Ref:**	GL–OA–E–040
Batch ID:	949745	**Inst:**	ECD1A.I	**Dilution:**	1
Run Date:	02/08/2010 12:05	**Analyst:**	YS1	**Inj. Vol:**	1 uL
Prep Date:	02/05/2010 18:41	**Aliquot:**	30.03 g	**Final Volume:**	1 mL
Data File:	032f3201.d	**Column:**	1 CLP1	**Level:**	LOW
	032b3201.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	3.70	ug/kg	1.23	3.70	1
11104–28–2	Aroclor–1221	U	3.70	ug/kg	1.23	3.70	1
11141–16–5	Aroclor–1232	U	3.70	ug/kg	1.23	3.70	1
53469–21–9	Aroclor–1242	U	3.70	ug/kg	1.23	3.70	1
12672–29–6	Aroclor–1248	U	3.70	ug/kg	1.23	3.70	1
11097–69–1	Aroclor–1254	U	3.70	ug/kg	1.23	3.70	1
11096–82–5	Aroclor–1260	U	3.70	ug/kg	1.23	3.70	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/020810.b/032f3201.d
Lab Smp Id: 246333002 Client Smp ID: RE03-10-12248
Inj Date : 08-FEB-2010 12:05
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |246333002|1|
Misc Info : |ECD82P_1S|949745|SVA|LANL|SOIL|RE03-10-12248|||
Comment :
Method : /chem/ecd1a.i/020810.b/ECD1-F-8082-121409.m
Meth Date : 09-Feb-2010 07:01 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017f1701.d
Als bottle: 32
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1604.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.03000	Weight of sample extracted (g)
M	9.93070	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.964	1.965	-0.001	42505456	106.624	3.9	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.275	5.277	-0.002	37296111	115.355	4.3	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/020810.b/032f3201.d

Date : 08-FEB-2010 12:05

Client ID: RE03-10-12248

Sample Info: |246333002|1|

Volume Injected (uL): 1.0

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

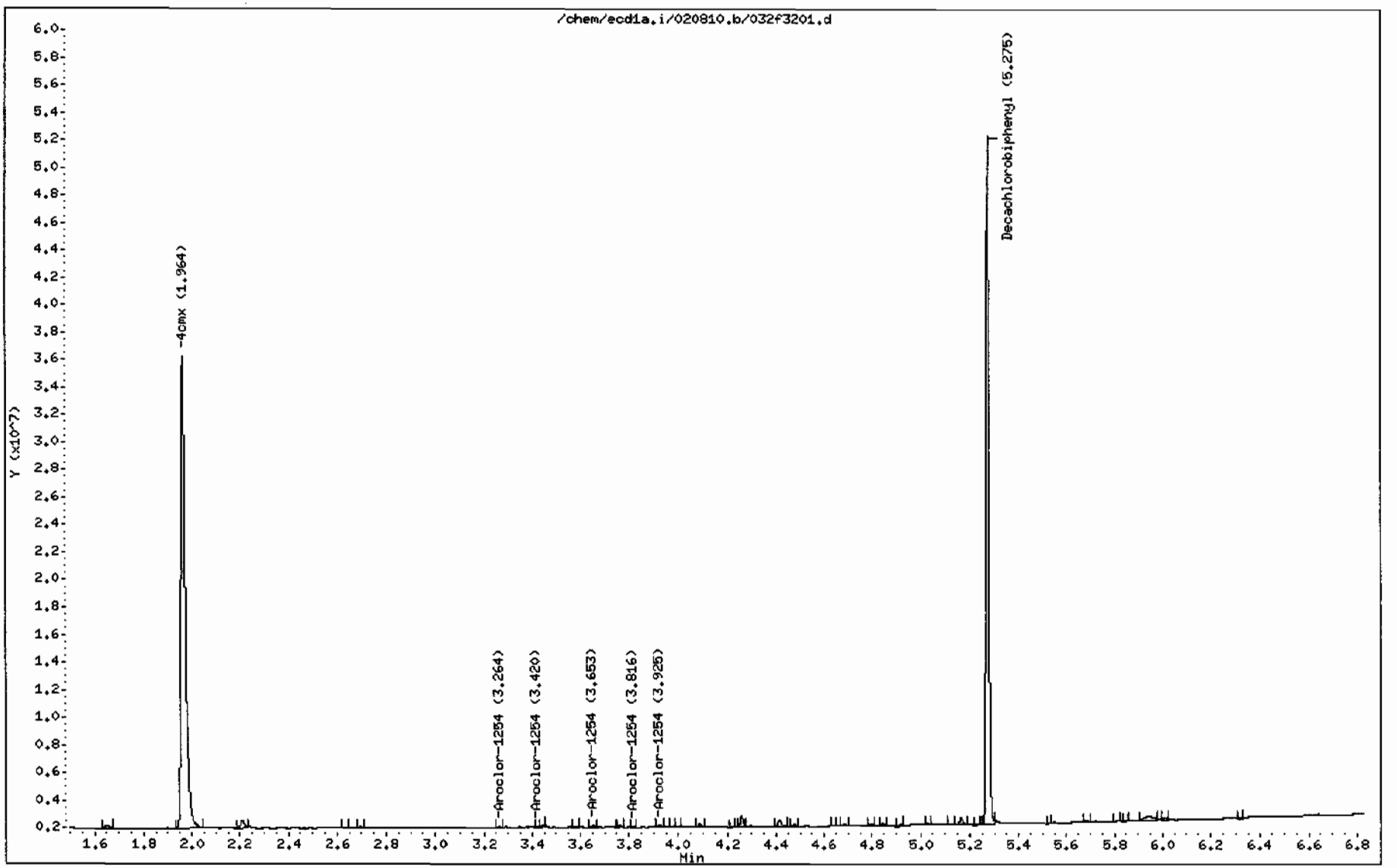

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/020810.b/032b3201.d
Lab Smp Id: 246333002 Client Smp ID: RE03-10-12248
Inj Date : 08-FEB-2010 12:05
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |246333002|1|
Misc Info : |ECD82P_1S|949745|SVA|LANL|SOIL|RE03-10-12248|||
Comment :
Method : /chem/ecd1a.i/020810.b/ECD1-B-8082-121409.m
Meth Date : 09-Feb-2010 07:01 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017b1701.d
Als bottle: 32
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1604.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.03000	Weight of sample extracted (g)
M	9.93070	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.295	2.295	0.000	30996286	107.909	4.0	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.940	5.943	-0.003	25983230	119.393	4.4	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/020810.b/032b3201.d

Date : 08-FEB-2010 12:05

Client ID: RE03-10-12248

Sample Info: |246333002|1|

Volume Injected (uL): 1.0

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

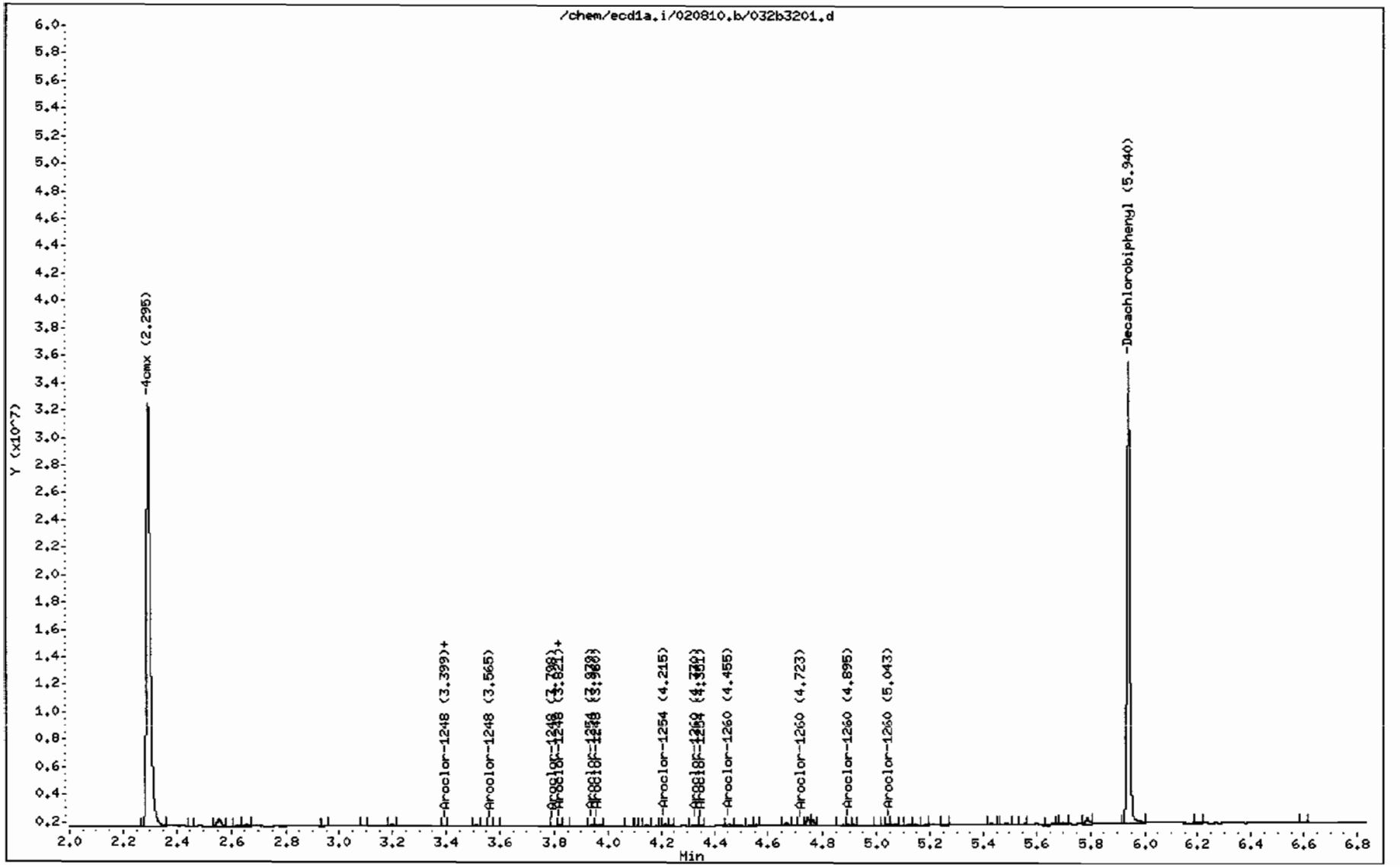

STANDARDS DATA

Report Date: 09-Feb-2010 10:05

Calibration History

Method : /chem/ecd1a.i/020810.b/ECD1-F-8082-121409.m
Start Cal Date: 14-DEC-2009 05:36
End Cal Date : 29-JAN-2010 08:59

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 100.00000		
22-JAN-2010 08:01	AR1262	/chem/ecd1a.i/012210.b/013f1301.d
22-JAN-2010 06:48	AR1232	/chem/ecd1a.i/012210.b/006f0601.d
28-JAN-2010 12:18	AR1268	/chem/ecd1a.i/012810a.b/018f1801.d
14-DEC-2009 09:28	AR1248	/chem/ecd1a.i/121409.b/028f2801.d
14-DEC-2009 08:25	AR1242	/chem/ecd1a.i/121409.b/022f2201.d
14-DEC-2009 07:22	AR1254	/chem/ecd1a.i/121409.b/016f1601.d
29-JAN-2010 07:46	AR1660	/chem/ecd1a.i/012910.b/010f1001.d
Cal Level: 2 , Cal Amount: 250.00000		
22-JAN-2010 08:12	AR1262	/chem/ecd1a.i/012210.b/014f1401.d
22-JAN-2010 06:58	AR1232	/chem/ecd1a.i/012210.b/007f0701.d
28-JAN-2010 12:29	AR1268	/chem/ecd1a.i/012810a.b/019f1901.d
14-DEC-2009 09:38	AR1248	/chem/ecd1a.i/121409.b/029f2901.d
14-DEC-2009 08:35	AR1242	/chem/ecd1a.i/121409.b/023f2301.d
14-DEC-2009 07:32	AR1254	/chem/ecd1a.i/121409.b/017f1701.d
29-JAN-2010 07:57	AR1660	/chem/ecd1a.i/012910.b/011f1101.d
Cal Level: 3 , Cal Amount: 500.00000		
22-JAN-2010 08:22	AR1262	/chem/ecd1a.i/012210.b/015f1501.d
22-JAN-2010 07:09	AR1232	/chem/ecd1a.i/012210.b/008f0801.d
28-JAN-2010 12:39	AR1268	/chem/ecd1a.i/012810a.b/020f2001.d
14-DEC-2009 09:49	AR1248	/chem/ecd1a.i/121409.b/030f3001.d
14-DEC-2009 08:46	AR1242	/chem/ecd1a.i/121409.b/024f2401.d
14-DEC-2009 07:43	AR1254	/chem/ecd1a.i/121409.b/018f1801.d
29-JAN-2010 08:07	AR1660	/chem/ecd1a.i/012910.b/012f1201.d
Cal Level: 4 , Cal Amount: 1000.00000		
14-DEC-2009 12:37	DDTANALOGSTD	/chem/ecd1a.i/121409.b/046f4601.d
14-DEC-2009 09:59	AR1248	/chem/ecd1a.i/121409.b/031f3101.d
14-DEC-2009 08:56	AR1242	/chem/ecd1a.i/121409.b/025f2501.d
14-DEC-2009 07:53	AR1254	/chem/ecd1a.i/121409.b/019f1901.d
29-JAN-2010 08:18	AR1660	/chem/ecd1a.i/012910.b/013f1301.d
28-JAN-2010 12:50	AR1268	/chem/ecd1a.i/012810a.b/021f2101.d
22-JAN-2010 08:36	AR1262	/chem/ecd1a.i/012210.b/016f1601.d
14-DEC-2009 05:47	AR1221	/chem/ecd1a.i/121409.b/007f0701.d
22-JAN-2010 07:19	AR1232	/chem/ecd1a.i/012210.b/009f0901.d
Cal Level: 5 , Cal Amount: 4000.00000		

22-JAN-2010 08:47	AR1262	/chem/ecd1a.i/012210.b/017f1701.d
22-JAN-2010 07:30	AR1232	/chem/ecd1a.i/012210.b/010f1001.d
28-JAN-2010 13:00	AR1268	/chem/ecd1a.i/012810a.b/022f2201.d
14-DEC-2009 10:10	AR1248	/chem/ecd1a.i/121409.b/032f3201.d
14-DEC-2009 09:07	AR1242	/chem/ecd1a.i/121409.b/026f2601.d
14-DEC-2009 08:04	AR1254	/chem/ecd1a.i/121409.b/020f2001.d
29-JAN-2010 08:59	AR1660	/chem/ecd1a.i/012910.b/014f1401.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 1000		
08-FEB-2010 16:10	AR1660	/chem/ecd1a.i/020810.b/053f5301.d
Ccal Level: 4 , Ccal Amount: 1000		
08-FEB-2010 21:08	AR1660	/chem/ecd1a.i/020810.b/077f7701.d
Ccal Level: 4 , Ccal Amount: 1000		
08-FEB-2010 19:40	AR1660	/chem/ecd1a.i/020810.b/070f7001.d
Ccal Level: 4 , Ccal Amount: 1000		
08-FEB-2010 18:37	AR1660	/chem/ecd1a.i/020810.b/065f6501.d
Ccal Level: 4 , Ccal Amount: 1000		
08-FEB-2010 13:47	AR1660	/chem/ecd1a.i/020810.b/041f4101.d
Ccal Level: 4 , Ccal Amount: 1000		
08-FEB-2010 12:17	AR1660	/chem/ecd1a.i/020810.b/033f3301.d
Ccal Level: 4 , Ccal Amount: 1000		
08-FEB-2010 10:45	AR1660	/chem/ecd1a.i/020810.b/025f2501.d
Ccal Level: 4 , Ccal Amount: 1000		
08-FEB-2010 09:25	AR1660	/chem/ecd1a.i/020810.b/018f1801.d
Ccal Level: 4 , Ccal Amount: 1000		
08-FEB-2010 07:57	AR1268	/chem/ecd1a.i/020810.b/010f1001.d
Ccal Level: 4 , Ccal Amount: 1000		
08-FEB-2010 07:46	AR1254	/chem/ecd1a.i/020810.b/009f0901.d
Ccal Level: 4 , Ccal Amount: 1000		
08-FEB-2010 07:36	AR1221	/chem/ecd1a.i/020810.b/008f0801.d
Ccal Level: 4 , Ccal Amount: 1000		
08-FEB-2010 07:26	AR1232	/chem/ecd1a.i/020810.b/007f0701.d
Ccal Level: 4 , Ccal Amount: 1000		
08-FEB-2010 07:15	AR1262	/chem/ecd1a.i/020810.b/006f0601.d
Ccal Level: 4 , Ccal Amount: 1000		
08-FEB-2010 07:05	AR1248	/chem/ecd1a.i/020810.b/005f0501.d
Ccal Level: 4 , Ccal Amount: 1000		
08-FEB-2010 06:54	AR1242	/chem/ecd1a.i/020810.b/004f0401.d

Ccal Level: 4 , Ccal Amount: 1000
08-FEB-2010 06:33 | AR1660 | /chem/ecd1a.i/020810.b/002f0201.d

Report Date: 09-Feb-2010 10:05

Calibration History

Method : /chem/ecd1a.i/020810.b/ECD1-B-8082-121409.m
Start Cal Date: 11-DEC-2009 10:17
End Cal Date : 29-JAN-2010 08:59

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 100.00000		
22-JAN-2010 08:01	AR1262	/chem/ecd1a.i/012210.b/013b1301.d
22-JAN-2010 06:48	AR1232	/chem/ecd1a.i/012210.b/006b0601.d
28-JAN-2010 12:18	AR1268	/chem/ecd1a.i/012810a.b/018b1801.d
14-DEC-2009 09:28	AR1248	/chem/ecd1a.i/121409.b/028b2801.d
14-DEC-2009 08:25	AR1242	/chem/ecd1a.i/121409.b/022b2201.d
14-DEC-2009 07:22	AR1254	/chem/ecd1a.i/121409.b/016b1601.d
29-JAN-2010 07:46	AR1660	/chem/ecd1a.i/012910.b/010b1001.d
Cal Level: 2 , Cal Amount: 250.00000		
22-JAN-2010 08:12	AR1262	/chem/ecd1a.i/012210.b/014b1401.d
22-JAN-2010 06:58	AR1232	/chem/ecd1a.i/012210.b/007b0701.d
28-JAN-2010 12:29	AR1268	/chem/ecd1a.i/012810a.b/019b1901.d
14-DEC-2009 09:38	AR1248	/chem/ecd1a.i/121409.b/029b2901.d
14-DEC-2009 08:35	AR1242	/chem/ecd1a.i/121409.b/023b2301.d
14-DEC-2009 07:32	AR1254	/chem/ecd1a.i/121409.b/017b1701.d
29-JAN-2010 07:57	AR1660	/chem/ecd1a.i/012910.b/011b1101.d
Cal Level: 3 , Cal Amount: 500.00000		
22-JAN-2010 08:22	AR1262	/chem/ecd1a.i/012210.b/015b1501.d
22-JAN-2010 07:09	AR1232	/chem/ecd1a.i/012210.b/008b0801.d
28-JAN-2010 12:39	AR1268	/chem/ecd1a.i/012810a.b/020b2001.d
14-DEC-2009 09:49	AR1248	/chem/ecd1a.i/121409.b/030b3001.d
14-DEC-2009 08:46	AR1242	/chem/ecd1a.i/121409.b/024b2401.d
14-DEC-2009 07:43	AR1254	/chem/ecd1a.i/121409.b/018b1801.d
29-JAN-2010 08:07	AR1660	/chem/ecd1a.i/012910.b/012b1201.d
Cal Level: 4 , Cal Amount: 1000.00000		
14-DEC-2009 12:37	DDTANALOGSTD	/chem/ecd1a.i/121409.b/046b4601.d
28-JAN-2010 12:50	AR1268	/chem/ecd1a.i/012810a.b/021b2101.d
22-JAN-2010 08:36	AR1262	/chem/ecd1a.i/012210.b/016b1601.d
14-DEC-2009 05:47	AR1221	/chem/ecd1a.i/121409.b/007b0701.d
22-JAN-2010 07:19	AR1232	/chem/ecd1a.i/012210.b/009b0901.d
14-DEC-2009 09:59	AR1248	/chem/ecd1a.i/121409.b/031b3101.d
14-DEC-2009 08:56	AR1242	/chem/ecd1a.i/121409.b/025b2501.d
14-DEC-2009 07:53	AR1254	/chem/ecd1a.i/121409.b/019b1901.d
29-JAN-2010 08:18	AR1660	/chem/ecd1a.i/012910.b/013b1301.d
Cal Level: 5 , Cal Amount: 4000.00000		
22-JAN-2010 08:47	AR1262	/chem/ecd1a.i/012210.b/017b1701.d
22-JAN-2010 07:30	AR1232	/chem/ecd1a.i/012210.b/010b1001.d
28-JAN-2010 13:00	AR1268	/chem/ecd1a.i/012810a.b/022b2201.d
14-DEC-2009 10:10	AR1248	/chem/ecd1a.i/121409.b/032b3201.d
14-DEC-2009 09:07	AR1242	/chem/ecd1a.i/121409.b/026b2601.d

14-DEC-2009 08:04	AR1254	/chem/ecd1a.i/121409.b/020b2001.d
29-JAN-2010 08:59	AR1660	/chem/ecd1a.i/012910.b/014b1401.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 1000		
08-FEB-2010 21:08	AR1660	/chem/ecd1a.i/020810.b/077b7701.d
Ccal Level: 4 , Ccal Amount: 1000		
08-FEB-2010 19:40	AR1660	/chem/ecd1a.i/020810.b/070b7001.d
Ccal Level: 4 , Ccal Amount: 1000		
08-FEB-2010 18:37	AR1660	/chem/ecd1a.i/020810.b/065b6501.d
Ccal Level: 4 , Ccal Amount: 1000		
08-FEB-2010 16:10	AR1660	/chem/ecd1a.i/020810.b/053b5301.d
Ccal Level: 4 , Ccal Amount: 1000		
08-FEB-2010 13:47	AR1660	/chem/ecd1a.i/020810.b/041b4101.d
Ccal Level: 4 , Ccal Amount: 1000		
08-FEB-2010 12:17	AR1660	/chem/ecd1a.i/020810.b/033b3301.d
Ccal Level: 4 , Ccal Amount: 1000		
08-FEB-2010 10:45	AR1660	/chem/ecd1a.i/020810.b/025b2501.d
Ccal Level: 4 , Ccal Amount: 1000		
08-FEB-2010 09:25	AR1660	/chem/ecd1a.i/020810.b/018b1801.d
Ccal Level: 4 , Ccal Amount: 1000		
08-FEB-2010 06:33	AR1660	/chem/ecd1a.i/020810.b/002b0201.d
Ccal Level: 4 , Ccal Amount: 1000		
08-FEB-2010 07:57	AR1268	/chem/ecd1a.i/020810.b/010b1001.d
Ccal Level: 4 , Ccal Amount: 1000		
08-FEB-2010 07:46	AR1254	/chem/ecd1a.i/020810.b/009b0901.d
Ccal Level: 4 , Ccal Amount: 1000		
08-FEB-2010 07:36	AR1221	/chem/ecd1a.i/020810.b/008b0801.d
Ccal Level: 4 , Ccal Amount: 1000		
08-FEB-2010 07:26	AR1232	/chem/ecd1a.i/020810.b/007b0701.d
Ccal Level: 4 , Ccal Amount: 1000		
08-FEB-2010 07:15	AR1262	/chem/ecd1a.i/020810.b/006b0601.d
Ccal Level: 4 , Ccal Amount: 1000		
08-FEB-2010 07:05	AR1248	/chem/ecd1a.i/020810.b/005b0501.d
Ccal Level: 4 , Ccal Amount: 1000		
08-FEB-2010 06:54	AR1242	/chem/ecd1a.i/020810.b/004b0401.d

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd1a.i/020810.b/ECD1-F-8082-121409.m
Quant Method : ESTD Target Version : 3.50
Last Update : 09-Feb-2010 07:01 Number of Cpnds : 15
Data Type : GC MULTI COMP

Global Integrator : Falcon

Chromat Events	Values
Initial:Start Threshold	12031.000000
Initial:End Threshold	6015.500000
Initial:Area Threshold	15489.000000
Initial:P-P Resolution	1.000000
Initial:Bunch Factor	2.000000
Initial:Negative Peaks	OFF
Initial:Tension	0.500000

Compound	RT	RT Window	RF
1 Aroclor-1016	2.420	2.390-2.450	1.466e+04
	2.708	2.678-2.738	1.832e+04
	2.788	2.758-2.818	1.202e+04
	2.826	2.796-2.856	7.180e+03
	3.037	3.007-3.067	9.290e+03
63 4,4-DDD	3.953	3.933-3.973	3.938e+05
64 4,4-DDE	3.603	3.583-3.623	4.795e+05
62 4,4-DDT	4.118	4.098-4.138	3.238e+05
2 Aroclor-1221	2.079	2.049-2.109	4.301e+03
	2.171	2.141-2.201	2.440e+03
	2.197	2.167-2.227	1.027e+04
3 Aroclor-1232	2.420	2.390-2.450	6.849e+03
	2.709	2.679-2.739	8.426e+03
	2.789	2.759-2.819	5.627e+03
	3.038	3.008-3.068	3.983e+03
	3.292	3.262-3.322	3.858e+03
4 Aroclor-1242	2.420	2.390-2.450	1.166e+04
	2.709	2.679-2.739	1.345e+04
	2.827	2.797-2.857	5.506e+03
	3.038	3.008-3.068	7.245e+03
	3.291	3.261-3.321	6.811e+03

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd1a.i/020810.b/ECD1-F-8082-121409.m

Compound	RT	RT Window	RF
5 Aroclor-1248	3.090	3.060-3.120	7.848e+03
	3.240	3.210-3.270	6.870e+03
	3.292	3.262-3.322	1.331e+04
	3.424	3.394-3.454	1.101e+04
	3.656	3.626-3.686	7.455e+03
6 Aroclor-1254	3.266	3.236-3.296	1.249e+04
	3.421	3.391-3.451	1.672e+04
	3.656	3.626-3.686	2.071e+04
	3.819	3.789-3.849	1.569e+04
	3.927	3.897-3.957	1.517e+04
7 Aroclor-1260	3.763	3.733-3.793	1.764e+04
	3.926	3.896-3.956	2.666e+04
	4.156	4.126-4.186	1.592e+04
	4.299	4.269-4.329	1.655e+04
	4.479	4.449-4.509	3.714e+04
8 Aroclor-1262	3.763	3.733-3.793	1.500e+04
	3.926	3.896-3.956	2.038e+04
	4.157	4.127-4.187	2.520e+04
	4.299	4.269-4.329	2.299e+04
	4.478	4.448-4.508	4.717e+04
9 Aroclor-1268	4.663	4.633-4.693	5.248e+04
	4.686	4.656-4.716	4.812e+04
	4.799	4.769-4.829	3.703e+04
	5.001	4.971-5.031	1.629e+04
	5.167	5.137-5.197	1.083e+05
M 10 Aroclor-Total	1.000	0.980-1.020	
$ 11 4cmx	1.965	1.935-1.995	3.986e+05
$ 12 Decachlorobiphenyl	5.277	5.247-5.307	3.233e+05

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd1a.i/020810.b/ECD1-B-8082-121409.m
Quant Method : ESTD Target Version : 3.50
Last Update : 09-Feb-2010 07:01 Number of Cpnds : 15
Data Type : GC MULTI COMP

Global Integrator : Falcon

Chromat Events	Values
Initial:Start Threshold	7222.000000
Initial:End Threshold	3611.000000
Initial:Area Threshold	6833.000000
Initial:P-P Resolution	0.000000
Initial:Bunch Factor	2.000000
Initial:Negative Peaks	OFF
Initial:Tension	0.500000

Compound	RT	RT Window	RF
1 Aroclor-1016	3.192	3.162-3.222	1.248e+04
	3.275	3.245-3.305	8.547e+03
	3.339	3.309-3.369	5.291e+03
	3.566	3.536-3.596	6.814e+03
	3.641	3.611-3.671	6.405e+03
62 4,4-DDT	4.670	4.650-4.690	2.436e+05
63 4,4-DDE	4.139	4.119-4.159	3.580e+05
64 4,4-DDD	4.483	4.463-4.503	2.893e+05
2 Aroclor-1221	2.493	2.463-2.523	3.640e+03
	2.588	2.558-2.618	2.329e+03
	2.628	2.598-2.658	8.119e+03
3 Aroclor-1232	2.895	2.865-2.925	5.892e+03
	3.193	3.163-3.223	6.222e+03
	3.276	3.246-3.306	4.345e+03
	3.567	3.537-3.597	3.111e+03
	3.801	3.771-3.831	3.193e+03
4 Aroclor-1242	3.194	3.164-3.224	1.059e+04
	3.276	3.246-3.306	8.054e+03
	3.567	3.537-3.597	5.962e+03
	3.800	3.770-3.830	6.057e+03
	3.829	3.799-3.859	6.701e+03

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd1a.i/020810.b/ECD1-B-8082-121409.m

Compound	RT	RT Window	RF
5 Aroclor-1248	3.402	3.372-3.432	8.054e+03
	3.567	3.537-3.597	9.874e+03
	3.801	3.771-3.831	1.122e+04
	3.829	3.799-3.859	1.248e+04
	3.965	3.935-3.995	1.210e+04
6 Aroclor-1254	3.401	3.371-3.431	6.435e+03
	3.824	3.794-3.854	1.156e+04
	3.941	3.911-3.971	1.243e+04
	4.216	4.186-4.246	1.688e+04
	4.353	4.323-4.383	1.244e+04
7 Aroclor-1260	4.333	4.303-4.363	1.264e+04
	4.457	4.427-4.487	1.522e+04
	4.724	4.694-4.754	1.165e+04
	4.897	4.867-4.927	1.205e+04
	5.044	5.014-5.074	2.607e+04
8 Aroclor-1262	4.458	4.428-4.488	1.356e+04
	4.723	4.693-4.753	1.889e+04
	4.898	4.868-4.928	1.747e+04
	5.044	5.014-5.074	3.453e+04
	5.258	5.228-5.288	2.487e+04
9 Aroclor-1268	5.255	5.225-5.285	3.626e+04
	5.283	5.253-5.313	3.358e+04
	5.433	5.403-5.463	2.598e+04
	5.598	5.568-5.628	1.135e+04
	5.791	5.761-5.821	6.708e+04
M 10 Aroclor-Total	1.000	0.980-1.020	
$ 11 4cmx	2.295	2.265-2.325	2.872e+05
$ 12 Decachlorobiphenyl	5.943	5.913-5.973	2.176e+05

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 14-DEC-2009 05:36
End Cal Date : 29-JAN-2010 08:59
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd1a.i/020810.b/ECD1-F-8082-121409.m
Cal Date : 09-Feb-2010 07:01 yip00818
Curve Type : Average

Calibration File Names:
Level 1: /chem/ecd1a.i/012210.b/013f1301.d
Level 2: /chem/ecd1a.i/012210.b/014f1401.d
Level 3: /chem/ecd1a.i/012210.b/015f1501.d
Level 4: /chem/ecd1a.i/121409.b/046f4601.d
Level 5: /chem/ecd1a.i/012210.b/017f1701.d

Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
1 Aroclor-1016(1)	17274	15624	14668	13618	12110	14659	13.365
(2)	20414	18506	18422	17664	16607	18323	7.617
(3)	13811	12507	11857	11466	10478	12024	10.320
(4)	8094	7393	7100	6874	6439	7180	8.612
(5)	10520	9736	9158	8813	8222	9290	9.475
63 4,4-DDD	+++++	+++++	+++++	393799	+++++	393799	0.000
64 4,4-DDE	+++++	+++++	+++++	479509	+++++	479509	0.000
62 4,4-DDT	+++++	+++++	+++++	323817	+++++	323817	0.000
2 Aroclor-1221(1)	+++++	+++++	+++++	4301	+++++	4301	0.000
(2)	+++++	+++++	+++++	2440	+++++	2440	0.000
(3)	+++++	+++++	+++++	10272	+++++	10272	0.000
3 Aroclor-1232(1)	8031	7459	6765	6313	5679	6849	13.524
(2)	9246	8871	8229	8095	7686	8426	7.427
(3)	6376	6076	5599	5256	4827	5627	11.031
(4)	4642	4328	3905	3655	3384	3983	12.710
(5)	4445	4061	3757	3587	3443	3858	10.378
4 Aroclor-1242(1)	13692	12467	11522	10819	9798	11660	12.846
(2)	14782	14429	13236	12555	12263	13453	8.301
(3)	6076	5890	5423	5191	4949	5506	8.563
(4)	8395	7578	7079	6747	6426	7245	10.645
(5)	7587	7189	6604	6378	6296	6811	8.178
5 Aroclor-1248(1)	9070	8103	7743	7247	7078	7848	10.119
(2)	7785	7181	6827	6444	6114	6870	9.456
(3)	15108	13267	13037	12915	12225	13310	8.094
(4)	12682	11331	10815	10392	9852	11015	9.799
(5)	8605	7806	7405	7124	6336	7455	11.244

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 14-DEC-2009 05:36
End Cal Date : 29-JAN-2010 08:59
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd1a.i/020810.b/ECD1-F-8082-121409.m
Cal Date : 09-Feb-2010 07:01 yip00818
Curve Type : Average

Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	___ RRF	% RSD
6 Aroclor-1254(1)	14281	12975	12313	11911	10947	12485	9.963
(2)	18803	17181	16666	15949	15010	16722	8.494
(3)	22492	20906	20786	20326	19059	20714	5.957
(4)	16753	15627	15809	15513	14770	15694	4.535
(5)	16595	15169	15433	15075	13591	15172	7.071
7 Aroclor-1260(1)	19303	18084	17596	17320	15881	17637	7.037
(2)	28906	27177	26621	26372	24235	26662	6.298
(3)	17466	16264	15774	15593	14511	15922	6.750
(4)	17694	16895	16482	16357	15325	16551	5.206
(5)	38673	37803	37114	37178	34909	37135	3.753
8 Aroclor-1262(1)	16796	15375	14585	14470	13775	15000	7.687
(2)	22563	20964	19865	19587	18936	20383	6.975
(3)	27641	25661	24522	24605	23554	25197	6.179
(4)	25041	23378	22465	22352	21708	22989	5.624
(5)	49563	47861	46825	46728	44852	47166	3.655
9 Aroclor-1268(1)	55111	53385	52967	52495	48466	52485	4.676
(2)	51014	48609	47960	48222	44786	48118	4.620
(3)	39244	37391	36973	36968	34562	37028	4.505
(4)	17802	16531	16072	16029	15038	16294	6.158
(5)	113064	109648	108755	109096	100824	108277	4.162
M 10 Aroclor-Total	#####	#####	#####	#####	#####	#####	#####
$ 11 4cmx	416570	402663	398822	398666	376523	398649	3.607
$ 12 Decachlorobiphenyl	349811	330143	318231	316573	301823	323316	5.537

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 11-DEC-2009 10:17
End Cal Date : 29-JAN-2010 08:59
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd1a.i/020810.b/ECD1-B-8082-121409.m
Cal Date : 09-Feb-2010 07:01 yip00818
Curve Type : Average

Calibration File Names:
Level 1: /chem/ecd1a.i/012210.b/013b1301.d
Level 2: /chem/ecd1a.i/012210.b/014b1401.d
Level 3: /chem/ecd1a.i/012210.b/015b1501.d
Level 4: /chem/ecd1a.i/121409.b/046b4601.d
Level 5: /chem/ecd1a.i/012210.b/017b1701.d

Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
1 Aroclor-1016(1)	14228	12876	12485	11870	10964	12485	9.713
(2)	10308	9112	8344	7935	7035	8547	14.474
(3)	6330	5599	5139	4929	4456	5291	13.452
(4)	8280	7111	6551	6409	5718	6814	14.062
(5)	7890	6662	6193	5904	5375	6405	14.872
62 4,4-DDT	+++++	+++++	+++++	243613	+++++	243613	0.000
63 4,4-DDE	+++++	+++++	+++++	357996	+++++	357996	0.000
64 4,4-DDD	+++++	+++++	+++++	289343	+++++	289343	0.000
2 Aroclor-1221(1)	+++++	+++++	+++++	3640	+++++	3640	0.000
(2)	+++++	+++++	+++++	2329	+++++	2329	0.000
(3)	+++++	+++++	+++++	8119	+++++	8119	0.000
3 Aroclor-1232(1)	7405	6518	5773	5260	4504	5892	19.017
(2)	7294	6687	6058	5769	5299	6222	12.576
(3)	5336	4800	4249	3912	3427	4345	17.180
(4)	3854	3418	3039	2783	2462	3111	17.466
(5)	3940	3492	3102	2870	2562	3193	16.853
4 Aroclor-1242(1)	12348	11309	9989	9755	9542	10589	11.338
(2)	9730	8628	7875	7358	6677	8054	14.627
(3)	7163	6326	5763	5452	5107	5962	13.534
(4)	7183	6468	5900	5548	5185	6057	12.997
(5)	7820	7123	6589	6229	5746	6701	11.977
5 Aroclor-1248(1)	9914	8542	7972	7289	6553	8054	15.880
(2)	11996	10356	9798	9046	8173	9874	14.605
(3)	13306	11756	11119	10365	9555	11220	12.723
(4)	14720	13121	12480	11577	10516	12483	12.732
(5)	14361	12633	11977	11210	10342	12104	12.596

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 11-DEC-2009 10:17
End Cal Date : 29-JAN-2010 08:59
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd1a.i/020810.b/ECD1-B-8082-121409.m
Cal Date : 09-Feb-2010 07:01 yip00818
Curve Type : Average

Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
6 Aroclor-1254(1)	7857	6938	6317	5878	5185	6435	15.850
(2)	13759	12316	11389	10708	9625	11559	13.615
(3)	14674	13172	12243	11576	10492	12431	12.786
(4)	19102	17554	16808	16165	14771	16880	9.533
(5)	14276	12708	12612	11843	10739	12435	10.425
7 Aroclor-1260(1)	14858	13325	12348	11932	10758	12644	12.198
(2)	17461	15979	14935	14482	13243	15220	10.456
(3)	13572	12242	11423	10976	10040	11651	11.471
(4)	14023	12666	11806	11380	10392	12054	11.383
(5)	28927	27037	25880	25311	23188	26068	8.140
8 Aroclor-1262(1)	15849	14211	13033	12748	11945	13557	11.192
(2)	21776	19630	18382	17939	16725	18890	10.157
(3)	20222	18124	16968	16542	15497	17471	10.323
(4)	38743	35618	34053	33297	30946	34532	8.384
(5)	28740	25266	23755	23937	22633	24866	9.485
9 Aroclor-1268(1)	40076	37508	36193	35765	31736	36256	8.369
(2)	36699	34342	33454	33223	30195	33583	6.968
(3)	29294	26633	25688	25340	22957	25982	8.826
(4)	12990	11609	11161	10996	9978	11347	9.656
(5)	67306	67058	67598	69416	64002	67076	2.911
M 10 Aroclor-Total	+++++	+++++	+++++	+++++	+++++	+++++	+++++
$ 11 4cmx	314910	295845	285456	280701	259306	287244	7.105
$ 12 Decachlorobiphenyl	251054	227132	210476	206848	192632	217628	10.274

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1604

Instrument ID: ECD1A Calibration Date: 02/08/10 Time: 0633

Lab File ID: 002F0201 Init. Calib. Date(s): 01/29/10 01/29/10

Heated Purge: (Y/N) N Init. Calib. Times: 0746 0859

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	14658.821	12878.407	0.01	-12.1	15.0
(2)	18322.626	16635.620	0.01	-9.2	15.0
(3)	12023.655	10543.298	0.01	-12.3	15.0
(4)	7180.129	6322.974	0.01	-11.9	15.0
(5)	9289.783	8227.445	0.01	-11.4	15.0
Aroclor-1260	17636.550	17458.571	0.01	-1.0	15.0
(2)	26662.025	26587.924	0.01	-0.3	15.0
(3)	15921.638	15794.931	0.01	-0.8	15.0
(4)	16550.665	16979.672	0.01	2.6	15.0
(5)	37135.384	37958.577	0.01	2.2	15.0
4cmx	398648.98	371539.26	0.01	-6.8	15.0
Decachlorobiphenyl	323316.27	303560.93	0.01	-6.1	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1604

Instrument ID: ECD1A Calibration Date: 02/08/10 Time: 0633

Lab File ID: 002B0201 Init. Calib. Date(s): 01/29/10 01/29/10

Heated Purge: (Y/N) N Init. Calib. Times: 0746 0859

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	12484.762	11843.148	0.01	-5.1	15.0
(2)	8546.824	7665.717	0.01	-10.3	15.0
(3)	5290.741	4714.580	0.01	-10.9	15.0
(4)	6813.513	6016.545	0.01	-11.7	15.0
(5)	6404.782	5630.567	0.01	-12.1	15.0
Aroclor-1260	12644.310	12550.501	0.01	-0.7	15.0
(2)	15220.096	15321.401	0.01	0.7	15.0
(3)	11650.528	11628.412	0.01	-0.2	15.0
(4)	12053.523	12030.729	0.01	-0.2	15.0
(5)	26068.381	26809.139	0.01	2.8	15.0
4cmx	287243.52	273737.42	0.01	-4.7	15.0
Decachlorobiphenyl	217628.16	203805.55	0.01	-6.4	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1604

Instrument ID: ECD1A Calibration Date: 02/08/10 Time: 1045

Lab File ID: 025F2501 Init. Calib. Date(s): 01/29/10 01/29/10

Heated Purge: (Y/N) N Init. Calib. Times: 0746 0859

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	14658.821	12839.616	0.01	-12.4	15.0
(2)	18322.626	17084.639	0.01	-6.8	15.0
(3)	12023.655	10521.734	0.01	-12.5	15.0
(4)	7180.129	6364.026	0.01	-11.4	15.0
(5)	9289.783	8165.053	0.01	-12.1	15.0
Aroclor-1260	17636.550	17042.518	0.01	-3.4	15.0
(2)	26662.025	25929.843	0.01	-2.7	15.0
(3)	15921.638	15238.479	0.01	-4.3	15.0
(4)	16550.665	15938.427	0.01	-3.7	15.0
(5)	37135.384	36559.067	0.01	-1.6	15.0
4cmx	398648.98	372247.09	0.01	-6.6	15.0
Decachlorobiphenyl	323316.27	286500.91	0.01	-11.4	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1604

Instrument ID: ECD1A Calibration Date: 02/08/10 Time: 1045

Lab File ID: 025B2501 Init. Calib. Date(s): 01/29/10 01/29/10

Heated Purge: (Y/N) N Init. Calib. Times: 0746 0859

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D	
Aroclor-1016	12484.762	11521.043	0.01	-7.7	15.0	
(2)	8546.824	7395.269	0.01	-13.5	15.0	
(3)	5290.741	4541.546	0.01	-14.2	15.0	
(4)	6813.513	5732.138	0.01	-15.9	15.0	<-
(5)	6404.782	5341.081	0.01	-16.6	15.0	<-
Aroclor-1260	12644.310	11669.497	0.01	-7.7	15.0	
(2)	15220.096	14205.476	0.01	-6.7	15.0	
(3)	11650.528	10603.299	0.01	-9.0	15.0	
(4)	12053.523	10866.248	0.01	-9.8	15.0	
(5)	26068.381	24562.081	0.01	-5.8	15.0	
4cmx	287243.52	270238.60	0.01	-5.9	15.0	
Decachlorobiphenyl	217628.16	180756.04	0.01	-16.9	15.0	<-

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1604

Instrument ID: ECD1A Calibration Date: 02/08/10 Time: 1217

Lab File ID: 033F3301 Init. Calib. Date(s): 01/29/10 01/29/10

Heated Purge: (Y/N) N Init. Calib. Times: 0746 0859

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	14658.821	13234.940	0.01	-9.7	15.0
(2)	18322.626	17678.931	0.01	-3.5	15.0
(3)	12023.655	10951.603	0.01	-8.9	15.0
(4)	7180.129	6621.505	0.01	-7.8	15.0
(5)	9289.783	8571.445	0.01	-7.7	15.0
Aroclor-1260	17636.550	17935.630	0.01	1.7	15.0
(2)	26662.025	27344.727	0.01	2.6	15.0
(3)	15921.638	16256.406	0.01	2.1	15.0
(4)	16550.665	17019.324	0.01	2.8	15.0
(5)	37135.384	38963.791	0.01	4.9	15.0
4cmx	398648.98	383670.78	0.01	-3.8	15.0
Decachlorobiphenyl	323316.27	308542.06	0.01	-4.6	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1604

Instrument ID: ECD1A Calibration Date: 02/08/10 Time: 1217

Lab File ID: 033B3301 Init. Calib. Date(s): 01/29/10 01/29/10

Heated Purge: (Y/N) N Init. Calib. Times: 0746 0859

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	12484.762	11740.987	0.01	-6.0	15.0
(2)	8546.824	7797.692	0.01	-8.8	15.0
(3)	5290.741	4826.861	0.01	-8.8	15.0
(4)	6813.513	6093.206	0.01	-10.6	15.0
(5)	6404.782	5665.393	0.01	-11.5	15.0
Aroclor-1260	12644.310	12684.038	0.01	0.3	15.0
(2)	15220.096	15484.093	0.01	1.7	15.0
(3)	11650.528	11651.751	0.01	0.0	15.0
(4)	12053.523	11965.466	0.01	-0.7	15.0
(5)	26068.381	26909.160	0.01	3.2	15.0
4cmx	287243.52	278080.28	0.01	-3.2	15.0
Decachlorobiphenyl	217628.16	202163.62	0.01	-7.1	15.0

FORM VII PEST

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/020810.b/002f0201.d
Lab Smp Id: WAR100203-60 01 Client Smp ID: AR166001
Inj Date : 08-FEB-2010 06:33
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100203-60 01
Misc Info :
Comment :
Method : /chem/ecd1a.i/020810.b/ECD1-F-8082-121409.m
Meth Date : 08-Feb-2010 11:14 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017f1701.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.965	1.965	0.000	37153926	100.000	93.2	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.277	5.277	0.000	30356093	100.000	93.9	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.420	2.420	0.000	12878407	1000.00	878	80.00- 120.00	100.00
2.708	2.708	0.000	16635620	1000.00	908	113.06- 153.06	129.17
2.788	2.788	0.000	10543298	1000.00	877	61.95- 101.95	81.87
2.826	2.826	0.000	6322974	1000.00	881	29.57- 69.57	49.10
3.037	3.037	0.000	8227445	1000.00	886	43.59- 83.59	63.89
Average of Peak Amounts =					886		
7 Aroclor-1260					CAS #: 11096-82-5		
3.763	3.763	0.000	17458571	1000.00	990	80.00- 120.00	100.00
3.926	3.926	0.000	26587924	1000.00	997	132.15- 172.15	152.29
4.156	4.156	0.000	15794931	1000.00	992	69.41- 109.41	90.47
4.299	4.299	0.000	16979672	1000.00	1020	73.52- 113.52	97.26
4.479	4.479	0.000	37958577	1000.00	1020	194.52- 234.52	217.42
Average of Peak Amounts =					1.01e+03		

Data File: /chem/ecd1a.i/020810.b/002f0201.d
Date : 08-FEB-2010 06:33
Client ID: AR166001
Sample Info: IWAR100203-60 01

Column phase: CLP1

Instrument: ecd1a.i
Operator: YS1
Column diameter: 0.25

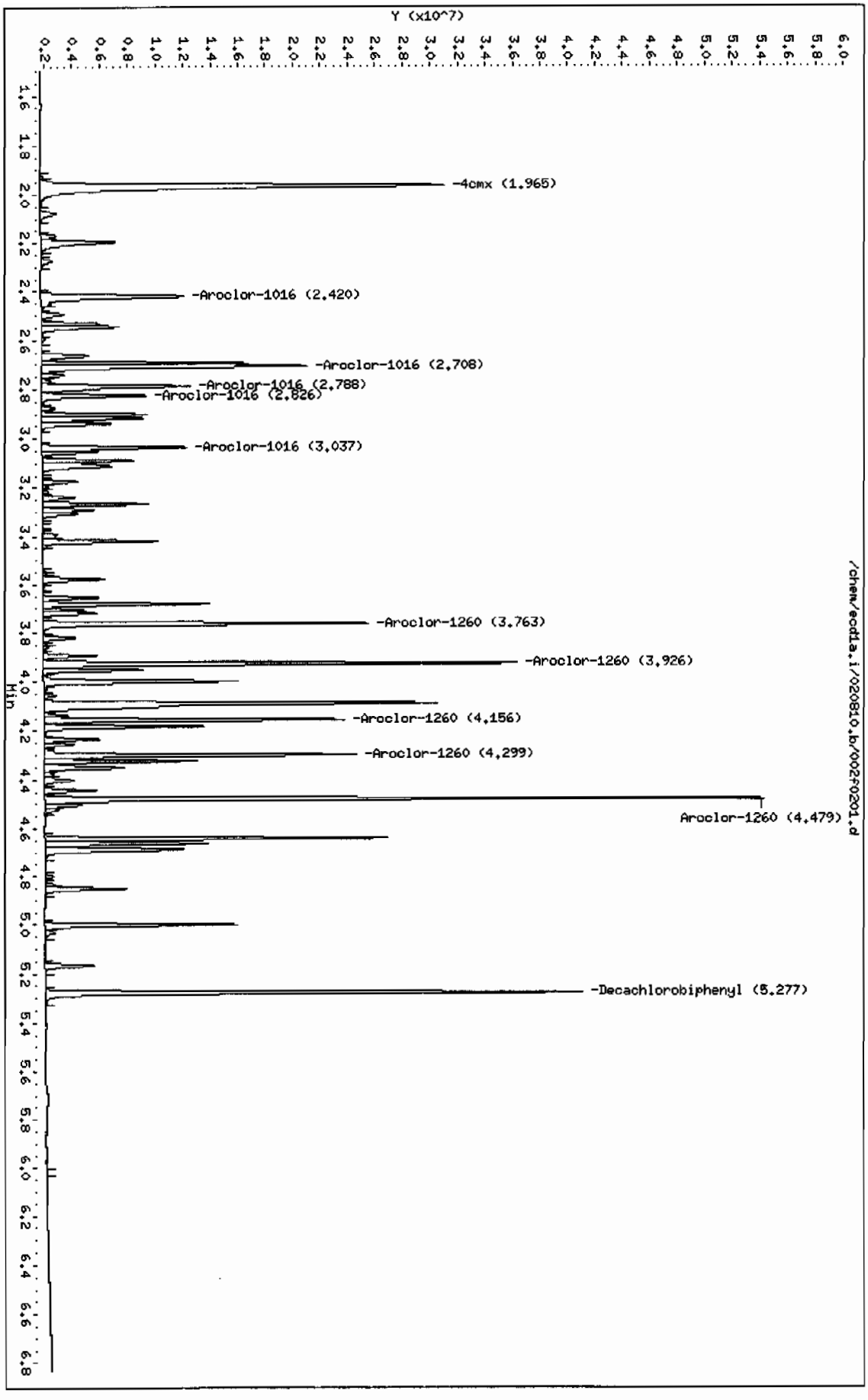

Page 1

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/020810.b/002b0201.d
Lab Smp Id: WAR100203-60 01 Client Smp ID: AR166001
Inj Date : 08-FEB-2010 06:33
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100203-60 01
Misc Info :
Comment :
Method : /chem/ecd1a.i/020810.b/ECD1-B-8082-121409.m
Meth Date : 08-Feb-2010 11:17 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017b1701.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.295	2.295	0.000	27373742	100.000	95.3	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.943	5.943	0.000	20380555	100.000	93.6	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.192	3.192	0.000	11843148	1000.00	949	80.00- 120.00	100.00(M)
3.275	3.275	0.000	7665717	1000.00	897	44.19- 84.19	64.73
3.339	3.339	0.000	4714580	1000.00	891	19.42- 59.42	39.81
3.566	3.566	0.000	6016545	1000.00	883	29.75- 69.75	50.80
3.641	3.641	0.000	5630567	1000.00	879	26.36- 66.36	47.54
Average of Peak Amounts =					900		
7 Aroclor-1260					CAS #: 11096-82-5		
4.333	4.333	0.000	12550501	1000.00	992	80.00- 120.00	100.00
4.457	4.457	0.000	15321401	1000.00	1010	101.73- 141.73	122.08
4.724	4.724	0.000	11628412	1000.00	998	70.86- 110.86	92.65
4.897	4.897	0.000	12030729	1000.00	998	73.12- 113.12	95.86
5.044	5.044	0.000	26809139	1000.00	1030	190.48- 230.48	213.61
Average of Peak Amounts =					1e+03		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd1a.i/020810.b/002b0201.d

Date : 08-FEB-2010 06:33

Client ID: AR166001

Sample Info: IWAR100203-60 01

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

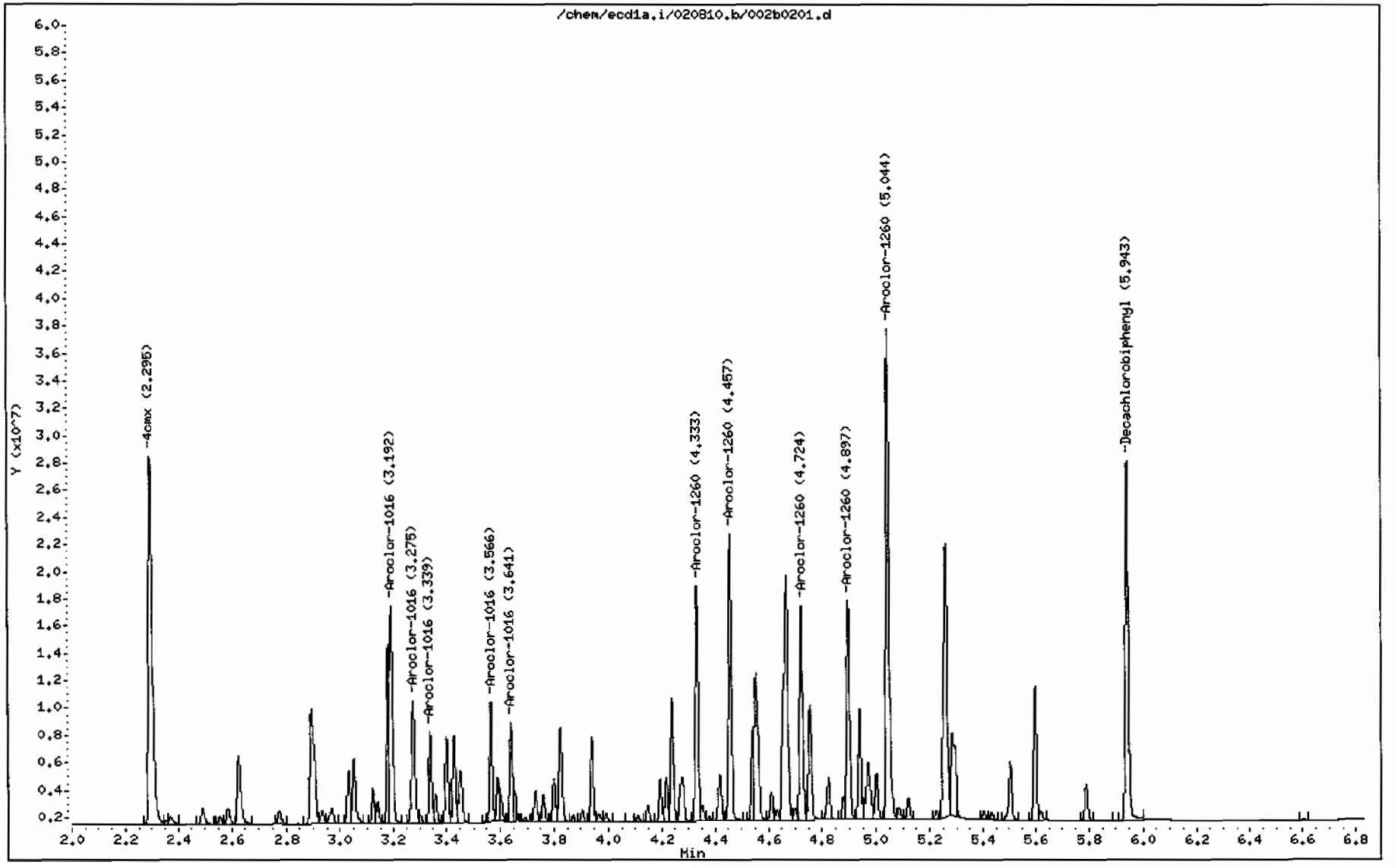

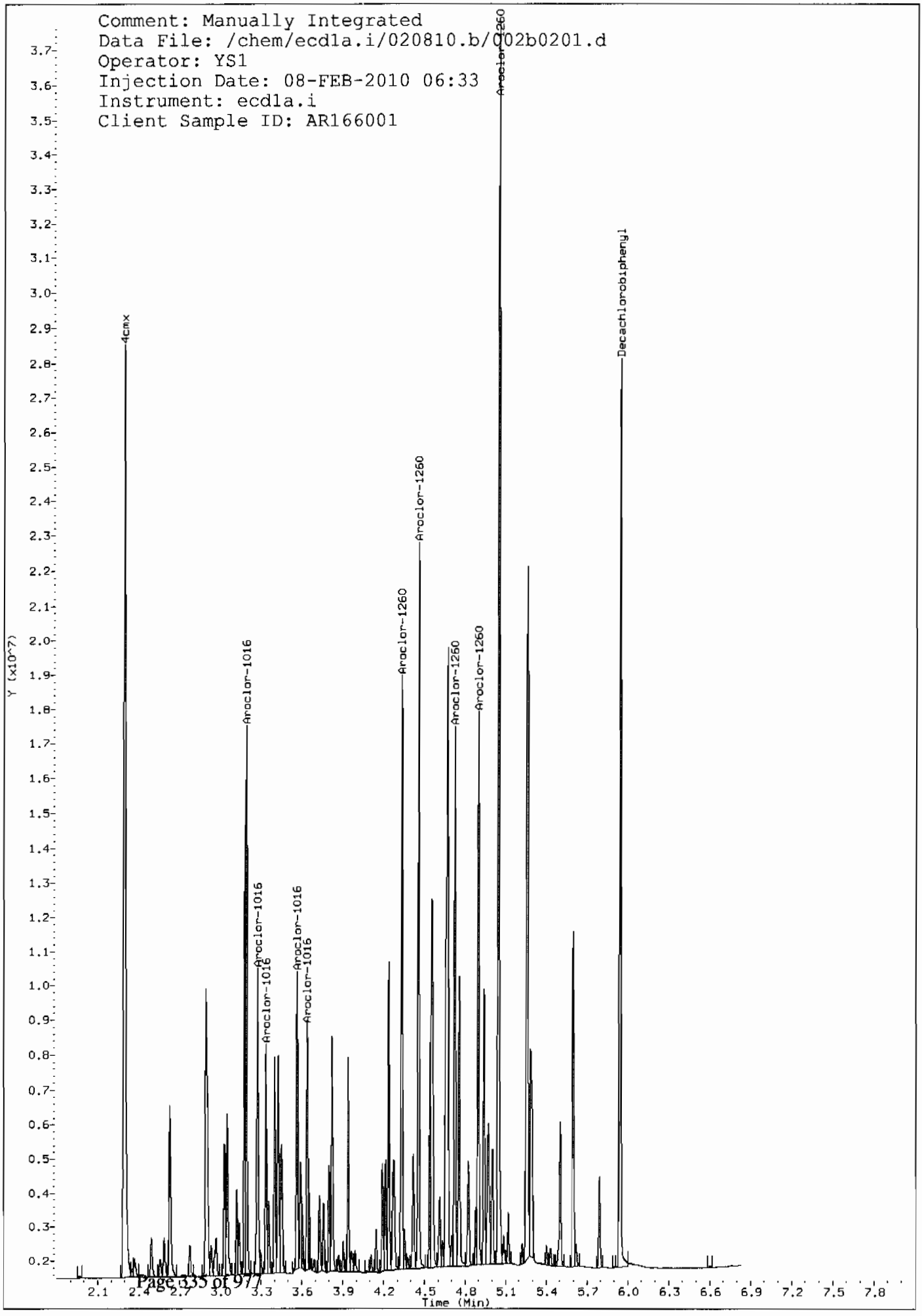
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Data File: /chem/ecd1a.i/020810.b/002b0201.d
Operator: YS1
Injection Date: 08-FEB-2010 06:33
Instrument: ecd1a.i
Client Sample ID: AR166001
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

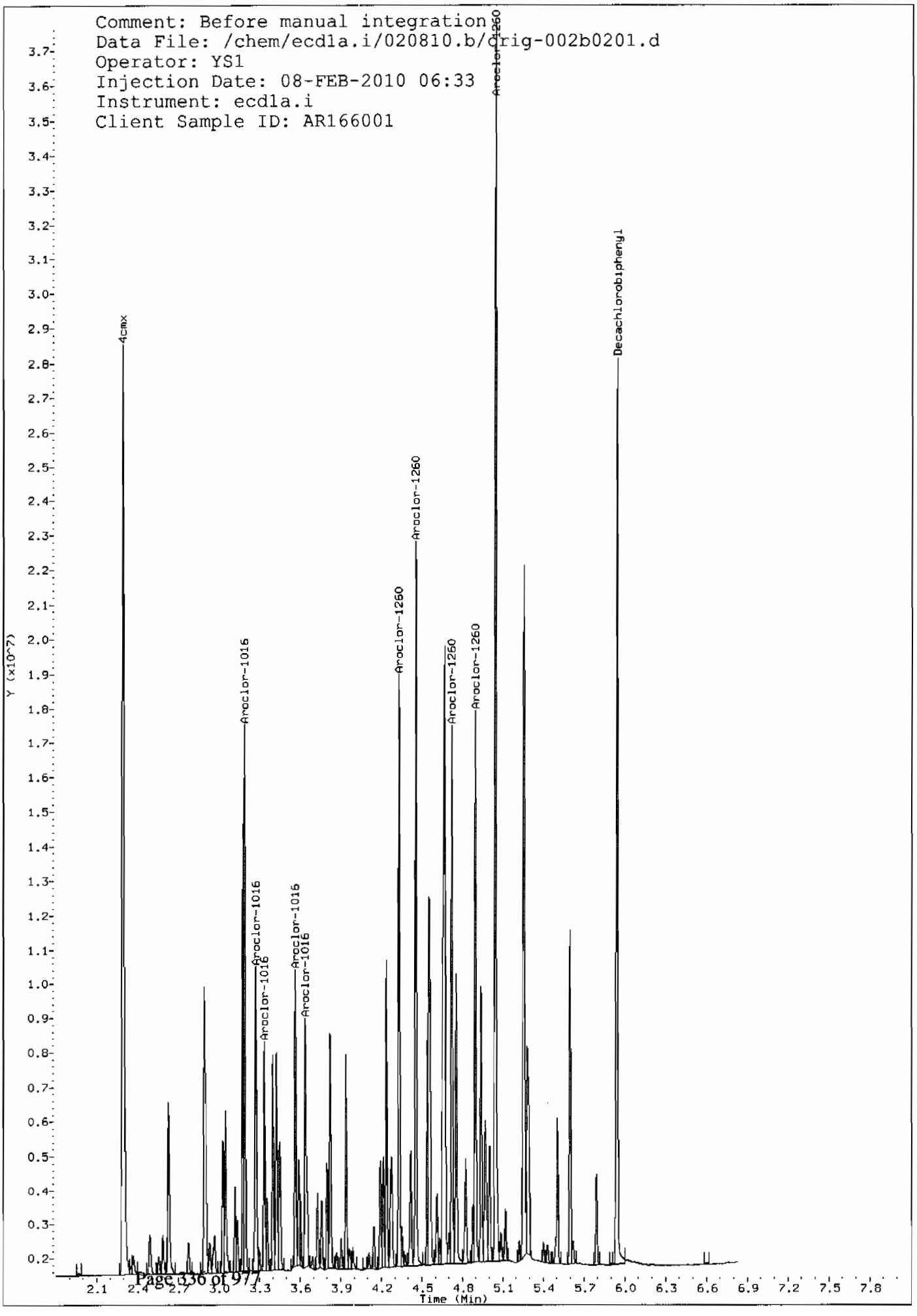
Comment: Before manual integration
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Operator: YS1
Injection Date: 08-FEB-2010 06:33
Instrument: ecd1a.i
Client Sample ID: AR166001
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/020810.b/004f0401.d
Lab Smp Id: WAR091217-42 Client Smp ID: AR124201
Inj Date : 08-FEB-2010 06:54
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR091217-42
Misc Info :
Comment :
Method : /chem/ecd1a.i/020810.b/ECD1-F-8082-121409.m
Meth Date : 08-Feb-2010 11:14 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017f1701.d
Als bottle: 4 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1242.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
4 Aroclor-1242					CAS #: 53469-21-9		
2.420	2.420	0.000	11016489	1000.00	945	80.00- 120.00	100.00
2.709	2.709	0.000	14177222	1000.00	1050	108.69- 148.69	128.69
2.827	2.827	0.000	5231453	1000.00	950	27.49- 67.49	47.49
3.038	3.038	0.000	6875110	1000.00	949	42.41- 82.41	62.41
3.291	3.291	0.000	6870195	1000.00	1010	42.36- 82.36	62.36
Average of Peak Amounts =					981		

Data File: /chem/ecd1a.i/020810.b/004f0401.d
Date : 08-FEB-2010 06:54
Client ID: AR124201
Sample Info: IWAR091217-42

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1
Column diameter: 0.25

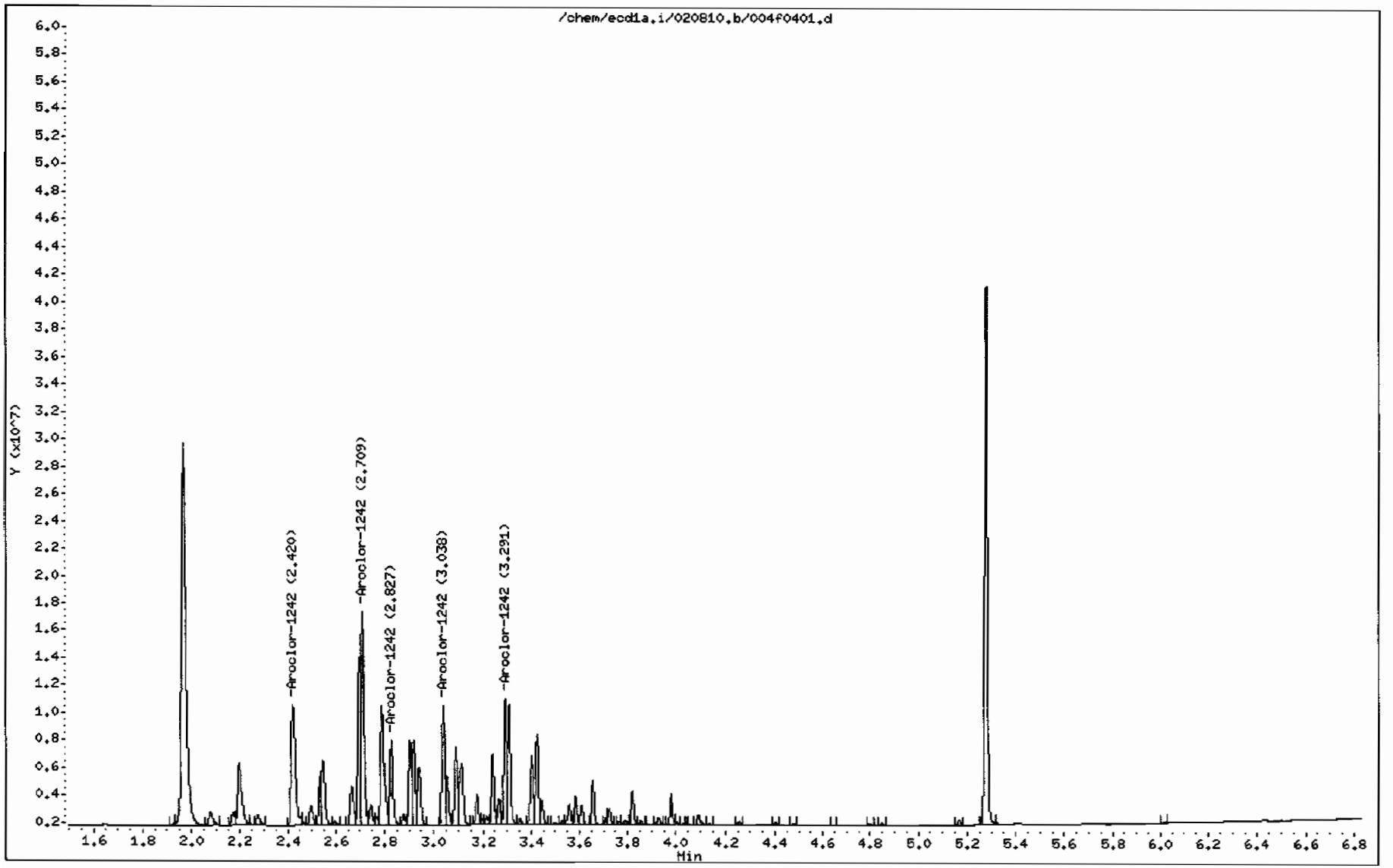

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/020810.b/004b0401.d
Lab Smp Id: WAR091217-42 Client Smp ID: AR124201
Inj Date : 08-FEB-2010 06:54
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR091217-42
Misc Info :
Comment :
Method : /chem/ecd1a.i/020810.b/ECD1-B-8082-121409.m
Meth Date : 08-Feb-2010 11:17 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017b1701.d
Als bottle: 4 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1242.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
4 Aroclor-1242					CAS #: 53469-21-9		
3.194	3.194	0.000	9838330	1000.00	929	80.00- 120.00	100.00
3.276	3.276	0.000	6473547	1000.00	804	45.80- 85.80	65.80
3.567	3.567	0.000	5073975	1000.00	851	31.57- 71.57	51.57
3.800	3.800	0.000	5219947	1000.00	862	33.06- 73.06	53.06
3.829	3.829	0.000	5830728	1000.00	870	39.27- 79.27	59.27
		Average of Peak Amounts =			863		

Data File: /chem/ecd1a.i/020810.b/004b0401.d

Date : 08-FEB-2010 06:54

Client ID: AR124201

Sample Info: IWAR091217-42

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

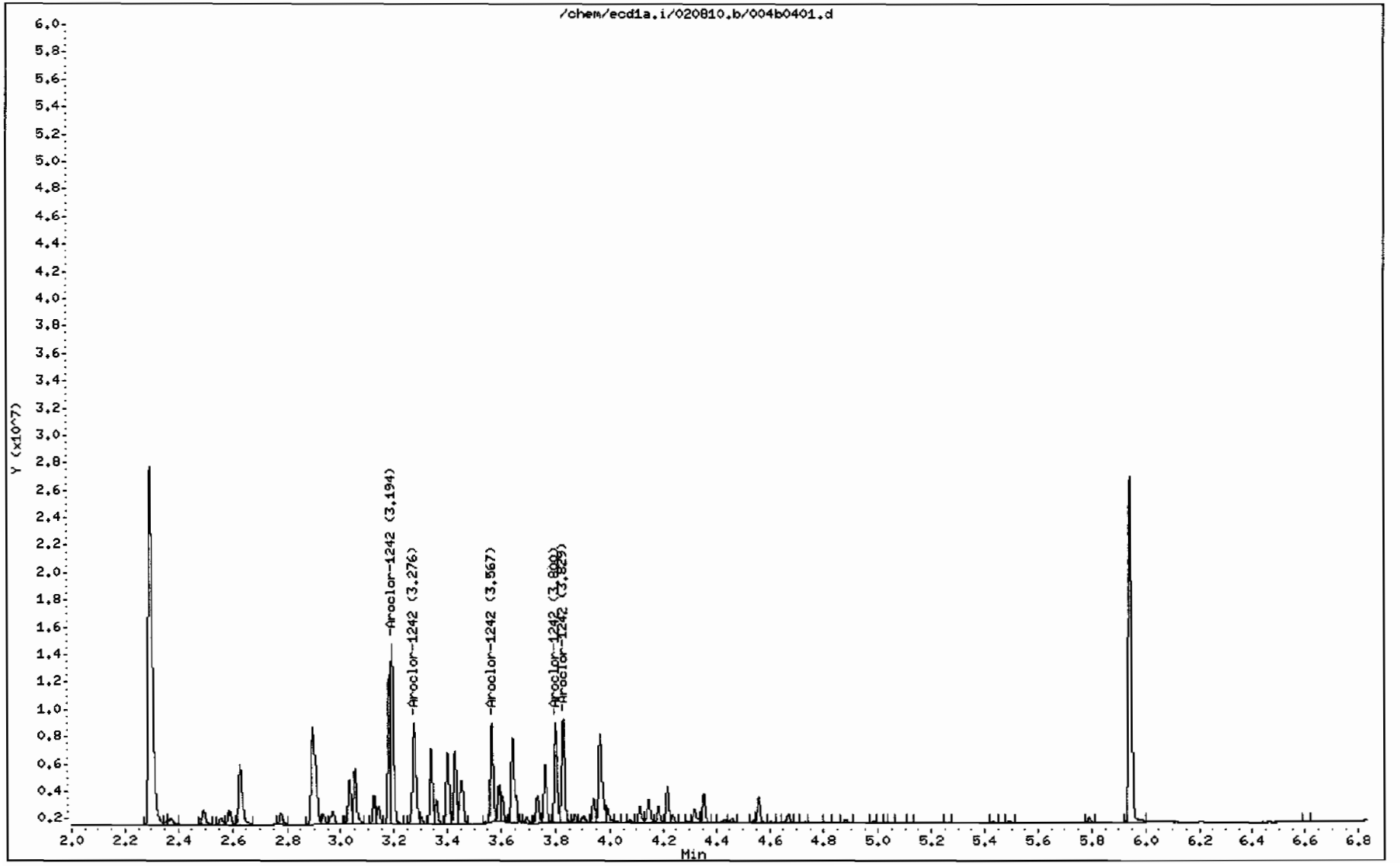

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/020810.b/005f0501.d
Lab Smp Id: WAR091217-48 Client Smp ID: AR124801
Inj Date : 08-FEB-2010 07:05
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR091217-48
Misc Info :
Comment :
Method : /chem/ecd1a.i/020810.b/ECD1-F-8082-121409.m
Meth Date : 08-Feb-2010 11:14 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017f1701.d
Als bottle: 5 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1248.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 Aroclor-1248					CAS #: 12672-29-6		
3.090	3.090	0.000	7744923	1000.00	987	80.00- 120.00	100.00
3.240	3.240	0.000	6723989	1000.00	979	66.82- 106.82	86.82
3.292	3.292	0.000	13653830	1000.00	1020	156.29- 196.29	176.29
3.424	3.424	0.000	10604301	1000.00	963	116.92- 156.92	136.92
3.656	3.656	0.000	6761240	1000.00	907	67.30- 107.30	87.30
		Average of Peak Amounts =			972		

Data File: /chem/ecd1a.i/020810.b/005f0501.d

Date : 08-FEB-2010 07:05

Client ID: AR124801

Sample Info: IWAR091217-48

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

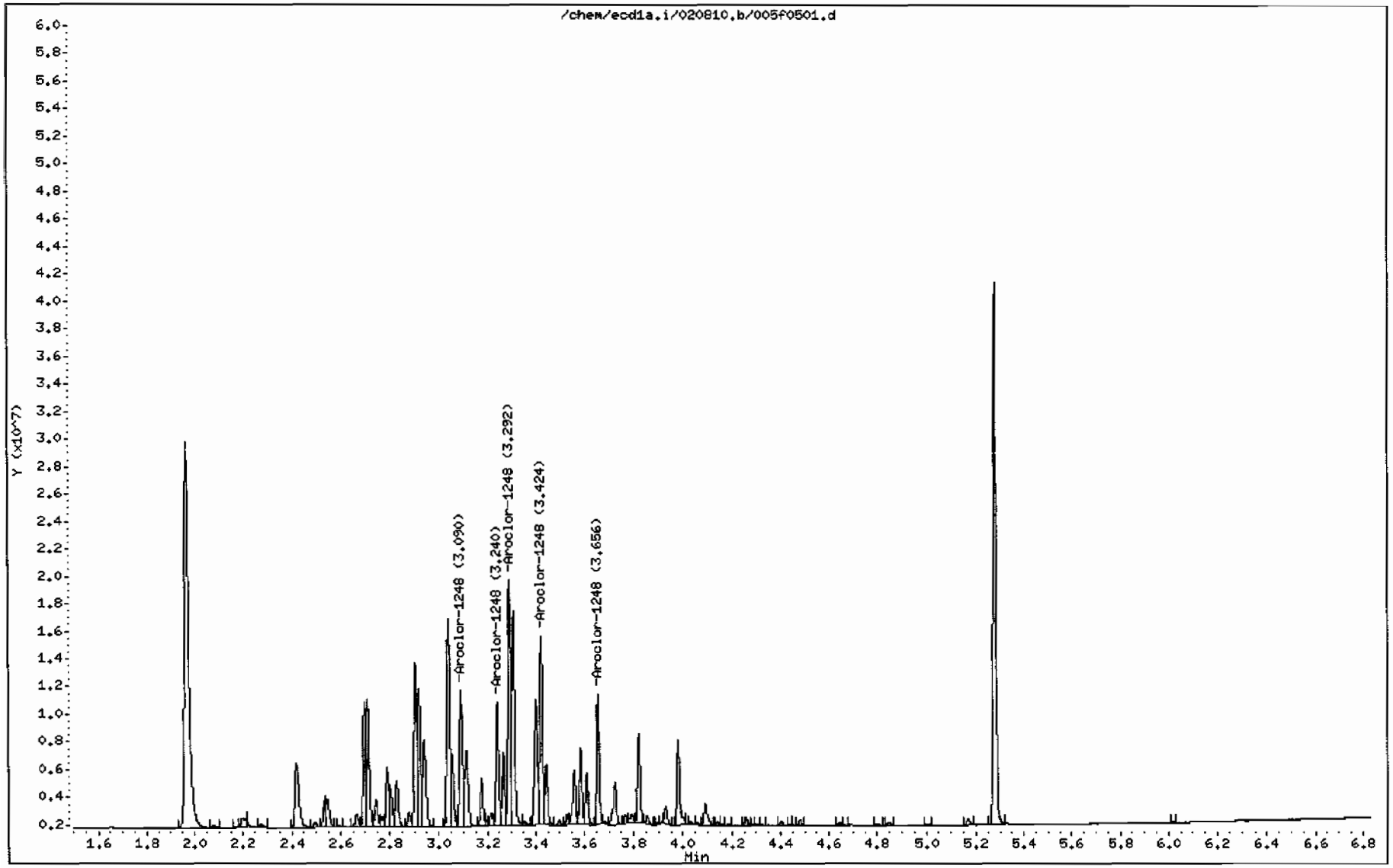

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/020810.b/005b0501.d
Lab Smp Id: WAR091217-48 Client Smp ID: AR124801
Inj Date : 08-FEB-2010 07:05
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR091217-48
Misc Info :
Comment :
Method : /chem/ecd1a.i/020810.b/ECD1-B-8082-121409.m
Meth Date : 08-Feb-2010 11:17 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017b1701.d
Als bottle: 5 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1248.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 Aroclor-1248					CAS #: 12672-29-6		
3.402	3.402	0.000	7035425	1000.00	874	80.00- 120.00	100.00
3.567	3.567	0.000	8794717	1000.00	891	105.01- 145.01	125.01
3.801	3.801	0.000	9998388	1000.00	891	122.11- 162.11	142.11
3.829	3.829	0.000	11074869	1000.00	887	137.42- 177.42	157.42
3.965	3.965	0.000	10758433	1000.00	889	132.92- 172.92	152.92
		Average of Peak Amounts =			886		

Data File: /chem/ecd1a.i/020810.b/005b0501.d
Date : 08-FEB-2010 07:05
Client ID: AR124801
Sample Info: IWAR091217-48

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1
Column diameter: 0.25

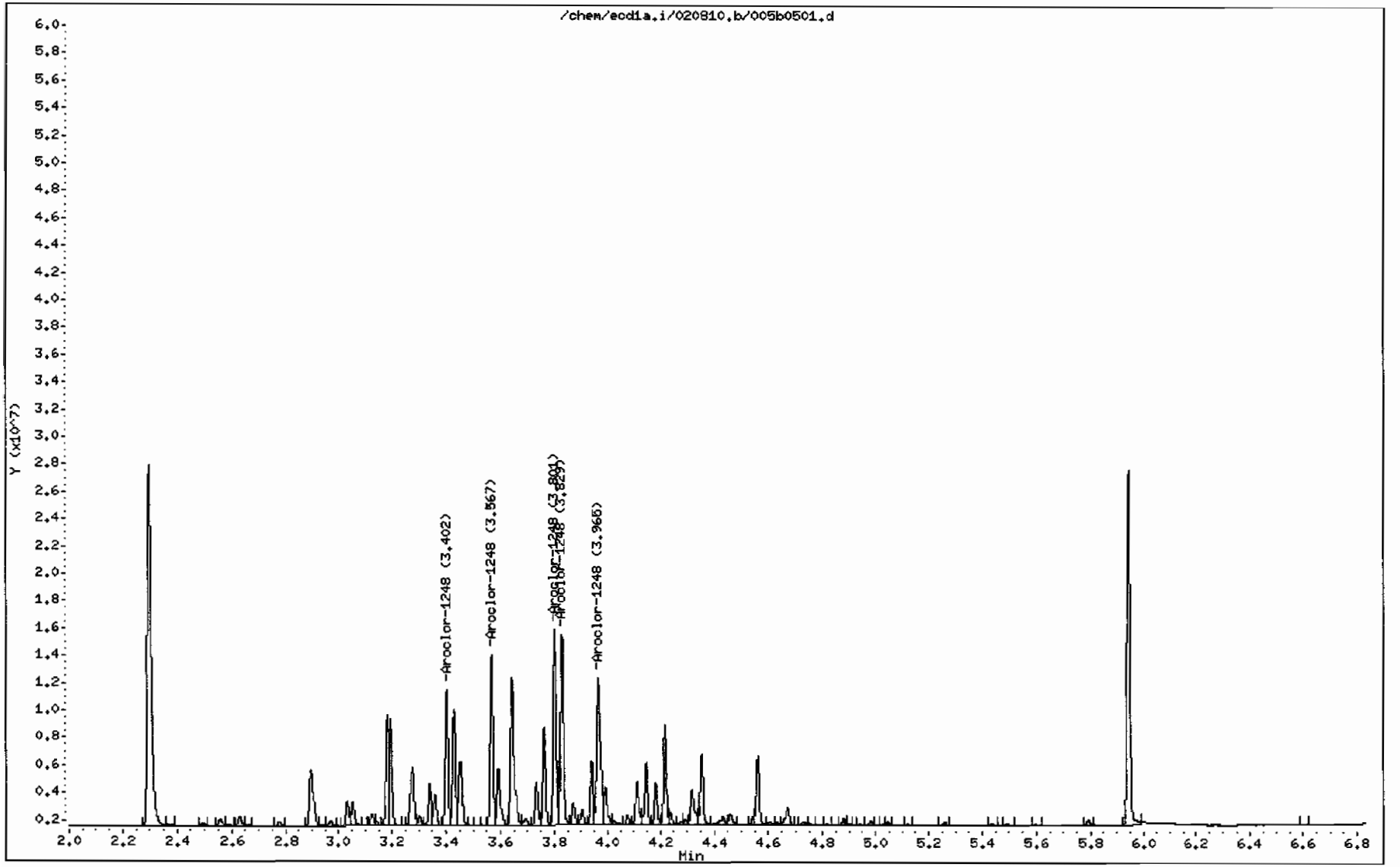

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/020810.b/007f0701.d
Lab Smp Id: WAR100104-32 Client Smp ID: AR123201
Inj Date : 08-FEB-2010 07:26
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100104-32
Misc Info :
Comment :
Method : /chem/ecd1a.i/020810.b/ECD1-F-8082-121409.m
Meth Date : 08-Feb-2010 11:14 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017f1701.d
Als bottle: 7 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1232.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
3 Aroclor-1232					CAS #: 11141-16-5		
2.420	2.420	0.000	6366163	1000.00	929	80.00- 120.00	100.00
2.709	2.709	0.000	8317755	1000.00	987	110.66- 150.66	130.66
2.789	2.789	0.000	5347789	1000.00	950	64.00- 104.00	84.00
3.038	3.038	0.000	3979020	1000.00	999	42.50- 82.50	62.50
3.292	3.292	0.000	3615747	1000.00	937	36.80- 76.80	56.80
		Average of Peak Amounts =			961		

Data File: /chem/ecd1a.i/020810.b/007f0701.d
Date : 08-FEB-2010 07:26
Client ID: AR123201
Sample Info: IWAR100104-32

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1
Column diameter: 0.25

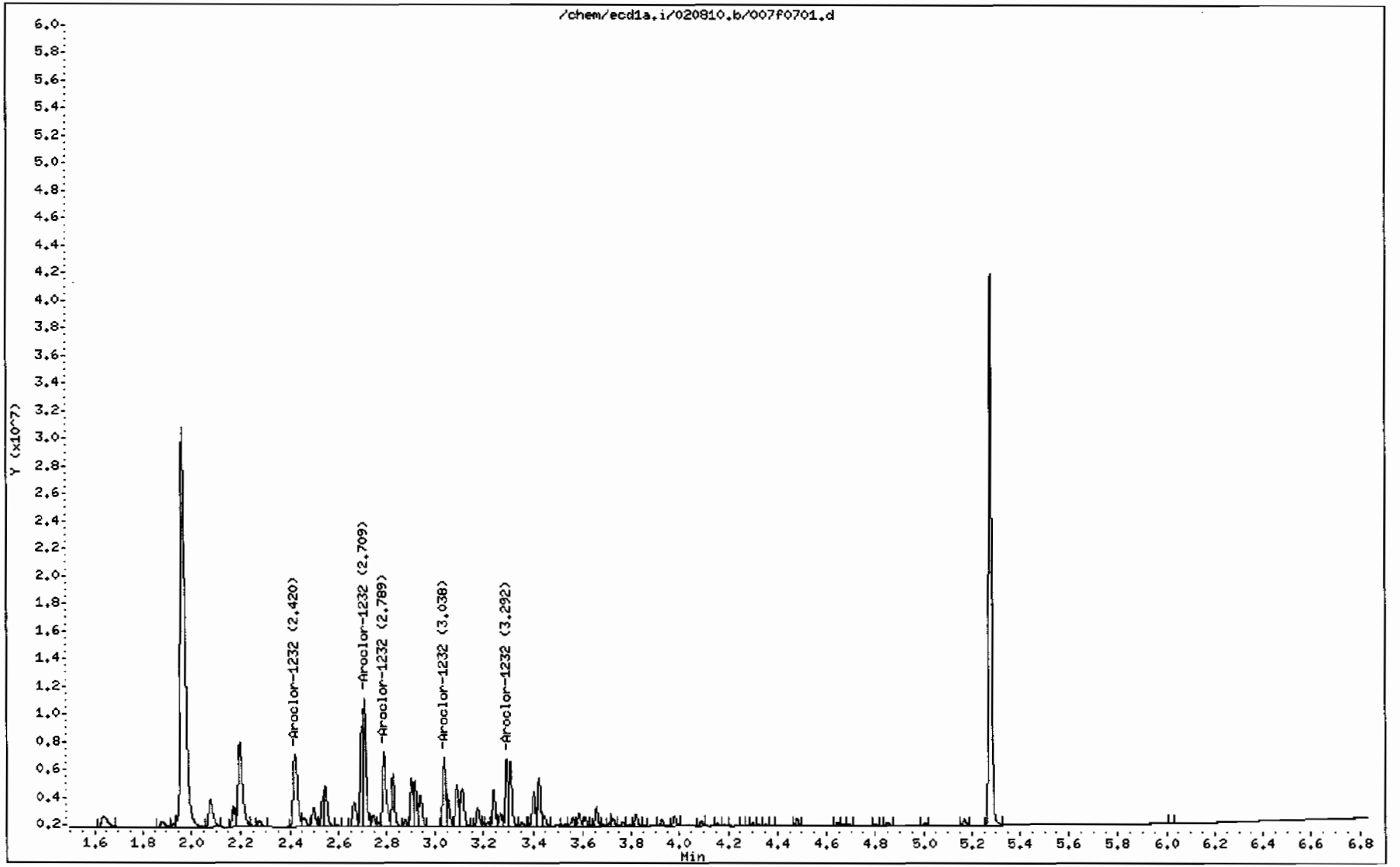

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/020810.b/007b0701.d
Lab Smp Id: WAR100104-32 Client Smp ID: AR123201
Inj Date : 08-FEB-2010 07:26
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100104-32
Misc Info :
Comment :
Method : /chem/ecd1a.i/020810.b/ECD1-B-8082-121409.m
Meth Date : 08-Feb-2010 11:17 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017b1701.d
Als bottle: 7 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1232.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
3 Aroclor-1232					CAS #: 11141-16-5		
2.895	2.895	0.000	5335026	1000.00	905	80.00- 120.00	100.00
3.193	3.193	0.000	5989032	1000.00	963	92.26- 132.26	112.26
3.276	3.276	0.000	4070182	1000.00	937	56.29- 96.29	76.29
3.567	3.567	0.000	2979772	1000.00	958	35.85- 75.85	55.85
3.801	3.801	0.000	2934401	1000.00	919	35.00- 75.00	55.00
Average of Peak Amounts =					936		

Data File: /chem/ecd1a.i/020810.b/007b0701.d
Date : 08-FEB-2010 07:26
Client ID: AR123201
Sample Info: IWAR100104-32

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1
Column diameter: 0.25

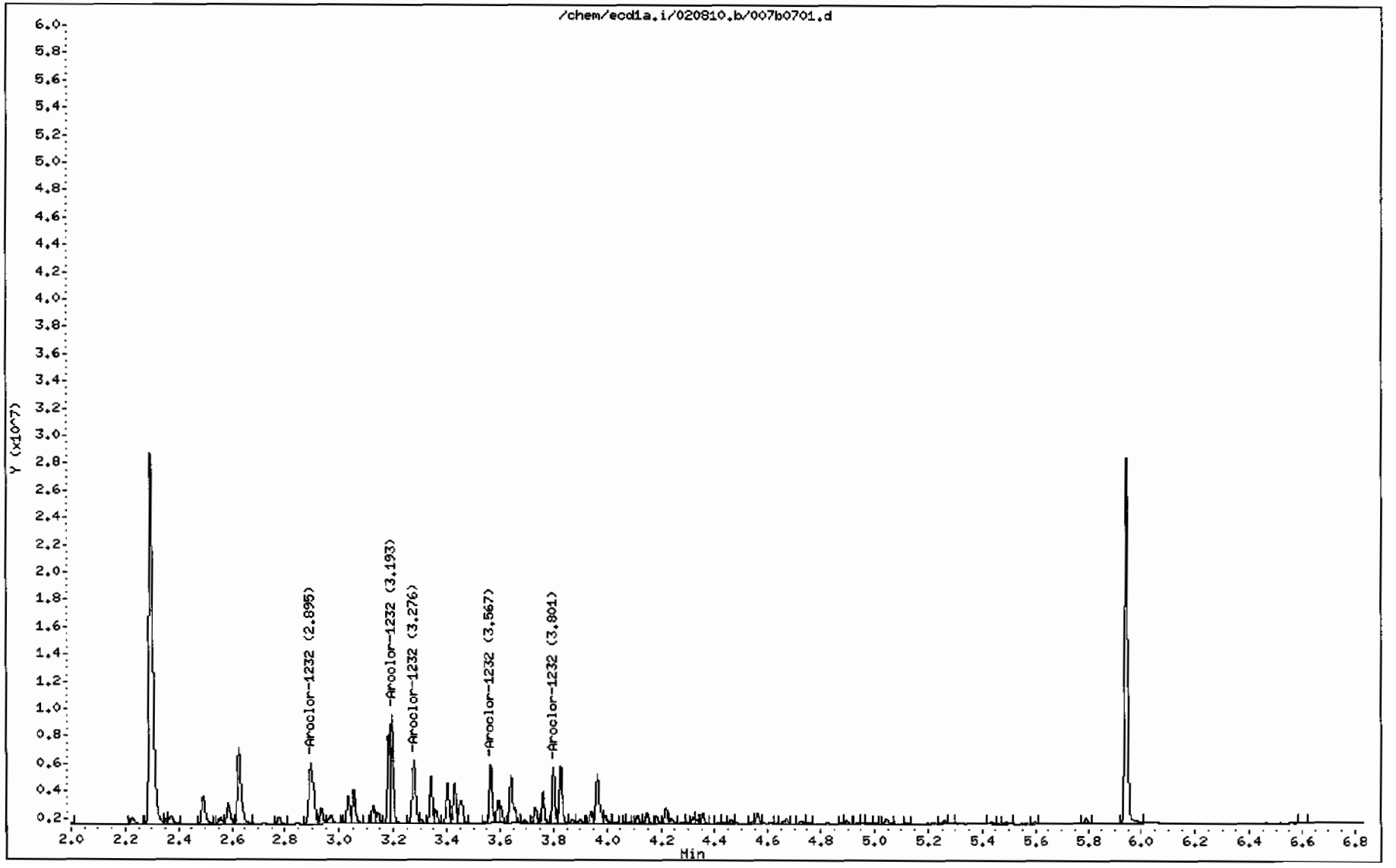

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/020810.b/008f0801.d
Lab Smp Id: WAR100104-21 Client Smp ID: AR122101
Inj Date : 08-FEB-2010 07:36
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100104-21
Misc Info :
Comment :
Method : /chem/ecd1a.i/020810.b/ECD1-F-8082-121409.m
Meth Date : 08-Feb-2010 11:14 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017f1701.d
Als bottle: 8 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1221.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
2 Aroclor-1221					CAS #: 11104-28-2		
2.079	2.079	0.000	4194126	1000.00	975	80.00- 120.00	100.00
2.171	2.171	0.000	2295422	1000.00	940	34.73- 74.73	54.73
2.197	2.197	0.000	10233273	1000.00	996	223.99- 263.99	243.99
		Average of Peak Amounts =			971		

Data File: /chem/ecd1a.i/020810.b/008f0801.d

Date : 08-FEB-2010 07:36

Client ID: AR122101

Sample Info: IWAR100104-21

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

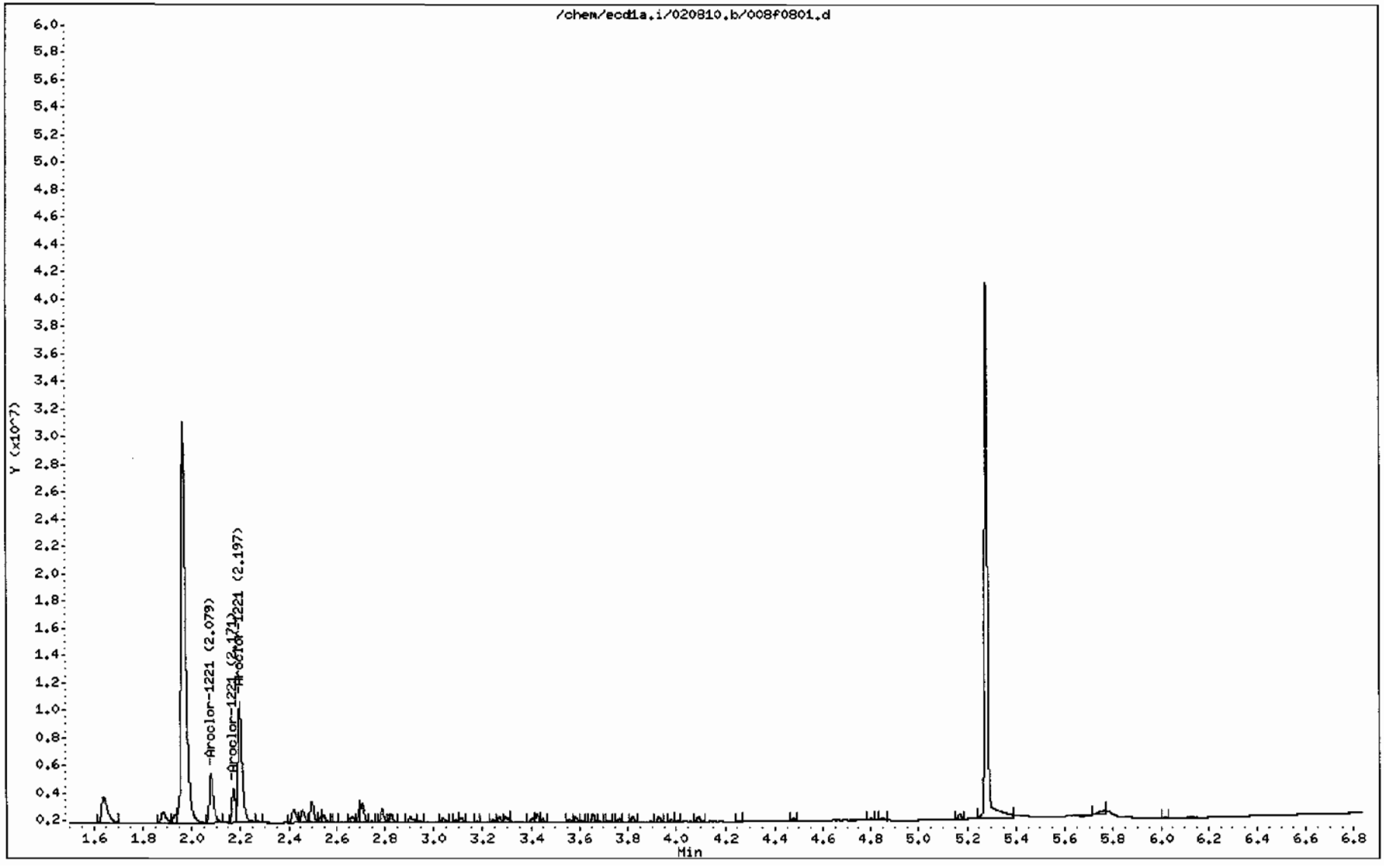

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/020810.b/008b0801.d
Lab Smp Id: WAR100104-21 Client Smp ID: AR122101
Inj Date : 08-FEB-2010 07:36
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100104-21
Misc Info :
Comment :
Method : /chem/ecd1a.i/020810.b/ECD1-B-8082-121409.m
Meth Date : 08-Feb-2010 11:17 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017b1701.d
Als bottle: 8 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1221.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
2 Aroclor-1221					CAS #: 11104-28-2		
2.493	2.493	0.000	3326742	1000.00	914	80.00- 120.00	100.00
2.588	2.588	0.000	2153739	1000.00	925	44.74- 84.74	64.74
2.628	2.628	0.000	7370836	1000.00	908	201.56- 241.56	221.56
Average of Peak Amounts =					916		

Data File: /chem/ecd1a.i/020810.b/008b0801.d

Page 1

Date : 08-FEB-2010 07:36

Client ID: AR122101

Instrument: ecd1a.i

Sample Info: IWAR100104-21

Operator: YS1

Column phase: CLP2

Column diameter: 0.25

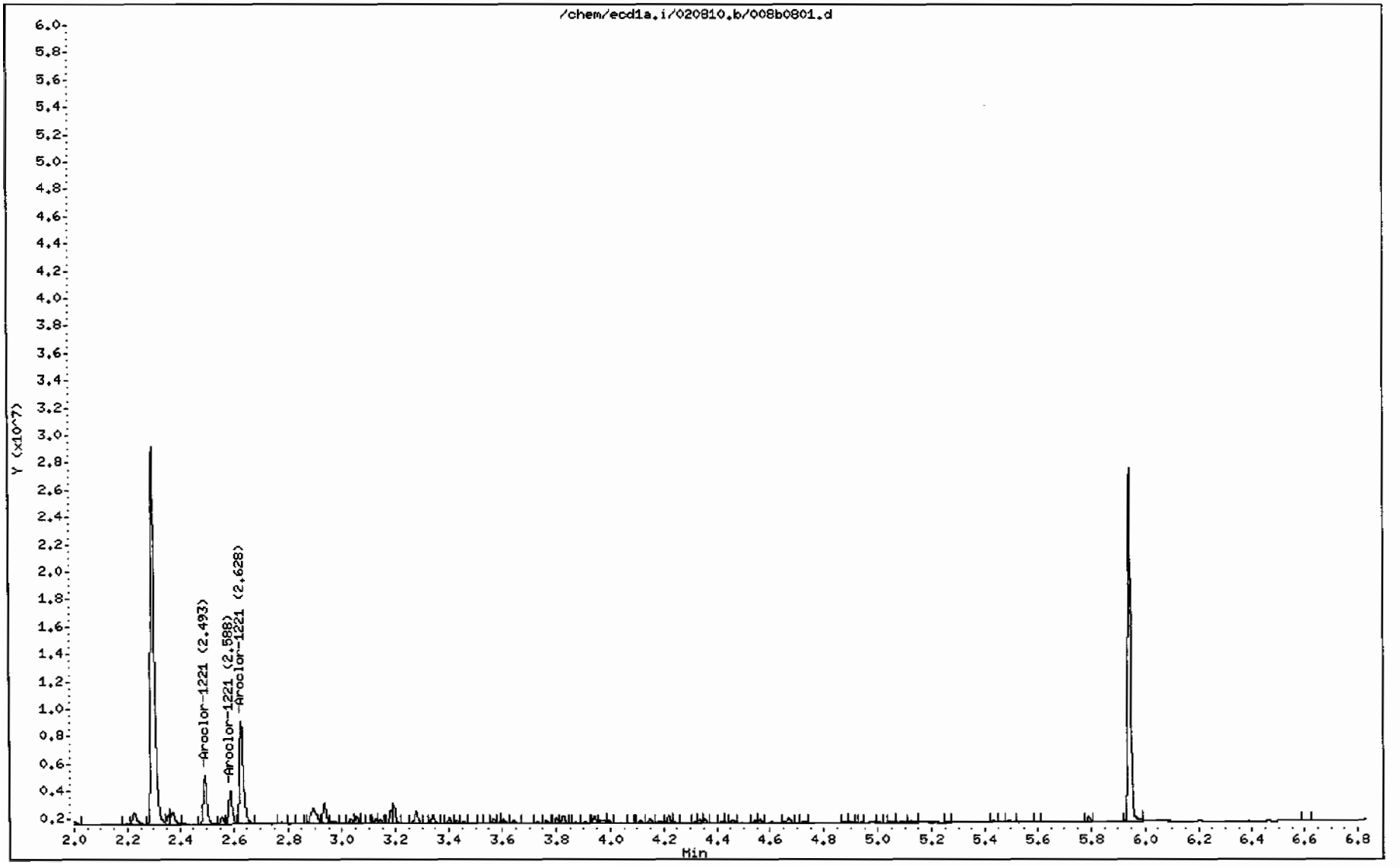

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/020810.b/009f0901.d
Lab Smp Id: WAR091216-54 Client Smp ID: AR125401
Inj Date : 08-FEB-2010 07:46
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR091216-54
Misc Info :
Comment :
Method : /chem/ecd1a.i/020810.b/ECD1-F-8082-121409.m
Meth Date : 08-Feb-2010 11:14 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017f1701.d
Als bottle: 9 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1254.sub
Target Version: 3.50 Sample Matrix: None

AMOUNTS

RT	EXP RT	DLT RT	RESPONSE	CAL-AMT (ug/L)	ON-COL (ug/L)	TARGET RANGE	RATIO
6 Aroclor-1254					CAS #: 11097-69-1		
3.266	3.266	0.000	12554905	1000.00	1000	80.00- 120.00	100.00
3.421	3.421	0.000	17295908	1000.00	1030	117.76- 157.76	137.76
3.656	3.656	0.000	22526745	1000.00	1090	159.43- 199.43	179.43
3.819	3.819	0.000	17033964	1000.00	1080	115.68- 155.68	135.68
3.927	3.927	0.000	16327939	1000.00	1080	110.05- 150.05	130.05

Average of Peak Amounts = 1.06e+03

Data File: /chem/ecd1a.i/020810.b/009f0901.d
Date : 08-FEB-2010 07:46
Client ID: AR125401
Sample Info: IWAR091216-54

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1
Column diameter: 0.25

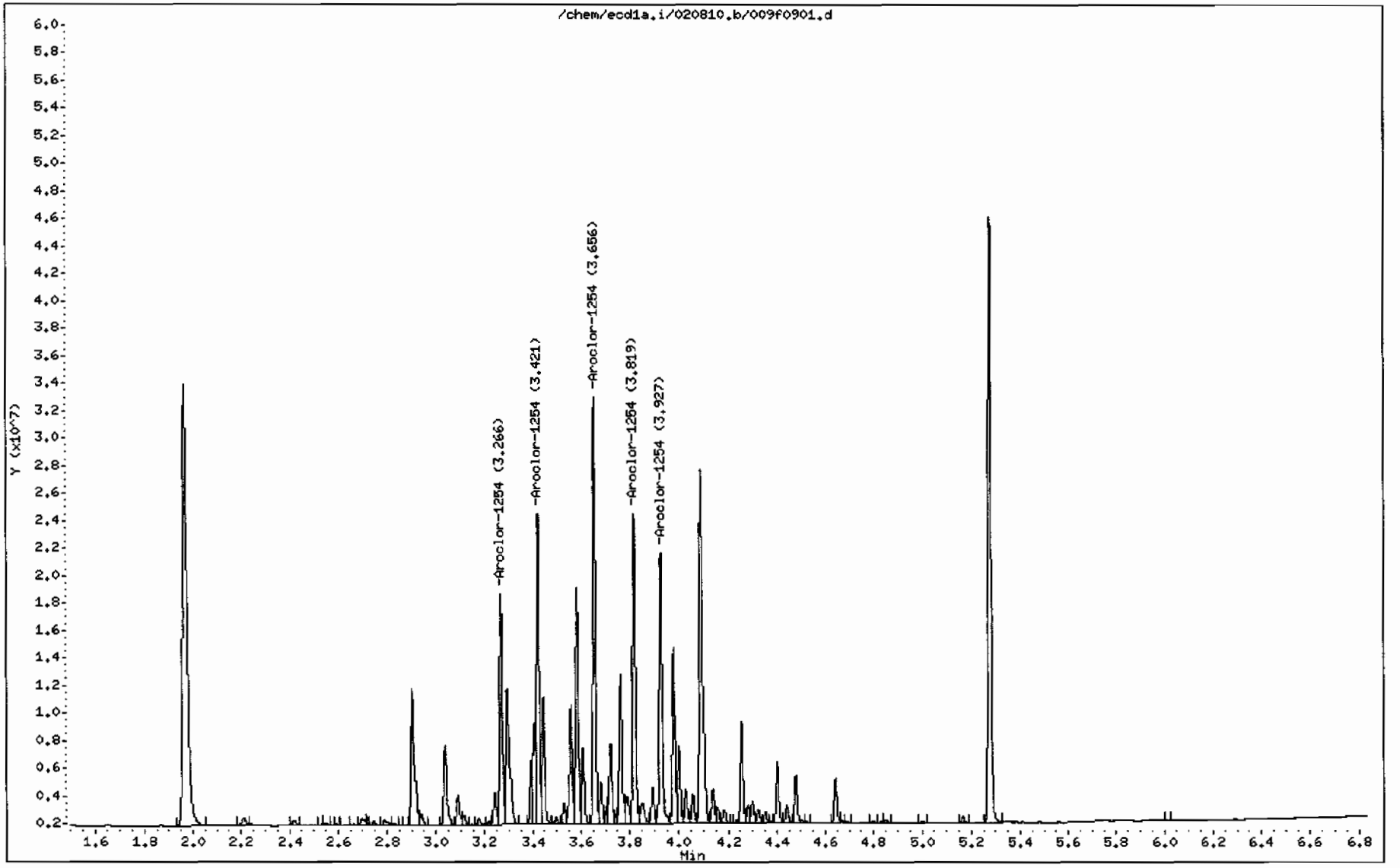

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/020810.b/009b0901.d
Lab Smp Id: WAR091216-54 Client Smp ID: AR125401
Inj Date : 08-FEB-2010 07:46
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR091216-54
Misc Info :
Comment :
Method : /chem/ecd1a.i/020810.b/ECD1-B-8082-121409.m
Meth Date : 08-Feb-2010 11:17 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017b1701.d
Als bottle: 9 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1254.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
6 Aroclor-1254					CAS #: 11097-69-1		
3.401	3.401	0.000	5822786	1000.00	905	80.00- 120.00	100.00
3.824	3.824	0.000	10521089	1000.00	910	160.69- 200.69	180.69
3.941	3.941	0.000	11536683	1000.00	928	178.13- 218.13	198.13
4.216	4.216	0.000	16118401	1000.00	955	256.82- 296.82	276.82
4.353	4.353	0.000	11662045	1000.00	938	180.28- 220.28	200.28
Average of Peak Amounts =					927		

Data File: /chem/ecd1a.i/020810.b/009b0901.d
Date : 08-FEB-2010 07:46
Client ID: AR125401
Sample Info: IWAR091216-54

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1
Column diameter: 0.25

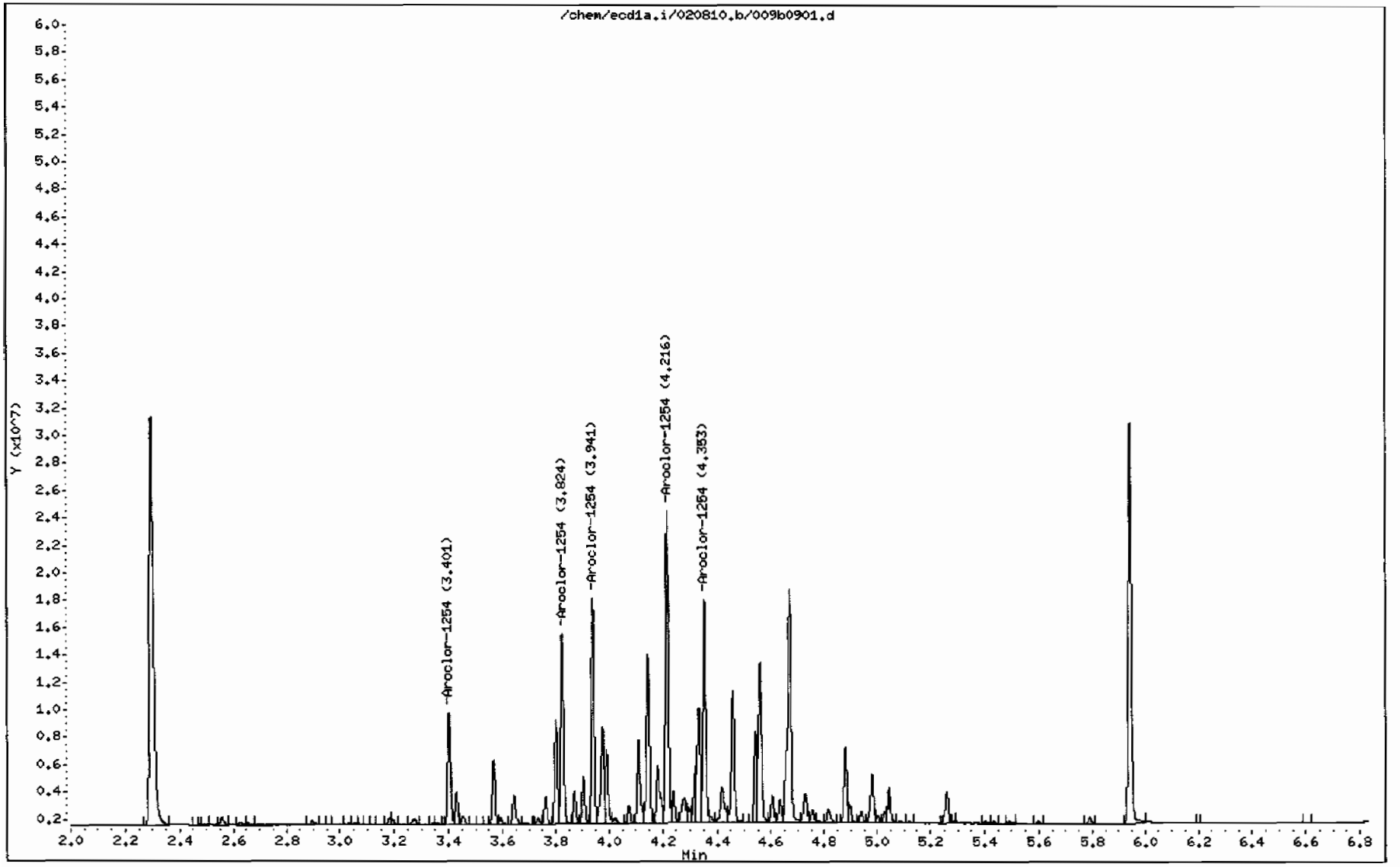

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/020810.b/025f2501.d
Lab Smp Id: WAR100203-60 03 Client Smp ID: AR166003
Inj Date : 08-FEB-2010 10:45
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100203-60 03
Misc Info :
Comment :
Method : /chem/ecd1a.i/020810.b/ECD1-F-8082-121409.m
Meth Date : 08-Feb-2010 11:14 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017f1701.d
Als bottle: 25 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.964	1.965	-0.001	37224709	100.000	93.4	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.275	5.277	-0.002	28650091	100.000	88.6	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.419	2.420	-0.001	12839615	1000.00	876	80.00- 120.00	100.00
2.707	2.708	-0.001	17084639	1000.00	932	113.06- 153.06	133.06
2.787	2.788	-0.001	10521734	1000.00	875	61.95- 101.95	81.95
2.825	2.826	-0.001	6364026	1000.00	886	29.57- 69.57	49.57
3.036	3.037	-0.001	8165053	1000.00	879	43.59- 83.59	63.59
Average of Peak Amounts =					890		
7 Aroclor-1260					CAS #: 11096-82-5		
3.762	3.763	-0.001	17042517	1000.00	966	80.00- 120.00	100.00
3.924	3.926	-0.002	25929842	1000.00	972	132.15- 172.15	152.15
4.154	4.156	-0.002	15238478	1000.00	957	69.41- 109.41	89.41
4.297	4.299	-0.002	15938426	1000.00	963	73.52- 113.52	93.52
4.476	4.479	-0.003	36559066	1000.00	984	194.52- 234.52	214.52
Average of Peak Amounts =					969		

Data File: /chem/ecd1a.i/020810.b/025f2501.d
Date : 08-FEB-2010 10:45
Client ID: AR166003
Sample Info: IWAR100203-60 03

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1
Column diameter: 0.25

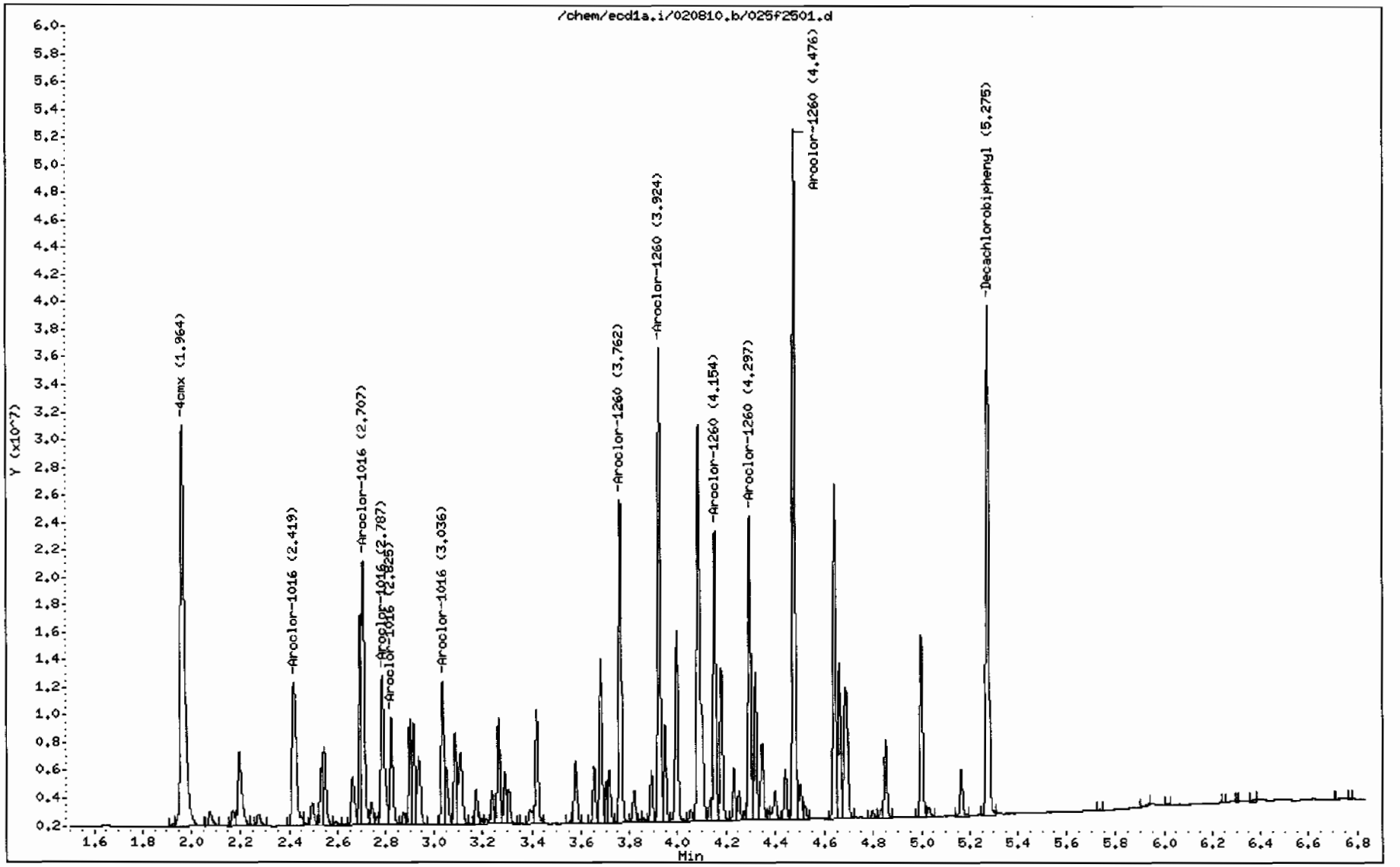

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/020810.b/025b2501.d
Lab Smp Id: WAR100203-60 03 Client Smp ID: AR166003
Inj Date : 08-FEB-2010 10:45
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100203-60 03
Misc Info :
Comment :
Method : /chem/ecd1a.i/020810.b/ECD1-B-8082-121409.m
Meth Date : 08-Feb-2010 11:17 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017b1701.d
Als bottle: 25 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

AMOUNTS

RT	EXP RT	DLT RT	RESPONSE	CAL-AMT (ug/L)	ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.296	2.295	0.001	27023860	100.000	94.1	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.941	5.943	-0.002	18075604	100.000	83.0	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.192	3.192	0.000	11521043	1000.00	923	80.00- 120.00	100.00(M)
3.275	3.275	0.000	7395269	1000.00	865	44.26- 84.26	64.19
3.338	3.339	-0.001	4541546	1000.00	858	19.34- 59.34	39.42
3.566	3.566	0.000	5732138	1000.00	841	30.43- 70.43	49.75
3.641	3.641	0.000	5341081	1000.00	834	27.02- 67.02	55.34
Average of Peak Amounts =					864		
7 Aroclor-1260					CAS #: 11096-82-5		
4.332	4.333	-0.001	11669497	1000.00	923	80.00- 120.00	100.00
4.456	4.457	-0.001	14205476	1000.00	933	101.86- 141.86	121.73
4.722	4.724	-0.002	10603299	1000.00	910	72.77- 112.77	90.86
4.896	4.897	-0.001	10866248	1000.00	901	75.73- 115.73	93.12
5.042	5.044	-0.002	24562081	1000.00	942	193.48- 233.48	210.48
Average of Peak Amounts =					922		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd1a.i/020810.b/025b2501.d

Date : 08-FEB-2010 10:45

Client ID: AR166003

Sample Info: !WAR100203-60 03

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

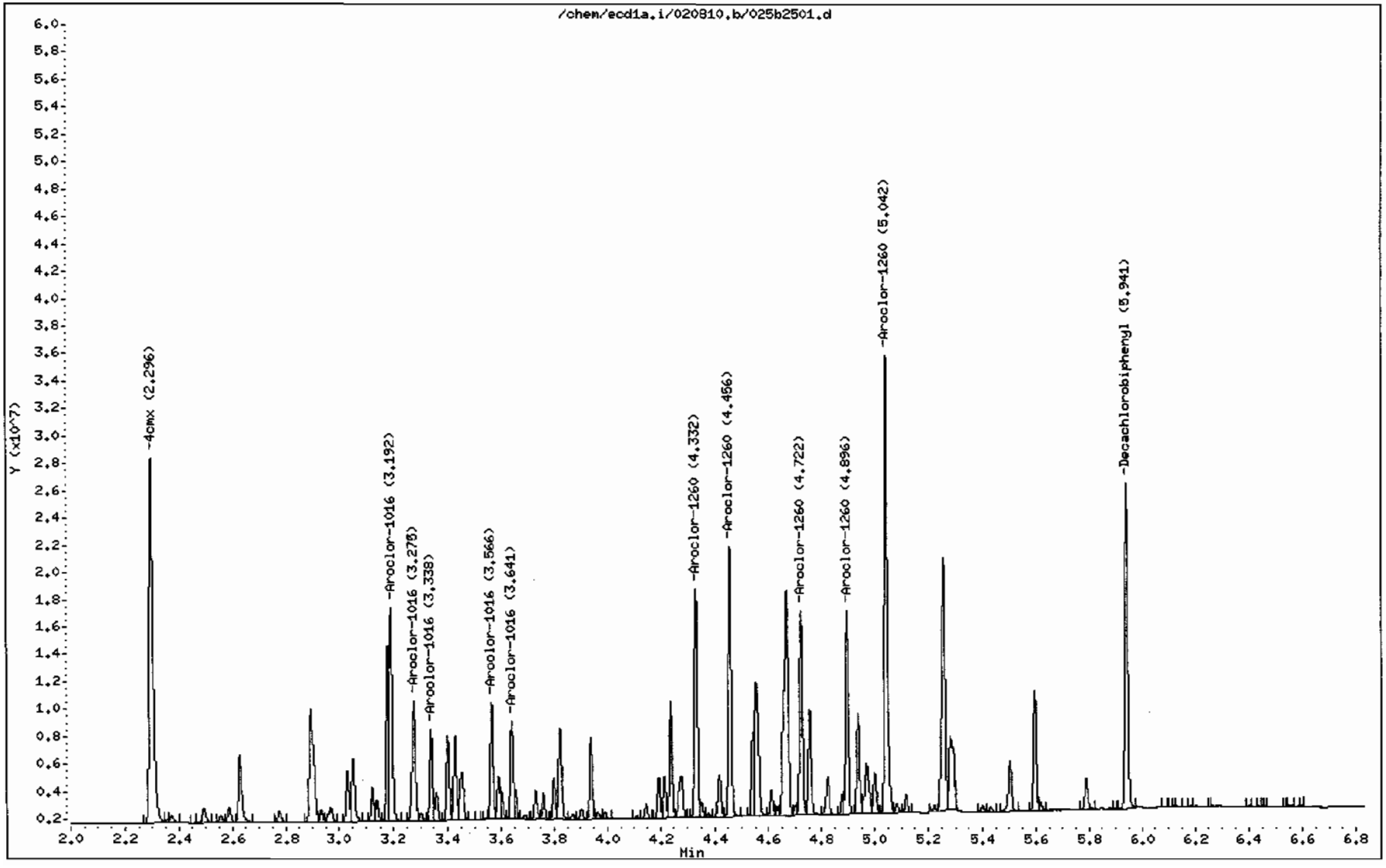

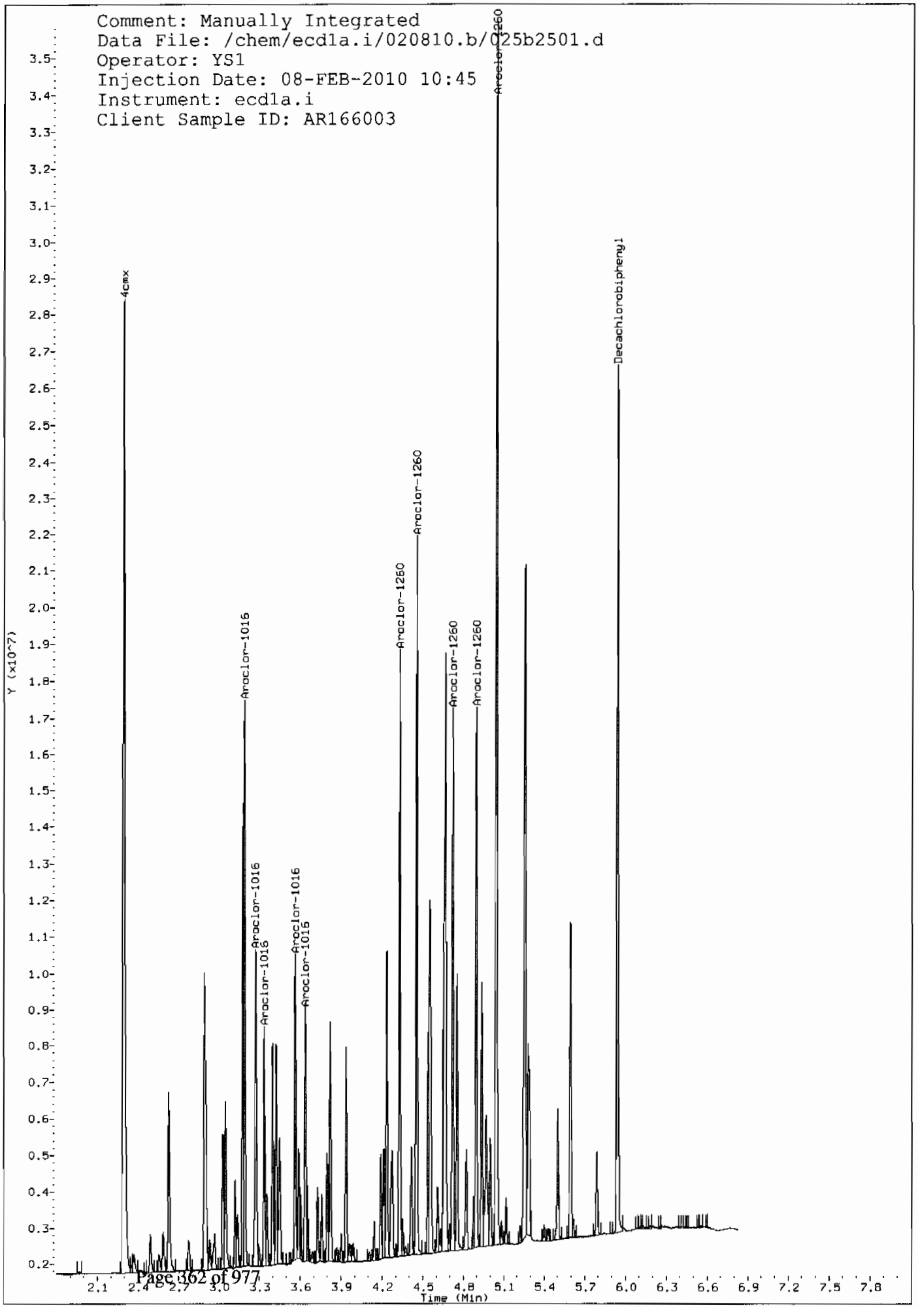
Comment: Manually Integrated
Data File: /chem/ecd1a.i/020810.b/025b2501.d
Operator: YS1
Injection Date: 08-FEB-2010 10:45
Instrument: ecd1a.i
Client Sample ID: AR166003
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

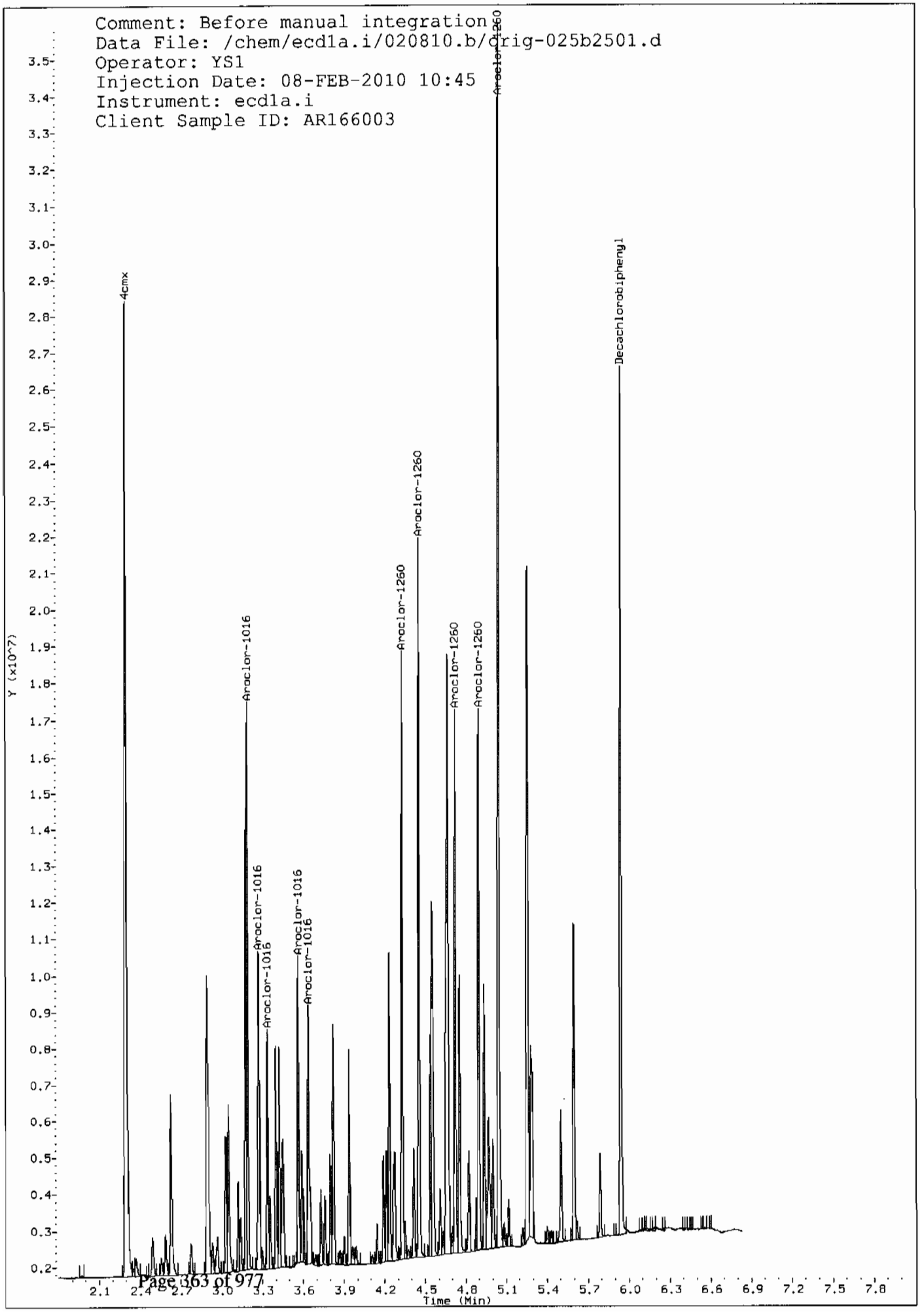
Comment: Before manual integration
Data File: /chem/ecd1a.i/020810.b/drig-025b2501.d
Operator: YS1
Injection Date: 08-FEB-2010 10:45
Instrument: ecd1a.i
Client Sample ID: AR166003
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/020810.b/033f3301.d
Lab Smp Id: WAR100203-60 04 Client Smp ID: AR166004
Inj Date : 08-FEB-2010 12:17
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100203-60 04
Misc Info :
Comment :
Method : /chem/ecd1a.i/020810.b/ECD1-F-8082-121409.m
Meth Date : 08-Feb-2010 12:33 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017f1701.d
Als bottle: 33 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.965	1.965	0.000	38367078	100.000	96.2	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.274	5.277	-0.003	30854206	100.000	95.4	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.419	2.420	-0.001	13234940	1000.00	903	80.00- 120.00	100.00
2.707	2.708	-0.001	17678930	1000.00	965	113.58- 153.58	133.58
2.788	2.788	0.000	10951603	1000.00	911	62.75- 102.75	82.75
2.825	2.826	-0.001	6621504	1000.00	922	30.03- 70.03	50.03
3.036	3.037	-0.001	8571444	1000.00	923	44.76- 84.76	64.76
Average of Peak Amounts =					925		
7 Aroclor-1260					CAS #: 11096-82-5		
3.761	3.763	-0.002	17935629	1000.00	1020	80.00- 120.00	100.00
3.924	3.926	-0.002	27344727	1000.00	1020	132.46- 172.46	152.46
4.154	4.156	-0.002	16256406	1000.00	1020	70.64- 110.64	90.64
4.296	4.299	-0.003	17019324	1000.00	1030	74.89- 114.89	94.89
4.476	4.479	-0.003	38963790	1000.00	1050	197.24- 237.24	217.24
Average of Peak Amounts =					1.03e+03		

Data File: /chem/ecdla.i/020810.b/033f3301.d
Date : 08-FEB-2010 12:17
Client ID: AR166004
Sample Info: IWAR100203-60 04
Column phase: CLP1

Instrument: ecdla.i
Operator: YS1
Column diameter: 0.25

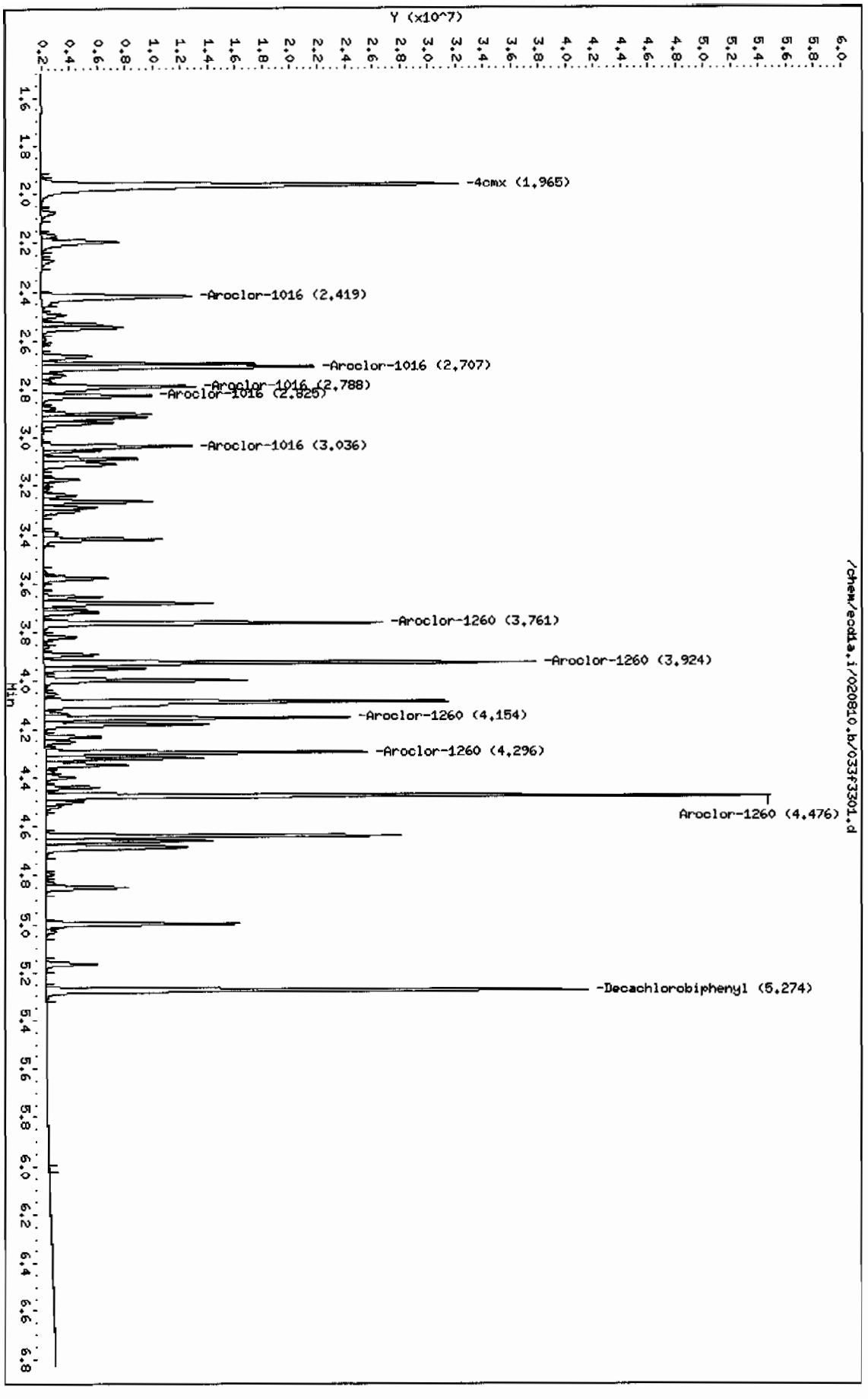

Page 1

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/020810.b/033b3301.d
Lab Smp Id: WAR100203-60 04 Client Smp ID: AR166004
Inj Date : 08-FEB-2010 12:17
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100203-60 04
Misc Info :
Comment :
Method : /chem/ecd1a.i/020810.b/ECD1-B-8082-121409.m
Meth Date : 08-Feb-2010 12:33 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017b1701.d
Als bottle: 33 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpc1p1

AMOUNTS

RT	EXP RT	DLT RT	RESPONSE	CAL-AMT (ug/L)	ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.296	2.295	0.001	27808028	100.000	96.8	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.940	5.943	-0.003	20216362	100.000	92.9	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.192	3.192	0.000	11740987	1000.00	940	80.00- 120.00	100.00(M)
3.275	3.275	0.000	7797692	1000.00	912	46.41- 86.41	66.41
3.339	3.339	0.000	4826861	1000.00	912	21.11- 61.11	41.11
3.565	3.566	-0.001	6093206	1000.00	894	31.90- 71.90	51.90
3.641	3.641	0.000	5665393	1000.00	884	28.25- 68.25	48.25
Average of Peak Amounts =					909		
7 Aroclor-1260					CAS #: 11096-82-5		
4.331	4.333	-0.002	12684038	1000.00	1000	80.00- 120.00	100.00
4.456	4.457	-0.001	15484093	1000.00	1020	102.08- 142.08	122.08
4.722	4.724	-0.002	11651751	1000.00	1000	71.86- 111.86	91.86
4.895	4.897	-0.002	11965466	1000.00	993	74.33- 114.33	94.33
5.043	5.044	-0.001	26909160	1000.00	1030	192.15- 232.15	212.15
Average of Peak Amounts =					1.01e+03		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd1a.i/020810.b/033b3301.d
Date : 08-FEB-2010 12:17
Client ID: AR166004
Sample Info: IWAR100203-60 04

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1
Column diameter: 0.25

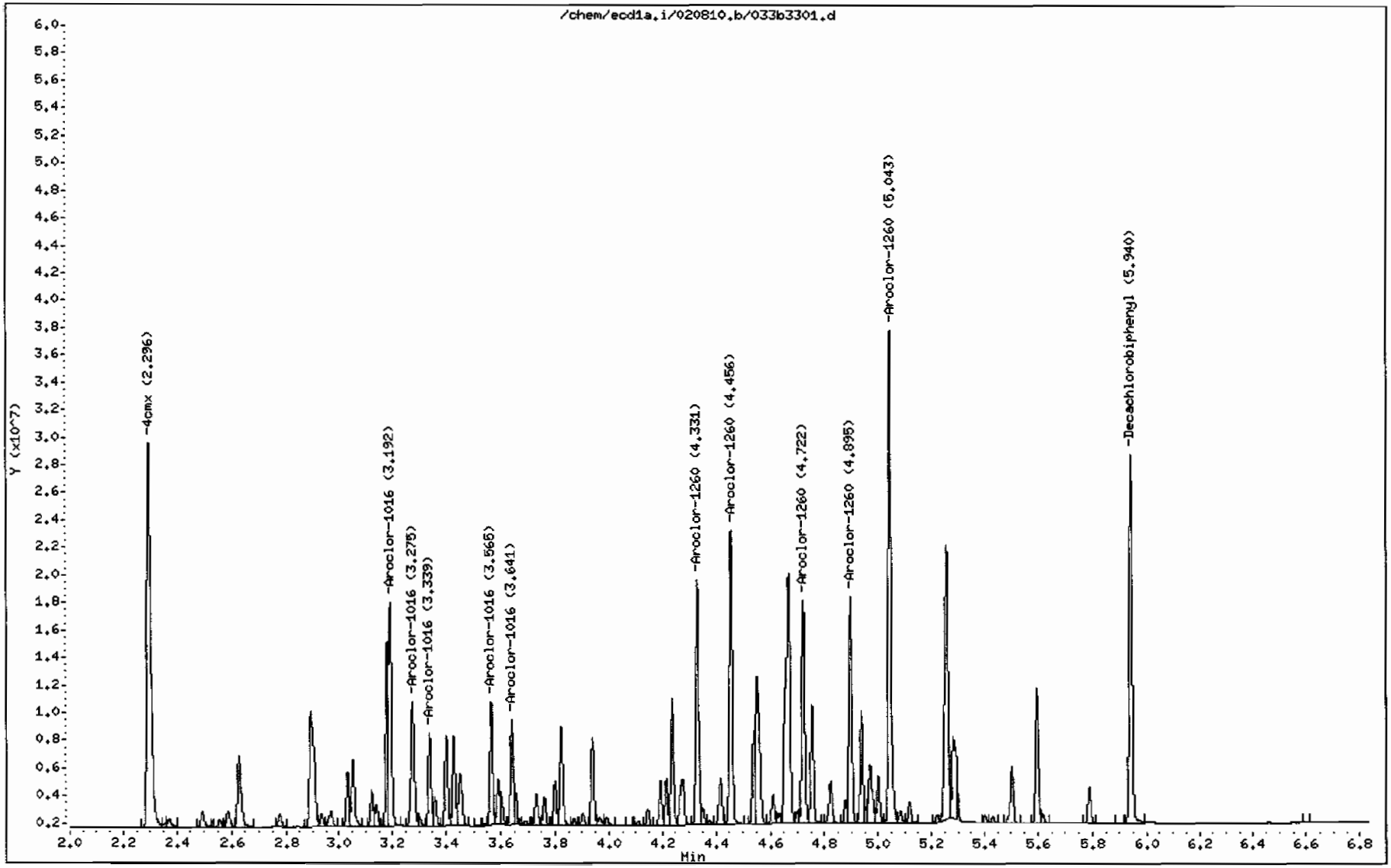

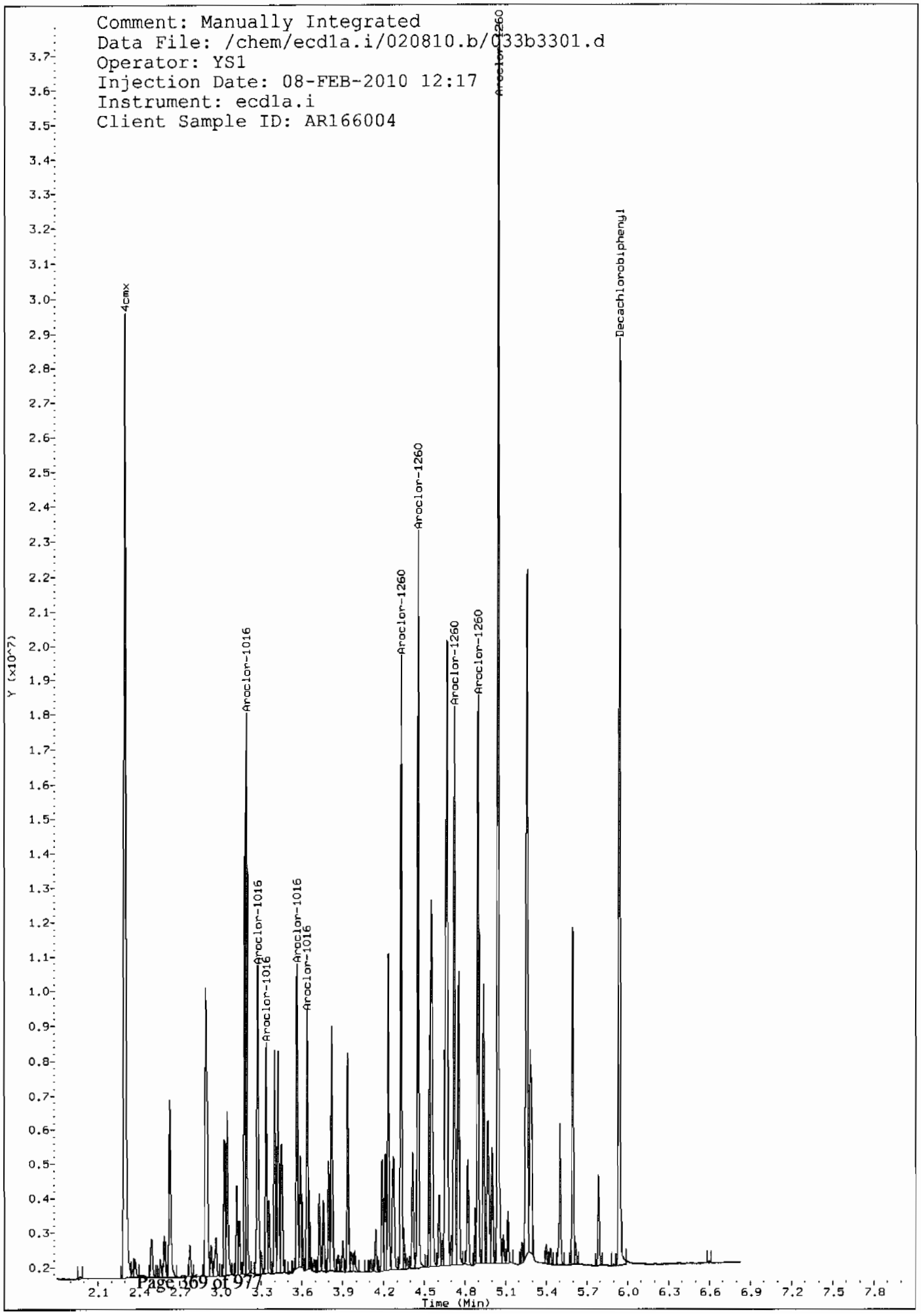
Comment: Manually Integrated
Data File: /chem/ecd1a.i/020810.b/C33b3301.d
Operator: YS1
Injection Date: 08-FEB-2010 12:17
Instrument: ecd1a.i
Client Sample ID: AR166004
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
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Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

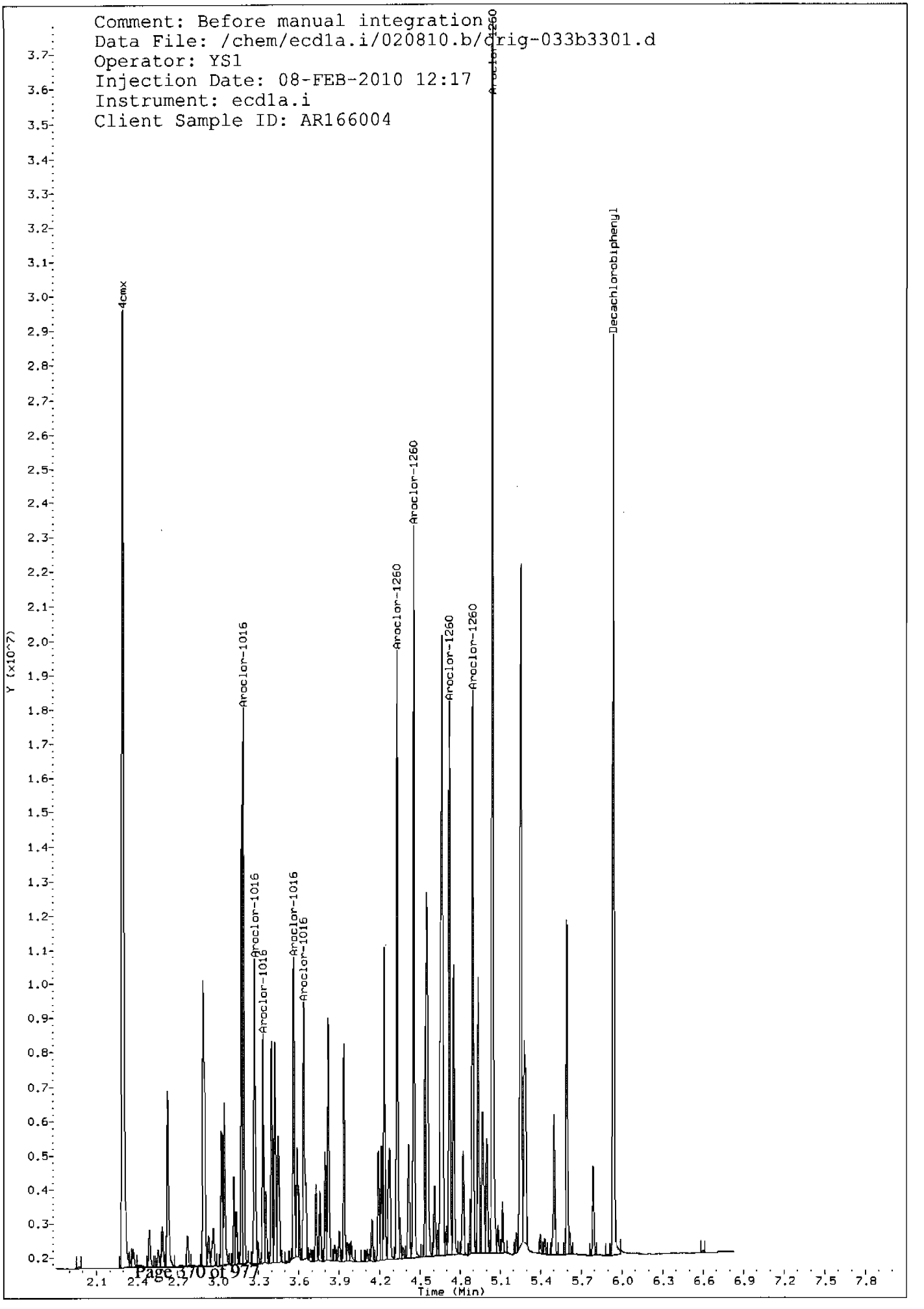
Comment: Before manual integration
Data File: /chem/ecd1a.i/020810.b/orig-033b3301.d
Operator: YS1
Injection Date: 08-FEB-2010 12:17
Instrument: ecd1a.i
Client Sample ID: AR166004
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GEL LABORATORIES LLC Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1604

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 01/29/10 01/29/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 1.97 DCB: 5.28

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR100105-99	01/29/10	0612	1.96	5.28
02	ZZZZZ	ZZZZZ	01/29/10	0622	1.97	5.28
03	AR125401	WAR091216-54	01/29/10	0633		
04	AR124201	WAR091217-42	01/29/10	0643		
05	AR124801	WAR091217-48	01/29/10	0654		
06	AR123201	WAR100104-32	01/29/10	0704		
07	AR122101	WAR100104-21	01/29/10	0715		
08	AR126201	WAR100104-62	01/29/10	0725		
09	AR126801	WAR100107-68	01/29/10	0736		
10	AR166001	WAR100129-01	01/29/10	0746	1.96	5.28
11	AR166002	WAR100129-02	01/29/10	0757	1.97	5.28
12	AR166003	WAR100129-03	01/29/10	0807	1.97	5.28
13	AR166004	WAR100129-04	01/29/10	0818	1.97	5.28
14	AR166005	IAR100104-01	01/29/10	0859	1.97	5.29
15	AR166001	WAR100104-60	01/29/10	0909	1.97	5.28
16	DDTANALOGSTD	WAR091219-DD	01/29/10	0920		
17	PIBLK02	WAR100105-99	01/29/10	0930	1.97	5.28
18	ZZZZZ	ZZZZZ	01/29/10	0941	1.97	5.28
19	ZZZZZ	ZZZZZ	01/29/10	0951	1.97	5.28
20	ZZZZZ	ZZZZZ	01/29/10	1002	1.97	5.28
21	ZZZZZ	ZZZZZ	01/29/10	1014	1.97	5.28
22	ZZZZZ	ZZZZZ	01/29/10	1027	1.96	5.28
23	ZZZZZ	ZZZZZ	01/29/10	1040	1.97	5.28
24	ZZZZZ	ZZZZZ	01/29/10	1052	1.97	5.28
25	ZZZZZ	ZZZZZ	01/29/10	1105	1.97	5.28
26	ZZZZZ	ZZZZZ	01/29/10	1117	1.96	5.28
27	ZZZZZ	ZZZZZ	01/29/10	1130	1.96	5.28
28	AR166002	WAR100104-60	01/29/10	1142	1.97	5.28
29	PIBLK03	WAR100105-99	01/29/10	1153	1.97	5.28
30	ZZZZZ	ZZZZZ	01/29/10	1203	1.97	5.28
31	ZZZZZ	ZZZZZ	01/29/10	1216	1.97	5.28
32	ZZZZZ	ZZZZZ	01/29/10	1228	1.97	5.28

QC LIMITS
S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GEL LABORATORIES LLC Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1604

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 01/29/10 01/29/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.30 DCB: 5.95

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR100105-99	01/29/10	0612	2.30	5.94
02	ZZZZZ	ZZZZZ	01/29/10	0622	2.30	5.94
03	AR125401	WAR091216-54	01/29/10	0633		
04	AR124201	WAR091217-42	01/29/10	0643		
05	AR124801	WAR091217-48	01/29/10	0654		
06	AR123201	WAR100104-32	01/29/10	0704		
07	AR122101	WAR100104-21	01/29/10	0715		
08	AR126201	WAR100104-62	01/29/10	0725		
09	AR126801	WAR100107-68	01/29/10	0736		
10	AR166001	WAR100129-01	01/29/10	0746	2.30	5.94
11	AR166002	WAR100129-02	01/29/10	0757	2.30	5.94
12	AR166003	WAR100129-03	01/29/10	0807	2.30	5.94
13	AR166004	WAR100129-04	01/29/10	0818	2.30	5.94
14	AR166005	IAR100104-01	01/29/10	0859	2.30	5.95
15	AR166001	WAR100104-60	01/29/10	0909	2.30	5.95
16	DDTANALOGSTD	WAR091219-DD	01/29/10	0920		
17	PIBLK02	WAR100105-99	01/29/10	0930	2.30	5.94
18	ZZZZZ	ZZZZZ	01/29/10	0941	2.30	5.94
19	ZZZZZ	ZZZZZ	01/29/10	0951	2.30	5.94
20	ZZZZZ	ZZZZZ	01/29/10	1002	2.30	5.94
21	ZZZZZ	ZZZZZ	01/29/10	1014	2.30	5.94
22	ZZZZZ	ZZZZZ	01/29/10	1027	2.30	5.94
23	ZZZZZ	ZZZZZ	01/29/10	1040	2.30	5.94
24	ZZZZZ	ZZZZZ	01/29/10	1052	2.30	5.94
25	ZZZZZ	ZZZZZ	01/29/10	1105	2.30	5.94
26	ZZZZZ	ZZZZZ	01/29/10	1117	2.30	5.94
27	ZZZZZ	ZZZZZ	01/29/10	1130	2.30	5.94
28	AR166002	WAR100104-60	01/29/10	1142	2.30	5.94
29	PIBLK03	WAR100105-99	01/29/10	1153	2.30	5.94
30	ZZZZZ	ZZZZZ	01/29/10	1203	2.30	5.94
31	ZZZZZ	ZZZZZ	01/29/10	1216	2.30	5.94
32	ZZZZZ	ZZZZZ	01/29/10	1228	2.30	5.94

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1604

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 01/29/10 01/29/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 1.97 DCB: 5.28

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR100105-99	02/08/10	0623	1.96	5.27
02	AR166001	WAR100203-60	02/08/10	0633	1.96	5.28
03	ZZZZZ	ZZZZZ	02/08/10	0644	1.97	5.28
04	AR124201	WAR091217-42	02/08/10	0654		
05	AR124801	WAR091217-48	02/08/10	0705		
06	AR126201	WAR100104-62	02/08/10	0715		
07	AR123201	WAR100104-32	02/08/10	0726		
08	AR122101	WAR100104-21	02/08/10	0736		
09	AR125401	WAR091216-54	02/08/10	0746		
10	AR126801	WAR100107-68	02/08/10	0757		
11	DDTANALOGSTD	WAR091219-DD	02/08/10	0807		
12	PIBLK02	WAR100105-99	02/08/10	0818	1.97	5.28
13	ZZZZZ	ZZZZZ	02/08/10	0828	1.96	5.28
14	ZZZZZ	ZZZZZ	02/08/10	0839	1.97	5.28
15	ZZZZZ	ZZZZZ	02/08/10	0849	1.97	5.28
16	ZZZZZ	ZZZZZ	02/08/10	0900	1.96	5.28
17	ZZZZZ	ZZZZZ	02/08/10	0912	1.97	5.28
18	AR166002	WAR100203-60	02/08/10	0925	1.96	5.28
19	PIBLK03	WAR100105-99	02/08/10	0936	1.96	5.28
20	ZZZZZ	ZZZZZ	02/08/10	0946	1.97	5.28
21	ZZZZZ	ZZZZZ	02/08/10	0957	1.97	5.28
22	ZZZZZ	ZZZZZ	02/08/10	1007	1.97	5.28
23	ZZZZZ	ZZZZZ	02/08/10	1020	1.97	5.28
24	ZZZZZ	ZZZZZ	02/08/10	1032	1.97	5.28
25	AR166003	WAR100203-60	02/08/10	1045	1.96	5.27
26	PIBLK04	WAR100105-99	02/08/10	1055	1.97	5.28
27	PBLK01	1202034807	02/08/10	1106	1.97	5.28
28	PBLK01LCS	1202034808	02/08/10	1116	1.96	5.28
29	RE03-10-12247	246333001	02/08/10	1127	1.97	5.28
30	RE03-10-12247MS	1202034809	02/08/10	1139	1.97	5.27
31	RE03-10-12247MSD	1202034810	02/08/10	1152	1.96	5.27
32	RE03-10-12248	246333002	02/08/10	1205	1.96	5.27

QC LIMITS
S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1604

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 01/29/10 01/29/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 1.97 DCB: 5.28

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	AR166004	WAR100203-60	02/08/10	1217	1.96	5.27
02	PIBLK05	WAR100105-99	02/08/10	1228	1.97	5.28
03	ZZZZZ	ZZZZZ	02/08/10	1238	1.97	5.28
04	PIBLK06	WAR100105-99	02/08/10	1251	1.96	5.27
05	ZZZZZ	ZZZZZ	02/08/10	1301	1.97	5.28
06	ZZZZZ	ZZZZZ	02/08/10	1312	1.97	5.28
07	ZZZZZ	ZZZZZ	02/08/10	1322	1.97	5.28
08	ZZZZZ	ZZZZZ	02/08/10	1335	1.97	5.28
09	AR166005	WAR100203-60	02/08/10	1347	1.96	5.27
10	PIBLK07	WAR100105-99	02/08/10	1358	1.96	5.28
11	ZZZZZ	ZZZZZ	02/08/10	1409	1.97	5.28
12	ZZZZZ	ZZZZZ	02/08/10	1419	1.97	5.28
13	ZZZZZ	ZZZZZ	02/08/10	1430	1.96	5.28
14	ZZZZZ	ZZZZZ	02/08/10	1442	1.96	5.28
15	ZZZZZ	ZZZZZ	02/08/10	1455	1.97	5.28
16	ZZZZZ	ZZZZZ	02/08/10	1507	1.96	5.28
17	ZZZZZ	ZZZZZ	02/08/10	1520	1.96	5.27
18	ZZZZZ	ZZZZZ	02/08/10	1532	1.96	5.28
19	ZZZZZ	ZZZZZ	02/08/10	1545	1.96	5.28
20	ZZZZZ	ZZZZZ	02/08/10	1558	1.96	5.27
21	AR166006	WAR100203-60	02/08/10	1610	1.96	5.27
22	PIBLK08	WAR100105-99	02/08/10	1621	1.96	5.28
23	ZZZZZ	ZZZZZ	02/08/10	1631	1.96	5.28
24	ZZZZZ	ZZZZZ	02/08/10	1644	1.96	5.27
25	ZZZZZ	ZZZZZ	02/08/10	1656	1.96	5.27
26	ZZZZZ	ZZZZZ	02/08/10	1709	1.97	5.28
27	ZZZZZ	ZZZZZ	02/08/10	1721	1.97	5.28
28	ZZZZZ	ZZZZZ	02/08/10	1734	1.96	5.29
29	ZZZZZ	ZZZZZ	02/08/10	1747	1.97	5.28
30	ZZZZZ	ZZZZZ	02/08/10	1759	1.96	5.26
31	ZZZZZ	ZZZZZ	02/08/10	1812	1.96	5.28
32	ZZZZZ	ZZZZZ	02/08/10	1825	1.96	5.28

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1604

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 01/29/10 01/29/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.29 DCB: 5.94

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR100105-99	02/08/10	0623	2.29	5.94
02	AR166001	WAR100203-60	02/08/10	0633	2.30	5.94
03	ZZZZZ	ZZZZZ	02/08/10	0644	2.30	5.94
04	AR124201	WAR091217-42	02/08/10	0654		
05	AR124801	WAR091217-48	02/08/10	0705		
06	AR126201	WAR100104-62	02/08/10	0715		
07	AR123201	WAR100104-32	02/08/10	0726		
08	AR122101	WAR100104-21	02/08/10	0736		
09	AR125401	WAR091216-54	02/08/10	0746		
10	AR126801	WAR100107-68	02/08/10	0757		
11	DDTANALOGSTD	WAR091219-DD	02/08/10	0807		
12	PIBLK02	WAR100105-99	02/08/10	0818	2.30	5.94
13	ZZZZZ	ZZZZZ	02/08/10	0828	2.30	5.94
14	ZZZZZ	ZZZZZ	02/08/10	0839	2.30	5.94
15	ZZZZZ	ZZZZZ	02/08/10	0849	2.30	5.94
16	ZZZZZ	ZZZZZ	02/08/10	0900	2.29	5.94
17	ZZZZZ	ZZZZZ	02/08/10	0912	2.30	5.94
18	AR166002	WAR100203-60	02/08/10	0925	2.30	5.94
19	PIBLK03	WAR100105-99	02/08/10	0936	2.30	5.94
20	ZZZZZ	ZZZZZ	02/08/10	0946	2.30	5.94
21	ZZZZZ	ZZZZZ	02/08/10	0957	2.30	5.94
22	ZZZZZ	ZZZZZ	02/08/10	1007	2.30	5.94
23	ZZZZZ	ZZZZZ	02/08/10	1020	2.30	5.94
24	ZZZZZ	ZZZZZ	02/08/10	1032	2.30	5.94
25	AR166003	WAR100203-60	02/08/10	1045	2.30	5.94
26	PIBLK04	WAR100105-99	02/08/10	1055	2.30	5.94
27	PBLK01	1202034807	02/08/10	1106	2.30	5.94
28	PBLK01LCS	1202034808	02/08/10	1116	2.30	5.94
29	RE03-10-12247	246333001	02/08/10	1127	2.30	5.94
30	RE03-10-12247MS	1202034809	02/08/10	1139	2.30	5.94
31	RE03-10-12247MSD	1202034810	02/08/10	1152	2.30	5.94
32	RE03-10-12248	246333002	02/08/10	1205	2.30	5.94

QC LIMITS
S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1604

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 01/29/10 01/29/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.29 DCB: 5.94

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	AR166004	WAR100203-60	02/08/10	1217	2.30	5.94
02	PIBLK05	WAR100105-99	02/08/10	1228	2.30	5.94
03	ZZZZZ	ZZZZZ	02/08/10	1238	2.30	5.94
04	PIBLK06	WAR100105-99	02/08/10	1251	2.30	5.94
05	ZZZZZ	ZZZZZ	02/08/10	1301	2.30	5.94
06	ZZZZZ	ZZZZZ	02/08/10	1312	2.30	5.94
07	ZZZZZ	ZZZZZ	02/08/10	1322	2.30	5.94
08	ZZZZZ	ZZZZZ	02/08/10	1335	2.30	5.94
09	AR166005	WAR100203-60	02/08/10	1347	2.30	5.94
10	PIBLK07	WAR100105-99	02/08/10	1358	2.30	5.94
11	ZZZZZ	ZZZZZ	02/08/10	1409	2.30	5.94
12	ZZZZZ	ZZZZZ	02/08/10	1419	2.30	5.94
13	ZZZZZ	ZZZZZ	02/08/10	1430	2.30	5.94
14	ZZZZZ	ZZZZZ	02/08/10	1442	2.30	5.94
15	ZZZZZ	ZZZZZ	02/08/10	1455	2.30	5.94
16	ZZZZZ	ZZZZZ	02/08/10	1507	2.29	5.94
17	ZZZZZ	ZZZZZ	02/08/10	1520	2.30	5.94
18	ZZZZZ	ZZZZZ	02/08/10	1532	2.30	5.94
19	ZZZZZ	ZZZZZ	02/08/10	1545	2.30	5.94
20	ZZZZZ	ZZZZZ	02/08/10	1558	2.30	5.96
21	AR166006	WAR100203-60	02/08/10	1610	2.30	5.94
22	PIBLK08	WAR100105-99	02/08/10	1621	2.30	5.94
23	ZZZZZ	ZZZZZ	02/08/10	1631	2.30	5.94
24	ZZZZZ	ZZZZZ	02/08/10	1644	2.30	5.94
25	ZZZZZ	ZZZZZ	02/08/10	1656	2.30	5.94
26	ZZZZZ	ZZZZZ	02/08/10	1709	2.30	5.94
27	ZZZZZ	ZZZZZ	02/08/10	1721	2.30	5.95
28	ZZZZZ	ZZZZZ	02/08/10	1734	2.30	5.95
29	ZZZZZ	ZZZZZ	02/08/10	1747	2.30	5.95
30	ZZZZZ	ZZZZZ	02/08/10	1759	2.30	5.95
31	ZZZZZ	ZZZZZ	02/08/10	1812	2.29	5.94
32	ZZZZZ	ZZZZZ	02/08/10	1825	2.30	5.94

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

Identification Summary

SDG Number: 10–1604 **Client ID:** LCS for batch 949744

Lab Sample ID: 1202034808

Data File: 028f2801.d **Data File:** 028b2801.d

Inst: ECD1A.I_1 **Inst:** ECD1A.I_2

Column: CLP1 **Column:** CLP2

Analyzed: 08–FEB–10 11:16 **Analyzed:** 08–FEB–10 11:16

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor–1016							.47
Column 1	1	2.42	2.39 – 2.45	19.7		ug/kg	
	2	2.71	2.68 – 2.74	20		ug/kg	
	3	2.79	2.76 – 2.82	19.6		ug/kg	
	4	2.83	2.8 – 2.86	19.7		ug/kg	
	5	3.04	3.01 – 3.07	20		ug/kg	
					19.8		
Column 2	1	3.19	3.16 – 3.22	20.9		ug/kg	
	2	3.28	3.25 – 3.31	19.8		ug/kg	
	3	3.34	3.31 – 3.37	18.9		ug/kg	
	4	3.57	3.54 – 3.6	19.4		ug/kg	
	5	3.64	3.61 – 3.67	19.5		ug/kg	
					19.7		
Aroclor–1260							2.17
Column 1	1	3.76	3.73 – 3.79	22.2		ug/kg	
	2	3.93	3.9 – 3.96	22.7		ug/kg	
	3	4.16	4.13 – 4.19	22.5		ug/kg	
	4	4.3	4.27 – 4.33	22.9		ug/kg	
	5	4.48	4.45 – 4.51	23.5		ug/kg	
					22.7		
Column 2	1	4.33	4.3 – 4.36	21.8		ug/kg	
	2	4.46	4.43 – 4.49	22.3		ug/kg	
	3	4.72	4.69 – 4.75	22		ug/kg	
	4	4.9	4.87 – 4.93	22		ug/kg	
	5	5.04	5.01 – 5.07	23		ug/kg	
					22.2		

Identification Summary

SDG Number: 10-1604 **Client ID:** RE03-10-12247MS

Lab Sample ID: 1202034809

Data File:	030f3001.d	**Data File:**	030b3001.d
Inst:	ECD1A.I_1	**Inst:**	ECD1A.I_2
Column:	CLP1	**Column:**	CLP2
Analyzed:	08-FEB-10 11:39	**Analyzed:**	08-FEB-10 11:39

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor-1016							.766
Column 1	1	2.42	2.39 – 2.45	18.5		ug/kg	
	2	2.71	2.68 – 2.74	20.8		ug/kg	
	3	2.79	2.76 – 2.82	19.2		ug/kg	
	4	2.83	2.8 – 2.86	19.3		ug/kg	
	5	3.04	3.01 – 3.07	19.5		ug/kg	
					19.5		
Column 2	1	3.19	3.16 – 3.22	20.3		ug/kg	
	2	3.27	3.25 – 3.31	19.6		ug/kg	
	3	3.34	3.31 – 3.37	19.1		ug/kg	
	4	3.57	3.54 – 3.6	19.4		ug/kg	
	5	3.64	3.61 – 3.67	19.7		ug/kg	
					19.6		
Aroclor-1260							.429
Column 1	1	3.76	3.73 – 3.79	23		ug/kg	
	2	3.92	3.9 – 3.96	24.1		ug/kg	
	3	4.15	4.13 – 4.19	24.4		ug/kg	
	4	4.3	4.27 – 4.33	23.8		ug/kg	
	5	4.48	4.45 – 4.51	24.5		ug/kg	
					24		
Column 2	1	4.33	4.3 – 4.36	23.4		ug/kg	
	2	4.46	4.43 – 4.49	24.5		ug/kg	
	3	4.72	4.69 – 4.75	24.2		ug/kg	
	4	4.9	4.87 – 4.93	22.4		ug/kg	
	5	5.04	5.01 – 5.07	24.9		ug/kg	
					23.9		

Identification Summary

SDG Number: 10–1604 **Client ID:** RE03–10–12247MSD

Lab Sample ID: 1202034810

Data File:	031f3101.d	**Data File:**	031b3101.d
Inst:	ECD1A.I_1	**Inst:**	ECD1A.I_2
Column:	CLP1	**Column:**	CLP2
Analyzed:	08–FEB–10 11:52	**Analyzed:**	08–FEB–10 11:52

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor–1016							1.35
Column 1	1	2.42	2.39 – 2.45	20.6		ug/kg	
	2	2.71	2.68 – 2.74	21.6		ug/kg	
	3	2.79	2.76 – 2.82	20.5		ug/kg	
	4	2.83	2.8 – 2.86	20.4		ug/kg	
	5	3.04	3.01 – 3.07	21		ug/kg	
					20.8		
Column 2	1	3.19	3.16 – 3.22	21.9		ug/kg	
	2	3.27	3.25 – 3.31	21.1		ug/kg	
	3	3.34	3.31 – 3.37	20.6		ug/kg	
	4	3.56	3.54 – 3.6	20.9		ug/kg	
	5	3.64	3.61 – 3.67	21		ug/kg	
					21.1		
Aroclor–1260							.665
Column 1	1	3.76	3.73 – 3.79	25.3		ug/kg	
	2	3.92	3.9 – 3.96	26.1		ug/kg	
	3	4.15	4.13 – 4.19	26.1		ug/kg	
	4	4.3	4.27 – 4.33	26		ug/kg	
	5	4.48	4.45 – 4.51	26.9		ug/kg	
					26.1		
Column 2	1	4.33	4.3 – 4.36	25.4		ug/kg	
	2	4.46	4.43 – 4.49	26.4		ug/kg	
	3	4.72	4.69 – 4.75	26.3		ug/kg	
	4	4.9	4.87 – 4.93	26		ug/kg	
	5	5.04	5.01 – 5.07	27.4		ug/kg	
					26.3		

QUALITY CONTROL DATA

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10-1604**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202034807**				
Client Sample:	**QC for batch 949744**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 949744**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**949745**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**02/08/2010 11:06**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**02/05/2010 18:41**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**027f2701.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	027b2701.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.33	ug/kg	1.11	3.33	1
11104-28-2	Aroclor-1221	U	3.33	ug/kg	1.11	3.33	1
11141-16-5	Aroclor-1232	U	3.33	ug/kg	1.11	3.33	1
53469-21-9	Aroclor-1242	U	3.33	ug/kg	1.11	3.33	1
12672-29-6	Aroclor-1248	U	3.33	ug/kg	1.11	3.33	1
11097-69-1	Aroclor-1254	U	3.33	ug/kg	1.11	3.33	1
11096-82-5	Aroclor-1260	U	3.33	ug/kg	1.11	3.33	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/020810.b/027f2701.d
Lab Smp Id: 1202034807 Client Smp ID: PBLK01
Inj Date : 08-FEB-2010 11:06
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1202034807|1|
Misc Info : |ECD82P_1S|949745|SVA|QC A|SOIL|MB|||
Comment :
Method : /chem/ecd1a.i/020810.b/ECD1-F-8082-121409.m
Meth Date : 08-Feb-2010 11:14 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017f1701.d
Als bottle: 27 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1604.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.966	1.965	0.001	46756271	117.287	3.9	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.276	5.277	-0.001	37996743	117.522	3.9	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/020810.b/027f2701.d

Page 1

Date : 08-FEB-2010 11:06

Client ID: PBLK01

Instrument: ecd1a.i

Sample Info: 1120203480711

Volume Injected (uL): 1.0

Operator: YS1

Column phase: CLP1

Column diameter: 0.25

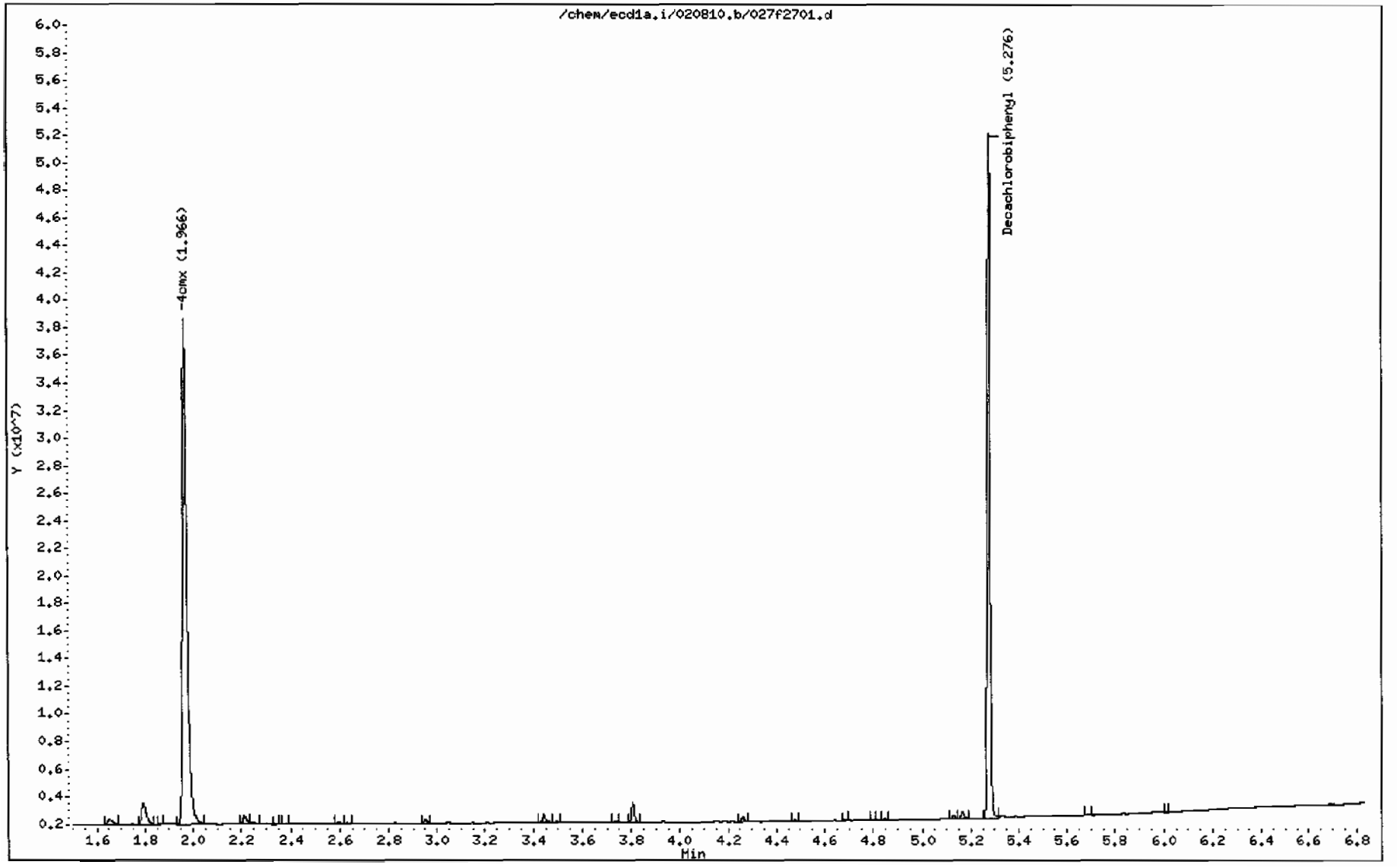

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/020810.b/027b2701.d
Lab Smp Id: 1202034807 Client Smp ID: PBLK01
Inj Date : 08-FEB-2010 11:06
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1202034807|1|
Misc Info : |ECD82P_1S|949745|SVA|QC A|SOIL|MB|||
Comment :
Method : /chem/ecd1a.i/020810.b/ECD1-B-8082-121409.m
Meth Date : 08-Feb-2010 11:17 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017b1701.d
Als bottle: 27 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1604.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.296	2.295	0.001	33811928	117.712	3.9	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.941	5.943	-0.002	25363917	116.547	3.9	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/020810.b/027b2701.d
Date : 08-FEB-2010 11:06
Client ID: PBLK01
Sample Info: |120203480711|
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd1a.i
Operator: YS1
Column diameter: 0.25

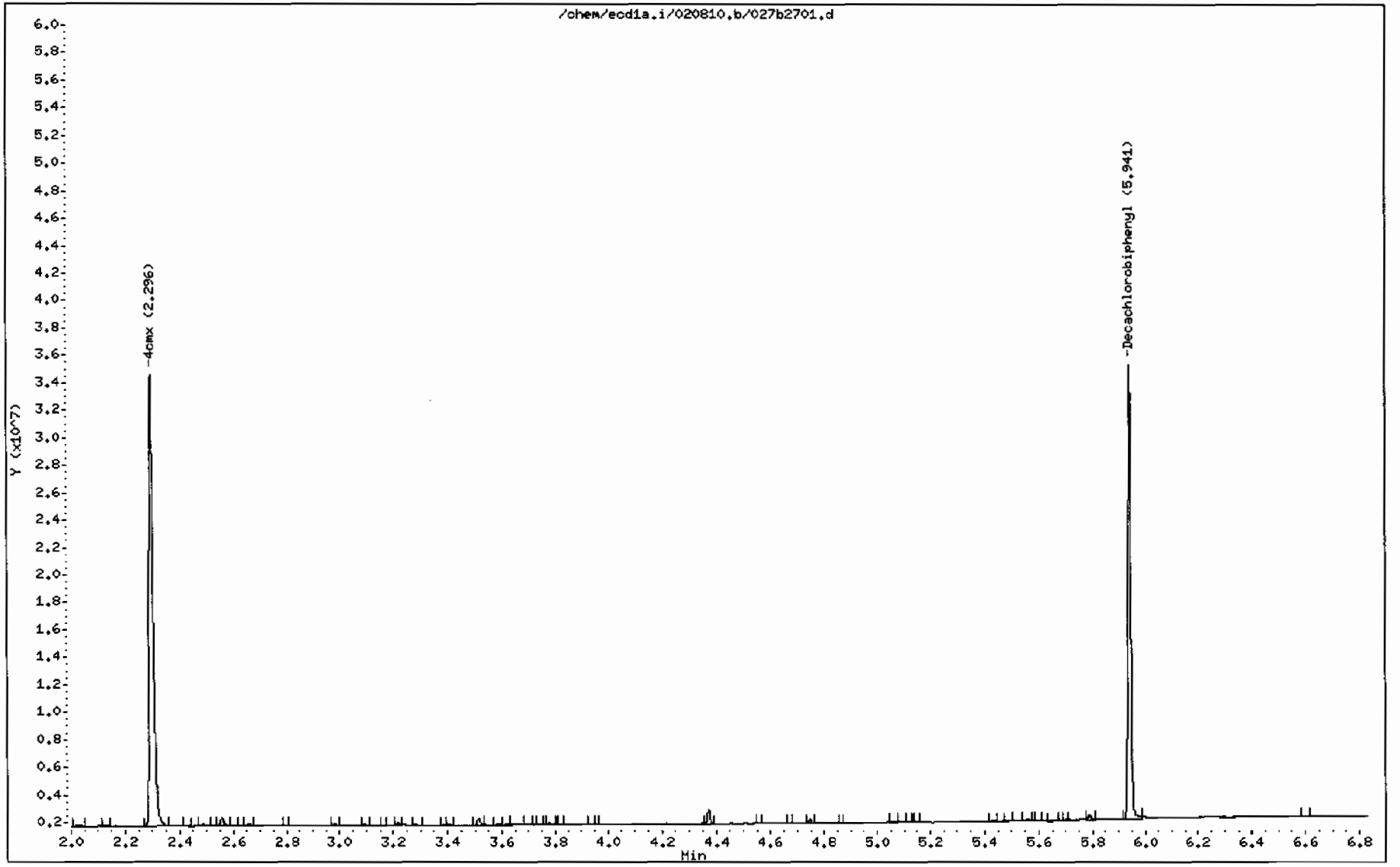

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10–1604			**Matrix:**	SOIL
Lab Sample ID:	1202034808				
Client Sample:	QC for batch 949744	**Client:**	LANL010	**Project:**	QC
Client ID:	LCS for batch 949744	**Method:**	SW846 8082	**SOP Ref:**	GL–OA–E–040
Batch ID:	949745	**Inst:**	ECD1A.I	**Dilution:**	1
Run Date:	02/08/2010 11:16	**Analyst:**	YS1	**Inj. Vol:**	1 uL
Prep Date:	02/05/2010 18:41	**Aliquot:**	30 g	**Final Volume:**	1 mL
Data File:	028f2801.d	**Column:**	1 CLP1	**Level:**	LOW
	028b2801.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016		19.8	ug/kg	1.11	3.33	1
11104–28–2	Aroclor–1221	U	3.33	ug/kg	1.11	3.33	1
11141–16–5	Aroclor–1232	U	3.33	ug/kg	1.11	3.33	1
53469–21–9	Aroclor–1242	U	3.33	ug/kg	1.11	3.33	1
12672–29–6	Aroclor–1248	U	3.33	ug/kg	1.11	3.33	1
11097–69–1	Aroclor–1254	U	3.33	ug/kg	1.11	3.33	1
11096–82–5	Aroclor–1260		22.7	ug/kg	1.11	3.33	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/020810.b/028f2801.d
Lab Smp Id: 1202034808 Client Smp ID: PBLK01LCS
Inj Date : 08-FEB-2010 11:16
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1202034808|1|
Misc Info : |ECD82P_1S|949745|SVA|QC A|SOIL|LCS|||
Comment :
Method : /chem/ecd1a.i/020810.b/ECD1-F-8082-121409.m
Meth Date : 08-Feb-2010 11:14 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017f1701.d
Als bottle: 28 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1604.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.964	1.965	-0.001	46280004	116.092	3.9	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.276	5.277	-0.001	38179186	118.086	3.9	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.420	2.420	0.000	8655049	590.433	19.7	80.00- 120.00	100.00
2.708	2.708	0.000	10983341	599.441	20.0	113.06- 153.06	126.90
2.788	2.788	0.000	7072517	588.217	19.6	61.95- 101.95	81.72
2.826	2.826	0.000	4241147	590.678	19.7	29.57- 69.57	49.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
1 Aroclor-1016 (continued)							
3.036	3.037	-0.001	5576573	600.291	20.0	43.59- 83.59	64.43
Average of Peak Concentrations =					19.8		
7 Aroclor-1260					CAS #: 11096-82-5		
3.763	3.763	0.000	11736212	665.448	22.2	80.00- 120.00	100.00
3.925	3.926	-0.001	18124054	679.770	22.6	132.15- 172.15	154.43
4.155	4.156	-0.001	10731559	674.024	22.5	69.41- 109.41	91.44
4.298	4.299	-0.001	11354113	686.022	22.9	73.52- 113.52	96.74
4.477	4.479	-0.002	26164695	704.576	23.5	194.52- 234.52	222.94
Average of Peak Concentrations =					22.7		

Data File: /chem/ecd1a.i/020810.b/028F2801.d
Date : 08-FEB-2010 11:16
Client ID: PBLK01LCS
Sample Info: 1120203480811
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecd1a.i
Operator: YS1
Column diameter: 0.25

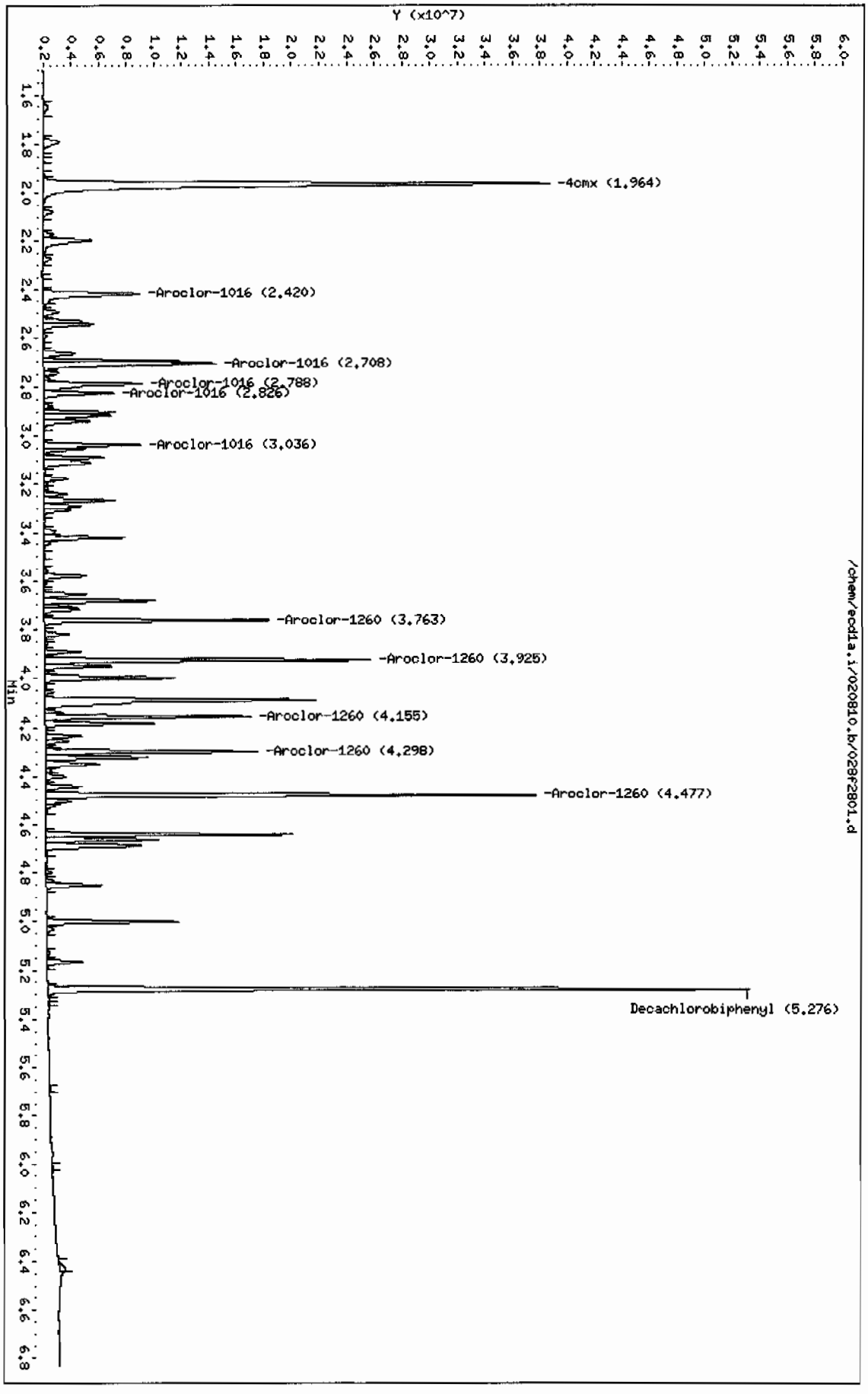

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/020810.b/028b2801.d
Lab Smp Id: 1202034808 Client Smp ID: PBLK01LCS
Inj Date : 08-FEB-2010 11:16
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1202034808|1|
Misc Info : |ECD82P_1S|949745|SVA|QC A|SOIL|LCS|||
Comment :
Method : /chem/ecd1a.i/020810.b/ECD1-B-8082-121409.m
Meth Date : 08-Feb-2010 11:17 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017b1701.d
Als bottle: 28 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1604.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.295	2.295	0.000	33278959	115.856	3.9	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.942	5.943	-0.001	26021838	119.570	4.0	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.192	3.192	0.000	7828339	627.031	20.9	80.00- 120.00	100.00(M)
3.275	3.275	0.000	5077252	594.051	19.8	44.19- 84.19	64.86
3.339	3.339	0.000	3001958	567.398	18.9	19.42- 59.42	38.35
3.566	3.566	0.000	3958507	580.979	19.4	29.75- 69.75	50.57

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
1 Aroclor-1016 (continued)							
3.641	3.641	0.000	3751228	585.692	19.5	26.36- 66.36	56.38
		Average of Peak Concentrations =			19.7		
7 Aroclor-1260					CAS #: 11096-82-5		
4.332	4.333	-0.001	8279661	654.813	21.8	80.00- 120.00	100.00
4.457	4.457	0.000	10191277	669.593	22.3	101.73- 141.73	123.09
4.723	4.724	-0.001	7705653	661.399	22.0	70.86- 110.86	93.07
4.896	4.897	-0.001	7948663	659.447	22.0	73.12- 113.12	96.00
5.044	5.044	0.000	18020208	691.267	23.0	190.48- 230.48	217.64
		Average of Peak Concentrations =			22.2		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd1a.i/020810.b/028b2801.d
Date : 08-FEB-2010 11:16
Client ID: PBLK01LCS
Sample Info: 1120203480814
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd1a.i
Operator: YS1
Column diameter: 0.25

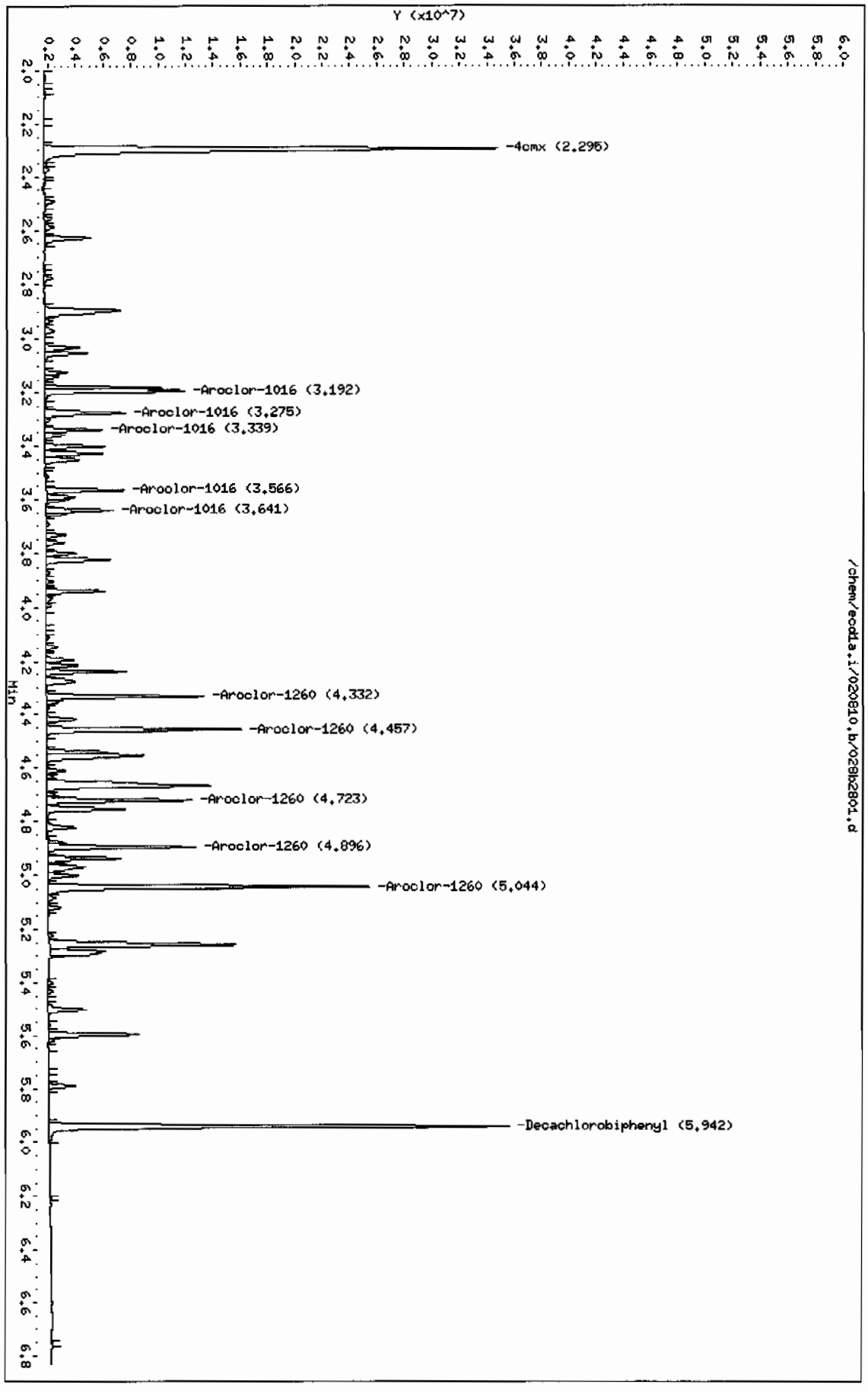

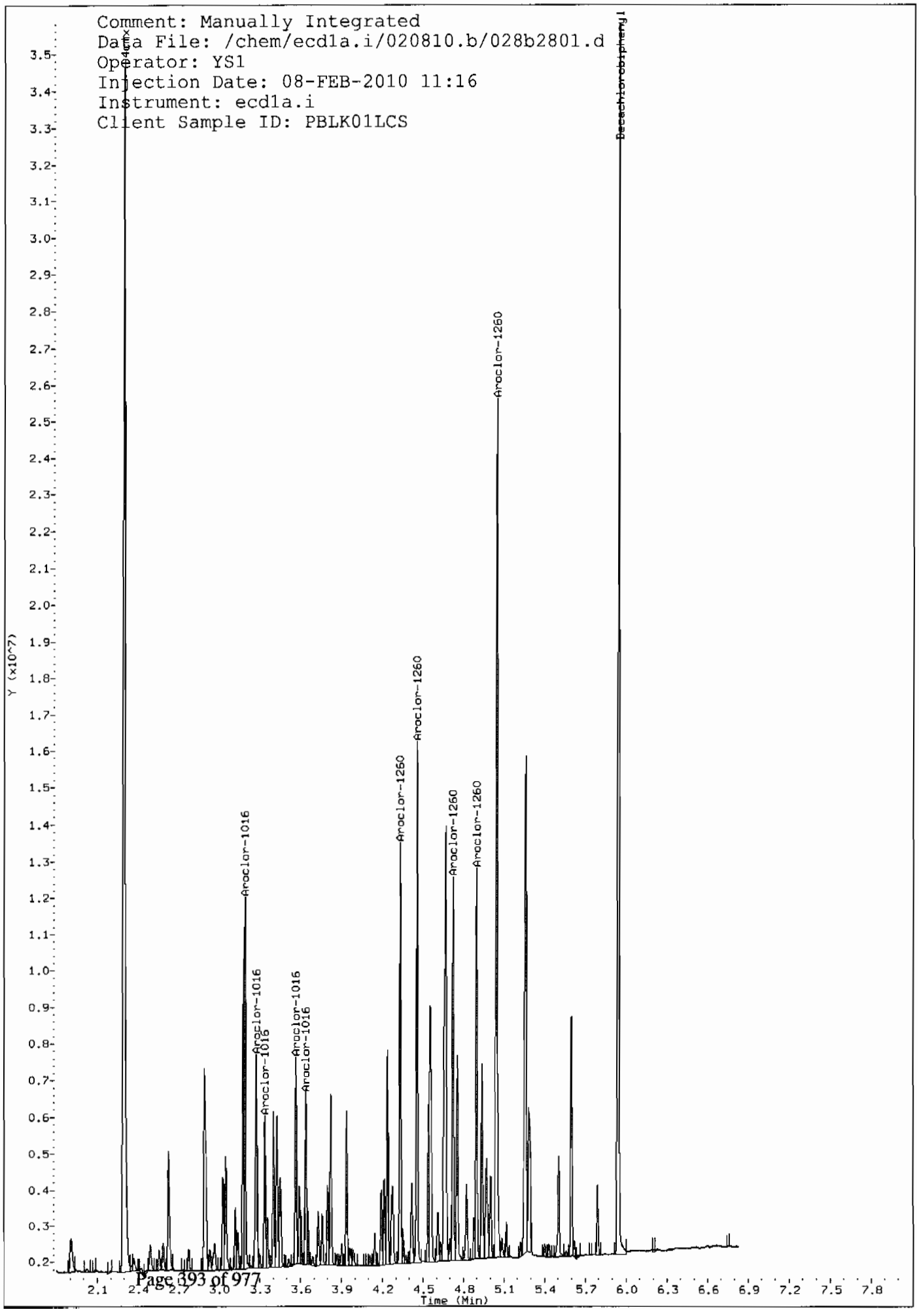
Comment: Manually Integrated
Data File: /chem/ecd1a.i/020810.b/028b2801.d
Operator: YS1
Injection Date: 08-FEB-2010 11:16
Instrument: ecd1a.i
Client Sample ID: PBLK01LCS
Decachlorobiphenyl
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1016
Aroclor-1016
Aroclor-1016
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Aroclor-1016
Y (x10^7)
Time (Min)

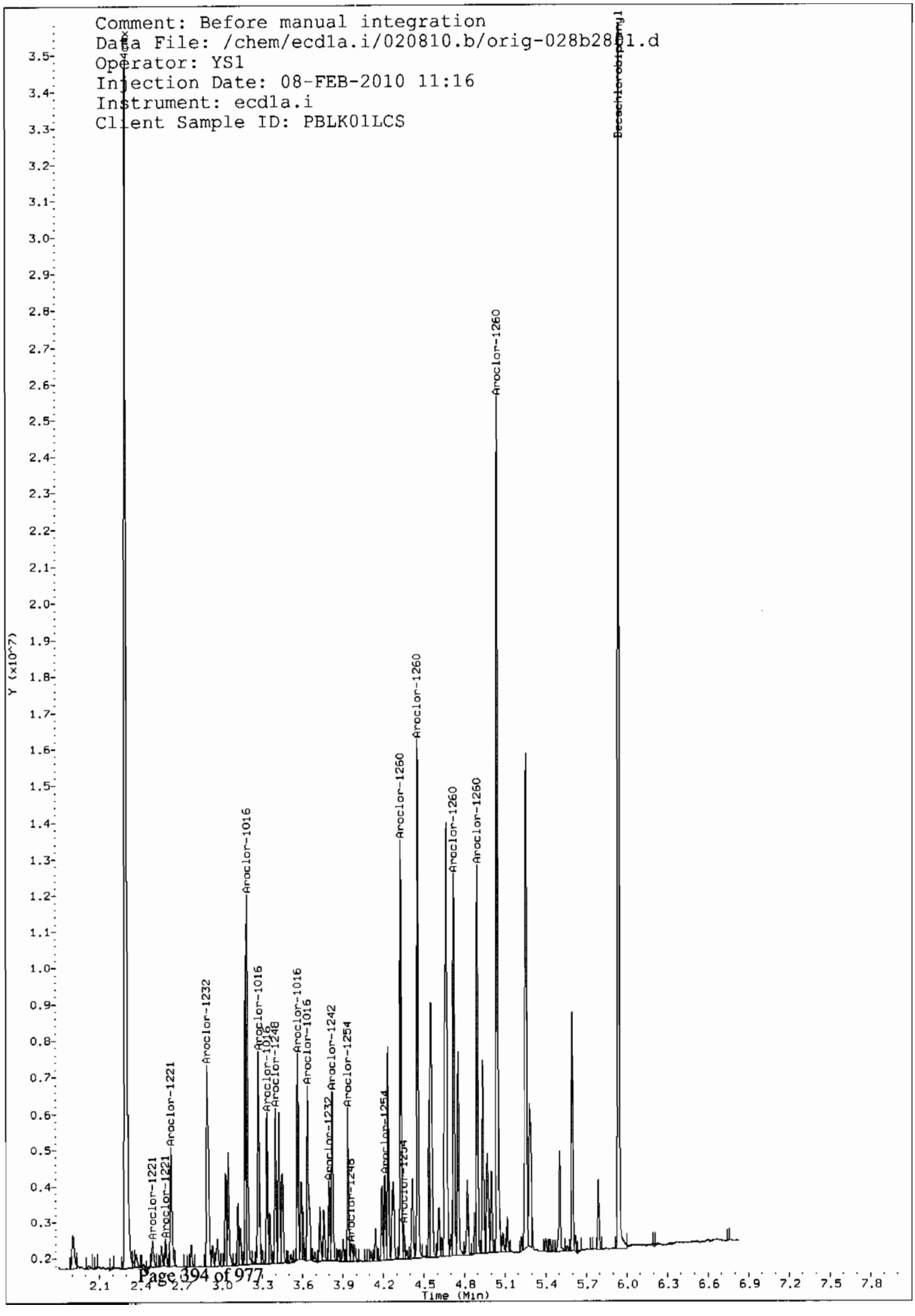
Comment: Before manual integration
Data File: /chem/ecd1a.i/020810.b/orig-028b2801.d
Operator: YS1
Injection Date: 08-FEB-2010 11:16
Instrument: ecd1a.i
Client Sample ID: PBLK01LCS
Decachlorobiphenyl
Aroclor-1260
Aroclor-1016
Aroclor-1221
Aroclor-1232
Aroclor-1248
Aroclor-1242
Aroclor-1254
Y (x10^7)
Time (Min)

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–1604**	**Date Collected:**	**02/02/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**1202034809**	**Date Received:**	**02/05/2010 09:00**	**%Moisture:**	**15.4**
Client Sample:	**QC for batch 949744**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**RE03–10–12247MS**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**949745**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**02/08/2010 11:39**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**02/05/2010 18:41**	**Aliquot:**	**30.01 g**	**Final Volume:**	**1 mL**
Data File:	**030f3001.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	030b3001.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016		19.5	ug/kg	1.31	3.94	1
11104–28–2	Aroclor–1221	U	3.94	ug/kg	1.31	3.94	1
11141–16–5	Aroclor–1232	U	3.94	ug/kg	1.31	3.94	1
53469–21–9	Aroclor–1242	U	3.94	ug/kg	1.31	3.94	1
12672–29–6	Aroclor–1248	U	3.94	ug/kg	1.31	3.94	1
11097–69–1	Aroclor–1254	U	3.94	ug/kg	1.31	3.94	1
11096–82–5	Aroclor–1260		24.0	ug/kg	1.31	3.94	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/020810.b/030f3001.d
Lab Smp Id: 1202034809 Client Smp ID: RE03-10-12247MS
Inj Date : 08-FEB-2010 11:39
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1202034809|1|
Misc Info : |ECD82P_1S|949745|SVA|QC A|SOIL|MS|||
Comment :
Method : /chem/ecd1a.i/020810.b/ECD1-F-8082-121409.m
Meth Date : 09-Feb-2010 07:01 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017f1701.d
Als bottle: 30 QC Sample: MS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1604.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.01000	Weight of sample extracted (g)
M	15.36620	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.965	1.965	0.000	41711194	104.631	4.1	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.275	5.277	-0.002	35292836	109.159	4.3	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.420	2.420	0.000	6898157	470.581	18.5	80.00- 120.00	100.00
2.708	2.708	0.000	9671642	527.852	20.8	113.02- 153.02	140.21
2.788	2.788	0.000	5867123	487.965	19.2	60.76- 100.76	85.05
2.825	2.826	-0.001	3524339	490.846	19.3	28.62- 68.62	51.09

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
1 Aroclor-1016 (continued)							
3.036	3.037	-0.001	4609171	496.155	19.5	41.71- 81.71	66.82
Average of Peak Concentrations =					19.5		
7 Aroclor-1260					CAS #: 11096-82-5		
3.761	3.763	-0.002	10324372	585.396	23.0	80.00- 120.00	100.00
3.924	3.926	-0.002	16342183	612.939	24.1	132.92- 172.92	158.29
4.154	4.156	-0.002	9849380	618.616	24.4	70.04- 110.04	95.40
4.297	4.299	-0.002	10023541	605.628	23.8	73.99- 113.99	97.09
4.476	4.479	-0.003	23144733	623.253	24.5	193.74- 233.74	224.18
Average of Peak Concentrations =					24.0		

Data File: /chem/ecdia.i/020810.b/030f3001.d
Date : 08-FEB-2010 11:39
Client ID: RE03-10-12247MS
Sample Info: 1120203480914 1
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecdia.i
Operator: YS1
Column diameter: 0.25

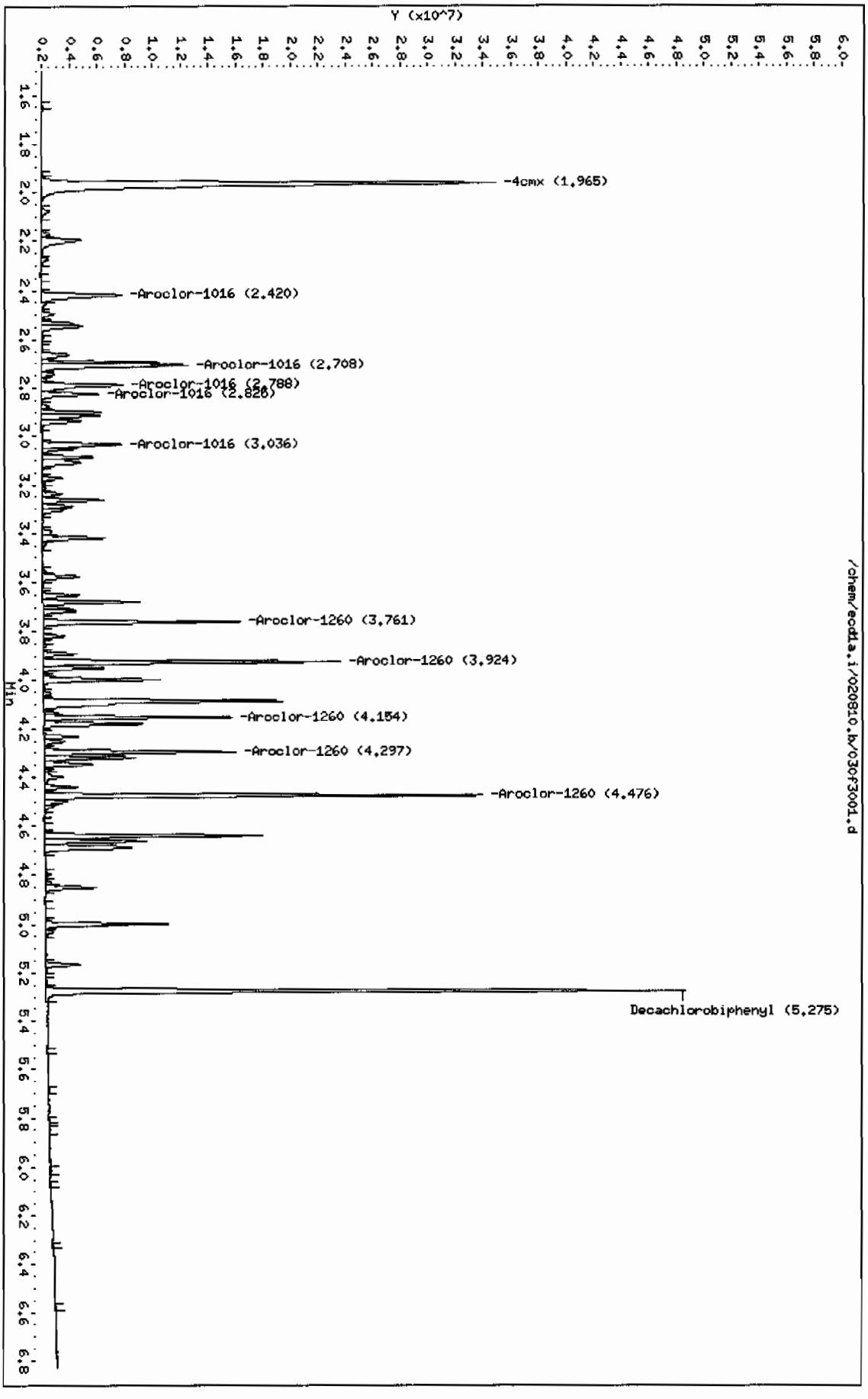

Page 1

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/020810.b/030b3001.d
Lab Smp Id: 1202034809 Client Smp ID: RE03-10-12247MS
Inj Date : 08-FEB-2010 11:39
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1202034809|1|
Misc Info : |ECD82P_1S|949745|SVA|QC A|SOIL|MS|||
Comment :
Method : /chem/ecd1a.i/020810.b/ECD1-B-8082-121409.m
Meth Date : 09-Feb-2010 07:01 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017b1701.d
Als bottle: 30 QC Sample: MS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1604.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.01000	Weight of sample extracted (g)
M	15.36620	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.296	2.295	0.001	30353953	105.673	4.2	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.940	5.943	-0.003	24091040	110.698	4.4	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.192	3.192	0.000	6447783	516.452	20.3	80.00- 120.00	100.00(M)
3.275	3.275	0.000	4260090	498.441	19.6	46.92- 86.92	66.07
3.338	3.339	-0.001	2562290	484.297	19.1	21.64- 61.64	39.74
3.565	3.566	-0.001	3354413	492.318	19.4	34.62- 74.62	52.02

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
1 Aroclor-1016 (continued)							
3.640	3.641	-0.001	3208279	500.919	19.7	31.21- 71.21	49.76
		Average of Peak Concentrations =			19.6		
7 Aroclor-1260					CAS #: 11096-82-5		
4.331	4.333	-0.002	7515301	594.362	23.4	80.00- 120.00	100.00
4.456	4.457	-0.001	9462506	621.711	24.5	102.57- 142.57	125.91
4.721	4.724	-0.003	7164107	614.917	24.2	72.78- 112.78	95.33
4.895	4.897	-0.002	6867218	569.727	22.4	76.05- 116.05	91.38
5.042	5.044	-0.002	16477128	632.073	24.9	194.92- 234.92	219.25
		Average of Peak Concentrations =			23.9		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd1a.i/020810.b/030b3001.d
Date : 08-FEB-2010 11:39
Client ID: RE03-10-12247MS
Sample Info: 1120203480911
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd1a.i
Operator: YSL
Column diameter: 0.25

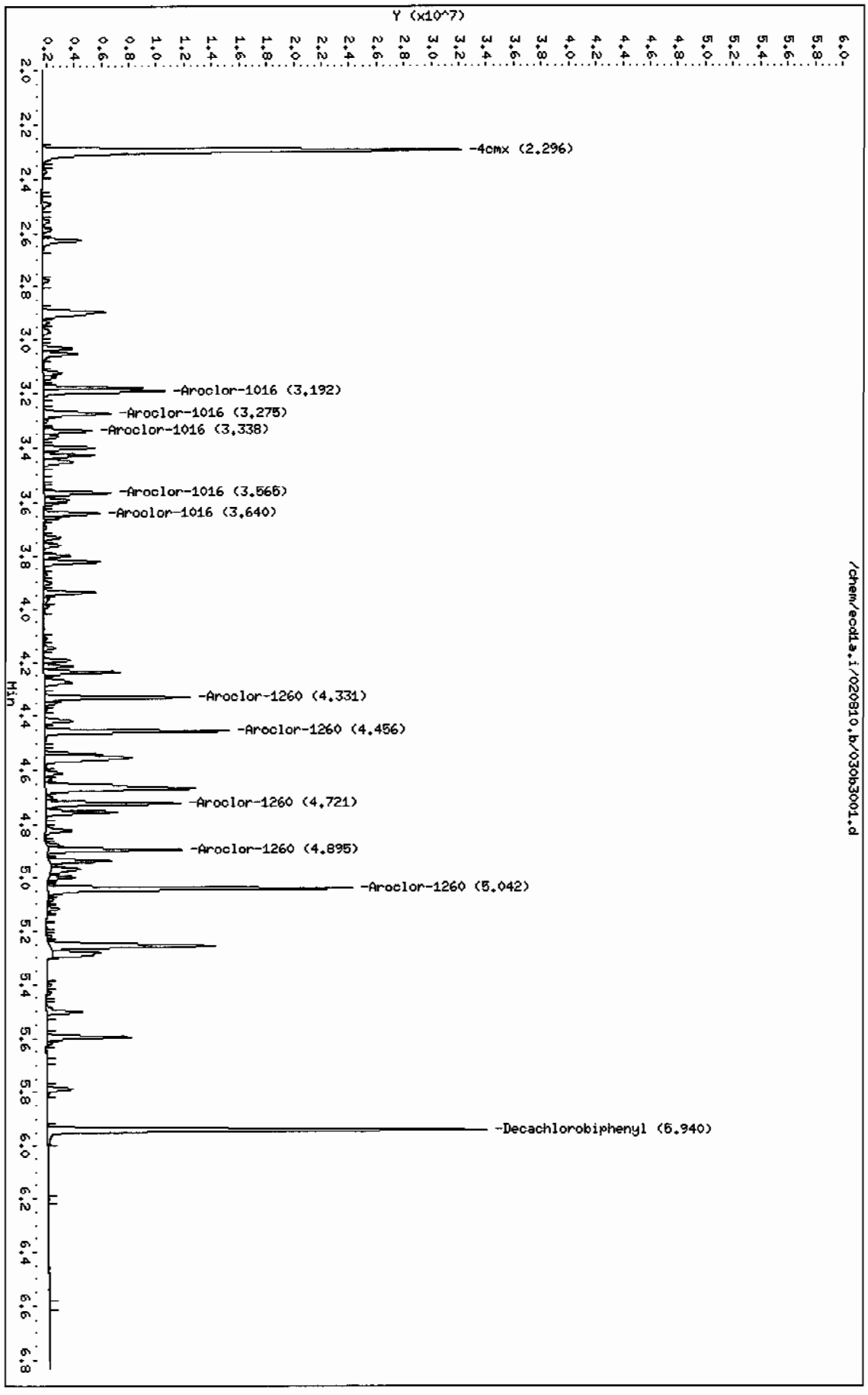

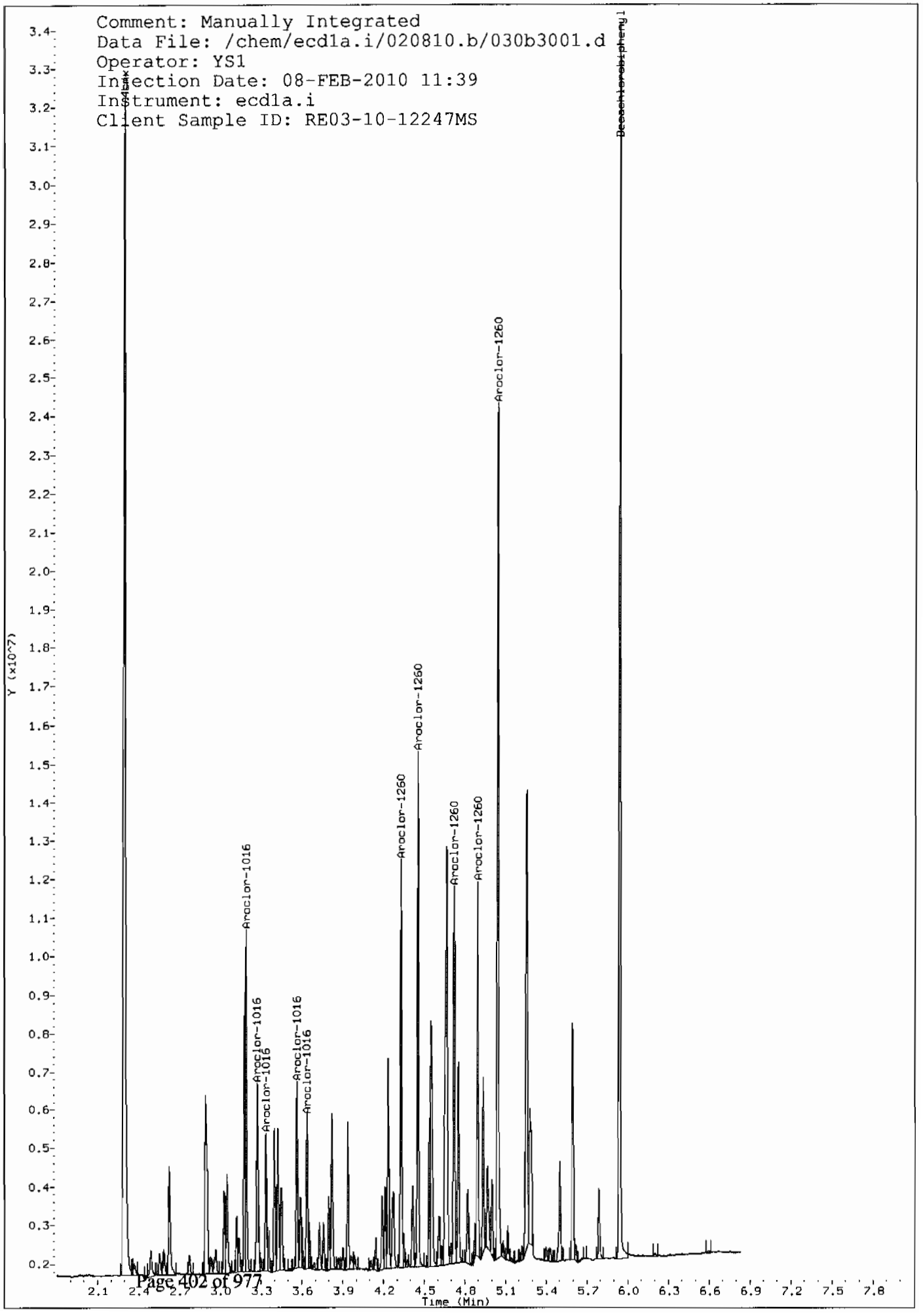
Comment: Manually Integrated
Data File: /chem/ecd1a.i/020810.b/030b3001.d
Operator: YS1
Injection Date: 08-FEB-2010 11:39
Instrument: ecd1a.i
Client Sample ID: RE03-10-12247MS
Decachlorobiphenyl
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Y (x10^7)
Time (Min)

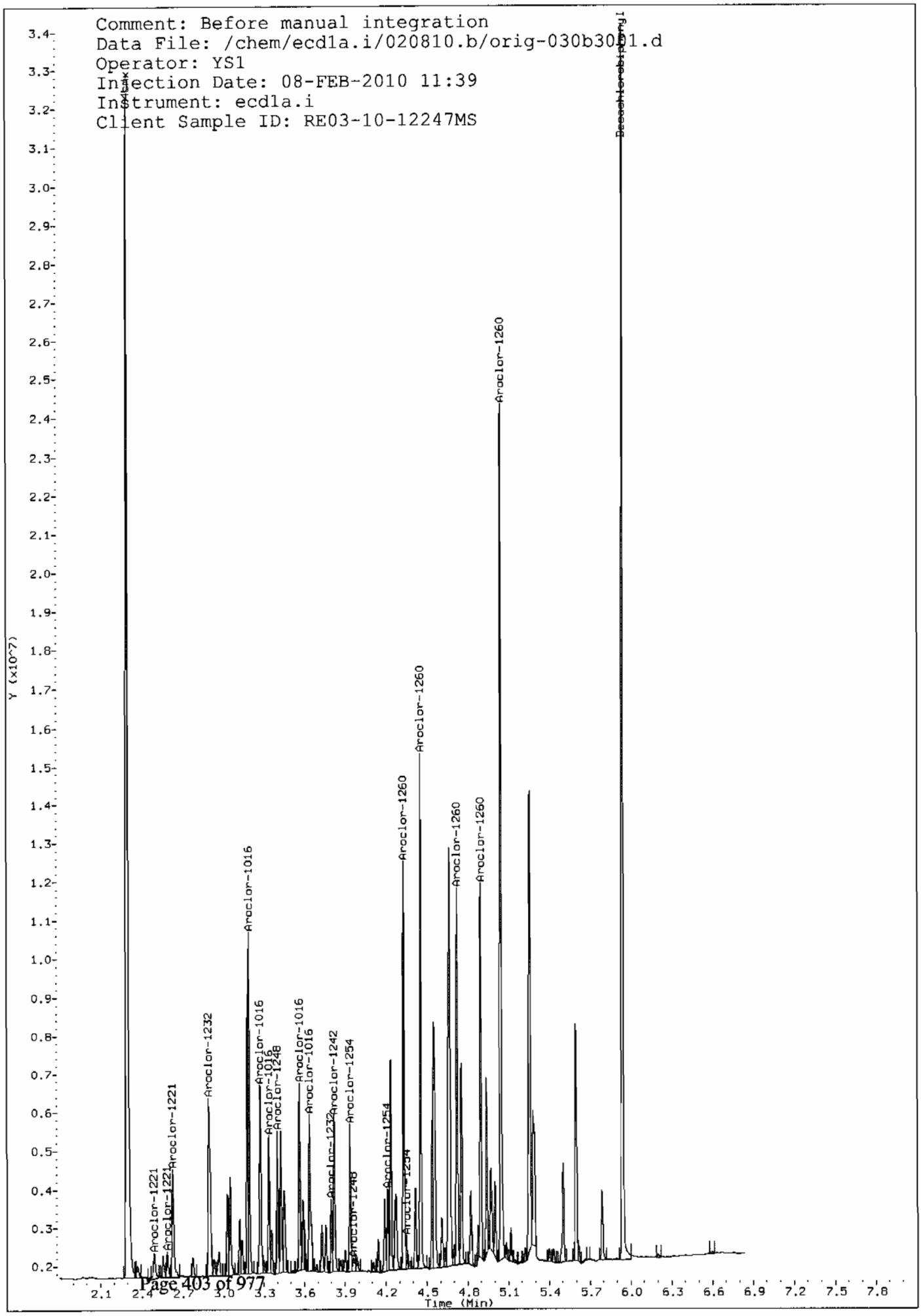
Comment: Before manual integration
Data File: /chem/ecd1a.i/020810.b/orig-030b3081.d
Operator: YS1
Injection Date: 08-FEB-2010 11:39
Instrument: ecd1a.i
Client Sample ID: RE03-10-12247MS
Decachlorobiphenyl
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1248
Aroclor-1016
Aroclor-1016
Aroclor-1232
Aroclor-1242
Aroclor-1254
Aroclor-1232
Aroclor-1254
Aroclor-1248
Aroclor-1254
Aroclor-1221
Aroclor-1221
Aroclor-1221
Aroclor-1232
Y (x10^7)
Time (Min)

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10–1604	**Date Collected:**	02/02/2010 12:00	**Matrix:**	S
Lab Sample ID:	1202034810	**Date Received:**	02/05/2010 09:00	**%Moisture:**	15.4
Client Sample:	QC for batch 949744	**Client:**	LANL010	**Project:**	QC
Client ID:	RE03–10–12247MSD	**Method:**	SW846 8082	**SOP Ref:**	GL–OA–E–040
Batch ID:	949745	**Inst:**	ECD1A.I	**Dilution:**	1
Run Date:	02/08/2010 11:52	**Analyst:**	YS1	**Inj. Vol:**	1 uL
Prep Date:	02/05/2010 18:41	**Aliquot:**	30.19 g	**Final Volume:**	1 mL
Data File:	031f3101.d	**Column:**	1 CLP1	**Level:**	LOW
	031b3101.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016		20.8	ug/kg	1.30	3.91	1
11104–28–2	Aroclor–1221	U	3.91	ug/kg	1.30	3.91	1
11141–16–5	Aroclor–1232	U	3.91	ug/kg	1.30	3.91	1
53469–21–9	Aroclor–1242	U	3.91	ug/kg	1.30	3.91	1
12672–29–6	Aroclor–1248	U	3.91	ug/kg	1.30	3.91	1
11097–69–1	Aroclor–1254	U	3.91	ug/kg	1.30	3.91	1
11096–82–5	Aroclor–1260		26.1	ug/kg	1.30	3.91	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/020810.b/031f3101.d
Lab Smp Id: 1202034810 Client Smp ID: RE03-10-12247MSD
Inj Date : 08-FEB-2010 11:52
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1202034810|1|
Misc Info : |ECD82P_1S|949745|SVA|QC A|SOIL|MSD|||
Comment :
Method : /chem/ecd1a.i/020810.b/ECD1-F-8082-121409.m
Meth Date : 09-Feb-2010 07:01 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017f1701.d
Als bottle: 31 QC Sample: MSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1604.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.19000	Weight of sample extracted (g)
M	15.36620	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.963	1.965	-0.002	42673583	107.046	4.2	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.274	5.277	-0.003	39037074	120.740	4.7	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.418	2.420	-0.002	7701659	525.394	20.6	80.00- 120.00	100.00
2.707	2.708	-0.001	10092798	550.838	21.6	113.02- 153.02	131.05
2.788	2.788	0.000	6294397	523.501	20.5	60.76- 100.76	81.73
2.825	2.826	-0.001	3743842	521.417	20.4	28.62- 68.62	48.61

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
1 Aroclor-1016 (continued)							
3.035	3.037	-0.002	4993205	537.494	21.0	41.71- 81.71	64.83
Average of Peak Concentrations =					20.8		
7 Aroclor-1260					CAS #: 11096-82-5		
3.761	3.763	-0.002	11395962	646.156	25.3	80.00- 120.00	100.00
3.924	3.926	-0.002	17798785	667.571	26.1	132.92- 172.92	156.19
4.153	4.156	-0.003	10631717	667.753	26.1	70.04- 110.04	93.29
4.296	4.299	-0.003	11013864	665.464	26.0	73.99- 113.99	96.65
4.475	4.479	-0.004	25558496	688.252	26.9	193.74- 233.74	224.28
Average of Peak Concentrations =					26.1		

Data File: /chem/ecd1a.i/020810.b/031f3101.d
Date : 08-FEB-2010 11:52
Client ID: RE03-10-12247WSD
Sample Info: !120203481011!
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecd1a.i
Operator: YS1
Column diameter: 0.25

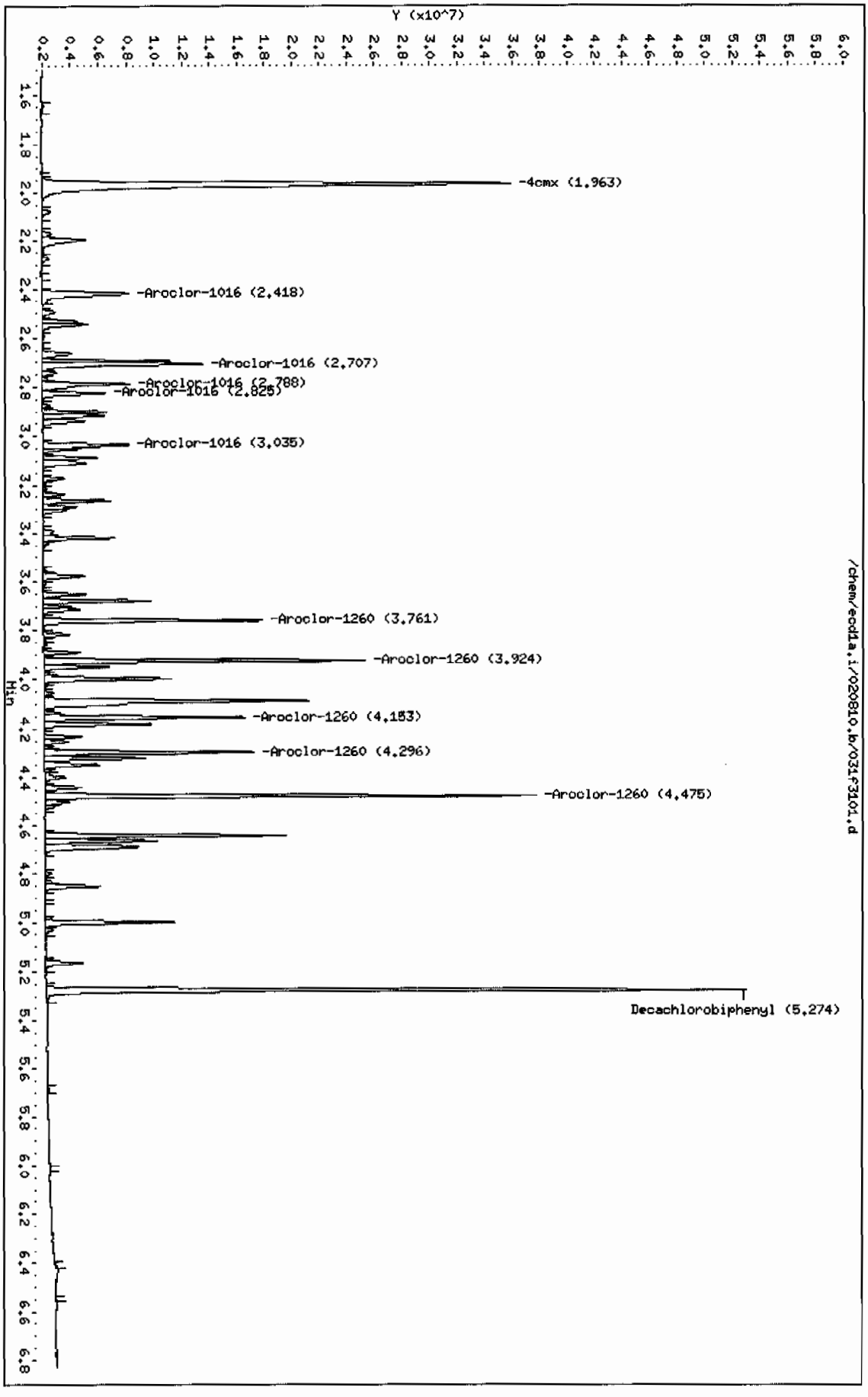

Page 1

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/020810.b/031b3101.d
Lab Smp Id: 1202034810 Client Smp ID: RE03-10-12247MSD
Inj Date : 08-FEB-2010 11:52
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1202034810|1|
Misc Info : |ECD82P_1S|949745|SVA|QC A|SOIL|MSD|||
Comment :
Method : /chem/ecd1a.i/020810.b/ECD1-B-8082-121409.m
Meth Date : 09-Feb-2010 07:01 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017b1701.d
Als bottle: 31 QC Sample: MSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1604.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.19000	Weight of sample extracted (g)
M	15.36620	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.295	2.295	0.000	31128471	108.370	4.2	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.941	5.943	-0.002	26010965	119.520	4.7	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.192	3.192	0.000	6985541	559.525	21.9	80.00- 120.00	100.00(M)
3.274	3.275	-0.001	4606205	538.938	21.1	46.92- 86.92	65.94
3.338	3.339	-0.001	2781789	525.784	20.6	21.64- 61.64	39.82
3.564	3.566	-0.002	3642210	534.557	20.9	34.62- 74.62	52.14

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
1 Aroclor-1016 (continued)							
3.640	3.641	-0.001	3432344	535.903	21.0	31.21- 71.21	49.13
Average of Peak Concentrations =					21.1		
7 Aroclor-1260					CAS #: 11096-82-5		
4.331	4.333	-0.002	8214207	649.637	25.4	80.00- 120.00	100.00
4.455	4.457	-0.002	10250029	673.454	26.4	102.57- 142.57	124.78
4.722	4.724	-0.002	7823083	671.479	26.3	72.78- 112.78	95.24
4.895	4.897	-0.002	7999353	663.653	26.0	76.05- 116.05	97.38
5.043	5.044	-0.001	18227866	699.233	27.4	194.92- 234.92	221.91
Average of Peak Concentrations =					26.3		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd1a.i/020810.b/031b3101.d

Date : 08-FEB-2010 11:52

Client ID: RE03-10-12247MSD

Sample Info: |120203481011|

Volume Injected (uL): 1.0

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

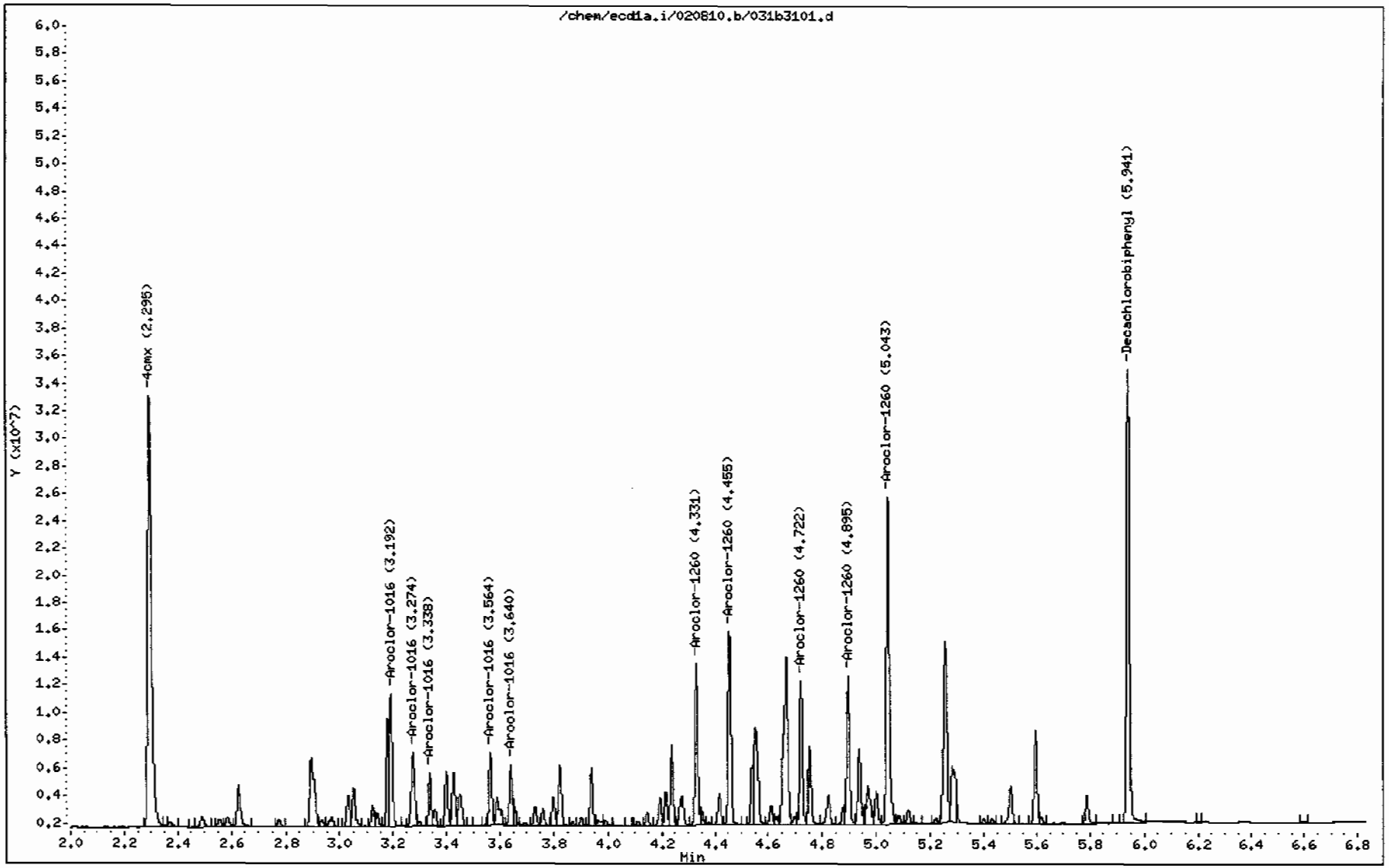

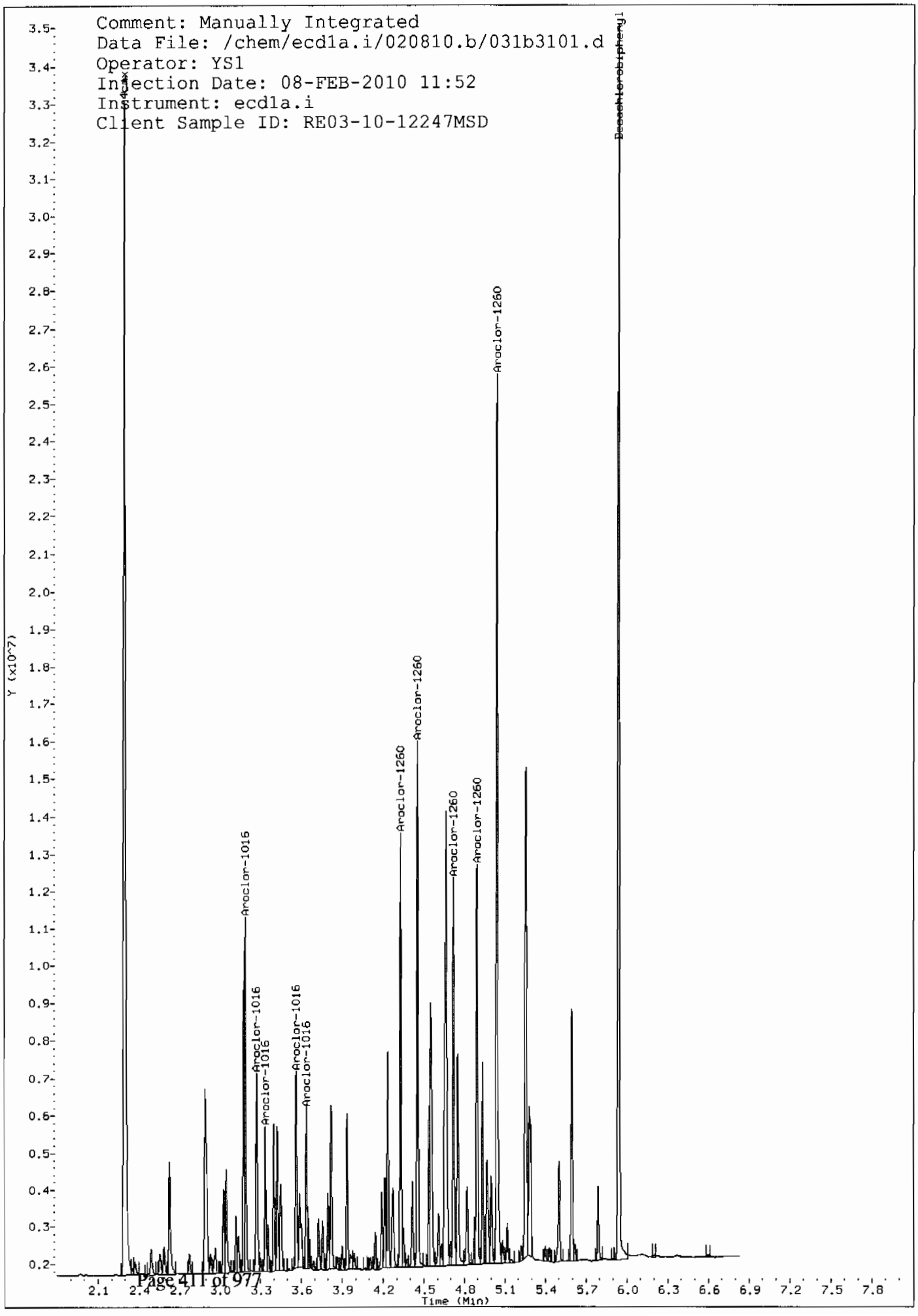
Comment: Manually Integrated
Data File: /chem/ecd1a.i/020810.b/031b3101.d
Operator: YS1
Injection Date: 08-FEB-2010 11:52
Instrument: ecd1a.i
Client Sample ID: RE03-10-12247MSD
4,4'-DDE
Decachlorobiphenyl
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
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Y (x10^7)
Time (Min)

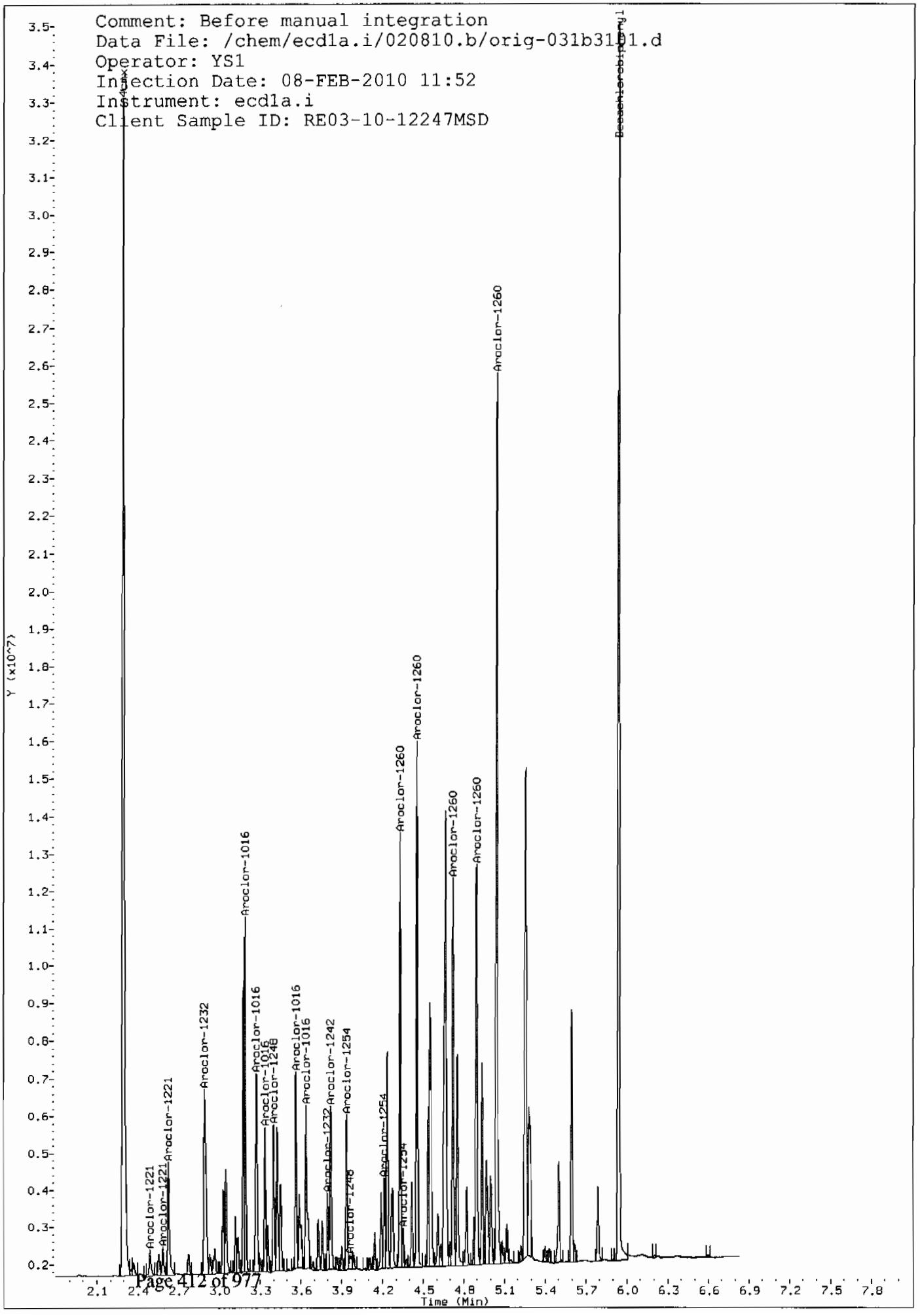
Comment: Before manual integration
Data File: /chem/ecd1a.i/020810.b/orig-031b3101.d
Operator: YS1
Injection Date: 08-FEB-2010 11:52
Instrument: ecd1a.i
Client Sample ID: RE03-10-12247MSD
Decachlorobiphenyl
Aroclor-1260
Aroclor-1016
Aroclor-1221
Aroclor-1232
Aroclor-1248
Aroclor-1242
Aroclor-1254
Y (x10^7)
Time (Min)

MISCELLANEOUS DATA

GEL ORGANIC RUN LOG INSTRUMENT ID: ECD1

DATE: 01/29/2010 METHOD: ECD1-F-8082-121409.m OPERATOR:YS1 REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1

SOLVENT LOT DA699
ALUMINA LOT 1240553-A
COPPER LOT 236547-A

Calibration & QC Information
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.
GEL SOP GL-OA-E-040 Polychlorinated Biphenyl: EPA 8082
Chromatogram Abbreviation Legend: AB-Assign Baseline, AP-Assign Peak,
DNC-Do Not Call, DMP-Doesn't Match Pattern, NC-Not Confirmed, RT-Retention Time,
BF-Before, AF-After.

Sequence Number: /chem/ecd1a.i/012910.b Injection Volume: 0.5 ul

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001f0101.d	WAR100105-99 01	YS1	29-JAN-2010 06:12		012910	1.0		CLEAN
002f0201.d	WAR100104-60 01	YS1	29-JAN-2010 06:22		012910	1.0		DUSE RE I-CAL
003f0301.d	WAR091216-54	YS1	29-JAN-2010 06:33		012910	1.0		PASSED ON BOTH COLUMNS
004f0401.d	WAR091217-42	YS1	29-JAN-2010 06:43		012910	1.0		PASSED ON BOTH COLUMNS
005f0501.d	WAR091217-48	YS1	29-JAN-2010 06:54		012910	1.0		PASSED ON BOTH COLUMNS
006f0601.d	WAR100104-32	YS1	29-JAN-2010 07:04		012910	1.0		PATTERN ONLY
007f0701.d	WAR100104-21	YS1	29-JAN-2010 07:15		012910	1.0		PATTERN ONLY
008f0801.d	WAR100104-62	YS1	29-JAN-2010 07:25		012910	1.0		PATTERN ONLY
009f0901.d	WAR100107-68	YS1	29-JAN-2010 07:36		012910	1.0		PATTERN ONLY
010f1001.d	WAR100129-01 60	YS1	29-JAN-2010 07:46		012910	1.0		AR1660 I-CAL LEVEL 1
011f1101.d	WAR100129-02 60	YS1	29-JAN-2010 07:57		012910	1.0		AR1660 I-CAL LEVEL 2
012f1201.d	WAR100129-03 60	YS1	29-JAN-2010 08:07		012910	1.0		AR1660 I-CAL LEVEL 3
013f1301.d	WAR100129-04 60	YS1	29-JAN-2010 08:18		012910	1.0		AR1660 I-CAL LEVEL 4
014f1401.d	IAR100104-01	YS1	29-JAN-2010 08:59		012910	1.0		AR1660 I-CAL LEVEL 5
015f1501.d	WAR100104-60 01	YS1	29-JAN-2010 09:09		012910	1.0		PASSED ON BOTH COLUMNS

Instrument Batch: /chem/ecd1a.i/012910.b Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments

016f1601.d	WAR091219-DDT	YS1	29-JAN-2010 09:20		012910	1.0		DDT ANALOG STANDARD
017f1701.d	WAR100105-99 02	YS1	29-JAN-2010 09:30		012910	1.0		CLEAN
018f1801.d	1202027001	YS1	29-JAN-2010 09:41	946348	10-1416	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
019f1901.d	1202027002	YS1	29-JAN-2010 09:51	946348	10-1416	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
020f2001.d	245609001	YS1	29-JAN-2010 10:02	946348	10-1416	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
021f2101.d	245609002	YS1	29-JAN-2010 10:14	946348	10-1416	5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
022f2201.d	245609003	YS1	29-JAN-2010 10:27	946348	10-1416	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
023f2301.d	1202027003	YS1	29-JAN-2010 10:40	946348	10-1416	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
024f2401.d	1202027004	YS1	29-JAN-2010 10:52	946348	10-1416	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
025f2501.d	245609004	YS1	29-JAN-2010 11:05	946348	10-1416	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
026f2601.d	245609005	YS1	29-JAN-2010 11:17	946348	10-1416	5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
027f2701.d	245609006	YS1	29-JAN-2010 11:30	946348	10-1416	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
028f2801.d	WAR100104-60 02	YS1	29-JAN-2010 11:42		012910	1.0		PASSED ON BOTH COLUMNS
029f2901.d	WAR100105-99 03	YS1	29-JAN-2010 11:53		012910	1.0		CLEAN
030f3001.d	245609007	YS1	29-JAN-2010 12:03	946348	10-1416	5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
031f3101.d	245609008	YS1	29-JAN-2010 12:16	946348	10-1416	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
032f3201.d	245609009	YS1	29-JAN-2010 12:28	946348	10-1416	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
033f3301.d	245609010	YS1	29-JAN-2010 12:41	946348	10-1416	5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
034f3401.d	245609011	YS1	29-JAN-2010 12:54	946348	10-1416	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
035f3501.d	245609012	YS1	29-JAN-2010 13:06	946348	10-1416	5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
036f3601.d	245609013	YS1	29-JAN-2010 13:19	946348	10-1416	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
037f3701.d	245609014	YS1	29-JAN-2010 13:31	946348	10-1416	5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
038f3801.d	245609015	YS1	29-JAN-2010 13:44	946348	10-1416	10.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
039f3901.d	245609016	YS1	29-JAN-2010 13:56	946348	10-1416	5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
040f4001.d	WAR100104-60 03	YS1	29-JAN-2010 14:09		012910	1.0		PASSED ON BOTH COLUMNS

GEL ORGANIC RUN LOG INSTRUMENT ID: ECD1

DATE: 02/09/2010 METHOD: ECD1-F-8082-121409.m OPERATOR:YS1 REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1

SOLVENT LOT DA699
ALUMINA LOT 1240553-A
COPPER LOT 236547-A

Calibration & QC Information
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.
GEL SOP GL-OA-E-040 Polychlorinated Biphenyl: EPA 8082
Chromatogram Abbreviation Legend: AB-Assign Baseline, AP-Assign Peak,
DNC-Do Not Call, DMP-Doesn't Match Pattern, NC-Not Confirmed, RT-Retention Time,
BF-Before, AF-After.

Sequence Number: /chem/ecd1a.i/020810.b Injection Volume: 0.5 ul

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001f0101.d	WAR100105-99 01	YS1	08-FEB-2010 06:23		020510a	1.0		CLEAN
002f0201.d	WAR100203-60 01	YS1	08-FEB-2010 06:33		020510a	1.0		PASSED ON BOTH COLUMNS
003f0301.d	SCREEN	YS1	08-FEB-2010 06:44		020510a	1.0		DUSE SCREEN
004f0401.d	WAR091217-42	YS1	08-FEB-2010 06:54		020810	1.0		PASSED ON BOTH COLUMNS
005f0501.d	WAR091217-48	YS1	08-FEB-2010 07:05		020810	1.0		PASSED ON BOTH COLUMNS
006f0601.d	WAR100104-62	YS1	08-FEB-2010 07:15		020810	1.0		PATTERN ONLY
007f0701.d	WAR100104-32	YS1	08-FEB-2010 07:26		020810	1.0		PATTERN ONLY
008f0801.d	WAR100104-21	YS1	08-FEB-2010 07:36		020810	1.0		PATTERN ONLY
009f0901.d	WAR091216-54	YS1	08-FEB-2010 07:46		020810	1.0		PASSED ON BOTH COLUMNS
010f1001.d	WAR100107-68	YS1	08-FEB-2010 07:57		020810	1.0		PATTERN ONLY
011f1101.d	WAR091219-DDT	YS1	08-FEB-2010 08:07		020810	1.0		DDT ANALOG STANDARD
012f1201.d	WAR100105-99 02	YS1	08-FEB-2010 08:18		020810	1.0		CLEAN
013f1301.d	1202033838	YS1	08-FEB-2010 08:28	949312	020810	1.0	QC A	UPLOAD BOTH COLUMNS, USE FRONT
014f1401.d	1202033840	YS1	08-FEB-2010 08:39	949312		1.0	QC A	UPLOAD BOTH COLUMNS, USE FRONT
015f1501.d	1202033841	YS1	08-FEB-2010 08:49	949312		1.0	QC A	UPLOAD BOTH COLUMNS, USE FRONT

Instrument Batch: /chem/ecd1a.i/020810.b Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments

016f1601.d	246116001	YS1	08-FEB-2010 09:00	949312	246116		5.0	MECP	UPLOAD BOTH COLUMNS, USE FRONT
017f1701.d	1202033839	YS1	08-FEB-2010 09:12	949312			5.0	QC A	UPLOAD BOTH COLUMNS, USE FRONT
018f1801.d	WAR100203-60 02	YS1	08-FEB-2010 09:25		020810		1.0		PASSED ON BOTH COLUMNS
019f1901.d	WAR100105-99 03	YS1	08-FEB-2010 09:36		020810		1.0		CLEAN
020f2001.d	1202034486	YS1	08-FEB-2010 09:46	949592	10006		1.0	QC A	DUSE RR AFTER SULFUR AND ALMINA CLEANUP
021f2101.d	1202034487	YS1	08-FEB-2010 09:57	949592	10006		1.0	QC A	DUSE RR AFTER SULFUR AND ALMINA CLEANUP
022f2201.d	246028001	YS1	08-FEB-2010 10:07	949592	10006		1.0	WSRS	DUSE RR AFTER SULFUR AND ALMINA CLEANUP
023f2301.d	1202034488	YS1	08-FEB-2010 10:20	949592	10006		1.0	QC A	DUSE RR AFTER SULFUR AND ALMINA CLEANUP
024f2401.d	1202034489	YS1	08-FEB-2010 10:32	949592	10006		1.0	QC A	DUSE RR AFTER SULFUR AND ALMINA CLEANUP
025f2501.d	WAR100203-60 03	YS1	08-FEB-2010 10:45		020810		1.0		PASSED ON BOTH COLUMNS
026f2601.d	WAR100105-99 04	YS1	08-FEB-2010 10:55		020810		1.0		CLEAN
027f2701.d	1202034807	YS1	08-FEB-2010 11:06	949745	10-1604		1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
028f2801.d	1202034808	YS1	08-FEB-2010 11:16	949745	10-1604		1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
029f2901.d	246333001	YS1	08-FEB-2010 11:27	949745	10-1604		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
030f3001.d	1202034809	YS1	08-FEB-2010 11:39	949745	10-1604		1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
031f3101.d	1202034810	YS1	08-FEB-2010 11:52	949745	10-1604		1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
032f3201.d	246333002	YS1	08-FEB-2010 12:05	949745	10-1604		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
033f3301.d	WAR100203-60 04	YS1	08-FEB-2010 12:17		020810		1.0		PASSED ON BOTH COLUMNS
034f3401.d	WAR100105-99 05	YS1	08-FEB-2010 12:28		020810		1.0		CLEAN
035f3501.d	246028001	YS1	08-FEB-2010 12:38	949592	10006		1.0	WSRS	UPLOAD BOTH COLUMNS, USE HIGHER

Instrument Batch: /chem/ecd1a.i/020810.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
036f3601.d	WAR100105-99 06	YS1	08-FEB-2010 12:51		020810		1.0	CLEAN
037f3701.d	1202034486	YS1	08-FEB-2010 13:01	949592	10006		1.0	QC A UPLOAD BOTH COLUMNS, USE HIGHER
038f3801.d	1202034487	YS1	08-FEB-2010 13:12	949592	10006		1.0	QC A UPLOAD BOTH COLUMNS, USE HIGHER
039f3901.d	1202034488	YS1	08-FEB-2010 13:22	949592	10006		1.0	QC A UPLOAD BOTH COLUMNS, USE HIGHER
040f4001.d	1202034489	YS1	08-FEB-2010 13:35	949592	10006		1.0	QC A UPLOAD BOTH COLUMNS, USE HIGHER

041f4101.d	WAR100203-60 05	YS1	08-FEB-2010 13:47		020810		1.0		PASSED ON BOTH COLUMNS
042f4201.d	WAR100105-99 07	YS1	08-FEB-2010 13:58		020810		1.0		CLEAN
043f4301.d	1202034439	YS1	08-FEB-2010 14:09	949561	10020		1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
044f4401.d	1202034440	YS1	08-FEB-2010 14:19	949561	10020		1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
045f4501.d	1202034441	YS1	08-FEB-2010 14:30	949561	10020		1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
046f4601.d	246228001	YS1	08-FEB-2010 14:42	949561	10020		1.0	WSRS	UPLOAD BOTH COLUMNS, USE HIGHER
047f4701.d	246228002	YS1	08-FEB-2010 14:55	949561	10020		1.0	WSRS	UPLOAD BOTH COLUMNS, USE HIGHER
048f4801.d	246228003	YS1	08-FEB-2010 15:07	949561	10020		1.0	WSRS	DUSE RR 5X
049f4901.d	246228004	YS1	08-FEB-2010 15:20	949561	10020		1.0	WSRS	DUSE RR
050f5001.d	246228005	YS1	08-FEB-2010 15:32	949561	10020		1.0	WSRS	UPLOAD BOTH COLUMNS, USE HIGHER
051f5101.d	246228006	YS1	08-FEB-2010 15:45	949561	10020		1.0	WSRS	UPLOAD BOTH COLUMNS, USE HIGHER
052f5201.d	246228007	YS1	08-FEB-2010 15:58	949561	10020		1.0	WSRS	DUSE RR 10X
053f5301.d	WAR100203-60 06	YS1	08-FEB-2010 16:10		020810		1.0		PASSED ON BOTH COLUMNS
054f5401.d	WAR100105-99 08	YS1	08-FEB-2010 16:21		020810		1.0		CLEAN
055f5501.d	246228008	YS1	08-FEB-2010 16:31	949561	10020		1.0	WSRS	UPLOAD BOTH COLUMNS, USE HIGHER

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
056f5601.d	246228009	YS1	08-FEB-2010 16:44	949561	10020		1.0	WSRS	DUSE RR 5X
057f5701.d	246228010	YS1	08-FEB-2010 16:56	949561	10020		1.0	WSRS	DUSE RR
058f5801.d	246228011	YS1	08-FEB-2010 17:09	949561	10020		1.0	WSRS	DUSE RR 5X
059f5901.d	246228012	YS1	08-FEB-2010 17:21	949561	10020		1.0	WSRS	DUSE RR 10X
060f6001.d	246228013	YS1	08-FEB-2010 17:34	949561	10020		1.0	WSRS	DUSE RR 20X
061f6101.d	246228014	YS1	08-FEB-2010 17:47	949561	10020		1.0	WSRS	DUSE RR 10X
062f6201.d	246228015	YS1	08-FEB-2010 17:59	949561	10020		1.0	WSRS	DUSE RR 10X
063f6301.d	246228016	YS1	08-FEB-2010 18:12	949561	10020		1.0	WSRS	DUSE RR
064f6401.d	246228017	YS1	08-FEB-2010 18:25	949561	10020		1.0	WSRS	UPLOAD BOTH COLUMNS, USE HIGHER

065f6501.d	WAR100203-60 07	YS1	08-FEB-2010 18:37		020810		1.0		PASSED ON BOTH COLUMNS
066f6601.d	WAR100105-99 09	YS1	08-FEB-2010 18:50		020810		1.0		CLEAN
067f6701.d	246228018	YS1	08-FEB-2010 19:02	949561	10020		1.0	WSRS	UPLOAD BOTH COLUMNS, USE HIGHER
068f6801.d	246228019	YS1	08-FEB-2010 19:15	949561	10020		1.0	WSRS	UPLOAD BOTH COLUMNS, USE HIGHER
069f6901.d	246228020	YS1	08-FEB-2010 19:28	949561	10020		1.0	WSRS	UPLOAD BOTH COLUMNS, USE HIGHER
070f7001.d	WAR100203-60 08	YS1	08-FEB-2010 19:40		020810		1.0		PASSED ON BOTH COLUMNS
071f7101.d	WAR100105-99 10	YS1	08-FEB-2010 19:53		020810		1.0		CLEAN
072f7201.d	1202034493	YS1	08-FEB-2010 20:05	949597	246191		1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
073f7301.d	1202034494	YS1	08-FEB-2010 20:18	949597	246191		1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
074f7401.d	246191003	YS1	08-FEB-2010 20:31	949597	246191		1.0	SNLS	UPLOAD BOTH COLUMNS, USE HIGHER
075f7501.d	1202034495	YS1	08-FEB-2010 20:43	949597	246191		1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER

Instrument Batch: /chem/ecd1a.i/020810.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
076f7601.d	1202034496	YS1	08-FEB-2010 20:56	949597	246191	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
077f7701.d	WAR100203-60 09	YS1	08-FEB-2010 21:08		020810	1.0		PASSED ON BOTH COLUMNS
078f7801.d	WAR100105-99 11	YS1	08-FEB-2010 21:21		020810	1.0		CLEAN

Prep Logbook

Extraction of Semivolatile and Nonvolatile Organic Compounds from Soil, Sludge, and Other Miscellaneous Solid Samples

Batch ID: 949744 **Verified by:** _____

Analyst: Andrew Schwemin

Method: SW846 3550B

Lab SOP: GL-OA-E-010 REV# 18

Instrument: Semi-Volatiles Manual

Sample ID	Run Date	Aliquot (g)	Clean Up	Prior to Clean up (mL)	Amount Cleaned (mL)	After Clean up (mL)	Prepped Aliquot (mL)	Prepped Factor (mL/g)
1202034807 MB	05-FEB-2010 18:41:00	30	H2SO4/KMl2		2	9	1	0.03333
1202034808 LCS	05-FEB-2010 18:41:00	30	H2SO4/KMl2		2	9	1	0.03333
246333001	05-FEB-2010 18:41:00	30.18	H2SO4/KMl2		2	9	1	0.03313
1202034809 MS (246333001)	05-FEB-2010 18:41:00	30.01	H2SO4/KMl2		2	9	1	0.03332
1202034810 MSD (246333001)	05-FEB-2010 18:41:00	30.19	H2SO4/KMl2		2	9	1	0.03312
246333002	05-FEB-2010 18:41:00	30.03	H2SO4/KMl2		2	9	1	0.0333

Type	Sample Id	Description	Serial Number	Spike Amt	Units
LCS	1202034808	PCB Laboratory Control	WE100126-07	1	mL
MS	1202034809	PCB Laboratory Control	WE100126-07	1	mL
MSD	1202034810	PCB Laboratory Control	WE100126-07	1	mL
SURR	All	PEST LOW LEVEL SURROGATE 200 UG/L	UE100127-15	1	mL
REGNT	All	1:1 sulfuric acid	1260695a	5	mL
REGNT	All	Acetone	1264558	150	mL
REGNT	All	Hexane	1264562-B2	150	mL
REGNT	All	5% Potassium Permanganate	B1202457-F	5	mL
SOURC	All	SODIUM SULFATE	1265308	30	g

Comments:

Clean up Date: 2/5/10

Clean up Initials: AJS

Verified By: AV

Final Solvent: Hexane

Clean Up SOP: GL-OA-E-037

Metals Analysis

Case Narrative

Metals Fractional Narrative
Los Alamos National Laboratory (LANL)
SDG 10-1604

Sample Analysis

Sample ID	Client ID
246333001	RE03-10-12247
246333002	RE03-10-12248
1202035237	Method Blank (MB) **ICP**
1202038897	Method Blank (MB) **ICP**
1202035242	Laboratory Control Sample (LCS)
1202038898	Laboratory Control Sample (LCS)
1202035239	246333001(RE03-10-12247L) Serial Dilution (SD)
1202035238	246333001(RE03-10-12247D) Sample Duplicate (DUP)
1202035240	246333001(RE03-10-12247S) Matrix Spike (MS)
1202035241	246333001(RE03-10-12247SD) Matrix Spike Duplicate (MSD)
1202035248	Method Blank (MB) **ICP-MS**
1202035253	Laboratory Control Sample (LCS)
1202035250	246333001(RE03-10-12247L) Serial Dilution (SD)
1202035249	246333001(RE03-10-12247D) Sample Duplicate (DUP)
1202035251	246333001(RE03-10-12247S) Matrix Spike (MS)
1202035252	246333001(RE03-10-12247SD) Matrix Spike Duplicate (MSD)
1202036367	Method Blank (MB) **CVAA**
1202036368	Laboratory Control Sample (LCS)
1202036371	246333001(RE03-10-12247L) Serial Dilution (SD)
1202036369	246333001(RE03-10-12247D) Sample Duplicate (DUP)

1202036370	246333001(RE03-10-12247S) Matrix Spike (MS)
1202036372	246333001(RE03-10-12247SD) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on a "dry weight" basis.

Method/Analysis Information

Analytical Batch:	949911, 951404, 949913 and 950299
Prep Batch :	949910, 951402, 949912 and 950298
Standard Operating Procedures:	GL-MA-E-013 REV# 20, GL-MA-E-009 REV# 19, GL-MA-E-014 REV# 21 and GL-MA-E-010 REV# 23
Analytical Method:	SW846 3050B/6010B, SW846 3050B/6020 and SW846 7471A
Prep Method :	SW846 3050B and SW846 7471A Prep

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

System Configuration

The Metals analysis-ICP was performed on a P E 5300 Optima radial/axial-viewing inductively coupled plasma atomic emission spectrometer. The instrument is equipped with a Burgener nebulizer, cyclonic spray chamber, and yttrium or scandium internal standard. Operating conditions for the ICP are set at a power level of 1500 watts. The instrument has a peristaltic pump flow rate of 1.4L/min, argon gas flows of 15 L/min and 0.2 L/min for the torch and auxiliary gases, and a flow setting of 0.65L/min for the nebulizer.

The Metals analysis - ICPMS was performed on a Perkin Elmer ELAN 9000 inductively coupled plasma mass spectrometer (ICP-MS). The instrument is equipped with a cross-flow nebulizer, quadrupole mass spectrometer, and dual mode electron multiplier detector. Internal standards of scandium, germanium, indium, tantalum, and/or lutetium were utilized to cover the mass spectrum. Operating conditions are set at 1400W power and combined argon pressures of 360+/-7 kPa for the plasma and auxiliary gases, and 0.85 L/min carrier gas flow, and an initial lens voltage of 5.2.

The Metals analysis-Mercury was performed on a Perkin-Elmer Flow Injection Mercury System (FIMS-100) automated mercury analyzer. The instrument consists of a cold vapor atomic absorption spectrometer set to detect mercury at a wavelength of 253.7 nm. Sample introduction through the flow injection system is performed via a peristaltic pump at 9 mL/min and nitrogen carrier gas rate of 80 mL/min.

Calibration Information

Instrument Calibration
All initial calibration requirements have been met for this sample delivery group (SDG).

CRDL Requirements
All CRDL standard(s) met the referenced advisory control limits.

ICSA/ICSAB Statement
All interference check samples (ICSA and ICSAB) associated with this SDG met the established acceptance criteria.

Continuing Calibration Blank (CCB) Requirements
All continuing calibration blanks (CCB) bracketing this batch met the established acceptance criteria.

Continuing Calibration Verification (CCV) Requirements
All continuing calibration verifications (CCV) bracketing this SDG met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MBs analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

Quality Control (QC) Sample Statement
The following sample was selected as the quality control (QC) sample for this SDG: 246333001.

Matrix Spike (MS) Recovery Statement
The percent recoveries (%R) obtained from the MS analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. The MS met the recommended quality control acceptance criteria for percent recoveries for all applicable analytes with the exception of barium, manganese, silicon, lithium, nickel and selenium, as indicated by the "N" qualifiers.

Matrix Spike Duplicate (MSD) Recovery Statement
The percent recovery (%R) obtained from the MSD analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. The MSD met the recommended quality control acceptance criteria for percent recoveries for all applicable analytes with the exception of manganese, silicon, lithium, nickel and selenium, as indicated by the "N" qualifiers.

MS/MSD Relative Percent Difference (RPD) Statement
The relative percent difference (RPD) obtained from the designated matrix spike duplicate (MSD) is evaluated based on acceptance criteria of 20%. The RPD between qualifying elements results in the MS and MSD were within the acceptance limits of 20% with the exception of manganese, as indicated by the "*" qualifier.

Duplicate Relative Percent Difference (RPD) Statement
The relative percent difference (RPD) obtained from the designated sample duplicate (DUP) is evaluated based on acceptance criteria of 20% when the sample is 5X the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the contract required detection limit (RL), a control of +/-RL is used to evaluate the DUP results. All applicable analytes met these requirements with the exception of cobalt, potassium, silicon and titanium, as indicated by the "*" qualifiers.

Serial Dilution % Difference Statement
The serial dilution is used to assess matrix suppression or enhancement. Raw element concentrations that are 25X the IDL/MDL for CVAA, 50X the IDL/MDL for ICP, and 100X the IDL/MDL for ICP-MS analyses are applicable for serial dilution assessment. All applicable analytes met the acceptance criteria of less than 10% difference (%D).

Technical Information

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Sample Dilutions
Dilutions are performed to minimize matrix interferences resulting from elevated mineral element concentrations present in solid samples and/or to bring over range target analyte concentrations into the linear calibration range of the instrument. The samples in this SDG were diluted the standard 2x for solids on the ICPMS.

Preparation Information
The samples in this SDG were prepared exactly according to the cited SOP.

Miscellaneous Information

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in

the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. The following DERs were generated for this SDG: 789160 and 789829. A copy of each DER is included in the Miscellaneous Data section of this package.

Additional Comments
Additional comments were not required for this SDG.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Kristen Parson **Date:** 2/12/10

Sample Data Summary

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1604 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 246333001 **BASIS:** Dry Weight **DATE COLLECTED** 02-FEB-10

CLIENT ID: RE03-10-12247 **LEVEL:** Low **DATE RECEIVED** 05-FEB-10

MATRIX: SOIL **%SOLIDS:** 85

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	20600000	ug/Kg		7740	22800	22800	1	P	HSC	02/08/10 12:31	020810A-1	949911
7440-36-0	Antimony	1140	ug/Kg	U	376	1140	1140	1	P	HSC	02/08/10 12:31	020810A-1	949911
7440-38-2	Arsenic	0.912	mg/kg	J	0.236	1.18	1.18	2	MS	BAJ	02/08/10 21:04	100208-3	949913
7440-39-3	Barium	62600	ug/Kg	N	114	569	569	1	P	HSC	02/08/10 12:31	020810A-1	949911
7440-41-7	Beryllium	1.07	mg/kg		0.0236	0.118	0.118	2	MS	BAJ	02/08/10 21:04	100208-3	949913
7440-42-8	Boron	4470	ug/Kg	J	1140	5690	5690	1	P	HSC	02/08/10 12:31	020810A-1	949911
7440-43-9	Cadmium	569	ug/Kg	U	114	569	569	1	P	HSC	02/08/10 12:31	020810A-1	949911
7440-70-2	Calcium	2850000	ug/Kg		9110	28500	28500	1	P	HSC	02/08/10 12:31	020810A-1	949911
7440-47-3	Chromium	10500	ug/Kg		171	569	569	1	P	HSC	02/08/10 12:31	020810A-1	949911
7440-48-4	Cobalt	3160	ug/Kg	*	171	569	569	1	P	HSC	02/08/10 12:31	020810A-1	949911
7440-50-8	Copper	7310	ug/Kg		340	1130	1130	1	P	HSC	02/11/10 14:05	021110-2	951404
7439-89-6	Iron	15500000	ug/Kg		9110	28500	28500	1	P	HSC	02/08/10 12:31	020810A-1	949911
7439-92-1	Lead	14900	ug/Kg		285	1140	1140	1	P	HSC	02/08/10 12:31	020810A-1	949911
7439-93-2	Lithium	16.2	mg/kg	N	0.473	2.36	2.36	2	MS	BAJ	02/09/10 12:45	100209-4	949913
7439-95-4	Magnesium	3410000	ug/Kg		9680	34100	34100	1	P	HSC	02/08/10 12:31	020810A-1	949911
7439-96-5	Manganese	137000	ug/Kg	*N	228	1140	1140	1	P	HSC	02/08/10 12:31	020810A-1	949911
7439-97-6	Mercury	12.9	ug/kg	U	4.39	12.9	12.9	1	AV	JXL1	02/09/10 10:28	020910S1-9	950299
7440-02-0	Nickel	6.92	mg/kg	N	0.118	0.473	0.473	2	MS	BAJ	02/08/10 21:04	100208-3	949913
7440-09-7	Potassium	2320000	ug/Kg	*	7290	28500	28500	1	P	HSC	02/08/10 12:31	020810A-1	949911
7782-49-2	Selenium	1.18	mg/kg	UN	0.591	1.18	1.18	2	MS	BAJ	02/08/10 21:04	100208-3	949913
7440-21-3	Silicon	1600000	ug/Kg	*N	1710	11400	11400	1	P	HSC	02/08/10 12:31	020810A-1	949911
7440-22-4	Silver	633	ug/Kg		114	569	569	1	P	HSC	02/08/10 12:31	020810A-1	949911
7440-23-5	Sodium	287000	ug/Kg		7970	28500	28500	1	P	HSC	02/08/10 12:31	020810A-1	949911
7440-28-0	Thallium	0.345	mg/kg		0.0709	0.236	0.236	2	MS	BAJ	02/09/10 15:27	100209-8	949913
7440-32-6	Titanium	306000	ug/Kg	*	114	569	569	1	P	HSC	02/08/10 12:31	020810A-1	949911
7440-61-1	Uranium	0.711	mg/kg		0.0156	0.0473	0.0473	2	MS	BAJ	02/09/10 13:59	100209-7	949913
7440-62-2	Vanadium	14500	ug/Kg		113	566	566	1	P	HSC	02/11/10 14:05	021110-2	951404
7440-66-6	Zinc	30500	ug/Kg		376	1140	1140	1	P	HSC	02/08/10 12:31	020810A-1	949911

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
949911	949910	SW846 3050B	0.519	g	50	mL	02/07/10	BCD1
949913	949912	SW846 3050B	0.5	g	50	mL	02/07/10	BCD1
950299	950298	SW846 7471A Prep	0.549	g	30	mL	02/08/10	TXB3

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

951404	951402	SW846 3050B	0.522	g	50	mL	02/10/10	BXA1

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1604 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 246333002 **BASIS:** Dry Weight **DATE COLLECTED** 02-FEB-10

CLIENT ID: RE03-10-12248 **LEVEL:** Low **DATE RECEIVED** 05-FEB-10

MATRIX: SOIL **%SOLIDS:** 90.1

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	1010000	ug/Kg		7500	22100	22100	1	P	HSC	02/08/10 13:06	020810A-1	949911
7440-36-0	Antimony	1100	ug/Kg	U	364	1100	1100	1	P	HSC	02/08/10 13:06	020810A-1	949911
7440-38-2	Arsenic	1.15	mg/kg		0.216	1.08	1.08	2	MS	BAJ	02/08/10 21:35	100208-3	949913
7440-39-3	Barium	23300	ug/Kg	N	110	552	552	1	P	HSC	02/08/10 13:06	020810A-1	949911
7440-41-7	Beryllium	0.179	mg/kg		0.0216	0.108	0.108	2	MS	BAJ	02/08/10 21:35	100208-3	949913
7440-42-8	Boron	5520	ug/Kg	U	1100	5520	5520	1	P	HSC	02/08/10 13:06	020810A-1	949911
7440-43-9	Cadmium	552	ug/Kg	U	110	552	552	1	P	HSC	02/08/10 13:06	020810A-1	949911
7440-70-2	Calcium	1030000	ug/Kg		8830	27600	27600	1	P	HSC	02/08/10 13:06	020810A-1	949911
7440-47-3	Chromium	4100	ug/Kg		166	552	552	1	P	HSC	02/08/10 13:06	020810A-1	949911
7440-48-4	Cobalt	1110	ug/Kg	*	166	552	552	1	P	HSC	02/08/10 13:06	020810A-1	949911
7440-50-8	Copper	1630	ug/Kg		329	1100	1100	1	P	HSC	02/11/10 14:40	021110-2	951404
7439-89-6	Iron	11200000	ug/Kg		8830	27600	27600	1	P	HSC	02/08/10 13:06	020810A-1	949911
7439-92-1	Lead	3280	ug/Kg		276	1100	1100	1	P	HSC	02/08/10 13:06	020810A-1	949911
7439-93-2	Lithium	14.4	mg/kg	N	0.431	2.16	2.16	2	MS	BAJ	02/09/10 12:56	100209-4	949913
7439-95-4	Magnesium	633000	ug/Kg		9380	33100	33100	1	P	HSC	02/08/10 13:06	020810A-1	949911
7439-96-5	Manganese	320000	ug/Kg	*N	221	1100	1100	1	P	HSC	02/08/10 13:06	020810A-1	949911
7439-97-6	Mercury	12.1	ug/kg	U	4.11	12.1	12.1	1	AV	JXL1	02/09/10 10:40	020910S1-9	950299
7440-02-0	Nickel	1.99	mg/kg	N	0.108	0.431	0.431	2	MS	BAJ	02/08/10 21:35	100208-3	949913
7440-09-7	Potassium	466000	ug/Kg	*	7060	27600	27600	1	P	HSC	02/08/10 13:06	020810A-1	949911
7782-49-2	Selenium	1.08	mg/kg	UN	0.539	1.08	1.08	2	MS	BAJ	02/08/10 21:35	100208-3	949913
7440-21-3	Silicon	502000	ug/Kg	*N	1660	11000	11000	1	P	HSC	02/08/10 13:06	020810A-1	949911
7440-22-4	Silver	510	ug/Kg	J	110	552	552	1	P	HSC	02/08/10 13:06	020810A-1	949911
7440-23-5	Sodium	191000	ug/Kg		7730	27600	27600	1	P	HSC	02/08/10 13:06	020810A-1	949911
7440-28-0	Thallium	0.216	mg/kg	U	0.0647	0.216	0.216	2	MS	BAJ	02/09/10 15:50	100209-8	949913
7440-32-6	Titanium	726000	ug/Kg	*	110	552	552	1	P	HSC	02/08/10 13:06	020810A-1	949911
7440-61-1	Uranium	0.445	mg/kg		0.0142	0.0431	0.0431	2	MS	BAJ	02/09/10 14:07	100209-7	949913
7440-62-2	Vanadium	5350	ug/Kg		110	549	549	1	P	HSC	02/11/10 14:40	021110-2	951404
7440-66-6	Zinc	49900	ug/Kg		364	1100	1100	1	P	HSC	02/08/10 13:06	020810A-1	949911

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
949911	949910	SW846 3050B	0.503	g	50	mL	02/07/10	BCD1
949913	949912	SW846 3050B	0.515	g	50	mL	02/07/10	BCD1
950299	950298	SW846 7471A Prep	0.551	g	30	mL	02/08/10	TXB3

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INORGANICS ANALYSIS DATA PACKAGE

951404	951402	SW846 3050B	0.506	g	50	mL	02/10/10	BXA1

Quality Control Summary

METALS
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Initial and Continuing Calibration Verification

SDG No: 10–1604

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
ICV01										
	Aluminum	5140	ug/L	5000	ug/L	102.8	90.0 – 110.0	P	08–FEB–10 07:29	020810A–1
	Antimony	527	ug/L	500	ug/L	105.4	90.0 – 110.0	P	08–FEB–10 07:29	020810A–1
	Barium	515	ug/L	500	ug/L	103	90.0 – 110.0	P	08–FEB–10 07:29	020810A–1
	Boron	517	ug/L	500	ug/L	103.5	90.0 – 110.0	P	08–FEB–10 07:29	020810A–1
	Cadmium	492	ug/L	500	ug/L	98.3	90.0 – 110.0	P	08–FEB–10 07:29	020810A–1
	Calcium	5100	ug/L	5000	ug/L	101.9	90.0 – 110.0	P	08–FEB–10 07:29	020810A–1
	Chromium	492	ug/L	500	ug/L	98.4	90.0 – 110.0	P	08–FEB–10 07:29	020810A–1
	Cobalt	505	ug/L	500	ug/L	101.1	90.0 – 110.0	P	08–FEB–10 07:29	020810A–1
	Iron	5120	ug/L	5000	ug/L	102.4	90.0 – 110.0	P	08–FEB–10 07:29	020810A–1
	Lead	506	ug/L	500	ug/L	101.1	90.0 – 110.0	P	08–FEB–10 07:29	020810A–1
	Magnesium	5380	ug/L	5000	ug/L	107.7	90.0 – 110.0	P	08–FEB–10 07:29	020810A–1
	Manganese	520	ug/L	500	ug/L	104	90.0 – 110.0	P	08–FEB–10 07:29	020810A–1
	Potassium	2530	ug/L	2500	ug/L	101.1	90.0 – 110.0	P	08–FEB–10 07:29	020810A–1
	Silicon	4850	ug/L	5000	ug/L	97.1	90.0 – 110.0	P	08–FEB–10 07:29	020810A–1
	Silver	264	ug/L	250	ug/L	105.8	90.0 – 110.0	P	08–FEB–10 07:29	020810A–1
	Sodium	2340	ug/L	2500	ug/L	93.4	90.0 – 110.0	P	08–FEB–10 07:29	020810A–1
	Titanium	502	ug/L	500	ug/L	100.4	90.0 – 110.0	P	08–FEB–10 07:29	020810A–1
	Zinc	513	ug/L	500	ug/L	102.5	90.0 – 110.0	P	08–FEB–10 07:29	020810A–1
	Arsenic	49.2	ug/L	50	ug/L	98.5	90.0 – 110.0	MS	08–FEB–10 19:01	100208–3
	Beryllium	50.2	ug/L	50	ug/L	100.3	90.0 – 110.0	MS	08–FEB–10 19:01	100208–3
	Nickel	51.4	ug/L	50	ug/L	102.9	90.0 – 110.0	MS	08–FEB–10 19:01	100208–3
	Selenium	50.2	ug/L	50	ug/L	100.3	90.0 – 110.0	MS	08–FEB–10 19:01	100208–3
	Mercury	5.15	ug/L	5	ug/L	103	90.0 – 110.0	AV	09–FEB–10 09:11	020910S1–9
	Lithium	50.3	ug/L	50	ug/L	100.7	90.0 – 110.0	MS	09–FEB–10 12:25	100209–4
	Uranium	54.2	ug/L	50	ug/L	108.3	90.0 – 110.0	MS	09–FEB–10 13:44	100209–7
	Thallium	52.8	ug/L	50	ug/L	105.6	90.0 – 110.0	MS	09–FEB–10 14:46	100209–8
	Copper	510	ug/L	500	ug/L	102	90.0 – 110.0	P	11–FEB–10 08:54	021110–2
	Vanadium	520	ug/L	500	ug/L	104	90.0 – 110.0	P	11–FEB–10 08:54	021110–2
CCV01										
	Aluminum	4980	ug/L	5000	ug/L	99.5	90.0 – 110.0	P	08–FEB–10 08:14	020810A–1

METALS
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Initial and Continuing Calibration Verification

SDG No: 10–1604

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Antimony	520	ug/L	500	ug/L	104	90.0 – 110.0	P	08–FEB–10 08:14	020810A–1
	Barium	493	ug/L	500	ug/L	98.7	90.0 – 110.0	P	08–FEB–10 08:14	020810A–1
	Boron	510	ug/L	500	ug/L	102	90.0 – 110.0	P	08–FEB–10 08:14	020810A–1
	Cadmium	495	ug/L	500	ug/L	98.9	90.0 – 110.0	P	08–FEB–10 08:14	020810A–1
	Calcium	4970	ug/L	5000	ug/L	99.4	90.0 – 110.0	P	08–FEB–10 08:14	020810A–1
	Chromium	494	ug/L	500	ug/L	98.8	90.0 – 110.0	P	08–FEB–10 08:14	020810A–1
	Cobalt	493	ug/L	500	ug/L	98.5	90.0 – 110.0	P	08–FEB–10 08:14	020810A–1
	Iron	4950	ug/L	5000	ug/L	98.9	90.0 – 110.0	P	08–FEB–10 08:14	020810A–1
	Lead	493	ug/L	500	ug/L	98.7	90.0 – 110.0	P	08–FEB–10 08:14	020810A–1
	Magnesium	5070	ug/L	5000	ug/L	101.5	90.0 – 110.0	P	08–FEB–10 08:14	020810A–1
	Manganese	491	ug/L	500	ug/L	98.3	90.0 – 110.0	P	08–FEB–10 08:14	020810A–1
	Potassium	5170	ug/L	5000	ug/L	103.3	90.0 – 110.0	P	08–FEB–10 08:14	020810A–1
	Silicon	2460	ug/L	2500	ug/L	98.4	90.0 – 110.0	P	08–FEB–10 08:14	020810A–1
	Silver	497	ug/L	500	ug/L	99.3	90.0 – 110.0	P	08–FEB–10 08:14	020810A–1
	Sodium	9420	ug/L	10000	ug/L	94.2	90.0 – 110.0	P	08–FEB–10 08:14	020810A–1
	Titanium	492	ug/L	500	ug/L	98.5	90.0 – 110.0	P	08–FEB–10 08:14	020810A–1
	Zinc	490	ug/L	500	ug/L	98	90.0 – 110.0	P	08–FEB–10 08:14	020810A–1
	Arsenic	48.5	ug/L	50	ug/L	97	90.0 – 110.0	MS	08–FEB–10 19:32	100208–3
	Beryllium	54.6	ug/L	50	ug/L	109.2	90.0 – 110.0	MS	08–FEB–10 19:32	100208–3
	Nickel	51.8	ug/L	50	ug/L	103.5	90.0 – 110.0	MS	08–FEB–10 19:32	100208–3
	Selenium	49.8	ug/L	50	ug/L	99.5	90.0 – 110.0	MS	08–FEB–10 19:32	100208–3
	Mercury	5.09	ug/L	5	ug/L	101.8	80.0 – 120.0	AV	09–FEB–10 09:16	020910S1–9
	Lithium	53.9	ug/L	50	ug/L	107.8	90.0 – 110.0	MS	09–FEB–10 12:36	100209–4
	Uranium	53	ug/L	50	ug/L	105.9	90.0 – 110.0	MS	09–FEB–10 13:52	100209–7
	Thallium	51.4	ug/L	50	ug/L	102.8	90.0 – 110.0	MS	09–FEB–10 15:09	100209–8
	Copper	499	ug/L	500	ug/L	99.7	90.0 – 110.0	P	11–FEB–10 09:39	021110–2
	Vanadium	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	11–FEB–10 09:39	021110–2
CCV02										
	Aluminum	4910	ug/L	5000	ug/L	98.1	90.0 – 110.0	P	08–FEB–10 08:37	020810A–1
	Antimony	514	ug/L	500	ug/L	102.7	90.0 – 110.0	P	08–FEB–10 08:37	020810A–1

METALS
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Initial and Continuing Calibration Verification

SDG No: 10–1604

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Barium	493	ug/L	500	ug/L	98.5	90.0 – 110.0	P	08–FEB–10 08:37	020810A–1
	Boron	497	ug/L	500	ug/L	99.4	90.0 – 110.0	P	08–FEB–10 08:37	020810A–1
	Cadmium	493	ug/L	500	ug/L	98.6	90.0 – 110.0	P	08–FEB–10 08:37	020810A–1
	Calcium	4880	ug/L	5000	ug/L	97.6	90.0 – 110.0	P	08–FEB–10 08:37	020810A–1
	Chromium	492	ug/L	500	ug/L	98.5	90.0 – 110.0	P	08–FEB–10 08:37	020810A–1
	Cobalt	493	ug/L	500	ug/L	98.5	90.0 – 110.0	P	08–FEB–10 08:37	020810A–1
	Iron	4820	ug/L	5000	ug/L	96.4	90.0 – 110.0	P	08–FEB–10 08:37	020810A–1
	Lead	492	ug/L	500	ug/L	98.4	90.0 – 110.0	P	08–FEB–10 08:37	020810A–1
	Magnesium	4930	ug/L	5000	ug/L	98.7	90.0 – 110.0	P	08–FEB–10 08:37	020810A–1
	Manganese	494	ug/L	500	ug/L	98.8	90.0 – 110.0	P	08–FEB–10 08:37	020810A–1
	Potassium	4890	ug/L	5000	ug/L	97.8	90.0 – 110.0	P	08–FEB–10 08:37	020810A–1
	Silicon	2440	ug/L	2500	ug/L	97.6	90.0 – 110.0	P	08–FEB–10 08:37	020810A–1
	Silver	495	ug/L	500	ug/L	99.1	90.0 – 110.0	P	08–FEB–10 08:37	020810A–1
	Sodium	8810	ug/L	10000	ug/L	88.1	90.0 – 110.0	P	08–FEB–10 08:37	020810A–1
	Titanium	481	ug/L	500	ug/L	96.3	90.0 – 110.0	P	08–FEB–10 08:37	020810A–1
	Zinc	488	ug/L	500	ug/L	97.6	90.0 – 110.0	P	08–FEB–10 08:37	020810A–1
	Arsenic	47.8	ug/L	50	ug/L	95.6	90.0 – 110.0	MS	08–FEB–10 19:50	100208–3
	Beryllium	51.7	ug/L	50	ug/L	103.4	90.0 – 110.0	MS	08–FEB–10 19:50	100208–3
	Nickel	51.4	ug/L	50	ug/L	102.8	90.0 – 110.0	MS	08–FEB–10 19:50	100208–3
	Selenium	49.4	ug/L	50	ug/L	98.8	90.0 – 110.0	MS	08–FEB–10 19:50	100208–3
	Mercury	5.14	ug/L	5	ug/L	102.8	80.0 – 120.0	AV	09–FEB–10 09:36	020910S1–9
	Lithium	54.4	ug/L	50	ug/L	108.8	90.0 – 110.0	MS	09–FEB–10 12:58	100209–4
	Uranium	53.8	ug/L	50	ug/L	107.6	90.0 – 110.0	MS	09–FEB–10 14:09	100209–7
	Thallium	53.5	ug/L	50	ug/L	106.9	90.0 – 110.0	MS	09–FEB–10 15:54	100209–8
	Copper	494	ug/L	500	ug/L	98.9	90.0 – 110.0	P	11–FEB–10 10:04	021110–2
	Vanadium	497	ug/L	500	ug/L	99.5	90.0 – 110.0	P	11–FEB–10 10:04	021110–2
CCV03										
	Aluminum	5020	ug/L	5000	ug/L	100.4	90.0 – 110.0	P	08–FEB–10 09:10	020810A–1
	Antimony	509	ug/L	500	ug/L	101.8	90.0 – 110.0	P	08–FEB–10 09:10	020810A–1
	Barium	488	ug/L	500	ug/L	97.5	90.0 – 110.0	P	08–FEB–10 09:10	020810A–1

METALS
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Initial and Continuing Calibration Verification

SDG No: 10–1604

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Boron	484	ug/L	500	ug/L	96.7	90.0 – 110.0	P	08–FEB–10 09:10	020810A–1
	Cadmium	489	ug/L	500	ug/L	97.8	90.0 – 110.0	P	08–FEB–10 09:10	020810A–1
	Calcium	4990	ug/L	5000	ug/L	99.8	90.0 – 110.0	P	08–FEB–10 09:10	020810A–1
	Chromium	487	ug/L	500	ug/L	97.5	90.0 – 110.0	P	08–FEB–10 09:10	020810A–1
	Cobalt	487	ug/L	500	ug/L	97.5	90.0 – 110.0	P	08–FEB–10 09:10	020810A–1
	Iron	4950	ug/L	5000	ug/L	99	90.0 – 110.0	P	08–FEB–10 09:10	020810A–1
	Lead	491	ug/L	500	ug/L	98.2	90.0 – 110.0	P	08–FEB–10 09:10	020810A–1
	Magnesium	5170	ug/L	5000	ug/L	103.3	90.0 – 110.0	P	08–FEB–10 09:10	020810A–1
	Manganese	492	ug/L	500	ug/L	98.3	90.0 – 110.0	P	08–FEB–10 09:10	020810A–1
	Potassium	5010	ug/L	5000	ug/L	100.2	90.0 – 110.0	P	08–FEB–10 09:10	020810A–1
	Silicon	2410	ug/L	2500	ug/L	96.5	90.0 – 110.0	P	08–FEB–10 09:10	020810A–1
	Silver	490	ug/L	500	ug/L	98	90.0 – 110.0	P	08–FEB–10 09:10	020810A–1
	Sodium	9230	ug/L	10000	ug/L	92.3	90.0 – 110.0	P	08–FEB–10 09:10	020810A–1
	Titanium	492	ug/L	500	ug/L	98.4	90.0 – 110.0	P	08–FEB–10 09:10	020810A–1
	Zinc	483	ug/L	500	ug/L	96.6	90.0 – 110.0	P	08–FEB–10 09:10	020810A–1
	Arsenic	47.7	ug/L	50	ug/L	95.4	90.0 – 110.0	MS	08–FEB–10 20:39	100208–3
	Beryllium	51.2	ug/L	50	ug/L	102.5	90.0 – 110.0	MS	08–FEB–10 20:39	100208–3
	Nickel	49.3	ug/L	50	ug/L	98.7	90.0 – 110.0	MS	08–FEB–10 20:39	100208–3
	Selenium	49.9	ug/L	50	ug/L	99.7	90.0 – 110.0	MS	08–FEB–10 20:39	100208–3
	Mercury	5.16	ug/L	5	ug/L	103.3	80.0 – 120.0	AV	09–FEB–10 09:56	020910S1–9
	Copper	492	ug/L	500	ug/L	98.4	90.0 – 110.0	P	11–FEB–10 11:23	021110–2
	Vanadium	496	ug/L	500	ug/L	99.1	90.0 – 110.0	P	11–FEB–10 11:23	021110–2
CCV04										
	Aluminum	5020	ug/L	5000	ug/L	100.3	90.0 – 110.0	P	08–FEB–10 09:58	020810A–1
	Antimony	511	ug/L	500	ug/L	102.3	90.0 – 110.0	P	08–FEB–10 09:58	020810A–1
	Barium	492	ug/L	500	ug/L	98.3	90.0 – 110.0	P	08–FEB–10 09:58	020810A–1
	Boron	487	ug/L	500	ug/L	97.5	90.0 – 110.0	P	08–FEB–10 09:58	020810A–1
	Cadmium	492	ug/L	500	ug/L	98.4	90.0 – 110.0	P	08–FEB–10 09:58	020810A–1
	Calcium	5030	ug/L	5000	ug/L	100.6	90.0 – 110.0	P	08–FEB–10 09:58	020810A–1
	Chromium	492	ug/L	500	ug/L	98.4	90.0 – 110.0	P	08–FEB–10 09:58	020810A–1

METALS
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Initial and Continuing Calibration Verification

SDG No: 10–1604

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Cobalt	490	ug/L	500	ug/L	98	90.0 – 110.0	P	08–FEB–10 09:58	020810A–1
	Iron	4940	ug/L	5000	ug/L	98.8	90.0 – 110.0	P	08–FEB–10 09:58	020810A–1
	Lead	489	ug/L	500	ug/L	97.8	90.0 – 110.0	P	08–FEB–10 09:58	020810A–1
	Magnesium	5080	ug/L	5000	ug/L	101.7	90.0 – 110.0	P	08–FEB–10 09:58	020810A–1
	Manganese	490	ug/L	500	ug/L	98	90.0 – 110.0	P	08–FEB–10 09:58	020810A–1
	Potassium	4980	ug/L	5000	ug/L	99.6	90.0 – 110.0	P	08–FEB–10 09:58	020810A–1
	Silicon	2430	ug/L	2500	ug/L	97.3	90.0 – 110.0	P	08–FEB–10 09:58	020810A–1
	Silver	495	ug/L	500	ug/L	99	90.0 – 110.0	P	08–FEB–10 09:58	020810A–1
	Sodium	9050	ug/L	10000	ug/L	90.5	90.0 – 110.0	P	08–FEB–10 09:58	020810A–1
	Titanium	481	ug/L	500	ug/L	96.2	90.0 – 110.0	P	08–FEB–10 09:58	020810A–1
	Zinc	487	ug/L	500	ug/L	97.4	90.0 – 110.0	P	08–FEB–10 09:58	020810A–1
	Arsenic	48.5	ug/L	50	ug/L	96.9	90.0 – 110.0	MS	08–FEB–10 21:41	100208–3
	Beryllium	50.6	ug/L	50	ug/L	101.2	90.0 – 110.0	MS	08–FEB–10 21:41	100208–3
	Nickel	50.3	ug/L	50	ug/L	100.6	90.0 – 110.0	MS	08–FEB–10 21:41	100208–3
	Selenium	49	ug/L	50	ug/L	98	90.0 – 110.0	MS	08–FEB–10 21:41	100208–3
	Mercury	5.16	ug/L	5	ug/L	103.1	80.0 – 120.0	AV	09–FEB–10 10:16	020910S1–9
	Copper	499	ug/L	500	ug/L	99.7	90.0 – 110.0	P	11–FEB–10 11:57	021110–2
	Vanadium	499	ug/L	500	ug/L	99.8	90.0 – 110.0	P	11–FEB–10 11:57	021110–2
CCV05										
	Aluminum	4940	ug/L	5000	ug/L	98.8	90.0 – 110.0	P	08–FEB–10 11:11	020810A–1
	Antimony	514	ug/L	500	ug/L	102.8	90.0 – 110.0	P	08–FEB–10 11:11	020810A–1
	Barium	500	ug/L	500	ug/L	100	90.0 – 110.0	P	08–FEB–10 11:11	020810A–1
	Boron	498	ug/L	500	ug/L	99.6	90.0 – 110.0	P	08–FEB–10 11:11	020810A–1
	Cadmium	499	ug/L	500	ug/L	99.9	90.0 – 110.0	P	08–FEB–10 11:11	020810A–1
	Calcium	5000	ug/L	5000	ug/L	100	90.0 – 110.0	P	08–FEB–10 11:11	020810A–1
	Chromium	501	ug/L	500	ug/L	100.3	90.0 – 110.0	P	08–FEB–10 11:11	020810A–1
	Cobalt	498	ug/L	500	ug/L	99.6	90.0 – 110.0	P	08–FEB–10 11:11	020810A–1
	Iron	5000	ug/L	5000	ug/L	100.1	90.0 – 110.0	P	08–FEB–10 11:11	020810A–1
	Lead	498	ug/L	500	ug/L	99.6	90.0 – 110.0	P	08–FEB–10 11:11	020810A–1
	Magnesium	5060	ug/L	5000	ug/L	101.2	90.0 – 110.0	P	08–FEB–10 11:11	020810A–1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1604

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Manganese	492	ug/L	500	ug/L	98.4	90.0 - 110.0	P	08-FEB-10 11:11	020810A-1
	Potassium	4940	ug/L	5000	ug/L	98.7	90.0 - 110.0	P	08-FEB-10 11:11	020810A-1
	Silicon	2480	ug/L	2500	ug/L	99	90.0 - 110.0	P	08-FEB-10 11:11	020810A-1
	Silver	504	ug/L	500	ug/L	100.7	90.0 - 110.0	P	08-FEB-10 11:11	020810A-1
	Sodium	9390	ug/L	10000	ug/L	94	90.0 - 110.0	P	08-FEB-10 11:11	020810A-1
	Titanium	493	ug/L	500	ug/L	98.6	90.0 - 110.0	P	08-FEB-10 11:11	020810A-1
	Zinc	495	ug/L	500	ug/L	99	90.0 - 110.0	P	08-FEB-10 11:11	020810A-1
	Mercury	5.18	ug/L	5	ug/L	103.5	80.0 - 120.0	AV	09-FEB-10 10:37	020910S1-9
	Copper	496	ug/L	500	ug/L	99.3	90.0 - 110.0	P	11-FEB-10 12:53	021110-2
	Vanadium	498	ug/L	500	ug/L	99.5	90.0 - 110.0	P	11-FEB-10 12:53	021110-2
CCV06										
	Aluminum	5060	ug/L	5000	ug/L	101.2	90.0 - 110.0	P	08-FEB-10 12:06	020810A-1
	Antimony	514	ug/L	500	ug/L	102.7	90.0 - 110.0	P	08-FEB-10 12:06	020810A-1
	Barium	498	ug/L	500	ug/L	99.6	90.0 - 110.0	P	08-FEB-10 12:06	020810A-1
	Boron	495	ug/L	500	ug/L	99.1	90.0 - 110.0	P	08-FEB-10 12:06	020810A-1
	Cadmium	497	ug/L	500	ug/L	99.4	90.0 - 110.0	P	08-FEB-10 12:06	020810A-1
	Calcium	5040	ug/L	5000	ug/L	100.9	90.0 - 110.0	P	08-FEB-10 12:06	020810A-1
	Chromium	497	ug/L	500	ug/L	99.4	90.0 - 110.0	P	08-FEB-10 12:06	020810A-1
	Cobalt	496	ug/L	500	ug/L	99.2	90.0 - 110.0	P	08-FEB-10 12:06	020810A-1
	Iron	5030	ug/L	5000	ug/L	100.6	90.0 - 110.0	P	08-FEB-10 12:06	020810A-1
	Lead	494	ug/L	500	ug/L	98.9	90.0 - 110.0	P	08-FEB-10 12:06	020810A-1
	Magnesium	5190	ug/L	5000	ug/L	103.7	90.0 - 110.0	P	08-FEB-10 12:06	020810A-1
	Manganese	496	ug/L	500	ug/L	99.3	90.0 - 110.0	P	08-FEB-10 12:06	020810A-1
	Potassium	5070	ug/L	5000	ug/L	101.5	90.0 - 110.0	P	08-FEB-10 12:06	020810A-1
	Silicon	2460	ug/L	2500	ug/L	98.6	90.0 - 110.0	P	08-FEB-10 12:06	020810A-1
	Silver	501	ug/L	500	ug/L	100.2	90.0 - 110.0	P	08-FEB-10 12:06	020810A-1
	Sodium	9280	ug/L	10000	ug/L	92.8	90.0 - 110.0	P	08-FEB-10 12:06	020810A-1
	Titanium	487	ug/L	500	ug/L	97.4	90.0 - 110.0	P	08-FEB-10 12:06	020810A-1
	Zinc	493	ug/L	500	ug/L	98.6	90.0 - 110.0	P	08-FEB-10 12:06	020810A-1
	Mercury	5.12	ug/L	5	ug/L	102.5	80.0 - 120.0	AV	09-FEB-10 10:57	020910S1-9

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–1604

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Copper	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	11–FEB–10 13:39	021110–2
	Vanadium	497	ug/L	500	ug/L	99.4	90.0 – 110.0	P	11–FEB–10 13:39	021110–2
CCV07										
	Aluminum	4920	ug/L	5000	ug/L	98.5	90.0 – 110.0	P	08–FEB–10 13:13	020810A–1
	Antimony	511	ug/L	500	ug/L	102.2	90.0 – 110.0	P	08–FEB–10 13:13	020810A–1
	Barium	496	ug/L	500	ug/L	99.2	90.0 – 110.0	P	08–FEB–10 13:13	020810A–1
	Boron	490	ug/L	500	ug/L	98	90.0 – 110.0	P	08–FEB–10 13:13	020810A–1
	Cadmium	496	ug/L	500	ug/L	99.2	90.0 – 110.0	P	08–FEB–10 13:13	020810A–1
	Calcium	4990	ug/L	5000	ug/L	99.8	90.0 – 110.0	P	08–FEB–10 13:13	020810A–1
	Chromium	498	ug/L	500	ug/L	99.6	90.0 – 110.0	P	08–FEB–10 13:13	020810A–1
	Cobalt	495	ug/L	500	ug/L	99	90.0 – 110.0	P	08–FEB–10 13:13	020810A–1
	Iron	5090	ug/L	5000	ug/L	101.7	90.0 – 110.0	P	08–FEB–10 13:13	020810A–1
	Lead	494	ug/L	500	ug/L	98.7	90.0 – 110.0	P	08–FEB–10 13:13	020810A–1
	Magnesium	5120	ug/L	5000	ug/L	102.5	90.0 – 110.0	P	08–FEB–10 13:13	020810A–1
	Manganese	493	ug/L	500	ug/L	98.7	90.0 – 110.0	P	08–FEB–10 13:13	020810A–1
	Potassium	4960	ug/L	5000	ug/L	99.2	90.0 – 110.0	P	08–FEB–10 13:13	020810A–1
	Silicon	2460	ug/L	2500	ug/L	98.2	90.0 – 110.0	P	08–FEB–10 13:13	020810A–1
	Silver	500	ug/L	500	ug/L	100	90.0 – 110.0	P	08–FEB–10 13:13	020810A–1
	Sodium	9770	ug/L	10000	ug/L	97.7	90.0 – 110.0	P	08–FEB–10 13:13	020810A–1
	Titanium	496	ug/L	500	ug/L	99.2	90.0 – 110.0	P	08–FEB–10 13:13	020810A–1
	Zinc	491	ug/L	500	ug/L	98.1	90.0 – 110.0	P	08–FEB–10 13:13	020810A–1
	Copper	510	ug/L	500	ug/L	102.1	90.0 – 110.0	P	11–FEB–10 14:59	021110–2
	Vanadium	506	ug/L	500	ug/L	101.1	90.0 – 110.0	P	11–FEB–10 14:59	021110–2

METALS
-2b-
CRDL Standard for AA & ICP

SDG No: 10-1604

Contract: LANL01004 **Lab Code:** GEL

AA CRDL Standard Source: SPEX

ICP CRDL Standard Source Solutions Plus

Instrument ID: HG3,ICPMS5,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Advisory Limits (%R)	M	Analysis Date/Time	Run Number
CRDL01										
	Nickel	2.23	ug/L	2	ug/L	111.5	70.0 - 130.0	MS	08-FEB-10 19:14	100208-3
	Arsenic	5.7	ug/L	5	ug/L	114	70.0 - 130.0	MS	08-FEB-10 19:14	100208-3
	Selenium	5.72	ug/L	5	ug/L	114.4	70.0 - 130.0	MS	08-FEB-10 19:14	100208-3
	Beryllium	.508	ug/L	.5	ug/L	101.6	70.0 - 130.0	MS	08-FEB-10 19:14	100208-3
	Mercury	.158	ug/L	.2	ug/L	79	70.0 - 130.0	AV	09-FEB-10 09:15	020910S1-9
	Lithium	11.8	ug/L	10	ug/L	117.8	70.0 - 130.0	MS	09-FEB-10 12:30	100209-4
	Uranium	.258	ug/L	.2	ug/L	129	70.0 - 130.0	MS	09-FEB-10 13:47	100209-7
	Thallium	1.25	ug/L	1	ug/L	125.4	70.0 - 130.0	MS	09-FEB-10 14:55	100209-8
PQL01										
	Iron	122	ug/L	100	ug/L	121.6	70.0 - 130.0	P	08-FEB-10 07:42	020810A-1
	Lead	10.8	ug/L	10	ug/L	107.6	70.0 - 130.0	P	08-FEB-10 07:42	020810A-1
	Magnesium	325	ug/L	300	ug/L	108.5	70.0 - 130.0	P	08-FEB-10 07:42	020810A-1
	Manganese	10.4	ug/L	10	ug/L	103.8	70.0 - 130.0	P	08-FEB-10 07:42	020810A-1
	Potassium	153	ug/L	150	ug/L	102	70.0 - 130.0	P	08-FEB-10 07:42	020810A-1
	Silver	5.27	ug/L	5	ug/L	105.4	70.0 - 130.0	P	08-FEB-10 07:42	020810A-1
	Sodium	272	ug/L	300	ug/L	90.6	70.0 - 130.0	P	08-FEB-10 07:42	020810A-1
	Antimony	11.7	ug/L	10	ug/L	117.4	70.0 - 130.0	P	08-FEB-10 07:42	020810A-1
	Barium	5.05	ug/L	5	ug/L	101	70.0 - 130.0	P	08-FEB-10 07:42	020810A-1
	Cadmium	4.85	ug/L	5	ug/L	97.1	70.0 - 130.0	P	08-FEB-10 07:42	020810A-1
	Chromium	4.98	ug/L	5	ug/L	99.7	70.0 - 130.0	P	08-FEB-10 07:42	020810A-1
	Cobalt	4.98	ug/L	5	ug/L	99.6	70.0 - 130.0	P	08-FEB-10 07:42	020810A-1
	Zinc	10.2	ug/L	10	ug/L	102	70.0 - 130.0	P	08-FEB-10 07:42	020810A-1
	Calcium	203	ug/L	200	ug/L	101.5	70.0 - 130.0	P	08-FEB-10 07:42	020810A-1
	Aluminum	207	ug/L	200	ug/L	103.3	70.0 - 130.0	P	08-FEB-10 07:42	020810A-1
	Boron	53.7	ug/L	50	ug/L	107.3	70.0 - 130.0	P	08-FEB-10 07:42	020810A-1
	Silicon	97.9	ug/L	100	ug/L	97.9	70.0 - 130.0	P	08-FEB-10 07:42	020810A-1
	Titanium	4.97	ug/L	5	ug/L	99.3	70.0 - 130.0	P	08-FEB-10 07:42	020810A-1
	Copper	10.7	ug/L	10	ug/L	106.5	70.0 - 130.0	P	11-FEB-10 09:08	021110-2
	Vanadium	5.31	ug/L	5	ug/L	106.2	70.0 - 130.0	P	11-FEB-10 09:08	021110-2

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–1604

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
ICB01										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	08–FEB–10 07:36	020810A–1
	Antimony	5.52	+/–10	J	3.3	10.0	SOL	P	08–FEB–10 07:36	020810A–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	08–FEB–10 07:36	020810A–1
	Boron	10.0	+/–50	U	10.0	50.0	SOL	P	08–FEB–10 07:36	020810A–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	08–FEB–10 07:36	020810A–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	08–FEB–10 07:36	020810A–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	08–FEB–10 07:36	020810A–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	08–FEB–10 07:36	020810A–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	08–FEB–10 07:36	020810A–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	08–FEB–10 07:36	020810A–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	08–FEB–10 07:36	020810A–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	08–FEB–10 07:36	020810A–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	08–FEB–10 07:36	020810A–1
	Silicon	15.0	+/–100	U	15.0	100	SOL	P	08–FEB–10 07:36	020810A–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	08–FEB–10 07:36	020810A–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	08–FEB–10 07:36	020810A–1
	Titanium	1.0	+/–5	U	1.0	5.0	SOL	P	08–FEB–10 07:36	020810A–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	08–FEB–10 07:36	020810A–1
	Arsenic	1.0	+/–5	U	1.0	5.0	SOL	MS	08–FEB–10 19:07	100208–3
	Beryllium	0.1	+/–.5	U	0.1	0.5	SOL	MS	08–FEB–10 19:07	100208–3
	Nickel	0.5	+/–2	U	0.5	2.0	SOL	MS	08–FEB–10 19:07	100208–3
	Selenium	2.5	+/–5	U	2.5	5.0	SOL	MS	08–FEB–10 19:07	100208–3
	Mercury	0.068	+/–.2	U	0.068	0.2	SOL	AV	09–FEB–10 09:13	020910S1–9
	Lithium	2.0	+/–10	U	2.0	10.0	SOL	MS	09–FEB–10 12:27	100209–4
	Uranium	0.066	+/–.2	U	0.066	0.2	SOL	MS	09–FEB–10 13:45	100209–7
	Thallium	0.3	+/–1	U	0.3	1.0	SOL	MS	09–FEB–10 14:51	100209–8
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	11–FEB–10 09:01	021110–2
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	11–FEB–10 09:01	021110–2
CCB01										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	08–FEB–10 08:21	020810A–1
	Antimony	9.23	+/–10	J	3.3	10.0	SOL	P	08–FEB–10 08:21	020810A–1

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-1604

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	08-FEB-10 08:21	020810A-1
	Boron	26.67	+/-50	J	10.0	50.0	SOL	P	08-FEB-10 08:21	020810A-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	08-FEB-10 08:21	020810A-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	08-FEB-10 08:21	020810A-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	08-FEB-10 08:21	020810A-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	08-FEB-10 08:21	020810A-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	08-FEB-10 08:21	020810A-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	08-FEB-10 08:21	020810A-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	08-FEB-10 08:21	020810A-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	08-FEB-10 08:21	020810A-1
	Potassium	89.69	+/-250	J	64.0	250	SOL	P	08-FEB-10 08:21	020810A-1
	Silicon	15.0	+/-100	U	15.0	100	SOL	P	08-FEB-10 08:21	020810A-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	08-FEB-10 08:21	020810A-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	08-FEB-10 08:21	020810A-1
	Titanium	1.0	+/-5	U	1.0	5.0	SOL	P	08-FEB-10 08:21	020810A-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	08-FEB-10 08:21	020810A-1
	Arsenic	1.0	+/-5	U	1.0	5.0	SOL	MS	08-FEB-10 19:38	100208-3
	Beryllium	0.1	+/-.5	U	0.1	0.5	SOL	MS	08-FEB-10 19:38	100208-3
	Nickel	0.5	+/-2	U	0.5	2.0	SOL	MS	08-FEB-10 19:38	100208-3
	Selenium	2.5	+/-5	U	2.5	5.0	SOL	MS	08-FEB-10 19:38	100208-3
	Mercury	0.068	+/-.2	U	0.068	0.2	SOL	AV	09-FEB-10 09:18	020910S1-9
	Lithium	2.0	+/-10	U	2.0	10.0	SOL	MS	09-FEB-10 12:38	100209-4
	Uranium	0.066	+/-.2	U	0.066	0.2	SOL	MS	09-FEB-10 13:54	100209-7
	Thallium	0.3	+/-1	U	0.3	1.0	SOL	MS	09-FEB-10 15:13	100209-8
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	11-FEB-10 09:46	021110-2
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	11-FEB-10 09:46	021110-2
CCB02										
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	08-FEB-10 08:44	020810A-1
	Antimony	6.06	+/-10	J	3.3	10.0	SOL	P	08-FEB-10 08:44	020810A-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	08-FEB-10 08:44	020810A-1
	Boron	15.29	+/-50	J	10.0	50.0	SOL	P	08-FEB-10 08:44	020810A-1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–1604

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	08–FEB–10 08:44	020810A–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	08–FEB–10 08:44	020810A–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	08–FEB–10 08:44	020810A–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	08–FEB–10 08:44	020810A–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	08–FEB–10 08:44	020810A–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	08–FEB–10 08:44	020810A–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	08–FEB–10 08:44	020810A–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	08–FEB–10 08:44	020810A–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	08–FEB–10 08:44	020810A–1
	Silicon	15.0	+/–100	U	15.0	100	SOL	P	08–FEB–10 08:44	020810A–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	08–FEB–10 08:44	020810A–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	08–FEB–10 08:44	020810A–1
	Titanium	1.0	+/–5	U	1.0	5.0	SOL	P	08–FEB–10 08:44	020810A–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	08–FEB–10 08:44	020810A–1
	Arsenic	1.0	+/–5	U	1.0	5.0	SOL	MS	08–FEB–10 19:56	100208–3
	Beryllium	0.1	+/–.5	U	0.1	0.5	SOL	MS	08–FEB–10 19:56	100208–3
	Nickel	0.5	+/–2	U	0.5	2.0	SOL	MS	08–FEB–10 19:56	100208–3
	Selenium	2.5	+/–5	U	2.5	5.0	SOL	MS	08–FEB–10 19:56	100208–3
	Mercury	0.068	+/–.2	U	0.068	0.2	SOL	AV	09–FEB–10 09:38	020910S1–9
	Lithium	2.0	+/–10	U	2.0	10.0	SOL	MS	09–FEB–10 13:00	100209–4
	Uranium	0.066	+/–.2	U	0.066	0.2	SOL	MS	09–FEB–10 14:11	100209–7
	Thallium	0.3	+/–1	U	0.3	1.0	SOL	MS	09–FEB–10 15:59	100209–8
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	11–FEB–10 10:11	021110–2
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	11–FEB–10 10:11	021110–2
CCB03										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	08–FEB–10 09:17	020810A–1
	Antimony	5.86	+/–10	J	3.3	10.0	SOL	P	08–FEB–10 09:17	020810A–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	08–FEB–10 09:17	020810A–1
	Boron	10.0	+/–50	U	10.0	50.0	SOL	P	08–FEB–10 09:17	020810A–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	08–FEB–10 09:17	020810A–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	08–FEB–10 09:17	020810A–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–1604

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	08–FEB–10 09:17	020810A–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	08–FEB–10 09:17	020810A–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	08–FEB–10 09:17	020810A–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	08–FEB–10 09:17	020810A–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	08–FEB–10 09:17	020810A–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	08–FEB–10 09:17	020810A–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	08–FEB–10 09:17	020810A–1
	Silicon	15.0	+/–100	U	15.0	100	SOL	P	08–FEB–10 09:17	020810A–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	08–FEB–10 09:17	020810A–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	08–FEB–10 09:17	020810A–1
	Titanium	1.0	+/–5	U	1.0	5.0	SOL	P	08–FEB–10 09:17	020810A–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	08–FEB–10 09:17	020810A–1
	Arsenic	1.0	+/–5	U	1.0	5.0	SOL	MS	08–FEB–10 20:45	100208–3
	Beryllium	0.1	+/–.5	U	0.1	0.5	SOL	MS	08–FEB–10 20:45	100208–3
	Nickel	0.5	+/–2	U	0.5	2.0	SOL	MS	08–FEB–10 20:45	100208–3
	Selenium	2.5	+/–5	U	2.5	5.0	SOL	MS	08–FEB–10 20:45	100208–3
	Mercury	0.068	+/–.2	U	0.068	0.2	SOL	AV	09–FEB–10 09:58	020910S1–9
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	11–FEB–10 11:30	021110–2
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	11–FEB–10 11:30	021110–2
CCB04										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	08–FEB–10 10:05	020810A–1
	Antimony	4.09	+/–10	J	3.3	10.0	SOL	P	08–FEB–10 10:05	020810A–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	08–FEB–10 10:05	020810A–1
	Boron	10.0	+/–50	U	10.0	50.0	SOL	P	08–FEB–10 10:05	020810A–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	08–FEB–10 10:05	020810A–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	08–FEB–10 10:05	020810A–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	08–FEB–10 10:05	020810A–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	08–FEB–10 10:05	020810A–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	08–FEB–10 10:05	020810A–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	08–FEB–10 10:05	020810A–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	08–FEB–10 10:05	020810A–1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10-1604

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	08-FEB-10 10:05	020810A-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	08-FEB-10 10:05	020810A-1
	Silicon	15.0	+/-100	U	15.0	100	SOL	P	08-FEB-10 10:05	020810A-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	08-FEB-10 10:05	020810A-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	08-FEB-10 10:05	020810A-1
	Titanium	1.0	+/-5	U	1.0	5.0	SOL	P	08-FEB-10 10:05	020810A-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	08-FEB-10 10:05	020810A-1
	Arsenic	1.0	+/-5	U	1.0	5.0	SOL	MS	08-FEB-10 21:47	100208-3
	Beryllium	0.1	+/-.5	U	0.1	0.5	SOL	MS	08-FEB-10 21:47	100208-3
	Nickel	0.5	+/-2	U	0.5	2.0	SOL	MS	08-FEB-10 21:47	100208-3
	Selenium	2.5	+/-5	U	2.5	5.0	SOL	MS	08-FEB-10 21:47	100208-3
	Mercury	0.068	+/-.2	U	0.068	0.2	SOL	AV	09-FEB-10 10:18	020910S1-9
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	11-FEB-10 12:04	021110-2
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	11-FEB-10 12:04	021110-2
CCB05										
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	08-FEB-10 11:18	020810A-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	08-FEB-10 11:18	020810A-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	08-FEB-10 11:18	020810A-1
	Boron	10.0	+/-50	U	10.0	50.0	SOL	P	08-FEB-10 11:18	020810A-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	08-FEB-10 11:18	020810A-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	08-FEB-10 11:18	020810A-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	08-FEB-10 11:18	020810A-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	08-FEB-10 11:18	020810A-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	08-FEB-10 11:18	020810A-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	08-FEB-10 11:18	020810A-1
	Magnesium	-101.63	+/-300	J	85.0	300	SOL	P	08-FEB-10 11:18	020810A-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	08-FEB-10 11:18	020810A-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	08-FEB-10 11:18	020810A-1
	Silicon	15.0	+/-100	U	15.0	100	SOL	P	08-FEB-10 11:18	020810A-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	08-FEB-10 11:18	020810A-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	08-FEB-10 11:18	020810A-1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10–1604

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Titanium	1.0	+/–5	U	1.0	5.0	SOL	P	08–FEB–10 11:18	020810A–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	08–FEB–10 11:18	020810A–1
	Mercury	0.068	+/–.2	U	0.068	0.2	SOL	AV	09–FEB–10 10:38	020910S1–9
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	11–FEB–10 13:00	021110–2
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	11–FEB–10 13:00	021110–2
CCB06										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	08–FEB–10 12:13	020810A–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	08–FEB–10 12:13	020810A–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	08–FEB–10 12:13	020810A–1
	Boron	10.0	+/–50	U	10.0	50.0	SOL	P	08–FEB–10 12:13	020810A–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	08–FEB–10 12:13	020810A–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	08–FEB–10 12:13	020810A–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	08–FEB–10 12:13	020810A–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	08–FEB–10 12:13	020810A–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	08–FEB–10 12:13	020810A–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	08–FEB–10 12:13	020810A–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	08–FEB–10 12:13	020810A–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	08–FEB–10 12:13	020810A–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	08–FEB–10 12:13	020810A–1
	Silicon	15.0	+/–100	U	15.0	100	SOL	P	08–FEB–10 12:13	020810A–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	08–FEB–10 12:13	020810A–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	08–FEB–10 12:13	020810A–1
	Titanium	1.0	+/–5	U	1.0	5.0	SOL	P	08–FEB–10 12:13	020810A–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	08–FEB–10 12:13	020810A–1
	Mercury	0.068	+/–.2	U	0.068	0.2	SOL	AV	09–FEB–10 10:58	020910S1–9
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	11–FEB–10 13:46	021110–2
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	11–FEB–10 13:46	021110–2
CCB07										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	08–FEB–10 13:20	020810A–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	08–FEB–10 13:20	020810A–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	08–FEB–10 13:20	020810A–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–1604

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Boron	10.0	+/–50	U	10.0	50.0	SOL	P	08–FEB–10 13:20	020810A–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	08–FEB–10 13:20	020810A–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	08–FEB–10 13:20	020810A–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	08–FEB–10 13:20	020810A–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	08–FEB–10 13:20	020810A–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	08–FEB–10 13:20	020810A–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	08–FEB–10 13:20	020810A–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	08–FEB–10 13:20	020810A–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	08–FEB–10 13:20	020810A–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	08–FEB–10 13:20	020810A–1
	Silicon	15.0	+/–100	U	15.0	100	SOL	P	08–FEB–10 13:20	020810A–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	08–FEB–10 13:20	020810A–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	08–FEB–10 13:20	020810A–1
	Titanium	1.0	+/–5	U	1.0	5.0	SOL	P	08–FEB–10 13:20	020810A–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	08–FEB–10 13:20	020810A–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	11–FEB–10 15:06	021110–2
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	11–FEB–10 15:06	021110–2

METALS
–3b–
PREPARATION BLANK SUMMARY

SDG NO. 10–1604
Contract: LANL01004
Matrix: SOIL

Sample ID	Analyte	Result	Units	Acceptance Window	Conc Qual	M	MDL	RDL
1202035237								
	Aluminum	6650	ug/Kg	+/–19600	U	P	6650	19600
	Antimony	326	ug/Kg	+/–978	J	P	323	978
	Boron	978	ug/Kg	+/–4890	U	P	978	4890
	Barium	176	ug/Kg	+/–489	J	P	97.8	489
	Cadmium	97.8	ug/Kg	+/–489	U	P	97.8	489
	Chromium	147	ug/Kg	+/–489	U	P	147	489
	Iron	14200	ug/Kg	+/–24500	J	P	7830	24500
	Magnesium	8320	ug/Kg	+/–29400	U	P	8320	29400
	Lead	245	ug/Kg	+/–978	U	P	245	978
	Zinc	323	ug/Kg	+/–978	U	P	323	978
	Titanium	97.8	ug/Kg	+/–489	U	P	97.8	489
	Sodium	6850	ug/Kg	+/–24500	U	P	6850	24500
	Silver	97.8	ug/Kg	+/–489	U	P	97.8	489
	Silicon	1470	ug/Kg	+/–9780	U	P	1470	9780
	Potassium	6260	ug/Kg	+/–24500	U	P	6260	24500
	Manganese	196	ug/Kg	+/–978	U	P	196	978
	Cobalt	147	ug/Kg	+/–489	U	P	147	489
	Calcium	7830	ug/Kg	+/–24500	U	P	7830	24500
1202035248								
	Arsenic	0.199	mg/kg	+/–0.994	U	MS	0.199	0.994
	Beryllium	0.0199	mg/kg	+/–0.0994	U	MS	0.0199	0.0994
	Nickel	0.0994	mg/kg	+/–0.398	U	MS	0.0994	0.398
	Thallium	0.0596	mg/kg	+/–0.199	U	MS	0.0596	0.199
	Uranium	0.0131	mg/kg	+/–0.0398	U	MS	0.0131	0.0398
	Selenium	0.497	mg/kg	+/–0.994	U	MS	0.497	0.994
	Lithium	0.398	mg/kg	+/–1.99	U	MS	0.398	1.99
1202036367								
	Mercury	3.65	ug/kg	+/–10.7	U	AV	3.65	10.7
1202038897								
	Copper	294	ug/Kg	+/–978	U	P	294	978
	Vanadium	110	ug/Kg	+/–489	J	P	97.8	489

METALS
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Interference Check Sample

SDG No: 10–1604

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Aluminum	510000	ug/L	500000	ug/L	102	80.0 – 120.0	08–FEB–10 07:49	020810A–1
	Antimony	3.01	ug/L					08–FEB–10 07:49	020810A–1
	Barium	0.057	ug/L					08–FEB–10 07:49	020810A–1
	Boron	–6.44	ug/L					08–FEB–10 07:49	020810A–1
	Cadmium	–1.59	ug/L					08–FEB–10 07:49	020810A–1
	Calcium	473000	ug/L	500000	ug/L	94.7	80.0 – 120.0	08–FEB–10 07:49	020810A–1
	Chromium	0.966	ug/L					08–FEB–10 07:49	020810A–1
	Cobalt	–1.3	ug/L					08–FEB–10 07:49	020810A–1
	Iron	182000	ug/L	200000	ug/L	90.9	80.0 – 120.0	08–FEB–10 07:49	020810A–1
	Lead	1.03	ug/L					08–FEB–10 07:49	020810A–1
	Magnesium	480000	ug/L	500000	ug/L	96.1	80.0 – 120.0	08–FEB–10 07:49	020810A–1
	Manganese	–1.28	ug/L					08–FEB–10 07:49	020810A–1
	Potassium	–211.0	ug/L					08–FEB–10 07:49	020810A–1
	Silicon	–3.06	ug/L					08–FEB–10 07:49	020810A–1
	Silver	2.22	ug/L					08–FEB–10 07:49	020810A–1
	Sodium	15.8	ug/L					08–FEB–10 07:49	020810A–1
	Titanium	0.808	ug/L					08–FEB–10 07:49	020810A–1
	Zinc	–13.5	ug/L					08–FEB–10 07:49	020810A–1
ICSAB01									
	Aluminum	515000	ug/L	500000	ug/L	103	80.0 – 120.0	08–FEB–10 07:55	020810A–1
	Antimony	514	ug/L	500	ug/L	103	80.0 – 120.0	08–FEB–10 07:55	020810A–1
	Barium	487	ug/L	500	ug/L	97.4	80.0 – 120.0	08–FEB–10 07:55	020810A–1
	Boron	494	ug/L	500	ug/L	98.7	80.0 – 120.0	08–FEB–10 07:55	020810A–1
	Cadmium	451	ug/L	500	ug/L	90.3	80.0 – 120.0	08–FEB–10 07:55	020810A–1
	Calcium	473000	ug/L	500000	ug/L	94.5	80.0 – 120.0	08–FEB–10 07:55	020810A–1
	Chromium	480	ug/L	500	ug/L	95.9	80.0 – 120.0	08–FEB–10 07:55	020810A–1
	Cobalt	436	ug/L	500	ug/L	87.2	80.0 – 120.0	08–FEB–10 07:55	020810A–1
	Iron	181000	ug/L	200000	ug/L	90.6	80.0 – 120.0	08–FEB–10 07:55	020810A–1
	Lead	458	ug/L	500	ug/L	91.6	80.0 – 120.0	08–FEB–10 07:55	020810A–1

METALS
–4–
Interference Check Sample

SDG No: 10–1604

Contract: LANL01004 **Lab Code:** GEL

ICS:

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
	Magnesium	482000	ug/L	500000	ug/L	96.3	80.0 – 120.0	08–FEB–10 07:55	020810A–1
	Manganese	473	ug/L	500	ug/L	94.6	80.0 – 120.0	08–FEB–10 07:55	020810A–1
	Potassium	5220	ug/L	5000	ug/L	104	80.0 – 120.0	08–FEB–10 07:55	020810A–1
	Silicon	5100	ug/L	5000	ug/L	102	80.0 – 120.0	08–FEB–10 07:55	020810A–1
	Silver	269	ug/L	250	ug/L	107	80.0 – 120.0	08–FEB–10 07:55	020810A–1
	Sodium	5060	ug/L	5000	ug/L	101	80.0 – 120.0	08–FEB–10 07:55	020810A–1
	Titanium	499	ug/L	500	ug/L	99.7	80.0 – 120.0	08–FEB–10 07:55	020810A–1
	Zinc	472	ug/L	500	ug/L	94.5	80.0 – 120.0	08–FEB–10 07:55	020810A–1

METALS
-4-
Interference Check Sample

SDG No: 10-1604

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Copper	2.03	ug/L					11-FEB-10 09:14	021110-2
	Vanadium	-2.41	ug/L					11-FEB-10 09:14	021110-2
ICSAB01									
	Copper	546	ug/L	500	ug/L	109	80.0 - 120.0	11-FEB-10 09:20	021110-2
	Vanadium	498	ug/L	500	ug/L	99.6	80.0 - 120.0	11-FEB-10 09:20	021110-2

METALS
–4–
Interference Check Sample

SDG No: 10–1604

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: ICPMS5

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Arsenic	0.197	ug/L					08–FEB–10 19:20	100208–3
	Beryllium	0.114	ug/L					08–FEB–10 19:20	100208–3
	Nickel	3.48	ug/L					08–FEB–10 19:20	100208–3
	Selenium	–1.11	ug/L					08–FEB–10 19:20	100208–3
ICSAB01									
	Arsenic	20.3	ug/L	20	ug/L	101	80.0 – 120.0	08–FEB–10 19:26	100208–3
	Beryllium	21.0	ug/L	20	ug/L	105	80.0 – 120.0	08–FEB–10 19:26	100208–3
	Nickel	23.7	ug/L	23.31	ug/L	102	80.0 – 120.0	08–FEB–10 19:26	100208–3
	Selenium	17.3	ug/L	20	ug/L	86.7	80.0 – 120.0	08–FEB–10 19:26	100208–3

METALS
–4–
Interference Check Sample

SDG No: 10–1604

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: ICPMS5

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Lithium	0.045	ug/L					09–FEB–10 12:32	100209–4
ICSAB01									
	Lithium	22.5	ug/L	20	ug/L	113	80.0 – 120.0	09–FEB–10 12:34	100209–4

METALS
–4–
Interference Check Sample

SDG No: 10–1604

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: ICPMS5

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Uranium	–0.005	ug/L					09–FEB–10 13:49	100209–7
ICSAB01									
	Uranium	23.8	ug/L	20	ug/L	119	80.0 – 120.0	09–FEB–10 13:50	100209–7

METALS
–4–
Interference Check Sample

SDG No: 10–1604

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: ICPMS5

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Thallium	–0.043	ug/L					09–FEB–10 15:00	100209–8
ICSAB01									
	Thallium	22.6	ug/L	20	ug/L	113	80.0 – 120.0	09–FEB–10 15:04	100209–8

METALS
–5a–
Matrix Spike Summary

SDG NO. 10–1604 **Client ID** RE03–10–12247S

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 85

Sample ID: 246333001 **Spike ID:** 1202035240

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Aluminum	ug/Kg		23700000		20600000		567000	531	N/A	P
Antimony	ug/Kg	75–125	49200		376	U	56700	86.8		P
Barium	ug/Kg	75–125	143000		62600		56700	141	N	P
Boron	ug/Kg	75–125	54900		4470	J	56700	88.9		P
Cadmium	ug/Kg	75–125	51500		114	U	56700	90.8		P
Calcium	ug/Kg		3630000		2850000		567000	137	N/A	P
Chromium	ug/Kg	75–125	67300		10500		56700	100		P
Cobalt	ug/Kg	75–125	53800		3160		56700	89.4		P
Copper	ug/Kg	75–125	68800		7310		57500	107		P
Iron	ug/Kg		18400000		15500000		567000	512	N/A	P
Lead	ug/Kg	75–125	67900		14900		56700	93.6		P
Magnesium	ug/Kg		4260000		3410000		567000	150	N/A	P
Manganese	ug/Kg	75–125	250000		137000		56700	200	N	P
Potassium	ug/Kg		3000000		2320000		567000	121	N/A	P
Silicon	ug/Kg	75–125	958000		1600000		567000	–113	N	P
Silver	ug/Kg	75–125	55400		633		56700	96.6		P
Sodium	ug/Kg	75–125	851000		287000		567000	99.4		P
Titanium	ug/Kg		571000		306000		56700	467	N/A	P
Vanadium	ug/Kg	75–125	73200		14500		57500	102		P
Zinc	ug/Kg	75–125	93200		30500		56700	111		P

METALS
–5a–
Matrix Spike Duplicate Summary

SDG NO. 10–1604 **Client ID** RE03–10–12247SD

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 85

Sample ID: 246333001 **Spike ID:** 1202035241

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Aluminum	ug/Kg		23300000		20600000		583000	449	N/A	P
Antimony	ug/Kg	75–125	51600		376	U	58300	88.6		P
Barium	ug/Kg	75–125	120000		62600		58300	99		P
Boron	ug/Kg	75–125	56800		4470	J	58300	89.9		P
Cadmium	ug/Kg	75–125	53400		114	U	58300	91.7		P
Calcium	ug/Kg		3520000		2850000		583000	114	N/A	P
Chromium	ug/Kg	75–125	65900		10500		58300	95.1		P
Cobalt	ug/Kg	75–125	54600		3160		58300	88.2		P
Copper	ug/Kg	75–125	68800		7310		57600	107		P
Iron	ug/Kg		17900000		15500000		583000	420	N/A	P
Lead	ug/Kg	75–125	68300		14900		58300	91.7		P
Magnesium	ug/Kg		4140000		3410000		583000	126	N/A	P
Manganese	ug/Kg	75–125	177000		137000		58300	68.8	N	P
Potassium	ug/Kg	75–125	2900000		2320000		583000	99.4		P
Silicon	ug/Kg	75–125	959000		1600000		583000	–110	N	P
Silver	ug/Kg	75–125	57000		633		58300	96.8		P
Sodium	ug/Kg	75–125	814000		287000		583000	90.5		P
Titanium	ug/Kg		520000		306000		58300	366	N/A	P
Vanadium	ug/Kg	75–125	71800		14500		57600	99.6		P
Zinc	ug/Kg	75–125	89400		30500		58300	101		P

METALS
-5a-
Matrix Spike Summary

SDG NO. 10-1604 **Client ID** RE03-10-12247S

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 85

Sample ID: 246333001 **Spike ID:** 1202035251

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Beryllium	mg/kg	75-125	6.36		1.07		5.63	94		MS
Lithium	mg/kg	75-125	29.2		16.2		5.63	232	N	MS
Nickel	mg/kg	75-125	14.5		6.92		5.63	134	N	MS
Selenium	mg/kg	75-125	1.25		0.591	U	2.25	55.6	N	MS
Thallium	mg/kg	75-125	11.9		0.345		11.3	103		MS
Uranium	mg/kg	75-125	7.75		0.711		5.63	125		MS
Arsenic	mg/kg	75-125	9.7		0.912	J	9	97.6		MS

METALS
–5a–
Matrix Spike Duplicate Summary

SDG NO. 10–1604 **Client ID** RE03–10–12247SD

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 85

Sample ID: 246333001 **Spike ID:** 1202035252

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Arsenic	mg/kg	75–125	9.13		0.912	J	9.27	88.7		MS
Beryllium	mg/kg	75–125	6.29		1.07		5.79	90.2		MS
Lithium	mg/kg	75–125	27.2		16.2		5.79	191	N	MS
Nickel	mg/kg	75–125	14.4		6.92		5.79	128	N	MS
Selenium	mg/kg	75–125	1.32		0.591	U	2.32	57.1	N	MS
Thallium	mg/kg	75–125	11.9		0.345		11.6	100		MS
Uranium	mg/kg	75–125	7.68		0.711		5.79	120		MS

METALS
–5a–

Matrix Spike Summary

SDG NO. 10–1604 **Client ID** RE03–10–12247S

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 85

Sample ID: 246333001 **Spike ID:** 1202036370

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Mercury	ug/kg	75–125	139		4.39	U	126	107		AV

METALS
-5a-

Matrix Spike Duplicate Summary

SDG NO. 10-1604 **Client ID** RE03-10-12247SD

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 85

Sample ID: 246333001 **Spike ID:** 1202036372

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Mercury	ug/kg	75-125	139		4.39	U	128	106		AV

Metals
-6-
Duplicate Sample Summary

SDG No.: 10-1604

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE03-10-12247D

Sample ID: 246333001 **Duplicate ID:** 1202035238 **Percent Solids for Dup:** 85

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	ug/Kg	+/-20%	20600000		16900000		19.9		P
Antimony	ug/Kg		376	U	385	U			P
Barium	ug/Kg	+/-20%	62600		64900		3.64		P
Boron	ug/Kg	+/-5830	4470	J	3000	J	39.5		P
Cadmium	ug/Kg		114	U	117	U			P
Calcium	ug/Kg	+/-20%	2850000		3020000		5.76		P
Chromium	ug/Kg	+/-20%	10500		9540		9.44		P
Cobalt	ug/Kg	+/-583	3160		2490		23.7	*	P
Copper	ug/Kg	+/-20%	7310		7290		.333		P
Iron	ug/Kg	+/-20%	15500000		16700000		7.92		P
Lead	ug/Kg	+/-20%	14900		16500		10.3		P
Magnesium	ug/Kg	+/-20%	3410000		3070000		10.4		P
Manganese	ug/Kg	+/-20%	137000		124000		9.91		P
Potassium	ug/Kg	+/-20%	2320000		1890000		20.1	*	P
Silicon	ug/Kg	+/-20%	1600000		1030000		43.4	*	P
Silver	ug/Kg	+/-583	633		700		10		P
Sodium	ug/Kg	+/-20%	287000		290000		.85		P
Titanium	ug/Kg	+/-20%	306000		400000		26.6	*	P
Vanadium	ug/Kg	+/-20%	14500		13900		3.6		P
Zinc	ug/Kg	+/-20%	30500		31100		1.79		P

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–1604

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE03–10–12247SD

Sample ID: 1202035240 **Duplicate ID:** 1202035241 **Percent Solids for Dup:** 85

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	ug/Kg	+/–20	23700000		23300000		1.68		P
Antimony	ug/Kg	+/–20	49200		51600		4.7		P
Barium	ug/Kg	+/–20	143000		120000		17.1		P
Boron	ug/Kg	+/–20	54900		56800		3.46		P
Cadmium	ug/Kg	+/–20	51500		53400		3.77		P
Calcium	ug/Kg	+/–20	3630000		3520000		3.14		P
Chromium	ug/Kg	+/–20	67300		65900		2.06		P
Cobalt	ug/Kg	+/–20	53800		54600		1.31		P
Copper	ug/Kg	+/–20	68800		68800		.0811		P
Iron	ug/Kg	+/–20	18400000		17900000		2.52		P
Lead	ug/Kg	+/–20	67900		68300		.514		P
Magnesium	ug/Kg	+/–20	4260000		4140000		2.73		P
Manganese	ug/Kg	+/–20	250000		177000		34.4	*	P
Potassium	ug/Kg	+/–20	3000000		2900000		3.6		P
Silicon	ug/Kg	+/–20	958000		959000		.158		P
Silver	ug/Kg	+/–20	55400		57000		2.84		P
Sodium	ug/Kg	+/–20	851000		814000		4.41		P
Titanium	ug/Kg	+/–20	571000		520000		9.4		P
Vanadium	ug/Kg	+/–20	73200		71800		1.94		P
Zinc	ug/Kg	+/–20	93200		89400		4.24		P

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–1604

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE03–10–12247D

Sample ID: 246333001 **Duplicate ID:** 1202035249 **Percent Solids for Dup:** 85

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Arsenic	mg/kg	+/–1.18	0.912	J	0.983	J	7.46		MS
Beryllium	mg/kg	+/–20%	1.07		1.02		4.78		MS
Lithium	mg/kg	+/–20%	16.2		16.1		.418		MS
Nickel	mg/kg	+/–20%	6.92		6.71		3		MS
Selenium	mg/kg		0.591	U	0.591	U			MS
Thallium	mg/kg	+/–.236	0.345		0.305		12.3		MS
Uranium	mg/kg	+/–20%	0.711		0.654		8.28		MS

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–1604

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE03–10–12247SD

Sample ID: 1202035251 **Duplicate ID:** 1202035252 **Percent Solids for Dup:** 85

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Arsenic	mg/kg	+/–20	9.7		9.13		6.03		MS
Beryllium	mg/kg	+/–20	6.36		6.29		1.03		MS
Lithium	mg/kg	+/–20	29.2		27.2		7.03		MS
Nickel	mg/kg	+/–20	14.5		14.4		.7		MS
Selenium	mg/kg	+/–20	1.25		1.32		5.67		MS
Thallium	mg/kg	+/–20	11.9		11.9		.549		MS
Uranium	mg/kg	+/–20	7.75		7.68		.84		MS

Metals
-6-
Duplicate Sample Summary

SDG No.: 10-1604

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE03-10-12247D

Sample ID: 246333001 **Duplicate ID:** 1202036369 **Percent Solids for Dup:** 85

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Mercury	ug/kg		4.39	U	4.27	U			AV

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–1604

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE03–10–12247SD

Sample ID: 1202036370 **Duplicate ID:** 1202036372 **Percent Solids for Dup:** 85

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Mercury	ug/kg	+/–20	139		139		.247		AV

METALS
-7-
Laboratory Control Sample Summary

SDG NO. 10-1604

Contract: LANL01004

Aqueous LCS Source: **Solid LCS Source:** ERA

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202035242								
	Aluminum	ug/Kg	10500000	12500000		119	56-144	P
	Antimony	ug/Kg	173000	223000		129	71-130	P
	Barium	ug/Kg	198000	222000		112	80-120	P
	Boron	ug/Kg	141000	172000		122	75-125	P
	Cadmium	ug/Kg	60700	66400		109	81-120	P
	Calcium	ug/Kg	9870000	11600000		117	83-117	P
	Chromium	ug/Kg	236000	276000		117	80-120	P
	Cobalt	ug/Kg	91200	104000		114	81-120	P
	Iron	ug/Kg	18000000	22100000		123	51-149	P
	Lead	ug/Kg	86000	96600		112	79-121	P
	Magnesium	ug/Kg	4000000	4660000		116	79-122	P
	Manganese	ug/Kg	558000	610000		109	81-119	P
	Potassium	ug/Kg	4300000	5150000		120	74-127	P
	Silicon	ug/Kg	1210000	842000		69.6	10-190	P
	Silver	ug/Kg	30100	37100		123	66-134	P
	Sodium	ug/Kg	1020000	1100000		108	74-127	P
	Titanium	ug/Kg	462000	698000		151	39-161	P
	Zinc	ug/Kg	594000	668000		112	80-121	P

METALS
–7–
Laboratory Control Sample Summary

SDG NO. 10–1604

Contract: LANL01004

Aqueous LCS Source: **Solid LCS Source:** ERA

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202035253								
	Beryllium	mg/kg	77.6	79.9		103	81.2–126.8	MS
	Lithium	mg/kg	10.6	11.3	J	106	66.7–133.7	MS
	Nickel	mg/kg	134	137		103	83.3–121.4	MS
	Selenium	mg/kg	286	272		95.2	80.2–125.9	MS
	Thallium	mg/kg	121	131		108	78–123.2	MS
	Arsenic	mg/kg	104	106		102	83–120	MS
	Uranium	mg/kg	2.13	2.58		121	61.9–130.7	MS

METALS
–7–
Laboratory Control Sample Summary

SDG NO. 10–1604

Contract: LANL01004

Aqueous LCS Source: **Solid LCS Source:** ERA

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202036368								
	Mercury	ug/kg	5150	5970		116	71.6–128.3	AV

METALS
–7–
Laboratory Control Sample Summary

SDG NO. 10–1604

Contract: LANL01004

Aqueous LCS Source: **Solid LCS Source:** ERA

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202038898								
	Copper	ug/Kg	174000	175000		100	81–118	P
	Vanadium	ug/Kg	115000	114000		98.9	79–121	P

METALS
–9–
Serial Dilution Sample Summary

SDG NO. 10–1604 **Client ID** RE03–10–12247L

Contract: LANL01004

Matrix: SOLID **Level:** Low

Sample ID: 246333001 **Serial Dilution ID:** 1202035239

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Aluminum	181000		190000		4.97		10	P
Antimony	3.3	U	16.5	U				P
Barium	550		600		9.09		10	P
Boron	39.3	J	75.5	J	92.1			P
Cadmium	1	U	5	U				P
Calcium	25000		26100		4.2		10	P
Chromium	92.1		99.5		8.03		10	P
Cobalt	27.8		31.2		12.1			P
Copper	64.6		65		.619			P
Iron	136000		146000		6.99		10	P
Lead	131		143		8.78		10	P
Magnesium	30000		31700		5.5		10	P
Manganese	1200		1310		9.17		10	P
Potassium	20300		21300		4.93		10	P
Silicon	14000		15100		7.86		10	P
Silver	5.56		6.05	J	8.81			P
Sodium	2520		2700		6.94			P
Titanium	2690		2870		6.69		10	P
Vanadium	128		134		4.69		10	P
Zinc	268		293		9.14		10	P

METALS
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Serial Dilution Sample Summary

SDG NO. 10-1604 **Client ID** RE03-10-12247L

Contract: LANL01004

Matrix: SOLID **Level:** Low

Sample ID: 246333001 **Serial Dilution ID:** 1202035250

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Arsenic	3.86	J	5	U	100			MS
Beryllium	4.52		5.05		11.7			MS
Lithium	68.4		74.5		8.92			MS
Nickel	29.3		31.9		8.7			MS
Selenium	2.5	U	12.5	U				MS
Thallium	1.46		1.8	J	22.9			MS
Uranium	3.01		3.01		.166			MS

METALS
-9-
Serial Dilution Sample Summary

SDG NO. 10-1604 **Client ID** RE03-10-12247L

Contract: LANL01004

Matrix: SOLID **Level:** Low

Sample ID: 246333001 **Serial Dilution ID:** 1202036371

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Mercury	.068	U	.34	U				AV

METALS
-13-
SAMPLE PREPARATION SUMMARY

SDG No: 10-1604 **Method Type:** P

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number 949910							
1202035237	MB for batch 949910	MB	S	07-FEB-10	.511g	50mL	
1202035242	LCS for batch 949910	LCS	S	07-FEB-10	.501g	50mL	
1202035240	RE03-10-12247S	MS	S	07-FEB-10	.521g	50mL	
1202035241	RE03-10-12247SD	MSD	S	07-FEB-10	.507g	50mL	
1202035238	RE03-10-12247D	DUP	S	07-FEB-10	.507g	50mL	
246333001	RE03-10-12247	SAMPLE	S	07-FEB-10	.519g	50mL	
246333002	RE03-10-12248	SAMPLE	S	07-FEB-10	.503g	50mL	
Batch Number 951402							
1202038897	MB for batch 951402	MB	S	10-FEB-10	.511g	50mL	
1202038898	LCS for batch 951402	LCS	S	10-FEB-10	.501g	50mL	
1202035240	RE03-10-12247S	MS	S	10-FEB-10	.514g	50mL	
1202035241	RE03-10-12247SD	MSD	S	10-FEB-10	.513g	50mL	
1202035238	RE03-10-12247D	DUP	S	10-FEB-10	.521g	50mL	
246333001	RE03-10-12247	SAMPLE	S	10-FEB-10	.522g	50mL	
246333002	RE03-10-12248	SAMPLE	S	10-FEB-10	.506g	50mL	

METALS
-13-
SAMPLE PREPARATION SUMMARY

SDG No: 10-1604 **Method Type:** MS

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number 949912							
1202035248	MB for batch 949912	MB	S	07-FEB-10	.503g	50mL	
1202035253	LCS for batch 949912	LCS	S	07-FEB-10	.51g	50mL	
1202035251	RE03-10-12247S	MS	S	07-FEB-10	.525g	50mL	
1202035252	RE03-10-12247SD	MSD	S	07-FEB-10	.51g	50mL	
1202035249	RE03-10-12247D	DUP	S	07-FEB-10	.5g	50mL	
246333001	RE03-10-12247	SAMPLE	S	07-FEB-10	.5g	50mL	
246333002	RE03-10-12248	SAMPLE	S	07-FEB-10	.515g	50mL	

METALS
–13–
SAMPLE PREPARATION SUMMARY

SDG No: 10–1604 **Method Type:** AV

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number 950298							
1202036367	MB for batch 950298	MB	S	08–FEB–10	.559g	30mL	
1202036368	LCS for batch 950298	LCS	S	08–FEB–10	.202g	30mL	
1202036370	RE03–10–12247S	MS	S	08–FEB–10	.561g	30mL	
1202036372	RE03–10–12247SD	MSD	S	08–FEB–10	.553g	30mL	
1202036369	RE03–10–12247D	DUP	S	08–FEB–10	.564g	30mL	
246333001	RE03–10–12247	SAMPLE	S	08–FEB–10	.549g	30mL	
246333002	RE03–10–12248	SAMPLE	S	08–FEB–10	.551g	30mL	

Metals
–14–
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: ICPMS5
Start Date: 08–FEB–10 **End Date:** 08–FEB–10

Client Sdg: 10–1604
Method MS
Data File: 100208–3

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Li	Mg	Mn	Hg	Ni	K	Se	Si	Ag	Na	Tl	Ti	U	V	Zn
S0.0	1	18:43			X		X													X		X								
S10	1	18:49			X		X													X		X								
S100	1	18:55			X		X													X		X								
ICV01	1	19:01			X		X													X		X								
ICB01	1	19:07			X		X													X		X								
CRDL01	1	19:14			X		X													X		X								
ICSA01	1	19:20			X		X													X		X								
ICSAB01	1	19:26			X		X													X		X								
CCV01	1	19:32			X		X													X		X								
CCB01	1	19:38			X		X													X		X								
LR01	1	19:44			X		X													X		X								
CCV02	1	19:50			X		X													X		X								
CCB02	1	19:56			X		X													X		X								
ZZZZZZ	1	20:02																												
ZZZZZZ	1	20:09																												
ZZZZZZ	1	20:15																												
ZZZZZZ	1	20:21																												
ZZZZZZ	1	20:27																												
ZZZZZZ	5	20:33																												
CCV03	1	20:39			X		X													X		X								
CCB03	1	20:45			X		X													X		X								
1202035248	2	20:51			X		X													X		X								
1202035253	40	20:58			X		X													X		X								
246333001	2	21:04			X		X													X		X								
1202035249	2	21:10			X		X													X		X								
1202035251	2	21:16			X		X													X		X								
1202035252	2	21:22			X		X													X		X								
1202035250	10	21:29			X		X													X		X								
246333002	2	21:35			X		X													X		X								
CCV04	1	21:41			X		X													X		X								
CCB04	1	21:47			X		X													X		X								

Metals
–14–
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: ICPMS5
Start Date: 09–FEB–10 **End Date:** 09–FEB–10

Client Sdg: 10–1604
Method MS
Data File: 100209–4

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Li	Mg	Mn	Hg	Ni	K	Se	Si	Ag	Na	Tl	Ti	U	V	Zn
S0.0	1	12:19														X														
S10	1	12:21														X														
S100	1	12:23														X														
ICV01	1	12:25														X														
ICB01	1	12:27														X														
CRDL01	1	12:30														X														
ICSA01	1	12:32														X														
ICSAB01	1	12:34														X														
CCV01	1	12:36														X														
CCB01	1	12:38														X														
1202035248	2	12:40														X														
1202035253	40	12:43														X														
246333001	2	12:45														X														
1202035249	2	12:47														X														
1202035251	2	12:49														X														
1202035252	2	12:52														X														
1202035250	10	12:54														X														
246333002	2	12:56														X														
CCV02	1	12:58														X														
CCB02	1	13:00														X														

Metals
–14–
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: ICPMS5
Start Date: 09–FEB–10
End Date: 09–FEB–10
Client Sdg: 10–1604
Method MS
Data File: 100209–7

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Li	Mg	Mn	Hg	Ni	K	Se	Si	Ag	Na	Tl	Ti	U	V	Zn
S0.0	1	13:39																										X		
S10	1	13:40																										X		
S100	1	13:42																										X		
ICV01	1	13:44																										X		
ICB01	1	13:45																										X		
CRDL01	1	13:47																										X		
ICSA01	1	13:49																										X		
ICSAB01	1	13:50																										X		
CCV01	1	13:52																										X		
CCB01	1	13:54																										X		
1202035248	2	13:55																										X		
1202035253	40	13:57																										X		
246333001	2	13:59																										X		
1202035249	2	14:00																										X		
1202035251	2	14:02																										X		
1202035252	2	14:04																										X		
1202035250	10	14:06																										X		
246333002	2	14:07																										X		
CCV02	1	14:09																										X		
CCB02	1	14:11																										X		

Metals
–14–
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: ICPMS5
Start Date: 09–FEB–10 **End Date:** 09–FEB–10

Client Sdg: 10–1604
Method MS
Data File: 100209–8

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Li	Mg	Mn	Hg	Ni	K	Se	Si	Ag	Na	Tl	Ti	U	V	Zn
S0.0	1	14:33																								X				
S10	1	14:37																								X				
S100	1	14:42																								X				
ICV01	1	14:46																								X				
ICB01	1	14:51																								X				
CRDL01	1	14:55																								X				
ICSA01	1	15:00																								X				
ICSAB01	1	15:04																								X				
CCV01	1	15:09																								X				
CCB01	1	15:13																								X				
1202035248	2	15:18																								X				
1202035253	40	15:22																								X				
246333001	2	15:27																								X				
1202035249	2	15:31																								X				
1202035251	2	15:36																								X				
1202035252	2	15:41																								X				
1202035250	10	15:45																								X				
246333002	2	15:50																								X				
CCV02	1	15:54																								X				
CCB02	1	15:59																								X				

Metals
–14–
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: OPTIMA3
Start Date: 08–FEB–10 **End Date:** 08–FEB–10

Client Sdg: 10–1604
Method P
Data File: 020810A–1

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Li	Mg	Mn	Hg	Ni	K	Se	Si	Ag	Na	Tl	Ti	U	V	Zn
S0.0	1	06:56	X	X		X		X	X	X	X	X		X	X		X	X			X		X	X	X		X			X
S0.1	1	07:03		X		X		X	X		X	X			X			X			X		X	X			X			X
S0.5	1	07:09	X	X		X		X	X	X	X	X			X		X	X			X		X	X			X			X
SCAL	1	07:16	X	X		X		X	X	X	X	X		X	X		X	X			X		X	X	X		X			X
S10	1	07:23	X							X				X			X								X					
ICV01	1	07:29	X	X		X		X	X	X	X	X		X	X		X	X			X		X	X	X		X			X
ICB01	1	07:36	X	X		X		X	X	X	X	X		X	X		X	X			X		X	X	X		X			X
PQL01	1	07:42	X	X		X		X	X	X	X	X		X	X		X	X			X		X	X	X		X			X
ICSA01	1	07:49	X	X		X		X	X	X	X	X		X	X		X	X			X		X	X	X		X			X
ICSAB01	1	07:55	X	X		X		X	X	X	X	X		X	X		X	X			X		X	X	X		X			X
LR01	1	08:01	X	X		X		X	X	X	X	X		X	X		X	X			X		X	X	X		X			X
LR02	1	08:07	X	X		X		X	X	X	X	X		X	X		X	X			X		X	X	X		X			X
CCV01	1	08:14	X	X		X		X	X	X	X	X		X	X		X	X			X		X	X	X		X			X
CCB01	1	08:21	X	X		X		X	X	X	X	X		X	X		X	X			X		X	X	X		X			X
LR03	1	08:31	X	X		X		X	X	X	X	X		X	X		X	X			X		X	X	X		X			X
CCV02	1	08:37	X	X		X		X	X	X	X	X		X	X		X	X			X		X	X	X		X			X
CCB02	1	08:44	X	X		X		X	X	X	X	X		X	X		X	X			X		X	X	X		X			X
CCV03	1	09:10	X	X		X		X	X	X	X	X		X	X		X	X			X		X	X	X		X			X
CCB03	1	09:17	X	X		X		X	X	X	X	X		X	X		X	X			X		X	X	X		X			X
ZZZZZZ	1	09:23																												
ZZZZZZ	1	09:30																												
ZZZZZZ	1	09:37																												
ZZZZZZ	1	09:44																												
ZZZZZZ	5	09:51																												
CCV04	1	09:58	X	X		X		X	X	X	X	X		X	X		X	X			X		X	X	X		X			X
CCB04	1	10:05	X	X		X		X	X	X	X	X		X	X		X	X			X		X	X	X		X			X
ZZZZZZ	1	10:17																												
ZZZZZZ	1	10:23																												
ZZZZZZ	1	10:30																												
ZZZZZZ	1	10:37																												
ZZZZZZ	1	10:44																												
ZZZZZZ	1	10:51																												
ZZZZZZ	1	10:57																												
ZZZZZZ	5	11:04																												
CCV05	1	11:11	X	X		X		X	X	X	X	X		X	X		X	X			X		X	X	X		X			X
CCB05	1	11:18	X	X		X		X	X	X	X	X		X	X		X	X			X		X	X	X		X			X
ZZZZZZ	1	11:24																												
ZZZZZZ	1	11:31																												
ZZZZZZ	1	11:38																												
ZZZZZZ	1	11:45																												

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time																												
ZZZZZZ	1	11:52																												
ZZZZZZ	5	11:59																												
CCV06	1	12:06	X	X		X		X	X	X	X	X		X	X		X	X			X		X	X	X		X			X
CCB06	1	12:13	X	X		X		X	X	X	X	X		X	X		X	X			X		X	X	X		X			X
1202035237	1	12:18	X	X		X		X	X	X	X	X		X	X		X	X			X		X	X	X		X			X
1202035242	1	12:25	X	X		X		X	X	X	X	X		X	X		X	X			X		X	X	X		X			X
246333001	1	12:31	X	X		X		X	X	X	X	X		X	X		X	X			X		X	X	X		X			X
1202035238	1	12:38	X	X		X		X	X	X	X	X		X	X		X	X			X		X	X	X		X			X
1202035240	1	12:45	X	X		X		X	X	X	X	X		X	X		X	X			X		X	X	X		X			X
1202035241	1	12:52	X	X		X		X	X	X	X	X		X	X		X	X			X		X	X	X		X			X
1202035239	5	12:59	X	X		X		X	X	X	X	X		X	X		X	X			X		X	X	X		X			X
246333002	1	13:06	X	X		X		X	X	X	X	X		X	X		X	X			X		X	X	X		X			X
CCV07	1	13:13	X	X		X		X	X	X	X	X		X	X		X	X			X		X	X	X		X			X
CCB07	1	13:20	X	X		X		X	X	X	X	X		X	X		X	X			X		X	X	X		X			X

Metals
–14–
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: OPTIMA3
Start Date: 11–FEB–10 **End Date:** 11–FEB–10

Client Sdg: 10–1604
Method P
Data File: 021110–2

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Li	Mg	Mn	Hg	Ni	K	Se	Si	Ag	Na	Tl	Ti	U	V	Zn
S0.0	1	08:21											X																X	
S0.1	1	08:28											X																X	
S0.5	1	08:34											X																X	
SCAL	1	08:41											X																X	
S10	1	08:48																												
ICV01	1	08:54											X																X	
ICB01	1	09:01											X																X	
PQL01	1	09:08											X																X	
ICSA01	1	09:14											X																X	
ICSAB01	1	09:20											X																X	
LR01	1	09:26											X																X	
LR02	1	09:33											X																X	
CCV01	1	09:39											X																X	
CCB01	1	09:46											X																X	
LR03	1	09:57											X																X	
CCV02	1	10:04											X																X	
CCB02	1	10:11											X																X	
ZZZZZZ	1	10:22																												
ZZZZZZ	1	10:28																												
ZZZZZZ	1	10:35																												
ZZZZZZ	1	10:42																												
ZZZZZZ	1	10:49																												
ZZZZZZ	1	10:56																												
ZZZZZZ	1	11:03																												
ZZZZZZ	1	11:10																												
ZZZZZZ	5	11:17																												
CCV03	1	11:23											X																X	
CCB03	1	11:30											X																X	
ZZZZZZ	1	11:44																												
ZZZZZZ	1	11:51																												
CCV04	1	11:57											X																X	
CCB04	1	12:04											X																X	
ZZZZZZ	1	12:11																												
ZZZZZZ	1	12:18																												
ZZZZZZ	1	12:25																												
ZZZZZZ	1	12:32																												
ZZZZZZ	1	12:39																												
ZZZZZZ	5	12:46																												
CCV05	1	12:53											X																X	
CCB05	1	13:00											X																X	

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time																											
ZZZZZZ	1	13:06																											
ZZZZZZ	1	13:13																											
ZZZZZZ	5	13:20																											
ZZZZZZ	1	13:27																											
ZZZZZZ	1	13:33																											
CCV06	1	13:39										X															X		
CCB06	1	13:46										X															X		
1202038897	1	13:52										X															X		
ZZZZZZ	1	13:59																											
246333001	1	14:05										X															X		
1202035238	1	14:12										X															X		
1202035240	1	14:19										X															X		
1202035241	1	14:26										X															X		
1202035239	5	14:33										X															X		
246333002	1	14:40										X															X		
1202038898	1	14:53										X															X		
CCV07	1	14:59										X															X		
CCB07	1	15:06										X															X		

Metals
–14–
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: HG3
Start Date: 09–FEB–10 **End Date:** 09–FEB–10

Client Sdg: 10–1604
Method AV
Data File: 020910S1–9

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Li	Mg	Mn	Hg	Ni	K	Se	Si	Ag	Na	Tl	Ti	U	V	Zn
S0.0	1	09:01																	X											
S0.2	1	09:03																	X											
S0.5	1	09:05																	X											
S2.0	1	09:06																	X											
S5.0	1	09:08																	X											
S10.0	1	09:10																	X											
ICV01	1	09:11																	X											
ICB01	1	09:13																	X											
CRDL01	1	09:15																	X											
CCV01	1	09:16																	X											
CCB01	1	09:18																	X											
ZZZZZZ	1	09:20																												
ZZZZZZ	1	09:21																												
ZZZZZZ	1	09:23																												
ZZZZZZ	1	09:25																												
ZZZZZZ	1	09:26																												
ZZZZZZ	1	09:28																												
ZZZZZZ	5	09:30																												
ZZZZZZ	1	09:31																												
ZZZZZZ	10	09:33																												
ZZZZZZ	1	09:35																												
CCV02	1	09:36																	X											
CCB02	1	09:38																	X											
ZZZZZZ	1	09:40																												
ZZZZZZ	1	09:41																												
ZZZZZZ	1	09:43																												
ZZZZZZ	1	09:45																												
ZZZZZZ	1	09:46																												
ZZZZZZ	1	09:48																												
ZZZZZZ	1	09:50																												
ZZZZZZ	1	09:51																												
ZZZZZZ	1	09:53																												
ZZZZZZ	1	09:55																												
CCV03	1	09:56																	X											
CCB03	1	09:58																	X											
ZZZZZZ	1	10:00																												
ZZZZZZ	1	10:01																												
ZZZZZZ	1	10:03																												
ZZZZZZ	1	10:05																												
ZZZZZZ	1	10:06																												

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time																											
ZZZZZZ	5	10:08																											
ZZZZZZ	1	10:10																											
ZZZZZZ	1	10:11																											
ZZZZZZ	1	10:13																											
ZZZZZZ	1	10:15																											
CCV04	1	10:16															X												
CCB04	1	10:18															X												
ZZZZZZ	1	10:20																											
ZZZZZZ	1	10:21																											
ZZZZZZ	1	10:23																											
1202036367	1	10:25															X												
1202036368	10	10:27															X												
246333001	1	10:28															X												
1202036369	1	10:30															X												
1202036370	1	10:32															X												
1202036372	1	10:33															X												
1202036371	5	10:35															X												
CCV05	1	10:37															X												
CCB05	1	10:38															X												
246333002	1	10:40															X												
ZZZZZZ	1	10:42																											
ZZZZZZ	10	10:43																											
ZZZZZZ	1	10:45																											
ZZZZZZ	1	10:47																											
ZZZZZZ	1	10:48																											
ZZZZZZ	1	10:50																											
ZZZZZZ	1	10:52																											
ZZZZZZ	1	10:53																											
ZZZZZZ	1	10:55																											
CCV06	1	10:57															X												
CCB06	1	10:58															X												

Standards

METALS
–10–
Instrument Detection Limits

SDG NO. 10–1604

Contract: LANL01004 **Lab Code: GEL** **MDL Effective Date:** 01–JUL–09

ICP/MS	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
SOLID	Aluminum		15.0	50
	Antimony		0.5	3
	Arsenic		1.0	5
	Barium		0.5	2
	Beryllium		0.1	.5
	Boron		4.0	15
	Cadmium		0.1	1
	Calcium		33.0	100
	Chromium		1.0	3
	Cobalt		0.3	1
	Copper		0.33	1
	Iron		25.0	100
	Lead		0.5	2
	Lithium		2.0	10
	Magnesium		7.5	25
	Manganese		1.0	5
	Nickel		0.5	2
	Potassium		80.0	300
	Selenium		2.5	5
	Silver		0.2	1
	Sodium		80.0	250
	Thallium		0.3	1
	Titanium		2.0	10
	Uranium		0.066	.2
	Vanadium		2.0	10
	Zinc		2.0	10

METALS
-10-
Instrument Detection Limits

SDG NO. 10-1604

Contract: LANL01004 **Lab Code: GEL** **MDL Effective Date:** 15-JUN-09

MERCURY	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
SOLID	Mercury		0.068	.2

METALS
-10-
Instrument Detection Limits

SDG NO. 10-1604

Contract: LANL01004 **Lab Code: GEL** **MDL Effective Date:** 01-JUL-09

ICP	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
SOLID	Aluminum	396.153	68.0	200
	Antimony	206.836	3.3	10
	Arsenic	188.979	5.0	30
	Barium	233.527	1.0	5
	Beryllium	313.107	1.0	5
	Boron	249.677	10.0	50
	Cadmium	226.502	1.0	5
	Calcium	317.933	80.0	250
	Chromium	267.716	1.5	5
	Cobalt	228.616	1.5	5
	Copper	324.752	3.0	10
	Iron	238.204	80.0	250
	Lead	220.353	2.5	10
	Magnesium	279.077	85.0	300
	Manganese	257.61	2.0	10
	Nickel	231.604	1.5	5
	Potassium	766.49	64.0	250
	Selenium	196.026	5.0	30
	Silicon	251.611	15.0	100
	Silver	328.068	1.0	5
	Sodium	589.592	70.0	250
	Thallium	190.801	5.0	20
	Titanium	334.94	1.0	5
	Uranium	409.014	10.0	50
	Vanadium	292.402	1.0	5
	Zinc	213.857	3.3	10

METALS
-11-
Interelement Correction Factors

Lab Code: GEL | GEL Job No: 10-1604
Contract: LANL01004
Instrument: OPTIMA3 | Effective Dates: 01-FEB-10
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Parmname	Wavelength	Aluminum	Antimony	Arsenic	Barium	Beryllium
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.02697	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	-0.48147	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	-0.21356	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	-0.05186	0.00000	0.00000	0.00000	0.00000
Silica	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.18741	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA3
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-1604
Effective Dates: 01-FEB-10

Parmname	Wavelength	Boron	Cadmium	Chromium	Cobalt	Copper
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	2.85580	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.44491	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	-29.9151	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	0.57616
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.60374	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	198.62
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silica	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	4.37985	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.36147	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	2.23785	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.36818	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	1.35273

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA3
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-1604
Effective Dates: 01-FEB-10

Parmname	Wavelength	Iron	Lead	Magnesium	Manganese	Molybdenum
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	48.4946
Antimony	206.836	-0.02515	0.00000	0.00000	0.00000	-20.5057
Arsenic	188.979	-0.23424	0.00000	0.00000	0.00000	2.41902
Barium	233.527	-0.03042	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.16240	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.10329	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	-0.01944	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.01444	0.00000	0.00000	0.00000	-2.33100
Copper	324.752	-0.05293	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.09554	0.00000	0.00000	0.00000	-2.48774
Magnesium	279.077	1.04597	0.00000	0.00000	0.00000	-10.4683
Manganese	257.61	-0.09877	0.00000	0.04089	0.00000	0.00000
Molybdenum	202.031	-0.07763	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.80543	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	0.00000	0.39429	1.18725
Selenium	196.026	-3.27508	0.00000	0.00000	0.00000	-3.07287
Silica	251.611	0.00000	0.00000	0.00000	0.00000	27.2377
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	12.3082
Silver	328.068	-0.32385	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	-4.77918	0.00000
Tin	189.927	-0.01682	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.08168	0.00000	0.00000
Uranium	409.014	0.11400	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.14564	0.00000	-0.01931	0.00000	-14.1293
Zinc	213.857	0.09701	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
GEL Job No: 10-1604
Contract: LANL01004
Instrument: OPTIMA3
Effective Dates: 01-FEB-10

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Parmname	Wavelength	Nickel	Phosphorous	Potassium	Selenium	Silica
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	-0.84443	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	-0.63547	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silica	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	6.37026	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA3
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-1604
Effective Dates: 01-FEB-10

Parmname	Wavelength	Silicon	Silver	Strontium	Sulfur	Thallium
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silica	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
GEL Job No: 10-1604
Contract: LANL01004
Instrument: OPTIMA3
Effective Dates: 01-FEB-10
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Parmname	Wavelength	Tin	Titanium	Uranium	Vanadium	Zinc
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	-15.4932	3.30431	0.00000	-2.81282	0.00000
Arsenic	188.979	0.00000	-8.66313	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	-2.20293	0.00000
Beryllium	313.107	0.00000	-2.27027	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	-0.19473	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.39645	-1.41250	0.00000
Cobalt	228.616	0.00000	2.09497	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.55360	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	-9.37529	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silica	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.81635	-4.04400	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	-8.29801	0.00000	1.88584	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.43915	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	1.05947	-1.91382	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	0.00000

METALS
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Linear Ranges

SDG NO. 10–1604

Contract: LANL01004 **Lab Code: GEL**

Instrument ID ICPMS5

Analyte	Integration Time (msec)	LDR	Units	Effective Date
Aluminum	1	50000	ug/L	01–FEB–10
Antimony	1000	250	ug/L	01–FEB–10
Arsenic	1000	1000	ug/L	01–FEB–10
Barium	1000	1000	ug/L	01–FEB–10
Beryllium	1000	1000	ug/L	01–FEB–10
Boron	1000	200	ug/L	01–FEB–10
Cadmium	1000	1000	ug/L	01–FEB–10
Calcium	500	50000	ug/L	01–FEB–10
Chromium	1000	1000	ug/L	01–FEB–10
Cobalt	1000	1000	ug/L	01–FEB–10
Copper	1000	1000	ug/L	01–FEB–10
Iron	500	50000	ug/L	01–FEB–10
Lead	1000	5000	ug/L	01–FEB–10
Lithium	1000	1000	ug/L	01–FEB–10
Magnesium	1	50000	ug/L	01–FEB–10
Nickel	1000	1000	ug/L	01–FEB–10
Potassium	1	50000	ug/L	01–FEB–10
Selenium	1000	500	ug/L	01–FEB–10
Silver	1000	250	ug/L	01–FEB–10
Sodium	1	50000	ug/L	01–FEB–10
Thallium	1000	500	ug/L	01–FEB–10
Titanium	1000	100	ug/L	01–FEB–10
Uranium	1000	5000	ug/L	01–FEB–10
Vanadium	1000	100	ug/L	01–FEB–10
Zinc	1000	2500	ug/L	01–FEB–10
Manganese	1000	1000	ug/L	01–FEB–10

METALS
–12–
Linear Ranges

SDG NO. 10–1604

Contract: LANL01004 **Lab Code: GEL**

Instrument ID OPTIMA3

Analyte	Integration Time (sec)	LDR	Units	Effective Date
Aluminum	20	500000	ug/L	01–FEB–10
Antimony	20	10000	ug/L	01–FEB–10
Arsenic	20	10000	ug/L	01–FEB–10
Barium	20	15000	ug/L	01–FEB–10
Beryllium	20	3000	ug/L	01–FEB–10
Boron	20	5000	ug/L	01–FEB–10
Cadmium	20	10000	ug/L	01–FEB–10
Calcium	20	500000	ug/L	01–FEB–10
Chromium	20	25000	ug/L	01–FEB–10
Cobalt	20	10000	ug/L	01–FEB–10
Copper	20	20000	ug/L	01–FEB–10
Iron	20	500000	ug/L	01–FEB–10
Lead	20	25000	ug/L	01–FEB–10
Magnesium	20	500000	ug/L	01–FEB–10
Manganese	20	10000	ug/L	01–FEB–10
Nickel	20	10000	ug/L	01–FEB–10
Potassium	20	300000	ug/L	01–FEB–10
Selenium	20	10000	ug/L	01–FEB–10
Silicon	20	50000	ug/L	01–FEB–10
Silver	20	1000	ug/L	01–FEB–10
Sodium	20	500000	ug/L	01–FEB–10
Thallium	20	10000	ug/L	01–FEB–10
Titanium	20	10000	ug/L	01–FEB–10
Uranium	20	15000	ug/L	01–FEB–10
Vanadium	20	10000	ug/L	01–FEB–10
Zinc	20	15000	ug/L	01–FEB–10

Raw Data

Method: Hg_ReAlign
Result: 021110

Sample ID: Hg_ReAlign

Hg 253.652

Rep: 1

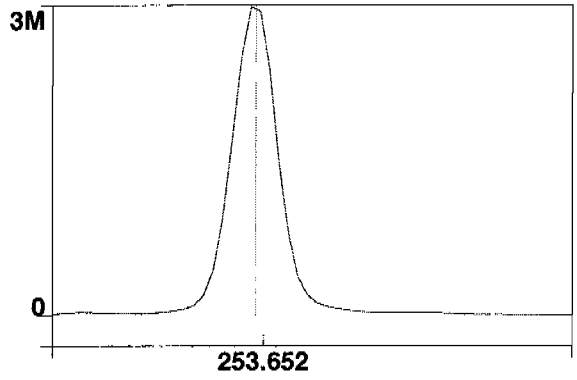

Intensity: 3323876.2 cps
Conc:

1

==========

Reprocessing Begun
Logged In Analyst: Optima3 **Technique: ICP Continuous**

Results Data Set (original): 020810
Results Library (original): C:\pe\Optima3\Results\Results.mdb
Results Data Set (reprocessed): 020810A
Results Library (reprocessed): C:\pe\Optima3\Results\Results.mdb

==========

Method Loaded
Method Name: General Eng.2AX **Method Last Saved: 2/8/2010 08:56:31**
IEC File: 011110.iec **MSF File:**
Method Description:

Analyte	Calibration Equation	Processing	View	Internal Standard	IEC
Ag 328.068	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Al 396.153Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
As 188.979	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
B 249.677	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ba 233.527	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Be 313.107	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ca 317.933Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	No
Cd 226.502	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Co 228.616	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cr 267.716	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cu 324.752	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Fe 238.204 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
K 766.490 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Mg 279.077 IEC	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Mn 257.610	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Mo 202.031	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Na 589.592 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	No
Ni 231.604	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
P 214.914	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Pb 220.353	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
S 181.975 Axial	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sb 206.836	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sc 361.383	Lin Thru 0	Peak Area	Axial	n/a	n/a
Sc Radial	Lin, Calc Int	Peak Area	Radial	n/a	n/a
Se 196.026	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Si 251.611	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sn 189.927	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sr 421.552	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Ti 334.940	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Tl 190.801	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
U 409.014	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
V 292.402	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y 371.029	Lin, Calc Int	Peak Area	Axial	n/a	n/a
Zn 213.857	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y RADIAL	Lin, Calc Int	Peak Area	Radial	n/a	n/a
SiO2	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes

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Sequence No.: 1 **Autosampler Location: 8**
Sample ID: S0 **Date Collected: 2/8/2010 06:56:33**
Analyst: **Data Type: Reprocessed on 2/8/2010 09:03:07**
Logged In Analyst (Original) : Optima3
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: S0

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc 361.383	919512.0	919512.0	100.04	%	06:59:43
1	Sc Radial	5027.4	5027.4	100	%	06:58:26
1	Y 371.029	764104.0	764104.0	100.17	%	06:59:43
1	Y RADIAL	5307.2	5307.2	100.6	%	06:58:26
1	Ag 328.068†	283.7	283.6	[0.00]	ug/L	06:59:48

1	Al 396.153Radial†	-186.7	-186.1	[0.00]	ug/L	06:58:26
1	As 188.979†	-34.9	-34.9	[0.00]	ug/L	07:00:08
1	B 249.677†	-736.5	-736.2	[0.00]	ug/L	07:00:08
1	Ba 233.527†	-16.6	-16.6	[0.00]	ug/L	07:00:08
1	Be 313.107†	-4888.3	-4886.5	[0.00]	ug/L	06:59:48
1	Ca 317.933Radial†	14.5	14.4	[0.00]	ug/L	06:58:46
1	Cd 226.502†	-210.2	-210.1	[0.00]	ug/L	07:00:08
1	Co 228.616†	-92.6	-92.6	[0.00]	ug/L	07:00:08
1	Cr 267.716†	62.5	62.5	[0.00]	ug/L	07:00:08
1	Cu 324.752†	6341.0	6338.6	[0.00]	ug/L	06:59:48
1	Fe 238.204 Radial†	8.8	8.8	[0.00]	ug/L	06:58:46
1	K 766.490 Radial†	2718.3	2710.1	[0.00]	ug/L	06:58:26
1	Mg 279.077 IEC†	3.7	3.7	[0.00]	ug/L	06:58:46
1	Mn 257.610†	538.2	538.0	[0.00]	ug/L	07:00:08
1	Mo 202.031†	6.7	6.7	[0.00]	ug/L	07:00:08
1	Na 589.592 Radial†	-1293.2	-1289.3	[0.00]	ug/L	06:58:26
1	Ni 231.604†	95.2	95.2	[0.00]	ug/L	07:00:08
1	P 214.914†	240.1	240.0	[0.00]	ug/L	07:00:08
1	Pb 220.353†	-58.6	-58.5	[0.00]	ug/L	07:00:08
1	S 181.975 Axial†	51.1	51.1	[0.00]	ug/L	07:00:08
1	Sb 206.836†	21.8	21.8	[0.00]	ug/L	07:00:08
1	Se 196.026†	-15.8	-15.8	[0.00]	ug/L	07:00:08
1	Si 251.611†	714.7	714.5	[0.00]	ug/L	07:00:08
1	Sn 189.927†	7.5	7.5	[0.00]	ug/L	07:00:08
1	Sr 421.552†	24.8	24.8	[0.00]	ug/L	06:58:26
1	Ti 334.940†	-1541.1	-1540.6	[0.00]	ug/L	06:59:48
1	Tl 190.801†	-37.1	-37.1	[0.00]	ug/L	07:00:08
1	U 409.014†	-3516.9	-3515.6	[0.00]	ug/L	06:59:43
1	V 292.402†	-1663.9	-1663.3	[0.00]	ug/L	06:59:48
1	Zn 213.857†	681.3	681.0	[0.00]	ug/L	07:00:08
1	SiO2†	796.4	796.1	[0.00]	ug/L	07:01:14
2	Sc 361.383	921959.8	921959.8	100.30	%	07:00:13
2	Sc Radial	4977.7	4977.7	99.3	%	06:58:51
2	Y 371.029	764307.3	764307.3	100.20	%	07:00:13
2	Y RADIAL	5212.0	5212.0	98.82	%	06:58:51
2	Ag 328.068†	363.9	362.8	[0.00]	ug/L	07:00:18
2	Al 396.153Radial†	-193.4	-194.8	[0.00]	ug/L	06:58:51
2	As 188.979†	-33.6	-33.5	[0.00]	ug/L	07:00:38
2	B 249.677†	-788.4	-786.0	[0.00]	ug/L	07:00:38
2	Ba 233.527†	8.8	8.8	[0.00]	ug/L	07:00:38
2	Be 313.107†	-4915.8	-4901.0	[0.00]	ug/L	07:00:18
2	Ca 317.933Radial†	16.6	16.7	[0.00]	ug/L	06:59:11
2	Cd 226.502†	-212.0	-211.3	[0.00]	ug/L	07:00:38
2	Co 228.616†	-75.3	-75.1	[0.00]	ug/L	07:00:38
2	Cr 267.716†	78.2	77.9	[0.00]	ug/L	07:00:38
2	Cu 324.752†	6178.8	6160.1	[0.00]	ug/L	07:00:18
2	Fe 238.204 Radial†	7.0	7.0	[0.00]	ug/L	06:59:11
2	K 766.490 Radial†	2761.8	2780.9	[0.00]	ug/L	06:58:51
2	Mg 279.077 IEC†	3.6	3.6	[0.00]	ug/L	06:59:11
2	Mn 257.610†	534.1	532.5	[0.00]	ug/L	07:00:38
2	Mo 202.031†	25.9	25.8	[0.00]	ug/L	07:00:38
2	Na 589.592 Radial†	-1195.2	-1203.4	[0.00]	ug/L	06:58:51
2	Ni 231.604†	94.5	94.2	[0.00]	ug/L	07:00:38
2	P 214.914†	240.5	239.8	[0.00]	ug/L	07:00:38
2	Pb 220.353†	-68.3	-68.1	[0.00]	ug/L	07:00:38
2	S 181.975 Axial†	43.6	43.5	[0.00]	ug/L	07:00:38
2	Sb 206.836†	38.8	38.7	[0.00]	ug/L	07:00:38
2	Se 196.026†	-16.1	-16.0	[0.00]	ug/L	07:00:38
2	Si 251.611†	710.0	707.9	[0.00]	ug/L	07:00:38
2	Sn 189.927†	10.3	10.3	[0.00]	ug/L	07:00:38
2	Sr 421.552†	8.0	8.1	[0.00]	ug/L	06:58:51
2	Ti 334.940†	-1567.5	-1562.8	[0.00]	ug/L	07:00:18
2	Tl 190.801†	-43.6	-43.5	[0.00]	ug/L	07:00:38
2	U 409.014†	-3614.6	-3603.7	[0.00]	ug/L	07:00:13
2	V 292.402†	-1648.4	-1643.4	[0.00]	ug/L	07:00:18
2	Zn 213.857†	684.5	682.4	[0.00]	ug/L	07:00:38
2	SiO2†	822.7	820.3	[0.00]	ug/L	07:01:19
3	Sc 361.383	916048.2	916048.2	99.660	%	07:00:43
3	Sc Radial	5031.4	5031.4	100	%	06:59:16
3	Y 371.029	759996.4	759996.4	99.632	%	07:00:43
3	Y RADIAL	5303.7	5303.7	100.6	%	06:59:16

3	Ag 328.068†	240.7	241.6	[0.00] ug/L	07:00:48
3	Al 396.153Radial†	-184.9	-184.2	[0.00] ug/L	06:59:16
3	As 188.979†	-33.7	-33.8	[0.00] ug/L	07:01:08
3	B 249.677†	-761.7	-764.3	[0.00] ug/L	07:01:08
3	Ba 233.527†	-14.9	-15.0	[0.00] ug/L	07:01:08
3	Be 313.107†	-5001.2	-5018.2	[0.00] ug/L	07:00:48
3	Ca 317.933Radial†	20.0	19.9	[0.00] ug/L	06:59:36
3	Cd 226.502†	-211.7	-212.4	[0.00] ug/L	07:01:08
3	Co 228.616†	-86.4	-86.6	[0.00] ug/L	07:01:08
3	Cr 267.716†	62.8	63.0	[0.00] ug/L	07:01:08
3	Cu 324.752†	6219.3	6240.5	[0.00] ug/L	07:00:48
3	Fe 238.204 Radial†	7.5	7.5	[0.00] ug/L	06:59:36
3	K 766.490 Radial†	2620.9	2610.9	[0.00] ug/L	06:59:16
3	Mg 279.077 IEC†	2.2	2.2	[0.00] ug/L	06:59:36
3	Mn 257.610†	560.3	562.2	[0.00] ug/L	07:01:08
3	Mo 202.031†	13.5	13.5	[0.00] ug/L	07:01:08
3	Na 589.592 Radial†	-1288.7	-1283.8	[0.00] ug/L	06:59:16
3	Ni 231.604†	89.7	90.0	[0.00] ug/L	07:01:08
3	P 214.914†	240.8	241.7	[0.00] ug/L	07:01:08
3	Pb 220.353†	-78.7	-79.0	[0.00] ug/L	07:01:08
3	S 181.975 Axial†	46.2	46.4	[0.00] ug/L	07:01:08
3	Sb 206.836†	40.1	40.2	[0.00] ug/L	07:01:08
3	Se 196.026†	-25.0	-25.1	[0.00] ug/L	07:01:08
3	Si 251.611†	760.3	762.8	[0.00] ug/L	07:01:08
3	Sn 189.927†	13.2	13.2	[0.00] ug/L	07:01:08
3	Sr 421.552†	3.4	3.4	[0.00] ug/L	06:59:16
3	Ti 334.940†	-1611.9	-1617.4	[0.00] ug/L	07:00:48
3	Tl 190.801†	-36.1	-36.2	[0.00] ug/L	07:01:08
3	U 409.014†	-3535.0	-3547.1	[0.00] ug/L	07:00:43
3	V 292.402†	-1598.6	-1604.0	[0.00] ug/L	07:00:48
3	Zn 213.857†	686.7	689.0	[0.00] ug/L	07:01:08
3	SiO2†	790.0	792.7	[0.00] ug/L	07:01:24

Mean Data: S0

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	919173.3	2970.30	0.32%	100.00	%
Sc Radial	5012.2	29.93	0.60%	100	%
Y 371.029	762802.6	2432.37	0.32%	100.00	%
Y RADIAL	5274.3	53.97	1.02%	100.00	%
Ag 328.068†	296.0	61.57	20.80%	[0.00]	ug/L
Al 396.153Radial†	-188.4	5.64	2.99%	[0.00]	ug/L
As 188.979†	-34.1	0.72	2.11%	[0.00]	ug/L
B 249.677†	-762.2	24.96	3.27%	[0.00]	ug/L
Ba 233.527†	-7.6	14.19	186.63%	[0.00]	ug/L
Be 313.107†	-4935.2	72.22	1.46%	[0.00]	ug/L
Ca 317.933Radial†	17.0	2.77	16.25%	[0.00]	ug/L
Cd 226.502†	-211.3	1.15	0.54%	[0.00]	ug/L
Co 228.616†	-84.8	8.87	10.47%	[0.00]	ug/L
Cr 267.716†	67.8	8.75	12.91%	[0.00]	ug/L
Cu 324.752†	6246.4	89.40	1.43%	[0.00]	ug/L
Fe 238.204 Radial†	7.7	0.91	11.80%	[0.00]	ug/L
K 766.490 Radial†	2700.6	85.40	3.16%	[0.00]	ug/L
Mg 279.077 IEC†	3.2	0.84	26.25%	[0.00]	ug/L
Mn 257.610†	544.2	15.83	2.91%	[0.00]	ug/L
Mo 202.031†	15.4	9.67	62.96%	[0.00]	ug/L
Na 589.592 Radial†	-1258.8	48.06	3.82%	[0.00]	ug/L
Ni 231.604†	93.1	2.77	2.98%	[0.00]	ug/L
P 214.914†	240.5	1.02	0.42%	[0.00]	ug/L
Pb 220.353†	-68.5	10.22	14.90%	[0.00]	ug/L
S 181.975 Axial†	47.0	3.83	8.16%	[0.00]	ug/L
Sb 206.836†	33.6	10.22	30.43%	[0.00]	ug/L
Se 196.026†	-19.0	5.30	27.89%	[0.00]	ug/L
Si 251.611†	728.4	30.02	4.12%	[0.00]	ug/L
Sn 189.927†	10.3	2.86	27.67%	[0.00]	ug/L
Sr 421.552†	12.1	11.24	93.20%	[0.00]	ug/L
Ti 334.940†	-1573.6	39.55	2.51%	[0.00]	ug/L
Tl 190.801†	-38.9	3.96	10.17%	[0.00]	ug/L
U 409.014†	-3555.5	44.63	1.26%	[0.00]	ug/L
V 292.402†	-1636.9	30.17	1.84%	[0.00]	ug/L

Zn 213.857†	684.2	4.26	0.62%	[0.00] ug/L
SiO2†	803.0	15.03	1.87%	[0.00] ug/L

Sequence No.: 2
Sample ID: S0.1
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 2
Date Collected: 2/8/2010 07:03:34
Data Type: Reprocessed on 2/8/2010 09:03:09

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc 361.383	888035.5	888035.5	96.612	%	07:05:58
1	Sc Radial	5123.3	5123.3	102	%	07:05:31
1	Y 371.029	736824.5	736824.5	96.594	%	07:05:58
1	Y RADIAL	5380.2	5380.2	102.0	%	07:05:31
1	Ag 328.068†	22468.1	22959.9	[100]	ug/L	07:05:58
1	As 188.979†	208.8	250.2	[100]	ug/L	07:06:18
1	B 249.677†	3540.0	4426.3	[100]	ug/L	07:05:58
1	Ba 233.527†	13070.0	13535.9	[100]	ug/L	07:05:58
1	Be 313.107†	270727.2	285155.2	[100]	ug/L	07:05:58
1	Cd 226.502†	8967.4	9493.1	[100]	ug/L	07:05:58
1	Co 228.616†	4831.4	5085.5	[100]	ug/L	07:06:18
1	Cr 267.716†	9139.4	9392.0	[100]	ug/L	07:05:58
1	Cu 324.752†	40125.9	35286.4	[100]	ug/L	07:05:58
1	K 766.490 Radial†	8206.3	5327.7	[1000]	ug/L	07:05:26
1	Mn 257.610†	93204.8	95928.7	[100]	ug/L	07:05:58
1	Mo 202.031†	1420.4	1454.8	[100]	ug/L	07:06:18
1	Ni 231.604†	4300.3	4357.9	[100]	ug/L	07:05:58
1	P 214.914†	1113.1	911.6	[500]	ug/L	07:06:18
1	Pb 220.353†	805.2	901.9	[100]	ug/L	07:06:18
1	S 181.975 Axial†	184.0	143.5	[200]	ug/L	07:06:18
1	Sb 206.836†	339.0	317.2	[100]	ug/L	07:06:18
1	Se 196.026†	140.9	164.8	[100]	ug/L	07:06:18
1	Si 251.611†	16450.3	16298.7	[500]	ug/L	07:05:58
1	Sn 189.927†	592.1	602.6	[100]	ug/L	07:06:18
1	Sr 421.552†	15451.8	15104.6	[100]	ug/L	07:05:31
1	Ti 334.940†	62572.6	66340.3	[100]	ug/L	07:05:58
1	Tl 190.801†	301.8	351.3	[100]	ug/L	07:06:18
1	U 409.014†	-218.1	3329.7	[100]	ug/L	07:05:58
1	V 292.402†	12543.3	14620.0	[100]	ug/L	07:05:58
1	Zn 213.857†	11546.8	11267.5	[100]	ug/L	07:05:58
1	SiO2†	16577.6	16355.9	[1069.5]	ug/L	07:07:15
2	Sc 361.383	894697.3	894697.3	97.337	%	07:06:24
2	Sc Radial	5081.4	5081.4	101	%	07:05:41
2	Y 371.029	743189.5	743189.5	97.429	%	07:06:24
2	Y RADIAL	5337.2	5337.2	101.2	%	07:05:41
2	Ag 328.068†	22592.9	22915.0	[100]	ug/L	07:06:24
2	As 188.979†	206.1	245.8	[100]	ug/L	07:06:44
2	B 249.677†	3658.3	4520.6	[100]	ug/L	07:06:24
2	Ba 233.527†	13128.1	13494.9	[100]	ug/L	07:06:24
2	Be 313.107†	273316.0	285728.3	[100]	ug/L	07:06:24
2	Cd 226.502†	9027.9	9486.1	[100]	ug/L	07:06:24
2	Co 228.616†	4887.6	5106.0	[100]	ug/L	07:06:44
2	Cr 267.716†	9237.9	9422.8	[100]	ug/L	07:06:24
2	Cu 324.752†	40308.6	35164.9	[100]	ug/L	07:06:24
2	K 766.490 Radial†	8271.6	5458.5	[1000]	ug/L	07:05:36
2	Mn 257.610†	94032.4	96060.7	[100]	ug/L	07:06:24
2	Mo 202.031†	1430.1	1453.8	[100]	ug/L	07:06:44
2	Ni 231.604†	4336.1	4361.6	[100]	ug/L	07:06:24
2	P 214.914†	1118.7	908.8	[500]	ug/L	07:06:44
2	Pb 220.353†	830.0	921.3	[100]	ug/L	07:06:44
2	S 181.975 Axial†	193.1	151.5	[200]	ug/L	07:06:44
2	Sb 206.836†	336.0	311.6	[100]	ug/L	07:06:44
2	Se 196.026†	147.6	170.6	[100]	ug/L	07:06:44
2	Si 251.611†	16614.6	16340.7	[500]	ug/L	07:06:24
2	Sn 189.927†	593.9	599.8	[100]	ug/L	07:06:44
2	Sr 421.552†	15395.1	15173.5	[100]	ug/L	07:05:41
2	Ti 334.940†	63326.0	66632.0	[100]	ug/L	07:06:24
2	Tl 190.801†	286.2	332.9	[100]	ug/L	07:06:44

2	U 409.014†	-271.6	3276.5	[100]	ug/L	07:06:24
2	V 292.402†	12709.6	14694.2	[100]	ug/L	07:06:24
2	Zn 213.857†	11654.2	11288.8	[100]	ug/L	07:06:24
2	SiO2†	16829.5	16486.8	[1069.5]	ug/L	07:07:20
3	Sc 361.383	900093.7	900093.7	97.924	%	07:06:49
3	Sc Radial	5003.6	5003.6	99.8	%	07:05:51
3	Y 371.029	746480.7	746480.7	97.860	%	07:06:49
3	Y RADIAL	5258.3	5258.3	99.70	%	07:05:51
3	Ag 328.068†	22858.6	23047.1	[100]	ug/L	07:06:49
3	As 188.979†	208.0	246.5	[100]	ug/L	07:07:10
3	B 249.677†	3635.6	4474.8	[100]	ug/L	07:06:49
3	Ba 233.527†	13261.0	13549.7	[100]	ug/L	07:06:49
3	Be 313.107†	275813.0	286594.8	[100]	ug/L	07:06:49
3	Cd 226.502†	9184.3	9590.2	[100]	ug/L	07:06:49
3	Co 228.616†	4825.7	5012.7	[100]	ug/L	07:07:10
3	Cr 267.716†	9287.0	9416.0	[100]	ug/L	07:06:49
3	Cu 324.752†	40770.1	35387.9	[100]	ug/L	07:06:49
3	K 766.490 Radial†	8214.0	5527.5	[1000]	ug/L	07:05:46
3	Mn 257.610†	94853.7	96320.2	[100]	ug/L	07:06:49
3	Mo 202.031†	1406.2	1420.6	[100]	ug/L	07:07:10
3	Ni 231.604†	4385.2	4385.1	[100]	ug/L	07:06:49
3	P 214.914†	1106.3	889.2	[500]	ug/L	07:07:10
3	Pb 220.353†	800.3	885.8	[100]	ug/L	07:07:10
3	S 181.975 Axial†	189.3	146.4	[200]	ug/L	07:07:10
3	Sb 206.836†	346.2	320.0	[100]	ug/L	07:07:10
3	Se 196.026†	130.6	152.3	[100]	ug/L	07:07:10
3	Si 251.611†	16746.0	16372.6	[500]	ug/L	07:06:49
3	Sn 189.927†	589.8	592.0	[100]	ug/L	07:07:10
3	Sr 421.552†	15073.9	15087.6	[100]	ug/L	07:05:51
3	Ti 334.940†	63816.9	66743.2	[100]	ug/L	07:06:49
3	Tl 190.801†	293.4	338.5	[100]	ug/L	07:07:10
3	U 409.014†	-265.1	3284.7	[100]	ug/L	07:06:49
3	V 292.402†	12790.1	14698.1	[100]	ug/L	07:06:49
3	Zn 213.857†	11775.4	11340.8	[100]	ug/L	07:06:49
3	SiO2†	16445.6	15991.2	[1069.5]	ug/L	07:07:25

Mean Data: S0.1

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	894275.5	6040.16	0.68%	97.291	%
Sc Radial	5069.4	60.73	1.20%	101	%
Y 371.029	742164.9	4908.95	0.66%	97.294	%
Y RADIAL	5325.2	61.80	1.16%	101.0	%
Ag 328.068†	22974.0	67.17	0.29%	[100]	ug/L
As 188.979†	247.5	2.34	0.94%	[100]	ug/L
B 249.677†	4473.9	47.15	1.05%	[100]	ug/L
Ba 233.527†	13526.8	28.52	0.21%	[100]	ug/L
Be 313.107†	285826.1	724.77	0.25%	[100]	ug/L
Cd 226.502†	9523.2	58.21	0.61%	[100]	ug/L
Co 228.616†	5068.1	49.03	0.97%	[100]	ug/L
Cr 267.716†	9410.3	16.19	0.17%	[100]	ug/L
Cu 324.752†	35279.7	111.65	0.32%	[100]	ug/L
K 766.490 Radial†	5437.9	101.48	1.87%	[1000]	ug/L
Mn 257.610†	96103.2	199.18	0.21%	[100]	ug/L
Mo 202.031†	1443.1	19.48	1.35%	[100]	ug/L
Ni 231.604†	4368.2	14.73	0.34%	[100]	ug/L
P 214.914†	903.2	12.20	1.35%	[500]	ug/L
Pb 220.353†	903.0	17.75	1.97%	[100]	ug/L
S 181.975 Axial†	147.1	4.04	2.75%	[200]	ug/L
Sb 206.836†	316.3	4.29	1.36%	[100]	ug/L
Se 196.026†	162.6	9.34	5.74%	[100]	ug/L
Si 251.611†	16337.3	37.06	0.23%	[500]	ug/L
Sn 189.927†	598.1	5.49	0.92%	[100]	ug/L
Sr 421.552†	15121.9	45.47	0.30%	[100]	ug/L
Ti 334.940†	66571.8	208.10	0.31%	[100]	ug/L
Tl 190.801†	340.9	9.44	2.77%	[100]	ug/L
U 409.014†	3297.0	28.67	0.87%	[100]	ug/L
V 292.402†	14670.8	44.00	0.30%	[100]	ug/L
Zn 213.857†	11299.1	37.69	0.33%	[100]	ug/L
SiO2†	16278.0	256.84	1.58%	[1069.5]	ug/L

Sequence No.: 3
Sample ID: S0.5
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 3
Date Collected: 2/8/2010 07:09:36
Data Type: Reprocessed on 2/8/2010 09:03:22
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc 361.383	905692.8	905692.8	98.533	%	07:12:46
1	Sc Radial	4984.3	4984.3	99.4	%	07:11:29
1	Y 371.029	740753.8	740753.8	97.110	%	07:12:46
1	Y RADIAL	5211.3	5211.3	98.81	%	07:11:29
1	Ag 328.068†	112531.6	113910.5	[500]	ug/L	07:12:51
1	Al 396.153Radial†	5536.5	5756.0	[5000]	ug/L	07:11:29
1	As 188.979†	1152.0	1203.3	[500]	ug/L	07:13:12
1	B 249.677†	21703.7	22789.0	[500]	ug/L	07:12:51
1	Ba 233.527†	64652.1	65622.0	[500]	ug/L	07:12:51
1	Be 313.107†	1374875.4	1400274.6	[500]	ug/L	07:12:46
1	Ca 317.933Radial†	3231.2	3232.3	[5000]	ug/L	07:11:49
1	Cd 226.502†	45732.9	46624.9	[500]	ug/L	07:12:51
1	Co 228.616†	24983.6	25440.2	[500]	ug/L	07:12:51
1	Cr 267.716†	45739.7	46352.6	[500]	ug/L	07:12:51
1	Cu 324.752†	176534.4	172915.5	[500]	ug/L	07:12:51
1	K 766.490 Radial†	30062.4	27530.3	[5000]	ug/L	07:11:29
1	Mg 279.077 IEC†	160.1	157.8	[5000]	ug/L	07:11:49
1	Mn 257.610†	453300.1	459502.9	[500]	ug/L	07:12:46
1	Mo 202.031†	7073.9	7163.9	[500]	ug/L	07:13:12
1	Ni 231.604†	20944.1	21162.7	[500]	ug/L	07:12:51
1	P 214.914†	4581.9	4409.6	[2500]	ug/L	07:13:12
1	Pb 220.353†	4258.5	4390.4	[500]	ug/L	07:13:12
1	S 181.975 Axial†	781.9	746.5	[1000]	ug/L	07:13:12
1	Sb 206.836†	1588.1	1578.1	[500]	ug/L	07:13:12
1	Se 196.026†	778.6	809.2	[500]	ug/L	07:13:12
1	Si 251.611†	79738.5	80196.9	[2500]	ug/L	07:12:51
1	Sn 189.927†	2913.4	2946.4	[500]	ug/L	07:13:12
1	Sr 421.552†	74532.9	74938.7	[500]	ug/L	07:11:29
1	Ti 334.940†	322182.3	328551.3	[500]	ug/L	07:12:46
1	Tl 190.801†	1639.5	1702.8	[500]	ug/L	07:13:12
1	U 409.014†	13935.9	17698.8	[500]	ug/L	07:12:51
1	V 292.402†	70575.6	73263.0	[500]	ug/L	07:12:51
1	Zn 213.857†	55233.4	55371.4	[500]	ug/L	07:12:51
1	SiO2†	79180.6	79556.2	[5347.5]	ug/L	07:14:19
2	Sc 361.383	905425.1	905425.1	98.504	%	07:13:17
2	Sc Radial	5032.5	5032.5	100	%	07:11:54
2	Y 371.029	741781.3	741781.3	97.244	%	07:13:17
2	Y RADIAL	5269.5	5269.5	99.91	%	07:11:54
2	Ag 328.068†	112391.9	113802.5	[500]	ug/L	07:13:23
2	Al 396.153Radial†	5597.9	5763.7	[5000]	ug/L	07:11:54
2	As 188.979†	1160.4	1212.2	[500]	ug/L	07:13:43
2	B 249.677†	21701.9	22793.6	[500]	ug/L	07:13:23
2	Ba 233.527†	64636.9	65626.0	[500]	ug/L	07:13:23
2	Be 313.107†	1376476.6	1402312.5	[500]	ug/L	07:13:17
2	Ca 317.933Radial†	3184.9	3155.1	[5000]	ug/L	07:12:14
2	Cd 226.502†	45773.8	46680.1	[500]	ug/L	07:13:23
2	Co 228.616†	24936.4	25399.8	[500]	ug/L	07:13:23
2	Cr 267.716†	45686.0	46311.9	[500]	ug/L	07:13:23
2	Cu 324.752†	176144.9	172573.1	[500]	ug/L	07:13:23
2	K 766.490 Radial†	30181.5	27359.2	[5000]	ug/L	07:11:54
2	Mg 279.077 IEC†	157.5	153.7	[5000]	ug/L	07:12:14
2	Mn 257.610†	453219.0	459556.5	[500]	ug/L	07:13:17
2	Mo 202.031†	7092.1	7184.4	[500]	ug/L	07:13:43
2	Ni 231.604†	20932.3	21157.0	[500]	ug/L	07:13:23
2	P 214.914†	4592.2	4421.5	[2500]	ug/L	07:13:43
2	Pb 220.353†	4257.0	4390.2	[500]	ug/L	07:13:43
2	S 181.975 Axial†	789.5	754.5	[1000]	ug/L	07:13:43
2	Sb 206.836†	1602.1	1592.8	[500]	ug/L	07:13:43

2	Se 196.026†	791.1	822.1	[500]	ug/L	07:13:43
2	Si 251.611†	79418.2	79895.7	[2500]	ug/L	07:13:23
2	Sn 189.927†	2949.5	2984.0	[500]	ug/L	07:13:43
2	Sr 421.552†	75276.7	74961.2	[500]	ug/L	07:11:54
2	Ti 334.940†	321916.8	328378.4	[500]	ug/L	07:13:17
2	Tl 190.801†	1617.4	1680.9	[500]	ug/L	07:13:43
2	U 409.014†	13856.8	17622.7	[500]	ug/L	07:13:23
2	V 292.402†	70310.0	73014.5	[500]	ug/L	07:13:23
2	Zn 213.857†	55186.6	55340.4	[500]	ug/L	07:13:23
2	SiO2†	80000.4	80412.1	[5347.5]	ug/L	07:14:24
3	Sc 361.383	912388.7	912388.7	99.262	%	07:13:49
3	Sc Radial	5073.3	5073.3	101	%	07:12:19
3	Y 371.029	745389.7	745389.7	97.717	%	07:13:49
3	Y RADIAL	5282.0	5282.0	100.1	%	07:12:19
3	Ag 328.068†	111436.7	111969.4	[500]	ug/L	07:13:54
3	Al 396.153Radial†	5623.5	5744.1	[5000]	ug/L	07:12:19
3	As 188.979†	1161.1	1203.8	[500]	ug/L	07:14:14
3	B 249.677†	21541.6	22463.9	[500]	ug/L	07:13:54
3	Ba 233.527†	64360.5	64846.7	[500]	ug/L	07:13:54
3	Be 313.107†	1386501.6	1401747.0	[500]	ug/L	07:13:49
3	Ca 317.933Radial†	3212.8	3157.1	[5000]	ug/L	07:12:39
3	Cd 226.502†	45474.5	46023.9	[500]	ug/L	07:13:54
3	Co 228.616†	24810.0	25079.3	[500]	ug/L	07:13:54
3	Cr 267.716†	45476.3	45746.6	[500]	ug/L	07:13:54
3	Cu 324.752†	174578.8	169630.5	[500]	ug/L	07:13:54
3	K 766.490 Radial†	30316.7	27251.0	[5000]	ug/L	07:12:19
3	Mg 279.077 IEC†	155.7	150.7	[5000]	ug/L	07:12:39
3	Mn 257.610†	457797.5	460657.6	[500]	ug/L	07:13:49
3	Mo 202.031†	7094.4	7131.8	[500]	ug/L	07:14:14
3	Ni 231.604†	20946.7	21009.4	[500]	ug/L	07:13:54
3	P 214.914†	4598.4	4392.1	[2500]	ug/L	07:14:14
3	Pb 220.353†	4273.6	4373.9	[500]	ug/L	07:14:14
3	S 181.975 Axial†	788.7	747.6	[1000]	ug/L	07:14:14
3	Sb 206.836†	1607.8	1586.1	[500]	ug/L	07:14:14
3	Se 196.026†	800.4	825.3	[500]	ug/L	07:14:14
3	Si 251.611†	79088.4	78948.1	[2500]	ug/L	07:13:54
3	Sn 189.927†	2937.4	2949.0	[500]	ug/L	07:14:14
3	Sr 421.552†	75483.1	74562.0	[500]	ug/L	07:12:19
3	Ti 334.940†	324981.9	328972.1	[500]	ug/L	07:13:49
3	Tl 190.801†	1621.8	1672.8	[500]	ug/L	07:14:14
3	U 409.014†	13547.5	17203.7	[500]	ug/L	07:13:54
3	V 292.402†	69792.8	71948.7	[500]	ug/L	07:13:54
3	Zn 213.857†	54899.6	54623.7	[500]	ug/L	07:13:54
3	SiO2†	80040.2	79832.4	[5347.5]	ug/L	07:14:30

Mean Data: S0.5

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	907835.5	3945.42	0.43%	98.767	%
Sc Radial	5030.0	44.57	0.89%	100	%
Y 371.029	742641.6	2434.75	0.33%	97.357	%
Y RADIAL	5254.3	37.74	0.72%	99.62	%
Ag 328.068†	113227.5	1090.85	0.96%	[500]	ug/L
Al 396.153Radial†	5754.6	9.87	0.17%	[5000]	ug/L
As 188.979†	1206.4	4.98	0.41%	[500]	ug/L
B 249.677†	22682.2	189.02	0.83%	[500]	ug/L
Ba 233.527†	65364.9	448.74	0.69%	[500]	ug/L
Be 313.107†	1401444.7	1052.06	0.08%	[500]	ug/L
Ca 317.933Radial†	3181.5	44.01	1.38%	[5000]	ug/L
Cd 226.502†	46443.0	363.96	0.78%	[500]	ug/L
Co 228.616†	25306.4	197.74	0.78%	[500]	ug/L
Cr 267.716†	46137.0	338.74	0.73%	[500]	ug/L
Cu 324.752†	171706.4	1805.88	1.05%	[500]	ug/L
K 766.490 Radial†	27380.2	140.81	0.51%	[5000]	ug/L
Mg 279.077 IEC†	154.0	3.59	2.33%	[5000]	ug/L
Mn 257.610†	459905.7	651.71	0.14%	[500]	ug/L
Mo 202.031†	7160.0	26.52	0.37%	[500]	ug/L
Ni 231.604†	21109.7	86.95	0.41%	[500]	ug/L
P 214.914†	4407.7	14.75	0.33%	[2500]	ug/L
Pb 220.353†	4384.8	9.47	0.22%	[500]	ug/L

S 181.975 Axial†	749.6	4.32	0.58%	[1000]	ug/L
Sb 206.836†	1585.7	7.36	0.46%	[500]	ug/L
Se 196.026†	818.9	8.53	1.04%	[500]	ug/L
Si 251.611†	79680.2	651.70	0.82%	[2500]	ug/L
Sn 189.927†	2959.8	20.99	0.71%	[500]	ug/L
Sr 421.552†	74820.6	224.24	0.30%	[500]	ug/L
Ti 334.940†	328633.9	305.31	0.09%	[500]	ug/L
Tl 190.801†	1685.5	15.52	0.92%	[500]	ug/L
U 409.014†	17508.4	266.61	1.52%	[500]	ug/L
V 292.402†	72742.1	698.22	0.96%	[500]	ug/L
Zn 213.857†	55111.8	423.02	0.77%	[500]	ug/L
SiO2†	79933.6	436.85	0.55%	[5347.5]	ug/L

Sequence No.: 4
Sample ID: SCAL
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 4
Date Collected: 2/8/2010 07:16:40
Data Type: Reprocessed on 2/8/2010 09:03:23

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: SCAL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc 361.383	885730.6	885730.6	96.362	%	07:19:57
1	Sc Radial	5048.8	5048.8	101	%	07:18:33
1	Y 371.029	728929.3	728929.3	95.559	%	07:19:57
1	Y RADIAL	5253.3	5253.3	99.60	%	07:18:33
1	Ag 328.068†	221180.8	229236.0	[1000]	ug/L	07:19:57
1	Al 396.153Radial†	11470.8	11576.0	[10000]	ug/L	07:18:33
1	As 188.979†	2338.6	2461.0	[1000]	ug/L	07:20:17
1	B 249.677†	44088.3	46515.1	[1000]	ug/L	07:19:57
1	Ba 233.527†	128110.9	132955.6	[1000]	ug/L	07:19:57
1	Be 313.107†	2772389.7	2882002.8	[1000]	ug/L	07:19:51
1	Ca 317.933Radial†	6592.1	6527.2	[10000]	ug/L	07:18:33
1	Cd 226.502†	90576.0	94207.2	[1000]	ug/L	07:19:57
1	Co 228.616†	49301.5	51247.8	[1000]	ug/L	07:19:57
1	Cr 267.716†	90522.0	93872.1	[1000]	ug/L	07:19:57
1	Cu 324.752†	345430.6	352226.7	[1000]	ug/L	07:19:57
1	Fe 238.204 Radial†	1160.7	1144.5	[10000]	ug/L	07:18:53
1	K 766.490 Radial†	58401.4	55277.1	[10000]	ug/L	07:18:33
1	Mg 279.077 IEC†	306.9	301.5	[10000]	ug/L	07:18:53
1	Mn 257.610†	906561.6	940246.6	[1000]	ug/L	07:19:51
1	Mo 202.031†	14037.2	14551.9	[1000]	ug/L	07:20:17
1	Na 589.592 Radial†	31709.5	32738.3	[10000]	ug/L	07:18:33
1	Ni 231.604†	41269.5	42734.6	[1000]	ug/L	07:19:57
1	P 214.914†	8958.5	9056.3	[5000]	ug/L	07:20:17
1	Pb 220.353†	8580.5	8973.0	[1000]	ug/L	07:20:17
1	S 181.975 Axial†	1530.9	1541.7	[2000]	ug/L	07:20:17
1	Sb 206.836†	3160.8	3246.6	[1000]	ug/L	07:20:17
1	Se 196.026†	1602.8	1682.3	[1000]	ug/L	07:20:17
1	Si 251.611†	157515.1	162734.0	[5000]	ug/L	07:19:57
1	Sn 189.927†	5795.1	6003.6	[1000]	ug/L	07:20:17
1	Sr 421.552†	152608.1	151489.0	[1000]	ug/L	07:18:33
1	Ti 334.940†	645777.2	671733.5	[1000]	ug/L	07:19:51
1	Tl 190.801†	3252.5	3414.2	[1000]	ug/L	07:20:17
1	U 409.014†	31438.9	36181.4	[1000]	ug/L	07:19:57
1	V 292.402†	141884.0	148878.0	[1000]	ug/L	07:19:57
1	Zn 213.857†	108261.7	111665.2	[1000]	ug/L	07:19:57
1	SiO2†	158849.0	164043.7	[10695]	ug/L	07:21:26
2	Sc 361.383	886700.4	886700.4	96.467	%	07:20:29
2	Sc Radial	4997.0	4997.0	99.7	%	07:18:58
2	Y 371.029	729294.7	729294.7	95.607	%	07:20:29
2	Y RADIAL	5239.4	5239.4	99.34	%	07:18:58
2	Ag 328.068†	221849.6	229678.2	[1000]	ug/L	07:20:29
2	Al 396.153Radial†	11381.4	11604.4	[10000]	ug/L	07:18:58
2	As 188.979†	2328.3	2447.7	[1000]	ug/L	07:20:49
2	B 249.677†	44266.8	46650.2	[1000]	ug/L	07:20:29
2	Ba 233.527†	128283.2	132988.8	[1000]	ug/L	07:20:29
2	Be 313.107†	2795246.3	2902549.5	[1000]	ug/L	07:20:23
2	Ca 317.933Radial†	6485.1	6487.8	[10000]	ug/L	07:18:58
2	Cd 226.502†	90963.7	94506.3	[1000]	ug/L	07:20:29
2	Co 228.616†	49443.0	51338.5	[1000]	ug/L	07:20:29
2	Cr 267.716†	90746.3	94001.8	[1000]	ug/L	07:20:29
2	Cu 324.752†	346350.4	352788.0	[1000]	ug/L	07:20:29
2	Fe 238.204 Radial†	1160.1	1155.8	[10000]	ug/L	07:19:18
2	K 766.490 Radial†	57755.2	55230.0	[10000]	ug/L	07:18:58
2	Mg 279.077 IEC†	313.9	311.7	[10000]	ug/L	07:19:18
2	Mn 257.610†	915902.5	948900.6	[1000]	ug/L	07:20:23
2	Mo 202.031†	13987.6	14484.5	[1000]	ug/L	07:20:49
2	Na 589.592 Radial†	31010.9	32364.0	[10000]	ug/L	07:18:58
2	Ni 231.604†	41389.5	42812.1	[1000]	ug/L	07:20:29

2	P 214.914†	8918.7	9004.8	[5000]	ug/L	07:20:49
2	Pb 220.353†	8548.6	8930.2	[1000]	ug/L	07:20:49
2	S 181.975 Axial†	1515.6	1524.1	[2000]	ug/L	07:20:49
2	Sb 206.836†	3137.4	3218.7	[1000]	ug/L	07:20:49
2	Se 196.026†	1578.0	1654.8	[1000]	ug/L	07:20:49
2	Si 251.611†	157826.3	162877.8	[5000]	ug/L	07:20:29
2	Sn 189.927†	5774.2	5975.4	[1000]	ug/L	07:20:49
2	Sr 421.552†	150428.9	150873.8	[1000]	ug/L	07:18:58
2	Ti 334.940†	651997.7	677448.8	[1000]	ug/L	07:20:23
2	Tl 190.801†	3256.7	3414.9	[1000]	ug/L	07:20:49
2	U 409.014†	31644.9	36359.3	[1000]	ug/L	07:20:29
2	V 292.402†	142231.5	149077.2	[1000]	ug/L	07:20:29
2	Zn 213.857†	108568.9	111860.8	[1000]	ug/L	07:20:29
2	SiO2†	157671.2	162642.5	[10695]	ug/L	07:21:32
3	Sc 361.383	885498.3	885498.3	96.336	%	07:21:01
3	Sc Radial	5095.2	5095.2	102	%	07:19:23
3	Y 371.029	728221.0	728221.0	95.467	%	07:21:01
3	Y RADIAL	5331.1	5331.1	101.1	%	07:19:23
3	Ag 328.068†	222058.3	230207.1	[1000]	ug/L	07:21:01
3	Al 396.153Radial†	11496.4	11497.5	[10000]	ug/L	07:19:23
3	As 188.979†	2346.2	2469.5	[1000]	ug/L	07:21:21
3	B 249.677†	44374.4	46824.1	[1000]	ug/L	07:21:01
3	Ba 233.527†	128605.9	133504.3	[1000]	ug/L	07:21:01
3	Be 313.107†	2753577.8	2863230.2	[1000]	ug/L	07:20:55
3	Ca 317.933Radial†	6603.2	6478.7	[10000]	ug/L	07:19:23
3	Cd 226.502†	90945.5	94615.4	[1000]	ug/L	07:21:01
3	Co 228.616†	49509.9	51477.5	[1000]	ug/L	07:21:01
3	Cr 267.716†	90893.2	94282.0	[1000]	ug/L	07:21:01
3	Cu 324.752†	346688.2	353626.1	[1000]	ug/L	07:21:01
3	Fe 238.204 Radial†	1172.4	1145.6	[10000]	ug/L	07:19:43
3	K 766.490 Radial†	58359.6	54708.7	[10000]	ug/L	07:19:23
3	Mg 279.077 IEC†	318.7	310.3	[10000]	ug/L	07:19:43
3	Mn 257.610†	902279.4	936048.4	[1000]	ug/L	07:20:55
3	Mo 202.031†	14037.2	14555.6	[1000]	ug/L	07:21:21
3	Na 589.592 Radial†	31457.2	32203.8	[10000]	ug/L	07:19:23
3	Ni 231.604†	41375.5	42855.9	[1000]	ug/L	07:21:01
3	P 214.914†	8949.7	9049.5	[5000]	ug/L	07:21:21
3	Pb 220.353†	8587.0	8982.1	[1000]	ug/L	07:21:21
3	S 181.975 Axial†	1528.0	1539.2	[2000]	ug/L	07:21:21
3	Sb 206.836†	3138.6	3224.4	[1000]	ug/L	07:21:21
3	Se 196.026†	1587.4	1666.8	[1000]	ug/L	07:21:21
3	Si 251.611†	158095.6	163379.5	[5000]	ug/L	07:21:01
3	Sn 189.927†	5771.1	5980.3	[1000]	ug/L	07:21:21
3	Sr 421.552†	152467.1	149972.2	[1000]	ug/L	07:19:23
3	Ti 334.940†	642474.2	668480.8	[1000]	ug/L	07:20:55
3	Tl 190.801†	3251.1	3413.7	[1000]	ug/L	07:21:21
3	U 409.014†	31639.8	36398.5	[1000]	ug/L	07:21:01
3	V 292.402†	142474.1	149529.2	[1000]	ug/L	07:21:01
3	Zn 213.857†	108585.6	112030.9	[1000]	ug/L	07:21:01
3	SiO2†	158007.8	163213.8	[10695]	ug/L	07:21:37

Mean Data: SCAL

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	885976.4	637.68	0.07%	96.388	%
Sc Radial	5047.0	49.10	0.97%	101	%
Y 371.029	728815.0	545.89	0.07%	95.544	%
Y RADIAL	5274.6	49.45	0.94%	100.0	%
Ag 328.068†	229707.1	486.17	0.21%	[1000]	ug/L
Al 396.153Radial†	11559.3	55.35	0.48%	[10000]	ug/L
As 188.979†	2459.4	11.01	0.45%	[1000]	ug/L
B 249.677†	46663.1	154.90	0.33%	[1000]	ug/L
Ba 233.527†	133149.6	307.65	0.23%	[1000]	ug/L
Be 313.107†	2882594.2	19666.31	0.68%	[1000]	ug/L
Ca 317.933Radial†	6497.9	25.80	0.40%	[10000]	ug/L
Cd 226.502†	94443.0	211.36	0.22%	[1000]	ug/L
Co 228.616†	51354.6	115.70	0.23%	[1000]	ug/L
Cr 267.716†	94051.9	209.51	0.22%	[1000]	ug/L
Cu 324.752†	352880.3	704.27	0.20%	[1000]	ug/L
Fe 238.204 Radial†	1148.7	6.26	0.54%	[10000]	ug/L

K 766.490 Radial†	55071.9	315.47	0.57%	[10000]	ug/L
Mg 279.077 IEC†	307.8	5.54	1.80%	[10000]	ug/L
Mn 257.610†	941731.9	6553.56	0.70%	[1000]	ug/L
Mo 202.031†	14530.7	40.06	0.28%	[1000]	ug/L
Na 589.592 Radial†	32435.4	274.33	0.85%	[10000]	ug/L
Ni 231.604†	42800.9	61.38	0.14%	[1000]	ug/L
P 214.914†	9036.9	27.97	0.31%	[5000]	ug/L
Pb 220.353†	8961.8	27.70	0.31%	[1000]	ug/L
S 181.975 Axial†	1535.0	9.51	0.62%	[2000]	ug/L
Sb 206.836†	3229.9	14.72	0.46%	[1000]	ug/L
Se 196.026†	1668.0	13.77	0.83%	[1000]	ug/L
Si 251.611†	162997.1	338.88	0.21%	[5000]	ug/L
Sn 189.927†	5986.4	15.08	0.25%	[1000]	ug/L
Sr 421.552†	150778.3	762.88	0.51%	[1000]	ug/L
Ti 334.940†	672554.4	4540.02	0.68%	[1000]	ug/L
Tl 190.801†	3414.3	0.58	0.02%	[1000]	ug/L
U 409.014†	36313.0	115.71	0.32%	[1000]	ug/L
V 292.402†	149161.5	333.67	0.22%	[1000]	ug/L
Zn 213.857†	111852.3	183.00	0.16%	[1000]	ug/L
SiO2†	163300.0	704.59	0.43%	[10695]	ug/L

Sequence No.: 5
Sample ID: S10
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 5
Date Collected: 2/8/2010 07:23:48
Data Type: Reprocessed on 2/8/2010 09:03:24

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S10

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc 361.383	885109.5	885109.5	96.294	%	07:26:59
1	Sc Radial	4978.0	4978.0	99.3	%	07:26:02
1	Y 371.029	721508.6	721508.6	94.587	%	07:26:59
1	Y RADIAL	5165.3	5165.3	97.93	%	07:26:02
1	Al 396.153Radial†	57308.9	57890.9	[50000]	ug/L	07:25:42
1	Ca 317.933Radial†	31741.0	31942.0	[50000]	ug/L	07:25:42
1	Fe 238.204 Radial†	2318.1	2326.3	[20000]	ug/L	07:26:02
1	Mg 279.077 IEC†	1507.7	1514.9	[50000]	ug/L	07:26:02
1	Na 589.592 Radial†	66673.2	68390.0	[20000]	ug/L	07:25:42
2	Sc 361.383	881448.8	881448.8	95.896	%	07:27:05
2	Sc Radial	5021.6	5021.6	100	%	07:26:27
2	Y 371.029	718458.6	718458.6	94.187	%	07:27:05
2	Y RADIAL	5220.3	5220.3	98.98	%	07:26:27
2	Al 396.153Radial†	57629.6	57709.8	[50000]	ug/L	07:26:07
2	Ca 317.933Radial†	31842.7	31765.9	[50000]	ug/L	07:26:07
2	Fe 238.204 Radial†	2332.6	2320.5	[20000]	ug/L	07:26:27
2	Mg 279.077 IEC†	1509.7	1503.7	[50000]	ug/L	07:26:27
2	Na 589.592 Radial†	67145.5	68278.3	[20000]	ug/L	07:26:07
3	Sc 361.383	892812.6	892812.6	97.132	%	07:27:11
3	Sc Radial	4927.0	4927.0	98.3	%	07:26:52
3	Y 371.029	726267.4	726267.4	95.210	%	07:27:11
3	Y RADIAL	5132.2	5132.2	97.30	%	07:26:52
3	Al 396.153Radial†	57070.2	58245.5	[50000]	ug/L	07:26:32
3	Ca 317.933Radial†	31563.1	32091.9	[50000]	ug/L	07:26:32
3	Fe 238.204 Radial†	2299.6	2331.6	[20000]	ug/L	07:26:52
3	Mg 279.077 IEC†	1501.1	1523.9	[50000]	ug/L	07:26:52
3	Na 589.592 Radial†	66113.2	68515.3	[20000]	ug/L	07:26:32

Mean Data: S10

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	886456.9	5800.51	0.65%	96.441	%
Sc Radial	4975.5	47.36	0.95%	99.3	%
Y 371.029	722078.2	3935.47	0.55%	94.661	%
Y RADIAL	5172.6	44.50	0.86%	98.07	%
Al 396.153Radial†	57948.8	272.45	0.47%	[50000]	ug/L
Ca 317.933Radial†	31933.3	163.16	0.51%	[50000]	ug/L
Fe 238.204 Radial†	2326.1	5.57	0.24%	[20000]	ug/L
Mg 279.077 IEC†	1514.2	10.09	0.67%	[50000]	ug/L
Na 589.592 Radial†	68394.5	118.54	0.17%	[20000]	ug/L

Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 328.068	3	Lin Thru 0	0.0	229.1	0.00000	0.999984	
Al 396.153Radial	3	Lin Thru 0	0.0	1.159	0.00000	1.000000	
As 188.979	3	Lin Thru 0	0.0	2.450	0.00000	0.999971	
B 249.677	3	Lin Thru 0	0.0	46.39	0.00000	0.999933	
Ba 233.527	3	Lin Thru 0	0.0	132.7	0.00000	0.999972	
Be 313.107	3	Lin Thru 0	0.0	2867	0.00000	0.999939	
Ca 317.933Radial	3	Lin Thru 0	0.0	0.6391	0.00000	0.999994	
Cd 226.502	3	Lin Thru 0	0.0	94.14	0.00000	0.999978	
Co 228.616	3	Lin Thru 0	0.0	51.20	0.00000	0.999983	
Cr 267.716	3	Lin Thru 0	0.0	93.70	0.00000	0.999971	
Cu 324.752	3	Lin Thru 0	0.0	351.0	0.00000	0.999942	
Fe 238.204 Radia	2	Lin Thru 0	0.0	0.1160	0.00000	0.999988	

K 766.490 Radial	3	Lin Thru 0	0.0	5.500	0.00000	0.999997
Mg 279.077 IEC	3	Lin Thru 0	0.0	0.0303	0.00000	0.999994
Mn 257.610	3	Lin Thru 0	0.0	937.5	0.00000	0.999954
Mo 202.031	3	Lin Thru 0	0.0	14.49	0.00000	0.999983
Na 589.592 Radia	2	Lin Thru 0	0.0	3.384	0.00000	0.999783
Ni 231.604	3	Lin Thru 0	0.0	42.69	0.00000	0.999983
P 214.914	3	Lin Thru 0	0.0	1.799	0.00000	0.999952
Pb 220.353	3	Lin Thru 0	0.0	8.924	0.00000	0.999963
S 181.975 Axial	3	Lin Thru 0	0.0	0.7637	0.00000	0.999951
Sb 206.836	3	Lin Thru 0	0.0	3.218	0.00000	0.999973
Se 196.026	3	Lin Thru 0	0.0	1.662	0.00000	0.999972
Si 251.611	3	Lin Thru 0	0.0	32.46	0.00000	0.999960
Sn 189.927	3	Lin Thru 0	0.0	5.973	0.00000	0.999990
Sr 421.552	3	Lin Thru 0	0.0	150.6	0.00000	0.999995
Ti 334.940	3	Lin Thru 0	0.0	669.5	0.00000	0.999958
Tl 190.801	3	Lin Thru 0	0.0	3.406	0.00000	0.999987
U 409.014	3	Lin Thru 0	0.0	36.03	0.00000	0.999868
V 292.402	3	Lin Thru 0	0.0	148.4	0.00000	0.999951
Zn 213.857	3	Lin Thru 0	0.0	111.5	0.00000	0.999982
SiO2	3	Lin Thru 0	0.0	15.20	0.00000	0.999965

Sequence No.: 6
Sample ID: ICV
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 9
Date Collected: 2/8/2010 07:29:22
Data Type: Reprocessed on 2/8/2010 09:03:25

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc 361.383	896168.0	896168.0	97.497	%			07:32:32
1	Sc Radial	5014.8	5014.8	100	%			07:31:15
1	Y 371.029	737113.1	737113.1	96.632	%			07:32:32
1	Y RADIAL	5264.5	5264.5	99.81	%			07:31:15
1	Ag 328.068†	58646.6	59856.1	264.65	ug/L	264.65	ppb	07:32:32
1	Al 396.153Radial†	5826.4	6011.7	5161.1	ug/L	5161.1	ppb	07:31:15
1	As 188.979†	1122.5	1185.4	488.00	ug/L	488.00	ppb	07:32:52
1	B 249.677†	22723.8	24069.3	516.55	ug/L	516.55	ppb	07:32:32
1	Ba 233.527†	66529.7	68245.1	515.62	ug/L	515.62	ppb	07:32:32
1	Be 313.107†	728332.3	751964.3	263.46	ug/L	263.46	ppb	07:32:32
1	Ca 317.933Radial†	3301.7	3283.0	5137.1	ug/L	5137.1	ppb	07:31:35
1	Cd 226.502†	45441.1	46818.9	497.22	ug/L	497.22	ppb	07:32:52
1	Co 228.616†	25458.3	26196.6	511.82	ug/L	511.82	ppb	07:32:52
1	Cr 267.716†	45012.0	46099.7	492.62	ug/L	492.62	ppb	07:32:32
1	Cu 324.752†	180305.2	178687.3	509.08	ug/L	509.08	ppb	07:32:32
1	Fe 238.204 Radial†	606.8	598.7	5175.7	ug/L	5175.7	ppb	07:31:35
1	K 766.490 Radial†	16574.7	13865.5	2517.3	ug/L	2517.3	ppb	07:31:15
1	Mg 279.077 IEC†	170.8	167.5	5527.4	ug/L	5527.4	ppb	07:31:35
1	Mn 257.610†	476245.6	487927.0	520.72	ug/L	520.72	ppb	07:32:32
1	Mo 202.031†	7832.5	8018.2	553.90	ug/L	553.90	ppb	07:32:52
1	Na 589.592 Radial†	6668.4	7923.8	2341.2	ug/L	2341.2	ppb	07:31:15
1	Ni 231.604†	21393.4	21849.5	511.48	ug/L	511.48	ppb	07:32:52
1	P 214.914†	4720.4	4601.1	2459.4	ug/L	2459.4	ppb	07:32:52
1	Pb 220.353†	4357.8	4538.2	510.32	ug/L	510.32	ppb	07:32:52
1	S 181.975 Axial†	1934.8	1937.5	2536.1	ug/L	2536.1	ppb	07:32:52
1	Sb 206.836†	1639.0	1647.5	531.86	ug/L	531.86	ppb	07:32:52
1	Se 196.026†	4216.9	4344.2	2633.3	ug/L	2633.3	ppb	07:32:52
1	Si 251.611†	154550.7	157789.8	4854.9	ug/L	4854.9	ppb	07:32:32
1	Sn 189.927†	3203.2	3275.1	549.18	ug/L	549.18	ppb	07:32:52
1	Sr 421.552†	79206.0	79152.7	525.70	ug/L	525.70	ppb	07:31:15
1	Ti 334.940†	326559.3	336515.9	502.50	ug/L	502.50	ppb	07:32:32
1	Tl 190.801†	1762.6	1846.8	545.71	ug/L	545.71	ppb	07:32:52
1	U 409.014†	14104.0	18021.5	498.50	ug/L	498.50	ppb	07:32:32
1	V 292.402†	72806.0	76311.9	521.61	ug/L	521.61	ppb	07:32:32
1	Zn 213.857†	57032.2	57812.1	513.26	ug/L	513.26	ppb	07:32:32
1	SiO2†	156185.2	159391.5	10468	ug/L	10468	ppb	07:33:50
2	Sc 361.383	912091.4	912091.4	99.230	%			07:32:58
2	Sc Radial	4941.9	4941.9	98.6	%			07:31:40
2	Y 371.029	750135.5	750135.5	98.339	%			07:32:58
2	Y RADIAL	5175.9	5175.9	98.13	%			07:31:40
2	Ag 328.068†	59664.5	59831.8	264.53	ug/L	264.53	ppb	07:32:58
2	Al 396.153Radial†	5722.6	5992.4	5144.7	ug/L	5144.7	ppb	07:31:40
2	As 188.979†	1126.8	1169.6	481.57	ug/L	481.57	ppb	07:33:18
2	B 249.677†	23196.9	24139.2	518.08	ug/L	518.08	ppb	07:32:58
2	Ba 233.527†	67629.2	68161.9	514.99	ug/L	514.99	ppb	07:32:58
2	Be 313.107†	742927.9	753631.5	264.04	ug/L	264.04	ppb	07:32:58
2	Ca 317.933Radial†	3251.9	3281.1	5134.2	ug/L	5134.2	ppb	07:32:00
2	Cd 226.502†	45653.6	46219.3	490.85	ug/L	490.85	ppb	07:33:18
2	Co 228.616†	25561.1	25844.3	504.93	ug/L	504.93	ppb	07:33:18
2	Cr 267.716†	45770.0	46057.5	492.17	ug/L	492.17	ppb	07:32:58
2	Cu 324.752†	183598.2	178777.3	509.33	ug/L	509.33	ppb	07:32:58
2	Fe 238.204 Radial†	592.7	593.4	5129.7	ug/L	5129.7	ppb	07:32:00
2	K 766.490 Radial†	16434.0	13967.2	2535.8	ug/L	2535.8	ppb	07:31:40
2	Mg 279.077 IEC†	163.3	162.4	5358.9	ug/L	5358.9	ppb	07:32:00
2	Mn 257.610†	484411.4	487628.4	520.40	ug/L	520.40	ppb	07:32:58
2	Mo 202.031†	7887.2	7933.1	548.02	ug/L	548.02	ppb	07:33:18
2	Na 589.592 Radial†	6571.4	7923.8	2341.2	ug/L	2341.2	ppb	07:31:40
2	Ni 231.604†	21471.0	21544.6	504.34	ug/L	504.34	ppb	07:33:18

2	P 214.914†	4732.1	4528.3	2418.8 ug/L	2418.8 ppb	07:33:18
2	Pb 220.353†	4388.3	4491.0	505.02 ug/L	505.02 ppb	07:33:18
2	S 181.975 Axial†	1947.7	1915.8	2507.7 ug/L	2507.7 ppb	07:33:18
2	Sb 206.836†	1643.4	1622.5	523.88 ug/L	523.88 ppb	07:33:18
2	Se 196.026†	4226.5	4278.3	2593.5 ug/L	2593.5 ppb	07:33:18
2	Si 251.611†	157322.8	157815.9	4855.8 ug/L	4855.8 ppb	07:32:58
2	Sn 189.927†	3220.4	3235.1	542.48 ug/L	542.48 ppb	07:33:18
2	Sr 421.552†	78279.1	79380.7	527.21 ug/L	527.21 ppb	07:31:40
2	Ti 334.940†	332133.4	336285.8	502.17 ug/L	502.17 ppb	07:32:58
2	Tl 190.801†	1757.7	1810.3	535.02 ug/L	535.02 ppb	07:33:18
2	U 409.014†	14385.6	18052.8	499.37 ug/L	499.37 ppb	07:32:58
2	V 292.402†	73950.7	76161.8	520.52 ug/L	520.52 ppb	07:32:58
2	Zn 213.857†	57981.4	57747.5	512.73 ug/L	512.73 ppb	07:32:58
2	SiO2†	156914.9	157330.3	10333 ug/L	10333 ppb	07:33:55
3	Sc 361.383	913997.8	913997.8	99.437 %		07:33:24
3	Sc Radial	5029.0	5029.0	100 %		07:32:05
3	Y 371.029	751755.1	751755.1	98.552 %		07:33:24
3	Y RADIAL	5285.7	5285.7	100.2 %		07:32:05
3	Ag 328.068†	59662.0	59703.8	263.94 ug/L	263.94 ppb	07:33:24
3	Al 396.153Radial†	5789.4	5958.4	5115.7 ug/L	5115.7 ppb	07:32:05
3	As 188.979†	1105.8	1146.2	471.97 ug/L	471.97 ppb	07:33:44
3	B 249.677†	23206.3	24099.8	517.26 ug/L	517.26 ppb	07:33:24
3	Ba 233.527†	67615.3	68005.8	513.81 ug/L	513.81 ppb	07:33:24
3	Be 313.107†	743739.8	752886.6	263.78 ug/L	263.78 ppb	07:33:24
3	Ca 317.933Radial†	3235.4	3207.6	5019.2 ug/L	5019.2 ppb	07:32:25
3	Cd 226.502†	45342.5	45810.6	486.51 ug/L	486.51 ppb	07:33:44
3	Co 228.616†	25350.1	25578.4	499.73 ug/L	499.73 ppb	07:33:44
3	Cr 267.716†	45754.3	45945.6	490.97 ug/L	490.97 ppb	07:33:24
3	Cu 324.752†	183781.3	178575.5	508.75 ug/L	508.75 ppb	07:33:24
3	Fe 238.204 Radial†	594.2	584.5	5052.8 ug/L	5052.8 ppb	07:32:25
3	K 766.490 Radial†	16690.2	13933.7	2529.8 ug/L	2529.8 ppb	07:32:05
3	Mg 279.077 IEC†	163.3	159.5	5264.5 ug/L	5264.5 ppb	07:32:25
3	Mn 257.610†	484406.0	486604.8	519.31 ug/L	519.31 ppb	07:33:24
3	Mo 202.031†	7835.2	7864.2	543.26 ug/L	543.26 ppb	07:33:44
3	Na 589.592 Radial†	6625.0	7861.7	2322.9 ug/L	2322.9 ppb	07:32:05
3	Ni 231.604†	21331.0	21358.7	499.99 ug/L	499.99 ppb	07:33:44
3	P 214.914†	4690.2	4476.3	2390.0 ug/L	2390.0 ppb	07:33:44
3	Pb 220.353†	4367.6	4460.9	501.63 ug/L	501.63 ppb	07:33:44
3	S 181.975 Axial†	1929.0	1892.9	2477.7 ug/L	2477.7 ppb	07:33:44
3	Sb 206.836†	1651.6	1627.3	525.19 ug/L	525.19 ppb	07:33:44
3	Se 196.026†	4194.8	4237.6	2568.7 ug/L	2568.7 ppb	07:33:44
3	Si 251.611†	157548.6	157712.4	4852.6 ug/L	4852.6 ppb	07:33:24
3	Sn 189.927†	3199.0	3206.8	537.71 ug/L	537.71 ppb	07:33:44
3	Sr 421.552†	79508.5	79230.5	526.21 ug/L	526.21 ppb	07:32:05
3	Ti 334.940†	332180.1	335634.6	501.19 ug/L	501.19 ppb	07:33:24
3	Tl 190.801†	1734.7	1783.5	527.16 ug/L	527.16 ppb	07:33:44
3	U 409.014†	14285.6	17921.9	495.75 ug/L	495.75 ppb	07:33:24
3	V 292.402†	74025.7	76081.8	519.92 ug/L	519.92 ppb	07:33:24
3	Zn 213.857†	57997.3	57641.6	511.83 ug/L	511.83 ppb	07:33:24
3	SiO2†	157498.3	157587.1	10350 ug/L	10350 ppb	07:34:00

Mean Data: ICV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	907419.1	98.721	%	1.0651				1.08%
Sc Radial	4995.2	99.7	%	0.93				0.94%
Y 371.029	746334.5	97.841	%	1.0523				1.08%
Y RADIAL	5242.0	99.39	%	1.105				1.11%
Ag 328.068†	59797.2	264.37	ug/L	0.378	264.37	ppb	0.378	0.14%
QC value within limits for Ag 328.068 Recovery = 105.75%								
Al 396.153Radial†	5987.5	5140.5	ug/L	23.04	5140.5	ppb	23.04	0.45%
QC value within limits for Al 396.153Radial Recovery = 102.81%								
As 188.979†	1167.1	480.51	ug/L	8.062	480.51	ppb	8.062	1.68%
QC value within limits for As 188.979 Recovery = 96.10%								
B 249.677†	24102.8	517.29	ug/L	0.768	517.29	ppb	0.768	0.15%
QC value within limits for B 249.677 Recovery = 103.46%								
Ba 233.527†	68137.6	514.81	ug/L	0.919	514.81	ppb	0.919	0.18%
QC value within limits for Ba 233.527 Recovery = 102.96%								
Be 313.107†	752827.5	263.76	ug/L	0.291	263.76	ppb	0.291	0.11%
QC value within limits for Be 313.107 Recovery = 105.50%								

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Ca 317.933Radial†        3257.2      5096.9 ug/L        67.28      5096.9 ppb        67.28   1.32%
   QC value within limits for Ca 317.933Radial  Recovery = 101.94%
Cd 226.502†             46282.9      491.53 ug/L        5.385      491.53 ppb        5.385   1.10%
   QC value within limits for Cd 226.502  Recovery = 98.31%
Co 228.616†             25873.1      505.49 ug/L        6.067      505.49 ppb        6.067   1.20%
   QC value within limits for Co 228.616  Recovery = 101.10%
Cr 267.716†             46034.3      491.92 ug/L        0.851      491.92 ppb        0.851   0.17%
   QC value within limits for Cr 267.716  Recovery = 98.38%
Cu 324.752†            178680.0      509.05 ug/L        0.289      509.05 ppb        0.289   0.06%
   QC value within limits for Cu 324.752  Recovery = 101.81%
Fe 238.204 Radial†        592.2      5119.4 ug/L        62.13      5119.4 ppb        62.13   1.21%
   QC value within limits for Fe 238.204 Radial  Recovery = 102.39%
K 766.490 Radial†       13922.1      2527.6 ug/L         9.43      2527.6 ppb         9.43   0.37%
   QC value within limits for K 766.490 Radial  Recovery = 101.10%
Mg 279.077 IEC†           163.2      5383.6 ug/L       133.21      5383.6 ppb       133.21   2.47%
   QC value within limits for Mg 279.077 IEC  Recovery = 107.67%
Mn 257.610†            487386.7      520.14 ug/L        0.741      520.14 ppb        0.741   0.14%
   QC value within limits for Mn 257.610  Recovery = 104.03%
Mo 202.031†              7938.5      548.39 ug/L        5.329      548.39 ppb        5.329   0.97%
   QC value within limits for Mo 202.031  Recovery = 109.68%
Na 589.592 Radial†       7903.1      2335.1 ug/L        10.59      2335.1 ppb        10.59   0.45%
   QC value within limits for Na 589.592 Radial  Recovery = 93.40%
Ni 231.604†             21584.2      505.27 ug/L        5.800      505.27 ppb        5.800   1.15%
   QC value within limits for Ni 231.604  Recovery = 101.05%
P 214.914†               4535.2      2422.7 ug/L        34.85      2422.7 ppb        34.85   1.44%
   QC value within limits for P 214.914  Recovery = 96.91%
Pb 220.353†              4496.7      505.66 ug/L        4.381      505.66 ppb        4.381   0.87%
   QC value within limits for Pb 220.353  Recovery = 101.13%
S 181.975 Axial†         1915.4      2507.2 ug/L        29.17      2507.2 ppb        29.17   1.16%
   QC value within limits for S 181.975 Axial  Recovery = 100.29%
Sb 206.836†              1632.4      526.98 ug/L        4.278      526.98 ppb        4.278   0.81%
   QC value within limits for Sb 206.836  Recovery = 105.40%
Se 196.026†              4286.7      2598.5 ug/L        32.59      2598.5 ppb        32.59   1.25%
   QC value within limits for Se 196.026  Recovery = 103.94%
Si 251.611†            157772.7      4854.4 ug/L         1.62      4854.4 ppb         1.62   0.03%
   QC value within limits for Si 251.611  Recovery = 97.09%
Sn 189.927†              3239.0      543.12 ug/L        5.758      543.12 ppb        5.758   1.06%
   QC value within limits for Sn 189.927  Recovery = 108.62%
Sr 421.552†             79254.7      526.37 ug/L        0.770      526.37 ppb        0.770   0.15%
   QC value within limits for Sr 421.552  Recovery = 105.27%
Ti 334.940†            336145.5      501.96 ug/L        0.681      501.96 ppb        0.681   0.14%
   QC value within limits for Ti 334.940  Recovery = 100.39%
Tl 190.801†              1813.5      535.97 ug/L        9.310      535.97 ppb        9.310   1.74%
   QC value within limits for Tl 190.801  Recovery = 107.19%
U 409.014†              17998.7      497.88 ug/L        1.889      497.88 ppb        1.889   0.38%
   QC value within limits for U 409.014  Recovery = 99.58%
V 292.402†              76185.2      520.68 ug/L        0.857      520.68 ppb        0.857   0.16%
   QC value within limits for V 292.402  Recovery = 104.14%
Zn 213.857†             57733.7      512.61 ug/L        0.723      512.61 ppb        0.723   0.14%
   QC value within limits for Zn 213.857  Recovery = 102.52%
SiO2†                  158103.0       10383 ug/L         73.8       10383 ppb         73.8   0.71%
   QC value within limits for SiO2  Recovery = 97.09%
All analyte(s) passed QC.
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Sequence No.: 7
Sample ID: ICB
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 10
Date Collected: 2/8/2010 07:36:11
Data Type: Reprocessed on 2/8/2010 09:03:28
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc 361.383	895087.8	895087.8	97.380	%			07:39:21
1	Sc Radial	5007.9	5007.9	99.9	%			07:38:04
1	Y 371.029	744219.7	744219.7	97.564	%			07:39:21
1	Y RADIAL	5299.1	5299.1	100.5	%			07:38:04
1	Ag 328.068†	349.2	62.6	0.2868	ug/L	0.2868	ppb	07:39:21
1	Al 396.153Radial†	-186.9	1.4	1.1608	ug/L	1.1608	ppb	07:38:04
1	As 188.979†	-26.4	7.0	2.8542	ug/L	2.8542	ppb	07:39:41
1	B 249.677†	-420.3	330.6	7.1228	ug/L	7.1228	ppb	07:39:41
1	Ba 233.527†	-13.9	-6.7	-0.0501	ug/L	-0.0501	ppb	07:39:41
1	Be 313.107†	-4834.4	-29.2	-0.0105	ug/L	-0.0105	ppb	07:39:21
1	Ca 317.933Radial†	32.6	15.6	24.404	ug/L	24.404	ppb	07:38:24
1	Cd 226.502†	-192.6	13.5	0.1395	ug/L	0.1395	ppb	07:39:41
1	Co 228.616†	-87.8	-5.4	-0.1052	ug/L	-0.1052	ppb	07:39:41
1	Cr 267.716†	19.9	-47.4	-0.5021	ug/L	-0.5021	ppb	07:39:21
1	Cu 324.752†	6224.9	146.0	0.4221	ug/L	0.4221	ppb	07:39:21
1	Fe 238.204 Radial†	10.4	2.7	23.147	ug/L	23.147	ppb	07:38:24
1	K 766.490 Radial†	2809.2	111.0	20.178	ug/L	20.178	ppb	07:38:04
1	Mg 279.077 IEC†	2.7	-0.5	-15.962	ug/L	-15.962	ppb	07:38:24
1	Mn 257.610†	547.7	18.3	0.0224	ug/L	0.0224	ppb	07:39:41
1	Mo 202.031†	18.6	3.7	0.2580	ug/L	0.2580	ppb	07:39:41
1	Na 589.592 Radial†	-1254.9	2.9	0.8448	ug/L	0.8448	ppb	07:38:04
1	Ni 231.604†	104.3	14.0	0.3285	ug/L	0.3285	ppb	07:39:41
1	P 214.914†	240.8	6.8	3.6836	ug/L	3.6836	ppb	07:39:41
1	Pb 220.353†	-85.1	-18.9	-2.1158	ug/L	-2.1158	ppb	07:39:41
1	S 181.975 Axial†	40.4	-5.5	-7.1973	ug/L	-7.1973	ppb	07:39:41
1	Sb 206.836†	48.1	15.7	4.9142	ug/L	4.9142	ppb	07:39:41
1	Se 196.026†	-37.8	-19.9	-11.873	ug/L	-11.873	ppb	07:39:41
1	Si 251.611†	711.6	2.3	0.0677	ug/L	0.0677	ppb	07:39:41
1	Sn 189.927†	16.3	6.5	1.0851	ug/L	1.0851	ppb	07:39:41
1	Sr 421.552†	-31.8	-43.9	-0.2915	ug/L	-0.2915	ppb	07:38:04
1	Ti 334.940†	-1626.4	-96.6	-0.1356	ug/L	-0.1356	ppb	07:39:21
1	Tl 190.801†	-36.4	1.6	0.4707	ug/L	0.4707	ppb	07:39:41
1	U 409.014†	-3776.1	-322.2	-8.9456	ug/L	-8.9456	ppb	07:39:21
1	V 292.402†	-1639.0	-46.2	-0.3283	ug/L	-0.3283	ppb	07:39:21
1	Zn 213.857†	806.4	143.9	1.2827	ug/L	1.2827	ppb	07:39:41
1	SiO2†	788.1	6.3	0.4094	ug/L	0.4094	ppb	07:40:37
2	Sc 361.383	899391.0	899391.0	97.848	%			07:39:46
2	Sc Radial	5001.6	5001.6	99.8	%			07:38:29
2	Y 371.029	749253.3	749253.3	98.224	%			07:39:46
2	Y RADIAL	5276.0	5276.0	100.0	%			07:38:29
2	Ag 328.068†	320.9	31.9	0.1524	ug/L	0.1524	ppb	07:39:46
2	Al 396.153Radial†	-182.3	5.7	4.8569	ug/L	4.8569	ppb	07:38:29
2	As 188.979†	-32.4	0.9	0.3880	ug/L	0.3880	ppb	07:40:06
2	B 249.677†	-390.1	363.5	7.8316	ug/L	7.8316	ppb	07:40:06
2	Ba 233.527†	-15.0	-7.7	-0.0582	ug/L	-0.0582	ppb	07:40:06
2	Be 313.107†	-4794.8	35.0	0.0120	ug/L	0.0120	ppb	07:39:46
2	Ca 317.933Radial†	28.0	11.1	17.296	ug/L	17.296	ppb	07:38:49
2	Cd 226.502†	-208.0	-1.3	-0.0184	ug/L	-0.0184	ppb	07:40:06
2	Co 228.616†	-83.5	-0.6	-0.0098	ug/L	-0.0098	ppb	07:40:06
2	Cr 267.716†	65.1	-1.3	-0.0113	ug/L	-0.0113	ppb	07:39:46
2	Cu 324.752†	6260.0	151.2	0.4356	ug/L	0.4356	ppb	07:39:46
2	Fe 238.204 Radial†	11.4	3.7	31.637	ug/L	31.637	ppb	07:38:49
2	K 766.490 Radial†	2688.7	-6.2	-1.1406	ug/L	-1.1406	ppb	07:38:29
2	Mg 279.077 IEC†	1.8	-1.3	-44.132	ug/L	-44.132	ppb	07:38:49
2	Mn 257.610†	571.0	39.3	0.0469	ug/L	0.0469	ppb	07:40:06
2	Mo 202.031†	30.4	15.7	1.0841	ug/L	1.0841	ppb	07:40:06
2	Na 589.592 Radial†	-1265.7	-9.5	-2.8178	ug/L	-2.8178	ppb	07:38:29
2	Ni 231.604†	94.4	3.4	0.0791	ug/L	0.0791	ppb	07:40:06

2	P 214.914†	245.4	10.3	5.6198 ug/L	5.6198 ppb		07:40:06
2	Pb 220.353†	-66.0	1.1	0.1228 ug/L	0.1228 ppb		07:40:06
2	S 181.975 Axial†	48.7	2.8	3.6797 ug/L	3.6797 ppb		07:40:06
2	Sb 206.836†	46.4	13.9	4.3339 ug/L	4.3339 ppb		07:40:06
2	Se 196.026†	-22.0	-3.5	-2.0235 ug/L	-2.0235 ppb		07:40:06
2	Si 251.611†	731.5	19.2	0.5769 ug/L	0.5769 ppb		07:40:06
2	Sn 189.927†	13.1	3.0	0.5124 ug/L	0.5124 ppb		07:40:06
2	Sr 421.552†	-22.0	-34.1	-0.2269 ug/L	-0.2269 ppb		07:38:29
2	Ti 334.940†	-1597.3	-58.8	-0.0794 ug/L	-0.0794 ppb		07:39:46
2	Tl 190.801†	-39.6	-1.6	-0.4620 ug/L	-0.4620 ppb		07:40:06
2	U 409.014†	-3680.1	-205.5	-5.7084 ug/L	-5.7084 ppb		07:39:46
2	V 292.402†	-1676.3	-76.3	-0.5148 ug/L	-0.5148 ppb		07:39:46
2	Zn 213.857†	815.1	148.9	1.3270 ug/L	1.3270 ppb		07:40:06
2	SiO2†	722.2	-64.9	-4.3011 ug/L	-4.3011 ppb		07:40:42
3	Sc 361.383	897320.7	897320.7	97.623 %			07:40:12
3	Sc Radial	5021.6	5021.6	100 %			07:38:54
3	Y 371.029	747417.4	747417.4	97.983 %			07:40:12
3	Y RADIAL	5274.0	5274.0	100.00 %			07:38:54
3	Ag 328.068†	299.2	10.5	0.0570 ug/L	0.0570 ppb		07:40:12
3	Al 396.153Radial†	-177.1	11.6	10.081 ug/L	10.081 ppb		07:38:54
3	As 188.979†	-28.3	5.1	2.0863 ug/L	2.0863 ppb		07:40:32
3	B 249.677†	-417.8	334.2	7.2022 ug/L	7.2022 ppb		07:40:32
3	Ba 233.527†	-7.9	-0.5	-0.0042 ug/L	-0.0042 ppb		07:40:32
3	Be 313.107†	-4788.1	30.5	0.0104 ug/L	0.0104 ppb		07:40:12
3	Ca 317.933Radial†	21.4	4.3	6.7153 ug/L	6.7153 ppb		07:39:14
3	Cd 226.502†	-197.9	8.6	0.0879 ug/L	0.0879 ppb		07:40:32
3	Co 228.616†	-63.6	19.6	0.3812 ug/L	0.3812 ppb		07:40:32
3	Cr 267.716†	33.0	-34.0	-0.3587 ug/L	-0.3587 ppb		07:40:12
3	Cu 324.752†	6155.4	58.9	0.1750 ug/L	0.1750 ppb		07:40:12
3	Fe 238.204 Radial†	8.6	0.9	7.6460 ug/L	7.6460 ppb		07:39:14
3	K 766.490 Radial†	2747.6	41.8	7.6067 ug/L	7.6067 ppb		07:38:54
3	Mg 279.077 IEC†	0.7	-2.5	-83.446 ug/L	-83.446 ppb		07:39:14
3	Mn 257.610†	582.2	52.2	0.0598 ug/L	0.0598 ppb		07:40:32
3	Mo 202.031†	5.8	-9.4	-0.6502 ug/L	-0.6502 ppb		07:40:32
3	Na 589.592 Radial†	-1265.8	-4.6	-1.3573 ug/L	-1.3573 ppb		07:38:54
3	Ni 231.604†	105.9	15.4	0.3595 ug/L	0.3595 ppb		07:40:32
3	P 214.914†	241.0	6.3	3.4815 ug/L	3.4815 ppb		07:40:32
3	Pb 220.353†	-59.2	7.9	0.8816 ug/L	0.8816 ppb		07:40:32
3	S 181.975 Axial†	47.4	1.6	2.1225 ug/L	2.1225 ppb		07:40:32
3	Sb 206.836†	55.8	23.6	7.3069 ug/L	7.3069 ppb		07:40:32
3	Se 196.026†	-21.0	-2.5	-1.4987 ug/L	-1.4987 ppb		07:40:32
3	Si 251.611†	724.4	13.7	0.4291 ug/L	0.4291 ppb		07:40:32
3	Sn 189.927†	6.5	-3.6	-0.6093 ug/L	-0.6093 ppb		07:40:32
3	Sr 421.552†	29.2	17.0	0.1131 ug/L	0.1131 ppb		07:38:54
3	Ti 334.940†	-1596.1	-61.4	-0.0784 ug/L	-0.0784 ppb		07:40:12
3	Tl 190.801†	-43.1	-5.2	-1.5336 ug/L	-1.5336 ppb		07:40:32
3	U 409.014†	-3909.2	-449.0	-12.461 ug/L	-12.461 ppb		07:40:12
3	V 292.402†	-1652.1	-55.4	-0.4088 ug/L	-0.4088 ppb		07:40:12
3	Zn 213.857†	795.0	130.2	1.1628 ug/L	1.1628 ppb		07:40:32
3	SiO2†	766.4	-17.9	-1.1617 ug/L	-1.1617 ppb		07:40:47

Mean Data: ICB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	897266.5	97.617	%	0.2341				0.24%
Sc Radial	5010.4	100.0	%	0.20				0.20%
Y 371.029	746963.5	97.924	%	0.3339				0.34%
Y RADIAL	5283.1	100.2	%	0.26				0.26%
Ag 328.068†	35.0	0.1654	ug/L	0.11542	0.1654	ppb	0.11542	69.79%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	6.2	5.3661	ug/L	4.48167	5.3661	ppb	4.48167	83.52%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	4.3	1.7762	ug/L	1.26202	1.7762	ppb	1.26202	71.05%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	342.8	7.3855	ug/L	0.38835	7.3855	ppb	0.38835	5.26%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-4.9	-0.0375	ug/L	0.02915	-0.0375	ppb	0.02915	77.73%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	12.1	0.0040	ug/L	0.01258	0.0040	ppb	0.01258	316.34%
QC value within limits for Be 313.107 Recovery = Not calculated								

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Ca 317.933Radial†          10.3      16.138 ug/L        8.9008      16.138 ppb        8.9008  55.15%
   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                 6.9       0.0697 ug/L       0.08050       0.0697 ppb       0.08050 115.57%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                 4.5       0.0887 ug/L       0.25773       0.0887 ppb       0.25773 290.41%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†               -27.6      -0.2907 ug/L       0.25233      -0.2907 ppb       0.25233  86.80%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               118.7       0.3442 ug/L       0.14670       0.3442 ppb       0.14670  42.62%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          2.4      20.810 ug/L       12.1649      20.810 ppb       12.1649  58.46%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          48.9       8.8813 ug/L      10.71611       8.8813 ppb      10.71611 120.66%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -1.4     -47.846 ug/L       33.8952     -47.846 ppb       33.8952  70.84%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                36.6       0.0431 ug/L       0.01900       0.0431 ppb       0.01900  44.13%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 3.3       0.2306 ug/L       0.86747       0.2306 ppb       0.86747 376.12%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†         -3.8      -1.1101 ug/L       1.84376      -1.1101 ppb       1.84376 166.09%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                10.9       0.2557 ug/L       0.15374       0.2557 ppb       0.15374  60.12%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                  7.8       4.2616 ug/L       1.18057       4.2616 ppb       1.18057  27.70%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -3.3      -0.3705 ug/L       1.55840      -0.3705 ppb       1.55840 420.65%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -0.4      -0.4650 ug/L       5.88209      -0.4650 ppb       5.88209 >999.9%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                17.7       5.5183 ug/L       1.57586       5.5183 ppb       1.57586  28.56%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -8.6      -5.1318 ug/L       5.84415      -5.1318 ppb       5.84415 113.88%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                11.7       0.3579 ug/L       0.26193       0.3579 ppb       0.26193  73.18%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 2.0       0.3294 ug/L       0.86191       0.3294 ppb       0.86191 261.63%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               -20.3      -0.1351 ug/L       0.21737      -0.1351 ppb       0.21737 160.90%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               -72.3      -0.0978 ug/L       0.03276      -0.0978 ppb       0.03276  33.49%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                -1.7      -0.5083 ug/L       1.00297      -0.5083 ppb       1.00297 197.32%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -325.6      -9.0383 ug/L       3.37714      -9.0383 ppb       3.37714  37.36%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               -59.3      -0.4173 ug/L       0.09350      -0.4173 ppb       0.09350  22.41%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               141.0       1.2575 ug/L       0.08495       1.2575 ppb       0.08495   6.76%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                     -25.5      -1.6845 ug/L       2.39836      -1.6845 ppb       2.39836 142.38%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 8
Sample ID: PQL
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 11
Date Collected: 2/8/2010 07:42:59
Data Type: Reprocessed on 2/8/2010 09:03:29

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: PQL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc 361.383	897580.8	897580.8	97.651	%			07:46:09
1	Sc Radial	5147.9	5147.9	103	%			07:44:52
1	Y 371.029	747688.8	747688.8	98.019	%			07:46:09
1	Y RADIAL	5414.8	5414.8	102.7	%			07:44:52
1	Ag 328.068†	1459.9	1199.1	5.2474	ug/L	5.2474	ppb	07:46:09
1	Al 396.153Radial†	51.7	238.7	205.47	ug/L	205.47	ppb	07:44:52
1	As 188.979†	31.3	66.2	27.054	ug/L	27.054	ppb	07:46:29
1	B 249.677†	1659.0	2461.1	53.020	ug/L	53.020	ppb	07:46:09
1	Ba 233.527†	638.8	661.7	5.0000	ug/L	5.0000	ppb	07:46:29
1	Be 313.107†	9059.4	14212.5	4.9693	ug/L	4.9693	ppb	07:46:09
1	Ca 317.933Radial†	152.4	131.4	205.55	ug/L	205.55	ppb	07:45:12
1	Cd 226.502†	236.0	452.9	4.8125	ug/L	4.8125	ppb	07:46:29
1	Co 228.616†	169.2	258.0	5.0516	ug/L	5.0516	ppb	07:46:29
1	Cr 267.716†	523.8	468.6	4.9905	ug/L	4.9905	ppb	07:46:29
1	Cu 324.752†	9707.4	3694.5	10.506	ug/L	10.506	ppb	07:46:09
1	Fe 238.204 Radial†	20.7	12.4	107.15	ug/L	107.15	ppb	07:45:12
1	K 766.490 Radial†	3628.5	832.2	151.11	ug/L	151.11	ppb	07:44:52
1	Mg 279.077 IEC†	14.1	10.5	347.66	ug/L	347.66	ppb	07:45:12
1	Mn 257.610†	10082.9	9781.2	10.429	ug/L	10.429	ppb	07:46:09
1	Mo 202.031†	158.7	147.2	10.168	ug/L	10.168	ppb	07:46:29
1	Na 589.592 Radial†	-373.0	895.6	264.63	ug/L	264.63	ppb	07:44:52
1	Ni 231.604†	313.0	227.4	5.3245	ug/L	5.3245	ppb	07:46:29
1	P 214.914†	494.6	266.0	145.86	ug/L	145.86	ppb	07:46:29
1	Pb 220.353†	37.8	107.3	12.077	ug/L	12.077	ppb	07:46:29
1	S 181.975 Axial†	120.5	76.4	100.03	ug/L	100.03	ppb	07:46:29
1	Sb 206.836†	74.8	43.0	13.708	ug/L	13.708	ppb	07:46:29
1	Se 196.026†	21.0	40.5	24.737	ug/L	24.737	ppb	07:46:29
1	Si 251.611†	3826.5	3190.1	98.166	ug/L	98.166	ppb	07:46:09
1	Sn 189.927†	65.0	56.2	9.4424	ug/L	9.4424	ppb	07:46:29
1	Sr 421.552†	733.2	701.8	4.6602	ug/L	4.6602	ppb	07:44:52
1	Ti 334.940†	1712.6	3327.4	4.9473	ug/L	4.9473	ppb	07:46:09
1	Tl 190.801†	32.0	71.7	21.120	ug/L	21.120	ppb	07:46:29
1	U 409.014†	-1845.4	1665.7	46.208	ug/L	46.208	ppb	07:46:09
1	V 292.402†	-981.3	632.0	4.4746	ug/L	4.4746	ppb	07:46:09
1	Zn 213.857†	1775.7	1134.2	10.098	ug/L	10.098	ppb	07:46:29
1	SiO2†	3817.3	3106.2	204.01	ug/L	204.01	ppb	07:47:25
2	Sc 361.383	900101.2	900101.2	97.925	%			07:46:34
2	Sc Radial	5090.2	5090.2	102	%			07:45:17
2	Y 371.029	749874.5	749874.5	98.305	%			07:46:34
2	Y RADIAL	5348.7	5348.7	101.4	%			07:45:17
2	Ag 328.068†	1490.9	1226.5	5.3855	ug/L	5.3855	ppb	07:46:34
2	Al 396.153Radial†	52.7	240.3	206.89	ug/L	206.89	ppb	07:45:17
2	As 188.979†	37.8	72.7	29.727	ug/L	29.727	ppb	07:46:54
2	B 249.677†	1676.4	2474.1	53.296	ug/L	53.296	ppb	07:46:34
2	Ba 233.527†	650.0	671.4	5.0743	ug/L	5.0743	ppb	07:46:54
2	Be 313.107†	9084.7	14212.5	4.9695	ug/L	4.9695	ppb	07:46:34
2	Ca 317.933Radial†	148.7	129.4	202.45	ug/L	202.45	ppb	07:45:37
2	Cd 226.502†	246.7	463.2	4.9172	ug/L	4.9172	ppb	07:46:54
2	Co 228.616†	168.2	256.5	5.0194	ug/L	5.0194	ppb	07:46:54
2	Cr 267.716†	517.8	460.9	4.9131	ug/L	4.9131	ppb	07:46:54
2	Cu 324.752†	9705.4	3664.6	10.426	ug/L	10.426	ppb	07:46:34
2	Fe 238.204 Radial†	24.3	16.2	139.84	ug/L	139.84	ppb	07:45:37
2	K 766.490 Radial†	3605.8	849.9	154.33	ug/L	154.33	ppb	07:45:17
2	Mg 279.077 IEC†	13.1	9.7	319.19	ug/L	319.19	ppb	07:45:37
2	Mn 257.610†	10024.4	9692.6	10.339	ug/L	10.339	ppb	07:46:34
2	Mo 202.031†	147.8	135.5	9.3672	ug/L	9.3672	ppb	07:46:54
2	Na 589.592 Radial†	-337.3	926.7	273.81	ug/L	273.81	ppb	07:45:17
2	Ni 231.604†	309.5	222.9	5.2180	ug/L	5.2180	ppb	07:46:54

2	P 214.914†	490.7	260.6	142.84 ug/L	142.84 ppb	07:46:54
2	Pb 220.353†	10.3	79.1	8.9171 ug/L	8.9171 ppb	07:46:54
2	S 181.975 Axial†	124.1	79.8	104.47 ug/L	104.47 ppb	07:46:54
2	Sb 206.836†	67.7	35.6	11.402 ug/L	11.402 ppb	07:46:54
2	Se 196.026†	25.0	44.5	27.290 ug/L	27.290 ppb	07:46:54
2	Si 251.611†	3848.5	3201.6	98.530 ug/L	98.530 ppb	07:46:34
2	Sn 189.927†	72.2	63.4	10.648 ug/L	10.648 ppb	07:46:54
2	Sr 421.552†	783.6	759.6	5.0435 ug/L	5.0435 ppb	07:45:17
2	Ti 334.940†	1794.2	3405.8	5.0695 ug/L	5.0695 ppb	07:46:34
2	Tl 190.801†	25.0	64.5	19.002 ug/L	19.002 ppb	07:46:54
2	U 409.014†	-2100.2	1410.7	39.128 ug/L	39.128 ppb	07:46:34
2	V 292.402†	-935.2	681.9	4.7805 ug/L	4.7805 ppb	07:46:34
2	Zn 213.857†	1788.1	1141.8	10.160 ug/L	10.160 ppb	07:46:54
2	SiO2†	3798.0	3075.4	202.01 ug/L	202.01 ppb	07:47:30
3	Sc 361.383	894162.3	894162.3	97.279 %		07:47:00
3	Sc Radial	5148.2	5148.2	103 %		07:45:42
3	Y 371.029	745478.0	745478.0	97.729 %		07:47:00
3	Y RADIAL	5401.4	5401.4	102.4 %		07:45:42
3	Ag 328.068†	1438.2	1182.5	5.1803 ug/L	5.1803 ppb	07:47:00
3	Al 396.153Radial†	54.1	241.1	207.54 ug/L	207.54 ppb	07:45:42
3	As 188.979†	41.7	76.9	31.439 ug/L	31.439 ppb	07:47:20
3	B 249.677†	1728.4	2538.9	54.697 ug/L	54.697 ppb	07:47:00
3	Ba 233.527†	645.6	671.2	5.0720 ug/L	5.0720 ppb	07:47:20
3	Be 313.107†	9019.3	14206.8	4.9671 ug/L	4.9671 ppb	07:47:00
3	Ca 317.933Radial†	149.3	128.3	200.82 ug/L	200.82 ppb	07:46:02
3	Cd 226.502†	236.9	454.8	4.8316 ug/L	4.8316 ppb	07:47:20
3	Co 228.616†	159.3	248.5	4.8658 ug/L	4.8658 ppb	07:47:20
3	Cr 267.716†	526.6	473.5	5.0442 ug/L	5.0442 ppb	07:47:20
3	Cu 324.752†	9639.9	3663.1	10.417 ug/L	10.417 ppb	07:47:00
3	Fe 238.204 Radial†	22.0	13.6	117.71 ug/L	117.71 ppb	07:46:02
3	K 766.490 Radial†	3642.2	845.4	153.51 ug/L	153.51 ppb	07:45:42
3	Mg 279.077 IEC†	12.9	9.4	309.36 ug/L	309.36 ppb	07:46:02
3	Mn 257.610†	9994.1	9729.5	10.377 ug/L	10.377 ppb	07:47:00
3	Mo 202.031†	157.2	146.2	10.106 ug/L	10.106 ppb	07:47:20
3	Na 589.592 Radial†	-331.0	936.6	276.73 ug/L	276.73 ppb	07:45:42
3	Ni 231.604†	316.5	232.2	5.4359 ug/L	5.4359 ppb	07:47:20
3	P 214.914†	496.6	270.0	148.09 ug/L	148.09 ppb	07:47:20
3	Pb 220.353†	30.7	100.1	11.273 ug/L	11.273 ppb	07:47:20
3	S 181.975 Axial†	120.5	76.9	100.65 ug/L	100.65 ppb	07:47:20
3	Sb 206.836†	63.3	31.4	10.113 ug/L	10.113 ppb	07:47:20
3	Se 196.026†	20.5	40.0	24.508 ug/L	24.508 ppb	07:47:20
3	Si 251.611†	3774.3	3151.5	96.977 ug/L	96.977 ppb	07:47:00
3	Sn 189.927†	62.7	54.1	9.0860 ug/L	9.0860 ppb	07:47:20
3	Sr 421.552†	786.4	753.6	5.0039 ug/L	5.0039 ppb	07:45:42
3	Ti 334.940†	1659.9	3279.9	4.8794 ug/L	4.8794 ppb	07:47:00
3	Tl 190.801†	32.0	71.9	21.165 ug/L	21.165 ppb	07:47:20
3	U 409.014†	-1883.6	1619.1	44.915 ug/L	44.915 ppb	07:47:00
3	V 292.402†	-953.6	656.6	4.6349 ug/L	4.6349 ppb	07:47:00
3	Zn 213.857†	1796.4	1162.5	10.348 ug/L	10.348 ppb	07:47:20
3	SiO2†	3795.8	3098.9	203.54 ug/L	203.54 ppb	07:47:35

Mean Data: PQL

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	897281.4	97.618	%	0.3243				0.33%
Sc Radial	5128.8	102	%	0.7				0.65%
Y 371.029	747680.4	98.018	%	0.2882				0.29%
Y RADIAL	5388.3	102.2	%	0.66				0.65%
Ag 328.068†	1202.7	5.2711	ug/L	0.10460	5.2711	ppb	0.10460	1.98%
QC value within limits for Ag 328.068 Recovery = 105.42%								
Al 396.153Radial†	240.0	206.63	ug/L	1.058	206.63	ppb	1.058	0.51%
QC value within limits for Al 396.153Radial Recovery = 103.32%								
As 188.979†	71.9	29.407	ug/L	2.2100	29.407	ppb	2.2100	7.52%
QC value within limits for As 188.979 Recovery = 98.02%								
B 249.677†	2491.4	53.671	ug/L	0.8993	53.671	ppb	0.8993	1.68%
QC value within limits for B 249.677 Recovery = 107.34%								
Ba 233.527†	668.1	5.0488	ug/L	0.04228	5.0488	ppb	0.04228	0.84%
QC value within limits for Ba 233.527 Recovery = 100.98%								
Be 313.107†	14210.6	4.9686	ug/L	0.00133	4.9686	ppb	0.00133	0.03%
QC value within limits for Be 313.107 Recovery = 99.37%								

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Ca 317.933Radial†        129.7      202.94 ug/L        2.408      202.94 ppb        2.408   1.19%
   QC value within limits for Ca 317.933Radial  Recovery = 101.47%
Cd 226.502†              457.0      4.8537 ug/L      0.05575      4.8537 ppb      0.05575   1.15%
   QC value within limits for Cd 226.502  Recovery = 97.07%
Co 228.616†              254.4      4.9789 ug/L      0.09934      4.9789 ppb      0.09934   2.00%
   QC value within limits for Co 228.616  Recovery = 99.58%
Cr 267.716†              467.7      4.9826 ug/L      0.06593      4.9826 ppb      0.06593   1.32%
   QC value within limits for Cr 267.716  Recovery = 99.65%
Cu 324.752†             3674.0      10.450 ug/L       0.0486      10.450 ppb       0.0486   0.47%
   QC value within limits for Cu 324.752  Recovery = 104.50%
Fe 238.204 Radial†        14.1      121.57 ug/L       16.680      121.57 ppb       16.680  13.72%
   QC value within limits for Fe 238.204 Radial  Recovery = 121.57%
K 766.490 Radial†        842.5      152.98 ug/L        1.673      152.98 ppb        1.673   1.09%
   QC value within limits for K 766.490 Radial  Recovery = 101.99%
Mg 279.077 IEC†            9.9      325.40 ug/L       19.894      325.40 ppb       19.894   6.11%
   QC value within limits for Mg 279.077 IEC  Recovery = 108.47%
Mn 257.610†             9734.4      10.382 ug/L       0.0453      10.382 ppb       0.0453   0.44%
   QC value within limits for Mn 257.610  Recovery = 103.82%
Mo 202.031†              143.0      9.8803 ug/L      0.44551      9.8803 ppb      0.44551   4.51%
   QC value within limits for Mo 202.031  Recovery = 98.80%
Na 589.592 Radial†       919.6      271.72 ug/L        6.310      271.72 ppb        6.310   2.32%
   QC value within limits for Na 589.592 Radial  Recovery = 90.57%
Ni 231.604†              227.5      5.3261 ug/L      0.10891      5.3261 ppb      0.10891   2.04%
   QC value within limits for Ni 231.604  Recovery = 106.52%
P 214.914†               265.5      145.60 ug/L        2.639      145.60 ppb        2.639   1.81%
   QC value within limits for P 214.914  Recovery = 97.06%
Pb 220.353†               95.5      10.756 ug/L       1.6420      10.756 ppb       1.6420  15.27%
   QC value within limits for Pb 220.353  Recovery = 107.56%
S 181.975 Axial†          77.7      101.72 ug/L        2.403      101.72 ppb        2.403   2.36%
   QC value within limits for S 181.975 Axial  Recovery = 101.72%
Sb 206.836†               36.7      11.741 ug/L       1.8211      11.741 ppb       1.8211  15.51%
   QC value within limits for Sb 206.836  Recovery = 117.41%
Se 196.026†               41.7      25.512 ug/L       1.5440      25.512 ppb       1.5440   6.05%
   QC value within limits for Se 196.026  Recovery = 85.04%
Si 251.611†             3181.1      97.891 ug/L       0.8124      97.891 ppb       0.8124   0.83%
   QC value within limits for Si 251.611  Recovery = 97.89%
Sn 189.927†               57.9      9.7253 ug/L      0.81831      9.7253 ppb      0.81831   8.41%
   QC value within limits for Sn 189.927  Recovery = 97.25%
Sr 421.552†              738.3      4.9025 ug/L      0.21084      4.9025 ppb      0.21084   4.30%
   QC value within limits for Sr 421.552  Recovery = 98.05%
Ti 334.940†             3337.7      4.9654 ug/L      0.09635      4.9654 ppb      0.09635   1.94%
   QC value within limits for Ti 334.940  Recovery = 99.31%
Tl 190.801†               69.4      20.429 ug/L       1.2359      20.429 ppb       1.2359   6.05%
   QC value within limits for Tl 190.801  Recovery = 102.15%
U 409.014†              1565.2      43.417 ug/L       3.7703      43.417 ppb       3.7703   8.68%
   QC value within limits for U 409.014  Recovery = 86.83%
V 292.402†               656.9      4.6300 ug/L      0.15306      4.6300 ppb      0.15306   3.31%
   QC value within limits for V 292.402  Recovery = 92.60%
Zn 213.857†             1146.2      10.202 ug/L       0.1305      10.202 ppb       0.1305   1.28%
   QC value within limits for Zn 213.857  Recovery = 102.02%
SiO2†                   3093.5      203.19 ug/L        1.044      203.19 ppb        1.044   0.51%
   QC value within limits for SiO2  Recovery = 95.39%
All analyte(s) passed QC.
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Sequence No.: 9
Sample ID: ICSA
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 13
Date Collected: 2/8/2010 07:49:47
Data Type: Reprocessed on 2/8/2010 09:03:30

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSA

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc 361.383	801476.0	801476.0	87.195	%			07:52:12
1	Sc Radial	4672.9	4672.9	93.2	%			07:51:45
1	Y 371.029	654311.3	654311.3	85.777	%			07:52:12
1	Y RADIAL	4867.0	4867.0	92.28	%			07:51:45
1	Ag 328.068†	-10237.5	-12036.9	2.5627	ug/L	2.5627	ppb	07:52:12
1	Al 396.153Radial†	551487.2	591724.7	510640	ug/L	510640	ppb	07:51:40
1	As 188.979†	-103.4	-84.5	8.0300	ug/L	8.0300	ppb	07:52:32
1	B 249.677†	292.9	1098.1	-5.9225	ug/L	-5.9225	ppb	07:52:12
1	Ba 233.527†	-644.8	-731.9	0.0652	ug/L	0.0652	ppb	07:52:32
1	Be 313.107†	-5190.8	-1017.8	-0.4082	ug/L	-0.4082	ppb	07:52:12
1	Ca 317.933Radial†	282133.5	302605.0	473510	ug/L	473510	ppb	07:51:40
1	Cd 226.502†	1225.6	1616.9	-1.6360	ug/L	-1.6360	ppb	07:52:32
1	Co 228.616†	-21.8	59.8	-1.4647	ug/L	-1.4647	ppb	07:52:32
1	Cr 267.716†	-152.6	-242.9	0.9585	ug/L	0.9585	ppb	07:52:32
1	Cu 324.752†	3173.3	-2607.1	2.1956	ug/L	2.1956	ppb	07:52:12
1	Fe 238.204 Radial†	19715.5	21139.5	182210	ug/L	182210	ppb	07:51:45
1	K 766.490 Radial†	2233.3	-305.2	-213.86	ug/L	-213.86	ppb	07:51:40
1	Mg 279.077 IEC†	13630.8	14617.5	482120	ug/L	482120	ppb	07:51:45
1	Mn 257.610†	725.9	288.3	-1.4166	ug/L	-1.4166	ppb	07:52:12
1	Mo 202.031†	-247.5	-299.2	-0.8752	ug/L	-0.8752	ppb	07:52:32
1	Na 589.592 Radial†	-1088.6	91.2	26.935	ug/L	26.935	ppb	07:51:45
1	Ni 231.604†	196.1	131.8	3.0858	ug/L	3.0858	ppb	07:52:32
1	P 214.914†	207.0	-3.1	-20.388	ug/L	-20.388	ppb	07:52:32
1	Pb 220.353†	-840.5	-895.4	0.2341	ug/L	0.2341	ppb	07:52:32
1	S 181.975 Axial†	52.5	13.3	-78.348	ug/L	-78.348	ppb	07:52:32
1	Sb 206.836†	99.2	80.2	7.7153	ug/L	7.7153	ppb	07:52:32
1	Se 196.026†	-925.1	-1041.9	-2.5513	ug/L	-2.5513	ppb	07:52:32
1	Si 251.611†	528.8	-121.9	-3.5026	ug/L	-3.5026	ppb	07:52:32
1	Sn 189.927†	-367.2	-431.4	2.7977	ug/L	2.7977	ppb	07:52:32
1	Sr 421.552†	516.8	542.3	0.0661	ug/L	0.0661	ppb	07:51:45
1	Ti 334.940†	-15040.9	-15676.1	0.6844	ug/L	0.6844	ppb	07:52:12
1	Tl 190.801†	-85.5	-59.1	-17.583	ug/L	-17.583	ppb	07:52:32
1	U 409.014†	-1906.4	1369.1	17.234	ug/L	17.234	ppb	07:52:12
1	V 292.402†	794.5	2548.1	-0.2473	ug/L	-0.2473	ppb	07:52:32
1	Zn 213.857†	3082.4	2850.9	-13.614	ug/L	-13.614	ppb	07:52:32
1	SiO2†	565.8	-154.1	-9.5724	ug/L	-9.5724	ppb	07:53:29
2	Sc 361.383	800141.9	800141.9	87.050	%			07:52:38
2	Sc Radial	4705.9	4705.9	93.9	%			07:51:55
2	Y 371.029	651786.3	651786.3	85.446	%			07:52:38
2	Y RADIAL	4913.6	4913.6	93.16	%			07:51:55
2	Ag 328.068†	-10228.8	-12046.5	2.3546	ug/L	2.3546	ppb	07:52:38
2	Al 396.153Radial†	549363.3	585309.0	505110	ug/L	505110	ppb	07:51:50
2	As 188.979†	-92.8	-72.5	12.763	ug/L	12.763	ppb	07:52:58
2	B 249.677†	266.7	1068.6	-6.4432	ug/L	-6.4432	ppb	07:52:38
2	Ba 233.527†	-661.0	-751.7	-0.1054	ug/L	-0.1054	ppb	07:52:58
2	Be 313.107†	-5192.7	-1030.0	-0.4124	ug/L	-0.4124	ppb	07:52:38
2	Ca 317.933Radial†	280886.7	299152.3	468110	ug/L	468110	ppb	07:51:50
2	Cd 226.502†	1234.1	1628.9	-1.4348	ug/L	-1.4348	ppb	07:52:58
2	Co 228.616†	-1.1	83.5	-0.9931	ug/L	-0.9931	ppb	07:52:58
2	Cr 267.716†	-146.0	-235.5	1.0240	ug/L	1.0240	ppb	07:52:58
2	Cu 324.752†	3186.5	-2585.9	2.2195	ug/L	2.2195	ppb	07:52:38
2	Fe 238.204 Radial†	19776.9	21056.4	181490	ug/L	181490	ppb	07:51:55
2	K 766.490 Radial†	2268.7	-284.2	-208.24	ug/L	-208.24	ppb	07:51:50
2	Mg 279.077 IEC†	13636.7	14521.2	478940	ug/L	478940	ppb	07:51:55
2	Mn 257.610†	918.7	511.2	-1.1196	ug/L	-1.1196	ppb	07:52:38
2	Mo 202.031†	-258.2	-312.0	-1.8736	ug/L	-1.8736	ppb	07:52:58
2	Na 589.592 Radial†	-1118.2	67.8	20.041	ug/L	20.041	ppb	07:51:55
2	Ni 231.604†	191.3	126.7	2.9666	ug/L	2.9666	ppb	07:52:58

2	P 214.914†	208.7	-0.8	-19.844 ug/L	-19.844 ppb	07:52:58
2	Pb 220.353†	-851.9	-910.1	-2.6316 ug/L	-2.6316 ppb	07:52:58
2	S 181.975 Axial†	53.1	14.0	-76.273 ug/L	-76.273 ppb	07:52:58
2	Sb 206.836†	94.5	75.0	6.2899 ug/L	6.2899 ppb	07:52:58
2	Se 196.026†	-916.3	-1033.6	-0.1787 ug/L	-0.1787 ppb	07:52:58
2	Si 251.611†	520.9	-130.0	-3.7410 ug/L	-3.7410 ppb	07:52:58
2	Sn 189.927†	-347.9	-410.0	5.5506 ug/L	5.5506 ppb	07:52:58
2	Sr 421.552†	518.2	539.9	0.0904 ug/L	0.0904 ppb	07:51:55
2	Ti 334.940†	-15006.1	-15664.9	0.2372 ug/L	0.2372 ppb	07:52:38
2	Tl 190.801†	-72.4	-44.3	-13.226 ug/L	-13.226 ppb	07:52:58
2	U 409.014†	-1973.1	1288.8	15.087 ug/L	15.087 ppb	07:52:38
2	V 292.402†	804.1	2560.6	-0.1364 ug/L	-0.1364 ppb	07:52:58
2	Zn 213.857†	3115.9	2895.3	-13.061 ug/L	-13.061 ppb	07:52:58
2	SiO2†	546.6	-175.1	-10.931 ug/L	-10.931 ppb	07:53:34
3	Sc 361.383	807684.9	807684.9	87.871 %		07:53:03
3	Sc Radial	4663.3	4663.3	93.0 %		07:52:06
3	Y 371.029	658028.5	658028.5	86.265 %		07:53:03
3	Y RADIAL	4904.4	4904.4	92.99 %		07:52:06
3	Ag 328.068†	-10425.8	-12160.9	1.7335 ug/L	1.7335 ppb	07:53:03
3	Al 396.153Radial†	555762.8	597528.5	515650 ug/L	515650 ppb	07:52:01
3	As 188.979†	-102.8	-82.9	8.5477 ug/L	8.5477 ppb	07:53:23
3	B 249.677†	248.8	1045.3	-6.9541 ug/L	-6.9541 ppb	07:53:03
3	Ba 233.527†	-630.4	-709.8	0.2113 ug/L	0.2113 ppb	07:53:23
3	Be 313.107†	-5320.0	-1119.1	-0.4436 ug/L	-0.4436 ppb	07:53:03
3	Ca 317.933Radial†	284593.5	305867.3	478620 ug/L	478620 ppb	07:52:01
3	Cd 226.502†	1225.2	1605.6	-1.6906 ug/L	-1.6906 ppb	07:53:23
3	Co 228.616†	-21.4	60.4	-1.4418 ug/L	-1.4418 ppb	07:53:23
3	Cr 267.716†	-156.4	-245.8	0.9159 ug/L	0.9159 ppb	07:53:23
3	Cu 324.752†	3173.3	-2635.1	2.0843 ug/L	2.0843 ppb	07:53:03
3	Fe 238.204 Radial†	19604.6	21063.5	181550 ug/L	181550 ppb	07:52:06
3	K 766.490 Radial†	2249.5	-282.9	-211.51 ug/L	-211.51 ppb	07:52:01
3	Mg 279.077 IEC†	13553.5	14564.3	480360 ug/L	480360 ppb	07:52:06
3	Mn 257.610†	817.0	385.6	-1.3057 ug/L	-1.3057 ppb	07:53:03
3	Mo 202.031†	-241.3	-290.0	-0.2262 ug/L	-0.2262 ppb	07:53:23
3	Na 589.592 Radial†	-1169.7	1.7	0.4906 ug/L	0.4906 ppb	07:52:06
3	Ni 231.604†	165.6	95.4	2.2338 ug/L	2.2338 ppb	07:53:23
3	P 214.914†	203.4	-9.0	-21.864 ug/L	-21.864 ppb	07:53:23
3	Pb 220.353†	-815.5	-859.6	5.4850 ug/L	5.4850 ppb	07:53:23
3	S 181.975 Axial†	51.4	11.5	-81.539 ug/L	-81.539 ppb	07:53:23
3	Sb 206.836†	64.5	39.8	-4.9690 ug/L	-4.9690 ppb	07:53:23
3	Se 196.026†	-921.8	-1030.0	2.7351 ug/L	2.7351 ppb	07:53:23
3	Si 251.611†	578.2	-70.4	-1.9220 ug/L	-1.9220 ppb	07:53:23
3	Sn 189.927†	-372.4	-434.1	3.1163 ug/L	3.1163 ppb	07:53:23
3	Sr 421.552†	554.0	583.3	0.3007 ug/L	0.3007 ppb	07:52:06
3	Ti 334.940†	-15165.7	-15685.5	1.5009 ug/L	1.5009 ppb	07:53:03
3	Tl 190.801†	-89.6	-63.0	-18.737 ug/L	-18.737 ppb	07:53:23
3	U 409.014†	-2092.5	1174.2	11.898 ug/L	11.898 ppb	07:53:03
3	V 292.402†	750.4	2490.9	-0.5720 ug/L	-0.5720 ppb	07:53:23
3	Zn 213.857†	3082.8	2824.2	-13.706 ug/L	-13.706 ppb	07:53:23
3	SiO2†	497.8	-236.5	-15.008 ug/L	-15.008 ppb	07:53:39

Mean Data: ICSA

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	803100.9	87.372	%	0.4379				0.50%
Sc Radial	4680.7	93.4	%	0.45				0.48%
Y 371.029	654708.7	85.829	%	0.4116				0.48%
Y RADIAL	4895.0	92.81	%	0.469				0.51%
Ag 328.068†	-12081.4	2.2169	ug/L	0.43140	2.2169	ppb	0.43140	19.46%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	591520.7	510470	ug/L	5274.7	510470	ppb	5274.7	1.03%
QC value within limits for Al 396.153Radial Recovery = 102.09%								
As 188.979†	-80.0	9.7802	ug/L	2.59605	9.7802	ppb	2.59605	26.54%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	1070.7	-6.4399	ug/L	0.51582	-6.4399	ppb	0.51582	8.01%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-731.2	0.0570	ug/L	0.15851	0.0570	ppb	0.15851	278.00%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-1055.6	-0.4214	ug/L	0.01931	-0.4214	ppb	0.01931	4.58%
QC value within limits for Be 313.107 Recovery = Not calculated								

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Ca 317.933Radial†     302541.5      473410 ug/L        5254.4      473410 ppb        5254.4   1.11%
   QC value within limits for Ca 317.933Radial  Recovery = 94.68%
Cd 226.502†             1617.1     -1.5871 ug/L       0.13470     -1.5871 ppb       0.13470   8.49%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†               67.9     -1.2999 ug/L       0.26590     -1.2999 ppb       0.26590  20.46%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†             -241.4      0.9661 ug/L       0.05446      0.9661 ppb       0.05446   5.64%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -2609.4      2.1665 ug/L       0.07213      2.1665 ppb       0.07213   3.33%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†     21086.5      181750 ug/L         397.1      181750 ppb         397.1   0.22%
   QC value within limits for Fe 238.204 Radial  Recovery = 90.88%
K 766.490 Radial†       -290.7     -211.20 ug/L         2.823     -211.20 ppb         2.823   1.34%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†        14567.7      480470 ug/L        1592.5      480470 ppb        1592.5   0.33%
   QC value within limits for Mg 279.077 IEC  Recovery = 96.09%
Mn 257.610†              395.0     -1.2806 ug/L       0.15009     -1.2806 ppb       0.15009  11.72%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†             -300.4     -0.9917 ug/L       0.82988     -0.9917 ppb       0.82988  83.68%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        53.6      15.822 ug/L       13.7178      15.822 ppb      13.7178  86.70%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              118.0      2.7621 ug/L       0.46132      2.7621 ppb       0.46132  16.70%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -4.3     -20.699 ug/L        1.0454     -20.699 ppb        1.0454   5.05%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†             -888.4      1.0292 ug/L       4.11630      1.0292 ppb       4.11630 399.97%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          12.9     -78.720 ug/L        2.6528     -78.720 ppb        2.6528   3.37%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               65.0      3.0121 ug/L       6.94845      3.0121 ppb       6.94845 230.69%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†            -1035.2      0.0017 ug/L       2.64783      0.0017 ppb       2.64783 >999.9%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†             -107.4     -3.0552 ug/L       0.98858     -3.0552 ppb       0.98858  32.36%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†             -425.2      3.8215 ug/L       1.50583      3.8215 ppb       1.50583  39.40%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              555.2      0.1524 ug/L       0.12901      0.1524 ppb       0.12901  84.66%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†           -15675.5      0.8075 ug/L       0.64077      0.8075 ppb       0.64077  79.35%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -55.5     -16.515 ug/L        2.9068     -16.515 ppb        2.9068  17.60%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              1277.4      14.740 ug/L        2.6851      14.740 ppb        2.6851  18.22%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              2533.2     -0.3186 ug/L       0.22640     -0.3186 ppb       0.22640  71.07%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†             2856.8     -13.460 ug/L        0.3490     -13.460 ppb        0.3490   2.59%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                   -188.6     -11.837 ug/L        2.8289     -11.837 ppb        2.8289  23.90%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 10
Sample ID: ICSAB
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 14
Date Collected: 2/8/2010 07:55:50
Data Type: Reprocessed on 2/8/2010 09:03:31

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSAB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc 361.383	823200.1	823200.1	89.559	%			07:58:16
1	Sc Radial	4637.8	4637.8	92.5	%			07:57:48
1	Y 371.029	670221.8	670221.8	87.863	%			07:58:16
1	Y RADIAL	4857.1	4857.1	92.09	%			07:57:48
1	Ag 328.068†	43836.8	48651.6	268.70	ug/L	268.70	ppb	07:58:16
1	Al 396.153Radial†	550321.6	594931.5	513390	ug/L	513390	ppb	07:57:43
1	As 188.979†	974.8	1122.6	503.55	ug/L	503.55	ppb	07:58:36
1	B 249.677†	21117.3	24341.5	494.09	ug/L	494.09	ppb	07:58:16
1	Ba 233.527†	56881.7	63520.9	485.36	ug/L	485.36	ppb	07:58:16
1	Be 313.107†	610425.0	686527.0	240.57	ug/L	240.57	ppb	07:58:16
1	Ca 317.933Radial†	278825.0	301314.5	471490	ug/L	471490	ppb	07:57:43
1	Cd 226.502†	38838.0	43577.2	444.59	ug/L	444.59	ppb	07:58:36
1	Co 228.616†	19739.5	22125.6	429.59	ug/L	429.59	ppb	07:58:36
1	Cr 267.716†	39832.8	44408.9	477.98	ug/L	477.98	ppb	07:58:16
1	Cu 324.752†	174382.5	188466.5	546.23	ug/L	546.23	ppb	07:58:16
1	Fe 238.204 Radial†	19432.3	20993.2	180960	ug/L	180960	ppb	07:57:48
1	K 766.490 Radial†	29862.8	29572.7	5216.0	ug/L	5216.0	ppb	07:57:43
1	Mg 279.077 IEC†	13475.1	14559.6	480220	ug/L	480220	ppb	07:57:48
1	Mn 257.610†	398101.9	443970.6	471.78	ug/L	471.78	ppb	07:58:16
1	Mo 202.031†	5901.2	6573.8	473.40	ug/L	473.40	ppb	07:58:36
1	Na 589.592 Radial†	14620.9	17059.9	5040.6	ug/L	5040.6	ppb	07:57:48
1	Ni 231.604†	16802.1	18667.8	437.00	ug/L	437.00	ppb	07:58:36
1	P 214.914†	4065.1	4298.5	2269.3	ug/L	2269.3	ppb	07:58:36
1	Pb 220.353†	2732.0	3119.0	451.61	ug/L	451.61	ppb	07:58:36
1	S 181.975 Axial†	1795.5	1957.8	2467.4	ug/L	2467.4	ppb	07:58:36
1	Sb 206.836†	1490.5	1630.7	506.73	ug/L	506.73	ppb	07:58:36
1	Se 196.026†	2714.9	3050.4	2457.7	ug/L	2457.7	ppb	07:58:36
1	Si 251.611†	148893.9	165524.4	5094.4	ug/L	5094.4	ppb	07:58:16
1	Sn 189.927†	2172.3	2415.2	479.04	ug/L	479.04	ppb	07:58:36
1	Sr 421.552†	68904.1	74453.9	491.00	ug/L	491.00	ppb	07:57:43
1	Ti 334.940†	283262.1	317860.0	498.40	ug/L	498.40	ppb	07:58:16
1	Tl 190.801†	1251.5	1436.3	425.09	ug/L	425.09	ppb	07:58:36
1	U 409.014†	13677.5	18827.6	500.87	ug/L	500.87	ppb	07:58:16
1	V 292.402†	66271.2	75634.3	499.28	ug/L	499.28	ppb	07:58:16
1	Zn 213.857†	52001.5	57379.9	472.04	ug/L	472.04	ppb	07:58:16
1	SiO2†	148148.2	164617.1	10814	ug/L	10814	ppb	07:59:33
2	Sc 361.383	809333.2	809333.2	88.050	%			07:58:42
2	Sc Radial	4669.8	4669.8	93.2	%			07:57:58
2	Y 371.029	659305.0	659305.0	86.432	%			07:58:42
2	Y RADIAL	4913.7	4913.7	93.16	%			07:57:58
2	Ag 328.068†	43102.3	48656.0	268.96	ug/L	268.96	ppb	07:58:42
2	Al 396.153Radial†	553061.0	593799.4	512410	ug/L	512410	ppb	07:57:53
2	As 188.979†	983.4	1151.0	515.29	ug/L	515.29	ppb	07:59:02
2	B 249.677†	20751.5	24330.0	493.71	ug/L	493.71	ppb	07:58:42
2	Ba 233.527†	56079.4	63697.9	486.71	ug/L	486.71	ppb	07:58:42
2	Be 313.107†	602350.2	689034.6	241.45	ug/L	241.45	ppb	07:58:42
2	Ca 317.933Radial†	280626.6	301184.9	471290	ug/L	471290	ppb	07:57:53
2	Cd 226.502†	38977.2	44478.3	454.09	ug/L	454.09	ppb	07:59:02
2	Co 228.616†	19788.9	22559.4	438.07	ug/L	438.07	ppb	07:59:02
2	Cr 267.716†	39301.6	44567.7	479.69	ug/L	479.69	ppb	07:58:42
2	Cu 324.752†	170857.9	187799.8	544.37	ug/L	544.37	ppb	07:58:42
2	Fe 238.204 Radial†	19637.7	21069.7	181620	ug/L	181620	ppb	07:57:58
2	K 766.490 Radial†	30069.8	29573.9	5216.3	ug/L	5216.3	ppb	07:57:53
2	Mg 279.077 IEC†	13645.2	14642.5	482950	ug/L	482950	ppb	07:57:58
2	Mn 257.610†	391951.4	444601.6	472.41	ug/L	472.41	ppb	07:58:42
2	Mo 202.031†	5888.4	6672.2	480.23	ug/L	480.23	ppb	07:59:02
2	Na 589.592 Radial†	14770.5	17112.3	5056.1	ug/L	5056.1	ppb	07:57:58
2	Ni 231.604†	16872.2	19068.9	446.39	ug/L	446.39	ppb	07:59:02

2	P 214.914†	4124.3	4443.5	2349.7	ug/L	2349.7 ppb	07:59:02
2	Pb 220.353†	2755.8	3198.4	460.25	ug/L	460.25 ppb	07:59:02
2	S 181.975 Axial†	1793.4	1989.8	2509.5	ug/L	2509.5 ppb	07:59:02
2	Sb 206.836†	1504.7	1675.3	520.89	ug/L	520.89 ppb	07:59:02
2	Se 196.026†	2734.4	3124.5	2504.4	ug/L	2504.4 ppb	07:59:02
2	Si 251.611†	146284.9	165409.8	5090.8	ug/L	5090.8 ppb	07:58:42
2	Sn 189.927†	2187.5	2474.0	488.87	ug/L	488.87 ppb	07:59:02
2	Sr 421.552†	69285.7	74353.6	490.34	ug/L	490.34 ppb	07:57:53
2	Ti 334.940†	278445.4	317808.7	498.07	ug/L	498.07 ppb	07:58:42
2	Tl 190.801†	1274.9	1486.9	439.91	ug/L	439.91 ppb	07:59:02
2	U 409.014†	13203.3	18550.6	493.11	ug/L	493.11 ppb	07:58:42
2	V 292.402†	65283.7	75780.7	500.30	ug/L	500.30 ppb	07:58:42
2	Zn 213.857†	51197.3	57461.4	472.57	ug/L	472.57 ppb	07:58:42
2	SiO2†	147171.1	166341.7	10928	ug/L	10928 ppb	07:59:38
3	Sc 361.383	810354.3	810354.3	88.161	%		07:59:08
3	Sc Radial	4663.6	4663.6	93.0	%		07:58:08
3	Y 371.029	659810.8	659810.8	86.498	%		07:59:08
3	Y RADIAL	4913.4	4913.4	93.16	%		07:58:08
3	Ag 328.068†	43089.2	48579.5	268.39	ug/L	268.39 ppb	07:59:08
3	Al 396.153Radial†	558672.4	600614.7	518290	ug/L	518290 ppb	07:58:03
3	As 188.979†	994.6	1162.3	519.75	ug/L	519.75 ppb	07:59:28
3	B 249.677†	20759.5	24309.4	493.35	ug/L	493.35 ppb	07:59:08
3	Ba 233.527†	56336.4	63909.2	488.29	ug/L	488.29 ppb	07:59:08
3	Be 313.107†	604139.1	690201.6	241.85	ug/L	241.85 ppb	07:59:08
3	Ca 317.933Radial†	282663.3	303771.8	475340	ug/L	475340 ppb	07:58:03
3	Cd 226.502†	39102.5	44564.6	455.07	ug/L	455.07 ppb	07:59:28
3	Co 228.616†	19902.4	22659.8	440.04	ug/L	440.04 ppb	07:59:28
3	Cr 267.716†	39454.5	44684.8	480.93	ug/L	480.93 ppb	07:59:08
3	Cu 324.752†	170908.5	187612.7	543.81	ug/L	543.81 ppb	07:59:08
3	Fe 238.204 Radial†	19552.8	21006.3	181070	ug/L	181070 ppb	07:58:08
3	K 766.490 Radial†	30093.6	29642.1	5227.3	ug/L	5227.3 ppb	07:58:03
3	Mg 279.077 IEC†	13588.7	14601.2	481590	ug/L	481590 ppb	07:58:08
3	Mn 257.610†	393780.6	446115.6	474.02	ug/L	474.02 ppb	07:59:08
3	Mo 202.031†	5931.3	6712.4	483.02	ug/L	483.02 ppb	07:59:28
3	Na 589.592 Radial†	14873.3	17243.7	5094.9	ug/L	5094.9 ppb	07:58:08
3	Ni 231.604†	16932.0	19112.7	447.41	ug/L	447.41 ppb	07:59:28
3	P 214.914†	4131.0	4445.2	2352.6	ug/L	2352.6 ppb	07:59:28
3	Pb 220.353†	2761.5	3200.9	461.93	ug/L	461.93 ppb	07:59:28
3	S 181.975 Axial†	1789.6	1982.9	2499.4	ug/L	2499.4 ppb	07:59:28
3	Sb 206.836†	1487.0	1653.1	513.88	ug/L	513.88 ppb	07:59:28
3	Se 196.026†	2755.7	3144.8	2515.2	ug/L	2515.2 ppb	07:59:28
3	Si 251.611†	146945.4	165949.7	5107.4	ug/L	5107.4 ppb	07:59:08
3	Sn 189.927†	2176.6	2458.5	486.88	ug/L	486.88 ppb	07:59:28
3	Sr 421.552†	70029.2	75250.9	496.27	ug/L	496.27 ppb	07:58:03
3	Ti 334.940†	279207.7	318274.9	499.42	ug/L	499.42 ppb	07:59:08
3	Tl 190.801†	1261.5	1469.8	434.90	ug/L	434.90 ppb	07:59:28
3	U 409.014†	13116.4	18433.2	489.91	ug/L	489.91 ppb	07:59:08
3	V 292.402†	65564.3	76005.5	501.90	ug/L	501.90 ppb	07:59:08
3	Zn 213.857†	51260.9	57460.3	472.67	ug/L	472.67 ppb	07:59:08
3	SiO2†	145517.8	164255.8	10790	ug/L	10790 ppb	07:59:44

Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	814295.8	88.590	%	0.8408				0.95%
Sc Radial	4657.1	92.9	%	0.34				0.36%
Y 371.029	663112.5	86.931	%	0.8078				0.93%
Y RADIAL	4894.8	92.80	%	0.618				0.67%
Ag 328.068†	48629.0	268.69	ug/L	0.283	268.69	ppb	0.283	0.11%
QC value within limits for Ag 328.068 Recovery = 107.47%								
Al 396.153Radial†	596448.5	514700	ug/L	3151.6	514700	ppb	3151.6	0.61%
QC value within limits for Al 396.153Radial Recovery = 102.94%								
As 188.979†	1145.3	512.86	ug/L	8.372	512.86	ppb	8.372	1.63%
QC value within limits for As 188.979 Recovery = 102.57%								
B 249.677†	24327.0	493.72	ug/L	0.370	493.72	ppb	0.370	0.07%
QC value within limits for B 249.677 Recovery = 98.74%								
Ba 233.527†	63709.3	486.79	ug/L	1.469	486.79	ppb	1.469	0.30%
QC value within limits for Ba 233.527 Recovery = 97.36%								
Be 313.107†	688587.7	241.29	ug/L	0.656	241.29	ppb	0.656	0.27%
QC value within limits for Be 313.107 Recovery = 96.52%								

Ca 317.933Radial†	302090.4	472710 ug/L	2280.8	472710 ppb	2280.8	0.48%
QC value within limits for Ca 317.933Radial Recovery = 94.54%						
Cd 226.502†	44206.7	451.25 ug/L	5.791	451.25 ppb	5.791	1.28%
QC value within limits for Cd 226.502 Recovery = 90.25%						
Co 228.616†	22448.3	435.90 ug/L	5.553	435.90 ppb	5.553	1.27%
QC value within limits for Co 228.616 Recovery = 87.18%						
Cr 267.716†	44553.8	479.54 ug/L	1.484	479.54 ppb	1.484	0.31%
QC value within limits for Cr 267.716 Recovery = 95.91%						
Cu 324.752†	187959.6	544.80 ug/L	1.267	544.80 ppb	1.267	0.23%
QC value within limits for Cu 324.752 Recovery = 108.96%						
Fe 238.204 Radial†	21023.1	181220 ug/L	353.0	181220 ppb	353.0	0.19%
QC value within limits for Fe 238.204 Radial Recovery = 90.61%						
K 766.490 Radial†	29596.2	5219.8 ug/L	6.44	5219.8 ppb	6.44	0.12%
QC value within limits for K 766.490 Radial Recovery = 104.40%						
Mg 279.077 IEC†	14601.1	481580 ug/L	1366.2	481580 ppb	1366.2	0.28%
QC value within limits for Mg 279.077 IEC Recovery = 96.32%						
Mn 257.610†	444895.9	472.74 ug/L	1.157	472.74 ppb	1.157	0.24%
QC value within limits for Mn 257.610 Recovery = 94.55%						
Mo 202.031†	6652.8	478.88 ug/L	4.951	478.88 ppb	4.951	1.03%
QC value within limits for Mo 202.031 Recovery = 95.78%						
Na 589.592 Radial†	17138.6	5063.9 ug/L	27.98	5063.9 ppb	27.98	0.55%
QC value within limits for Na 589.592 Radial Recovery = 101.28%						
Ni 231.604†	18949.8	443.60 ug/L	5.739	443.60 ppb	5.739	1.29%
QC value within limits for Ni 231.604 Recovery = 88.72%						
P 214.914†	4395.7	2323.9 ug/L	47.24	2323.9 ppb	47.24	2.03%
QC value within limits for P 214.914 Recovery = 92.96%						
Pb 220.353†	3172.8	457.93 ug/L	5.535	457.93 ppb	5.535	1.21%
QC value within limits for Pb 220.353 Recovery = 91.59%						
S 181.975 Axial†	1976.9	2492.1 ug/L	21.95	2492.1 ppb	21.95	0.88%
QC value within limits for S 181.975 Axial Recovery = 99.68%						
Sb 206.836†	1653.0	513.83 ug/L	7.081	513.83 ppb	7.081	1.38%
QC value within limits for Sb 206.836 Recovery = 102.77%						
Se 196.026†	3106.6	2492.5 ug/L	30.54	2492.5 ppb	30.54	1.23%
QC value within limits for Se 196.026 Recovery = 99.70%						
Si 251.611†	165628.0	5097.5 ug/L	8.73	5097.5 ppb	8.73	0.17%
QC value within limits for Si 251.611 Recovery = 101.95%						
Sn 189.927†	2449.3	484.93 ug/L	5.195	484.93 ppb	5.195	1.07%
QC value within limits for Sn 189.927 Recovery = 96.99%						
Sr 421.552†	74686.1	492.54 ug/L	3.249	492.54 ppb	3.249	0.66%
QC value within limits for Sr 421.552 Recovery = 98.51%						
Ti 334.940†	317981.2	498.63 ug/L	0.706	498.63 ppb	0.706	0.14%
QC value within limits for Ti 334.940 Recovery = 99.73%						
Tl 190.801†	1464.3	433.30 ug/L	7.540	433.30 ppb	7.540	1.74%
QC value within limits for Tl 190.801 Recovery = 86.66%						
U 409.014†	18603.8	494.63 ug/L	5.639	494.63 ppb	5.639	1.14%
QC value within limits for U 409.014 Recovery = 98.93%						
V 292.402†	75806.9	500.50 ug/L	1.322	500.50 ppb	1.322	0.26%
QC value within limits for V 292.402 Recovery = 100.10%						
Zn 213.857†	57433.9	472.43 ug/L	0.340	472.43 ppb	0.340	0.07%
QC value within limits for Zn 213.857 Recovery = 94.49%						
SiO2†	165071.5	10844 ug/L	73.3	10844 ppb	73.3	0.68%
QC value within limits for SiO2 Recovery = 101.39%						

All analyte(s) passed QC.

Sequence No.: 11
Sample ID: LR1
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 15
Date Collected: 2/8/2010 08:01:53
Data Type: Reprocessed on 2/8/2010 09:03:32

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc 361.383	783607.9	783607.9	85.251	%			08:04:20
1	Sc Radial	4473.9	4473.9	89.3	%			08:03:51
1	Y 371.029	640116.3	640116.3	83.916	%			08:04:20
1	Y RADIAL	4731.2	4731.2	89.70	%			08:03:51
1	Ag 328.068†	-24118.1	-28586.6	0.2677	ug/L	0.2677	ppb	08:04:20
1	Al 396.153Radial†	535869.7	600532.2	518250	ug/L	518250	ppb	08:03:46
1	As 188.979†	-203.5	-204.6	15.378	ug/L	15.378	ppb	08:04:40
1	B 249.677†	1184.2	2151.2	-22.191	ug/L	-22.191	ppb	08:04:20
1	Ba 233.527†	-1796.1	-2099.2	-2.9105	ug/L	-2.9105	ppb	08:04:40
1	Be 313.107†	-11018.5	-7989.5	-2.8155	ug/L	-2.8155	ppb	08:04:20
1	Ca 317.933Radial†	271502.3	304151.5	475930	ug/L	475930	ppb	08:03:46
1	Cd 226.502†	3178.3	3939.4	0.8938	ug/L	0.8938	ppb	08:04:40
1	Co 228.616†	224.2	347.8	0.6144	ug/L	0.6144	ppb	08:04:40
1	Cr 267.716†	-37.8	-112.1	1.6705	ug/L	1.6705	ppb	08:04:40
1	Cu 324.752†	164.9	-6053.0	-2.4163	ug/L	-2.4163	ppb	08:04:20
1	Fe 238.204 Radial†	43717.5	48969.7	422090	ug/L	422090	ppb	08:03:51
1	K 766.490 Radial†	2586.1	196.7	-309.75	ug/L	-309.75	ppb	08:03:46
1	Mg 279.077 IEC†	12798.1	14334.7	472540	ug/L	472540	ppb	08:03:51
1	Mn 257.610†	-22206.0	-26591.9	-6.0142	ug/L	-6.0142	ppb	08:04:20
1	Mo 202.031†	-521.8	-627.5	-4.8792	ug/L	-4.8792	ppb	08:04:40
1	Na 589.592 Radial†	1442230.3	1617013.5	477770	ug/L	477770	ppb	08:03:46
1	Ni 231.604†	288.5	245.3	5.7410	ug/L	5.7410	ppb	08:04:40
1	P 214.914†	578.6	438.2	35.611	ug/L	35.611	ppb	08:04:40
1	Pb 220.353†	-627.4	-667.4	4.4873	ug/L	4.4873	ppb	08:04:40
1	S 181.975 Axial†	88.7	57.1	-22.336	ug/L	-22.336	ppb	08:04:40
1	Sb 206.836†	60.7	37.6	-8.9302	ug/L	-8.9302	ppb	08:04:40
1	Se 196.026†	-2132.5	-2482.4	-82.554	ug/L	-82.554	ppb	08:04:40
1	Si 251.611†	-426.5	-1228.6	-37.323	ug/L	-37.323	ppb	08:04:40
1	Sn 189.927†	-383.0	-459.6	2.4824	ug/L	2.4824	ppb	08:04:40
1	Sr 421.552†	692.6	763.9	1.5200	ug/L	1.5200	ppb	08:03:51
1	Ti 334.940†	-8491.9	-8387.5	6.7152	ug/L	6.7152	ppb	08:04:20
1	Tl 190.801†	-100.3	-78.8	-23.453	ug/L	-23.453	ppb	08:04:40
1	U 409.014†	413791.8	488933.8	13522	ug/L	13522	ppb	08:04:20
1	V 292.402†	2542.0	4618.6	4.1540	ug/L	4.1540	ppb	08:04:40
1	Zn 213.857†	5702.5	6004.9	-36.898	ug/L	-36.898	ppb	08:04:40
1	SiO2†	-492.6	-1380.9	-89.638	ug/L	-89.638	ppb	08:05:37
2	Sc 361.383	784247.0	784247.0	85.321	%			08:04:45
2	Sc Radial	4545.8	4545.8	90.7	%			08:04:02
2	Y 371.029	639880.8	639880.8	83.886	%			08:04:45
2	Y RADIAL	4790.8	4790.8	90.83	%			08:04:02
2	Ag 328.068†	-24213.2	-28675.0	-0.0223	ug/L	-0.0223	ppb	08:04:45
2	Al 396.153Radial†	541037.8	596734.8	514970	ug/L	514970	ppb	08:03:57
2	As 188.979†	-215.5	-218.4	9.7730	ug/L	9.7730	ppb	08:05:06
2	B 249.677†	1179.8	2145.0	-22.365	ug/L	-22.365	ppb	08:04:45
2	Ba 233.527†	-1857.2	-2169.1	-3.4306	ug/L	-3.4306	ppb	08:05:06
2	Be 313.107†	-11024.1	-7985.5	-2.8177	ug/L	-2.8177	ppb	08:04:45
2	Ca 317.933Radial†	274058.8	302159.3	472810	ug/L	472810	ppb	08:03:57
2	Cd 226.502†	3166.5	3922.6	0.6971	ug/L	0.6971	ppb	08:05:06
2	Co 228.616†	215.6	337.4	0.4083	ug/L	0.4083	ppb	08:05:06
2	Cr 267.716†	-51.4	-128.1	1.4919	ug/L	1.4919	ppb	08:05:06
2	Cu 324.752†	234.4	-5971.8	-2.1898	ug/L	-2.1898	ppb	08:04:45
2	Fe 238.204 Radial†	44445.2	48997.4	422330	ug/L	422330	ppb	08:04:02
2	K 766.490 Radial†	2460.3	12.1	-341.20	ug/L	-341.20	ppb	08:03:57
2	Mg 279.077 IEC†	13030.7	14364.4	473520	ug/L	473520	ppb	08:04:02
2	Mn 257.610†	-22180.6	-26540.9	-5.9763	ug/L	-5.9763	ppb	08:04:45
2	Mo 202.031†	-538.7	-646.7	-6.2258	ug/L	-6.2258	ppb	08:05:06
2	Na 589.592 Radial†	1456934.8	1607670.3	475010	ug/L	475010	ppb	08:03:57
2	Ni 231.604†	312.9	273.7	6.4060	ug/L	6.4060	ppb	08:05:06

2	P 214.914†	566.3	423.2	26.181	ug/L	26.181 ppb	08:05:06
2	Pb 220.353†	-634.6	-675.2	2.8278	ug/L	2.8278 ppb	08:05:06
2	S 181.975 Axial†	84.3	51.8	-28.653	ug/L	-28.653 ppb	08:05:06
2	Sb 206.836†	82.8	63.4	-0.8746	ug/L	-0.8746 ppb	08:05:06
2	Se 196.026†	-2168.5	-2522.6	-106.17	ug/L	-106.17 ppb	08:05:06
2	Si 251.611†	-406.7	-1205.1	-36.581	ug/L	-36.581 ppb	08:05:06
2	Sn 189.927†	-389.5	-466.8	0.8056	ug/L	0.8056 ppb	08:05:06
2	Sr 421.552†	666.4	722.7	1.2696	ug/L	1.2696 ppb	08:04:02
2	Ti 334.940†	-9392.2	-9434.5	4.6392	ug/L	4.6392 ppb	08:04:45
2	Tl 190.801†	-101.6	-80.2	-23.876	ug/L	-23.876 ppb	08:05:06
2	U 409.014†	415101.9	490073.9	13554	ug/L	13554 ppb	08:04:45
2	V 292.402†	2515.7	4585.4	3.9579	ug/L	3.9579 ppb	08:05:06
2	Zn 213.857†	5658.2	5947.6	-37.468	ug/L	-37.468 ppb	08:05:06
2	SiO2†	-488.3	-1375.3	-89.238	ug/L	-89.238 ppb	08:05:42
3	Sc 361.383	778759.5	778759.5	84.724	%		08:05:11
3	Sc Radial	4469.2	4469.2	89.2	%		08:04:13
3	Y 371.029	636075.5	636075.5	83.387	%		08:05:11
3	Y RADIAL	4699.2	4699.2	89.10	%		08:04:13
3	Ag 328.068†	-23971.0	-28589.1	0.2483	ug/L	0.2483 ppb	08:05:11
3	Al 396.153Radial†	538003.9	603552.9	520850	ug/L	520850 ppb	08:04:08
3	As 188.979†	-198.6	-200.3	17.156	ug/L	17.156 ppb	08:05:31
3	B 249.677†	1069.0	2023.9	-24.968	ug/L	-24.968 ppb	08:05:11
3	Ba 233.527†	-1719.4	-2021.8	-2.3232	ug/L	-2.3232 ppb	08:05:31
3	Be 313.107†	-11027.1	-8080.1	-2.8482	ug/L	-2.8482 ppb	08:05:11
3	Ca 317.933Radial†	272939.9	306081.6	478950	ug/L	478950 ppb	08:04:08
3	Cd 226.502†	3143.8	3922.0	0.6942	ug/L	0.6942 ppb	08:05:31
3	Co 228.616†	190.1	309.2	-0.1418	ug/L	-0.1418 ppb	08:05:31
3	Cr 267.716†	-70.6	-151.2	1.2412	ug/L	1.2412 ppb	08:05:31
3	Cu 324.752†	242.0	-5960.8	-2.1640	ug/L	-2.1640 ppb	08:05:11
3	Fe 238.204 Radial†	43693.0	48993.4	422290	ug/L	422290 ppb	08:04:13
3	K 766.490 Radial†	2540.9	149.0	-320.88	ug/L	-320.88 ppb	08:04:08
3	Mg 279.077 IEC†	12785.6	14335.7	472570	ug/L	472570 ppb	08:04:13
3	Mn 257.610†	-22436.9	-27026.6	-6.4591	ug/L	-6.4591 ppb	08:05:11
3	Mo 202.031†	-521.9	-631.3	-5.0937	ug/L	-5.0937 ppb	08:05:31
3	Na 589.592 Radial†	1451846.1	1629485.7	481460	ug/L	481460 ppb	08:04:08
3	Ni 231.604†	267.2	222.3	5.2034	ug/L	5.2034 ppb	08:05:31
3	P 214.914†	576.3	439.7	36.887	ug/L	36.887 ppb	08:05:31
3	Pb 220.353†	-623.7	-667.7	5.0510	ug/L	5.0510 ppb	08:05:31
3	S 181.975 Axial†	66.7	31.7	-56.068	ug/L	-56.068 ppb	08:05:31
3	Sb 206.836†	72.8	52.3	-4.4436	ug/L	-4.4436 ppb	08:05:31
3	Se 196.026†	-2193.5	-2570.0	-134.50	ug/L	-134.50 ppb	08:05:31
3	Si 251.611†	-425.6	-1230.8	-37.385	ug/L	-37.385 ppb	08:05:31
3	Sn 189.927†	-380.0	-458.8	3.0770	ug/L	3.0770 ppb	08:05:31
3	Sr 421.552†	751.2	830.4	1.9393	ug/L	1.9393 ppb	08:04:13
3	Ti 334.940†	-8707.9	-8704.4	6.6276	ug/L	6.6276 ppb	08:05:11
3	Tl 190.801†	-109.1	-89.8	-26.692	ug/L	-26.692 ppb	08:05:31
3	U 409.014†	412397.0	490309.5	13560	ug/L	13560 ppb	08:05:11
3	V 292.402†	2372.4	4437.0	2.9712	ug/L	2.9712 ppb	08:05:31
3	Zn 213.857†	5622.6	5952.2	-37.412	ug/L	-37.412 ppb	08:05:31
3	SiO2†	-422.7	-1302.0	-84.443	ug/L	-84.443 ppb	08:05:47

Mean Data: LR1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	782204.8	85.099	%	0.3265				0.38%
Sc Radial	4496.3	89.7	%	0.86				0.95%
Y 371.029	638690.8	83.730	%	0.2973				0.36%
Y RADIAL	4740.4	89.88	%	0.881				0.98%
Ag 328.068†	-28616.9	0.1645	ug/L	0.16212	0.1645	ppb	0.16212	98.53%
Al 396.153Radial†	600273.3	518020	ug/L	2948.2	518020	ppb	2948.2	0.57%
QC value within limits for Al 396.153Radial Recovery = 103.60%								
As 188.979†	-207.8	14.102	ug/L	3.8533	14.102	ppb	3.8533	27.32%
B 249.677†	2106.7	-23.175	ug/L	1.5552	-23.175	ppb	1.5552	6.71%
Ba 233.527†	-2096.7	-2.8881	ug/L	0.55402	-2.8881	ppb	0.55402	19.18%
Be 313.107†	-8018.3	-2.8272	ug/L	0.01828	-2.8272	ppb	0.01828	0.65%
Ca 317.933Radial†	304130.8	475900	ug/L	3069.0	475900	ppb	3069.0	0.64%
QC value within limits for Ca 317.933Radial Recovery = 95.18%								
Cd 226.502†	3928.0	0.7617	ug/L	0.11440	0.7617	ppb	0.11440	15.02%
Co 228.616†	331.5	0.2937	ug/L	0.39091	0.2937	ppb	0.39091	133.11%
Cr 267.716†	-130.5	1.4679	ug/L	0.21566	1.4679	ppb	0.21566	14.69%

Cu 324.752†	-5995.2	-2.2567	ug/L	0.13881	-2.2567	ppb	0.13881	6.15%
Fe 238.204 Radial†	48986.8	422240	ug/L	129.1	422240	ppb	129.1	0.03%
QC value less than the lower limit for Fe 238.204 Radial Recovery = 84.45%								
K 766.490 Radial†	119.2	-323.94	ug/L	15.943	-323.94	ppb	15.943	4.92%
Mg 279.077 IEC†	14344.9	472870	ug/L	556.6	472870	ppb	556.6	0.12%
QC value within limits for Mg 279.077 IEC Recovery = 94.57%								
Mn 257.610†	-26719.8	-6.1499	ug/L	0.26843	-6.1499	ppb	0.26843	4.36%
Mo 202.031†	-635.2	-5.3996	ug/L	0.72353	-5.3996	ppb	0.72353	13.40%
Na 589.592 Radial†	1618056.5	478080	ug/L	3233.9	478080	ppb	3233.9	0.68%
QC value within limits for Na 589.592 Radial Recovery = 95.62%								
Ni 231.604†	247.1	5.7835	ug/L	0.60242	5.7835	ppb	0.60242	10.42%
P 214.914†	433.7	32.893	ug/L	5.8476	32.893	ppb	5.8476	17.78%
Pb 220.353†	-670.1	4.1220	ug/L	1.15573	4.1220	ppb	1.15573	28.04%
S 181.975 Axial†	46.9	-35.686	ug/L	17.9316	-35.686	ppb	17.9316	50.25%
Sb 206.836†	51.1	-4.7495	ug/L	4.03650	-4.7495	ppb	4.03650	84.99%
Se 196.026†	-2525.0	-107.74	ug/L	26.007	-107.74	ppb	26.007	24.14%
Si 251.611†	-1221.5	-37.096	ug/L	0.4475	-37.096	ppb	0.4475	1.21%
Sn 189.927†	-461.7	2.1217	ug/L	1.17790	2.1217	ppb	1.17790	55.52%
Sr 421.552†	772.3	1.5763	ug/L	0.33837	1.5763	ppb	0.33837	21.47%
Ti 334.940†	-8842.1	5.9940	ug/L	1.17410	5.9940	ppb	1.17410	19.59%
Tl 190.801†	-82.9	-24.674	ug/L	1.7608	-24.674	ppb	1.7608	7.14%
U 409.014†	489772.4	13546	ug/L	20.4	13546	ppb	20.4	0.15%
QC value within limits for U 409.014 Recovery = 90.30%								
V 292.402†	4547.0	3.6944	ug/L	0.63388	3.6944	ppb	0.63388	17.16%
Zn 213.857†	5968.2	-37.260	ug/L	0.3142	-37.260	ppb	0.3142	0.84%
SiO2†	-1352.7	-87.773	ug/L	2.8908	-87.773	ppb	2.8908	3.29%

QC Failed. Continue with analysis.

Sequence No.: 12
Sample ID: LR2
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 16
Date Collected: 2/8/2010 08:07:56
Data Type: Reprocessed on 2/8/2010 09:03:33

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR2

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc 361.383	887632.5	887632.5	96.569	%			08:11:31
1	Sc Radial	5017.8	5017.8	100	%			08:09:54
1	Y 371.029	719599.6	719599.6	94.336	%			08:11:31
1	Y RADIAL	5189.3	5189.3	98.39	%			08:09:54
1	Ag 328.068†	-7778.9	-8351.4	3.3689	ug/L	3.3689	ppb	08:11:36
1	Al 396.153Radial†	374.7	562.6	28.130	ug/L	28.130	ppb	08:09:54
1	As 188.979†	22558.2	23393.9	9608.7	ug/L	9608.7	ppb	08:11:36
1	B 249.677†	216569.7	225027.4	4825.2	ug/L	4825.2	ppb	08:11:31
1	Ba 233.527†	1769611.6	1832500.0	13833	ug/L	13833	ppb	08:11:31
1	Be 313.107†	7740229.4	8020203.3	2819.9	ug/L	2819.9	ppb	08:11:25
1	Ca 317.933Radial†	28.2	11.1	17.420	ug/L	17.420	ppb	08:10:14
1	Cd 226.502†	859181.4	889922.5	9459.2	ug/L	9459.2	ppb	08:11:31
1	Co 228.616†	442828.3	458648.3	8955.4	ug/L	8955.4	ppb	08:11:36
1	Cr 267.716†	2125175.2	2200622.6	23500	ug/L	23500	ppb	08:11:31
1	Cu 324.752†	6699341.3	6931146.9	19747	ug/L	19747	ppb	08:11:25
1	Fe 238.204 Radial†	-18.7	-26.4	40.602	ug/L	40.602	ppb	08:10:14
1	K 766.490 Radial†	1608007.6	1603515.1	291510	ug/L	291510	ppb	08:09:49
1	Mg 279.077 IEC†	-3.4	-6.5	-116.74	ug/L	-116.74	ppb	08:10:14
1	Mn 257.610†	8352909.8	8649175.0	9225.4	ug/L	9225.4	ppb	08:11:25
1	Mo 202.031†	131973.3	136647.5	9431.7	ug/L	9431.7	ppb	08:11:36
1	Na 589.592 Radial†	-892.1	367.7	108.64	ug/L	108.64	ppb	08:09:54
1	Ni 231.604†	393363.0	407247.5	9533.7	ug/L	9533.7	ppb	08:11:31
1	P 214.914†	30571.3	31417.1	13639	ug/L	13639	ppb	08:11:36
1	Pb 220.353†	202167.3	209419.6	23479	ug/L	23479	ppb	08:11:36
1	S 181.975 Axial†	37233.5	38509.6	50426	ug/L	50426	ppb	08:11:36
1	Sb 206.836†	31277.3	32355.0	10406	ug/L	10406	ppb	08:11:36
1	Se 196.026†	15740.0	16318.3	9848.8	ug/L	9848.8	ppb	08:11:36
1	Si 251.611†	1491517.9	1543788.6	47450	ug/L	47450	ppb	08:11:31
1	Sn 189.927†	57113.5	59132.6	9899.8	ug/L	9899.8	ppb	08:11:36
1	Sr 421.552†	1423158.4	1421560.5	9442.1	ug/L	9442.1	ppb	08:09:49
1	Ti 334.940†	6279128.7	6503822.6	9706.4	ug/L	9706.4	ppb	08:11:25
1	Tl 190.801†	30318.0	31434.2	9296.9	ug/L	9296.9	ppb	08:11:36
1	U 409.014†	-2696.4	763.2	-31.349	ug/L	-31.349	ppb	08:11:36
1	V 292.402†	1413262.9	1465118.2	9986.3	ug/L	9986.3	ppb	08:11:31
1	Zn 213.857†	1468951.9	1520464.9	13544	ug/L	13544	ppb	08:11:31
1	SiO2†	1499695.0	1552181.6	101830	ug/L	101830	ppb	08:12:22
2	Sc 361.383	874312.7	874312.7	95.119	%			08:11:51
2	Sc Radial	5032.0	5032.0	100	%			08:10:24
2	Y 371.029	709091.5	709091.5	92.959	%			08:11:51
2	Y RADIAL	5233.5	5233.5	99.23	%			08:10:24
2	Ag 328.068†	-7846.2	-8544.8	2.4887	ug/L	2.4887	ppb	08:11:56
2	Al 396.153Radial†	385.5	572.3	21.674	ug/L	21.674	ppb	08:10:24
2	As 188.979†	22906.9	24116.3	9903.0	ug/L	9903.0	ppb	08:11:56
2	B 249.677†	212712.8	224389.2	4810.7	ug/L	4810.7	ppb	08:11:51
2	Ba 233.527†	1740834.4	1830163.4	13815	ug/L	13815	ppb	08:11:51
2	Be 313.107†	7640349.7	8037307.9	2825.9	ug/L	2825.9	ppb	08:11:45
2	Ca 317.933Radial†	34.9	17.8	27.787	ug/L	27.787	ppb	08:10:44
2	Cd 226.502†	840869.1	884225.0	9398.7	ug/L	9398.7	ppb	08:11:51
2	Co 228.616†	449045.1	472170.2	9220.2	ug/L	9220.2	ppb	08:11:56
2	Cr 267.716†	2089202.5	2196330.7	23454	ug/L	23454	ppb	08:11:51
2	Cu 324.752†	6618156.7	6951485.0	19805	ug/L	19805	ppb	08:11:45
2	Fe 238.204 Radial†	-18.4	-26.1	50.752	ug/L	50.752	ppb	08:10:44
2	K 766.490 Radial†	1650095.0	1640886.2	298300	ug/L	298300	ppb	08:10:19
2	Mg 279.077 IEC†	-3.3	-6.5	-113.01	ug/L	-113.01	ppb	08:10:44
2	Mn 257.610†	8246227.1	8668793.2	9246.3	ug/L	9246.3	ppb	08:11:45
2	Mo 202.031†	134204.9	141075.5	9737.3	ug/L	9737.3	ppb	08:11:56
2	Na 589.592 Radial†	-902.8	359.6	106.25	ug/L	106.25	ppb	08:10:24
2	Ni 231.604†	385752.3	405452.0	9491.5	ug/L	9491.5	ppb	08:11:51

2	P 214.914†	31039.9	32392.0	14172	ug/L	14172 ppb	08:11:56
2	Pb 220.353†	205037.4	215626.3	24175	ug/L	24175 ppb	08:11:56
2	S 181.975 Axial†	37906.1	39804.1	52121	ug/L	52121 ppb	08:11:56
2	Sb 206.836†	31841.7	33441.8	10754	ug/L	10754 ppb	08:11:56
2	Se 196.026†	16116.3	16962.2	10237	ug/L	10237 ppb	08:11:56
2	Si 251.611†	1465979.2	1540469.5	47344	ug/L	47344 ppb	08:11:51
2	Sn 189.927†	57793.0	60748.0	10170	ug/L	10170 ppb	08:11:56
2	Sr 421.552†	1464586.6	1458798.0	9689.4	ug/L	9689.4 ppb	08:10:19
2	Ti 334.940†	6204256.9	6524168.2	9736.9	ug/L	9736.9 ppb	08:11:45
2	Tl 190.801†	30768.9	32386.5	9575.7	ug/L	9575.7 ppb	08:11:56
2	U 409.014†	-2428.5	1002.4	-24.609	ug/L	-24.609 ppb	08:11:56
2	V 292.402†	1390977.5	1463984.9	9983.0	ug/L	9983.0 ppb	08:11:51
2	Zn 213.857†	1442821.0	1516167.3	13506	ug/L	13506 ppb	08:11:51
2	SiO2†	1496960.6	1572966.0	103190	ug/L	103190 ppb	08:12:28
3	Sc 361.383	884485.9	884485.9	96.226	%		08:12:11
3	Sc Radial	4807.7	4807.7	95.9	%		08:10:55
3	Y 371.029	718189.1	718189.1	94.151	%		08:12:11
3	Y RADIAL	5002.8	5002.8	94.85	%		08:10:55
3	Ag 328.068†	-8020.6	-8631.2	2.0250	ug/L	2.0250 ppb	08:12:16
3	Al 396.153Radial†	407.9	613.6	59.698	ug/L	59.698 ppb	08:10:55
3	As 188.979†	23121.1	24061.9	9881.0	ug/L	9881.0 ppb	08:12:16
3	B 249.677†	215011.4	224205.9	4806.8	ug/L	4806.8 ppb	08:12:11
3	Ba 233.527†	1754262.9	1823068.5	13761	ug/L	13761 ppb	08:12:11
3	Be 313.107†	7747477.5	8056250.4	2832.5	ug/L	2832.5 ppb	08:12:04
3	Ca 317.933Radial†	30.2	14.5	22.658	ug/L	22.658 ppb	08:11:15
3	Cd 226.502†	848816.2	882316.1	9378.4	ug/L	9378.4 ppb	08:12:11
3	Co 228.616†	452553.5	470386.3	9185.2	ug/L	9185.2 ppb	08:12:16
3	Cr 267.716†	2107230.8	2189803.6	23384	ug/L	23384 ppb	08:12:11
3	Cu 324.752†	6709207.5	6966080.2	19846	ug/L	19846 ppb	08:12:04
3	Fe 238.204 Radial†	-19.4	-27.9	33.958	ug/L	33.958 ppb	08:11:15
3	K 766.490 Radial†	1616529.4	1682583.7	305880	ug/L	305880 ppb	08:10:50
3	Mg 279.077 IEC†	-5.2	-8.6	-182.48	ug/L	-182.48 ppb	08:11:15
3	Mn 257.610†	8330293.4	8656443.5	9233.2	ug/L	9233.2 ppb	08:12:04
3	Mo 202.031†	135078.3	140360.4	9688.0	ug/L	9688.0 ppb	08:12:16
3	Na 589.592 Radial†	-956.3	261.9	77.377	ug/L	77.377 ppb	08:10:55
3	Ni 231.604†	389079.3	404245.0	9463.2	ug/L	9463.2 ppb	08:12:11
3	P 214.914†	31302.9	32290.0	14106	ug/L	14106 ppb	08:12:16
3	Pb 220.353†	206568.4	214738.1	24075	ug/L	24075 ppb	08:12:16
3	S 181.975 Axial†	38382.1	39840.4	52169	ug/L	52169 ppb	08:12:16
3	Sb 206.836†	32080.8	33305.3	10710	ug/L	10710 ppb	08:12:16
3	Se 196.026†	16265.4	16922.3	10213	ug/L	10213 ppb	08:12:16
3	Si 251.611†	1481683.4	1539063.1	47301	ug/L	47301 ppb	08:12:11
3	Sn 189.927†	58254.8	60529.1	10134	ug/L	10134 ppb	08:12:16
3	Sr 421.552†	1429598.6	1490390.8	9899.2	ug/L	9899.2 ppb	08:10:50
3	Ti 334.940†	6277408.2	6525166.9	9738.4	ug/L	9738.4 ppb	08:12:04
3	Tl 190.801†	30974.9	32228.6	9529.5	ug/L	9529.5 ppb	08:12:16
3	U 409.014†	-2445.8	1013.8	-24.135	ug/L	-24.135 ppb	08:12:16
3	V 292.402†	1404301.1	1461011.3	9962.3	ug/L	9962.3 ppb	08:12:11
3	Zn 213.857†	1454682.8	1511047.9	13460	ug/L	13460 ppb	08:12:11
3	SiO2†	1503807.0	1561979.7	102470	ug/L	102470 ppb	08:12:34

Mean Data: LR2

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	882143.7	95.971	%	0.7574				0.79%
Sc Radial	4952.5	98.8	%	2.51				2.54%
Y 371.029	715626.7	93.815	%	0.7477				0.80%
Y RADIAL	5141.9	97.49	%	2.321				2.38%
Ag 328.068†	-8509.1	2.6276	ug/L	0.68261	2.6276	ppb	0.68261	25.98%
Al 396.153Radial†	582.8	36.501	ug/L	20.3473	36.501	ppb	20.3473	55.75%
As 188.979†	23857.4	9797.6	ug/L	163.94	9797.6	ppb	163.94	1.67%
QC value within limits for As 188.979 Recovery = 97.98%								
B 249.677†	224540.8	4814.3	ug/L	9.68	4814.3	ppb	9.68	0.20%
QC value within limits for B 249.677 Recovery = 96.29%								
Ba 233.527†	1828577.3	13803	ug/L	37.0	13803	ppb	37.0	0.27%
QC value within limits for Ba 233.527 Recovery = 92.02%								
Be 313.107†	8037920.5	2826.1	ug/L	6.33	2826.1	ppb	6.33	0.22%
QC value within limits for Be 313.107 Recovery = 94.20%								
Ca 317.933Radial†	14.5	22.622	ug/L	5.1836	22.622	ppb	5.1836	22.91%
Cd 226.502†	885487.9	9412.1	ug/L	42.06	9412.1	ppb	42.06	0.45%

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   QC value within limits for Cd 226.502  Recovery = 94.12%
Co 228.616†          467068.3      9120.3 ug/L       143.83      9120.3 ppb        143.83   1.58%
   QC value within limits for Co 228.616  Recovery = 91.20%
Cr 267.716†         2195585.6       23446 ug/L         58.2       23446 ppb          58.2   0.25%
   QC value within limits for Cr 267.716  Recovery = 93.78%
Cu 324.752†         6949570.7       19799 ug/L         50.0       19799 ppb          50.0   0.25%
   QC value within limits for Cu 324.752  Recovery = 99.00%
Fe 238.204 Radial†       -26.8      41.771 ug/L       8.4579      41.771 ppb        8.4579  20.25%
K 766.490 Radial†    1642328.3      298570 ug/L       7190.9      298570 ppb        7190.9   2.41%
   QC value within limits for K 766.490 Radial  Recovery = 99.52%
Mg 279.077 IEC†          -7.2     -137.41 ug/L       39.073     -137.41 ppb        39.073  28.44%
Mn 257.610†          8658137.2      9235.0 ug/L        10.58      9235.0 ppb         10.58   0.11%
   QC value within limits for Mn 257.610  Recovery = 92.35%
Mo 202.031†           139361.1      9619.0 ug/L       164.08      9619.0 ppb        164.08   1.71%
   QC value within limits for Mo 202.031  Recovery = 96.19%
Na 589.592 Radial†       329.7      97.423 ug/L      17.4020      97.423 ppb       17.4020  17.86%
Ni 231.604†           405648.2      9496.1 ug/L        35.46      9496.1 ppb         35.46   0.37%
   QC value within limits for Ni 231.604  Recovery = 94.96%
P 214.914†             32033.1       13972 ug/L        290.8       13972 ppb         290.8   2.08%
   QC value within limits for P 214.914  Recovery = 93.15%
Pb 220.353†           213261.3       23910 ug/L        376.5       23910 ppb         376.5   1.57%
   QC value within limits for Pb 220.353  Recovery = 95.64%
S 181.975 Axial†       39384.7       51572 ug/L        992.7       51572 ppb         992.7   1.92%
   QC value within limits for S 181.975 Axial  Recovery = 103.14%
Sb 206.836†            33034.1       10623 ug/L        189.5       10623 ppb         189.5   1.78%
   QC value within limits for Sb 206.836  Recovery = 106.23%
Se 196.026†            16734.3       10100 ug/L        217.6       10100 ppb         217.6   2.15%
   QC value within limits for Se 196.026  Recovery = 101.00%
Si 251.611†          1541107.1       47365 ug/L         76.6       47365 ppb          76.6   0.16%
   QC value within limits for Si 251.611  Recovery = 94.73%
Sn 189.927†            60136.6       10068 ug/L        146.7       10068 ppb         146.7   1.46%
   QC value within limits for Sn 189.927  Recovery = 100.68%
Sr 421.552†          1456916.4      9676.9 ug/L       228.84      9676.9 ppb        228.84   2.36%
   QC value within limits for Sr 421.552  Recovery = 96.77%
Ti 334.940†          6517719.2      9727.2 ug/L        18.01      9727.2 ppb         18.01   0.19%
   QC value within limits for Ti 334.940  Recovery = 97.27%
Tl 190.801†            32016.4      9467.4 ug/L       149.44      9467.4 ppb        149.44   1.58%
   QC value within limits for Tl 190.801  Recovery = 94.67%
U 409.014†               926.5     -26.697 ug/L       4.0352     -26.697 ppb        4.0352  15.11%
V 292.402†           1463371.5      9977.2 ug/L        13.02      9977.2 ppb         13.02   0.13%
   QC value within limits for V 292.402  Recovery = 99.77%
Zn 213.857†          1515893.4       13504 ug/L         42.1       13504 ppb          42.1   0.31%
   QC value within limits for Zn 213.857  Recovery = 90.02%
SiO2†                1562375.8      102490 ug/L        679.7      102490 ppb         679.7   0.66%
   QC value within limits for SiO2  Recovery = 95.79%
All analyte(s) passed QC.
```

Sequence No.: 13
Sample ID: CCV
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/8/2010 08:14:46
Data Type: Reprocessed on 2/8/2010 09:03:35

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc 361.383	922411.0	922411.0	100.35	%			08:17:56
1	Sc Radial	5112.1	5112.1	102	%			08:16:38
1	Y 371.029	755307.8	755307.8	99.017	%			08:17:56
1	Y RADIAL	5298.7	5298.7	100.5	%			08:16:38
1	Ag 328.068†	114343.5	113646.2	499.34	ug/L	499.34	ppb	08:18:01
1	Al 396.153Radial†	5710.5	5787.3	4970.4	ug/L	4970.4	ppb	08:16:38
1	As 188.979†	1227.3	1257.1	517.27	ug/L	517.27	ppb	08:18:21
1	B 249.677†	23277.4	23957.9	514.22	ug/L	514.22	ppb	08:18:01
1	Ba 233.527†	65883.8	65660.2	496.09	ug/L	496.09	ppb	08:18:01
1	Be 313.107†	1404665.4	1404670.2	491.13	ug/L	491.13	ppb	08:17:56
1	Ca 317.933Radial†	3274.4	3193.4	4996.9	ug/L	4996.9	ppb	08:16:58
1	Cd 226.502†	46821.9	46868.8	497.76	ug/L	497.76	ppb	08:18:01
1	Co 228.616†	25442.0	25437.5	496.87	ug/L	496.87	ppb	08:18:01
1	Cr 267.716†	46720.6	46488.8	496.75	ug/L	496.75	ppb	08:18:01
1	Cu 324.752†	179623.0	172746.1	492.14	ug/L	492.14	ppb	08:18:01
1	Fe 238.204 Radial†	596.1	576.8	4986.2	ug/L	4986.2	ppb	08:16:58
1	K 766.490 Radial†	31839.6	28517.0	5178.3	ug/L	5178.3	ppb	08:16:38
1	Mg 279.077 IEC†	160.4	154.1	5084.0	ug/L	5084.0	ppb	08:16:58
1	Mn 257.610†	462692.2	460523.9	491.49	ug/L	491.49	ppb	08:17:56
1	Mo 202.031†	7177.4	7136.8	493.05	ug/L	493.05	ppb	08:18:21
1	Na 589.592 Radial†	31319.6	31966.7	9445.0	ug/L	9445.0	ppb	08:16:38
1	Ni 231.604†	21375.3	21207.1	496.44	ug/L	496.44	ppb	08:18:01
1	P 214.914†	4622.8	4366.1	2331.7	ug/L	2331.7	ppb	08:18:21
1	Pb 220.353†	4310.7	4364.1	490.65	ug/L	490.65	ppb	08:18:21
1	S 181.975 Axial†	804.1	754.3	986.78	ug/L	986.78	ppb	08:18:21
1	Sb 206.836†	1657.3	1617.9	520.56	ug/L	520.56	ppb	08:18:21
1	Se 196.026†	798.7	814.9	508.48	ug/L	508.48	ppb	08:18:21
1	Si 251.611†	81688.0	80672.9	2479.6	ug/L	2479.6	ppb	08:18:01
1	Sn 189.927†	2974.4	2953.6	495.32	ug/L	495.32	ppb	08:18:21
1	Sr 421.552†	76133.4	74634.2	495.69	ug/L	495.69	ppb	08:16:38
1	Ti 334.940†	329164.6	329582.8	492.16	ug/L	492.16	ppb	08:17:56
1	Tl 190.801†	1636.6	1669.8	493.63	ug/L	493.63	ppb	08:18:21
1	U 409.014†	14360.9	17865.9	494.19	ug/L	494.19	ppb	08:18:01
1	V 292.402†	72029.1	73413.1	501.24	ug/L	501.24	ppb	08:18:01
1	Zn 213.857†	56426.2	55543.9	493.08	ug/L	493.08	ppb	08:18:01
1	SiO2†	79041.4	77961.0	5114.0	ug/L	5114.0	ppb	08:19:29
2	Sc 361.383	916749.6	916749.6	99.736	%			08:18:27
2	Sc Radial	5110.1	5110.1	102	%			08:17:03
2	Y 371.029	750372.4	750372.4	98.370	%			08:18:27
2	Y RADIAL	5335.8	5335.8	101.2	%			08:17:03
2	Ag 328.068†	112238.0	112238.7	493.18	ug/L	493.18	ppb	08:18:32
2	Al 396.153Radial†	5681.4	5760.9	4947.6	ug/L	4947.6	ppb	08:17:03
2	As 188.979†	1215.3	1252.6	515.44	ug/L	515.44	ppb	08:18:52
2	B 249.677†	22808.4	23630.9	507.19	ug/L	507.19	ppb	08:18:32
2	Ba 233.527†	64719.1	64897.9	490.33	ug/L	490.33	ppb	08:18:32
2	Be 313.107†	1396825.5	1405453.8	491.41	ug/L	491.41	ppb	08:18:27
2	Ca 317.933Radial†	3272.3	3192.6	4995.7	ug/L	4995.7	ppb	08:17:23
2	Cd 226.502†	45932.6	46265.3	491.34	ug/L	491.34	ppb	08:18:32
2	Co 228.616†	24896.5	25047.1	489.24	ug/L	489.24	ppb	08:18:32
2	Cr 267.716†	45939.5	45993.2	491.45	ug/L	491.45	ppb	08:18:32
2	Cu 324.752†	176229.8	170449.2	485.60	ug/L	485.60	ppb	08:18:32
2	Fe 238.204 Radial†	594.5	575.4	4974.2	ug/L	4974.2	ppb	08:17:23
2	K 766.490 Radial†	31715.5	28407.2	5158.4	ug/L	5158.4	ppb	08:17:03
2	Mg 279.077 IEC†	162.0	155.8	5139.2	ug/L	5139.2	ppb	08:17:23
2	Mn 257.610†	460191.0	460863.5	491.85	ug/L	491.85	ppb	08:18:27
2	Mo 202.031†	7119.8	7123.3	492.11	ug/L	492.11	ppb	08:18:52
2	Na 589.592 Radial†	31165.2	31826.9	9403.7	ug/L	9403.7	ppb	08:17:03
2	Ni 231.604†	21017.2	20979.6	491.12	ug/L	491.12	ppb	08:18:32

2	P 214.914†	4580.5	4352.1	2325.2 ug/L	2325.2 ppb	08:18:52
2	Pb 220.353†	4293.0	4372.9	491.63 ug/L	491.63 ppb	08:18:52
2	S 181.975 Axial†	783.9	739.0	966.81 ug/L	966.81 ppb	08:18:52
2	Sb 206.836†	1626.4	1597.1	514.10 ug/L	514.10 ppb	08:18:52
2	Se 196.026†	778.8	799.8	499.37 ug/L	499.37 ppb	08:18:52
2	Si 251.611†	79903.7	79386.6	2439.9 ug/L	2439.9 ppb	08:18:32
2	Sn 189.927†	2973.5	2971.0	498.24 ug/L	498.24 ppb	08:18:52
2	Sr 421.552†	75714.4	74251.5	493.14 ug/L	493.14 ppb	08:17:03
2	Ti 334.940†	327563.6	330003.2	492.79 ug/L	492.79 ppb	08:18:27
2	Tl 190.801†	1631.1	1674.3	495.01 ug/L	495.01 ppb	08:18:52
2	U 409.014†	13830.2	17422.2	481.89 ug/L	481.89 ppb	08:18:32
2	V 292.402†	70654.3	72478.0	494.90 ug/L	494.90 ppb	08:18:32
2	Zn 213.857†	55359.7	54821.9	486.65 ug/L	486.65 ppb	08:18:32
2	SiO2†	80496.8	79906.6	5242.0 ug/L	5242.0 ppb	08:19:34
3	Sc 361.383	915692.9	915692.9	99.621 %		08:18:58
3	Sc Radial	5157.4	5157.4	103 %		08:17:28
3	Y 371.029	750616.6	750616.6	98.402 %		08:18:58
3	Y RADIAL	5393.8	5393.8	102.3 %		08:17:28
3	Ag 328.068†	113029.4	113163.0	497.19 ug/L	497.19 ppb	08:19:04
3	Al 396.153Radial†	5809.5	5834.3	5010.8 ug/L	5010.8 ppb	08:17:28
3	As 188.979†	1235.1	1273.9	524.11 ug/L	524.11 ppb	08:19:24
3	B 249.677†	22859.0	23708.0	508.86 ug/L	508.86 ppb	08:19:04
3	Ba 233.527†	65097.6	65352.7	493.77 ug/L	493.77 ppb	08:19:04
3	Be 313.107†	1394618.0	1404853.9	491.20 ug/L	491.20 ppb	08:18:58
3	Ca 317.933Radial†	3246.5	3138.1	4910.4 ug/L	4910.4 ppb	08:17:48
3	Cd 226.502†	46216.7	46603.7	494.95 ug/L	494.95 ppb	08:19:04
3	Co 228.616†	25006.8	25186.6	491.98 ug/L	491.98 ppb	08:19:04
3	Cr 267.716†	46093.0	46200.4	493.66 ug/L	493.66 ppb	08:19:04
3	Cu 324.752†	176923.2	171349.2	488.16 ug/L	488.16 ppb	08:19:04
3	Fe 238.204 Radial†	588.4	564.1	4876.6 ug/L	4876.6 ppb	08:17:48
3	K 766.490 Radial†	32018.9	28416.7	5160.2 ug/L	5160.2 ppb	08:17:28
3	Mg 279.077 IEC†	159.2	151.6	5001.2 ug/L	5001.2 ppb	08:17:48
3	Mn 257.610†	458284.9	459482.6	490.37 ug/L	490.37 ppb	08:18:58
3	Mo 202.031†	7170.9	7182.8	496.21 ug/L	496.21 ppb	08:19:24
3	Na 589.592 Radial†	31487.1	31859.4	9413.4 ug/L	9413.4 ppb	08:17:28
3	Ni 231.604†	21139.2	21126.4	494.55 ug/L	494.55 ppb	08:19:04
3	P 214.914†	4613.9	4390.9	2346.4 ug/L	2346.4 ppb	08:19:24
3	Pb 220.353†	4339.3	4424.4	497.43 ug/L	497.43 ppb	08:19:24
3	S 181.975 Axial†	798.2	754.2	986.69 ug/L	986.69 ppb	08:19:24
3	Sb 206.836†	1660.5	1633.2	525.45 ug/L	525.45 ppb	08:19:24
3	Se 196.026†	788.4	810.4	505.45 ug/L	505.45 ppb	08:19:24
3	Si 251.611†	80370.2	79947.3	2457.2 ug/L	2457.2 ppb	08:19:04
3	Sn 189.927†	2982.3	2983.3	500.29 ug/L	500.29 ppb	08:19:24
3	Sr 421.552†	76814.9	74640.0	495.72 ug/L	495.72 ppb	08:17:28
3	Ti 334.940†	326520.3	329334.9	491.79 ug/L	491.79 ppb	08:18:58
3	Tl 190.801†	1640.0	1685.1	498.15 ug/L	498.15 ppb	08:19:24
3	U 409.014†	14012.9	17621.6	487.43 ug/L	487.43 ppb	08:19:04
3	V 292.402†	71139.5	73046.8	498.81 ug/L	498.81 ppb	08:19:04
3	Zn 213.857†	55611.3	55138.5	489.49 ug/L	489.49 ppb	08:19:04
3	SiO2†	80159.8	79661.5	5225.7 ug/L	5225.7 ppb	08:19:39

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	918284.5	99.903	%	0.3930				0.39%
Sc Radial	5126.5	102	%	0.5				0.52%
Y 371.029	752099.0	98.597	%	0.3647				0.37%
Y RADIAL	5342.8	101.3	%	0.91				0.90%
Ag 328.068†	113016.0	496.57	ug/L	3.129	496.57	ppb	3.129	0.63%
QC value within limits for Ag 328.068 Recovery = 99.31%								
Al 396.153Radial†	5794.2	4976.3	ug/L	32.00	4976.3	ppb	32.00	0.64%
QC value within limits for Al 396.153Radial Recovery = 99.53%								
As 188.979†	1261.2	518.94	ug/L	4.570	518.94	ppb	4.570	0.88%
QC value within limits for As 188.979 Recovery = 103.79%								
B 249.677†	23765.6	510.09	ug/L	3.670	510.09	ppb	3.670	0.72%
QC value within limits for B 249.677 Recovery = 102.02%								
Ba 233.527†	65303.6	493.40	ug/L	2.897	493.40	ppb	2.897	0.59%
QC value within limits for Ba 233.527 Recovery = 98.68%								
Be 313.107†	1404992.6	491.25	ug/L	0.144	491.25	ppb	0.144	0.03%
QC value within limits for Be 313.107 Recovery = 98.25%								

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Ca 317.933Radial†       3174.7      4967.7 ug/L         49.61      4967.7 ppb          49.61   1.00%
   QC value within limits for Ca 317.933Radial  Recovery = 99.35%
Cd 226.502†            46579.3      494.69 ug/L          3.216      494.69 ppb           3.216   0.65%
   QC value within limits for Cd 226.502  Recovery = 98.94%
Co 228.616†            25223.7      492.70 ug/L          3.865      492.70 ppb           3.865   0.78%
   QC value within limits for Co 228.616  Recovery = 98.54%
Cr 267.716†            46227.5      493.95 ug/L          2.659      493.95 ppb           2.659   0.54%
   QC value within limits for Cr 267.716  Recovery = 98.79%
Cu 324.752†           171514.9      488.63 ug/L          3.295      488.63 ppb           3.295   0.67%
   QC value within limits for Cu 324.752  Recovery = 97.73%
Fe 238.204 Radial†       572.1      4945.7 ug/L         60.14      4945.7 ppb          60.14   1.22%
   QC value within limits for Fe 238.204 Radial  Recovery = 98.91%
K 766.490 Radial†      28447.0      5165.6 ug/L         11.05      5165.6 ppb          11.05   0.21%
   QC value within limits for K 766.490 Radial  Recovery = 103.31%
Mg 279.077 IEC†          153.8      5074.8 ug/L         69.43      5074.8 ppb          69.43   1.37%
   QC value within limits for Mg 279.077 IEC  Recovery = 101.50%
Mn 257.610†           460290.0      491.24 ug/L          0.770      491.24 ppb           0.770   0.16%
   QC value within limits for Mn 257.610  Recovery = 98.25%
Mo 202.031†             7147.6      493.79 ug/L          2.148      493.79 ppb           2.148   0.43%
   QC value within limits for Mo 202.031  Recovery = 98.76%
Na 589.592 Radial†     31884.3      9420.7 ug/L         21.61      9420.7 ppb          21.61   0.23%
   QC value within limits for Na 589.592 Radial  Recovery = 94.21%
Ni 231.604†            21104.4      494.04 ug/L          2.699      494.04 ppb           2.699   0.55%
   QC value within limits for Ni 231.604  Recovery = 98.81%
P 214.914†              4369.7      2334.4 ug/L         10.86      2334.4 ppb          10.86   0.47%
   QC value within limits for P 214.914  Recovery = 93.38%
Pb 220.353†             4387.1      493.24 ug/L          3.664      493.24 ppb           3.664   0.74%
   QC value within limits for Pb 220.353  Recovery = 98.65%
S 181.975 Axial†         749.2      980.10 ug/L         11.504      980.10 ppb          11.504   1.17%
   QC value within limits for S 181.975 Axial  Recovery = 98.01%
Sb 206.836†             1616.1      520.04 ug/L          5.690      520.04 ppb           5.690   1.09%
   QC value within limits for Sb 206.836  Recovery = 104.01%
Se 196.026†              808.4      504.43 ug/L          4.637      504.43 ppb           4.637   0.92%
   QC value within limits for Se 196.026  Recovery = 100.89%
Si 251.611†            80002.3      2458.9 ug/L         19.87      2458.9 ppb          19.87   0.81%
   QC value within limits for Si 251.611  Recovery = 98.36%
Sn 189.927†             2969.3      497.95 ug/L          2.494      497.95 ppb           2.494   0.50%
   QC value within limits for Sn 189.927  Recovery = 99.59%
Sr 421.552†            74508.6      494.85 ug/L          1.479      494.85 ppb           1.479   0.30%
   QC value within limits for Sr 421.552  Recovery = 98.97%
Ti 334.940†           329640.3      492.25 ug/L          0.506      492.25 ppb           0.506   0.10%
   QC value within limits for Ti 334.940  Recovery = 98.45%
Tl 190.801†             1676.4      495.60 ug/L          2.316      495.60 ppb           2.316   0.47%
   QC value within limits for Tl 190.801  Recovery = 99.12%
U 409.014†             17636.6      487.84 ug/L          6.161      487.84 ppb           6.161   1.26%
   QC value within limits for U 409.014  Recovery = 97.57%
V 292.402†             72979.3      498.32 ug/L          3.196      498.32 ppb           3.196   0.64%
   QC value within limits for V 292.402  Recovery = 99.66%
Zn 213.857†            55168.1      489.74 ug/L          3.221      489.74 ppb           3.221   0.66%
   QC value within limits for Zn 213.857  Recovery = 97.95%
SiO2†                  79176.4      5193.9 ug/L         69.68      5193.9 ppb          69.68   1.34%
   QC value within limits for SiO2  Recovery = 97.13%
All analyte(s) passed QC.
```

Sequence No.: 14
Sample ID: CCB
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/8/2010 08:21:50
Data Type: Reprocessed on 2/8/2010 09:03:36

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc 361.383	928653.0	928653.0	101.03	%			08:24:59
1	Sc Radial	5054.9	5054.9	101	%			08:23:42
1	Y 371.029	769523.9	769523.9	100.88	%			08:24:59
1	Y RADIAL	5306.6	5306.6	100.6	%			08:23:42
1	Ag 328.068†	400.0	99.9	0.4388	ug/L	0.4388	ppb	08:25:04
1	Al 396.153Radial†	-178.7	11.2	9.6400	ug/L	9.6400	ppb	08:23:42
1	As 188.979†	-3.7	30.5	12.442	ug/L	12.442	ppb	08:25:24
1	B 249.677†	484.0	1241.3	26.755	ug/L	26.755	ppb	08:25:04
1	Ba 233.527†	-7.3	0.4	0.0038	ug/L	0.0038	ppb	08:25:24
1	Be 313.107†	-4831.2	153.3	0.0538	ug/L	0.0538	ppb	08:25:04
1	Ca 317.933Radial†	16.3	-0.9	-1.3993	ug/L	-1.3993	ppb	08:24:02
1	Cd 226.502†	-185.3	27.8	0.2952	ug/L	0.2952	ppb	08:25:24
1	Co 228.616†	-73.3	12.2	0.2391	ug/L	0.2391	ppb	08:25:24
1	Cr 267.716†	53.1	-15.3	-0.1632	ug/L	-0.1632	ppb	08:25:24
1	Cu 324.752†	6313.7	2.8	0.0069	ug/L	0.0069	ppb	08:25:04
1	Fe 238.204 Radial†	8.9	1.1	9.3058	ug/L	9.3058	ppb	08:24:02
1	K 766.490 Radial†	3254.1	526.1	95.645	ug/L	95.645	ppb	08:23:42
1	Mg 279.077 IEC†	2.1	-1.1	-37.817	ug/L	-37.817	ppb	08:24:02
1	Mn 257.610†	511.5	-37.9	-0.0380	ug/L	-0.0380	ppb	08:25:24
1	Mo 202.031†	19.6	4.0	0.2764	ug/L	0.2764	ppb	08:25:24
1	Na 589.592 Radial†	-1281.7	-12.0	-3.5584	ug/L	-3.5584	ppb	08:23:42
1	Ni 231.604†	88.1	-6.0	-0.1396	ug/L	-0.1396	ppb	08:25:24
1	P 214.914†	247.8	4.8	2.6568	ug/L	2.6568	ppb	08:25:24
1	Pb 220.353†	-48.6	20.4	2.2882	ug/L	2.2882	ppb	08:25:24
1	S 181.975 Axial†	41.7	-5.7	-7.4927	ug/L	-7.4927	ppb	08:25:24
1	Sb 206.836†	68.0	33.7	10.501	ug/L	10.501	ppb	08:25:24
1	Se 196.026†	-26.8	-7.5	-4.5033	ug/L	-4.5033	ppb	08:25:24
1	Si 251.611†	783.2	46.9	1.4401	ug/L	1.4401	ppb	08:25:24
1	Sn 189.927†	19.3	8.7	1.4627	ug/L	1.4627	ppb	08:25:24
1	Sr 421.552†	-6.8	-18.8	-0.1246	ug/L	-0.1246	ppb	08:23:42
1	Ti 334.940†	-1491.9	96.9	0.1465	ug/L	0.1465	ppb	08:25:04
1	Tl 190.801†	-46.5	-7.1	-2.0929	ug/L	-2.0929	ppb	08:25:24
1	U 409.014†	-3495.1	96.1	2.6652	ug/L	2.6652	ppb	08:24:59
1	V 292.402†	-1594.4	58.8	0.4027	ug/L	0.4027	ppb	08:25:04
1	Zn 213.857†	774.9	82.8	0.7416	ug/L	0.7416	ppb	08:25:24
1	SiO2†	806.4	-4.8	-0.3235	ug/L	-0.3235	ppb	08:26:30
2	Sc 361.383	918621.0	918621.0	99.940	%			08:25:29
2	Sc Radial	5049.3	5049.3	101	%			08:24:07
2	Y 371.029	761919.1	761919.1	99.884	%			08:25:29
2	Y RADIAL	5324.1	5324.1	100.9	%			08:24:07
2	Ag 328.068†	398.8	103.0	0.4618	ug/L	0.4618	ppb	08:25:34
2	Al 396.153Radial†	-155.7	33.8	29.164	ug/L	29.164	ppb	08:24:07
2	As 188.979†	-0.4	33.7	13.743	ug/L	13.743	ppb	08:25:54
2	B 249.677†	466.7	1229.2	26.490	ug/L	26.490	ppb	08:25:34
2	Ba 233.527†	6.1	13.7	0.1051	ug/L	0.1051	ppb	08:25:54
2	Be 313.107†	-4755.1	177.3	0.0617	ug/L	0.0617	ppb	08:25:34
2	Ca 317.933Radial†	18.9	1.7	2.6465	ug/L	2.6465	ppb	08:24:27
2	Cd 226.502†	-187.5	23.6	0.2477	ug/L	0.2477	ppb	08:25:54
2	Co 228.616†	-73.2	11.6	0.2253	ug/L	0.2253	ppb	08:25:54
2	Cr 267.716†	67.7	-0.1	-0.0008	ug/L	-0.0008	ppb	08:25:54
2	Cu 324.752†	6160.4	-82.4	-0.2342	ug/L	-0.2342	ppb	08:25:34
2	Fe 238.204 Radial†	12.2	4.4	37.560	ug/L	37.560	ppb	08:24:27
2	K 766.490 Radial†	3238.3	513.9	93.424	ug/L	93.424	ppb	08:24:07
2	Mg 279.077 IEC†	2.0	-1.2	-40.379	ug/L	-40.379	ppb	08:24:27
2	Mn 257.610†	493.7	-50.2	-0.0482	ug/L	-0.0482	ppb	08:25:54
2	Mo 202.031†	13.9	-1.5	-0.0993	ug/L	-0.0993	ppb	08:25:54
2	Na 589.592 Radial†	-1250.0	18.1	5.3375	ug/L	5.3375	ppb	08:24:07
2	Ni 231.604†	82.6	-10.5	-0.2461	ug/L	-0.2461	ppb	08:25:54

2	P 214.914†	234.3	-6.0	-3.3060 ug/L	-3.3060 ppb	08:25:54
2	Pb 220.353†	-58.3	10.2	1.1501 ug/L	1.1501 ppb	08:25:54
2	S 181.975 Axial†	45.7	-1.3	-1.6594 ug/L	-1.6594 ppb	08:25:54
2	Sb 206.836†	67.1	33.5	10.438 ug/L	10.438 ppb	08:25:54
2	Se 196.026†	-21.4	-2.5	-1.3587 ug/L	-1.3587 ppb	08:25:54
2	Si 251.611†	766.3	38.4	1.1838 ug/L	1.1838 ppb	08:25:54
2	Sn 189.927†	19.0	8.6	1.4481 ug/L	1.4481 ppb	08:25:54
2	Sr 421.552†	-14.9	-26.9	-0.1787 ug/L	-0.1787 ppb	08:24:07
2	Ti 334.940†	-1599.1	-26.5	-0.0370 ug/L	-0.0370 ppb	08:25:34
2	Tl 190.801†	-32.4	6.5	1.9157 ug/L	1.9157 ppb	08:25:54
2	U 409.014†	-3457.8	95.6	2.6490 ug/L	2.6490 ppb	08:25:29
2	V 292.402†	-1574.4	61.6	0.4125 ug/L	0.4125 ppb	08:25:34
2	Zn 213.857†	786.6	102.9	0.9166 ug/L	0.9166 ppb	08:25:54
2	SiO2†	787.7	-14.8	-0.9715 ug/L	-0.9715 ppb	08:26:35
3	Sc 361.383	932382.7	932382.7	101.44 %		08:26:00
3	Sc Radial	5083.3	5083.3	101 %		08:24:32
3	Y 371.029	773322.5	773322.5	101.38 %		08:26:00
3	Y RADIAL	5354.4	5354.4	101.5 %		08:24:32
3	Ag 328.068†	266.9	-32.9	-0.1359 ug/L	-0.1359 ppb	08:26:05
3	Al 396.153Radial†	-196.8	-5.7	-4.9407 ug/L	-4.9407 ppb	08:24:32
3	As 188.979†	-2.8	31.4	12.799 ug/L	12.799 ppb	08:26:25
3	B 249.677†	487.0	1242.3	26.775 ug/L	26.775 ppb	08:26:05
3	Ba 233.527†	-4.7	2.9	0.0227 ug/L	0.0227 ppb	08:26:25
3	Be 313.107†	-4759.5	243.2	0.0849 ug/L	0.0849 ppb	08:26:05
3	Ca 317.933Radial†	15.5	-1.7	-2.6774 ug/L	-2.6774 ppb	08:24:52
3	Cd 226.502†	-180.7	33.2	0.3502 ug/L	0.3502 ppb	08:26:25
3	Co 228.616†	-88.5	-2.4	-0.0472 ug/L	-0.0472 ppb	08:26:25
3	Cr 267.716†	82.5	13.5	0.1446 ug/L	0.1446 ppb	08:26:25
3	Cu 324.752†	6313.1	-22.8	-0.0633 ug/L	-0.0633 ppb	08:26:05
3	Fe 238.204 Radial†	10.3	2.4	20.721 ug/L	20.721 ppb	08:24:52
3	K 766.490 Radial†	3185.2	440.0	80.000 ug/L	80.000 ppb	08:24:32
3	Mg 279.077 IEC†	4.0	0.8	26.102 ug/L	26.102 ppb	08:24:52
3	Mn 257.610†	458.7	-92.0	-0.0972 ug/L	-0.0972 ppb	08:26:25
3	Mo 202.031†	20.3	4.7	0.3228 ug/L	0.3228 ppb	08:26:25
3	Na 589.592 Radial†	-1334.6	-57.1	-16.876 ug/L	-16.876 ppb	08:24:32
3	Ni 231.604†	86.9	-7.4	-0.1735 ug/L	-0.1735 ppb	08:26:25
3	P 214.914†	224.0	-19.7	-10.965 ug/L	-10.965 ppb	08:26:25
3	Pb 220.353†	-52.4	16.9	1.8888 ug/L	1.8888 ppb	08:26:25
3	S 181.975 Axial†	48.2	0.6	0.7529 ug/L	0.7529 ppb	08:26:25
3	Sb 206.836†	56.1	21.7	6.7607 ug/L	6.7607 ppb	08:26:25
3	Se 196.026†	-29.3	-9.9	-5.8800 ug/L	-5.8800 ppb	08:26:25
3	Si 251.611†	760.5	21.3	0.6537 ug/L	0.6537 ppb	08:26:25
3	Sn 189.927†	11.6	1.1	0.1858 ug/L	0.1858 ppb	08:26:25
3	Sr 421.552†	14.1	1.8	0.0122 ug/L	0.0122 ppb	08:24:32
3	Ti 334.940†	-1579.2	16.7	0.0229 ug/L	0.0229 ppb	08:26:05
3	Tl 190.801†	-38.5	1.0	0.2915 ug/L	0.2915 ppb	08:26:25
3	U 409.014†	-3640.7	-33.7	-0.9370 ug/L	-0.9370 ppb	08:26:00
3	V 292.402†	-1663.1	-2.6	-0.0174 ug/L	-0.0174 ppb	08:26:05
3	Zn 213.857†	760.8	65.9	0.5874 ug/L	0.5874 ppb	08:26:25
3	SiO2†	750.2	-63.5	-4.1824 ug/L	-4.1824 ppb	08:26:40

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	926552.2	100.80	%	0.774				0.77%
Sc Radial	5062.5	101	%	0.4				0.36%
Y 371.029	768255.2	100.71	%	0.761				0.76%
Y RADIAL	5328.4	101.0	%	0.46				0.45%
Ag 328.068†	56.7	0.2549	ug/L	0.33866	0.2549	ppb	0.33866	132.87%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	13.1	11.288	ug/L	17.1120	11.288	ppb	17.1120	151.60%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	31.8	12.995	ug/L	0.6722	12.995	ppb	0.6722	5.17%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	1237.6	26.673	ug/L	0.1593	26.673	ppb	0.1593	0.60%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	5.7	0.0439	ug/L	0.05388	0.0439	ppb	0.05388	122.77%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	191.3	0.0668	ug/L	0.01614	0.0668	ppb	0.01614	24.16%
QC value within limits for Be 313.107 Recovery = Not calculated								

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Ca 317.933Radial†          -0.3     -0.4767 ug/L       2.77925     -0.4767 ppb        2.77925 582.96%
   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                28.2      0.2977 ug/L       0.05129      0.2977 ppb        0.05129  17.23%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                 7.1      0.1391 ug/L       0.16148      0.1391 ppb        0.16148 116.11%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                -0.6     -0.0065 ug/L       0.15397     -0.0065 ppb        0.15397 >999.9%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               -34.1     -0.0969 ug/L       0.12399     -0.0969 ppb        0.12399 128.00%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          2.6      22.529 ug/L       14.2134      22.529 ppb        14.2134  63.09%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         493.3      89.690 ug/L        8.4647      89.690 ppb         8.4647   9.44%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -0.5     -17.365 ug/L       37.6653     -17.365 ppb        37.6653 216.91%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               -60.0     -0.0611 ug/L       0.03164     -0.0611 ppb        0.03164  51.78%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 2.4      0.1666 ug/L       0.23146      0.1666 ppb        0.23146 138.90%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        -17.0     -5.0322 ug/L      11.17964     -5.0322 ppb       11.17964 222.16%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                -8.0     -0.1864 ug/L       0.05439     -0.1864 ppb        0.05439  29.17%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -7.0     -3.8714 ug/L       6.82850     -3.8714 ppb        6.82850 176.38%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                15.8      1.7757 ug/L       0.57743      1.7757 ppb        0.57743  32.52%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -2.1     -2.7997 ug/L       4.23945     -2.7997 ppb        4.23945 151.42%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                29.6      9.2332 ug/L       2.14150      9.2332 ppb        2.14150  23.19%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -6.6     -3.9140 ug/L       2.31755     -3.9140 ppb        2.31755  59.21%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                35.5      1.0925 ug/L       0.40110      1.0925 ppb        0.40110  36.71%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 6.2      1.0322 ug/L       0.73303      1.0322 ppb        0.73303  71.01%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               -14.6     -0.0970 ug/L       0.09840     -0.0970 ppb        0.09840 101.42%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                29.0      0.0441 ug/L       0.09360      0.0441 ppb        0.09360 212.22%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 0.1      0.0381 ug/L       2.01630      0.0381 ppb        2.01630 >999.9%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 52.7      1.4591 ug/L       2.07508      1.4591 ppb        2.07508 142.22%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 39.3      0.2659 ug/L       0.24543      0.2659 ppb        0.24543  92.29%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                83.9      0.7485 ug/L       0.16471      0.7485 ppb        0.16471  22.01%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                     -27.7     -1.8258 ug/L       2.06641     -1.8258 ppb        2.06641 113.18%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 15
Sample ID: LR1
Analyst: HSC
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 37
Date Collected: 2/8/2010 08:31:00
Data Type: Reprocessed on 2/8/2010 09:03:37

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc 361.383	915231.2	915231.2	99.571	%			08:34:11
1	Sc Radial	5133.2	5133.2	102	%			08:32:53
1	Y 371.029	755691.7	755691.7	99.068	%			08:34:11
1	Y RADIAL	5364.2	5364.2	101.7	%			08:32:53
1	Ag 328.068†	-27115.9	-27528.7	5.1567	ug/L	5.1567	ppb	08:34:11
1	Al 396.153Radial†	-200.9	-7.8	-5.4556	ug/L	-5.4556	ppb	08:32:53
1	As 188.979†	-214.6	-181.4	12.876	ug/L	12.876	ppb	08:34:31
1	B 249.677†	2291.5	3063.5	5.8121	ug/L	5.8121	ppb	08:34:11
1	Ba 233.527†	-2140.3	-2142.0	-4.7374	ug/L	-4.7374	ppb	08:34:11
1	Be 313.107†	-4645.8	269.5	0.0942	ug/L	0.0942	ppb	08:34:11
1	Ca 317.933Radial†	3.3	-13.8	-21.557	ug/L	-21.557	ppb	08:33:13
1	Cd 226.502†	3167.6	3392.5	-2.2461	ug/L	-2.2461	ppb	08:34:11
1	Co 228.616†	191.9	277.5	-0.0005	ug/L	-0.0005	ppb	08:34:31
1	Cr 267.716†	-696.8	-767.6	-0.9342	ug/L	-0.9342	ppb	08:34:11
1	Cu 324.752†	-1376.3	-7628.7	-2.1482	ug/L	-2.1482	ppb	08:34:11
1	Fe 238.204 Radial†	44062.0	43015.7	370770	ug/L	370770	ppb	08:32:53
1	K 766.490 Radial†	2560.8	-200.2	-36.336	ug/L	-36.336	ppb	08:32:53
1	Mg 279.077 IEC†	14.0	10.5	-41.117	ug/L	-41.117	ppb	08:33:13
1	Mn 257.610†	-36894.7	-37597.8	-3.4976	ug/L	-3.4976	ppb	08:34:11
1	Mo 202.031†	-363.1	-380.0	2.5527	ug/L	2.5527	ppb	08:34:11
1	Na 589.592 Radial†	-1279.5	9.5	2.8113	ug/L	2.8113	ppb	08:32:53
1	Ni 231.604†	168.8	76.4	1.7860	ug/L	1.7860	ppb	08:34:31
1	P 214.914†	752.2	515.0	-8.0470	ug/L	-8.0470	ppb	08:34:31
1	Pb 220.353†	240.0	309.6	-0.7834	ug/L	-0.7834	ppb	08:34:31
1	S 181.975 Axial†	59.9	13.2	17.246	ug/L	17.246	ppb	08:34:31
1	Sb 206.836†	38.8	5.3	-2.9353	ug/L	-2.9353	ppb	08:34:31
1	Se 196.026†	-2002.4	-1992.0	16.832	ug/L	16.832	ppb	08:34:31
1	Si 251.611†	-638.6	-1369.8	-41.881	ug/L	-41.881	ppb	08:34:11
1	Sn 189.927†	-22.6	-33.0	0.7130	ug/L	0.7130	ppb	08:34:31
1	Sr 421.552†	76.8	63.0	0.4183	ug/L	0.4183	ppb	08:32:53
1	Ti 334.940†	-1510.9	56.2	0.0248	ug/L	0.0248	ppb	08:34:11
1	Tl 190.801†	-57.0	-18.3	-5.7036	ug/L	-5.7036	ppb	08:34:31
1	U 409.014†	-1020.0	2531.1	28.002	ug/L	28.002	ppb	08:34:11
1	V 292.402†	6759.1	8425.1	2.5419	ug/L	2.5419	ppb	08:34:11
1	Zn 213.857†	4585.5	3921.1	-44.519	ug/L	-44.519	ppb	08:34:31
1	SiO2†	-610.3	-1415.9	-92.410	ug/L	-92.410	ppb	08:35:28
2	Sc 361.383	913405.3	913405.3	99.372	%			08:34:37
2	Sc Radial	5121.1	5121.1	102	%			08:33:18
2	Y 371.029	754618.8	754618.8	98.927	%			08:34:37
2	Y RADIAL	5403.9	5403.9	102.5	%			08:33:18
2	Ag 328.068†	-26962.3	-27428.5	7.6915	ug/L	7.6915	ppb	08:34:37
2	Al 396.153Radial†	-214.7	-21.7	-17.364	ug/L	-17.364	ppb	08:33:18
2	As 188.979†	-217.3	-184.6	13.047	ug/L	13.047	ppb	08:34:57
2	B 249.677†	2322.4	3099.2	5.5739	ug/L	5.5739	ppb	08:34:37
2	Ba 233.527†	-2153.4	-2159.4	-4.6783	ug/L	-4.6783	ppb	08:34:37
2	Be 313.107†	-4644.1	261.9	0.0909	ug/L	0.0909	ppb	08:34:37
2	Ca 317.933Radial†	2.5	-14.6	-22.891	ug/L	-22.891	ppb	08:33:38
2	Cd 226.502†	3183.4	3414.8	-2.6502	ug/L	-2.6502	ppb	08:34:37
2	Co 228.616†	188.2	274.1	-0.1616	ug/L	-0.1616	ppb	08:34:57
2	Cr 267.716†	-655.8	-727.8	-0.3873	ug/L	-0.3873	ppb	08:34:37
2	Cu 324.752†	-1252.6	-7507.0	-1.4729	ug/L	-1.4729	ppb	08:34:37
2	Fe 238.204 Radial†	44693.2	43735.2	376970	ug/L	376970	ppb	08:33:18
2	K 766.490 Radial†	2668.6	-88.7	-16.071	ug/L	-16.071	ppb	08:33:18
2	Mg 279.077 IEC†	12.6	9.1	-93.756	ug/L	-93.756	ppb	08:33:38
2	Mn 257.610†	-36764.4	-37540.8	-2.8224	ug/L	-2.8224	ppb	08:34:37
2	Mo 202.031†	-400.0	-417.8	0.4238	ug/L	0.4238	ppb	08:34:37
2	Na 589.592 Radial†	-1278.0	8.0	2.3534	ug/L	2.3534	ppb	08:33:18
2	Ni 231.604†	189.2	97.3	2.2750	ug/L	2.2750	ppb	08:34:57

2	P 214.914†	753.7	518.0	-11.425 ug/L	-11.425 ppb	08:34:57
2	Pb 220.353†	242.2	312.3	-1.0890 ug/L	-1.0890 ppb	08:34:57
2	S 181.975 Axial†	64.6	18.0	23.609 ug/L	23.609 ppb	08:34:57
2	Sb 206.836†	48.0	14.7	-0.1423 ug/L	-0.1423 ppb	08:34:57
2	Se 196.026†	-1995.6	-1989.2	38.848 ug/L	38.848 ppb	08:34:57
2	Si 251.611†	-651.4	-1383.9	-42.285 ug/L	-42.285 ppb	08:34:37
2	Sn 189.927†	-23.1	-33.5	0.7230 ug/L	0.7230 ppb	08:34:57
2	Sr 421.552†	33.2	20.4	0.1359 ug/L	0.1359 ppb	08:33:18
2	Ti 334.940†	-1685.2	-122.3	-0.2381 ug/L	-0.2381 ppb	08:34:37
2	Tl 190.801†	-45.5	-6.8	-2.3347 ug/L	-2.3347 ppb	08:34:57
2	U 409.014†	-1037.7	2511.2	26.742 ug/L	26.742 ppb	08:34:37
2	V 292.402†	6875.4	8555.7	2.4801 ug/L	2.4801 ppb	08:34:37
2	Zn 213.857†	4550.4	3895.0	-46.090 ug/L	-46.090 ppb	08:34:57
2	SiO2†	-527.5	-1333.8	-86.938 ug/L	-86.938 ppb	08:35:33
3	Sc 361.383	914593.5	914593.5	99.502 %		08:35:03
3	Sc Radial	5194.3	5194.3	104 %		08:33:43
3	Y 371.029	753755.2	753755.2	98.814 %		08:35:03
3	Y RADIAL	5447.1	5447.1	103.3 %		08:33:43
3	Ag 328.068†	-27163.0	-27595.0	6.2425 ug/L	6.2425 ppb	08:35:03
3	Al 396.153Radial†	-197.0	-1.8	-0.0399 ug/L	-0.0399 ppb	08:33:43
3	As 188.979†	-224.4	-191.4	9.7586 ug/L	9.7586 ppb	08:35:23
3	B 249.677†	2400.9	3175.1	7.5540 ug/L	7.5540 ppb	08:35:03
3	Ba 233.527†	-2138.3	-2141.4	-4.6066 ug/L	-4.6066 ppb	08:35:03
3	Be 313.107†	-4636.5	275.5	0.0958 ug/L	0.0958 ppb	08:35:03
3	Ca 317.933Radial†	5.2	-12.1	-18.858 ug/L	-18.858 ppb	08:34:03
3	Cd 226.502†	3161.9	3389.0	-2.7035 ug/L	-2.7035 ppb	08:35:03
3	Co 228.616†	204.6	290.4	0.1826 ug/L	0.1826 ppb	08:35:23
3	Cr 267.716†	-658.5	-729.7	-0.4511 ug/L	-0.4511 ppb	08:35:03
3	Cu 324.752†	-1286.4	-7539.3	-1.6813 ug/L	-1.6813 ppb	08:35:03
3	Fe 238.204 Radial†	45076.7	43489.0	374850 ug/L	374850 ppb	08:33:43
3	K 766.490 Radial†	2799.8	1.0	0.2395 ug/L	0.2395 ppb	08:33:43
3	Mg 279.077 IEC†	10.4	6.8	-166.92 ug/L	-166.92 ppb	08:34:03
3	Mn 257.610†	-36679.3	-37407.2	-2.8864 ug/L	-2.8864 ppb	08:35:03
3	Mo 202.031†	-422.6	-440.1	-1.2767 ug/L	-1.2767 ppb	08:35:03
3	Na 589.592 Radial†	-1228.9	73.0	21.560 ug/L	21.560 ppb	08:33:43
3	Ni 231.604†	173.9	81.7	1.9094 ug/L	1.9094 ppb	08:35:23
3	P 214.914†	730.1	493.2	-23.486 ug/L	-23.486 ppb	08:35:23
3	Pb 220.353†	211.8	281.4	-4.3472 ug/L	-4.3472 ppb	08:35:23
3	S 181.975 Axial†	67.0	20.4	26.728 ug/L	26.728 ppb	08:35:23
3	Sb 206.836†	43.2	9.8	-1.6969 ug/L	-1.6969 ppb	08:35:23
3	Se 196.026†	-1998.8	-1989.8	31.528 ug/L	31.528 ppb	08:35:23
3	Si 251.611†	-575.6	-1306.8	-39.891 ug/L	-39.891 ppb	08:35:03
3	Sn 189.927†	-32.0	-42.5	-0.8109 ug/L	-0.8109 ppb	08:35:23
3	Sr 421.552†	65.3	51.0	0.3387 ug/L	0.3387 ppb	08:33:43
3	Ti 334.940†	-1648.7	-83.3	-0.1765 ug/L	-0.1765 ppb	08:35:03
3	Tl 190.801†	-51.5	-12.8	-4.0793 ug/L	-4.0793 ppb	08:35:23
3	U 409.014†	-769.9	2781.7	34.491 ug/L	34.491 ppb	08:35:03
3	V 292.402†	6899.0	8570.5	2.8799 ug/L	2.8799 ppb	08:35:03
3	Zn 213.857†	4551.6	3890.2	-45.674 ug/L	-45.674 ppb	08:35:23
3	SiO2†	-644.8	-1451.1	-94.609 ug/L	-94.609 ppb	08:35:38

Mean Data: LR1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	914410.0	99.482	%	0.1008				0.10%
Sc Radial	5149.5	103	%	0.8				0.76%
Y 371.029	754688.6	98.936	%	0.1272				0.13%
Y RADIAL	5405.0	102.5	%	0.79				0.77%
Ag 328.068†	-27517.4	6.3636	ug/L	1.27173	6.3636	ppb	1.27173	19.98%
Al 396.153Radial†	-10.4	-7.6197	ug/L	8.86230	-7.6197	ppb	8.86230	116.31%
As 188.979†	-185.8	11.894	ug/L	1.8511	11.894	ppb	1.8511	15.56%
B 249.677†	3112.6	6.3134	ug/L	1.08104	6.3134	ppb	1.08104	17.12%
Ba 233.527†	-2147.6	-4.6741	ug/L	0.06551	-4.6741	ppb	0.06551	1.40%
Be 313.107†	269.0	0.0937	ug/L	0.00249	0.0937	ppb	0.00249	2.66%
Ca 317.933Radial†	-13.5	-21.102	ug/L	2.0547	-21.102	ppb	2.0547	9.74%
Cd 226.502†	3398.8	-2.5333	ug/L	0.25008	-2.5333	ppb	0.25008	9.87%
Co 228.616†	280.7	0.0068	ug/L	0.17223	0.0068	ppb	0.17223	>999.9%
Cr 267.716†	-741.7	-0.5908	ug/L	0.29908	-0.5908	ppb	0.29908	50.62%
Cu 324.752†	-7558.3	-1.7675	ug/L	0.34580	-1.7675	ppb	0.34580	19.56%
Fe 238.204 Radial†	43413.3	374200	ug/L	3151.6	374200	ppb	3151.6	0.84%

K 766.490 Radial†	-95.9	-17.389	ug/L	18.3233	-17.389	ppb	18.3233 105.37%
Mg 279.077 IEC†	8.8	-100.60	ug/L	63.180	-100.60	ppb	63.180 62.80%
Mn 257.610†	-37515.3	-3.0688	ug/L	0.37271	-3.0688	ppb	0.37271 12.15%
Mo 202.031†	-412.6	0.5666	ug/L	1.91873	0.5666	ppb	1.91873 338.64%
Na 589.592 Radial†	30.2	8.9084	ug/L	10.95941	8.9084	ppb	10.95941 123.02%
Ni 231.604†	85.1	1.9901	ug/L	0.25428	1.9901	ppb	0.25428 12.78%
P 214.914†	508.7	-14.319	ug/L	8.1163	-14.319	ppb	8.1163 56.68%
Pb 220.353†	301.1	-2.0732	ug/L	1.97525	-2.0732	ppb	1.97525 95.27%
S 181.975 Axial†	17.2	22.527	ug/L	4.8325	22.527	ppb	4.8325 21.45%
Sb 206.836†	9.9	-1.5915	ug/L	1.39947	-1.5915	ppb	1.39947 87.93%
Se 196.026†	-1990.4	29.069	ug/L	11.2119	29.069	ppb	11.2119 38.57%
Si 251.611†	-1353.5	-41.352	ug/L	1.2815	-41.352	ppb	1.2815 3.10%
Sn 189.927†	-36.3	0.2084	ug/L	0.88270	0.2084	ppb	0.88270 423.64%
Sr 421.552†	44.8	0.2977	ug/L	0.14560	0.2977	ppb	0.14560 48.92%
Ti 334.940†	-49.8	-0.1299	ug/L	0.13750	-0.1299	ppb	0.13750 105.83%
Tl 190.801†	-12.7	-4.0392	ug/L	1.68483	-4.0392	ppb	1.68483 41.71%
U 409.014†	2608.0	29.745	ug/L	4.1582	29.745	ppb	4.1582 13.98%
V 292.402†	8517.1	2.6339	ug/L	0.21521	2.6339	ppb	0.21521 8.17%
Zn 213.857†	3902.1	-45.428	ug/L	0.8138	-45.428	ppb	0.8138 1.79%
SiO2†	-1400.3	-91.319	ug/L	3.9500	-91.319	ppb	3.9500 4.33%

Sequence No.: 16
Sample ID: CCV
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/8/2010 08:37:51
Data Type: Reprocessed on 2/8/2010 09:03:38

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc 361.383	922168.9	922168.9	100.33	%			08:41:01
1	Sc Radial	5373.0	5373.0	107	%			08:39:43
1	Y 371.029	754664.9	754664.9	98.933	%			08:41:01
1	Y RADIAL	5629.4	5629.4	106.7	%			08:39:43
1	Ag 328.068†	114425.5	113757.8	499.73	ug/L	499.73	ppb	08:41:06
1	Al 396.153Radial†	5638.6	5448.3	4677.8	ug/L	4677.8	ppb	08:39:43
1	As 188.979†	1187.6	1217.8	501.11	ug/L	501.11	ppb	08:41:26
1	B 249.677†	22664.5	23353.1	501.23	ug/L	501.23	ppb	08:41:06
1	Ba 233.527†	65925.3	65718.7	496.52	ug/L	496.52	ppb	08:41:06
1	Be 313.107†	1407020.4	1407385.0	492.07	ug/L	492.07	ppb	08:41:01
1	Ca 317.933Radial†	3265.1	3028.8	4739.4	ug/L	4739.4	ppb	08:40:03
1	Cd 226.502†	46687.7	46747.3	496.50	ug/L	496.50	ppb	08:41:06
1	Co 228.616†	25434.2	25436.3	496.87	ug/L	496.87	ppb	08:41:06
1	Cr 267.716†	46653.7	46434.3	496.16	ug/L	496.16	ppb	08:41:06
1	Cu 324.752†	179393.7	172564.5	491.61	ug/L	491.61	ppb	08:41:06
1	Fe 238.204 Radial†	588.5	541.2	4679.8	ug/L	4679.8	ppb	08:40:03
1	K 766.490 Radial†	30346.2	25607.8	4649.9	ug/L	4649.9	ppb	08:39:43
1	Mg 279.077 IEC†	161.0	147.0	4851.2	ug/L	4851.2	ppb	08:40:03
1	Mn 257.610†	463719.4	461668.8	492.69	ug/L	492.69	ppb	08:41:01
1	Mo 202.031†	7192.7	7154.0	494.20	ug/L	494.20	ppb	08:41:26
1	Na 589.592 Radial†	29142.2	28444.1	8404.2	ug/L	8404.2	ppb	08:39:43
1	Ni 231.604†	21366.7	21204.2	496.37	ug/L	496.37	ppb	08:41:06
1	P 214.914†	4648.8	4393.2	2347.0	ug/L	2347.0	ppb	08:41:26
1	Pb 220.353†	4336.0	4390.4	493.56	ug/L	493.56	ppb	08:41:26
1	S 181.975 Axial†	787.0	737.5	964.78	ug/L	964.78	ppb	08:41:26
1	Sb 206.836†	1635.2	1596.3	513.89	ug/L	513.89	ppb	08:41:26
1	Se 196.026†	798.2	814.6	507.31	ug/L	507.31	ppb	08:41:26
1	Si 251.611†	81087.9	80096.1	2461.8	ug/L	2461.8	ppb	08:41:06
1	Sn 189.927†	2974.7	2954.7	495.47	ug/L	495.47	ppb	08:41:26
1	Sr 421.552†	72888.2	67981.5	451.50	ug/L	451.50	ppb	08:39:43
1	Ti 334.940†	324768.3	325286.9	485.73	ug/L	485.73	ppb	08:41:06
1	Tl 190.801†	1640.3	1673.9	494.78	ug/L	494.78	ppb	08:41:26
1	U 409.014†	14184.6	17694.0	489.46	ug/L	489.46	ppb	08:41:06
1	V 292.402†	71913.6	73316.9	500.64	ug/L	500.64	ppb	08:41:06
1	Zn 213.857†	56238.2	55371.3	491.60	ug/L	491.60	ppb	08:41:06
1	SiO2†	80252.9	79189.2	5194.7	ug/L	5194.7	ppb	08:42:34
2	Sc 361.383	919835.0	919835.0	100.07	%			08:41:32
2	Sc Radial	5147.0	5147.0	103	%			08:40:09
2	Y 371.029	753857.6	753857.6	98.827	%			08:41:32
2	Y RADIAL	5364.9	5364.9	101.7	%			08:40:09
2	Ag 328.068†	113425.5	113047.9	496.69	ug/L	496.69	ppb	08:41:37
2	Al 396.153Radial†	5832.0	5867.6	5039.6	ug/L	5039.6	ppb	08:40:09
2	As 188.979†	1188.9	1222.1	502.89	ug/L	502.89	ppb	08:41:57
2	B 249.677†	22568.7	23314.6	500.37	ug/L	500.37	ppb	08:41:37
2	Ba 233.527†	65417.5	65378.1	493.96	ug/L	493.96	ppb	08:41:37
2	Be 313.107†	1407203.9	1411126.8	493.36	ug/L	493.36	ppb	08:41:32
2	Ca 317.933Radial†	3255.6	3153.4	4934.3	ug/L	4934.3	ppb	08:40:29
2	Cd 226.502†	46432.8	46610.7	495.03	ug/L	495.03	ppb	08:41:37
2	Co 228.616†	25244.0	25310.7	494.42	ug/L	494.42	ppb	08:41:37
2	Cr 267.716†	46300.7	46199.6	493.66	ug/L	493.66	ppb	08:41:37
2	Cu 324.752†	177538.9	171164.7	487.64	ug/L	487.64	ppb	08:41:37
2	Fe 238.204 Radial†	588.1	565.0	4884.4	ug/L	4884.4	ppb	08:40:29
2	K 766.490 Radial†	31139.4	27623.4	5016.1	ug/L	5016.1	ppb	08:40:09
2	Mg 279.077 IEC†	157.8	150.5	4965.6	ug/L	4965.6	ppb	08:40:29
2	Mn 257.610†	464140.3	463262.2	494.41	ug/L	494.41	ppb	08:41:32
2	Mo 202.031†	7213.1	7192.6	496.89	ug/L	496.89	ppb	08:41:57
2	Na 589.592 Radial†	30067.8	30539.2	9023.3	ug/L	9023.3	ppb	08:40:09
2	Ni 231.604†	21332.4	21223.9	496.84	ug/L	496.84	ppb	08:41:37

2	P 214.914†	4639.8	4396.0	2349.3 ug/L	2349.3 ppb	08:41:57
2	Pb 220.353†	4334.7	4400.1	494.72 ug/L	494.72 ppb	08:41:57
2	S 181.975 Axial†	798.0	750.4	981.71 ug/L	981.71 ppb	08:41:57
2	Sb 206.836†	1642.7	1607.9	517.58 ug/L	517.58 ppb	08:41:57
2	Se 196.026†	811.9	830.3	517.48 ug/L	517.48 ppb	08:41:57
2	Si 251.611†	80553.8	79767.4	2451.6 ug/L	2451.6 ppb	08:41:37
2	Sn 189.927†	2977.2	2964.7	497.18 ug/L	497.18 ppb	08:41:57
2	Sr 421.552†	74901.9	72928.3	484.36 ug/L	484.36 ppb	08:40:09
2	Ti 334.940†	322066.7	323408.6	482.95 ug/L	482.95 ppb	08:41:37
2	Tl 190.801†	1631.0	1668.7	493.26 ug/L	493.26 ppb	08:41:57
2	U 409.014†	13991.2	17536.6	485.07 ug/L	485.07 ppb	08:41:37
2	V 292.402†	71420.9	73006.5	498.56 ug/L	498.56 ppb	08:41:37
2	Zn 213.857†	55944.1	55219.7	490.20 ug/L	490.20 ppb	08:41:37
2	SiO2†	79498.2	78638.0	5158.4 ug/L	5158.4 ppb	08:42:39
3	Sc 361.383	926587.6	926587.6	100.81 %		08:42:03
3	Sc Radial	5117.4	5117.4	102 %		08:40:34
3	Y 371.029	757476.9	757476.9	99.302 %		08:42:03
3	Y RADIAL	5331.8	5331.8	101.1 %		08:40:34
3	Ag 328.068†	112586.1	111389.3	489.43 ug/L	489.43 ppb	08:42:08
3	Al 396.153Radial†	5752.2	5822.3	5000.8 ug/L	5000.8 ppb	08:40:34
3	As 188.979†	1175.7	1200.4	493.99 ug/L	493.99 ppb	08:42:28
3	B 249.677†	22233.7	22818.0	489.69 ug/L	489.69 ppb	08:42:08
3	Ba 233.527†	65049.3	64536.4	487.60 ug/L	487.60 ppb	08:42:08
3	Be 313.107†	1414087.1	1407707.3	492.15 ug/L	492.15 ppb	08:42:03
3	Ca 317.933Radial†	3256.7	3172.7	4964.5 ug/L	4964.5 ppb	08:40:54
3	Cd 226.502†	46056.4	45899.2	487.46 ug/L	487.46 ppb	08:42:08
3	Co 228.616†	25037.2	24921.6	486.82 ug/L	486.82 ppb	08:42:08
3	Cr 267.716†	46020.3	45584.2	487.08 ug/L	487.08 ppb	08:42:08
3	Cu 324.752†	175867.3	168213.6	479.23 ug/L	479.23 ppb	08:42:08
3	Fe 238.204 Radial†	586.8	567.0	4901.4 ug/L	4901.4 ppb	08:40:54
3	K 766.490 Radial†	30918.9	27582.5	5008.6 ug/L	5008.6 ppb	08:40:34
3	Mg 279.077 IEC†	157.6	151.1	4987.2 ug/L	4987.2 ppb	08:40:54
3	Mn 257.610†	467302.5	463019.0	494.15 ug/L	494.15 ppb	08:42:03
3	Mo 202.031†	7163.8	7091.1	489.89 ug/L	489.89 ppb	08:42:28
3	Na 589.592 Radial†	29775.0	30421.5	8988.5 ug/L	8988.5 ppb	08:40:34
3	Ni 231.604†	21168.3	20905.8	489.39 ug/L	489.39 ppb	08:42:08
3	P 214.914†	4598.1	4320.8	2309.0 ug/L	2309.0 ppb	08:42:28
3	Pb 220.353†	4307.0	4341.1	488.08 ug/L	488.08 ppb	08:42:28
3	S 181.975 Axial†	785.1	731.8	957.35 ug/L	957.35 ppb	08:42:28
3	Sb 206.836†	1629.3	1582.6	509.47 ug/L	509.47 ppb	08:42:28
3	Se 196.026†	790.6	803.2	501.19 ug/L	501.19 ppb	08:42:28
3	Si 251.611†	79619.5	78254.0	2405.1 ug/L	2405.1 ppb	08:42:08
3	Sn 189.927†	2959.4	2925.4	490.60 ug/L	490.60 ppb	08:42:28
3	Sr 421.552†	74562.7	73017.3	484.95 ug/L	484.95 ppb	08:40:34
3	Ti 334.940†	319566.8	318583.4	475.75 ug/L	475.75 ppb	08:42:08
3	Tl 190.801†	1623.3	1649.2	487.53 ug/L	487.53 ppb	08:42:28
3	U 409.014†	14016.9	17460.2	482.96 ug/L	482.96 ppb	08:42:08
3	V 292.402†	70802.1	71872.5	490.82 ug/L	490.82 ppb	08:42:08
3	Zn 213.857†	55477.8	54349.7	482.46 ug/L	482.46 ppb	08:42:08
3	SiO2†	80143.0	78698.7	5162.6 ug/L	5162.6 ppb	08:42:44

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	922863.9	100.40	%	0.373				0.37%
Sc Radial	5212.5	104	%	2.8				2.68%
Y 371.029	755333.1	99.021	%	0.2491				0.25%
Y RADIAL	5442.0	103.2	%	3.09				3.00%
Ag 328.068†	112731.6	495.28	ug/L	5.294	495.28	ppb	5.294	1.07%
QC value within limits for Ag 328.068 Recovery = 99.06%								
Al 396.153Radial†	5712.8	4906.1	ug/L	198.59	4906.1	ppb	198.59	4.05%
QC value within limits for Al 396.153Radial Recovery = 98.12%								
As 188.979†	1213.4	499.33	ug/L	4.709	499.33	ppb	4.709	0.94%
QC value within limits for As 188.979 Recovery = 99.87%								
B 249.677†	23161.9	497.10	ug/L	6.431	497.10	ppb	6.431	1.29%
QC value within limits for B 249.677 Recovery = 99.42%								
Ba 233.527†	65211.1	492.69	ug/L	4.595	492.69	ppb	4.595	0.93%
QC value within limits for Ba 233.527 Recovery = 98.54%								
Be 313.107†	1408739.7	492.53	ug/L	0.725	492.53	ppb	0.725	0.15%
QC value within limits for Be 313.107 Recovery = 98.51%								

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Ca 317.933Radial†       3118.3      4879.4 ug/L        122.20      4879.4 ppb         122.20   2.50%
   QC value within limits for Ca 317.933Radial  Recovery = 97.59%
Cd 226.502†            46419.1      493.00 ug/L         4.849      493.00 ppb          4.849   0.98%
   QC value within limits for Cd 226.502  Recovery = 98.60%
Co 228.616†            25222.9      492.70 ug/L         5.238      492.70 ppb          5.238   1.06%
   QC value within limits for Co 228.616  Recovery = 98.54%
Cr 267.716†            46072.7      492.30 ug/L         4.690      492.30 ppb          4.690   0.95%
   QC value within limits for Cr 267.716  Recovery = 98.46%
Cu 324.752†           170647.6      486.16 ug/L         6.321      486.16 ppb          6.321   1.30%
   QC value within limits for Cu 324.752  Recovery = 97.23%
Fe 238.204 Radial†       557.7      4821.9 ug/L        123.30      4821.9 ppb         123.30   2.56%
   QC value within limits for Fe 238.204 Radial  Recovery = 96.44%
K 766.490 Radial†      26937.9      4891.5 ug/L        209.28      4891.5 ppb         209.28   4.28%
   QC value within limits for K 766.490 Radial  Recovery = 97.83%
Mg 279.077 IEC†          149.6      4934.7 ug/L         73.06      4934.7 ppb          73.06   1.48%
   QC value within limits for Mg 279.077 IEC  Recovery = 98.69%
Mn 257.610†           462650.0      493.75 ug/L         0.925      493.75 ppb          0.925   0.19%
   QC value within limits for Mn 257.610  Recovery = 98.75%
Mo 202.031†             7145.9      493.66 ug/L         3.532      493.66 ppb          3.532   0.72%
   QC value within limits for Mo 202.031  Recovery = 98.73%
Na 589.592 Radial†     29801.6      8805.3 ug/L        347.80      8805.3 ppb         347.80   3.95%
   QC value less than the lower limit for Na 589.592 Radial  Recovery = 88.05%
Ni 231.604†            21111.3      494.20 ug/L         4.172      494.20 ppb          4.172   0.84%
   QC value within limits for Ni 231.604  Recovery = 98.84%
P 214.914†              4370.0      2335.1 ug/L        22.60      2335.1 ppb         22.60   0.97%
   QC value within limits for P 214.914  Recovery = 93.40%
Pb 220.353†             4377.2      492.12 ug/L         3.545      492.12 ppb          3.545   0.72%
   QC value within limits for Pb 220.353  Recovery = 98.42%
S 181.975 Axial†         739.9      967.95 ug/L        12.486      967.95 ppb         12.486   1.29%
   QC value within limits for S 181.975 Axial  Recovery = 96.79%
Sb 206.836†             1595.6      513.65 ug/L         4.057      513.65 ppb          4.057   0.79%
   QC value within limits for Sb 206.836  Recovery = 102.73%
Se 196.026†              816.1      508.66 ug/L         8.227      508.66 ppb          8.227   1.62%
   QC value within limits for Se 196.026  Recovery = 101.73%
Si 251.611†            79372.5      2439.5 ug/L        30.23      2439.5 ppb         30.23   1.24%
   QC value within limits for Si 251.611  Recovery = 97.58%
Sn 189.927†             2948.3      494.42 ug/L         3.413      494.42 ppb          3.413   0.69%
   QC value within limits for Sn 189.927  Recovery = 98.88%
Sr 421.552†            71309.0      473.60 ug/L        19.142      473.60 ppb         19.142   4.04%
   QC value within limits for Sr 421.552  Recovery = 94.72%
Ti 334.940†           322426.3      481.48 ug/L         5.154      481.48 ppb          5.154   1.07%
   QC value within limits for Ti 334.940  Recovery = 96.30%
Tl 190.801†             1664.0      491.86 ug/L         3.827      491.86 ppb          3.827   0.78%
   QC value within limits for Tl 190.801  Recovery = 98.37%
U 409.014†             17563.6      485.83 ug/L         3.314      485.83 ppb          3.314   0.68%
   QC value within limits for U 409.014  Recovery = 97.17%
V 292.402†             72732.0      496.67 ug/L         5.175      496.67 ppb          5.175   1.04%
   QC value within limits for V 292.402  Recovery = 99.33%
Zn 213.857†            54980.2      488.09 ug/L         4.926      488.09 ppb          4.926   1.01%
   QC value within limits for Zn 213.857  Recovery = 97.62%
SiO2†                  78842.0      5171.9 ug/L        19.87      5171.9 ppb         19.87   0.38%
   QC value within limits for SiO2  Recovery = 96.72%
QC Failed.  Continue with analysis.
```

Sequence No.: 17
Sample ID: CCB
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/8/2010 08:44:55
Data Type: Reprocessed on 2/8/2010 09:03:39

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc 361.383	905888.8	905888.8	98.555	%			08:48:04
1	Sc Radial	5283.5	5283.5	105	%			08:46:47
1	Y 371.029	756634.9	756634.9	99.191	%			08:48:04
1	Y RADIAL	5544.8	5544.8	105.1	%			08:46:47
1	Ag 328.068†	287.5	-4.3	-0.0069	ug/L	-0.0069	ppb	08:48:04
1	Al 396.153Radial†	-204.0	-5.2	-4.4492	ug/L	-4.4492	ppb	08:46:47
1	As 188.979†	-20.3	13.5	5.5041	ug/L	5.5041	ppb	08:48:24
1	B 249.677†	-49.6	711.9	15.341	ug/L	15.341	ppb	08:48:04
1	Ba 233.527†	-6.8	0.7	0.0064	ug/L	0.0064	ppb	08:48:24
1	Be 313.107†	-4721.8	144.2	0.0500	ug/L	0.0500	ppb	08:48:04
1	Ca 317.933Radial†	18.8	0.8	1.2458	ug/L	1.2458	ppb	08:47:07
1	Cd 226.502†	-202.6	5.7	0.0574	ug/L	0.0574	ppb	08:48:24
1	Co 228.616†	-84.8	-1.3	-0.0247	ug/L	-0.0247	ppb	08:48:24
1	Cr 267.716†	83.6	17.0	0.1840	ug/L	0.1840	ppb	08:48:24
1	Cu 324.752†	6278.0	123.7	0.3559	ug/L	0.3559	ppb	08:48:04
1	Fe 238.204 Radial†	11.2	2.9	24.597	ug/L	24.597	ppb	08:47:07
1	K 766.490 Radial†	2709.1	-130.6	-23.744	ug/L	-23.744	ppb	08:46:47
1	Mg 279.077 IEC†	4.2	0.8	26.009	ug/L	26.009	ppb	08:47:07
1	Mn 257.610†	484.8	-52.3	-0.0544	ug/L	-0.0544	ppb	08:48:24
1	Mo 202.031†	15.3	0.2	0.0142	ug/L	0.0142	ppb	08:48:24
1	Na 589.592 Radial†	-1307.3	18.7	5.5155	ug/L	5.5155	ppb	08:46:47
1	Ni 231.604†	108.7	17.2	0.4020	ug/L	0.4020	ppb	08:48:24
1	P 214.914†	231.3	-5.8	-3.3042	ug/L	-3.3042	ppb	08:48:24
1	Pb 220.353†	-74.9	-7.4	-0.8367	ug/L	-0.8367	ppb	08:48:24
1	S 181.975 Axial†	38.2	-8.2	-10.746	ug/L	-10.746	ppb	08:48:24
1	Sb 206.836†	48.4	15.5	4.8184	ug/L	4.8184	ppb	08:48:24
1	Se 196.026†	-27.5	-8.9	-5.3040	ug/L	-5.3040	ppb	08:48:24
1	Si 251.611†	702.4	-15.7	-0.4841	ug/L	-0.4841	ppb	08:48:24
1	Sn 189.927†	7.4	-2.8	-0.4660	ug/L	-0.4660	ppb	08:48:24
1	Sr 421.552†	-15.1	-26.4	-0.1755	ug/L	-0.1755	ppb	08:46:47
1	Ti 334.940†	-1630.8	-81.1	-0.1214	ug/L	-0.1214	ppb	08:48:04
1	Tl 190.801†	-30.5	8.0	2.3387	ug/L	2.3387	ppb	08:48:24
1	U 409.014†	-3647.8	-145.8	-4.0505	ug/L	-4.0505	ppb	08:48:04
1	V 292.402†	-1603.2	10.2	0.0585	ug/L	0.0585	ppb	08:48:04
1	Zn 213.857†	759.3	86.2	0.7649	ug/L	0.7649	ppb	08:48:24
1	SiO2†	735.6	-56.6	-3.7227	ug/L	-3.7227	ppb	08:49:20
2	Sc 361.383	909345.2	909345.2	98.931	%			08:48:29
2	Sc Radial	5048.0	5048.0	101	%			08:47:12
2	Y 371.029	758026.3	758026.3	99.374	%			08:48:29
2	Y RADIAL	5322.8	5322.8	100.9	%			08:47:12
2	Ag 328.068†	292.3	-0.6	0.0086	ug/L	0.0086	ppb	08:48:29
2	Al 396.153Radial†	-192.8	-3.1	-2.6770	ug/L	-2.6770	ppb	08:47:12
2	As 188.979†	-25.7	8.1	3.3089	ug/L	3.3089	ppb	08:48:49
2	B 249.677†	-41.3	720.5	15.527	ug/L	15.527	ppb	08:48:29
2	Ba 233.527†	-21.1	-13.7	-0.1030	ug/L	-0.1030	ppb	08:48:49
2	Be 313.107†	-4800.1	83.2	0.0292	ug/L	0.0292	ppb	08:48:29
2	Ca 317.933Radial†	13.9	-3.3	-5.0967	ug/L	-5.0967	ppb	08:47:32
2	Cd 226.502†	-202.7	6.4	0.0647	ug/L	0.0647	ppb	08:48:49
2	Co 228.616†	-73.5	10.4	0.2037	ug/L	0.2037	ppb	08:48:49
2	Cr 267.716†	64.5	-2.7	-0.0261	ug/L	-0.0261	ppb	08:48:49
2	Cu 324.752†	6250.9	72.0	0.2091	ug/L	0.2091	ppb	08:48:29
2	Fe 238.204 Radial†	10.3	2.4	21.060	ug/L	21.060	ppb	08:47:32
2	K 766.490 Radial†	2897.7	176.6	32.109	ug/L	32.109	ppb	08:47:12
2	Mg 279.077 IEC†	0.3	-2.9	-95.988	ug/L	-95.988	ppb	08:47:32
2	Mn 257.610†	473.4	-65.7	-0.0641	ug/L	-0.0641	ppb	08:48:49
2	Mo 202.031†	16.0	0.8	0.0584	ug/L	0.0584	ppb	08:48:49
2	Na 589.592 Radial†	-1281.1	-13.2	-3.8932	ug/L	-3.8932	ppb	08:47:12
2	Ni 231.604†	111.7	19.8	0.4626	ug/L	0.4626	ppb	08:48:49

2	P 214.914†	241.4	3.5	1.8778	ug/L	1.8778 ppb	08:48:49
2	Pb 220.353†	-58.0	9.9	1.1042	ug/L	1.1042 ppb	08:48:49
2	S 181.975 Axial†	45.7	-0.8	-0.9859	ug/L	-0.9859 ppb	08:48:49
2	Sb 206.836†	59.3	26.3	8.1986	ug/L	8.1986 ppb	08:48:49
2	Se 196.026†	-20.9	-2.1	-1.2190	ug/L	-1.2190 ppb	08:48:49
2	Si 251.611†	699.4	-21.4	-0.6611	ug/L	-0.6611 ppb	08:48:49
2	Sn 189.927†	14.9	4.8	0.7980	ug/L	0.7980 ppb	08:48:49
2	Sr 421.552†	0.2	-11.9	-0.0787	ug/L	-0.0787 ppb	08:47:12
2	Ti 334.940†	-1516.6	40.6	0.0700	ug/L	0.0700 ppb	08:48:29
2	Tl 190.801†	-32.8	5.8	1.7041	ug/L	1.7041 ppb	08:48:49
2	U 409.014†	-3700.4	-185.0	-5.1360	ug/L	-5.1360 ppb	08:48:29
2	V 292.402†	-1628.2	-8.9	-0.0738	ug/L	-0.0738 ppb	08:48:29
2	Zn 213.857†	744.5	68.4	0.6051	ug/L	0.6051 ppb	08:48:49
2	SiO2†	702.0	-93.4	-6.1437	ug/L	-6.1437 ppb	08:49:25
3	Sc 361.383	904347.6	904347.6	98.387	%		08:48:55
3	Sc Radial	5223.2	5223.2	104	%		08:47:37
3	Y 371.029	753880.0	753880.0	98.830	%		08:48:55
3	Y RADIAL	5504.8	5504.8	104.4	%		08:47:37
3	Ag 328.068†	338.0	47.6	0.2193	ug/L	0.2193 ppb	08:48:55
3	Al 396.153Radial†	-173.3	22.0	18.989	ug/L	18.989 ppb	08:47:37
3	As 188.979†	-18.5	15.3	6.2319	ug/L	6.2319 ppb	08:49:15
3	B 249.677†	-65.5	695.6	14.993	ug/L	14.993 ppb	08:48:55
3	Ba 233.527†	-10.4	-3.0	-0.0216	ug/L	-0.0216 ppb	08:49:15
3	Be 313.107†	-4791.7	65.0	0.0227	ug/L	0.0227 ppb	08:48:55
3	Ca 317.933Radial†	16.7	-1.0	-1.5808	ug/L	-1.5808 ppb	08:47:57
3	Cd 226.502†	-196.8	11.3	0.1175	ug/L	0.1175 ppb	08:49:15
3	Co 228.616†	-83.1	0.3	0.0060	ug/L	0.0060 ppb	08:49:15
3	Cr 267.716†	96.0	29.8	0.3216	ug/L	0.3216 ppb	08:49:15
3	Cu 324.752†	6252.7	108.8	0.3150	ug/L	0.3150 ppb	08:48:55
3	Fe 238.204 Radial†	9.3	1.2	10.388	ug/L	10.388 ppb	08:47:57
3	K 766.490 Radial†	2781.4	-31.6	-5.7460	ug/L	-5.7460 ppb	08:47:37
3	Mg 279.077 IEC†	2.4	-0.9	-30.294	ug/L	-30.294 ppb	08:47:57
3	Mn 257.610†	476.5	-59.9	-0.0616	ug/L	-0.0616 ppb	08:49:15
3	Mo 202.031†	21.5	6.5	0.4483	ug/L	0.4483 ppb	08:49:15
3	Na 589.592 Radial†	-1317.4	-5.3	-1.5673	ug/L	-1.5673 ppb	08:47:37
3	Ni 231.604†	112.7	21.5	0.5029	ug/L	0.5029 ppb	08:49:15
3	P 214.914†	239.1	2.5	1.3486	ug/L	1.3486 ppb	08:49:15
3	Pb 220.353†	-51.6	16.1	1.8065	ug/L	1.8065 ppb	08:49:15
3	S 181.975 Axial†	44.5	-1.7	-2.2406	ug/L	-2.2406 ppb	08:49:15
3	Sb 206.836†	49.3	16.5	5.1702	ug/L	5.1702 ppb	08:49:15
3	Se 196.026†	-24.3	-5.7	-3.4177	ug/L	-3.4177 ppb	08:49:15
3	Si 251.611†	699.1	-17.8	-0.5549	ug/L	-0.5549 ppb	08:49:15
3	Sn 189.927†	23.0	13.0	2.1830	ug/L	2.1830 ppb	08:49:15
3	Sr 421.552†	8.4	-4.0	-0.0264	ug/L	-0.0264 ppb	08:47:37
3	Ti 334.940†	-1549.6	-1.4	0.0037	ug/L	0.0037 ppb	08:48:55
3	Tl 190.801†	-32.3	6.2	1.8059	ug/L	1.8059 ppb	08:49:15
3	U 409.014†	-3793.3	-300.0	-8.3281	ug/L	-8.3281 ppb	08:48:55
3	V 292.402†	-1562.3	49.0	0.3185	ug/L	0.3185 ppb	08:48:55
3	Zn 213.857†	754.6	82.8	0.7369	ug/L	0.7369 ppb	08:49:15
3	SiO2†	736.2	-54.8	-3.6148	ug/L	-3.6148 ppb	08:49:30

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	906527.2	98.624	%	0.2784				0.28%
Sc Radial	5184.9	103	%	2.4				2.36%
Y 371.029	756180.4	99.132	%	0.2766				0.28%
Y RADIAL	5457.5	103.5	%	2.24				2.17%
Ag 328.068†	14.2	0.0737	ug/L	0.12635	0.0737	ppb	0.12635	171.55%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	4.6	3.9543	ug/L	13.05075	3.9543	ppb	13.05075	330.04%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	12.3	5.0150	ug/L	1.52166	5.0150	ppb	1.52166	30.34%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	709.3	15.287	ug/L	0.2711	15.287	ppb	0.2711	1.77%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-5.3	-0.0394	ug/L	0.05681	-0.0394	ppb	0.05681	144.22%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	97.5	0.0340	ug/L	0.01429	0.0340	ppb	0.01429	42.09%
QC value within limits for Be 313.107 Recovery = Not calculated								

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Ca 317.933Radial†          -1.2     -1.8106 ug/L       3.17749     -1.8106 ppb        3.17749 175.50%
   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                 7.8      0.0799 ug/L       0.03281      0.0799 ppb        0.03281  41.07%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                 3.2      0.0617 ug/L       0.12398      0.0617 ppb        0.12398 201.03%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                14.7      0.1598 ug/L       0.17514      0.1598 ppb        0.17514 109.58%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               101.5      0.2933 ug/L       0.07578      0.2933 ppb        0.07578  25.83%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          2.2     18.682 ug/L        7.3969     18.682 ppb         7.3969  39.59%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†           4.8      0.8731 ug/L      28.50854      0.8731 ppb       28.50854 >999.9%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -1.0    -33.424 ug/L       61.0589    -33.424 ppb        61.0589 182.68%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               -59.3     -0.0600 ug/L       0.00505     -0.0600 ppb        0.00505   8.41%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 2.5      0.1737 ug/L       0.23888      0.1737 ppb        0.23888 137.56%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†          0.1      0.0183 ug/L       4.90067      0.0183 ppb        4.90067 >999.9%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                19.5      0.4559 ug/L       0.05076      0.4559 ppb        0.05076  11.14%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                  0.1     -0.0259 ug/L       2.85136     -0.0259 ppb        2.85136 >999.9%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                 6.2      0.6913 ug/L       1.36915      0.6913 ppb        1.36915 198.05%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -3.6     -4.6575 ug/L       5.30999     -4.6575 ppb        5.30999 114.01%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                19.5      6.0624 ug/L       1.85835      6.0624 ppb        1.85835  30.65%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -5.6     -3.3135 ug/L       2.04449     -3.3135 ppb        2.04449  61.70%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†               -18.3     -0.5667 ug/L       0.08905     -0.5667 ppb        0.08905  15.71%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 5.0      0.8383 ug/L       1.32494      0.8383 ppb        1.32494 158.05%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               -14.1     -0.0935 ug/L       0.07565     -0.0935 ppb        0.07565  80.87%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               -14.0     -0.0159 ug/L       0.09720     -0.0159 ppb        0.09720 612.54%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 6.6      1.9496 ug/L       0.34081      1.9496 ppb        0.34081  17.48%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -210.3     -5.8382 ug/L       2.22362     -5.8382 ppb        2.22362  38.09%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                16.8      0.1011 ug/L       0.19956      0.1011 ppb        0.19956 197.46%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               79.1      0.7023 ug/L       0.08536      0.7023 ppb        0.08536  12.15%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                    -68.3     -4.4937 ug/L       1.42993     -4.4937 ppb        1.42993  31.82%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
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Analysis Begun

Start Time: 2/8/2010 09:09:59 **Plasma On Time: 2/8/2010 05:57:09**
Logged In Analyst: Optima3 **Technique: ICP Continuous**
Spectrometer Model: Optima 5300 DV, S/N 077C7090601Autosampler Model: S10

Sample Information File: C:\pe\Optima3\Sample Information\020810.sif
Batch ID:
Results Data Set: 020810A
Results Library: C:\pe\Optima3\Results\Results.mdb

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Sequence No.: 1 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 2/8/2010 09:10:00**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5170.6	5170.6	103	%			09:11:53
1	Y RADIAL	5400.1	5400.1	102.4	%			09:11:53
1	Al 396.153Radial†	5783.1	5794.3	4976.8	ug/L	4976.8	ppb	09:11:53
1	Ca 317.933Radial†	3294.5	3176.6	4970.7	ug/L	4970.7	ppb	09:12:13
1	Fe 238.204 Radial†	594.3	568.4	4913.6	ug/L	4913.6	ppb	09:12:13
1	K 766.490 Radial†	31070.0	27417.6	4978.6	ug/L	4978.6	ppb	09:11:53
1	Mg 279.077 IEC†	165.5	157.2	5186.7	ug/L	5186.7	ppb	09:12:13
1	Na 589.592 Radial†	30797.1	31112.5	9192.7	ug/L	9192.7	ppb	09:11:53
1	Sr 421.552†	76237.0	73889.5	490.74	ug/L	490.74	ppb	09:11:53
1	Sc 361.383	934360.9	934360.9	101.65	%			09:13:10
1	Y 371.029	764608.7	764608.7	100.24	%			09:13:10
1	Ag 328.068†	112523.7	110398.7	485.10	ug/L	485.10	ppb	09:13:16
1	As 188.979†	1171.1	1186.2	488.34	ug/L	488.34	ppb	09:13:36
1	B 249.677†	21874.6	22281.2	478.13	ug/L	478.13	ppb	09:13:16
1	Ba 233.527†	64880.4	63833.4	482.29	ug/L	482.29	ppb	09:13:16
1	Be 313.107†	1423444.1	1405242.0	491.33	ug/L	491.33	ppb	09:13:10
1	Cd 226.502†	46046.8	45509.6	483.32	ug/L	483.32	ppb	09:13:16
1	Co 228.616†	24998.7	24677.1	482.00	ug/L	482.00	ppb	09:13:16
1	Cr 267.716†	45959.7	45144.8	482.39	ug/L	482.39	ppb	09:13:16
1	Cu 324.752†	176024.7	166917.1	475.54	ug/L	475.54	ppb	09:13:16
1	Mn 257.610†	468985.4	460818.0	491.79	ug/L	491.79	ppb	09:13:10
1	Mo 202.031†	7161.9	7030.2	485.68	ug/L	485.68	ppb	09:13:36
1	Ni 231.604†	21093.7	20657.7	483.58	ug/L	483.58	ppb	09:13:16
1	P 214.914†	4617.1	4301.5	2299.1	ug/L	2299.1	ppb	09:13:36
1	Pb 220.353†	4314.9	4313.3	484.96	ug/L	484.96	ppb	09:13:36
1	S 181.975 Axial†	787.2	727.5	951.66	ug/L	951.66	ppb	09:13:36
1	Sb 206.836†	1624.5	1564.5	503.67	ug/L	503.67	ppb	09:13:36
1	Se 196.026†	806.0	811.9	506.45	ug/L	506.45	ppb	09:13:36
1	Si 251.611†	79698.2	77674.3	2387.3	ug/L	2387.3	ppb	09:13:16
1	Sn 189.927†	2976.5	2917.8	489.33	ug/L	489.33	ppb	09:13:36
1	Ti 334.940†	333694.0	329843.6	492.56	ug/L	492.56	ppb	09:13:10
1	Tl 190.801†	1643.1	1655.3	489.46	ug/L	489.46	ppb	09:13:36
1	U 409.014†	13833.9	17164.5	474.77	ug/L	474.77	ppb	09:13:16
1	V 292.402†	70692.6	71180.4	486.07	ug/L	486.07	ppb	09:13:16
1	Zn 213.857†	55404.3	53819.5	477.74	ug/L	477.74	ppb	09:13:16
1	SiO2†	80686.5	78572.0	5154.4	ug/L	5154.4	ppb	09:14:44
2	Sc Radial	5039.4	5039.4	101	%			09:12:18
2	Y RADIAL	5277.1	5277.1	100.1	%			09:12:18
2	Al 396.153Radial†	5716.6	5874.1	5045.3	ug/L	5045.3	ppb	09:12:18
2	Ca 317.933Radial†	3266.2	3231.5	5056.6	ug/L	5056.6	ppb	09:12:38
2	Fe 238.204 Radial†	592.9	581.9	5030.6	ug/L	5030.6	ppb	09:12:38
2	K 766.490 Radial†	30590.5	27724.7	5034.4	ug/L	5034.4	ppb	09:12:18
2	Mg 279.077 IEC†	163.4	159.3	5257.2	ug/L	5257.2	ppb	09:12:38
2	Na 589.592 Radial†	30131.8	31227.9	9226.8	ug/L	9226.8	ppb	09:12:18
2	Sr 421.552†	74633.8	74218.6	492.93	ug/L	492.93	ppb	09:12:18
2	Sc 361.383	928035.5	928035.5	100.96	%			09:13:42
2	Y 371.029	760038.9	760038.9	99.638	%			09:13:42

2	Ag 328.068†	113328.4	111950.2	491.94 ug/L	491.94 ppb	09:13:47
2	As 188.979†	1187.6	1210.3	498.20 ug/L	498.20 ppb	09:14:07
2	B 249.677†	22087.3	22638.6	485.79 ug/L	485.79 ppb	09:13:47
2	Ba 233.527†	65456.5	64839.0	489.89 ug/L	489.89 ppb	09:13:47
2	Be 313.107†	1412015.2	1403466.5	490.71 ug/L	490.71 ppb	09:13:42
2	Cd 226.502†	46497.2	46264.5	491.33 ug/L	491.33 ppb	09:13:47
2	Co 228.616†	25241.8	25085.5	490.00 ug/L	490.00 ppb	09:13:47
2	Cr 267.716†	46410.8	45899.7	490.46 ug/L	490.46 ppb	09:13:47
2	Cu 324.752†	177452.7	169511.6	482.94 ug/L	482.94 ppb	09:13:47
2	Mn 257.610†	464690.5	459708.8	490.62 ug/L	490.62 ppb	09:13:42
2	Mo 202.031†	7238.1	7153.6	494.21 ug/L	494.21 ppb	09:14:07
2	Ni 231.604†	21378.9	21081.6	493.51 ug/L	493.51 ppb	09:13:47
2	P 214.914†	4670.0	4384.9	2343.9 ug/L	2343.9 ppb	09:14:07
2	Pb 220.353†	4365.7	4392.5	493.86 ug/L	493.86 ppb	09:14:07
2	S 181.975 Axial†	808.2	753.5	985.77 ug/L	985.77 ppb	09:14:07
2	Sb 206.836†	1645.2	1595.9	513.74 ug/L	513.74 ppb	09:14:07
2	Se 196.026†	793.6	805.0	502.71 ug/L	502.71 ppb	09:14:07
2	Si 251.611†	80381.2	78885.2	2424.5 ug/L	2424.5 ppb	09:13:47
2	Sn 189.927†	3000.4	2961.4	496.64 ug/L	496.64 ppb	09:14:07
2	Ti 334.940†	330881.4	329295.2	491.74 ug/L	491.74 ppb	09:13:42
2	Tl 190.801†	1652.8	1675.9	495.47 ug/L	495.47 ppb	09:14:07
2	U 409.014†	13875.6	17298.6	478.46 ug/L	478.46 ppb	09:13:47
2	V 292.402†	71482.2	72436.5	494.64 ug/L	494.64 ppb	09:13:47
2	Zn 213.857†	55936.1	54717.8	485.70 ug/L	485.70 ppb	09:13:47
2	SiO2†	80257.7	78688.3	5161.8 ug/L	5161.8 ppb	09:14:49
3	Sc Radial	5115.3	5115.3	102 %		09:12:43
3	Y RADIAL	5325.4	5325.4	101.0 %		09:12:43
3	Al 396.153Radial†	5788.7	5860.3	5033.4 ug/L	5033.4 ppb	09:12:43
3	Ca 317.933Radial†	3239.0	3156.7	4939.5 ug/L	4939.5 ppb	09:13:03
3	Fe 238.204 Radial†	586.6	567.0	4901.7 ug/L	4901.7 ppb	09:13:03
3	K 766.490 Radial†	30957.6	27632.7	5017.7 ug/L	5017.7 ppb	09:12:43
3	Mg 279.077 IEC†	159.5	153.1	5051.4 ug/L	5051.4 ppb	09:13:03
3	Na 589.592 Radial†	30768.2	31406.6	9279.6 ug/L	9279.6 ppb	09:12:43
3	Sr 421.552†	76002.1	74457.4	494.51 ug/L	494.51 ppb	09:12:43
3	Sc 361.383	926466.7	926466.7	100.79 %		09:14:13
3	Y 371.029	756998.9	756998.9	99.239 %		09:14:13
3	Ag 328.068†	113316.3	112128.2	492.66 ug/L	492.66 ppb	09:14:18
3	As 188.979†	1190.9	1215.6	500.31 ug/L	500.31 ppb	09:14:38
3	B 249.677†	22086.7	22675.0	486.60 ug/L	486.60 ppb	09:14:18
3	Ba 233.527†	65443.3	64935.7	490.62 ug/L	490.62 ppb	09:14:18
3	Be 313.107†	1408747.1	1402592.2	490.41 ug/L	490.41 ppb	09:14:13
3	Cd 226.502†	46437.3	46283.0	491.54 ug/L	491.54 ppb	09:14:18
3	Co 228.616†	25187.3	25073.8	489.77 ug/L	489.77 ppb	09:14:18
3	Cr 267.716†	46237.4	45805.6	489.44 ug/L	489.44 ppb	09:14:18
3	Cu 324.752†	177699.8	170054.5	484.47 ug/L	484.47 ppb	09:14:18
3	Mn 257.610†	465439.5	461231.2	492.24 ug/L	492.24 ppb	09:14:13
3	Mo 202.031†	7226.5	7154.2	494.24 ug/L	494.24 ppb	09:14:38
3	Ni 231.604†	21302.3	21041.5	492.57 ug/L	492.57 ppb	09:14:18
3	P 214.914†	4673.4	4396.1	2350.0 ug/L	2350.0 ppb	09:14:38
3	Pb 220.353†	4355.6	4389.9	493.57 ug/L	493.57 ppb	09:14:38
3	S 181.975 Axial†	802.1	748.8	979.59 ug/L	979.59 ppb	09:14:38
3	Sb 206.836†	1628.9	1582.5	509.56 ug/L	509.56 ppb	09:14:38
3	Se 196.026†	805.8	818.4	510.34 ug/L	510.34 ppb	09:14:38
3	Si 251.611†	80364.5	79003.5	2428.1 ug/L	2428.1 ppb	09:14:18
3	Sn 189.927†	2995.1	2961.2	496.59 ug/L	496.59 ppb	09:14:38
3	Ti 334.940†	330613.5	329584.4	492.16 ug/L	492.16 ppb	09:14:13
3	Tl 190.801†	1654.7	1680.6	496.84 ug/L	496.84 ppb	09:14:38
3	U 409.014†	14359.9	17802.3	492.46 ug/L	492.46 ppb	09:14:18
3	V 292.402†	71370.2	72445.3	494.74 ug/L	494.74 ppb	09:14:18
3	Zn 213.857†	55880.8	54756.7	486.08 ug/L	486.08 ppb	09:14:18
3	SiO2†	80167.9	78733.7	5164.8 ug/L	5164.8 ppb	09:14:54

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	929621.0	101.14	%	0.455				0.45%
Sc Radial	5108.4	102	%	1.3				1.29%
Y 371.029	760548.8	99.705	%	0.5021				0.50%
Y RADIAL	5334.2	101.1	%	1.17				1.16%
Ag 328.068†	111492.4	489.90	ug/L	4.175	489.90	ppb	4.175	0.85%

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   QC value within limits for Ag 328.068  Recovery = 97.98%
Al 396.153Radial†       5842.9      5018.5 ug/L        36.57      5018.5 ppb        36.57   0.73%
   QC value within limits for Al 396.153Radial  Recovery = 100.37%
As 188.979†             1204.0      495.62 ug/L        6.389      495.62 ppb        6.389   1.29%
   QC value within limits for As 188.979  Recovery = 99.12%
B 249.677†             22531.6      483.50 ug/L        4.674      483.50 ppb        4.674   0.97%
   QC value within limits for B 249.677  Recovery = 96.70%
Ba 233.527†            64536.0      487.60 ug/L        4.612      487.60 ppb        4.612   0.95%
   QC value within limits for Ba 233.527  Recovery = 97.52%
Be 313.107†          1403766.9      490.82 ug/L        0.472      490.82 ppb        0.472   0.10%
   QC value within limits for Be 313.107  Recovery = 98.16%
Ca 317.933Radial†       3188.3      4988.9 ug/L        60.65      4988.9 ppb        60.65   1.22%
   QC value within limits for Ca 317.933Radial  Recovery = 99.78%
Cd 226.502†            46019.0      488.73 ug/L        4.689      488.73 ppb        4.689   0.96%
   QC value within limits for Cd 226.502  Recovery = 97.75%
Co 228.616†            24945.5      487.26 ug/L        4.552      487.26 ppb        4.552   0.93%
   QC value within limits for Co 228.616  Recovery = 97.45%
Cr 267.716†            45616.7      487.43 ug/L        4.396      487.43 ppb        4.396   0.90%
   QC value within limits for Cr 267.716  Recovery = 97.49%
Cu 324.752†           168827.7      480.98 ug/L        4.774      480.98 ppb        4.774   0.99%
   QC value within limits for Cu 324.752  Recovery = 96.20%
Fe 238.204 Radial†       572.4      4948.6 ug/L        71.24      4948.6 ppb        71.24   1.44%
   QC value within limits for Fe 238.204 Radial  Recovery = 98.97%
K 766.490 Radial†      27591.6      5010.2 ug/L        28.63      5010.2 ppb        28.63   0.57%
   QC value within limits for K 766.490 Radial  Recovery = 100.20%
Mg 279.077 IEC†          156.5      5165.1 ug/L       104.59      5165.1 ppb       104.59   2.02%
   QC value within limits for Mg 279.077 IEC  Recovery = 103.30%
Mn 257.610†           460586.0      491.55 ug/L        0.837      491.55 ppb        0.837   0.17%
   QC value within limits for Mn 257.610  Recovery = 98.31%
Mo 202.031†             7112.7      491.37 ug/L        4.935      491.37 ppb        4.935   1.00%
   QC value within limits for Mo 202.031  Recovery = 98.27%
Na 589.592 Radial†     31249.0      9233.0 ug/L        43.78      9233.0 ppb        43.78   0.47%
   QC value within limits for Na 589.592 Radial  Recovery = 92.33%
Ni 231.604†            20927.0      489.88 ug/L        5.479      489.88 ppb        5.479   1.12%
   QC value within limits for Ni 231.604  Recovery = 97.98%
P 214.914†              4360.9      2331.0 ug/L        27.81      2331.0 ppb        27.81   1.19%
   QC value within limits for P 214.914  Recovery = 93.24%
Pb 220.353†             4365.3      490.79 ug/L        5.056      490.79 ppb        5.056   1.03%
   QC value within limits for Pb 220.353  Recovery = 98.16%
S 181.975 Axial†         743.3      972.34 ug/L       18.171      972.34 ppb       18.171   1.87%
   QC value within limits for S 181.975 Axial  Recovery = 97.23%
Sb 206.836†             1580.9      508.99 ug/L        5.059      508.99 ppb        5.059   0.99%
   QC value within limits for Sb 206.836  Recovery = 101.80%
Se 196.026†              811.8      506.50 ug/L        3.812      506.50 ppb        3.812   0.75%
   QC value within limits for Se 196.026  Recovery = 101.30%
Si 251.611†            78521.0      2413.3 ug/L        22.61      2413.3 ppb        22.61   0.94%
   QC value within limits for Si 251.611  Recovery = 96.53%
Sn 189.927†             2946.8      494.19 ug/L        4.209      494.19 ppb        4.209   0.85%
   QC value within limits for Sn 189.927  Recovery = 98.84%
Sr 421.552†            74188.5      492.73 ug/L        1.894      492.73 ppb        1.894   0.38%
   QC value within limits for Sr 421.552  Recovery = 98.55%
Ti 334.940†           329574.4      492.15 ug/L        0.409      492.15 ppb        0.409   0.08%
   QC value within limits for Ti 334.940  Recovery = 98.43%
Tl 190.801†             1670.6      493.92 ug/L        3.923      493.92 ppb        3.923   0.79%
   QC value within limits for Tl 190.801  Recovery = 98.78%
U 409.014†             17421.8      481.89 ug/L        9.332      481.89 ppb        9.332   1.94%
   QC value within limits for U 409.014  Recovery = 96.38%
V 292.402†             72020.7      491.82 ug/L        4.979      491.82 ppb        4.979   1.01%
   QC value within limits for V 292.402  Recovery = 98.36%
Zn 213.857†            54431.4      483.17 ug/L        4.707      483.17 ppb        4.707   0.97%
   QC value within limits for Zn 213.857  Recovery = 96.63%
SiO2†                  78664.7      5160.3 ug/L         5.36      5160.3 ppb         5.36   0.10%
   QC value within limits for SiO2  Recovery = 96.50%
All analyte(s) passed QC.
```

Sequence No.: 2
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/8/2010 09:17:04
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	5218.9	5218.9	104	%			09:18:57
1	Y RADIAL	5506.5	5506.5	104.4	%			09:18:57
1	Al 396.153Radial†	-183.2	12.4	10.733	ug/L	10.733	ppb	09:18:57
1	Ca 317.933Radial†	21.9	4.0	6.2733	ug/L	6.2733	ppb	09:19:17
1	Fe 238.204 Radial†	8.7	0.6	4.9908	ug/L	4.9908	ppb	09:19:17
1	K 766.490 Radial†	2818.9	6.7	1.2116	ug/L	1.2116	ppb	09:18:57
1	Mg 279.077 IEC†	2.6	-0.7	-23.888	ug/L	-23.888	ppb	09:19:17
1	Na 589.592 Radial†	-1299.8	10.6	3.1228	ug/L	3.1228	ppb	09:18:57
1	Sr 421.552†	-0.2	-12.2	-0.0814	ug/L	-0.0814	ppb	09:18:57
1	Sc 361.383	897339.5	897339.5	97.625	%			09:20:14
1	Y 371.029	749924.6	749924.6	98.312	%			09:20:14
1	Ag 328.068†	264.9	-24.6	-0.1032	ug/L	-0.1032	ppb	09:20:14
1	As 188.979†	-20.7	12.9	5.2830	ug/L	5.2830	ppb	09:20:34
1	B 249.677†	-347.6	406.1	8.7535	ug/L	8.7535	ppb	09:20:34
1	Ba 233.527†	-5.3	2.1	0.0146	ug/L	0.0146	ppb	09:20:34
1	Be 313.107†	-4671.5	150.1	0.0522	ug/L	0.0522	ppb	09:20:14
1	Cd 226.502†	-199.7	6.7	0.0694	ug/L	0.0694	ppb	09:20:34
1	Co 228.616†	-85.8	-3.1	-0.0603	ug/L	-0.0603	ppb	09:20:34
1	Cr 267.716†	76.2	10.3	0.1115	ug/L	0.1115	ppb	09:20:34
1	Cu 324.752†	6145.3	48.4	0.1422	ug/L	0.1422	ppb	09:20:14
1	Mn 257.610†	471.1	-61.7	-0.0643	ug/L	-0.0643	ppb	09:20:34
1	Mo 202.031†	15.6	0.6	0.0412	ug/L	0.0412	ppb	09:20:34
1	Ni 231.604†	96.6	5.8	0.1355	ug/L	0.1355	ppb	09:20:34
1	P 214.914†	234.5	-0.3	-0.1797	ug/L	-0.1797	ppb	09:20:34
1	Pb 220.353†	-73.4	-6.6	-0.7363	ug/L	-0.7363	ppb	09:20:34
1	S 181.975 Axial†	45.3	-0.6	-0.7254	ug/L	-0.7254	ppb	09:20:34
1	Sb 206.836†	58.2	26.1	8.0910	ug/L	8.0910	ppb	09:20:34
1	Se 196.026†	-23.9	-5.5	-3.2992	ug/L	-3.2992	ppb	09:20:34
1	Si 251.611†	711.6	0.5	0.0163	ug/L	0.0163	ppb	09:20:34
1	Sn 189.927†	8.3	-1.8	-0.2967	ug/L	-0.2967	ppb	09:20:34
1	Ti 334.940†	-1586.7	-51.8	-0.0714	ug/L	-0.0714	ppb	09:20:14
1	Tl 190.801†	-41.8	-3.9	-1.1324	ug/L	-1.1324	ppb	09:20:34
1	U 409.014†	-3724.8	-259.9	-7.2155	ug/L	-7.2155	ppb	09:20:14
1	V 292.402†	-1709.9	-114.6	-0.7867	ug/L	-0.7867	ppb	09:20:14
1	Zn 213.857†	763.3	97.7	0.8740	ug/L	0.8740	ppb	09:20:34
1	SiO2†	707.8	-78.0	-5.1323	ug/L	-5.1323	ppb	09:21:30
2	Sc Radial	5193.2	5193.2	104	%			09:19:22
2	Y RADIAL	5453.6	5453.6	103.4	%			09:19:22
2	Al 396.153Radial†	-175.6	18.9	16.366	ug/L	16.366	ppb	09:19:22
2	Ca 317.933Radial†	19.8	2.1	3.2844	ug/L	3.2844	ppb	09:19:42
2	Fe 238.204 Radial†	9.8	1.7	14.611	ug/L	14.611	ppb	09:19:42
2	K 766.490 Radial†	2736.5	-59.5	-10.802	ug/L	-10.802	ppb	09:19:22
2	Mg 279.077 IEC†	2.0	-1.2	-40.310	ug/L	-40.310	ppb	09:19:42
2	Na 589.592 Radial†	-1382.2	-75.2	-22.215	ug/L	-22.215	ppb	09:19:22
2	Sr 421.552†	3.4	-8.8	-0.0584	ug/L	-0.0584	ppb	09:19:22
2	Sc 361.383	903734.4	903734.4	98.320	%			09:20:39
2	Y 371.029	753277.4	753277.4	98.751	%			09:20:39
2	Ag 328.068†	333.7	43.4	0.1985	ug/L	0.1985	ppb	09:20:39
2	As 188.979†	-29.3	4.3	1.7680	ug/L	1.7680	ppb	09:20:59
2	B 249.677†	-344.7	411.6	8.8696	ug/L	8.8696	ppb	09:20:59
2	Ba 233.527†	-18.2	-10.9	-0.0822	ug/L	-0.0822	ppb	09:20:59
2	Be 313.107†	-4721.0	133.6	0.0469	ug/L	0.0469	ppb	09:20:39
2	Cd 226.502†	-206.9	0.8	0.0062	ug/L	0.0062	ppb	09:20:59
2	Co 228.616†	-82.4	0.9	0.0163	ug/L	0.0163	ppb	09:20:59
2	Cr 267.716†	101.3	35.2	0.3782	ug/L	0.3782	ppb	09:20:59
2	Cu 324.752†	6253.3	113.7	0.3277	ug/L	0.3277	ppb	09:20:39
2	Mn 257.610†	484.2	-51.7	-0.0521	ug/L	-0.0521	ppb	09:20:59
2	Mo 202.031†	8.8	-6.4	-0.4383	ug/L	-0.4383	ppb	09:20:59
2	Ni 231.604†	86.2	-5.4	-0.1276	ug/L	-0.1276	ppb	09:20:59

2	P 214.914†	224.9	-11.8	-6.6056 ug/L	-6.6056 ppb	09:20:59
2	Pb 220.353†	-63.9	3.5	0.3974 ug/L	0.3974 ppb	09:20:59
2	S 181.975 Axial†	47.3	1.1	1.4794 ug/L	1.4794 ppb	09:20:59
2	Sb 206.836†	43.9	11.1	3.4304 ug/L	3.4304 ppb	09:20:59
2	Se 196.026†	-28.9	-10.5	-6.2420 ug/L	-6.2420 ppb	09:20:59
2	Si 251.611†	704.2	-12.2	-0.3706 ug/L	-0.3706 ppb	09:20:59
2	Sn 189.927†	12.2	2.1	0.3541 ug/L	0.3541 ppb	09:20:59
2	Ti 334.940†	-1462.0	86.6	0.1353 ug/L	0.1353 ppb	09:20:39
2	Tl 190.801†	-40.0	-1.7	-0.5025 ug/L	-0.5025 ppb	09:20:59
2	U 409.014†	-3689.0	-196.5	-5.4565 ug/L	-5.4565 ppb	09:20:39
2	V 292.402†	-1622.4	-13.2	-0.1090 ug/L	-0.1090 ppb	09:20:39
2	Zn 213.857†	768.4	97.4	0.8705 ug/L	0.8705 ppb	09:20:59
2	SiO2†	691.6	-99.6	-6.5417 ug/L	-6.5417 ppb	09:21:35
3	Sc Radial	5127.5	5127.5	102 %		09:19:47
3	Y RADIAL	5394.3	5394.3	102.3 %		09:19:47
3	Al 396.153Radial†	-163.5	28.5	24.564 ug/L	24.564 ppb	09:19:47
3	Ca 317.933Radial†	26.6	9.0	14.087 ug/L	14.087 ppb	09:20:07
3	Fe 238.204 Radial†	9.1	1.2	10.020 ug/L	10.020 ppb	09:20:07
3	K 766.490 Radial†	2888.4	122.9	22.337 ug/L	22.337 ppb	09:19:47
3	Mg 279.077 IEC†	2.5	-0.7	-24.057 ug/L	-24.057 ppb	09:20:07
3	Na 589.592 Radial†	-1335.4	-46.5	-13.750 ug/L	-13.750 ppb	09:19:47
3	Sr 421.552†	4.2	-8.0	-0.0531 ug/L	-0.0531 ppb	09:19:47
3	Sc 361.383	903526.1	903526.1	98.298 %		09:21:04
3	Y 371.029	754304.0	754304.0	98.886 %		09:21:04
3	Ag 328.068†	364.2	74.5	0.3368 ug/L	0.3368 ppb	09:21:04
3	As 188.979†	-28.1	5.5	2.2619 ug/L	2.2619 ppb	09:21:24
3	B 249.677†	-379.4	376.2	8.1066 ug/L	8.1066 ppb	09:21:24
3	Ba 233.527†	-14.5	-7.2	-0.0534 ug/L	-0.0534 ppb	09:21:24
3	Be 313.107†	-4769.7	82.9	0.0289 ug/L	0.0289 ppb	09:21:04
3	Cd 226.502†	-202.1	5.7	0.0575 ug/L	0.0575 ppb	09:21:24
3	Co 228.616†	-78.4	5.0	0.1008 ug/L	0.1008 ppb	09:21:24
3	Cr 267.716†	69.7	3.1	0.0372 ug/L	0.0372 ppb	09:21:24
3	Cu 324.752†	6231.7	93.2	0.2712 ug/L	0.2712 ppb	09:21:04
3	Mn 257.610†	494.5	-41.2	-0.0419 ug/L	-0.0419 ppb	09:21:24
3	Mo 202.031†	34.9	20.1	1.3904 ug/L	1.3904 ppb	09:21:24
3	Ni 231.604†	94.7	3.2	0.0759 ug/L	0.0759 ppb	09:21:24
3	P 214.914†	235.1	-1.3	-0.7785 ug/L	-0.7785 ppb	09:21:24
3	Pb 220.353†	-75.2	-8.0	-0.8840 ug/L	-0.8840 ppb	09:21:24
3	S 181.975 Axial†	48.4	2.3	3.0192 ug/L	3.0192 ppb	09:21:24
3	Sb 206.836†	52.1	19.4	6.0627 ug/L	6.0627 ppb	09:21:24
3	Se 196.026†	-22.3	-3.7	-2.1833 ug/L	-2.1833 ppb	09:21:24
3	Si 251.611†	713.7	-2.4	-0.0901 ug/L	-0.0901 ppb	09:21:24
3	Sn 189.927†	13.9	3.8	0.6439 ug/L	0.6439 ppb	09:21:24
3	Ti 334.940†	-1559.2	-12.7	-0.0110 ug/L	-0.0110 ppb	09:21:04
3	Tl 190.801†	-36.8	1.5	0.4516 ug/L	0.4516 ppb	09:21:24
3	U 409.014†	-3821.6	-332.4	-9.2257 ug/L	-9.2257 ppb	09:21:04
3	V 292.402†	-1587.8	21.6	0.1458 ug/L	0.1458 ppb	09:21:04
3	Zn 213.857†	757.4	86.4	0.7712 ug/L	0.7712 ppb	09:21:24
3	SiO2†	758.4	-31.5	-2.1116 ug/L	-2.1116 ppb	09:21:40

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	901533.3	98.081	%	0.3953				0.40%
Sc Radial	5179.9	103	%	0.9				0.91%
Y 371.029	752502.0	98.650	%	0.3003				0.30%
Y RADIAL	5451.5	103.4	%	1.06				1.03%
Ag 328.068†	31.1	0.1440	ug/L	0.22501	0.1440	ppb	0.22501	156.23%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	20.0	17.221	ug/L	6.9551	17.221	ppb	6.9551	40.39%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	7.6	3.1043	ug/L	1.90291	3.1043	ppb	1.90291	61.30%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	397.9	8.5766	ug/L	0.41111	8.5766	ppb	0.41111	4.79%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-5.3	-0.0403	ug/L	0.04974	-0.0403	ppb	0.04974	123.36%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	122.2	0.0427	ug/L	0.01221	0.0427	ppb	0.01221	28.64%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	5.0	7.8814	ug/L	5.57773	7.8814	ppb	5.57773	70.77%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                4.4      0.0444 ug/L       0.03358      0.0444 ppb        0.03358  75.72%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                0.9      0.0189 ug/L       0.08058      0.0189 ppb        0.08058 425.65%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†               16.2      0.1757 ug/L       0.17933      0.1757 ppb        0.17933 102.09%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               85.1      0.2470 ug/L       0.09510      0.2470 ppb        0.09510  38.50%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         1.1      9.8738 ug/L       4.81160      9.8738 ppb        4.81160  48.73%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         23.4      4.2488 ug/L      16.77658      4.2488 ppb       16.77658 394.85%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           -0.9    -29.418 ug/L        9.4325    -29.418 ppb         9.4325  32.06%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              -51.5     -0.0528 ug/L       0.01119     -0.0528 ppb        0.01119  21.21%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                4.8      0.3311 ug/L       0.94820      0.3311 ppb        0.94820 286.40%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       -37.1    -10.947 ug/L       12.8994    -10.947 ppb        12.8994 117.83%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                1.2      0.0279 ug/L       0.13795      0.0279 ppb        0.13795 493.83%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -4.4     -2.5213 ug/L       3.54978     -2.5213 ppb        3.54978 140.79%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               -3.7     -0.4076 ug/L       0.70109     -0.4076 ppb        0.70109 172.00%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           1.0      1.2577 ug/L       1.88212      1.2577 ppb        1.88212 149.65%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               18.8      5.8614 ug/L       2.33682      5.8614 ppb        2.33682  39.87%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               -6.6     -3.9082 ug/L       2.09675     -3.9082 ppb        2.09675  53.65%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†               -4.7     -0.1482 ug/L       0.19986     -0.1482 ppb        0.19986 134.90%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                1.4      0.2338 ug/L       0.48172      0.2338 ppb        0.48172 206.06%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               -9.7     -0.0643 ug/L       0.01502     -0.0643 ppb        0.01502  23.36%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                7.4      0.0176 ug/L       0.10630      0.0176 ppb        0.10630 602.61%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               -1.3     -0.3945 ug/L       0.79751     -0.3945 ppb        0.79751 202.18%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              -262.9     -7.2992 ug/L       1.88599     -7.2992 ppb        1.88599  25.84%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               -35.4     -0.2500 ug/L       0.48200     -0.2500 ppb        0.48200 192.81%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               93.8      0.8386 ug/L       0.05835      0.8386 ppb        0.05835   6.96%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                    -69.7     -4.5952 ug/L       2.26338     -4.5952 ppb        2.26338  49.26%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 8
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/8/2010 09:58:28
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	5173.2	5173.2	103	%			10:00:21
1	Y RADIAL	5373.7	5373.7	101.9	%			10:00:21
1	Al 396.153Radial†	5807.6	5815.2	4994.5	ug/L	4994.5	ppb	10:00:21
1	Ca 317.933Radial†	3299.1	3179.4	4975.1	ug/L	4975.1	ppb	10:00:41
1	Fe 238.204 Radial†	593.9	567.6	4907.4	ug/L	4907.4	ppb	10:00:41
1	K 766.490 Radial†	30987.3	27322.2	4961.3	ug/L	4961.3	ppb	10:00:21
1	Mg 279.077 IEC†	161.5	153.3	5057.3	ug/L	5057.3	ppb	10:00:41
1	Na 589.592 Radial†	30422.1	30733.9	9080.8	ug/L	9080.8	ppb	10:00:21
1	Sr 421.552†	76001.2	73623.4	488.97	ug/L	488.97	ppb	10:00:21
1	Sc 361.383	928113.1	928113.1	100.97	%			10:01:38
1	Y 371.029	760206.6	760206.6	99.660	%			10:01:38
1	Ag 328.068†	113844.2	112451.6	494.09	ug/L	494.09	ppb	10:01:43
1	As 188.979†	1174.5	1197.3	492.75	ug/L	492.75	ppb	10:02:03
1	B 249.677†	22015.2	22565.3	484.23	ug/L	484.23	ppb	10:01:43
1	Ba 233.527†	65644.3	65019.6	491.25	ug/L	491.25	ppb	10:01:43
1	Be 313.107†	1413646.6	1404965.2	491.21	ug/L	491.21	ppb	10:01:38
1	Cd 226.502†	46568.4	46331.2	492.05	ug/L	492.05	ppb	10:01:43
1	Co 228.616†	25223.0	25064.8	489.62	ug/L	489.62	ppb	10:01:43
1	Cr 267.716†	46551.3	46035.0	491.90	ug/L	491.90	ppb	10:01:43
1	Cu 324.752†	178094.6	170132.7	484.70	ug/L	484.70	ppb	10:01:43
1	Mn 257.610†	465139.5	460115.0	491.05	ug/L	491.05	ppb	10:01:38
1	Mo 202.031†	7227.5	7142.5	493.43	ug/L	493.43	ppb	10:02:03
1	Ni 231.604†	21304.9	21006.6	491.75	ug/L	491.75	ppb	10:01:43
1	P 214.914†	4667.8	4382.4	2342.2	ug/L	2342.2	ppb	10:02:03
1	Pb 220.353†	4343.8	4370.5	491.39	ug/L	491.39	ppb	10:02:03
1	S 181.975 Axial†	796.2	741.6	970.10	ug/L	970.10	ppb	10:02:03
1	Sb 206.836†	1638.1	1588.7	511.51	ug/L	511.51	ppb	10:02:03
1	Se 196.026†	794.4	805.7	502.72	ug/L	502.72	ppb	10:02:03
1	Si 251.611†	80439.7	78936.5	2426.1	ug/L	2426.1	ppb	10:01:43
1	Sn 189.927†	2992.2	2953.0	495.22	ug/L	495.22	ppb	10:02:03
1	Ti 334.940†	322932.7	321395.7	479.94	ug/L	479.94	ppb	10:01:43
1	Tl 190.801†	1643.1	1666.2	492.51	ug/L	492.51	ppb	10:02:03
1	U 409.014†	14120.3	17539.8	485.16	ug/L	485.16	ppb	10:01:43
1	V 292.402†	71748.7	72694.5	496.41	ug/L	496.41	ppb	10:01:43
1	Zn 213.857†	56059.7	54835.5	486.79	ug/L	486.79	ppb	10:01:43
1	SiO2†	80597.4	79018.0	5183.5	ug/L	5183.5	ppb	10:03:11
2	Sc Radial	5093.2	5093.2	102	%			10:00:46
2	Y RADIAL	5321.3	5321.3	100.9	%			10:00:46
2	Al 396.153Radial†	5766.9	5863.6	5036.2	ug/L	5036.2	ppb	10:00:46
2	Ca 317.933Radial†	3312.2	3242.5	5073.8	ug/L	5073.8	ppb	10:01:06
2	Fe 238.204 Radial†	594.6	577.4	4991.0	ug/L	4991.0	ppb	10:01:06
2	K 766.490 Radial†	30723.0	27533.8	4999.7	ug/L	4999.7	ppb	10:00:46
2	Mg 279.077 IEC†	163.4	157.6	5200.1	ug/L	5200.1	ppb	10:01:06
2	Na 589.592 Radial†	29852.0	30636.1	9051.9	ug/L	9051.9	ppb	10:00:46
2	Sr 421.552†	74849.4	73646.9	489.13	ug/L	489.13	ppb	10:00:46
2	Sc 361.383	928024.5	928024.5	100.96	%			10:02:09
2	Y 371.029	759796.6	759796.6	99.606	%			10:02:09
2	Ag 328.068†	114229.5	112844.0	495.82	ug/L	495.82	ppb	10:02:14
2	As 188.979†	1192.3	1215.0	500.00	ug/L	500.00	ppb	10:02:34
2	B 249.677†	22172.0	22722.8	487.61	ug/L	487.61	ppb	10:02:14
2	Ba 233.527†	65709.3	65090.2	491.79	ug/L	491.79	ppb	10:02:14
2	Be 313.107†	1407449.6	1398961.0	489.12	ug/L	489.12	ppb	10:02:09
2	Cd 226.502†	46518.1	46285.7	491.56	ug/L	491.56	ppb	10:02:14
2	Co 228.616†	25218.4	25062.7	489.57	ug/L	489.57	ppb	10:02:14
2	Cr 267.716†	46515.3	46003.8	491.56	ug/L	491.56	ppb	10:02:14
2	Cu 324.752†	179225.9	171270.0	487.94	ug/L	487.94	ppb	10:02:14
2	Mn 257.610†	463636.8	458670.6	489.51	ug/L	489.51	ppb	10:02:09
2	Mo 202.031†	7246.8	7162.3	494.81	ug/L	494.81	ppb	10:02:34
2	Ni 231.604†	21361.1	21064.3	493.10	ug/L	493.10	ppb	10:02:14

2	P 214.914†	4660.0	4375.1	2337.5 ug/L	2337.5 ppb	10:02:34
2	Pb 220.353†	4348.4	4375.4	491.94 ug/L	491.94 ppb	10:02:34
2	S 181.975 Axial†	800.5	745.9	975.83 ug/L	975.83 ppb	10:02:34
2	Sb 206.836†	1641.1	1591.8	512.49 ug/L	512.49 ppb	10:02:34
2	Se 196.026†	806.8	818.1	510.45 ug/L	510.45 ppb	10:02:34
2	Si 251.611†	80741.8	79243.3	2435.5 ug/L	2435.5 ppb	10:02:14
2	Sn 189.927†	2989.5	2950.7	494.85 ug/L	494.85 ppb	10:02:34
2	Ti 334.940†	324025.1	322508.3	481.60 ug/L	481.60 ppb	10:02:14
2	Tl 190.801†	1646.9	1670.1	493.65 ug/L	493.65 ppb	10:02:34
2	U 409.014†	14332.0	17750.8	491.01 ug/L	491.01 ppb	10:02:14
2	V 292.402†	71737.8	72690.5	496.40 ug/L	496.40 ppb	10:02:14
2	Zn 213.857†	56012.5	54794.1	486.39 ug/L	486.39 ppb	10:02:14
2	SiO2†	79971.4	78405.6	5143.2 ug/L	5143.2 ppb	10:03:16
3	Sc Radial	5085.4	5085.4	101 %		10:01:11
3	Y RADIAL	5342.4	5342.4	101.3 %		10:01:11
3	Al 396.153Radial†	5738.4	5844.2	5019.6 ug/L	5019.6 ppb	10:01:11
3	Ca 317.933Radial†	3281.1	3216.8	5033.6 ug/L	5033.6 ppb	10:01:31
3	Fe 238.204 Radial†	585.5	569.3	4921.7 ug/L	4921.7 ppb	10:01:31
3	K 766.490 Radial†	30578.9	27438.2	4982.4 ug/L	4982.4 ppb	10:01:11
3	Mg 279.077 IEC†	156.8	151.4	4994.5 ug/L	4994.5 ppb	10:01:31
3	Na 589.592 Radial†	29724.2	30555.2	9028.0 ug/L	9028.0 ppb	10:01:11
3	Sr 421.552†	74600.5	73514.9	488.25 ug/L	488.25 ppb	10:01:11
3	Sc 361.383	932414.3	932414.3	101.44 %		10:02:40
3	Y 371.029	763655.2	763655.2	100.11 %		10:02:40
3	Ag 328.068†	114646.8	112722.7	495.28 ug/L	495.28 ppb	10:02:45
3	As 188.979†	1180.2	1197.5	492.87 ug/L	492.87 ppb	10:03:05
3	B 249.677†	22392.6	22836.8	490.08 ug/L	490.08 ppb	10:02:45
3	Ba 233.527†	66022.8	65092.8	491.81 ug/L	491.81 ppb	10:02:45
3	Be 313.107†	1418021.0	1402819.3	490.46 ug/L	490.46 ppb	10:02:40
3	Cd 226.502†	46827.4	46373.7	492.50 ug/L	492.50 ppb	10:02:45
3	Co 228.616†	25401.3	25125.3	490.79 ug/L	490.79 ppb	10:02:45
3	Cr 267.716†	46890.0	46156.3	493.20 ug/L	493.20 ppb	10:02:45
3	Cu 324.752†	180138.4	171333.9	488.12 ug/L	488.12 ppb	10:02:45
3	Mn 257.610†	465882.5	458722.5	489.57 ug/L	489.57 ppb	10:02:40
3	Mo 202.031†	7221.1	7103.1	490.72 ug/L	490.72 ppb	10:03:05
3	Ni 231.604†	21406.0	21008.9	491.80 ug/L	491.80 ppb	10:02:45
3	P 214.914†	4633.1	4326.8	2310.6 ug/L	2310.6 ppb	10:03:05
3	Pb 220.353†	4299.6	4307.0	484.27 ug/L	484.27 ppb	10:03:05
3	S 181.975 Axial†	787.0	728.9	953.49 ug/L	953.49 ppb	10:03:05
3	Sb 206.836†	1640.9	1584.0	509.94 ug/L	509.94 ppb	10:03:05
3	Se 196.026†	792.7	800.5	499.60 ug/L	499.60 ppb	10:03:05
3	Si 251.611†	81044.8	79165.5	2433.2 ug/L	2433.2 ppb	10:02:45
3	Sn 189.927†	2991.1	2938.3	492.77 ug/L	492.77 ppb	10:03:05
3	Ti 334.940†	325623.4	322572.9	481.71 ug/L	481.71 ppb	10:02:45
3	Tl 190.801†	1642.3	1657.9	490.08 ug/L	490.08 ppb	10:03:05
3	U 409.014†	14174.2	17528.4	484.84 ug/L	484.84 ppb	10:02:45
3	V 292.402†	72354.3	72963.7	498.18 ug/L	498.18 ppb	10:02:45
3	Zn 213.857†	56376.5	54891.7	487.28 ug/L	487.28 ppb	10:02:45
3	SiO2†	79641.4	77707.4	5097.4 ug/L	5097.4 ppb	10:03:21

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	929517.3	101.13	%	0.273				0.27%
Sc Radial	5117.3	102	%	1.0				0.95%
Y 371.029	761219.5	99.792	%	0.2778				0.28%
Y RADIAL	5345.8	101.4	%	0.50				0.49%
Ag 328.068†	112672.8	495.07	ug/L	0.888	495.07	ppb	0.888	0.18%
QC value within limits for Ag 328.068 Recovery = 99.01%								
Al 396.153Radial†	5841.0	5016.8	ug/L	20.99	5016.8	ppb	20.99	0.42%
QC value within limits for Al 396.153Radial Recovery = 100.34%								
As 188.979†	1203.3	495.21	ug/L	4.154	495.21	ppb	4.154	0.84%
QC value within limits for As 188.979 Recovery = 99.04%								
B 249.677†	22708.3	487.31	ug/L	2.935	487.31	ppb	2.935	0.60%
QC value within limits for B 249.677 Recovery = 97.46%								
Ba 233.527†	65067.5	491.62	ug/L	0.315	491.62	ppb	0.315	0.06%
QC value within limits for Ba 233.527 Recovery = 98.32%								
Be 313.107†	1402248.5	490.26	ug/L	1.060	490.26	ppb	1.060	0.22%
QC value within limits for Be 313.107 Recovery = 98.05%								
Ca 317.933Radial†	3212.9	5027.5	ug/L	49.67	5027.5	ppb	49.67	0.99%

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   QC value within limits for Ca 317.933Radial  Recovery = 100.55%
Cd 226.502†            46330.2      492.04 ug/L         0.470      492.04 ppb          0.470   0.10%
   QC value within limits for Cd 226.502  Recovery = 98.41%
Co 228.616†            25084.3      489.99 ug/L         0.689      489.99 ppb          0.689   0.14%
   QC value within limits for Co 228.616  Recovery = 98.00%
Cr 267.716†            46065.0      492.22 ug/L         0.861      492.22 ppb          0.861   0.17%
   QC value within limits for Cr 267.716  Recovery = 98.44%
Cu 324.752†           170912.2      486.92 ug/L         1.926      486.92 ppb          1.926   0.40%
   QC value within limits for Cu 324.752  Recovery = 97.38%
Fe 238.204 Radial†       571.4      4940.0 ug/L        44.76      4940.0 ppb         44.76   0.91%
   QC value within limits for Fe 238.204 Radial  Recovery = 98.80%
K 766.490 Radial†      27431.4      4981.1 ug/L        19.26      4981.1 ppb         19.26   0.39%
   QC value within limits for K 766.490 Radial  Recovery = 99.62%
Mg 279.077 IEC†          154.1      5084.0 ug/L       105.34      5084.0 ppb        105.34   2.07%
   QC value within limits for Mg 279.077 IEC  Recovery = 101.68%
Mn 257.610†           459169.3      490.04 ug/L         0.872      490.04 ppb          0.872   0.18%
   QC value within limits for Mn 257.610  Recovery = 98.01%
Mo 202.031†             7136.0      492.99 ug/L         2.081      492.99 ppb          2.081   0.42%
   QC value within limits for Mo 202.031  Recovery = 98.60%
Na 589.592 Radial†     30641.8      9053.6 ug/L        26.44      9053.6 ppb         26.44   0.29%
   QC value within limits for Na 589.592 Radial  Recovery = 90.54%
Ni 231.604†            21026.6      492.22 ug/L         0.765      492.22 ppb          0.765   0.16%
   QC value within limits for Ni 231.604  Recovery = 98.44%
P 214.914†              4361.4      2330.1 ug/L        17.04      2330.1 ppb         17.04   0.73%
   QC value within limits for P 214.914  Recovery = 93.20%
Pb 220.353†             4351.0      489.20 ug/L         4.278      489.20 ppb          4.278   0.87%
   QC value within limits for Pb 220.353  Recovery = 97.84%
S 181.975 Axial†         738.8      966.47 ug/L        11.603      966.47 ppb         11.603   1.20%
   QC value within limits for S 181.975 Axial  Recovery = 96.65%
Sb 206.836†             1588.1      511.32 ug/L         1.286      511.32 ppb          1.286   0.25%
   QC value within limits for Sb 206.836  Recovery = 102.26%
Se 196.026†              808.1      504.26 ug/L         5.581      504.26 ppb          5.581   1.11%
   QC value within limits for Se 196.026  Recovery = 100.85%
Si 251.611†            79115.1      2431.6 ug/L          4.91      2431.6 ppb           4.91   0.20%
   QC value within limits for Si 251.611  Recovery = 97.26%
Sn 189.927†             2947.3      494.28 ug/L         1.323      494.28 ppb          1.323   0.27%
   QC value within limits for Sn 189.927  Recovery = 98.86%
Sr 421.552†            73595.1      488.78 ug/L         0.468      488.78 ppb          0.468   0.10%
   QC value within limits for Sr 421.552  Recovery = 97.76%
Ti 334.940†           322159.0      481.08 ug/L         0.992      481.08 ppb          0.992   0.21%
   QC value within limits for Ti 334.940  Recovery = 96.22%
Tl 190.801†             1664.7      492.08 ug/L         1.826      492.08 ppb          1.826   0.37%
   QC value within limits for Tl 190.801  Recovery = 98.42%
U 409.014†             17606.3      487.00 ug/L         3.472      487.00 ppb          3.472   0.71%
   QC value within limits for U 409.014  Recovery = 97.40%
V 292.402†             72782.9      496.99 ug/L         1.023      496.99 ppb          1.023   0.21%
   QC value within limits for V 292.402  Recovery = 99.40%
Zn 213.857†            54840.5      486.82 ug/L         0.450      486.82 ppb          0.450   0.09%
   QC value within limits for Zn 213.857  Recovery = 97.36%
SiO2†                  78377.0      5141.4 ug/L        43.09      5141.4 ppb         43.09   0.84%
   QC value within limits for SiO2  Recovery = 96.15%
All analyte(s) passed QC.
```

Sequence No.: 9
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/8/2010 10:05:31
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5189.7	5189.7	104	%			10:07:24
1	Y RADIAL	5454.2	5454.2	103.4	%			10:07:24
1	Al 396.153Radial†	-194.3	0.7	0.5966	ug/L	0.5966	ppb	10:07:24
1	Ca 317.933Radial†	20.7	3.0	4.6648	ug/L	4.6648	ppb	10:07:44
1	Fe 238.204 Radial†	9.8	1.7	14.890	ug/L	14.890	ppb	10:07:44
1	K 766.490 Radial†	2681.7	-110.6	-20.108	ug/L	-20.108	ppb	10:07:24
1	Mg 279.077 IEC†	1.7	-1.6	-52.290	ug/L	-52.290	ppb	10:07:44
1	Na 589.592 Radial†	-1358.4	-53.1	-15.678	ug/L	-15.678	ppb	10:07:24
1	Sr 421.552†	-2.7	-14.7	-0.0977	ug/L	-0.0977	ppb	10:07:24
1	Sc 361.383	910516.5	910516.5	99.058	%			10:08:41
1	Y 371.029	759953.5	759953.5	99.627	%			10:08:41
1	Ag 328.068†	297.5	4.3	0.0240	ug/L	0.0240	ppb	10:08:41
1	As 188.979†	-37.0	-3.2	-1.3089	ug/L	-1.3089	ppb	10:09:01
1	B 249.677†	-417.7	340.5	7.3369	ug/L	7.3369	ppb	10:09:01
1	Ba 233.527†	4.2	11.8	0.0901	ug/L	0.0901	ppb	10:09:01
1	Be 313.107†	-4806.1	83.4	0.0292	ug/L	0.0292	ppb	10:08:41
1	Cd 226.502†	-212.8	-3.5	-0.0389	ug/L	-0.0389	ppb	10:09:01
1	Co 228.616†	-75.4	8.6	0.1682	ug/L	0.1682	ppb	10:09:01
1	Cr 267.716†	79.8	12.7	0.1361	ug/L	0.1361	ppb	10:09:01
1	Cu 324.752†	6338.3	152.1	0.4338	ug/L	0.4338	ppb	10:08:41
1	Mn 257.610†	485.4	-54.2	-0.0542	ug/L	-0.0542	ppb	10:09:01
1	Mo 202.031†	16.5	1.3	0.0936	ug/L	0.0936	ppb	10:09:01
1	Ni 231.604†	87.9	-4.3	-0.1017	ug/L	-0.1017	ppb	10:09:01
1	P 214.914†	227.5	-10.8	-6.1303	ug/L	-6.1303	ppb	10:09:01
1	Pb 220.353†	-48.6	19.5	2.1878	ug/L	2.1878	ppb	10:09:01
1	S 181.975 Axial†	37.8	-8.8	-11.526	ug/L	-11.526	ppb	10:09:01
1	Sb 206.836†	49.0	15.9	4.9281	ug/L	4.9281	ppb	10:09:01
1	Se 196.026†	-15.9	3.0	1.8325	ug/L	1.8325	ppb	10:09:01
1	Si 251.611†	669.7	-52.3	-1.6124	ug/L	-1.6124	ppb	10:09:01
1	Sn 189.927†	6.0	-4.3	-0.7196	ug/L	-0.7196	ppb	10:09:01
1	Ti 334.940†	-1521.7	37.4	0.0604	ug/L	0.0604	ppb	10:08:41
1	Tl 190.801†	-52.4	-13.9	-4.0936	ug/L	-4.0936	ppb	10:09:01
1	U 409.014†	-3504.4	17.7	0.4903	ug/L	0.4903	ppb	10:08:41
1	V 292.402†	-1600.4	21.3	0.1425	ug/L	0.1425	ppb	10:08:41
1	Zn 213.857†	755.3	78.3	0.6991	ug/L	0.6991	ppb	10:09:01
1	SiO2†	712.7	-83.5	-5.4959	ug/L	-5.4959	ppb	10:09:57
2	Sc Radial	5088.7	5088.7	102	%			10:07:49
2	Y RADIAL	5366.5	5366.5	101.7	%			10:07:49
2	Al 396.153Radial†	-195.7	-4.4	-3.7968	ug/L	-3.7968	ppb	10:07:49
2	Ca 317.933Radial†	19.8	2.5	3.9348	ug/L	3.9348	ppb	10:08:09
2	Fe 238.204 Radial†	10.6	2.7	23.303	ug/L	23.303	ppb	10:08:09
2	K 766.490 Radial†	2943.8	198.9	36.167	ug/L	36.167	ppb	10:07:49
2	Mg 279.077 IEC†	4.5	1.3	42.452	ug/L	42.452	ppb	10:08:09
2	Na 589.592 Radial†	-1354.4	-75.2	-22.218	ug/L	-22.218	ppb	10:07:49
2	Sr 421.552†	-0.1	-12.1	-0.0806	ug/L	-0.0806	ppb	10:07:49
2	Sc 361.383	902904.4	902904.4	98.230	%			10:09:06
2	Y 371.029	754191.5	754191.5	98.871	%			10:09:06
2	Ag 328.068†	367.1	77.7	0.3501	ug/L	0.3501	ppb	10:09:06
2	As 188.979†	-25.3	8.3	3.4114	ug/L	3.4114	ppb	10:09:26
2	B 249.677†	-436.1	318.2	6.8559	ug/L	6.8559	ppb	10:09:26
2	Ba 233.527†	12.6	20.5	0.1532	ug/L	0.1532	ppb	10:09:26
2	Be 313.107†	-4813.4	35.1	0.0122	ug/L	0.0122	ppb	10:09:06
2	Cd 226.502†	-205.2	2.4	0.0219	ug/L	0.0219	ppb	10:09:26
2	Co 228.616†	-95.8	-12.7	-0.2485	ug/L	-0.2485	ppb	10:09:26
2	Cr 267.716†	70.1	3.5	0.0398	ug/L	0.0398	ppb	10:09:26
2	Cu 324.752†	6208.7	74.1	0.2166	ug/L	0.2166	ppb	10:09:06
2	Mn 257.610†	463.6	-72.3	-0.0765	ug/L	-0.0765	ppb	10:09:26
2	Mo 202.031†	18.0	3.0	0.2058	ug/L	0.2058	ppb	10:09:26
2	Ni 231.604†	97.0	5.6	0.1323	ug/L	0.1323	ppb	10:09:26

2	P 214.914†	225.3	-11.1	-6.2527 ug/L	-6.2527 ppb	10:09:26
2	Pb 220.353†	-68.0	-0.6	-0.0743 ug/L	-0.0743 ppb	10:09:26
2	S 181.975 Axial†	45.6	-0.5	-0.6776 ug/L	-0.6776 ppb	10:09:26
2	Sb 206.836†	38.0	5.0	1.5759 ug/L	1.5759 ppb	10:09:26
2	Se 196.026†	-25.4	-6.8	-4.0352 ug/L	-4.0352 ppb	10:09:26
2	Si 251.611†	682.4	-33.7	-1.0416 ug/L	-1.0416 ppb	10:09:26
2	Sn 189.927†	12.5	2.4	0.4082 ug/L	0.4082 ppb	10:09:26
2	Ti 334.940†	-1568.8	-23.5	-0.0346 ug/L	-0.0346 ppb	10:09:06
2	Tl 190.801†	-36.0	2.3	0.6824 ug/L	0.6824 ppb	10:09:26
2	U 409.014†	-3767.0	-279.4	-7.7589 ug/L	-7.7589 ppb	10:09:06
2	V 292.402†	-1722.8	-116.9	-0.8022 ug/L	-0.8022 ppb	10:09:06
2	Zn 213.857†	756.4	85.8	0.7634 ug/L	0.7634 ppb	10:09:26
2	SiO2†	688.5	-102.1	-6.7233 ug/L	-6.7233 ppb	10:10:02
3	Sc Radial	5106.2	5106.2	102 %		10:08:14
3	Y RADIAL	5358.5	5358.5	101.6 %		10:08:14
3	Al 396.153Radial†	-175.4	16.2	13.989 ug/L	13.989 ppb	10:08:14
3	Ca 317.933Radial†	22.6	5.2	8.0603 ug/L	8.0603 ppb	10:08:34
3	Fe 238.204 Radial†	9.2	1.3	11.044 ug/L	11.044 ppb	10:08:34
3	K 766.490 Radial†	2784.2	32.4	5.8934 ug/L	5.8934 ppb	10:08:14
3	Mg 279.077 IEC†	1.4	-1.8	-58.542 ug/L	-58.542 ppb	10:08:34
3	Na 589.592 Radial†	-1396.5	-111.9	-33.073 ug/L	-33.073 ppb	10:08:14
3	Sr 421.552†	-7.7	-19.6	-0.1301 ug/L	-0.1301 ppb	10:08:14
3	Sc 361.383	901519.4	901519.4	98.079 %		10:09:32
3	Y 371.029	753151.7	753151.7	98.735 %		10:09:32
3	Ag 328.068†	376.0	87.4	0.3833 ug/L	0.3833 ppb	10:09:32
3	As 188.979†	-27.8	5.8	2.3641 ug/L	2.3641 ppb	10:09:52
3	B 249.677†	-441.1	312.4	6.7323 ug/L	6.7323 ppb	10:09:52
3	Ba 233.527†	-19.5	-12.3	-0.0933 ug/L	-0.0933 ppb	10:09:52
3	Be 313.107†	-4727.6	115.1	0.0400 ug/L	0.0400 ppb	10:09:32
3	Cd 226.502†	-198.0	9.4	0.0993 ug/L	0.0993 ppb	10:09:52
3	Co 228.616†	-76.6	6.7	0.1309 ug/L	0.1309 ppb	10:09:52
3	Cr 267.716†	102.7	36.9	0.3929 ug/L	0.3929 ppb	10:09:52
3	Cu 324.752†	6281.7	158.3	0.4512 ug/L	0.4512 ppb	10:09:32
3	Mn 257.610†	509.9	-24.3	-0.0224 ug/L	-0.0224 ppb	10:09:52
3	Mo 202.031†	22.2	7.3	0.5041 ug/L	0.5041 ppb	10:09:52
3	Ni 231.604†	98.4	7.2	0.1682 ug/L	0.1682 ppb	10:09:52
3	P 214.914†	236.5	0.6	0.2796 ug/L	0.2796 ppb	10:09:52
3	Pb 220.353†	-80.0	-13.0	-1.4502 ug/L	-1.4502 ppb	10:09:52
3	S 181.975 Axial†	45.0	-1.1	-1.4612 ug/L	-1.4612 ppb	10:09:52
3	Sb 206.836†	51.0	18.4	5.7688 ug/L	5.7688 ppb	10:09:52
3	Se 196.026†	-21.1	-2.6	-1.5089 ug/L	-1.5089 ppb	10:09:52
3	Si 251.611†	675.0	-40.2	-1.2447 ug/L	-1.2447 ppb	10:09:52
3	Sn 189.927†	20.4	10.4	1.7482 ug/L	1.7482 ppb	10:09:52
3	Ti 334.940†	-1575.2	-32.5	-0.0431 ug/L	-0.0431 ppb	10:09:32
3	Tl 190.801†	-29.0	9.4	2.7471 ug/L	2.7471 ppb	10:09:52
3	U 409.014†	-3468.1	19.5	0.5380 ug/L	0.5380 ppb	10:09:32
3	V 292.402†	-1656.8	-52.3	-0.3472 ug/L	-0.3472 ppb	10:09:32
3	Zn 213.857†	762.7	93.5	0.8338 ug/L	0.8338 ppb	10:09:52
3	SiO2†	661.4	-128.7	-8.4785 ug/L	-8.4785 ppb	10:10:07

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	904980.1	98.456	%	0.5270				0.54%
Sc Radial	5128.2	102	%	1.1				1.05%
Y 371.029	755765.6	99.077	%	0.4803				0.48%
Y RADIAL	5393.1	102.3	%	1.01				0.98%
Ag 328.068†	56.5	0.2525	ug/L	0.19856	0.2525	ppb	0.19856	78.65%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	4.2	3.5963	ug/L	9.26454	3.5963	ppb	9.26454	257.62%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	3.6	1.4889	ug/L	2.47885	1.4889	ppb	2.47885	166.49%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	323.7	6.9750	ug/L	0.31939	6.9750	ppb	0.31939	4.58%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	6.7	0.0500	ug/L	0.12805	0.0500	ppb	0.12805	256.30%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	77.9	0.0271	ug/L	0.01406	0.0271	ppb	0.01406	51.80%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	3.5	5.5533	ug/L	2.20162	5.5533	ppb	2.20162	39.65%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                2.8      0.0274 ug/L       0.06923      0.0274 ppb        0.06923 252.42%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                0.8      0.0169 ug/L       0.23058      0.0169 ppb        0.23058 >999.9%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†               17.7      0.1896 ug/L       0.18255      0.1896 ppb        0.18255  96.27%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              128.2      0.3672 ug/L       0.13070      0.3672 ppb        0.13070  35.59%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         1.9      16.412 ug/L        6.2695      16.412 ppb         6.2695  38.20%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         40.2      7.3177 ug/L      28.16442      7.3177 ppb       28.16442 384.88%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           -0.7     -22.793 ug/L       56.5906     -22.793 ppb        56.5906 248.28%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              -50.3     -0.0511 ug/L       0.02718     -0.0511 ppb        0.02718  53.23%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                3.9      0.2678 ug/L       0.21220      0.2678 ppb        0.21220  79.23%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       -80.1     -23.656 ug/L        8.7862     -23.656 ppb         8.7862  37.14%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                2.8      0.0663 ug/L       0.14657      0.0663 ppb        0.14657 221.24%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -7.1     -4.0345 ug/L       3.73658     -4.0345 ppb        3.73658  92.62%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                2.0      0.2211 ug/L       1.83688      0.2211 ppb        1.83688 830.82%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          -3.5     -4.5548 ug/L       6.04959     -4.5548 ppb        6.04959 132.82%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               13.1      4.0910 ug/L       2.21827      4.0910 ppb        2.21827  54.22%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               -2.1     -1.2372 ug/L       2.94326     -1.2372 ppb        2.94326 237.90%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†              -42.1     -1.2995 ug/L       0.28934     -1.2995 ppb        0.28934  22.27%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                2.9      0.4789 ug/L       1.23543      0.4789 ppb        1.23543 257.95%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              -15.5     -0.1028 ug/L       0.02515     -0.1028 ppb        0.02515  24.46%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               -6.2     -0.0058 ug/L       0.05748     -0.0058 ppb        0.05748 999.53%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               -0.8     -0.2214 ug/L       3.50877     -0.2214 ppb        3.50877 >999.9%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -80.8     -2.2435 ug/L       4.77652     -2.2435 ppb        4.77652 212.90%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               -49.3     -0.3356 ug/L       0.47247     -0.3356 ppb        0.47247 140.76%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               85.9      0.7654 ug/L       0.06741      0.7654 ppb        0.06741   8.81%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                   -104.8     -6.8992 ug/L       1.49904     -6.8992 ppb        1.49904  21.73%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 9
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/8/2010 11:11:38
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5172.3	5172.3	103	%			11:13:30
1	Y RADIAL	5421.6	5421.6	102.8	%			11:13:30
1	Al 396.153Radial†	5533.1	5550.2	4765.5	ug/L	4765.5	ppb	11:13:30
1	Ca 317.933Radial†	3282.4	3163.8	4950.6	ug/L	4950.6	ppb	11:13:50
1	Fe 238.204 Radial†	597.4	571.1	4937.9	ug/L	4937.9	ppb	11:13:50
1	K 766.490 Radial†	29997.8	26368.5	4787.9	ug/L	4787.9	ppb	11:13:30
1	Mg 279.077 IEC†	160.5	152.4	5028.1	ug/L	5028.1	ppb	11:13:50
1	Na 589.592 Radial†	30651.9	30961.8	9148.1	ug/L	9148.1	ppb	11:13:30
1	Sr 421.552†	74553.5	72233.4	479.74	ug/L	479.74	ppb	11:13:30
1	Sc 361.383	906106.1	906106.1	98.578	%			11:14:48
1	Y 371.029	743095.2	743095.2	97.416	%			11:14:48
1	Ag 328.068†	114371.5	115724.9	508.43	ug/L	508.43	ppb	11:14:53
1	As 188.979†	1161.8	1212.6	499.10	ug/L	499.10	ppb	11:15:13
1	B 249.677†	22272.0	23355.3	501.22	ug/L	501.22	ppb	11:14:53
1	Ba 233.527†	65833.0	66790.0	504.63	ug/L	504.63	ppb	11:14:53
1	Be 313.107†	1376593.1	1401380.7	489.98	ug/L	489.98	ppb	11:14:48
1	Cd 226.502†	46535.1	47417.4	503.60	ug/L	503.60	ppb	11:14:53
1	Co 228.616†	25269.5	25718.7	502.37	ug/L	502.37	ppb	11:14:53
1	Cr 267.716†	46729.8	47335.9	505.79	ug/L	505.79	ppb	11:14:53
1	Cu 324.752†	179557.9	175900.9	501.12	ug/L	501.12	ppb	11:14:53
1	Mn 257.610†	454387.5	460396.2	491.35	ug/L	491.35	ppb	11:14:48
1	Mo 202.031†	7128.2	7215.6	498.48	ug/L	498.48	ppb	11:15:13
1	Ni 231.604†	21424.2	21640.0	506.58	ug/L	506.58	ppb	11:14:53
1	P 214.914†	4577.9	4403.5	2350.7	ug/L	2350.7	ppb	11:15:13
1	Pb 220.353†	4297.2	4427.7	497.74	ug/L	497.74	ppb	11:15:13
1	S 181.975 Axial†	790.8	755.3	988.11	ug/L	988.11	ppb	11:15:13
1	Sb 206.836†	1609.6	1599.2	514.96	ug/L	514.96	ppb	11:15:13
1	Se 196.026†	783.5	813.7	507.65	ug/L	507.65	ppb	11:15:13
1	Si 251.611†	80765.0	81201.4	2495.8	ug/L	2495.8	ppb	11:14:53
1	Sn 189.927†	2947.0	2979.2	499.60	ug/L	499.60	ppb	11:15:13
1	Ti 334.940†	323047.6	329280.0	491.70	ug/L	491.70	ppb	11:14:48
1	Tl 190.801†	1616.7	1679.0	496.27	ug/L	496.27	ppb	11:15:13
1	U 409.014†	14473.9	18238.1	504.51	ug/L	504.51	ppb	11:14:53
1	V 292.402†	72150.6	74828.0	510.87	ug/L	510.87	ppb	11:14:53
1	Zn 213.857†	56118.0	56243.1	499.28	ug/L	499.28	ppb	11:14:53
1	SiO2†	79695.0	80041.3	5250.7	ug/L	5250.7	ppb	11:16:21
2	Sc Radial	5051.8	5051.8	101	%			11:13:55
2	Y RADIAL	5318.4	5318.4	100.8	%			11:13:55
2	Al 396.153Radial†	5759.5	5902.7	5069.6	ug/L	5069.6	ppb	11:13:55
2	Ca 317.933Radial†	3298.4	3255.5	5094.2	ug/L	5094.2	ppb	11:14:15
2	Fe 238.204 Radial†	605.7	593.2	5128.2	ug/L	5128.2	ppb	11:14:15
2	K 766.490 Radial†	30658.5	27717.6	5032.9	ug/L	5032.9	ppb	11:13:55
2	Mg 279.077 IEC†	161.8	157.3	5190.7	ug/L	5190.7	ppb	11:14:15
2	Na 589.592 Radial†	31211.6	32225.8	9521.6	ug/L	9521.6	ppb	11:13:55
2	Sr 421.552†	76214.1	75604.7	502.13	ug/L	502.13	ppb	11:13:55
2	Sc 361.383	913346.9	913346.9	99.366	%			11:15:19
2	Y 371.029	749979.8	749979.8	98.319	%			11:15:19
2	Ag 328.068†	113974.2	114405.3	502.72	ug/L	502.72	ppb	11:15:24
2	As 188.979†	1178.2	1219.8	502.10	ug/L	502.10	ppb	11:15:44
2	B 249.677†	22307.7	23212.1	498.12	ug/L	498.12	ppb	11:15:24
2	Ba 233.527†	65673.3	66099.8	499.42	ug/L	499.42	ppb	11:15:24
2	Be 313.107†	1396558.5	1410402.6	493.14	ug/L	493.14	ppb	11:15:19
2	Cd 226.502†	46455.8	46963.5	498.75	ug/L	498.75	ppb	11:15:24
2	Co 228.616†	25199.5	25445.0	497.03	ug/L	497.03	ppb	11:15:24
2	Cr 267.716†	46576.9	46806.2	500.14	ug/L	500.14	ppb	11:15:24
2	Cu 324.752†	178950.8	173845.9	495.28	ug/L	495.28	ppb	11:15:24
2	Mn 257.610†	458964.3	461347.9	492.38	ug/L	492.38	ppb	11:15:19
2	Mo 202.031†	7213.4	7244.1	500.46	ug/L	500.46	ppb	11:15:44
2	Ni 231.604†	21396.7	21440.1	501.90	ug/L	501.90	ppb	11:15:24

2	P 214.914†	4603.6	4392.4	2345.6 ug/L	2345.6 ppb	11:15:44
2	Pb 220.353†	4328.4	4424.6	497.45 ug/L	497.45 ppb	11:15:44
2	S 181.975 Axial†	796.1	754.2	986.62 ug/L	986.62 ppb	11:15:44
2	Sb 206.836†	1627.4	1604.2	516.56 ug/L	516.56 ppb	11:15:44
2	Se 196.026†	793.6	817.6	510.64 ug/L	510.64 ppb	11:15:44
2	Si 251.611†	80743.0	80529.7	2475.1 ug/L	2475.1 ppb	11:15:24
2	Sn 189.927†	2980.5	2989.2	501.31 ug/L	501.31 ppb	11:15:44
2	Ti 334.940†	326764.0	330422.0	493.42 ug/L	493.42 ppb	11:15:19
2	Tl 190.801†	1651.9	1701.3	502.90 ug/L	502.90 ppb	11:15:44
2	U 409.014†	14293.8	17940.5	496.24 ug/L	496.24 ppb	11:15:24
2	V 292.402†	71904.0	73999.5	505.27 ug/L	505.27 ppb	11:15:24
2	Zn 213.857†	56010.4	55683.5	494.26 ug/L	494.26 ppb	11:15:24
2	SiO2†	80117.2	79825.3	5236.4 ug/L	5236.4 ppb	11:16:26
3	Sc Radial	5180.9	5180.9	103 %		11:14:20
3	Y RADIAL	5404.4	5404.4	102.5 %		11:14:20
3	Al 396.153Radial†	5803.9	5803.3	4983.9 ug/L	4983.9 ppb	11:14:20
3	Ca 317.933Radial†	3294.9	3170.6	4961.2 ug/L	4961.2 ppb	11:14:40
3	Fe 238.204 Radial†	599.6	572.4	4948.3 ug/L	4948.3 ppb	11:14:40
3	K 766.490 Radial†	31194.4	27477.9	4989.4 ug/L	4989.4 ppb	11:14:20
3	Mg 279.077 IEC†	158.5	150.2	4955.6 ug/L	4955.6 ppb	11:14:40
3	Na 589.592 Radial†	31985.3	32202.5	9514.7 ug/L	9514.7 ppb	11:14:20
3	Sr 421.552†	77599.8	75060.7	498.52 ug/L	498.52 ppb	11:14:20
3	Sc 361.383	917396.1	917396.1	99.807 %		11:15:50
3	Y 371.029	753376.7	753376.7	98.764 %		11:15:50
3	Ag 328.068†	113858.6	113783.2	499.93 ug/L	499.93 ppb	11:15:56
3	As 188.979†	1177.9	1214.3	499.79 ug/L	499.79 ppb	11:16:16
3	B 249.677†	22269.7	23075.0	495.20 ug/L	495.20 ppb	11:15:56
3	Ba 233.527†	65489.0	65623.5	495.82 ug/L	495.82 ppb	11:15:56
3	Be 313.107†	1402765.7	1410418.4	493.14 ug/L	493.14 ppb	11:15:50
3	Cd 226.502†	46353.1	46654.2	495.48 ug/L	495.48 ppb	11:15:56
3	Co 228.616†	25164.2	25297.7	494.15 ug/L	494.15 ppb	11:15:56
3	Cr 267.716†	46624.9	46647.4	498.44 ug/L	498.44 ppb	11:15:56
3	Cu 324.752†	178378.3	172477.5	491.37 ug/L	491.37 ppb	11:15:56
3	Mn 257.610†	460931.4	461280.1	492.30 ug/L	492.30 ppb	11:15:50
3	Mo 202.031†	7222.9	7221.5	498.89 ug/L	498.89 ppb	11:16:16
3	Ni 231.604†	21274.8	21222.9	496.81 ug/L	496.81 ppb	11:15:56
3	P 214.914†	4613.5	4382.0	2340.7 ug/L	2340.7 ppb	11:16:16
3	Pb 220.353†	4363.8	4440.8	499.26 ug/L	499.26 ppb	11:16:16
3	S 181.975 Axial†	794.1	748.7	979.41 ug/L	979.41 ppb	11:16:16
3	Sb 206.836†	1616.7	1586.2	510.91 ug/L	510.91 ppb	11:16:16
3	Se 196.026†	794.3	814.8	508.36 ug/L	508.36 ppb	11:16:16
3	Si 251.611†	80503.7	79931.2	2456.6 ug/L	2456.6 ppb	11:15:56
3	Sn 189.927†	2984.8	2980.3	499.79 ug/L	499.79 ppb	11:16:16
3	Ti 334.940†	328453.6	330663.5	493.78 ug/L	493.78 ppb	11:15:50
3	Tl 190.801†	1658.9	1701.1	502.84 ug/L	502.84 ppb	11:16:16
3	U 409.014†	14382.1	17965.4	496.96 ug/L	496.96 ppb	11:15:56
3	V 292.402†	71915.6	73691.9	503.20 ug/L	503.20 ppb	11:15:56
3	Zn 213.857†	55972.5	55396.8	491.77 ug/L	491.77 ppb	11:15:56
3	SiO2†	80089.4	79441.6	5211.2 ug/L	5211.2 ppb	11:16:31

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	912283.0	99.250	%	0.6223				0.63%
Sc Radial	5135.0	102	%	1.4				1.41%
Y 371.029	748817.3	98.167	%	0.6867				0.70%
Y RADIAL	5381.5	102.0	%	1.05				1.03%
Ag 328.068†	114637.8	503.69	ug/L	4.332	503.69	ppb	4.332	0.86%
QC value within limits for Ag 328.068 Recovery = 100.74%								
Al 396.153Radial†	5752.0	4939.7	ug/L	156.81	4939.7	ppb	156.81	3.17%
QC value within limits for Al 396.153Radial Recovery = 98.79%								
As 188.979†	1215.6	500.33	ug/L	1.572	500.33	ppb	1.572	0.31%
QC value within limits for As 188.979 Recovery = 100.07%								
B 249.677†	23214.2	498.18	ug/L	3.011	498.18	ppb	3.011	0.60%
QC value within limits for B 249.677 Recovery = 99.64%								
Ba 233.527†	66171.1	499.96	ug/L	4.428	499.96	ppb	4.428	0.89%
QC value within limits for Ba 233.527 Recovery = 99.99%								
Be 313.107†	1407400.6	492.09	ug/L	1.821	492.09	ppb	1.821	0.37%
QC value within limits for Be 313.107 Recovery = 98.42%								
Ca 317.933Radial†	3196.6	5002.0	ug/L	79.99	5002.0	ppb	79.99	1.60%

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   QC value within limits for Ca 317.933Radial  Recovery = 100.04%
Cd 226.502†            47011.7      499.28 ug/L         4.084      499.28 ppb          4.084   0.82%
   QC value within limits for Cd 226.502  Recovery = 99.86%
Co 228.616†            25487.1      497.85 ug/L         4.174      497.85 ppb          4.174   0.84%
   QC value within limits for Co 228.616  Recovery = 99.57%
Cr 267.716†            46929.8      501.46 ug/L         3.851      501.46 ppb          3.851   0.77%
   QC value within limits for Cr 267.716  Recovery = 100.29%
Cu 324.752†           174074.8      495.92 ug/L         4.906      495.92 ppb          4.906   0.99%
   QC value within limits for Cu 324.752  Recovery = 99.18%
Fe 238.204 Radial†       578.9      5004.8 ug/L       107.01      5004.8 ppb        107.01   2.14%
   QC value within limits for Fe 238.204 Radial  Recovery = 100.10%
K 766.490 Radial†      27188.0      4936.7 ug/L       130.75      4936.7 ppb        130.75   2.65%
   QC value within limits for K 766.490 Radial  Recovery = 98.73%
Mg 279.077 IEC†          153.3      5058.1 ug/L       120.38      5058.1 ppb        120.38   2.38%
   QC value within limits for Mg 279.077 IEC  Recovery = 101.16%
Mn 257.610†           461008.1      492.01 ug/L         0.571      492.01 ppb          0.571   0.12%
   QC value within limits for Mn 257.610  Recovery = 98.40%
Mo 202.031†             7227.1      499.28 ug/L         1.045      499.28 ppb          1.045   0.21%
   QC value within limits for Mo 202.031  Recovery = 99.86%
Na 589.592 Radial†     31796.7      9394.8 ug/L       213.66      9394.8 ppb        213.66   2.27%
   QC value within limits for Na 589.592 Radial  Recovery = 93.95%
Ni 231.604†            21434.3      501.76 ug/L         4.883      501.76 ppb          4.883   0.97%
   QC value within limits for Ni 231.604  Recovery = 100.35%
P 214.914†              4392.6      2345.7 ug/L          4.98      2345.7 ppb           4.98   0.21%
   QC value within limits for P 214.914  Recovery = 93.83%
Pb 220.353†             4431.0      498.15 ug/L         0.974      498.15 ppb          0.974   0.20%
   QC value within limits for Pb 220.353  Recovery = 99.63%
S 181.975 Axial†         752.7      984.71 ug/L         4.653      984.71 ppb          4.653   0.47%
   QC value within limits for S 181.975 Axial  Recovery = 98.47%
Sb 206.836†             1596.5      514.14 ug/L         2.911      514.14 ppb          2.911   0.57%
   QC value within limits for Sb 206.836  Recovery = 102.83%
Se 196.026†              815.4      508.88 ug/L         1.565      508.88 ppb          1.565   0.31%
   QC value within limits for Se 196.026  Recovery = 101.78%
Si 251.611†            80554.1      2475.8 ug/L        19.58      2475.8 ppb         19.58   0.79%
   QC value within limits for Si 251.611  Recovery = 99.03%
Sn 189.927†             2982.9      500.23 ug/L         0.935      500.23 ppb          0.935   0.19%
   QC value within limits for Sn 189.927  Recovery = 100.05%
Sr 421.552†            74299.6      493.46 ug/L        12.021      493.46 ppb         12.021   2.44%
   QC value within limits for Sr 421.552  Recovery = 98.69%
Ti 334.940†           330121.8      492.97 ug/L         1.111      492.97 ppb          1.111   0.23%
   QC value within limits for Ti 334.940  Recovery = 98.59%
Tl 190.801†             1693.8      500.67 ug/L         3.810      500.67 ppb          3.810   0.76%
   QC value within limits for Tl 190.801  Recovery = 100.13%
U 409.014†             18048.0      499.24 ug/L         4.581      499.24 ppb          4.581   0.92%
   QC value within limits for U 409.014  Recovery = 99.85%
V 292.402†             74173.1      506.45 ug/L         3.966      506.45 ppb          3.966   0.78%
   QC value within limits for V 292.402  Recovery = 101.29%
Zn 213.857†            55774.5      495.11 ug/L         3.827      495.11 ppb          3.827   0.77%
   QC value within limits for Zn 213.857  Recovery = 99.02%
SiO2†                  79769.4      5232.8 ug/L        19.98      5232.8 ppb         19.98   0.38%
   QC value within limits for SiO2  Recovery = 97.85%
All analyte(s) passed QC.
```

Sequence No.: 10
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/8/2010 11:18:41
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5102.1	5102.1	102	%			11:20:34
1	Y RADIAL	5395.8	5395.8	102.3	%			11:20:34
1	Al 396.153Radial†	-197.7	-5.9	-5.0419	ug/L	-5.0419	ppb	11:20:34
1	Ca 317.933Radial†	24.4	7.0	10.909	ug/L	10.909	ppb	11:20:54
1	Fe 238.204 Radial†	9.3	1.4	12.423	ug/L	12.423	ppb	11:20:54
1	K 766.490 Radial†	2719.6	-28.9	-5.2444	ug/L	-5.2444	ppb	11:20:34
1	Mg 279.077 IEC†	-1.0	-4.2	-137.34	ug/L	-137.34	ppb	11:20:54
1	Na 589.592 Radial†	-1350.9	-68.3	-20.180	ug/L	-20.180	ppb	11:20:34
1	Sr 421.552†	-3.1	-15.1	-0.1003	ug/L	-0.1003	ppb	11:20:34
1	Sc 361.383	918661.0	918661.0	99.944	%			11:21:51
1	Y 371.029	763712.2	763712.2	100.12	%			11:21:51
1	Ag 328.068†	432.5	136.7	0.6041	ug/L	0.6041	ppb	11:21:56
1	As 188.979†	-29.6	4.5	1.8374	ug/L	1.8374	ppb	11:22:16
1	B 249.677†	-358.9	403.1	8.6864	ug/L	8.6864	ppb	11:22:16
1	Ba 233.527†	-14.1	-6.5	-0.0488	ug/L	-0.0488	ppb	11:22:16
1	Be 313.107†	-4669.2	263.5	0.0922	ug/L	0.0922	ppb	11:21:56
1	Cd 226.502†	-196.6	14.6	0.1535	ug/L	0.1535	ppb	11:22:16
1	Co 228.616†	-68.9	15.9	0.3091	ug/L	0.3091	ppb	11:22:16
1	Cr 267.716†	96.8	29.0	0.3115	ug/L	0.3115	ppb	11:22:16
1	Cu 324.752†	6212.7	-30.3	-0.0836	ug/L	-0.0836	ppb	11:21:56
1	Mn 257.610†	502.1	-41.8	-0.0378	ug/L	-0.0378	ppb	11:22:16
1	Mo 202.031†	12.3	-3.0	-0.2069	ug/L	-0.2069	ppb	11:22:16
1	Ni 231.604†	119.3	26.3	0.6158	ug/L	0.6158	ppb	11:22:16
1	P 214.914†	220.3	-20.1	-11.148	ug/L	-11.148	ppb	11:22:16
1	Pb 220.353†	-55.9	12.6	1.4071	ug/L	1.4071	ppb	11:22:16
1	S 181.975 Axial†	41.1	-5.8	-7.5807	ug/L	-7.5807	ppb	11:22:16
1	Sb 206.836†	44.9	11.4	3.5370	ug/L	3.5370	ppb	11:22:16
1	Se 196.026†	-24.1	-5.1	-3.0228	ug/L	-3.0228	ppb	11:22:16
1	Si 251.611†	677.5	-50.5	-1.5544	ug/L	-1.5544	ppb	11:22:16
1	Sn 189.927†	14.3	4.0	0.6680	ug/L	0.6680	ppb	11:22:16
1	Ti 334.940†	-1490.9	81.8	0.1365	ug/L	0.1365	ppb	11:21:56
1	Tl 190.801†	-39.1	-0.1	-0.0417	ug/L	-0.0417	ppb	11:22:16
1	U 409.014†	-3692.5	-139.1	-3.8638	ug/L	-3.8638	ppb	11:21:51
1	V 292.402†	-1635.3	0.7	-0.0101	ug/L	-0.0101	ppb	11:21:56
1	Zn 213.857†	766.0	82.2	0.7309	ug/L	0.7309	ppb	11:22:16
1	SiO2†	627.6	-175.0	-11.506	ug/L	-11.506	ppb	11:23:22
2	Sc Radial	5162.8	5162.8	103	%			11:20:59
2	Y RADIAL	5407.1	5407.1	102.5	%			11:20:59
2	Al 396.153Radial†	-204.5	-10.2	-8.7436	ug/L	-8.7436	ppb	11:20:59
2	Ca 317.933Radial†	30.3	12.4	19.402	ug/L	19.402	ppb	11:21:19
2	Fe 238.204 Radial†	12.9	4.8	41.087	ug/L	41.087	ppb	11:21:19
2	K 766.490 Radial†	2850.8	67.1	12.190	ug/L	12.190	ppb	11:20:59
2	Mg 279.077 IEC†	0.2	-3.0	-99.799	ug/L	-99.799	ppb	11:21:19
2	Na 589.592 Radial†	-1314.1	-16.9	-4.9906	ug/L	-4.9906	ppb	11:20:59
2	Sr 421.552†	3.5	-8.7	-0.0578	ug/L	-0.0578	ppb	11:20:59
2	Sc 361.383	924722.8	924722.8	100.60	%			11:22:21
2	Y 371.029	769404.6	769404.6	100.87	%			11:22:21
2	Ag 328.068†	298.9	1.1	0.0176	ug/L	0.0176	ppb	11:22:26
2	As 188.979†	-24.6	9.6	3.9341	ug/L	3.9341	ppb	11:22:46
2	B 249.677†	-332.0	432.1	9.3084	ug/L	9.3084	ppb	11:22:46
2	Ba 233.527†	-14.7	-7.0	-0.0506	ug/L	-0.0506	ppb	11:22:46
2	Be 313.107†	-4617.7	345.3	0.1207	ug/L	0.1207	ppb	11:22:26
2	Cd 226.502†	-205.1	7.4	0.0751	ug/L	0.0751	ppb	11:22:46
2	Co 228.616†	-83.8	1.4	0.0261	ug/L	0.0261	ppb	11:22:46
2	Cr 267.716†	56.1	-12.1	-0.1289	ug/L	-0.1289	ppb	11:22:46
2	Cu 324.752†	6264.7	-19.3	-0.0543	ug/L	-0.0543	ppb	11:22:26
2	Mn 257.610†	495.1	-52.0	-0.0474	ug/L	-0.0474	ppb	11:22:46
2	Mo 202.031†	6.3	-9.1	-0.6230	ug/L	-0.6230	ppb	11:22:46
2	Ni 231.604†	96.8	3.1	0.0727	ug/L	0.0727	ppb	11:22:46

2	P 214.914†	233.6	-8.3	-4.6499 ug/L	-4.6499 ppb	11:22:46
2	Pb 220.353†	-85.0	-15.9	-1.7877 ug/L	-1.7877 ppb	11:22:46
2	S 181.975 Axial†	36.6	-10.6	-13.915 ug/L	-13.915 ppb	11:22:46
2	Sb 206.836†	46.5	12.6	3.9253 ug/L	3.9253 ppb	11:22:46
2	Se 196.026†	-30.0	-10.9	-6.4100 ug/L	-6.4100 ppb	11:22:46
2	Si 251.611†	670.8	-61.6	-1.8903 ug/L	-1.8903 ppb	11:22:46
2	Sn 189.927†	19.1	8.6	1.4511 ug/L	1.4511 ppb	11:22:46
2	Ti 334.940†	-1519.5	63.2	0.1040 ug/L	0.1040 ppb	11:22:26
2	Tl 190.801†	-43.7	-4.5	-1.3307 ug/L	-1.3307 ppb	11:22:46
2	U 409.014†	-3483.5	92.9	2.5731 ug/L	2.5731 ppb	11:22:21
2	V 292.402†	-1595.8	50.7	0.3295 ug/L	0.3295 ppb	11:22:26
2	Zn 213.857†	780.3	91.4	0.8102 ug/L	0.8102 ppb	11:22:46
2	SiO2†	649.6	-157.3	-10.330 ug/L	-10.330 ppb	11:23:27
3	Sc Radial	5071.6	5071.6	101 %		11:21:24
3	Y RADIAL	5368.5	5368.5	101.8 %		11:21:24
3	Al 396.153Radial†	-191.5	-0.9	-0.7133 ug/L	-0.7133 ppb	11:21:24
3	Ca 317.933Radial†	30.0	12.6	19.680 ug/L	19.680 ppb	11:21:44
3	Fe 238.204 Radial†	9.2	1.4	11.845 ug/L	11.845 ppb	11:21:44
3	K 766.490 Radial†	2746.3	13.6	2.4672 ug/L	2.4672 ppb	11:21:24
3	Mg 279.077 IEC†	1.1	-2.1	-67.769 ug/L	-67.769 ppb	11:21:44
3	Na 589.592 Radial†	-1320.5	-46.2	-13.653 ug/L	-13.653 ppb	11:21:24
3	Sr 421.552†	7.0	-5.2	-0.0345 ug/L	-0.0345 ppb	11:21:24
3	Sc 361.383	920754.7	920754.7	100.17 %		11:22:52
3	Y 371.029	765801.8	765801.8	100.39 %		11:22:52
3	Ag 328.068†	465.4	168.6	0.7413 ug/L	0.7413 ppb	11:22:57
3	As 188.979†	-27.0	7.2	2.9352 ug/L	2.9352 ppb	11:23:17
3	B 249.677†	-367.0	395.8	8.5298 ug/L	8.5298 ppb	11:23:17
3	Ba 233.527†	5.9	13.5	0.1019 ug/L	0.1019 ppb	11:23:17
3	Be 313.107†	-4689.3	254.0	0.0891 ug/L	0.0891 ppb	11:22:57
3	Cd 226.502†	-182.7	28.9	0.3053 ug/L	0.3053 ppb	11:23:17
3	Co 228.616†	-74.2	10.7	0.2061 ug/L	0.2061 ppb	11:23:17
3	Cr 267.716†	95.0	27.0	0.2892 ug/L	0.2892 ppb	11:23:17
3	Cu 324.752†	6270.4	13.2	0.0389 ug/L	0.0389 ppb	11:22:57
3	Mn 257.610†	514.3	-30.8	-0.0289 ug/L	-0.0289 ppb	11:23:17
3	Mo 202.031†	6.2	-9.2	-0.6327 ug/L	-0.6327 ppb	11:23:17
3	Ni 231.604†	102.6	9.3	0.2172 ug/L	0.2172 ppb	11:23:17
3	P 214.914†	229.3	-11.6	-6.4427 ug/L	-6.4427 ppb	11:23:17
3	Pb 220.353†	-72.0	-3.3	-0.3764 ug/L	-0.3764 ppb	11:23:17
3	S 181.975 Axial†	41.9	-5.1	-6.7306 ug/L	-6.7306 ppb	11:23:17
3	Sb 206.836†	38.9	5.2	1.6239 ug/L	1.6239 ppb	11:23:17
3	Se 196.026†	-34.3	-15.2	-9.1236 ug/L	-9.1236 ppb	11:23:17
3	Si 251.611†	657.6	-71.9	-2.2071 ug/L	-2.2071 ppb	11:23:17
3	Sn 189.927†	17.1	6.7	1.1273 ug/L	1.1273 ppb	11:23:17
3	Ti 334.940†	-1440.3	135.8	0.2115 ug/L	0.2115 ppb	11:22:57
3	Tl 190.801†	-51.3	-12.2	-3.5907 ug/L	-3.5907 ppb	11:23:17
3	U 409.014†	-3607.5	-45.8	-1.2731 ug/L	-1.2731 ppb	11:22:52
3	V 292.402†	-1627.2	12.5	0.0697 ug/L	0.0697 ppb	11:22:57
3	Zn 213.857†	762.2	76.7	0.6838 ug/L	0.6838 ppb	11:23:17
3	SiO2†	634.0	-170.1	-11.171 ug/L	-11.171 ppb	11:23:32

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	921379.5	100.24	%	0.335				0.33%
Sc Radial	5112.2	102	%	0.9				0.91%
Y 371.029	766306.2	100.46	%	0.377				0.38%
Y RADIAL	5390.5	102.2	%	0.38				0.37%
Ag 328.068†	102.1	0.4543	ug/L	0.38439	0.4543	ppb	0.38439	84.60%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-5.6	-4.8329	ug/L	4.01921	-4.8329	ppb	4.01921	83.16%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	7.1	2.9022	ug/L	1.04874	2.9022	ppb	1.04874	36.14%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	410.3	8.8415	ug/L	0.41182	8.8415	ppb	0.41182	4.66%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-0.0	0.0008	ug/L	0.08756	0.0008	ppb	0.08756	>999.9%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	287.6	0.1007	ug/L	0.01741	0.1007	ppb	0.01741	17.30%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	10.6	16.664	ug/L	4.9856	16.664	ppb	4.9856	29.92%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              17.0      0.1780 ug/L       0.11706      0.1780 ppb        0.11706  65.77%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†               9.3      0.1804 ug/L       0.14323      0.1804 ppb        0.14323  79.39%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              14.6      0.1573 ug/L       0.24810      0.1573 ppb        0.24810 157.77%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -12.1     -0.0330 ug/L       0.06399     -0.0330 ppb        0.06399 193.99%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        2.5      21.785 ug/L       16.7187      21.785 ppb        16.7187  76.74%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        17.3      3.1375 ug/L       8.73637      3.1375 ppb        8.73637 278.45%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          -3.1     -101.63 ug/L        34.819     -101.63 ppb         34.819  34.26%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†             -41.5     -0.0380 ug/L       0.00925     -0.0380 ppb        0.00925  24.34%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              -7.1     -0.4875 ug/L       0.24308     -0.4875 ppb        0.24308  49.86%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      -43.8     -12.941 ug/L        7.6196     -12.941 ppb         7.6196  58.88%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              12.9      0.3019 ug/L       0.28124      0.3019 ppb        0.28124  93.16%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†              -13.3     -7.4136 ug/L       3.35616     -7.4136 ppb        3.35616  45.27%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -2.2     -0.2523 ug/L       1.60103     -0.2523 ppb        1.60103 634.52%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         -7.2     -9.4089 ug/L       3.92579     -9.4089 ppb        3.92579  41.72%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               9.7      3.0288 ug/L       1.23201      3.0288 ppb        1.23201  40.68%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†             -10.4     -6.1854 ug/L       3.05658     -6.1854 ppb        3.05658  49.42%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†             -61.3     -1.8839 ug/L       0.32643     -1.8839 ppb        0.32643  17.33%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               6.4      1.0821 ug/L       0.39352      1.0821 ppb        0.39352  36.37%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              -9.6     -0.0642 ug/L       0.03336     -0.0642 ppb        0.03336  51.97%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              93.6      0.1507 ug/L       0.05511      0.1507 ppb        0.05511  36.58%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -5.6     -1.6543 ug/L       1.79654     -1.6543 ppb        1.79654 108.60%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              -30.7     -0.8546 ug/L       3.23879     -0.8546 ppb        3.23879 378.97%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               21.3      0.1297 ug/L       0.17756      0.1297 ppb        0.17756 136.90%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              83.5      0.7416 ug/L       0.06392      0.7416 ppb        0.06392   8.62%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                  -167.5     -11.002 ug/L        0.6057     -11.002 ppb         0.6057   5.51%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 7
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/8/2010 12:06:00
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4918.4	4918.4	98.1	%			12:07:53
1	Y RADIAL	5124.0	5124.0	97.15	%			12:07:53
1	Al 396.153Radial†	5576.1	5870.8	5042.3	ug/L	5042.3	ppb	12:07:53
1	Ca 317.933Radial†	3272.1	3317.5	5191.2	ug/L	5191.2	ppb	12:08:13
1	Fe 238.204 Radial†	593.6	597.1	5162.0	ug/L	5162.0	ppb	12:08:13
1	K 766.490 Radial†	30104.0	27977.5	5080.3	ug/L	5080.3	ppb	12:07:53
1	Mg 279.077 IEC†	163.6	163.6	5396.9	ug/L	5396.9	ppb	12:08:13
1	Na 589.592 Radial†	29499.8	31321.2	9254.3	ug/L	9254.3	ppb	12:07:53
1	Sr 421.552†	73081.8	74463.3	494.55	ug/L	494.55	ppb	12:07:53
1	Sc 361.383	916386.6	916386.6	99.697	%			12:09:10
1	Y 371.029	748893.6	748893.6	98.177	%			12:09:10
1	Ag 328.068†	115049.9	115103.7	505.78	ug/L	505.78	ppb	12:09:15
1	As 188.979†	1175.2	1212.9	499.25	ug/L	499.25	ppb	12:09:35
1	B 249.677†	22459.5	23290.0	499.78	ug/L	499.78	ppb	12:09:15
1	Ba 233.527†	66341.0	66550.4	502.82	ug/L	502.82	ppb	12:09:15
1	Be 313.107†	1404489.1	1413695.4	494.28	ug/L	494.28	ppb	12:09:10
1	Cd 226.502†	46838.5	47192.2	501.18	ug/L	501.18	ppb	12:09:15
1	Co 228.616†	25480.9	25643.2	500.89	ug/L	500.89	ppb	12:09:15
1	Cr 267.716†	46876.9	46951.6	501.69	ug/L	501.69	ppb	12:09:15
1	Cu 324.752†	180681.4	174984.4	498.53	ug/L	498.53	ppb	12:09:15
1	Mn 257.610†	465445.3	466316.5	497.67	ug/L	497.67	ppb	12:09:10
1	Mo 202.031†	7163.2	7169.6	495.33	ug/L	495.33	ppb	12:09:35
1	Ni 231.604†	21514.3	21486.6	502.98	ug/L	502.98	ppb	12:09:15
1	P 214.914†	4600.7	4374.2	2334.8	ug/L	2334.8	ppb	12:09:35
1	Pb 220.353†	4285.5	4367.1	490.98	ug/L	490.98	ppb	12:09:35
1	S 181.975 Axial†	788.7	744.1	973.40	ug/L	973.40	ppb	12:09:35
1	Sb 206.836†	1616.9	1588.2	511.43	ug/L	511.43	ppb	12:09:35
1	Se 196.026†	800.0	821.4	512.99	ug/L	512.99	ppb	12:09:35
1	Si 251.611†	81511.9	81031.4	2490.6	ug/L	2490.6	ppb	12:09:15
1	Sn 189.927†	2966.3	2965.0	497.26	ug/L	497.26	ppb	12:09:35
1	Ti 334.940†	326622.2	329189.0	491.57	ug/L	491.57	ppb	12:09:15
1	Tl 190.801†	1639.4	1683.3	497.59	ug/L	497.59	ppb	12:09:35
1	U 409.014†	14342.3	17941.4	496.26	ug/L	496.26	ppb	12:09:15
1	V 292.402†	72273.9	74130.6	506.08	ug/L	506.08	ppb	12:09:15
1	Zn 213.857†	56591.4	56079.3	497.79	ug/L	497.79	ppb	12:09:15
1	SiO2†	81221.1	80665.0	5291.8	ug/L	5291.8	ppb	12:10:43
2	Sc Radial	5110.5	5110.5	102	%			12:08:18
2	Y RADIAL	5332.9	5332.9	101.1	%			12:08:18
2	Al 396.153Radial†	5854.2	5929.9	5093.0	ug/L	5093.0	ppb	12:08:18
2	Ca 317.933Radial†	3275.0	3195.0	4999.4	ug/L	4999.4	ppb	12:08:38
2	Fe 238.204 Radial†	595.3	576.1	4980.8	ug/L	4980.8	ppb	12:08:38
2	K 766.490 Radial†	31208.9	27908.1	5067.7	ug/L	5067.7	ppb	12:08:18
2	Mg 279.077 IEC†	162.2	155.9	5143.4	ug/L	5143.4	ppb	12:08:38
2	Na 589.592 Radial†	30783.8	31450.5	9292.6	ug/L	9292.6	ppb	12:08:18
2	Sr 421.552†	76549.5	75065.1	498.55	ug/L	498.55	ppb	12:08:18
2	Sc 361.383	914193.9	914193.9	99.458	%			12:09:41
2	Y 371.029	747967.7	747967.7	98.055	%			12:09:41
2	Ag 328.068†	114447.4	114774.8	504.27	ug/L	504.27	ppb	12:09:46
2	As 188.979†	1178.2	1218.8	501.58	ug/L	501.58	ppb	12:10:06
2	B 249.677†	22379.0	23263.1	499.24	ug/L	499.24	ppb	12:09:46
2	Ba 233.527†	65827.9	66194.0	500.12	ug/L	500.12	ppb	12:09:46
2	Be 313.107†	1401688.4	1414258.3	494.47	ug/L	494.47	ppb	12:09:41
2	Cd 226.502†	46543.1	47007.9	499.24	ug/L	499.24	ppb	12:09:46
2	Co 228.616†	25278.3	25500.8	498.13	ug/L	498.13	ppb	12:09:46
2	Cr 267.716†	46530.5	46716.1	499.17	ug/L	499.17	ppb	12:09:46
2	Cu 324.752†	179715.7	174448.1	496.99	ug/L	496.99	ppb	12:09:46
2	Mn 257.610†	462984.8	464962.4	496.22	ug/L	496.22	ppb	12:09:41
2	Mo 202.031†	7247.9	7272.0	502.38	ug/L	502.38	ppb	12:10:06
2	Ni 231.604†	21396.5	21419.9	501.43	ug/L	501.43	ppb	12:09:46

2	P 214.914†	4651.7	4436.5	2369.9 ug/L	2369.9 ppb	12:10:06
2	Pb 220.353†	4351.7	4443.9	499.64 ug/L	499.64 ppb	12:10:06
2	S 181.975 Axial†	802.0	759.4	993.48 ug/L	993.48 ppb	12:10:06
2	Sb 206.836†	1633.1	1608.4	517.92 ug/L	517.92 ppb	12:10:06
2	Se 196.026†	797.7	821.1	512.23 ug/L	512.23 ppb	12:10:06
2	Si 251.611†	80868.1	80580.2	2476.6 ug/L	2476.6 ppb	12:09:46
2	Sn 189.927†	2993.2	2999.1	502.95 ug/L	502.95 ppb	12:10:06
2	Ti 334.940†	324721.1	328063.4	489.89 ug/L	489.89 ppb	12:09:46
2	Tl 190.801†	1662.6	1710.6	505.59 ug/L	505.59 ppb	12:10:06
2	U 409.014†	14518.3	18152.8	502.15 ug/L	502.15 ppb	12:09:46
2	V 292.402†	71759.5	73787.3	503.91 ug/L	503.91 ppb	12:09:46
2	Zn 213.857†	56172.9	55794.7	495.29 ug/L	495.29 ppb	12:09:46
2	SiO2†	81016.8	80655.0	5290.9 ug/L	5290.9 ppb	12:10:48
3	Sc Radial	5170.9	5170.9	103 %		12:08:43
3	Y RADIAL	5389.7	5389.7	102.2 %		12:08:43
3	Al 396.153Radial†	5872.7	5880.8	5051.1 ug/L	5051.1 ppb	12:08:43
3	Ca 317.933Radial†	3276.2	3158.6	4942.6 ug/L	4942.6 ppb	12:09:03
3	Fe 238.204 Radial†	597.9	571.8	4943.4 ug/L	4943.4 ppb	12:09:03
3	K 766.490 Radial†	31616.1	27945.1	5074.5 ug/L	5074.5 ppb	12:08:43
3	Mg 279.077 IEC†	160.2	152.1	5019.2 ug/L	5019.2 ppb	12:09:03
3	Na 589.592 Radial†	31104.1	31408.3	9280.1 ug/L	9280.1 ppb	12:08:43
3	Sr 421.552†	77170.3	74789.8	496.72 ug/L	496.72 ppb	12:08:43
3	Sc 361.383	926291.5	926291.5	100.77 %		12:10:12
3	Y 371.029	757683.7	757683.7	99.329 %		12:10:12
3	Ag 328.068†	113479.0	112310.9	493.48 ug/L	493.48 ppb	12:10:17
3	As 188.979†	1184.0	1209.0	497.53 ug/L	497.53 ppb	12:10:37
3	B 249.677†	22091.5	22684.0	486.78 ug/L	486.78 ppb	12:10:17
3	Ba 233.527†	65398.9	64903.9	490.38 ug/L	490.38 ppb	12:10:17
3	Be 313.107†	1415535.2	1409592.7	492.82 ug/L	492.82 ppb	12:10:12
3	Cd 226.502†	46305.2	46160.6	490.24 ug/L	490.24 ppb	12:10:17
3	Co 228.616†	25167.3	25058.7	489.50 ug/L	489.50 ppb	12:10:17
3	Cr 267.716†	46244.9	45821.7	489.62 ug/L	489.62 ppb	12:10:17
3	Cu 324.752†	177983.0	170368.8	485.37 ug/L	485.37 ppb	12:10:17
3	Mn 257.610†	467783.8	463644.9	494.82 ug/L	494.82 ppb	12:10:12
3	Mo 202.031†	7226.9	7156.0	494.36 ug/L	494.36 ppb	12:10:37
3	Ni 231.604†	21205.6	20949.5	490.41 ug/L	490.41 ppb	12:10:17
3	P 214.914†	4651.5	4375.2	2338.2 ug/L	2338.2 ppb	12:10:37
3	Pb 220.353†	4345.2	4380.3	492.49 ug/L	492.49 ppb	12:10:37
3	S 181.975 Axial†	793.8	740.8	969.06 ug/L	969.06 ppb	12:10:37
3	Sb 206.836†	1635.5	1589.3	511.76 ug/L	511.76 ppb	12:10:37
3	Se 196.026†	798.1	810.9	505.99 ug/L	505.99 ppb	12:10:37
3	Si 251.611†	80326.2	78980.5	2427.4 ug/L	2427.4 ppb	12:10:17
3	Sn 189.927†	3004.8	2971.3	498.29 ug/L	498.29 ppb	12:10:37
3	Ti 334.940†	322173.2	321271.0	479.75 ug/L	479.75 ppb	12:10:17
3	Tl 190.801†	1648.8	1675.1	495.14 ug/L	495.14 ppb	12:10:37
3	U 409.014†	14401.1	17845.9	493.66 ug/L	493.66 ppb	12:10:17
3	V 292.402†	71421.8	72509.9	495.19 ug/L	495.19 ppb	12:10:17
3	Zn 213.857†	55808.4	54695.4	485.53 ug/L	485.53 ppb	12:10:17
3	SiO2†	80775.8	79352.0	5205.4 ug/L	5205.4 ppb	12:10:53

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	918957.3	99.977	%	0.7012				0.70%
Sc Radial	5066.6	101	%	2.6				2.60%
Y 371.029	751515.0	98.520	%	0.7030				0.71%
Y RADIAL	5282.2	100.1	%	2.65				2.65%
Ag 328.068†	114063.1	501.18	ug/L	6.711	501.18	ppb	6.711	1.34%
QC value within limits for Ag 328.068 Recovery = 100.24%								
Al 396.153Radial†	5893.9	5062.2	ug/L	27.11	5062.2	ppb	27.11	0.54%
QC value within limits for Al 396.153Radial Recovery = 101.24%								
As 188.979†	1213.5	499.46	ug/L	2.033	499.46	ppb	2.033	0.41%
QC value within limits for As 188.979 Recovery = 99.89%								
B 249.677†	23079.0	495.27	ug/L	7.351	495.27	ppb	7.351	1.48%
QC value within limits for B 249.677 Recovery = 99.05%								
Ba 233.527†	65882.8	497.77	ug/L	6.544	497.77	ppb	6.544	1.31%
QC value within limits for Ba 233.527 Recovery = 99.55%								
Be 313.107†	1412515.5	493.86	ug/L	0.903	493.86	ppb	0.903	0.18%
QC value within limits for Be 313.107 Recovery = 98.77%								
Ca 317.933Radial†	3223.7	5044.4	ug/L	130.24	5044.4	ppb	130.24	2.58%

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   QC value within limits for Ca 317.933Radial  Recovery = 100.89%
Cd 226.502†            46786.9      496.89 ug/L         5.840      496.89 ppb          5.840   1.18%
   QC value within limits for Cd 226.502  Recovery = 99.38%
Co 228.616†            25400.9      496.17 ug/L         5.943      496.17 ppb          5.943   1.20%
   QC value within limits for Co 228.616  Recovery = 99.23%
Cr 267.716†            46496.5      496.83 ug/L         6.371      496.83 ppb          6.371   1.28%
   QC value within limits for Cr 267.716  Recovery = 99.37%
Cu 324.752†           173267.1      493.63 ug/L         7.194      493.63 ppb          7.194   1.46%
   QC value within limits for Cu 324.752  Recovery = 98.73%
Fe 238.204 Radial†       581.7      5028.7 ug/L        116.90      5028.7 ppb         116.90   2.32%
   QC value within limits for Fe 238.204 Radial  Recovery = 100.57%
K 766.490 Radial†      27943.6      5074.1 ug/L          6.30      5074.1 ppb           6.30   0.12%
   QC value within limits for K 766.490 Radial  Recovery = 101.48%
Mg 279.077 IEC†          157.2      5186.5 ug/L        192.55      5186.5 ppb         192.55   3.71%
   QC value within limits for Mg 279.077 IEC  Recovery = 103.73%
Mn 257.610†           464974.6      496.24 ug/L         1.428      496.24 ppb          1.428   0.29%
   QC value within limits for Mn 257.610  Recovery = 99.25%
Mo 202.031†             7199.2      497.35 ug/L         4.374      497.35 ppb          4.374   0.88%
   QC value within limits for Mo 202.031  Recovery = 99.47%
Na 589.592 Radial†     31393.3      9275.7 ug/L         19.49      9275.7 ppb         19.49   0.21%
   QC value within limits for Na 589.592 Radial  Recovery = 92.76%
Ni 231.604†            21285.3      498.27 ug/L         6.854      498.27 ppb          6.854   1.38%
   QC value within limits for Ni 231.604  Recovery = 99.65%
P 214.914†              4395.3      2347.6 ug/L         19.41      2347.6 ppb         19.41   0.83%
   QC value within limits for P 214.914  Recovery = 93.90%
Pb 220.353†             4397.1      494.37 ug/L         4.625      494.37 ppb          4.625   0.94%
   QC value within limits for Pb 220.353  Recovery = 98.87%
S 181.975 Axial†         748.1      978.64 ug/L        13.028      978.64 ppb         13.028   1.33%
   QC value within limits for S 181.975 Axial  Recovery = 97.86%
Sb 206.836†             1595.3      513.70 ug/L         3.658      513.70 ppb          3.658   0.71%
   QC value within limits for Sb 206.836  Recovery = 102.74%
Se 196.026†              817.8      510.40 ug/L         3.839      510.40 ppb          3.839   0.75%
   QC value within limits for Se 196.026  Recovery = 102.08%
Si 251.611†            80197.4      2464.9 ug/L         33.18      2464.9 ppb         33.18   1.35%
   QC value within limits for Si 251.611  Recovery = 98.59%
Sn 189.927†             2978.5      499.50 ug/L         3.032      499.50 ppb          3.032   0.61%
   QC value within limits for Sn 189.927  Recovery = 99.90%
Sr 421.552†            74772.7      496.61 ug/L         2.002      496.61 ppb          2.002   0.40%
   QC value within limits for Sr 421.552  Recovery = 99.32%
Ti 334.940†           326174.5      487.07 ug/L         6.395      487.07 ppb          6.395   1.31%
   QC value within limits for Ti 334.940  Recovery = 97.41%
Tl 190.801†             1689.7      499.44 ug/L         5.469      499.44 ppb          5.469   1.09%
   QC value within limits for Tl 190.801  Recovery = 99.89%
U 409.014†             17980.0      497.36 ug/L         4.353      497.36 ppb          4.353   0.88%
   QC value within limits for U 409.014  Recovery = 99.47%
V 292.402†             73475.9      501.73 ug/L         5.767      501.73 ppb          5.767   1.15%
   QC value within limits for V 292.402  Recovery = 100.35%
Zn 213.857†            55523.1      492.87 ug/L         6.480      492.87 ppb          6.480   1.31%
   QC value within limits for Zn 213.857  Recovery = 98.57%
SiO2†                  80224.0      5262.7 ug/L         49.60      5262.7 ppb         49.60   0.94%
   QC value within limits for SiO2  Recovery = 98.41%
All analyte(s) passed QC.
```

Sequence No.: 8
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/8/2010 12:13:03
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Rep1#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5077.3	5077.3	101	%			12:14:56
1	Y RADIAL	5362.1	5362.1	101.7	%			12:14:56
1	Al 396.153Radial†	-183.5	7.2	6.2228	ug/L	6.2228	ppb	12:14:56
1	Ca 317.933Radial†	25.3	8.0	12.471	ug/L	12.471	ppb	12:15:16
1	Fe 238.204 Radial†	11.5	3.6	31.242	ug/L	31.242	ppb	12:15:16
1	K 766.490 Radial†	2705.9	-29.4	-5.3514	ug/L	-5.3514	ppb	12:14:56
1	Mg 279.077 IEC†	-1.5	-4.7	-154.68	ug/L	-154.68	ppb	12:15:16
1	Na 589.592 Radial†	-1270.9	4.2	1.2480	ug/L	1.2480	ppb	12:14:56
1	Sr 421.552†	5.5	-6.6	-0.0441	ug/L	-0.0441	ppb	12:14:56
1	Sc 361.383	902421.3	902421.3	98.177	%			12:16:13
1	Y 371.029	750164.3	750164.3	98.343	%			12:16:13
1	Ag 328.068†	410.1	121.7	0.5499	ug/L	0.5499	ppb	12:16:13
1	As 188.979†	-32.5	1.0	0.4262	ug/L	0.4262	ppb	12:16:33
1	B 249.677†	-347.3	408.4	8.7976	ug/L	8.7976	ppb	12:16:33
1	Ba 233.527†	-8.5	-1.1	-0.0069	ug/L	-0.0069	ppb	12:16:33
1	Be 313.107†	-4667.5	181.1	0.0634	ug/L	0.0634	ppb	12:16:13
1	Cd 226.502†	-204.7	2.7	0.0241	ug/L	0.0241	ppb	12:16:33
1	Co 228.616†	-72.6	10.9	0.2108	ug/L	0.2108	ppb	12:16:33
1	Cr 267.716†	78.0	11.6	0.1288	ug/L	0.1288	ppb	12:16:33
1	Cu 324.752†	6213.6	82.5	0.2420	ug/L	0.2420	ppb	12:16:13
1	Mn 257.610†	502.7	-32.1	-0.0249	ug/L	-0.0249	ppb	12:16:33
1	Mo 202.031†	11.4	-3.8	-0.2577	ug/L	-0.2577	ppb	12:16:33
1	Ni 231.604†	102.6	11.4	0.2661	ug/L	0.2661	ppb	12:16:33
1	P 214.914†	225.9	-10.4	-5.8530	ug/L	-5.8530	ppb	12:16:33
1	Pb 220.353†	-72.7	-5.5	-0.6213	ug/L	-0.6213	ppb	12:16:33
1	S 181.975 Axial†	39.7	-6.6	-8.5786	ug/L	-8.5786	ppb	12:16:33
1	Sb 206.836†	39.2	6.4	1.9832	ug/L	1.9832	ppb	12:16:33
1	Se 196.026†	-23.7	-5.1	-2.9789	ug/L	-2.9789	ppb	12:16:33
1	Si 251.611†	648.0	-68.4	-2.1040	ug/L	-2.1040	ppb	12:16:33
1	Sn 189.927†	13.7	3.6	0.6035	ug/L	0.6035	ppb	12:16:33
1	Ti 334.940†	-1480.5	65.6	0.1165	ug/L	0.1165	ppb	12:16:13
1	Tl 190.801†	-25.7	12.8	3.7482	ug/L	3.7482	ppb	12:16:33
1	U 409.014†	-3832.5	-348.2	-9.6684	ug/L	-9.6684	ppb	12:16:13
1	V 292.402†	-1596.6	10.7	0.0421	ug/L	0.0421	ppb	12:16:13
1	Zn 213.857†	787.7	118.1	1.0504	ug/L	1.0504	ppb	12:16:33
1	SiO2†	671.4	-119.1	-7.8276	ug/L	-7.8276	ppb	12:17:29
2	Sc Radial	5178.3	5178.3	103	%			12:15:21
2	Y RADIAL	5412.1	5412.1	102.6	%			12:15:21
2	Al 396.153Radial†	-167.9	25.9	22.363	ug/L	22.363	ppb	12:15:21
2	Ca 317.933Radial†	25.4	7.6	11.863	ug/L	11.863	ppb	12:15:41
2	Fe 238.204 Radial†	7.1	-0.8	-7.2841	ug/L	-7.2841	ppb	12:15:41
2	K 766.490 Radial†	2935.8	141.0	25.632	ug/L	25.632	ppb	12:15:21
2	Mg 279.077 IEC†	2.8	-0.5	-15.592	ug/L	-15.592	ppb	12:15:41
2	Na 589.592 Radial†	-1298.9	1.6	0.4696	ug/L	0.4696	ppb	12:15:21
2	Sr 421.552†	4.6	-7.7	-0.0510	ug/L	-0.0510	ppb	12:15:21
2	Sc 361.383	898334.8	898334.8	97.733	%			12:16:38
2	Y 371.029	748772.3	748772.3	98.161	%			12:16:38
2	Ag 328.068†	293.4	4.2	0.0244	ug/L	0.0244	ppb	12:16:38
2	As 188.979†	-26.2	7.3	2.9773	ug/L	2.9773	ppb	12:16:58
2	B 249.677†	-363.3	390.4	8.4166	ug/L	8.4166	ppb	12:16:58
2	Ba 233.527†	-11.6	-4.3	-0.0321	ug/L	-0.0321	ppb	12:16:58
2	Be 313.107†	-4726.4	99.2	0.0347	ug/L	0.0347	ppb	12:16:38
2	Cd 226.502†	-206.8	-0.3	-0.0047	ug/L	-0.0047	ppb	12:16:58
2	Co 228.616†	-64.6	18.7	0.3625	ug/L	0.3625	ppb	12:16:58
2	Cr 267.716†	64.8	-1.5	-0.0123	ug/L	-0.0123	ppb	12:16:58
2	Cu 324.752†	6269.3	168.3	0.4849	ug/L	0.4849	ppb	12:16:38
2	Mn 257.610†	497.7	-34.9	-0.0373	ug/L	-0.0373	ppb	12:16:58
2	Mo 202.031†	2.1	-13.2	-0.9115	ug/L	-0.9115	ppb	12:16:58
2	Ni 231.604†	97.1	6.2	0.1459	ug/L	0.1459	ppb	12:16:58

2	P 214.914†	243.9	9.0	4.9352 ug/L	4.9352 ppb	12:16:58
2	Pb 220.353†	-62.5	4.6	0.5240 ug/L	0.5240 ppb	12:16:58
2	S 181.975 Axial†	46.9	1.0	1.2796 ug/L	1.2796 ppb	12:16:58
2	Sb 206.836†	37.4	4.7	1.4328 ug/L	1.4328 ppb	12:16:58
2	Se 196.026†	-33.9	-15.7	-9.4906 ug/L	-9.4906 ppb	12:16:58
2	Si 251.611†	655.9	-57.2	-1.7525 ug/L	-1.7525 ppb	12:16:58
2	Sn 189.927†	6.6	-3.6	-0.5989 ug/L	-0.5989 ppb	12:16:58
2	Ti 334.940†	-1512.9	25.6	0.0457 ug/L	0.0457 ppb	12:16:38
2	Tl 190.801†	-30.4	7.9	2.3064 ug/L	2.3064 ppb	12:16:58
2	U 409.014†	-3841.2	-374.9	-10.403 ug/L	-10.403 ppb	12:16:38
2	V 292.402†	-1588.2	11.9	0.0481 ug/L	0.0481 ppb	12:16:38
2	Zn 213.857†	768.7	102.3	0.9173 ug/L	0.9173 ppb	12:16:58
2	SiO2†	668.2	-119.3	-7.8197 ug/L	-7.8197 ppb	12:17:34
3	Sc Radial	5004.1	5004.1	99.8 %		12:15:46
3	Y RADIAL	5260.4	5260.4	99.74 %		12:15:46
3	Al 396.153Radial†	-180.0	8.1	6.9908 ug/L	6.9908 ppb	12:15:46
3	Ca 317.933Radial†	25.4	8.4	13.146 ug/L	13.146 ppb	12:16:06
3	Fe 238.204 Radial†	7.8	0.1	0.5480 ug/L	0.5480 ppb	12:16:06
3	K 766.490 Radial†	2790.7	94.6	17.205 ug/L	17.205 ppb	12:15:46
3	Mg 279.077 IEC†	1.4	-1.8	-60.131 ug/L	-60.131 ppb	12:16:06
3	Na 589.592 Radial†	-1310.9	-54.1	-15.994 ug/L	-15.994 ppb	12:15:46
3	Sr 421.552†	-6.3	-18.3	-0.1219 ug/L	-0.1219 ppb	12:15:46
3	Sc 361.383	897105.8	897105.8	97.599 %		12:17:03
3	Y 371.029	746382.7	746382.7	97.847 %		12:17:03
3	Ag 328.068†	386.3	99.8	0.4393 ug/L	0.4393 ppb	12:17:03
3	As 188.979†	-28.8	4.6	1.8699 ug/L	1.8699 ppb	12:17:23
3	B 249.677†	-397.9	354.5	7.6423 ug/L	7.6423 ppb	12:17:23
3	Ba 233.527†	-22.8	-15.8	-0.1199 ug/L	-0.1199 ppb	12:17:23
3	Be 313.107†	-4748.6	69.9	0.0244 ug/L	0.0244 ppb	12:17:03
3	Cd 226.502†	-218.8	-12.9	-0.1381 ug/L	-0.1381 ppb	12:17:23
3	Co 228.616†	-84.7	-2.0	-0.0401 ug/L	-0.0401 ppb	12:17:23
3	Cr 267.716†	79.4	13.6	0.1468 ug/L	0.1468 ppb	12:17:23
3	Cu 324.752†	6205.2	111.4	0.3207 ug/L	0.3207 ppb	12:17:03
3	Mn 257.610†	495.0	-37.0	-0.0369 ug/L	-0.0369 ppb	12:17:23
3	Mo 202.031†	12.5	-2.6	-0.1791 ug/L	-0.1791 ppb	12:17:23
3	Ni 231.604†	110.4	20.0	0.4675 ug/L	0.4675 ppb	12:17:23
3	P 214.914†	248.3	13.9	7.6908 ug/L	7.6908 ppb	12:17:23
3	Pb 220.353†	-72.7	-6.0	-0.6689 ug/L	-0.6689 ppb	12:17:23
3	S 181.975 Axial†	36.4	-9.6	-12.630 ug/L	-12.630 ppb	12:17:23
3	Sb 206.836†	41.0	8.4	2.6167 ug/L	2.6167 ppb	12:17:23
3	Se 196.026†	-24.1	-5.7	-3.4190 ug/L	-3.4190 ppb	12:17:23
3	Si 251.611†	651.7	-60.7	-1.8667 ug/L	-1.8667 ppb	12:17:23
3	Sn 189.927†	9.9	-0.1	-0.0229 ug/L	-0.0229 ppb	12:17:23
3	Ti 334.940†	-1543.0	-7.4	-0.0016 ug/L	-0.0016 ppb	12:17:03
3	Tl 190.801†	-36.7	1.3	0.3881 ug/L	0.3881 ppb	12:17:23
3	U 409.014†	-3687.1	-222.4	-6.1718 ug/L	-6.1718 ppb	12:17:03
3	V 292.402†	-1646.4	-50.0	-0.3526 ug/L	-0.3526 ppb	12:17:03
3	Zn 213.857†	782.2	117.3	1.0482 ug/L	1.0482 ppb	12:17:23
3	SiO2†	699.6	-86.2	-5.6647 ug/L	-5.6647 ppb	12:17:39

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	899287.3	97.837	%	0.3028				0.31%
Sc Radial	5086.6	101	%	1.7				1.72%
Y 371.029	748439.7	98.117	%	0.2507				0.26%
Y RADIAL	5344.9	101.3	%	1.47				1.45%
Ag 328.068†	75.2	0.3379	ug/L	0.27707	0.3379	ppb	0.27707	82.01%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	13.7	11.859	ug/L	9.1051	11.859	ppb	9.1051	76.78%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	4.3	1.7578	ug/L	1.27924	1.7578	ppb	1.27924	72.78%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	384.5	8.2855	ug/L	0.58869	8.2855	ppb	0.58869	7.11%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-7.0	-0.0530	ug/L	0.05931	-0.0530	ppb	0.05931	112.01%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	116.7	0.0408	ug/L	0.02022	0.0408	ppb	0.02022	49.55%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	8.0	12.493	ug/L	0.6418	12.493	ppb	0.6418	5.14%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              -3.5     -0.0396 ug/L      0.08654     -0.0396 ppb       0.08654 218.72%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†               9.2      0.1777 ug/L      0.20336      0.1777 ppb       0.20336 114.41%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†               7.9      0.0878 ug/L      0.08712      0.0878 ppb       0.08712  99.26%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             120.7      0.3492 ug/L      0.12396      0.3492 ppb       0.12396  35.50%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        0.9      8.1687 ug/L     20.36240      8.1687 ppb      20.36240 249.27%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        68.7     12.495 ug/L      16.0195     12.495 ppb       16.0195 128.21%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          -2.3    -76.802 ug/L      71.0281    -76.802 ppb       71.0281  92.48%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†             -34.7     -0.0330 ug/L      0.00709     -0.0330 ppb       0.00709  21.47%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              -6.5     -0.4494 ug/L      0.40206     -0.4494 ppb       0.40206  89.46%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      -16.1     -4.7588 ug/L      9.73762     -4.7588 ppb       9.73762 204.63%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              12.5      0.2932 ug/L      0.16250      0.2932 ppb       0.16250  55.43%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                4.2      2.2577 ug/L      7.15790      2.2577 ppb       7.15790 317.05%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -2.3     -0.2554 ug/L      0.67539     -0.2554 ppb       0.67539 264.42%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         -5.1     -6.6429 ug/L      7.15384     -6.6429 ppb       7.15384 107.69%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               6.5      2.0109 ug/L      0.59245      2.0109 ppb       0.59245  29.46%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              -8.8     -5.2961 ug/L      3.63914     -5.2961 ppb       3.63914  68.71%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†             -62.1     -1.9077 ug/L      0.17931     -1.9077 ppb       0.17931   9.40%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†              -0.0     -0.0061 ug/L      0.60136     -0.0061 ppb       0.60136 >999.9%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             -10.9     -0.0723 ug/L      0.04309     -0.0723 ppb       0.04309  59.59%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              28.0      0.0535 ug/L      0.05948      0.0535 ppb       0.05948 111.14%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               7.3      2.1476 ug/L      1.68566      2.1476 ppb       1.68566  78.49%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†             -315.1     -8.7478 ug/L      2.26094     -8.7478 ppb       2.26094  25.85%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               -9.1     -0.0875 ug/L      0.22961     -0.0875 ppb       0.22961 262.49%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†             112.6      1.0053 ug/L      0.07620      1.0053 ppb       0.07620   7.58%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                  -108.2     -7.1040 ug/L      1.24650     -7.1040 ppb       1.24650  17.55%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
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Analysis Begun

Start Time: 2/8/2010 12:18:47 **Plasma On Time: 2/8/2010 05:57:09**
Logged In Analyst: Optima3 **Technique: ICP Continuous**
Spectrometer Model: Optima 5300 DV, S/N 077C7090601Autosampler Model: S10

Sample Information File: C:\pe\Optima3\Sample Information\020810.sif
Batch ID:
Results Data Set: 020810A
Results Library: C:\pe\Optima3\Results\Results.mdb

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Sequence No.: 1 **Autosampler Location: 38**
Sample ID: 1202035237|949911|1 **Date Collected: 2/8/2010 12:18:48**
Analyst: HSC **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: 1202035237|949911|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5173.2	5173.2	103	%			12:20:41
1	Y RADIAL	5425.9	5425.9	102.9	%			12:20:41
1	Al 396.153Radial†	-157.4	35.9	30.963	ug/L	30.963	ppb	12:20:41
1	Ca 317.933Radial†	32.2	14.2	22.215	ug/L	22.215	ppb	12:21:01
1	Fe 238.204 Radial†	26.6	18.1	155.78	ug/L	155.78	ppb	12:21:01
1	K 766.490 Radial†	2795.9	8.2	1.4773	ug/L	1.4773	ppb	12:20:41
1	Mg 279.077 IEC†	3.3	-0.0	-0.6035	ug/L	-0.6035	ppb	12:21:01
1	Na 589.592 Radial†	-1181.4	114.2	33.747	ug/L	33.747	ppb	12:20:41
1	Sr 421.552†	50.9	37.2	0.2469	ug/L	0.2469	ppb	12:20:41
1	Sc 361.383	910394.1	910394.1	99.045	%			12:21:58
1	Y 371.029	758754.6	758754.6	99.469	%			12:21:58
1	Ag 328.068†	343.0	50.3	0.2720	ug/L	0.2720	ppb	12:21:58
1	As 188.979†	-35.7	-1.9	-0.7426	ug/L	-0.7426	ppb	12:22:18
1	B 249.677†	-342.6	416.3	8.9475	ug/L	8.9475	ppb	12:22:18
1	Ba 233.527†	214.9	224.6	1.6980	ug/L	1.6980	ppb	12:22:18
1	Be 313.107†	-4790.9	98.1	0.0352	ug/L	0.0352	ppb	12:21:58
1	Cd 226.502†	-200.3	9.1	0.0806	ug/L	0.0806	ppb	12:22:18
1	Co 228.616†	-64.2	20.0	0.3886	ug/L	0.3886	ppb	12:22:18
1	Cr 267.716†	124.9	58.3	0.6249	ug/L	0.6249	ppb	12:22:18
1	Cu 324.752†	6290.4	104.6	0.3055	ug/L	0.3055	ppb	12:21:58
1	Mn 257.610†	1142.8	609.6	0.6656	ug/L	0.6656	ppb	12:22:18
1	Mo 202.031†	19.1	3.9	0.2847	ug/L	0.2847	ppb	12:22:18
1	Ni 231.604†	106.5	14.4	0.3373	ug/L	0.3373	ppb	12:22:18
1	P 214.914†	239.6	1.4	0.5996	ug/L	0.5996	ppb	12:22:18
1	Pb 220.353†	-69.2	-1.3	-0.1495	ug/L	-0.1495	ppb	12:22:18
1	S 181.975 Axial†	46.7	0.2	0.2968	ug/L	0.2968	ppb	12:22:18
1	Sb 206.836†	43.0	9.8	3.0752	ug/L	3.0752	ppb	12:22:18
1	Se 196.026†	-23.1	-4.4	-2.1097	ug/L	-2.1097	ppb	12:22:18
1	Si 251.611†	1149.6	432.3	13.317	ug/L	13.317	ppb	12:22:18
1	Sn 189.927†	16.1	5.9	0.9981	ug/L	0.9981	ppb	12:22:18
1	Ti 334.940†	-1282.5	278.7	0.4184	ug/L	0.4184	ppb	12:21:58
1	Tl 190.801†	-41.3	-2.7	-0.7971	ug/L	-0.7971	ppb	12:22:18
1	U 409.014†	-3463.2	58.9	1.6156	ug/L	1.6156	ppb	12:21:58
1	V 292.402†	-1577.5	44.2	0.2816	ug/L	0.2816	ppb	12:21:58
1	Zn 213.857†	929.7	254.5	2.2459	ug/L	2.2459	ppb	12:22:18
1	SiO2†	1194.6	403.1	26.506	ug/L	26.506	ppb	12:23:14
2	Sc Radial	5227.3	5227.3	104	%			12:21:06
2	Y RADIAL	5487.8	5487.8	104.0	%			12:21:06
2	Al 396.153Radial†	-175.4	20.2	17.466	ug/L	17.466	ppb	12:21:06
2	Ca 317.933Radial†	30.6	12.3	19.265	ug/L	19.265	ppb	12:21:26
2	Fe 238.204 Radial†	23.3	14.6	125.46	ug/L	125.46	ppb	12:21:26
2	K 766.490 Radial†	2699.8	-111.9	-20.365	ug/L	-20.365	ppb	12:21:06
2	Mg 279.077 IEC†	-1.1	-4.2	-138.65	ug/L	-138.65	ppb	12:21:26
2	Na 589.592 Radial†	-1217.5	91.4	27.005	ug/L	27.005	ppb	12:21:06
2	Sr 421.552†	19.3	6.5	0.0428	ug/L	0.0428	ppb	12:21:06
2	Sc 361.383	907546.3	907546.3	98.735	%			12:22:23
2	Y 371.029	754242.2	754242.2	98.878	%			12:22:23

2	Ag 328.068†	233.0	-60.0	-0.2168 ug/L	-0.2168 ppb	12:22:23
2	As 188.979†	-26.5	7.2	2.9915 ug/L	2.9915 ppb	12:22:43
2	B 249.677†	-316.0	442.1	9.5097 ug/L	9.5097 ppb	12:22:43
2	Ba 233.527†	233.1	243.6	1.8414 ug/L	1.8414 ppb	12:22:43
2	Be 313.107†	-4750.9	123.5	0.0440 ug/L	0.0440 ppb	12:22:23
2	Cd 226.502†	-208.6	-0.0	-0.0134 ug/L	-0.0134 ppb	12:22:43
2	Co 228.616†	-79.2	4.5	0.0852 ug/L	0.0852 ppb	12:22:43
2	Cr 267.716†	98.6	32.1	0.3459 ug/L	0.3459 ppb	12:22:43
2	Cu 324.752†	6295.6	129.9	0.3772 ug/L	0.3772 ppb	12:22:23
2	Mn 257.610†	1161.7	632.4	0.6926 ug/L	0.6926 ppb	12:22:43
2	Mo 202.031†	7.4	-7.9	-0.5331 ug/L	-0.5331 ppb	12:22:43
2	Ni 231.604†	102.3	10.5	0.2456 ug/L	0.2456 ppb	12:22:43
2	P 214.914†	238.1	0.6	0.1767 ug/L	0.1767 ppb	12:22:43
2	Pb 220.353†	-43.1	24.9	2.7834 ug/L	2.7834 ppb	12:22:43
2	S 181.975 Axial†	47.0	0.6	0.8249 ug/L	0.8249 ppb	12:22:43
2	Sb 206.836†	50.2	17.2	5.3465 ug/L	5.3465 ppb	12:22:43
2	Se 196.026†	-17.2	1.6	1.3809 ug/L	1.3809 ppb	12:22:43
2	Si 251.611†	1154.5	440.9	13.591 ug/L	13.591 ppb	12:22:43
2	Sn 189.927†	15.4	5.3	0.8962 ug/L	0.8962 ppb	12:22:43
2	Ti 334.940†	-1273.6	283.7	0.4380 ug/L	0.4380 ppb	12:22:23
2	Tl 190.801†	-38.3	0.2	0.0560 ug/L	0.0560 ppb	12:22:43
2	U 409.014†	-3547.6	-37.6	-1.0593 ug/L	-1.0593 ppb	12:22:23
2	V 292.402†	-1527.8	89.5	0.5718 ug/L	0.5718 ppb	12:22:23
2	Zn 213.857†	924.9	252.5	2.2350 ug/L	2.2350 ppb	12:22:43
2	SiO2†	1198.3	410.6	27.020 ug/L	27.020 ppb	12:23:19
3	Sc Radial	5153.9	5153.9	103 %		12:21:31
3	Y RADIAL	5393.4	5393.4	102.3 %		12:21:31
3	Al 396.153Radial†	-180.8	12.6	10.889 ug/L	10.889 ppb	12:21:31
3	Ca 317.933Radial†	30.9	13.0	20.369 ug/L	20.369 ppb	12:21:51
3	Fe 238.204 Radial†	26.3	17.8	153.83 ug/L	153.83 ppb	12:21:51
3	K 766.490 Radial†	2792.2	14.8	2.6760 ug/L	2.6760 ppb	12:21:31
3	Mg 279.077 IEC†	3.3	0.0	1.2345 ug/L	1.2345 ppb	12:21:51
3	Na 589.592 Radial†	-1218.5	73.8	21.813 ug/L	21.813 ppb	12:21:31
3	Sr 421.552†	69.8	55.8	0.3705 ug/L	0.3705 ppb	12:21:31
3	Sc 361.383	916598.6	916598.6	99.720 %		12:22:48
3	Y 371.029	763185.5	763185.5	100.05 %		12:22:48
3	Ag 328.068†	341.7	46.7	0.2557 ug/L	0.2557 ppb	12:22:48
3	As 188.979†	-22.8	11.2	4.6111 ug/L	4.6111 ppb	12:23:08
3	B 249.677†	-352.2	409.0	8.7913 ug/L	8.7913 ppb	12:23:08
3	Ba 233.527†	236.5	244.7	1.8504 ug/L	1.8504 ppb	12:23:08
3	Be 313.107†	-4812.3	109.4	0.0389 ug/L	0.0389 ppb	12:22:48
3	Cd 226.502†	-202.5	8.2	0.0719 ug/L	0.0719 ppb	12:23:08
3	Co 228.616†	-78.1	6.4	0.1213 ug/L	0.1213 ppb	12:23:08
3	Cr 267.716†	103.6	36.0	0.3874 ug/L	0.3874 ppb	12:23:08
3	Cu 324.752†	6352.0	123.4	0.3583 ug/L	0.3583 ppb	12:22:48
3	Mn 257.610†	1131.0	590.0	0.6444 ug/L	0.6444 ppb	12:23:08
3	Mo 202.031†	2.9	-12.4	-0.8446 ug/L	-0.8446 ppb	12:23:08
3	Ni 231.604†	88.7	-4.2	-0.0983 ug/L	-0.0983 ppb	12:23:08
3	P 214.914†	227.8	-12.1	-6.8823 ug/L	-6.8823 ppb	12:23:08
3	Pb 220.353†	-71.6	-3.3	-0.3798 ug/L	-0.3798 ppb	12:23:08
3	S 181.975 Axial†	49.9	3.1	4.0505 ug/L	4.0505 ppb	12:23:08
3	Sb 206.836†	38.6	5.1	1.5851 ug/L	1.5851 ppb	12:23:08
3	Se 196.026†	-29.2	-10.3	-5.6959 ug/L	-5.6959 ppb	12:23:08
3	Si 251.611†	1161.1	435.9	13.442 ug/L	13.442 ppb	12:23:08
3	Sn 189.927†	19.0	8.8	1.4738 ug/L	1.4738 ppb	12:23:08
3	Ti 334.940†	-1365.1	204.6	0.3070 ug/L	0.3070 ppb	12:22:48
3	Tl 190.801†	-43.2	-4.3	-1.2723 ug/L	-1.2723 ppb	12:23:08
3	U 409.014†	-3452.8	93.0	2.5618 ug/L	2.5618 ppb	12:22:48
3	V 292.402†	-1546.2	86.3	0.5517 ug/L	0.5517 ppb	12:22:48
3	Zn 213.857†	925.8	244.2	2.1567 ug/L	2.1567 ppb	12:23:08
3	SiO2†	1254.3	454.8	29.936 ug/L	29.936 ppb	12:23:24

Mean Data: 1202035237|949911|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	911513.0	99.167	%	0.5036				0.51%
Sc Radial	5184.8	103	%	0.8				0.73%
Y 371.029	758727.4	99.466	%	0.5862				0.59%
Y RADIAL	5435.7	103.1	%	0.91				0.88%
Ag 328.068†	12.3	0.1036	ug/L	0.27758	0.1036	ppb	0.27758	267.87%

Al 396.153Radial†	22.9	19.773	ug/L	10.2335	19.773	ppb	10.2335 51.76%
As 188.979†	5.5	2.2867	ug/L	2.74558	2.2867	ppb	2.74558 120.07%
B 249.677†	422.5	9.0828	ug/L	0.37782	9.0828	ppb	0.37782 4.16%
Ba 233.527†	237.7	1.7966	ug/L	0.08548	1.7966	ppb	0.08548 4.76%
Be 313.107†	110.3	0.0394	ug/L	0.00446	0.0394	ppb	0.00446 11.32%
Ca 317.933Radial†	13.2	20.616	ug/L	1.4904	20.616	ppb	1.4904 7.23%
Cd 226.502†	5.7	0.0464	ug/L	0.05192	0.0464	ppb	0.05192 111.96%
Co 228.616†	10.3	0.1984	ug/L	0.16576	0.1984	ppb	0.16576 83.55%
Cr 267.716†	42.1	0.4527	ug/L	0.15052	0.4527	ppb	0.15052 33.25%
Cu 324.752†	119.3	0.3470	ug/L	0.03716	0.3470	ppb	0.03716 10.71%
Fe 238.204 Radial†	16.8	145.02	ug/L	16.970	145.02	ppb	16.970 11.70%
K 766.490 Radial†	-29.6	-5.4039	ug/L	12.97060	-5.4039	ppb	12.97060 240.02%
Mg 279.077 IEC†	-1.4	-46.006	ug/L	80.2366	-46.006	ppb	80.2366 174.40%
Mn 257.610†	610.7	0.6676	ug/L	0.02414	0.6676	ppb	0.02414 3.62%
Mo 202.031†	-5.4	-0.3643	ug/L	0.58323	-0.3643	ppb	0.58323 160.09%
Na 589.592 Radial†	93.1	27.521	ug/L	5.9839	27.521	ppb	5.9839 21.74%
Ni 231.604†	6.9	0.1615	ug/L	0.22963	0.1615	ppb	0.22963 142.16%
P 214.914†	-3.4	-2.0353	ug/L	4.20295	-2.0353	ppb	4.20295 206.50%
Pb 220.353†	6.8	0.7514	ug/L	1.76357	0.7514	ppb	1.76357 234.72%
S 181.975 Axial†	1.3	1.7241	ug/L	2.03201	1.7241	ppb	2.03201 117.86%
Sb 206.836†	10.7	3.3356	ug/L	1.89418	3.3356	ppb	1.89418 56.79%
Se 196.026†	-4.3	-2.1416	ug/L	3.53849	-2.1416	ppb	3.53849 165.23%
Si 251.611†	436.4	13.450	ug/L	0.1373	13.450	ppb	0.1373 1.02%
Sn 189.927†	6.7	1.1227	ug/L	0.30831	1.1227	ppb	0.30831 27.46%
Sr 421.552†	33.2	0.2201	ug/L	0.16550	0.2201	ppb	0.16550 75.21%
Ti 334.940†	255.7	0.3878	ug/L	0.07064	0.3878	ppb	0.07064 18.21%
Tl 190.801†	-2.3	-0.6712	ug/L	0.67304	-0.6712	ppb	0.67304 100.28%
U 409.014†	38.1	1.0394	ug/L	1.87804	1.0394	ppb	1.87804 180.69%
V 292.402†	73.4	0.4684	ug/L	0.16204	0.4684	ppb	0.16204 34.60%
Zn 213.857†	250.4	2.2125	ug/L	0.04867	2.2125	ppb	0.04867 2.20%
SiO2†	422.8	27.820	ug/L	1.8497	27.820	ppb	1.8497 6.65%

Sequence No.: 2
Sample ID: 1202035242|949911|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 39
Date Collected: 2/8/2010 12:25:34
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202035242|949911|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5405.2	5405.2	108	%			12:27:47
1	Y RADIAL	6363.3	6363.3	120.6	%			12:27:47
1	Al 396.153Radial†	155514.6	144394.5	124580	ug/L	124580	ppb	12:27:27
1	Ca 317.933Radial†	79239.1	73460.0	114950	ug/L	114950	ppb	12:27:27
1	Fe 238.204 Radial†	27525.8	25516.5	219970	ug/L	219970	ppb	12:27:27
1	K 766.490 Radial†	306975.8	281952.9	51214	ug/L	51214	ppb	12:27:27
1	Mg 279.077 IEC†	1542.5	1427.2	46865	ug/L	46865	ppb	12:27:47
1	Na 589.592 Radial†	38681.6	37127.6	10970	ug/L	10970	ppb	12:27:27
1	Sr 421.552†	430731.3	399397.9	2652.0	ug/L	2652.0	ppb	12:27:27
1	Sc 361.383	957607.2	957607.2	104.18	%			12:28:48
1	Y 371.029	881456.4	881456.4	115.55	%			12:28:48
1	Ag 328.068†	70133.0	67022.2	371.44	ug/L	371.44	ppb	12:28:48
1	As 188.979†	2951.9	2867.5	1280.8	ug/L	1280.8	ppb	12:28:54
1	B 249.677†	84224.0	81605.8	1720.4	ug/L	1720.4	ppb	12:28:48
1	Ba 233.527†	304722.7	292500.2	2214.4	ug/L	2214.4	ppb	12:28:48
1	Be 313.107†	2658512.3	2556747.3	907.74	ug/L	907.74	ppb	12:28:48
1	Cd 226.502†	66663.9	64199.6	660.17	ug/L	660.17	ppb	12:28:54
1	Co 228.616†	55892.9	53734.4	1032.9	ug/L	1032.9	ppb	12:28:54
1	Cr 267.716†	268894.7	258034.7	2760.3	ug/L	2760.3	ppb	12:28:48
1	Cu 324.752†	792692.5	754631.1	2161.7	ug/L	2161.7	ppb	12:28:48
1	Mn 257.610†	5935028.2	5696279.6	6095.6	ug/L	6095.6	ppb	12:28:48
1	Mo 202.031†	8869.7	8498.4	605.02	ug/L	605.02	ppb	12:28:54
1	Ni 231.604†	68452.4	65612.0	1536.2	ug/L	1536.2	ppb	12:28:48
1	P 214.914†	17942.9	16982.3	8880.3	ug/L	8880.3	ppb	12:28:54
1	Pb 220.353†	8761.0	8478.0	958.00	ug/L	958.00	ppb	12:28:54
1	S 181.975 Axial†	3538.8	3349.8	4363.0	ug/L	4363.0	ppb	12:28:54
1	Sb 206.836†	7452.0	7119.3	2219.9	ug/L	2219.9	ppb	12:28:54
1	Se 196.026†	4732.7	4561.7	3474.9	ug/L	3474.9	ppb	12:28:54
1	Si 251.611†	286121.7	273909.7	8432.3	ug/L	8432.3	ppb	12:28:48
1	Sn 189.927†	7565.7	7251.7	1235.2	ug/L	1235.2	ppb	12:28:54
1	Ti 334.940†	4861617.4	4668068.3	6983.5	ug/L	6983.5	ppb	12:28:48
1	Tl 190.801†	4611.2	4465.0	1390.6	ug/L	1390.6	ppb	12:28:54
1	U 409.014†	-11925.5	-7891.4	-250.26	ug/L	-250.26	ppb	12:28:48
1	V 292.402†	227118.3	219639.8	1448.3	ug/L	1448.3	ppb	12:28:48
1	Zn 213.857†	783393.6	751267.7	6675.5	ug/L	6675.5	ppb	12:28:48
1	SiO2†	282981.0	270820.4	17796	ug/L	17796	ppb	12:29:28
2	Sc Radial	5373.4	5373.4	107	%			12:28:12
2	Y RADIAL	6345.4	6345.4	120.3	%			12:28:12
2	Al 396.153Radial†	158573.8	148104.0	127780	ug/L	127780	ppb	12:27:52
2	Ca 317.933Radial†	80538.7	75108.4	117530	ug/L	117530	ppb	12:27:52
2	Fe 238.204 Radial†	28059.6	26165.9	225570	ug/L	225570	ppb	12:27:52
2	K 766.490 Radial†	312812.9	289087.3	52510	ug/L	52510	ppb	12:27:52
2	Mg 279.077 IEC†	1530.9	1424.8	46782	ug/L	46782	ppb	12:28:12
2	Na 589.592 Radial†	39468.5	38074.5	11250	ug/L	11250	ppb	12:27:52
2	Sr 421.552†	440464.9	410848.0	2728.0	ug/L	2728.0	ppb	12:27:52
2	Sc 361.383	941990.5	941990.5	102.48	%			12:29:03
2	Y 371.029	866746.0	866746.0	113.63	%			12:29:03
2	Ag 328.068†	68890.2	66925.6	372.89	ug/L	372.89	ppb	12:29:03
2	As 188.979†	2941.3	2904.1	1297.1	ug/L	1297.1	ppb	12:29:08
2	B 249.677†	82760.3	81517.8	1717.5	ug/L	1717.5	ppb	12:29:03
2	Ba 233.527†	301407.8	294114.6	2226.7	ug/L	2226.7	ppb	12:29:03
2	Be 313.107†	2616347.7	2557908.8	908.17	ug/L	908.17	ppb	12:29:03
2	Cd 226.502†	66723.9	65319.0	671.49	ug/L	671.49	ppb	12:29:08
2	Co 228.616†	55914.7	54645.1	1050.6	ug/L	1050.6	ppb	12:29:08
2	Cr 267.716†	265541.7	259041.9	2771.2	ug/L	2771.2	ppb	12:29:03
2	Cu 324.752†	778744.4	753634.9	2159.2	ug/L	2159.2	ppb	12:29:03
2	Mn 257.610†	5861048.5	5718535.9	6119.9	ug/L	6119.9	ppb	12:29:03
2	Mo 202.031†	8863.0	8633.0	614.77	ug/L	614.77	ppb	12:29:08
2	Ni 231.604†	67505.3	65777.0	1540.1	ug/L	1540.1	ppb	12:29:03

2	P 214.914†	17948.1	17272.8	9038.9 ug/L	9038.9 ppb	12:29:08
2	Pb 220.353†	8774.1	8630.2	975.27 ug/L	975.27 ppb	12:29:08
2	S 181.975 Axial†	3547.7	3414.8	4447.6 ug/L	4447.6 ppb	12:29:08
2	Sb 206.836†	7424.0	7210.6	2248.6 ug/L	2248.6 ppb	12:29:08
2	Se 196.026†	4745.3	4649.4	3546.2 ug/L	3546.2 ppb	12:29:08
2	Si 251.611†	281363.3	273819.7	8429.4 ug/L	8429.4 ppb	12:29:03
2	Sn 189.927†	7535.0	7342.1	1250.9 ug/L	1250.9 ppb	12:29:08
2	Ti 334.940†	4789614.0	4675171.9	6994.4 ug/L	6994.4 ppb	12:29:03
2	Tl 190.801†	4594.9	4522.5	1407.6 ug/L	1407.6 ppb	12:29:08
2	U 409.014†	-11905.3	-8061.5	-255.64 ug/L	-255.64 ppb	12:29:03
2	V 292.402†	224020.1	220230.7	1451.5 ug/L	1451.5 ppb	12:29:03
2	Zn 213.857†	773488.7	754068.8	6699.4 ug/L	6699.4 ppb	12:29:03
2	SiO2†	285914.7	278186.2	18280 ug/L	18280 ppb	12:29:33
3	Sc Radial	5422.2	5422.2	108 %		12:28:38
3	Y RADIAL	6424.0	6424.0	121.8 %		12:28:38
3	Al 396.153Radial†	155901.0	144300.6	124500 ug/L	124500 ppb	12:28:18
3	Ca 317.933Radial†	79395.2	73374.5	114820 ug/L	114820 ppb	12:28:18
3	Fe 238.204 Radial†	27592.7	25498.5	219810 ug/L	219810 ppb	12:28:18
3	K 766.490 Radial†	307717.8	281748.5	51177 ug/L	51177 ppb	12:28:18
3	Mg 279.077 IEC†	1532.6	1413.6	46417 ug/L	46417 ppb	12:28:38
3	Na 589.592 Radial†	38471.0	36820.7	10879 ug/L	10879 ppb	12:28:18
3	Sr 421.552†	432153.5	399463.3	2652.4 ug/L	2652.4 ppb	12:28:18
3	Sc 361.383	953957.0	953957.0	103.78 %		12:29:18
3	Y 371.029	877305.7	877305.7	115.01 %		12:29:18
3	Ag 328.068†	69638.4	66803.2	370.45 ug/L	370.45 ppb	12:29:18
3	As 188.979†	2951.8	2878.3	1285.2 ug/L	1285.2 ppb	12:29:23
3	B 249.677†	83943.3	81644.7	1721.2 ug/L	1721.2 ppb	12:29:18
3	Ba 233.527†	304758.1	293653.5	2223.1 ug/L	2223.1 ppb	12:29:18
3	Be 313.107†	2649802.1	2558119.0	908.24 ug/L	908.24 ppb	12:29:18
3	Cd 226.502†	66849.7	64623.5	664.69 ug/L	664.69 ppb	12:29:23
3	Co 228.616†	56083.5	54123.3	1040.5 ug/L	1040.5 ppb	12:29:23
3	Cr 267.716†	268887.7	259015.6	2770.8 ug/L	2770.8 ppb	12:29:18
3	Cu 324.752†	789840.5	754794.5	2162.2 ug/L	2162.2 ppb	12:29:18
3	Mn 257.610†	5930020.3	5713252.8	6113.7 ug/L	6113.7 ppb	12:29:18
3	Mo 202.031†	8956.3	8614.3	613.01 ug/L	613.01 ppb	12:29:23
3	Ni 231.604†	68450.8	65861.8	1542.1 ug/L	1542.1 ppb	12:29:18
3	P 214.914†	18044.7	17146.3	8971.6 ug/L	8971.6 ppb	12:29:23
3	Pb 220.353†	8835.2	8581.6	969.63 ug/L	969.63 ppb	12:29:23
3	S 181.975 Axial†	3502.9	3328.2	4334.7 ug/L	4334.7 ppb	12:29:23
3	Sb 206.836†	7461.6	7156.0	2231.6 ug/L	2231.6 ppb	12:29:23
3	Se 196.026†	4792.0	4636.2	3519.2 ug/L	3519.2 ppb	12:29:23
3	Si 251.611†	286077.6	274918.1	8463.2 ug/L	8463.2 ppb	12:29:18
3	Sn 189.927†	7596.4	7309.1	1244.8 ug/L	1244.8 ppb	12:29:23
3	Ti 334.940†	4849838.4	4674574.8	6993.2 ug/L	6993.2 ppb	12:29:18
3	Tl 190.801†	4616.6	4487.2	1397.2 ug/L	1397.2 ppb	12:29:23
3	U 409.014†	-12015.0	-8021.5	-253.88 ug/L	-253.88 ppb	12:29:18
3	V 292.402†	226877.1	220241.5	1452.4 ug/L	1452.4 ppb	12:29:18
3	Zn 213.857†	783184.0	753943.0	6699.5 ug/L	6699.5 ppb	12:29:18
3	SiO2†	284748.8	273563.1	17976 ug/L	17976 ppb	12:29:39

Mean Data: 1202035242|949911|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	951184.9	103.48	%	0.889				0.86%
Sc Radial	5400.3	108	%	0.5				0.46%
Y 371.029	875169.4	114.73	%	0.994				0.87%
Y RADIAL	6377.6	120.9	%	0.78				0.65%
Ag 328.068†	66917.0	371.60	ug/L	1.227	371.60	ppb	1.227	0.33%
Al 396.153Radial†	145599.7	125620	ug/L	1871.9	125620	ppb	1871.9	1.49%
As 188.979†	2883.3	1287.7	ug/L	8.44	1287.7	ppb	8.44	0.66%
B 249.677†	81589.4	1719.7	ug/L	1.94	1719.7	ppb	1.94	0.11%
Ba 233.527†	293422.7	2221.4	ug/L	6.34	2221.4	ppb	6.34	0.29%
Be 313.107†	2557591.7	908.05	ug/L	0.271	908.05	ppb	0.271	0.03%
Ca 317.933Radial†	73981.0	115760	ug/L	1529.3	115760	ppb	1529.3	1.32%
Cd 226.502†	64714.0	665.45	ug/L	5.695	665.45	ppb	5.695	0.86%
Co 228.616†	54167.6	1041.3	ug/L	8.88	1041.3	ppb	8.88	0.85%
Cr 267.716†	258697.4	2767.4	ug/L	6.16	2767.4	ppb	6.16	0.22%
Cu 324.752†	754353.5	2161.0	ug/L	1.61	2161.0	ppb	1.61	0.07%
Fe 238.204 Radial†	25726.9	221780	ug/L	3277.9	221780	ppb	3277.9	1.48%
K 766.490 Radial†	284262.9	51634	ug/L	759.2	51634	ppb	759.2	1.47%

Mg 279.077 IEC†	1421.8	46688	ug/L	238.4	46688	ppb	238.4	0.51%
Mn 257.610†	5709356.1	6109.7	ug/L	12.63	6109.7	ppb	12.63	0.21%
Mo 202.031†	8581.9	610.93	ug/L	5.198	610.93	ppb	5.198	0.85%
Na 589.592 Radial†	37341.0	11033	ug/L	193.1	11033	ppb	193.1	1.75%
Ni 231.604†	65750.3	1539.5	ug/L	2.97	1539.5	ppb	2.97	0.19%
P 214.914†	17133.8	8963.6	ug/L	79.58	8963.6	ppb	79.58	0.89%
Pb 220.353†	8563.3	967.63	ug/L	8.809	967.63	ppb	8.809	0.91%
S 181.975 Axial†	3364.3	4381.8	ug/L	58.73	4381.8	ppb	58.73	1.34%
Sb 206.836†	7162.0	2233.4	ug/L	14.39	2233.4	ppb	14.39	0.64%
Se 196.026†	4615.8	3513.4	ug/L	36.00	3513.4	ppb	36.00	1.02%
Si 251.611†	274215.8	8441.6	ug/L	18.77	8441.6	ppb	18.77	0.22%
Sn 189.927†	7301.0	1243.6	ug/L	7.88	1243.6	ppb	7.88	0.63%
Sr 421.552†	403236.4	2677.4	ug/L	43.77	2677.4	ppb	43.77	1.63%
Ti 334.940†	4672605.0	6990.4	ug/L	6.01	6990.4	ppb	6.01	0.09%
Tl 190.801†	4491.6	1398.5	ug/L	8.57	1398.5	ppb	8.57	0.61%
U 409.014†	-7991.5	-253.26	ug/L	2.743	-253.26	ppb	2.743	1.08%
V 292.402†	220037.3	1450.8	ug/L	2.19	1450.8	ppb	2.19	0.15%
Zn 213.857†	753093.2	6691.5	ug/L	13.82	6691.5	ppb	13.82	0.21%
SiO2†	274189.9	18017	ug/L	244.7	18017	ppb	244.7	1.36%

Sequence No.: 3
Sample ID: 246333001|949911|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 40
Date Collected: 2/8/2010 12:31:49
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 246333001|949911|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5280.2	5280.2	105	%			12:34:02
1	Y RADIAL	6924.6	6924.6	131.3	%			12:34:02
1	Al 396.153Radial†	217104.5	206273.8	178010	ug/L	178010	ppb	12:33:42
1	Ca 317.933Radial†	16556.8	15699.4	24566	ug/L	24566	ppb	12:33:42
1	Fe 238.204 Radial†	16303.8	15468.6	133330	ug/L	133330	ppb	12:33:42
1	K 766.490 Radial†	118629.6	109908.0	19972	ug/L	19972	ppb	12:33:42
1	Mg 279.077 IEC†	965.7	913.5	30001	ug/L	30001	ppb	12:34:02
1	Na 589.592 Radial†	7567.1	8441.9	2494.3	ug/L	2494.3	ppb	12:33:42
1	Sr 421.552†	41537.9	39417.6	261.63	ug/L	261.63	ppb	12:33:42
1	Sc 361.383	943071.4	943071.4	102.60	%			12:35:00
1	Y 371.029	966040.1	966040.1	126.64	%			12:35:00
1	Ag 328.068†	-9235.9	-9297.9	4.9684	ug/L	4.9684	ppb	12:35:00
1	As 188.979†	-82.1	-45.9	35.872	ug/L	35.872	ppb	12:35:21
1	B 249.677†	2238.1	2943.6	41.700	ug/L	41.700	ppb	12:35:00
1	Ba 233.527†	74334.2	72458.1	550.49	ug/L	550.49	ppb	12:35:00
1	Be 313.107†	7407.8	12155.3	10.359	ug/L	10.359	ppb	12:35:00
1	Cd 226.502†	980.3	1166.7	-1.3953	ug/L	-1.3953	ppb	12:35:21
1	Co 228.616†	1767.8	1807.8	27.935	ug/L	27.935	ppb	12:35:21
1	Cr 267.716†	8629.7	8343.2	91.975	ug/L	91.975	ppb	12:35:21
1	Cu 324.752†	26140.5	19231.6	62.014	ug/L	62.014	ppb	12:35:00
1	Mn 257.610†	1144029.6	1114494.9	1200.7	ug/L	1200.7	ppb	12:35:00
1	Mo 202.031†	-126.3	-138.4	1.0890	ug/L	1.0890	ppb	12:35:21
1	Ni 231.604†	2957.7	2789.7	65.322	ug/L	65.322	ppb	12:35:21
1	P 214.914†	1264.1	991.6	477.14	ug/L	477.14	ppb	12:35:21
1	Pb 220.353†	887.2	933.2	130.26	ug/L	130.26	ppb	12:35:21
1	S 181.975 Axial†	285.7	231.5	269.76	ug/L	269.76	ppb	12:35:21
1	Sb 206.836†	72.0	36.5	-3.9754	ug/L	-3.9754	ppb	12:35:21
1	Se 196.026†	-720.1	-682.8	35.662	ug/L	35.662	ppb	12:35:21
1	Si 251.611†	467720.7	455139.9	14024	ug/L	14024	ppb	12:35:00
1	Sn 189.927†	-165.3	-171.5	-22.733	ug/L	-22.733	ppb	12:35:21
1	Ti 334.940†	1849654.6	1804356.7	2696.1	ug/L	2696.1	ppb	12:35:00
1	Tl 190.801†	-165.8	-122.7	-8.4307	ug/L	-8.4307	ppb	12:35:21
1	U 409.014†	-14733.9	-10805.1	-315.30	ug/L	-315.30	ppb	12:35:00
1	V 292.402†	22392.5	23462.0	135.65	ug/L	135.65	ppb	12:35:21
1	Zn 213.857†	34764.0	33198.9	268.50	ug/L	268.50	ppb	12:35:00
1	SiO2†	475872.1	463010.2	30452	ug/L	30452	ppb	12:36:20
2	Sc Radial	5259.7	5259.7	105	%			12:34:27
2	Y RADIAL	6901.4	6901.4	130.8	%			12:34:27
2	Al 396.153Radial†	223026.4	212721.3	183570	ug/L	183570	ppb	12:34:07
2	Ca 317.933Radial†	17026.7	16208.5	25363	ug/L	25363	ppb	12:34:07
2	Fe 238.204 Radial†	16782.1	15984.7	137780	ug/L	137780	ppb	12:34:07
2	K 766.490 Radial†	121966.4	113527.2	20630	ug/L	20630	ppb	12:34:07
2	Mg 279.077 IEC†	963.8	915.3	30055	ug/L	30055	ppb	12:34:27
2	Na 589.592 Radial†	7689.9	8586.9	2537.1	ug/L	2537.1	ppb	12:34:07
2	Sr 421.552†	42568.7	40553.7	269.17	ug/L	269.17	ppb	12:34:07
2	Sc 361.383	943195.2	943195.2	102.61	%			12:35:27
2	Y 371.029	966820.2	966820.2	126.75	%			12:35:27
2	Ag 328.068†	-9351.4	-9409.2	5.9793	ug/L	5.9793	ppb	12:35:27
2	As 188.979†	-91.1	-54.7	33.275	ug/L	33.275	ppb	12:35:48
2	B 249.677†	2116.1	2824.4	38.409	ug/L	38.409	ppb	12:35:27
2	Ba 233.527†	74162.1	72280.9	549.29	ug/L	549.29	ppb	12:35:27
2	Be 313.107†	7304.0	12053.3	10.306	ug/L	10.306	ppb	12:35:27
2	Cd 226.502†	982.1	1168.4	-1.8382	ug/L	-1.8382	ppb	12:35:48
2	Co 228.616†	1756.4	1796.4	27.663	ug/L	27.663	ppb	12:35:48
2	Cr 267.716†	8673.5	8384.7	92.508	ug/L	92.508	ppb	12:35:48
2	Cu 324.752†	26250.3	19335.3	62.547	ug/L	62.547	ppb	12:35:27
2	Mn 257.610†	1140939.5	1111337.1	1197.8	ug/L	1197.8	ppb	12:35:27
2	Mo 202.031†	-134.0	-145.9	0.9242	ug/L	0.9242	ppb	12:35:48
2	Ni 231.604†	2955.9	2787.5	65.270	ug/L	65.270	ppb	12:35:48

2	P 214.914†	1261.6	989.0	473.46	ug/L	473.46 ppb	12:35:48
2	Pb 220.353†	886.0	932.0	130.90	ug/L	130.90 ppb	12:35:48
2	S 181.975 Axial†	294.2	239.7	279.48	ug/L	279.48 ppb	12:35:48
2	Sb 206.836†	76.1	40.5	-2.9106	ug/L	-2.9106 ppb	12:35:48
2	Se 196.026†	-735.5	-697.8	41.520	ug/L	41.520 ppb	12:35:48
2	Si 251.611†	466586.5	453974.8	13988	ug/L	13988 ppb	12:35:27
2	Sn 189.927†	-161.6	-167.8	-21.919	ug/L	-21.919 ppb	12:35:48
2	Ti 334.940†	1844545.0	1799140.5	2688.5	ug/L	2688.5 ppb	12:35:27
2	Tl 190.801†	-159.7	-116.7	-6.7451	ug/L	-6.7451 ppb	12:35:48
2	U 409.014†	-14875.5	-10941.2	-319.58	ug/L	-319.58 ppb	12:35:27
2	V 292.402†	22493.5	23557.6	135.64	ug/L	135.64 ppb	12:35:48
2	Zn 213.857†	34743.0	33174.0	267.32	ug/L	267.32 ppb	12:35:27
2	SiO2†	479568.2	466551.3	30685	ug/L	30685 ppb	12:36:26
3	Sc Radial	5254.0	5254.0	105	%		12:34:52
3	Y RADIAL	6871.4	6871.4	130.3	%		12:34:52
3	Al 396.153Radial†	221505.9	211500.4	182520	ug/L	182520 ppb	12:34:32
3	Ca 317.933Radial†	16886.8	16092.7	25181	ug/L	25181 ppb	12:34:32
3	Fe 238.204 Radial†	16629.8	15856.7	136680	ug/L	136680 ppb	12:34:32
3	K 766.490 Radial†	120703.2	112447.8	20433	ug/L	20433 ppb	12:34:32
3	Mg 279.077 IEC†	956.0	908.8	29845	ug/L	29845 ppb	12:34:52
3	Na 589.592 Radial†	7692.8	8597.6	2540.3	ug/L	2540.3 ppb	12:34:32
3	Sr 421.552†	42310.5	40351.3	267.83	ug/L	267.83 ppb	12:34:32
3	Sc 361.383	949189.6	949189.6	103.27	%		12:35:54
3	Y 371.029	972722.7	972722.7	127.52	%		12:35:54
3	Ag 328.068†	-9377.0	-9376.5	5.7447	ug/L	5.7447 ppb	12:35:54
3	As 188.979†	-83.0	-46.3	36.457	ug/L	36.457 ppb	12:36:14
3	B 249.677†	2091.1	2787.1	37.784	ug/L	37.784 ppb	12:35:54
3	Ba 233.527†	74771.8	72414.9	550.27	ug/L	550.27 ppb	12:35:54
3	Be 313.107†	7394.3	12095.7	10.329	ug/L	10.329 ppb	12:35:54
3	Cd 226.502†	976.5	1156.9	-1.8464	ug/L	-1.8464 ppb	12:36:14
3	Co 228.616†	1767.3	1796.2	27.670	ug/L	27.670 ppb	12:36:14
3	Cr 267.716†	8666.3	8324.4	91.840	ug/L	91.840 ppb	12:36:14
3	Cu 324.752†	26398.8	19317.5	62.437	ug/L	62.437 ppb	12:35:54
3	Mn 257.610†	1150387.9	1113465.0	1199.9	ug/L	1199.9 ppb	12:35:54
3	Mo 202.031†	-121.2	-132.7	1.7510	ug/L	1.7510 ppb	12:36:14
3	Ni 231.604†	2952.7	2766.2	64.772	ug/L	64.772 ppb	12:36:14
3	P 214.914†	1238.6	958.9	457.42	ug/L	457.42 ppb	12:36:14
3	Pb 220.353†	891.3	931.7	130.75	ug/L	130.75 ppb	12:36:14
3	S 181.975 Axial†	301.2	244.7	286.24	ug/L	286.24 ppb	12:36:14
3	Sb 206.836†	77.5	41.5	-2.5481	ug/L	-2.5481 ppb	12:36:14
3	Se 196.026†	-705.7	-664.4	57.988	ug/L	57.988 ppb	12:36:14
3	Si 251.611†	472771.0	457092.1	14084	ug/L	14084 ppb	12:35:54
3	Sn 189.927†	-151.4	-156.9	-20.142	ug/L	-20.142 ppb	12:36:14
3	Ti 334.940†	1858882.3	1801672.3	2692.2	ug/L	2692.2 ppb	12:35:54
3	Tl 190.801†	-147.0	-103.4	-2.7975	ug/L	-2.7975 ppb	12:36:14
3	U 409.014†	-14884.7	-10858.5	-317.16	ug/L	-317.16 ppb	12:35:54
3	V 292.402†	22420.7	23348.6	134.41	ug/L	134.41 ppb	12:36:14
3	Zn 213.857†	35086.4	33292.7	268.62	ug/L	268.62 ppb	12:35:54
3	SiO2†	471384.2	455674.6	29969	ug/L	29969 ppb	12:36:31

Mean Data: 246333001|949911|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	945152.1	102.83	%	0.380				0.37%
Sc Radial	5264.6	105	%	0.3				0.26%
Y 371.029	968527.7	126.97	%	0.479				0.38%
Y RADIAL	6899.1	130.8	%	0.51				0.39%
Ag 328.068†	-9361.2	5.5641	ug/L	0.52910	5.5641	ppb	0.52910	9.51%
Al 396.153Radial†	210165.2	181370	ug/L	2955.5	181370	ppb	2955.5	1.63%
As 188.979†	-48.9	35.201	ug/L	1.6937	35.201	ppb	1.6937	4.81%
B 249.677†	2851.7	39.298	ug/L	2.1038	39.298	ppb	2.1038	5.35%
Ba 233.527†	72384.7	550.02	ug/L	0.637	550.02	ppb	0.637	0.12%
Be 313.107†	12101.4	10.331	ug/L	0.0267	10.331	ppb	0.0267	0.26%
Ca 317.933Radial†	16000.2	25037	ug/L	417.6	25037	ppb	417.6	1.67%
Cd 226.502†	1164.0	-1.6933	ug/L	0.25812	-1.6933	ppb	0.25812	15.24%
Co 228.616†	1800.1	27.756	ug/L	0.1551	27.756	ppb	0.1551	0.56%
Cr 267.716†	8350.8	92.107	ug/L	0.3531	92.107	ppb	0.3531	0.38%
Cu 324.752†	19294.8	62.332	ug/L	0.2814	62.332	ppb	0.2814	0.45%
Fe 238.204 Radial†	15770.0	135930	ug/L	2316.9	135930	ppb	2316.9	1.70%
K 766.490 Radial†	111961.0	20345	ug/L	337.7	20345	ppb	337.7	1.66%

Mg 279.077 IEC†	912.5	29967	ug/L	109.4	29967	ppb	109.4	0.37%
Mn 257.610†	1113099.0	1199.5	ug/L	1.52	1199.5	ppb	1.52	0.13%
Mo 202.031†	-139.0	1.2547	ug/L	0.43762	1.2547	ppb	0.43762	34.88%
Na 589.592 Radial†	8542.1	2523.9	ug/L	25.70	2523.9	ppb	25.70	1.02%
Ni 231.604†	2781.1	65.122	ug/L	0.3035	65.122	ppb	0.3035	0.47%
P 214.914†	979.8	469.34	ug/L	10.490	469.34	ppb	10.490	2.24%
Pb 220.353†	932.3	130.64	ug/L	0.334	130.64	ppb	0.334	0.26%
S 181.975 Axial†	238.6	278.49	ug/L	8.285	278.49	ppb	8.285	2.97%
Sb 206.836†	39.5	-3.1447	ug/L	0.74192	-3.1447	ppb	0.74192	23.59%
Se 196.026†	-681.7	45.057	ug/L	11.5751	45.057	ppb	11.5751	25.69%
Si 251.611†	455402.3	14032	ug/L	48.5	14032	ppb	48.5	0.35%
Sn 189.927†	-165.4	-21.598	ug/L	1.3248	-21.598	ppb	1.3248	6.13%
Sr 421.552†	40107.5	266.21	ug/L	4.022	266.21	ppb	4.022	1.51%
Ti 334.940†	1801723.2	2692.3	ug/L	3.84	2692.3	ppb	3.84	0.14%
Tl 190.801†	-114.2	-5.9911	ug/L	2.89129	-5.9911	ppb	2.89129	48.26%
U 409.014†	-10868.3	-317.35	ug/L	2.149	-317.35	ppb	2.149	0.68%
V 292.402†	23456.1	135.23	ug/L	0.717	135.23	ppb	0.717	0.53%
Zn 213.857†	33221.9	268.15	ug/L	0.720	268.15	ppb	0.720	0.27%
SiO2†	461745.3	30369	ug/L	364.9	30369	ppb	364.9	1.20%

Sequence No.: 4
Sample ID: 1202035238|949911|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 41
Date Collected: 2/8/2010 12:38:42
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202035238|949911|1

Rep1#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5267.0	5267.0	105	%			12:40:55
1	Y RADIAL	6972.0	6972.0	132.2	%			12:40:55
1	Al 396.153Radial†	175382.3	167087.2	144190	ug/L	144190	ppb	12:40:35
1	Ca 317.933Radial†	17364.6	16507.6	25831	ug/L	25831	ppb	12:40:35
1	Fe 238.204 Radial†	17399.6	16550.2	142650	ug/L	142650	ppb	12:40:35
1	K 766.490 Radial†	96218.1	88863.3	16146	ug/L	16146	ppb	12:40:35
1	Mg 279.077 IEC†	854.1	809.6	26564	ug/L	26564	ppb	12:40:55
1	Na 589.592 Radial†	7431.5	8330.9	2461.5	ug/L	2461.5	ppb	12:40:35
1	Sr 421.552†	44518.0	42352.5	281.11	ug/L	281.11	ppb	12:40:35
1	Sc 361.383	949710.9	949710.9	103.32	%			12:41:53
1	Y 371.029	985779.8	985779.8	129.23	%			12:41:53
1	Ag 328.068†	-9916.5	-9893.7	5.4489	ug/L	5.4489	ppb	12:41:53
1	As 188.979†	-69.6	-33.2	49.712	ug/L	49.712	ppb	12:42:13
1	B 249.677†	1562.6	2274.6	25.778	ug/L	25.778	ppb	12:41:53
1	Ba 233.527†	75934.4	73500.4	558.62	ug/L	558.62	ppb	12:41:53
1	Be 313.107†	2944.5	7785.0	10.536	ug/L	10.536	ppb	12:41:53
1	Cd 226.502†	1099.1	1275.0	-1.2021	ug/L	-1.2021	ppb	12:42:13
1	Co 228.616†	1526.5	1562.2	21.446	ug/L	21.446	ppb	12:42:13
1	Cr 267.716†	7680.1	7365.3	81.698	ug/L	81.698	ppb	12:42:13
1	Cu 324.752†	26779.0	19671.5	63.737	ug/L	63.737	ppb	12:41:53
1	Mn 257.610†	1018492.6	985199.1	1063.8	ug/L	1063.8	ppb	12:41:53
1	Mo 202.031†	-105.7	-117.7	3.2575	ug/L	3.2575	ppb	12:42:13
1	Ni 231.604†	2809.3	2625.9	61.488	ug/L	61.488	ppb	12:42:13
1	P 214.914†	1297.1	1014.9	474.11	ug/L	474.11	ppb	12:42:13
1	Pb 220.353†	1058.4	1092.9	140.07	ug/L	140.07	ppb	12:42:13
1	S 181.975 Axial†	288.9	232.6	277.61	ug/L	277.61	ppb	12:42:13
1	Sb 206.836†	89.2	52.8	-0.2869	ug/L	-0.2869	ppb	12:42:13
1	Se 196.026†	-772.0	-728.2	37.138	ug/L	37.138	ppb	12:42:13
1	Si 251.611†	296646.1	286379.1	8823.8	ug/L	8823.8	ppb	12:41:53
1	Sn 189.927†	-46.9	-55.7	-3.0030	ug/L	-3.0030	ppb	12:42:13
1	Ti 334.940†	2380945.8	2305960.9	3445.8	ug/L	3445.8	ppb	12:41:53
1	Tl 190.801†	-161.9	-117.8	-1.4086	ug/L	-1.4086	ppb	12:42:13
1	U 409.014†	-13233.0	-9252.0	-273.23	ug/L	-273.23	ppb	12:41:53
1	V 292.402†	22035.6	22963.9	130.19	ug/L	130.19	ppb	12:42:13
1	Zn 213.857†	35150.2	33335.8	267.74	ug/L	267.74	ppb	12:41:53
1	SiO2†	293001.5	282777.1	18598	ug/L	18598	ppb	12:43:13
2	Sc Radial	5197.2	5197.2	104	%			12:41:20
2	Y RADIAL	6834.8	6834.8	129.6	%			12:41:20
2	Al 396.153Radial†	173899.3	167896.0	144890	ug/L	144890	ppb	12:41:00
2	Ca 317.933Radial†	17207.0	16577.3	25940	ug/L	25940	ppb	12:41:00
2	Fe 238.204 Radial†	17309.7	16685.7	143820	ug/L	143820	ppb	12:41:00
2	K 766.490 Radial†	95590.0	89485.9	16259	ug/L	16259	ppb	12:41:00
2	Mg 279.077 IEC†	821.7	789.3	25891	ug/L	25891	ppb	12:41:20
2	Na 589.592 Radial†	7464.8	8457.9	2499.0	ug/L	2499.0	ppb	12:41:00
2	Sr 421.552†	44193.3	42607.7	282.81	ug/L	282.81	ppb	12:41:00
2	Sc 361.383	945882.7	945882.7	102.91	%			12:42:20
2	Y 371.029	980416.9	980416.9	128.53	%			12:42:20
2	Ag 328.068†	-9789.1	-9808.7	6.2080	ug/L	6.2080	ppb	12:42:20
2	As 188.979†	-81.4	-45.0	45.084	ug/L	45.084	ppb	12:42:40
2	B 249.677†	1540.4	2259.1	25.255	ug/L	25.255	ppb	12:42:20
2	Ba 233.527†	75287.8	73169.5	556.16	ug/L	556.16	ppb	12:42:20
2	Be 313.107†	2972.4	7823.7	10.517	ug/L	10.517	ppb	12:42:20
2	Cd 226.502†	1074.3	1255.3	-1.5327	ug/L	-1.5327	ppb	12:42:40
2	Co 228.616†	1515.5	1557.5	21.364	ug/L	21.364	ppb	12:42:40
2	Cr 267.716†	7638.7	7355.2	81.611	ug/L	81.611	ppb	12:42:40
2	Cu 324.752†	26518.1	19522.9	63.374	ug/L	63.374	ppb	12:42:20
2	Mn 257.610†	1010415.4	981339.6	1059.9	ug/L	1059.9	ppb	12:42:20
2	Mo 202.031†	-121.4	-133.3	2.2706	ug/L	2.2706	ppb	12:42:40
2	Ni 231.604†	2728.5	2558.4	59.907	ug/L	59.907	ppb	12:42:40

2	P 214.914†	1297.8	1020.7	476.64	ug/L	476.64 ppb	12:42:40
2	Pb 220.353†	1074.5	1112.7	142.32	ug/L	142.32 ppb	12:42:40
2	S 181.975 Axial†	286.4	231.3	275.77	ug/L	275.77 ppb	12:42:40
2	Sb 206.836†	76.0	40.3	-4.1892	ug/L	-4.1892 ppb	12:42:40
2	Se 196.026†	-766.8	-726.1	42.249	ug/L	42.249 ppb	12:42:40
2	Si 251.611†	295142.3	286079.8	8814.6	ug/L	8814.6 ppb	12:42:20
2	Sn 189.927†	-52.6	-61.4	-3.9233	ug/L	-3.9233 ppb	12:42:40
2	Ti 334.940†	2361716.9	2296601.4	3431.9	ug/L	3431.9 ppb	12:42:20
2	Tl 190.801†	-158.0	-114.6	-0.5935	ug/L	-0.5935 ppb	12:42:40
2	U 409.014†	-13074.5	-9149.8	-270.53	ug/L	-270.53 ppb	12:42:20
2	V 292.402†	21861.7	22881.3	129.45	ug/L	129.45 ppb	12:42:40
2	Zn 213.857†	34874.6	33205.6	266.34	ug/L	266.34 ppb	12:42:20
2	SiO2†	292908.6	283834.6	18668	ug/L	18668 ppb	12:43:18
3	Sc Radial	5280.8	5280.8	105	%		12:41:45
3	Y RADIAL	7006.4	7006.4	132.8	%		12:41:45
3	Al 396.153Radial†	178178.6	169304.7	146110	ug/L	146110 ppb	12:41:25
3	Ca 317.933Radial†	17492.5	16585.8	25953	ug/L	25953 ppb	12:41:25
3	Fe 238.204 Radial†	17700.9	16792.8	144740	ug/L	144740 ppb	12:41:25
3	K 766.490 Radial†	97525.1	89864.3	16328	ug/L	16328 ppb	12:41:25
3	Mg 279.077 IEC†	860.9	814.0	26705	ug/L	26705 ppb	12:41:45
3	Na 589.592 Radial†	7585.7	8458.7	2499.3	ug/L	2499.3 ppb	12:41:25
3	Sr 421.552†	45215.6	42903.9	284.78	ug/L	284.78 ppb	12:41:25
3	Sc 361.383	942994.3	942994.3	102.59	%		12:42:47
3	Y 371.029	977551.1	977551.1	128.15	%		12:42:47
3	Ag 328.068†	-9796.2	-9844.7	6.3690	ug/L	6.3690 ppb	12:42:47
3	As 188.979†	-77.0	-41.0	46.908	ug/L	46.908 ppb	12:43:07
3	B 249.677†	1586.3	2308.4	26.168	ug/L	26.168 ppb	12:42:47
3	Ba 233.527†	75149.7	73259.0	556.87	ug/L	556.87 ppb	12:42:47
3	Be 313.107†	3061.1	7919.1	10.546	ug/L	10.546 ppb	12:42:47
3	Cd 226.502†	1087.6	1271.4	-1.4560	ug/L	-1.4560 ppb	12:43:07
3	Co 228.616†	1508.2	1554.9	21.307	ug/L	21.307 ppb	12:43:07
3	Cr 267.716†	7678.4	7416.7	82.287	ug/L	82.287 ppb	12:43:07
3	Cu 324.752†	26548.0	19630.9	63.730	ug/L	63.730 ppb	12:42:47
3	Mn 257.610†	1007049.1	981065.9	1059.6	ug/L	1059.6 ppb	12:42:47
3	Mo 202.031†	-105.7	-118.3	3.3767	ug/L	3.3767 ppb	12:43:07
3	Ni 231.604†	2772.4	2609.3	61.100	ug/L	61.100 ppb	12:43:07
3	P 214.914†	1298.0	1024.7	478.35	ug/L	478.35 ppb	12:43:07
3	Pb 220.353†	1065.8	1107.4	141.91	ug/L	141.91 ppb	12:43:07
3	S 181.975 Axial†	300.2	245.7	294.34	ug/L	294.34 ppb	12:43:07
3	Sb 206.836†	100.2	64.1	3.1716	ug/L	3.1716 ppb	12:43:07
3	Se 196.026†	-781.6	-742.9	35.246	ug/L	35.246 ppb	12:43:07
3	Si 251.611†	294415.1	286249.5	8819.8	ug/L	8819.8 ppb	12:42:47
3	Sn 189.927†	-65.7	-74.4	-6.0785	ug/L	-6.0785 ppb	12:43:07
3	Ti 334.940†	2353039.4	2295172.9	3429.7	ug/L	3429.7 ppb	12:42:47
3	Tl 190.801†	-163.7	-120.6	-2.3864	ug/L	-2.3864 ppb	12:43:07
3	U 409.014†	-12997.9	-9114.1	-269.64	ug/L	-269.64 ppb	12:42:47
3	V 292.402†	22074.9	23154.2	131.19	ug/L	131.19 ppb	12:43:07
3	Zn 213.857†	34751.2	33189.1	265.98	ug/L	265.98 ppb	12:42:47
3	SiO2†	290836.5	282686.7	18592	ug/L	18592 ppb	12:43:23

Mean Data: 1202035238|949911|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	946196.0	102.94	%	0.367				0.36%
Sc Radial	5248.3	105	%	0.9				0.85%
Y 371.029	981249.3	128.64	%	0.548				0.43%
Y RADIAL	6937.7	131.5	%	1.72				1.31%
Ag 328.068†	-9849.0	6.0086	ug/L	0.49140	6.0086	ppb	0.49140	8.18%
Al 396.153Radial†	168096.0	145060	ug/L	968.4	145060	ppb	968.4	0.67%
As 188.979†	-39.7	47.235	ug/L	2.3314	47.235	ppb	2.3314	4.94%
B 249.677†	2280.7	25.734	ug/L	0.4581	25.734	ppb	0.4581	1.78%
Ba 233.527†	73309.6	557.22	ug/L	1.266	557.22	ppb	1.266	0.23%
Be 313.107†	7842.6	10.533	ug/L	0.0144	10.533	ppb	0.0144	0.14%
Ca 317.933Radial†	16556.9	25908	ug/L	67.1	25908	ppb	67.1	0.26%
Cd 226.502†	1267.2	-1.3969	ug/L	0.17299	-1.3969	ppb	0.17299	12.38%
Co 228.616†	1558.2	21.372	ug/L	0.0701	21.372	ppb	0.0701	0.33%
Cr 267.716†	7379.0	81.866	ug/L	0.3679	81.866	ppb	0.3679	0.45%
Cu 324.752†	19608.4	63.613	ug/L	0.2076	63.613	ppb	0.2076	0.33%
Fe 238.204 Radial†	16676.2	143740	ug/L	1048.0	143740	ppb	1048.0	0.73%
K 766.490 Radial†	89404.5	16244	ug/L	91.9	16244	ppb	91.9	0.57%

Mg 279.077 IEC†	804.3	26387	ug/L	435.0	26387	ppb	435.0	1.65%
Mn 257.610†	982534.8	1061.1	ug/L	2.36	1061.1	ppb	2.36	0.22%
Mo 202.031†	-123.1	2.9683	ug/L	0.60715	2.9683	ppb	0.60715	20.45%
Na 589.592 Radial†	8415.8	2486.6	ug/L	21.73	2486.6	ppb	21.73	0.87%
Ni 231.604†	2597.8	60.832	ug/L	0.8242	60.832	ppb	0.8242	1.35%
P 214.914†	1020.1	476.37	ug/L	2.132	476.37	ppb	2.132	0.45%
Pb 220.353†	1104.3	141.43	ug/L	1.201	141.43	ppb	1.201	0.85%
S 181.975 Axial†	236.6	282.57	ug/L	10.229	282.57	ppb	10.229	3.62%
Sb 206.836†	52.4	-0.4348	ug/L	3.68260	-0.4348	ppb	3.68260	846.88%
Se 196.026†	-732.4	38.211	ug/L	3.6225	38.211	ppb	3.6225	9.48%
Si 251.611†	286236.2	8819.4	ug/L	4.62	8819.4	ppb	4.62	0.05%
Sn 189.927†	-63.9	-4.3349	ug/L	1.57853	-4.3349	ppb	1.57853	36.41%
Sr 421.552†	42621.4	282.90	ug/L	1.832	282.90	ppb	1.832	0.65%
Ti 334.940†	2299245.1	3435.8	ug/L	8.74	3435.8	ppb	8.74	0.25%
Tl 190.801†	-117.6	-1.4628	ug/L	0.89771	-1.4628	ppb	0.89771	61.37%
U 409.014†	-9172.0	-271.13	ug/L	1.869	-271.13	ppb	1.869	0.69%
V 292.402†	22999.8	130.28	ug/L	0.873	130.28	ppb	0.873	0.67%
Zn 213.857†	33243.5	266.69	ug/L	0.932	266.69	ppb	0.932	0.35%
SiO2†	283099.4	18619	ug/L	42.0	18619	ppb	42.0	0.23%

Sequence No.: 5
Sample ID: 1202035240|949911|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 42
Date Collected: 2/8/2010 12:45:34
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202035240|949911|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5442.0	5442.0	109	%			12:47:47
1	Y RADIAL	7149.6	7149.6	135.6	%			12:47:47
1	Al 396.153Radial†	259499.0	239192.8	206400	ug/L	206400	ppb	12:47:27
1	Ca 317.933Radial†	22052.0	20293.3	31755	ug/L	31755	ppb	12:47:27
1	Fe 238.204 Radial†	20248.5	18641.6	160690	ug/L	160690	ppb	12:47:27
1	K 766.490 Radial†	159571.2	144268.1	26213	ug/L	26213	ppb	12:47:27
1	Mg 279.077 IEC†	1242.2	1140.9	37480	ug/L	37480	ppb	12:47:47
1	Na 589.592 Radial†	25826.0	25045.2	7400.0	ug/L	7400.0	ppb	12:47:27
1	Sr 421.552†	129322.7	119097.1	790.81	ug/L	790.81	ppb	12:47:27
1	Sc 361.383	950101.1	950101.1	103.36	%			12:48:46
1	Y 371.029	980957.5	980957.5	128.60	%			12:48:46
1	Ag 328.068†	102540.4	98906.5	488.17	ug/L	488.17	ppb	12:48:51
1	As 188.979†	1060.6	1060.2	512.93	ug/L	512.93	ppb	12:49:11
1	B 249.677†	23712.6	23702.9	483.46	ug/L	483.46	ppb	12:48:51
1	Ba 233.527†	171282.7	165714.7	1255.3	ug/L	1255.3	ppb	12:48:51
1	Be 313.107†	1396508.1	1355984.1	484.48	ug/L	484.48	ppb	12:48:46
1	Cd 226.502†	45449.0	44180.8	453.09	ug/L	453.09	ppb	12:48:51
1	Co 228.616†	25704.9	24952.9	475.82	ug/L	475.82	ppb	12:49:11
1	Cr 267.716†	57049.1	55124.2	592.30	ug/L	592.30	ppb	12:48:51
1	Cu 324.752†	212901.4	199724.6	577.39	ug/L	577.39	ppb	12:48:51
1	Mn 257.610†	2126256.8	2056498.5	2207.8	ug/L	2207.8	ppb	12:48:46
1	Mo 202.031†	6573.0	6343.7	450.71	ug/L	450.71	ppb	12:49:11
1	Ni 231.604†	23623.2	22761.1	532.85	ug/L	532.85	ppb	12:49:11
1	P 214.914†	2606.8	2281.4	1081.8	ug/L	1081.8	ppb	12:49:11
1	Pb 220.353†	5209.9	5108.9	602.57	ug/L	602.57	ppb	12:49:11
1	S 181.975 Axial†	4153.7	3971.5	5161.8	ug/L	5161.8	ppb	12:49:11
1	Sb 206.836†	1492.1	1409.9	432.66	ug/L	432.66	ppb	12:49:11
1	Se 196.026†	-73.3	-51.9	507.93	ug/L	507.93	ppb	12:49:11
1	Si 251.611†	283499.5	273542.6	8422.8	ug/L	8422.8	ppb	12:48:51
1	Sn 189.927†	2868.5	2764.8	470.40	ug/L	470.40	ppb	12:49:11
1	Ti 334.940†	3486928.6	3374995.3	5042.2	ug/L	5042.2	ppb	12:48:46
1	Tl 190.801†	1394.3	1387.8	456.40	ug/L	456.40	ppb	12:49:11
1	U 409.014†	4729.7	8131.2	206.05	ug/L	206.05	ppb	12:48:51
1	V 292.402†	102865.1	101153.5	659.96	ug/L	659.96	ppb	12:48:51
1	Zn 213.857†	99819.1	95885.7	820.96	ug/L	820.96	ppb	12:48:51
1	SiO2†	285143.6	275058.6	18078	ug/L	18078	ppb	12:50:21
2	Sc Radial	5420.6	5420.6	108	%			12:48:12
2	Y RADIAL	7122.6	7122.6	135.0	%			12:48:12
2	Al 396.153Radial†	265268.3	245472.0	211810	ug/L	211810	ppb	12:47:52
2	Ca 317.933Radial†	22415.3	20709.5	32406	ug/L	32406	ppb	12:47:52
2	Fe 238.204 Radial†	20621.9	19060.6	164300	ug/L	164300	ppb	12:47:52
2	K 766.490 Radial†	162724.6	147764.7	26849	ug/L	26849	ppb	12:47:52
2	Mg 279.077 IEC†	1243.5	1146.7	37667	ug/L	37667	ppb	12:48:12
2	Na 589.592 Radial†	26507.2	25769.1	7613.9	ug/L	7613.9	ppb	12:47:52
2	Sr 421.552†	132368.3	122383.9	812.64	ug/L	812.64	ppb	12:47:52
2	Sc 361.383	953253.2	953253.2	103.71	%			12:49:18
2	Y 371.029	982999.1	982999.1	128.87	%			12:49:18
2	Ag 328.068†	102279.6	98327.0	486.84	ug/L	486.84	ppb	12:49:23
2	As 188.979†	1066.9	1062.9	514.83	ug/L	514.83	ppb	12:49:43
2	B 249.677†	23781.2	23693.2	482.67	ug/L	482.67	ppb	12:49:23
2	Ba 233.527†	171630.7	165502.3	1253.8	ug/L	1253.8	ppb	12:49:23
2	Be 313.107†	1397405.7	1352382.1	483.20	ug/L	483.20	ppb	12:49:18
2	Cd 226.502†	45485.1	44070.2	451.55	ug/L	451.55	ppb	12:49:23
2	Co 228.616†	25757.9	24921.8	475.17	ug/L	475.17	ppb	12:49:43
2	Cr 267.716†	57059.5	54951.8	590.53	ug/L	590.53	ppb	12:49:23
2	Cu 324.752†	212459.8	198617.7	574.43	ug/L	574.43	ppb	12:49:23
2	Mn 257.610†	2128475.3	2051835.6	2203.2	ug/L	2203.2	ppb	12:49:18
2	Mo 202.031†	6591.0	6340.0	450.74	ug/L	450.74	ppb	12:49:43
2	Ni 231.604†	23625.7	22687.9	531.13	ug/L	531.13	ppb	12:49:43

2	P 214.914†	2589.4	2256.3	1067.0 ug/L	1067.0 ppb	12:49:43
2	Pb 220.353†	5169.6	5053.4	597.17 ug/L	597.17 ppb	12:49:43
2	S 181.975 Axial†	4151.2	3955.8	5140.2 ug/L	5140.2 ppb	12:49:43
2	Sb 206.836†	1506.1	1418.6	435.21 ug/L	435.21 ppb	12:49:43
2	Se 196.026†	-72.3	-50.7	520.75 ug/L	520.75 ppb	12:49:43
2	Si 251.611†	283694.1	272823.3	8400.6 ug/L	8400.6 ppb	12:49:23
2	Sn 189.927†	2881.0	2767.6	471.04 ug/L	471.04 ppb	12:49:43
2	Ti 334.940†	3493938.2	3370599.5	5035.7 ug/L	5035.7 ppb	12:49:18
2	Tl 190.801†	1399.8	1388.7	456.60 ug/L	456.60 ppb	12:49:43
2	U 409.014†	4905.3	8285.4	209.92 ug/L	209.92 ppb	12:49:23
2	V 292.402†	102837.7	100798.1	657.05 ug/L	657.05 ppb	12:49:23
2	Zn 213.857†	99807.8	95555.4	817.24 ug/L	817.24 ppb	12:49:23
2	SiO2†	285109.2	274113.2	18016 ug/L	18016 ppb	12:50:26
3	Sc Radial	5423.1	5423.1	108 %		12:48:37
3	Y RADIAL	7144.0	7144.0	135.4 %		12:48:37
3	Al 396.153Radial†	260084.8	240566.8	207580 ug/L	207580 ppb	12:48:17
3	Ca 317.933Radial†	22039.6	20352.7	31847 ug/L	31847 ppb	12:48:17
3	Fe 238.204 Radial†	20242.7	18701.2	161210 ug/L	161210 ppb	12:48:17
3	K 766.490 Radial†	159794.8	144986.7	26344 ug/L	26344 ppb	12:48:17
3	Mg 279.077 IEC†	1239.7	1142.5	37535 ug/L	37535 ppb	12:48:37
3	Na 589.592 Radial†	26114.8	25394.9	7503.3 ug/L	7503.3 ppb	12:48:17
3	Sr 421.552†	130200.4	120323.2	798.95 ug/L	798.95 ppb	12:48:17
3	Sc 361.383	950758.2	950758.2	103.44 %		12:49:50
3	Y 371.029	980198.8	980198.8	128.50 %		12:49:50
3	Ag 328.068†	103258.3	99532.0	491.09 ug/L	491.09 ppb	12:49:56
3	As 188.979†	1055.8	1054.9	510.82 ug/L	510.82 ppb	12:50:16
3	B 249.677†	23871.3	23840.5	486.35 ug/L	486.35 ppb	12:49:56
3	Ba 233.527†	173148.2	167403.7	1268.1 ug/L	1268.1 ppb	12:49:56
3	Be 313.107†	1392689.7	1351358.8	482.85 ug/L	482.85 ppb	12:49:50
3	Cd 226.502†	45849.4	44537.5	456.83 ug/L	456.83 ppb	12:49:56
3	Co 228.616†	25605.1	24839.3	473.61 ug/L	473.61 ppb	12:50:16
3	Cr 267.716†	57531.3	55552.3	596.89 ug/L	596.89 ppb	12:49:56
3	Cu 324.752†	214872.2	201487.5	582.44 ug/L	582.44 ppb	12:49:56
3	Mn 257.610†	2122948.0	2051877.9	2203.0 ug/L	2203.0 ppb	12:49:50
3	Mo 202.031†	6541.4	6308.7	448.33 ug/L	448.33 ppb	12:50:16
3	Ni 231.604†	23485.8	22612.4	529.37 ug/L	529.37 ppb	12:50:16
3	P 214.914†	2600.1	2273.2	1076.1 ug/L	1076.1 ppb	12:50:16
3	Pb 220.353†	5162.5	5059.5	597.24 ug/L	597.24 ppb	12:50:16
3	S 181.975 Axial†	4122.3	3938.4	5118.2 ug/L	5118.2 ppb	12:50:16
3	Sb 206.836†	1499.9	1416.5	434.64 ug/L	434.64 ppb	12:50:16
3	Se 196.026†	-84.0	-62.2	503.45 ug/L	503.45 ppb	12:50:16
3	Si 251.611†	286671.9	276420.1	8511.5 ug/L	8511.5 ppb	12:49:56
3	Sn 189.927†	2864.2	2758.7	469.41 ug/L	469.41 ppb	12:50:16
3	Ti 334.940†	3484007.0	3369839.3	5034.5 ug/L	5034.5 ppb	12:49:50
3	Tl 190.801†	1390.1	1382.9	454.86 ug/L	454.86 ppb	12:50:16
3	U 409.014†	4852.8	8247.1	209.20 ug/L	209.20 ppb	12:49:56
3	V 292.402†	103625.2	101819.6	664.35 ug/L	664.35 ppb	12:49:56
3	Zn 213.857†	100772.8	96740.8	828.54 ug/L	828.54 ppb	12:49:56
3	SiO2†	287446.3	277094.1	18212 ug/L	18212 ppb	12:50:32

Mean Data: 1202035240|949911|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	951370.8	103.50	%	0.181				0.17%
Sc Radial	5428.5	108	%	0.2				0.22%
Y 371.029	981385.1	128.66	%	0.190				0.15%
Y RADIAL	7138.7	135.3	%	0.27				0.20%
Ag 328.068†	98921.8	488.70	ug/L	2.174	488.70	ppb	2.174	0.44%
Al 396.153Radial†	241743.9	208600	ug/L	2848.6	208600	ppb	2848.6	1.37%
As 188.979†	1059.3	512.86	ug/L	2.006	512.86	ppb	2.006	0.39%
B 249.677†	23745.5	484.16	ug/L	1.939	484.16	ppb	1.939	0.40%
Ba 233.527†	166206.9	1259.1	ug/L	7.83	1259.1	ppb	7.83	0.62%
Be 313.107†	1353241.7	483.51	ug/L	0.857	483.51	ppb	0.857	0.18%
Ca 317.933Radial†	20451.8	32003	ug/L	352.3	32003	ppb	352.3	1.10%
Cd 226.502†	44262.9	453.82	ug/L	2.715	453.82	ppb	2.715	0.60%
Co 228.616†	24904.7	474.87	ug/L	1.137	474.87	ppb	1.137	0.24%
Cr 267.716†	55209.4	593.24	ug/L	3.281	593.24	ppb	3.281	0.55%
Cu 324.752†	199943.3	578.09	ug/L	4.051	578.09	ppb	4.051	0.70%
Fe 238.204 Radial†	18801.1	162070	ug/L	1953.6	162070	ppb	1953.6	1.21%
K 766.490 Radial†	145673.2	26469	ug/L	335.6	26469	ppb	335.6	1.27%

Mg 279.077 IEC†	1143.4	37561	ug/L	96.1	37561	ppb	96.1	0.26%
Mn 257.610†	2053404.0	2204.7	ug/L	2.75	2204.7	ppb	2.75	0.12%
Mo 202.031†	6330.8	449.93	ug/L	1.379	449.93	ppb	1.379	0.31%
Na 589.592 Radial†	25403.1	7505.7	ug/L	106.96	7505.7	ppb	106.96	1.43%
Ni 231.604†	22687.1	531.11	ug/L	1.741	531.11	ppb	1.741	0.33%
P 214.914†	2270.3	1075.0	ug/L	7.50	1075.0	ppb	7.50	0.70%
Pb 220.353†	5073.9	598.99	ug/L	3.097	598.99	ppb	3.097	0.52%
S 181.975 Axial†	3955.2	5140.1	ug/L	21.84	5140.1	ppb	21.84	0.42%
Sb 206.836†	1415.0	434.17	ug/L	1.339	434.17	ppb	1.339	0.31%
Se 196.026†	-55.0	510.71	ug/L	8.980	510.71	ppb	8.980	1.76%
Si 251.611†	274262.0	8445.0	ug/L	58.66	8445.0	ppb	58.66	0.69%
Sn 189.927†	2763.7	470.28	ug/L	0.821	470.28	ppb	0.821	0.17%
Sr 421.552†	120601.4	800.80	ug/L	11.030	800.80	ppb	11.030	1.38%
Ti 334.940†	3371811.4	5037.5	ug/L	4.14	5037.5	ppb	4.14	0.08%
Tl 190.801†	1386.5	455.95	ug/L	0.949	455.95	ppb	0.949	0.21%
U 409.014†	8221.2	208.39	ug/L	2.058	208.39	ppb	2.058	0.99%
V 292.402†	101257.1	660.45	ug/L	3.674	660.45	ppb	3.674	0.56%
Zn 213.857†	96060.6	822.25	ug/L	5.755	822.25	ppb	5.755	0.70%
SiO2†	275422.0	18102	ug/L	100.2	18102	ppb	100.2	0.55%

Sequence No.: 6
Sample ID: 1202035241|949911|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 43
Date Collected: 2/8/2010 12:52:42
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202035241|949911|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5342.4	5342.4	107	%			12:54:55
1	Y RADIAL	7093.5	7093.5	134.5	%			12:54:55
1	Al 396.153Radial†	244957.2	230003.3	198470	ug/L	198470	ppb	12:54:35
1	Ca 317.933Radial†	20494.6	19210.7	30061	ug/L	30061	ppb	12:54:35
1	Fe 238.204 Radial†	18996.3	17814.3	153560	ug/L	153560	ppb	12:54:35
1	K 766.490 Radial†	147860.5	136019.8	24715	ug/L	24715	ppb	12:54:35
1	Mg 279.077 IEC†	1159.8	1084.9	35641	ug/L	35641	ppb	12:54:55
1	Na 589.592 Radial†	23821.1	23607.4	6975.2	ug/L	6975.2	ppb	12:54:35
1	Sr 421.552†	121496.8	113974.3	756.80	ug/L	756.80	ppb	12:54:35
1	Sc 361.383	940803.5	940803.5	102.35	%			12:55:54
1	Y 371.029	978244.9	978244.9	128.24	%			12:55:54
1	Ag 328.068†	102176.0	99530.9	488.38	ug/L	488.38	ppb	12:55:54
1	As 188.979†	1070.3	1079.8	514.13	ug/L	514.13	ppb	12:56:14
1	B 249.677†	23480.7	23703.0	484.64	ug/L	484.64	ppb	12:55:54
1	Ba 233.527†	138960.9	135773.6	1029.4	ug/L	1029.4	ppb	12:55:54
1	Be 313.107†	1395680.7	1368527.6	487.51	ug/L	487.51	ppb	12:55:54
1	Cd 226.502†	45425.0	44591.9	458.19	ug/L	458.19	ppb	12:55:54
1	Co 228.616†	25044.8	24553.8	469.28	ug/L	469.28	ppb	12:56:14
1	Cr 267.716†	53897.0	52590.0	565.08	ug/L	565.08	ppb	12:55:54
1	Cu 324.752†	208164.3	197131.9	569.64	ug/L	569.64	ppb	12:55:54
1	Mn 257.610†	1438893.5	1405267.4	1512.6	ug/L	1512.6	ppb	12:55:54
1	Mo 202.031†	6582.9	6416.2	455.14	ug/L	455.14	ppb	12:56:14
1	Ni 231.604†	22847.6	22229.2	520.39	ug/L	520.39	ppb	12:56:14
1	P 214.914†	2380.5	2085.3	978.09	ug/L	978.09	ppb	12:56:14
1	Pb 220.353†	5017.1	4970.3	586.01	ug/L	586.01	ppb	12:56:14
1	S 181.975 Axial†	4042.0	3902.1	5072.4	ug/L	5072.4	ppb	12:56:14
1	Sb 206.836†	1494.8	1426.9	440.28	ug/L	440.28	ppb	12:56:14
1	Se 196.026†	-34.8	-15.0	506.34	ug/L	506.34	ppb	12:56:14
1	Si 251.611†	273799.7	266776.3	8214.3	ug/L	8214.3	ppb	12:55:54
1	Sn 189.927†	2886.6	2809.9	477.57	ug/L	477.57	ppb	12:56:14
1	Ti 334.940†	3048532.9	2980017.0	4452.1	ug/L	4452.1	ppb	12:55:54
1	Tl 190.801†	1428.3	1434.4	461.95	ug/L	461.95	ppb	12:56:14
1	U 409.014†	3883.1	7349.3	185.22	ug/L	185.22	ppb	12:55:54
1	V 292.402†	96375.5	95796.6	625.53	ug/L	625.53	ppb	12:55:54
1	Zn 213.857†	92307.6	89501.1	765.35	ug/L	765.35	ppb	12:55:54
1	SiO2†	275344.5	268210.9	17628	ug/L	17628	ppb	12:57:15
2	Sc Radial	5347.9	5347.9	107	%			12:55:20
2	Y RADIAL	7097.8	7097.8	134.6	%			12:55:20
2	Al 396.153Radial†	249463.4	233993.7	201910	ug/L	201910	ppb	12:55:00
2	Ca 317.933Radial†	20792.7	19470.6	30467	ug/L	30467	ppb	12:55:00
2	Fe 238.204 Radial†	19205.5	17992.3	155100	ug/L	155100	ppb	12:55:00
2	K 766.490 Radial†	150314.6	138179.2	25107	ug/L	25107	ppb	12:55:00
2	Mg 279.077 IEC†	1149.7	1074.3	35291	ug/L	35291	ppb	12:55:20
2	Na 589.592 Radial†	24217.9	23956.7	7078.4	ug/L	7078.4	ppb	12:55:00
2	Sr 421.552†	123781.4	116000.0	770.25	ug/L	770.25	ppb	12:55:00
2	Sc 361.383	934655.5	934655.5	101.68	%			12:56:22
2	Y 371.029	971973.6	971973.6	127.42	%			12:56:22
2	Ag 328.068†	102058.8	100072.3	491.28	ug/L	491.28	ppb	12:56:22
2	As 188.979†	1066.1	1082.5	515.88	ug/L	515.88	ppb	12:56:42
2	B 249.677†	23607.4	23978.5	490.33	ug/L	490.33	ppb	12:56:22
2	Ba 233.527†	139238.5	136939.7	1038.2	ug/L	1038.2	ppb	12:56:22
2	Be 313.107†	1394155.0	1375996.8	490.19	ug/L	490.19	ppb	12:56:22
2	Cd 226.502†	45361.8	44821.7	460.47	ug/L	460.47	ppb	12:56:22
2	Co 228.616†	24989.2	24660.1	471.27	ug/L	471.27	ppb	12:56:42
2	Cr 267.716†	53868.3	52908.2	568.51	ug/L	568.51	ppb	12:56:22
2	Cu 324.752†	207928.9	198238.2	572.88	ug/L	572.88	ppb	12:56:22
2	Mn 257.610†	1439487.9	1415099.2	1523.2	ug/L	1523.2	ppb	12:56:22
2	Mo 202.031†	6527.9	6404.4	454.45	ug/L	454.45	ppb	12:56:42
2	Ni 231.604†	22835.1	22363.7	523.54	ug/L	523.54	ppb	12:56:42

2	P 214.914†	2354.3	2074.8	971.28 ug/L	971.28 ppb	12:56:42
2	Pb 220.353†	5022.8	5008.1	590.84 ug/L	590.84 ppb	12:56:42
2	S 181.975 Axial†	4028.2	3914.5	5088.0 ug/L	5088.0 ppb	12:56:42
2	Sb 206.836†	1514.2	1455.5	449.00 ug/L	449.00 ppb	12:56:42
2	Se 196.026†	-31.9	-12.4	513.12 ug/L	513.12 ppb	12:56:42
2	Si 251.611†	273117.4	267865.0	8247.8 ug/L	8247.8 ppb	12:56:22
2	Sn 189.927†	2874.1	2816.2	478.71 ug/L	478.71 ppb	12:56:42
2	Ti 334.940†	3049154.0	3000219.7	4482.4 ug/L	4482.4 ppb	12:56:22
2	Tl 190.801†	1398.1	1413.8	456.22 ug/L	456.22 ppb	12:56:42
2	U 409.014†	3595.0	7091.0	177.87 ug/L	177.87 ppb	12:56:22
2	V 292.402†	96298.0	96339.8	628.90 ug/L	628.90 ppb	12:56:22
2	Zn 213.857†	92322.5	90109.0	770.44 ug/L	770.44 ppb	12:56:22
2	SiO2†	272788.1	267466.5	17579 ug/L	17579 ppb	12:57:20
3	Sc Radial	5297.2	5297.2	106 %		12:55:46
3	Y RADIAL	7066.3	7066.3	134.0 %		12:55:46
3	Al 396.153Radial†	242905.8	230024.8	198480 ug/L	198480 ppb	12:55:26
3	Ca 317.933Radial†	20290.0	19181.3	30014 ug/L	30014 ppb	12:55:26
3	Fe 238.204 Radial†	18729.5	17714.0	152700 ug/L	152700 ppb	12:55:26
3	K 766.490 Radial†	146606.3	136017.7	24715 ug/L	24715 ppb	12:55:26
3	Mg 279.077 IEC†	1154.0	1088.7	35766 ug/L	35766 ppb	12:55:46
3	Na 589.592 Radial†	23397.7	23397.6	6913.2 ug/L	6913.2 ppb	12:55:26
3	Sr 421.552†	120042.0	113571.2	754.12 ug/L	754.12 ppb	12:55:26
3	Sc 361.383	943985.9	943985.9	102.70 %		12:56:49
3	Y 371.029	979489.9	979489.9	128.41 %		12:56:49
3	Ag 328.068†	102520.5	99529.7	488.08 ug/L	488.08 ppb	12:56:49
3	As 188.979†	1054.9	1061.2	506.37 ug/L	506.37 ppb	12:57:09
3	B 249.677†	23726.6	23865.2	488.29 ug/L	488.29 ppb	12:56:49
3	Ba 233.527†	139436.0	135778.5	1029.4 ug/L	1029.4 ppb	12:56:49
3	Be 313.107†	1397756.3	1365951.7	486.61 ug/L	486.61 ppb	12:56:49
3	Cd 226.502†	45464.7	44481.0	457.09 ug/L	457.09 ppb	12:56:49
3	Co 228.616†	24852.0	24283.6	464.01 ug/L	464.01 ppb	12:57:09
3	Cr 267.716†	53880.8	52396.8	563.00 ug/L	563.00 ppb	12:56:49
3	Cu 324.752†	208858.8	197122.5	569.57 ug/L	569.57 ppb	12:56:49
3	Mn 257.610†	1443227.0	1404747.7	1512.0 ug/L	1512.0 ppb	12:56:49
3	Mo 202.031†	6542.9	6355.6	450.89 ug/L	450.89 ppb	12:57:09
3	Ni 231.604†	22719.3	22029.0	515.71 ug/L	515.71 ppb	12:57:09
3	P 214.914†	2336.8	2034.9	950.71 ug/L	950.71 ppb	12:57:09
3	Pb 220.353†	4986.0	4923.5	580.84 ug/L	580.84 ppb	12:57:09
3	S 181.975 Axial†	4017.9	3865.4	5024.3 ug/L	5024.3 ppb	12:57:09
3	Sb 206.836†	1497.3	1424.3	439.28 ug/L	439.28 ppb	12:57:09
3	Se 196.026†	-45.6	-25.4	497.25 ug/L	497.25 ppb	12:57:09
3	Si 251.611†	275288.6	267324.3	8231.2 ug/L	8231.2 ppb	12:56:49
3	Sn 189.927†	2849.1	2763.9	469.85 ug/L	469.85 ppb	12:57:09
3	Ti 334.940†	3058681.0	2979857.5	4451.9 ug/L	4451.9 ppb	12:56:49
3	Tl 190.801†	1402.3	1404.4	453.19 ug/L	453.19 ppb	12:57:09
3	U 409.014†	3718.5	7176.2	180.52 ug/L	180.52 ppb	12:56:49
3	V 292.402†	96383.0	95486.5	623.50 ug/L	623.50 ppb	12:56:49
3	Zn 213.857†	92551.4	89434.6	764.96 ug/L	764.96 ppb	12:56:49
3	SiO2†	277690.5	269588.4	17719 ug/L	17719 ppb	12:57:25

Mean Data: 1202035241|949911|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	939814.9	102.25	%	0.516				0.50%
Sc Radial	5329.2	106	%	0.6				0.52%
Y 371.029	976569.5	128.02	%	0.528				0.41%
Y RADIAL	7085.9	134.3	%	0.32				0.24%
Ag 328.068†	99711.0	489.25	ug/L	1.766	489.25	ppb	1.766	0.36%
Al 396.153Radial†	231340.6	199620	ug/L	1982.8	199620	ppb	1982.8	0.99%
As 188.979†	1074.5	512.12	ug/L	5.062	512.12	ppb	5.062	0.99%
B 249.677†	23848.9	487.76	ug/L	2.880	487.76	ppb	2.880	0.59%
Ba 233.527†	136163.9	1032.3	ug/L	5.10	1032.3	ppb	5.10	0.49%
Be 313.107†	1370158.7	488.10	ug/L	1.859	488.10	ppb	1.859	0.38%
Ca 317.933Radial†	19287.5	30181	ug/L	249.2	30181	ppb	249.2	0.83%
Cd 226.502†	44631.5	458.58	ug/L	1.723	458.58	ppb	1.723	0.38%
Co 228.616†	24499.1	468.18	ug/L	3.754	468.18	ppb	3.754	0.80%
Cr 267.716†	52631.7	565.53	ug/L	2.784	565.53	ppb	2.784	0.49%
Cu 324.752†	197497.5	570.70	ug/L	1.889	570.70	ppb	1.889	0.33%
Fe 238.204 Radial†	17840.2	153790	ug/L	1214.7	153790	ppb	1214.7	0.79%
K 766.490 Radial†	136738.9	24846	ug/L	226.7	24846	ppb	226.7	0.91%

Mg 279.077 IEC†	1082.6	35566	ug/L	246.5	35566	ppb	246.5	0.69%
Mn 257.610†	1408371.5	1515.9	ug/L	6.34	1515.9	ppb	6.34	0.42%
Mo 202.031†	6392.1	453.49	ug/L	2.283	453.49	ppb	2.283	0.50%
Na 589.592 Radial†	23653.9	6988.9	ug/L	83.44	6988.9	ppb	83.44	1.19%
Ni 231.604†	22207.3	519.88	ug/L	3.943	519.88	ppb	3.943	0.76%
P 214.914†	2065.0	966.69	ug/L	14.253	966.69	ppb	14.253	1.47%
Pb 220.353†	4967.3	585.90	ug/L	5.000	585.90	ppb	5.000	0.85%
S 181.975 Axial†	3894.0	5061.6	ug/L	33.21	5061.6	ppb	33.21	0.66%
Sb 206.836†	1435.6	442.86	ug/L	5.345	442.86	ppb	5.345	1.21%
Se 196.026†	-17.6	505.57	ug/L	7.962	505.57	ppb	7.962	1.57%
Si 251.611†	267321.8	8231.1	ug/L	16.78	8231.1	ppb	16.78	0.20%
Sn 189.927†	2796.6	475.38	ug/L	4.823	475.38	ppb	4.823	1.01%
Sr 421.552†	114515.1	760.39	ug/L	8.643	760.39	ppb	8.643	1.14%
Ti 334.940†	2986698.1	4462.1	ug/L	17.55	4462.1	ppb	17.55	0.39%
Tl 190.801†	1417.5	457.12	ug/L	4.453	457.12	ppb	4.453	0.97%
U 409.014†	7205.5	181.20	ug/L	3.724	181.20	ppb	3.724	2.06%
V 292.402†	95874.3	625.98	ug/L	2.728	625.98	ppb	2.728	0.44%
Zn 213.857†	89681.6	766.92	ug/L	3.058	766.92	ppb	3.058	0.40%
SiO2†	268421.9	17642	ug/L	70.9	17642	ppb	70.9	0.40%

Sequence No.: 7
Sample ID: 1202035239|949911|5
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 44
Date Collected: 2/8/2010 12:59:36
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202035239|949911|5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5109.8	5109.8	102	%			13:01:29
1	Y RADIAL	5615.2	5615.2	106.5	%			13:01:29
1	Al 396.153Radial†	44795.4	44128.1	38082	ug/L	38082	ppb	13:01:29
1	Ca 317.933Radial†	3434.3	3351.7	5244.7	ug/L	5244.7	ppb	13:01:49
1	Fe 238.204 Radial†	3480.7	3406.4	29362	ug/L	29362	ppb	13:01:49
1	K 766.490 Radial†	26779.7	23567.6	4282.6	ug/L	4282.6	ppb	13:01:29
1	Mg 279.077 IEC†	200.3	193.3	6345.7	ug/L	6345.7	ppb	13:01:49
1	Na 589.592 Radial†	549.3	1797.7	531.15	ug/L	531.15	ppb	13:01:29
1	Sr 421.552†	8739.9	8560.9	56.823	ug/L	56.823	ppb	13:01:29
1	Sc 361.383	900033.1	900033.1	97.918	%			13:02:46
1	Y 371.029	778784.4	778784.4	102.10	%			13:02:46
1	Ag 328.068†	-1683.6	-2015.4	1.2372	ug/L	1.2372	ppb	13:02:46
1	As 188.979†	-40.5	-7.3	8.8764	ug/L	8.8764	ppb	13:03:06
1	B 249.677†	171.6	937.4	15.418	ug/L	15.418	ppb	13:02:46
1	Ba 233.527†	15444.3	15780.4	119.90	ug/L	119.90	ppb	13:02:46
1	Be 313.107†	-2114.6	2775.7	2.2689	ug/L	2.2689	ppb	13:02:46
1	Cd 226.502†	13.6	225.2	-0.6442	ug/L	-0.6442	ppb	13:03:06
1	Co 228.616†	298.4	389.5	6.0283	ug/L	6.0283	ppb	13:03:06
1	Cr 267.716†	1837.8	1809.0	19.953	ug/L	19.953	ppb	13:03:06
1	Cu 324.752†	10178.1	4148.1	13.410	ug/L	13.410	ppb	13:02:46
1	Mn 257.610†	238322.0	242846.0	261.67	ug/L	261.67	ppb	13:02:46
1	Mo 202.031†	-6.9	-22.4	0.7983	ug/L	0.7983	ppb	13:03:06
1	Ni 231.604†	720.7	643.0	15.056	ug/L	15.056	ppb	13:03:06
1	P 214.914†	449.4	218.5	104.87	ug/L	104.87	ppb	13:03:06
1	Pb 220.353†	132.9	204.3	28.307	ug/L	28.307	ppb	13:03:06
1	S 181.975 Axial†	89.2	44.2	50.694	ug/L	50.694	ppb	13:03:06
1	Sb 206.836†	27.5	-5.5	-5.0377	ug/L	-5.0377	ppb	13:03:06
1	Se 196.026†	-166.9	-151.5	7.1440	ug/L	7.1440	ppb	13:03:06
1	Si 251.611†	96758.4	98087.7	3022.2	ug/L	3022.2	ppb	13:02:46
1	Sn 189.927†	-44.3	-55.6	-8.0160	ug/L	-8.0160	ppb	13:03:06
1	Ti 334.940†	374015.2	383542.6	573.11	ug/L	573.11	ppb	13:02:46
1	Tl 190.801†	-62.2	-24.6	-1.3411	ug/L	-1.3411	ppb	13:03:06
1	U 409.014†	-5896.3	-2466.2	-71.840	ug/L	-71.840	ppb	13:02:46
1	V 292.402†	3408.6	5118.0	29.565	ug/L	29.565	ppb	13:02:46
1	Zn 213.857†	7766.5	7247.5	58.555	ug/L	58.555	ppb	13:03:06
1	SiO2†	96143.6	97385.1	6405.0	ug/L	6405.0	ppb	13:04:02
2	Sc Radial	5082.6	5082.6	101	%			13:01:54
2	Y RADIAL	5602.2	5602.2	106.2	%			13:01:54
2	Al 396.153Radial†	44573.2	44144.2	38095	ug/L	38095	ppb	13:01:54
2	Ca 317.933Radial†	3430.4	3365.8	5266.8	ug/L	5266.8	ppb	13:02:14
2	Fe 238.204 Radial†	3469.7	3413.9	29426	ug/L	29426	ppb	13:02:14
2	K 766.490 Radial†	26517.3	23449.4	4261.1	ug/L	4261.1	ppb	13:01:54
2	Mg 279.077 IEC†	202.5	196.5	6452.8	ug/L	6452.8	ppb	13:02:14
2	Na 589.592 Radial†	594.0	1844.6	545.03	ug/L	545.03	ppb	13:01:54
2	Sr 421.552†	8695.4	8562.9	56.836	ug/L	56.836	ppb	13:01:54
2	Sc 361.383	895425.5	895425.5	97.416	%			13:03:11
2	Y 371.029	774113.6	774113.6	101.48	%			13:03:11
2	Ag 328.068†	-1623.6	-1962.7	1.4898	ug/L	1.4898	ppb	13:03:11
2	As 188.979†	-39.5	-6.4	9.2459	ug/L	9.2459	ppb	13:03:31
2	B 249.677†	130.2	895.9	14.510	ug/L	14.510	ppb	13:03:11
2	Ba 233.527†	15307.5	15721.1	119.45	ug/L	119.45	ppb	13:03:11
2	Be 313.107†	-2154.0	2724.1	2.2518	ug/L	2.2518	ppb	13:03:11
2	Cd 226.502†	18.7	230.5	-0.5950	ug/L	-0.5950	ppb	13:03:31
2	Co 228.616†	314.1	407.2	6.3706	ug/L	6.3706	ppb	13:03:31
2	Cr 267.716†	1838.9	1819.9	20.071	ug/L	20.071	ppb	13:03:31
2	Cu 324.752†	10075.8	4096.6	13.267	ug/L	13.267	ppb	13:03:11
2	Mn 257.610†	237628.3	243386.3	262.24	ug/L	262.24	ppb	13:03:11
2	Mo 202.031†	-16.3	-32.1	0.1330	ug/L	0.1330	ppb	13:03:31
2	Ni 231.604†	696.6	621.9	14.563	ug/L	14.563	ppb	13:03:31

2	P 214.914†	444.9	216.2	103.62 ug/L	103.62 ppb	13:03:31
2	Pb 220.353†	132.2	204.2	28.299 ug/L	28.299 ppb	13:03:31
2	S 181.975 Axial†	95.1	50.6	59.155 ug/L	59.155 ppb	13:03:31
2	Sb 206.836†	51.7	19.5	2.7348 ug/L	2.7348 ppb	13:03:31
2	Se 196.026†	-166.8	-152.2	6.8931 ug/L	6.8931 ppb	13:03:31
2	Si 251.611†	96024.8	97843.1	3014.7 ug/L	3014.7 ppb	13:03:11
2	Sn 189.927†	-41.0	-52.4	-7.4736 ug/L	-7.4736 ppb	13:03:31
2	Ti 334.940†	372360.4	383809.5	573.51 ug/L	573.51 ppb	13:03:11
2	Tl 190.801†	-71.7	-34.7	-4.2801 ug/L	-4.2801 ppb	13:03:31
2	U 409.014†	-5909.9	-2511.2	-73.097 ug/L	-73.097 ppb	13:03:11
2	V 292.402†	3381.8	5108.4	29.481 ug/L	29.481 ppb	13:03:11
2	Zn 213.857†	7749.4	7270.7	58.753 ug/L	58.753 ppb	13:03:31
2	SiO2†	95855.9	97595.1	6418.8 ug/L	6418.8 ppb	13:04:07
3	Sc Radial	5258.9	5258.9	105 %		13:02:19
3	Y RADIAL	5774.9	5774.9	109.5 %		13:02:19
3	Al 396.153Radial†	45943.1	43976.5	37951 ug/L	37951 ppb	13:02:19
3	Ca 317.933Radial†	3448.2	3269.4	5115.9 ug/L	5115.9 ppb	13:02:39
3	Fe 238.204 Radial†	3495.3	3323.6	28648 ug/L	28648 ppb	13:02:39
3	K 766.490 Radial†	27338.6	23355.6	4244.1 ug/L	4244.1 ppb	13:02:19
3	Mg 279.077 IEC†	201.2	188.6	6192.5 ug/L	6192.5 ppb	13:02:39
3	Na 589.592 Radial†	597.2	1828.0	540.12 ug/L	540.12 ppb	13:02:19
3	Sr 421.552†	8973.8	8540.8	56.690 ug/L	56.690 ppb	13:02:19
3	Sc 361.383	902836.6	902836.6	98.223 %		13:03:37
3	Y 371.029	780686.7	780686.7	102.34 %		13:03:37
3	Ag 328.068†	-1707.4	-2034.3	0.9167 ug/L	0.9167 ppb	13:03:37
3	As 188.979†	-37.3	-3.9	10.103 ug/L	10.103 ppb	13:03:57
3	B 249.677†	169.8	935.1	15.482 ug/L	15.482 ppb	13:03:37
3	Ba 233.527†	15525.8	15814.3	120.13 ug/L	120.13 ppb	13:03:37
3	Be 313.107†	-2106.3	2790.8	2.2760 ug/L	2.2760 ppb	13:03:37
3	Cd 226.502†	29.8	241.6	-0.3963 ug/L	-0.3963 ppb	13:03:57
3	Co 228.616†	311.9	402.3	6.2861 ug/L	6.2861 ppb	13:03:57
3	Cr 267.716†	1831.9	1797.2	19.814 ug/L	19.814 ppb	13:03:57
3	Cu 324.752†	10174.0	4111.6	13.268 ug/L	13.268 ppb	13:03:37
3	Mn 257.610†	239756.7	243550.8	262.35 ug/L	262.35 ppb	13:03:37
3	Mo 202.031†	-14.9	-30.5	0.1767 ug/L	0.1767 ppb	13:03:57
3	Ni 231.604†	709.1	628.8	14.725 ug/L	14.725 ppb	13:03:57
3	P 214.914†	434.3	201.6	96.080 ug/L	96.080 ppb	13:03:57
3	Pb 220.353†	137.5	208.6	28.823 ug/L	28.823 ppb	13:03:57
3	S 181.975 Axial†	92.5	47.2	54.680 ug/L	54.680 ppb	13:03:57
3	Sb 206.836†	48.1	15.4	1.4842 ug/L	1.4842 ppb	13:03:57
3	Se 196.026†	-169.6	-153.7	3.4723 ug/L	3.4723 ppb	13:03:57
3	Si 251.611†	96961.1	97987.2	3019.1 ug/L	3019.1 ppb	13:03:37
3	Sn 189.927†	-40.5	-51.6	-7.3796 ug/L	-7.3796 ppb	13:03:57
3	Ti 334.940†	375705.5	384077.4	573.91 ug/L	573.91 ppb	13:03:37
3	Tl 190.801†	-64.5	-26.8	-1.9586 ug/L	-1.9586 ppb	13:03:57
3	U 409.014†	-5907.5	-2458.9	-71.556 ug/L	-71.556 ppb	13:03:37
3	V 292.402†	3467.7	5167.4	29.990 ug/L	29.990 ppb	13:03:37
3	Zn 213.857†	7747.6	7203.7	58.318 ug/L	58.318 ppb	13:03:57
3	SiO2†	95845.1	96776.4	6364.9 ug/L	6364.9 ppb	13:04:13

Mean Data: 1202035239|949911|5

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	899431.7	97.852	%	0.4071				0.42%
Sc Radial	5150.4	103	%	1.9				1.84%
Y 371.029	777861.6	101.97	%	0.443				0.43%
Y RADIAL	5664.1	107.4	%	1.82				1.70%
Ag 328.068†	-2004.1	1.2146	ug/L	0.28721	1.2146	ppb	0.28721	23.65%
Al 396.153Radial†	44082.9	38043	ug/L	79.8	38043	ppb	79.8	0.21%
As 188.979†	-5.9	9.4084	ug/L	0.62927	9.4084	ppb	0.62927	6.69%
B 249.677†	922.8	15.136	ug/L	0.5433	15.136	ppb	0.5433	3.59%
Ba 233.527†	15771.9	119.83	ug/L	0.345	119.83	ppb	0.345	0.29%
Be 313.107†	2763.5	2.2656	ug/L	0.01243	2.2656	ppb	0.01243	0.55%
Ca 317.933Radial†	3329.0	5209.1	ug/L	81.46	5209.1	ppb	81.46	1.56%
Cd 226.502†	232.5	-0.5452	ug/L	0.13122	-0.5452	ppb	0.13122	24.07%
Co 228.616†	399.7	6.2284	ug/L	0.17832	6.2284	ppb	0.17832	2.86%
Cr 267.716†	1808.7	19.946	ug/L	0.1285	19.946	ppb	0.1285	0.64%
Cu 324.752†	4118.8	13.315	ug/L	0.0821	13.315	ppb	0.0821	0.62%
Fe 238.204 Radial†	3381.3	29145	ug/L	432.1	29145	ppb	432.1	1.48%
K 766.490 Radial†	23457.5	4262.6	ug/L	19.29	4262.6	ppb	19.29	0.45%

Mg 279.077 IEC†	192.8	6330.4	ug/L	130.83	6330.4	ppb	130.83	2.07%
Mn 257.610†	243261.0	262.09	ug/L	0.370	262.09	ppb	0.370	0.14%
Mo 202.031†	-28.3	0.3693	ug/L	0.37216	0.3693	ppb	0.37216	100.77%
Na 589.592 Radial†	1823.4	538.76	ug/L	7.039	538.76	ppb	7.039	1.31%
Ni 231.604†	631.2	14.781	ug/L	0.2510	14.781	ppb	0.2510	1.70%
P 214.914†	212.1	101.52	ug/L	4.756	101.52	ppb	4.756	4.68%
Pb 220.353†	205.7	28.476	ug/L	0.3001	28.476	ppb	0.3001	1.05%
S 181.975 Axial†	47.3	54.843	ug/L	4.2328	54.843	ppb	4.2328	7.72%
Sb 206.836†	9.8	-0.2729	ug/L	4.17354	-0.2729	ppb	4.17354	>999.9%
Se 196.026†	-152.4	5.8365	ug/L	2.05125	5.8365	ppb	2.05125	35.15%
Si 251.611†	97972.7	3018.7	ug/L	3.78	3018.7	ppb	3.78	0.13%
Sn 189.927†	-53.2	-7.6231	ug/L	0.34349	-7.6231	ppb	0.34349	4.51%
Sr 421.552†	8554.9	56.783	ug/L	0.0805	56.783	ppb	0.0805	0.14%
Ti 334.940†	383809.8	573.51	ug/L	0.397	573.51	ppb	0.397	0.07%
Tl 190.801†	-28.7	-2.5266	ug/L	1.54960	-2.5266	ppb	1.54960	61.33%
U 409.014†	-2478.8	-72.164	ug/L	0.8201	-72.164	ppb	0.8201	1.14%
V 292.402†	5131.3	29.679	ug/L	0.2733	29.679	ppb	0.2733	0.92%
Zn 213.857†	7240.6	58.542	ug/L	0.2178	58.542	ppb	0.2178	0.37%
SiO2†	97252.2	6396.2	ug/L	27.97	6396.2	ppb	27.97	0.44%

Sequence No.: 8
Sample ID: 246333002|949911|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 45
Date Collected: 2/8/2010 13:06:23
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 246333002|949911|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5244.6	5244.6	105	%			13:08:16
1	Y RADIAL	6586.1	6586.1	124.9	%			13:08:16
1	Al 396.153Radial†	10788.3	10498.5	9059.9	ug/L	9059.9	ppb	13:08:16
1	Ca 317.933Radial†	6195.3	5903.7	9238.1	ug/L	9238.1	ppb	13:08:16
1	Fe 238.204 Radial†	12276.3	11724.4	101060	ug/L	101060	ppb	13:08:16
1	K 766.490 Radial†	27164.2	23259.7	4223.8	ug/L	4223.8	ppb	13:08:16
1	Mg 279.077 IEC†	192.8	181.0	5867.4	ug/L	5867.4	ppb	13:08:36
1	Na 589.592 Radial†	4785.8	5832.5	1723.3	ug/L	1723.3	ppb	13:08:16
1	Sr 421.552†	5176.4	4934.9	32.709	ug/L	32.709	ppb	13:08:16
1	Sc 361.383	937561.4	937561.4	102.00	%			13:09:34
1	Y 371.029	923415.9	923415.9	121.06	%			13:09:34
1	Ag 328.068†	-6723.4	-6887.6	4.6385	ug/L	4.6385	ppb	13:09:39
1	As 188.979†	-106.4	-70.2	51.909	ug/L	51.909	ppb	13:09:59
1	B 249.677†	361.9	1116.9	7.5924	ug/L	7.5924	ppb	13:09:39
1	Ba 233.527†	28120.6	27576.7	211.14	ug/L	211.14	ppb	13:09:39
1	Be 313.107†	-48075.9	-42197.8	0.1861	ug/L	0.1861	ppb	13:09:39
1	Cd 226.502†	779.3	975.3	-0.1295	ug/L	-0.1295	ppb	13:09:59
1	Co 228.616†	1253.8	1314.0	10.534	ug/L	10.534	ppb	13:09:59
1	Cr 267.716†	3416.8	3281.9	37.281	ug/L	37.281	ppb	13:09:59
1	Cu 324.752†	10546.7	4093.5	17.210	ug/L	17.210	ppb	13:09:39
1	Mn 257.610†	2757090.2	2702472.0	2892.3	ug/L	2892.3	ppb	13:09:34
1	Mo 202.031†	25.6	9.7	8.6262	ug/L	8.6262	ppb	13:09:59
1	Ni 231.604†	1364.5	1244.6	29.137	ug/L	29.137	ppb	13:09:59
1	P 214.914†	5066.0	4726.2	2546.4	ug/L	2546.4	ppb	13:09:59
1	Pb 220.353†	281.0	344.0	30.999	ug/L	30.999	ppb	13:09:59
1	S 181.975 Axial†	89.4	40.7	51.581	ug/L	51.581	ppb	13:09:59
1	Sb 206.836†	91.9	56.5	-4.9838	ug/L	-4.9838	ppb	13:09:59
1	Se 196.026†	-532.4	-502.9	29.169	ug/L	29.169	ppb	13:09:59
1	Si 251.611†	151423.8	147725.5	4551.6	ug/L	4551.6	ppb	13:09:39
1	Sn 189.927†	85.3	73.3	15.374	ug/L	15.374	ppb	13:09:59
1	Ti 334.940†	4482077.7	4395745.7	6566.9	ug/L	6566.9	ppb	13:09:34
1	Tl 190.801†	-270.3	-226.1	1.5753	ug/L	1.5753	ppb	13:09:59
1	U 409.014†	-16824.0	-12938.6	-370.71	ug/L	-370.71	ppb	13:09:34
1	V 292.402†	14218.7	15576.7	82.706	ug/L	82.706	ppb	13:09:39
1	Zn 213.857†	54639.0	52883.2	452.20	ug/L	452.20	ppb	13:09:39
1	SiO2†	150351.3	146599.5	9641.7	ug/L	9641.7	ppb	13:11:08
2	Sc Radial	5224.7	5224.7	104	%			13:08:41
2	Y RADIAL	6573.6	6573.6	124.6	%			13:08:41
2	Al 396.153Radial†	10885.3	10631.0	9174.3	ug/L	9174.3	ppb	13:08:41
2	Ca 317.933Radial†	6239.7	5968.9	9340.0	ug/L	9340.0	ppb	13:08:41
2	Fe 238.204 Radial†	12311.6	11803.1	101740	ug/L	101740	ppb	13:08:41
2	K 766.490 Radial†	27207.6	23400.4	4249.3	ug/L	4249.3	ppb	13:08:41
2	Mg 279.077 IEC†	186.0	175.3	5676.9	ug/L	5676.9	ppb	13:09:01
2	Na 589.592 Radial†	4817.4	5880.3	1737.4	ug/L	1737.4	ppb	13:08:41
2	Sr 421.552†	5178.1	4955.5	32.845	ug/L	32.845	ppb	13:08:41
2	Sc 361.383	944191.4	944191.4	102.72	%			13:10:06
2	Y 371.029	929270.4	929270.4	121.82	%			13:10:06
2	Ag 328.068†	-6795.5	-6911.4	4.7611	ug/L	4.7611	ppb	13:10:11
2	As 188.979†	-111.5	-74.5	50.555	ug/L	50.555	ppb	13:10:31
2	B 249.677†	349.0	1101.9	7.1600	ug/L	7.1600	ppb	13:10:11
2	Ba 233.527†	28119.1	27381.6	209.69	ug/L	209.69	ppb	13:10:11
2	Be 313.107†	-48009.5	-41802.2	0.3845	ug/L	0.3845	ppb	13:10:11
2	Cd 226.502†	761.5	952.6	-0.4408	ug/L	-0.4408	ppb	13:10:31
2	Co 228.616†	1228.3	1280.5	9.8122	ug/L	9.8122	ppb	13:10:31
2	Cr 267.716†	3412.1	3253.8	36.994	ug/L	36.994	ppb	13:10:31
2	Cu 324.752†	10632.3	4104.1	17.277	ug/L	17.277	ppb	13:10:11
2	Mn 257.610†	2786721.4	2712338.0	2902.9	ug/L	2902.9	ppb	13:10:06
2	Mo 202.031†	15.9	0.1	8.0149	ug/L	8.0149	ppb	13:10:31
2	Ni 231.604†	1377.0	1247.4	29.203	ug/L	29.203	ppb	13:10:31

2	P 214.914†	5041.9	4667.8	2513.4	ug/L	2513.4 ppb	13:10:31
2	Pb 220.353†	280.0	341.1	30.634	ug/L	30.634 ppb	13:10:31
2	S 181.975 Axial†	92.3	42.9	54.424	ug/L	54.424 ppb	13:10:31
2	Sb 206.836†	87.2	51.3	-6.7264	ug/L	-6.7264 ppb	13:10:31
2	Se 196.026†	-532.0	-498.9	33.836	ug/L	33.836 ppb	13:10:31
2	Si 251.611†	152854.4	148075.9	4562.4	ug/L	4562.4 ppb	13:10:11
2	Sn 189.927†	82.7	70.2	14.885	ug/L	14.885 ppb	13:10:31
2	Ti 334.940†	4532081.3	4413569.2	6593.6	ug/L	6593.6 ppb	13:10:06
2	Tl 190.801†	-277.2	-230.9	0.4194	ug/L	0.4194 ppb	13:10:31
2	U 409.014†	-17000.5	-12994.6	-372.34	ug/L	-372.34 ppb	13:10:06
2	V 292.402†	14242.8	15502.4	82.062	ug/L	82.062 ppb	13:10:11
2	Zn 213.857†	55003.8	52862.2	451.87	ug/L	451.87 ppb	13:10:11
2	SiO2†	150622.3	145828.3	9591.0	ug/L	9591.0 ppb	13:11:13
3	Sc Radial	5246.1	5246.1	105	%		13:09:06
3	Y RADIAL	6566.1	6566.1	124.5	%		13:09:06
3	Al 396.153Radial†	10826.6	10532.3	9089.1	ug/L	9089.1 ppb	13:09:06
3	Ca 317.933Radial†	6230.2	5935.4	9287.6	ug/L	9287.6 ppb	13:09:06
3	Fe 238.204 Radial†	12258.0	11703.8	100880	ug/L	100880 ppb	13:09:06
3	K 766.490 Radial†	27025.4	23119.8	4198.3	ug/L	4198.3 ppb	13:09:06
3	Mg 279.077 IEC†	186.5	175.0	5667.3	ug/L	5667.3 ppb	13:09:26
3	Na 589.592 Radial†	4767.4	5813.7	1717.7	ug/L	1717.7 ppb	13:09:06
3	Sr 421.552†	5186.2	4942.9	32.762	ug/L	32.762 ppb	13:09:06
3	Sc 361.383	936745.7	936745.7	101.91	%		13:10:37
3	Y 371.029	923136.8	923136.8	121.02	%		13:10:37
3	Ag 328.068†	-6742.5	-6912.1	4.4698	ug/L	4.4698 ppb	13:10:42
3	As 188.979†	-106.6	-70.5	51.891	ug/L	51.891 ppb	13:11:02
3	B 249.677†	363.0	1118.3	7.6535	ug/L	7.6535 ppb	13:10:42
3	Ba 233.527†	28109.3	27589.6	211.23	ug/L	211.23 ppb	13:10:42
3	Be 313.107†	-48468.4	-42623.9	0.0746	ug/L	0.0746 ppb	13:10:42
3	Cd 226.502†	743.7	941.0	-0.4760	ug/L	-0.4760 ppb	13:11:02
3	Co 228.616†	1218.0	1279.9	9.8351	ug/L	9.8351 ppb	13:11:02
3	Cr 267.716†	3408.2	3276.4	37.219	ug/L	37.219 ppb	13:11:02
3	Cu 324.752†	10486.0	4042.8	17.058	ug/L	17.058 ppb	13:10:42
3	Mn 257.610†	2756504.5	2704251.1	2894.2	ug/L	2894.2 ppb	13:10:37
3	Mo 202.031†	21.1	5.3	8.3079	ug/L	8.3079 ppb	13:11:02
3	Ni 231.604†	1374.5	1255.6	29.396	ug/L	29.396 ppb	13:11:02
3	P 214.914†	4992.1	4658.0	2508.7	ug/L	2508.7 ppb	13:11:02
3	Pb 220.353†	249.0	312.9	27.537	ug/L	27.537 ppb	13:11:02
3	S 181.975 Axial†	107.1	58.2	74.467	ug/L	74.467 ppb	13:11:02
3	Sb 206.836†	90.5	55.2	-5.4058	ug/L	-5.4058 ppb	13:11:02
3	Se 196.026†	-538.4	-509.3	24.765	ug/L	24.765 ppb	13:11:02
3	Si 251.611†	150395.0	146845.3	4524.5	ug/L	4524.5 ppb	13:10:42
3	Sn 189.927†	96.2	84.0	17.176	ug/L	17.176 ppb	13:11:02
3	Ti 334.940†	4489363.3	4406721.0	6583.4	ug/L	6583.4 ppb	13:10:37
3	Tl 190.801†	-272.9	-228.9	0.8979	ug/L	0.8979 ppb	13:11:02
3	U 409.014†	-16901.3	-13028.7	-373.19	ug/L	-373.19 ppb	13:10:37
3	V 292.402†	14096.2	15468.6	81.973	ug/L	81.973 ppb	13:10:42
3	Zn 213.857†	54480.3	52774.1	451.26	ug/L	451.26 ppb	13:10:42
3	SiO2†	152004.6	148350.1	9756.8	ug/L	9756.8 ppb	13:11:19

Mean Data: 246333002|949911|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	939499.5	102.21	%	0.444				0.43%
Sc Radial	5238.5	105	%	0.2				0.23%
Y 371.029	925274.4	121.30	%	0.454				0.37%
Y RADIAL	6575.3	124.7	%	0.19				0.15%
Ag 328.068†	-6903.7	4.6231	ug/L	0.14623	4.6231	ppb	0.14623	3.16%
Al 396.153Radial†	10553.9	9107.8	ug/L	59.41	9107.8	ppb	59.41	0.65%
As 188.979†	-71.7	51.452	ug/L	0.7764	51.452	ppb	0.7764	1.51%
B 249.677†	1112.4	7.4686	ug/L	0.26902	7.4686	ppb	0.26902	3.60%
Ba 233.527†	27516.0	210.69	ug/L	0.865	210.69	ppb	0.865	0.41%
Be 313.107†	-42208.0	0.2151	ug/L	0.15696	0.2151	ppb	0.15696	72.98%
Ca 317.933Radial†	5936.0	9288.6	ug/L	50.96	9288.6	ppb	50.96	0.55%
Cd 226.502†	956.3	-0.3487	ug/L	0.19071	-0.3487	ppb	0.19071	54.69%
Co 228.616†	1291.5	10.060	ug/L	0.4100	10.060	ppb	0.4100	4.08%
Cr 267.716†	3270.7	37.164	ug/L	0.1508	37.164	ppb	0.1508	0.41%
Cu 324.752†	4080.1	17.182	ug/L	0.1125	17.182	ppb	0.1125	0.65%
Fe 238.204 Radial†	11743.8	101220	ug/L	452.0	101220	ppb	452.0	0.45%
K 766.490 Radial†	23260.0	4223.8	ug/L	25.50	4223.8	ppb	25.50	0.60%

Mg 279.077 IEC†	177.1	5737.2	ug/L	112.83	5737.2	ppb	112.83	1.97%
Mn 257.610†	2706353.7	2896.4	ug/L	5.65	2896.4	ppb	5.65	0.20%
Mo 202.031†	5.0	8.3163	ug/L	0.30573	8.3163	ppb	0.30573	3.68%
Na 589.592 Radial†	5842.2	1726.2	ug/L	10.16	1726.2	ppb	10.16	0.59%
Ni 231.604†	1249.2	29.245	ug/L	0.1347	29.245	ppb	0.1347	0.46%
P 214.914†	4684.0	2522.8	ug/L	20.54	2522.8	ppb	20.54	0.81%
Pb 220.353†	332.7	29.723	ug/L	1.9025	29.723	ppb	1.9025	6.40%
S 181.975 Axial†	47.2	60.157	ug/L	12.4738	60.157	ppb	12.4738	20.74%
Sb 206.836†	54.3	-5.7053	ug/L	0.90907	-5.7053	ppb	0.90907	15.93%
Se 196.026†	-503.7	29.257	ug/L	4.5360	29.257	ppb	4.5360	15.50%
Si 251.611†	147548.9	4546.2	ug/L	19.54	4546.2	ppb	19.54	0.43%
Sn 189.927†	75.8	15.812	ug/L	1.2062	15.812	ppb	1.2062	7.63%
Sr 421.552†	4944.4	32.772	ug/L	0.0684	32.772	ppb	0.0684	0.21%
Ti 334.940†	4405345.3	6581.3	ug/L	13.45	6581.3	ppb	13.45	0.20%
Tl 190.801†	-228.6	0.9642	ug/L	0.58080	0.9642	ppb	0.58080	60.23%
U 409.014†	-12987.3	-372.08	ug/L	1.261	-372.08	ppb	1.261	0.34%
V 292.402†	15515.9	82.247	ug/L	0.3999	82.247	ppb	0.3999	0.49%
Zn 213.857†	52839.8	451.78	ug/L	0.477	451.78	ppb	0.477	0.11%
SiO2†	146926.0	9663.2	ug/L	84.98	9663.2	ppb	84.98	0.88%

Sequence No.: 9
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/8/2010 13:13:30
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5289.6	5289.6	106	%			13:15:22
1	Y RADIAL	5503.5	5503.5	104.3	%			13:15:22
1	Al 396.153Radial†	5620.8	5514.4	4734.9	ug/L	4734.9	ppb	13:15:22
1	Ca 317.933Radial†	3291.1	3101.5	4853.2	ug/L	4853.2	ppb	13:15:42
1	Fe 238.204 Radial†	610.1	570.4	4931.0	ug/L	4931.0	ppb	13:15:42
1	K 766.490 Radial†	30601.6	26296.2	4774.6	ug/L	4774.6	ppb	13:15:22
1	Mg 279.077 IEC†	162.8	151.1	4985.7	ug/L	4985.7	ppb	13:15:42
1	Na 589.592 Radial†	32437.9	31995.6	9453.6	ug/L	9453.6	ppb	13:15:22
1	Sr 421.552†	76812.4	72772.3	483.32	ug/L	483.32	ppb	13:15:22
1	Sc 361.383	919713.3	919713.3	100.06	%			13:16:40
1	Y 371.029	754596.0	754596.0	98.924	%			13:16:40
1	Ag 328.068†	114740.8	114377.4	502.52	ug/L	502.52	ppb	13:16:45
1	As 188.979†	1148.8	1182.2	486.74	ug/L	486.74	ppb	13:17:05
1	B 249.677†	22185.3	22934.4	492.16	ug/L	492.16	ppb	13:16:45
1	Ba 233.527†	65988.2	65957.1	498.34	ug/L	498.34	ppb	13:16:45
1	Be 313.107†	1405321.0	1409431.2	492.80	ug/L	492.80	ppb	13:16:40
1	Cd 226.502†	46792.6	46976.4	498.91	ug/L	498.91	ppb	13:16:45
1	Co 228.616†	25425.9	25495.7	498.00	ug/L	498.00	ppb	13:16:45
1	Cr 267.716†	46910.4	46815.0	500.23	ug/L	500.23	ppb	13:16:45
1	Cu 324.752†	180025.1	173673.0	494.77	ug/L	494.77	ppb	13:16:45
1	Mn 257.610†	464366.9	463550.0	494.72	ug/L	494.72	ppb	13:16:40
1	Mo 202.031†	7159.5	7139.9	493.25	ug/L	493.25	ppb	13:17:05
1	Ni 231.604†	21477.1	21371.4	500.29	ug/L	500.29	ppb	13:16:45
1	P 214.914†	4579.4	4336.2	2314.5	ug/L	2314.5	ppb	13:17:05
1	Pb 220.353†	4299.8	4365.8	490.79	ug/L	490.79	ppb	13:17:05
1	S 181.975 Axial†	774.3	726.9	950.96	ug/L	950.96	ppb	13:17:05
1	Sb 206.836†	1609.5	1574.9	507.24	ug/L	507.24	ppb	13:17:05
1	Se 196.026†	792.1	810.7	505.75	ug/L	505.75	ppb	13:17:05
1	Si 251.611†	81158.3	80382.2	2470.6	ug/L	2470.6	ppb	13:16:45
1	Sn 189.927†	2973.8	2961.7	496.67	ug/L	496.67	ppb	13:17:05
1	Ti 334.940†	331075.2	332454.4	496.44	ug/L	496.44	ppb	13:16:40
1	Tl 190.801†	1641.4	1679.4	496.49	ug/L	496.49	ppb	13:17:05
1	U 409.014†	14751.7	18298.5	506.20	ug/L	506.20	ppb	13:16:45
1	V 292.402†	72383.6	73978.0	505.07	ug/L	505.07	ppb	13:16:45
1	Zn 213.857†	56283.3	55566.1	493.27	ug/L	493.27	ppb	13:16:45
1	SiO2†	80986.8	80136.2	5257.1	ug/L	5257.1	ppb	13:18:13
2	Sc Radial	5120.2	5120.2	102	%			13:15:47
2	Y RADIAL	5369.4	5369.4	101.8	%			13:15:47
2	Al 396.153Radial†	5797.0	5863.1	5035.9	ug/L	5035.9	ppb	13:15:47
2	Ca 317.933Radial†	3303.7	3217.0	5033.9	ug/L	5033.9	ppb	13:16:07
2	Fe 238.204 Radial†	616.2	595.4	5146.9	ug/L	5146.9	ppb	13:16:07
2	K 766.490 Radial†	30962.0	27608.6	5013.0	ug/L	5013.0	ppb	13:15:47
2	Mg 279.077 IEC†	162.7	156.1	5150.2	ug/L	5150.2	ppb	13:16:07
2	Na 589.592 Radial†	32974.5	33538.0	9909.3	ug/L	9909.3	ppb	13:15:47
2	Sr 421.552†	78422.5	76756.8	509.78	ug/L	509.78	ppb	13:15:47
2	Sc 361.383	927251.7	927251.7	100.88	%			13:17:11
2	Y 371.029	760872.1	760872.1	99.747	%			13:17:11
2	Ag 328.068†	113432.0	112147.8	492.84	ug/L	492.84	ppb	13:17:16
2	As 188.979†	1160.8	1184.8	487.86	ug/L	487.86	ppb	13:17:36
2	B 249.677†	21983.2	22553.8	483.95	ug/L	483.95	ppb	13:17:16
2	Ba 233.527†	65306.2	64744.9	489.19	ug/L	489.19	ppb	13:17:16
2	Be 313.107†	1414272.0	1406885.9	491.91	ug/L	491.91	ppb	13:17:11
2	Cd 226.502†	46334.5	46142.2	490.02	ug/L	490.02	ppb	13:17:16
2	Co 228.616†	25164.7	25030.2	488.90	ug/L	488.90	ppb	13:17:16
2	Cr 267.716†	46425.6	45953.3	491.03	ug/L	491.03	ppb	13:17:16
2	Cu 324.752†	177704.1	169909.5	484.07	ug/L	484.07	ppb	13:17:16
2	Mn 257.610†	466933.0	462320.8	493.42	ug/L	493.42	ppb	13:17:11
2	Mo 202.031†	7184.1	7106.2	490.94	ug/L	490.94	ppb	13:17:36
2	Ni 231.604†	21204.9	20927.0	489.89	ug/L	489.89	ppb	13:17:16

2	P 214.914†	4602.9	4322.3	2308.7 ug/L	2308.7 ppb	13:17:36
2	Pb 220.353†	4287.0	4318.2	485.50 ug/L	485.50 ppb	13:17:36
2	S 181.975 Axial†	783.5	729.7	954.52 ug/L	954.52 ppb	13:17:36
2	Sb 206.836†	1618.4	1570.7	505.76 ug/L	505.76 ppb	13:17:36
2	Se 196.026†	786.1	798.3	499.01 ug/L	499.01 ppb	13:17:36
2	Si 251.611†	80238.2	78810.8	2422.2 ug/L	2422.2 ppb	13:17:16
2	Sn 189.927†	2963.7	2927.6	490.98 ug/L	490.98 ppb	13:17:36
2	Ti 334.940†	333559.1	332226.7	496.12 ug/L	496.12 ppb	13:17:11
2	Tl 190.801†	1638.8	1663.4	491.84 ug/L	491.84 ppb	13:17:36
2	U 409.014†	14355.0	17785.4	491.95 ug/L	491.95 ppb	13:17:16
2	V 292.402†	71596.9	72610.0	495.77 ug/L	495.77 ppb	13:17:16
2	Zn 213.857†	55708.2	54538.7	484.09 ug/L	484.09 ppb	13:17:16
2	SiO2†	80077.3	78576.6	5154.5 ug/L	5154.5 ppb	13:18:18
3	Sc Radial	5021.5	5021.5	100 %		13:16:12
3	Y RADIAL	5249.4	5249.4	99.53 %		13:16:12
3	Al 396.153Radial†	5647.7	5825.6	5002.9 ug/L	5002.9 ppb	13:16:12
3	Ca 317.933Radial†	3273.7	3250.6	5086.5 ug/L	5086.5 ppb	13:16:32
3	Fe 238.204 Radial†	608.4	599.5	5182.4 ug/L	5182.4 ppb	13:16:32
3	K 766.490 Radial†	30780.4	28022.6	5088.2 ug/L	5088.2 ppb	13:16:12
3	Mg 279.077 IEC†	162.0	158.5	5231.1 ug/L	5231.1 ppb	13:16:32
3	Na 589.592 Radial†	32439.9	33638.5	9939.0 ug/L	9939.0 ppb	13:16:12
3	Sr 421.552†	77270.9	77115.3	512.16 ug/L	512.16 ppb	13:16:12
3	Sc 361.383	912019.5	912019.5	99.222 %		13:17:42
3	Y 371.029	750140.6	750140.6	98.340 %		13:17:42
3	Ag 328.068†	114170.4	114770.0	504.33 ug/L	504.33 ppb	13:17:48
3	As 188.979†	1189.4	1232.8	507.42 ug/L	507.42 ppb	13:18:08
3	B 249.677†	22049.7	22984.9	493.21 ug/L	493.21 ppb	13:17:48
3	Ba 233.527†	65718.0	66241.1	500.49 ug/L	500.49 ppb	13:17:48
3	Be 313.107†	1389768.6	1405605.0	491.46 ug/L	491.46 ppb	13:17:42
3	Cd 226.502†	46430.8	47006.3	499.20 ug/L	499.20 ppb	13:17:48
3	Co 228.616†	25230.9	25513.6	498.38 ug/L	498.38 ppb	13:17:48
3	Cr 267.716†	46727.2	47025.9	502.49 ug/L	502.49 ppb	13:17:48
3	Cu 324.752†	178971.8	174129.2	496.09 ug/L	496.09 ppb	13:17:48
3	Mn 257.610†	458023.3	461071.8	492.09 ug/L	492.09 ppb	13:17:42
3	Mo 202.031†	7279.7	7321.4	505.80 ug/L	505.80 ppb	13:18:08
3	Ni 231.604†	21347.8	21422.1	501.48 ug/L	501.48 ppb	13:17:48
3	P 214.914†	4672.1	4468.2	2387.6 ug/L	2387.6 ppb	13:18:08
3	Pb 220.353†	4384.1	4487.1	504.45 ug/L	504.45 ppb	13:18:08
3	S 181.975 Axial†	797.7	757.0	990.32 ug/L	990.32 ppb	13:18:08
3	Sb 206.836†	1635.5	1614.7	520.05 ug/L	520.05 ppb	13:18:08
3	Se 196.026†	808.3	833.6	520.44 ug/L	520.44 ppb	13:18:08
3	Si 251.611†	80544.7	80448.1	2472.5 ug/L	2472.5 ppb	13:17:48
3	Sn 189.927†	3023.2	3036.5	509.23 ug/L	509.23 ppb	13:18:08
3	Ti 334.940†	327125.2	331264.7	494.67 ug/L	494.67 ppb	13:17:42
3	Tl 190.801†	1669.5	1721.5	508.81 ug/L	508.81 ppb	13:18:08
3	U 409.014†	14474.4	18143.4	501.86 ug/L	501.86 ppb	13:17:48
3	V 292.402†	72113.1	74315.7	507.48 ug/L	507.48 ppb	13:17:48
3	Zn 213.857†	55960.6	55715.4	494.54 ug/L	494.54 ppb	13:17:48
3	SiO2†	81093.8	80926.9	5308.7 ug/L	5308.7 ppb	13:18:23

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	919661.5	100.05	%	0.829				0.83%
Sc Radial	5143.8	103	%	2.7				2.64%
Y 371.029	755202.9	99.004	%	0.7068				0.71%
Y RADIAL	5374.1	101.9	%	2.41				2.37%
Ag 328.068†	113765.0	499.90	ug/L	6.182	499.90	ppb	6.182	1.24%
QC value within limits for Ag 328.068 Recovery = 99.98%								
Al 396.153Radial†	5734.4	4924.6	ug/L	165.09	4924.6	ppb	165.09	3.35%
QC value within limits for Al 396.153Radial Recovery = 98.49%								
As 188.979†	1200.0	494.00	ug/L	11.631	494.00	ppb	11.631	2.35%
QC value within limits for As 188.979 Recovery = 98.80%								
B 249.677†	22824.4	489.77	ug/L	5.070	489.77	ppb	5.070	1.04%
QC value within limits for B 249.677 Recovery = 97.95%								
Ba 233.527†	65647.7	496.01	ug/L	6.002	496.01	ppb	6.002	1.21%
QC value within limits for Ba 233.527 Recovery = 99.20%								
Be 313.107†	1407307.4	492.06	ug/L	0.681	492.06	ppb	0.681	0.14%
QC value within limits for Be 313.107 Recovery = 98.41%								
Ca 317.933Radial†	3189.7	4991.2	ug/L	122.38	4991.2	ppb	122.38	2.45%

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   QC value within limits for Ca 317.933Radial  Recovery = 99.82%
Cd 226.502†            46708.3      496.05 ug/L         5.221      496.05 ppb          5.221   1.05%
   QC value within limits for Cd 226.502  Recovery = 99.21%
Co 228.616†            25346.5      495.09 ug/L         5.366      495.09 ppb          5.366   1.08%
   QC value within limits for Co 228.616  Recovery = 99.02%
Cr 267.716†            46598.1      497.91 ug/L         6.070      497.91 ppb          6.070   1.22%
   QC value within limits for Cr 267.716  Recovery = 99.58%
Cu 324.752†           172570.6      491.64 ug/L         6.592      491.64 ppb          6.592   1.34%
   QC value within limits for Cu 324.752  Recovery = 98.33%
Fe 238.204 Radial†       588.4      5086.8 ug/L        136.06      5086.8 ppb         136.06   2.67%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.74%
K 766.490 Radial†      27309.1      4958.6 ug/L        163.71      4958.6 ppb         163.71   3.30%
   QC value within limits for K 766.490 Radial  Recovery = 99.17%
Mg 279.077 IEC†          155.2      5122.3 ug/L        125.04      5122.3 ppb         125.04   2.44%
   QC value within limits for Mg 279.077 IEC  Recovery = 102.45%
Mn 257.610†           462314.2      493.41 ug/L         1.314      493.41 ppb          1.314   0.27%
   QC value within limits for Mn 257.610  Recovery = 98.68%
Mo 202.031†             7189.2      496.67 ug/L         7.996      496.67 ppb          7.996   1.61%
   QC value within limits for Mo 202.031  Recovery = 99.33%
Na 589.592 Radial†     33057.4      9767.3 ug/L        272.08      9767.3 ppb         272.08   2.79%
   QC value within limits for Na 589.592 Radial  Recovery = 97.67%
Ni 231.604†            21240.2      497.22 ug/L         6.377      497.22 ppb          6.377   1.28%
   QC value within limits for Ni 231.604  Recovery = 99.44%
P 214.914†              4375.6      2337.0 ug/L        43.98      2337.0 ppb          43.98   1.88%
   QC value within limits for P 214.914  Recovery = 93.48%
Pb 220.353†             4390.4      493.58 ug/L         9.775      493.58 ppb          9.775   1.98%
   QC value within limits for Pb 220.353  Recovery = 98.72%
S 181.975 Axial†         737.9      965.27 ug/L        21.767      965.27 ppb         21.767   2.26%
   QC value within limits for S 181.975 Axial  Recovery = 96.53%
Sb 206.836†             1586.8      511.01 ug/L         7.859      511.01 ppb          7.859   1.54%
   QC value within limits for Sb 206.836  Recovery = 102.20%
Se 196.026†              814.2      508.40 ug/L        10.959      508.40 ppb         10.959   2.16%
   QC value within limits for Se 196.026  Recovery = 101.68%
Si 251.611†            79880.4      2455.1 ug/L        28.49      2455.1 ppb          28.49   1.16%
   QC value within limits for Si 251.611  Recovery = 98.20%
Sn 189.927†             2975.3      498.96 ug/L         9.339      498.96 ppb          9.339   1.87%
   QC value within limits for Sn 189.927  Recovery = 99.79%
Sr 421.552†            75548.1      501.76 ug/L        16.011      501.76 ppb         16.011   3.19%
   QC value within limits for Sr 421.552  Recovery = 100.35%
Ti 334.940†           331981.9      495.74 ug/L         0.940      495.74 ppb          0.940   0.19%
   QC value within limits for Ti 334.940  Recovery = 99.15%
Tl 190.801†             1688.1      499.05 ug/L         8.772      499.05 ppb          8.772   1.76%
   QC value within limits for Tl 190.801  Recovery = 99.81%
U 409.014†             18075.8      500.01 ug/L         7.302      500.01 ppb          7.302   1.46%
   QC value within limits for U 409.014  Recovery = 100.00%
V 292.402†             73634.6      502.77 ug/L         6.186      502.77 ppb          6.186   1.23%
   QC value within limits for V 292.402  Recovery = 100.55%
Zn 213.857†            55273.4      490.63 ug/L         5.702      490.63 ppb          5.702   1.16%
   QC value within limits for Zn 213.857  Recovery = 98.13%
SiO2†                  79879.9      5240.1 ug/L        78.47      5240.1 ppb          78.47   1.50%
   QC value within limits for SiO2  Recovery = 97.99%
All analyte(s) passed QC.
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Sequence No.: 10
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/8/2010 13:20:34
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5055.1	5055.1	101	%			13:22:26
1	Y RADIAL	5344.9	5344.9	101.3	%			13:22:26
1	Al 396.153Radial†	-170.8	19.1	16.421	ug/L	16.421	ppb	13:22:26
1	Ca 317.933Radial†	24.6	7.4	11.507	ug/L	11.507	ppb	13:22:46
1	Fe 238.204 Radial†	10.3	2.4	20.903	ug/L	20.903	ppb	13:22:46
1	K 766.490 Radial†	2902.5	177.3	32.223	ug/L	32.223	ppb	13:22:26
1	Mg 279.077 IEC†	7.1	3.9	128.23	ug/L	128.23	ppb	13:22:46
1	Na 589.592 Radial†	-1262.1	7.5	2.2132	ug/L	2.2132	ppb	13:22:26
1	Sr 421.552†	32.9	20.5	0.1362	ug/L	0.1362	ppb	13:22:26
1	Sc 361.383	928959.7	928959.7	101.06	%			13:23:43
1	Y 371.029	771988.8	771988.8	101.20	%			13:23:43
1	Ag 328.068†	410.0	109.7	0.4820	ug/L	0.4820	ppb	13:23:48
1	As 188.979†	-27.9	6.5	2.6652	ug/L	2.6652	ppb	13:24:08
1	B 249.677†	-351.6	414.3	8.9259	ug/L	8.9259	ppb	13:24:08
1	Ba 233.527†	-6.5	1.2	0.0104	ug/L	0.0104	ppb	13:24:08
1	Be 313.107†	-4624.1	359.8	0.1260	ug/L	0.1260	ppb	13:23:48
1	Cd 226.502†	-197.3	16.0	0.1694	ug/L	0.1694	ppb	13:24:08
1	Co 228.616†	-76.5	9.1	0.1781	ug/L	0.1781	ppb	13:24:08
1	Cr 267.716†	66.8	-1.8	-0.0203	ug/L	-0.0203	ppb	13:24:08
1	Cu 324.752†	6208.0	-103.8	-0.2982	ug/L	-0.2982	ppb	13:23:48
1	Mn 257.610†	542.8	-7.1	-0.0108	ug/L	-0.0108	ppb	13:24:08
1	Mo 202.031†	24.3	8.7	0.5995	ug/L	0.5995	ppb	13:24:08
1	Ni 231.604†	105.2	11.0	0.2567	ug/L	0.2567	ppb	13:24:08
1	P 214.914†	230.2	-12.7	-7.0060	ug/L	-7.0060	ppb	13:24:08
1	Pb 220.353†	-56.3	12.8	1.4374	ug/L	1.4374	ppb	13:24:08
1	S 181.975 Axial†	39.0	-8.3	-10.917	ug/L	-10.917	ppb	13:24:08
1	Sb 206.836†	39.0	5.0	1.5652	ug/L	1.5652	ppb	13:24:08
1	Se 196.026†	-24.6	-5.4	-3.1637	ug/L	-3.1637	ppb	13:24:08
1	Si 251.611†	704.0	-31.8	-0.9880	ug/L	-0.9880	ppb	13:24:08
1	Sn 189.927†	14.0	3.5	0.5964	ug/L	0.5964	ppb	13:24:08
1	Ti 334.940†	-1453.5	135.4	0.1906	ug/L	0.1906	ppb	13:23:48
1	Tl 190.801†	-23.5	15.6	4.5952	ug/L	4.5952	ppb	13:24:08
1	U 409.014†	-3362.3	228.6	6.3427	ug/L	6.3427	ppb	13:23:43
1	V 292.402†	-1597.1	56.6	0.4011	ug/L	0.4011	ppb	13:23:48
1	Zn 213.857†	776.2	83.8	0.7458	ug/L	0.7458	ppb	13:24:08
1	SiO2†	759.6	-51.4	-3.3958	ug/L	-3.3958	ppb	13:25:14
2	Sc Radial	5068.1	5068.1	101	%			13:22:51
2	Y RADIAL	5361.6	5361.6	101.7	%			13:22:51
2	Al 396.153Radial†	-177.8	12.6	10.847	ug/L	10.847	ppb	13:22:51
2	Ca 317.933Radial†	26.5	9.1	14.303	ug/L	14.303	ppb	13:23:11
2	Fe 238.204 Radial†	10.2	2.3	19.825	ug/L	19.825	ppb	13:23:11
2	K 766.490 Radial†	2776.5	45.3	8.2266	ug/L	8.2266	ppb	13:22:51
2	Mg 279.077 IEC†	0.5	-2.6	-87.341	ug/L	-87.341	ppb	13:23:11
2	Na 589.592 Radial†	-1301.0	-27.8	-8.2265	ug/L	-8.2265	ppb	13:22:51
2	Sr 421.552†	3.7	-8.4	-0.0560	ug/L	-0.0560	ppb	13:22:51
2	Sc 361.383	924249.4	924249.4	100.55	%			13:24:13
2	Y 371.029	768704.8	768704.8	100.77	%			13:24:13
2	Ag 328.068†	370.1	72.1	0.3166	ug/L	0.3166	ppb	13:24:18
2	As 188.979†	-20.8	13.4	5.4735	ug/L	5.4735	ppb	13:24:38
2	B 249.677†	-374.6	389.6	8.3945	ug/L	8.3945	ppb	13:24:38
2	Ba 233.527†	-18.2	-10.5	-0.0790	ug/L	-0.0790	ppb	13:24:38
2	Be 313.107†	-4669.2	291.7	0.1024	ug/L	0.1024	ppb	13:24:18
2	Cd 226.502†	-191.0	21.4	0.2262	ug/L	0.2262	ppb	13:24:38
2	Co 228.616†	-78.1	7.1	0.1383	ug/L	0.1383	ppb	13:24:38
2	Cr 267.716†	80.4	12.1	0.1278	ug/L	0.1278	ppb	13:24:38
2	Cu 324.752†	6176.1	-104.3	-0.2990	ug/L	-0.2990	ppb	13:24:18
2	Mn 257.610†	480.9	-65.9	-0.0648	ug/L	-0.0648	ppb	13:24:38
2	Mo 202.031†	17.2	1.7	0.1209	ug/L	0.1209	ppb	13:24:38
2	Ni 231.604†	103.7	10.1	0.2356	ug/L	0.2356	ppb	13:24:38

2	P 214.914†	234.8	-7.0	-3.8624 ug/L	-3.8624 ppb	13:24:38
2	Pb 220.353†	-81.3	-12.3	-1.3727 ug/L	-1.3727 ppb	13:24:38
2	S 181.975 Axial†	43.1	-4.1	-5.3672 ug/L	-5.3672 ppb	13:24:38
2	Sb 206.836†	43.2	9.4	2.9075 ug/L	2.9075 ppb	13:24:38
2	Se 196.026†	-29.4	-10.2	-6.1012 ug/L	-6.1012 ppb	13:24:38
2	Si 251.611†	696.9	-35.3	-1.0900 ug/L	-1.0900 ppb	13:24:38
2	Sn 189.927†	7.4	-3.0	-0.4919 ug/L	-0.4919 ppb	13:24:38
2	Ti 334.940†	-1396.0	185.3	0.2834 ug/L	0.2834 ppb	13:24:18
2	Tl 190.801†	-43.1	-3.9	-1.1441 ug/L	-1.1441 ppb	13:24:38
2	U 409.014†	-3383.7	190.4	5.2807 ug/L	5.2807 ppb	13:24:13
2	V 292.402†	-1657.6	-11.5	-0.0709 ug/L	-0.0709 ppb	13:24:18
2	Zn 213.857†	803.7	115.1	1.0263 ug/L	1.0263 ppb	13:24:38
2	SiO2†	736.8	-70.2	-4.6213 ug/L	-4.6213 ppb	13:25:19
3	Sc Radial	5089.3	5089.3	102 %		13:23:16
3	Y RADIAL	5343.3	5343.3	101.3 %		13:23:16
3	Al 396.153Radial†	-201.5	-10.1	-8.7595 ug/L	-8.7595 ppb	13:23:16
3	Ca 317.933Radial†	32.8	15.3	23.921 ug/L	23.921 ppb	13:23:36
3	Fe 238.204 Radial†	7.9	0.0	0.2943 ug/L	0.2943 ppb	13:23:36
3	K 766.490 Radial†	2805.5	62.4	11.325 ug/L	11.325 ppb	13:23:16
3	Mg 279.077 IEC†	2.2	-1.0	-33.510 ug/L	-33.510 ppb	13:23:36
3	Na 589.592 Radial†	-1246.9	30.8	9.1042 ug/L	9.1042 ppb	13:23:16
3	Sr 421.552†	22.2	9.8	0.0652 ug/L	0.0652 ppb	13:23:16
3	Sc 361.383	912758.2	912758.2	99.302 %		13:24:44
3	Y 371.029	759643.9	759643.9	99.586 %		13:24:44
3	Ag 328.068†	341.6	48.0	0.2092 ug/L	0.2092 ppb	13:24:49
3	As 188.979†	-24.0	9.9	4.0324 ug/L	4.0324 ppb	13:25:09
3	B 249.677†	-390.2	369.2	7.9587 ug/L	7.9587 ppb	13:25:09
3	Ba 233.527†	-14.1	-6.6	-0.0495 ug/L	-0.0495 ppb	13:25:09
3	Be 313.107†	-4661.3	241.2	0.0843 ug/L	0.0843 ppb	13:24:49
3	Cd 226.502†	-213.2	-3.5	-0.0369 ug/L	-0.0369 ppb	13:25:09
3	Co 228.616†	-73.9	10.4	0.2037 ug/L	0.2037 ppb	13:25:09
3	Cr 267.716†	64.1	-3.3	-0.0349 ug/L	-0.0349 ppb	13:25:09
3	Cu 324.752†	6221.5	18.7	0.0529 ug/L	0.0529 ppb	13:24:49
3	Mn 257.610†	507.7	-33.0	-0.0338 ug/L	-0.0338 ppb	13:25:09
3	Mo 202.031†	22.8	7.6	0.5218 ug/L	0.5218 ppb	13:25:09
3	Ni 231.604†	67.9	-24.8	-0.5804 ug/L	-0.5804 ppb	13:25:09
3	P 214.914†	225.2	-13.7	-7.6074 ug/L	-7.6074 ppb	13:25:09
3	Pb 220.353†	-77.1	-9.1	-1.0168 ug/L	-1.0168 ppb	13:25:09
3	S 181.975 Axial†	47.0	0.3	0.4495 ug/L	0.4495 ppb	13:25:09
3	Sb 206.836†	42.4	9.1	2.8445 ug/L	2.8445 ppb	13:25:09
3	Se 196.026†	-20.6	-1.7	-1.0358 ug/L	-1.0358 ppb	13:25:09
3	Si 251.611†	676.2	-47.5	-1.4694 ug/L	-1.4694 ppb	13:25:09
3	Sn 189.927†	12.1	1.8	0.3076 ug/L	0.3076 ppb	13:25:09
3	Ti 334.940†	-1518.3	44.6	0.0722 ug/L	0.0722 ppb	13:24:49
3	Tl 190.801†	-32.0	6.7	1.9653 ug/L	1.9653 ppb	13:25:09
3	U 409.014†	-3501.0	29.9	0.8296 ug/L	0.8296 ppb	13:24:44
3	V 292.402†	-1604.5	21.2	0.1509 ug/L	0.1509 ppb	13:24:49
3	Zn 213.857†	791.3	112.7	1.0140 ug/L	1.0140 ppb	13:25:09
3	SiO2†	712.3	-85.7	-5.6537 ug/L	-5.6537 ppb	13:25:24

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	921989.1	100.31	%	0.907				0.90%
Sc Radial	5070.8	101	%	0.3				0.34%
Y 371.029	766779.2	100.52	%	0.838				0.83%
Y RADIAL	5349.9	101.4	%	0.19				0.19%
Ag 328.068†	76.6	0.3359	ug/L	0.13744	0.3359	ppb	0.13744	40.91%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	7.2	6.1697	ug/L	13.22605	6.1697	ppb	13.22605	214.37%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	9.9	4.0570	ug/L	1.40427	4.0570	ppb	1.40427	34.61%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	391.0	8.4264	ug/L	0.48437	8.4264	ppb	0.48437	5.75%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-5.3	-0.0394	ug/L	0.04556	-0.0394	ppb	0.04556	115.66%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	297.6	0.1042	ug/L	0.02090	0.1042	ppb	0.02090	20.05%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	10.6	16.577	ug/L	6.5120	16.577	ppb	6.5120	39.28%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              11.3      0.1196 ug/L       0.13844      0.1196 ppb        0.13844 115.79%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†               8.9      0.1734 ug/L       0.03297      0.1734 ppb        0.03297  19.01%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†               2.4      0.0242 ug/L       0.09000      0.0242 ppb        0.09000 371.30%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -63.1     -0.1814 ug/L       0.20296     -0.1814 ppb        0.20296 111.87%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        1.6      13.674 ug/L       11.5996      13.674 ppb        11.5996  84.83%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        95.0      17.258 ug/L       13.0522      17.258 ppb        13.0522  75.63%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           0.1      2.4606 ug/L     112.19864      2.4606 ppb       112.19864 >999.9%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†             -35.3     -0.0364 ug/L       0.02708     -0.0364 ppb        0.02708  74.33%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               6.0      0.4141 ug/L       0.25686      0.4141 ppb        0.25686  62.03%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        3.5      1.0303 ug/L       8.72570      1.0303 ppb        8.72570 846.91%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              -1.2     -0.0294 ug/L       0.47736     -0.0294 ppb        0.47736 >999.9%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†              -11.1     -6.1586 ug/L       2.01115     -6.1586 ppb        2.01115  32.66%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -2.8     -0.3174 ug/L       1.53002     -0.3174 ppb        1.53002 482.10%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         -4.0     -5.2782 ug/L       5.68375     -5.2782 ppb        5.68375 107.68%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               7.8      2.4391 ug/L       0.75745      2.4391 ppb        0.75745  31.05%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              -5.8     -3.4336 ug/L       2.54344     -3.4336 ppb        2.54344  74.08%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†             -38.2     -1.1824 ug/L       0.25365     -1.1824 ppb        0.25365  21.45%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               0.8      0.1374 ug/L       0.56375      0.1374 ppb        0.56375 410.34%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               7.3      0.0485 ug/L       0.09721      0.0485 ppb        0.09721 200.64%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             121.8      0.1821 ug/L       0.10585      0.1821 ppb        0.10585  58.13%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               6.1      1.8055 ug/L       2.87297      1.8055 ppb        2.87297 159.13%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              149.6      4.1510 ug/L       2.92500      4.1510 ppb        2.92500  70.46%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               22.1      0.1604 ug/L       0.23616      0.1604 ppb        0.23616 147.27%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†             103.9      0.9287 ug/L       0.15853      0.9287 ppb        0.15853  17.07%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                   -69.1     -4.5569 ug/L       1.13030     -4.5569 ppb        1.13030  24.80%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
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2/11/2010 08:16:36 Hg ReAlign... Actual peak offset (nm): -0.009
Drift (nm): 0.000 Slit adjustment: -3

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Analysis Begun

Start Time: 2/11/2010 08:21:47 **Plasma On Time: 2/8/2010 05:57:09**
Logged In Analyst: Optima3 **Technique: ICP Continuous**
Spectrometer Model: Optima 5300 DV, S/N 077C7090601Autosampler Model: S10

Sample Information File: C:\pe\Optima3\Sample Information\021110.sif
Batch ID:
Results Data Set: 021110
Results Library: C:\pe\Optima3\Results\Results.mdb

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Method Loaded
Method Name: General Eng.2AX **Method Last Saved: 2/10/2010 09:09:46**
IEC File: 011110.iec **MSF File:**
Method Description:

Analyte	Calibration Equation	Processing	View	Internal Standard	IEC
Ag 328.068	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Al 396.153Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
As 188.979	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
B 249.677	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ba 233.527	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Be 313.107	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ca 317.933Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	No
Cd 226.502	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Co 228.616	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cr 267.716	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cu 324.752	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Fe 238.204 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
K 766.490 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Mg 279.077 IEC	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Mn 257.610	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Mo 202.031	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Na 589.592 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	No
Ni 231.604	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
P 214.914	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Pb 220.353	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
S 181.975 Axial	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sb 206.836	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sc 361.383	Lin Thru 0	Peak Area	Axial	n/a	n/a
Sc Radial	Lin, Calc Int	Peak Area	Radial	n/a	n/a
Se 196.026	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Si 251.611	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sn 189.927	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sr 421.552	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Ti 334.940	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Tl 190.801	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
U 409.014	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
V 292.402	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y 371.029	Lin, Calc Int	Peak Area	Axial	n/a	n/a
Zn 213.857	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y RADIAL	Lin, Calc Int	Peak Area	Radial	n/a	n/a
SiO2	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes

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Sequence No.: 1 **Autosampler Location: 8**
Sample ID: S0 **Date Collected: 2/11/2010 08:21:51**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: S0

	Net	Corrected	Calib.	Analysis

Repl#	Analyte	Intensity	Intensity	Conc.	Units	Time
1	Sc Radial	4743.3	4743.3	98.7	%	08:23:44
1	Y RADIAL	4948.6	4948.6	98.96	%	08:23:44
1	Al 396.153Radial†	-158.5	-160.6	[0.00]	ug/L	08:23:44
1	Ca 317.933Radial†	16.8	17.0	[0.00]	ug/L	08:24:04
1	Fe 238.204 Radial†	11.9	12.0	[0.00]	ug/L	08:24:04
1	K 766.490 Radial†	2824.3	2862.1	[0.00]	ug/L	08:23:44
1	Mg 279.077 IEC†	1.7	1.7	[0.00]	ug/L	08:24:04
1	Na 589.592 Radial†	-1072.2	-1086.6	[0.00]	ug/L	08:23:44
1	Sr 421.552†	-1.9	-1.9	[0.00]	ug/L	08:23:44
1	Sc 361.383	858652.8	858652.8	99.601	%	08:25:00
1	Y 371.029	711640.1	711640.1	99.585	%	08:25:00
1	Ag 328.068†	210.9	211.7	[0.00]	ug/L	08:25:00
1	As 188.979†	-37.6	-37.8	[0.00]	ug/L	08:25:21
1	B 249.677†	-554.0	-556.3	[0.00]	ug/L	08:25:21
1	Ba 233.527†	-3.0	-3.0	[0.00]	ug/L	08:25:21
1	Be 313.107†	-4312.4	-4329.7	[0.00]	ug/L	08:25:00
1	Cd 226.502†	-217.4	-218.3	[0.00]	ug/L	08:25:21
1	Co 228.616†	-68.5	-68.8	[0.00]	ug/L	08:25:21
1	Cr 267.716†	70.9	71.1	[0.00]	ug/L	08:25:21
1	Cu 324.752†	5817.9	5841.2	[0.00]	ug/L	08:25:00
1	Mn 257.610†	462.6	464.5	[0.00]	ug/L	08:25:21
1	Mo 202.031†	15.3	15.4	[0.00]	ug/L	08:25:21
1	Ni 231.604†	106.3	106.7	[0.00]	ug/L	08:25:21
1	P 214.914†	228.5	229.5	[0.00]	ug/L	08:25:21
1	Pb 220.353†	-66.3	-66.6	[0.00]	ug/L	08:25:21
1	S 181.975 Axial†	39.5	39.7	[0.00]	ug/L	08:25:21
1	Sb 206.836†	48.0	48.2	[0.00]	ug/L	08:25:21
1	Se 196.026†	-19.7	-19.8	[0.00]	ug/L	08:25:21
1	Si 251.611†	564.3	566.5	[0.00]	ug/L	08:25:21
1	Sn 189.927†	1.1	1.1	[0.00]	ug/L	08:25:21
1	Ti 334.940†	-1245.2	-1250.2	[0.00]	ug/L	08:25:00
1	Tl 190.801†	-32.7	-32.8	[0.00]	ug/L	08:25:21
1	U 409.014†	-2877.1	-2888.7	[0.00]	ug/L	08:25:00
1	V 292.402†	-1591.1	-1597.5	[0.00]	ug/L	08:25:00
1	Zn 213.857†	709.5	712.4	[0.00]	ug/L	08:25:21
1	SiO2†	561.0	563.3	[0.00]	ug/L	08:26:17
2	Sc Radial	4842.9	4842.9	101	%	08:24:09
2	Y RADIAL	5035.0	5035.0	100.7	%	08:24:09
2	Al 396.153Radial†	-151.1	-150.0	[0.00]	ug/L	08:24:09
2	Ca 317.933Radial†	17.6	17.5	[0.00]	ug/L	08:24:29
2	Fe 238.204 Radial†	12.8	12.7	[0.00]	ug/L	08:24:29
2	K 766.490 Radial†	2875.3	2854.0	[0.00]	ug/L	08:24:09
2	Mg 279.077 IEC†	-0.9	-0.8	[0.00]	ug/L	08:24:29
2	Na 589.592 Radial†	-1052.7	-1044.8	[0.00]	ug/L	08:24:09
2	Sr 421.552†	-6.5	-6.5	[0.00]	ug/L	08:24:09
2	Sc 361.383	858338.4	858338.4	99.564	%	08:25:26
2	Y 371.029	711249.1	711249.1	99.531	%	08:25:26
2	Ag 328.068†	240.3	241.3	[0.00]	ug/L	08:25:26
2	As 188.979†	-40.6	-40.8	[0.00]	ug/L	08:25:46
2	B 249.677†	-518.0	-520.3	[0.00]	ug/L	08:25:46
2	Ba 233.527†	-17.7	-17.8	[0.00]	ug/L	08:25:46
2	Be 313.107†	-4336.6	-4355.6	[0.00]	ug/L	08:25:26
2	Cd 226.502†	-214.0	-214.9	[0.00]	ug/L	08:25:46
2	Co 228.616†	-77.5	-77.9	[0.00]	ug/L	08:25:46
2	Cr 267.716†	59.8	60.0	[0.00]	ug/L	08:25:46
2	Cu 324.752†	5781.8	5807.1	[0.00]	ug/L	08:25:26
2	Mn 257.610†	446.9	448.8	[0.00]	ug/L	08:25:46
2	Mo 202.031†	16.5	16.6	[0.00]	ug/L	08:25:46
2	Ni 231.604†	113.5	114.0	[0.00]	ug/L	08:25:46
2	P 214.914†	232.1	233.1	[0.00]	ug/L	08:25:46
2	Pb 220.353†	-54.8	-55.0	[0.00]	ug/L	08:25:46
2	S 181.975 Axial†	34.4	34.6	[0.00]	ug/L	08:25:46
2	Sb 206.836†	35.5	35.7	[0.00]	ug/L	08:25:46
2	Se 196.026†	-26.4	-26.5	[0.00]	ug/L	08:25:46
2	Si 251.611†	557.7	560.1	[0.00]	ug/L	08:25:46
2	Sn 189.927†	12.1	12.2	[0.00]	ug/L	08:25:46
2	Ti 334.940†	-1286.7	-1292.3	[0.00]	ug/L	08:25:26
2	Tl 190.801†	-33.0	-33.2	[0.00]	ug/L	08:25:46
2	U 409.014†	-2986.6	-2999.7	[0.00]	ug/L	08:25:26
2	V 292.402†	-1476.9	-1483.4	[0.00]	ug/L	08:25:26

2	Zn 213.857†	711.5	714.7	[0.00]	ug/L	08:25:46
2	SiO2†	597.8	600.4	[0.00]	ug/L	08:26:22
3	Sc Radial	4834.5	4834.5	101	%	08:24:34
3	Y RADIAL	5018.4	5018.4	100.4	%	08:24:34
3	Al 396.153Radial†	-145.0	-144.2	[0.00]	ug/L	08:24:34
3	Ca 317.933Radial†	15.7	15.7	[0.00]	ug/L	08:24:54
3	Fe 238.204 Radial†	9.8	9.7	[0.00]	ug/L	08:24:54
3	K 766.490 Radial†	2776.8	2760.9	[0.00]	ug/L	08:24:34
3	Mg 279.077 IEC†	0.3	0.3	[0.00]	ug/L	08:24:54
3	Na 589.592 Radial†	-1110.4	-1104.1	[0.00]	ug/L	08:24:34
3	Sr 421.552†	14.8	14.8	[0.00]	ug/L	08:24:34
3	Sc 361.383	869291.9	869291.9	100.83	%	08:25:52
3	Y 371.029	720919.8	720919.8	100.88	%	08:25:52
3	Ag 328.068†	235.2	233.3	[0.00]	ug/L	08:25:52
3	As 188.979†	-23.2	-23.0	[0.00]	ug/L	08:26:12
3	B 249.677†	-545.1	-540.6	[0.00]	ug/L	08:26:12
3	Ba 233.527†	-14.1	-13.9	[0.00]	ug/L	08:26:12
3	Be 313.107†	-4367.1	-4330.9	[0.00]	ug/L	08:25:52
3	Cd 226.502†	-204.2	-202.5	[0.00]	ug/L	08:26:12
3	Co 228.616†	-75.1	-74.5	[0.00]	ug/L	08:26:12
3	Cr 267.716†	69.7	69.2	[0.00]	ug/L	08:26:12
3	Cu 324.752†	5862.4	5813.9	[0.00]	ug/L	08:25:52
3	Mn 257.610†	446.1	442.4	[0.00]	ug/L	08:26:12
3	Mo 202.031†	14.8	14.7	[0.00]	ug/L	08:26:12
3	Ni 231.604†	104.3	103.4	[0.00]	ug/L	08:26:12
3	P 214.914†	223.5	221.7	[0.00]	ug/L	08:26:12
3	Pb 220.353†	-64.1	-63.6	[0.00]	ug/L	08:26:12
3	S 181.975 Axial†	44.2	43.8	[0.00]	ug/L	08:26:12
3	Sb 206.836†	42.9	42.6	[0.00]	ug/L	08:26:12
3	Se 196.026†	-20.3	-20.1	[0.00]	ug/L	08:26:12
3	Si 251.611†	564.8	560.2	[0.00]	ug/L	08:26:12
3	Sn 189.927†	12.9	12.8	[0.00]	ug/L	08:26:12
3	Ti 334.940†	-1378.5	-1367.1	[0.00]	ug/L	08:25:52
3	Tl 190.801†	-36.9	-36.6	[0.00]	ug/L	08:26:12
3	U 409.014†	-3077.3	-3051.8	[0.00]	ug/L	08:25:52
3	V 292.402†	-1596.3	-1583.1	[0.00]	ug/L	08:25:52
3	Zn 213.857†	718.7	712.7	[0.00]	ug/L	08:26:12
3	SiO2†	590.6	585.7	[0.00]	ug/L	08:26:27

Mean Data: S0

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	862094.4	6235.22	0.72%	100.00	%
Sc Radial	4806.9	55.24	1.15%	100	%
Y 371.029	714603.0	5474.01	0.77%	100.00	%
Y RADIAL	5000.7	45.86	0.92%	100.0	%
Ag 328.068†	228.8	15.31	6.69%	[0.00]	ug/L
Al 396.153Radial†	-151.6	8.33	5.49%	[0.00]	ug/L
As 188.979†	-33.9	9.53	28.16%	[0.00]	ug/L
B 249.677†	-539.0	18.02	3.34%	[0.00]	ug/L
Ba 233.527†	-11.6	7.66	66.14%	[0.00]	ug/L
Be 313.107†	-4338.7	14.61	0.34%	[0.00]	ug/L
Ca 317.933Radial†	16.7	0.94	5.63%	[0.00]	ug/L
Cd 226.502†	-211.9	8.32	3.93%	[0.00]	ug/L
Co 228.616†	-73.7	4.60	6.24%	[0.00]	ug/L
Cr 267.716†	66.8	5.94	8.89%	[0.00]	ug/L
Cu 324.752†	5820.7	18.09	0.31%	[0.00]	ug/L
Fe 238.204 Radial†	11.5	1.57	13.67%	[0.00]	ug/L
K 766.490 Radial†	2825.7	56.23	1.99%	[0.00]	ug/L
Mg 279.077 IEC†	0.4	1.30	313.61%	[0.00]	ug/L
Mn 257.610†	451.9	11.35	2.51%	[0.00]	ug/L
Mo 202.031†	15.5	0.94	6.08%	[0.00]	ug/L
Na 589.592 Radial†	-1078.5	30.44	2.82%	[0.00]	ug/L
Ni 231.604†	108.0	5.41	5.01%	[0.00]	ug/L
P 214.914†	228.1	5.81	2.55%	[0.00]	ug/L
Pb 220.353†	-61.7	6.02	9.76%	[0.00]	ug/L
S 181.975 Axial†	39.3	4.63	11.76%	[0.00]	ug/L
Sb 206.836†	42.2	6.25	14.84%	[0.00]	ug/L
Se 196.026†	-22.1	3.78	17.07%	[0.00]	ug/L
Si 251.611†	562.3	3.70	0.66%	[0.00]	ug/L

Sn 189.927†	8.7	6.56	75.55%	[0.00] ug/L
Sr 421.552†	2.1	11.18	531.03%	[0.00] ug/L
Ti 334.940†	-1303.2	59.20	4.54%	[0.00] ug/L
Tl 190.801†	-34.2	2.10	6.14%	[0.00] ug/L
U 409.014†	-2980.0	83.33	2.80%	[0.00] ug/L
V 292.402†	-1554.6	62.14	4.00%	[0.00] ug/L
Zn 213.857†	713.3	1.23	0.17%	[0.00] ug/L
SiO2†	583.1	18.69	3.20%	[0.00] ug/L

Sequence No.: 2
Sample ID: S0.1
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 2
Date Collected: 2/11/2010 08:28:39
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc Radial	4697.2	4697.2	97.7	%	08:30:36
1	Y RADIAL	4924.7	4924.7	98.48	%	08:30:36
1	K 766.490 Radial†	8419.1	5790.1	[1000]	ug/L	08:30:31
1	Sr 421.552†	14106.6	14434.0	[100]	ug/L	08:30:36
1	Sc 361.383	843091.5	843091.5	97.796	%	08:31:03
1	Y 371.029	696143.0	696143.0	97.417	%	08:31:03
1	Ag 328.068†	20987.8	21232.1	[100]	ug/L	08:31:03
1	As 188.979†	194.9	233.2	[100]	ug/L	08:31:23
1	B 249.677†	3337.5	3951.7	[100]	ug/L	08:31:03
1	Ba 233.527†	12126.5	12411.4	[100]	ug/L	08:31:03
1	Be 313.107†	255128.9	265218.1	[100]	ug/L	08:31:03
1	Cd 226.502†	8154.7	8550.4	[100]	ug/L	08:31:03
1	Co 228.616†	4501.8	4677.0	[100]	ug/L	08:31:23
1	Cr 267.716†	8496.4	8621.1	[100]	ug/L	08:31:03
1	Cu 324.752†	37658.7	32686.8	[100]	ug/L	08:31:03
1	Mn 257.610†	86804.4	88309.1	[100]	ug/L	08:31:03
1	Mo 202.031†	1312.4	1326.5	[100]	ug/L	08:31:23
1	Ni 231.604†	3858.2	3837.2	[100]	ug/L	08:31:23
1	P 214.914†	1004.2	798.7	[500]	ug/L	08:31:23
1	Pb 220.353†	734.4	812.6	[100]	ug/L	08:31:23
1	S 181.975 Axial†	173.5	138.0	[200]	ug/L	08:31:23
1	Sb 206.836†	307.5	272.3	[100]	ug/L	08:31:23
1	Se 196.026†	113.4	138.0	[100]	ug/L	08:31:23
1	Si 251.611†	15051.6	14828.5	[500]	ug/L	08:31:03
1	Sn 189.927†	530.8	534.1	[100]	ug/L	08:31:23
1	Ti 334.940†	59742.6	62392.4	[100]	ug/L	08:31:03
1	Tl 190.801†	267.2	307.4	[100]	ug/L	08:31:23
1	U 409.014†	349.1	3337.0	[100]	ug/L	08:31:03
1	V 292.402†	11820.6	13641.7	[100]	ug/L	08:31:03
1	Zn 213.857†	10728.8	10257.3	[100]	ug/L	08:31:03
1	SiO2†	15259.3	15020.1	[1069.5]	ug/L	08:32:20
2	Sc Radial	4770.0	4770.0	99.2	%	08:30:46
2	Y RADIAL	4972.7	4972.7	99.44	%	08:30:46
2	K 766.490 Radial†	8395.9	5635.1	[1000]	ug/L	08:30:41
2	Sr 421.552†	14289.0	14397.3	[100]	ug/L	08:30:46
2	Sc 361.383	841728.5	841728.5	97.638	%	08:31:29
2	Y 371.029	693980.4	693980.4	97.114	%	08:31:29
2	Ag 328.068†	20918.8	21196.1	[100]	ug/L	08:31:29
2	As 188.979†	191.4	229.9	[100]	ug/L	08:31:49
2	B 249.677†	3358.3	3978.6	[100]	ug/L	08:31:29
2	Ba 233.527†	12115.8	12420.6	[100]	ug/L	08:31:29
2	Be 313.107†	254704.9	265206.3	[100]	ug/L	08:31:29
2	Cd 226.502†	8061.2	8468.2	[100]	ug/L	08:31:29
2	Co 228.616†	4524.9	4708.1	[100]	ug/L	08:31:49
2	Cr 267.716†	8472.0	8610.2	[100]	ug/L	08:31:29
2	Cu 324.752†	37682.1	32773.1	[100]	ug/L	08:31:29
2	Mn 257.610†	86821.9	88470.7	[100]	ug/L	08:31:29
2	Mo 202.031†	1330.8	1347.5	[100]	ug/L	08:31:49
2	Ni 231.604†	3893.5	3879.7	[100]	ug/L	08:31:49
2	P 214.914†	1009.6	805.9	[500]	ug/L	08:31:49
2	Pb 220.353†	737.3	816.8	[100]	ug/L	08:31:49
2	S 181.975 Axial†	168.2	132.9	[200]	ug/L	08:31:49
2	Sb 206.836†	312.2	277.6	[100]	ug/L	08:31:49
2	Se 196.026†	110.6	135.3	[100]	ug/L	08:31:49
2	Si 251.611†	15081.3	14883.9	[500]	ug/L	08:31:29
2	Sn 189.927†	535.9	540.2	[100]	ug/L	08:31:49
2	Ti 334.940†	59954.2	62708.0	[100]	ug/L	08:31:29
2	Tl 190.801†	271.5	312.3	[100]	ug/L	08:31:49
2	U 409.014†	527.8	3520.6	[100]	ug/L	08:31:29

2	V 292.402†	11734.5	13573.0	[100]	ug/L	08:31:29
2	Zn 213.857†	10700.6	10246.2	[100]	ug/L	08:31:29
2	SiO2†	15136.0	14919.1	[1069.5]	ug/L	08:32:25
3	Sc Radial	4757.9	4757.9	99.0	%	08:30:57
3	Y RADIAL	4960.8	4960.8	99.20	%	08:30:57
3	K 766.490 Radial†	8337.2	5597.4	[1000]	ug/L	08:30:52
3	Sr 421.552†	14181.2	14325.1	[100]	ug/L	08:30:57
3	Sc 361.383	857711.3	857711.3	99.492	%	08:31:54
3	Y 371.029	708311.9	708311.9	99.120	%	08:31:54
3	Ag 328.068†	21304.0	21184.0	[100]	ug/L	08:31:54
3	As 188.979†	185.7	220.5	[100]	ug/L	08:32:15
3	B 249.677†	3475.9	4032.7	[100]	ug/L	08:31:54
3	Ba 233.527†	12344.0	12418.7	[100]	ug/L	08:31:54
3	Be 313.107†	259560.0	265225.1	[100]	ug/L	08:31:54
3	Cd 226.502†	8214.9	8468.8	[100]	ug/L	08:31:54
3	Co 228.616†	4492.9	4589.6	[100]	ug/L	08:32:15
3	Cr 267.716†	8624.8	8602.1	[100]	ug/L	08:31:54
3	Cu 324.752†	38368.9	32744.2	[100]	ug/L	08:31:54
3	Mn 257.610†	88164.5	88163.1	[100]	ug/L	08:31:54
3	Mo 202.031†	1319.1	1310.3	[100]	ug/L	08:32:15
3	Ni 231.604†	3850.0	3761.7	[100]	ug/L	08:32:15
3	P 214.914†	1005.0	782.0	[500]	ug/L	08:32:15
3	Pb 220.353†	740.2	805.7	[100]	ug/L	08:32:15
3	S 181.975 Axial†	171.3	132.8	[200]	ug/L	08:32:15
3	Sb 206.836†	307.2	266.6	[100]	ug/L	08:32:15
3	Se 196.026†	128.8	151.6	[100]	ug/L	08:32:15
3	Si 251.611†	15274.8	14790.6	[500]	ug/L	08:31:54
3	Sn 189.927†	537.8	531.8	[100]	ug/L	08:32:15
3	Ti 334.940†	60885.2	62499.6	[100]	ug/L	08:31:54
3	Tl 190.801†	274.4	310.0	[100]	ug/L	08:32:15
3	U 409.014†	511.9	3494.6	[100]	ug/L	08:31:54
3	V 292.402†	12083.6	13700.0	[100]	ug/L	08:31:54
3	Zn 213.857†	10828.2	10170.3	[100]	ug/L	08:31:54
3	SiO2†	15035.8	14529.5	[1069.5]	ug/L	08:32:30

Mean Data: S0.1

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	847510.4	8860.47	1.05%	98.308	%
Sc Radial	4741.7	39.05	0.82%	98.6	%
Y 371.029	699478.4	7726.06	1.10%	97.884	%
Y RADIAL	4952.7	24.96	0.50%	99.04	%
Ag 328.068†	21204.1	24.98	0.12%	[100]	ug/L
As 188.979†	227.9	6.57	2.88%	[100]	ug/L
B 249.677†	3987.7	41.26	1.03%	[100]	ug/L
Ba 233.527†	12416.9	4.85	0.04%	[100]	ug/L
Be 313.107†	265216.5	9.52	0.00%	[100]	ug/L
Cd 226.502†	8495.8	47.31	0.56%	[100]	ug/L
Co 228.616†	4658.2	61.45	1.32%	[100]	ug/L
Cr 267.716†	8611.2	9.54	0.11%	[100]	ug/L
Cu 324.752†	32734.7	43.94	0.13%	[100]	ug/L
K 766.490 Radial†	5674.2	102.16	1.80%	[1000]	ug/L
Mn 257.610†	88314.3	153.88	0.17%	[100]	ug/L
Mo 202.031†	1328.1	18.64	1.40%	[100]	ug/L
Ni 231.604†	3826.2	59.74	1.56%	[100]	ug/L
P 214.914†	795.6	12.26	1.54%	[500]	ug/L
Pb 220.353†	811.7	5.63	0.69%	[100]	ug/L
S 181.975 Axial†	134.6	2.99	2.22%	[200]	ug/L
Sb 206.836†	272.2	5.48	2.01%	[100]	ug/L
Se 196.026†	141.6	8.69	6.14%	[100]	ug/L
Si 251.611†	14834.4	46.93	0.32%	[500]	ug/L
Sn 189.927†	535.4	4.34	0.81%	[100]	ug/L
Sr 421.552†	14385.5	55.40	0.39%	[100]	ug/L
Ti 334.940†	62533.3	160.47	0.26%	[100]	ug/L
Tl 190.801†	309.9	2.44	0.79%	[100]	ug/L
U 409.014†	3450.7	99.33	2.88%	[100]	ug/L
V 292.402†	13638.2	63.57	0.47%	[100]	ug/L
Zn 213.857†	10224.6	47.36	0.46%	[100]	ug/L
SiO2†	14822.9	259.04	1.75%	[1069.5]	ug/L

Sequence No.: 3
Sample ID: S0.5
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 3
Date Collected: 2/11/2010 08:34:41
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc Radial	4775.5	4775.5	99.3	%	08:36:34
1	Y RADIAL	4918.1	4918.1	98.35	%	08:36:34
1	Al 396.153Radial†	5173.8	5359.4	[5000]	ug/L	08:36:34
1	Ca 317.933Radial†	3032.3	3035.5	[5000]	ug/L	08:36:54
1	K 766.490 Radial†	31229.5	28609.1	[5000]	ug/L	08:36:34
1	Mg 279.077 IEC†	147.4	148.0	[5000]	ug/L	08:36:54
1	Sr 421.552†	72038.7	72510.1	[500]	ug/L	08:36:34
1	Sc 361.383	867807.9	867807.9	100.66	%	08:37:51
1	Y 371.029	707253.6	707253.6	98.972	%	08:37:51
1	Ag 328.068†	104951.0	104031.3	[500]	ug/L	08:37:56
1	As 188.979†	1075.9	1102.7	[500]	ug/L	08:38:16
1	B 249.677†	20164.1	20570.4	[500]	ug/L	08:37:56
1	Ba 233.527†	60905.4	60516.0	[500]	ug/L	08:37:56
1	Be 313.107†	1337671.9	1333203.6	[500]	ug/L	08:37:51
1	Cd 226.502†	41754.0	41691.0	[500]	ug/L	08:37:56
1	Co 228.616†	23152.6	23073.9	[500]	ug/L	08:37:56
1	Cr 267.716†	42883.4	42534.3	[500]	ug/L	08:37:56
1	Cu 324.752†	168304.3	161375.5	[500]	ug/L	08:37:56
1	Mn 257.610†	436371.5	433046.6	[500]	ug/L	08:37:51
1	Mo 202.031†	6633.2	6574.0	[500]	ug/L	08:38:16
1	Ni 231.604†	19401.1	19165.4	[500]	ug/L	08:37:56
1	P 214.914†	4235.9	3979.9	[2500]	ug/L	08:38:16
1	Pb 220.353†	3922.5	3958.4	[500]	ug/L	08:38:16
1	S 181.975 Axial†	718.0	673.9	[1000]	ug/L	08:38:16
1	Sb 206.836†	1456.3	1404.6	[500]	ug/L	08:38:16
1	Se 196.026†	724.3	741.7	[500]	ug/L	08:38:16
1	Si 251.611†	74231.4	73180.4	[2500]	ug/L	08:37:56
1	Sn 189.927†	2684.8	2658.4	[500]	ug/L	08:38:16
1	Ti 334.940†	302340.0	301652.6	[500]	ug/L	08:37:56
1	Tl 190.801†	1527.2	1551.3	[500]	ug/L	08:38:16
1	U 409.014†	14256.5	17142.7	[500]	ug/L	08:37:56
1	V 292.402†	66738.6	67853.8	[500]	ug/L	08:37:56
1	Zn 213.857†	51323.6	50272.4	[500]	ug/L	08:37:56
1	SiO2†	75000.0	73923.1	[5347.5]	ug/L	08:39:24
2	Sc Radial	4760.1	4760.1	99.0	%	08:36:59
2	Y RADIAL	4955.6	4955.6	99.10	%	08:36:59
2	Al 396.153Radial†	5216.3	5419.2	[5000]	ug/L	08:36:59
2	Ca 317.933Radial†	3024.1	3037.1	[5000]	ug/L	08:37:19
2	K 766.490 Radial†	31196.0	28677.0	[5000]	ug/L	08:36:59
2	Mg 279.077 IEC†	140.7	141.7	[5000]	ug/L	08:37:19
2	Sr 421.552†	71809.8	72513.7	[500]	ug/L	08:36:59
2	Sc 361.383	874027.1	874027.1	101.38	%	08:38:22
2	Y 371.029	713257.3	713257.3	99.812	%	08:38:22
2	Ag 328.068†	105300.4	103634.0	[500]	ug/L	08:38:27
2	As 188.979†	1073.3	1092.5	[500]	ug/L	08:38:47
2	B 249.677†	20291.9	20553.9	[500]	ug/L	08:38:27
2	Ba 233.527†	61086.4	60264.0	[500]	ug/L	08:38:27
2	Be 313.107†	1340300.8	1326340.9	[500]	ug/L	08:38:22
2	Cd 226.502†	41829.2	41470.0	[500]	ug/L	08:38:27
2	Co 228.616†	23238.4	22994.9	[500]	ug/L	08:38:27
2	Cr 267.716†	42880.0	42227.8	[500]	ug/L	08:38:27
2	Cu 324.752†	169024.2	160895.9	[500]	ug/L	08:38:27
2	Mn 257.610†	437207.3	430786.4	[500]	ug/L	08:38:22
2	Mo 202.031†	6579.5	6474.1	[500]	ug/L	08:38:47
2	Ni 231.604†	19438.2	19064.8	[500]	ug/L	08:38:27
2	P 214.914†	4208.9	3923.3	[2500]	ug/L	08:38:47
2	Pb 220.353†	3928.4	3936.5	[500]	ug/L	08:38:47
2	S 181.975 Axial†	712.8	663.8	[1000]	ug/L	08:38:47
2	Sb 206.836†	1435.7	1373.9	[500]	ug/L	08:38:47

2	Se 196.026†	716.2	728.6	[500]	ug/L	08:38:47
2	Si 251.611†	74403.2	72825.1	[2500]	ug/L	08:38:27
2	Sn 189.927†	2674.2	2629.0	[500]	ug/L	08:38:47
2	Ti 334.940†	303013.8	300180.0	[500]	ug/L	08:38:27
2	Tl 190.801†	1515.4	1528.9	[500]	ug/L	08:38:47
2	U 409.014†	14162.6	16949.3	[500]	ug/L	08:38:27
2	V 292.402†	66891.9	67533.3	[500]	ug/L	08:38:27
2	Zn 213.857†	51403.5	49988.5	[500]	ug/L	08:38:27
2	SiO2†	73924.8	72332.4	[5347.5]	ug/L	08:39:29
3	Sc Radial	4764.3	4764.3	99.1	%	08:37:24
3	Y RADIAL	4912.6	4912.6	98.24	%	08:37:24
3	Al 396.153Radial†	5214.9	5413.1	[5000]	ug/L	08:37:24
3	Ca 317.933Radial†	3031.1	3041.5	[5000]	ug/L	08:37:44
3	K 766.490 Radial†	31082.4	28534.7	[5000]	ug/L	08:37:24
3	Mg 279.077 IEC†	148.1	149.0	[5000]	ug/L	08:37:44
3	Sr 421.552†	71533.5	72171.1	[500]	ug/L	08:37:24
3	Sc 361.383	867676.4	867676.4	100.65	%	08:38:53
3	Y 371.029	709037.9	709037.9	99.221	%	08:38:53
3	Ag 328.068†	106402.4	105489.1	[500]	ug/L	08:38:58
3	As 188.979†	1067.1	1094.1	[500]	ug/L	08:39:18
3	B 249.677†	20536.8	20943.7	[500]	ug/L	08:38:58
3	Ba 233.527†	61737.6	61352.0	[500]	ug/L	08:38:58
3	Be 313.107†	1334189.2	1329944.7	[500]	ug/L	08:38:53
3	Cd 226.502†	42310.5	42250.2	[500]	ug/L	08:38:58
3	Co 228.616†	23441.9	23364.8	[500]	ug/L	08:38:58
3	Cr 267.716†	43382.0	43036.1	[500]	ug/L	08:38:58
3	Cu 324.752†	171172.5	164250.5	[500]	ug/L	08:38:58
3	Mn 257.610†	433515.4	430274.6	[500]	ug/L	08:38:53
3	Mo 202.031†	6604.8	6546.8	[500]	ug/L	08:39:18
3	Ni 231.604†	19593.1	19359.1	[500]	ug/L	08:38:58
3	P 214.914†	4204.9	3949.8	[2500]	ug/L	08:39:18
3	Pb 220.353†	3916.1	3952.6	[500]	ug/L	08:39:18
3	S 181.975 Axial†	711.9	668.0	[1000]	ug/L	08:39:18
3	Sb 206.836†	1438.7	1387.2	[500]	ug/L	08:39:18
3	Se 196.026†	709.4	727.0	[500]	ug/L	08:39:18
3	Si 251.611†	75276.2	74229.6	[2500]	ug/L	08:38:58
3	Sn 189.927†	2666.4	2640.6	[500]	ug/L	08:39:18
3	Ti 334.940†	306373.0	305705.2	[500]	ug/L	08:38:58
3	Tl 190.801†	1527.0	1551.4	[500]	ug/L	08:39:18
3	U 409.014†	14289.9	17178.0	[500]	ug/L	08:38:58
3	V 292.402†	67706.6	68825.6	[500]	ug/L	08:38:58
3	Zn 213.857†	51838.6	50791.9	[500]	ug/L	08:38:58
3	SiO2†	74542.2	73479.5	[5347.5]	ug/L	08:39:34

Mean Data: S0.5

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	869837.1	3629.19	0.42%	100.90	%
Sc Radial	4766.6	7.97	0.17%	99.2	%
Y 371.029	709849.6	3083.04	0.43%	99.335	%
Y RADIAL	4928.8	23.43	0.48%	98.56	%
Ag 328.068†	104384.8	976.78	0.94%	[500]	ug/L
Al 396.153Radial†	5397.2	32.88	0.61%	[5000]	ug/L
As 188.979†	1096.4	5.49	0.50%	[500]	ug/L
B 249.677†	20689.3	220.47	1.07%	[500]	ug/L
Ba 233.527†	60710.7	569.54	0.94%	[500]	ug/L
Be 313.107†	1329829.7	3432.75	0.26%	[500]	ug/L
Ca 317.933Radial†	3038.1	3.10	0.10%	[5000]	ug/L
Cd 226.502†	41803.7	402.13	0.96%	[500]	ug/L
Co 228.616†	23144.5	194.83	0.84%	[500]	ug/L
Cr 267.716†	42599.4	408.09	0.96%	[500]	ug/L
Cu 324.752†	162174.0	1814.28	1.12%	[500]	ug/L
K 766.490 Radial†	28606.9	71.20	0.25%	[5000]	ug/L
Mg 279.077 IEC†	146.2	3.95	2.70%	[5000]	ug/L
Mn 257.610†	431369.2	1475.05	0.34%	[500]	ug/L
Mo 202.031†	6531.6	51.63	0.79%	[500]	ug/L
Ni 231.604†	19196.4	149.57	0.78%	[500]	ug/L
P 214.914†	3951.0	28.29	0.72%	[2500]	ug/L
Pb 220.353†	3949.2	11.37	0.29%	[500]	ug/L
S 181.975 Axial†	668.5	5.09	0.76%	[1000]	ug/L

Sb 206.836†	1388.6	15.36	1.11%	[500]	ug/L
Se 196.026†	732.4	8.07	1.10%	[500]	ug/L
Si 251.611†	73411.7	730.27	0.99%	[2500]	ug/L
Sn 189.927†	2642.7	14.81	0.56%	[500]	ug/L
Sr 421.552†	72398.3	196.74	0.27%	[500]	ug/L
Ti 334.940†	302512.6	2861.20	0.95%	[500]	ug/L
Tl 190.801†	1543.9	12.97	0.84%	[500]	ug/L
U 409.014†	17090.0	123.10	0.72%	[500]	ug/L
V 292.402†	68070.9	672.97	0.99%	[500]	ug/L
Zn 213.857†	50350.9	407.40	0.81%	[500]	ug/L
SiO2†	73245.0	820.85	1.12%	[5347.5]	ug/L

Sequence No.: 4
Sample ID: SCAL
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 4
Date Collected: 2/11/2010 08:41:46
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: SCAL

Rep1#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc Radial	4754.8	4754.8	98.9	%	08:43:39
1	Y RADIAL	4929.2	4929.2	98.57	%	08:43:39
1	Al 396.153Radial†	10311.1	10575.8	[10000]	ug/L	08:43:39
1	Ca 317.933Radial†	6019.7	6069.0	[10000]	ug/L	08:43:39
1	Fe 238.204 Radial†	1090.5	1091.0	[10000]	ug/L	08:43:59
1	K 766.490 Radial†	58560.2	56376.6	[10000]	ug/L	08:43:39
1	Mg 279.077 IEC†	284.9	287.6	[10000]	ug/L	08:43:59
1	Na 589.592 Radial†	30863.2	32280.1	[10000]	ug/L	08:43:39
1	Sr 421.552†	140324.3	141860.9	[1000]	ug/L	08:43:39
1	Sc 361.383	845480.5	845480.5	98.073	%	08:45:02
1	Y 371.029	692547.9	692547.9	96.914	%	08:45:02
1	Ag 328.068†	209232.3	213115.0	[1000]	ug/L	08:45:02
1	As 188.979†	2138.2	2214.1	[1000]	ug/L	08:45:23
1	B 249.677†	40784.7	42125.2	[1000]	ug/L	08:45:02
1	Ba 233.527†	120350.2	122726.7	[1000]	ug/L	08:45:02
1	Be 313.107†	2642600.6	2698867.0	[1000]	ug/L	08:44:57
1	Cd 226.502†	82431.4	84263.1	[1000]	ug/L	08:45:02
1	Co 228.616†	44705.9	45658.1	[1000]	ug/L	08:45:23
1	Cr 267.716†	84442.5	86035.1	[1000]	ug/L	08:45:02
1	Cu 324.752†	330508.8	331182.7	[1000]	ug/L	08:45:02
1	Mn 257.610†	858191.6	874603.3	[1000]	ug/L	08:44:57
1	Mo 202.031†	13191.9	13435.6	[1000]	ug/L	08:45:23
1	Ni 231.604†	37999.6	38638.3	[1000]	ug/L	08:45:02
1	P 214.914†	8146.2	8078.2	[5000]	ug/L	08:45:23
1	Pb 220.353†	7872.9	8089.3	[1000]	ug/L	08:45:23
1	S 181.975 Axial†	1394.2	1382.2	[2000]	ug/L	08:45:23
1	Sb 206.836†	2882.5	2897.0	[1000]	ug/L	08:45:23
1	Se 196.026†	1435.4	1485.8	[1000]	ug/L	08:45:23
1	Si 251.611†	147800.1	150142.2	[5000]	ug/L	08:45:02
1	Sn 189.927†	5325.6	5421.6	[1000]	ug/L	08:45:23
1	Ti 334.940†	606347.9	619566.0	[1000]	ug/L	08:45:02
1	Tl 190.801†	3041.0	3134.9	[1000]	ug/L	08:45:23
1	U 409.014†	31065.3	34655.8	[1000]	ug/L	08:45:02
1	V 292.402†	133962.9	138149.9	[1000]	ug/L	08:45:02
1	Zn 213.857†	100276.7	101533.9	[1000]	ug/L	08:45:02
1	SiO2†	149487.5	151841.8	[10695]	ug/L	08:46:31
2	Sc Radial	4707.6	4707.6	97.9	%	08:44:04
2	Y RADIAL	4893.2	4893.2	97.85	%	08:44:04
2	Al 396.153Radial†	10292.8	10661.4	[10000]	ug/L	08:44:04
2	Ca 317.933Radial†	6027.4	6137.8	[10000]	ug/L	08:44:04
2	Fe 238.204 Radial†	1092.1	1103.6	[10000]	ug/L	08:44:24
2	K 766.490 Radial†	58258.3	56661.2	[10000]	ug/L	08:44:04
2	Mg 279.077 IEC†	282.6	288.1	[10000]	ug/L	08:44:24
2	Na 589.592 Radial†	30526.8	32249.1	[10000]	ug/L	08:44:04
2	Sr 421.552†	139526.7	142467.1	[1000]	ug/L	08:44:04
2	Sc 361.383	847483.2	847483.2	98.305	%	08:45:34
2	Y 371.029	695071.3	695071.3	97.267	%	08:45:34
2	Ag 328.068†	209668.9	213055.0	[1000]	ug/L	08:45:34
2	As 188.979†	2125.7	2196.2	[1000]	ug/L	08:45:54
2	B 249.677†	40934.7	42179.5	[1000]	ug/L	08:45:34
2	Ba 233.527†	120220.8	122305.1	[1000]	ug/L	08:45:34
2	Be 313.107†	2630315.5	2680002.7	[1000]	ug/L	08:45:29
2	Cd 226.502†	82319.2	83950.3	[1000]	ug/L	08:45:34
2	Co 228.616†	44605.9	45448.6	[1000]	ug/L	08:45:54
2	Cr 267.716†	84523.5	85913.9	[1000]	ug/L	08:45:34
2	Cu 324.752†	331081.1	330968.4	[1000]	ug/L	08:45:34
2	Mn 257.610†	852182.1	866422.4	[1000]	ug/L	08:45:29
2	Mo 202.031†	13166.6	13378.0	[1000]	ug/L	08:45:54
2	Ni 231.604†	38034.5	38582.2	[1000]	ug/L	08:45:34

2	P 214.914†	8123.0	8034.9	[5000]	ug/L	08:45:54
2	Pb 220.353†	7796.1	7992.3	[1000]	ug/L	08:45:54
2	S 181.975 Axial†	1391.5	1376.2	[2000]	ug/L	08:45:54
2	Sb 206.836†	2877.9	2885.4	[1000]	ug/L	08:45:54
2	Se 196.026†	1440.6	1487.6	[1000]	ug/L	08:45:54
2	Si 251.611†	147930.3	149918.4	[5000]	ug/L	08:45:34
2	Sn 189.927†	5315.4	5398.4	[1000]	ug/L	08:45:54
2	Ti 334.940†	606881.9	618648.1	[1000]	ug/L	08:45:34
2	Tl 190.801†	3034.3	3120.8	[1000]	ug/L	08:45:54
2	U 409.014†	30966.8	34480.8	[1000]	ug/L	08:45:34
2	V 292.402†	133992.3	137857.1	[1000]	ug/L	08:45:34
2	Zn 213.857†	100200.0	101214.3	[1000]	ug/L	08:45:34
2	SiO2†	148244.7	150217.4	[10695]	ug/L	08:46:36
3	Sc Radial	4726.0	4726.0	98.3	%	08:44:30
3	Y RADIAL	4894.5	4894.5	97.88	%	08:44:30
3	Al 396.153Radial†	10324.4	10652.6	[10000]	ug/L	08:44:30
3	Ca 317.933Radial†	6007.8	6093.9	[10000]	ug/L	08:44:30
3	Fe 238.204 Radial†	1093.8	1101.0	[10000]	ug/L	08:44:50
3	K 766.490 Radial†	58317.7	56489.9	[10000]	ug/L	08:44:30
3	Mg 279.077 IEC†	286.3	290.8	[10000]	ug/L	08:44:50
3	Na 589.592 Radial†	30496.2	32096.5	[10000]	ug/L	08:44:30
3	Sr 421.552†	139363.7	141746.0	[1000]	ug/L	08:44:30
3	Sc 361.383	842372.6	842372.6	97.712	%	08:46:06
3	Y 371.029	690532.3	690532.3	96.632	%	08:46:06
3	Ag 328.068†	208493.8	213146.4	[1000]	ug/L	08:46:06
3	As 188.979†	2124.1	2207.7	[1000]	ug/L	08:46:26
3	B 249.677†	40860.3	42356.0	[1000]	ug/L	08:46:06
3	Ba 233.527†	120205.6	123031.5	[1000]	ug/L	08:46:06
3	Be 313.107†	2629476.4	2695377.0	[1000]	ug/L	08:46:00
3	Cd 226.502†	82334.1	84473.6	[1000]	ug/L	08:46:06
3	Co 228.616†	44708.7	45829.2	[1000]	ug/L	08:46:26
3	Cr 267.716†	84347.2	86255.2	[1000]	ug/L	08:46:06
3	Cu 324.752†	328978.7	330860.1	[1000]	ug/L	08:46:06
3	Mn 257.610†	851417.5	870899.2	[1000]	ug/L	08:46:00
3	Mo 202.031†	13173.1	13466.0	[1000]	ug/L	08:46:26
3	Ni 231.604†	37963.9	38744.7	[1000]	ug/L	08:46:06
3	P 214.914†	8131.1	8093.4	[5000]	ug/L	08:46:26
3	Pb 220.353†	7807.9	8052.4	[1000]	ug/L	08:46:26
3	S 181.975 Axial†	1389.6	1382.8	[2000]	ug/L	08:46:26
3	Sb 206.836†	2872.5	2897.6	[1000]	ug/L	08:46:26
3	Se 196.026†	1440.2	1496.0	[1000]	ug/L	08:46:26
3	Si 251.611†	147526.0	150417.7	[5000]	ug/L	08:46:06
3	Sn 189.927†	5308.9	5424.5	[1000]	ug/L	08:46:26
3	Ti 334.940†	604327.6	619779.4	[1000]	ug/L	08:46:06
3	Tl 190.801†	3026.4	3131.5	[1000]	ug/L	08:46:26
3	U 409.014†	30851.3	34553.6	[1000]	ug/L	08:46:06
3	V 292.402†	133616.4	138299.3	[1000]	ug/L	08:46:06
3	Zn 213.857†	100180.6	101812.8	[1000]	ug/L	08:46:06
3	SiO2†	147502.0	150372.2	[10695]	ug/L	08:46:41

Mean Data: SCAL

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	845112.1	2575.15	0.30%	98.030	%
Sc Radial	4729.5	23.76	0.50%	98.4	%
Y 371.029	692717.2	2274.22	0.33%	96.937	%
Y RADIAL	4905.6	20.43	0.42%	98.10	%
Ag 328.068†	213105.4	46.42	0.02%	[1000]	ug/L
Al 396.153Radial†	10630.0	47.11	0.44%	[10000]	ug/L
As 188.979†	2206.0	9.07	0.41%	[1000]	ug/L
B 249.677†	42220.2	120.67	0.29%	[1000]	ug/L
Ba 233.527†	122687.8	364.75	0.30%	[1000]	ug/L
Be 313.107†	2691415.6	10036.70	0.37%	[1000]	ug/L
Ca 317.933Radial†	6100.2	34.82	0.57%	[10000]	ug/L
Cd 226.502†	84229.0	263.30	0.31%	[1000]	ug/L
Co 228.616†	45645.3	190.60	0.42%	[1000]	ug/L
Cr 267.716†	86068.1	173.02	0.20%	[1000]	ug/L
Cu 324.752†	331003.7	164.17	0.05%	[1000]	ug/L
Fe 238.204 Radial†	1098.5	6.65	0.60%	[10000]	ug/L
K 766.490 Radial†	56509.2	143.28	0.25%	[10000]	ug/L

Mg 279.077 IEC†	288.8	1.73	0.60%	[10000]	ug/L
Mn 257.610†	870641.7	4096.52	0.47%	[1000]	ug/L
Mo 202.031†	13426.5	44.68	0.33%	[1000]	ug/L
Na 589.592 Radial†	32208.6	98.29	0.31%	[10000]	ug/L
Ni 231.604†	38655.1	82.53	0.21%	[1000]	ug/L
P 214.914†	8068.8	30.34	0.38%	[5000]	ug/L
Pb 220.353†	8044.7	48.99	0.61%	[1000]	ug/L
S 181.975 Axial†	1380.4	3.67	0.27%	[2000]	ug/L
Sb 206.836†	2893.3	6.89	0.24%	[1000]	ug/L
Se 196.026†	1489.8	5.47	0.37%	[1000]	ug/L
Si 251.611†	150159.4	250.07	0.17%	[5000]	ug/L
Sn 189.927†	5414.8	14.32	0.26%	[1000]	ug/L
Sr 421.552†	142024.7	387.43	0.27%	[1000]	ug/L
Ti 334.940†	619331.2	601.10	0.10%	[1000]	ug/L
Tl 190.801†	3129.1	7.36	0.24%	[1000]	ug/L
U 409.014†	34563.4	87.91	0.25%	[1000]	ug/L
V 292.402†	138102.1	224.94	0.16%	[1000]	ug/L
Zn 213.857†	101520.3	299.50	0.30%	[1000]	ug/L
SiO2†	150810.5	896.53	0.59%	[10695]	ug/L

Sequence No.: 5
Sample ID: S10
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 5
Date Collected: 2/11/2010 08:48:53
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S10

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc Radial	4695.4	4695.4	97.7	%	08:51:07
1	Y RADIAL	4853.4	4853.4	97.05	%	08:51:07
1	Al 396.153Radial†	52499.6	53897.9	[50000]	ug/L	08:50:46
1	Ca 317.933Radial†	29421.5	30103.4	[50000]	ug/L	08:50:46
1	Fe 238.204 Radial†	2152.2	2191.8	[20000]	ug/L	08:51:07
1	Mg 279.077 IEC†	1379.4	1411.7	[50000]	ug/L	08:51:07
1	Na 589.592 Radial†	63880.6	66476.2	[20000]	ug/L	08:50:46
1	Sc 361.383	861192.5	861192.5	99.895	%	08:52:04
1	Y 371.029	701296.9	701296.9	98.138	%	08:52:04
2	Sc Radial	4646.8	4646.8	96.7	%	08:51:32
2	Y RADIAL	4806.8	4806.8	96.12	%	08:51:32
2	Al 396.153Radial†	52103.7	54050.3	[50000]	ug/L	08:51:12
2	Ca 317.933Radial†	29244.8	30235.6	[50000]	ug/L	08:51:12
2	Fe 238.204 Radial†	2139.5	2201.7	[20000]	ug/L	08:51:32
2	Mg 279.077 IEC†	1362.4	1409.0	[50000]	ug/L	08:51:32
2	Na 589.592 Radial†	63493.3	66759.2	[20000]	ug/L	08:51:12
2	Sc 361.383	847329.2	847329.2	98.287	%	08:52:09
2	Y 371.029	690150.1	690150.1	96.578	%	08:52:09
3	Sc Radial	4671.9	4671.9	97.2	%	08:51:57
3	Y RADIAL	4842.7	4842.7	96.84	%	08:51:57
3	Al 396.153Radial†	52096.6	53753.9	[50000]	ug/L	08:51:37
3	Ca 317.933Radial†	29286.2	30115.9	[50000]	ug/L	08:51:37
3	Fe 238.204 Radial†	2151.0	2201.7	[20000]	ug/L	08:51:57
3	Mg 279.077 IEC†	1366.9	1406.0	[50000]	ug/L	08:51:57
3	Na 589.592 Radial†	63513.3	66427.5	[20000]	ug/L	08:51:37
3	Sc 361.383	854367.2	854367.2	99.104	%	08:52:15
3	Y 371.029	695943.9	695943.9	97.389	%	08:52:15

Mean Data: S10

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	854296.3	6931.89	0.81%	99.095	%
Sc Radial	4671.4	24.29	0.52%	97.2	%
Y 371.029	695797.0	5574.82	0.80%	97.368	%
Y RADIAL	4834.3	24.41	0.51%	96.67	%
Al 396.153Radial†	53900.7	148.22	0.27%	[50000]	ug/L
Ca 317.933Radial†	30151.6	72.95	0.24%	[50000]	ug/L
Fe 238.204 Radial†	2198.4	5.71	0.26%	[20000]	ug/L
Mg 279.077 IEC†	1408.9	2.86	0.20%	[50000]	ug/L
Na 589.592 Radial†	66554.3	179.12	0.27%	[20000]	ug/L

Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 328.068	3	Lin Thru 0	0.0	212.2	0.00000	0.999967	
Al 396.153Radial	3	Lin Thru 0	0.0	1.077	0.00000	0.999996	
As 188.979	3	Lin Thru 0	0.0	2.204	0.00000	0.999993	
B 249.677	3	Lin Thru 0	0.0	42.03	0.00000	0.999958	
Ba 233.527	3	Lin Thru 0	0.0	122.4	0.00000	0.999991	
Be 313.107	3	Lin Thru 0	0.0	2685	0.00000	0.999988	
Ca 317.933Radial	3	Lin Thru 0	0.0	0.6033	0.00000	0.999997	
Cd 226.502	3	Lin Thru 0	0.0	84.11	0.00000	0.999995	
Co 228.616	3	Lin Thru 0	0.0	45.78	0.00000	0.999983	
Cr 267.716	3	Lin Thru 0	0.0	85.90	0.00000	0.999992	
Cu 324.752	3	Lin Thru 0	0.0	329.7	0.00000	0.999967	
Fe 238.204 Radia	2	Lin Thru 0	0.0	0.1099	0.00000	1.000000	
K 766.490 Radial	3	Lin Thru 0	0.0	5.665	0.00000	0.999988	

Mg 279.077 IEC	3	Lin Thru 0	0.0	0.0282	0.00000	0.999982
Mn 257.610	3	Lin Thru 0	0.0	869.2	0.00000	0.999992
Mo 202.031	3	Lin Thru 0	0.0	13.35	0.00000	0.999941
Na 589.592 Radia	2	Lin Thru 0	0.0	3.306	0.00000	0.999916
Ni 231.604	3	Lin Thru 0	0.0	38.60	0.00000	0.999996
P 214.914	3	Lin Thru 0	0.0	1.607	0.00000	0.999965
Pb 220.353	3	Lin Thru 0	0.0	8.016	0.00000	0.999973
S 181.975 Axial	3	Lin Thru 0	0.0	0.6858	0.00000	0.999919
Sb 206.836	3	Lin Thru 0	0.0	2.869	0.00000	0.999859
Se 196.026	3	Lin Thru 0	0.0	1.484	0.00000	0.999969
Si 251.611	3	Lin Thru 0	0.0	29.90	0.00000	0.999960
Sn 189.927	3	Lin Thru 0	0.0	5.389	0.00000	0.999954
Sr 421.552	3	Lin Thru 0	0.0	142.6	0.00000	0.999970
Ti 334.940	3	Lin Thru 0	0.0	616.5	0.00000	0.999956
Tl 190.801	3	Lin Thru 0	0.0	3.121	0.00000	0.999986
U 409.014	3	Lin Thru 0	0.0	34.49	0.00000	0.999990
V 292.402	3	Lin Thru 0	0.0	137.7	0.00000	0.999984
Zn 213.857	3	Lin Thru 0	0.0	101.4	0.00000	0.999995
SiO2	3	Lin Thru 0	0.0	14.02	0.00000	0.999934

Sequence No.: 6
Sample ID: ICV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 9
Date Collected: 2/11/2010 08:54:26
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4905.6	4905.6	102	%			08:56:19
1	Y RADIAL	5074.8	5074.8	101.5	%			08:56:19
1	Al 396.153Radial†	5302.9	5347.8	4937.0	ug/L	4937.0	ppb	08:56:19
1	Ca 317.933Radial†	3082.5	3003.8	4978.6	ug/L	4978.6	ppb	08:56:39
1	Fe 238.204 Radial†	588.6	565.2	5158.2	ug/L	5158.2	ppb	08:56:39
1	K 766.490 Radial†	17137.1	13966.5	2461.9	ug/L	2461.9	ppb	08:56:19
1	Mg 279.077 IEC†	155.9	152.3	5398.3	ug/L	5398.3	ppb	08:56:39
1	Na 589.592 Radial†	7253.3	8185.8	2475.8	ug/L	2475.8	ppb	08:56:19
1	Sr 421.552†	76953.4	75402.4	528.77	ug/L	528.77	ppb	08:56:19
1	Sc 361.383	873788.1	873788.1	101.36	%			08:57:36
1	Y 371.029	717234.1	717234.1	100.37	%			08:57:36
1	Ag 328.068†	56636.5	55649.7	265.54	ug/L	265.54	ppb	08:57:36
1	As 188.979†	1022.6	1042.8	477.49	ug/L	477.49	ppb	08:57:56
1	B 249.677†	21580.4	21830.7	517.05	ug/L	517.05	ppb	08:57:36
1	Ba 233.527†	63501.3	62663.0	513.04	ug/L	513.04	ppb	08:57:36
1	Be 313.107†	707030.2	701906.9	262.60	ug/L	262.60	ppb	08:57:36
1	Cd 226.502†	41562.2	41217.8	489.92	ug/L	489.92	ppb	08:57:56
1	Co 228.616†	23689.4	23446.0	512.28	ug/L	512.28	ppb	08:57:56
1	Cr 267.716†	42742.3	42103.5	490.80	ug/L	490.80	ppb	08:57:36
1	Cu 324.752†	176399.1	168217.7	510.28	ug/L	510.28	ppb	08:57:36
1	Mn 257.610†	455363.7	448817.8	516.66	ug/L	516.66	ppb	08:57:36
1	Mo 202.031†	7358.7	7244.6	542.99	ug/L	542.99	ppb	08:57:56
1	Ni 231.604†	19796.8	19423.8	502.90	ug/L	502.90	ppb	08:57:56
1	P 214.914†	4305.1	4019.4	2402.0	ug/L	2402.0	ppb	08:57:56
1	Pb 220.353†	3992.1	4000.4	500.75	ug/L	500.75	ppb	08:57:56
1	S 181.975 Axial†	1769.3	1706.2	2487.1	ug/L	2487.1	ppb	08:57:56
1	Sb 206.836†	1509.3	1446.9	523.82	ug/L	523.82	ppb	08:57:56
1	Se 196.026†	3817.3	3788.3	2570.7	ug/L	2570.7	ppb	08:57:56
1	Si 251.611†	148189.5	145644.1	4864.9	ug/L	4864.9	ppb	08:57:36
1	Sn 189.927†	2959.8	2911.5	541.14	ug/L	541.14	ppb	08:57:56
1	Ti 334.940†	320077.4	317097.1	514.15	ug/L	514.15	ppb	08:57:36
1	Tl 190.801†	1634.7	1647.1	531.33	ug/L	531.33	ppb	08:57:56
1	U 409.014†	14498.9	17284.9	499.52	ug/L	499.52	ppb	08:57:36
1	V 292.402†	70050.0	70667.2	520.45	ug/L	520.45	ppb	08:57:36
1	Zn 213.857†	53831.7	52398.0	512.27	ug/L	512.27	ppb	08:57:36
1	SiO2†	145824.7	143290.0	10206	ug/L	10206	ppb	08:58:54
2	Sc Radial	4811.9	4811.9	100	%			08:56:44
2	Y RADIAL	4975.9	4975.9	99.50	%			08:56:44
2	Al 396.153Radial†	5291.0	5437.1	5020.0	ug/L	5020.0	ppb	08:56:44
2	Ca 317.933Radial†	3050.9	3031.0	5023.7	ug/L	5023.7	ppb	08:57:04
2	Fe 238.204 Radial†	577.7	565.6	5161.6	ug/L	5161.6	ppb	08:57:04
2	K 766.490 Radial†	17103.1	14259.5	2513.6	ug/L	2513.6	ppb	08:56:44
2	Mg 279.077 IEC†	152.7	152.1	5391.7	ug/L	5391.7	ppb	08:57:04
2	Na 589.592 Radial†	7234.7	8305.6	2512.0	ug/L	2512.0	ppb	08:56:44
2	Sr 421.552†	76606.4	76524.0	536.64	ug/L	536.64	ppb	08:56:44
2	Sc 361.383	874400.4	874400.4	101.43	%			08:58:02
2	Y 371.029	716650.7	716650.7	100.29	%			08:58:02
2	Ag 328.068†	56642.2	55616.2	265.39	ug/L	265.39	ppb	08:58:02
2	As 188.979†	1029.0	1048.4	480.04	ug/L	480.04	ppb	08:58:22
2	B 249.677†	21625.1	21859.8	517.75	ug/L	517.75	ppb	08:58:02
2	Ba 233.527†	63717.7	62832.5	514.42	ug/L	514.42	ppb	08:58:02
2	Be 313.107†	708671.1	703036.1	263.03	ug/L	263.03	ppb	08:58:02
2	Cd 226.502†	41421.0	41049.9	487.93	ug/L	487.93	ppb	08:58:22
2	Co 228.616†	23660.7	23401.4	511.30	ug/L	511.30	ppb	08:58:22
2	Cr 267.716†	42839.7	42170.0	491.57	ug/L	491.57	ppb	08:58:02
2	Cu 324.752†	176507.0	168202.2	510.24	ug/L	510.24	ppb	08:58:02
2	Mn 257.610†	456480.6	449604.3	517.57	ug/L	517.57	ppb	08:58:02
2	Mo 202.031†	7331.5	7212.8	540.61	ug/L	540.61	ppb	08:58:22
2	Ni 231.604†	19758.4	19372.3	501.57	ug/L	501.57	ppb	08:58:22

2	P 214.914†	4308.7	4020.0	2402.4 ug/L	2402.4 ppb	08:58:22
2	Pb 220.353†	3972.4	3978.2	498.00 ug/L	498.00 ppb	08:58:22
2	S 181.975 Axial†	1774.7	1710.3	2493.1 ug/L	2493.1 ppb	08:58:22
2	Sb 206.836†	1488.2	1425.1	516.11 ug/L	516.11 ppb	08:58:22
2	Se 196.026†	3809.7	3778.2	2564.0 ug/L	2564.0 ppb	08:58:22
2	Si 251.611†	148461.9	145810.2	4870.5 ug/L	4870.5 ppb	08:58:02
2	Sn 189.927†	2945.4	2895.2	538.14 ug/L	538.14 ppb	08:58:22
2	Ti 334.940†	320677.0	317467.1	514.76 ug/L	514.76 ppb	08:58:02
2	Tl 190.801†	1622.3	1633.7	527.05 ug/L	527.05 ppb	08:58:22
2	U 409.014†	14225.6	17005.4	491.41 ug/L	491.41 ppb	08:58:02
2	V 292.402†	70052.8	70621.6	520.07 ug/L	520.07 ppb	08:58:02
2	Zn 213.857†	53923.1	52451.0	512.80 ug/L	512.80 ppb	08:58:02
2	SiO2†	147354.2	144697.2	10307 ug/L	10307 ppb	08:58:59
3	Sc Radial	4748.9	4748.9	98.8 %		08:57:09
3	Y RADIAL	4894.7	4894.7	97.88 %		08:57:09
3	Al 396.153Radial†	5232.4	5447.8	5029.8 ug/L	5029.8 ppb	08:57:09
3	Ca 317.933Radial†	3082.4	3103.3	5143.5 ug/L	5143.5 ppb	08:57:29
3	Fe 238.204 Radial†	583.7	579.3	5286.2 ug/L	5286.2 ppb	08:57:29
3	K 766.490 Radial†	16918.7	14299.5	2520.6 ug/L	2520.6 ppb	08:57:09
3	Mg 279.077 IEC†	155.2	156.7	5554.2 ug/L	5554.2 ppb	08:57:29
3	Na 589.592 Radial†	7120.5	8285.9	2506.1 ug/L	2506.1 ppb	08:57:09
3	Sr 421.552†	75948.0	76872.9	539.08 ug/L	539.08 ppb	08:57:09
3	Sc 361.383	869718.4	869718.4	100.88 %		08:58:28
3	Y 371.029	712306.4	712306.4	99.679 %		08:58:28
3	Ag 328.068†	56276.0	55553.9	265.13 ug/L	265.13 ppb	08:58:28
3	As 188.979†	1024.1	1049.0	480.31 ug/L	480.31 ppb	08:58:48
3	B 249.677†	21376.6	21728.2	514.59 ug/L	514.59 ppb	08:58:28
3	Ba 233.527†	63178.6	62636.4	512.82 ug/L	512.82 ppb	08:58:28
3	Be 313.107†	700526.7	698724.5	261.42 ug/L	261.42 ppb	08:58:28
3	Cd 226.502†	41512.2	41360.2	491.61 ug/L	491.61 ppb	08:58:48
3	Co 228.616†	23706.4	23572.3	515.04 ug/L	515.04 ppb	08:58:48
3	Cr 267.716†	42447.0	42008.1	489.68 ug/L	489.68 ppb	08:58:28
3	Cu 324.752†	175323.2	167965.5	509.52 ug/L	509.52 ppb	08:58:28
3	Mn 257.610†	453146.5	448722.3	516.56 ug/L	516.56 ppb	08:58:28
3	Mo 202.031†	7356.9	7276.8	545.42 ug/L	545.42 ppb	08:58:48
3	Ni 231.604†	19792.0	19510.5	505.14 ug/L	505.14 ppb	08:58:48
3	P 214.914†	4302.8	4037.0	2413.1 ug/L	2413.1 ppb	08:58:48
3	Pb 220.353†	3982.1	4008.9	501.83 ug/L	501.83 ppb	08:58:48
3	S 181.975 Axial†	1779.6	1724.6	2514.0 ug/L	2514.0 ppb	08:58:48
3	Sb 206.836†	1495.1	1439.8	521.41 ug/L	521.41 ppb	08:58:48
3	Se 196.026†	3808.7	3797.5	2577.4 ug/L	2577.4 ppb	08:58:48
3	Si 251.611†	147504.4	145649.0	4865.0 ug/L	4865.0 ppb	08:58:28
3	Sn 189.927†	2952.3	2917.8	542.33 ug/L	542.33 ppb	08:58:48
3	Ti 334.940†	318577.8	317088.3	514.14 ug/L	514.14 ppb	08:58:28
3	Tl 190.801†	1644.0	1663.8	536.68 ug/L	536.68 ppb	08:58:48
3	U 409.014†	14423.0	17276.6	499.27 ug/L	499.27 ppb	08:58:28
3	V 292.402†	69539.9	70484.9	519.15 ug/L	519.15 ppb	08:58:28
3	Zn 213.857†	53523.5	52341.0	511.67 ug/L	511.67 ppb	08:58:28
3	SiO2†	146121.4	144257.4	10275 ug/L	10275 ppb	08:59:04

Mean Data: ICV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	872635.6	101.22	%	0.295				0.29%
Sc Radial	4822.2	100	%	1.6				1.64%
Y 371.029	715397.0	100.11	%	0.377				0.38%
Y RADIAL	4981.8	99.62	%	1.803				1.81%
Ag 328.068†	55606.6	265.35	ug/L	0.210	265.35	ppb	0.210	0.08%
QC value within limits for Ag 328.068 Recovery = 106.14%								
Al 396.153Radial†	5410.9	4995.6	ug/L	50.98	4995.6	ppb	50.98	1.02%
QC value within limits for Al 396.153Radial Recovery = 99.91%								
As 188.979†	1046.7	479.28	ug/L	1.556	479.28	ppb	1.556	0.32%
QC value within limits for As 188.979 Recovery = 95.86%								
B 249.677†	21806.2	516.46	ug/L	1.661	516.46	ppb	1.661	0.32%
QC value within limits for B 249.677 Recovery = 103.29%								
Ba 233.527†	62710.6	513.43	ug/L	0.868	513.43	ppb	0.868	0.17%
QC value within limits for Ba 233.527 Recovery = 102.69%								
Be 313.107†	701222.5	262.35	ug/L	0.833	262.35	ppb	0.833	0.32%
QC value within limits for Be 313.107 Recovery = 104.94%								
Ca 317.933Radial†	3046.0	5048.6	ug/L	85.23	5048.6	ppb	85.23	1.69%

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   QC value within limits for Ca 317.933Radial  Recovery = 100.97%
Cd 226.502†            41209.3      489.82 ug/L         1.842      489.82 ppb          1.842   0.38%
   QC value within limits for Cd 226.502  Recovery = 97.96%
Co 228.616†            23473.2      512.88 ug/L         1.941      512.88 ppb          1.941   0.38%
   QC value within limits for Co 228.616  Recovery = 102.58%
Cr 267.716†            42093.9      490.68 ug/L         0.948      490.68 ppb          0.948   0.19%
   QC value within limits for Cr 267.716  Recovery = 98.14%
Cu 324.752†           168128.5      510.01 ug/L         0.426      510.01 ppb          0.426   0.08%
   QC value within limits for Cu 324.752  Recovery = 102.00%
Fe 238.204 Radial†       570.0      5202.0 ug/L         72.97      5202.0 ppb          72.97   1.40%
   QC value within limits for Fe 238.204 Radial  Recovery = 104.04%
K 766.490 Radial†      14175.2      2498.7 ug/L         32.06      2498.7 ppb          32.06   1.28%
   QC value within limits for K 766.490 Radial  Recovery = 99.95%
Mg 279.077 IEC†          153.7      5448.0 ug/L         91.98      5448.0 ppb          91.98   1.69%
   QC value within limits for Mg 279.077 IEC  Recovery = 108.96%
Mn 257.610†           449048.1      516.93 ug/L         0.555      516.93 ppb          0.555   0.11%
   QC value within limits for Mn 257.610  Recovery = 103.39%
Mo 202.031†            7244.8      543.01 ug/L         2.403      543.01 ppb          2.403   0.44%
   QC value within limits for Mo 202.031  Recovery = 108.60%
Na 589.592 Radial†     8259.1      2498.0 ug/L         19.43      2498.0 ppb          19.43   0.78%
   QC value within limits for Na 589.592 Radial  Recovery = 99.92%
Ni 231.604†           19435.5      503.20 ug/L         1.808      503.20 ppb          1.808   0.36%
   QC value within limits for Ni 231.604  Recovery = 100.64%
P 214.914†             4025.5      2405.9 ug/L          6.28      2405.9 ppb           6.28   0.26%
   QC value within limits for P 214.914  Recovery = 96.23%
Pb 220.353†            3995.8      500.20 ug/L         1.976      500.20 ppb          1.976   0.40%
   QC value within limits for Pb 220.353  Recovery = 100.04%
S 181.975 Axial†       1713.7      2498.1 ug/L         14.09      2498.1 ppb          14.09   0.56%
   QC value within limits for S 181.975 Axial  Recovery = 99.92%
Sb 206.836†            1437.3      520.45 ug/L         3.943      520.45 ppb          3.943   0.76%
   QC value within limits for Sb 206.836  Recovery = 104.09%
Se 196.026†            3788.0      2570.7 ug/L          6.70      2570.7 ppb           6.70   0.26%
   QC value within limits for Se 196.026  Recovery = 102.83%
Si 251.611†           145701.1      4866.8 ug/L         3.19      4866.8 ppb           3.19   0.07%
   QC value within limits for Si 251.611  Recovery = 97.34%
Sn 189.927†            2908.2      540.54 ug/L         2.164      540.54 ppb          2.164   0.40%
   QC value within limits for Sn 189.927  Recovery = 108.11%
Sr 421.552†           76266.4      534.83 ug/L         5.388      534.83 ppb          5.388   1.01%
   QC value within limits for Sr 421.552  Recovery = 106.97%
Ti 334.940†           317217.5      514.35 ug/L         0.353      514.35 ppb          0.353   0.07%
   QC value within limits for Ti 334.940  Recovery = 102.87%
Tl 190.801†            1648.2      531.69 ug/L         4.824      531.69 ppb          4.824   0.91%
   QC value within limits for Tl 190.801  Recovery = 106.34%
U 409.014†            17189.0      496.73 ug/L         4.609      496.73 ppb          4.609   0.93%
   QC value within limits for U 409.014  Recovery = 99.35%
V 292.402†            70591.2      519.89 ug/L         0.671      519.89 ppb          0.671   0.13%
   QC value within limits for V 292.402  Recovery = 103.98%
Zn 213.857†           52396.7      512.24 ug/L         0.563      512.24 ppb          0.563   0.11%
   QC value within limits for Zn 213.857  Recovery = 102.45%
SiO2†                144081.5       10263 ug/L          51.4       10263 ppb           51.4   0.50%
   QC value within limits for SiO2  Recovery = 95.96%
All analyte(s) passed QC.
```

Sequence No.: 7
Sample ID: ICB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 10
Date Collected: 2/11/2010 09:01:15
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4463.4	4463.4	92.9	%			09:03:28
1	Y RADIAL	4975.7	4975.7	99.50	%			09:03:08
1	Al 396.153Radial†	-156.5	-16.9	-15.754	ug/L	-15.754	ppb	09:03:08
1	Ca 317.933Radial†	11.9	-3.9	-6.4667	ug/L	-6.4667	ppb	09:03:28
1	Fe 238.204 Radial†	10.6	-0.1	-0.8067	ug/L	-0.8067	ppb	09:03:28
1	K 766.490 Radial†	2826.0	217.8	38.456	ug/L	38.456	ppb	09:03:08
1	Mg 279.077 IEC†	0.2	-0.2	-6.2996	ug/L	-6.2996	ppb	09:03:28
1	Na 589.592 Radial†	-1053.8	-56.3	-17.043	ug/L	-17.043	ppb	09:03:08
1	Sr 421.552†	-24.9	-28.9	-0.2027	ug/L	-0.2027	ppb	09:03:08
1	Sc 361.383	857807.6	857807.6	99.503	%			09:04:25
1	Y 371.029	712009.8	712009.8	99.637	%			09:04:25
1	Ag 328.068†	317.2	90.0	0.4255	ug/L	0.4255	ppb	09:04:25
1	As 188.979†	-27.3	6.4	2.9004	ug/L	2.9004	ppb	09:04:45
1	B 249.677†	-220.3	317.7	7.5577	ug/L	7.5577	ppb	09:04:45
1	Ba 233.527†	-9.1	2.4	0.0201	ug/L	0.0201	ppb	09:04:45
1	Be 313.107†	-4212.6	105.0	0.0392	ug/L	0.0392	ppb	09:04:25
1	Cd 226.502†	-191.9	19.1	0.2266	ug/L	0.2266	ppb	09:04:45
1	Co 228.616†	-69.7	3.6	0.0807	ug/L	0.0807	ppb	09:04:45
1	Cr 267.716†	73.5	7.1	0.0833	ug/L	0.0833	ppb	09:04:45
1	Cu 324.752†	5711.7	-80.5	-0.2432	ug/L	-0.2432	ppb	09:04:25
1	Mn 257.610†	467.4	17.8	0.0207	ug/L	0.0207	ppb	09:04:45
1	Mo 202.031†	24.4	9.0	0.6720	ug/L	0.6720	ppb	09:04:45
1	Ni 231.604†	118.2	10.8	0.2797	ug/L	0.2797	ppb	09:04:45
1	P 214.914†	238.1	11.2	7.0228	ug/L	7.0228	ppb	09:04:45
1	Pb 220.353†	-52.2	9.2	1.1474	ug/L	1.1474	ppb	09:04:45
1	S 181.975 Axial†	38.2	-0.9	-1.3462	ug/L	-1.3462	ppb	09:04:45
1	Sb 206.836†	42.0	0.0	0.0608	ug/L	0.0608	ppb	09:04:45
1	Se 196.026†	-11.6	10.4	7.0202	ug/L	7.0202	ppb	09:04:45
1	Si 251.611†	592.7	33.4	1.1087	ug/L	1.1087	ppb	09:04:45
1	Sn 189.927†	18.7	10.1	1.8668	ug/L	1.8668	ppb	09:04:45
1	Ti 334.940†	-1285.2	11.5	0.0191	ug/L	0.0191	ppb	09:04:25
1	Tl 190.801†	-32.7	1.3	0.4275	ug/L	0.4275	ppb	09:04:45
1	U 409.014†	-3025.0	-60.0	-1.7407	ug/L	-1.7407	ppb	09:04:25
1	V 292.402†	-1534.5	12.5	0.0969	ug/L	0.0969	ppb	09:04:25
1	Zn 213.857†	734.2	24.6	0.2411	ug/L	0.2411	ppb	09:04:45
1	SiO2†	597.5	17.4	1.2203	ug/L	1.2203	ppb	09:05:41
2	Sc Radial	4447.0	4447.0	92.5	%			09:03:53
2	Y RADIAL	5012.0	5012.0	100.2	%			09:03:33
2	Al 396.153Radial†	-160.5	-21.9	-20.358	ug/L	-20.358	ppb	09:03:33
2	Ca 317.933Radial†	8.4	-7.6	-12.558	ug/L	-12.558	ppb	09:03:53
2	Fe 238.204 Radial†	11.4	0.8	7.5755	ug/L	7.5755	ppb	09:03:53
2	K 766.490 Radial†	2879.4	286.8	50.636	ug/L	50.636	ppb	09:03:33
2	Mg 279.077 IEC†	2.9	2.8	98.302	ug/L	98.302	ppb	09:03:53
2	Na 589.592 Radial†	-1083.3	-92.5	-27.971	ug/L	-27.971	ppb	09:03:33
2	Sr 421.552†	7.8	6.4	0.0448	ug/L	0.0448	ppb	09:03:33
2	Sc 361.383	852551.0	852551.0	98.893	%			09:04:50
2	Y 371.029	706796.0	706796.0	98.908	%			09:04:50
2	Ag 328.068†	303.4	78.0	0.3677	ug/L	0.3677	ppb	09:04:50
2	As 188.979†	-27.4	6.2	2.8015	ug/L	2.8015	ppb	09:05:10
2	B 249.677†	-267.0	269.1	6.4009	ug/L	6.4009	ppb	09:05:10
2	Ba 233.527†	-2.6	8.9	0.0730	ug/L	0.0730	ppb	09:05:10
2	Be 313.107†	-4306.5	-16.0	-0.0057	ug/L	-0.0057	ppb	09:04:50
2	Cd 226.502†	-200.8	8.9	0.1051	ug/L	0.1051	ppb	09:05:10
2	Co 228.616†	-76.7	-3.9	-0.0842	ug/L	-0.0842	ppb	09:05:10
2	Cr 267.716†	55.4	-10.8	-0.1268	ug/L	-0.1268	ppb	09:05:10
2	Cu 324.752†	5786.9	30.9	0.0926	ug/L	0.0926	ppb	09:04:50
2	Mn 257.610†	465.2	18.5	0.0180	ug/L	0.0180	ppb	09:05:10
2	Mo 202.031†	17.5	2.1	0.1589	ug/L	0.1589	ppb	09:05:10
2	Ni 231.604†	99.4	-7.5	-0.1939	ug/L	-0.1939	ppb	09:05:10

2	P 214.914†	221.7	-3.9	-2.4313 ug/L	-2.4313 ppb	09:05:10
2	Pb 220.353†	-56.7	4.4	0.5401 ug/L	0.5401 ppb	09:05:10
2	S 181.975 Axial†	40.0	1.1	1.6221 ug/L	1.6221 ppb	09:05:10
2	Sb 206.836†	31.7	-10.0	-3.5083 ug/L	-3.5083 ppb	09:05:10
2	Se 196.026†	-16.2	5.7	3.8786 ug/L	3.8786 ppb	09:05:10
2	Si 251.611†	585.5	29.8	0.9939 ug/L	0.9939 ppb	09:05:10
2	Sn 189.927†	5.5	-3.1	-0.5828 ug/L	-0.5828 ppb	09:05:10
2	Ti 334.940†	-1211.4	78.2	0.1160 ug/L	0.1160 ppb	09:04:50
2	Tl 190.801†	-27.7	6.2	1.9824 ug/L	1.9824 ppb	09:05:10
2	U 409.014†	-2853.3	94.8	2.7475 ug/L	2.7475 ppb	09:04:50
2	V 292.402†	-1545.4	-8.0	-0.0500 ug/L	-0.0500 ppb	09:04:50
2	Zn 213.857†	713.3	8.1	0.0796 ug/L	0.0796 ppb	09:05:10
2	SiO2†	598.4	21.9	1.5600 ug/L	1.5600 ppb	09:05:46
3	Sc Radial	4475.5	4475.5	93.1 %		09:04:18
3	Y RADIAL	5015.8	5015.8	100.3 %		09:03:58
3	Al 396.153Radial†	-137.6	3.8	3.5080 ug/L	3.5080 ppb	09:03:58
3	Ca 317.933Radial†	18.6	3.2	5.3351 ug/L	5.3351 ppb	09:04:18
3	Fe 238.204 Radial†	12.0	1.4	12.650 ug/L	12.650 ppb	09:04:18
3	K 766.490 Radial†	2880.9	268.5	47.410 ug/L	47.410 ppb	09:03:58
3	Mg 279.077 IEC†	1.0	0.6	22.919 ug/L	22.919 ppb	09:04:18
3	Na 589.592 Radial†	-1130.6	-135.8	-41.067 ug/L	-41.067 ppb	09:03:58
3	Sr 421.552†	-25.0	-28.9	-0.2030 ug/L	-0.2030 ppb	09:03:58
3	Sc 361.383	861208.5	861208.5	99.897 %		09:05:15
3	Y 371.029	713423.0	713423.0	99.835 %		09:05:15
3	Ag 328.068†	278.9	50.4	0.2438 ug/L	0.2438 ppb	09:05:15
3	As 188.979†	-15.0	18.9	8.5754 ug/L	8.5754 ppb	09:05:36
3	B 249.677†	-286.4	252.4	6.0010 ug/L	6.0010 ppb	09:05:36
3	Ba 233.527†	2.0	13.6	0.1121 ug/L	0.1121 ppb	09:05:36
3	Be 313.107†	-4302.7	31.6	0.0116 ug/L	0.0116 ppb	09:05:15
3	Cd 226.502†	-200.1	11.6	0.1370 ug/L	0.1370 ppb	09:05:36
3	Co 228.616†	-61.8	11.9	0.2603 ug/L	0.2603 ppb	09:05:36
3	Cr 267.716†	73.8	7.1	0.0838 ug/L	0.0838 ppb	09:05:36
3	Cu 324.752†	5825.9	11.2	0.0349 ug/L	0.0349 ppb	09:05:15
3	Mn 257.610†	475.0	23.6	0.0275 ug/L	0.0275 ppb	09:05:36
3	Mo 202.031†	18.9	3.4	0.2523 ug/L	0.2523 ppb	09:05:36
3	Ni 231.604†	112.3	4.4	0.1144 ug/L	0.1144 ppb	09:05:36
3	P 214.914†	228.8	1.0	0.6167 ug/L	0.6167 ppb	09:05:36
3	Pb 220.353†	-60.4	1.3	0.1626 ug/L	0.1626 ppb	09:05:36
3	S 181.975 Axial†	44.2	4.9	7.1398 ug/L	7.1398 ppb	09:05:36
3	Sb 206.836†	38.4	-3.7	-1.2850 ug/L	-1.2850 ppb	09:05:36
3	Se 196.026†	-15.1	7.0	4.7421 ug/L	4.7421 ppb	09:05:36
3	Si 251.611†	586.3	24.6	0.8199 ug/L	0.8199 ppb	09:05:36
3	Sn 189.927†	12.2	3.5	0.6598 ug/L	0.6598 ppb	09:05:36
3	Ti 334.940†	-1333.3	-31.5	-0.0520 ug/L	-0.0520 ppb	09:05:15
3	Tl 190.801†	-25.1	9.1	2.9150 ug/L	2.9150 ppb	09:05:36
3	U 409.014†	-2998.1	-21.1	-0.6147 ug/L	-0.6147 ppb	09:05:15
3	V 292.402†	-1496.3	56.8	0.4134 ug/L	0.4134 ppb	09:05:15
3	Zn 213.857†	712.6	0.1	-0.0016 ug/L	-0.0016 ppb	09:05:36
3	SiO2†	614.9	32.4	2.3073 ug/L	2.3073 ppb	09:05:51

Mean Data: ICB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	857189.0	99.431	%	0.5059				0.51%
Sc Radial	4462.0	92.8	%	0.30				0.32%
Y 371.029	710743.0	99.460	%	0.4884				0.49%
Y RADIAL	5001.2	100.0	%	0.44				0.44%
Ag 328.068†	72.8	0.3457	ug/L	0.09286	0.3457	ppb	0.09286	26.86%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-11.7	-10.868	ug/L	12.6609	-10.868	ppb	12.6609	116.50%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	10.5	4.7591	ug/L	3.30538	4.7591	ppb	3.30538	69.45%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	279.7	6.6532	ug/L	0.80844	6.6532	ppb	0.80844	12.15%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	8.3	0.0684	ug/L	0.04618	0.0684	ppb	0.04618	67.55%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	40.2	0.0151	ug/L	0.02261	0.0151	ppb	0.02261	150.21%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-2.8	-4.5632	ug/L	9.09720	-4.5632	ppb	9.09720	199.36%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              13.2      0.1563 ug/L       0.06300      0.1563 ppb        0.06300  40.32%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†               3.9      0.0856 ug/L       0.17231      0.0856 ppb        0.17231 201.24%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†               1.1      0.0135 ug/L       0.12144      0.0135 ppb        0.12144 902.69%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -12.8     -0.0386 ug/L       0.17956     -0.0386 ppb        0.17956 465.74%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        0.7      6.4729 ug/L       6.79576      6.4729 ppb        6.79576 104.99%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       257.7     45.501 ug/L        6.3105     45.501 ppb         6.3105  13.87%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           1.1     38.307 ug/L       53.9719     38.307 ppb        53.9719 140.89%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              20.0      0.0221 ug/L       0.00489      0.0221 ppb        0.00489  22.17%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               4.8      0.3611 ug/L       0.27332      0.3611 ppb        0.27332  75.69%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      -94.9    -28.694 ug/L       12.0284    -28.694 ppb        12.0284  41.92%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               2.6      0.0667 ug/L       0.24039      0.0667 ppb        0.24039 360.32%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                2.8      1.7361 ug/L       4.82541      1.7361 ppb        4.82541 277.95%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               5.0      0.6167 ug/L       0.49687      0.6167 ppb        0.49687  80.57%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          1.7      2.4719 ug/L       4.30637      2.4719 ppb        4.30637 174.21%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -4.6     -1.5775 ug/L       1.80244     -1.5775 ppb        1.80244 114.26%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               7.7      5.2136 ug/L       1.62300      5.2136 ppb        1.62300  31.13%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†              29.3      0.9742 ug/L       0.14539      0.9742 ppb        0.14539  14.92%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               3.5      0.6479 ug/L       1.22488      0.6479 ppb        1.22488 189.05%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             -17.2     -0.1203 ug/L       0.14301     -0.1203 ppb        0.14301 118.85%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              19.4      0.0277 ug/L       0.08430      0.0277 ppb        0.08430 304.33%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               5.5      1.7750 ug/L       1.25664      1.7750 ppb        1.25664  70.80%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                4.5      0.1307 ug/L       2.33507      0.1307 ppb        2.33507 >999.9%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               20.4      0.1534 ug/L       0.23680      0.1534 ppb        0.23680 154.34%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              10.9      0.1064 ug/L       0.12355      0.1064 ppb        0.12355 116.12%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                    23.9      1.6959 ug/L       0.55610      1.6959 ppb        0.55610  32.79%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 8
Sample ID: PQL
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 11
Date Collected: 2/11/2010 09:08:03
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: PQL

Rep1#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4822.5	4822.5	100	%			09:09:56
1	Y RADIAL	5023.6	5023.6	100.5	%			09:09:56
1	Al 396.153Radial†	60.8	212.2	196.44	ug/L	196.44	ppb	09:09:56
1	Ca 317.933Radial†	140.1	122.9	203.75	ug/L	203.75	ppb	09:10:16
1	Fe 238.204 Radial†	22.7	11.2	101.69	ug/L	101.69	ppb	09:10:16
1	K 766.490 Radial†	3634.0	796.6	140.40	ug/L	140.40	ppb	09:09:56
1	Mg 279.077 IEC†	10.4	9.9	351.66	ug/L	351.66	ppb	09:10:16
1	Na 589.592 Radial†	-48.1	1030.5	311.68	ug/L	311.68	ppb	09:09:56
1	Sr 421.552†	720.1	715.6	5.0172	ug/L	5.0172	ppb	09:09:56
1	Sc 361.383	845854.5	845854.5	98.116	%			09:11:13
1	Y 371.029	711995.2	711995.2	99.635	%			09:11:13
1	Ag 328.068†	1392.8	1190.8	5.6181	ug/L	5.6181	ppb	09:11:13
1	As 188.979†	38.4	73.0	33.161	ug/L	33.161	ppb	09:11:33
1	B 249.677†	1668.3	2239.4	53.244	ug/L	53.244	ppb	09:11:13
1	Ba 233.527†	607.3	630.6	5.1636	ug/L	5.1636	ppb	09:11:33
1	Be 313.107†	8856.1	13364.9	4.9893	ug/L	4.9893	ppb	09:11:13
1	Cd 226.502†	217.7	433.8	5.1609	ug/L	5.1609	ppb	09:11:33
1	Co 228.616†	159.1	235.9	5.1655	ug/L	5.1655	ppb	09:11:33
1	Cr 267.716†	478.1	420.5	4.8831	ug/L	4.8831	ppb	09:11:33
1	Cu 324.752†	9191.8	3547.5	10.737	ug/L	10.737	ppb	09:11:13
1	Mn 257.610†	9505.9	9236.5	10.622	ug/L	10.622	ppb	09:11:13
1	Mo 202.031†	154.9	142.3	10.670	ug/L	10.670	ppb	09:11:33
1	Ni 231.604†	298.0	195.7	5.0674	ug/L	5.0674	ppb	09:11:33
1	P 214.914†	465.2	246.1	151.07	ug/L	151.07	ppb	09:11:33
1	Pb 220.353†	24.8	87.0	10.907	ug/L	10.907	ppb	09:11:33
1	S 181.975 Axial†	105.7	68.4	99.701	ug/L	99.701	ppb	09:11:33
1	Sb 206.836†	68.4	27.6	10.005	ug/L	10.005	ppb	09:11:33
1	Se 196.026†	30.6	53.3	36.307	ug/L	36.307	ppb	09:11:33
1	Si 251.611†	3421.7	2925.2	97.711	ug/L	97.711	ppb	09:11:33
1	Sn 189.927†	69.3	62.0	11.534	ug/L	11.534	ppb	09:11:33
1	Ti 334.940†	1750.6	3087.4	4.9811	ug/L	4.9811	ppb	09:11:13
1	Tl 190.801†	36.1	71.0	22.819	ug/L	22.819	ppb	09:11:33
1	U 409.014†	-1119.5	1839.1	53.304	ug/L	53.304	ppb	09:11:13
1	V 292.402†	-876.1	661.7	5.0428	ug/L	5.0428	ppb	09:11:13
1	Zn 213.857†	1733.3	1053.3	10.330	ug/L	10.330	ppb	09:11:33
1	SiO2†	3516.5	3000.9	213.77	ug/L	213.77	ppb	09:12:29
2	Sc Radial	4686.9	4686.9	97.5	%			09:10:21
2	Y RADIAL	4883.4	4883.4	97.65	%			09:10:21
2	Al 396.153Radial†	45.9	198.7	183.91	ug/L	183.91	ppb	09:10:21
2	Ca 317.933Radial†	135.0	121.8	201.83	ug/L	201.83	ppb	09:10:41
2	Fe 238.204 Radial†	21.2	10.3	93.435	ug/L	93.435	ppb	09:10:41
2	K 766.490 Radial†	3692.7	961.6	169.54	ug/L	169.54	ppb	09:10:21
2	Mg 279.077 IEC†	10.7	10.6	375.58	ug/L	375.58	ppb	09:10:41
2	Na 589.592 Radial†	-66.5	1010.3	305.56	ug/L	305.56	ppb	09:10:21
2	Sr 421.552†	705.2	721.2	5.0561	ug/L	5.0561	ppb	09:10:21
2	Sc 361.383	843797.3	843797.3	97.878	%			09:11:38
2	Y 371.029	708306.1	708306.1	99.119	%			09:11:38
2	Ag 328.068†	1414.5	1216.4	5.7439	ug/L	5.7439	ppb	09:11:38
2	As 188.979†	36.6	71.2	32.359	ug/L	32.359	ppb	09:11:58
2	B 249.677†	1656.1	2231.0	53.046	ug/L	53.046	ppb	09:11:38
2	Ba 233.527†	605.4	630.1	5.1602	ug/L	5.1602	ppb	09:11:58
2	Be 313.107†	8754.4	13282.9	4.9592	ug/L	4.9592	ppb	09:11:38
2	Cd 226.502†	222.3	439.0	5.2221	ug/L	5.2221	ppb	09:11:58
2	Co 228.616†	155.9	233.0	5.0992	ug/L	5.0992	ppb	09:11:58
2	Cr 267.716†	511.4	455.8	5.2970	ug/L	5.2970	ppb	09:11:58
2	Cu 324.752†	9154.0	3531.8	10.693	ug/L	10.693	ppb	09:11:38
2	Mn 257.610†	9361.9	9113.0	10.479	ug/L	10.479	ppb	09:11:38
2	Mo 202.031†	142.1	129.7	9.7192	ug/L	9.7192	ppb	09:11:58
2	Ni 231.604†	313.3	212.1	5.4916	ug/L	5.4916	ppb	09:11:58

2	P 214.914†	470.4	252.5	155.07 ug/L	155.07 ppb	09:11:58
2	Pb 220.353†	11.7	73.7	9.2442 ug/L	9.2442 ppb	09:11:58
2	S 181.975 Axial†	106.5	69.5	101.24 ug/L	101.24 ppb	09:11:58
2	Sb 206.836†	54.4	13.4	5.0308 ug/L	5.0308 ppb	09:11:58
2	Se 196.026†	29.1	51.9	35.283 ug/L	35.283 ppb	09:11:58
2	Si 251.611†	3426.7	2938.7	98.177 ug/L	98.177 ppb	09:11:58
2	Sn 189.927†	64.1	56.8	10.576 ug/L	10.576 ppb	09:11:58
2	Ti 334.940†	1840.2	3183.3	5.1376 ug/L	5.1376 ppb	09:11:38
2	Tl 190.801†	31.2	66.0	21.222 ug/L	21.222 ppb	09:11:58
2	U 409.014†	-1373.8	1576.5	45.691 ug/L	45.691 ppb	09:11:38
2	V 292.402†	-815.8	721.2	5.4482 ug/L	5.4482 ppb	09:11:38
2	Zn 213.857†	1742.6	1067.1	10.464 ug/L	10.464 ppb	09:11:58
2	SiO2†	3498.1	2990.8	213.07 ug/L	213.07 ppb	09:12:34
3	Sc Radial	4965.1	4965.1	103 %		09:10:46
3	Y RADIAL	5174.6	5174.6	103.5 %		09:10:46
3	Al 396.153Radial†	76.0	225.2	208.49 ug/L	208.49 ppb	09:10:46
3	Ca 317.933Radial†	141.0	119.8	198.50 ug/L	198.50 ppb	09:11:06
3	Fe 238.204 Radial†	19.2	7.1	64.842 ug/L	64.842 ppb	09:11:06
3	K 766.490 Radial†	3608.1	667.5	117.63 ug/L	117.63 ppb	09:10:46
3	Mg 279.077 IEC†	11.2	10.4	368.05 ug/L	368.05 ppb	09:11:06
3	Na 589.592 Radial†	-110.4	971.7	293.88 ug/L	293.88 ppb	09:10:46
3	Sr 421.552†	768.4	741.9	5.2013 ug/L	5.2013 ppb	09:10:46
3	Sc 361.383	838794.7	838794.7	97.297 %		09:12:04
3	Y 371.029	701118.5	701118.5	98.113 %		09:12:04
3	Ag 328.068†	1246.7	1052.6	4.9594 ug/L	4.9594 ppb	09:12:04
3	As 188.979†	33.1	67.9	30.824 ug/L	30.824 ppb	09:12:24
3	B 249.677†	1601.6	2185.1	51.959 ug/L	51.959 ppb	09:12:04
3	Ba 233.527†	601.2	629.5	5.1542 ug/L	5.1542 ppb	09:12:24
3	Be 313.107†	8736.0	13317.4	4.9714 ug/L	4.9714 ppb	09:12:04
3	Cd 226.502†	217.1	435.0	5.1785 ug/L	5.1785 ppb	09:12:24
3	Co 228.616†	152.0	229.9	5.0349 ug/L	5.0349 ppb	09:12:24
3	Cr 267.716†	502.8	450.0	5.2278 ug/L	5.2278 ppb	09:12:24
3	Cu 324.752†	9046.5	3477.1	10.524 ug/L	10.524 ppb	09:12:04
3	Mn 257.610†	9345.5	9153.2	10.522 ug/L	10.522 ppb	09:12:04
3	Mo 202.031†	146.5	135.1	10.122 ug/L	10.122 ppb	09:12:24
3	Ni 231.604†	312.8	213.4	5.5264 ug/L	5.5264 ppb	09:12:24
3	P 214.914†	473.4	258.4	158.79 ug/L	158.79 ppb	09:12:24
3	Pb 220.353†	22.3	84.6	10.621 ug/L	10.621 ppb	09:12:24
3	S 181.975 Axial†	107.8	71.5	104.16 ug/L	104.16 ppb	09:12:24
3	Sb 206.836†	74.3	34.2	12.248 ug/L	12.248 ppb	09:12:24
3	Se 196.026†	28.1	51.0	34.616 ug/L	34.616 ppb	09:12:24
3	Si 251.611†	3427.0	2959.9	98.881 ug/L	98.881 ppb	09:12:24
3	Sn 189.927†	46.9	39.6	7.3719 ug/L	7.3719 ppb	09:12:24
3	Ti 334.940†	1667.1	3016.6	4.8658 ug/L	4.8658 ppb	09:12:04
3	Tl 190.801†	24.2	59.1	18.988 ug/L	18.988 ppb	09:12:24
3	U 409.014†	-1242.4	1703.2	49.367 ug/L	49.367 ppb	09:12:04
3	V 292.402†	-814.4	717.6	5.4397 ug/L	5.4397 ppb	09:12:04
3	Zn 213.857†	1742.7	1077.9	10.574 ug/L	10.574 ppb	09:12:24
3	SiO2†	3544.6	3059.9	217.99 ug/L	217.99 ppb	09:12:39

Mean Data: PQL

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	842815.5	97.764	%	0.4212				0.43%
Sc Radial	4824.8	100	%	2.9				2.88%
Y 371.029	707139.9	98.956	%	0.7740				0.78%
Y RADIAL	5027.2	100.5	%	2.91				2.90%
Ag 328.068†	1153.3	5.4405	ug/L	0.42133	5.4405	ppb	0.42133	7.74%
QC value within limits for Ag 328.068 Recovery = 108.81%								
Al 396.153Radial†	212.0	196.28	ug/L	12.289	196.28	ppb	12.289	6.26%
QC value within limits for Al 396.153Radial Recovery = 98.14%								
As 188.979†	70.7	32.115	ug/L	1.1878	32.115	ppb	1.1878	3.70%
QC value within limits for As 188.979 Recovery = 107.05%								
B 249.677†	2218.5	52.750	ug/L	0.6922	52.750	ppb	0.6922	1.31%
QC value within limits for B 249.677 Recovery = 105.50%								
Ba 233.527†	630.1	5.1594	ug/L	0.00474	5.1594	ppb	0.00474	0.09%
QC value within limits for Ba 233.527 Recovery = 103.19%								
Be 313.107†	13321.7	4.9733	ug/L	0.01517	4.9733	ppb	0.01517	0.31%
QC value within limits for Be 313.107 Recovery = 99.47%								
Ca 317.933Radial†	121.5	201.36	ug/L	2.655	201.36	ppb	2.655	1.32%

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   QC value within limits for Ca 317.933Radial  Recovery = 100.68%
Cd 226.502†              436.0      5.1872 ug/L       0.03152      5.1872 ppb        0.03152   0.61%
   QC value within limits for Cd 226.502  Recovery = 103.74%
Co 228.616†              232.9      5.0999 ug/L       0.06531      5.0999 ppb        0.06531   1.28%
   QC value within limits for Co 228.616  Recovery = 102.00%
Cr 267.716†              442.1      5.1360 ug/L       0.22170      5.1360 ppb        0.22170   4.32%
   QC value within limits for Cr 267.716  Recovery = 102.72%
Cu 324.752†             3518.8      10.651 ug/L        0.1127      10.651 ppb         0.1127   1.06%
   QC value within limits for Cu 324.752  Recovery = 106.51%
Fe 238.204 Radial†        9.5      86.655 ug/L       19.3364      86.655 ppb        19.3364  22.31%
   QC value within limits for Fe 238.204 Radial  Recovery = 86.66%
K 766.490 Radial†        808.5      142.52 ug/L        26.020      142.52 ppb         26.020  18.26%
   QC value within limits for K 766.490 Radial  Recovery = 95.01%
Mg 279.077 IEC†           10.3      365.10 ug/L        12.231      365.10 ppb         12.231   3.35%
   QC value within limits for Mg 279.077 IEC  Recovery = 121.70%
Mn 257.610†             9167.6      10.541 ug/L        0.0738      10.541 ppb         0.0738   0.70%
   QC value within limits for Mn 257.610  Recovery = 105.41%
Mo 202.031†              135.7      10.170 ug/L        0.4772      10.170 ppb         0.4772   4.69%
   QC value within limits for Mo 202.031  Recovery = 101.70%
Na 589.592 Radial†      1004.2      303.71 ug/L         9.044      303.71 ppb          9.044   2.98%
   QC value within limits for Na 589.592 Radial  Recovery = 101.24%
Ni 231.604†              207.1      5.3618 ug/L       0.25553      5.3618 ppb        0.25553   4.77%
   QC value within limits for Ni 231.604  Recovery = 107.24%
P 214.914†               252.3      154.98 ug/L         3.862      154.98 ppb          3.862   2.49%
   QC value within limits for P 214.914  Recovery = 103.32%
Pb 220.353†               81.8      10.257 ug/L        0.8890      10.257 ppb         0.8890   8.67%
   QC value within limits for Pb 220.353  Recovery = 102.57%
S 181.975 Axial†          69.8      101.70 ug/L         2.262      101.70 ppb          2.262   2.22%
   QC value within limits for S 181.975 Axial  Recovery = 101.70%
Sb 206.836†               25.1      9.0946 ug/L       3.69377      9.0946 ppb        3.69377  40.61%
   QC value within limits for Sb 206.836  Recovery = 90.95%
Se 196.026†               52.1      35.402 ug/L        0.8518      35.402 ppb         0.8518   2.41%
   QC value within limits for Se 196.026  Recovery = 118.01%
Si 251.611†             2941.3      98.256 ug/L        0.5889      98.256 ppb         0.5889   0.60%
   QC value within limits for Si 251.611  Recovery = 98.26%
Sn 189.927†               52.8      9.8272 ug/L       2.17961      9.8272 ppb        2.17961  22.18%
   QC value within limits for Sn 189.927  Recovery = 98.27%
Sr 421.552†              726.2      5.0915 ug/L       0.09704      5.0915 ppb        0.09704   1.91%
   QC value within limits for Sr 421.552  Recovery = 101.83%
Ti 334.940†             3095.8      4.9948 ug/L       0.13641      4.9948 ppb        0.13641   2.73%
   QC value within limits for Ti 334.940  Recovery = 99.90%
Tl 190.801†               65.4      21.010 ug/L        1.9247      21.010 ppb         1.9247   9.16%
   QC value within limits for Tl 190.801  Recovery = 105.05%
U 409.014†              1706.3      49.454 ug/L        3.8076      49.454 ppb         3.8076   7.70%
   QC value within limits for U 409.014  Recovery = 98.91%
V 292.402†               700.2      5.3102 ug/L       0.23160      5.3102 ppb        0.23160   4.36%
   QC value within limits for V 292.402  Recovery = 106.20%
Zn 213.857†             1066.1      10.456 ug/L        0.1226      10.456 ppb         0.1226   1.17%
   QC value within limits for Zn 213.857  Recovery = 104.56%
SiO2†                   3017.2      214.94 ug/L         2.662      214.94 ppb          2.662   1.24%
   QC value within limits for SiO2  Recovery = 100.91%
All analyte(s) passed QC.
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Sequence No.: 9
Sample ID: ICSA
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 13
Date Collected: 2/11/2010 09:14:51
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSA

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4326.5	4326.5	90.0	%			09:16:49
1	Y RADIAL	4511.2	4511.2	90.21	%			09:16:49
1	Al 396.153Radial†	503296.9	559331.5	519120	ug/L	519120	ppb	09:16:44
1	Ca 317.933Radial†	262031.1	291108.8	482490	ug/L	482490	ppb	09:16:44
1	Fe 238.204 Radial†	18673.8	20735.8	188670	ug/L	188670	ppb	09:16:49
1	K 766.490 Radial†	2498.4	-49.8	-170.18	ug/L	-170.18	ppb	09:16:44
1	Mg 279.077 IEC†	12536.8	13928.4	493450	ug/L	493450	ppb	09:16:49
1	Na 589.592 Radial†	-877.7	103.4	31.258	ug/L	31.258	ppb	09:16:49
1	Sr 421.552†	499.4	552.7	0.2735	ug/L	0.2735	ppb	09:16:49
1	Sc 361.383	756661.2	756661.2	87.770	%			09:17:16
1	Y 371.029	614842.6	614842.6	86.040	%			09:17:16
1	Ag 328.068†	-9783.5	-11375.5	3.5636	ug/L	3.5636	ppb	09:17:16
1	As 188.979†	-79.7	-57.0	18.184	ug/L	18.184	ppb	09:17:36
1	B 249.677†	428.7	1027.5	-6.1975	ug/L	-6.1975	ppb	09:17:16
1	Ba 233.527†	-574.5	-642.9	0.5243	ug/L	0.5243	ppb	09:17:36
1	Be 313.107†	-4762.2	-1087.1	-0.4615	ug/L	-0.4615	ppb	09:17:16
1	Cd 226.502†	1149.7	1521.8	-1.3855	ug/L	-1.3855	ppb	09:17:36
1	Co 228.616†	-17.9	53.3	-1.5563	ug/L	-1.5563	ppb	09:17:36
1	Cr 267.716†	-103.9	-185.2	1.5172	ug/L	1.5172	ppb	09:17:36
1	Cu 324.752†	2878.3	-2541.3	2.2550	ug/L	2.2550	ppb	09:17:16
1	Mn 257.610†	-120.4	-589.1	-2.2279	ug/L	-2.2279	ppb	09:17:16
1	Mo 202.031†	-219.4	-265.5	0.5037	ug/L	0.5037	ppb	09:17:36
1	Ni 231.604†	217.6	139.9	3.6229	ug/L	3.6229	ppb	09:17:36
1	P 214.914†	176.6	-26.9	-38.446	ug/L	-38.446	ppb	09:17:36
1	Pb 220.353†	-784.0	-831.5	-1.7906	ug/L	-1.7906	ppb	09:17:36
1	S 181.975 Axial†	48.9	16.3	-73.463	ug/L	-73.463	ppb	09:17:36
1	Sb 206.836†	74.6	42.8	-2.6229	ug/L	-2.6229	ppb	09:17:36
1	Se 196.026†	-908.7	-1013.2	-57.581	ug/L	-57.581	ppb	09:17:36
1	Si 251.611†	419.3	-84.6	-2.5834	ug/L	-2.5834	ppb	09:17:36
1	Sn 189.927†	-350.6	-408.1	0.7610	ug/L	0.7610	ppb	09:17:36
1	Ti 334.940†	-14629.1	-15364.3	-0.5425	ug/L	-0.5425	ppb	09:17:16
1	Tl 190.801†	-75.8	-52.1	-16.947	ug/L	-16.947	ppb	09:17:36
1	U 409.014†	-1407.2	1376.7	18.417	ug/L	18.417	ppb	09:17:16
1	V 292.402†	548.1	2179.1	-2.2965	ug/L	-2.2965	ppb	09:17:36
1	Zn 213.857†	3040.2	2750.6	-1.1107	ug/L	-1.1107	ppb	09:17:36
1	SiO2†	425.3	-98.5	-6.4871	ug/L	-6.4871	ppb	09:18:33
2	Sc Radial	4271.5	4271.5	88.9	%			09:16:59
2	Y RADIAL	4476.6	4476.6	89.52	%			09:16:59
2	Al 396.153Radial†	512980.6	577434.4	535930	ug/L	535930	ppb	09:16:54
2	Ca 317.933Radial†	265619.6	298898.4	495400	ug/L	495400	ppb	09:16:54
2	Fe 238.204 Radial†	18581.2	20898.9	190150	ug/L	190150	ppb	09:16:59
2	K 766.490 Radial†	2359.4	-170.5	-195.80	ug/L	-195.80	ppb	09:16:54
2	Mg 279.077 IEC†	12452.8	14013.4	496460	ug/L	496460	ppb	09:16:59
2	Na 589.592 Radial†	-912.1	52.0	15.737	ug/L	15.737	ppb	09:16:59
2	Sr 421.552†	480.6	538.7	0.0789	ug/L	0.0789	ppb	09:16:59
2	Sc 361.383	754714.5	754714.5	87.544	%			09:17:42
2	Y 371.029	615095.6	615095.6	86.075	%			09:17:42
2	Ag 328.068†	-9621.7	-11219.5	4.6281	ug/L	4.6281	ppb	09:17:42
2	As 188.979†	-90.1	-69.1	13.027	ug/L	13.027	ppb	09:18:02
2	B 249.677†	264.3	841.0	-10.877	ug/L	-10.877	ppb	09:17:42
2	Ba 233.527†	-619.6	-696.2	0.1342	ug/L	0.1342	ppb	09:18:02
2	Be 313.107†	-4764.6	-1103.8	-0.4669	ug/L	-0.4669	ppb	09:17:42
2	Cd 226.502†	1162.9	1540.2	-1.3211	ug/L	-1.3211	ppb	09:18:02
2	Co 228.616†	-17.6	53.6	-1.5760	ug/L	-1.5760	ppb	09:18:02
2	Cr 267.716†	-112.5	-195.2	1.4311	ug/L	1.4311	ppb	09:18:02
2	Cu 324.752†	2755.3	-2673.4	1.9361	ug/L	1.9361	ppb	09:17:42
2	Mn 257.610†	-225.9	-710.0	-2.3435	ug/L	-2.3435	ppb	09:17:42
2	Mo 202.031†	-239.3	-288.8	-0.9757	ug/L	-0.9757	ppb	09:18:02
2	Ni 231.604†	194.4	114.0	2.9532	ug/L	2.9532	ppb	09:18:02

2	P 214.914†	170.5	-33.3	-39.381 ug/L	-39.381 ppb	09:18:02
2	Pb 220.353†	-772.0	-820.1	3.3215 ug/L	3.3215 ppb	09:18:02
2	S 181.975 Axial†	56.3	25.0	-64.046 ug/L	-64.046 ppb	09:18:02
2	Sb 206.836†	83.8	53.5	0.5867 ug/L	0.5867 ppb	09:18:02
2	Se 196.026†	-902.9	-1009.2	-49.581 ug/L	-49.581 ppb	09:18:02
2	Si 251.611†	461.2	-35.5	-0.9207 ug/L	-0.9207 ppb	09:18:02
2	Sn 189.927†	-353.7	-412.8	1.8855 ug/L	1.8855 ppb	09:18:02
2	Ti 334.940†	-14406.9	-15153.5	1.2878 ug/L	1.2878 ppb	09:17:42
2	Tl 190.801†	-66.8	-42.1	-13.742 ug/L	-13.742 ppb	09:18:02
2	U 409.014†	-1586.2	1168.1	12.200 ug/L	12.200 ppb	09:17:42
2	V 292.402†	513.6	2141.3	-2.7653 ug/L	-2.7653 ppb	09:18:02
2	Zn 213.857†	3036.5	2755.3	-1.2816 ug/L	-1.2816 ppb	09:18:02
2	SiO2†	470.7	-45.5	-2.6559 ug/L	-2.6559 ppb	09:18:38
3	Sc Radial	4258.1	4258.1	88.6 %		09:17:10
3	Y RADIAL	4456.2	4456.2	89.11 %		09:17:10
3	Al 396.153Radial†	515024.4	581552.3	539750 ug/L	539750 ppb	09:17:05
3	Ca 317.933Radial†	266059.5	300332.5	497780 ug/L	497780 ppb	09:17:05
3	Fe 238.204 Radial†	18473.9	20843.3	189650 ug/L	189650 ppb	09:17:10
3	K 766.490 Radial†	2466.4	-41.5	-173.82 ug/L	-173.82 ppb	09:17:05
3	Mg 279.077 IEC†	12393.1	13990.0	495630 ug/L	495630 ppb	09:17:10
3	Na 589.592 Radial†	-853.2	115.4	34.896 ug/L	34.896 ppb	09:17:10
3	Sr 421.552†	465.5	523.4	-0.0465 ug/L	-0.0465 ppb	09:17:10
3	Sc 361.383	755768.5	755768.5	87.667 %		09:18:07
3	Y 371.029	616708.1	616708.1	86.301 %		09:18:07
3	Ag 328.068†	-9560.5	-11134.3	4.8227 ug/L	4.8227 ppb	09:18:07
3	As 188.979†	-82.9	-60.7	16.730 ug/L	16.730 ppb	09:18:27
3	B 249.677†	288.5	868.1	-10.149 ug/L	-10.149 ppb	09:18:07
3	Ba 233.527†	-599.8	-672.6	0.3123 ug/L	0.3123 ppb	09:18:27
3	Be 313.107†	-4606.8	-916.2	-0.3960 ug/L	-0.3960 ppb	09:18:07
3	Cd 226.502†	1135.0	1506.6	-1.6662 ug/L	-1.6662 ppb	09:18:27
3	Co 228.616†	-5.3	67.6	-1.2588 ug/L	-1.2588 ppb	09:18:27
3	Cr 267.716†	-75.9	-153.4	1.9061 ug/L	1.9061 ppb	09:18:27
3	Cu 324.752†	2758.9	-2673.7	1.9044 ug/L	1.9044 ppb	09:18:07
3	Mn 257.610†	-175.5	-652.0	-2.2927 ug/L	-2.2927 ppb	09:18:07
3	Mo 202.031†	-216.1	-262.0	1.0217 ug/L	1.0217 ppb	09:18:27
3	Ni 231.604†	231.6	156.1	4.0441 ug/L	4.0441 ppb	09:18:27
3	P 214.914†	203.6	4.1	-14.688 ug/L	-14.688 ppb	09:18:27
3	Pb 220.353†	-809.6	-861.7	-0.9582 ug/L	-0.9582 ppb	09:18:27
3	S 181.975 Axial†	44.6	11.5	-84.346 ug/L	-84.346 ppb	09:18:27
3	Sb 206.836†	79.1	48.1	-1.3410 ug/L	-1.3410 ppb	09:18:27
3	Se 196.026†	-919.7	-1027.0	-63.050 ug/L	-63.050 ppb	09:18:27
3	Si 251.611†	454.2	-44.2	-1.2364 ug/L	-1.2364 ppb	09:18:27
3	Sn 189.927†	-345.5	-402.8	4.0886 ug/L	4.0886 ppb	09:18:27
3	Ti 334.940†	-14189.3	-14882.3	2.1109 ug/L	2.1109 ppb	09:18:07
3	Tl 190.801†	-60.0	-34.2	-11.215 ug/L	-11.215 ppb	09:18:27
3	U 409.014†	-1365.7	1422.3	19.625 ug/L	19.625 ppb	09:18:07
3	V 292.402†	574.2	2209.6	-2.1700 ug/L	-2.1700 ppb	09:18:27
3	Zn 213.857†	3012.1	2722.6	-1.5360 ug/L	-1.5360 ppb	09:18:27
3	SiO2†	481.6	-33.8	-1.8752 ug/L	-1.8752 ppb	09:18:43

Mean Data: ICSA

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	755714.7	87.660	%	0.1130				0.13%
Sc Radial	4285.4	89.2	%	0.75				0.85%
Y 371.029	615548.8	86.139	%	0.1416				0.16%
Y RADIAL	4481.4	89.62	%	0.556				0.62%
Ag 328.068†	-11243.1	4.3381	ug/L	0.67777	4.3381	ppb	0.67777	15.62%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	572772.7	531600	ug/L	10971.3	531600	ppb	10971.3	2.06%
QC value within limits for Al 396.153Radial Recovery = 106.32%								
As 188.979†	-62.2	15.980	ug/L	2.6589	15.980	ppb	2.6589	16.64%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	912.2	-9.0743	ug/L	2.51784	-9.0743	ppb	2.51784	27.75%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-670.6	0.3236	ug/L	0.19527	0.3236	ppb	0.19527	60.34%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-1035.7	-0.4415	ug/L	0.03944	-0.4415	ppb	0.03944	8.93%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	296779.9	491890	ug/L	8226.5	491890	ppb	8226.5	1.67%

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   QC value within limits for Ca 317.933Radial  Recovery = 98.38%
Cd 226.502†            1522.9     -1.4576 ug/L       0.18350     -1.4576 ppb        0.18350  12.59%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†              58.2     -1.4637 ug/L       0.17773     -1.4637 ppb        0.17773  12.14%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†            -178.0      1.6181 ug/L       0.25308      1.6181 ppb        0.25308  15.64%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†           -2629.5      2.0318 ug/L       0.19389      2.0318 ppb        0.19389   9.54%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†    20826.0      189490 ug/L         754.5      189490 ppb          754.5   0.40%
   QC value within limits for Fe 238.204 Radial  Recovery = 94.74%
K 766.490 Radial†        -87.3     -179.93 ug/L        13.858     -179.93 ppb         13.858   7.70%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†       13977.3      495180 ug/L        1554.3      495180 ppb         1554.3   0.31%
   QC value within limits for Mg 279.077 IEC  Recovery = 99.04%
Mn 257.610†            -650.4     -2.2880 ug/L       0.05795     -2.2880 ppb        0.05795   2.53%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†            -272.1      0.1832 ug/L       1.03653      0.1832 ppb        1.03653 565.70%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       90.3      27.297 ug/L       10.1754      27.297 ppb        10.1754  37.28%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†             136.7      3.5401 ug/L       0.55015      3.5401 ppb        0.55015  15.54%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†              -18.7     -30.838 ug/L       13.9943     -30.838 ppb        13.9943  45.38%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†            -837.8      0.1909 ug/L       2.74297      0.1909 ppb        2.74297 >999.9%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         17.6     -73.952 ug/L       10.1589     -73.952 ppb        10.1589  13.74%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              48.2     -1.1258 ug/L       1.61558     -1.1258 ppb        1.61558 143.51%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†           -1016.5     -56.738 ug/L        6.7740     -56.738 ppb         6.7740  11.94%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†              -54.7     -1.5802 ug/L       0.88305     -1.5802 ppb        0.88305  55.88%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†            -407.9      2.2451 ug/L       1.69268      2.2451 ppb        1.69268  75.40%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             538.3      0.1020 ug/L       0.16126      0.1020 ppb        0.16126 158.13%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†          -15133.3      0.9521 ug/L       1.35820      0.9521 ppb        1.35820 142.66%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -42.8     -13.968 ug/L        2.8728     -13.968 ppb         2.8728  20.57%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†             1322.4      16.747 ug/L        3.9841      16.747 ppb         3.9841  23.79%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†             2176.7     -2.4106 ug/L       0.31365     -2.4106 ppb        0.31365  13.01%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†            2742.8     -1.3094 ug/L       0.21398     -1.3094 ppb        0.21398  16.34%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                   -59.3     -3.6728 ug/L       2.46839     -3.6728 ppb        2.46839  67.21%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 10
Sample ID: ICSAB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 14
Date Collected: 2/11/2010 09:20:55
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSAB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4396.9	4396.9	91.5	%			09:22:52
1	Y RADIAL	4610.6	4610.6	92.20	%			09:22:52
1	Al 396.153Radial†	506685.4	554079.7	514230	ug/L	514230	ppb	09:22:47
1	Ca 317.933Radial†	261800.7	286194.0	474350	ug/L	474350	ppb	09:22:47
1	Fe 238.204 Radial†	18412.4	20117.6	183060	ug/L	183060	ppb	09:22:52
1	K 766.490 Radial†	30129.7	30113.2	5154.1	ug/L	5154.1	ppb	09:22:47
1	Mg 279.077 IEC†	12405.8	13562.1	480480	ug/L	480480	ppb	09:22:52
1	Na 589.592 Radial†	14834.9	17296.5	5231.3	ug/L	5231.3	ppb	09:22:52
1	Sr 421.552†	66068.1	72226.1	502.99	ug/L	502.99	ppb	09:22:47
1	Sc 361.383	772772.6	772772.6	89.639	%			09:23:20
1	Y 371.029	628033.3	628033.3	87.886	%			09:23:20
1	Ag 328.068†	40946.5	45450.6	271.13	ug/L	271.13	ppb	09:23:20
1	As 188.979†	891.5	1028.4	512.59	ug/L	512.59	ppb	09:23:40
1	B 249.677†	19385.3	22165.0	496.31	ug/L	496.31	ppb	09:23:20
1	Ba 233.527†	52316.8	58375.5	483.43	ug/L	483.43	ppb	09:23:20
1	Be 313.107†	574171.6	644876.5	241.29	ug/L	241.29	ppb	09:23:20
1	Cd 226.502†	35085.2	39352.5	449.33	ug/L	449.33	ppb	09:23:40
1	Co 228.616†	18112.6	20279.9	440.41	ug/L	440.41	ppb	09:23:40
1	Cr 267.716†	36591.2	40753.8	478.53	ug/L	478.53	ppb	09:23:20
1	Cu 324.752†	163531.5	176612.7	545.16	ug/L	545.16	ppb	09:23:20
1	Mn 257.610†	366154.8	408025.3	467.87	ug/L	467.87	ppb	09:23:20
1	Mo 202.031†	5497.6	6117.5	477.98	ug/L	477.98	ppb	09:23:40
1	Ni 231.604†	15356.6	17023.6	440.76	ug/L	440.76	ppb	09:23:40
1	P 214.914†	3739.4	3943.6	2332.2	ug/L	2332.2	ppb	09:23:40
1	Pb 220.353†	2446.7	2791.2	450.35	ug/L	450.35	ppb	09:23:40
1	S 181.975 Axial†	1625.7	1774.2	2490.8	ug/L	2490.8	ppb	09:23:40
1	Sb 206.836†	1370.0	1486.2	518.08	ug/L	518.08	ppb	09:23:40
1	Se 196.026†	2363.9	2659.3	2399.9	ug/L	2399.9	ppb	09:23:40
1	Si 251.611†	137825.4	153193.9	5118.5	ug/L	5118.5	ppb	09:23:20
1	Sn 189.927†	1983.7	2204.3	484.24	ug/L	484.24	ppb	09:23:40
1	Ti 334.940†	266479.3	298583.8	508.25	ug/L	508.25	ppb	09:23:20
1	Tl 190.801†	1155.1	1322.8	427.27	ug/L	427.27	ppb	09:23:40
1	U 409.014†	13233.0	17742.6	492.55	ug/L	492.55	ppb	09:23:20
1	V 292.402†	61400.5	70052.2	498.13	ug/L	498.13	ppb	09:23:20
1	Zn 213.857†	47401.4	52167.1	483.73	ug/L	483.73	ppb	09:23:20
1	SiO2†	137069.3	152329.4	10853	ug/L	10853	ppb	09:24:38
2	Sc Radial	4421.7	4421.7	92.0	%			09:23:03
2	Y RADIAL	4650.4	4650.4	93.00	%			09:23:03
2	Al 396.153Radial†	505026.4	549169.2	509670	ug/L	509670	ppb	09:22:58
2	Ca 317.933Radial†	260692.2	283383.5	469690	ug/L	469690	ppb	09:22:58
2	Fe 238.204 Radial†	18454.7	20050.7	182450	ug/L	182450	ppb	09:23:03
2	K 766.490 Radial†	30107.0	29903.9	5118.7	ug/L	5118.7	ppb	09:22:58
2	Mg 279.077 IEC†	12417.0	13498.2	478220	ug/L	478220	ppb	09:23:03
2	Na 589.592 Radial†	14964.9	17346.9	5246.6	ug/L	5246.6	ppb	09:23:03
2	Sr 421.552†	65690.1	71410.0	497.30	ug/L	497.30	ppb	09:22:58
2	Sc 361.383	764739.9	764739.9	88.707	%			09:23:46
2	Y 371.029	621595.5	621595.5	86.985	%			09:23:46
2	Ag 328.068†	40590.0	45528.5	271.35	ug/L	271.35	ppb	09:23:46
2	As 188.979†	889.2	1036.2	515.99	ug/L	515.99	ppb	09:24:06
2	B 249.677†	19258.0	22248.6	498.39	ug/L	498.39	ppb	09:23:46
2	Ba 233.527†	51845.8	58457.6	484.08	ug/L	484.08	ppb	09:23:46
2	Be 313.107†	566394.6	642837.6	240.54	ug/L	240.54	ppb	09:23:46
2	Cd 226.502†	35086.9	39765.5	454.31	ug/L	454.31	ppb	09:24:06
2	Co 228.616†	18134.0	20516.3	445.59	ug/L	445.59	ppb	09:24:06
2	Cr 267.716†	36251.6	40799.8	479.05	ug/L	479.05	ppb	09:23:46
2	Cu 324.752†	162008.2	176811.7	545.73	ug/L	545.73	ppb	09:23:46
2	Mn 257.610†	362408.4	408092.5	467.98	ug/L	467.98	ppb	09:23:46
2	Mo 202.031†	5494.0	6177.9	482.40	ug/L	482.40	ppb	09:24:06
2	Ni 231.604†	15385.0	17235.5	446.25	ug/L	446.25	ppb	09:24:06

2	P 214.914†	3735.3	3982.7	2355.8 ug/L	2355.8 ppb	09:24:06
2	Pb 220.353†	2463.6	2839.0	455.32 ug/L	455.32 ppb	09:24:06
2	S 181.975 Axial†	1635.9	1804.8	2536.2 ug/L	2536.2 ppb	09:24:06
2	Sb 206.836†	1363.5	1494.9	521.30 ug/L	521.30 ppb	09:24:06
2	Se 196.026†	2372.3	2696.4	2422.8 ug/L	2422.8 ppb	09:24:06
2	Si 251.611†	136413.4	153217.1	5119.2 ug/L	5119.2 ppb	09:23:46
2	Sn 189.927†	1955.7	2196.0	481.97 ug/L	481.97 ppb	09:24:06
2	Ti 334.940†	264346.3	299301.9	508.98 ug/L	508.98 ppb	09:23:46
2	Tl 190.801†	1161.7	1343.8	433.96 ug/L	433.96 ppb	09:24:06
2	U 409.014†	13093.8	17740.8	492.56 ug/L	492.56 ppb	09:23:46
2	V 292.402†	60740.6	70027.7	498.06 ug/L	498.06 ppb	09:23:46
2	Zn 213.857†	46852.4	52103.7	483.16 ug/L	483.16 ppb	09:23:46
2	SiO2†	136656.7	153470.5	10935 ug/L	10935 ppb	09:24:43
3	Sc Radial	4483.7	4483.7	93.3 %		09:23:13
3	Y RADIAL	4690.0	4690.0	93.79 %		09:23:13
3	Al 396.153Radial†	512382.5	549473.1	509950 ug/L	509950 ppb	09:23:08
3	Ca 317.933Radial†	264386.7	283430.3	469770 ug/L	469770 ppb	09:23:08
3	Fe 238.204 Radial†	18884.1	20234.0	184110 ug/L	184110 ppb	09:23:13
3	K 766.490 Radial†	30633.6	30016.3	5138.5 ug/L	5138.5 ppb	09:23:08
3	Mg 279.077 IEC†	12744.8	13663.2	484060 ug/L	484060 ppb	09:23:13
3	Na 589.592 Radial†	15367.6	17554.0	5309.2 ug/L	5309.2 ppb	09:23:13
3	Sr 421.552†	66790.6	71603.6	498.66 ug/L	498.66 ppb	09:23:08
3	Sc 361.383	773931.5	773931.5	89.773 %		09:24:12
3	Y 371.029	628740.5	628740.5	87.985 %		09:24:12
3	Ag 328.068†	41068.9	45518.5	271.87 ug/L	271.87 ppb	09:24:12
3	As 188.979†	889.9	1025.2	511.37 ug/L	511.37 ppb	09:24:32
3	B 249.677†	19510.9	22272.5	498.71 ug/L	498.71 ppb	09:24:12
3	Ba 233.527†	52312.7	58283.5	482.70 ug/L	482.70 ppb	09:24:12
3	Be 313.107†	573158.4	642788.7	240.52 ug/L	240.52 ppb	09:24:12
3	Cd 226.502†	34724.6	38892.2	443.75 ug/L	443.75 ppb	09:24:32
3	Co 228.616†	17941.8	20059.3	435.56 ug/L	435.56 ppb	09:24:32
3	Cr 267.716†	36580.1	40680.3	477.69 ug/L	477.69 ppb	09:24:12
3	Cu 324.752†	164653.0	177588.8	548.17 ug/L	548.17 ppb	09:24:12
3	Mn 257.610†	366043.8	407290.0	466.98 ug/L	466.98 ppb	09:24:12
3	Mo 202.031†	5447.0	6052.0	473.10 ug/L	473.10 ppb	09:24:32
3	Ni 231.604†	15217.0	16842.4	436.07 ug/L	436.07 ppb	09:24:32
3	P 214.914†	3695.9	3888.9	2295.6 ug/L	2295.6 ppb	09:24:32
3	Pb 220.353†	2426.8	2765.0	445.97 ug/L	445.97 ppb	09:24:32
3	S 181.975 Axial†	1615.7	1760.4	2471.4 ug/L	2471.4 ppb	09:24:32
3	Sb 206.836†	1350.7	1462.4	509.61 ug/L	509.61 ppb	09:24:32
3	Se 196.026†	2320.9	2607.4	2368.2 ug/L	2368.2 ppb	09:24:32
3	Si 251.611†	138009.6	153168.8	5117.7 ug/L	5117.7 ppb	09:24:12
3	Sn 189.927†	1937.3	2149.4	473.35 ug/L	473.35 ppb	09:24:32
3	Ti 334.940†	266979.3	298695.6	507.53 ug/L	507.53 ppb	09:24:12
3	Tl 190.801†	1132.8	1296.0	418.69 ug/L	418.69 ppb	09:24:32
3	U 409.014†	13256.7	17746.9	492.55 ug/L	492.55 ppb	09:24:12
3	V 292.402†	61377.1	69923.5	497.04 ug/L	497.04 ppb	09:24:12
3	Zn 213.857†	47365.2	52047.6	482.41 ug/L	482.41 ppb	09:24:12
3	SiO2†	136694.3	151682.8	10807 ug/L	10807 ppb	09:24:48

Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	770481.4	89.373	%	0.5807				0.65%
Sc Radial	4434.1	92.2	%	0.93				1.01%
Y 371.029	626123.1	87.618	%	0.5509				0.63%
Y RADIAL	4650.4	92.99	%	0.794				0.85%
Ag 328.068†	45499.2	271.45	ug/L	0.377	271.45	ppb	0.377	0.14%
QC value within limits for Ag 328.068 Recovery = 108.58%								
Al 396.153Radial†	550907.4	511280	ug/L	2553.8	511280	ppb	2553.8	0.50%
QC value within limits for Al 396.153Radial Recovery = 102.26%								
As 188.979†	1029.9	513.31	ug/L	2.393	513.31	ppb	2.393	0.47%
QC value within limits for As 188.979 Recovery = 102.66%								
B 249.677†	22228.7	497.80	ug/L	1.301	497.80	ppb	1.301	0.26%
QC value within limits for B 249.677 Recovery = 99.56%								
Ba 233.527†	58372.2	483.40	ug/L	0.687	483.40	ppb	0.687	0.14%
QC value within limits for Ba 233.527 Recovery = 96.68%								
Be 313.107†	643500.9	240.78	ug/L	0.443	240.78	ppb	0.443	0.18%
QC value within limits for Be 313.107 Recovery = 96.31%								
Ca 317.933Radial†	284335.9	471270	ug/L	2667.3	471270	ppb	2667.3	0.57%

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   QC value within limits for Ca 317.933Radial  Recovery = 94.25%
Cd 226.502†            39336.8      449.13 ug/L         5.284      449.13 ppb          5.284   1.18%
   QC value within limits for Cd 226.502  Recovery = 89.83%
Co 228.616†            20285.2      440.52 ug/L         5.014      440.52 ppb          5.014   1.14%
   QC value within limits for Co 228.616  Recovery = 88.10%
Cr 267.716†            40744.7      478.42 ug/L         0.686      478.42 ppb          0.686   0.14%
   QC value within limits for Cr 267.716  Recovery = 95.68%
Cu 324.752†           177004.4      546.35 ug/L         1.603      546.35 ppb          1.603   0.29%
   QC value within limits for Cu 324.752  Recovery = 109.27%
Fe 238.204 Radial†     20134.1      183210 ug/L         843.7      183210 ppb          843.7   0.46%
   QC value within limits for Fe 238.204 Radial  Recovery = 91.60%
K 766.490 Radial†      30011.2      5137.1 ug/L         17.75      5137.1 ppb          17.75   0.35%
   QC value within limits for K 766.490 Radial  Recovery = 102.74%
Mg 279.077 IEC†        13574.5      480920 ug/L        2948.0      480920 ppb         2948.0   0.61%
   QC value within limits for Mg 279.077 IEC  Recovery = 96.18%
Mn 257.610†           407802.6      467.61 ug/L         0.547      467.61 ppb          0.547   0.12%
   QC value within limits for Mn 257.610  Recovery = 93.52%
Mo 202.031†             6115.8      477.83 ug/L         4.651      477.83 ppb          4.651   0.97%
   QC value within limits for Mo 202.031  Recovery = 95.57%
Na 589.592 Radial†     17399.2      5262.4 ug/L         41.27      5262.4 ppb          41.27   0.78%
   QC value within limits for Na 589.592 Radial  Recovery = 105.25%
Ni 231.604†            17033.9      441.03 ug/L         5.094      441.03 ppb          5.094   1.15%
   QC value within limits for Ni 231.604  Recovery = 88.21%
P 214.914†              3938.4      2327.9 ug/L         30.33      2327.9 ppb          30.33   1.30%
   QC value within limits for P 214.914  Recovery = 93.12%
Pb 220.353†             2798.4      450.55 ug/L         4.678      450.55 ppb          4.678   1.04%
   QC value within limits for Pb 220.353  Recovery = 90.11%
S 181.975 Axial†        1779.8      2499.5 ug/L         33.27      2499.5 ppb          33.27   1.33%
   QC value within limits for S 181.975 Axial  Recovery = 99.98%
Sb 206.836†             1481.2      516.33 ug/L         6.036      516.33 ppb          6.036   1.17%
   QC value within limits for Sb 206.836  Recovery = 103.27%
Se 196.026†             2654.4      2397.0 ug/L         27.43      2397.0 ppb          27.43   1.14%
   QC value within limits for Se 196.026  Recovery = 95.88%
Si 251.611†           153193.2      5118.5 ug/L          0.75      5118.5 ppb           0.75   0.01%
   QC value within limits for Si 251.611  Recovery = 102.37%
Sn 189.927†             2183.2      479.85 ug/L         5.743      479.85 ppb          5.743   1.20%
   QC value within limits for Sn 189.927  Recovery = 95.97%
Sr 421.552†            71746.5      499.65 ug/L         2.971      499.65 ppb          2.971   0.59%
   QC value within limits for Sr 421.552  Recovery = 99.93%
Ti 334.940†           298860.4      508.25 ug/L         0.725      508.25 ppb          0.725   0.14%
   QC value within limits for Ti 334.940  Recovery = 101.65%
Tl 190.801†             1320.9      426.64 ug/L         7.653      426.64 ppb          7.653   1.79%
   QC value within limits for Tl 190.801  Recovery = 85.33%
U 409.014†             17743.4      492.55 ug/L         0.008      492.55 ppb          0.008   0.00%
   QC value within limits for U 409.014  Recovery = 98.51%
V 292.402†             70001.2      497.74 ug/L         0.609      497.74 ppb          0.609   0.12%
   QC value within limits for V 292.402  Recovery = 99.55%
Zn 213.857†            52106.1      483.10 ug/L         0.658      483.10 ppb          0.658   0.14%
   QC value within limits for Zn 213.857  Recovery = 96.62%
SiO2†                 152494.3       10865 ug/L          64.4       10865 ppb           64.4   0.59%
   QC value within limits for SiO2  Recovery = 101.59%
All analyte(s) passed QC.
```

Sequence No.: 11
Sample ID: LR1
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 15
Date Collected: 2/11/2010 09:26:58
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4347.3	4347.3	90.4	%			09:28:57
1	Y RADIAL	4521.2	4521.2	90.41	%			09:28:57
1	Al 396.153Radial†	489004.3	540851.8	501970	ug/L	501970	ppb	09:28:52
1	Ca 317.933Radial†	256021.7	283070.7	469170	ug/L	469170	ppb	09:28:52
1	Fe 238.204 Radial†	43293.2	47858.6	435450	ug/L	435450	ppb	09:28:57
1	K 766.490 Radial†	3051.6	548.5	-258.43	ug/L	-258.43	ppb	09:28:52
1	Mg 279.077 IEC†	12226.8	13519.0	478680	ug/L	478680	ppb	09:28:57
1	Na 589.592 Radial†	1519647.4	1681377.9	508530	ug/L	508530	ppb	09:28:52
1	Sr 421.552†	733.2	808.6	2.1678	ug/L	2.1678	ppb	09:28:57
1	Sc 361.383	750316.7	750316.7	87.034	%			09:29:25
1	Y 371.029	611296.0	611296.0	85.543	%			09:29:25
1	Ag 328.068†	-22360.4	-25920.3	7.6759	ug/L	7.6759	ppb	09:29:25
1	As 188.979†	-189.1	-183.4	18.724	ug/L	18.724	ppb	09:29:45
1	B 249.677†	1106.7	1810.6	-27.660	ug/L	-27.660	ppb	09:29:25
1	Ba 233.527†	-1542.6	-1760.8	-1.0734	ug/L	-1.0734	ppb	09:29:45
1	Be 313.107†	-10095.0	-7260.1	-2.7412	ug/L	-2.7412	ppb	09:29:25
1	Cd 226.502†	3076.9	3747.2	2.1814	ug/L	2.1814	ppb	09:29:45
1	Co 228.616†	201.4	305.2	0.3152	ug/L	0.3152	ppb	09:29:45
1	Cr 267.716†	-14.1	-82.9	2.2310	ug/L	2.2310	ppb	09:29:45
1	Cu 324.752†	169.3	-5626.3	-1.4253	ug/L	-1.4253	ppb	09:29:25
1	Mn 257.610†	-22883.6	-26744.6	-7.3534	ug/L	-7.3534	ppb	09:29:25
1	Mo 202.031†	-431.2	-511.0	1.1160	ug/L	1.1160	ppb	09:29:45
1	Ni 231.604†	343.0	286.1	7.4087	ug/L	7.4087	ppb	09:29:45
1	P 214.914†	571.1	428.1	43.527	ug/L	43.527	ppb	09:29:45
1	Pb 220.353†	-484.2	-494.6	12.703	ug/L	12.703	ppb	09:29:45
1	S 181.975 Axial†	87.6	61.3	-4.6955	ug/L	-4.6955	ppb	09:29:45
1	Sb 206.836†	83.5	53.8	-1.4746	ug/L	-1.4746	ppb	09:29:45
1	Se 196.026†	-2120.9	-2414.7	-207.36	ug/L	-207.36	ppb	09:29:45
1	Si 251.611†	-139.3	-722.4	-23.691	ug/L	-23.691	ppb	09:29:45
1	Sn 189.927†	-351.0	-411.9	2.1771	ug/L	2.1771	ppb	09:29:45
1	Ti 334.940†	-9901.0	-10072.8	1.5803	ug/L	1.5803	ppb	09:29:25
1	Tl 190.801†	-75.4	-52.5	-17.178	ug/L	-17.178	ppb	09:29:45
1	U 409.014†	398970.0	461386.2	13329	ug/L	13329	ppb	09:29:25
1	V 292.402†	1819.1	3644.8	-2.6158	ug/L	-2.6158	ppb	09:29:45
1	Zn 213.857†	5754.2	5898.2	-7.0000	ug/L	-7.0000	ppb	09:29:45
1	SiO2†	-561.3	-1228.1	-86.557	ug/L	-86.557	ppb	09:30:42
2	Sc Radial	4319.7	4319.7	89.9	%			09:29:07
2	Y RADIAL	4515.1	4515.1	90.29	%			09:29:07
2	Al 396.153Radial†	488967.7	544267.8	505140	ug/L	505140	ppb	09:29:02
2	Ca 317.933Radial†	253798.3	282406.3	468070	ug/L	468070	ppb	09:29:02
2	Fe 238.204 Radial†	42961.6	47795.6	434870	ug/L	434870	ppb	09:29:07
2	K 766.490 Radial†	2851.4	347.3	-293.37	ug/L	-293.37	ppb	09:29:02
2	Mg 279.077 IEC†	12150.8	13520.8	478750	ug/L	478750	ppb	09:29:07
2	Na 589.592 Radial†	1508482.9	1679696.5	508020	ug/L	508020	ppb	09:29:02
2	Sr 421.552†	684.7	759.8	1.8337	ug/L	1.8337	ppb	09:29:07
2	Sc 361.383	752895.9	752895.9	87.333	%			09:29:51
2	Y 371.029	613943.5	613943.5	85.914	%			09:29:51
2	Ag 328.068†	-21490.2	-24835.8	12.608	ug/L	12.608	ppb	09:29:51
2	As 188.979†	-177.3	-169.2	25.061	ug/L	25.061	ppb	09:30:11
2	B 249.677†	1167.2	1875.5	-26.019	ug/L	-26.019	ppb	09:29:51
2	Ba 233.527†	-1648.7	-1876.2	-2.0328	ug/L	-2.0328	ppb	09:30:11
2	Be 313.107†	-8181.7	-5029.6	-1.9109	ug/L	-1.9109	ppb	09:29:51
2	Cd 226.502†	3019.0	3668.8	1.3074	ug/L	1.3074	ppb	09:30:11
2	Co 228.616†	168.2	266.3	-0.5350	ug/L	-0.5350	ppb	09:30:11
2	Cr 267.716†	-39.9	-112.5	1.8767	ug/L	1.8767	ppb	09:30:11
2	Cu 324.752†	3630.1	-1664.2	10.564	ug/L	10.564	ppb	09:29:51
2	Mn 257.610†	-19761.1	-23079.0	-3.1954	ug/L	-3.1954	ppb	09:29:51
2	Mo 202.031†	-475.4	-559.9	-2.6030	ug/L	-2.6030	ppb	09:30:11
2	Ni 231.604†	289.6	223.5	5.7879	ug/L	5.7879	ppb	09:30:11

2	P 214.914†	562.6	416.1	34.892	ug/L	34.892 ppb	09:30:11
2	Pb 220.353†	-547.2	-564.9	4.6358	ug/L	4.6358 ppb	09:30:11
2	S 181.975 Axial†	83.4	56.2	-12.737	ug/L	-12.737 ppb	09:30:11
2	Sb 206.836†	88.3	59.0	0.1380	ug/L	0.1380 ppb	09:30:11
2	Se 196.026†	-2116.4	-2401.3	-200.06	ug/L	-200.06 ppb	09:30:11
2	Si 251.611†	-519.1	-1156.6	-38.171	ug/L	-38.171 ppb	09:30:11
2	Sn 189.927†	-362.9	-424.2	-0.2790	ug/L	-0.2790 ppb	09:30:11
2	Ti 334.940†	-10032.5	-10184.4	1.2469	ug/L	1.2469 ppb	09:29:51
2	Tl 190.801†	-87.3	-65.8	-21.418	ug/L	-21.418 ppb	09:30:11
2	U 409.014†	400317.4	461358.7	13328	ug/L	13328 ppb	09:29:51
2	V 292.402†	1851.8	3675.1	-2.3640	ug/L	-2.3640 ppb	09:30:11
2	Zn 213.857†	5420.0	5492.9	-10.919	ug/L	-10.919 ppb	09:30:11
2	SiO2†	-492.8	-1147.4	-80.702	ug/L	-80.702 ppb	09:30:47
3	Sc Radial	4286.5	4286.5	89.2	%		09:29:18
3	Y RADIAL	4491.7	4491.7	89.82	%		09:29:18
3	Al 396.153Radial†	487236.0	546543.4	507260	ug/L	507260 ppb	09:29:13
3	Ca 317.933Radial†	253808.7	284607.1	471720	ug/L	471720 ppb	09:29:13
3	Fe 238.204 Radial†	42617.9	47780.7	434740	ug/L	434740 ppb	09:29:18
3	K 766.490 Radial†	2862.5	384.4	-288.63	ug/L	-288.63 ppb	09:29:13
3	Mg 279.077 IEC†	12064.9	13529.3	479050	ug/L	479050 ppb	09:29:18
3	Na 589.592 Radial†	1501252.5	1684599.7	509510	ug/L	509510 ppb	09:29:13
3	Sr 421.552†	701.9	785.0	1.9830	ug/L	1.9830 ppb	09:29:18
3	Sc 361.383	749846.5	749846.5	86.980	%		09:30:16
3	Y 371.029	610956.0	610956.0	85.496	%		09:30:16
3	Ag 328.068†	-22316.8	-25886.3	7.5572	ug/L	7.5572 ppb	09:30:16
3	As 188.979†	-185.0	-178.8	20.672	ug/L	20.672 ppb	09:30:36
3	B 249.677†	1074.6	1774.5	-28.401	ug/L	-28.401 ppb	09:30:16
3	Ba 233.527†	-1700.5	-1943.5	-2.5842	ug/L	-2.5842 ppb	09:30:36
3	Be 313.107†	-10036.7	-7200.5	-2.7212	ug/L	-2.7212 ppb	09:30:16
3	Cd 226.502†	3001.2	3662.4	1.2484	ug/L	1.2484 ppb	09:30:36
3	Co 228.616†	168.0	266.8	-0.5205	ug/L	-0.5205 ppb	09:30:36
3	Cr 267.716†	-29.3	-100.5	2.0096	ug/L	2.0096 ppb	09:30:36
3	Cu 324.752†	314.4	-5459.3	-0.9628	ug/L	-0.9628 ppb	09:30:16
3	Mn 257.610†	-22476.5	-26293.0	-6.9189	ug/L	-6.9189 ppb	09:30:16
3	Mo 202.031†	-477.8	-564.8	-2.9394	ug/L	-2.9394 ppb	09:30:36
3	Ni 231.604†	305.9	243.7	6.3100	ug/L	6.3100 ppb	09:30:36
3	P 214.914†	553.6	408.4	33.018	ug/L	33.018 ppb	09:30:36
3	Pb 220.353†	-569.0	-592.5	1.7311	ug/L	1.7311 ppb	09:30:36
3	S 181.975 Axial†	84.3	57.5	-11.185	ug/L	-11.185 ppb	09:30:36
3	Sb 206.836†	80.0	49.8	-3.0915	ug/L	-3.0915 ppb	09:30:36
3	Se 196.026†	-2111.2	-2405.2	-203.04	ug/L	-203.04 ppb	09:30:36
3	Si 251.611†	-476.2	-1109.7	-36.598	ug/L	-36.598 ppb	09:30:36
3	Sn 189.927†	-356.7	-418.8	1.2746	ug/L	1.2746 ppb	09:30:36
3	Ti 334.940†	-10401.3	-10655.1	0.9425	ug/L	0.9425 ppb	09:30:16
3	Tl 190.801†	-109.3	-91.4	-29.659	ug/L	-29.659 ppb	09:30:36
3	U 409.014†	399065.3	461783.3	13341	ug/L	13341 ppb	09:30:16
3	V 292.402†	1948.4	3794.7	-1.4509	ug/L	-1.4509 ppb	09:30:36
3	Zn 213.857†	5409.8	5506.3	-10.754	ug/L	-10.754 ppb	09:30:36
3	SiO2†	-505.8	-1164.7	-81.925	ug/L	-81.925 ppb	09:30:52

Mean Data: LR1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	751019.7	87.116	%	0.1904				0.22%
Sc Radial	4317.8	89.8	%	0.63				0.71%
Y 371.029	612065.1	85.651	%	0.2289				0.27%
Y RADIAL	4509.3	90.17	%	0.312				0.35%
Ag 328.068†	-25547.5	9.2805	ug/L	2.88268	9.2805	ppb	2.88268	31.06%
Al 396.153Radial†	543887.7	504790	ug/L	2659.0	504790	ppb	2659.0	0.53%
QC value within limits for Al 396.153Radial Recovery = 100.96%								
As 188.979†	-177.1	21.486	ug/L	3.2460	21.486	ppb	3.2460	15.11%
B 249.677†	1820.2	-27.360	ug/L	1.2190	-27.360	ppb	1.2190	4.46%
Ba 233.527†	-1860.2	-1.8968	ug/L	0.76456	-1.8968	ppb	0.76456	40.31%
Be 313.107†	-6496.7	-2.4578	ug/L	0.47372	-2.4578	ppb	0.47372	19.27%
Ca 317.933Radial†	283361.4	469650	ug/L	1871.0	469650	ppb	1871.0	0.40%
QC value within limits for Ca 317.933Radial Recovery = 93.93%								
Cd 226.502†	3692.8	1.5791	ug/L	0.52249	1.5791	ppb	0.52249	33.09%
Co 228.616†	279.4	-0.2468	ug/L	0.48674	-0.2468	ppb	0.48674	197.25%
Cr 267.716†	-98.6	2.0391	ug/L	0.17900	2.0391	ppb	0.17900	8.78%
Cu 324.752†	-4249.9	2.7252	ug/L	6.79225	2.7252	ppb	6.79225	249.24%

Fe 238.204 Radial†	47811.6	435020	ug/L	376.2	435020	ppb	376.2	0.09%
QC value less than the lower limit for Fe 238.204 Radial Recovery = 87.00%								
K 766.490 Radial†	426.7	-280.15	ug/L	18.953	-280.15	ppb	18.953	6.77%
Mg 279.077 IEC†	13523.0	478830	ug/L	196.1	478830	ppb	196.1	0.04%
QC value within limits for Mg 279.077 IEC Recovery = 95.77%								
Mn 257.610†	-25372.2	-5.8226	ug/L	2.28557	-5.8226	ppb	2.28557	39.25%
Mo 202.031†	-545.3	-1.4755	ug/L	2.25058	-1.4755	ppb	2.25058	152.53%
Na 589.592 Radial†	1681891.4	508690	ug/L	753.6	508690	ppb	753.6	0.15%
QC value within limits for Na 589.592 Radial Recovery = 101.74%								
Ni 231.604†	251.1	6.5022	ug/L	0.82734	6.5022	ppb	0.82734	12.72%
P 214.914†	417.5	37.146	ug/L	5.6054	37.146	ppb	5.6054	15.09%
Pb 220.353†	-550.6	6.3566	ug/L	5.68472	6.3566	ppb	5.68472	89.43%
S 181.975 Axial†	58.3	-9.5392	ug/L	4.26602	-9.5392	ppb	4.26602	44.72%
Sb 206.836†	54.2	-1.4761	ug/L	1.61473	-1.4761	ppb	1.61473	109.39%
Se 196.026†	-2407.1	-203.49	ug/L	3.672	-203.49	ppb	3.672	1.80%
Si 251.611†	-996.2	-32.820	ug/L	7.9450	-32.820	ppb	7.9450	24.21%
Sn 189.927†	-418.3	1.0575	ug/L	1.24235	1.0575	ppb	1.24235	117.48%
Sr 421.552†	784.5	1.9948	ug/L	0.16737	1.9948	ppb	0.16737	8.39%
Ti 334.940†	-10304.1	1.2566	ug/L	0.31902	1.2566	ppb	0.31902	25.39%
Tl 190.801†	-69.9	-22.752	ug/L	6.3461	-22.752	ppb	6.3461	27.89%
U 409.014†	461509.4	13333	ug/L	6.9	13333	ppb	6.9	0.05%
QC value less than the lower limit for U 409.014 Recovery = 88.88%								
V 292.402†	3704.8	-2.1435	ug/L	0.61293	-2.1435	ppb	0.61293	28.59%
Zn 213.857†	5632.5	-9.5576	ug/L	2.21654	-9.5576	ppb	2.21654	23.19%
SiO2†	-1180.0	-83.062	ug/L	3.0883	-83.062	ppb	3.0883	3.72%

QC Failed. Continue with analysis.

Sequence No.: 12
Sample ID: LR2
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 16
Date Collected: 2/11/2010 09:33:02
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR2

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4650.9	4650.9	96.8	%			09:35:00
1	Y RADIAL	4783.5	4783.5	95.66	%			09:35:00
1	Al 396.153Radial†	333.6	496.4	0.7108	ug/L	0.7108	ppb	09:35:00
1	Ca 317.933Radial†	23.7	7.8	12.862	ug/L	12.862	ppb	09:35:20
1	Fe 238.204 Radial†	-14.4	-26.3	36.152	ug/L	36.152	ppb	09:35:20
1	K 766.490 Radial†	1611190.8	1662413.1	293430	ug/L	293430	ppb	09:34:55
1	Mg 279.077 IEC†	-5.0	-5.6	-98.127	ug/L	-98.127	ppb	09:35:20
1	Na 589.592 Radial†	-585.2	473.6	143.25	ug/L	143.25	ppb	09:35:00
1	Sr 421.552†	1340172.7	1385127.1	9714.1	ug/L	9714.1	ppb	09:34:55
1	Sc 361.383	830480.9	830480.9	96.333	%			09:36:38
1	Y 371.029	671491.8	671491.8	93.967	%			09:36:38
1	Ag 328.068†	-6762.9	-7249.1	5.4086	ug/L	5.4086	ppb	09:36:43
1	As 188.979†	20200.0	21002.8	9593.7	ug/L	9593.7	ppb	09:36:43
1	B 249.677†	196689.0	204715.3	4843.9	ug/L	4843.9	ppb	09:36:38
1	Ba 233.527†	1600343.8	1661274.8	13589	ug/L	13589	ppb	09:36:38
1	Be 313.107†	7265166.3	7546064.4	2833.5	ug/L	2833.5	ppb	09:36:31
1	Cd 226.502†	755144.3	784101.9	9328.1	ug/L	9328.1	ppb	09:36:38
1	Co 228.616†	406593.6	422144.9	9218.3	ug/L	9218.3	ppb	09:36:43
1	Cr 267.716†	1932202.1	2005687.5	23364	ug/L	23364	ppb	09:36:38
1	Cu 324.752†	6365638.9	6602135.7	20027	ug/L	20027	ppb	09:36:31
1	Mn 257.610†	7763667.0	8058750.7	9271.7	ug/L	9271.7	ppb	09:36:31
1	Mo 202.031†	122028.6	126658.3	9485.1	ug/L	9485.1	ppb	09:36:43
1	Ni 231.604†	344682.0	357694.9	9261.2	ug/L	9261.2	ppb	09:36:43
1	P 214.914†	26983.0	27782.1	13404	ug/L	13404	ppb	09:36:43
1	Pb 220.353†	180598.4	187534.9	23407	ug/L	23407	ppb	09:36:43
1	S 181.975 Axial†	33933.7	35186.1	51309	ug/L	51309	ppb	09:36:43
1	Sb 206.836†	28522.8	29566.4	10656	ug/L	10656	ppb	09:36:43
1	Se 196.026†	14083.5	14641.8	9893.2	ug/L	9893.2	ppb	09:36:43
1	Si 251.611†	1364633.1	1416017.6	47247	ug/L	47247	ppb	09:36:38
1	Sn 189.927†	51351.7	53297.8	9890.8	ug/L	9890.8	ppb	09:36:43
1	Ti 334.940†	5971468.8	6200084.9	10048	ug/L	10048	ppb	09:36:31
1	Tl 190.801†	27850.2	28944.6	9344.2	ug/L	9344.2	ppb	09:36:43
1	U 409.014†	-1666.1	1250.5	-15.966	ug/L	-15.966	ppb	09:36:43
1	V 292.402†	1299912.8	1350950.5	9925.7	ug/L	9925.7	ppb	09:36:38
1	Zn 213.857†	1324301.5	1373999.8	13469	ug/L	13469	ppb	09:36:38
1	SiO2†	1387661.4	1439901.6	102450	ug/L	102450	ppb	09:37:29
2	Sc Radial	4697.1	4697.1	97.7	%			09:35:31
2	Y RADIAL	4897.2	4897.2	97.93	%			09:35:31
2	Al 396.153Radial†	338.3	497.8	0.4691	ug/L	0.4691	ppb	09:35:31
2	Ca 317.933Radial†	31.7	15.7	26.032	ug/L	26.032	ppb	09:35:51
2	Fe 238.204 Radial†	-16.6	-28.4	17.783	ug/L	17.783	ppb	09:35:51
2	K 766.490 Radial†	1593050.7	1627452.8	287260	ug/L	287260	ppb	09:35:26
2	Mg 279.077 IEC†	-5.5	-6.1	-114.98	ug/L	-114.98	ppb	09:35:51
2	Na 589.592 Radial†	-558.2	507.3	153.44	ug/L	153.44	ppb	09:35:31
2	Sr 421.552†	1321540.4	1352421.2	9484.7	ug/L	9484.7	ppb	09:35:26
2	Sc 361.383	843181.2	843181.2	97.806	%			09:36:57
2	Y 371.029	682273.7	682273.7	95.476	%			09:36:57
2	Ag 328.068†	-6938.2	-7322.6	4.9778	ug/L	4.9778	ppb	09:37:03
2	As 188.979†	20654.0	21151.2	9659.4	ug/L	9659.4	ppb	09:37:03
2	B 249.677†	200176.9	205206.0	4855.5	ug/L	4855.5	ppb	09:36:57
2	Ba 233.527†	1620078.9	1656430.0	13549	ug/L	13549	ppb	09:36:57
2	Be 313.107†	7256909.8	7424026.1	2787.6	ug/L	2787.6	ppb	09:36:51
2	Cd 226.502†	764766.7	782132.8	9304.7	ug/L	9304.7	ppb	09:36:57
2	Co 228.616†	413805.0	423160.7	9240.9	ug/L	9240.9	ppb	09:37:03
2	Cr 267.716†	1954235.5	1998003.6	23275	ug/L	23275	ppb	09:36:57
2	Cu 324.752†	6350118.1	6486735.0	19677	ug/L	19677	ppb	09:36:51
2	Mn 257.610†	7738091.4	7911210.3	9102.0	ug/L	9102.0	ppb	09:36:51
2	Mo 202.031†	124307.1	127079.8	9516.7	ug/L	9516.7	ppb	09:37:03
2	Ni 231.604†	350664.5	358422.1	9280.0	ug/L	9280.0	ppb	09:37:03

2	P 214.914†	27516.2	27905.4	13550	ug/L	13550	ppb	09:37:03
2	Pb 220.353†	183977.4	188165.8	23486	ug/L	23486	ppb	09:37:03
2	S 181.975 Axial†	34674.3	35412.7	51639	ug/L	51639	ppb	09:37:03
2	Sb 206.836†	29160.7	29772.7	10729	ug/L	10729	ppb	09:37:03
2	Se 196.026†	14370.3	14714.7	9942.4	ug/L	9942.4	ppb	09:37:03
2	Si 251.611†	1385670.7	1416190.0	47252	ug/L	47252	ppb	09:36:57
2	Sn 189.927†	52228.9	53391.7	9908.2	ug/L	9908.2	ppb	09:37:03
2	Ti 334.940†	5953376.9	6088218.5	9866.4	ug/L	9866.4	ppb	09:36:51
2	Tl 190.801†	28344.1	29014.1	9364.1	ug/L	9364.1	ppb	09:37:03
2	U 409.014†	-1704.1	1237.7	-16.135	ug/L	-16.135	ppb	09:37:03
2	V 292.402†	1317190.3	1348290.4	9907.1	ug/L	9907.1	ppb	09:36:57
2	Zn 213.857†	1340432.9	1369786.5	13428	ug/L	13428	ppb	09:36:57
2	SiO2†	1381582.9	1411989.6	100460	ug/L	100460	ppb	09:37:35
3	Sc Radial	4719.4	4719.4	98.2	%			09:36:01
3	Y RADIAL	4867.3	4867.3	97.33	%			09:36:01
3	Al 396.153Radial†	379.3	537.9	37.057	ug/L	37.057	ppb	09:36:01
3	Ca 317.933Radial†	30.1	13.9	23.111	ug/L	23.111	ppb	09:36:21
3	Fe 238.204 Radial†	-15.3	-27.1	30.834	ug/L	30.834	ppb	09:36:21
3	K 766.490 Radial†	1634353.5	1661813.6	293330	ug/L	293330	ppb	09:35:56
3	Mg 279.077 IEC†	-7.0	-7.5	-165.80	ug/L	-165.80	ppb	09:36:21
3	Na 589.592 Radial†	-523.3	545.5	164.99	ug/L	164.99	ppb	09:36:01
3	Sr 421.552†	1365024.9	1390317.7	9750.5	ug/L	9750.5	ppb	09:35:56
3	Sc 361.383	838614.3	838614.3	97.276	%			09:37:17
3	Y 371.029	678129.6	678129.6	94.896	%			09:37:17
3	Ag 328.068†	-6966.0	-7389.9	4.6620	ug/L	4.6620	ppb	09:37:22
3	As 188.979†	20579.2	21189.3	9677.8	ug/L	9677.8	ppb	09:37:22
3	B 249.677†	199331.9	205452.0	4861.3	ug/L	4861.3	ppb	09:37:17
3	Ba 233.527†	1612295.6	1657449.3	13557	ug/L	13557	ppb	09:37:17
3	Be 313.107†	7301723.8	7510501.0	2820.1	ug/L	2820.1	ppb	09:37:11
3	Cd 226.502†	760235.1	781732.6	9300.0	ug/L	9300.0	ppb	09:37:17
3	Co 228.616†	412652.0	424279.4	9265.1	ug/L	9265.1	ppb	09:37:22
3	Cr 267.716†	1944080.4	1998445.3	23280	ug/L	23280	ppb	09:37:17
3	Cu 324.752†	6411990.8	6585697.2	19978	ug/L	19978	ppb	09:37:11
3	Mn 257.610†	7803218.9	8021246.7	9228.6	ug/L	9228.6	ppb	09:37:11
3	Mo 202.031†	123822.2	127273.6	9531.2	ug/L	9531.2	ppb	09:37:22
3	Ni 231.604†	349393.8	359068.3	9296.7	ug/L	9296.7	ppb	09:37:22
3	P 214.914†	27410.8	27950.2	13519	ug/L	13519	ppb	09:37:22
3	Pb 220.353†	183260.8	188453.6	23521	ug/L	23521	ppb	09:37:22
3	S 181.975 Axial†	34522.5	35449.7	51693	ug/L	51693	ppb	09:37:22
3	Sb 206.836†	29057.7	29829.2	10749	ug/L	10749	ppb	09:37:22
3	Se 196.026†	14316.1	14739.1	9958.9	ug/L	9958.9	ppb	09:37:22
3	Si 251.611†	1378793.9	1416836.0	47274	ug/L	47274	ppb	09:37:17
3	Sn 189.927†	52112.1	53562.5	9939.9	ug/L	9939.9	ppb	09:37:22
3	Ti 334.940†	6003889.3	6173293.3	10004	ug/L	10004	ppb	09:37:11
3	Tl 190.801†	28160.2	28982.8	9355.7	ug/L	9355.7	ppb	09:37:22
3	U 409.014†	-1709.0	1223.2	-16.569	ug/L	-16.569	ppb	09:37:22
3	V 292.402†	1309937.5	1348168.6	9906.2	ug/L	9906.2	ppb	09:37:17
3	Zn 213.857†	1334404.9	1371053.2	13440	ug/L	13440	ppb	09:37:17
3	SiO2†	1364075.6	1401684.8	99725	ug/L	99725	ppb	09:37:41

Mean Data: LR2

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	837425.5	97.138	%	0.7462				0.77%
Sc Radial	4689.2	97.6	%	0.73				0.75%
Y 371.029	677298.4	94.780	%	0.7611				0.80%
Y RADIAL	4849.3	96.97	%	1.178				1.21%
Ag 328.068†	-7320.5	5.0161	ug/L	0.37476	5.0161	ppb	0.37476	7.47%
Al 396.153Radial†	510.7	12.746	ug/L	21.0546	12.746	ppb	21.0546	165.19%
As 188.979†	21114.4	9643.6	ug/L	44.20	9643.6	ppb	44.20	0.46%
QC value within limits for As 188.979 Recovery = 96.44%								
B 249.677†	205124.4	4853.5	ug/L	8.86	4853.5	ppb	8.86	0.18%
QC value within limits for B 249.677 Recovery = 97.07%								
Ba 233.527†	1658384.7	13565	ug/L	20.9	13565	ppb	20.9	0.15%
QC value within limits for Ba 233.527 Recovery = 90.43%								
Be 313.107†	7493530.5	2813.8	ug/L	23.59	2813.8	ppb	23.59	0.84%
QC value within limits for Be 313.107 Recovery = 93.79%								
Ca 317.933Radial†	12.5	20.668	ug/L	6.9165	20.668	ppb	6.9165	33.46%
Cd 226.502†	782655.8	9310.9	ug/L	15.07	9310.9	ppb	15.07	0.16%
QC value within limits for Cd 226.502 Recovery = 93.11%								

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Co 228.616†          423195.0      9241.4 ug/L        23.43      9241.4 ppb        23.43   0.25%
   QC value within limits for Co 228.616  Recovery = 92.41%
Cr 267.716†         2000712.1       23306 ug/L         50.2       23306 ppb         50.2   0.22%
   QC value within limits for Cr 267.716  Recovery = 93.22%
Cu 324.752†         6558189.3       19894 ug/L        189.4       19894 ppb        189.4   0.95%
   QC value within limits for Cu 324.752  Recovery = 99.47%
Fe 238.204 Radial†      -27.3      28.256 ug/L       9.4518      28.256 ppb       9.4518  33.45%
K 766.490 Radial†   1650559.8      291340 ug/L       3532.7      291340 ppb       3532.7   1.21%
   QC value within limits for K 766.490 Radial  Recovery = 97.11%
Mg 279.077 IEC†         -6.4     -126.30 ug/L       35.229     -126.30 ppb       35.229  27.89%
Mn 257.610†         7997069.2      9200.8 ug/L        88.23      9200.8 ppb        88.23   0.96%
   QC value within limits for Mn 257.610  Recovery = 92.01%
Mo 202.031†          127003.9      9511.0 ug/L        23.56      9511.0 ppb        23.56   0.25%
   QC value within limits for Mo 202.031  Recovery = 95.11%
Na 589.592 Radial†      508.8      153.89 ug/L       10.878      153.89 ppb       10.878   7.07%
Ni 231.604†          358395.1      9279.3 ug/L        17.79      9279.3 ppb        17.79   0.19%
   QC value within limits for Ni 231.604  Recovery = 92.79%
P 214.914†            27879.2       13491 ug/L         77.1       13491 ppb         77.1   0.57%
   QC value less than the lower limit for P 214.914  Recovery = 89.94%
Pb 220.353†          188051.4       23471 ug/L         58.7       23471 ppb         58.7   0.25%
   QC value within limits for Pb 220.353  Recovery = 93.88%
S 181.975 Axial†      35349.5       51547 ug/L        208.1       51547 ppb        208.1   0.40%
   QC value within limits for S 181.975 Axial  Recovery = 103.09%
Sb 206.836†           29722.7       10711 ug/L         49.2       10711 ppb         49.2   0.46%
   QC value within limits for Sb 206.836  Recovery = 107.11%
Se 196.026†           14698.5      9931.5 ug/L        34.17      9931.5 ppb        34.17   0.34%
   QC value within limits for Se 196.026  Recovery = 99.31%
Si 251.611†         1416347.9       47258 ug/L         14.2       47258 ppb         14.2   0.03%
   QC value within limits for Si 251.611  Recovery = 94.52%
Sn 189.927†           53417.3      9913.0 ug/L        24.90      9913.0 ppb        24.90   0.25%
   QC value within limits for Sn 189.927  Recovery = 99.13%
Sr 421.552†         1375955.3      9649.8 ug/L       144.09      9649.8 ppb       144.09   1.49%
   QC value within limits for Sr 421.552  Recovery = 96.50%
Ti 334.940†         6153865.6      9972.9 ug/L        94.72      9972.9 ppb        94.72   0.95%
   QC value within limits for Ti 334.940  Recovery = 99.73%
Tl 190.801†           28980.5      9354.6 ug/L         9.99      9354.6 ppb         9.99   0.11%
   QC value within limits for Tl 190.801  Recovery = 93.55%
U 409.014†             1237.2     -16.223 ug/L       0.3110     -16.223 ppb       0.3110   1.92%
V 292.402†          1349136.5      9913.0 ug/L        11.01      9913.0 ppb        11.01   0.11%
   QC value within limits for V 292.402  Recovery = 99.13%
Zn 213.857†         1371613.1       13446 ug/L         21.2       13446 ppb         21.2   0.16%
   QC value less than the lower limit for Zn 213.857  Recovery = 89.64%
SiO2†               1417858.7      100880 ug/L       1411.1      100880 ppb       1411.1   1.40%
   QC value within limits for SiO2  Recovery = 94.28%
QC Failed.  Continue with analysis.
```

Sequence No.: 13
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/11/2010 09:39:50
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4670.4	4670.4	97.2	%			09:41:42
1	Y RADIAL	4823.4	4823.4	96.46	%			09:41:42
1	Al 396.153Radial†	5123.5	5424.7	5011.1	ug/L	5011.1	ppb	09:41:42
1	Ca 317.933Radial†	3015.0	3086.3	5115.4	ug/L	5115.4	ppb	09:42:02
1	Fe 238.204 Radial†	565.0	570.1	5202.1	ug/L	5202.1	ppb	09:42:02
1	K 766.490 Radial†	31539.8	29635.5	5224.9	ug/L	5224.9	ppb	09:41:42
1	Mg 279.077 IEC†	144.2	148.0	5243.8	ug/L	5243.8	ppb	09:42:02
1	Na 589.592 Radial†	30750.2	32727.1	9898.3	ug/L	9898.3	ppb	09:41:42
1	Sr 421.552†	71023.6	73096.4	512.60	ug/L	512.60	ppb	09:41:42
1	Sc 361.383	861497.2	861497.2	99.931	%			09:43:00
1	Y 371.029	702306.5	702306.5	98.279	%			09:43:00
1	Ag 328.068†	105494.3	105338.6	499.61	ug/L	499.61	ppb	09:43:05
1	As 188.979†	1102.8	1137.5	520.44	ug/L	520.44	ppb	09:43:25
1	B 249.677†	21775.9	22330.0	528.94	ug/L	528.94	ppb	09:43:05
1	Ba 233.527†	61166.3	61220.3	501.22	ug/L	501.22	ppb	09:43:05
1	Be 313.107†	1303101.7	1308343.7	488.45	ug/L	488.45	ppb	09:43:00
1	Cd 226.502†	41552.9	41793.6	496.76	ug/L	496.76	ppb	09:43:05
1	Co 228.616†	23177.2	23267.0	508.27	ug/L	508.27	ppb	09:43:05
1	Cr 267.716†	42798.2	42761.1	498.43	ug/L	498.43	ppb	09:43:05
1	Cu 324.752†	171474.0	165772.1	502.86	ug/L	502.86	ppb	09:43:05
1	Mn 257.610†	425443.4	425286.4	489.60	ug/L	489.60	ppb	09:43:00
1	Mo 202.031†	6534.4	6523.4	488.99	ug/L	488.99	ppb	09:43:25
1	Ni 231.604†	19280.3	19185.6	496.73	ug/L	496.73	ppb	09:43:05
1	P 214.914†	4111.5	3886.3	2320.2	ug/L	2320.2	ppb	09:43:25
1	Pb 220.353†	3850.2	3914.5	489.93	ug/L	489.93	ppb	09:43:25
1	S 181.975 Axial†	717.2	678.4	988.26	ug/L	988.26	ppb	09:43:25
1	Sb 206.836†	1459.7	1418.6	512.05	ug/L	512.05	ppb	09:43:25
1	Se 196.026†	717.2	739.8	516.83	ug/L	516.83	ppb	09:43:25
1	Si 251.611†	75036.2	74526.0	2486.8	ug/L	2486.8	ppb	09:43:05
1	Sn 189.927†	2646.0	2639.1	490.62	ug/L	490.62	ppb	09:43:25
1	Ti 334.940†	305681.5	307196.6	498.12	ug/L	498.12	ppb	09:43:05
1	Tl 190.801†	1506.2	1541.5	497.27	ug/L	497.27	ppb	09:43:25
1	U 409.014†	14331.4	17321.4	500.56	ug/L	500.56	ppb	09:43:05
1	V 292.402†	66956.5	68557.5	504.38	ug/L	504.38	ppb	09:43:05
1	Zn 213.857†	51424.0	50746.4	496.01	ug/L	496.01	ppb	09:43:05
1	SiO2†	74219.5	73687.8	5243.0	ug/L	5243.0	ppb	09:44:33
2	Sc Radial	4885.8	4885.8	102	%			09:42:08
2	Y RADIAL	5063.3	5063.3	101.3	%			09:42:08
2	Al 396.153Radial†	5273.5	5340.0	4932.5	ug/L	4932.5	ppb	09:42:08
2	Ca 317.933Radial†	3042.0	2976.2	4932.8	ug/L	4932.8	ppb	09:42:28
2	Fe 238.204 Radial†	571.6	550.9	5027.6	ug/L	5027.6	ppb	09:42:28
2	K 766.490 Radial†	32442.3	29092.8	5129.2	ug/L	5129.2	ppb	09:42:08
2	Mg 279.077 IEC†	147.0	144.2	5111.5	ug/L	5111.5	ppb	09:42:28
2	Na 589.592 Radial†	31888.4	32451.9	9815.1	ug/L	9815.1	ppb	09:42:08
2	Sr 421.552†	73180.6	71996.8	504.89	ug/L	504.89	ppb	09:42:08
2	Sc 361.383	864633.3	864633.3	100.29	%			09:43:31
2	Y 371.029	705630.1	705630.1	98.744	%			09:43:31
2	Ag 328.068†	104840.4	104303.7	494.67	ug/L	494.67	ppb	09:43:36
2	As 188.979†	1105.7	1136.3	519.84	ug/L	519.84	ppb	09:43:56
2	B 249.677†	21597.8	22073.4	522.87	ug/L	522.87	ppb	09:43:36
2	Ba 233.527†	60847.9	60680.8	496.80	ug/L	496.80	ppb	09:43:36
2	Be 313.107†	1314109.6	1314589.5	490.76	ug/L	490.76	ppb	09:43:31
2	Cd 226.502†	41341.7	41432.2	492.48	ug/L	492.48	ppb	09:43:36
2	Co 228.616†	23086.0	23091.9	504.45	ug/L	504.45	ppb	09:43:36
2	Cr 267.716†	42557.5	42365.8	493.82	ug/L	493.82	ppb	09:43:36
2	Cu 324.752†	170015.5	163695.5	496.56	ug/L	496.56	ppb	09:43:36
2	Mn 257.610†	427958.4	426249.9	490.69	ug/L	490.69	ppb	09:43:31
2	Mo 202.031†	6526.9	6492.2	486.63	ug/L	486.63	ppb	09:43:56
2	Ni 231.604†	19245.0	19080.5	494.01	ug/L	494.01	ppb	09:43:36

2	P 214.914†	4117.3	3877.1	2315.8 ug/L	2315.8 ppb	09:43:56
2	Pb 220.353†	3853.2	3903.6	488.56 ug/L	488.56 ppb	09:43:56
2	S 181.975 Axial†	715.0	673.6	981.29 ug/L	981.29 ppb	09:43:56
2	Sb 206.836†	1453.1	1406.7	507.80 ug/L	507.80 ppb	09:43:56
2	Se 196.026†	705.8	725.9	506.87 ug/L	506.87 ppb	09:43:56
2	Si 251.611†	74374.4	73593.8	2455.6 ug/L	2455.6 ppb	09:43:36
2	Sn 189.927†	2633.2	2616.7	486.44 ug/L	486.44 ppb	09:43:56
2	Ti 334.940†	303051.3	303464.6	492.06 ug/L	492.06 ppb	09:43:36
2	Tl 190.801†	1510.8	1540.5	496.95 ug/L	496.95 ppb	09:43:56
2	U 409.014†	14033.6	16972.5	490.47 ug/L	490.47 ppb	09:43:36
2	V 292.402†	66533.7	67893.0	499.53 ug/L	499.53 ppb	09:43:36
2	Zn 213.857†	51089.5	50226.2	490.93 ug/L	490.93 ppb	09:43:36
2	SiO2†	74415.2	73613.6	5237.8 ug/L	5237.8 ppb	09:44:38
3	Sc Radial	4806.3	4806.3	100.0 %		09:42:33
3	Y RADIAL	4987.4	4987.4	99.73 %		09:42:33
3	Al 396.153Radial†	5274.4	5426.7	5013.0 ug/L	5013.0 ppb	09:42:33
3	Ca 317.933Radial†	3039.9	3023.5	5011.3 ug/L	5011.3 ppb	09:42:53
3	Fe 238.204 Radial†	566.3	554.9	5063.6 ug/L	5063.6 ppb	09:42:53
3	K 766.490 Radial†	32341.8	29519.9	5204.5 ug/L	5204.5 ppb	09:42:33
3	Mg 279.077 IEC†	145.5	145.1	5142.1 ug/L	5142.1 ppb	09:42:53
3	Na 589.592 Radial†	32007.4	33089.7	10008 ug/L	10008 ppb	09:42:33
3	Sr 421.552†	73573.8	73580.3	515.99 ug/L	515.99 ppb	09:42:33
3	Sc 361.383	866646.2	866646.2	100.53 %		09:44:02
3	Y 371.029	705779.0	705779.0	98.765 %		09:44:02
3	Ag 328.068†	105067.1	104286.4	494.59 ug/L	494.59 ppb	09:44:07
3	As 188.979†	1098.0	1126.1	515.24 ug/L	515.24 ppb	09:44:27
3	B 249.677†	21681.5	22106.7	523.65 ug/L	523.65 ppb	09:44:07
3	Ba 233.527†	61108.1	60798.7	497.76 ug/L	497.76 ppb	09:44:07
3	Be 313.107†	1304278.6	1301767.0	485.98 ug/L	485.98 ppb	09:44:02
3	Cd 226.502†	41405.1	41399.5	492.09 ug/L	492.09 ppb	09:44:07
3	Co 228.616†	23181.2	23133.1	505.35 ug/L	505.35 ppb	09:44:07
3	Cr 267.716†	42560.1	42269.8	492.70 ug/L	492.70 ppb	09:44:07
3	Cu 324.752†	170405.3	163689.6	496.54 ug/L	496.54 ppb	09:44:07
3	Mn 257.610†	427104.0	424408.9	488.58 ug/L	488.58 ppb	09:44:02
3	Mo 202.031†	6540.3	6490.4	486.50 ug/L	486.50 ppb	09:44:27
3	Ni 231.604†	19295.9	19086.5	494.17 ug/L	494.17 ppb	09:44:07
3	P 214.914†	4134.2	3884.4	2320.4 ug/L	2320.4 ppb	09:44:27
3	Pb 220.353†	3830.3	3871.9	484.63 ug/L	484.63 ppb	09:44:27
3	S 181.975 Axial†	703.2	660.1	961.69 ug/L	961.69 ppb	09:44:27
3	Sb 206.836†	1440.7	1390.9	502.33 ug/L	502.33 ppb	09:44:27
3	Se 196.026†	715.8	734.1	512.54 ug/L	512.54 ppb	09:44:27
3	Si 251.611†	74658.3	73703.9	2459.3 ug/L	2459.3 ppb	09:44:07
3	Sn 189.927†	2648.3	2625.7	488.11 ug/L	488.11 ppb	09:44:27
3	Ti 334.940†	304012.2	303718.7	492.47 ug/L	492.47 ppb	09:44:07
3	Tl 190.801†	1513.4	1539.6	496.66 ug/L	496.66 ppb	09:44:27
3	U 409.014†	14198.9	17104.4	494.29 ug/L	494.29 ppb	09:44:07
3	V 292.402†	66536.1	67741.3	498.43 ug/L	498.43 ppb	09:44:07
3	Zn 213.857†	51169.4	50187.4	490.54 ug/L	490.54 ppb	09:44:07
3	SiO2†	73541.8	72572.5	5163.5 ug/L	5163.5 ppb	09:44:43

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	864258.9	100.25	%	0.301				0.30%
Sc Radial	4787.5	99.6	%	2.27				2.27%
Y 371.029	704571.9	98.596	%	0.2747				0.28%
Y RADIAL	4958.0	99.15	%	2.452				2.47%
Ag 328.068†	104642.9	496.29	ug/L	2.877	496.29	ppb	2.877	0.58%
QC value within limits for Ag 328.068 Recovery = 99.26%								
Al 396.153Radial†	5397.1	4985.5	ug/L	45.91	4985.5	ppb	45.91	0.92%
QC value within limits for Al 396.153Radial Recovery = 99.71%								
As 188.979†	1133.3	518.51	ug/L	2.850	518.51	ppb	2.850	0.55%
QC value within limits for As 188.979 Recovery = 103.70%								
B 249.677†	22170.0	525.15	ug/L	3.299	525.15	ppb	3.299	0.63%
QC value within limits for B 249.677 Recovery = 105.03%								
Ba 233.527†	60899.9	498.60	ug/L	2.325	498.60	ppb	2.325	0.47%
QC value within limits for Ba 233.527 Recovery = 99.72%								
Be 313.107†	1308233.4	488.40	ug/L	2.388	488.40	ppb	2.388	0.49%
QC value within limits for Be 313.107 Recovery = 97.68%								
Ca 317.933Radial†	3028.7	5019.8	ug/L	91.58	5019.8	ppb	91.58	1.82%

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   QC value within limits for Ca 317.933Radial  Recovery = 100.40%
Cd 226.502†            41541.8      493.78 ug/L         2.593      493.78 ppb          2.593   0.53%
   QC value within limits for Cd 226.502  Recovery = 98.76%
Co 228.616†            23164.0      506.03 ug/L         1.994      506.03 ppb          1.994   0.39%
   QC value within limits for Co 228.616  Recovery = 101.21%
Cr 267.716†            42465.5      494.98 ug/L         3.036      494.98 ppb          3.036   0.61%
   QC value within limits for Cr 267.716  Recovery = 99.00%
Cu 324.752†           164385.7      498.66 ug/L         3.644      498.66 ppb          3.644   0.73%
   QC value within limits for Cu 324.752  Recovery = 99.73%
Fe 238.204 Radial†       558.6      5097.8 ug/L        92.12      5097.8 ppb         92.12   1.81%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.96%
K 766.490 Radial†      29416.1      5186.2 ug/L        50.41      5186.2 ppb         50.41   0.97%
   QC value within limits for K 766.490 Radial  Recovery = 103.72%
Mg 279.077 IEC†          145.8      5165.8 ug/L        69.27      5165.8 ppb         69.27   1.34%
   QC value within limits for Mg 279.077 IEC  Recovery = 103.32%
Mn 257.610†           425315.0      489.62 ug/L         1.058      489.62 ppb          1.058   0.22%
   QC value within limits for Mn 257.610  Recovery = 97.92%
Mo 202.031†            6502.0       487.37 ug/L         1.399      487.37 ppb          1.399   0.29%
   QC value within limits for Mo 202.031  Recovery = 97.47%
Na 589.592 Radial†     32756.2      9907.1 ug/L        96.74      9907.1 ppb         96.74   0.98%
   QC value within limits for Na 589.592 Radial  Recovery = 99.07%
Ni 231.604†            19117.5      494.97 ug/L         1.528      494.97 ppb          1.528   0.31%
   QC value within limits for Ni 231.604  Recovery = 98.99%
P 214.914†              3882.6      2318.8 ug/L         2.58      2318.8 ppb          2.58   0.11%
   QC value within limits for P 214.914  Recovery = 92.75%
Pb 220.353†             3896.7      487.70 ug/L         2.753      487.70 ppb          2.753   0.56%
   QC value within limits for Pb 220.353  Recovery = 97.54%
S 181.975 Axial†         670.7      977.08 ug/L        13.777      977.08 ppb         13.777   1.41%
   QC value within limits for S 181.975 Axial  Recovery = 97.71%
Sb 206.836†             1405.4      507.39 ug/L         4.872      507.39 ppb          4.872   0.96%
   QC value within limits for Sb 206.836  Recovery = 101.48%
Se 196.026†              733.3      512.08 ug/L         4.996      512.08 ppb          4.996   0.98%
   QC value within limits for Se 196.026  Recovery = 102.42%
Si 251.611†            73941.2      2467.2 ug/L        17.02      2467.2 ppb         17.02   0.69%
   QC value within limits for Si 251.611  Recovery = 98.69%
Sn 189.927†             2627.2      488.39 ug/L         2.107      488.39 ppb          2.107   0.43%
   QC value within limits for Sn 189.927  Recovery = 97.68%
Sr 421.552†            72891.2      511.16 ug/L         5.691      511.16 ppb          5.691   1.11%
   QC value within limits for Sr 421.552  Recovery = 102.23%
Ti 334.940†           304793.3      494.22 ug/L         3.385      494.22 ppb          3.385   0.68%
   QC value within limits for Ti 334.940  Recovery = 98.84%
Tl 190.801†             1540.5      496.96 ug/L         0.305      496.96 ppb          0.305   0.06%
   QC value within limits for Tl 190.801  Recovery = 99.39%
U 409.014†             17132.8      495.11 ug/L         5.093      495.11 ppb          5.093   1.03%
   QC value within limits for U 409.014  Recovery = 99.02%
V 292.402†             68063.9      500.78 ug/L         3.165      500.78 ppb          3.165   0.63%
   QC value within limits for V 292.402  Recovery = 100.16%
Zn 213.857†            50386.6      492.50 ug/L         3.051      492.50 ppb          3.051   0.62%
   QC value within limits for Zn 213.857  Recovery = 98.50%
SiO2†                  73291.3      5214.7 ug/L        44.46      5214.7 ppb         44.46   0.85%
   QC value within limits for SiO2  Recovery = 97.52%
All analyte(s) passed QC.
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Sequence No.: 14
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/11/2010 09:46:54
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4734.7	4734.7	98.5	%			09:48:47
1	Y RADIAL	4964.3	4964.3	99.27	%			09:48:47
1	Al 396.153Radial†	-150.8	-1.5	-1.4646	ug/L	-1.4646	ppb	09:48:47
1	Ca 317.933Radial†	16.3	-0.2	-0.2671	ug/L	-0.2671	ppb	09:49:07
1	Fe 238.204 Radial†	13.4	2.2	19.695	ug/L	19.695	ppb	09:49:07
1	K 766.490 Radial†	3573.3	802.1	141.56	ug/L	141.56	ppb	09:48:47
1	Mg 279.077 IEC†	2.9	2.5	89.003	ug/L	89.003	ppb	09:49:07
1	Na 589.592 Radial†	-923.5	140.9	42.627	ug/L	42.627	ppb	09:48:47
1	Sr 421.552†	14.6	12.7	0.0891	ug/L	0.0891	ppb	09:48:47
1	Sc 361.383	859259.9	859259.9	99.671	%			09:50:03
1	Y 371.029	711240.7	711240.7	99.529	%			09:50:03
1	Ag 328.068†	295.5	67.7	0.3243	ug/L	0.3243	ppb	09:50:03
1	As 188.979†	-10.2	23.7	10.734	ug/L	10.734	ppb	09:50:23
1	B 249.677†	398.8	939.1	22.338	ug/L	22.338	ppb	09:50:23
1	Ba 233.527†	-5.1	6.4	0.0524	ug/L	0.0524	ppb	09:50:23
1	Be 313.107†	-4186.5	138.4	0.0516	ug/L	0.0516	ppb	09:50:03
1	Cd 226.502†	-173.0	38.3	0.4537	ug/L	0.4537	ppb	09:50:23
1	Co 228.616†	-65.0	8.5	0.1893	ug/L	0.1893	ppb	09:50:23
1	Cr 267.716†	87.0	20.5	0.2382	ug/L	0.2382	ppb	09:50:23
1	Cu 324.752†	5846.5	45.1	0.1379	ug/L	0.1379	ppb	09:50:03
1	Mn 257.610†	465.9	15.6	0.0162	ug/L	0.0162	ppb	09:50:23
1	Mo 202.031†	43.0	27.6	2.0667	ug/L	2.0667	ppb	09:50:23
1	Ni 231.604†	114.3	6.7	0.1731	ug/L	0.1731	ppb	09:50:23
1	P 214.914†	224.2	-3.1	-1.9524	ug/L	-1.9524	ppb	09:50:23
1	Pb 220.353†	-34.1	27.5	3.4373	ug/L	3.4373	ppb	09:50:23
1	S 181.975 Axial†	43.3	4.1	5.9263	ug/L	5.9263	ppb	09:50:23
1	Sb 206.836†	53.8	11.8	4.2181	ug/L	4.2181	ppb	09:50:23
1	Se 196.026†	-15.9	6.2	4.2299	ug/L	4.2299	ppb	09:50:23
1	Si 251.611†	629.8	69.6	2.3014	ug/L	2.3014	ppb	09:50:23
1	Sn 189.927†	31.9	23.4	4.3362	ug/L	4.3362	ppb	09:50:23
1	Ti 334.940†	-1288.0	11.0	0.0105	ug/L	0.0105	ppb	09:50:03
1	Tl 190.801†	-26.8	7.4	2.3554	ug/L	2.3554	ppb	09:50:23
1	U 409.014†	-2976.1	-5.9	-0.1744	ug/L	-0.1744	ppb	09:50:03
1	V 292.402†	-1594.5	-45.1	-0.3003	ug/L	-0.3003	ppb	09:50:03
1	Zn 213.857†	722.7	11.9	0.1128	ug/L	0.1128	ppb	09:50:23
1	SiO2†	668.2	87.2	6.1665	ug/L	6.1665	ppb	09:51:19
2	Sc Radial	4851.7	4851.7	101	%			09:49:12
2	Y RADIAL	5095.2	5095.2	101.9	%			09:49:12
2	Al 396.153Radial†	-115.2	37.5	34.701	ug/L	34.701	ppb	09:49:12
2	Ca 317.933Radial†	20.4	3.5	5.7726	ug/L	5.7726	ppb	09:49:32
2	Fe 238.204 Radial†	9.9	-1.7	-15.375	ug/L	-15.375	ppb	09:49:32
2	K 766.490 Radial†	3498.8	640.8	113.10	ug/L	113.10	ppb	09:49:12
2	Mg 279.077 IEC†	1.1	0.6	22.595	ug/L	22.595	ppb	09:49:32
2	Na 589.592 Radial†	-919.4	167.6	50.696	ug/L	50.696	ppb	09:49:12
2	Sr 421.552†	-17.5	-19.4	-0.1361	ug/L	-0.1361	ppb	09:49:12
2	Sc 361.383	850504.8	850504.8	98.656	%			09:50:29
2	Y 371.029	704312.6	704312.6	98.560	%			09:50:29
2	Ag 328.068†	269.4	44.3	0.2043	ug/L	0.2043	ppb	09:50:29
2	As 188.979†	-5.5	28.3	12.834	ug/L	12.834	ppb	09:50:49
2	B 249.677†	398.0	942.4	22.422	ug/L	22.422	ppb	09:50:49
2	Ba 233.527†	5.5	17.2	0.1409	ug/L	0.1409	ppb	09:50:49
2	Be 313.107†	-4196.2	85.3	0.0320	ug/L	0.0320	ppb	09:50:29
2	Cd 226.502†	-160.9	48.8	0.5818	ug/L	0.5818	ppb	09:50:49
2	Co 228.616†	-66.1	6.7	0.1493	ug/L	0.1493	ppb	09:50:49
2	Cr 267.716†	89.3	23.7	0.2759	ug/L	0.2759	ppb	09:50:49
2	Cu 324.752†	5914.7	174.6	0.5279	ug/L	0.5279	ppb	09:50:29
2	Mn 257.610†	480.8	35.5	0.0384	ug/L	0.0384	ppb	09:50:49
2	Mo 202.031†	33.8	18.7	1.3991	ug/L	1.3991	ppb	09:50:49
2	Ni 231.604†	104.7	-1.9	-0.0499	ug/L	-0.0499	ppb	09:50:49

2	P 214.914†	217.6	-7.5	-4.7167 ug/L	-4.7167 ppb	09:50:49
2	Pb 220.353†	-72.0	-11.2	-1.3885 ug/L	-1.3885 ppb	09:50:49
2	S 181.975 Axial†	40.6	1.8	2.6265 ug/L	2.6265 ppb	09:50:49
2	Sb 206.836†	55.3	13.9	4.9567 ug/L	4.9567 ppb	09:50:49
2	Se 196.026†	-11.7	10.2	6.8372 ug/L	6.8372 ppb	09:50:49
2	Si 251.611†	635.7	82.1	2.7283 ug/L	2.7283 ppb	09:50:49
2	Sn 189.927†	31.9	23.7	4.3979 ug/L	4.3979 ppb	09:50:49
2	Ti 334.940†	-1236.2	50.2	0.0794 ug/L	0.0794 ppb	09:50:29
2	Tl 190.801†	-15.5	18.5	5.9356 ug/L	5.9356 ppb	09:50:49
2	U 409.014†	-2878.5	62.4	1.8098 ug/L	1.8098 ppb	09:50:29
2	V 292.402†	-1456.7	78.1	0.5928 ug/L	0.5928 ppb	09:50:29
2	Zn 213.857†	720.1	16.6	0.1658 ug/L	0.1658 ppb	09:50:49
2	SiO2†	636.8	62.4	4.4121 ug/L	4.4121 ppb	09:51:25
3	Sc Radial	4898.6	4898.6	102 %		09:49:37
3	Y RADIAL	5106.9	5106.9	102.1 %		09:49:37
3	Al 396.153Radial†	-161.5	-6.9	-6.4540 ug/L	-6.4540 ppb	09:49:37
3	Ca 317.933Radial†	17.4	0.4	0.6105 ug/L	0.6105 ppb	09:49:57
3	Fe 238.204 Radial†	9.8	-1.8	-16.496 ug/L	-16.496 ppb	09:49:57
3	K 766.490 Radial†	3494.7	603.6	106.52 ug/L	106.52 ppb	09:49:37
3	Mg 279.077 IEC†	5.2	4.6	164.80 ug/L	164.80 ppb	09:49:57
3	Na 589.592 Radial†	-899.8	195.5	59.140 ug/L	59.140 ppb	09:49:37
3	Sr 421.552†	-13.1	-15.0	-0.1052 ug/L	-0.1052 ppb	09:49:37
3	Sc 361.383	860144.3	860144.3	99.774 %		09:50:54
3	Y 371.029	710750.2	710750.2	99.461 %		09:50:54
3	Ag 328.068†	277.0	48.8	0.2220 ug/L	0.2220 ppb	09:50:54
3	As 188.979†	-12.7	21.1	9.5787 ug/L	9.5787 ppb	09:51:14
3	B 249.677†	366.7	906.6	21.570 ug/L	21.570 ppb	09:51:14
3	Ba 233.527†	-6.7	4.9	0.0413 ug/L	0.0413 ppb	09:51:14
3	Be 313.107†	-4270.9	58.2	0.0219 ug/L	0.0219 ppb	09:50:54
3	Cd 226.502†	-176.5	35.0	0.4193 ug/L	0.4193 ppb	09:51:14
3	Co 228.616†	-61.1	12.5	0.2766 ug/L	0.2766 ppb	09:51:14
3	Cr 267.716†	65.6	-1.1	-0.0145 ug/L	-0.0145 ppb	09:51:14
3	Cu 324.752†	5926.2	118.9	0.3561 ug/L	0.3561 ppb	09:50:54
3	Mn 257.610†	480.0	29.2	0.0252 ug/L	0.0252 ppb	09:51:14
3	Mo 202.031†	35.4	20.0	1.4940 ug/L	1.4940 ppb	09:51:14
3	Ni 231.604†	120.4	12.6	0.3272 ug/L	0.3272 ppb	09:51:14
3	P 214.914†	228.5	0.9	0.5462 ug/L	0.5462 ppb	09:51:14
3	Pb 220.353†	-48.2	13.5	1.6824 ug/L	1.6824 ppb	09:51:14
3	S 181.975 Axial†	45.2	5.9	8.6472 ug/L	8.6472 ppb	09:51:14
3	Sb 206.836†	45.3	3.3	1.2402 ug/L	1.2402 ppb	09:51:14
3	Se 196.026†	-18.1	3.9	2.5947 ug/L	2.5947 ppb	09:51:14
3	Si 251.611†	625.1	64.3	2.1319 ug/L	2.1319 ppb	09:51:14
3	Sn 189.927†	33.5	24.9	4.6269 ug/L	4.6269 ppb	09:51:14
3	Ti 334.940†	-1241.1	59.3	0.0798 ug/L	0.0798 ppb	09:50:54
3	Tl 190.801†	-33.1	1.1	0.3403 ug/L	0.3403 ppb	09:51:14
3	U 409.014†	-2737.0	236.9	6.8701 ug/L	6.8701 ppb	09:50:54
3	V 292.402†	-1447.1	104.3	0.7969 ug/L	0.7969 ppb	09:50:54
3	Zn 213.857†	729.7	18.2	0.1790 ug/L	0.1790 ppb	09:51:14
3	SiO2†	623.0	41.2	2.9005 ug/L	2.9005 ppb	09:51:30

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	856636.3	99.367	%	0.6181				0.62%
Sc Radial	4828.3	100	%	1.8				1.75%
Y 371.029	708767.8	99.183	%	0.5410				0.55%
Y RADIAL	5055.5	101.1	%	1.58				1.57%
Ag 328.068†	53.6	0.2502	ug/L	0.06479	0.2502	ppb	0.06479	25.90%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	9.7	8.9274	ug/L	22.45943	8.9274	ppb	22.45943	251.58%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	24.4	11.049	ug/L	1.6506	11.049	ppb	1.6506	14.94%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	929.4	22.110	ug/L	0.4696	22.110	ppb	0.4696	2.12%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	9.5	0.0782	ug/L	0.05461	0.0782	ppb	0.05461	69.83%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	93.9	0.0351	ug/L	0.01510	0.0351	ppb	0.01510	42.98%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	1.2	2.0386	ug/L	3.26333	2.0386	ppb	3.26333	160.07%

```
   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              40.7      0.4849 ug/L       0.08560      0.4849 ppb        0.08560  17.65%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†               9.2      0.2051 ug/L       0.06510      0.2051 ppb        0.06510  31.74%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              14.4      0.1666 ug/L       0.15791      0.1666 ppb        0.15791  94.81%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             112.9      0.3406 ug/L       0.19547      0.3406 ppb        0.19547  57.39%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       -0.4     -4.0589 ug/L      20.57911     -4.0589 ppb       20.57911 507.02%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        682.2      120.39 ug/L        18.626      120.39 ppb         18.626  15.47%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           2.6      92.132 ug/L       71.1522      92.132 ppb        71.1522  77.23%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              26.7      0.0266 ug/L       0.01114      0.0266 ppb        0.01114  41.91%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              22.1      1.6533 ug/L       0.36118      1.6533 ppb        0.36118  21.85%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      168.0      50.821 ug/L        8.2576      50.821 ppb         8.2576  16.25%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               5.8      0.1501 ug/L       0.18956      0.1501 ppb        0.18956 126.26%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -3.2     -2.0410 ug/L       2.63255     -2.0410 ppb        2.63255 128.99%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               9.9      1.2437 ug/L       2.44260      1.2437 ppb        2.44260 196.39%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          3.9      5.7333 ug/L       3.01498      5.7333 ppb        3.01498  52.59%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               9.7      3.4717 ug/L       1.96747      3.4717 ppb        1.96747  56.67%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               6.8      4.5540 ug/L       2.13969      4.5540 ppb        2.13969  46.99%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†              72.0      2.3872 ug/L       0.30731      2.3872 ppb        0.30731  12.87%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†              24.0      4.4537 ug/L       0.15317      4.4537 ppb        0.15317   3.44%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              -7.2     -0.0508 ug/L       0.12207     -0.0508 ppb        0.12207 240.45%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              40.2      0.0566 ug/L       0.03991      0.0566 ppb        0.03991  70.53%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               9.0      2.8771 ug/L       2.83391      2.8771 ppb        2.83391  98.50%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               97.8      2.8352 ug/L       3.63242      2.8352 ppb        3.63242 128.12%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               45.7      0.3632 ug/L       0.58355      0.3632 ppb        0.58355 160.68%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              15.5      0.1525 ug/L       0.03500      0.1525 ppb        0.03500  22.95%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                    63.6      4.4930 ug/L       1.63450      4.4930 ppb        1.63450  36.38%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
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Analysis Begun

Start Time: 2/11/2010 09:57:43 **Plasma On Time: 2/8/2010 05:57:09**
Logged In Analyst: Optima3 **Technique: ICP Continuous**
Spectrometer Model: Optima 5300 DV, S/N 077C7090601Autosampler Model: S10

Sample Information File: C:\pe\Optima3\Sample Information\021110.sif
Batch ID:
Results Data Set: 021110
Results Library: C:\pe\Optima3\Results\Results.mdb

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Method Loaded
Method Name: General Eng.2AX **Method Last Saved: 2/11/2010 08:26:30**
IEC File: 011110.iec **MSF File:**
Method Description:

Analyte	Calibration Equation	Processing	View	Internal Standard	IEC
Ag 328.068	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Al 396.153Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
As 188.979	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
B 249.677	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ba 233.527	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Be 313.107	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ca 317.933Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	No
Cd 226.502	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Co 228.616	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cr 267.716	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cu 324.752	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Fe 238.204 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
K 766.490 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Mg 279.077 IEC	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Mn 257.610	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Mo 202.031	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Na 589.592 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	No
Ni 231.604	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
P 214.914	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Pb 220.353	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
S 181.975 Axial	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sb 206.836	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sc 361.383	Lin Thru 0	Peak Area	Axial	n/a	n/a
Sc Radial	Lin, Calc Int	Peak Area	Radial	n/a	n/a
Se 196.026	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Si 251.611	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sn 189.927	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sr 421.552	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Ti 334.940	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Tl 190.801	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
U 409.014	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
V 292.402	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y 371.029	Lin, Calc Int	Peak Area	Axial	n/a	n/a
Zn 213.857	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y RADIAL	Lin, Calc Int	Peak Area	Radial	n/a	n/a
SiO2	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes

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Sequence No.: 1 **Autosampler Location: 37**
Sample ID: LR1 **Date Collected: 2/11/2010 09:57:45**
Analyst: HSC **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: LR1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Units	Sample Conc.	Units	Analysis Time
1	Sc Radial	4740.4	4740.4	98.6	%			09:59:38
1	Y RADIAL	4954.0	4954.0	99.07	%			09:59:38
1	Al 396.153Radial†	-161.0	-11.7	-9.5398	ug/L	-9.5398	ppb	09:59:38

1	Ca 317.933Radial†	13.8	-2.7	-4.5259 ug/L	-4.5259 ppb	09:59:58
1	Fe 238.204 Radial†	40798.3	41359.2	376310 ug/L	376310 ppb	09:59:38
1	K 766.490 Radial†	2921.2	136.5	24.135 ug/L	24.135 ppb	09:59:38
1	Mg 279.077 IEC†	12.9	12.6	53.575 ug/L	53.575 ppb	09:59:58
1	Na 589.592 Radial†	-991.0	73.6	22.272 ug/L	22.272 ppb	09:59:38
1	Sr 421.552†	83.8	82.8	0.5809 ug/L	0.5809 ppb	09:59:38
1	Sc 361.383	841857.2	841857.2	97.653 %		10:00:56
1	Y 371.029	690958.1	690958.1	96.691 %		10:00:56
1	Ag 328.068†	-22044.7	-22803.4	11.385 ug/L	11.385 ppb	10:00:56
1	As 188.979†	-193.9	-164.7	13.504 ug/L	13.504 ppb	10:01:16
1	B 249.677†	1489.3	2064.1	-12.024 ug/L	-12.024 ppb	10:00:56
1	Ba 233.527†	-1870.2	-1903.6	-4.0237 ug/L	-4.0237 ppb	10:00:56
1	Be 313.107†	-8962.5	-4839.3	-1.7921 ug/L	-1.7921 ppb	10:00:56
1	Cd 226.502†	2605.3	2879.8	-2.6405 ug/L	-2.6405 ppb	10:00:56
1	Co 228.616†	221.9	300.9	1.0590 ug/L	1.0590 ppb	10:01:16
1	Cr 267.716†	-206.6	-278.3	0.0691 ug/L	0.0691 ppb	10:00:56
1	Cu 324.752†	363.0	-5449.0	-2.2683 ug/L	-2.2683 ppb	10:00:56
1	Mn 257.610†	-32822.7	-34063.6	-2.0423 ug/L	-2.0423 ppb	10:00:56
1	Mo 202.031†	-337.5	-361.1	2.1689 ug/L	2.1689 ppb	10:00:56
1	Ni 231.604†	222.7	120.0	3.1056 ug/L	3.1056 ppb	10:01:16
1	P 214.914†	742.4	532.2	31.347 ug/L	31.347 ppb	10:01:16
1	Pb 220.353†	208.6	275.3	-1.6678 ug/L	-1.6678 ppb	10:01:16
1	S 181.975 Axial†	53.4	15.4	22.398 ug/L	22.398 ppb	10:01:16
1	Sb 206.836†	32.5	-8.9	-7.8066 ug/L	-7.8066 ppb	10:01:16
1	Se 196.026†	-1827.5	-1849.3	-33.554 ug/L	-33.554 ppb	10:01:16
1	Si 251.611†	-790.8	-1372.1	-45.561 ug/L	-45.561 ppb	10:00:56
1	Sn 189.927†	-9.2	-18.1	2.9662 ug/L	2.9662 ppb	10:01:16
1	Ti 334.940†	1468.4	2806.9	0.0292 ug/L	0.0292 ppb	10:00:56
1	Tl 190.801†	-59.4	-26.6	-8.7646 ug/L	-8.7646 ppb	10:01:16
1	U 409.014†	341229.2	352411.9	10176 ug/L	10176 ppb	10:00:56
1	V 292.402†	2962.3	4588.2	-2.3071 ug/L	-2.3071 ppb	10:00:56
1	Zn 213.857†	4255.8	3644.9	-20.354 ug/L	-20.354 ppb	10:01:16
1	SiO2†	-781.0	-1382.9	-97.911 ug/L	-97.911 ppb	10:02:13
2	Sc Radial	4799.6	4799.6	99.8 %		10:00:04
2	Y RADIAL	4986.2	4986.2	99.71 %		10:00:04
2	Al 396.153Radial†	-155.5	-4.2	-2.5135 ug/L	-2.5135 ppb	10:00:04
2	Ca 317.933Radial†	10.9	-5.7	-9.5149 ug/L	-9.5149 ppb	10:00:24
2	Fe 238.204 Radial†	40906.3	40957.3	372650 ug/L	372650 ppb	10:00:04
2	K 766.490 Radial†	2915.1	93.9	16.624 ug/L	16.624 ppb	10:00:04
2	Mg 279.077 IEC†	13.9	13.5	87.007 ug/L	87.007 ppb	10:00:24
2	Na 589.592 Radial†	-1103.9	-27.1	-8.1850 ug/L	-8.1850 ppb	10:00:04
2	Sr 421.552†	90.7	88.7	0.6220 ug/L	0.6220 ppb	10:00:04
2	Sc 361.383	851531.7	851531.7	98.775 %		10:01:22
2	Y 371.029	698630.5	698630.5	97.765 %		10:01:22
2	Ag 328.068†	-22367.3	-22873.5	9.7911 ug/L	9.7911 ppb	10:01:22
2	As 188.979†	-185.5	-153.9	17.566 ug/L	17.566 ppb	10:01:42
2	B 249.677†	1539.8	2097.9	-10.624 ug/L	-10.624 ppb	10:01:22
2	Ba 233.527†	-1889.9	-1901.8	-4.1196 ug/L	-4.1196 ppb	10:01:22
2	Be 313.107†	-9012.3	-4785.4	-1.7717 ug/L	-1.7717 ppb	10:01:22
2	Cd 226.502†	2595.3	2839.4	-2.7352 ug/L	-2.7352 ppb	10:01:22
2	Co 228.616†	191.4	267.5	0.3810 ug/L	0.3810 ppb	10:01:42
2	Cr 267.716†	-220.3	-289.8	-0.1494 ug/L	-0.1494 ppb	10:01:22
2	Cu 324.752†	326.7	-5490.0	-2.6060 ug/L	-2.6060 ppb	10:01:22
2	Mn 257.610†	-33186.7	-34050.3	-2.3894 ug/L	-2.3894 ppb	10:01:22
2	Mo 202.031†	-348.8	-368.6	1.3235 ug/L	1.3235 ppb	10:01:22
2	Ni 231.604†	271.9	167.3	4.3309 ug/L	4.3309 ppb	10:01:42
2	P 214.914†	758.9	540.3	39.344 ug/L	39.344 ppb	10:01:42
2	Pb 220.353†	209.9	274.2	-1.4575 ug/L	-1.4575 ppb	10:01:42
2	S 181.975 Axial†	50.2	11.5	16.709 ug/L	16.709 ppb	10:01:42
2	Sb 206.836†	20.6	-21.3	-12.080 ug/L	-12.080 ppb	10:01:42
2	Se 196.026†	-1866.2	-1867.2	-57.422 ug/L	-57.422 ppb	10:01:42
2	Si 251.611†	-781.2	-1353.2	-44.923 ug/L	-44.923 ppb	10:01:22
2	Sn 189.927†	-2.4	-11.1	4.2059 ug/L	4.2059 ppb	10:01:42
2	Ti 334.940†	1586.6	2909.5	0.1768 ug/L	0.1768 ppb	10:01:22
2	Tl 190.801†	-46.6	-13.0	-4.4054 ug/L	-4.4054 ppb	10:01:42
2	U 409.014†	346369.6	353646.1	10212 ug/L	10212 ppb	10:01:22
2	V 292.402†	3008.2	4600.1	-1.6264 ug/L	-1.6264 ppb	10:01:22
2	Zn 213.857†	4300.7	3640.8	-19.854 ug/L	-19.854 ppb	10:01:42
2	SiO2†	-743.7	-1336.1	-94.555 ug/L	-94.555 ppb	10:02:19
3	Sc Radial	4766.9	4766.9	99.2 %		10:00:29
3	Y RADIAL	4992.1	4992.1	99.83 %		10:00:29

3	Al 396.153Radial†	-148.2	2.2	3.2739 ug/L	3.2739 ppb	10:00:29
3	Ca 317.933Radial†	11.0	-5.6	-9.2419 ug/L	-9.2419 ppb	10:00:49
3	Fe 238.204 Radial†	40736.1	41066.8	373650 ug/L	373650 ppb	10:00:29
3	K 766.490 Radial†	2797.3	-4.9	-0.8049 ug/L	-0.8049 ppb	10:00:29
3	Mg 279.077 IEC†	12.3	12.0	34.252 ug/L	34.252 ppb	10:00:49
3	Na 589.592 Radial†	-1089.5	-20.1	-6.0932 ug/L	-6.0932 ppb	10:00:29
3	Sr 421.552†	131.8	130.8	0.9172 ug/L	0.9172 ppb	10:00:29
3	Sc 361.383	853653.1	853653.1	99.021 %		10:01:48
3	Y 371.029	701510.8	701510.8	98.168 %		10:01:48
3	Ag 328.068†	-22423.9	-22874.4	10.117 ug/L	10.117 ppb	10:01:48
3	As 188.979†	-209.9	-178.1	6.8005 ug/L	6.8005 ppb	10:02:08
3	B 249.677†	1519.7	2073.8	-11.362 ug/L	-11.362 ppb	10:01:48
3	Ba 233.527†	-1904.9	-1912.1	-4.1757 ug/L	-4.1757 ppb	10:01:48
3	Be 313.107†	-8926.7	-4676.3	-1.7310 ug/L	-1.7310 ppb	10:01:48
3	Cd 226.502†	2606.6	2844.3	-2.7796 ug/L	-2.7796 ppb	10:01:48
3	Co 228.616†	201.1	276.8	0.5733 ug/L	0.5733 ppb	10:02:08
3	Cr 267.716†	-229.8	-298.8	-0.2376 ug/L	-0.2376 ppb	10:01:48
3	Cu 324.752†	309.1	-5508.5	-2.6116 ug/L	-2.6116 ppb	10:01:48
3	Mn 257.610†	-33209.7	-33990.0	-2.2195 ug/L	-2.2195 ppb	10:01:48
3	Mo 202.031†	-328.7	-347.5	2.9804 ug/L	2.9804 ppb	10:01:48
3	Ni 231.604†	248.6	143.0	3.7011 ug/L	3.7011 ppb	10:02:08
3	P 214.914†	737.6	516.9	23.984 ug/L	23.984 ppb	10:02:08
3	Pb 220.353†	231.0	295.0	1.0487 ug/L	1.0487 ppb	10:02:08
3	S 181.975 Axial†	45.6	6.7	9.7874 ug/L	9.7874 ppb	10:02:08
3	Sb 206.836†	35.1	-6.7	-6.9963 ug/L	-6.9963 ppb	10:02:08
3	Se 196.026†	-1853.1	-1849.3	-42.132 ug/L	-42.132 ppb	10:02:08
3	Si 251.611†	-842.4	-1413.0	-46.942 ug/L	-46.942 ppb	10:01:48
3	Sn 189.927†	-4.1	-12.8	3.9007 ug/L	3.9007 ppb	10:02:08
3	Ti 334.940†	1591.6	2910.5	0.1812 ug/L	0.1812 ppb	10:01:48
3	Tl 190.801†	-50.7	-17.0	-5.6701 ug/L	-5.6701 ppb	10:02:08
3	U 409.014†	347355.3	353770.1	10216 ug/L	10216 ppb	10:01:48
3	V 292.402†	2901.2	4484.6	-2.5827 ug/L	-2.5827 ppb	10:01:48
3	Zn 213.857†	4272.2	3601.2	-20.390 ug/L	-20.390 ppb	10:02:08
3	SiO2†	-805.2	-1396.3	-98.891 ug/L	-98.891 ppb	10:02:24

Mean Data: LR1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	849014.0	98.483	%	0.7294				0.74%
Sc Radial	4768.9	99.2	%	0.62				0.62%
Y 371.029	697033.1	97.541	%	0.7633				0.78%
Y RADIAL	4977.4	99.54	%	0.410				0.41%
Ag 328.068†	-22850.5	10.431	ug/L	0.8418	10.431	ppb	0.8418	8.07%
Al 396.153Radial†	-4.6	-2.9265	ug/L	6.41681	-2.9265	ppb	6.41681	219.27%
As 188.979†	-165.6	12.624	ug/L	5.4366	12.624	ppb	5.4366	43.07%
B 249.677†	2078.6	-11.337	ug/L	0.7005	-11.337	ppb	0.7005	6.18%
Ba 233.527†	-1905.8	-4.1063	ug/L	0.07691	-4.1063	ppb	0.07691	1.87%
Be 313.107†	-4767.0	-1.7649	ug/L	0.03110	-1.7649	ppb	0.03110	1.76%
Ca 317.933Radial†	-4.7	-7.7609	ug/L	2.80494	-7.7609	ppb	2.80494	36.14%
Cd 226.502†	2854.5	-2.7184	ug/L	0.07108	-2.7184	ppb	0.07108	2.61%
Co 228.616†	281.7	0.6711	ug/L	0.34944	0.6711	ppb	0.34944	52.07%
Cr 267.716†	-289.0	-0.1060	ug/L	0.15789	-0.1060	ppb	0.15789	148.95%
Cu 324.752†	-5482.5	-2.4953	ug/L	0.19663	-2.4953	ppb	0.19663	7.88%
Fe 238.204 Radial†	41127.8	374210	ug/L	1890.5	374210	ppb	1890.5	0.51%
K 766.490 Radial†	75.2	13.318	ug/L	12.7946	13.318	ppb	12.7946	96.07%
Mg 279.077 IEC†	12.7	58.278	ug/L	26.6898	58.278	ppb	26.6898	45.80%
Mn 257.610†	-34034.6	-2.2171	ug/L	0.17356	-2.2171	ppb	0.17356	7.83%
Mo 202.031†	-359.1	2.1576	ug/L	0.82852	2.1576	ppb	0.82852	38.40%
Na 589.592 Radial†	8.8	2.6645	ug/L	17.01254	2.6645	ppb	17.01254	638.49%
Ni 231.604†	143.4	3.7125	ug/L	0.61273	3.7125	ppb	0.61273	16.50%
P 214.914†	529.8	31.558	ug/L	7.6824	31.558	ppb	7.6824	24.34%
Pb 220.353†	281.5	-0.6922	ug/L	1.51134	-0.6922	ppb	1.51134	218.34%
S 181.975 Axial†	11.2	16.298	ug/L	6.3151	16.298	ppb	6.3151	38.75%
Sb 206.836†	-12.3	-8.9610	ug/L	2.73143	-8.9610	ppb	2.73143	30.48%
Se 196.026†	-1855.3	-44.369	ug/L	12.0904	-44.369	ppb	12.0904	27.25%
Si 251.611†	-1379.4	-45.809	ug/L	1.0318	-45.809	ppb	1.0318	2.25%
Sn 189.927†	-14.0	3.6909	ug/L	0.64592	3.6909	ppb	0.64592	17.50%
Sr 421.552†	100.8	0.7067	ug/L	0.18347	0.7067	ppb	0.18347	25.96%
Ti 334.940†	2875.6	0.1291	ug/L	0.08649	0.1291	ppb	0.08649	67.02%
Tl 190.801†	-18.9	-6.2800	ug/L	2.24271	-6.2800	ppb	2.24271	35.71%

U 409.014†	353276.0	10201	ug/L	22.0	10201	ppb	22.0	0.22%
V 292.402†	4557.6	-2.1721	ug/L	0.49225	-2.1721	ppb	0.49225	22.66%
Zn 213.857†	3629.0	-20.200	ug/L	0.2995	-20.200	ppb	0.2995	1.48%
SiO2†	-1371.8	-97.119	ug/L	2.2742	-97.119	ppb	2.2742	2.34%

Sequence No.: 2
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/11/2010 10:04:36
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5033.7	5033.7	105	%			10:06:28
1	Y RADIAL	5190.7	5190.7	103.8	%			10:06:28
1	Al 396.153Radial†	5070.4	4993.5	4611.1	ug/L	4611.1	ppb	10:06:28
1	Ca 317.933Radial†	2993.3	2841.7	4709.9	ug/L	4709.9	ppb	10:06:48
1	Fe 238.204 Radial†	557.9	521.3	4757.9	ug/L	4757.9	ppb	10:06:48
1	K 766.490 Radial†	30624.0	26418.4	4657.4	ug/L	4657.4	ppb	10:06:28
1	Mg 279.077 IEC†	143.2	136.3	4831.5	ug/L	4831.5	ppb	10:06:48
1	Na 589.592 Radial†	30619.8	30318.6	9169.8	ug/L	9169.8	ppb	10:06:28
1	Sr 421.552†	70551.5	67370.3	472.44	ug/L	472.44	ppb	10:06:28
1	Sc 361.383	875140.1	875140.1	101.51	%			10:07:45
1	Y 371.029	712431.5	712431.5	99.696	%			10:07:45
1	Ag 328.068†	104626.9	102838.5	487.65	ug/L	487.65	ppb	10:07:51
1	As 188.979†	1069.7	1087.7	497.65	ug/L	497.65	ppb	10:08:11
1	B 249.677†	20615.4	20847.1	493.76	ug/L	493.76	ppb	10:07:51
1	Ba 233.527†	60826.3	59931.1	490.66	ug/L	490.66	ppb	10:07:51
1	Be 313.107†	1320921.4	1305569.2	487.38	ug/L	487.38	ppb	10:07:45
1	Cd 226.502†	41286.4	40882.9	485.97	ug/L	485.97	ppb	10:07:51
1	Co 228.616†	23107.5	22836.7	498.89	ug/L	498.89	ppb	10:07:51
1	Cr 267.716†	42485.5	41785.4	487.05	ug/L	487.05	ppb	10:07:51
1	Cu 324.752†	169439.3	161092.7	488.65	ug/L	488.65	ppb	10:07:51
1	Mn 257.610†	431681.5	424794.6	489.01	ug/L	489.01	ppb	10:07:45
1	Mo 202.031†	6556.9	6443.6	482.97	ug/L	482.97	ppb	10:08:11
1	Ni 231.604†	19213.2	18818.8	487.23	ug/L	487.23	ppb	10:07:51
1	P 214.914†	4153.9	3863.9	2309.3	ug/L	2309.3	ppb	10:08:11
1	Pb 220.353†	3864.4	3868.5	484.13	ug/L	484.13	ppb	10:08:11
1	S 181.975 Axial†	711.3	661.4	963.56	ug/L	963.56	ppb	10:08:11
1	Sb 206.836†	1435.4	1371.8	495.53	ug/L	495.53	ppb	10:08:11
1	Se 196.026†	706.7	718.3	500.84	ug/L	500.84	ppb	10:08:11
1	Si 251.611†	74142.6	72475.1	2418.3	ug/L	2418.3	ppb	10:07:51
1	Sn 189.927†	2645.9	2597.7	482.87	ug/L	482.87	ppb	10:08:11
1	Ti 334.940†	302446.2	299240.8	485.20	ug/L	485.20	ppb	10:07:51
1	Tl 190.801†	1517.2	1528.8	493.16	ug/L	493.16	ppb	10:08:11
1	U 409.014†	14048.8	16819.4	486.08	ug/L	486.08	ppb	10:07:51
1	V 292.402†	66425.6	66990.0	492.95	ug/L	492.95	ppb	10:07:51
1	Zn 213.857†	50993.4	49519.9	484.06	ug/L	484.06	ppb	10:07:51
1	SiO2†	73971.9	72286.1	5143.2	ug/L	5143.2	ppb	10:09:18
2	Sc Radial	4797.7	4797.7	99.8	%			10:06:53
2	Y RADIAL	4973.1	4973.1	99.45	%			10:06:53
2	Al 396.153Radial†	5127.7	5289.1	4885.3	ug/L	4885.3	ppb	10:06:53
2	Ca 317.933Radial†	3041.8	3030.9	5023.6	ug/L	5023.6	ppb	10:07:13
2	Fe 238.204 Radial†	568.3	557.9	5091.2	ug/L	5091.2	ppb	10:07:13
2	K 766.490 Radial†	30671.4	27904.5	4919.5	ug/L	4919.5	ppb	10:06:53
2	Mg 279.077 IEC†	145.2	145.1	5140.9	ug/L	5140.9	ppb	10:07:13
2	Na 589.592 Radial†	30730.1	31867.5	9638.3	ug/L	9638.3	ppb	10:06:53
2	Sr 421.552†	71251.9	71386.3	500.61	ug/L	500.61	ppb	10:06:53
2	Sc 361.383	859789.1	859789.1	99.733	%			10:08:16
2	Y 371.029	700429.0	700429.0	98.017	%			10:08:16
2	Ag 328.068†	104789.7	104841.9	497.22	ug/L	497.22	ppb	10:08:22
2	As 188.979†	1044.9	1081.5	495.02	ug/L	495.02	ppb	10:08:42
2	B 249.677†	20530.3	21124.4	500.28	ug/L	500.28	ppb	10:08:22
2	Ba 233.527†	60771.1	60945.6	498.97	ug/L	498.97	ppb	10:08:22
2	Be 313.107†	1298645.1	1306465.7	487.74	ug/L	487.74	ppb	10:08:16
2	Cd 226.502†	41169.2	41491.5	493.18	ug/L	493.18	ppb	10:08:22
2	Co 228.616†	23068.0	23203.5	506.89	ug/L	506.89	ppb	10:08:22
2	Cr 267.716†	42432.0	42479.0	495.14	ug/L	495.14	ppb	10:08:22
2	Cu 324.752†	169837.7	164472.4	498.92	ug/L	498.92	ppb	10:08:22
2	Mn 257.610†	426224.0	426914.9	491.46	ug/L	491.46	ppb	10:08:16
2	Mo 202.031†	6481.1	6482.9	485.95	ug/L	485.95	ppb	10:08:42
2	Ni 231.604†	19164.1	19107.5	494.71	ug/L	494.71	ppb	10:08:22

2	P 214.914†	4110.0	3893.0	2325.2 ug/L	2325.2 ppb	10:08:42
2	Pb 220.353†	3838.0	3910.0	489.34 ug/L	489.34 ppb	10:08:42
2	S 181.975 Axial†	701.2	663.7	966.96 ug/L	966.96 ppb	10:08:42
2	Sb 206.836†	1435.5	1397.2	504.49 ug/L	504.49 ppb	10:08:42
2	Se 196.026†	701.7	725.7	506.93 ug/L	506.93 ppb	10:08:42
2	Si 251.611†	74186.3	73822.9	2463.3 ug/L	2463.3 ppb	10:08:22
2	Sn 189.927†	2622.8	2621.1	487.27 ug/L	487.27 ppb	10:08:42
2	Ti 334.940†	302992.5	305108.0	494.73 ug/L	494.73 ppb	10:08:22
2	Tl 190.801†	1504.8	1543.0	497.77 ug/L	497.77 ppb	10:08:42
2	U 409.014†	14225.0	17243.2	498.31 ug/L	498.31 ppb	10:08:22
2	V 292.402†	66351.4	68083.9	500.91 ug/L	500.91 ppb	10:08:22
2	Zn 213.857†	50879.3	50302.5	491.67 ug/L	491.67 ppb	10:08:22
2	SiO2†	74527.3	74144.0	5275.6 ug/L	5275.6 ppb	10:09:23
3	Sc Radial	4817.1	4817.1	100 %		10:07:18
3	Y RADIAL	5011.0	5011.0	100.2 %		10:07:18
3	Al 396.153Radial†	5190.0	5330.6	4924.0 ug/L	4924.0 ppb	10:07:18
3	Ca 317.933Radial†	3050.1	3026.9	5016.9 ug/L	5016.9 ppb	10:07:38
3	Fe 238.204 Radial†	565.9	553.2	5048.6 ug/L	5048.6 ppb	10:07:38
3	K 766.490 Radial†	30992.2	28101.0	4954.2 ug/L	4954.2 ppb	10:07:18
3	Mg 279.077 IEC†	148.9	148.1	5249.6 ug/L	5249.6 ppb	10:07:38
3	Na 589.592 Radial†	30969.3	31982.3	9673.0 ug/L	9673.0 ppb	10:07:18
3	Sr 421.552†	71857.6	71703.5	502.83 ug/L	502.83 ppb	10:07:18
3	Sc 361.383	868044.0	868044.0	100.69 %		10:08:47
3	Y 371.029	707440.4	707440.4	98.998 %		10:08:47
3	Ag 328.068†	105006.1	104057.6	493.51 ug/L	493.51 ppb	10:08:53
3	As 188.979†	1050.2	1076.9	492.88 ug/L	492.88 ppb	10:09:13
3	B 249.677†	20753.2	21150.0	500.90 ug/L	500.90 ppb	10:08:53
3	Ba 233.527†	60917.8	60511.8	495.42 ug/L	495.42 ppb	10:08:53
3	Be 313.107†	1312769.6	1308110.5	488.34 ug/L	488.34 ppb	10:08:47
3	Cd 226.502†	41368.6	41297.0	490.87 ug/L	490.87 ppb	10:08:53
3	Co 228.616†	23144.3	23059.4	503.74 ug/L	503.74 ppb	10:08:53
3	Cr 267.716†	42512.9	42154.7	491.36 ug/L	491.36 ppb	10:08:53
3	Cu 324.752†	170360.9	163372.5	495.58 ug/L	495.58 ppb	10:08:53
3	Mn 257.610†	428585.8	425196.4	489.48 ug/L	489.48 ppb	10:08:47
3	Mo 202.031†	6504.1	6443.9	483.02 ug/L	483.02 ppb	10:09:13
3	Ni 231.604†	19280.9	19040.7	492.98 ug/L	492.98 ppb	10:08:53
3	P 214.914†	4111.0	3854.8	2302.0 ug/L	2302.0 ppb	10:09:13
3	Pb 220.353†	3826.2	3861.7	483.33 ug/L	483.33 ppb	10:09:13
3	S 181.975 Axial†	706.5	662.3	964.86 ug/L	964.86 ppb	10:09:13
3	Sb 206.836†	1433.2	1381.3	498.78 ug/L	498.78 ppb	10:09:13
3	Se 196.026†	701.2	718.5	501.93 ug/L	501.93 ppb	10:09:13
3	Si 251.611†	74462.0	73389.3	2448.8 ug/L	2448.8 ppb	10:08:53
3	Sn 189.927†	2613.2	2586.6	480.85 ug/L	480.85 ppb	10:09:13
3	Ti 334.940†	303715.2	302936.7	491.20 ug/L	491.20 ppb	10:08:53
3	Tl 190.801†	1498.8	1522.7	491.24 ug/L	491.24 ppb	10:09:13
3	U 409.014†	14120.1	17003.4	491.37 ug/L	491.37 ppb	10:08:53
3	V 292.402†	66675.1	67772.7	498.61 ug/L	498.61 ppb	10:08:53
3	Zn 213.857†	51123.1	50059.5	489.29 ug/L	489.29 ppb	10:08:53
3	SiO2†	74434.3	73341.0	5218.4 ug/L	5218.4 ppb	10:09:28

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	867657.7	100.65	%	0.891				0.89%
Sc Radial	4882.8	102	%	2.7				2.68%
Y 371.029	706766.9	98.903	%	0.8438				0.85%
Y RADIAL	5058.3	101.2	%	2.32				2.30%
Ag 328.068†	103912.7	492.79	ug/L	4.825	492.79	ppb	4.825	0.98%
QC value within limits for Ag 328.068 Recovery = 98.56%								
Al 396.153Radial†	5204.4	4806.8	ug/L	170.56	4806.8	ppb	170.56	3.55%
QC value within limits for Al 396.153Radial Recovery = 96.14%								
As 188.979†	1082.0	495.18	ug/L	2.391	495.18	ppb	2.391	0.48%
QC value within limits for As 188.979 Recovery = 99.04%								
B 249.677†	21040.5	498.31	ug/L	3.957	498.31	ppb	3.957	0.79%
QC value within limits for B 249.677 Recovery = 99.66%								
Ba 233.527†	60462.8	495.02	ug/L	4.171	495.02	ppb	4.171	0.84%
QC value within limits for Ba 233.527 Recovery = 99.00%								
Be 313.107†	1306715.2	487.82	ug/L	0.485	487.82	ppb	0.485	0.10%
QC value within limits for Be 313.107 Recovery = 97.56%								
Ca 317.933Radial†	2966.5	4916.8	ug/L	179.19	4916.8	ppb	179.19	3.64%

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   QC value within limits for Ca 317.933Radial  Recovery = 98.34%
Cd 226.502†            41223.8      490.01 ug/L         3.681      490.01 ppb          3.681   0.75%
   QC value within limits for Cd 226.502  Recovery = 98.00%
Co 228.616†            23033.2      503.17 ug/L         4.028      503.17 ppb          4.028   0.80%
   QC value within limits for Co 228.616  Recovery = 100.63%
Cr 267.716†            42139.7      491.18 ug/L         4.046      491.18 ppb          4.046   0.82%
   QC value within limits for Cr 267.716  Recovery = 98.24%
Cu 324.752†           162979.2      494.38 ug/L         5.235      494.38 ppb          5.235   1.06%
   QC value within limits for Cu 324.752  Recovery = 98.88%
Fe 238.204 Radial†       544.1      4965.9 ug/L        181.36      4965.9 ppb         181.36   3.65%
   QC value within limits for Fe 238.204 Radial  Recovery = 99.32%
K 766.490 Radial†      27474.6      4843.7 ug/L        162.23      4843.7 ppb         162.23   3.35%
   QC value within limits for K 766.490 Radial  Recovery = 96.87%
Mg 279.077 IEC†          143.2      5074.0 ug/L        216.91      5074.0 ppb         216.91   4.27%
   QC value within limits for Mg 279.077 IEC  Recovery = 101.48%
Mn 257.610†           425635.3      489.98 ug/L         1.305      489.98 ppb          1.305   0.27%
   QC value within limits for Mn 257.610  Recovery = 98.00%
Mo 202.031†             6456.8      483.98 ug/L         1.703      483.98 ppb          1.703   0.35%
   QC value within limits for Mo 202.031  Recovery = 96.80%
Na 589.592 Radial†     31389.5      9493.7 ug/L        281.03      9493.7 ppb         281.03   2.96%
   QC value within limits for Na 589.592 Radial  Recovery = 94.94%
Ni 231.604†            18989.0      491.64 ug/L         3.913      491.64 ppb          3.913   0.80%
   QC value within limits for Ni 231.604  Recovery = 98.33%
P 214.914†              3870.6      2312.2 ug/L        11.83      2312.2 ppb          11.83   0.51%
   QC value within limits for P 214.914  Recovery = 92.49%
Pb 220.353†             3880.1      485.60 ug/L         3.263      485.60 ppb          3.263   0.67%
   QC value within limits for Pb 220.353  Recovery = 97.12%
S 181.975 Axial†         662.5      965.13 ug/L         1.712      965.13 ppb          1.712   0.18%
   QC value within limits for S 181.975 Axial  Recovery = 96.51%
Sb 206.836†             1383.4      499.60 ug/L         4.536      499.60 ppb          4.536   0.91%
   QC value within limits for Sb 206.836  Recovery = 99.92%
Se 196.026†              720.8      503.24 ug/L         3.244      503.24 ppb          3.244   0.64%
   QC value within limits for Se 196.026  Recovery = 100.65%
Si 251.611†            73229.1      2443.5 ug/L        23.00      2443.5 ppb          23.00   0.94%
   QC value within limits for Si 251.611  Recovery = 97.74%
Sn 189.927†             2601.8      483.66 ug/L         3.280      483.66 ppb          3.280   0.68%
   QC value within limits for Sn 189.927  Recovery = 96.73%
Sr 421.552†            70153.4      491.96 ug/L        16.938      491.96 ppb         16.938   3.44%
   QC value within limits for Sr 421.552  Recovery = 98.39%
Ti 334.940†           302428.5      490.38 ug/L         4.816      490.38 ppb          4.816   0.98%
   QC value within limits for Ti 334.940  Recovery = 98.08%
Tl 190.801†             1531.5      494.05 ug/L         3.354      494.05 ppb          3.354   0.68%
   QC value within limits for Tl 190.801  Recovery = 98.81%
U 409.014†             17022.0      491.92 ug/L         6.134      491.92 ppb          6.134   1.25%
   QC value within limits for U 409.014  Recovery = 98.38%
V 292.402†             67615.5      497.49 ug/L         4.093      497.49 ppb          4.093   0.82%
   QC value within limits for V 292.402  Recovery = 99.50%
Zn 213.857†            49960.6      488.34 ug/L         3.893      488.34 ppb          3.893   0.80%
   QC value within limits for Zn 213.857  Recovery = 97.67%
SiO2†                  73257.0      5212.4 ug/L        66.43      5212.4 ppb          66.43   1.27%
   QC value within limits for SiO2  Recovery = 97.47%
All analyte(s) passed QC.
```

Sequence No.: 3
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/11/2010 10:11:39
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4887.7	4887.7	102	%			10:13:31
1	Y RADIAL	5083.6	5083.6	101.7	%			10:13:31
1	Al 396.153Radial†	-139.2	14.7	13.593	ug/L	13.593	ppb	10:13:51
1	Ca 317.933Radial†	16.5	-0.5	-0.8146	ug/L	-0.8146	ppb	10:13:51
1	Fe 238.204 Radial†	9.7	-1.9	-17.279	ug/L	-17.279	ppb	10:13:51
1	K 766.490 Radial†	2989.4	114.3	20.154	ug/L	20.154	ppb	10:13:31
1	Mg 279.077 IEC†	1.5	1.1	39.318	ug/L	39.318	ppb	10:13:51
1	Na 589.592 Radial†	-915.7	177.9	53.818	ug/L	53.818	ppb	10:13:31
1	Sr 421.552†	22.2	19.7	0.1382	ug/L	0.1382	ppb	10:13:31
1	Sc 361.383	857373.3	857373.3	99.452	%			10:14:48
1	Y 371.029	709211.7	709211.7	99.246	%			10:14:48
1	Ag 328.068†	260.0	32.7	0.1462	ug/L	0.1462	ppb	10:14:48
1	As 188.979†	-17.5	16.3	7.3951	ug/L	7.3951	ppb	10:15:08
1	B 249.677†	38.1	577.3	13.736	ug/L	13.736	ppb	10:15:08
1	Ba 233.527†	-3.5	8.1	0.0666	ug/L	0.0666	ppb	10:15:08
1	Be 313.107†	-4234.6	80.8	0.0305	ug/L	0.0305	ppb	10:14:48
1	Cd 226.502†	-196.1	14.8	0.1783	ug/L	0.1783	ppb	10:15:08
1	Co 228.616†	-64.7	8.7	0.1907	ug/L	0.1907	ppb	10:15:08
1	Cr 267.716†	87.8	21.5	0.2492	ug/L	0.2492	ppb	10:15:08
1	Cu 324.752†	5832.5	43.9	0.1294	ug/L	0.1294	ppb	10:14:48
1	Mn 257.610†	461.4	12.0	0.0105	ug/L	0.0105	ppb	10:15:08
1	Mo 202.031†	23.2	7.8	0.5830	ug/L	0.5830	ppb	10:15:08
1	Ni 231.604†	106.9	-0.6	-0.0147	ug/L	-0.0147	ppb	10:15:08
1	P 214.914†	221.8	-5.1	-3.1474	ug/L	-3.1474	ppb	10:15:08
1	Pb 220.353†	-69.6	-8.2	-1.0227	ug/L	-1.0227	ppb	10:15:08
1	S 181.975 Axial†	46.5	7.5	10.878	ug/L	10.878	ppb	10:15:08
1	Sb 206.836†	42.6	0.6	0.2593	ug/L	0.2593	ppb	10:15:08
1	Se 196.026†	-21.1	0.9	0.5784	ug/L	0.5784	ppb	10:15:08
1	Si 251.611†	580.8	21.7	0.7192	ug/L	0.7192	ppb	10:15:08
1	Sn 189.927†	16.0	7.4	1.3691	ug/L	1.3691	ppb	10:15:08
1	Ti 334.940†	-1188.8	107.8	0.1692	ug/L	0.1692	ppb	10:14:48
1	Tl 190.801†	-26.1	8.0	2.5607	ug/L	2.5607	ppb	10:15:08
1	U 409.014†	-2789.8	174.9	5.0727	ug/L	5.0727	ppb	10:14:48
1	V 292.402†	-1471.7	74.8	0.5643	ug/L	0.5643	ppb	10:14:48
1	Zn 213.857†	707.6	-1.8	-0.0150	ug/L	-0.0150	ppb	10:15:08
1	SiO2†	598.8	19.0	1.3373	ug/L	1.3373	ppb	10:16:04
2	Sc Radial	4935.7	4935.7	103	%			10:13:56
2	Y RADIAL	5173.6	5173.6	103.5	%			10:13:56
2	Al 396.153Radial†	-153.8	1.8	1.6952	ug/L	1.6952	ppb	10:14:16
2	Ca 317.933Radial†	13.4	-3.7	-6.1155	ug/L	-6.1155	ppb	10:14:16
2	Fe 238.204 Radial†	10.2	-1.6	-14.151	ug/L	-14.151	ppb	10:14:16
2	K 766.490 Radial†	3003.4	99.3	17.522	ug/L	17.522	ppb	10:13:56
2	Mg 279.077 IEC†	0.7	0.2	8.7505	ug/L	8.7505	ppb	10:14:16
2	Na 589.592 Radial†	-963.3	140.3	42.445	ug/L	42.445	ppb	10:13:56
2	Sr 421.552†	-18.9	-20.5	-0.1438	ug/L	-0.1438	ppb	10:13:56
2	Sc 361.383	861043.1	861043.1	99.878	%			10:15:13
2	Y 371.029	712178.9	712178.9	99.661	%			10:15:13
2	Ag 328.068†	235.4	6.9	0.0295	ug/L	0.0295	ppb	10:15:13
2	As 188.979†	-11.8	22.1	10.023	ug/L	10.023	ppb	10:15:33
2	B 249.677†	17.6	556.6	13.244	ug/L	13.244	ppb	10:15:33
2	Ba 233.527†	-17.7	-6.1	-0.0490	ug/L	-0.0490	ppb	10:15:33
2	Be 313.107†	-4216.1	117.5	0.0440	ug/L	0.0440	ppb	10:15:13
2	Cd 226.502†	-177.9	33.8	0.4028	ug/L	0.4028	ppb	10:15:33
2	Co 228.616†	-62.8	10.8	0.2365	ug/L	0.2365	ppb	10:15:33
2	Cr 267.716†	80.5	13.8	0.1606	ug/L	0.1606	ppb	10:15:33
2	Cu 324.752†	5893.9	80.3	0.2424	ug/L	0.2424	ppb	10:15:13
2	Mn 257.610†	443.1	-8.2	-0.0112	ug/L	-0.0112	ppb	10:15:33
2	Mo 202.031†	21.1	5.6	0.4198	ug/L	0.4198	ppb	10:15:33
2	Ni 231.604†	100.0	-7.9	-0.2043	ug/L	-0.2043	ppb	10:15:33

2	P 214.914†	216.6	-11.2	-7.0124 ug/L	-7.0124 ppb	10:15:33
2	Pb 220.353†	-75.1	-13.4	-1.6734 ug/L	-1.6734 ppb	10:15:33
2	S 181.975 Axial†	35.2	-4.1	-5.9630 ug/L	-5.9630 ppb	10:15:33
2	Sb 206.836†	40.8	-1.3	-0.4062 ug/L	-0.4062 ppb	10:15:33
2	Se 196.026†	-16.3	5.8	3.8379 ug/L	3.8379 ppb	10:15:33
2	Si 251.611†	591.9	30.3	1.0096 ug/L	1.0096 ppb	10:15:33
2	Sn 189.927†	16.1	7.5	1.3854 ug/L	1.3854 ppb	10:15:33
2	Ti 334.940†	-1249.0	52.7	0.0835 ug/L	0.0835 ppb	10:15:13
2	Tl 190.801†	-32.4	1.8	0.5744 ug/L	0.5744 ppb	10:15:33
2	U 409.014†	-2942.4	34.0	0.9879 ug/L	0.9879 ppb	10:15:13
2	V 292.402†	-1461.7	91.1	0.6718 ug/L	0.6718 ppb	10:15:13
2	Zn 213.857†	705.7	-6.7	-0.0630 ug/L	-0.0630 ppb	10:15:33
2	SiO2†	582.0	-0.5	-0.0443 ug/L	-0.0443 ppb	10:16:09
3	Sc Radial	4780.6	4780.6	99.5 %		10:14:21
3	Y RADIAL	5061.5	5061.5	101.2 %		10:14:21
3	Al 396.153Radial†	-146.5	4.3	3.9252 ug/L	3.9252 ppb	10:14:41
3	Ca 317.933Radial†	12.6	-4.0	-6.6076 ug/L	-6.6076 ppb	10:14:41
3	Fe 238.204 Radial†	10.1	-1.4	-12.453 ug/L	-12.453 ppb	10:14:41
3	K 766.490 Radial†	2938.7	129.2	22.794 ug/L	22.794 ppb	10:14:21
3	Mg 279.077 IEC†	1.3	0.9	31.312 ug/L	31.312 ppb	10:14:41
3	Na 589.592 Radial†	-1013.4	59.5	17.997 ug/L	17.997 ppb	10:14:21
3	Sr 421.552†	27.6	25.6	0.1799 ug/L	0.1799 ppb	10:14:21
3	Sc 361.383	856303.6	856303.6	99.328 %		10:15:39
3	Y 371.029	709481.5	709481.5	99.283 %		10:15:39
3	Ag 328.068†	336.5	110.0	0.5151 ug/L	0.5151 ppb	10:15:39
3	As 188.979†	-23.5	10.2	4.6390 ug/L	4.6390 ppb	10:15:59
3	B 249.677†	19.1	558.3	13.282 ug/L	13.282 ppb	10:15:59
3	Ba 233.527†	1.2	12.8	0.1059 ug/L	0.1059 ppb	10:15:59
3	Be 313.107†	-4122.9	187.9	0.0703 ug/L	0.0703 ppb	10:15:39
3	Cd 226.502†	-194.4	16.2	0.1941 ug/L	0.1941 ppb	10:15:59
3	Co 228.616†	-62.7	10.6	0.2333 ug/L	0.2333 ppb	10:15:59
3	Cr 267.716†	71.1	4.8	0.0552 ug/L	0.0552 ppb	10:15:59
3	Cu 324.752†	5747.4	-34.4	-0.1067 ug/L	-0.1067 ppb	10:15:39
3	Mn 257.610†	454.6	5.8	0.0041 ug/L	0.0041 ppb	10:15:59
3	Mo 202.031†	31.2	15.9	1.1913 ug/L	1.1913 ppb	10:15:59
3	Ni 231.604†	112.5	5.3	0.1366 ug/L	0.1366 ppb	10:15:59
3	P 214.914†	233.0	6.5	4.0950 ug/L	4.0950 ppb	10:15:59
3	Pb 220.353†	-58.4	2.9	0.3671 ug/L	0.3671 ppb	10:15:59
3	S 181.975 Axial†	44.5	5.4	7.8993 ug/L	7.8993 ppb	10:15:59
3	Sb 206.836†	49.7	7.9	2.8047 ug/L	2.8047 ppb	10:15:59
3	Se 196.026†	-15.9	6.1	4.0634 ug/L	4.0634 ppb	10:15:59
3	Si 251.611†	580.8	22.5	0.7377 ug/L	0.7377 ppb	10:15:59
3	Sn 189.927†	19.3	10.7	1.9885 ug/L	1.9885 ppb	10:15:59
3	Ti 334.940†	-1211.8	83.2	0.1302 ug/L	0.1302 ppb	10:15:39
3	Tl 190.801†	-20.3	13.8	4.4177 ug/L	4.4177 ppb	10:15:59
3	U 409.014†	-2863.7	97.0	2.8130 ug/L	2.8130 ppb	10:15:39
3	V 292.402†	-1430.7	114.3	0.8545 ug/L	0.8545 ppb	10:15:39
3	Zn 213.857†	717.6	9.2	0.0921 ug/L	0.0921 ppb	10:15:59
3	SiO2†	599.0	19.9	1.3879 ug/L	1.3879 ppb	10:16:14

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	858240.0	99.553	%	0.2883				0.29%
Sc Radial	4868.0	101	%	1.7				1.63%
Y 371.029	710290.7	99.397	%	0.2296				0.23%
Y RADIAL	5106.2	102.1	%	1.19				1.16%
Ag 328.068†	49.8	0.2303	ug/L	0.25348	0.2303	ppb	0.25348	110.07%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	6.9	6.4043	ug/L	6.32427	6.4043	ppb	6.32427	98.75%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	16.2	7.3523	ug/L	2.69211	7.3523	ppb	2.69211	36.62%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	564.1	13.421	ug/L	0.2739	13.421	ppb	0.2739	2.04%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	4.9	0.0412	ug/L	0.08052	0.0412	ppb	0.08052	195.61%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	128.7	0.0483	ug/L	0.02025	0.0483	ppb	0.02025	41.98%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-2.7	-4.5126	ug/L	3.21196	-4.5126	ppb	3.21196	71.18%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              21.6      0.2584 ug/L       0.12529      0.2584 ppb        0.12529  48.48%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†              10.0      0.2202 ug/L       0.02557      0.2202 ppb        0.02557  11.61%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              13.4      0.1550 ug/L       0.09711      0.1550 ppb        0.09711  62.64%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              29.9      0.0883 ug/L       0.17812      0.0883 ppb        0.17812 201.61%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       -1.6     -14.628 ug/L        2.4482     -14.628 ppb         2.4482  16.74%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       114.3      20.157 ug/L        2.6362      20.157 ppb         2.6362  13.08%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           0.7      26.460 ug/L       15.8507      26.460 ppb        15.8507  59.90%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               3.2      0.0011 ug/L       0.01115      0.0011 ppb        0.01115 982.24%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               9.8      0.7314 ug/L       0.40658      0.7314 ppb        0.40658  55.59%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      125.9      38.087 ug/L       18.3042      38.087 ppb        18.3042  48.06%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              -1.1     -0.0275 ug/L       0.17083     -0.0275 ppb        0.17083 621.78%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -3.3     -2.0216 ug/L       5.63861     -2.0216 ppb        5.63861 278.92%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -6.3     -0.7763 ug/L       1.04230     -0.7763 ppb        1.04230 134.26%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          2.9      4.2715 ug/L       8.98759      4.2715 ppb        8.98759 210.41%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               2.4      0.8860 ug/L       1.69471      0.8860 ppb        1.69471 191.29%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               4.3      2.8266 ug/L       1.95027      2.8266 ppb        1.95027  69.00%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†              24.8      0.8222 ug/L       0.16257      0.8222 ppb        0.16257  19.77%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               8.5      1.5810 ug/L       0.35302      1.5810 ppb        0.35302  22.33%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               8.3      0.0581 ug/L       0.17606      0.0581 ppb        0.17606 302.94%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              81.2      0.1276 ug/L       0.04293      0.1276 ppb        0.04293  33.63%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               7.9      2.5176 ug/L       1.92203      2.5176 ppb        1.92203  76.34%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               102.0      2.9579 ug/L       2.04626      2.9579 ppb        2.04626  69.18%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               93.4      0.6969 ug/L       0.14672      0.6969 ppb        0.14672  21.05%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               0.3      0.0047 ug/L       0.07938      0.0047 ppb        0.07938 >999.9%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                    12.8      0.8936 ug/L       0.81267      0.8936 ppb        0.81267  90.94%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 10
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/11/2010 11:23:51
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4828.3	4828.3	100	%			11:25:43
1	Y RADIAL	5053.5	5053.5	101.1	%			11:25:43
1	Al 396.153Radial†	5185.0	5313.7	4908.2	ug/L	4908.2	ppb	11:25:43
1	Ca 317.933Radial†	3061.8	3031.5	5024.5	ug/L	5024.5	ppb	11:26:03
1	Fe 238.204 Radial†	574.7	560.7	5116.6	ug/L	5116.6	ppb	11:26:03
1	K 766.490 Radial†	31120.6	28157.1	4964.0	ug/L	4964.0	ppb	11:25:43
1	Mg 279.077 IEC†	146.9	145.8	5168.7	ug/L	5168.7	ppb	11:26:03
1	Na 589.592 Radial†	31358.4	32297.9	9768.5	ug/L	9768.5	ppb	11:25:43
1	Sr 421.552†	72440.0	72116.9	505.73	ug/L	505.73	ppb	11:25:43
1	Sc 361.383	873372.0	873372.0	101.31	%			11:27:01
1	Y 371.029	713104.8	713104.8	99.790	%			11:27:01
1	Ag 328.068†	104829.8	103247.4	489.69	ug/L	489.69	ppb	11:27:06
1	As 188.979†	1061.7	1081.8	495.10	ug/L	495.10	ppb	11:27:26
1	B 249.677†	22865.4	23109.2	547.51	ug/L	547.51	ppb	11:27:06
1	Ba 233.527†	60836.9	60062.9	491.75	ug/L	491.75	ppb	11:27:06
1	Be 313.107†	1332646.8	1319777.3	492.68	ug/L	492.68	ppb	11:27:01
1	Cd 226.502†	41148.7	40829.3	485.30	ug/L	485.30	ppb	11:27:06
1	Co 228.616†	23051.6	22827.6	498.69	ug/L	498.69	ppb	11:27:06
1	Cr 267.716†	42494.2	41878.7	488.14	ug/L	488.14	ppb	11:27:06
1	Cu 324.752†	169724.5	161712.2	490.55	ug/L	490.55	ppb	11:27:06
1	Mn 257.610†	434299.2	428239.3	492.99	ug/L	492.99	ppb	11:27:01
1	Mo 202.031†	6561.1	6460.8	484.29	ug/L	484.29	ppb	11:27:26
1	Ni 231.604†	19238.2	18881.7	488.86	ug/L	488.86	ppb	11:27:06
1	P 214.914†	4150.1	3868.4	2311.5	ug/L	2311.5	ppb	11:27:26
1	Pb 220.353†	3893.0	3904.4	488.65	ug/L	488.65	ppb	11:27:26
1	S 181.975 Axial†	711.9	663.4	966.46	ug/L	966.46	ppb	11:27:26
1	Sb 206.836†	1443.9	1383.1	499.46	ug/L	499.46	ppb	11:27:26
1	Se 196.026†	721.0	733.8	512.50	ug/L	512.50	ppb	11:27:26
1	Si 251.611†	74121.6	72602.2	2422.5	ug/L	2422.5	ppb	11:27:06
1	Sn 189.927†	2633.4	2590.7	481.61	ug/L	481.61	ppb	11:27:26
1	Ti 334.940†	302699.2	300093.7	486.60	ug/L	486.60	ppb	11:27:06
1	Tl 190.801†	1518.2	1532.8	494.48	ug/L	494.48	ppb	11:27:26
1	U 409.014†	14342.1	17136.9	495.24	ug/L	495.24	ppb	11:27:06
1	V 292.402†	66423.3	67120.2	493.89	ug/L	493.89	ppb	11:27:06
1	Zn 213.857†	50984.6	49612.9	484.91	ug/L	484.91	ppb	11:27:06
1	SiO2†	74354.2	72810.9	5180.6	ug/L	5180.6	ppb	11:28:33
2	Sc Radial	4762.6	4762.6	99.1	%			11:26:08
2	Y RADIAL	4925.2	4925.2	98.49	%			11:26:08
2	Al 396.153Radial†	5174.9	5374.5	4964.1	ug/L	4964.1	ppb	11:26:08
2	Ca 317.933Radial†	3057.3	3069.0	5086.7	ug/L	5086.7	ppb	11:26:28
2	Fe 238.204 Radial†	566.1	559.9	5109.2	ug/L	5109.2	ppb	11:26:28
2	K 766.490 Radial†	30888.5	28349.8	4998.0	ug/L	4998.0	ppb	11:26:08
2	Mg 279.077 IEC†	148.7	149.6	5302.8	ug/L	5302.8	ppb	11:26:28
2	Na 589.592 Radial†	31158.5	32526.6	9837.6	ug/L	9837.6	ppb	11:26:08
2	Sr 421.552†	71741.8	72406.4	507.76	ug/L	507.76	ppb	11:26:08
2	Sc 361.383	861194.4	861194.4	99.896	%			11:27:32
2	Y 371.029	703870.3	703870.3	98.498	%			11:27:32
2	Ag 328.068†	104530.9	104411.3	495.20	ug/L	495.20	ppb	11:27:37
2	As 188.979†	1067.7	1102.7	504.57	ug/L	504.57	ppb	11:27:57
2	B 249.677†	22872.7	23435.6	555.27	ug/L	555.27	ppb	11:27:37
2	Ba 233.527†	60700.0	60775.1	497.57	ug/L	497.57	ppb	11:27:37
2	Be 313.107†	1315447.9	1321161.2	493.21	ug/L	493.21	ppb	11:27:32
2	Cd 226.502†	41134.3	41389.2	491.96	ug/L	491.96	ppb	11:27:37
2	Co 228.616†	22966.8	23064.5	503.88	ug/L	503.88	ppb	11:27:37
2	Cr 267.716†	42501.3	42479.0	495.14	ug/L	495.14	ppb	11:27:37
2	Cu 324.752†	169103.5	163459.5	495.85	ug/L	495.85	ppb	11:27:37
2	Mn 257.610†	428755.6	428751.7	493.57	ug/L	493.57	ppb	11:27:32
2	Mo 202.031†	6628.6	6620.0	496.22	ug/L	496.22	ppb	11:27:57
2	Ni 231.604†	19144.5	19056.5	493.39	ug/L	493.39	ppb	11:27:37

2	P 214.914†	4202.5	3978.8	2379.3 ug/L	2379.3 ppb	11:27:57
2	Pb 220.353†	3925.2	3991.0	499.49 ug/L	499.49 ppb	11:27:57
2	S 181.975 Axial†	709.5	670.9	977.39 ug/L	977.39 ppb	11:27:57
2	Sb 206.836†	1450.4	1409.7	509.17 ug/L	509.17 ppb	11:27:57
2	Se 196.026†	727.7	750.6	523.80 ug/L	523.80 ppb	11:27:57
2	Si 251.611†	73992.2	73507.2	2452.6 ug/L	2452.6 ppb	11:27:37
2	Sn 189.927†	2664.2	2658.3	494.17 ug/L	494.17 ppb	11:27:57
2	Ti 334.940†	301943.1	303561.8	492.22 ug/L	492.22 ppb	11:27:37
2	Tl 190.801†	1515.8	1551.6	500.52 ug/L	500.52 ppb	11:27:57
2	U 409.014†	14022.8	17017.5	491.76 ug/L	491.76 ppb	11:27:37
2	V 292.402†	66186.1	67809.9	499.05 ug/L	499.05 ppb	11:27:37
2	Zn 213.857†	50873.4	50213.4	490.80 ug/L	490.80 ppb	11:27:37
2	SiO2†	74670.5	74165.4	5276.9 ug/L	5276.9 ppb	11:28:38
3	Sc Radial	4825.2	4825.2	100 %		11:26:33
3	Y RADIAL	5028.7	5028.7	100.6 %		11:26:33
3	Al 396.153Radial†	5226.9	5358.6	4949.7 ug/L	4949.7 ppb	11:26:33
3	Ca 317.933Radial†	3065.6	3037.2	5033.9 ug/L	5033.9 ppb	11:26:54
3	Fe 238.204 Radial†	571.8	558.1	5093.3 ug/L	5093.3 ppb	11:26:54
3	K 766.490 Radial†	31227.3	28282.8	4986.2 ug/L	4986.2 ppb	11:26:33
3	Mg 279.077 IEC†	149.5	148.5	5263.3 ug/L	5263.3 ppb	11:26:54
3	Na 589.592 Radial†	31627.8	32586.0	9855.6 ug/L	9855.6 ppb	11:26:33
3	Sr 421.552†	72870.4	72591.1	509.06 ug/L	509.06 ppb	11:26:33
3	Sc 361.383	870385.3	870385.3	100.96 %		11:28:03
3	Y 371.029	709166.2	709166.2	99.239 %		11:28:03
3	Ag 328.068†	104482.3	103258.2	489.73 ug/L	489.73 ppb	11:28:08
3	As 188.979†	1055.5	1079.4	493.96 ug/L	493.96 ppb	11:28:28
3	B 249.677†	22912.5	23233.3	550.46 ug/L	550.46 ppb	11:28:08
3	Ba 233.527†	60704.1	60137.4	492.35 ug/L	492.35 ppb	11:28:08
3	Be 313.107†	1328694.1	1320376.3	492.90 ug/L	492.90 ppb	11:28:03
3	Cd 226.502†	41279.1	41097.8	488.50 ug/L	488.50 ppb	11:28:08
3	Co 228.616†	23136.4	22989.8	502.24 ug/L	502.24 ppb	11:28:08
3	Cr 267.716†	42479.2	42007.8	489.64 ug/L	489.64 ppb	11:28:08
3	Cu 324.752†	168864.0	161434.7	489.70 ug/L	489.70 ppb	11:28:08
3	Mn 257.610†	434328.2	429739.1	494.71 ug/L	494.71 ppb	11:28:03
3	Mo 202.031†	6595.0	6516.6	488.47 ug/L	488.47 ppb	11:28:28
3	Ni 231.604†	19220.3	18929.2	490.09 ug/L	490.09 ppb	11:28:08
3	P 214.914†	4160.9	3893.2	2327.1 ug/L	2327.1 ppb	11:28:28
3	Pb 220.353†	3875.6	3900.4	488.17 ug/L	488.17 ppb	11:28:28
3	S 181.975 Axial†	716.3	670.2	976.33 ug/L	976.33 ppb	11:28:28
3	Sb 206.836†	1446.5	1390.6	502.20 ug/L	502.20 ppb	11:28:28
3	Se 196.026†	719.2	734.5	512.88 ug/L	512.88 ppb	11:28:28
3	Si 251.611†	73946.4	72679.8	2425.0 ug/L	2425.0 ppb	11:28:08
3	Sn 189.927†	2645.6	2611.7	485.51 ug/L	485.51 ppb	11:28:28
3	Ti 334.940†	301882.4	300310.0	486.94 ug/L	486.94 ppb	11:28:08
3	Tl 190.801†	1504.5	1524.4	491.77 ug/L	491.77 ppb	11:28:28
3	U 409.014†	14354.5	17197.8	497.00 ug/L	497.00 ppb	11:28:08
3	V 292.402†	66191.4	67115.5	493.92 ug/L	493.92 ppb	11:28:08
3	Zn 213.857†	50864.3	49666.6	485.44 ug/L	485.44 ppb	11:28:08
3	SiO2†	74094.3	72805.3	5180.1 ug/L	5180.1 ppb	11:28:44

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	868317.2	100.72	%	0.736				0.73%
Sc Radial	4805.4	100.0	%	0.77				0.77%
Y 371.029	708713.8	99.176	%	0.6484				0.65%
Y RADIAL	5002.5	100.0	%	1.36				1.36%
Ag 328.068†	103639.0	491.54	ug/L	3.166	491.54	ppb	3.166	0.64%
QC value within limits for Ag 328.068 Recovery = 98.31%								
Al 396.153Radial†	5348.9	4940.7	ug/L	29.04	4940.7	ppb	29.04	0.59%
QC value within limits for Al 396.153Radial Recovery = 98.81%								
As 188.979†	1088.0	497.88	ug/L	5.824	497.88	ppb	5.824	1.17%
QC value within limits for As 188.979 Recovery = 99.58%								
B 249.677†	23259.4	551.08	ug/L	3.913	551.08	ppb	3.913	0.71%
QC value greater than the upper limit for B 249.677 Recovery = 110.22%								
Ba 233.527†	60325.1	493.89	ug/L	3.203	493.89	ppb	3.203	0.65%
QC value within limits for Ba 233.527 Recovery = 98.78%								
Be 313.107†	1320438.3	492.93	ug/L	0.265	492.93	ppb	0.265	0.05%
QC value within limits for Be 313.107 Recovery = 98.59%								
Ca 317.933Radial†	3045.9	5048.4	ug/L	33.50	5048.4	ppb	33.50	0.66%

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   QC value within limits for Ca 317.933Radial  Recovery = 100.97%
Cd 226.502†            41105.4      488.58 ug/L         3.331      488.58 ppb          3.331   0.68%
   QC value within limits for Cd 226.502  Recovery = 97.72%
Co 228.616†            22960.6      501.60 ug/L         2.653      501.60 ppb          2.653   0.53%
   QC value within limits for Co 228.616  Recovery = 100.32%
Cr 267.716†            42121.8      490.98 ug/L         3.683      490.98 ppb          3.683   0.75%
   QC value within limits for Cr 267.716  Recovery = 98.20%
Cu 324.752†           162202.1      492.03 ug/L         3.331      492.03 ppb          3.331   0.68%
   QC value within limits for Cu 324.752  Recovery = 98.41%
Fe 238.204 Radial†       559.6      5106.4 ug/L        11.95      5106.4 ppb          11.95   0.23%
   QC value within limits for Fe 238.204 Radial  Recovery = 102.13%
K 766.490 Radial†      28263.3      4982.7 ug/L        17.24      4982.7 ppb          17.24   0.35%
   QC value within limits for K 766.490 Radial  Recovery = 99.65%
Mg 279.077 IEC†          148.0      5244.9 ug/L        68.91      5244.9 ppb          68.91   1.31%
   QC value within limits for Mg 279.077 IEC  Recovery = 104.90%
Mn 257.610†           428910.0      493.76 ug/L         0.874      493.76 ppb          0.874   0.18%
   QC value within limits for Mn 257.610  Recovery = 98.75%
Mo 202.031†             6532.5      489.66 ug/L         6.050      489.66 ppb          6.050   1.24%
   QC value within limits for Mo 202.031  Recovery = 97.93%
Na 589.592 Radial†     32470.2      9820.6 ug/L        46.01      9820.6 ppb          46.01   0.47%
   QC value within limits for Na 589.592 Radial  Recovery = 98.21%
Ni 231.604†            18955.8      490.78 ug/L         2.339      490.78 ppb          2.339   0.48%
   QC value within limits for Ni 231.604  Recovery = 98.16%
P 214.914†              3913.5      2339.3 ug/L        35.51      2339.3 ppb          35.51   1.52%
   QC value within limits for P 214.914  Recovery = 93.57%
Pb 220.353†             3931.9      492.10 ug/L         6.402      492.10 ppb          6.402   1.30%
   QC value within limits for Pb 220.353  Recovery = 98.42%
S 181.975 Axial†         668.2      973.39 ug/L         6.025      973.39 ppb          6.025   0.62%
   QC value within limits for S 181.975 Axial  Recovery = 97.34%
Sb 206.836†             1394.5      503.61 ug/L         5.009      503.61 ppb          5.009   0.99%
   QC value within limits for Sb 206.836  Recovery = 100.72%
Se 196.026†              739.6      516.39 ug/L         6.416      516.39 ppb          6.416   1.24%
   QC value within limits for Se 196.026  Recovery = 103.28%
Si 251.611†            72929.7      2433.4 ug/L        16.71      2433.4 ppb          16.71   0.69%
   QC value within limits for Si 251.611  Recovery = 97.34%
Sn 189.927†             2620.2      487.10 ug/L         6.428      487.10 ppb          6.428   1.32%
   QC value within limits for Sn 189.927  Recovery = 97.42%
Sr 421.552†            72371.5      507.51 ug/L         1.676      507.51 ppb          1.676   0.33%
   QC value within limits for Sr 421.552  Recovery = 101.50%
Ti 334.940†           301321.8      488.58 ug/L         3.151      488.58 ppb          3.151   0.64%
   QC value within limits for Ti 334.940  Recovery = 97.72%
Tl 190.801†             1536.3      495.59 ug/L         4.477      495.59 ppb          4.477   0.90%
   QC value within limits for Tl 190.801  Recovery = 99.12%
U 409.014†             17117.4      494.67 ug/L         2.667      494.67 ppb          2.667   0.54%
   QC value within limits for U 409.014  Recovery = 98.93%
V 292.402†             67348.6      495.62 ug/L         2.973      495.62 ppb          2.973   0.60%
   QC value within limits for V 292.402  Recovery = 99.12%
Zn 213.857†            49831.0      487.05 ug/L         3.259      487.05 ppb          3.259   0.67%
   QC value within limits for Zn 213.857  Recovery = 97.41%
SiO2†                  73260.6      5212.5 ug/L        55.74      5212.5 ppb          55.74   1.07%
   QC value within limits for SiO2  Recovery = 97.48%
QC Failed.  Continue with analysis.
```

Sequence No.: 11
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/11/2010 11:30:53
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4937.2	4937.2	103	%			11:32:46
1	Y RADIAL	5172.4	5172.4	103.4	%			11:32:46
1	Al 396.153Radial†	-147.6	7.8	7.2517	ug/L	7.2517	ppb	11:33:06
1	Ca 317.933Radial†	20.4	3.1	5.2039	ug/L	5.2039	ppb	11:33:06
1	Fe 238.204 Radial†	12.5	0.7	6.4065	ug/L	6.4065	ppb	11:33:06
1	K 766.490 Radial†	2878.3	-23.4	-4.1430	ug/L	-4.1430	ppb	11:32:46
1	Mg 279.077 IEC†	2.1	1.6	57.919	ug/L	57.919	ppb	11:33:06
1	Na 589.592 Radial†	-967.4	136.7	41.337	ug/L	41.337	ppb	11:32:46
1	Sr 421.552†	4.2	2.0	0.0142	ug/L	0.0142	ppb	11:32:46
1	Sc 361.383	864522.7	864522.7	100.28	%			11:34:03
1	Y 371.029	716030.2	716030.2	100.20	%			11:34:03
1	Ag 328.068†	351.5	121.7	0.5768	ug/L	0.5768	ppb	11:34:03
1	As 188.979†	-23.8	10.1	4.5992	ug/L	4.5992	ppb	11:34:23
1	B 249.677†	2037.7	2571.0	61.163	ug/L	61.163	ppb	11:34:03
1	Ba 233.527†	-9.8	1.9	0.0166	ug/L	0.0166	ppb	11:34:23
1	Be 313.107†	-4302.3	48.5	0.0181	ug/L	0.0181	ppb	11:34:03
1	Cd 226.502†	-204.6	7.9	0.0938	ug/L	0.0938	ppb	11:34:23
1	Co 228.616†	-66.3	7.6	0.1678	ug/L	0.1678	ppb	11:34:23
1	Cr 267.716†	72.9	5.9	0.0691	ug/L	0.0691	ppb	11:34:23
1	Cu 324.752†	5955.1	117.6	0.3563	ug/L	0.3563	ppb	11:34:03
1	Mn 257.610†	450.3	-2.9	-0.0051	ug/L	-0.0051	ppb	11:34:23
1	Mo 202.031†	23.3	7.7	0.5770	ug/L	0.5770	ppb	11:34:23
1	Ni 231.604†	122.2	13.8	0.3579	ug/L	0.3579	ppb	11:34:23
1	P 214.914†	223.5	-5.2	-3.2925	ug/L	-3.2925	ppb	11:34:23
1	Pb 220.353†	-51.8	10.0	1.2538	ug/L	1.2538	ppb	11:34:23
1	S 181.975 Axial†	44.0	4.5	6.5563	ug/L	6.5563	ppb	11:34:23
1	Sb 206.836†	36.8	-5.5	-1.8812	ug/L	-1.8812	ppb	11:34:23
1	Se 196.026†	-18.9	3.2	2.1962	ug/L	2.1962	ppb	11:34:23
1	Si 251.611†	551.2	-12.6	-0.4297	ug/L	-0.4297	ppb	11:34:23
1	Sn 189.927†	14.3	5.6	1.0426	ug/L	1.0426	ppb	11:34:23
1	Ti 334.940†	-1309.7	-2.9	-0.0093	ug/L	-0.0093	ppb	11:34:03
1	Tl 190.801†	-23.3	11.0	3.5275	ug/L	3.5275	ppb	11:34:23
1	U 409.014†	-2941.7	46.6	1.3496	ug/L	1.3496	ppb	11:34:03
1	V 292.402†	-1481.7	77.1	0.5706	ug/L	0.5706	ppb	11:34:03
1	Zn 213.857†	749.2	33.8	0.3297	ug/L	0.3297	ppb	11:34:23
1	SiO2†	573.5	-11.2	-0.8180	ug/L	-0.8180	ppb	11:35:19
2	Sc Radial	4929.8	4929.8	103	%			11:33:11
2	Y RADIAL	5097.9	5097.9	101.9	%			11:33:11
2	Al 396.153Radial†	-144.1	11.1	10.276	ug/L	10.276	ppb	11:33:31
2	Ca 317.933Radial†	20.9	3.7	6.1384	ug/L	6.1384	ppb	11:33:31
2	Fe 238.204 Radial†	10.3	-1.4	-12.938	ug/L	-12.938	ppb	11:33:31
2	K 766.490 Radial†	2925.6	27.0	4.7477	ug/L	4.7477	ppb	11:33:11
2	Mg 279.077 IEC†	3.2	2.7	95.257	ug/L	95.257	ppb	11:33:31
2	Na 589.592 Radial†	-964.7	137.9	41.705	ug/L	41.705	ppb	11:33:11
2	Sr 421.552†	15.0	12.5	0.0877	ug/L	0.0877	ppb	11:33:11
2	Sc 361.383	862469.3	862469.3	100.04	%			11:34:28
2	Y 371.029	713778.4	713778.4	99.885	%			11:34:28
2	Ag 328.068†	267.4	38.5	0.1767	ug/L	0.1767	ppb	11:34:28
2	As 188.979†	-28.7	5.2	2.3475	ug/L	2.3475	ppb	11:34:48
2	B 249.677†	2011.8	2550.0	60.665	ug/L	60.665	ppb	11:34:28
2	Ba 233.527†	-7.5	4.1	0.0351	ug/L	0.0351	ppb	11:34:48
2	Be 313.107†	-4199.6	141.0	0.0527	ug/L	0.0527	ppb	11:34:28
2	Cd 226.502†	-177.7	34.3	0.4099	ug/L	0.4099	ppb	11:34:48
2	Co 228.616†	-64.3	9.4	0.2076	ug/L	0.2076	ppb	11:34:48
2	Cr 267.716†	67.7	0.9	0.0093	ug/L	0.0093	ppb	11:34:48
2	Cu 324.752†	5892.4	69.1	0.2066	ug/L	0.2066	ppb	11:34:28
2	Mn 257.610†	479.6	27.5	0.0264	ug/L	0.0264	ppb	11:34:48
2	Mo 202.031†	26.9	11.3	0.8479	ug/L	0.8479	ppb	11:34:48
2	Ni 231.604†	97.9	-10.1	-0.2630	ug/L	-0.2630	ppb	11:34:48

2	P 214.914†	226.0	-2.2	-1.3741 ug/L	-1.3741 ppb	11:34:48
2	Pb 220.353†	-71.3	-9.6	-1.1898 ug/L	-1.1898 ppb	11:34:48
2	S 181.975 Axial†	45.9	6.5	9.5141 ug/L	9.5141 ppb	11:34:48
2	Sb 206.836†	46.8	4.7	1.6745 ug/L	1.6745 ppb	11:34:48
2	Se 196.026†	-12.5	9.6	6.4469 ug/L	6.4469 ppb	11:34:48
2	Si 251.611†	558.3	-4.2	-0.1510 ug/L	-0.1510 ppb	11:34:48
2	Sn 189.927†	18.6	9.9	1.8436 ug/L	1.8436 ppb	11:34:48
2	Ti 334.940†	-1238.3	65.4	0.0971 ug/L	0.0971 ppb	11:34:28
2	Tl 190.801†	-22.2	12.0	3.8314 ug/L	3.8314 ppb	11:34:48
2	U 409.014†	-2826.0	155.3	4.5041 ug/L	4.5041 ppb	11:34:28
2	V 292.402†	-1439.5	115.8	0.8649 ug/L	0.8649 ppb	11:34:28
2	Zn 213.857†	755.8	42.2	0.4199 ug/L	0.4199 ppb	11:34:48
2	SiO2†	576.7	-6.7	-0.5029 ug/L	-0.5029 ppb	11:35:24
3	Sc Radial	4866.7	4866.7	101 %		11:33:36
3	Y RADIAL	5074.7	5074.7	101.5 %		11:33:36
3	Al 396.153Radial†	-138.6	14.7	13.640 ug/L	13.640 ppb	11:33:56
3	Ca 317.933Radial†	21.9	4.9	8.2040 ug/L	8.2040 ppb	11:33:56
3	Fe 238.204 Radial†	12.3	0.7	6.1455 ug/L	6.1455 ppb	11:33:56
3	K 766.490 Radial†	2778.8	-81.0	-14.316 ug/L	-14.316 ppb	11:33:36
3	Mg 279.077 IEC†	5.3	4.9	172.22 ug/L	172.22 ppb	11:33:56
3	Na 589.592 Radial†	-1014.5	76.5	23.125 ug/L	23.125 ppb	11:33:36
3	Sr 421.552†	10.4	8.1	0.0570 ug/L	0.0570 ppb	11:33:36
3	Sc 361.383	857245.8	857245.8	99.438 %		11:34:53
3	Y 371.029	708885.4	708885.4	99.200 %		11:34:53
3	Ag 328.068†	235.7	8.3	0.0423 ug/L	0.0423 ppb	11:34:53
3	As 188.979†	-30.5	3.2	1.4520 ug/L	1.4520 ppb	11:35:13
3	B 249.677†	2009.3	2559.7	60.893 ug/L	60.893 ppb	11:34:53
3	Ba 233.527†	4.4	16.1	0.1323 ug/L	0.1323 ppb	11:35:13
3	Be 313.107†	-4201.1	113.8	0.0424 ug/L	0.0424 ppb	11:34:53
3	Cd 226.502†	-188.4	22.4	0.2659 ug/L	0.2659 ppb	11:35:13
3	Co 228.616†	-72.1	1.2	0.0277 ug/L	0.0277 ppb	11:35:13
3	Cr 267.716†	68.7	2.4	0.0280 ug/L	0.0280 ppb	11:35:13
3	Cu 324.752†	5827.9	40.2	0.1218 ug/L	0.1218 ppb	11:34:53
3	Mn 257.610†	484.4	35.2	0.0341 ug/L	0.0341 ppb	11:35:13
3	Mo 202.031†	23.0	7.6	0.5689 ug/L	0.5689 ppb	11:35:13
3	Ni 231.604†	89.2	-18.3	-0.4744 ug/L	-0.4744 ppb	11:35:13
3	P 214.914†	225.9	-0.9	-0.5751 ug/L	-0.5751 ppb	11:35:13
3	Pb 220.353†	-76.0	-14.7	-1.8261 ug/L	-1.8261 ppb	11:35:13
3	S 181.975 Axial†	38.6	-0.5	-0.7679 ug/L	-0.7679 ppb	11:35:13
3	Sb 206.836†	40.7	-1.2	-0.4006 ug/L	-0.4006 ppb	11:35:13
3	Se 196.026†	-18.8	3.2	2.1685 ug/L	2.1685 ppb	11:35:13
3	Si 251.611†	565.8	6.7	0.2179 ug/L	0.2179 ppb	11:35:13
3	Sn 189.927†	7.5	-1.2	-0.2145 ug/L	-0.2145 ppb	11:35:13
3	Ti 334.940†	-1290.1	5.8	-0.0038 ug/L	-0.0038 ppb	11:34:53
3	Tl 190.801†	-31.4	2.6	0.8376 ug/L	0.8376 ppb	11:35:13
3	U 409.014†	-2940.4	23.1	0.6679 ug/L	0.6679 ppb	11:34:53
3	V 292.402†	-1481.1	65.2	0.4850 ug/L	0.4850 ppb	11:34:53
3	Zn 213.857†	760.6	51.6	0.5113 ug/L	0.5113 ppb	11:35:13
3	SiO2†	617.5	37.8	2.6843 ug/L	2.6843 ppb	11:35:29

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	861412.6	99.921	%	0.4352				0.44%
Sc Radial	4911.3	102	%	0.8				0.79%
Y 371.029	712898.0	99.761	%	0.5112				0.51%
Y RADIAL	5115.0	102.3	%	1.02				1.00%
Ag 328.068†	56.2	0.2653	ug/L	0.27805	0.2653	ppb	0.27805	104.82%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	11.2	10.389	ug/L	3.1957	10.389	ppb	3.1957	30.76%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	6.2	2.7996	ug/L	1.62157	2.7996	ppb	1.62157	57.92%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	2560.2	60.907	ug/L	0.2493	60.907	ppb	0.2493	0.41%
QC value greater than the upper limit for B 249.677 Recovery = Not calculated								
Ba 233.527†	7.3	0.0613	ug/L	0.06216	0.0613	ppb	0.06216	101.35%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	101.1	0.0377	ug/L	0.01781	0.0377	ppb	0.01781	47.18%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	3.9	6.5155	ug/L	1.53515	6.5155	ppb	1.53515	23.56%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              21.5      0.2565 ug/L       0.15823      0.2565 ppb        0.15823  61.68%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†               6.1      0.1344 ug/L       0.09448      0.1344 ppb        0.09448  70.30%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†               3.0      0.0355 ug/L       0.03060      0.0355 ppb        0.03060  86.27%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              75.6      0.2282 ug/L       0.11873      0.2282 ppb        0.11873  52.02%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       -0.0     -0.1285 ug/L      11.09372     -0.1285 ppb       11.09372 >999.9%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       -25.8     -4.5704 ug/L       9.53904     -4.5704 ppb        9.53904 208.71%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           3.1      108.47 ug/L        58.285      108.47 ppb         58.285  53.74%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              19.9      0.0185 ug/L       0.02076      0.0185 ppb        0.02076 112.27%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               8.9      0.6646 ug/L       0.15877      0.6646 ppb        0.15877  23.89%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      117.0      35.389 ug/L       10.6226      35.389 ppb        10.6226  30.02%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              -4.9     -0.1265 ug/L       0.43260     -0.1265 ppb        0.43260 342.00%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -2.8     -1.7472 ug/L       1.39662     -1.7472 ppb        1.39662  79.93%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -4.7     -0.5874 ug/L       1.62590     -0.5874 ppb        1.62590 276.81%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          3.5      5.1008 ug/L       5.29327      5.1008 ppb        5.29327 103.77%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -0.7     -0.2024 ug/L       1.78611     -0.2024 ppb        1.78611 882.30%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               5.3      3.6039 ug/L       2.46220      3.6039 ppb        2.46220  68.32%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†              -3.4     -0.1209 ug/L       0.32486     -0.1209 ppb        0.32486 268.66%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               4.8      0.8906 ug/L       1.03745      0.8906 ppb        1.03745 116.49%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               7.6      0.0530 ug/L       0.03696      0.0530 ppb        0.03696  69.77%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              22.8      0.0280 ug/L       0.05992      0.0280 ppb        0.05992 214.01%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               8.5      2.7322 ug/L       1.64777      2.7322 ppb        1.64777  60.31%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               75.0      2.1739 ug/L       2.04663      2.1739 ppb        2.04663  94.15%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               86.0      0.6402 ug/L       0.19925      0.6402 ppb        0.19925  31.13%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              42.6      0.4203 ug/L       0.09078      0.4203 ppb        0.09078  21.60%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                     6.6      0.4545 ug/L       1.93751      0.4545 ppb        1.93751 426.31%
   QC value within limits for SiO2  Recovery = Not calculated
QC Failed.  Continue with analysis.
```

Sequence No.: 3
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/11/2010 11:57:47
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4863.6	4863.6	101	%			11:59:40
1	Y RADIAL	5063.0	5063.0	101.2	%			11:59:40
1	Al 396.153Radial†	5272.9	5363.0	4954.1	ug/L	4954.1	ppb	11:59:40
1	Ca 317.933Radial†	3065.9	3013.5	4994.6	ug/L	4994.6	ppb	12:00:00
1	Fe 238.204 Radial†	571.4	553.2	5048.5	ug/L	5048.5	ppb	12:00:00
1	K 766.490 Radial†	31053.2	27865.6	4912.5	ug/L	4912.5	ppb	11:59:40
1	Mg 279.077 IEC†	150.0	147.8	5237.9	ug/L	5237.9	ppb	12:00:00
1	Na 589.592 Radial†	31966.2	32672.1	9881.6	ug/L	9881.6	ppb	11:59:40
1	Sr 421.552†	73656.0	72795.3	510.49	ug/L	510.49	ppb	11:59:40
1	Sc 361.383	865780.2	865780.2	100.43	%			12:00:57
1	Y 371.029	704855.3	704855.3	98.636	%			12:00:57
1	Ag 328.068†	104469.3	103795.8	492.26	ug/L	492.26	ppb	12:01:03
1	As 188.979†	1038.1	1067.6	488.65	ug/L	488.65	ppb	12:01:23
1	B 249.677†	21482.5	21930.1	519.46	ug/L	519.46	ppb	12:01:03
1	Ba 233.527†	60644.3	60397.7	494.48	ug/L	494.48	ppb	12:01:03
1	Be 313.107†	1313026.3	1311775.1	489.71	ug/L	489.71	ppb	12:00:57
1	Cd 226.502†	40937.1	40974.7	487.04	ug/L	487.04	ppb	12:01:03
1	Co 228.616†	22997.1	22972.9	501.85	ug/L	501.85	ppb	12:01:03
1	Cr 267.716†	42220.4	41973.9	489.25	ug/L	489.25	ppb	12:01:03
1	Cu 324.752†	169875.2	163331.3	495.45	ug/L	495.45	ppb	12:01:03
1	Mn 257.610†	429898.4	427616.3	492.26	ug/L	492.26	ppb	12:00:57
1	Mo 202.031†	6482.8	6439.6	482.70	ug/L	482.70	ppb	12:01:23
1	Ni 231.604†	19102.2	18912.9	489.67	ug/L	489.67	ppb	12:01:03
1	P 214.914†	4094.5	3849.0	2298.4	ug/L	2298.4	ppb	12:01:23
1	Pb 220.353†	3821.4	3866.8	483.97	ug/L	483.97	ppb	12:01:23
1	S 181.975 Axial†	703.8	661.4	963.56	ug/L	963.56	ppb	12:01:23
1	Sb 206.836†	1419.9	1371.7	495.40	ug/L	495.40	ppb	12:01:23
1	Se 196.026†	699.1	718.3	501.80	ug/L	501.80	ppb	12:01:23
1	Si 251.611†	74136.2	73258.3	2444.5	ug/L	2444.5	ppb	12:01:03
1	Sn 189.927†	2598.8	2579.1	479.45	ug/L	479.45	ppb	12:01:23
1	Ti 334.940†	303081.9	303094.7	491.45	ug/L	491.45	ppb	12:01:03
1	Tl 190.801†	1490.6	1518.5	489.90	ug/L	489.90	ppb	12:01:23
1	U 409.014†	14191.1	17110.7	494.48	ug/L	494.48	ppb	12:01:03
1	V 292.402†	66124.7	67397.9	495.89	ug/L	495.89	ppb	12:01:03
1	Zn 213.857†	50782.0	49852.6	487.27	ug/L	487.27	ppb	12:01:03
1	SiO2†	74764.1	73862.6	5255.6	ug/L	5255.6	ppb	12:02:30
2	Sc Radial	4864.4	4864.4	101	%			12:00:05
2	Y RADIAL	5042.3	5042.3	100.8	%			12:00:05
2	Al 396.153Radial†	5221.6	5311.4	4906.0	ug/L	4906.0	ppb	12:00:05
2	Ca 317.933Radial†	3055.3	3002.4	4976.3	ug/L	4976.3	ppb	12:00:25
2	Fe 238.204 Radial†	570.3	552.1	5038.3	ug/L	5038.3	ppb	12:00:25
2	K 766.490 Radial†	31030.4	27837.6	4907.6	ug/L	4907.6	ppb	12:00:05
2	Mg 279.077 IEC†	149.0	146.8	5202.8	ug/L	5202.8	ppb	12:00:25
2	Na 589.592 Radial†	31972.6	32672.8	9881.9	ug/L	9881.9	ppb	12:00:05
2	Sr 421.552†	73355.0	72485.0	508.31	ug/L	508.31	ppb	12:00:05
2	Sc 361.383	864784.3	864784.3	100.31	%			12:01:28
2	Y 371.029	703923.4	703923.4	98.506	%			12:01:28
2	Ag 328.068†	104641.1	104086.8	493.63	ug/L	493.63	ppb	12:01:34
2	As 188.979†	1052.0	1082.6	495.47	ug/L	495.47	ppb	12:01:54
2	B 249.677†	21546.5	22018.5	521.57	ug/L	521.57	ppb	12:01:34
2	Ba 233.527†	60673.4	60496.3	495.29	ug/L	495.29	ppb	12:01:34
2	Be 313.107†	1314706.7	1314956.0	490.89	ug/L	490.89	ppb	12:01:28
2	Cd 226.502†	40864.1	40948.9	486.73	ug/L	486.73	ppb	12:01:34
2	Co 228.616†	22946.7	22949.0	501.34	ug/L	501.34	ppb	12:01:34
2	Cr 267.716†	42172.0	41974.0	489.25	ug/L	489.25	ppb	12:01:34
2	Cu 324.752†	169790.6	163441.7	495.79	ug/L	495.79	ppb	12:01:34
2	Mn 257.610†	430196.1	428406.0	493.17	ug/L	493.17	ppb	12:01:28
2	Mo 202.031†	6529.7	6493.8	486.76	ug/L	486.76	ppb	12:01:54
2	Ni 231.604†	19066.5	18899.1	489.31	ug/L	489.31	ppb	12:01:34

2	P 214.914†	4144.9	3903.9	2332.5 ug/L	2332.5 ppb	12:01:54
2	Pb 220.353†	3859.0	3908.7	489.19 ug/L	489.19 ppb	12:01:54
2	S 181.975 Axial†	702.6	661.1	963.04 ug/L	963.04 ppb	12:01:54
2	Sb 206.836†	1428.4	1381.8	499.01 ug/L	499.01 ppb	12:01:54
2	Se 196.026†	710.4	730.3	509.85 ug/L	509.85 ppb	12:01:54
2	Si 251.611†	74130.0	73337.2	2447.0 ug/L	2447.0 ppb	12:01:34
2	Sn 189.927†	2597.4	2580.6	479.74 ug/L	479.74 ppb	12:01:54
2	Ti 334.940†	302855.7	303216.8	491.65 ug/L	491.65 ppb	12:01:34
2	Tl 190.801†	1519.4	1548.9	499.65 ug/L	499.65 ppb	12:01:54
2	U 409.014†	14189.6	17125.5	494.91 ug/L	494.91 ppb	12:01:34
2	V 292.402†	66189.7	67538.5	496.97 ug/L	496.97 ppb	12:01:34
2	Zn 213.857†	50708.1	49837.1	487.13 ug/L	487.13 ppb	12:01:34
2	SiO2†	72948.2	72138.2	5132.5 ug/L	5132.5 ppb	12:02:35
3	Sc Radial	4881.5	4881.5	102 %		12:00:30
3	Y RADIAL	5076.4	5076.4	101.5 %		12:00:30
3	Al 396.153Radial†	5284.4	5355.3	4946.2 ug/L	4946.2 ppb	12:00:30
3	Ca 317.933Radial†	3085.8	3022.0	5008.7 ug/L	5008.7 ppb	12:00:50
3	Fe 238.204 Radial†	576.1	555.8	5072.5 ug/L	5072.5 ppb	12:00:50
3	K 766.490 Radial†	31093.2	27792.5	4899.6 ug/L	4899.6 ppb	12:00:30
3	Mg 279.077 IEC†	151.8	149.1	5283.8 ug/L	5283.8 ppb	12:00:50
3	Na 589.592 Radial†	32246.6	32832.5	9930.2 ug/L	9930.2 ppb	12:00:30
3	Sr 421.552†	74049.8	72916.6	511.34 ug/L	511.34 ppb	12:00:30
3	Sc 361.383	846229.6	846229.6	98.160 %		12:01:59
3	Y 371.029	688392.1	688392.1	96.332 %		12:01:59
3	Ag 328.068†	104067.2	105789.5	501.69 ug/L	501.69 ppb	12:02:05
3	As 188.979†	1048.0	1101.5	504.11 ug/L	504.11 ppb	12:02:25
3	B 249.677†	21430.2	22371.0	529.92 ug/L	529.92 ppb	12:02:05
3	Ba 233.527†	60435.3	61579.9	504.16 ug/L	504.16 ppb	12:02:05
3	Be 313.107†	1303086.4	1331854.9	497.21 ug/L	497.21 ppb	12:01:59
3	Cd 226.502†	40625.8	41599.4	494.47 ug/L	494.47 ppb	12:02:05
3	Co 228.616†	22966.7	23471.0	512.74 ug/L	512.74 ppb	12:02:05
3	Cr 267.716†	42103.4	42825.9	499.18 ug/L	499.18 ppb	12:02:05
3	Cu 324.752†	168984.1	166331.4	504.55 ug/L	504.55 ppb	12:02:05
3	Mn 257.610†	427731.1	435298.2	501.10 ug/L	501.10 ppb	12:01:59
3	Mo 202.031†	6540.3	6647.4	498.26 ug/L	498.26 ppb	12:02:25
3	Ni 231.604†	18990.4	19238.4	498.09 ug/L	498.09 ppb	12:02:05
3	P 214.914†	4123.6	3972.8	2373.8 ug/L	2373.8 ppb	12:02:25
3	Pb 220.353†	3839.7	3973.4	497.29 ug/L	497.29 ppb	12:02:25
3	S 181.975 Axial†	696.5	670.3	976.45 ug/L	976.45 ppb	12:02:25
3	Sb 206.836†	1442.5	1427.4	515.39 ug/L	515.39 ppb	12:02:25
3	Se 196.026†	705.5	740.8	517.12 ug/L	517.12 ppb	12:02:25
3	Si 251.611†	73755.9	74576.4	2488.3 ug/L	2488.3 ppb	12:02:05
3	Sn 189.927†	2626.9	2667.5	495.87 ug/L	495.87 ppb	12:02:25
3	Ti 334.940†	301978.5	308943.1	500.93 ug/L	500.93 ppb	12:02:05
3	Tl 190.801†	1501.9	1564.3	504.64 ug/L	504.64 ppb	12:02:25
3	U 409.014†	14209.4	17455.9	504.47 ug/L	504.47 ppb	12:02:05
3	V 292.402†	65720.7	68507.4	504.17 ug/L	504.17 ppb	12:02:05
3	Zn 213.857†	50591.3	50826.5	496.81 ug/L	496.81 ppb	12:02:05
3	SiO2†	73409.4	74202.6	5279.5 ug/L	5279.5 ppb	12:02:40

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	858931.4	99.633	%	1.2773				1.28%
Sc Radial	4869.8	101	%	0.2				0.21%
Y 371.029	699057.0	97.825	%	1.2941				1.32%
Y RADIAL	5060.6	101.2	%	0.34				0.34%
Ag 328.068†	104557.4	495.86	ug/L	5.092	495.86	ppb	5.092	1.03%
QC value within limits for Ag 328.068 Recovery = 99.17%								
Al 396.153Radial†	5343.2	4935.4	ug/L	25.77	4935.4	ppb	25.77	0.52%
QC value within limits for Al 396.153Radial Recovery = 98.71%								
As 188.979†	1083.9	496.08	ug/L	7.748	496.08	ppb	7.748	1.56%
QC value within limits for As 188.979 Recovery = 99.22%								
B 249.677†	22106.5	523.65	ug/L	5.529	523.65	ppb	5.529	1.06%
QC value within limits for B 249.677 Recovery = 104.73%								
Ba 233.527†	60824.6	497.98	ug/L	5.367	497.98	ppb	5.367	1.08%
QC value within limits for Ba 233.527 Recovery = 99.60%								
Be 313.107†	1319528.6	492.60	ug/L	4.032	492.60	ppb	4.032	0.82%
QC value within limits for Be 313.107 Recovery = 98.52%								
Ca 317.933Radial†	3012.6	4993.2	ug/L	16.24	4993.2	ppb	16.24	0.33%

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   QC value within limits for Ca 317.933Radial  Recovery = 99.86%
Cd 226.502†            41174.3      489.41 ug/L         4.382      489.41 ppb          4.382   0.90%
   QC value within limits for Cd 226.502  Recovery = 97.88%
Co 228.616†            23131.0      505.31 ug/L         6.444      505.31 ppb          6.444   1.28%
   QC value within limits for Co 228.616  Recovery = 101.06%
Cr 267.716†            42257.9      492.56 ug/L         5.731      492.56 ppb          5.731   1.16%
   QC value within limits for Cr 267.716  Recovery = 98.51%
Cu 324.752†           164368.1      498.60 ug/L         5.158      498.60 ppb          5.158   1.03%
   QC value within limits for Cu 324.752  Recovery = 99.72%
Fe 238.204 Radial†       553.7      5053.1 ug/L        17.54      5053.1 ppb          17.54   0.35%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.06%
K 766.490 Radial†      27831.9      4906.6 ug/L         6.53      4906.6 ppb           6.53   0.13%
   QC value within limits for K 766.490 Radial  Recovery = 98.13%
Mg 279.077 IEC†          147.9      5241.5 ug/L        40.63      5241.5 ppb          40.63   0.78%
   QC value within limits for Mg 279.077 IEC  Recovery = 104.83%
Mn 257.610†           430440.2      495.51 ug/L         4.862      495.51 ppb          4.862   0.98%
   QC value within limits for Mn 257.610  Recovery = 99.10%
Mo 202.031†             6527.0      489.24 ug/L         8.073      489.24 ppb          8.073   1.65%
   QC value within limits for Mo 202.031  Recovery = 97.85%
Na 589.592 Radial†     32725.8      9897.9 ug/L        27.94      9897.9 ppb          27.94   0.28%
   QC value within limits for Na 589.592 Radial  Recovery = 98.98%
Ni 231.604†            19016.8      492.36 ug/L         4.971      492.36 ppb          4.971   1.01%
   QC value within limits for Ni 231.604  Recovery = 98.47%
P 214.914†              3908.6      2334.9 ug/L        37.74      2334.9 ppb          37.74   1.62%
   QC value within limits for P 214.914  Recovery = 93.40%
Pb 220.353†             3916.3      490.15 ug/L         6.711      490.15 ppb          6.711   1.37%
   QC value within limits for Pb 220.353  Recovery = 98.03%
S 181.975 Axial†         664.2      967.68 ug/L         7.600      967.68 ppb          7.600   0.79%
   QC value within limits for S 181.975 Axial  Recovery = 96.77%
Sb 206.836†             1393.6      503.27 ug/L        10.651      503.27 ppb         10.651   2.12%
   QC value within limits for Sb 206.836  Recovery = 100.65%
Se 196.026†              729.8      509.59 ug/L         7.663      509.59 ppb          7.663   1.50%
   QC value within limits for Se 196.026  Recovery = 101.92%
Si 251.611†            73723.9      2459.9 ug/L        24.63      2459.9 ppb          24.63   1.00%
   QC value within limits for Si 251.611  Recovery = 98.40%
Sn 189.927†             2609.1      485.02 ug/L         9.395      485.02 ppb          9.395   1.94%
   QC value within limits for Sn 189.927  Recovery = 97.00%
Sr 421.552†            72732.3      510.05 ug/L         1.561      510.05 ppb          1.561   0.31%
   QC value within limits for Sr 421.552  Recovery = 102.01%
Ti 334.940†           305084.9      494.68 ug/L         5.415      494.68 ppb          5.415   1.09%
   QC value within limits for Ti 334.940  Recovery = 98.94%
Tl 190.801†             1543.9      498.07 ug/L         7.494      498.07 ppb          7.494   1.50%
   QC value within limits for Tl 190.801  Recovery = 99.61%
U 409.014†             17230.7      497.96 ug/L         5.644      497.96 ppb          5.644   1.13%
   QC value within limits for U 409.014  Recovery = 99.59%
V 292.402†             67814.6      499.01 ug/L         4.502      499.01 ppb          4.502   0.90%
   QC value within limits for V 292.402  Recovery = 99.80%
Zn 213.857†            50172.1      490.40 ug/L         5.551      490.40 ppb          5.551   1.13%
   QC value within limits for Zn 213.857  Recovery = 98.08%
SiO2†                  73401.1      5222.5 ug/L        78.86      5222.5 ppb          78.86   1.51%
   QC value within limits for SiO2  Recovery = 97.66%
All analyte(s) passed QC.
```

Sequence No.: 4
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/11/2010 12:04:50
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4952.7	4952.7	103	%			12:06:43
1	Y RADIAL	5184.7	5184.7	103.7	%			12:06:43
1	Al 396.153Radial†	-140.8	15.0	13.887	ug/L	13.887	ppb	12:07:04
1	Ca 317.933Radial†	26.3	8.8	14.648	ug/L	14.648	ppb	12:07:04
1	Fe 238.204 Radial†	11.9	0.1	1.0274	ug/L	1.0274	ppb	12:07:04
1	K 766.490 Radial†	2818.4	-90.3	-15.956	ug/L	-15.956	ppb	12:06:43
1	Mg 279.077 IEC†	3.0	2.5	88.527	ug/L	88.527	ppb	12:07:04
1	Na 589.592 Radial†	-990.1	117.6	35.556	ug/L	35.556	ppb	12:06:43
1	Sr 421.552†	32.1	29.1	0.2037	ug/L	0.2037	ppb	12:06:43
1	Sc 361.383	850678.4	850678.4	98.676	%			12:08:00
1	Y 371.029	703357.8	703357.8	98.426	%			12:08:00
1	Ag 328.068†	284.5	59.6	0.2781	ug/L	0.2781	ppb	12:08:00
1	As 188.979†	-23.1	10.5	4.7624	ug/L	4.7624	ppb	12:08:20
1	B 249.677†	882.5	1433.4	34.099	ug/L	34.099	ppb	12:08:00
1	Ba 233.527†	-14.9	-3.5	-0.0276	ug/L	-0.0276	ppb	12:08:20
1	Be 313.107†	-4192.5	90.0	0.0343	ug/L	0.0343	ppb	12:08:00
1	Cd 226.502†	-194.0	15.3	0.1824	ug/L	0.1824	ppb	12:08:20
1	Co 228.616†	-59.7	13.2	0.2880	ug/L	0.2880	ppb	12:08:20
1	Cr 267.716†	74.7	8.9	0.1020	ug/L	0.1020	ppb	12:08:20
1	Cu 324.752†	5873.5	131.6	0.3963	ug/L	0.3963	ppb	12:08:00
1	Mn 257.610†	494.8	49.6	0.0535	ug/L	0.0535	ppb	12:08:20
1	Mo 202.031†	15.2	-0.1	-0.0071	ug/L	-0.0071	ppb	12:08:20
1	Ni 231.604†	103.5	-3.2	-0.0823	ug/L	-0.0823	ppb	12:08:20
1	P 214.914†	227.8	2.8	1.6550	ug/L	1.6550	ppb	12:08:20
1	Pb 220.353†	-53.2	7.8	0.9778	ug/L	0.9778	ppb	12:08:20
1	S 181.975 Axial†	32.8	-6.1	-8.9045	ug/L	-8.9045	ppb	12:08:20
1	Sb 206.836†	48.2	6.7	2.3436	ug/L	2.3436	ppb	12:08:20
1	Se 196.026†	-17.8	4.1	2.7571	ug/L	2.7571	ppb	12:08:20
1	Si 251.611†	535.5	-19.6	-0.6563	ug/L	-0.6563	ppb	12:08:20
1	Sn 189.927†	12.9	4.4	0.8125	ug/L	0.8125	ppb	12:08:20
1	Ti 334.940†	-1066.4	222.5	0.3531	ug/L	0.3531	ppb	12:08:00
1	Tl 190.801†	-30.3	3.5	1.1327	ug/L	1.1327	ppb	12:08:20
1	U 409.014†	-2750.8	192.3	5.5754	ug/L	5.5754	ppb	12:08:00
1	V 292.402†	-1470.6	64.3	0.4787	ug/L	0.4787	ppb	12:08:00
1	Zn 213.857†	763.6	60.5	0.5972	ug/L	0.5972	ppb	12:08:20
1	SiO2†	547.7	-28.1	-2.0064	ug/L	-2.0064	ppb	12:09:16
2	Sc Radial	4884.6	4884.6	102	%			12:07:09
2	Y RADIAL	5089.2	5089.2	101.8	%			12:07:09
2	Al 396.153Radial†	-144.1	9.8	9.0326	ug/L	9.0326	ppb	12:07:29
2	Ca 317.933Radial†	24.0	6.9	11.493	ug/L	11.493	ppb	12:07:29
2	Fe 238.204 Radial†	10.1	-1.5	-13.969	ug/L	-13.969	ppb	12:07:29
2	K 766.490 Radial†	2882.9	11.3	1.9838	ug/L	1.9838	ppb	12:07:09
2	Mg 279.077 IEC†	2.3	1.9	66.818	ug/L	66.818	ppb	12:07:29
2	Na 589.592 Radial†	-989.5	104.8	31.688	ug/L	31.688	ppb	12:07:09
2	Sr 421.552†	64.1	61.0	0.4278	ug/L	0.4278	ppb	12:07:09
2	Sc 361.383	854144.5	854144.5	99.078	%			12:08:26
2	Y 371.029	706080.3	706080.3	98.807	%			12:08:26
2	Ag 328.068†	259.7	33.4	0.1510	ug/L	0.1510	ppb	12:08:26
2	As 188.979†	-25.8	7.9	3.5587	ug/L	3.5587	ppb	12:08:46
2	B 249.677†	924.6	1472.3	35.026	ug/L	35.026	ppb	12:08:26
2	Ba 233.527†	-9.3	2.2	0.0182	ug/L	0.0182	ppb	12:08:46
2	Be 313.107†	-4188.9	110.8	0.0415	ug/L	0.0415	ppb	12:08:26
2	Cd 226.502†	-195.4	14.7	0.1764	ug/L	0.1764	ppb	12:08:46
2	Co 228.616†	-59.7	13.5	0.2965	ug/L	0.2965	ppb	12:08:46
2	Cr 267.716†	82.0	16.0	0.1853	ug/L	0.1853	ppb	12:08:46
2	Cu 324.752†	5724.6	-42.9	-0.1325	ug/L	-0.1325	ppb	12:08:26
2	Mn 257.610†	470.5	22.9	0.0223	ug/L	0.0223	ppb	12:08:46
2	Mo 202.031†	25.7	10.4	0.7758	ug/L	0.7758	ppb	12:08:46
2	Ni 231.604†	101.7	-5.4	-0.1402	ug/L	-0.1402	ppb	12:08:46

2	P 214.914†	224.5	-1.5	-0.8906 ug/L	-0.8906 ppb	12:08:46
2	Pb 220.353†	-60.4	0.8	0.1045 ug/L	0.1045 ppb	12:08:46
2	S 181.975 Axial†	39.9	1.0	1.3920 ug/L	1.3920 ppb	12:08:46
2	Sb 206.836†	46.1	4.4	1.5566 ug/L	1.5566 ppb	12:08:46
2	Se 196.026†	-15.8	6.2	4.1072 ug/L	4.1072 ppb	12:08:46
2	Si 251.611†	553.5	-3.6	-0.1290 ug/L	-0.1290 ppb	12:08:46
2	Sn 189.927†	14.8	6.3	1.1642 ug/L	1.1642 ppb	12:08:46
2	Ti 334.940†	-1231.8	59.9	0.0919 ug/L	0.0919 ppb	12:08:26
2	Tl 190.801†	-29.0	4.9	1.5666 ug/L	1.5666 ppb	12:08:46
2	U 409.014†	-2853.0	100.5	2.9164 ug/L	2.9164 ppb	12:08:26
2	V 292.402†	-1505.9	34.7	0.2721 ug/L	0.2721 ppb	12:08:26
2	Zn 213.857†	776.5	70.5	0.6983 ug/L	0.6983 ppb	12:08:46
2	SiO2†	573.1	-4.7	-0.3547 ug/L	-0.3547 ppb	12:09:21
3	Sc Radial	4949.7	4949.7	103 %		12:07:34
3	Y RADIAL	5151.5	5151.5	103.0 %		12:07:34
3	Al 396.153Radial†	-143.9	11.9	11.030 ug/L	11.030 ppb	12:07:54
3	Ca 317.933Radial†	19.5	2.2	3.6841 ug/L	3.6841 ppb	12:07:54
3	Fe 238.204 Radial†	10.4	-1.4	-12.958 ug/L	-12.958 ppb	12:07:54
3	K 766.490 Radial†	2843.5	-64.2	-11.350 ug/L	-11.350 ppb	12:07:34
3	Mg 279.077 IEC†	2.6	2.1	74.351 ug/L	74.351 ppb	12:07:54
3	Na 589.592 Radial†	-1005.4	102.1	30.891 ug/L	30.891 ppb	12:07:34
3	Sr 421.552†	22.3	19.6	0.1374 ug/L	0.1374 ppb	12:07:34
3	Sc 361.383	851001.9	851001.9	98.713 %		12:08:51
3	Y 371.029	701869.4	701869.4	98.218 %		12:08:51
3	Ag 328.068†	202.9	-23.3	-0.1159 ug/L	-0.1159 ppb	12:08:51
3	As 188.979†	-23.8	9.7	4.4032 ug/L	4.4032 ppb	12:09:11
3	B 249.677†	896.5	1447.2	34.430 ug/L	34.430 ppb	12:08:51
3	Ba 233.527†	-17.8	-6.5	-0.0517 ug/L	-0.0517 ppb	12:09:11
3	Be 313.107†	-4258.4	24.8	0.0097 ug/L	0.0097 ppb	12:08:51
3	Cd 226.502†	-190.1	19.3	0.2322 ug/L	0.2322 ppb	12:09:11
3	Co 228.616†	-68.4	4.5	0.0964 ug/L	0.0964 ppb	12:09:11
3	Cr 267.716†	63.0	-2.9	-0.0354 ug/L	-0.0354 ppb	12:09:11
3	Cu 324.752†	5761.0	15.4	0.0429 ug/L	0.0429 ppb	12:08:51
3	Mn 257.610†	465.3	19.4	0.0180 ug/L	0.0180 ppb	12:09:11
3	Mo 202.031†	10.6	-4.8	-0.3577 ug/L	-0.3577 ppb	12:09:11
3	Ni 231.604†	123.2	16.8	0.4357 ug/L	0.4357 ppb	12:09:11
3	P 214.914†	231.3	6.2	3.9035 ug/L	3.9035 ppb	12:09:11
3	Pb 220.353†	-57.4	3.6	0.4533 ug/L	0.4533 ppb	12:09:11
3	S 181.975 Axial†	38.9	0.1	0.0794 ug/L	0.0794 ppb	12:09:11
3	Sb 206.836†	41.4	-0.2	-0.0400 ug/L	-0.0400 ppb	12:09:11
3	Se 196.026†	-6.9	15.1	10.123 ug/L	10.123 ppb	12:09:11
3	Si 251.611†	535.6	-19.7	-0.6530 ug/L	-0.6530 ppb	12:09:11
3	Sn 189.927†	16.9	8.5	1.5697 ug/L	1.5697 ppb	12:09:11
3	Ti 334.940†	-1154.7	133.4	0.2083 ug/L	0.2083 ppb	12:08:51
3	Tl 190.801†	-38.7	-5.0	-1.6100 ug/L	-1.6100 ppb	12:09:11
3	U 409.014†	-2750.2	194.0	5.6283 ug/L	5.6283 ppb	12:08:51
3	V 292.402†	-1441.6	94.2	0.6932 ug/L	0.6932 ppb	12:08:51
3	Zn 213.857†	765.0	61.8	0.6083 ug/L	0.6083 ppb	12:09:11
3	SiO2†	555.8	-20.1	-1.4224 ug/L	-1.4224 ppb	12:09:27

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	851941.6	98.822	%	0.2221				0.22%
Sc Radial	4929.0	103	%	0.8				0.78%
Y 371.029	703769.1	98.484	%	0.2988				0.30%
Y RADIAL	5141.8	102.8	%	0.97				0.94%
Ag 328.068†	23.2	0.1044	ug/L	0.20113	0.1044	ppb	0.20113	192.64%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	12.2	11.317	ug/L	2.4398	11.317	ppb	2.4398	21.56%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	9.3	4.2415	ug/L	0.61795	4.2415	ppb	0.61795	14.57%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	1450.9	34.518	ug/L	0.4700	34.518	ppb	0.4700	1.36%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-2.6	-0.0204	ug/L	0.03550	-0.0204	ppb	0.03550	174.21%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	75.2	0.0285	ug/L	0.01666	0.0285	ppb	0.01666	58.40%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	6.0	9.9418	ug/L	5.64420	9.9418	ppb	5.64420	56.77%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              16.4      0.1970 ug/L       0.03065      0.1970 ppb        0.03065  15.56%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†              10.4      0.2269 ug/L       0.11316      0.2269 ppb        0.11316  49.86%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†               7.3      0.0840 ug/L       0.11146      0.0840 ppb        0.11146 132.73%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              34.7      0.1022 ug/L       0.26931      0.1022 ppb        0.26931 263.39%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       -0.9     -8.6331 ug/L       8.38145     -8.6331 ppb        8.38145  97.09%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       -47.7     -8.4407 ug/L       9.31702     -8.4407 ppb        9.31702 110.38%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           2.2      76.565 ug/L      11.0227      76.565 ppb        11.0227  14.40%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              30.7      0.0313 ug/L       0.01938      0.0313 ppb        0.01938  61.94%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               1.8      0.1370 ug/L       0.58036      0.1370 ppb        0.58036 423.56%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      108.2      32.712 ug/L        2.4953      32.712 ppb         2.4953   7.63%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               2.7      0.0711 ug/L       0.31708      0.0711 ppb        0.31708 446.23%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                2.5      1.5559 ug/L       2.39858      1.5559 ppb        2.39858 154.16%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               4.1      0.5119 ug/L       0.43955      0.5119 ppb        0.43955  85.87%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         -1.7     -2.4777 ug/L       5.60430     -2.4777 ppb        5.60430 226.19%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               3.6      1.2867 ug/L       1.21454      1.2867 ppb        1.21454  94.39%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               8.4      5.6624 ug/L       3.92140      5.6624 ppb        3.92140  69.25%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†             -14.3     -0.4794 ug/L       0.30344     -0.4794 ppb        0.30344  63.29%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               6.4      1.1822 ug/L       0.37893      1.1822 ppb        0.37893  32.05%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              36.6      0.2563 ug/L       0.15219      0.2563 ppb        0.15219  59.38%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             138.6      0.2178 ug/L       0.13086      0.2178 ppb        0.13086  60.09%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               1.1      0.3631 ug/L       1.72245      0.3631 ppb        1.72245 474.34%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              162.3      4.7067 ug/L       1.55071      4.7067 ppb        1.55071  32.95%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               64.4      0.4813 ug/L       0.21059      0.4813 ppb        0.21059  43.75%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              64.3      0.6346 ug/L       0.05545      0.6346 ppb        0.05545   8.74%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                   -17.6     -1.2612 ug/L       0.83758     -1.2612 ppb        0.83758  66.41%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 11
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/11/2010 12:53:04
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4837.9	4837.9	101	%			12:54:57
1	Y RADIAL	5017.8	5017.8	100.3	%			12:54:57
1	Al 396.153Radial†	5274.7	5392.5	4981.2	ug/L	4981.2	ppb	12:54:57
1	Ca 317.933Radial†	3065.4	3029.1	5020.5	ug/L	5020.5	ppb	12:55:17
1	Fe 238.204 Radial†	576.3	561.1	5120.5	ug/L	5120.5	ppb	12:55:17
1	K 766.490 Radial†	31192.3	28166.6	4965.7	ug/L	4965.7	ppb	12:54:57
1	Mg 279.077 IEC†	150.4	149.0	5282.2	ug/L	5282.2	ppb	12:55:17
1	Na 589.592 Radial†	31816.2	32690.7	9887.3	ug/L	9887.3	ppb	12:54:57
1	Sr 421.552†	73457.9	72984.8	511.82	ug/L	511.82	ppb	12:54:57
1	Sc 361.383	868818.6	868818.6	100.78	%			12:56:14
1	Y 371.029	706341.6	706341.6	98.844	%			12:56:14
1	Ag 328.068†	103196.2	102168.7	484.60	ug/L	484.60	ppb	12:56:20
1	As 188.979†	1057.3	1083.0	495.59	ug/L	495.59	ppb	12:56:40
1	B 249.677†	21059.0	21435.0	507.69	ug/L	507.69	ppb	12:56:20
1	Ba 233.527†	60094.6	59641.1	488.29	ug/L	488.29	ppb	12:56:20
1	Be 313.107†	1325883.0	1319960.0	492.74	ug/L	492.74	ppb	12:56:14
1	Cd 226.502†	40531.4	40429.7	480.54	ug/L	480.54	ppb	12:56:20
1	Co 228.616†	22814.5	22711.7	496.17	ug/L	496.17	ppb	12:56:20
1	Cr 267.716†	41797.6	41407.3	482.65	ug/L	482.65	ppb	12:56:20
1	Cu 324.752†	167171.2	160056.6	485.53	ug/L	485.53	ppb	12:56:20
1	Mn 257.610†	435580.9	431757.9	497.03	ug/L	497.03	ppb	12:56:14
1	Mo 202.031†	6579.6	6513.1	488.21	ug/L	488.21	ppb	12:56:40
1	Ni 231.604†	18915.2	18660.8	483.14	ug/L	483.14	ppb	12:56:20
1	P 214.914†	4176.7	3916.3	2342.4	ug/L	2342.4	ppb	12:56:40
1	Pb 220.353†	3889.5	3921.1	490.76	ug/L	490.76	ppb	12:56:40
1	S 181.975 Axial†	715.3	670.4	976.69	ug/L	976.69	ppb	12:56:40
1	Sb 206.836†	1455.6	1402.2	506.26	ug/L	506.26	ppb	12:56:40
1	Se 196.026†	724.6	741.1	517.45	ug/L	517.45	ppb	12:56:40
1	Si 251.611†	73289.1	72159.6	2407.6	ug/L	2407.6	ppb	12:56:20
1	Sn 189.927†	2650.0	2620.8	487.20	ug/L	487.20	ppb	12:56:40
1	Ti 334.940†	299376.6	298362.8	483.78	ug/L	483.78	ppb	12:56:20
1	Tl 190.801†	1529.3	1551.7	500.54	ug/L	500.54	ppb	12:56:40
1	U 409.014†	13997.9	16869.6	487.50	ug/L	487.50	ppb	12:56:20
1	V 292.402†	65379.8	66428.4	488.91	ug/L	488.91	ppb	12:56:20
1	Zn 213.857†	50226.3	49124.3	480.13	ug/L	480.13	ppb	12:56:20
1	SiO2†	74473.5	73314.0	5216.3	ug/L	5216.3	ppb	12:57:47
2	Sc Radial	4811.3	4811.3	100	%			12:55:22
2	Y RADIAL	5012.3	5012.3	100.2	%			12:55:22
2	Al 396.153Radial†	5241.2	5388.0	4977.1	ug/L	4977.1	ppb	12:55:22
2	Ca 317.933Radial†	3093.3	3073.8	5094.6	ug/L	5094.6	ppb	12:55:42
2	Fe 238.204 Radial†	574.8	562.8	5136.0	ug/L	5136.0	ppb	12:55:42
2	K 766.490 Radial†	31082.1	28228.2	4976.5	ug/L	4976.5	ppb	12:55:22
2	Mg 279.077 IEC†	151.6	151.1	5354.7	ug/L	5354.7	ppb	12:55:42
2	Na 589.592 Radial†	31591.0	32640.9	9872.2	ug/L	9872.2	ppb	12:55:22
2	Sr 421.552†	73056.5	72988.1	511.84	ug/L	511.84	ppb	12:55:22
2	Sc 361.383	869935.0	869935.0	100.91	%			12:56:45
2	Y 371.029	707378.5	707378.5	98.989	%			12:56:45
2	Ag 328.068†	106246.4	105060.1	498.26	ug/L	498.26	ppb	12:56:51
2	As 188.979†	1055.6	1080.0	494.34	ug/L	494.34	ppb	12:57:11
2	B 249.677†	21912.3	22253.8	527.13	ug/L	527.13	ppb	12:56:51
2	Ba 233.527†	61719.2	61174.6	500.84	ug/L	500.84	ppb	12:56:51
2	Be 313.107†	1326025.6	1318412.9	492.19	ug/L	492.19	ppb	12:56:45
2	Cd 226.502†	41567.2	41404.4	492.14	ug/L	492.14	ppb	12:56:51
2	Co 228.616†	23446.2	23308.6	509.18	ug/L	509.18	ppb	12:56:51
2	Cr 267.716†	42876.6	42423.3	494.49	ug/L	494.49	ppb	12:56:51
2	Cu 324.752†	172710.7	165333.3	501.53	ug/L	501.53	ppb	12:56:51
2	Mn 257.610†	435993.6	431612.2	496.86	ug/L	496.86	ppb	12:56:45
2	Mo 202.031†	6563.2	6488.5	486.37	ug/L	486.37	ppb	12:57:11
2	Ni 231.604†	19385.2	19102.5	494.58	ug/L	494.58	ppb	12:56:51

2	P 214.914†	4175.4	3909.7	2335.0 ug/L	2335.0 ppb	12:57:11
2	Pb 220.353†	3873.5	3900.3	488.15 ug/L	488.15 ppb	12:57:11
2	S 181.975 Axial†	718.3	672.5	979.65 ug/L	979.65 ppb	12:57:11
2	Sb 206.836†	1443.4	1388.3	501.33 ug/L	501.33 ppb	12:57:11
2	Se 196.026†	713.2	728.9	509.24 ug/L	509.24 ppb	12:57:11
2	Si 251.611†	75301.3	74060.4	2471.2 ug/L	2471.2 ppb	12:56:51
2	Sn 189.927†	2634.7	2602.3	483.78 ug/L	483.78 ppb	12:57:11
2	Ti 334.940†	307990.4	306517.7	497.00 ug/L	497.00 ppb	12:56:51
2	Tl 190.801†	1527.4	1547.8	499.33 ug/L	499.33 ppb	12:57:11
2	U 409.014†	14702.9	17550.4	507.21 ug/L	507.21 ppb	12:56:51
2	V 292.402†	67186.8	68135.9	501.30 ug/L	501.30 ppb	12:56:51
2	Zn 213.857†	51523.6	50346.0	492.09 ug/L	492.09 ppb	12:56:51
2	SiO2†	74498.7	73244.1	5211.4 ug/L	5211.4 ppb	12:57:52
3	Sc Radial	4939.1	4939.1	103 %		12:55:47
3	Y RADIAL	5135.1	5135.1	102.7 %		12:55:47
3	Al 396.153Radial†	5339.9	5348.6	4940.2 ug/L	4940.2 ppb	12:55:47
3	Ca 317.933Radial†	3086.8	2987.4	4951.5 ug/L	4951.5 ppb	12:56:07
3	Fe 238.204 Radial†	573.8	547.0	4991.9 ug/L	4991.9 ppb	12:56:07
3	K 766.490 Radial†	31771.0	28094.7	4953.0 ug/L	4953.0 ppb	12:55:47
3	Mg 279.077 IEC†	147.4	143.1	5070.6 ug/L	5070.6 ppb	12:56:07
3	Na 589.592 Radial†	32218.7	32434.7	9809.8 ug/L	9809.8 ppb	12:55:47
3	Sr 421.552†	74536.5	72538.9	508.69 ug/L	508.69 ppb	12:55:47
3	Sc 361.383	857830.8	857830.8	99.505 %		12:57:16
3	Y 371.029	697229.1	697229.1	97.569 %		12:57:16
3	Ag 328.068†	105007.3	105300.4	499.35 ug/L	499.35 ppb	12:57:22
3	As 188.979†	1060.9	1100.1	503.43 ug/L	503.43 ppb	12:57:42
3	B 249.677†	21554.1	22200.2	525.88 ug/L	525.88 ppb	12:57:22
3	Ba 233.527†	61004.2	61318.9	502.02 ug/L	502.02 ppb	12:57:22
3	Be 313.107†	1307439.3	1318276.1	492.15 ug/L	492.15 ppb	12:57:16
3	Cd 226.502†	41171.3	41587.8	494.34 ug/L	494.34 ppb	12:57:22
3	Co 228.616†	23181.0	23369.9	510.53 ug/L	510.53 ppb	12:57:22
3	Cr 267.716†	42400.0	42543.9	495.89 ug/L	495.89 ppb	12:57:22
3	Cu 324.752†	170509.4	165536.1	502.13 ug/L	502.13 ppb	12:57:22
3	Mn 257.610†	429959.0	431644.1	496.90 ug/L	496.90 ppb	12:57:16
3	Mo 202.031†	6557.4	6574.4	492.79 ug/L	492.79 ppb	12:57:42
3	Ni 231.604†	19176.7	19164.0	496.17 ug/L	496.17 ppb	12:57:22
3	P 214.914†	4164.3	3957.0	2364.5 ug/L	2364.5 ppb	12:57:42
3	Pb 220.353†	3870.6	3951.5	494.56 ug/L	494.56 ppb	12:57:42
3	S 181.975 Axial†	713.1	677.3	986.73 ug/L	986.73 ppb	12:57:42
3	Sb 206.836†	1444.5	1409.6	508.98 ug/L	508.98 ppb	12:57:42
3	Se 196.026†	708.9	734.6	512.62 ug/L	512.62 ppb	12:57:42
3	Si 251.611†	74405.0	74212.5	2476.2 ug/L	2476.2 ppb	12:57:22
3	Sn 189.927†	2631.7	2636.1	490.04 ug/L	490.04 ppb	12:57:42
3	Ti 334.940†	304414.8	307230.9	498.16 ug/L	498.16 ppb	12:57:22
3	Tl 190.801†	1510.5	1552.2	500.75 ug/L	500.75 ppb	12:57:42
3	U 409.014†	14397.7	17449.3	504.29 ug/L	504.29 ppb	12:57:22
3	V 292.402†	66407.6	68292.3	502.54 ug/L	502.54 ppb	12:57:22
3	Zn 213.857†	50925.6	50465.4	493.28 ug/L	493.28 ppb	12:57:22
3	SiO2†	74841.4	74630.2	5310.1 ug/L	5310.1 ppb	12:57:57

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	865528.2	100.40	%	0.776				0.77%
Sc Radial	4862.8	101	%	1.4				1.39%
Y 371.029	703649.7	98.467	%	0.7815				0.79%
Y RADIAL	5055.1	101.1	%	1.39				1.37%
Ag 328.068†	104176.4	494.07	ug/L	8.221	494.07	ppb	8.221	1.66%
QC value within limits for Ag 328.068 Recovery = 98.81%								
Al 396.153Radial†	5376.4	4966.2	ug/L	22.59	4966.2	ppb	22.59	0.45%
QC value within limits for Al 396.153Radial Recovery = 99.32%								
As 188.979†	1087.7	497.79	ug/L	4.923	497.79	ppb	4.923	0.99%
QC value within limits for As 188.979 Recovery = 99.56%								
B 249.677†	21963.0	520.23	ug/L	10.879	520.23	ppb	10.879	2.09%
QC value within limits for B 249.677 Recovery = 104.05%								
Ba 233.527†	60711.5	497.05	ug/L	7.609	497.05	ppb	7.609	1.53%
QC value within limits for Ba 233.527 Recovery = 99.41%								
Be 313.107†	1318883.0	492.36	ug/L	0.330	492.36	ppb	0.330	0.07%
QC value within limits for Be 313.107 Recovery = 98.47%								
Ca 317.933Radial†	3030.1	5022.2	ug/L	71.56	5022.2	ppb	71.56	1.42%

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   QC value within limits for Ca 317.933Radial  Recovery = 100.44%
Cd 226.502†            41140.6      489.01 ug/L         7.412      489.01 ppb          7.412   1.52%
   QC value within limits for Cd 226.502  Recovery = 97.80%
Co 228.616†            23130.1      505.29 ug/L         7.929      505.29 ppb          7.929   1.57%
   QC value within limits for Co 228.616  Recovery = 101.06%
Cr 267.716†            42124.9      491.01 ug/L         7.274      491.01 ppb          7.274   1.48%
   QC value within limits for Cr 267.716  Recovery = 98.20%
Cu 324.752†           163642.0      496.40 ug/L         9.416      496.40 ppb          9.416   1.90%
   QC value within limits for Cu 324.752  Recovery = 99.28%
Fe 238.204 Radial†       557.0      5082.8 ug/L         79.12      5082.8 ppb          79.12   1.56%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.66%
K 766.490 Radial†      28163.2      4965.1 ug/L         11.76      4965.1 ppb          11.76   0.24%
   QC value within limits for K 766.490 Radial  Recovery = 99.30%
Mg 279.077 IEC†          147.7      5235.8 ug/L        147.63      5235.8 ppb         147.63   2.82%
   QC value within limits for Mg 279.077 IEC  Recovery = 104.72%
Mn 257.610†           431671.4      496.93 ug/L         0.089      496.93 ppb          0.089   0.02%
   QC value within limits for Mn 257.610  Recovery = 99.39%
Mo 202.031†             6525.4      489.12 ug/L         3.307      489.12 ppb          3.307   0.68%
   QC value within limits for Mo 202.031  Recovery = 97.82%
Na 589.592 Radial†     32588.7      9856.4 ug/L         41.06      9856.4 ppb          41.06   0.42%
   QC value within limits for Na 589.592 Radial  Recovery = 98.56%
Ni 231.604†            18975.8      491.30 ug/L         7.107      491.30 ppb          7.107   1.45%
   QC value within limits for Ni 231.604  Recovery = 98.26%
P 214.914†              3927.7      2347.3 ug/L         15.32      2347.3 ppb          15.32   0.65%
   QC value within limits for P 214.914  Recovery = 93.89%
Pb 220.353†             3924.3      491.15 ug/L         3.222      491.15 ppb          3.222   0.66%
   QC value within limits for Pb 220.353  Recovery = 98.23%
S 181.975 Axial†         673.4      981.02 ug/L         5.160      981.02 ppb          5.160   0.53%
   QC value within limits for S 181.975 Axial  Recovery = 98.10%
Sb 206.836†             1400.0      505.52 ug/L         3.879      505.52 ppb          3.879   0.77%
   QC value within limits for Sb 206.836  Recovery = 101.10%
Se 196.026†              734.9      513.10 ug/L         4.127      513.10 ppb          4.127   0.80%
   QC value within limits for Se 196.026  Recovery = 102.62%
Si 251.611†            73477.5      2451.7 ug/L         38.25      2451.7 ppb          38.25   1.56%
   QC value within limits for Si 251.611  Recovery = 98.07%
Sn 189.927†             2619.7      487.00 ug/L         3.136      487.00 ppb          3.136   0.64%
   QC value within limits for Sn 189.927  Recovery = 97.40%
Sr 421.552†            72837.3      510.78 ug/L         1.812      510.78 ppb          1.812   0.35%
   QC value within limits for Sr 421.552  Recovery = 102.16%
Ti 334.940†           304037.1      492.98 ug/L         7.988      492.98 ppb          7.988   1.62%
   QC value within limits for Ti 334.940  Recovery = 98.60%
Tl 190.801†             1550.6      500.20 ug/L         0.767      500.20 ppb          0.767   0.15%
   QC value within limits for Tl 190.801  Recovery = 100.04%
U 409.014†             17289.8      499.67 ug/L        10.639      499.67 ppb         10.639   2.13%
   QC value within limits for U 409.014  Recovery = 99.93%
V 292.402†             67618.9      497.59 ug/L         7.537      497.59 ppb          7.537   1.51%
   QC value within limits for V 292.402  Recovery = 99.52%
Zn 213.857†            49978.6      488.50 ug/L         7.270      488.50 ppb          7.270   1.49%
   QC value within limits for Zn 213.857  Recovery = 97.70%
SiO2†                  73729.4      5246.0 ug/L         55.61      5246.0 ppb          55.61   1.06%
   QC value within limits for SiO2  Recovery = 98.10%
All analyte(s) passed QC.
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Sequence No.: 12
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/11/2010 13:00:07
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4548.3	4548.3	94.6	%			13:02:00
1	Y RADIAL	4743.9	4743.9	94.87	%			13:02:00
1	Al 396.153Radial†	-139.3	4.3	4.0280	ug/L	4.0280	ppb	13:02:20
1	Ca 317.933Radial†	23.9	8.6	14.252	ug/L	14.252	ppb	13:02:20
1	Fe 238.204 Radial†	11.6	0.8	7.0309	ug/L	7.0309	ppb	13:02:20
1	K 766.490 Radial†	2723.3	52.5	9.2430	ug/L	9.2430	ppb	13:02:00
1	Mg 279.077 IEC†	3.7	3.5	125.24	ug/L	125.24	ppb	13:02:20
1	Na 589.592 Radial†	-923.1	103.0	31.145	ug/L	31.145	ppb	13:02:00
1	Sr 421.552†	-13.6	-16.4	-0.1153	ug/L	-0.1153	ppb	13:02:00
1	Sc 361.383	847002.2	847002.2	98.249	%			13:03:17
1	Y 371.029	698147.9	698147.9	97.697	%			13:03:17
1	Ag 328.068†	298.3	74.9	0.3573	ug/L	0.3573	ppb	13:03:17
1	As 188.979†	-24.6	8.8	4.0094	ug/L	4.0094	ppb	13:03:37
1	B 249.677†	694.4	1245.8	29.635	ug/L	29.635	ppb	13:03:17
1	Ba 233.527†	-9.1	2.4	0.0205	ug/L	0.0205	ppb	13:03:37
1	Be 313.107†	-4286.8	-24.5	-0.0093	ug/L	-0.0093	ppb	13:03:17
1	Cd 226.502†	-178.7	30.0	0.3557	ug/L	0.3557	ppb	13:03:37
1	Co 228.616†	-55.4	17.3	0.3773	ug/L	0.3773	ppb	13:03:37
1	Cr 267.716†	68.3	2.8	0.0334	ug/L	0.0334	ppb	13:03:37
1	Cu 324.752†	5795.8	78.4	0.2386	ug/L	0.2386	ppb	13:03:17
1	Mn 257.610†	493.2	50.1	0.0532	ug/L	0.0532	ppb	13:03:37
1	Mo 202.031†	11.5	-3.8	-0.2874	ug/L	-0.2874	ppb	13:03:37
1	Ni 231.604†	90.9	-15.5	-0.4024	ug/L	-0.4024	ppb	13:03:37
1	P 214.914†	233.9	10.0	6.1762	ug/L	6.1762	ppb	13:03:37
1	Pb 220.353†	-54.0	6.8	0.8449	ug/L	0.8449	ppb	13:03:37
1	S 181.975 Axial†	35.6	-3.1	-4.4745	ug/L	-4.4745	ppb	13:03:37
1	Sb 206.836†	45.0	3.7	1.2850	ug/L	1.2850	ppb	13:03:37
1	Se 196.026†	-20.5	1.2	0.8373	ug/L	0.8373	ppb	13:03:37
1	Si 251.611†	526.3	-26.6	-0.8846	ug/L	-0.8846	ppb	13:03:37
1	Sn 189.927†	10.9	2.4	0.4489	ug/L	0.4489	ppb	13:03:37
1	Ti 334.940†	-1321.7	-42.0	-0.0761	ug/L	-0.0761	ppb	13:03:17
1	Tl 190.801†	-33.7	-0.1	-0.0453	ug/L	-0.0453	ppb	13:03:37
1	U 409.014†	-2959.8	-32.5	-0.9428	ug/L	-0.9428	ppb	13:03:17
1	V 292.402†	-1470.8	57.6	0.4142	ug/L	0.4142	ppb	13:03:17
1	Zn 213.857†	754.4	54.6	0.5400	ug/L	0.5400	ppb	13:03:37
1	SiO2†	563.6	-9.5	-0.6720	ug/L	-0.6720	ppb	13:04:33
2	Sc Radial	4884.9	4884.9	102	%			13:02:25
2	Y RADIAL	5114.2	5114.2	102.3	%			13:02:25
2	Al 396.153Radial†	-144.6	9.3	8.6095	ug/L	8.6095	ppb	13:02:45
2	Ca 317.933Radial†	22.9	5.9	9.7348	ug/L	9.7348	ppb	13:02:45
2	Fe 238.204 Radial†	8.8	-2.9	-26.064	ug/L	-26.064	ppb	13:02:45
2	K 766.490 Radial†	2719.8	-149.3	-26.382	ug/L	-26.382	ppb	13:02:25
2	Mg 279.077 IEC†	-0.6	-1.0	-34.444	ug/L	-34.444	ppb	13:02:45
2	Na 589.592 Radial†	-910.4	182.6	55.232	ug/L	55.232	ppb	13:02:25
2	Sr 421.552†	1.0	-1.2	-0.0082	ug/L	-0.0082	ppb	13:02:25
2	Sc 361.383	853156.3	853156.3	98.963	%			13:03:42
2	Y 371.029	702857.6	702857.6	98.356	%			13:03:42
2	Ag 328.068†	266.1	40.1	0.1804	ug/L	0.1804	ppb	13:03:42
2	As 188.979†	-29.0	4.6	2.0800	ug/L	2.0800	ppb	13:04:02
2	B 249.677†	680.4	1226.5	29.183	ug/L	29.183	ppb	13:03:42
2	Ba 233.527†	-7.2	4.3	0.0353	ug/L	0.0353	ppb	13:04:02
2	Be 313.107†	-4348.3	-55.2	-0.0202	ug/L	-0.0202	ppb	13:03:42
2	Cd 226.502†	-179.7	30.3	0.3633	ug/L	0.3633	ppb	13:04:02
2	Co 228.616†	-69.3	3.7	0.0805	ug/L	0.0805	ppb	13:04:02
2	Cr 267.716†	83.1	17.2	0.1992	ug/L	0.1992	ppb	13:04:02
2	Cu 324.752†	5831.0	71.4	0.2141	ug/L	0.2141	ppb	13:03:42
2	Mn 257.610†	500.8	54.1	0.0611	ug/L	0.0611	ppb	13:04:02
2	Mo 202.031†	19.2	3.8	0.2847	ug/L	0.2847	ppb	13:04:02
2	Ni 231.604†	116.8	10.0	0.2599	ug/L	0.2599	ppb	13:04:02

2	P 214.914†	233.6	8.0	4.9772 ug/L	4.9772 ppb	13:04:02
2	Pb 220.353†	-53.8	7.3	0.9178 ug/L	0.9178 ppb	13:04:02
2	S 181.975 Axial†	39.1	0.2	0.2567 ug/L	0.2567 ppb	13:04:02
2	Sb 206.836†	32.8	-9.0	-3.1010 ug/L	-3.1010 ppb	13:04:02
2	Se 196.026†	-9.0	13.1	8.7217 ug/L	8.7217 ppb	13:04:02
2	Si 251.611†	544.4	-12.2	-0.4120 ug/L	-0.4120 ppb	13:04:02
2	Sn 189.927†	17.0	8.5	1.5735 ug/L	1.5735 ppb	13:04:02
2	Ti 334.940†	-1194.3	96.4	0.1595 ug/L	0.1595 ppb	13:03:42
2	Tl 190.801†	-33.6	0.3	0.0814 ug/L	0.0814 ppb	13:04:02
2	U 409.014†	-2885.0	64.8	1.8822 ug/L	1.8822 ppb	13:03:42
2	V 292.402†	-1478.4	60.8	0.4520 ug/L	0.4520 ppb	13:03:42
2	Zn 213.857†	734.2	28.6	0.2844 ug/L	0.2844 ppb	13:04:02
2	SiO2†	573.3	-3.8	-0.2803 ug/L	-0.2803 ppb	13:04:38
3	Sc Radial	4790.8	4790.8	99.7 %		13:02:50
3	Y RADIAL	5005.5	5005.5	100.1 %		13:02:50
3	Al 396.153Radial†	-142.2	8.9	8.2874 ug/L	8.2874 ppb	13:03:10
3	Ca 317.933Radial†	25.4	8.7	14.487 ug/L	14.487 ppb	13:03:10
3	Fe 238.204 Radial†	9.3	-2.2	-19.960 ug/L	-19.960 ppb	13:03:10
3	K 766.490 Radial†	2799.8	-16.5	-2.9244 ug/L	-2.9244 ppb	13:02:50
3	Mg 279.077 IEC†	1.0	0.6	19.738 ug/L	19.738 ppb	13:03:10
3	Na 589.592 Radial†	-957.5	117.8	35.639 ug/L	35.639 ppb	13:02:50
3	Sr 421.552†	1.1	-1.0	-0.0069 ug/L	-0.0069 ppb	13:02:50
3	Sc 361.383	853117.9	853117.9	98.959 %		13:04:07
3	Y 371.029	703548.6	703548.6	98.453 %		13:04:07
3	Ag 328.068†	274.7	48.8	0.2197 ug/L	0.2197 ppb	13:04:07
3	As 188.979†	-27.6	5.9	2.6852 ug/L	2.6852 ppb	13:04:27
3	B 249.677†	663.8	1209.8	28.784 ug/L	28.784 ppb	13:04:07
3	Ba 233.527†	-14.5	-3.0	-0.0248 ug/L	-0.0248 ppb	13:04:27
3	Be 313.107†	-4356.7	-63.8	-0.0236 ug/L	-0.0236 ppb	13:04:07
3	Cd 226.502†	-181.3	28.7	0.3443 ug/L	0.3443 ppb	13:04:27
3	Co 228.616†	-65.5	7.6	0.1644 ug/L	0.1644 ppb	13:04:27
3	Cr 267.716†	74.2	8.2	0.0935 ug/L	0.0935 ppb	13:04:27
3	Cu 324.752†	5863.5	104.5	0.3131 ug/L	0.3131 ppb	13:04:07
3	Mn 257.610†	491.9	45.1	0.0492 ug/L	0.0492 ppb	13:04:27
3	Mo 202.031†	12.4	-3.0	-0.2287 ug/L	-0.2287 ppb	13:04:27
3	Ni 231.604†	98.2	-8.8	-0.2278 ug/L	-0.2278 ppb	13:04:27
3	P 214.914†	235.4	9.8	6.0982 ug/L	6.0982 ppb	13:04:27
3	Pb 220.353†	-62.0	-0.9	-0.1097 ug/L	-0.1097 ppb	13:04:27
3	S 181.975 Axial†	44.8	5.9	8.6415 ug/L	8.6415 ppb	13:04:27
3	Sb 206.836†	34.3	-7.5	-2.5735 ug/L	-2.5735 ppb	13:04:27
3	Se 196.026†	-10.1	11.9	7.9259 ug/L	7.9259 ppb	13:04:27
3	Si 251.611†	512.1	-44.8	-1.4962 ug/L	-1.4962 ppb	13:04:27
3	Sn 189.927†	18.5	10.0	1.8651 ug/L	1.8651 ppb	13:04:27
3	Ti 334.940†	-1232.5	57.7	0.0917 ug/L	0.0917 ppb	13:04:07
3	Tl 190.801†	-30.9	3.0	0.9621 ug/L	0.9621 ppb	13:04:27
3	U 409.014†	-2779.6	171.2	4.9652 ug/L	4.9652 ppb	13:04:07
3	V 292.402†	-1510.0	28.7	0.2181 ug/L	0.2181 ppb	13:04:07
3	Zn 213.857†	745.4	40.0	0.3988 ug/L	0.3988 ppb	13:04:27
3	SiO2†	546.1	-31.3	-2.2239 ug/L	-2.2239 ppb	13:04:43

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	851092.1	98.724	%	0.4109				0.42%
Sc Radial	4741.3	98.6	%	3.61				3.66%
Y 371.029	701518.0	98.169	%	0.4113				0.42%
Y RADIAL	4954.6	99.08	%	3.806				3.84%
Ag 328.068†	54.6	0.2525	ug/L	0.09292	0.2525	ppb	0.09292	36.80%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	7.5	6.9750	ug/L	2.55723	6.9750	ppb	2.55723	36.66%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	6.5	2.9249	ug/L	0.98678	2.9249	ppb	0.98678	33.74%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	1227.4	29.201	ug/L	0.4258	29.201	ppb	0.4258	1.46%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	1.2	0.0103	ug/L	0.03130	0.0103	ppb	0.03130	303.42%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-47.8	-0.0177	ug/L	0.00746	-0.0177	ppb	0.00746	42.21%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	7.7	12.824	ug/L	2.6783	12.824	ppb	2.6783	20.88%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              29.7      0.3544 ug/L       0.00956      0.3544 ppb        0.00956   2.70%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†               9.5      0.2074 ug/L       0.15299      0.2074 ppb        0.15299  73.76%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†               9.4      0.1087 ug/L       0.08394      0.1087 ppb        0.08394  77.25%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              84.7      0.2553 ug/L       0.05154      0.2553 ppb        0.05154  20.19%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       -1.4     -12.998 ug/L       17.6119     -12.998 ppb        17.6119 135.50%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       -37.8     -6.6879 ug/L      18.10839     -6.6879 ppb       18.10839 270.76%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           1.0      36.844 ug/L       81.2036      36.844 ppb        81.2036 220.40%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              49.8      0.0545 ug/L       0.00609      0.0545 ppb        0.00609  11.17%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              -1.0     -0.0771 ug/L       0.31472     -0.0771 ppb        0.31472 408.17%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      134.5      40.672 ug/L       12.8082      40.672 ppb        12.8082  31.49%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              -4.8     -0.1234 ug/L       0.34324     -0.1234 ppb        0.34324 278.06%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                9.3      5.7505 ug/L       0.67086      5.7505 ppb        0.67086  11.67%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               4.4      0.5510 ug/L       0.57339      0.5510 ppb        0.57339 104.06%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          1.0      1.4746 ug/L       6.64232      1.4746 ppb        6.64232 450.46%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -4.3     -1.4632 ug/L       2.39454     -1.4632 ppb        2.39454 163.66%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               8.7      5.8283 ug/L       4.34060      5.8283 ppb        4.34060  74.47%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†             -27.9     -0.9309 ug/L       0.54361     -0.9309 ppb        0.54361  58.39%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               7.0      1.2959 ug/L       0.74781      1.2959 ppb        0.74781  57.71%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              -6.2     -0.0435 ug/L       0.06225     -0.0435 ppb        0.06225 143.23%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              37.4      0.0584 ug/L       0.12128      0.0584 ppb        0.12128 207.69%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               1.0      0.3327 ug/L       0.54872      0.3327 ppb        0.54872 164.91%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               67.8      1.9682 ug/L       2.95493      1.9682 ppb        2.95493 150.13%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               49.1      0.3615 ug/L       0.12557      0.3615 ppb        0.12557  34.74%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              41.1      0.4077 ug/L       0.12804      0.4077 ppb        0.12804  31.40%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                   -14.9     -1.0587 ug/L       1.02790     -1.0587 ppb        1.02790  97.09%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 18
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/11/2010 13:39:38
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4812.3	4812.3	100	%			13:41:31
1	Y RADIAL	5017.3	5017.3	100.3	%			13:41:31
1	Al 396.153Radial†	5264.3	5410.0	4997.5	ug/L	4997.5	ppb	13:41:31
1	Ca 317.933Radial†	3040.0	3019.9	5005.3	ug/L	5005.3	ppb	13:41:51
1	Fe 238.204 Radial†	567.4	555.3	5067.6	ug/L	5067.6	ppb	13:41:51
1	K 766.490 Radial†	31070.8	28210.6	4973.4	ug/L	4973.4	ppb	13:41:31
1	Mg 279.077 IEC†	149.7	149.1	5285.1	ug/L	5285.1	ppb	13:41:51
1	Na 589.592 Radial†	31729.1	32772.2	9911.9	ug/L	9911.9	ppb	13:41:31
1	Sr 421.552†	73574.0	73490.0	515.36	ug/L	515.36	ppb	13:41:31
1	Sc 361.383	852595.3	852595.3	98.898	%			13:42:48
1	Y 371.029	689759.4	689759.4	96.523	%			13:42:48
1	Ag 328.068†	104866.7	105806.3	501.75	ug/L	501.75	ppb	13:42:53
1	As 188.979†	1035.7	1081.1	494.88	ug/L	494.88	ppb	13:43:13
1	B 249.677†	20739.6	21509.7	509.43	ug/L	509.43	ppb	13:42:53
1	Ba 233.527†	61059.4	61751.3	505.55	ug/L	505.55	ppb	13:42:53
1	Be 313.107†	1299347.2	1318162.4	492.11	ug/L	492.11	ppb	13:42:48
1	Cd 226.502†	40857.8	41524.9	493.58	ug/L	493.58	ppb	13:42:53
1	Co 228.616†	23184.9	23516.9	513.72	ug/L	513.72	ppb	13:42:53
1	Cr 267.716†	41996.2	42397.3	494.19	ug/L	494.19	ppb	13:42:53
1	Cu 324.752†	170932.2	167015.9	506.63	ug/L	506.63	ppb	13:42:53
1	Mn 257.610†	429793.8	434130.4	499.76	ug/L	499.76	ppb	13:42:48
1	Mo 202.031†	6428.4	6484.4	486.06	ug/L	486.06	ppb	13:43:13
1	Ni 231.604†	19001.9	19105.5	494.65	ug/L	494.65	ppb	13:42:53
1	P 214.914†	4116.5	3934.3	2349.3	ug/L	2349.3	ppb	13:43:13
1	Pb 220.353†	3795.7	3899.7	488.08	ug/L	488.08	ppb	13:43:13
1	S 181.975 Axial†	696.2	664.6	968.24	ug/L	968.24	ppb	13:43:13
1	Sb 206.836†	1422.2	1395.9	503.96	ug/L	503.96	ppb	13:43:13
1	Se 196.026†	700.8	730.7	510.24	ug/L	510.24	ppb	13:43:13
1	Si 251.611†	74636.5	74905.8	2499.5	ug/L	2499.5	ppb	13:42:53
1	Sn 189.927†	2584.4	2604.5	484.19	ug/L	484.19	ppb	13:43:13
1	Ti 334.940†	305255.6	309959.8	502.58	ug/L	502.58	ppb	13:42:53
1	Tl 190.801†	1512.4	1563.4	504.38	ug/L	504.38	ppb	13:43:13
1	U 409.014†	14229.2	17367.8	501.92	ug/L	501.92	ppb	13:42:53
1	V 292.402†	65755.0	68042.2	500.61	ug/L	500.61	ppb	13:42:53
1	Zn 213.857†	50866.6	50720.1	495.78	ug/L	495.78	ppb	13:42:53
1	SiO2†	74829.2	75079.8	5342.4	ug/L	5342.4	ppb	13:44:21
2	Sc Radial	4831.8	4831.8	101	%			13:41:56
2	Y RADIAL	5022.3	5022.3	100.4	%			13:41:56
2	Al 396.153Radial†	5251.2	5375.7	4965.7	ug/L	4965.7	ppb	13:41:56
2	Ca 317.933Radial†	3051.3	3018.9	5003.6	ug/L	5003.6	ppb	13:42:16
2	Fe 238.204 Radial†	570.4	556.0	5073.8	ug/L	5073.8	ppb	13:42:16
2	K 766.490 Radial†	31107.8	28121.9	4957.8	ug/L	4957.8	ppb	13:41:56
2	Mg 279.077 IEC†	144.2	143.1	5070.2	ug/L	5070.2	ppb	13:42:16
2	Na 589.592 Radial†	31857.7	32772.1	9911.9	ug/L	9911.9	ppb	13:41:56
2	Sr 421.552†	73844.7	73462.1	515.16	ug/L	515.16	ppb	13:41:56
2	Sc 361.383	861113.8	861113.8	99.886	%			13:43:19
2	Y 371.029	697366.9	697366.9	97.588	%			13:43:19
2	Ag 328.068†	105212.6	105103.6	498.44	ug/L	498.44	ppb	13:43:24
2	As 188.979†	1046.4	1081.4	495.02	ug/L	495.02	ppb	13:43:44
2	B 249.677†	20785.0	21347.7	505.58	ug/L	505.58	ppb	13:43:24
2	Ba 233.527†	61445.8	61527.4	503.71	ug/L	503.71	ppb	13:43:24
2	Be 313.107†	1309585.4	1315415.4	491.08	ug/L	491.08	ppb	13:43:19
2	Cd 226.502†	41094.2	41352.9	491.53	ug/L	491.53	ppb	13:43:24
2	Co 228.616†	23340.1	23440.4	512.05	ug/L	512.05	ppb	13:43:24
2	Cr 267.716†	42265.8	42247.1	492.44	ug/L	492.44	ppb	13:43:24
2	Cu 324.752†	171252.4	165626.7	502.42	ug/L	502.42	ppb	13:43:24
2	Mn 257.610†	431649.3	431689.0	496.96	ug/L	496.96	ppb	13:43:19
2	Mo 202.031†	6480.2	6472.0	485.13	ug/L	485.13	ppb	13:43:44
2	Ni 231.604†	19128.8	19042.5	493.02	ug/L	493.02	ppb	13:43:24

2	P 214.914†	4157.9	3934.5	2350.3 ug/L	2350.3 ppb	13:43:44
2	Pb 220.353†	3838.5	3904.6	488.68 ug/L	488.68 ppb	13:43:44
2	S 181.975 Axial†	707.4	668.9	974.41 ug/L	974.41 ppb	13:43:44
2	Sb 206.836†	1420.2	1379.7	498.30 ug/L	498.30 ppb	13:43:44
2	Se 196.026†	704.0	726.9	507.68 ug/L	507.68 ppb	13:43:44
2	Si 251.611†	74996.0	74519.1	2486.6 ug/L	2486.6 ppb	13:43:24
2	Sn 189.927†	2606.8	2601.0	483.53 ug/L	483.53 ppb	13:43:44
2	Ti 334.940†	306340.1	307992.2	499.41 ug/L	499.41 ppb	13:43:24
2	Tl 190.801†	1506.5	1542.4	497.62 ug/L	497.62 ppb	13:43:44
2	U 409.014†	14259.4	17255.7	498.68 ug/L	498.68 ppb	13:43:24
2	V 292.402†	66127.2	67757.1	498.52 ug/L	498.52 ppb	13:43:24
2	Zn 213.857†	51066.3	50411.2	492.75 ug/L	492.75 ppb	13:43:24
2	SiO2†	73633.8	73134.5	5203.6 ug/L	5203.6 ppb	13:44:26
3	Sc Radial	4734.2	4734.2	98.5 %		13:42:21
3	Y RADIAL	4890.0	4890.0	97.79 %		13:42:21
3	Al 396.153Radial†	5197.4	5428.9	5015.0 ug/L	5015.0 ppb	13:42:21
3	Ca 317.933Radial†	3054.8	3085.0	5113.2 ug/L	5113.2 ppb	13:42:41
3	Fe 238.204 Radial†	566.7	563.9	5146.2 ug/L	5146.2 ppb	13:42:41
3	K 766.490 Radial†	30646.3	28291.6	4987.7 ug/L	4987.7 ppb	13:42:21
3	Mg 279.077 IEC†	145.0	146.8	5201.7 ug/L	5201.7 ppb	13:42:41
3	Na 589.592 Radial†	31331.0	32890.9	9947.8 ug/L	9947.8 ppb	13:42:21
3	Sr 421.552†	72815.8	73932.6	518.46 ug/L	518.46 ppb	13:42:21
3	Sc 361.383	860146.3	860146.3	99.774 %		13:43:50
3	Y 371.029	695624.9	695624.9	97.344 %		13:43:50
3	Ag 328.068†	103414.9	103420.4	490.51 ug/L	490.51 ppb	13:43:55
3	As 188.979†	1039.1	1075.4	492.21 ug/L	492.21 ppb	13:44:16
3	B 249.677†	20576.8	21162.5	501.18 ug/L	501.18 ppb	13:43:55
3	Ba 233.527†	60397.6	60546.0	495.69 ug/L	495.69 ppb	13:43:55
3	Be 313.107†	1312530.2	1319841.6	492.71 ug/L	492.71 ppb	13:43:50
3	Cd 226.502†	40397.4	40700.8	483.77 ug/L	483.77 ppb	13:43:55
3	Co 228.616†	22961.5	23087.2	504.35 ug/L	504.35 ppb	13:43:55
3	Cr 267.716†	41594.9	41622.4	485.16 ug/L	485.16 ppb	13:43:55
3	Cu 324.752†	168463.3	163024.1	494.53 ug/L	494.53 ppb	13:43:55
3	Mn 257.610†	433802.6	434333.2	500.00 ug/L	500.00 ppb	13:43:50
3	Mo 202.031†	6488.3	6487.4	486.29 ug/L	486.29 ppb	13:44:16
3	Ni 231.604†	18820.9	18755.5	485.59 ug/L	485.59 ppb	13:43:55
3	P 214.914†	4140.9	3922.2	2344.2 ug/L	2344.2 ppb	13:44:16
3	Pb 220.353†	3843.9	3914.3	489.91 ug/L	489.91 ppb	13:44:16
3	S 181.975 Axial†	709.1	671.4	978.03 ug/L	978.03 ppb	13:44:16
3	Sb 206.836†	1435.7	1396.8	504.29 ug/L	504.29 ppb	13:44:16
3	Se 196.026†	714.8	738.6	515.81 ug/L	515.81 ppb	13:44:16
3	Si 251.611†	73817.3	73422.2	2449.9 ug/L	2449.9 ppb	13:43:55
3	Sn 189.927†	2605.9	2603.2	483.95 ug/L	483.95 ppb	13:44:16
3	Ti 334.940†	301248.8	303234.2	491.70 ug/L	491.70 ppb	13:43:55
3	Tl 190.801†	1506.4	1544.0	498.13 ug/L	498.13 ppb	13:44:16
3	U 409.014†	13927.8	16939.4	489.51 ug/L	489.51 ppb	13:43:55
3	V 292.402†	65054.3	66756.3	491.25 ug/L	491.25 ppb	13:43:55
3	Zn 213.857†	50366.7	49767.5	486.45 ug/L	486.45 ppb	13:43:55
3	SiO2†	74022.0	73606.5	5237.3 ug/L	5237.3 ppb	13:44:31

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	857951.8	99.519	%	0.5410				0.54%
Sc Radial	4792.7	99.7	%	1.07				1.08%
Y 371.029	694250.4	97.152	%	0.5577				0.57%
Y RADIAL	4976.5	99.52	%	1.500				1.51%
Ag 328.068†	104776.8	496.90	ug/L	5.778	496.90	ppb	5.778	1.16%
QC value within limits for Ag 328.068 Recovery = 99.38%								
Al 396.153Radial†	5404.9	4992.8	ug/L	25.00	4992.8	ppb	25.00	0.50%
QC value within limits for Al 396.153Radial Recovery = 99.86%								
As 188.979†	1079.3	494.03	ug/L	1.585	494.03	ppb	1.585	0.32%
QC value within limits for As 188.979 Recovery = 98.81%								
B 249.677†	21340.0	505.39	ug/L	4.126	505.39	ppb	4.126	0.82%
QC value within limits for B 249.677 Recovery = 101.08%								
Ba 233.527†	61274.9	501.65	ug/L	5.245	501.65	ppb	5.245	1.05%
QC value within limits for Ba 233.527 Recovery = 100.33%								
Be 313.107†	1317806.5	491.97	ug/L	0.825	491.97	ppb	0.825	0.17%
QC value within limits for Be 313.107 Recovery = 98.39%								
Ca 317.933Radial†	3041.3	5040.7	ug/L	62.83	5040.7	ppb	62.83	1.25%

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   QC value within limits for Ca 317.933Radial  Recovery = 100.81%
Cd 226.502†            41192.8      489.63 ug/L         5.177      489.63 ppb          5.177   1.06%
   QC value within limits for Cd 226.502  Recovery = 97.93%
Co 228.616†            23348.1      510.04 ug/L         4.996      510.04 ppb          4.996   0.98%
   QC value within limits for Co 228.616  Recovery = 102.01%
Cr 267.716†            42088.9      490.59 ug/L         4.788      490.59 ppb          4.788   0.98%
   QC value within limits for Cr 267.716  Recovery = 98.12%
Cu 324.752†           165222.2      501.19 ug/L         6.141      501.19 ppb          6.141   1.23%
   QC value within limits for Cu 324.752  Recovery = 100.24%
Fe 238.204 Radial†       558.4      5095.9 ug/L        43.73      5095.9 ppb         43.73   0.86%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.92%
K 766.490 Radial†      28208.0      4972.9 ug/L        14.95      4972.9 ppb         14.95   0.30%
   QC value within limits for K 766.490 Radial  Recovery = 99.46%
Mg 279.077 IEC†          146.3      5185.7 ug/L       108.37      5185.7 ppb        108.37   2.09%
   QC value within limits for Mg 279.077 IEC  Recovery = 103.71%
Mn 257.610†           433384.2      498.91 ug/L         1.691      498.91 ppb          1.691   0.34%
   QC value within limits for Mn 257.610  Recovery = 99.78%
Mo 202.031†             6481.3      485.83 ug/L         0.615      485.83 ppb          0.615   0.13%
   QC value within limits for Mo 202.031  Recovery = 97.17%
Na 589.592 Radial†     32811.8      9923.9 ug/L        20.73      9923.9 ppb         20.73   0.21%
   QC value within limits for Na 589.592 Radial  Recovery = 99.24%
Ni 231.604†            18967.9      491.09 ug/L         4.830      491.09 ppb          4.830   0.98%
   QC value within limits for Ni 231.604  Recovery = 98.22%
P 214.914†              3930.3      2347.9 ug/L         3.31      2347.9 ppb          3.31   0.14%
   QC value within limits for P 214.914  Recovery = 93.92%
Pb 220.353†             3906.2      488.89 ug/L         0.933      488.89 ppb          0.933   0.19%
   QC value within limits for Pb 220.353  Recovery = 97.78%
S 181.975 Axial†         668.3      973.56 ug/L         4.949      973.56 ppb          4.949   0.51%
   QC value within limits for S 181.975 Axial  Recovery = 97.36%
Sb 206.836†             1390.8      502.18 ug/L         3.370      502.18 ppb          3.370   0.67%
   QC value within limits for Sb 206.836  Recovery = 100.44%
Se 196.026†              732.0      511.24 ug/L         4.158      511.24 ppb          4.158   0.81%
   QC value within limits for Se 196.026  Recovery = 102.25%
Si 251.611†            74282.4      2478.7 ug/L        25.75      2478.7 ppb         25.75   1.04%
   QC value within limits for Si 251.611  Recovery = 99.15%
Sn 189.927†             2602.9      483.89 ug/L         0.330      483.89 ppb          0.330   0.07%
   QC value within limits for Sn 189.927  Recovery = 96.78%
Sr 421.552†            73628.2      516.33 ug/L         1.851      516.33 ppb          1.851   0.36%
   QC value within limits for Sr 421.552  Recovery = 103.27%
Ti 334.940†           307062.1      497.90 ug/L         5.595      497.90 ppb          5.595   1.12%
   QC value within limits for Ti 334.940  Recovery = 99.58%
Tl 190.801†             1550.0      500.04 ug/L         3.765      500.04 ppb          3.765   0.75%
   QC value within limits for Tl 190.801  Recovery = 100.01%
U 409.014†             17187.6      496.71 ug/L         6.436      496.71 ppb          6.436   1.30%
   QC value within limits for U 409.014  Recovery = 99.34%
V 292.402†             67518.5      496.80 ug/L         4.912      496.80 ppb          4.912   0.99%
   QC value within limits for V 292.402  Recovery = 99.36%
Zn 213.857†            50299.6      491.66 ug/L         4.762      491.66 ppb          4.762   0.97%
   QC value within limits for Zn 213.857  Recovery = 98.33%
SiO2†                  73940.3      5261.1 ug/L        72.37      5261.1 ppb         72.37   1.38%
   QC value within limits for SiO2  Recovery = 98.38%
All analyte(s) passed QC.
```

Sequence No.: 19
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/11/2010 13:46:41
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4874.5	4874.5	101	%			13:48:34
1	Y RADIAL	5064.1	5064.1	101.3	%			13:48:34
1	Al 396.153Radial†	-166.8	-12.9	-12.005	ug/L	-12.005	ppb	13:48:34
1	Ca 317.933Radial†	26.4	9.4	15.527	ug/L	15.527	ppb	13:48:54
1	Fe 238.204 Radial†	10.8	-0.9	-7.9116	ug/L	-7.9116	ppb	13:48:54
1	K 766.490 Radial†	2847.0	-18.2	-3.2495	ug/L	-3.2495	ppb	13:48:34
1	Mg 279.077 IEC†	1.4	0.9	32.877	ug/L	32.877	ppb	13:48:54
1	Na 589.592 Radial†	-863.1	227.4	68.768	ug/L	68.768	ppb	13:48:34
1	Sr 421.552†	-9.0	-11.0	-0.0774	ug/L	-0.0774	ppb	13:48:34
1	Sc 361.383	832976.5	832976.5	96.622	%			13:49:51
1	Y 371.029	682037.9	682037.9	95.443	%			13:49:51
1	Ag 328.068†	258.2	38.5	0.1764	ug/L	0.1764	ppb	13:49:51
1	As 188.979†	-35.5	-2.8	-1.2900	ug/L	-1.2900	ppb	13:50:11
1	B 249.677†	62.3	603.5	14.359	ug/L	14.359	ppb	13:50:11
1	Ba 233.527†	-16.5	-5.5	-0.0449	ug/L	-0.0449	ppb	13:50:11
1	Be 313.107†	-4119.6	75.1	0.0279	ug/L	0.0279	ppb	13:49:51
1	Cd 226.502†	-192.4	12.8	0.1527	ug/L	0.1527	ppb	13:50:11
1	Co 228.616†	-63.7	7.8	0.1706	ug/L	0.1706	ppb	13:50:11
1	Cr 267.716†	74.2	10.0	0.1157	ug/L	0.1157	ppb	13:50:11
1	Cu 324.752†	5623.0	-1.2	-0.0054	ug/L	-0.0054	ppb	13:49:51
1	Mn 257.610†	488.1	53.3	0.0592	ug/L	0.0592	ppb	13:50:11
1	Mo 202.031†	18.5	3.6	0.2705	ug/L	0.2705	ppb	13:50:11
1	Ni 231.604†	83.1	-22.0	-0.5711	ug/L	-0.5711	ppb	13:50:11
1	P 214.914†	224.5	4.2	2.6473	ug/L	2.6473	ppb	13:50:11
1	Pb 220.353†	-59.5	0.1	0.0174	ug/L	0.0174	ppb	13:50:11
1	S 181.975 Axial†	43.3	5.5	8.0487	ug/L	8.0487	ppb	13:50:11
1	Sb 206.836†	46.9	6.4	2.2505	ug/L	2.2505	ppb	13:50:11
1	Se 196.026†	-18.0	3.4	2.2925	ug/L	2.2925	ppb	13:50:11
1	Si 251.611†	538.0	-5.5	-0.1872	ug/L	-0.1872	ppb	13:50:11
1	Sn 189.927†	8.7	0.3	0.0618	ug/L	0.0618	ppb	13:50:11
1	Ti 334.940†	-1270.2	-11.4	-0.0203	ug/L	-0.0203	ppb	13:49:51
1	Tl 190.801†	-38.2	-5.3	-1.7045	ug/L	-1.7045	ppb	13:50:11
1	U 409.014†	-2791.0	91.5	2.6548	ug/L	2.6548	ppb	13:49:51
1	V 292.402†	-1494.0	8.4	0.0718	ug/L	0.0718	ppb	13:49:51
1	Zn 213.857†	744.4	57.2	0.5692	ug/L	0.5692	ppb	13:50:11
1	SiO2†	575.5	12.5	0.8848	ug/L	0.8848	ppb	13:51:07
2	Sc Radial	4847.5	4847.5	101	%			13:48:59
2	Y RADIAL	5075.6	5075.6	101.5	%			13:48:59
2	Al 396.153Radial†	-145.6	7.2	6.6259	ug/L	6.6259	ppb	13:48:59
2	Ca 317.933Radial†	26.0	9.1	15.116	ug/L	15.116	ppb	13:49:19
2	Fe 238.204 Radial†	12.5	0.9	8.1458	ug/L	8.1458	ppb	13:49:19
2	K 766.490 Radial†	2722.1	-126.4	-22.332	ug/L	-22.332	ppb	13:48:59
2	Mg 279.077 IEC†	3.6	3.2	113.13	ug/L	113.13	ppb	13:49:19
2	Na 589.592 Radial†	-906.2	179.9	54.413	ug/L	54.413	ppb	13:48:59
2	Sr 421.552†	13.4	11.2	0.0782	ug/L	0.0782	ppb	13:48:59
2	Sc 361.383	848163.2	848163.2	98.384	%			13:50:16
2	Y 371.029	695647.6	695647.6	97.347	%			13:50:16
2	Ag 328.068†	192.4	-33.2	-0.1570	ug/L	-0.1570	ppb	13:50:16
2	As 188.979†	-24.4	9.0	4.1041	ug/L	4.1041	ppb	13:50:36
2	B 249.677†	66.5	606.7	14.431	ug/L	14.431	ppb	13:50:36
2	Ba 233.527†	-15.7	-4.4	-0.0343	ug/L	-0.0343	ppb	13:50:36
2	Be 313.107†	-4165.2	105.1	0.0389	ug/L	0.0389	ppb	13:50:16
2	Cd 226.502†	-185.6	23.2	0.2762	ug/L	0.2762	ppb	13:50:36
2	Co 228.616†	-70.9	1.7	0.0390	ug/L	0.0390	ppb	13:50:36
2	Cr 267.716†	72.7	7.1	0.0814	ug/L	0.0814	ppb	13:50:36
2	Cu 324.752†	5525.7	-204.3	-0.6228	ug/L	-0.6228	ppb	13:50:16
2	Mn 257.610†	492.3	48.4	0.0519	ug/L	0.0519	ppb	13:50:36
2	Mo 202.031†	26.8	11.7	0.8800	ug/L	0.8800	ppb	13:50:36
2	Ni 231.604†	79.4	-27.4	-0.7086	ug/L	-0.7086	ppb	13:50:36

2	P 214.914†	235.9	11.7	7.4195 ug/L	7.4195 ppb	13:50:36
2	Pb 220.353†	-43.6	17.4	2.1700 ug/L	2.1700 ppb	13:50:36
2	S 181.975 Axial†	36.3	-2.5	-3.6299 ug/L	-3.6299 ppb	13:50:36
2	Sb 206.836†	43.7	2.3	0.8571 ug/L	0.8571 ppb	13:50:36
2	Se 196.026†	-13.8	8.0	5.4522 ug/L	5.4522 ppb	13:50:36
2	Si 251.611†	540.5	-12.9	-0.4410 ug/L	-0.4410 ppb	13:50:36
2	Sn 189.927†	20.5	12.2	2.2582 ug/L	2.2582 ppb	13:50:36
2	Ti 334.940†	-1335.4	-54.1	-0.0978 ug/L	-0.0978 ppb	13:50:16
2	Tl 190.801†	-28.6	5.1	1.6350 ug/L	1.6350 ppb	13:50:36
2	U 409.014†	-2721.6	213.7	6.1957 ug/L	6.1957 ppb	13:50:16
2	V 292.402†	-1462.3	68.4	0.5218 ug/L	0.5218 ppb	13:50:16
2	Zn 213.857†	765.5	64.8	0.6437 ug/L	0.6437 ppb	13:50:36
2	SiO2†	569.3	-4.4	-0.3402 ug/L	-0.3402 ppb	13:51:12
3	Sc Radial	4980.3	4980.3	104 %		13:49:24
3	Y RADIAL	5191.0	5191.0	103.8 %		13:49:24
3	Al 396.153Radial†	-157.1	-0.0	-0.0682 ug/L	-0.0682 ppb	13:49:24
3	Ca 317.933Radial†	21.6	4.1	6.7953 ug/L	6.7953 ppb	13:49:44
3	Fe 238.204 Radial†	10.0	-1.9	-16.921 ug/L	-16.921 ppb	13:49:44
3	K 766.490 Radial†	2769.5	-152.6	-26.974 ug/L	-26.974 ppb	13:49:24
3	Mg 279.077 IEC†	1.5	1.0	35.623 ug/L	35.623 ppb	13:49:44
3	Na 589.592 Radial†	-841.7	266.1	80.470 ug/L	80.470 ppb	13:49:24
3	Sr 421.552†	-7.1	-9.0	-0.0631 ug/L	-0.0631 ppb	13:49:24
3	Sc 361.383	851237.6	851237.6	98.741 %		13:50:42
3	Y 371.029	697709.8	697709.8	97.636 %		13:50:42
3	Ag 328.068†	203.8	-22.4	-0.1059 ug/L	-0.1059 ppb	13:50:42
3	As 188.979†	-27.3	6.2	2.8281 ug/L	2.8281 ppb	13:51:02
3	B 249.677†	48.6	588.2	13.996 ug/L	13.996 ppb	13:51:02
3	Ba 233.527†	-7.3	4.2	0.0360 ug/L	0.0360 ppb	13:51:02
3	Be 313.107†	-4222.6	62.3	0.0234 ug/L	0.0234 ppb	13:50:42
3	Cd 226.502†	-206.5	2.8	0.0340 ug/L	0.0340 ppb	13:51:02
3	Co 228.616†	-68.7	4.2	0.0933 ug/L	0.0933 ppb	13:51:02
3	Cr 267.716†	72.6	6.8	0.0806 ug/L	0.0806 ppb	13:51:02
3	Cu 324.752†	5564.8	-185.0	-0.5612 ug/L	-0.5612 ppb	13:50:42
3	Mn 257.610†	492.0	46.4	0.0502 ug/L	0.0502 ppb	13:51:02
3	Mo 202.031†	28.8	13.6	1.0180 ug/L	1.0180 ppb	13:51:02
3	Ni 231.604†	88.0	-18.8	-0.4883 ug/L	-0.4883 ppb	13:51:02
3	P 214.914†	230.4	5.2	3.4251 ug/L	3.4251 ppb	13:51:02
3	Pb 220.353†	-47.7	13.4	1.6819 ug/L	1.6819 ppb	13:51:02
3	S 181.975 Axial†	33.9	-5.0	-7.2357 ug/L	-7.2357 ppb	13:51:02
3	Sb 206.836†	39.8	-1.9	-0.5664 ug/L	-0.5664 ppb	13:51:02
3	Se 196.026†	-18.7	3.1	2.0674 ug/L	2.0674 ppb	13:51:02
3	Si 251.611†	544.8	-10.6	-0.3661 ug/L	-0.3661 ppb	13:51:02
3	Sn 189.927†	27.5	19.2	3.5660 ug/L	3.5660 ppb	13:51:02
3	Ti 334.940†	-1245.0	42.3	0.0673 ug/L	0.0673 ppb	13:50:42
3	Tl 190.801†	-23.5	10.4	3.3198 ug/L	3.3198 ppb	13:51:02
3	U 409.014†	-2996.5	-54.7	-1.5842 ug/L	-1.5842 ppb	13:50:42
3	V 292.402†	-1394.4	142.5	1.0490 ug/L	1.0490 ppb	13:50:42
3	Zn 213.857†	755.8	52.2	0.5210 ug/L	0.5210 ppb	13:51:02
3	SiO2†	579.8	4.0	0.2589 ug/L	0.2589 ppb	13:51:17

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	844125.8	97.916	%	1.1341				1.16%
Sc Radial	4900.8	102	%	1.5				1.43%
Y 371.029	691798.4	96.809	%	1.1916				1.23%
Y RADIAL	5110.2	102.2	%	1.40				1.37%
Ag 328.068†	-5.7	-0.0288	ug/L	0.17960	-0.0288	ppb	0.17960	622.82%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-1.9	-1.8156	ug/L	9.43731	-1.8156	ppb	9.43731	519.79%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	4.2	1.8807	ug/L	2.81909	1.8807	ppb	2.81909	149.89%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	599.5	14.262	ug/L	0.2331	14.262	ppb	0.2331	1.63%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-1.9	-0.0144	ug/L	0.04397	-0.0144	ppb	0.04397	304.96%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	80.8	0.0301	ug/L	0.00800	0.0301	ppb	0.00800	26.61%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	7.5	12.479	ug/L	4.9268	12.479	ppb	4.9268	39.48%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                12.9      0.1543 ug/L       0.12111      0.1543 ppb        0.12111  78.49%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                 4.5      0.1010 ug/L       0.06616      0.1010 ppb        0.06616  65.51%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                 8.0      0.0926 ug/L       0.02004      0.0926 ppb        0.02004  21.64%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -130.1     -0.3964 ug/L       0.34006     -0.3964 ppb        0.34006  85.78%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -0.6     -5.5622 ug/L      12.69730     -5.5622 ppb       12.69730 228.28%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         -99.1     -17.519 ug/L       12.5736     -17.519 ppb        12.5736  71.77%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             1.7      60.545 ug/L       45.5643      60.545 ppb        45.5643  75.26%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                49.4      0.0538 ug/L       0.00475      0.0538 ppb        0.00475   8.84%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 9.7      0.7228 ug/L       0.39774      0.7228 ppb        0.39774  55.02%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        224.4      67.884 ug/L       13.0513      67.884 ppb        13.0513  19.23%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               -22.7     -0.5894 ug/L       0.11128     -0.5894 ppb        0.11128  18.88%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                  7.1      4.4973 ug/L       2.56043      4.4973 ppb        2.56043  56.93%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                10.3      1.2898 ug/L       1.12860      1.2898 ppb        1.12860  87.50%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -0.6     -0.9390 ug/L       7.98962     -0.9390 ppb        7.98962 850.90%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 2.3      0.8471 ug/L       1.40844      0.8471 ppb        1.40844 166.27%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 4.9      3.2707 ug/L       1.89256      3.2707 ppb        1.89256  57.86%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                -9.6     -0.3314 ug/L       0.13040     -0.3314 ppb        0.13040  39.34%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                10.6      1.9620 ug/L       1.77078      1.9620 ppb        1.77078  90.25%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                -2.9     -0.0207 ug/L       0.08597     -0.0207 ppb        0.08597 414.38%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                -7.8     -0.0169 ug/L       0.08260     -0.0169 ppb        0.08260 487.66%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 3.4      1.0834 ug/L       2.55714      1.0834 ppb        2.55714 236.03%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 83.5      2.4221 ug/L       3.89514      2.4221 ppb        3.89514 160.82%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 73.1      0.5476 ug/L       0.48909      0.5476 ppb        0.48909  89.32%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                58.1      0.5780 ug/L       0.06183      0.5780 ppb        0.06183  10.70%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                       4.0      0.2678 ug/L       0.61252      0.2678 ppb        0.61252 228.69%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

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Analysis Begun

Start Time: 2/11/2010 13:52:36 **Plasma On Time: 2/8/2010 05:57:09**
Logged In Analyst: Optima3 **Technique: ICP Continuous**
Spectrometer Model: Optima 5300 DV, S/N 077C7090601Autosampler Model: S10

Sample Information File: C:\pe\Optima3\Sample Information\021110.sif
Batch ID:
Results Data Set: 021110
Results Library: C:\pe\Optima3\Results\Results.mdb

==========

Sequence No.: 1 **Autosampler Location: 38**
Sample ID: 1202038897|951404|1 **Date Collected: 2/11/2010 13:52:37**
Analyst: HSC **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: 1202038897|951404|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4979.6	4979.6	104	%			13:54:30
1	Y RADIAL	5150.6	5150.6	103.0	%			13:54:30
1	Al 396.153Radial†	-115.5	40.1	37.178	ug/L	37.178	ppb	13:54:50
1	Ca 317.933Radial†	40.6	22.4	37.204	ug/L	37.204	ppb	13:54:50
1	Fe 238.204 Radial†	23.3	11.0	100.41	ug/L	100.41	ppb	13:54:50
1	K 766.490 Radial†	2764.9	-156.7	-27.713	ug/L	-27.713	ppb	13:54:30
1	Mg 279.077 IEC†	2.0	1.5	53.834	ug/L	53.834	ppb	13:54:50
1	Na 589.592 Radial†	-801.7	304.7	92.144	ug/L	92.144	ppb	13:54:30
1	Sr 421.552†	32.5	29.2	0.2048	ug/L	0.2048	ppb	13:54:30
1	Sc 361.383	851801.8	851801.8	98.806	%			13:55:46
1	Y 371.029	698139.0	698139.0	97.696	%			13:55:46
1	Ag 328.068†	282.6	57.2	0.2999	ug/L	0.2999	ppb	13:55:46
1	As 188.979†	-22.6	10.9	4.9927	ug/L	4.9927	ppb	13:56:06
1	B 249.677†	-3.6	535.4	12.720	ug/L	12.720	ppb	13:56:06
1	Ba 233.527†	37.7	49.7	0.4101	ug/L	0.4101	ppb	13:56:06
1	Be 313.107†	-4044.4	245.4	0.0933	ug/L	0.0933	ppb	13:55:46
1	Cd 226.502†	-181.7	28.0	0.3237	ug/L	0.3237	ppb	13:56:06
1	Co 228.616†	-54.2	18.9	0.4116	ug/L	0.4116	ppb	13:56:06
1	Cr 267.716†	127.1	61.9	0.7206	ug/L	0.7206	ppb	13:56:06
1	Cu 324.752†	5793.7	43.0	0.1321	ug/L	0.1321	ppb	13:55:46
1	Mn 257.610†	1151.7	713.7	0.8289	ug/L	0.8289	ppb	13:56:06
1	Mo 202.031†	32.8	17.6	1.3288	ug/L	1.3288	ppb	13:56:06
1	Ni 231.604†	98.6	-8.3	-0.2140	ug/L	-0.2140	ppb	13:56:06
1	P 214.914†	248.6	23.5	14.644	ug/L	14.644	ppb	13:56:06
1	Pb 220.353†	-55.6	5.4	0.6772	ug/L	0.6772	ppb	13:56:06
1	S 181.975 Axial†	41.0	2.2	3.1806	ug/L	3.1806	ppb	13:56:06
1	Sb 206.836†	52.5	11.0	3.9933	ug/L	3.9933	ppb	13:56:06
1	Se 196.026†	-13.1	8.8	6.2644	ug/L	6.2644	ppb	13:56:06
1	Si 251.611†	1679.7	1137.8	38.040	ug/L	38.040	ppb	13:56:06
1	Sn 189.927†	59.7	51.8	9.6158	ug/L	9.6158	ppb	13:56:06
1	Ti 334.940†	-788.6	505.1	0.8167	ug/L	0.8167	ppb	13:55:46
1	Tl 190.801†	-25.2	8.7	2.7839	ug/L	2.7839	ppb	13:56:06
1	U 409.014†	-2722.3	224.9	6.5079	ug/L	6.5079	ppb	13:55:46
1	V 292.402†	-1463.3	73.7	0.5516	ug/L	0.5516	ppb	13:55:46
1	Zn 213.857†	879.2	176.6	1.7281	ug/L	1.7281	ppb	13:56:06
1	SiO2†	1729.7	1167.5	83.245	ug/L	83.245	ppb	13:57:02
2	Sc Radial	5007.9	5007.9	104	%			13:54:55
2	Y RADIAL	5169.5	5169.5	103.4	%			13:54:55
2	Al 396.153Radial†	-115.1	41.1	38.052	ug/L	38.052	ppb	13:55:15
2	Ca 317.933Radial†	36.2	18.0	29.900	ug/L	29.900	ppb	13:55:15
2	Fe 238.204 Radial†	18.5	6.3	57.403	ug/L	57.403	ppb	13:55:15
2	K 766.490 Radial†	2797.8	-140.2	-24.790	ug/L	-24.790	ppb	13:54:55
2	Mg 279.077 IEC†	2.1	1.6	56.956	ug/L	56.956	ppb	13:55:15
2	Na 589.592 Radial†	-802.8	307.9	93.132	ug/L	93.132	ppb	13:54:55
2	Sr 421.552†	23.3	20.2	0.1416	ug/L	0.1416	ppb	13:54:55
2	Sc 361.383	866895.8	866895.8	100.56	%			13:56:12
2	Y 371.029	709838.9	709838.9	99.333	%			13:56:12

2	Ag 328.068†	288.5	58.2	0.2914 ug/L	0.2914 ppb	13:56:12
2	As 188.979†	-23.4	10.6	4.8269 ug/L	4.8269 ppb	13:56:32
2	B 249.677†	10.1	549.1	13.054 ug/L	13.054 ppb	13:56:32
2	Ba 233.527†	34.5	45.9	0.3799 ug/L	0.3799 ppb	13:56:32
2	Be 313.107†	-4105.8	255.6	0.0972 ug/L	0.0972 ppb	13:56:12
2	Cd 226.502†	-187.5	25.5	0.2985 ug/L	0.2985 ppb	13:56:32
2	Co 228.616†	-71.2	2.9	0.0662 ug/L	0.0662 ppb	13:56:32
2	Cr 267.716†	135.6	68.1	0.7924 ug/L	0.7924 ppb	13:56:32
2	Cu 324.752†	5816.9	-36.0	-0.1114 ug/L	-0.1114 ppb	13:56:12
2	Mn 257.610†	1107.7	649.7	0.7509 ug/L	0.7509 ppb	13:56:32
2	Mo 202.031†	46.8	31.0	2.3233 ug/L	2.3233 ppb	13:56:32
2	Ni 231.604†	105.5	-3.1	-0.0811 ug/L	-0.0811 ppb	13:56:32
2	P 214.914†	236.0	6.6	4.1721 ug/L	4.1721 ppb	13:56:32
2	Pb 220.353†	-49.2	12.8	1.6079 ug/L	1.6079 ppb	13:56:32
2	S 181.975 Axial†	47.5	7.9	11.469 ug/L	11.469 ppb	13:56:32
2	Sb 206.836†	48.6	6.2	2.3428 ug/L	2.3428 ppb	13:56:32
2	Se 196.026†	-16.3	5.9	4.1660 ug/L	4.1660 ppb	13:56:32
2	Si 251.611†	1672.2	1100.7	36.789 ug/L	36.789 ppb	13:56:32
2	Sn 189.927†	61.1	52.0	9.6613 ug/L	9.6613 ppb	13:56:32
2	Ti 334.940†	-772.5	535.0	0.8627 ug/L	0.8627 ppb	13:56:12
2	Tl 190.801†	-24.0	10.3	3.3186 ug/L	3.3186 ppb	13:56:32
2	U 409.014†	-2672.4	322.4	9.3407 ug/L	9.3407 ppb	13:56:12
2	V 292.402†	-1355.8	206.4	1.5410 ug/L	1.5410 ppb	13:56:12
2	Zn 213.857†	851.1	133.1	1.3052 ug/L	1.3052 ppb	13:56:32
2	SiO2†	1694.5	1101.9	78.541 ug/L	78.541 ppb	13:57:07
3	Sc Radial	4895.5	4895.5	102 %		13:55:20
3	Y RADIAL	5109.0	5109.0	102.2 %		13:55:20
3	Al 396.153Radial†	-122.0	31.8	29.456 ug/L	29.456 ppb	13:55:40
3	Ca 317.933Radial†	40.6	23.2	38.404 ug/L	38.404 ppb	13:55:40
3	Fe 238.204 Radial†	22.7	10.8	98.596 ug/L	98.596 ppb	13:55:40
3	K 766.490 Radial†	2767.6	-108.1	-19.132 ug/L	-19.132 ppb	13:55:20
3	Mg 279.077 IEC†	3.2	2.7	95.002 ug/L	95.002 ppb	13:55:40
3	Na 589.592 Radial†	-852.8	241.1	72.925 ug/L	72.925 ppb	13:55:20
3	Sr 421.552†	35.5	32.8	0.2297 ug/L	0.2297 ppb	13:55:20
3	Sc 361.383	854914.6	854914.6	99.167 %		13:56:37
3	Y 371.029	700243.2	700243.2	97.991 %		13:56:37
3	Ag 328.068†	322.0	96.0	0.4842 ug/L	0.4842 ppb	13:56:37
3	As 188.979†	-16.2	17.5	7.9631 ug/L	7.9631 ppb	13:56:57
3	B 249.677†	8.8	547.9	13.018 ug/L	13.018 ppb	13:56:57
3	Ba 233.527†	29.7	41.6	0.3453 ug/L	0.3453 ppb	13:56:57
3	Be 313.107†	-4105.4	198.8	0.0757 ug/L	0.0757 ppb	13:56:37
3	Cd 226.502†	-196.7	13.6	0.1524 ug/L	0.1524 ppb	13:56:57
3	Co 228.616†	-59.7	13.5	0.2946 ug/L	0.2946 ppb	13:56:57
3	Cr 267.716†	132.2	66.5	0.7751 ug/L	0.7751 ppb	13:56:57
3	Cu 324.752†	5818.8	47.0	0.1438 ug/L	0.1438 ppb	13:56:37
3	Mn 257.610†	1111.9	669.3	0.7759 ug/L	0.7759 ppb	13:56:57
3	Mo 202.031†	34.8	19.5	1.4707 ug/L	1.4707 ppb	13:56:57
3	Ni 231.604†	109.2	2.1	0.0537 ug/L	0.0537 ppb	13:56:57
3	P 214.914†	236.2	10.1	6.2722 ug/L	6.2722 ppb	13:56:57
3	Pb 220.353†	-62.6	-1.4	-0.1769 ug/L	-0.1769 ppb	13:56:57
3	S 181.975 Axial†	46.6	7.7	11.156 ug/L	11.156 ppb	13:56:57
3	Sb 206.836†	40.1	-1.7	-0.4622 ug/L	-0.4622 ppb	13:56:57
3	Se 196.026†	-9.7	12.3	8.6125 ug/L	8.6125 ppb	13:56:57
3	Si 251.611†	1650.4	1101.9	36.841 ug/L	36.841 ppb	13:56:57
3	Sn 189.927†	46.1	37.8	7.0212 ug/L	7.0212 ppb	13:56:57
3	Ti 334.940†	-854.1	441.9	0.7108 ug/L	0.7108 ppb	13:56:37
3	Tl 190.801†	-32.1	1.8	0.5970 ug/L	0.5970 ppb	13:56:57
3	U 409.014†	-2717.3	239.9	6.9437 ug/L	6.9437 ppb	13:56:37
3	V 292.402†	-1371.3	171.8	1.2682 ug/L	1.2682 ppb	13:56:37
3	Zn 213.857†	880.5	174.7	1.7078 ug/L	1.7078 ppb	13:56:57
3	SiO2†	1752.1	1183.7	84.397 ug/L	84.397 ppb	13:57:13

Mean Data: 1202038897|951404|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	857870.7	99.510	%	0.9244				0.93%
Sc Radial	4961.0	103	%	1.2				1.18%
Y 371.029	702740.3	98.340	%	0.8728				0.89%
Y RADIAL	5143.0	102.8	%	0.62				0.60%
Ag 328.068†	70.4	0.3585	ug/L	0.10897	0.3585	ppb	0.10897	30.39%

Al 396.153Radial†	37.7	34.895	ug/L	4.7306	34.895	ppb	4.7306 13.56%
As 188.979†	13.0	5.9276	ug/L	1.76477	5.9276	ppb	1.76477 29.77%
B 249.677†	544.1	12.931	ug/L	0.1837	12.931	ppb	0.1837 1.42%
Ba 233.527†	45.7	0.3784	ug/L	0.03240	0.3784	ppb	0.03240 8.56%
Be 313.107†	233.3	0.0887	ug/L	0.01146	0.0887	ppb	0.01146 12.91%
Ca 317.933Radial†	21.2	35.169	ug/L	4.6026	35.169	ppb	4.6026 13.09%
Cd 226.502†	22.3	0.2582	ug/L	0.09246	0.2582	ppb	0.09246 35.81%
Co 228.616†	11.7	0.2575	ug/L	0.17567	0.2575	ppb	0.17567 68.22%
Cr 267.716†	65.5	0.7627	ug/L	0.03749	0.7627	ppb	0.03749 4.91%
Cu 324.752†	18.0	0.0549	ug/L	0.14406	0.0549	ppb	0.14406 262.61%
Fe 238.204 Radial†	9.4	85.468	ug/L	24.3225	85.468	ppb	24.3225 28.46%
K 766.490 Radial†	-135.0	-23.878	ug/L	4.3622	-23.878	ppb	4.3622 18.27%
Mg 279.077 IEC†	1.9	68.597	ug/L	22.9200	68.597	ppb	22.9200 33.41%
Mn 257.610†	677.6	0.7852	ug/L	0.03983	0.7852	ppb	0.03983 5.07%
Mo 202.031†	22.7	1.7076	ug/L	0.53791	1.7076	ppb	0.53791 31.50%
Na 589.592 Radial†	284.6	86.067	ug/L	11.3918	86.067	ppb	11.3918 13.24%
Ni 231.604†	-3.1	-0.0805	ug/L	0.13387	-0.0805	ppb	0.13387 166.39%
P 214.914†	13.4	8.3627	ug/L	5.54004	8.3627	ppb	5.54004 66.25%
Pb 220.353†	5.6	0.7027	ug/L	0.89267	0.7027	ppb	0.89267 127.03%
S 181.975 Axial†	5.9	8.6019	ug/L	4.69757	8.6019	ppb	4.69757 54.61%
Sb 206.836†	5.1	1.9580	ug/L	2.25257	1.9580	ppb	2.25257 115.05%
Se 196.026†	9.0	6.3477	ug/L	2.22442	6.3477	ppb	2.22442 35.04%
Si 251.611†	1113.5	37.223	ug/L	0.7080	37.223	ppb	0.7080 1.90%
Sn 189.927†	47.2	8.7661	ug/L	1.51129	8.7661	ppb	1.51129 17.24%
Sr 421.552†	27.4	0.1920	ug/L	0.04542	0.1920	ppb	0.04542 23.66%
Ti 334.940†	494.0	0.7967	ug/L	0.07788	0.7967	ppb	0.07788 9.78%
Tl 190.801†	6.9	2.2332	ug/L	1.44195	2.2332	ppb	1.44195 64.57%
U 409.014†	262.4	7.5975	ug/L	1.52534	7.5975	ppb	1.52534 20.08%
V 292.402†	150.6	1.1203	ug/L	0.51104	1.1203	ppb	0.51104 45.62%
Zn 213.857†	161.4	1.5804	ug/L	0.23851	1.5804	ppb	0.23851 15.09%
SiO2†	1151.1	82.061	ug/L	3.1023	82.061	ppb	3.1023 3.78%

Sequence No.: 3
Sample ID: 246333001|951404|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 40
Date Collected: 2/11/2010 14:05:39
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 246333001|951404|1

Rep1#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4927.3	4927.3	103	%			14:07:52
1	Y RADIAL	6454.1	6454.1	129.1	%			14:07:52
1	Al 396.153Radial†	154054.6	150441.9	139630	ug/L	139630	ppb	14:07:32
1	Ca 317.933Radial†	15889.6	15484.6	25665	ug/L	25665	ppb	14:07:32
1	Fe 238.204 Radial†	15247.2	14863.2	135240	ug/L	135240	ppb	14:07:32
1	K 766.490 Radial†	95427.9	90270.4	15925	ug/L	15925	ppb	14:07:32
1	Mg 279.077 IEC†	751.6	732.8	25830	ug/L	25830	ppb	14:07:52
1	Na 589.592 Radial†	7349.4	8248.3	2494.7	ug/L	2494.7	ppb	14:07:32
1	Sr 421.552†	43076.9	42022.2	294.52	ug/L	294.52	ppb	14:07:32
1	Sc 361.383	881105.2	881105.2	102.21	%			14:08:49
1	Y 371.029	903434.3	903434.3	126.42	%			14:08:49
1	Ag 328.068†	-8526.6	-8571.4	5.7272	ug/L	5.7272	ppb	14:08:55
1	As 188.979†	-63.3	-28.1	50.695	ug/L	50.695	ppb	14:09:15
1	B 249.677†	2081.5	2575.7	39.220	ug/L	39.220	ppb	14:08:55
1	Ba 233.527†	126395.5	123680.0	1014.5	ug/L	1014.5	ppb	14:08:55
1	Be 313.107†	2266.8	6556.6	10.762	ug/L	10.762	ppb	14:08:55
1	Cd 226.502†	944.0	1135.5	-0.4778	ug/L	-0.4778	ppb	14:09:15
1	Co 228.616†	1452.6	1495.0	23.460	ug/L	23.460	ppb	14:09:15
1	Cr 267.716†	6854.8	6640.1	80.242	ug/L	80.242	ppb	14:08:55
1	Cu 324.752†	25259.3	18893.6	64.605	ug/L	64.605	ppb	14:08:55
1	Mn 257.610†	869999.5	850776.4	991.13	ug/L	991.13	ppb	14:08:49
1	Mo 202.031†	-85.7	-99.4	3.3596	ug/L	3.3596	ppb	14:09:15
1	Ni 231.604†	2471.8	2310.5	59.837	ug/L	59.837	ppb	14:09:15
1	P 214.914†	1152.1	899.2	473.93	ug/L	473.93	ppb	14:09:15
1	Pb 220.353†	804.8	849.2	123.27	ug/L	123.27	ppb	14:09:15
1	S 181.975 Axial†	354.4	307.4	422.11	ug/L	422.11	ppb	14:09:15
1	Sb 206.836†	94.1	49.9	0.1359	ug/L	0.1359	ppb	14:09:15
1	Se 196.026†	-674.7	-638.0	10.454	ug/L	10.454	ppb	14:09:15
1	Si 251.611†	487238.9	476163.9	15927	ug/L	15927	ppb	14:08:49
1	Sn 189.927†	-66.5	-73.7	-7.5094	ug/L	-7.5094	ppb	14:09:15
1	Ti 334.940†	2307964.9	2259471.3	3666.2	ug/L	3666.2	ppb	14:08:49
1	Tl 190.801†	-140.1	-102.9	1.6818	ug/L	1.6818	ppb	14:09:15
1	U 409.014†	-11591.3	-8361.2	-258.04	ug/L	-258.04	ppb	14:08:49
1	V 292.402†	19698.3	20827.9	127.58	ug/L	127.58	ppb	14:08:55
1	Zn 213.857†	29884.9	28526.8	260.73	ug/L	260.73	ppb	14:08:55
1	SiO2†	481467.0	470495.7	33562	ug/L	33562	ppb	14:10:23
2	Sc Radial	4910.8	4910.8	102	%			14:08:17
2	Y RADIAL	6429.0	6429.0	128.6	%			14:08:17
2	Al 396.153Radial†	152933.4	149848.1	139080	ug/L	139080	ppb	14:07:57
2	Ca 317.933Radial†	15721.4	15372.0	25478	ug/L	25478	ppb	14:07:57
2	Fe 238.204 Radial†	15114.3	14782.9	134500	ug/L	134500	ppb	14:07:57
2	K 766.490 Radial†	94773.3	89941.7	15867	ug/L	15867	ppb	14:07:57
2	Mg 279.077 IEC†	747.9	731.6	25790	ug/L	25790	ppb	14:08:17
2	Na 589.592 Radial†	7249.5	8174.6	2472.4	ug/L	2472.4	ppb	14:07:57
2	Sr 421.552†	42669.7	41764.5	292.71	ug/L	292.71	ppb	14:07:57
2	Sc 361.383	883115.0	883115.0	102.44	%			14:09:21
2	Y 371.029	905725.8	905725.8	126.75	%			14:09:21
2	Ag 328.068†	-8590.7	-8615.0	5.2811	ug/L	5.2811	ppb	14:09:26
2	As 188.979†	-70.0	-34.5	47.645	ug/L	47.645	ppb	14:09:46
2	B 249.677†	2071.4	2561.1	38.994	ug/L	38.994	ppb	14:09:26
2	Ba 233.527†	126664.7	123661.3	1014.3	ug/L	1014.3	ppb	14:09:26
2	Be 313.107†	2283.8	6568.2	10.768	ug/L	10.768	ppb	14:09:26
2	Cd 226.502†	946.3	1135.7	-0.4000	ug/L	-0.4000	ppb	14:09:46
2	Co 228.616†	1439.6	1479.1	23.120	ug/L	23.120	ppb	14:09:46
2	Cr 267.716†	6906.3	6675.1	80.637	ug/L	80.637	ppb	14:09:26
2	Cu 324.752†	25374.7	18950.0	64.739	ug/L	64.739	ppb	14:09:26
2	Mn 257.610†	874767.0	853493.2	994.18	ug/L	994.18	ppb	14:09:21
2	Mo 202.031†	-93.0	-106.3	2.7845	ug/L	2.7845	ppb	14:09:46
2	Ni 231.604†	2493.9	2326.6	60.254	ug/L	60.254	ppb	14:09:46

2	P 214.914†	1157.7	902.1	476.16 ug/L	476.16 ppb	14:09:46
2	Pb 220.353†	828.8	870.8	125.91 ug/L	125.91 ppb	14:09:46
2	S 181.975 Axial†	347.8	300.2	411.69 ug/L	411.69 ppb	14:09:46
2	Sb 206.836†	93.4	49.0	-0.1318 ug/L	-0.1318 ppb	14:09:46
2	Se 196.026†	-685.6	-647.2	1.9200 ug/L	1.9200 ppb	14:09:46
2	Si 251.611†	487944.9	475768.2	15914 ug/L	15914 ppb	14:09:21
2	Sn 189.927†	-50.3	-57.8	-4.5963 ug/L	-4.5963 ppb	14:09:46
2	Ti 334.940†	2313540.1	2259774.6	3666.6 ug/L	3666.6 ppb	14:09:21
2	Tl 190.801†	-137.9	-100.5	2.4864 ug/L	2.4864 ppb	14:09:46
2	U 409.014†	-11696.3	-8437.9	-260.18 ug/L	-260.18 ppb	14:09:21
2	V 292.402†	19801.6	20884.9	128.09 ug/L	128.09 ppb	14:09:26
2	Zn 213.857†	29974.7	28548.0	261.05 ug/L	261.05 ppb	14:09:26
2	SiO2†	477475.1	465526.7	33207 ug/L	33207 ppb	14:10:28
3	Sc Radial	4882.6	4882.6	102 %		14:08:42
3	Y RADIAL	6397.2	6397.2	127.9 %		14:08:42
3	Al 396.153Radial†	156786.5	154505.9	143400 ug/L	143400 ppb	14:08:22
3	Ca 317.933Radial†	16102.9	15836.4	26248 ug/L	26248 ppb	14:08:22
3	Fe 238.204 Radial†	15437.9	15186.9	138180 ug/L	138180 ppb	14:08:22
3	K 766.490 Radial†	96876.8	92548.3	16326 ug/L	16326 ppb	14:08:22
3	Mg 279.077 IEC†	741.7	729.8	25722 ug/L	25722 ppb	14:08:42
3	Na 589.592 Radial†	7464.2	8426.9	2548.7 ug/L	2548.7 ppb	14:08:22
3	Sr 421.552†	43806.6	43124.9	302.25 ug/L	302.25 ppb	14:08:22
3	Sc 361.383	874394.3	874394.3	101.43 %		14:09:52
3	Y 371.029	895371.8	895371.8	125.30 %		14:09:52
3	Ag 328.068†	-8353.8	-8465.1	7.2202 ug/L	7.2202 ppb	14:09:57
3	As 188.979†	-63.6	-28.9	51.062 ug/L	51.062 ppb	14:10:17
3	B 249.677†	2091.1	2600.7	39.338 ug/L	39.338 ppb	14:09:57
3	Ba 233.527†	125625.2	123869.6	1016.1 ug/L	1016.1 ppb	14:09:57
3	Be 313.107†	2398.2	6703.2	10.825 ug/L	10.825 ppb	14:09:57
3	Cd 226.502†	955.3	1153.7	-0.5660 ug/L	-0.5660 ppb	14:10:17
3	Co 228.616†	1430.7	1484.3	23.176 ug/L	23.176 ppb	14:10:17
3	Cr 267.716†	6858.0	6694.8	80.938 ug/L	80.938 ppb	14:09:57
3	Cu 324.752†	24971.8	18799.8	64.480 ug/L	64.480 ppb	14:09:57
3	Mn 257.610†	867298.2	854646.2	995.88 ug/L	995.88 ppb	14:09:52
3	Mo 202.031†	-85.8	-100.2	3.5381 ug/L	3.5381 ppb	14:10:17
3	Ni 231.604†	2467.7	2325.0	60.213 ug/L	60.213 ppb	14:10:17
3	P 214.914†	1143.6	899.4	472.75 ug/L	472.75 ppb	14:10:17
3	Pb 220.353†	839.1	889.0	128.77 ug/L	128.77 ppb	14:10:17
3	S 181.975 Axial†	344.0	299.8	410.28 ug/L	410.28 ppb	14:10:17
3	Sb 206.836†	80.9	37.6	-4.2625 ug/L	-4.2625 ppb	14:10:17
3	Se 196.026†	-677.8	-646.2	14.580 ug/L	14.580 ppb	14:10:17
3	Si 251.611†	485828.7	478432.4	16003 ug/L	16003 ppb	14:09:52
3	Sn 189.927†	-45.9	-53.9	-3.6914 ug/L	-3.6914 ppb	14:10:17
3	Ti 334.940†	2292808.2	2261858.9	3670.1 ug/L	3670.1 ppb	14:09:52
3	Tl 190.801†	-135.9	-99.8	2.7480 ug/L	2.7480 ppb	14:10:17
3	U 409.014†	-11690.3	-8545.8	-263.73 ug/L	-263.73 ppb	14:09:52
3	V 292.402†	19594.8	20873.8	127.47 ug/L	127.47 ppb	14:09:57
3	Zn 213.857†	29617.9	28488.0	259.91 ug/L	259.91 ppb	14:09:57
3	SiO2†	483006.9	475629.4	33928 ug/L	33928 ppb	14:10:34

Mean Data: 246333001|951404|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	879538.1	102.02	%	0.530				0.52%
Sc Radial	4906.9	102	%	0.5				0.46%
Y 371.029	901510.6	126.16	%	0.761				0.60%
Y RADIAL	6426.7	128.5	%	0.57				0.44%
Ag 328.068†	-8550.5	6.0761	ug/L	1.01558	6.0761	ppb	1.01558	16.71%
Al 396.153Radial†	151598.6	140700	ug/L	2353.0	140700	ppb	2353.0	1.67%
As 188.979†	-30.5	49.801	ug/L	1.8761	49.801	ppb	1.8761	3.77%
B 249.677†	2579.2	39.184	ug/L	0.1749	39.184	ppb	0.1749	0.45%
Ba 233.527†	123737.0	1015.0	ug/L	1.00	1015.0	ppb	1.00	0.10%
Be 313.107†	6609.3	10.785	ug/L	0.0351	10.785	ppb	0.0351	0.33%
Ca 317.933Radial†	15564.3	25797	ug/L	401.5	25797	ppb	401.5	1.56%
Cd 226.502†	1141.7	-0.4813	ug/L	0.08306	-0.4813	ppb	0.08306	17.26%
Co 228.616†	1486.1	23.252	ug/L	0.1822	23.252	ppb	0.1822	0.78%
Cr 267.716†	6670.0	80.606	ug/L	0.3492	80.606	ppb	0.3492	0.43%
Cu 324.752†	18881.1	64.608	ug/L	0.1296	64.608	ppb	0.1296	0.20%
Fe 238.204 Radial†	14944.3	135970	ug/L	1946.0	135970	ppb	1946.0	1.43%
K 766.490 Radial†	90920.2	16039	ug/L	250.4	16039	ppb	250.4	1.56%

Mg 279.077 IEC†	731.4	25781	ug/L	54.9	25781	ppb	54.9	0.21%
Mn 257.610†	852971.9	993.73	ug/L	2.406	993.73	ppb	2.406	0.24%
Mo 202.031†	-102.0	3.2274	ug/L	0.39383	3.2274	ppb	0.39383	12.20%
Na 589.592 Radial†	8283.3	2505.3	ug/L	39.24	2505.3	ppb	39.24	1.57%
Ni 231.604†	2320.7	60.101	ug/L	0.2299	60.101	ppb	0.2299	0.38%
P 214.914†	900.2	474.28	ug/L	1.733	474.28	ppb	1.733	0.37%
Pb 220.353†	869.7	125.98	ug/L	2.749	125.98	ppb	2.749	2.18%
S 181.975 Axial†	302.5	414.69	ug/L	6.462	414.69	ppb	6.462	1.56%
Sb 206.836†	45.5	-1.4194	ug/L	2.46580	-1.4194	ppb	2.46580	173.71%
Se 196.026†	-643.8	8.9849	ug/L	6.45684	8.9849	ppb	6.45684	71.86%
Si 251.611†	476788.2	15948	ug/L	48.1	15948	ppb	48.1	0.30%
Sn 189.927†	-61.8	-5.2657	ug/L	1.99509	-5.2657	ppb	1.99509	37.89%
Sr 421.552†	42303.9	296.49	ug/L	5.065	296.49	ppb	5.065	1.71%
Ti 334.940†	2260368.3	3667.6	ug/L	2.16	3667.6	ppb	2.16	0.06%
Tl 190.801†	-101.0	2.3054	ug/L	0.55567	2.3054	ppb	0.55567	24.10%
U 409.014†	-8448.3	-260.65	ug/L	2.874	-260.65	ppb	2.874	1.10%
V 292.402†	20862.2	127.71	ug/L	0.331	127.71	ppb	0.331	0.26%
Zn 213.857†	28521.0	260.56	ug/L	0.589	260.56	ppb	0.589	0.23%
SiO2†	470550.6	33566	ug/L	360.3	33566	ppb	360.3	1.07%

Sequence No.: 4
Sample ID: 1202035238|951404|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 41
Date Collected: 2/11/2010 14:12:44
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202035238|951404|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4992.8	4992.8	104	%			14:14:56
1	Y RADIAL	6509.0	6509.0	130.2	%			14:14:56
1	Al 396.153Radial†	155009.8	149389.4	138650	ug/L	138650	ppb	14:14:36
1	Ca 317.933Radial†	16116.5	15499.6	25690	ug/L	25690	ppb	14:14:36
1	Fe 238.204 Radial†	15766.4	15167.9	138010	ug/L	138010	ppb	14:14:36
1	K 766.490 Radial†	97808.7	91341.0	16113	ug/L	16113	ppb	14:14:36
1	Mg 279.077 IEC†	765.4	736.5	25959	ug/L	25959	ppb	14:14:56
1	Na 589.592 Radial†	8045.9	8824.8	2669.1	ug/L	2669.1	ppb	14:14:36
1	Sr 421.552†	42944.4	41343.2	289.75	ug/L	289.75	ppb	14:14:36
1	Sc 361.383	888395.7	888395.7	103.05	%			14:15:54
1	Y 371.029	907110.5	907110.5	126.94	%			14:15:54
1	Ag 328.068†	-8164.5	-8151.6	8.6013	ug/L	8.6013	ppb	14:15:59
1	As 188.979†	-76.5	-40.4	45.532	ug/L	45.532	ppb	14:16:19
1	B 249.677†	1708.9	2197.4	29.764	ug/L	29.764	ppb	14:15:59
1	Ba 233.527†	69232.0	67194.0	553.27	ug/L	553.27	ppb	14:15:59
1	Be 313.107†	1539.7	5832.8	10.427	ug/L	10.427	ppb	14:15:59
1	Cd 226.502†	917.3	1102.1	-1.1573	ug/L	-1.1573	ppb	14:16:19
1	Co 228.616†	1580.8	1607.7	25.720	ug/L	25.720	ppb	14:16:19
1	Cr 267.716†	6847.2	6577.7	79.554	ug/L	79.554	ppb	14:15:59
1	Cu 324.752†	24927.4	18368.7	63.152	ug/L	63.152	ppb	14:15:59
1	Mn 257.610†	1002364.8	972237.5	1131.1	ug/L	1131.1	ppb	14:15:54
1	Mo 202.031†	-85.4	-98.4	3.6518	ug/L	3.6518	ppb	14:16:19
1	Ni 231.604†	2589.1	2404.5	62.271	ug/L	62.271	ppb	14:16:19
1	P 214.914†	1150.6	888.4	465.11	ug/L	465.11	ppb	14:16:19
1	Pb 220.353†	861.8	898.0	128.88	ug/L	128.88	ppb	14:16:19
1	S 181.975 Axial†	249.6	202.8	269.80	ug/L	269.80	ppb	14:16:19
1	Sb 206.836†	86.1	41.4	-2.7227	ug/L	-2.7227	ppb	14:16:19
1	Se 196.026†	-667.4	-625.5	27.798	ug/L	27.798	ppb	14:16:19
1	Si 251.611†	459491.9	445326.2	14896	ug/L	14896	ppb	14:15:54
1	Sn 189.927†	-49.8	-57.0	-4.3534	ug/L	-4.3534	ppb	14:16:19
1	Ti 334.940†	2308775.2	2241726.2	3637.4	ug/L	3637.4	ppb	14:15:54
1	Tl 190.801†	-138.2	-99.9	3.0794	ug/L	3.0794	ppb	14:16:19
1	U 409.014†	-11147.8	-7837.7	-243.17	ug/L	-243.17	ppb	14:15:54
1	V 292.402†	18919.8	19914.3	120.61	ug/L	120.61	ppb	14:15:59
1	Zn 213.857†	29937.7	28338.1	258.44	ug/L	258.44	ppb	14:15:59
1	SiO2†	451681.0	437725.7	31224	ug/L	31224	ppb	14:17:27
2	Sc Radial	4949.5	4949.5	103	%			14:15:22
2	Y RADIAL	6426.8	6426.8	128.5	%			14:15:22
2	Al 396.153Radial†	153256.3	148991.2	138280	ug/L	138280	ppb	14:15:02
2	Ca 317.933Radial†	15958.9	15482.2	25661	ug/L	25661	ppb	14:15:02
2	Fe 238.204 Radial†	15612.2	15150.7	137850	ug/L	137850	ppb	14:15:02
2	K 766.490 Radial†	96827.4	91211.3	16091	ug/L	16091	ppb	14:15:02
2	Mg 279.077 IEC†	763.2	740.8	26110	ug/L	26110	ppb	14:15:22
2	Na 589.592 Radial†	7951.6	8800.9	2661.8	ug/L	2661.8	ppb	14:15:02
2	Sr 421.552†	42398.2	41174.3	288.57	ug/L	288.57	ppb	14:15:02
2	Sc 361.383	876565.4	876565.4	101.68	%			14:16:25
2	Y 371.029	894272.5	894272.5	125.14	%			14:16:25
2	Ag 328.068†	-8507.7	-8596.0	6.4763	ug/L	6.4763	ppb	14:16:30
2	As 188.979†	-68.2	-33.2	48.809	ug/L	48.809	ppb	14:16:50
2	B 249.677†	1735.0	2245.4	30.931	ug/L	30.931	ppb	14:16:30
2	Ba 233.527†	70394.1	69243.5	570.02	ug/L	570.02	ppb	14:16:30
2	Be 313.107†	1887.3	6194.9	10.576	ug/L	10.576	ppb	14:16:30
2	Cd 226.502†	924.5	1121.2	-0.9151	ug/L	-0.9151	ppb	14:16:50
2	Co 228.616†	1554.0	1602.0	25.594	ug/L	25.594	ppb	14:16:50
2	Cr 267.716†	6978.3	6796.3	82.104	ug/L	82.104	ppb	14:16:30
2	Cu 324.752†	25434.5	19193.9	65.648	ug/L	65.648	ppb	14:16:30
2	Mn 257.610†	992636.7	975797.6	1135.2	ug/L	1135.2	ppb	14:16:25
2	Mo 202.031†	-72.9	-87.3	4.4719	ug/L	4.4719	ppb	14:16:50
2	Ni 231.604†	2520.7	2371.1	61.407	ug/L	61.407	ppb	14:16:50

2	P 214.914†	1122.8	876.2	457.02	ug/L	457.02 ppb	14:16:50
2	Pb 220.353†	835.1	883.1	126.96	ug/L	126.96 ppb	14:16:50
2	S 181.975 Axial†	265.6	221.9	297.61	ug/L	297.61 ppb	14:16:50
2	Sb 206.836†	86.7	43.1	-2.1002	ug/L	-2.1002 ppb	14:16:50
2	Se 196.026†	-664.6	-631.5	23.265	ug/L	23.265 ppb	14:16:50
2	Si 251.611†	455466.6	447385.1	14964	ug/L	14964 ppb	14:16:25
2	Sn 189.927†	-53.0	-60.8	-5.0687	ug/L	-5.0687 ppb	14:16:50
2	Ti 334.940†	2281974.6	2245605.2	3643.6	ug/L	3643.6 ppb	14:16:25
2	Tl 190.801†	-134.8	-98.4	3.6344	ug/L	3.6344 ppb	14:16:50
2	U 409.014†	-11066.7	-7903.9	-245.08	ug/L	-245.08 ppb	14:16:25
2	V 292.402†	19347.4	20582.6	125.49	ug/L	125.49 ppb	14:16:30
2	Zn 213.857†	30434.8	29219.1	267.16	ug/L	267.16 ppb	14:16:30
2	SiO2†	447528.1	439556.9	31355	ug/L	31355 ppb	14:17:33
3	Sc Radial	4976.8	4976.8	104	%		14:15:47
3	Y RADIAL	6478.0	6478.0	129.5	%		14:15:47
3	Al 396.153Radial†	152065.6	147025.9	136460	ug/L	136460 ppb	14:15:27
3	Ca 317.933Radial†	15830.2	15273.1	25314	ug/L	25314 ppb	14:15:27
3	Fe 238.204 Radial†	15426.9	14888.7	135470	ug/L	135470 ppb	14:15:27
3	K 766.490 Radial†	95808.6	89712.2	15826	ug/L	15826 ppb	14:15:27
3	Mg 279.077 IEC†	767.5	740.9	26117	ug/L	26117 ppb	14:15:47
3	Na 589.592 Radial†	7856.1	8666.4	2621.1	ug/L	2621.1 ppb	14:15:27
3	Sr 421.552†	42030.9	40593.9	284.50	ug/L	284.50 ppb	14:15:27
3	Sc 361.383	875730.8	875730.8	101.58	%		14:16:56
3	Y 371.029	892412.4	892412.4	124.88	%		14:16:56
3	Ag 328.068†	-8227.9	-8328.6	6.9242	ug/L	6.9242 ppb	14:17:01
3	As 188.979†	-60.7	-25.9	51.592	ug/L	51.592 ppb	14:17:21
3	B 249.677†	1754.0	2265.8	31.803	ug/L	31.803 ppb	14:17:01
3	Ba 233.527†	69036.7	67973.3	559.56	ug/L	559.56 ppb	14:17:01
3	Be 313.107†	1668.4	5981.1	10.505	ug/L	10.505 ppb	14:17:01
3	Cd 226.502†	914.2	1111.9	-0.7788	ug/L	-0.7788 ppb	14:17:21
3	Co 228.616†	1556.6	1606.1	25.701	ug/L	25.701 ppb	14:17:21
3	Cr 267.716†	6835.4	6662.1	80.491	ug/L	80.491 ppb	14:17:01
3	Cu 324.752†	24904.6	18696.0	64.011	ug/L	64.011 ppb	14:17:01
3	Mn 257.610†	992800.2	976889.0	1136.2	ug/L	1136.2 ppb	14:16:56
3	Mo 202.031†	-92.6	-106.7	2.8299	ug/L	2.8299 ppb	14:17:21
3	Ni 231.604†	2524.2	2376.9	61.556	ug/L	61.556 ppb	14:17:21
3	P 214.914†	1134.7	888.9	466.73	ug/L	466.73 ppb	14:17:21
3	Pb 220.353†	839.5	888.1	127.42	ug/L	127.42 ppb	14:17:21
3	S 181.975 Axial†	252.6	209.3	279.64	ug/L	279.64 ppb	14:17:21
3	Sb 206.836†	82.0	38.6	-3.6559	ug/L	-3.6559 ppb	14:17:21
3	Se 196.026†	-670.1	-637.6	11.418	ug/L	11.418 ppb	14:17:21
3	Si 251.611†	454481.9	446842.7	14946	ug/L	14946 ppb	14:16:56
3	Sn 189.927†	-47.4	-55.3	-4.1376	ug/L	-4.1376 ppb	14:17:21
3	Ti 334.940†	2282162.7	2247929.4	3647.4	ug/L	3647.4 ppb	14:16:56
3	Tl 190.801†	-136.5	-100.1	3.1086	ug/L	3.1086 ppb	14:17:21
3	U 409.014†	-11053.9	-7901.7	-244.74	ug/L	-244.74 ppb	14:16:56
3	V 292.402†	18907.6	20167.8	122.80	ug/L	122.80 ppb	14:17:01
3	Zn 213.857†	29803.8	28626.4	261.67	ug/L	261.67 ppb	14:17:01
3	SiO2†	454696.2	447032.8	31888	ug/L	31888 ppb	14:17:38

Mean Data: 1202035238|951404|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	880230.6	102.10	%	0.822				0.80%
Sc Radial	4973.0	103	%	0.5				0.44%
Y 371.029	897931.8	125.65	%	1.120				0.89%
Y RADIAL	6471.2	129.4	%	0.83				0.64%
Ag 328.068†	-8358.7	7.3340	ug/L	1.12019	7.3340	ppb	1.12019	15.27%
Al 396.153Radial†	148468.8	137800	ug/L	1174.4	137800	ppb	1174.4	0.85%
As 188.979†	-33.1	48.644	ug/L	3.0331	48.644	ppb	3.0331	6.24%
B 249.677†	2236.2	30.832	ug/L	1.0230	30.832	ppb	1.0230	3.32%
Ba 233.527†	68136.9	560.95	ug/L	8.458	560.95	ppb	8.458	1.51%
Be 313.107†	6003.0	10.503	ug/L	0.0746	10.503	ppb	0.0746	0.71%
Ca 317.933Radial†	15418.3	25555	ug/L	209.0	25555	ppb	209.0	0.82%
Cd 226.502†	1111.7	-0.9504	ug/L	0.19173	-0.9504	ppb	0.19173	20.17%
Co 228.616†	1605.3	25.672	ug/L	0.0681	25.672	ppb	0.0681	0.27%
Cr 267.716†	6678.7	80.716	ug/L	1.2897	80.716	ppb	1.2897	1.60%
Cu 324.752†	18752.9	64.270	ug/L	1.2680	64.270	ppb	1.2680	1.97%
Fe 238.204 Radial†	15069.1	137110	ug/L	1423.4	137110	ppb	1423.4	1.04%
K 766.490 Radial†	90754.8	16010	ug/L	159.7	16010	ppb	159.7	1.00%

Mg 279.077 IEC†	739.4	26062	ug/L	89.2	26062	ppb	89.2	0.34%
Mn 257.610†	974974.7	1134.2	ug/L	2.70	1134.2	ppb	2.70	0.24%
Mo 202.031†	-97.4	3.6512	ug/L	0.82098	3.6512	ppb	0.82098	22.49%
Na 589.592 Radial†	8764.0	2650.7	ug/L	25.83	2650.7	ppb	25.83	0.97%
Ni 231.604†	2384.1	61.744	ug/L	0.4620	61.744	ppb	0.4620	0.75%
P 214.914†	884.5	462.95	ug/L	5.203	462.95	ppb	5.203	1.12%
Pb 220.353†	889.7	127.75	ug/L	1.003	127.75	ppb	1.003	0.79%
S 181.975 Axial†	211.3	282.35	ug/L	14.098	282.35	ppb	14.098	4.99%
Sb 206.836†	41.0	-2.8263	ug/L	0.78299	-2.8263	ppb	0.78299	27.70%
Se 196.026†	-631.5	20.827	ug/L	8.4576	20.827	ppb	8.4576	40.61%
Si 251.611†	446518.0	14935	ug/L	35.7	14935	ppb	35.7	0.24%
Sn 189.927†	-57.7	-4.5199	ug/L	0.48738	-4.5199	ppb	0.48738	10.78%
Sr 421.552†	41037.1	287.61	ug/L	2.755	287.61	ppb	2.755	0.96%
Ti 334.940†	2245086.9	3642.8	ug/L	5.05	3642.8	ppb	5.05	0.14%
Tl 190.801†	-99.5	3.2741	ug/L	0.31231	3.2741	ppb	0.31231	9.54%
U 409.014†	-7881.1	-244.33	ug/L	1.018	-244.33	ppb	1.018	0.42%
V 292.402†	20221.6	122.96	ug/L	2.444	122.96	ppb	2.444	1.99%
Zn 213.857†	28727.9	262.43	ug/L	4.407	262.43	ppb	4.407	1.68%
SiO2†	441438.4	31489	ug/L	351.7	31489	ppb	351.7	1.12%

Sequence No.: 5
Sample ID: 1202035240|951404|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 42
Date Collected: 2/11/2010 14:19:49
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202035240|951404|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4924.4	4924.4	102	%			14:22:02
1	Y RADIAL	6365.0	6365.0	127.3	%			14:22:02
1	Al 396.153Radial†	201337.2	196683.2	182520	ug/L	182520	ppb	14:21:42
1	Ca 317.933Radial†	18878.0	18410.7	30514	ug/L	30514	ppb	14:21:42
1	Fe 238.204 Radial†	16934.4	16518.8	150310	ug/L	150310	ppb	14:21:42
1	K 766.490 Radial†	139157.0	133009.9	23465	ug/L	23465	ppb	14:21:42
1	Mg 279.077 IEC†	972.0	948.4	33461	ug/L	33461	ppb	14:22:02
1	Na 589.592 Radial†	24740.4	25228.4	7630.3	ug/L	7630.3	ppb	14:21:42
1	Sr 421.552†	118848.3	116009.5	813.36	ug/L	813.36	ppb	14:21:42
1	Sc 361.383	868902.6	868902.6	100.79	%			14:23:01
1	Y 371.029	870830.4	870830.4	121.86	%			14:23:01
1	Ag 328.068†	98011.3	97014.5	509.87	ug/L	509.87	ppb	14:23:01
1	As 188.979†	978.9	1005.1	528.28	ug/L	528.28	ppb	14:23:21
1	B 249.677†	22487.0	22849.8	517.74	ug/L	517.74	ppb	14:23:01
1	Ba 233.527†	130459.3	129448.6	1063.2	ug/L	1063.2	ppb	14:23:01
1	Be 313.107†	1357459.1	1351161.5	513.25	ug/L	513.25	ppb	14:23:01
1	Cd 226.502†	39581.9	39483.7	454.28	ug/L	454.28	ppb	14:23:21
1	Co 228.616†	23288.3	23179.5	496.25	ug/L	496.25	ppb	14:23:21
1	Cr 267.716†	49518.5	49063.7	574.94	ug/L	574.94	ppb	14:23:01
1	Cu 324.752†	202172.5	194767.7	598.64	ug/L	598.64	ppb	14:23:01
1	Mn 257.610†	1295876.2	1285270.5	1492.2	ug/L	1492.2	ppb	14:23:01
1	Mo 202.031†	6164.9	6101.1	468.93	ug/L	468.93	ppb	14:23:21
1	Ni 231.604†	20625.7	20356.1	527.06	ug/L	527.06	ppb	14:23:21
1	P 214.914†	2030.8	1786.8	923.48	ug/L	923.48	ppb	14:23:21
1	Pb 220.353†	4559.1	4585.1	597.97	ug/L	597.97	ppb	14:23:21
1	S 181.975 Axial†	3712.5	3644.0	5279.6	ug/L	5279.6	ppb	14:23:21
1	Sb 206.836†	1404.9	1351.7	469.08	ug/L	469.08	ppb	14:23:21
1	Se 196.026†	-14.0	8.3	497.29	ug/L	497.29	ppb	14:23:21
1	Si 251.611†	515260.4	510660.9	17075	ug/L	17075	ppb	14:23:01
1	Sn 189.927†	2603.3	2574.2	484.88	ug/L	484.88	ppb	14:23:21
1	Ti 334.940†	2733316.8	2713203.3	4401.7	ug/L	4401.7	ppb	14:23:01
1	Tl 190.801†	1347.9	1371.6	479.65	ug/L	479.65	ppb	14:23:21
1	U 409.014†	6009.5	8942.5	240.89	ug/L	240.89	ppb	14:23:01
1	V 292.402†	89514.9	90368.2	637.11	ug/L	637.11	ppb	14:23:01
1	Zn 213.857†	82190.6	80833.3	770.81	ug/L	770.81	ppb	14:23:01
1	SiO2†	517755.4	513115.4	36589	ug/L	36589	ppb	14:24:21
2	Sc Radial	4967.6	4967.6	103	%			14:22:27
2	Y RADIAL	6412.2	6412.2	128.2	%			14:22:27
2	Al 396.153Radial†	199608.3	193300.9	179380	ug/L	179380	ppb	14:22:07
2	Ca 317.933Radial†	18623.9	18004.6	29841	ug/L	29841	ppb	14:22:07
2	Fe 238.204 Radial†	16737.4	16184.4	147270	ug/L	147270	ppb	14:22:07
2	K 766.490 Radial†	137740.1	130457.4	23014	ug/L	23014	ppb	14:22:07
2	Mg 279.077 IEC†	970.0	938.2	33102	ug/L	33102	ppb	14:22:27
2	Na 589.592 Radial†	24477.1	24763.5	7489.7	ug/L	7489.7	ppb	14:22:07
2	Sr 421.552†	117971.7	114152.2	800.34	ug/L	800.34	ppb	14:22:07
2	Sc 361.383	865706.1	865706.1	100.42	%			14:23:28
2	Y 371.029	866547.7	866547.7	121.26	%			14:23:28
2	Ag 328.068†	97744.4	97107.8	509.30	ug/L	509.30	ppb	14:23:28
2	As 188.979†	984.8	1014.6	531.86	ug/L	531.86	ppb	14:23:48
2	B 249.677†	22382.1	22827.7	517.70	ug/L	517.70	ppb	14:23:28
2	Ba 233.527†	130272.1	129740.2	1065.5	ug/L	1065.5	ppb	14:23:28
2	Be 313.107†	1349476.1	1348184.8	512.15	ug/L	512.15	ppb	14:23:28
2	Cd 226.502†	39782.9	39828.8	458.70	ug/L	458.70	ppb	14:23:48
2	Co 228.616†	23360.3	23336.5	499.73	ug/L	499.73	ppb	14:23:48
2	Cr 267.716†	49351.9	49079.3	575.07	ug/L	575.07	ppb	14:23:28
2	Cu 324.752†	201549.8	194888.2	598.84	ug/L	598.84	ppb	14:23:28
2	Mn 257.610†	1293052.9	1287206.4	1494.1	ug/L	1494.1	ppb	14:23:28
2	Mo 202.031†	6201.8	6160.4	473.13	ug/L	473.13	ppb	14:23:48
2	Ni 231.604†	20718.3	20523.8	531.40	ug/L	531.40	ppb	14:23:48

2	P 214.914†	2028.5	1792.0	928.34 ug/L	928.34 ppb	14:23:48
2	Pb 220.353†	4556.3	4599.0	599.33 ug/L	599.33 ppb	14:23:48
2	S 181.975 Axial†	3751.0	3696.0	5356.0 ug/L	5356.0 ppb	14:23:48
2	Sb 206.836†	1419.4	1371.4	476.20 ug/L	476.20 ppb	14:23:48
2	Se 196.026†	2.3	24.4	498.23 ug/L	498.23 ppb	14:23:48
2	Si 251.611†	515667.5	512953.8	17152 ug/L	17152 ppb	14:23:28
2	Sn 189.927†	2617.9	2598.3	489.19 ug/L	489.19 ppb	14:23:48
2	Ti 334.940†	2725078.0	2715012.2	4404.6 ug/L	4404.6 ppb	14:23:28
2	Tl 190.801†	1327.0	1355.6	474.55 ug/L	474.55 ppb	14:23:48
2	U 409.014†	5943.4	8898.7	239.97 ug/L	239.97 ppb	14:23:28
2	V 292.402†	89285.4	90467.5	638.32 ug/L	638.32 ppb	14:23:28
2	Zn 213.857†	81961.2	80906.0	771.95 ug/L	771.95 ppb	14:23:28
2	SiO2†	510792.7	508078.5	36230 ug/L	36230 ppb	14:24:27
3	Sc Radial	4968.1	4968.1	103 %		14:22:52
3	Y RADIAL	6413.8	6413.8	128.3 %		14:22:52
3	Al 396.153Radial†	201752.8	195357.3	181290 ug/L	181290 ppb	14:22:32
3	Ca 317.933Radial†	18796.7	18170.0	30116 ug/L	30116 ppb	14:22:32
3	Fe 238.204 Radial†	16846.5	16288.3	148220 ug/L	148220 ppb	14:22:32
3	K 766.490 Radial†	138965.9	131630.6	23221 ug/L	23221 ppb	14:22:32
3	Mg 279.077 IEC†	978.7	946.5	33395 ug/L	33395 ppb	14:22:52
3	Na 589.592 Radial†	24460.1	24744.8	7484.1 ug/L	7484.1 ppb	14:22:32
3	Sr 421.552†	118888.0	115027.8	806.48 ug/L	806.48 ppb	14:22:32
3	Sc 361.383	876648.2	876648.2	101.69 %		14:23:55
3	Y 371.029	876649.6	876649.6	122.68 %		14:23:55
3	Ag 328.068†	98780.8	96912.1	508.68 ug/L	508.68 ppb	14:23:55
3	As 188.979†	988.4	1005.9	528.14 ug/L	528.14 ppb	14:24:15
3	B 249.677†	22653.2	22816.2	517.29 ug/L	517.29 ppb	14:23:55
3	Ba 233.527†	131515.9	129344.1	1062.3 ug/L	1062.3 ppb	14:23:55
3	Be 313.107†	1363497.8	1345200.2	511.03 ug/L	511.03 ppb	14:23:55
3	Cd 226.502†	39648.8	39202.4	451.15 ug/L	451.15 ppb	14:24:15
3	Co 228.616†	23308.9	22995.7	492.26 ug/L	492.26 ppb	14:24:15
3	Cr 267.716†	49714.1	48822.0	572.09 ug/L	572.09 ppb	14:23:55
3	Cu 324.752†	204243.4	195031.9	599.33 ug/L	599.33 ppb	14:23:55
3	Mn 257.610†	1305708.3	1283579.5	1490.0 ug/L	1490.0 ppb	14:23:55
3	Mo 202.031†	6206.8	6088.2	467.79 ug/L	467.79 ppb	14:24:15
3	Ni 231.604†	20650.1	20199.3	522.99 ug/L	522.99 ppb	14:24:15
3	P 214.914†	2008.2	1746.8	899.79 ug/L	899.79 ppb	14:24:15
3	Pb 220.353†	4533.9	4520.4	589.83 ug/L	589.83 ppb	14:24:15
3	S 181.975 Axial†	3715.8	3614.8	5237.1 ug/L	5237.1 ppb	14:24:15
3	Sb 206.836†	1390.2	1324.9	459.72 ug/L	459.72 ppb	14:24:15
3	Se 196.026†	-16.6	5.8	488.82 ug/L	488.82 ppb	14:24:15
3	Si 251.611†	521523.2	512302.7	17130 ug/L	17130 ppb	14:23:55
3	Sn 189.927†	2605.7	2553.7	480.98 ug/L	480.98 ppb	14:24:15
3	Ti 334.940†	2757576.8	2713099.6	4401.5 ug/L	4401.5 ppb	14:23:55
3	Tl 190.801†	1327.6	1339.8	469.48 ug/L	469.48 ppb	14:24:15
3	U 409.014†	5898.3	8780.5	236.44 ug/L	236.44 ppb	14:23:55
3	V 292.402†	90094.2	90153.1	635.83 ug/L	635.83 ppb	14:23:55
3	Zn 213.857†	82796.0	80708.2	769.91 ug/L	769.91 ppb	14:23:55
3	SiO2†	508730.5	499701.6	35632 ug/L	35632 ppb	14:24:32

Mean Data: 1202035240|951404|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	870419.0	100.97	%	0.653				0.65%
Sc Radial	4953.4	103	%	0.5				0.51%
Y 371.029	871342.6	121.93	%	0.710				0.58%
Y RADIAL	6397.0	127.9	%	0.55				0.43%
Ag 328.068†	97011.5	509.28	ug/L	0.594	509.28	ppb	0.594	0.12%
Al 396.153Radial†	195113.8	181070	ug/L	1581.8	181070	ppb	1581.8	0.87%
As 188.979†	1008.5	529.43	ug/L	2.110	529.43	ppb	2.110	0.40%
B 249.677†	22831.2	517.58	ug/L	0.248	517.58	ppb	0.248	0.05%
Ba 233.527†	129511.0	1063.6	ug/L	1.65	1063.6	ppb	1.65	0.16%
Be 313.107†	1348182.2	512.15	ug/L	1.110	512.15	ppb	1.110	0.22%
Ca 317.933Radial†	18195.1	30157	ug/L	338.5	30157	ppb	338.5	1.12%
Cd 226.502†	39505.0	454.71	ug/L	3.794	454.71	ppb	3.794	0.83%
Co 228.616†	23170.6	496.08	ug/L	3.736	496.08	ppb	3.736	0.75%
Cr 267.716†	48988.3	574.03	ug/L	1.685	574.03	ppb	1.685	0.29%
Cu 324.752†	194895.9	598.94	ug/L	0.356	598.94	ppb	0.356	0.06%
Fe 238.204 Radial†	16330.5	148600	ug/L	1557.0	148600	ppb	1557.0	1.05%
K 766.490 Radial†	131699.3	23233	ug/L	225.4	23233	ppb	225.4	0.97%

Mg 279.077 IEC†	944.4	33319	ug/L	191.0	33319	ppb	191.0	0.57%
Mn 257.610†	1285352.1	1492.1	ug/L	2.05	1492.1	ppb	2.05	0.14%
Mo 202.031†	6116.6	469.95	ug/L	2.810	469.95	ppb	2.810	0.60%
Na 589.592 Radial†	24912.3	7534.7	ug/L	82.85	7534.7	ppb	82.85	1.10%
Ni 231.604†	20359.7	527.15	ug/L	4.203	527.15	ppb	4.203	0.80%
P 214.914†	1775.2	917.20	ug/L	15.276	917.20	ppb	15.276	1.67%
Pb 220.353†	4568.1	595.71	ug/L	5.138	595.71	ppb	5.138	0.86%
S 181.975 Axial†	3651.6	5290.9	ug/L	60.23	5290.9	ppb	60.23	1.14%
Sb 206.836†	1349.3	468.34	ug/L	8.268	468.34	ppb	8.268	1.77%
Se 196.026†	12.8	494.78	ug/L	5.185	494.78	ppb	5.185	1.05%
Si 251.611†	511972.5	17119	ug/L	39.5	17119	ppb	39.5	0.23%
Sn 189.927†	2575.4	485.02	ug/L	4.108	485.02	ppb	4.108	0.85%
Sr 421.552†	115063.2	806.73	ug/L	6.514	806.73	ppb	6.514	0.81%
Ti 334.940†	2713771.7	4402.6	ug/L	1.72	4402.6	ppb	1.72	0.04%
Tl 190.801†	1355.7	474.56	ug/L	5.085	474.56	ppb	5.085	1.07%
U 409.014†	8873.9	239.10	ug/L	2.350	239.10	ppb	2.350	0.98%
V 292.402†	90329.6	637.09	ug/L	1.247	637.09	ppb	1.247	0.20%
Zn 213.857†	80815.8	770.89	ug/L	1.023	770.89	ppb	1.023	0.13%
SiO2†	506965.2	36150	ug/L	483.3	36150	ppb	483.3	1.34%

Sequence No.: 6
Sample ID: 1202035241|951404|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 43
Date Collected: 2/11/2010 14:26:43
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202035241|951404|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4989.4	4989.4	104	%			14:28:56
1	Y RADIAL	6366.8	6366.8	127.3	%			14:28:56
1	Al 396.153Radial†	189810.3	183019.0	169840	ug/L	169840	ppb	14:28:36
1	Ca 317.933Radial†	17437.9	16783.3	27817	ug/L	27817	ppb	14:28:36
1	Fe 238.204 Radial†	16262.6	15656.2	142460	ug/L	142460	ppb	14:28:36
1	K 766.490 Radial†	133509.4	125800.2	22193	ug/L	22193	ppb	14:28:36
1	Mg 279.077 IEC†	943.2	908.3	32047	ug/L	32047	ppb	14:28:56
1	Na 589.592 Radial†	24522.6	24704.1	7471.7	ug/L	7471.7	ppb	14:28:36
1	Sr 421.552†	116927.2	112648.1	789.81	ug/L	789.81	ppb	14:28:36
1	Sc 361.383	871749.8	871749.8	101.12	%			14:29:55
1	Y 371.029	864754.3	864754.3	121.01	%			14:29:55
1	Ag 328.068†	98560.4	97240.0	508.25	ug/L	508.25	ppb	14:29:55
1	As 188.979†	979.0	1002.0	526.71	ug/L	526.71	ppb	14:30:15
1	B 249.677†	22715.3	23002.8	522.69	ug/L	522.69	ppb	14:29:55
1	Ba 233.527†	124478.4	123111.3	1011.2	ug/L	1011.2	ppb	14:29:55
1	Be 313.107†	1363584.8	1352820.6	514.31	ug/L	514.31	ppb	14:29:55
1	Cd 226.502†	39518.8	39293.0	452.82	ug/L	452.82	ppb	14:30:15
1	Co 228.616†	22842.1	22662.8	484.65	ug/L	484.65	ppb	14:30:15
1	Cr 267.716†	49163.8	48552.5	568.81	ug/L	568.81	ppb	14:29:55
1	Cu 324.752†	202250.4	194189.5	596.46	ug/L	596.46	ppb	14:29:55
1	Mn 257.610†	1114785.0	1101985.8	1280.6	ug/L	1280.6	ppb	14:29:55
1	Mo 202.031†	6193.1	6109.0	468.88	ug/L	468.88	ppb	14:30:15
1	Ni 231.604†	20330.0	19996.8	517.75	ug/L	517.75	ppb	14:30:15
1	P 214.914†	1970.5	1720.6	885.80	ug/L	885.80	ppb	14:30:15
1	Pb 220.353†	4461.8	4474.1	582.12	ug/L	582.12	ppb	14:30:15
1	S 181.975 Axial†	3698.8	3618.5	5244.7	ug/L	5244.7	ppb	14:30:15
1	Sb 206.836†	1423.9	1365.9	473.79	ug/L	473.79	ppb	14:30:15
1	Se 196.026†	31.0	52.8	501.58	ug/L	501.58	ppb	14:30:15
1	Si 251.611†	481255.7	475363.0	15895	ug/L	15895	ppb	14:29:55
1	Sn 189.927†	2608.2	2570.6	483.66	ug/L	483.66	ppb	14:30:15
1	Ti 334.940†	2863077.4	2832669.3	4595.2	ug/L	4595.2	ppb	14:29:55
1	Tl 190.801†	1327.2	1346.7	472.34	ug/L	472.34	ppb	14:30:15
1	U 409.014†	6752.7	9658.0	262.54	ug/L	262.54	ppb	14:29:55
1	V 292.402†	87847.1	88428.8	623.99	ug/L	623.99	ppb	14:29:55
1	Zn 213.857†	81689.1	80071.0	764.52	ug/L	764.52	ppb	14:29:55
1	SiO2†	474955.8	469112.1	33450	ug/L	33450	ppb	14:31:15
2	Sc Radial	4977.3	4977.3	104	%			14:29:21
2	Y RADIAL	6363.7	6363.7	127.3	%			14:29:21
2	Al 396.153Radial†	193063.1	186606.1	173170	ug/L	173170	ppb	14:29:01
2	Ca 317.933Radial†	17649.4	17028.6	28224	ug/L	28224	ppb	14:29:01
2	Fe 238.204 Radial†	16482.3	15906.6	144740	ug/L	144740	ppb	14:29:01
2	K 766.490 Radial†	135529.3	128064.4	22592	ug/L	22592	ppb	14:29:01
2	Mg 279.077 IEC†	944.9	912.1	32181	ug/L	32181	ppb	14:29:21
2	Na 589.592 Radial†	24830.5	25059.0	7579.1	ug/L	7579.1	ppb	14:29:01
2	Sr 421.552†	118866.1	114795.2	804.87	ug/L	804.87	ppb	14:29:01
2	Sc 361.383	864367.9	864367.9	100.26	%			14:30:22
2	Y 371.029	856840.9	856840.9	119.90	%			14:30:22
2	Ag 328.068†	97863.8	97377.6	509.65	ug/L	509.65	ppb	14:30:22
2	As 188.979†	975.0	1006.3	529.16	ug/L	529.16	ppb	14:30:42
2	B 249.677†	22542.3	23022.1	522.76	ug/L	522.76	ppb	14:30:22
2	Ba 233.527†	123410.9	123097.9	1011.1	ug/L	1011.1	ppb	14:30:22
2	Be 313.107†	1347509.7	1348304.1	512.63	ug/L	512.63	ppb	14:30:22
2	Cd 226.502†	39623.1	39730.8	457.80	ug/L	457.80	ppb	14:30:42
2	Co 228.616†	22964.7	22978.0	491.51	ug/L	491.51	ppb	14:30:42
2	Cr 267.716†	48488.0	48293.7	565.84	ug/L	565.84	ppb	14:30:22
2	Cu 324.752†	200832.9	194484.0	597.47	ug/L	597.47	ppb	14:30:22
2	Mn 257.610†	1104172.9	1100816.7	1279.5	ug/L	1279.5	ppb	14:30:22
2	Mo 202.031†	6195.4	6163.6	473.15	ug/L	473.15	ppb	14:30:42
2	Ni 231.604†	20368.5	20206.9	523.19	ug/L	523.19	ppb	14:30:42

2	P 214.914†	1955.4	1722.2	885.62 ug/L	885.62 ppb	14:30:42
2	Pb 220.353†	4456.9	4506.9	586.72 ug/L	586.72 ppb	14:30:42
2	S 181.975 Axial†	3717.1	3668.0	5316.3 ug/L	5316.3 ppb	14:30:42
2	Sb 206.836†	1427.5	1381.6	479.29 ug/L	479.29 ppb	14:30:42
2	Se 196.026†	51.2	73.2	522.81 ug/L	522.81 ppb	14:30:42
2	Si 251.611†	478397.4	476576.8	15935 ug/L	15935 ppb	14:30:22
2	Sn 189.927†	2606.1	2590.6	487.47 ug/L	487.47 ppb	14:30:42
2	Ti 334.940†	2838876.0	2832712.1	4595.3 ug/L	4595.3 ppb	14:30:22
2	Tl 190.801†	1330.0	1360.7	476.79 ug/L	476.79 ppb	14:30:42
2	U 409.014†	6738.9	9701.2	263.54 ug/L	263.54 ppb	14:30:22
2	V 292.402†	87031.6	88357.4	623.20 ug/L	623.20 ppb	14:30:22
2	Zn 213.857†	81008.5	80082.2	764.26 ug/L	764.26 ppb	14:30:22
2	SiO2†	478139.6	476298.8	33963 ug/L	33963 ppb	14:31:20
3	Sc Radial	5001.8	5001.8	104 %		14:29:46
3	Y RADIAL	6383.7	6383.7	127.7 %		14:29:46
3	Al 396.153Radial†	192293.2	184953.2	171630 ug/L	171630 ppb	14:29:26
3	Ca 317.933Radial†	17604.1	16901.6	28013 ug/L	28013 ppb	14:29:26
3	Fe 238.204 Radial†	16387.0	15737.1	143200 ug/L	143200 ppb	14:29:26
3	K 766.490 Radial†	134975.3	126891.1	22385 ug/L	22385 ppb	14:29:26
3	Mg 279.077 IEC†	943.5	906.3	31978 ug/L	31978 ppb	14:29:46
3	Na 589.592 Radial†	24633.0	24751.8	7486.2 ug/L	7486.2 ppb	14:29:26
3	Sr 421.552†	118297.0	113686.1	797.09 ug/L	797.09 ppb	14:29:26
3	Sc 361.383	857084.4	857084.4	99.419 %		14:30:49
3	Y 371.029	850287.9	850287.9	118.99 %		14:30:49
3	Ag 328.068†	97104.2	97443.1	509.45 ug/L	509.45 ppb	14:30:49
3	As 188.979†	980.8	1020.4	535.26 ug/L	535.26 ppb	14:31:09
3	B 249.677†	22280.5	22949.8	521.27 ug/L	521.27 ppb	14:30:49
3	Ba 233.527†	122251.5	122977.7	1010.1 ug/L	1010.1 ppb	14:30:49
3	Be 313.107†	1335837.1	1347984.3	512.52 ug/L	512.52 ppb	14:30:49
3	Cd 226.502†	39773.1	40217.5	463.75 ug/L	463.75 ppb	14:31:09
3	Co 228.616†	23004.2	23212.4	496.65 ug/L	496.65 ppb	14:31:09
3	Cr 267.716†	48176.0	48390.9	566.94 ug/L	566.94 ppb	14:30:49
3	Cu 324.752†	199326.8	194671.2	597.95 ug/L	597.95 ppb	14:30:49
3	Mn 257.610†	1094515.1	1100461.1	1278.9 ug/L	1278.9 ppb	14:30:49
3	Mo 202.031†	6222.4	6243.2	478.99 ug/L	478.99 ppb	14:31:09
3	Ni 231.604†	20424.3	20435.6	529.12 ug/L	529.12 ppb	14:31:09
3	P 214.914†	1986.9	1770.4	916.46 ug/L	916.46 ppb	14:31:09
3	Pb 220.353†	4459.8	4547.6	591.63 ug/L	591.63 ppb	14:31:09
3	S 181.975 Axial†	3731.0	3713.4	5382.8 ug/L	5382.8 ppb	14:31:09
3	Sb 206.836†	1430.9	1397.1	484.91 ug/L	484.91 ppb	14:31:09
3	Se 196.026†	32.0	54.3	505.09 ug/L	505.09 ppb	14:31:09
3	Si 251.611†	474386.2	476596.9	15936 ug/L	15936 ppb	14:30:49
3	Sn 189.927†	2609.8	2616.4	492.20 ug/L	492.20 ppb	14:31:09
3	Ti 334.940†	2818458.1	2836236.1	4601.1 ug/L	4601.1 ppb	14:30:49
3	Tl 190.801†	1345.7	1387.7	485.49 ug/L	485.49 ppb	14:31:09
3	U 409.014†	6675.4	9694.4	263.52 ug/L	263.52 ppb	14:30:49
3	V 292.402†	86318.1	88377.3	623.64 ug/L	623.64 ppb	14:30:49
3	Zn 213.857†	80071.2	79826.0	761.92 ug/L	761.92 ppb	14:30:49
3	SiO2†	480134.2	482357.6	34395 ug/L	34395 ppb	14:31:26

Mean Data: 1202035241|951404|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	864400.7	100.27	%	0.851				0.85%
Sc Radial	4989.5	104	%	0.3				0.25%
Y 371.029	857294.4	119.97	%	1.014				0.84%
Y RADIAL	6371.4	127.4	%	0.22				0.17%
Ag 328.068†	97353.5	509.12	ug/L	0.760	509.12	ppb	0.760	0.15%
Al 396.153Radial†	184859.4	171550	ug/L	1666.2	171550	ppb	1666.2	0.97%
As 188.979†	1009.6	530.38	ug/L	4.405	530.38	ppb	4.405	0.83%
B 249.677†	22991.6	522.24	ug/L	0.837	522.24	ppb	0.837	0.16%
Ba 233.527†	123062.3	1010.8	ug/L	0.61	1010.8	ppb	0.61	0.06%
Be 313.107†	1349703.0	513.15	ug/L	1.003	513.15	ppb	1.003	0.20%
Ca 317.933Radial†	16904.5	28018	ug/L	203.3	28018	ppb	203.3	0.73%
Cd 226.502†	39747.1	458.12	ug/L	5.468	458.12	ppb	5.468	1.19%
Co 228.616†	22951.0	490.94	ug/L	6.023	490.94	ppb	6.023	1.23%
Cr 267.716†	48412.3	567.20	ug/L	1.501	567.20	ppb	1.501	0.26%
Cu 324.752†	194448.2	597.29	ug/L	0.765	597.29	ppb	0.765	0.13%
Fe 238.204 Radial†	15766.6	143470	ug/L	1162.5	143470	ppb	1162.5	0.81%
K 766.490 Radial†	126918.6	22390	ug/L	199.8	22390	ppb	199.8	0.89%

Mg 279.077 IEC†	908.9	32069	ug/L	103.5	32069	ppb	103.5	0.32%
Mn 257.610†	1101087.8	1279.7	ug/L	0.86	1279.7	ppb	0.86	0.07%
Mo 202.031†	6171.9	473.67	ug/L	5.078	473.67	ppb	5.078	1.07%
Na 589.592 Radial†	24838.3	7512.3	ug/L	58.26	7512.3	ppb	58.26	0.78%
Ni 231.604†	20213.1	523.35	ug/L	5.682	523.35	ppb	5.682	1.09%
P 214.914†	1737.7	895.96	ug/L	17.750	895.96	ppb	17.750	1.98%
Pb 220.353†	4509.5	586.83	ug/L	4.757	586.83	ppb	4.757	0.81%
S 181.975 Axial†	3666.6	5314.6	ug/L	69.08	5314.6	ppb	69.08	1.30%
Sb 206.836†	1381.6	479.33	ug/L	5.563	479.33	ppb	5.563	1.16%
Se 196.026†	60.1	509.83	ug/L	11.382	509.83	ppb	11.382	2.23%
Si 251.611†	476178.9	15922	ug/L	23.6	15922	ppb	23.6	0.15%
Sn 189.927†	2592.5	487.78	ug/L	4.280	487.78	ppb	4.280	0.88%
Sr 421.552†	113709.8	797.26	ug/L	7.529	797.26	ppb	7.529	0.94%
Ti 334.940†	2833872.5	4597.2	ug/L	3.33	4597.2	ppb	3.33	0.07%
Tl 190.801†	1365.0	478.21	ug/L	6.686	478.21	ppb	6.686	1.40%
U 409.014†	9684.5	263.20	ug/L	0.571	263.20	ppb	0.571	0.22%
V 292.402†	88387.8	623.61	ug/L	0.394	623.61	ppb	0.394	0.06%
Zn 213.857†	79993.1	763.57	ug/L	1.431	763.57	ppb	1.431	0.19%
SiO2†	475922.8	33936	ug/L	472.9	33936	ppb	472.9	1.39%

Sequence No.: 7
Sample ID: 1202035239|951404|5
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 44
Date Collected: 2/11/2010 14:33:37
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202035239|951404|5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4661.4	4661.4	97.0	%			14:35:30
1	Y RADIAL	5162.1	5162.1	103.2	%			14:35:30
1	Al 396.153Radial†	31602.9	32741.0	30387	ug/L	30387	ppb	14:35:30
1	Ca 317.933Radial†	3235.9	3320.3	5503.1	ug/L	5503.1	ppb	14:35:50
1	Fe 238.204 Radial†	3262.4	3352.8	30506	ug/L	30506	ppb	14:35:50
1	K 766.490 Radial†	21670.2	19521.0	3443.7	ug/L	3443.7	ppb	14:35:30
1	Mg 279.077 IEC†	156.0	160.4	5654.1	ug/L	5654.1	ppb	14:35:50
1	Na 589.592 Radial†	998.9	2108.6	637.75	ug/L	637.75	ppb	14:35:30
1	Sr 421.552†	9289.5	9577.4	67.127	ug/L	67.127	ppb	14:35:30
1	Sc 361.383	850243.6	850243.6	98.625	%			14:36:47
1	Y 371.029	727287.6	727287.6	101.78	%			14:36:47
1	Ag 328.068†	-1579.1	-1829.9	1.7677	ug/L	1.7677	ppb	14:36:47
1	As 188.979†	-34.9	-1.5	13.122	ug/L	13.122	ppb	14:37:07
1	B 249.677†	213.6	755.6	13.003	ug/L	13.003	ppb	14:36:47
1	Ba 233.527†	26188.8	26565.4	217.95	ug/L	217.95	ppb	14:36:47
1	Be 313.107†	-2929.6	1368.3	2.2522	ug/L	2.2522	ppb	14:36:47
1	Cd 226.502†	35.2	247.6	-0.2076	ug/L	-0.2076	ppb	14:37:07
1	Co 228.616†	236.5	313.5	4.8918	ug/L	4.8918	ppb	14:37:07
1	Cr 267.716†	1498.0	1452.1	17.562	ug/L	17.562	ppb	14:36:47
1	Cu 324.752†	9445.9	3756.9	13.036	ug/L	13.036	ppb	14:36:47
1	Mn 257.610†	181141.8	183214.7	213.57	ug/L	213.57	ppb	14:36:47
1	Mo 202.031†	-8.7	-24.4	0.6095	ug/L	0.6095	ppb	14:37:07
1	Ni 231.604†	584.5	484.7	12.552	ug/L	12.552	ppb	14:37:07
1	P 214.914†	418.0	195.8	102.52	ug/L	102.52	ppb	14:37:07
1	Pb 220.353†	111.8	175.1	25.514	ug/L	25.514	ppb	14:37:07
1	S 181.975 Axial†	100.8	62.8	85.909	ug/L	85.909	ppb	14:37:07
1	Sb 206.836†	44.1	2.6	-2.8200	ug/L	-2.8200	ppb	14:37:07
1	Se 196.026†	-157.3	-137.3	6.7548	ug/L	6.7548	ppb	14:37:07
1	Si 251.611†	98351.1	99159.7	3316.8	ug/L	3316.8	ppb	14:36:47
1	Sn 189.927†	-21.7	-30.7	-4.3411	ug/L	-4.3411	ppb	14:37:07
1	Ti 334.940†	465443.6	473234.2	767.85	ug/L	767.85	ppb	14:36:47
1	Tl 190.801†	-66.0	-32.7	-3.1991	ug/L	-3.1991	ppb	14:37:07
1	U 409.014†	-4448.9	-1530.9	-47.907	ug/L	-47.907	ppb	14:36:47
1	V 292.402†	2842.4	4436.7	26.957	ug/L	26.957	ppb	14:36:47
1	Zn 213.857†	6712.1	6092.4	55.444	ug/L	55.444	ppb	14:36:47
1	SiO2†	97751.4	98530.8	7028.4	ug/L	7028.4	ppb	14:38:04
2	Sc Radial	4788.0	4788.0	99.6	%			14:35:55
2	Y RADIAL	5294.0	5294.0	105.9	%			14:35:55
2	Al 396.153Radial†	30382.3	30653.8	28450	ug/L	28450	ppb	14:35:55
2	Ca 317.933Radial†	3255.9	3252.1	5390.1	ug/L	5390.1	ppb	14:36:15
2	Fe 238.204 Radial†	3281.7	3283.1	29872	ug/L	29872	ppb	14:36:15
2	K 766.490 Radial†	21099.0	18356.6	3238.2	ug/L	3238.2	ppb	14:35:55
2	Mg 279.077 IEC†	161.1	161.3	5687.2	ug/L	5687.2	ppb	14:36:15
2	Na 589.592 Radial†	908.4	1990.5	602.01	ug/L	602.01	ppb	14:35:55
2	Sr 421.552†	8867.8	8900.7	62.381	ug/L	62.381	ppb	14:35:55
2	Sc 361.383	849184.6	849184.6	98.503	%			14:37:13
2	Y 371.029	726082.0	726082.0	101.61	%			14:37:13
2	Ag 328.068†	-1517.1	-1769.0	1.8438	ug/L	1.8438	ppb	14:37:13
2	As 188.979†	-33.5	-0.2	13.580	ug/L	13.580	ppb	14:37:33
2	B 249.677†	200.8	742.9	12.802	ug/L	12.802	ppb	14:37:13
2	Ba 233.527†	26160.6	26569.9	217.97	ug/L	217.97	ppb	14:37:13
2	Be 313.107†	-2875.6	1419.4	2.2719	ug/L	2.2719	ppb	14:37:13
2	Cd 226.502†	16.6	228.7	-0.3670	ug/L	-0.3670	ppb	14:37:33
2	Co 228.616†	235.1	312.4	4.8776	ug/L	4.8776	ppb	14:37:33
2	Cr 267.716†	1486.7	1442.5	17.438	ug/L	17.438	ppb	14:37:13
2	Cu 324.752†	9497.4	3821.0	13.198	ug/L	13.198	ppb	14:37:13
2	Mn 257.610†	181028.5	183328.7	213.64	ug/L	213.64	ppb	14:37:13
2	Mo 202.031†	-3.1	-18.7	0.9853	ug/L	0.9853	ppb	14:37:33
2	Ni 231.604†	587.8	488.7	12.656	ug/L	12.656	ppb	14:37:33

2	P 214.914†	403.1	181.2	93.432	ug/L	93.432 ppb	14:37:33
2	Pb 220.353†	142.4	206.2	29.041	ug/L	29.041 ppb	14:37:33
2	S 181.975 Axial†	101.2	63.4	87.153	ug/L	87.153 ppb	14:37:33
2	Sb 206.836†	44.3	2.8	-2.6473	ug/L	-2.6473 ppb	14:37:33
2	Se 196.026†	-149.6	-129.8	9.7371	ug/L	9.7371 ppb	14:37:33
2	Si 251.611†	98641.0	99578.3	3330.8	ug/L	3330.8 ppb	14:37:13
2	Sn 189.927†	-15.7	-24.6	-3.2512	ug/L	-3.2512 ppb	14:37:33
2	Ti 334.940†	465044.6	473417.7	768.13	ug/L	768.13 ppb	14:37:13
2	Tl 190.801†	-47.6	-14.1	2.7731	ug/L	2.7731 ppb	14:37:33
2	U 409.014†	-4509.5	-1598.0	-49.780	ug/L	-49.780 ppb	14:37:13
2	V 292.402†	2826.9	4424.5	26.963	ug/L	26.963 ppb	14:37:13
2	Zn 213.857†	6690.1	6078.6	55.401	ug/L	55.401 ppb	14:37:13
2	SiO2†	98646.4	99563.0	7102.1	ug/L	7102.1 ppb	14:38:09
3	Sc Radial	4875.1	4875.1	101	%		14:36:20
3	Y RADIAL	5364.9	5364.9	107.3	%		14:36:20
3	Al 396.153Radial†	30745.7	30467.2	28277	ug/L	28277 ppb	14:36:20
3	Ca 317.933Radial†	3261.2	3198.9	5302.0	ug/L	5302.0 ppb	14:36:40
3	Fe 238.204 Radial†	3281.7	3224.3	29337	ug/L	29337 ppb	14:36:40
3	K 766.490 Radial†	21196.7	18074.5	3188.4	ug/L	3188.4 ppb	14:36:20
3	Mg 279.077 IEC†	157.3	154.7	5451.3	ug/L	5451.3 ppb	14:36:40
3	Na 589.592 Radial†	856.6	1923.1	581.65	ug/L	581.65 ppb	14:36:20
3	Sr 421.552†	8955.8	8828.4	61.876	ug/L	61.876 ppb	14:36:20
3	Sc 361.383	849124.4	849124.4	98.496	%		14:37:38
3	Y 371.029	726430.1	726430.1	101.66	%		14:37:38
3	Ag 328.068†	-1533.2	-1785.4	1.5865	ug/L	1.5865 ppb	14:37:38
3	As 188.979†	-31.2	2.2	14.526	ug/L	14.526 ppb	14:37:58
3	B 249.677†	228.5	771.0	13.558	ug/L	13.558 ppb	14:37:38
3	Ba 233.527†	26045.7	26455.1	217.01	ug/L	217.01 ppb	14:37:38
3	Be 313.107†	-3006.5	1286.3	2.2230	ug/L	2.2230 ppb	14:37:38
3	Cd 226.502†	31.6	244.0	-0.1307	ug/L	-0.1307 ppb	14:37:58
3	Co 228.616†	250.7	328.2	5.2302	ug/L	5.2302 ppb	14:37:58
3	Cr 267.716†	1433.1	1388.2	16.796	ug/L	16.796 ppb	14:37:38
3	Cu 324.752†	9399.3	3722.1	12.871	ug/L	12.871 ppb	14:37:38
3	Mn 257.610†	180462.8	182767.4	212.95	ug/L	212.95 ppb	14:37:38
3	Mo 202.031†	1.1	-14.4	1.2623	ug/L	1.2623 ppb	14:37:58
3	Ni 231.604†	589.7	490.7	12.707	ug/L	12.707 ppb	14:37:58
3	P 214.914†	412.9	191.2	100.10	ug/L	100.10 ppb	14:37:58
3	Pb 220.353†	130.0	193.7	27.493	ug/L	27.493 ppb	14:37:58
3	S 181.975 Axial†	96.0	58.1	79.477	ug/L	79.477 ppb	14:37:58
3	Sb 206.836†	48.6	7.1	-1.1310	ug/L	-1.1310 ppb	14:37:58
3	Se 196.026†	-149.2	-129.4	8.2939	ug/L	8.2939 ppb	14:37:58
3	Si 251.611†	98881.4	99829.5	3339.2	ug/L	3339.2 ppb	14:37:38
3	Sn 189.927†	-15.2	-24.2	-3.1847	ug/L	-3.1847 ppb	14:37:58
3	Ti 334.940†	465179.9	473588.5	768.42	ug/L	768.42 ppb	14:37:38
3	Tl 190.801†	-58.3	-25.0	-0.7276	ug/L	-0.7276 ppb	14:37:58
3	U 409.014†	-4610.2	-1700.6	-52.691	ug/L	-52.691 ppb	14:37:38
3	V 292.402†	2731.8	4328.2	26.336	ug/L	26.336 ppb	14:37:38
3	Zn 213.857†	6652.4	6040.8	55.109	ug/L	55.109 ppb	14:37:38
3	SiO2†	96640.7	97533.7	6957.3	ug/L	6957.3 ppb	14:38:14

Mean Data: 1202035239|951404|5

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	849517.5	98.541	%	0.0730				0.07%
Sc Radial	4774.8	99.3	%	2.24				2.25%
Y 371.029	726599.9	101.68	%	0.087				0.09%
Y RADIAL	5273.7	105.5	%	2.06				1.95%
Ag 328.068†	-1794.8	1.7327	ug/L	0.13216	1.7327	ppb	0.13216	7.63%
Al 396.153Radial†	31287.3	29038	ug/L	1171.6	29038	ppb	1171.6	4.03%
As 188.979†	0.2	13.743	ug/L	0.7160	13.743	ppb	0.7160	5.21%
B 249.677†	756.5	13.121	ug/L	0.3915	13.121	ppb	0.3915	2.98%
Ba 233.527†	26530.1	217.64	ug/L	0.547	217.64	ppb	0.547	0.25%
Be 313.107†	1358.0	2.2490	ug/L	0.02463	2.2490	ppb	0.02463	1.10%
Ca 317.933Radial†	3257.1	5398.4	ug/L	100.81	5398.4	ppb	100.81	1.87%
Cd 226.502†	240.1	-0.2351	ug/L	0.12053	-0.2351	ppb	0.12053	51.26%
Co 228.616†	318.0	4.9999	ug/L	0.19961	4.9999	ppb	0.19961	3.99%
Cr 267.716†	1427.6	17.265	ug/L	0.4110	17.265	ppb	0.4110	2.38%
Cu 324.752†	3766.7	13.035	ug/L	0.1634	13.035	ppb	0.1634	1.25%
Fe 238.204 Radial†	3286.7	29905	ug/L	584.9	29905	ppb	584.9	1.96%
K 766.490 Radial†	18650.7	3290.1	ug/L	135.31	3290.1	ppb	135.31	4.11%

Mg 279.077 IEC†	158.8	5597.5	ug/L	127.70	5597.5	ppb	127.70	2.28%
Mn 257.610†	183103.6	213.39	ug/L	0.380	213.39	ppb	0.380	0.18%
Mo 202.031†	-19.1	0.9524	ug/L	0.32761	0.9524	ppb	0.32761	34.40%
Na 589.592 Radial†	2007.4	607.14	ug/L	28.396	607.14	ppb	28.396	4.68%
Ni 231.604†	488.0	12.638	ug/L	0.0793	12.638	ppb	0.0793	0.63%
P 214.914†	189.4	98.684	ug/L	4.7063	98.684	ppb	4.7063	4.77%
Pb 220.353†	191.7	27.349	ug/L	1.7683	27.349	ppb	1.7683	6.47%
S 181.975 Axial†	61.5	84.180	ug/L	4.1196	84.180	ppb	4.1196	4.89%
Sb 206.836†	4.2	-2.1994	ug/L	0.92932	-2.1994	ppb	0.92932	42.25%
Se 196.026†	-132.2	8.2620	ug/L	1.49140	8.2620	ppb	1.49140	18.05%
Si 251.611†	99522.5	3328.9	ug/L	11.31	3328.9	ppb	11.31	0.34%
Sn 189.927†	-26.5	-3.5923	ug/L	0.64930	-3.5923	ppb	0.64930	18.07%
Sr 421.552†	9102.2	63.795	ug/L	2.8968	63.795	ppb	2.8968	4.54%
Ti 334.940†	473413.5	768.13	ug/L	0.283	768.13	ppb	0.283	0.04%
Tl 190.801†	-23.9	-0.3846	ug/L	3.00084	-0.3846	ppb	3.00084	780.35%
U 409.014†	-1609.8	-50.126	ug/L	2.4111	-50.126	ppb	2.4111	4.81%
V 292.402†	4396.5	26.752	ug/L	0.3604	26.752	ppb	0.3604	1.35%
Zn 213.857†	6070.6	55.318	ug/L	0.1824	55.318	ppb	0.1824	0.33%
SiO2†	98542.5	7029.3	ug/L	72.38	7029.3	ppb	72.38	1.03%

Sequence No.: 8
Sample ID: 246333002|951404|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 45
Date Collected: 2/11/2010 14:40:24
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 246333002|951404|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4761.1	4761.1	99.0	%			14:42:17
1	Y RADIAL	5821.2	5821.2	116.4	%			14:42:17
1	Al 396.153Radial†	9706.2	9951.2	9235.8	ug/L	9235.8	ppb	14:42:17
1	Ca 317.933Radial†	4380.9	4406.3	7303.2	ug/L	7303.2	ppb	14:42:17
1	Fe 238.204 Radial†	9316.4	9394.6	85479	ug/L	85479	ppb	14:42:17
1	K 766.490 Radial†	28184.0	25629.6	4520.0	ug/L	4520.0	ppb	14:42:17
1	Mg 279.077 IEC†	167.7	168.9	5896.6	ug/L	5896.6	ppb	14:42:37
1	Na 589.592 Radial†	5864.0	6998.9	2116.8	ug/L	2116.8	ppb	14:42:17
1	Sr 421.552†	4511.5	4552.8	31.875	ug/L	31.875	ppb	14:42:17
1	Sc 361.383	861778.7	861778.7	99.963	%			14:43:35
1	Y 371.029	817579.9	817579.9	114.41	%			14:43:35
1	Ag 328.068†	-5028.4	-5259.0	4.4812	ug/L	4.4812	ppb	14:43:40
1	As 188.979†	-80.7	-46.9	43.604	ug/L	43.604	ppb	14:44:00
1	B 249.677†	346.6	885.8	7.1362	ug/L	7.1362	ppb	14:43:40
1	Ba 233.527†	21242.9	21262.2	176.39	ug/L	176.39	ppb	14:43:40
1	Be 313.107†	-33277.8	-28951.3	0.9684	ug/L	0.9684	ppb	14:43:40
1	Cd 226.502†	519.1	731.2	-0.1761	ug/L	-0.1761	ppb	14:44:00
1	Co 228.616†	824.4	898.4	7.6177	ug/L	7.6177	ppb	14:44:00
1	Cr 267.716†	3061.3	2995.6	36.744	ug/L	36.744	ppb	14:44:00
1	Cu 324.752†	9171.2	3353.8	14.856	ug/L	14.856	ppb	14:43:40
1	Mn 257.610†	1888211.0	1888450.9	2180.9	ug/L	2180.9	ppb	14:43:35
1	Mo 202.031†	35.8	20.3	8.2433	ug/L	8.2433	ppb	14:44:00
1	Ni 231.604†	1046.5	938.9	24.312	ug/L	24.312	ppb	14:44:00
1	P 214.914†	3087.0	2860.1	1711.4	ug/L	1711.4	ppb	14:44:00
1	Pb 220.353†	200.0	261.8	26.598	ug/L	26.598	ppb	14:44:00
1	S 181.975 Axial†	71.7	32.4	45.499	ug/L	45.499	ppb	14:44:00
1	Sb 206.836†	77.1	35.0	-5.6396	ug/L	-5.6396	ppb	14:44:00
1	Se 196.026†	-390.4	-368.4	27.518	ug/L	27.518	ppb	14:44:00
1	Si 251.611†	292112.0	291656.7	9755.5	ug/L	9755.5	ppb	14:43:40
1	Sn 189.927†	92.7	84.0	18.137	ug/L	18.137	ppb	14:44:00
1	Ti 334.940†	3188994.8	3191466.3	5177.0	ug/L	5177.0	ppb	14:43:35
1	Tl 190.801†	-182.5	-148.4	5.5766	ug/L	5.5766	ppb	14:44:00
1	U 409.014†	-12838.6	-9863.3	-295.82	ug/L	-295.82	ppb	14:43:35
1	V 292.402†	7649.8	9207.2	48.508	ug/L	48.508	ppb	14:43:40
1	Zn 213.857†	39309.5	38610.6	367.95	ug/L	367.95	ppb	14:43:40
1	SiO2†	300016.1	299542.8	21367	ug/L	21367	ppb	14:45:09
2	Sc Radial	4983.4	4983.4	104	%			14:42:42
2	Y RADIAL	6110.3	6110.3	122.2	%			14:42:42
2	Al 396.153Radial†	9927.4	9727.4	9028.0	ug/L	9028.0	ppb	14:42:42
2	Ca 317.933Radial†	4445.0	4270.8	7078.6	ug/L	7078.6	ppb	14:42:42
2	Fe 238.204 Radial†	9545.3	9195.7	83668	ug/L	83668	ppb	14:42:42
2	K 766.490 Radial†	28728.8	24885.5	4388.7	ug/L	4388.7	ppb	14:42:42
2	Mg 279.077 IEC†	166.9	160.6	5602.9	ug/L	5602.9	ppb	14:43:02
2	Na 589.592 Radial†	6078.7	6941.9	2099.6	ug/L	2099.6	ppb	14:42:42
2	Sr 421.552†	4607.3	4442.0	31.099	ug/L	31.099	ppb	14:42:42
2	Sc 361.383	866677.3	866677.3	100.53	%			14:44:07
2	Y 371.029	820978.6	820978.6	114.89	%			14:44:07
2	Ag 328.068†	-5021.2	-5223.4	4.0469	ug/L	4.0469	ppb	14:44:12
2	As 188.979†	-78.5	-44.3	44.408	ug/L	44.408	ppb	14:44:32
2	B 249.677†	419.2	956.0	9.1009	ug/L	9.1009	ppb	14:44:12
2	Ba 233.527†	21551.2	21448.9	177.86	ug/L	177.86	ppb	14:44:12
2	Be 313.107†	-33699.2	-29182.3	0.8960	ug/L	0.8960	ppb	14:44:12
2	Cd 226.502†	540.8	749.9	0.2317	ug/L	0.2317	ppb	14:44:32
2	Co 228.616†	809.4	878.9	7.2036	ug/L	7.2036	ppb	14:44:32
2	Cr 267.716†	3108.7	3025.5	37.059	ug/L	37.059	ppb	14:44:32
2	Cu 324.752†	9243.8	3374.2	14.824	ug/L	14.824	ppb	14:44:12
2	Mn 257.610†	1899283.6	1888788.4	2181.1	ug/L	2181.1	ppb	14:44:07
2	Mo 202.031†	33.6	17.9	7.9195	ug/L	7.9195	ppb	14:44:32
2	Ni 231.604†	1016.3	902.9	23.379	ug/L	23.379	ppb	14:44:32

2	P 214.914†	3107.2	2862.7	1714.4 ug/L	1714.4 ppb	14:44:32
2	Pb 220.353†	177.5	238.3	23.795 ug/L	23.795 ppb	14:44:32
2	S 181.975 Axial†	69.1	29.4	41.224 ug/L	41.224 ppb	14:44:32
2	Sb 206.836†	71.4	28.9	-7.7605 ug/L	-7.7605 ppb	14:44:32
2	Se 196.026†	-398.8	-374.5	17.541 ug/L	17.541 ppb	14:44:32
2	Si 251.611†	298046.2	295907.9	9897.7 ug/L	9897.7 ppb	14:44:12
2	Sn 189.927†	92.4	83.3	17.935 ug/L	17.935 ppb	14:44:32
2	Ti 334.940†	3210821.1	3195145.6	5183.0 ug/L	5183.0 ppb	14:44:07
2	Tl 190.801†	-187.3	-152.1	4.4278 ug/L	4.4278 ppb	14:44:32
2	U 409.014†	-13000.4	-9951.6	-298.18 ug/L	-298.18 ppb	14:44:07
2	V 292.402†	7823.7	9336.9	49.694 ug/L	49.694 ppb	14:44:12
2	Zn 213.857†	39934.6	39010.2	372.17 ug/L	372.17 ppb	14:44:12
2	SiO2†	294433.9	292293.8	20850 ug/L	20850 ppb	14:45:14
3	Sc Radial	4747.7	4747.7	98.8 %		14:43:07
3	Y RADIAL	5824.8	5824.8	116.5 %		14:43:07
3	Al 396.153Radial†	9478.7	9748.6	9047.7 ug/L	9047.7 ppb	14:43:07
3	Ca 317.933Radial†	4272.3	4308.9	7141.7 ug/L	7141.7 ppb	14:43:07
3	Fe 238.204 Radial†	9116.7	9219.0	83880 ug/L	83880 ppb	14:43:07
3	K 766.490 Radial†	27569.5	25087.8	4424.4 ug/L	4424.4 ppb	14:43:07
3	Mg 279.077 IEC†	168.9	170.6	5959.3 ug/L	5959.3 ppb	14:43:27
3	Na 589.592 Radial†	5675.8	6825.1	2064.3 ug/L	2064.3 ppb	14:43:07
3	Sr 421.552†	4414.1	4467.1	31.275 ug/L	31.275 ppb	14:43:07
3	Sc 361.383	863611.2	863611.2	100.18 %		14:44:38
3	Y 371.029	819916.9	819916.9	114.74 %		14:44:38
3	Ag 328.068†	-4891.9	-5112.0	4.6375 ug/L	4.6375 ppb	14:44:44
3	As 188.979†	-70.3	-36.3	48.075 ug/L	48.075 ppb	14:45:04
3	B 249.677†	337.8	876.3	7.1697 ug/L	7.1697 ppb	14:44:44
3	Ba 233.527†	21333.8	21308.0	176.71 ug/L	176.71 ppb	14:44:44
3	Be 313.107†	-33632.9	-29235.1	0.8745 ug/L	0.8745 ppb	14:44:44
3	Cd 226.502†	518.7	729.6	-0.0306 ug/L	-0.0306 ppb	14:45:04
3	Co 228.616†	812.7	884.9	7.3338 ug/L	7.3338 ppb	14:45:04
3	Cr 267.716†	3063.6	2991.4	36.665 ug/L	36.665 ppb	14:45:04
3	Cu 324.752†	9197.3	3360.4	14.794 ug/L	14.794 ppb	14:44:44
3	Mn 257.610†	1888696.7	1884927.6	2176.7 ug/L	2176.7 ppb	14:44:38
3	Mo 202.031†	27.0	11.4	7.4518 ug/L	7.4518 ppb	14:45:04
3	Ni 231.604†	1035.5	925.6	23.969 ug/L	23.969 ppb	14:45:04
3	P 214.914†	3093.3	2859.8	1712.4 ug/L	1712.4 ppb	14:45:04
3	Pb 220.353†	212.9	274.2	28.260 ug/L	28.260 ppb	14:45:04
3	S 181.975 Axial†	70.2	30.7	43.047 ug/L	43.047 ppb	14:45:04
3	Sb 206.836†	70.6	28.3	-7.9650 ug/L	-7.9650 ppb	14:45:04
3	Se 196.026†	-400.4	-377.5	16.196 ug/L	16.196 ppb	14:45:04
3	Si 251.611†	291535.1	290460.8	9715.5 ug/L	9715.5 ppb	14:44:44
3	Sn 189.927†	90.3	81.5	17.619 ug/L	17.619 ppb	14:45:04
3	Ti 334.940†	3198969.8	3194654.6	5182.2 ug/L	5182.2 ppb	14:44:38
3	Tl 190.801†	-181.7	-147.2	5.9859 ug/L	5.9859 ppb	14:45:04
3	U 409.014†	-12991.8	-9989.0	-299.29 ug/L	-299.29 ppb	14:44:38
3	V 292.402†	7596.8	9138.1	48.218 ug/L	48.218 ppb	14:44:44
3	Zn 213.857†	39352.6	38570.3	367.79 ug/L	367.79 ppb	14:44:44
3	SiO2†	295190.6	294089.1	20978 ug/L	20978 ppb	14:45:20

Mean Data: 246333002|951404|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	864022.4	100.22	%	0.287				0.29%
Sc Radial	4830.7	100	%	2.8				2.74%
Y 371.029	819491.8	114.68	%	0.243				0.21%
Y RADIAL	5918.8	118.4	%	3.32				2.80%
Ag 328.068†	-5198.2	4.3885	ug/L	0.30601	4.3885	ppb	0.30601	6.97%
Al 396.153Radial†	9809.1	9103.8	ug/L	114.70	9103.8	ppb	114.70	1.26%
As 188.979†	-42.5	45.363	ug/L	2.3834	45.363	ppb	2.3834	5.25%
B 249.677†	906.0	7.8023	ug/L	1.12475	7.8023	ppb	1.12475	14.42%
Ba 233.527†	21339.7	176.99	ug/L	0.773	176.99	ppb	0.773	0.44%
Be 313.107†	-29122.9	0.9130	ug/L	0.04924	0.9130	ppb	0.04924	5.39%
Ca 317.933Radial†	4328.7	7174.5	ug/L	115.83	7174.5	ppb	115.83	1.61%
Cd 226.502†	736.9	0.0083	ug/L	0.20669	0.0083	ppb	0.20669	>999.9%
Co 228.616†	887.4	7.3850	ug/L	0.21173	7.3850	ppb	0.21173	2.87%
Cr 267.716†	3004.2	36.822	ug/L	0.2083	36.822	ppb	0.2083	0.57%
Cu 324.752†	3362.8	14.825	ug/L	0.0313	14.825	ppb	0.0313	0.21%
Fe 238.204 Radial†	9269.8	84342	ug/L	989.6	84342	ppb	989.6	1.17%
K 766.490 Radial†	25201.0	4444.4	ug/L	67.87	4444.4	ppb	67.87	1.53%

Mg 279.077 IEC†	166.7	5819.6	ug/L	190.25	5819.6	ppb	190.25	3.27%
Mn 257.610†	1887389.0	2179.6	ug/L	2.50	2179.6	ppb	2.50	0.11%
Mo 202.031†	16.5	7.8715	ug/L	0.39792	7.8715	ppb	0.39792	5.06%
Na 589.592 Radial†	6922.0	2093.5	ug/L	26.79	2093.5	ppb	26.79	1.28%
Ni 231.604†	922.5	23.887	ug/L	0.4716	23.887	ppb	0.4716	1.97%
P 214.914†	2860.9	1712.7	ug/L	1.53	1712.7	ppb	1.53	0.09%
Pb 220.353†	258.1	26.218	ug/L	2.2566	26.218	ppb	2.2566	8.61%
S 181.975 Axial†	30.8	43.256	ug/L	2.1453	43.256	ppb	2.1453	4.96%
Sb 206.836†	30.7	-7.1217	ug/L	1.28763	-7.1217	ppb	1.28763	18.08%
Se 196.026†	-373.5	20.419	ug/L	6.1851	20.419	ppb	6.1851	30.29%
Si 251.611†	292675.1	9789.6	ug/L	95.75	9789.6	ppb	95.75	0.98%
Sn 189.927†	82.9	17.897	ug/L	0.2611	17.897	ppb	0.2611	1.46%
Sr 421.552†	4487.3	31.417	ug/L	0.4068	31.417	ppb	0.4068	1.29%
Ti 334.940†	3193755.5	5180.7	ug/L	3.23	5180.7	ppb	3.23	0.06%
Tl 190.801†	-149.2	5.3301	ug/L	0.80777	5.3301	ppb	0.80777	15.15%
U 409.014†	-9934.6	-297.76	ug/L	1.768	-297.76	ppb	1.768	0.59%
V 292.402†	9227.4	48.807	ug/L	0.7819	48.807	ppb	0.7819	1.60%
Zn 213.857†	38730.4	369.31	ug/L	2.482	369.31	ppb	2.482	0.67%
SiO2†	295308.6	21065	ug/L	269.3	21065	ppb	269.3	1.28%

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Analysis Begun

Start Time: 2/11/2010 14:53:23 **Plasma On Time: 2/8/2010 05:57:09**
Logged In Analyst: Optima3 **Technique: ICP Continuous**
Spectrometer Model: Optima 5300 DV, S/N 077C7090601Autosampler Model: S10

Sample Information File: C:\pe\Optima3\Sample Information\021110.sif
Batch ID:
Results Data Set: 021110
Results Library: C:\pe\Optima3\Results\Results.mdb

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Sequence No.: 1 **Autosampler Location: 39**
Sample ID: 1202038898|951404|1 **Date Collected: 2/11/2010 14:53:25**
Analyst: HSC **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: 1202038898|951404|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5026.4	5026.4	105	%			14:55:37
1	Y RADIAL	5772.3	5772.3	115.4	%			14:55:37
1	Al 396.153Radial†	104211.6	99811.8	92614	ug/L	92614	ppb	14:55:17
1	Ca 317.933Radial†	59117.4	56518.8	93676	ug/L	93676	ppb	14:55:17
1	Fe 238.204 Radial†	20551.3	19642.3	178740	ug/L	178740	ppb	14:55:17
1	K 766.490 Radial†	239120.3	225851.2	39830	ug/L	39830	ppb	14:55:17
1	Mg 279.077 IEC†	1094.8	1046.6	36911	ug/L	36911	ppb	14:55:37
1	Na 589.592 Radial†	32289.8	31958.1	9665.7	ug/L	9665.7	ppb	14:55:17
1	Sr 421.552†	337804.6	323049.1	2264.9	ug/L	2264.9	ppb	14:55:17
1	Sc 361.383	869201.9	869201.9	100.82	%			14:56:38
1	Y 371.029	774949.8	774949.8	108.44	%			14:56:38
1	Ag 328.068†	49110.7	48480.3	292.33	ug/L	292.33	ppb	14:56:38
1	As 188.979†	1972.8	1990.5	995.76	ug/L	995.76	ppb	14:56:44
1	B 249.677†	59104.8	59160.5	1375.9	ug/L	1375.9	ppb	14:56:38
1	Ba 233.527†	219248.0	217466.8	1784.0	ug/L	1784.0	ppb	14:56:38
1	Be 313.107†	1937551.6	1926046.8	730.98	ug/L	730.98	ppb	14:56:38
1	Cd 226.502†	46700.3	46530.4	535.48	ug/L	535.48	ppb	14:56:44
1	Co 228.616†	40420.4	40163.6	863.16	ug/L	863.16	ppb	14:56:44
1	Cr 267.716†	187056.0	185459.6	2164.3	ug/L	2164.3	ppb	14:56:38
1	Cu 324.752†	584520.9	573920.5	1750.5	ug/L	1750.5	ppb	14:56:38
1	Mn 257.610†	4493505.8	4456310.2	5143.2	ug/L	5143.2	ppb	14:56:38
1	Mo 202.031†	6234.2	6167.7	476.87	ug/L	476.87	ppb	14:56:44
1	Ni 231.604†	47732.7	47234.4	1223.2	ug/L	1223.2	ppb	14:56:44
1	P 214.914†	12920.1	12586.4	7374.3	ug/L	7374.3	ppb	14:56:44
1	Pb 220.353†	6132.2	6143.7	771.04	ug/L	771.04	ppb	14:56:44
1	S 181.975 Axial†	2812.2	2749.8	3992.5	ug/L	3992.5	ppb	14:56:44
1	Sb 206.836†	4011.4	3936.4	1375.9	ug/L	1375.9	ppb	14:56:44
1	Se 196.026†	3107.2	3103.9	2671.6	ug/L	2671.6	ppb	14:56:44
1	Si 251.611†	851900.4	844372.1	28237	ug/L	28237	ppb	14:56:38
1	Sn 189.927†	5008.8	4959.2	937.54	ug/L	937.54	ppb	14:56:44
1	Ti 334.940†	3720538.7	3691418.8	5996.1	ug/L	5996.1	ppb	14:56:38
1	Tl 190.801†	3302.5	3309.7	1128.7	ug/L	1128.7	ppb	14:56:44
1	U 409.014†	-8666.0	-5615.1	-188.02	ug/L	-188.02	ppb	14:56:38
1	V 292.402†	160346.4	160589.9	1140.0	ug/L	1140.0	ppb	14:56:38
1	Zn 213.857†	546943.0	541757.3	5307.8	ug/L	5307.8	ppb	14:56:38
1	SiO2†	867848.4	860168.8	61345	ug/L	61345	ppb	14:57:18
2	Sc Radial	5010.7	5010.7	104	%			14:56:02
2	Y RADIAL	5751.7	5751.7	115.0	%			14:56:02
2	Al 396.153Radial†	104469.8	100372.5	93135	ug/L	93135	ppb	14:55:42
2	Ca 317.933Radial†	59250.0	56823.5	94181	ug/L	94181	ppb	14:55:42
2	Fe 238.204 Radial†	20625.5	19775.2	179950	ug/L	179950	ppb	14:55:42
2	K 766.490 Radial†	238915.1	226372.3	39921	ug/L	39921	ppb	14:55:42
2	Mg 279.077 IEC†	1102.1	1056.8	37273	ug/L	37273	ppb	14:56:02
2	Na 589.592 Radial†	32175.9	31945.7	9662.0	ug/L	9662.0	ppb	14:55:42
2	Sr 421.552†	336738.3	323040.5	2264.8	ug/L	2264.8	ppb	14:55:42
2	Sc 361.383	875713.0	875713.0	101.58	%			14:56:53
2	Y 371.029	780542.3	780542.3	109.23	%			14:56:53

2	Ag 328.068†	49611.0	48610.7	293.35 ug/L	293.35 ppb	14:56:53
2	As 188.979†	1973.3	1976.4	989.65 ug/L	989.65 ppb	14:56:58
2	B 249.677†	59671.0	59282.0	1378.6 ug/L	1378.6 ppb	14:56:53
2	Ba 233.527†	220908.7	217484.8	1784.2 ug/L	1784.2 ppb	14:56:53
2	Be 313.107†	1951594.7	1925583.2	730.80 ug/L	730.80 ppb	14:56:53
2	Cd 226.502†	46534.8	46023.0	529.32 ug/L	529.32 ppb	14:56:58
2	Co 228.616†	40314.1	39760.8	854.34 ug/L	854.34 ppb	14:56:58
2	Cr 267.716†	188421.0	185424.0	2163.9 ug/L	2163.9 ppb	14:56:53
2	Cu 324.752†	589405.2	574418.3	1752.1 ug/L	1752.1 ppb	14:56:53
2	Mn 257.610†	4525962.0	4455124.6	5141.9 ug/L	5141.9 ppb	14:56:53
2	Mo 202.031†	6226.7	6114.3	472.97 ug/L	472.97 ppb	14:56:58
2	Ni 231.604†	47516.2	46669.2	1208.5 ug/L	1208.5 ppb	14:56:58
2	P 214.914†	12859.3	12431.2	7276.6 ug/L	7276.6 ppb	14:56:58
2	Pb 220.353†	6074.4	6041.7	758.31 ug/L	758.31 ppb	14:56:58
2	S 181.975 Axial†	2815.2	2732.1	3966.5 ug/L	3966.5 ppb	14:56:58
2	Sb 206.836†	3996.8	3892.5	1360.3 ug/L	1360.3 ppb	14:56:58
2	Se 196.026†	3134.0	3107.3	2677.8 ug/L	2677.8 ppb	14:56:58
2	Si 251.611†	859697.1	845765.2	28284 ug/L	28284 ppb	14:56:53
2	Sn 189.927†	4987.6	4901.3	926.90 ug/L	926.90 ppb	14:56:58
2	Ti 334.940†	3746399.6	3689440.6	5993.0 ug/L	5993.0 ppb	14:56:53
2	Tl 190.801†	3308.1	3290.9	1122.7 ug/L	1122.7 ppb	14:56:58
2	U 409.014†	-8871.9	-5753.9	-192.19 ug/L	-192.19 ppb	14:56:53
2	V 292.402†	161454.3	160498.1	1139.1 ug/L	1139.1 ppb	14:56:53
2	Zn 213.857†	550823.7	541544.3	5305.6 ug/L	5305.6 ppb	14:56:53
2	SiO2†	854395.4	840525.1	59944 ug/L	59944 ppb	14:57:24
3	Sc Radial	4970.0	4970.0	103 %		14:56:28
3	Y RADIAL	5727.5	5727.5	114.5 %		14:56:28
3	Al 396.153Radial†	104112.8	100848.1	93576 ug/L	93576 ppb	14:56:08
3	Ca 317.933Radial†	59219.6	57259.7	94904 ug/L	94904 ppb	14:56:08
3	Fe 238.204 Radial†	20611.7	19923.9	181310 ug/L	181310 ppb	14:56:08
3	K 766.490 Radial†	238265.5	227621.3	40142 ug/L	40142 ppb	14:56:08
3	Mg 279.077 IEC†	1085.1	1049.0	36995 ug/L	36995 ppb	14:56:28
3	Na 589.592 Radial†	32125.7	32150.0	9723.7 ug/L	9723.7 ppb	14:56:08
3	Sr 421.552†	337003.9	325943.3	2285.2 ug/L	2285.2 ppb	14:56:08
3	Sc 361.383	867957.5	867957.5	100.68 %		14:57:07
3	Y 371.029	774156.4	774156.4	108.33 %		14:57:07
3	Ag 328.068†	48945.1	48385.7	292.74 ug/L	292.74 ppb	14:57:07
3	As 188.979†	2001.3	2021.7	1010.5 ug/L	1010.5 ppb	14:57:12
3	B 249.677†	59058.9	59199.0	1376.4 ug/L	1376.4 ppb	14:57:07
3	Ba 233.527†	219708.9	218236.3	1790.4 ug/L	1790.4 ppb	14:57:07
3	Be 313.107†	1937120.9	1928374.1	731.86 ug/L	731.86 ppb	14:57:07
3	Cd 226.502†	46438.5	46336.7	532.91 ug/L	532.91 ppb	14:57:12
3	Co 228.616†	40261.8	40063.6	860.93 ug/L	860.93 ppb	14:57:12
3	Cr 267.716†	187237.9	185906.3	2169.6 ug/L	2169.6 ppb	14:57:07
3	Cu 324.752†	582558.6	572802.6	1747.3 ug/L	1747.3 ppb	14:57:07
3	Mn 257.610†	4496225.9	4465401.6	5153.9 ug/L	5153.9 ppb	14:57:07
3	Mo 202.031†	6252.2	6194.4	479.09 ug/L	479.09 ppb	14:57:12
3	Ni 231.604†	47412.0	46983.7	1216.7 ug/L	1216.7 ppb	14:57:12
3	P 214.914†	12846.8	12532.0	7339.3 ug/L	7339.3 ppb	14:57:12
3	Pb 220.353†	6085.1	6105.7	766.29 ug/L	766.29 ppb	14:57:12
3	S 181.975 Axial†	2829.7	2771.3	4023.5 ug/L	4023.5 ppb	14:57:12
3	Sb 206.836†	3932.6	3863.9	1350.5 ug/L	1350.5 ppb	14:57:12
3	Se 196.026†	3128.4	3129.4	2697.0 ug/L	2697.0 ppb	14:57:12
3	Si 251.611†	851114.5	844802.9	28252 ug/L	28252 ppb	14:57:07
3	Sn 189.927†	4978.6	4936.3	933.53 ug/L	933.53 ppb	14:57:12
3	Ti 334.940†	3717979.3	3694167.2	6000.8 ug/L	6000.8 ppb	14:57:07
3	Tl 190.801†	3304.4	3316.2	1130.9 ug/L	1130.9 ppb	14:57:12
3	U 409.014†	-8626.1	-5587.8	-187.54 ug/L	-187.54 ppb	14:57:07
3	V 292.402†	160210.6	160683.0	1140.3 ug/L	1140.3 ppb	14:57:07
3	Zn 213.857†	547105.6	542696.6	5316.7 ug/L	5316.7 ppb	14:57:07
3	SiO2†	866047.6	859614.2	61305 ug/L	61305 ppb	14:57:30

Mean Data: 1202038898|951404|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	870957.5	101.03	%	0.483				0.48%
Sc Radial	5002.4	104	%	0.6				0.58%
Y 371.029	776549.5	108.67	%	0.487				0.45%
Y RADIAL	5750.5	115.0	%	0.45				0.39%
Ag 328.068†	48492.3	292.81	ug/L	0.512	292.81	ppb	0.512	0.17%

Al 396.153Radial†	100344.1	93108	ug/L	481.4	93108	ppb	481.4	0.52%
As 188.979†	1996.2	998.65	ug/L	10.740	998.65	ppb	10.740	1.08%
B 249.677†	59213.8	1377.0	ug/L	1.45	1377.0	ppb	1.45	0.11%
Ba 233.527†	217729.3	1786.2	ug/L	3.62	1786.2	ppb	3.62	0.20%
Be 313.107†	1926668.1	731.21	ug/L	0.565	731.21	ppb	0.565	0.08%
Ca 317.933Radial†	56867.3	94254	ug/L	617.2	94254	ppb	617.2	0.65%
Cd 226.502†	46296.7	532.57	ug/L	3.097	532.57	ppb	3.097	0.58%
Co 228.616†	39996.0	859.47	ug/L	4.585	859.47	ppb	4.585	0.53%
Cr 267.716†	185596.6	2165.9	ug/L	3.15	2165.9	ppb	3.15	0.15%
Cu 324.752†	573713.8	1750.0	ug/L	2.46	1750.0	ppb	2.46	0.14%
Fe 238.204 Radial†	19780.5	180000	ug/L	1281.7	180000	ppb	1281.7	0.71%
K 766.490 Radial†	226615.0	39964	ug/L	160.3	39964	ppb	160.3	0.40%
Mg 279.077 IEC†	1050.8	37060	ug/L	189.6	37060	ppb	189.6	0.51%
Mn 257.610†	4458945.4	5146.4	ug/L	6.58	5146.4	ppb	6.58	0.13%
Mo 202.031†	6158.8	476.31	ug/L	3.095	476.31	ppb	3.095	0.65%
Na 589.592 Radial†	32018.0	9683.8	ug/L	34.64	9683.8	ppb	34.64	0.36%
Ni 231.604†	46962.4	1216.1	ug/L	7.33	1216.1	ppb	7.33	0.60%
P 214.914†	12516.5	7330.1	ug/L	49.54	7330.1	ppb	49.54	0.68%
Pb 220.353†	6097.0	765.21	ug/L	6.436	765.21	ppb	6.436	0.84%
S 181.975 Axial†	2751.0	3994.2	ug/L	28.56	3994.2	ppb	28.56	0.72%
Sb 206.836†	3897.6	1362.2	ug/L	12.80	1362.2	ppb	12.80	0.94%
Se 196.026†	3113.6	2682.1	ug/L	13.29	2682.1	ppb	13.29	0.50%
Si 251.611†	844980.1	28258	ug/L	23.9	28258	ppb	23.9	0.08%
Sn 189.927†	4932.3	932.66	ug/L	5.373	932.66	ppb	5.373	0.58%
Sr 421.552†	324011.0	2271.6	ug/L	11.73	2271.6	ppb	11.73	0.52%
Ti 334.940†	3691675.5	5996.6	ug/L	3.91	5996.6	ppb	3.91	0.07%
Tl 190.801†	3305.6	1127.5	ug/L	4.25	1127.5	ppb	4.25	0.38%
U 409.014†	-5652.2	-189.25	ug/L	2.555	-189.25	ppb	2.555	1.35%
V 292.402†	160590.3	1139.8	ug/L	0.63	1139.8	ppb	0.63	0.06%
Zn 213.857†	541999.4	5310.0	ug/L	5.89	5310.0	ppb	5.89	0.11%
SiO2†	853436.0	60865	ug/L	797.7	60865	ppb	797.7	1.31%

Sequence No.: 2
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/11/2010 14:59:41
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4896.9	4896.9	102	%			15:01:33
1	Y RADIAL	5064.3	5064.3	101.3	%			15:01:33
1	Al 396.153Radial†	5362.8	5415.8	5002.8	ug/L	5002.8	ppb	15:01:33
1	Ca 317.933Radial†	3076.8	3003.5	4978.2	ug/L	4978.2	ppb	15:01:53
1	Fe 238.204 Radial†	567.7	545.8	4981.4	ug/L	4981.4	ppb	15:01:53
1	K 766.490 Radial†	31444.5	28040.8	4943.4	ug/L	4943.4	ppb	15:01:33
1	Mg 279.077 IEC†	144.9	141.8	5026.7	ug/L	5026.7	ppb	15:01:53
1	Na 589.592 Radial†	32560.6	33040.7	9993.1	ug/L	9993.1	ppb	15:01:33
1	Sr 421.552†	75675.9	74282.9	520.92	ug/L	520.92	ppb	15:01:33
1	Sc 361.383	855266.4	855266.4	99.208	%			15:02:50
1	Y 371.029	690506.7	690506.7	96.628	%			15:02:50
1	Ag 328.068†	105333.1	105945.2	502.39	ug/L	502.39	ppb	15:02:55
1	As 188.979†	1043.7	1085.9	497.05	ug/L	497.05	ppb	15:03:15
1	B 249.677†	20778.5	21483.5	508.80	ug/L	508.80	ppb	15:02:55
1	Ba 233.527†	61683.7	62187.7	509.11	ug/L	509.11	ppb	15:02:55
1	Be 313.107†	1311373.8	1326181.8	495.10	ug/L	495.10	ppb	15:02:50
1	Cd 226.502†	41257.9	41799.2	496.85	ug/L	496.85	ppb	15:02:55
1	Co 228.616†	23451.2	23712.1	517.98	ug/L	517.98	ppb	15:02:55
1	Cr 267.716†	42320.1	42591.2	496.45	ug/L	496.45	ppb	15:02:55
1	Cu 324.752†	171769.0	167319.6	507.55	ug/L	507.55	ppb	15:02:55
1	Mn 257.610†	435123.8	438145.7	504.38	ug/L	504.38	ppb	15:02:50
1	Mo 202.031†	6473.5	6509.6	487.94	ug/L	487.94	ppb	15:03:15
1	Ni 231.604†	19245.0	19290.6	499.45	ug/L	499.45	ppb	15:02:55
1	P 214.914†	4150.0	3955.0	2362.1	ug/L	2362.1	ppb	15:03:15
1	Pb 220.353†	3807.0	3899.2	488.02	ug/L	488.02	ppb	15:03:15
1	S 181.975 Axial†	705.5	671.8	978.66	ug/L	978.66	ppb	15:03:15
1	Sb 206.836†	1426.2	1395.5	503.86	ug/L	503.86	ppb	15:03:15
1	Se 196.026†	699.5	727.2	507.58	ug/L	507.58	ppb	15:03:15
1	Si 251.611†	75576.4	75617.5	2523.3	ug/L	2523.3	ppb	15:02:55
1	Sn 189.927†	2594.2	2606.2	484.49	ug/L	484.49	ppb	15:03:15
1	Ti 334.940†	307425.7	311183.2	504.58	ug/L	504.58	ppb	15:02:55
1	Tl 190.801†	1509.1	1555.4	501.82	ug/L	501.82	ppb	15:03:15
1	U 409.014†	14058.7	17151.0	495.64	ug/L	495.64	ppb	15:02:55
1	V 292.402†	66247.2	68330.7	502.73	ug/L	502.73	ppb	15:02:55
1	Zn 213.857†	51389.5	51086.5	499.38	ug/L	499.38	ppb	15:02:55
1	SiO2†	74555.9	74568.0	5305.8	ug/L	5305.8	ppb	15:04:23
2	Sc Radial	4831.8	4831.8	101	%			15:01:58
2	Y RADIAL	5051.5	5051.5	101.0	%			15:01:58
2	Al 396.153Radial†	5389.0	5512.8	5092.5	ug/L	5092.5	ppb	15:01:58
2	Ca 317.933Radial†	3110.2	3077.4	5100.6	ug/L	5100.6	ppb	15:02:18
2	Fe 238.204 Radial†	572.2	557.7	5090.2	ug/L	5090.2	ppb	15:02:18
2	K 766.490 Radial†	31116.0	28130.1	4959.2	ug/L	4959.2	ppb	15:01:58
2	Mg 279.077 IEC†	150.7	149.5	5297.6	ug/L	5297.6	ppb	15:02:18
2	Na 589.592 Radial†	31875.7	32790.0	9917.3	ug/L	9917.3	ppb	15:01:58
2	Sr 421.552†	74806.6	74419.1	521.87	ug/L	521.87	ppb	15:01:58
2	Sc 361.383	844722.4	844722.4	97.985	%			15:03:21
2	Y 371.029	682760.1	682760.1	95.544	%			15:03:21
2	Ag 328.068†	104784.6	106710.7	506.05	ug/L	506.05	ppb	15:03:26
2	As 188.979†	1057.1	1112.7	509.26	ug/L	509.26	ppb	15:03:47
2	B 249.677†	20588.7	21551.2	510.39	ug/L	510.39	ppb	15:03:26
2	Ba 233.527†	61277.4	62549.2	512.08	ug/L	512.08	ppb	15:03:26
2	Be 313.107†	1295669.2	1326653.8	495.29	ug/L	495.29	ppb	15:03:21
2	Cd 226.502†	40938.2	41992.0	499.14	ug/L	499.14	ppb	15:03:26
2	Co 228.616†	23279.8	23832.3	520.62	ug/L	520.62	ppb	15:03:26
2	Cr 267.716†	42080.8	42879.5	499.81	ug/L	499.81	ppb	15:03:26
2	Cu 324.752†	170708.1	168398.0	510.82	ug/L	510.82	ppb	15:03:26
2	Mn 257.610†	428929.0	437298.2	503.40	ug/L	503.40	ppb	15:03:21
2	Mo 202.031†	6474.5	6592.1	494.12	ug/L	494.12	ppb	15:03:47
2	Ni 231.604†	19121.0	19406.2	502.44	ug/L	502.44	ppb	15:03:26

2	P 214.914†	4157.0	4014.4	2398.5 ug/L	2398.5 ppb	15:03:47
2	Pb 220.353†	3816.0	3956.2	495.16 ug/L	495.16 ppb	15:03:47
2	S 181.975 Axial†	702.0	677.1	986.38 ug/L	986.38 ppb	15:03:47
2	Sb 206.836†	1428.1	1415.3	511.03 ug/L	511.03 ppb	15:03:47
2	Se 196.026†	701.8	738.3	515.47 ug/L	515.47 ppb	15:03:47
2	Si 251.611†	74822.9	75799.4	2529.3 ug/L	2529.3 ppb	15:03:26
2	Sn 189.927†	2609.1	2654.1	493.39 ug/L	493.39 ppb	15:03:47
2	Ti 334.940†	305426.0	313010.3	507.54 ug/L	507.54 ppb	15:03:26
2	Tl 190.801†	1502.3	1567.3	505.65 ug/L	505.65 ppb	15:03:47
2	U 409.014†	14046.2	17315.1	500.38 ug/L	500.38 ppb	15:03:26
2	V 292.402†	65892.7	68802.5	506.23 ug/L	506.23 ppb	15:03:26
2	Zn 213.857†	51083.3	51420.6	502.64 ug/L	502.64 ppb	15:03:26
2	SiO2†	74890.6	75847.6	5396.9 ug/L	5396.9 ppb	15:04:28
3	Sc Radial	4861.1	4861.1	101 %		15:02:23
3	Y RADIAL	5095.8	5095.8	101.9 %		15:02:23
3	Al 396.153Radial†	5342.4	5434.4	5019.9 ug/L	5019.9 ppb	15:02:23
3	Ca 317.933Radial†	3064.7	3013.9	4995.3 ug/L	4995.3 ppb	15:02:43
3	Fe 238.204 Radial†	570.0	552.1	5039.4 ug/L	5039.4 ppb	15:02:43
3	K 766.490 Radial†	31421.8	28245.8	4979.6 ug/L	4979.6 ppb	15:02:23
3	Mg 279.077 IEC†	148.1	146.0	5174.3 ug/L	5174.3 ppb	15:02:43
3	Na 589.592 Radial†	32126.6	32846.9	9934.5 ug/L	9934.5 ppb	15:02:23
3	Sr 421.552†	75217.1	74376.3	521.58 ug/L	521.58 ppb	15:02:23
3	Sc 361.383	854008.1	854008.1	99.062 %		15:03:52
3	Y 371.029	691507.2	691507.2	96.768 %		15:03:52
3	Ag 328.068†	106127.9	106904.0	506.95 ug/L	506.95 ppb	15:03:57
3	As 188.979†	1056.6	1100.4	503.69 ug/L	503.69 ppb	15:04:18
3	B 249.677†	21061.8	21800.3	516.32 ug/L	516.32 ppb	15:03:57
3	Ba 233.527†	62128.7	62728.5	513.54 ug/L	513.54 ppb	15:03:57
3	Be 313.107†	1313718.8	1330496.6	496.72 ug/L	496.72 ppb	15:03:52
3	Cd 226.502†	41590.7	42196.4	501.57 ug/L	501.57 ppb	15:03:57
3	Co 228.616†	23635.8	23933.3	522.81 ug/L	522.81 ppb	15:03:57
3	Cr 267.716†	42682.2	43019.6	501.44 ug/L	501.44 ppb	15:03:57
3	Cu 324.752†	173224.8	169044.3	512.78 ug/L	512.78 ppb	15:03:57
3	Mn 257.610†	432964.7	436612.4	502.62 ug/L	502.62 ppb	15:03:52
3	Mo 202.031†	6524.6	6570.9	492.53 ug/L	492.53 ppb	15:04:18
3	Ni 231.604†	19378.9	19454.4	503.69 ug/L	503.69 ppb	15:03:57
3	P 214.914†	4194.6	4006.3	2393.0 ug/L	2393.0 ppb	15:04:18
3	Pb 220.353†	3840.2	3938.3	492.91 ug/L	492.91 ppb	15:04:18
3	S 181.975 Axial†	715.7	683.1	995.16 ug/L	995.16 ppb	15:04:18
3	Sb 206.836†	1436.0	1407.5	508.21 ug/L	508.21 ppb	15:04:18
3	Se 196.026†	726.4	755.4	526.83 ug/L	526.83 ppb	15:04:18
3	Si 251.611†	76128.3	76286.8	2545.6 ug/L	2545.6 ppb	15:03:57
3	Sn 189.927†	2616.6	2632.6	489.40 ug/L	489.40 ppb	15:04:18
3	Ti 334.940†	309943.9	314181.8	509.43 ug/L	509.43 ppb	15:03:57
3	Tl 190.801†	1530.4	1579.1	509.42 ug/L	509.42 ppb	15:04:18
3	U 409.014†	14182.3	17296.7	499.85 ug/L	499.85 ppb	15:03:57
3	V 292.402†	66801.0	68988.1	507.56 ug/L	507.56 ppb	15:03:57
3	Zn 213.857†	51777.5	51554.5	503.95 ug/L	503.95 ppb	15:03:57
3	SiO2†	75058.2	75185.8	5349.7 ug/L	5349.7 ppb	15:04:33

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	851332.3	98.752	%	0.6680				0.68%
Sc Radial	4863.3	101	%	0.7				0.67%
Y 371.029	688258.0	96.313	%	0.6700				0.70%
Y RADIAL	5070.6	101.4	%	0.46				0.45%
Ag 328.068†	106520.0	505.13	ug/L	2.411	505.13	ppb	2.411	0.48%
QC value within limits for Ag 328.068 Recovery = 101.03%								
Al 396.153Radial†	5454.3	5038.4	ug/L	47.64	5038.4	ppb	47.64	0.95%
QC value within limits for Al 396.153Radial Recovery = 100.77%								
As 188.979†	1099.7	503.33	ug/L	6.113	503.33	ppb	6.113	1.21%
QC value within limits for As 188.979 Recovery = 100.67%								
B 249.677†	21611.6	511.84	ug/L	3.960	511.84	ppb	3.960	0.77%
QC value within limits for B 249.677 Recovery = 102.37%								
Ba 233.527†	62488.5	511.58	ug/L	2.256	511.58	ppb	2.256	0.44%
QC value within limits for Ba 233.527 Recovery = 102.32%								
Be 313.107†	1327777.4	495.70	ug/L	0.886	495.70	ppb	0.886	0.18%
QC value within limits for Be 313.107 Recovery = 99.14%								
Ca 317.933Radial†	3031.6	5024.7	ug/L	66.33	5024.7	ppb	66.33	1.32%

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   QC value within limits for Ca 317.933Radial  Recovery = 100.49%
Cd 226.502†          41995.9      499.19 ug/L        2.360      499.19 ppb        2.360   0.47%
   QC value within limits for Cd 226.502  Recovery = 99.84%
Co 228.616†          23825.9      520.47 ug/L        2.419      520.47 ppb        2.419   0.46%
   QC value within limits for Co 228.616  Recovery = 104.09%
Cr 267.716†          42830.1      499.23 ug/L        2.546      499.23 ppb        2.546   0.51%
   QC value within limits for Cr 267.716  Recovery = 99.85%
Cu 324.752†         168253.9      510.38 ug/L        2.644      510.38 ppb        2.644   0.52%
   QC value within limits for Cu 324.752  Recovery = 102.08%
Fe 238.204 Radial†     551.9      5037.0 ug/L       54.44      5037.0 ppb       54.44   1.08%
   QC value within limits for Fe 238.204 Radial  Recovery = 100.74%
K 766.490 Radial†    28138.9      4960.7 ug/L       18.14      4960.7 ppb       18.14   0.37%
   QC value within limits for K 766.490 Radial  Recovery = 99.21%
Mg 279.077 IEC†        145.8      5166.2 ug/L      135.63      5166.2 ppb      135.63   2.63%
   QC value within limits for Mg 279.077 IEC  Recovery = 103.32%
Mn 257.610†         437352.1      503.47 ug/L        0.884      503.47 ppb        0.884   0.18%
   QC value within limits for Mn 257.610  Recovery = 100.69%
Mo 202.031†          6557.5      491.53 ug/L        3.213      491.53 ppb        3.213   0.65%
   QC value within limits for Mo 202.031  Recovery = 98.31%
Na 589.592 Radial†   32892.5      9948.3 ug/L       39.75      9948.3 ppb       39.75   0.40%
   QC value within limits for Na 589.592 Radial  Recovery = 99.48%
Ni 231.604†          19383.8      501.86 ug/L        2.179      501.86 ppb        2.179   0.43%
   QC value within limits for Ni 231.604  Recovery = 100.37%
P 214.914†            3991.9      2384.5 ug/L       19.59      2384.5 ppb       19.59   0.82%
   QC value within limits for P 214.914  Recovery = 95.38%
Pb 220.353†           3931.2      492.03 ug/L        3.647      492.03 ppb        3.647   0.74%
   QC value within limits for Pb 220.353  Recovery = 98.41%
S 181.975 Axial†       677.3      986.73 ug/L        8.255      986.73 ppb        8.255   0.84%
   QC value within limits for S 181.975 Axial  Recovery = 98.67%
Sb 206.836†           1406.1      507.70 ug/L        3.610      507.70 ppb        3.610   0.71%
   QC value within limits for Sb 206.836  Recovery = 101.54%
Se 196.026†            740.3      516.63 ug/L        9.677      516.63 ppb        9.677   1.87%
   QC value within limits for Se 196.026  Recovery = 103.33%
Si 251.611†          75901.2      2532.7 ug/L       11.56      2532.7 ppb       11.56   0.46%
   QC value within limits for Si 251.611  Recovery = 101.31%
Sn 189.927†           2631.0      489.09 ug/L        4.460      489.09 ppb        4.460   0.91%
   QC value within limits for Sn 189.927  Recovery = 97.82%
Sr 421.552†          74359.5      521.46 ug/L        0.488      521.46 ppb        0.488   0.09%
   QC value within limits for Sr 421.552  Recovery = 104.29%
Ti 334.940†         312791.8      507.19 ug/L        2.444      507.19 ppb        2.444   0.48%
   QC value within limits for Ti 334.940  Recovery = 101.44%
Tl 190.801†           1567.3      505.63 ug/L        3.799      505.63 ppb        3.799   0.75%
   QC value within limits for Tl 190.801  Recovery = 101.13%
U 409.014†           17254.2      498.63 ug/L        2.597      498.63 ppb        2.597   0.52%
   QC value within limits for U 409.014  Recovery = 99.73%
V 292.402†           68707.1      505.51 ug/L        2.498      505.51 ppb        2.498   0.49%
   QC value within limits for V 292.402  Recovery = 101.10%
Zn 213.857†          51353.9      501.99 ug/L        2.355      501.99 ppb        2.355   0.47%
   QC value within limits for Zn 213.857  Recovery = 100.40%
SiO2†                75200.5      5350.8 ug/L       45.56      5350.8 ppb       45.56   0.85%
   QC value within limits for SiO2  Recovery = 100.06%
All analyte(s) passed QC.
```

Sequence No.: 3
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/11/2010 15:06:43
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4794.0	4794.0	99.7	%			15:08:36
1	Y RADIAL	5035.1	5035.1	100.7	%			15:08:36
1	Al 396.153Radial†	-145.2	6.0	5.5428	ug/L	5.5428	ppb	15:08:56
1	Ca 317.933Radial†	24.3	7.6	12.669	ug/L	12.669	ppb	15:08:56
1	Fe 238.204 Radial†	9.1	-2.3	-21.361	ug/L	-21.361	ppb	15:08:56
1	K 766.490 Radial†	2777.9	-40.3	-7.1527	ug/L	-7.1527	ppb	15:08:36
1	Mg 279.077 IEC†	4.7	4.3	152.14	ug/L	152.14	ppb	15:08:56
1	Na 589.592 Radial†	-843.1	233.2	70.516	ug/L	70.516	ppb	15:08:36
1	Sr 421.552†	4.6	2.5	0.0172	ug/L	0.0172	ppb	15:08:36
1	Sc 361.383	838391.8	838391.8	97.251	%			15:09:53
1	Y 371.029	685807.8	685807.8	95.970	%			15:09:53
1	Ag 328.068†	302.1	81.8	0.3787	ug/L	0.3787	ppb	15:09:53
1	As 188.979†	-24.1	9.1	4.1108	ug/L	4.1108	ppb	15:10:13
1	B 249.677†	-17.6	521.0	12.396	ug/L	12.396	ppb	15:10:13
1	Ba 233.527†	3.5	15.2	0.1227	ug/L	0.1227	ppb	15:10:13
1	Be 313.107†	-4135.9	85.9	0.0316	ug/L	0.0316	ppb	15:09:53
1	Cd 226.502†	-163.7	43.5	0.5196	ug/L	0.5196	ppb	15:10:13
1	Co 228.616†	-62.2	9.7	0.2140	ug/L	0.2140	ppb	15:10:13
1	Cr 267.716†	100.5	36.6	0.4262	ug/L	0.4262	ppb	15:10:13
1	Cu 324.752†	5755.3	97.2	0.2948	ug/L	0.2948	ppb	15:09:53
1	Mn 257.610†	791.9	362.4	0.4087	ug/L	0.4087	ppb	15:10:13
1	Mo 202.031†	23.8	8.9	0.6649	ug/L	0.6649	ppb	15:10:13
1	Ni 231.604†	117.6	12.9	0.3344	ug/L	0.3344	ppb	15:10:13
1	P 214.914†	227.9	6.3	3.9073	ug/L	3.9073	ppb	15:10:13
1	Pb 220.353†	-53.4	6.8	0.8586	ug/L	0.8586	ppb	15:10:13
1	S 181.975 Axial†	37.6	-0.7	-1.0104	ug/L	-1.0104	ppb	15:10:13
1	Sb 206.836†	44.6	3.7	1.3246	ug/L	1.3246	ppb	15:10:13
1	Se 196.026†	-22.5	-1.0	-0.7575	ug/L	-0.7575	ppb	15:10:13
1	Si 251.611†	628.9	84.4	2.8152	ug/L	2.8152	ppb	15:10:13
1	Sn 189.927†	18.0	9.8	1.8216	ug/L	1.8216	ppb	15:10:13
1	Ti 334.940†	-1361.6	-96.9	-0.1673	ug/L	-0.1673	ppb	15:09:53
1	Tl 190.801†	-30.1	3.3	1.0561	ug/L	1.0561	ppb	15:10:13
1	U 409.014†	-2955.8	-59.3	-1.7194	ug/L	-1.7194	ppb	15:09:53
1	V 292.402†	-1541.4	-30.3	-0.2081	ug/L	-0.2081	ppb	15:09:53
1	Zn 213.857†	812.4	122.1	1.2054	ug/L	1.2054	ppb	15:10:13
1	SiO2†	607.8	41.8	2.9645	ug/L	2.9645	ppb	15:11:09
2	Sc Radial	4926.1	4926.1	102	%			15:09:01
2	Y RADIAL	5152.4	5152.4	103.0	%			15:09:01
2	Al 396.153Radial†	-127.4	27.3	25.250	ug/L	25.250	ppb	15:09:21
2	Ca 317.933Radial†	24.1	6.8	11.280	ug/L	11.280	ppb	15:09:21
2	Fe 238.204 Radial†	12.1	0.4	3.3027	ug/L	3.3027	ppb	15:09:21
2	K 766.490 Radial†	2880.4	-15.0	-2.6793	ug/L	-2.6793	ppb	15:09:01
2	Mg 279.077 IEC†	0.7	0.2	8.0343	ug/L	8.0343	ppb	15:09:21
2	Na 589.592 Radial†	-899.9	200.4	60.618	ug/L	60.618	ppb	15:09:01
2	Sr 421.552†	3.6	1.4	0.0101	ug/L	0.0101	ppb	15:09:01
2	Sc 361.383	847669.0	847669.0	98.327	%			15:10:18
2	Y 371.029	693856.3	693856.3	97.097	%			15:10:18
2	Ag 328.068†	282.6	58.6	0.2791	ug/L	0.2791	ppb	15:10:18
2	As 188.979†	-31.7	1.6	0.7413	ug/L	0.7413	ppb	15:10:39
2	B 249.677†	-19.9	518.8	12.341	ug/L	12.341	ppb	15:10:39
2	Ba 233.527†	-14.6	-3.2	-0.0253	ug/L	-0.0253	ppb	15:10:39
2	Be 313.107†	-4136.7	131.7	0.0491	ug/L	0.0491	ppb	15:10:18
2	Cd 226.502†	-184.0	24.8	0.2937	ug/L	0.2937	ppb	15:10:39
2	Co 228.616†	-75.5	-3.1	-0.0649	ug/L	-0.0649	ppb	15:10:39
2	Cr 267.716†	67.8	2.2	0.0261	ug/L	0.0261	ppb	15:10:39
2	Cu 324.752†	5648.7	-75.9	-0.2296	ug/L	-0.2296	ppb	15:10:18
2	Mn 257.610†	548.6	106.0	0.1220	ug/L	0.1220	ppb	15:10:39
2	Mo 202.031†	27.7	12.6	0.9463	ug/L	0.9463	ppb	15:10:39
2	Ni 231.604†	88.2	-18.3	-0.4739	ug/L	-0.4739	ppb	15:10:39

2	P 214.914†	230.5	6.4	4.0139 ug/L	4.0139 ppb	15:10:39
2	Pb 220.353†	-48.3	12.6	1.5837 ug/L	1.5837 ppb	15:10:39
2	S 181.975 Axial†	37.2	-1.5	-2.1995 ug/L	-2.1995 ppb	15:10:39
2	Sb 206.836†	33.7	-7.8	-2.7173 ug/L	-2.7173 ppb	15:10:39
2	Se 196.026†	-8.0	14.0	9.4572 ug/L	9.4572 ppb	15:10:39
2	Si 251.611†	606.5	54.6	1.8141 ug/L	1.8141 ppb	15:10:39
2	Sn 189.927†	7.1	-1.4	-0.2669 ug/L	-0.2669 ppb	15:10:39
2	Ti 334.940†	-1276.1	5.3	0.0097 ug/L	0.0097 ppb	15:10:18
2	Tl 190.801†	-35.4	-1.9	-0.5931 ug/L	-0.5931 ppb	15:10:39
2	U 409.014†	-2947.9	-18.0	-0.5234 ug/L	-0.5234 ppb	15:10:18
2	V 292.402†	-1472.4	57.2	0.4275 ug/L	0.4275 ppb	15:10:18
2	Zn 213.857†	773.7	73.7	0.7295 ug/L	0.7295 ppb	15:10:39
2	SiO2†	601.4	28.5	2.0085 ug/L	2.0085 ppb	15:11:14
3	Sc Radial	4803.6	4803.6	99.9 %		15:09:26
3	Y RADIAL	5048.4	5048.4	101.0 %		15:09:26
3	Al 396.153Radial†	-141.3	10.2	9.4508 ug/L	9.4508 ppb	15:09:47
3	Ca 317.933Radial†	29.8	13.1	21.673 ug/L	21.673 ppb	15:09:47
3	Fe 238.204 Radial†	9.0	-2.5	-22.492 ug/L	-22.492 ppb	15:09:47
3	K 766.490 Radial†	2877.2	53.5	9.4037 ug/L	9.4037 ppb	15:09:26
3	Mg 279.077 IEC†	1.0	0.5	19.175 ug/L	19.175 ppb	15:09:47
3	Na 589.592 Radial†	-861.3	216.6	65.512 ug/L	65.512 ppb	15:09:26
3	Sr 421.552†	2.1	0.0	0.0001 ug/L	0.0001 ppb	15:09:26
3	Sc 361.383	839553.0	839553.0	97.385 %		15:10:44
3	Y 371.029	688242.3	688242.3	96.311 %		15:10:44
3	Ag 328.068†	291.8	70.8	0.3211 ug/L	0.3211 ppb	15:10:44
3	As 188.979†	-22.2	11.1	5.0377 ug/L	5.0377 ppb	15:11:04
3	B 249.677†	-54.6	482.9	11.492 ug/L	11.492 ppb	15:11:04
3	Ba 233.527†	-2.2	9.3	0.0744 ug/L	0.0744 ppb	15:11:04
3	Be 313.107†	-4146.9	80.5	0.0300 ug/L	0.0300 ppb	15:10:44
3	Cd 226.502†	-192.1	14.7	0.1774 ug/L	0.1774 ppb	15:11:04
3	Co 228.616†	-67.9	4.0	0.0875 ug/L	0.0875 ppb	15:11:04
3	Cr 267.716†	71.3	6.4	0.0723 ug/L	0.0723 ppb	15:11:04
3	Cu 324.752†	5642.7	-26.5	-0.0837 ug/L	-0.0837 ppb	15:10:44
3	Mn 257.610†	557.9	121.0	0.1362 ug/L	0.1362 ppb	15:11:04
3	Mo 202.031†	18.4	3.4	0.2496 ug/L	0.2496 ppb	15:11:04
3	Ni 231.604†	90.5	-15.1	-0.3902 ug/L	-0.3902 ppb	15:11:04
3	P 214.914†	246.5	25.0	15.602 ug/L	15.602 ppb	15:11:04
3	Pb 220.353†	-65.2	-5.2	-0.6436 ug/L	-0.6436 ppb	15:11:04
3	S 181.975 Axial†	36.9	-1.5	-2.1417 ug/L	-2.1417 ppb	15:11:04
3	Sb 206.836†	39.1	-2.0	-0.6724 ug/L	-0.6724 ppb	15:11:04
3	Se 196.026†	-14.8	6.9	4.5869 ug/L	4.5869 ppb	15:11:04
3	Si 251.611†	590.8	44.4	1.4808 ug/L	1.4808 ppb	15:11:04
3	Sn 189.927†	10.5	2.1	0.3867 ug/L	0.3867 ppb	15:11:04
3	Ti 334.940†	-1257.1	12.4	0.0197 ug/L	0.0197 ppb	15:10:44
3	Tl 190.801†	-36.3	-3.1	-0.9954 ug/L	-0.9954 ppb	15:11:04
3	U 409.014†	-2772.5	133.1	3.8629 ug/L	3.8629 ppb	15:10:44
3	V 292.402†	-1567.9	-55.3	-0.3872 ug/L	-0.3872 ppb	15:10:44
3	Zn 213.857†	786.0	93.8	0.9314 ug/L	0.9314 ppb	15:11:04
3	SiO2†	580.5	13.0	0.9174 ug/L	0.9174 ppb	15:11:19

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	841871.3	97.654	%	0.5863				0.60%
Sc Radial	4841.2	101	%	1.5				1.52%
Y 371.029	689302.1	96.459	%	0.5776				0.60%
Y RADIAL	5078.6	101.6	%	1.28				1.27%
Ag 328.068†	70.4	0.3263	ug/L	0.04999	0.3263	ppb	0.04999	15.32%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	14.5	13.415	ug/L	10.4347	13.415	ppb	10.4347	77.79%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	7.3	3.2966	ug/L	2.26096	3.2966	ppb	2.26096	68.58%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	507.5	12.076	ug/L	0.5068	12.076	ppb	0.5068	4.20%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	7.1	0.0573	ug/L	0.07550	0.0573	ppb	0.07550	131.82%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	99.3	0.0369	ug/L	0.01055	0.0369	ppb	0.01055	28.59%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	9.2	15.207	ug/L	5.6425	15.207	ppb	5.6425	37.10%

```
   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              27.7      0.3302 ug/L       0.17401      0.3302 ppb        0.17401  52.69%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†               3.5      0.0789 ug/L       0.13964      0.0789 ppb        0.13964 177.06%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              15.1      0.1749 ug/L       0.21886      0.1749 ppb        0.21886 125.17%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -1.7     -0.0062 ug/L       0.27070     -0.0062 ppb        0.27070 >999.9%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       -1.5     -13.517 ug/L       14.5771     -13.517 ppb        14.5771 107.84%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        -0.6     -0.1428 ug/L       8.56471     -0.1428 ppb        8.56471 >999.9%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           1.7      59.784 ug/L       80.1792      59.784 ppb        80.1792 134.11%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†             196.5      0.2223 ug/L       0.16158      0.2223 ppb        0.16158  72.70%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               8.3      0.6203 ug/L       0.35046      0.6203 ppb        0.35046  56.50%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      216.7      65.549 ug/L        4.9491      65.549 ppb         4.9491   7.55%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              -6.8     -0.1766 ug/L       0.44452     -0.1766 ppb        0.44452 251.76%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               12.6      7.8411 ug/L       6.72145      7.8411 ppb        6.72145  85.72%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               4.8      0.5996 ug/L       1.13603      0.5996 ppb        1.13603 189.48%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         -1.2     -1.7839 ug/L       0.67046     -1.7839 ppb        0.67046  37.58%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -2.0     -0.6884 ug/L       2.02099     -0.6884 ppb        2.02099 293.59%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               6.6      4.4289 ug/L       5.10917      4.4289 ppb        5.10917 115.36%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†              61.1      2.0367 ug/L       0.69447      2.0367 ppb        0.69447  34.10%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               3.5      0.6471 ug/L       1.06835      0.6471 ppb        1.06835 165.10%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               1.3      0.0091 ug/L       0.00859      0.0091 ppb        0.00859  94.06%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             -26.4     -0.0459 ug/L       0.10520     -0.0459 ppb        0.10520 228.97%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -0.6     -0.1775 ug/L       1.08708     -0.1775 ppb        1.08708 612.45%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               18.6      0.5400 ug/L       2.93919      0.5400 ppb        2.93919 544.27%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               -9.5     -0.0559 ug/L       0.42814     -0.0559 ppb        0.42814 765.28%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              96.5      0.9555 ug/L       0.23884      0.9555 ppb        0.23884  25.00%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                    27.8      1.9635 ug/L       1.02431      1.9635 ppb        1.02431  52.17%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

ICPMS #5 Daily Performance Report

Sample ID: Sample
Sample Date/Time: Monday, February 08, 2010 10:23:03
Sample Description:
Method File: c:\elandata\Method\Daily2.mth
Dataset File: c:\elandata\Dataset\default\Sample.423
Tuning File: c:\elandata\Tuning\default2.tun
Optimization File: c:\elandata\Optimize\default.dac
Dual Detector Mode: Pulse

Acq. Dead Time(ns): 35
Current Dead Time (ns): 35

Number of Replicates: 5

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Be	9.0	2994.5	2994.514	63.094	2.1
	Mg	24.0	45824.8	45824.781	235.661	0.5
	Co	58.9	89096.2	89096.190	825.871	0.9
	Rh	102.9	153538.3	153538.308	996.265	0.6
	In	114.9	216070.8	216070.816	1344.730	0.6
	Pb	208.0	241156.8	241156.842	2684.308	1.1
⌈>	Ba	137.9	213207.2	213207.153	1998.755	0.9
⌊	Ba++	69.0	4286.6	0.020	0.000	2.1
⌈>	Ce	139.9	266114.7	266114.678	2381.850	0.9
⌊	CeO	155.9	6762.6	0.025	0.000	0.9
	Bkgd	220.0	16.2	16.200	3.785	23.4

Current Optimization File Data

Current Value	Description
0.90	Nebulizer Gas Flow
10.25	Lens Voltage
1450.00	ICP RF Power
-1718.75	Analog Stage Voltage
1200.00	Pulse Stage Voltage
275.00	Discriminator Threshold
-6.00	AC Rod Offset

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	19	10.0	5016.9
Co	59	19	10.8	85907.5
In	115	19	12.8	220405.2

ICPMS #5 Instrument Tuning Report

File Name: default2.tun
File Path: c:\elandata\Tuning

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Pk. Width
He	3.0	3.0	587	2060	0.640
Be	9.0	9.0	2041	2080	0.623
Mg	24.0	24.0	5685	2090	0.570
Mg	25.0	25.0	5949	2085	0.597
Mg	26.0	26.0	6161	2085	0.616
Co	58.9	58.9	14190	2115	0.609
Rh	102.9	102.9	24873	2175	0.585
In	114.9	114.9	27787	2190	0.609
Ce	139.9	139.9	33871	2210	0.611
Pb	206.0	206.0	49948	2300	0.596
Pb	207.0	207.0	50159	2245	0.612
Pb	208.0	208.0	50463	2280	0.677
U	238.1	238.1	57733	2300	0.667

ICPMS#5 - Summary Report

Sample ID: Blank
Sample Date/Time: Monday, February 08, 2010 18:43:36
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100207\Blank.496

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7		ug/L		44	
	Be	9		ug/L		18	
	B	11		ug/L		245	
	Na	23		ug/L		20014	
	Mg	24		ug/L		3334	
	Al	27		ug/L		7336	
	P	31		ug/L		4433	
	K	39		ug/L		415629	
	Ca	43		ug/L		288	
>	Sc	45		ug/L		1009167	
	Ti	47		ug/L		264	
	V	51		ug/L		14596	
	Cr	52		ug/L		1063	
	Cr	53		ug/L		92540	
	Mn	55		ug/L		874	
	Fe	57		ug/L		4399	
	Co	59		ug/L		98	
	Ni	60		ug/L		135	
	Cu	63		ug/L		311	
	Cu	65		ug/L		173	
	Zn	66		ug/L		374	
	Zn	67		ug/L		10731	
	Zn	68		ug/L		1024	
>	Ge	74		ug/L		391526	
	As	75		ug/L		-363	
	Se	77		ug/L		5744	
	Se	82		ug/L		-7	
	Kr	83		ug/L		107	
	Sr	88		ug/L		162	
	Y	89		ug/L		51	
	Mo	98		ug/L		71	
	Ag	107		ug/L		50	
	Cd	111		ug/L		24	
	Cd	114		ug/L		44	
>	In	115		ug/L		262646	
	Sn	120		ug/L		149	
	Sb	121		ug/L		133	
	Sb	123		ug/L		112	
	Ba	135		ug/L		31	
	Ba	137		ug/L		46	
	Ho	165		ug/L		17	
>	Lu	175		ug/L		484740	
	Tl	205		ug/L		371	
	Pb	208		ug/L		358	
	Bi	209		ug/L		194	
	Th	232		ug/L		347	
	U	238		ug/L		298	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Simple Linear	
Be	9	Linear Thru Zero	
B	11	Simple Linear	
Na	23	Simple Linear	
Mg	24	Simple Linear	
Al	27	Simple Linear	
P	31	Simple Linear	
K	39	Simple Linear	
Ca	43	Simple Linear	
Sc	45	Linear Thru Zero	
Ti	47	Simple Linear	
V	51	Simple Linear	
Cr	52	Simple Linear	
Cr	53	Simple Linear	
Mn	55	Simple Linear	
Fe	57	Simple Linear	
Co	59	Simple Linear	
Ni	60	Simple Linear	
Cu	63	Simple Linear	
Cu	65	Simple Linear	
Zn	66	Linear Thru Zero	
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Simple Linear	
Se	77	Simple Linear	
Se	82	Simple Linear	
Kr	83	Simple Linear	
Sr	88	Simple Linear	
Y	89	Simple Linear	
Mo	98	Linear Thru Zero	
Ag	107	Simple Linear	
Cd	111	Simple Linear	
Cd	114	Simple Linear	
In	115	Linear Thru Zero	
Sn	120	Simple Linear	
Sb	121	Linear Thru Zero	
Sb	123	Linear Thru Zero	
Ba	135	Simple Linear	
Ba	137	Simple Linear	
Ho	165	Simple Linear	
Lu	175	Simple Linear	
Tl	205	Simple Linear	
Pb	208	Simple Linear	
Bi	209	Simple Linear	
Th	232	Simple Linear	
U	238	Simple Linear	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45					
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115					
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175					
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Monday, February 08, 2010 18:49:43
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100207\Standard 1.497

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	10.000	ug/L	5.598	12722	0.013
	Be	9	10.000	ug/L	0.945	4540	0.004
	B	11	20.000	ug/L	2.892	11541	0.011
	Na	23	1000.000	ug/L	5.692	4831083	4.773
	Mg	24	1000.000	ug/L	4.600	3252771	3.223
	Al	27	1000.000	ug/L	8.416	4656236	4.612
	P	31	1000.000	ug/L	0.620	292281	0.285
	K	39	1000.000	ug/L	6.279	5369709	4.913
	Ca	43	1000.000	ug/L	0.204	13032	0.013
>	Sc	45		ug/L		1008622	1008622.279
	Ti	47	10.000	ug/L	2.396	6862	0.007
	V	51	10.000	ug/L	2.290	88761	0.074
	Cr	52	10.000	ug/L	0.784	59438	0.058
	Cr	53		ug/L		102039	0.009
	Mn	55	10.000	ug/L	1.430	93316	0.092
	Fe	57	1000.000	ug/L	3.367	189347	0.183
	Co	59	10.000	ug/L	1.103	73859	0.073
	Ni	60	10.000	ug/L	2.271	16130	0.016
	Cu	63		ug/L		38397	0.038
	Cu	65	10.000	ug/L	1.922	19028	0.019
	Zn	66	10.000	ug/L	3.307	13478	0.033
	Zn	67		ug/L		13789	0.008
	Zn	68		ug/L		10456	0.024
>	Ge	74		ug/L		394143	394142.526
	As	75	10.000	ug/L	3.287	12085	0.032
	Se	77		ug/L		6621	0.002
	Se	82	10.000	ug/L	2.258	1333	0.003
	Kr	83		ug/L		97	-0.000
	Sr	88	10.000	ug/L	3.428	137048	0.518
	Y	89		ug/L		61	0.000
	Mo	98	10.000	ug/L	1.356	33077	0.125
	Ag	107	10.000	ug/L	3.069	61116	0.231
	Cd	111	10.000	ug/L	2.586	15160	0.057
	Cd	114		ug/L		36761	0.139
>	In	115		ug/L		264512	264512.078
	Sn	120	10.000	ug/L	2.438	62030	0.234
	Sb	121	10.000	ug/L	3.908	48264	0.182
	Sb	123		ug/L		37648	0.142
	Ba	135		ug/L		15419	0.032
	Ba	137	10.000	ug/L	1.492	27901	0.058
	Ho	165		ug/L		20	0.000
>	Lu	175		ug/L		476183	476183.239
	Tl	205	10.000	ug/L	1.056	215662	0.452
	Pb	208	10.000	ug/L	0.257	361129	0.758
	Bi	209		ug/L		207	0.000
	Th	232	10.000	ug/L	0.722	427356	0.897
	U	238	10.000	ug/L	0.392	453375	0.951

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	1.0000
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
Pb	208Linear Thru Zero	1.0000
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45					
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115					
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175					
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Monday, February 08, 2010 18:55:47
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100207\Standard 2.498

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**100.065**	**ug/L**	2.253	129774	0.134
	Be	9	**100.018**	**ug/L**	2.705	44085	0.046
	B	11	**200.026**	**ug/L**	2.036	109711	0.113
	Na	23	**9991.481**	**ug/L**	9.570	42387481	43.944
	Mg	24	**9995.770**	**ug/L**	2.374	29820505	30.911
	Al	27	**9991.191**	**ug/L**	4.733	40848437	42.345
	P	31	**9996.793**	**ug/L**	1.314	2671368	2.764
	K	39	**10006.863**	**ug/L**	3.175	51336116	52.789
	Ca	43	**10001.649**	**ug/L**	1.366	124229	0.128
>	Sc	45		**ug/L**		964813	964812.508
	Ti	47	**100.014**	**ug/L**	2.680	64275	0.066
	V	51	**99.992**	**ug/L**	1.143	717849	0.730
	Cr	52	**99.973**	**ug/L**	0.461	544839	0.564
	Cr	53		**ug/L**		152423	0.066
	Mn	55	**99.950**	**ug/L**	2.229	842823	0.873
	Fe	57	**9989.437**	**ug/L**	2.977	1602830	1.657
	Co	59	**99.964**	**ug/L**	1.783	681172	0.706
	Ni	60	**99.979**	**ug/L**	1.008	149925	0.155
	Cu	63		**ug/L**		352435	0.365
	Cu	65	**99.978**	**ug/L**	2.407	176661	0.183
	Zn	66	**99.935**	**ug/L**	1.104	119497	0.312
	Zn	67		**ug/L**		30663	0.053
	Zn	68		**ug/L**		85836	0.222
>	Ge	74		**ug/L**		381818	381818.044
	As	75	**99.951**	**ug/L**	1.833	114620	0.301
	Se	77		**ug/L**		14683	0.024
	Se	82	**99.981**	**ug/L**	2.665	12734	0.033
	Kr	83		**ug/L**		112	0.000
	Sr	88	**99.938**	**ug/L**	0.627	1222859	4.870
	Y	89		**ug/L**		164	0.000
	Mo	98	**100.017**	**ug/L**	0.995	318723	1.269
	Ag	107	**99.964**	**ug/L**	2.069	559655	2.229
	Cd	111	**100.013**	**ug/L**	1.070	145634	0.580
	Cd	114		**ug/L**		343762	1.369
>	In	115		**ug/L**		251063	251063.444
	Sn	120	**99.976**	**ug/L**	0.244	573899	2.285
	Sb	121	**100.019**	**ug/L**	0.192	465925	1.855
	Sb	123		**ug/L**		366854	1.461
	Ba	135		**ug/L**		149368	0.322
	Ba	137	**99.983**	**ug/L**	2.092	267100	0.575
	Ho	165		**ug/L**		28	0.000
>	Lu	175		**ug/L**		464276	464275.707
	Tl	205	**99.794**	**ug/L**	0.762	1737545	3.742
	Pb	208	**99.872**	**ug/L**	0.611	3114294	6.707
	Bi	209		**ug/L**		403	0.000
	Th	232	**99.716**	**ug/L**	0.614	3232301	6.961
	U	238	**99.732**	**ug/L**	0.212	3473739	7.481

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9996
U	238	Linear Thru Zero	0.9996

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45					
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115					
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175					
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Monday, February 08, 2010 19:01:52
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100207\QC Std 1.499

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**50.413**	**ug/L**	4.030	67203	0.068
	Be	9	**50.163**	**ug/L**	4.506	22725	0.023
	B	11	**103.204**	**ug/L**	4.662	58272	0.059
	Na	23	**4804.453**	**ug/L**	10.975	20993447	21.131
	Mg	24	**5157.887**	**ug/L**	3.836	15812653	15.950
	Al	27	**5393.889**	**ug/L**	2.869	22667235	22.860
	P	31	**4733.968**	**ug/L**	0.716	1302285	1.309
	K	39	**4706.297**	**ug/L**	4.855	25017276	24.827
	Ca	43	**4903.539**	**ug/L**	1.457	62744	0.063
>	Sc	45		**ug/L**		991537	991537.062
	Ti	47	**49.484**	**ug/L**	2.390	32812	0.033
	V	51	**50.062**	**ug/L**	3.328	376441	0.365
	Cr	52	**51.024**	**ug/L**	1.536	286232	0.288
	Cr	53		**ug/L**		122734	0.032
	Mn	55	**52.281**	**ug/L**	1.840	453480	0.457
	Fe	57	**5271.606**	**ug/L**	1.730	871384	0.875
	Co	59	**50.025**	**ug/L**	2.629	350325	0.353
	Ni	60	**51.436**	**ug/L**	0.585	79335	0.080
	Cu	63		**ug/L**		185614	0.187
	Cu	65	**50.409**	**ug/L**	2.986	91619	0.092
	Zn	66	**53.002**	**ug/L**	0.451	63936	0.165
	Zn	67		**ug/L**		21441	0.028
	Zn	68		**ug/L**		46069	0.117
>	Ge	74		**ug/L**		384136	384135.919
	As	75	**49.237**	**ug/L**	1.403	56628	0.148
	Se	77		**ug/L**		9936	0.011
	Se	82	**50.151**	**ug/L**	1.783	6423	0.017
	Kr	83		**ug/L**		91	-0.000
	Sr	88	**53.341**	**ug/L**	0.622	660072	2.599
	Y	89		**ug/L**		102	0.000
	Mo	98	**49.830**	**ug/L**	1.539	160590	0.632
	Ag	107	**51.529**	**ug/L**	0.568	291751	1.149
	Cd	111	**50.993**	**ug/L**	1.186	75098	0.296
	Cd	114		**ug/L**		177587	0.699
>	In	115		**ug/L**		253875	253875.055
	Sn	120	**51.152**	**ug/L**	1.150	296986	1.169
	Sb	121	**50.428**	**ug/L**	1.043	237598	0.935
	Sb	123		**ug/L**		185969	0.732
	Ba	135		**ug/L**		76907	0.163
	Ba	137	**50.350**	**ug/L**	0.877	136336	0.290
	Ho	165		**ug/L**		44	0.000
>	Lu	175		**ug/L**		470484	470484.285
	Tl	205	**53.880**	**ug/L**	1.553	950857	2.020
	Pb	208	**53.316**	**ug/L**	0.325	1684967	3.581
	Bi	209		**ug/L**		483	0.001
	Th	232	**54.939**	**ug/L**	1.405	1804909	3.835
	U	238	**55.207**	**ug/L**	0.764	1948734	4.141

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9996
U	238	Linear Thru Zero	0.9996

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7	100.827				
	Be	9	100.326				
	B	11	103.204				
	Na	23	96.089				
	Mg	24	103.158				
	Al	27	106.810				
	P	31	94.679				
	K	39	94.126				
	Ca	43	98.071				
>	Sc	45		98.3			
	Ti	47	98.967				
	V	51	100.125				
	Cr	52	102.049				
	Cr	53					
	Mn	55	104.562				
	Fe	57	105.432				
	Co	59	100.050				
	Ni	60	102.872				
	Cu	63					
	Cu	65	100.818				
	Zn	66	106.005				
	Zn	67					
	Zn	68					
>	Ge	74		98.1			
	As	75	98.474				
	Se	77					
	Se	82	100.302				
	Kr	83					
	Sr	88	106.681				
	Y	89					
	Mo	98	99.659				
	Ag	107	103.059				
	Cd	111	101.987				
	Cd	114					
>	In	115		96.7			
	Sn	120	102.304				
	Sb	121	100.855				
	Sb	123					
	Ba	135					
	Ba	137	100.700				
	Ho	165					
>	Lu	175		97.1			
	Tl	205	107.760				
	Pb	208	106.632				
	Bi	209					
	Th	232	109.878				
	U	238	110.414				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 1	U	238	ICV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Monday, February 08, 2010 19:07:59
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100207\QC Std 2.500

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.012**	ug/L	70.853	60	0.000
	Be	9	**0.017**	ug/L	105.957	25	0.000
	B	11	**5.242**	ug/L	12.739	3194	0.003
	Na	23	**0.145**	ug/L	1316.749	20349	0.001
	Mg	24	**0.883**	ug/L	132.959	6002	0.003
	Al	27	**1.375**	ug/L	18.825	13006	0.006
	P	31	**2.098**	ug/L	24.100	4941	0.001
	K	39	**0.792**	ug/L	533.993	413233	0.004
	Ca	43	**1.559**	ug/L	80.642	303	0.000
>	Sc	45		ug/L		993498	993498.032
	Ti	47	**-0.015**	ug/L	72.973	250	-0.000
	V	51	**-0.359**	ug/L	148.217	11752	-0.003
	Cr	52	**0.102**	ug/L	9.577	1619	0.001
	Cr	53		ug/L		87425	-0.004
	Mn	55	**0.006**	ug/L	89.971	914	0.000
	Fe	57	**1.927**	ug/L	8.248	4648	0.000
	Co	59	**0.008**	ug/L	26.128	150	0.000
	Ni	60	**-0.007**	ug/L	142.041	123	-0.000
	Cu	63		ug/L		340	0.000
	Cu	65	**0.015**	ug/L	36.441	197	0.000
	Zn	66	**0.022**	ug/L	39.311	405	0.000
	Zn	67		ug/L		10554	-0.001
	Zn	68		ug/L		1059	0.000
>	Ge	74		ug/L		395001	395001.491
	As	75	**0.178**	ug/L	34.904	-154	0.001
	Se	77		ug/L		4981	-0.002
	Se	82	**0.023**	ug/L	332.230	-4	0.000
	Kr	83		ug/L		109	0.000
	Sr	88	**0.009**	ug/L	28.948	268	0.000
	Y	89		ug/L		45	-0.000
	Mo	98	**0.056**	ug/L	18.492	252	0.001
	Ag	107	**0.007**	ug/L	26.138	89	0.000
	Cd	111	**0.005**	ug/L	179.818	31	0.000
	Cd	114		ug/L		68	0.000
>	In	115		ug/L		255430	255430.369
	Sn	120	**0.043**	ug/L	14.592	397	0.001
	Sb	121	**0.416**	ug/L	9.511	2101	0.008
	Sb	123		ug/L		1678	0.006
	Ba	135		ug/L		49	0.000
	Ba	137	**0.003**	ug/L	44.404	54	0.000
	Ho	165		ug/L		17	-0.000
>	Lu	175		ug/L		480930	480929.763
	Tl	205	**0.173**	ug/L	15.932	3496	0.007
	Pb	208	**0.007**	ug/L	20.252	594	0.000
	Bi	209		ug/L		184	-0.000
	Th	232	**0.025**	ug/L	5.499	1182	0.002
	U	238	**0.011**	ug/L	12.043	685	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9996
U	238	Linear Thru Zero	0.9996

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		98.4			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		100.9			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		97.3			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		99.2			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Monday, February 08, 2010 19:14:06
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100207\QC Std 3.501

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**10.705**	ug/L	3.539	14386	0.014
	Be	9	**0.508**	ug/L	7.845	249	0.000
	B	11	**17.958**	ug/L	2.220	10402	0.010
	Na	23	**286.494**	ug/L	10.032	1275844	1.260
	Mg	24	**19.387**	ug/L	17.806	63142	0.060
	Al	27	**38.589**	ug/L	1.936	170344	0.164
	P	31	**55.372**	ug/L	2.856	19645	0.015
	K	39	**316.577**	ug/L	4.909	2076449	1.670
	Ca	43	**227.523**	ug/L	0.571	3199	0.003
>	Sc	45		ug/L		997089	997089.204
	Ti	47	**8.745**	ug/L	1.673	6048	0.006
	V	51	**10.794**	ug/L	5.135	92941	0.079
	Cr	52	**11.175**	ug/L	0.210	63871	0.063
	Cr	53		ug/L		103268	0.012
	Mn	55	**5.948**	ug/L	0.849	52654	0.052
	Fe	57	**122.455**	ug/L	1.160	24605	0.020
	Co	59	**1.118**	ug/L	1.489	7971	0.008
	Ni	60	**2.230**	ug/L	0.707	3586	0.003
	Cu	63		ug/L		4519	0.004
	Cu	65	**1.135**	ug/L	1.153	2242	0.002
	Zn	66	**11.733**	ug/L	2.102	14649	0.037
	Zn	67		ug/L		14045	0.009
	Zn	68		ug/L		10893	0.025
>	Ge	74		ug/L		389807	389807.385
	As	75	**5.702**	ug/L	4.265	6337	0.017
	Se	77		ug/L		6213	0.001
	Se	82	**5.718**	ug/L	10.631	737	0.002
	Kr	83		ug/L		90	-0.000
	Sr	88	**12.004**	ug/L	2.760	151839	0.585
	Y	89		ug/L		54	0.000
	Mo	98	**0.555**	ug/L	2.620	1895	0.007
	Ag	107	**1.072**	ug/L	1.095	6247	0.024
	Cd	111	**1.117**	ug/L	3.609	1702	0.006
	Cd	114		ug/L		4152	0.016
>	In	115		ug/L		259361	259361.067
	Sn	120	**5.546**	ug/L	1.908	33019	0.127
	Sb	121	**3.260**	ug/L	3.149	15809	0.060
	Sb	123		ug/L		12439	0.048
	Ba	135		ug/L		3383	0.007
	Ba	137	**2.187**	ug/L	1.415	6042	0.013
	Ho	165		ug/L		22	0.000
>	Lu	175		ug/L		476683	476683.322
	Tl	205	**1.311**	ug/L	3.358	23797	0.049
	Pb	208	**2.450**	ug/L	1.266	78767	0.165
	Bi	209		ug/L		172	-0.000
	Th	232	**1.421**	ug/L	3.618	47608	0.099
	U	238	**0.294**	ug/L	2.369	10817	0.022

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9996
U	238Linear Thru Zero	0.9996

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7	107.048				
	Be	9	101.571				
	B	11	119.722				
	Na	23	114.598				
	Mg	24	129.249				
	Al	27	128.630				
	P	31	110.744				
	K	39	105.526				
	Ca	43	113.761				
>	Sc	45		98.8			
	Ti	47	87.454				
	V	51	107.942				
	Cr	52	111.754				
	Cr	53					
	Mn	55	118.952				
	Fe	57	122.455				
	Co	59	111.812				
	Ni	60	111.489				
	Cu	63					
	Cu	65	113.462				
	Zn	66	117.330				
	Zn	67					
	Zn	68					
>	Ge	74		99.6			
	As	75	114.043				
	Se	77					
	Se	82	114.353				
	Kr	83					
	Sr	88	120.043				
	Y	89					
	Mo	98	110.908				
	Ag	107	107.183				
	Cd	111	111.650				
	Cd	114					
>	In	115		98.7			
	Sn	120	110.916				
	Sb	121	108.662				
	Sb	123					
	Ba	135					
	Ba	137	109.350				
	Ho	165					
>	Lu	175		98.3			
	Tl	205	131.142				
	Pb	208	122.488				
	Bi	209					
	Th	232	142.082				
	U	238	147.185				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 3	Tl	205	CRDL is out of limits
QC Std 3	Th	232	CRDL is out of limits
QC Std 3	U	238	CRDL is out of limits

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Monday, February 08, 2010 19:20:12
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100207\QC Std 4.502

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.155**	**ug/L**	6.116	207	0.000
	Be	9	**0.114**	**ug/L**	14.680	57	0.000
	B	11	**2.555**	**ug/L**	10.128	1391	0.001
	Na	23	**93812.866**	**ug/L**	4.835	339270769	412.604
	Mg	24	**101884.561**	**ug/L**	3.130	259136411	315.071
	Al	27	**105837.869**	**ug/L**	3.293	368803029	448.561
	P	31	**90580.917**	**ug/L**	2.075	20599411	25.049
	K	39	**93706.258**	**ug/L**	1.178	406814501	494.331
	Ca	43	**95837.465**	**ug/L**	1.103	1012634	1.231
>	Sc	45		**ug/L**		822322	822321.736
	Ti	47	**1773.507**	**ug/L**	1.657	967940	1.177
	V	51	**-0.279**	**ug/L**	46.533	10222	-0.002
	Cr	52	**3.058**	**ug/L**	0.956	15042	0.017
	Cr	53		**ug/L**		61944	-0.016
	Mn	55	**6.313**	**ug/L**	1.219	46044	0.055
	Fe	57	**96265.522**	**ug/L**	0.475	13137200	15.971
	Co	59	**0.314**	**ug/L**	6.334	1900	0.002
	Ni	60	**3.475**	**ug/L**	3.963	4547	0.005
	Cu	63		**ug/L**		7820	0.009
	Cu	65	**3.304**	**ug/L**	1.127	5112	0.006
	Zn	66	**4.360**	**ug/L**	1.967	4641	0.014
	Zn	67		**ug/L**		9143	0.001
	Zn	68		**ug/L**		1649	0.003
>	Ge	74		**ug/L**		318624	318624.191
	As	75	**0.197**	**ug/L**	184.572	-108	0.001
	Se	77		**ug/L**		5387	0.002
	Se	82	**-1.107**	**ug/L**	32.950	-123	-0.000
	Kr	83		**ug/L**		289	0.001
	Sr	88	**3.316**	**ug/L**	1.776	34774	0.162
	Y	89		**ug/L**		394	0.002
	Mo	98	**1979.462**	**ug/L**	1.240	5385011	25.119
	Ag	107	**0.114**	**ug/L**	7.735	584	0.003
	Cd	111	**0.579**	**ug/L**	15.770	738	0.003
	Cd	114		**ug/L**		8366	0.039
>	In	115		**ug/L**		214381	214381.284
	Sn	120	**0.330**	**ug/L**	2.771	1737	0.008
	Sb	121	**0.192**	**ug/L**	15.683	872	0.004
	Sb	123		**ug/L**		682	0.003
	Ba	135		**ug/L**		1053	0.003
	Ba	137	**0.760**	**ug/L**	4.000	1829	0.004
	Ho	165		**ug/L**		8464	0.021
>	Lu	175		**ug/L**		409171	409170.718
	Tl	205	**0.057**	**ug/L**	13.987	1187	0.002
	Pb	208	**0.250**	**ug/L**	2.584	7174	0.017
	Bi	209		**ug/L**		4956	0.012
	Th	232	**0.049**	**ug/L**	28.856	1689	0.003
	U	238	**-0.001**	**ug/L**	61.866	225	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9996
U	238	Linear Thru Zero	0.9996

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23	93.813				
	Mg	24	101.885				
	Al	27	105.838				
	P	31	90.581				
	K	39	93.706				
	Ca	43	95.837				
>	Sc	45		81.5			
	Ti	47	88.675				
	V	51					
	Cr	52	92.658				
	Cr	53					
	Mn	55	108.848				
	Fe	57	96.266				
	Co	59	133.419				
	Ni	60	104.974				
	Cu	63					
	Cu	65	98.909				
	Zn	66	115.965				
	Zn	67					
	Zn	68					
>	Ge	74		81.4			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88	112.027				
	Y	89					
	Mo	98	98.973				
	Ag	107					
	Cd	111	130.316				
	Cd	114					
>	In	115		81.6			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137	95.291				
	Ho	165					
>	Lu	175		84.4			
	Tl	205					
	Pb	208	132.322				
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Monday, February 08, 2010 19:26:18
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100207\QC Std 5.503

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**26.688**	ug/L	1.504	29030	0.036
	Be	9	**21.000**	ug/L	1.029	7768	0.010
	B	11	**21.131**	ug/L	2.019	9887	0.012
	Na	23	**99890.854**	ug/L	5.563	355166074	439.336
	Mg	24	**98677.925**	ug/L	3.969	246679745	305.154
	Al	27	**107585.625**	ug/L	10.990	368608513	455.968
	P	31	**90820.825**	ug/L	1.361	20305645	25.115
	K	39	**95275.480**	ug/L	0.270	406620780	502.609
	Ca	43	**96175.914**	ug/L	0.606	999001	1.236
>	Sc	45		ug/L		808358	808357.753
	Ti	47	**1776.207**	ug/L	0.700	953041	1.179
	V	51	**21.271**	ug/L	2.415	137162	0.155
	Cr	52	**24.520**	ug/L	1.397	112598	0.138
	Cr	53		ug/L		72537	-0.002
	Mn	55	**28.398**	ug/L	0.936	201163	0.248
	Fe	57	**97789.735**	ug/L	0.651	13118632	16.224
	Co	59	**21.211**	ug/L	1.363	121179	0.150
	Ni	60	**23.690**	ug/L	1.118	29849	0.037
	Cu	63		ug/L		64585	0.080
	Cu	65	**22.145**	ug/L	0.784	32900	0.041
	Zn	66	**22.702**	ug/L	0.351	22801	0.071
	Zn	67		ug/L		12220	0.011
	Zn	68		ug/L		14874	0.044
>	Ge	74		ug/L		317408	317408.391
	As	75	**20.282**	ug/L	3.825	19099	0.061
	Se	77		ug/L		6647	0.006
	Se	82	**17.335**	ug/L	4.569	1832	0.006
	Kr	83		ug/L		302	0.001
	Sr	88	**26.474**	ug/L	1.141	274888	1.290
	Y	89		ug/L		423	0.002
	Mo	98	**1994.147**	ug/L	1.494	5388602	25.306
	Ag	107	**19.835**	ug/L	0.346	94228	0.442
	Cd	111	**19.855**	ug/L	2.389	24535	0.115
	Cd	114		ug/L		64974	0.305
>	In	115		ug/L		212950	212950.383
	Sn	120	**22.250**	ug/L	1.457	108420	0.509
	Sb	121	**22.040**	ug/L	0.995	87166	0.409
	Sb	123		ug/L		68547	0.321
	Ba	135		ug/L		27961	0.069
	Ba	137	**21.429**	ug/L	1.280	49626	0.123
	Ho	165		ug/L		8460	0.021
>	Lu	175		ug/L		402231	402231.184
	Tl	205	**23.367**	ug/L	2.116	352676	0.876
	Pb	208	**22.917**	ug/L	0.160	619372	1.539
	Bi	209		ug/L		5384	0.013
	Th	232	**26.721**	ug/L	1.772	750590	1.866
	U	238	**27.195**	ug/L	1.141	820795	2.040

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9996
U	238	Linear Thru Zero	0.9996

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7	133.439				
	Be	9	104.999				
	B	11	105.654				
	Na	23	99.891				
	Mg	24	98.678				
	Al	27	107.586				
	P	31	90.821				
	K	39	95.275				
	Ca	43	96.176				
>	Sc	45		80.1			
	Ti	47	88.810				
	V	51	106.356				
	Cr	52	105.236				
	Cr	53					
	Mn	55	110.069				
	Fe	57	97.790				
	Co	59	104.824				
	Ni	60	101.630				
	Cu	63					
	Cu	65	94.881				
	Zn	66	95.548				
	Zn	67					
	Zn	68					
>	Ge	74		81.1			
	As	75	101.412				
	Se	77					
	Se	82	86.677				
	Kr	83					
	Sr	88	115.307				
	Y	89					
	Mo	98	99.707				
	Ag	107	99.174				
	Cd	111	97.117				
	Cd	114					
>	In	115		81.1			
	Sn	120	111.250				
	Sb	121	110.201				
	Sb	123					
	Ba	135					
	Ba	137	103.032				
	Ho	165					
>	Lu	175		83.0			
	Tl	205	116.834				
	Pb	208	113.514				
	Bi	209					
	Th	232	133.607				
	U	238	135.975				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 5	Li	7	ICSAB is out of limits
QC Std 5	Th	232	ICSAB is out of limits
QC Std 5	U	238	ICSAB is out of limits

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Monday, February 08, 2010 19:32:25
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100207\QC Std 6.504

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**59.814**	ug/L	3.313	74043	0.080
	Be	9	**54.614**	ug/L	4.537	22976	0.025
	B	11	**101.143**	ug/L	3.034	53061	0.057
	Na	23	**4717.516**	ug/L	11.140	19102675	20.748
	Mg	24	**5173.640**	ug/L	2.256	14736260	15.999
	Al	27	**5181.346**	ug/L	5.405	20217545	21.960
	P	31	**4679.102**	ug/L	1.970	1195367	1.294
	K	39	**4786.635**	ug/L	5.327	23633985	25.251
	Ca	43	**4887.096**	ug/L	1.181	58072	0.063
>	Sc	45		ug/L		920864	920863.668
	Ti	47	**49.436**	ug/L	2.478	30443	0.033
	V	51	**49.545**	ug/L	2.722	346207	0.362
	Cr	52	**50.991**	ug/L	1.620	265666	0.287
	Cr	53		ug/L		110036	0.028
	Mn	55	**52.672**	ug/L	1.755	424286	0.460
	Fe	57	**5318.703**	ug/L	2.168	816465	0.882
	Co	59	**50.256**	ug/L	1.605	326891	0.355
	Ni	60	**51.759**	ug/L	1.599	74139	0.080
	Cu	63		ug/L		172680	0.187
	Cu	65	**50.548**	ug/L	1.266	85337	0.093
	Zn	66	**51.914**	ug/L	1.909	59073	0.162
	Zn	67		ug/L		19506	0.026
	Zn	68		ug/L		42449	0.115
>	Ge	74		ug/L		362324	362324.141
	As	75	**48.519**	ug/L	0.429	52629	0.146
	Se	77		ug/L		8995	0.010
	Se	82	**49.758**	ug/L	3.419	6011	0.017
	Kr	83		ug/L		84	-0.000
	Sr	88	**52.861**	ug/L	1.619	616744	2.576
	Y	89		ug/L		132	0.000
	Mo	98	**49.509**	ug/L	1.335	150442	0.628
	Ag	107	**51.524**	ug/L	1.151	275047	1.149
	Cd	111	**50.213**	ug/L	1.330	69724	0.291
	Cd	114		ug/L		165923	0.693
>	In	115		ug/L		239380	239379.975
	Sn	120	**51.393**	ug/L	3.490	281263	1.175
	Sb	121	**49.691**	ug/L	1.612	220740	0.922
	Sb	123		ug/L		170622	0.712
	Ba	135		ug/L		70642	0.158
	Ba	137	**49.073**	ug/L	0.902	126294	0.282
	Ho	165		ug/L		45	0.000
>	Lu	175		ug/L		447189	447188.813
	Tl	205	**53.805**	ug/L	0.394	902479	2.017
	Pb	208	**53.268**	ug/L	1.144	1599998	3.577
	Bi	209		ug/L		490	0.001
	Th	232	**55.697**	ug/L	0.579	1739105	3.888
	U	238	**55.803**	ug/L	0.951	1872213	4.186

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9996
U	238	Linear Thru Zero	0.9996

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7	119.628				
	Be	9	109.227				
	B	11	101.143				
	Na	23	94.350				
	Mg	24	103.473				
	Al	27	102.601				
	P	31	93.582				
	K	39	95.733				
	Ca	43	97.742				
>	Sc	45		91.2			
	Ti	47	98.873				
	V	51	99.089				
	Cr	52	101.982				
	Cr	53					
	Mn	55	105.344				
	Fe	57	106.374				
	Co	59	100.511				
	Ni	60	103.518				
	Cu	63					
	Cu	65	101.097				
	Zn	66	103.827				
	Zn	67					
	Zn	68					
>	Ge	74		92.5			
	As	75	97.037				
	Se	77					
	Se	82	99.517				
	Kr	83					
	Sr	88	105.723				
	Y	89					
	Mo	98	99.018				
	Ag	107	103.047				
	Cd	111	100.426				
	Cd	114					
>	In	115		91.1			
	Sn	120	102.786				
	Sb	121	99.383				
	Sb	123					
	Ba	135					
	Ba	137	98.145				
	Ho	165					
>	Lu	175		92.3			
	Tl	205	107.610				
	Pb	208	106.537				
	Bi	209					
	Th	232	111.394				
	U	238	111.607				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 6	Li	7	CCV is out of limits (+/- 10%)
QC Std 6	Th	232	CCV is out of limits (+/- 10%)
QC Std 6	U	238	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Monday, February 08, 2010 19:38:34
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100207\QC Std 7.505

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.013**	**ug/L**	25.654	59	0.000
	Be	9	**0.014**	**ug/L**	36.903	23	0.000
	B	11	**3.295**	**ug/L**	13.277	2004	0.002
	Na	23	**1.486**	**ug/L**	170.671	25024	0.007
	Mg	24	**2.330**	**ug/L**	11.268	10004	0.007
	Al	27	**2.423**	**ug/L**	4.240	16676	0.010
	P	31	**2.627**	**ug/L**	45.630	4872	0.001
	K	39	**3.751**	**ug/L**	61.248	410487	0.020
	Ca	43	**4.397**	**ug/L**	51.034	325	0.000
>	Sc	45		**ug/L**		950894	950894.099
	Ti	47	**0.091**	**ug/L**	7.827	306	0.000
	V	51	**-0.478**	**ug/L**	35.575	10428	-0.003
	Cr	52	**0.227**	**ug/L**	10.183	2219	0.001
	Cr	53		**ug/L**		80129	-0.007
	Mn	55	**0.009**	**ug/L**	49.758	900	0.000
	Fe	57	**5.475**	**ug/L**	19.274	5008	0.001
	Co	59	**0.007**	**ug/L**	24.240	141	0.000
	Ni	60	**-0.001**	**ug/L**	1947.911	127	-0.000
	Cu	63		**ug/L**		352	0.000
	Cu	65	**0.018**	**ug/L**	32.666	195	0.000
	Zn	66	**0.016**	**ug/L**	136.143	374	0.000
	Zn	67		**ug/L**		9678	-0.001
	Zn	68		**ug/L**		957	-0.000
>	Ge	74		**ug/L**		371922	371922.419
	As	75	**0.093**	**ug/L**	229.586	-240	0.000
	Se	77		**ug/L**		4523	-0.003
	Se	82	**0.035**	**ug/L**	341.759	-2	0.000
	Kr	83		**ug/L**		102	0.000
	Sr	88	**0.008**	**ug/L**	25.353	247	0.000
	Y	89		**ug/L**		54	0.000
	Mo	98	**0.097**	**ug/L**	6.784	369	0.001
	Ag	107	**0.008**	**ug/L**	17.170	93	0.000
	Cd	111	**0.008**	**ug/L**	116.750	33	0.000
	Cd	114		**ug/L**		65	0.000
>	In	115		**ug/L**		245035	245035.184
	Sn	120	**0.032**	**ug/L**	7.048	320	0.001
	Sb	121	**0.218**	**ug/L**	13.602	1112	0.004
	Sb	123		**ug/L**		897	0.003
	Ba	135		**ug/L**		43	0.000
	Ba	137	**0.009**	**ug/L**	9.862	68	0.000
	Ho	165		**ug/L**		24	0.000
>	Lu	175		**ug/L**		460672	460672.361
	Tl	205	**0.170**	**ug/L**	15.138	3297	0.006
	Pb	208	**0.007**	**ug/L**	30.746	566	0.000
	Bi	209		**ug/L**		211	0.000
	Th	232	**0.026**	**ug/L**	7.313	1151	0.002
	U	238	**0.011**	**ug/L**	9.450	655	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9996
U	238	Linear Thru Zero	0.9996

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		94.2			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		95.0			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		93.3			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		95.0			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 10
Sample Date/Time: Monday, February 08, 2010 19:44:40
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100207\QC Std 10.506

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**1097.055**	**ug/L**	6.106	1212631	1.474
	Be	9	**1017.974**	**ug/L**	3.074	382564	0.465
	B	11	**2.054**	**ug/L**	16.032	1157	0.001
	Na	23	**50662.632**	**ug/L**	3.766	183394224	222.823
	Mg	24	**51679.799**	**ug/L**	1.717	131549948	159.816
	Al	27	**53933.451**	**ug/L**	1.495	188097326	228.580
	P	31	**23302.991**	**ug/L**	1.268	5307175	6.444
	K	39	**49539.216**	**ug/L**	3.678	215417965	261.335
	Ca	43	**48111.650**	**ug/L**	1.007	508938	0.618
>	Sc	45		**ug/L**		823029	823029.232
	Ti	47	**41.845**	**ug/L**	2.105	23072	0.028
	V	51	**854.517**	**ug/L**	1.317	5143562	6.235
	Cr	52	**873.062**	**ug/L**	1.892	4051073	4.922
	Cr	53		**ug/L**		591900	0.628
	Mn	55	**890.104**	**ug/L**	1.095	6398384	7.773
	Fe	57	**47495.046**	**ug/L**	0.668	6489064	7.880
	Co	59	**814.354**	**ug/L**	0.657	4733404	5.752
	Ni	60	**857.570**	**ug/L**	0.961	1096119	1.332
	Cu	63		**ug/L**		2450091	2.977
	Cu	65	**810.887**	**ug/L**	1.448	1221293	1.484
	Zn	66	**1883.802**	**ug/L**	0.751	1918907	5.882
	Zn	67		**ug/L**		357105	1.067
	Zn	68		**ug/L**		1445972	4.430
>	Ge	74		**ug/L**		326205	326204.675
	As	75	**834.406**	**ug/L**	1.849	819708	2.514
	Se	77		**ug/L**		40344	0.109
	Se	82	**441.146**	**ug/L**	0.335	48022	0.147
	Kr	83		**ug/L**		160	0.000
	Sr	88	**922.596**	**ug/L**	2.238	9760834	44.960
	Y	89		**ug/L**		425	0.002
	Mo	98	**957.139**	**ug/L**	1.162	2637138	12.146
	Ag	107	**219.656**	**ug/L**	1.986	1063406	4.898
	Cd	111	**859.618**	**ug/L**	1.224	1082303	4.985
	Cd	114		**ug/L**		2571140	11.843
>	In	115		**ug/L**		217125	217125.023
	Sn	120	**898.084**	**ug/L**	0.681	4457244	20.529
	Sb	121	**239.735**	**ug/L**	1.169	965594	4.447
	Sb	123		**ug/L**		768038	3.537
	Ba	135		**ug/L**		1161615	2.632
	Ba	137	**749.377**	**ug/L**	1.420	1902982	4.311
	Ho	165		**ug/L**		347	0.001
>	Lu	175		**ug/L**		441412	441412.396
	Tl	205	**442.254**	**ug/L**	1.594	7320368	16.582
	Pb	208	**4516.377**	**ug/L**	0.447	133888632	303.313
	Bi	209		**ug/L**		4090	0.009
	Th	232	**2596.223**	**ug/L**	1.292	80007344	181.251
	U	238	**5349.652**	**ug/L**	0.725	177151659	401.310

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9996
U	238Linear Thru Zero	0.9996

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7	109.705				
	Be	9	101.797				
	B	11					
	Na	23	101.325				
	Mg	24	103.360				
	Al	27	107.867				
	P	31	93.212				
	K	39	99.078				
	Ca	43	96.223				
>	Sc	45		81.6			
	Ti	47					
	V	51	85.452				
	Cr	52	87.306				
	Cr	53					
	Mn	55	89.010				
	Fe	57	94.990				
	Co	59	81.435				
	Ni	60	85.757				
	Cu	63					
	Cu	65	81.089				
	Zn	66	75.352				
	Zn	67					
	Zn	68					
>	Ge	74		83.3			
	As	75	83.441				
	Se	77					
	Se	82	88.229				
	Kr	83					
	Sr	88	92.260				
	Y	89					
	Mo	98	95.714				
	Ag	107	87.862				
	Cd	111	85.962				
	Cd	114					
>	In	115		82.7			
	Sn	120	89.808				
	Sb	121	95.894				
	Sb	123					
	Ba	135					
	Ba	137	74.938				
	Ho	165					
>	Lu	175		91.1			
	Tl	205	88.451				
	Pb	208	90.328				
	Bi	209					
	Th	232	103.849				
	U	238	106.993				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 10	V	51	LRS is out of limits (+/- 10%)
QC Std 10	Cr	52	LRS is out of limits (+/- 10%)
QC Std 10	Mn	55	LRS is out of limits (+/- 10%)
QC Std 10	Co	59	LRS is out of limits (+/- 10%)
QC Std 10	Ni	60	LRS is out of limits (+/- 10%)
QC Std 10	Cu	65	LRS is out of limits (+/- 10%)
QC Std 10	Zn	66	LRS is out of limits (+/- 10%)

QC Std 10	As	75LRS is out of limits (+/- 10%)
QC Std 10	Se	82LRS is out of limits (+/- 10%)
QC Std 10	Ag	107LRS is out of limits (+/- 10%)
QC Std 10	Cd	111LRS is out of limits (+/- 10%)
QC Std 10	Sn	120LRS is out of limits (+/- 10%)
QC Std 10	Ba	137LRS is out of limits (+/- 10%)
QC Std 10	Tl	205LRS is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 11
Sample Date/Time: Monday, February 08, 2010 19:50:45
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100207\QC Std 11.507

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**52.556**	ug/L	5.267	66671	0.071
	Be	9	**51.698**	ug/L	2.593	22303	0.024
	B	11	**100.200**	ug/L	1.899	53873	0.057
	Na	23	**5149.829**	ug/L	11.448	21407387	22.650
	Mg	24	**5402.874**	ug/L	2.753	15768418	16.708
	Al	27	**5477.287**	ug/L	4.174	21928681	23.214
	P	31	**4643.146**	ug/L	0.836	1215981	1.284
	K	39	**5323.475**	ug/L	9.129	26927246	28.083
	Ca	43	**4852.781**	ug/L	1.453	59106	0.062
>	Sc	45		ug/L		943905	943904.590
	Ti	47	**47.859**	ug/L	1.667	30227	0.032
	V	51	**48.875**	ug/L	1.673	350235	0.357
	Cr	52	**50.389**	ug/L	1.711	269087	0.284
	Cr	53		ug/L		110966	0.026
	Mn	55	**52.327**	ug/L	0.587	432106	0.457
	Fe	57	**5352.950**	ug/L	0.474	842404	0.888
	Co	59	**49.602**	ug/L	1.786	330693	0.350
	Ni	60	**51.411**	ug/L	1.799	75475	0.080
	Cu	63		ug/L		176036	0.186
	Cu	65	**49.863**	ug/L	1.854	86281	0.091
	Zn	66	**52.448**	ug/L	1.963	61142	0.164
	Zn	67		ug/L		20540	0.028
	Zn	68		ug/L		44136	0.116
>	Ge	74		ug/L		371207	371207.045
	As	75	**47.818**	ug/L	1.846	53136	0.144
	Se	77		ug/L		8610	0.009
	Se	82	**49.410**	ug/L	0.859	6115	0.016
	Kr	83		ug/L		99	-0.000
	Sr	88	**52.911**	ug/L	1.888	636234	2.578
	Y	89		ug/L		101	0.000
	Mo	98	**48.185**	ug/L	2.308	150910	0.611
	Ag	107	**50.308**	ug/L	2.348	276775	1.122
	Cd	111	**50.406**	ug/L	2.933	72123	0.292
	Cd	114		ug/L		170082	0.689
>	In	115		ug/L		246732	246732.020
	Sn	120	**51.139**	ug/L	0.891	288535	1.169
	Sb	121	**52.303**	ug/L	2.094	239451	0.970
	Sb	123		ug/L		188250	0.763
	Ba	135		ug/L		73384	0.157
	Ba	137	**48.740**	ug/L	1.449	131358	0.280
	Ho	165		ug/L		51	0.000
>	Lu	175		ug/L		468336	468335.915
	Tl	205	**53.456**	ug/L	1.472	938986	2.004
	Pb	208	**53.776**	ug/L	1.726	1691509	3.612
	Bi	209		ug/L		471	0.001
	Th	232	**55.573**	ug/L	2.327	1816988	3.880
	U	238	**55.630**	ug/L	1.435	1954479	4.173

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9996
U	238Linear Thru Zero	0.9996

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7	105.111				
	Be	9	103.395				
	B	11	100.200				
	Na	23	102.997				
	Mg	24	108.057				
	Al	27	108.461				
	P	31	92.863				
	K	39	106.470				
	Ca	43	97.056				
>	Sc	45		93.5			
	Ti	47	95.717				
	V	51	97.750				
	Cr	52	100.778				
	Cr	53					
	Mn	55	104.653				
	Fe	57	107.059				
	Co	59	99.203				
	Ni	60	102.822				
	Cu	63					
	Cu	65	99.725				
	Zn	66	104.896				
	Zn	67					
	Zn	68					
>	Ge	74		94.8			
	As	75	95.637				
	Se	77					
	Se	82	98.820				
	Kr	83					
	Sr	88	105.822				
	Y	89					
	Mo	98	96.370				
	Ag	107	100.616				
	Cd	111	100.813				
	Cd	114					
>	In	115		93.9			
	Sn	120	102.277				
	Sb	121	104.605				
	Sb	123					
	Ba	135					
	Ba	137	97.480				
	Ho	165					
>	Lu	175		96.6			
	Tl	205	106.913				
	Pb	208	107.553				
	Bi	209					
	Th	232	111.146				
	U	238	111.261				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 11	Th	232	CCV is out of limits (+/- 10%)
QC Std 11	U	238	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 12
Sample Date/Time: Monday, February 08, 2010 19:56:52
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100207\QC Std 12.508

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.083**	**ug/L**	23.240	150	0.000
	Be	9	**0.031**	**ug/L**	73.515	31	0.000
	B	11	**3.257**	**ug/L**	11.350	2027	0.002
	Na	23	**1.420**	**ug/L**	114.127	25357	0.006
	Mg	24	**1.394**	**ug/L**	100.026	7336	0.004
	Al	27	**1.540**	**ug/L**	127.248	13341	0.007
	P	31	**2.557**	**ug/L**	53.499	4950	0.001
	K	39	**11.921**	**ug/L**	32.111	460645	0.063
	Ca	43	**2.306**	**ug/L**	139.030	305	0.000
>	Sc	45		**ug/L**		970858	970858.054
	Ti	47	**-0.001**	**ug/L**	2178.767	253	-0.000
	V	51	**-0.522**	**ug/L**	60.668	10353	-0.004
	Cr	52	**0.243**	**ug/L**	8.027	2352	0.001
	Cr	53		**ug/L**		82627	-0.007
	Mn	55	**0.022**	**ug/L**	21.378	1027	0.000
	Fe	57	**2.058**	**ug/L**	58.456	4561	0.000
	Co	59	**0.024**	**ug/L**	20.405	260	0.000
	Ni	60	**0.011**	**ug/L**	183.584	147	0.000
	Cu	63		**ug/L**		420	0.000
	Cu	65	**0.041**	**ug/L**	6.371	239	0.000
	Zn	66	**0.054**	**ug/L**	21.614	426	0.000
	Zn	67		**ug/L**		10479	0.000
	Zn	68		**ug/L**		1109	0.000
>	Ge	74		**ug/L**		379180	379179.966
	As	75	**0.096**	**ug/L**	166.670	-240	0.000
	Se	77		**ug/L**		4176	-0.004
	Se	82	**0.187**	**ug/L**	40.857	17	0.000
	Kr	83		**ug/L**		87	-0.000
	Sr	88	**0.020**	**ug/L**	39.678	402	0.001
	Y	89		**ug/L**		50	0.000
	Mo	98	**0.140**	**ug/L**	5.212	522	0.002
	Ag	107	**0.011**	**ug/L**	30.500	111	0.000
	Cd	111	**0.018**	**ug/L**	57.661	49	0.000
	Cd	114		**ug/L**		94	0.000
>	In	115		**ug/L**		253955	253954.549
	Sn	120	**0.222**	**ug/L**	3.210	1430	0.005
	Sb	121	**0.633**	**ug/L**	7.607	3113	0.012
	Sb	123		**ug/L**		2517	0.009
	Ba	135		**ug/L**		57	0.000
	Ba	137	**0.020**	**ug/L**	18.601	98	0.000
	Ho	165		**ug/L**		25	0.000
>	Lu	175		**ug/L**		472724	472724.089
	Tl	205	**0.408**	**ug/L**	14.921	7590	0.015
	Pb	208	**0.083**	**ug/L**	26.813	2974	0.006
	Bi	209		**ug/L**		205	0.000
	Th	232	**0.141**	**ug/L**	5.703	5000	0.010
	U	238	**0.111**	**ug/L**	17.745	4230	0.008

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9996
U	238	Linear Thru Zero	0.9996

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		96.2			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		96.8			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		96.7			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		97.5			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 8
Sample Date/Time: Monday, February 08, 2010 20:39:40
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100207\QC Std 8.515

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**51.148**	ug/L	4.564	64766	0.069
	Be	9	**51.243**	ug/L	1.236	22055	0.023
	B	11	**107.870**	ug/L	3.695	57854	0.061
	Na	23	**5032.354**	ug/L	7.348	20857247	22.133
	Mg	24	**5540.726**	ug/L	3.178	16137045	17.134
	Al	27	**5530.964**	ug/L	7.951	22077608	23.441
	P	31	**4658.039**	ug/L	1.543	1217041	1.288
	K	39	**4880.200**	ug/L	5.084	24626806	25.745
	Ca	43	**4900.285**	ug/L	1.650	59545	0.063
>	Sc	45		ug/L		941601	941600.967
	Ti	47	**49.465**	ug/L	0.878	31156	0.033
	V	51	**47.964**	ug/L	0.964	343180	0.350
	Cr	52	**49.505**	ug/L	1.760	263801	0.279
	Cr	53		ug/L		133154	0.050
	Mn	55	**51.681**	ug/L	0.936	425768	0.451
	Fe	57	**5233.855**	ug/L	0.690	821736	0.868
	Co	59	**48.655**	ug/L	0.892	323664	0.344
	Ni	60	**49.330**	ug/L	0.932	72265	0.077
	Cu	63		ug/L		168987	0.179
	Cu	65	**48.175**	ug/L	0.823	83179	0.088
	Zn	66	**52.577**	ug/L	0.267	60154	0.164
	Zn	67		ug/L		22184	0.033
	Zn	68		ug/L		43735	0.117
>	Ge	74		ug/L		364313	364313.494
	As	75	**47.698**	ug/L	1.976	52019	0.144
	Se	77		ug/L		10320	0.014
	Se	82	**49.864**	ug/L	2.535	6057	0.017
	Kr	83		ug/L		93	-0.000
	Sr	88	**52.390**	ug/L	1.451	624404	2.553
	Y	89		ug/L		112	0.000
	Mo	98	**47.393**	ug/L	1.659	147101	0.601
	Ag	107	**49.919**	ug/L	0.524	272217	1.113
	Cd	111	**49.176**	ug/L	1.334	69742	0.285
	Cd	114		ug/L		166978	0.683
>	In	115		ug/L		244501	244501.409
	Sn	120	**50.773**	ug/L	1.570	283876	1.161
	Sb	121	**51.018**	ug/L	2.947	231478	0.946
	Sb	123		ug/L		181647	0.743
	Ba	135		ug/L		72470	0.157
	Ba	137	**49.188**	ug/L	3.185	130632	0.283
	Ho	165		ug/L		55	0.000
>	Lu	175		ug/L		461587	461586.967
	Tl	205	**53.071**	ug/L	2.346	918621	1.990
	Pb	208	**52.927**	ug/L	2.301	1640653	3.554
	Bi	209		ug/L		409	0.000
	Th	232	**55.303**	ug/L	2.400	1782047	3.861
	U	238	**55.047**	ug/L	1.702	1906035	4.129

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9996
U	238Linear Thru Zero	0.9996

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈	Li	7	102.296				
|	Be	9	102.486				
|	B	11	107.870				
|	Na	23	100.647				
|	Mg	24	110.815				
|	Al	27	109.524				
|	P	31	93.161				
|	K	39	97.604				
|	Ca	43	98.006				
|>	Sc	45		93.3			
|	Ti	47	98.931				
|	V	51	95.929				
|	Cr	52	99.010				
|	Cr	53					
|	Mn	55	103.362				
|	Fe	57	104.677				
|	Co	59	97.310				
|	Ni	60	98.660				
|	Cu	63					
⌊	Cu	65	96.350				
⌈	Zn	66	105.154				
|	Zn	67					
|	Zn	68					
|>	Ge	74		93.0			
|	As	75	95.396				
|	Se	77					
|	Se	82	99.728				
⌊	Kr	83					
⌈	Sr	88	104.781				
|	Y	89					
|	Mo	98	94.786				
|	Ag	107	99.839				
|	Cd	111	98.353				
|	Cd	114					
|>	In	115		93.1			
|	Sn	120	101.546				
|	Sb	121	102.037				
⌊	Sb	123					
⌈	Ba	135					
|	Ba	137	98.375				
|	Ho	165					
|>	Lu	175		95.2			
|	Tl	205	106.142				
|	Pb	208	105.853				
|	Bi	209					
|	Th	232	110.607				
⌊	U	238	110.094				

QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
QC Std 8	Mg	24CCV is out of limits (+/- 10%)
QC Std 8	Th	232CCV is out of limits (+/- 10%)
QC Std 8	U	238CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 9
Sample Date/Time: Monday, February 08, 2010 20:45:48
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100207\QC Std 9.516

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.008**	**ug/L**	121.656	52	0.000
	Be	9	**0.008**	**ug/L**	133.944	20	0.000
	B	11	**6.715**	**ug/L**	12.851	3877	0.004
	Na	23	**1.823**	**ug/L**	138.724	26694	0.008
	Mg	24	**0.734**	**ug/L**	133.271	5335	0.002
	Al	27	**0.591**	**ug/L**	170.617	9337	0.003
	P	31	**2.127**	**ug/L**	36.101	4771	0.001
	K	39	**10.001**	**ug/L**	113.145	445242	0.053
	Ca	43	**0.737**	**ug/L**	656.778	282	0.000
>	Sc	45		**ug/L**		958106	958105.517
	Ti	47	**-0.005**	**ug/L**	638.010	248	-0.000
	V	51	**-0.301**	**ug/L**	60.723	11765	-0.002
	Cr	52	**0.424**	**ug/L**	18.244	3295	0.002
	Cr	53		**ug/L**		99060	0.012
	Mn	55	**0.023**	**ug/L**	34.391	1021	0.000
	Fe	57	**-1.008**	**ug/L**	71.598	4017	-0.000
	Co	59	**0.005**	**ug/L**	29.836	130	0.000
	Ni	60	**-0.004**	**ug/L**	143.971	123	-0.000
	Cu	63		**ug/L**		322	0.000
	Cu	65	**0.010**	**ug/L**	100.816	182	0.000
	Zn	66	**0.052**	**ug/L**	32.662	410	0.000
	Zn	67		**ug/L**		11209	0.003
	Zn	68		**ug/L**		1195	0.001
>	Ge	74		**ug/L**		366748	366748.125
	As	75	**0.244**	**ug/L**	161.077	-67	0.001
	Se	77		**ug/L**		5580	0.001
	Se	82	**0.087**	**ug/L**	14.494	4	0.000
	Kr	83		**ug/L**		98	-0.000
	Sr	88	**0.014**	**ug/L**	25.125	327	0.001
	Y	89		**ug/L**		48	0.000
	Mo	98	**0.047**	**ug/L**	14.791	215	0.001
	Ag	107	**0.007**	**ug/L**	38.719	85	0.000
	Cd	111	**0.004**	**ug/L**	74.310	27	0.000
	Cd	114		**ug/L**		71	0.000
>	In	115		**ug/L**		246785	246784.530
	Sn	120	**0.038**	**ug/L**	12.570	356	0.001
	Sb	121	**0.182**	**ug/L**	6.861	958	0.003
	Sb	123		**ug/L**		782	0.003
	Ba	135		**ug/L**		38	0.000
	Ba	137	**0.008**	**ug/L**	36.779	66	0.000
	Ho	165		**ug/L**		19	0.000
>	Lu	175		**ug/L**		466091	466091.269
	Tl	205	**0.488**	**ug/L**	15.958	8871	0.018
	Pb	208	**0.010**	**ug/L**	7.701	651	0.001
	Bi	209		**ug/L**		165	-0.000
	Th	232	**0.035**	**ug/L**	6.928	1475	0.002
	U	238	**0.015**	**ug/L**	5.833	802	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9996
U	238	Linear Thru Zero	0.9996

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		94.9			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		93.7			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		94.0			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		96.2			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202035248
Sample Date/Time: Monday, February 08, 2010 20:51:57
Sample Type:
Sample Description: LANL 6020 MB
Number of Replicates: 3
Batch ID: 949913|2|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100207\1202035248.517

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.002**	**ug/L**	347.234	43	0.000
	Be	9	**-0.005**	**ug/L**	134.566	14	-0.000
	B	11	**3.927**	**ug/L**	11.662	2285	0.002
	Na	23	**4.184**	**ug/L**	25.481	35377	0.018
	Mg	24	**0.810**	**ug/L**	165.220	5335	0.003
	Al	27	**9.258**	**ug/L**	47.700	43072	0.039
	P	31	**34.781**	**ug/L**	8.171	12963	0.010
	K	39	**5.999**	**ug/L**	71.571	410842	0.032
	Ca	43	**19.102**	**ug/L**	3.057	491	0.000
>	Sc	45		**ug/L**		925824	925823.613
	Ti	47	**0.604**	**ug/L**	15.990	613	0.000
	V	51	**-0.276**	**ug/L**	137.094	11510	-0.002
	Cr	52	**0.803**	**ug/L**	0.471	5167	0.005
	Cr	53		**ug/L**		87637	0.003
	Mn	55	**0.427**	**ug/L**	2.642	4253	0.004
	Fe	57	**85.102**	**ug/L**	4.888	17098	0.014
	Co	59	**0.007**	**ug/L**	19.050	133	0.000
	Ni	60	**0.110**	**ug/L**	6.985	282	0.000
	Cu	63		**ug/L**		877	0.001
	Cu	65	**0.179**	**ug/L**	8.786	462	0.000
	Zn	66	**1.172**	**ug/L**	2.947	1598	0.004
	Zn	67		**ug/L**		9974	0.001
	Zn	68		**ug/L**		2044	0.003
>	Ge	74		**ug/L**		346331	346330.896
	As	75	**-0.141**	**ug/L**	346.227	-465	-0.000
	Se	77		**ug/L**		4877	-0.001
	Se	82	**0.165**	**ug/L**	19.487	13	0.000
	Kr	83		**ug/L**		87	-0.000
	Sr	88	**0.465**	**ug/L**	2.572	5558	0.023
	Y	89		**ug/L**		87	0.000
	Mo	98	**0.060**	**ug/L**	16.360	246	0.001
	Ag	107	**0.000**	**ug/L**	9611.383	46	0.000
	Cd	111	**0.010**	**ug/L**	107.078	35	0.000
	Cd	114		**ug/L**		43	0.000
>	In	115		**ug/L**		238742	238742.162
	Sn	120	**0.792**	**ug/L**	4.695	4458	0.018
	Sb	121	**0.044**	**ug/L**	21.894	316	0.001
	Sb	123		**ug/L**		236	0.001
	Ba	135		**ug/L**		140	0.000
	Ba	137	**0.072**	**ug/L**	5.243	232	0.000
	Ho	165		**ug/L**		19	0.000
>	Lu	175		**ug/L**		454364	454364.208
	Tl	205	**0.300**	**ug/L**	1.867	5458	0.011
	Pb	208	**0.046**	**ug/L**	2.608	1742	0.003
	Bi	209		**ug/L**		1380	0.003
	Th	232	**0.057**	**ug/L**	20.335	2124	0.004
	U	238	**0.003**	**ug/L**	2.651	386	0.000

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9996
U	238Linear Thru Zero	0.9996

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		91.7			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		88.5			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		90.9			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		93.7			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202035253
Sample Date/Time: Monday, February 08, 2010 20:58:07
Sample Type:
Sample Description: LANL 6020 LCS
Number of Replicates: 3
Batch ID: 949913|40|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100207\1202035253.518

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**2.747**	ug/L	4.074	3499	0.004
	Be	9	**20.365**	ug/L	2.924	8729	0.009
	B	11	**39.827**	ug/L	1.572	21392	0.023
	Na	23	**270.487**	ug/L	6.954	1132622	1.190
	Mg	24	**1232.079**	ug/L	7.750	3571265	3.810
	Al	27	**3599.537**	ug/L	13.473	14296953	15.256
	P	31	**210.688**	ug/L	0.942	58691	0.058
	K	39	**1228.488**	ug/L	10.266	6453337	6.481
	Ca	43	**2616.612**	ug/L	1.280	31755	0.034
>	Sc	45		ug/L		936743	936742.658
	Ti	47	**109.236**	ug/L	1.581	68155	0.072
	V	51	**32.419**	ug/L	2.038	235129	0.237
	Cr	52	**61.109**	ug/L	1.438	323693	0.345
	Cr	53		ug/L		133888	0.051
	Mn	55	**137.239**	ug/L	0.667	1123443	1.198
	Fe	57	**4885.132**	ug/L	2.264	763268	0.810
	Co	59	**24.419**	ug/L	2.620	161629	0.172
	Ni	60	**35.058**	ug/L	0.801	51128	0.054
	Cu	63		ug/L		155744	0.166
	Cu	65	**44.839**	ug/L	1.812	77023	0.082
	Zn	66	**150.113**	ug/L	2.000	167523	0.469
	Zn	67		ug/L		36397	0.075
	Zn	68		ug/L		118548	0.330
>	Ge	74		ug/L		356747	356746.610
	As	75	**27.068**	ug/L	1.341	28765	0.082
	Se	77		ug/L		11871	0.019
	Se	82	**69.405**	ug/L	1.046	8258	0.023
	Kr	83		ug/L		116	0.000
	Sr	88	**61.644**	ug/L	0.428	730196	3.004
	Y	89		ug/L		39463	0.162
	Mo	98	**12.522**	ug/L	1.218	38681	0.159
	Ag	107	**2.758**	ug/L	2.354	14992	0.062
	Cd	111	**15.098**	ug/L	1.104	21299	0.088
	Cd	114		ug/L		50754	0.209
>	In	115		ug/L		243017	243017.266
	Sn	120	**12.573**	ug/L	2.266	69980	0.287
	Sb	121	**11.042**	ug/L	0.807	49897	0.205
	Sb	123		ug/L		38848	0.159
	Ba	135		ug/L		74726	0.164
	Ba	137	**51.114**	ug/L	2.788	134066	0.294
	Ho	165		ug/L		3107	0.007
>	Lu	175		ug/L		455767	455766.704
	Tl	205	**36.720**	ug/L	0.857	627823	1.377
	Pb	208	**25.769**	ug/L	0.471	789087	1.731
	Bi	209		ug/L		6795	0.015
	Th	232	**3.579**	ug/L	1.686	114220	0.250
	U	238	**0.701**	ug/L	0.585	24242	0.053

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9996
U	238	Linear Thru Zero	0.9996

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		92.8			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		91.1			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		92.5			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		94.0			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Ti 47 Upper, S, EEE	Ti	47	Sample is out of limits (over linear range)

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 246333001
Sample Date/Time: Monday, February 08, 2010 21:04:17
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 949913|2|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100207\246333001.519

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**69.553**	ug/L	3.999	90898	0.093
	Be	9	**4.516**	ug/L	4.618	2022	0.002
	B	11	**16.746**	ug/L	0.737	9473	0.010
	Na	23	**1267.252**	ug/L	4.560	5437305	5.574
	Mg	24	**13613.969**	ug/L	8.239	40956010	42.100
	Al	27	**83085.857**	ug/L	4.049	342348804	352.134
	P	31	**220.509**	ug/L	1.666	63561	0.061
	K	39	**8460.227**	ug/L	4.515	43780989	44.630
	Ca	43	**11624.365**	ug/L	0.846	145472	0.149
>	Sc	45		ug/L		972209	972208.972
	Ti	47	**837.484**	ug/L	1.443	540602	0.556
	V	51	**48.564**	ug/L	3.265	358629	0.354
	Cr	52	**40.002**	ug/L	0.612	220290	0.226
	Cr	53		ug/L		87296	-0.002
	Mn	55	**379.439**	ug/L	1.003	3222413	3.313
	Fe	57	**56193.642**	ug/L	1.065	9068765	9.323
	Co	59	**12.012**	ug/L	1.084	82580	0.085
	Ni	60	**29.276**	ug/L	2.082	44340	0.045
	Cu	63		ug/L		103049	0.106
	Cu	65	**28.729**	ug/L	1.058	51283	0.053
	Zn	66	**122.308**	ug/L	1.081	127000	0.382
	Zn	67		ug/L		29027	0.060
	Zn	68		ug/L		94474	0.282
>	Ge	74		ug/L		331739	331738.867
	As	75	**3.860**	ug/L	1.862	3550	0.012
	Se	77		ug/L		3443	-0.004
	Se	82	**-0.442**	ug/L	37.577	-55	-0.000
	Kr	83		ug/L		334	0.001
	Sr	88	**135.940**	ug/L	1.222	1535743	6.625
	Y	89		ug/L		1114860	4.809
	Mo	98	**0.787**	ug/L	3.172	2378	0.010
	Ag	107	**0.440**	ug/L	3.346	2320	0.010
	Cd	111	**1.494**	ug/L	1.468	2029	0.009
	Cd	114		ug/L		362	0.001
>	In	115		ug/L		231821	231821.032
	Sn	120	**1.458**	ug/L	1.485	7858	0.033
	Sb	121	**0.115**	ug/L	5.891	612	0.002
	Sb	123		ug/L		483	0.002
	Ba	135		ug/L		351514	0.759
	Ba	137	**228.613**	ug/L	1.360	609340	1.315
	Ho	165		ug/L		91470	0.197
>	Lu	175		ug/L		463273	463273.449
	Tl	205	**1.847**	ug/L	0.719	32439	0.069
	Pb	208	**63.143**	ug/L	1.642	1964689	4.241
	Bi	209		ug/L		40441	0.087
	Th	232	**36.764**	ug/L	1.108	1189240	2.567
	U	238	**3.189**	ug/L	0.786	111121	0.239

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9996
U	238	Linear Thru Zero	0.9996

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		96.3			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		84.7			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		88.3			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		95.6			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Al 27 Upper, S, EEE	Al	27	Sample is out of limits (over linear range)
Ti 47 Upper, S, EEE	Ti	47	Sample is out of limits (over linear range)
Fe 57 Upper, S, EEE	Fe	57	Sample is out of limits (over linear range)

QC Action

ICPMS#5 - Summary Report

Sample ID: 1202035249
Sample Date/Time: Monday, February 08, 2010 21:10:28
Sample Type:
Sample Description: LANL 6020 DUP
Number of Replicates: 3
Batch ID: 949913|2|ba|
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100207\1202035249.520

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**68.632**	**ug/L**	7.146	90212	0.092
	Be	9	**4.305**	**ug/L**	8.026	1939	0.002
	B	11	**17.795**	**ug/L**	4.939	10114	0.010
	Na	23	**1187.028**	**ug/L**	7.095	5132859	5.221
	Mg	24	**13329.366**	**ug/L**	7.017	40389798	41.220
	Al	27	**83003.197**	**ug/L**	0.399	344293967	351.783
	P	31	**222.427**	**ug/L**	2.238	64481	0.062
	K	39	**8287.623**	**ug/L**	4.406	43199826	43.720
	Ca	43	**11043.845**	**ug/L**	1.832	139165	0.142
>	Sc	45		**ug/L**		978694	978693.868
	Ti	47	**820.747**	**ug/L**	1.711	533171	0.545
	V	51	**51.860**	**ug/L**	2.194	384428	0.378
	Cr	52	**40.285**	**ug/L**	1.011	223277	0.227
	Cr	53		**ug/L**		83156	-0.007
	Mn	55	**367.508**	**ug/L**	3.611	3139929	3.209
	Fe	57	**56856.246**	**ug/L**	2.561	9232721	9.433
	Co	59	**11.945**	**ug/L**	2.111	82636	0.084
	Ni	60	**28.410**	**ug/L**	2.617	43294	0.044
	Cu	63		**ug/L**		93055	0.095
	Cu	65	**25.767**	**ug/L**	4.198	46287	0.047
	Zn	66	**118.246**	**ug/L**	2.074	126160	0.369
	Zn	67		**ug/L**		28554	0.056
	Zn	68		**ug/L**		92406	0.268
>	Ge	74		**ug/L**		340868	340867.617
	As	75	**4.159**	**ug/L**	2.607	3956	0.013
	Se	77		**ug/L**		3083	-0.006
	Se	82	**-0.828**	**ug/L**	5.426	-100	-0.000
	Kr	83		**ug/L**		337	0.001
	Sr	88	**123.771**	**ug/L**	2.505	1407102	6.032
	Y	89		**ug/L**		1137802	4.878
	Mo	98	**0.842**	**ug/L**	0.534	2555	0.011
	Ag	107	**0.506**	**ug/L**	6.497	2678	0.011
	Cd	111	**1.548**	**ug/L**	6.754	2114	0.009
	Cd	114		**ug/L**		360	0.001
>	In	115		**ug/L**		233247	233247.039
	Sn	120	**1.732**	**ug/L**	2.257	9368	0.040
	Sb	121	**0.097**	**ug/L**	4.885	538	0.002
	Sb	123		**ug/L**		444	0.001
	Ba	135		**ug/L**		334559	0.720
	Ba	137	**217.596**	**ug/L**	2.725	581423	1.252
	Ho	165		**ug/L**		92074	0.198
>	Lu	175		**ug/L**		464473	464472.968
	Tl	205	**1.621**	**ug/L**	2.722	28571	0.061
	Pb	208	**56.248**	**ug/L**	0.707	1754818	3.778
	Bi	209		**ug/L**		36555	0.078
	Th	232	**34.460**	**ug/L**	1.702	1117613	2.406
	U	238	**2.900**	**ug/L**	1.322	101330	0.218

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9996
U	238	Linear Thru Zero	0.9996

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45			97.0		
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74			87.1		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115			88.8		
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175			95.8		
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Al 27 Upper, S, EEE	Al	27	Sample is out of limits (over linear range)
Ti 47 Upper, S, EEE	Ti	47	Sample is out of limits (over linear range)
Fe 57 Upper, S, EEE	Fe	57	Sample is out of limits (over linear range)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: 1202035251
Sample Date/Time: Monday, February 08, 2010 21:16:39
Sample Type:
Sample Description: LANL 6020 MS
Number of Replicates: 3
Batch ID: 949913|2|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100207\1202035251.521

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**134.892**	ug/L	4.417	185291	0.181
	Be	9	**28.238**	ug/L	1.303	13200	0.013
	B	11	**69.796**	ug/L	1.059	40719	0.040
	Na	23	**2814.925**	ug/L	3.496	12674583	12.381
	Mg	24	**21071.823**	ug/L	6.576	66624292	65.163
	Al	27	**126463.281**	ug/L	4.535	547952602	535.975
	P	31	**1111.215**	ug/L	1.111	318569	0.307
	K	39	**13179.831**	ug/L	2.738	71483120	69.528
	Ca	43	**15946.790**	ug/L	1.400	209664	0.205
>	Sc	45		ug/L		1022084	1022084.125
	Ti	47	**1227.488**	ug/L	0.839	832847	0.815
	V	51	**109.792**	ug/L	0.413	833620	0.801
	Cr	52	**84.881**	ug/L	0.417	490193	0.479
	Cr	53		ug/L		111084	0.017
	Mn	55	**693.215**	ug/L	1.922	6187567	6.054
	Fe	57	**85728.106**	ug/L	1.022	14541192	14.223
	Co	59	**42.105**	ug/L	0.381	304051	0.297
	Ni	60	**64.219**	ug/L	0.807	102071	0.100
	Cu	63		ug/L		239347	0.234
	Cu	65	**63.303**	ug/L	1.482	118583	0.116
	Zn	66	**206.481**	ug/L	1.497	220883	0.645
	Zn	67		ug/L		44643	0.103
	Zn	68		ug/L		164195	0.477
>	Ge	74		ug/L		342122	342121.585
	As	75	**43.107**	ug/L	1.921	44118	0.130
	Se	77		ug/L		3627	-0.004
	Se	82	**5.556**	ug/L	2.041	629	0.002
	Kr	83		ug/L		539	0.001
	Sr	88	**197.714**	ug/L	0.301	2275194	9.635
	Y	89		ug/L		1601963	6.785
	Mo	98	**24.006**	ug/L	2.117	71985	0.305
	Ag	107	**25.796**	ug/L	0.669	135858	0.575
	Cd	111	**7.771**	ug/L	1.792	10662	0.045
	Cd	114		ug/L		17002	0.072
>	In	115		ug/L		236118	236118.058
	Sn	120	**12.189**	ug/L	1.930	65909	0.279
	Sb	121	**18.387**	ug/L	1.194	80645	0.341
	Sb	123		ug/L		63619	0.269
	Ba	135		ug/L		570226	1.212
	Ba	137	**361.083**	ug/L	1.052	977046	2.077
	Ho	165		ug/L		137586	0.293
>	Lu	175		ug/L		470287	470287.227
	Tl	205	**56.272**	ug/L	1.586	992605	2.110
	Pb	208	**177.031**	ug/L	0.727	5591670	11.889
	Bi	209		ug/L		57728	0.122
	Th	232	**67.841**	ug/L	1.808	2227721	4.736
	U	238	**35.371**	ug/L	0.799	1248166	2.653

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9996
U	238	Linear Thru Zero	0.9996

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		101.3			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		87.4			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		89.9			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		97.0			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type Analyte	Mass	Out of Limits Message
Al 27 Upper, S, EEEAl	27	Sample is out of limits (over linear range)
Ti 47 Upper, S, EEETi	47	Sample is out of limits (over linear range)
V 51 Upper, S, EEE V	51	Sample is out of limits (over linear range)
Fe 57 Upper, S, EEEFe	57	Sample is out of limits (over linear range)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: 1202035252
Sample Date/Time: Monday, February 08, 2010 21:22:51
Sample Type:
Sample Description: LANL 6020 MSD
Number of Replicates: 3
Batch ID: 949913|2|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100207\1202035252.522

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**116.799**	ug/L	4.780	158608	0.157
	Be	9	**27.151**	ug/L	1.491	12546	0.012
	B	11	**67.261**	ug/L	1.125	38797	0.038
	Na	23	**2428.610**	ug/L	5.913	10813188	10.681
	Mg	24	**18908.342**	ug/L	1.455	59074797	58.473
	Al	27	**119522.251**	ug/L	4.969	511772558	506.558
	P	31	**1073.945**	ug/L	0.677	304474	0.297
	K	39	**11697.367**	ug/L	3.376	62765666	61.707
	Ca	43	**14591.705**	ug/L	1.524	189676	0.187
>	Sc	45		ug/L		1010257	1010256.922
	Ti	47	**1159.044**	ug/L	1.799	777316	0.769
	V	51	**100.160**	ug/L	0.311	752984	0.731
	Cr	52	**76.629**	ug/L	0.749	437527	0.432
	Cr	53		ug/L		106188	0.013
	Mn	55	**758.109**	ug/L	1.654	6688690	6.620
	Fe	57	**75715.867**	ug/L	1.170	12694971	12.562
	Co	59	**41.778**	ug/L	1.447	298209	0.295
	Ni	60	**61.949**	ug/L	1.281	97331	0.096
	Cu	63		ug/L		199818	0.197
	Cu	65	**54.030**	ug/L	0.397	100066	0.099
	Zn	66	**179.599**	ug/L	1.604	193284	0.561
	Zn	67		ug/L		40073	0.089
	Zn	68		ug/L		145176	0.419
>	Ge	74		ug/L		344116	344116.064
	As	75	**39.425**	ug/L	1.984	40553	0.119
	Se	77		ug/L		3653	-0.004
	Se	82	**5.712**	ug/L	2.347	650	0.002
	Kr	83		ug/L		481	0.001
	Sr	88	**181.511**	ug/L	1.930	2094487	8.845
	Y	89		ug/L		1506690	6.363
	Mo	98	**22.536**	ug/L	1.159	67781	0.286
	Ag	107	**24.711**	ug/L	2.337	130512	0.551
	Cd	111	**7.256**	ug/L	2.415	9984	0.042
	Cd	114		ug/L		16073	0.068
>	In	115		ug/L		236789	236788.881
	Sn	120	**11.809**	ug/L	1.529	64048	0.270
	Sb	121	**16.818**	ug/L	2.138	73985	0.312
	Sb	123		ug/L		57717	0.243
	Ba	135		ug/L		523355	1.118
	Ba	137	**336.566**	ug/L	0.365	906886	1.936
	Ho	165		ug/L		128677	0.275
>	Lu	175		ug/L		468324	468324.117
	Tl	205	**54.369**	ug/L	0.692	955016	2.039
	Pb	208	**171.465**	ug/L	0.399	5393103	11.515
	Bi	209		ug/L		54652	0.116
	Th	232	**63.595**	ug/L	1.123	2079497	4.440
	U	238	**33.952**	ug/L	0.773	1193009	2.547

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9996
U	238	Linear Thru Zero	0.9996

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		100.1			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		87.9			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		90.2			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		96.6			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Al 27 Upper, S, EEE	Al	27	Sample is out of limits (over linear range)
Ti 47 Upper, S, EEE	Ti	47	Sample is out of limits (over linear range)
V 51 Upper, S, EEE	V	51	Sample is out of limits (over linear range)
Fe 57 Upper, S, EEE	Fe	57	Sample is out of limits (over linear range)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: 1202035250
Sample Date/Time: Monday, February 08, 2010 21:29:02
Sample Type:
Sample Description: LANL 6020 SDILT
Number of Replicates: 3
Batch ID: 949913|10|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100207\1202035250.523

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**13.954**	ug/L	2.780	17824	0.019
	Be	9	**1.006**	ug/L	6.114	452	0.000
	B	11	**6.179**	ug/L	8.617	3552	0.004
	Na	23	**269.792**	ug/L	5.174	1143391	1.187
	Mg	24	**2884.242**	ug/L	3.643	8454844	8.919
	Al	27	**16412.954**	ug/L	3.104	65941048	69.561
	P	31	**54.757**	ug/L	2.755	18514	0.015
	K	39	**1686.471**	ug/L	2.509	8826422	8.897
	Ca	43	**2355.555**	ug/L	2.306	28951	0.030
>	Sc	45		ug/L		947957	947956.779
	Ti	47	**178.441**	ug/L	2.250	112478	0.118
	V	51	**9.940**	ug/L	8.134	82406	0.073
	Cr	52	**8.314**	ug/L	1.865	45429	0.047
	Cr	53		ug/L		74774	-0.013
	Mn	55	**88.218**	ug/L	2.221	730925	0.770
	Fe	57	**11748.615**	ug/L	2.578	1851403	1.949
	Co	59	**2.568**	ug/L	2.220	17281	0.018
	Ni	60	**6.368**	ug/L	2.455	9501	0.010
	Cu	63		ug/L		22515	0.023
	Cu	65	**6.394**	ug/L	1.638	11254	0.012
	Zn	66	**26.271**	ug/L	1.582	29541	0.082
	Zn	67		ug/L		13867	0.012
	Zn	68		ug/L		21790	0.059
>	Ge	74		ug/L		355994	355993.961
	As	75	**0.914**	ug/L	50.978	652	0.003
	Se	77		ug/L		3498	-0.005
	Se	82	**0.148**	ug/L	70.546	12	0.000
	Kr	83		ug/L		124	0.000
	Sr	88	**28.482**	ug/L	0.725	335634	1.388
	Y	89		ug/L		242537	1.003
	Mo	98	**0.163**	ug/L	10.500	567	0.002
	Ag	107	**0.077**	ug/L	1.384	461	0.002
	Cd	111	**0.240**	ug/L	11.678	358	0.001
	Cd	114		ug/L		101	0.000
>	In	115		ug/L		241716	241716.482
	Sn	120	**0.267**	ug/L	0.902	1615	0.006
	Sb	121	**0.019**	ug/L	10.892	209	0.000
	Sb	123		ug/L		178	0.000
	Ba	135		ug/L		69205	0.152
	Ba	137	**47.120**	ug/L	0.934	123591	0.271
	Ho	165		ug/L		17925	0.039
>	Lu	175		ug/L		455748	455748.457
	Tl	205	**0.564**	ug/L	6.580	9984	0.021
	Pb	208	**13.281**	ug/L	1.372	406812	0.892
	Bi	209		ug/L		8226	0.018
	Th	232	**7.994**	ug/L	1.117	254652	0.558
	U	238	**0.623**	ug/L	1.141	21571	0.047

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9996
U	238	Linear Thru Zero	0.9996

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		93.9			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		90.9			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		92.0			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		94.0			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type Analyte	Mass	Out of Limits Message
Ti 47 Upper, S, EEE	Ti 47	Sample is out of limits (over linear range)

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 246333002
Sample Date/Time: Monday, February 08, 2010 21:35:12
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 949913|2|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100207\246333002.524

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**65.581**	ug/L	5.353	85687	0.088
	Be	9	**0.832**	ug/L	8.896	386	0.000
	B	11	**3.080**	ug/L	10.068	1932	0.002
	Na	23	**1201.387**	ug/L	9.593	5164906	5.284
	Mg	24	**3411.538**	ug/L	0.601	10265544	10.550
	Al	27	**5409.808**	ug/L	2.210	22302517	22.928
	P	31	**835.645**	ug/L	2.378	228935	0.231
	K	39	**2722.864**	ug/L	8.900	14347476	14.364
	Ca	43	**3961.357**	ug/L	2.349	49754	0.051
>	Sc	45		ug/L		972714	972713.841
	Ti	47	**1355.214**	ug/L	3.103	874488	0.899
	V	51	**14.859**	ug/L	3.466	119460	0.108
	Cr	52	**10.758**	ug/L	3.163	59984	0.061
	Cr	53		ug/L		60488	-0.029
	Mn	55	**903.862**	ug/L	2.366	7674711	7.893
	Fe	57	**29182.901**	ug/L	3.285	4711072	4.842
	Co	59	**3.835**	ug/L	2.547	26426	0.027
	Ni	60	**9.221**	ug/L	2.458	14052	0.014
	Cu	63		ug/L		26000	0.026
	Cu	65	**7.735**	ug/L	1.599	13933	0.014
	Zn	66	**121.478**	ug/L	2.516	132054	0.379
	Zn	67		ug/L		27936	0.053
	Zn	68		ug/L		94285	0.269
>	Ge	74		ug/L		347435	347435.275
	As	75	**5.323**	ug/L	3.974	5247	0.016
	Se	77		ug/L		2727	-0.007
	Se	82	**0.789**	ug/L	34.372	86	0.000
	Kr	83		ug/L		213	0.000
	Sr	88	**19.314**	ug/L	1.854	229578	0.941
	Y	89		ug/L		1039572	4.264
	Mo	98	**2.523**	ug/L	1.712	7872	0.032
	Ag	107	**0.221**	ug/L	4.816	1247	0.005
	Cd	111	**0.919**	ug/L	4.451	1321	0.005
	Cd	114		ug/L		222	0.001
>	In	115		ug/L		243797	243796.778
	Sn	120	**14.311**	ug/L	1.150	79881	0.327
	Sb	121	**0.244**	ug/L	4.296	1225	0.005
	Sb	123		ug/L		904	0.003
	Ba	135		ug/L		149953	0.311
	Ba	137	**95.410**	ug/L	3.588	264651	0.549
	Ho	165		ug/L		92651	0.192
>	Lu	175		ug/L		482256	482255.696
	Tl	205	**0.384**	ug/L	3.766	7315	0.014
	Pb	208	**11.068**	ug/L	2.991	358696	0.743
	Bi	209		ug/L		2816	0.005
	Th	232	**23.389**	ug/L	1.891	787583	1.633
	U	238	**2.179**	ug/L	3.577	79103	0.163

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9996
U	238	Linear Thru Zero	0.9996

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		96.4			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		88.7			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		92.8			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		99.5			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Ti 47 Upper, S, EEE	Ti	47	Sample is out of limits (over linear range)

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 8
Sample Date/Time: Monday, February 08, 2010 21:41:20
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100207\QC Std 8.525

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**52.033**	ug/L	5.266	67835	0.070
	Be	9	**50.573**	ug/L	1.753	22417	0.023
	B	11	**100.595**	ug/L	2.404	55587	0.057
	Na	23	**5124.644**	ug/L	6.841	21898774	22.539
	Mg	24	**5308.801**	ug/L	2.369	15927665	16.417
	Al	27	**5418.775**	ug/L	2.707	22278203	22.966
	P	31	**4600.943**	ug/L	1.655	1238065	1.272
	K	39	**4917.891**	ug/L	4.863	25571197	25.943
	Ca	43	**4891.417**	ug/L	1.611	61216	0.063
>	Sc	45		ug/L		969976	969975.836
	Ti	47	**47.855**	ug/L	1.936	31048	0.032
	V	51	**48.809**	ug/L	3.384	359398	0.356
	Cr	52	**49.780**	ug/L	2.007	273205	0.281
	Cr	53		ug/L		110121	0.022
	Mn	55	**51.157**	ug/L	1.425	434104	0.447
	Fe	57	**5227.042**	ug/L	1.664	845376	0.867
	Co	59	**49.306**	ug/L	1.496	337817	0.348
	Ni	60	**50.316**	ug/L	2.602	75897	0.078
	Cu	63		ug/L		175293	0.180
	Cu	65	**49.071**	ug/L	1.420	87267	0.090
	Zn	66	**51.956**	ug/L	1.368	61419	0.162
	Zn	67		ug/L		19080	0.023
	Zn	68		ug/L		44010	0.114
>	Ge	74		ug/L		376414	376414.442
	As	75	**48.451**	ug/L	0.271	54600	0.146
	Se	77		ug/L		8940	0.009
	Se	82	**49.015**	ug/L	1.742	6150	0.016
	Kr	83		ug/L		101	-0.000
	Sr	88	**52.530**	ug/L	1.830	638968	2.560
	Y	89		ug/L		226	0.001
	Mo	98	**47.855**	ug/L	2.729	151589	0.607
	Ag	107	**50.290**	ug/L	0.658	279894	1.121
	Cd	111	**49.311**	ug/L	1.127	71380	0.286
	Cd	114		ug/L		170067	0.681
>	In	115		ug/L		249559	249558.799
	Sn	120	**50.551**	ug/L	1.602	288505	1.156
	Sb	121	**50.661**	ug/L	1.430	234623	0.940
	Sb	123		ug/L		184640	0.739
	Ba	135		ug/L		74062	0.160
	Ba	137	**49.665**	ug/L	2.212	132084	0.286
	Ho	165		ug/L		57	0.000
>	Lu	175		ug/L		462209	462208.982
	Tl	205	**52.775**	ug/L	1.410	914801	1.979
	Pb	208	**53.496**	ug/L	3.024	1660330	3.593
	Bi	209		ug/L		530	0.001
	Th	232	**55.509**	ug/L	1.708	1791161	3.875
	U	238	**55.614**	ug/L	2.214	1928107	4.172

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9996
U	238	Linear Thru Zero	0.9996

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7	104.066				
	Be	9	101.145				
	B	11	100.595				
	Na	23	102.493				
	Mg	24	106.176				
	Al	27	107.302				
	P	31	92.019				
	K	39	98.358				
	Ca	43	97.828				
>	Sc	45		96.1			
	Ti	47	95.709				
	V	51	97.617				
	Cr	52	99.559				
	Cr	53					
	Mn	55	102.314				
	Fe	57	104.541				
	Co	59	98.613				
	Ni	60	100.633				
	Cu	63					
	Cu	65	98.142				
	Zn	66	103.913				
	Zn	67					
	Zn	68					
>	Ge	74		96.1			
	As	75	96.903				
	Se	77					
	Se	82	98.029				
	Kr	83					
	Sr	88	105.061				
	Y	89					
	Mo	98	95.709				
	Ag	107	100.580				
	Cd	111	98.623				
	Cd	114					
>	In	115		95.0			
	Sn	120	101.102				
	Sb	121	101.322				
	Sb	123					
	Ba	135					
	Ba	137	99.331				
	Ho	165					
>	Lu	175		95.4			
	Tl	205	105.550				
	Pb	208	106.992				
	Bi	209					
	Th	232	111.018				
	U	238	111.227				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 8	Th	232	CCV is out of limits (+/- 10%)
QC Std 8	U	238	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 9
Sample Date/Time: Monday, February 08, 2010 21:47:29
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100207\QC Std 9.526

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.051**	**ug/L**	14.460	110	0.000
	Be	9	**0.016**	**ug/L**	101.865	24	0.000
	B	11	**3.563**	**ug/L**	8.853	2220	0.002
	Na	23	**-0.408**	**ug/L**	173.977	17678	-0.002
	Mg	24	**0.911**	**ug/L**	95.525	6001	0.003
	Al	27	**1.580**	**ug/L**	77.631	13674	0.007
	P	31	**1.293**	**ug/L**	57.560	4655	0.000
	K	39	**6.277**	**ug/L**	205.042	435982	0.033
	Ca	43	**0.662**	**ug/L**	294.623	288	0.000
>	Sc	45		**ug/L**		980027	980027.282
	Ti	47	**-0.004**	**ug/L**	825.444	254	-0.000
	V	51	**-0.653**	**ug/L**	71.724	9513	-0.005
	Cr	52	**0.287**	**ug/L**	29.841	2617	0.002
	Cr	53		**ug/L**		80224	-0.010
	Mn	55	**0.026**	**ug/L**	17.937	1071	0.000
	Fe	57	**2.466**	**ug/L**	47.361	4672	0.000
	Co	59	**0.010**	**ug/L**	56.196	162	0.000
	Ni	60	**0.006**	**ug/L**	189.112	141	0.000
	Cu	63		**ug/L**		349	0.000
	Cu	65	**0.014**	**ug/L**	112.719	192	0.000
	Zn	66	**0.058**	**ug/L**	9.563	437	0.000
	Zn	67		**ug/L**		9712	-0.002
	Zn	68		**ug/L**		967	-0.000
>	Ge	74		**ug/L**		384503	384502.707
	As	75	**-0.010**	**ug/L**	3861.115	-366	-0.000
	Se	77		**ug/L**		4390	-0.003
	Se	82	**0.213**	**ug/L**	51.648	21	0.000
	Kr	83		**ug/L**		94	-0.000
	Sr	88	**0.010**	**ug/L**	33.609	281	0.000
	Y	89		**ug/L**		74	0.000
	Mo	98	**0.040**	**ug/L**	22.930	198	0.001
	Ag	107	**0.008**	**ug/L**	31.746	92	0.000
	Cd	111	**-0.000**	**ug/L**	3370.837	23	-0.000
	Cd	114		**ug/L**		65	0.000
>	In	115		**ug/L**		254583	254582.668
	Sn	120	**0.034**	**ug/L**	15.376	345	0.001
	Sb	121	**0.159**	**ug/L**	9.161	879	0.003
	Sb	123		**ug/L**		684	0.002
	Ba	135		**ug/L**		45	0.000
	Ba	137	**0.009**	**ug/L**	56.888	69	0.000
	Ho	165		**ug/L**		26	0.000
>	Lu	175		**ug/L**		469839	469839.289
	Tl	205	**0.374**	**ug/L**	15.224	6961	0.014
	Pb	208	**0.014**	**ug/L**	27.765	796	0.001
	Bi	209		**ug/L**		184	-0.000
	Th	232	**0.027**	**ug/L**	12.617	1234	0.002
	U	238	**0.016**	**ug/L**	27.785	856	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9996
U	238	Linear Thru Zero	0.9996

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		97.1			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		98.2			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		96.9			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		96.9			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS #5 Daily Performance Report

Sample ID: Sample
Sample Date/Time: Tuesday, February 09, 2010 10:49:31
Sample Description:
Method File: c:\elandata\Method\Daily2.mth
Dataset File: c:\elandata\Dataset\default\Sample.430
Tuning File: c:\elandata\Tuning\default2.tun
Optimization File: c:\elandata\Optimize\default.dac
Dual Detector Mode: Pulse

Acq. Dead Time(ns): 35
Current Dead Time (ns): 35

Number of Replicates: 5

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Be	9.0	3142.3	3142.346	62.743	2.0
	Mg	24.0	57680.8	57680.818	416.506	0.7
	Co	58.9	117653.1	117653.122	1030.645	0.9
	Rh	102.9	200860.3	200860.290	1679.747	0.8
	In	114.9	274145.1	274145.115	1609.375	0.6
	Pb	208.0	274555.3	274555.334	2132.855	0.8
⌈>	Ba	137.9	268236.3	268236.332	2822.215	1.1
⌊	Ba++	69.0	6167.8	0.023	0.000	2.1
⌈>	Ce	139.9	335562.5	335562.482	4529.599	1.3
⌊	CeO	155.9	8967.8	0.027	0.000	1.2
	Bkgd	220.0	9.3	9.300	0.570	6.1

Current Optimization File Data

Current Value	Description
0.90	Nebulizer Gas Flow
10.25	Lens Voltage
1450.00	ICP RF Power
-1718.75	Analog Stage Voltage
1200.00	Pulse Stage Voltage
275.00	Discriminator Threshold
-6.00	AC Rod Offset

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	21	10.0	5750.8
Co	59	21	11.3	109294.8
In	115	21	13.0	270961.2

ICPMS #5 Instrument Tuning Report

File Name: default2.tun
File Path: c:\elandata\Tuning

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Pk. Width
He	3.0	3.0	590	2060	0.662
Be	9.0	9.0	2047	2080	0.628
Mg	24.0	24.0	5681	2090	0.582
Mg	25.0	25.0	5945	2085	0.614
Mg	26.0	26.0	6159	2085	0.631
Co	58.9	58.9	14186	2115	0.612
Rh	102.9	102.9	24871	2175	0.599
In	114.9	114.9	27785	2190	0.615
Ce	139.9	139.9	33869	2210	0.618
Pb	206.0	206.0	49948	2300	0.622
Pb	207.0	207.0	50159	2245	0.627
Pb	208.0	207.9	50451	2280	0.690
U	238.1	238.0	57721	2300	0.691

ICPMS#5 - Summary Report

Sample ID: Blank
Sample Date/Time: Tuesday, February 09, 2010 12:19:22
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li only.mth
Dataset File: c:\elandata\Dataset\100207\Blank.654

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7		ug/L		75	
Sc	45		ug/L		930868	

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	
Sc	45Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈	Li	7					
⌊>	Sc	45					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Tuesday, February 09, 2010 12:21:31
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li only.mth
Dataset File: c:\elandata\Dataset\100207\Standard 1.655

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Li	7	**10.000**	**ug/L**	2.135	22691	0.024
⌊>	Sc	45		**ug/L**		953349	953348.679

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovr	Dilution % Dif	Duplicate Rel. % Difference
Li	7					
Sc	45					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Tuesday, February 09, 2010 12:23:38
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li only.mth
Dataset File: c:\elandata\Dataset\100207\Standard 2.656

Concentration Results

Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	**100.017**	**ug/L**	3.629	223860	0.241
Sc	45		**ug/L**		928302	928301.985

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
Li	7					
Sc	45					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Tuesday, February 09, 2010 12:25:46
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li only.mth
Dataset File: c:\elandata\Dataset\100207\QC Std 1.657

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Li	7	50.341	ug/L	1.302	111998	0.121
⌊>	Sc	45		ug/L		921635	921635.205

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
Li	7	100.682				
Sc	45		99.0			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Tuesday, February 09, 2010 12:27:55
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li only.mth
Dataset File: c:\elandata\Dataset\100207\QC Std 2.658

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	0.004	ug/L	192.860	83	0.000
>	Sc	45		ug/L		934757	934756.665

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
Li	7					
Sc	45		100.4			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Tuesday, February 09, 2010 12:30:06
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li only.mth
Dataset File: c:\elandata\Dataset\100207\QC Std 3.659

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	11.779	ug/L	0.903	26184	0.028
Sc	45		ug/L		918736	918736.228

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
Li	7	117.789				
Sc	45		98.7			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Tuesday, February 09, 2010 12:32:14
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li only.mth
Dataset File: c:\elandata\Dataset\100207\QC Std 4.660

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Li	7	0.045	ug/L	20.137	151	0.000
⌊>	Sc	45		ug/L		796112	796112.293

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈	Li	7					
⌊>	Sc	45		85.5			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Tuesday, February 09, 2010 12:34:23
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li only.mth
Dataset File: c:\elandata\Dataset\100207\QC Std 5.661

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	**22.527**	**ug/L**	1.285	43156	0.054
Sc	45		**ug/L**		792963	792962.925

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈	Li	7	112.633				
⌊>	Sc	45		85.2			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Tuesday, February 09, 2010 12:36:33
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li only.mth
Dataset File: c:\elandata\Dataset\100207\QC Std 6.662

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	53.884	ug/L	0.871	112608	0.130
>	Sc	45		ug/L		865674	865674.325

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈	Li	7	107.768				
⌊>	Sc	45		93.0			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Tuesday, February 09, 2010 12:38:44
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li only.mth
Dataset File: c:\elandata\Dataset\100207\QC Std 7.663

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	0.006	ug/L	108.919	83	0.000
Sc	45		ug/L		876686	876685.869

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈	Li	7					
⌊>	Sc	45		94.2			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202035248
Sample Date/Time: Tuesday, February 09, 2010 12:40:56
Sample Type:
Sample Description: LANL 6020 MB
Number of Replicates: 3
Batch ID: 949913|2|baj
Method File: c:\elandata\Method\li only.mth
Dataset File: c:\elandata\Dataset\100207\1202035248.664

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Li	7	-0.002	ug/L	168.794	67	-0.000
⌊>	Sc	45		ug/L		885144	885143.990

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈	Li	7					
⌊>	Sc	45		95.1			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202035253
Sample Date/Time: Tuesday, February 09, 2010 12:43:09
Sample Type:
Sample Description: LANL 6020 LCS
Number of Replicates: 3
Batch ID: 949913|40|baj
Method File: c:\elandata\Method\li only.mth
Dataset File: c:\elandata\Dataset\100207\1202035253.665

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	2.871	ug/L	3.707	6275	0.007
>	Sc	45		ug/L		896043	896043.099

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈	Li	7					
⌊>	Sc	45		96.3			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 246333001
Sample Date/Time: Tuesday, February 09, 2010 12:45:22
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 949913|2|baj
Method File: c:\elandata\Method\li only.mth
Dataset File: c:\elandata\Dataset\100207\246333001.666

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**68.374**	**ug/L**	0.642	153767	0.165
>	Sc	45		**ug/L**		931713	931712.916

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
Li	7					
Sc	45		100.1			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202035249
Sample Date/Time: Tuesday, February 09, 2010 12:47:35
Sample Type:
Sample Description: LANL 6020 DUP
Number of Replicates: 3
Batch ID: 949913|2|baj
Method File: c:\elandata\Method\li only.mth
Dataset File: c:\elandata\Dataset\100207\1202035249.667

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	68.089	ug/L	0.762	150408	0.164
>	Sc	45		ug/L		915193	915192.975

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
>	Sc	45		98.3			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202035251
Sample Date/Time: Tuesday, February 09, 2010 12:49:49
Sample Type:
Sample Description: LANL 6020 MS
Number of Replicates: 3
Batch ID: 949913|2|baj
Method File: c:\elandata\Method\li only.mth
Dataset File: c:\elandata\Dataset\100207\1202035251.668

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Li	7	129.887	ug/L	1.257	299585	0.313
⌊>	Sc	45		ug/L		955826	955826.151

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈	Li	7					
⌊>	Sc	45		102.7			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202035252
Sample Date/Time: Tuesday, February 09, 2010 12:52:04
Sample Type:
Sample Description: LANL 6020 MSD
Number of Replicates: 3
Batch ID: 949913|2|baj
Method File: c:\elandata\Method\li only.mth
Dataset File: c:\elandata\Dataset\100207\1202035252.669

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	117.610	ug/L	0.527	267653	0.284
Sc	45		ug/L		943047	943046.912

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
Li	7					
Sc	45		101.3			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202035250
Sample Date/Time: Tuesday, February 09, 2010 12:54:17
Sample Type:
Sample Description: LANL 6020 SDILT
Number of Replicates: 3
Batch ID: 949913|10|baj
Method File: c:\elandata\Method\li only.mth
Dataset File: c:\elandata\Dataset\100207\1202035250.670

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	14.877	ug/L	1.554	30517	0.036
Sc	45		ug/L		848335	848334.726

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
Li	7					
Sc	45		91.1			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 246333002
Sample Date/Time: Tuesday, February 09, 2010 12:56:30
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 949913|2|baj
Method File: c:\elandata\Method\li only.mth
Dataset File: c:\elandata\Dataset\100207\246333002.671

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	66.945	ug/L	1.010	141313	0.162
Sc	45		ug/L		874513	874513.048

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
Li	7					
Sc	45		93.9			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Tuesday, February 09, 2010 12:58:41
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li only.mth
Dataset File: c:\elandata\Dataset\100207\QC Std 6.672

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Li	7	54.381	ug/L	0.888	112291	0.131
⌊>	Sc	45		ug/L		855418	855417.678

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈	Li	7	108.762				
⌊>	Sc	45		91.9			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Tuesday, February 09, 2010 13:00:52
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li only.mth
Dataset File: c:\elandata\Dataset\100207\QC Std 7.673

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	0.048	ug/L	11.878	167	0.000
Sc	45		ug/L		848885	848884.994

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
Li	7					
Sc	45		91.2			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Blank
Sample Date/Time: Tuesday, February 09, 2010 13:39:16
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only.mth
Dataset File: c:\elandata\Dataset\100207\Blank.694

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		539197	
	U	238		ug/L		453	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Tuesday, February 09, 2010 13:40:55
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only.mth
Dataset File: c:\elandata\Dataset\100207\Standard 1.695

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		560627	560627.480
	U	238	10.000	ug/L	0.874	434405	0.774

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Tuesday, February 09, 2010 13:42:32
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only.mth
Dataset File: c:\elandata\Dataset\100207\Standard 2.696

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		549946	549945.876
	U	238	99.760	ug/L	0.266	3425239	6.227

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9997

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Tuesday, February 09, 2010 13:44:09
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only.mth
Dataset File: c:\elandata\Dataset\100207\QC Std 1.697

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		553741	553740.937
⌊	U	238	54.149	ug/L	1.345	1871739	3.380

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9997

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈>	Lu	175		102.7			
⌊	U	238	108.299				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Tuesday, February 09, 2010 13:45:49
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only.mth
Dataset File: c:\elandata\Dataset\100207\QC Std 2.698

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Lu	175		**ug/L**		549297	549297.235
[	U	238	**0.036**	**ug/L**	10.562	1690	0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9997

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
[>	Lu	175		101.9			
[	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Tuesday, February 09, 2010 13:47:31
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only.mth
Dataset File: c:\elandata\Dataset\100207\QC Std 3.699

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		555605	555604.876
	U	238	0.258	ug/L	1.213	9415	0.016

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9997

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175		103.0			
	U	238	128.984				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Tuesday, February 09, 2010 13:49:11
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only.mth
Dataset File: c:\elandata\Dataset\100207\QC Std 4.700

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		498912	498911.925
⌊	U	238	-0.005	ug/L	3.036	248	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9997

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈>	Lu	175		92.5			
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Tuesday, February 09, 2010 13:50:50
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only.mth
Dataset File: c:\elandata\Dataset\100207\QC Std 5.701

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		**ug/L**		515352	515351.514
	U	238	**23.795**	**ug/L**	2.061	765715	1.485

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9997

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175		95.6			
	U	238	118.977				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Tuesday, February 09, 2010 13:52:28
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only.mth
Dataset File: c:\elandata\Dataset\100207\QC Std 6.702

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		535810	535810.468
⌊	U	238	52.970	ug/L	1.189	1772019	3.307

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9997

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈>	Lu	175		99.4			
⌊	U	238	105.940				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Tuesday, February 09, 2010 13:54:08
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only.mth
Dataset File: c:\elandata\Dataset\100207\QC Std 7.703

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		527856	527855.885
⌊	U	238	0.030	ug/L	7.237	1437	0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9997

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈>	Lu	175		97.9			
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202035248
Sample Date/Time: Tuesday, February 09, 2010 13:55:50
Sample Type:
Sample Description: LANL 6020 MB
Number of Replicates: 3
Batch ID: 949913|2|baj
Method File: c:\elandata\Method\u only.mth
Dataset File: c:\elandata\Dataset\100207\1202035248.704

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		552441	552440.994
	U	238	0.001	ug/L	58.008	495	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9997

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175		102.5			
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202035253
Sample Date/Time: Tuesday, February 09, 2010 13:57:32
Sample Type:
Sample Description: LANL 6020 LCS
Number of Replicates: 3
Batch ID: 949913|40|ba|
Method File: c:\elandata\Method\u only.mth
Dataset File: c:\elandata\Dataset\100207\1202035253.705

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		538943	538943.051
	U	238	0.658	ug/L	0.957	22598	0.041

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9997

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175		100.0			
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 246333001
Sample Date/Time: Tuesday, February 09, 2010 13:59:15
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 949913|2|baj
Method File: c:\elandata\Method\u only.mth
Dataset File: c:\elandata\Dataset\100207\246333001.706

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		532744	532744.440
⌊	U	238	3.007	ug/L	1.703	100430	0.188

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9997

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈>	Lu	175		98.8			
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202035249
Sample Date/Time: Tuesday, February 09, 2010 14:00:58
Sample Type:
Sample Description: LANL 6020 DUP
Number of Replicates: 3
Batch ID: 949913|2|baj
Method File: c:\elandata\Method\u only.mth
Dataset File: c:\elandata\Dataset\100207\1202035249.707

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		526291	526291.026
⌊	U	238	2.768	ug/L	0.629	91368	0.173

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9997

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈>	Lu	175		97.6			
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202035251
Sample Date/Time: Tuesday, February 09, 2010 14:02:42
Sample Type:
Sample Description: LANL 6020 MS
Number of Replicates: 3
Batch ID: 949913|2|baj
Method File: c:\elandata\Method\u only.mth
Dataset File: c:\elandata\Dataset\100207\1202035251.708

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		532029	532028.530
⌊	U	238	34.421	ug/L	0.792	1143463	2.149

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9997

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈>	Lu	175		98.7			
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202035252
Sample Date/Time: Tuesday, February 09, 2010 14:04:27
Sample Type:
Sample Description: LANL 6020 MSD
Number of Replicates: 3
Batch ID: 949913|2|baj
Method File: c:\elandata\Method\u only.mth
Dataset File: c:\elandata\Dataset\100207\1202035252.709

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		535196	535196.438
	U	238	33.158	ug/L	0.775	1108251	2.070

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9997

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175		99.3			
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202035250
Sample Date/Time: Tuesday, February 09, 2010 14:06:11
Sample Type:
Sample Description: LANL 6020 SDILT
Number of Replicates: 3
Batch ID: 949913|10|baj
Method File: c:\elandata\Method\u only.mth
Dataset File: c:\elandata\Dataset\100207\1202035250.710

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		525750	525750.276
⌊	U	238	0.601	ug/L	2.269	20153	0.037

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9997

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈>	Lu	175		97.5			
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 246333002
Sample Date/Time: Tuesday, February 09, 2010 14:07:53
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 949913|2|baj
Method File: c:\elandata\Method\u only.mth
Dataset File: c:\elandata\Dataset\100207\246333002.711

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		554889	554889.221
⌊	U	238	2.062	ug/L	1.812	71855	0.129

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9997

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈>	Lu	175		102.9			
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Tuesday, February 09, 2010 14:09:33
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only.mth
Dataset File: c:\elandata\Dataset\100207\QC Std 6.712

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		542303	542302.582
	U	238	53.817	ug/L	0.382	1822195	3.359

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9997

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175		100.6			
	U	238	107.635				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Tuesday, February 09, 2010 14:11:13
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only.mth
Dataset File: c:\elandata\Dataset\100207\QC Std 7.713

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		530055	530054.891
	U	238	0.027	ug/L	9.490	1353	0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9997

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175		98.3			
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Blank
Sample Date/Time: Tuesday, February 09, 2010 14:33:20
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: c:\elandata\Dataset\100207\Blank.724

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		523685	
	Tl	205		ug/L		1690	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Simple Linear	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175					
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Tuesday, February 09, 2010 14:37:49
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: c:\elandata\Dataset\100207\Standard 1.725

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		533049	533048.668
⌊	Tl	205	10.000	ug/L	0.517	216920	0.404

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈>	Lu	175					
⌊	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Tuesday, February 09, 2010 14:42:16
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: c:\elandata\Dataset\100207\Standard 2.726

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		519288	519287.520
	Tl	205	99.815	ug/L	1.203	1767769	3.402

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175					
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Tuesday, February 09, 2010 14:46:43
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: c:\elandata\Dataset\100207\QC Std 1.727

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		530589	530588.629
	Tl	205	52.776	ug/L	1.127	955908	1.799

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175		101.3			
	Tl	205	105.552				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Tuesday, February 09, 2010 14:51:13
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: c:\elandata\Dataset\100207\QC Std 2.728

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		508950	508950.278
	Tl	205	-0.010	ug/L	7.010	1463	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175		97.2			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Tuesday, February 09, 2010 14:55:43
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: c:\elandata\Dataset\100207\QC Std 3.729

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		512596	512595.884
⌊	Tl	205	1.254	ug/L	0.657	23566	0.043

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈>	Lu	175		97.9			
⌊	Tl	205	125.438				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Tuesday, February 09, 2010 15:00:12
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: c:\elandata\Dataset\100207\QC Std 4.730

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		469155	469154.816
	Tl	205	-0.043	ug/L	8.609	819	-0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175		89.6			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Tuesday, February 09, 2010 15:04:41
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: c:\elandata\Dataset\100207\QC Std 5.731

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		457670	457669.737
	Tl	205	22.606	ug/L	1.409	354061	0.770

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175		87.4			
	Tl	205	113.030				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Tuesday, February 09, 2010 15:09:11
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: c:\elandata\Dataset\100207\QC Std 6.732

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		497147	497146.657
	Tl	205	51.408	ug/L	0.891	872605	1.752

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175		94.9			
	Tl	205	102.816				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Tuesday, February 09, 2010 15:13:42
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: c:\elandata\Dataset\100207\QC Std 7.733

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		483743	483742.568
⌊	Tl	205	-0.029	ug/L	8.465	1083	-0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈>	Lu	175		92.4			
⌊	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202035248
Sample Date/Time: Tuesday, February 09, 2010 15:18:14
Sample Type:
Sample Description: LANL 6020 MB
Number of Replicates: 3
Batch ID: 949913|2|baj
Method File: c:\elandata\Method\tl only.mth
Dataset File: c:\elandata\Dataset\100207\1202035248.734

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		497593	497592.657
	Tl	205	-0.049	ug/L	1.462	769	-0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175		95.0			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202035253
Sample Date/Time: Tuesday, February 09, 2010 15:22:46
Sample Type:
Sample Description: LANL 6020 LCS
Number of Replicates: 3
Batch ID: 949913|40|baj
Method File: c:\elandata\Method\tl only.mth
Dataset File: c:\elandata\Dataset\100207\1202035253.735

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		491050	491049.859
⌊	Tl	205	33.458	ug/L	0.518	561481	1.140

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈>	Lu	175		93.8			
⌊	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 246333001
Sample Date/Time: Tuesday, February 09, 2010 15:27:19
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 949913|2|baj
Method File: c:\elandata\Method\tl only.mth
Dataset File: c:\elandata\Dataset\100207\246333001.736

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		490878	490878.426
	Tl	205	1.458	ug/L	2.133	25972	0.050

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175		93.7			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202035249
Sample Date/Time: Tuesday, February 09, 2010 15:31:52
Sample Type:
Sample Description: LANL 6020 DUP
Number of Replicates: 3
Batch ID: 949913|2|baj
Method File: c:\elandata\Method\tl only.mth
Dataset File: c:\elandata\Dataset\100207\1202035249.737

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		486910	486910.213
	Tl	205	1.289	ug/L	1.941	22957	0.044

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175		93.0			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202035251
Sample Date/Time: Tuesday, February 09, 2010 15:36:26
Sample Type:
Sample Description: LANL 6020 MS
Number of Replicates: 3
Batch ID: 949913|2|baj
Method File: c:\elandata\Method\tl only.mth
Dataset File: c:\elandata\Dataset\100207\1202035251.738

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		496079	496078.509
⌊	Tl	205	52.787	ug/L	1.911	893674	1.799

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈>	Lu	175		94.7			
⌊	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202035252
Sample Date/Time: Tuesday, February 09, 2010 15:41:01
Sample Type:
Sample Description: LANL 6020 MSD
Number of Replicates: 3
Batch ID: 949913|2|baj
Method File: c:\elandata\Method\tl only.mth
Dataset File: c:\elandata\Dataset\100207\1202035252.739

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		492516	492515.680
	Tl	205	51.561	ug/L	1.030	866880	1.757

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175		94.0			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202035250
Sample Date/Time: Tuesday, February 09, 2010 15:45:35
Sample Type:
Sample Description: LANL 6020 SDILT
Number of Replicates: 3
Batch ID: 949913|10|baj
Method File: c:\elandata\Method\tl only.mth
Dataset File: c:\elandata\Dataset\100207\1202035250.740

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		484072	484072.248
⌊	Tl	205	0.359	ug/L	5.783	7489	0.012

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈>	Lu	175		92.4			
⌊	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 246333002
Sample Date/Time: Tuesday, February 09, 2010 15:50:07
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 949913|2|baj
Method File: c:\elandata\Method\tl only.mth
Dataset File: c:\elandata\Dataset\100207\246333002.741

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		517992	517992.122
	Tl	205	0.208	ug/L	1.983	5341	0.007

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175		98.9			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Tuesday, February 09, 2010 15:54:39
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: c:\elandata\Dataset\100207\QC Std 6.742

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		497874	497874.188
	Tl	205	53.461	ug/L	1.529	908508	1.822

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175		95.1			
	Tl	205	106.921				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Tuesday, February 09, 2010 15:59:10
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: c:\elandata\Dataset\100207\QC Std 7.743

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		484225	484224.544
	Tl	205	-0.016	ug/L	23.991	1305	-0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175		92.5			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

==========

Analysis Begun

Logged In Analyst: Administrator **Technique: AA FIMS-MHS**
Spectrometer Model: FIMS-100, S/N B050-9550 **Autosampler Model: S10**

Sample Information File: C:\data-AA\Administrator\Sample Information\020910S1.SIF
Batch ID:
Results Data Set: 020910S1
Results Library: C:\data-AA\Administrator\Results\Results.mdb

==========

Method Loaded
Method Name: SOIL **Method Last Saved: 1/4/2010 13:53:20**
Method Description: 7471A, ILM04 ANALYST JXL

==========

Sequence No.: 1 **Autosampler Location: 1**
Sample ID: Calib Blank **Date Collected: 2/9/2010 09:00:25**
Analyst: **Data Type: Original**

Replicate Data: Calib Blank

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.00]	0.0006	0.0014	0.0006	09:01:18	Yes
2		[0.00]	0.0006	0.0015	0.0006	09:01:48	Yes
Mean:		[0.00]	0.0006				
SD:		0.00	0.0000				
%RSD:		0.00	0.68				

Auto-zero performed.

==========

Sequence No.: 2 **Autosampler Location: 2**
Sample ID: S0.2 **Date Collected: 2/9/2010 09:02:06**
Analyst: **Data Type: Original**

Replicate Data: S0.2

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.2]	0.0016	0.0073	0.0022	09:02:57	Yes
2		[0.2]	0.0015	0.0073	0.0022	09:03:27	Yes
Mean:		[0.2]	0.0016				
SD:		0.0	0.0000				
%RSD:		0.0	2.36				

Standard number 1 applied. [0.2]
Correlation Coef.: 1.000000 Slope: 0.00778 Intercept: 0.00000

==========

Sequence No.: 3 **Autosampler Location: 3**
Sample ID: S0.5 **Date Collected: 2/9/2010 09:03:46**
Analyst: **Data Type: Original**

Replicate Data: S0.5

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.5]	0.0050	0.0213	0.0056	09:04:37	Yes
2		[0.5]	0.0049	0.0211	0.0055	09:05:07	Yes
Mean:		[0.5]	0.0049				
SD:		0.0	0.0000				
%RSD:		0.0	0.99				

Standard number 2 applied. [0.5]
Correlation Coef.: 0.995459 Slope: 0.00999 Intercept: -0.00017

==========

Sequence No.: 4 **Autosampler Location: 4**
Sample ID: S2.0 **Date Collected: 2/9/2010 09:05:26**
Analyst: **Data Type: Original**

Replicate Data: S2.0

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[2.0]	0.0216	0.0873	0.0223	09:06:18	Yes
2		[2.0]	0.0213	0.0853	0.0219	09:06:48	Yes
Mean:		[2.0]	0.0215				
SD:		0.0	0.0002				
%RSD:		0.0	1.13				

Standard number 3 applied. [2.0]
Correlation Coef.: 0.999623 Slope: 0.01087 Intercept: -0.00035

Sequence No.: 5 **Autosampler Location: 5**
Sample ID: S5.0 **Date Collected: 2/9/2010 09:07:08**
Analyst: **Data Type: Original**

Replicate Data: S5.0

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[5.0]	0.0537	0.2161	0.0544	09:07:59	Yes
2		[5.0]	0.0535	0.2146	0.0541	09:08:29	Yes
Mean:		[5.0]	0.0536				
SD:		0.0	0.0002				
%RSD:		0.0	0.31				

Standard number 4 applied. [5.0]
Correlation Coef.: 0.999942 Slope: 0.01080 Intercept: -0.00031

Sequence No.: 6 **Autosampler Location: 6**
Sample ID: S10.0 **Date Collected: 2/9/2010 09:08:49**
Analyst: **Data Type: Original**

Replicate Data: S10.0

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[10.0]	0.1049	0.4236	0.1056	09:09:39	Yes
2		[10.0]	0.1042	0.4188	0.1048	09:10:09	Yes
Mean:		[10.0]	0.1045				
SD:		0.0	0.0005				
%RSD:		0.0	0.51				

Standard number 5 applied. [10.0]
Correlation Coef.: 0.999880 Slope: 0.01051 Intercept: 0.00001

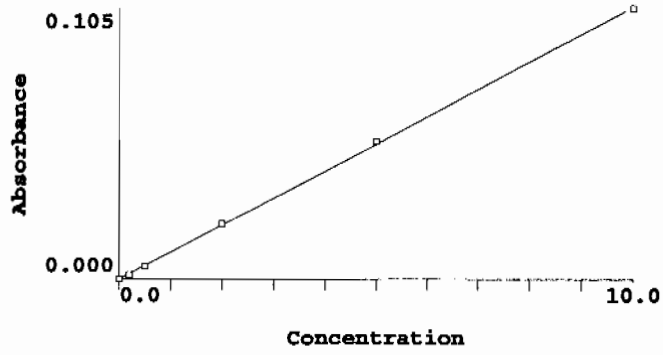

Calibration data for Hg 253.7 **Equation: Linear, Calculated Intercept**

ID	Mean Signal (Abs)	Entered Conc. ug/L	Calculated Conc. ug/L	Standard Deviation	%RSD
Calib Blank	0.0000	0	-0.001	0.00	0.7
S0.2	0.0016	0.2	0.147	0.00	2.4
S0.5	0.0049	0.5	0.469	0.00	1.0
S2.0	0.0215	2.0	2.040	0.00	1.1

S5.0	0.0536	5.0	5.100	0.00	0.3
S10.0	0.1045	10.0	9.944	0.00	0.5

Correlation Coef.: 0.999880 Slope: 0.01051 Intercept: 0.00001

Sequence No.: 7 **Autosampler Location: 9**
Sample ID: ICV **Date Collected: 2/9/2010 09:10:28**
Analyst: **Data Type: Original**

Replicate Data: ICV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.162	5.162	0.0543	0.2180	0.0549	09:11:18	Yes
2	5.137	5.137	0.0540	0.2170	0.0546	09:11:48	Yes
Mean:	5.150	5.150	0.0541				
SD:	0.018	0.018	0.0002				
%RSD:	0.349	0.349	0.35				

QC value within limits for Hg 253.7 Recovery = 102.99%
All analyte(s) passed QC.

Sequence No.: 8 **Autosampler Location: 10**
Sample ID: ICB **Date Collected: 2/9/2010 09:12:08**
Analyst: **Data Type: Original**

Replicate Data: ICB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.057	-0.057	-0.0006	-0.0011	0.0000	09:12:59	Yes
2	-0.054	-0.054	-0.0006	-0.0006	0.0001	09:13:29	Yes
Mean:	-0.056	-0.056	-0.0006				
SD:	0.002	0.002	0.0000				
%RSD:	4.317	4.317	4.38				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 9 **Autosampler Location: 11**
Sample ID: CRDL **Date Collected: 2/9/2010 09:13:49**
Analyst: **Data Type: Original**

Replicate Data: CRDL

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.161	0.161	0.0017	0.0086	0.0023	09:14:40	Yes
2	0.156	0.156	0.0016	0.0079	0.0023	09:15:10	Yes
Mean:	0.158	0.158	0.0017				
SD:	0.004	0.004	0.0000				
%RSD:	2.479	2.479	2.47				

QC value within limits for Hg 253.7 Recovery = 79.16%
All analyte(s) passed QC.

Sequence No.: 10 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 2/9/2010 09:15:30**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.104	5.104	0.0537	0.2171	0.0543	09:16:20	Yes
2	5.079	5.079	0.0534	0.2132	0.0540	09:16:50	Yes
Mean:	5.091	5.091	0.0535				
SD:	0.018	0.018	0.0002				
%RSD:	0.359	0.359	0.36				

QC value within limits for Hg 253.7 Recovery = 101.83%
All analyte(s) passed QC.

Sequence No.: 11 Autosampler Location: 8
Sample ID: CCB Date Collected: 2/9/2010 09:17:09
Analyst: Data Type: Original

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.050	-0.050	-0.0005	-0.0003	0.0001	09:18:00	Yes
2	-0.051	-0.051	-0.0005	-0.0004	0.0001	09:18:29	Yes
Mean:	-0.051	-0.051	-0.0005				
SD:	0.000	0.000	0.0000				
%RSD:	0.267	0.267	0.27				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 12 Autosampler Location: 12
Sample ID: 1202025315|945634|1 Date Collected: 2/9/2010 09:18:49
Analyst: JXL Data Type: Original

Replicate Data: 1202025315|945634|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.045	-0.045	-0.0005	0.0002	0.0002	09:19:41	Yes
2	-0.040	-0.040	-0.0004	0.0004	0.0002	09:20:11	Yes
Mean:	-0.043	-0.043	-0.0004				
SD:	0.003	0.003	0.0000				
%RSD:	7.359	7.359	7.51				

Sequence No.: 13 Autosampler Location: 13
Sample ID: 1202025316|945634|1 Date Collected: 2/9/2010 09:20:31
Analyst: JXL Data Type: Original

Replicate Data: 1202025316|945634|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.044	-0.044	-0.0005	0.0000	0.0002	09:21:23	Yes
2	-0.040	-0.040	-0.0004	0.0004	0.0002	09:21:53	Yes
Mean:	-0.042	-0.042	-0.0004				
SD:	0.003	0.003	0.0000				
%RSD:	7.346	7.346	7.49				

Sequence No.: 14 Autosampler Location: 14
Sample ID: 245420006|945634|1 Date Collected: 2/9/2010 09:22:13
Analyst: JXL Data Type: Original

Replicate Data: 245420006|945634|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.059	-0.059	-0.0006	-0.0008	0.0000	09:23:03	Yes
2	-0.060	-0.060	-0.0006	-0.0007	0.0000	09:23:33	Yes
Mean:	-0.060	-0.060	-0.0006				
SD:	0.000	0.000	0.0000				
%RSD:	0.372	0.372	0.38				

Sequence No.: 15 Autosampler Location: 15
Sample ID: 1202025317|945634|1 Date Collected: 2/9/2010 09:23:52
Analyst: JXL Data Type: Original

Replicate Data: 1202025317|945634|1

Repl	SampleConc	StndConc	BlnkCorr	Peak	Peak	Time	Peak

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.078	0.078	0.0008	0.0052	0.0015	09:31:20	Yes
2	0.069	0.069	0.0007	0.0045	0.0014	09:31:50	Yes
Mean:	0.074	0.074	0.0008				
SD:	0.007	0.007	0.0001				
%RSD:	9.351	9.351	9.25				

==========

Sequence No.: 20 **Autosampler Location: 20**
Sample ID: 1202025254|945602|10 **Date Collected: 2/9/2010 09:32:09**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202025254|945602|10

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	3.520	3.520	0.0370	0.1504	0.0376	09:32:59	Yes
2	3.464	3.464	0.0364	0.1472	0.0371	09:33:29	Yes
Mean:	3.492	3.492	0.0367				
SD:	0.039	0.039	0.0004				
%RSD:	1.127	1.127	1.13				

==========

Sequence No.: 21 **Autosampler Location: 21**
Sample ID: 245243001|945602|1 **Date Collected: 2/9/2010 09:33:49**
Analyst: JXL **Data Type: Original**

Replicate Data: 245243001|945602|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.831	0.831	0.0087	0.0370	0.0094	09:34:39	Yes
2	0.830	0.830	0.0087	0.0370	0.0094	09:35:09	Yes
Mean:	0.830	0.830	0.0087				
SD:	0.001	0.001	0.0000				
%RSD:	0.070	0.070	0.07				

==========

Sequence No.: 22 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 2/9/2010 09:35:29**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.143	5.143	0.0541	0.2189	0.0547	09:36:19	Yes
2	5.133	5.133	0.0540	0.2175	0.0546	09:36:49	Yes
Mean:	5.138	5.138	0.0540				
SD:	0.007	0.007	0.0001				
%RSD:	0.144	0.144	0.14				

QC value within limits for Hg 253.7 Recovery = 102.76%
All analyte(s) passed QC.

==========

Sequence No.: 23 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 2/9/2010 09:37:08**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.011	0.011	0.0001	0.0026	0.0008	09:37:59	Yes
2	0.009	0.009	0.0001	0.0026	0.0007	09:38:29	Yes
Mean:	0.010	0.010	0.0001				
SD:	0.001	0.001	0.0000				
%RSD:	10.94	10.94	10.11				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Replicate Data: 245243011|945602|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	1.537	1.537	0.0162	0.0675	0.0168	09:54:44	Yes
2	1.533	1.533	0.0161	0.0669	0.0168	09:55:15	Yes
Mean:	1.535	1.535	0.0161				
SD:	0.003	0.003	0.0000				
%RSD:	0.192	0.192	0.19				

==========

Sequence No.: 34 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 2/9/2010 09:55:34**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.153	5.153	0.0542	0.2203	0.0548	09:56:24	Yes
2	5.174	5.174	0.0544	0.2201	0.0550	09:56:54	Yes
Mean:	5.163	5.163	0.0543				
SD:	0.015	0.015	0.0002				
%RSD:	0.286	0.286	0.29				

QC value within limits for Hg 253.7 Recovery = 103.27%
All analyte(s) passed QC.

==========

Sequence No.: 35 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 2/9/2010 09:57:13**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.011	-0.011	-0.0001	0.0037	0.0005	09:58:03	Yes
2	-0.015	-0.015	-0.0002	0.0029	0.0005	09:58:33	Yes
Mean:	-0.013	-0.013	-0.0001				
SD:	0.003	0.003	0.0000				
%RSD:	21.85	21.85	23.30				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

==========

Sequence No.: 36 **Autosampler Location: 32**
Sample ID: 245243012|945602|1 **Date Collected: 2/9/2010 09:58:52**
Analyst: JXL **Data Type: Original**

Replicate Data: 245243012|945602|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.007	0.007	0.0001	0.0039	0.0007	09:59:43	Yes
2	0.007	0.007	0.0001	0.0042	0.0007	10:00:13	Yes
Mean:	0.007	0.007	0.0001				
SD:	0.000	0.000	0.0000				
%RSD:	2.120	2.120	1.90				

==========

Sequence No.: 37 **Autosampler Location: 33**
Sample ID: 245249001|945602|1 **Date Collected: 2/9/2010 10:00:32**
Analyst: JXL **Data Type: Original**

Replicate Data: 245249001|945602|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.193	0.193	0.0020	0.0125	0.0027	10:01:23	Yes
2	0.189	0.189	0.0020	0.0109	0.0026	10:01:53	Yes
Mean:	0.191	0.191	0.0020				
SD:	0.003	0.003	0.0000				

1	0.177	0.177	0.0019	0.0097	0.0025	10:09:49	Yes
2	0.177	0.177	0.0019	0.0105	0.0025	10:10:18	Yes
Mean:	0.177	0.177	0.0019				
SD:	0.000	0.000	0.0000				
%RSD:	0.080	0.080	0.08				

==========

Sequence No.: 43 **Autosampler Location: 39**
Sample ID: 245249003|945602|1 **Date Collected: 2/9/2010 10:10:38**
Analyst: JXL **Data Type: Original**

Replicate Data: 245249003|945602|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.512	0.512	0.0054	0.0248	0.0060	10:11:29	Yes
2	0.505	0.505	0.0053	0.0241	0.0060	10:11:59	Yes
Mean:	0.509	0.509	0.0054				
SD:	0.005	0.005	0.0001				
%RSD:	1.050	1.050	1.05				

==========

Sequence No.: 44 **Autosampler Location: 40**
Sample ID: 245249004|945602|1 **Date Collected: 2/9/2010 10:12:18**
Analyst: JXL **Data Type: Original**

Replicate Data: 245249004|945602|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.291	0.291	0.0031	0.0156	0.0037	10:13:09	Yes
2	0.289	0.289	0.0030	0.0151	0.0037	10:13:39	Yes
Mean:	0.290	0.290	0.0031				
SD:	0.001	0.001	0.0000				
%RSD:	0.443	0.443	0.44				

==========

Sequence No.: 45 **Autosampler Location: 41**
Sample ID: 245249005|945602|1 **Date Collected: 2/9/2010 10:13:58**
Analyst: JXL **Data Type: Original**

Replicate Data: 245249005|945602|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.249	0.249	0.0026	0.0135	0.0033	10:14:49	Yes
2	0.246	0.246	0.0026	0.0134	0.0032	10:15:19	Yes
Mean:	0.248	0.248	0.0026				
SD:	0.002	0.002	0.0000				
%RSD:	0.999	0.999	1.00				

==========

Sequence No.: 46 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 2/9/2010 10:15:38**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.184	5.184	0.0545	0.2227	0.0551	10:16:28	Yes
2	5.126	5.126	0.0539	0.2214	0.0545	10:16:58	Yes
Mean:	5.155	5.155	0.0542				
SD:	0.041	0.041	0.0004				
%RSD:	0.801	0.801	0.80				

QC value within limits for Hg 253.7 Recovery = 103.10%
All analyte(s) passed QC.

==========

Sequence No.: 47 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 2/9/2010 10:17:17**

Analyst: Data Type: Original

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.034	-0.034	-0.0003	0.0014	0.0003	10:18:08	Yes
2	-0.035	-0.035	-0.0004	0.0013	0.0003	10:18:38	Yes
Mean:	-0.035	-0.035	-0.0004				
SD:	0.001	0.001	0.0000				
%RSD:	2.744	2.744	2.81				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

==========

Sequence No.: 48 Autosampler Location: 42
Sample ID: 245249006|945602|1 Date Collected: 2/9/2010 10:18:58
Analyst: JXL Data Type: Original

Replicate Data: 245249006|945602|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.361	0.361	0.0038	0.0182	0.0044	10:19:48	Yes
2	0.357	0.357	0.0038	0.0182	0.0044	10:20:18	Yes
Mean:	0.359	0.359	0.0038				
SD:	0.002	0.002	0.0000				
%RSD:	0.667	0.667	0.67				

==========

Sequence No.: 49 Autosampler Location: 43
Sample ID: 245249007|945602|1 Date Collected: 2/9/2010 10:20:38
Analyst: JXL Data Type: Original

Replicate Data: 245249007|945602|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.218	0.218	0.0023	0.0119	0.0029	10:21:28	Yes
2	0.218	0.218	0.0023	0.0122	0.0029	10:21:58	Yes
Mean:	0.218	0.218	0.0023				
SD:	0.000	0.000	0.0000				
%RSD:	0.031	0.031	0.03				

==========

Sequence No.: 50 Autosampler Location: 44
Sample ID: 245249008|945602|1 Date Collected: 2/9/2010 10:22:18
Analyst: JXL Data Type: Original

Replicate Data: 245249008|945602|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.176	0.176	0.0019	0.0095	0.0025	10:23:08	Yes
2	0.174	0.174	0.0018	0.0103	0.0025	10:23:38	Yes
Mean:	0.175	0.175	0.0018				
SD:	0.001	0.001	0.0000				
%RSD:	0.574	0.574	0.57				

==========

Sequence No.: 51 Autosampler Location: 45
Sample ID: 1202036367|950299|1 Date Collected: 2/9/2010 10:23:58
Analyst: JXL Data Type: Original

Replicate Data: 1202036367|950299|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.034	-0.034	-0.0004	0.0016	0.0003	10:24:49	Yes
2	-0.036	-0.036	-0.0004	0.0010	0.0003	10:25:19	Yes
Mean:	-0.035	-0.035	-0.0004				

SD:	0.001	0.001	0.0000
%RSD:	3.323	3.323	3.40

==========

Sequence No.: 52 **Autosampler Location: 46**
Sample ID: 1202036368|950299|10 **Date Collected: 2/9/2010 10:25:38**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202036368|950299|10

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	4.019	4.019	0.0423	0.1738	0.0429	10:26:30	Yes
2	4.021	4.021	0.0423	0.1740	0.0429	10:27:00	Yes
Mean:	4.020	4.020	0.0423				
SD:	0.001	0.001	0.0000				
%RSD:	0.022	0.022	0.02				

==========

Sequence No.: 53 **Autosampler Location: 47**
Sample ID: 246333001|950299|1 **Date Collected: 2/9/2010 10:27:20**
Analyst: JXL **Data Type: Original**

Replicate Data: 246333001|950299|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.053	0.053	0.0006	0.0048	0.0012	10:28:11	Yes
2	0.052	0.052	0.0006	0.0049	0.0012	10:28:41	Yes
Mean:	0.052	0.052	0.0006				
SD:	0.001	0.001	0.0000				
%RSD:	1.621	1.621	1.60				

==========

Sequence No.: 54 **Autosampler Location: 48**
Sample ID: 1202036369|950299|1 **Date Collected: 2/9/2010 10:29:01**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202036369|950299|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.047	0.047	0.0005	0.0048	0.0011	10:29:53	Yes
2	0.047	0.047	0.0005	0.0046	0.0011	10:30:23	Yes
Mean:	0.047	0.047	0.0005				
SD:	0.000	0.000	0.0000				
%RSD:	0.345	0.345	0.34				

==========

Sequence No.: 55 **Autosampler Location: 49**
Sample ID: 1202036370|950299|1 **Date Collected: 2/9/2010 10:30:43**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202036370|950299|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.206	2.206	0.0232	0.0963	0.0238	10:31:35	Yes
2	2.193	2.193	0.0231	0.0961	0.0237	10:32:05	Yes
Mean:	2.199	2.199	0.0231				
SD:	0.009	0.009	0.0001				
%RSD:	0.428	0.428	0.43				

==========

Sequence No.: 56 **Autosampler Location: 50**
Sample ID: 1202036372|950299|1 **Date Collected: 2/9/2010 10:32:25**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202036372|950299|1

Repl	SampleConc	StndConc	BlnkCorr	Peak	Peak	Time	Peak

#	ug/L	ug/L	Signal	Area	Height		Stored
1	2.181	2.181	0.0229	0.0957	0.0236	10:33:17	Yes
2	2.165	2.165	0.0228	0.0945	0.0234	10:33:47	Yes
Mean:	2.173	2.173	0.0228				
SD:	0.012	0.012	0.0001				
%RSD:	0.534	0.534	0.53				

==========

Sequence No.: 57 **Autosampler Location: 51**
Sample ID: 1202036371|950299|5 **Date Collected: 2/9/2010 10:34:06**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202036371|950299|5

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.024	-0.024	-0.0002	0.0013	0.0004	10:34:58	Yes
2	-0.020	-0.020	-0.0002	0.0019	0.0004	10:35:28	Yes
Mean:	-0.022	-0.022	-0.0002				
SD:	0.003	0.003	0.0000				
%RSD:	12.91	12.91	13.43				

==========

Sequence No.: 58 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 2/9/2010 10:35:47**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.191	5.191	0.0546	0.2241	0.0552	10:36:37	Yes
2	5.158	5.158	0.0542	0.2222	0.0549	10:37:07	Yes
Mean:	5.175	5.175	0.0544				
SD:	0.023	0.023	0.0002				
%RSD:	0.451	0.451	0.45				

QC value within limits for Hg 253.7 Recovery = 103.50%
All analyte(s) passed QC.

==========

Sequence No.: 59 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 2/9/2010 10:37:26**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.039	-0.039	-0.0004	0.0011	0.0002	10:38:17	Yes
2	-0.040	-0.040	-0.0004	0.0007	0.0002	10:38:47	Yes
Mean:	-0.039	-0.039	-0.0004				
SD:	0.001	0.001	0.0000				
%RSD:	2.663	2.663	2.72				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

==========

Sequence No.: 60 **Autosampler Location: 52**
Sample ID: 246333002|950299|1 **Date Collected: 2/9/2010 10:39:07**
Analyst: JXL **Data Type: Original**

Replicate Data: 246333002|950299|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.016	-0.016	-0.0002	0.0022	0.0005	10:39:57	Yes
2	-0.017	-0.017	-0.0002	0.0020	0.0005	10:40:27	Yes
Mean:	-0.016	-0.016	-0.0002				
SD:	0.001	0.001	0.0000				
%RSD:	7.070	7.070	7.45				

Mean:	0.178	0.178	0.0019
SD:	0.004	0.004	0.0000
%RSD:	2.261	2.261	2.25

==========

Sequence No.: 66 **Autosampler Location: 58**
Sample ID: 245374004|945615|1 **Date Collected: 2/9/2010 10:49:10**
Analyst: JXL **Data Type: Original**

Replicate Data: 245374004|945615|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.336	0.336	0.0035	0.0176	0.0042	10:50:01	Yes
2	0.344	0.344	0.0036	0.0176	0.0043	10:50:31	Yes
Mean:	0.340	0.340	0.0036				
SD:	0.006	0.006	0.0001				
%RSD:	1.825	1.825	1.82				

==========

Sequence No.: 67 **Autosampler Location: 59**
Sample ID: 245374005|945615|1 **Date Collected: 2/9/2010 10:50:51**
Analyst: JXL **Data Type: Original**

Replicate Data: 245374005|945615|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.111	0.111	0.0012	0.0075	0.0018	10:51:42	Yes
2	0.107	0.107	0.0011	0.0074	0.0018	10:52:12	Yes
Mean:	0.109	0.109	0.0012				
SD:	0.003	0.003	0.0000				
%RSD:	2.504	2.504	2.49				

==========

Sequence No.: 68 **Autosampler Location: 60**
Sample ID: 245374006|945615|1 **Date Collected: 2/9/2010 10:52:32**
Analyst: JXL **Data Type: Original**

Replicate Data: 245374006|945615|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.118	0.118	0.0013	0.0079	0.0019	10:53:24	Yes
2	0.112	0.112	0.0012	0.0074	0.0018	10:53:54	Yes
Mean:	0.115	0.115	0.0012				
SD:	0.004	0.004	0.0000				
%RSD:	3.615	3.615	3.59				

==========

Sequence No.: 69 **Autosampler Location: 61**
Sample ID: 245374007|945615|1 **Date Collected: 2/9/2010 10:54:14**
Analyst: JXL **Data Type: Original**

Replicate Data: 245374007|945615|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.013	0.013	0.0001	0.0032	0.0008	10:55:06	Yes
2	0.011	0.011	0.0001	0.0032	0.0008	10:55:36	Yes
Mean:	0.012	0.012	0.0001				
SD:	0.002	0.002	0.0000				
%RSD:	12.69	12.69	11.88				

==========

Sequence No.: 70 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 2/9/2010 10:55:57**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.120	5.120	0.0538	0.2234	0.0545	10:56:47	Yes
2	5.126	5.126	0.0539	0.2225	0.0545	10:57:17	Yes
Mean:	5.123	5.123	0.0539				
SD:	0.005	0.005	0.0000				
%RSD:	0.089	0.089	0.09				

QC value within limits for Hg 253.7 Recovery = 102.46%
All analyte(s) passed QC.

==========

Sequence No.: 71 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 2/9/2010 10:57:36**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.042	-0.042	-0.0004	0.0008	0.0002	10:58:27	Yes
2	-0.048	-0.048	-0.0005	0.0003	0.0001	10:58:56	Yes
Mean:	-0.045	-0.045	-0.0005				
SD:	0.004	0.004	0.0000				
%RSD:	8.356	8.356	8.51				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

==========

Sequence No.: 72 **Autosampler Location: 62**
Sample ID: 245377001|945615|1 **Date Collected: 2/9/2010 10:59:16**
Analyst: JXL **Data Type: Original**

Replicate Data: 245377001|945615|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.278	0.278	0.0029	0.0147	0.0036	11:00:07	Yes
2	0.277	0.277	0.0029	0.0142	0.0036	11:00:37	Yes
Mean:	0.277	0.277	0.0029				
SD:	0.001	0.001	0.0000				
%RSD:	0.402	0.402	0.40				

==========

Sequence No.: 73 **Autosampler Location: 63**
Sample ID: 1202025279|945615|1 **Date Collected: 2/9/2010 11:00:57**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202025279|945615|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.285	0.285	0.0030	0.0145	0.0036	11:01:48	Yes
2	0.285	0.285	0.0030	0.0146	0.0036	11:02:18	Yes
Mean:	0.285	0.285	0.0030				
SD:	0.000	0.000	0.0000				
%RSD:	0.010	0.010	0.01				

==========

Sequence No.: 74 **Autosampler Location: 64**
Sample ID: 1202025280|945615|1 **Date Collected: 2/9/2010 11:02:38**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202025280|945615|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.450	2.450	0.0258	0.1082	0.0264	11:03:29	Yes
2	2.450	2.450	0.0258	0.1082	0.0264	11:03:59	Yes
Mean:	2.450	2.450	0.0258				
SD:	0.001	0.001	0.0000				
%RSD:	0.025	0.025	0.02				

Miscellaneous

Prep LogBook

Analyst: BCD1 Verified by:_____

Batch: 949910

Lab SOP: GL-MA-E-009 REV# 19

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1202035242	UI062540-I	.501	g
MS	1202035240	UI100205-01	.25	mL
MS	1202035240	UI100205-06	.25	mL
MSD	1202035241	UI100205-01	.25	mL
MSD	1202035241	UI100205-06	.25	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1202035237		SW846 3050B	07-FEB-2010 08:14	0.511 g	50 mL	97.84736	SOIL
LCS	1202035242		SW846 3050B	07-FEB-2010 08:14	0.501 g	50 mL	99.8004	SOIL
SAMPLE	246333001		SW846 3050B	07-FEB-2010 08:14	0.519 g	50 mL	96.33911	SOIL
DUP	1202035238	246333001	SW846 3050B	07-FEB-2010 08:14	0.507 g	50 mL	98.61933	SOIL
SDILT	1202035239	246333001	SW846 3050B	07-FEB-2010 08:14	0.519 g	50 mL	96.33911	SOIL
MS	1202035240	246333001	SW846 3050B	07-FEB-2010 08:14	0.521 g	50 mL	95.96929	SOIL
MSD	1202035241	246333001	SW846 3050B	07-FEB-2010 08:14	0.507 g	50 mL	98.61933	SOIL
SAMPLE	246333002		SW846 3050B	07-FEB-2010 08:14	0.503 g	50 mL	99.40358	SOIL

Reagent/Solvent Lot ID	Amount	Description
1265209	10 mL	HYDROCHLORIC ACID
1264396	1.25 mL	Nitric Acid CONC.

Comments The QC sample is a brown/orange soil.

Prep LogBook

Analyst: BCD1 Verified by:_____

Batch: 949912

Lab SOP: GL-MA-E-009 REV# 19

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1202035253	UI062540-MS	.51	g
MS	1202035251	UI091015-A	.5	mL
MS	1202035251	UI091015-B	.5	mL
MSD	1202035252	UI091015-A	.5	mL
MSD	1202035252	UI091015-B	.5	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1202035248		SW846 3050B	07-FEB-2010 08:24	0.503 g	50 mL	99.40358	SOIL
LCS	1202035253		SW846 3050B	07-FEB-2010 08:24	0.51 g	50 mL	98.03922	SOIL
SAMPLE	246333001		SW846 3050B	07-FEB-2010 08:24	0.5 g	50 mL	100	SOIL
DUP	1202035249	246333001	SW846 3050B	07-FEB-2010 08:24	0.5 g	50 mL	100	SOIL
SDILT	1202035250	246333001	SW846 3050B	07-FEB-2010 08:24	0.5 g	50 mL	100	SOIL
MS	1202035251	246333001	SW846 3050B	07-FEB-2010 08:24	0.525 g	50 mL	95.2381	SOIL
MSD	1202035252	246333001	SW846 3050B	07-FEB-2010 08:24	0.51 g	50 mL	98.03922	SOIL
SAMPLE	246333002		SW846 3050B	07-FEB-2010 08:24	0.515 g	50 mL	97.08738	SOIL

Reagent/Solvent Lot ID	Amount	Description
1250038-02	1.5 mL	Hydrogen Peroxide 30%
1264396	5 mL	Nitric Acid CONC.

Comments The QC sample is a brown/orange soil.

Prep LogBook

Analyst: TXB3 Verified by:_____

Batch: 950298

Lab SOP: GL-MA-E-010 REV# 23

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1202036368	UI031809A	.202	g
MS	1202036370	WHG100208-14	.3	mL
MSD	1202036372	WHG100208-14	.3	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1202036367		SW846 7471A Prep	08-FEB-2010 15:43	0.559 g	30 mL	53.66726	SOIL
LCS	1202036368		SW846 7471A Prep	08-FEB-2010 15:43	0.202 g	30 mL	148.51485	SOIL
SAMPLE	246333001		SW846 7471A Prep	08-FEB-2010 15:43	0.549 g	30 mL	54.64481	SOIL
DUP	1202036369	246333001	SW846 7471A Prep	08-FEB-2010 15:43	0.564 g	30 mL	53.19149	SOIL
MS	1202036370	246333001	SW846 7471A Prep	08-FEB-2010 15:43	0.561 g	30 mL	53.47594	SOIL
MSD	1202036372	246333001	SW846 7471A Prep	08-FEB-2010 15:43	0.553 g	30 mL	54.24955	SOIL
SDILT	1202036371	246333001	SW846 7471A Prep	08-FEB-2010 15:43	0.549 g	30 mL	54.64481	SOIL
SAMPLE	246333002		SW846 7471A Prep	08-FEB-2010 15:43	0.551 g	30 mL	54.44646	SOIL

Reagent/Solvent Lot ID	Amount	Description
1264796-A	1.125 mL	Hydrochloric Acid Conc.
1257474-1	.375 mL	NITRIC ACID
1264984-C	7.5 mL	5% KMnO4 solution
1255532-C	2 mL	Hg reducing agent
WHG100208-07	30 uL	Mercury Working Standard 1st Source CAL S 0.2/CRA
WHG100208-08	75 uL	Mercury Working Standard 1st Source CAL S 0.5
WHG100208-11	1.5 mL	Mercury Working 1st Source CAL S 10.0
WHG100208-09	300 uL	Mercury Working 1st Source CAL S 2.0
WHG100208-10	750 uL	Mercury Working 1st Source CAL S 5.0/CCV
WHG100208-12	750 uL	Mercury Working 2nd Source S 5.0/ICV

Comments Sample 246333001 is a brown soil.
Digestion Start Date: 08-FEB-10 15:25
Digestion End Date: 08-FEB-10 15:55

Prep LogBook

Analyst: BXA1 Verified by:_____

Batch: 951402

Lab SOP: GL-MA-E-009 REV# 19

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1202038898	UI062540-I	.501	g
MS	1202035240	UI100120-01	.25	mL
MS	1202035240	UI100120-06	.25	mL
MSD	1202035241	UI100120-01	.25	mL
MSD	1202035241	UI100120-06	.25	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1202038897		SW846 3050B	10-FEB-2010 23:17	0.511 g	50 mL	97.84736	SOIL
LCS	1202038898		SW846 3050B	10-FEB-2010 23:17	0.501 g	50 mL	99.8004	SOIL
SAMPLE	246333001		SW846 3050B	10-FEB-2010 23:17	0.522 g	50 mL	95.78544	SOIL
DUP	1202035238	246333001	SW846 3050B	10-FEB-2010 23:17	0.521 g	50 mL	95.96929	SOIL
SDILT	1202035239	246333001	SW846 3050B	10-FEB-2010 23:17	0.522 g	50 mL	95.78544	SOIL
MS	1202035240	246333001	SW846 3050B	10-FEB-2010 23:17	0.514 g	50 mL	97.27626	SOIL
MSD	1202035241	246333001	SW846 3050B	10-FEB-2010 23:17	0.513 g	50 mL	97.46589	SOIL
SAMPLE	246333002		SW846 3050B	10-FEB-2010 23:17	0.506 g	50 mL	98.81423	SOIL

Reagent/Solvent Lot ID	Amount	Description
1265209	10 mL	HYDROCHLORIC ACID
1264396	1.25 mL	Nitric Acid CONC.

Comments: sample#24633001 is a brown soil.

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
10-FEB-10	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
ICP	SW846 3050B/6010B	Solid	LANL
Batch ID:	**Sample Numbers:**		
949911	See Below		

Potentially affected work order(s)(SDG): 246333(10-1604)

Application Issues:

Failed RPD for DUP

Failed Recovery for MSD/PSD

Failed Recovery for MS/PS

Failed RPD for MS/MSD, or PS/PSD

Specification and Requirements Exception Description:	DER Disposition:
1. Failed Recovery for MS/PS: QC 1202035240MS 2. Failed RPD for DUP: QC 1202035238DUP 3. Failed RPD for MS/MSD, or PS/PSD: QC 1202035241MSD 4. Failed Recovery for MSD/PSD: QC 1202035241MSD	1. The matrix spike recovery failed outside of the control limits for barium,manganese and silicon due to possible matrix interferences and/or non-homogeneity. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported. 2. The sample and sample duplicate % RPD failed outside the control limits for cobalt,potassium,silicon and titanium due to possible sample non-homogeneity and/or matrix interference. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported. 3. The matrix spike and matrix spike duplicate % RPD failed outside of the control limits for manganese due to possible matrix interferences and/or sample non-homogeneity. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported. 4. The matrix spike duplicate recovery failed outside of the control limits for manganese and silicon due to possible matrix interferences and/or non-homogeneity. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported.

Originator's Name:
Helen Camello 11-FEB-10

Data Validator/Group Leader:
Kristen Parson 12-FEB-10

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
11-FEB-10	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
ICP/MS	SW846 3050B/6020	Solid	LANL
Batch ID:	**Sample Numbers:**		
949913	See Below		

Potentially affected work order(s)(SDG): 246333(10-1604)

Application Issues:

Failed Recovery for MS/PS

Failed Recovery for MSD/PSD

Specification and Requirements Exception Description:	DER Disposition:
1. Failed Recovery for MS/PS: QC 1202035251MS 2. Failed Recovery for MSD/PSD: QC 1202035252MSD	The matrix spike and matrix spike duplicate recoveries failed outside of the control limits for Li, Ni and Se due to possible matrix interferences and/or non-homogeneity. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported.

Originator's Name:

Elizabeth Janssen 11-FEB-10

Data Validator/Group Leader:

Samantha Jacobs 11-FEB-10

Standard Logbook

Serial ID:	UHG1167639-01	**Opened:**	13-AUG-09	**Amount :**	125 mL
Name:	MHGSTOCK1	**Received:**	13-AUG-09	**Catalog Number :**	PLHG4-2Y
Type:	Source Material	**Expires:**	13-AUG-10	**Lot Number :**	15-37HG
Employee:	Bryan Davis			**Solvent :**	10% HNO3
Supplier:	Spex				
Description:	Mercury Source Standard #1 1,000 mg/L				
Comments:	None				

Analyte	Concentration	Analyte	Concentration
Mercury	1000 mg/L		

Serial ID:	UHG1167641-02	**Opened:**	13-AUG-09	**Amount :**	100 mL
Name:	MHGSTOCK2	**Received:**	13-AUG-09	**Catalog Number :**	AHG1KN-100
Type:	Source Material	**Expires:**	13-AUG-10	**Lot Number :**	4905530
Employee:	Bryan Davis			**Solvent :**	3% HNO3
Supplier:	Ricca Chemical Company				
Description:	Mercury Source Standard #2 1,000 mg/L				
Comments:	None				

Analyte	Concentration	Analyte	Concentration
Mercury	999.7 mg/L		

Serial ID:	UI031809A	**Opened:**	18-MAR-09	**Catalog Number :**	540
Name:	METALSOILSRM	**Received:**	18-MAR-09	**Lot Number :**	D061-540
Type:	Source Material	**Expires:**	10-OCT-10		
Employee:	Jamie Johnson				
Supplier:	ERA				
Description:	Metals LCS Soil SRM				
Comments:	None				

Analyte	Concentration	Analyte	Concentration
Aluminum	10600 mg/kg	Antimony	126 mg/kg
Arsenic	225 mg/kg	Barium	565 mg/kg
Beryllium	162 mg/kg	Boron	107 mg/kg
Cadmium	69.1 mg/kg	Calcium	10000 mg/kg
Chromium	124 mg/kg	Cobalt	115 mg/kg
Copper	66.7 mg/kg	Iron	17600 mg/kg
Lead	223 mg/kg	Magnesium	4260 mg/kg
Manganese	368 mg/kg	Mercury	5.15 mg/kg
Molybdenum	107 mg/kg	Nickel	172 mg/kg
Potassium	4090 mg/kg	Selenium	147 mg/kg
Silver	35.2 mg/kg	Sodium	538 mg/kg
Strontium	117 mg/kg	Thallium	173 mg/kg
Tin	164 mg/kg	Titanium	381 mg/kg
Vanadium	93.9 mg/kg	Zinc	349 mg/kg

Standard Logbook

Serial ID: UI062540-I **Opened:** 12-JUN-09 **Amount :** 80 g
Name: ICP SOIL SRM **Received:** 12-JUN-09 **Lot Number :** D062-540
Type: Source Material **Expires:** 31-JAN-12
Employee: Bryan Davis
Supplier: ERA
Description: Metals Soil LCS SRM ICP/Hg
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	10500 mg/kg	Antimony	173 mg/kg
Arsenic	104 mg/kg	Barium	198 mg/kg
Beryllium	77.6 mg/kg	Boron	141 mg/kg
Cadmium	60.7 mg/kg	Calcium	9870 mg/kg
Chromium	236 mg/kg	Cobalt	91.2 mg/kg
Copper	174 mg/kg	Iron	18000 mg/kg
Lead	86 mg/kg	Magnesium	4000 mg/kg
Manganese	558 mg/kg	Mercury	8.46 mg/kg
Molybdenum	48.6 mg/kg	Nickel	134 mg/kg
Phosphorous	736 mg/kg	Potassium	4300 mg/kg
Selenium	286 mg/kg	Silica	2591 mg/kg
Silicon	1211 mg/kg	Silver	30.1 mg/kg
Sodium	1020 mg/kg	Strontium	227 mg/kg
Sulfur	385 mg/kg	Thallium	121 mg/kg
Tin	104 mg/kg	Titanium	462 mg/kg
Vanadium	115 mg/kg	Zinc	594 mg/kg

Serial ID: UI062540-MS **Opened:** 12-JUN-09 **Lot Number :** D062-540
Name: ICPMS SOIL SRM **Received:** 12-JUN-09
Type: Source Material **Expires:** 31-JAN-12
Employee: Bryan Davis
Supplier: ERA
Description: Metals Soil LCS SRM ICPMS
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	10500 mg/kg	Antimony	67.4 mg/kg
Arsenic	104 mg/kg	Barium	198 mg/kg
Beryllium	77.6 mg/kg	Boron	141 mg/kg
Cadmium	60.6 mg/kg	Calcium	9870 mg/kg
Chromium	236 mg/kg	Cobalt	91.2 mg/kg
Copper	174 mg/kg	Iron	18000 mg/kg
Lead	86 mg/kg	Lithium	10.6 mg/kg
Magnesium	4000 mg/kg	Manganese	558 mg/kg
Mercury	8.46 mg/kg	Molybdenum	48.6 mg/kg
Nickel	134 mg/kg	Phosphorous	755 mg/kg
Potassium	4300 mg/kg	Selenium	286 mg/kg
Silver	30.1 mg/kg	Sodium	1020 mg/kg

Analyte	Concentration	Analyte	Concentration
Strontium	227 mg/kg	Thallium	121 mg/kg
Thorium	9.84 mg/kg	Tin	104 mg/kg
Titanium	462 mg/kg	Uranium	2.13 mg/kg
Uranium-235	.0153 mg/kg	Uranium-238	2.11 mg/kg
Vanadium	92.4 mg/kg	Zinc	594 mg/kg
Zirconium	10.6 mg/kg		

Serial ID: UI090422-40 **Opened:** 04-MAY-09 **Amount :** 500 mL
Name: TRACE ICP ICSA SOLN A **Received:** 22-APR-09 **Catalog Number :** 160005-01-03
Type: Source Material **Expires:** 04-MAY-10 **Lot Number :** 1013357
Employee: Helen Camello **Solvent :** 5%HNO3
Supplier: o2si
Description: TRACE ICP ICSA SOLN A mg/L+/-0.5%IN5%HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	5000 mg/L	Calcium	5000 mg/L
Iron	2000 mg/L	Magnesium	5000 mg/L

Serial ID: UI090610-03 **Opened:** 10-JUN-09 **Catalog Number :** 060074-06-01
Name: ICPMS Tungsten - 10mg/L S **Received:** 10-JUN-09 **Lot Number :** 1016338
Type: Source Material **Expires:** 10-JUN-10 **Solvent :** 2% HNO3
Employee: Paul Boyd
Supplier: O2SI
Description: ICPMS Tungsten standard SPIKE - 10mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Tungsten	10 mg/L		

Serial ID: UI090701-09 **Opened:** 01-JUL-09 **Amount :** 250 mL
Name: ICP-MS CRDL Master #1 **Received:** 01-JUL-09 **Catalog Number :** 160044-09-02
Type: Source Material **Expires:** 01-JUL-10 **Lot Number :** 1016477
Employee: Paul Boyd **Solvent :** +/- 0.5% IN 2% HNO3
Supplier: 02SI
Description: ICPMS CRDL Master Soln #1
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	15 mg/L	Arsenic	5 mg/L
Barium	2 mg/L	Beryllium	.5 mg/L
Boron	15 mg/L	Cadmium	1 mg/L
Calcium	100 mg/L	Chromium	3 mg/L
Cobalt	1 mg/L	Copper	1 mg/L

Analyte	Concentration	Analyte	Concentration
Iron	25 mg/L	Lead	2 mg/L
Lithium	10 mg/L	Magnesium	15 mg/L
Manganese	5 mg/L	Nickel	2 mg/L
Phosphorous	50 mg/L	Potassium	300 mg/L
Selenium	5 mg/L	Sodium	250 mg/L
Strontium	10 mg/L	Thallium	1 mg/L
Thorium	1 mg/L	Uranium	.2 mg/L
Vanadium	10 mg/L	Zinc	10 mg/L

Serial ID: UI090701-10 **Opened:** 01-JUL-09 **Amount :** 250 mL
Name: ICP-MS CRDL Master #2 **Received:** 01-JUL-09 **Catalog Number :** 160044-08-02
Type: Source Material **Expires:** 01-JUL-10 **Lot Number :** 1016476
Employee: Paul Boyd **Solvent :** +/- 0.5% IN 2% HNO3
Supplier: 02SI
Description: ICPMS CRDL Soln #2
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	2 mg/L	Molybdenum	.5 mg/L
Silver	1 mg/L	Tin	2 mg/L
Titanium	10 mg/L	Tungsten	5 mg/L
Zirconium	2 mg/L		

Serial ID: UI090701-40 **Opened:** 01-JUL-09 **Amount :** 500 mL
Name: TRACE ICP Stock PQL St **Received:** 30-JUN-09 **Catalog Number :** 160543-01-03
Type: Source Material **Expires:** 01-JUL-10 **Lot Number :** 1016475
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3+TrHF
Supplier: 02si
Description: TRACE ICP Stock PQL Standard
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	100 mg/L	Antimony	5 mg/L
Arsenic	15 mg/L	Barium	2.5 mg/L
Beryllium	2.5 mg/L	Boron	25 mg/L
Cadmium	2.5 mg/L	Calcium	100 mg/L
Chromium	2.5 mg/L	Cobalt	2.5 mg/L
Copper	5 mg/L	Iron	50 mg/L
Lead	5 mg/L	Magnesium	150 mg/L
Manganese	5 mg/L	Molybdenum	5 mg/L
Nickel	2.5 mg/L	Phosphorous	75 mg/L
Potassium	75 mg/L	Selenium	15 mg/L
Silicon	50 mg/L	Silver	2.5 mg/L
Sodium	150 mg/L	Strontium	2.5 mg/L
Sulfur	50 mg/L	Thallium	10 mg/L

Analyte	Concentration	Analyte	Concentration
Tin	5 mg/L	Titanium	2.5 mg/L
Uranium	25 mg/L	Vanadium	2.5 mg/L
Zinc	5 mg/L		

Serial ID: UI090828-42 **Opened:** 16-SEP-09 **Amount :** 500 mL
Name: TRACE ICP Na-1000SOUR **Received:** 27-AUG-09 **Catalog Number :** 060011-02-03
Type: Source Material **Expires:** 16-SEP-10 **Lot Number :** 1017098
Employee: Helen Camello **Solvent :** 1%HNO3
Supplier: 02SI
Description: Sodium 1000 +/- 3 ug/mL in 1% HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Sodium	1000 ug/mL		

Serial ID: UI090925-40 **Opened:** 23-OCT-09 **Amount :** 500 mL
Name: SECOND SOURCE STD -1 **Received:** 25-SEP-09 **Catalog Number :** SGELMX38-500N
Type: Source Material **Expires:** 30-SEP-10 **Lot Number :** 4909129
Employee: Helen Camello **Solvent :** 5%HNO3
Supplier: SPECTRO PURE
Description: SECOND SOURCE STD #1A 5%HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Arsenic	100 mg/L
Barium	100 mg/L	Boron	100 mg/L
Cadmium	100 mg/L	Calcium	1000 mg/L
Chromium	100 mg/L	Cobalt	100 mg/L
Copper	100 mg/L	Iron	1000 mg/L
Lead	100 mg/L	Phosphorous	500 mg/L
Potassium	500 mg/L	Selenium	500 mg/L
Sodium	500 mg/L	Strontium	100 mg/L

Serial ID: UI090925-41 **Opened:** 23-OCT-09 **Amount :** 500 mL
Name: SECOND SOURCE STD -1 **Received:** 25-SEP-09 **Catalog Number :** SGELMX39-500B
Type: Source Material **Expires:** 30-SEP-10 **Lot Number :** 4909130
Employee: Helen Camello **Solvent :** 5%HNO3,TR.HF
Supplier: SPECTRO PURE
Description: SECOND SOURCE STD #1B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	100 mg/L	Beryllium	50 mg/L
Magnesium	1000 mg/L	Manganese	100 mg/L

Analyte	Concentration	Analyte	Concentration
Molybdenum	100 mg/L	Nickel	100 mg/L
Silver	50 mg/L	Sulfur	500 mg/L
Thallium	100 mg/L	Tin	100 mg/L
Titanium	100 mg/L	Uranium	100 mg/L
Vanadium	100 mg/L	Zinc	100 mg/L

Serial ID: UI091015-42 **Opened:** 28-OCT-09 **Amount :** 500 mL
Name: SI 1000mg/L **Received:** 15-OCT-09 **Catalog Number :** 060014-02-03
Type: Source Material **Expires:** 28-OCT-10 **Lot Number :** 1017581
Employee: Helen Camello **Solvent :** 0.3%H2O(NH4)2SiF6
Supplier: o2si
Description: Silicon 1000mg/L+/-0.3%in H2O(NH4)2SiF6
Comments: None

Analyte	Concentration	Analyte	Concentration
Silica	2139 mg/L	Silicon	1000 mg/L

Serial ID: UI091015-A **Opened:** 15-OCT-09 **Catalog Number :** 160067-03
Name: ICP-MS DOE SOIL SPIKE **Received:** 15-OCT-09 **Lot Number :** 1017142
Type: Source Material **Expires:** 15-OCT-10
Employee: Francena Armstrong
Supplier: 02si
Description: ICP-MS Spike for soil products.
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	200 mg/L	Arsenic	8 mg/L
Barium	5 mg/L	Beryllium	5 mg/L
Boron	10 mg/L	Cadmium	1 mg/L
Calcium	200 mg/L	Chromium	5 mg/L
Cobalt	5 mg/L	Copper	5 mg/L
Iron	200 mg/L	Lead	20 mg/L
Lithium	5 mg/L	Magnesium	200 mg/L
Manganese	5 mg/L	Nickel	5 mg/L
Phosphorus, Total as P	200 mg/L	Potassium	200 mg/L
Selenium	2 mg/L	Sodium	200 mg/L
Strontium	5 mg/L	Thallium	10 mg/L
Thorium	5 mg/L	Uranium	5 mg/L
Uranium-235	.036 mg/L	Uranium-238	4.964 mg/L
Vanadium	5 mg/L	Zinc	5 mg/L

Standard Logbook

Serial ID: UI091015-B **Opened:** 15-OCT-09 **Catalog Number :** 160067-03
Name: ICP-MS DOE SOIL SPIKE **Received:** 15-OCT-09 **Lot Number :** 1017142
Type: Source Material **Expires:** 15-OCT-10
Employee: Francena Armstrong
Supplier: 02si
Description: ICP-MS Spike for Soil Products
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	20 mg/L	Molybdenum	5 mg/L
Silicon	200 mg/L	Silver	5 mg/L
Tin	5 mg/L	Zirconium	5 mg/L

Serial ID: UI091102-40 **Opened:** 16-NOV-09 **Amount :** 500 mL
Name: TRACE CALSTD#1A SOUF **Received:** 02-NOV-09 **Catalog Number :** HP2270-1-500
Type: Source Material **Expires:** 31-OCT-10 **Lot Number :** 0930215
Employee: Helen Camello **Solvent :** HNO3
Supplier: Environmental Express
Description: Trace Calibration Std #1A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	2000 mg/L	Arsenic	200 mg/L
Barium	200 mg/L	Beryllium	200 mg/L
Boron	200 mg/L	Cadmium	200 mg/L
Calcium	2000 mg/L	Chromium	200 mg/L
Cobalt	200 mg/L	Copper	200 mg/L
Iron	2000 mg/L	Lead	200 mg/L
Magnesium	2000 mg/L	Manganese	200 mg/L
Nickel	200 mg/L	Phosphorous	1000 mg/L
Potassium	2000 mg/L	Selenium	200 mg/L
Sodium	2000 mg/L	Strontium	200 mg/L
Thallium	200 mg/L	Uranium	200 mg/L
Vanadium	200 mg/L	Zinc	200 mg/L

Serial ID: UI091102-41 **Opened:** 16-NOV-09 **Amount :** 500 mL
Name: TRACE CALSTD#1B SOUF **Received:** 02-NOV-09 **Catalog Number :** HP2270-2-500
Type: Source Material **Expires:** 31-OCT-10 **Lot Number :** 0930216
Employee: Helen Camello **Solvent :** HNO3
Supplier: Environmental Express
Description: Trace Calibration Standard #1B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	200 mg/L	Molybdenum	200 mg/L
Silver	200 mg/L	Sulfur	400 mg/L

Analyte	Concentration	Analyte	Concentration
Tin	200 mg/L	Titanium	200 mg/L

Serial ID: UI091102-42 **Opened:** 17-NOV-09 **Amount :** 200 mL
Name: SILICON **Received:** 02-NOV-09 **Catalog Number :** HP100050-4F
Type: Source Material **Expires:** 17-NOV-10 **Lot Number :** 0921924
Employee: Helen Camello **Solvent :** H20/tr HF
Supplier: ENVIRNMENTAL EXPRESS
Description: SILICON 1000mg/L H20/tr HF
Comments: None

Analyte	Concentration	Analyte	Concentration
Silica	2139 mg/L	Silicon	1000 mg/L

Serial ID: UI091212-60 **Opened:** 12-DEC-09 **Amount :** .5 mL
Name: ICPMS High Range Standa **Received:** 12-DEC-09 **Catalog Number :** 160212-02-01
Type: Source Material **Expires:** 12-DEC-10 **Lot Number :** 1018064
Employee: Paul Boyd **Solvent :** 2%HNO3 + Tr HF
Supplier: O2SI
Description: Linear Range Standard A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	5000 mg/L	Arsenic	100 mg/L
Barium	250 mg/L	Beryllium	100 mg/L
Cadmium	100 mg/L	Calcium	5000 mg/L
Chromium	100 mg/L	Cobalt	100 mg/L
Copper	100 mg/L	Iron	5000 mg/L
Lead	500 mg/L	Lithium	100 mg/L
Magnesium	5000 mg/L	Manganese	100 mg/L
Nickel	100 mg/L	Phosphorous	2500 mg/L
Potassium	5000 mg/L	Selenium	50 mg/L
Sodium	5000 mg/L	Strontium	100 mg/L
Thallium	50 mg/L	Thorium	250 mg/L
Uranium	500 mg/L	Vanadium	100 mg/L
Zinc	250 mg/L		

Serial ID: UI091212-61 **Opened:** 12-DEC-09 **Amount :** .5 mL
Name: ICPMS High Range Standa **Received:** 12-DEC-09 **Catalog Number :** 160212-02-01
Type: Source Material **Expires:** 12-DEC-10 **Lot Number :** 1018064
Employee: Paul Boyd **Solvent :** 2%HNO3 + Tr HF
Supplier: O2SI
Description: Linear Range Standard B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	25 mg/L	Molybdenum	100 mg/L
Silver	25 mg/L	Tin	100 mg/L
Tungsten	100 mg/L	Zirconium	50 mg/L

Serial ID: UI091217-06 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master A **Received:** 17-DEC-09 **Catalog Number :** 160055-01
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018209
Employee: Paul Boyd **Solvent :** +/- 0.5% in 5% HNO3 100 cm2
Supplier: 02SI
Description: ICPMS ICV/CCV SOLN A - 10ppm
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	2020 mg/L	Calcium	2000 mg/L
Iron	2000 mg/L	Magnesium	2000 mg/L
Phosphorous	2000 mg/L	Potassium	2000 mg/L
Sodium	2000 mg/L		

Serial ID: UI091217-07 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master B **Received:** 17-DEC-09 **Catalog Number :** 160054-02
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018210
Employee: Paul Boyd **Solvent :** +/- 0.5% in 5% HNO3 100 cm2
Supplier: 02SI
Description: ICPMS ICV/CCV Soln B - 10ppm
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	20 mg/L	Barium	20 mg/L
Beryllium	20 mg/L	Boron	40 mg/L
Cadmium	20 mg/L	Chromium	20 mg/L
Cobalt	20 mg/L	Copper	20 mg/L
Lead	20 mg/L	Lithium	20 mg/L
Manganese	20 mg/L	Nickel	20 mg/L
Selenium	20 mg/L	Strontium	20 mg/L
Thallium	20 mg/L	Thorium	20 mg/L
Uranium	20 mg/L	Vanadium	20 mg/L
Zinc	20 mg/L		

Serial ID: UI091217-08 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master C **Received:** 17-DEC-09 **Catalog Number :** 160054-03
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018211
Employee: Paul Boyd **Solvent :** +/- 0.5% in 5% HNO3 100 cm2
Supplier: 02SI
Description: ICPMS ICV/CCV Soln C - 10ppm

Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	20 mg/L	Molybdenum	20 mg/L
Silver	20 mg/L	Tin	20 mg/L
Titanium	20 mg/L	Tungsten	20 mg/L
Zirconium	20 mg/L		

Serial ID: UI091217-12 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICSAB Master B **Received:** 17-DEC-09 **Catalog Number :** 160033-02
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018212
Employee: Paul Boyd **Solvent :** +/- 0.5% in 2% HNO3
Supplier: 02SI
Description: ICPMS ICSAB Master B
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	2 mg/L	Barium	2 mg/L
Beryllium	2 mg/L	Boron	2 mg/L
Cadmium	2 mg/L	Chromium	2 mg/L
Cobalt	2 mg/L	Copper	2 mg/L
Lead	2 mg/L	Lithium	2 mg/L
Manganese	2 mg/L	Nickel	2 mg/L
Selenium	2 mg/L	Strontium	2 mg/L
Thallium	2 mg/L	Thorium	2 mg/L
Uranium	2 mg/L	Vanadium	2 mg/L
Zinc	2 mg/L		

Serial ID: UI091217-13 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICSAB Master C **Received:** 17-DEC-09 **Catalog Number :** 160033-03
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1016926
Employee: Paul Boyd **Solvent :** +/- 0.5% in 2% HNO3
Supplier: 02SI
Description: ICPMS ICSAB Master C
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	2 mg/L	Silver	2 mg/L
Tin	2 mg/L	Tungsten	2 mg/L
Zirconium	2 mg/L		

Serial ID: UI100114-48 **Opened:** 22-JAN-10 **Amount :** 1000 mL
Name: Trace ICP ICSA **Received:** 18-JAN-10 **Catalog Number :** 160005-02
Type: Source Material **Expires:** 22-JAN-11 **Lot Number :** 1018466
Employee: Helen Camello **Solvent :** 3% HCl + 1% HNO3
Supplier: o2si

Description: Trace ICP Interferent Check Standard A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 UG/L	Calcium	500000 UG/L
Iron	200000 UG/L	Magnesium	500000 UG/L

Serial ID: UI100120-01 **Opened:** 20-JAN-10 **Lot Number :** 1018095
Name: METALSPIKE-1 **Received:** 20-JAN-10
Type: Source Material **Expires:** 20-JAN-11
Employee: Bryan Davis
Supplier: OS2I
Description: Metals Spike Mix I
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 ug/mL	Arsenic	100 ug/mL
Barium	100 ug/mL	Beryllium	100 ug/mL
Boron	100 ug/mL	Cadmium	100 ug/mL
Calcium	1000 ug/mL	Cobalt	100 ug/mL
Iron	1000 ug/mL	Lead	100 ug/mL
Magnesium	1000 ug/mL	Phosphorous	100 ug/mL
Potassium	1000 ug/mL	Silver	100 ug/mL
Sodium	1000 ug/mL	Strontium	100 ug/mL

Serial ID: UI100120-06 **Opened:** 20-JAN-10 **Lot Number :** 1018096
Name: METALSPIKE-2 **Received:** 20-JAN-10
Type: Source Material **Expires:** 20-JAN-11
Employee: Bryan Davis
Supplier: OS2I
Description: Metals Spike Mix II
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	100 ug/mL	Chromium	100 ug/mL
Copper	100 ug/mL	Manganese	100 ug/mL
Molybdenum	100 ug/mL	Nickel	100 ug/mL
Selenium	100 ug/mL	Silica	2141 ug/mL
Silicon	1000 ug/mL	Sulfur	1000 ug/mL
Thallium	100 ug/mL	Tin	100 ug/mL
Titanium	100 ug/mL	Uranium	100 ug/mL
Vanadium	100 ug/mL	Zinc	100 ug/mL

Standard Logbook

Serial ID: UI100126-11 **Opened:** 26-JAN-10 **Amount :** 1000 mL
Name: ICP-MS ICSA Master A **Received:** 26-JAN-10 **Catalog Number :** 160013-01-01L
Type: Source Material **Expires:** 26-JAN-11 **Lot Number :** 1018321
Employee: Elizabeth Janssen **Solvent :** 2% HNO3
Supplier: 02SI
Description: ICP-MS ICSA Master A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Calcium	1000 mg/L
Carbon	2000 mg/L	Chloride	10000 mg/L
Iron	1000 mg/L	Magnesium	1000 mg/L
Molybdenum	20 mg/L	Phosphorous	1000 mg/L
Potassium	1000 mg/L	Sodium	1000 mg/L
Sulfur	1000 mg/L	Titanium	20 mg/L

Serial ID: UI100128-40 **Opened:** 28-JAN-10 **Amount :** 500 mL
Name: ICP HIGH RANGE STD-A **Received:** 28-JAN-10 **Catalog Number :** 160211-05-03
Type: Source Material **Expires:** 28-JAN-11 **Lot Number :** 1018409
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3
Supplier: 02SI
Description: ICP HIGH RANGE STD SOLUTION A
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	10000 ug/L	Arsenic	10000 ug/L
Barium	15000 ug/L	Beryllium	3000 ug/L
Boron	5000 ug/L	Cadmium	10000 ug/L
Chromium	25000 ug/L	Cobalt	10000 ug/L
Copper	20000 ug/L	Lead	25000 ug/L
Manganese	10000 ug/L	Molybdenum	10000 ug/L
Nickel	10000 ug/L	Phosphorous	15000 ug/L
Potassium	300000 ug/L	Selenium	10000 ug/L
Silica	107000 ug/L	Silicon	50000 ug/L
Silver	1000 ug/L	Strontium	10000 ug/L
Sulfur	50000 ug/L	Thallium	10000 ug/L
Tin	10000 ug/L	Titanium	10000 ug/L
Vanadium	10000 ug/L	Zinc	15000 ug/L

Serial ID: UI100128-41 **Opened:** 28-JAN-10 **Amount :** 500 mL
Name: ICP HIGH RANGE STD B **Received:** 28-JAN-10 **Catalog Number :** 160211-05-03
Type: Source Material **Expires:** 28-JAN-11 **Lot Number :** 1018409
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3
Supplier: 02SI
Description: ICP HIGH RANGE STD SOLUTION B
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 ug/L	Calcium	500000 ug/L
Iron	500000 ug/L	Magnesium	500000 ug/L
Sodium	500000 ug/L	Uranium	15000 ug/L

Serial ID: UI100205-01 **Opened:** 05-FEB-10 **Lot Number :** 1018514
Name: METALSPIKE-1 **Received:** 05-FEB-10
Type: Source Material **Expires:** 05-FEB-11
Employee: Francena Armstrong
Supplier: OS2I
Description: Metals Spike Mix I
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 ug/mL	Arsenic	100 ug/mL
Barium	100 ug/mL	Beryllium	100 ug/mL
Boron	100 ug/mL	Cadmium	100 ug/mL
Calcium	1000 ug/mL	Cobalt	100 ug/mL
Iron	1000 ug/mL	Lead	100 ug/mL
Magnesium	1000 ug/mL	Phosphorous	100 ug/mL
Potassium	1000 ug/mL	Silver	100 ug/mL
Sodium	1000 ug/mL	Strontium	100 ug/mL

Serial ID: UI100205-06 **Opened:** 05-FEB-10 **Lot Number :** 1018515
Name: METALSPIKE-2 **Received:** 05-FEB-10
Type: Source Material **Expires:** 05-FEB-11
Employee: Francena Armstrong
Supplier: OS2I
Description: Metals Spike Mix II
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	100 ug/mL	Chromium	100 ug/mL
Copper	100 ug/mL	Manganese	100 ug/mL
Molybdenum	100 ug/mL	Nickel	100 ug/mL
Selenium	100 ug/mL	Silica	2141 ug/mL
Silicon	1000 ug/mL	Sulfur	1000 ug/mL
Thallium	100 ug/mL	Tin	100 ug/mL
Titanium	100 ug/mL	Uranium	100 ug/mL
Vanadium	100 ug/mL	Zinc	100 ug/mL

Standard Logbook

Serial ID: UI100210-48 **Opened:** 11-FEB-10 **Amount :** 1000 mL
Name: Trace ICP ICSA **Received:** 10-FEB-10 **Catalog Number :** 160005-02
Type: Source Material **Expires:** 11-FEB-11 **Lot Number :** 1018807
Employee: Helen Camello **Solvent :** 3% HCl + 1% HNO3
Supplier: o2si
Description: Trace ICP Interferent Check Standard A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 UG/L	Calcium	500000 UG/L
Iron	200000 UG/L	Magnesium	500000 UG/L

Serial ID: UI100211-40 **Opened:** 11-FEB-10 **Amount :** 500 mL
Name: ICP HIGH RANGE STD-A **Received:** 10-FEB-10 **Catalog Number :** 160211-05-03
Type: Source Material **Expires:** 11-FEB-11 **Lot Number :** 1018409
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3
Supplier: 02SI
Description: ICP HIGH RANGE STD SOLUTION A
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	10000 ug/L	Arsenic	10000 ug/L
Barium	15000 ug/L	Beryllium	3000 ug/L
Boron	5000 ug/L	Cadmium	10000 ug/L
Chromium	25000 ug/L	Cobalt	10000 ug/L
Copper	20000 ug/L	Lead	25000 ug/L
Manganese	10000 ug/L	Molybdenum	10000 ug/L
Nickel	10000 ug/L	Phosphorous	15000 ug/L
Potassium	300000 ug/L	Selenium	10000 ug/L
Silica	107000 ug/L	Silicon	50000 ug/L
Silver	1000 ug/L	Strontium	10000 ug/L
Sulfur	50000 ug/L	Thallium	10000 ug/L
Tin	10000 ug/L	Titanium	10000 ug/L
Vanadium	10000 ug/L	Zinc	15000 ug/L

Serial ID: UI100211-41 **Opened:** 11-FEB-10 **Amount :** 500 mL
Name: ICP HIGH RANGE STD B **Received:** 10-FEB-10 **Catalog Number :** 160211-05-03
Type: Source Material **Expires:** 11-FEB-11 **Lot Number :** 1018409
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3
Supplier: 02SI
Description: ICP HIGH RANGE STD SOLUTION B
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 ug/L	Calcium	500000 ug/L
Iron	500000 ug/L	Magnesium	500000 ug/L

Analyte	Concentration	Analyte	Concentration
Sodium	500000 ug/L	Uranium	15000 ug/L

Serial ID: UMS090303-01 **Opened:** 03-MAR-09 **Amount :** 250 mL
Name: ICPMSCalSPIKEB **Received:** 03-MAR-09 **Catalog Number :** ZGEL-100-250
Type: Source Material **Expires:** 28-FEB-10 **Lot Number :** 14-81JB
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution B
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	10 mg/L	Barium	10 mg/L
Beryllium	10 mg/L	Boron	20 mg/L
Cadmium	10 mg/L	Chromium	10 mg/L
Cobalt	10 mg/L	Copper	10 mg/L
Lead	10 mg/L	Lithium	10 mg/L
Manganese	10 mg/L	Nickel	10 mg/L
Selenium	10 mg/L	Silver	10 mg/L
Strontium	10 mg/L	Thallium	10 mg/L
Thorium	10 mg/L	Uranium	10 mg/L
Vanadium	10 mg/L	Zinc	10 mg/L

Serial ID: UMS090303-02 **Opened:** 03-MAR-09 **Catalog Number :** ZGEL-102-250
Name: ICPMSCalSPIKEA **Received:** 03-MAR-09 **Lot Number :** 14-83JB
Type: Source Material **Expires:** 28-FEB-10
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Calcium	1000 mg/L
Iron	1000 mg/L	Magnesium	1000 mg/L
Phosphorous	1000 mg/L	Potassium	1000 mg/L
Sodium	1000 mg/L		

Serial ID: UMS090303-03 **Opened:** 03-MAR-09 **Amount :** 250 ml
Name: ICPMSCalSPIKEC **Received:** 03-MAR-09 **Catalog Number :** ZGEL-101-250
Type: Source Material **Expires:** 28-FEB-10 **Lot Number :** 15-199JB
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution C
Comments: None

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Antimony	10 mg/L	Molybdenum	10 mg/L
Tin	10 mg/L	Titanium	10 mg/L
Zirconium	10 mg/L		

Serial ID: IHG100208-01 **Opened:** 08-FEB-10 **Instrument Id :** Mercury
Name: MHGINTER1 **Received:** 08-FEB-10 **Pipet Id :** Minou1
Type: Intermediate **Expires:** 09-FEB-10 **Solvent :** 1mL HNO3 + Typel H2O
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Intermediate 1st Source 200 ug/L
Comments: Prepare fresh daily

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167639-01	Mercury	1000 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: IHG100208-02 **Opened:** 08-FEB-10 **Pipet Id :** Minou1
Name: MHGINTER2 **Received:** 08-FEB-10 **Solvent :** 2% HNO3-1257474
Type: Intermediate **Expires:** 09-FEB-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Intermediate 2nd Source 200 ug/L
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167641-02	Mercury	999.7 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: WHG100208-07 **Opened:** 08-FEB-10 **Pipet Id :** Hg1289245
Name: MHGWORKCALS0.2CRA **Received:** 08-FEB-10 **Solvent :** 2% HNO3-1257474
Type: Working **Expires:** 15-FEB-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working Standard 1st Source CAL S 0.2/CRA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100208-01	Mercury	200 ug/L	30 uL	30 mL	.2 ug/L

Serial ID: WHG100208-08 **Opened:** 08-FEB-10 **Pipet Id :** Hg1289245
Name: MHGWORKCALS0.5 **Received:** 08-FEB-10 **Solvent :** 2% HNO3-1257474
Type: Working **Expires:** 15-FEB-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working Standard 1st Source CAL S 0.5
Comments: None

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100208-01	Mercury	200 ug/L	75 uL	30 mL	.5 ug/L

Serial ID: WHG100208-09 **Opened:** 08-FEB-10 **Pipet Id :** Hg1289245
Name: MHGWORKCALS2.0 **Received:** 08-FEB-10 **Solvent :** 2% HNO3-1257474
Type: Working **Expires:** 15-FEB-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL S 2.0
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100208-01	Mercury	200 ug/L	300 uL	30 mL	2 ug/L

Serial ID: WHG100208-10 **Opened:** 08-FEB-10 **Pipet Id :** Hg1289245
Name: MHGWORKCALS5.0CCV **Received:** 08-FEB-10 **Solvent :** 2% HNO3-1257474
Type: Working **Expires:** 15-FEB-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL S 5.0/CCV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100208-01	Mercury	200 ug/L	750 uL	30 mL	5 ug/L

Serial ID: WHG100208-11 **Opened:** 08-FEB-10 **Pipet Id :** Hg1289245
Name: MHGWORKCALS10.0 **Received:** 08-FEB-10 **Solvent :** 2% HNO3-1257474
Type: Working **Expires:** 15-FEB-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working 1st Source CAL S 10.0
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100208-01	Mercury	200 ug/L	1.5 mL	30 mL	10 ug/L

Serial ID: WHG100208-12 **Opened:** 08-FEB-10 **Pipet Id :** Hg1289245
Name: MHGWORKS5.0ICV **Received:** 08-FEB-10 **Solvent :** 2% HNO3-1257474
Type: Working **Expires:** 15-FEB-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 2nd Source S 5.0/ICV
Comments: None

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100208-02	Mercury	200 ug/L	750 uL	30 mL	5 ug/L

Serial ID: WHG100208-14 **Opened:** 08-FEB-10 **Pipet Id :** Hg1289245
Name: MHGSOILMSSPIKE **Received:** 08-FEB-10 **Solvent :** 2% HNO3-1257474
Type: Working **Expires:** 15-FEB-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury soil working intermediate standard for MS
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167639-01	Mercury	1000 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: WI100208-42 **Opened:** 08-FEB-10 **Balance Id :** 216
Name: TRACE ICP 0.1 PPM STD. **Received:** 02-NOV-09 **Pipet Id :** 3581809
Type: Working **Expires:** 09-FEB-10 **Solvent :** 3%HCL and 1%HNO3 -1266496
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP 0.1 PPM CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WI100208-44	Aluminum	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100208-44	Antimony	1000 ug/L	10 mL	100 mL	100 ug/L
WI100208-44	Arsenic	1000 ug/L	10 mL	100 mL	100 ug/L
WI100208-44	Barium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100208-44	Beryllium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100208-44	Boron	1000 ug/L	10 mL	100 mL	100 ug/L
WI100208-44	Cadmium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100208-44	Calcium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100208-44	Chromium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100208-44	Cobalt	1000 ug/L	10 mL	100 mL	100 ug/L
WI100208-44	Copper	1000 ug/L	10 mL	100 mL	100 ug/L
WI100208-44	Iron	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100208-44	Lead	1000 ug/L	10 mL	100 mL	100 ug/L
WI100208-44	Magnesium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100208-44	Manganese	1000 ug/L	10 mL	100 mL	100 ug/L
WI100208-44	Molybdenum	1000 ug/L	10 mL	100 mL	100 ug/L
WI100208-44	Nickel	1000 ug/L	10 mL	100 mL	100 ug/L
WI100208-44	Phosphorous	5000 ug/L	10 mL	100 mL	500 ug/L
WI100208-44	Potassium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100208-44	Selenium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100208-44	Silica	10698 ug/L	10 mL	100 mL	1069 ug/L
WI100208-44	Silicon	5000 ug/L	10 mL	100 mL	500 ug/L
WI100208-44	Silver	1000 ug/L	10 mL	100 mL	100 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WI100208-44	Sodium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100208-44	Strontium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100208-44	Sulfur	2000 ug/L	10 mL	100 mL	200 ug/L
WI100208-44	Thallium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100208-44	Tin	1000 ug/L	10 mL	100 mL	100 ug/L
WI100208-44	Titanium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100208-44	Uranium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100208-44	Vanadium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100208-44	Zinc	1000 ug/L	10 mL	100 mL	100 ug/L

Serial ID: WI100208-43 **Opened:** 08-FEB-10 **Balance Id :** 216
Name: TRACE ICP 0.5/CCV STD. **Received:** 02-NOV-09 **Pipet Id :** 3581809
Type: Working **Expires:** 09-FEB-10 **Solvent :** 3%HCL and 1%HNO3 -1266496
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP 0.5/CCV CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090828-42	Sodium	1000 ug/mL	5 mL	1000 mL	5000 UG/L
UI091015-42	Silica	2139 mg/L	2.5 mL	1000 mL	5348.25 UG/L
UI091015-42	Silicon	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI091102-40	Aluminum	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Arsenic	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Barium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Beryllium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Boron	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Cadmium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Calcium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Chromium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Cobalt	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Copper	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Iron	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Lead	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Magnesium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Manganese	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Nickel	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Phosphorous	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI091102-40	Potassium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Selenium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Sodium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Strontium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Thallium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Uranium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Vanadium	200 mg/L	2.5 mL	1000 mL	500 UG/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091102-40	Zinc	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Antimony	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Molybdenum	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Silver	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Sulfur	400 mg/L	2.5 mL	1000 mL	1000 UG/L
UI091102-41	Tin	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Titanium	200 mg/L	2.5 mL	1000 mL	500 UG/L

Serial ID: WI100208-44 **Opened:** 08-FEB-10 **Balance Id :** 216
Name: TRACE ICP SCAL 1.0 **Received:** 02-NOV-09 **Pipet Id :** 3581809
Type: Working **Expires:** 09-FEB-10 **Solvent :** 3%HCL and 1 %HNO3-1266496
Employee: Helen Camello
Supplier: o2si
Description: Trace ICP Calibration Standard 1.0ppm
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091015-42	Silica	2139 mg/L	2.5 mL	500 mL	10698 ug/L
UI091015-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI091102-40	Aluminum	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Arsenic	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Barium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Beryllium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Boron	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Cadmium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Calcium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Chromium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Cobalt	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Copper	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Iron	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Lead	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Magnesium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Manganese	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Nickel	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Phosphorous	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI091102-40	Potassium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Selenium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Sodium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Strontium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Thallium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Uranium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Vanadium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Zinc	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Antimony	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Molybdenum	200 mg/L	2.5 mL	500 mL	1000 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091102-41	Silver	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Sulfur	400 mg/L	2.5 mL	500 mL	2000 ug/L
UI091102-41	Tin	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Titanium	200 mg/L	2.5 mL	500 mL	1000 ug/L

Serial ID: WI100208-45 **Opened:** 08-FEB-10 **Balance Id :** 216
Name: TRACE ICP S-10 STD **Received:** 22-APR-09 **Pipet Id :** 3581809
Type: Working **Expires:** 09-FEB-10 **Solvent :** 3%HCL and 1%HNO3 -1266496
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP S-10 CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090422-40	Aluminum	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Calcium	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Iron	2000 mg/L	5 mL	500 mL	20000 UG/L
UI090422-40	Magnesium	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090828-42	Sodium	1000 ug/mL	10 mL	500 mL	20000 UG/L

Serial ID: WI100208-46 **Opened:** 08-FEB-10 **Balance Id :** 216
Name: ICP TRACE ICV **Received:** 25-SEP-09 **Pipet Id :** 3581809
Type: Working **Expires:** 09-FEB-10 **Solvent :** 3%HCL AND 1%HNO3-1266496
Employee: Helen Camello
Supplier: GEL
Description: Initial Calibration Verification ICP Trace Metals
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090925-40	Aluminum	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Arsenic	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Barium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Boron	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cadmium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Calcium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Chromium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cobalt	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Copper	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Iron	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Lead	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Phosphorous	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Potassium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Selenium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Sodium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Strontium	100 mg/L	2.5 mL	500 mL	500 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090925-41	Antimony	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Beryllium	50 mg/L	2.5 mL	500 mL	250 ug/L
UI090925-41	Magnesium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-41	Manganese	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Molybdenum	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Nickel	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Silver	50 mg/L	2.5 mL	500 mL	250 ug/L
UI090925-41	Sulfur	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-41	Thallium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Tin	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Titanium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Uranium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Vanadium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Zinc	100 mg/L	2.5 mL	500 mL	500 ug/L
UI091102-42	Silica	2139 mg/L	2.5 mL	500 mL	10695 ug/L
UI091102-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L

Serial ID: WI100208-47 **Opened:** 08-FEB-10 **Balance Id :** 216
Name: PQL Working Standard **Received:** 30-JUN-09 **Pipet Id :** 3581809
Type: Working **Expires:** 09-FEB-10 **Solvent :** 3%HCL &1%HNO3-1266496
Employee: Helen Camello
Supplier: 02si
Description: PQL Working Standard
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-40	Aluminum	100 mg/L	2 mL	1000 mL	200 ug/L
UI090701-40	Antimony	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Arsenic	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Barium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Beryllium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Boron	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Cadmium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Calcium	100 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Chromium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Cobalt	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Copper	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Iron	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Lead	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Magnesium	150 mg/L	2 mL	1000 mL	300 ug/L
UI090701-40	Manganese	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Molybdenum	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Nickel	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Phosphorous	75 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Potassium	75 mg/L	2 mL	1000 mL	150 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-40	Selenium	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Silicon	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Silver	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sodium	150 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Strontium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sulfur	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Thallium	10 mg/L	2 mL	1000 mL	20 ug/L
UI090701-40	Tin	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Titanium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Uranium	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Vanadium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Zinc	5 mg/L	2 mL	1000 mL	10 ug/L

Serial ID: WI100211-42 **Opened:** 11-FEB-10 **Balance Id :** 216
Name: TRACE ICP 0.1 PPM STD. **Received:** 02-NOV-09 **Pipet Id :** 3581809
Type: Working **Expires:** 12-FEB-10 **Solvent :** 3%HCL and 1%HNO3 -1266496
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP 0.1 PPM CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WI100211-44	Aluminum	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100211-44	Antimony	1000 ug/L	10 mL	100 mL	100 ug/L
WI100211-44	Arsenic	1000 ug/L	10 mL	100 mL	100 ug/L
WI100211-44	Barium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100211-44	Beryllium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100211-44	Boron	1000 ug/L	10 mL	100 mL	100 ug/L
WI100211-44	Cadmium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100211-44	Calcium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100211-44	Chromium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100211-44	Cobalt	1000 ug/L	10 mL	100 mL	100 ug/L
WI100211-44	Copper	1000 ug/L	10 mL	100 mL	100 ug/L
WI100211-44	Iron	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100211-44	Lead	1000 ug/L	10 mL	100 mL	100 ug/L
WI100211-44	Magnesium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100211-44	Manganese	1000 ug/L	10 mL	100 mL	100 ug/L
WI100211-44	Molybdenum	1000 ug/L	10 mL	100 mL	100 ug/L
WI100211-44	Nickel	1000 ug/L	10 mL	100 mL	100 ug/L
WI100211-44	Phosphorous	5000 ug/L	10 mL	100 mL	500 ug/L
WI100211-44	Potassium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100211-44	Selenium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100211-44	Silica	10698 ug/L	10 mL	100 mL	1069 ug/L
WI100211-44	Silicon	5000 ug/L	10 mL	100 mL	500 ug/L
WI100211-44	Silver	1000 ug/L	10 mL	100 mL	100 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WI100211-44	Sodium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100211-44	Strontium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100211-44	Sulfur	2000 ug/L	10 mL	100 mL	200 ug/L
WI100211-44	Thallium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100211-44	Tin	1000 ug/L	10 mL	100 mL	100 ug/L
WI100211-44	Titanium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100211-44	Uranium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100211-44	Vanadium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100211-44	Zinc	1000 ug/L	10 mL	100 mL	100 ug/L

Serial ID: WI100211-43 **Opened:** 11-FEB-10 **Balance Id :** 216
Name: TRACE ICP 0.5/CCV STD. **Received:** 02-NOV-09 **Pipet Id :** 3581809
Type: Working **Expires:** 12-FEB-10 **Solvent :** 3%HCL and 1%HNO3 -1266496
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP 0.5/CCV CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090828-42	Sodium	1000 ug/mL	5 mL	1000 mL	5000 UG/L
UI091015-42	Silica	2139 mg/L	2.5 mL	1000 mL	5348.25 UG/L
UI091015-42	Silicon	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI091102-40	Aluminum	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Arsenic	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Barium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Beryllium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Boron	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Cadmium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Calcium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Chromium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Cobalt	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Copper	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Iron	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Lead	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Magnesium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Manganese	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Nickel	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Phosphorous	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI091102-40	Potassium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Selenium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Sodium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Strontium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Thallium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Uranium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Vanadium	200 mg/L	2.5 mL	1000 mL	500 UG/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091102-40	Zinc	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Antimony	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Molybdenum	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Silver	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Sulfur	400 mg/L	2.5 mL	1000 mL	1000 UG/L
UI091102-41	Tin	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Titanium	200 mg/L	2.5 mL	1000 mL	500 UG/L

Serial ID: WI100211-44 **Opened:** 11-FEB-10 **Balance Id :** 216
Name: TRACE ICP SCAL 1.0 **Received:** 02-NOV-09 **Pipet Id :** 3581809
Type: Working **Expires:** 12-FEB-10 **Solvent :** 3%HCL and 1 %HNO3-1266496
Employee: Helen Camello
Supplier: o2si
Description: Trace ICP Calibration Standard 1.0ppm
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091015-42	Silica	2139 mg/L	2.5 mL	500 mL	10698 ug/L
UI091015-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI091102-40	Aluminum	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Arsenic	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Barium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Beryllium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Boron	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Cadmium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Calcium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Chromium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Cobalt	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Copper	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Iron	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Lead	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Magnesium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Manganese	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Nickel	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Phosphorous	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI091102-40	Potassium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Selenium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Sodium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Strontium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Thallium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Uranium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Vanadium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Zinc	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Antimony	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Molybdenum	200 mg/L	2.5 mL	500 mL	1000 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091102-41	Silver	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Sulfur	400 mg/L	2.5 mL	500 mL	2000 ug/L
UI091102-41	Tin	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Titanium	200 mg/L	2.5 mL	500 mL	1000 ug/L

Serial ID: WI100211-45 **Opened:** 11-FEB-10 **Balance Id :** 216
Name: TRACE ICP S-10 STD **Received:** 22-APR-09 **Pipet Id :** 3581809
Type: Working **Expires:** 12-FEB-10 **Solvent :** 3%HCL and 1%HNO3 -1266496
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP S-10 CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090422-40	Aluminum	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Calcium	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Iron	2000 mg/L	5 mL	500 mL	20000 UG/L
UI090422-40	Magnesium	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090828-42	Sodium	1000 ug/mL	10 mL	500 mL	20000 UG/L

Serial ID: WI100211-46 **Opened:** 11-FEB-10 **Balance Id :** 216
Name: ICP TRACE ICV **Received:** 25-SEP-09 **Pipet Id :** 3581809
Type: Working **Expires:** 12-FEB-10 **Solvent :** 3%HCL AND 1%HNO3-1266496
Employee: Helen Camello
Supplier: GEL
Description: Initial Calibration Verification ICP Trace Metals
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090925-40	Aluminum	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Arsenic	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Barium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Boron	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cadmium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Calcium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Chromium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cobalt	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Copper	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Iron	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Lead	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Phosphorous	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Potassium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Selenium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Sodium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Strontium	100 mg/L	2.5 mL	500 mL	500 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090925-41	Antimony	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Beryllium	50 mg/L	2.5 mL	500 mL	250 ug/L
UI090925-41	Magnesium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-41	Manganese	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Molybdenum	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Nickel	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Silver	50 mg/L	2.5 mL	500 mL	250 ug/L
UI090925-41	Sulfur	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-41	Thallium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Tin	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Titanium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Uranium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Vanadium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Zinc	100 mg/L	2.5 mL	500 mL	500 ug/L
UI091102-42	Silica	2139 mg/L	2.5 mL	500 mL	10695 ug/L
UI091102-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L

Serial ID: WI100211-47 **Opened:** 11-FEB-10 **Balance Id :** 216
Name: PQL Working Standard **Received:** 30-JUN-09 **Pipet Id :** 3581809
Type: Working **Expires:** 12-FEB-10 **Solvent :** 3%HCL &1%HNO3-1266496
Employee: Helen Camello
Supplier: 02si
Description: PQL Working Standard
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-40	Aluminum	100 mg/L	2 mL	1000 mL	200 ug/L
UI090701-40	Antimony	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Arsenic	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Barium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Beryllium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Boron	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Cadmium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Calcium	100 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Chromium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Cobalt	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Copper	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Iron	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Lead	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Magnesium	150 mg/L	2 mL	1000 mL	300 ug/L
UI090701-40	Manganese	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Molybdenum	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Nickel	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Phosphorous	75 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Potassium	75 mg/L	2 mL	1000 mL	150 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-40	Selenium	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Silicon	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Silver	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sodium	150 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Strontium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sulfur	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Thallium	10 mg/L	2 mL	1000 mL	20 ug/L
UI090701-40	Tin	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Titanium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Uranium	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Vanadium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Zinc	5 mg/L	2 mL	1000 mL	10 ug/L

Serial ID: WMS100208-04 **Opened:** 08-FEB-10 **Amount :** 50 mL
Name: ICPMS Cal Standard 100 **Received:** 08-FEB-10 **Balance Id :** 4025216
Type: Working **Expires:** 09-FEB-10 **Pipet Id :** 3541598
Employee: Paul Boyd **Solvent :** 2%HNO3/1%HCl-1266278
Supplier: GEL
Description: ICPMS Calibration Standard (100 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090610-03	Tungsten	10 mg/L	.5 mL	50 mL	100 ug/L
UMS090303-01	Arsenic	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Barium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Beryllium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Boron	20 mg/L	.5 mL	50 mL	200 ug/l
UMS090303-01	Cadmium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Chromium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Cobalt	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Copper	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Lead	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Lithium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Manganese	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Nickel	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Selenium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Silver	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Strontium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Thallium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Thorium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Uranium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Vanadium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Zinc	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-02	Aluminum	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Calcium	1000 mg/L	.5 mL	50 mL	10000 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UMS090303-02	Iron	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Magnesium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Phosphorous	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Potassium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Sodium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-03	Antimony	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Molybdenum	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Tin	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Titanium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Zirconium	10 mg/L	.5 mL	50 mL	100 ug/l

Serial ID: WMS100208-04A **Opened:** 08-FEB-10 **Balance Id :** 4025216
Name: ICPMS Cal Standard 10 **Received:** 08-FEB-10 **Pipet Id :** 3541598
Type: Working **Expires:** 09-FEB-10 **Solvent :** 2%HNO3/1%HCl - 1266278
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS Calibration Standard (10 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100208-04	Aluminum	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100208-04	Antimony	100 ug/l	5 mL	50 mL	10 ug/l
WMS100208-04	Arsenic	100 ug/l	5 mL	50 mL	10 ug/l
WMS100208-04	Barium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100208-04	Beryllium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100208-04	Boron	200 ug/l	5 mL	50 mL	20 ug/l
WMS100208-04	Cadmium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100208-04	Calcium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100208-04	Chromium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100208-04	Cobalt	100 ug/l	5 mL	50 mL	10 ug/l
WMS100208-04	Copper	100 ug/l	5 mL	50 mL	10 ug/l
WMS100208-04	Iron	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100208-04	Lead	100 ug/l	5 mL	50 mL	10 ug/l
WMS100208-04	Lithium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100208-04	Magnesium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100208-04	Manganese	100 ug/l	5 mL	50 mL	10 ug/l
WMS100208-04	Molybdenum	100 ug/l	5 mL	50 mL	10 ug/l
WMS100208-04	Nickel	100 ug/l	5 mL	50 mL	10 ug/l
WMS100208-04	Phosphorous	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100208-04	Potassium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100208-04	Selenium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100208-04	Silver	100 ug/l	5 mL	50 mL	10 ug/l
WMS100208-04	Sodium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100208-04	Strontium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100208-04	Thallium	100 ug/l	5 mL	50 mL	10 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100208-04	Thorium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100208-04	Tin	100 ug/l	5 mL	50 mL	10 ug/l
WMS100208-04	Titanium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100208-04	Tungsten	100 ug/L	5 mL	50 mL	10 ug/L
WMS100208-04	Uranium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100208-04	Vanadium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100208-04	Zinc	100 ug/l	5 mL	50 mL	10 ug/l
WMS100208-04	Zirconium	100 ug/l	5 mL	50 mL	10 ug/l

Serial ID: WMS100208-05 **Opened:** 08-FEB-10 **Balance Id :** 40245216
Name: ICPMS ICV **Received:** 08-FEB-10 **Pipet Id :** 3541598
Type: Working **Expires:** 09-FEB-10 **Solvent :** 2%HNO3/1%HCl - 1266278
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-06	Aluminum	2020 mg/L	.125 mL	50 mL	5050 ug/L
UI091217-06	Calcium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Iron	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Magnesium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Phosphorous	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Potassium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Sodium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-07	Arsenic	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Barium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Beryllium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Boron	40 mg/L	.125 mL	50 mL	100 ug/L
UI091217-07	Cadmium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Chromium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Cobalt	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Copper	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lead	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lithium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Manganese	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Nickel	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Selenium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Strontium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thallium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thorium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Uranium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Vanadium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Zinc	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Antimony	20 mg/L	.125 mL	50 mL	50 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-08	Molybdenum	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Silver	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tin	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Titanium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tungsten	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Zirconium	20 mg/L	.125 mL	50 mL	50 ug/L

Serial ID: WMS100208-06 **Opened:** 08-FEB-10 **Balance Id :** 40245216
Name: ICPMS CRDL **Received:** 08-FEB-10 **Pipet Id :** 3820544
Type: Working **Expires:** 09-FEB-10 **Solvent :** 2%HNO3/1%HCl - 1266278
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS CRDL
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Aluminum	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Arsenic	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Barium	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Beryllium	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-09	Boron	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Cadmium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Calcium	100 mg/L	.05 mL	50 mL	100 ug/L
UI090701-09	Chromium	3 mg/L	.05 mL	50 mL	3 ug/L
UI090701-09	Cobalt	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Copper	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Iron	25 mg/L	.05 mL	50 mL	25 ug/L
UI090701-09	Lead	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Lithium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Magnesium	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Manganese	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Nickel	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Phosphorous	50 mg/L	.05 mL	50 mL	50 ug/L
UI090701-09	Potassium	300 mg/L	.05 mL	50 mL	300 ug/L
UI090701-09	Selenium	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Sodium	250 mg/L	.05 mL	50 mL	250 ug/L
UI090701-09	Strontium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Thallium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Thorium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Uranium	.2 mg/L	.05 mL	50 mL	.2 ug/L
UI090701-09	Vanadium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Zinc	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Antimony	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-10	Molybdenum	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-10	Silver	1 mg/L	.05 mL	50 mL	1 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-10	Tin	2 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Titanium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Tungsten	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Zirconium	2 mg/L	.05 mL	50 mL	2 ug/L

Serial ID: WMS100208-07 **Opened:** 08-FEB-10 **Balance Id :** 40245216
Name: ICPMS ICSA **Received:** 08-FEB-10 **Lot Number :** 1010773
Type: Working **Expires:** 09-FEB-10 **Pipet Id :** 3541598
Employee: Paul Boyd **Solvent :** 2%HNO3/1%HCl - 1266278
Supplier: GEL
Description: ICPMS ICSA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100126-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100126-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100126-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: WMS100208-08 **Opened:** 08-FEB-10 **Balance Id :** 40245216
Name: ICPMS ICSAB **Received:** 08-FEB-10 **Pipet Id :** 1758088
Type: Working **Expires:** 09-FEB-10 **Solvent :** 2%HNO3/1%HCl - 1266278
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS ICSAB
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-12	Arsenic	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Barium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Beryllium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Boron	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Cadmium	2 mg/L	.5 mL	50 mL	20.2 ug/L
UI091217-12	Chromium	2 mg/L	.5 mL	50 mL	22.2 ug/L
UI091217-12	Cobalt	2 mg/L	.5 mL	50 mL	20.4 ug/L
UI091217-12	Copper	2 mg/L	.5 mL	50 mL	23.4 ug/L
UI091217-12	Lead	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Lithium	2 mg/L	.5 mL	50 mL	20 ug/L

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Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-12	Manganese	2 mg/L	.5 mL	50 mL	22.7 ug/L
UI091217-12	Nickel	2 mg/L	.5 mL	50 mL	22.4 ug/L
UI091217-12	Selenium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Strontium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thallium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thorium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Uranium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Vanadium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Zinc	2 mg/L	.5 mL	50 mL	27 ug/L
UI091217-13	Antimony	2 mg/L	.5 mL	50 mL	20.5 ug/L
UI091217-13	Silver	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tin	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tungsten	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Zirconium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100126-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100126-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100126-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: WMS100208-70 **Opened:** 08-FEB-10 **Balance Id :** 40245216
Name: ICPMS LINEAR RANGE ST **Received:** 08-FEB-10 **Pipet Id :** 1758088
Type: Working **Expires:** 09-FEB-10 **Solvent :** 2%HNO3/1%HCl - 1266278
Employee: Paul Boyd
Supplier: 02SI
Description: ICPMS LINEAR RANGE STANDARD
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-60	Aluminum	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Arsenic	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Barium	250 mg/L	.5 mL	50 mL	2500 ug/L
UI091212-60	Beryllium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Cadmium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Calcium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Chromium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Cobalt	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Copper	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Iron	5000 mg/L	.5 mL	50 mL	50000 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-60	Lead	500 mg/L	.5 mL	50 mL	5000 ug/L
UI091212-60	Lithium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Magnesium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Manganese	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Nickel	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Phosphorous	2500 mg/L	.5 mL	50 mL	25000 ug/L
UI091212-60	Potassium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Selenium	50 mg/L	.5 mL	50 mL	500 ug/L
UI091212-60	Sodium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Strontium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Thallium	50 mg/L	.5 mL	50 mL	500 ug/L
UI091212-60	Thorium	250 mg/L	.5 mL	50 mL	2500 ug/L
UI091212-60	Uranium	500 mg/L	.5 mL	50 mL	5000 ug/L
UI091212-60	Vanadium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Zinc	250 mg/L	.5 mL	50 mL	2500 ug/L
UI091212-61	Antimony	25 mg/L	.5 mL	50 mL	250 ug/L
UI091212-61	Molybdenum	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-61	Silver	25 mg/L	.5 mL	50 mL	250 ug/L
UI091212-61	Tin	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-61	Tungsten	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-61	Zirconium	50 mg/L	.5 mL	50 mL	500 ug/L

Serial ID: WMS100209-04 **Opened:** 09-FEB-10 **Amount :** 50 mL
Name: ICPMS Cal Standard 100 **Received:** 09-FEB-10 **Balance Id :** 4025216
Type: Working **Expires:** 10-FEB-10 **Pipet Id :** 3541598
Employee: Paul Boyd **Solvent :** 2%HNO3/1%HCl-1266278
Supplier: GEL
Description: ICPMS Calibration Standard (100 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090610-03	Tungsten	10 mg/L	.5 mL	50 mL	100 ug/L
UMS090303-01	Arsenic	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Barium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Beryllium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Boron	20 mg/L	.5 mL	50 mL	200 ug/l
UMS090303-01	Cadmium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Chromium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Cobalt	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Copper	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Lead	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Lithium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Manganese	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Nickel	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Selenium	10 mg/L	.5 mL	50 mL	100 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UMS090303-01	Silver	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Strontium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Thallium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Thorium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Uranium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Vanadium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Zinc	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-02	Aluminum	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Calcium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Iron	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Magnesium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Phosphorous	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Potassium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Sodium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-03	Antimony	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Molybdenum	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Tin	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Titanium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Zirconium	10 mg/L	.5 mL	50 mL	100 ug/l

Serial ID: WMS100209-04A **Opened:** 09-FEB-10 **Balance Id :** 4025216
Name: ICPMS Cal Standard 10 **Received:** 09-FEB-10 **Pipet Id :** 3541598
Type: Working **Expires:** 10-FEB-10 **Solvent :** 2%HNO3/1%HCl - 1266278
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS Calibration Standard (10 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100209-04	Aluminum	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100209-04	Antimony	100 ug/l	5 mL	50 mL	10 ug/l
WMS100209-04	Arsenic	100 ug/l	5 mL	50 mL	10 ug/l
WMS100209-04	Barium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100209-04	Beryllium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100209-04	Boron	200 ug/l	5 mL	50 mL	20 ug/l
WMS100209-04	Cadmium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100209-04	Calcium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100209-04	Chromium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100209-04	Cobalt	100 ug/l	5 mL	50 mL	10 ug/l
WMS100209-04	Copper	100 ug/l	5 mL	50 mL	10 ug/l
WMS100209-04	Iron	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100209-04	Lead	100 ug/l	5 mL	50 mL	10 ug/l
WMS100209-04	Lithium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100209-04	Magnesium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100209-04	Manganese	100 ug/l	5 mL	50 mL	10 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100209-04	Molybdenum	100 ug/l	5 mL	50 mL	10 ug/l
WMS100209-04	Nickel	100 ug/l	5 mL	50 mL	10 ug/l
WMS100209-04	Phosphorous	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100209-04	Potassium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100209-04	Selenium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100209-04	Silver	100 ug/l	5 mL	50 mL	10 ug/l
WMS100209-04	Sodium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100209-04	Strontium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100209-04	Thallium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100209-04	Thorium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100209-04	Tin	100 ug/l	5 mL	50 mL	10 ug/l
WMS100209-04	Titanium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100209-04	Tungsten	100 ug/L	5 mL	50 mL	10 ug/L
WMS100209-04	Uranium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100209-04	Vanadium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100209-04	Zinc	100 ug/l	5 mL	50 mL	10 ug/l
WMS100209-04	Zirconium	100 ug/l	5 mL	50 mL	10 ug/l

Serial ID: WMS100209-05 **Opened:** 09-FEB-10 **Balance Id :** 40245216
Name: ICPMS ICV **Received:** 09-FEB-10 **Pipet Id :** 3541598
Type: Working **Expires:** 10-FEB-10 **Solvent :** 2%HNO3/1%HCl - 1266278
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-06	Aluminum	2020 mg/L	.125 mL	50 mL	5050 ug/L
UI091217-06	Calcium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Iron	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Magnesium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Phosphorous	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Potassium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Sodium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-07	Arsenic	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Barium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Beryllium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Boron	40 mg/L	.125 mL	50 mL	100 ug/L
UI091217-07	Cadmium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Chromium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Cobalt	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Copper	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lead	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lithium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Manganese	20 mg/L	.125 mL	50 mL	50 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-07	Nickel	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Selenium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Strontium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thallium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thorium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Uranium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Vanadium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Zinc	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Antimony	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Molybdenum	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Silver	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tin	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Titanium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tungsten	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Zirconium	20 mg/L	.125 mL	50 mL	50 ug/L

Serial ID: WMS100209-06 **Opened:** 09-FEB-10 **Balance Id :** 40245216
Name: ICPMS CRDL **Received:** 09-FEB-10 **Pipet Id :** 3820544
Type: Working **Expires:** 10-FEB-10 **Solvent :** 2%HNO3/1%HCl - 1266278
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS CRDL
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Aluminum	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Arsenic	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Barium	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Beryllium	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-09	Boron	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Cadmium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Calcium	100 mg/L	.05 mL	50 mL	100 ug/L
UI090701-09	Chromium	3 mg/L	.05 mL	50 mL	3 ug/L
UI090701-09	Cobalt	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Copper	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Iron	25 mg/L	.05 mL	50 mL	25 ug/L
UI090701-09	Lead	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Lithium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Magnesium	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Manganese	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Nickel	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Phosphorous	50 mg/L	.05 mL	50 mL	50 ug/L
UI090701-09	Potassium	300 mg/L	.05 mL	50 mL	300 ug/L
UI090701-09	Selenium	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Sodium	250 mg/L	.05 mL	50 mL	250 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Strontium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Thallium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Thorium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Uranium	.2 mg/L	.05 mL	50 mL	.2 ug/L
UI090701-09	Vanadium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Zinc	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Antimony	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-10	Molybdenum	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-10	Silver	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-10	Tin	2 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Titanium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Tungsten	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Zirconium	2 mg/L	.05 mL	50 mL	2 ug/L

Serial ID: WMS100209-07 **Opened:** 09-FEB-10 **Balance Id :** 40245216
Name: ICPMS ICSA **Received:** 09-FEB-10 **Lot Number :** 1010773
Type: Working **Expires:** 10-FEB-10 **Pipet Id :** 3541598
Employee: Paul Boyd **Solvent :** 2%HNO3/1%HCl - 1266278
Supplier: GEL
Description: ICPMS ICSA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100126-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100126-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100126-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: WMS100209-08 **Opened:** 09-FEB-10 **Balance Id :** 40245216
Name: ICPMS ICSAB **Received:** 09-FEB-10 **Pipet Id :** 1758088
Type: Working **Expires:** 10-FEB-10 **Solvent :** 2%HNO3/1%HCl - 1266278
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS ICSAB
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-12	Arsenic	2 mg/L	.5 mL	50 mL	20 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-12	Barium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Beryllium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Boron	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Cadmium	2 mg/L	.5 mL	50 mL	20.2 ug/L
UI091217-12	Chromium	2 mg/L	.5 mL	50 mL	22.2 ug/L
UI091217-12	Cobalt	2 mg/L	.5 mL	50 mL	20.4 ug/L
UI091217-12	Copper	2 mg/L	.5 mL	50 mL	23.4 ug/L
UI091217-12	Lead	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Lithium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Manganese	2 mg/L	.5 mL	50 mL	22.7 ug/L
UI091217-12	Nickel	2 mg/L	.5 mL	50 mL	22.4 ug/L
UI091217-12	Selenium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Strontium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thallium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thorium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Uranium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Vanadium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Zinc	2 mg/L	.5 mL	50 mL	27 ug/L
UI091217-13	Antimony	2 mg/L	.5 mL	50 mL	20.5 ug/L
UI091217-13	Silver	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tin	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tungsten	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Zirconium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100126-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100126-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100126-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: 1156689-A **Opened:** 20-JUL-09 **Lot Number :** 41226920
Name: B-KMnO4(VWR)-MER **Received:** 20-JUL-09
Type: Reagent/Solvent **Expires:** 20-JUL-10
Employee: Tara Griffin **Verified:** 07-AUG-07
Supplier: VWR
Description: Potassium Permanganate
Comments: None

Standard Logbook

Serial ID: 1228372-A **Opened:** 12-NOV-09 **Lot Number :** 49215936
Name: B-NH2OH.HCl-MER **Received:** 12-NOV-09
Type: Reagent/Solvent **Expires:** 12-NOV-10
Employee: Tara Griffin
Supplier: Fisher Scientific
Description: Hydroxlyamine Hydrochloride
Comments: None

Serial ID: 1250038-02 **Opened:** 04-JAN-10 **Lot Number :** ZU74081198 mL
Name: B-H2O2 **Received:** 04-JAN-10
Type: Reagent/Solvent **Expires:** 04-JAN-11
Employee: Bryan Davis
Supplier: EM SCIENCE
Description: Hydrogen Peroxide 30%
Comments: None

Serial ID: 1252836 **Opened:** 08-JAN-10 **Lot Number :** H20053 L
Name: I-HNO3 **Received:** 08-JAN-10
Type: Reagent/Solvent **Expires:** 08-JAN-11
Employee: Francena Armstrong
Supplier: BAKER
Description: Nitric Acid CONC.
Comments: None

Serial ID: 1252838 **Opened:** 08-JAN-10 **Lot Number :** H41032
Name: I-HCL **Received:** 08-JAN-10 **Preservative_Id :** 5 none
Type: Reagent/Solvent **Expires:** 08-JAN-11
Employee: Francena Armstrong
Supplier: J.T. BAKER
Description: HYDROCHLORIC ACID
Comments: None

Serial ID: 1255532-C **Opened:** 15-JAN-10 **Balance Id :** BAL-002
Name: B-NaCl.NH2OH.HCl-MER **Received:** 15-JAN-10
Type: Reagent/Solvent **Expires:** 15-JUL-10
Employee: Tara Griffin
Supplier: GEL
Description: Hg reducing agent
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1228372-A	B-NH2OH.HCl-MER	N/A	120 g	1000 mL	N/A

Standard Logbook

Serial ID: 1257474-1 **Opened:** 20-JAN-10 **Instrument Id :** MERCURY
Name: B-HNO3-MER **Received:** 20-JAN-10 **Lot Number :** H20053
Type: Reagent/Solvent **Expires:** 20-JAN-11
Employee: Tara Griffin
Supplier: Mallinckrodt Chemicals
Description: NITRIC ACID
Comments: None

Serial ID: 1264396 **Opened:** 03-FEB-10 **Lot Number :** H51025 L
Name: I-HNO3 **Received:** 02-FEB-10
Type: Reagent/Solvent **Expires:** 03-FEB-11
Employee: Bryan Davis
Supplier: BAKER
Description: Nitric Acid CONC.
Comments: None

Serial ID: 1264796-A **Opened:** 04-FEB-10 **Lot Number :** 200930201
Name: B-HCl-MER **Received:** 04-FEB-10
Type: Reagent/Solvent **Expires:** 04-FEB-11
Employee: Tara Griffin
Supplier: Aristar
Description: Hydrochloric Acid Conc.
Comments: None

Serial ID: 1264984-C **Opened:** 04-FEB-10 **Balance Id :** BAL-002
Name: B-KMnO4-MER **Received:** 04-FEB-10
Type: Reagent/Solvent **Expires:** 20-JUL-10
Employee: Tara Griffin
Supplier: GEL
Description: 5% KMnO4 solution
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1156689-A	B-KMnO4(VWR)-MER	Crystals	50 g	1000 mL	3%

Serial ID: 1265209 **Opened:** 04-FEB-10 **Lot Number :** J02039
Name: I-HCL **Received:** 04-FEB-10 **Preservative_Id :** 5 none
Type: Reagent/Solvent **Expires:** 04-FEB-11
Employee: Bryan Davis
Supplier: J.T. BAKER
Description: HYDROCHLORIC ACID
Comments: None

Standard Logbook

Serial ID: 1266278 **Opened:** 08-FEB-10 **Solvent :** Type I Water
Name: B-2%HNO3/1%HCl-ICPMS **Received:** 08-FEB-10
Type: Reagent/Solvent **Expires:** 15-FEB-10
Employee: Paul Boyd
Supplier: GEL
Description: 2%HNO3/1%HCl Solution (Type I Water)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1252836	I-HNO3	69.0-70.0	180 mL	9 l	N/A
1252838	I-HCL	36.5-38.0	90 mL	9 l	N/A

Serial ID: 1266496 **Opened:** 08-FEB-10 **Amount :** 20 L
Name: B-ICP-RINSE SOLN **Received:** 20-JAN-10 **Lot Number :** H04040+G34050
Type: Reagent/Solvent **Expires:** 14-FEB-10 **Solvent :** 3%HCL+1%HNO3
Employee: Helen Camello
Supplier: GEL
Description: 3%HCL+1%HNO3 RINSE SOLN.
Comments: None

General Chemistry Analysis

Case Narrative

General Chemistry Narrative
Los Alamos National Laboratory (LANL)
SDG 10-1604

Method/Analysis Information

Product:	**Cyanide, Total**		
Analytical Batch:	949513	**Method:**	SW9012A Cyanide and Total
Prep Batch :	949512	**Method:**	SSW846 9010B Prep

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 9012A:

Sample ID	Client ID
246333001	RE03-10-12247
246333002	RE03-10-12248
1202034331	Method Blank (MB)
1202034332	246070014(RE15-10-8149) Sample Duplicate (DUP)
1202034333	246070014(RE15-10-8149) Matrix Spike (MS)
1202034334	246070014(RE15-10-8149) Matrix Spike Duplicate (MSD)
1202034335	Laboratory Control Sample (LCS)
1202036005	246268001(RE16-10-1310) Sample Duplicate (DUP)
1202036006	246268001(RE16-10-1310) Matrix Spike (MS)
1202036007	246268001(RE16-10-1310) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on a "dry weight" basis.

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-095 REV# 12.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

The Flow Injection analysis was performed on a Lachat QuickChem FIA+ 8000 Series.

Initial Calibration

All initial calibration requirements have been met for this SDG.

Continuing Calibration Blanks

All continuing calibration blanks (CCBs) associated with reported data from this batch were within acceptance limits.

Calibration Verification Information (CCV)
All continuing calibration verification standards (CCVs) associated with reported data from this batch were within acceptance limits.

Y Intercept Rule
The absolute value of the intercept is less than 3 times the MDL.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recovery met the acceptance limits.

Quality Control (QC) Designation
The following samples were selected for QC analysis: 246070014 (RE15-10-8149) and 246268001 (RE16-10-1310).

Matrix Spike (MS)/Post Spike (PS) Recovery Statement
The MS/PS recoveries for this sample set were within the required acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recoveries for this sample set were within the required acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPDs between the spike and spike duplicate met the acceptance limits.

Duplicate Relative Percent Difference (RPD) Statement
The values for the sample and duplicate are less than the Practical Quantitation Limit (PQL); therefore, the RPD is not applicable. 1202036005 (RE16-10-1310).

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times
All samples in this SDG met the specified holding time.

Sample Preservation/Integrity
All the samples from this sample group met the preservation and integrity requirements of the method.

Sample Dilutions
The following sample in this sample group was diluted due to high concentration: 1202034335 (LCS).

Sample Re-analysis
The following samples were re-analyzed due to CCV failure: 1202036005 (RE16-10-1310), 1202036006 (RE16-10-1310) and 1202036007 (RE16-10-1310).

Miscellaneous Information

Data Exception (DER) Documentation
A DER was not required for this SDG.

Additional Comments
Additional comments were not required for this SDG.

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:
Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Tom Lewis, Jr. **Date:** 11Feb10

Sample Data Summary

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis Report
for

LANL010 Los Alamos National Laboratory (72733-001-09)

Client SDG: 10-1604 GEL Work Order: 246333

The Qualifiers in this report are defined as follows:

* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.

** Indicates the analyte is a surrogate compound.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the detection limit.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Valerie Davis.

Reviewed by _____

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 11, 2010

Client SDG: 10-1604

Client Sample ID:	RE03-10-12247	Project:	LANL01004
Sample ID:	246333001	Client ID:	LANL010
Matrix:	S		
Collect Date:	02-FEB-10 12:00		
Receive Date:	05-FEB-10		
Collector:	Client		
Moisture:	15.4%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	74.4	274	ug/kg	1	AXC2 02/09/10	1241	949513	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/08/10	1432	949512

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

GEL LABORATORIES LLC

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 11, 2010

Client SDG: 10-1604

Client Sample ID:	RE03-10-12248	Project:	LANL01004
Sample ID:	246333002	Client ID:	LANL010
Matrix:	S		
Collect Date:	02-FEB-10 12:00		
Receive Date:	05-FEB-10		
Collector:	Client		
Moisture:	9.93%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	75.5	278	ug/kg	1	AXC2 02/09/10	1242	949513	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/08/10	1432	949512

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

Quality Control Summary

GEL LABORATORIES LLC

2040 Savage Road Charleston, SC 29407 - (843) 556-8171 - www.gel.com

QC Summary

Report Date: February 11, 2010
Page 1 of 2

Los Alamos National Laboratory
PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico

Contact: Ms. Joylene Valdez

Workorder: 246333

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Flow Injection Analysis										
Batch 949513										
QC1202034332 246070014 DUP										
Cyanide, Total	U	ND	U	ND	ug/kg	N/A			AXC2	02/09/10 11:09
QC1202036005 246268001 DUP										
Cyanide, Total	U	ND	U	ND	ug/kg	N/A				02/09/10 12:27
QC1202034335 LCS										
Cyanide, Total	67900			76500	ug/kg		113	(32%-157%)		02/09/10 11:07
QC1202034331 MB										
Cyanide, Total			U	250	ug/kg					02/09/10 11:06
QC1202034333 246070014 MS										
Cyanide, Total	5660 U	ND		5480	ug/kg		96.8	(26%-158%)		02/09/10 11:10
QC1202036006 246268001 MS										
Cyanide, Total	5240 U	ND		4780	ug/kg		91.3	(26%-158%)		02/09/10 12:28
QC1202034334 246070014 MSD										
Cyanide, Total	5550 U	ND		5400	ug/kg	1.47	97.3	(0%-30%)		02/09/10 11:10
QC1202036007 246268001 MSD										
Cyanide, Total	5040 U	ND		4510	ug/kg	5.84	89.5	(0%-30%)		02/09/10 12:29

Notes:
RER is calculated at the 95% confidence level (2-sigma).
The Qualifiers in this report are defined as follows:

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- E General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
- E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
- E Organics--Concentration of the target analyte exceeds the instrument calibration range
- F Estimated Value
- H Analytical holding time was exceeded
- J Value is estimated
- JNX Non Calibrated Compound
- M M if above MDC and less than LLD
- M Matrix Related Failure

QC Summary

Workorder: 246333

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time

N	Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A	RPD or %Recovery limits do not apply.
ND	Analyte concentration is not detected above the detection limit
NJ	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
P	Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%
R	Sample results are rejected
U	Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI	Gamma Spectroscopy--Uncertain identification
UJ	Compound cannot be extracted
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
Z	Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d	5-day BOD--The 2:1 depletion requirement was not met for this sample
h	Preparation or preservation holding time was exceeded

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more.
^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.
* Indicates that a Quality Control parameter was not within specifications.
For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

Instrument QC Data Summary

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Report Run On: 11-FEB-2010 15:36

GEL Laboratories LLC

Contract: LANL01004

SDG #: 10-1604

Flow Injection Analysis

Method: SW846 9012A Concentration Units:ug/L

Instrument: Lachat QuickChem FIA+ 8000 Series

Parmname: Cyanide, Total

Sample Type	Run Date	Data File	Result	Nominal	Recovery	Limits	Within Limits
ICV	**09-FEB-2010 11:00:58**	**OM_2-9-2010_10-50-31**	**154**	**150**	**103**	**(90%-110%)**	**Yes**
CCV	09-FEB-2010 11:15:16	OM_2-9-2010_10-50-31	109	100	109	(90%-110%)	Yes
CCV	09-FEB-2010 12:21:01	OM_2-9-2010_12-19-29	97.2	100	97.2	(90%-110%)	Yes
CCV	09-FEB-2010 12:33:26	OM_2-9-2010_12-19-29	97.1	100	97.1	(90%-110%)	Yes
CCV	09-FEB-2010 12:45:51	OM_2-9-2010_12-19-29	99.6	100	99.6	(90%-110%)	Yes

Sample Type	Run Date	Data File	Result	Limits	Within Limits
ICB	**09-FEB-2010 11:02:49**	**OM_2-9-2010_10-50-31**	**-1.37**	**10**	**Yes**
CCB	09-FEB-2010 11:17:06	OM_2-9-2010_10-50-31	-1.86	10	Yes
CCB	09-FEB-2010 12:22:51	OM_2-9-2010_12-19-29	-1.03	10	Yes
CCB	09-FEB-2010 12:35:19	OM_2-9-2010_12-19-29	-1.82	10	Yes
CCB	09-FEB-2010 12:47:43	OM_2-9-2010_12-19-29	-1.49	10	Yes

Cyanide, Total

Prep LogBook

Analyst: AXS5 Verified by:_____

Batch: 949512

Lab SOP: GL-GC-E-067 REV# 13

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1202034335	URF1200957-01	.25	g
MS	1202034333	URF1184831-02	.025	mL
MS	1202036006	URF1184831-02	.025	mL
MSD	1202034334	URF1184831-02	.025	mL
MSD	1202036007	URF1184831-02	.025	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Ph	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1202034331		SW846 9010B Prep	08-FEB-2010 14:32	>12	0.5 g	25 mL	50	SOIL
LCS	1202034335		SW846 9010B Prep	08-FEB-2010 14:32	>12	0.25 g	25 mL	100	SOIL
SAMPLE	246070014		SW846 9010B Prep	08-FEB-2010 14:32	>12	0.53 g	25 mL	47.16981	SOIL
DUP	1202034332	246070014	SW846 9010B Prep	08-FEB-2010 14:32	>12	0.52 g	25 mL	48.07692	SOIL
MS	1202034333	246070014	SW846 9010B Prep	08-FEB-2010 14:32	>12	0.5 g	25 mL	50	SOIL
MSD	1202034334	246070014	SW846 9010B Prep	08-FEB-2010 14:32	>12	0.51 g	25 mL	49.01961	SOIL
SAMPLE	246070015		SW846 9010B Prep	08-FEB-2010 14:32	>12	0.57 g	25 mL	43.85965	SOIL
SAMPLE	246070016		SW846 9010B Prep	08-FEB-2010 14:32	>12	0.53 g	25 mL	47.16981	SOIL
SAMPLE	246070017		SW846 9010B Prep	08-FEB-2010 14:32	>12	0.58 g	25 mL	43.10345	SOIL
SAMPLE	246070018		SW846 9010B Prep	08-FEB-2010 14:32	>12	0.52 g	25 mL	48.07692	SOIL
SAMPLE	246070019		SW846 9010B Prep	08-FEB-2010 14:32	>12	0.53 g	25 mL	47.16981	SOIL
SAMPLE	246070020		SW846 9010B Prep	08-FEB-2010 14:32	>12	0.54 g	25 mL	46.2963	SOIL
SAMPLE	246268001		SW846 9010B Prep	08-FEB-2010 14:32	>12	0.55 g	25 mL	45.45455	SOIL
DUP	1202036005	246268001	SW846 9010B Prep	08-FEB-2010 14:32	>12	0.53 g	25 mL	47.16981	SOIL
MS	1202036006	246268001	SW846 9010B Prep	08-FEB-2010 14:32	>12	0.51 g	25 mL	49.01961	SOIL
MSD	1202036007	246268001	SW846 9010B Prep	08-FEB-2010 14:32	>12	0.53 g	25 mL	47.16981	SOIL
SAMPLE	246268002		SW846 9010B Prep	08-FEB-2010 14:32	>12	0.51 g	25 mL	49.01961	SOIL
SAMPLE	246268003		SW846 9010B Prep	08-FEB-2010 14:32	>12	0.56 g	25 mL	44.64286	SOIL
SAMPLE	246268004		SW846 9010B Prep	08-FEB-2010 14:32	>12	0.54 g	25 mL	46.2963	SOIL
SAMPLE	246268005		SW846 9010B Prep	08-FEB-2010 14:32	>12	0.57 g	25 mL	43.85965	SOIL
SAMPLE	246268006		SW846 9010B Prep	08-FEB-2010 14:32	>12	0.57 g	25 mL	43.85965	SOIL
SAMPLE	246280001		SW846 9010B Prep	08-FEB-2010 14:32	>12	0.51 g	25 mL	49.01961	SOIL
SAMPLE	246280002		SW846 9010B Prep	08-FEB-2010 14:32	>12	0.54 g	25 mL	46.2963	SOIL
SAMPLE	246280003		SW846 9010B Prep	08-FEB-2010 14:32	>12	0.5 g	25 mL	50	SOIL
SAMPLE	246280004		SW846 9010B Prep	08-FEB-2010 14:32	>12	0.52 g	25 mL	48.07692	SOIL
SAMPLE	246333001		SW846 9010B Prep	08-FEB-2010 14:32	>12	0.54 g	25 mL	46.2963	SOIL
SAMPLE	246333002		SW846 9010B Prep	08-FEB-2010 14:32	>12	0.5 g	25 mL	50	SOIL
SAMPLE	246415001		SW846 9010B Prep	08-FEB-2010 14:32	>12	0.558 g	25 mL	44.80287	MISC SOLID

Prep LogBook

Reagent/Solvent Lot ID	Amount	Description
091211-C	25 mL	0.25N Sodium Hydroxide Solution
WCN100208-07	.0375 mL	150 ppb CN Distilled ICV Standard
1176724-C	1.25 mL	0.8N H3NO3S
1260189-C	2.5 mL	50% H2SO4 CN Prep
1176778-C	1 mL	51% MgCl2 Soln
1238142-C	1.25 mL	Bismuth Nitrate Solution

Comments

This is runlog Lachat1

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
200 ppb		1	axc2	2/9/2010 10:53:49	OM_2-9-2010_10-50-31
150 ppb		1	axc2	2/9/2010 10:54:41	OM_2-9-2010_10-50-31
100 ppb		1	axc2	2/9/2010 10:55:34	OM_2-9-2010_10-50-31
50 ppb		1	axc2	2/9/2010 10:56:26	OM_2-9-2010_10-50-31
10 ppb		1	axc2	2/9/2010 10:57:20	OM_2-9-2010_10-50-31
CRDL 5.0 ppb		1	axc2	2/9/2010 10:58:13	OM_2-9-2010_10-50-31
ICAL-00		1	axc2	2/9/2010 10:59:07	OM_2-9-2010_10-50-31
ICV		1	axc2	2/9/2010 11:00:58	OM_2-9-2010_10-50-31
ICB		1	axc2	2/9/2010 11:02:49	OM_2-9-2010_10-50-31
CRDL		1	axc2	2/9/2010 11:04:39	OM_2-9-2010_10-50-31
1202034331	949513	1	axc2	2/9/2010 11:06:29	OM_2-9-2010_10-50-31
1202034335	949513	25	axc2	2/9/2010 11:07:22	OM_2-9-2010_10-50-31
246070014	949513	1	axc2	2/9/2010 11:08:15	OM_2-9-2010_10-50-31
1202034332	949513	1	axc2	2/9/2010 11:09:08	OM_2-9-2010_10-50-31
1202034333	949513	1	axc2	2/9/2010 11:10:01	OM_2-9-2010_10-50-31
1202034334	949513	1	axc2	2/9/2010 11:10:54	OM_2-9-2010_10-50-31
246070015	949513	1	axc2	2/9/2010 11:11:46	OM_2-9-2010_10-50-31
246070016	949513	1	axc2	2/9/2010 11:12:39	OM_2-9-2010_10-50-31
246070017	949513	1	axc2	2/9/2010 11:13:31	OM_2-9-2010_10-50-31
246070018	949513	1	axc2	2/9/2010 11:14:24	OM_2-9-2010_10-50-31
CCV		1	axc2	2/9/2010 11:15:16	OM_2-9-2010_10-50-31
CCB		1	axc2	2/9/2010 11:17:06	OM_2-9-2010_10-50-31
246070019*	949513	1	axc2	2/9/2010 11:18:54	OM_2-9-2010_10-50-31
246070020*	949513	1	axc2	2/9/2010 11:19:47	OM_2-9-2010_10-50-31
246268001*	949513	1	axc2	2/9/2010 11:20:38	OM_2-9-2010_10-50-31
1202036005*	949513	1	axc2	2/9/2010 11:21:30	OM_2-9-2010_10-50-31
1202036006*	949513	1	axc2	2/9/2010 11:22:22	OM_2-9-2010_10-50-31
1202036007*	949513	1	axc2	2/9/2010 11:23:15	OM_2-9-2010_10-50-31
246268002*	949513	1	axc2	2/9/2010 11:24:09	OM_2-9-2010_10-50-31
246268003*	949513	1	axc2	2/9/2010 11:25:02	OM_2-9-2010_10-50-31
246268004*	949513	1	axc2	2/9/2010 11:25:56	OM_2-9-2010_10-50-31
246268005*	949513	1	axc2	2/9/2010 11:26:49	OM_2-9-2010_10-50-31
CCV		1	axc2	2/9/2010 11:27:42	OM_2-9-2010_10-50-31

Author: axc2 Date : 2/9/2010

Original Run Filename: OM_2-9-2010_10-50-31.OMN created 2/9/2010 10:50:31
Original Run Author's Signature: [axc2]
Current Run Filename: OM_2-9-2010_10-50-31.OMN last modified 2/9/2010 11:28:46
Current Run Author's Signature: [axc2]
Description: GL-GC-E-095 EPA 335.1, 335.3, 335.4, 9012A, CLP335.2-M
Liquid LCS nominal 50 ug/L

Sample	Rep.	Cup No.	Channel 1 TCYANIDE Conc. (ug/L)	Area (Vs)	Detection Time	ADF	MDF	Description
WCN100209-01	1	S1	200	8.26	2/9/2010@10:53:49			200 ppb
WCN100209-02	1	S2	150	6.28	2/9/2010@10:54:41			150 ppb
WCN100209-03	1	S3	100	4.33	2/9/2010@10:55:34			100 ppb
WCN100209-04	1	S4	50.0	2.10	2/9/2010@10:56:26			50 ppb
WCN100209-05	1	S5	10.0	0.504	2/9/2010@10:57:20			10 ppb
WCN100209-06	1	S6	5.00	0.320	2/9/2010@10:58:13			CRDL 5.0 ppb
WCN100209-08	1	S7	0.00	-0.00404	2/9/2010@10:59:07			0.0 ppb
DQM Test: Minimum Correlation Coefficient								
		Result:	0.99976 > 0.99500					
		Message	Pass					
		Action	Continue					
WCN100209-07	1	S8	154	6.43	2/9/2010@11:00:58			ICV
		Known Conc:	150					
DQM Test: > + Percent Relative Difference								
		Result:	2.7 < 10.0					
		Message	ICV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	2.7 < 10.0					
		Message	ICV Passed					
		Action	Continue					
		Calibration:	Table/Fig. 1					
WCN100209-08	1	S7	-1.37	0.0203	2/9/2010@11:02:49			ICB/CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.37 < 5.01					
		Message	ICB/CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.37 > -5.01					
		Message	ICB/CCB Passed					
		Action	Continue					
WCN100209-06	1	S6	5.96	0.322	2/9/2010@11:04:39			CRDL
		Known Conc:	5.00					
DQM Test: > + Concentration Limit								
		Result:	5.96 < 7.50					
		Message	CRDL Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	5.96 > 2.50					
		Message	CRDL Passed					
		Action	Continue					
1202034331|949513|MB	1	1	-1.23	0.0261	2/9/2010@11:06:29			
1202034335||LCS	1	2	30.6	1.34	2/9/2010@11:07:22		25.00	
246070014	1	3	-0.400	0.0601	2/9/2010@11:08:15			
1202034332||DUP	1	4	-0.376	0.0611	2/9/2010@11:09:08			
1202034333||MS	1	5	96.8	4.07	2/9/2010@11:10:01			
1202034334||MSD	1	6	97.3	4.09	2/9/2010@11:10:54			
246070015	1	7	-0.290	0.0647	2/9/2010@11:11:46			
246070016	1	8	0.790	0.109	2/9/2010@11:12:39			
246070017	1	9	-0.535	0.0546	2/9/2010@11:13:31			
246070018	1	10	-0.0214	0.0758	2/9/2010@11:14:24			
WCN100209-03	1	S3	109	4.58	2/9/2010@11:15:16			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	9.2 < 10.0					

		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	9.2 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100209-08	1	S7	-1.86	-1.07e-4	2/9/2010@11:17:06			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.86 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.86 > -5.00					
		Message	CCB Passed					
		Action	Continue					
246070019	1	11	-0.737	0.0463	2/9/2010@11:18:54			
246070020	1	12	-0.581	0.0527	2/9/2010@11:19:47			
246268001	1	13	-1.07	0.0324	2/9/2010@11:20:38			
1202036005||DUP	1	14	-0.998	0.0355	2/9/2010@11:21:30			
1202036006||MS	1	15	90.0	3.79	2/9/2010@11:22:22			
1202036007||MSD	1	16	91.5	3.85	2/9/2010@11:23:15			
246268002	1	17	0.467	0.0959	2/9/2010@11:24:09			
246268003	1	18	-0.989	0.0359	2/9/2010@11:25:02			
246268004	1	19	-0.595	0.0521	2/9/2010@11:25:56			
246268005	1	20	-0.856	0.0414	2/9/2010@11:26:49			
WCN100209-03	1	S3	110	4.63	2/9/2010@11:27:42			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	10.4 > 10.0					
		Message	CCV Failed					
		Action	Stop Run					
DQM Test: < - Percent Relative Difference								
		Result:	10.4 > 10.0					
		Message	CCV Passed					
		Action	Continue					

Analyte Properties Table for OM_2-9-2010_10-50-31.OMN

Property	Channel 1
	TCYANIDE
Concentration Units	ug/L
Callibration Fit Type	First Order
Clear Calibration	True
Force Through Zero	False
Calibration Weighting	None
Auto Dilution Trigger	True
% of High Standard	100
Quik Chem Method	10-204-00-1-A
Chemistry	Direct/Bipolar
Calibration by Height	False
Inject to Peak Start	22
Peak Base Width	39

Author: axc2

Date : 2/9/2010

Channel 1: Current View

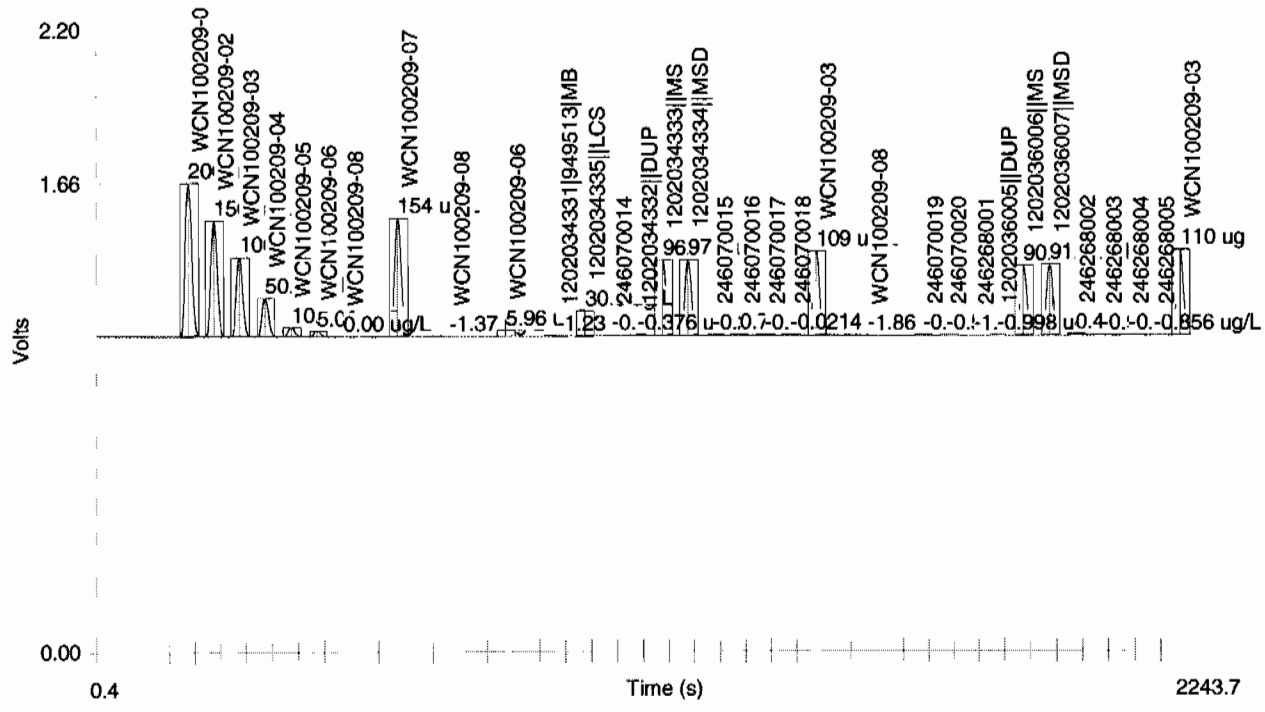

Table 1: TCYANIDE

	Conc. (ug/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	200	1	8.26	0.543	0.8	2/9/2010	10:54:52
2	150	1	6.28	0.411	-0.2	2/9/2010	10:55:44
3	100	1	4.33	0.283	-3.0	2/9/2010	10:56:37
4	50.0	1	2.10	0.137	2.0	2/9/2010	10:57:29
5	10.0	1	0.504	0.0318	-2.7	2/9/2010	10:58:23
6	5.00	1	0.320	0.0200	-12.6	2/9/2010	10:59:17
7	0.00	1	-0.00404	-9.71e-4		2/9/2010	11:00:11

Figure 1: TCYANIDE

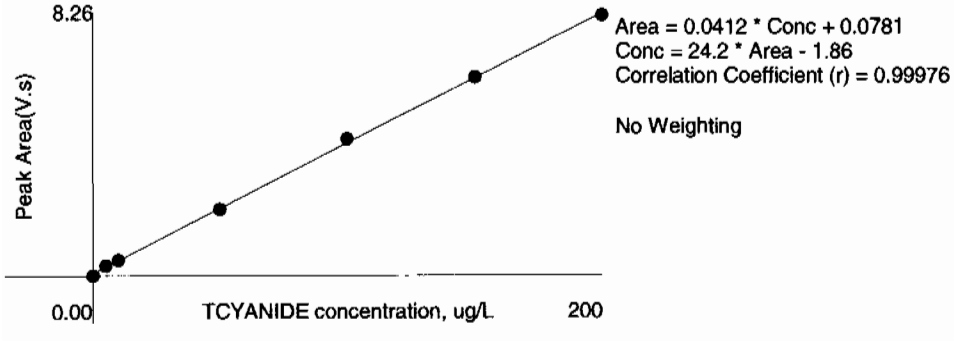

This is runlog Lachat1

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
CCV		1	axc2	2/9/2010 12:21:01	OM_2-9-2010_12-19-29
CCB		1	axc2	2/9/2010 12:22:51	OM_2-9-2010_12-19-29
246070019	949513	1	axc2	2/9/2010 12:24:39	OM_2-9-2010_12-19-29
246070020	949513	1	axc2	2/9/2010 12:25:31	OM_2-9-2010_12-19-29
246268001	949513	1	axc2	2/9/2010 12:26:23	OM_2-9-2010_12-19-29
1202036005	949513	1	axc2	2/9/2010 12:27:15	OM_2-9-2010_12-19-29
1202036006	949513	1	axc2	2/9/2010 12:28:07	OM_2-9-2010_12-19-29
1202036007	949513	1	axc2	2/9/2010 12:29:00	OM_2-9-2010_12-19-29
246268002	949513	1	axc2	2/9/2010 12:29:54	OM_2-9-2010_12-19-29
246268003	949513	1	axc2	2/9/2010 12:30:47	OM_2-9-2010_12-19-29
246268004	949513	1	axc2	2/9/2010 12:31:40	OM_2-9-2010_12-19-29
246268005	949513	1	axc2	2/9/2010 12:32:33	OM_2-9-2010_12-19-29
CCV		1	axc2	2/9/2010 12:33:26	OM_2-9-2010_12-19-29
CCB		1	axc2	2/9/2010 12:35:19	OM_2-9-2010_12-19-29
246268006	949513	1	axc2	2/9/2010 12:37:09	OM_2-9-2010_12-19-29
246280001	949513	1	axc2	2/9/2010 12:38:01	OM_2-9-2010_12-19-29
246280002	949513	1	axc2	2/9/2010 12:38:54	OM_2-9-2010_12-19-29
246280003	949513	1	axc2	2/9/2010 12:39:46	OM_2-9-2010_12-19-29
246280004	949513	1	axc2	2/9/2010 12:40:40	OM_2-9-2010_12-19-29
246333001	949513	1	axc2	2/9/2010 12:41:32	OM_2-9-2010_12-19-29
246333002	949513	1	axc2	2/9/2010 12:42:24	OM_2-9-2010_12-19-29
246415001	949513	1	axc2	2/9/2010 12:43:15	OM_2-9-2010_12-19-29
1202029260	947321	1	axc2	2/9/2010 12:44:08	OM_2-9-2010_12-19-29
1202029267	947321	25	axc2	2/9/2010 12:45:00	OM_2-9-2010_12-19-29
CCV		1	axc2	2/9/2010 12:45:51	OM_2-9-2010_12-19-29
CCB		1	axc2	2/9/2010 12:47:43	OM_2-9-2010_12-19-29
245783001	947321	1	axc2	2/9/2010 12:49:34	OM_2-9-2010_12-19-29
1202029262	947321	1	axc2	2/9/2010 12:50:28	OM_2-9-2010_12-19-29
1202029264	947321	1	axc2	2/9/2010 12:51:22	OM_2-9-2010_12-19-29
1202029266	947321	1	axc2	2/9/2010 12:52:15	OM_2-9-2010_12-19-29
245783002	947321	1	axc2	2/9/2010 12:53:08	OM_2-9-2010_12-19-29
245783003	947321	1	axc2	2/9/2010 12:54:01	OM_2-9-2010_12-19-29
245783004	947321	1	axc2	2/9/2010 12:54:55	OM_2-9-2010_12-19-29
245783005	947321	1	axc2	2/9/2010 12:55:48	OM_2-9-2010_12-19-29
245783006	947321	1	axc2	2/9/2010 12:56:42	OM_2-9-2010_12-19-29
245783007	947321	1	axc2	2/9/2010 12:57:34	OM_2-9-2010_12-19-29
CCV		1	axc2	2/9/2010 12:58:27	OM_2-9-2010_12-19-29
CCB		1	axc2	2/9/2010 13:00:17	OM_2-9-2010_12-19-29
245783008	947321	1	axc2	2/9/2010 13:02:08	OM_2-9-2010_12-19-29
245783009	947321	1	axc2	2/9/2010 13:03:00	OM_2-9-2010_12-19-29
245783010	947321	1	axc2	2/9/2010 13:03:53	OM_2-9-2010_12-19-29
245783011	947321	1	axc2	2/9/2010 13:04:44	OM_2-9-2010_12-19-29
245783012*	947321	1	axc2	2/9/2010 13:05:36	OM_2-9-2010_12-19-29
245783013*	947321	1	axc2	2/9/2010 13:06:31	OM_2-9-2010_12-19-29
245783014*	947321	1	axc2	2/9/2010 13:07:25	OM_2-9-2010_12-19-29
245783015*	947321	1	axc2	2/9/2010 13:08:19	OM_2-9-2010_12-19-29
245783016	947321	1	axc2	2/9/2010 13:09:12	OM_2-9-2010_12-19-29
245786001	947321	1	axc2	2/9/2010 13:10:06	OM_2-9-2010_12-19-29
CCV		1	axc2	2/9/2010 13:10:58	OM_2-9-2010_12-19-29
CCB		1	axc2	2/9/2010 13:12:49	OM_2-9-2010_12-19-29
245783012	947321	1	axc2	2/9/2010 13:14:39	OM_2-9-2010_12-19-29
245783013	947321	1	axc2	2/9/2010 13:15:33	OM_2-9-2010_12-19-29
245783014	947321	1	axc2	2/9/2010 13:16:26	OM_2-9-2010_12-19-29
245783015	947321	1	axc2	2/9/2010 13:17:20	OM_2-9-2010_12-19-29
245806008	947321	1	axc2	2/9/2010 13:18:13	OM_2-9-2010_12-19-29
1202029261	947321	1	axc2	2/9/2010 13:19:07	OM_2-9-2010_12-19-29
1202029263	947321	1	axc2	2/9/2010 13:20:00	OM_2-9-2010_12-19-29
1202029265	947321	1	axc2	2/9/2010 13:20:53	OM_2-9-2010_12-19-29

1202036002	950190	1	axc2	2/9/2010	13:21:46	OM_2-9-2010_12-19-29
246415001	950190	1	axc2	2/9/2010	13:22:37	OM_2-9-2010_12-19-29
CCV		1	axc2	2/9/2010	13:23:31	OM_2-9-2010_12-19-29
CCB		1	axc2	2/9/2010	13:25:21	OM_2-9-2010_12-19-29
1202036003	950190	1	axc2	2/9/2010	13:27:11	OM_2-9-2010_12-19-29
1202036004	950190	1	axc2	2/9/2010	13:28:04	OM_2-9-2010_12-19-29
246415001	950190	10	axc2	2/9/2010	13:28:55	OM_2-9-2010_12-19-29
246415001	949513	10	axc2	2/9/2010	13:29:48	OM_2-9-2010_12-19-29
CCV		1	axc2	2/9/2010	13:30:41	OM_2-9-2010_12-19-29
CCB		1	axc2	2/9/2010	13:32:31	OM_2-9-2010_12-19-29

Author: axc2 Date : 2/9/2010

Original Run Filename: OM_2-9-2010_12-19-29.OMN created 2/9/2010 12:19:29
Original Run Author's Signature: [axc2]
Current Run Filename: OM_2-9-2010_12-19-29.OMN last modified 2/9/2010 13:33:37
Current Run Author's Signature: [axc2]
Description: GL-GC-E-095 EPA 335.1, 335.3, 335.4, 9012A, CLP335.2-M
Liquid LCS nominal 50 ug/L

Sample	Rep.	Cup No.	Channel 1 TCYANIDE Conc. (ug/L)	Area (Vs)	Detection Time	ADF	MDF	Description
WCN100209-03	1	S3	97.2	4.09	2/9/2010@12:21:01			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	-2.8 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	-2.8 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100209-08	1	S7	-1.03	0.0341	2/9/2010@12:22:51			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.03 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.03 > -5.00					
		Message	CCB Passed					
		Action	Continue					
		Calibration:	Table/Fig. 1					
246070019|949513|	1	11	-0.492	0.0563	2/9/2010@12:24:39			
246070020	1	12	-1.92	-0.00255	2/9/2010@12:25:31			
246268001	1	13	-1.46	0.0165	2/9/2010@12:26:23			
1202036005||DUP	1	14	-0.928	0.0384	2/9/2010@12:27:15			
1202036006||MS	1	15	91.3	3.84	2/9/2010@12:28:07			
1202036007||MSD	1	16	89.5	3.77	2/9/2010@12:29:00			
246268002	1	17	0.633	0.103	2/9/2010@12:29:54			
246268003	1	18	-1.64	0.00906	2/9/2010@12:30:47			
246268004	1	19	-0.611	0.0514	2/9/2010@12:31:40			
246268005	1	20	-0.546	0.0541	2/9/2010@12:32:33			
WCN100209-03	1	S3	97.1	4.08	2/9/2010@12:33:26			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	-2.9 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	-2.9 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100209-08	1	S7	-1.82	0.00154	2/9/2010@12:35:19			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.82 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.82 > -5.00					
		Message	CCB Passed					
		Action	Continue					
246268006	1	21	-1.09	0.0318	2/9/2010@12:37:09			
246280001	1	22	-1.04	0.0336	2/9/2010@12:38:01			
246280002	1	23	-0.224	0.0674	2/9/2010@12:38:54			
246280003	1	24	-0.529	0.0548	2/9/2010@12:39:46			
246280004	1	25	-1.19	0.0277	2/9/2010@12:40:40			

246333001	1	26	-0.821	0.0428	2/9/2010@12:41:32			
246333002	1	27	-1.06	0.0328	2/9/2010@12:42:24			
246415001	1	28	421	17.4	2/9/2010@12:43:15			
1202029260|947321|MB	1	29	-0.194	0.0686	2/9/2010@12:44:08			
1202029267||LCS	1	30	31.1	1.36	2/9/2010@12:45:00		25.00	
WCN100209-03	1	S3	99.6	4.19	2/9/2010@12:45:51			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	-0.4 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	-0.4 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100209-08	1	S7	-1.49	0.0152	2/9/2010@12:47:43			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.49 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.49 > -5.00					
		Message	CCB Passed					
		Action	Continue					
245783001	1	31	-1.21	0.0266	2/9/2010@12:49:34			
1202029262||DUP	1	32	-0.595	0.0521	2/9/2010@12:50:28			
1202029264||MS	1	33	104	4.35	2/9/2010@12:51:22			
1202029266||MSD	1	34	101	4.25	2/9/2010@12:52:15			
245783002	1	35	-0.122	0.0716	2/9/2010@12:53:08			
245783003	1	36	-0.870	0.0408	2/9/2010@12:54:01			
245783004	1	37	-0.551	0.0539	2/9/2010@12:54:55			
245783005	1	38	-1.12	0.0304	2/9/2010@12:55:48			
245783006	1	39	1.45	0.136	2/9/2010@12:56:42			
245783007	1	40	-0.793	0.0439	2/9/2010@12:57:34			
WCN100209-03	1	S3	99.3	4.17	2/9/2010@12:58:27			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	-0.7 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	-0.7 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100209-08	1	S7	-1.36	0.0206	2/9/2010@13:00:17			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.36 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.36 > -5.00					
		Message	CCB Passed					
		Action	Continue					
245783008	1	41	-1.05	0.0332	2/9/2010@13:02:08			
245783009	1	42	-0.271	0.0655	2/9/2010@13:03:00			
245783010	1	43	-0.884	0.0402	2/9/2010@13:03:53			
245783011	1	44	-1.39	0.0191	2/9/2010@13:04:44			
245783012	1	45	17.9	0.817	2/9/2010@13:05:36			
245783013	1	46	-526	-21.6	2/9/2010@13:06:31			
245783014	1	47	-550	-22.6	2/9/2010@13:07:25			
245783015	1	48	9.69	0.476	2/9/2010@13:08:19			
245783016	1	49	-0.372	0.0613	2/9/2010@13:09:12			
245786001	1	50	-1.14	0.0298	2/9/2010@13:10:06			
WCN100209-03	1	S3	101	4.23	2/9/2010@13:10:58			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								

		Result:	0.6 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	0.6 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100209-08	1	S7	-2.21	-0.0143	2/9/2010@13:12:49			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-2.21 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-2.21 > -5.00					
		Message	CCB Passed					
		Action	Continue					
245783012	1	45	-0.912	0.0390	2/9/2010@13:14:39			
245783013	1	46	-0.469	0.0573	2/9/2010@13:15:33			
245783014	1	47	0.111	0.0812	2/9/2010@13:16:26			
245783015	1	48	-0.872	0.0407	2/9/2010@13:17:20			
245806008	1	51	0.862	0.112	2/9/2010@13:18:13			
1202029261||DUP	1	52	-0.0633	0.0740	2/9/2010@13:19:07			
1202029263||MS	1	53	85.7	3.61	2/9/2010@13:20:00			
1202029265||MSD	1	54	82.8	3.49	2/9/2010@13:20:53			
1202036002|950190|MB	1	55	-1.09	0.0318	2/9/2010@13:21:46			
246415001	1	58	312	13.0	2/9/2010@13:22:37			
WCN100209-03	1	S3	102	4.27	2/9/2010@13:23:31			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	1.5 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	1.5 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100209-08	1	S7	-1.86	-6.73e-5	2/9/2010@13:25:21			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.86 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.86 > -5.00					
		Message	CCB Passed					
		Action	Continue					
1202036003||LCS	1	56	-0.177	0.0694	2/9/2010@13:27:11			
1202036004||LCSD	1	57	-0.890	0.0399	2/9/2010@13:28:04			
246415001	1	58	32.2	1.41	2/9/2010@13:28:55		10.00	
246415001|949513|	1	28	61.7	2.62	2/9/2010@13:29:48		10.00	
WCN100209-03	1	S3	100	4.22	2/9/2010@13:30:41			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	0.4 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	0.4 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100209-08	1	S7	-1.93	-0.00315	2/9/2010@13:32:31			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.93 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								

Author: axc2 Date : 2/9/2010

Result:	-1.93 > -5.00					
Message	CCB Passed					
Action	Continue					

Analyte Properties Table for OM_2-9-2010_12-19-29.OMN

Property	Channel 1
	TCYANIDE
Concentration Units	ug/L
Callibration Fit Type	First Order
Clear Calibration	True
Force Through Zero	False
Calibration Weighting	None
Auto Dilution Trigger	True
% of High Standard	100
Quik Chem Method	10-204-00-1-A
Chemistry	Direct/Bipolar
Calibration by Height	False
Inject to Peak Start	22
Peak Base Width	39

Channel 1: Current View

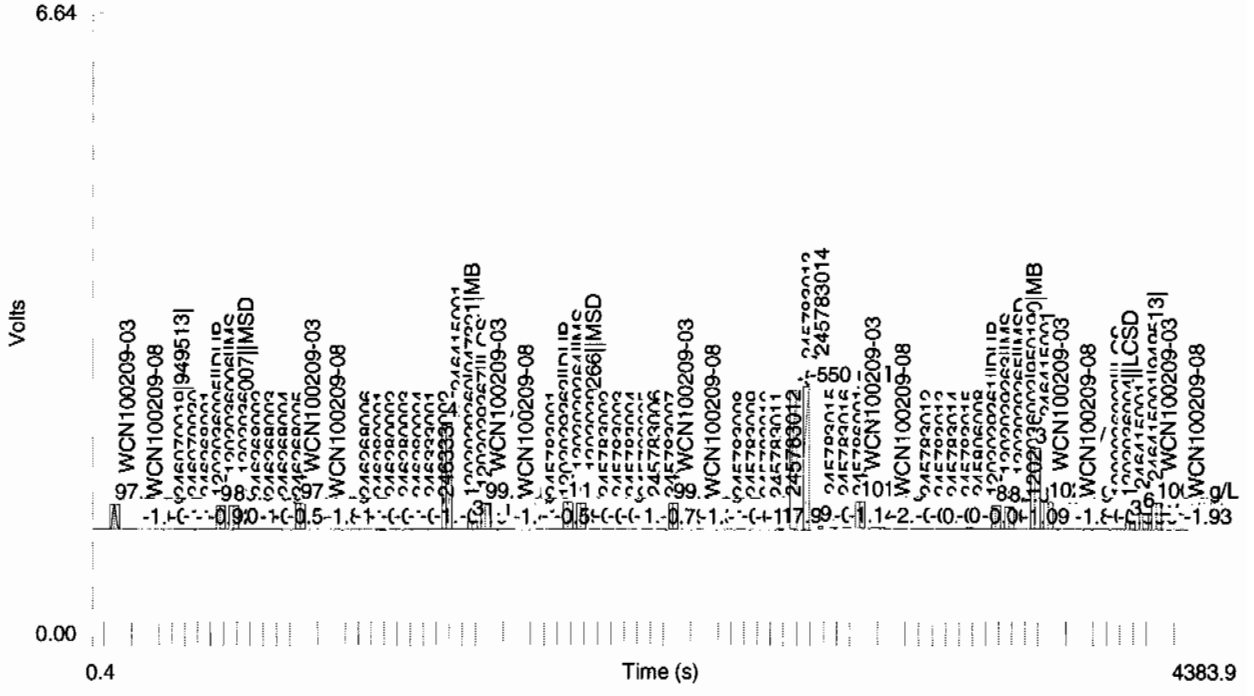

Author: axc2 Date : 2/9/2010

Table 1: TCYANIDE

	Conc. (ug/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	200	1	8.26	0.543	0.8	2/9/2010	10:54:52
2	150	1	6.28	0.411	-0.2	2/9/2010	10:55:44
3	100	1	4.33	0.283	-3.0	2/9/2010	10:56:37
4	50.0	1	2.10	0.137	2.0	2/9/2010	10:57:29
5	10.0	1	0.504	0.0318	-2.7	2/9/2010	10:58:23
6	5.00	1	0.320	0.0200	-12.6	2/9/2010	10:59:17
7	0.00	1	-0.00404	-9.71e-4		2/9/2010	11:00:11

Figure 1: TCYANIDE

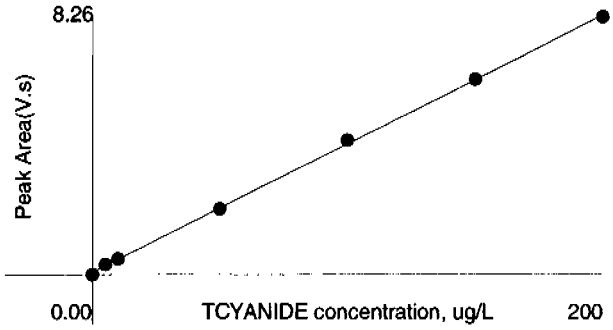

Area = 0.0412 * Conc + 0.0781
Conc = 24.2 * Area - 1.86
Correlation Coefficient (r) = 0.99976

No Weighting

Monday, December 28, 2009

REQUEST NUMBER: 10-1088

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis
General Engineering Laboratories, Inc., Charleston, SC.
2040 Savage Rd
Charleston, SC 29407

These Samples are on:
LANL Request Number:10-1088
Per Agreement Number:126310011
Project Cost Code: MR2A054196D0

Please analyse the enclosed samples
according to the schedule indicated:

SHIP DATE: 12/23/2009
TURNAROUND/REPORT DUE: 1/22/2010
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Not Required
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:906.0	1	RE03-09-14231	S	12/22/2009	
		1	RE03-09-14232	S	12/22/2009	
		1	RE03-09-14233	S	12/22/2009	
		1	RE03-09-14234	S	12/22/2009	
		1	RE03-09-14235	S	12/22/2009	
		1	RE03-09-14236	S	12/22/2009	
		1	RE03-09-14238	S	12/22/2009	
		1	RE03-09-14239	S	12/22/2009	
		1	RE03-09-14240	S	12/22/2009	

Monday, December 28, 2009

REQUEST NUMBER: 10-1088

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:906.0	1	RE03-09-14241	S	12/22/2009	
		1	RE03-10-2736	S	12/22/2009	
		1	RE03-10-2737	S	12/22/2009	
		1	RE03-10-9872	S	12/22/2009	
		1	RE03-10-9873	S	12/22/2009	
		1	RE03-10-9874	S	12/22/2009	
	HASL-300:ISOPU	1	RE03-09-14231	S	12/22/2009	
		1	RE03-09-14232	S	12/22/2009	
		1	RE03-09-14233	S	12/22/2009	
		1	RE03-09-14234	S	12/22/2009	
		1	RE03-09-14235	S	12/22/2009	
		1	RE03-09-14236	S	12/22/2009	
		1	RE03-09-14238	S	12/22/2009	
		1	RE03-09-14239	S	12/22/2009	
		1	RE03-09-14240	S	12/22/2009	
		1	RE03-09-14241	S	12/22/2009	
		1	RE03-10-2736	S	12/22/2009	
		1	RE03-10-2737	S	12/22/2009	
		1	RE03-10-9872	S	12/22/2009	
		1	RE03-10-9873	S	12/22/2009	
		1	RE03-10-9874	S	12/22/2009	
	HASL-300:ISOU	1	RE03-09-14231	S	12/22/2009	
		1	RE03-09-14232	S	12/22/2009	
		1	RE03-09-14233	S	12/22/2009	
		1	RE03-09-14234	S	12/22/2009	
		1	RE03-09-14235	S	12/22/2009	
		1	RE03-09-14236	S	12/22/2009	
		1	RE03-09-14238	S	12/22/2009	

Monday, December 28, 2009

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1088C

REQUEST NUMBER: 10-1088

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 1/22/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS:

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE03-09-14233	1	POLY	AM-241+ISOPU+ISOU	None	S
RE03-09-14233	1	POLY	H3	Ice	S
RE03-09-14236	1	POLY	AM-241+ISOPU+ISOU	None	S
RE03-09-14236	1	POLY	H3	Ice	S
RE03-09-14239	1	POLY	AM-241+ISOPU+ISOU	None	S
RE03-09-14239	1	POLY	H3	Ice	S
RE03-09-14240	1	POLY	AM-241+ISOPU+ISOU	None	S
RE03-09-14240	1	POLY	H3	Ice	S
RE03-09-14231	1	POLY	AM-241+ISOPU+ISOU	None	S
RE03-09-14231	1	POLY	H3	Ice	S
RE03-09-14232	1	POLY	AM-241+ISOPU+ISOU	None	S
RE03-09-14232	1	POLY	H3	Ice	S
RE03-09-14235	1	POLY	AM-241+ISOPU+ISOU	None	S
RE03-09-14235	1	POLY	H3	Ice	S
RE03-09-14238	1	POLY	AM-241+ISOPU+ISOU	None	S
RE03-09-14238	1	POLY	H3	Ice	S
RE03-09-14234	1	POLY	AM-241+ISOPU+ISOU	None	S
RE03-09-14234	1	POLY	H3	Ice	S
RE03-09-14241	1	POLY	AM-241+ISOPU+ISOU	None	S
RE03-09-14241	1	POLY	H3	Ice	S
RE03-10-2737	1	POLY	AM-241+ISOPU+ISOU	None	S
RE03-10-2737	1	POLY	H3	Ice	S
RE03-10-2736	1	POLY	AM-241+ISOPU+ISOU	None	S
RE03-10-2736	1	POLY	H3	Ice	S
RE03-10-9872	1	POLY	AM-241+ISOPU+ISOU	None	S
RE03-10-9872	1	POLY	H3	Ice	S
RE03-10-9873	1	POLY	AM-241+ISOPU+ISOU	None	S
RE03-10-9873	1	POLY	H3	Ice	S
RE03-10-9874	1	POLY	AM-241+ISOPU+ISOU	None	S
RE03-10-9874	1	POLY	H3	Ice	S

Relinquished By:	Date	Time	Received By:	Date	Time

12/23/09 3:00

Printed Name	Signature	Printed Name	Signature
Printed Name	Signature	Printed Name	Signature
Printed Name	Signature	Printed Name	Signature

Received for DISPOSAL By: **Date** **Time** **Remarks:**

Printed Name Signature

10-1088

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2276 **EVENT NAME:** Soil Sampling at TA-60

SAMPLE ID: RE03-09-14231 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12/22/09	MEDIA:	NA	Qbt-3
TIME COLLECTED (HH:MM)		0830	SUB-MEDIA:	OTHER	NA
PRS ID:	60-006(a)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	03-608410		FIELD QC TYPE:	NA	
LOCATION TYPE:	BH		FIELD PREP:	NA	
TOP DEPTH:	0	JJJ 5' 18	SAMPLE USAGE:	INV	
BOTTOM DEPTH:	0	12-22-09 6' 19	SCREEN/PORT DESC:		NA
FIELD MATRIX:	SR JJJ 12-22-09		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: _____ COMPOSITE TIME INTERVAL: _____ WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: _____ BOREHOLE DIRECTION: _____

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+8082	250 ML AMBER GLASS	Ice	Y	
1		AM-241+ISOPU+ISOU	500 ML POLY	None	Y	
1		H3	500 ML POLY	Ice	Y	
1		METALS-GEL	125 ML POLY	Ice	Y	
1		Perchlorate+CN+N03+pH	500 ML POLY	Ice	Y	

SAMPLE DESC: Qbt 3 tuff, sl. moist, weathered, reddish-gray 5YR5/2

SAMPLE COMMENTS: Samples to be collected from former location of tank.

LOCATION DESC: 6(a)-2

FIELD SCREENING/MEASUREMENT RESULTS: PID = 0 ppm
Background: α = 78 dpm β = 1356 dpm Samples < MDA

COLLECTED BY (PRINT) J. Joys, S. Stands **REVIEWED BY (PRINT)** J. Jack

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) J. Jack (Signature)	12-22-09 1715	(Printed Name) (Signature)	12-22-09 1715
RELINQUISHED BY (Printed Name)	**Date/Time**	**RECEIVED BY** (Printed Name)	**Date/Time**

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2276 **EVENT NAME:** Soil Sampling at TA-60

SAMPLE ID: RE03-09-14232 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12-22-09	MEDIA:	NA	Qbt-3
TIME COLLECTED (HH:MM)		0840	SUB-MEDIA:	OTHER	OK
PRS ID:	60-006(a)	OK	SAMPLE TECH CODE:	HA	
LOCATION ID:	03-608410		FIELD QC TYPE:	NA	
LOCATION TYPE:	BH		FIELD PREP:	NA	
TOP DEPTH:	0	22 ~~12-10-09~~ 9'	SAMPLE USAGE:	INV	
BOTTOM DEPTH:	0	23 ~~12-10-09~~ 10'	SCREEN/PORT DESC:		
FIELD MATRIX:	S	R JLJ 12-22-09	EXCAVATED: YES / NO / NA		NA

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+8082	250 ML AMBER GLASS	Ice	Y	
1		AM-241+ISOPU+ISOU	500 ML POLY	None	Y	
1		H3	500 ML POLY	Ice	Y	
1		METALS-GEL	125 ML POLY	Ice	Y	
1		Perchlorate+CN+N03+pH	500 ML POLY	Ice	Y	

SAMPLE DESC: Qbt3, tuff, sl. moist, sl. weathered, reddish-gray 5YR 5/3

SAMPLE COMMENTS: Samples to be collected from former location of tank.

LOCATION DESC: 6(a)-2

FIELD SCREENING/MEASUREMENT RESULTS: PID = 0.3 ppm All < MDA

α 78 dpm
β 1356 dpm

COLLECTED BY (PRINT) M. Therald, J. Toya **REVIEWED BY (PRINT)** J. Jack

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) J. Jack	12-22-09	(Printed Name)	12-22-09
(Signature)	1715	(Signature)	1715
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2276 **EVENT NAME:** Soil Sampling at TA-60

SAMPLE ID: RE03-09-14233 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12-22-09	MEDIA:	NA	QBt-3
TIME COLLECTED (HH:MM)		0855	SUB-MEDIA:	OTHER	OK
PRS ID:	60-006(a)	OK	SAMPLE TECH CODE:	HA	
LOCATION ID:	03-608410		FIELD QC TYPE:	NA	
LOCATION TYPE:	BH		FIELD PREP:	NA	
TOP DEPTH:	0	JLS ~~14~~ 27 ft	SAMPLE USAGE:	INV	
BOTTOM DEPTH:	0	12-22-09 ~~15~~ 28 ft	SCREEN/PORT DESC:		NA
FIELD MATRIX:	~~S~~ R JLS 12-22-09		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C ~~+8082~~ 12-10-09	250 ML AMBER GLASS	Ice	Y	
1		AM-241+ISOPU+ISOU	500 ML POLY	None	Y	
1		H3	500 ML POLY	Ice	Y	
1		METALS-GEL	125 ML POLY	Ice	Y	
1		Perchlorate+CN+N03+pH	500 ML POLY	Ice	Y	

SAMPLE DESC: QBt-3, tuff, sl. moist, unweathered, reddish gray 5YR 5/2

SAMPLE COMMENTS: Samples to be collected from former location of tank.

LOCATION DESC: 60(a)-2

FIELD SCREENING/MEASUREMENT RESULTS: PID = 0.3 ppm All < MDA
α = 78 dpm
β = 1356 dpm

COLLECTED BY (PRINT) J. Toys, M. Sherlo **REVIEWED BY (PRINT)** J. Jul

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) J. Jul	12-22-09	(Printed Name)	12-22-09
(Signature)	1715	(Signature)	1715
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2276 **EVENT NAME:** Soil Sampling at TA-60

SAMPLE ID: RE03-09-14234 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12/22/09	MEDIA:	NA	Qbt-3
TIME COLLECTED (HH:MM)		1020	SUB-MEDIA:	OTHER	NA
PRS ID:	60-006(a)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	03-608411	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	BH	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	↓	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0 JRJ 12-22-09	JRJ ~~5'~~ 18 ft 12-22-09 19 ft	SCREEN/PORT DESC:		NA
FIELD MATRIX:	~~SR~~ Qbt-3		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C~~+8082~~ 12-1009	250 ML AMBER GLASS	Ice	Y	
1		AM-241+ISOPU+ISOU	500 ML POLY	None	Y	
1		H3	500 ML POLY	Ice	Y	
1		METALS-GEL	125 ML POLY	Ice	Y	
1		Perchlorate+CN+N03+pH	500 ML POLY	Ice	Y	

SAMPLE DESC: tuff, Qbt-3, sl. moist, weathered, reddish gray 5YR 5/3

SAMPLE COMMENTS: Samples to be collected from former location of tank.

LOCATION DESC: 6(a)-3

FIELD SCREENING/MEASUREMENT RESULTS: PID = 0.0 ppm
Background: α = 78 dpm
Screening β = 1356 dpm
Samples & MDA

COLLECTED BY (PRINT) J. Toya M. Sheridan **REVIEWED BY (PRINT)** J. Jack

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) J. Jack (Signature)	1715	(Printed Name) (Signature)	12-22-09 1715
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2276 **EVENT NAME:** Soil Sampling at TA-60

SAMPLE ID: RE03-09-14235 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12/22/09	MEDIA:	NA	Qbt-3
TIME COLLECTED (HH:MM)		1030	SUB-MEDIA:	OTHER	NA
PRS ID:	60-006(a)	ok	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	03-608411	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	BH	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	DLJ 12-22-09 8' 22 ft	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	10' 23 ft	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	~~S~~R JLJ 12-22-09		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: _____ COMPOSITE TIME INTERVAL: _____ WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: _____ BOREHOLE DIRECTION: _____

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C~~+8082~~ JLJ 12-10-09	250 ML AMBER GLASS	Ice	Y	
1		AM-241+ISOPU+ISOU	500 ML POLY	None	Y	
1		H3	500 ML POLY	Ice	Y	
1		METALS-GEL	125 ML POLY	Ice	Y	
1		Perchlorate+CN+N03+pH	500 ML POLY	Ice	Y	

SAMPLE DESC: tuff, Qbt-3, sl. moist, very weathered, reddish-gray 5YR5/2

SAMPLE COMMENTS: Samples to be collected from former location of tank.

LOCATION DESC: 6(a)-3

FIELD SCREENING/MEASUREMENT RESULTS: PID = 0 ppm
Background α = 78 dpm
Screening β = 1356 dpm
Samples < MDA

COLLECTED BY (PRINT) J. Tova **REVIEWED BY (PRINT)** J. Jordan

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) J. Jordan	12-22-09	(Printed Name)	12-22-09
(Signature)	1715	(Signature)	1715
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2276 **EVENT NAME:** Soil Sampling at TA-60

SAMPLE ID: RE03-09-14236 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12/22/09	MEDIA:	NA	Qbt-3
TIME COLLECTED (HH:MM)		1040	SUB-MEDIA:	OTHER	NA
PRS ID:	60-006(a)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	03-608411		FIELD QC TYPE:	NA	
LOCATION TYPE:	BH		FIELD PREP:	NA	
TOP DEPTH:	0	~~14~~ 27 ft	SAMPLE USAGE:	INV	
BOTTOM DEPTH:	0	~~15~~ 28 ft	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	SL		EXCAVATED: YES / NO / NA		

JLJ 12-22-09

COMPOSITE TYPE: ——— COMPOSITE TIME INTERVAL: ——— WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: ——— BOREHOLE DIRECTION: ———

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+~~8082~~ 12-10-09	250 ML AMBER GLASS	Ice	Y	
1		AM-241+ISOPU+ISOU	500 ML POLY	None	Y	
1		H3	500 ML POLY	Ice	Y	
1		METALS-GEL	125 ML POLY	Ice	Y	
1		Perchlorate+CN+N03+pH	500 ML POLY	Ice	Y	

SAMPLE DESC: Qbt-3, tuff, sl. moist, very weathered, reddish-gray ~~5 YR~~ 5YR 5/2 JLJ 12-22-09

SAMPLE COMMENTS: Samples to be collected from former location of tank.

LOCATION DESC: 6(a)-3

FIELD SCREENING/MEASUREMENT RESULTS: PID = 0 ppm
Background: α = 73 dpm
Screening β = 1356 dpm

Samples < MDA

COLLECTED BY (PRINT) M. Shanda, J. Toya **REVIEWED BY (PRINT)** J. Jul

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) J. Jul	12-22-09	(Printed Name)	12-22-09
(Signature)	1715	(Signature)	1715
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2276 **EVENT NAME:** Soil Sampling at TA-60

SAMPLE ID: RE03-09-14238 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12/22/09	MEDIA:	NA	Qbt3
TIME COLLECTED (HH:MM)		1205	SUB-MEDIA:	OTHER	
PRS ID:	60-006(a)	ok	SAMPLE TECH CODE:	HA	
LOCATION ID:	03-608412		FIELD QC TYPE:	NA	
LOCATION TYPE:	BH		FIELD PREP:	NA	
TOP DEPTH:	0	JZJ ~~5~~ ~~2~~ 10'	SAMPLE USAGE:	INV	
BOTTOM DEPTH:	0	12-12-09 ~~6~~ ~~3~~ 11'	SCREEN/PORT DESC:		NA
FIELD MATRIX:	~~S~~ R	JZJ 12-22-09	EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: ~~WATER FLOWING: YES / NO / NA~~

BOREHOLE: YES / NO / NA ~~BOREHOLE DECLINATION:~~ ~~BOREHOLE DIRECTION:~~

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+8082	250 ML AMBER GLASS	Ice	Y	
1		AM-241+ISOPU+ISOU	500 ML POLY	None	Y	
1		H3	500 ML POLY	Ice	Y	
1		METALS-GEL	125 ML POLY	Ice	Y	
1		Perchlorate+CN+N03+pH	500 ML POLY	Ice	Y	

SAMPLE DESC: tuff, Qbt3, sl. moist, sl. weathered, reddish-gray 5YR5/3

SAMPLE COMMENTS: Samples to be collected from seepage pit.

LOCATION DESC: 60-4, moved 4 ft north, ~~outside~~ downgradient of seepage pit JZJ 12-22-09

FIELD SCREENING/MEASUREMENT RESULTS:

PID = 0.5 ppm All < MDA

α = 78 dpm

β = 1356 dpm

COLLECTED BY (PRINT) J. Fox, M. Shields **REVIEWED BY (PRINT)** J. J[illegible]

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) [illegible]	12-22-09	(Printed Name)	12-22-09
(Signature)	1715	(Signature)	1715
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2276 **EVENT NAME:** Soil Sampling at TA-60

SAMPLE ID: RE03-09-14239 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12/22/09	MEDIA:	NA	Qbt3
TIME COLLECTED (HH:MM)		1215	SUB-MEDIA:	OTHER	
PRS ID:	60-006(a)	OK	SAMPLE TECH CODE:	HA	
LOCATION ID:	03-608412		FIELD QC TYPE:	NA	
LOCATION TYPE:	BH		FIELD PREP:	NA	
TOP DEPTH:	0	~~9~~ ~~B~~ 14'	SAMPLE USAGE:	INV	
BOTTOM DEPTH:	0	JWJ 12-22-09 ~~B~~ ~~B~~ 15'	SCREEN/PORT DESC:		NA
FIELD MATRIX:	~~S~~ R JWJ 12-22-09		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: ~~WATER FLOWING: YES / NO / NA~~

BOREHOLE: YES / NO / NA ~~BOREHOLE DECLINATION:~~ ~~BOREHOLE DIRECTION:~~

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+8082	250 ML AMBER GLASS	Ice	Y	
1		AM-241+ISOPU+ISOU	500 ML POLY	None	Y	
1		H3	500 ML POLY	Ice	Y	
1		METALS-GEL	125 ML POLY	Ice	Y	
1		Perchlorate+CN+N03+pH	500 ML POLY	Ice	Y	

SAMPLE DESC: tuff, Qbt 3, sl. moist, sl. weathered, reddish-gray 5YR 5/2

SAMPLE COMMENTS: Samples to be collected from seepage pit.

LOCATION DESC: 6es-4 moved 4 ft north, down gradient of seepage pit

FIELD SCREENING/MEASUREMENT RESULTS: PID = 0.5 ppm All cmDA
α = 73 dpm
β = 1356 dpm

COLLECTED BY (PRINT) M. Sheedo, J. Toya **REVIEWED BY (PRINT)** J. Jul

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) (Signature)	12-22-09 1715	(Printed Name) (Signature)	12-22-09 1715
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2276 **EVENT NAME:** Soil Sampling at TA-60

SAMPLE ID: RE03-09-14240 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12/22/09	MEDIA:	NA	Qbt-3
TIME COLLECTED (HH:MM)		1220	SUB-MEDIA:	OTHER	OIC
PRS ID:	60-006(a)	OK	SAMPLE TECH CODE:	HA	
LOCATION ID:	03-608412		FIELD QC TYPE:	NA	
LOCATION TYPE:	BH		FIELD PREP:	NA	
TOP DEPTH:	0	JJT 12-22-09 18'	SAMPLE USAGE:	INV	
BOTTOM DEPTH:	0	19'	SCREEN/PORT DESC:		NA
FIELD MATRIX:	SR JJT 12-22-09		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA ~~COMPOSITE TIME INTERVAL:~~ ~~WATER FLOWING: YES / NO / NA~~

BOREHOLE: YES / NO / NA ~~BOREHOLE DECLINATION:~~ BOREHOLE DIRECTION:

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C~~+8082~~ 12-10-09	250 ML AMBER GLASS	Ice	Y	
1		AM-241+ISOPU+ISOU	500 ML POLY	None	Y	
1		H3	500 ML POLY	Ice	Y	
1		METALS-GEL	125 ML POLY	Ice	Y	
1		Perchlorate+CN+N03+pH	500 ML POLY	Ice	Y	

SAMPLE DESC: tuff, Qbt3, sl. moist, unweathered reddish-gray 5YR 5/2

SAMPLE COMMENTS: Samples to be collected from seepage pit.

LOCATION DESC: 6a-4 moved 4 ft north, down gradient of seepage pit

FIELD SCREENING/MEASUREMENT RESULTS: PID = 0.0 ppm All < MDA
α = 78 dpm
β = 1356 dpm

COLLECTED BY (PRINT) J. Toya, M. Shando **REVIEWED BY (PRINT)** J. Jul

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) J. Jul (Signature)	12-22-09 1715	(Printed Name) (Signature)	12-22-09 1715
RELINQUISHED BY (Printed Name)	Date/Time	RECEIVED BY (Printed Name)	Date/Time

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2276 **EVENT NAME:** Soil Sampling at TA-60

SAMPLE ID: RE03-09-14241 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12/22/09	MEDIA:	NA	Qbt3 OK
TIME COLLECTED (HH:MM)		1230	SUB-MEDIA:	OTHER	
PRS ID:	60-006(a)	OK	SAMPLE TECH CODE:	HA	
LOCATION ID:	03-608412		FIELD QC TYPE:	NA	
LOCATION TYPE:	BH		FIELD PREP:	NA	
TOP DEPTH:	0	JJT 12-22-09 ~~14~~ 23'	SAMPLE USAGE:	INV	
BOTTOM DEPTH:	0	15' 24'	SCREEN/PORT DESC:		NA
FIELD MATRIX:	SR JJT 12-22-09		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: OK COMPOSITE TIME INTERVAL: WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: BOREHOLE DIRECTION:

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C~~+8082~~ 12-22-09	250 ML AMBER GLASS	Ice	Y	
1		AM-241+ISOPU+ISOU	500 ML POLY	None	Y	
1		H3	500 ML POLY	Ice	Y	
1		METALS-GEL	125 ML POLY	Ice	Y	
1		Perchlorate+CN+N03+pH	500 ML POLY	Ice	Y	

SAMPLE DESC: tuff, Qbt3, sl. moist, unweathered, reddish-gray ~~5YR~~ JJT 12-22-09 5YR 5/2

SAMPLE COMMENTS: Samples to be collected from seepage pit.

moved 4 ft north, downgradient of seepage pit

LOCATION DESC:

6(a)-4

FIELD SCREENING/MEASUREMENT RESULTS:

Field Screening background PID = 0.0 ppm α = 78 dpm β = 1356 dpm All < MDA

COLLECTED BY (PRINT) M. Shendo **REVIEWED BY (PRINT)** J. J[illegible]

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) [signature]	12-22-09 1715	(Printed Name)	12-22-09 1715
(Signature)		(Signature) [signature]	
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2276 **EVENT NAME:** Soil Sampling at TA-60

SAMPLE ID: RE03-10-2736 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12/22/07	MEDIA:	ALLH	Qbt-3
TIME COLLECTED (HH:MM)		0855	SUB-MEDIA:	SOIL	ok
PRS ID:	60-006(a)	ok	SAMPLE TECH CODE:	HA	
LOCATION ID:	UNK	03-608410	FIELD QC TYPE:	FD	
LOCATION TYPE:	GENERIC	ok	FIELD PREP:	NA	
TOP DEPTH:	0	27 ft	SAMPLE USAGE:	QC	
BOTTOM DEPTH:	0	28 ft	SCREEN/PORT DESC:		NA
FIELD MATRIX:	~~S~~ R JLT 12-22-09		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: ——— COMPOSITE TIME INTERVAL: ——— WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: ——— BOREHOLE DIRECTION: ———

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+8082	250 ML AMBER GLASS	Ice	Y	
1		AM-241+ISOPU+ISOU	500 ML POLY	None	Y	
1		H3	500 ML POLY	Ice	Y	
1		METALS-GEL	125 ML POLY	Ice	Y	
1		Perchlorate+CN+N03+pH	500 ML POLY	Ice	Y	

SAMPLE DESC: QC Sample of RE03-09-14233

SAMPLE COMMENTS:

LOCATION DESC: 6(a) – 2

FIELD SCREENING/MEASUREMENT RESULTS: PID = 0.3 ppm All LMDA
α = 78 dpm
β = 1356 dpm

COLLECTED BY (PRINT) J. Toya, M. Shando **REVIEWED BY (PRINT)** J. Jack

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) J. Jack (Signature)	12-22-09 1715	(Printed Name) (Signature)	12-22-09 1715
RELINQUISHED BY (Printed Name)	**Date/Time**	**RECEIVED BY** (Printed Name)	**Date/Time**

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2276 **EVENT NAME:** Soil Sampling at TA-60

SAMPLE ID: RE03-10-2737 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12/22/09	MEDIA:	ALLH ~~SJJ~~ 12-22-09	O/C QbT3
TIME COLLECTED (HH:MM)		1445	SUB-MEDIA:	~~SOIL~~ R 50:1	
PRS ID:	60-006(a)	ok	SAMPLE TECH CODE:	HA	
LOCATION ID:	UNK 03-6084/2	o/c	FIELD QC TYPE:	FD	
LOCATION TYPE:	GENERIC	ok	FIELD PREP:	NA	
TOP DEPTH:	0	60'	SAMPLE USAGE:	QC	
BOTTOM DEPTH:	0	61'	SCREEN/PORT DESC:		NA
FIELD MATRIX:	~~S~~ R SJJ 12-22-09		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+8082	250 ML AMBER GLASS	Ice	Y	
1		AM-241+ISOPU+ISOU	500 ML POLY	None	Y	
1		H3	500 ML POLY	Ice	Y	
1		METALS-GEL	125 ML POLY	Ice	Y	
1		Perchlorate+CN+N03+pH	500 ML POLY	Ice	Y	

SAMPLE DESC: QC Sample of RE03-10-9874

SAMPLE COMMENTS:

Field duplicate of RE03-10-9874

LOCATION DESC:

FIELD SCREENING/MEASUREMENT RESULTS:

Field Screening background

PID = 0.1 ppm
α = 78 dpm
β = 1356 dpm

All < MDA

COLLECTED BY (PRINT) M. Schendo

REVIEWED BY (PRINT) J. Jnd

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name)	12-22-09	(Printed Name)	12-22-09
(Signature)	1715	(Signature) SJJ	12-22-09 1715
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2276 **EVENT NAME:** Soil Sampling at TA-60

SAMPLE ID: RE03-10-2749 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12-22-09	MEDIA:	NA	OK
TIME COLLECTED (HH:MM)		0855	SUB-MEDIA:	OTHER	
PRS ID:	60-006(a)	OK	SAMPLE TECH CODE:	DC	
LOCATION ID:	UNK	03-608415	FIELD QC TYPE:	FB	
LOCATION TYPE:	GENERIC	OK	FIELD PREP:	UF	
TOP DEPTH:	0	27 ft	SAMPLE USAGE:	QC	
BOTTOM DEPTH:	0	28 Ft	SCREEN/PORT DESC:		NA
FIELD MATRIX:	W		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: _____ WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: _____ BOREHOLE DIRECTION: _____

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		METALS-GEL	1 LITER POLY	Nitric Acid	Y	
1		TCN	500 ML POLY	Sodium Hydroxide	Y	
1		NO3NO2	250 ML POLY	Sulfuric Acid (Hydrogen Sulfate)	Y	
1		SW-846:6850	250 ML POLY	Ice	Y	

SAMPLE DESC: QC Sample of RE03-09-14233

SAMPLE COMMENTS:

LOCATION DESC: 6a-2

FIELD SCREENING/MEASUREMENT RESULTS: PID = 0ppm All < MDA
α = 78 dpm
β = 1356 dpm

COLLECTED BY (PRINT) M. Sherdal **REVIEWED BY (PRINT)** J. Jordan

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) [signature]	12-22-09	(Printed Name)	12-22-09
(Signature)	1715	(Signature) [signature]	1715
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2276 **EVENT NAME:** Soil Sampling at TA-60

SAMPLE ID: RE03-10-2750 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12-22-09	MEDIA:	NA	OK
TIME COLLECTED (HH:MM)		1445	SUB-MEDIA:	OTHER	
PRS ID:	60-006(a)	ok	SAMPLE TECH CODE:	DC	
LOCATION ID:	UNK 03-60846		FIELD QC TYPE:	FB	
LOCATION TYPE:	GENERIC		FIELD PREP:	UF	
TOP DEPTH:	0	60 Ft	SAMPLE USAGE:	QC	
BOTTOM DEPTH:	0	61 ft	SCREEN/PORT DESC:		NA
FIELD MATRIX:	W		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: _____ WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: _____ BOREHOLE DIRECTION: _____

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		METALS-GEL	1 LITER POLY	Nitric Acid	Y	
1		TCN	500 ML POLY	Sodium Hydroxide	Y	
1		NO3NO2	250 ML POLY	Sulfuric Acid (Hydrogen Sulfate)	Y	
1		SW-846:6850	250 ML POLY	Ice	Y	

SAMPLE DESC: QC Sample of RE03-10-9874

SAMPLE COMMENTS:

LOCATION DESC: 6a-4

FIELD SCREENING/MEASUREMENT RESULTS: PID = 0.1 ppm AIKMDA
α = 78 dpm
β = 1356 dpm

COLLECTED BY (PRINT) J. Toys, M. Sheedy **REVIEWED BY (PRINT)** J. J[illegible]

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) J. Toys, M. Sheedy (Signature)	12-22-09 1715	(Printed Name) (Signature)	12-22-09 1715
RELINQUISHED BY (Printed Name) (Signature)	**Date/Time**	**RECEIVED BY** (Printed Name) (Signature)	**Date/Time**

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2276 **EVENT NAME:** Soil Sampling at TA-60

SAMPLE ID: RE03-10-2762 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12-22-09	MEDIA:	NA	ok
TIME COLLECTED (HH:MM)		0910	SUB-MEDIA:	OTHER	
PRS ID:	60-006(a)	ok	SAMPLE TECH CODE:	DC	
LOCATION ID:	UNK	03-608410	FIELD QC TYPE:	FR	
LOCATION TYPE:	GENERIC	ok	FIELD PREP:	UF	
TOP DEPTH:	0	27 ft	SAMPLE USAGE:	QC	
BOTTOM DEPTH:	0	28 ft	SCREEN/PORT DESC:		NA
FIELD MATRIX:	W		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: _____ WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: _____ BOREHOLE DIRECTION: _____

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		METALS-GEL	1 LITER POLY	Nitric Acid	Y	
1		TCN	500 ML POLY	Sodium Hydroxide	Y	
1		NO3NO2	250 ML POLY	Sulfuric Acid (Hydrogen Sulfate)	Y	
1		SW-846:6850	250 ML POLY	Ice	Y	

SAMPLE DESC: QC Sample of RE03-09-14233

SAMPLE COMMENTS:

LOCATION DESC: 6a-2

FIELD SCREENING/MEASUREMENT RESULTS: PID = 0 ppm
α = 78 dpm
β = 1356 dpm
All < MDA

COLLECTED BY (PRINT) M. Shando **REVIEWED BY (PRINT)** J. Jack

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) J. Jack (Signature)	12-22-09 1715	(Printed Name) (Signature)	12-22-09 1715
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name) (Signature)		(Printed Name) (Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2276 **EVENT NAME:** Soil Sampling at TA-60

SAMPLE ID: RE03-10-2764 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12-22-09	MEDIA:	NA	OK
TIME COLLECTED (HH:MM)		1500	SUB-MEDIA:	OTHER	
PRS ID:	60-006(a)	OK	SAMPLE TECH CODE:	DC	
LOCATION ID:	UNK	03-608412	FIELD QC TYPE:	FR	
LOCATION TYPE:	GENERIC	OK	FIELD PREP:	UF	
TOP DEPTH:	0	60 ft	SAMPLE USAGE:	QC	
BOTTOM DEPTH:	0	61 ft	SCREEN/PORT DESC:		NA
FIELD MATRIX:	W		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: _____ WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA ~~BOREHOLE DECLINATION:~~ _____ BOREHOLE DIRECTION: _____

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		METALS-GEL	1 LITER POLY	Nitric Acid	Y	
1		TCN	500 ML POLY	Sodium Hydroxide	Y	
1		NO3NO2	250 ML POLY	Sulfuric Acid (Hydrogen Sulfate)	Y	
1		SW-846:6850	250 ML POLY	Ice	Y	

SAMPLE DESC: QC Sample of RE03-10-9874

SAMPLE COMMENTS:

LOCATION DESC: 6 a-4

FIELD SCREENING/MEASUREMENT RESULTS: PID = 0.1 ppm All ε mDA
α = 78 dpm
β = 1356 dpm

COLLECTED BY (PRINT) M. Shendo / J. Toya **REVIEWED BY (PRINT)** J. Jordan

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) J. Jordan (Signature)	12-22-09 1715	(Printed Name) (Signature)	12-22-09 1715
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name) (Signature)		(Printed Name) (Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2276 **EVENT NAME:** Soil Sampling at TA-60

SAMPLE ID: RE03-10-9872 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12/22/09	MEDIA:	NA	Qbt-3
TIME COLLECTED (HH:MM)		1255	SUB-MEDIA:	OTHER	OK
PRS ID:	~~TA-60~~ JLJ 12-22-09 60-0066	01C	SAMPLE TECH CODE:	HA	
LOCATION ID:	03-608412		FIELD QC TYPE:	NA	
LOCATION TYPE:	BH		FIELD PREP:	NA	
TOP DEPTH:	0	35'	SAMPLE USAGE:	INV	
BOTTOM DEPTH:	0	36'	SCREEN/PORT DESC:		NA
FIELD MATRIX:	~~SR~~ JLJ 12-22-09		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: _____ COMPOSITE TIME INTERVAL: _____ WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: _____ BOREHOLE DIRECTION: _____

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+8082	250 ML AMBER GLASS	Ice	Y	
1		AM-241+ISOPU+ISOU	500 ML POLY	None	Y	
1		H3	500 ML POLY	Ice	Y	
1		METALS-GEL	125 ML POLY	Ice	Y	
1		Perchlorate+CN+N03+pH	500 ML POLY	Ice	Y	

SAMPLE DESC: tuff, Qbt3, sl. moist, unweathered, reddish-gray 5YR 5/2

SAMPLE COMMENTS: hole moved 4 ft north, down gradient of seepage pit

LOCATION DESC: 6(a)-4

FIELD SCREENING/MEASUREMENT RESULTS:

Field Screening Background PID = 0.5 ppm, α = 78 dpm, β = 1356 dpm All < MDA

COLLECTED BY (PRINT) M. Shendo **REVIEWED BY (PRINT)** J. Jordan

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) J. Jordan (Signature)	12-22-09 1715	(Printed Name) (Signature)	12-22-09 1715
RELINQUISHED BY (Printed Name)	**Date/Time**	**RECEIVED BY** (Printed Name)	**Date/Time**

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2276 **EVENT NAME:** Soil Sampling at TA-60

SAMPLE ID: RE03-10-9874 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12/22/09	MEDIA:	NA	Qbt3 ok
TIME COLLECTED (HH:MM)		1445	SUB-MEDIA:	OTHER	
PRS ID:	~~TA-60~~ JJ 12-22-09	60-006(a) ok	SAMPLE TECH CODE:	HA	
LOCATION ID:	03-608412		FIELD QC TYPE:	NA	
LOCATION TYPE:	BH		FIELD PREP:	NA	
TOP DEPTH:	0	60'	SAMPLE USAGE:	INV	
BOTTOM DEPTH:	0	61' ~~60~~ JJ 12/22/09	SCREEN/PORT DESC:		NA
FIELD MATRIX:	~~S~~ R JJ 12-22-09		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — **COMPOSITE TIME INTERVAL:** — **WATER FLOWING:** YES / NO / NA

BOREHOLE: YES / NO / NA **BOREHOLE DECLINATION:** — **BOREHOLE DIRECTION:** —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+8082	250 ML AMBER GLASS	Ice	Y	
1		AM-241+ISOPU+ISOU	500 ML POLY	None	Y	
1		H3	500 ML POLY	Ice	Y	
1		METALS-GEL	125 ML POLY	Ice	Y	
1		Perchlorate+CN+N03+pH	500 ML POLY	Ice	Y	

SAMPLE DESC: Tuff Qbt3, sl. moist, unweathered, reddish-gray 5YR 5/2

SAMPLE COMMENTS:

LOCATION DESC: b(a)-4

FIELD SCREENING/MEASUREMENT RESULTS: Field screening background PID = 0.1 ppm α = 78 dpm β = 1356 dpm All < MDA

COLLECTED BY (PRINT) M. Shendo **REVIEWED BY (PRINT)** J. J[illegible]

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) [illegible] (Signature)	12-22-09 1715	(Printed Name) (Signature)	12-22-09 1715
RELINQUISHED BY (Printed Name)	Date/Time	RECEIVED BY (Printed Name)	Date/Time

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2276 **EVENT NAME:** Soil Sampling at TA-60

SAMPLE ID: RE03-10-9873 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):	12-22-09	12/22/09	MEDIA:	NA	QBt-3
TIME COLLECTED (HH:MM)		JW ~~1305~~ 1430	SUB-MEDIA:	OTHER	OK
PRS ID:	JW 12-22-09 ~~TA-60~~	60-006(a) ok	SAMPLE TECH CODE:	HA	
LOCATION ID:	03-608412		FIELD QC TYPE:	NA	
LOCATION TYPE:	BH		FIELD PREP:	NA	
TOP DEPTH:	0	48' 55 ft	SAMPLE USAGE:	INV	
BOTTOM DEPTH:	0	46' 56 ft	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R JW 12-22-09		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: BOREHOLE DIRECTION:

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+8082	250 ML AMBER GLASS	Ice	Y	
1		AM-241+ISOPU+ISOU	500 ML POLY	None	Y	
1		H3	500 ML POLY	Ice	Y	
1		METALS-GEL	125 ML POLY	Ice	Y	
1		Perchlorate+CN+N03+pH	500 ML POLY	Ice	Y	

SAMPLE DESC: tuff QBt-3 + gravel from bottom of seepage pit

SAMPLE COMMENTS: moved 4 ft north, down gradient of seepage pit

LOCATION DESC: 6(a)-4

FIELD SCREENING/MEASUREMENT RESULTS: field screening background PID = 0.5 ppm α = 78 dpm β = 1356 dpm All LMDA

COLLECTED BY (PRINT) M. Shrestha **REVIEWED BY (PRINT)** J. Jones

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) James Joshua (Signature)	12-22-09 1715	(Printed Name) (Signature)	12-22-09 1715
RELINQUISHED BY (Printed Name)	Date/Time	RECEIVED BY (Printed Name)	Date/Time

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2276 **EVENT NAME:** Soil Sampling at TA-60

SAMPLE ID: RE03-10-9878 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12-22-09	MEDIA:	NA	All H
TIME COLLECTED (HH:MM)		0830	SUB-MEDIA:	OTHER	ok
PRS ID:	TA-60	60-006(a) ok	SAMPLE TECH CODE:	DC	
LOCATION ID:	~~03-608412~~	608410	FIELD QC TYPE:	FTB	
LOCATION TYPE:	BH		FIELD PREP:	NA	
TOP DEPTH:	0	18 ft	SAMPLE USAGE:	QC	
BOTTOM DEPTH:	0	19 ft	SCREEN/PORT DESC:		NA
FIELD MATRIX:	JWJ 12-22-09 ~~SR~~ S		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA ~~COMPOSITE TIME INTERVAL:~~ ~~WATER FLOWING: YES / NO / NA~~

BOREHOLE: YES / NO / NA ~~BOREHOLE DECLINATION:~~ ~~BOREHOLE DIRECTION:~~

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	JWJ 12-22-09	8260B Trip Blank	40 ML SEPTUM AMBER GLASS	Ice	Y	

SAMPLE DESC: QC Sample of RE03-09-14231

SAMPLE COMMENTS:

LOCATION DESC: 6(a) - 2

FIELD SCREENING/MEASUREMENT RESULTS: NA

COLLECTED BY (PRINT) M. Shendel **REVIEWED BY (PRINT)** J. Jurek

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) J. Jurek	12-22-09	(Printed Name)	12-22-09
(Signature)	1715	(Signature)	1715
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2276 **EVENT NAME:** Soil Sampling at TA-60

SAMPLE ID: RE03-10-9886 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12-22-09	MEDIA:	NA	AH
TIME COLLECTED (HH:MM)		1255	SUB-MEDIA:	OTHER	OK
PRS ID:	60-006(g) ~~TA-60~~		SAMPLE TECH CODE:	DC	
LOCATION ID:	03-60-608412 ~~03-610980~~ JLT 12-22-09	OK	FIELD QC TYPE:	FTB	
LOCATION TYPE:	BH	OK	FIELD PREP:	NA	
TOP DEPTH:	0	OK	SAMPLE USAGE:	QC	
BOTTOM DEPTH:	0	35 ft	SCREEN/PORT DESC:		NA
FIELD MATRIX:	S	36 ft	EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: ~~WATER FLOWING: YES / NO / NA~~

BOREHOLE: YES / NO / NA ~~BOREHOLE DECLINATION:~~ ~~BOREHOLE DIRECTION:~~

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1 2	JLT 12-22-09	8260B Trip Blank	40 ML SEPTUM AMBER GLASS	Ice	Y	

SAMPLE DESC: QC Sample of RE03-10-9872

SAMPLE COMMENTS:

LOCATION DESC: 6 9-4

FIELD SCREENING/MEASUREMENT RESULTS: NA

COLLECTED BY (PRINT) M. Sherald **REVIEWED BY (PRINT)** J. Jul

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) J. Jul	12-22-09 1715	(Printed Name)	12-22-09 1715
(Signature)		(Signature)	
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

DATA VALIDATION COVER SHEET

5119-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY

Section I.

REQUEST NUMBER: 10-1088 VALIDATION DATE: 2/9/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Allison Felix ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☒ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE):

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☐	☐	☒	8. QUANTITATION REPORTS
☐	☐	☒	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. The tracer %R for Pu-242 was > the laboratory UAL but ≤125% in sample RE03-09-14231. The associated isotopic Pu sample results were NDs and, thus, were qualified UJ,R3a. The tracer %Rs for U-232 were > the laboratory UAL but ≤125% in samples -14232, -14238, and -14234. The associated sample results for U-235/236 were NDs and, thus, were qualified UJ,R3a. The associated sample results for U-233/234 and U-238 were detects and, thus, were qualified J-,R3a. The tracer %Rs for U-232 were > the laboratory UAL but ≥125% in the MB and duplicate for batch 938076. The Pu-242 tracer %R was > the laboratory UAL but ≥125% in the LCS for batch 938221. The infractions occurred in QC samples, thus, no sample results were qualified.
2. An MS was not analyzed for tritium. However, an LCS was analyzed and met acceptance criteria, thus, no sample results were qualified.
3. It should be noted that the duplicates associated with the isotopic Am, Pu, and U analyses of samples -10-9872 and -9874 were performed on LANL samples form other RNs. No sample results were qualified.
4. It should be noted that samples -9872 and -9874 did not appear on the original chain of custody but were added to a revised chain of custody. The revised chain of custody was included in the data package and DVR. No sample results were qualified.

Reviewed by: Mary Donivan Level: I Date: 02/09/10

DATA VALIDATION COVER SHEET

5119-1 **Data Validation Cover Sheet**	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943

VALIDATOR'S SIGNATURE: Allison Felix DATE: 2/9/10

Form 5119-1, Revision 0.0	LOS ALAMOS Environmental Restoration Project

RAD ANALYTICAL DATA VALIDATION CHECKLIST

5119-2

Rad Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, R9	J-, R9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, R9a	J-, R9a
☐	☐	☒	3. The results for the affected analytes are considered not detected (U) because the associated sample concentration was less than or equal to the MDC.	U, R5	N/A
☐	☐	☒	4. The analyte should be regarded as rejected because spectral interferences prevent positive identification of the analytes.	R, R5a	R, R5a
☐	☒	☐	5. The MDC and/or TPU documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, R5b	J-, R5b
☐	☐	☒	6. The results for the affected analytes should be regarded as not detected (U) because the associated sample concentration was less than 3X the 1 sigma TPU.	U, R11	N/A
☐	☒	☐	7. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, R4	N/A
☐	☒	☐	8. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X.	N/A	J, R4a
☐	☐	☒	9. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	U, R4d	N/A
☐	☒	☐	10. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, R4e	R, R4e
☐	☒	☐	11. The tracer is <10%R. Follow the external laboratory limits located within the associated data package. Tracer%R is not applicable for Gamma Spectroscopy.	R, R3	R, R3

RAD ANALYTICAL DATA VALIDATION CHECKLIST

5119-2 Rad Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	12. The tracer is < the Lower Acceptance Level (LAL) but ≥10%R. Follow the external laboratory limits located within the associated data package. Tracer%R is not applicable for Gamma Spectroscopy.	UJ, R3a	J-, R3a
☒	☐	☐	13. The Tracer%R value is > the Upper Acceptance Limit (UAL). Follow the external laboratory limits located within the associated data package. Tracer%R is not applicable for Gamma Spectroscopy.	N/A	J+, R3b
☐	☒	☐	14. Required tracer information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. Tracer%R is not applicable for Gamma Spectroscopy.	R, R3d	R, R3d
☐	☒	☐	15. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, R12	R, R12
☐	☒	☐	16. The LCS percent recovery was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, R12a	J-, R12a
☐	☒	☐	17. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, R12b
☐	☒	☐	18. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, R12c	R, R12c
☐	☒	☐	19. Associated duplicate sample has DER or RER > the analytical laboratory's acceptance limits.	R, R10	J, J10
☐	☒	☐	20. The duplicate sample was not prepared and/or analyzed with the samples for unspecified reasons. The duplicate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, R6	R, R6

RAD ANALYTICAL DATA VALIDATION CHECKLIST	
5119-2 Rad Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	21. The associated matrix spike recovery was <10%. Follow the external laboratory limits. MS/MSD is not applicable to Gamma Spectroscopy.	R, R6	R, R6
☐	☐	☒	22. The associated matrix spike recovery was <10%. Follow the external laboratory limits. MS/MSD is not applicable to Gamma Spectroscopy.	UJ, R6a	J-, R6a
☐	☐	☒	23. The associated matrix spike recovery was above the UAL. Follow the external laboratory limits. MS/MSD is not applicable to Gamma Spectroscopy.	UJ, R6b	J+, R6b
☒	☐	☐	24. Required matrix spike information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. If LCS information is present, do not Reject. Qualify data based on LCS information. MS/MSD is not applicable to Gamma Spectroscopy.	R, R6c	R, R6c
☐	☒	☐	25. Duplicate, dilution, or reanalysis.	UJ, R88	J, R88
☐	☒	☐	26. The LANL project chemist identified quality deficiencies in the reported data that require further qualification. This code can ONLY be used and/or under advisement by the LANL project chemist.	UJ, R, R19	J, R, R19
☒	☐	☐	27. Quantification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB NQ, NQ

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: January 15, 2010

Client Sample ID:	RE03-09-14233	Project:	LANL01004
Sample ID:	243557001	Client ID:	LANL010
Matrix:	S		
Collect Date:	22-DEC-09		
Receive Date:	24-DEC-09		
Collector:	Client		
Moisture:	7.39%		

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	0.0012	0.0171	+/-0.0011	0.050	pCi/g		KXM4	01/07/10	1740	938074	1
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	0.00	0.0158	+/-0.000958	0.050	pCi/g		KXM4	01/07/10	1740	938075	2
Plutonium-239/240	U	0.00	0.0181	+/-0.00191	0.050	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		0.830	0.108	+/-0.0795	0.100	pCi/g		KXM4	01/06/10	1807	938076	3
Uranium-235/236	U	0.0515	0.0669	+/-0.0153	0.100	pCi/g						
Uranium-238		1.00	0.0625	+/-0.0922	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		218	211	+/-68.1	250	pCi/L		KXK2	01/08/10	1506	936892	4

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, U-02-RC Modified
4	GL-RAD-A-002
5	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	95.4	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	98.2	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	99.2	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound

AMF
2/9/10

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: January 15, 2010

Client Sample ID:	RE03-09-14236	Project:	LANL01004
Sample ID:	243557002	Client ID:	LANL010
Matrix:	S		
Collect Date:	22-DEC-09		
Receive Date:	24-DEC-09		
Collector:	Client		
Moisture:	16.2%		

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	0.00434	0.0174	+/-0.00213	0.050	pCi/g		KXM4	01/07/10	1740	938074	1
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	0.00	0.0168	+/-0.00102	0.050	pCi/g		KXM4	01/07/10	1741	938075	2
Plutonium-239/240	U	0.00102	0.0193	+/-0.00177	0.050	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		0.673	0.112	+/-0.0691	0.100	pCi/g		KXM4	01/06/10	1807	938076	3
Uranium-235/236	U	0.0624	0.0693	+/-0.0173	0.100	pCi/g						
Uranium-238		0.724	0.0648	+/-0.0735	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		353	213	+/-73.9	250	pCi/L		KXK2	01/08/10	1609	936892	4

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, U-02-RC Modified
4	GL-RAD-A-002
5	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	90.6	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	94.9	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	101	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound
< Result is less than value reported

AMF
2/9/10

GEL LABORATORIES LLC

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: January 15, 2010

Client Sample ID:	RE03-09-14239	Project:	LANL01004
Sample ID:	243557003	Client ID:	LANL010
Matrix:	S		
Collect Date:	22-DEC-09		
Receive Date:	24-DEC-09		
Collector:	Client		
Moisture:	5.47%		

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	0.00125	0.0174	+/-0.00113	0.050	pCi/g		KXM4	01/07/10	1740	938074	1
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	0.00	0.0162	+/-0.000983	0.050	pCi/g		KXM4	01/07/10	1741	938075	2
Plutonium-239/240	U	0.000981	0.0185	+/-0.000982	0.050	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		0.893	0.107	+/-0.084	0.100	pCi/g		KXM4	01/09/10	1101	938076	3
Uranium-235/236	U	0.0512	0.0664	+/-0.0174	0.100	pCi/g						
Uranium-238		0.735	0.062	+/-0.0723	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium	U	-95.8	253	+/-73.8	250	pCi/L		KXK2	01/09/10	1958	936892	5

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, U-02-RC Modified
4	DOE EML HASL-300, U-02-RC Modified
5	GL-RAD-A-002
6	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	95.0	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	96.7	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	105	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound

AMF
2/9/10

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: January 15, 2010

Client Sample ID:	RE03-09-14240	Project:	LANL01004
Sample ID:	243557004	Client ID:	LANL010
Matrix:	S		
Collect Date:	22-DEC-09		
Receive Date:	24-DEC-09		
Collector:	Client		
Moisture:	5.42%		

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	7.26E-05	0.0161	+/-0.000947	0.050	pCi/g		KXM4	01/07/10	1740	938074	1
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	0.000947	0.0156	+/-0.000948	0.050	pCi/g		KXM4	01/07/10	1741	938075	2
Plutonium-239/240	U	0.00	0.0179	+/-0.00134	0.050	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		0.836	0.113	+/-0.082	0.100	pCi/g		KXM4	01/06/10	1807	938076	3
Uranium-235/236	U	0.0361	0.0703	+/-0.013	0.100	pCi/g						
Uranium-238		0.782	0.0657	+/-0.0782	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium	U	129	211	+/-64.9	250	pCi/L		KXK2	01/08/10	1813	936892	4

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, U-02-RC Modified
4	GL-RAD-A-002
5	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	102	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	99.4	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	93.1	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound
< Result is less than value reported

AMF
2/9/10

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: January 15, 2010

Client Sample ID:	RE03-09-14231	Project:	LANL01004
Sample ID:	243557005	Client ID:	LANL010
Matrix:	S		
Collect Date:	22-DEC-09		
Receive Date:	24-DEC-09		
Collector:	Client		
Moisture:	7.32%		

Parameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis													
AM241 "Dry Weight Corrected"													
Americium-241	U	0.00108		0.0164	+/-0.00102	0.050	pCi/g		KXM4	01/07/10	1740	938074	1
ISOPU "Dry Weight Corrected"													
Plutonium-238	U	-0.000898	UJ,R3a	0.0148	+/-0.00127	0.050	pCi/g		KXM4	01/07/10	1741	938075	2
Plutonium-239/240	U	0.00359	UJ,R3a	0.017	+/-0.00221	0.050	pCi/g						
ISOU "Dry Weight Corrected"													
Uranium-233/234		0.844		0.109	+/-0.0806	0.100	pCi/g		KXM4	01/06/10	1807	938076	3
Uranium-235/236	U	0.0477		0.0674	+/-0.0148	0.100	pCi/g						
Uranium-238		0.771		0.063	+/-0.0752	0.100	pCi/g						
Rad Liquid Scintillation Analysis													
H3 "As Received"													
Tritium	U	39.4		212	+/-62.8	250	pCi/L		KXK2	01/08/10	1916	936892	4

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, U-02-RC Modified
4	GL-RAD-A-002
5	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	98.9	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	107*	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	103	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound
< Result is less than value reported

AMF
2/9/10

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: January 15, 2010

Client Sample ID: RE03-09-14232
Sample ID: 243557006
Matrix: S
Collect Date: 22-DEC-09
Receive Date: 24-DEC-09
Collector: Client
Moisture: 5.77%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis													
AM241 "Dry Weight Corrected"													
Americium-241	U	0.00601		0.0166	+/-0.00245	0.050	pCi/g		KXM4	01/08/10	1649	938074	1
ISOPU "Dry Weight Corrected"													
Plutonium-238	U	0.000995		0.0164	+/-0.00172	0.050	pCi/g		KXM4	01/07/10	1741	938075	3
Plutonium-239/240	U	0.000995		0.0188	+/-0.000996	0.050	pCi/g						
ISOU "Dry Weight Corrected"													
Uranium-233/234		0.704	J-,R3a	0.102	+/-0.0698	0.100	pCi/g		KXM4	01/06/10	1807	938076	4
Uranium-235/236	U	0.0324	UJ,R3a	0.063	+/-0.0117	0.100	pCi/g						
Uranium-238		0.799	J-,R3a	0.0589	+/-0.0767	0.100	pCi/g						
Rad Liquid Scintillation Analysis													
H3 "As Received"													
Tritium	U	95.6		213	+/-64.6	250	pCi/L		KXK2	01/08/10	2018	936892	5

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, U-02-RC Modified
5	GL-RAD-A-002
6	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	97.4	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	96.7	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	108*	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: January 15, 2010

Client Sample ID:	RE03-09-14235	Project:	LANL01004
Sample ID:	243557007	Client ID:	LANL010
Matrix:	S		
Collect Date:	22-DEC-09		
Receive Date:	24-DEC-09		
Collector:	Client		
Moisture:	22.5%		

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	0.00235	0.0178	+/-0.00157	0.050	pCi/g		KXM4	01/07/10	1740	938074	1
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	0.00389	0.016	+/-0.00195	0.050	pCi/g		KXM4	01/07/10	1741	938075	2
Plutonium-239/240	U	0.00	0.0184	+/-0.000973	0.050	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		1.19	0.133	+/-0.111	0.100	pCi/g		KXM4	01/06/10	1807	938076	3
Uranium-235/236	U	0.0319	0.0826	+/-0.0132	0.100	pCi/g						
Uranium-238		1.05	0.0772	+/-0.101	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		220	213	+/-68.7	250	pCi/L		KXK2	01/08/10	2120	936892	4

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, U-02-RC Modified
4	GL-RAD-A-002
5	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	93.5	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	97.1	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	83.9	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound
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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: January 15, 2010

Client Sample ID: RE03-09-14238
Sample ID: 243557008
Matrix: S
Collect Date: 22-DEC-09
Receive Date: 24-DEC-09
Collector: Client
Moisture: 5.4%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis													
AM241 "Dry Weight Corrected"													
Americium-241	U	0.00111		0.0165	+/-0.00104	0.050	pCi/g		KXM4	01/07/10	1740	938074	1
ISOPU "Dry Weight Corrected"													
Plutonium-238	U	0.00		0.0155	+/-0.00133	0.050	pCi/g		KXM4	01/07/10	1741	938075	2
Plutonium-239/240	U	0.000938		0.0177	+/-0.00162	0.050	pCi/g						
ISOU "Dry Weight Corrected"													
Uranium-233/234		0.799	J-,R3a	0.0678	+/-0.0685	0.100	pCi/g		KXM4	01/06/10	1807	938076	3
Uranium-235/236	U	0.0406	UJ,R3a	0.0421	+/-0.0115	0.100	pCi/g						
Uranium-238		0.694	J-,R3a	0.0393	+/-0.0611	0.100	pCi/g						
Rad Liquid Scintillation Analysis													
H3 "As Received"													
Tritium	U	-36.3		213	+/-61.4	250	pCi/L		KXK2	01/08/10	2222	936892	4

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, U-02-RC Modified
4	GL-RAD-A-002
5	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	96.3	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	101	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	109 *	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: January 15, 2010

Client Sample ID: RE03-09-14234
Sample ID: 243557009
Matrix: S
Collect Date: 22-DEC-09
Receive Date: 24-DEC-09
Collector: Client
Moisture: 7.45%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis													
AM241 "Dry Weight Corrected"													
Americium-241	U	-0.000739		0.0183	+/-0.00108	0.050	pCi/g		KXM4	01/07/10	1740	938074	1
ISOPU "Dry Weight Corrected"													
Plutonium-238	U	0.00		0.0159	+/-0.000965	0.050	pCi/g		KXM4	01/07/10	1741	938075	2
Plutonium-239/240	U	0.00193		0.0182	+/-0.00137	0.050	pCi/g						
ISOU "Dry Weight Corrected"													
Uranium-233/234		0.842	J-,R3a	0.0694	+/-0.0717	0.100	pCi/g		KXM4	01/06/10	1807	938076	3
Uranium-235/236	U	0.0387	UJ,R3a	0.0431	+/-0.0107	0.100	pCi/g						
Uranium-238		0.817	J-,R3a	0.0402	+/-0.070	0.100	pCi/g						
Rad Liquid Scintillation Analysis													
H3 "As Received"													
Tritium	U	199		213	+/-67.8	250	pCi/L		KXK2	01/08/10	2325	936892	4

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, U-02-RC Modified
4	GL-RAD-A-002
5	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	86.9	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	99.9	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	109 *	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: January 15, 2010

Client Sample ID: RE03-09-14241
Sample ID: 243557010
Matrix: S
Collect Date: 22-DEC-09
Receive Date: 24-DEC-09
Collector: Client
Moisture: 12.7%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	-0.000765	0.0179	+/-0.00105	0.050	pCi/g		KXM4	01/07/10	1740	938074	1
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	0.00113	0.0186	+/-0.00113	0.050	pCi/g		KXM4	01/12/10	1555	939711	2
Plutonium-239/240	U	2.69E-10	0.0213	+/-0.00277	0.050	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		0.849	0.0725	+/-0.0731	0.100	pCi/g		KXM4	01/09/10	1049	938076	4
Uranium-235/236		0.0491	0.045	+/-0.0124	0.100	pCi/g						
Uranium-238		0.898	0.042	+/-0.0765	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium	U	183	212	+/-67.1	250	pCi/L		KXK2	01/09/10	0027	936892	6

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, U-02-RC Modified
5	DOE EML HASL-300, U-02-RC Modified
6	GL-RAD-A-002
7	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	91.5	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	97.7	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	95.5	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: January 15, 2010

Client Sample ID:	RE03-10-2737	Project:	LANL01004
Sample ID:	243557011	Client ID:	LANL010
Matrix:	S		
Collect Date:	22-DEC-09		
Receive Date:	24-DEC-09		
Collector:	Client		
Moisture:	10.1%		

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	-0.000844	0.0167	+/-0.000983	0.050	pCi/g		KXM4	01/07/10	1740	938074	1
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	0.00391	0.0161	+/-0.00196	0.050	pCi/g		KXM4	01/07/10	1741	938075	2
Plutonium-239/240	U	0.000976	0.0185	+/-0.00218	0.050	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		1.10	0.0749	+/-0.0908	0.100	pCi/g		KXM4	01/09/10	1049	938076	3
Uranium-235/236		0.0747	0.0465	+/-0.0158	0.100	pCi/g						
Uranium-238		1.01	0.0435	+/-0.0851	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium	U	-42.8	213	+/-61.2	250	pCi/L		KXK2	01/09/10	0129	936892	5

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, U-02-RC Modified
4	DOE EML HASL-300, U-02-RC Modified
5	GL-RAD-A-002
6	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	95.2	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	95.3	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	102	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: January 15, 2010

Client Sample ID:	RE03-10-2736	Project:	LANL01004
Sample ID:	243557012	Client ID:	LANL010
Matrix:	S		
Collect Date:	22-DEC-09		
Receive Date:	24-DEC-09		
Collector:	Client		
Moisture:	7.03%		

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	-0.000849	0.0164	+/-0.000969	0.050	pCi/g		KXM4	01/08/10	1649	938074	1
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	0.00195	0.0161	+/-0.00138	0.050	pCi/g		KXM4	01/07/10	1741	938075	3
Plutonium-239/240	U	0.00292	0.0184	+/-0.00169	0.050	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		0.861	0.0692	+/-0.0733	0.100	pCi/g		KXM4	01/09/10	1049	938076	4
Uranium-235/236	U	0.0331	0.043	+/-0.0106	0.100	pCi/g						
Uranium-238		0.865	0.0402	+/-0.0735	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		387	214	+/-75.4	250	pCi/L		KXK2	01/09/10	0232	936892	6

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, U-02-RC Modified
5	DOE EML HASL-300, U-02-RC Modified
6	GL-RAD-A-002
7	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	97.2	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	92.3	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	105	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: January 15, 2010

Client Sample ID: RE03-10-9873
Sample ID: 243557013
Matrix: S
Collect Date: 22-DEC-09
Receive Date: 24-DEC-09
Collector: Client
Moisture: 5.29%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	0.00131	0.0177	+/-0.00188	0.050	pCi/g		KXM4	01/07/10	1740	938074	1
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	0.011	0.0152	+/-0.00323	0.050	pCi/g		KXM4	01/07/10	1741	938075	2
Plutonium-239/240	U	0.00643	0.0174	+/-0.00278	0.050	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		0.826	0.0659	+/-0.070	0.100	pCi/g		KXM4	01/09/10	1049	938076	3
Uranium-235/236		0.0552	0.0409	+/-0.0126	0.100	pCi/g						
Uranium-238		0.783	0.0382	+/-0.0671	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium	U	-3.37	217	+/-63.4	250	pCi/L		KXK2	01/09/10	0448	936892	5

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, U-02-RC Modified
4	DOE EML HASL-300, U-02-RC Modified
5	GL-RAD-A-002
6	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	86.9	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	100	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	103	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: January 15, 2010

Client Sample ID:	RE03-10-9872	Project:	LANL01004
Sample ID:	243557014	Client ID:	LANL010
Matrix:	S		
Collect Date:	22-DEC-09		
Receive Date:	24-DEC-09		
Collector:	Client		
Moisture:	11.9%		

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	0.00148	0.0185	+/-0.002	0.050	pCi/g		HAKB	01/07/10	1138	938210	1
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	0.00202	0.0166	+/-0.00143	0.050	pCi/g		HAKB	01/07/10	1137	938221	2
Plutonium-239/240	U	0.00101	0.019	+/-0.00101	0.050	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		1.27	0.122	+/-0.115	0.100	pCi/g		HAKB	01/09/10	1100	938222	3
Uranium-235/236		0.0922	0.0756	+/-0.0222	0.100	pCi/g						
Uranium-238		1.10	0.0706	+/-0.103	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium	U	171	214	+/-67.3	250	pCi/L		KXK2	01/09/10	0550	936892	4

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, U-02-RC Modified
4	GL-RAD-A-002
5	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	99.7	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	96.2	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	87.4	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound
< Result is less than value reported

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: January 15, 2010

Client Sample ID:	RE03-10-9874	Project:	LANL01004
Sample ID:	243557015	Client ID:	LANL010
Matrix:	S		
Collect Date:	22-DEC-09		
Receive Date:	24-DEC-09		
Collector:	Client		
Moisture:	6.86%		

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	-0.000432	0.0234	+/-0.00195	0.050	pCi/g		HAKB	01/07/10	1138	938210	1
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	0.00186	0.0153	+/-0.00132	0.050	pCi/g		HAKB	01/07/10	1137	938221	2
Plutonium-239/240	U	0.000928	0.0175	+/-0.000929	0.050	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		0.858	0.104	+/-0.0806	0.100	pCi/g		HAKB	01/11/10	1156	938222	3
Uranium-235/236	U	0.0537	0.0643	+/-0.0154	0.100	pCi/g						
Uranium-238		0.932	0.060	+/-0.0863	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium	U	120	212	+/-65.1	250	pCi/L		KXK2	01/09/10	0652	936892	5

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, U-02-RC Modified
4	DOE EML HASL-300, U-02-RC Modified
5	GL-RAD-A-002
6	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	87.4	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	101	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	102	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound

AMF
2/9/10

Monday, December 28, 2009

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1088C

REQUEST NUMBER: 10-1088

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 1/22/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS: 243557%

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE03-09-14233	1	POLY	AM-241+ISOPU+ISOU	None	S
RE03-09-14233	1	POLY	H3	Ice	S
RE03-09-14236	1	POLY	AM-241+ISOPU+ISOU	None	S
RE03-09-14236	1	POLY	H3	Ice	S
RE03-09-14239	1	POLY	AM-241+ISOPU+ISOU	None	S
RE03-09-14239	1	POLY	H3	Ice	S
RE03-09-14240	1	POLY	AM-241+ISOPU+ISOU	None	S
RE03-09-14240	1	POLY	H3	Ice	S
RE03-09-14231	1	POLY	AM-241+ISOPU+ISOU	None	S
RE03-09-14231	1	POLY	H3	Ice	S
RE03-09-14232	1	POLY	AM-241+ISOPU+ISOU	None	S
RE03-09-14232	1	POLY	H3	Ice	S
RE03-09-14235	1	POLY	AM-241+ISOPU+ISOU	None	S
RE03-09-14235	1	POLY	H3	Ice	S
RE03-09-14238	1	POLY	AM-241+ISOPU+ISOU	None	S
RE03-09-14238	1	POLY	H3	Ice	S
RE03-09-14234	1	POLY	AM-241+ISOPU+ISOU	None	S
RE03-09-14234	1	POLY	H3	Ice	S
RE03-09-14241	1	POLY	AM-241+ISOPU+ISOU	None	S
RE03-09-14241	1	POLY	H3	Ice	S
RE03-10-2737	1	POLY	AM-241+ISOPU+ISOU	None	S
RE03-10-2737	1	POLY	H3	Ice	S
RE03-10-2736	1	POLY	AM-241+ISOPU+ISOU	None	S
RE03-10-2736	1	POLY	H3	Ice	S
RE03-10-9872	1	POLY	AM-241+ISOPU+ISOU	None	S
RE03-10-9872	1	POLY	H3	Ice	S
RE03-10-9873	1	POLY	AM-241+ISOPU+ISOU	None	S
RE03-10-9873	1	POLY	H3	Ice	S
RE03-10-9874	1	POLY	AM-241+ISOPU+ISOU	None	S
RE03-10-9874	1	POLY	H3	Ice	S

Relinquished By:	Date	Time	Received By:	Date	Time

Printed Name	Signature	Printed Name	Signature
	12/23/09 3:00	Greg Tyler	12/24/09 0930

Received for DISPOSAL By: **Date** **Time** **Remarks:**

Printed Name Signature

10-1088

Monday, December 28, 2009

REQUEST NUMBER: 10-1088

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis
General Engineering Laboratories, Inc., Charleston, SC.
2040 Savage Rd
Charleston, SC 29407

These Samples are on:
LANL Request Number:10-1088
Per Agreement Number:126310011
Project Cost Code: MR2A054196D0

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 12/23/2009
TURNAROUND/REPORT DUE: 1/22/2010
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Not Required
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:906.0	1	RE03-09-14231	S	12/22/2009	
		1	RE03-09-14232	S	12/22/2009	
		1	RE03-09-14233	S	12/22/2009	
		1	RE03-09-14234	S	12/22/2009	
		1	RE03-09-14235	S	12/22/2009	
		1	RE03-09-14236	S	12/22/2009	
		1	RE03-09-14238	S	12/22/2009	
		1	RE03-09-14239	S	12/22/2009	
		1	RE03-09-14240	S	12/22/2009	

Monday, December 28, 2009

REQUEST NUMBER: 10-1088

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:906.0	1	RE03-09-14241	S	12/22/2009	
		1	RE03-10-2736	S	12/22/2009	
		1	RE03-10-2737	S	12/22/2009	
		1	RE03-10-9872	S	12/22/2009	
		1	RE03-10-9873	S	12/22/2009	
		1	RE03-10-9874	S	12/22/2009	
	HASL-300:ISOPU	1	RE03-09-14231	S	12/22/2009	
		1	RE03-09-14232	S	12/22/2009	
		1	RE03-09-14233	S	12/22/2009	
		1	RE03-09-14234	S	12/22/2009	
		1	RE03-09-14235	S	12/22/2009	
		1	RE03-09-14236	S	12/22/2009	
		1	RE03-09-14238	S	12/22/2009	
		1	RE03-09-14239	S	12/22/2009	
		1	RE03-09-14240	S	12/22/2009	
		1	RE03-09-14241	S	12/22/2009	
		1	RE03-10-2736	S	12/22/2009	
		1	RE03-10-2737	S	12/22/2009	
		1	RE03-10-9872	S	12/22/2009	
		1	RE03-10-9873	S	12/22/2009	
		1	RE03-10-9874	S	12/22/2009	
	HASL-300:ISOU	1	RE03-09-14231	S	12/22/2009	
		1	RE03-09-14232	S	12/22/2009	
		1	RE03-09-14233	S	12/22/2009	
		1	RE03-09-14234	S	12/22/2009	
		1	RE03-09-14235	S	12/22/2009	
		1	RE03-09-14236	S	12/22/2009	
		1	RE03-09-14238	S	12/22/2009	

Monday, December 28, 2009

REQUEST NUMBER: 10-1088

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	HASL-300:ISOU	1	RE03-09-14239	S	12/22/2009	
		1	RE03-09-14240	S	12/22/2009	
		1	RE03-09-14241	S	12/22/2009	
		1	RE03-10-2736	S	12/22/2009	
		1	RE03-10-2737	S	12/22/2009	
		1	RE03-10-9872	S	12/22/2009	
		1	RE03-10-9873	S	12/22/2009	
		1	RE03-10-9874	S	12/22/2009	

Final Page of REQUEST NUMBER 10-1088

GEL Laboratories LLC

a member of The GEL Group INC

PO Box 30712 Charleston, SC 29417
2040 Savage Road Charleston, SC 29407
P 843.556.8171 F 843.766.1178

www.gel.com

January 05, 2010

Ms. Joylene Valdez
Los Alamos National Laboratory
PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545

Re: LANL ER Project
Work Order: 243557
SDG: 10-1088

Dear Ms. Valdez:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the following analytical results for the sample(s) we received on December 24, 2009, and analyzed for Radiochemistry. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 4485.

Sincerely,

for

Valerie Davis
Project Manager

Purchase Order: 72733-001-09
Chain of Custody: 10-1088
Enclosures

problem solved

Los Alamos National Laboratory (72733-001-09)
LANL ER Project
Work Order #: 243557
SDG: 10-1088

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- Background and Efficiency Data.....199
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Case Narrative

Case Narrative for
Los Alamos National Laboratory (72733-001-09)
LANL ER Project
Workorder #: 243557
SDG # : 10-1088

January 05, 2010

Laboratory Identification:

GEL Laboratories LLC
2040 Savage Road
Charleston, South Carolina 29407
(843) 556-8171

Summary

Sample receipt The samples arrived at GEL Laboratories LLC, Charleston, South Carolina on December 24, 2009 for analysis. The samples were prepared/analyzed within the required holding time. Shipping container temperatures were checked, documented, and within specifications. The samples were screened according to GEL Standard Operating Procedure. The lab received containers for samples RE03-10-9872 and 9874 not listed on the COC. Los Alamos was notified and we were instructed to add the samples. A revised COC was later sent. All sample containers arrived without any visible signs of tampering or breakage. Containers were checked for pH, where appropriate, and matched the preservative as documented on the accompanying chain of custody. The containers for radiochemistry were received at 14/15C temperatures. Shipping container temperature was within specification (0 - 6C).

Sample Identification The laboratory received the following samples:

Laboratory ID	Client ID
243557001	RE03-09-14233
243557002	RE03-09-14236
243557003	RE03-09-14239
243557004	RE03-09-14240
243557005	RE03-09-14231
243557006	RE03-09-14232
243557007	RE03-09-14235
243557008	RE03-09-14238
243557009	RE03-09-14234
243557010	RE03-09-14241
243557011	RE03-10-2737
243557012	RE03-10-2736
243557013	RE03-10-9873
243557014	RE03-10-9872
243557015	RE03-10-9874

Case Narrative

Sample analyses were conducted using methodology as outlined in GEL Laboratories, LLC (GEL) Standard Operating Procedures. Any technical or administrative problems during analysis, data review, and reduction are contained in the analytical case narratives in the enclosed data package.

Data Package The enclosed data package contains the following sections: Case Narrative, Chain of Custody, Cooler Receipt Checklist, Data Package Qualifier Definitions and data from the following fractions: Radiochemistry.

I certify that this data report is in compliance with the terms and conditions of the subcontract and task order, both technically and for completeness, for other than the conditions detailed in the attached case narrative.

for

Valerie Davis

Project Manager

GEL Laboratories LLC PO Box 30712 Charleston, SC 29417 2040 Savage Road Charleston, SC 29407 P 843.556.8171 F 843.766.1178 www.gel.com

List of current GEL Certifications as of 05 January 2010

State	Certification
Arizona	AZ0668
Arkansas	88–0651
CLIA	42D0904046
California – NELAP	01151CA
Colorado	GEL
Connecticut	PH–0169
Dept. of Navy	NFESC 413
EPA Region 5	WG–15J
Florida – NELAP	E87156
Georgia	E87156 (FL/NELAP)
Georgia DW	967
Hawaii	N/A
ISO 17025	2567.01
Idaho	SC00012
Illinois – NELAP	200029
Indiana	C–SC–01
Kansas – NELAP	E–10332
Kentucky	90129
Louisiana – NELAP	03046
Maryland	270
Massachusetts	M–SC012
Nevada	SC00012
New Jersey – NELAP	SC002
New Mexico	FL NELAP E87156
New York – NELAP	11501
North Carolina	233
North Carolina DW	45709
Oklahoma	9904
Pennsylvania – NELAP	68–00485
South Carolina	10120001/10120002
Tennessee	TN 02934
Texas – NELAP	T104704235–07B–TX
U.S. Dept. of Agriculture	S–52597
Utah – NELAP	GEL
Vermont	VT87156
Virginia	00151
Washington	C1641

Chain of Custody and Supporting Documentation

Monday, December 28, 2009

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1088C

REQUEST NUMBER: 10-1088

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Valerie Davis

TURNAROUND/REPORT DUE: 1/22/2010

TURNAROUND REQ'D: 30

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

LAB REQUEST COMMENTS: 243557%

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE03-09-14233	1	POLY	AM-241+ISOPU+ISOU	None	S
RE03-09-14233	1	POLY	H3	Ice	S
RE03-09-14236	1	POLY	AM-241+ISOPU+ISOU	None	S
RE03-09-14236	1	POLY	H3	Ice	S
RE03-09-14239	1	POLY	AM-241+ISOPU+ISOU	None	S
RE03-09-14239	1	POLY	H3	Ice	S
RE03-09-14240	1	POLY	AM-241+ISOPU+ISOU	None	S
RE03-09-14240	1	POLY	H3	Ice	S
RE03-09-14231	1	POLY	AM-241+ISOPU+ISOU	None	S
RE03-09-14231	1	POLY	H3	Ice	S
RE03-09-14232	1	POLY	AM-241+ISOPU+ISOU	None	S
RE03-09-14232	1	POLY	H3	Ice	S
RE03-09-14235	1	POLY	AM-241+ISOPU+ISOU	None	S
RE03-09-14235	1	POLY	H3	Ice	S
RE03-09-14238	1	POLY	AM-241+ISOPU+ISOU	None	S
RE03-09-14238	1	POLY	H3	Ice	S
RE03-09-14234	1	POLY	AM-241+ISOPU+ISOU	None	S
RE03-09-14234	1	POLY	H3	Ice	S
RE03-09-14241	1	POLY	AM-241+ISOPU+ISOU	None	S
RE03-09-14241	1	POLY	H3	Ice	S
RE03-10-2737	1	POLY	AM-241+ISOPU+ISOU	None	S
RE03-10-2737	1	POLY	H3	Ice	S
RE03-10-2736	1	POLY	AM-241+ISOPU+ISOU	None	S
RE03-10-2736	1	POLY	H3	Ice	S
RE03-10-9872	1	POLY	AM-241+ISOPU+ISOU	None	S
RE03-10-9872	1	POLY	H3	Ice	S
RE03-10-9873	1	POLY	AM-241+ISOPU+ISOU	None	S
RE03-10-9873	1	POLY	H3	Ice	S
RE03-10-9874	1	POLY	AM-241+ISOPU+ISOU	None	S
RE03-10-9874	1	POLY	H3	Ice	S

Relinquished By:	Date	Time	Received By:	Date	Time

Printed Name	Signature	Printed Name	Signature
	12/23/09 3:00	Greg Tyler	12/24/09 0930

Received for DISPOSAL By: **Date** **Time** **Remarks:**

Printed Name Signature

10-1088

Monday, December 28, 2009

REQUEST NUMBER: 10-1088

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

These Samples are on:

LANL Request Number: 10-1088

Per Agreement Number: 126310011

Project Cost Code: MR2A054196D0

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 12/23/2009

TURNAROUND/REPORT DUE: 1/22/2010

TURNAROUND REQ'D: 30 Days

RAD SCREENING: Not Required

LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:

Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:906.0	1	RE03-09-14231	S	12/22/2009	
		1	RE03-09-14232	S	12/22/2009	
		1	RE03-09-14233	S	12/22/2009	
		1	RE03-09-14234	S	12/22/2009	
		1	RE03-09-14235	S	12/22/2009	
		1	RE03-09-14236	S	12/22/2009	
		1	RE03-09-14238	S	12/22/2009	
		1	RE03-09-14239	S	12/22/2009	
		1	RE03-09-14240	S	12/22/2009	

Monday, December 28, 2009

REQUEST NUMBER: 10-1088

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:906.0	1	RE03-09-14241	S	12/22/2009	
		1	RE03-10-2736	S	12/22/2009	
		1	RE03-10-2737	S	12/22/2009	
		1	RE03-10-9872	S	12/22/2009	
		1	RE03-10-9873	S	12/22/2009	
		1	RE03-10-9874	S	12/22/2009	
	HASL-300:ISOPU	1	RE03-09-14231	S	12/22/2009	
		1	RE03-09-14232	S	12/22/2009	
		1	RE03-09-14233	S	12/22/2009	
		1	RE03-09-14234	S	12/22/2009	
		1	RE03-09-14235	S	12/22/2009	
		1	RE03-09-14236	S	12/22/2009	
		1	RE03-09-14238	S	12/22/2009	
		1	RE03-09-14239	S	12/22/2009	
		1	RE03-09-14240	S	12/22/2009	
		1	RE03-09-14241	S	12/22/2009	
		1	RE03-10-2736	S	12/22/2009	
		1	RE03-10-2737	S	12/22/2009	
		1	RE03-10-9872	S	12/22/2009	
		1	RE03-10-9873	S	12/22/2009	
		1	RE03-10-9874	S	12/22/2009	
	HASL-300:ISOU	1	RE03-09-14231	S	12/22/2009	
		1	RE03-09-14232	S	12/22/2009	
		1	RE03-09-14233	S	12/22/2009	
		1	RE03-09-14234	S	12/22/2009	
		1	RE03-09-14235	S	12/22/2009	
		1	RE03-09-14236	S	12/22/2009	
		1	RE03-09-14238	S	12/22/2009	

Monday, December 28, 2009

REQUEST NUMBER: 10-1088

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	HASL-300:ISOU	1	RE03-09-14239	S	12/22/2009	
		1	RE03-09-14240	S	12/22/2009	
		1	RE03-09-14241	S	12/22/2009	
		1	RE03-10-2736	S	12/22/2009	
		1	RE03-10-2737	S	12/22/2009	
		1	RE03-10-9872	S	12/22/2009	
		1	RE03-10-9873	S	12/22/2009	
		1	RE03-10-9874	S	12/22/2009	

Final Page of REQUEST NUMBER 10-1088

GEL Laboratories LLC

SAMPLE RECEIPT & REVIEW FORM

Client: LANL	**SDG/ARCOC/Work Order: 10-1088**
Received By: Greg Tyler	**Date Received: 12/24/09**

Suspected Hazard Information	**Yes**	**No**	*If Counts > x2 area background on samples not marked "radioactive", contact the Radiation Safety Group of further investigation.
COC/Samples marked as radioactive?		X	Maximum Counts Observed*: **60cpm**
Classified Radioactive II by RSO?		X	
COC/Samples marked containing PCBs?		X	
Shipped as a DOT Hazardous?		X	Hazard Class Shipped: UN#:
Samples identified as Foreign Soil?		X	

	Sample Receipt Criteria	**Yes**	**NA**	**No**	**Comments/Qualifiers (Required for Non-Conforming Items)**
1	Shipping containers received intact and sealed?	X			Circle Applicable: seals broken damaged container leaking container other (describe)
2	Samples requiring cold preservation within 0 ≤ 6 deg. C?	X			Preservation Method: ice bags blue ice dry ice none other 3-5C 14,15C
3	Chain of custody documents included with shipment?	X			
4	Sample containers intact and sealed?	X			Circle Applicable: seals broken damaged container leaking container other (describe)
5	Samples requiring chemical preservation at proper pH?		X		Sample ID's, containers affected and observed pH: If Preservation added, Lot#:
6	VOA vials free of headspace (defined as < 6mm bubble)?		X		Sample ID's and containers affected:
7	Are Encore containers present?			X	(If yes, immediately deliver to Volatiles laboratory)
8	Samples received within holding time?	X			Id's and tests affected:
9	Sample ID's on COC match ID's on bottles?	X			Sample ID's and containers affected:
10	Date & time on COC match date & time on bottles?		X		Sample ID's affected: **No time on Chain of Custody.**
11	Number of containers received match number indicated on COC?	~~X~~ 18		X	Sample ID's affected: RE09-10-9872, 9874 acid containers not listed on COC
12	COC form is properly signed in relinquished/received sections?	X			

Comments:

Fed Ex Tracking Numbers

7209 7849 3755 3C	7209 7849 3803 5C
7209 7849 3788 4C	7209 7849 3825 14C
7209 7849 3799 4C	7209 7849 3744 14C
7209 7849 3858 4C	7209 7849 3733 15C
7209 7849 3836 5C	7209 7849 3766 15C
7209 7849 3777 5C	
7209 7849 3722 5C	
7209 7849 3847 5C	

PM (or PMA) review: Initials JAR Date 12-24-09

Issues from 12/24/09

Possible incorrect ID?

ID on containers: RE16-10-1103 (not found on COC)

8260B (125 ML amber wide-mouth)
METALS-GEL (125 ML Poly)
Anions + CL04 (125 ML poly)
8270C+NMED (500ML Amber)
AM241+GS+ISOPU+ISOU (100ML poly)

ID on COC: RE16-10-1003 (no containers found for these analyses.)

8260B
METALS-GEL
Anions + CL04
8270C+NMED
AM241+GS+ISOPU+ISOU

OOUR COC SAYS 1103 SO I THINK WE ARE GOOD HERE

Other issues…

Missing Containers

Soils

WST03-10-2201	8260B 40ML (received 1 instead of 2 as indicated on COC.)
WST21-10-9930	8260B 40ML (received 1 instead of 2 as indicated on COC.)
WST21-10-9928	8260B 40ML (received 1 instead of 2 as indicated on COC.)
RE16-10-2867	8260B 40 ML (received 1 instead of 2 as indicated on COC.)
RE-10-7559	AM241+GS+ISOPU+ISOU
	Met+U+CL04+CN
	NMED Explosives list
RE-10-7560	AM241+GS+ISOPU+ISOU
	Met+U+CL04+CN
	NMED Explosives list

Cancel 7559 and 7560

Waters

RE03-10-6972	METALS-GEL
	TCN
RE03-10-~~7560~~ 6974	METALS-GEL
	TCN

We'll see if these show up if not in tomorrows delivery then cancel

Containers Received that were not listed on COC(s)

RE03-10-9872	Perchlorate+CN+NO3+pH (500ML poly) H3 AM241+ISOPU+ISOU (500ML poly) 8270C+8082 (250ML amber) 8260B (125ML amber) METALS-GEL (125ML poly)
RE03-10-9874	Perchlorate+CN+NO3+pH (500ML poly) H3 AM241+ISOPU+ISOU (500ML poly) 8270C+8082 (250ML amber) 8260B (125ML amber) METALS-GEL (125ML poly)

These were added to 10-1086/1087 and 1088 will received revised requestes tommorrow

WSTR47-10-7140	TPH DRO (250ML amber)
WSTR47-10-7141	TPH DRO (250ML amber)

Missing bottles from 10-1000

:GIN ID: SAFA (505)665-9968
'LENE VALDEZ
; ALAMOS NATL LAB.
00 BLDG 1237 DPU 03

; ALAMOS, NM 87545
ITED STATES US

SHIP DATE: 23DEC09
ACTWGT: 66.0 LB MAN
CAD: 0014176/CA 2434

BILL SENDER

ALERIE DAVIS
ENERAL ENGINEERING LAB
040 SAVAGE RD

HARLESTON SC 29407
43)556-8171
EF: 6B01AMR3A0352VA00

3c

FedEx Express

2 of 2
S# 7209 7849 3755
63
trk# 7209 7849 3744 0201

THU - 24DEC A1
PRIORITY OVERNIGHT

29407
SC-US
CHS

X CHSA

RIGIN ID: SAFA (505)665-9968
OYLENE VALDEZ
OS ALAMOS NATL LAB.
A00 BLDG 1237 DPU 03

OS ALAMOS, NM 87545
NITED STATES US

SHIP DATE: 23DEC09
ACTWGT: 51.0 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
843)556-8171
REF: 6B01AMR2A05419D0

4c

FedEx Express

1 of 2
RK# 7209 7849 3799
201
MASTER

THU - 24DEC A1
PRIORITY OVERNIGHT

29407
SC-US

ORIGIN ID: SAFA (505)665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 123 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 23DEC09
ACTWGT: 51.0 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843)556-8171
REF: 6B01AMR2A05419D0

4c

FedEx Express

3 of 3
MPS# 7209 7849 3788
0263
Mstr# 7209 7849 3766 0201

THU - 24DEC A1
PRIORITY OVERNIGHT

29407
SC-US
CHS

XX CHSA

Part # 156148-434 NRIT V3 09-09

ORIGIN ID: SAFA (505)665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 23DEC09
ACTWGT: 46.0 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843)556-8171
REF: 6B01AMR3A0352VA00

4c

FedEx Express

2 of 2
MPS# 7209 7849 3858
0263
Mstr# 7209 7849 3847 0201

THU - 24DEC A1
PRIORITY OVERNIGHT

29407
SC-US

IGIN ID: SAFA (505)665-9960
YLENE VALDEZ
S ALAMOS NATL LAB
00 BLDG 1237 DPU 03

S ALAMOS, NM 87545
ITED STATES US

SHIP DATE: 23DEC09
ACTWGT: 57.0 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

ALERIE DAVIS
ENERAL ENGINEERING LAB
040 SAVAGE RD

HARLESTON SC 29407
43)556-9171
EF: 6B01AMR3A0352VA00

5c

FedEx Express

3 of 3
PS# 7209 7849 3836
263
THU - 24DEC A1
PRIORITY OVERNIGHT
trk# 7209 7849 3814 0201
29407
SC-US
CHS
X CHSA

IGIN ID: SAFA (505)665-9960
YLENE VALDEZ
S ALAMOS NATL LAB
00 BLDG 1237 DPU 03

S ALAMOS, NM 87545
ITED STATES US

SHIP DATE: 23DEC09
ACTWGT: 62.0 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

ALERIE DAVIS
ENERAL ENGINEERING LAB
040 SAVAGE RD

HARLESTON SC 29407
43)556-9171
EF: 6B01AMR3A0325VA00

5c

FedEx Express

1 of 2
CK# 7209 7849 3722
11
MASTER ##
THU - 24DEC A1
PRIORITY OVERNIGHT
29407
SC-US
CHS
X CHSA

ORIGIN ID: SAFA
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 23DEC09
ACTWGT: 55.0 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843)556-9171
REF: 6B01AMR2A054196D0

5c

FedEx Express

2 of 3
MPS# 7209 7849 3777
0263
THU - 24DEC A1
PRIORITY OVERNIGHT
Mstr# 7209 7849 3766 0201
29407
SC-US
CHS
XX CHSA

Part # 150 NPT V3 09-09

ORIGIN ID: SAFA (505)665-9960
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 23DEC09
ACTWGT: 54.0 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843)556-9171
REF: 6B01AMR3A0352VA00

5c

FedEx Express

1 of 2
TRK# 7209 7849 3847
0201
MASTER
THU - 24DEC A1
PRIORITY OVERNIGHT
29407
SC-US
CHS
XX CHSA

ORIGIN ID: SAFA (505)665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 23DEC09
ACTWGT: 62.0 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843)556-8171
REF: 6B01AMR2A0541B00

5C

FedEx Express

2 of 2
MPS# 7209 7849 3803
Mstr# 7209 7849 3799

THU - 24DEC A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

ORIGIN ID: SAFA (505)665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 23DEC09
ACTWGT: 62.0 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843)556-8171
REF: 6B01AMR3A0352VA00

14C
no ice

FedEx Express

2 of 3
MPS# 7209 7849 3825
Mstr# 7209 7849 3814

THU - 24DEC A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

Part # 156148-434 NRIT V3 09-09

ORIGIN ID: SAFA (505)665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

ACTWGT: 60.0 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843)556-8171
REF: 6B01AMR3A0352VA00

14C
no ice

FedEx Express

1 of 2
MPS# 7209 7849 3744
Mstr# MASTER ##

THU - 24DEC A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

ORIGIN ID: SAFA (505)665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 23DEC09
ACTWGT: 54.0 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843)556-8171
REF: 6B01AMR3A0325VA00

15C
no ice

FedEx Express

2 of 2
MPS# 7209 7849 3733
Mstr# 7209 7849 3722

THU - 24DEC A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

ORIGIN ID: SAFA (505)665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 83

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 23DEC09
ACTWGT: 39.0 LB MAN
CAD: 8014176/CAFE2434

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843)556-8171
REF: 6801AMR2005419600

15C
NO ice

FedEx Express

1 of 3

TRK# 0201 7209 7849 3766

THU - 24DEC A1
PRIORITY OVERNIGHT

MASTER

XX CHSA

29407
SC-US
CHS

Part # 156148-434 NRMT V3 08-09

Data Review Qualifier Flag Definition Sheet

Data Review Qualifier Definitions

Qualifier	Explanation
*	A quality control analyte recovery is outside of specified acceptance criteria
**	Analyte is a surrogate compound
<	Result is less than value reported
>	Result is greater than value reported
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL
A	The TIC is a suspected aldol-condensation product
B	Target analyte was detected in the associated blank
B	Metals-Either presence of analyte detected in the associated blank, or MDL/IDL < sample value < PQL
BD	Results are either below the MDC or tracer recovery is low
C	Analyte has been confirmed by GC/MS analysis
D	Results are reported from a diluted aliquot of the sample
d	5-day BOD-The 2:1 depletion requirement was not met for this sample
E	Organics-Concentration of the target analyte exceeds the instrument calibration range
E	Metals-%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
H	Analytical holding time was exceeded
h	Preparation or preservation holding time was exceeded
J	Value is estimated
N	Metals-The Matrix spike sample recovery is not within specified control limits
N	Organics-Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A	Spike recovery limits do not apply. Sample concentration exceeds spike concentration by 4X or more
ND	Analyte concentration is not detected above the reporting limit
UI	Gamma Spectroscopy-Uncertain identification
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
Z	Paint Filter Test-Particulates passed through the filter, however no free liquids were observed.

RADIOLOGICAL ANALYSIS

Radiochemistry Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-1088

Method/Analysis Information

Product:	**AM241**
Analytical Method:	DOE EML HASL-300, Am-05-RC Modified
Prep Method:	Dry Soil Prep
Analytical Batch Number:	938074
Prep Batch Number:	937017

Sample ID	Client ID
243557001	RE03-09-14233
243557002	RE03-09-14236
243557003	RE03-09-14239
243557004	RE03-09-14240
243557005	RE03-09-14231
243557006	RE03-09-14232
243557007	RE03-09-14235
243557008	RE03-09-14238
243557009	RE03-09-14234
243557010	RE03-09-14241
243557011	RE03-10-2737
243557012	RE03-10-2736
243557013	RE03-10-9873
1202007337	Method Blank (MB)
1202007338	243557013(RE03-10-9873) Sample Duplicate (DUP)
1202007339	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on a "dry weight" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-011 REV# 18.

Calibration Information:

Calibration Information

All initial and continuing calibration requirements have been met. Calibrations are performed monthly using mixed alpha standards comprised of the following: Gd-148, Np-237, and Cm-244.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
Aliquot for sample 1202007337 (MB) was changed to 1.0 per client request.

Designated QC
The following sample was used for QC: 243557013 (RE03-10-9873). The QC was from LANL work order 243557.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The blank result is less than 1.65 times the CSU.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
Samples 243557006 (RE03-09-14232) and 243557012 (RE03-10-2736) were recounted due to high MDAs.

Miscellaneous Information:

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Manual Integration
No manual integrations were performed on data in this batch.

Additional Comments
The MDCs are calculated using a blank population.

Blank Decision Level
The blank result is less than the decision level.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**AM241**
Analytical Method:	DOE EML HASL-300, Am-05-RC Modified
Prep Method:	Dry Soil Prep
Analytical Batch Number:	938210
Prep Batch Number:	937388

Sample ID	Client ID
243557014	RE03-10-9872
243557015	RE03-10-9874
1202007550	Method Blank (MB)
1202007551	243624008(RE12-10-7845) Sample Duplicate (DUP)
1202007552	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on a "dry weight" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-011 REV# 18.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. Calibrations are performed monthly using mixed alpha standards comprised of the following: Gd-148, Np-237, and Cm-244.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
Aliquot for sample 1202007550 (MB) was changed to 1.0 per client request.

Designated QC
The following sample was used for QC: 243624008 (RE12-10-7845). The QC was from LANL work order 243624.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The blank result is less than 1.65 times the CSU.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Manual Integration
No manual integrations were performed on data in this batch.

Additional Comments
The MDCs are calculated using a blank population.

Blank Decision Level
The blank result is less than the decision level.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**ISOPU**
Analytical Method:	DOE EML HASL-300, Pu-11-RC Modified
Prep Method:	Dry Soil Prep
Analytical Batch Number:	938075
Prep Batch Number:	937017

Sample ID	Client ID
243557001	RE03-09-14233
243557002	RE03-09-14236
243557003	RE03-09-14239
243557004	RE03-09-14240
243557005	RE03-09-14231
243557006	RE03-09-14232
243557007	RE03-09-14235
243557008	RE03-09-14238
243557009	RE03-09-14234
243557011	RE03-10-2737
243557012	RE03-10-2736
243557013	RE03-10-9873
1202007340	Method Blank (MB)
1202007341	243557013(RE03-10-9873) Sample Duplicate (DUP)
1202007342	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on a "dry weight" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-011 REV# 18.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. Calibrations are performed monthly using mixed alpha standards comprised of the following: Gd-148, Np-237, and Cm-244.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
Aliquot for sample 1202007340 (MB) was changed to 1.0 per client request.

Designated QC
The following sample was used for QC: 243557013 (RE03-10-9873). The QC was from LANL work order 243557.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The blank result is less than 1.65 times the CSU.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Manual Integration
No manual integrations were performed on data in this batch.

Additional Comments
The MDCs are calculated using a blank population. Sample, 243557005 (RE03-09-14231), did not meet the client tracer yield requirements, however it is less than 110 percent and does meet the GEL standard tracer yield requirements.

Blank Decision Level
The blank result is less than the decision level.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**ISOPU**
Analytical Method:	DOE EML HASL-300, Pu-11-RC Modified
Prep Method:	Dry Soil Prep
Analytical Batch Number:	938221
Prep Batch Number:	937388

Sample ID	Client ID
243557014	RE03-10-9872
243557015	RE03-10-9874
1202007553	Method Blank (MB)
1202007554	243624008(RE12-10-7845) Sample Duplicate (DUP)
1202007555	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on a "dry weight" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-011 REV# 18.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. Calibrations are performed monthly using mixed alpha standards comprised of the following: Gd-148, Np-237, and Cm-244.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
Aliquot for sample 1202007553 (MB) was changed to 1.0 per client request.

Designated QC
The following sample was used for QC: 243624008 (RE12-10-7845). The QC was from LANL work order 243624.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The Pu239/240 blank result is greater than 1.65 times the CSU but less than the MDC.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Manual Integration
Manual integration of alpha spectroscopy spectra 1202007555 (LCS) was performed to fully separate counts in Regions of Interest which would have been biased.

Additional Comments
The MDCs are calculated using a blank population. Sample, 1202007555 (LCS), did not meet the client tracer yield requirements, however it is less than 110 percent and does meet the GEL standard tracer yield requirements.

Blank Decision Level
The blank result is less than the decision level.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**ISOPU**
Analytical Method:	DOE EML HASL-300, Pu-11-RC Modified
Prep Method:	Dry Soil Prep
Analytical Batch Number:	939711
Prep Batch Number:	937017

Sample ID	Client ID
243557010	RE03-09-14241
1202010902	Method Blank (MB)
1202010903	243557010(RE03-09-14241) Sample Duplicate (DUP)
1202010904	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on a "dry weight" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-011 REV# 18.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. Calibrations are performed monthly using mixed alpha standards comprised of the following: Gd-148, Np-237, and Cm-244.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
Aliquot for sample 1202010902 (MB) was changed to 1.0 per client request.

Designated QC
The following sample was used for QC: 243557010 (RE03-09-14241). The QC was from LANL work order 243557.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The blank result is less than 1.65 times the CSU.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
Sample 243557010 (RE03-09-14241) was reprepped due to suspected interference.

Miscellaneous Information:

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Manual Integration
No manual integrations were performed on data in this batch.

Additional Comments
The MDCs are calculated using a blank population.

Blank Decision Level
The blank result is less than the decision level.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**ISOU**
Analytical Method:	DOE EML HASL-300, U-02-RC Modified
Prep Method:	Dry Soil Prep
Analytical Batch Number:	938076
Prep Batch Number:	937017

Sample ID	Client ID
243557001	RE03-09-14233
243557002	RE03-09-14236
243557003	RE03-09-14239
243557004	RE03-09-14240
243557005	RE03-09-14231
243557006	RE03-09-14232
243557007	RE03-09-14235
243557008	RE03-09-14238
243557009	RE03-09-14234
243557010	RE03-09-14241
243557011	RE03-10-2737
243557012	RE03-10-2736
243557013	RE03-10-9873
1202007343	Method Blank (MB)
1202007344	243557003(RE03-09-14239) Sample Duplicate (DUP)
1202007345	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on a "dry weight" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-011 REV# 18.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. Calibrations are performed monthly using mixed alpha standards comprised of the following: Gd-148, Np-237, and Cm-244.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
Aliquot for sample 1202007343 (MB) was changed to 1.0 per client request.

Designated QC
The following sample was used for QC: 243557003 (RE03-09-14239). The QC was from LANL work order 243557.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The blank result is less than 1.65 times the CSU.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
Samples 243557003 (RE03-09-14239), 243557010 (RE03-09-14241), 243557011 (RE03-10-2737), 243557012 (RE03-10-2736) and 243557013 (RE03-10-9873) were recounted due to a suspected false positive.

Miscellaneous Information:

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Manual Integration
No manual integrations were performed on data in this batch.

Additional Comments
The MDCs are calculated using a blank population. Samples 1202007343 (MB), 1202007344 (RE03-09-14239), 243557006 (RE03-09-14232), 243557008 (RE03-09-14238) and 243557009 (RE03-09-14234), did not meet the client tracer yield requirements, however they are 110 percent or less and do meet the GEL standard tracer yield requirements.

Blank Decision Level
The blank result is less than the decision level.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**ISOU**
Analytical Method:	DOE EML HASL-300, U-02-RC Modified
Prep Method:	Dry Soil Prep
Analytical Batch Number:	938222
Prep Batch Number:	937388

Sample ID	Client ID
243557014	RE03-10-9872
243557015	RE03-10-9874
1202007556	Method Blank (MB)
1202007557	243624008(RE12-10-7845) Sample Duplicate (DUP)
1202007558	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on a "dry weight" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-011 REV# 18.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. Calibrations are performed monthly using mixed alpha standards comprised of the following: Gd-148, Np-237, and Cm-244.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
Aliquot for sample 1202007556 (MB) was changed to 1.0 per client request.

Designated QC
The following sample was used for QC: 243624008 (RE12-10-7845). The QC was from LANL work order 243624.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The blank result is less than 1.65 times the CSU.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
Sample 243557015 (RE03-10-9874) was recounted due to poor resolution.

Miscellaneous Information:

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Manual Integration
No manual integrations were performed on data in this batch.

Additional Comments
The MDCs are calculated using a blank population.

Blank Decision Level
The blank result is less than the decision level.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**H3**
Analytical Method:	GL-RAD-A-002
Analytical Batch Number:	936892

Sample ID	Client ID
243557001	RE03-09-14233
243557002	RE03-09-14236
243557003	RE03-09-14239
243557004	RE03-09-14240
243557005	RE03-09-14231
243557006	RE03-09-14232
243557007	RE03-09-14235
243557008	RE03-09-14238
243557009	RE03-09-14234
243557010	RE03-09-14241
243557011	RE03-10-2737
243557012	RE03-10-2736
243557013	RE03-10-9873
243557014	RE03-10-9872
243557015	RE03-10-9874
1202004648	Method Blank (MB)
1202004649	243557001(RE03-09-14233) Sample Duplicate (DUP)
1202004650	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-002 REV# 18.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. The initial Calibration was performed in August 2009.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
The blank volume is representative of the sample volumes in this batch.

Designated QC
The following sample was used for QC: 243557001 (RE03-09-14233). The QC was from LANL work order 243557.

QC Information

All of the QC samples met the required acceptance limits.

CSU
The blank result is less than 1.65 times the CSU.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
Sample 243557003 (RE03-09-14239) was recounted due to high MDA. Samples were recounted due to the quench number of the Laboratory Control Sample being outside the calibration range. Recount is being reported.

Miscellaneous Information:

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Additional Comments
Sample 243557003 (RE03-09-14239) met the required detection limit by rounding.

Blank Decision Level
The blank result is less than the decision level.

Qualifier information

Manual qualifiers were not required.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer/Date: Paula Wells 11/1/10

SAMPLE DATA SUMMARY

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis Report
for

LANL010 Los Alamos National Laboratory (72733-001-09)

Client SDG: 10-1088 GEL Work Order: 243557

The Qualifiers in this report are defined as follows:

* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.

** Indicates the analyte is a surrogate compound.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the detection limit.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Valerie Davis.

Reviewed by _____

GEL LABORATORIES LLC

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: January 15, 2010

Client Sample ID:	RE03-09-14233	Project:	LANL01004
Sample ID:	243557001	Client ID:	LANL010
Matrix:	S		
Collect Date:	22-DEC-09		
Receive Date:	24-DEC-09		
Collector:	Client		
Moisture:	7.39%		

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	0.0012	0.0171	+/-0.0011	0.050	pCi/g		KXM4	01/07/10	1740	938074	1
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	0.00	0.0158	+/-0.000958	0.050	pCi/g		KXM4	01/07/10	1740	938075	2
Plutonium-239/240	U	0.00	0.0181	+/-0.00191	0.050	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		0.830	0.108	+/-0.0795	0.100	pCi/g		KXM4	01/06/10	1807	938076	3
Uranium-235/236	U	0.0515	0.0669	+/-0.0153	0.100	pCi/g						
Uranium-238		1.00	0.0625	+/-0.0922	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		218	211	+/-68.1	250	pCi/L		KXK2	01/08/10	1506	936892	4

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, U-02-RC Modified
4	GL-RAD-A-002
5	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	95.4	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	98.2	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	99.2	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound

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Certificate of Analysis

Company : Los Alamos National Laboratory
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TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: January 15, 2010

Client Sample ID: RE03-09-14233 Project: LANL01004
Sample ID: 243557001 Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Certificate of Analysis

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: January 15, 2010

Client Sample ID:	RE03-09-14236	Project:	LANL01004
Sample ID:	243557002	Client ID:	LANL010
Matrix:	S		
Collect Date:	22-DEC-09		
Receive Date:	24-DEC-09		
Collector:	Client		
Moisture:	16.2%		

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	0.00434	0.0174	+/-0.00213	0.050	pCi/g		KXM4	01/07/10	1740	938074	1
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	0.00	0.0168	+/-0.00102	0.050	pCi/g		KXM4	01/07/10	1741	938075	2
Plutonium-239/240	U	0.00102	0.0193	+/-0.00177	0.050	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		0.673	0.112	+/-0.0691	0.100	pCi/g		KXM4	01/06/10	1807	938076	3
Uranium-235/236	U	0.0624	0.0693	+/-0.0173	0.100	pCi/g						
Uranium-238		0.724	0.0648	+/-0.0735	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		353	213	+/-73.9	250	pCi/L		KXK2	01/08/10	1609	936892	4

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, U-02-RC Modified
4	GL-RAD-A-002
5	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery %	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	90.6	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	94.9	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	101	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound
< Result is less than value reported

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Certificate of Analysis

Company : Los Alamos National Laboratory
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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: January 15, 2010

Client Sample ID: RE03-09-14236
Sample ID: 243557002
Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: January 15, 2010

Client Sample ID:	RE03-09-14239	Project:	LANL01004
Sample ID:	243557003	Client ID:	LANL010
Matrix:	S		
Collect Date:	22-DEC-09		
Receive Date:	24-DEC-09		
Collector:	Client		
Moisture:	5.47%		

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	0.00125	0.0174	+/-0.00113	0.050	pCi/g		KXM4	01/07/10	1740	938074	1
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	0.00	0.0162	+/-0.000983	0.050	pCi/g		KXM4	01/07/10	1741	938075	2
Plutonium-239/240	U	0.000981	0.0185	+/-0.000982	0.050	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		0.893	0.107	+/-0.084	0.100	pCi/g		KXM4	01/09/10	1101	938076	3
Uranium-235/236	U	0.0512	0.0664	+/-0.0174	0.100	pCi/g						
Uranium-238		0.735	0.062	+/-0.0723	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium	U	-95.8	253	+/-73.8	250	pCi/L		KXK2	01/09/10	1958	936892	5

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, U-02-RC Modified
4	DOE EML HASL-300, U-02-RC Modified
5	GL-RAD-A-002
6	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery %	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	95.0	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	96.7	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	105	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound

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Certificate of Analysis

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: January 15, 2010

Client Sample ID: RE03-09-14239
Sample ID: 243557003
Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: January 15, 2010

Client Sample ID:	RE03-09-14240	Project:	LANL01004
Sample ID:	243557004	Client ID:	LANL010
Matrix:	S		
Collect Date:	22-DEC-09		
Receive Date:	24-DEC-09		
Collector:	Client		
Moisture:	5.42%		

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	7.26E-05	0.0161	+/-0.000947	0.050	pCi/g		KXM4	01/07/10	1740	938074	1
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	0.000947	0.0156	+/-0.000948	0.050	pCi/g		KXM4	01/07/10	1741	938075	2
Plutonium-239/240	U	0.00	0.0179	+/-0.00134	0.050	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		0.836	0.113	+/-0.082	0.100	pCi/g		KXM4	01/06/10	1807	938076	3
Uranium-235/236	U	0.0361	0.0703	+/-0.013	0.100	pCi/g						
Uranium-238		0.782	0.0657	+/-0.0782	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium	U	129	211	+/-64.9	250	pCi/L		KXK2	01/08/10	1813	936892	4

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, U-02-RC Modified
4	GL-RAD-A-002
5	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	102	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	99.4	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	93.1	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound
< Result is less than value reported

GEL LABORATORIES LLC

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: January 15, 2010

Client Sample ID: RE03-09-14240
Sample ID: 243557004
Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: January 15, 2010

Client Sample ID:	RE03-09-14231	Project:	LANL01004
Sample ID:	243557005	Client ID:	LANL010
Matrix:	S		
Collect Date:	22-DEC-09		
Receive Date:	24-DEC-09		
Collector:	Client		
Moisture:	7.32%		

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	0.00108	0.0164	+/-0.00102	0.050	pCi/g		KXM4	01/07/10	1740	938074	1
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	-0.000898	0.0148	+/-0.00127	0.050	pCi/g		KXM4	01/07/10	1741	938075	2
Plutonium-239/240	U	0.00359	0.017	+/-0.00221	0.050	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		0.844	0.109	+/-0.0806	0.100	pCi/g		KXM4	01/06/10	1807	938076	3
Uranium-235/236	U	0.0477	0.0674	+/-0.0148	0.100	pCi/g						
Uranium-238		0.771	0.063	+/-0.0752	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium	U	39.4	212	+/-62.8	250	pCi/L		KXK2	01/08/10	1916	936892	4

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, U-02-RC Modified
4	GL-RAD-A-002
5	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	98.9	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	107 *	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	103	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound
< Result is less than value reported

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: January 15, 2010

Client Sample ID: RE03-09-14231 Project: LANL01004
Sample ID: 243557005 Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: January 15, 2010

Client Sample ID:	RE03-09-14232	Project:	LANL01004
Sample ID:	243557006	Client ID:	LANL010
Matrix:	S		
Collect Date:	22-DEC-09		
Receive Date:	24-DEC-09		
Collector:	Client		
Moisture:	5.77%		

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	0.00601	0.0166	+/-0.00245	0.050	pCi/g		KXM4	01/08/10	1649	938074	1
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	0.000995	0.0164	+/-0.00172	0.050	pCi/g		KXM4	01/07/10	1741	938075	3
Plutonium-239/240	U	0.000995	0.0188	+/-0.000996	0.050	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		0.704	0.102	+/-0.0698	0.100	pCi/g		KXM4	01/06/10	1807	938076	4
Uranium-235/236	U	0.0324	0.063	+/-0.0117	0.100	pCi/g						
Uranium-238		0.799	0.0589	+/-0.0767	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium	U	95.6	213	+/-64.6	250	pCi/L		KXK2	01/08/10	2018	936892	5

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, U-02-RC Modified
5	GL-RAD-A-002
6	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	97.4	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	96.7	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	108 *	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: January 15, 2010

Client Sample ID: RE03-09-14232 Project: LANL01004
Sample ID: 243557006 Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: January 15, 2010

Client Sample ID:	RE03-09-14235	Project:	LANL01004
Sample ID:	243557007	Client ID:	LANL010
Matrix:	S		
Collect Date:	22-DEC-09		
Receive Date:	24-DEC-09		
Collector:	Client		
Moisture:	22.5%		

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	0.00235	0.0178	+/-0.00157	0.050	pCi/g		KXM4	01/07/10	1740	938074	1
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	0.00389	0.016	+/-0.00195	0.050	pCi/g		KXM4	01/07/10	1741	938075	2
Plutonium-239/240	U	0.00	0.0184	+/-0.000973	0.050	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		1.19	0.133	+/-0.111	0.100	pCi/g		KXM4	01/06/10	1807	938076	3
Uranium-235/236	U	0.0319	0.0826	+/-0.0132	0.100	pCi/g						
Uranium-238		1.05	0.0772	+/-0.101	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		220	213	+/-68.7	250	pCi/L		KXK2	01/08/10	2120	936892	4

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, U-02-RC Modified
4	GL-RAD-A-002
5	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	93.5	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	97.1	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	83.9	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound
< Result is less than value reported

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: January 15, 2010

Client Sample ID: RE03-09-14235 Project: LANL01004
Sample ID: 243557007 Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: January 15, 2010

Client Sample ID:	RE03-09-14238	Project:	LANL01004
Sample ID:	243557008	Client ID:	LANL010
Matrix:	S		
Collect Date:	22-DEC-09		
Receive Date:	24-DEC-09		
Collector:	Client		
Moisture:	5.4%		

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	0.00111	0.0165	+/-0.00104	0.050	pCi/g		KXM4	01/07/10	1740	938074	1
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	0.00	0.0155	+/-0.00133	0.050	pCi/g		KXM4	01/07/10	1741	938075	2
Plutonium-239/240	U	0.000938	0.0177	+/-0.00162	0.050	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		0.799	0.0678	+/-0.0685	0.100	pCi/g		KXM4	01/06/10	1807	938076	3
Uranium-235/236	U	0.0406	0.0421	+/-0.0115	0.100	pCi/g						
Uranium-238		0.694	0.0393	+/-0.0611	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium	U	-36.3	213	+/-61.4	250	pCi/L		KXK2	01/08/10	2222	936892	4

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, U-02-RC Modified
4	GL-RAD-A-002
5	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery %	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	96.3	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	101	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	109 *	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound
< Result is less than value reported

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: January 15, 2010

Client Sample ID: RE03-09-14238
Sample ID: 243557008
Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: January 15, 2010

Client Sample ID:	RE03-09-14234	Project:	LANL01004
Sample ID:	243557009	Client ID:	LANL010
Matrix:	S		
Collect Date:	22-DEC-09		
Receive Date:	24-DEC-09		
Collector:	Client		
Moisture:	7.45%		

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	-0.000739	0.0183	+/-0.00108	0.050	pCi/g		KXM4	01/07/10	1740	938074	1
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	0.00	0.0159	+/-0.000965	0.050	pCi/g		KXM4	01/07/10	1741	938075	2
Plutonium-239/240	U	0.00193	0.0182	+/-0.00137	0.050	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		0.842	0.0694	+/-0.0717	0.100	pCi/g		KXM4	01/06/10	1807	938076	3
Uranium-235/236	U	0.0387	0.0431	+/-0.0107	0.100	pCi/g						
Uranium-238		0.817	0.0402	+/-0.070	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium	U	199	213	+/-67.8	250	pCi/L		KXK2	01/08/10	2325	936892	4

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, U-02-RC Modified
4	GL-RAD-A-002
5	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery %	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	86.9	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	99.9	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	109*	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound
< Result is less than value reported

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: January 15, 2010

Client Sample ID: RE03-09-14234 Project: LANL01004
Sample ID: 243557009 Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: January 15, 2010

Client Sample ID:	RE03-09-14241	Project:	LANL01004
Sample ID:	243557010	Client ID:	LANL010
Matrix:	S		
Collect Date:	22-DEC-09		
Receive Date:	24-DEC-09		
Collector:	Client		
Moisture:	12.7%		

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	-0.000765	0.0179	+/-0.00105	0.050	pCi/g		KXM4	01/07/10	1740	938074	1
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	0.00113	0.0186	+/-0.00113	0.050	pCi/g		KXM4	01/12/10	1555	939711	2
Plutonium-239/240	U	2.69E-10	0.0213	+/-0.00277	0.050	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		0.849	0.0725	+/-0.0731	0.100	pCi/g		KXM4	01/09/10	1049	938076	4
Uranium-235/236		0.0491	0.045	+/-0.0124	0.100	pCi/g						
Uranium-238		0.898	0.042	+/-0.0765	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium	U	183	212	+/-67.1	250	pCi/L		KXK2	01/09/10	0027	936892	6

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, U-02-RC Modified
5	DOE EML HASL-300, U-02-RC Modified
6	GL-RAD-A-002
7	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	91.5	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	97.7	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	95.5	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

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Project: LANL ER Project

Report Date: January 15, 2010

Client Sample ID: RE03-09-14241
Sample ID: 243557010
Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
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D Results are reported from a diluted aliquot of the sample
F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: January 15, 2010

Client Sample ID:	RE03-10-2737	Project:	LANL01004
Sample ID:	243557011	Client ID:	LANL010
Matrix:	S		
Collect Date:	22-DEC-09		
Receive Date:	24-DEC-09		
Collector:	Client		
Moisture:	10.1%		

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	-0.000844	0.0167	+/-0.000983	0.050	pCi/g		KXM4	01/07/10	1740	938074	1
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	0.00391	0.0161	+/-0.00196	0.050	pCi/g		KXM4	01/07/10	1741	938075	2
Plutonium-239/240	U	0.000976	0.0185	+/-0.00218	0.050	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		1.10	0.0749	+/-0.0908	0.100	pCi/g		KXM4	01/09/10	1049	938076	3
Uranium-235/236		0.0747	0.0465	+/-0.0158	0.100	pCi/g						
Uranium-238		1.01	0.0435	+/-0.0851	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium	U	-42.8	213	+/-61.2	250	pCi/L		KXK2	01/09/10	0129	936892	5

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, U-02-RC Modified
4	DOE EML HASL-300, U-02-RC Modified
5	GL-RAD-A-002
6	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery %	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	95.2	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	95.3	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	102	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: January 15, 2010

Client Sample ID: RE03-10-2737 Project: LANL01004
Sample ID: 243557011 Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: January 15, 2010

Client Sample ID:	RE03-10-2736	Project:	LANL01004
Sample ID:	243557012	Client ID:	LANL010
Matrix:	S		
Collect Date:	22-DEC-09		
Receive Date:	24-DEC-09		
Collector:	Client		
Moisture:	7.03%		

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	-0.000849	0.0164	+/-0.000969	0.050	pCi/g		KXM4	01/08/10	1649	938074	1
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	0.00195	0.0161	+/-0.00138	0.050	pCi/g		KXM4	01/07/10	1741	938075	3
Plutonium-239/240	U	0.00292	0.0184	+/-0.00169	0.050	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		0.861	0.0692	+/-0.0733	0.100	pCi/g		KXM4	01/09/10	1049	938076	4
Uranium-235/236	U	0.0331	0.043	+/-0.0106	0.100	pCi/g						
Uranium-238		0.865	0.0402	+/-0.0735	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		387	214	+/-75.4	250	pCi/L		KXK2	01/09/10	0232	936892	6

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, U-02-RC Modified
5	DOE EML HASL-300, U-02-RC Modified
6	GL-RAD-A-002
7	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery %	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	97.2	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	92.3	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	105	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: January 15, 2010

Client Sample ID: RE03-10-2736 Project: LANL01004
Sample ID: 243557012 Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: January 15, 2010

Client Sample ID:	RE03-10-9873	Project:	LANL01004
Sample ID:	243557013	Client ID:	LANL010
Matrix:	S		
Collect Date:	22-DEC-09		
Receive Date:	24-DEC-09		
Collector:	Client		
Moisture:	5.29%		

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	0.00131	0.0177	+/-0.00188	0.050	pCi/g		KXM4	01/07/10	1740	938074	1
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	0.011	0.0152	+/-0.00323	0.050	pCi/g		KXM4	01/07/10	1741	938075	2
Plutonium-239/240	U	0.00643	0.0174	+/-0.00278	0.050	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		0.826	0.0659	+/-0.070	0.100	pCi/g		KXM4	01/09/10	1049	938076	3
Uranium-235/236		0.0552	0.0409	+/-0.0126	0.100	pCi/g						
Uranium-238		0.783	0.0382	+/-0.0671	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium	U	-3.37	217	+/-63.4	250	pCi/L		KXK2	01/09/10	0448	936892	5

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, U-02-RC Modified
4	DOE EML HASL-300, U-02-RC Modified
5	GL-RAD-A-002
6	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	86.9	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	100	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	103	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound

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Company : Los Alamos National Laboratory
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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: January 15, 2010

Client Sample ID: RE03-10-9873 Project: LANL01004
Sample ID: 243557013 Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: January 15, 2010

Client Sample ID:	RE03-10-9872	Project:	LANL01004
Sample ID:	243557014	Client ID:	LANL010
Matrix:	S		
Collect Date:	22-DEC-09		
Receive Date:	24-DEC-09		
Collector:	Client		
Moisture:	11.9%		

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	0.00148	0.0185	+/-0.002	0.050	pCi/g		HAKB	01/07/10	1138	938210	1
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	0.00202	0.0166	+/-0.00143	0.050	pCi/g		HAKB	01/07/10	1137	938221	2
Plutonium-239/240	U	0.00101	0.019	+/-0.00101	0.050	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		1.27	0.122	+/-0.115	0.100	pCi/g		HAKB	01/09/10	1100	938222	3
Uranium-235/236		0.0922	0.0756	+/-0.0222	0.100	pCi/g						
Uranium-238		1.10	0.0706	+/-0.103	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium	U	171	214	+/-67.3	250	pCi/L		KXK2	01/09/10	0550	936892	4

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, U-02-RC Modified
4	GL-RAD-A-002
5	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery %	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	99.7	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	96.2	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	87.4	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound
< Result is less than value reported

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: January 15, 2010

Client Sample ID: RE03-10-9872 Project: LANL01004
Sample ID: 243557014 Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: January 15, 2010

Client Sample ID:	RE03-10-9874	Project:	LANL01004
Sample ID:	243557015	Client ID:	LANL010
Matrix:	S		
Collect Date:	22-DEC-09		
Receive Date:	24-DEC-09		
Collector:	Client		
Moisture:	6.86%		

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	-0.000432	0.0234	+/-0.00195	0.050	pCi/g		HAKB	01/07/10	1138	938210	1
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	0.00186	0.0153	+/-0.00132	0.050	pCi/g		HAKB	01/07/10	1137	938221	2
Plutonium-239/240	U	0.000928	0.0175	+/-0.000929	0.050	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		0.858	0.104	+/-0.0806	0.100	pCi/g		HAKB	01/11/10	1156	938222	3
Uranium-235/236	U	0.0537	0.0643	+/-0.0154	0.100	pCi/g						
Uranium-238		0.932	0.060	+/-0.0863	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium	U	120	212	+/-65.1	250	pCi/L		KXK2	01/09/10	0652	936892	5

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, U-02-RC Modified
4	DOE EML HASL-300, U-02-RC Modified
5	GL-RAD-A-002
6	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery %	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	87.4	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	101	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	102	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: January 15, 2010

Client Sample ID: RE03-10-9874 Project: LANL01004
Sample ID: 243557015 Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

QUALITY CONTROL DATA

QC Summary

Report Date: January 15, 2010
Page 1 of 5

Client : Los Alamos National Laboratory
PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico
Contact: Ms. Joylene Valdez

Workorder: 243557

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Alpha Spec										
Batch 938074										
QC1202007338 243557013 DUP										
Americium-241	U	0.00131	U	-0.00885	pCi/g	0.542		(0-1)	KXM4	01/07/1011:38
	TPU:	+/-0.00188		+/-0.00749						
	Yield:	86.9		96.4						
QC1202007339 LCS										
Americium-241	33.2			34.8	pCi/g		105	(75%-125%)		
	TPU:			+/-2.45						
	Yield:			91.5						
QC1202007337 MB										
Americium-241			U	0.000493	pCi/g					
	TPU:			+/-0.00488						
	Yield:			95.1						
Batch 938075										
QC1202007341 243557013 DUP										
Plutonium-238	U	0.011	U	-0.00112	pCi/g	1.26		(0-1)	KXM4	01/07/1011:38
	TPU:	+/-0.00323		+/-0.00159						
	Yield:	100		95.3						
Plutonium-239/240	U	0.00643	U	0.0112	pCi/g	0.358		(0-1)		
	TPU:	+/-0.00278		+/-0.00393						
	Yield:	100		95.3						
QC1202007342 LCS										
Plutonium-238				6.70	pCi/g			(75%-125%)		
	TPU:			+/-0.507						
	Yield:			95.5						
Plutonium-239/240	41.8			34.2	pCi/g		81.8	(75%-125%)		
	TPU:			+/-2.15						
	Yield:			95.5						
QC1202007340 MB										
Plutonium-238			U	-0.00145	pCi/g					
	TPU:			+/-0.0083						
	Yield:			96.7						
Plutonium-239/240			U	-0.00145	pCi/g					
	TPU:			+/-0.00434						
	Yield:			96.7						
Batch 938076										
QC1202007344 243557003 DUP										
Uranium-233/234		0.893		0.792	pCi/g	0.317		(0-1)	KXM4	01/06/1013:52
	TPU:	+/-0.084		+/-0.0752						
	Yield:	105		110						
Uranium-235/236	U	0.0512	U	0.0361	pCi/g	0.253		(0-1)		
	TPU:	+/-0.0174		+/-0.0123						
	Yield:	105		110						
Uranium-238		0.735		0.770	pCi/g	0.121		(0-1)		
	TPU:	+/-0.0723		+/-0.0735						

QC Summary

Workorder: 243557

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Alpha Spec										
Batch 938076										
	Yield:	105		110						
QC1202007345 LCS										
Uranium-233/234				5.48	pCi/g			(75%-125%)		01/06/1013:52
	TPU:			+/-0.496						
	Yield:			105						
Uranium-235/236			U	0.193	pCi/g			(75%-125%)		
	TPU:			+/-0.0598						
	Yield:			105						
Uranium-238	5.75			4.87	pCi/g		84.8	(75%-125%)		
	TPU:			+/-0.449						
	Yield:			105						
QC1202007343 MB										
Uranium-233/234			U	0.00132	pCi/g					01/06/1013:52
	TPU:			+/-0.00369						
	Yield:			108						
Uranium-235/236			U	0.00	pCi/g					
	TPU:			+/-0.00418						
	Yield:			108						
Uranium-238			U	0.00169	pCi/g					
	TPU:			+/-0.00293						
	Yield:			108						
Batch 938210										
QC1202007551 243624008 DUP										
Americium-241	U	-0.00538	U	0.00223	pCi/g	0.548		(0-1)	HAKB	01/07/1010:31
	TPU:	+/-0.00435		+/-0.00259						
	Yield:	94.5		76.4						
QC1202007552 LCS										
Americium-241	33.2			33.5	pCi/g		101	(75%-125%)		
	TPU:			+/-2.35						
	Yield:			94.6						
QC1202007550 MB										
Americium-241			U	-0.00367	pCi/g					
	TPU:			+/-0.00321						
	Yield:			95.9						
Batch 938221										
QC1202007554 243624008 DUP										
Plutonium-238	U	0.00117	U	0.0034	pCi/g	0.131		(0-1)	HAKB	01/07/1010:31
	TPU:	+/-0.00262		+/-0.0059						
	Yield:	104		101						
Plutonium-239/240	U	-0.00351	U	0.00113	pCi/g	0.412		(0-1)		
	TPU:	+/-0.00309		+/-0.00254						
	Yield:	104		101						
QC1202007555 LCS										
Plutonium-238				6.95	pCi/g			(75%-125%)		01/07/1010:33
	TPU:			+/-0.485						
	Yield:			107						
Plutonium-239/240	41.8			36.2	pCi/g		86.6	(75%-125%)		
	TPU:			+/-2.17						
	Yield:			107						

QC Summary

Workorder: 243557

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Alpha Spec										
Batch 938221										
QC1202007553 MB										
Plutonium-238			U	0.0085	pCi/g					01/07/1010:31
	TPU:			+/-0.00569						
	Yield:			92.2						
Plutonium-239/240			U	0.0085	pCi/g					
	TPU:			+/-0.00493						
	Yield:			92.2						
Batch 938222										
QC1202007557 243624008 DUP										
Uranium-233/234		1.05		1.03	pCi/g	0.0458		(0-1)	HAKB	01/09/1011:01
	TPU:	+/-0.102		+/-0.0999						
	Yield:	77.4		79.2						
Uranium-235/236		0.129	U	0.0786	pCi/g	0.510		(0-1)		
	TPU:	+/-0.0278		+/-0.0211						
	Yield:	77.4		79.2						
Uranium-238		1.05		1.01	pCi/g	0.0991		(0-1)		
	TPU:	+/-0.102		+/-0.0978						
	Yield:	77.4		79.2						
QC1202007558 LCS										
Uranium-233/234				5.61	pCi/g			(75%-125%)		01/09/1011:01
	TPU:			+/-0.539						
	Yield:			92.5						
Uranium-235/236			U	0.295	pCi/g			(75%-125%)		
	TPU:			+/-0.106						
	Yield:			92.5						
Uranium-238	5.75			5.65	pCi/g		98.2	(75%-125%)		
	TPU:			+/-0.542						
	Yield:			92.5						
QC1202007556 MB										
Uranium-233/234			U	0.00509	pCi/g					01/09/1011:01
	TPU:			+/-0.00395						
	Yield:			101						
Uranium-235/236			U	0.00221	pCi/g					
	TPU:			+/-0.00221						
	Yield:			101						
Uranium-238			U	0.00535	pCi/g					
	TPU:			+/-0.00537						
	Yield:			101						
Batch 939711										
QC1202010903 243557010 DUP										
Plutonium-238	U	0.00113	U	-0.00258	pCi/g	0.551		(0-1)	KXM4	01/12/1015:55
	TPU:	+/-0.00113		+/-0.00224						
	Yield:	97.7		89.3						
Plutonium-239/240	U	2.69E-10	U	0.00129	pCi/g	0.129		(0-1)		
	TPU:	+/-0.00277		+/-0.00224						
	Yield:	97.7		89.3						
QC1202010904 LCS										
Plutonium-238				7.08	pCi/g			(75%-125%)		
	TPU:			+/-0.523						

QC Summary

Workorder: 243557

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Alpha Spec										
Batch 939711										
	Yield:			93.3						
Plutonium-239/240	41.8			38.2	pCi/g		91.4	(75%-125%)		
	TPU:			+/-2.37						
	Yield:			93.3						
QC1202010902 MB										
Plutonium-238			U	0.00	pCi/g					
	TPU:			+/-0.00199						
	Yield:			76.6						
Plutonium-239/240			U	2.36E-10	pCi/g					
	TPU:			+/-0.00397						
	Yield:			76.6						
Rad Liquid Scintillation										
Batch 936892										
QC1202004649 243557001 DUP										
Tritium		218		284	pCi/L	0.239		(0-1)	KXK2	01/09/1008:57
	TPU:	+/-68.1		+/-70.8						
QC1202004650 LCS										
Tritium	5600			5960	pCi/L		107	(75%-125%)		01/09/1009:59
	TPU:			+/-500						
QC1202004648 MB										
Tritium			U	-64.1	pCi/L					01/09/1007:55
	TPU:			+/-63.9						

Notes:
The Qualifiers in this report are defined as follows:

**	Analyte is a surrogate compound
<	Result is less than value reported
>	Result is greater than value reported
A	The TIC is a suspected aldol-condensation product
B	For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD	Results are either below the MDC or tracer recovery is low
C	Analyte has been confirmed by GC/MS analysis
D	Results are reported from a diluted aliquot of the sample
F	Estimated Value
H	Analytical holding time was exceeded
J	Value is estimated
M	M if above MDC and less than LLD
M	Matrix Related Failure
N/A	RPD or %Recovery limits do not apply.
ND	Analyte concentration is not detected above the detection limit
NJ	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R	Sample results are rejected
U	Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI	Gamma Spectroscopy--Uncertain identification

QC Summary

Workorder: 243557

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date	Time

X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier

Y QC Samples were not spiked with this compound

^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.

h Preparation or preservation holding time was exceeded

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more.
** Indicates analyte is a surrogate compound.
^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptence criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.
For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

RAW DATA

Radiochemistry Batch Checklist, Rev10

Batch# 938074 Product: Am Date: 1/14/10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			NA
Samples have been blank corrected (if required)	✓		
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.	✓		
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	✓		
Sample was run within hold time.	✓		
Sample was correctly preserved if required.			NA
Smears Taken for Radioactive batches.			NA
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	✓		
Aux data is correct.			NA
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)			NA
Batch entered into Case Narrative.	✓		
Batch Data Exception Reports (DER) completed, if applicable.			NA
Batch Data Exception Reports (DER) second reviewed and disposition verified to be completed.			NA
Aliquot Correction completed if required.			NA
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

GEL Laboratories, LLC

RADchecklistrev10, revised 1/13/2010

Primary Review Performed By: [signature] 1/14/10

Secondary Review Performed By: [signature] 1/14/10

1/10 - (1/21)

[signature]

Am/Cm Que Sheet

31-DEC-09

Batch #: 938074 Analyst: KXM4 First Client Due Date: 21-JAN-10 Internal Due Date10-JAN-10 Comments:

Tracer(s): Am243/Cm244 Tracer Code: 445-96-2-SS Expiration Date: 5-11-10 Vol: 0.1ml

LCS Isotope(s): Am241/Cm244 LCS Code(s): SRM0244-B / NA Expiration Date: 4-30-20 / NA Vol(s): 0.1g / NA

Spike Isotope(s): Am241/Cm244 Spike Code(s): NA / NA Expiration Date: NA / NA Vol(s): NA / NA

Prep Date: 1-5-10 Initials: KM Pipet ID: 2971058 Balance ID: 50410272 Witness: NDA 1/5/10

Sample ID	Client Description	Type	Hazard Code	Min CRDL	Matrix	Client	Collection Date	Pos.	Label #	Wet/Dry Aliquot (g / l / f)	Am/Cm Det #
243557001-1	RE03-09-14233	SAMPLE		.05 pCi/g	SOIL	LANL010	22-DEC-09	1	1	1.255	226
243557002-1	RE03-09-14236	SAMPLE		.05 pCi/g	SOIL	LANL010	22-DEC-09	2	2	1.260	227
243557003-1	RE03-09-14239	SAMPLE		.05 pCi/g	SOIL	LANL010	22-DEC-09	3	3	1.260	228
243557004-1	RE03-09-14240	SAMPLE		.05 pCi/g	SOIL	LANL010	22-DEC-09	4	4	1.256	229
243557005-1	RE03-09-14231	SAMPLE		.05 pCi/g	SOIL	LANL010	22-DEC-09	5	5	1.258	230
243557006-1	RE03-09-14232	SAMPLE		.05 pCi/g	SOIL	LANL010	22-DEC-09	6	6	1.254	241 ~~231~~
243557007-1	RE03-09-14235	SAMPLE		.05 pCi/g	SOIL	LANL010	22-DEC-09	7	7	1.250	232
243557008-1	RE03-09-14238	SAMPLE		.05 pCi/g	SOIL	LANL010	22-DEC-09	8	8	1.264	233
243557009-1	RE03-09-14234	SAMPLE		.05 pCi/g	SOIL	LANL010	22-DEC-09	9	9	1.257	234
243557010-1	RE03-09-14241	SAMPLE		.05 pCi/g	SOIL	LANL010	22-DEC-09	10	10	1.257	235
243557011-1	RE03-10-2737	SAMPLE		.05 pCi/g	SOIL	LANL010	22-DEC-09	11	11	1.251	236
243557012-1	RE03-10-2736	SAMPLE		.05 pCi/g	SOIL	LANL010	22-DEC-09	12	12	1.257	242 ~~237~~
• 243557013-1	RE03-10-9873	SAMPLE		.05 pCi/g	SOIL	LANL010	22-DEC-09	13	13	1.258	238
1202007337-1	MB for batch 938074	MB		.05 pCi/g	SOIL	QC ACCOUNT		14	14	~~1.274~~ 1.0	13
1202007338-1	RE03-10-9873(243557013DUP)	DUP		.05 pCi/g	SOIL	QC ACCOUNT	22-DEC-09	15	15	1.274	14
1202007339-1	LCS for batch 938074	LCS		.05 pCi/g	SOIL	QC ACCOUNT		16	16	0.103	16

Choose SOP Used: GL-RAD-A-011 GL-RAD-A-036

Solid Sample Dissolution by: LEACH or DIGESTION (Circle One)

Data Reviewed By: 1/14/10

GEL Laboratories LLC, Radiochemistry Division

Blank Correction Report

Batch ID 938074

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
1202007338	DUP	Americium-241	1.27 g	-0.00885	0.00749	0.020	.000388189	pCi/g	YES
1202007339	LCS	Americium-241	0.103 g	34.8	2.45	0.242	.004786408	pCi/g	NO
1202007337	MB	Americium-241	1.00 g	0.000493	0.00488	0.0236	.000493	pCi/g	YES
243557001	RE03-09-14233	Americium-241	1.26 g	0.0012	0.0011	0.0171	.000391270	pCi/g	YES
243557002	RE03-09-14236	Americium-241	1.26 g	0.00434	0.00213	0.0174	.000391270	pCi/g	NO
243557003	RE03-09-14239	Americium-241	1.26 g	0.00125	0.00113	0.0174	.000391270	pCi/g	YES
243557004	RE03-09-14240	Americium-241	1.26 g	7.26E-05	0.000947	0.0161	.000391270	pCi/g	YES
243557005	RE03-09-14231	Americium-241	1.26 g	0.00108	0.00102	0.0164	.000391270	pCi/g	YES
243557006	RE03-09-14232	Americium-241	1.25 g	0.00601	0.00245	0.0166	.0003944	pCi/g	NO
243557007	RE03-09-14235	Americium-241	1.25 g	0.00235	0.00157	0.0178	.0003944	pCi/g	NO
243557008	RE03-09-14238	Americium-241	1.26 g	0.00111	0.00104	0.0165	.000391270	pCi/g	YES
243557009	RE03-09-14234	Americium-241	1.26 g	-0.000739	0.00108	0.0183	.000391270	pCi/g	YES
243557010	RE03-09-14241	Americium-241	1.26 g	-0.000765	0.00105	0.0179	.000391270	pCi/g	YES
243557011	RE03-10-2737	Americium-241	1.25 g	-0.000844	0.000983	0.0167	.0003944	pCi/g	YES
243557012	RE03-10-2736	Americium-241	1.26 g	-0.000849	0.000969	0.0164	.000391270	pCi/g	YES
243557013	RE03-10-9873	Americium-241	1.26 g	0.00131	0.00188	0.0177	.000391270	pCi/g	YES

Alpha Spectroscopy Software Version 2.0
effective date: 09-Mar-1997

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 938074 SAMPLE DATE : 22-DEC-2009 00:00:00	SAMPLE ID : S0243557001_AM SAMPLE QTY: 1.255 G
DETECTOR NUMBER :79419 AVERAGE %EFFICIENCY :37.3342 % YIELD : 95.445	COUNT DATE: 7-JAN-2010 17:40:25 ELAPSED LIVE TIME(SEC): 60000.00 ANALYST :KXM4

MS/MSD	LCS/LCSD	TRACER	
ID : 0244-B ISOTOPE : AM-241 PCI/G : 3.316E+01	ID : 0244-B ISOTOPE : AM-241 PCI/G : 3.316E+01	ID : 445-96-2-SS ISOTOPE : AM243 NOMINAL : 2.91660 dpm RESULTS : 2.78375 dpm	LIB FILE : ENV_ALPHA_AM.N BKG FILE : B226.CNF;66 BKG DATE : 3-JAN-2010 EFF FILE : W226.CNF;24 CAL DATE : 28-DEC-2009

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
CM-3/4	5795.020	10.000	10.000	0.000	5.2338	100.0000	1.01E-02	3.24E-03	1.23E-02	2.73E-02	3.19E-03
CM-5/6	5386.000	21.000	21.000	0.000	19.8463	86.09000	2.46E-02	5.55E-03	5.40E-02	1.11E-01	5.36E-03
AM-241	5479.150	3.000	1.195	0.000	3.0704	99.94000	1.20E-03	1.10E-03	7.20E-03	1.71E-02	1.10E-03
CM-242	6102.000	9.000	9.000	0.000	4.3186	100.0000	9.75E-03	3.30E-03	1.01E-02	2.30E-02	3.25E-03
AM243	5270.000	1037.000	1037.000	0.000	0.0000	99.78000	1.05E+00	6.90E-02	0.00E+00	2.74E-03	3.25E-02
CM-247	4946.000	6.000	4.000	2.000	15.3366	79.30000	5.08E-03	3.60E-03	4.53E-02	9.41E-02	3.59E-03
CM-248	5078.600	13.000	13.000	0.000	22.1555	91.00000	1.44E-02	4.08E-03	5.71E-02	1.17E-01	3.99E-03

NOTE: Sg calculated via blank population (updated 5-JAN-2010)
NOTE: Sg of AM243 calculated as sqrt(BKG AREA)
NOTE: Corrections made to AM-241 net area due to tracer impurity

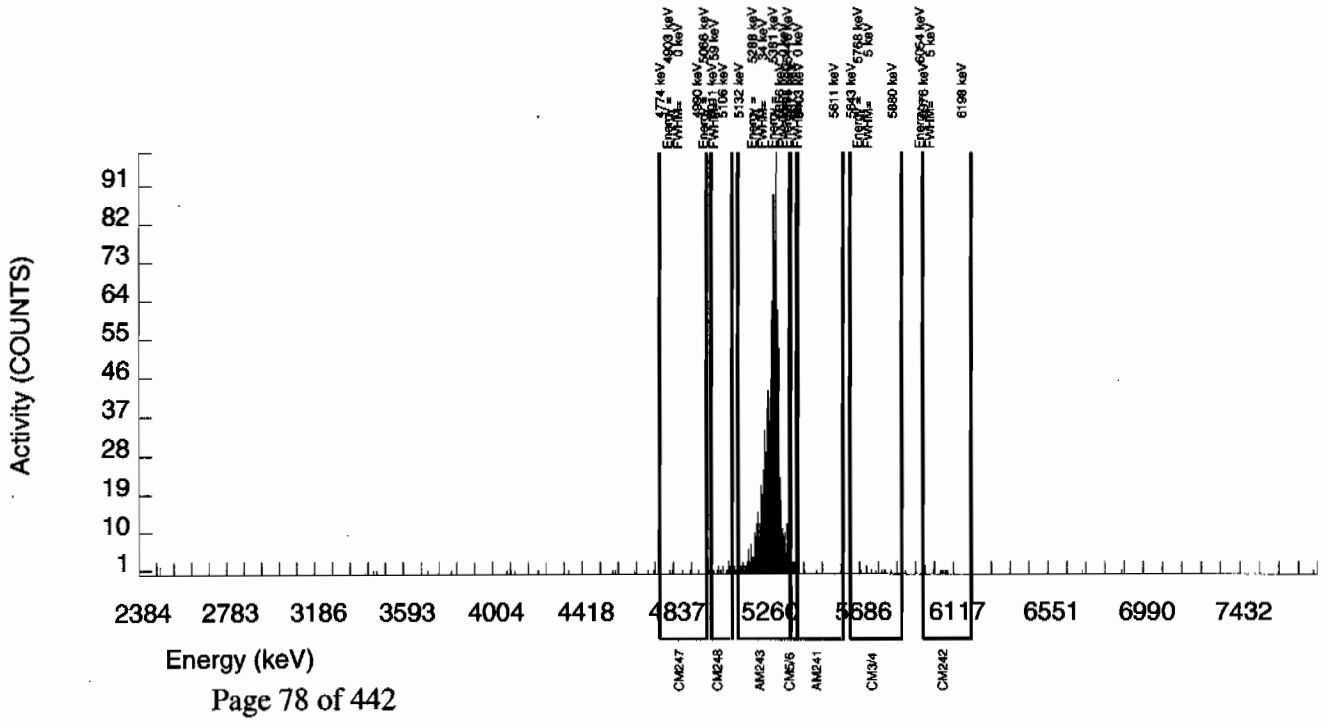

Alpha Spectroscopy Software Version 2.0
effective date: 09-Mar-1997

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 938074 SAMPLE DATE : 22-DEC-2009 00:00:00	SAMPLE ID : S0243557002_AM SAMPLE QTY: 1.260 G
DETECTOR NUMBER :79420 AVERAGE %EFFICIENCY :38.4824 % YIELD : 90.633	COUNT DATE: 7-JAN-2010 17:40:28 ELAPSED LIVE TIME(SEC): 60000.00 ANALYST :KXM4

MS/MSD	LCS/LCSD	TRACER	
ID : 0244-B	ID : 0244-B	ID : 445-96-2-SS	LIB FILE : ENV_ALPHA_AM.N
ISOTOPE : AM-241	ISOTOPE : AM-241	ISOTOPE : AM243	BKG FILE : B227.CNF;66
PCI/G : 3.316E+01	PCI/G : 3.316E+01	NOMINAL : 2.91660 dpm	BKG DATE : 3-JAN-2010
		RESULTS : 2.64339 dpm	EFF FILE : W227.CNF;24
			CAL DATE : 28-DEC-2009

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
CM-3/4	5795.020	6.000	6.000	0.000	5.2338	100.0000	6.16E-03	2.54E-03	1.25E-02	2.77E-02	2.52E-03
CM-5/6	5386.000	20.000	20.000	0.000	19.8463	86.09000	2.38E-02	5.50E-03	5.50E-02	1.13E-01	5.32E-03
AM-241	5479.150	6.000	4.233	0.000	3.0704	99.94000	4.34E-03	2.13E-03	7.33E-03	1.74E-02	2.11E-03
CM-242	6102.000	4.000	4.000	0.000	4.3186	100.0000	4.41E-03	2.22E-03	1.03E-02	2.34E-02	2.20E-03
AM243	5270.000	1015.000	1015.000	0.000	0.0000	99.78000	1.04E+00	6.90E-02	0.00E+00	2.78E-03	3.27E-02
CM-247	4946.000	6.000	6.000	0.000	15.3366	79.30000	7.76E-03	3.20E-03	4.61E-02	9.57E-02	3.17E-03
CM-248	5078.600	21.000	20.000	1.000	22.1555	91.00000	2.25E-02	5.44E-03	5.81E-02	1.19E-01	5.28E-03

NOTE: Sg calculated via blank population (updated 5-JAN-2010)
NOTE: Sg of AM243 calculated as sqrt(BKG AREA)
NOTE: Corrections made to AM-241 net area due to tracer impurity

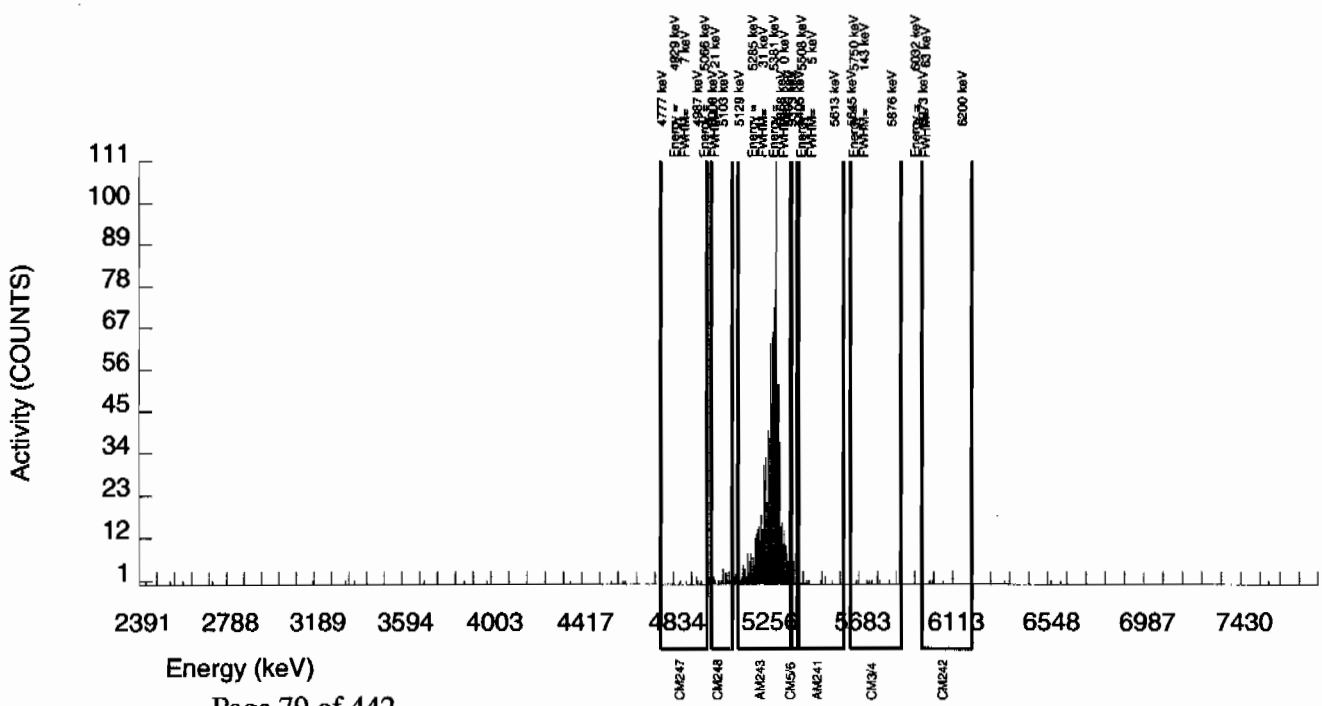

Alpha Spectroscopy Software Version 2.0
effective date: 08-Mar-1997

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 938074 SAMPLE DATE : 22-DEC-2009 00:00:00	SAMPLE ID : S0243557003_AM SAMPLE QTY: 1.260 G
DETECTOR NUMBER :79421 AVERAGE %EFFICIENCY :36.8770 % YIELD : 94.951	COUNT DATE: 7-JAN-2010 17:40:30 ELAPSED LIVE TIME(SEC): 60000.00 ANALYST :KXM4

MS/MSD	LCS/LCSD	TRACER	
ID : 0244-B ISOTOPE : AM-241 PCI/G : 3.316E+01	ID : 0244-B ISOTOPE : AM-241 PCI/G : 3.316E+01	ID : 445-96-2-SS ISOTOPE : AM243 NOMINAL : 2.91660 dpm RESULTS : 2.76934 dpm	LIB FILE : ENV_ALPHA_AM.N BKG FILE : B228.CNF;66 BKG DATE : 3-JAN-2010 EFF FILE : W228.CNF;24 CAL DATE : 28-DEC-2009

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
CM-3/4	5795.020	5.000	5.000	0.000	5.2338	100.0000	5.11E-03	2.31E-03	1.24E-02	2.76E-02	2.29E-03
CM-5/6	5386.000	28.000	28.000	0.000	19.8463	86.09000	3.32E-02	6.57E-03	5.48E-02	1.13E-01	6.28E-03
AM-241	5479.150	3.000	1.226	0.000	3.0704	99.94000	1.25E-03	1.13E-03	7.30E-03	1.74E-02	1.13E-03
CM-242	6102.000	4.000	4.000	0.000	4.3186	100.0000	4.39E-03	2.21E-03	1.03E-02	2.33E-02	2.20E-03
AM243	5270.000	1020.000	1019.000	1.000	1.0000	99.78000	1.04E+00	6.90E-02	2.38E-03	7.53E-03	3.27E-02
CM-247	4946.000	1.000	0.000	1.000	15.3366	79.30000	0.00E+00	1.82E-03	4.59E-02	9.54E-02	1.82E-03
CM-248	5078.600	14.000	14.000	0.000	22.1555	91.00000	1.57E-02	4.30E-03	5.78E-02	1.19E-01	4.20E-03

NOTE: Sg calculated via blank population (updated 5-JAN-2010)
NOTE: Sg of AM243 calculated as sqrt(BKG AREA)
NOTE: Corrections made to AM-241 net area due to tracer impurity

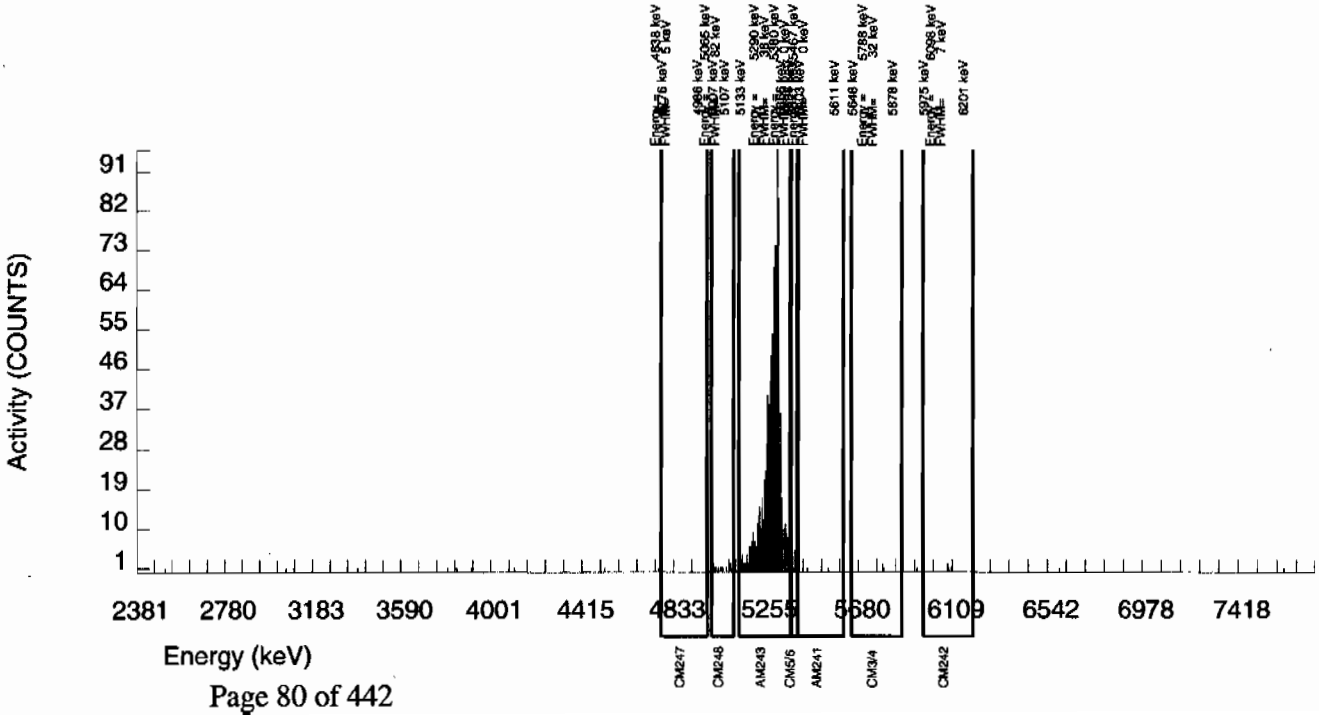

Alpha Spectroscopy Software Version 2.0
effective date: 09-Mar-1997

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 938074 SAMPLE DATE : 22-DEC-2009 00:00:00	SAMPLE ID : S0243557004_AM SAMPLE QTY: 1.256 G
DETECTOR NUMBER :79422 AVERAGE %EFFICIENCY :37.2913 % YIELD : 101.821	COUNT DATE: 7-JAN-2010 17:40:33 ELAPSED LIVE TIME(SEC): 60000.00 ANALYST :KXM4

MS/MSD	LCS/LCSD	TRACER	
ID : 0244-B ISOTOPE : AM-241 PCI/G : 3.316E+01	ID : 0244-B ISOTOPE : AM-241 PCI/G : 3.316E+01	ID : 445-96-2-SS ISOTOPE : AM243 NOMINAL : 2.91660 dpm RESULTS : 2.96970 dpm	LIB FILE : ENV_ALPHA_AM.N BKG FILE : B229.CNF;66 BKG DATE : 3-JAN-2010 EFF FILE : W229.CNF;24 CAL DATE : 28-DEC-2009

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
CM-3/4	5795.020	9.000	9.000	0.000	5.2338	100.0000	8.52E-03	2.88E-03	1.15E-02	2.56E-02	2.84E-03
CM-5/6	5386.000	32.000	32.000	0.000	19.8463	86.09000	3.51E-02	6.53E-03	5.07E-02	1.04E-01	6.21E-03
AM-241	5479.150	2.000	0.077	0.000	3.0704	99.94000	7.26E-05	9.47E-04	6.75E-03	1.61E-02	9.45E-04
CM-242	6102.000	7.000	7.000	0.000	4.3186	100.0000	7.11E-03	2.72E-03	9.49E-03	2.15E-02	2.69E-03
AM243	5270.000	1105.000	1105.000	0.000	0.0000	99.78000	1.05E+00	6.80E-02	0.00E+00	2.57E-03	3.15E-02
CM-247	4946.000	5.000	4.000	1.000	15.3366	79.30000	4.76E-03	2.93E-03	4.25E-02	8.82E-02	2.92E-03
CM-248	5078.600	11.000	10.000	1.000	22.1555	91.00000	1.04E-02	3.64E-03	5.35E-02	1.10E-01	3.60E-03

NOTE: Sg calculated via blank population (updated 5-JAN-2010)
NOTE: Sg of AM243 calculated as sqrt(BKG AREA)
NOTE: Corrections made to AM-241 net area due to tracer impurity

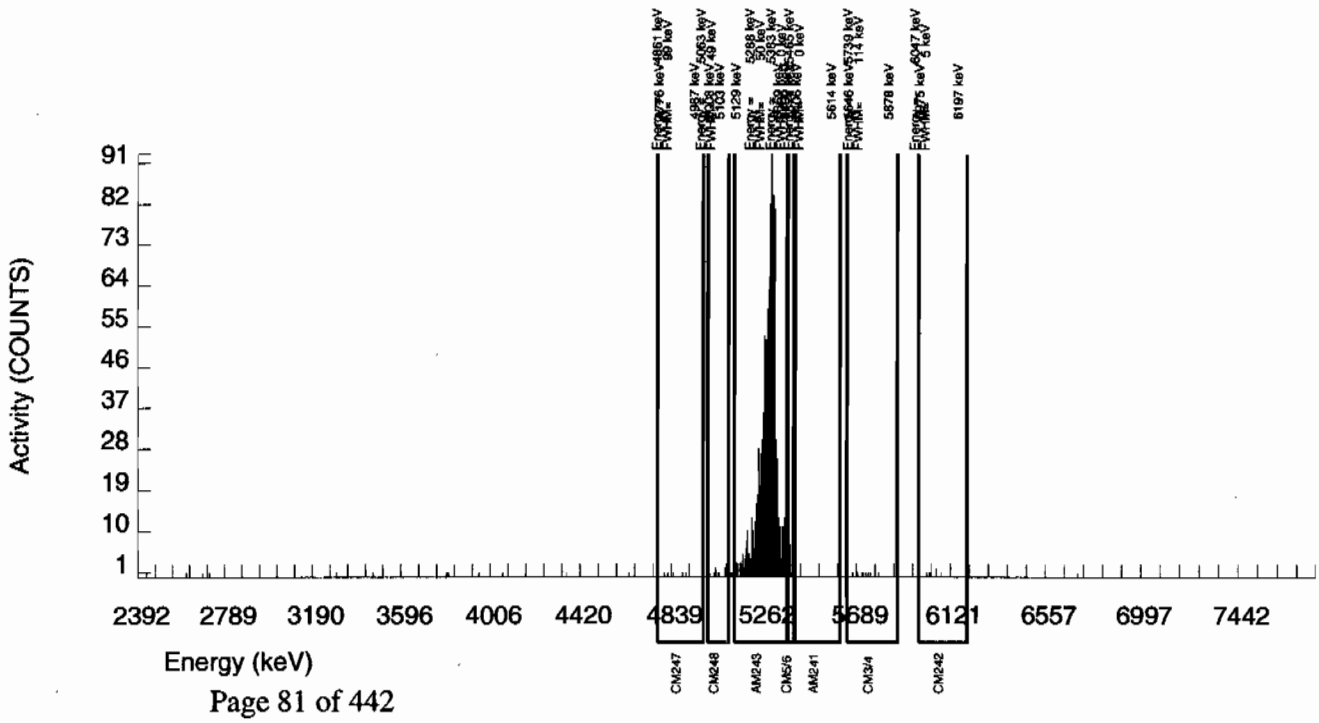

Alpha Spectroscopy Software Version 2.0
effective date: 09-Mar-1997

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 938074 SAMPLE DATE : 22-DEC-2009 00:00:00	SAMPLE ID : S0243557005_AM SAMPLE QTY: 1.258 G
DETECTOR NUMBER :79423 AVERAGE %EFFICIENCY :37.6072 % YIELD : 98.864	COUNT DATE: 7-JAN-2010 17:40:36 ELAPSED LIVE TIME(SEC): 60000.00 ANALYST :KXM4

MS/MSD	LCS/LCSD	TRACER	
ID : 0244-B ISOTOPE : AM-241 PCI/G : 3.316E+01	ID : 0244-B ISOTOPE : AM-241 PCI/G : 3.316E+01	ID : 445-96-2-SS ISOTOPE : AM243 NOMINAL : 2.91660 dpm RESULTS : 2.88346 dpm	LIB FILE : ENV_ALPHA_AM.N BKG FILE : B230.CNF;66 BKG DATE : 3-JAN-2010 EFF FILE : W230.CNF;24 CAL DATE : 28-DEC-2009

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
CM-3/4	5795.020	10.000	9.000	1.000	5.2338	100.0000	8.68E-03	3.24E-03	1.17E-02	2.61E-02	3.20E-03
CM-5/6	5386.000	22.000	22.000	0.000	19.8463	86.09000	2.46E-02	5.44E-03	5.16E-02	1.06E-01	5.25E-03
AM-241	5479.150	3.000	1.117	0.000	3.0704	99.94000	1.08E-03	1.02E-03	6.88E-03	1.64E-02	1.02E-03
CM-242	6102.000	9.000	9.000	0.000	4.3186	100.0000	9.32E-03	3.15E-03	9.68E-03	2.20E-02	3.11E-03
AM243	5270.000	1082.000	1082.000	0.000	0.0000	99.78000	1.04E+00	6.82E-02	0.00E+00	2.62E-03	3.17E-02
CM-247	4946.000	8.000	8.000	0.000	15.3366	79.30000	9.72E-03	3.48E-03	4.33E-02	9.00E-02	3.44E-03
CM-248	5078.600	14.000	13.000	1.000	22.1555	91.00000	1.38E-02	4.18E-03	5.45E-02	1.12E-01	4.10E-03

NOTE: Sg calculated via blank population (updated 5-JAN-2010)
NOTE: Sg of AM243 calculated as sqrt(BKG AREA)
NOTE: Corrections made to AM-241 net area due to tracer impurity

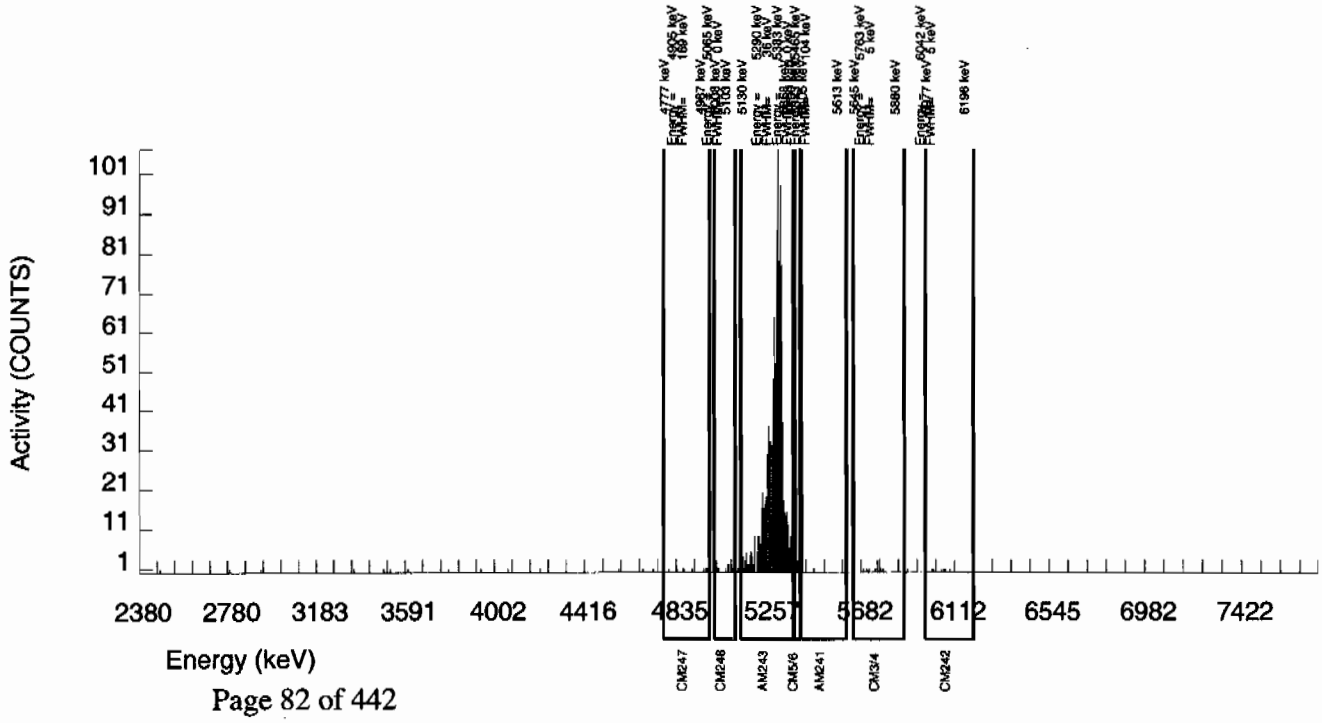

Alpha Spectroscopy Software Version 2.0
effective date: 09-Mar-1997

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 938074 SAMPLE DATE : 22-DEC-2009 00:00:00	SAMPLE ID : S0243557006_AM SAMPLE QTY: 1.254 G
DETECTOR NUMBER :79434 AVERAGE %EFFICIENCY :37.7240 % YIELD : 97.374	COUNT DATE: 8-JAN-2010 16:49:16 ELAPSED LIVE TIME(SEC): 60000.00 ANALYST :KXM4

MS/MSD	LCS/LCSD	TRACER	
ID : 0244-B ISOTOPE : AM-241 PCI/G : 3.316E+01	ID : 0244-B ISOTOPE : AM-241 PCI/G : 3.316E+01	ID : 445-96-2-SS ISOTOPE : AM243 NOMINAL : 2.91659 dpm RESULTS : 2.84000 dpm	LIB FILE : ENV_ALPHA_AM.N BKG FILE : B241.CNF;66 BKG DATE : 3-JAN-2010 EFF FILE : W241.CNF;24 CAL DATE : 28-DEC-2009

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
CM-3/4	5795.020	4.000	4.000	0.000	5.2338	100.0000	3.92E-03	1.97E-03	1.19E-02	2.65E-02	1.96E-03
CM-5/6	5386.000	10.000	10.000	0.000	19.8463	86.09000	1.14E-02	3.66E-03	5.24E-02	1.08E-01	3.59E-03
AM-241	5479.150	8.000	6.139	0.000	3.0704	99.94000	6.01E-03	2.45E-03	6.99E-03	1.66E-02	2.42E-03
CM-242	6102.000	7.000	7.000	0.000	4.3186	100.0000	7.39E-03	2.83E-03	9.82E-03	2.23E-02	2.79E-03
AM243	5270.000	1070.000	1069.000	1.000	1.0000	99.78000	1.05E+00	7.02E-02	2.28E-03	7.22E-03	3.21E-02
CM-247	4946.000	5.000	5.000	0.000	15.3366	79.30000	6.17E-03	2.78E-03	4.40E-02	9.13E-02	2.76E-03
CM-248	5078.600	14.000	14.000	0.000	22.1555	91.00000	1.50E-02	4.12E-03	5.54E-02	1.14E-01	4.02E-03

NOTE: Sg calculated via blank population (updated 5-JAN-2010)
NOTE: Sg of AM243 calculated as sqrt(BKG AREA)
NOTE: Corrections made to AM-241 net area due to tracer impurity

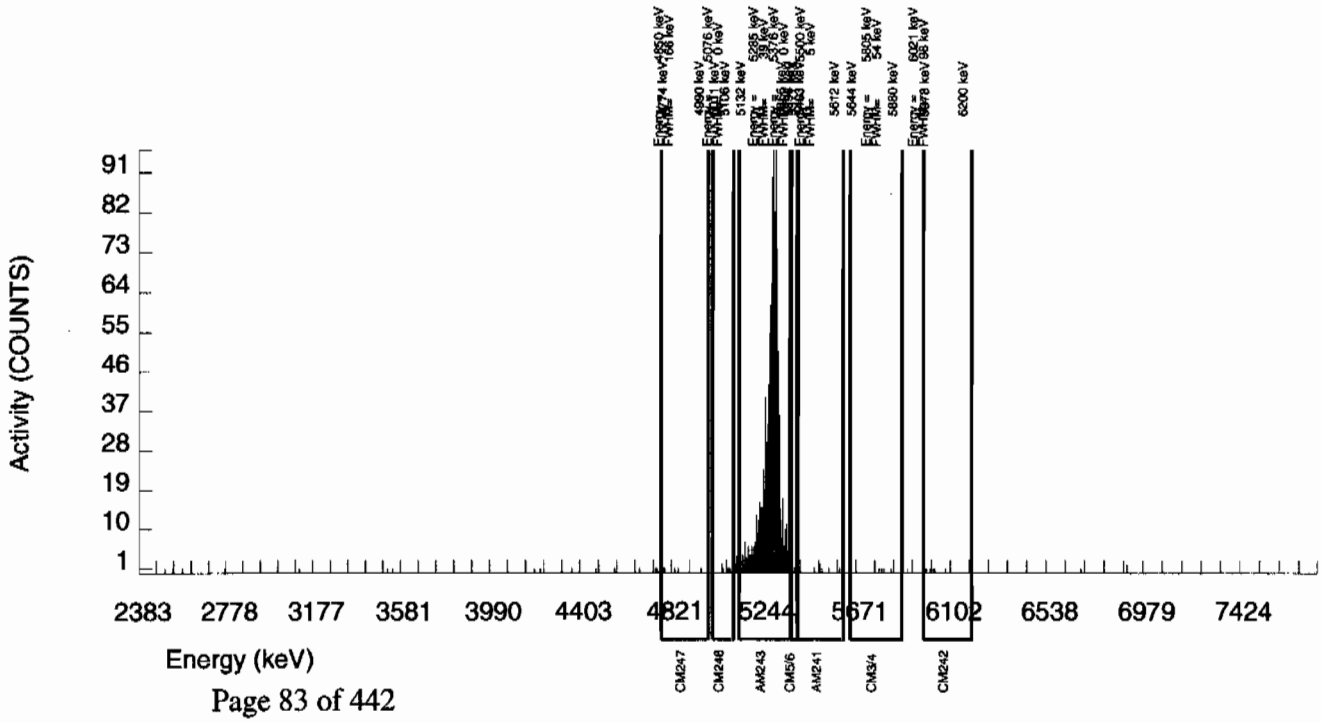

Alpha Spectroscopy Software Version 2.0
effective date: 09-Mar-1997

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 938074 SAMPLE DATE : 22-DEC-2009 00:00:00	SAMPLE ID : S0243557007_AM SAMPLE QTY: 1.250 G
DETECTOR NUMBER :79425 AVERAGE %EFFICIENCY :36.8787 % YIELD : 93.549	COUNT DATE: 7-JAN-2010 17:40:41 ELAPSED LIVE TIME(SEC): 60000.00 ANALYST :KXM4

MS/MSD	LCS/LCSD	TRACER	
ID : 0244-B	ID : 0244-B	ID : 445-96-2-SS	LIB FILE : ENV_ALPHA_AM.N
ISOTOPE : AM-241	ISOTOPE : AM-241	ISOTOPE : AM243	BKG FILE : B232.CNF;68
PCI/G : 3.316E+01	PCI/G : 3.316E+01	NOMINAL : 2.91660 dpm	BKG DATE : 3-JAN-2010
		RESULTS : 2.72845 dpm	EFF FILE : W232.CNF;24
			CAL DATE : 28-DEC-2009

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
CM-3/4	5795.020	9.000	9.000	0.000	5.2338	100.0000	9.42E-03	3.19E-03	1.27E-02	2.83E-02	3.14E-03
CM-5/6	5386.000	21.000	21.000	0.000	19.8463	86.09000	2.55E-02	5.76E-03	5.60E-02	1.15E-01	5.56E-03
AM-241	5479.150	4.000	2.253	0.000	3.0704	99.94000	2.35E-03	1.57E-03	7.47E-03	1.78E-02	1.57E-03
CM-242	6102.000	19.000	19.000	0.000	4.3186	100.0000	2.13E-02	5.05E-03	1.05E-02	2.38E-02	4.90E-03
AM243	5270.000	1005.000	1004.000	1.000	1.0000	99.78000	1.05E+00	6.98E-02	2.44E-03	7.71E-03	3.32E-02
CM-247	4946.000	6.000	6.000	0.000	15.3366	79.30000	7.90E-03	3.26E-03	4.70E-02	9.76E-02	3.23E-03
CM-248	5078.600	9.000	9.000	0.000	22.1555	91.00000	1.03E-02	3.50E-03	5.92E-02	1.21E-01	3.44E-03

NOTE: Sg calculated via blank population (updated 5-JAN-2010)
NOTE: Sg of AM243 calculated as sqrt(BKG AREA)
NOTE: Corrections made to AM-241 net area due to tracer impurity

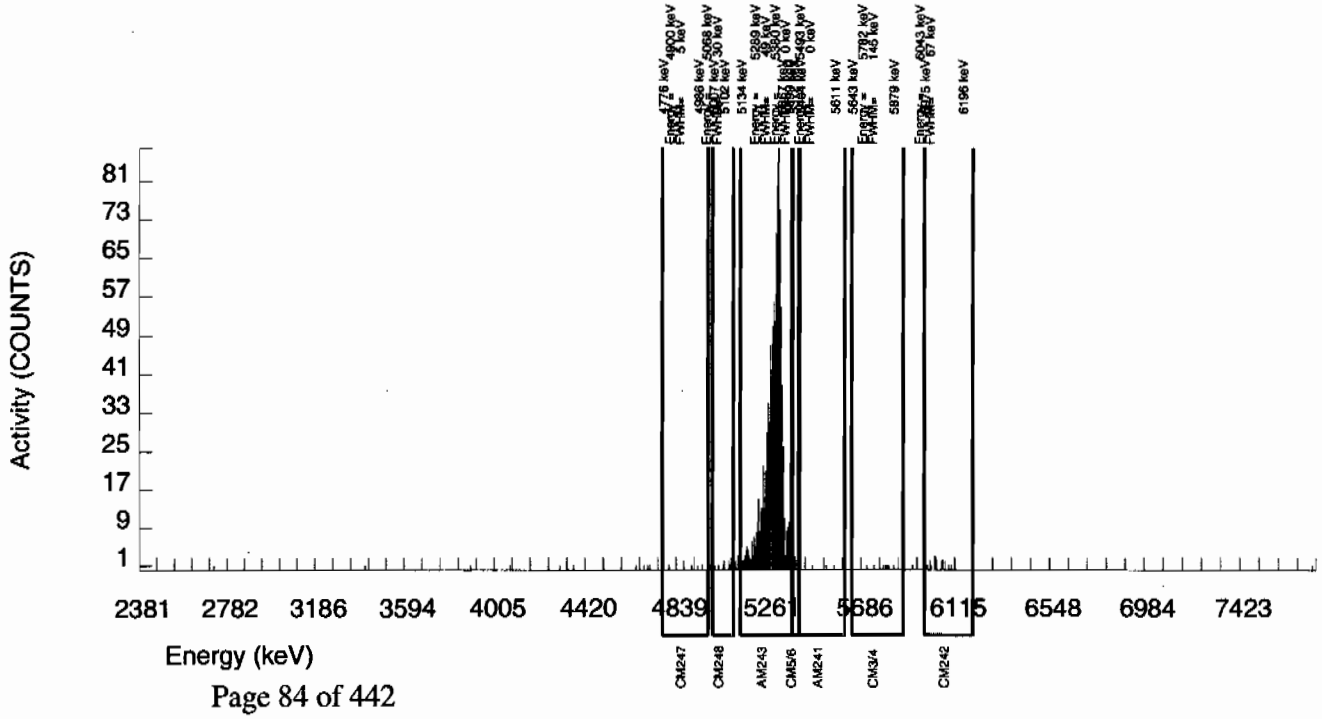

Alpha Spectroscopy Software Version 2.0
effective date: 09-Mar-1997

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 938074 SAMPLE DATE : 22-DEC-2009 00:00:00	SAMPLE ID : S0243557008_AM SAMPLE QTY: 1.264 G
DETECTOR NUMBER :SAMPLE AVERAGE %EFFICIENCY :38.1505 % YIELD : 96.285	COUNT DATE: 7-JAN-2010 17:40:44 ELAPSED LIVE TIME(SEC): 60000.00 ANALYST :KXM4

MS/MSD	LCS/LCSD	TRACER	
ID : 0244-B ISOTOPE : AM-241 PCI/G : 3.316E+01	ID : 0244-B ISOTOPE : AM-241 PCI/G : 3.316E+01	ID : 445-96-2-SS ISOTOPE : AM243 NOMINAL : 2.91660 dpm RESULTS : 2.80825 dpm	LIB FILE : ENV_ALPHA_AM.N BKG FILE : B233.CNF;66 BKG DATE : 3-JAN-2010 EFF FILE : W233.CNF;24 CAL DATE : 28-DEC-2009

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
CM-3/4	5795.020	8.000	8.000	0.000	5.2338	100.0000	7.78E-03	2.79E-03	1.18E-02	2.63E-02	2.75E-03
CM-5/6	5386.000	30.000	30.000	0.000	19.8463	86.09000	3.38E-02	6.48E-03	5.20E-02	1.07E-01	6.17E-03
AM-241	5479.150	3.000	1.139	0.000	3.0704	99.94000	1.11E-03	1.04E-03	6.93E-03	1.65E-02	1.04E-03
CM-242	6102.000	4.000	3.000	1.000	4.3186	100.0000	3.13E-03	2.34E-03	9.75E-03	2.21E-02	2.33E-03
AM243	5270.000	1069.000	1069.000	0.000	0.0000	99.78000	1.04E+00	6.81E-02	0.00E+00	2.63E-03	3.18E-02
CM-247	4946.000	6.000	6.000	0.000	15.3366	79.30000	7.34E-03	3.03E-03	4.36E-02	9.06E-02	3.00E-03
CM-248	5078.600	7.000	7.000	0.000	22.1555	91.00000	7.46E-03	2.85E-03	5.49E-02	1.13E-01	2.82E-03

NOTE: Sg calculated via blank population (updated 5-JAN-2010)
NOTE: Sg of AM243 calculated as sqrt(BKG AREA)
NOTE: Corrections made to AM-241 net area due to tracer impurity

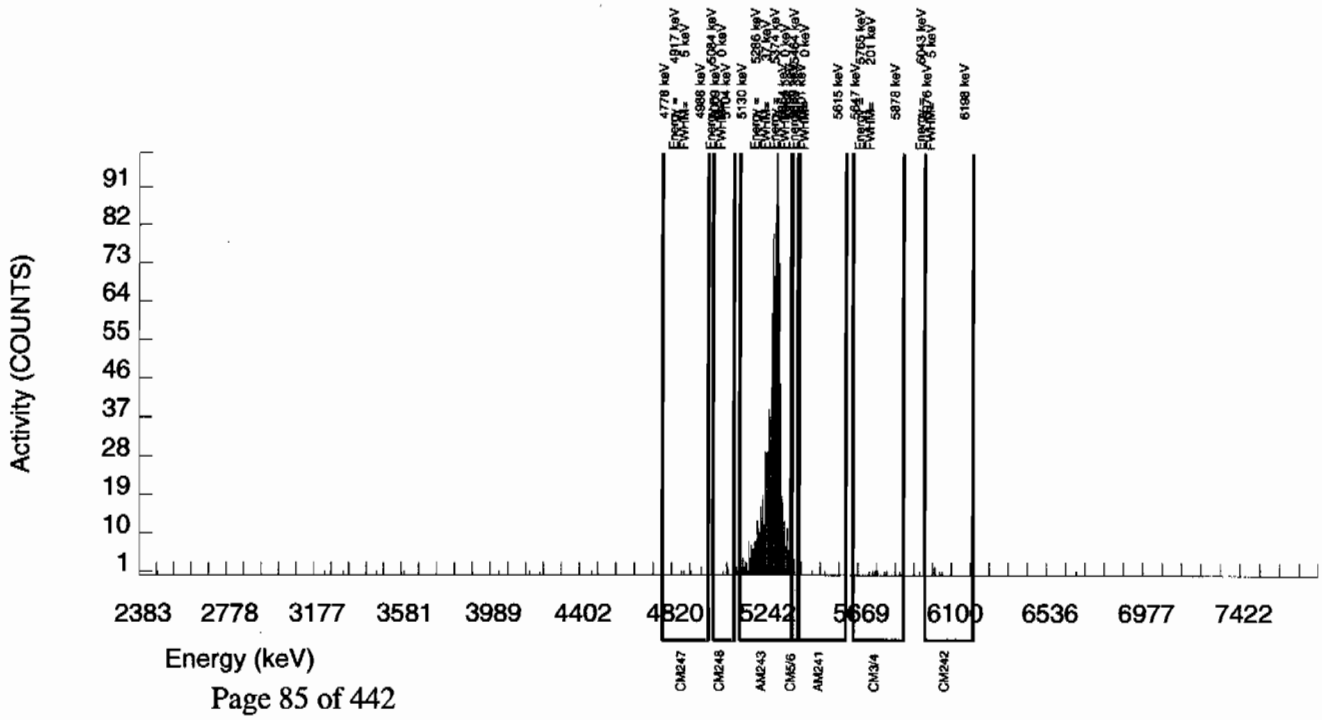

Alpha Spectroscopy Software Version 2.0
effective date: 09-Mar-1997

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 938074 SAMPLE DATE : 22-DEC-2009 00:00:00	SAMPLE ID : S0243557009_AM SAMPLE QTY: 1.257 G
DETECTOR NUMBER :79427 AVERAGE %EFFICIENCY :38.3332 % YIELD : 86.862	COUNT DATE: 7-JAN-2010 17:40:47 ELAPSED LIVE TIME(SEC): 60000.00 ANALYST :KXM4

MS/MSD	LCS/LCSD	TRACER	
ID : 0244-B	ID : 0244-B	ID : 445-96-2-SS	LIB FILE : ENV_ALPHA_AM.N
ISOTOPE : AM-241	ISOTOPE : AM-241	ISOTOPE : AM243	BKG FILE : B234.CNF;66
PCI/G : 3.316E+01	PCI/G : 3.316E+01	NOMINAL : 2.91659 dpm	BKG DATE : 3-JAN-2010
		RESULTS : 2.53342 dpm	EFF FILE : W234.CNF;24
			CAL DATE : 28-DEC-2009

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
CM-3/4	5795.020	4.000	4.000	0.000	5.2338	100.0000	4.31E-03	2.17E-03	1.31E-02	2.91E-02	2.16E-03
CM-5/6	5386.000	19.000	19.000	0.000	19.8463	86.09000	2.38E-02	5.62E-03	5.77E-02	1.19E-01	5.45E-03
AM-241	5479.150	1.000	-0.686	0.000	3.0704	99.94000	-7.39E-04	1.08E-03	7.69E-03	1.83E-02	1.08E-03
CM-242	6102.000	10.000	10.000	0.000	4.3186	100.0000	1.16E-02	3.72E-03	1.08E-02	2.45E-02	3.66E-03
AM243	5270.000	969.000	969.000	0.000	0.0000	99.78000	1.05E+00	7.00E-02	0.00E+00	2.92E-03	3.36E-02
CM-247	4946.000	14.000	12.000	2.000	15.3366	79.30000	1.63E-02	5.51E-03	4.84E-02	1.01E-01	5.43E-03
CM-248	5078.600	18.000	18.000	0.000	22.1555	91.00000	2.13E-02	5.17E-03	6.10E-02	1.25E-01	5.02E-03

NOTE: Sg calculated via blank population (updated 5-JAN-2010)
NOTE: Sg of AM243 calculated as sqrt(BKG AREA)
NOTE: Corrections made to AM-241 net area due to tracer impurity

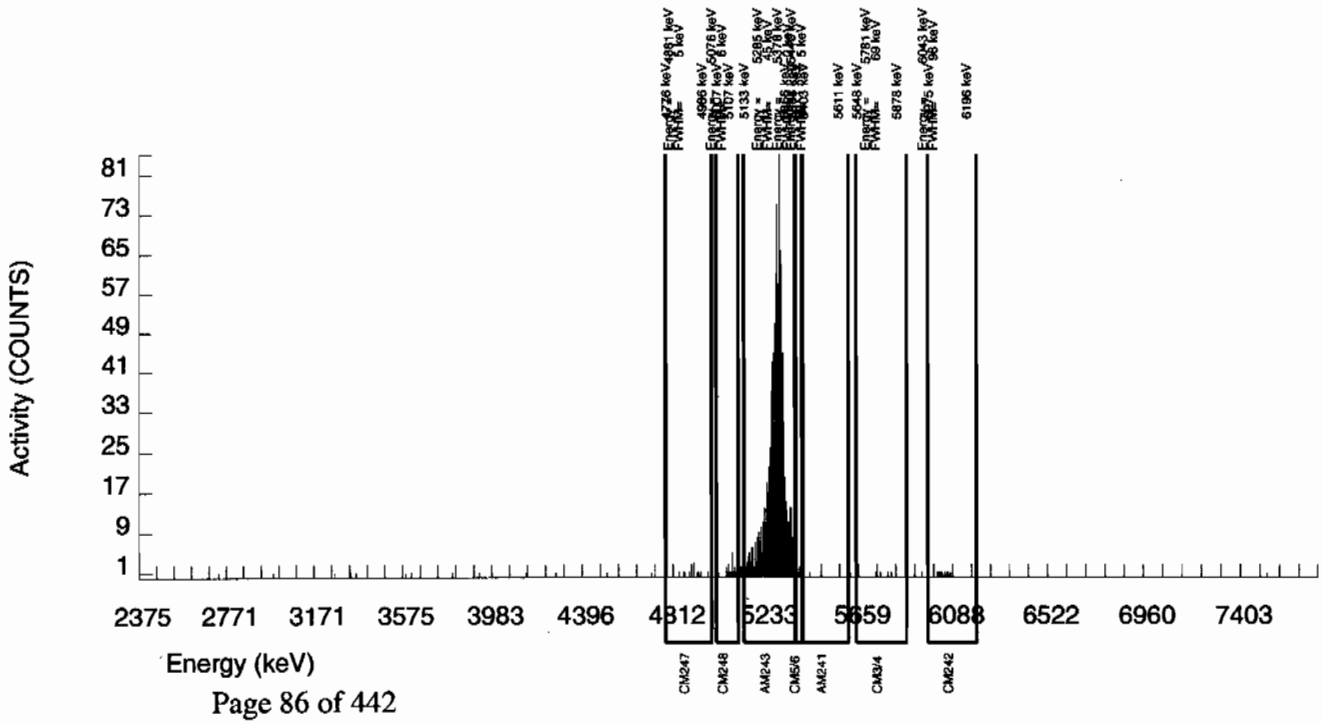

Alpha Spectroscopy Software Version 2.0
effective date: 09-Mar-1997

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 938074 SAMPLE DATE : 22-DEC-2009 00:00:00	SAMPLE ID : S0243557010_AM SAMPLE QTY: 1.257 G
DETECTOR NUMBER :79428 AVERAGE %EFFICIENCY :37.2918 % YIELD : 91.499	COUNT DATE: 7-JAN-2010 17:40:49 ELAPSED LIVE TIME(SEC): 60000.00 ANALYST :KXM4

MS/MSD	LCS/LCSD	TRACER	
ID : 0244-B ISOTOPE : AM-241 PCI/G : 3.316E+01	ID : 0244-B ISOTOPE : AM-241 PCI/G : 3.316E+01	ID : 445-96-2-SS ISOTOPE : AM243 NOMINAL : 2.91660 dpm RESULTS : 2.66866 dpm	LIB FILE : ENV_ALPHA_AM.N BKG FILE : B235.CNF;66 BKG DATE : 3-JAN-2010 EFF FILE : W235.CNF;24 CAL DATE : 28-DEC-2009

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
CM-3/4	5795.020	3.000	3.000	0.000	5.2338	100.0000	3.16E-03	1.83E-03	1.28E-02	2.84E-02	1.82E-03
CM-5/6	5386.000	22.000	22.000	0.000	19.8463	86.09000	2.68E-02	5.95E-03	5.63E-02	1.16E-01	5.72E-03
AM-241	5479.150	1.000	-0.728	0.000	3.0704	99.94000	-7.65E-04	1.05E-03	7.51E-03	1.79E-02	1.05E-03
CM-242	6102.000	7.000	7.000	0.000	4.3186	100.0000	7.91E-03	3.03E-03	1.06E-02	2.39E-02	2.99E-03
AM243	5270.000	993.000	993.000	0.000	0.0000	99.78000	1.05E+00	7.11E-02	0.00E+00	2.85E-03	3.32E-02
CM-247	4946.000	6.000	6.000	0.000	15.3366	79.30000	7.95E-03	3.28E-03	4.73E-02	9.81E-02	3.24E-03
CM-248	5078.600	14.000	14.000	0.000	22.1555	91.00000	1.62E-02	4.43E-03	5.95E-02	1.22E-01	4.32E-03

NOTE: Sg calculated via blank population (updated 5-JAN-2010)
NOTE: Sg of AM243 calculated as sqrt(BKG AREA)
NOTE: Corrections made to AM-241 net area due to tracer impurity

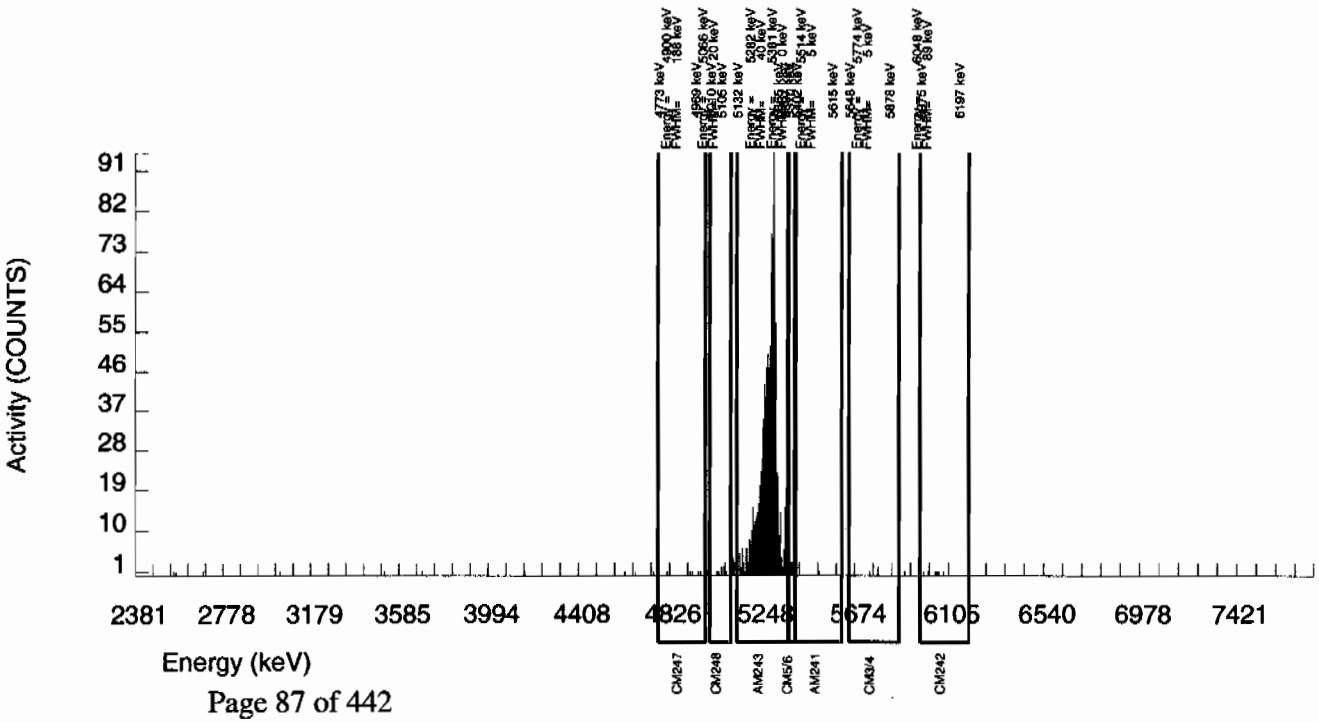

Alpha Spectroscopy Software Version 2.0
effective date: 09-Mar-1997

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 938074 SAMPLE DATE : 22-DEC-2009 00:00:00	SAMPLE ID : S0243557011_AM SAMPLE QTY: 1.251 G
DETECTOR NUMBER :79429 AVERAGE %EFFICIENCY :38.5832 % YIELD : 95.205	COUNT DATE: 7-JAN-2010 17:40:51 ELAPSED LIVE TIME(SEC): 60000.00 ANALYST :KXM4

MS/MSD	LCS/LCSD	TRACER	
ID : 0244-B	ID : 0244-B	ID : 445-96-2-SS	LIB FILE : ENV_ALPHA_AM.N
ISOTOPE : AM-241	ISOTOPE : AM-241	ISOTOPE : AM243	BKG FILE : B236.CNF;66
PCI/G : 3.316E+01	PCI/G : 3.316E+01	NOMINAL : 2.91660 dpm	BKG DATE : 3-JAN-2010
		RESULTS : 2.77676 dpm	EFF FILE : W236.CNF;24
			CAL DATE : 28-DEC-2009

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
CM-3/4	5795.020	7.000	7.000	0.000	5.2338	100.0000	6.87E-03	2.63E-03	1.19E-02	2.65E-02	2.60E-03
CM-5/6	5386.000	23.000	23.000	0.000	19.8463	86.09000	2.62E-02	5.67E-03	5.26E-02	1.08E-01	5.46E-03
AM-241	5479.150	1.000	-0.861	0.000	3.0704	99.94000	-8.44E-04	9.83E-04	7.01E-03	1.67E-02	9.81E-04
CM-242	6102.000	7.000	7.000	0.000	4.3186	100.0000	7.38E-03	2.82E-03	9.85E-03	2.24E-02	2.79E-03
AM243	5270.000	1069.000	1069.000	0.000	0.0000	99.78000	1.05E+00	6.88E-02	0.00E+00	2.66E-03	3.21E-02
CM-247	4946.000	5.000	4.000	1.000	15.3366	79.30000	4.94E-03	3.04E-03	4.41E-02	9.16E-02	3.03E-03
CM-248	5078.600	15.000	15.000	0.000	22.1555	91.00000	1.62E-02	4.28E-03	5.55E-02	1.14E-01	4.17E-03

NOTE: Sg calculated via blank population (updated 5-JAN-2010)
NOTE: Sg of AM243 calculated as sqrt(BKG AREA)
NOTE: Corrections made to AM-241 net area due to tracer impurity

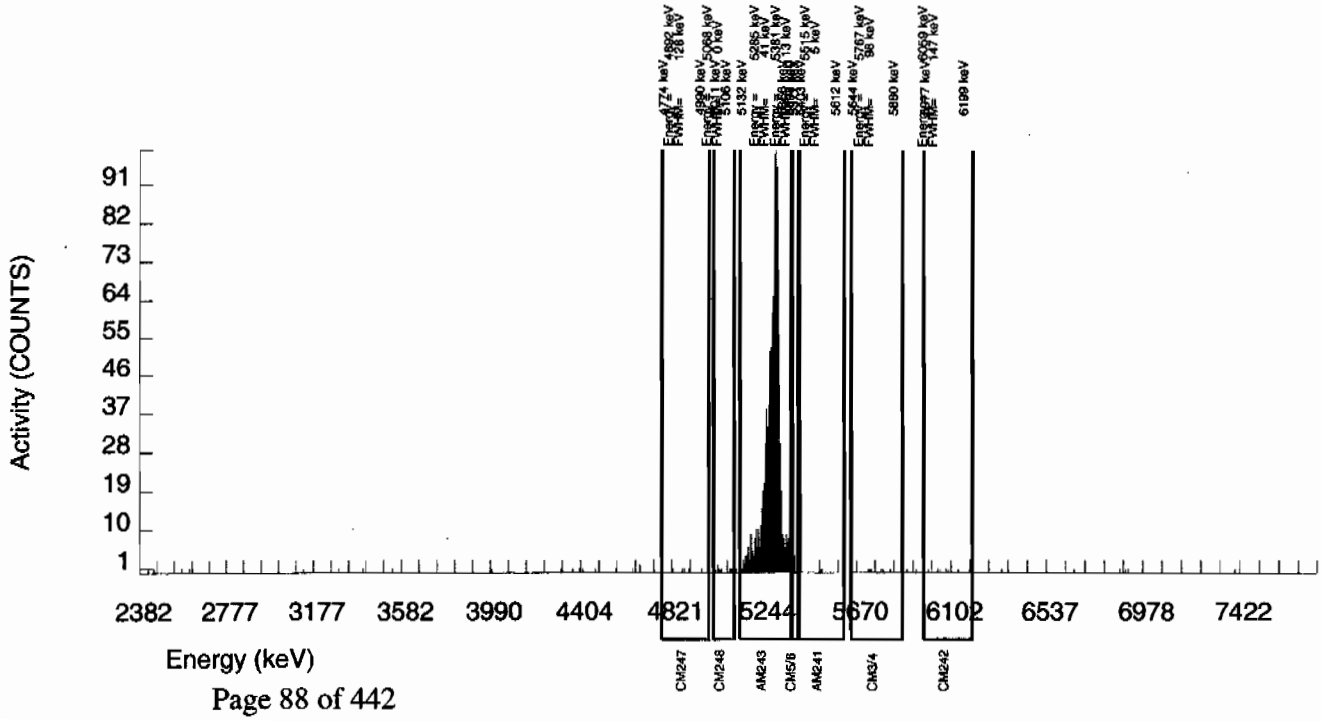

Alpha Spectroscopy Software Version 2.0
effective date: 09-Mar-1997

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 938074 SAMPLE DATE : 22-DEC-2009 00:00:00	SAMPLE ID : S0243557012_AM SAMPLE QTY: 1.257 G
DETECTOR NUMBER :79435 AVERAGE %EFFICIENCY :38.1437 % YIELD : 97.203	COUNT DATE: 8-JAN-2010 16:49:18 ELAPSED LIVE TIME(SEC): 60000.00 ANALYST :KXM4

MS/MSD	LCS/LCSD	TRACER	
ID : 0244-B	ID : 0244-B	ID : 445-96-2-SS	LIB FILE : ENV_ALPHA_AM.N
ISOTOPE : AM-241	ISOTOPE : AM-241	ISOTOPE : AM243	BKG FILE : B242.CNF;66
PCI/G : 3.316E+01	PCI/G : 3.316E+01	NOMINAL : 2.91659 dpm	BKG DATE : 3-JAN-2010
		RESULTS : 2.83502 dpm	EFF FILE : W242.CNF;24
			CAL DATE : 28-DEC-2009

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
CM-3/4	5795.020	6.000	5.000	1.000	5.2338	100.0000	4.84E-03	2.58E-03	1.18E-02	2.62E-02	2.56E-03
CM-5/6	5386.000	19.000	19.000	0.000	19.8463	86.09000	2.13E-02	5.05E-03	5.18E-02	1.07E-01	4.89E-03
AM-241	5479.150	1.000	-0.878	0.000	3.0704	99.94000	-8.49E-04	9.69E-04	6.91E-03	1.64E-02	9.67E-04
CM-242	6102.000	5.000	5.000	0.000	4.3186	100.0000	5.22E-03	2.35E-03	9.71E-03	2.20E-02	2.33E-03
AM243	5270.000	1080.000	1079.000	1.000	1.0000	99.78000	1.05E+00	6.83E-02	2.25E-03	7.13E-03	3.18E-02
CM-247	4946.000	2.000	2.000	0.000	15.3366	79.30000	2.44E-03	1.73E-03	4.35E-02	9.03E-02	1.72E-03
CM-248	5078.600	16.000	16.000	0.000	22.1555	91.00000	1.70E-02	4.36E-03	5.47E-02	1.12E-01	4.25E-03

NOTE: Sg calculated via blank population (updated 5-JAN-2010)
NOTE: Sg of AM243 calculated as sqrt(BKG AREA)
NOTE: Corrections made to AM-241 net area due to tracer impurity

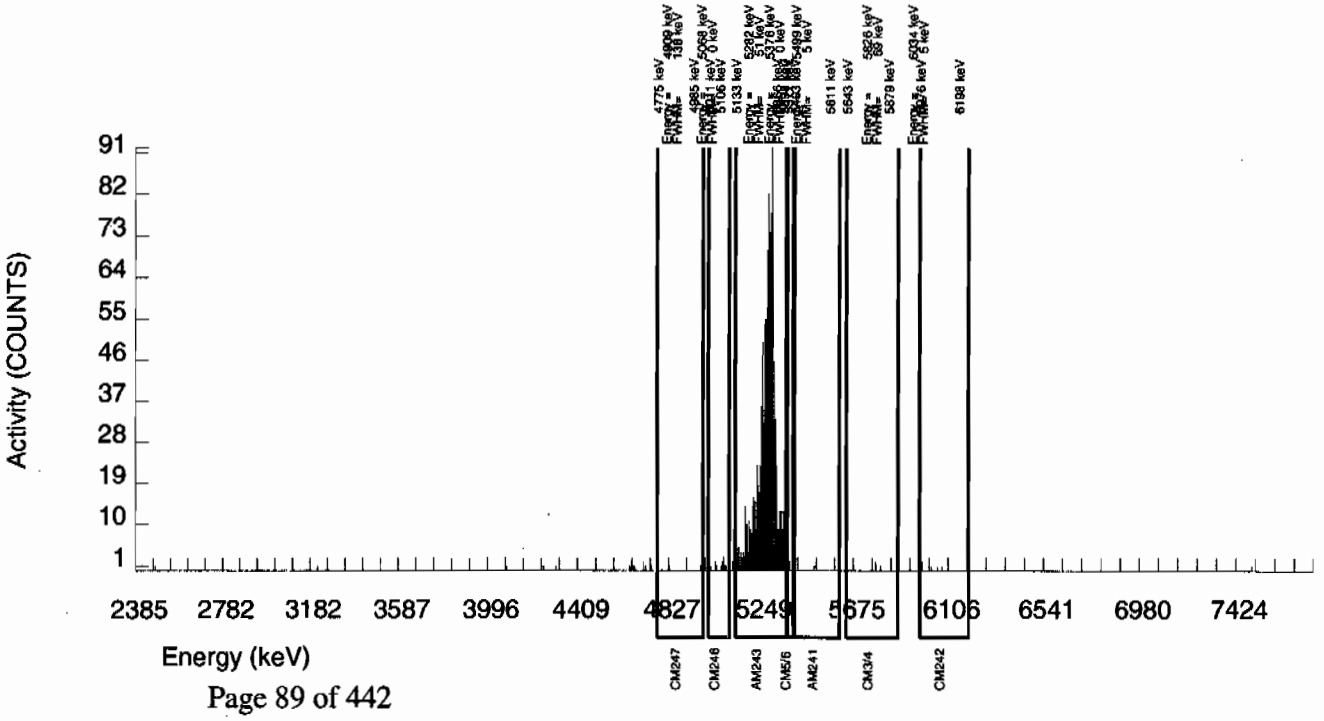

Alpha Spectroscopy Software Version 2.0
effective date: 09-Mar-1997

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 938074 SAMPLE DATE : 22-DEC-2009 00:00:00	SAMPLE ID : S0243557013_AM SAMPLE QTY: 1.258 G
DETECTOR NUMBER :79431 AVERAGE %EFFICIENCY :39.6257 % YIELD : 86.891	COUNT DATE: 7-JAN-2010 17:40:57 ELAPSED LIVE TIME(SEC): 60000.00 ANALYST :KXM4

MS/MSD	LCS/LCSD	TRACER	
ID : 0244-B ISOTOPE : AM-241 PCI/G : 3.316E+01	ID : 0244-B ISOTOPE : AM-241 PCI/G : 3.316E+01	ID : 445-96-2-SS ISOTOPE : AM243 NOMINAL : 2.91660 dpm RESULTS : 2.53425 dpm	LIB FILE : ENV_ALPHA_AM.N BKG FILE : B238.CNF;66 BKG DATE : 3-JAN-2010 EFF FILE : W238.CNF;26 CAL DATE : 28-DEC-2009

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
CM-3/4	5795.020	14.000	14.000	0.000	5.2338	100.0000	1.46E-02	3.99E-03	1.27E-02	2.81E-02	3.90E-03
CM-5/6	5386.000	21.000	21.000	0.000	19.8463	86.09000	2.54E-02	5.73E-03	5.58E-02	1.15E-01	5.54E-03
AM-241	5479.150	4.000	1.256	1.000	3.0704	99.94000	1.31E-03	1.88E-03	7.43E-03	1.77E-02	1.88E-03
CM-242	6102.000	14.000	14.000	0.000	4.3186	100.0000	1.57E-02	4.28E-03	1.04E-02	2.37E-02	4.18E-03
AM243	5270.000	1003.000	1002.000	1.000	1.0000	99.78000	1.04E+00	6.94E-02	2.42E-03	7.67E-03	3.30E-02
CM-247	4946.000	7.000	7.000	0.000	15.3366	79.30000	9.18E-03	3.51E-03	4.68E-02	9.71E-02	3.47E-03
CM-248	5078.600	19.000	19.000	0.000	22.1555	91.00000	2.17E-02	5.14E-03	5.89E-02	1.21E-01	4.98E-03

NOTE: Sg calculated via blank population (updated 5-JAN-2010)
NOTE: Sg of AM243 calculated as sqrt(BKG AREA)
NOTE: Corrections made to AM-241 net area due to tracer impurity

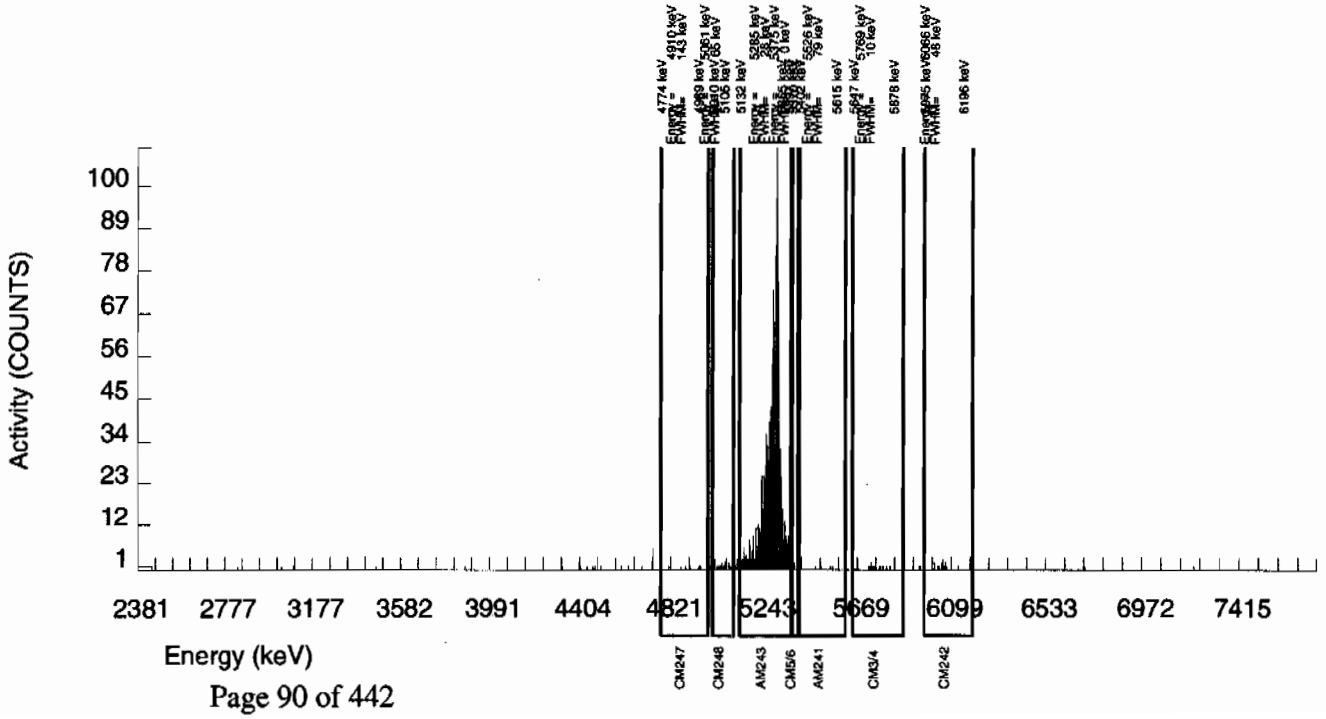

Alpha Spectroscopy Software Version 2.0
effective date: 09-Mar-1997

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 938074 SAMPLE DATE : 5-JAN-2010 00:00:00.	SAMPLE ID : S1202007337_AM SAMPLE QTY: 1.000 G
DETECTOR NUMBER :78790 AVERAGE %EFFICIENCY :34.1503 % YIELD : 95.086	COUNT DATE: 7-JAN-2010 11:38:42 ELAPSED LIVE TIME(SEC): 59999.99 ANALYST :KXM4

MS/MSD	LCS/LCSD	TRACER	
ID : 0244-B	ID : 0244-B	ID : 445-96-2-SS	LIB FILE : ENV_ALPHA_AM.N
ISOTOPE : AM-241	ISOTOPE : AM-241	ISOTOPE : AM243	BKG FILE : B013.CNF;1081
PCI/G : 3.316E+01	PCI/G : 3.316E+01	NOMINAL : 2.91659 dpm	BKG DATE : 3-JAN-2010
		RESULTS : 2.77327 dpm	EFF FILE : W013.CNF;326
			CAL DATE : 4-JAN-2010

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
CM-3/4	5795.020	16.000	7.000	9.000	5.2338	100.0000	9.71E-03	6.96E-03	1.69E-02	3.75E-02	6.94E-03
CM-5/6	5386.000	8.000	7.000	1.000	19.8463	86.09000	1.13E-02	4.88E-03	7.44E-02	1.53E-01	4.83E-03
AM-241	5479.150	8.000	0.355	6.000	3.0704	99.94000	4.93E-04	4.88E-03	9.91E-03	2.36E-02	4.88E-03
CM-242	6102.000	18.000	15.000	3.000	4.3186	100.0000	2.11E-02	6.55E-03	1.39E-02	3.16E-02	6.43E-03
AM243	5270.000	946.000	945.000	1.000	1.0000	99.78000	1.31E+00	8.86E-02	3.23E-03	1.02E-02	4.28E-02
CM-247	4946.000	8.000	8.000	0.000	15.3366	79.30000	1.40E-02	5.02E-03	6.24E-02	1.30E-01	4.95E-03
CM-248	5078.600	3.000	2.000	1.000	22.1555	91.00000	3.05E-03	3.05E-03	7.86E-02	1.61E-01	3.05E-03

NOTE: Sg calculated via blank population (updated 5-JAN-2010)
NOTE: Sg of AM243 calculated as sqrt(BKG AREA)
NOTE: Corrections made to AM-241 net area due to tracer impurity

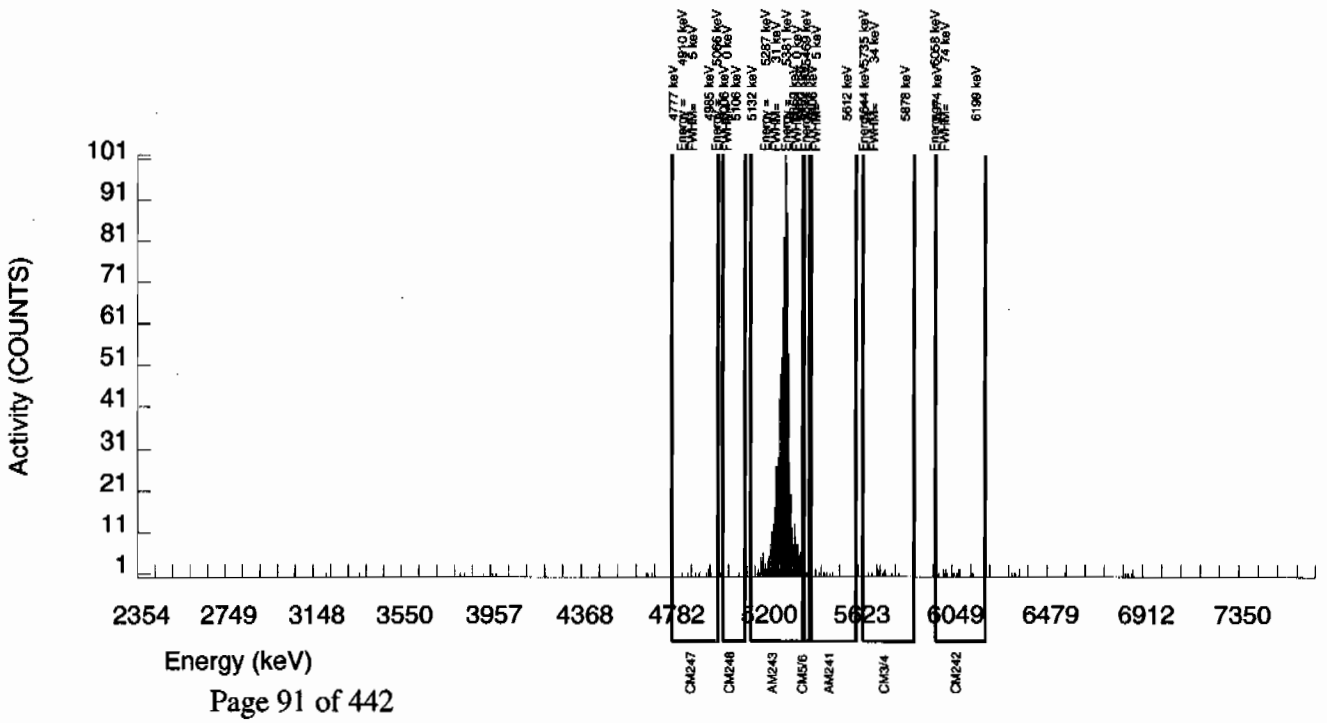

Alpha Spectroscopy Software Version 2.0
effective date: 09-Mar-1997

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 938074 SAMPLE DATE : 22-DEC-2009 00:00:00	SAMPLE ID : S1202007338_AM SAMPLE QTY: 1.274 G
DETECTOR NUMBER :67616 AVERAGE %EFFICIENCY :31.1824 % YIELD : 96.423	COUNT DATE: 7-JAN-2010 11:38:42 ELAPSED LIVE TIME(SEC): 59999.99 ANALYST :KXM4

MS/MSD	LCS/LCSD	TRACER	
ID : 0244-B ISOTOPE : AM-241 PCI/G : 3.316E+01	ID : 0244-B ISOTOPE : AM-241 PCI/G : 3.316E+01	ID : 445-96-2-SS ISOTOPE : AM243 NOMINAL : 2.91659 dpm RESULTS : 2.81226 dpm	LIB FILE : ENV_ALPHA_AM.N BKG FILE : B014.CNF;1082 BKG DATE : 3-JAN-2010 EFF FILE : W014.CNF;323 CAL DATE : 4-JAN-2010

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
CM-3/4	5795.020	27.000	-11.000	38.000	5.2338	100.0000	-1.30E-02	9.50E-03	1.43E-02	3.18E-02	9.50E-03
CM-5/6	5386.000	16.000	12.000	4.000	19.8463	86.09000	1.64E-02	6.19E-03	6.31E-02	1.30E-01	6.11E-03
AM-241	5479.150	18.000	-7.523	24.000	3.0704	99.94000	-8.85E-03	7.49E-03	8.40E-03	2.00E-02	7.49E-03
CM-242	6102.000	11.000	2.000	9.000	4.3186	100.0000	2.53E-03	5.65E-03	1.18E-02	2.68E-02	5.65E-03
AM243	5270.000	882.000	875.000	7.000	2.6458	99.78000	1.03E+00	7.11E-02	7.25E-03	1.77E-02	3.51E-02
CM-247	4946.000	2.000	0.000	2.000	15.3366	79.30000	0.00E+00	2.97E-03	5.29E-02	1.10E-01	2.97E-03
CM-248	5078.600	9.000	5.000	4.000	22.1555	91.00000	6.46E-03	4.68E-03	6.66E-02	1.37E-01	4.66E-03

NOTE: Sg calculated via blank population (updated 5-JAN-2010)
NOTE: Sg of AM243 calculated as sqrt(BKG AREA)
NOTE: Corrections made to AM-241 net area due to tracer impurity

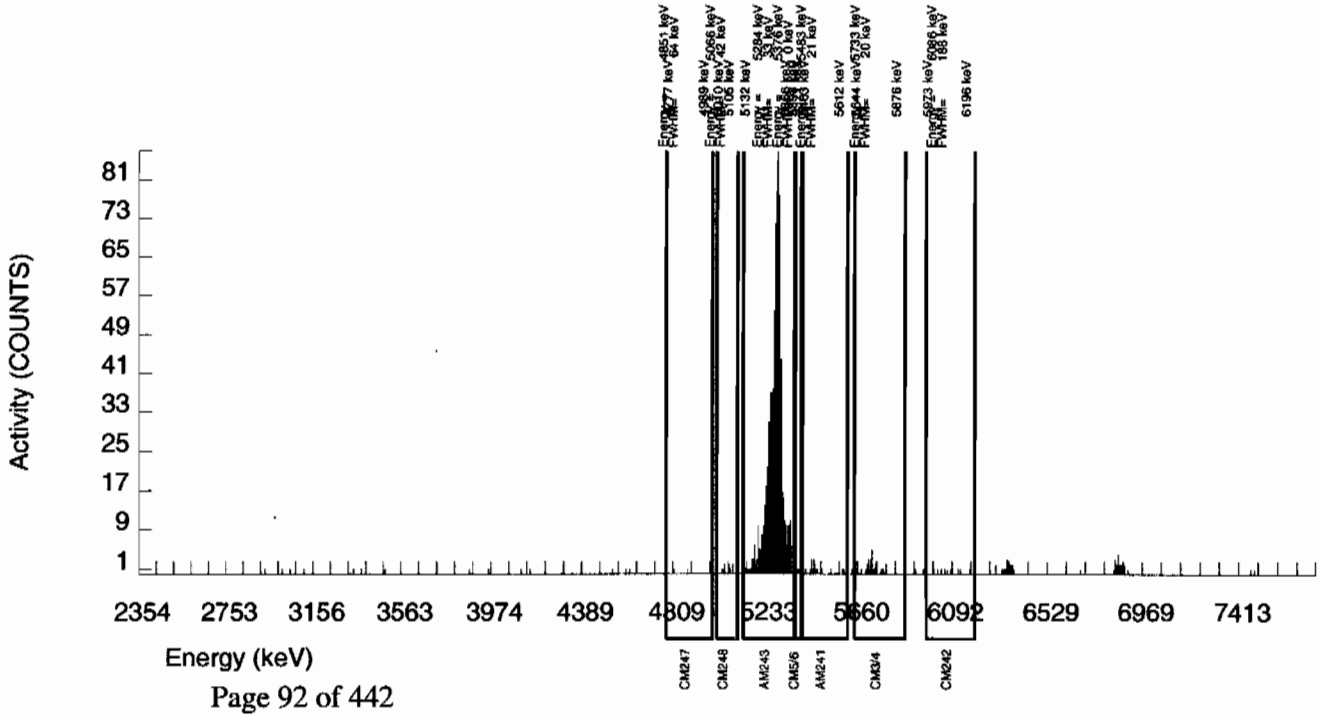

Alpha Spectroscopy Software Version 2.0
effective date: 09-Mar-1997

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 938074 SAMPLE DATE : 5-JAN-2010 00:00:00.	SAMPLE ID : S1202007339_AM SAMPLE QTY: 0.103 G
DETECTOR NUMBER :78774 AVERAGE %EFFICIENCY :33.5958 % YIELD : 91.542	COUNT DATE: 7-JAN-2010 11:38:42 ELAPSED LIVE TIME(SEC): 59999.99 ANALYST :KXM4

MS/MSD	LCS/LCSD	TRACER	
ID : 0244-B ISOTOPE : AM-241 PCI/G : 3.316E+01	ID : 0244-B ISOTOPE : AM-241 PCI/G : 3.316E+01	ID : 445-96-2-SS ISOTOPE : AM243 NOMINAL : 2.91659 dpm RESULTS : 2.66989 dpm	LIB FILE : ENV_ALPHA_AM.N BKG FILE : B016.CNF;1077 BKG DATE : 3-JAN-2010 EFF FILE : W016.CNF;309 CAL DATE : 4-JAN-2010

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
CM-3/4	5795.020	15.000	3.000	12.000	5.2338	100.0000	4.27E-02	7.40E-02	1.73E-01	3.85E-01	7.39E-02
CM-5/6	5386.000	29.000	27.000	2.000	19.8463	86.09000	4.46E-01	9.67E-02	7.63E-01	1.57E+00	9.20E-02
AM-241	5479.150	2462.000	2448.442	12.000	3.0704	99.94000	3.48E+01	2.45E+00	1.02E-01	2.42E-01	7.08E-01
CM-242	6102.000	11.000	8.000	3.000	4.3186	100.0000	1.15E-01	5.44E-02	1.43E-01	3.24E-01	5.39E-02
AM243	5270.000	896.000	895.000	1.000	1.0000	99.78000	1.28E+01	9.58E-01	3.32E-02	1.05E-01	4.27E-01
CM-247	4946.000	9.000	9.000	0.000	15.3366	79.30000	1.61E-01	5.49E-02	6.40E-01	1.33E+00	5.38E-02
CM-248	5078.600	7.000	7.000	0.000	22.1555	91.00000	1.09E-01	4.20E-02	8.05E-01	1.65E+00	4.13E-02

NOTE: Sg calculated via blank population (updated 5-JAN-2010)
NOTE: Sg of AM243 calculated as sqrt(BKG AREA)
NOTE: Corrections made to AM-241 net area due to tracer impurity

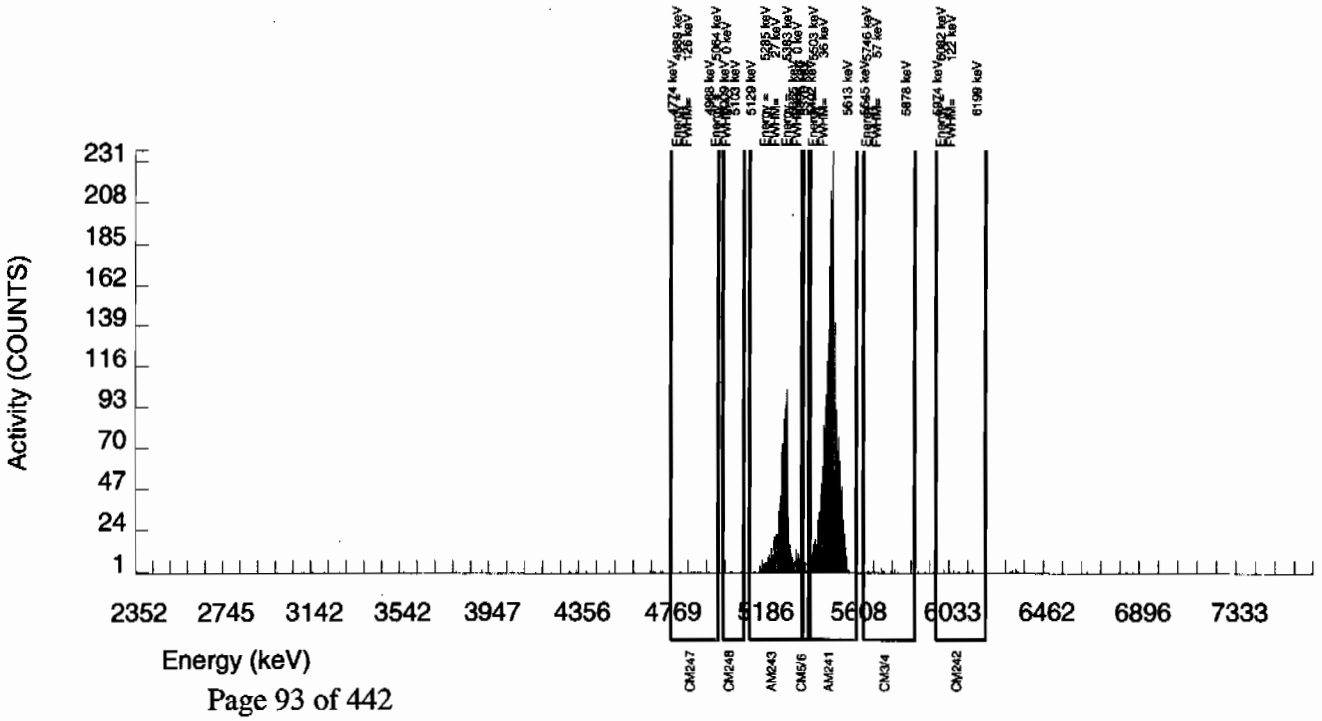

Radiochemistry Batch Checklist, Rev 9

Batch# 938075 Product: Pu Date: 1/8/10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			N/A
Samples have been blank corrected (if required)	✓		
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.	✓		
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	✓		
Sample was run within hold time.	✓		
Sample was correctly preserved if required.			N/A
Smears Taken for Radioactive batches.			N/A
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	✓		
Aux data is correct.			N/A
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)			N/A
Batch entered into Case Narrative.	✓		
Batch non-conformances completed, if applicable.			N/A
Batch non-conformances second reviewed and disposition verified to be completed.			N/A
Aliquot Correction completed if required.			N/A
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analyse.)	✓		

GEL Laboratories, LLC

revised 8/1/08

Primary Review Performed By: Denise Green 1/8/10

Secondary Review Performed By: [illegible] 1/12/10

1/21
LANL

Plutonium Que Sheet

31-DEC-09

Batch #: 938075 **Analyst:** KXM4 **First Client Due Date:** 21-JAN-10 **Internal Due Date:** 10-JAN-10

Tracer Isotope(s): Pu-242/Pu-238 **Tracer Code:** 1374-A **Expiration Date:** 12-8-10 **Vol:** 0.1ml

LCS Isotope(s): Pu-239/Pu-238 **LCS Code:** 0744-B **Expiration Date:** 4-30-20 **Vol:** 0.1c

Spike Isotope(s): Pu-239/Pu-238 **Spike Code:** NA **Expiration Date:** NA **Vol:** NA

Prep Date: 1-5-10 **Initials:** KM **Pipet ID:** 2971058 **Balance ID:** 50410272 **Witness:** MDA 1/5/10

Sample ID	Client Description	Type	Hazard Code	Min CRDL	Matrix	Client	Collection Date	Pos.	Label #	Wet/Dry Aliquot (W / f)	Pu Det #
243557001-1	RE03-09-14233	SAMPLE		.05 pCi/g	SOIL	LANL010	22-DEC-09	1	1	1.255	239
243557002-1	RE03-09-14236	SAMPLE		.05 pCi/g	SOIL	LANL010	22-DEC-09	2	2	1.260	240
243557003-1	RE03-09-14239	SAMPLE		.05 pCi/g	SOIL	LANL010	22-DEC-09	3	3	1.260	241
243557004-1	RE03-09-14240	SAMPLE		.05 pCi/g	SOIL	LANL010	22-DEC-09	4	4	1.256	242
243557005-1	RE03-09-14231	SAMPLE		.05 pCi/g	SOIL	LANL010	22-DEC-09	5	5	1.258	243
243557006-1	RE03-09-14232	SAMPLE		.05 pCi/g	SOIL	LANL010	22-DEC-09	6	6	1.254	244
243557007-1	RE03-09-14235	SAMPLE		.05 pCi/g	SOIL	LANL010	22-DEC-09	7	7	1.250	245
243557008-1	RE03-09-14238	SAMPLE		.05 pCi/g	SOIL	LANL010	22-DEC-09	8	8	1.264	246
243557009-1	RE03-09-14234	SAMPLE		.05 pCi/g	SOIL	LANL010	22-DEC-09	9	9	1.257	247
~~243557010-1~~	~~RE03-09-14241~~	~~SAMPLE~~		~~.05 pCi/g~~	~~SOIL~~	~~LANL010~~	~~22-DEC-09~~	~~10~~	~~10~~	~~1.251~~	~~248~~
243557011-1	RE03-10-2737	SAMPLE		.05 pCi/g	SOIL	LANL010	22-DEC-09	11	11	1.251	249
243557012-1	RE03-10-2736	SAMPLE		.05 pCi/g	SOIL	LANL010	22-DEC-09	12	12	1.257	250
243557013-1	RE03-10-9873	SAMPLE		.05 pCi/g	SOIL	LANL010	22-DEC-09	13	13	1.258	251
1202007340-1	MB for batch 938075	MB		.05 pCi/g	SOIL	QC ACCOUNT		14	14	~~1.274~~	72
1202007341-1	RE03-10-9873(243557013DUP)	DUP		.05 pCi/g	SOIL	QC ACCOUNT	22-DEC-09	15	15	1.274	73
1202007342-1	LCS for batch 938075	LCS		.05 pCi/g	SOIL	QC ACCOUNT		16	16	0.103	74

Choose SOP Used: GL-RAD-A-011, GL-RAD-A-036, GL-RAD-A-045, GL-RAD-A-043

Solid Sample Dissolution by: LEACH or DIGESTION (Circle One)

Data Reviewed By: 1/8/10

GEL Laboratories LLC, , Radiochemistry Division

JDM 1/12/10

Blank Correction Report

Batch ID 938075

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
1202007341	DUP	Plutonium-238	1.27 g	-0.00112	0.00159	0.0186	-.00114173	pCi/g	NO
		Plutonium-239/240	1.27 g	0.0112	0.00393	0.0212	-.00114173	pCi/g	NO
1202007342	LCS	Plutonium-238	0.103 g	6.70	0.507	0.239	-.01407767	pCi/g	NO
		Plutonium-239/240	0.103 g	34.2	2.15	0.274	-.01407767	pCi/g	NO
1202007340	MB	Plutonium-238	1.00 g	-0.00145	0.0083	0.0239	-.00145	pCi/g	NO
		Plutonium-239/240	1.00 g	-0.00145	0.00434	0.0273	-.00145	pCi/g	NO
243557001	RE03-09-14233	Plutonium-238	1.26 g	0.00	0.000958	0.0158	-.00115079	pCi/g	NO
		Plutonium-239/240	1.26 g	0.00	0.00191	0.0181	-.00115079	pCi/g	NO
243557002	RE03-09-14236	Plutonium-238	1.26 g	0.00	0.00102	0.0168	-.00115079	pCi/g	NO
		Plutonium-239/240	1.26 g	0.00102	0.00177	0.0193	-.00115079	pCi/g	NO
243557003	RE03-09-14239	Plutonium-238	1.26 g	0.00	0.000983	0.0162	-.00115079	pCi/g	NO
		Plutonium-239/240	1.26 g	0.000981	0.000982	0.0185	-.00115079	pCi/g	NO
243557004	RE03-09-14240	Plutonium-238	1.26 g	0.000947	0.000948	0.0156	-.00115079	pCi/g	NO
		Plutonium-239/240	1.26 g	0.00	0.00134	0.0179	-.00115079	pCi/g	NO
243557005	RE03-09-14231	Plutonium-238	1.26 g	-0.000898	0.00127	0.0148	-.00115079	pCi/g	NO
		Plutonium-239/240	1.26 g	0.00359	0.00221	0.017	-.00115079	pCi/g	NO
243557006	RE03-09-14232	Plutonium-238	1.25 g	0.000995	0.00172	0.0164	-.00116	pCi/g	NO
		Plutonium-239/240	1.25 g	0.000995	0.000996	0.0188	-.00116	pCi/g	NO
243557007	RE03-09-14235	Plutonium-238	1.25 g	0.00389	0.00195	0.016	-.00116	pCi/g	NO
		Plutonium-239/240	1.25 g	0.00	0.000973	0.0184	-.00116	pCi/g	NO
243557008	RE03-09-14238	Plutonium-238	1.26 g	0.00	0.00133	0.0155	-.00115079	pCi/g	NO
		Plutonium-239/240	1.26 g	0.000938	0.00162	0.0177	-.00115079	pCi/g	NO
243557009	RE03-09-14234	Plutonium-238	1.26 g	0.00	0.000965	0.0159	-.00115079	pCi/g	NO
		Plutonium-239/240	1.26 g	0.00193	0.00137	0.0182	-.00115079	pCi/g	NO
243557011	RE03-10-2737	Plutonium-238	1.25 g	0.00391	0.00196	0.0161	-.00116	pCi/g	NO
		Plutonium-239/240	1.25 g	0.000976	0.00218	0.0185	-.00116	pCi/g	NO
243557012	RE03-10-2736	Plutonium-238	1.26 g	0.00195	0.00138	0.0161	-.00115079	pCi/g	NO
		Plutonium-239/240	1.26 g	0.00292	0.00169	0.0184	-.00115079	pCi/g	NO
243557013	RE03-10-9873	Plutonium-238	1.26 g	0.011	0.00323	0.0152	-.00115079	pCi/g	NO
		Plutonium-239/240	1.26 g	0.00643	0.00278	0.0174	-.00115079	pCi/g	NO

JDM 1/12/10

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GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 938075 SAMPLE DATE : 22-DEC-2009 00:00:00	SAMPLE ID : S0243557001_PU SAMPLE QTY: 1.255 G
DETECTOR NUMBER :79432 AVERAGE %EFFICIENCY :38.2608 % YIELD : 98.202	COUNT DATE: 7-JAN-2010 17:40:59 ELAPSED LIVE TIME(SEC): 60000.00 ANALYST :KXM4

MS/MSD	LCS/LCSD	TRACER	
ID : 0244-B ISOTOPE : PU-9/0 PCI/G : 4.178E+01	ID : 0244-B ISOTOPE : PU-9/0 PCI/G : 4.178E+01	ID : 1374-A ISOTOPE : PU242 NOMINAL : 3.38543 dpm RESULTS : 3.32455 dpm	LIB FILE : ENV_ALPHA_PU.N BKG FILE : B239.CNF;66 BKG DATE : 3-JAN-2010 EFF FILE : W239.CNF;24 CAL DATE : 28-DEC-2009

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-9/0	5155.000	2.000	0.000	2.000	3.4797	99.90000	0.00E+00	1.91E-03	7.74E-03	1.81E-02	1.91E-03
PU-236	5749.000	2.000	2.000	0.000	2.1286	100.0000	1.93E-03	1.37E-03	4.73E-03	1.20E-02	1.37E-03
PU-238	5499.000	0.000	0.000	0.000	2.9680	99.90000	0.00E+00	9.58E-04	6.60E-03	1.58E-02	9.57E-04
PU242	4890.000	1272.000	1272.000	0.000	0.0000	100.0000	1.22E+00	7.02E-02	0.00E+00	2.59E-03	3.41E-02
PU-244	4589.000	3.000	2.000	1.000	5.2050	99.90000	1.91E-03	1.91E-03	1.16E-02	2.57E-02	1.91E-03

NOTE: Sg calculated via blank population (updated 5-JAN-2010)
NOTE: Sg of PU242 calculated as sqrt(BKG AREA)

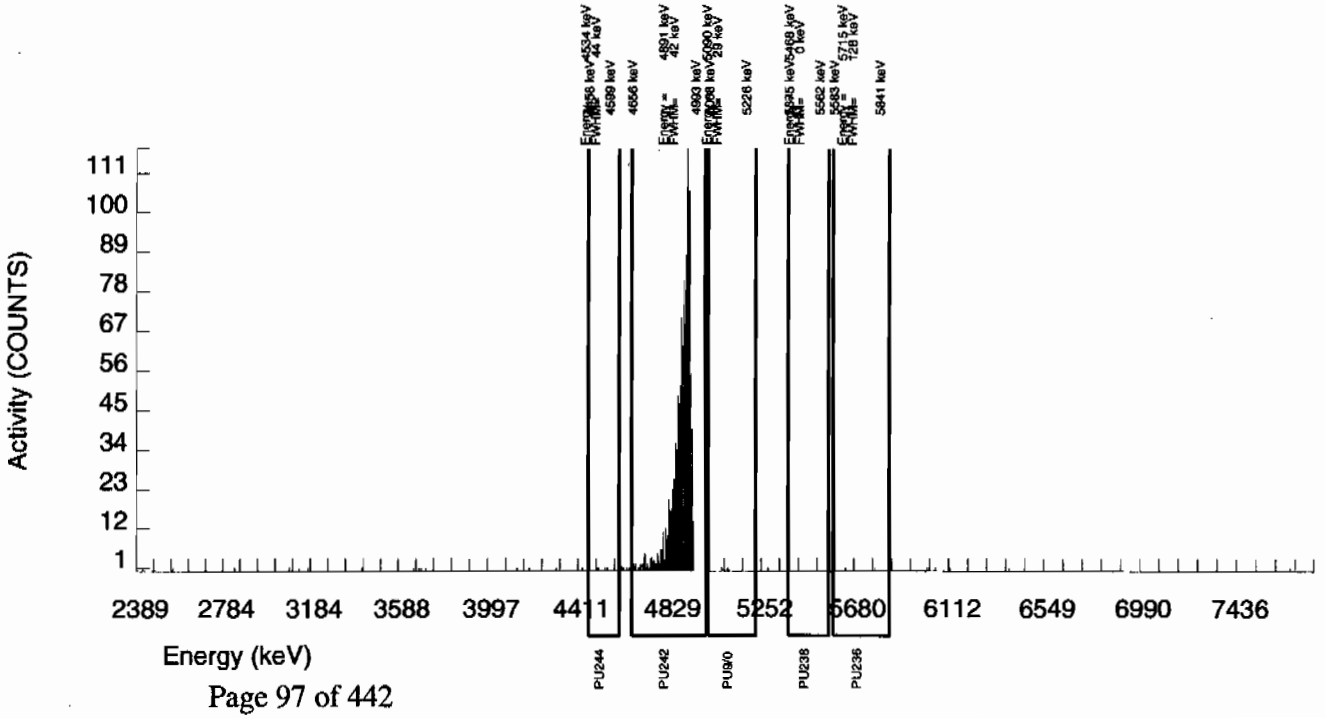

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effective date: 09-Mar-1997

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 938075 SAMPLE DATE : 22-DEC-2009 00:00:00	SAMPLE ID : S0243557002_PU SAMPLE QTY: 1.260 G
DETECTOR NUMBER :79433 AVERAGE %EFFICIENCY :36.9892 % YIELD : 94.870	COUNT DATE: 7-JAN-2010 17:41:01 ELAPSED LIVE TIME(SEC): 60000.00 ANALYST :KXM4

MS/MSD	LCS/LCSD	TRACER	
ID : 0244-B ISOTOPE : PU-9/0 PCI/G : 4.178E+01	ID : 0244-B ISOTOPE : PU-9/0 PCI/G : 4.178E+01	ID : 1374-A ISOTOPE : PU242 NOMINAL : 3.38543 dpm RESULTS : 3.21175 dpm	LIB FILE : ENV_ALPHA_PU.N BKG FILE : B240.CNF;66 BKG DATE : 3-JAN-2010 EFF FILE : W240.CNF;24 CAL DATE : 28-DEC-2009

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-9/0	5155.000	2.000	1.000	1.000	3.4797	99.90000	1.02E-03	1.77E-03	8.26E-03	1.93E-02	1.77E-03
PU-236	5749.000	1.000	1.000	0.000	2.1286	100.0000	1.03E-03	1.03E-03	5.04E-03	1.29E-02	1.03E-03
PU-238	5499.000	0.000	0.000	0.000	2.9680	99.90000	0.00E+00	1.02E-03	7.04E-03	1.68E-02	1.02E-03
PU242	4890.000	1190.000	1188.000	2.000	1.4142	100.0000	1.21E+00	6.91E-02	3.35E-03	9.46E-03	3.52E-02
PU-244	4589.000	5.000	5.000	0.000	5.2050	99.90000	5.10E-03	2.29E-03	1.23E-02	2.75E-02	2.28E-03

NOTE: Sg calculated via blank population (updated 5-JAN-2010)
NOTE: Sg of PU242 calculated as sqrt(BKG AREA)

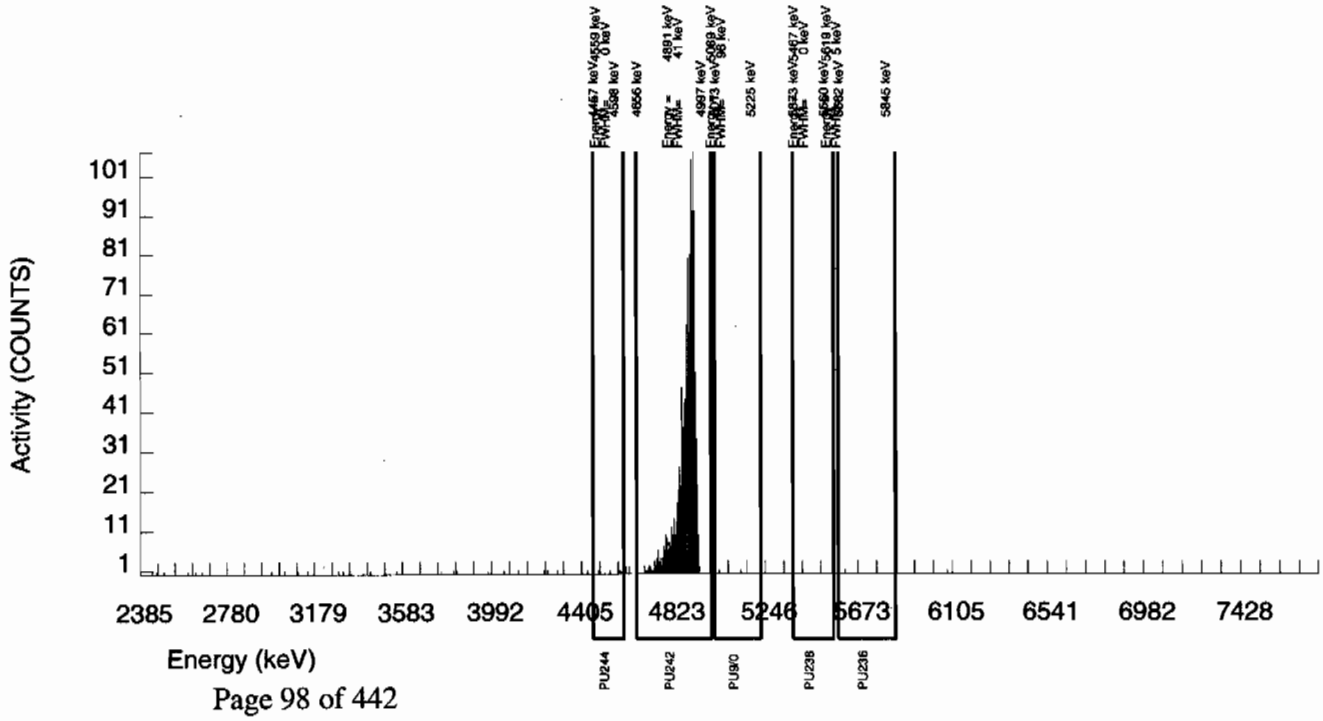

Alpha Spectroscopy Software Version 2.0
effective date: 09-Mar-1997

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 938075 SAMPLE DATE : 22-DEC-2009 00:00:00	SAMPLE ID : S0243557003_PU SAMPLE QTY: 1.260 G
DETECTOR NUMBER :79434 AVERAGE %EFFICIENCY :37.7240 % YIELD : 96.702	COUNT DATE: 7-JAN-2010 17:41:04 ELAPSED LIVE TIME(SEC): 60000.00 ANALYST :KXM4

MS/MSD	LCS/LCSD	TRACER	
ID : 0244-B ISOTOPE : PU-9/0 PCI/G : 4.178E+01	ID : 0244-B ISOTOPE : PU-9/0 PCI/G : 4.178E+01	ID : 1374-A ISOTOPE : PU242 NOMINAL : 3.38543 dpm RESULTS : 3.27378 dpm	LIB FILE : ENV_ALPHA_PU.N BKG FILE : B241.CNF;66 BKG DATE : 3-JAN-2010 EFF FILE : W241.CNF;24 CAL DATE : 28-DEC-2009

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-9/0	5155.000	1.000	1.000	0.000	3.4797	99.90000	9.81E-04	9.82E-04	7.94E-03	1.85E-02	9.81E-04
PU-236	5749.000	0.000	0.000	0.000	2.1286	100.0000	0.00E+00	9.92E-04	4.85E-03	1.24E-02	9.91E-04
PU-238	5499.000	0.000	0.000	0.000	2.9680	99.90000	0.00E+00	9.83E-04	6.77E-03	1.62E-02	9.81E-04
PU242	4890.000	1235.000	1235.000	0.000	0.0000	100.0000	1.21E+00	7.04E-02	0.00E+00	2.66E-03	3.44E-02
PU-244	4589.000	6.000	6.000	0.000	5.2050	99.90000	5.89E-03	2.42E-03	1.19E-02	2.64E-02	2.40E-03

NOTE: Sg calculated via blank population (updated 5-JAN-2010)
NOTE: Sg of PU242 calculated as sqrt(BKG AREA)

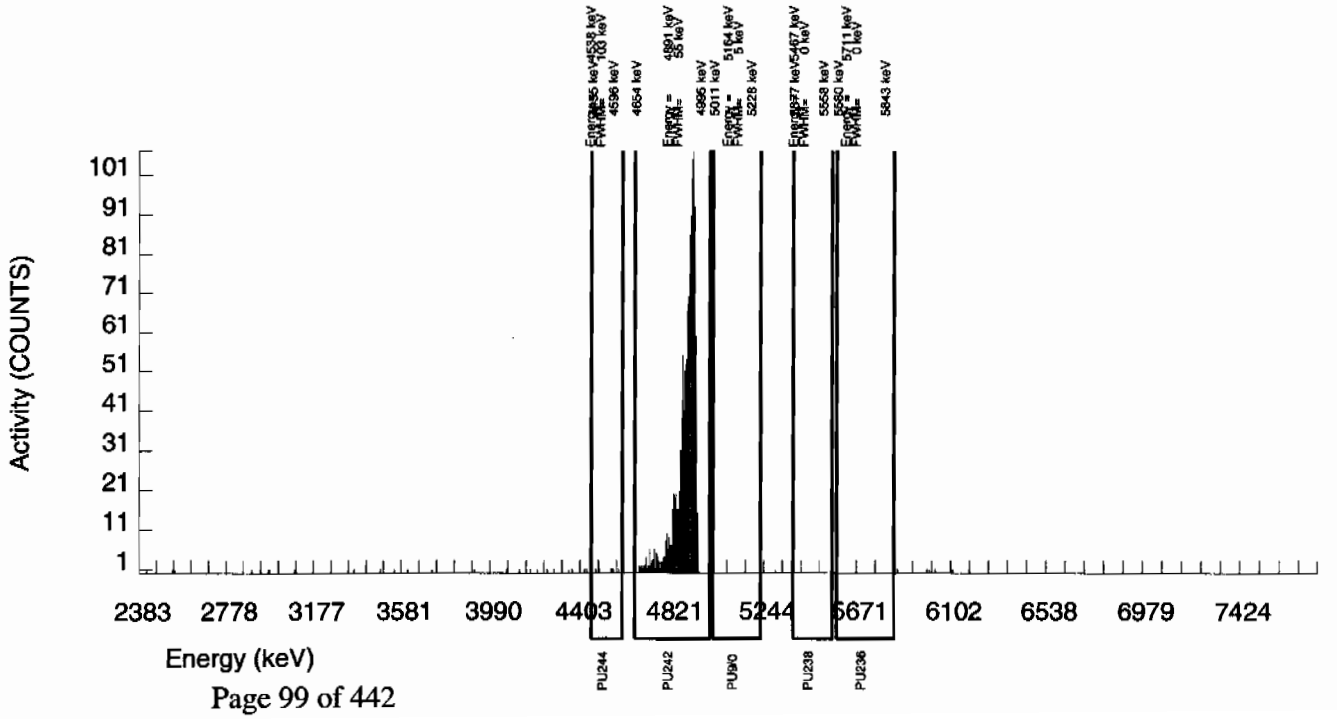

Alpha Spectroscopy Software Version 2.0
effective date: 09-Mar-1997

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 938075 SAMPLE DATE : 22-DEC-2009 00:00:00	SAMPLE ID : S0243557004_PU SAMPLE QTY: 1.256 G
DETECTOR NUMBER :79435 AVERAGE %EFFICIENCY :38.1437 % YIELD : 99.432	COUNT DATE: 7-JAN-2010 17:41:06 ELAPSED LIVE TIME(SEC): 60000.00 ANALYST :KXM4

MS/MSD	LCS/LCSD	TRACER	
ID : 0244-B	ID : 0244-B	ID : 1374-A	LIB FILE : ENV_ALPHA_PU.N
ISOTOPE : PU-9/0	ISOTOPE : PU-9/0	ISOTOPE : PU242	BKG FILE : B242.CNF;66
PCI/G : 4.178E+01	PCI/G : 4.178E+01	NOMINAL : 3.38543 dpm	BKG DATE : 3-JAN-2010
		RESULTS : 3.36622 dpm	EFF FILE : W242.CNF;24
			CAL DATE : 28-DEC-2009

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-9/0	5155.000	1.000	0.000	1.000	3.4797	99.90000	0.00E+00	1.34E-03	7.66E-03	1.79E-02	1.34E-03
PU-236	5749.000	1.000	0.000	1.000	2.1286	100.0000	0.00E+00	1.35E-03	4.68E-03	1.19E-02	1.35E-03
PU-238	5499.000	1.000	1.000	0.000	2.9680	99.90000	9.47E-04	9.48E-04	6.54E-03	1.56E-02	9.47E-04
PU242	4890.000	1284.000	1284.000	0.000	0.0000	100.0000	1.21E+00	6.79E-02	0.00E+00	2.56E-03	3.39E-02
PU-244	4589.000	5.000	5.000	0.000	5.2050	99.90000	4.73E-03	2.13E-03	1.15E-02	2.55E-02	2.12E-03

NOTE: Sg calculated via blank population (updated 5-JAN-2010)
NOTE: Sg of PU242 calculated as sqrt(BKG AREA)

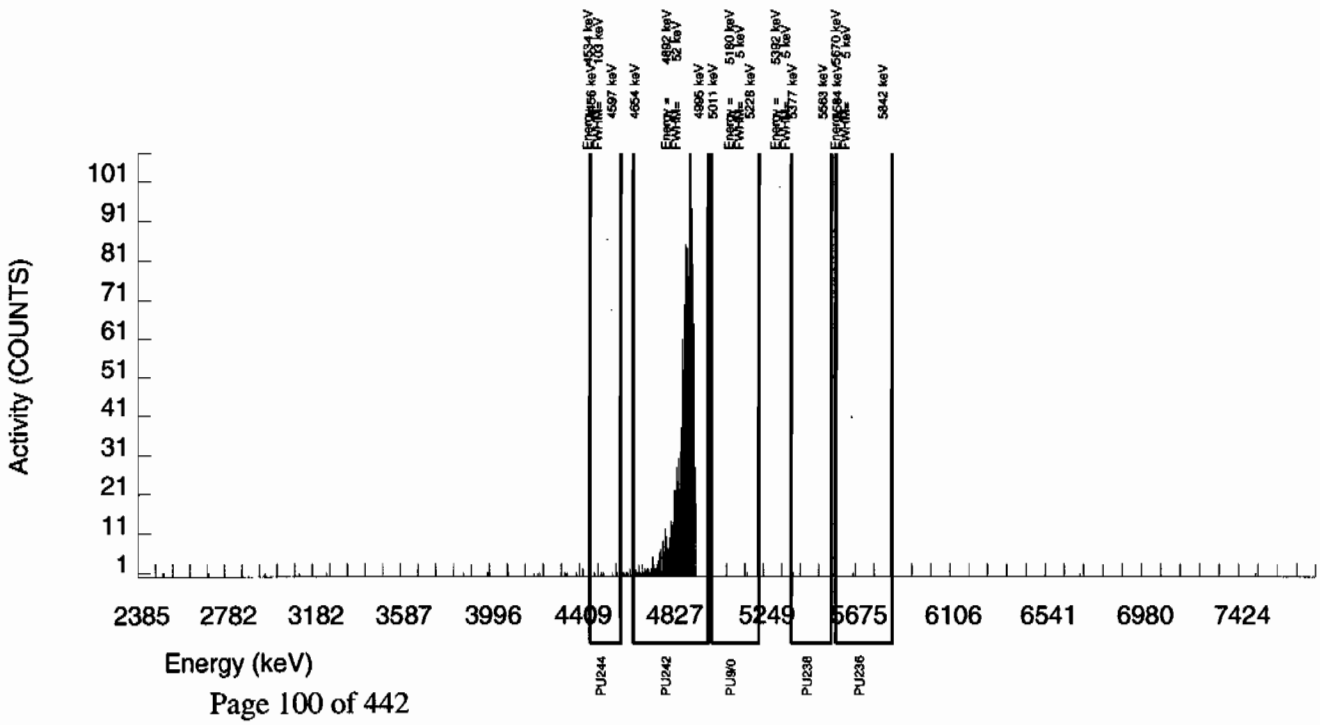

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effective date: 09-Mar-1997

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 938075 SAMPLE DATE : 22-DEC-2009 00:00:00	SAMPLE ID : S0243557005_PU SAMPLE QTY: 1.258 G
DETECTOR NUMBER :79436 AVERAGE %EFFICIENCY :37.2411 % YIELD : 107.236	COUNT DATE: 7-JAN-2010 17:41:09 ELAPSED LIVE TIME(SEC): 60000.00 ANALYST :KXM4

MS/MSD	LCS/LCSD	TRACER	
ID : 0244-B ISOTOPE : PU-9/0 PCI/G : 4.178E+01	ID : 0244-B ISOTOPE : PU-9/0 PCI/G : 4.178E+01	ID : 1374-A ISOTOPE : PU242 NOMINAL : 3.38543 dpm RESULTS : 3.63039 dpm	LIB FILE : ENV_ALPHA_PU.N BKG FILE : B243.CNF;66 BKG DATE : 3-JAN-2010 EFF FILE : W243.CNF;24 CAL DATE : 28-DEC-2009

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-9/0	5155.000	5.000	4.000	1.000	3.4797	99.90000	3.59E-03	2.21E-03	7.27E-03	1.70E-02	2.20E-03
PU-236	5749.000	0.000	-1.000	1.000	2.1286	100.0000	-9.07E-04	1.28E-03	4.44E-03	1.13E-02	1.28E-03
PU-238	5499.000	0.000	-1.000	1.000	2.9680	99.90000	-8.98E-04	1.27E-03	6.20E-03	1.48E-02	1.27E-03
PU242	4890.000	1354.000	1352.000	2.000	1.4142	100.0000	1.21E+00	6.91E-02	2.95E-03	8.33E-03	3.30E-02
PU-244	4589.000	11.000	11.000	0.000	5.2050	99.90000	9.87E-03	3.02E-03	1.09E-02	2.42E-02	2.98E-03

NOTE: Sg calculated via blank population (updated 5-JAN-2010)
NOTE: Sg of PU242 calculated as sqrt(BKG AREA)

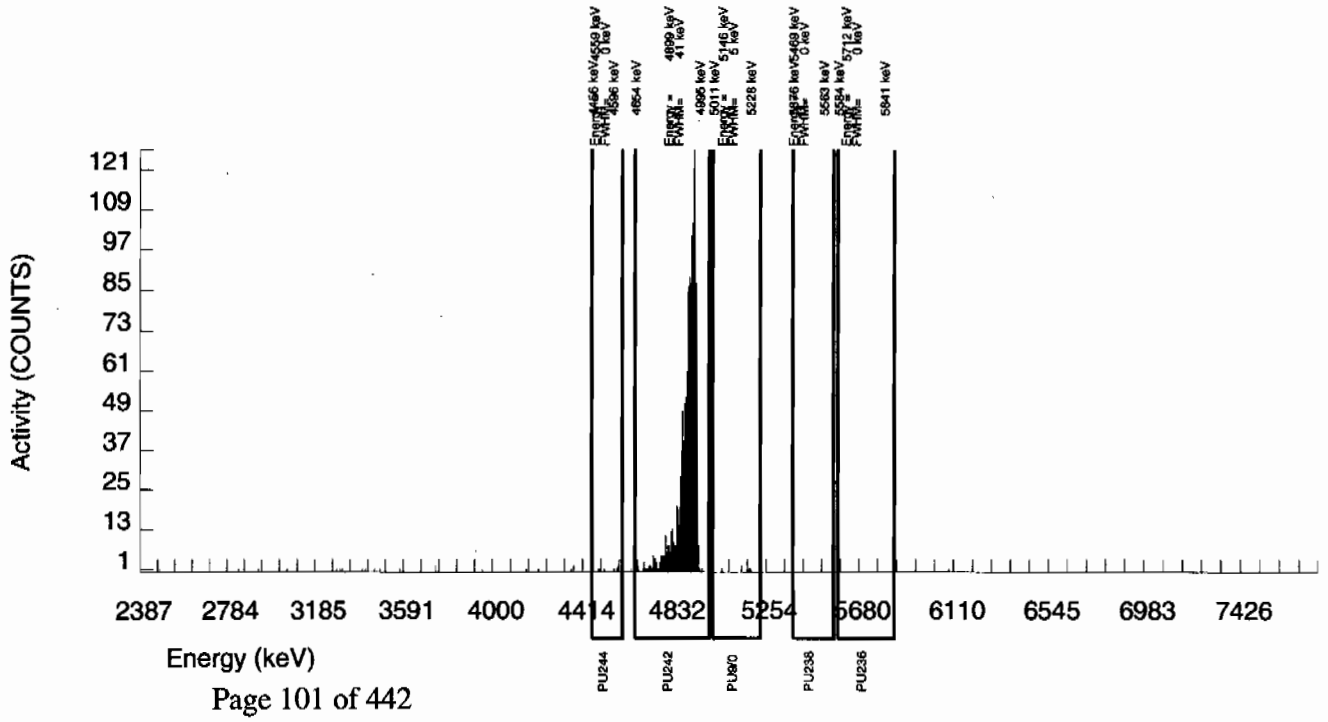

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effective date; 09-Mar-1997

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 938075 SAMPLE DATE : 22-DEC-2009 00:00:00	SAMPLE ID : S0243557006_PU SAMPLE QTY: 1.254 G
DETECTOR NUMBER :79437 AVERAGE %EFFICIENCY :37.3769 % YIELD : 96.730	COUNT DATE: 7-JAN-2010 17:41:12 ELAPSED LIVE TIME(SEC): 60000.00 ANALYST :KXM4

MS/MSD	LCS/LCSD	TRACER	
ID : 0244-B ISOTOPE : PU-9/0 PCI/G : 4.178E+01	ID : 0244-B ISOTOPE : PU-9/0 PCI/G : 4.178E+01	ID : 1374-A ISOTOPE : PU242 NOMINAL : 3.38543 dpm RESULTS : 3.27474 dpm	LIB FILE : ENV_ALPHA_PU.N BKG FILE : B244.CNF;66 BKG DATE : 3-JAN-2010 EFF FILE : W244.CNF;24 CAL DATE : 28-DEC-2009

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-9/0	5155.000	1.000	1.000	0.000	3.4797	99.90000	9.95E-04	9.96E-04	8.05E-03	1.88E-02	9.95E-04
PU-236	5749.000	1.000	1.000	0.000	2.1286	100.0000	1.00E-03	1.01E-03	4.92E-03	1.25E-02	1.00E-03
PU-238	5499.000	2.000	1.000	1.000	2.9680	99.90000	9.95E-04	1.72E-03	6.87E-03	1.64E-02	1.72E-03
PU242	4890.000	1224.000	1224.000	0.000	0.0000	100.0000	1.22E+00	6.88E-02	0.00E+00	2.69E-03	3.48E-02
PU-244	4589.000	2.000	2.000	0.000	5.2050	99.90000	1.99E-03	1.41E-03	1.20E-02	2.68E-02	1.41E-03

NOTE: Sg calculated via blank population (updated 5-JAN-2010)
NOTE: Sg of PU242 calculated as sqrt(BKG AREA)

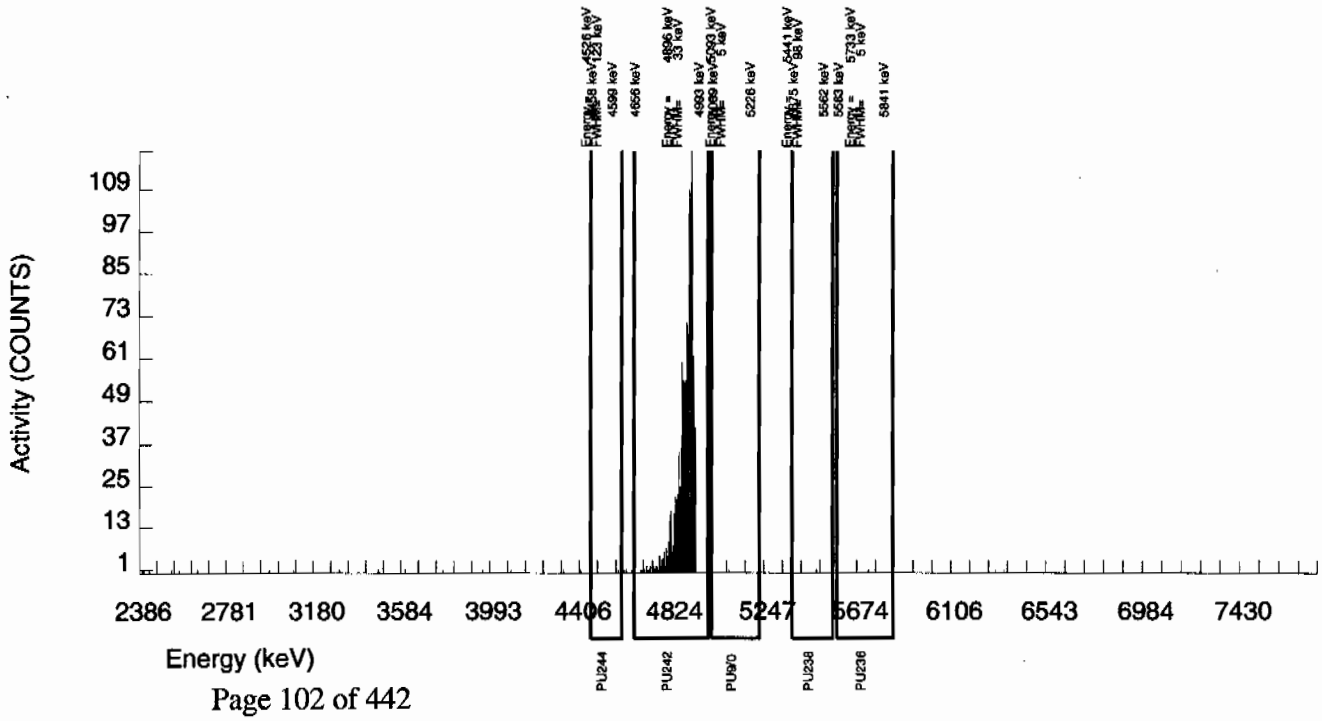

Alpha Spectroscopy Software Version 2.0
effective date: 09-Mar-1997

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 938075 SAMPLE DATE : 22-DEC-2009 00:00:00	SAMPLE ID : S0243557007_PU SAMPLE QTY: 1.250 G
DETECTOR NUMBER :79438 AVERAGE %EFFICIENCY :38.2426 % YIELD : 97.090	COUNT DATE: 7-JAN-2010 17:41:14 ELAPSED LIVE TIME(SEC): 60000.00 ANALYST :KXM4

MS/MSD	LCS/LCSD	TRACER	
ID : 0244-B ISOTOPE : PU-9/0 PCI/G : 4.178E+01	ID : 0244-B ISOTOPE : PU-9/0 PCI/G : 4.178E+01	ID : 1374-A ISOTOPE : PU242 NOMINAL : 3.38543 dpm RESULTS : 3.28691 dpm	LIB FILE : ENV_ALPHA_PU.N BKG FILE : B245.CNF;66 BKG DATE : 3-JAN-2010 EFF FILE : W245.CNF;25 CAL DATE : 28-DEC-2009

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-9/0	5155.000	0.000	0.000	0.000	3.4797	99.90000	0.00E+00	9.73E-04	7.86E-03	1.84E-02	9.72E-04
PU-236	5749.000	0.000	0.000	0.000	2.1286	100.0000	0.00E+00	9.83E-04	4.81E-03	1.22E-02	9.82E-04
PU-238	5499.000	4.000	4.000	0.000	2.9680	99.90000	3.89E-03	1.95E-03	6.71E-03	1.60E-02	1.94E-03
PU242	4890.000	1257.000	1257.000	0.000	0.0000	100.0000	1.22E+00	6.86E-02	0.00E+00	2.63E-03	3.44E-02
PU-244	4589.000	6.000	6.000	0.000	5.2050	99.90000	5.83E-03	2.40E-03	1.18E-02	2.62E-02	2.38E-03

NOTE: Sg calculated via blank population (updated 5-JAN-2010)
NOTE: Sg of PU242 calculated as sqrt(BKG AREA)

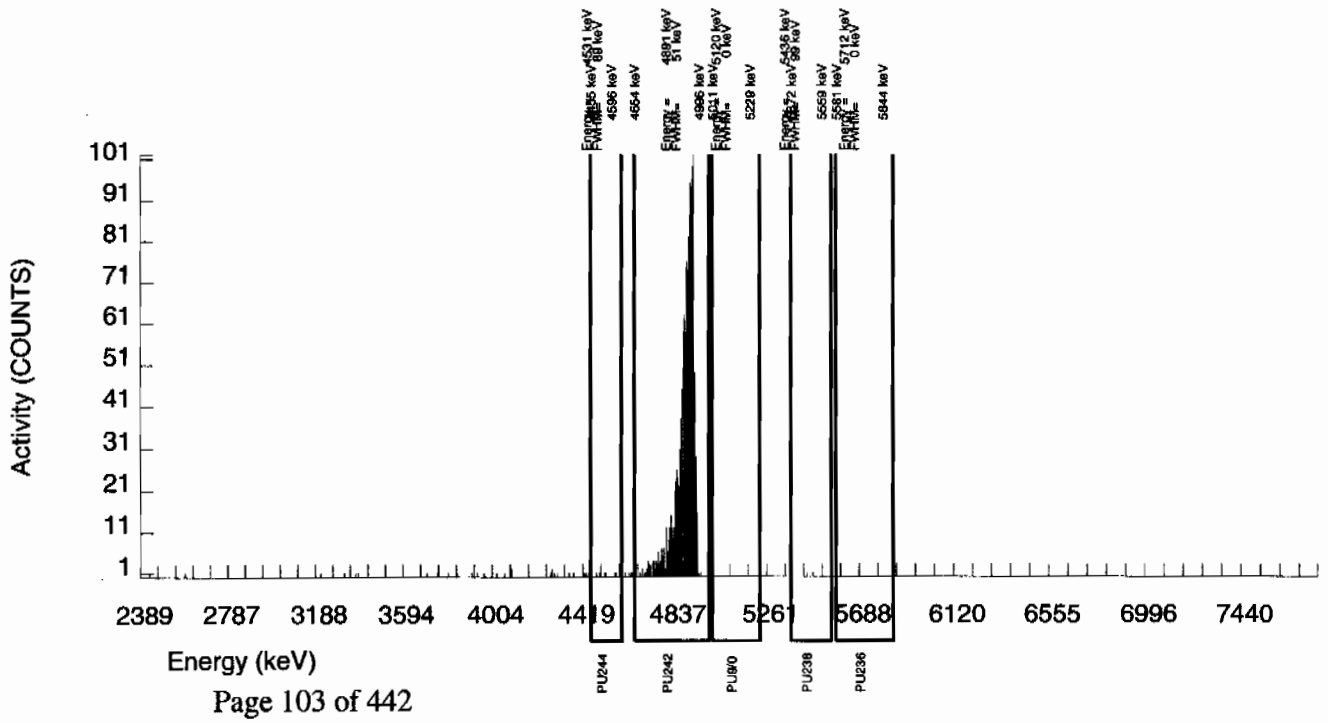

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effective date: 09-Mar-1997

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 938075 SAMPLE DATE : 22-DEC-2009 00:00:00	SAMPLE ID : S0243557008_PU SAMPLE QTY: 1.264 G
DETECTOR NUMBER :78912 AVERAGE %EFFICIENCY :37.7449 % YIELD : 100.796	COUNT DATE: 7-JAN-2010 17:41:16 ELAPSED LIVE TIME(SEC): 60000.00 ANALYST :KXM4

MS/MSD	LCS/LCSD	TRACER	
ID : 0244-B ISOTOPE : PU-9/0 PCI/G : 4.178E+01	ID : 0244-B ISOTOPE : PU-9/0 PCI/G : 4.178E+01	ID : 1374-A ISOTOPE : PU242 NOMINAL : 3.38543 dpm RESULTS : 3.41238 dpm	LIB FILE : ENV_ALPHA_PU.N BKG FILE : B246.CNF;66 BKG DATE : 3-JAN-2010 EFF FILE : W246.CNF;26 CAL DATE : 28-DEC-2009

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-9/0	5155.000	2.000	1.000	1.000	3.4797	99.90000	9.38E-04	1.62E-03	7.59E-03	1.77E-02	1.62E-03
PU-236	5749.000	0.000	-1.000	1.000	2.1286	100.0000	-9.47E-04	1.34E-03	4.64E-03	1.18E-02	1.34E-03
PU-238	5499.000	1.000	0.000	1.000	2.9680	99.90000	0.00E+00	1.33E-03	6.47E-03	1.55E-02	1.33E-03
PU242	4890.000	1290.000	1288.000	2.000	1.4142	100.0000	1.21E+00	6.74E-02	3.08E-03	8.70E-03	3.37E-02
PU-244	4589.000	6.000	6.000	0.000	5.2050	99.90000	5.63E-03	2.31E-03	1.14E-02	2.52E-02	2.30E-03

NOTE: Sg calculated via blank population (updated 5-JAN-2010)
NOTE: Sg of PU242 calculated as sqrt(BKG AREA)

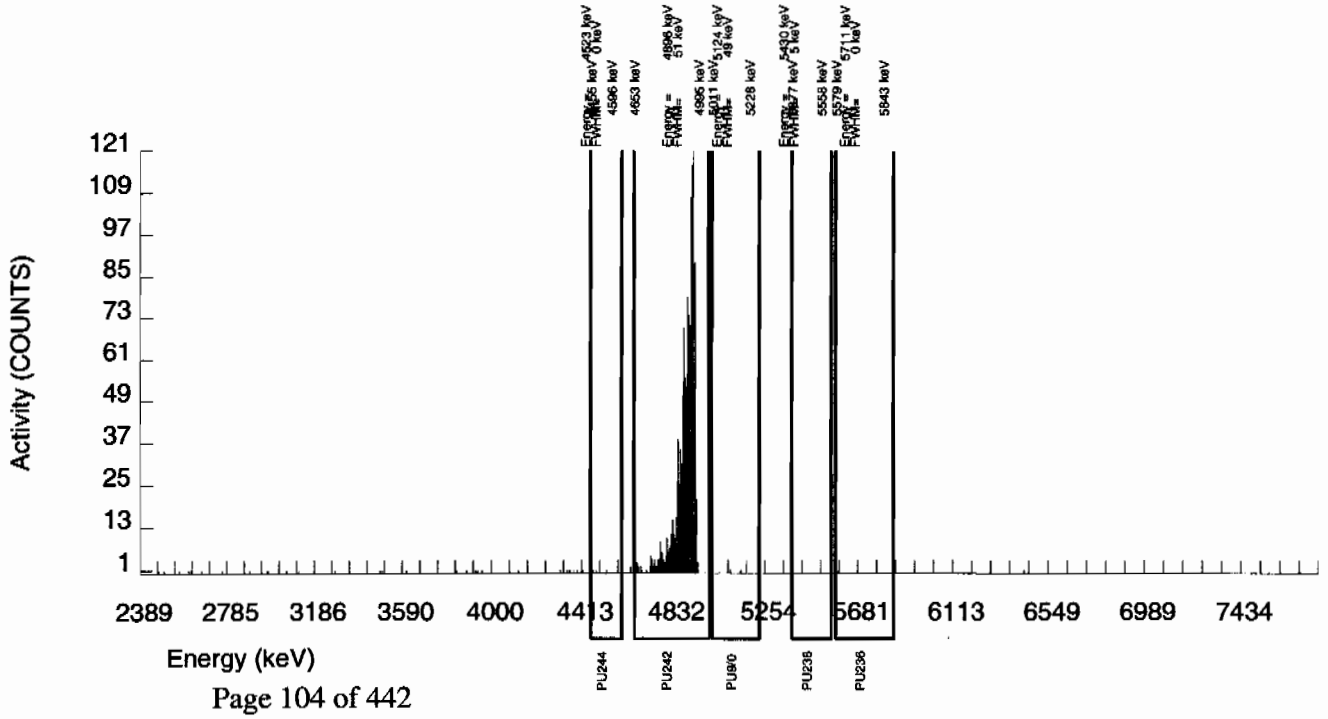

Alpha Spectroscopy Software Version 2.0
effective date: 09-Mar-1997

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 938075 SAMPLE DATE : 22-DEC-2009 00:00:00	SAMPLE ID : S0243557009_PU SAMPLE QTY: 1.257 G
DETECTOR NUMBER :79440 AVERAGE %EFFICIENCY :37.2936 % YIELD : 99.877	COUNT DATE: 7-JAN-2010 17:41:19 ELAPSED LIVE TIME(SEC): 60000.00 ANALYST :KXM4

MS/MSD	LCS/LCSD	TRACER	
ID : 0244-B ISOTOPE : PU-9/0 PCI/G : 4.178E+01	ID : 0244-B ISOTOPE : PU-9/0 PCI/G : 4.178E+01	ID : 1374-A ISOTOPE : PU242 NOMINAL : 3.38543 dpm RESULTS : 3.38128 dpm	LIB FILE : ENV_ALPHA_PU.N BKG FILE : B247.CNF;66 BKG DATE : 3-JAN-2010 EFF FILE : W247.CNF;25 CAL DATE : 28-DEC-2009

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-9/0	5155.000	2.000	2.000	0.000	3.4797	99.90000	1.93E-03	1.37E-03	7.80E-03	1.82E-02	1.36E-03
PU-236	5749.000	0.000	-1.000	1.000	2.1286	100.0000	-9.73E-04	1.38E-03	4.76E-03	1.21E-02	1.38E-03
PU-238	5499.000	0.000	0.000	0.000	2.9680	99.90000	0.00E+00	9.65E-04	6.65E-03	1.59E-02	9.63E-04
PU242	4890.000	1262.000	1261.000	1.000	1.0000	100.0000	1.21E+00	6.81E-02	2.24E-03	7.08E-03	3.42E-02
PU-244	4589.000	12.000	12.000	0.000	5.2050	99.90000	1.16E-02	3.38E-03	1.17E-02	2.59E-02	3.34E-03

NOTE: Sg calculated via blank population (updated 5-JAN-2010)
NOTE: Sg of PU242 calculated as sqrt(BKG AREA)

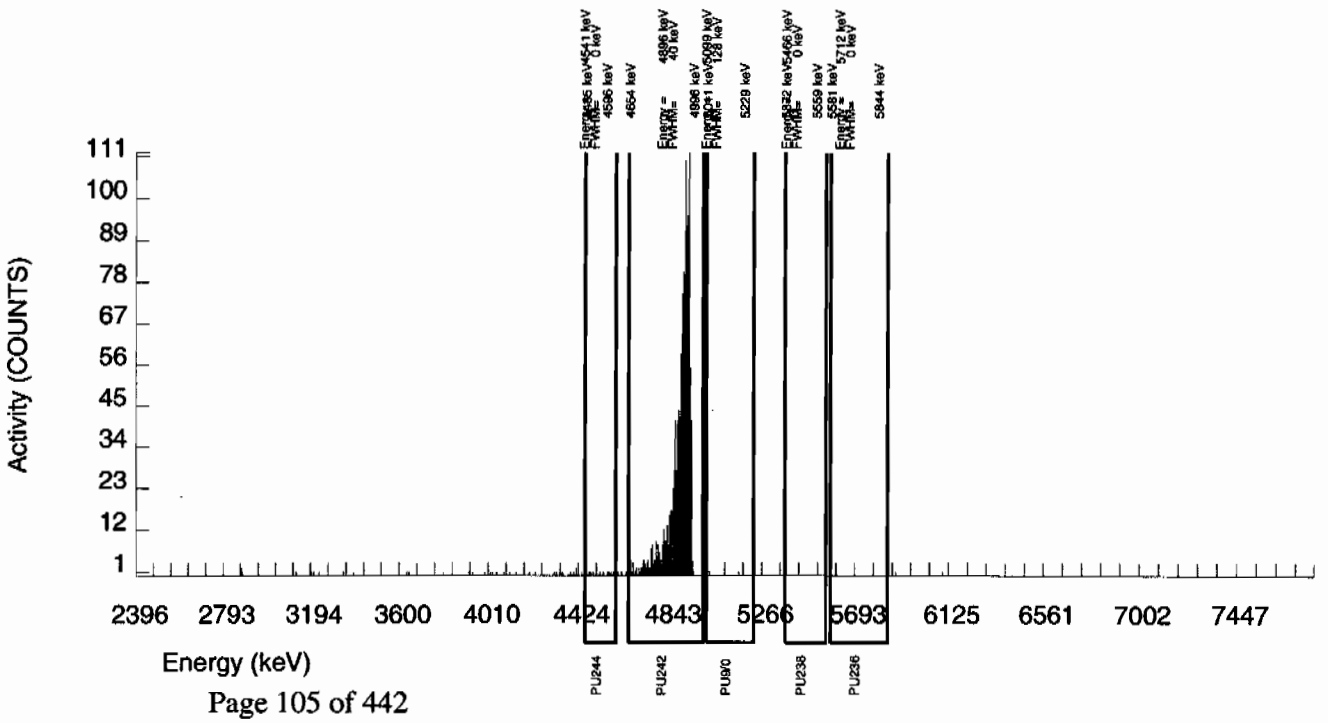

Alpha Spectroscopy Software Version 2.0
effective date: 09-Mar-1997

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 938075 SAMPLE DATE : 22-DEC-2009 00:00:00	SAMPLE ID : S0243557011_PU SAMPLE QTY: 1.251 G
DETECTOR NUMBER :79442 AVERAGE %EFFICIENCY :38.7607 % YIELD : 95.258	COUNT DATE: 7-JAN-2010 17:41:24 ELAPSED LIVE TIME(SEC): 60000.00 ANALYST :KXM4

MS/MSD	LCS/LCSD	TRACER	
ID : 0244-B	ID : 0244-B	ID : 1374-A	LIB FILE : ENV_ALPHA_PU.N
ISOTOPE : PU-9/0	ISOTOPE : PU-9/0	ISOTOPE : PU242	BKG FILE : B249.CNF;66
PCI/G : 4.178E+01	PCI/G : 4.178E+01	NOMINAL : 3.38543 dpm	BKG DATE : 3-JAN-2010
		RESULTS : 3.22491 dpm	EFF FILE : W249.CNF;27
			CAL DATE : 28-DEC-2009

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-9/0	5155.000	3.000	1.000	2.000	3.4797	99.90000	9.76E-04	2.18E-03	7.90E-03	1.84E-02	2.18E-03
PU-236	5749.000	1.000	0.000	1.000	2.1286	100.0000	0.00E+00	1.40E-03	4.83E-03	1.23E-02	1.39E-03
PU-238	5499.000	4.000	4.000	0.000	2.9680	99.90000	3.91E-03	1.96E-03	6.74E-03	1.61E-02	1.95E-03
PU242	4890.000	1251.000	1250.000	1.000	1.0000	100.0000	1.22E+00	6.86E-02	2.27E-03	7.18E-03	3.45E-02
PU-244	4589.000	11.000	11.000	0.000	5.2050	99.90000	1.07E-02	3.28E-03	1.18E-02	2.63E-02	3.24E-03

NOTE: Sg calculated via blank population (updated 5-JAN-2010)
NOTE: Sg of PU242 calculated as sqrt(BKG AREA)

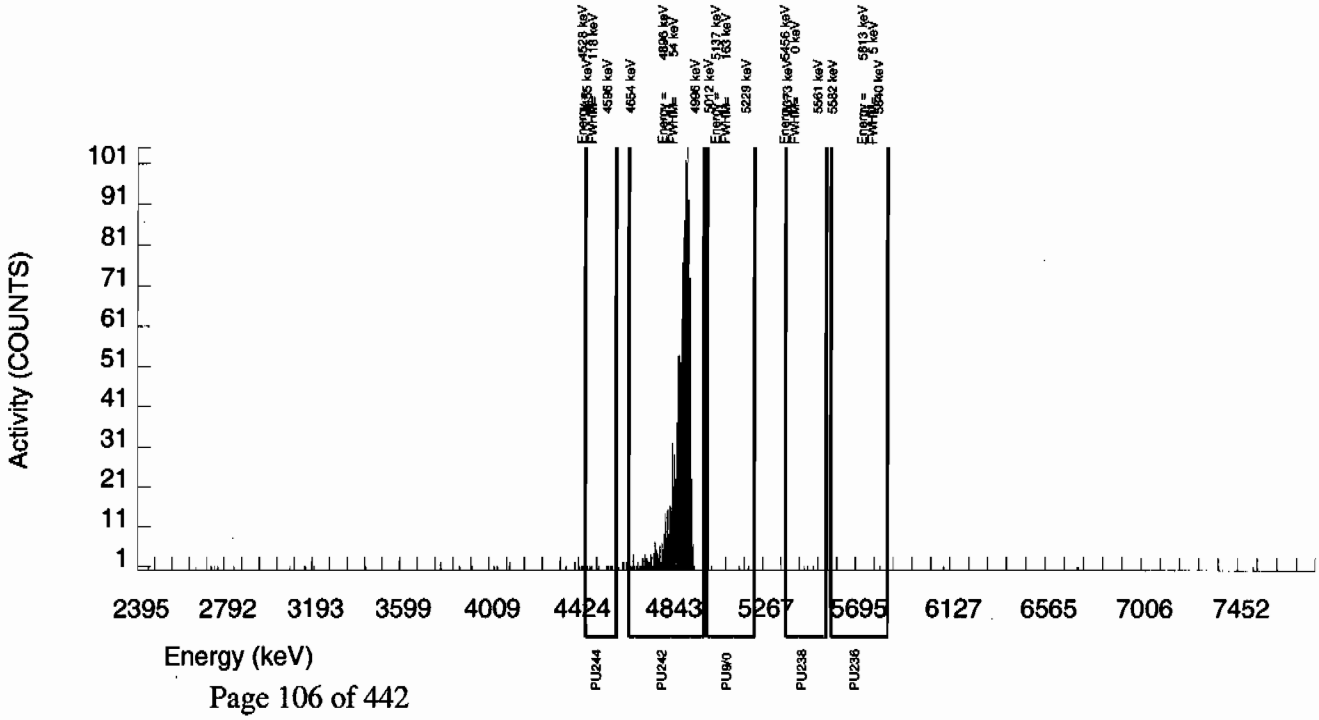

Alpha Spectroscopy Software Version 2.0
effective date: 09-Mar-1997

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 938075 SAMPLE DATE : 22-DEC-2009 00:00:00	SAMPLE ID : S0243557012_PU SAMPLE QTY: 1.257 G
DETECTOR NUMBER :79443 AVERAGE %EFFICIENCY :39.8912 % YIELD : 92.337	COUNT DATE: 7-JAN-2010 17:41:27 ELAPSED LIVE TIME(SEC): 60000.00 ANALYST :KXM4

MS/MSD	LCS/LCSD	TRACER	
ID : 0244-B ISOTOPE : PU-9/0 PCI/G : 4.178E+01	ID : 0244-B ISOTOPE : PU-9/0 PCI/G : 4.178E+01	ID : 1374-A ISOTOPE : PU242 NOMINAL : 3.38543 dpm RESULTS : 3.12600 dpm	LIB FILE : ENV_ALPHA_PU.N BKG FILE : B250.CNF;66 BKG DATE : 3-JAN-2010 EFF FILE : W250.CNF;25 CAL DATE : 28-DEC-2009

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-9/0	5155.000	3.000	3.000	0.000	3.4797	99.90000	2.92E-03	1.69E-03	7.88E-03	1.84E-02	1.69E-03
PU-236	5749.000	1.000	-1.000	2.000	2.1286	100.0000	-9.84E-04	1.70E-03	4.82E-03	1.23E-02	1.70E-03
PU-238	5499.000	2.000	2.000	0.000	2.9680	99.90000	1.95E-03	1.38E-03	6.72E-03	1.61E-02	1.38E-03
PU242	4890.000	1247.000	1247.000	0.000	0.0000	100.0000	1.21E+00	6.83E-02	0.00E+00	2.64E-03	3.44E-02
PU-244	4589.000	7.000	7.000	0.000	5.2050	99.90000	6.82E-03	2.60E-03	1.18E-02	2.62E-02	2.58E-03

NOTE: Sg calculated via blank population (updated 5-JAN-2010)
NOTE: Sg of PU242 calculated as sqrt(BKG AREA)

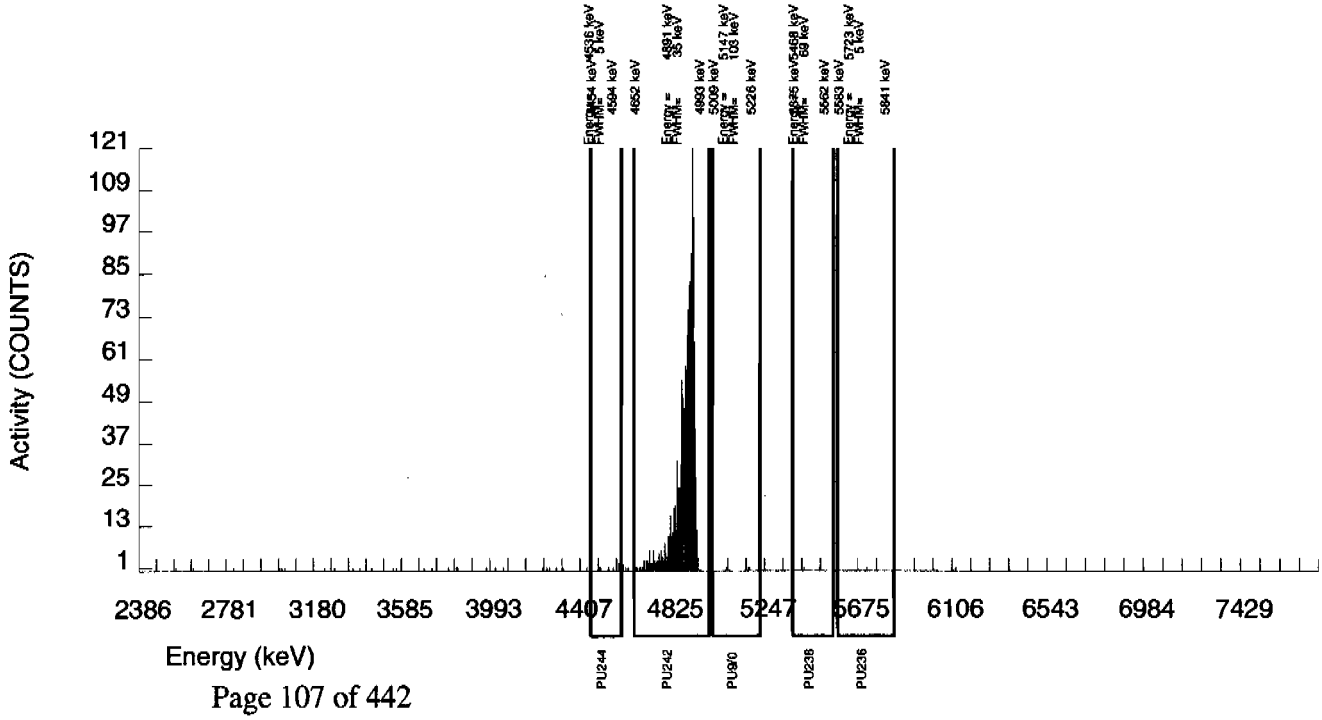

Alpha Spectroscopy Software Version 2.0
effective date: 09-Mar-1997

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 938075 SAMPLE DATE : 22-DEC-2009 00:00:00	SAMPLE ID : S0243557013_PU SAMPLE QTY: 1.258 G
DETECTOR NUMBER :79444 AVERAGE %EFFICIENCY :38.9937 % YIELD : 99.992	COUNT DATE: 7-JAN-2010 17:41:30 ELAPSED LIVE TIME(SEC): 60000.00 ANALYST :KXM4

MS/MSD	LCS/LCSD	TRACER	
ID : 0244-B ISOTOPE : PU-9/0 PCI/G : 4.178E+01	ID : 0244-B ISOTOPE : PU-9/0 PCI/G : 4.178E+01	ID : 1374-A ISOTOPE : PU242 NOMINAL : 3.38543 dpm RESULTS : 3.38516 dpm	LIB FILE : ENV_ALPHA_PU.N BKG FILE : B251.CNF;66 BKG DATE : 3-JAN-2010 EFF FILE : W251.CNF;25 CAL DATE : 28-DEC-2009

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-9/0	5155.000	8.000	7.000	1.000	3.4797	99.90000	6.43E-03	2.78E-03	7.44E-03	1.74E-02	2.76E-03
PU-236	5749.000	1.000	1.000	0.000	2.1286	100.0000	9.29E-04	9.30E-04	4.55E-03	1.16E-02	9.29E-04
PU-238	5499.000	12.000	12.000	0.000	2.9680	99.90000	1.10E-02	3.23E-03	6.35E-03	1.52E-02	3.19E-03
PU242	4890.000	1322.000	1320.000	2.000	1.4142	100.0000	1.21E+00	6.73E-02	3.02E-03	8.53E-03	3.34E-02
PU-244	4589.000	5.000	5.000	0.000	5.2050	99.90000	4.60E-03	2.07E-03	1.11E-02	2.48E-02	2.06E-03

NOTE: Sg calculated via blank population (updated 5-JAN-2010)
NOTE: Sg of PU242 calculated as sqrt(BKG AREA)

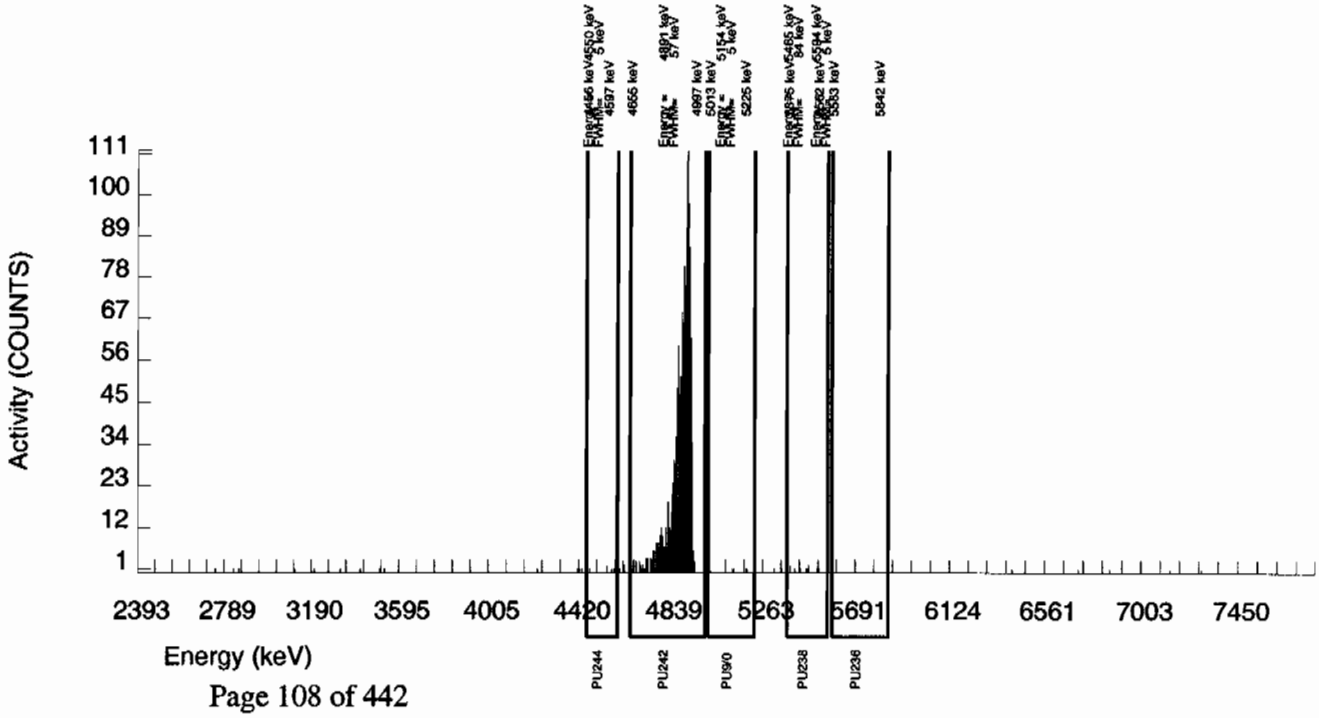

Alpha Spectroscopy Software Version 2.0
effective date: 09-Mar-1997

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 938075 SAMPLE DATE : 5-JAN-2010 00:00:00.	SAMPLE ID : S1202007340_PU SAMPLE QTY: 1.000 G
DETECTOR NUMBER :45-149AA3 AVERAGE %EFFICIENCY :32.2571 % YIELD : 96.699	COUNT DATE: 7-JAN-2010 11:38:43 ELAPSED LIVE TIME(SEC): 60000.00 ANALYST :KXM4

MS/MSD	LCS/LCSD	TRACER	
ID : 0244-B ISOTOPE : PU-9/0 PCI/G : 4.178E+01	ID : 0244-B ISOTOPE : PU-9/0 PCI/G : 4.178E+01	ID : 1374-A ISOTOPE : PU242 NOMINAL : 3.38543 dpm RESULTS : 3.27369 dpm	LIB FILE : ENV_ALPHA_PU.N BKG FILE : B072.CNF;1087 BKG DATE : 5-JAN-2010 EFF FILE : W072.CNF;273 CAL DATE : 10-DEC-2009

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-9/0	5155.000	4.000	-1.000	5.000	3.4797	99.90000	-1.45E-03	4.34E-03	1.17E-02	2.73E-02	4.34E-03
PU-236	5749.000	8.000	-3.000	11.000	2.1286	100.0000	-4.34E-03	6.31E-03	7.15E-03	1.82E-02	6.31E-03
PU-238	5499.000	16.000	-1.000	17.000	2.9680	99.90000	-1.45E-03	8.30E-03	9.98E-03	2.39E-02	8.30E-03
PU242	4890.000	1059.000	1056.000	3.000	1.7321	100.0000	1.52E+00	9.00E-02	5.82E-03	1.56E-02	4.71E-02
PU-244	4589.000	3.000	2.000	1.000	5.2050	99.90000	2.89E-03	2.89E-03	1.75E-02	3.89E-02	2.89E-03

NOTE: Sg calculated via blank population (updated 5-JAN-2010)
NOTE: Sg of PU242 calculated as sqrt(BKG AREA)

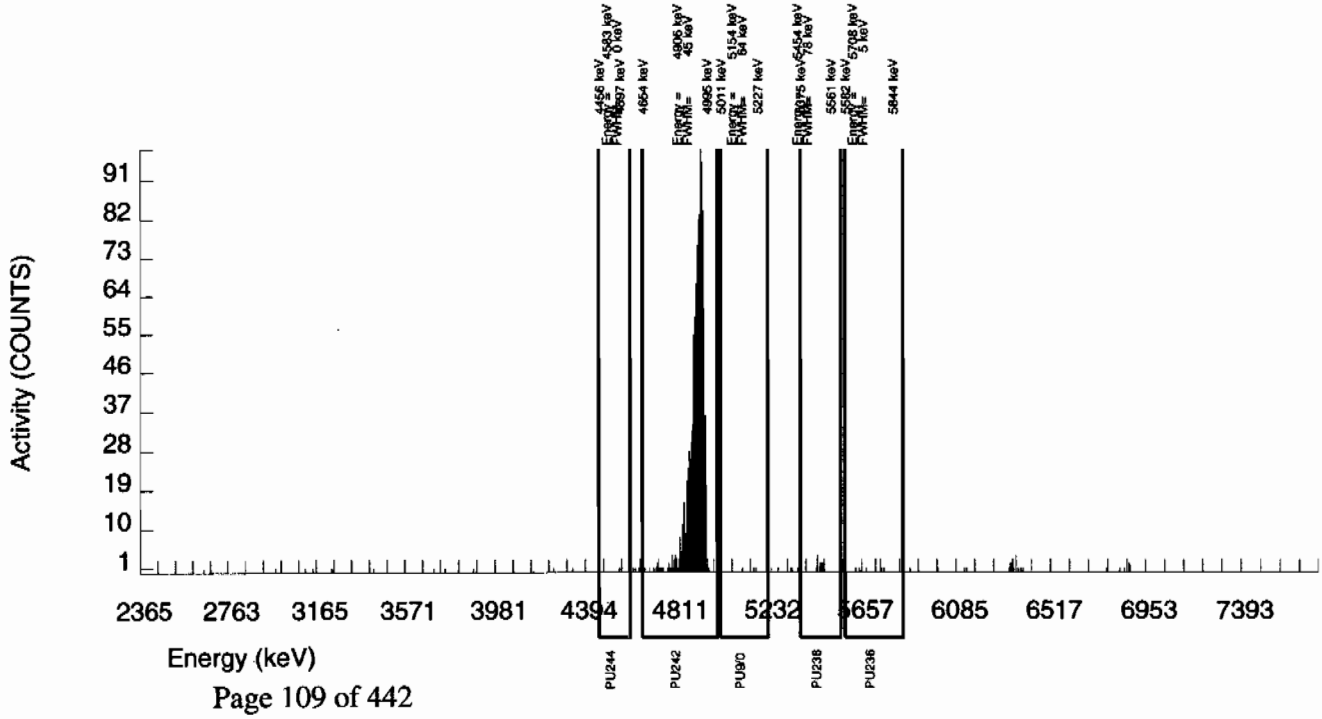

Alpha Spectroscopy Software Version 2.0
effective date: 09-Mar-1997

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 938075 SAMPLE DATE : 22-DEC-2009 00:00:00	SAMPLE ID : S1202007341_PU SAMPLE QTY: 1.274 G
DETECTOR NUMBER :78775 AVERAGE %EFFICIENCY :33.0537 % YIELD : 95.263	COUNT DATE: 7-JAN-2010 11:38:43 ELAPSED LIVE TIME(SEC): 60000.00 ANALYST :KXM4

MS/MSD	LCS/LCSD	TRACER	
ID : 0244-B ISOTOPE : PU-9/0 PCI/G : 4.178E+01	ID : 0244-B ISOTOPE : PU-9/0 PCI/G : 4.178E+01	ID : 1374-A ISOTOPE : PU242 NOMINAL : 3.38543 dpm RESULTS : 3.22505 dpm	LIB FILE : ENV_ALPHA_PU.N BKG FILE : B073.CNF;1089 BKG DATE : 5-JAN-2010 EFF FILE : W073.CNF;281 CAL DATE : 10-DEC-2009

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-9/0	5155.000	11.000	10.000	1.000	3.4797	99.90000	1.12E-02	3.93E-03	9.10E-03	2.12E-02	3.89E-03
PU-236	5749.000	0.000	0.000	0.000	2.1286	100.0000	0.00E+00	1.14E-03	5.56E-03	1.42E-02	1.14E-03
PU-238	5499.000	0.000	-1.000	1.000	2.9680	99.90000	-1.12E-03	1.59E-03	7.76E-03	1.86E-02	1.59E-03
PU242	4890.000	1070.000	1066.000	4.000	2.0000	100.0000	1.20E+00	7.05E-02	5.22E-03	1.35E-02	3.68E-02
PU-244	4589.000	5.000	4.000	1.000	5.2050	99.90000	4.50E-03	2.76E-03	1.36E-02	3.03E-02	2.75E-03

NOTE: Sg calculated via blank population (updated 5-JAN-2010)
NOTE: Sg of PU242 calculated as sqrt(BKG AREA)

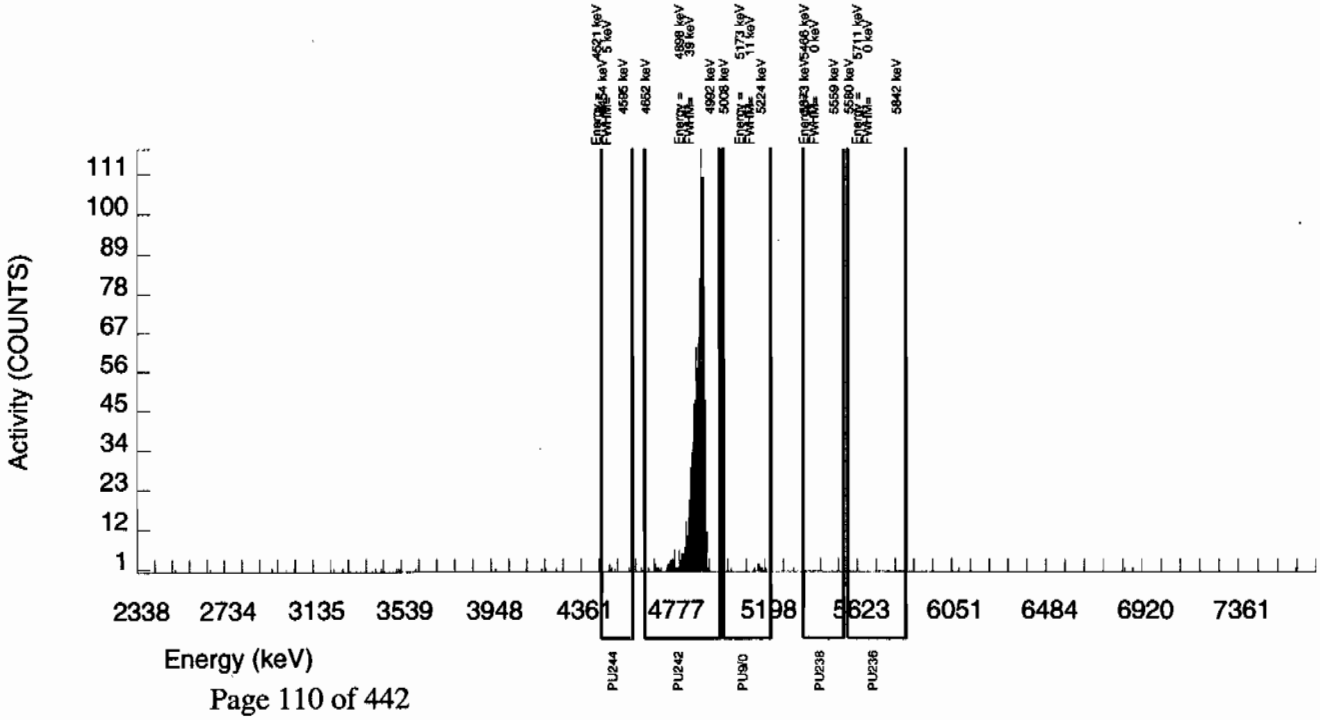

Alpha Spectroscopy Software Version 2.0
effective date: 09-Mar-1997

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 938075 SAMPLE DATE : 5-JAN-2010 00:00:00.	SAMPLE ID : S1202007342_PU SAMPLE QTY: 0.103 G
DETECTOR NUMBER :78266 AVERAGE %EFFICIENCY :31.6766 % YIELD : 95.488	COUNT DATE: 7-JAN-2010 11:38:43 ELAPSED LIVE TIME(SEC): 60000.00 ANALYST :KXM4

MS/MSD	LCS/LCSD	TRACER	
ID : 0244-B ISOTOPE : PU-9/0 PCI/G : 4.178E+01	ID : 0244-B ISOTOPE : PU-9/0 PCI/G : 4.178E+01	ID : 1374-A ISOTOPE : PU242 NOMINAL : 3.38543 dpm RESULTS : 3.23267 dpm	LIB FILE : ENV_ALPHA_PU.N BKG FILE : B074.CNF;1111 BKG DATE : 5-JAN-2010 EFF FILE : W074.CNF;328 CAL DATE : 10-DEC-2009

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-9/0	5155.000	2362.000	2362.000	0.000	3.4797	99.90000	3.42E+01	2.15E+00	1.17E-01	2.74E-01	7.03E-01
PU-236	5749.000	4.000	3.000	1.000	2.1286	100.0000	4.35E-02	3.25E-02	7.16E-02	1.82E-01	3.24E-02
PU-238	5499.000	466.000	463.000	3.000	2.9680	99.90000	6.70E+00	5.07E-01	9.99E-02	2.39E-01	3.13E-01
PU242	4890.000	1026.000	1024.000	2.000	1.4142	100.0000	1.48E+01	9.95E-01	4.76E-02	1.34E-01	4.64E-01
PU-244	4589.000	8.000	5.000	3.000	5.2050	99.90000	7.24E-02	4.82E-02	1.75E-01	3.90E-01	4.80E-02

NOTE: Sg calculated via blank population (updated 5-JAN-2010)
NOTE: Sg of PU242 calculated as sqrt(BKG AREA)

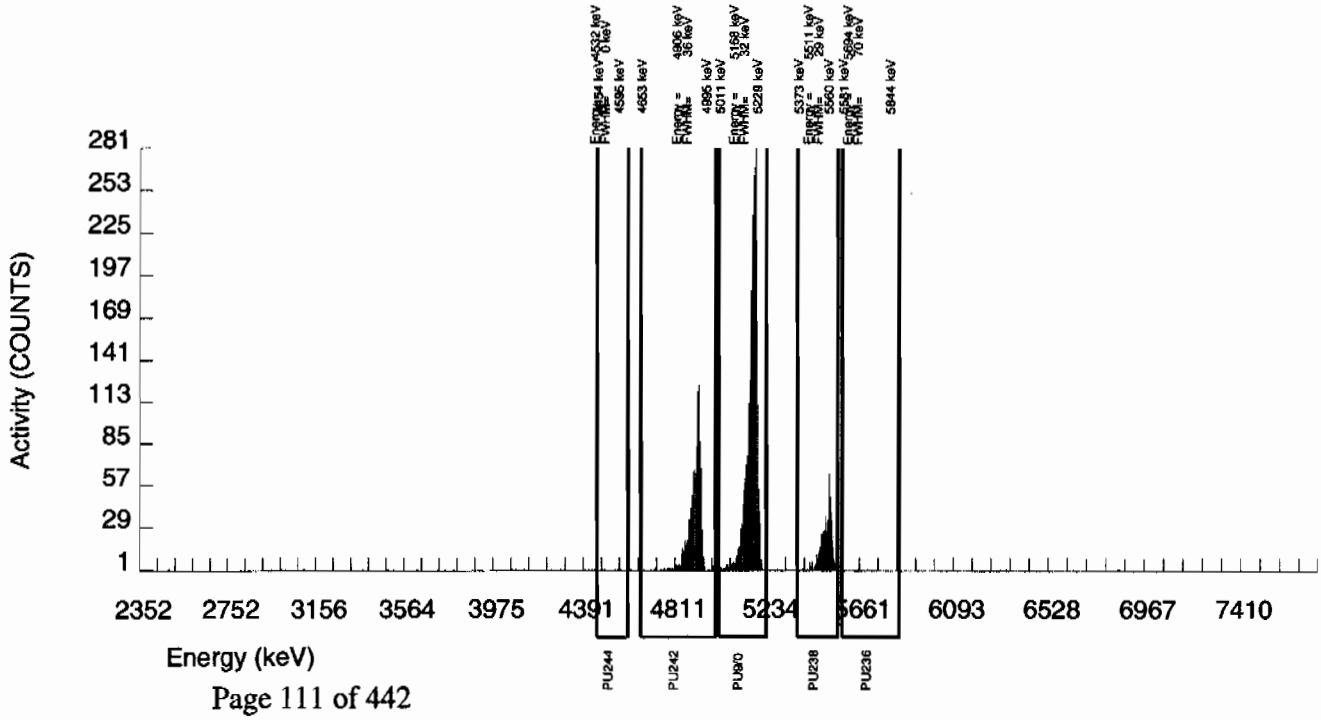

Radiochemistry Batch Checklist, Rev10

Batch# 938076 Product: U Date: 1/14/10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			NA
Samples have been blank corrected (if required)	✓		
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.			case narrative
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	✓		
Sample was run within hold time.	✓		
Sample was correctly preserved if required.	✓		
Smears Taken for Radioactive batches.			NA
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	✓		
Aux data is correct.			NA
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)			NA
Batch entered into Case Narrative.	✓		
Batch Data Exception Reports (DER) completed, if applicable.			NA
Batch Data Exception Reports (DER) second reviewed and disposition verified to be completed.			NA
Aliquot Correction completed if required.			NA
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

GEL Laboratories, LLC

RADchecklistrev10, revised 1/13/2010

Primary Review Performed By: [signature] 1/14/10

Secondary Review Performed By: [signature] 1/14/10

1/10 - (1/21)

CAM

Uranium Que Sheet

31-DEC-09

Batch #: 938076 **Analyst:** KXM4 **First Client Due Date:** 21-JAN-10 **Internal Due Date:** 10-JAN-10

Tracer Isotope: U-232/U-236 **Tracer Code:** 128J-H **Expiration Date:** 12-9-10 **Vol:** 0.1ml

LCS Isotope: U-238 **LCS Code:** SRM 0244-A **Expiration Date:** 10-31-10 **Vol:** 0.1g

Spike Isotope: U-238 **Spike Code:** NA **Expiration Date:** NA **Vol:** NA

Prep Date: 1-4-10 **Initials:** YM **Pipet ID:** 2471058 **Balance ID:** 50410272 **Witness:** [illegible] 1/4/10

Sample ID	Client Description	Type	Hazard Code	Min CRDL	Matrix	Client	Collection Date	Pos.	Label #	Wet/Dry Aliquot (g/ml/l)	U Det #
243557001-1	RE03-09-14233	SAMPLE		.1 pCi/g	SOIL	LANL010	22-DEC-09	1	1	0.506	142
243557002-1	RE03-09-14236	SAMPLE		.1 pCi/g	SOIL	LANL010	22-DEC-09	2	2	0.506	143
* 243557003-1	RE03-09-14239	SAMPLE		.1 pCi/g	SOIL	LANL010	22-DEC-09	3	3	0.504	149 ~~144~~
243557004-1	RE03-09-14240	SAMPLE		.1 pCi/g	SOIL	LANL010	22-DEC-09	4	4	0.531	145
243557005-1	RE03-09-14231	SAMPLE		.1 pCi/g	SOIL	LANL010	22-DEC-09	5	5	0.500	146
243557006-1	RE03-09-14232	SAMPLE		.1 pCi/g	SOIL	LANL010	22-DEC-09	6	6	0.518	147
243557007-1	RE03-09-14235	SAMPLE		.1 pCi/g	SOIL	LANL010	22-DEC-09	7	7	0.503	148
243557008-1	RE03-09-14238	SAMPLE		.1 pCi/g	SOIL	LANL010	22-DEC-09	8	8	0.517	161 ~~149~~
243557009-1	RE03-09-14234	SAMPLE		.1 pCi/g	SOIL	LANL010	22-DEC-09	9	9	0.500	162
243557010-1	RE03-09-14241	SAMPLE		.1 pCi/g	SOIL	LANL010	22-DEC-09	10	10	0.514	168 ~~163~~
243557011-1	RE03-10-2737	SAMPLE		.1 pCi/g	SOIL	LANL010	22-DEC-09	11	11	0.508	170 ~~147~~
243557012-1	RE03-10-2736	SAMPLE		.1 pCi/g	SOIL	LANL010	22-DEC-09	12	12	0.500	171 ~~145~~
243557013-1	RE03-10-9873	SAMPLE		.1 pCi/g	SOIL	LANL010	22-DEC-09	13	13	0.537	172 ~~166~~
1202007343-1	MB for batch 938076	MB		.1 pCi/g	SOIL	QC ACCOUNT		14	14	~~0.537~~	149
1202007344-1	RE03-09-14239(243557003DUP)	DUP		.1 pCi/g	SOIL	QC ACCOUNT	22-DEC-09	15	15	0.507	150
1202007345-1	LCS for batch 938076	LCS		.1 pCi/g	SOIL	QC ACCOUNT		16	16	0.124	151

Choose SOP used: GL-RAD-A-011

Solid Sample Dissolution by: LEACH or DIGESTION
Circle One

Data Reviewed By: [illegible] 1/14/10

Blank Correction Report

Batch ID 938076

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
1202007344	DUP	Uranium-233/234	0.507 g	0.792	0.0752	0.101	.002603550	pCi/g	NO
		Uranium-235/236	0.507 g	0.0361	0.0123	0.0625	0	pCi/g	NO
		Uranium-238	0.507 g	0.770	0.0735	0.0584	.003333333	pCi/g	NO
1202007345	LCS	Uranium-233/234	0.124 g	5.48	0.496	0.439	.010645161	pCi/g	NO
		Uranium-235/236	0.124 g	0.193	0.0598	0.273	0	pCi/g	NO
		Uranium-238	0.124 g	4.87	0.449	0.255	.013629032	pCi/g	NO
1202007343	MB	Uranium-233/234	1.00 g	0.00132	0.00369	0.0523	.00132	pCi/g	YES
		Uranium-235/236	1.00 g	0.00	0.00418	0.0325	0	pCi/g	NO
		Uranium-238	1.00 g	0.00169	0.00293	0.0303	.00169	pCi/g	YES
243557001	RE03-09-14233	Uranium-233/234	0.506 g	0.830	0.0795	0.108	.002608696	pCi/g	NO
		Uranium-235/236	0.506 g	0.0515	0.0153	0.0669	0	pCi/g	NO
		Uranium-238	0.506 g	1.00	0.0922	0.0625	.003339921	pCi/g	NO
243557002	RE03-09-14236	Uranium-233/234	0.506 g	0.673	0.0691	0.112	.002608696	pCi/g	NO
		Uranium-235/236	0.506 g	0.0624	0.0173	0.0693	0	pCi/g	NO
		Uranium-238	0.506 g	0.724	0.0735	0.0648	.003339921	pCi/g	NO
243557003	RE03-09-14239	Uranium-233/234	0.504 g	0.893	0.084	0.107	.002619048	pCi/g	NO
		Uranium-235/236	0.504 g	0.0512	0.0174	0.0664	0	pCi/g	NO
		Uranium-238	0.504 g	0.735	0.0723	0.062	.003353175	pCi/g	NO
243557004	RE03-09-14240	Uranium-233/234	0.531 g	0.836	0.082	0.113	.002485876	pCi/g	NO
		Uranium-235/236	0.531 g	0.0361	0.013	0.0703	0	pCi/g	NO
		Uranium-238	0.531 g	0.782	0.0782	0.0657	.003182674	pCi/g	NO
243557005	RE03-09-14231	Uranium-233/234	0.500 g	0.844	0.0806	0.109	.00264	pCi/g	NO
		Uranium-235/236	0.500 g	0.0477	0.0148	0.0674	0	pCi/g	NO
		Uranium-238	0.500 g	0.771	0.0752	0.063	.00338	pCi/g	NO
243557006	RE03-09-14232	Uranium-233/234	0.518 g	0.704	0.0698	0.102	.002548263	pCi/g	NO
		Uranium-235/236	0.518 g	0.0324	0.0117	0.063	0	pCi/g	NO
		Uranium-238	0.518 g	0.799	0.0767	0.0589	.003262548	pCi/g	NO
243557007	RE03-09-14235	Uranium-233/234	0.503 g	1.19	0.111	0.133	.002624254	pCi/g	NO
		Uranium-235/236	0.503 g	0.0319	0.0132	0.0826	0	pCi/g	NO
		Uranium-238	0.503 g	1.05	0.101	0.0772	.003359841	pCi/g	NO
243557008	RE03-09-14238	Uranium-233/234	0.517 g	0.799	0.0685	0.0678	.002553191	pCi/g	NO
		Uranium-235/236	0.517 g	0.0406	0.0115	0.0421	0	pCi/g	NO
		Uranium-238	0.517 g	0.694	0.0611	0.0393	.003268859	pCi/g	NO
243557009	RE03-09-14234	Uranium-233/234	0.500 g	0.842	0.0717	0.0694	.00264	pCi/g	NO
		Uranium-235/236	0.500 g	0.0387	0.0107	0.0431	0	pCi/g	NO
		Uranium-238	0.500 g	0.817	0.070	0.0402	.00338	pCi/g	NO
243557010	RE03-09-14241	Uranium-233/234	0.514 g	0.849	0.0731	0.0725	.002568093	pCi/g	NO
		Uranium-235/236	0.514 g	0.0491	0.0124	0.045	0	pCi/g	NO
		Uranium-238	0.514 g	0.898	0.0765	0.042	.003287938	pCi/g	NO
243557011	RE03-10-2737	Uranium-233/234	0.500 g	1.10	0.0908	0.0749	.00264	pCi/g	NO
		Uranium-235/236	0.500 g	0.0747	0.0158	0.0465	0	pCi/g	NO

Blank Correction Report

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
243557011	RE03-10-2737	Uranium-238	0.500 g	1.01	0.0851	0.0435	.00338	pCi/g	NO
243557012	RE03-10-2736	Uranium-233/234	0.500 g	0.861	0.0733	0.0692	.00264	pCi/g	NO
		Uranium-235/236	0.500 g	0.0331	0.0106	0.043	0	pCi/g	NO
		Uranium-238	0.500 g	0.865	0.0735	0.0402	.00338	pCi/g	NO
243557013	RE03-10-9873	Uranium-233/234	0.537 g	0.826	0.070	0.0659	.002458101	pCi/g	NO
		Uranium-235/236	0.537 g	0.0552	0.0126	0.0409	0	pCi/g	NO
		Uranium-238	0.537 g	0.783	0.0671	0.0382	.003147114	pCi/g	NO

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effective date: 09-Mar-1997

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 938076 SAMPLE DATE : 22-DEC-2009 00:00:00	SAMPLE ID : S0243557001_UU SAMPLE QTY: 0.506 G
DETECTOR NUMBER :64261 AVERAGE %EFFICIENCY :25.8181 % YIELD : 99.220	COUNT DATE: 6-JAN-2010 18:07:23 ELAPSED LIVE TIME(SEC): 60000.00 ANALYST :KXM4

MS/MSD	LCS/LCSD	TRACER	
ID : 0244-A	ID : 0244-A	ID : 1283-H	LIB FILE : ENV_ALPHA_UU.N
ISOTOPE : U-238	ISOTOPE : U-238	ISOTOPE : U232	BKG FILE : B142.CNF;379
PCI/G : 5.750E+00	PCI/G : 5.750E+00	NOMINAL : 4.51076 dpm	BKG DATE : 3-JAN-2010
		RESULTS : 4.47560 dpm	EFF FILE : W142.CNF;107
			CAL DATE : 15-DEC-2009

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U-3/4	4763.020	241.000	238.832	1.000	6.0782	100.0000	8.30E-01	7.95E-02	4.91E-02	1.08E-01	5.39E-02
U232	5302.100	1167.000	1155.000	12.000	3.4641	100.0000	4.02E+00	3.07E-01	2.80E-02	6.54E-02	1.19E-01
U-235	4391.000	12.000	12.000	0.000	2.7628	80.90000	5.15E-02	1.53E-02	2.76E-02	6.69E-02	1.49E-02
U-238	4184.730	290.000	289.000	1.000	3.2810	100.0000	1.00E+00	9.22E-02	2.65E-02	6.25E-02	5.93E-02

NOTE: Sg calculated via blank population (updated 5-JAN-2010)
NOTE: Sg of U232 calculated as sqrt(BKG AREA)
NOTE: Corrections made to U-3/4 net area due to tracer impurity

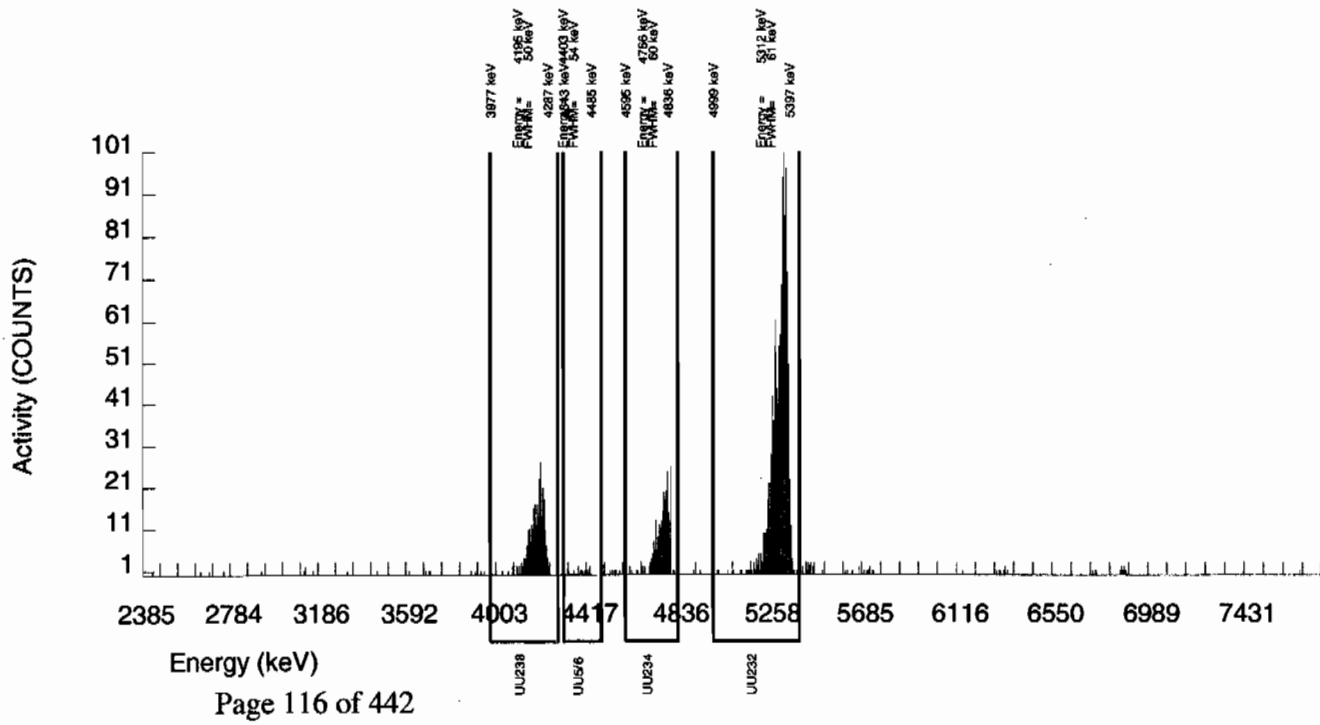

Alpha Spectroscopy Software Version 2.0
effective date: 09-Mar-1997

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 938076 SAMPLE DATE : 22-DEC-2009 00:00:00	SAMPLE ID : S0243557002_UU SAMPLE QTY: 0.506 G
DETECTOR NUMBER :65882 AVERAGE %EFFICIENCY :24.3752 % YIELD : 101.363	COUNT DATE: 6-JAN-2010 18:07:25 ELAPSED LIVE TIME(SEC): 60000.00 ANALYST :KXM4

MS/MSD	LCS/LCSD	TRACER	
ID : 0244-A	ID : 0244-A	ID : 1283-H	LIB FILE : ENV_ALPHA_UU.N
ISOTOPE : U-238	ISOTOPE : U-238	ISOTOPE : U232	BKG FILE : B143.CNF;382
PCI/G : 5.750E+00	PCI/G : 5.750E+00	NOMINAL : 4.51076 dpm	BKG DATE : 3-JAN-2010
		RESULTS : 4.57225 dpm	EFF FILE : W143.CNF;110
			CAL DATE : 15-DEC-2009

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U-3/4	4763.020	188.000	186.874	0.000	6.0782	100.0000	6.73E-01	6.91E-02	5.09E-02	1.12E-01	4.93E-02
U232	5302.100	1116.000	1114.000	2.000	1.4142	100.0000	4.02E+00	3.13E-01	1.19E-02	3.35E-02	1.21E-01
U-235	4391.000	14.000	14.000	0.000	2.7628	80.90000	6.24E-02	1.73E-02	2.86E-02	6.93E-02	1.67E-02
U-238	4184.730	204.000	201.000	3.000	3.2810	100.0000	7.24E-01	7.35E-02	2.75E-02	6.48E-02	5.18E-02

NOTE: Sg calculated via blank population (updated 5-JAN-2010)
NOTE: Sg of U232 calculated as sqrt(BKG AREA)
NOTE: Corrections made to U-3/4 net area due to tracer impurity

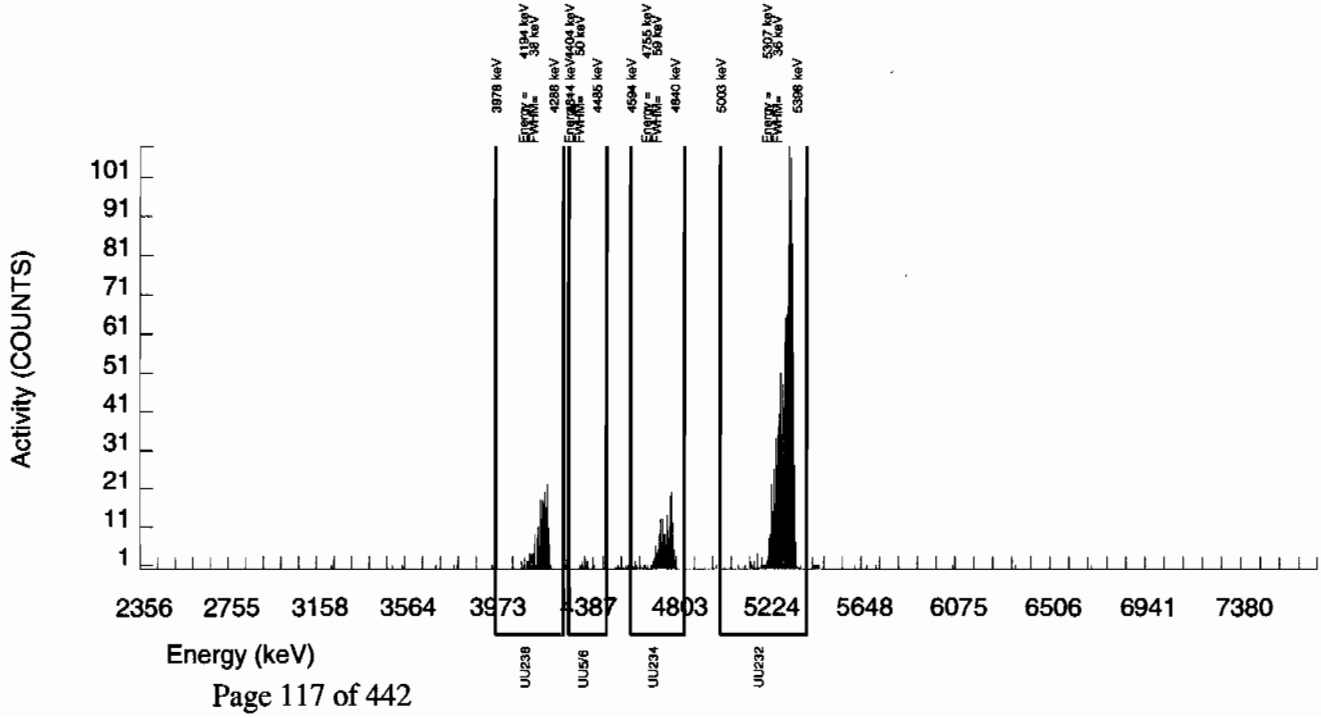

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effective date: 09-Mar-1997

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 938076 SAMPLE DATE : 22-DEC-2009 00:00:00	SAMPLE ID : S0243557003_UU SAMPLE QTY: 0.504 G
DETECTOR NUMBER :33449 AVERAGE %EFFICIENCY :24.6672 % YIELD : 105.026	COUNT DATE: 9-JAN-2010 11:01:48 ELAPSED LIVE TIME(SEC): 60000.00 ANALYST :KXM4

MS/MSD	LCS/LCSD	TRACER	
ID : 0244-A ISOTOPE : U-238 PCI/G : 5.750E+00	ID : 0244-A ISOTOPE : U-238 PCI/G : 5.750E+00	ID : 1283-H ISOTOPE : U232 NOMINAL : 4.51076 dpm RESULTS : 4.73749 dpm	LIB FILE : ENV_ALPHA_UU.N BKG FILE : B149.CNF;387 BKG DATE : 3-JAN-2010 EFF FILE : W149.CNF;110 CAL DATE : 15-DEC-2009

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U-3/4	4763.020	262.000	258.819	2.000	6.0782	100.0000	8.93E-01	8.40E-02	4.88E-02	1.07E-01	5.59E-02
U232	5302.100	1175.000	1168.000	7.000	2.6458	100.0000	4.03E+00	3.07E-01	2.12E-02	5.18E-02	1.19E-01
U-235	4391.000	14.000	12.000	2.000	2.7628	80.90000	5.12E-02	1.74E-02	2.74E-02	6.64E-02	1.71E-02
U-238	4184.730	214.000	213.000	1.000	3.2810	100.0000	7.35E-01	7.23E-02	2.63E-02	6.20E-02	5.06E-02

NOTE: Sg calculated via blank population (updated 5-JAN-2010)
NOTE: Sg of U232 calculated as sqrt(BKG AREA)
NOTE: Corrections made to U-3/4 net area due to tracer impurity

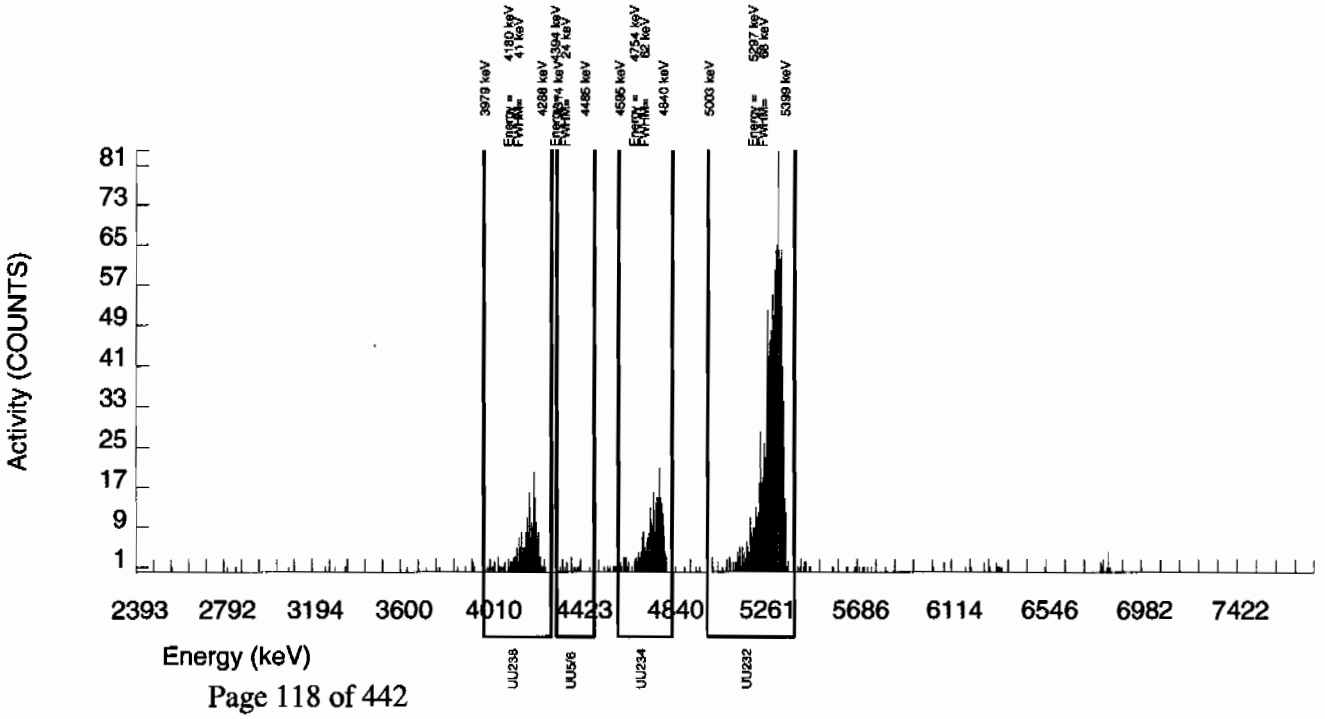

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effective date: 09-Mar-1997

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 938076 SAMPLE DATE : 22-DEC-2009 00:00:00	SAMPLE ID : S0243557004_UU SAMPLE QTY: 0.531 G
DETECTOR NUMBER :72526 AVERAGE %EFFICIENCY :24.9446 % YIELD : 93.092	COUNT DATE: 6-JAN-2010 18:07:31 ELAPSED LIVE TIME(SEC): 60000.00 ANALYST :KXM4 .

MS/MSD	LCS/LCSD	TRACER	
ID : 0244-A	ID : 0244-A	ID : 1283-H	LIB FILE : ENV_ALPHA_UU.N
ISOTOPE : U-238	ISOTOPE : U-238	ISOTOPE : U232	BKG FILE : B145.CNF;379
PCI/G : 5.750E+00	PCI/G : 5.750E+00	NOMINAL : 4.51076 dpm	BKG DATE : 3-JAN-2010
		RESULTS : 4.19917 dpm	EFF FILE : W145.CNF;109
			CAL DATE : 15-DEC-2009

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U-3/4	4763.020	230.000	228.942	0.000	6.0782	100.0000	8.36E-01	8.20E-02	5.17E-02	1.13E-01	5.53E-02
U232	5302.100	1056.000	1047.000	9.000	3.0000	100.0000	3.83E+00	3.01E-01	2.55E-02	6.09E-02	1.19E-01
U-235	4391.000	8.000	8.000	0.000	2.7628	80.90000	3.61E-02	1.30E-02	2.90E-02	7.03E-02	1.28E-02
U-238	4184.730	216.000	214.000	2.000	3.2810	100.0000	7.82E-01	7.82E-02	2.79E-02	6.57E-02	5.39E-02

NOTE: Sg calculated via blank population (updated 5-JAN-2010)
NOTE: Sg of U232 calculated as sqrt(BKG AREA)
NOTE: Corrections made to U-3/4 net area due to tracer impurity

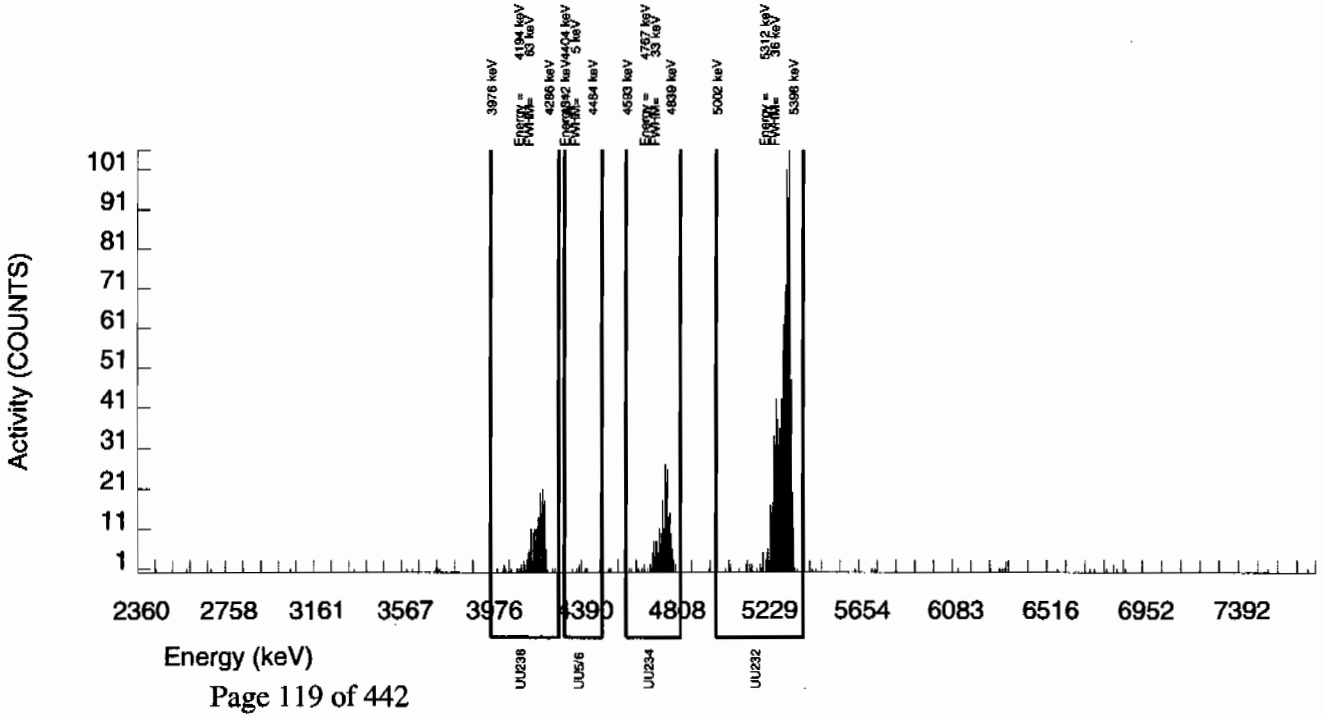

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effective date: 09-Mar-1997

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 938076 SAMPLE DATE : 22-DEC-2009 00:00:00	SAMPLE ID : S0243557005_UU SAMPLE QTY: 0.500 G
DETECTOR NUMBER :72527 AVERAGE %EFFICIENCY :24.8694 % YIELD : 103.362	COUNT DATE: 6-JAN-2010 18:07:32 ELAPSED LIVE TIME(SEC): 60000.00 ANALYST :KXM4

MS/MSD	LCS/LCSD	TRACER	
ID : 0244-A ISOTOPE : U-238 PCI/G : 5.750E+00	ID : 0244-A ISOTOPE : U-238 PCI/G : 5.750E+00	ID : 1283-H ISOTOPE : U232 NOMINAL : 4.51076 dpm RESULTS : 4.66242 dpm	LIB FILE : ENV_ALPHA_UU.N BKG FILE : B146.CNF;384 BKG DATE : 3-JAN-2010 EFF FILE : W146.CNF;111 CAL DATE : 15-DEC-2009

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U-3/4	4763.020	243.000	240.828	1.000	6.0782	100.0000	8.44E-01	8.06E-02	4.96E-02	1.09E-01	5.46E-02
U232	5302.100	1162.000	1159.000	3.000	1.7321	100.0000	4.06E+00	3.10E-01	1.41E-02	3.77E-02	1.20E-01
U-235	4391.000	11.000	11.000	0.000	2.7628	80.90000	4.77E-02	1.48E-02	2.78E-02	6.74E-02	1.44E-02
U-238	4184.730	221.000	220.000	1.000	3.2810	100.0000	7.71E-01	7.52E-02	2.68E-02	6.30E-02	5.22E-02

NOTE: Sg calculated via blank population (updated 5-JAN-2010)
NOTE: Sg of U232 calculated as sqrt(BKG AREA)
NOTE: Corrections made to U-3/4 net area due to tracer impurity

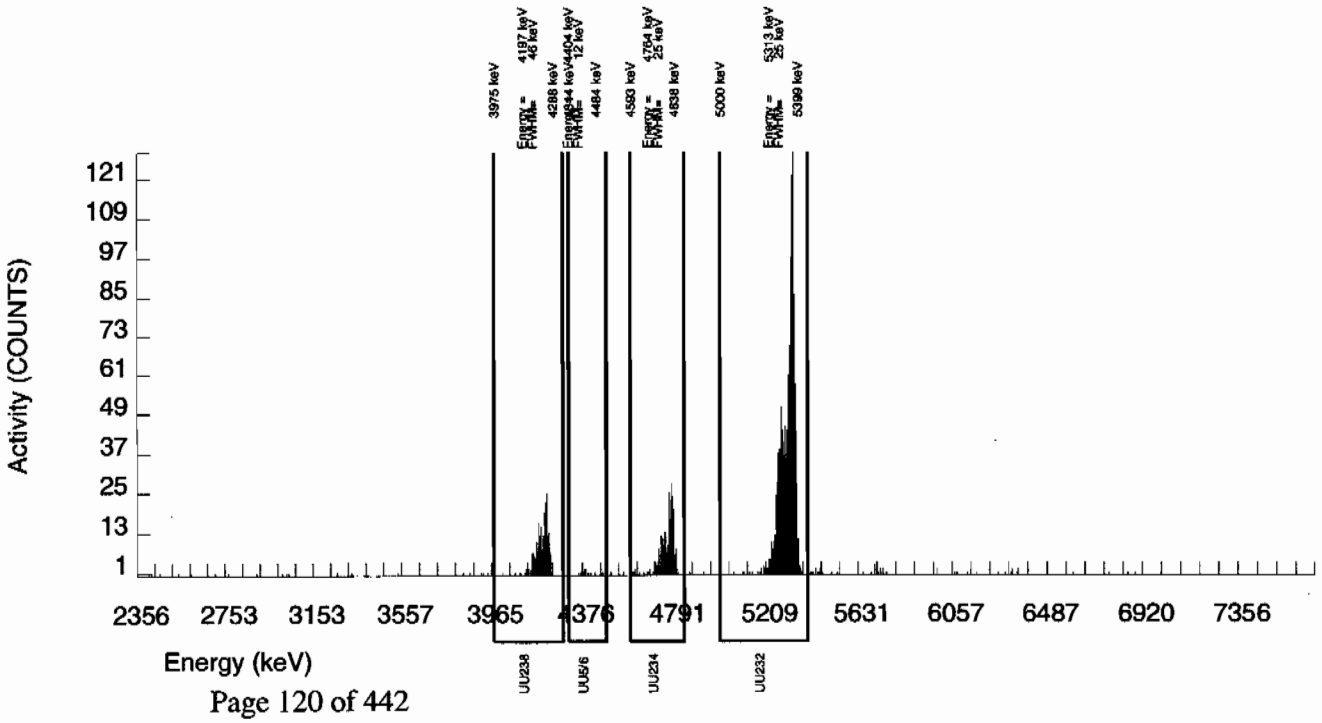

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effective date: 09-Mar-1997

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 938076 SAMPLE DATE : 22-DEC-2009 00:00:00	SAMPLE ID : S0243557006_UU SAMPLE QTY: 0.518 G
DETECTOR NUMBER :75550 AVERAGE %EFFICIENCY :24.6783 % YIELD : 107.578	COUNT DATE: 6-JAN-2010 18:07:35 ELAPSED LIVE TIME(SEC): 60000.00 ANALYST :KXM4

MS/MSD	LCS/LCSD	TRACER	
ID : 0244-A	ID : 0244-A	ID : 1283-H	LIB FILE : ENV_ALPHA_UU.N
ISOTOPE : U-238	ISOTOPE : U-238	ISOTOPE : U232	BKG FILE : B147.CNF;384
PCI/G : 5.750E+00	PCI/G : 5.750E+00	NOMINAL : 4.51076 dpm	BKG DATE : 3-JAN-2010
		RESULTS : 4.85258 dpm	EFF FILE : W147.CNF;110
			CAL DATE : 15-DEC-2009

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U-3/4	4763.020	218.000	214.790	2.000	6.0782	100.0000	7.04E-01	6.98E-02	4.63E-02	1.02E-01	4.84E-02
U232	5302.100	1205.000	1197.000	8.000	2.8284	100.0000	3.92E+00	3.03E-01	2.16E-02	5.20E-02	1.14E-01
U-235	4391.000	8.000	8.000	0.000	2.7628	80.90000	3.24E-02	1.17E-02	2.60E-02	6.30E-02	1.15E-02
U-238	4184.730	244.000	244.000	0.000	3.2810	100.0000	7.99E-01	7.67E-02	2.50E-02	5.89E-02	5.12E-02

NOTE: Sg calculated via blank population (updated 5-JAN-2010)
NOTE: Sg of U232 calculated as sqrt(BKG AREA)
NOTE: Corrections made to U-3/4 net area due to tracer impurity

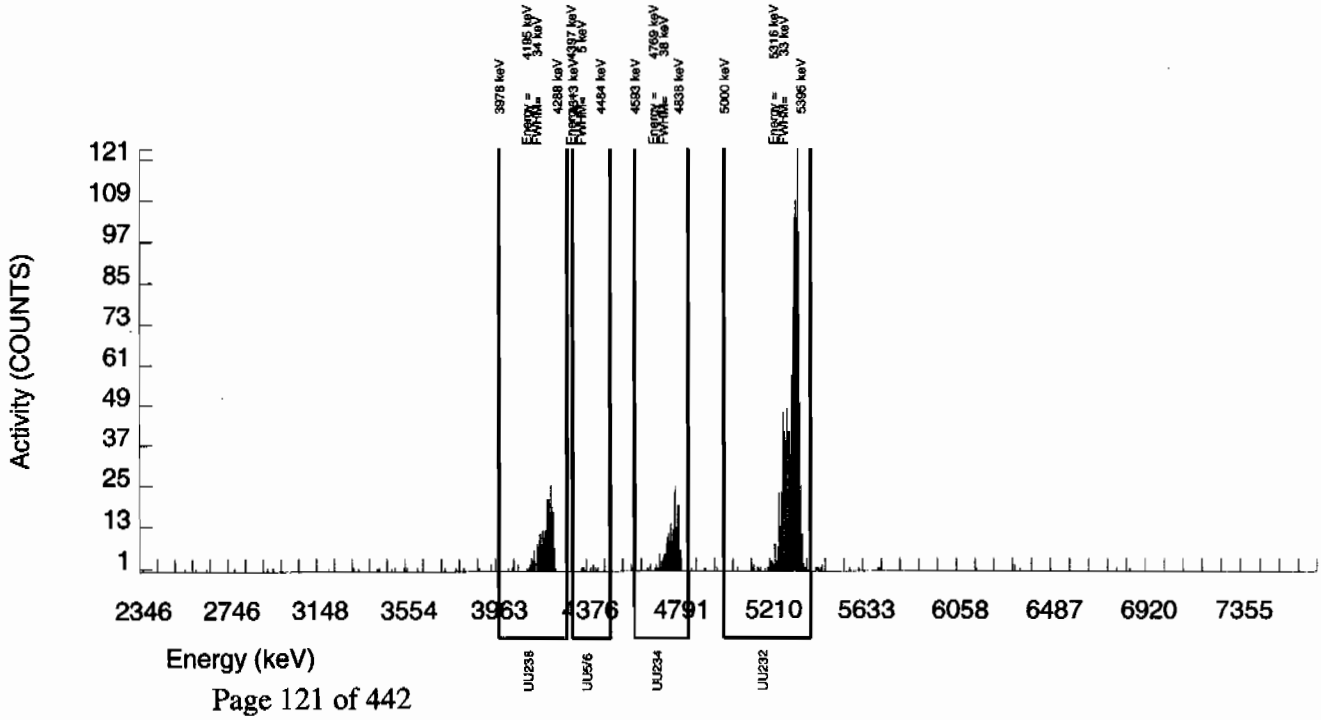

Alpha Spectroscopy Software Version 2.0
effective date: 09-Mar-1997

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 938076 SAMPLE DATE : 22-DEC-2009 00:00:00	SAMPLE ID : S0243557007_UU SAMPLE QTY: 0.503 G
DETECTOR NUMBER :74429 AVERAGE %EFFICIENCY :24.8504 % YIELD : 83.895	COUNT DATE: 6-JAN-2010 18:07:38 ELAPSED LIVE TIME(SEC): 60000.00 ANALYST :KXM4

MS/MSD	LCS/LCSD	TRACER	
ID : 0244-A ISOTOPE : U-238 PCI/G : 5.750E+00	ID : 0244-A ISOTOPE : U-238 PCI/G : 5.750E+00	ID : 1283-H ISOTOPE : U232 NOMINAL : 4.51076 dpm RESULTS : 3.78431 dpm	LIB FILE : ENV_ALPHA_UU.N BKG FILE : B148.CNF;383 BKG DATE : 3-JAN-2010 EFF FILE : W148.CNF;125 CAL DATE : 15-DEC-2009

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U-3/4	4763.020	278.000	276.050	1.000	6.0782	100.0000	1.19E+00	1.11E-01	6.07E-02	1.33E-01	7.16E-02
U232	5302.100	943.000	940.000	3.000	1.7321	100.0000	4.04E+00	3.18E-01	1.73E-02	4.63E-02	1.32E-01
U-235	4391.000	6.000	6.000	0.000	2.7628	80.90000	3.19E-02	1.32E-02	3.41E-02	8.26E-02	1.30E-02
U-238	4184.730	245.000	245.000	0.000	3.2810	100.0000	1.05E+00	1.01E-01	3.28E-02	7.72E-02	6.72E-02

NOTE: Sg calculated via blank population (updated 5-JAN-2010)
NOTE: Sg of U232 calculated as sqrt(BKG AREA)
NOTE: Corrections made to U-3/4 net area due to tracer impurity

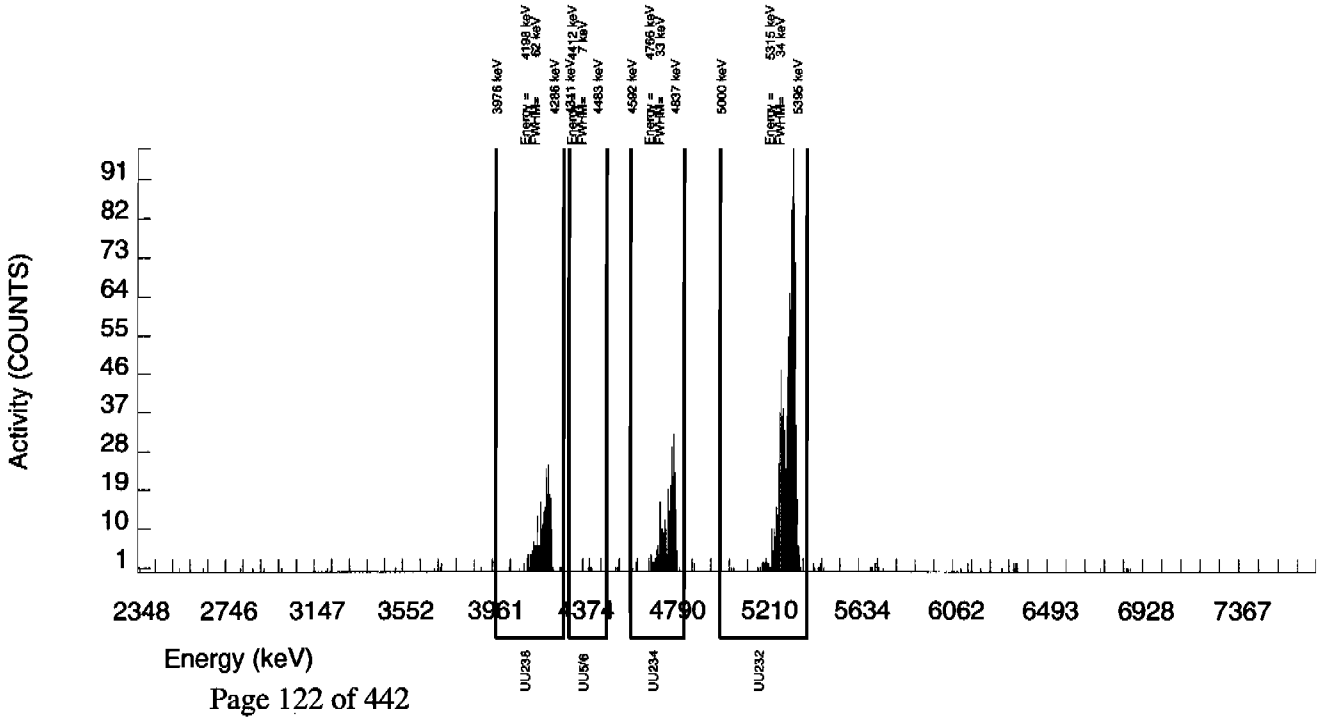

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effective date: 09-Mar-1997

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 938076 SAMPLE DATE : 22-DEC-2009 00:00:00	SAMPLE ID : S0243557008_UU SAMPLE QTY: 0.517 G
DETECTOR NUMBER :SAMPLE AVERAGE %EFFICIENCY :36.6119 % YIELD : 108.739	COUNT DATE: 6-JAN-2010 18:07:40 ELAPSED LIVE TIME(SEC): 60000.00 ANALYST :KXM4

MS/MSD	LCS/LCSD	TRACER	
ID : 0244-A ISOTOPE : U-238 PCI/G : 5.750E+00	ID : 0244-A ISOTOPE : U-238 PCI/G : 5.750E+00	ID : 1283-H ISOTOPE : U232 NOMINAL : 4.51076 dpm RESULTS : 4.90496 dpm	LIB FILE : ENV_ALPHA_UU.N BKG FILE : B161.CNF;158 BKG DATE : 3-JAN-2010 EFF FILE : W161.CNF;56 CAL DATE : 23-DEC-2009

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U-3/4	4763.020	367.000	365.185	0.000	6.0782	100.0000	7.99E-01	6.85E-02	3.09E-02	6.78E-02	4.18E-02
U232	5302.100	1802.000	1795.000	7.000	2.6458	100.0000	3.93E+00	2.83E-01	1.35E-02	3.29E-02	9.31E-02
U-235	4391.000	16.000	15.000	1.000	2.7628	80.90000	4.06E-02	1.15E-02	1.74E-02	4.21E-02	1.12E-02
U-238	4184.730	317.000	317.000	0.000	3.2810	100.0000	6.94E-01	6.11E-02	1.67E-02	3.93E-02	3.90E-02

NOTE: Sg calculated via blank population (updated 5-JAN-2010)
NOTE: Sg of U232 calculated as sqrt(BKG AREA)
NOTE: Corrections made to U-3/4 net area due to tracer impurity

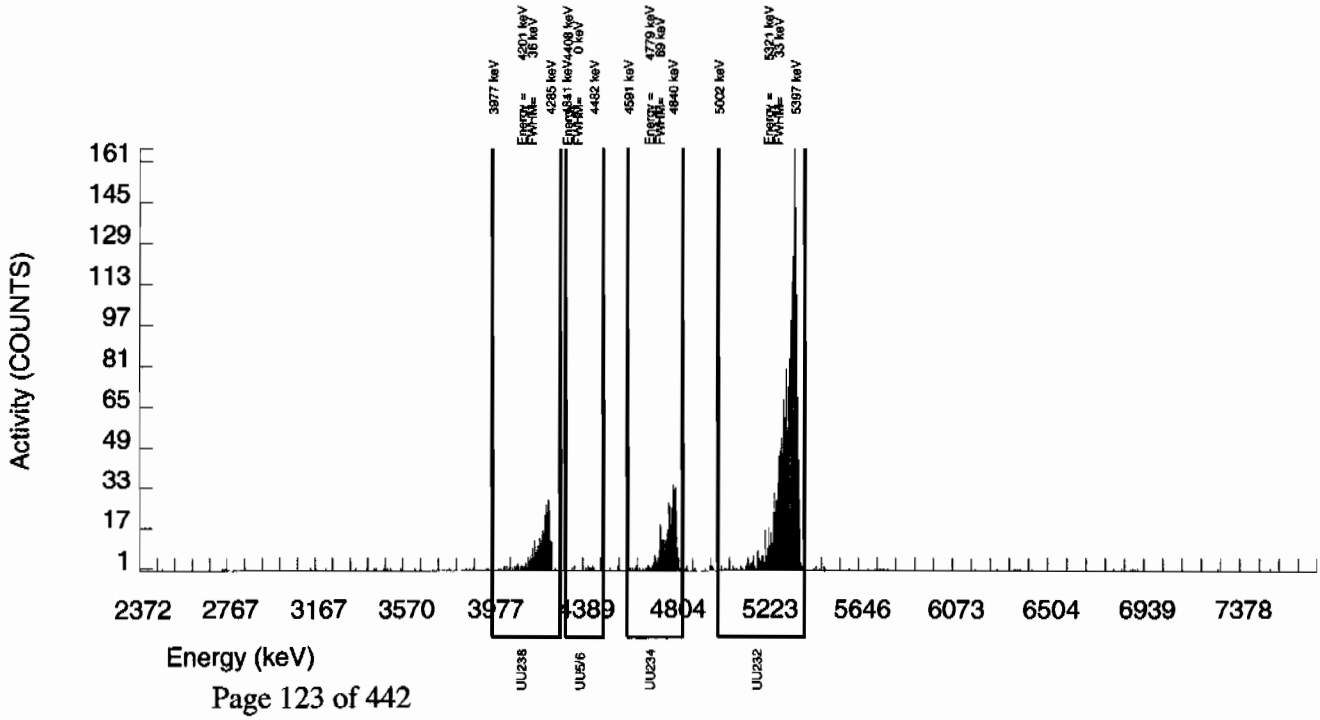

Alpha Spectroscopy Software Version 2.0
effective date: 09-Mar-1997

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 938076 SAMPLE DATE : 22-DEC-2009 00:00:00	SAMPLE ID : S0243557009_UU SAMPLE QTY: 0.500 G
DETECTOR NUMBER :70323 AVERAGE %EFFICIENCY :36.9748 % YIELD : 108.871	COUNT DATE: 6-JAN-2010 18:07:43 ELAPSED LIVE TIME(SEC): 60000.00 ANALYST :KXM4

MS/MSD	LCS/LCSD	TRACER	
ID : 0244-A	ID : 0244-A	ID : 1283-H	LIB FILE : ENV_ALPHA_UU.N
ISOTOPE : U-238	ISOTOPE : U-238	ISOTOPE : U232	BKG FILE : B162.CNF;158
PCI/G : 5.750E+00	PCI/G : 5.750E+00	NOMINAL : 4.51076 dpm	BKG DATE : 3-JAN-2010
		RESULTS : 4.91092 dpm	EFF FILE : W162.CNF;63
			CAL DATE : 22-DEC-2009

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U-3/4	4763.020	378.000	376.165	0.000	6.0782	100.0000	8.42E-01	7.17E-02	3.16E-02	6.94E-02	4.34E-02
U232	5302.100	1820.000	1815.000	5.000	2.2361	100.0000	4.06E+00	2.92E-01	1.16E-02	2.93E-02	9.56E-02
U-235	4391.000	14.000	14.000	0.000	2.7628	80.90000	3.87E-02	1.07E-02	1.78E-02	4.31E-02	1.04E-02
U-238	4184.730	365.000	365.000	0.000	3.2810	100.0000	8.17E-01	7.00E-02	1.71E-02	4.02E-02	4.28E-02

NOTE: Sg calculated via blank population (updated 5-JAN-2010)
NOTE: Sg of U232 calculated as sqrt(BKG AREA)
NOTE: Corrections made to U-3/4 net area due to tracer impurity

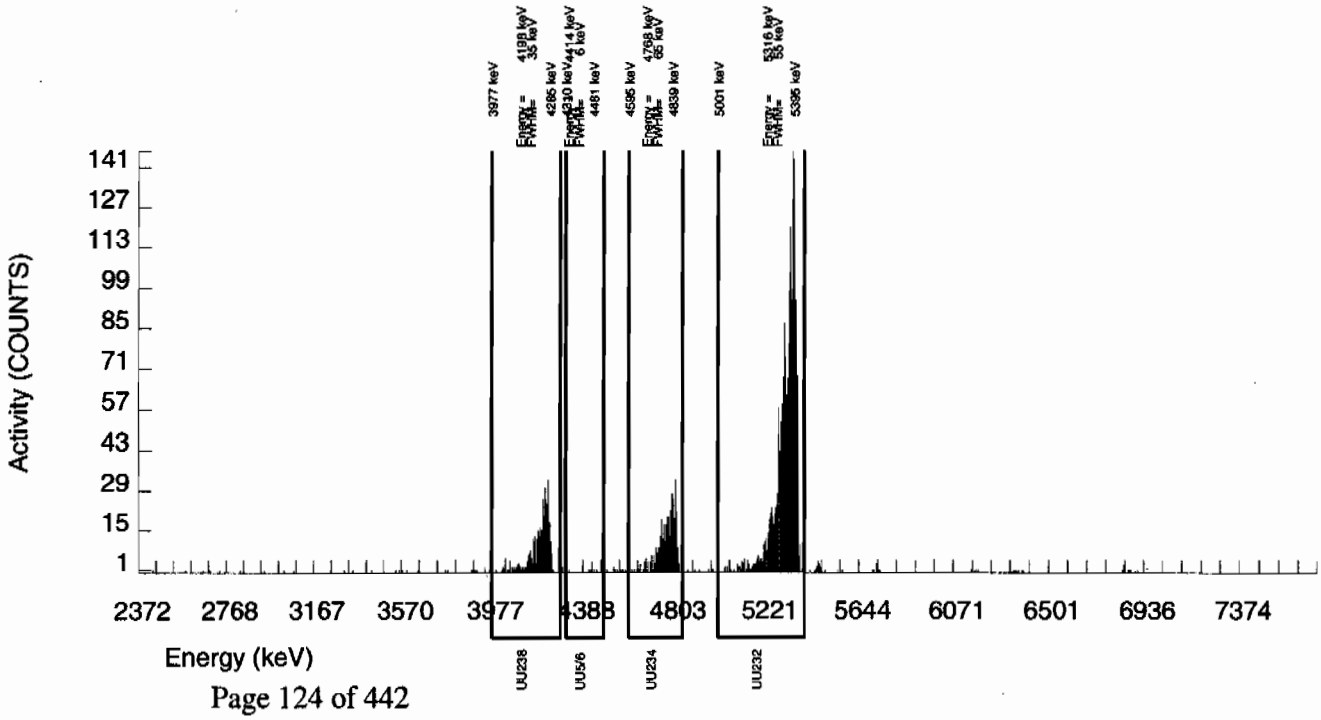

Alpha Spectroscopy Software Version 2.0
effective date: 09-Mar-1997

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 938076 SAMPLE DATE : 22-DEC-2009 00:00:00	SAMPLE ID : S0243557010_UU SAMPLE QTY: 0.514 G
DETECTOR NUMBER :72547 AVERAGE %EFFICIENCY :39.2421 % YIELD : 95.523	COUNT DATE: 9-JAN-2010 10:49:33 ELAPSED LIVE TIME(SEC): 60000.00 ANALYST :KXM4

MS/MSD	LCS/LCSD	TRACER	
ID : 0244-A	ID : 0244-A	ID : 1283-H	LIB FILE : ENV_ALPHA_UU.N
ISOTOPE : U-238	ISOTOPE : U-238	ISOTOPE : U232	BKG FILE : B168.CNF;157
PCI/G : 5.750E+00	PCI/G : 5.750E+00	NOMINAL : 4.51077 dpm	BKG DATE : 3-JAN-2010
		RESULTS : 4.30883 dpm	EFF FILE : W168.CNF;52
			CAL DATE : 21-DEC-2009

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U-3/4	4763.020	366.000	363.291	1.000	6.0782	100.0000	8.49E-01	7.31E-02	3.31E-02	7.25E-02	4.47E-02
U232	5302.100	1694.000	1690.000	4.000	2.0000	100.0000	3.95E+00	2.86E-01	1.09E-02	2.81E-02	9.64E-02
U-235	4391.000	17.000	17.000	0.000	2.7628	80.90000	4.91E-02	1.24E-02	1.86E-02	4.50E-02	1.19E-02
U-238	4184.730	386.000	384.000	2.000	3.2810	100.0000	8.98E-01	7.65E-02	1.78E-02	4.20E-02	4.61E-02

NOTE: Sg calculated via blank population (updated 5-JAN-2010)
NOTE: Sg of U232 calculated as sqrt(BKG AREA)
NOTE: Corrections made to U-3/4 net area due to tracer impurity

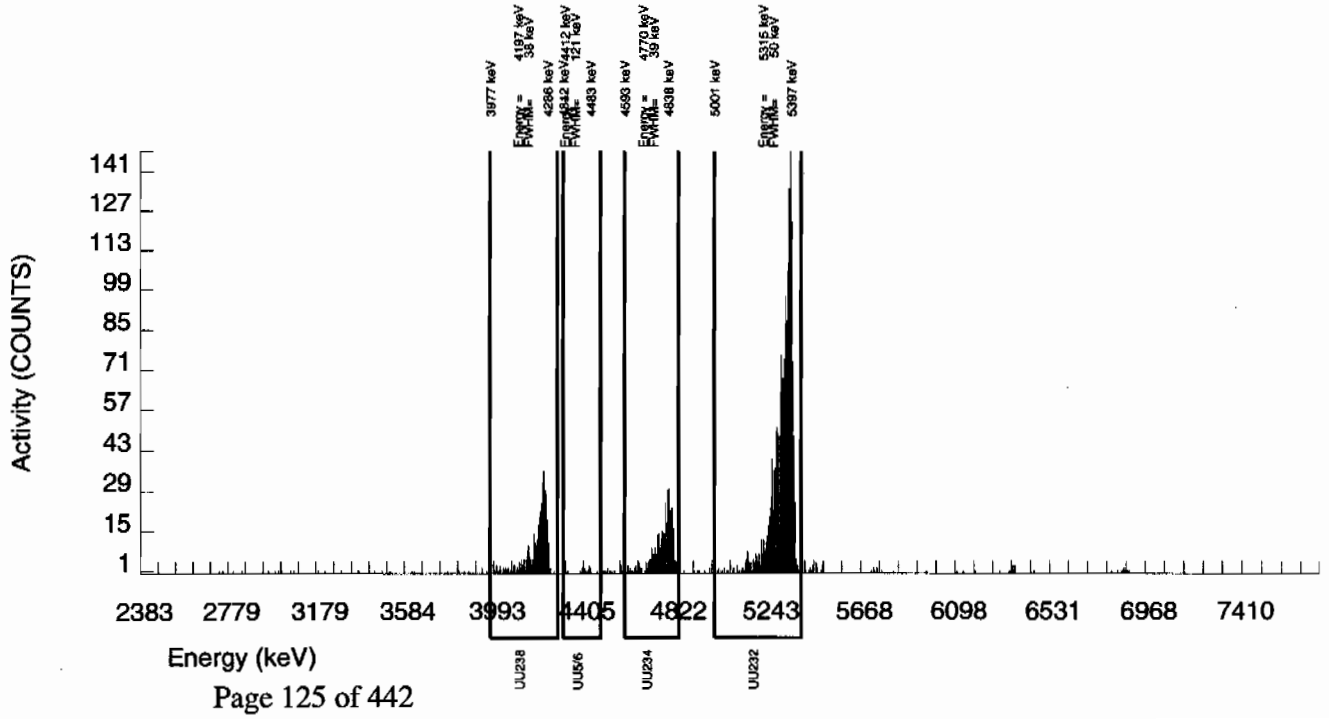

Alpha Spectroscopy Software Version 2.0
effective date: 09-Mar-1997

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 938076 SAMPLE DATE : 22-DEC-2009 00:00:00	SAMPLE ID : S0243557011_UU SAMPLE QTY: 0.500 G
DETECTOR NUMBER :72549 AVERAGE %EFFICIENCY :36.7019 % YIELD : 101.530	COUNT DATE: 9-JAN-2010 10:49:38 ELAPSED LIVE TIME(SEC): 60000.00 ANALYST :KXM4

MS/MSD	LCS/LCSD	TRACER	
ID : 0244-A	ID : 0244-A	ID : 1283-H	LIB FILE : ENV_ALPHA_UU.N
ISOTOPE : U-238	ISOTOPE : U-238	ISOTOPE : U232	BKG FILE : B170.CNF;157
PCI/G : 5.750E+00	PCI/G : 5.750E+00	NOMINAL : 4.51077 dpm	BKG DATE : 3-JAN-2010
		RESULTS : 4.57978 dpm	EFF FILE : W170.CNF;52
			CAL DATE : 21-DEC-2009

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U-3/4	4763.020	456.000	453.302	1.000	6.0782	100.0000	1.10E+00	9.08E-02	3.42E-02	7.49E-02	5.16E-02
U232	5302.100	1681.000	1680.000	1.000	1.0000	100.0000	4.06E+00	2.94E-01	5.62E-03	1.78E-02	9.92E-02
U-235	4391.000	25.000	25.000	0.000	2.7628	80.90000	7.47E-02	1.58E-02	1.92E-02	4.65E-02	1.49E-02
U-238	4184.730	421.000	419.000	2.000	3.2810	100.0000	1.01E+00	8.51E-02	1.85E-02	4.35E-02	4.97E-02

NOTE: Sg calculated via blank population (updated 5-JAN-2010)
NOTE: Sg of U232 calculated as sqrt(BKG AREA)
NOTE: Corrections made to U-3/4 net area due to tracer impurity

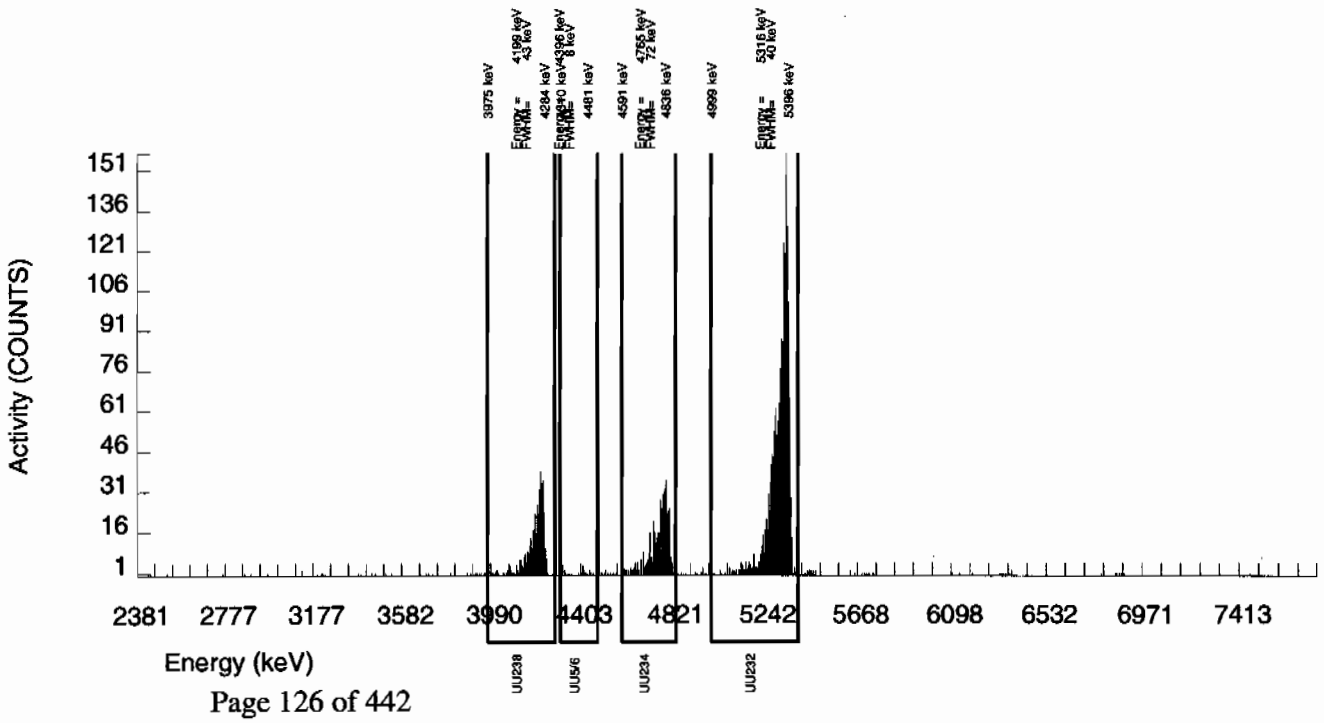

Alpha Spectroscopy Software Version 2.0
effective date: 09-Mar-1997

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 938076 SAMPLE DATE : 22-DEC-2009 00:00:00	SAMPLE ID : S0243557012_UU SAMPLE QTY: 0.500 G
DETECTOR NUMBER :78260 AVERAGE %EFFICIENCY :38.3524 % YIELD : 105.142	COUNT DATE: 9-JAN-2010 10:49:40 ELAPSED LIVE TIME(SEC): 60000.00 ANALYST :KXM4

MS/MSD	LCS/LCSD	TRACER	
ID : 0244-A ISOTOPE : U-238 PCI/G : 5.750E+00	ID : 0244-A ISOTOPE : U-238 PCI/G : 5.750E+00	ID : 1283-H ISOTOPE : U232 NOMINAL : 4.51076 dpm RESULTS : 4.74270 dpm	LIB FILE : ENV_ALPHA_UU.N BKG FILE : B171.CNF;163 BKG DATE : 3-JAN-2010 EFF FILE : W171.CNF;69 CAL DATE : 21-DEC-2009

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U-3/4	4763.020	391.000	385.162	4.000	6.0782	100.0000	8.61E-01	7.33E-02	3.16E-02	6.92E-02	4.43E-02
U232	5302.100	1826.000	1818.000	8.000	2.8284	100.0000	4.06E+00	2.92E-01	1.47E-02	3.55E-02	9.57E-02
U-235	4391.000	13.000	12.000	1.000	2.7628	80.90000	3.31E-02	1.06E-02	1.77E-02	4.30E-02	1.03E-02
U-238	4184.730	390.000	387.000	3.000	3.2810	100.0000	8.65E-01	7.35E-02	1.71E-02	4.02E-02	4.43E-02

NOTE: Sg calculated via blank population (updated 5-JAN-2010)
NOTE: Sg of U232 calculated as sqrt(BKG AREA)
NOTE: Corrections made to U-3/4 net area due to tracer impurity

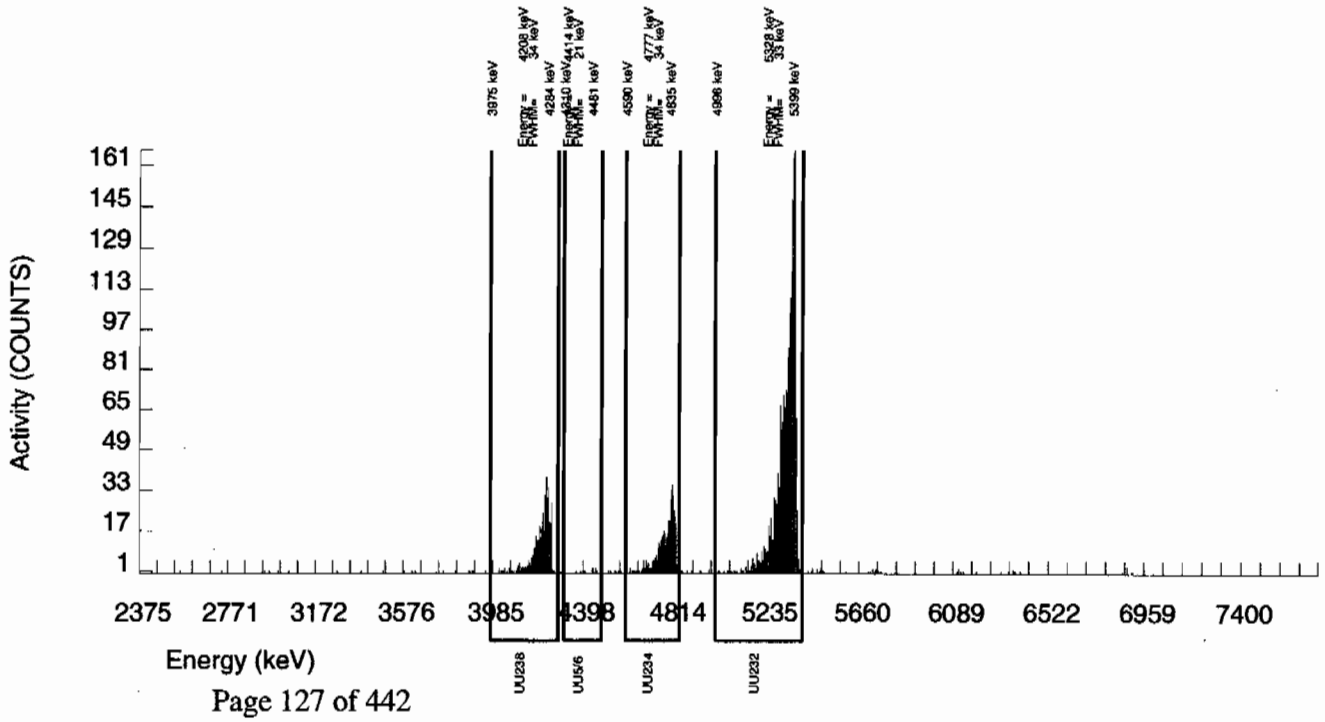

Alpha Spectroscopy Software Version 2.0
effective date: 09-Mar-1997

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 938076 SAMPLE DATE : 22-DEC-2009 00:00:00	SAMPLE ID : S0243557013_UU SAMPLE QTY: 0.537 G
DETECTOR NUMBER :78772 AVERAGE %EFFICIENCY :38.4140 % YIELD : 102.663	COUNT DATE: 9-JAN-2010 10:49:43 ELAPSED LIVE TIME(SEC): 60000.00 ANALYST :KXM4

MS/MSD	LCS/LCSD	TRACER	
ID : 0244-A	ID : 0244-A	ID : 1283-H	LIB FILE : ENV_ALPHA_UU.N
ISOTOPE : U-238	ISOTOPE : U-238	ISOTOPE : U232	BKG FILE : B172.CNF;161
PCI/G : 5.750E+00	PCI/G : 5.750E+00	NOMINAL : 4.51077 dpm	BKG DATE : 3-JAN-2010
		RESULTS : 4.63091 dpm	EFF FILE : W172.CNF;62
			CAL DATE : 21-DEC-2009

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U-3/4	4763.020	391.000	388.202	1.000	6.0782	100.0000	8.26E-01	7.00E-02	3.01E-02	6.59E-02	4.20E-02
U232	5302.100	1783.000	1778.000	5.000	2.2361	100.0000	3.78E+00	2.72E-01	1.11E-02	2.79E-02	9.00E-02
U-235	4391.000	21.000	21.000	0.000	2.7628	80.90000	5.52E-02	1.26E-02	1.69E-02	4.09E-02	1.20E-02
U-238	4184.730	370.000	368.000	2.000	3.2810	100.0000	7.83E-01	6.71E-02	1.62E-02	3.82E-02	4.10E-02

NOTE: Sg calculated via blank population (updated 5-JAN-2010)
NOTE: Sg of U232 calculated as sqrt(BKG AREA)
NOTE: Corrections made to U-3/4 net area due to tracer impurity

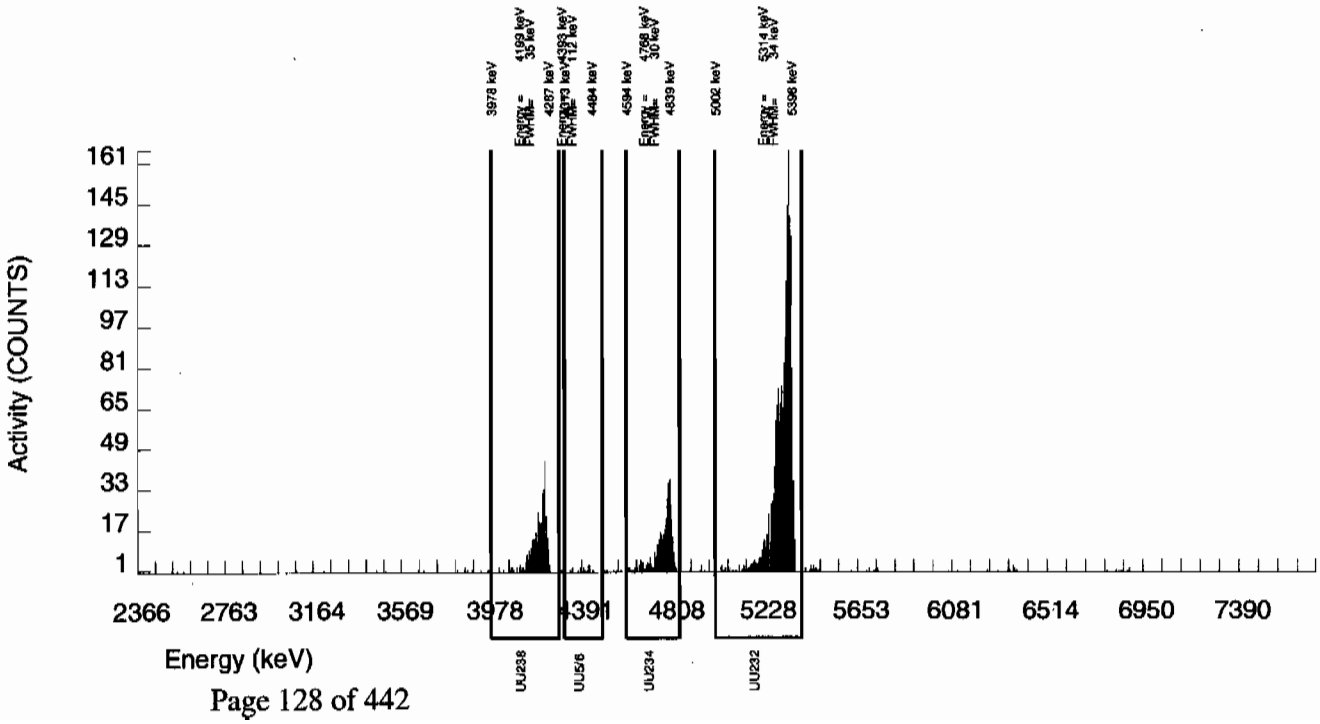

Alpha Spectroscopy Software Version 2.0
effective date: 09-Mar-1997

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 938076 SAMPLE DATE : 4-JAN-2010 00:00:00.	SAMPLE ID : S1202007343_UU SAMPLE QTY: 1.000 G
DETECTOR NUMBER :33449 AVERAGE %EFFICIENCY :24.6672 % YIELD : 108.164	COUNT DATE: 6-JAN-2010 13:52:15 ELAPSED LIVE TIME(SEC): 60000.00 ANALYST :KXM4

MS/MSD	LCS/LCSD	TRACER	
ID : 0244-A ISOTOPE : U-238 PCI/G : 5.750E+00	ID : 0244-A ISOTOPE : U-238 PCI/G : 5.750E+00	ID : 1283-H ISOTOPE : U232 NOMINAL : 4.50916 dpm RESULTS : 4.87731 dpm	LIB FILE : ENV_ALPHA_UU.N BKG FILE : B149.CNF;387 BKG DATE : 3-JAN-2010 EFF FILE : W149.CNF;110 CAL DATE : 15-DEC-2009

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U-3/4	4763.020	4.000	0.784	2.000	6.0782	100.0000	1.32E-03	3.69E-03	2.39E-02	5.23E-02	3.69E-03
U232	5302.100	1210.000	1203.000	7.000	2.6458	100.0000	2.03E+00	1.54E-01	1.04E-02	2.54E-02	5.89E-02
U-235	4391.000	2.000	0.000	2.000	2.7628	80.90000	0.00E+00	4.18E-03	1.34E-02	3.25E-02	4.17E-03
U-238	4184.730	2.000	1.000	1.000	3.2810	100.0000	1.69E-03	2.93E-03	1.29E-02	3.03E-02	2.92E-03

NOTE: Sg calculated via blank population (updated 5-JAN-2010)
NOTE: Sg of U232 calculated as sqrt(BKG AREA)
NOTE: Corrections made to U-3/4 net area due to tracer impurity

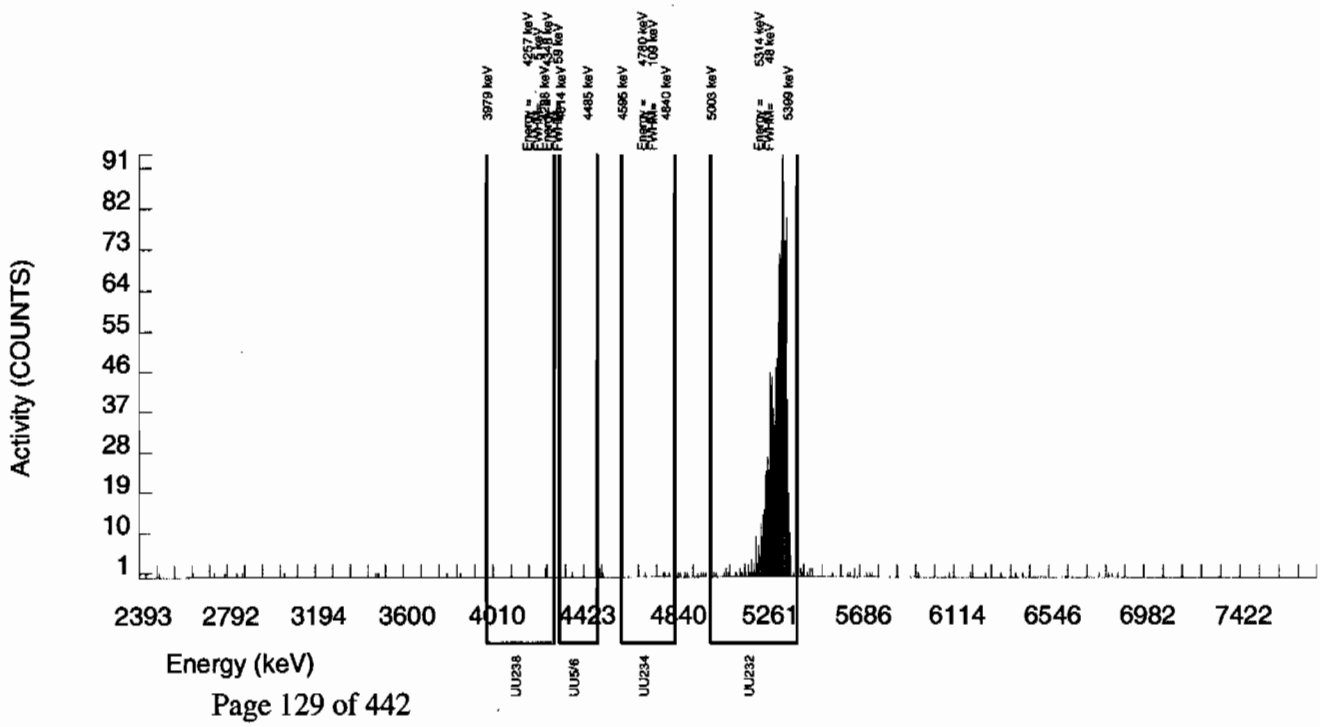

Alpha Spectroscopy Software Version 2.0
effective date: 09-Mar-1997

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 938076 SAMPLE DATE : 22-DEC-2009 00:00:00	SAMPLE ID : S1202007344_UU SAMPLE QTY: 0.507 G
DETECTOR NUMBER :75552 AVERAGE %EFFICIENCY :24.8200 % YIELD : 110.180	COUNT DATE: 6-JAN-2010 13:52:18 ELAPSED LIVE TIME(SEC): 60000.00 ANALYST :KXM4

MS/MSD	LCS/LCSD	TRACER	
ID : 0244-A ISOTOPE : U-238 PCI/G : 5.750E+00	ID : 0244-A ISOTOPE : U-238 PCI/G : 5.750E+00	ID : 1283-H ISOTOPE : U232 NOMINAL : 4.51076 dpm RESULTS : 4.96995 dpm	LIB FILE : ENV_ALPHA_UU.N BKG FILE : B150.CNF;388 BKG DATE : 3-JAN-2010 EFF FILE : W150.CNF;118 CAL DATE : 15-DEC-2009

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U-3/4	4763.020	246.000	243.754	1.000	6.0782	100.0000	7.92E-01	7.52E-02	4.59E-02	1.01E-01	5.09E-02
U232	5302.100	1235.000	1233.000	2.000	1.4142	100.0000	4.01E+00	3.02E-01	1.07E-02	3.02E-02	1.14E-01
U-235	4391.000	9.000	9.000	0.000	2.7628	80.90000	3.61E-02	1.23E-02	2.58E-02	6.25E-02	1.20E-02
U-238	4184.730	237.000	237.000	0.000	3.2810	100.0000	7.70E-01	7.35E-02	2.48E-02	5.84E-02	5.00E-02

NOTE: Sg calculated via blank population (updated 5-JAN-2010)
NOTE: Sg of U232 calculated as sqrt(BKG AREA)
NOTE: Corrections made to U-3/4 net area due to tracer impurity

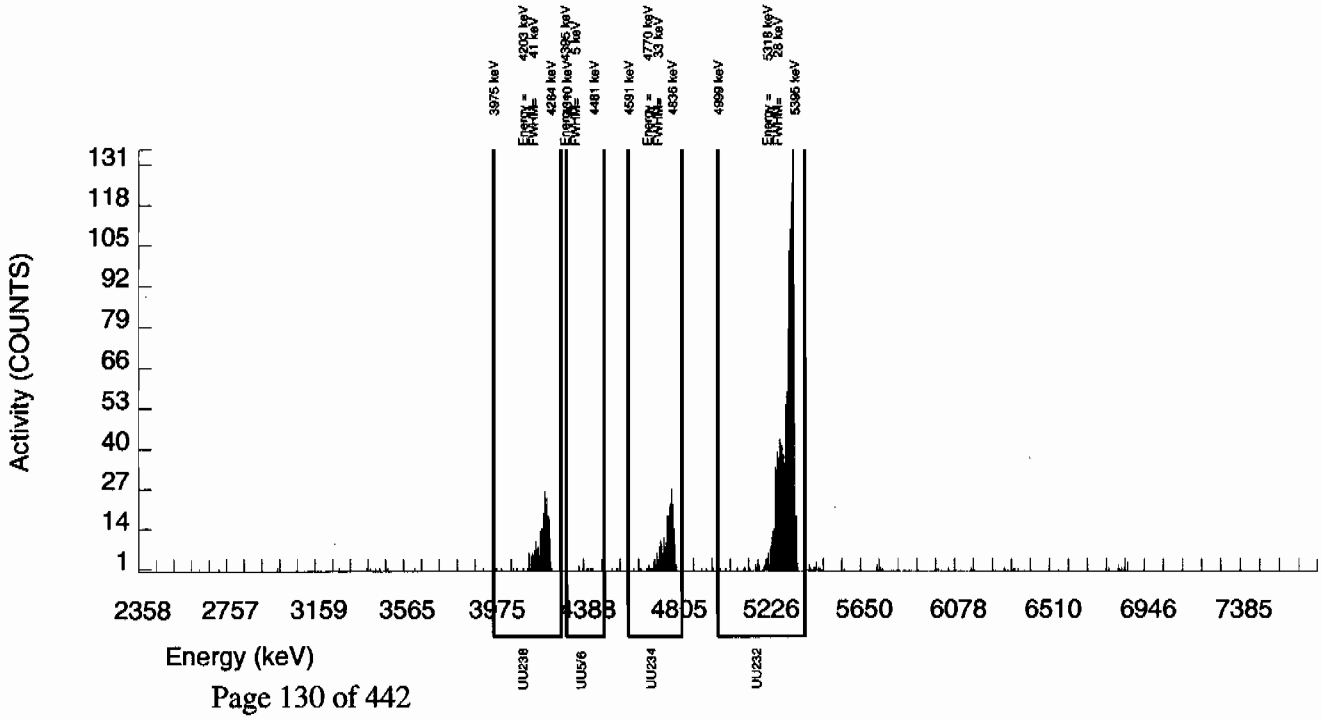

Alpha Spectroscopy Software Version 2.0
effective date: 09-Mar-1997

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 938076 SAMPLE DATE : 4-JAN-2010 00:00:00.	SAMPLE ID : S1202007345_UU SAMPLE QTY: 0.124 G
DETECTOR NUMBER :75556 AVERAGE %EFFICIENCY :24.3040 % YIELD : 105.492	COUNT DATE: 6-JAN-2010 13:52:21 ELAPSED LIVE TIME(SEC): 60000.00 ANALYST :KXM4

MS/MSD	LCS/LCSD	TRACER	
ID : 0244-A ISOTOPE : U-238 PCI/G : 5.750E+00	ID : 0244-A ISOTOPE : U-238 PCI/G : 5.750E+00	ID : 1283-H ISOTOPE : U232 NOMINAL : 4.50915 dpm RESULTS : 4.75679 dpm	LIB FILE : ENV_ALPHA_UU.N BKG FILE : B151.CNF;383 BKG DATE : 3-JAN-2010 EFF FILE : W151.CNF;116 CAL DATE : 15-DEC-2009

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U-3/4	4763.020	391.000	386.831	3.000	6.0782	100.0000	5.48E+00	4.96E-01	2.00E-01	4.39E-01	2.81E-01
U232	5302.100	1159.000	1156.000	3.000	1.7321	100.0000	1.64E+01	1.32E+00	5.71E-02	1.53E-01	4.83E-01
U-235	4391.000	11.000	11.000	0.000	2.7628	80.90000	1.93E-01	5.98E-02	1.13E-01	2.73E-01	5.81E-02
U-238	4184.730	344.000	344.000	0.000	3.2810	100.0000	4.87E+00	4.49E-01	1.08E-01	2.55E-01	2.63E-01

NOTE: Sg calculated via blank population (updated 5-JAN-2010)
NOTE: Sg of U232 calculated as sqrt(BKG AREA)
NOTE: Corrections made to U-3/4 net area due to tracer impurity

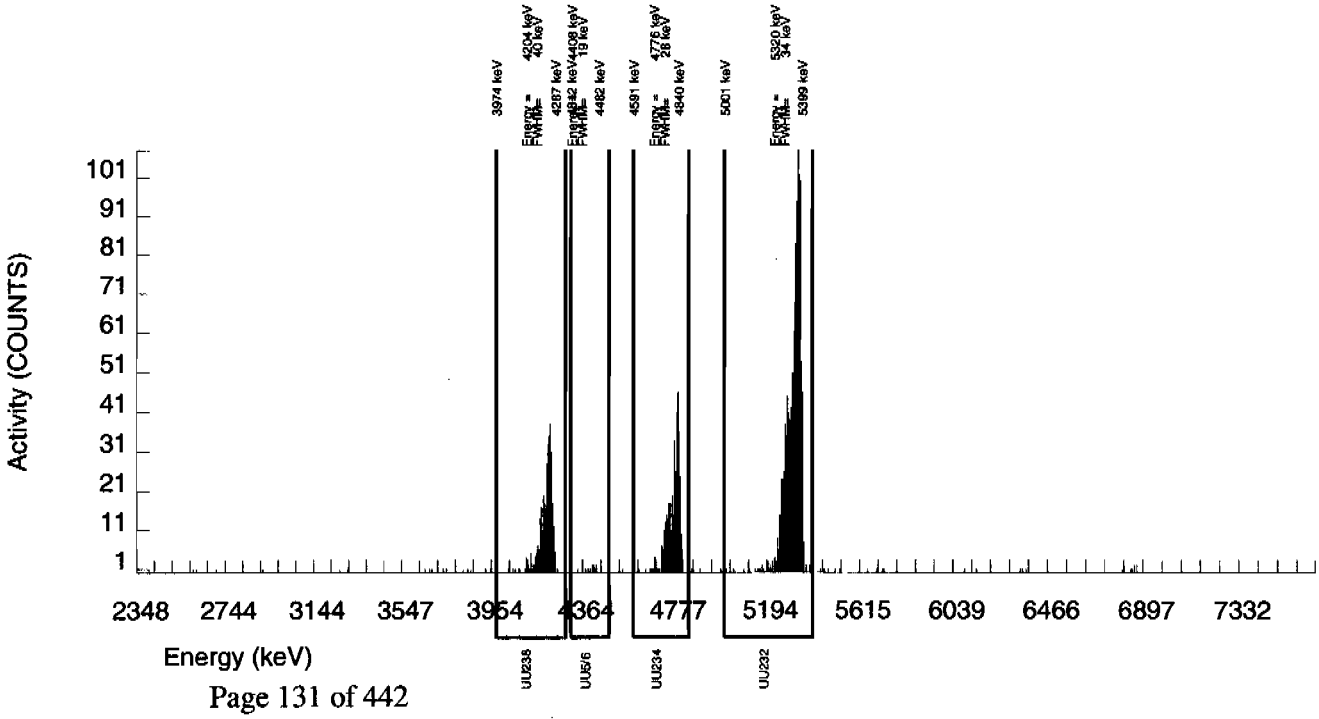

Radiochemistry Batch Checklist, Rev10

Batch# 938210 Product: AM Date: 1/14/10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			NA
Samples have been blank corrected (If required)	✓		
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.	✓		
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	✓		
Sample was run within hold time.	✓		
Sample was correctly preserved if required.			NA
Smears Taken for Radioactive batches.			NA
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	✓		
Aux data is correct.			NA
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (If necessary)			NA
Batch entered into Case Narrative.	✓		
Batch Data Exception Reports (DER) completed, if applicable.			NA
Batch Data Exception Reports (DER) second reviewed and disposition verified to be completed.			NA
Aliquot Correction completed if required.			NA
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

GEL Laboratories, LLC

RADchecklistrev10, revised 1/13/2010

Primary Review Performed By: [signature] 1/14/10

Secondary Review Performed By: [signature] 1/14/10

1/10 (1/21)

CAN

✓P

Am/Cm Que Sheet

04-JAN-10

Batch #: 938210 | Analyst: HAKB | First Client Due Date: 21-JAN-10 | Internal Due Date10-JAN-10 | Comments:

Tracer(s): Am243/Cm244 | Tracer Code: 445-96-2-55 | Expiration Date: 05/11/10 | Vol: 0.1

LCS Isotope(s): Am241/Cm244 | LCS Code(s): — | Expiration Date: — | Vol(s): —

Spike Isotope(s): Am241/Cm244 | Spike Code(s): — | Expiration Date: — | Vol(s): —

Prep Date: 01/05/10 | Initials: [illegible] | Pipet ID: 2171058 | Balance ID: 50410272 | Witness: 1/5/10 CMM

Sample ID	Client Description	Type	Hazard Code	Min CRDL	Matrix	Client	Collection Date	Pos.	Label #	Wet/Dry Aliquot (g/l/f)	Am/Cm Det #
243557014-1	RE03-10-9872	SAMPLE		.05 pCi/g	SOIL	LANL010	22-DEC-09	1	1	1.275	1
243557015-1	RE03-10-9874	SAMPLE		.05 pCi/g	SOIL	LANL010	22-DEC-09	2	2	1.263	2
243624001-1	RE12-10-7841	SAMPLE		.05 pCi/g	SOIL	LANL010	22-DEC-09	3	3	1.263	3
243624002-1	RE12-10-7840	SAMPLE		.05 pCi/g	SOIL	LANL010	22-DEC-09	4	4	1.252	4
243624003-1	RE12-10-7839	SAMPLE		.05 pCi/g	SOIL	LANL010	22-DEC-09	5	5	1.251	243 5
243624004-1	RE12-10-7838	SAMPLE		.05 pCi/g	SOIL	LANL010	22-DEC-09	6	6	1.260	6
243624005-1	RE12-10-7858	SAMPLE		.05 pCi/g	SOIL	LANL010	22-DEC-09	7	7	1.255	17
243624006-1	RE12-10-7846	SAMPLE		.05 pCi/g	SOIL	LANL010	22-DEC-09	8	8	1.261	18
243624007-1	RE12-10-7844	SAMPLE		.05 pCi/g	SOIL	LANL010	22-DEC-09	9	9	1.250	77
• 243624008-1	RE12-10-7845	SAMPLE		.05 pCi/g	SOIL	LANL010	22-DEC-09	10	10	1.255	78
243624009-1	RE12-10-7842	SAMPLE		.05 pCi/g	SOIL	LANL010	22-DEC-09	11	11	1.258	79
243624010-1	RE12-10-7843	SAMPLE		.05 pCi/g	SOIL	LANL010	22-DEC-09	12	12	1.278	80
243624011-1	RE12-10-7847	SAMPLE		.05 pCi/g	SOIL	LANL010	22-DEC-09	13	13	1.250	256
1202007550-1	MB for batch 938210	MB		.05 pCi/g	SOIL	QC ACCOUNT		14	14	1.00	~~256~~ 46
1202007551-1	RE12-10-7845(243624008DUP)	DUP		.05 pCi/g	SOIL	QC ACCOUNT	22-DEC-09	15	15	1.254	44
1202007552-1	LCS for batch 938210	LCS		.05 pCi/g	SOIL	QC ACCOUNT		16	16	0.102	45

1/14/10

Cont'd

* SRM: 0244-B exp 04/30/20 0.102g

Choose SOP Used: ~~GL-RAD-A-011~~ ~~GL-RAD-A-036~~

Solid Sample Dissolution by: LEACH or DIGESTION (Circle One)

Data Reviewed By: [signature] 1/14/10

GEL Laboratories LLC, Radiochemistry Division

Blank Correction Report

Batch ID 938210

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
1202007551	DUP	Americium-241	1.25 g	0.00223	0.00259	0.023	-.002936	pCi/g	NO
1202007552	LCS	Americium-241	0.102 g	33.5	2.35	0.236	-.03598039	pCi/g	NO
1202007550	MB	Americium-241	1.00 g	-0.00367	0.00321	0.0236	-.00367	pCi/g	NO
243557014	RE03-10-9872	Americium-241	1.28 g	0.00148	0.002	0.0185	-.00286719	pCi/g	NO
243557015	RE03-10-9874	Americium-241	1.26 g	-0.000432	0.00195	0.0234	-.00291270	pCi/g	NO
243624001	RE12-10-7841	Americium-241	1.26 g	0.00322	0.00409	0.0213	-.00291270	pCi/g	NO
243624002	RE12-10-7840	Americium-241	1.25 g	0.00298	0.00503	0.0272	-.002936	pCi/g	NO
243624003	RE12-10-7839	Americium-241	1.25 g	0.000174	0.00148	0.017	-.002936	pCi/g	NO
243624004	RE12-10-7838	Americium-241	1.26 g	0.00493	0.0026	0.0229	-.00291270	pCi/g	NO
243624005	RE12-10-7858	Americium-241	1.26 g	-0.00182	0.00597	0.0223	-.00291270	pCi/g	NO
243624006	RE12-10-7846	Americium-241	1.26 g	0.00455	0.00618	0.0216	-.00291270	pCi/g	NO
243624007	RE12-10-7844	Americium-241	1.25 g	0.000724	0.00487	0.0217	-.002936	pCi/g	NO
243624008	RE12-10-7845	Americium-241	1.26 g	-0.00538	0.00435	0.0202	-.00291270	pCi/g	NO
243624009	RE12-10-7842	Americium-241	1.26 g	0.00666	0.00287	0.0206	-.00291270	pCi/g	NO
243624010	RE12-10-7843	Americium-241	1.28 g	0.00338	0.0021	0.022	-.00286719	pCi/g	NO
243624011	RE12-10-7847	Americium-241	1.25 g	9.38E-05	0.000962	0.0163	-.002936	pCi/g	NO

Alpha Spectroscopy Software Version 2.0
effective date: 09-Mar-1997

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 938210 SAMPLE DATE : 22-DEC-2009 00:00:00	SAMPLE ID : S0243557014_AM SAMPLE QTY: 1.275 G
DETECTOR NUMBER :79451 AVERAGE %EFFICIENCY :32.5060 % YIELD : 99.685	COUNT DATE: 7-JAN-2010 11:38:41 ELAPSED LIVE TIME(SEC): 59999.99 ANALYST :HAKB

MS/MSD	LCS/LCSD	TRACER	
ID : 0244-B ISOTOPE : AM-241 PCI/G : 3.316E+01	ID : 0244-B ISOTOPE : AM-241 PCI/G : 3.316E+01	ID : 445-96-2-SS ISOTOPE : AM243 NOMINAL : 2.91659 dpm RESULTS : 2.90741 dpm	LIB FILE : ENV_ALPHA_AM.N BKG FILE : B001.CNF;1111 BKG DATE : 3-JAN-2010 EFF FILE : W001.CNF;380 CAL DATE : 4-JAN-2010

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
CM-3/4	5795.020	5.000	5.000	0.000	5.2338	100.0000	5.46E-03	2.46E-03	1.33E-02	2.95E-02	2.44E-03
CM-5/6	5386.000	2.000	2.000	0.000	19.8463	86.09000	2.53E-03	1.80E-03	5.85E-02	1.20E-01	1.79E-03
AM-241	5479.150	4.000	1.359	1.000	3.0704	99.94000	1.48E-03	2.00E-03	7.79E-03	1.85E-02	2.00E-03
CM-242	6102.000	8.000	7.000	1.000	4.3186	100.0000	8.20E-03	3.55E-03	1.10E-02	2.49E-02	3.51E-03
AM243	5270.000	946.000	943.000	3.000	1.7321	99.78000	1.03E+00	6.96E-02	4.40E-03	1.18E-02	3.37E-02
CM-247	4946.000	5.000	4.000	1.000	15.3366	79.30000	5.50E-03	3.38E-03	4.91E-02	1.02E-01	3.37E-03
CM-248	5078.600	6.000	4.000	2.000	22.1555	91.00000	4.79E-03	3.40E-03	6.18E-02	1.27E-01	3.39E-03

NOTE: Sg calculated via blank population (updated 5-JAN-2010)
NOTE: Sg of AM243 calculated as sqrt(BKG AREA)
NOTE: Corrections made to AM-241 net area due to tracer impurity

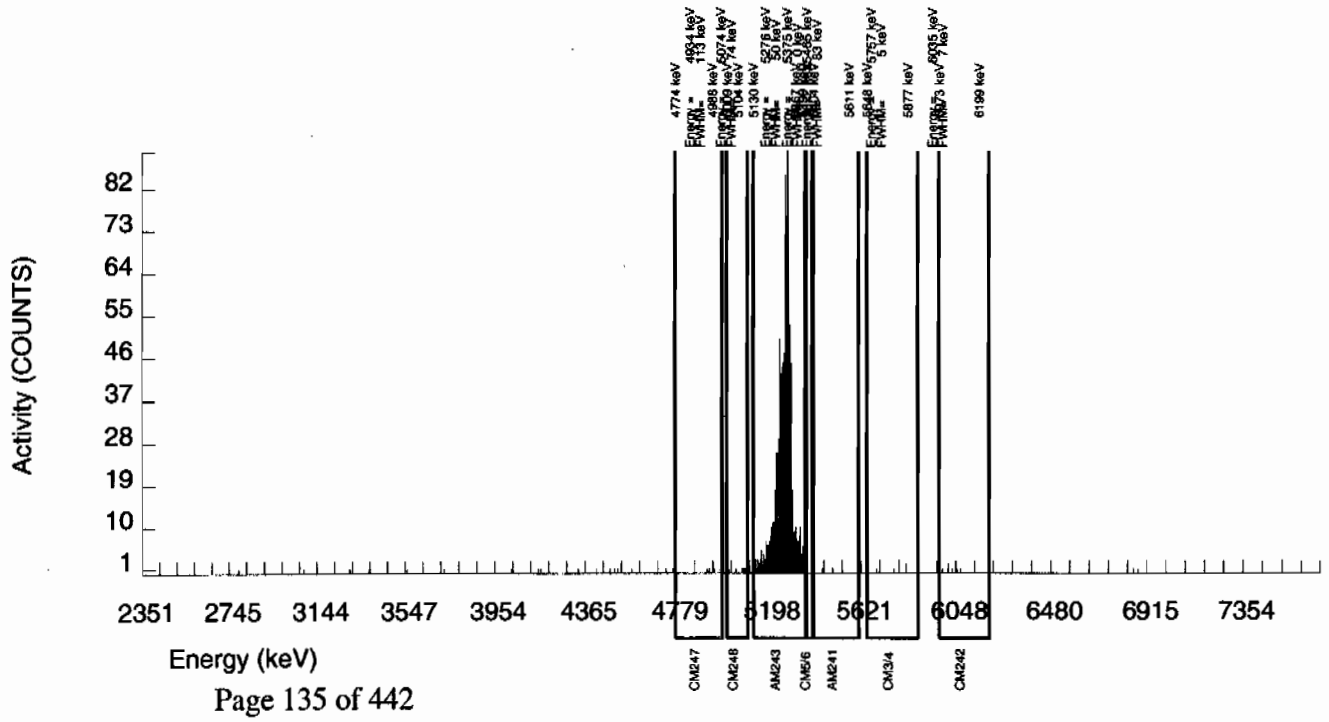

Alpha Spectroscopy Software Version 2.0
effective date: 09-Mar-1997

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 938210 SAMPLE DATE : 22-DEC-2009 00:00:00	SAMPLE ID : S0243557015_AM SAMPLE QTY: 1.263 G
DETECTOR NUMBER :79452 AVERAGE %EFFICIENCY :29.6879 % YIELD : 87.387	COUNT DATE: 7-JAN-2010 11:38:41 ELAPSED LIVE TIME(SEC): 59999.99 ANALYST :HAKB

MS/MSD	LCS/LCSD	TRACER	
ID : 0244-B ISOTOPE : AM-241 PCI/G : 3.316E+01	ID : 0244-B ISOTOPE : AM-241 PCI/G : 3.316E+01	ID : 445-96-2-SS ISOTOPE : AM243 NOMINAL : 2.91659 dpm RESULTS : 2.54874 dpm	LIB FILE : ENV_ALPHA_AM.N BKG FILE : B002.CNF;1101 BKG DATE : 3-JAN-2010 EFF FILE : W002.CNF;326 CAL DATE : 4-JAN-2010

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
CM-3/4	5795.020	12.000	12.000	0.000	5.2338	100.0000	1.65E-02	4.88E-03	1.67E-02	3.72E-02	4.77E-03
CM-5/6	5386.000	4.000	4.000	0.000	19.8463	86.09000	6.39E-03	3.22E-03	7.37E-02	1.52E-01	3.19E-03
AM-241	5479.150	2.000	-0.314	1.000	3.0704	99.94000	-4.32E-04	1.95E-03	9.83E-03	2.34E-02	1.95E-03
CM-242	6102.000	5.000	5.000	0.000	4.3186	100.0000	7.38E-03	3.33E-03	1.38E-02	3.13E-02	3.30E-03
AM243	5270.000	756.000	755.000	1.000	1.0000	99.78000	1.04E+00	7.42E-02	3.21E-03	1.01E-02	3.79E-02
CM-247	4946.000	4.000	-1.000	5.000	15.3366	79.30000	-1.73E-03	5.20E-03	6.19E-02	1.28E-01	5.20E-03
CM-248	5078.600	3.000	3.000	0.000	22.1555	91.00000	4.53E-03	2.63E-03	7.79E-02	1.60E-01	2.62E-03

NOTE: Sg calculated via blank population (updated 5-JAN-2010)
NOTE: Sg of AM243 calculated as sqrt(BKG AREA)
NOTE: Corrections made to AM-241 net area due to tracer impurity

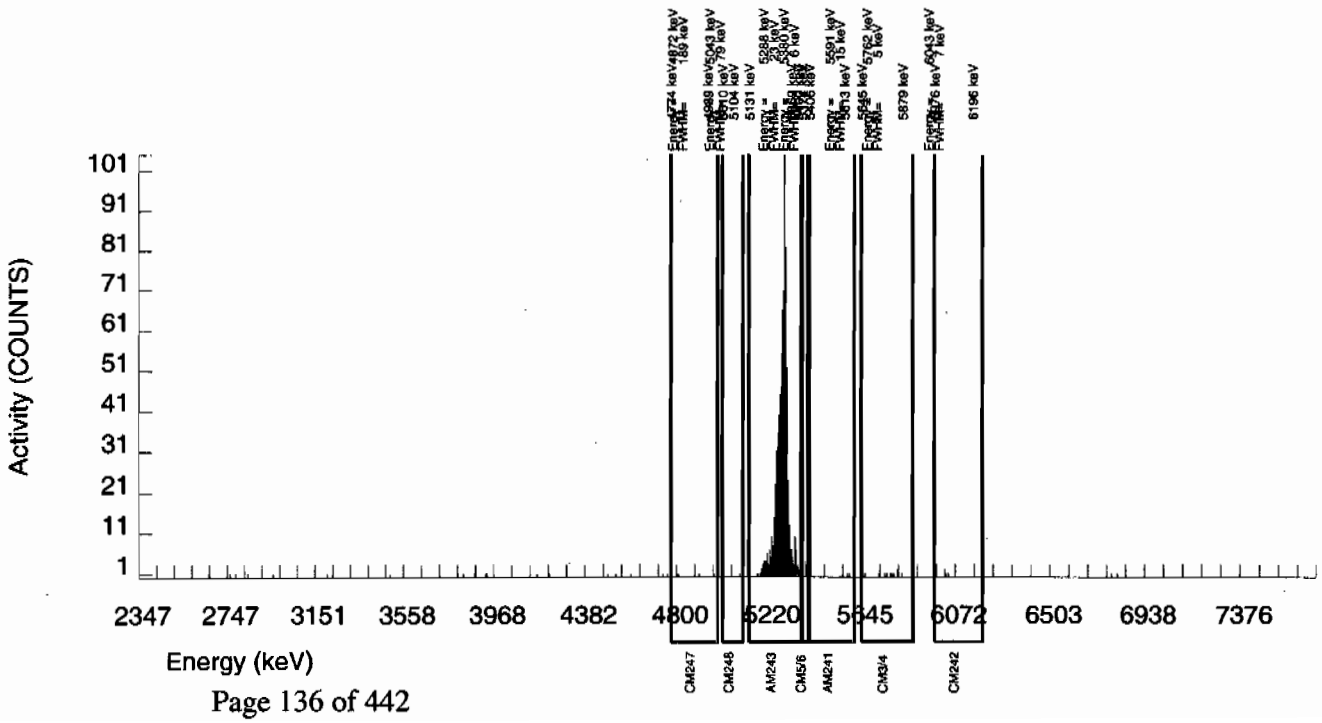

Alpha Spectroscopy Software Version 2.0
effective date: 09-Mar-1997

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 938210 SAMPLE DATE : 22-DEC-2009 00:00:00	SAMPLE ID : S0243624008_AM SAMPLE QTY: 1.255 G
DETECTOR NUMBER :67577 AVERAGE %EFFICIENCY :32.0370 % YIELD : 94.494	COUNT DATE: 7-JAN-2010 10:31:19 ELAPSED LIVE TIME(SEC): 60000.00 ANALYST :HAKB

MS/MSD	LCS/LCSD	TRACER	
ID : 0244-B ISOTOPE : AM-241 PCI/G : 3.316E+01	ID : 0244-B ISOTOPE : AM-241 PCI/G : 3.316E+01	ID : 445-96-2-SS ISOTOPE : AM243 NOMINAL : 2.91659 dpm RESULTS : 2.75602 dpm	LIB FILE : ENV_ALPHA_AM.N BKG FILE : B078.CNF;1004 BKG DATE : 5-JAN-2010 EFF FILE : W078.CNF;249 CAL DATE : 10-DEC-2009

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
CM-3/4	5795.020	13.000	9.000	4.000	5.2338	100.0000	1.07E-02	4.94E-03	1.44E-02	3.21E-02	4.90E-03
CM-5/6	5386.000	0.000	-1.000	1.000	19.8463	86.09000	-1.38E-03	1.95E-03	6.36E-02	1.31E-01	1.95E-03
AM-241	5479.150	6.000	-4.533	9.000	3.0704	99.94000	-5.38E-03	4.35E-03	8.47E-03	2.02E-02	4.35E-03
CM-242	6102.000	9.000	4.000	5.000	4.3186	100.0000	5.09E-03	4.77E-03	1.19E-02	2.70E-02	4.76E-03
AM243	5270.000	881.000	881.000	0.000	0.0000	99.78000	1.05E+00	7.17E-02	0.00E+00	3.22E-03	3.53E-02
CM-247	4946.000	2.000	1.000	1.000	15.3366	79.30000	1.50E-03	2.59E-03	5.33E-02	1.11E-01	2.59E-03
CM-248	5078.600	4.000	3.000	1.000	22.1555	91.00000	3.91E-03	2.92E-03	6.72E-02	1.38E-01	2.91E-03

NOTE: Sg calculated via blank population (updated 5-JAN-2010)
NOTE: Sg of AM243 calculated as sqrt(BKG AREA)
NOTE: Corrections made to AM-241 net area due to tracer impurity

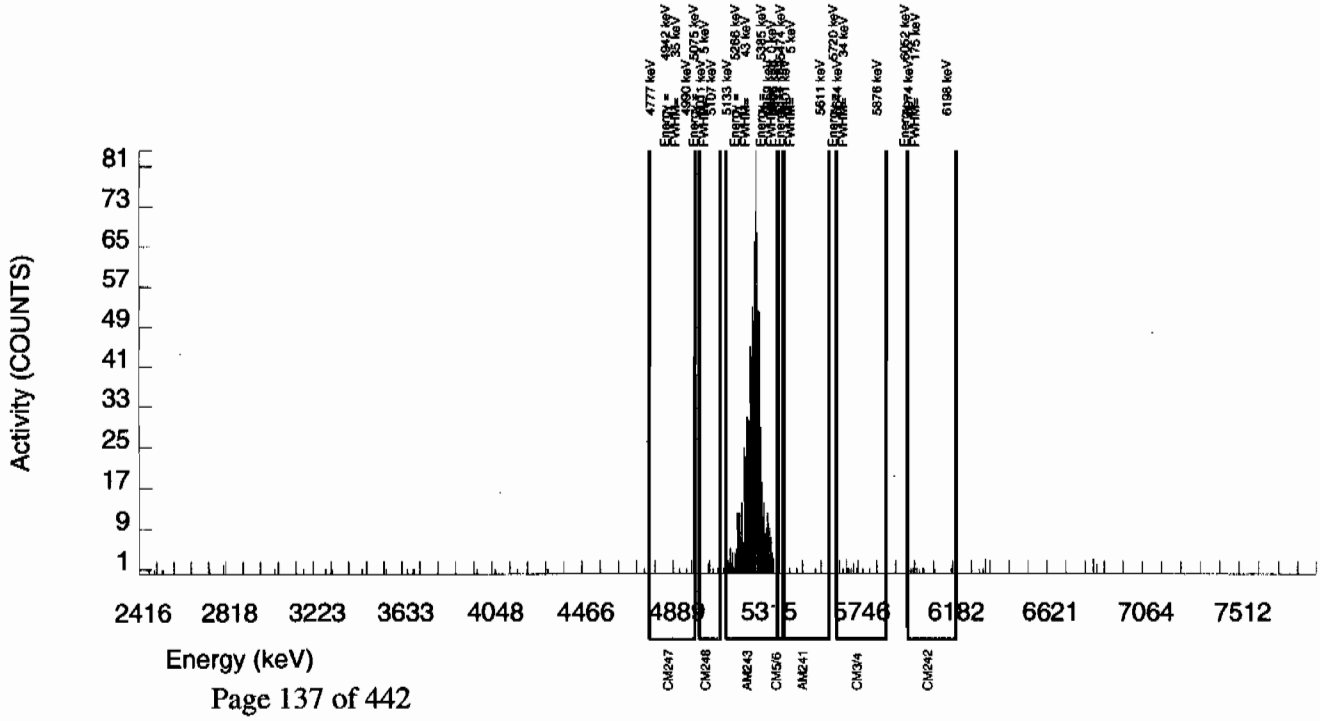

Alpha Spectroscopy Software Version 2.0
effective date: 09-Mar-1997

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 938210 SAMPLE DATE : 5-JAN-2010 00:00:00.	SAMPLE ID : S1202007550_AM SAMPLE QTY: 1.000 G
DETECTOR NUMBER :76544 AVERAGE %EFFICIENCY :33.8926 % YIELD : 95.911	COUNT DATE: 7-JAN-2010 10:31:18 ELAPSED LIVE TIME(SEC): 60000.00 ANALYST :HAKB

MS/MSD	LCS/LCSD	TRACER	
ID : 0244-B ISOTOPE : AM-241 PCI/G : 3.316E+01	ID : 0244-B ISOTOPE : AM-241 PCI/G : 3.316E+01	ID : 445-96-2-SS ISOTOPE : AM243 NOMINAL : 2.91659 dpm RESULTS : 2.79732 dpm	LIB FILE : ENV_ALPHA_AM.N BKG FILE : B046.CNF;1104 BKG DATE : 3-JAN-2010 EFF FILE : W046.CNF;287 CAL DATE : 4-JAN-2010

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
CM-3/4	5795.020	23.000	5.000	18.000	5.2338	100.0000	6.93E-03	8.88E-03	1.69E-02	3.75E-02	8.88E-03
CM-5/6	5386.000	2.000	2.000	0.000	19.8463	86.09000	3.22E-03	2.28E-03	7.43E-02	1.53E-01	2.28E-03
AM-241	5479.150	3.000	-2.646	4.000	3.0704	99.94000	-3.67E-03	3.21E-03	9.90E-03	2.36E-02	3.21E-03
CM-242	6102.000	13.000	8.000	5.000	4.3186	100.0000	1.12E-02	5.99E-03	1.39E-02	3.16E-02	5.95E-03
AM243	5270.000	949.000	946.000	3.000	1.7321	99.78000	1.31E+00	8.87E-02	5.60E-03	1.50E-02	4.28E-02
CM-247	4946.000	6.000	5.000	1.000	15.3366	79.30000	8.74E-03	4.65E-03	6.23E-02	1.29E-01	4.62E-03
CM-248	5078.600	7.000	7.000	0.000	22.1555	91.00000	1.07E-02	4.08E-03	7.85E-02	1.61E-01	4.03E-03

NOTE: Sg calculated via blank population (updated 5-JAN-2010)
NOTE: Sg of AM243 calculated as sqrt(BKG AREA)
NOTE: Corrections made to AM-241 net area due to tracer impurity

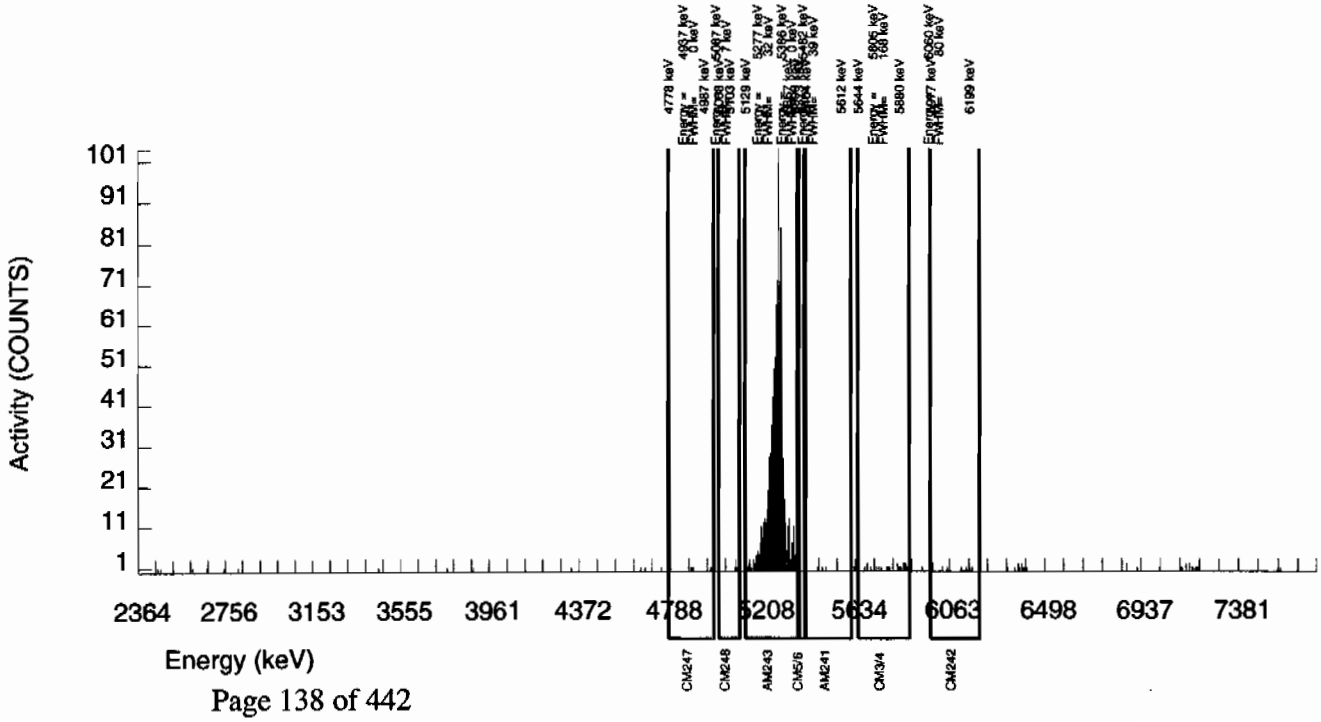

Alpha Spectroscopy Software Version 2.0
effective date: 09-Mar-1997

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 938210 SAMPLE DATE : 22-DEC-2009 00:00:00	SAMPLE ID : S1202007551_AM SAMPLE QTY: 1.254 G
DETECTOR NUMBER :79459 AVERAGE %EFFICIENCY :34.8103 % YIELD : 76.404	COUNT DATE: 7-JAN-2010 10:31:18 ELAPSED LIVE TIME(SEC): 60000.00 ANALYST :HAKB

MS/MSD	LCS/LCSD	TRACER	
ID : 0244-B ISOTOPE : AM-241 PCI/G : 3.316E+01	ID : 0244-B ISOTOPE : AM-241 PCI/G : 3.316E+01	ID : 445-96-2-SS ISOTOPE : AM243 NOMINAL : 2.91659 dpm RESULTS : 2.22839 dpm	LIB FILE : ENV_ALPHA_AM.N BKG FILE : B044.CNF;1104 BKG DATE : 3-JAN-2010 EFF FILE : W044.CNF;305 CAL DATE : 4-JAN-2010

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
CM-3/4	5795.020	31.000	9.000	22.000	5.2338	100.0000	1.22E-02	9.88E-03	1.64E-02	3.65E-02	9.85E-03
CM-5/6	5386.000	10.000	10.000	0.000	19.8463	86.09000	1.57E-02	5.05E-03	7.24E-02	1.49E-01	4.96E-03
AM-241	5479.150	4.000	1.653	1.000	3.0704	99.94000	2.23E-03	2.59E-03	9.65E-03	2.30E-02	2.58E-03
CM-242	6102.000	9.000	5.000	4.000	4.3186	100.0000	7.25E-03	5.25E-03	1.36E-02	3.08E-02	5.23E-03
AM243	5270.000	775.000	774.000	1.000	1.0000	99.78000	1.05E+00	7.42E-02	3.15E-03	9.97E-03	3.77E-02
CM-247	4946.000	3.000	-1.000	4.000	15.3366	79.30000	-1.70E-03	4.51E-03	6.08E-02	1.26E-01	4.51E-03
CM-248	5078.600	7.000	7.000	0.000	22.1555	91.00000	1.04E-02	3.98E-03	7.65E-02	1.57E-01	3.93E-03

NOTE: Sg calculated via blank population (updated 5-JAN-2010)
NOTE: Sg of AM243 calculated as sqrt(BKG AREA)
NOTE: Corrections made to AM-241 net area due to tracer impurity

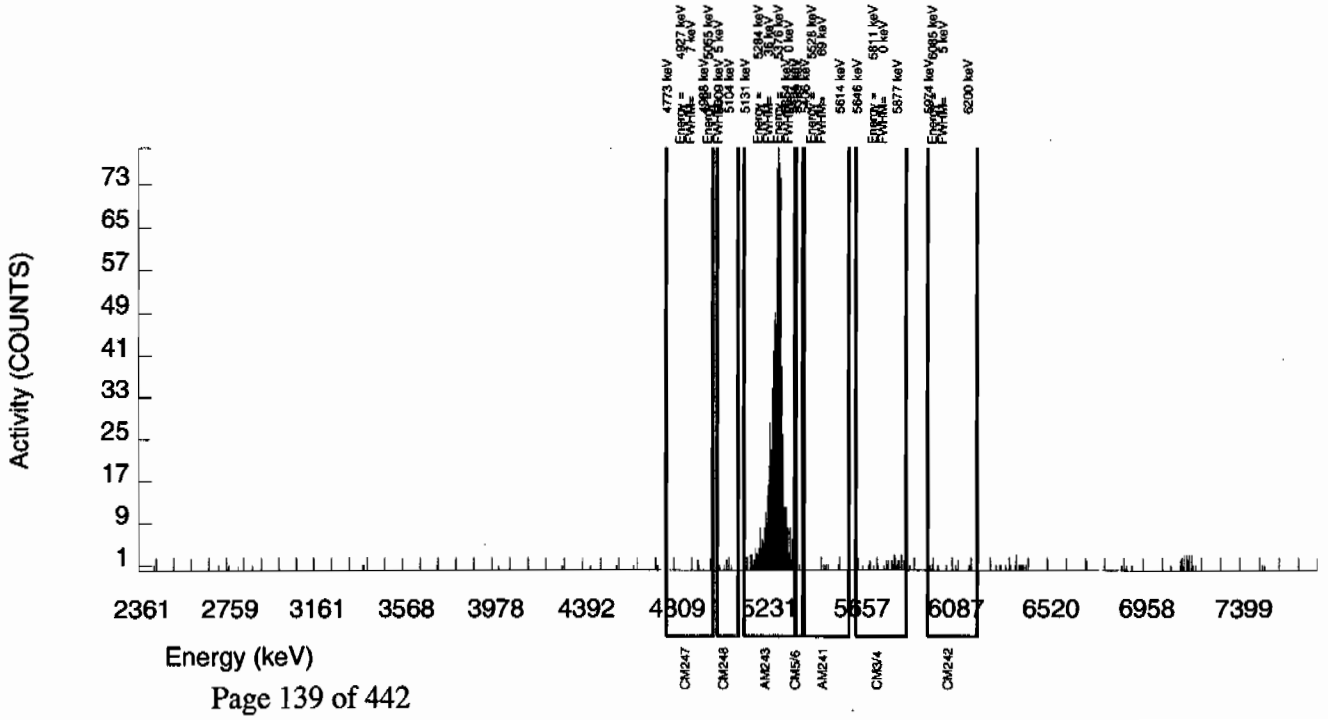

Alpha Spectroscopy Software Version 2.0
effective date: 09-Mar-1997

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 938210 SAMPLE DATE : 5-JAN-2010 00:00:00.	SAMPLE ID : S1202007552_AM SAMPLE QTY: 0.102 G
DETECTOR NUMBER :78783 AVERAGE %EFFICIENCY :33.6899 % YIELD : 94.550	COUNT DATE: 7-JAN-2010 10:31:18 ELAPSED LIVE TIME(SEC): 60000.00 ANALYST :HAKB

MS/MSD	LCS/LCSD	TRACER	
ID : 0244-B ISOTOPE : AM-241 PCI/G : 3.316E+01	ID : 0244-B ISOTOPE : AM-241 PCI/G : 3.316E+01	ID : 445-96-2-SS ISOTOPE : AM243 NOMINAL : 2.91659 dpm RESULTS : 2.75763 dpm	LIB FILE : ENV_ALPHA_AM.N BKG FILE : B045.CNF;1093 BKG DATE : 3-JAN-2010 EFF FILE : W045.CNF;296 CAL DATE : 4-JAN-2010

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
CM-3/4	5795.020	16.000	-8.000	24.000	5.2338	100.0000	-1.11E-01	8.77E-02	1.69E-01	3.75E-01	8.77E-02
CM-5/6	5386.000	39.000	39.000	0.000	19.8463	86.09000	6.28E-01	1.09E-01	7.44E-01	1.53E+00	1.01E-01
AM-241	5479.150	2417.000	2414.387	1.000	3.0704	99.94000	3.35E+01	2.35E+00	9.91E-02	2.36E-01	6.82E-01
CM-242	6102.000	11.000	10.000	1.000	4.3186	100.0000	1.40E-01	4.95E-02	1.39E-01	3.16E-01	4.86E-02
AM243	5270.000	928.000	927.000	1.000	1.0000	99.78000	1.29E+01	9.63E-01	3.23E-02	1.02E-01	4.23E-01
CM-247	4946.000	6.000	5.000	1.000	15.3366	79.30000	8.74E-02	4.66E-02	6.24E-01	1.29E+00	4.63E-02
CM-248	5078.600	8.000	8.000	0.000	22.1555	91.00000	1.22E-01	4.39E-02	7.85E-01	1.61E+00	4.31E-02

NOTE: Sg calculated via blank population (updated 5-JAN-2010)
NOTE: Sg of AM243 calculated as sqrt(BKG AREA)
NOTE: Corrections made to AM-241 net area due to tracer impurity

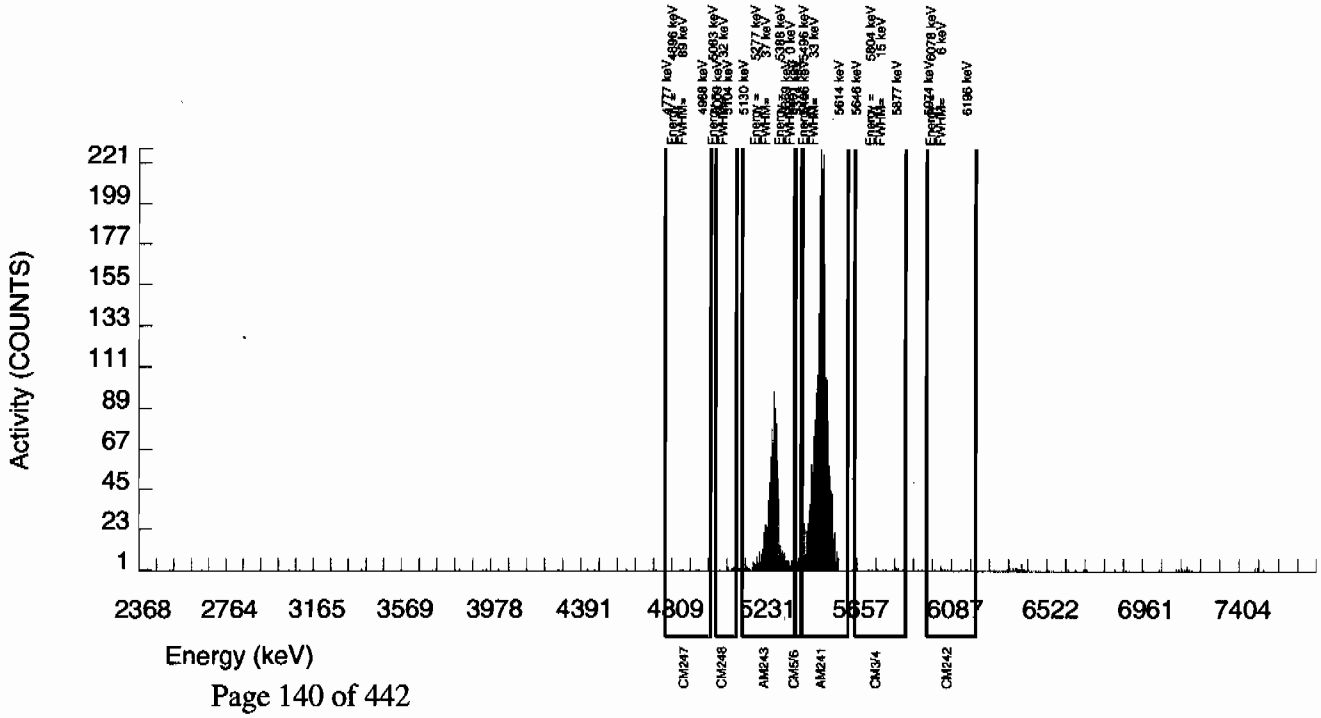

Radiochemistry Batch Checklist, Rev 9

Batch# 938221 Product: Pu Date: 1/13/10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			N/A
Samples have been blank corrected (if required)	✓		
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125%. Carrier yield 25-125%. Or meets the client's contract acceptance criteria.	✓		Case Narrative
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	✓		Case Narrative
Sample was run within hold time.	✓		
Sample was correctly preserved if required.	✓		
Smears Taken for Radioactive batches.			N/A
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	✓		
Aux data is correct.			N/A
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)			N/A
Batch entered into Case Narrative.	✓		
Batch non-conformances completed, if applicable.			N/A
Batch non-conformances second reviewed and disposition verified to be completed.			N/A
Aliquot Correction completed if required.			N/A
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

GEL Laboratories, LLC

revised 8/1/08

Primary Review Performed By: [illegible] 1/13/10

Secondary Review Performed By: [illegible] 1/14/10

1/21

LANL

✓P

Plutonium Que Sheet

04-JAN-10

Batch #: 938221 **Analyst:** HAKB **First Client Due Date:** 21-JAN-10 **Internal Due Date:** 10-JAN-10

Tracer Isotope(s): Pu-242/Pu-238 **Tracer Code:** 1374-A **Expiration Date:** 12/08/10 **Vol:** 0.1

LCS Isotope(s): Pu-239/Pu-238 **LCS Code:** — **Expiration Date:** — **Vol:** —

Spike Isotope(s): Pu-239/Pu-238 **Spike Code:** — **Expiration Date:** — **Vol:** —

Prep Date: 01/05/10 **Initials:** JHD **Pipet ID:** 2971058 **Balance ID:** 50410272 **Witness:** 1/5/10 CMM

Sample ID	Client Description	Type	Hazard Code	Min CRDL	Matrix	Client	Collection Date	Pos.	Label #	Wet/Dry Aliquot (g/l/f)	Pu Det #
243557014-1	RE03-10-9872	SAMPLE		.05 pCi/g	SOIL	LANL010	22-DEC-09	1	1	1.275	209
243557015-1	RE03-10-9874	SAMPLE		.05 pCi/g	SOIL	LANL010	22-DEC-09	2	2	1.263	210
243624001-1	RE12-10-7841	SAMPLE		.05 pCi/g	SOIL	LANL010	22-DEC-09	3	3	1.263	223
243624002-1	RE12-10-7840	SAMPLE		.05 pCi/g	SOIL	LANL010	22-DEC-09	4	4	1.252	224
243624003-1	RE12-10-7839	SAMPLE		.05 pCi/g	SOIL	LANL010	22-DEC-09	5	5	1.251	71
243624004-1	RE12-10-7838	SAMPLE		.05 pCi/g	SOIL	LANL010	22-DEC-09	6	6	1.260	76
~~243624005-1~~	~~RE12-10-7858~~	~~SAMPLE~~		~~.05 pCi/g~~	~~SOIL~~	~~LANL010~~	~~22-DEC-09~~	~~7~~	~~7~~	~~1.255~~	~~83 510~~
243624006-1	RE12-10-7846	SAMPLE		.05 pCi/g	SOIL	LANL010	22-DEC-09	8	8	1.261	84
243624007-1	RE12-10-7844	SAMPLE		.05 pCi/g	SOIL	LANL010	22-DEC-09	9	9	1.250	85
•243624008-1	RE12-10-7845	SAMPLE		.05 pCi/g	SOIL	LANL010	22-DEC-09	10	10	1.255	86
243624009-1	RE12-10-7842	SAMPLE		.05 pCi/g	SOIL	LANL010	22-DEC-09	11	11	1.258	87
243624010-1	RE12-10-7843	SAMPLE		.05 pCi/g	SOIL	LANL010	22-DEC-09	12	12	1.278	88
243624011-1	RE12-10-7847	SAMPLE		.05 pCi/g	SOIL	LANL010	22-DEC-09	13	13	1.250	~~255~~ 43
1202007553-1	MB for batch 938221	MB		.05 pCi/g	SOIL	QC ACCOUNT		14	14	1.00	47
1202007554-1	RE12-10-7845(243624008DUP)	DUP		.05 pCi/g	SOIL	QC ACCOUNT	22-DEC-09	15	15	1.254	48
1202007555-1	LCS for batch 938221	LCS		.05 pCi/g	SOIL	QC ACCOUNT		16	16	0.102	~~43~~ 255

* SRM: 0244-8 exp 04/30/20 0.102g

Choose SOP Used: GL-RAD-A-011, GL-RAD-A-036, GL-RAD-A-045, GL-RAD-A-043

Solid Sample Dissolution by: LEACH or DIGESTION (Circle One)

Data Reviewed By: 1/11

GEL Laboratories LLC, , Radiochemistry Division

Page: 1 of 1

1/12/10

Blank Correction Report

Batch ID 938221

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
1202007554	DUP	Plutonium-238	1.25 g	0.0034	0.0059	0.0187	.0068	pCi/g	YES
		Plutonium-239/240	1.25 g	0.00113	0.00254	0.0214	.0068	pCi/g	YES
1202007555	LCS	Plutonium-238	0.102 g	6.95	0.485	0.180	.083333333	pCi/g	NO
		Plutonium-239/240	0.102 g	36.2	2.17	0.206	.083333333	pCi/g	NO
1202007553	MB	Plutonium-238	1.00 g	0.0085	0.00569	0.0234	.0085	pCi/g	YES
		Plutonium-239/240	1.00 g	0.0085	0.00493	0.0268	.0085	pCi/g	YES
243557014	RE03-10-9872	Plutonium-238	1.28 g	0.00202	0.00143	0.0166	.006640625	pCi/g	YES
		Plutonium-239/240	1.28 g	0.00101	0.00101	0.019	.006640625	pCi/g	YES
243557015	RE03-10-9874	Plutonium-238	1.26 g	0.00186	0.00132	0.0153	.006746032	pCi/g	YES
		Plutonium-239/240	1.26 g	0.000928	0.000929	0.0175	.006746032	pCi/g	YES
243624001	RE12-10-7841	Plutonium-238	1.26 g	0.00737	0.00263	0.0152	.006746032	pCi/g	YES
		Plutonium-239/240	1.26 g	0.00552	0.00227	0.0174	.006746032	pCi/g	YES
243624002	RE12-10-7840	Plutonium-238	1.25 g	0.00301	0.00174	0.0166	.0068	pCi/g	YES
		Plutonium-239/240	1.25 g	0.017	0.00445	0.0189	.0068	pCi/g	YES
243624003	RE12-10-7839	Plutonium-238	1.25 g	0.00885	0.00496	0.0183	.0068	pCi/g	YES
		Plutonium-239/240	1.25 g	0.00774	0.00295	0.0209	.0068	pCi/g	YES
243624004	RE12-10-7838	Plutonium-238	1.26 g	0.00119	0.00206	0.0197	.006746032	pCi/g	YES
		Plutonium-239/240	1.26 g	0.00714	0.00339	0.0225	.006746032	pCi/g	YES
243624006	RE12-10-7846	Plutonium-238	1.26 g	0.0093	0.00313	0.0171	.006746032	pCi/g	YES
		Plutonium-239/240	1.26 g	0.00826	0.00389	0.0195	.006746032	pCi/g	YES
243624007	RE12-10-7844	Plutonium-238	1.25 g	0.00	0.00167	0.0195	.0068	pCi/g	YES
		Plutonium-239/240	1.25 g	0.00708	0.00291	0.0223	.0068	pCi/g	YES
243624008	RE12-10-7845	Plutonium-238	1.26 g	0.00117	0.00262	0.0193	.006746032	pCi/g	YES
		Plutonium-239/240	1.26 g	-0.00351	0.00309	0.0221	.006746032	pCi/g	YES
243624009	RE12-10-7842	Plutonium-238	1.26 g	-0.00444	0.00351	0.0183	.006746032	pCi/g	YES
		Plutonium-239/240	1.26 g	0.00555	0.00485	0.021	.006746032	pCi/g	YES
243624010	RE12-10-7843	Plutonium-238	1.28 g	0.00246	0.00628	0.0203	.006640625	pCi/g	YES
		Plutonium-239/240	1.28 g	0.00862	0.00372	0.0233	.006640625	pCi/g	YES
243624011	RE12-10-7847	Plutonium-238	1.25 g	0.00819	0.00326	0.0169	.0068	pCi/g	YES
		Plutonium-239/240	1.25 g	0.00307	0.0034	0.0193	.0068	pCi/g	YES

Alpha Spectroscopy Software Version 2.0
effective date: 08-Mar-1997

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 938221 SAMPLE DATE : 5-JAN-2010 00:00:00.	SAMPLE ID : S1202007555_PU SAMPLE QTY: 0.102 G
DETECTOR NUMBER :79448 AVERAGE %EFFICIENCY :37.8834 % YIELD : 109.472	COUNT DATE: 7-JAN-2010 10:33:54 ELAPSED LIVE TIME(SEC): 60000.00 ANALYST :HAKB

MS/MSD	LCS/LCSD	TRACER	
ID : 0244-B ISOTOPE : PU-9/0 PCI/G : 4.178E+01	ID : 0244-B ISOTOPE : PU-9/0 PCI/G : 4.178E+01	ID : 1374-A ISOTOPE : PU242 NOMINAL : 3.38543 dpm RESULTS : 3.70610 dpm	LIB FILE : ENV_ALPHA_PU.N BKG FILE : B255.CNF;66 BKG DATE : 3-JAN-2010 EFF FILE : W255.CNF;24 CAL DATE : 28-DEC-2009

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-9/0	5155.000	3286.000	3286.000	0.000	3.4797	99.90000	3.50E+01	2.10E+00	8.63E-02	2.01E-01	6.11E-01
PU-236	5749.000	0.000	0.000	0.000	2.1286	100.0000	0.00E+00	1.07E-02	5.27E-02	1.34E-01	1.07E-02
PU-238	5499.000	638.000	638.000	0.000	2.9680	99.90000	6.80E+00	4.73E-01	7.36E-02	1.76E-01	2.69E-01
PU242	4890.000	1405.000	1404.000	1.000	1.0000	100.0000	1.50E+01	9.44E-01	2.48E-02	7.84E-02	3.99E-01
PU-244	4589.000	16.000	15.000	1.000	5.2050	99.90000	1.60E-01	4.49E-02	1.29E-01	2.87E-01	4.39E-02

NOTE: Sg calculated via blank population (updated 5-JAN-2010)
NOTE: Sg of PU242 calculated as sqrt(BKG AREA)

Integrated

DO NOT REPORT

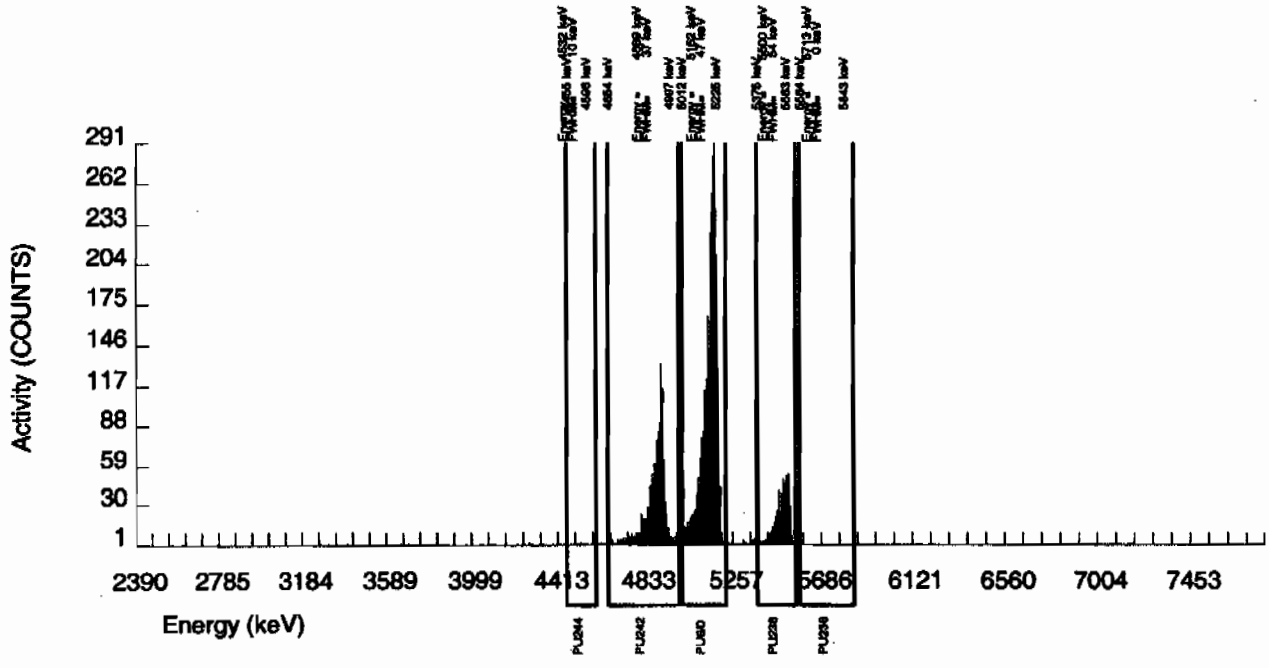

Alpha Spectroscopy Software Version 2.0
effective date: 09-Mar-1997

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 938221 SAMPLE DATE : 22-DEC-2009 00:00:00	SAMPLE ID : S0243557014_PU SAMPLE QTY: 1.275 G
DETECTOR NUMBER :79188 AVERAGE %EFFICIENCY :36.4789 % YIELD : 96.197	COUNT DATE: 7-JAN-2010 11:37:29 ELAPSED LIVE TIME(SEC): 60000.00 ANALYST :HAKB

MS/MSD	LCS/LCSD	TRACER	
ID : 0244-B ISOTOPE : PU-9/0 PCI/G : 4.178E+01	ID : 0244-B ISOTOPE : PU-9/0 PCI/G : 4.178E+01	ID : 1374-A ISOTOPE : PU242 NOMINAL : 3.38543 dpm RESULTS : 3.25667 dpm	LIB FILE : ENV_ALPHA_PU.N BKG FILE : B209.CNF;67 BKG DATE : 3-JAN-2010 EFF FILE : W209.CNF;27 CAL DATE : 28-DEC-2009

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-9/0	5155.000	1.000	1.000	0.000	3.4797	99.90000	1.01E-03	1.01E-03	8.16E-03	1.90E-02	1.01E-03
PU-236	5749.000	2.000	2.000	0.000	2.1286	100.0000	2.04E-03	1.44E-03	4.99E-03	1.27E-02	1.44E-03
PU-238	5499.000	2.000	2.000	0.000	2.9680	99.90000	2.02E-03	1.43E-03	6.96E-03	1.66E-02	1.43E-03
PU242	4890.000	1188.000	1188.000	0.000	0.0000	100.0000	1.20E+00	6.82E-02	0.00E+00	2.73E-03	3.47E-02
PU-244	4589.000	4.000	4.000	0.000	5.2050	99.90000	4.03E-03	2.03E-03	1.22E-02	2.71E-02	2.02E-03

NOTE: Sg calculated via blank population (updated 5-JAN-2010)
NOTE: Sg of PU242 calculated as sqrt(BKG AREA)

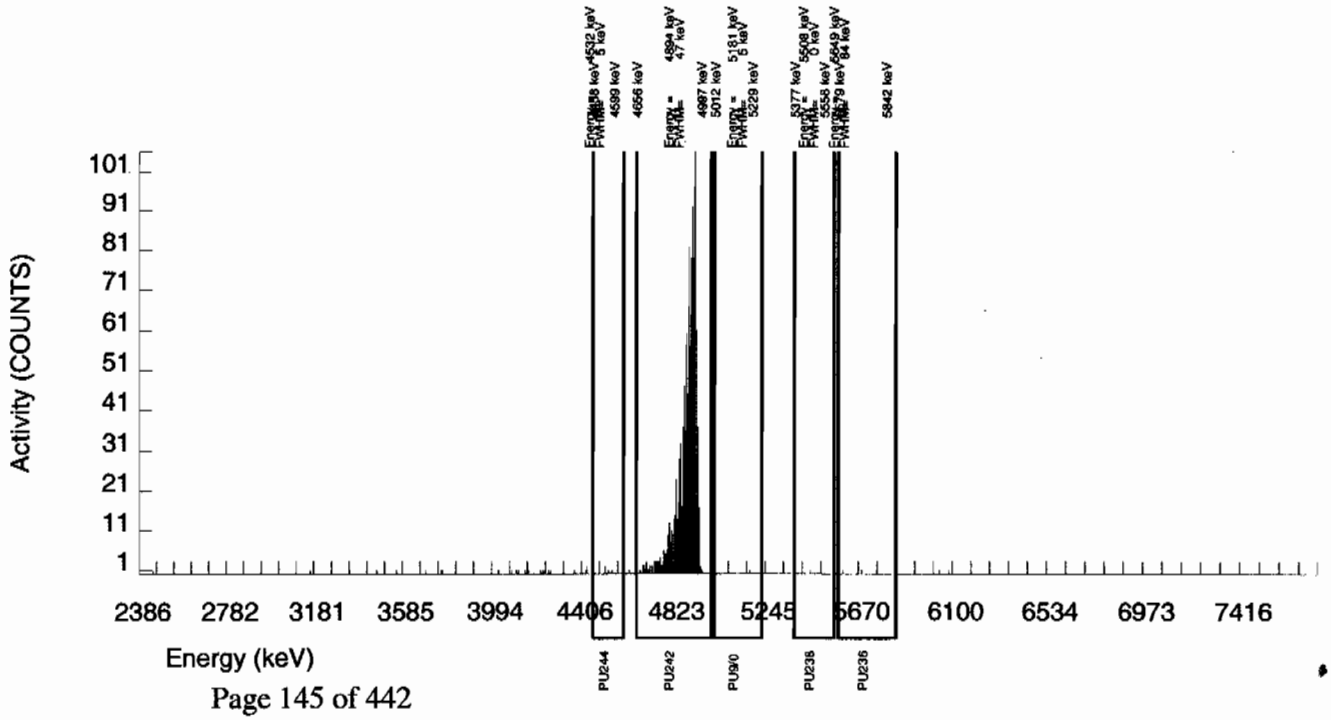

Alpha Spectroscopy Software Version 2.0
effective date: 09-Mar-1997

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 938221 SAMPLE DATE : 22-DEC-2009 00:00:00	SAMPLE ID : S0243557015_PU SAMPLE QTY: 1.263 G
DETECTOR NUMBER :79189 AVERAGE %EFFICIENCY :38.1693 % YIELD : 100.836	COUNT DATE: 7-JAN-2010 11:37:30 ELAPSED LIVE TIME(SEC): 60000.00 ANALYST :HAKB

MS/MSD	LCS/LCSD	TRACER	
ID : 0244-B ISOTOPE : PU-9/0 PCI/G : 4.178E+01	ID : 0244-B ISOTOPE : PU-9/0 PCI/G : 4.178E+01	ID : 1374-A ISOTOPE : PU242 NOMINAL : 3.38543 dpm RESULTS : 3.41373 dpm	LIB FILE : ENV_ALPHA_PU.N BKG FILE : B210.CNF;66 BKG DATE : 3-JAN-2010 EFF FILE : W210.CNF;25 CAL DATE : 28-DEC-2009

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-9/0	5155.000	1.000	1.000	0.000	3.4797	99.90000	9.28E-04	9.29E-04	7.51E-03	1.75E-02	9.28E-04
PU-236	5749.000	0.000	0.000	0.000	2.1286	100.0000	0.00E+00	9.38E-04	4.59E-03	1.17E-02	9.37E-04
PU-238	5499.000	2.000	2.000	0.000	2.9680	99.90000	1.86E-03	1.32E-03	6.40E-03	1.53E-02	1.31E-03
PU242	4890.000	1304.000	1303.000	1.000	1.0000	100.0000	1.21E+00	6.72E-02	2.16E-03	6.82E-03	3.35E-02
PU-244	4589.000	12.000	12.000	0.000	5.2050	99.90000	1.11E-02	3.26E-03	1.12E-02	2.50E-02	3.21E-03

NOTE: Sg calculated via blank population (updated 5-JAN-2010)
NOTE: Sg of PU242 calculated as sqrt(BKG AREA)

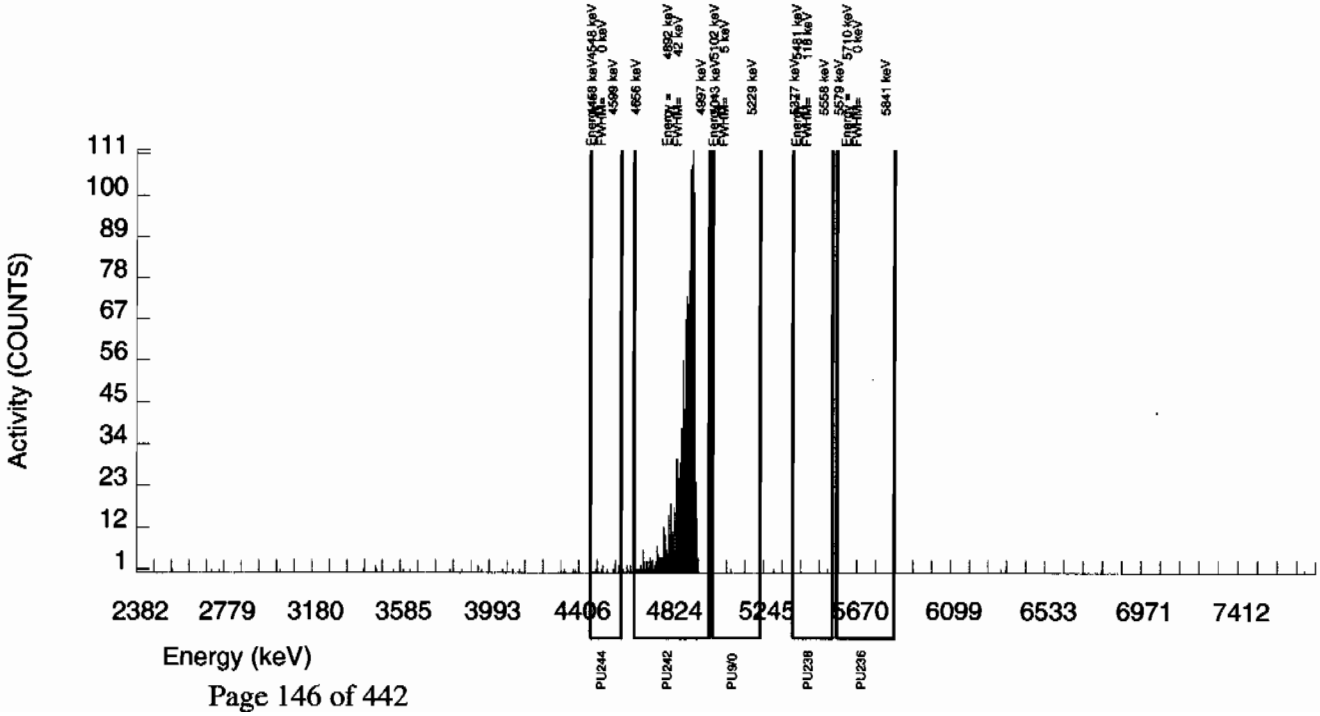

Alpha Spectroscopy Software Version 2.0
effective date: 09-Mar-1997

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 938221 SAMPLE DATE : 22-DEC-2009 00:00:00	SAMPLE ID : S0243624008_PU SAMPLE QTY: 1.255 G
DETECTOR NUMBER :78198 AVERAGE %EFFICIENCY :29.5330 % YIELD : 104.019	COUNT DATE: 7-JAN-2010 10:31:20 ELAPSED LIVE TIME(SEC): 60000.00 ANALYST :HAKB

MS/MSD	LCS/LCSD	TRACER	
ID : 0244-B ISOTOPE : PU-9/0 PCI/G : 4.178E+01	ID : 0244-B ISOTOPE : PU-9/0 PCI/G : 4.178E+01	ID : 1374-A ISOTOPE : PU242 NOMINAL : 3.38543 dpm RESULTS : 3.52148 dpm	LIB FILE : ENV_ALPHA_PU.N BKG FILE : B086.CNF;1011 BKG DATE : 5-JAN-2010 EFF FILE : W086.CNF;279 CAL DATE : 10-DEC-2009

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-9/0	5155.000	2.000	-3.000	5.000	3.4797	99.90000	-3.51E-03	3.09E-03	9.47E-03	2.21E-02	3.09E-03
PU-236	5749.000	1.000	0.000	1.000	2.1286	100.0000	0.00E+00	1.67E-03	5.79E-03	1.47E-02	1.67E-03
PU-238	5499.000	3.000	1.000	2.000	2.9680	99.90000	1.17E-03	2.62E-03	8.08E-03	1.93E-02	2.62E-03
PU242	4890.000	1041.000	1040.000	1.000	1.0000	100.0000	1.22E+00	7.20E-02	2.72E-03	8.60E-03	3.77E-02
PU-244	4589.000	3.000	3.000	0.000	5.2050	99.90000	3.51E-03	2.03E-03	1.42E-02	3.15E-02	2.03E-03

NOTE: Sg calculated via blank population (updated 5-JAN-2010)
NOTE: Sg of PU242 calculated as sqrt(BKG AREA)

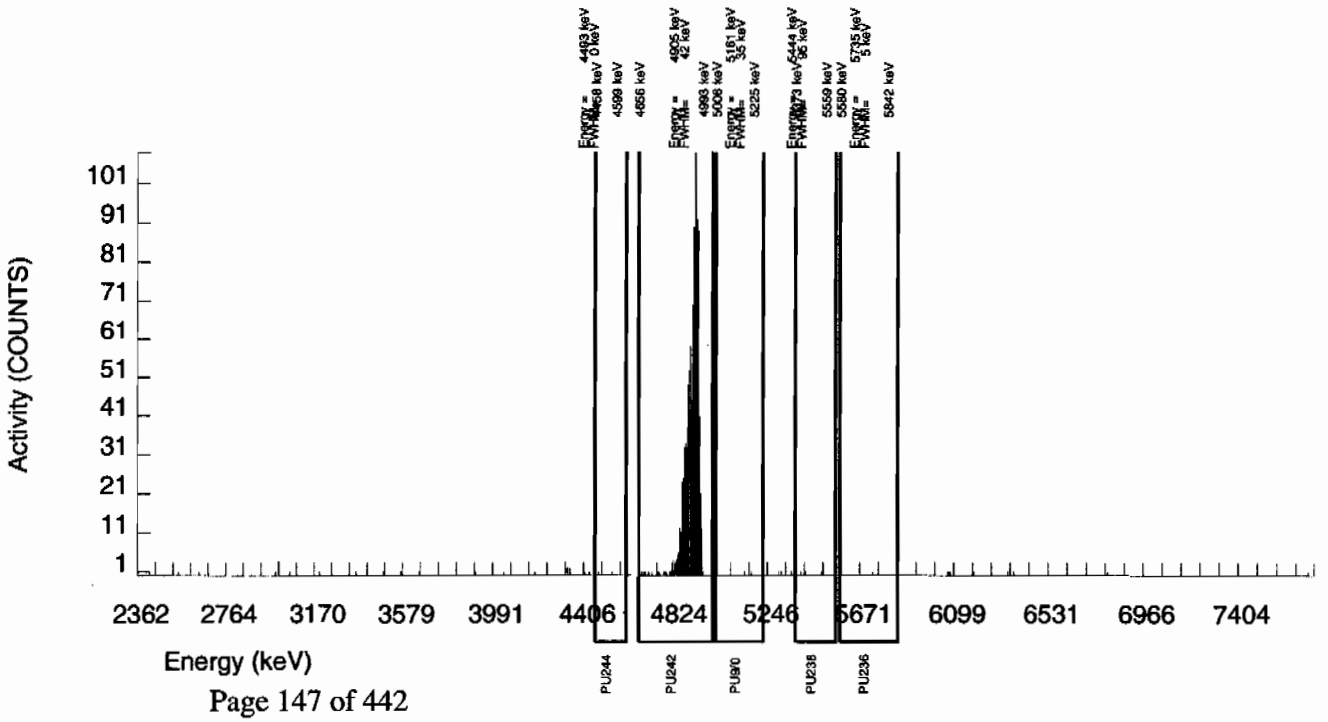

Alpha Spectroscopy Software Version 2.0
effective date: 09-Mar-1997

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 938221 SAMPLE DATE : 5-JAN-2010 00:00:00.	SAMPLE ID : S1202007553_PU SAMPLE QTY: 1.000 G
DETECTOR NUMBER :46-089B1 AVERAGE %EFFICIENCY :34.5024 % YIELD : 92.204	COUNT DATE: 7-JAN-2010 10:31:18 ELAPSED LIVE TIME(SEC): 60000.00 ANALYST :HAKB

MS/MSD	LCS/LCSD	TRACER	
ID : 0244-B ISOTOPE : PU-9/0 PCI/G : 4.178E+01	ID : 0244-B ISOTOPE : PU-9/0 PCI/G : 4.178E+01	ID : 1374-A ISOTOPE : PU242 NOMINAL : 3.38543 dpm RESULTS : 3.12152 dpm	LIB FILE : ENV_ALPHA_PU.N BKG FILE : B047.CNF;1099 BKG DATE : 3-JAN-2010 EFF FILE : W047.CNF;301 CAL DATE : 4-JAN-2010

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-9/0	5155.000	9.000	6.000	3.000	3.4797	99.90000	8.50E-03	4.93E-03	1.15E-02	2.68E-02	4.91E-03
PU-236	5749.000	18.000	3.000	15.000	2.1286	100.0000	4.26E-03	8.15E-03	7.01E-03	1.79E-02	8.15E-03
PU-238	5499.000	11.000	6.000	5.000	2.9680	99.90000	8.50E-03	5.69E-03	9.79E-03	2.34E-02	5.67E-03
PU242	4890.000	1080.000	1077.000	3.000	1.7321	100.0000	1.52E+00	8.96E-02	5.71E-03	1.52E-02	4.66E-02
PU-244	4589.000	3.000	3.000	0.000	5.2050	99.90000	4.25E-03	2.46E-03	1.72E-02	3.82E-02	2.45E-03

NOTE: Sg calculated via blank population (updated 5-JAN-2010)
NOTE: Sg of PU242 calculated as sqrt(BKG AREA)

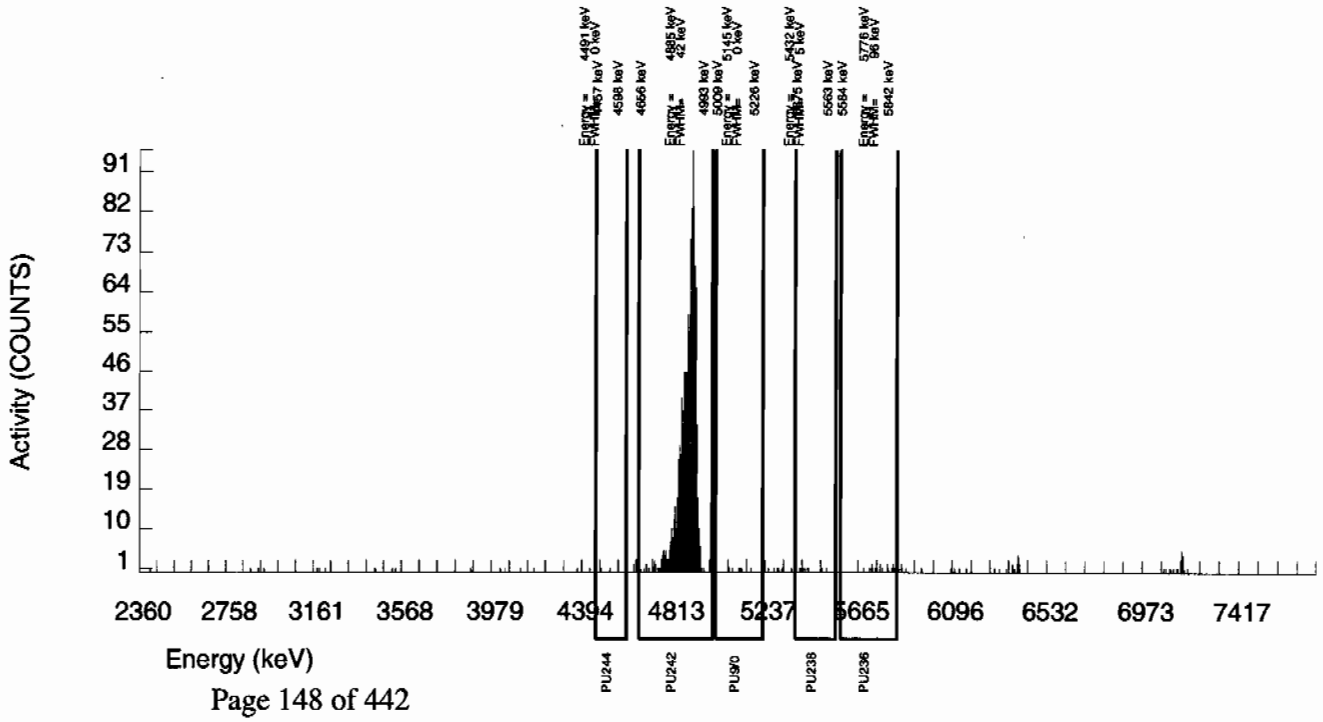

Alpha Spectroscopy Software Version 2.0
effective date: 09-Mar-1997

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 938221 SAMPLE DATE : 22-DEC-2009 00:00:00	SAMPLE ID : S1202007554_PU SAMPLE QTY: 1.254 G
DETECTOR NUMBER :42483 AVERAGE %EFFICIENCY :31.2622 % YIELD : 101.383	COUNT DATE: 7-JAN-2010 10:31:18 ELAPSED LIVE TIME(SEC): 60000.00 ANALYST :HAKB

MS/MSD	LCS/LCSD	TRACER	
ID : 0244-B ISOTOPE : PU-9/0 PCI/G : 4.178E+01	ID : 0244-B ISOTOPE : PU-9/0 PCI/G : 4.178E+01	ID : 1374-A ISOTOPE : PU242 NOMINAL : 3.38543 dpm RESULTS : 3.43226 dpm	LIB FILE : ENV_ALPHA_PU.N BKG FILE : B048.CNF;1100 BKG DATE : 3-JAN-2010 EFF FILE : W048.CNF;314 CAL DATE : 4-JAN-2010

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-9/0	5155.000	3.000	1.000	2.000	3.4797	99.90000	1.13E-03	2.54E-03	9.18E-03	2.14E-02	2.54E-03
PU-236	5749.000	19.000	3.000	16.000	2.1286	100.0000	3.44E-03	6.78E-03	5.61E-03	1.43E-02	6.78E-03
PU-238	5499.000	15.000	3.000	12.000	2.9680	99.90000	3.40E-03	5.90E-03	7.83E-03	1.87E-02	5.90E-03
PU242	4890.000	1076.000	1073.000	3.000	1.7321	100.0000	1.22E+00	7.15E-02	4.57E-03	1.22E-02	3.72E-02
PU-244	4589.000	5.000	3.000	2.000	5.2050	99.90000	3.40E-03	3.01E-03	1.37E-02	3.05E-02	3.00E-03

NOTE: Sg calculated via blank population (updated 5-JAN-2010)
NOTE: Sg of PU242 calculated as sqrt(BKG AREA)

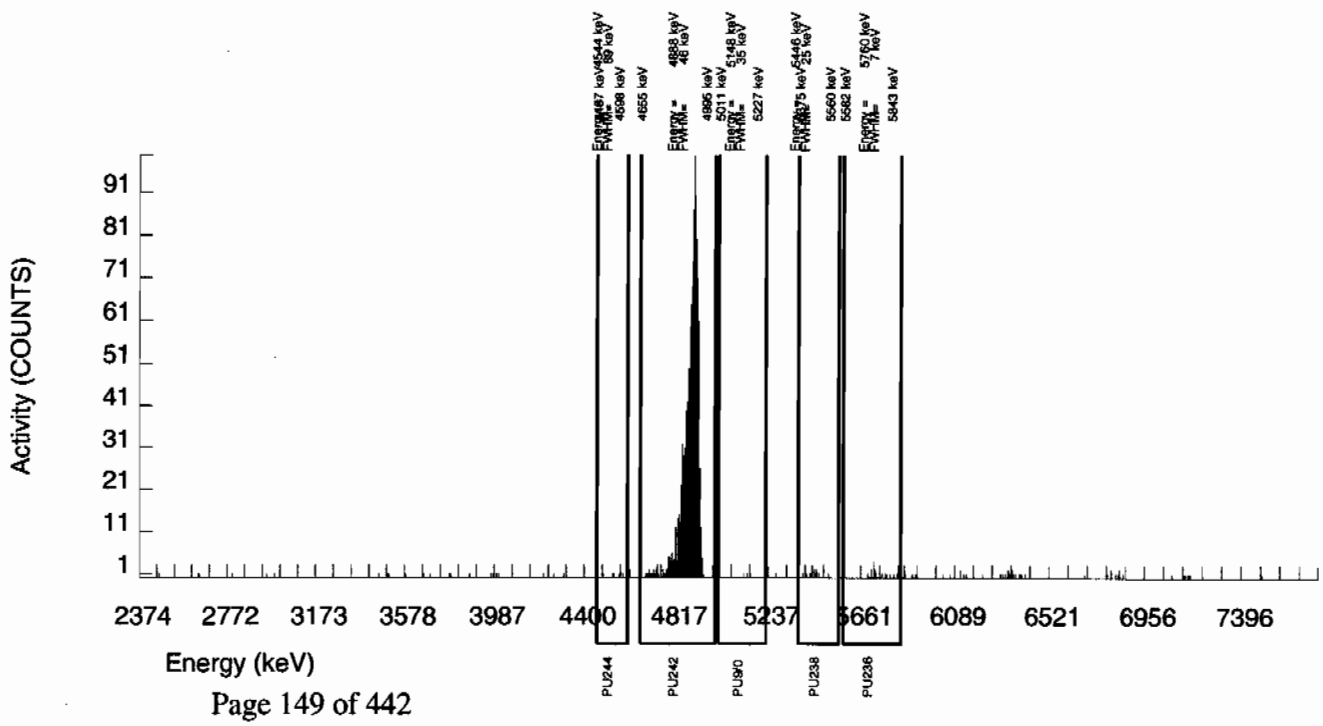

Alpha Spectroscopy Software Version 2.0
effective date: 09-Mar-1997

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 938221 SAMPLE DATE : 5-JAN-2010 00:00:00.	SAMPLE ID : S1202007555_PU SAMPLE QTY: 0.102 G
DETECTOR NUMBER :79448 AVERAGE %EFFICIENCY :37.8834 % YIELD : 107.055	COUNT DATE: 7-JAN-2010 10:33:54 ELAPSED LIVE TIME(SEC): 60000.00 ANALYST :HAKB

MS/MSD	LCS/LCSD	TRACER	
ID : 0244-B ISOTOPE : PU-9/0 PCI/G : 4.178E+01	ID : 0244-B ISOTOPE : PU-9/0 PCI/G : 4.178E+01	ID : 1374-A ISOTOPE : PU242 NOMINAL : 3.38543 dpm RESULTS : 3.62427 dpm	LIB FILE : ENV_ALPHA_PU.N BKG FILE : B255.CNF;66 BKG DATE : 3-JAN-2010 EFF FILE : W255.CNF;24 CAL DATE : 28-DEC-2009

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-9/0	5155.000	3321.000	3321.000	0.000	3.4797	99.90000	3.62E+01	2.17E+00	8.82E-02	2.06E-01	6.28E-01
PU-236	5749.000	0.000	0.000	0.000	2.1286	100.0000	0.00E+00	1.09E-02	5.39E-02	1.37E-01	1.09E-02
PU-238	5499.000	638.000	638.000	0.000	2.9680	99.90000	6.95E+00	4.85E-01	7.53E-02	1.80E-01	2.75E-01
PU242	4890.000	1374.000	1373.000	1.000	1.0000	100.0000	1.50E+01	9.48E-01	2.53E-02	8.02E-02	4.04E-01
PU-244	4589.000	16.000	15.000	1.000	5.2050	99.90000	1.63E-01	4.59E-02	1.32E-01	2.94E-01	4.49E-02

NOTE: Sg calculated via blank population (updated 5-JAN-2010)
NOTE: Sg of PU242 calculated as sqrt(BKG AREA)

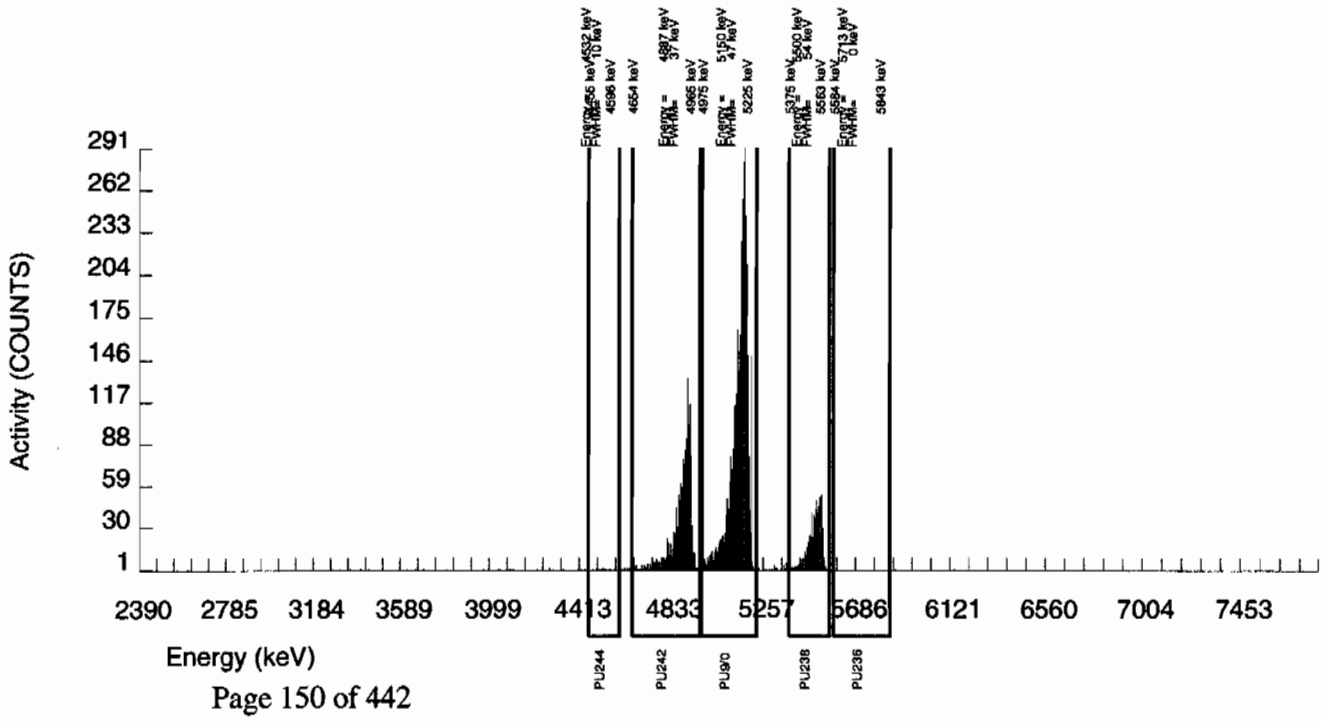

Radiochemistry Batch Checklist, Rev 9

Batch# 938222 Product: U Date: 1/12/10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			N/A
Samples have been blank corrected (if required)	✓		
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.	✓		
Method blank is less than the RDL/ LLD. (If rad samples. < 5% of lowest activity)	✓		
Sample was run within hold time.	✓		
Sample was correctly preserved if required.	✓		
Smears Taken for Radioactive batches.			N/A
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	✓		
Aux data is correct.			N/A
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)			N/A
Batch entered into Case Narrative.	✓		
Batch non-conformances completed, if applicable.			N/A
Batch non-conformances second reviewed and disposition verified to be completed.			N/A
Aliquot Correction completed if required.			N/A
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

GEL Laboratories, LLC

revised 8/1/08

Primary Review Performed By: JoPLM 1/12/10

Secondary Review Performed By: [illegible] 1/12/10

1/21

✓P

Uranium Que Sheet

04-JAN-10

Batch #: 938222 **Analyst:** HAKB **First Client Due Date:** 21-JAN-10 **Internal Due Date:** 10-JAN-10

Tracer Isotope: U-232/U-236 **Tracer Code:** 1283-H **Expiration Date:** 12/09/10 **Vol:** 0.1

LCS Isotope: U-238 **LCS Code:** — **Expiration Date:** — **Vol:** —

Spike Isotope: U-238 **Spike Code:** — **Expiration Date:** — **Vol:** —

Prep Date: 01/05/10 **Initials:** HKB **Pipet ID:** 29710058 **Balance ID:** 50410272 **Witness:** 1/5/10 CMM

Sample ID	Client Description	Type	Hazard Code	Min CRDL	Matrix	Client	Collection Date	Pos.	Label #	Wet/Dry Aliquot (g) (1/0)	U Det #
243557014-1	RE03-10-9872	SAMPLE		.1 pCi/g	SOIL	LANL010	22-DEC-09	1	1	0.532	130
243557015-1	RE03-10-9874	SAMPLE		.1 pCi/g	SOIL	LANL010	22-DEC-09	2	2	0.530	~~135~~ 132 JDM 1/12/10
243624001-1	RE12-10-7841	SAMPLE		.1 pCi/g	SOIL	LANL010	22-DEC-09	3	3	0.528	139
243624002-1	RE12-10-7840	SAMPLE		.1 pCi/g	SOIL	LANL010	22-DEC-09	4	4	0.519	140
243624003-1	RE12-10-7839	SAMPLE		.1 pCi/g	SOIL	LANL010	22-DEC-09	5	5	0.514	141
243624004-1	RE12-10-7838	SAMPLE		.1 pCi/g	SOIL	LANL010	22-DEC-09	6	6	0.502	142
243624005-1	RE12-10-7858	SAMPLE		.1 pCi/g	SOIL	LANL010	22-DEC-09	7	7	0.506	143
243624006-1	RE12-10-7846	SAMPLE		.1 pCi/g	SOIL	LANL010	22-DEC-09	8	8	0.518	144
243624007-1	RE12-10-7844	SAMPLE		.1 pCi/g	SOIL	LANL010	22-DEC-09	9	9	0.511	145
*243624008-1	RE12-10-7845	SAMPLE		.1 pCi/g	SOIL	LANL010	22-DEC-09	10	10	0.540	146
243624009-1	RE12-10-7842	SAMPLE		.1 pCi/g	SOIL	LANL010	22-DEC-09	11	11	0.533	147
243624010-1	RE12-10-7843	SAMPLE		.1 pCi/g	SOIL	LANL010	22-DEC-09	12	12	0.517	148
243624011-1	RE12-10-7847	SAMPLE		.1 pCi/g	SOIL	LANL010	22-DEC-09	13	13	0.506	114
1202007556-1	MB for batch 938222	MB		.1 pCi/g	SOIL	QC ACCOUNT		14	14	1	136
1202007557-1	RE12-10-7845(243624008DUP)	DUP		.1 pCi/g	SOIL	QC ACCOUNT	22-DEC-09	15	15	0.537	137
1202007558-1	LCS for batch 938222	LCS		.1 pCi/g	SOIL	QC ACCOUNT		16	16	0.104	138

*SRM: 0244-A exp 10/31/20 0.104g

Choose SOP used: GL-RAD-A-011

Solid Sample Dissolution by: LEACH or DIGESTION
Circle One

Data Reviewed By: JeL 1/12/10

Blank Correction Report

Batch ID 938222

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
1202007557	DUP	Uranium-233/234	0.537 g	1.03	0.0999	0.131	.009478585	pCi/g	NO
		Uranium-235/236	0.537 g	0.0786	0.0211	0.0816	.004115456	pCi/g	NO
		Uranium-238	0.537 g	1.01	0.0978	0.0762	.009962756	pCi/g	NO
1202007558	LCS	Uranium-233/234	0.104 g	5.61	0.539	0.568	.048942308	pCi/g	NO
		Uranium-235/236	0.104 g	0.295	0.106	0.353	.02125	pCi/g	NO
		Uranium-238	0.104 g	5.65	0.542	0.330	.051442308	pCi/g	NO
1202007556	MB	Uranium-233/234	1.00 g	0.00509	0.00395	0.0553	.00509	pCi/g	YES
		Uranium-235/236	1.00 g	0.00221	0.00221	0.0343	.00221	pCi/g	YES
		Uranium-238	1.00 g	0.00535	0.00537	0.0321	.00535	pCi/g	YES
243557014	RE03-10-9872	Uranium-233/234	0.532 g	1.27	0.115	0.122	.009567669	pCi/g	NO
		Uranium-235/236	0.532 g	0.0922	0.0222	0.0756	.004154135	pCi/g	NO
		Uranium-238	0.532 g	1.10	0.103	0.0706	.010056391	pCi/g	NO
243557015	RE03-10-9874	Uranium-233/234	0.530 g	0.858	0.0806	0.104	.009603774	pCi/g	NO
		Uranium-235/236	0.530 g	0.0537	0.0154	0.0643	.004169811	pCi/g	NO
		Uranium-238	0.530 g	0.932	0.0863	0.060	.010094340	pCi/g	NO
243624001	RE12-10-7841	Uranium-233/234	0.528 g	1.05	0.101	0.125	.009640152	pCi/g	NO
		Uranium-235/236	0.528 g	0.0599	0.0178	0.0776	.004185606	pCi/g	NO
		Uranium-238	0.528 g	1.13	0.107	0.0725	.010132576	pCi/g	NO
243624002	RE12-10-7840	Uranium-233/234	0.519 g	1.46	0.131	0.131	.009807322	pCi/g	NO
		Uranium-235/236	0.519 g	0.0677	0.0207	0.081	.004258189	pCi/g	NO
		Uranium-238	0.519 g	1.55	0.137	0.0757	.010308285	pCi/g	NO
243624003	RE12-10-7839	Uranium-233/234	0.514 g	1.03	0.0995	0.128	.009902724	pCi/g	NO
		Uranium-235/236	0.514 g	0.051	0.0165	0.0793	.004299611	pCi/g	NO
		Uranium-238	0.514 g	0.986	0.0966	0.0741	.010408560	pCi/g	NO
243624004	RE12-10-7838	Uranium-233/234	0.502 g	1.32	0.124	0.145	.010139442	pCi/g	NO
		Uranium-235/236	0.502 g	0.0867	0.0233	0.090	.004402390	pCi/g	NO
		Uranium-238	0.502 g	1.47	0.135	0.0841	.010657371	pCi/g	NO
243624005	RE12-10-7858	Uranium-233/234	0.506 g	1.78	0.162	0.153	.010059289	pCi/g	NO
		Uranium-235/236	0.506 g	0.0979	0.0255	0.0952	.004367589	pCi/g	NO
		Uranium-238	0.506 g	1.99	0.179	0.089	.010573123	pCi/g	NO
243624006	RE12-10-7846	Uranium-233/234	0.518 g	1.63	0.145	0.133	.009826255	pCi/g	NO
		Uranium-235/236	0.518 g	0.106	0.025	0.0827	.004266409	pCi/g	NO
		Uranium-238	0.518 g	1.87	0.162	0.0773	.010328185	pCi/g	NO
243624007	RE12-10-7844	Uranium-233/234	0.511 g	1.32	0.122	0.131	.009960861	pCi/g	NO
		Uranium-235/236	0.511 g	0.0575	0.0179	0.0814	.004324853	pCi/g	NO
		Uranium-238	0.511 g	1.32	0.122	0.0761	.010469667	pCi/g	NO
243624008	RE12-10-7845	Uranium-233/234	0.540 g	1.05	0.102	0.134	.009425926	pCi/g	NO
		Uranium-235/236	0.540 g	0.129	0.0278	0.0834	.004092593	pCi/g	NO
		Uranium-238	0.540 g	1.05	0.102	0.0779	.009907407	pCi/g	NO
243624009	RE12-10-7842	Uranium-233/234	0.533 g	1.26	0.115	0.120	.009549719	pCi/g	NO
		Uranium-235/236	0.533 g	0.0812	0.0206	0.0743	.004146341	pCi/g	NO

Blank Correction Report

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
243624009	RE12-10-7842	Uranium-238	0.533 g	1.48	0.132	0.0695	.010037523	pCi/g	NO
243624010	RE12-10-7843	Uranium-233/234	0.517 g	0.986	0.0944	0.124	.009845261	pCi/g	NO
		Uranium-235/236	0.517 g	0.0691	0.0191	0.0768	.004274662	pCi/g	NO
		Uranium-238	0.517 g	0.986	0.0943	0.0718	.010348162	pCi/g	NO
243624011	RE12-10-7847	Uranium-233/234	0.506 g	1.18	0.110	0.131	.010059289	pCi/g	NO
		Uranium-235/236	0.506 g	0.0629	0.0201	0.0816	.004367589	pCi/g	NO
		Uranium-238	0.506 g	1.33	0.121	0.0763	.010573123	pCi/g	NO

Alpha Spectroscopy Software Version 2.0
effective date: 09-Mar-1997

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 938222 SAMPLE DATE : 22-DEC-2009 00:00:00	SAMPLE ID : S0243557014_UU SAMPLE QTY: 0.532 G
DETECTOR NUMBER :76228 AVERAGE %EFFICIENCY :24.6671 % YIELD : 87.403	COUNT DATE: 9-JAN-2010 11:00:58 ELAPSED LIVE TIME(SEC): 60000.00 ANALYST :HAKB

MS/MSD	LCS/LCSD	TRACER	
ID : 0244-A ISOTOPE : U-238 PCI/G : 5.750E+00	ID : 0244-A ISOTOPE : U-238 PCI/G : 5.750E+00	ID : 1283-H ISOTOPE : U232 NOMINAL : 4.51076 dpm RESULTS : 3.94252 dpm	LIB FILE : ENV_ALPHA_UU.N BKG FILE : B130.CNF;431 BKG DATE : 3-JAN-2010 EFF FILE : W130.CNF;128 CAL DATE : 15-DEC-2009

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U-3/4	4763.020	325.000	324.017	0.000	6.0782	100.0000	1.27E+00	1.15E-01	5.55E-02	1.22E-01	7.07E-02
U232	5302.100	974.000	972.000	2.000	1.4142	100.0000	3.82E+00	2.99E-01	1.29E-02	3.65E-02	1.23E-01
U-235	4391.000	19.000	19.000	0.000	2.7628	80.90000	9.22E-02	2.22E-02	3.12E-02	7.56E-02	2.12E-02
U-238	4184.730	282.000	281.000	1.000	3.2810	100.0000	1.10E+00	1.03E-01	3.00E-02	7.06E-02	6.61E-02

NOTE: Sg calculated via blank population (updated 5-JAN-2010)
NOTE: Sg of U232 calculated as sqrt(BKG AREA)
NOTE: Corrections made to U-3/4 net area due to tracer impurity

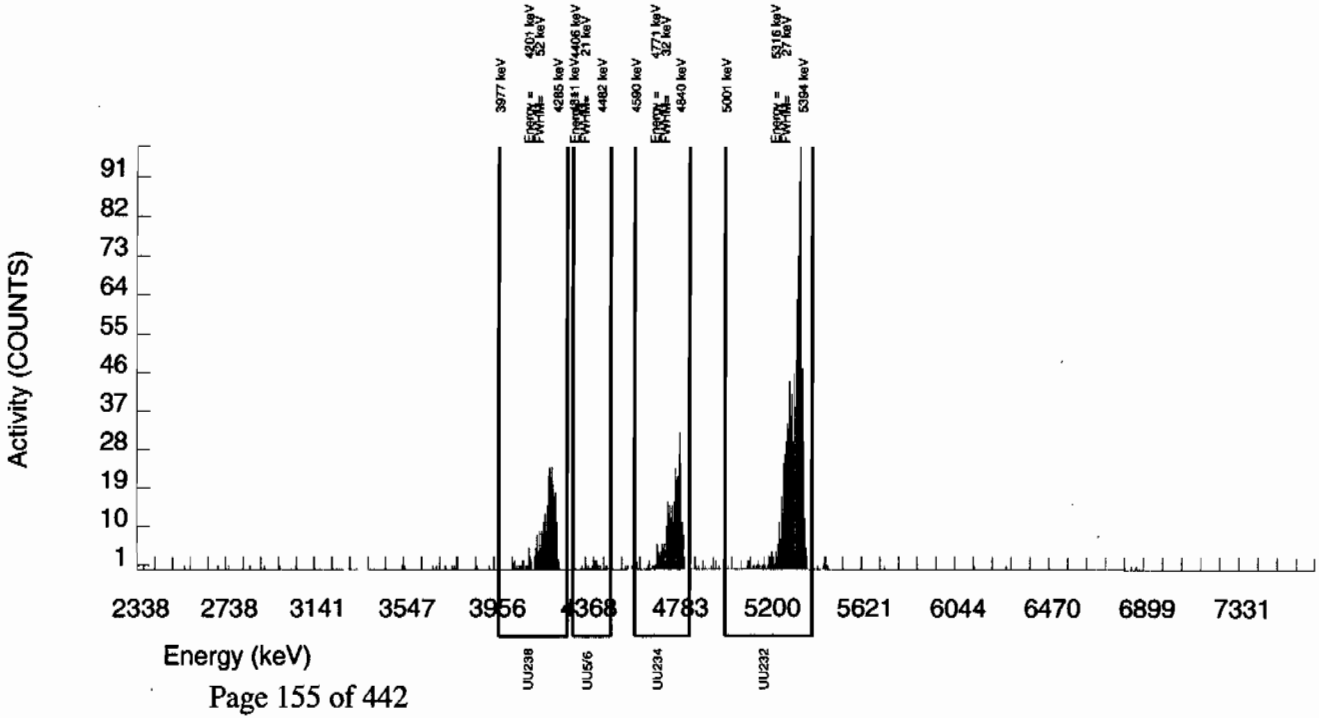

Alpha Spectroscopy Software Version 2.0
effective date: 09-Mar-1997

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 938222 SAMPLE DATE : 22-DEC-2009 00:00:00	SAMPLE ID : S0243557015_UU SAMPLE QTY: 0.530 G
DETECTOR NUMBER :67579 AVERAGE %EFFICIENCY :24.9541 % YIELD : 101.958	COUNT DATE:11-JAN-2010 11:56:11 ELAPSED LIVE TIME(SEC): 60000.00 ANALYST :HAKB

MS/MSD	LCS/LCSD	TRACER	
ID : 0244-A ISOTOPE : U-238 PCI/G : 5.750E+00	ID : 0244-A ISOTOPE : U-238 PCI/G : 5.750E+00	ID : 1283-H ISOTOPE : U232 NOMINAL : 4.51077 dpm RESULTS : 4.59907 dpm	LIB FILE : ENV_ALPHA_UU.N BKG FILE : B132.CNF;425 BKG DATE : 10-JAN-2010 EFF FILE : W132.CNF;128 CAL DATE : 15-DEC-2009

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U-3/4	4763.020	258.000	256.840	0.000	6.0782	100.0000	8.58E-01	8.06E-02	4.72E-02	1.04E-01	5.35E-02
U232	5302.100	1149.000	1147.000	2.000	1.4142	100.0000	3.83E+00	2.92E-01	1.10E-02	3.10E-02	1.13E-01
U-235	4391.000	13.000	13.000	0.000	2.7628	80.90000	5.37E-02	1.54E-02	2.65E-02	6.43E-02	1.49E-02
U-238	4184.730	281.000	279.000	2.000	3.2810	100.0000	9.32E-01	8.63E-02	2.55E-02	6.00E-02	5.62E-02

NOTE: Sg calculated via blank population (updated 5-JAN-2010)
NOTE: Sg of U232 calculated as sqrt(BKG AREA)
NOTE: Corrections made to U-3/4 net area due to tracer impurity

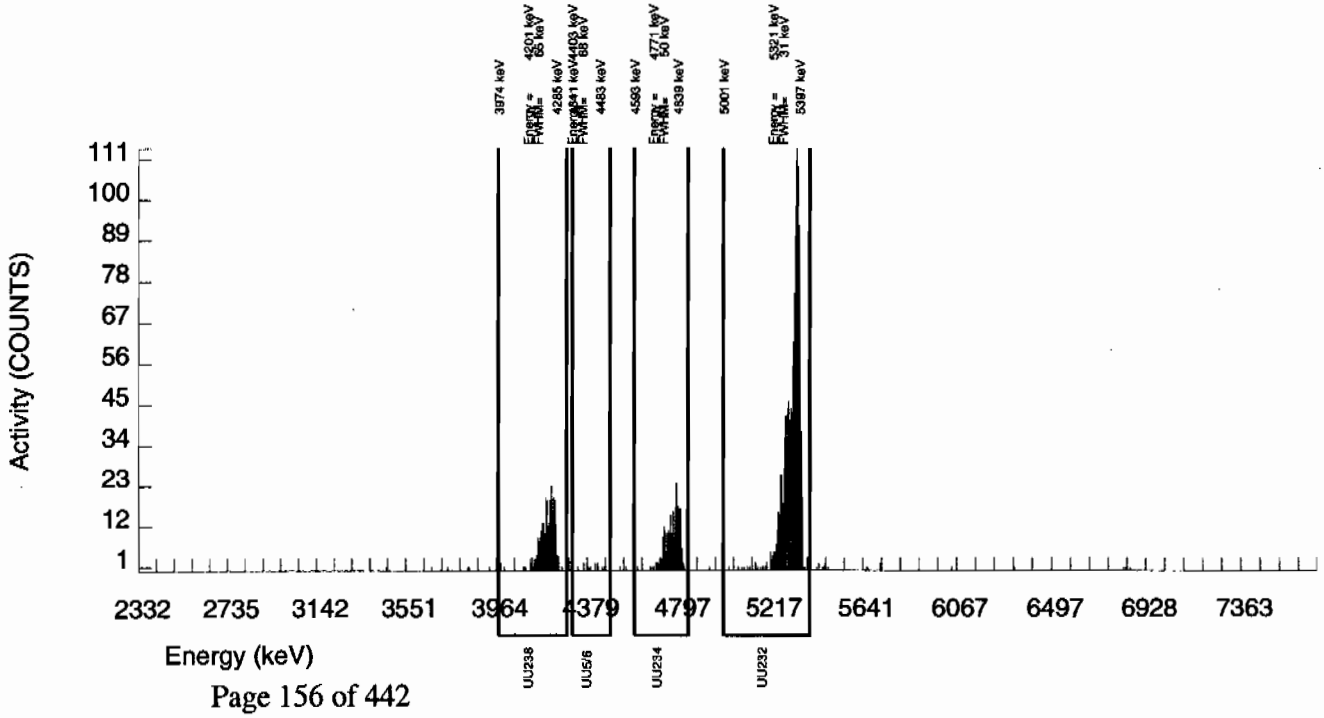

Alpha Spectroscopy Software Version 2.0
effective date: 09-Mar-1997

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 938222 SAMPLE DATE : 22-DEC-2009 00:00:00	SAMPLE ID : S0243624008_UU SAMPLE QTY: 0.540 G
DETECTOR NUMBER :72527 AVERAGE %EFFICIENCY :24.8694 % YIELD : 77.416	COUNT DATE: 9-JAN-2010 11:01:42 ELAPSED LIVE TIME(SEC): 60000.00 ANALYST :HAKB

MS/MSD	LCS/LCSD	TRACER	
ID : 0244-A ISOTOPE : U-238 PCI/G : 5.750E+00	ID : 0244-A ISOTOPE : U-238 PCI/G : 5.750E+00	ID : 1283-H ISOTOPE : U232 NOMINAL : 4.51076 dpm RESULTS : 3.49204 dpm	LIB FILE : ENV_ALPHA_UU.N BKG FILE : B146.CNF;384 BKG DATE : 3-JAN-2010 EFF FILE : W146.CNF;111 CAL DATE : 15-DEC-2009

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U-3/4	4763.020	245.000	243.122	1.000	6.0782	100.0000	1.05E+00	1.02E-01	6.13E-02	1.34E-01	6.78E-02
U232	5302.100	871.000	868.000	3.000	1.7321	100.0000	3.76E+00	3.01E-01	1.75E-02	4.67E-02	1.28E-01
U-235	4391.000	24.000	24.000	0.000	2.7628	80.90000	1.29E-01	2.78E-02	3.44E-02	8.34E-02	2.62E-02
U-238	4184.730	243.000	242.000	1.000	3.2810	100.0000	1.05E+00	1.02E-01	3.31E-02	7.79E-02	6.77E-02

NOTE: Sg calculated via blank population (updated 5-JAN-2010)
NOTE: Sg of U232 calculated as sqrt(BKG AREA)
NOTE: Corrections made to U-3/4 net area due to tracer impurity

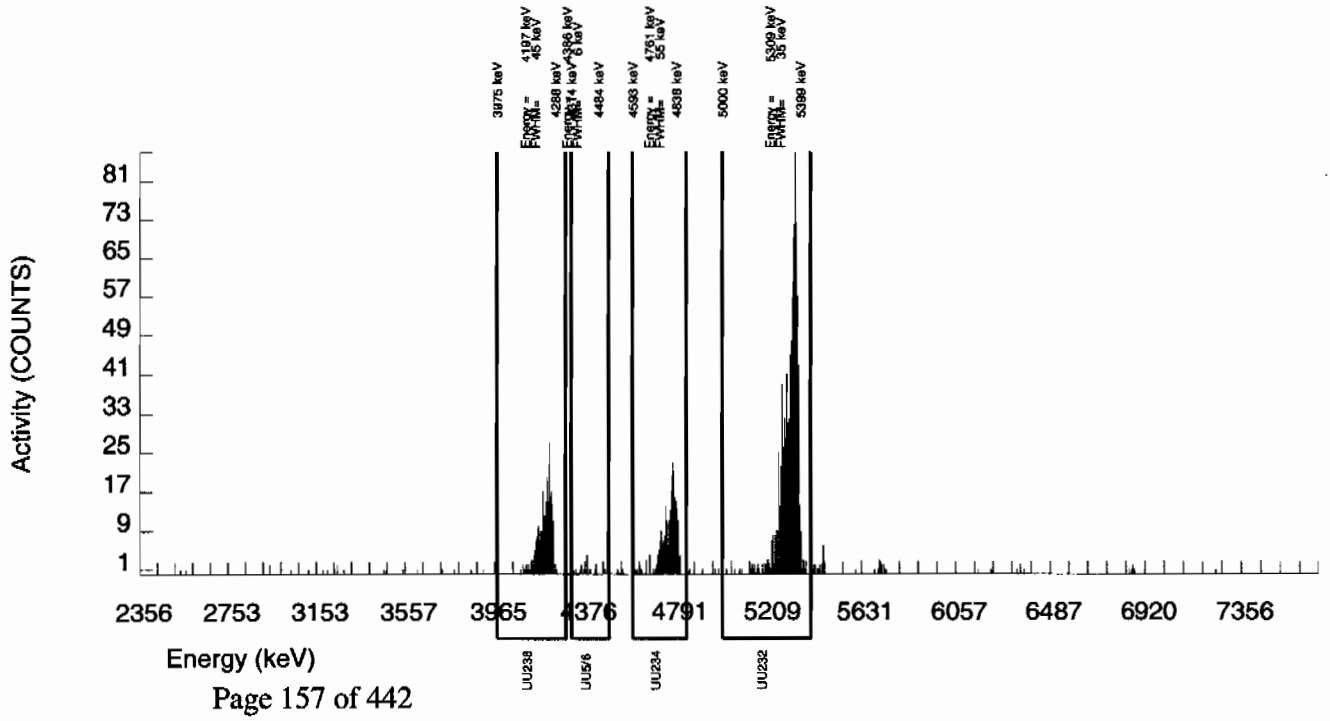

Alpha Spectroscopy Software Version 2.0
effective date: 09-Mar-1997

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 938222 SAMPLE DATE : 5-JAN-2010 00:00:00.	SAMPLE ID : S1202007556_UU SAMPLE QTY: 1.000 G
DETECTOR NUMBER :68549 AVERAGE %EFFICIENCY :24.9797 % YIELD : 101.048	COUNT DATE: 9-JAN-2010 11:01:14 ELAPSED LIVE TIME(SEC): 60000.00 ANALYST :HAKB

MS/MSD	LCS/LCSD	TRACER	
ID : 0244-A ISOTOPE : U-238 PCI/G : 5.750E+00	ID : 0244-A ISOTOPE : U-238 PCI/G : 5.750E+00	ID : 1283-H ISOTOPE : U232 NOMINAL : 4.50902 dpm RESULTS : 4.55629 dpm	LIB FILE : ENV_ALPHA_UU.N BKG FILE : B136.CNF;425 BKG DATE : 3-JAN-2010 EFF FILE : W136.CNF;135 CAL DATE : 15-DEC-2009

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U-3/4	4763.020	5.000	2.849	1.000	6.0782	100.0000	5.09E-03	3.95E-03	2.52E-02	5.53E-02	3.93E-03
U232	5302.100	1149.000	1138.000	11.000	3.3166	100.0000	2.03E+00	1.55E-01	1.38E-02	3.24E-02	6.08E-02
U-235	4391.000	1.000	1.000	0.000	2.7628	80.90000	2.21E-03	2.21E-03	1.42E-02	3.43E-02	2.21E-03
U-238	4184.730	6.000	3.000	3.000	3.2810	100.0000	5.35E-03	5.37E-03	1.36E-02	3.21E-02	5.35E-03

NOTE: Sg calculated via blank population (updated 5-JAN-2010)
NOTE: Sg of U232 calculated as sqrt(BKG AREA)
NOTE: Corrections made to U-3/4 net area due to tracer impurity

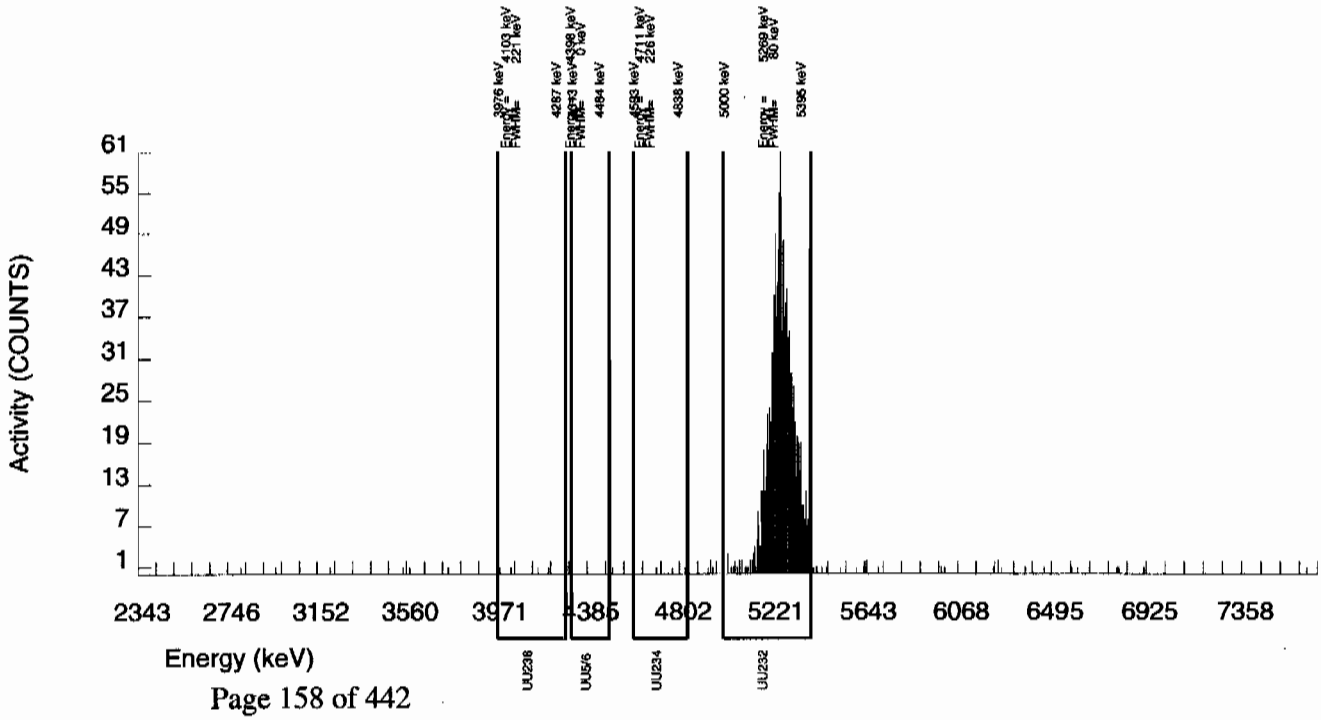

Alpha Spectroscopy Software Version 2.0
effective date: 09-Mar-1997

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 938222 SAMPLE DATE : 22-DEC-2009 00:00:00	SAMPLE ID : S1202007557_UU SAMPLE QTY: 0.537 G
DETECTOR NUMBER :79467 AVERAGE %EFFICIENCY :24.9930 % YIELD : 79.163	COUNT DATE: 9-JAN-2010 11:01:17 ELAPSED LIVE TIME(SEC): 60000.00 ANALYST :HAKB

MS/MSD	LCS/LCSD	TRACER	
ID : 0244-A ISOTOPE : U-238 PCI/G : 5.750E+00	ID : 0244-A ISOTOPE : U-238 PCI/G : 5.750E+00	ID : 1283-H ISOTOPE : U232 NOMINAL : 4.51076 dpm RESULTS : 3.57085 dpm	LIB FILE : ENV_ALPHA_UU.N BKG FILE : B137.CNF;380 BKG DATE : 3-JAN-2010 EFF FILE : W137.CNF;108 CAL DATE : 15-DEC-2009

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U-3/4	4763.020	246.000	244.098	1.000	6.0782	100.0000	1.03E+00	9.99E-02	5.99E-02	1.31E-01	6.65E-02
U232	5302.100	893.000	892.000	1.000	1.0000	100.0000	3.78E+00	3.01E-01	9.86E-03	3.12E-02	1.27E-01
U-235	4391.000	15.000	15.000	0.000	2.7628	80.90000	7.86E-02	2.11E-02	3.37E-02	8.16E-02	2.03E-02
U-238	4184.730	238.000	238.000	0.000	3.2810	100.0000	1.01E+00	9.78E-02	3.24E-02	7.62E-02	6.54E-02

NOTE: Sg calculated via blank population (updated 5-JAN-2010)
NOTE: Sg of U232 calculated as sqrt(BKG AREA)
NOTE: Corrections made to U-3/4 net area due to tracer impurity

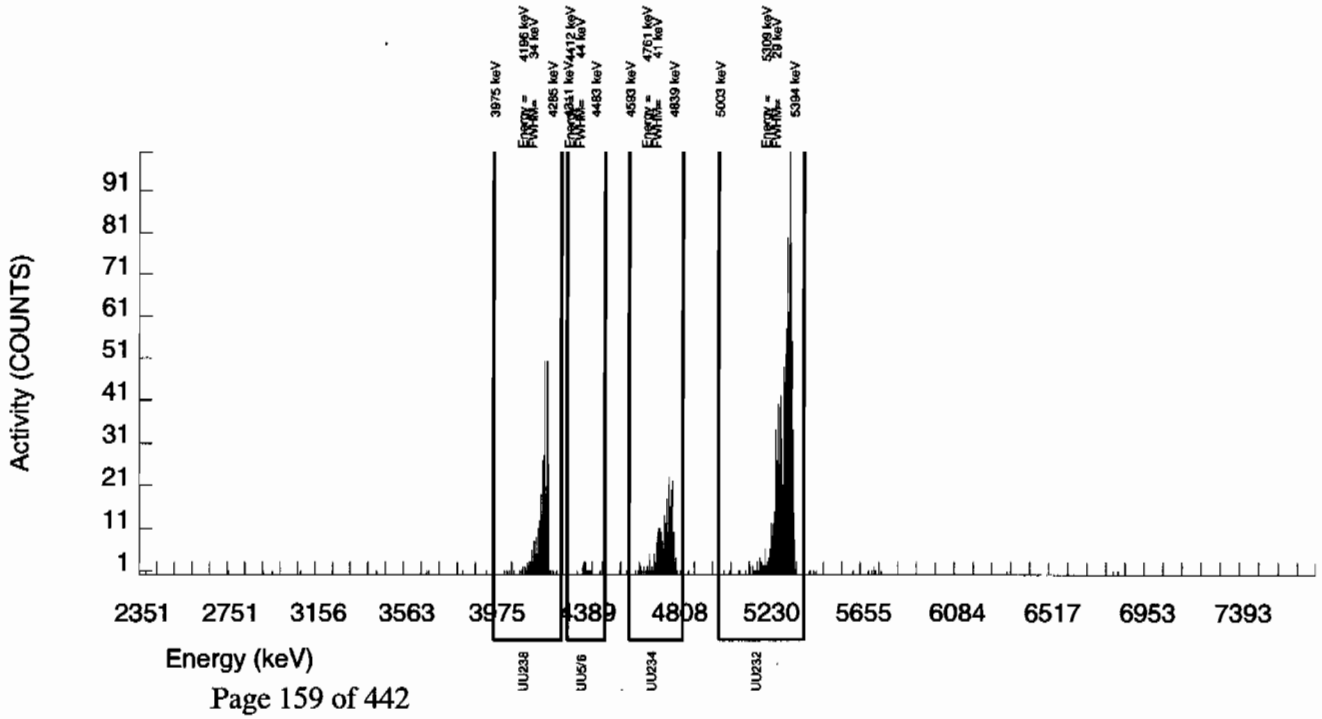

Alpha Spectroscopy Software Version 2.0
effective date: 09-Mar-1997

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 938222 SAMPLE DATE : 5-JAN-2010 00:00:00.	SAMPLE ID : S1202007558_UU SAMPLE QTY: 0.104 G
DETECTOR NUMBER :65877 AVERAGE %EFFICIENCY :25.5394 % YIELD : 92.494	COUNT DATE: 9-JAN-2010 11:01:19 ELAPSED LIVE TIME(SEC): 60000.00 ANALYST :HAKB

MS/MSD	LCS/LCSD	TRACER	
ID : 0244-A ISOTOPE : U-238 PCI/G : 5.750E+00	ID : 0244-A ISOTOPE : U-238 PCI/G : 5.750E+00	ID : 1283-H ISOTOPE : U232 NOMINAL : 4.50902 dpm RESULTS : 4.17057 dpm	LIB FILE : ENV_ALPHA_UU.N BKG FILE : B138.CNF;385 BKG DATE : 3-JAN-2010 EFF FILE : W138.CNF;100 CAL DATE : 15-DEC-2009

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U-3/4	4763.020	309.000	305.923	2.000	6.0782	100.0000	5.61E+00	5.39E-01	2.59E-01	5.68E-01	3.23E-01
U232	5302.100	1067.000	1065.000	2.000	1.4142	100.0000	1.95E+01	1.62E+00	6.03E-02	1.70E-01	6.00E-01
U-235	4391.000	17.000	13.000	4.000	2.7628	80.90000	2.95E-01	1.06E-01	1.46E-01	3.53E-01	1.04E-01
U-238	4184.730	309.000	308.000	1.000	3.2810	100.0000	5.65E+00	5.42E-01	1.40E-01	3.30E-01	3.23E-01

NOTE: Sg calculated via blank population (updated 5-JAN-2010)
NOTE: Sg of U232 calculated as sqrt(BKG AREA)
NOTE: Corrections made to U-3/4 net area due to tracer impurity

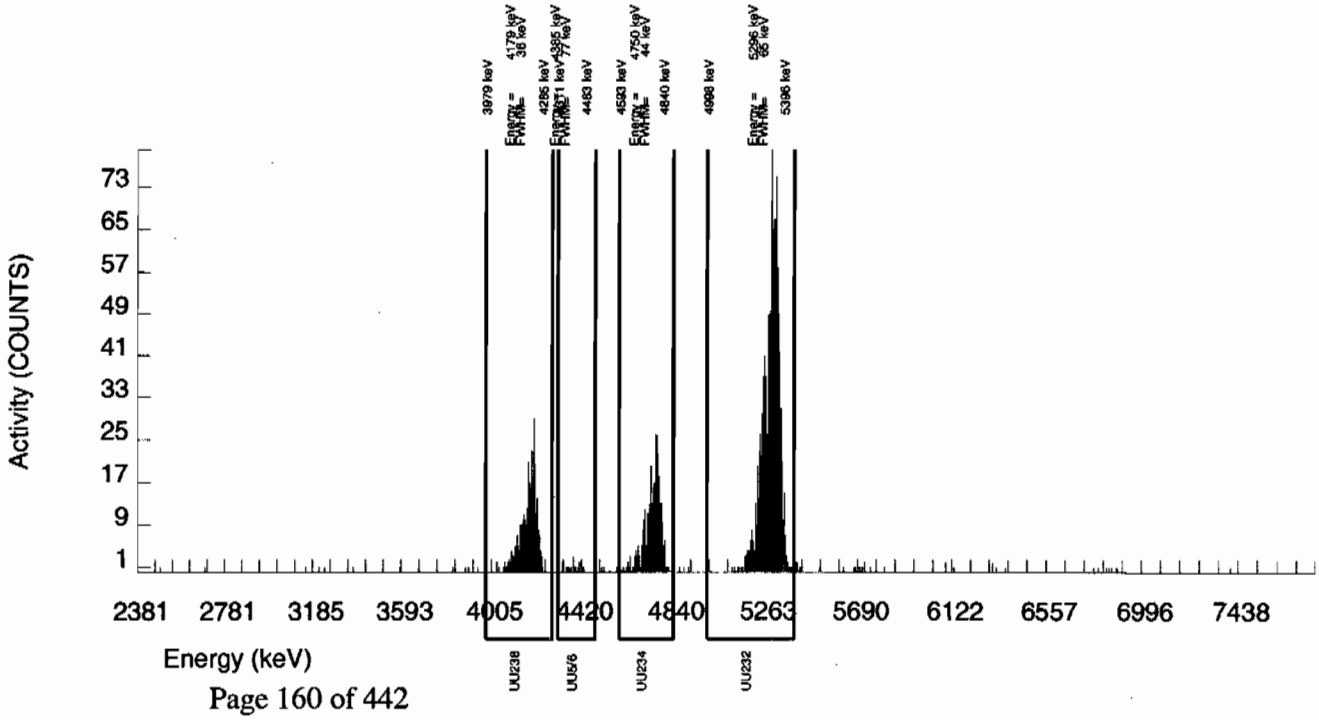

Radiochemistry Batch Checklist, Rev 9

Batch# 939711 Product: Pu Date: 1/13/10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			N/A
Samples have been blank corrected (if required)	✓		~~N/A~~ 1/13/10
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.	✓		
Method blank is less than the RDL/ LLD. (If rad samples. < 5% of lowest activity)	✓		
Sample was run within hold time.	✓		
Sample was correctly preserved if required.	✓		
Smears Taken for Radioactive batches.			N/A
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	✓		
Aux data is correct.			N/A
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)			N/A
Batch entered into Case Narrative.	✓		
Batch non-conformances completed, if applicable.			N/A
Batch non-conformances second reviewed and disposition verified to be completed.			N/A
Aliquot Correction completed if required.			N/A
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

GEL Laboratories, LLC

revised 8/1/08

Primary Review Performed By: [signature] 1/13/10

Secondary Review Performed By: [signature] 1/14/10

1/21

LANL

Plutonium Que Sheet

08-JAN-10

Batch #: 939711 **Analyst:** KXM4 **First Client Due Date:** 21-JAN-10 **Internal Due Date:** 15-JAN-10

Tracer Isotope(s): Pu-242/Pu-238 **Tracer Code:** 1374-A **Expiration Date:** 12-8-10 **Vol:** 0.41

LCS Isotope(s): Pu-239/Pu-238 **LCS Code:** SRM0244-B **Expiration Date:** _____ **Vol:** 0.19

Spike Isotope(s): Pu-239/Pu-238 **Spike Code:** NA **Expiration Date:** NA **Vol:** NA

Prep Date: 1-8-10 **Initials:** KM **Pipet ID:** 2471058 **Balance ID:** 50410272 **Witness:** NDA 1/8/10

Sample ID	Client Description	Type	Hazard Code	Min CRDL	Matrix	Client	Collection Date	Pos.	Label #	Wet/Dry Aliquot (g/l/f)	Pu Det #
243557010-2	RE03-09-14241	SAMPLE		.05 pCi/g	SOIL	LANL010	22-DEC-09	1	1	1.258	1
1202010902-1	MB for batch 939711	MB		UCF pCi/g to pCi/g	SOIL	QC ACCOUNT		2	2	~~1.25~~ 1.0	2
1202010903-2	RE03-09-14241(243557010DUP)	DUP		.05 pCi/g	SOIL	QC ACCOUNT	22-DEC-09	3	3	1.255	3
1202010904-1	LCS for batch 939711	LCS		UCF pCi/g to pCi/g	SOIL	QC ACCOUNT		4	4	0.111	4

1/13/10

Choose SOP Used: GL-RAD-A-011, GL-RAD-A-036, GL-RAD-A-045, GL-RAD-A-043

Solid Sample Dissolution by LEACH **or** DIGESTION (Circle One)

Data Reviewed By: JLL 1/13/10

GEL Laboratories LLC, , Radiochemistry Division

Blank Correction Report

Batch ID 939711

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
1202010903	DUP	Plutonium-238	1.26 g	-0.00258	0.00224	0.0213	0	pCi/g	YES
		Plutonium-239/240	1.26 g	0.00129	0.00224	0.0244	.000000000	pCi/g	NO
1202010904	LCS	Plutonium-238	0.111 g	7.08	0.523	0.234	0	pCi/g	NO
		Plutonium-239/240	0.111 g	38.2	2.37	0.267	.000000002	pCi/g	NO
1202010902	MB	Plutonium-238	1.00 g	0.00	0.00199	0.0327	0	pCi/g	NO
		Plutonium-239/240	1.00 g	2.36E-10	0.00397	0.0375	.000000000	pCi/g	YES
243557010	RE03-09-14241	Plutonium-238	1.26 g	0.00113	0.00113	0.0186	0	pCi/g	NO
		Plutonium-239/240	1.26 g	2.69E-10	0.00277	0.0213	.000000000	pCi/g	YES

Alpha Spectroscopy Software Version 2.0
effective date: 09-Mar-1997

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 939711 SAMPLE DATE : 22-DEC-2009 00:00:00	SAMPLE ID : S0243557010_PU SAMPLE QTY: 1.258 G
DETECTOR NUMBER :79451 AVERAGE %EFFICIENCY :32.5060 % YIELD : 97.686	COUNT DATE:12-JAN-2010 15:55:11 ELAPSED LIVE TIME(SEC): 59999.99 ANALYST :KXM4

MS/MSD	LCS/LCSD	TRACER	
ID : 0244-B	ID : 0244-B	ID : 1374-A	LIB FILE : ENV_ALPHA_PU.N
ISOTOPE : PU-9/0	ISOTOPE : PU-9/0	ISOTOPE : PU242	BKG FILE : B001.CNF;1113
PCI/G : 4.178E+01	PCI/G : 4.178E+01	NOMINAL : 3.38543 dpm	BKG DATE : 10-JAN-2010
		RESULTS : 3.30708 dpm	EFF FILE : W001.CNF;380
			CAL DATE : 4-JAN-2010

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-9/0	5155.000	3.000	0.000	3.000	3.4797	99.90000	2.69E-10	2.77E-03	9.14E-03	2.13E-02	2.76E-03
PU-236	5749.000	1.000	1.000	0.000	2.1286	100.0000	1.14E-03	1.15E-03	5.58E-03	1.42E-02	1.14E-03
PU-238	5499.000	1.000	1.000	0.000	2.9680	99.90000	1.13E-03	1.13E-03	7.79E-03	1.86E-02	1.13E-03
PU242	4890.000	1075.000	1075.000	0.000	0.0000	100.0000	1.21E+00	7.11E-02	0.00E+00	3.06E-03	3.70E-02
PU-244	4589.000	4.000	3.000	1.000	5.2050	99.90000	3.39E-03	2.53E-03	1.37E-02	3.04E-02	2.52E-03

NOTE: Sg calculated via blank population (updated 5-JAN-2010)
NOTE: Sg of PU242 calculated as sqrt(BKG AREA)

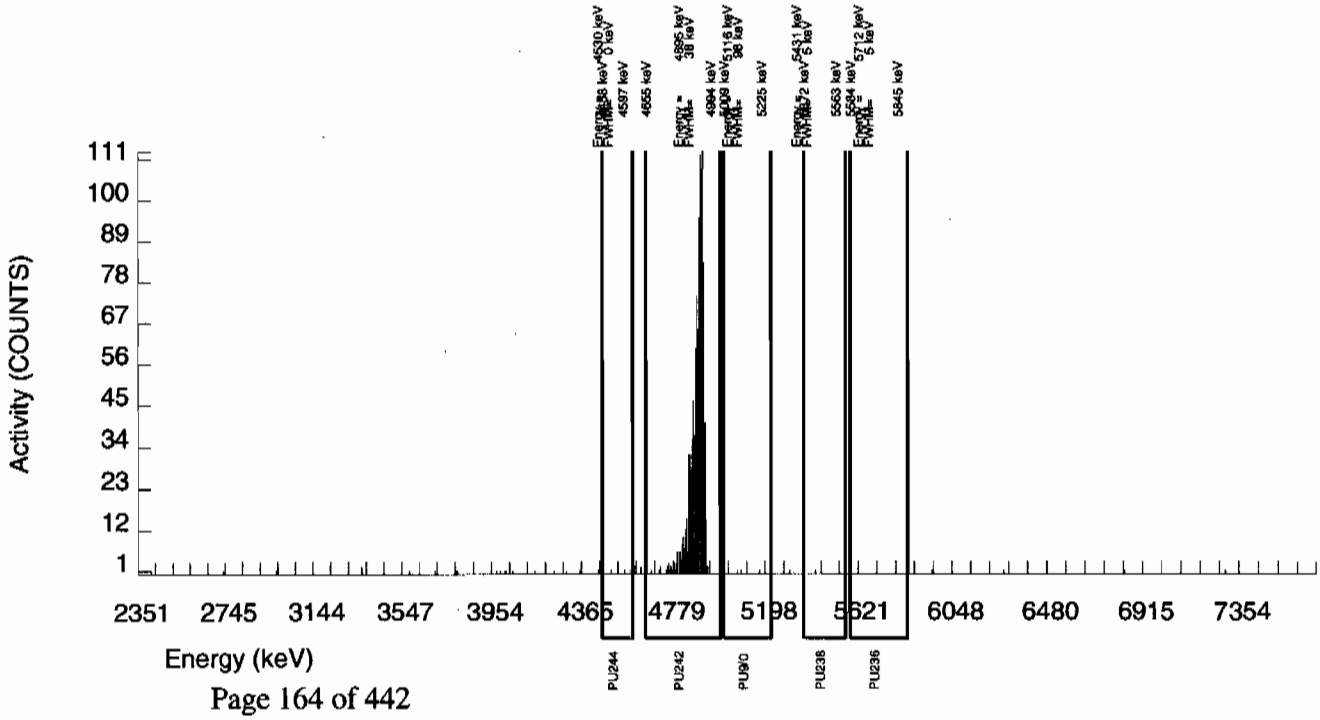

Alpha Spectroscopy Software Version 2.0
effective date: 09-Mar-1997

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 939711 SAMPLE DATE : 8-JAN-2010 00:00:00.	SAMPLE ID : S1202010902_PU SAMPLE QTY: 1.000 G
DETECTOR NUMBER :79452 AVERAGE %EFFICIENCY :29.6879 % YIELD : 76.612	COUNT DATE:12-JAN-2010 15:55:11 ELAPSED LIVE TIME(SEC): 59999.99 ANALYST :KXM4

MS/MSD	LCS/LCSD	TRACER	
ID : 0244-B ISOTOPE : PU-9/0 PCI/G : 4.178E+01	ID : 0244-B ISOTOPE : PU-9/0 PCI/G : 4.178E+01	ID : 1374-A ISOTOPE : PU242 NOMINAL : 3.38543 dpm RESULTS : 2.59365 dpm	LIB FILE : ENV_ALPHA_PU.N BKG FILE : B002.CNF;1103 BKG DATE : 10-JAN-2010 EFF FILE : W002.CNF;326 CAL DATE : 4-JAN-2010

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-9/0	5155.000	2.000	0.000	2.000	3.4797	99.90000	2.36E-10	3.97E-03	1.60E-02	3.75E-02	3.96E-03
PU-236	5749.000	6.000	6.000	0.000	2.1286	100.0000	1.19E-02	4.91E-03	9.81E-03	2.50E-02	4.87E-03
PU-238	5499.000	0.000	0.000	0.000	2.9680	99.90000	0.00E+00	1.99E-03	1.37E-02	3.27E-02	1.98E-03
PU242	4890.000	771.000	770.000	1.000	1.0000	100.0000	1.52E+00	9.87E-02	4.61E-03	1.46E-02	5.50E-02
PU-244	4589.000	11.000	10.000	1.000	5.2050	99.90000	1.98E-02	6.95E-03	2.40E-02	5.34E-02	6.87E-03

NOTE: Sg calculated via blank population (updated 5-JAN-2010)
NOTE: Sg of PU242 calculated as sqrt(BKG AREA)

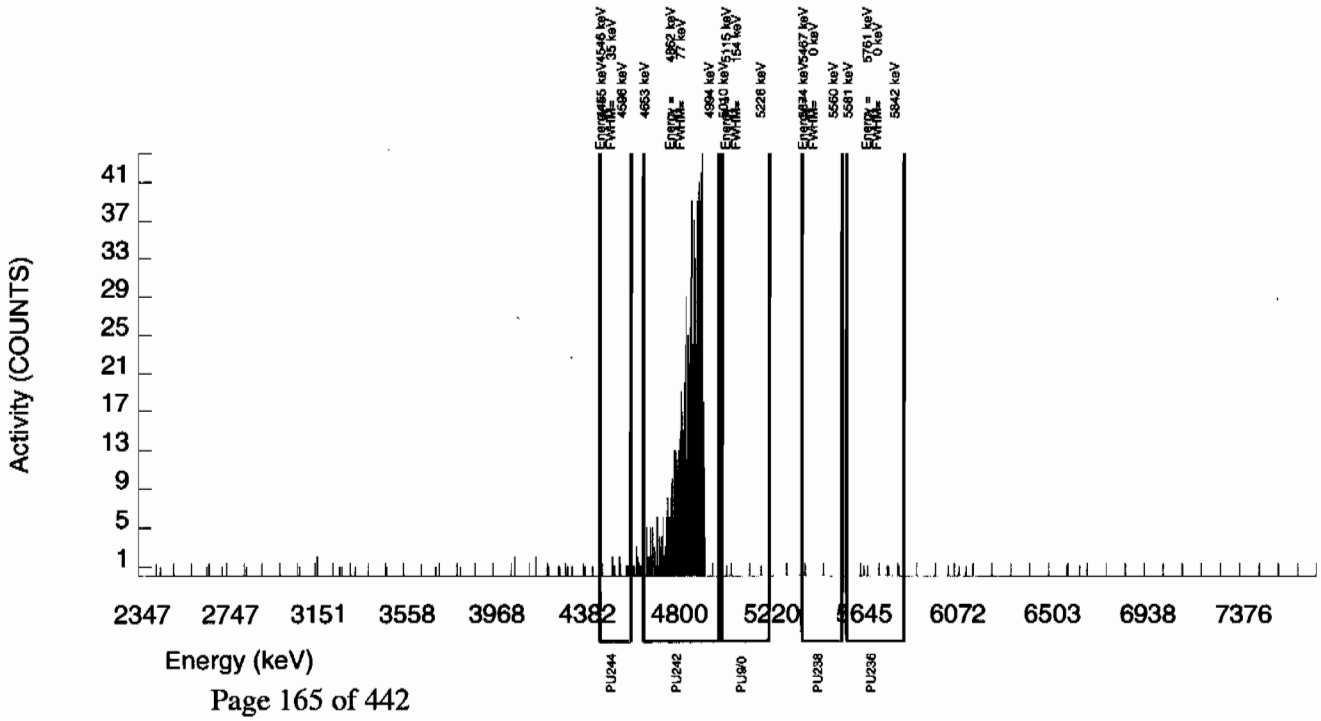

Alpha Spectroscopy Software Version 2.0
effective date: 09-Mar-1997

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 939711 SAMPLE DATE : 22-DEC-2009 00:00:00	SAMPLE ID : S1202010903_PU SAMPLE QTY: 1.255 G
DETECTOR NUMBER :79453 AVERAGE %EFFICIENCY :31.1793 % YIELD : 89.337	COUNT DATE:12-JAN-2010 15:55:11 ELAPSED LIVE TIME(SEC): 59999.99 ANALYST :KXM4

MS/MSD	LCS/LCSD	TRACER	
ID : 0244-B ISOTOPE : PU-9/0 PCI/G : 4.178E+01	ID : 0244-B ISOTOPE : PU-9/0 PCI/G : 4.178E+01	ID : 1374-A ISOTOPE : PU242 NOMINAL : 3.38543 dpm RESULTS : 3.02444 dpm	LIB FILE : ENV_ALPHA_PU.N BKG FILE : B003.CNF;1098 BKG DATE : 10-JAN-2010 EFF FILE : W003.CNF;339 CAL DATE : 4-JAN-2010

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-9/0	5155.000	2.000	1.000	1.000	3.4797	99.90000	1.29E-03	2.24E-03	1.04E-02	2.44E-02	2.23E-03
PU-236	5749.000	3.000	-1.000	4.000	2.1286	100.0000	-1.31E-03	3.46E-03	6.38E-03	1.63E-02	3.46E-03
PU-238	5499.000	0.000	-2.000	2.000	2.9680	99.90000	-2.58E-03	2.24E-03	8.91E-03	2.13E-02	2.24E-03
PU242	4890.000	947.000	943.000	4.000	2.0000	100.0000	1.22E+00	7.41E-02	6.00E-03	1.55E-02	3.97E-02
PU-244	4589.000	2.000	0.000	2.000	5.2050	99.90000	1.54E-10	2.58E-03	1.56E-02	3.47E-02	2.58E-03

NOTE: Sg calculated via blank population (updated 5-JAN-2010)
NOTE: Sg of PU242 calculated as sqrt(BKG AREA)

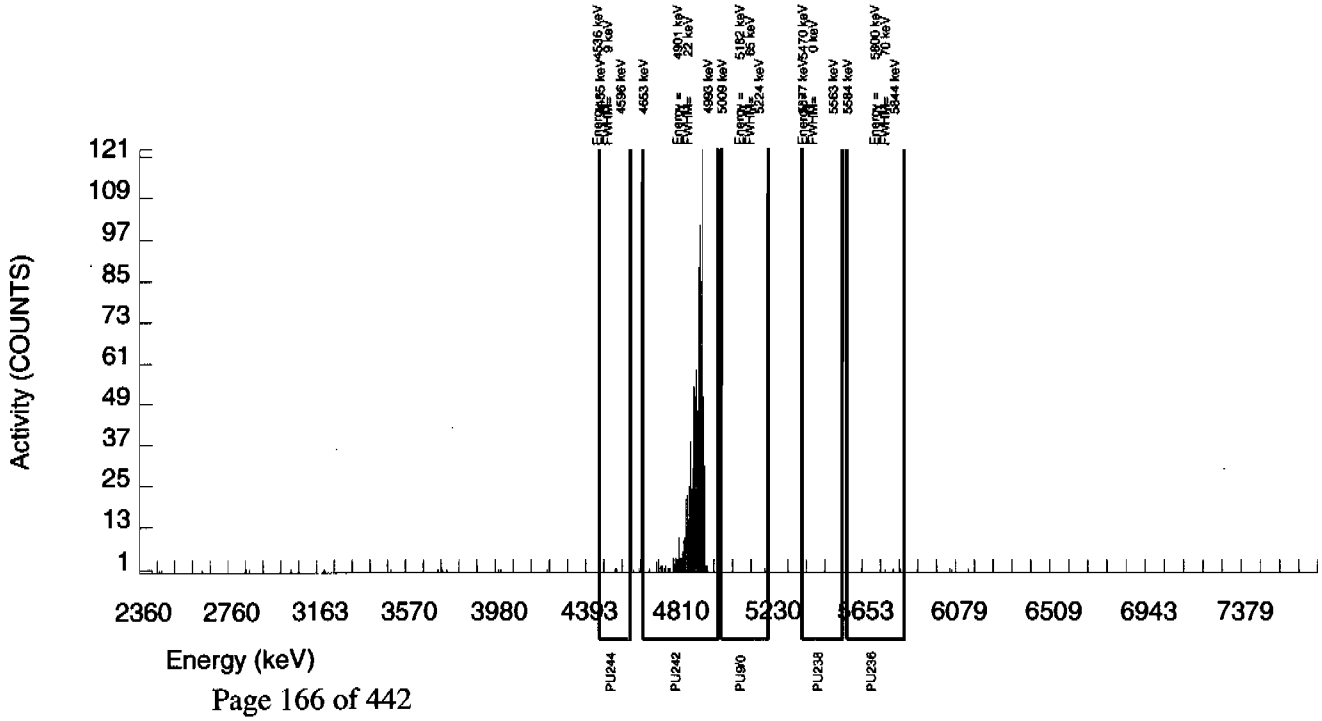

Alpha Spectroscopy Software Version 2.0
effective date: 09-Mar-1997

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 939711 SAMPLE DATE : 8-JAN-2010 00:00:00.	SAMPLE ID : S1202010904_PU SAMPLE QTY: 0.111 G
DETECTOR NUMBER :68548 AVERAGE %EFFICIENCY :30.7853 % YIELD : 93.263	COUNT DATE:12-JAN-2010 15:55:11 ELAPSED LIVE TIME(SEC): 59999.99 ANALYST :KXM4

MS/MSD	LCS/LCSD	TRACER	
ID : 0244-B	ID : 0244-B	ID : 1374-A	LIB FILE : ENV_ALPHA_PU.N
ISOTOPE : PU-9/0	ISOTOPE : PU-9/0	ISOTOPE : PU242	BKG FILE : B004.CNF;1107
PCI/G : 4.178E+01	PCI/G : 4.178E+01	NOMINAL : 3.38543 dpm	BKG DATE : 10-JAN-2010
		RESULTS : 3.15735 dpm	EFF FILE : W004.CNF;328
			CAL DATE : 4-JAN-2010

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-9/0	5155.000	2700.000	2700.000	0.000	3.4797	99.90000	3.82E+01	2.37E+00	1.15E-01	2.67E-01	7.35E-01
PU-236	5749.000	3.000	3.000	0.000	2.1286	100.0000	4.25E-02	2.47E-02	7.00E-02	1.78E-01	2.46E-02
PU-238	5499.000	501.000	500.000	1.000	2.9680	99.90000	7.07E+00	5.23E-01	9.77E-02	2.34E-01	3.17E-01
PU242	4890.000	979.000	972.000	7.000	2.6458	100.0000	1.37E+01	9.22E-01	8.70E-02	2.12E-01	4.44E-01
PU-244	4589.000	4.000	1.000	3.000	5.2050	99.90000	1.41E-02	3.74E-02	1.71E-01	3.81E-01	3.74E-02

NOTE: Sg calculated via blank population (updated 5-JAN-2010)
NOTE: Sg of PU242 calculated as sqrt(BKG AREA)

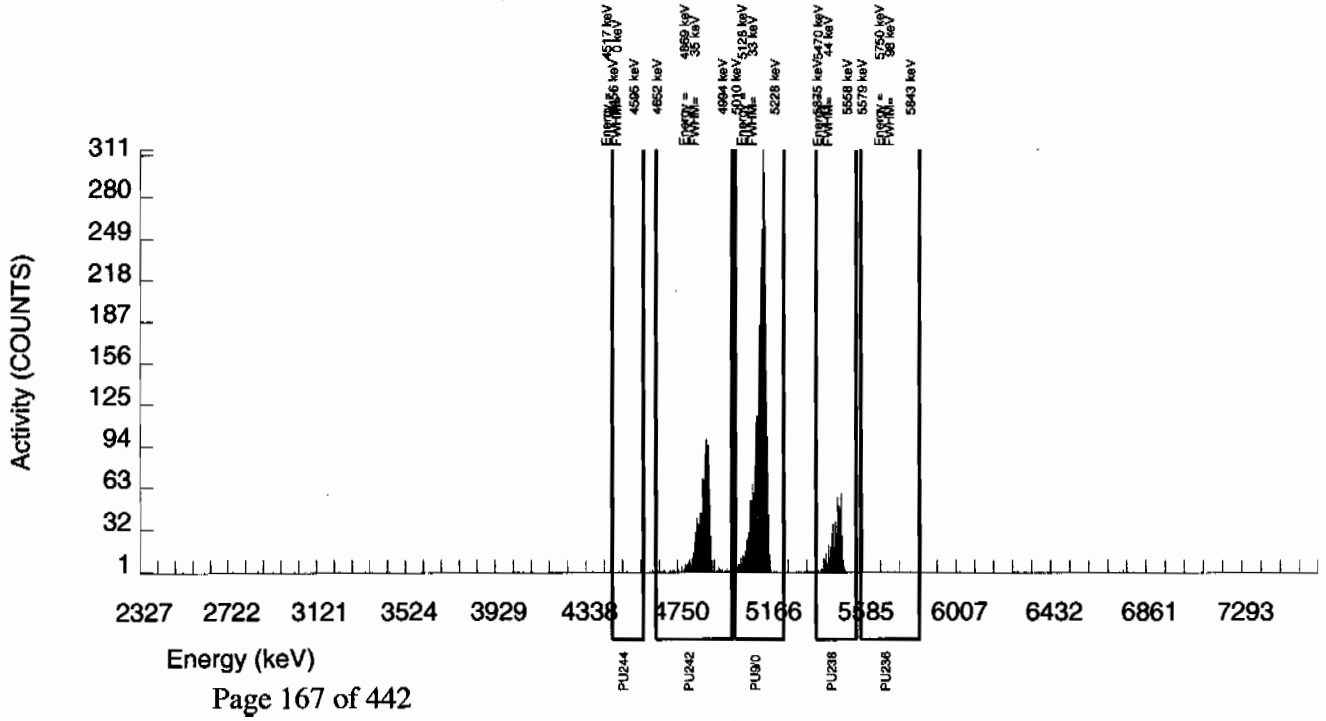

Radiochemistry Batch Checklist, Rev 9

Batch# 936892 Product: Tritium Date: 1/11/10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			NA
Samples have been blank corrected (if required)			NA
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.		✓	1/11/10 ~~NCR 79013~~ case narrative
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.			NA
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	✓		
Sample was run within hold time.	✓		
Sample was correctly preserved if required.	✓		
Smears Taken for Radioactive batches.			NA
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	✓		
Aux data is correct.			NA
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)			NA
Batch entered into Case Narrative.	✓		
Batch non-conformances completed, if applicable.	1/11/10 ✓		1/11/10 ~~NCR 79013~~ N/A
Batch non-conformances second reviewed and disposition verified to be completed.			N/A
Aliquot Correction completed if required.			NA
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

GEL Laboratories, LLC

revised 8/1/08

Primary Review Performed By: [signature]

Secondary Review Performed By: [signature] 1/21/10

LANL 1/21/10

Tritium Que Sheet

29-DEC-09

Batch #: 936892 **Analyst:** KXK2 **First Client Due Date** 21-JAN-10 **Internal Due Date:** 10-JAN-10

Spike Isotope: Hydrogen-3 **Spike Code:** ——— **Expiration Date:** ——— **Vol:** ———

LCS Isotope: Hydrogen-3 **LCS Code:** 0134-K **Expiration Date:** 3/27/10 **Vol:** 0.1

Prep Date: 12/30/09 **Initials:** KKW **Pipet ID:** 29709968 **Witness:** 12/31/09

Sample ID	Client Samp ID	Type	Hazard Code	Min CRDL	Matrix	Client	Sample Date	Aliquot in vial (g/mL)	LSC Rack #	Dist Rig #	Vol added for Dist (mL)	Initial Sample Aliquot (g/mL)	Final Wt (g)	Total Moisture Dist Vol (mL)
243557001-1	RE03-09-14233	SAMPLE		.25 pCi/mL	SOIL	LANL010	22-DEC-09	10	22-1	1		512.55	~~457.68~~ 475.13	37.42
243557002-1	RE03-09-14236	SAMPLE		.25 pCi/mL	SOIL	LANL010	22-DEC-09	10	22-2	2		468.62	393.17	75.45
243557003-1	RE03-09-14239	SAMPLE		.25 pCi/mL	SOIL	LANL010	22-DEC-09	7	22-3	3		455.74	431.13	24.61
243557004-1	RE03-09-14240	SAMPLE		.25 pCi/mL	SOIL	LANL010	22-DEC-09	10	22-4	4		518.05	490.08	27.97
243557005-1	RE03-09-14231	SAMPLE		.25 pCi/mL	SOIL	LANL010	22-DEC-09	10	22-5	5		570.87	529.20	41.67
243557006-1	RE03-09-14232	SAMPLE		.25 pCi/mL	SOIL	LANL010	22-DEC-09	10	22-6	6		517.05	487.58	29.47
243557007-1	RE03-09-14235	SAMPLE		.25 pCi/mL	SOIL	LANL010	22-DEC-09	10	22-7	7		438.66	340.40	98.26
243557008-1	RE03-09-14238	SAMPLE		.25 pCi/mL	SOIL	LANL010	22-DEC-09	10	22-8	8		448.35	424.14	24.21
243557009-1	RE03-09-14234	SAMPLE		.25 pCi/mL	SOIL	LANL010	22-DEC-09	10	22-9	9		331.29	306.77	24.52
243557010-1	RE03-09-14241	SAMPLE		.25 pCi/mL	SOIL	LANL010	22-DEC-09	10	22-10	10		464.26	405.76	58.50
243557011-1	RE03-10-2737	SAMPLE		.25 pCi/mL	SOIL	LANL010	22-DEC-09	10	22-11	11		539.62	485.12	54.50
243557012-1	RE03-10-2736	SAMPLE		.25 pCi/mL	SOIL	LANL010	22-DEC-09	10	22-12	12		477.33	443.92	33.41
243557013-1	RE03-10-9873	SAMPLE		.25 pCi/mL	SOIL	LANL010	22-DEC-09	10	44-1	13		635.54	602.49	33.05
243557014-1	RE03-10-9872	SAMPLE		.25 pCi/mL	SOIL	LANL010	22-DEC-09	10	44-2	14		460.92	451.91	9.01
243557015-1	RE03-10-9874	SAMPLE		.25 pCi/mL	SOIL	LANL010	22-DEC-09	10	44-3	15		458.63	440.08	18.55
1202004648-1	MB for batch 936892	MB		.25 pCi/mL	SOIL	QC ACCOUNT		10	44-4	16		20.00	0	20.00
1202004649-1	RE03-09-14233(243557001DUP)	DUP		.25 pCi/mL	SOIL	QC ACCOUNT	22-DEC-09	10	44-5	1		512.55	475.13	37.42
1202004650-1	LCS for batch 936892	LCS		.25 pCi/mL	SOIL	QC ACCOUNT		10	28-1	17		20.00	0	20.00

KKW 12/30/09

KKW 12/30/09

KKW 12/30/09

DATE	12/30/2009	INITIALS	KXK2		BATCH NUMBER	936892

Sample #	Sample Wet (g)	% Moisture of Sample (Balance Interface using % Moisture Batch)	Total Moisture in Sample (mL)	Sample Dry (g)	mLs aliquoted into LSC vial	Collection Tube Number
243557001	512.55	0.073	37.42	475.13	10	8
243557002	468.62	0.161	75.45	393.17	10	32
243557003	455.74	0.054	24.61	431.13	10	203
243557004	518.05	0.054	27.97	490.08	10	706
243557005	570.87	0.073	41.67	529.20	10	10
243557006	517.05	0.057	29.47	487.58	10	722
243557007	438.66	0.224	98.26	340.40	10	106
243557008	448.35	0.054	24.21	424.14	10	1603
243557009	331.29	0.074	24.52	306.77	10	734
243557010	464.26	0.126	58.50	405.76	10	610
243557011	539.62	0.101	54.50	485.12	10	62
243557012	477.33	0.070	33.41	443.92	10	73
243557013	635.54	0.052	33.05	602.49	10	49
243557014	460.92		9.01	451.91	10	5
243557015	458.63		18.55	440.08	10	136
MB			0.00	0.00	10	
LCS			0.00	0.00	10	

Tritium Solid

Filename : H3VAC.XLS
File type : Excel
Version # : 1.2.5

Batch : 936892
Analyst : KXK2
Prep Date : 12/30/2009

Spike S/N : N/A
Spike Exp Date : N/A
Spike Activity (dpm/ml): N/A
Spike Volume Added: N/A

LCS S/N : 0134-K
LCS Exp Date : 3/27/2010
LCS Activity (dpm/ml): 2484.60
LCS Volume Added: 0.10

H-3 Abundance : 1
Method Uncertainty : 0.0691
Geometry: 10mL DW/13mL Ecoscint Ultra

Pipet, 0.1 ml Stdev : +/- 0.000701 ml
Pipet, 0.5 ml Stdev : +/- 0.002564 ml
Pipet, 1.0 ml Stdev : +/- 0.005480 ml
Pipet, 5.0 ml Stdev : +/- 0.025729 ml

Procedure Code : LSC_VH3S
Parmname : Tritium
Required MDC : 250 pCi/L
Halflife of Tritium : 12.28 years

Sample Characteristics

Pos.	Sample ID	Wet Sample Weight (g)	Total Moisture L	Sample Aliquot in Vial L	Sample Aliquot Stdev. L	Dry Sample Weight (g)	% Moisture of Sample	Rig number	Sample Date/Time
1	243557001.2	512.55	0.0374	0.0100	2.5729E-05	475.13	7.30%	1	12/22/2009 12:00
2	243557002.2	468.62	0.0755	0.0100	2.5729E-05	393.17	16.10%	2	12/22/2009 12:00
3	243557003.2	455.74	0.0246	0.0070	2.5729E-05	431.13	5.40%	3	12/22/2009 12:00
4	243557004.2	518.05	0.0280	0.0100	2.5729E-05	490.08	5.40%	4	12/22/2009 12:00
5	243557005.2	570.87	0.0417	0.0100	2.5729E-05	529.20	7.30%	5	12/22/2009 12:00
6	243557006.2	517.05	0.0295	0.0100	2.5729E-05	487.58	5.70%	6	12/22/2009 12:00
7	243557007.2	438.66	0.0963	0.0100	2.5729E-05	340.40	22.40%	7	12/22/2009 12:00
8	243557008.2	448.35	0.0242	0.0100	2.5729E-05	424.14	5.40%	8	12/22/2009 12:00
9	243557009.2	331.29	0.0245	0.0100	2.5729E-05	306.77	7.40%	9	12/22/2009 12:00
10	243557010.2	464.26	0.0585	0.0100	2.5729E-05	405.76	12.60%	10	12/22/2009 12:00
11	243557011.2	539.62	0.0545	0.0100	2.5729E-05	485.12	10.10%	11	12/22/2009 12:00
12	243557012.2	477.33	0.0334	0.0100	2.5729E-05	443.92	7.00%	12	12/22/2009 12:00
13	243557013.2	635.54	0.0331	0.0100	2.5729E-05	602.49	5.20%	13	12/22/2009 12:00
14	243557014.2	460.92	0.0090	0.0100	2.5729E-05	451.91	1.95%	14	12/22/2009 12:00
15	243557015.2	458.63	0.0186	0.0100	2.5729E-05	440.06	4.04%	15	12/22/2009 12:00
16	1202004648.2	20.00	0.0200	0.0100	2.5729E-05	0.00	100.00%	16	12/30/2009 0:00
17	1202004649.2	512.55	0.0374	0.0100	2.5729E-05	475.13	7.30%	1	12/22/2009 12:00
18	1202004650.2	20.00	0.0200	0.0100	2.5729E-05	0.00	100.00%	17	12/30/2009 0:00

Count raw Data					Background				Calibration Data					Backgrounds	
Pos.	Rack Position #	Counting Time (min.)	Quench#	Gross cpm	cpm	Count Time (min.)	Count Start Date/Time	Sample Decay	Counted on	Calibration Date	Calibration Due Date	Detector Efficiency (cpm/dpm)	Detector Efficiency Error (cpm/dpm)	Rack Position #	Count Start Date/Time
1	22-1	60	125	7.02	5.69	120	1/8/2010 15:06	0.997	LSCSILVER	8/21/2009	8/31/2010	0.2757	0.00792	35-1	1/8/2010 13:03
2	22-2	60	126.2	7.83	5.69	120	1/8/2010 16:09	0.997	LSCSILVER	8/21/2009	8/31/2010	0.2736	0.00792	35-1	1/8/2010 13:03
3	22-2	120	124.8	5.77	6.18	120	1/9/2010 19:58	0.997	LSCSILVER	8/21/2009	8/31/2010	0.2761	0.00792	22-1	1/9/2010 17:54
4	22-4	60	124.4	6.48	5.69	120	1/8/2010 18:13	0.997	LSCSILVER	8/21/2009	8/31/2010	0.2768	0.00792	35-1	1/8/2010 13:03
5	22-5	60	125.3	5.93	5.69	120	1/8/2010 19:16	0.997	LSCSILVER	8/21/2009	8/31/2010	0.2752	0.00792	35-1	1/8/2010 13:03
6	22-6	60	126	6.27	5.69	120	1/8/2010 20:16	0.997	LSCSILVER	8/21/2009	8/31/2010	0.2739	0.00792	35-1	1/8/2010 13:03
7	22-7	60	126.3	7.02	5.69	120	1/8/2010 21:20	0.997	LSCSILVER	8/21/2009	8/31/2010	0.2734	0.00792	35-1	1/8/2010 13:03
8	22-8	60	126	5.47	5.69	120	1/8/2010 22:22	0.997	LSCSILVER	8/21/2009	8/31/2010	0.2739	0.00792	35-1	1/8/2010 13:03
9	22-9	60	125.8	6.9	5.69	120	1/8/2010 23:25	0.997	LSCSILVER	8/21/2009	8/31/2010	0.2743	0.00792	35-1	1/8/2010 13:03
10	22-10	60	125.6	6.8	5.69	120	1/9/2010 0:27	0.997	LSCSILVER	8/21/2009	8/31/2010	0.2747	0.00792	35-1	1/8/2010 13:03
11	22-11	60	125.8	5.43	5.69	120	1/9/2010 1:29	0.997	LSCSILVER	8/21/2009	8/31/2010	0.2743	0.00792	35-1	1/8/2010 13:03
12	22-12	60	126.5	8.03	5.69	120	1/9/2010 2:32	0.997	LSCSILVER	8/21/2009	8/31/2010	0.2730	0.00792	35-1	1/8/2010 13:03
13	44-1	60	129	5.67	5.69	120	1/9/2010 4:48	0.997	LSCSILVER	8/21/2009	8/31/2010	0.2684	0.00792	35-1	1/8/2010 13:03
14	44-2	60	126.9	6.72	5.69	120	1/9/2010 5:50	0.997	LSCSILVER	8/21/2009	8/31/2010	0.2723	0.00792	35-1	1/8/2010 13:03
15	44-3	60	125.5	6.42	5.69	120	1/9/2010 6:52	0.997	LSCSILVER	8/21/2009	8/31/2010	0.2748	0.00792	35-1	1/8/2010 13:03
16	44-4	60	133.2	5.32	5.69	120	1/9/2010 7:55	0.998	LSCSILVER	8/21/2009	8/31/2010	0.2605	0.00792	35-1	1/8/2010 13:03
17	44-5	60	125.5	7.42	5.69	120	1/9/2010 8:57	0.997	LSCSILVER	8/21/2009	8/31/2010	0.2748	0.00792	35-1	1/8/2010 13:03
18	28-1	15	126.4	41.8	5.69	120	1/9/2010 9:59	0.998	LSCSILVER	8/21/2009	8/31/2010	0.2732	0.00792	35-1	1/8/2010 13:03

Notes:
1 - Results are decay corrected to Sample Date/Time
2 - Reference date for Spike Activity (dpm/ml) is the batch Prep Date
3 - Spike Nominals are decay corrected to Sample Date/Time

Results Pos.	Decision Level pCi/L	Critical Level pCi/L	Required MDC pCi/L	MDC pCi/L	Sample Act. Conc. pCi/L	Sample Act. Error pCi/L	Net Count Rate CPM	Net Count Rate Error CPM	1 SIGMA Counting Uncertainty pCi/L	1 SIGMA Total Prop. Uncertainty pCi/L	Sample QC	Sample Type	RPD	RER	Nominal pCi/L	Recovery
1	143.9355	101.6197	250	211.4289	217.8399	0.305	1.330	0.405	66.4139	68.1248		SAMPLE				
2	145.0755	102.4246	250	213.1035	353.2855	0.197	2.140	0.422	69.6338	73.8532		SAMPLE				
3	174.7755	123.3930	250	252.6291	-95.8274	0.770	-0.410	0.316	73.7563	73.7564		SAMPLE				
4	143.3806	101.2279	250	210.6137	128.8948	0.499	0.790	0.394	64.3216	64.9451		SAMPLE				
5	144.2212	101.8214	250	211.8485	39.3875	1.593	0.240	0.382	62.7617	62.8217		SAMPLE				
6	144.8874	102.2917	250	212.8271	95.6261	0.672	0.580	0.390	64.2616	64.6058		SAMPLE				
7	145.1767	102.4960	250	213.2521	219.7185	0.305	1.330	0.405	66.9866	68.7123		SAMPLE				
8	144.8893	102.2931	250	212.8299	-36.2725	1.692	-0.220	0.372	61.3776	61.3779		SAMPLE				
9	144.6991	102.1588	250	212.5506	199.2366	0.333	1.210	0.403	66.3589	67.7942		SAMPLE				
10	144.5098	102.0252	250	212.2725	182.5317	0.361	1.110	0.401	65.9312	67.1456		SAMPLE				
11	144.7011	102.1602	250	212.5534	-42.8118	1.428	-0.260	0.371	61.1502	61.1505		SAMPLE				
12	145.3749	102.6359	250	213.5432	387.1001	0.182	2.340	0.426	70.4282	75.4122		SAMPLE				
13	147.8685	104.3964	250	217.2061	-3.3653	18.836	-0.020	0.377	63.3885	63.3888		SAMPLE				
14	145.7673	102.9130	250	214.1197	170.8502	0.388	1.030	0.399	66.2285	67.2890		SAMPLE				
15	144.4210	101.9624	250	212.1420	119.9695	0.538	0.730	0.393	64.5796	65.1179		SAMPLE				
16	152.1985	107.4534	250	223.5665	-64.0811	0.997	-0.370	0.369	63.8897	63.8900		MB				
17	144.4229	101.9638	250	212.1448	284.3152	0.239	1.730	0.414	67.9763	70.8018	243557001.2	DUP	26.5%	0.2392		
18	251.3491	177.4546	250	387.9359	5962.9627	0.047	36.110	1.683	277.9975	499.7612		LCS			5595.9550	106.6%

Filename: 1:20 PMab

Instrument Type	LS 6000
Data Capture Date	08 Jan 2010 13:00:51
User Filename	C:\LSCCAPTURE\SILVER\USER04\UN010801.BSF
User Number	4
User Id	TRITIUM
User Comments	SILVER
Scintillator Choice:	LIQUID

Sam	Rack	Time	H#	Raw CPM1	Raw CPM2	CPM Iso1	%Err1	CPM Iso2	%Err2	LumEx	ElTime
1	35-1	120.00	125.2	5.90	46.12	5.69	7.79	45.92	2.70	0.51	123.12

Sample Count Start Time:	8 Jan 2010 13:03:58		
Data Capture Date	08 Jan 2010 15:04:24		
User Filename	S04010835-1A.XLS		
	U04010835-1A.XLS		
Spectrum Type	Log Counts		
User Number	04		
User Id	TRITIUM		
User Comment	SILVER		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	1	35-1	120.00
H#, Total Counts:	125.2	5510	
Win1: Tritium - Start, End, Counts:	20	280	683
Win2: - Start, End, Counts:	0	990	5035

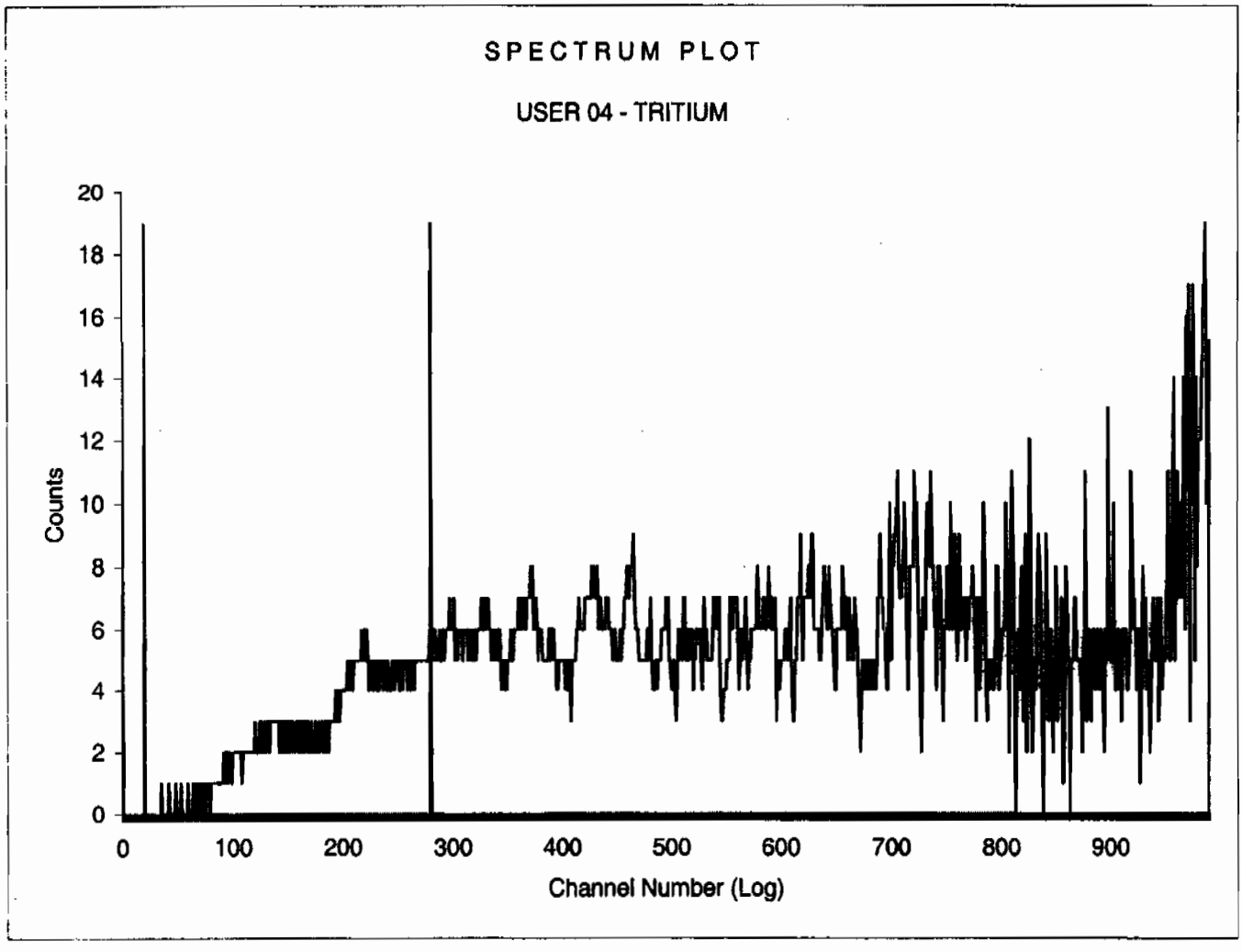

Filename: 1:42 PMab

Instrument Type	LS 6000
Data Capture Date	08 Jan 2010 15:04:59
User Filename	C:\LSCCAPTURE\SILVER\USER03\UN010801.BSF
User Number	3
User Id	H-3
User Comments	SILVER
Scintillator Choice:	LIQUID

Sam	Rack	Time	H#	Raw CPM1	Raw CPM2	CPM Iso1	%Err1	CPM Iso2	%Err2	LumEx	ElTime
1	22-1	60.00	125.0	7.18	46.42	7.02	9.86	46.25	3.80	0.43	61.78
2	22-2	60.00	126.2	8.03	46.03	7.83	9.34	45.83	3.82	0.50	124.13
~~3~~	~~22-3~~	~~60.00~~	~~124.2~~	~~5.55~~	~~43.32~~	~~5.37~~	~~11.33~~	~~43.13~~	~~3.94~~	~~0.50~~	~~186.44~~ JP 1/11/10
4	22-4	60.00	124.4	6.65	45.33	6.48	10.27	45.17	3.85	0.44	248.75
5	22-5	60.00	125.3	6.12	45.83	5.93	10.76	45.65	3.83	0.52	311.07
6	22-6	60.00	126.0	6.42	45.42	6.27	10.44	45.27	3.84	0.43	373.40
7	22-7	60.00	126.3	7.17	44.53	7.02	9.85	44.38	3.88	0.41	435.71
8	22-8	60.00	126.0	5.62	45.08	5.47	11.19	44.93	3.86	0.43	498.00
9	22-9	60.00	125.8	7.07	46.83	6.90	9.95	46.67	3.79	0.43	560.32
10	22-10	60.00	125.6	6.95	47.42	6.80	10.01	47.27	3.76	0.39	622.65
11	22-11	60.00	125.8	5.58	43.12	5.43	11.23	42.97	3.95	0.44	684.95
12	22-12	60.00	126.5	8.18	47.63	8.03	9.19	47.48	3.75	0.36	747.26

Sample Count Start Time:	8 Jan 2010 15:06:46		
Data Capture Date	08 Jan 2010 16:07:00		
User Filename	S03010822-1A.XLS		
	U03010822-1A.XLS		
Spectrum Type	Log Counts		
User Number	03		
User Id	H-3		
User Comment	SILVER		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	1	22-1	60.00
H#, Total Counts:	125.0	2775	
Win1: Tritium - Start, End, Counts:	20	280	421
Win2: - Start, End, Counts:	0	990	2541

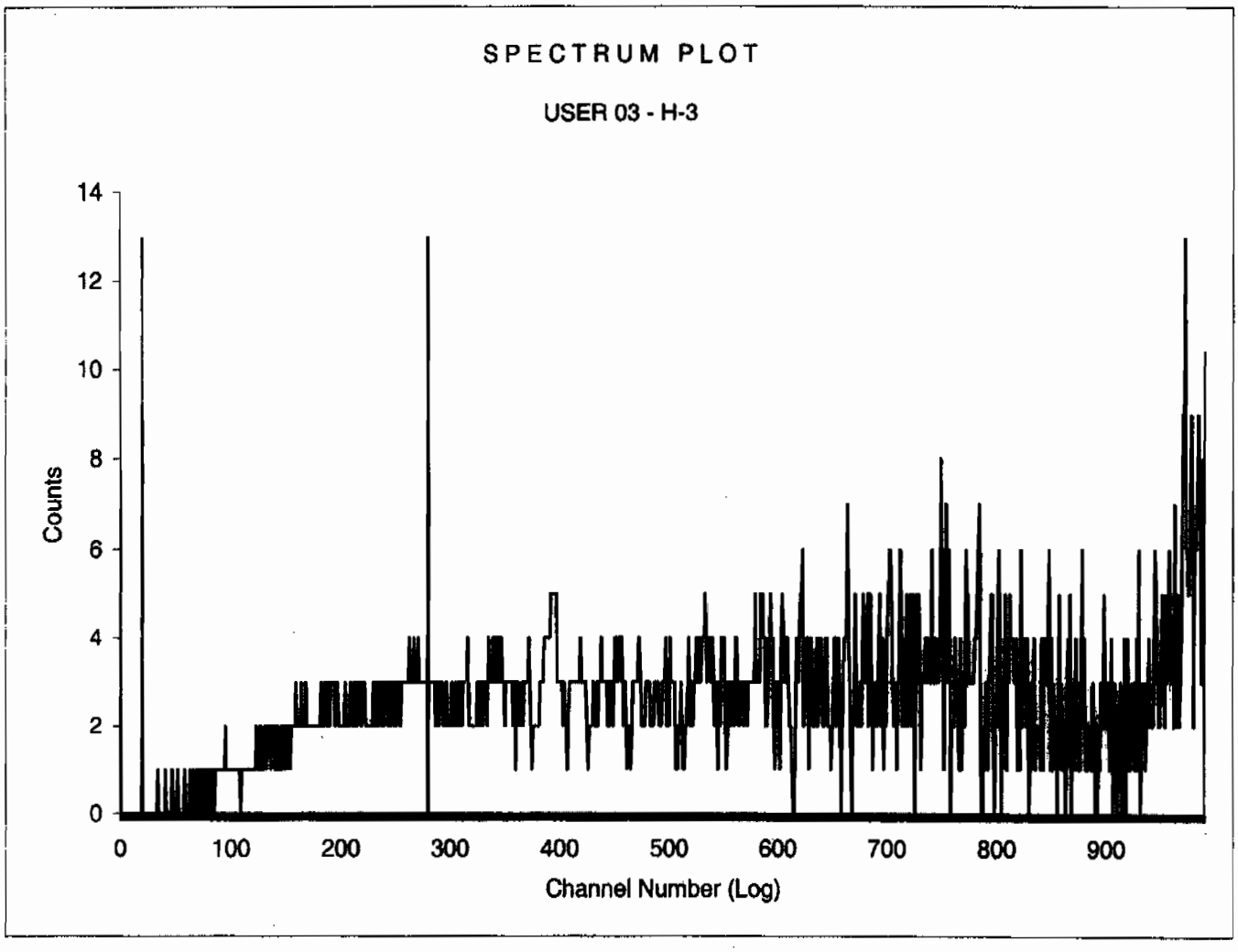

Sample Count Start Time:	8 Jan 2010 16:09:07		
Data Capture Date	08 Jan 2010 17:09:21		
User Filename	S03010822-2A.XLS		
	U03010822-1A.XLS		
Spectrum Type	Log Counts		
User Number	03		
User Id	H-3		
User Comment	SILVER		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	2	22-2	60.00
H#, Total Counts:	126.2	2750	
Win1: Tritium - Start, End, Counts:	20	280	470
Win2: - Start, End, Counts:	0	990	2524

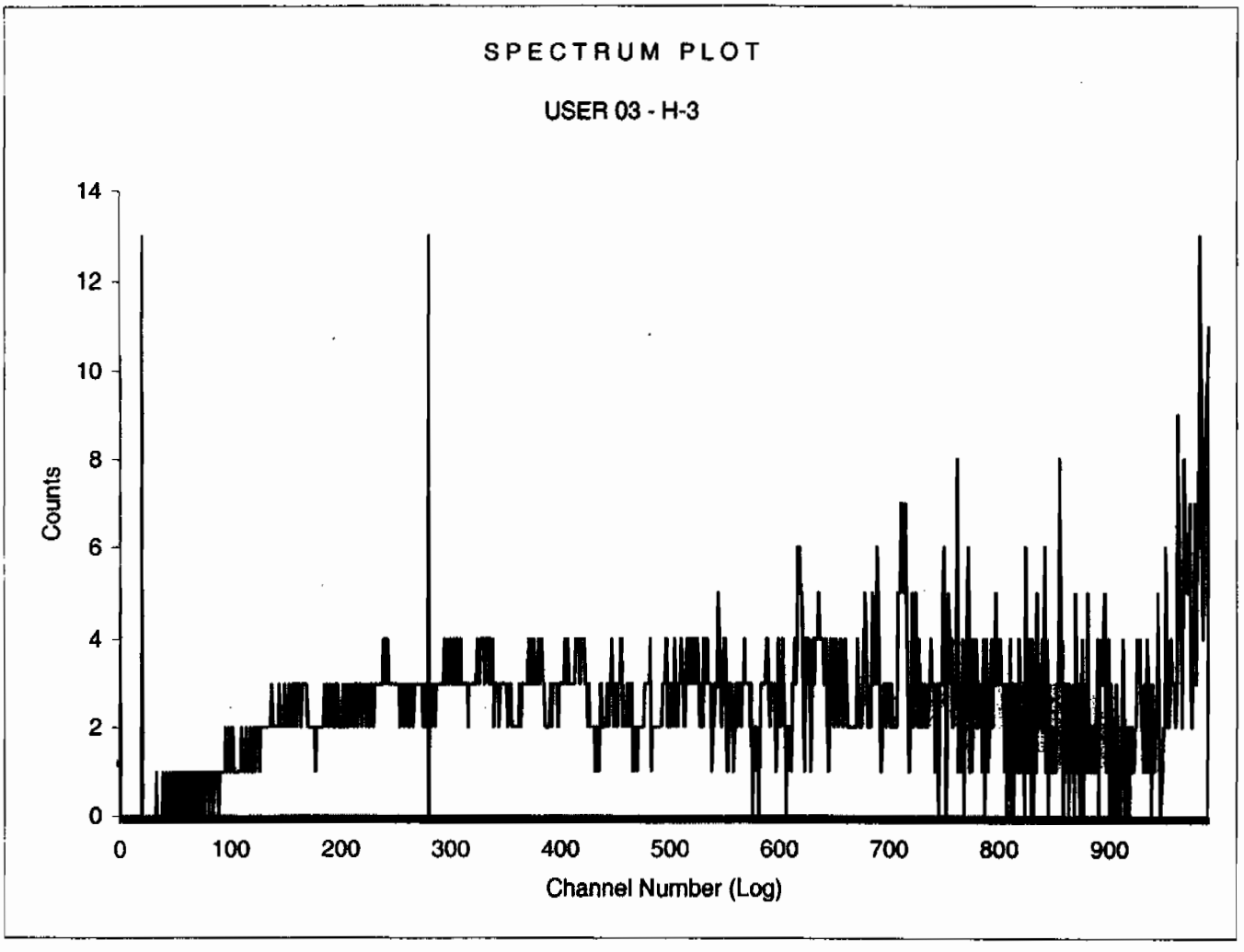

Sample Count Start Time:	8 Jan 2010 18:13:44		
Data Capture Date	08 Jan 2010 19:13:58		
User Filename	S03010822-4A.XLS		
	U03010822-1A.XLS		
Spectrum Type	Log Counts		
User Number	03		
User Id	H-3		
User Comment	SILVER		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	4	22-4	60.00
H#, Total Counts:	124.4	2710	
Win1: Tritium - Start, End, Counts:	20	280	389
Win2: - Start, End, Counts:	0	990	2477

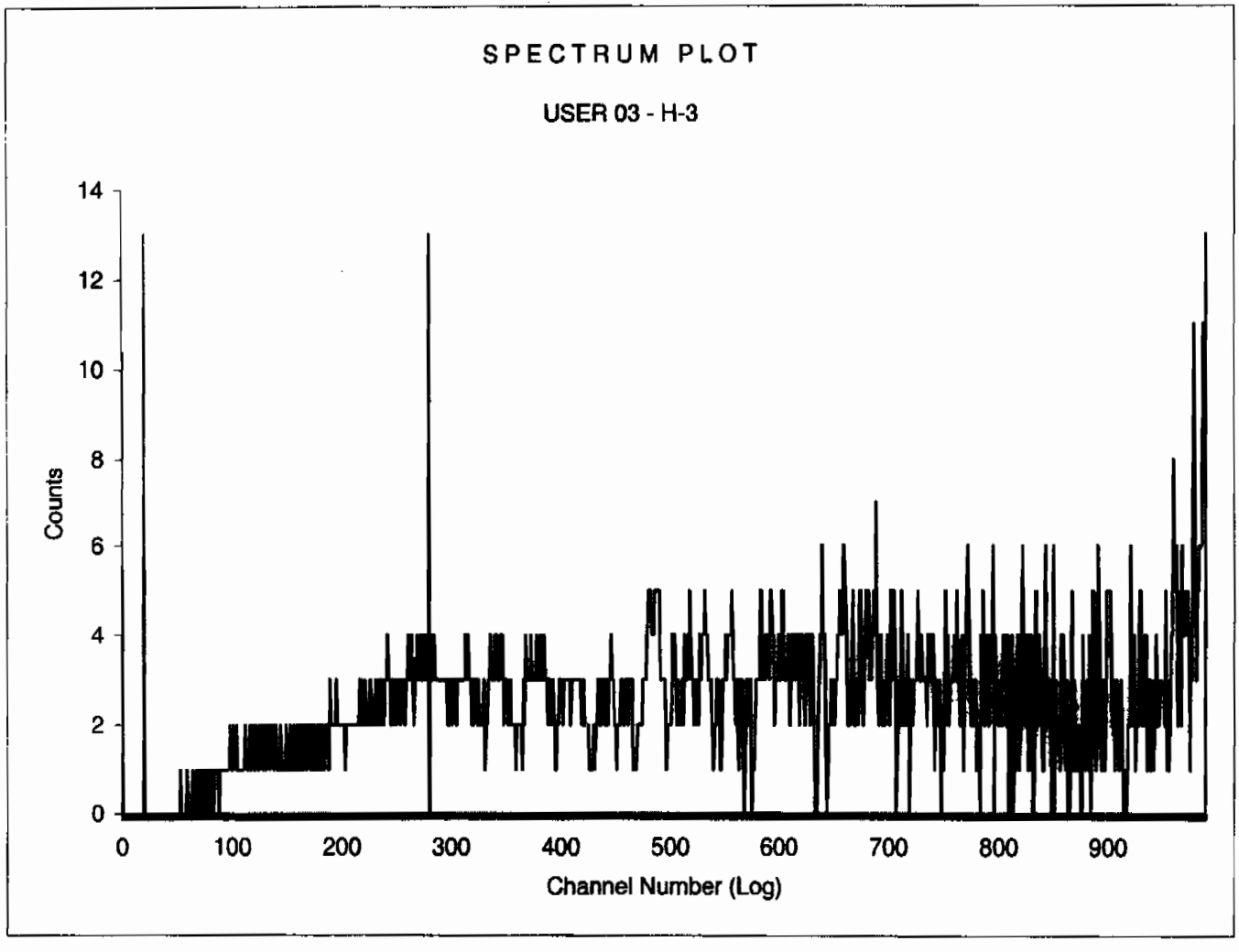

Sample Count Start Time:	8 Jan 2010 19:16:03		
Data Capture Date	08 Jan 2010 20:16:17		
User Filename	S03010822-5A.XLS		
	U03010822-1A.XLS		
Spectrum Type	Log Counts		
User Number	03		
User Id	H-3		
User Comment	SILVER		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	5	22-5	60.00
H#, Total Counts:	125.3	2739	
Win1: Tritium - Start, End, Counts:	20	280	356
Win2: - Start, End, Counts:	0	990	2506

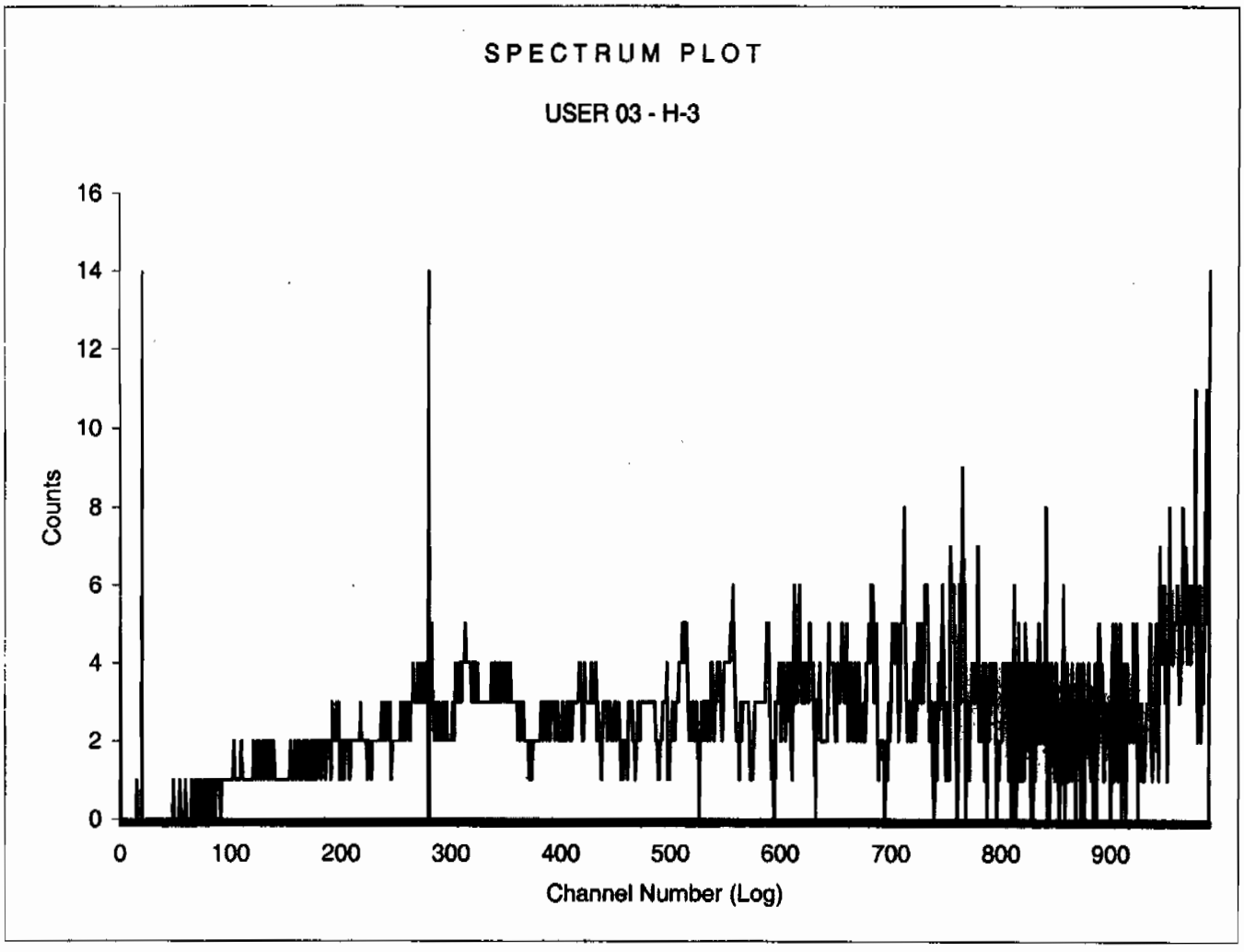

Sample Count Start Time:	8 Jan 2010 20:18:23		
Data Capture Date	08 Jan 2010 21:18:37		
User Filename	S03010822-6A.XLS		
	U03010822-1A.XLS		
Spectrum Type	Log Counts		
User Number	03		
User Id	H-3		
User Comment	SILVER		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	6	22-6	60.00
H#, Total Counts:	126.0	2716	
Win1: Tritium - Start, End, Counts:	20	280	376
Win2: - Start, End, Counts:	0	990	2473

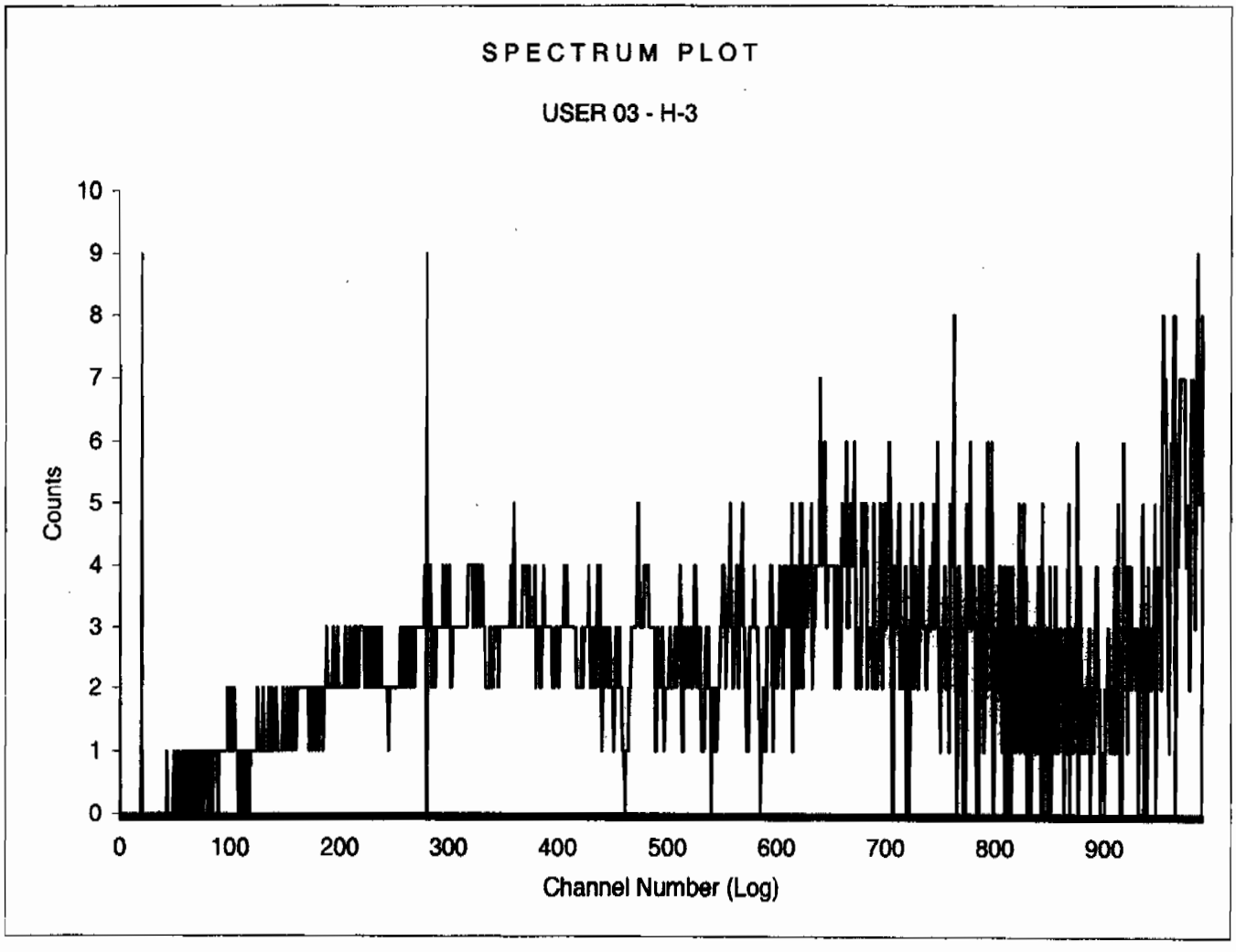

Sample Count Start Time:	8 Jan 2010 21:20:42		
Data Capture Date	08 Jan 2010 22:20:56		
User Filename	S03010822-7A.XLS		
	U03010822-1A.XLS		
Spectrum Type	Log Counts		
User Number	03		
User Id	H-3		
User Comment	SILVER		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	7	22-7	60.00
H#, Total Counts:	126.3	2663	
Win1: Tritium - Start, End, Counts:	20	280	421
Win2: - Start, End, Counts:	0	990	2435

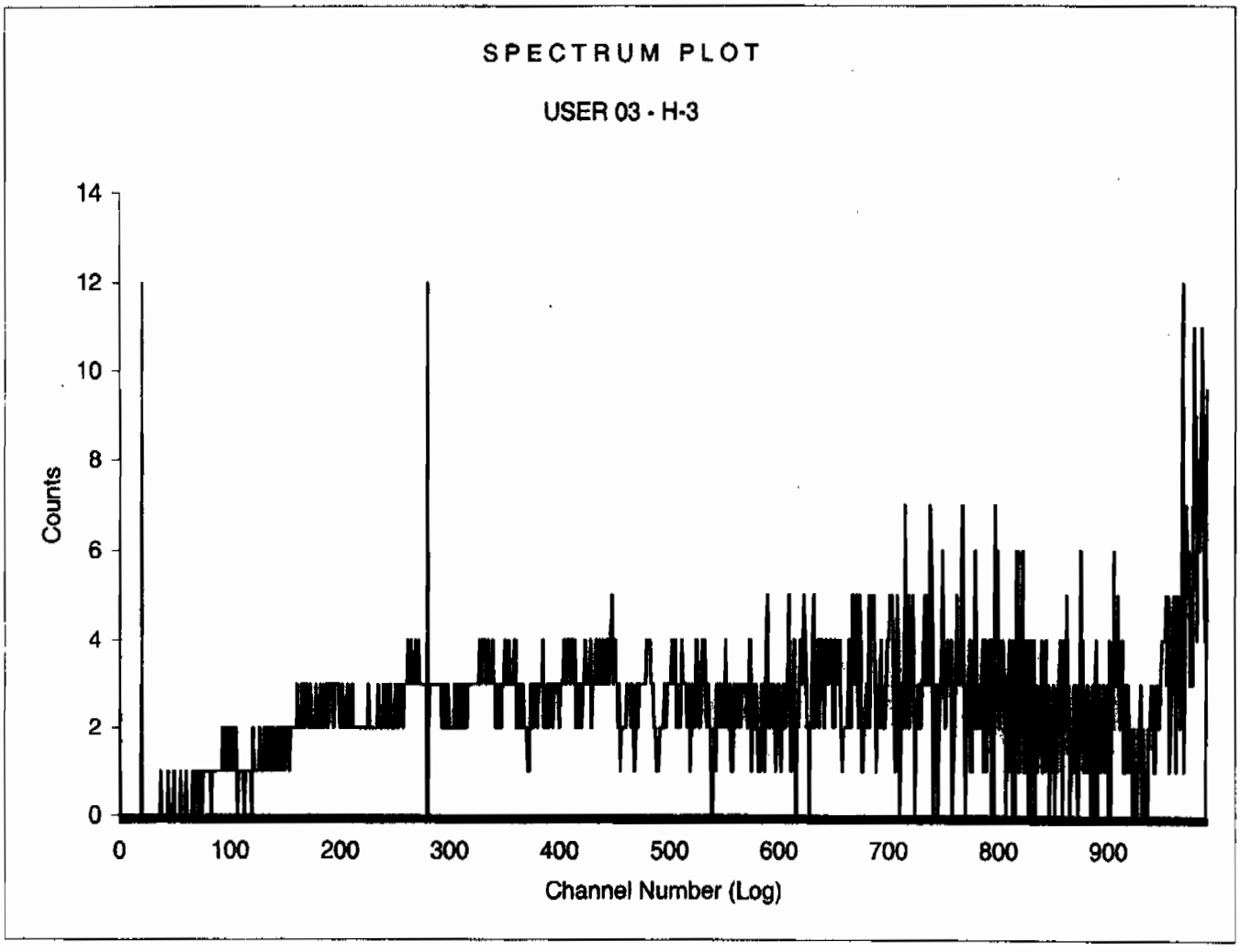

Sample Count Start Time:	8 Jan 2010 22:22:59		
Data Capture Date	08 Jan 2010 23:23:14		
User Filename	S03010822-8A.XLS		
	U03010822-1A.XLS		
Spectrum Type	Log Counts		
User Number	03		
User Id	H-3		
User Comment	SILVER		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	8	22-8	60.00
H#, Total Counts:	126.0	2696	
Win1: Tritium - Start, End, Counts:	20	280	328
Win2: - Start, End, Counts:	0	990	2441

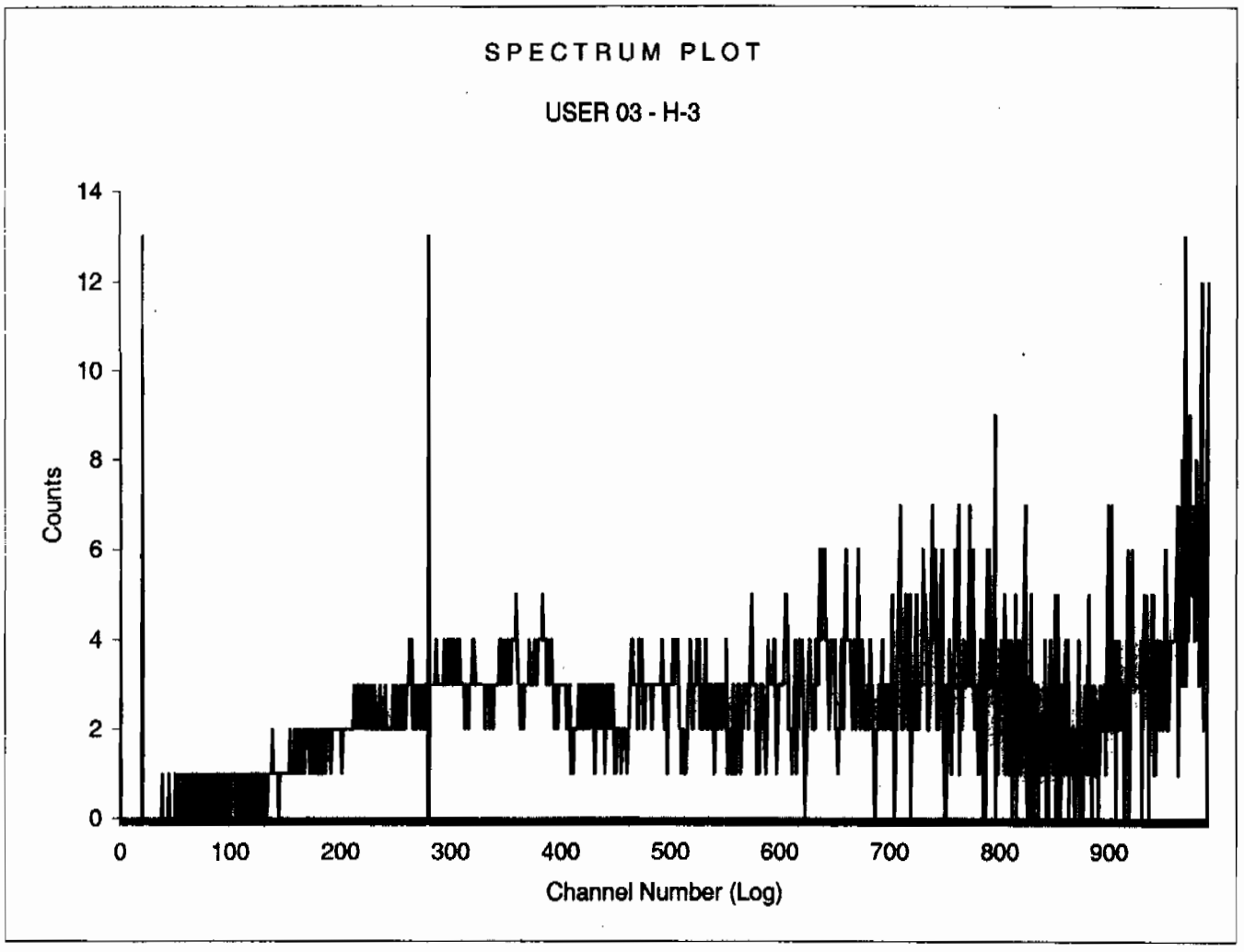

Sample Count Start Time:	8 Jan 2010 23:25:18		
Data Capture Date	09 Jan 2010 00:25:33		
User Filename	S03010922-9A.XLS		
	U03010822-1A.XLS		
Spectrum Type	Log Counts		
User Number	03		
User Id	H-3		
User Comment	SILVER		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	9	22-9	60.00
H#, Total Counts:	125.8	2800	
Win1: Tritium - Start, End, Counts:	20	280	414
Win2: - Start, End, Counts:	0	990	2531

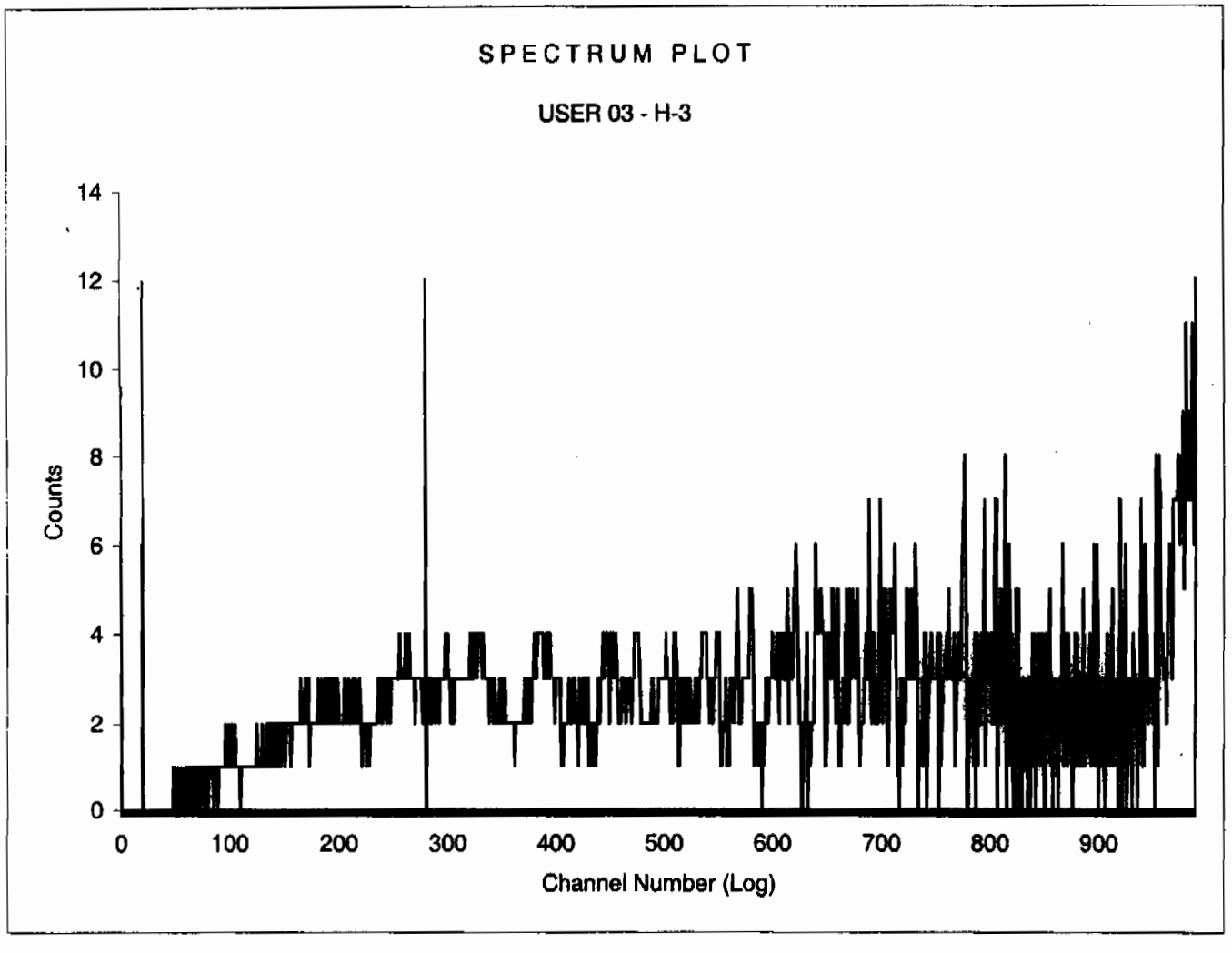

Sample Count Start Time:	9 Jan 2010 00:27:38		
Data Capture Date	09 Jan 2010 01:27:52		
User Filename	S03010922-10A.XLS		
	U03010822-1A.XLS		
Spectrum Type	Log Counts		
User Number	03		
User Id	H-3		
User Comment	SILVER		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	10	22-10	60.00
H#, Total Counts:	125.6	2836	
Win1: Tritium - Start, End, Counts:	20	280	408
Win2: - Start, End, Counts:	0	990	2618

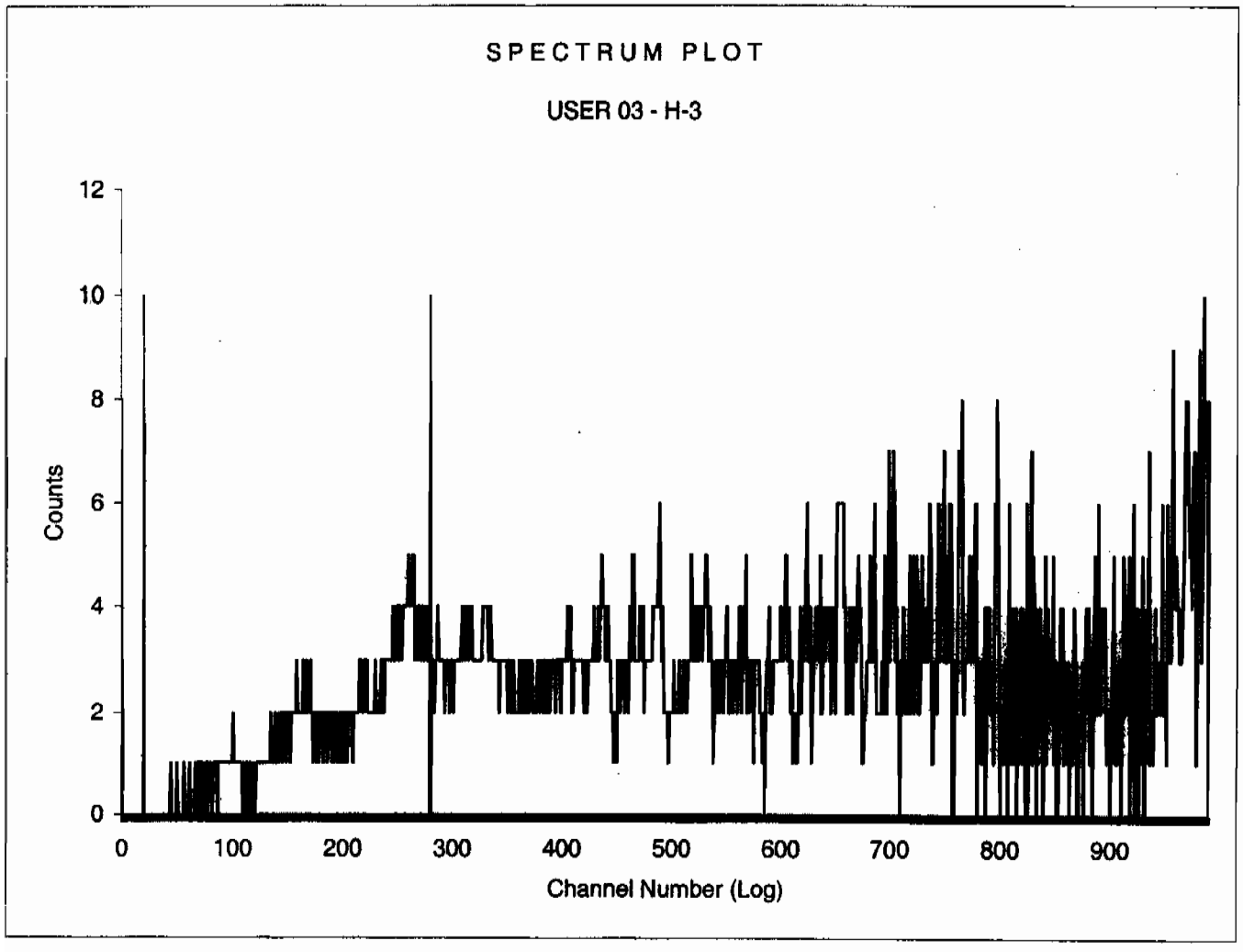

Sample Count Start Time:	9 Jan 2010 01:29:56		
Data Capture Date	09 Jan 2010 02:30:10		
User Filename	S03010922-11A.XLS		
	U03010822-1A.XLS		
Spectrum Type	Log Counts		
User Number	03		
User Id	H-3		
User Comment	SILVER		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	11	22-11	60.00
H#, Total Counts:	125.8	2578	
Win1: Tritium - Start, End, Counts:	20	280	326
Win2: - Start, End, Counts:	0	990	2350

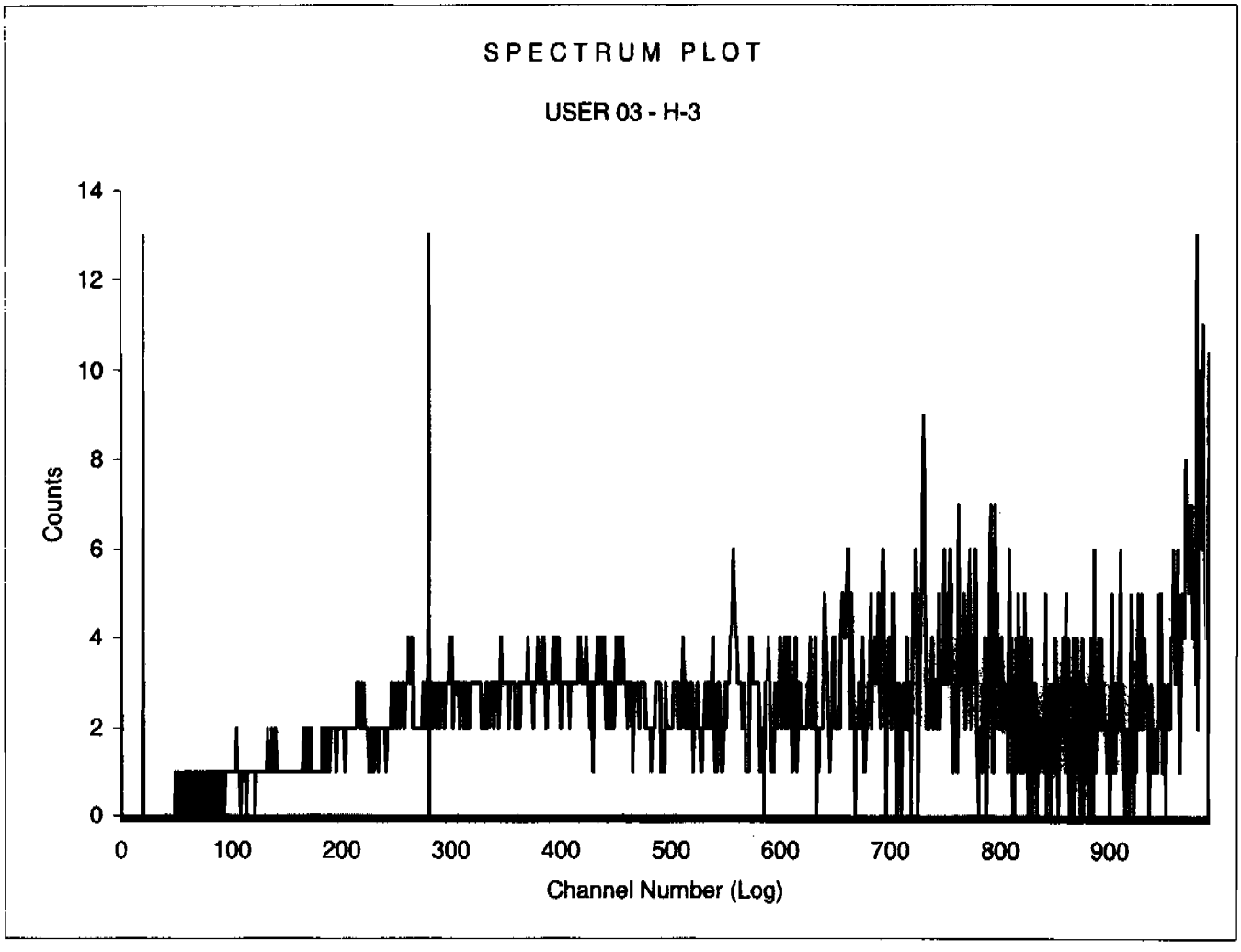

Sample Count Start Time:	9 Jan 2010 02:32:15		
Data Capture Date	09 Jan 2010 03:32:29		
User Filename	S03010922-12A.XLS		
	U03010822-1A.XLS		
Spectrum Type	Log Counts		
User Number	03		
User Id	H-3		
User Comment	SILVER		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	12	22-12	60.00
H#, Total Counts:	126.5	2849	
Win1: Tritium - Start, End, Counts:	20	280	482
Win2: - Start, End, Counts:	0	990	2608

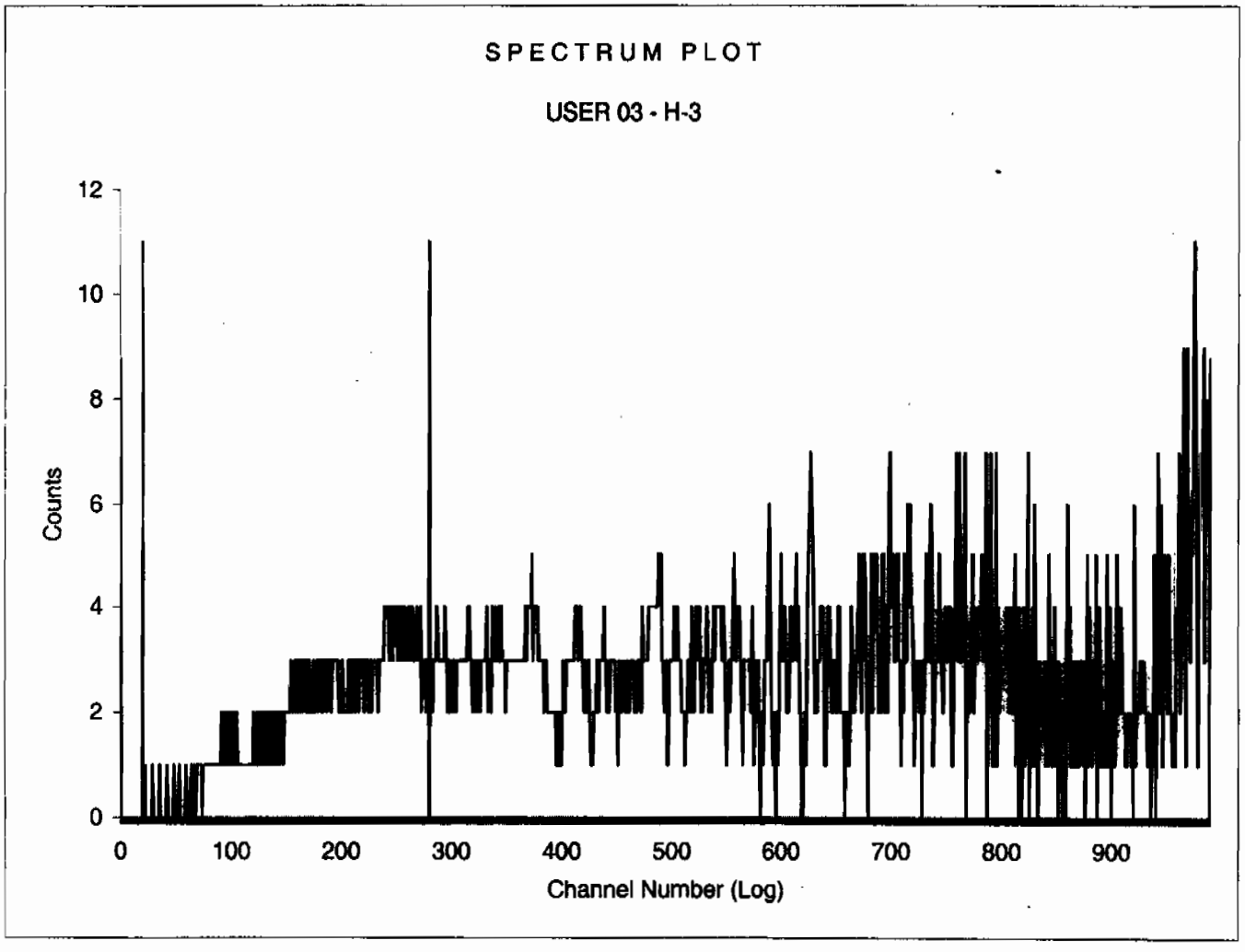

ID:H-3 9 JAN 2010 04:44
USER: 3 COMMENT:SILVER
PRESET TIME : 60.00
DATA CALC : CPM H# :YES SAMPLE REPEATS: 1 PRINTER : STD
COUNT BLANK : NO IC# : NO REPLICATES : 1 RS232 :EDIT
TWO PHASE : NO AQC : NO CYCLE REPEATS : 1 DISK : OFF
SCINTILLATOR: LIQUID LUMEX:YES LOW SAMPLE REJ: 0
LOW LEVEL : NO HALF LIFE CORRECTION DATE: none

CHAN: 20.0 - 280.0 %ERROR: 0.00 FACTOR: 1.000000 BKG. SUB: 0
CHAN: 0.0 - 1000.0 %ERROR: 0.00 FACTOR: 1.000000 BKG. SUB: 0

SAM NO	POS	TIME MIN	H#	WIND1 CPM	WIND1 %ERROR	WIND2 CPM	WIND2 %ERROR	LUMEX %	ELAPSED TIME
1	44-1	60.00	129.0	5.67	11.05	44.60	3.88	0.56	61.81
2	44-2	60.00	126.9	6.72	10.10	45.28	3.84	0.48	124.13
3	44-3	60.00	125.5	6.42	10.34	45.05	3.85	0.48	186.46
4	44-4	60.00	133.2	5.32	11.37	44.20	3.89	0.45	248.76
5	44-5	60.00	125.5	7.42	9.59	47.02	3.77	0.42	311.06

QPQP

Sample Count Start Time:	9 Jan 2010 04:48:05		
Data Capture Date	09 Jan 2010 05:48:30		
User Filename	S03010944-1A.XLS		
	U03010944-1A.XLS		
Spectrum Type	Log Counts		
User Number	03		
User Id	H-3		
User Comment	SILVER		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	1	44-1	60.00
H#, Total Counts:	129.0	2676	
Win1: Tritium - Start, End, Counts:	20	280	340
Win2: - Start, End, Counts:	0	990	2457

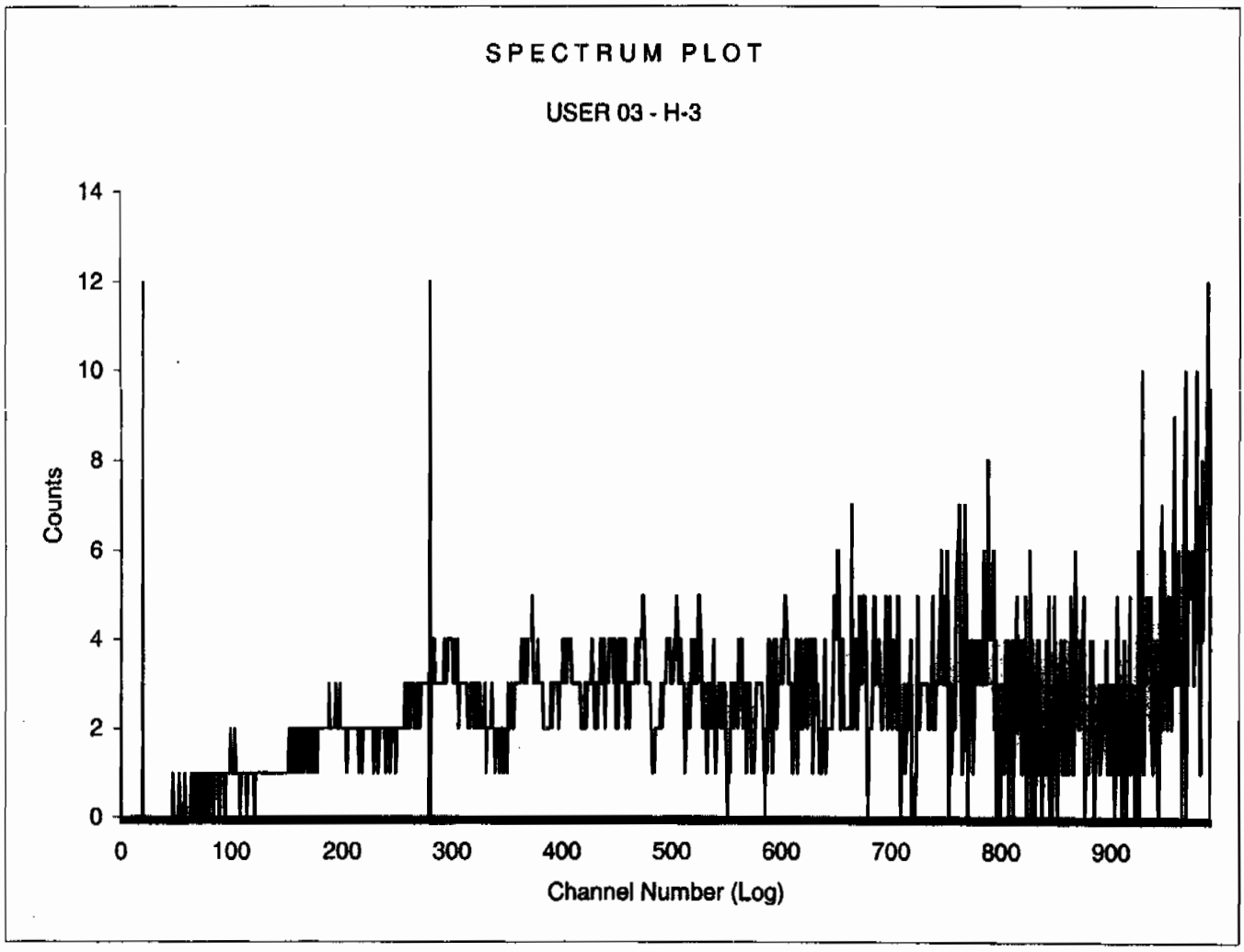

Sample Count Start Time:	9 Jan 2010 05:50:24		
Data Capture Date	09 Jan 2010 06:50:50		
User Filename	S03010944-2A.XLS		
	U03010944-1A.XLS		
Spectrum Type	Log Counts		
User Number	03		
User Id	H-3		
User Comment	SILVER		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	2	44-2	60.00
H#, Total Counts:	126.9	2717	
Win1: Tritium - Start, End, Counts:	20	280	403
Win2: - Start, End, Counts:	0	990	2474

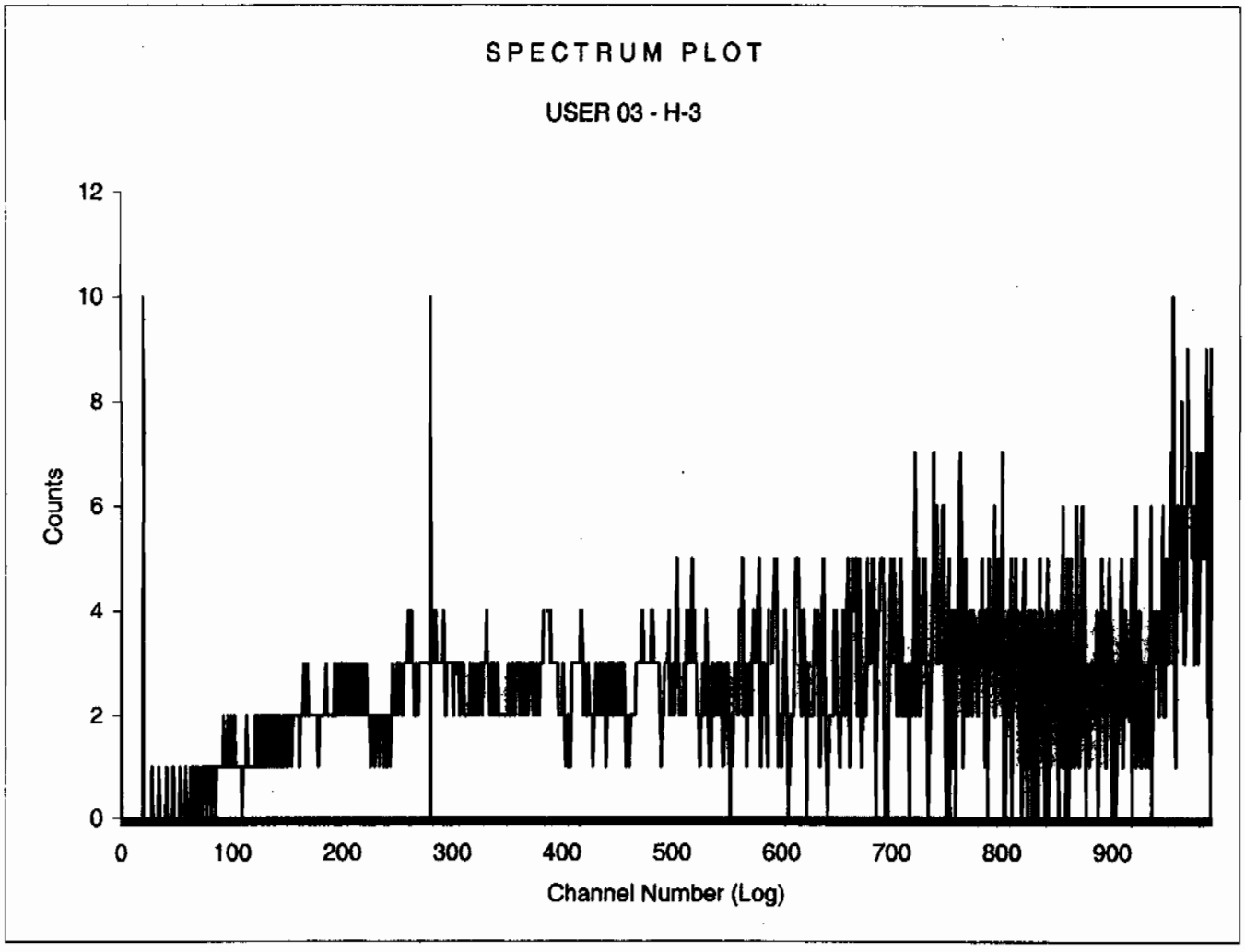

Sample Count Start Time:	9 Jan 2010 06:52:44		
Data Capture Date	09 Jan 2010 07:53:09		
User Filename	S03010944-3A.XLS		
	U03010944-1A.XLS		
Spectrum Type	Log Counts		
User Number	03		
User Id	H-3		
User Comment	SILVER		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	3	44-3	60.00
H#, Total Counts:	125.5	2703	
Win1: Tritium - Start, End, Counts:	20	280	385
Win2: - Start, End, Counts:	0	990	2467

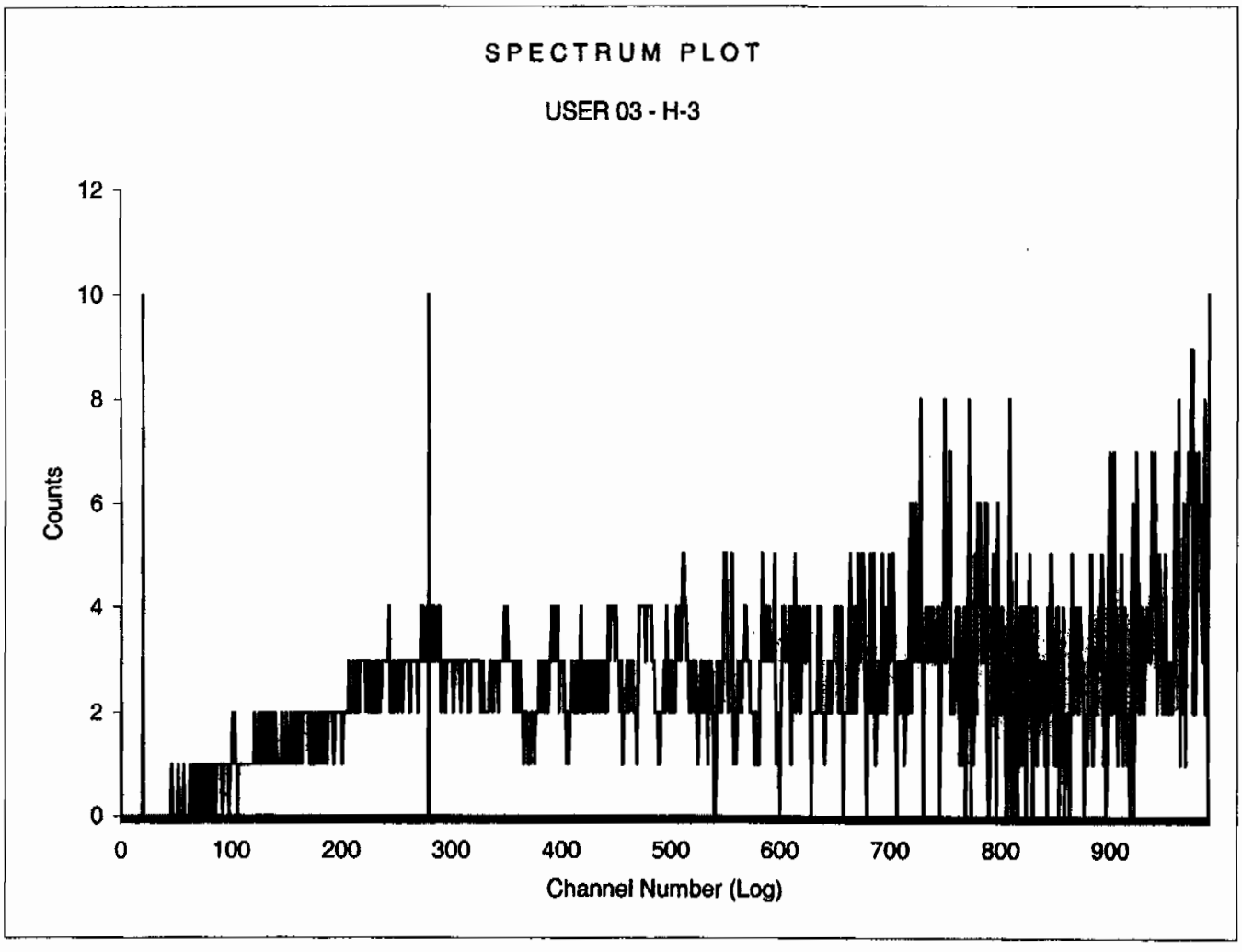

Sample Count Start Time:	9 Jan 2010 07:55:02		
Data Capture Date	09 Jan 2010 08:55:27		
User Filename	S03010944-4A.XLS		
	U03010944-1A.XLS		
Spectrum Type	Log Counts		
User Number	03		
User Id	H-3		
User Comment	SILVER		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	4	44-4	60.00
H#, Total Counts:	133.2	2652	
Win1: Tritium - Start, End, Counts:	20	280	319
Win2: - Start, End, Counts:	0	990	2420

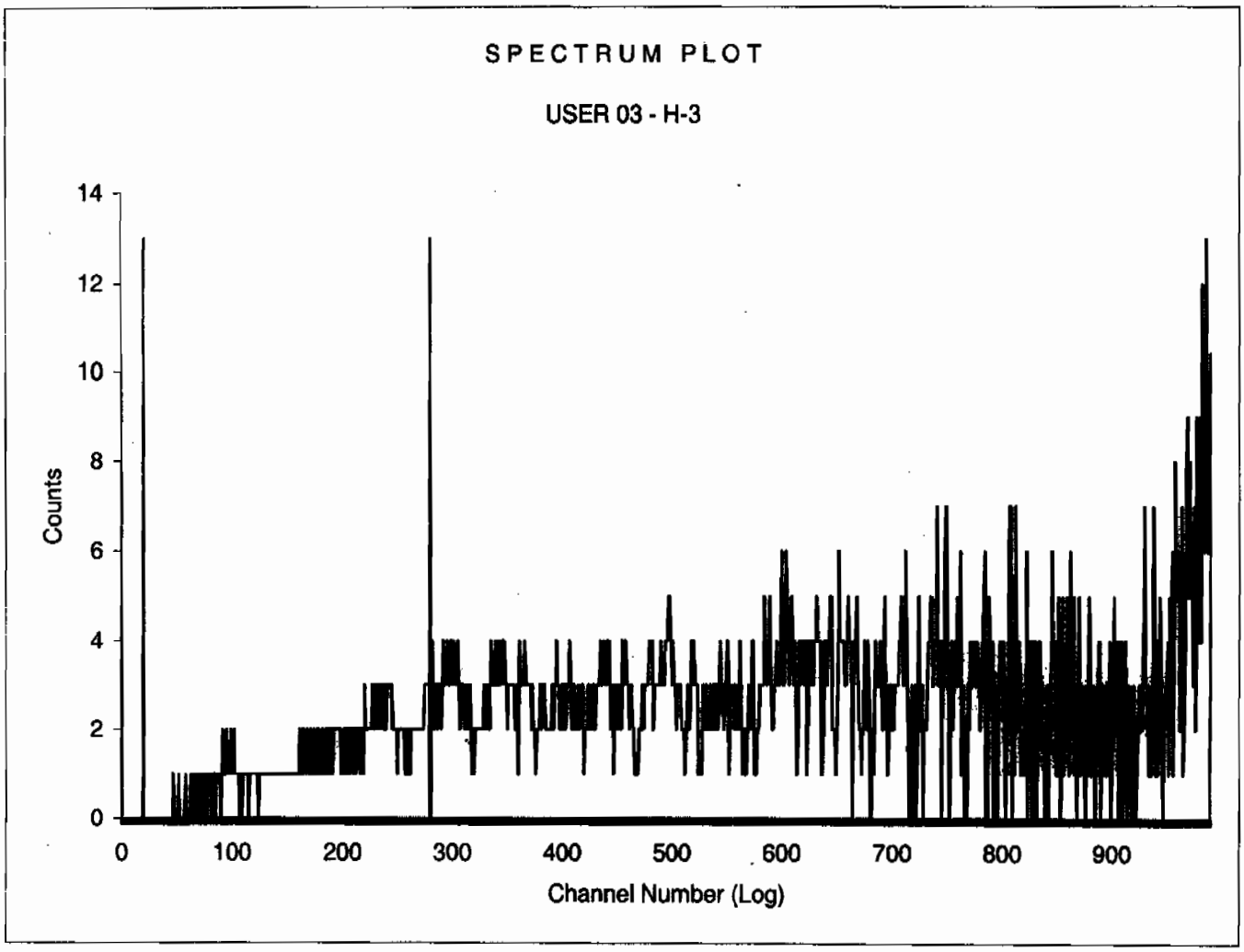

Sample Count Start Time:	9 Jan 2010 08:57:20		
Data Capture Date	09 Jan 2010 09:57:46		
User Filename	S03010944-5A.XLS		
	U03010944-1A.XLS		
Spectrum Type	Log Counts		
User Number	03		
User Id	H-3		
User Comment	SILVER		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	5	44-5	60.00
H#, Total Counts:	125.5	2821	
Win1: Tritium - Start, End, Counts:	20	280	445
Win2: - Start, End, Counts:	0	990	2576

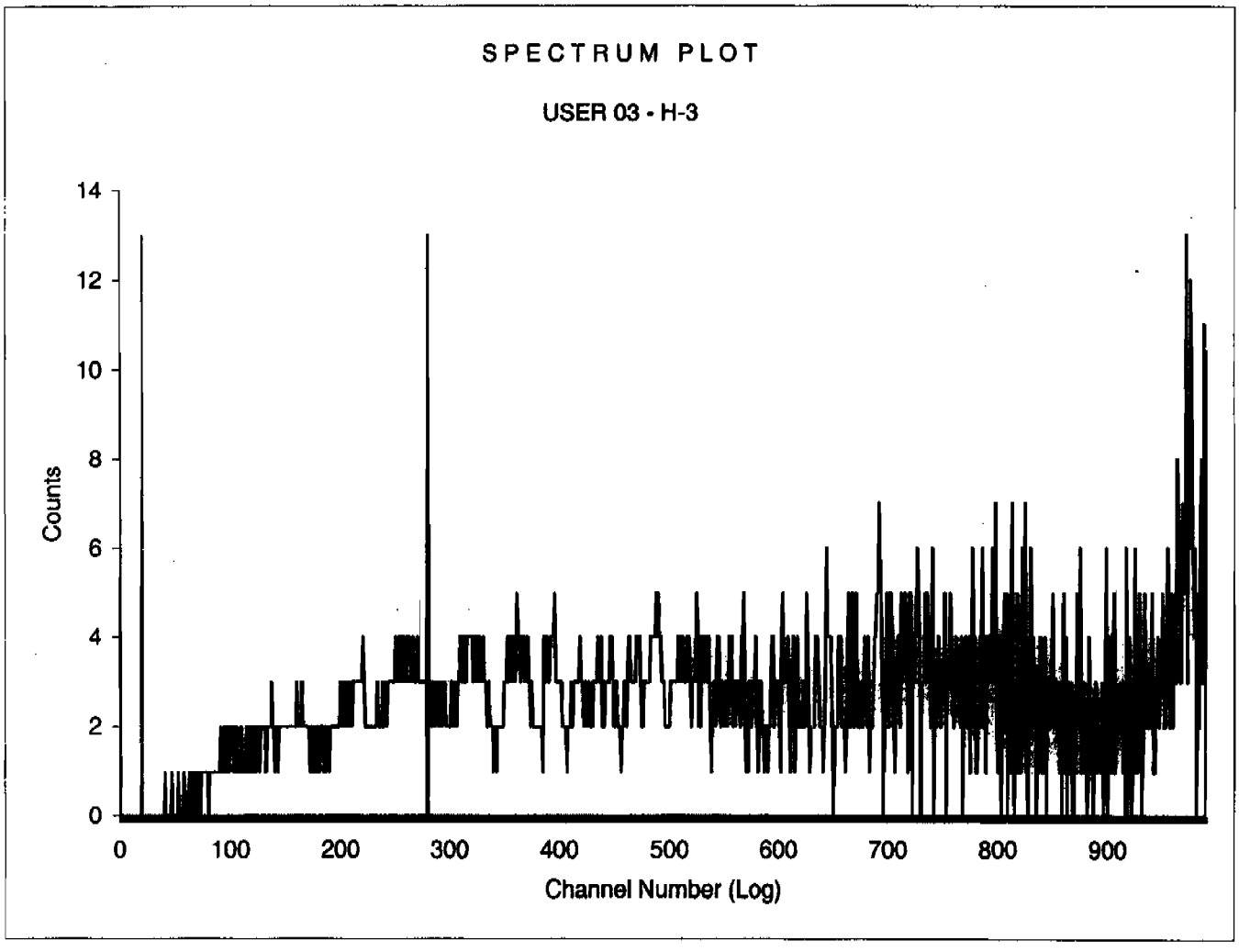

ID:TRITIUM 9 JAN 2010 09:56

USER: 2 COMMENT:SILVER

PRESET TIME : 15.00

DATA CALC : CPM H# :YES SAMPLE REPEATS: 1 PRINTER : STD

COUNT BLANK : NO IC# : NO REPLICATES : 1 RS232 :EDIT

TWO PHASE : NO AQC : NO CYCLE REPEATS : 1 DISK : OFF

SCINTILLATOR: LIQUID LUMEX:YES LOW SAMPLE REJ: 0

LOW LEVEL : NO HALF LIFE CORRECTION DATE: none

CHAN: 20.0 - 280.0 %ERROR: 0.00 FACTOR: 1.000000 BKG. SUB: 0

CHAN: 0.0 - 1000.0 %ERROR: 0.00 FACTOR: 1.000000 BKG. SUB: 0

SAM NO	POS	TIME MIN	H#	WIND1 CPM	WIND1 %ERROR	WIND2 CPM	WIND2 %ERROR	LUMEX %	ELAPSED TIME
1	28-1	15.00	126.4	41.80	8.00	86.13	5.57	0.28	15.81

QPQ`

Sample Count Start Time:	9 Jan 2010 09:59:18		
Data Capture Date	09 Jan 2010 10:14:20		
User Filename	S02010928-1B.XLS		
	U02010928-1B.XLS		
Spectrum Type	Log Counts		
User Number	02		
User Id	TRITIUM		
User Comment	SILVER		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	1	28-1	15.00
H#, Total Counts:	126.4	1292	
Win1: Tritium - Start, End, Counts:	20	280	627
Win2: - Start, End, Counts:	0	990	1236

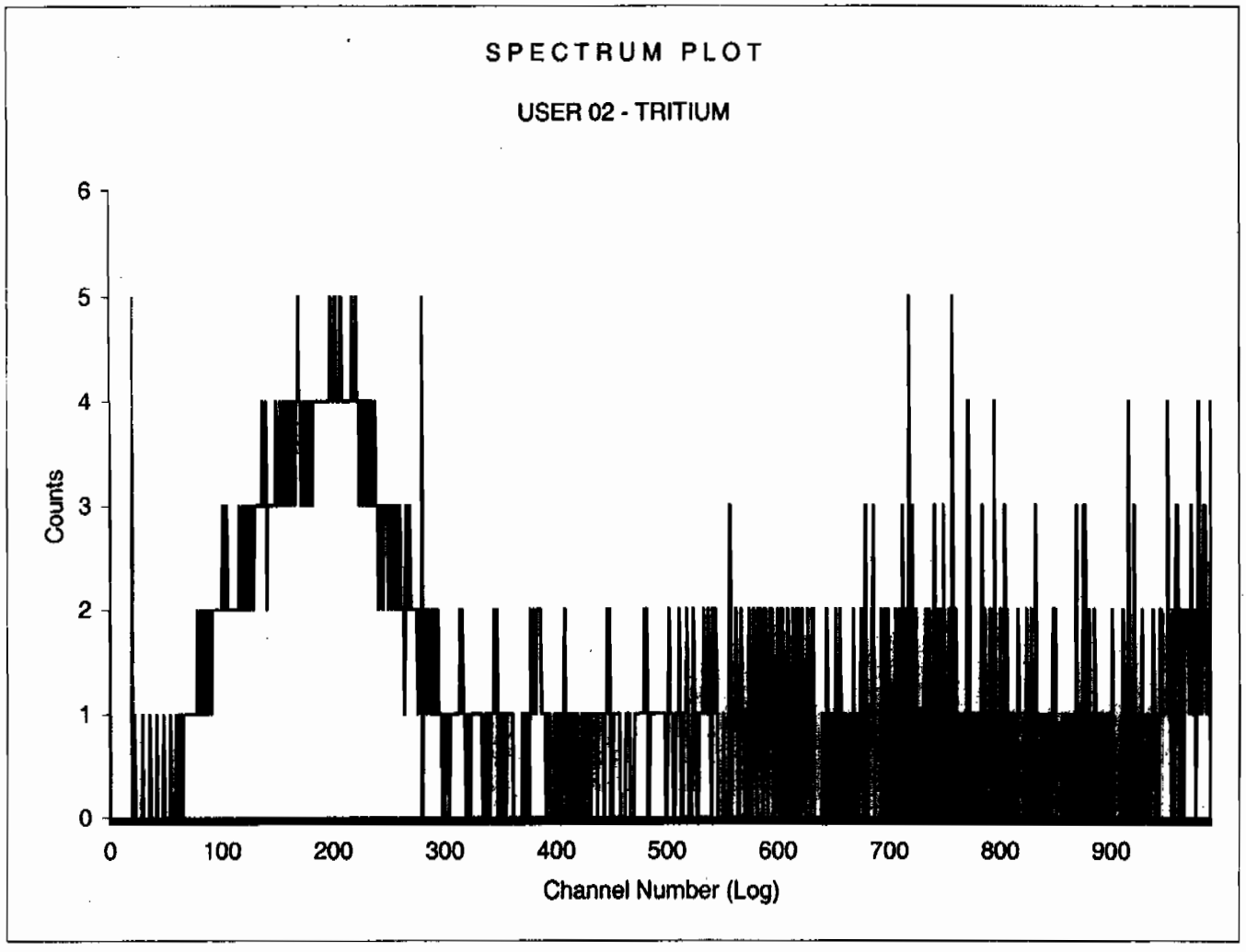

```
ID:TRITIUM                                                    9 JAN 2010 17:49
USER: 4                        COMMENT:SILVER
PRESET TIME :      120.00
DATA CALC    :          CPM  H#    :YES  SAMPLE REPEATS:   1     PRINTER        : STD
COUNT BLANK :            NO  IC#   : NO  REPLICATES     :   1    RS232          :EDIT
TWO PHASE    :           NO  AQC   : NO  CYCLE REPEATS :   1     DISK           : OFF
SCINTILLATOR:      LIQUID  LUMEX:YES  LOW SAMPLE REJ:    0
LOW LEVEL    :           NO  HALF LIFE CORRECTION DATE:          none

CHAN:  20.0 -   280.0  %ERROR: 0.00  FACTOR:   1.000000  BKG. SUB:       0
CHAN:   0.0 - 1000.0  %ERROR: 0.00  FACTOR:   1.000000  BKG. SUB:       0

SAM  POS    TIME     H#     WIND1          WIND2          LUMEX  ELAPSED
 NO          MIN              CPM  %ERROR       CPM  %ERROR      %       TIME

  1 22-1  120.00 125.2       6.18   7.62      44.87   2.74   1.15   123.36
  2 22-2  120.00 124.8       5.77   7.86      44.29   2.76   0.92   247.16
QP

     INSTRUMENT CALIBRATION:   Maxi  10 JAN 2010 11:18
     Calibration successful

QP
     Calibrating Auto DPM
     Counting Standard for   14C
     Calibration Complete:   14C
     Counting Standard for    3H
     Calibration Complete:    3H
     Calibration Successful
QPQP
```

Sample Count Start Time:	9 Jan 2010 17:54:56		
Data Capture Date	09 Jan 2010 19:54:43		
User Filename	S04010922-1B.XLS		
	U04010922-1B.XLS		
Spectrum Type	Log Counts		
User Number	04		
User Id	TRITIUM		
User Comment	SILVER		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	1	22-1	120.00
H#, Total Counts:	125.2	5384	
Win1: Tritium - Start, End, Counts:	20	280	742
Win2: - Start, End, Counts:	0	990	4940

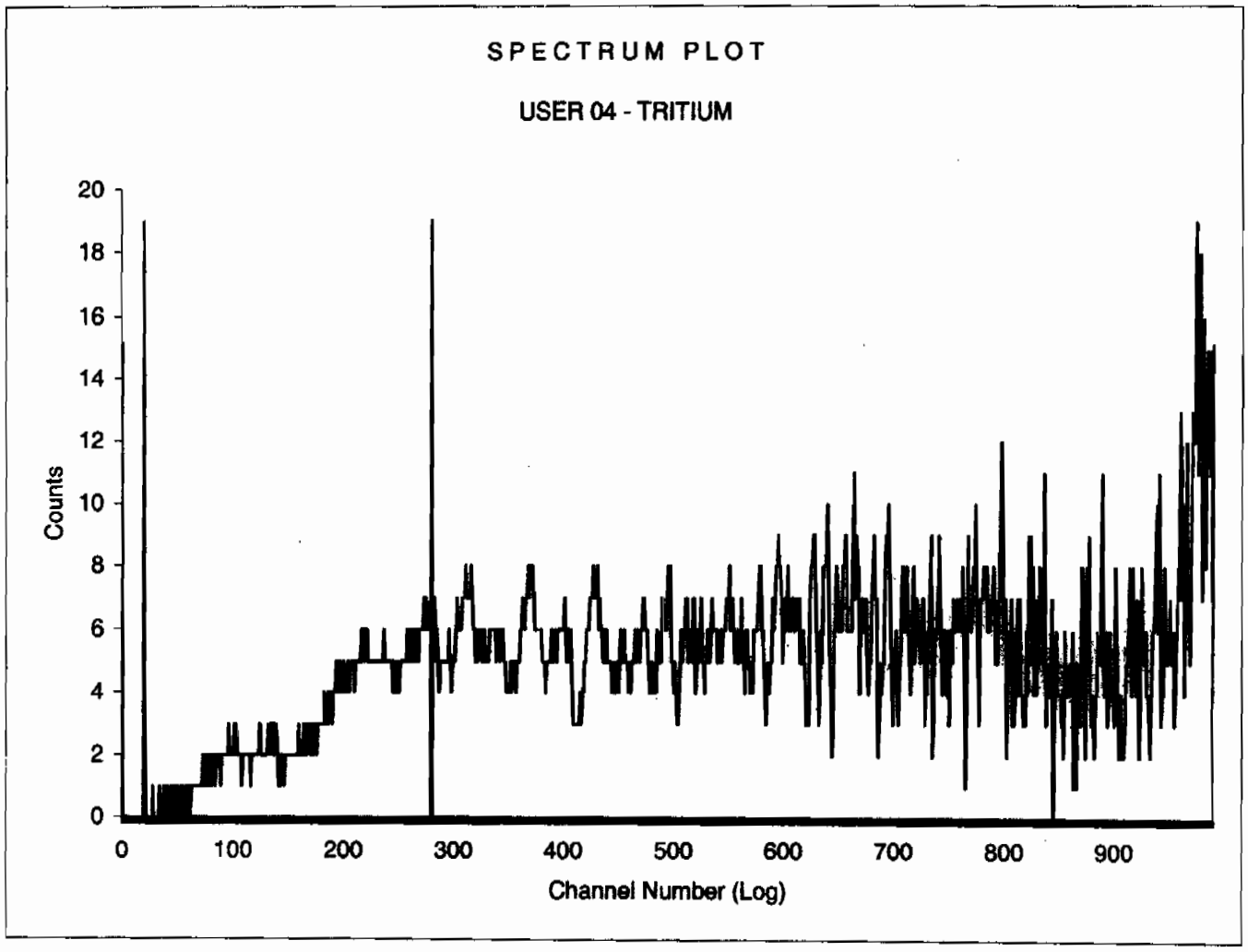

Sample Count Start Time:	9 Jan 2010 19:58:44		
Data Capture Date	09 Jan 2010 21:58:31		
User Filename	S04010922-2B.XLS		
	U04010922-1B.XLS		
Spectrum Type	Log Counts		
User Number	04		
User Id	TRITIUM		
User Comment	SILVER		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	2	22-2	120.00
H#, Total Counts:	124.8	5315	
Win1: Tritium - Start, End, Counts:	20	280	692
Win2: - Start, End, Counts:	0	990	4842

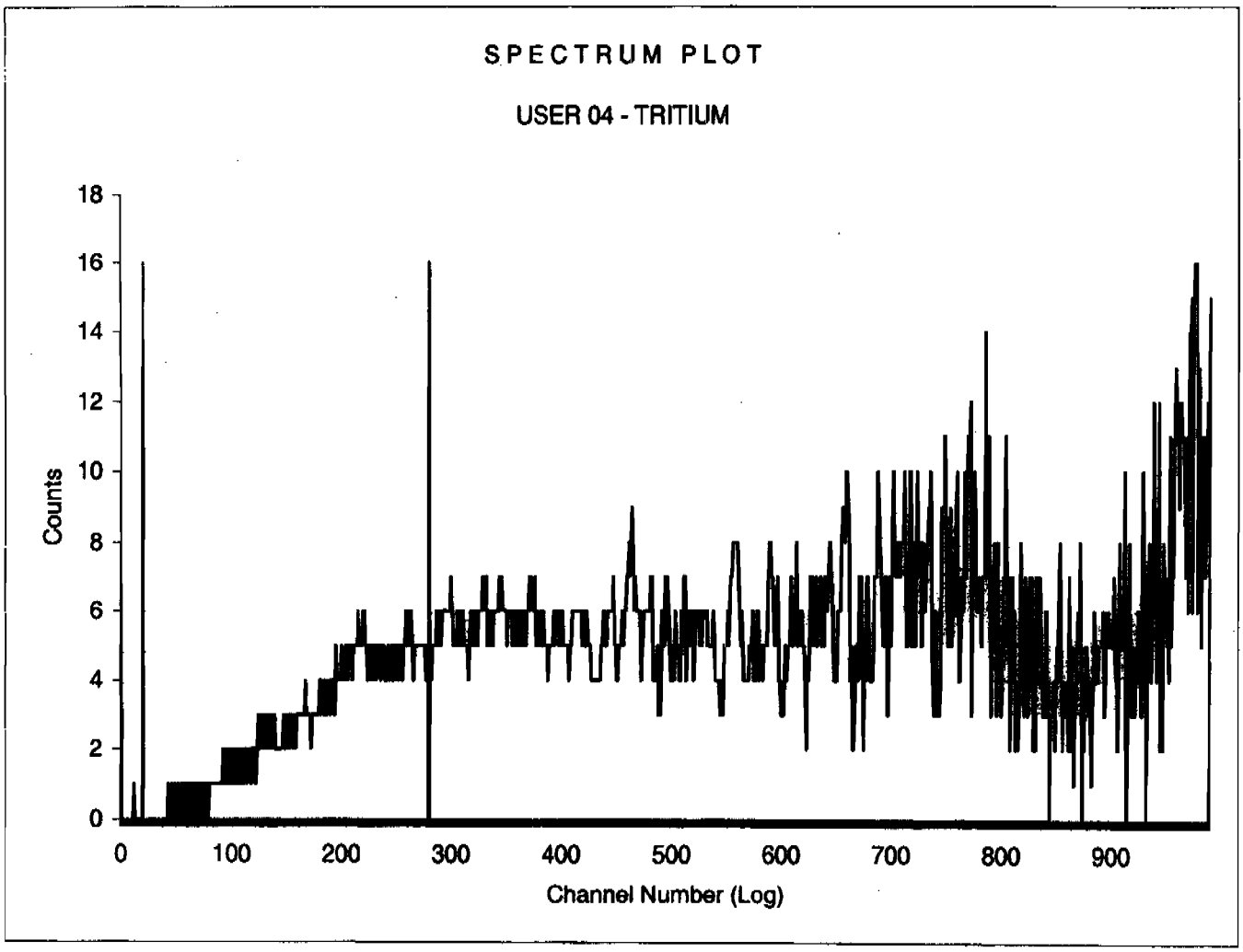

BACKGROUND AND EFFICIENCY DATA

QA filename : DKA100:[ENV_ALPHA.QA.W]W001.QAF;7
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 15-DEC-2009 14:48:34 through 5-JAN-2010 12:00:00
Lower/Upper Lmts: 0.313195 through 0.333195

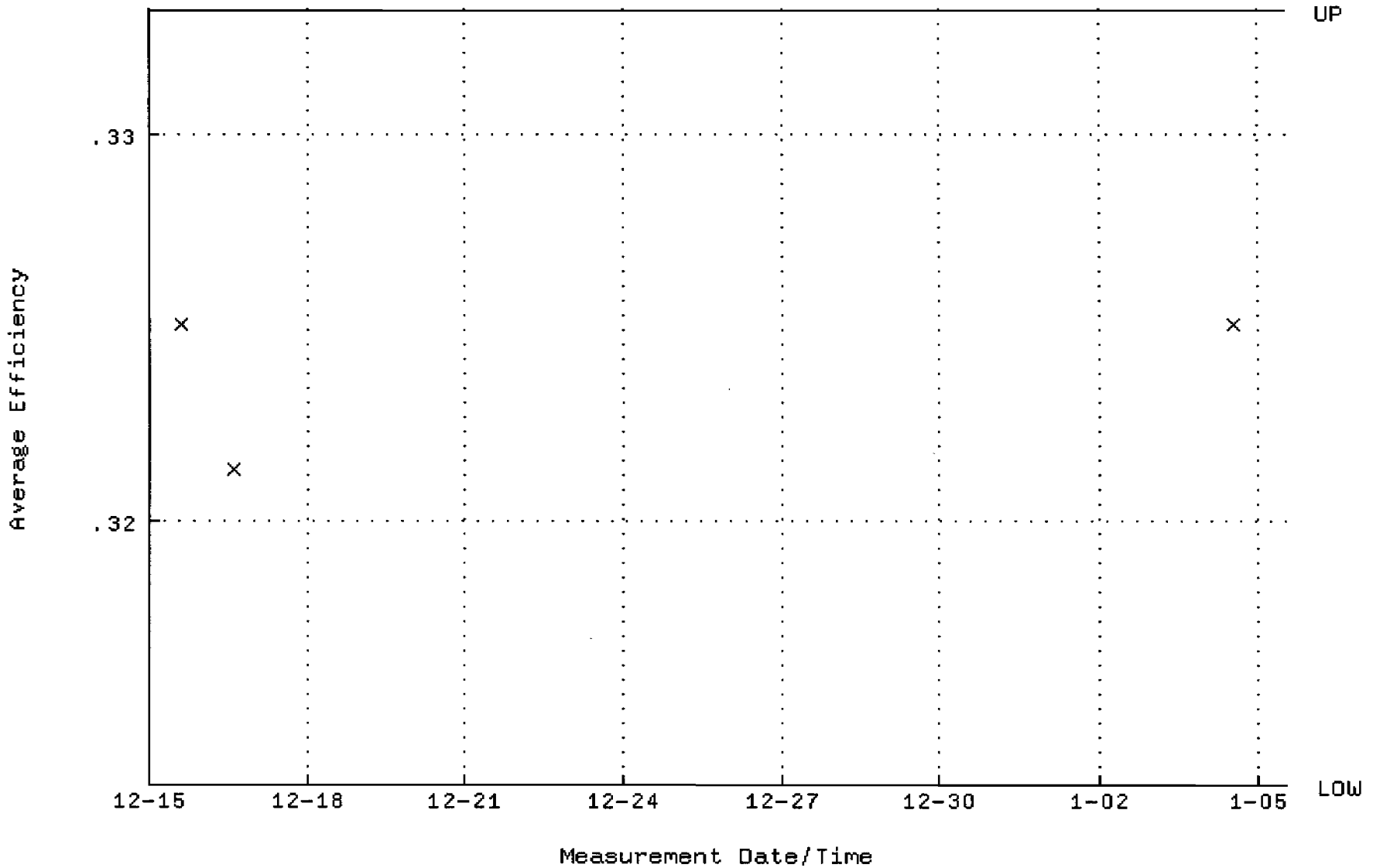

QA filename : DKA100:[ENV_ALPHA.QA.W]W001.QAF;7
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 15-DEC-2009 14:48:34 through 5-JAN-2010 12:00:00
Lower/Upper Lmts: 87.1884 through 96.3662

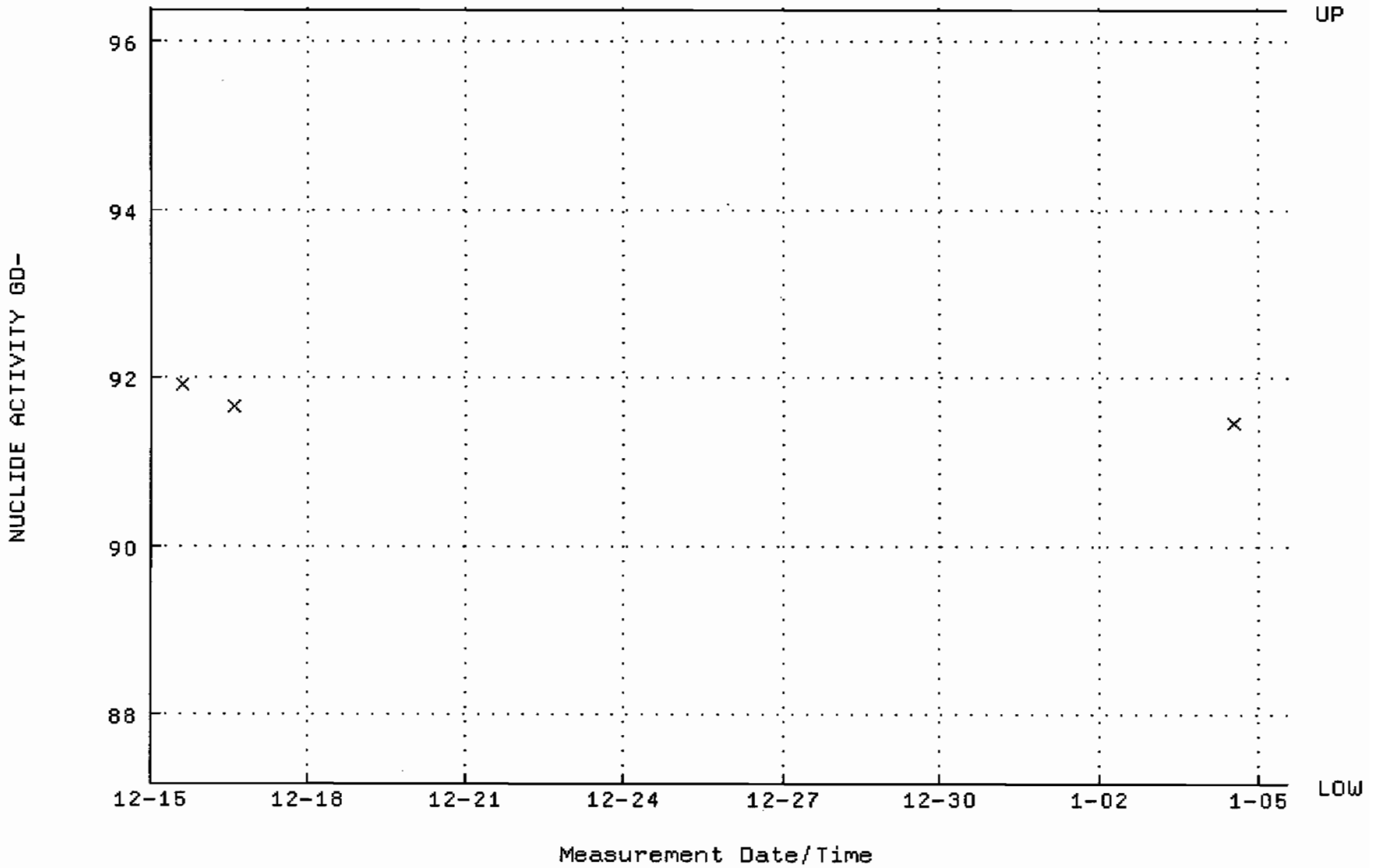

QA filename : DKA100:[ENV_ALPHA.QA.B]B001.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 5-JUL-2009 15:11:54 through 5-JAN-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

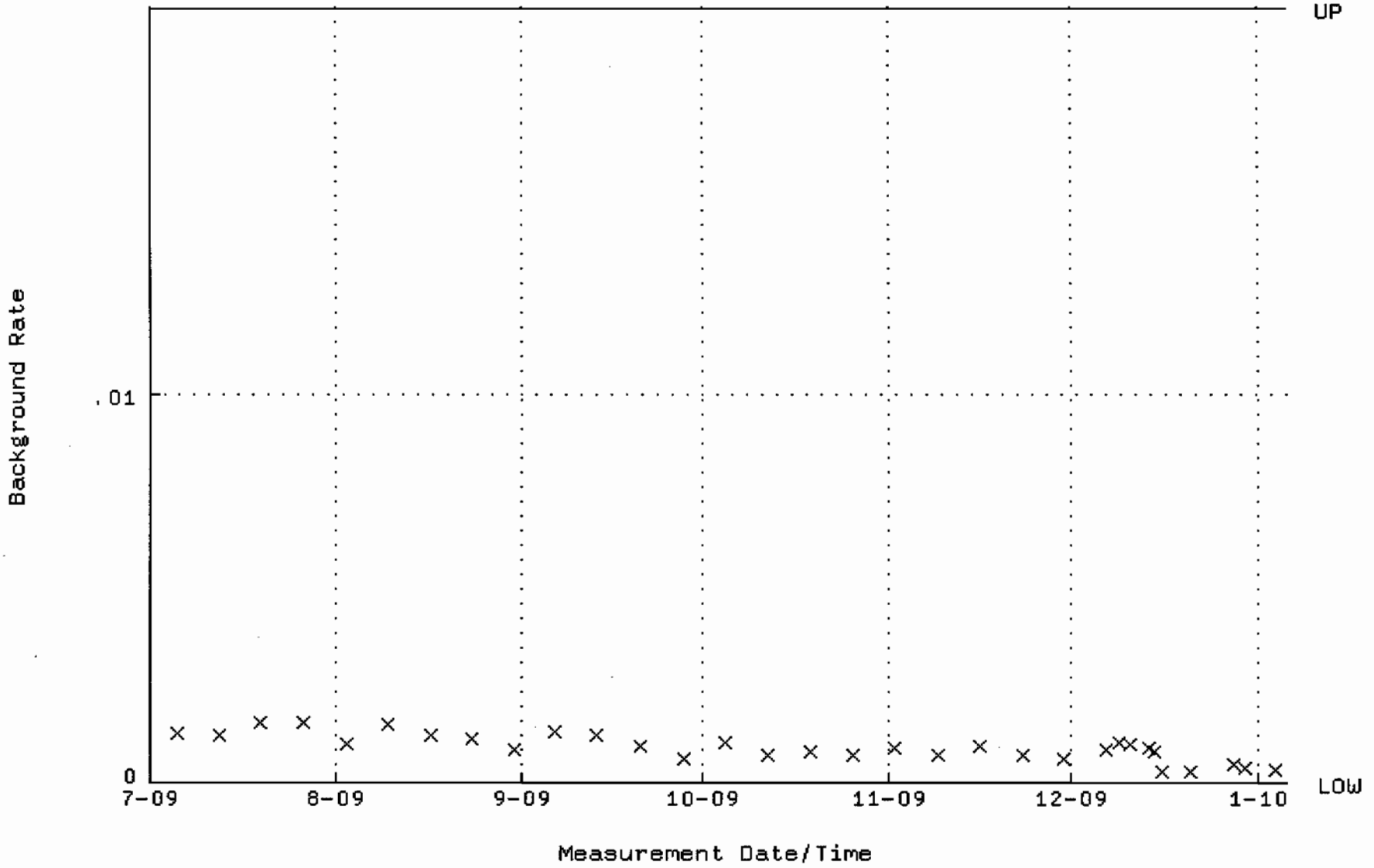

QA filename : DKA100:[ENV_ALPHA.QA.W]W002.QAF;4
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 15-DEC-2009 14:48:34 through 5-JAN-2010 12:00:00
Lower/Upper Lmts: 0.283765 through 0.303765

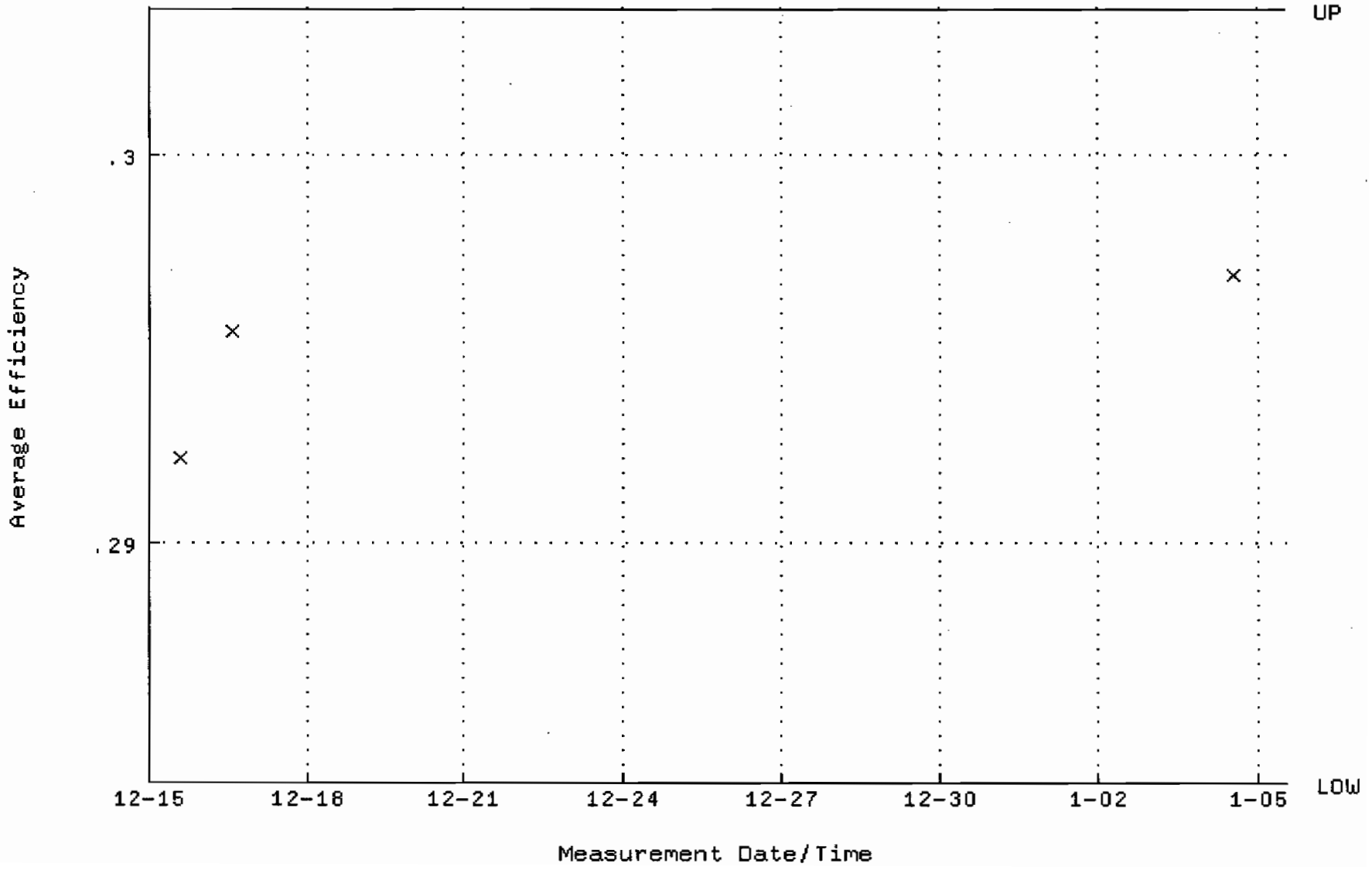

QA filename : DKA100:[ENV_ALPHA.QA.W]W002.QAF;4
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 15-DEC-2009 14:48:34 through 5-JAN-2010 12:00:00
Lower/Upper Lmts: 84.8037 through 93.7305

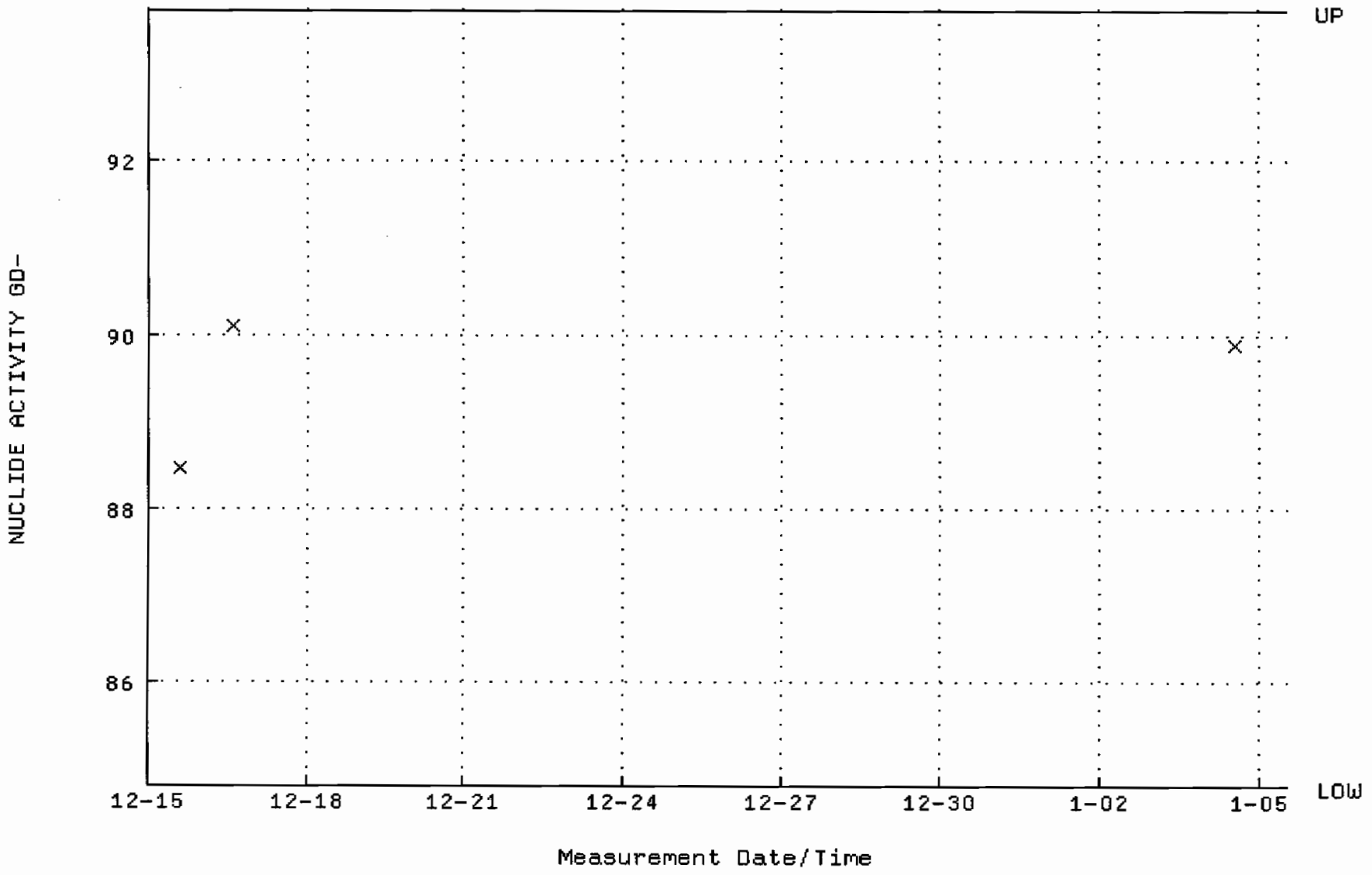

QA filename : DKA100:[ENV_ALPHA.QA.B]B002.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 5-JUL-2009 15:11:54 through 5-JAN-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

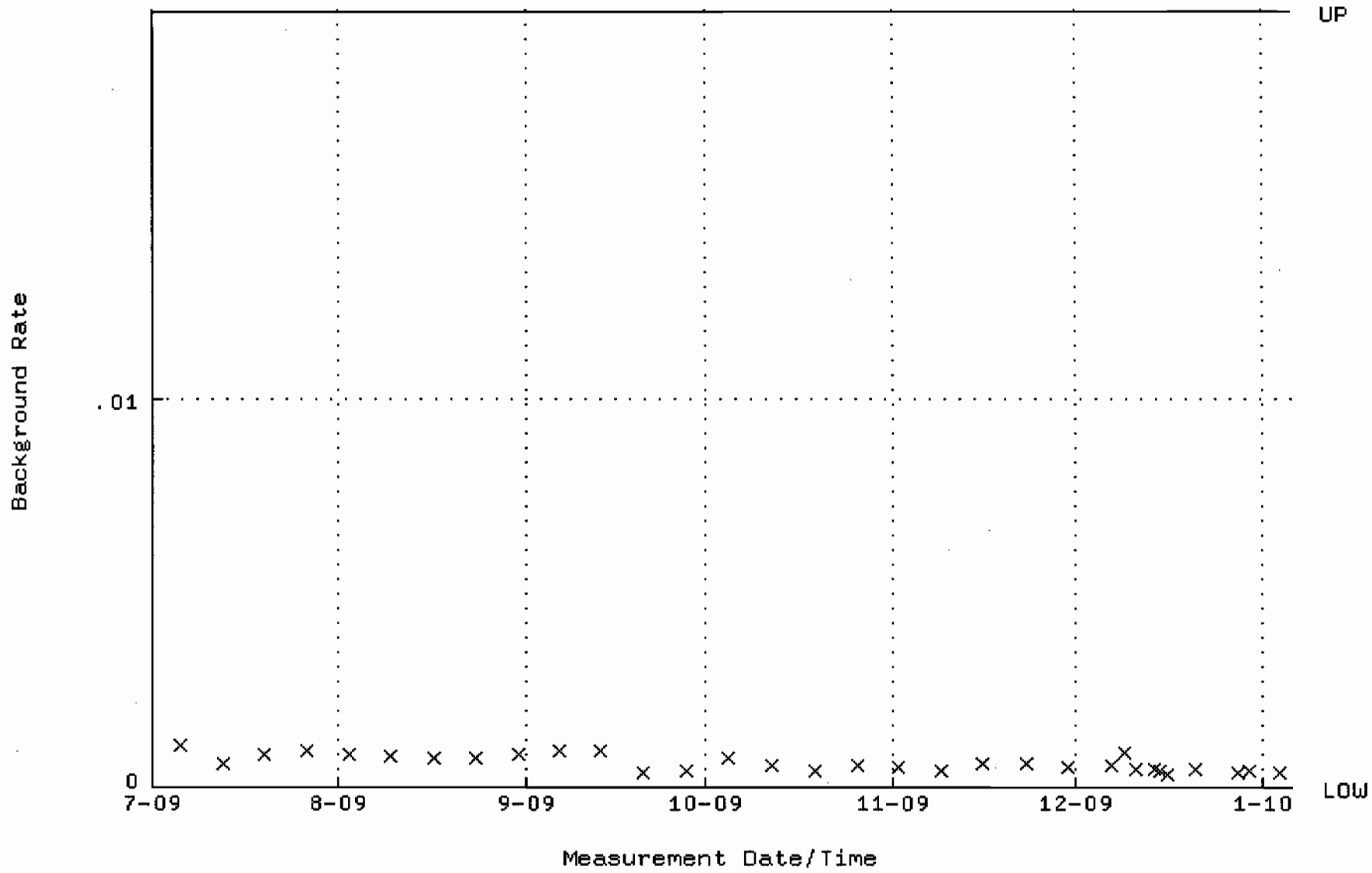

QA filename : DKA100:[ENV_ALPHA.QA.W]W003.QAF;5
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 15-DEC-2009 14:48:34 through 5-JAN-2010 12:00:00
Lower/Upper Lmts: 0.299193 through 0.319193

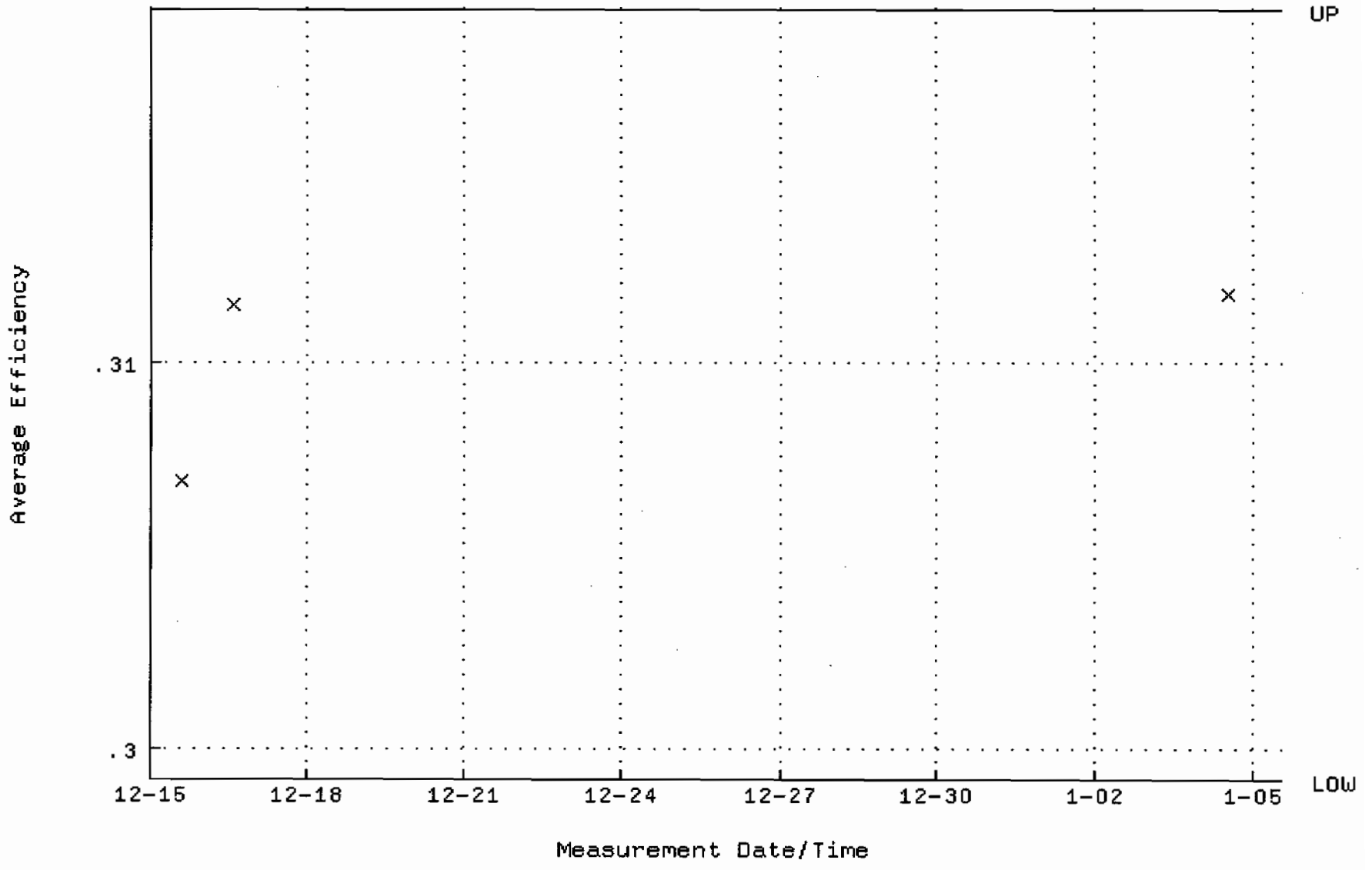

QA filename : DKA100:[ENV_ALPHA.QA.W]W003.QAF;5
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 15-DEC-2009 14:48:34 through 5-JAN-2010 12:00:00
Lower/Upper Lmts: 85.8745 through 94.9139

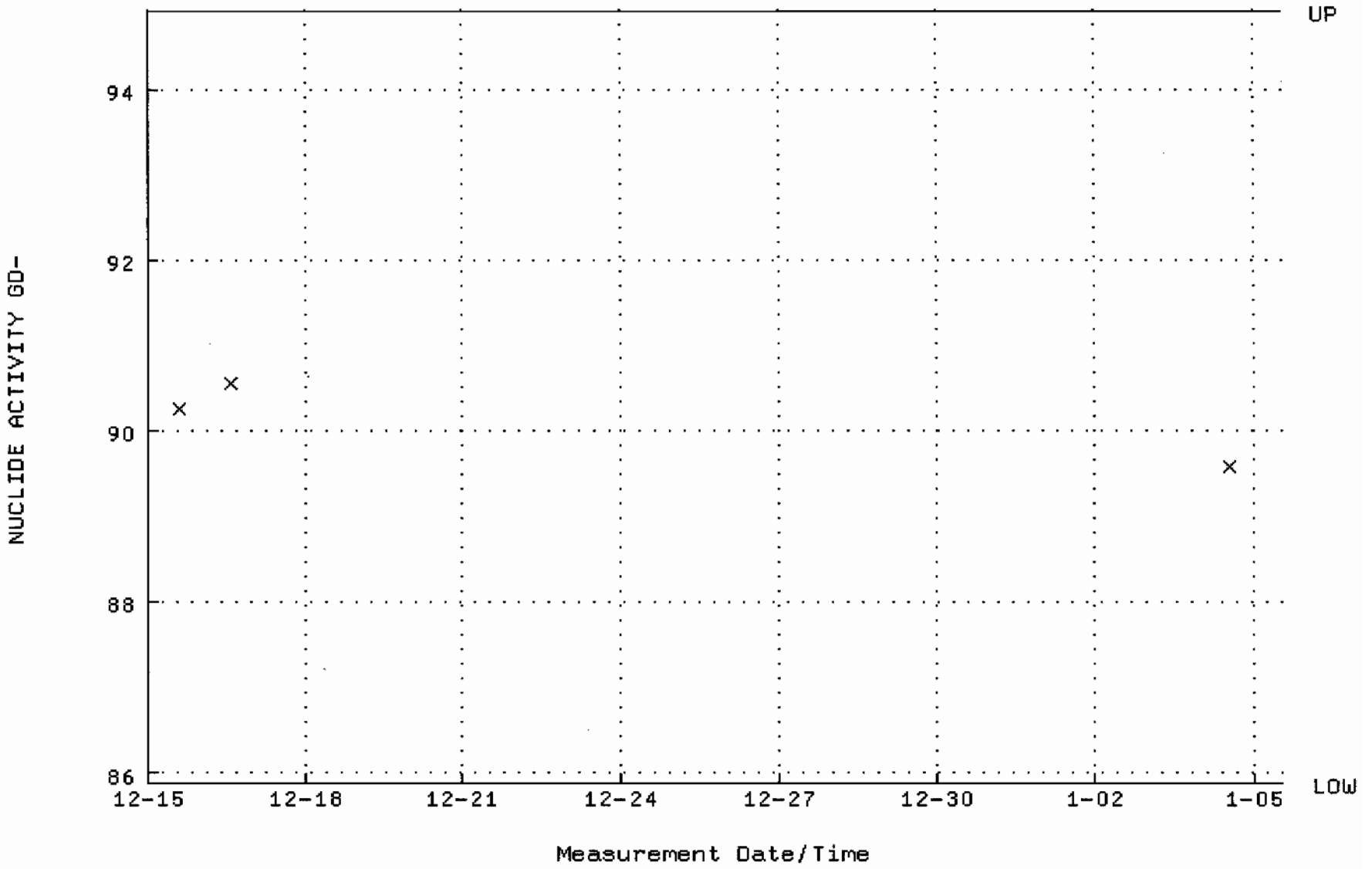

QA filename : DKA100:[ENV_ALPHA.QA.B]B003.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 5-JUL-2009 15:11:54 through 5-JAN-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

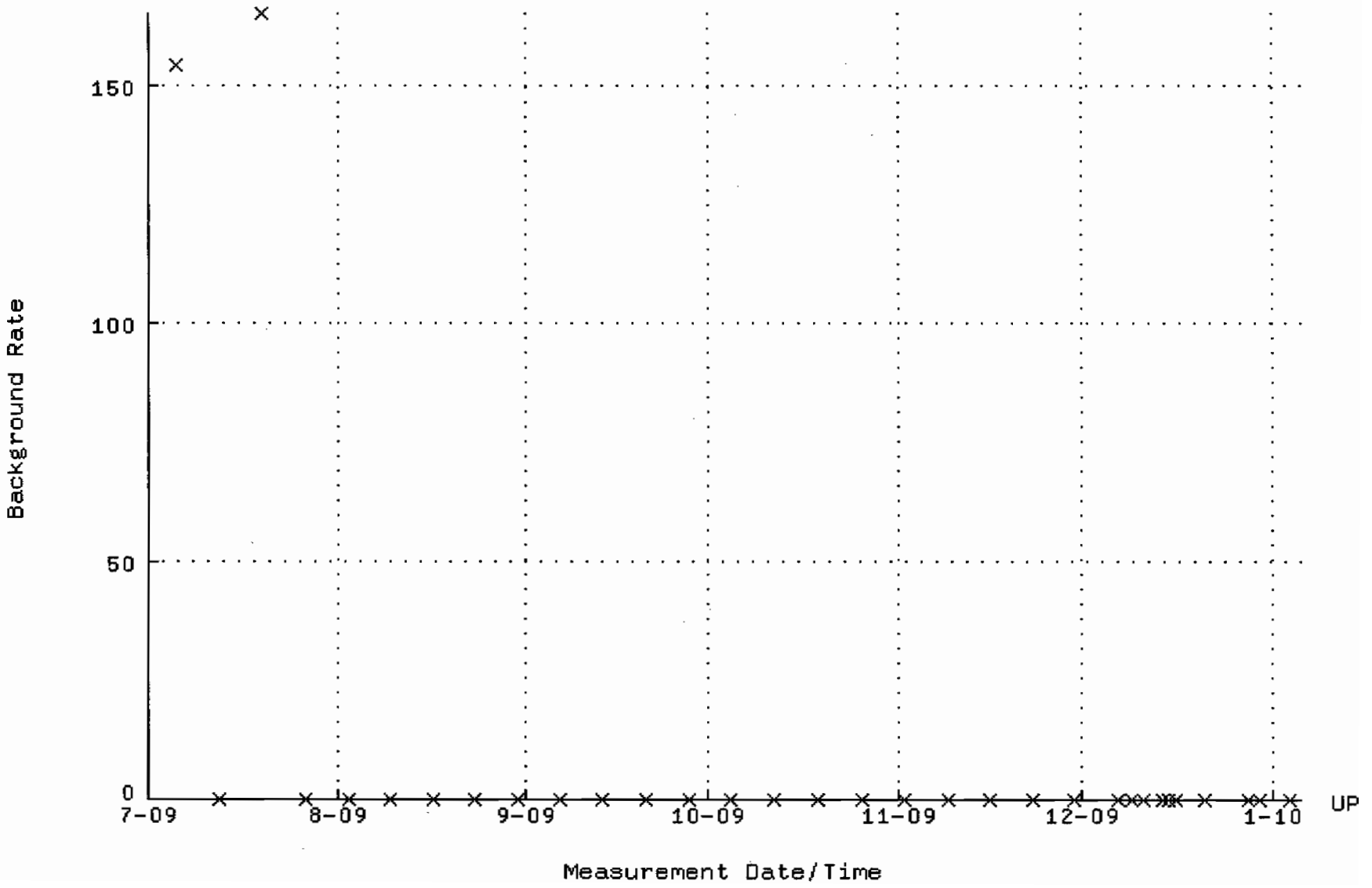

QA filename : DKA100:[ENV_ALPHA.QA.W]W004.QAF;5
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 10-DEC-2009 15:29:34 through 5-JAN-2010 12:00:00
Lower/Upper Lmts: 0.294995 through 0.314995

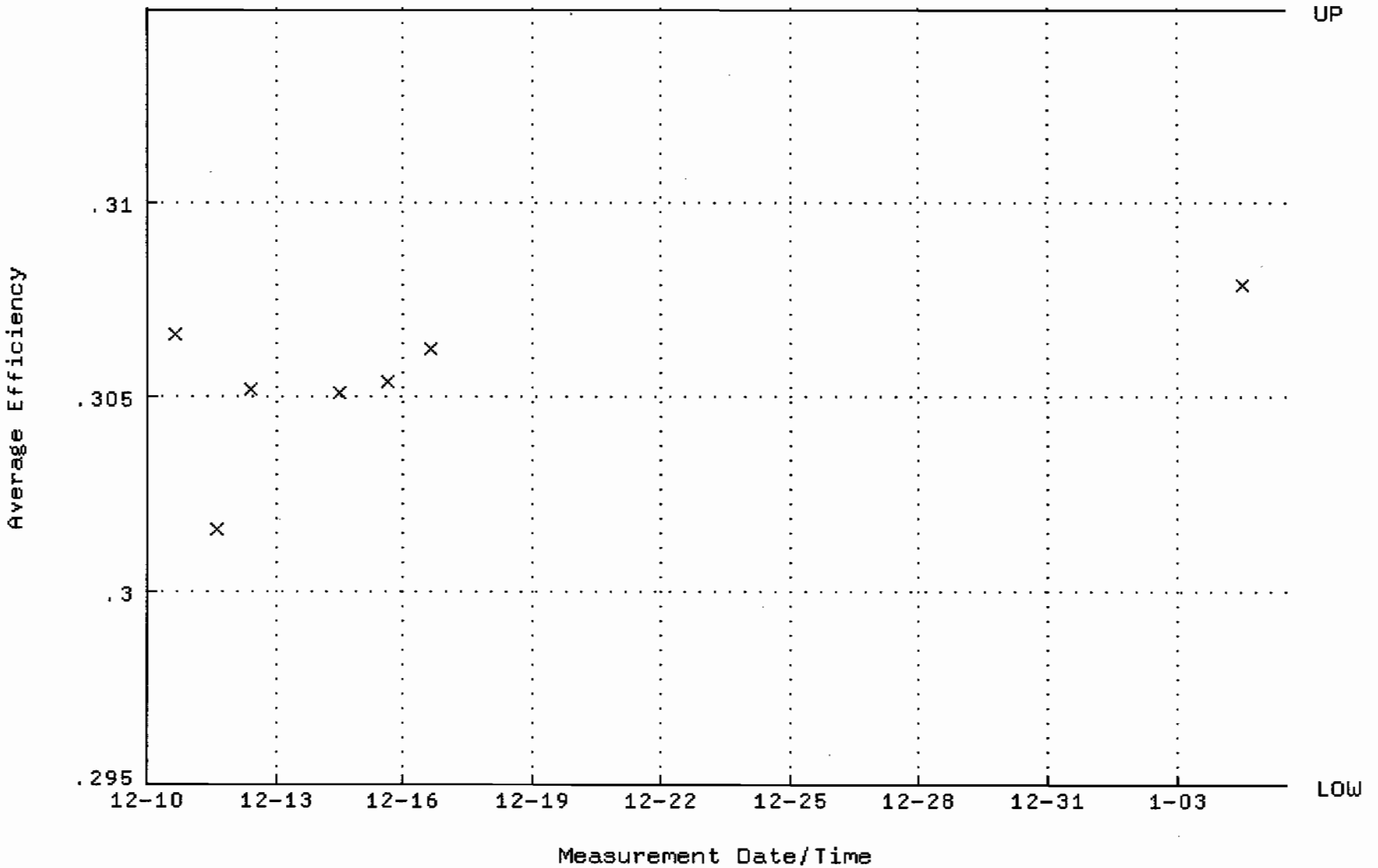

QA filename : DKA100:[ENV_ALPHA.QA.W]W004.QAF;5
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 10-DEC-2009 15:29:34 through 5-JAN-2010 12:00:00
Lower/Upper Lmts: 87.5863 through 96.8059

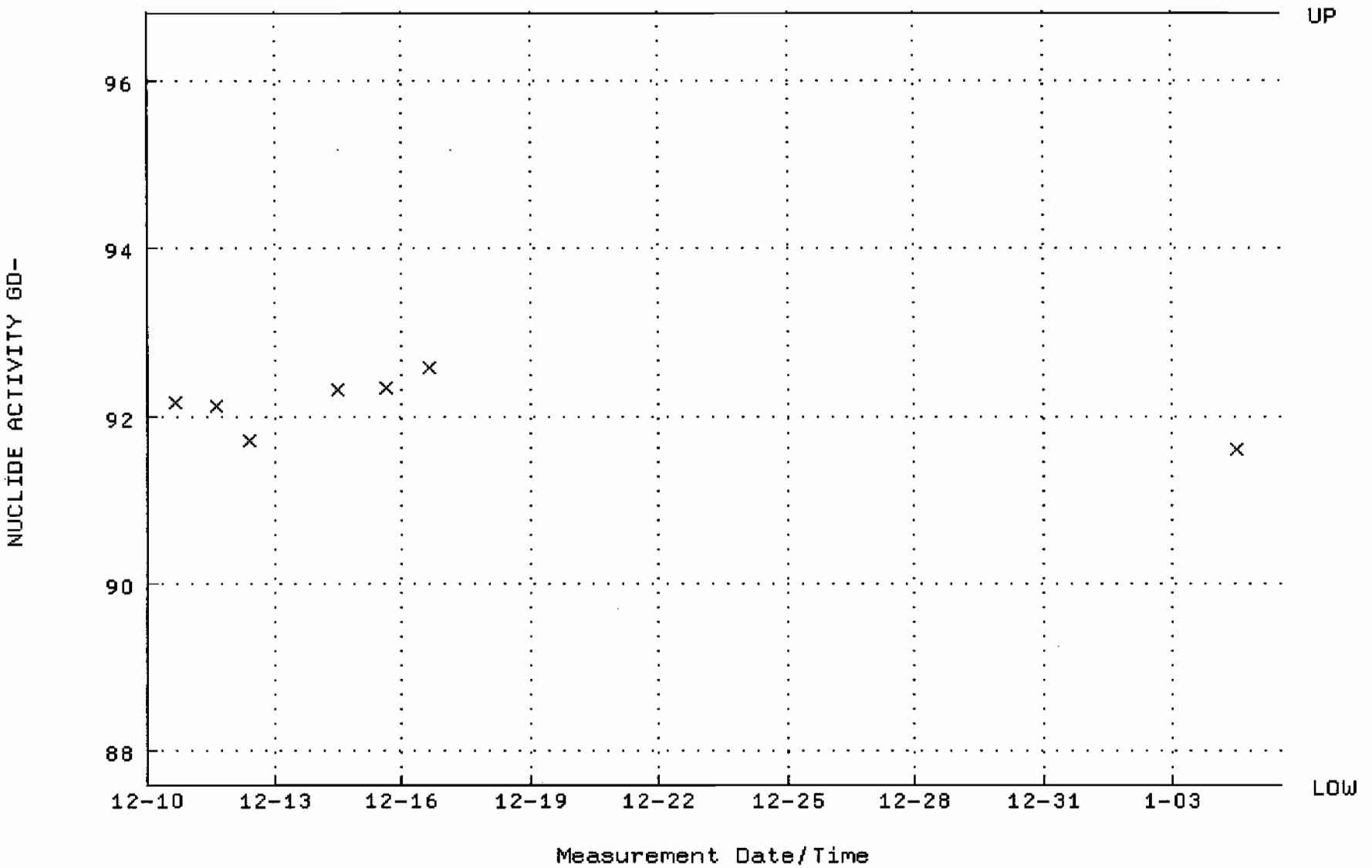

QA filename : DKA100:[ENV_ALPHA.QA.B]B004.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 5-JUL-2009 15:11:54 through 5-JAN-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

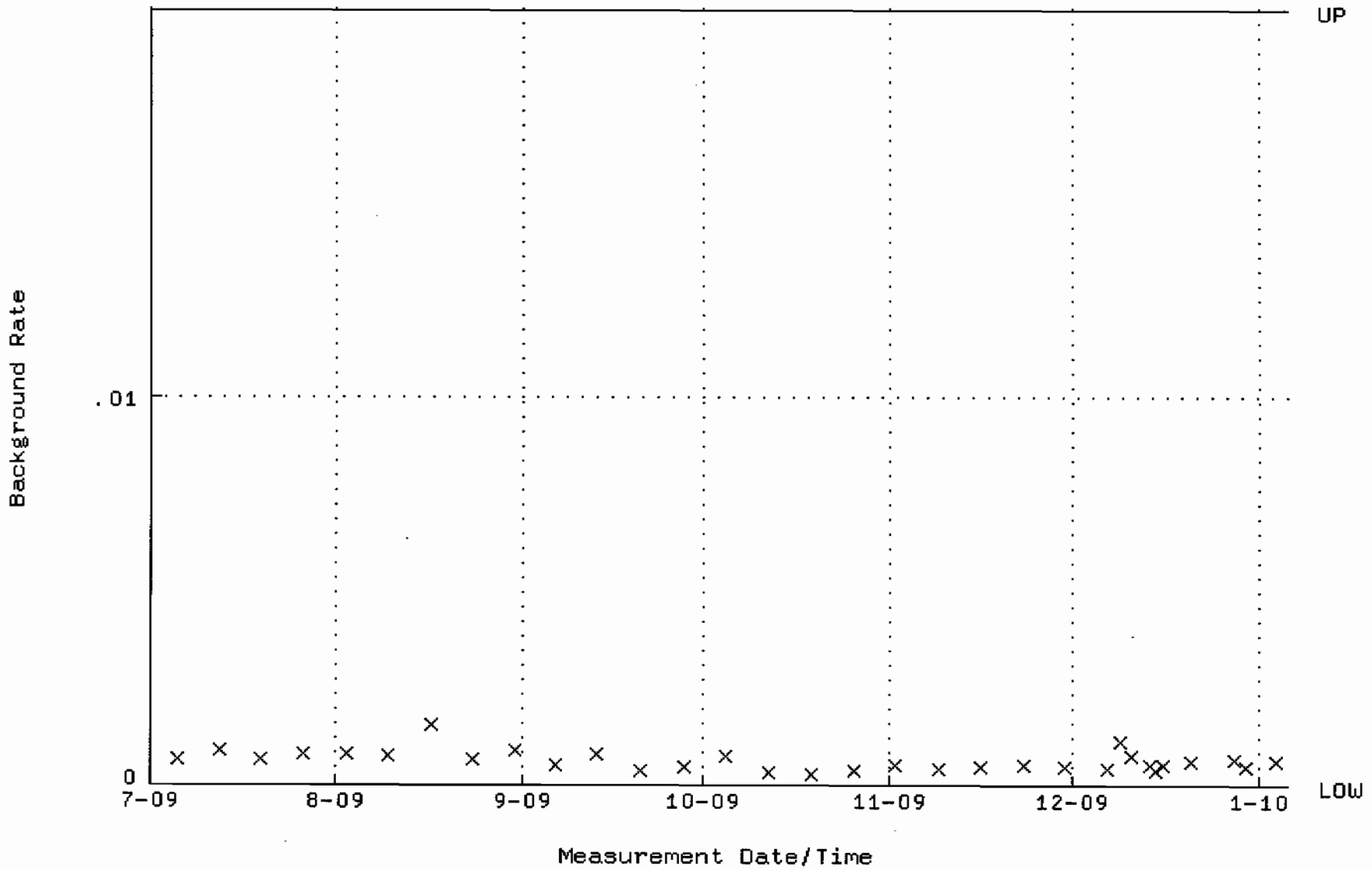

QA filename : DKA100:[ENV_ALPHA.QA.W]W013.QAF;2
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 6-JUL-2009 09:46:12 through 5-JAN-2010 12:00:00
Lower/Upper Lmts: 0.331676 through 0.351676

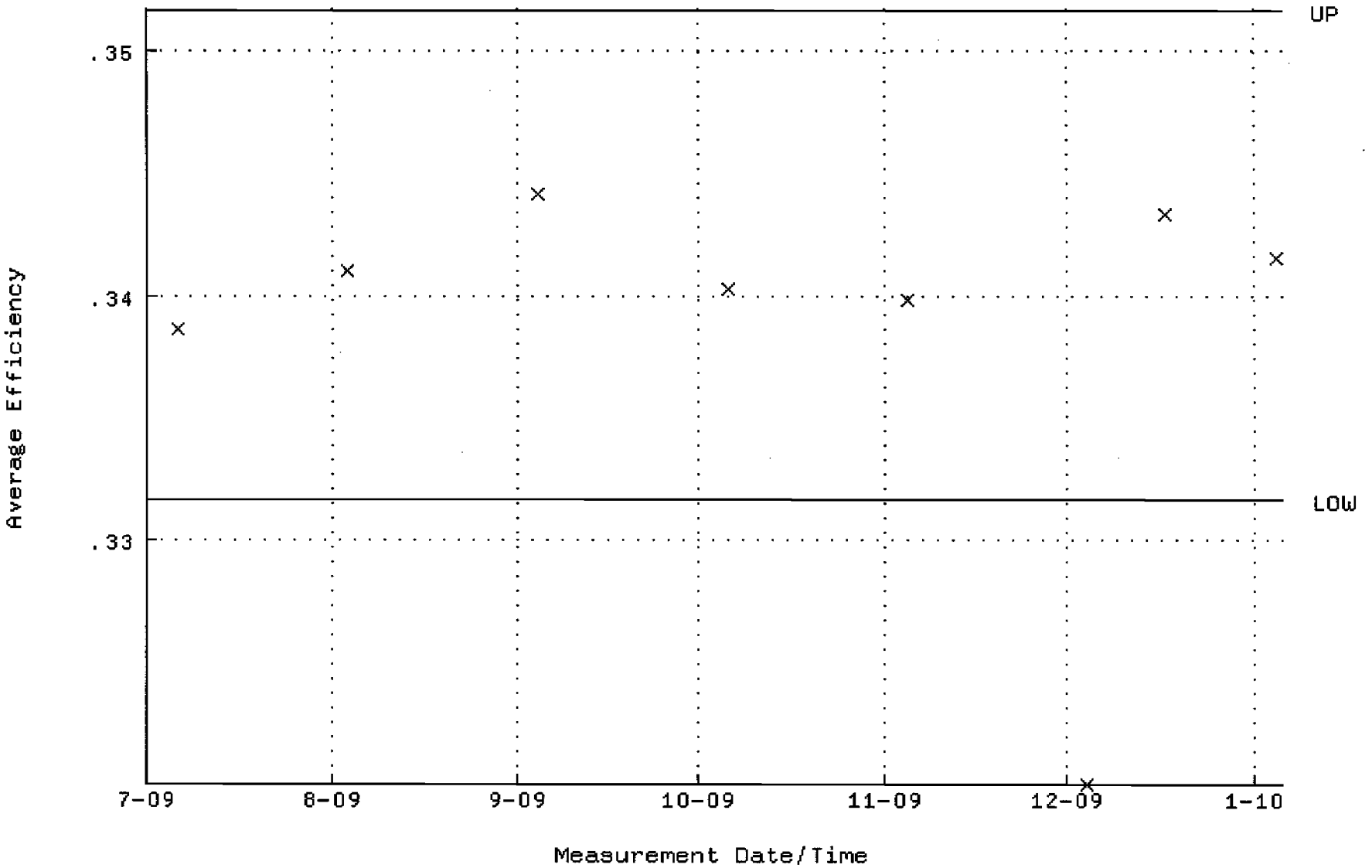

QA filename : DKA100:[ENV_ALPHA.QA.W]W013.QAF;2
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 6-JUL-2009 09:46:12 through 5-JAN-2010 12:00:00
Lower/Upper Lmts: 87.7736 through 97.0130

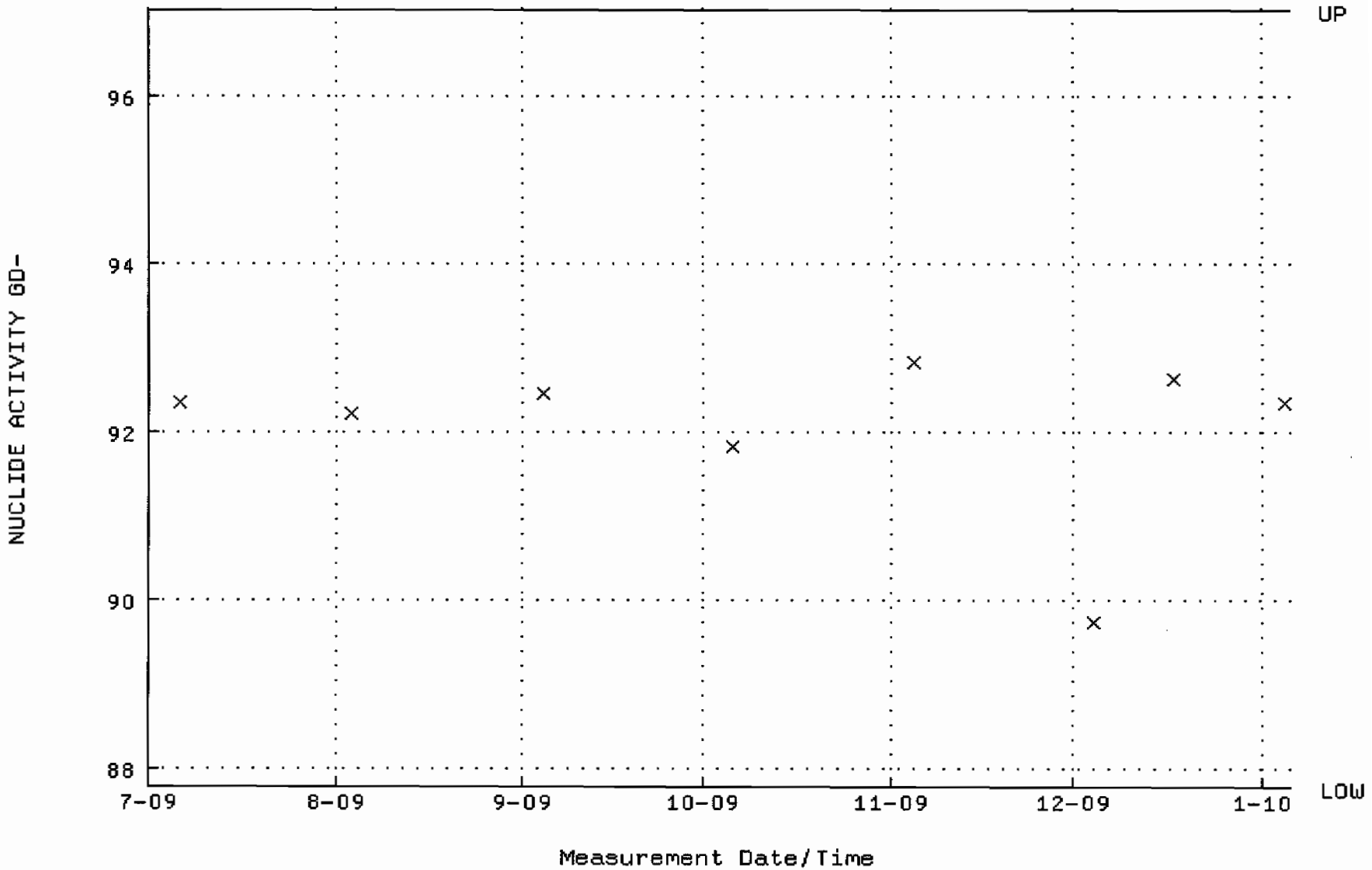

QA filename : DKA100:[ENV_ALPHA.QA.B]B013.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 5-JUL-2009 15:11:56 through 5-JAN-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

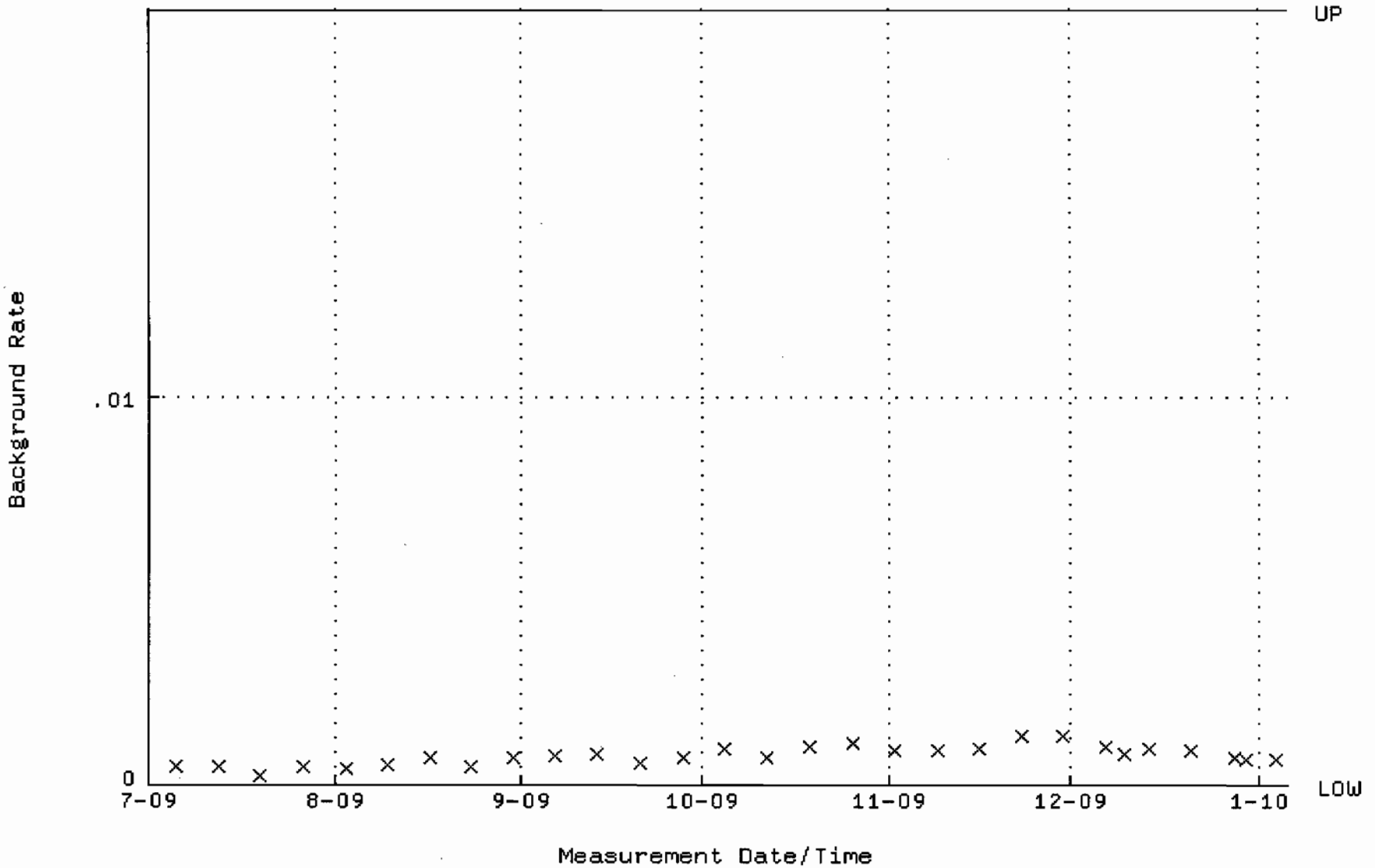

QA filename : DKA100:[ENV_ALPHA.QA.W]W014.QAF;4
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 6-JUL-2009 09:46:12 through 5-JAN-2010 12:00:00
Lower/Upper Lmts: 0.301834 through 0.321834

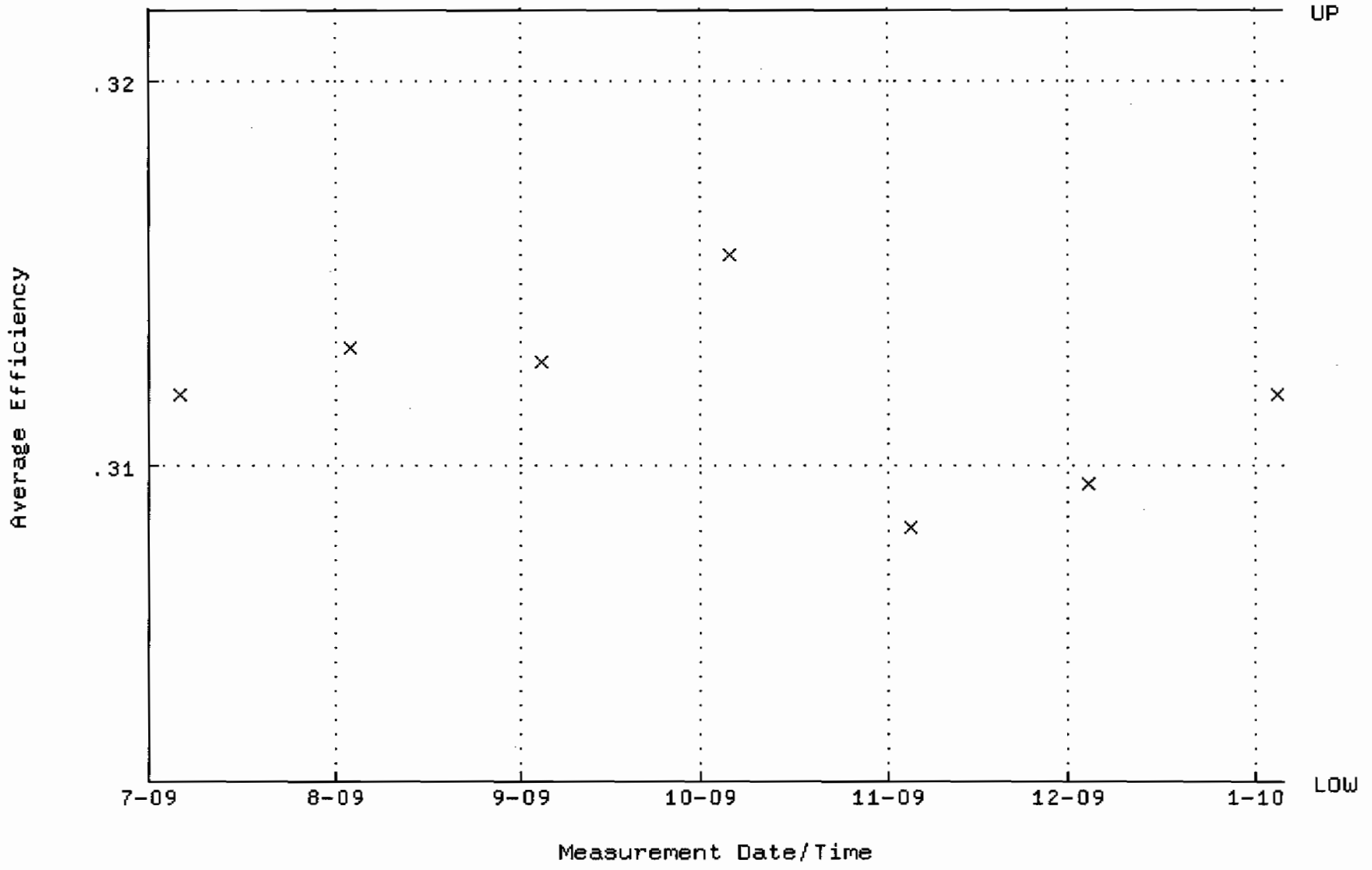

QA filename : DKA100:[ENV_ALPHA.QA.W]W014.QAF;4
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 6-JUL-2009 09:46:12 through 5-JAN-2010 12:00:00
Lower/Upper Lmts: 89.9790 through 99.4504

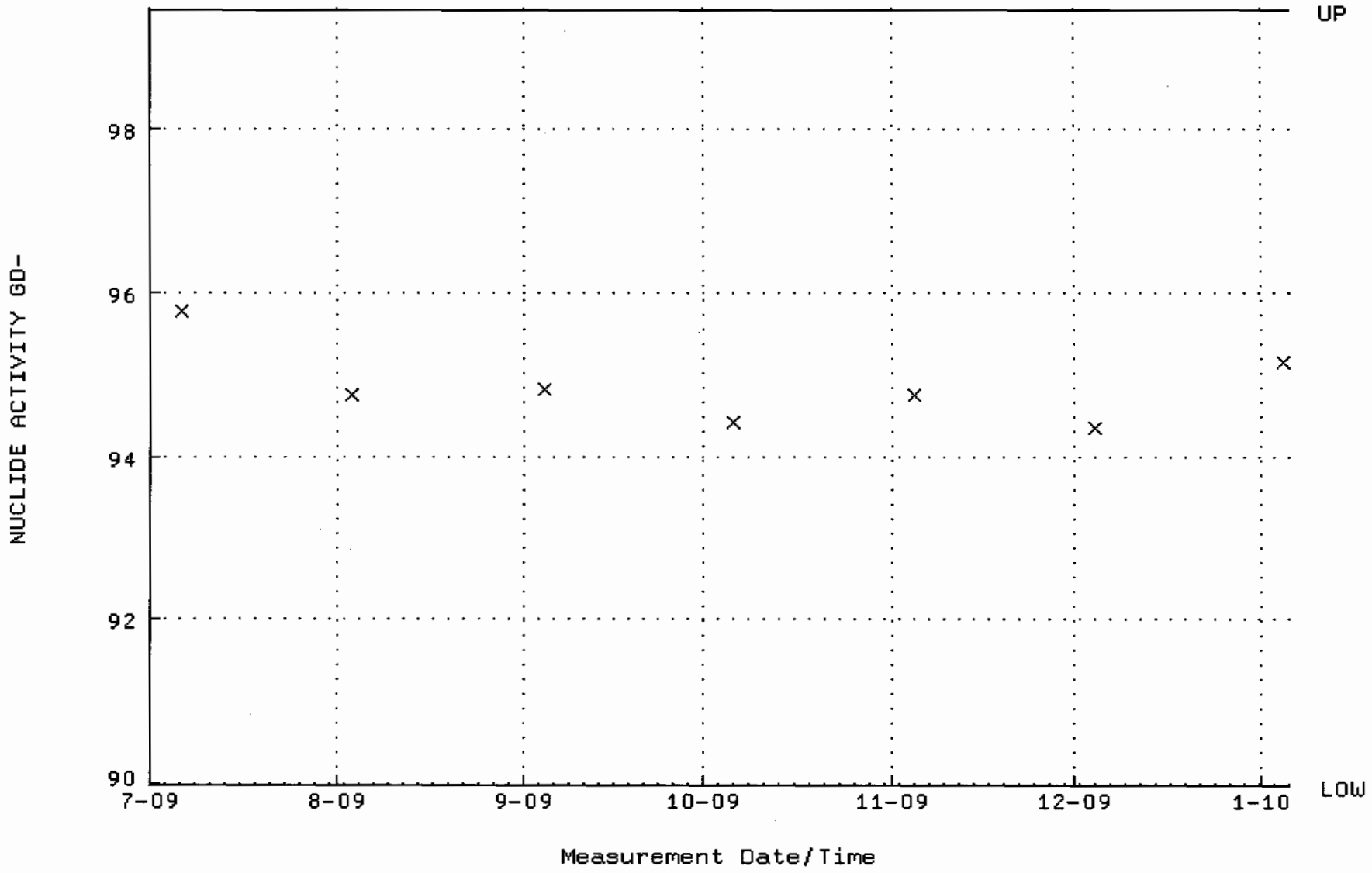

QA filename : DKA100:[ENV_ALPHA.QA.B]B014.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 5-JUL-2009 15:11:56 through 5-JAN-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

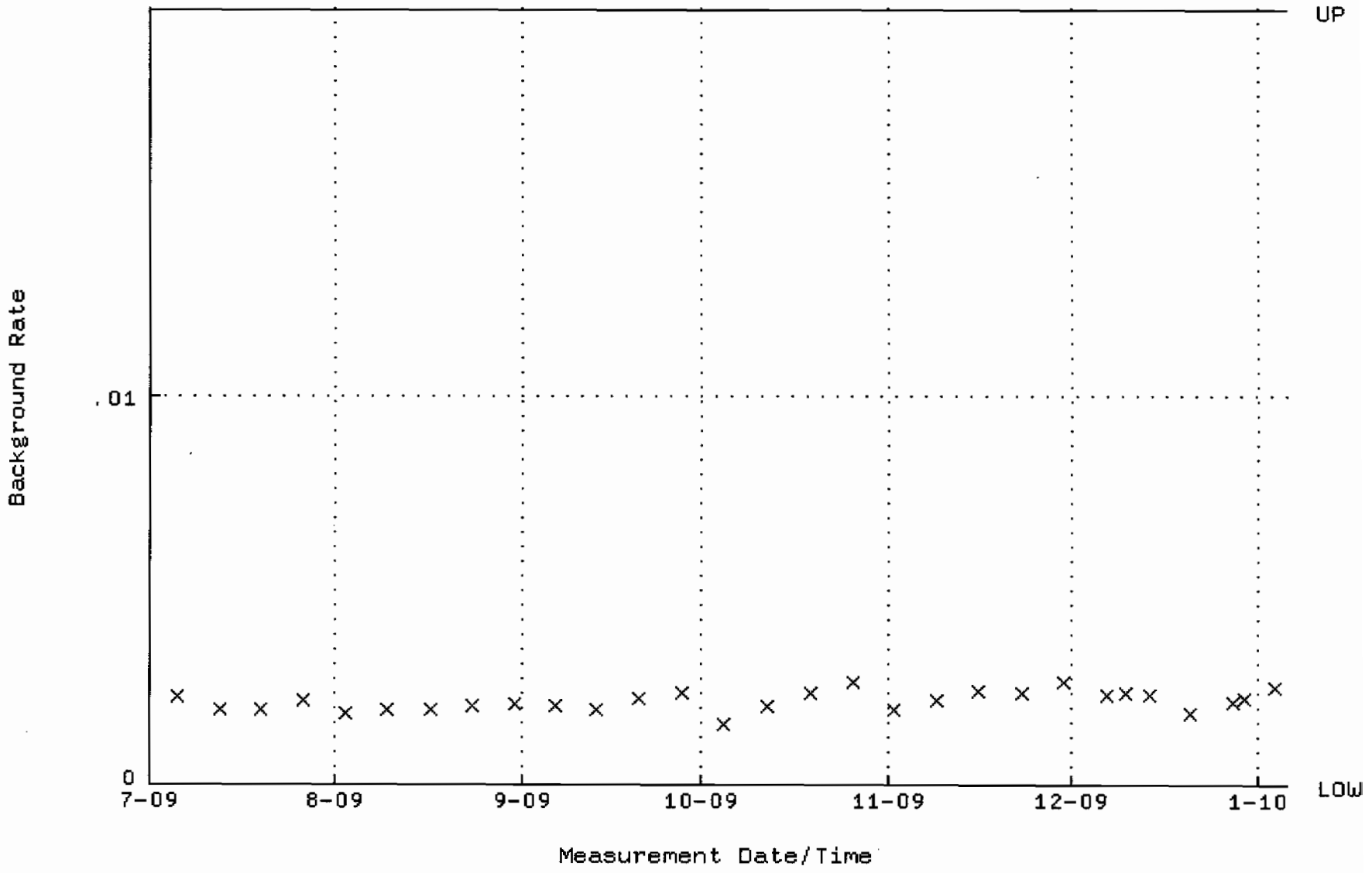

QA filename : DKA100:[ENV_ALPHA.QA.W]W016.QAF;3
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 6-JUL-2009 09:46:12 through 5-JAN-2010 12:00:00
Lower/Upper Lmts: 0.326058 through 0.346058

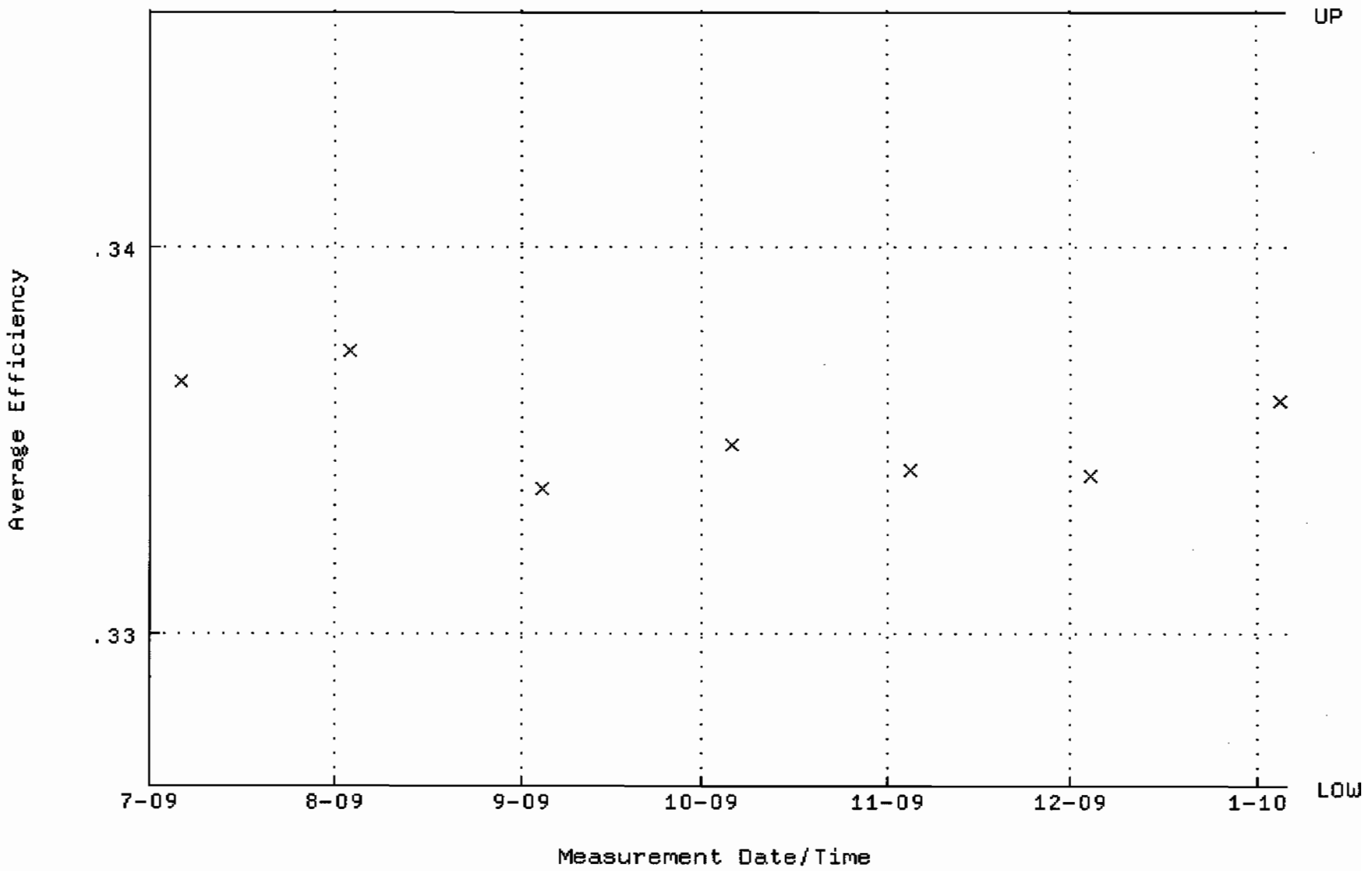

QA filename : DKA100:[ENV_ALPHA.QA.W]W016.QAF;3
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 6-JUL-2009 09:46:12 through 5-JAN-2010 12:00:00
Lower/Upper Lmts: 85.9280 through 94.9730

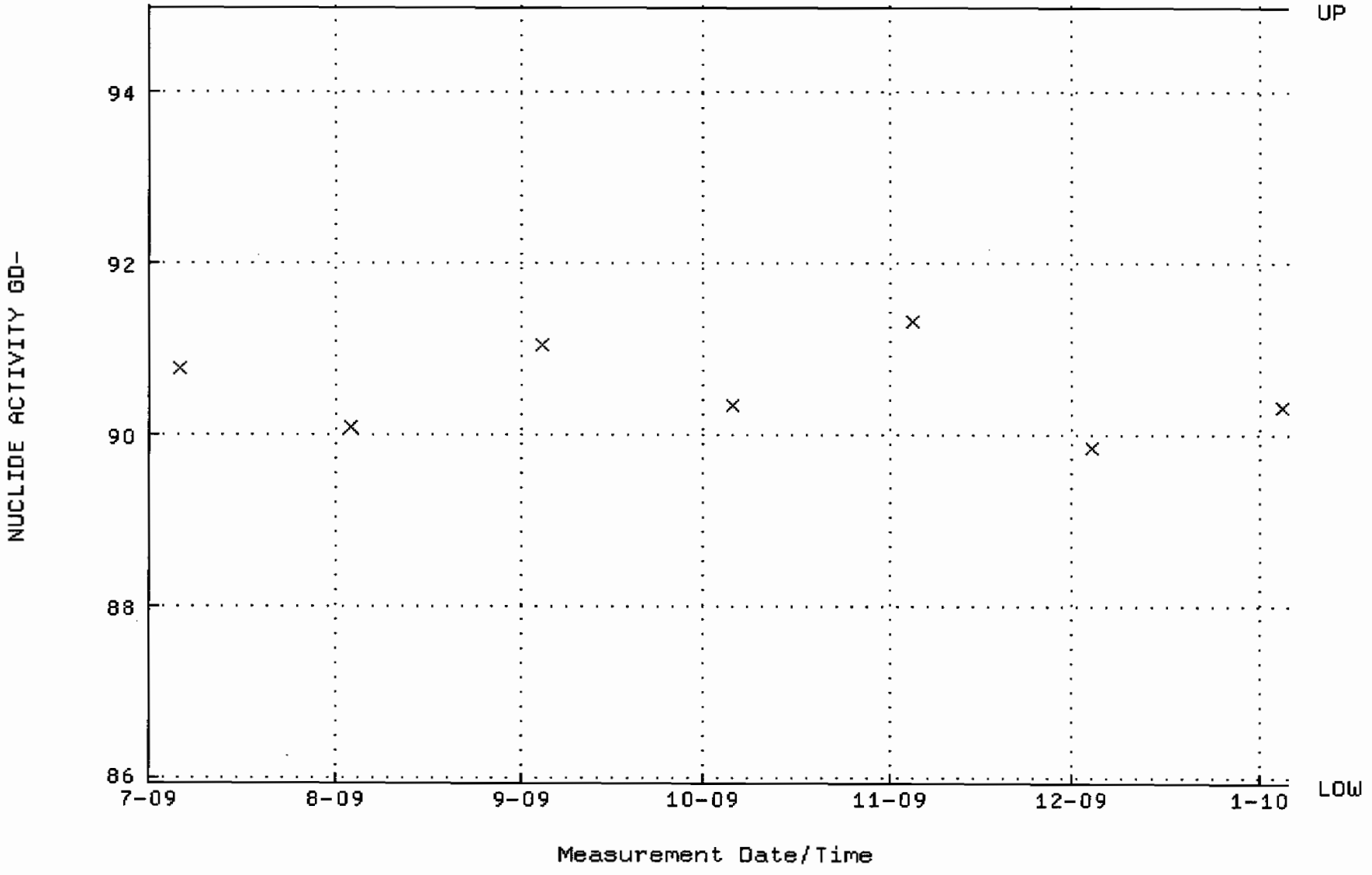

QA filename : DKA100:[ENV_ALPHA.QA.B]B016.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 5-JUL-2009 15:11:56 through 5-JAN-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

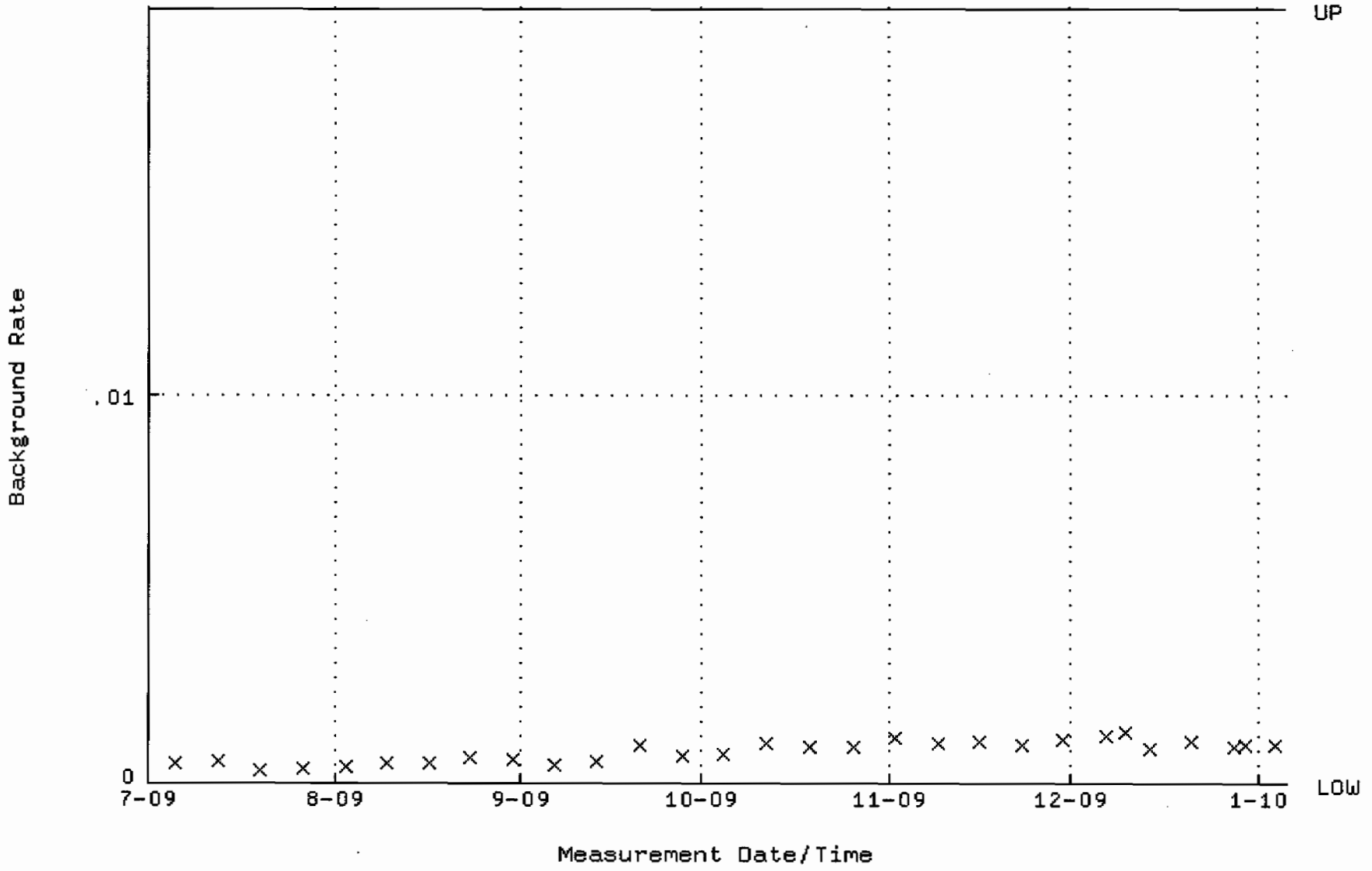

QA filename : DKA100:[ENV_ALPHA.QA.W]W044.QAF;5
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 2-JUL-2009 15:04:12 through 5-JAN-2010 12:00:00
Lower/Upper Lmts: 0.336958 through 0.361648

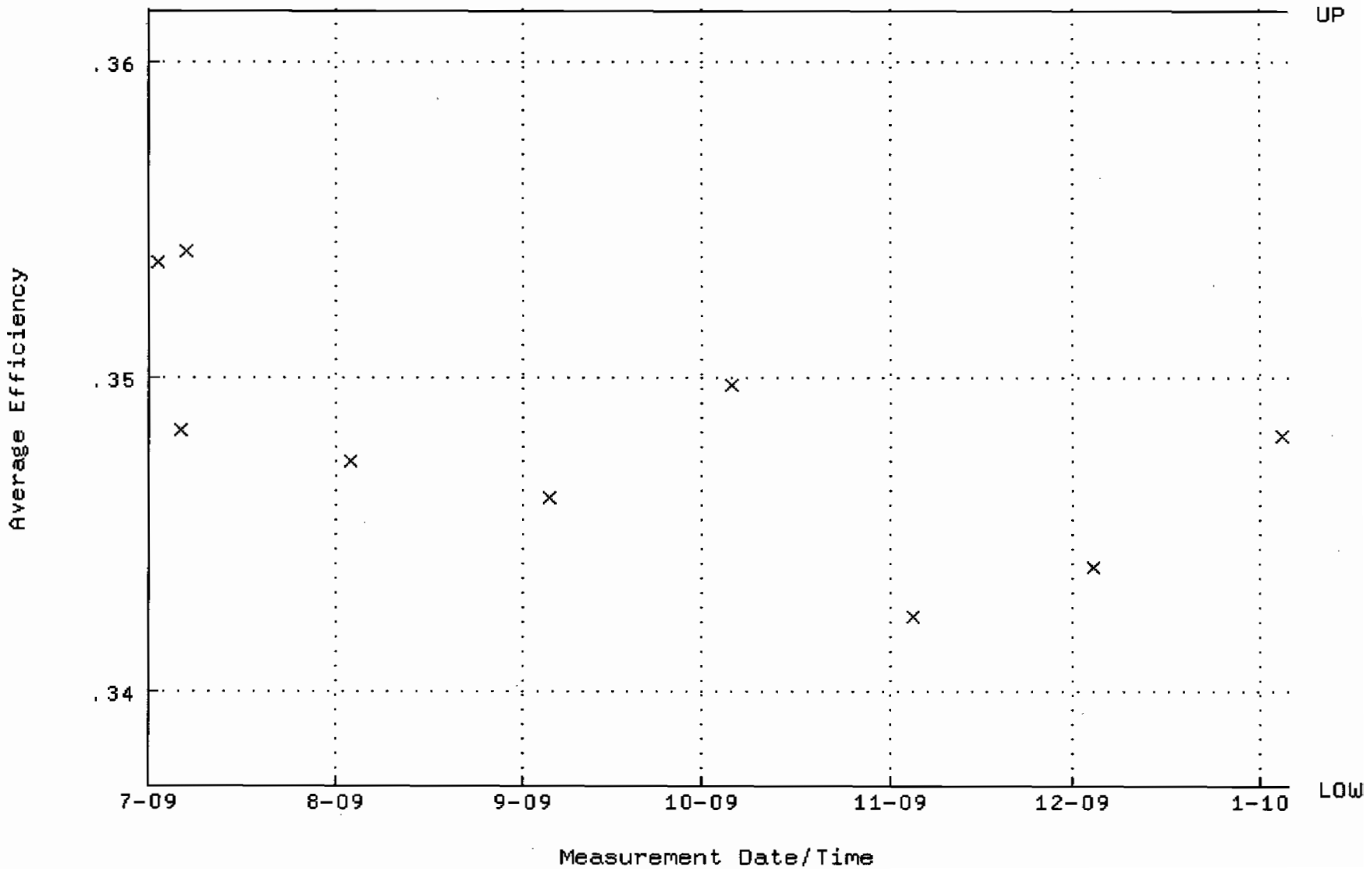

QA filename : DKA100:[ENV_ALPHA.QA.W]W044.QAF;5
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 2-JUL-2009 15:04:12 through 5-JAN-2010 12:00:00
Lower/Upper Lmts: 86.0137 through 89.8023

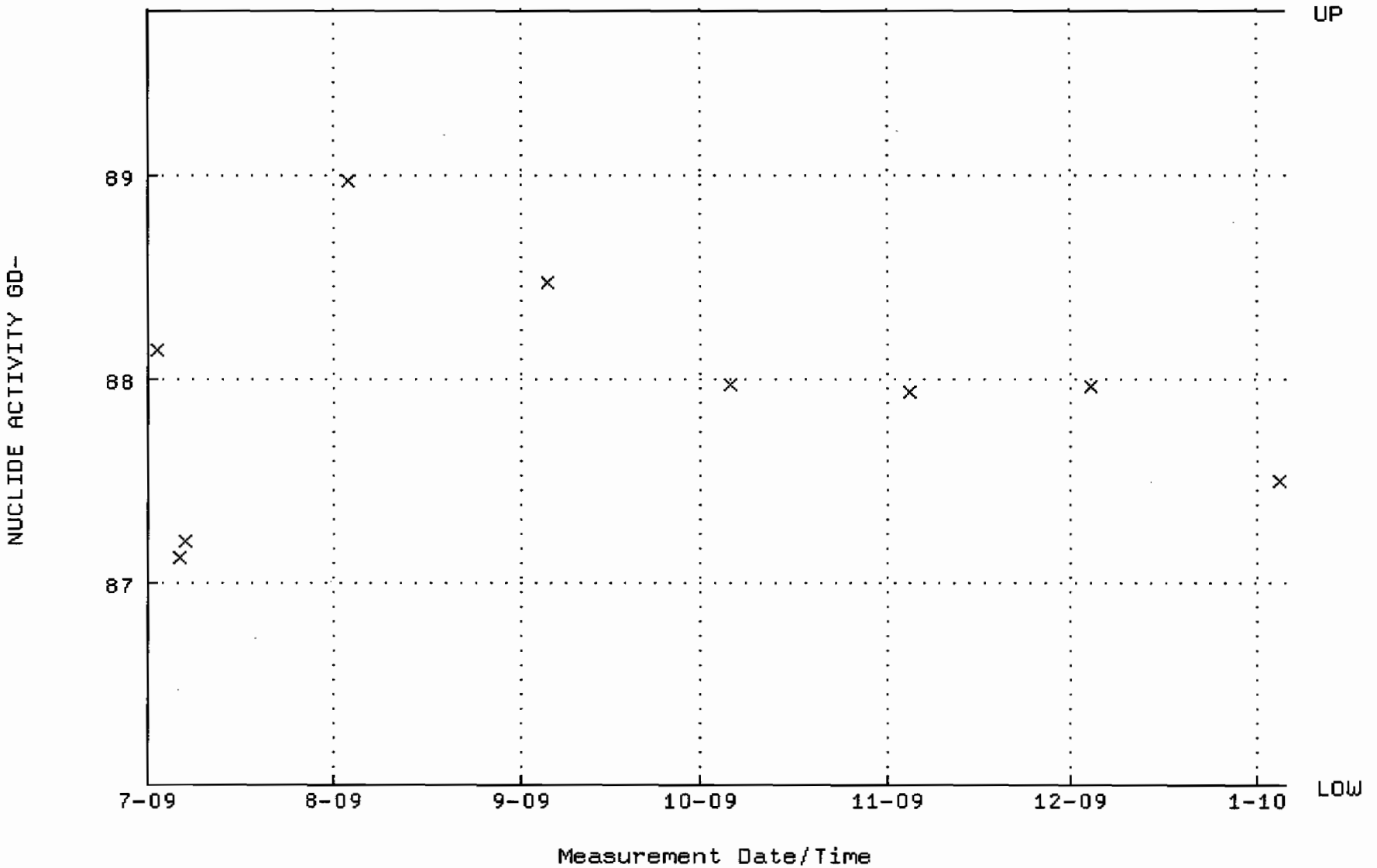

QA filename : DKA100:[ENV_ALPHA.QA.B]B044.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 1-JUL-2009 21:39:56 through 5-JAN-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

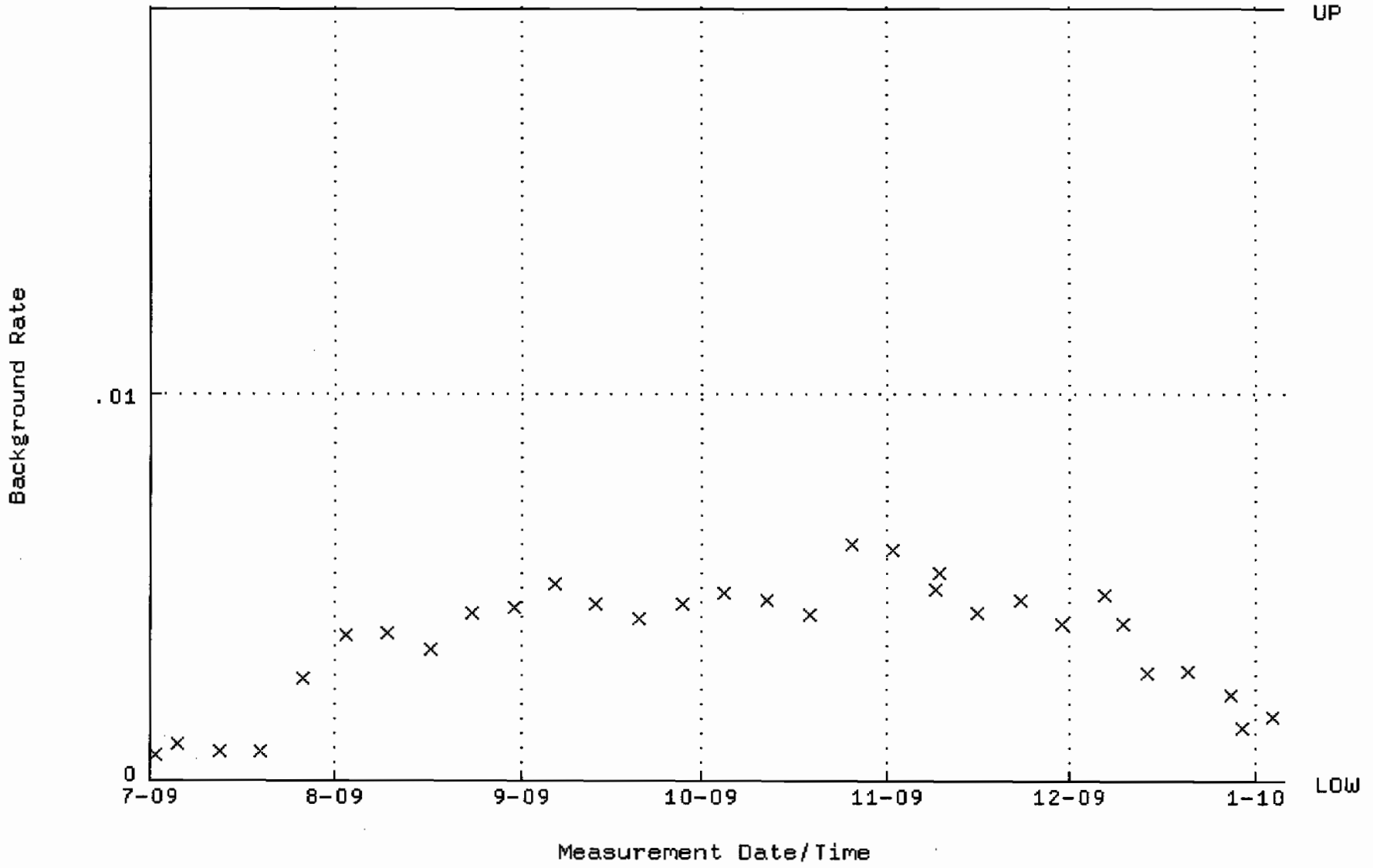

QA filename : DKA100:[ENV_ALPHA.QA.W]W045.QAF;5
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 6-JUL-2009 09:46:17 through 5-JAN-2010 12:00:00
Lower/Upper Lmts: 0.332472 through 0.352472

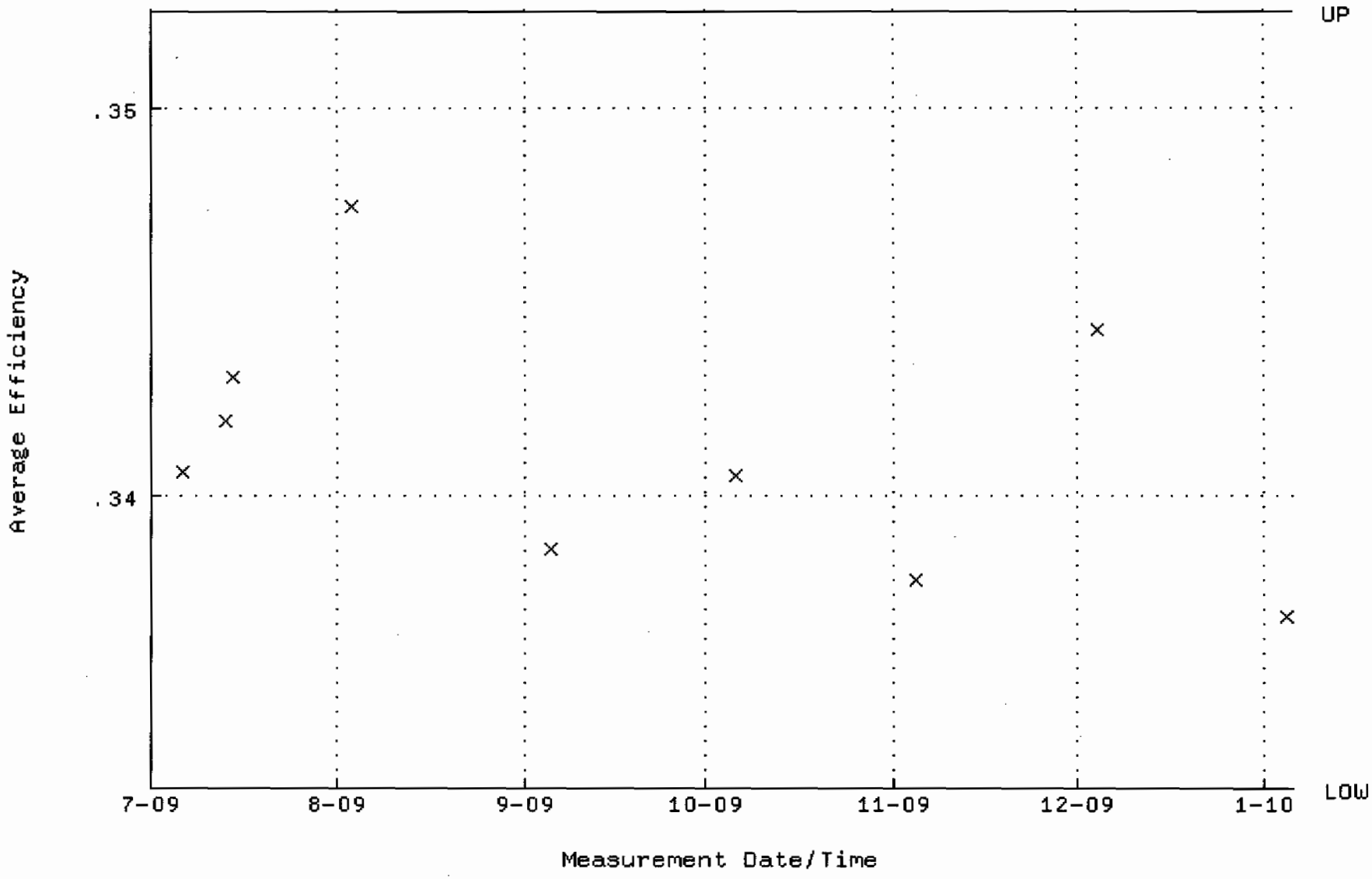

QA filename : DKA100:[ENV_ALPHA.QA.W]W045.QAF;5
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 6-JUL-2009 09:46:17 through 5-JAN-2010 12:00:00
Lower/Upper Lmts: 80.4622 through 88.9320

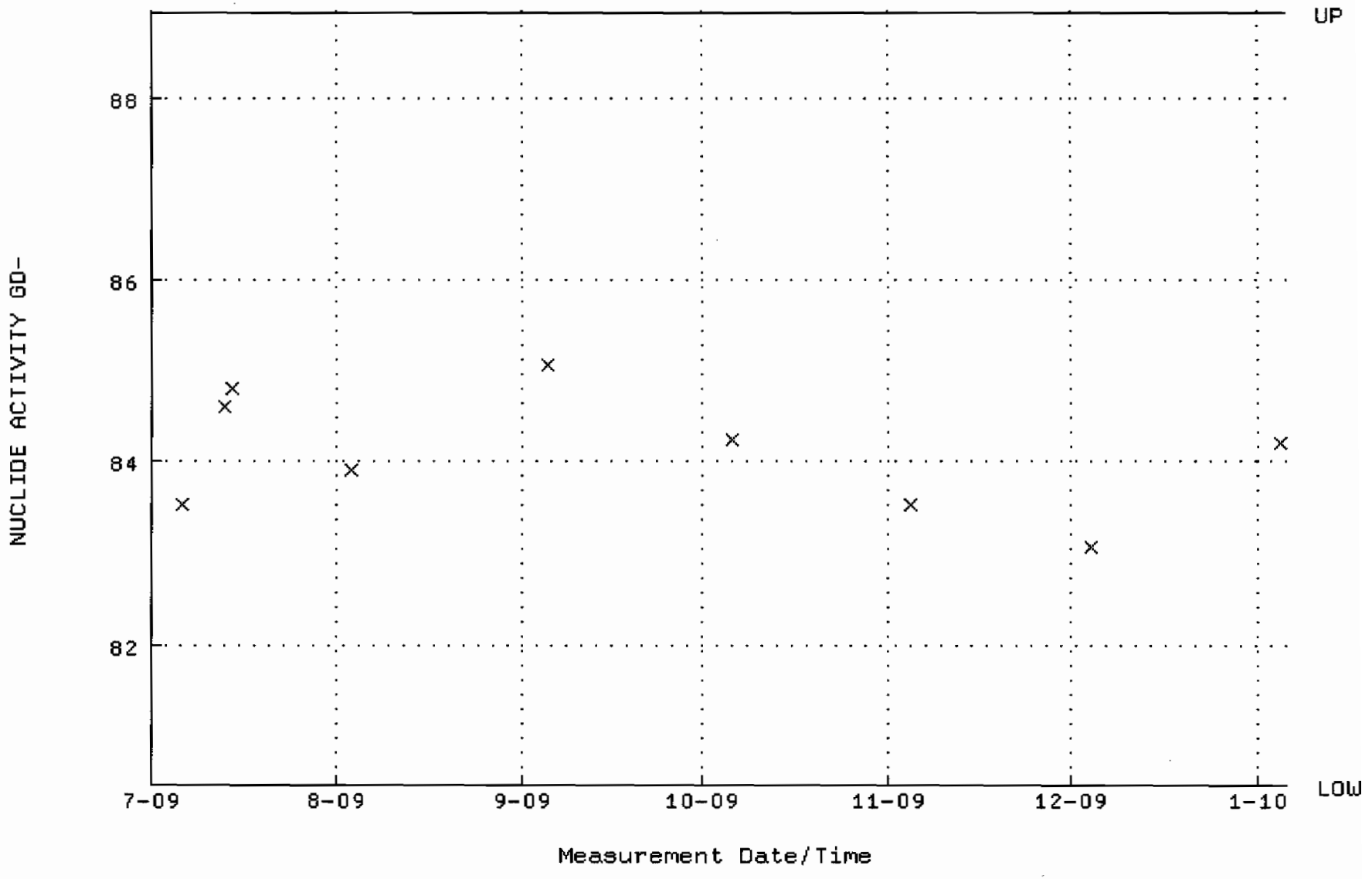

QA filename : DKA100:[ENV_ALPHA.QA.B]B045.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 5-JUL-2009 15:12:00 through 5-JAN-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

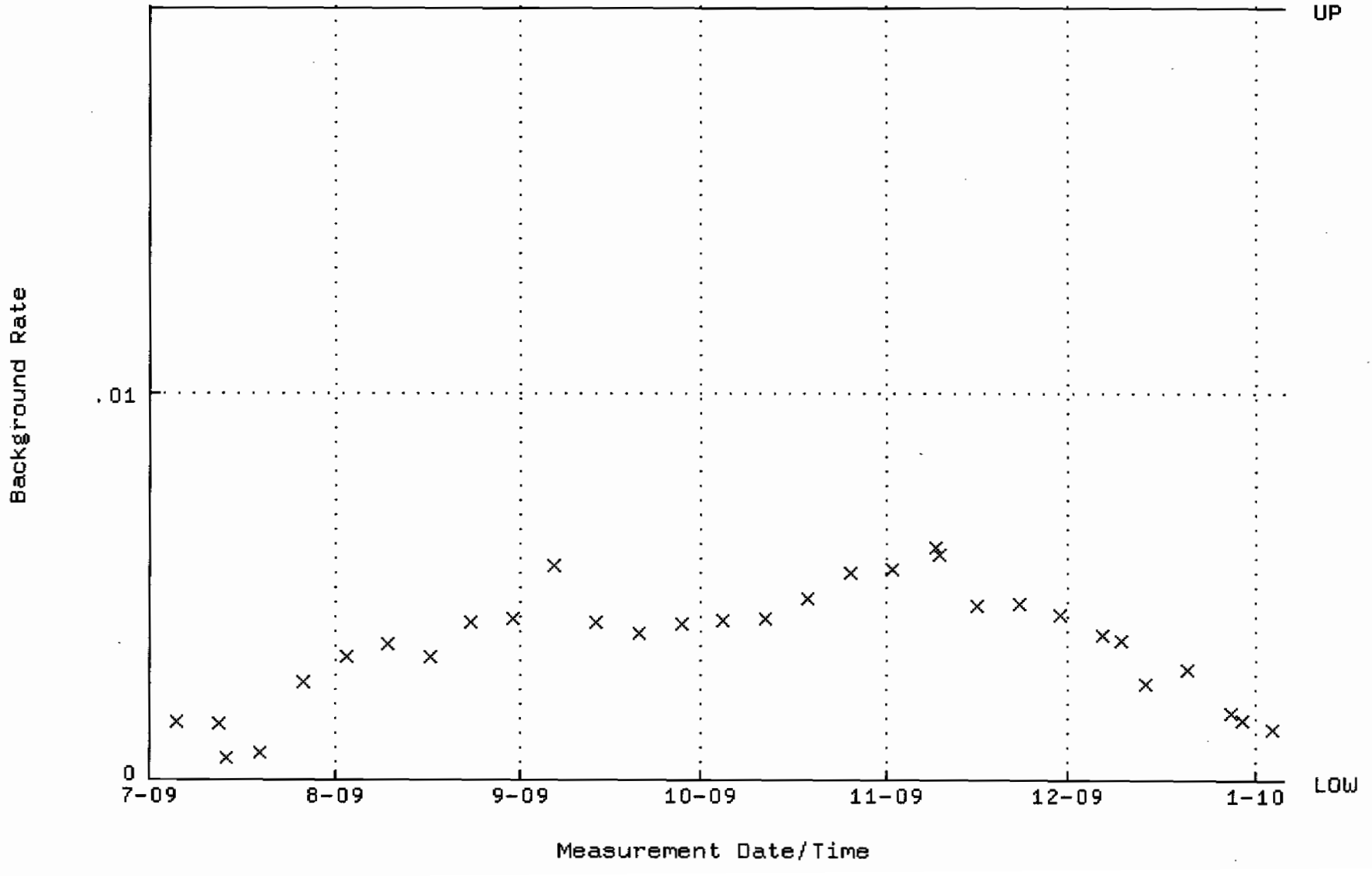

QA filename : DKA100:[ENV_ALPHA.QA.W]W046.QAF;4
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 6-JUL-2009 09:46:17 through 5-JAN-2010 12:00:00
Lower/Upper Lmts: 0.333927 through 0.353927

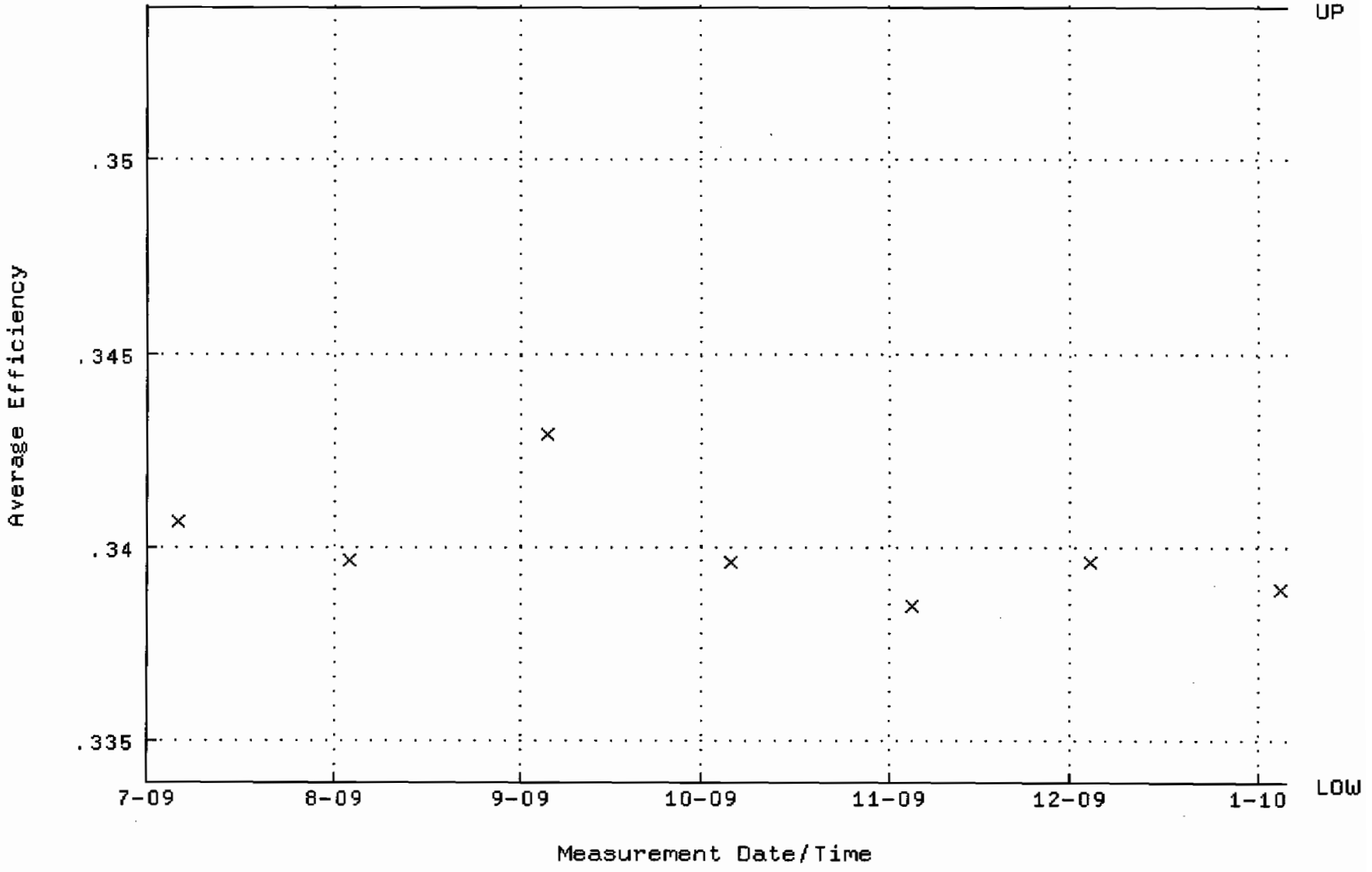

QA filename : DKA100:[ENV_ALPHA.QA.W]W046.QAF;4
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 6-JUL-2009 09:46:17 through 5-JAN-2010 12:00:00
Lower/Upper Lmts: 81.7568 through 90.3628

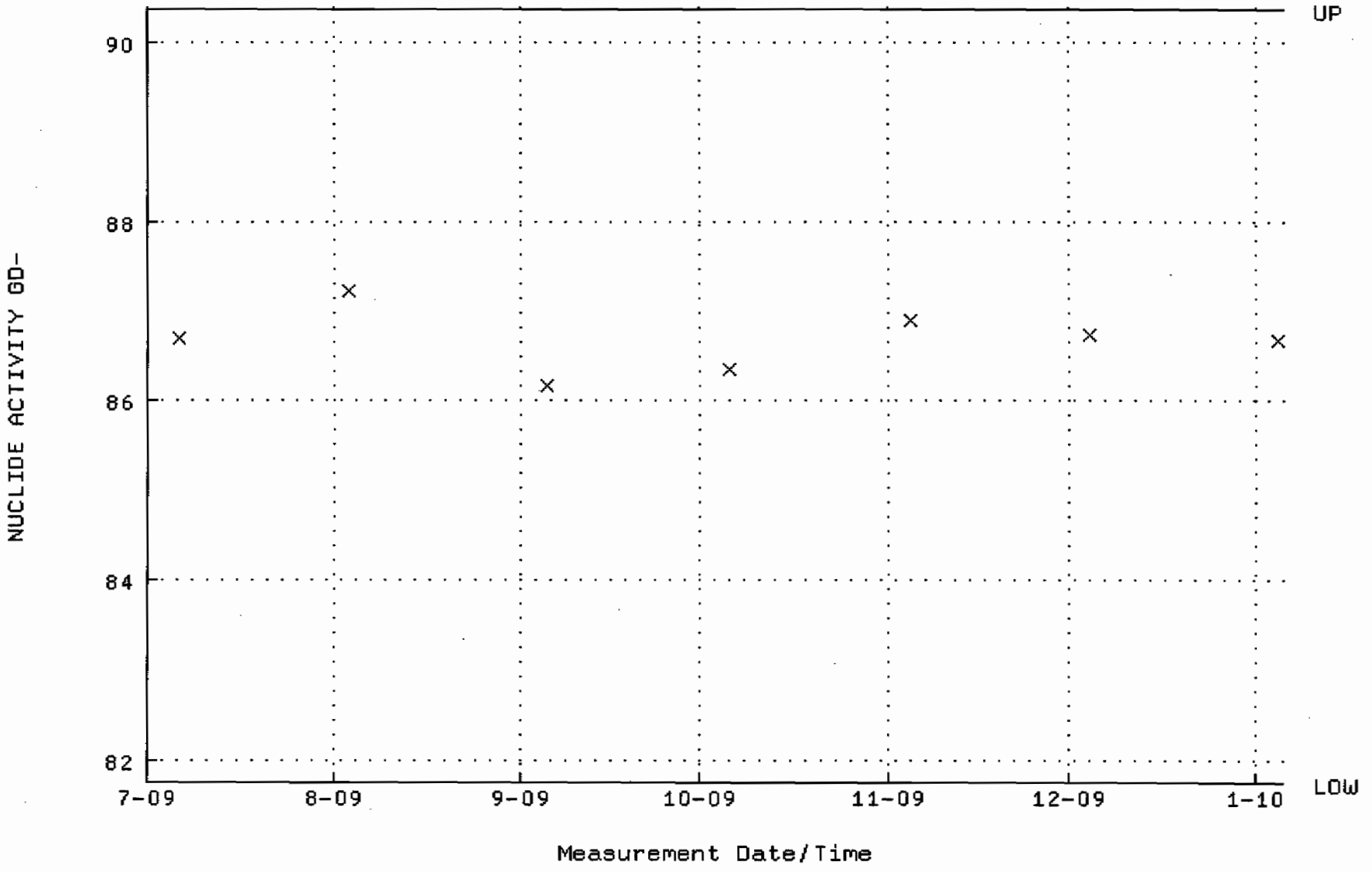

QA filename : DKA100:[ENV_ALPHA.QA.B]B046.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 5-JUL-2009 15:12:00 through 5-JAN-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

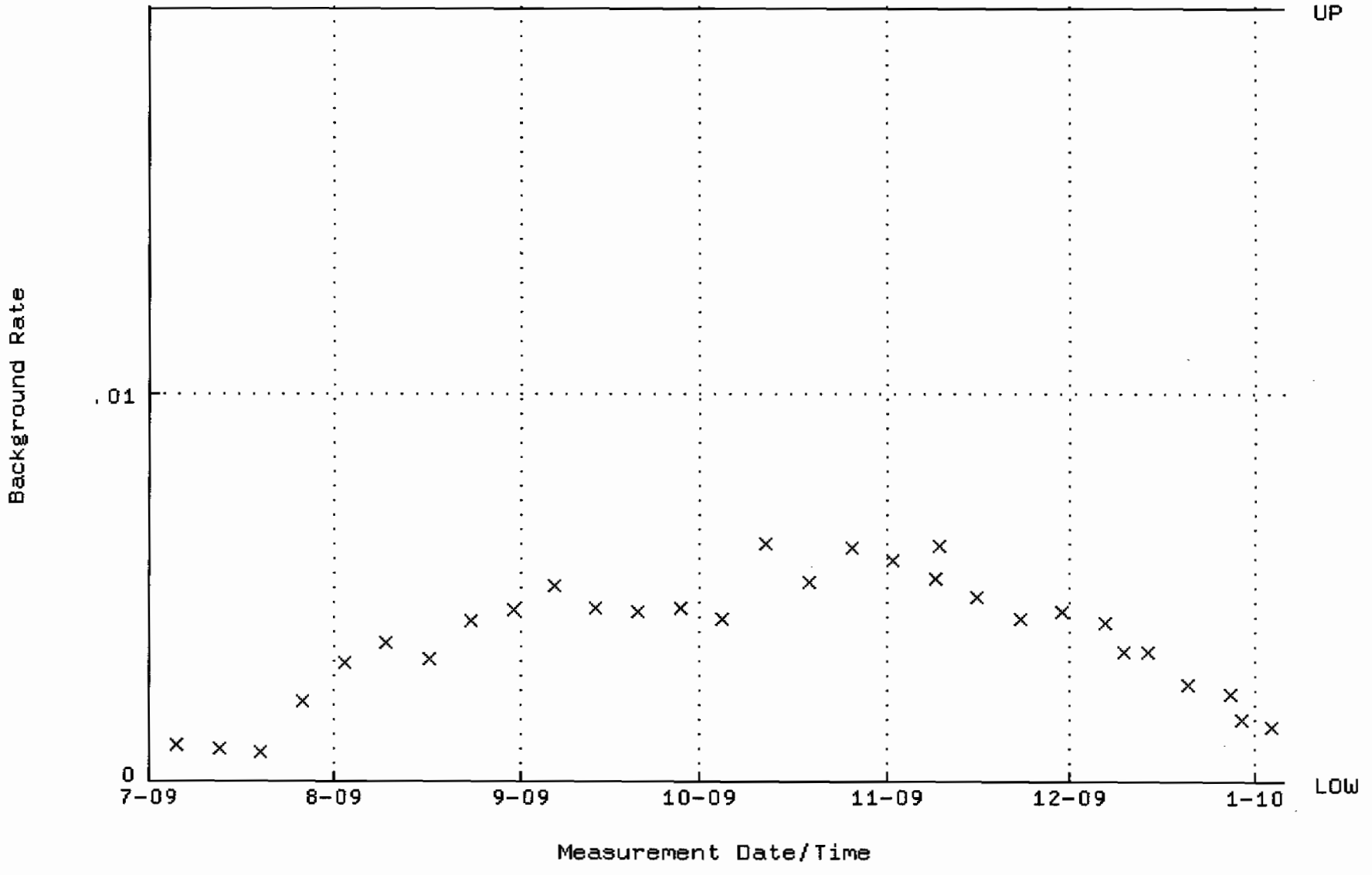

QA filename : DKA100:[ENV_ALPHA.QA.W]W047.QAF;5
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 6-JUL-2009 09:46:17 through 5-JAN-2010 12:00:00
Lower/Upper Lmts: 0.336276 through 0.364038

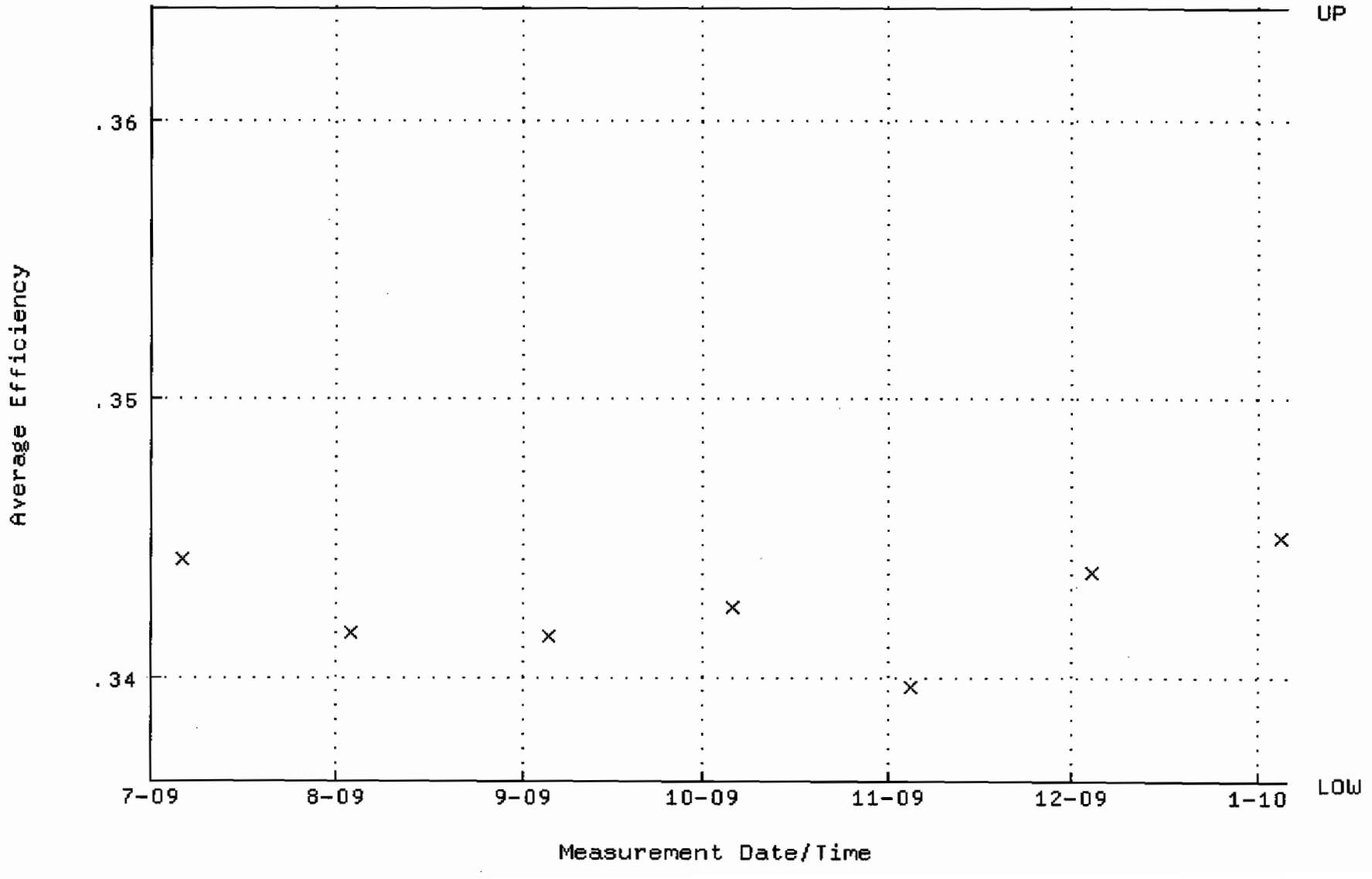

QA filename : DKA100:[ENV_ALPHA.QA.W]W047.QAF;5
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 6-JUL-2009 09:46:17 through 5-JAN-2010 12:00:00
Lower/Upper Lmts: 87.1403 through 89.8631

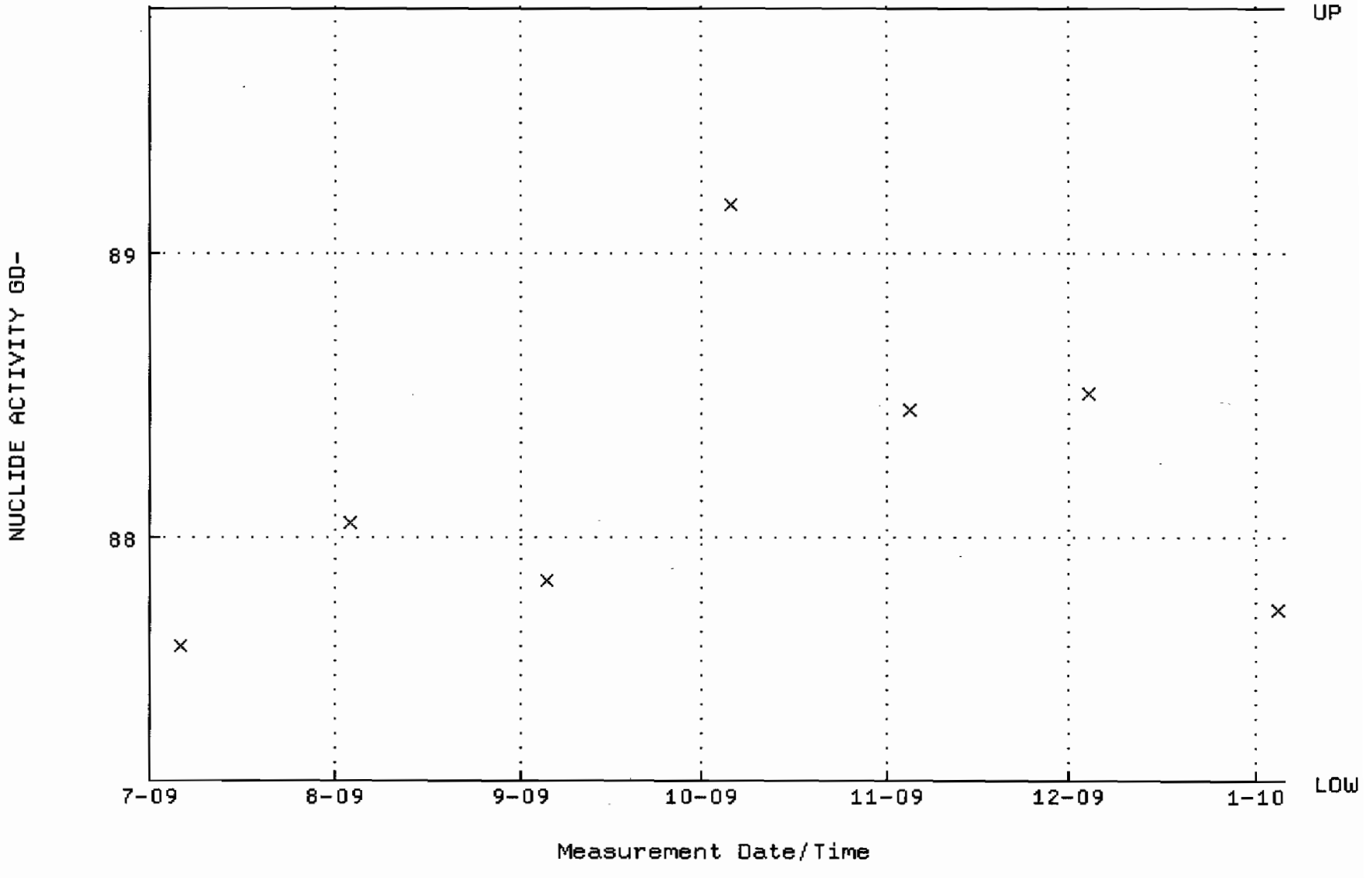

QA filename : DKA100:[ENV_ALPHA.QA.B]B047.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 5-JUL-2009 15:12:00 through 5-JAN-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

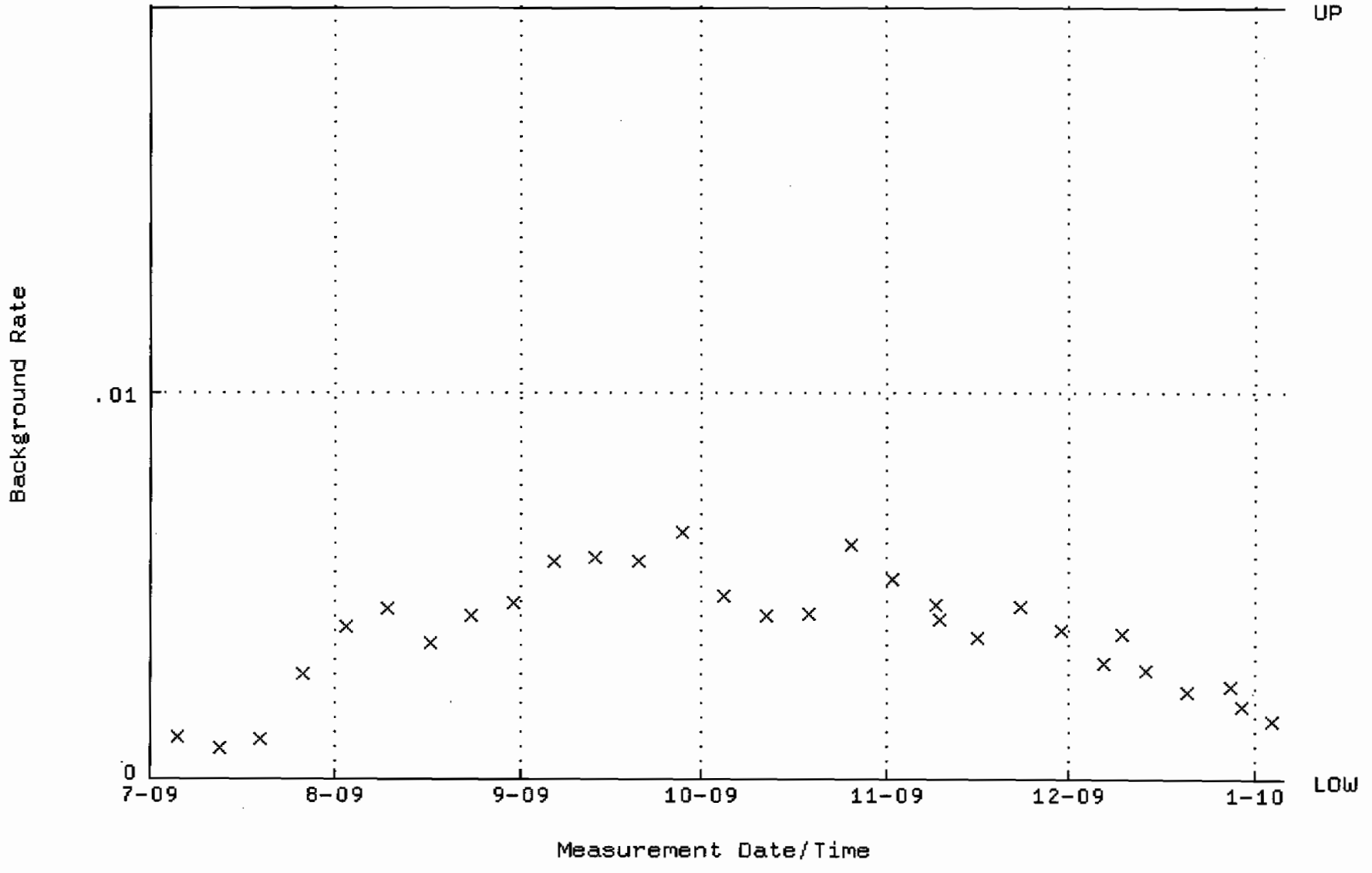

QA filename : DKA100:[ENV_ALPHA.QA.W]W048.QAF;6
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 6-JUL-2009 09:46:17 through 5-JAN-2010 12:00:00
Lower/Upper Lmts: 0.250000 through 0.450000

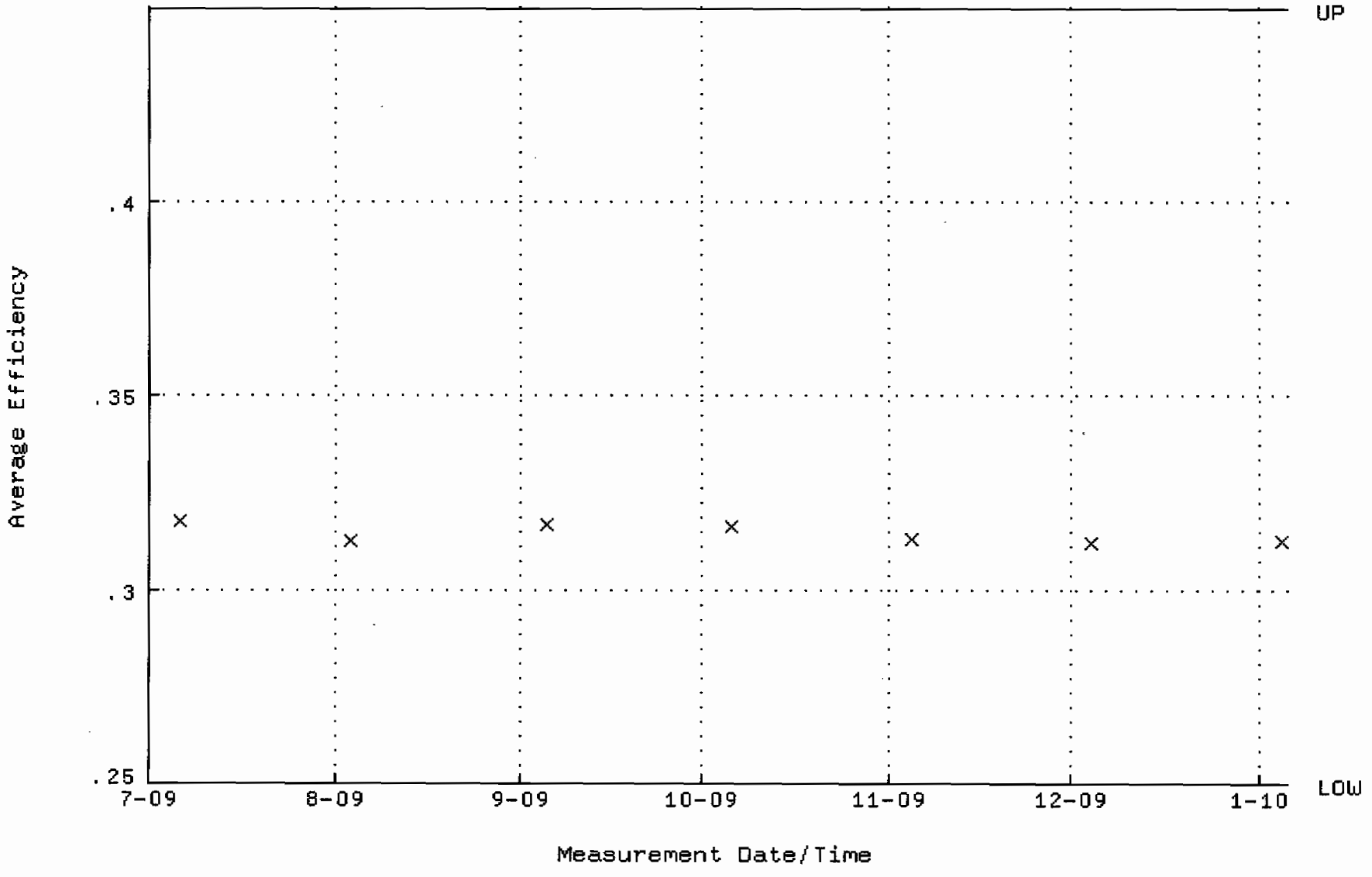

QA filename : DKA100:[ENV_ALPHA.QA,W]W048.QAF;6
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 6-JUL-2009 09:46:17 through 5-JAN-2010 12:00:00
Lower/Upper Lmts: 60.0000 through 105.000

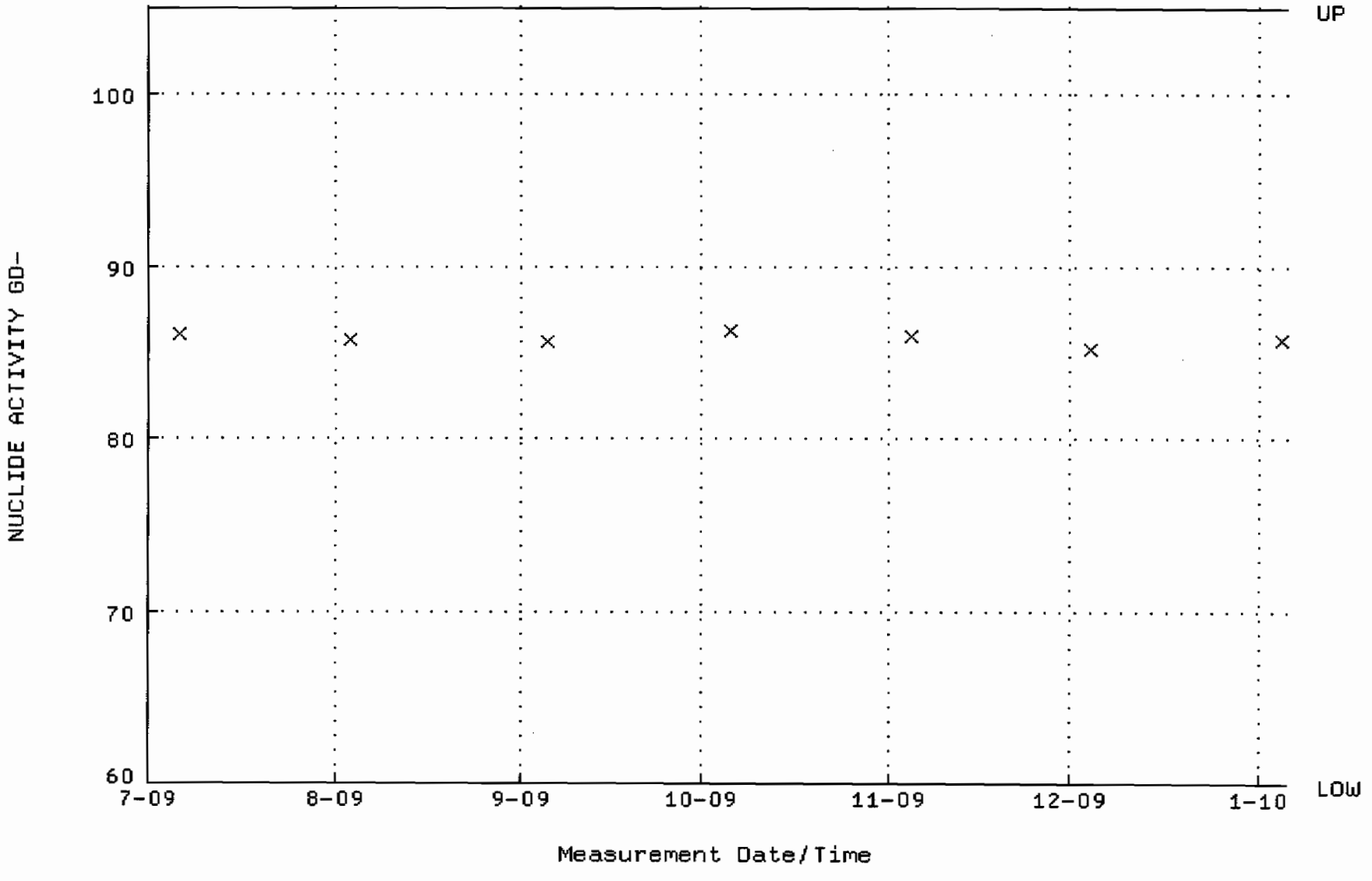

QA filename : DKA100:[ENV_ALPHA.QA.B]B048.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 5-JUL-2009 15:12:00 through 5-JAN-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

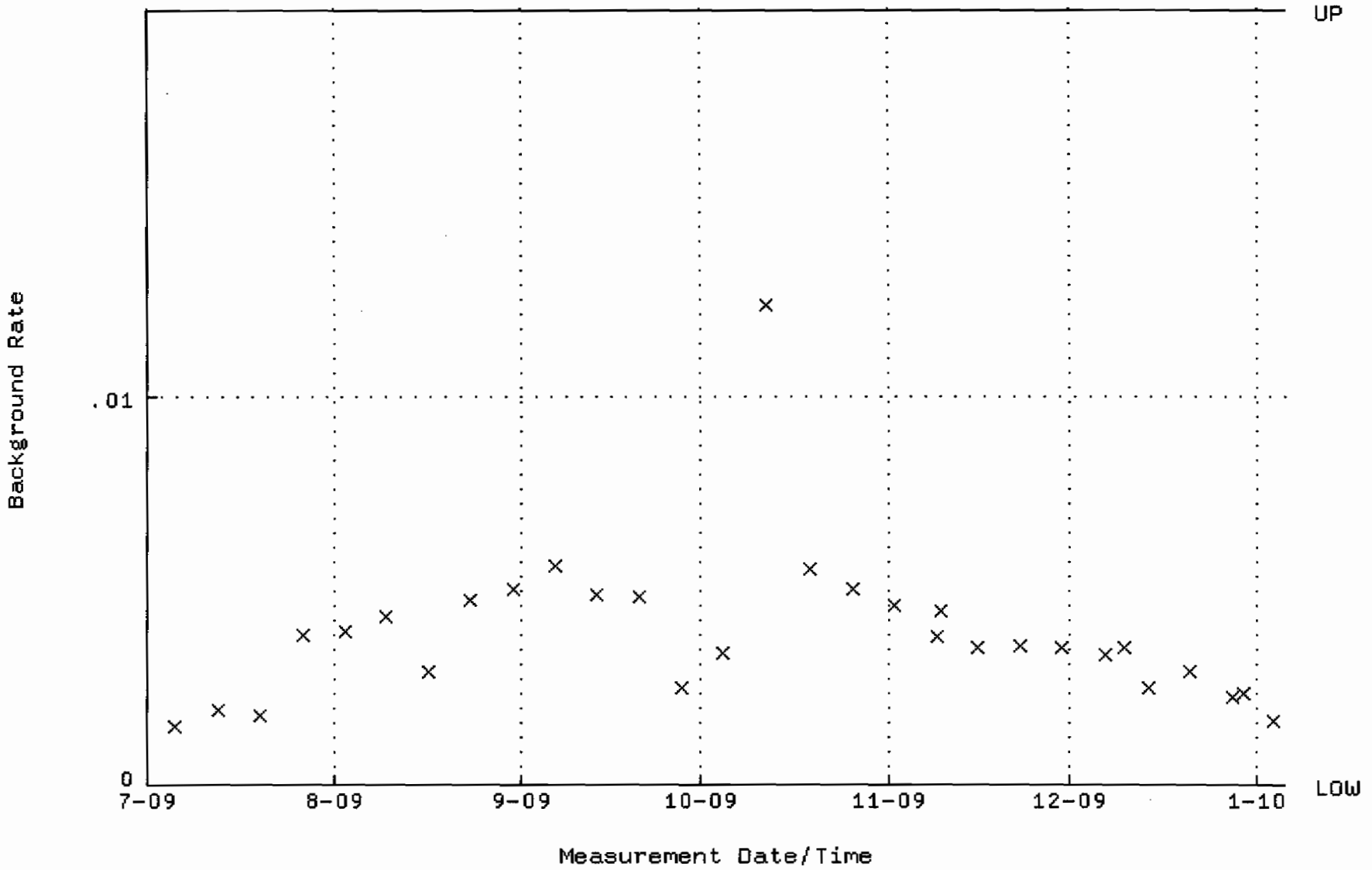

QA filename : DKA100:[ENV_ALPHA.QA.W]W072.QAF;2
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 9-JUL-2009 08:08:11 through 12-JAN-2010 12:00:00
Lower/Upper Lmts: 0.313761 through 0.333761

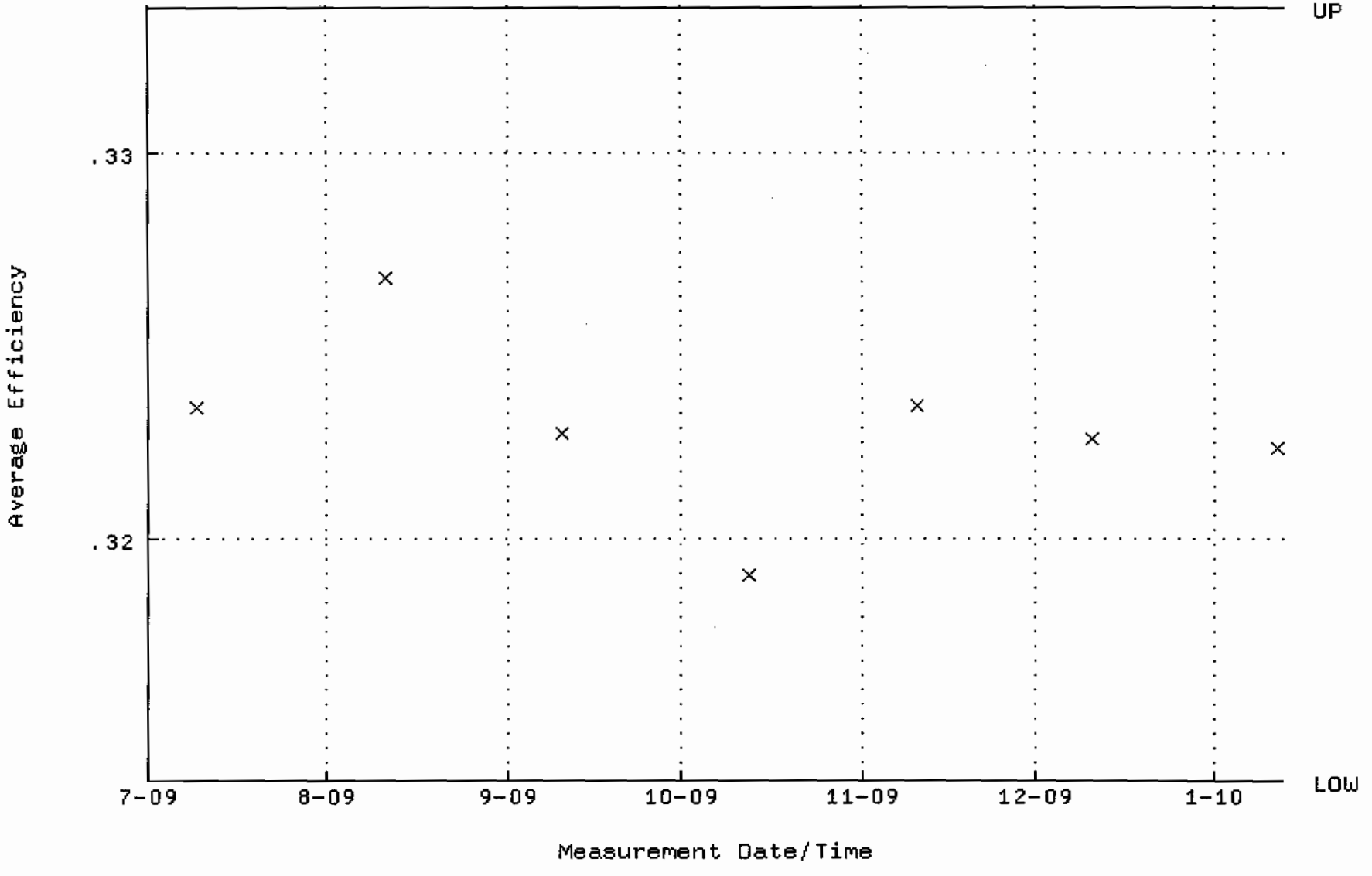

QA filename : DKA100:[ENV_ALPHA.QA.W]W072.QAF;2
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 9-JUL-2009 08:08:11 through 12-JAN-2010 12:00:00
Lower/Upper Lmts: 87.3348 through 96.5280

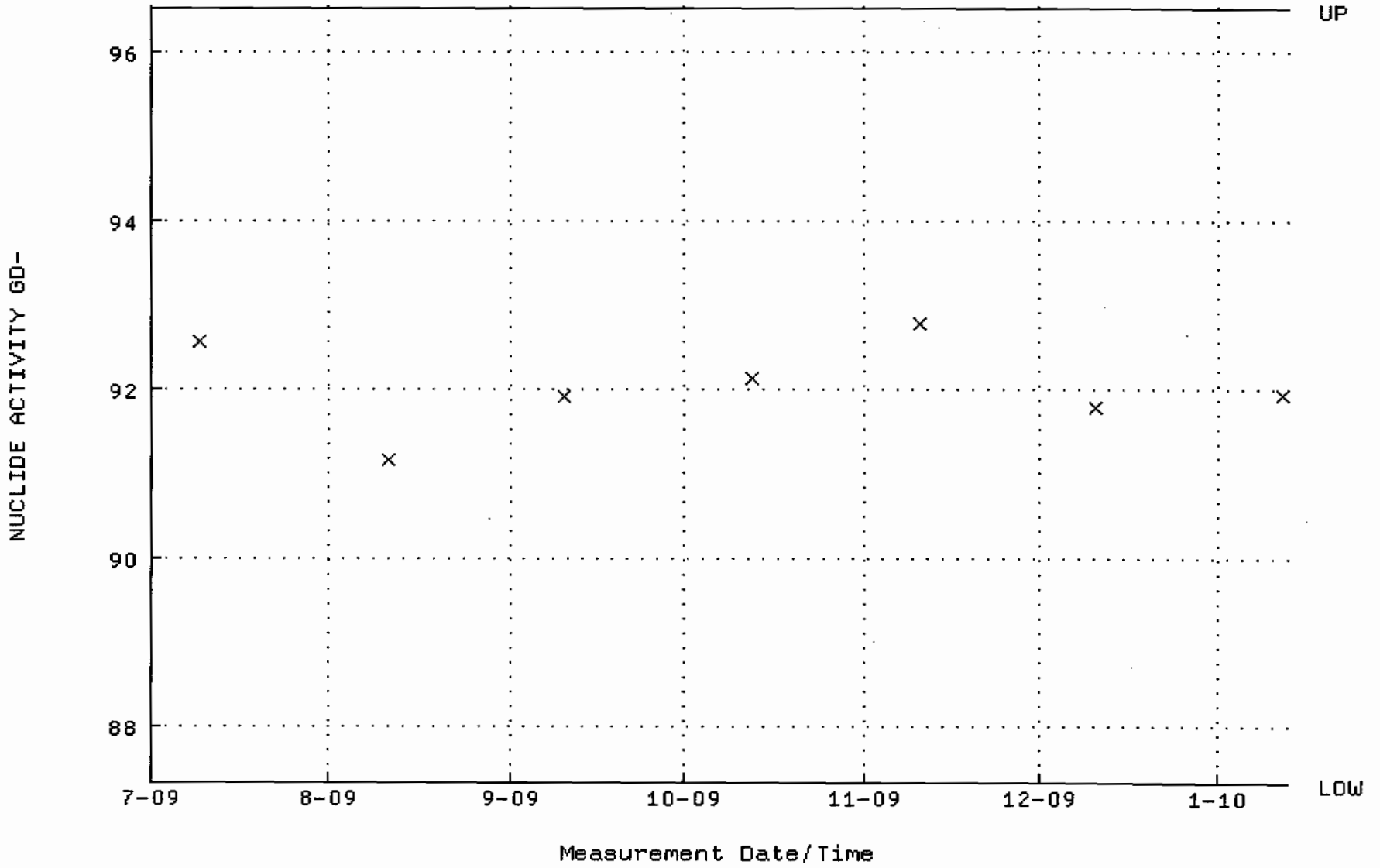

QA filename : DKA100:[ENV_ALPHA.QA.B]B072.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 5-JUL-2009 15:12:02 through 12-JAN-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

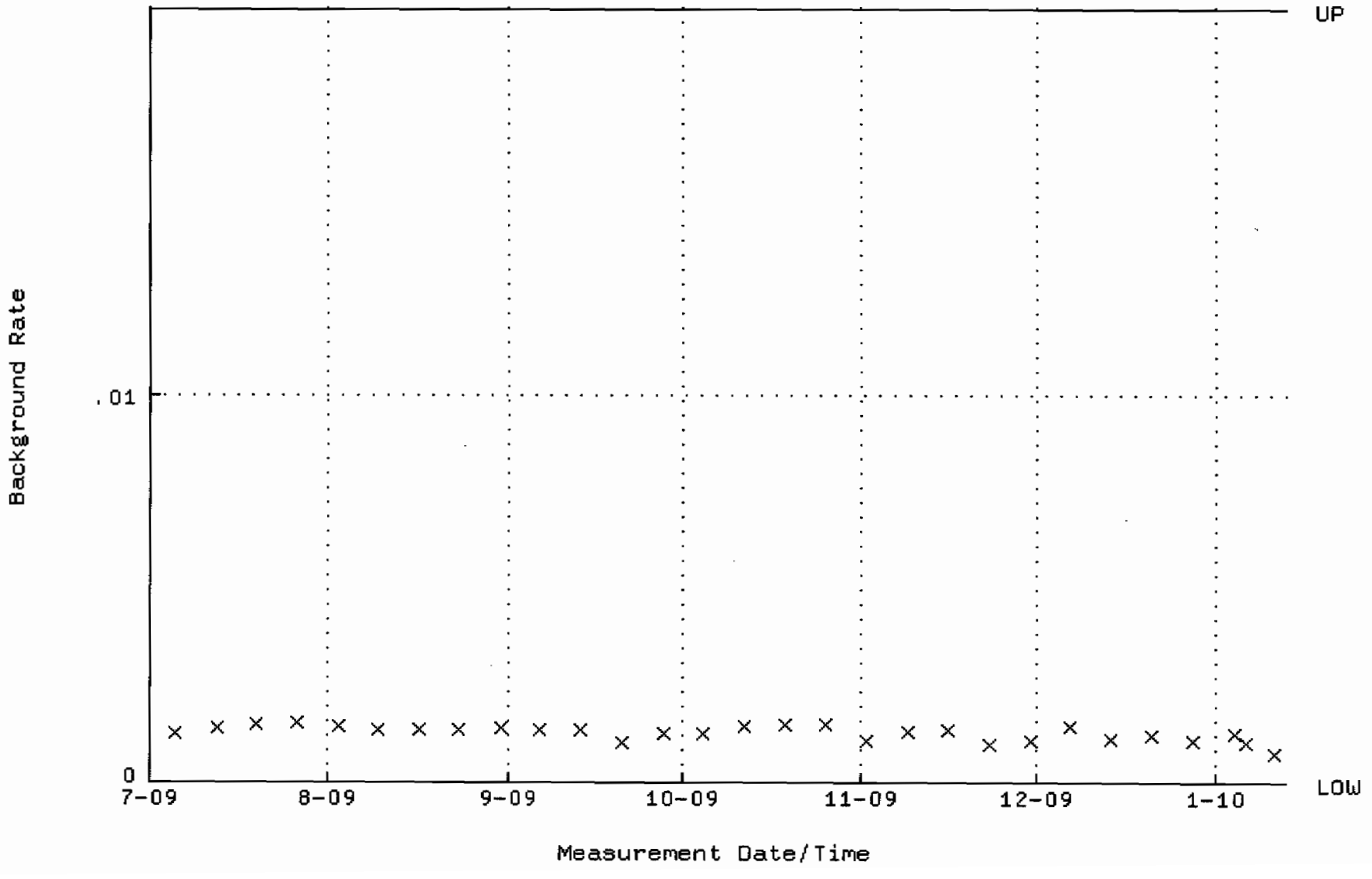

QA filename : DKA100:[ENV_ALPHA.QA.W]W073.QAF;3
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 9-JUL-2009 08:08:11 through 12-JAN-2010 12:00:00
Lower/Upper Lmts: 0.323184 through 0.343184

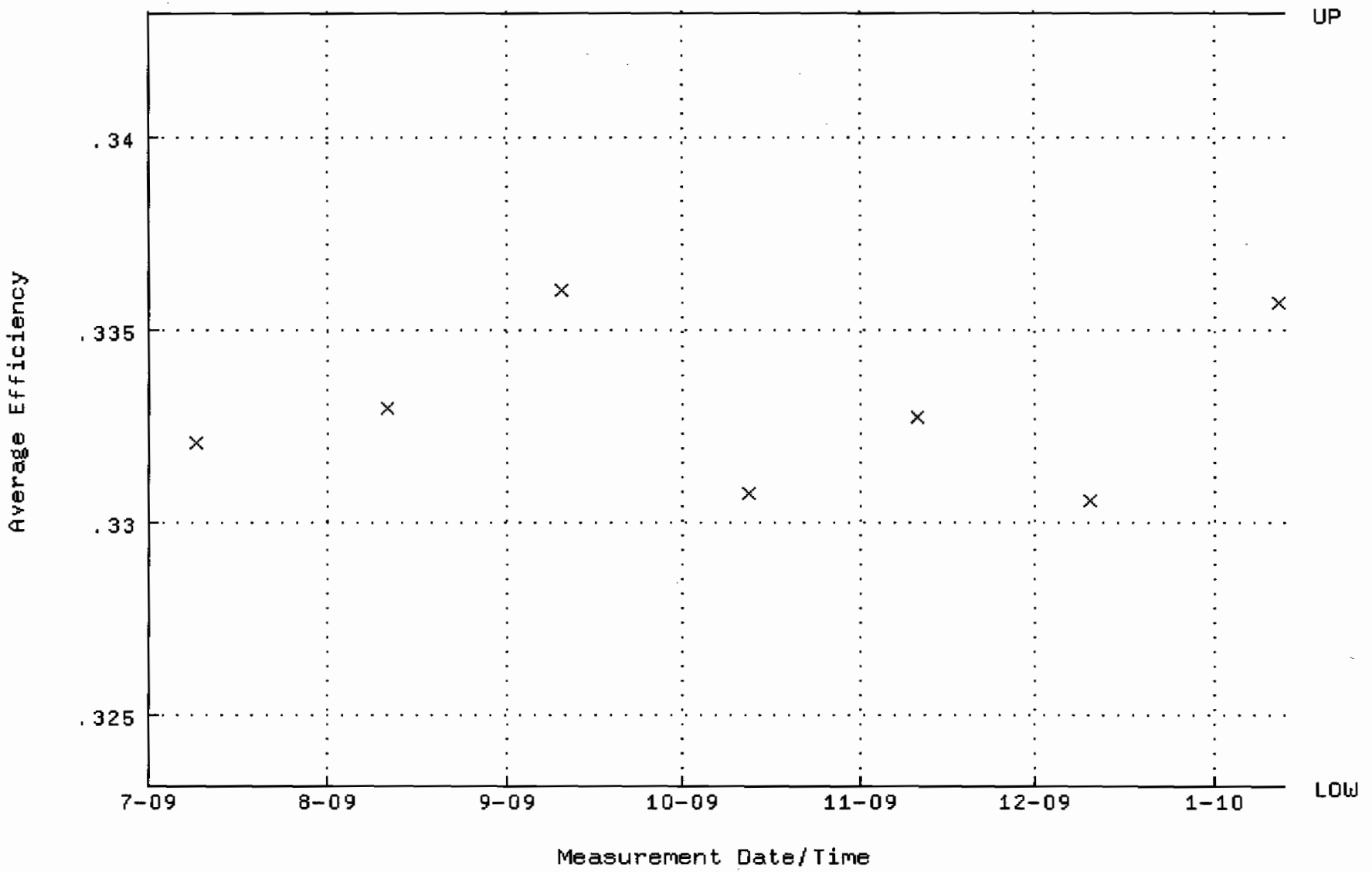

QA filename : DKA100:[ENV_ALPHA.QA.W]W073.QAF;3
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 9-JUL-2009 08:08:11 through 12-JAN-2010 12:00:00
Lower/Upper Lmts: 86.6734 through 95.7970

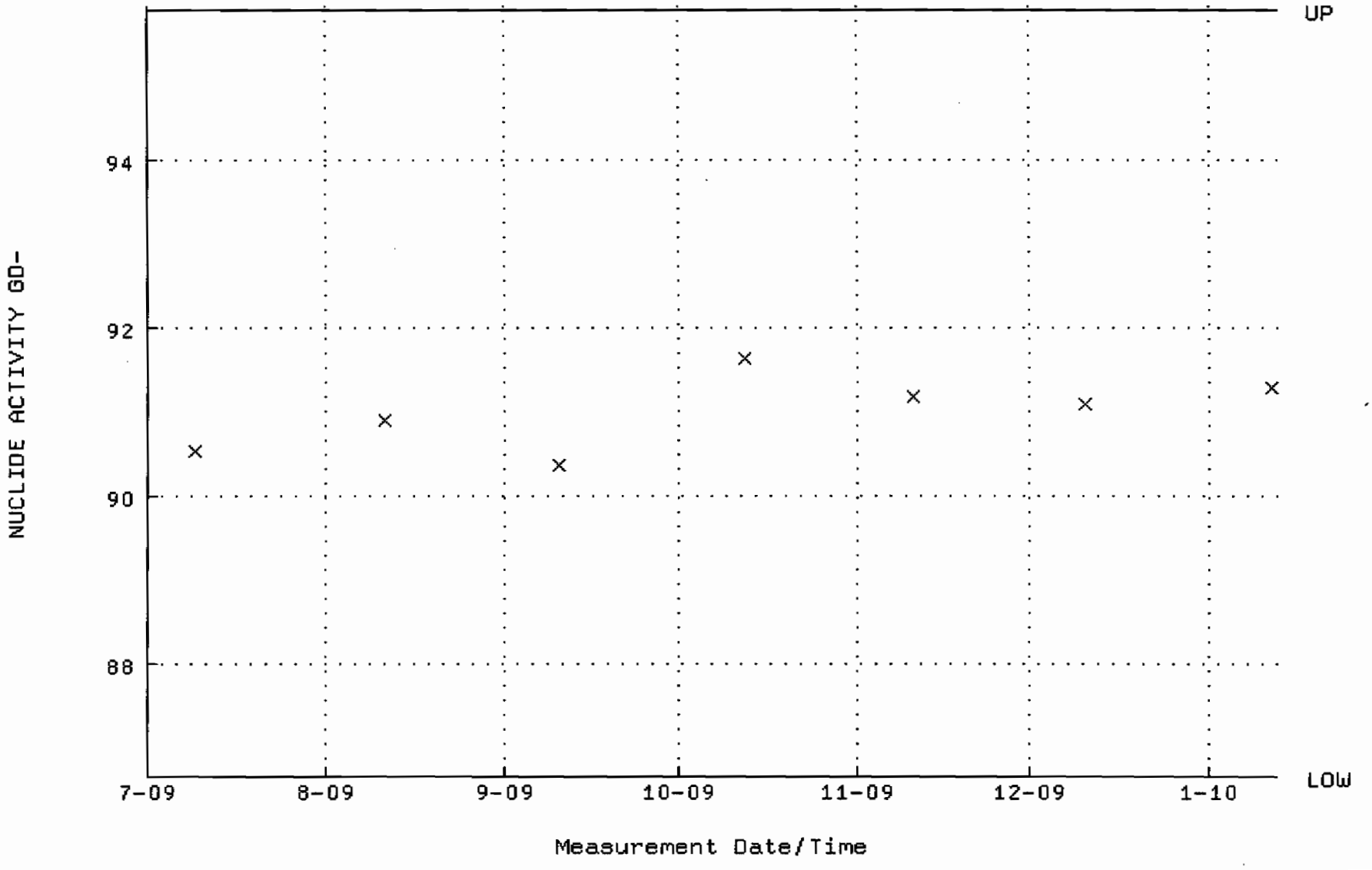

QA filename : DKA100:[ENV_ALPHA.QA.B]B073.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 5-JUL-2009 15:12:02 through 12-JAN-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

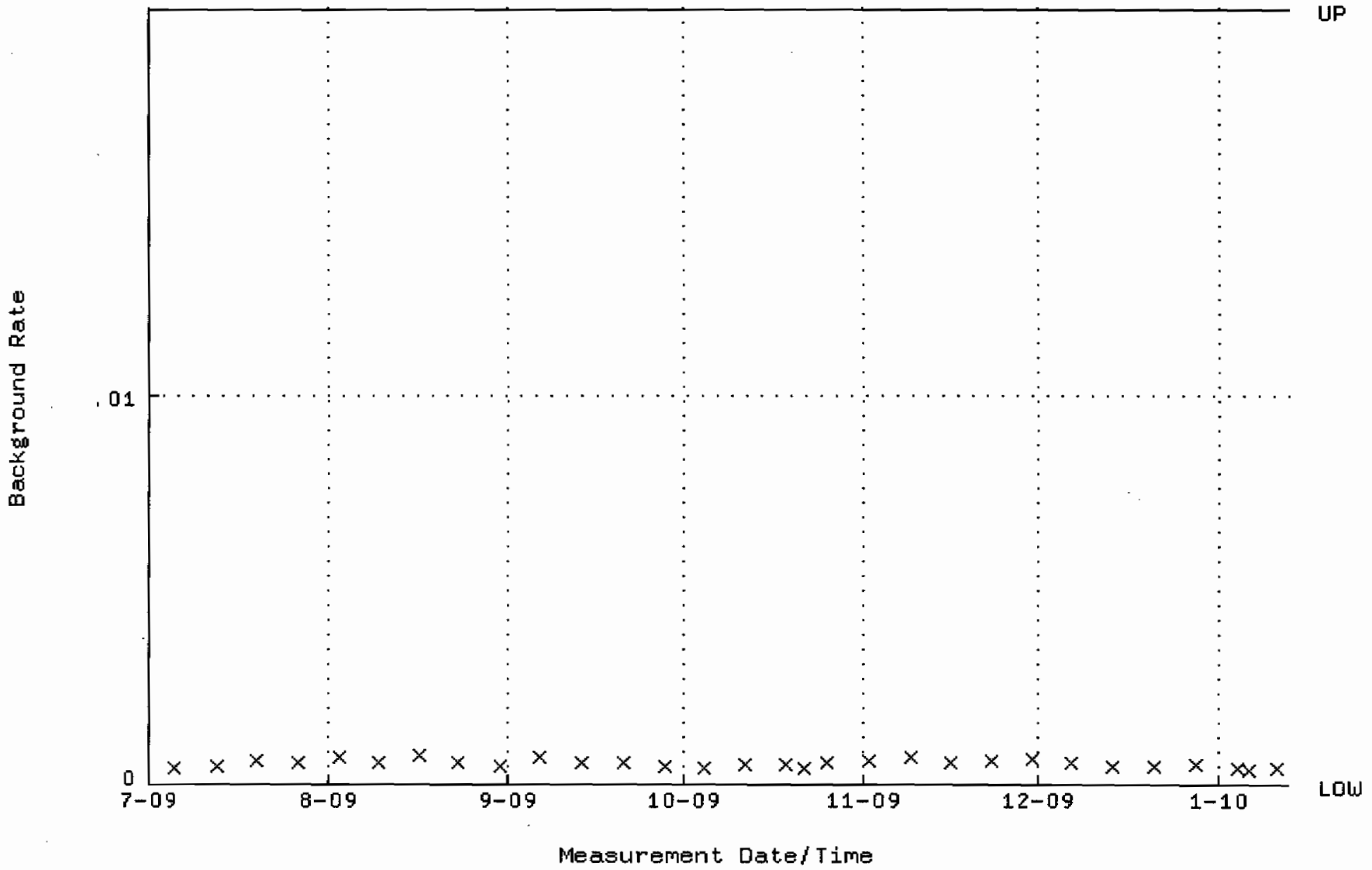

QA filename : DKA100:[ENV_ALPHA.QA.W]W074.QAF;4
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 2-JUL-2009 15:04:13 through 12-JAN-2010 12:00:00
Lower/Upper Lmts: 0.305830 through 0.325830

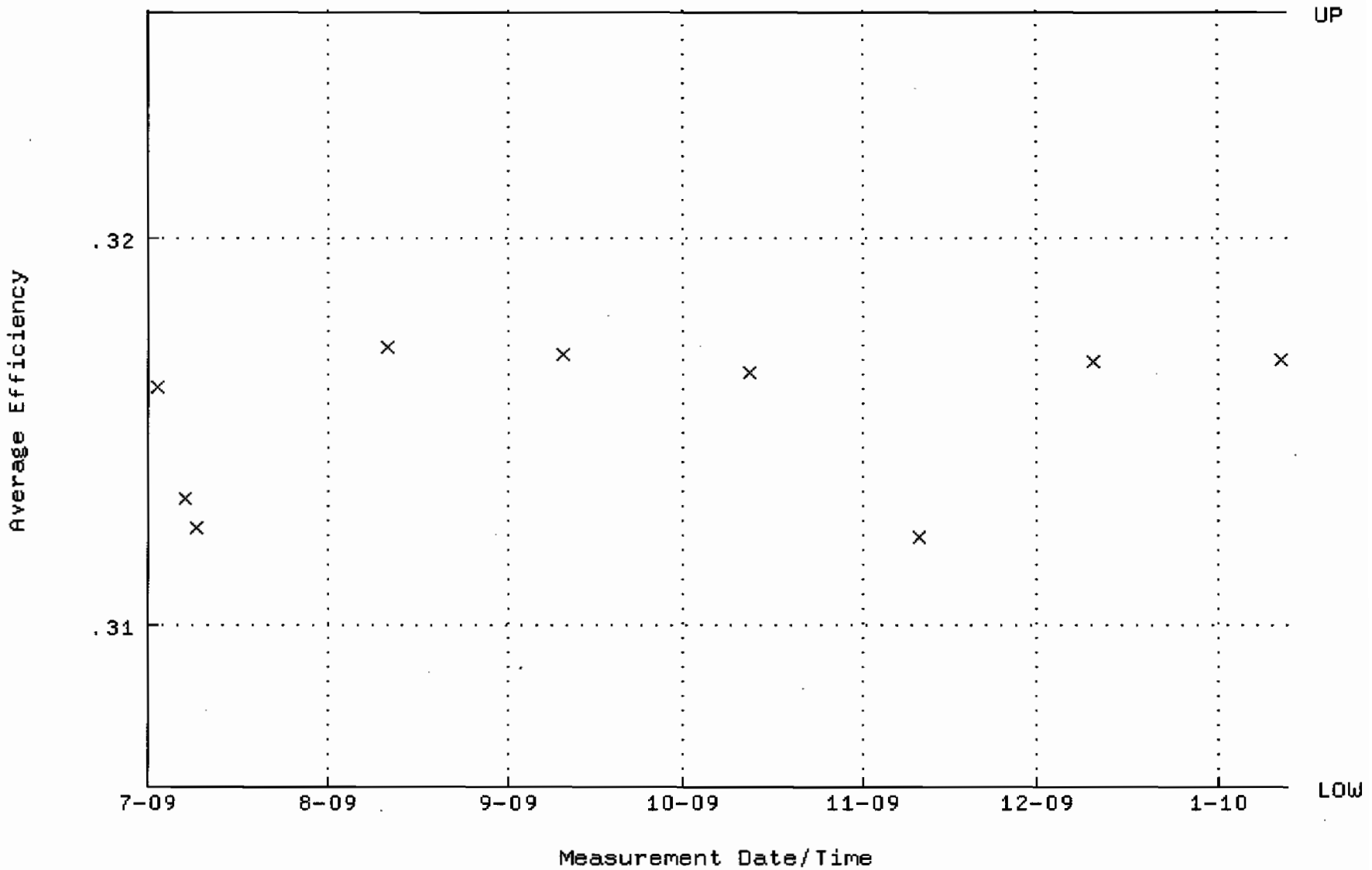

QA filename : DKA100:[ENV_ALPHA.QA.W]W074.QAF;4
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 2-JUL-2009 15:04:13 through 12-JAN-2010 12:00:00
Lower/Upper Lmts: 86.0289 through 95.0845

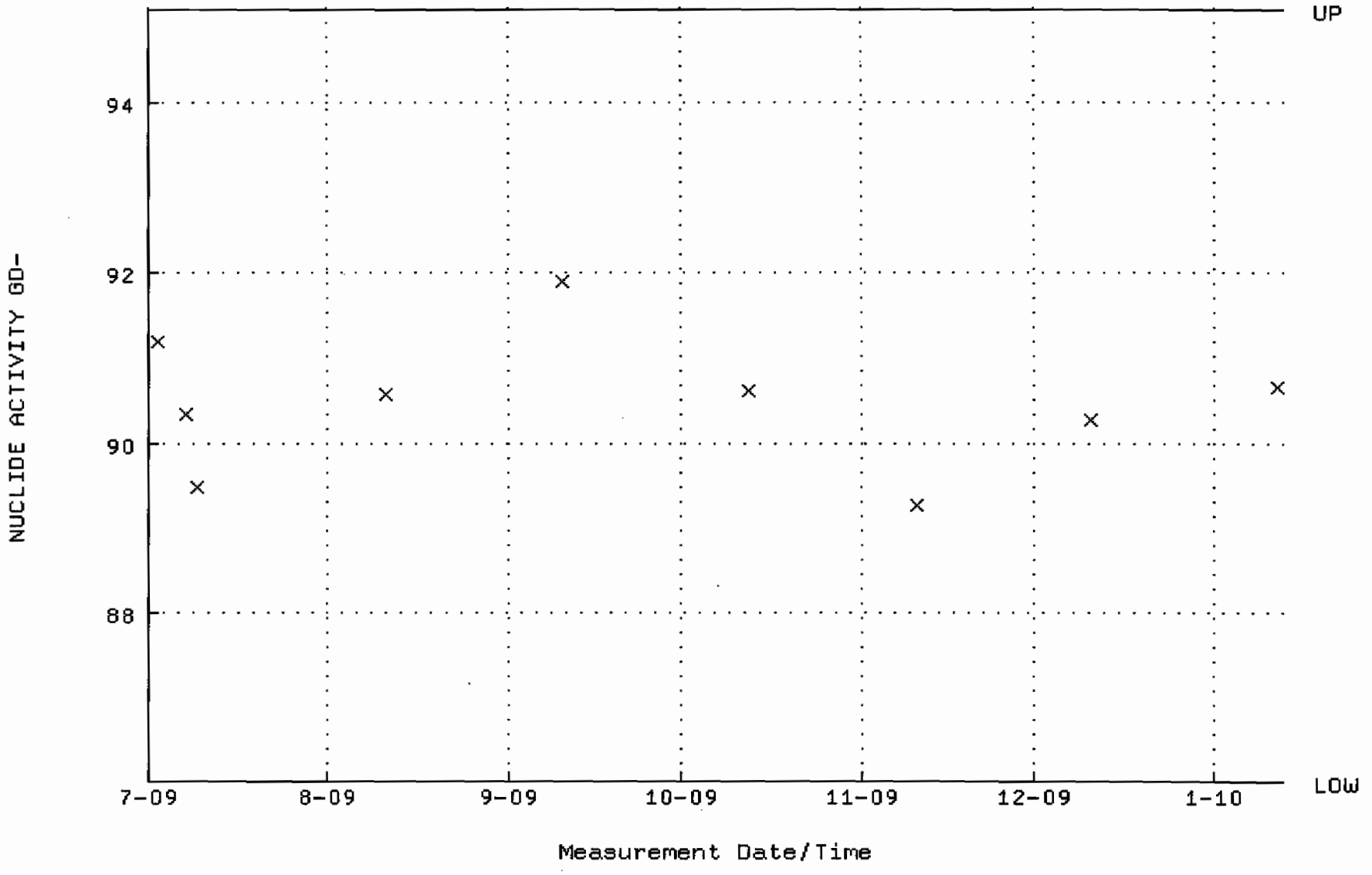

QA filename : DKA100:[ENV_ALPHA.QA.B]B074.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 1-JUL-2009 21:39:57 through 12-JAN-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

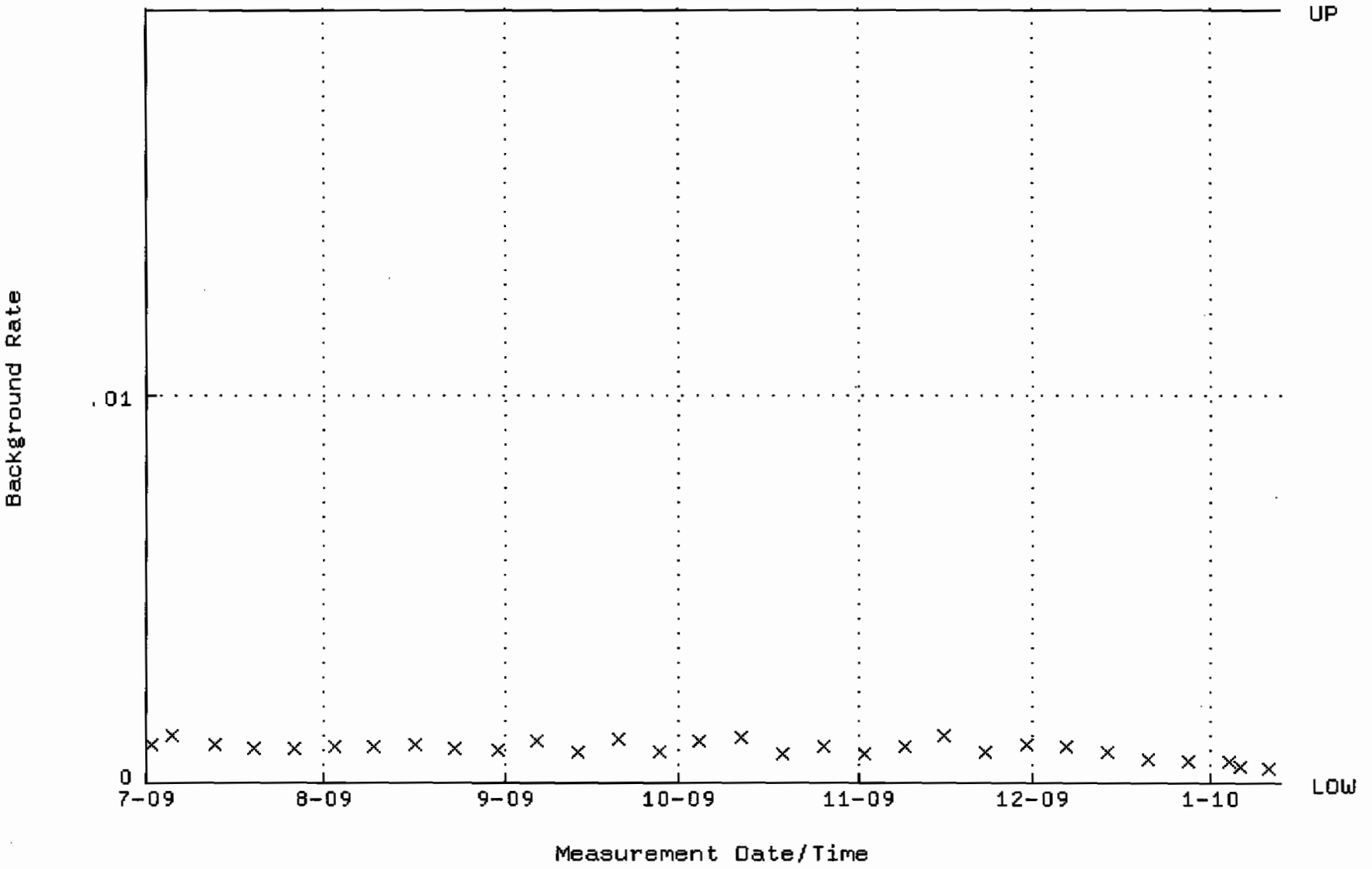

QA filename : DKA100:[ENV_ALPHA.QA.W]W078.QAF;6
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 9-JUL-2009 08:08:11 through 12-JAN-2010 12:00:00
Lower/Upper Lmts: 0.250000 through 0.450000

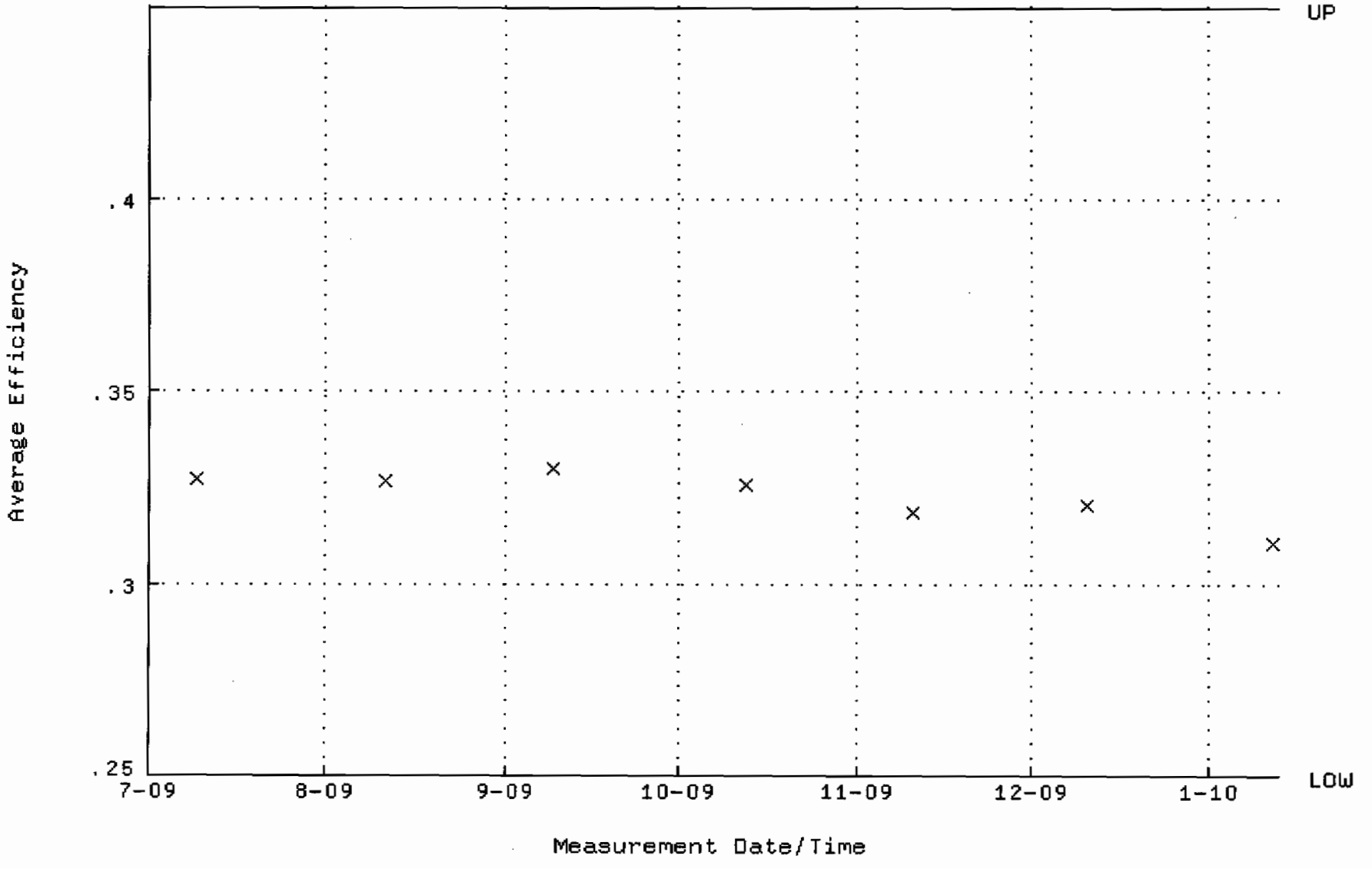

QA filename : DKA100:[ENV_ALPHA.QA.W]W078.QAF;6
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 9-JUL-2009 08:08:11 through 12-JAN-2010 12:00:00
Lower/Upper Lmts: 60.0000 through 105.000

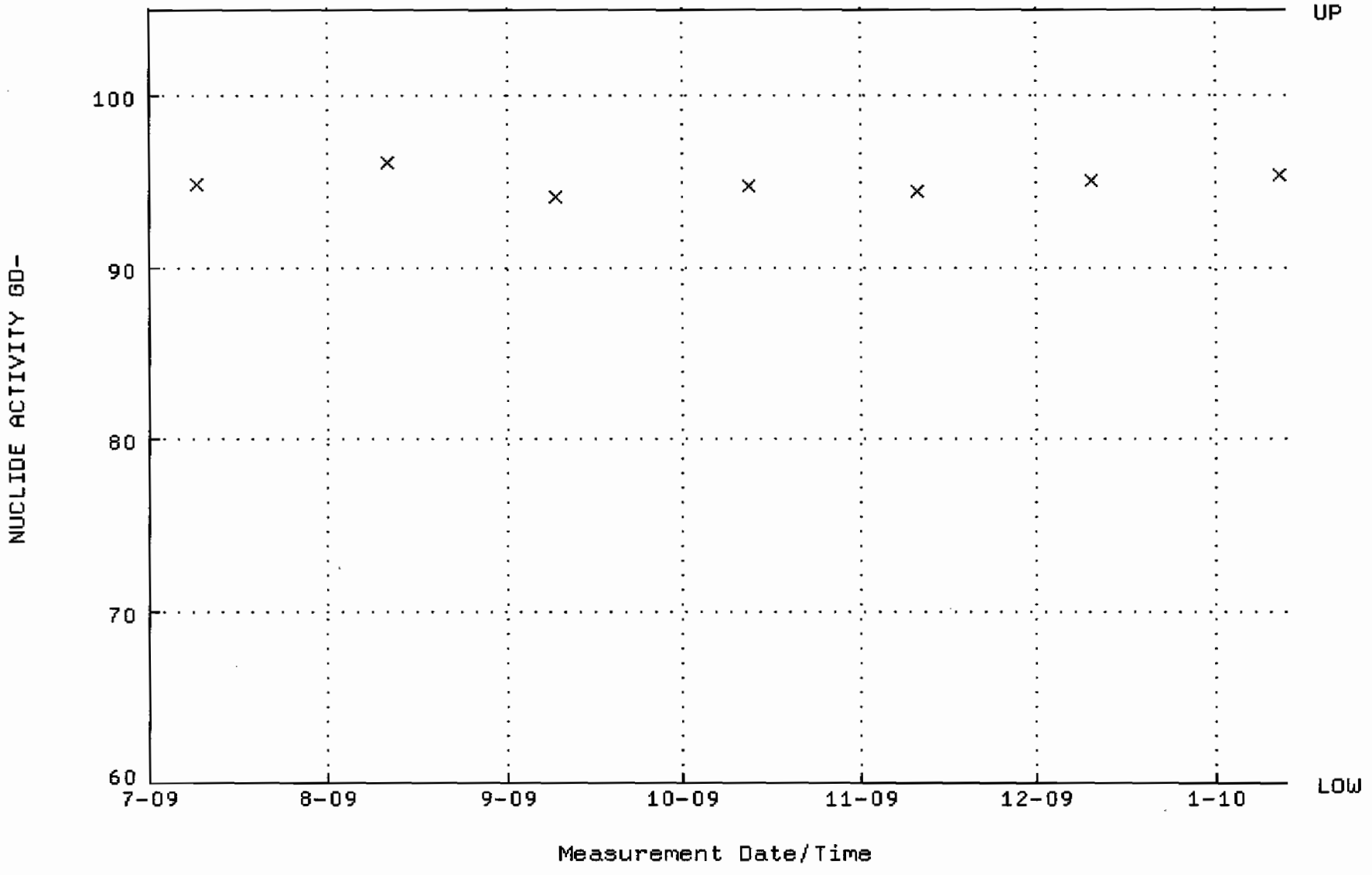

QA filename : DKA100:[ENV_ALPHA.QA.B]B078.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 5-JUL-2009 15:12:03 through 12-JAN-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

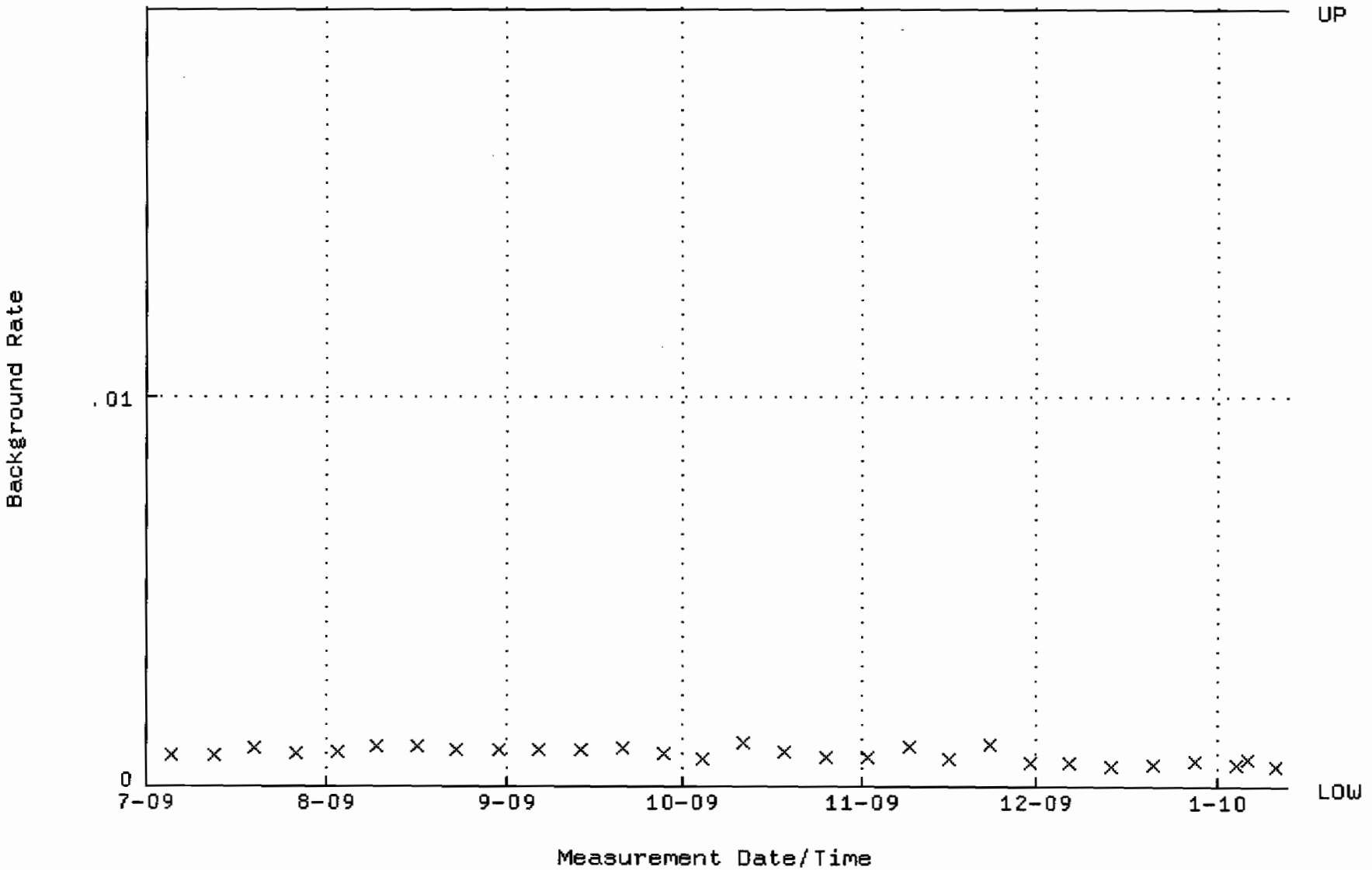

QA filename : DKA100:[ENV_ALPHA.QA.W]W086.QAF;4
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 9-JUL-2009 08:08:12 through 12-JAN-2010 12:00:00
Lower/Upper Lmts: 0.289508 through 0.309508

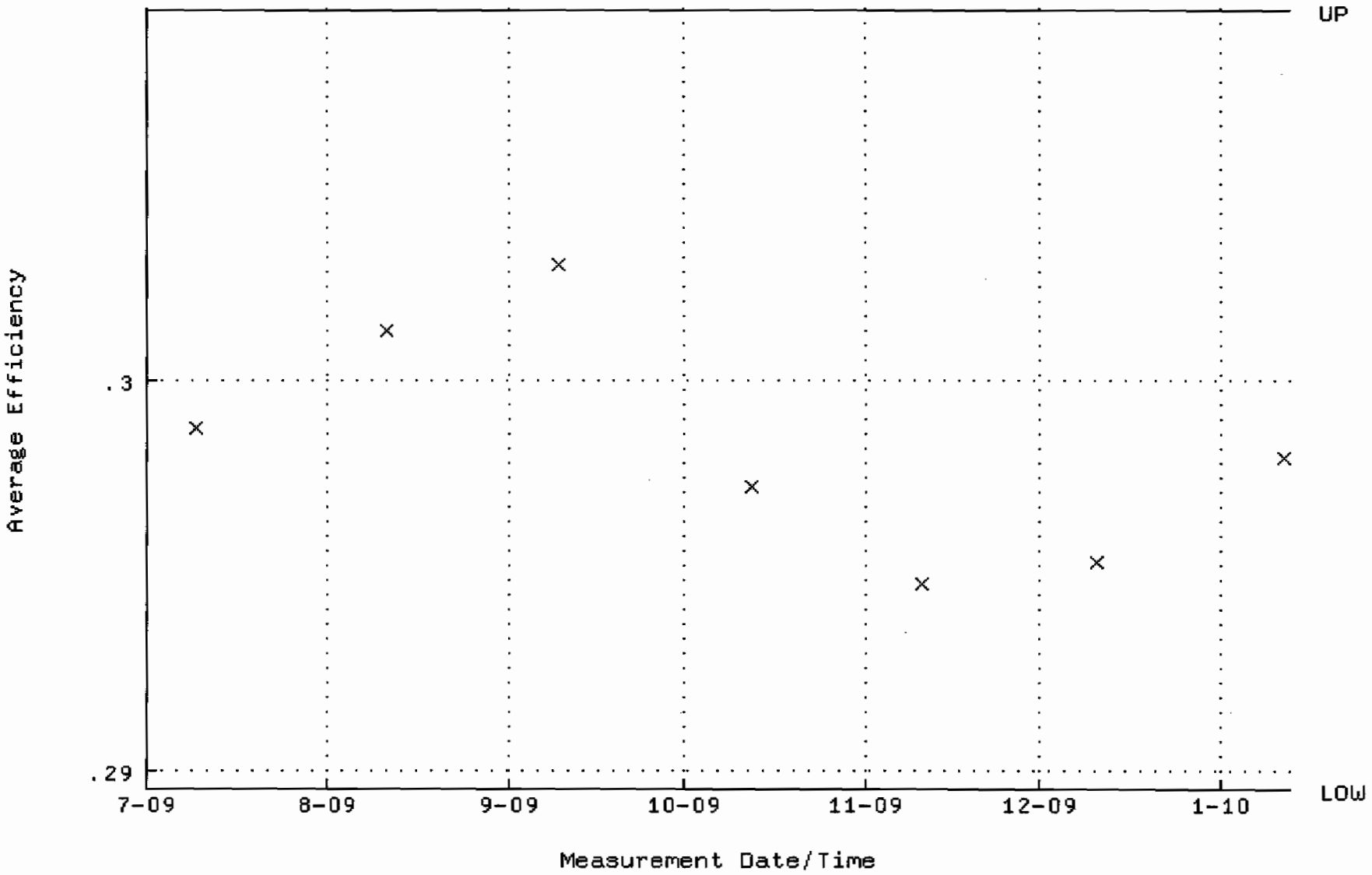

QA filename : DKA100:[ENV_ALPHA.QA.W]W086.QAF;4
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 9-JUL-2009 08:08:12 through 12-JAN-2010 12:00:00
Lower/Upper Lmts: 87.7898 through 97.0308

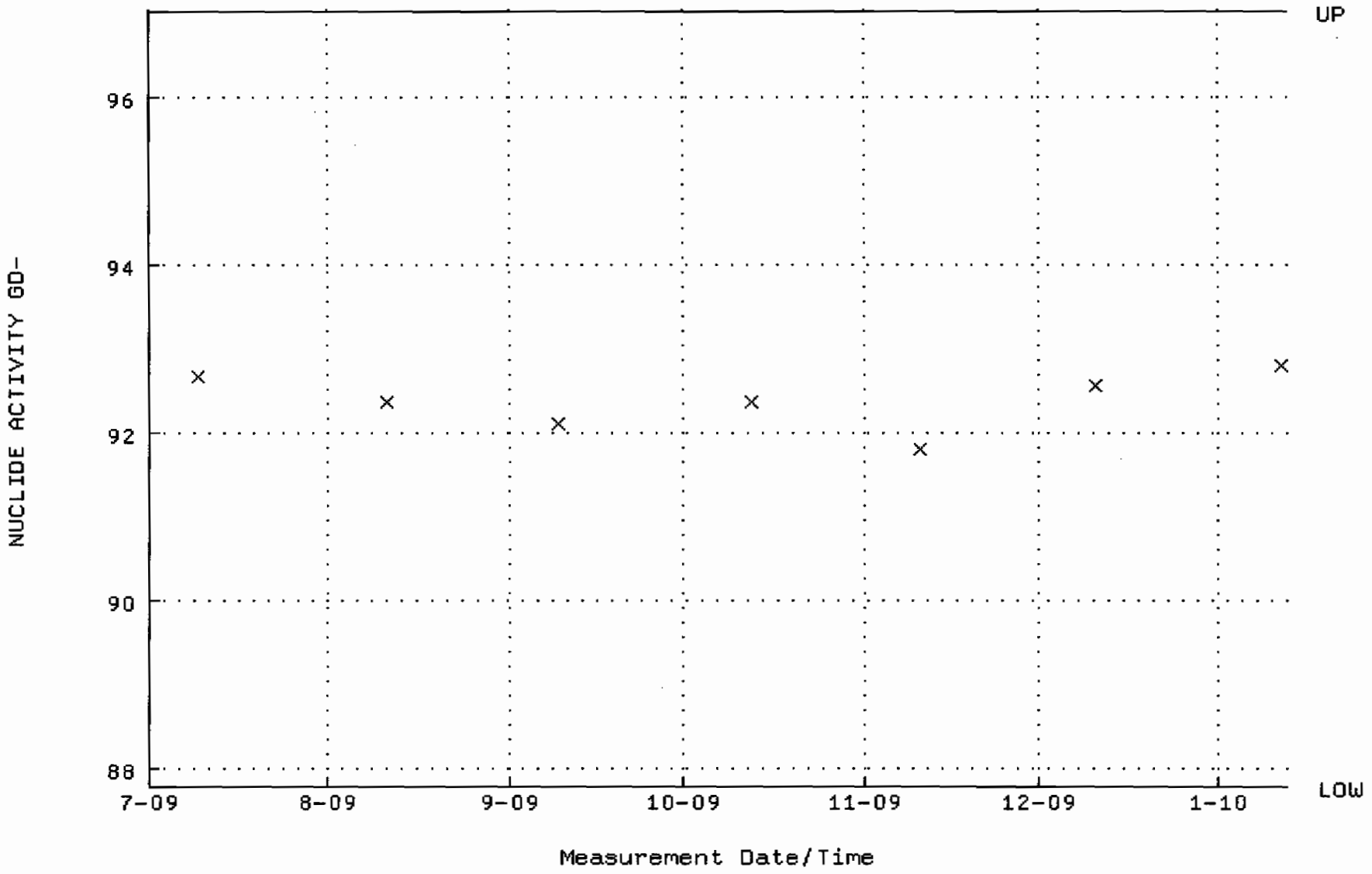

QA filename : DKA100:[ENV_ALPHA.QA.B]B086.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 5-JUL-2009 15:12:04 through 12-JAN-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

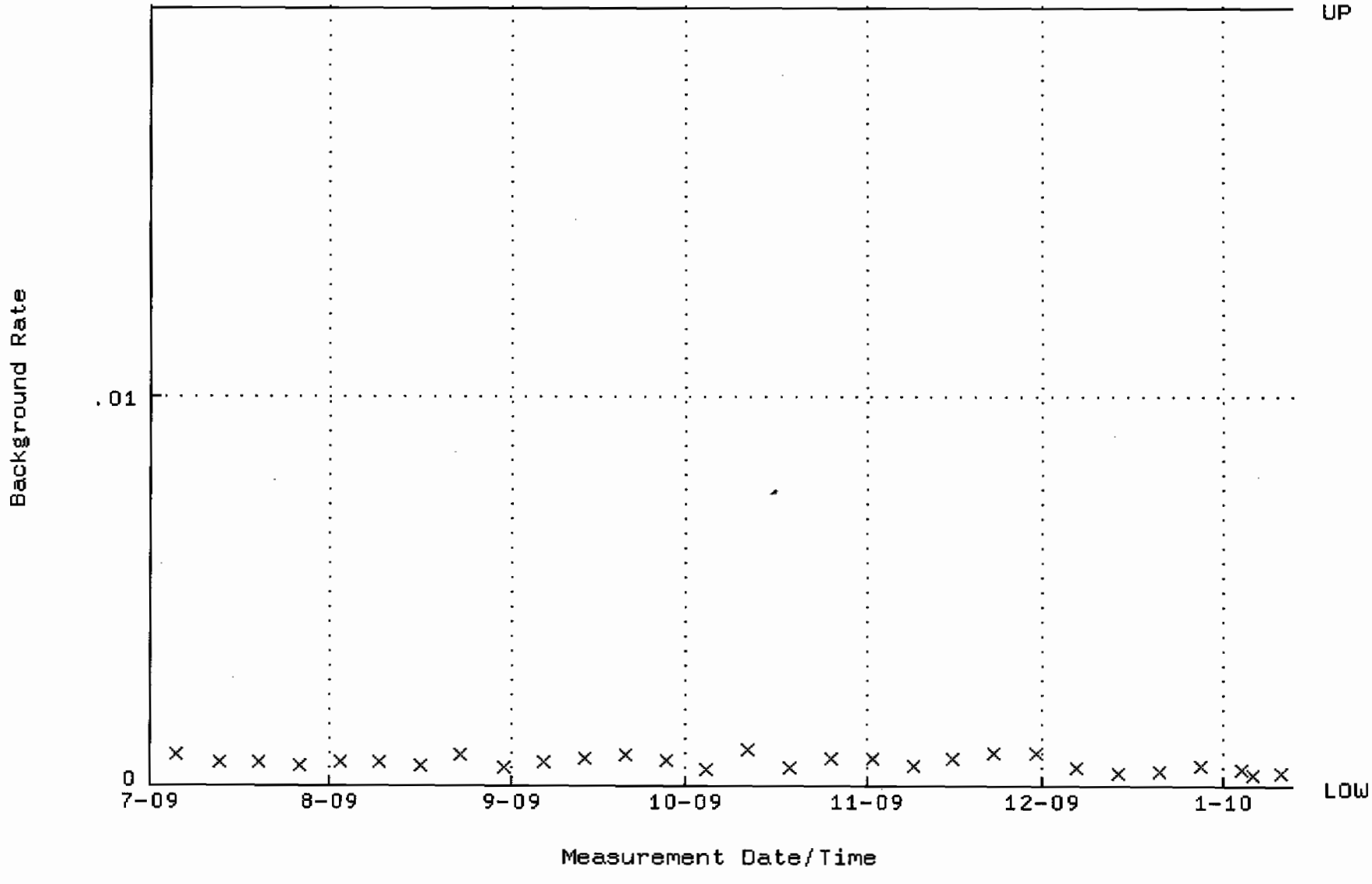

QA filename : DKA100:[ENV_ALPHA.QA.W]W130.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 15-JUN-2009 10:35:42 through 16-DEC-2009 12:00:00
Lower/Upper Lmts: 0.239131 through 0.259131

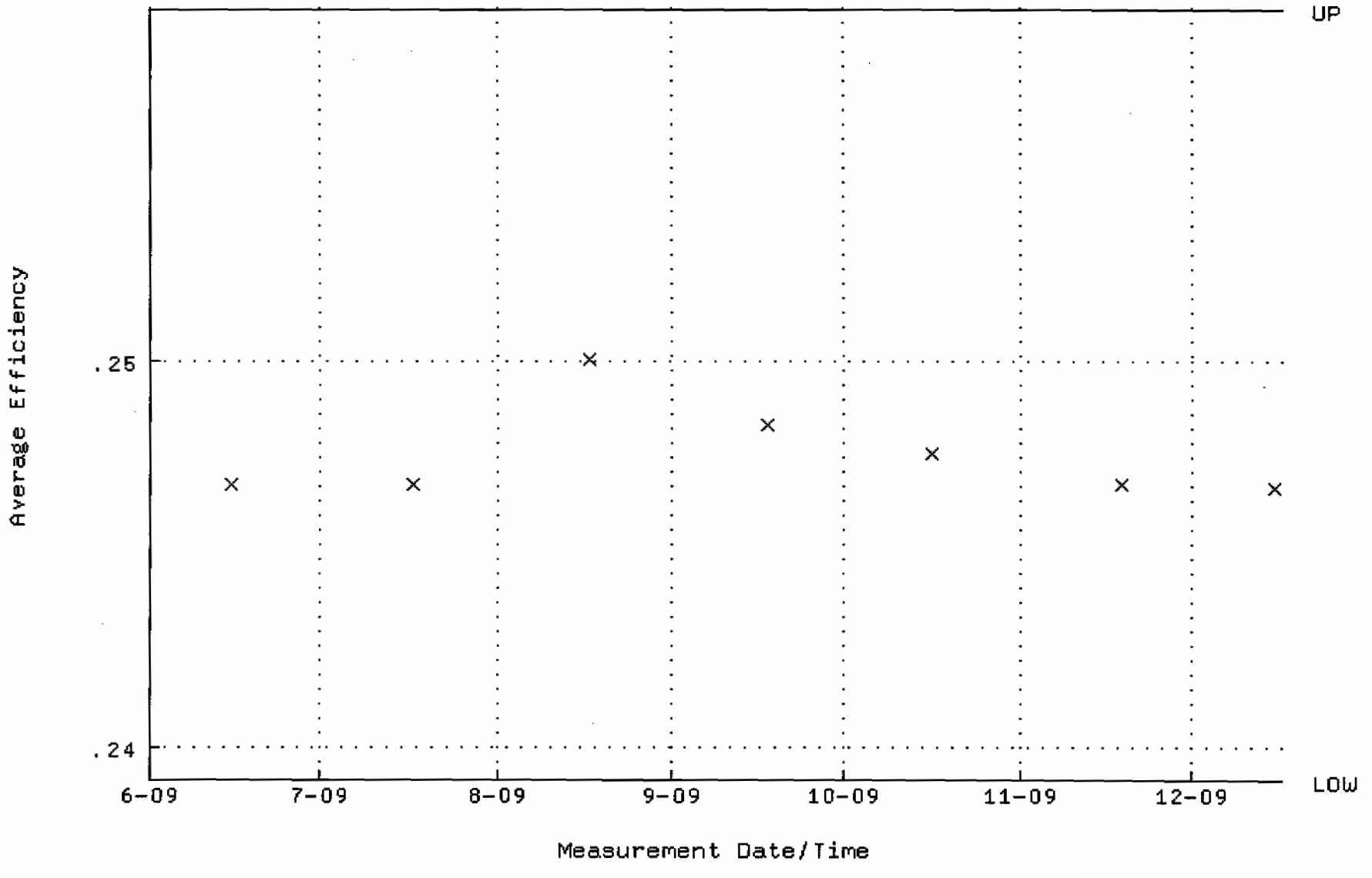

QA filename : DKA100:[ENV_ALPHA.QA.W]W130.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 15-JUN-2009 10:35:42 through 16-DEC-2009 12:00:00
Lower/Upper Lmts: 88.1614 through 97.4416

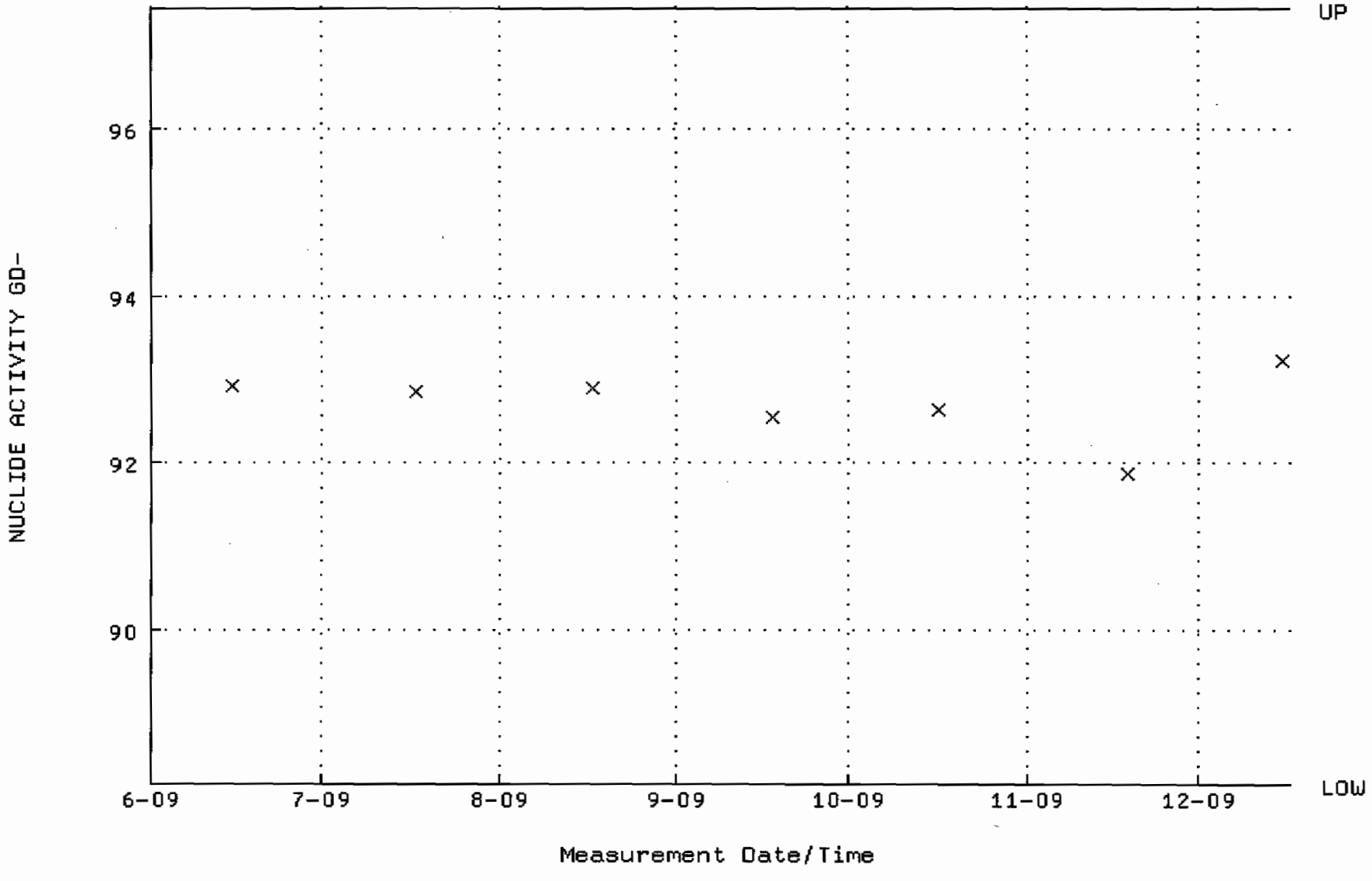

QA filename : DKA100:[ENV_ALPHA.QA.B]B130.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 7-JUN-2009 17:09:52 through 16-DEC-2009 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

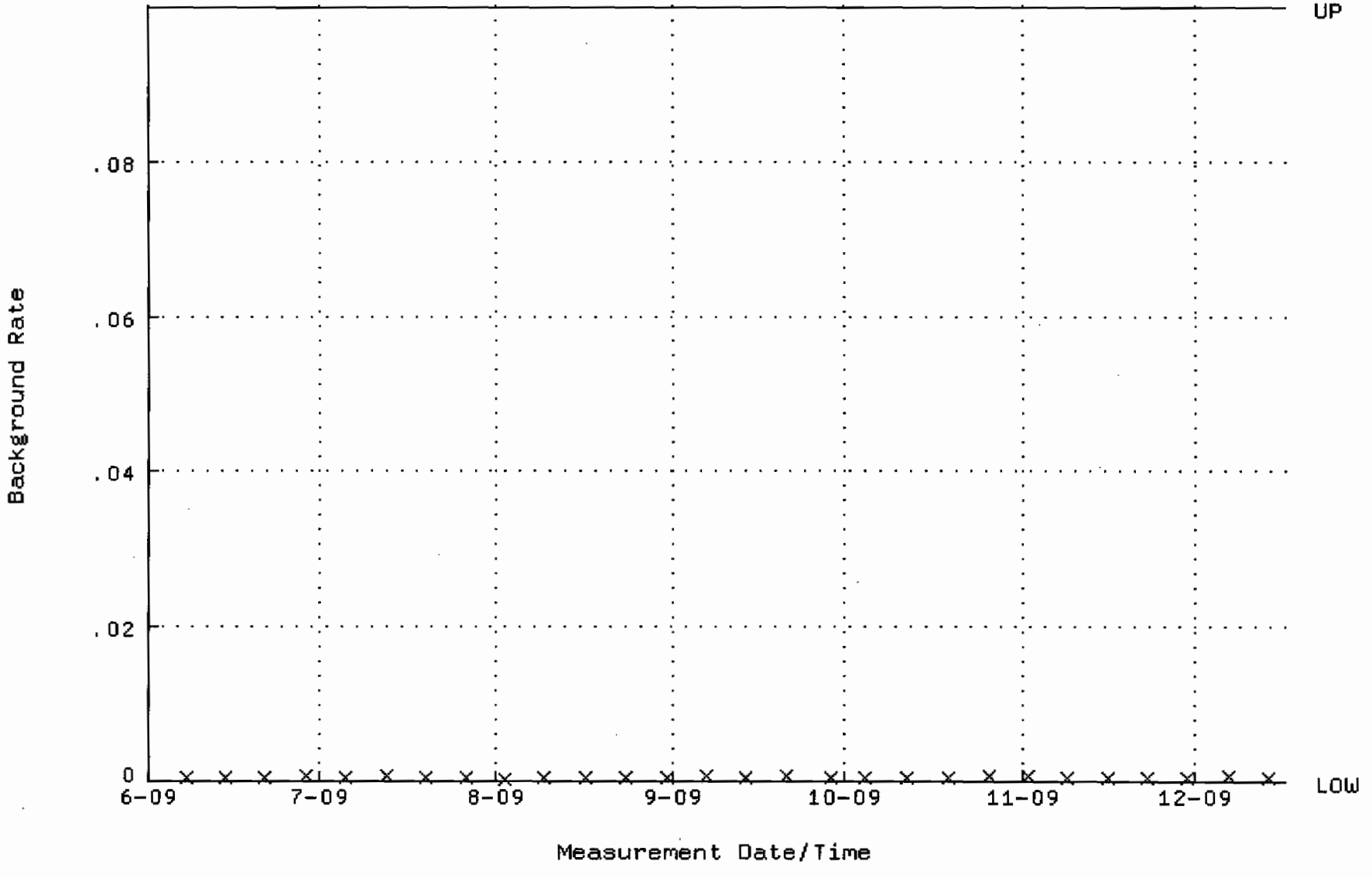

QA filename : DKA100:[ENV_ALPHA.QA.W]W132.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 15-JUN-2009 10:35:54 through 16-DEC-2009 12:00:00
Lower/Upper Lmts: 0.240573 through 0.260573

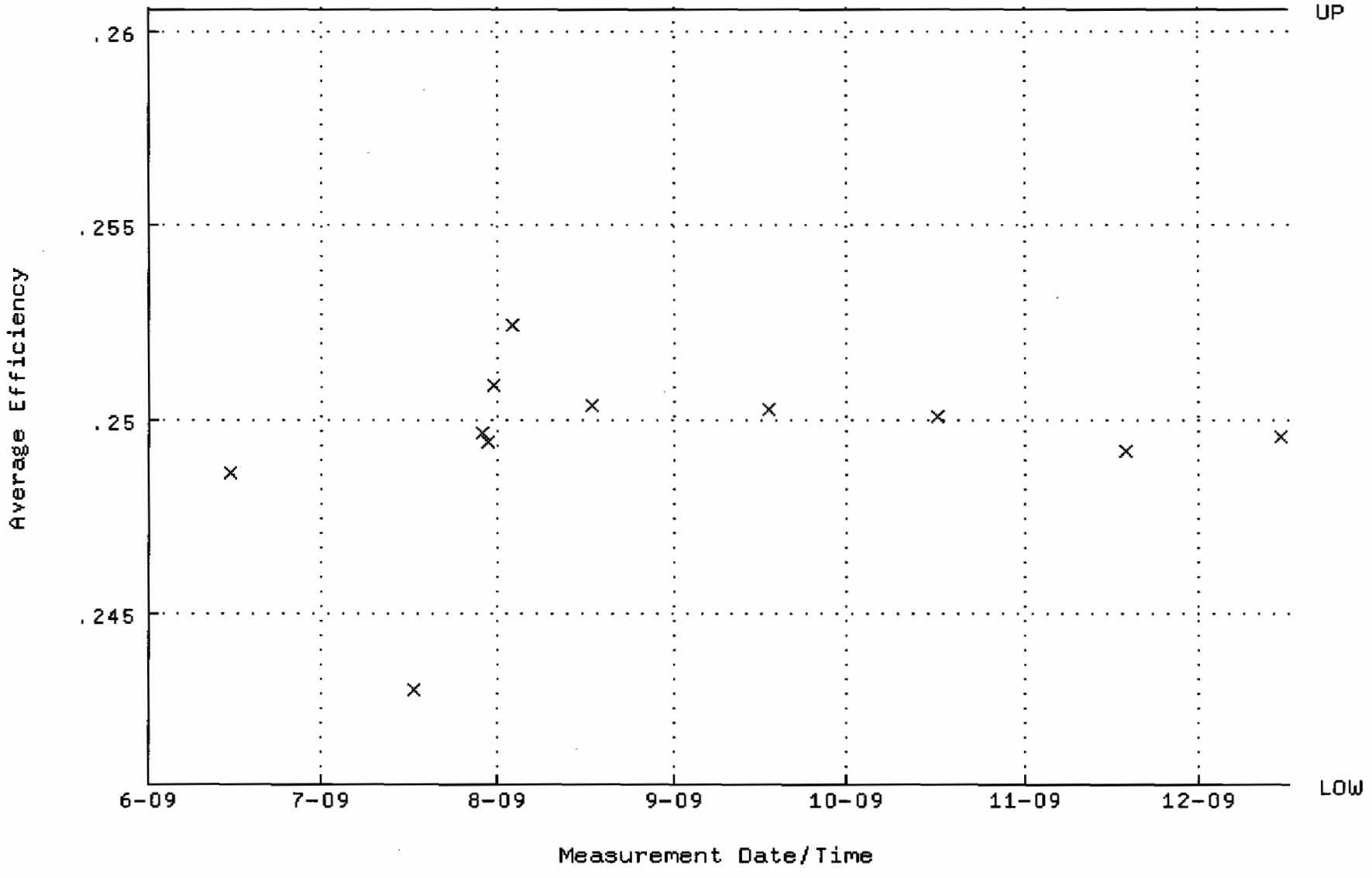

QA filename : DKA100:[ENV_ALPHA.QA.W]W132.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 15-JUN-2009 10:35:54 through 16-DEC-2009 12:00:00
Lower/Upper Lmts: 87.9674 through 97.2272

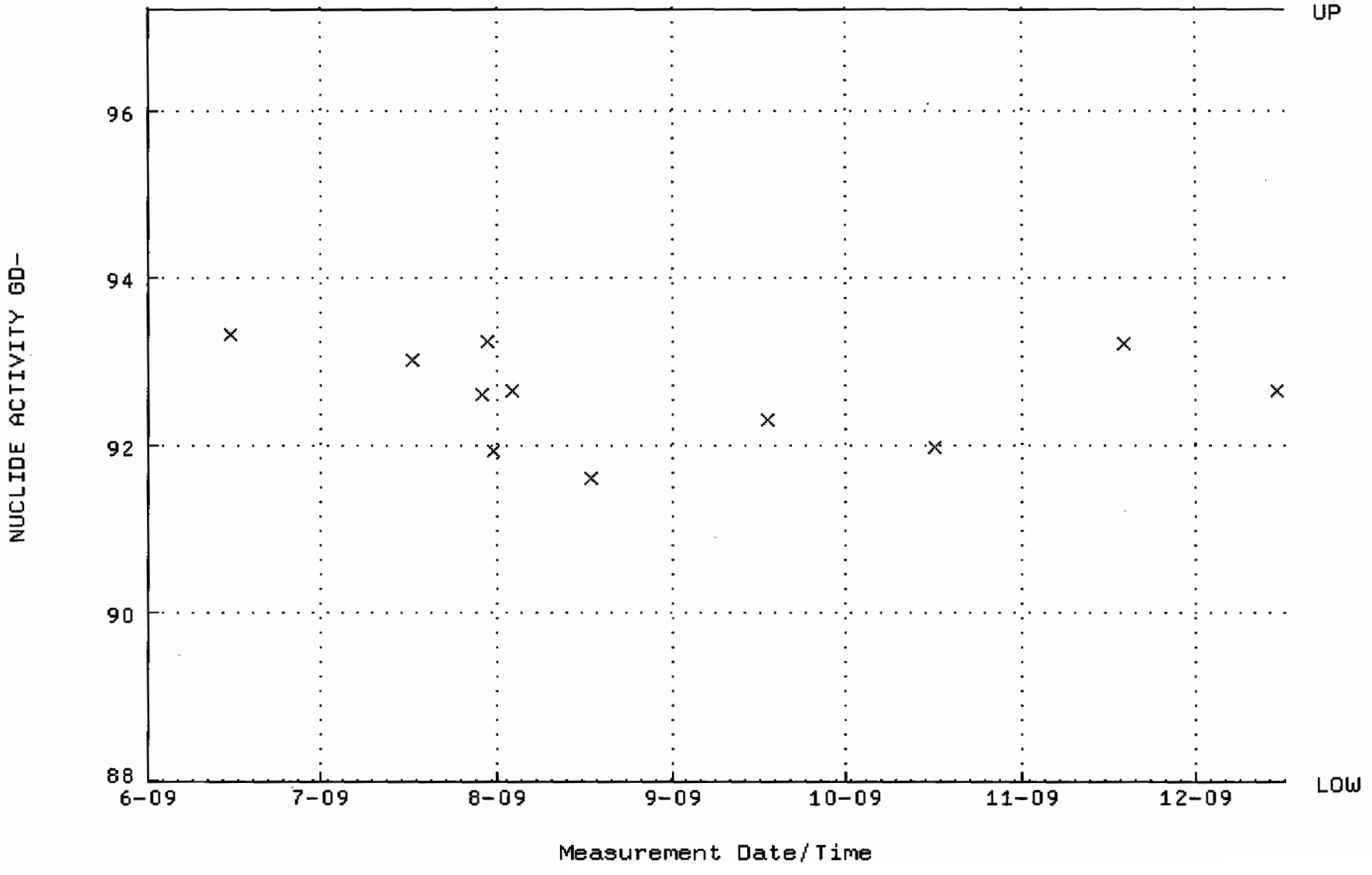

QA filename : DKA100:[ENV_ALPHA.QA.B]B132.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 7-JUN-2009 17:10:01 through 16-DEC-2009 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

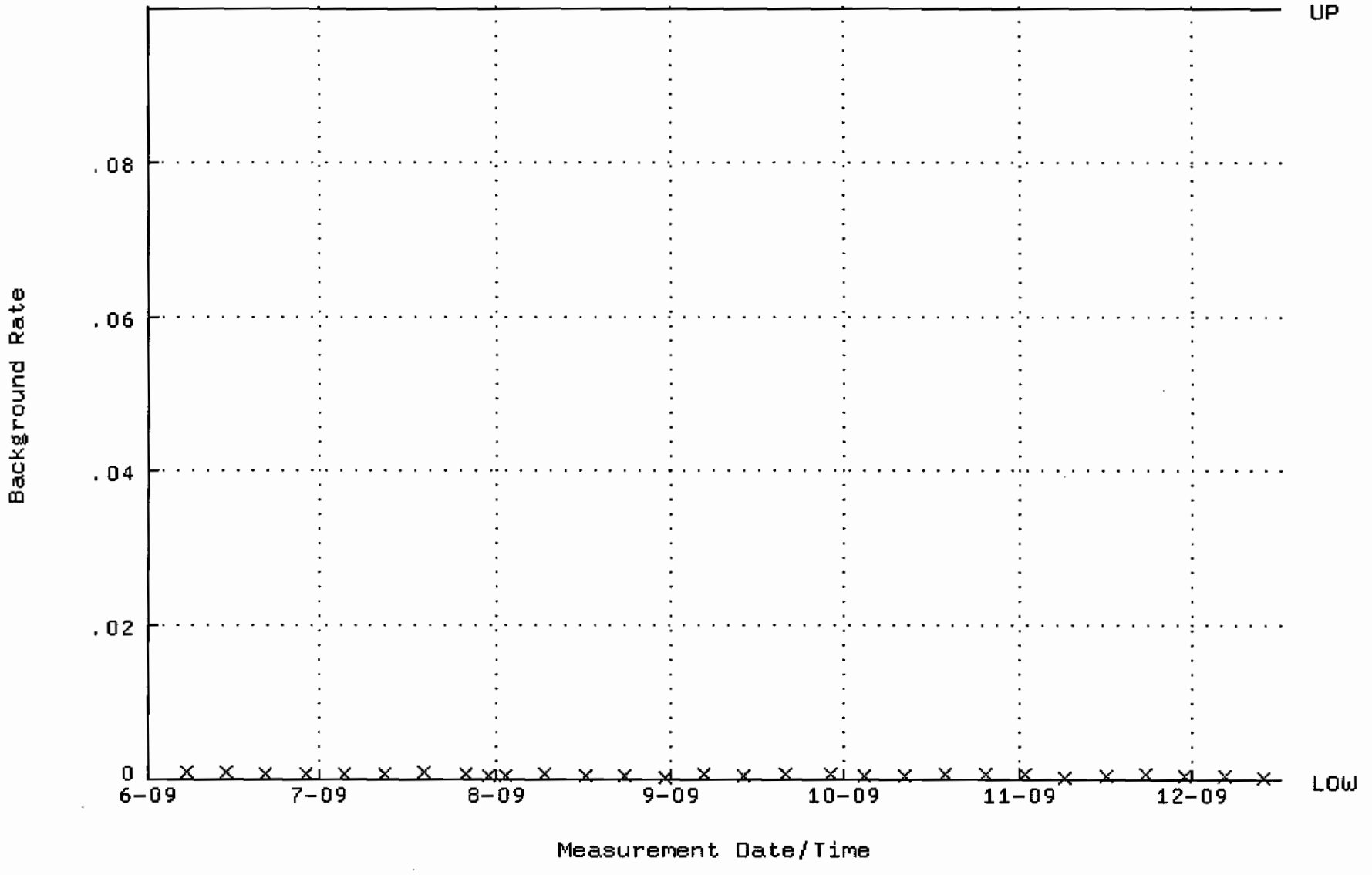

QA filename : DKA100:[ENV_ALPHA.QA.W]W136.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 15-JUN-2009 10:36:16 through 16-DEC-2009 12:00:00
Lower/Upper Lmts: 0.238568 through 0.258568

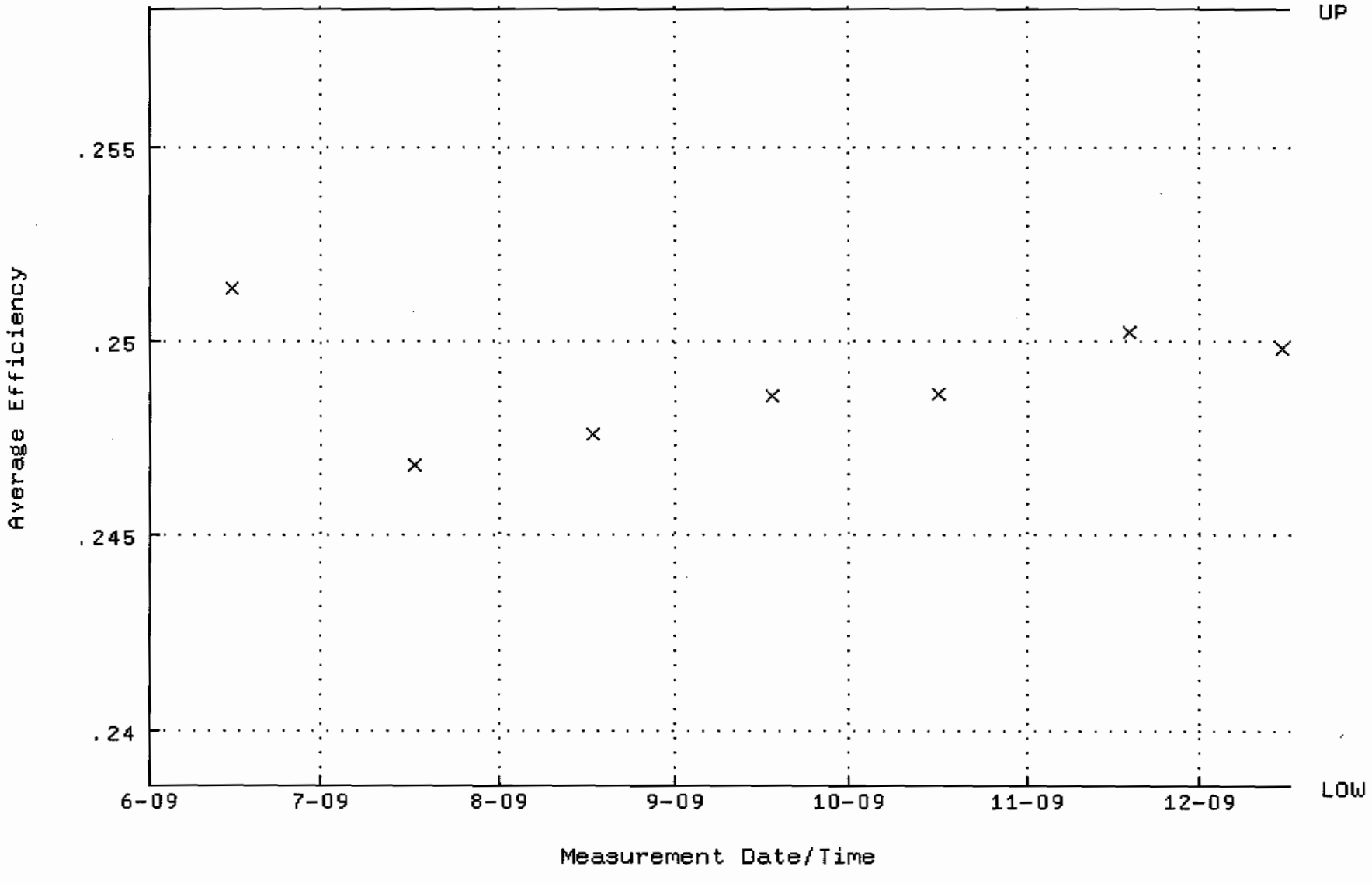

QA filename : DKA100:[ENV_ALPHA.QA.W]W136.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 15-JUN-2009 10:36:16 through 16-DEC-2009 12:00:00
Lower/Upper Lmts: 85.2214 through 94.1920

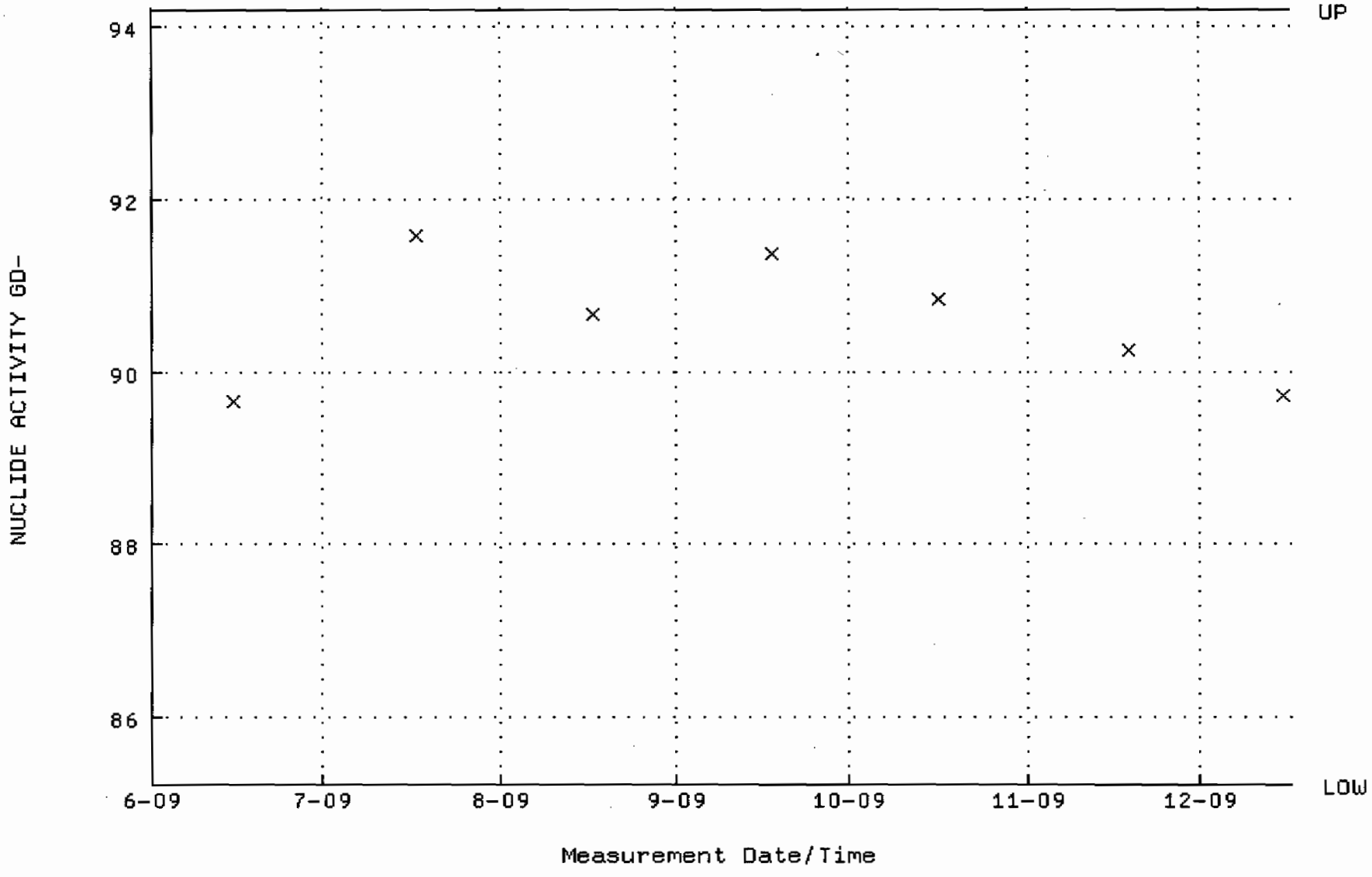

QA filename : DKA100:[ENV_ALPHA.QA.B]B136.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 7-JUN-2009 17:10:15 through 16-DEC-2009 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

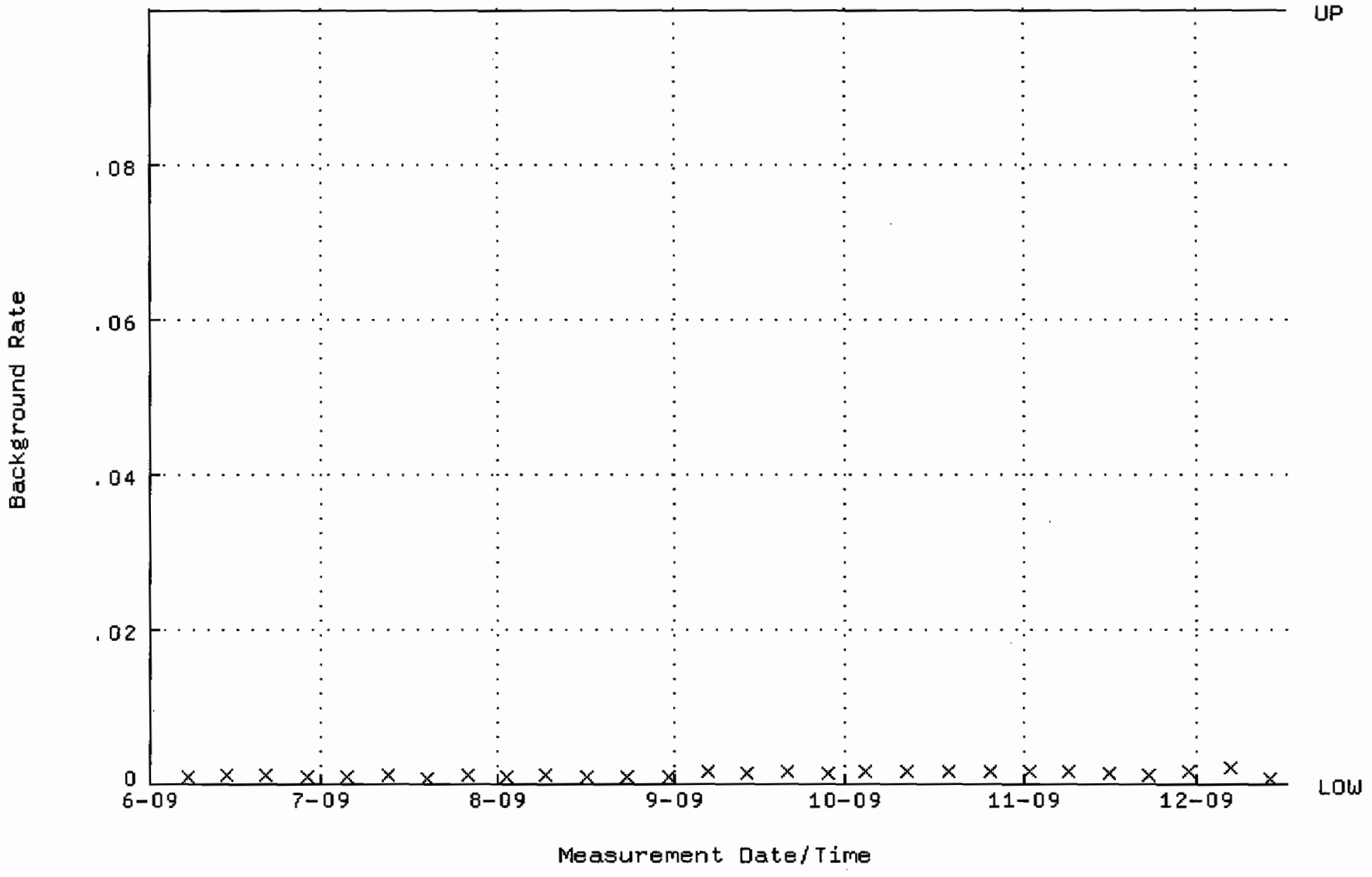

QA filename : DKA100:[ENV_ALPHA.QA.W]W137.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 15-JUN-2009 10:36:21 through 16-DEC-2009 12:00:00
Lower/Upper Lmts: 0.241744 through 0.261744

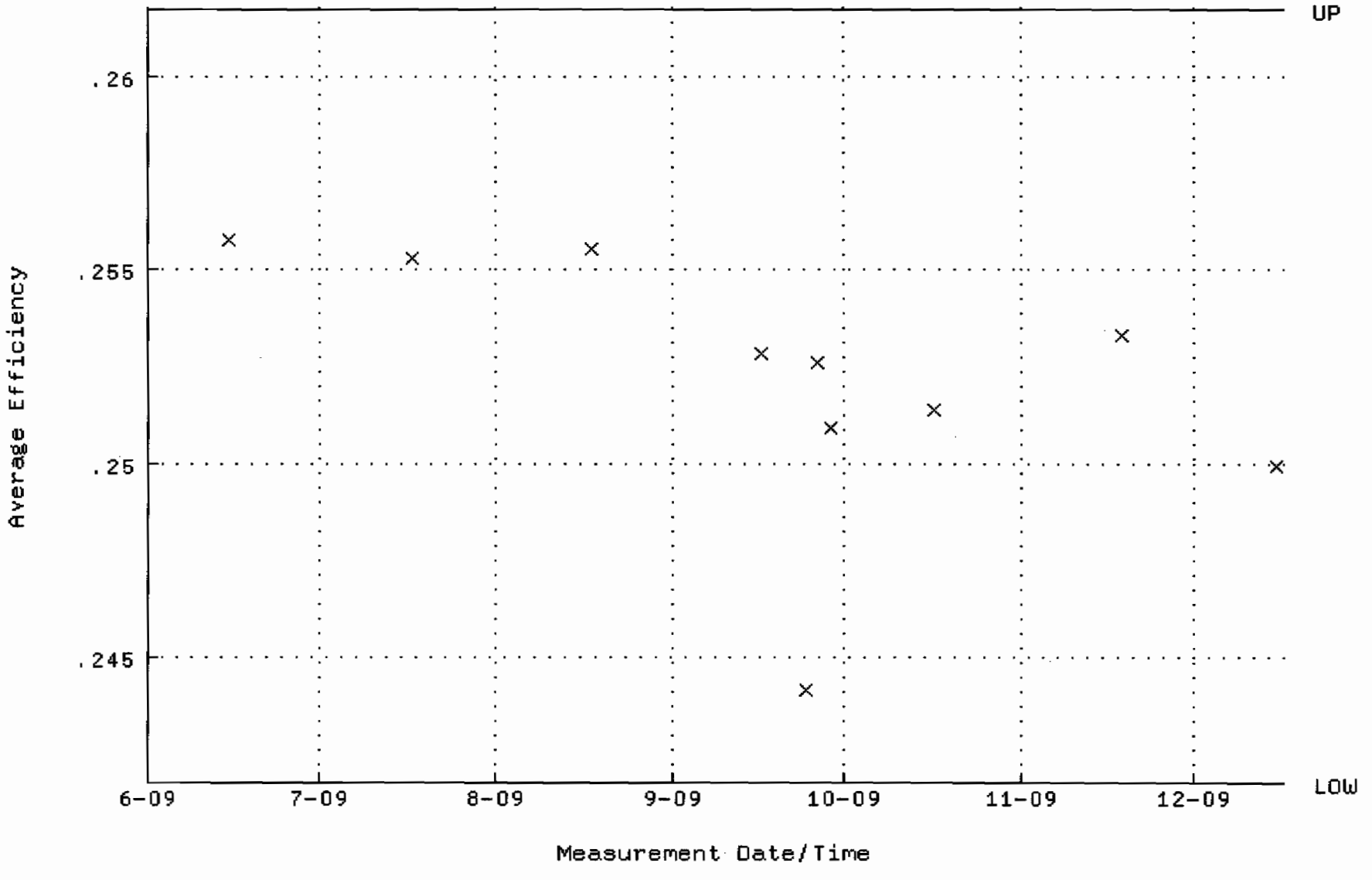

QA filename : DKA100:[ENV_ALPHA.QA.W]W137.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 15-JUN-2009 10:36:21 through 16-DEC-2009 12:00:00
Lower/Upper Lmts: 84.4530 through 93.3428

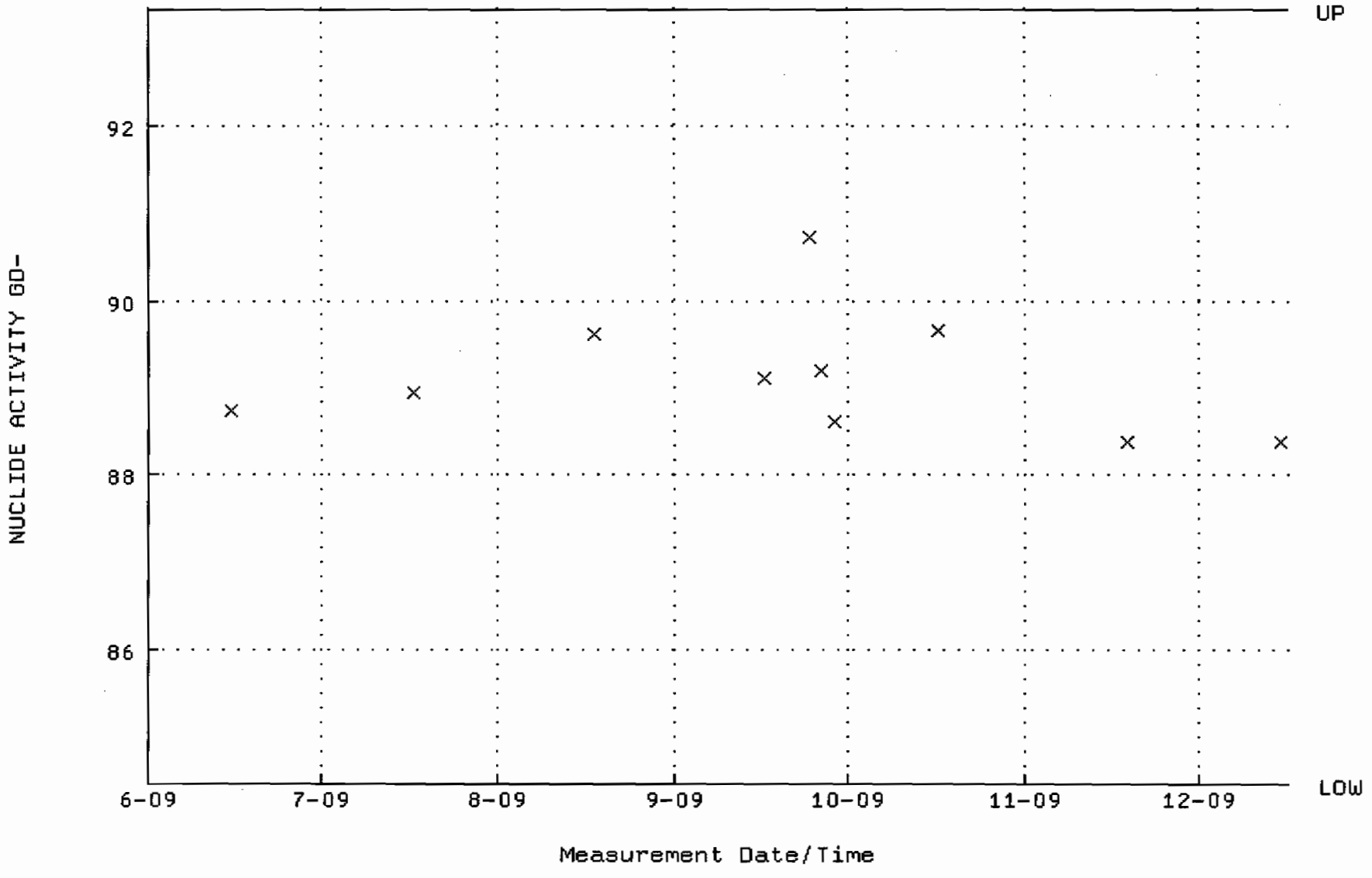

QA filename : DKA100:[ENV_ALPHA.QA.B]B137.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 7-JUN-2009 17:10:19 through 16-DEC-2009 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

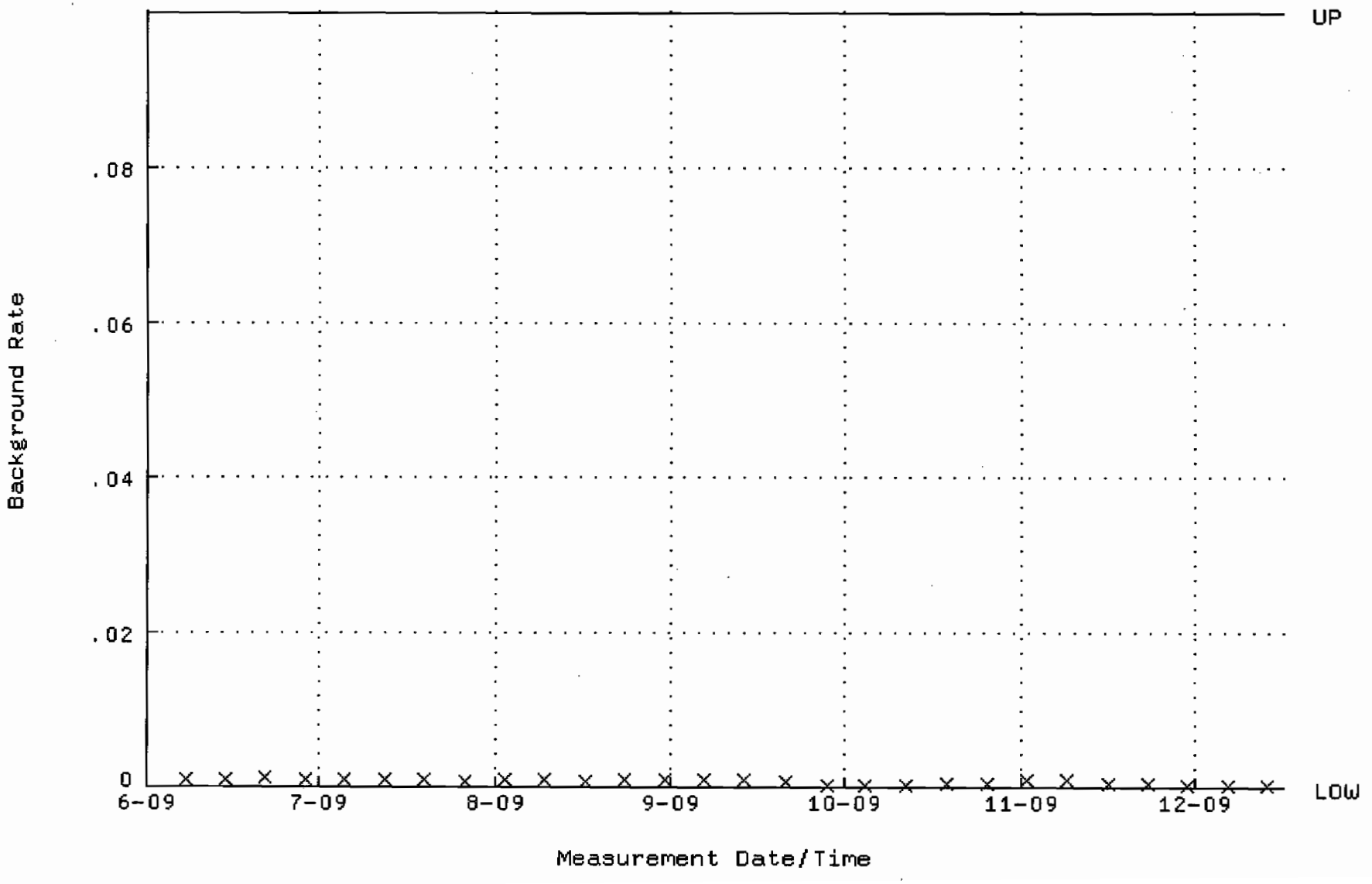

QA filename : DKA100:[ENV_ALPHA.QA.W]W138.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 15-JUN-2009 10:36:25 through 16-DEC-2009 12:00:00
Lower/Upper Lmts: 0.247085 through 0.267085

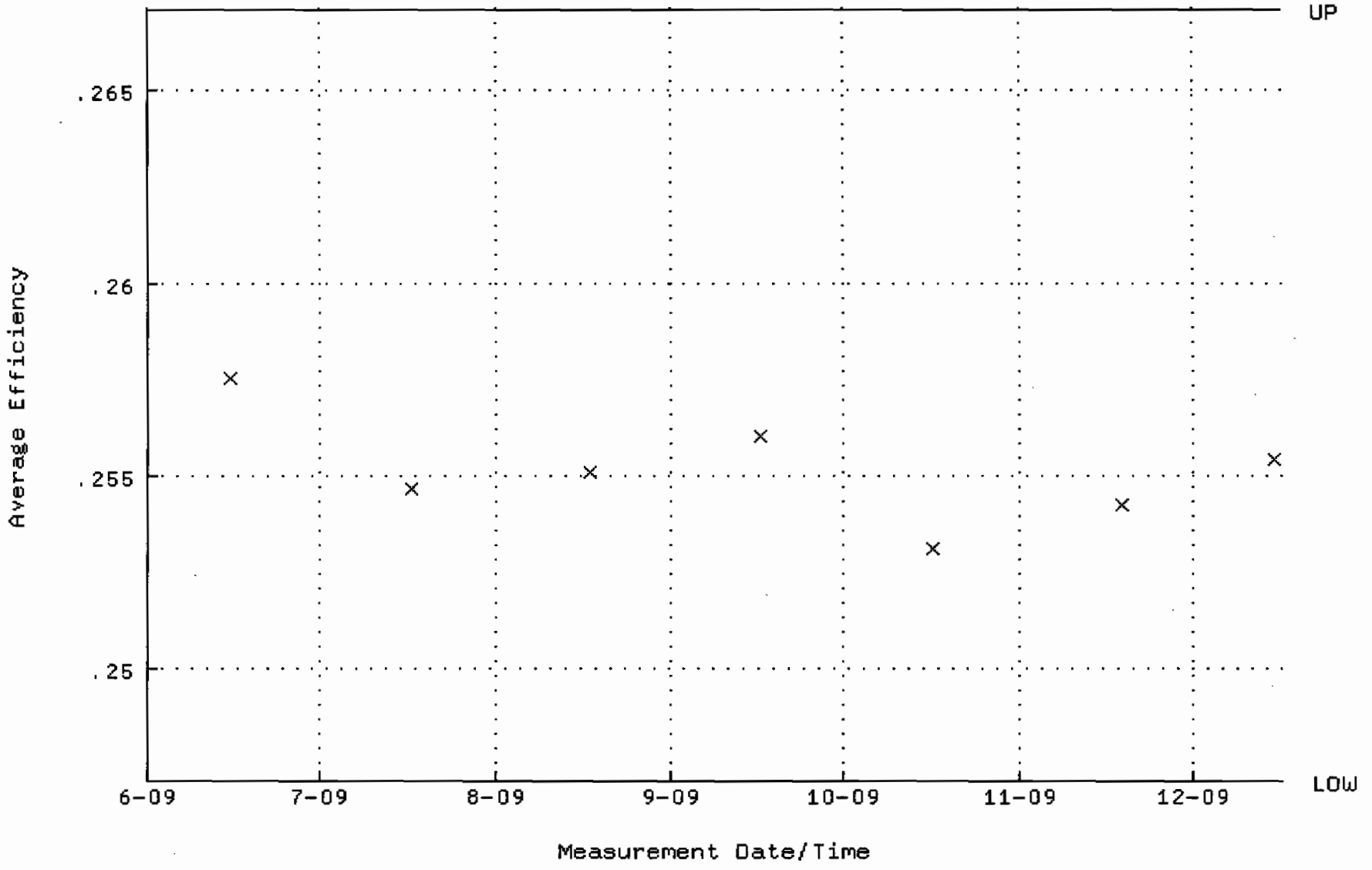

QA filename : DKA100:[ENV_ALPHA.QA.W]W138.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 15-JUN-2009 10:36:25 through 16-DEC-2009 12:00:00
Lower/Upper Lmts: 82.8399 through 91.5599

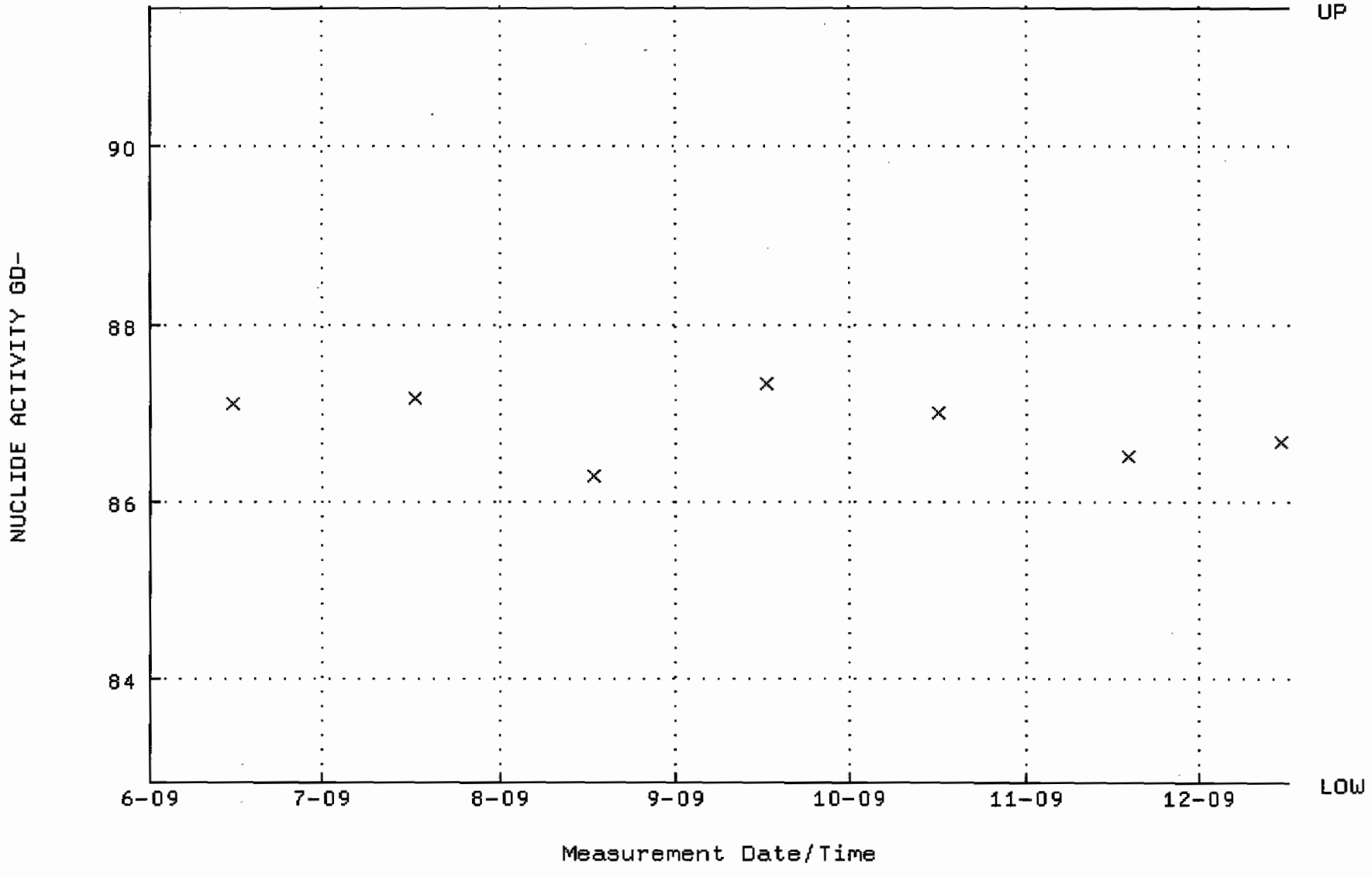

QA filename : DKA100:[ENV_ALPHA.QA.B]B138.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 7-JUN-2009 17:10:23 through 16-DEC-2009 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

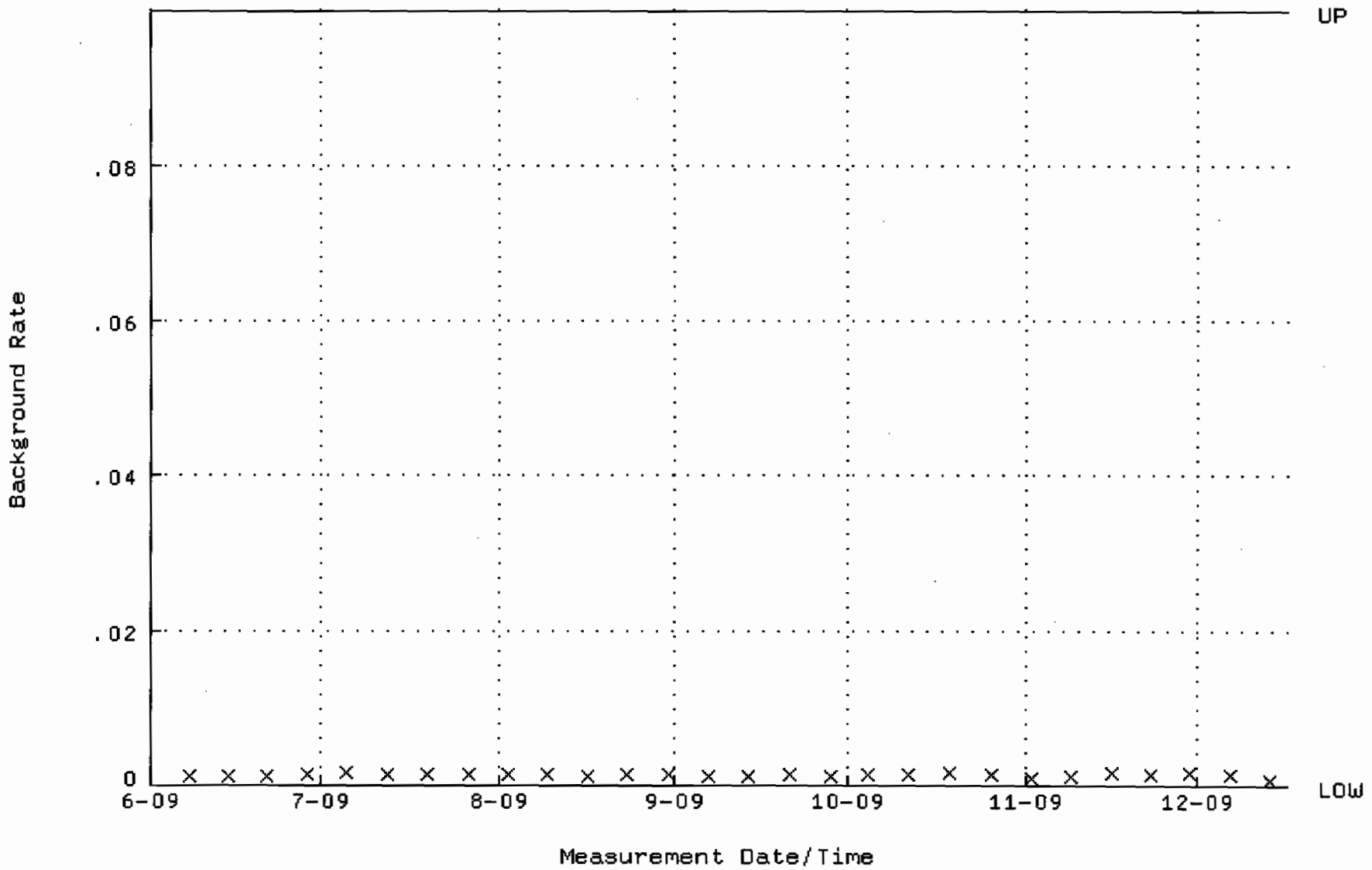

QA filename : DKA100:[ENV_ALPHA.QA.W]W142.QAF;2
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 15-JUN-2009 10:36:46 through 16-DEC-2009 12:00:00
Lower/Upper Lmts: 0.252182 through 0.272182

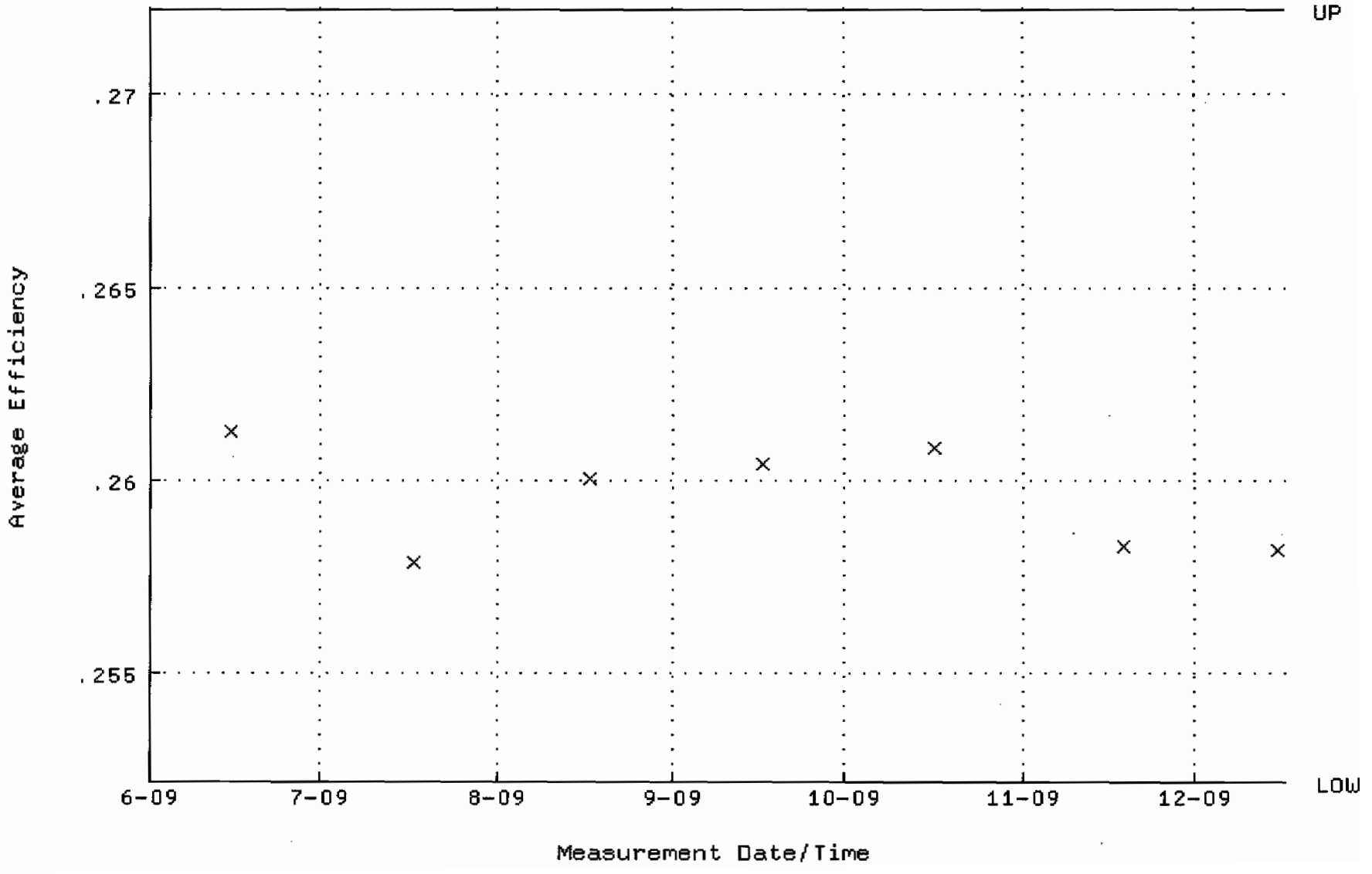

QA filename : DKA100:[ENV_ALPHA.QA.W]W142.QAF;2
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 15-JUN-2009 10:36:46 through 16-DEC-2009 12:00:00
Lower/Upper Lmts: 81.0245 through 89.5533

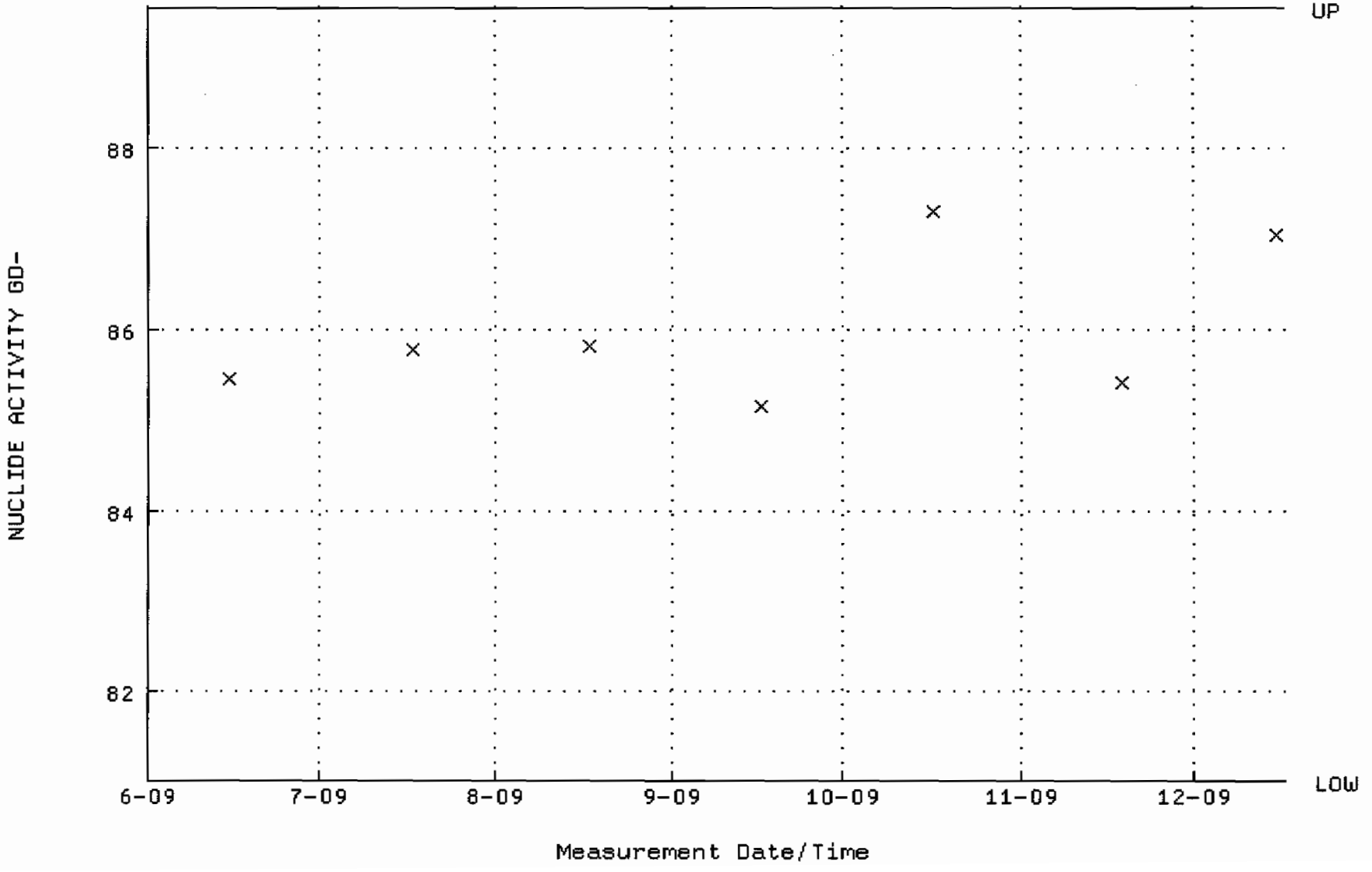

QA filename : DKA100:[ENV_ALPHA.QA.B]B142.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 7-JUN-2009 17:10:42 through 16-DEC-2009 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

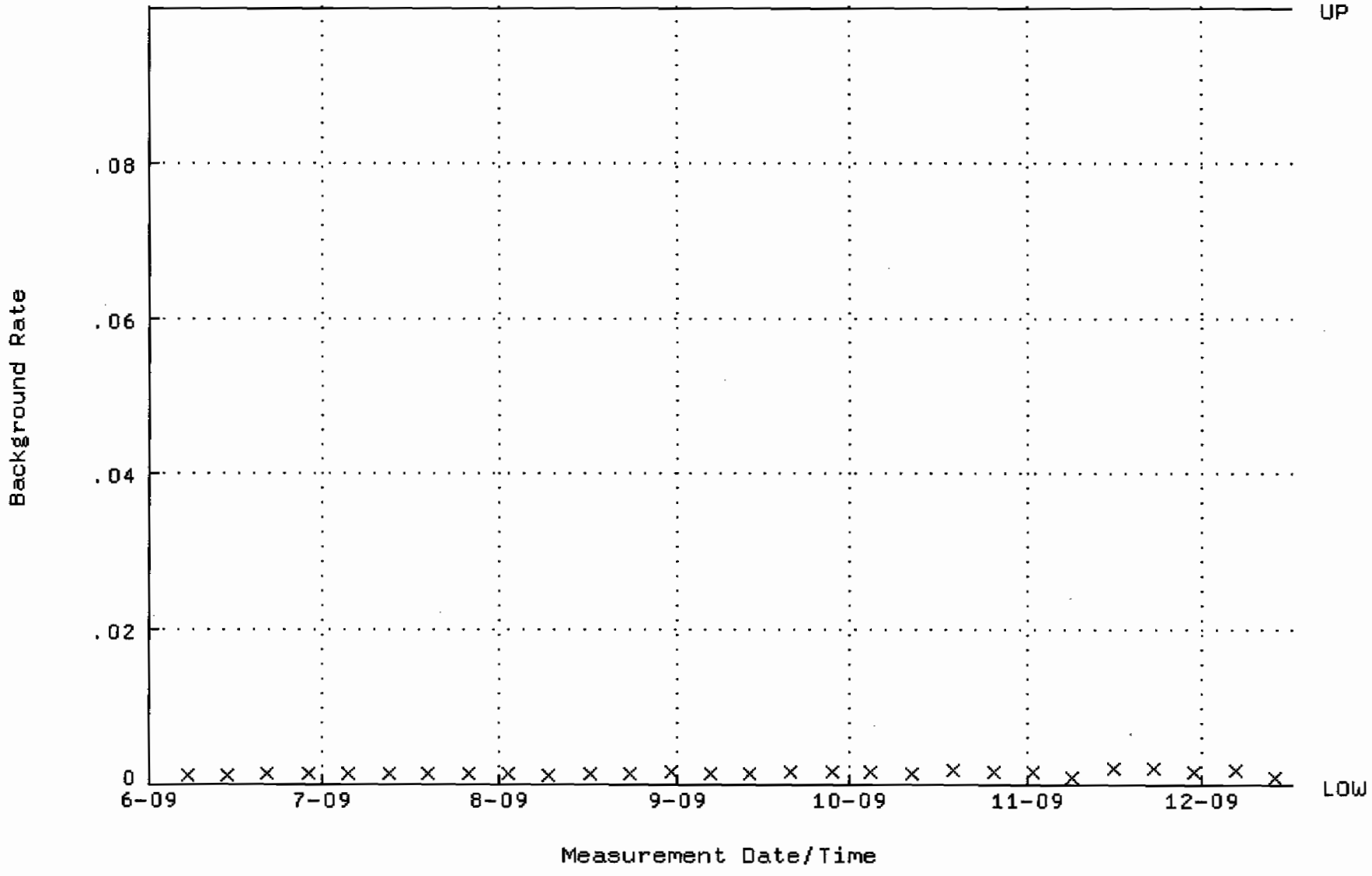

QA filename : DKA100:[ENV_ALPHA.QA.W]W143.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 15-JUN-2009 10:36:52 through 16-DEC-2009 12:00:00
Lower/Upper Lmts: 0.233879 through 0.253879

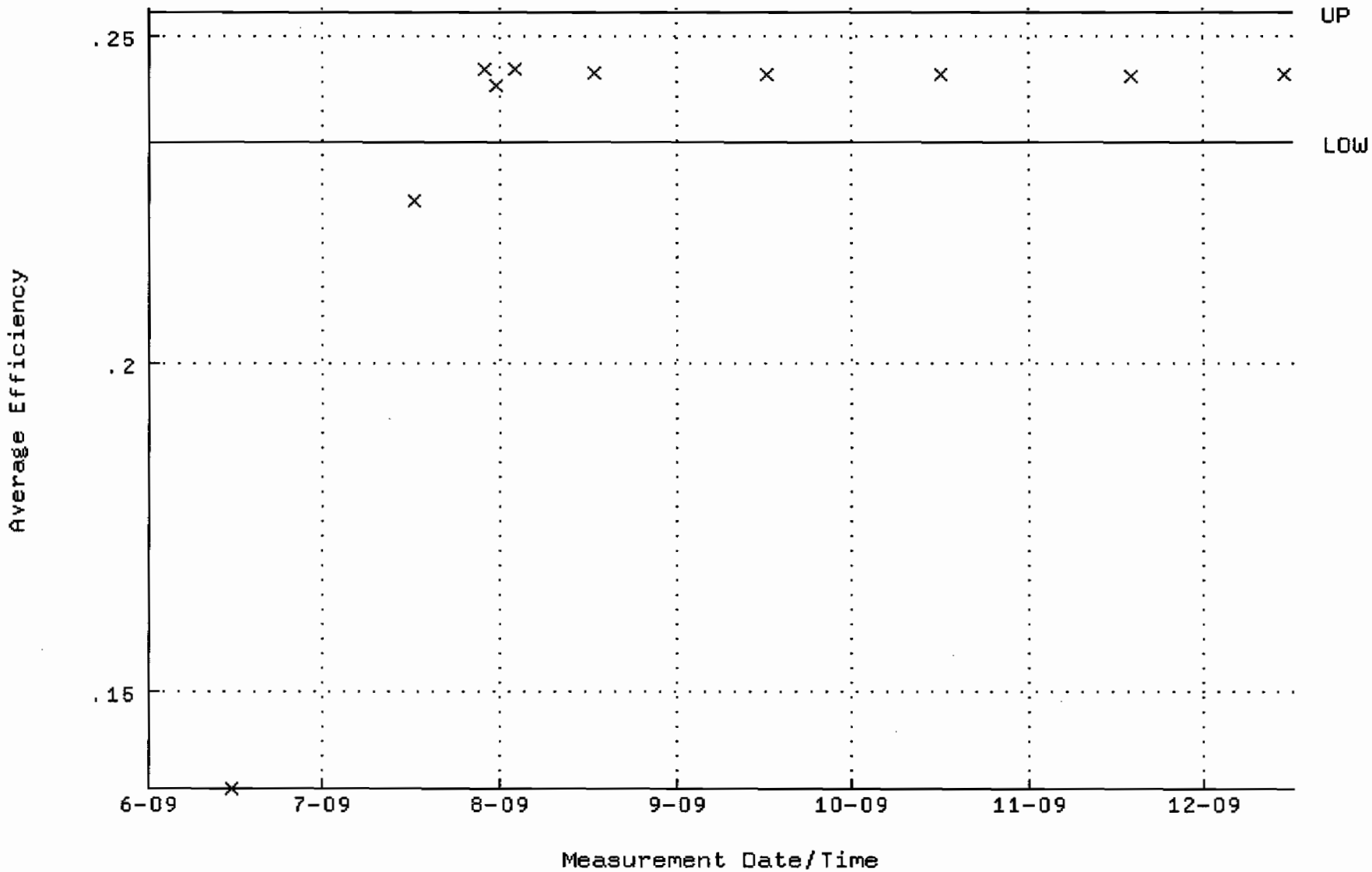

QA filename : DKA100:[ENV_ALPHA.QA.W]W143.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 15-JUN-2009 10:36:52 through 16-DEC-2009 12:00:00
Lower/Upper Lmts: 84.9200 through 93.8590

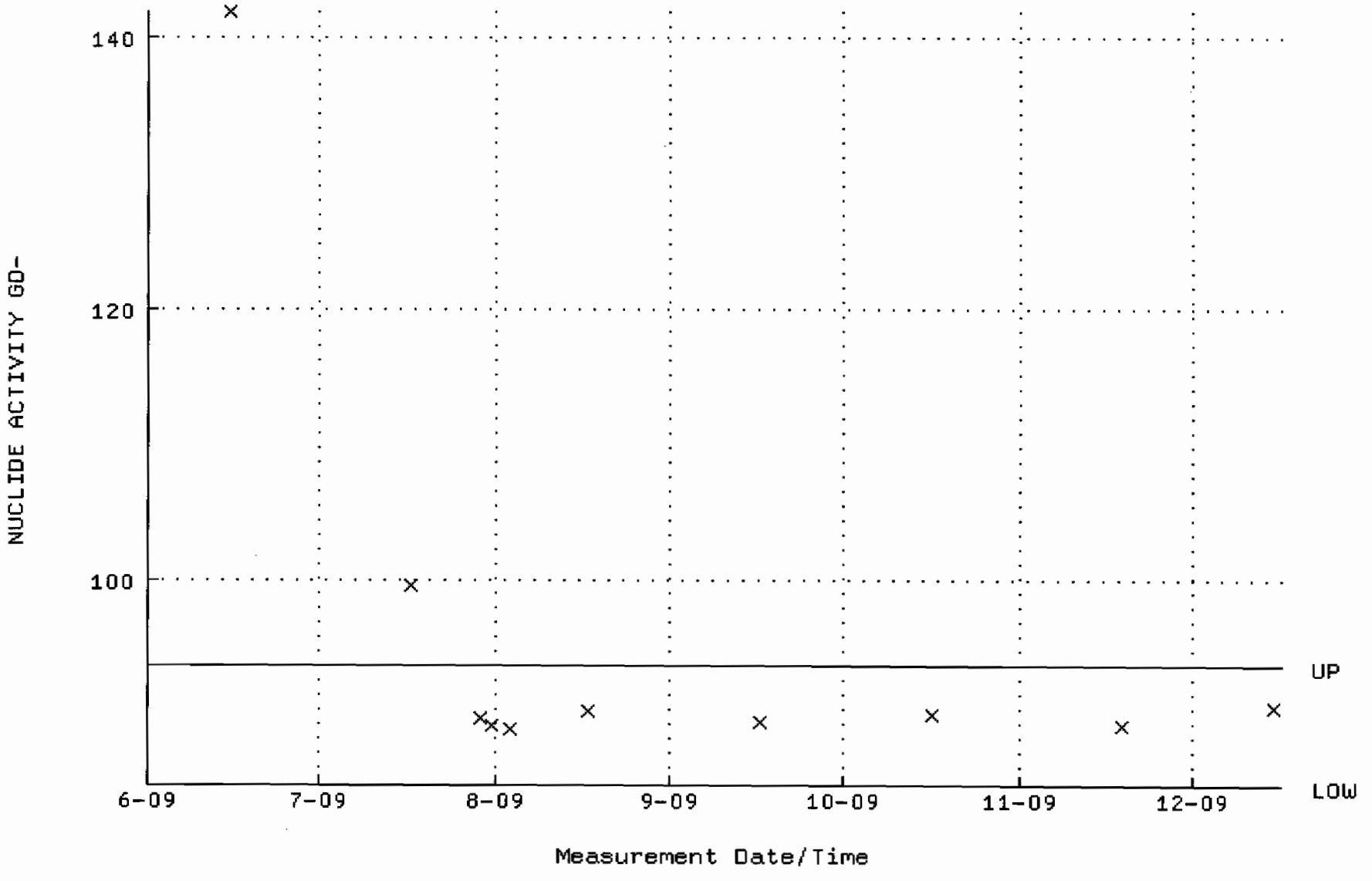

QA filename : DKA100:[ENV_ALPHA.QA.B]B143.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 7-JUN-2009 17:10:47 through 16-DEC-2009 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

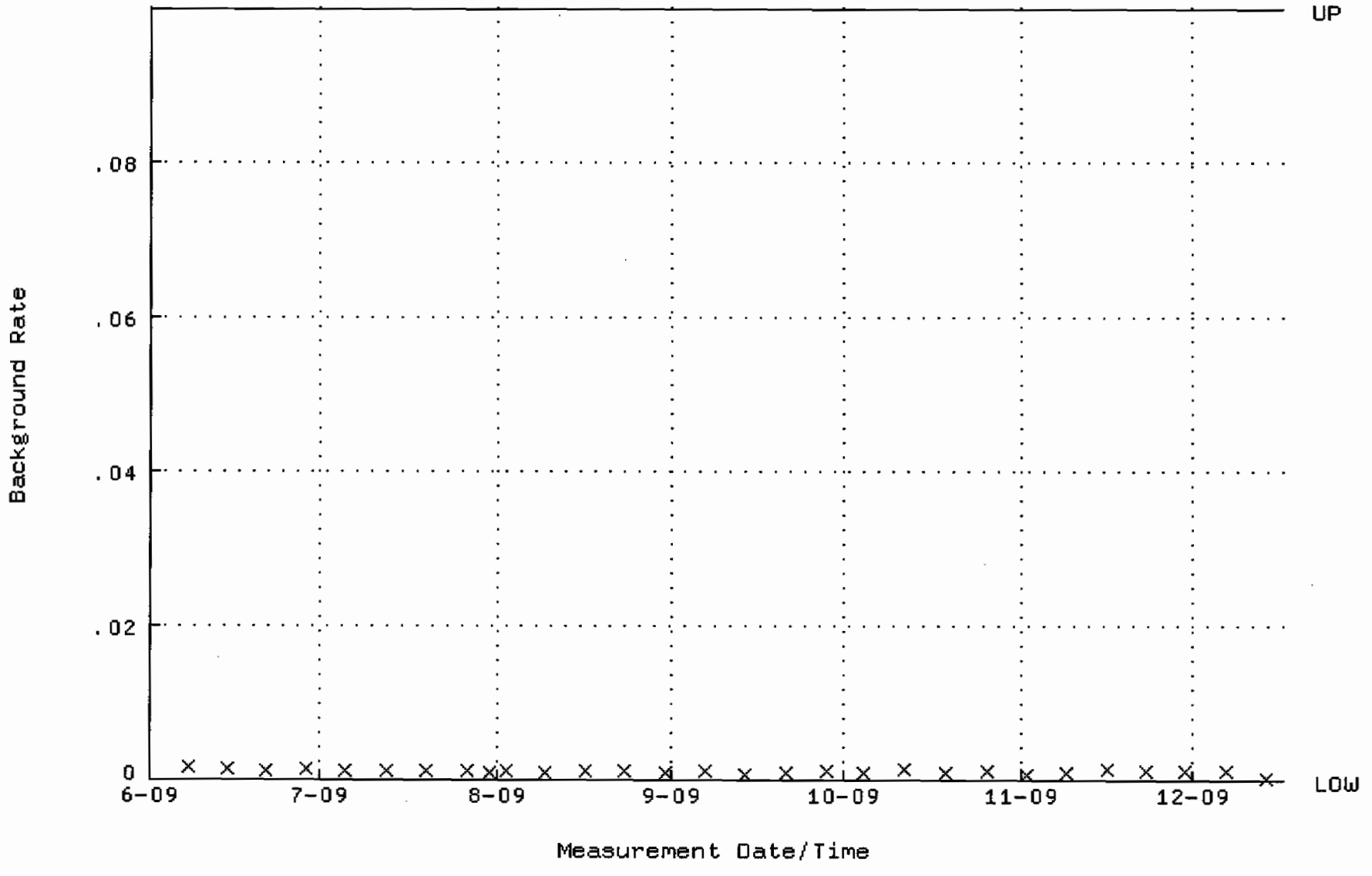

QA filename : DKA100:[ENV_ALPHA.QA.W]W145.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 15-JUN-2009 10:37:03 through 16-DEC-2009 12:00:00
Lower/Upper Lmts: 0.239850 through 0.259850

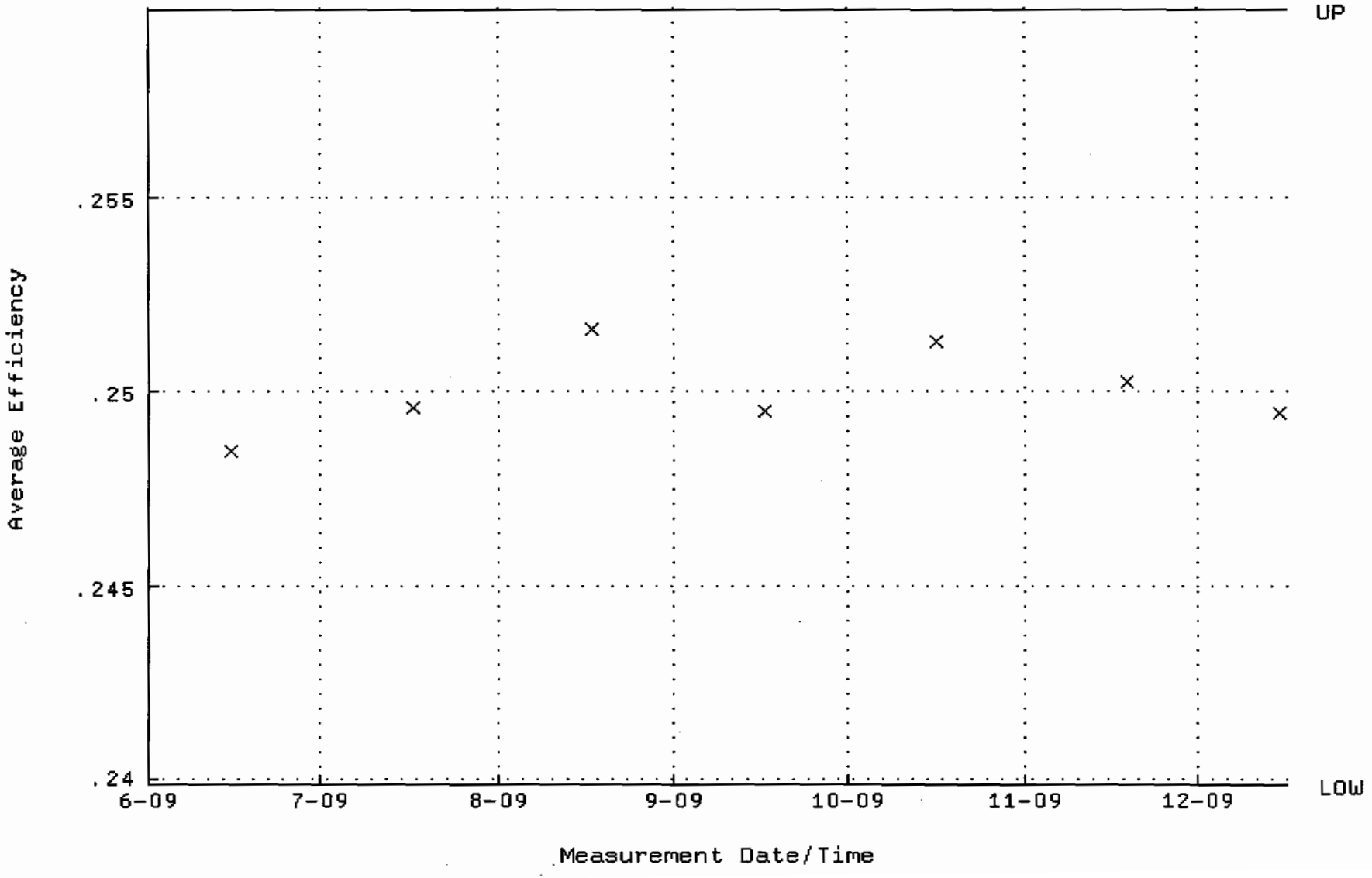

QA filename : DKA100:[ENV_ALPHA.QA.W]W145.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 15-JUN-2009 10:37:03 through 16-DEC-2009 12:00:00
Lower/Upper Lmts: 84.9354 through 93.8760

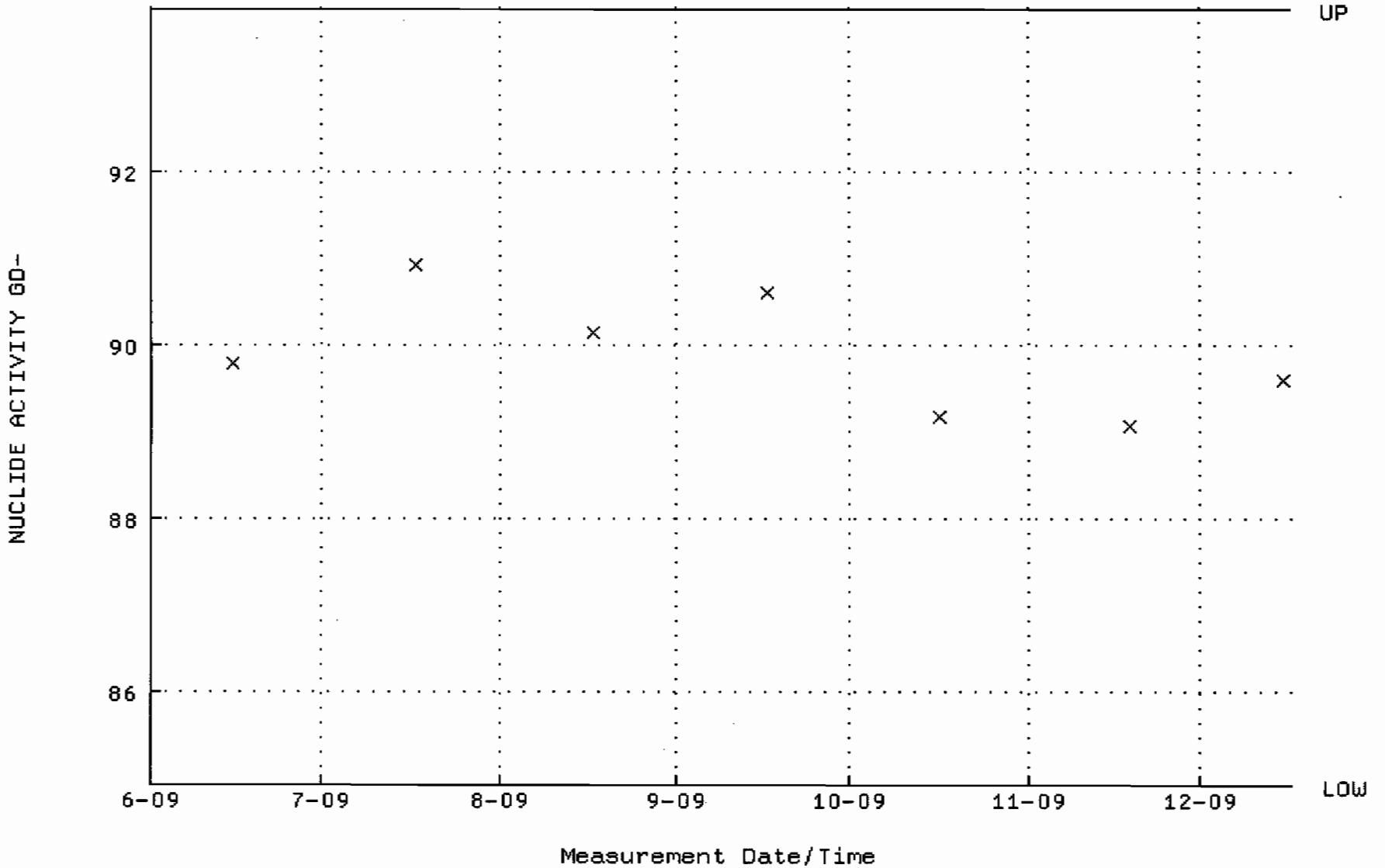

QA filename : DKA100:[ENV_ALPHA.QA.B]B145.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 7-JUN-2009 17:10:56 through 16-DEC-2009 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

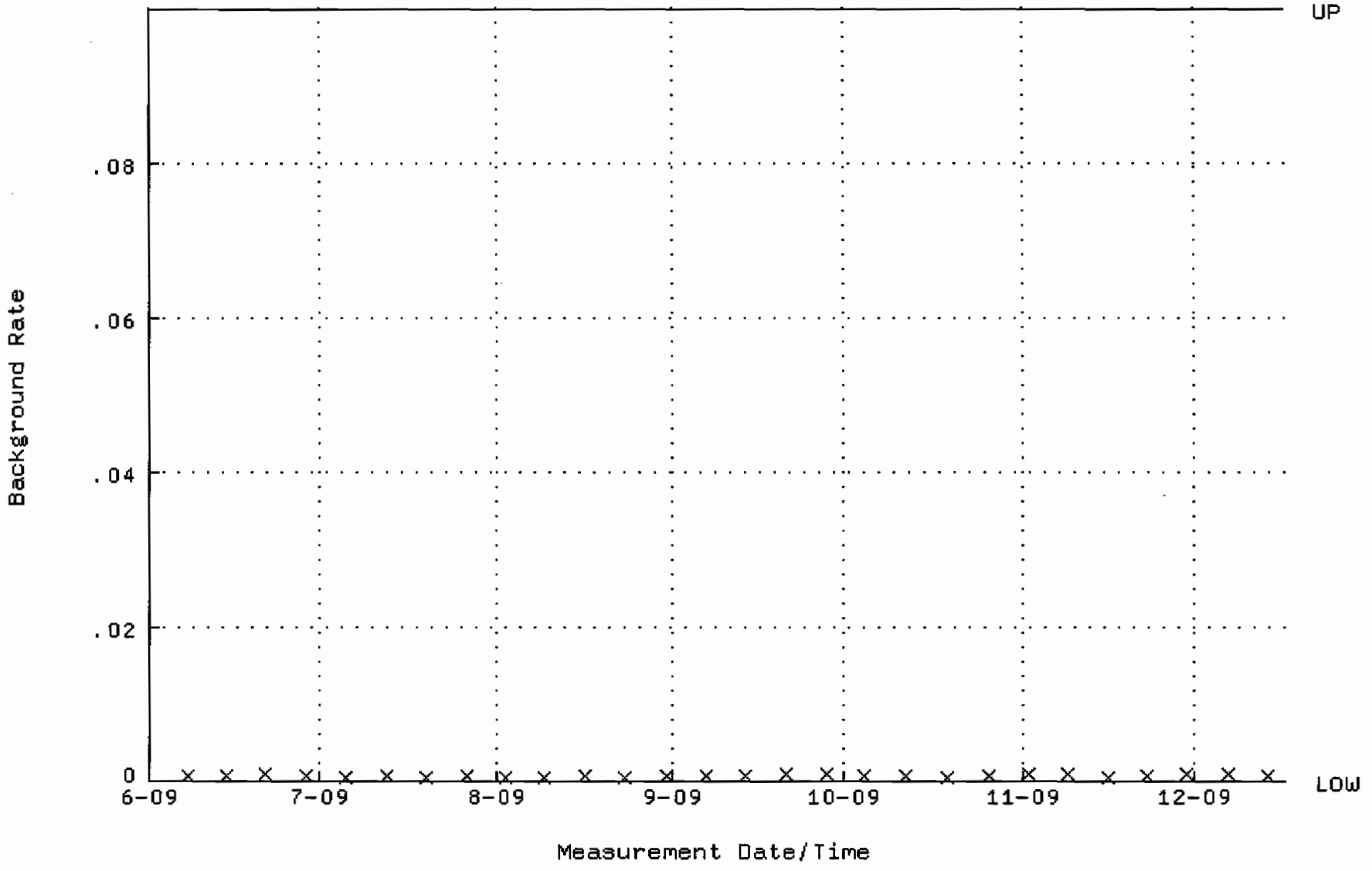

QA filename : DKA100:[ENV_ALPHA.QA.W]W146.QAF;2
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 15-JUN-2009 10:37:08 through 16-DEC-2009 12:00:00
Lower/Upper Lmts: 0.241831 through 0.261831

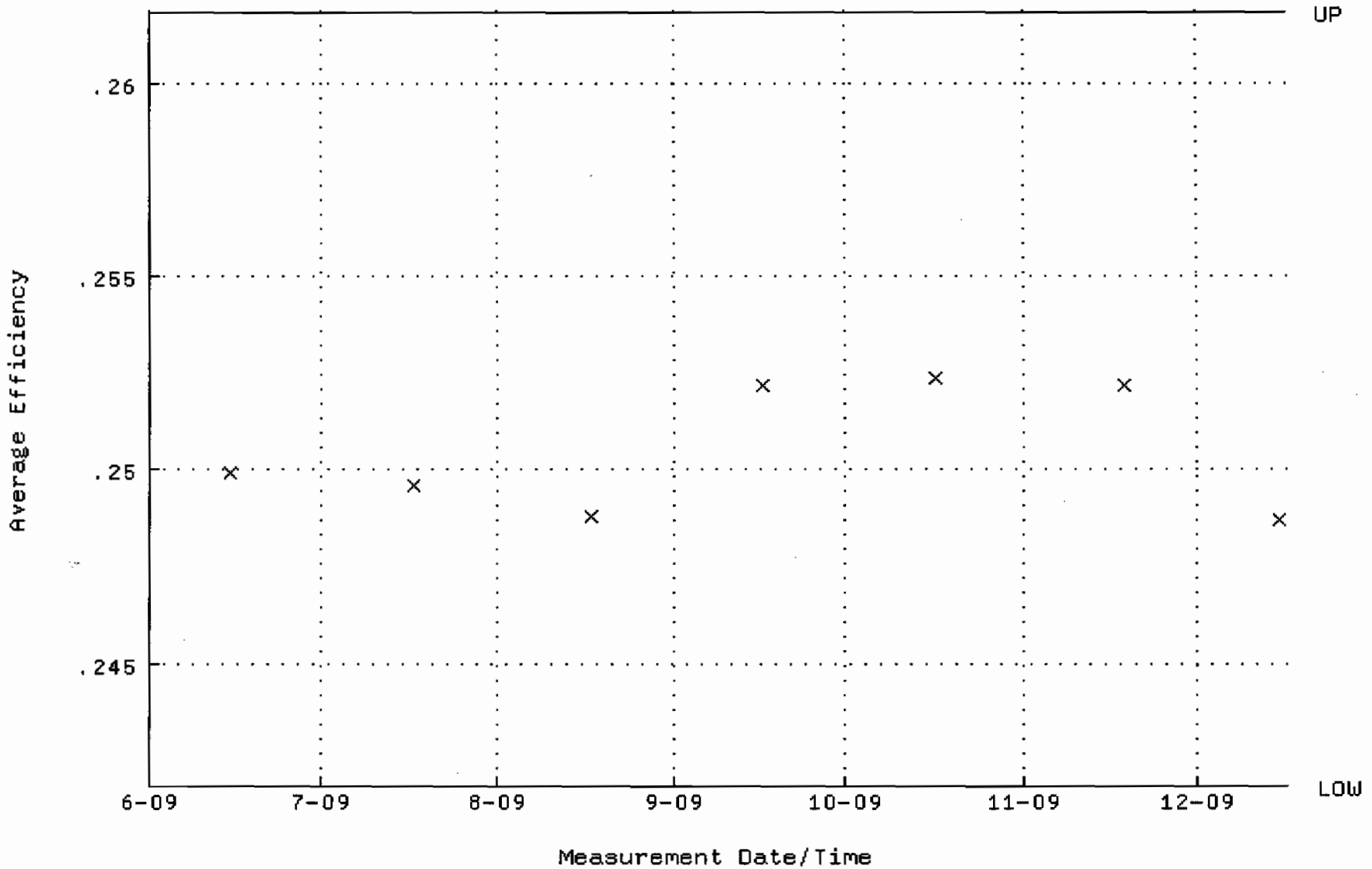

QA filename : DKA100:[ENV_ALPHA.QA.W]W146.QAF;2
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 15-JUN-2009 10:37:08 through 16-DEC-2009 12:00:00
Lower/Upper Lmts: 84.8578 through 93.7902

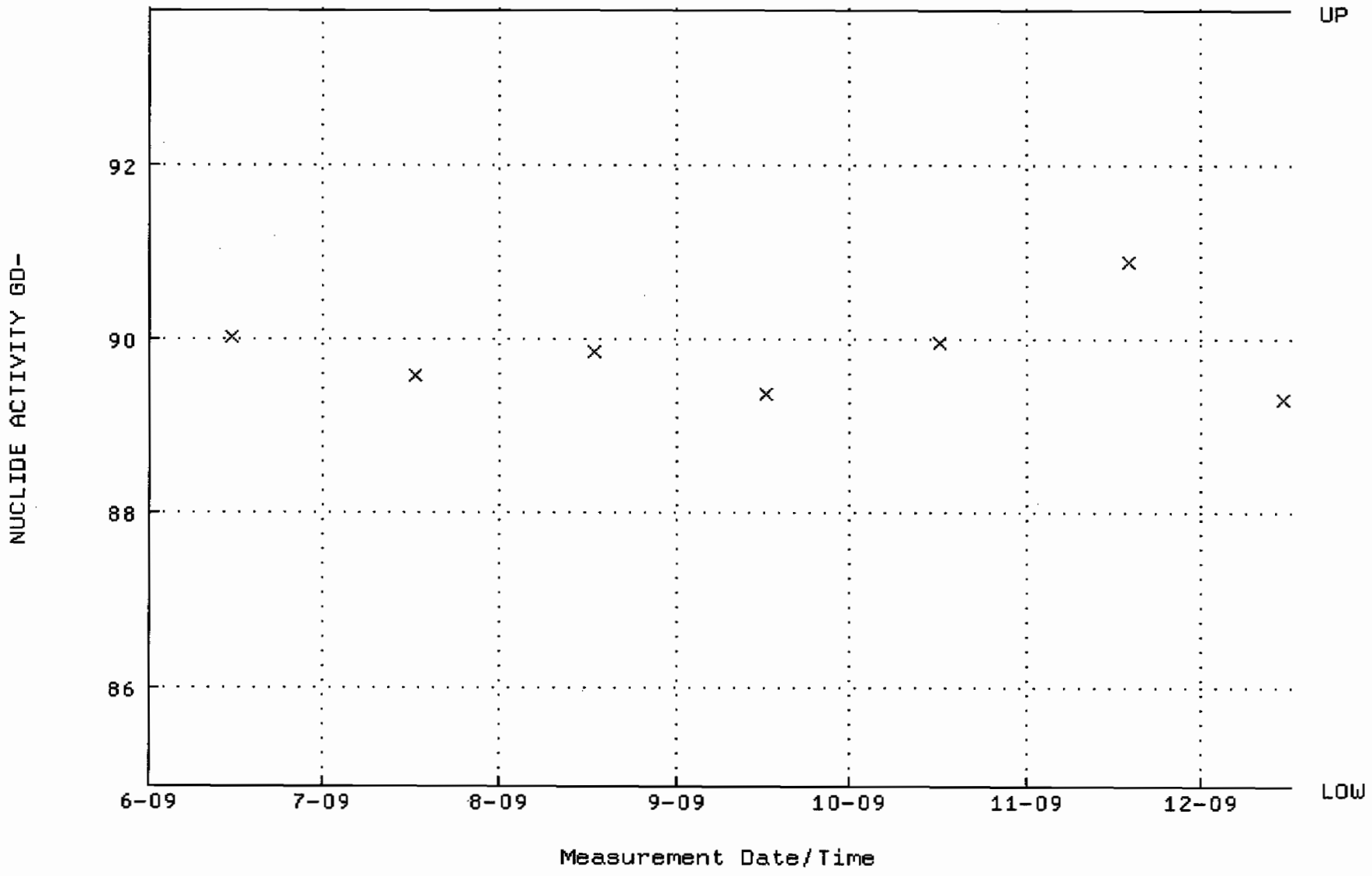

QA filename : DKA100:[ENV_ALPHA.QA.B]B146.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 7-JUN-2009 17:11:01 through 16-DEC-2009 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

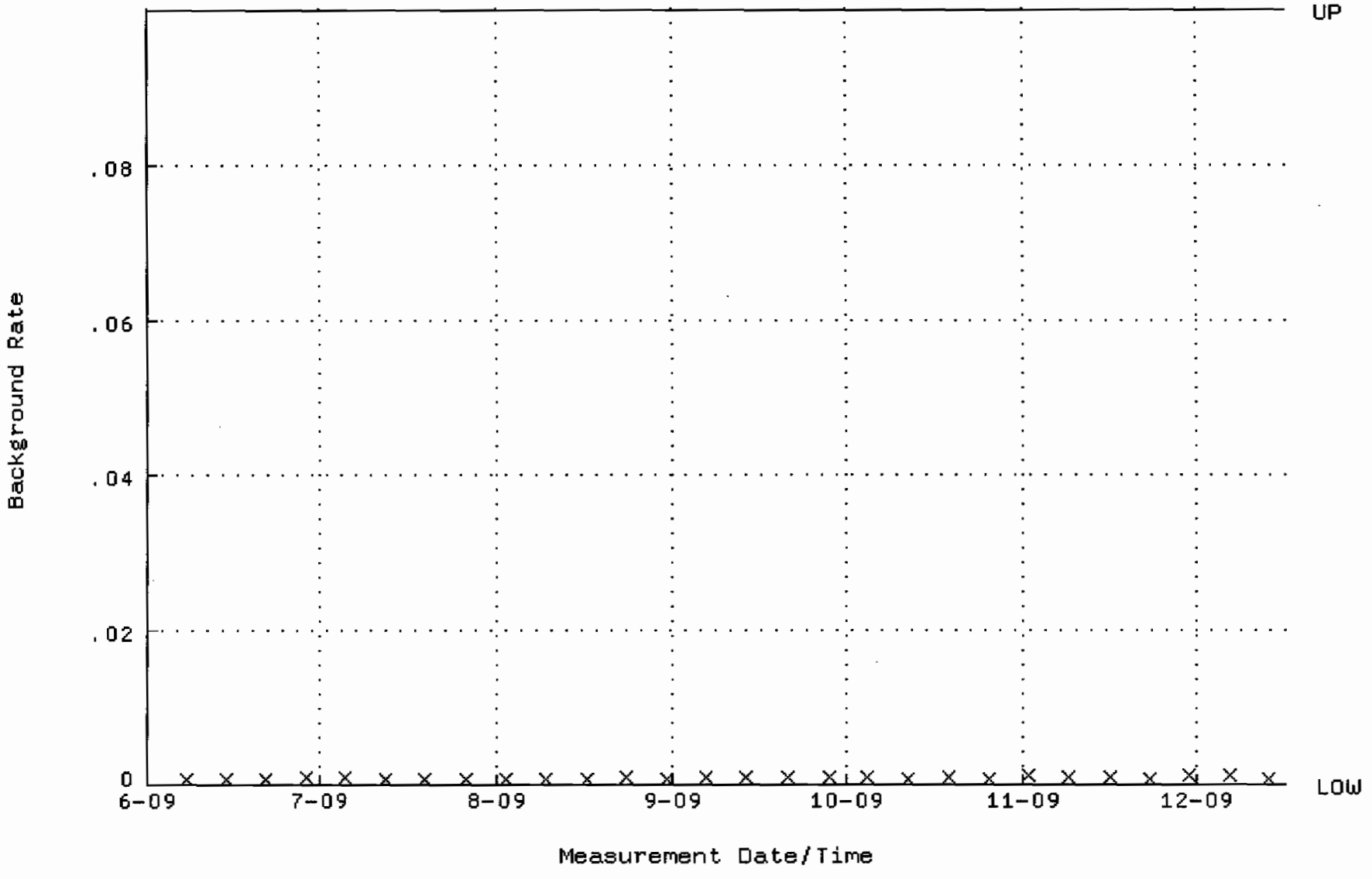

QA filename : DKA100:[ENV_ALPHA.QA.W]W147.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 15-JUN-2009 10:37:13 through 16-DEC-2009 12:00:00
Lower/Upper Lmts: 0.237046 through 0.257046

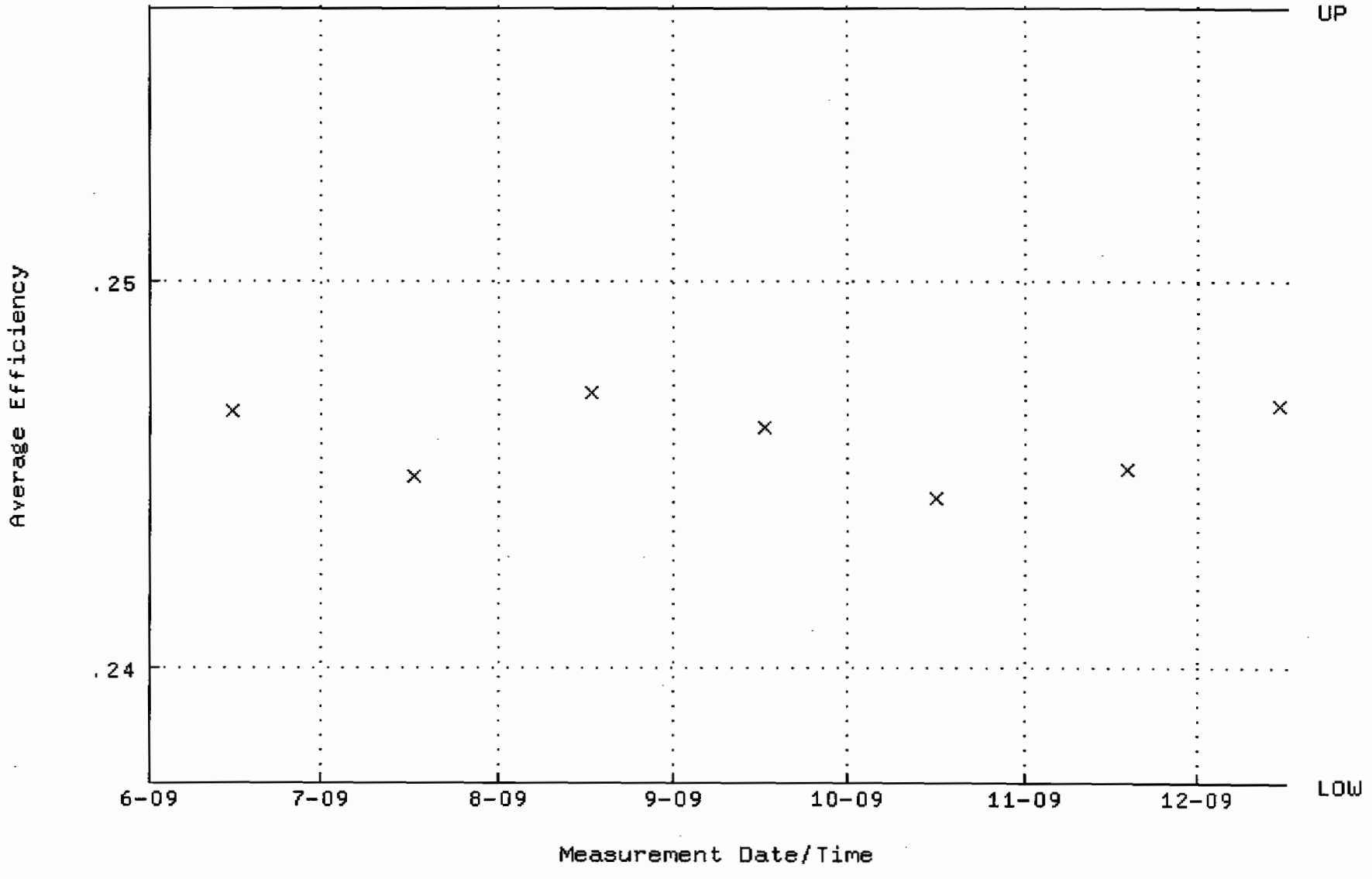

QA filename : DKA100:[ENV_ALPHA.QA.W]W147.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 15-JUN-2009 10:37:13 through 16-DEC-2009 12:00:00
Lower/Upper Lmts: 84.9777 through 93.9227

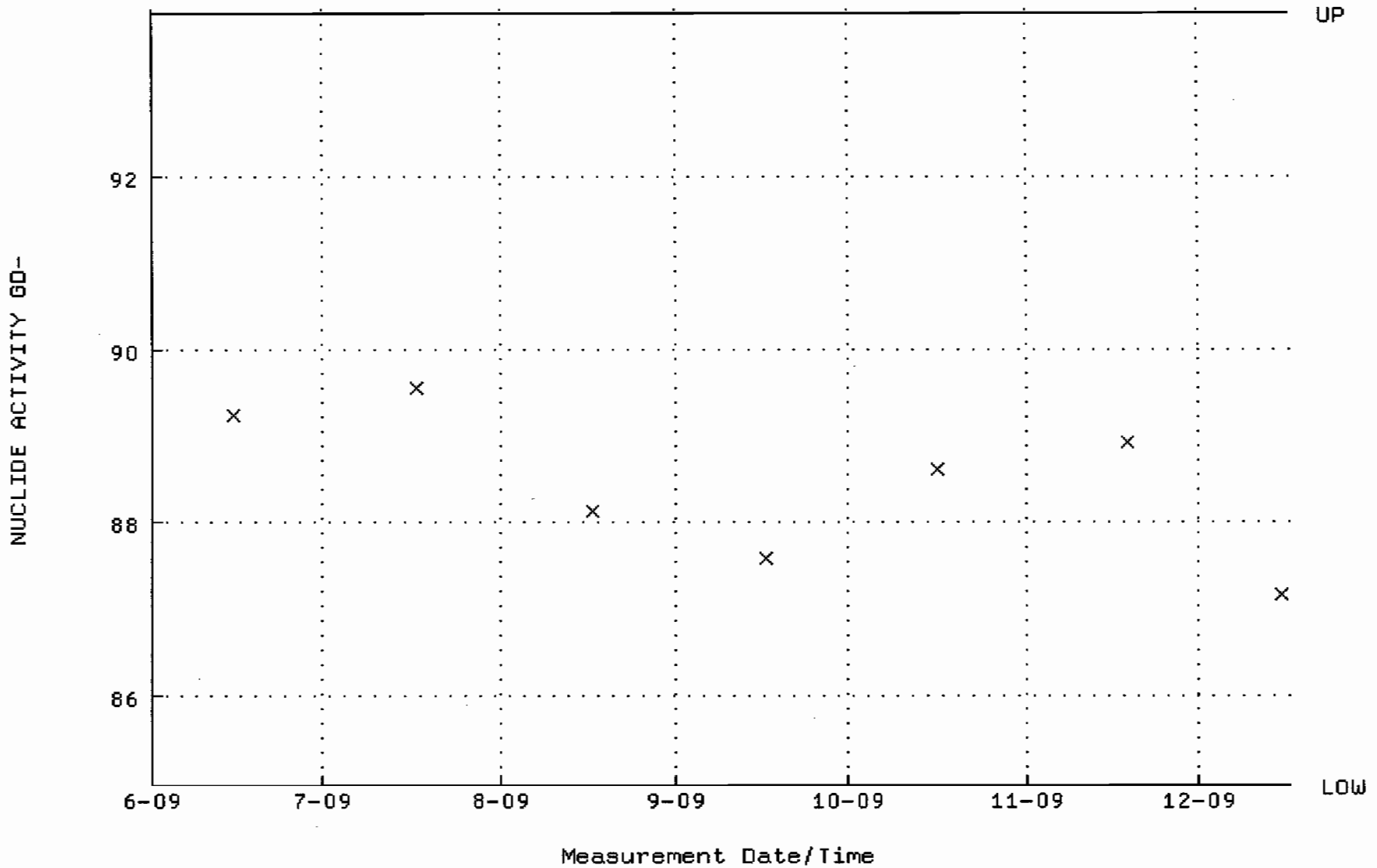

QA filename : DKA100:[ENV_ALPHA.QA.B]B147.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 7-JUN-2009 17:11:05 through 16-DEC-2009 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

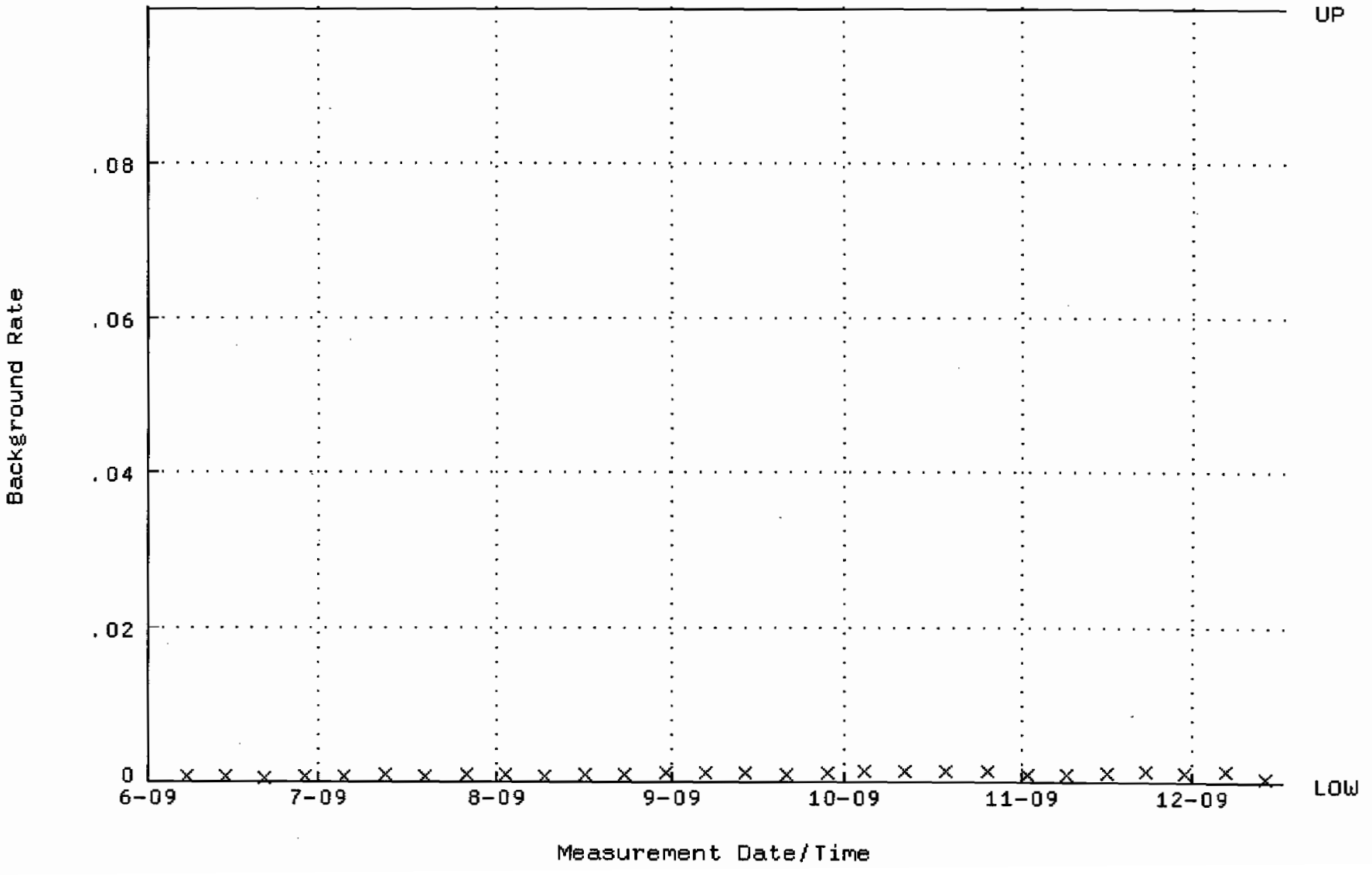

QA filename : DKA100:[ENV_ALPHA.QA.W]W148.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 15-JUN-2009 10:37:19 through 16-DEC-2009 12:00:00
Lower/Upper Lmts: 0.237934 through 0.257934

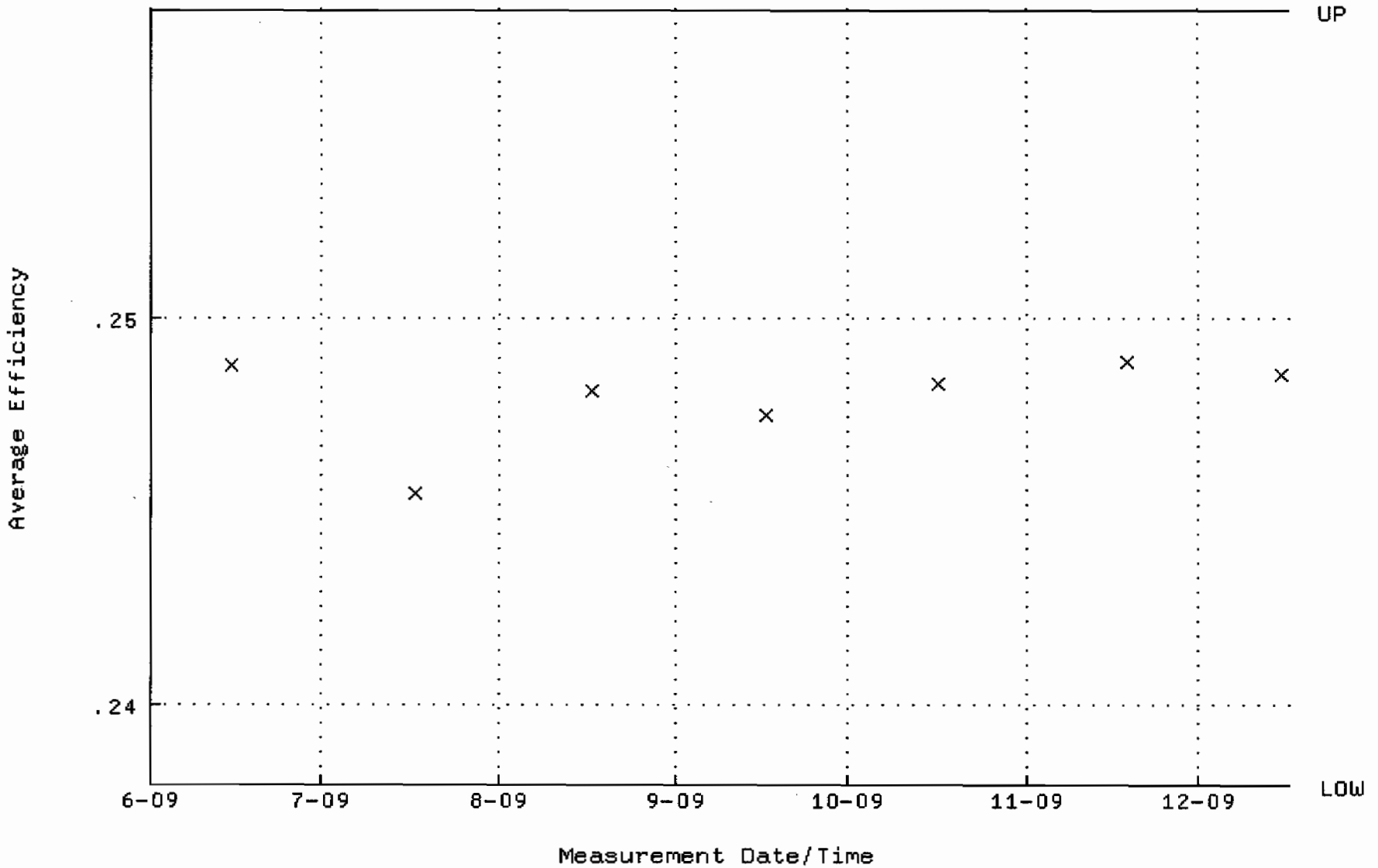

QA filename : DKA100:[ENV_ALPHA.QA.W]W148.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 15-JUN-2009 10:37:19 through 16-DEC-2009 12:00:00
Lower/Upper Lmts: 85.0831 through 94.0393

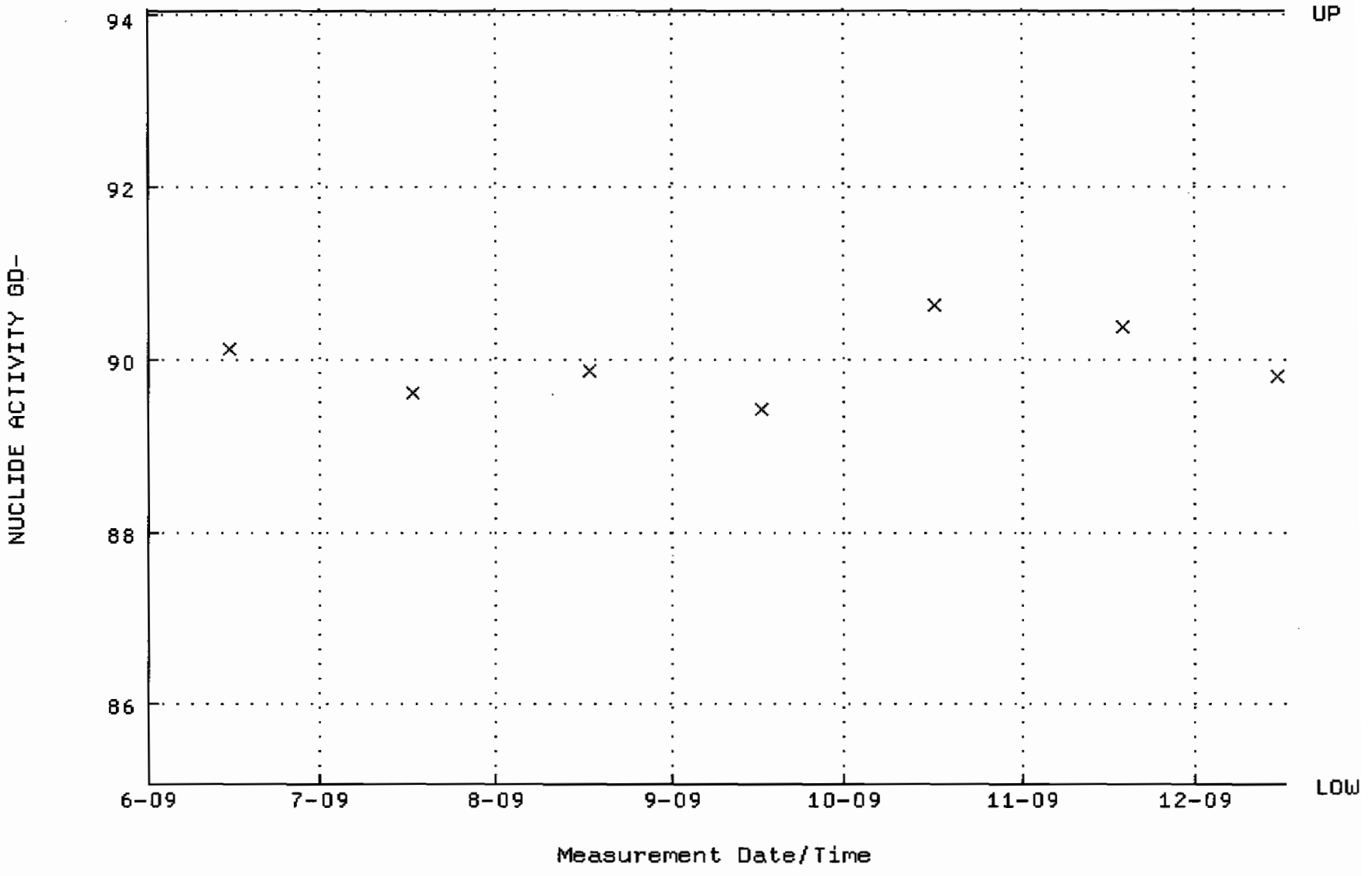

QA filename : DKA100:[ENV_ALPHA.QA.B]B148.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 8-JUN-2009 12:40:23 through 16-DEC-2009 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

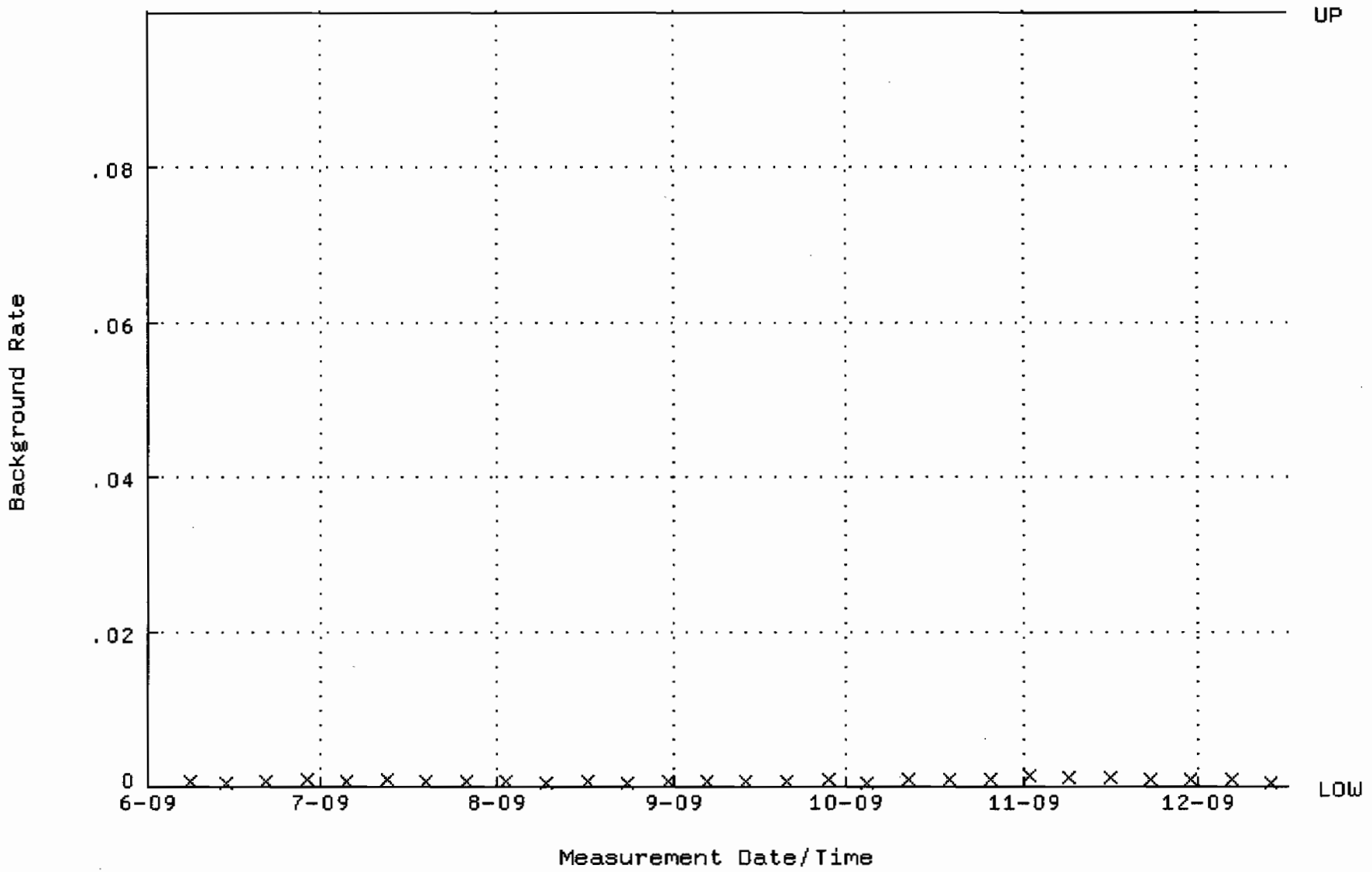

QA filename : DKA100:[ENV_ALPHA.QA.W]W149.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 15-JUN-2009 10:37:24 through 16-DEC-2009 12:00:00
Lower/Upper Lmts: 0.242495 through 0.262495

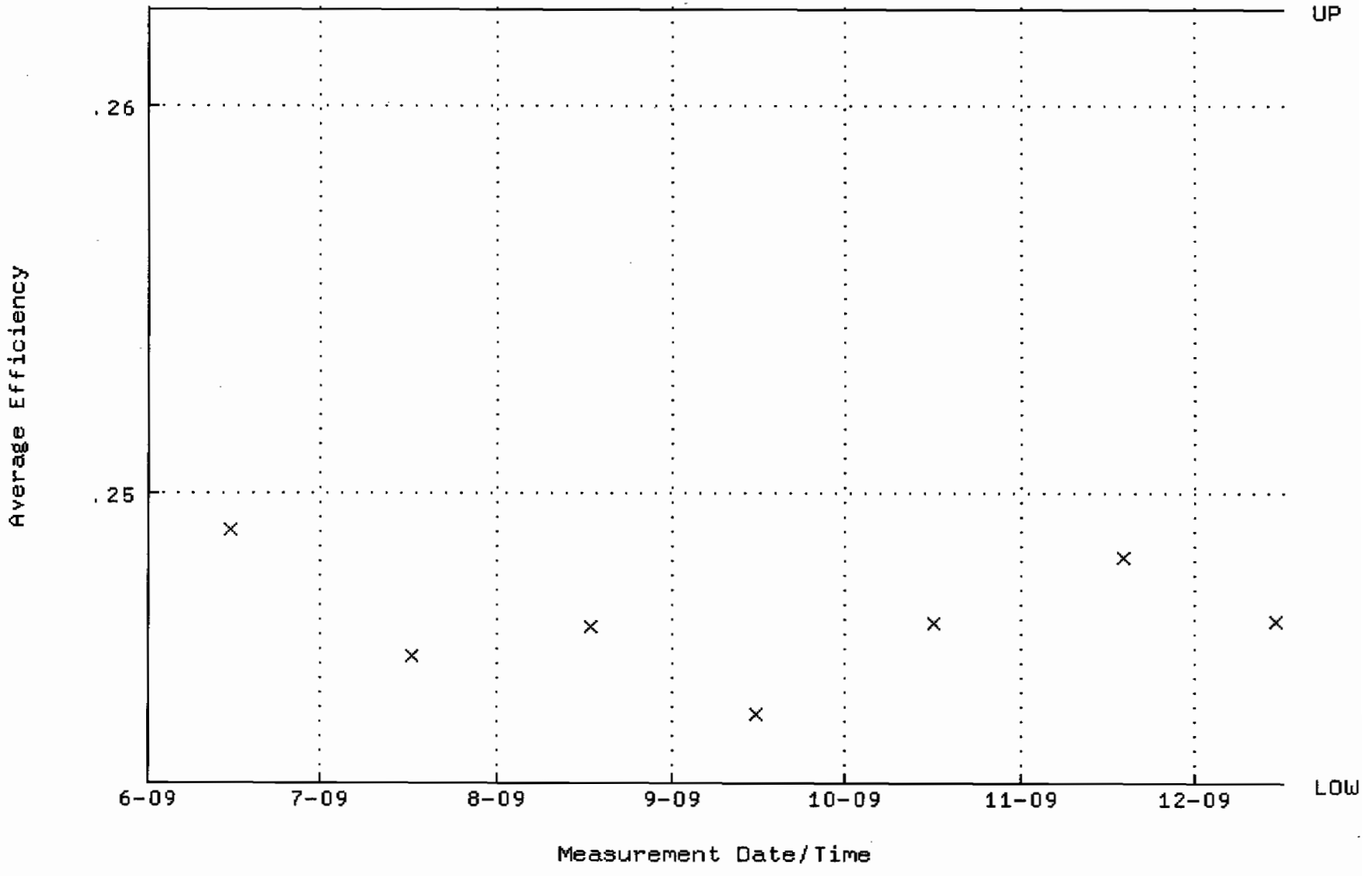

QA filename : DKA100:[ENV_ALPHA.QA.W]W149.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 15-JUN-2009 10:37:24 through 16-DEC-2009 12:00:00
Lower/Upper Lmts: 84.8126 through 93.7402

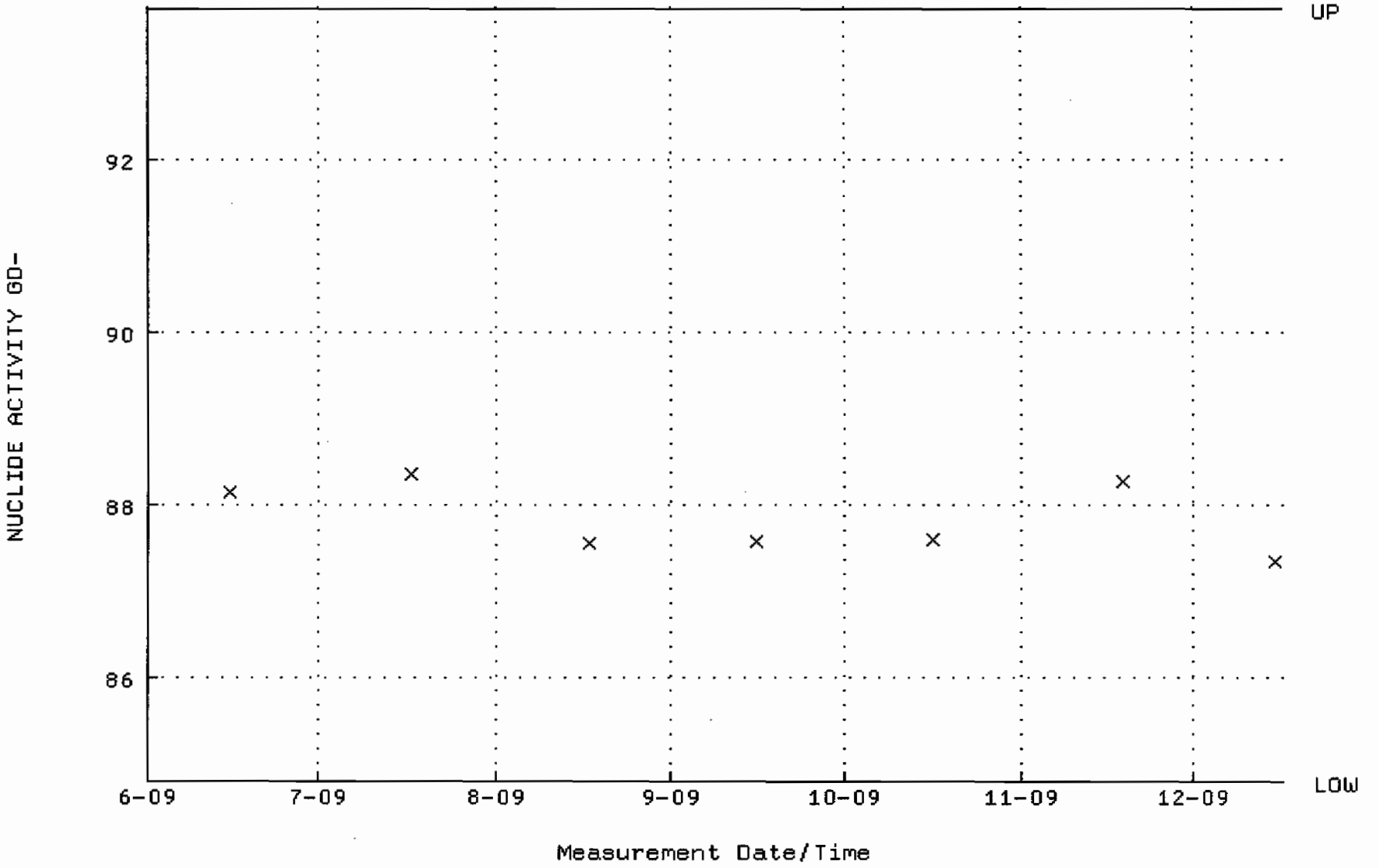

QA filename : DKA100:[ENV_ALPHA.QA.B]B149.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 7-JUN-2009 17:11:09 through 16-DEC-2009 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

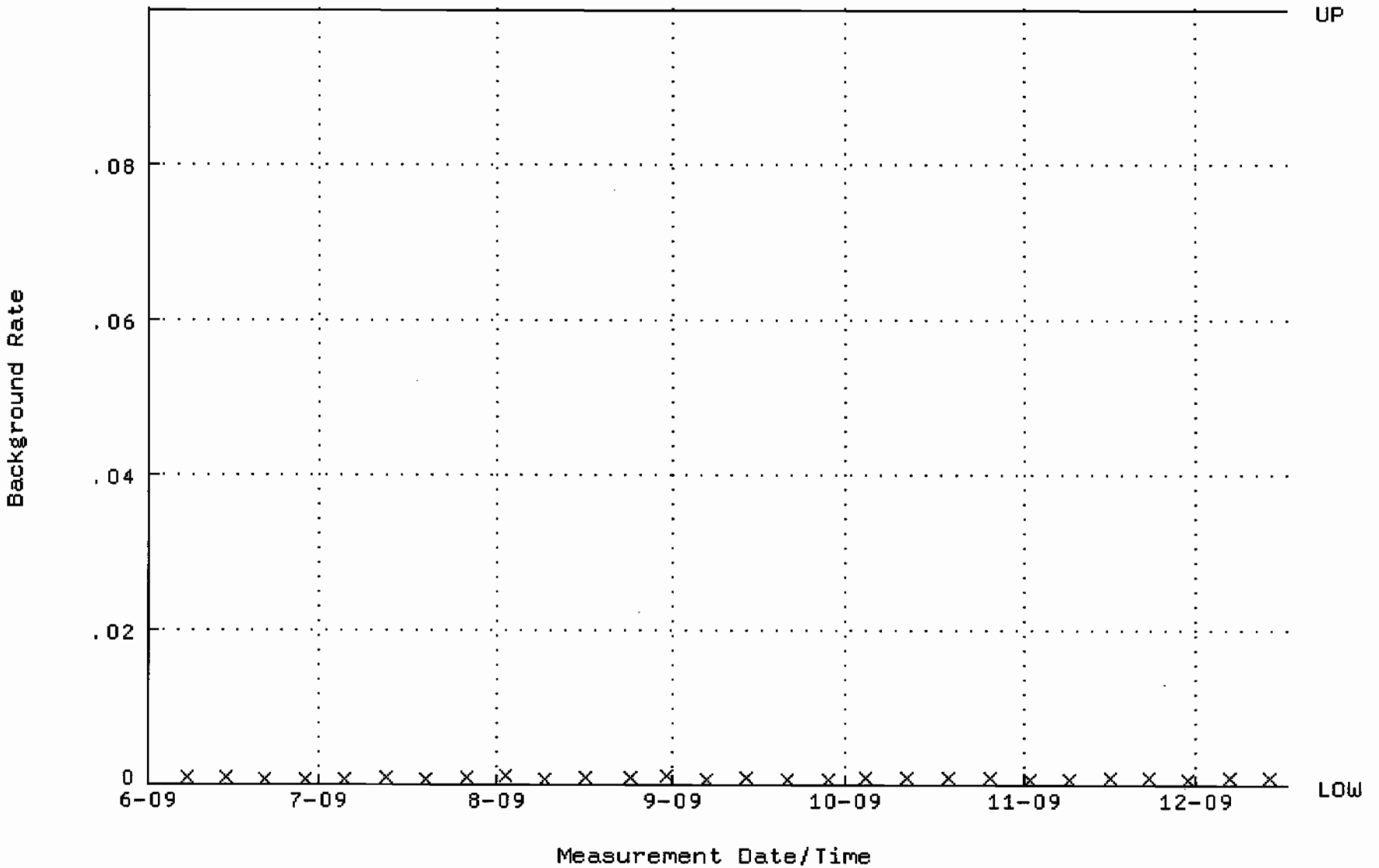

QA filename : DKA100:[ENV_ALPHA.QA.W]W150.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 15-JUN-2009 10:37:29 through 22-DEC-2009 12:00:00
Lower/Upper Lmts: 0.238314 through 0.258314

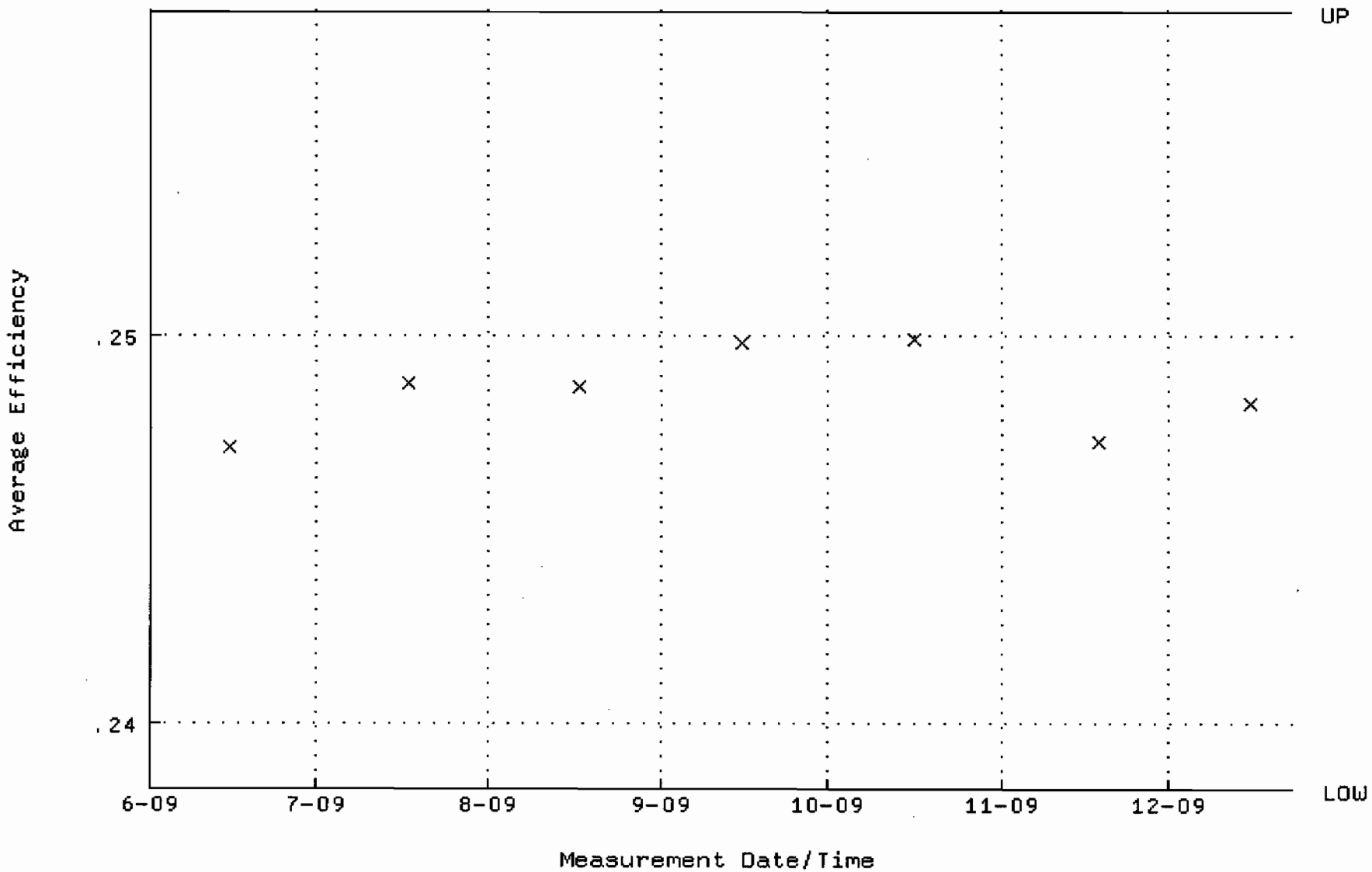

QA filename : DKA100:[ENV_ALPHA.QA.W]W150.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 15-JUN-2009 10:37:29 through 22-DEC-2009 12:00:00
Lower/Upper Lmts: 84.4039 through 93.2885

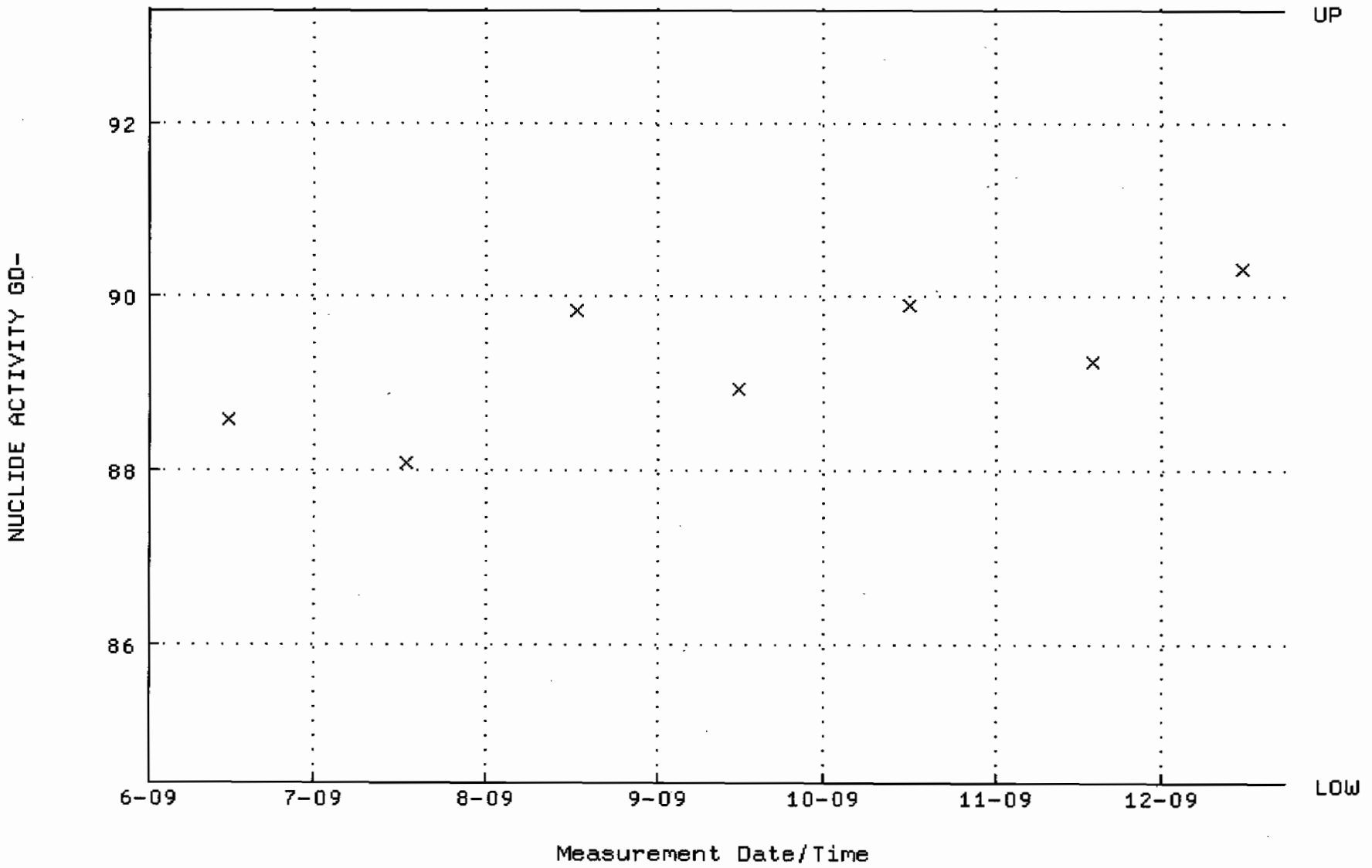

QA filename : DKA100:[ENV_ALPHA.QA.B]B150.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 7-JUN-2009 17:11:14 through 22-DEC-2009 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

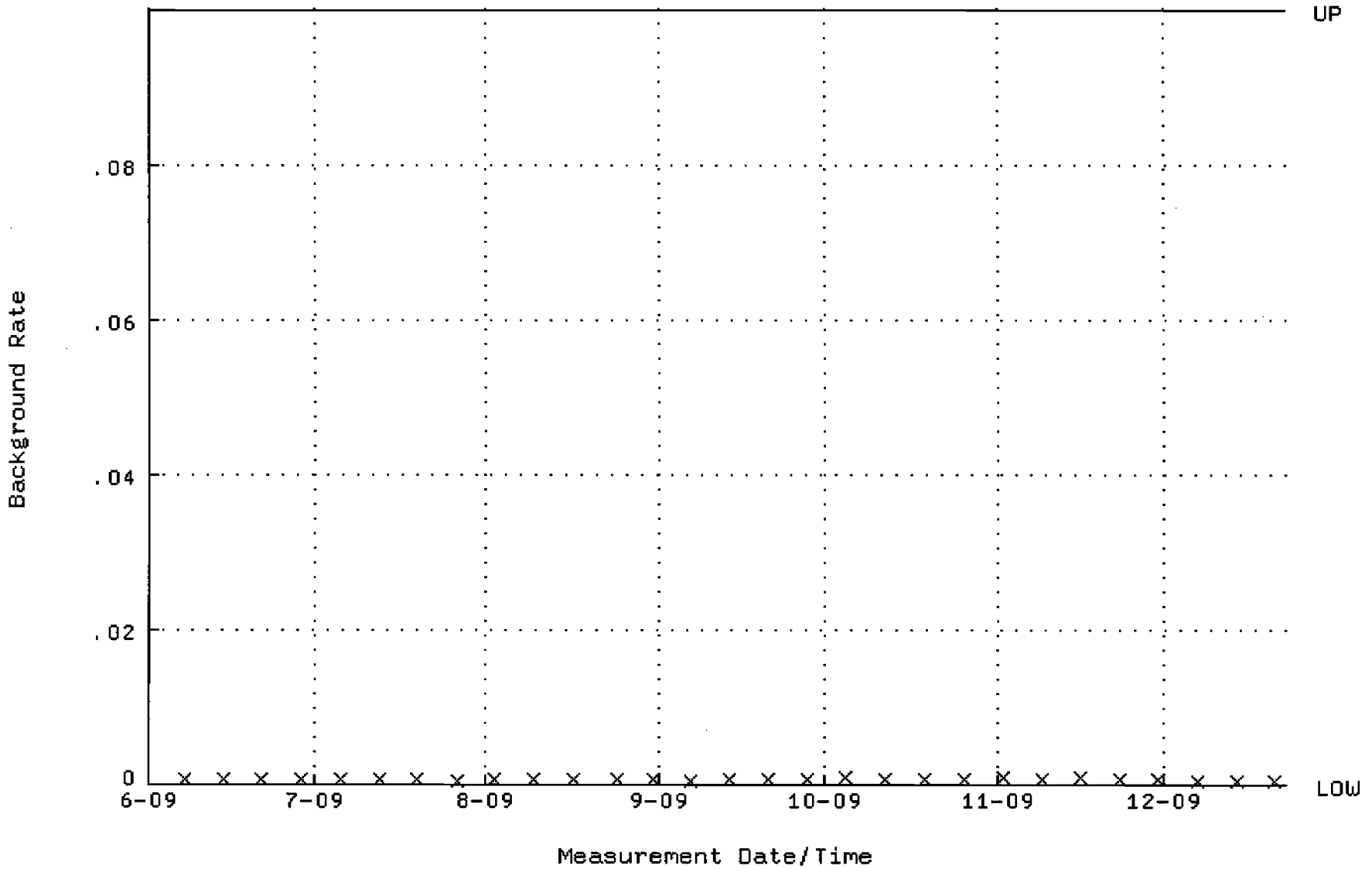

QA filename : DKA100:[ENV_ALPHA.QA.W]W151.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 15-JUN-2009 10:37:34 through 16-DEC-2009 12:00:00
Lower/Upper Lmts: 0.233693 through 0.253693

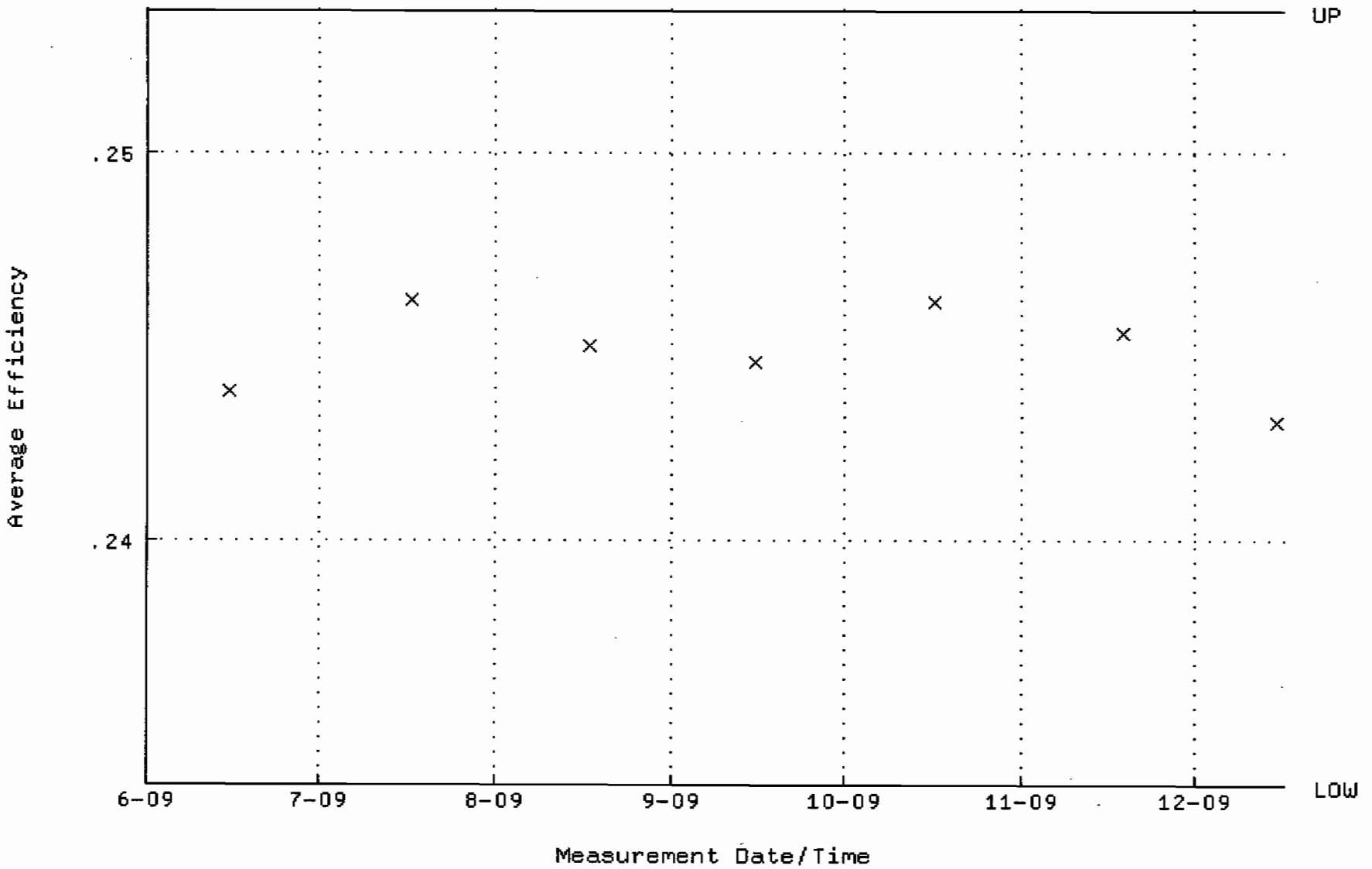

QA filename : DKA100:[ENV_ALPHA.QA.W]W151.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 15-JUN-2009 10:37:34 through 16-DEC-2009 12:00:00
Lower/Upper Lmts: 86.5749 through 95.6881

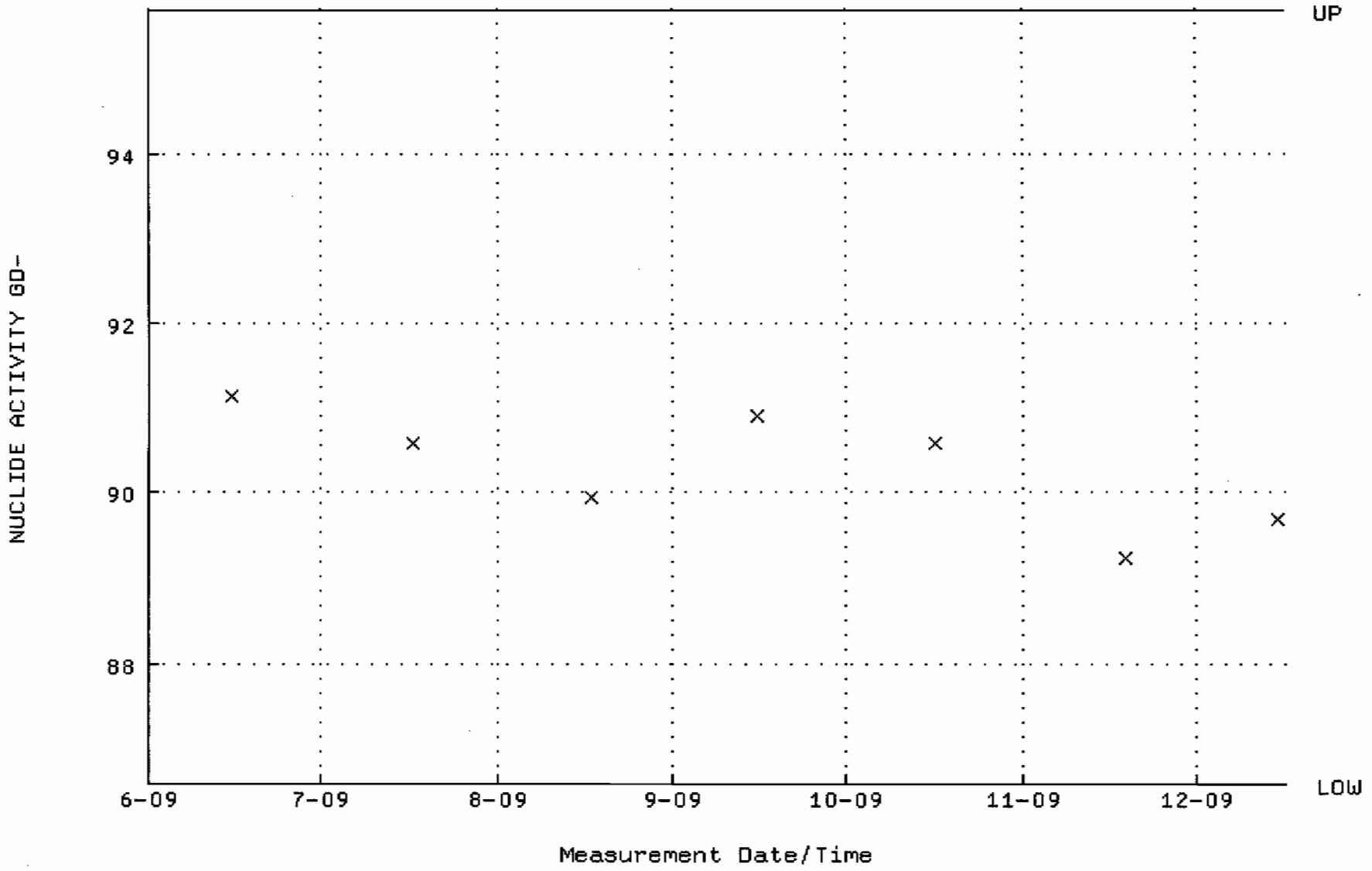

QA filename : DKA100:[ENV_ALPHA.QA.B]B151.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 7-JUN-2009 17:11:18 through 16-DEC-2009 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

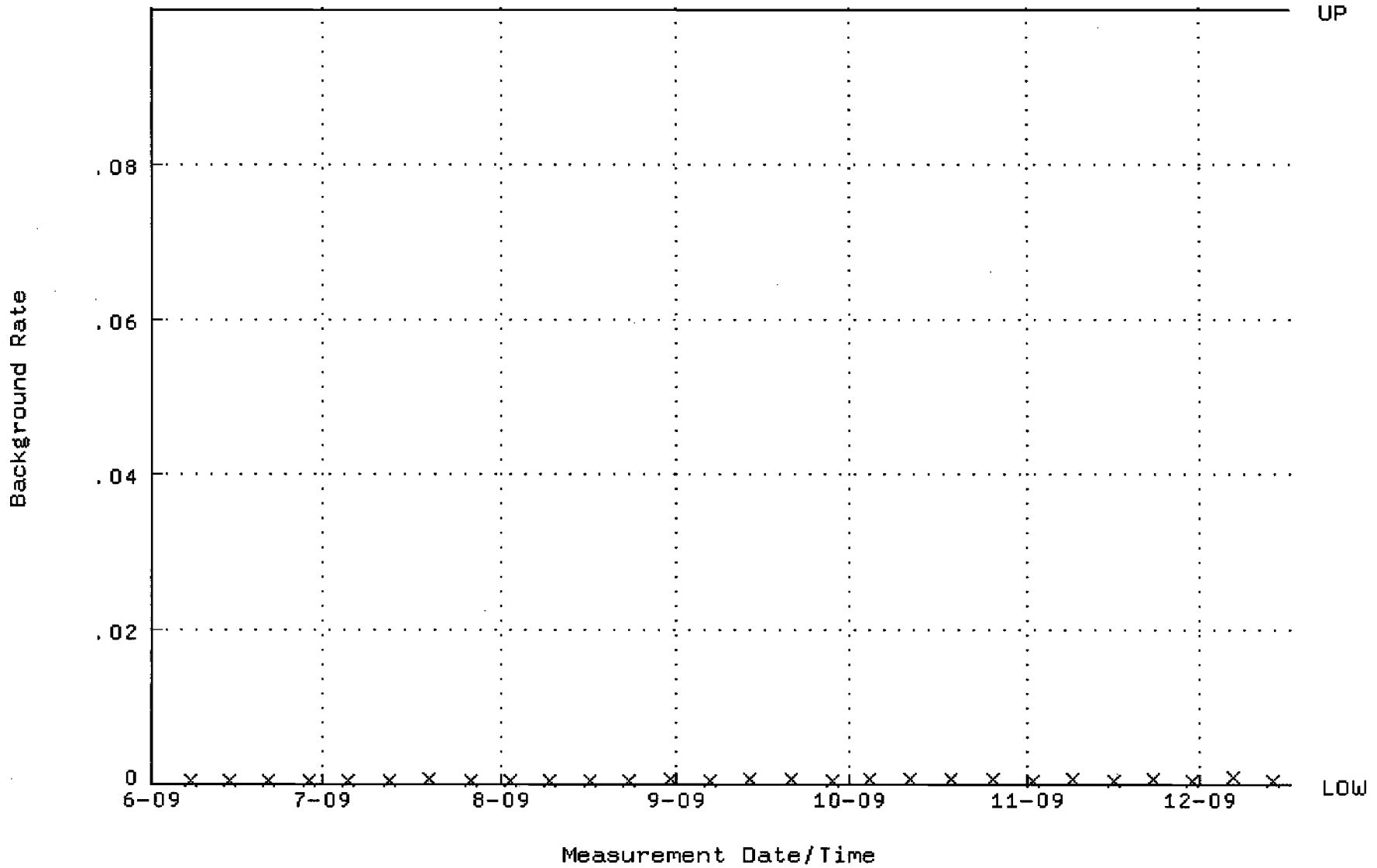

QA filename : DKA100:[ENV_ALPHA.QA.W]W161.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 22-JUN-2009 09:48:54 through 24-DEC-2009 12:00:00
Lower/Upper Lmts: 0.358070 through 0.388144

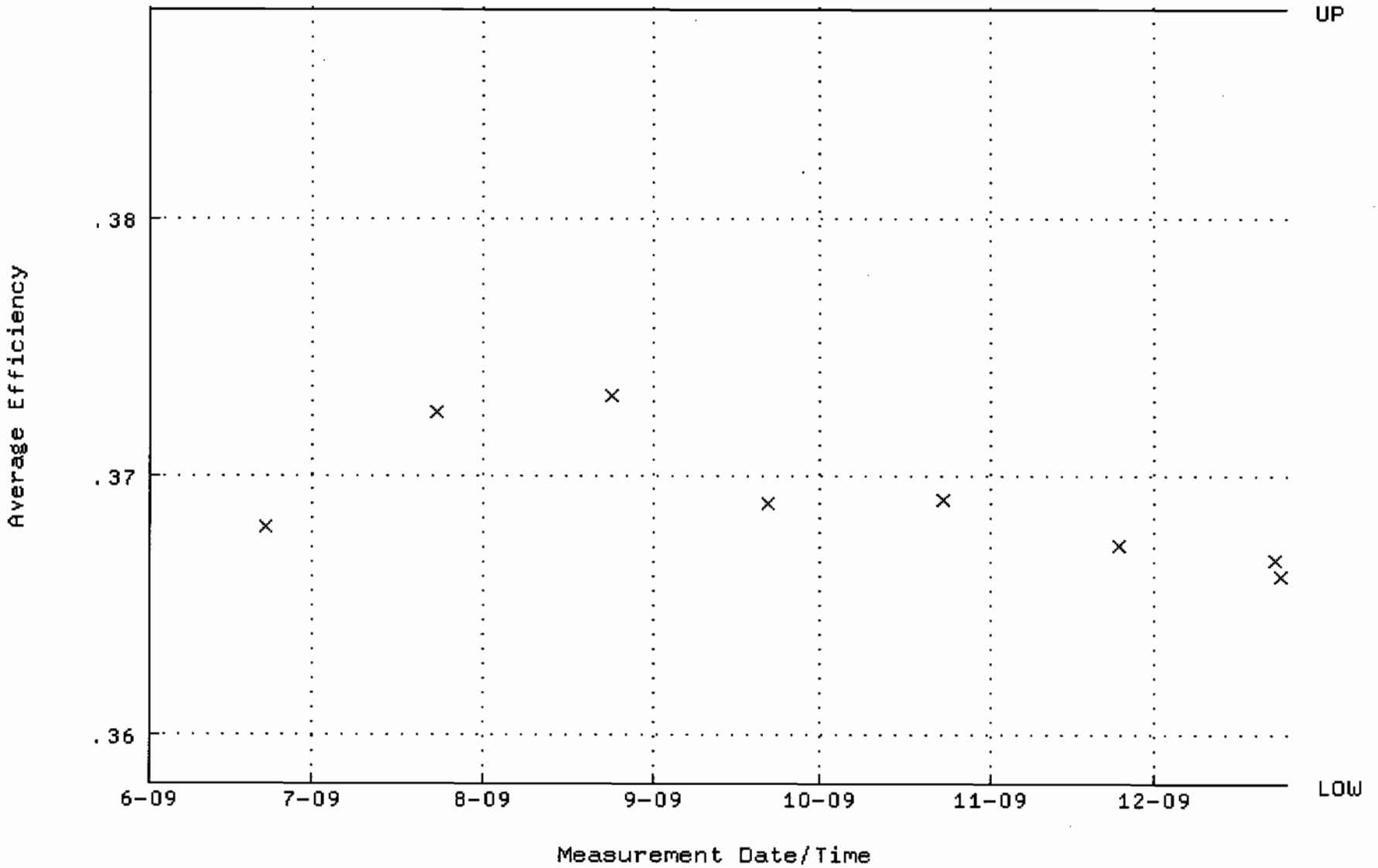

QA filename : DKA100:[ENV_ALPHA.QA.W]W161.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 22-JUN-2009 09:48:54 through 24-DEC-2009 12:00:00
Lower/Upper Lmts: 89.0418 through 91.5702

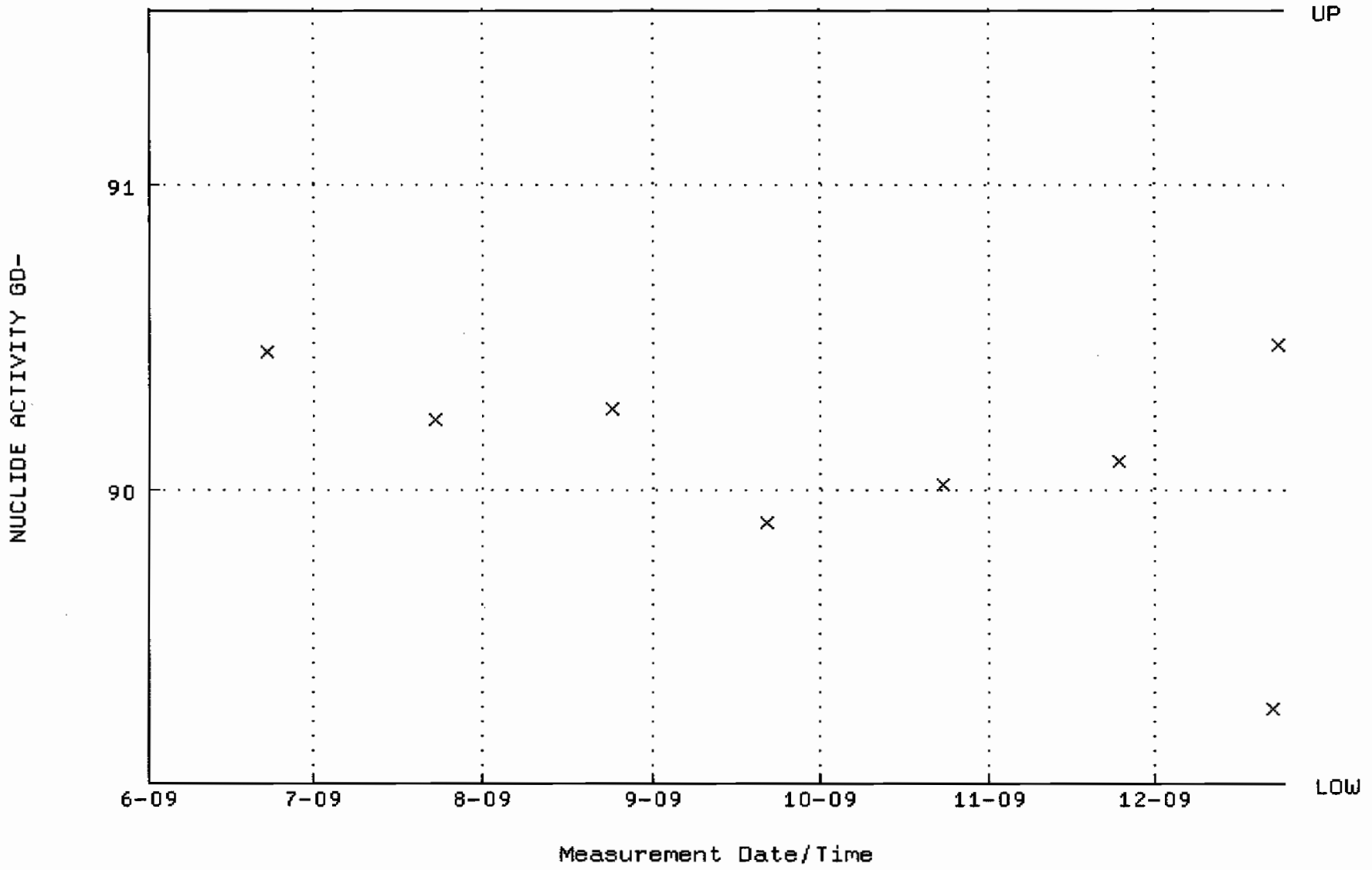

QA filename : DKA100:[ENV_ALPHA.QA.B]B161.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 7-JUN-2009 17:12:00 through 24-DEC-2009 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

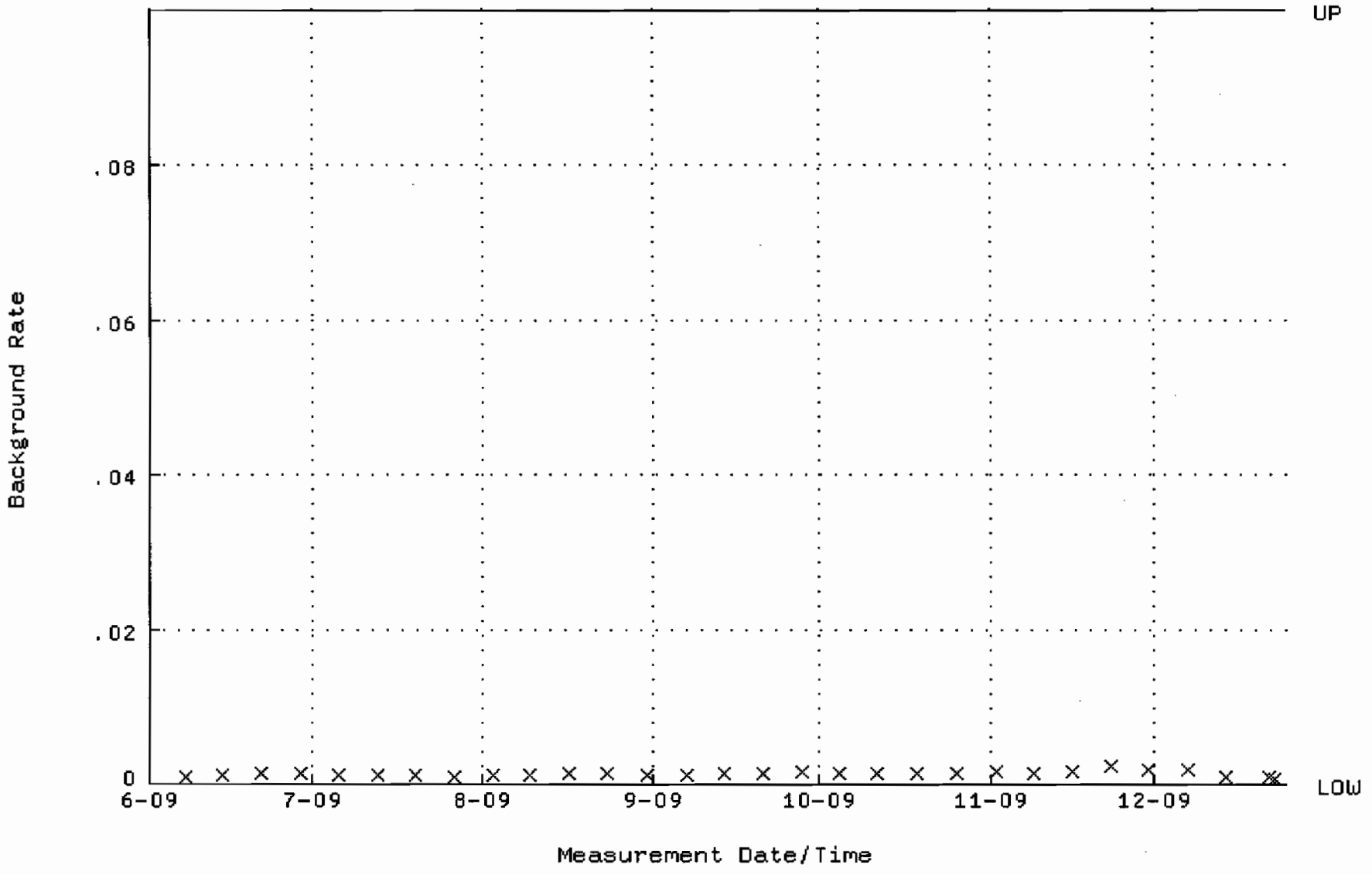

QA filename : DKA100:[ENV_ALPHA.QA.W]W162.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 22-JUN-2009 09:49:01 through 23-DEC-2009 12:00:00
Lower/Upper Lmts: 0.363287 through 0.383287

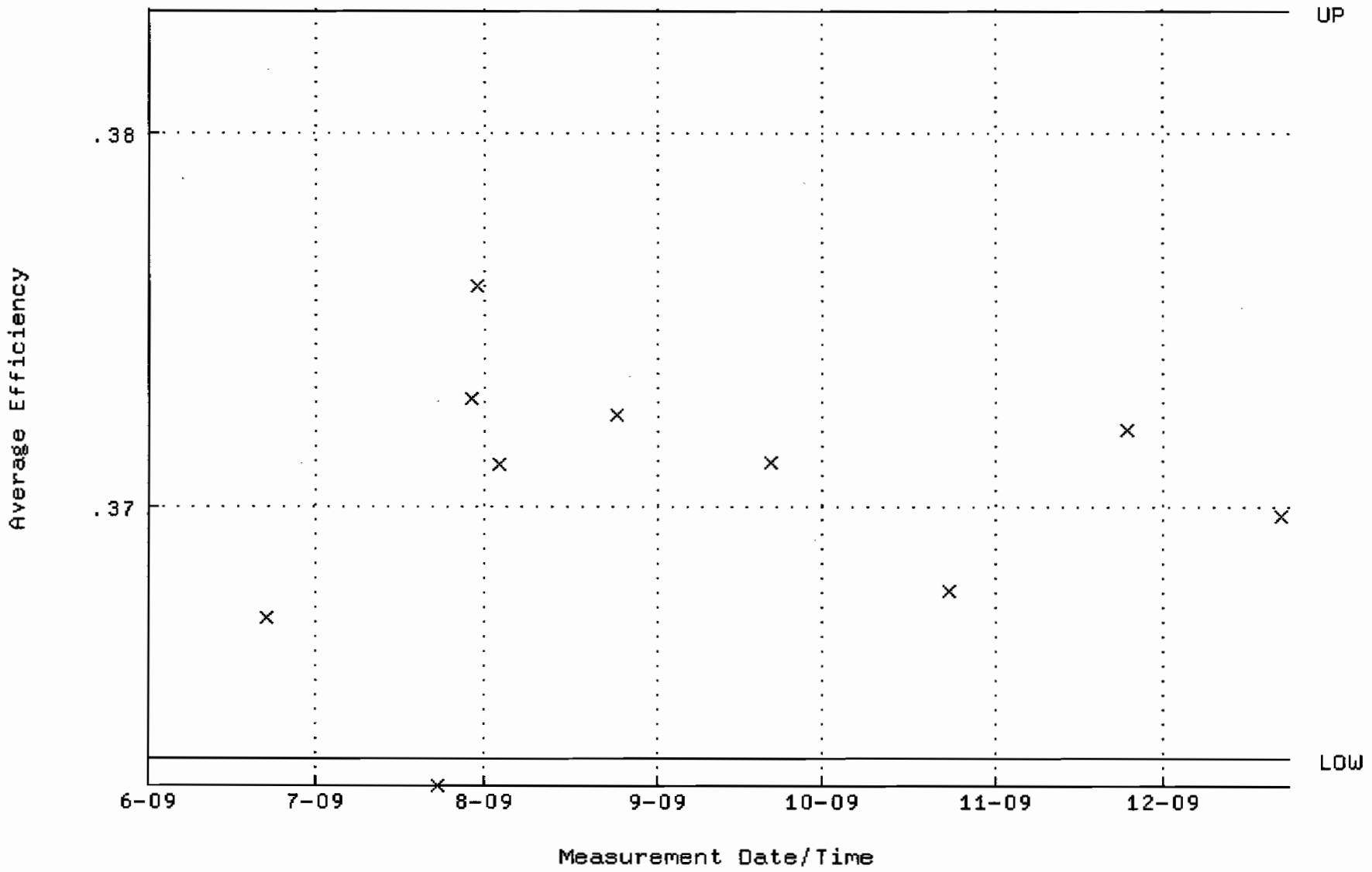

QA filename : DKA100:[ENV_ALPHA.QA.W]W162.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 22-JUN-2009 09:49:01 through 23-DEC-2009 12:00:00
Lower/Upper Lmts: 85.8969 through 94.9387

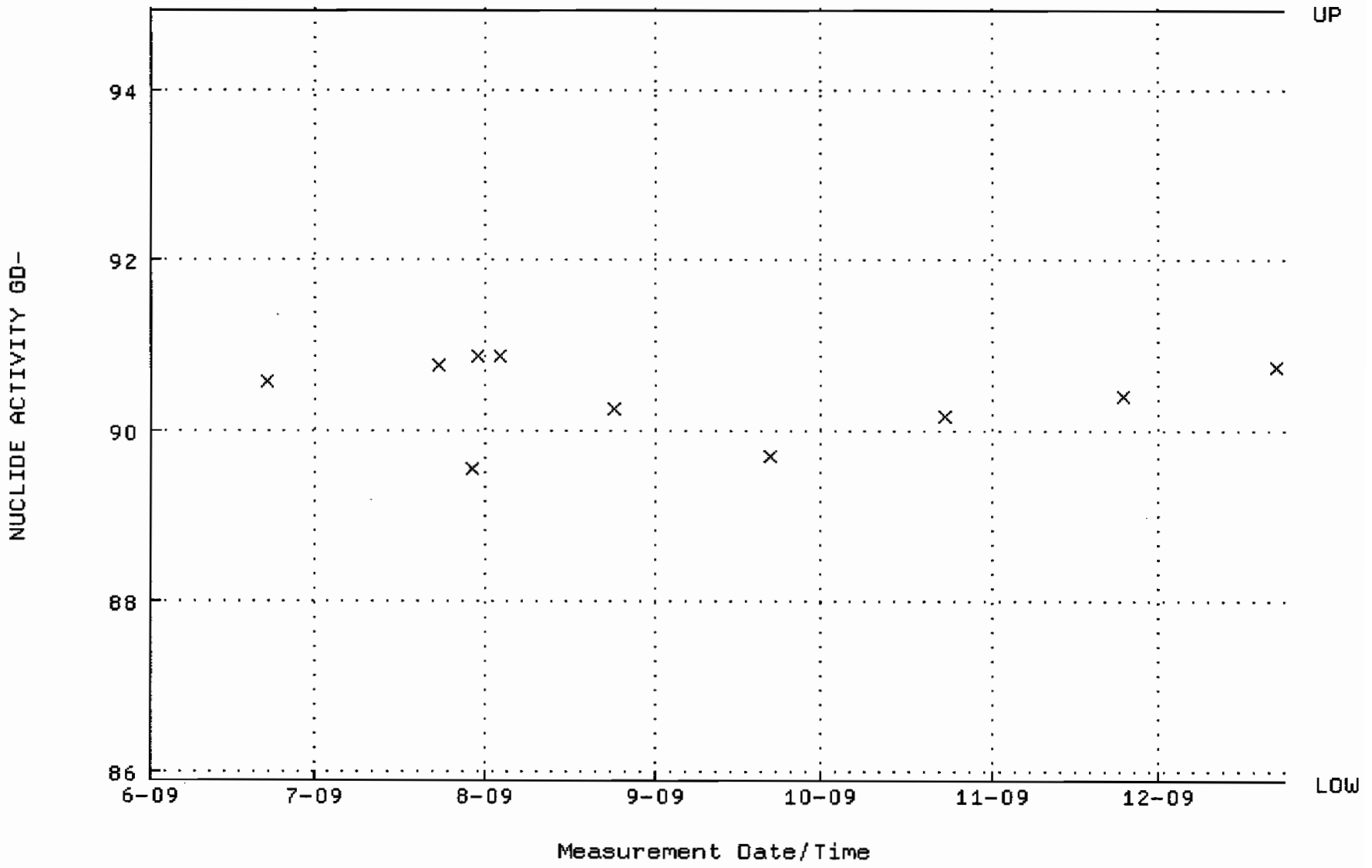

QA filename : DKA100:[ENV_ALPHA.QA.B]B162.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 7-JUN-2009 17:12:04 through 23-DEC-2009 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

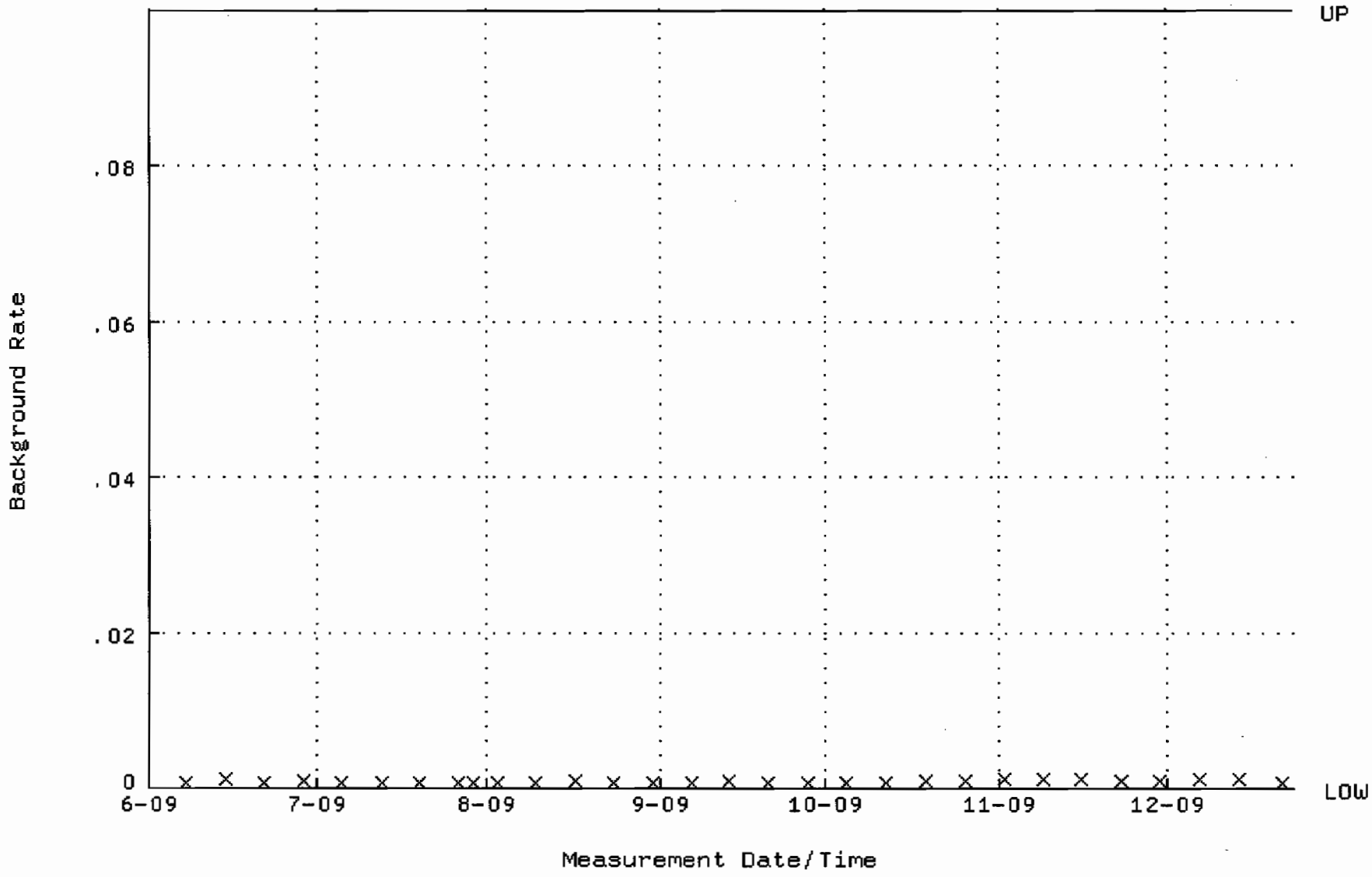

QA filename : DKA100:[ENV_ALPHA.QA.W]W168.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 22-JUN-2009 09:49:33 through 22-DEC-2009 12:00:00
Lower/Upper Lmts: 0.381339 through 0.408495

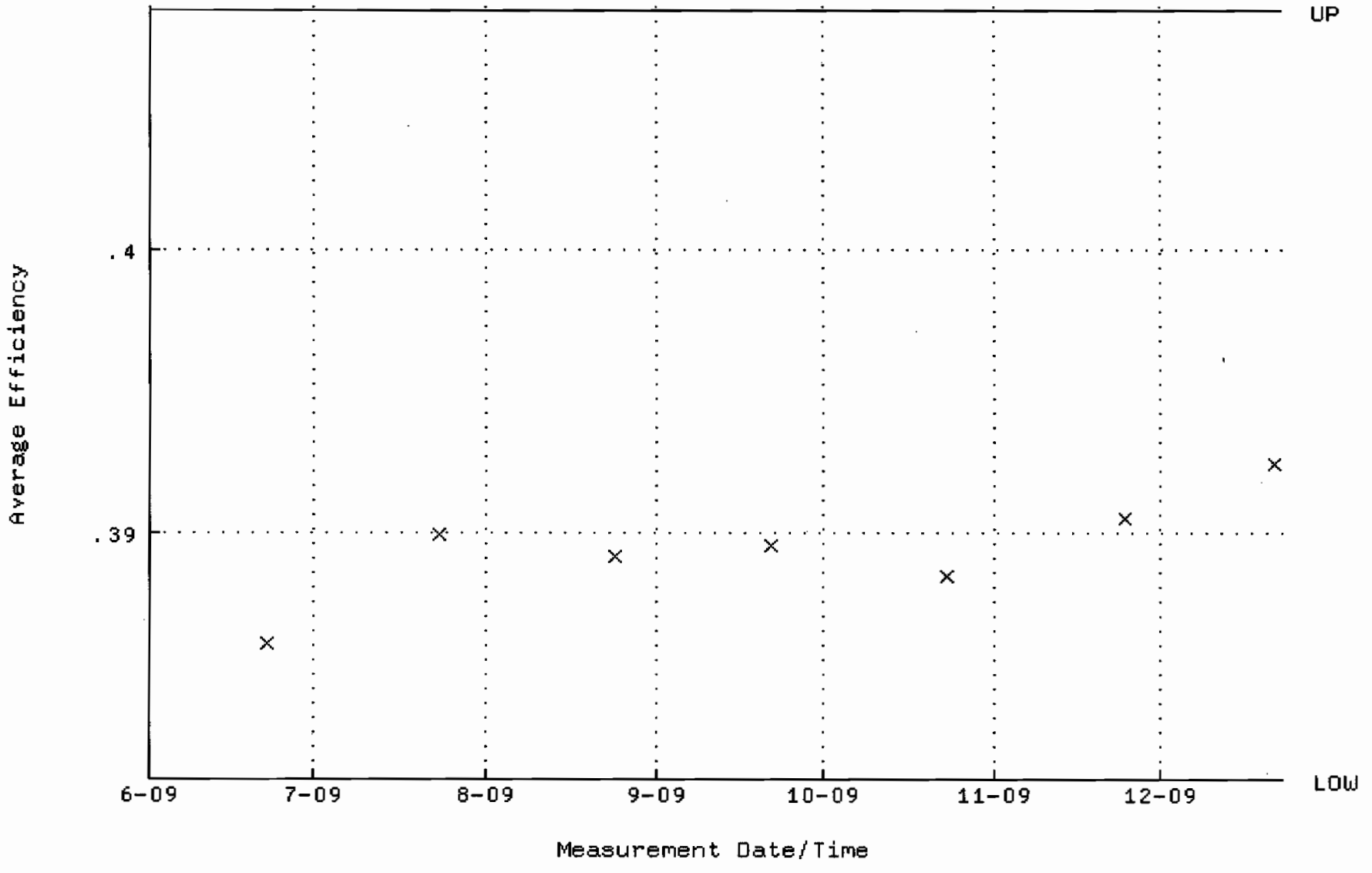

QA filename : DKA100:[ENV_ALPHA.QA.W]W168.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 22-JUN-2009 09:49:33 through 22-DEC-2009 12:00:00
Lower/Upper Lmts: 86.8544 through 90.7976

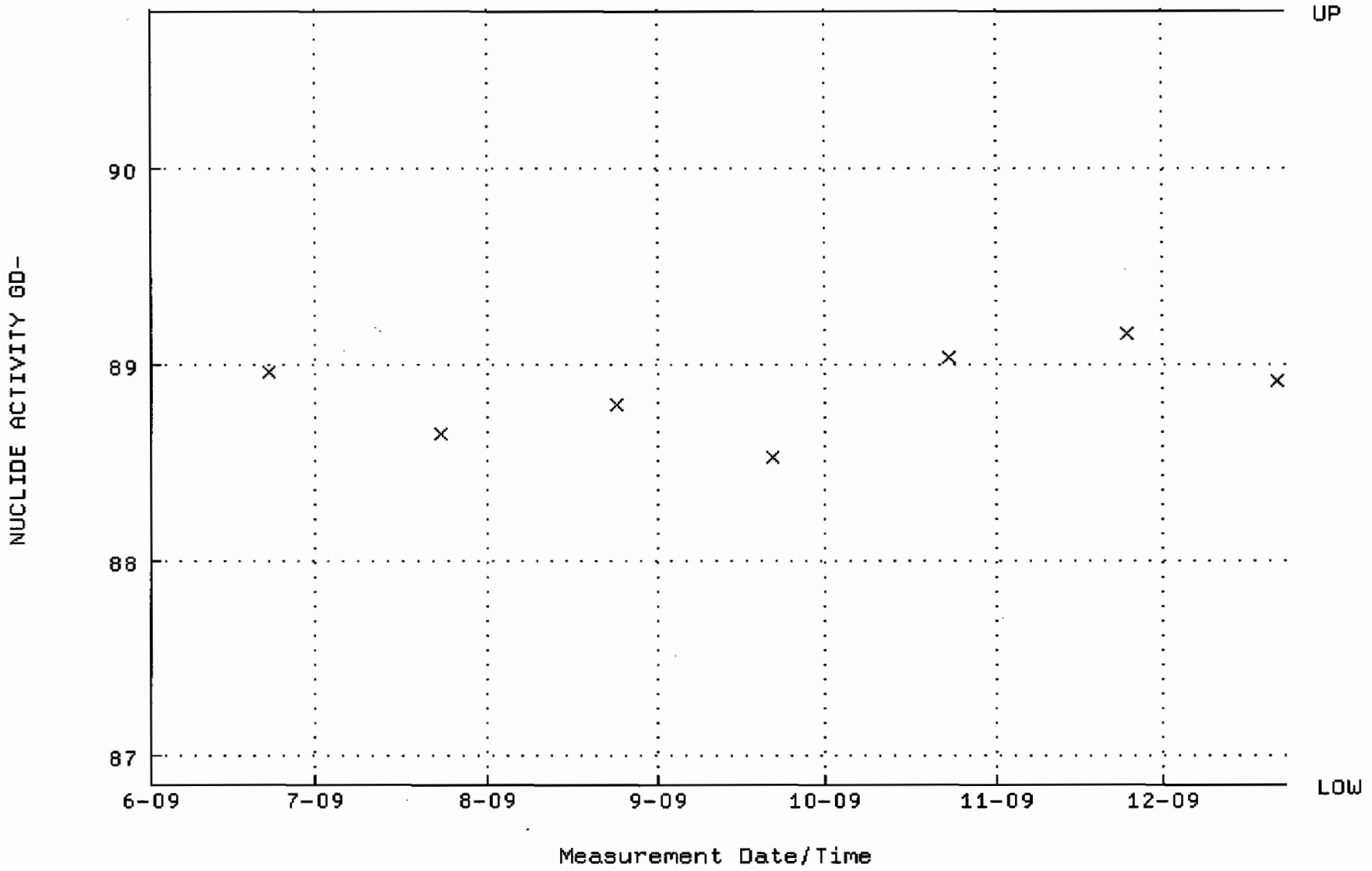

QA filename : DKA100:[ENV_ALPHA.QA.B]B168.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 7-JUN-2009 17:12:28 through 22-DEC-2009 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

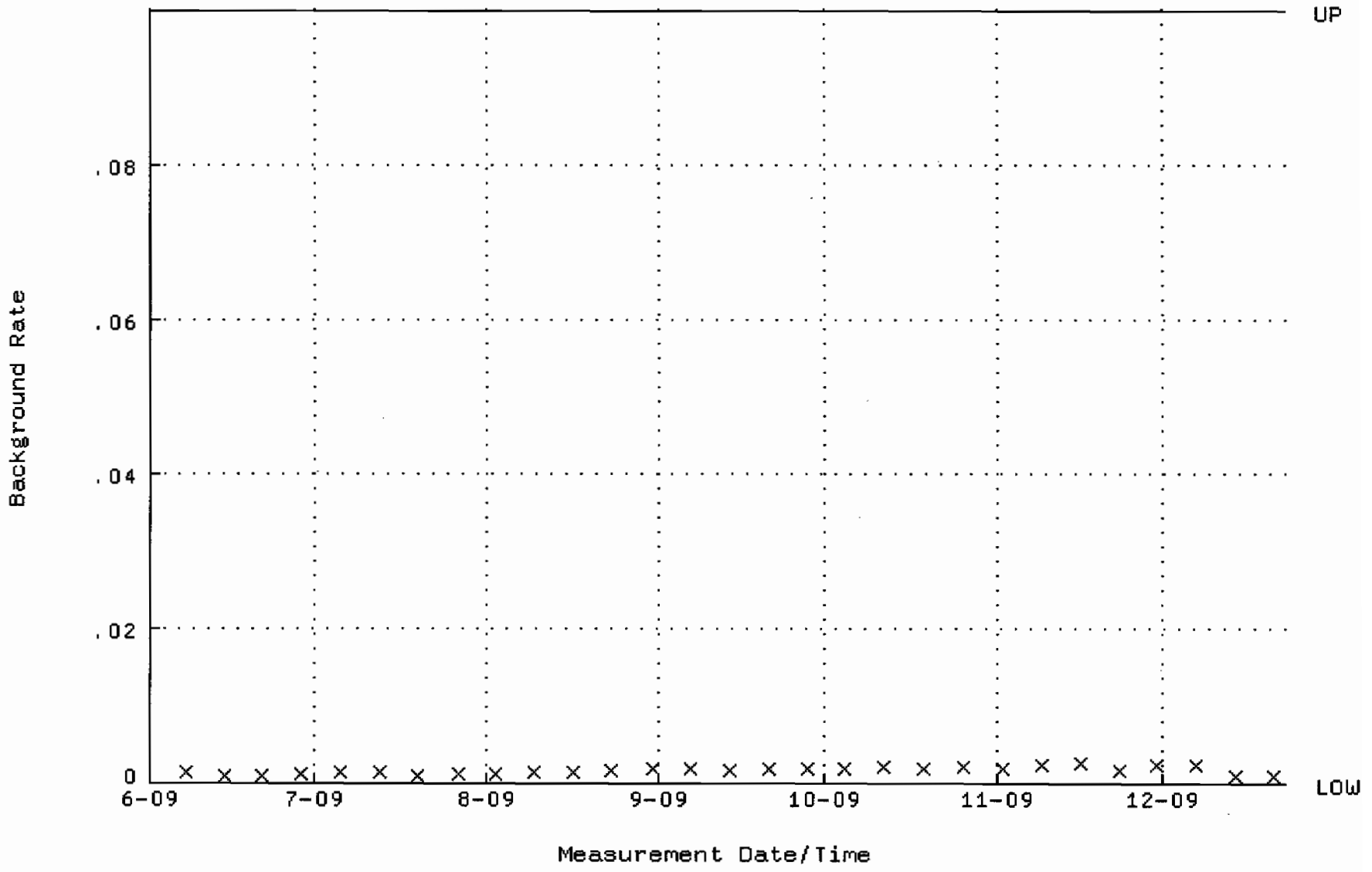

QA filename : DKA100:[ENV_ALPHA.QA.W]W170.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 22-JUN-2009 09:49:44 through 22-DEC-2009 12:00:00
Lower/Upper Lmts: 0.360563 through 0.380563

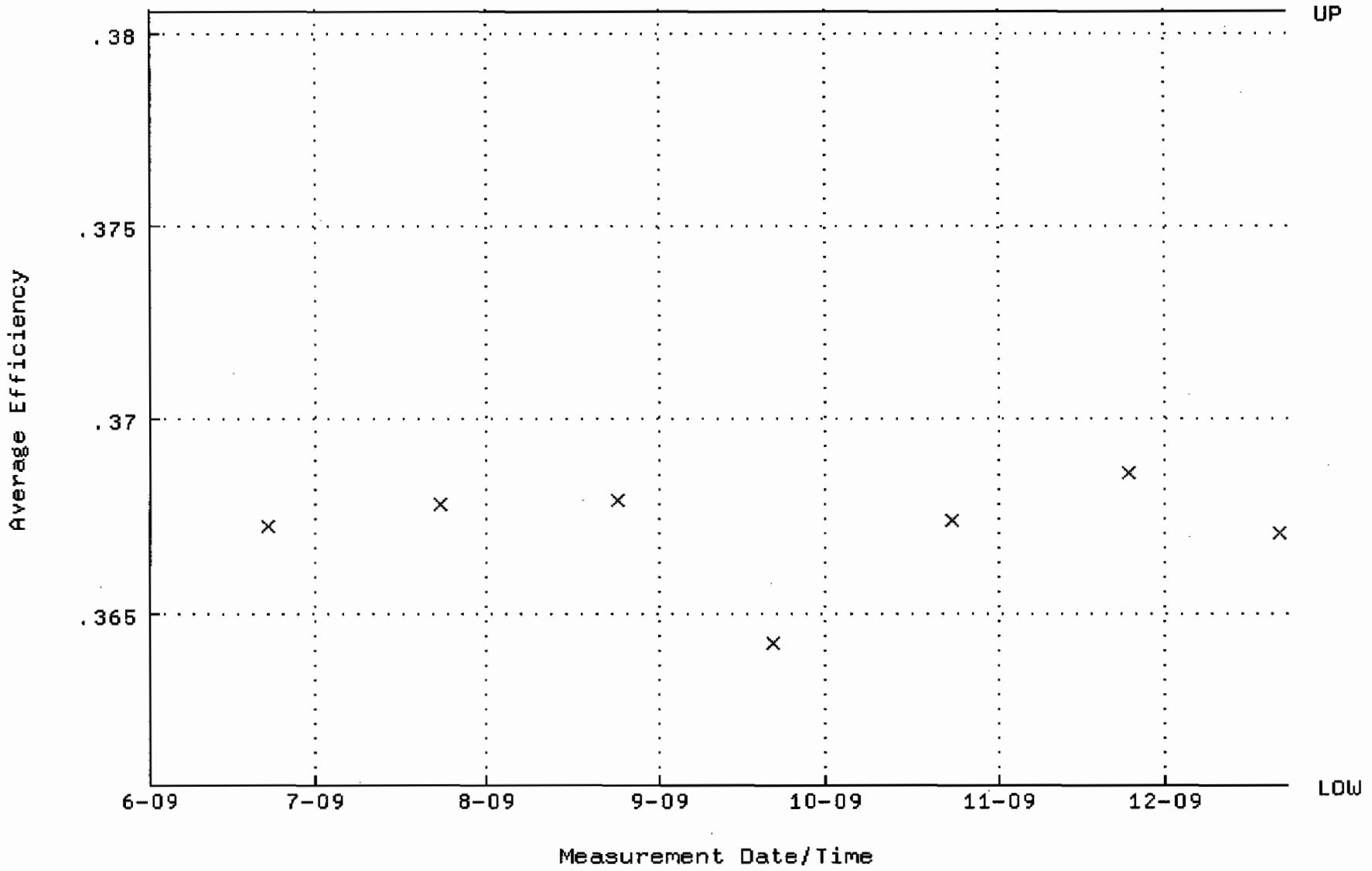

QA filename : DKA100:[ENV_ALPHA.QA.W]W170.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 22-JUN-2009 09:49:44 through 22-DEC-2009 12:00:00
Lower/Upper Lmts: 89.5841 through 99.0139

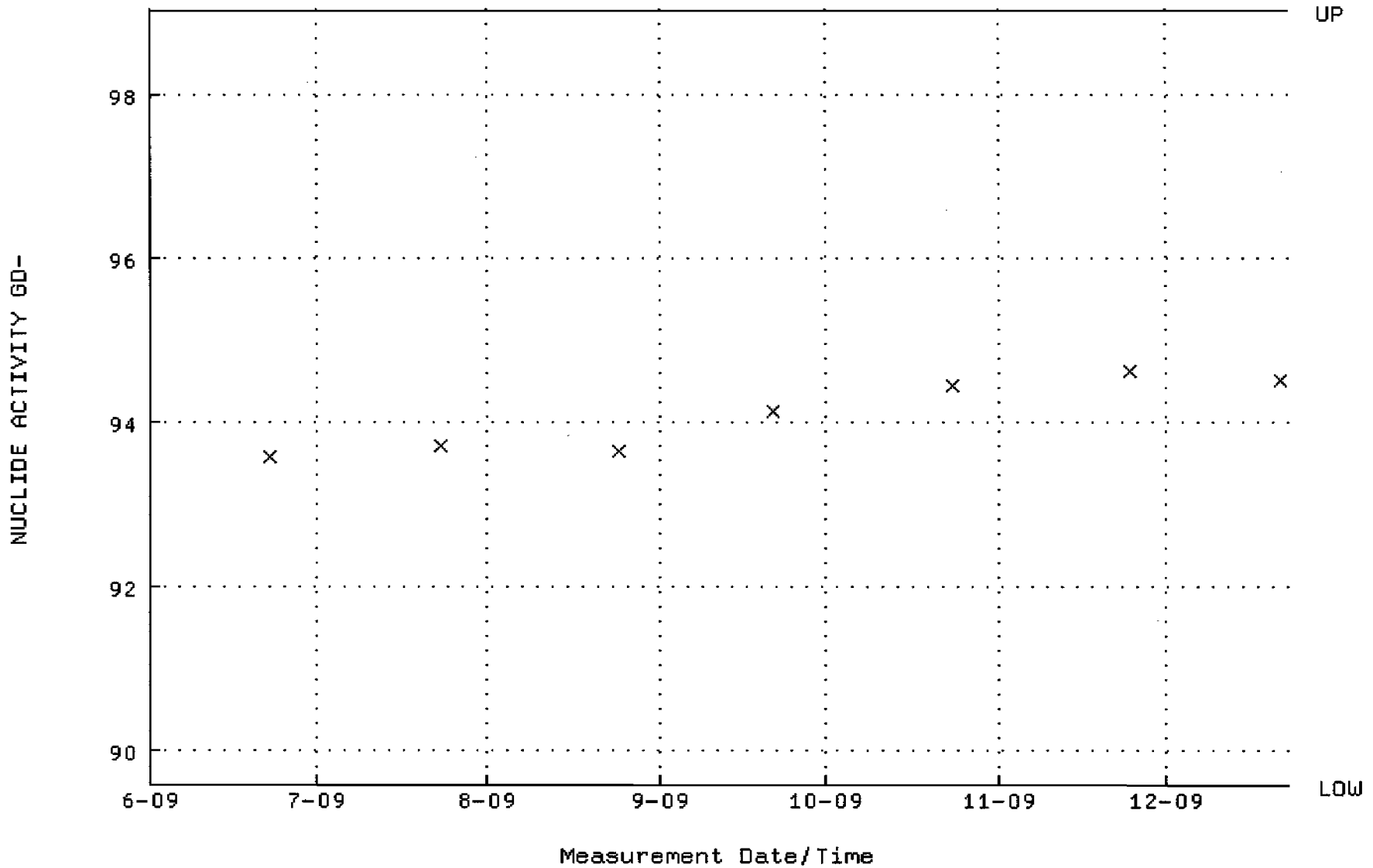

QA filename : DKA100:[ENV_ALPHA.QA.B]B170.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 7-JUN-2009 17:12:36 through 22-DEC-2009 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

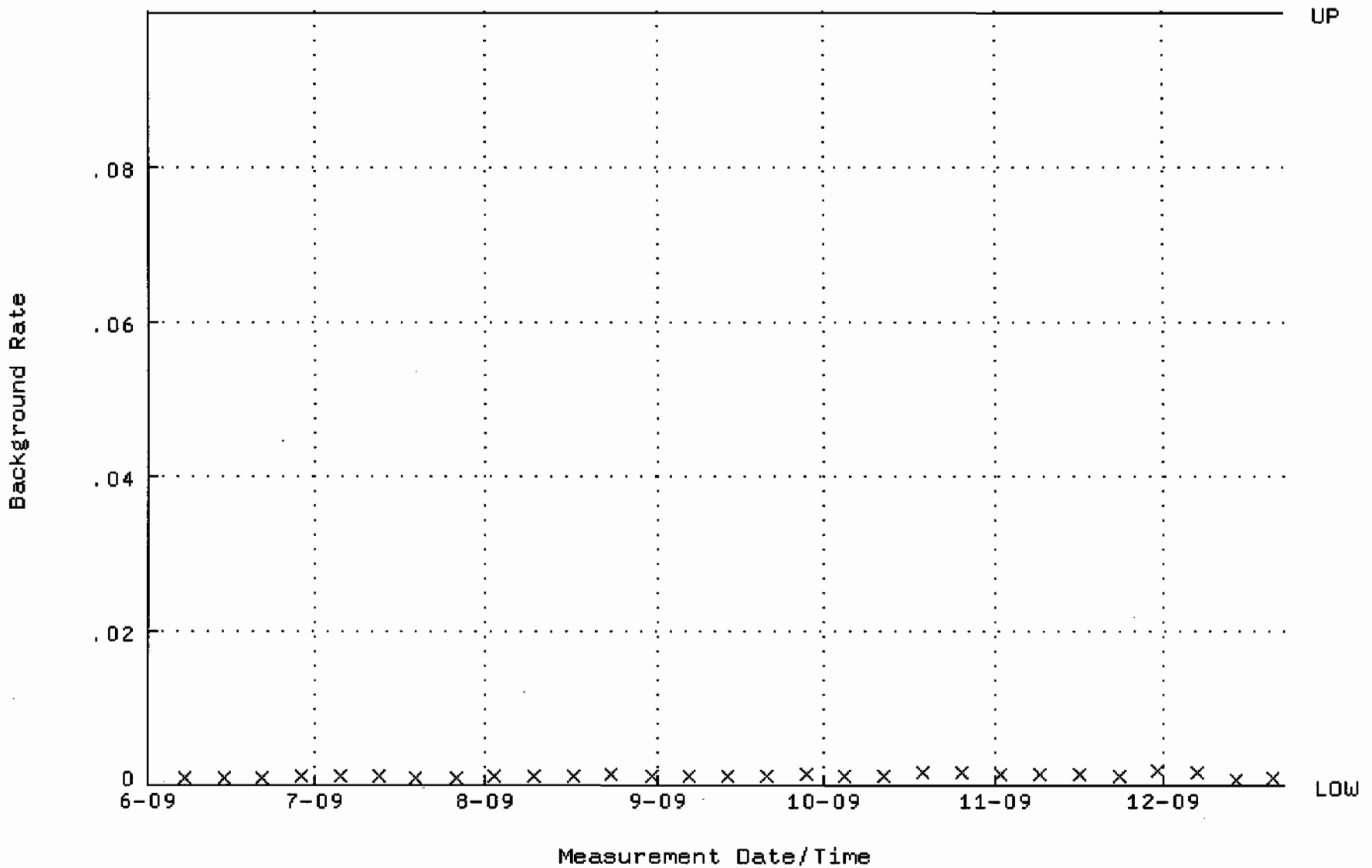

QA filename : DKA100:[ENV_ALPHA.QA.W]W171.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 22-JUN-2009 09:49:50 through 22-DEC-2009 12:00:00
Lower/Upper Lmts: 0.375364 through 0.395364

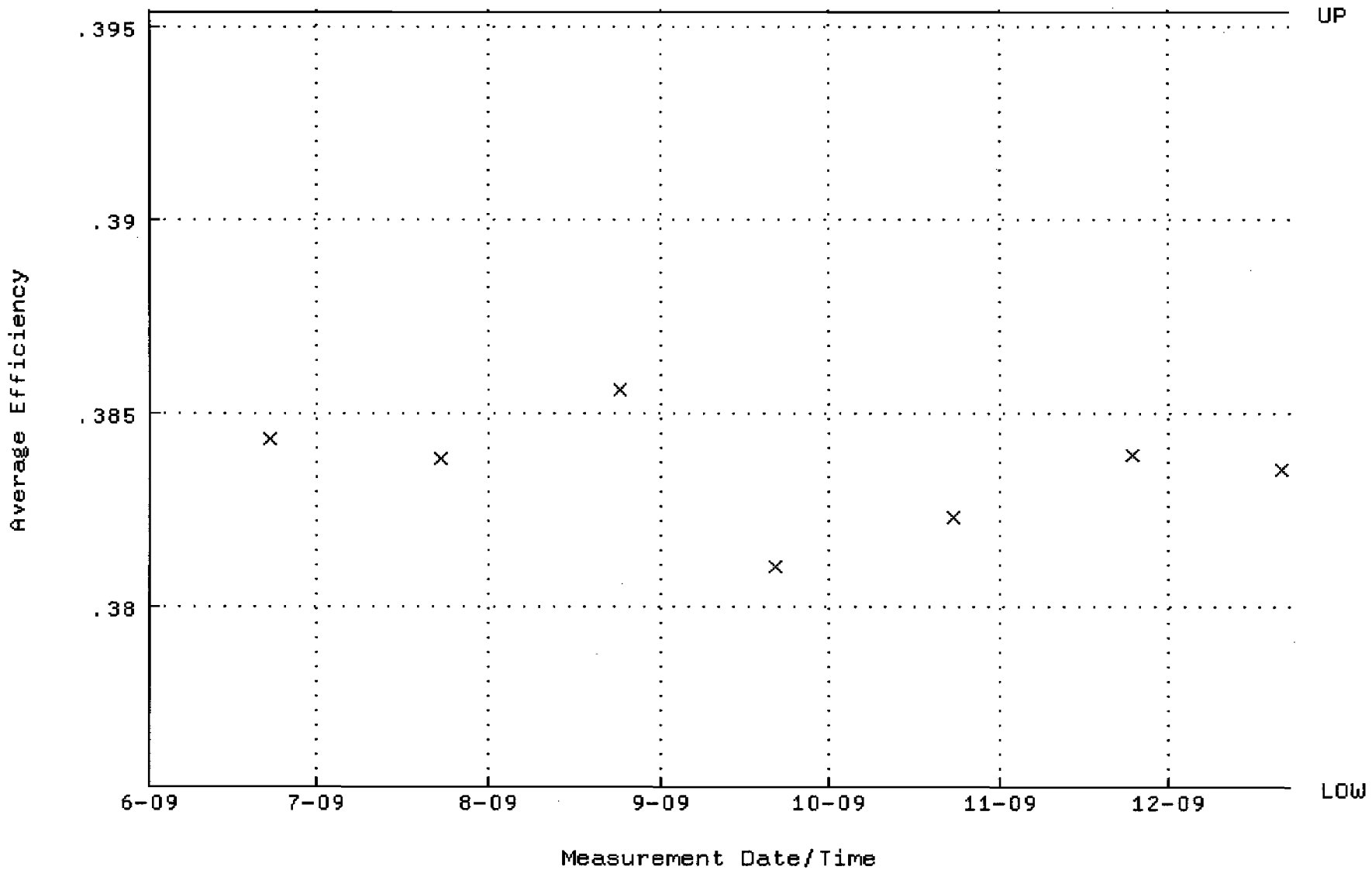

QA filename : DKA100:[ENV_ALPHA.QA.W]W171.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 22-JUN-2009 09:49:50 through 22-DEC-2009 12:00:00
Lower/Upper Lmts: 84.7539 through 93.6753

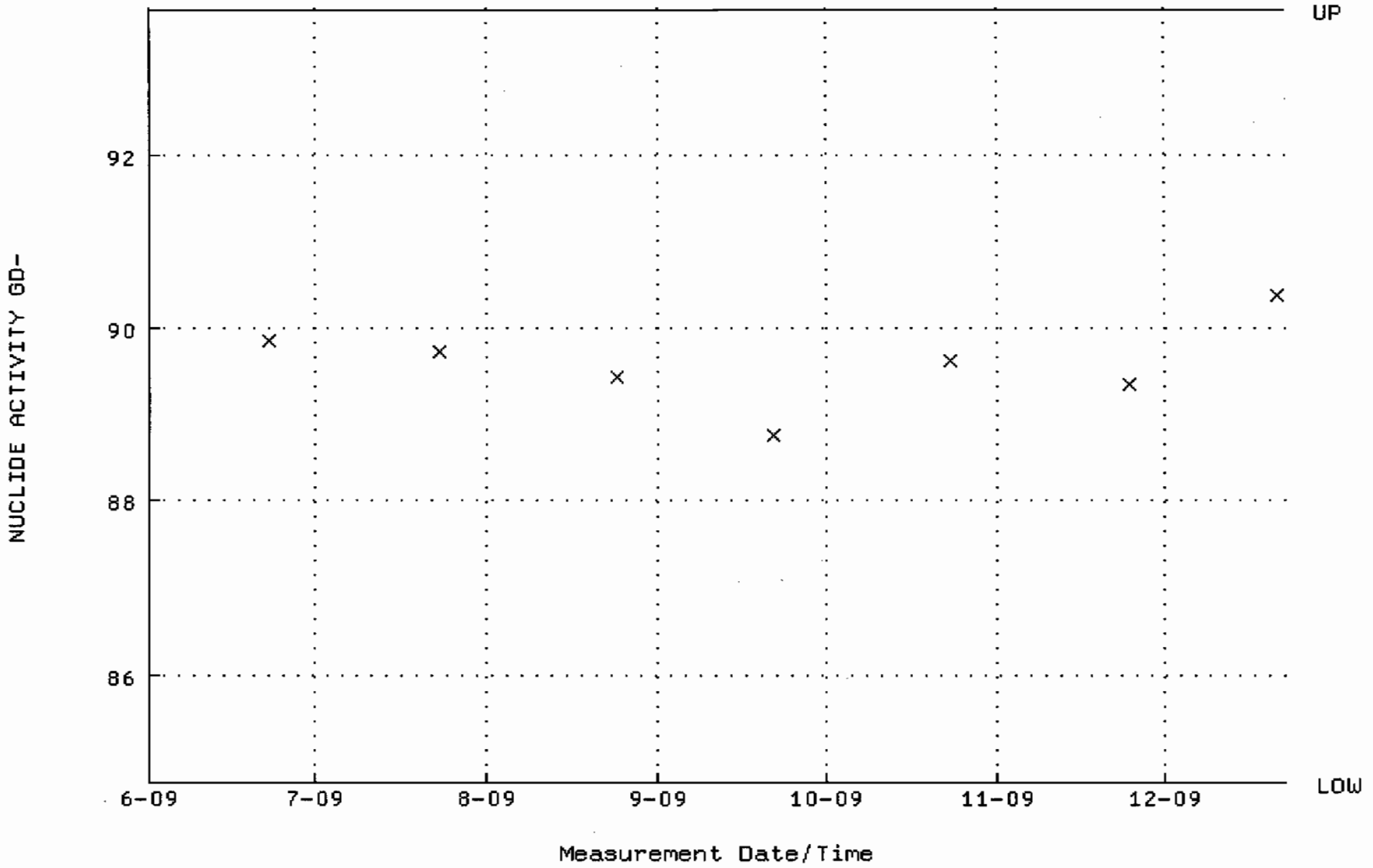

QA filename : DKA100:[ENV_ALPHA.QA.B]B171.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 7-JUN-2009 17:12:40 through 22-DEC-2009 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

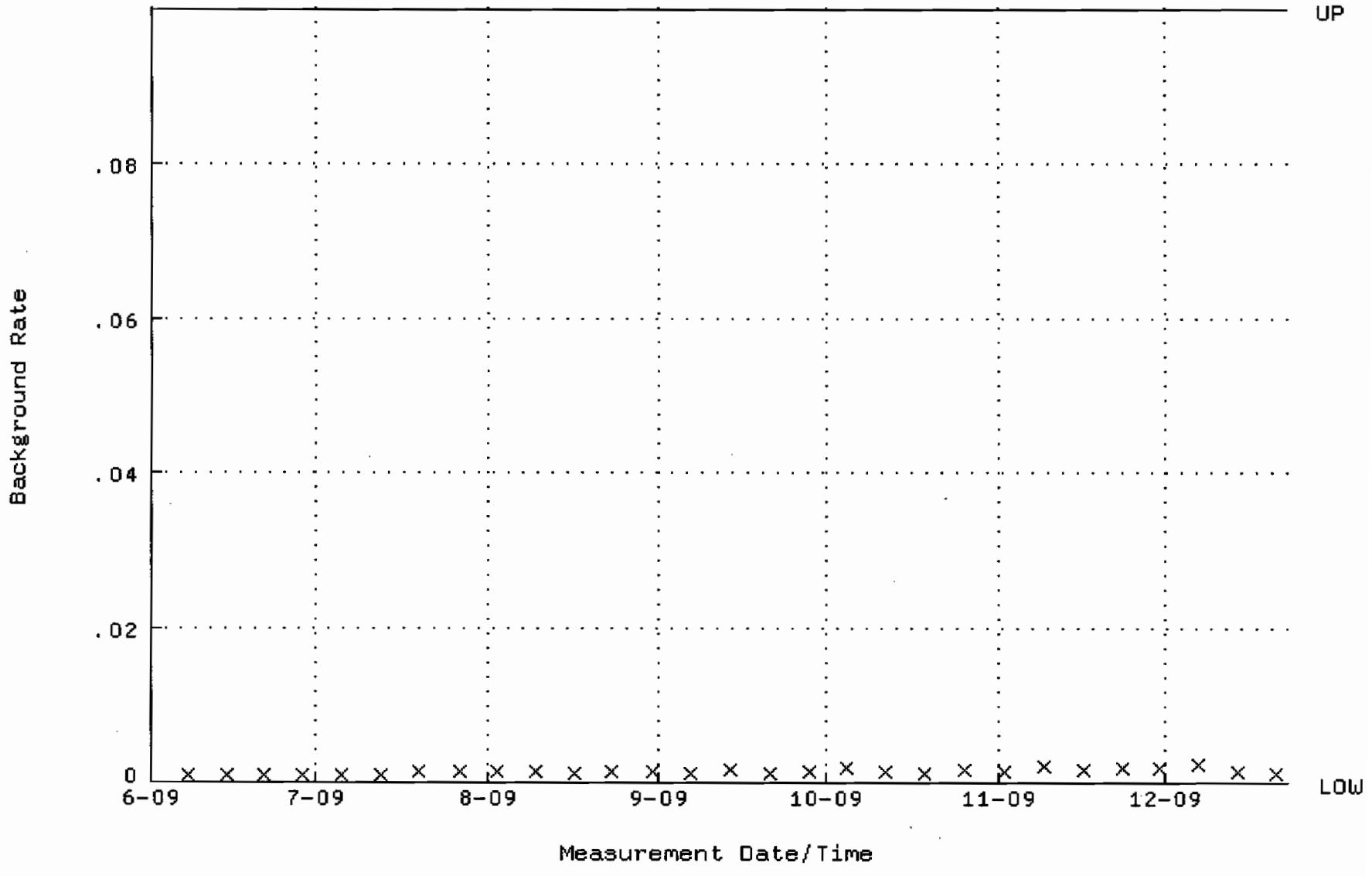

QA filename : DKA100:[ENV_ALPHA.QA.W]W172.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 22-JUN-2009 09:49:55 through 22-DEC-2009 12:00:00
Lower/Upper Lmts: 0.373575 through 0.393575

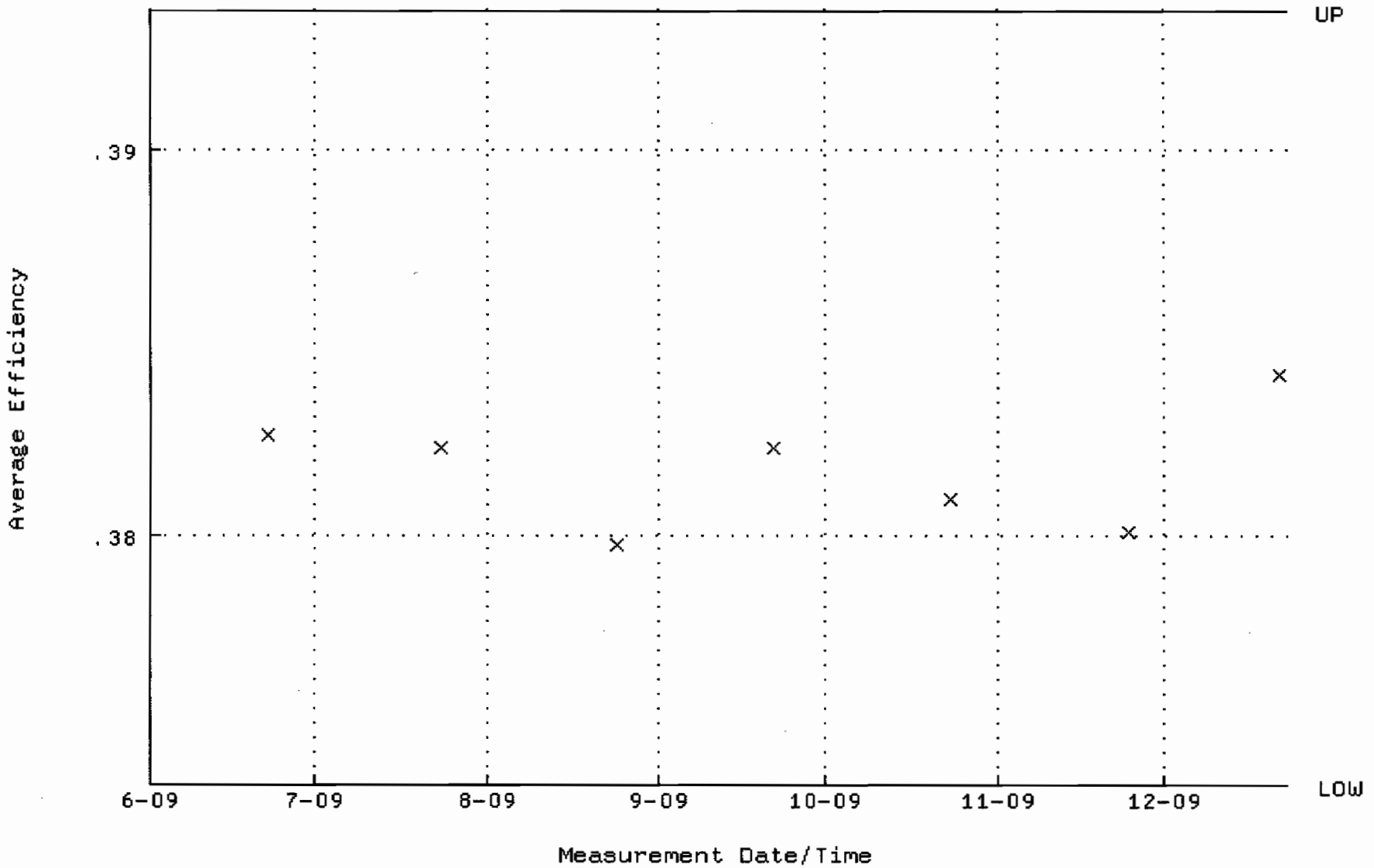

QA filename : DKA100:[ENV_ALPHA.QA.W]W172.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 22-JUN-2009 09:49:55 through 22-DEC-2009 12:00:00
Lower/Upper Lmts: 86.5089 through 95.6151

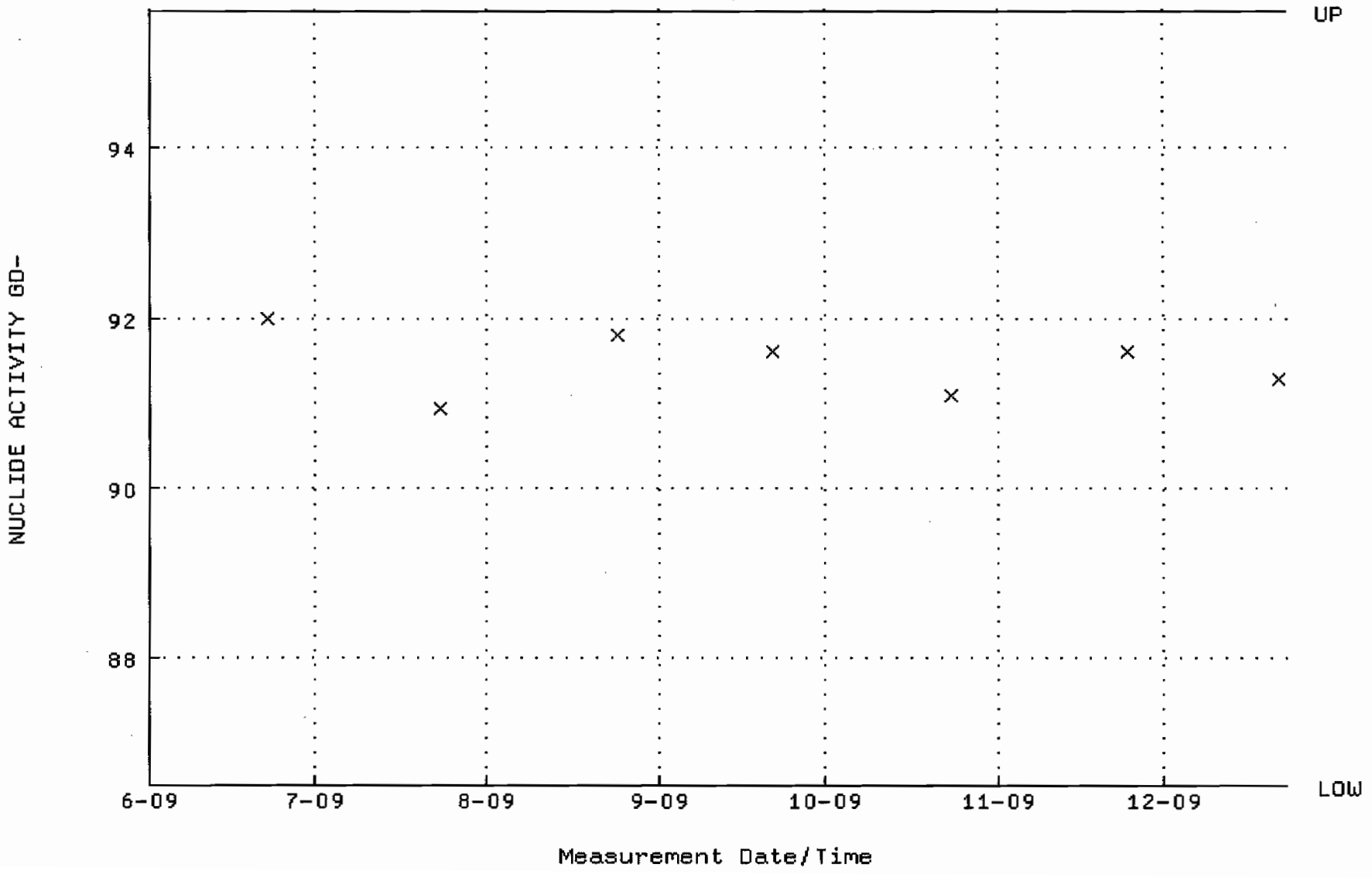

QA filename : DKA100:[ENV_ALPHA.QA.B]B172.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 7-JUN-2009 17:12:44 through 22-DEC-2009 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

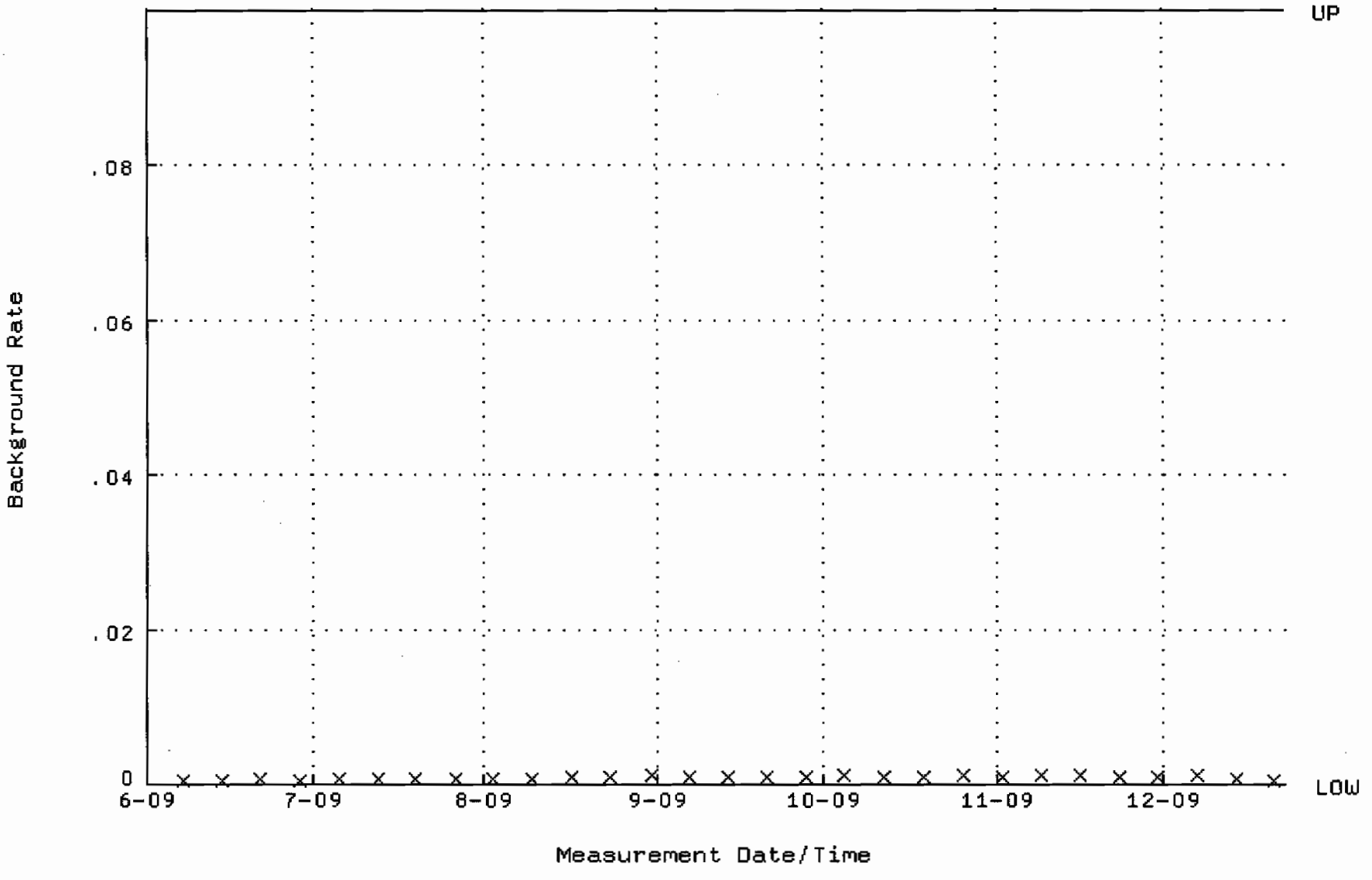

QA filename : DKA100:[ENV_ALPHA.QA.W]W209.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 2-JUN-2009 11:17:06 through 29-DEC-2009 12:00:00
Lower/Upper Lmts: 0.363151 through 0.377133

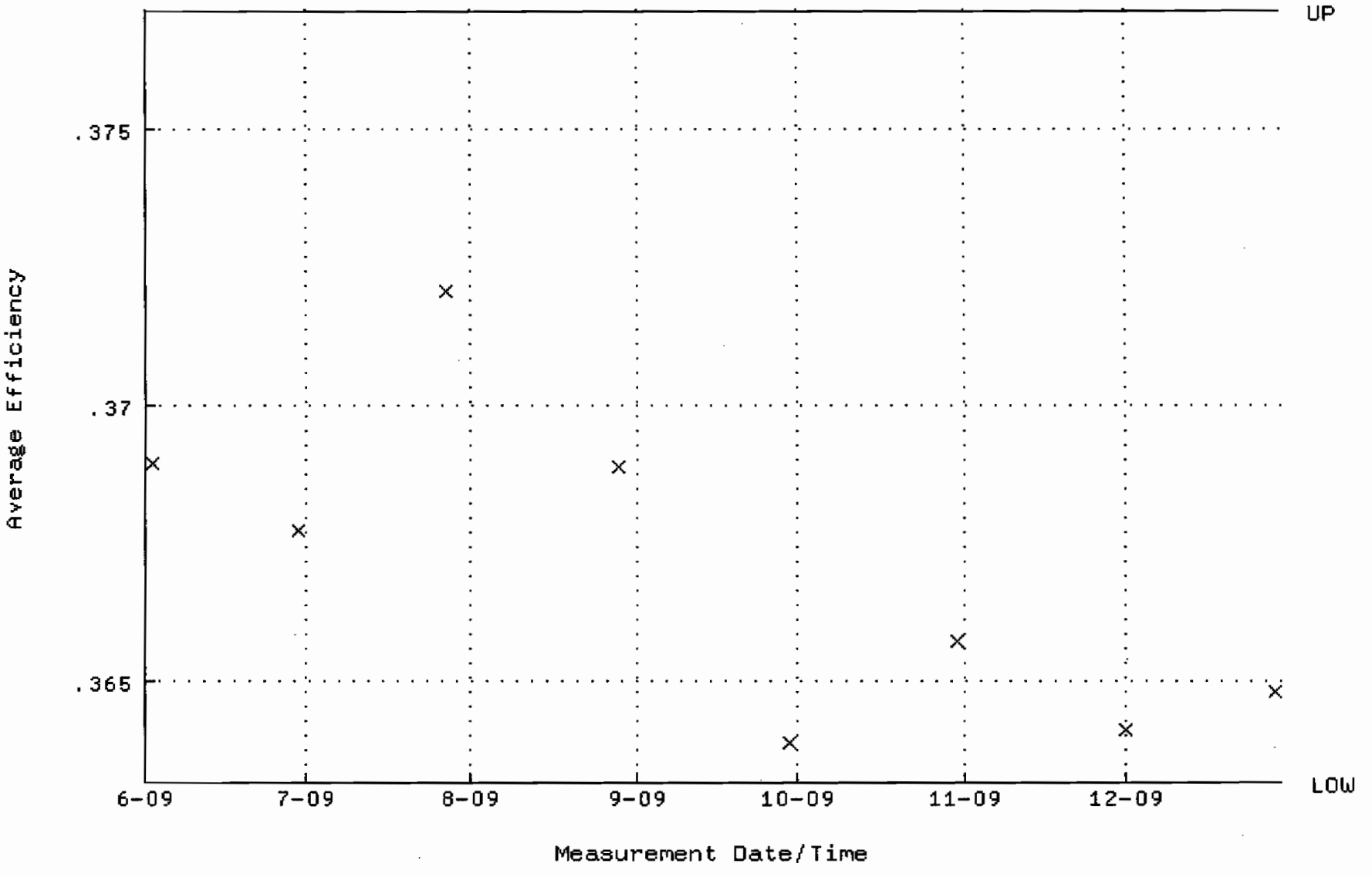

QA filename : DKA100:[ENV_ALPHA.QA.W]W209.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 2-JUN-2009 11:17:06 through 29-DEC-2009 12:00:00
Lower/Upper Lmts: 88.8827 through 92.2979

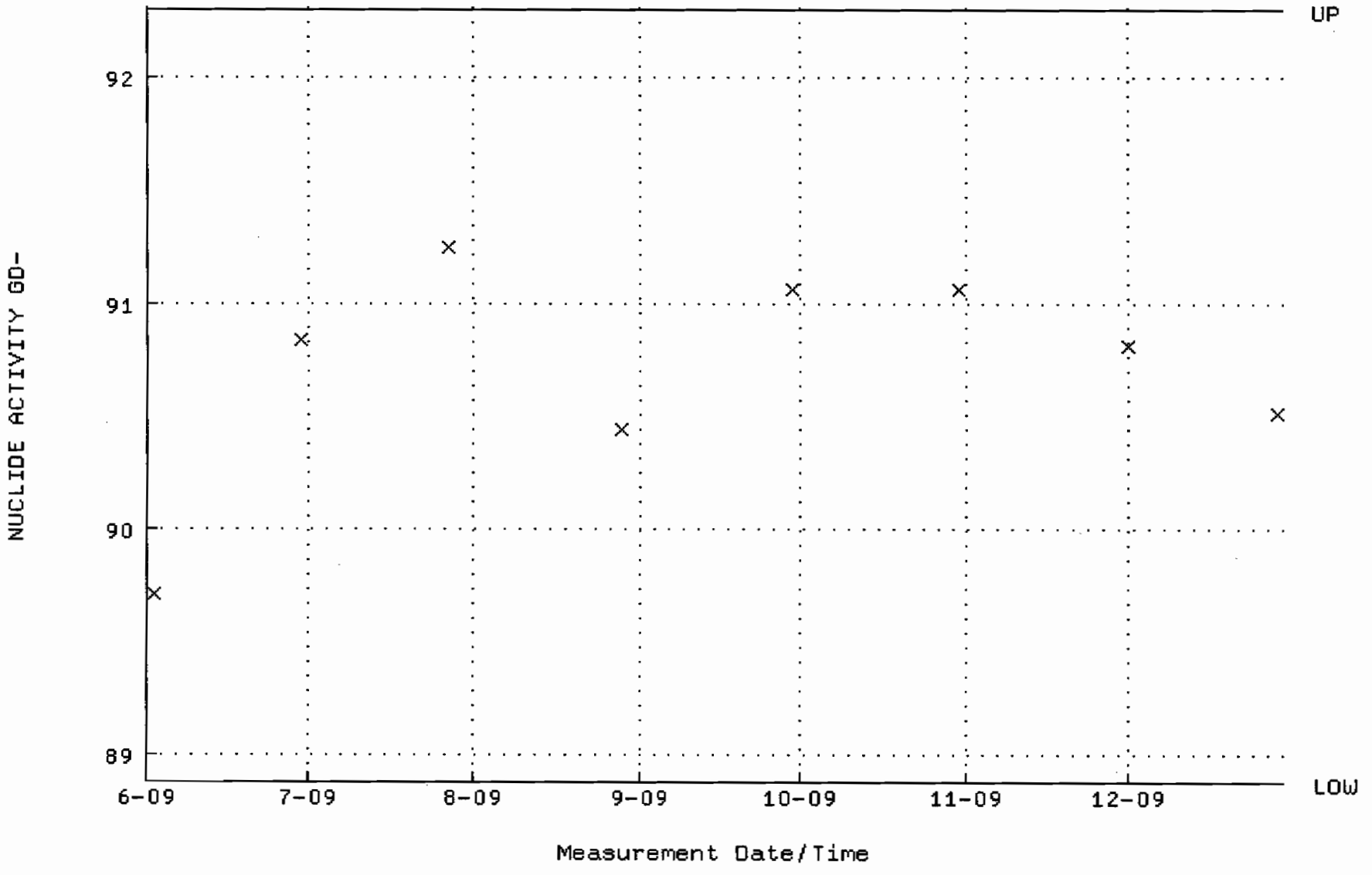

QA filename : DKA100:[ENV_ALPHA.QA.B]B209.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 1-JUN-2009 17:43:30 through 29-DEC-2009 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

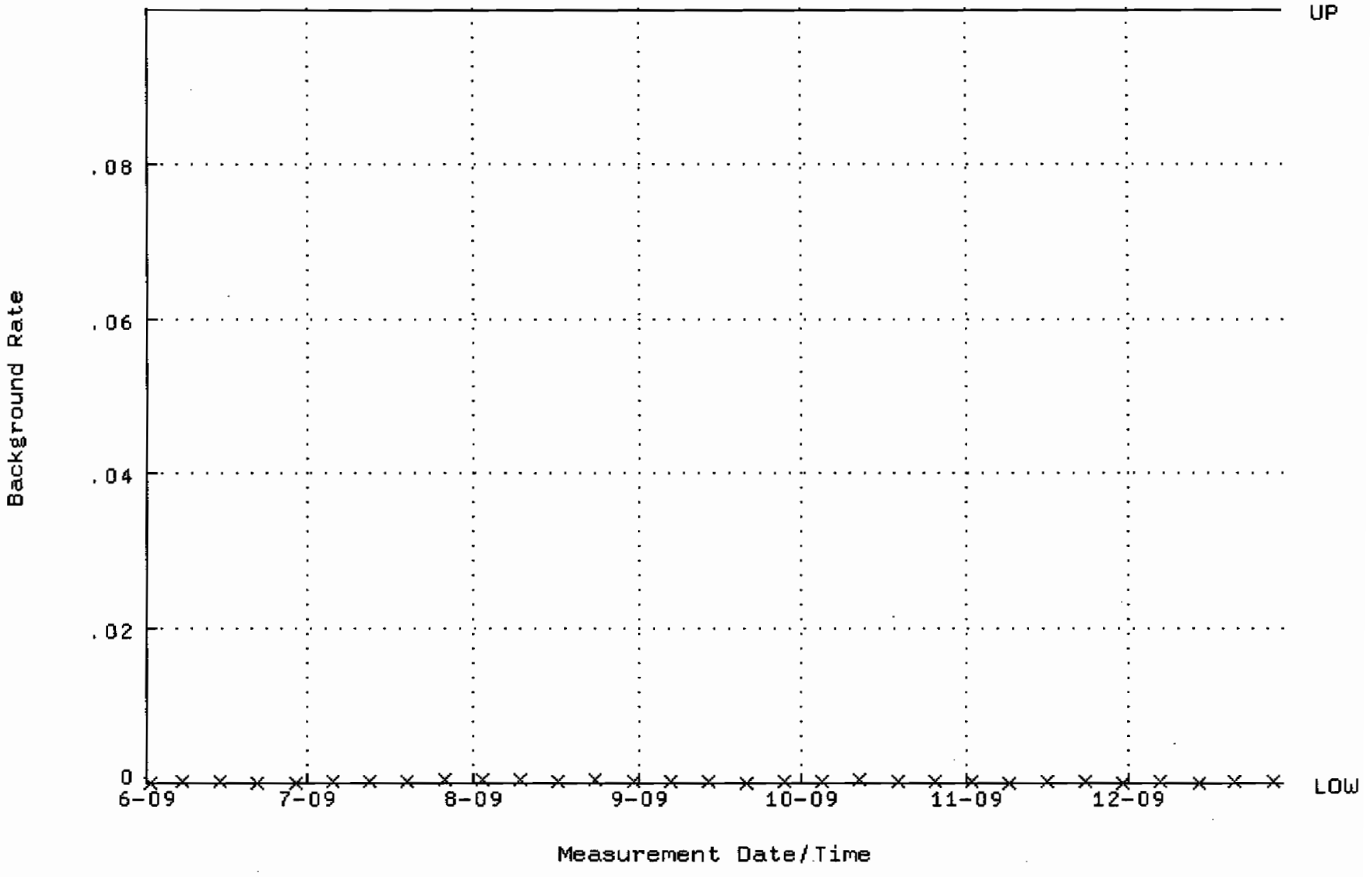

QA filename : DKA100:[ENV_ALPHA.QA.W]W210.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 2-JUN-2009 11:17:12 through 29-DEC-2009 12:00:00
Lower/Upper Lmts: 0.374526 through 0.394526

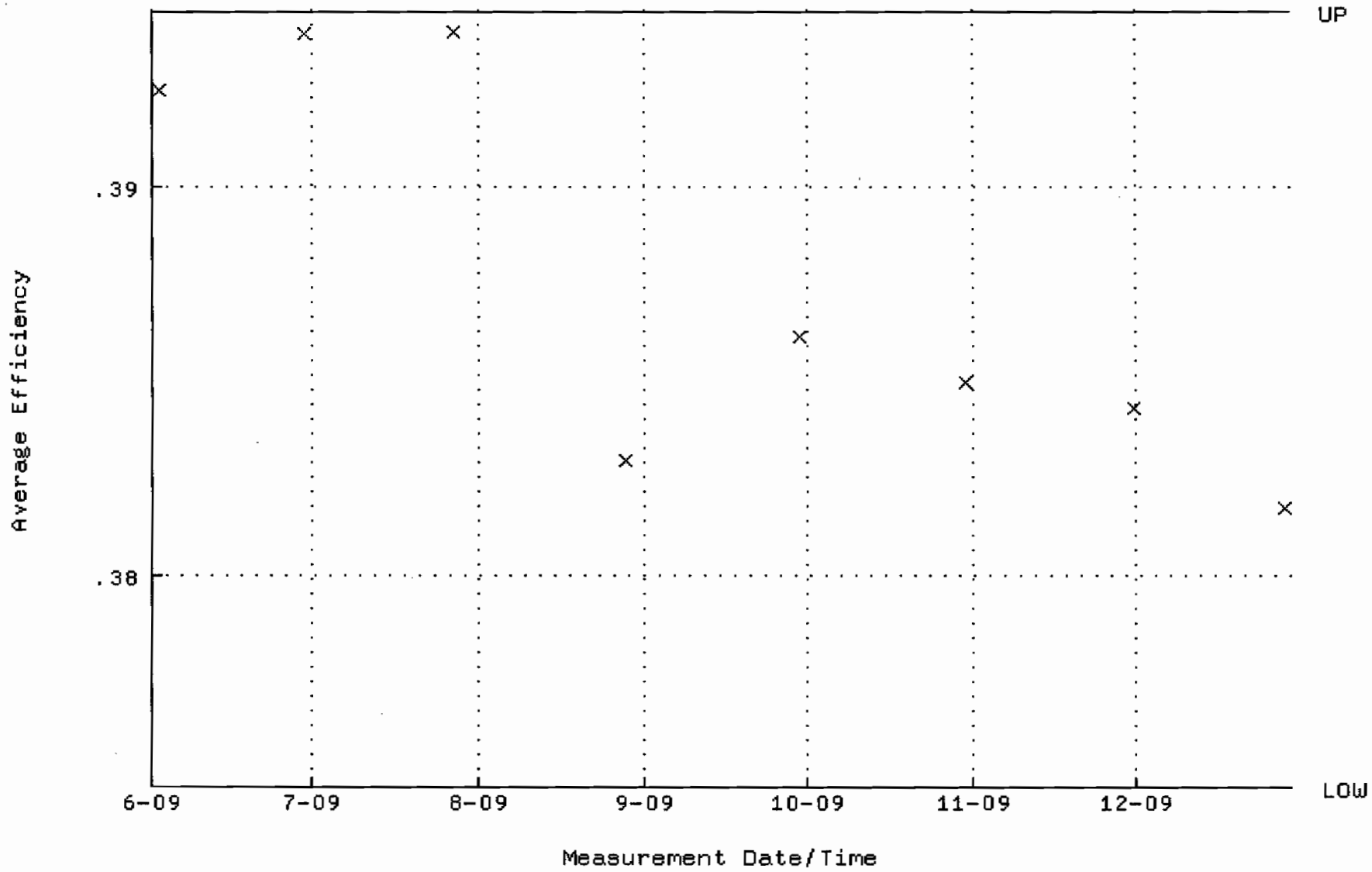

QA filename : DKA100:[ENV_ALPHA.QA.W]W210.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 2-JUN-2009 11:17:12 through 29-DEC-2009 12:00:00
Lower/Upper Lmts: 85.5688 through 94.5760

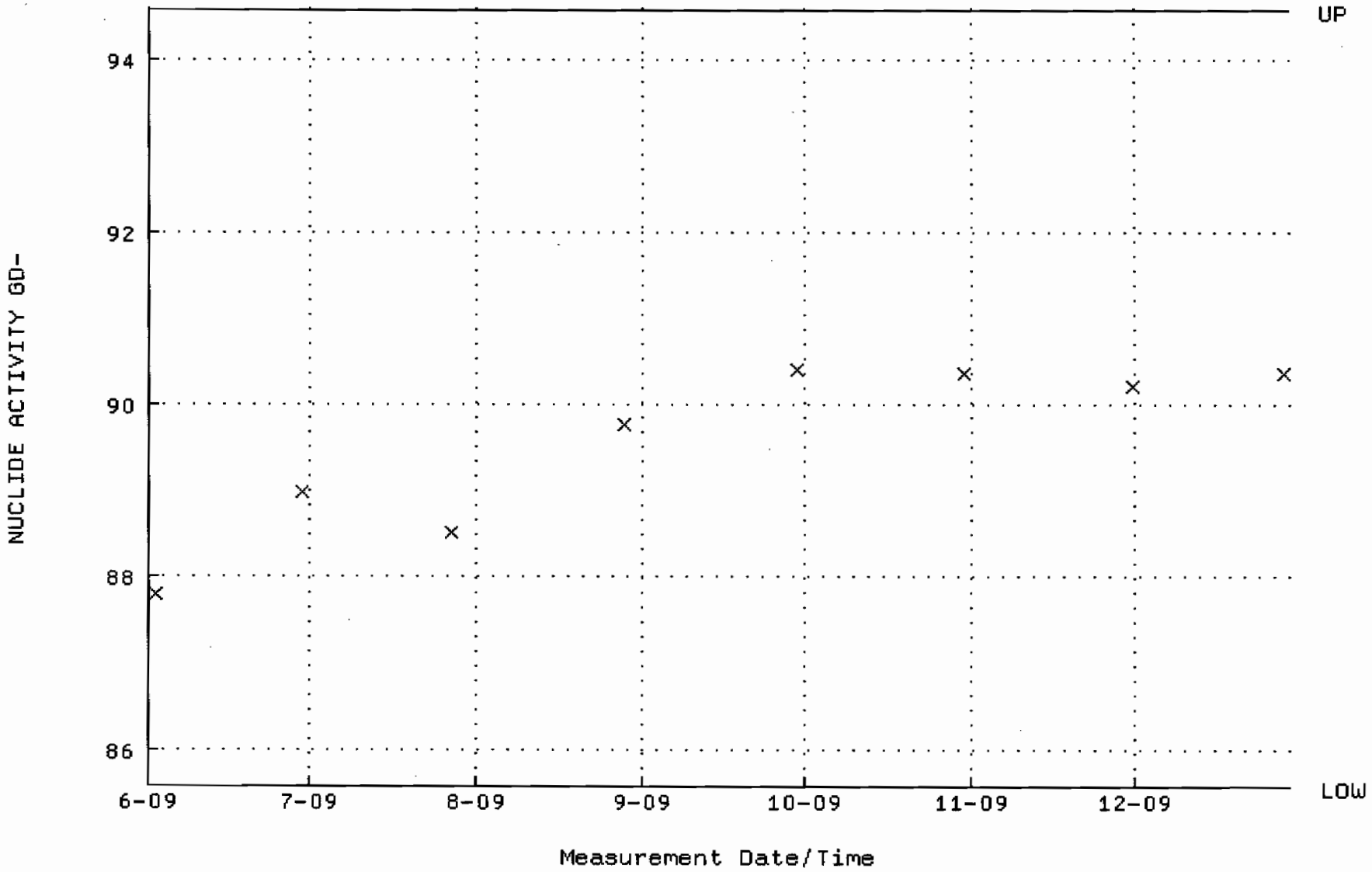

QA filename : DKA100:[ENV_ALPHA.QA.B]B210.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 1-JUN-2009 17:43:35 through 29-DEC-2009 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

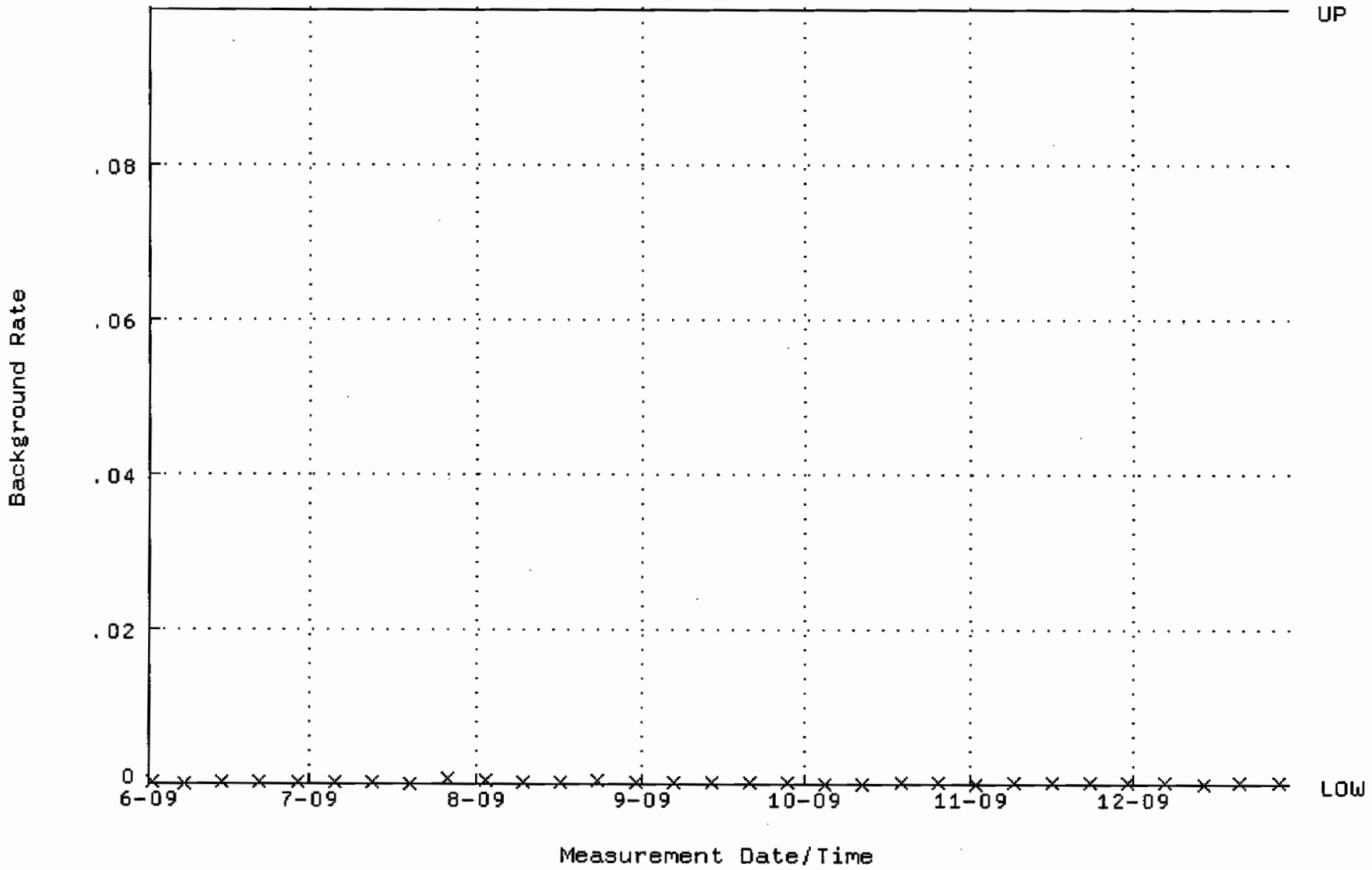

QA filename : DKA100:[ENV_ALPHA.QA.W]W226.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 2-JUN-2009 11:18:36 through 29-DEC-2009 12:00:00
Lower/Upper Lmts: 0.363285 through 0.383285

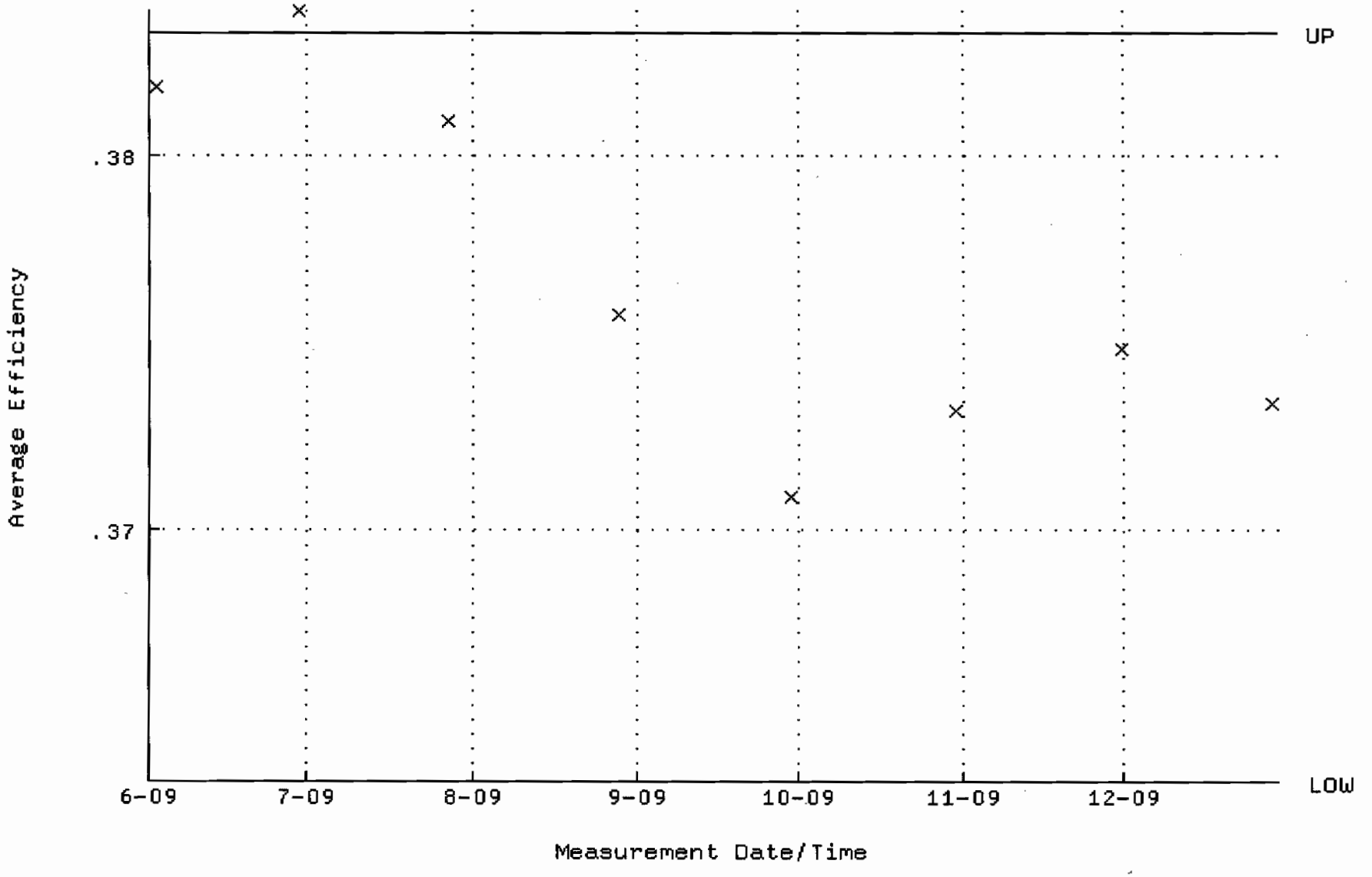

QA filename : DKA100:[ENV_ALPHA.QA.W]W226.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 2-JUN-2009 11:18:36 through 29-DEC-2009 12:00:00
Lower/Upper Lmts: 86.4888 through 95.5928

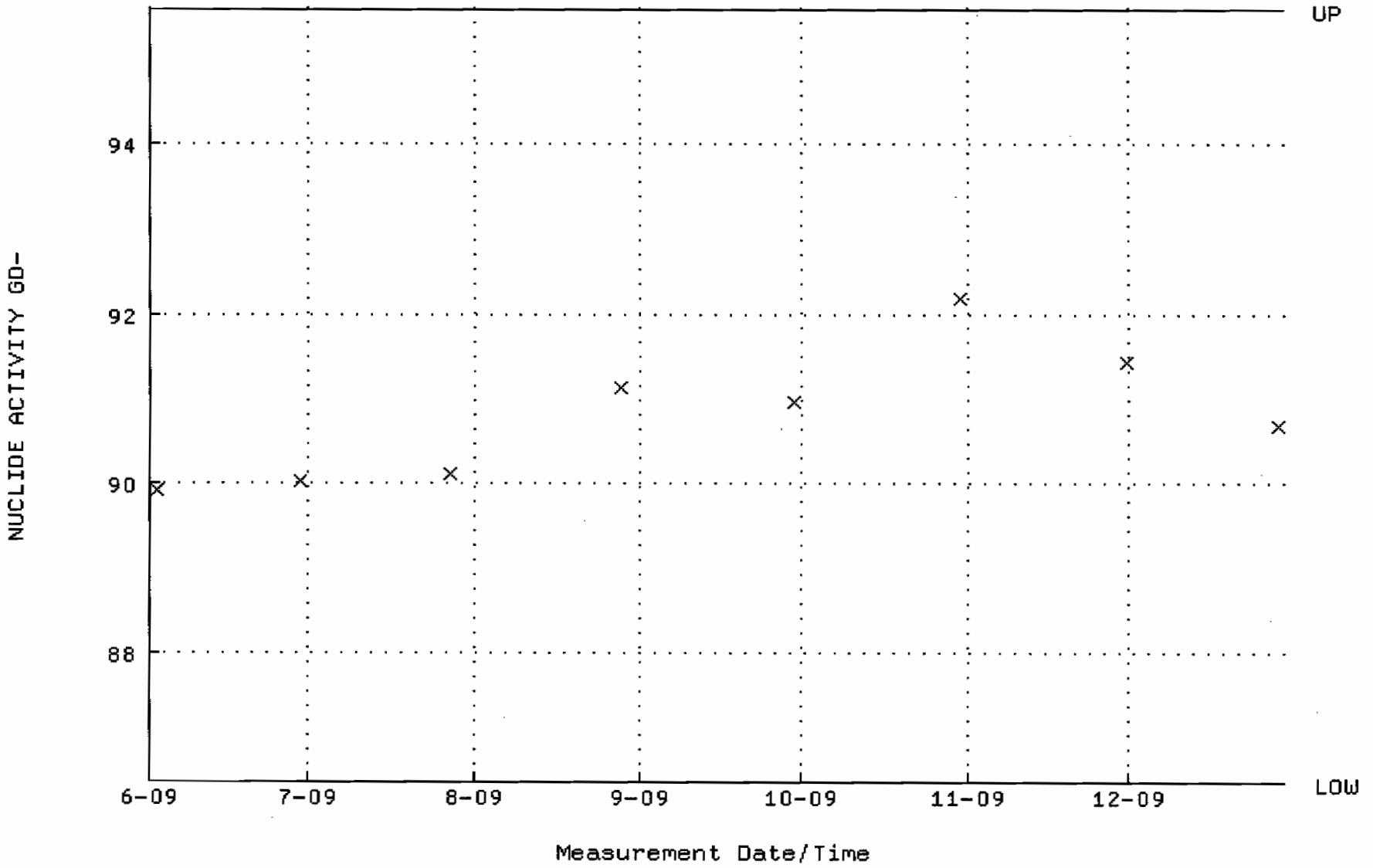

QA filename : DKA100:[ENV_ALPHA.QA.B]B226.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 1-JUN-2009 17:44:47 through 29-DEC-2009 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

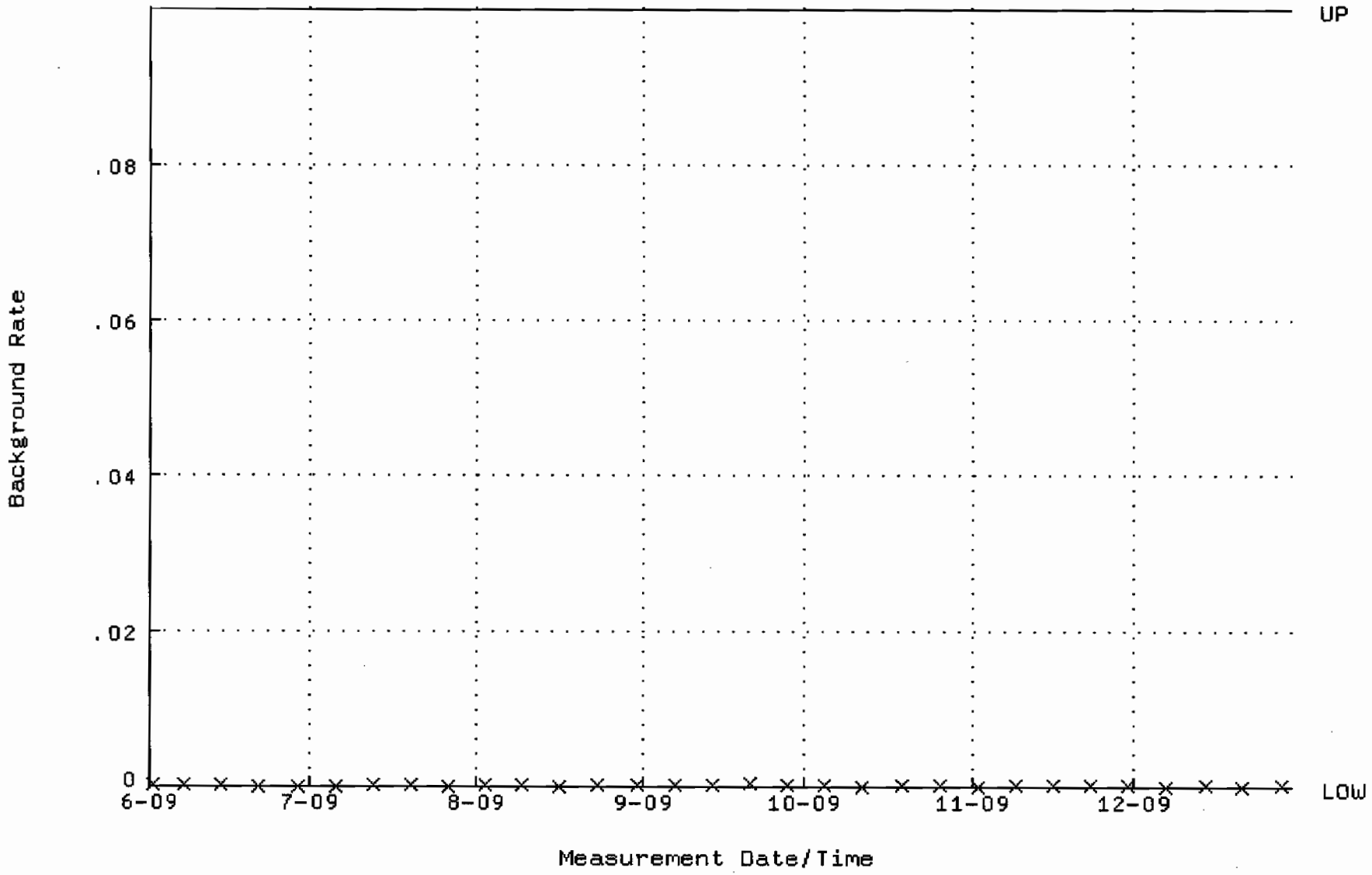

QA filename : DKA100:[ENV_ALPHA.QA.W]W227.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 2-JUN-2009 11:18:41 through 29-DEC-2009 12:00:00
Lower/Upper Lmts: 0.375328 through 0.395328

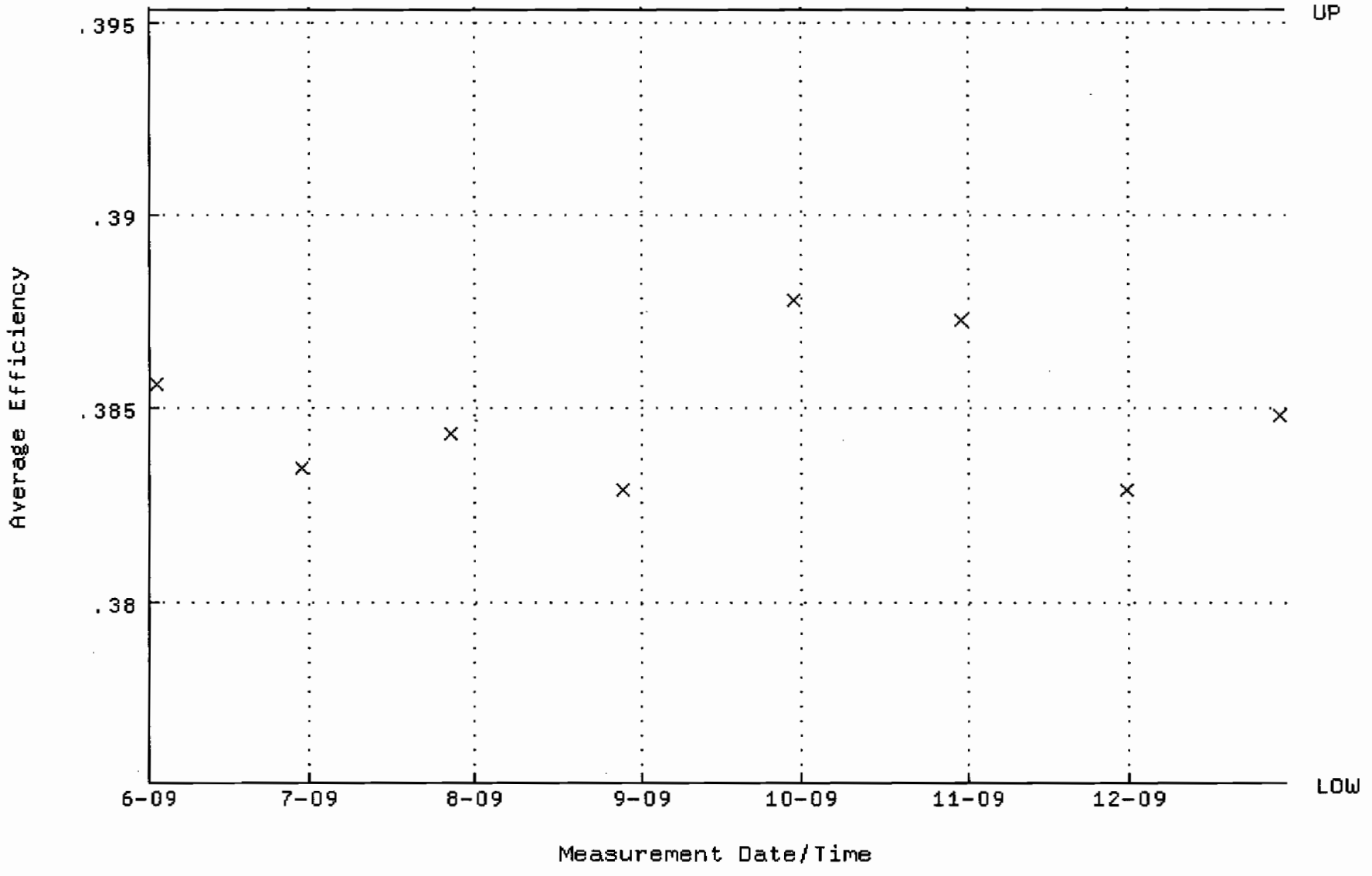

QA filename : DKA100:[ENV_ALPHA.QA.W]W227.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 2-JUN-2009 11:18:41 through 29-DEC-2009 12:00:00
Lower/Upper Lmts: 84.8011 through 93.7275

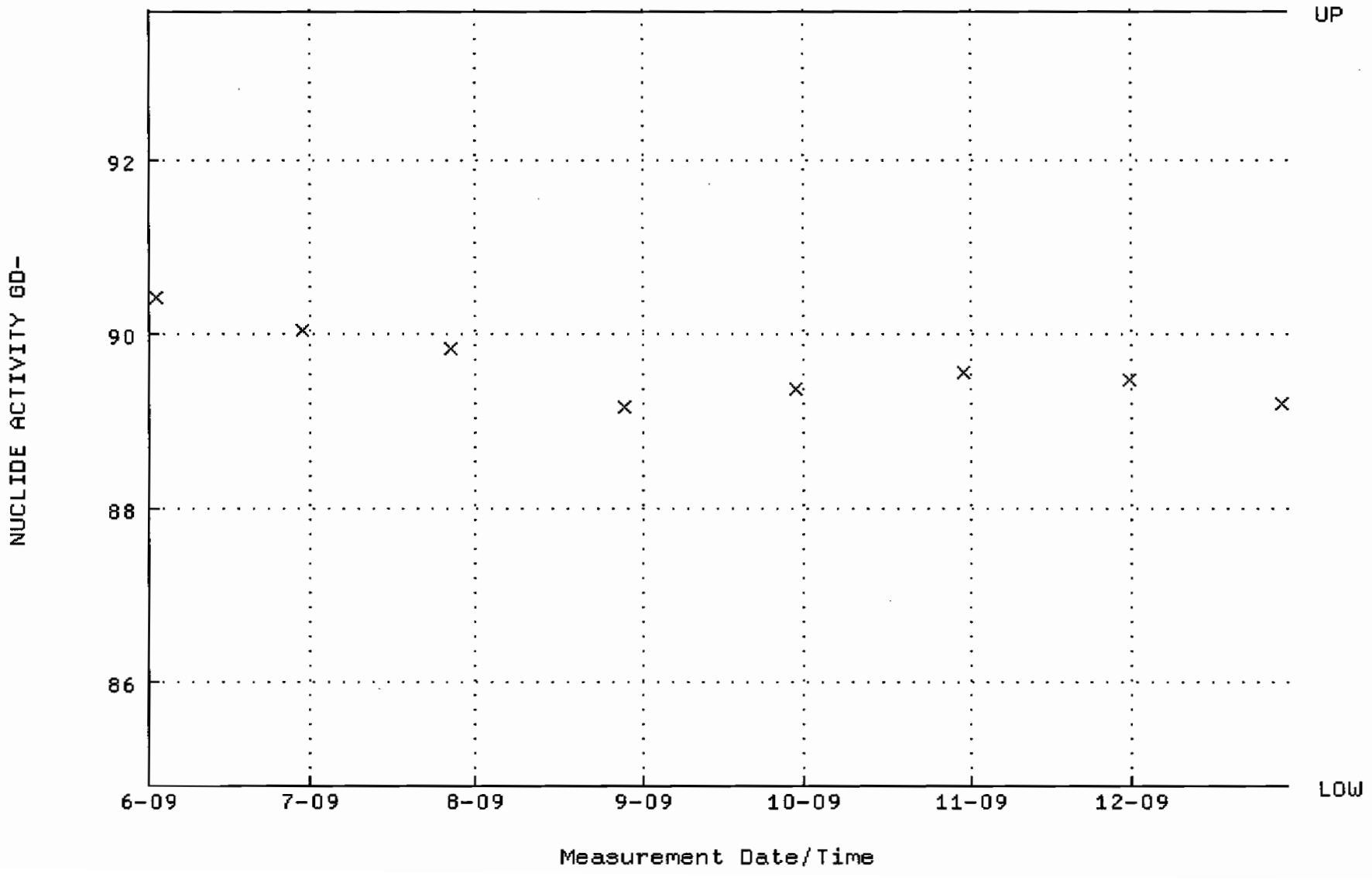

QA filename : DKA100:[ENV_ALPHA.QA.B]B227.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 1-JUN-2009 17:44:52 through 29-DEC-2009 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

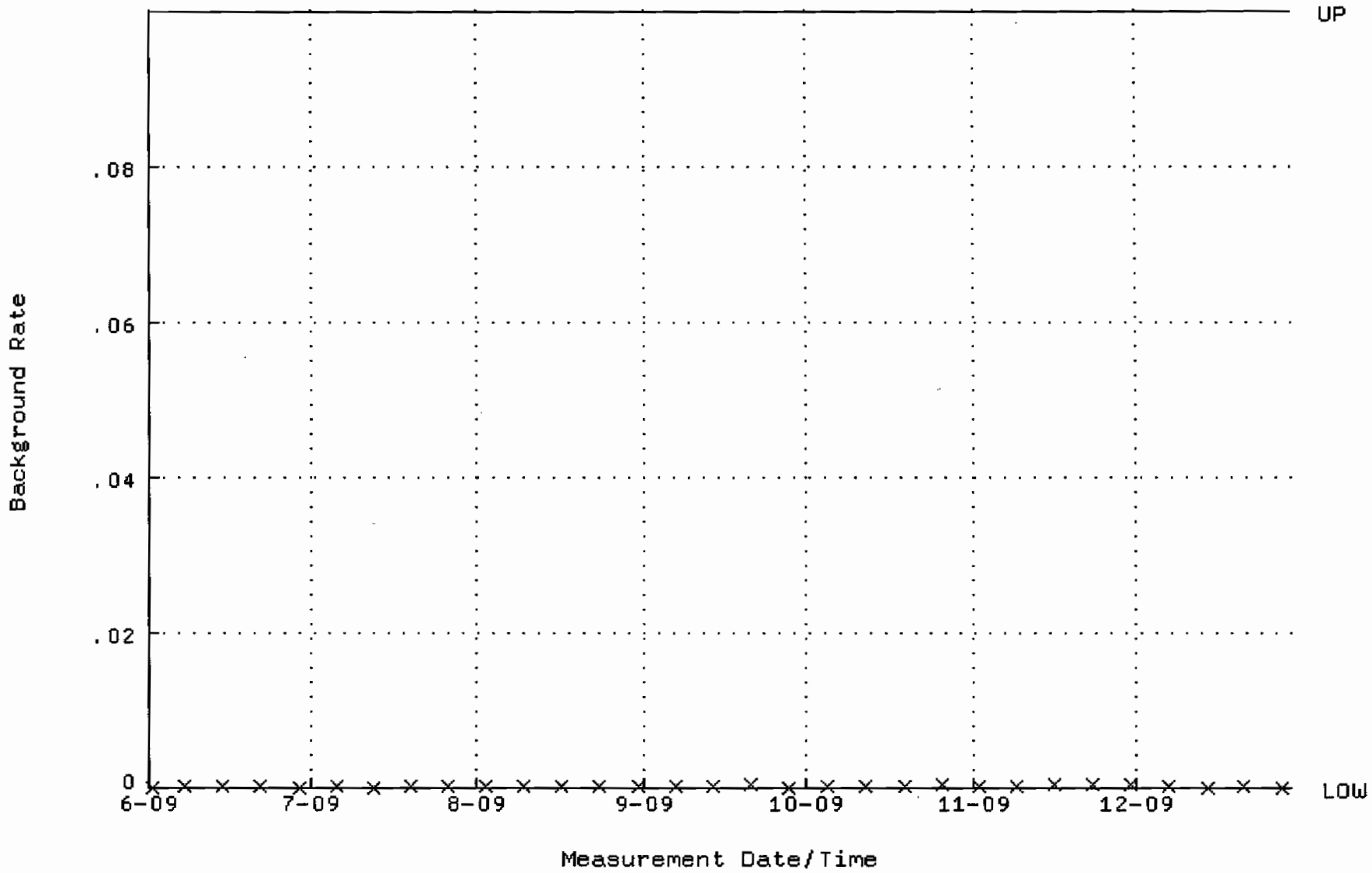

QA filename : DKA100:[ENV_ALPHA.QA.W]W228.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 2-JUN-2009 11:18:47 through 29-DEC-2009 12:00:00
Lower/Upper Lmts: 0.362134 through 0.382134

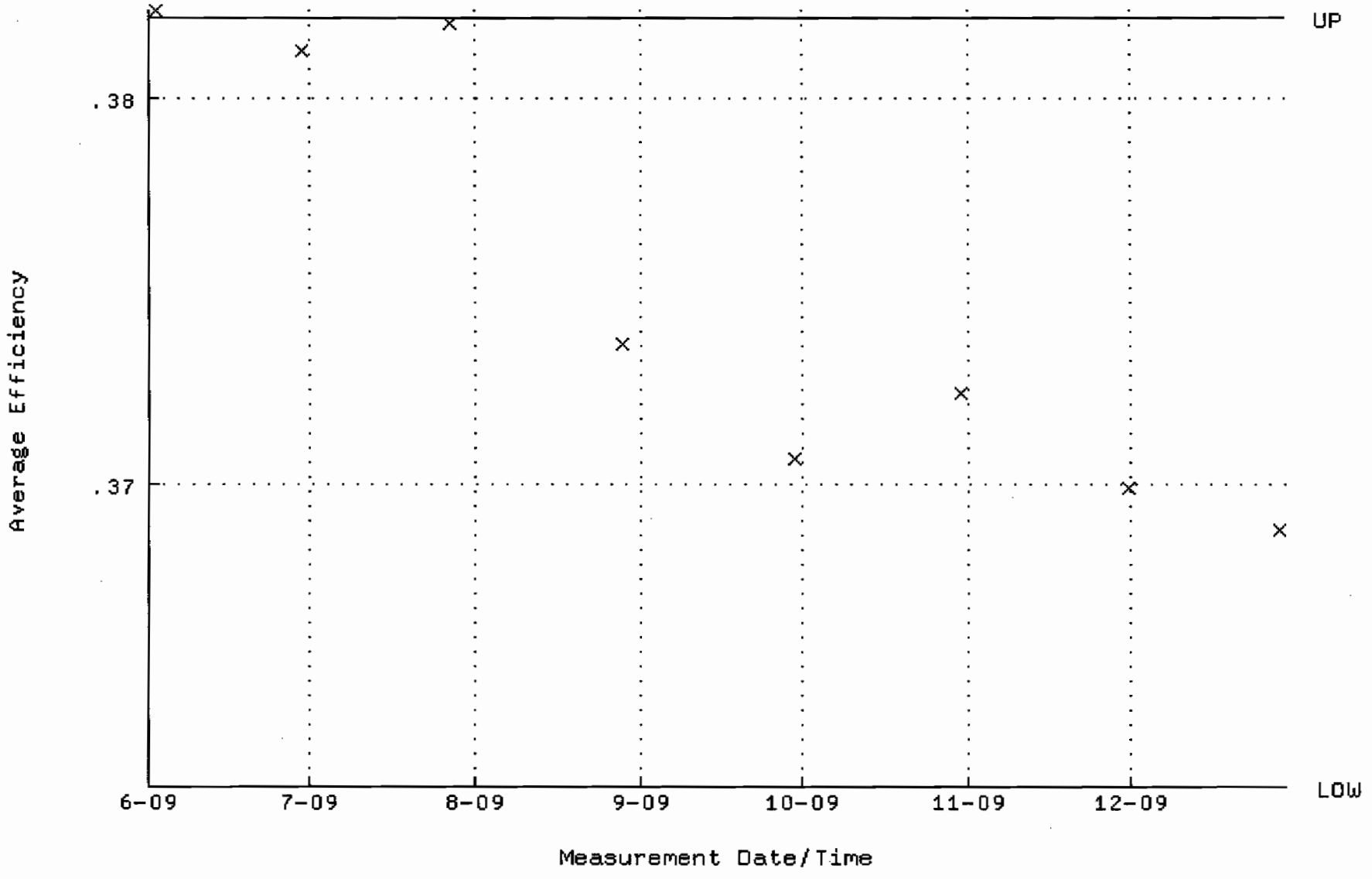

QA filename : DKA100:[ENV_ALPHA.QA.W]W228.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 2-JUN-2009 11:18:47 through 29-DEC-2009 12:00:00
Lower/Upper Lmts: 87.0370 through 96.1988

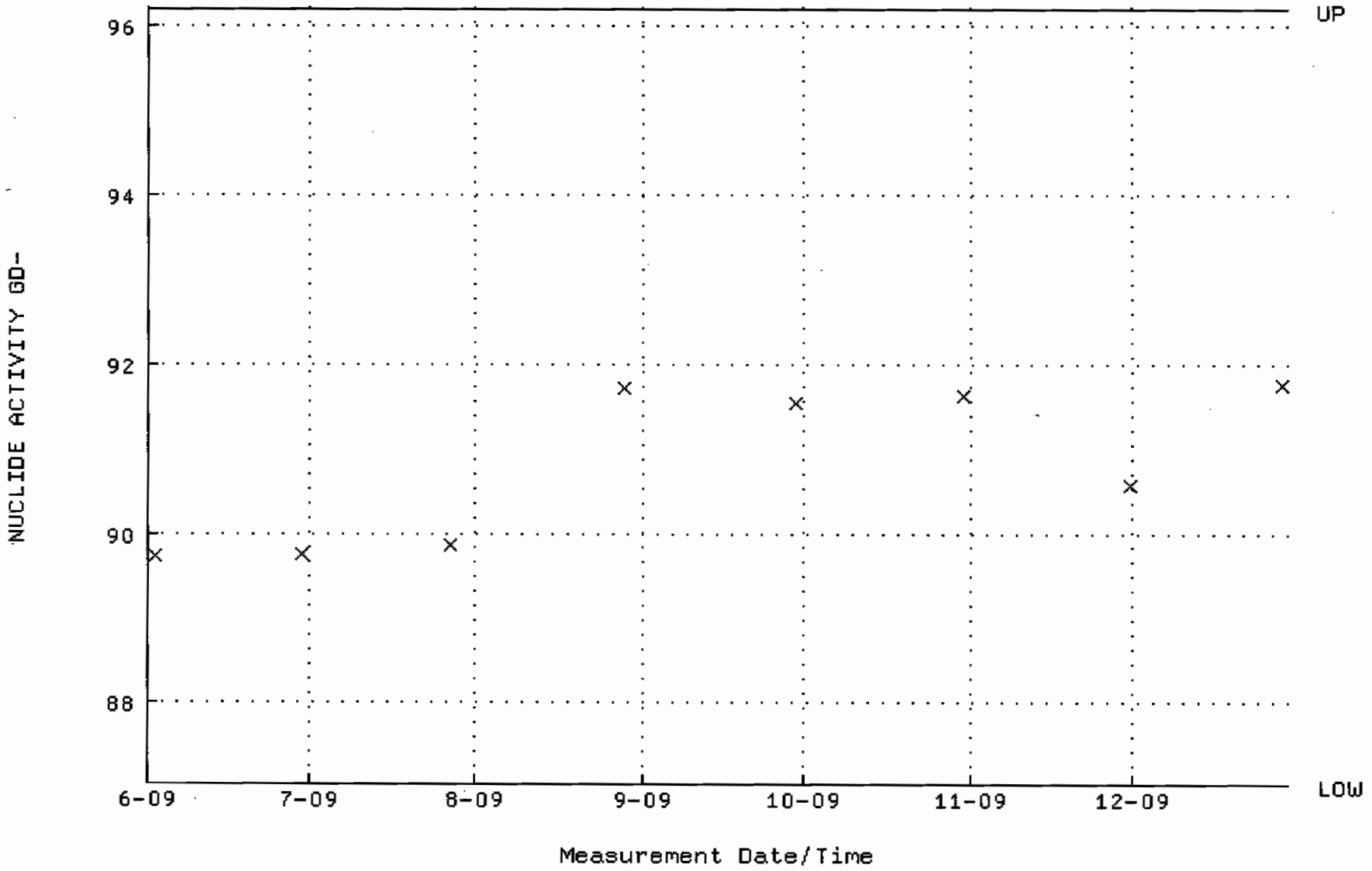

QA filename : DKA100:[ENV_ALPHA.QA.B]B228.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 1-JUN-2009 17:44:57 through 29-DEC-2009 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

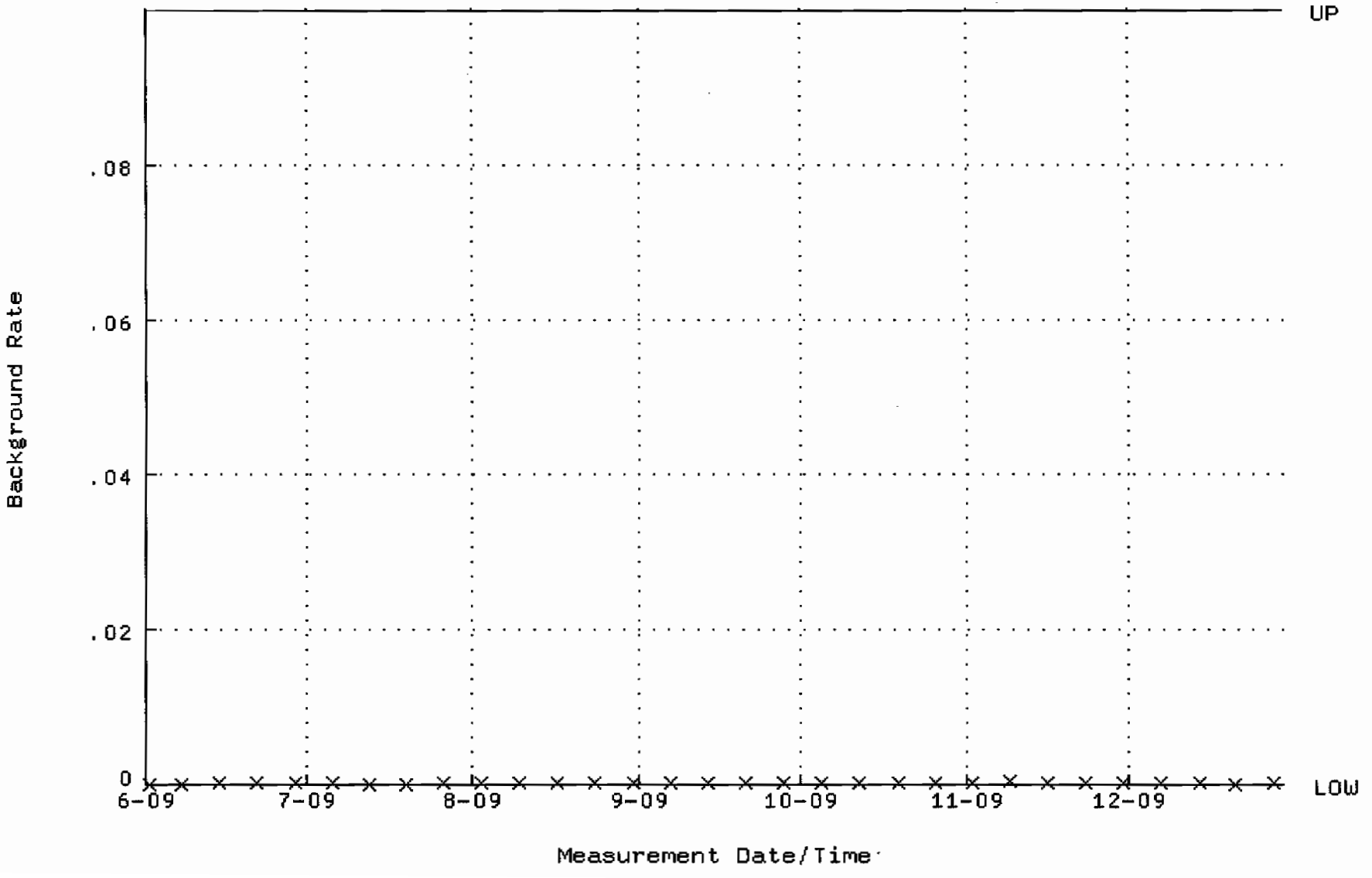

QA filename : DKA100:[ENV_ALPHA.QA.W]W229.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 2-JUN-2009 11:18:53 through 29-DEC-2009 12:00:00
Lower/Upper Lmts: 0.364789 through 0.384789

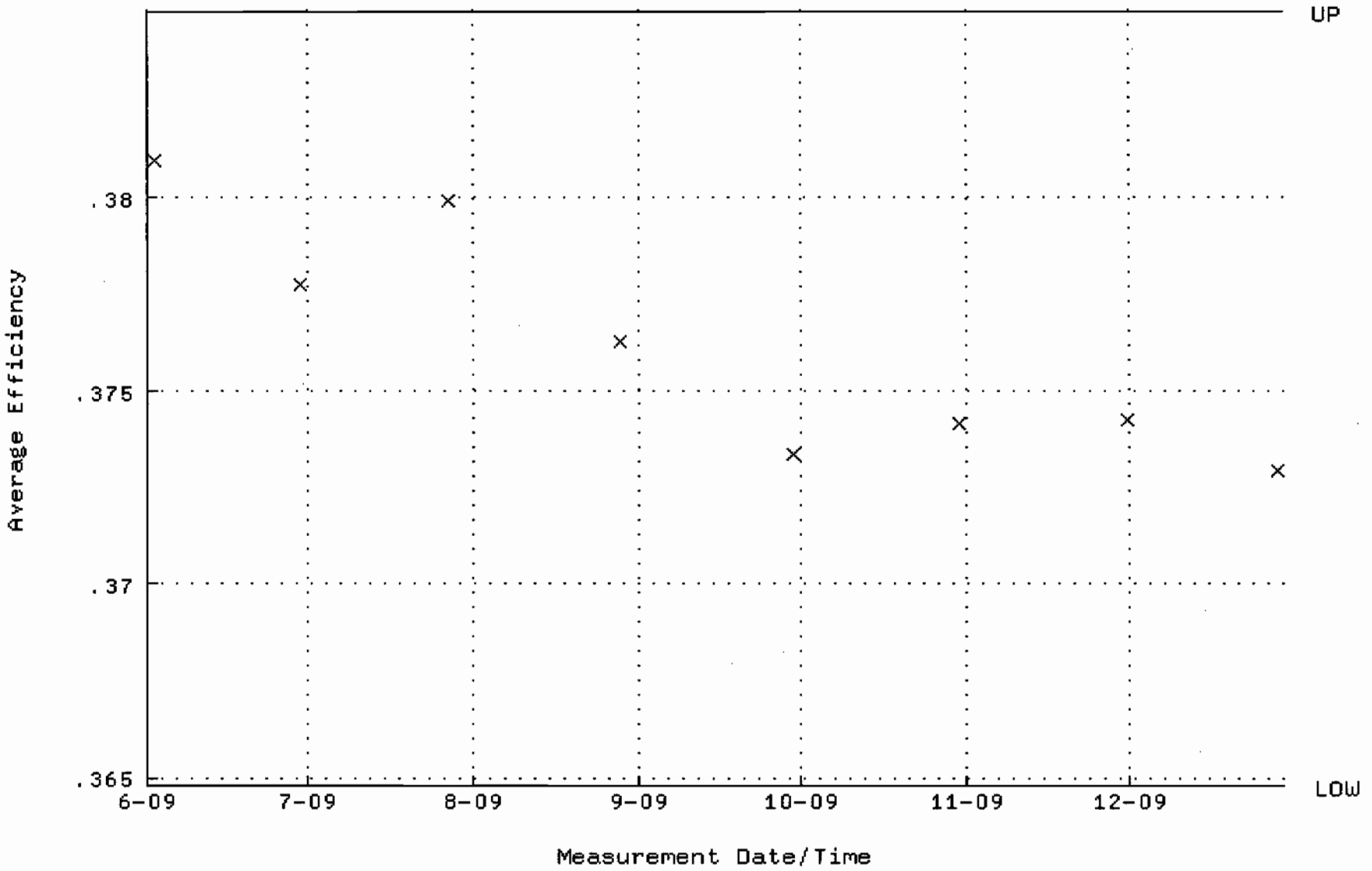

QA filename : DKA100:[ENV_ALPHA.QA.W]W229.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 2-JUN-2009 11:18:53 through 29-DEC-2009 12:00:00
Lower/Upper Lmts: 88.2691 through 97.5605

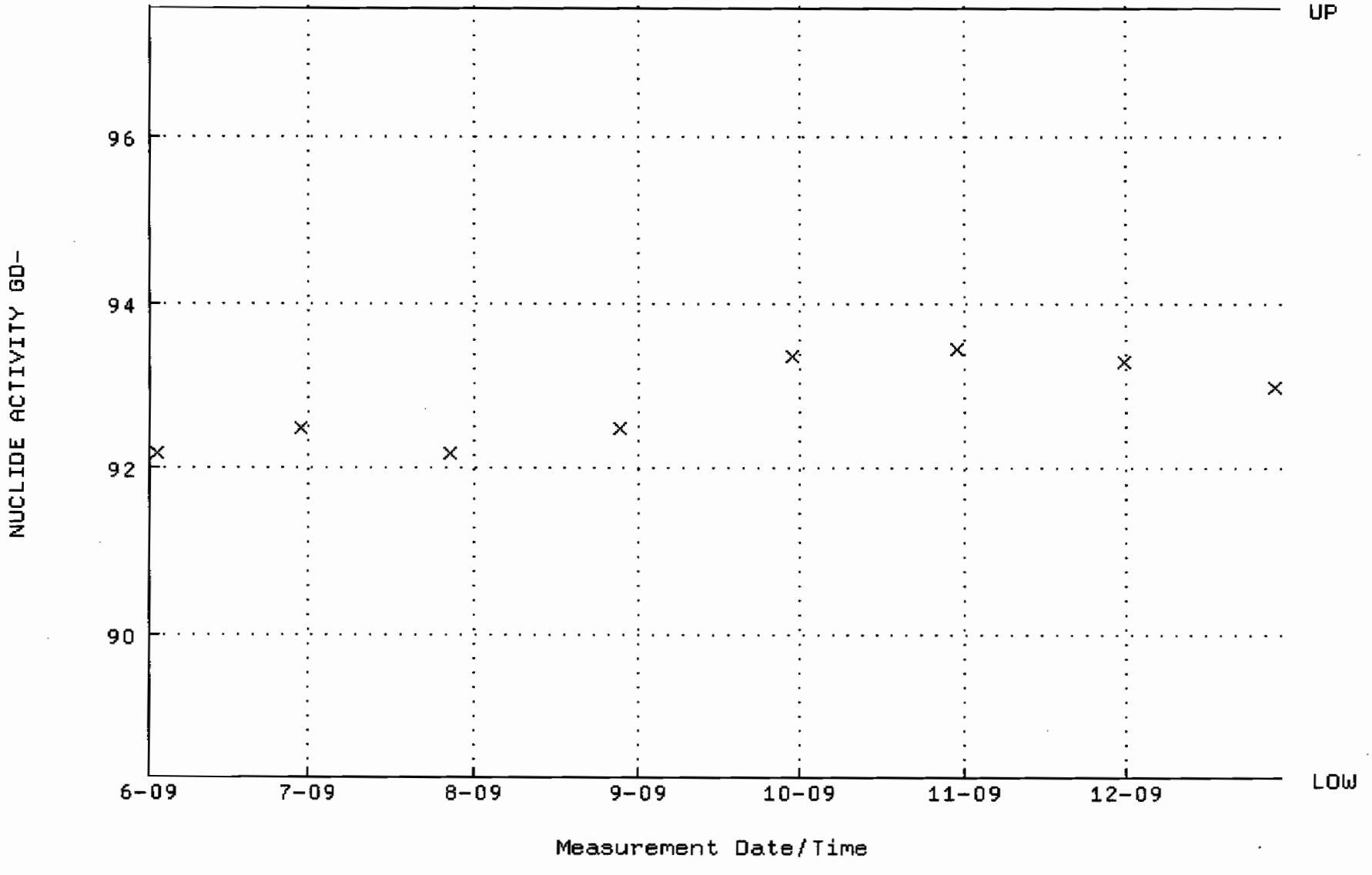

QA filename : DKA100:[ENV_ALPHA.QA.B]B229.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 1-JUN-2009 17:45:01 through 29-DEC-2009 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

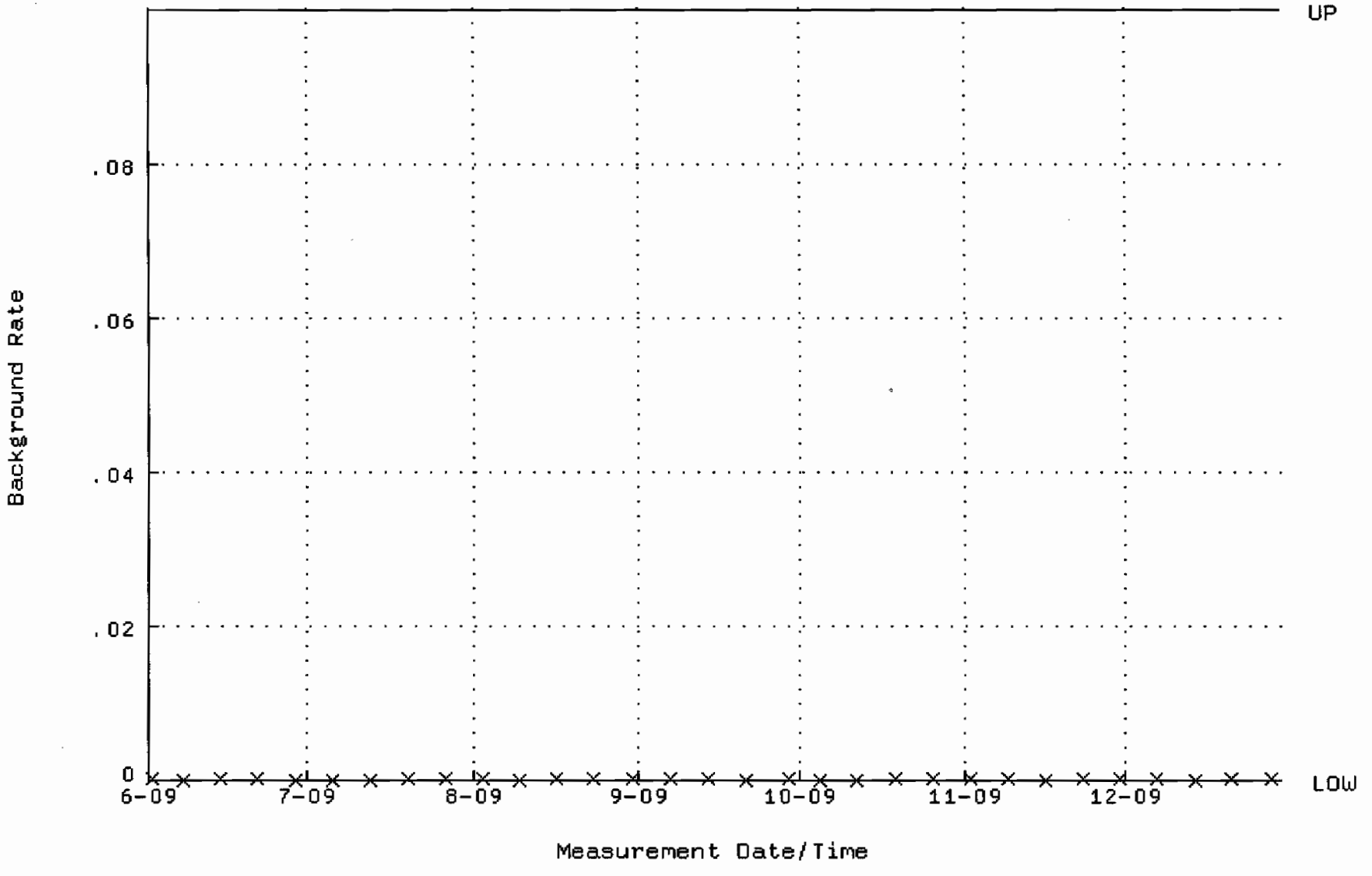

QA filename : DKA100:[ENV_ALPHA.QA.W]W230.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 2-JUN-2009 11:18:58 through 29-DEC-2009 12:00:00
Lower/Upper Lmts: 0.366240 through 0.386240

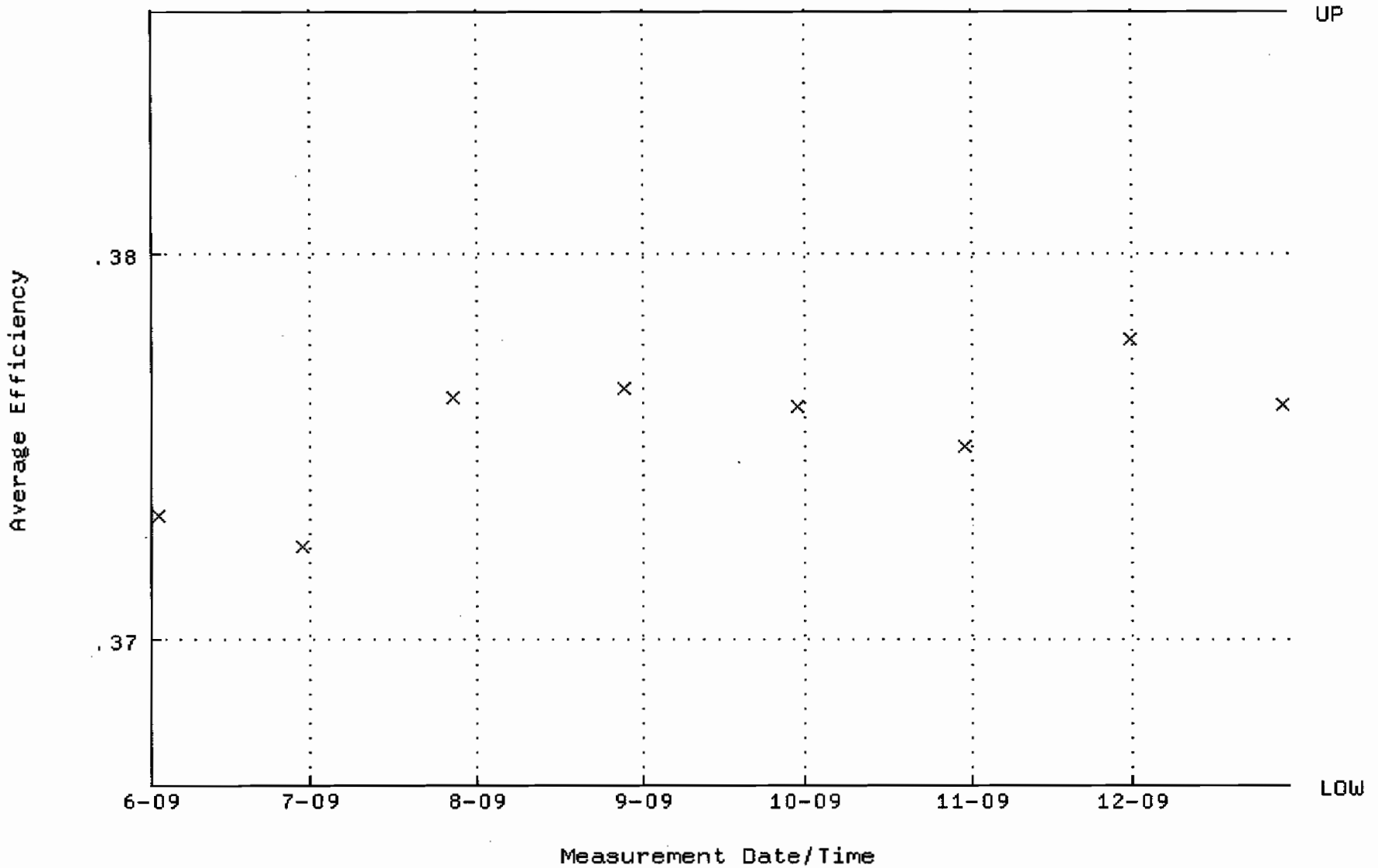

QA filename : DKA100:[ENV_ALPHA.QA.W]W230.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 2-JUN-2009 11:18:58 through 29-DEC-2009 12:00:00
Lower/Upper Lmts: 85.7127 through 94.7351

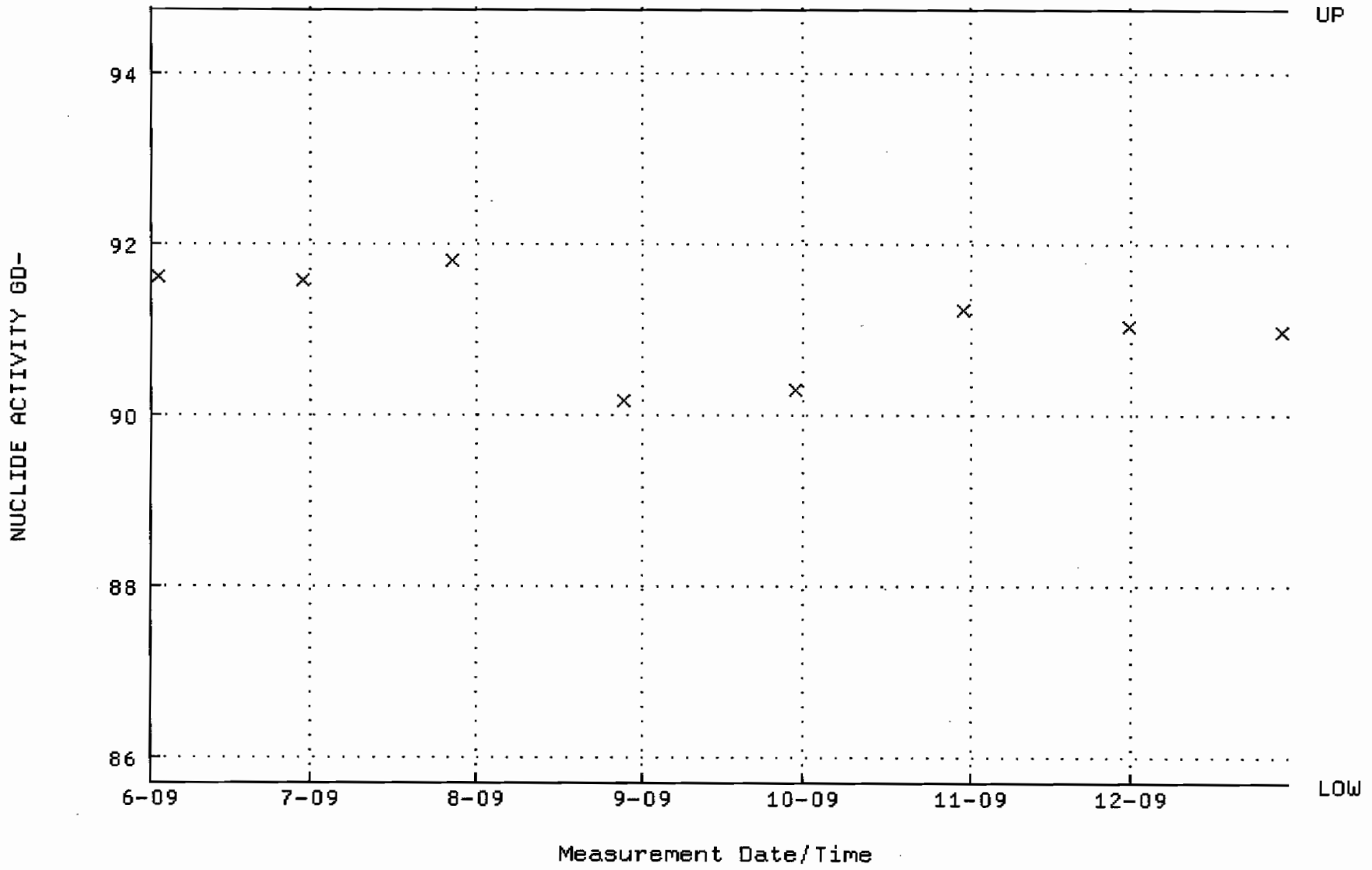

QA filename : DKA100:[ENV_ALPHA.QA.B]B230.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 1-JUN-2009 17:45:05 through 29-DEC-2009 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

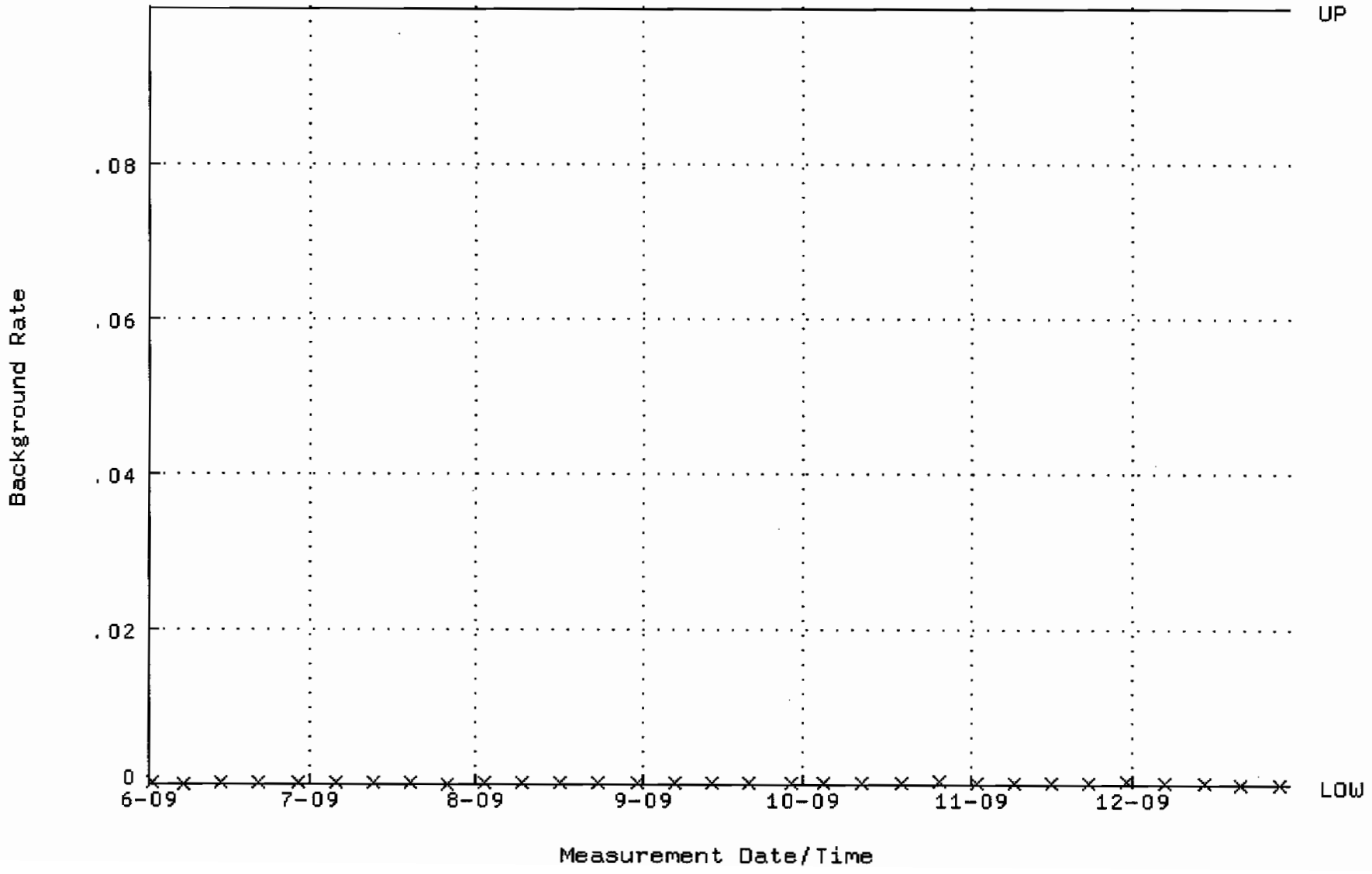

QA filename : DKA100:[ENV_ALPHA.QA.W]W232.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 2-JUN-2009 11:19:09 through 29-DEC-2009 12:00:00
Lower/Upper Lmts: 0.364210 through 0.384210

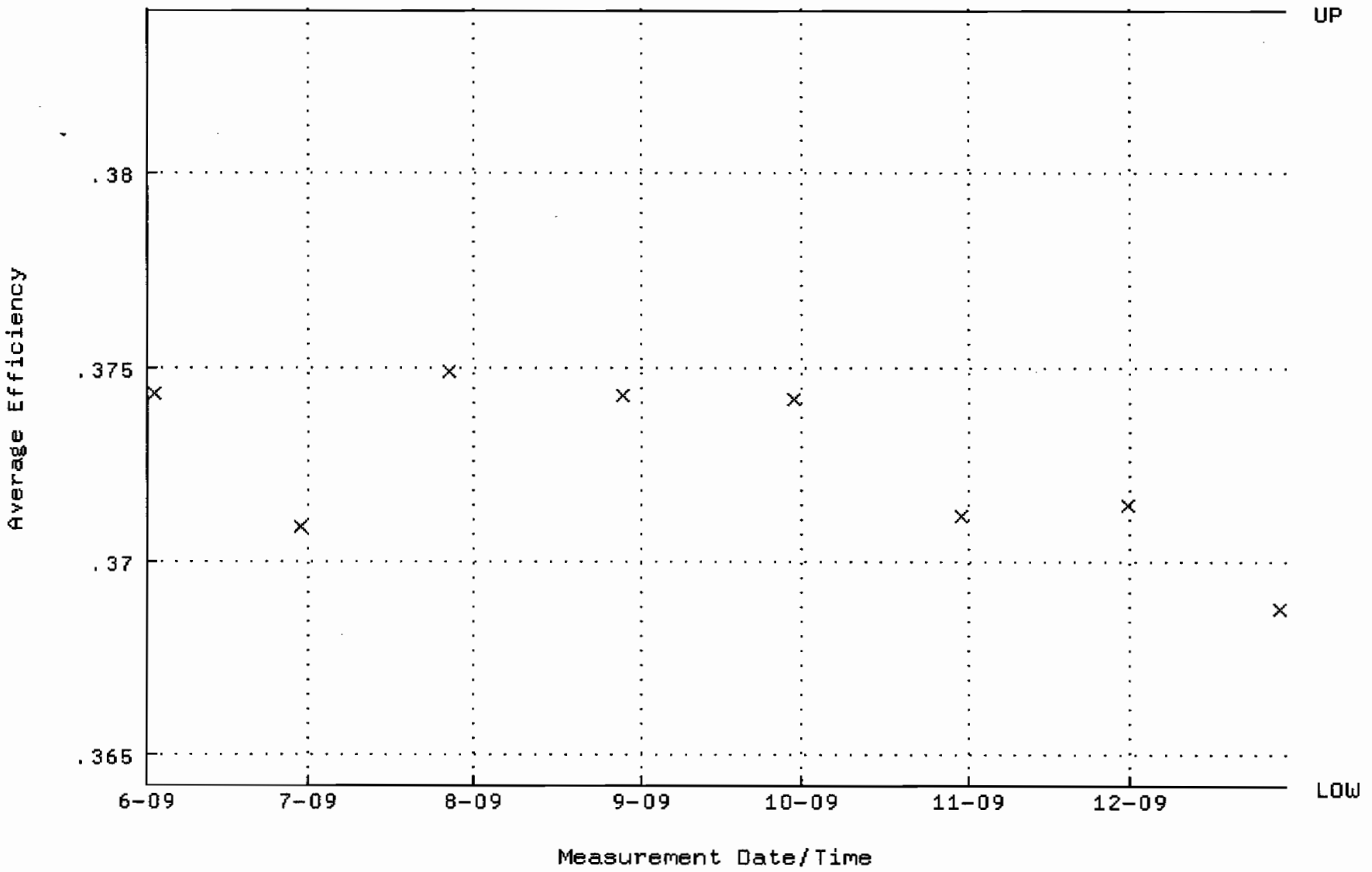

QA filename : DKA100:[ENV_ALPHA.QA.W]W232.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 2-JUN-2009 11:19:09 through 29-DEC-2009 12:00:00
Lower/Upper Lmts: 84.1819 through 93.0431

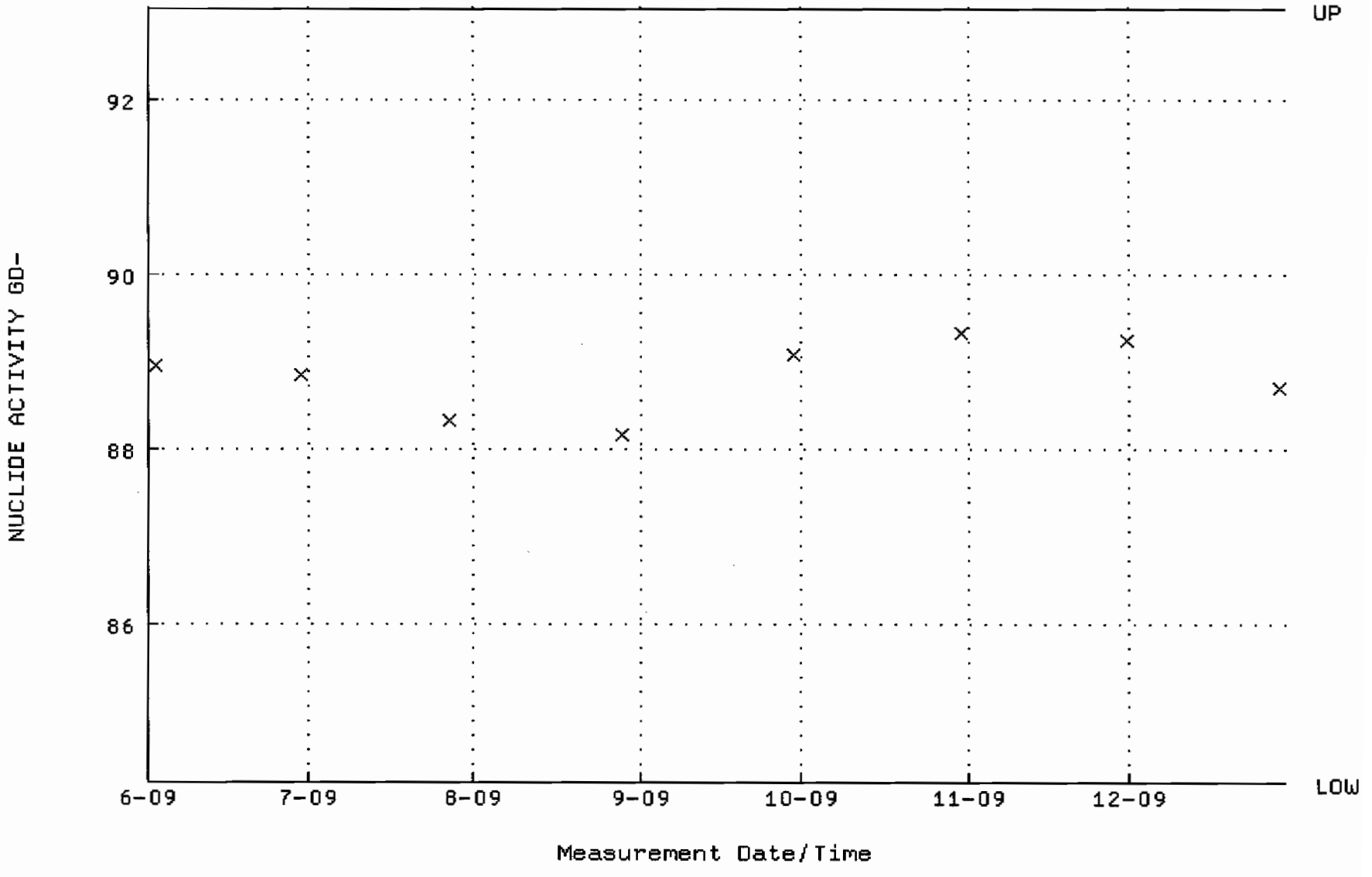

QA filename : DKA100:[ENV_ALPHA.QA.B]B232.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 1-JUN-2009 17:45:14 through 29-DEC-2009 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

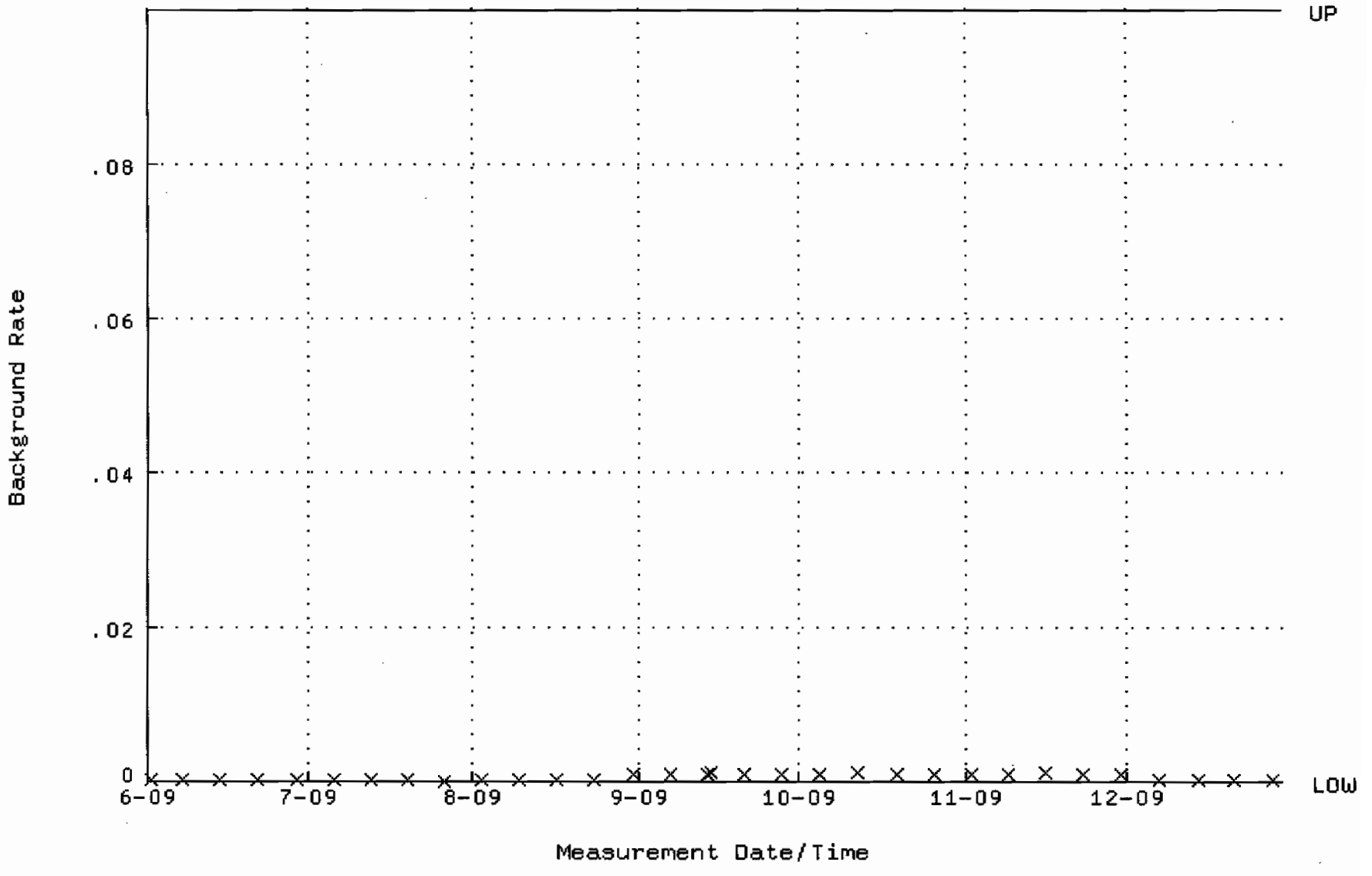

QA filename : DKA100:[ENV_ALPHA.QA.W]W233.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 29-JUN-2009 11:08:39 through 29-DEC-2009 12:00:00
Lower/Upper Lmts: 0.372001 through 0.392001

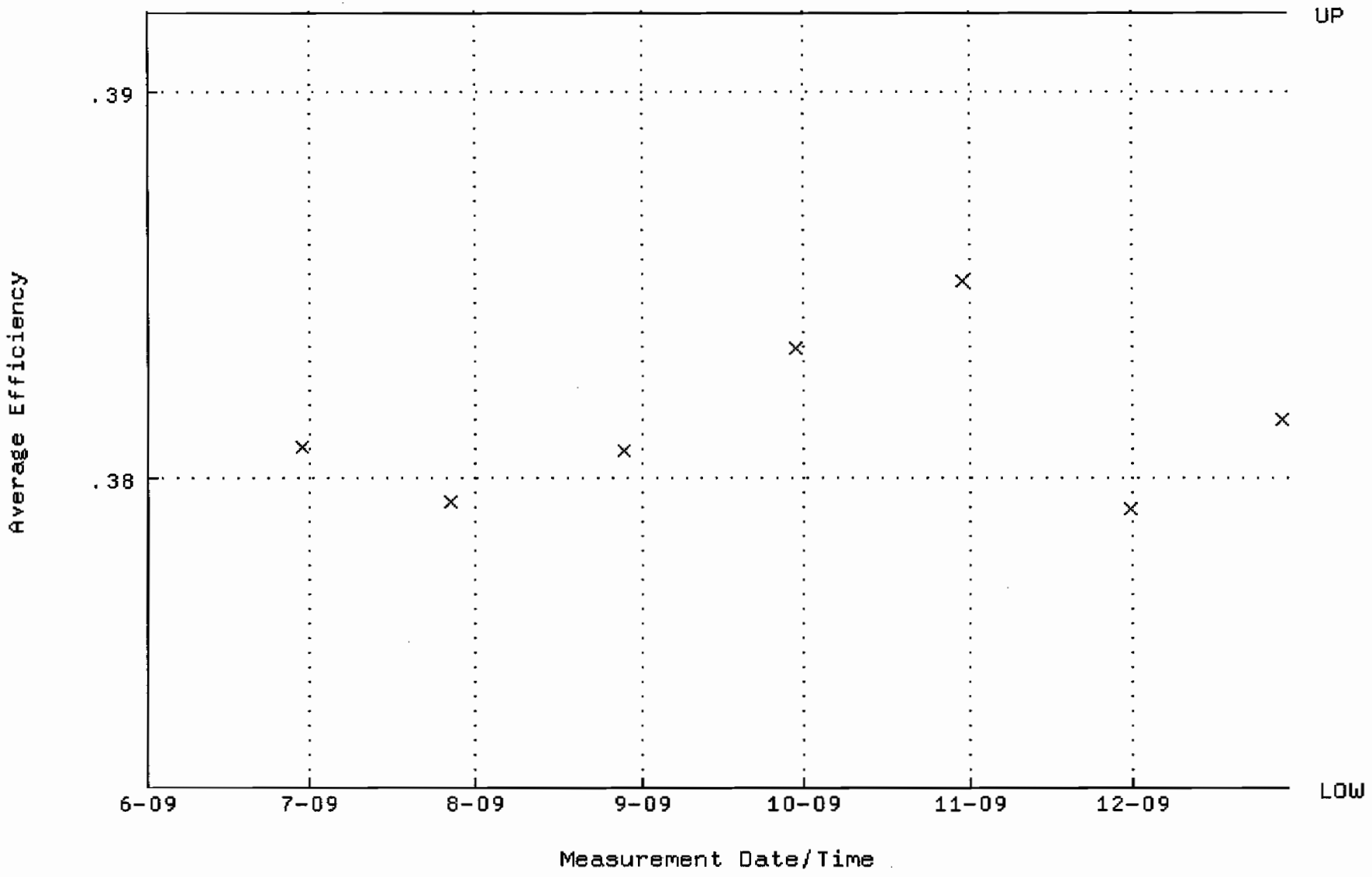

QA filename : DKA100:[ENV_ALPHA.QA.W]W233.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 29-JUN-2009 11:08:39 through 29-DEC-2009 12:00:00
Lower/Upper Lmts: 82.9652 through 91.6984

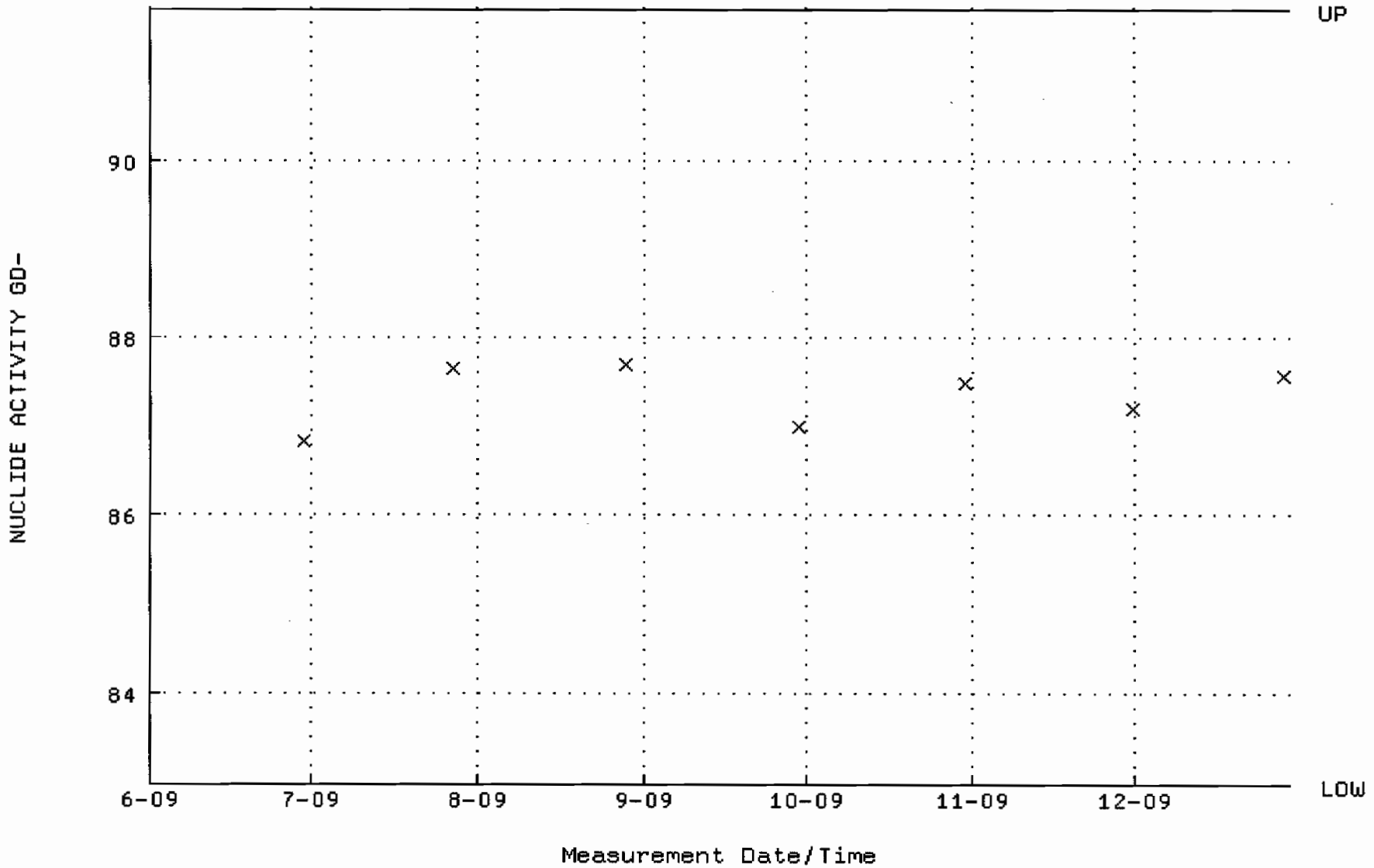

QA filename : DKA100:[ENV_ALPHA.QA.B]B233.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 7-JUN-2009 17:16:56 through 29-DEC-2009 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

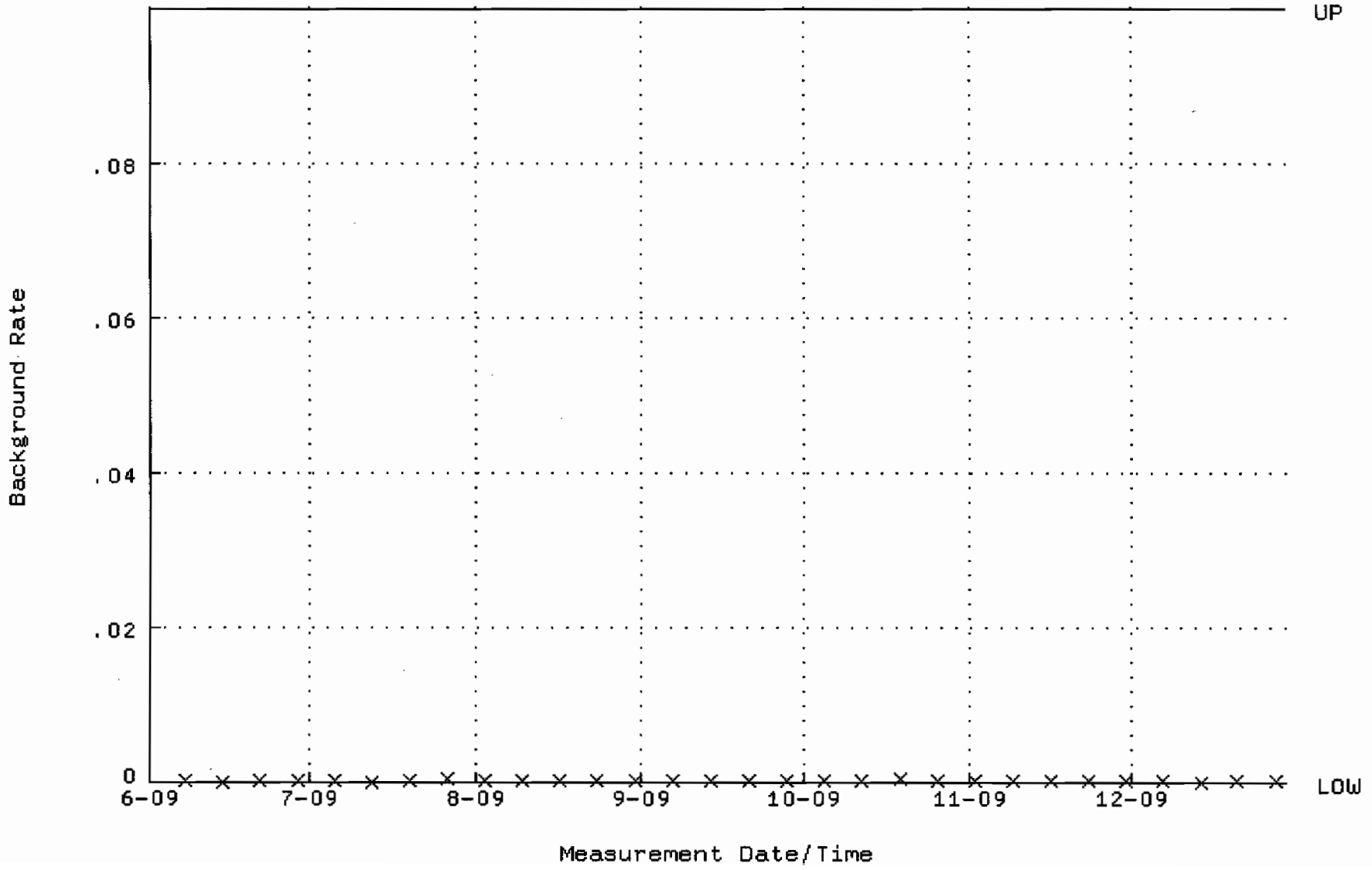

QA filename : DKA100:[ENV_ALPHA.QA.W]W234.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 2-JUN-2009 11:19:19 through 29-DEC-2009 12:00:00
Lower/Upper Lmts: 0.372763 through 0.392763

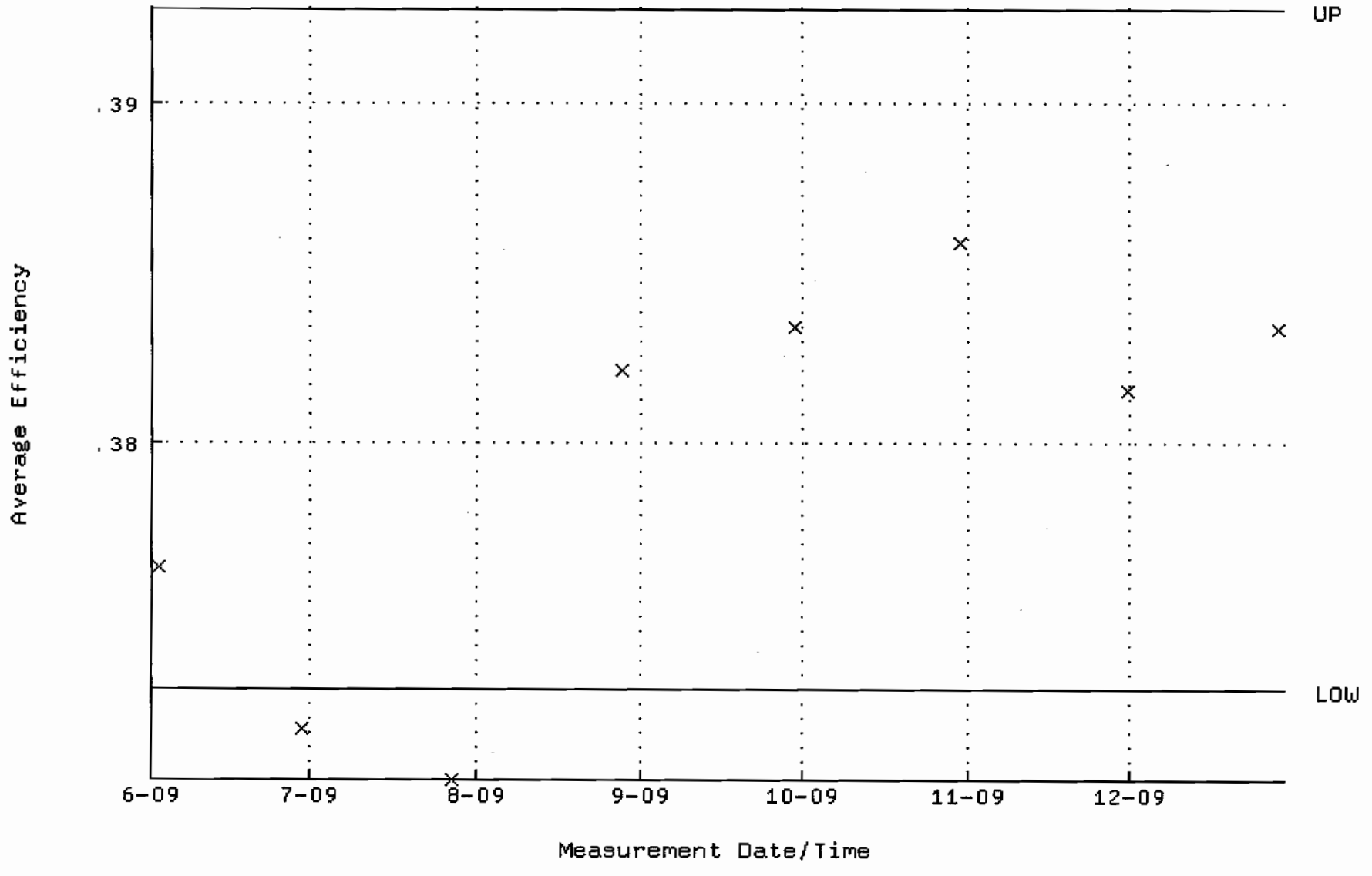

QA filename : DKA100:[ENV_ALPHA.QA.W]W234.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 2-JUN-2009 11:19:19 through 29-DEC-2009 12:00:00
Lower/Upper Lmts: 80.7996 through 89.3048

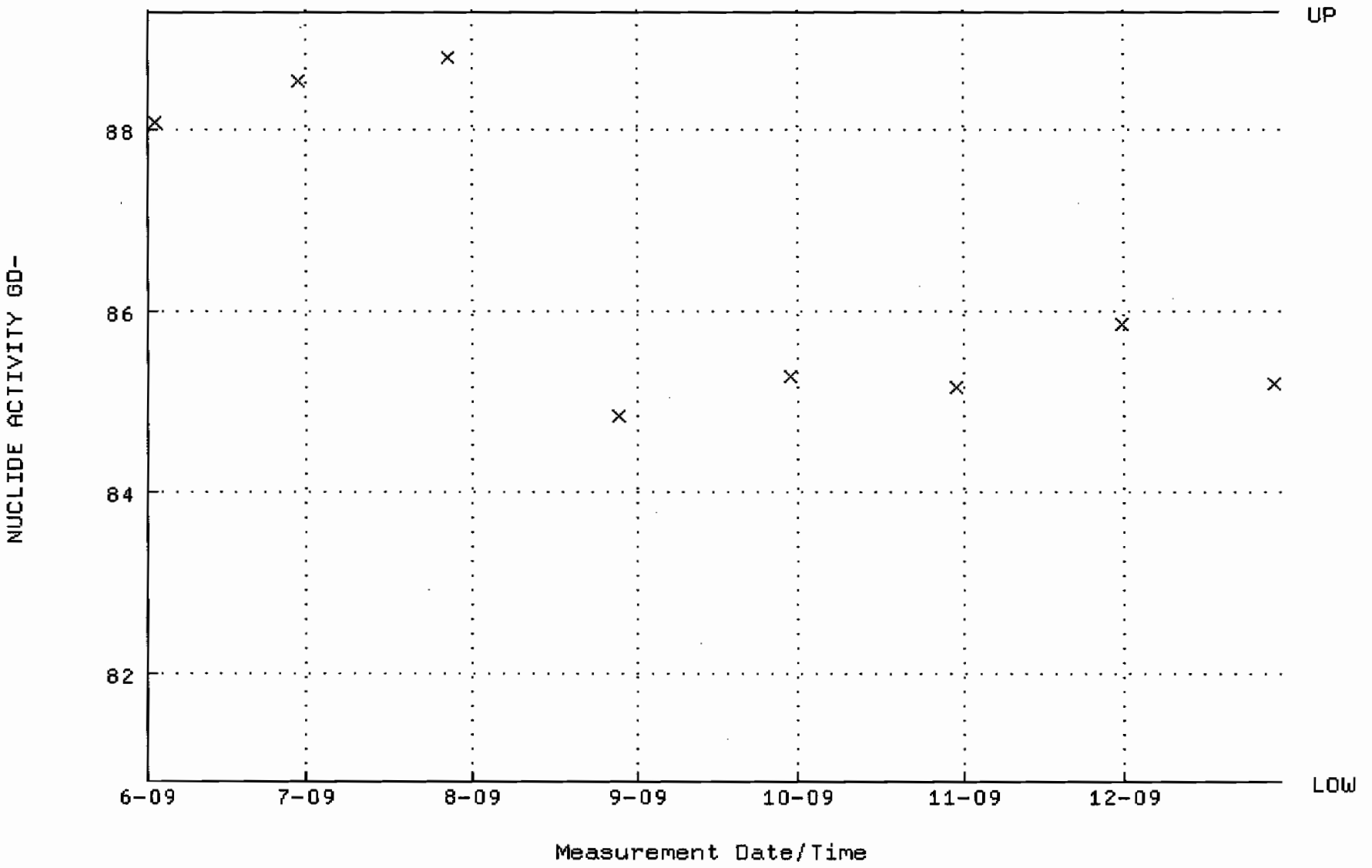

QA filename : DKA100:[ENV_ALPHA.QA.B]B234.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 1-JUN-2009 17:45:35 through 29-DEC-2009 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

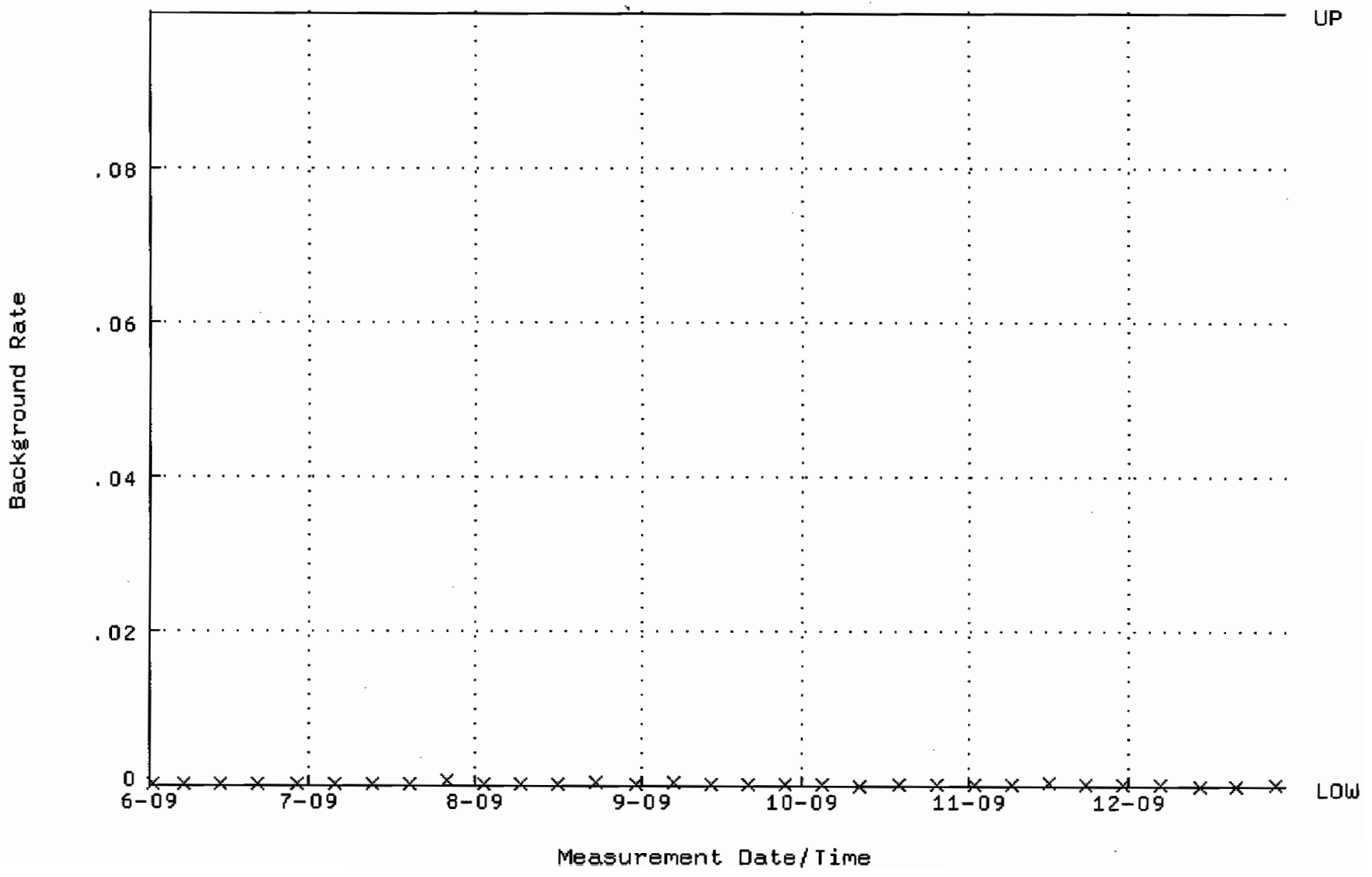

QA filename : DKA100:[ENV_ALPHA.QA.W]W235.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 2-JUN-2009 11:19:23 through 29-DEC-2009 12:00:00
Lower/Upper Lmts: 0.364314 through 0.384314

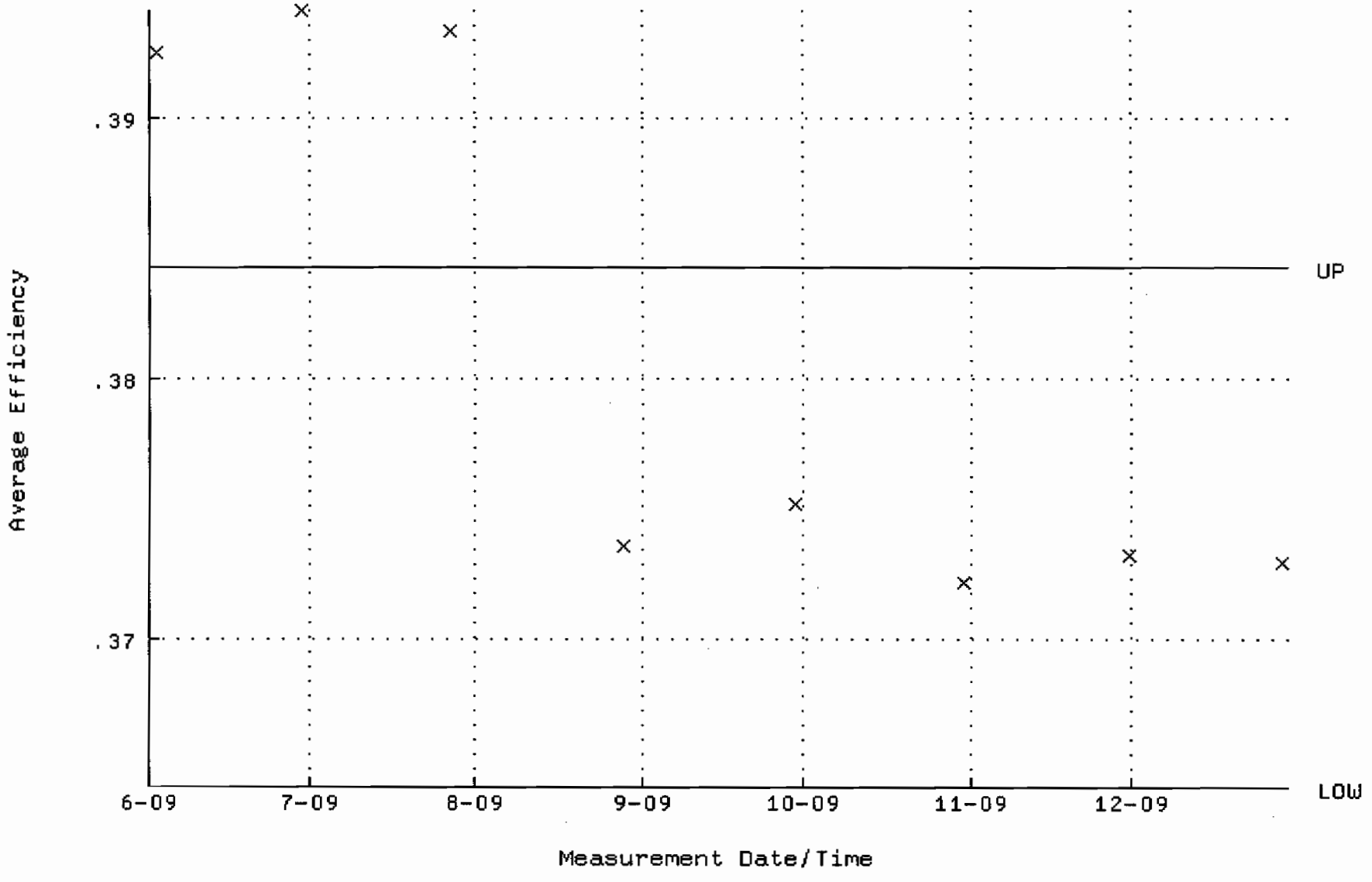

QA filename : DKA100:[ENV_ALPHA.QA.W]W235.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 2-JUN-2009 11:19:23 through 29-DEC-2009 12:00:00
Lower/Upper Lmts: 83.7416 through 92.5566

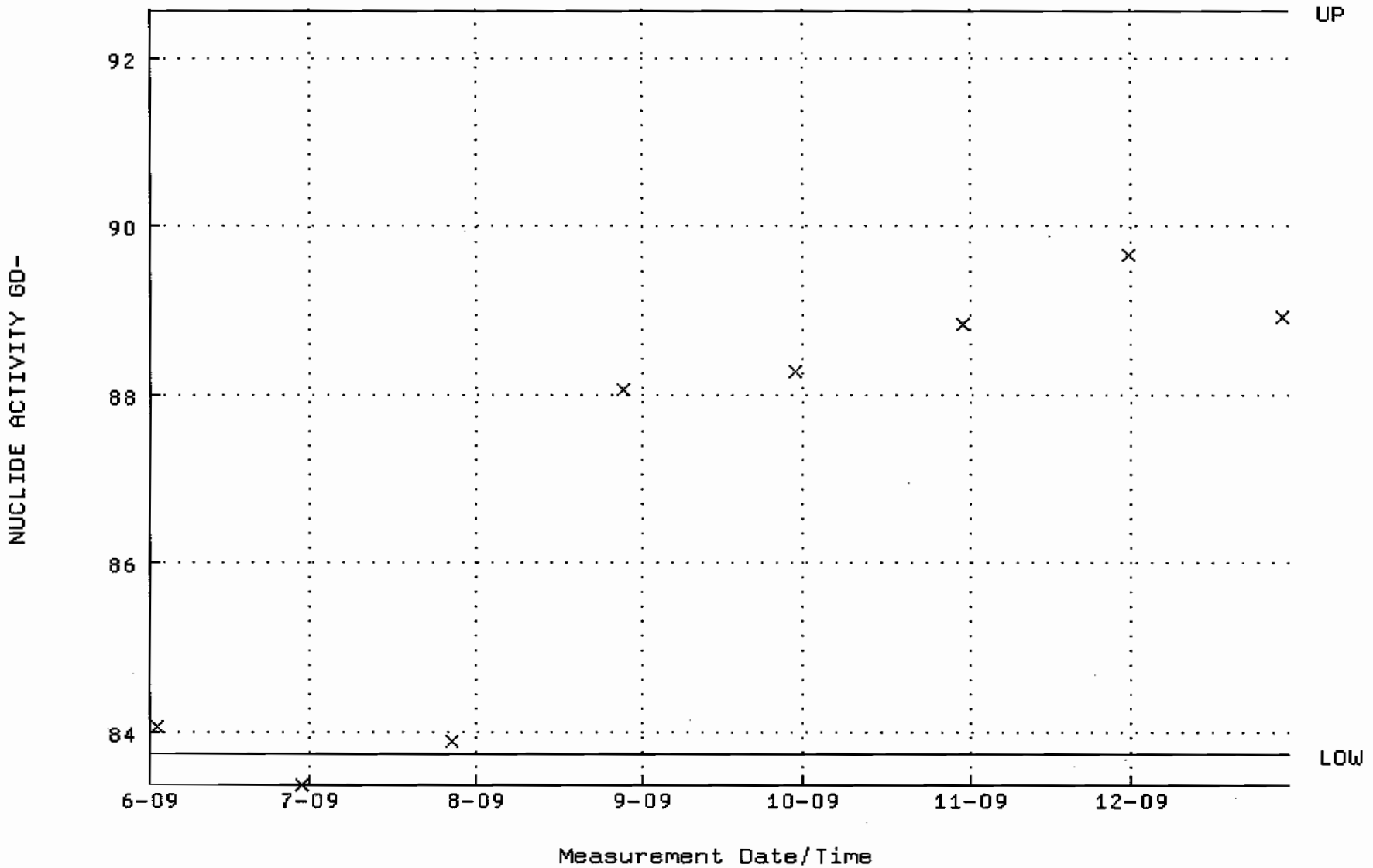

QA filename : DKA100:[ENV_ALPHA.QA.B]B235.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 1-JUN-2009 17:45:45 through 29-DEC-2009 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

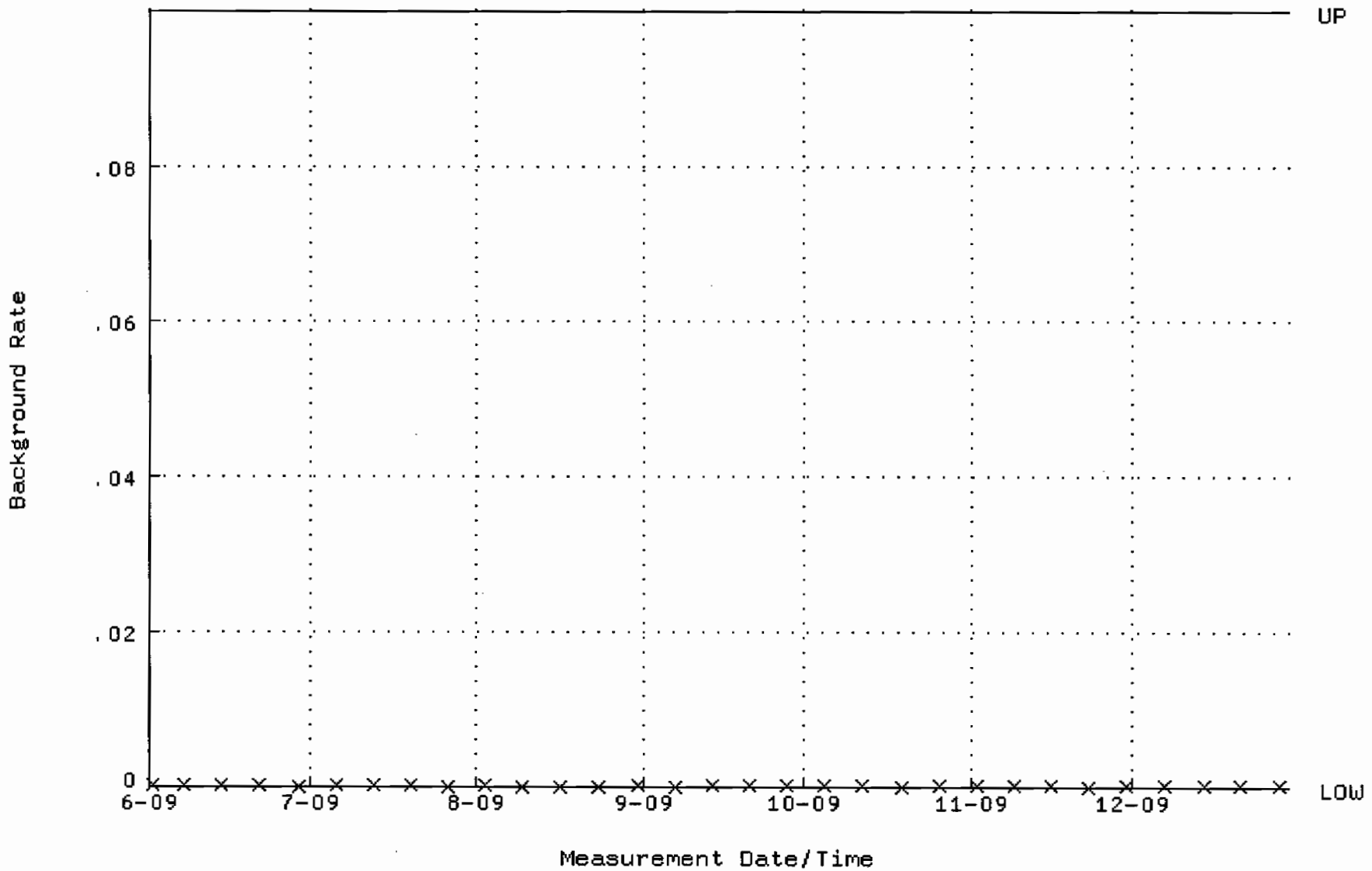

QA filename : DKA100:[ENV_ALPHA.QA.W]W236.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 2-JUN-2009 11:19:29 through 29-DEC-2009 12:00:00
Lower/Upper Lmts: 0.378766 through 0.398766

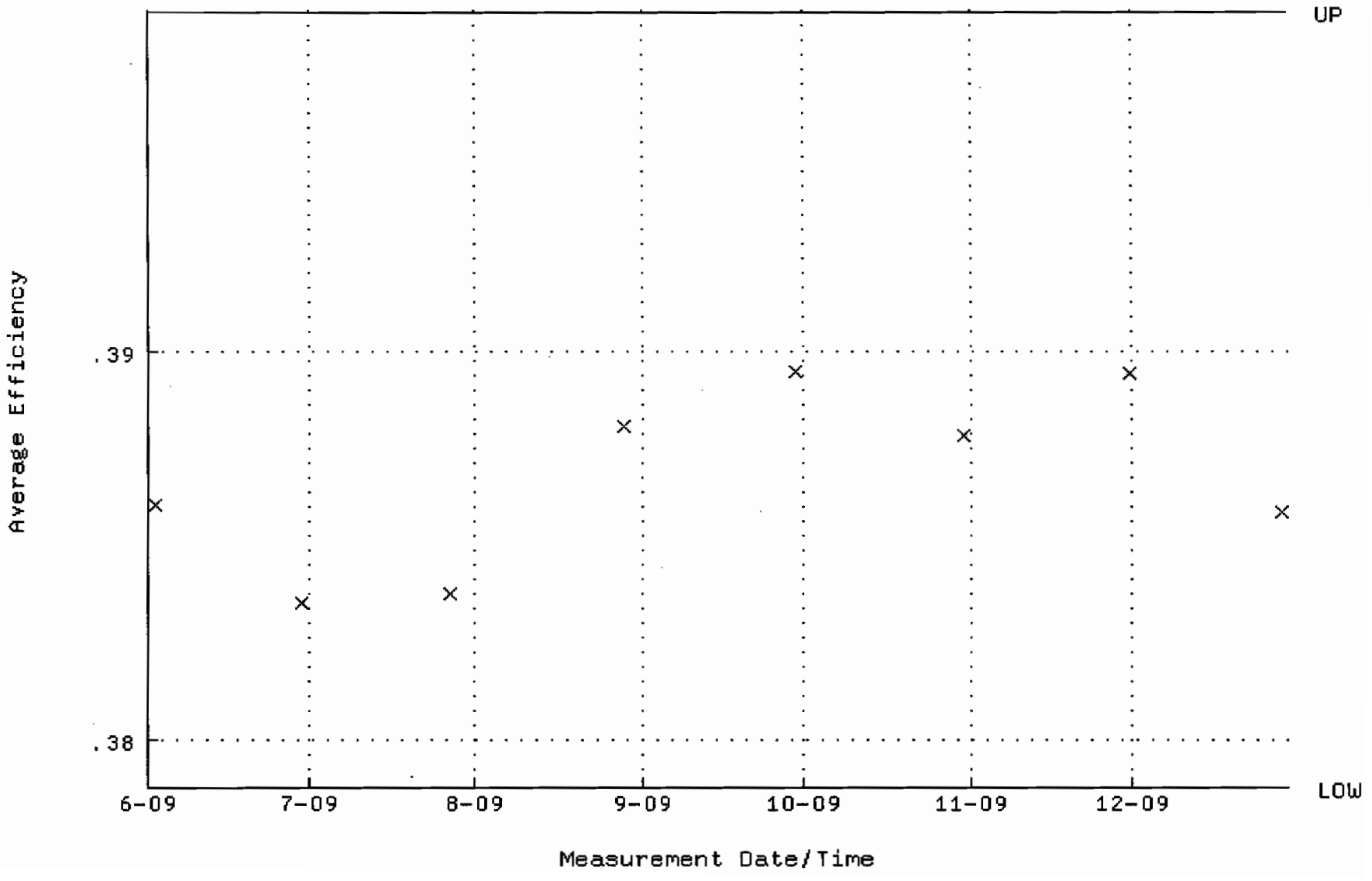

QA filename : DKA100:[ENV_ALPHA.QA.W]W236.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 2-JUN-2009 11:19:29 through 29-DEC-2009 12:00:00
Lower/Upper Lmts: 81.8490 through 90.4646

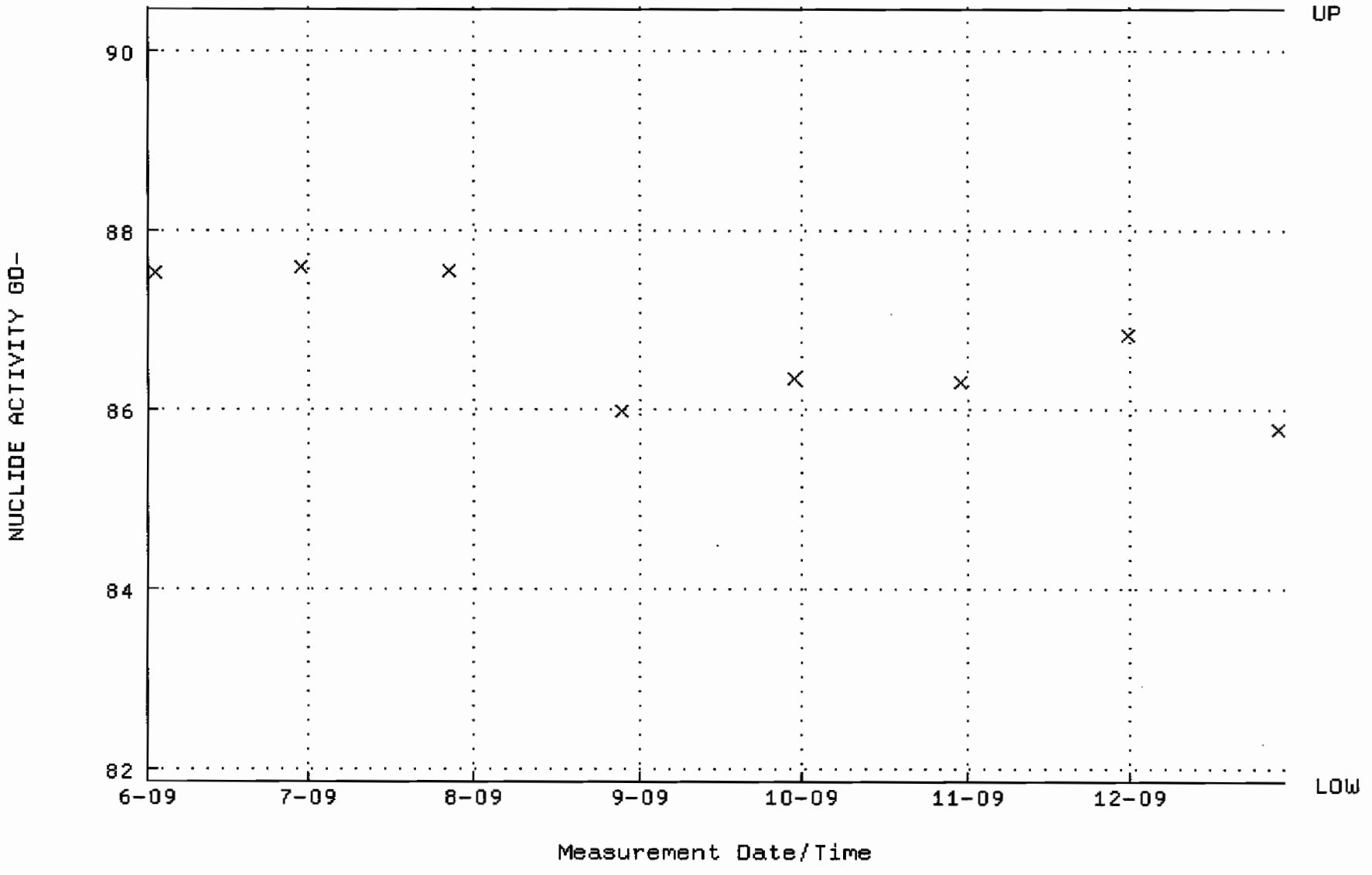

QA filename : DKA100:[ENV_ALPHA.QA.B]B236.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 1-JUN-2009 17:45:52 through 29-DEC-2009 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

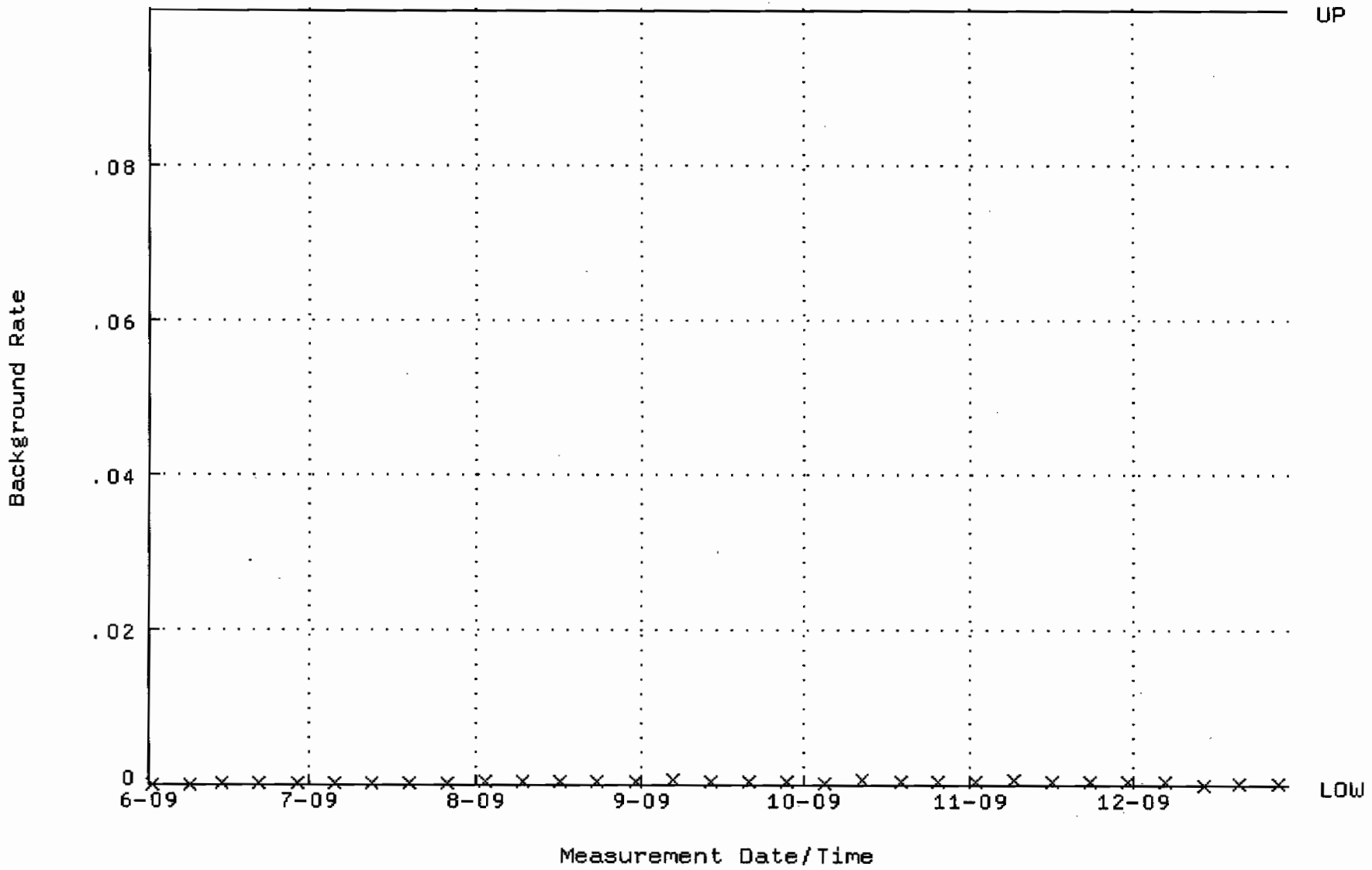

QA filename : DKA100:[ENV_ALPHA.QA.W]W238.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 2-JUN-2009 11:19:38 through 29-DEC-2009 12:00:00
Lower/Upper Lmts: 0.386660 through 0.406660

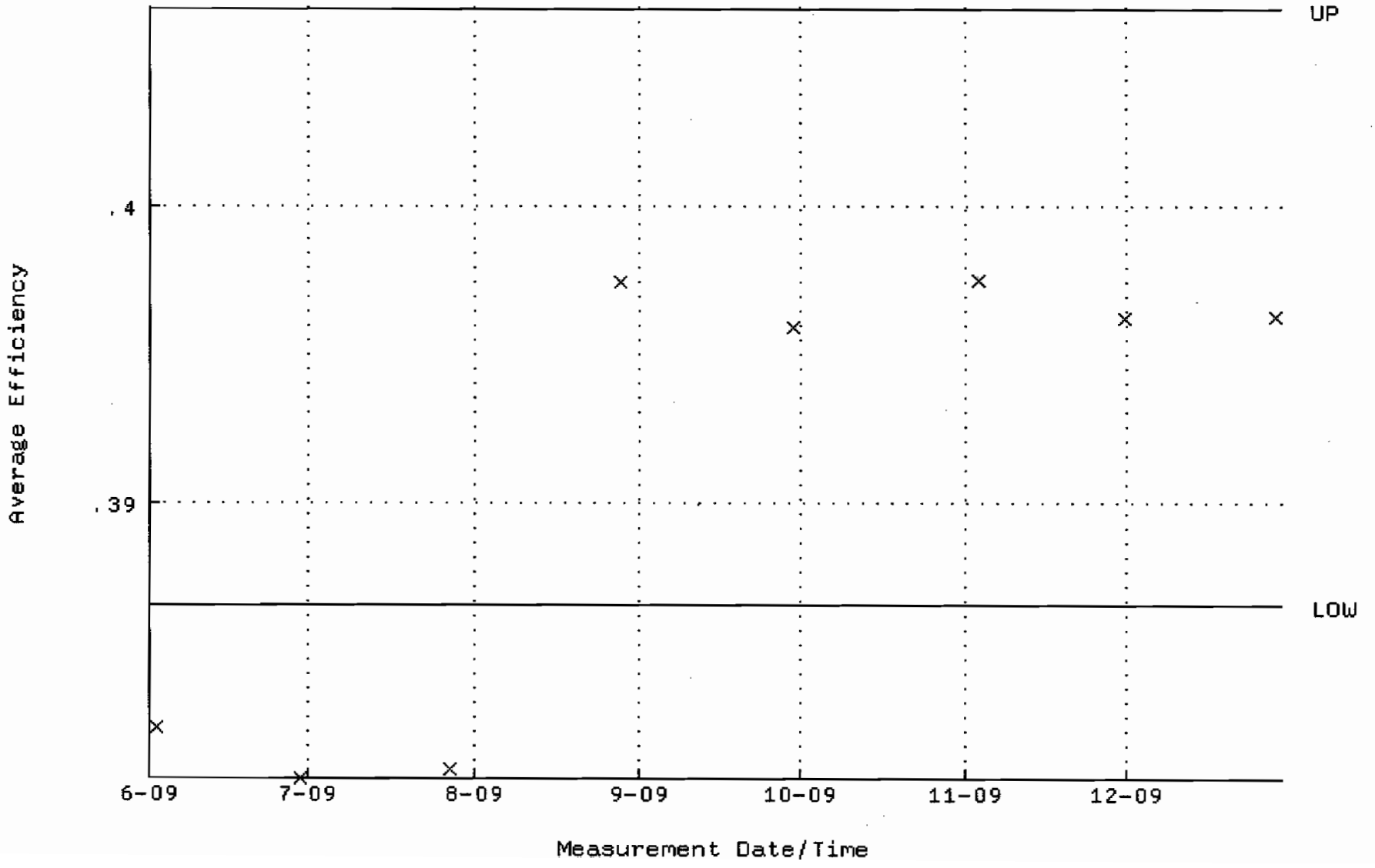

QA filename : DKA100:[ENV_ALPHA.QA.W]W238.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 2-JUN-2009 11:19:38 through 29-DEC-2009 12:00:00
Lower/Upper Lmts: 80.1146 through 88.5478

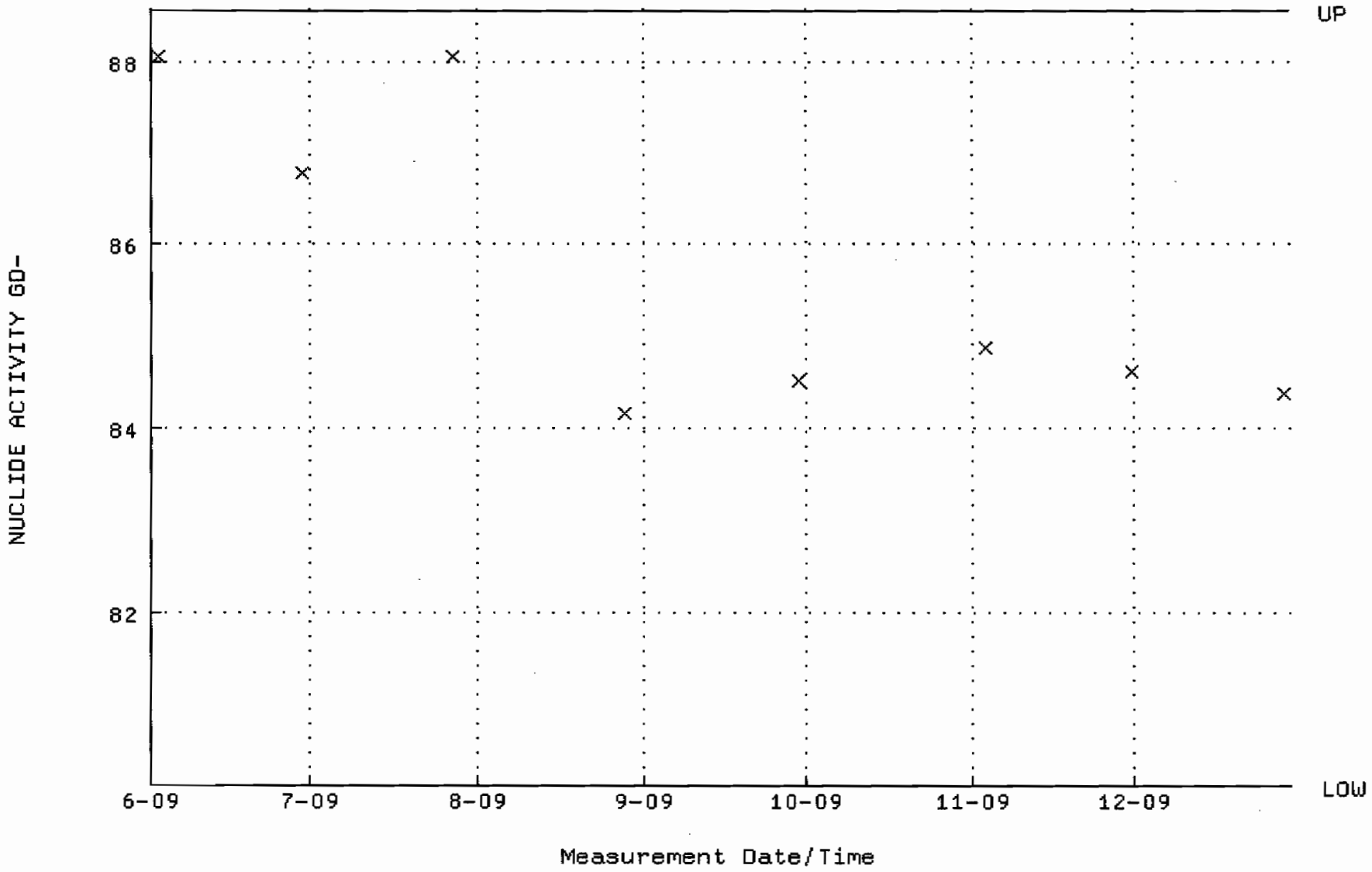

QA filename : DKA100:[ENV_ALPHA.QA.B]B238.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 1-JUN-2009 17:46:10 through 29-DEC-2009 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

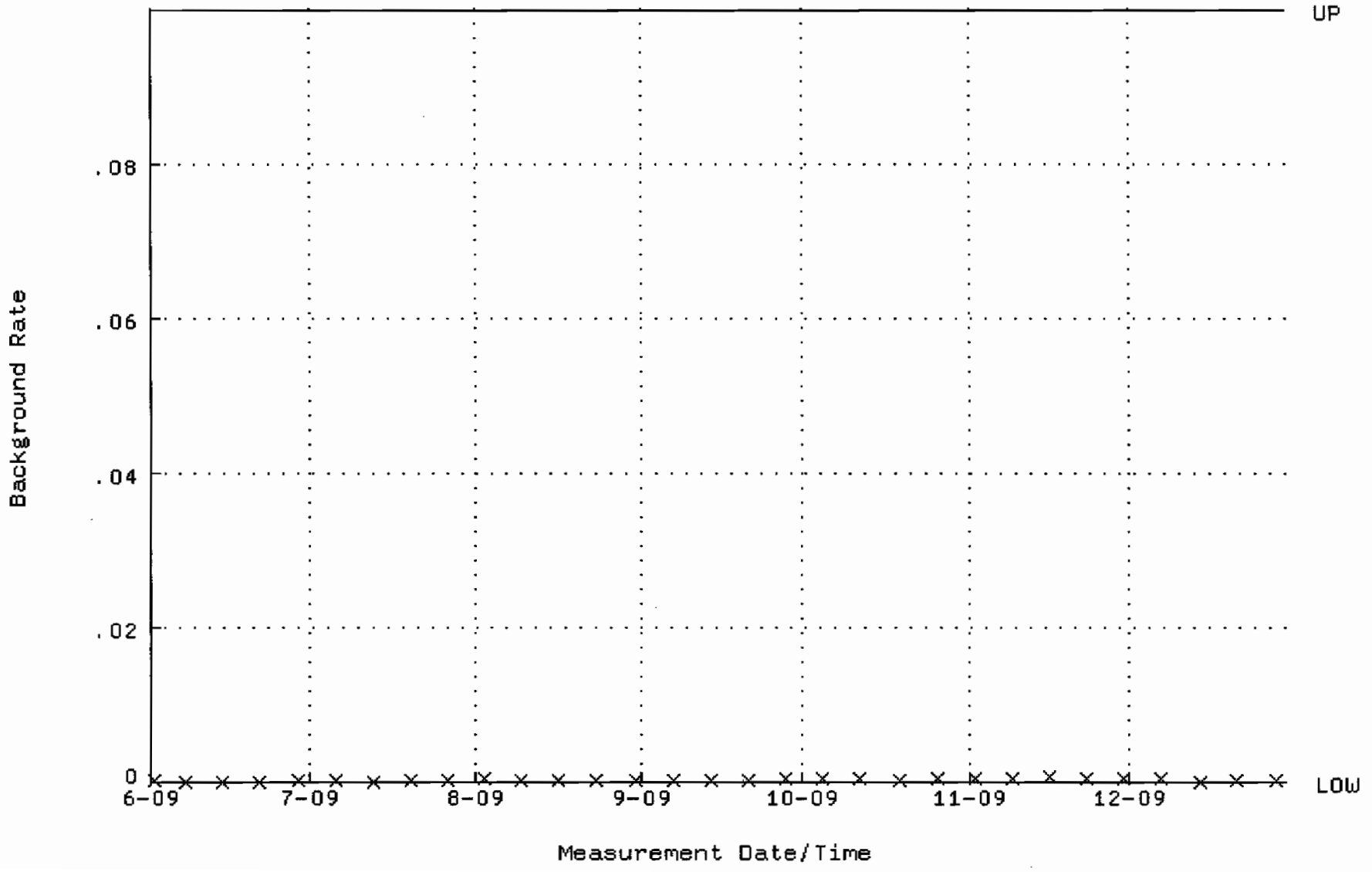

QA filename : DKA100:[ENV_ALPHA.QA.W]W239.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 2-JUN-2009 11:19:43 through 29-DEC-2009 12:00:00
Lower/Upper Lmts: 0.369142 through 0.389142

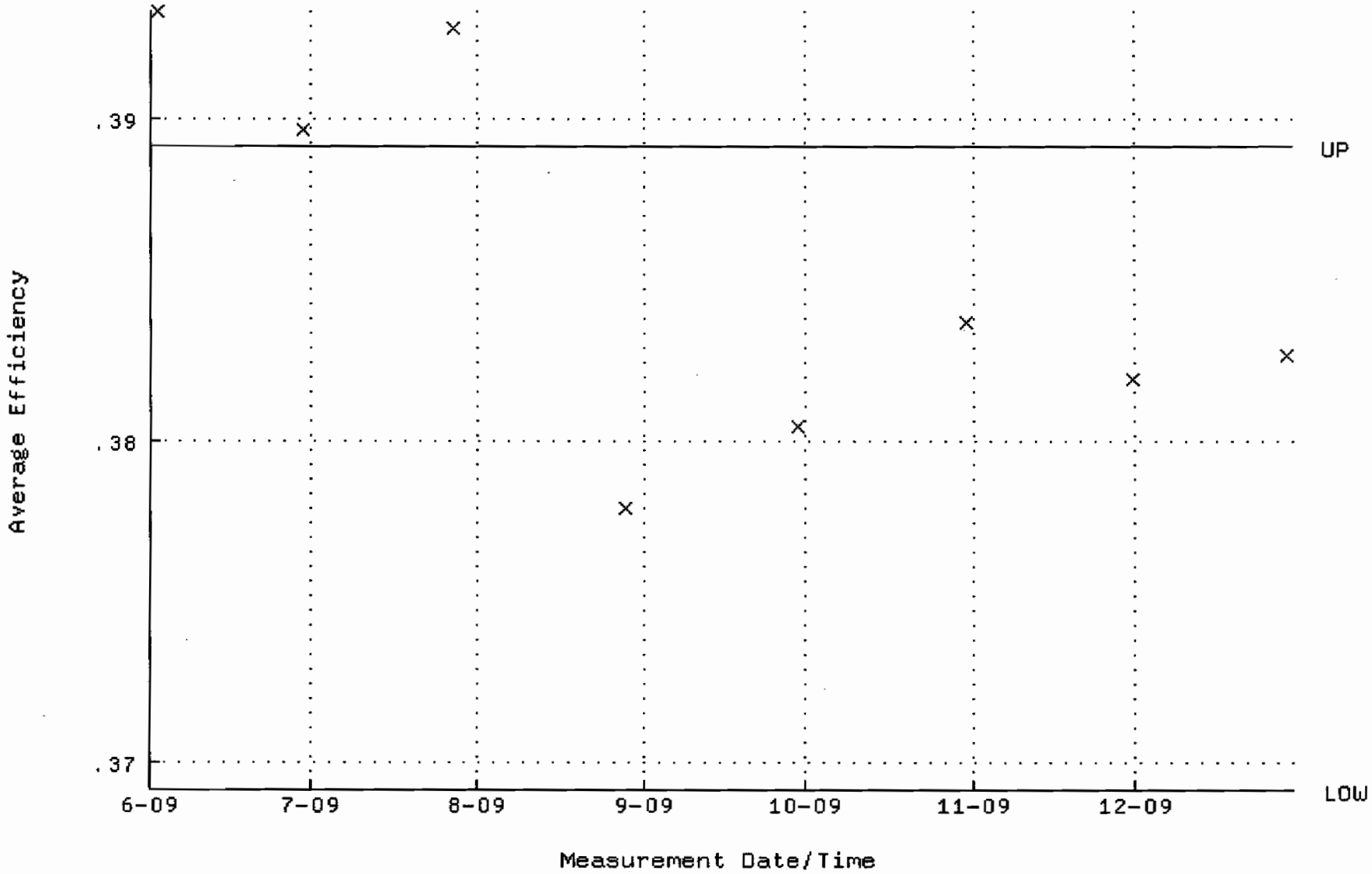

QA filename : DKA100:[ENV_ALPHA.QA.W]W239.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 2-JUN-2009 11:19:43 through 29-DEC-2009 12:00:00
Lower/Upper Lmts: 83.6848 through 92.4938

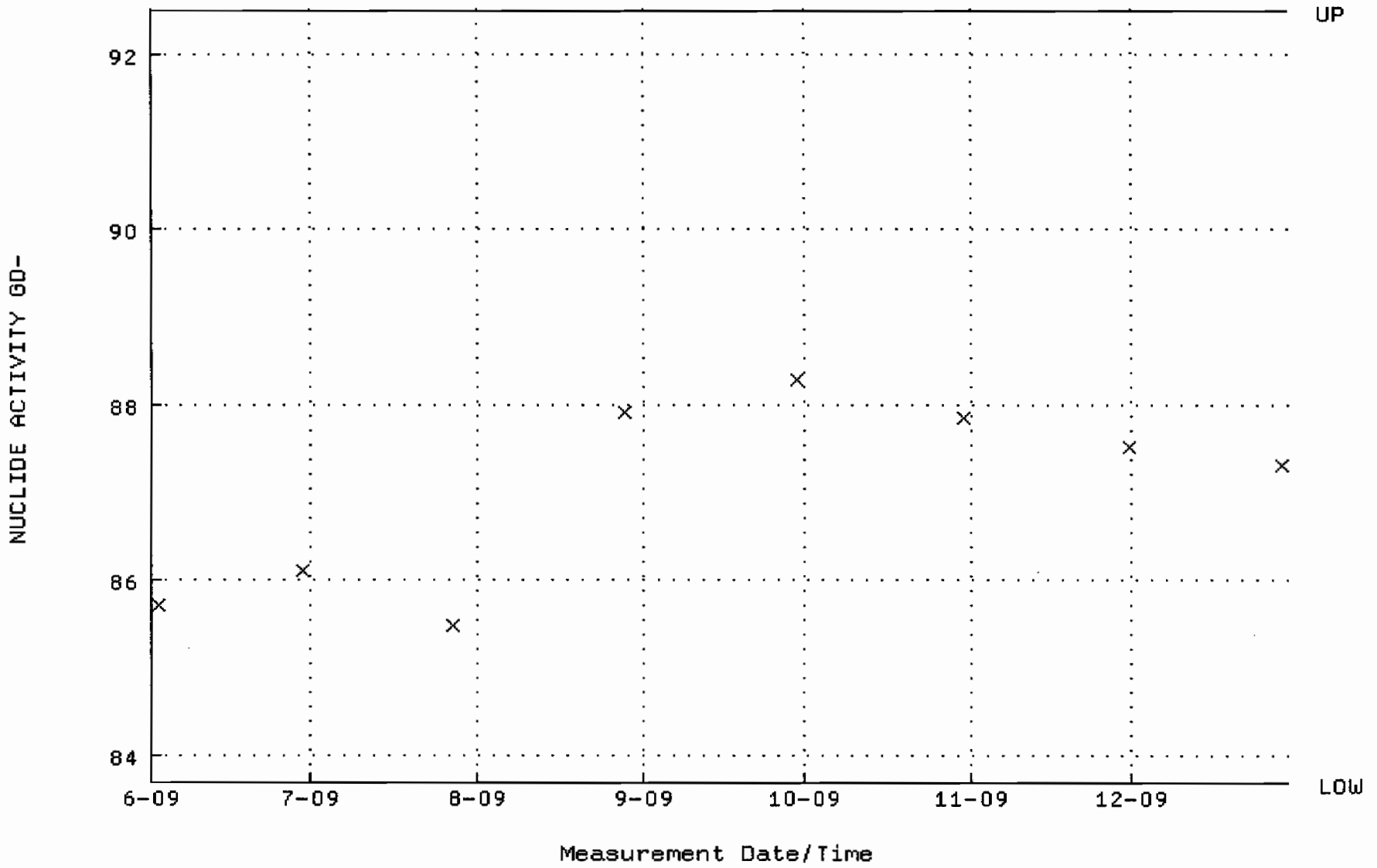

QA filename : DKA100:[ENV_ALPHA.QA.B]B239.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 1-JUN-2009 17:46:15 through 29-DEC-2009 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

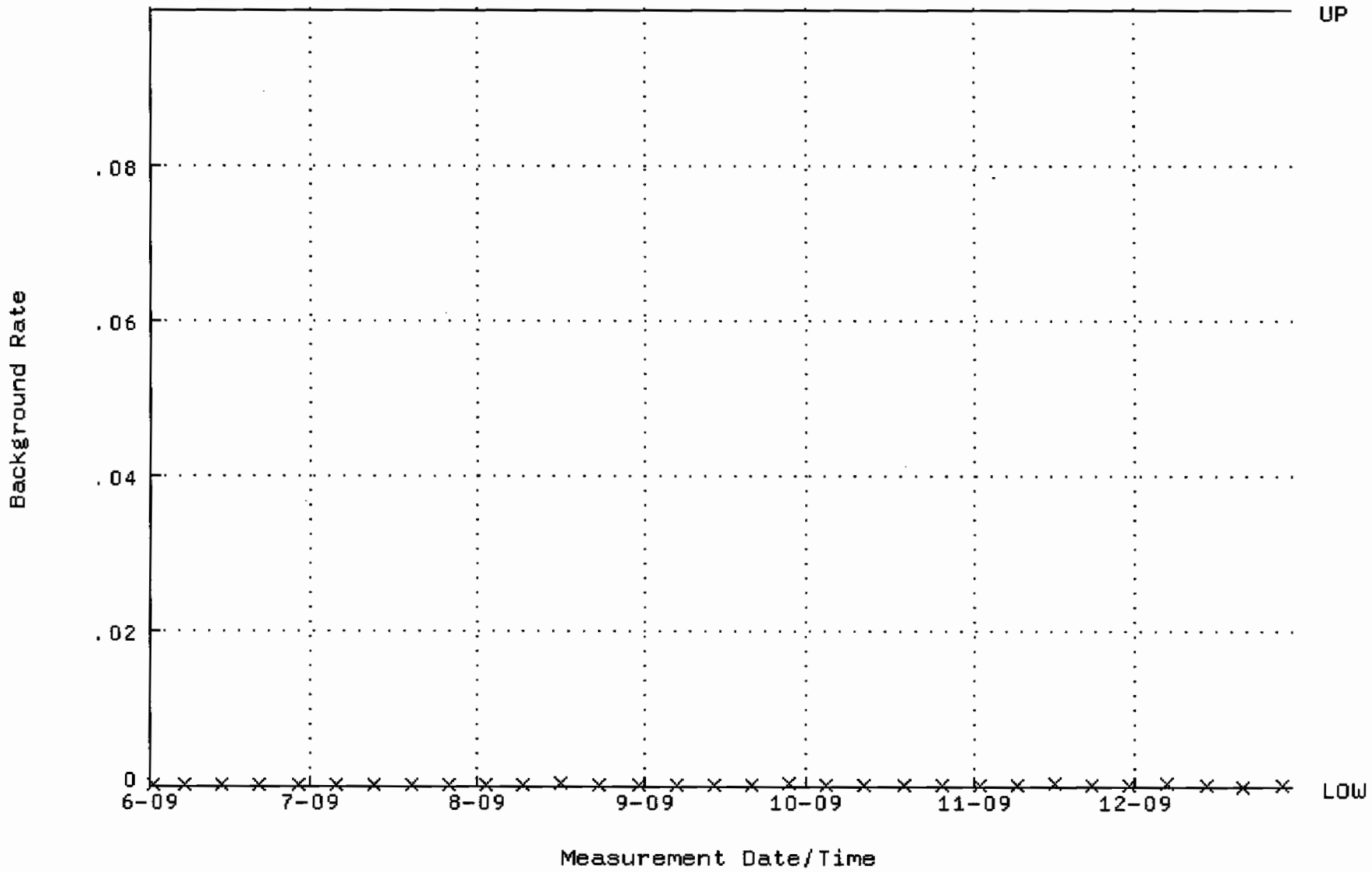

QA filename : DKA100:[ENV_ALPHA.QA.W]W240.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 2-JUN-2009 11:19:47 through 29-DEC-2009 12:00:00
Lower/Upper Lmts: 0.362523 through 0.382523

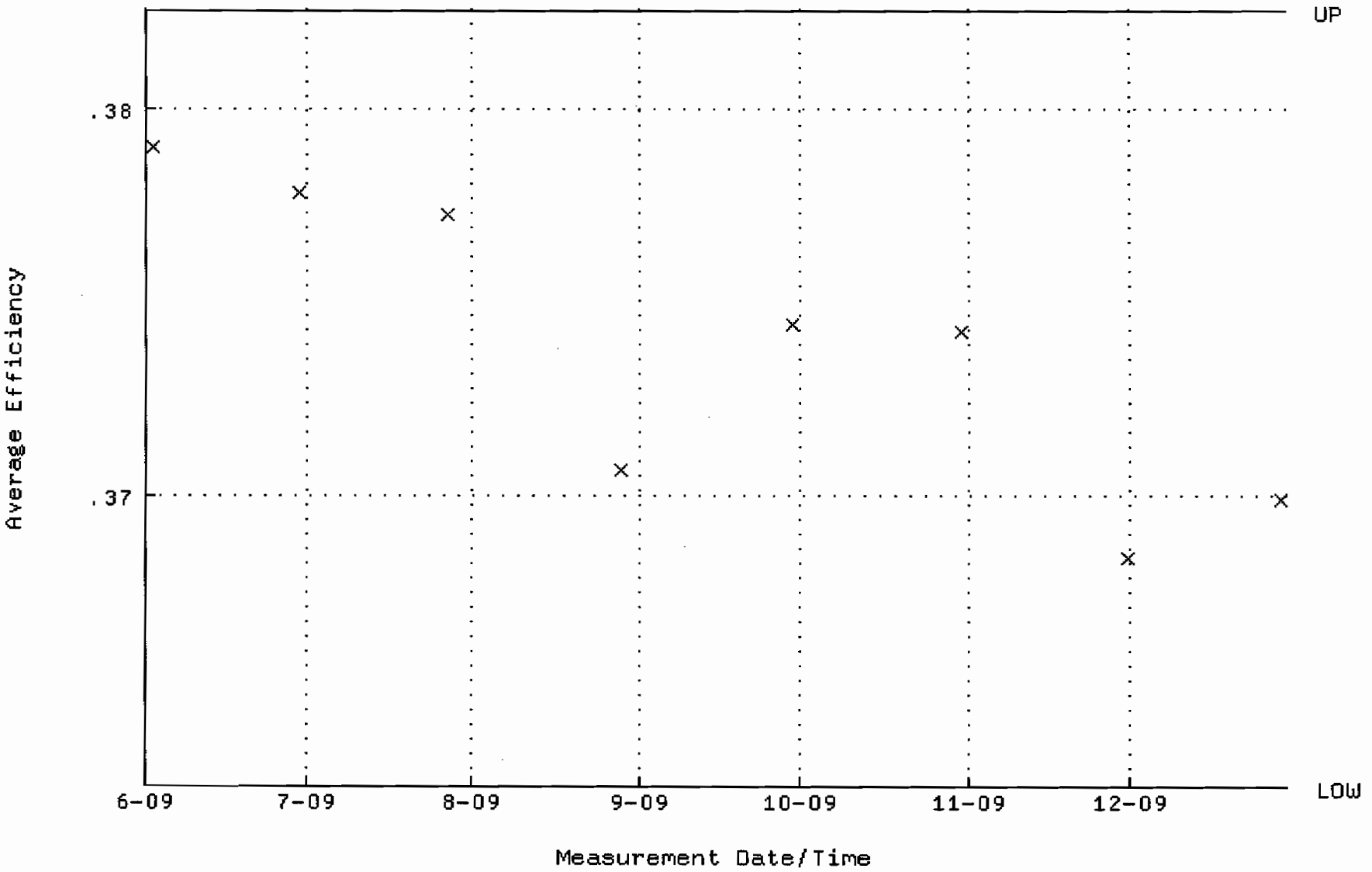

QA filename : DKA100:[ENV_ALPHA.QA.W]W240.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 2-JUN-2009 11:19:47 through 29-DEC-2009 12:00:00
Lower/Upper Lmts: 83.3638 through 92.1390

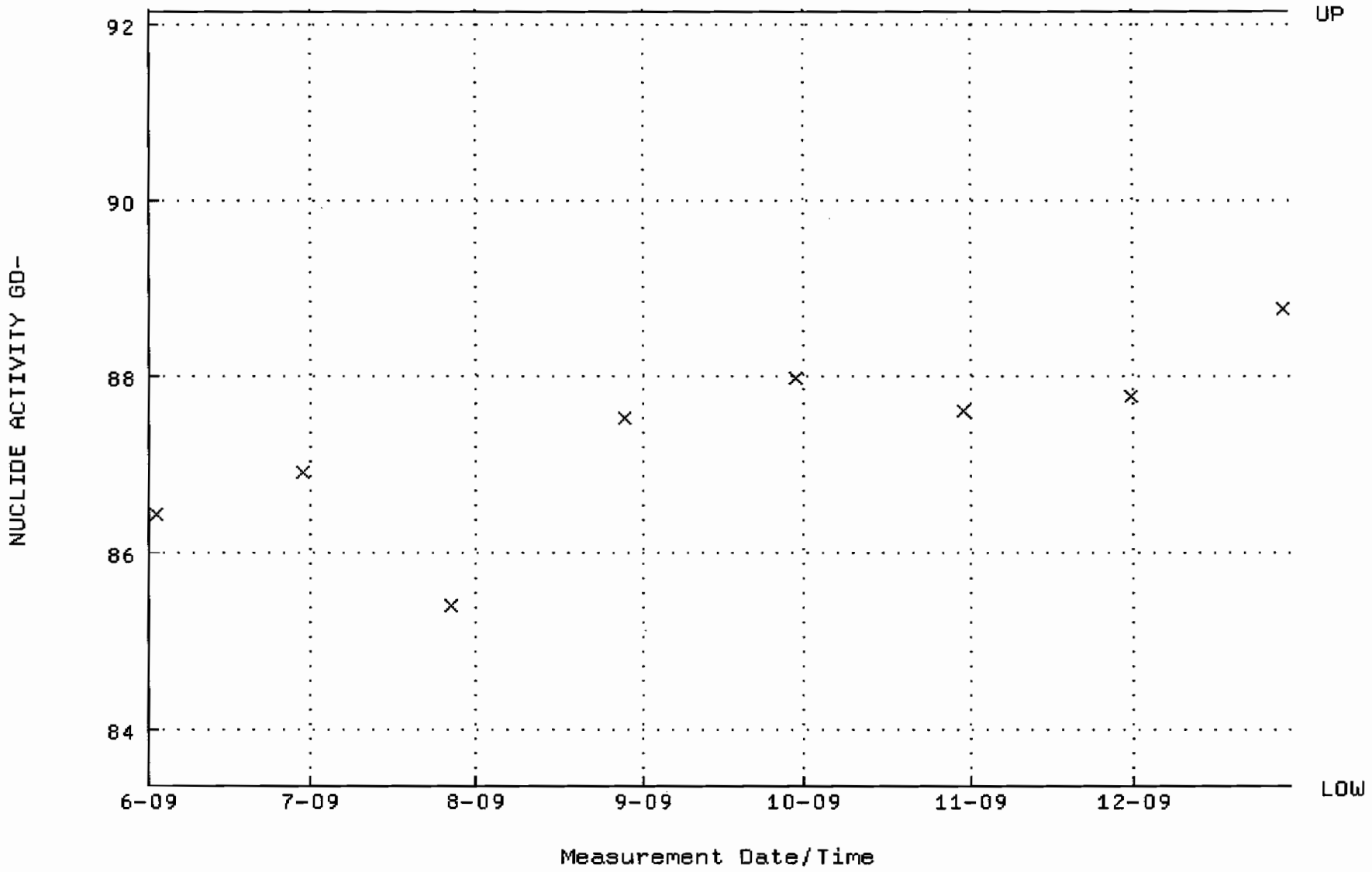

QA filename : DKA100:[ENV_ALPHA.QA.B]B240.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 1-JUN-2009 17:46:21 through 29-DEC-2009 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

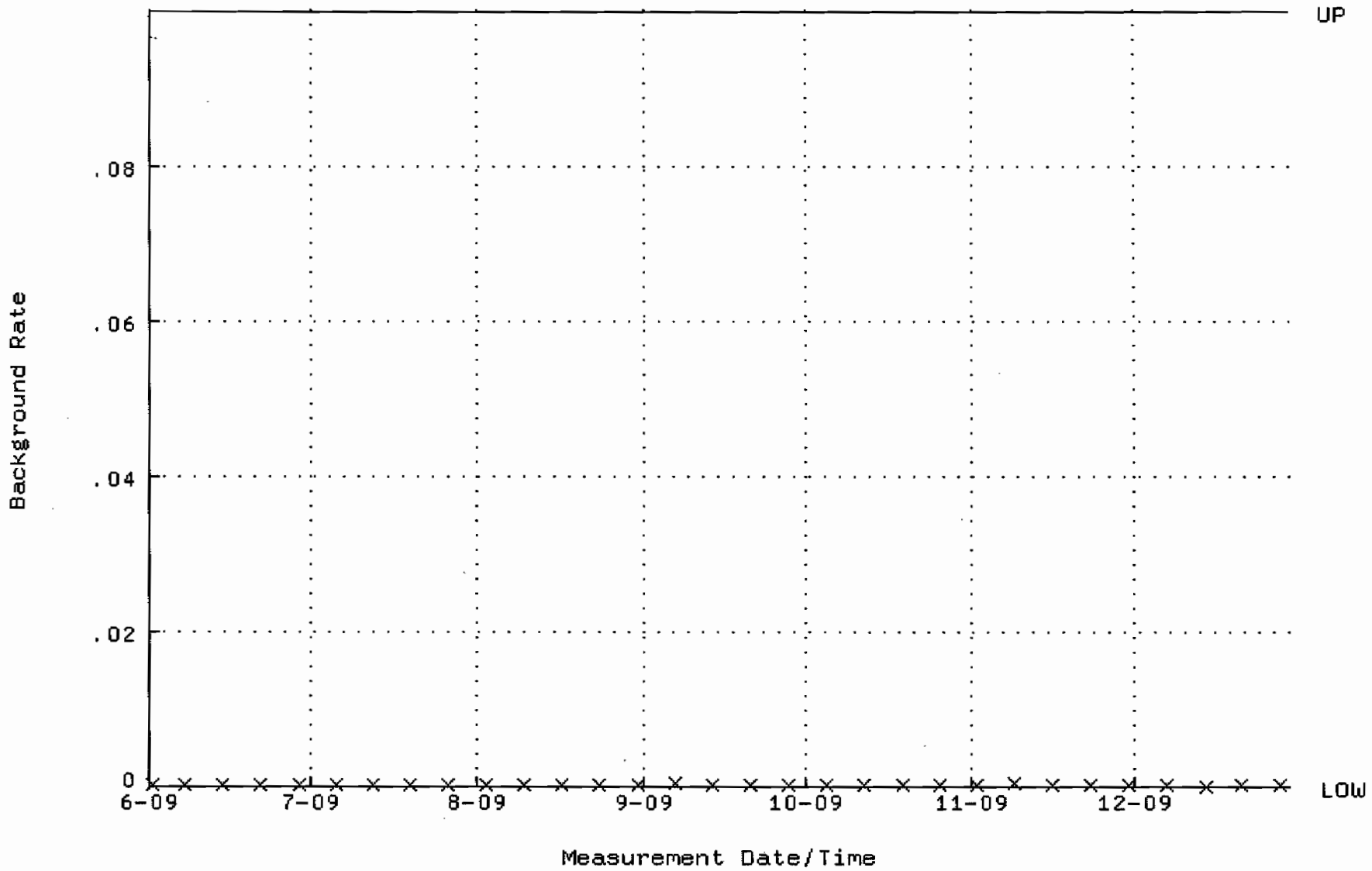

QA filename : DKA100:[ENV_ALPHA.QA.W]W241.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 2-JUN-2009 11:19:52 through 29-DEC-2009 12:00:00
Lower/Upper Lmts: 0.369174 through 0.389174

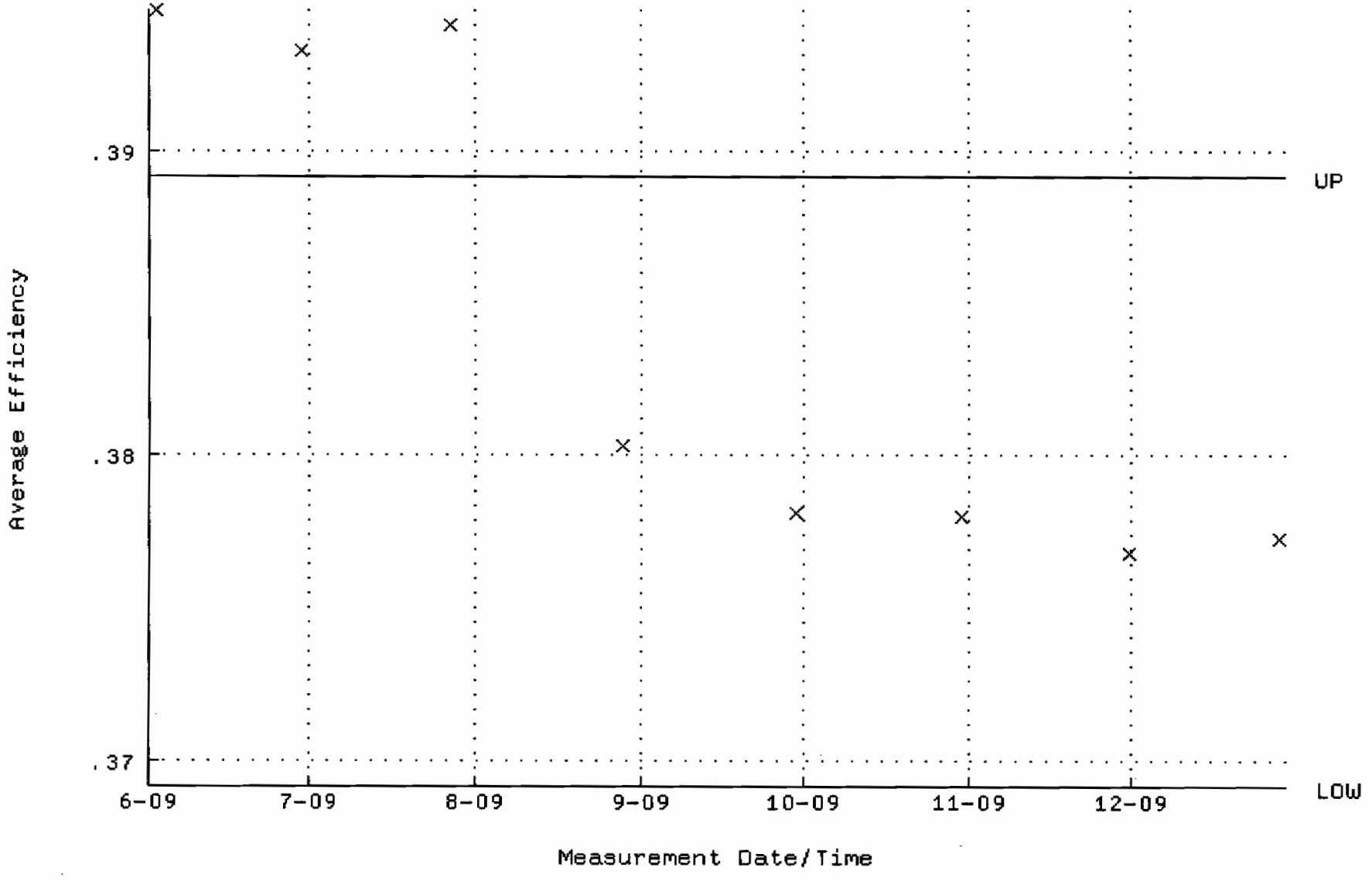

QA filename : DKA100:[ENV_ALPHA.QA.W]W241.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 2-JUN-2009 11:19:52 through 29-DEC-2009 12:00:00
Lower/Upper Lmts: 83.7197 through 92.5323

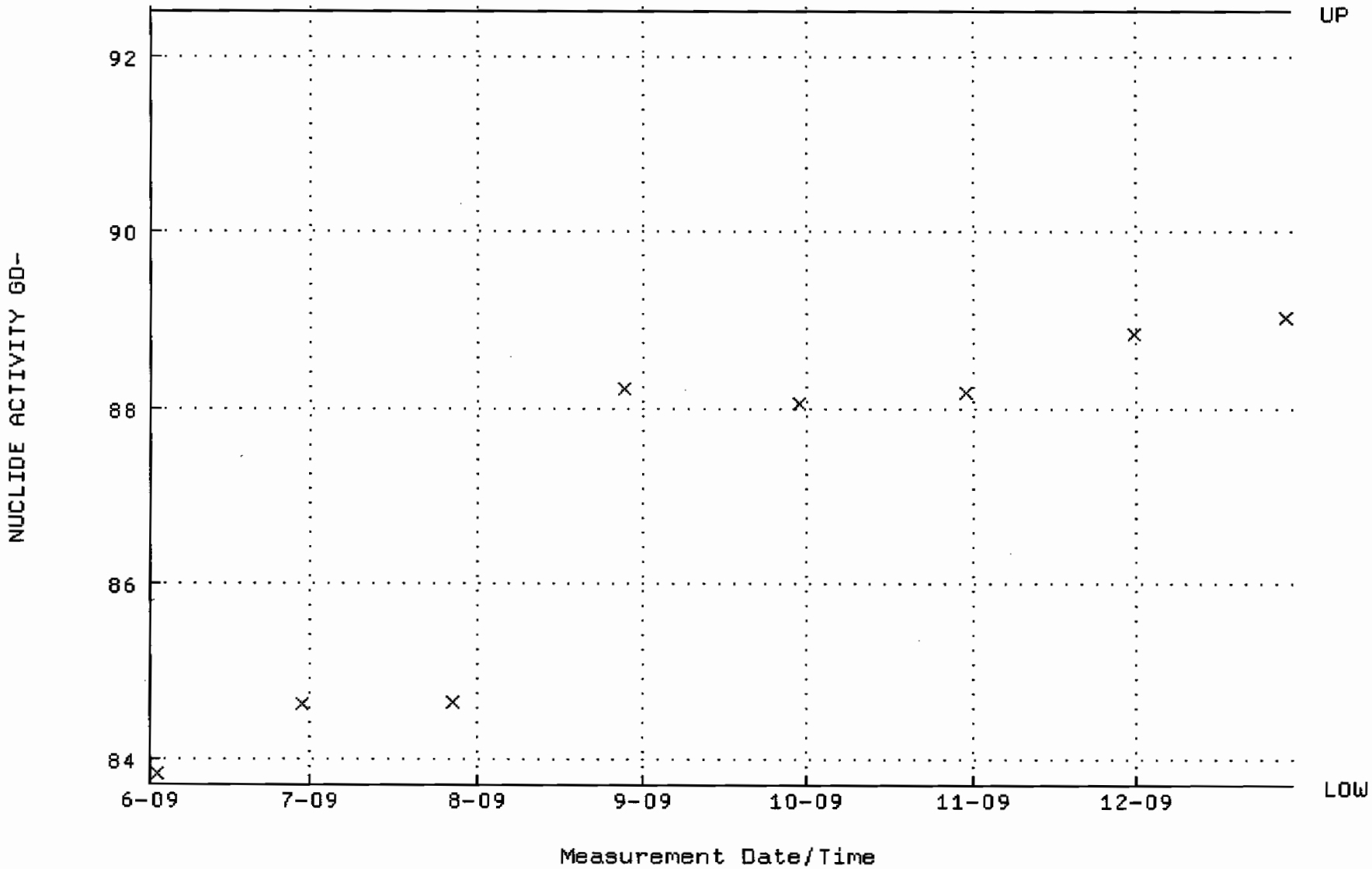

QA filename : DKA100:[ENV_ALPHA.QA.B]B241.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 1-JUN-2009 17:46:27 through 29-DEC-2009 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

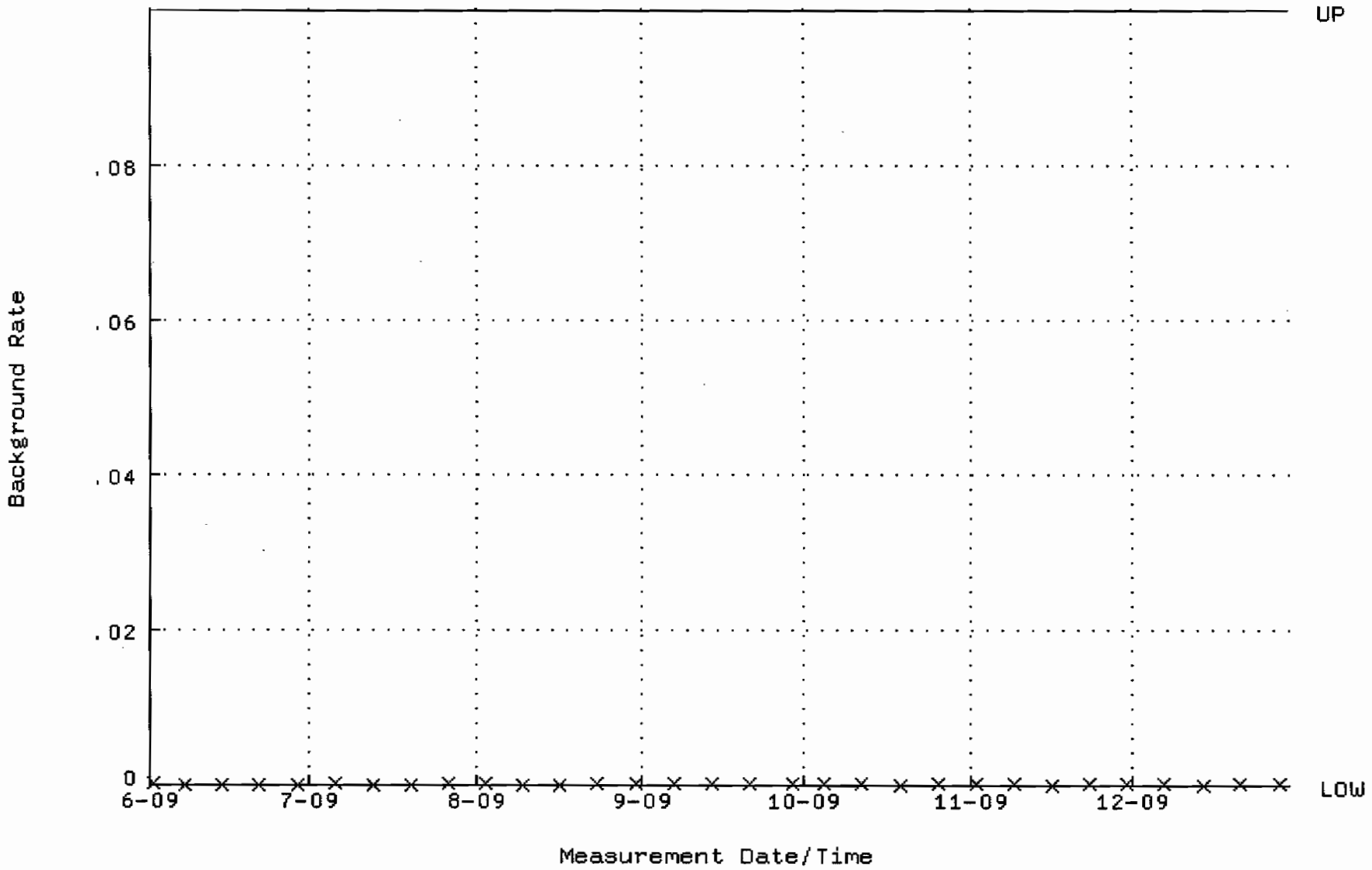

QA filename : DKA100:[ENV_ALPHA.QA.W]W242.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 2-JUN-2009 11:19:56 through 29-DEC-2009 12:00:00
Lower/Upper Lmts: 0.374815 through 0.394815

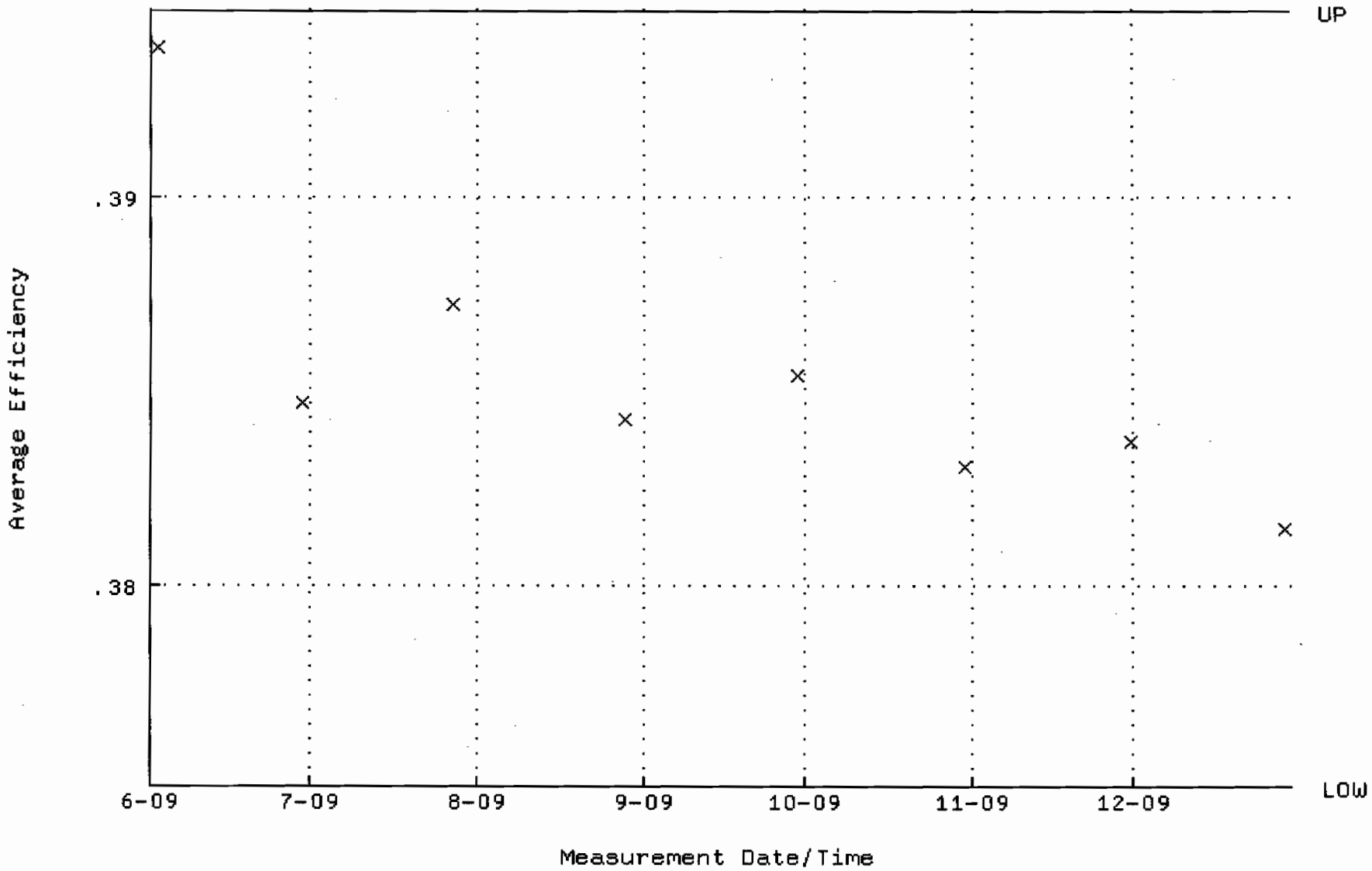

QA filename : DKA100:[ENV_ALPHA.QA.W]W242.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 2-JUN-2009 11:19:56 through 29-DEC-2009 12:00:00
Lower/Upper Lmts: 83.9949 through 92.8365

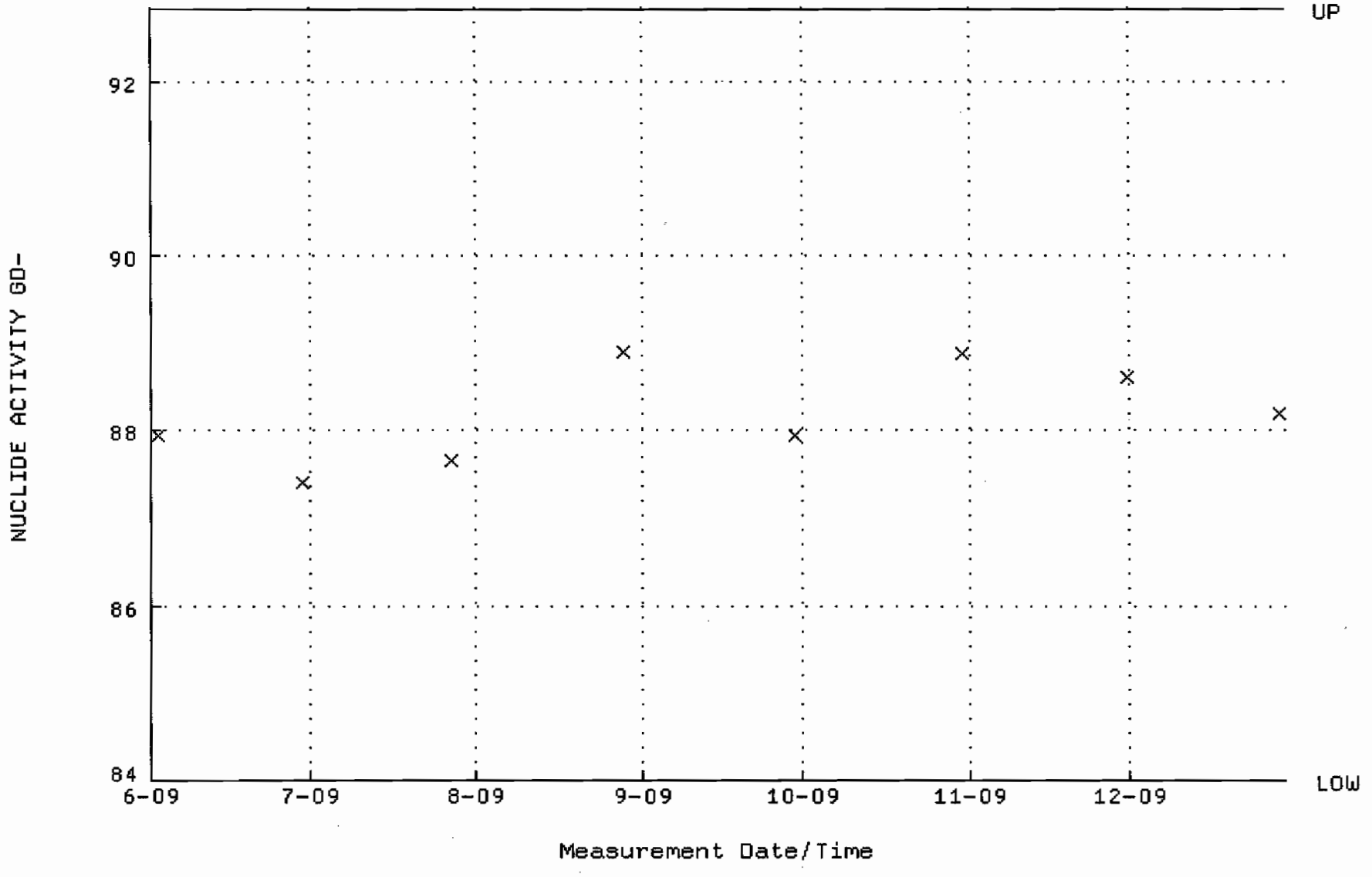

QA filename : DKA100:[ENV_ALPHA.QA.B]B242.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 1-JUN-2009 17:46:32 through 29-DEC-2009 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

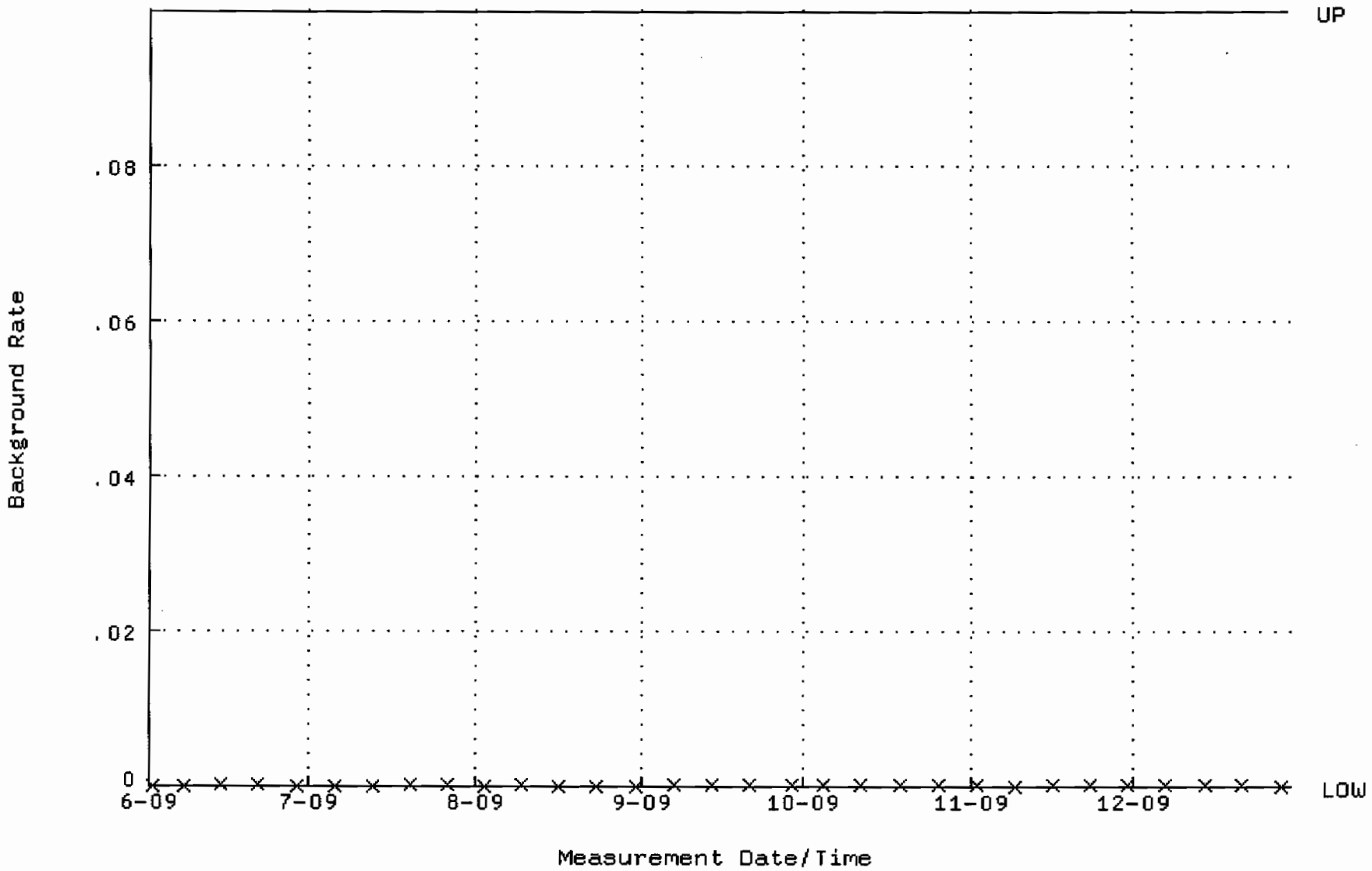

QA filename : DKA100:[ENV_ALPHA.QA.W]W243.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 2-JUN-2009 11:20:01 through 29-DEC-2009 12:00:00
Lower/Upper Lmts: 0.362914 through 0.382914

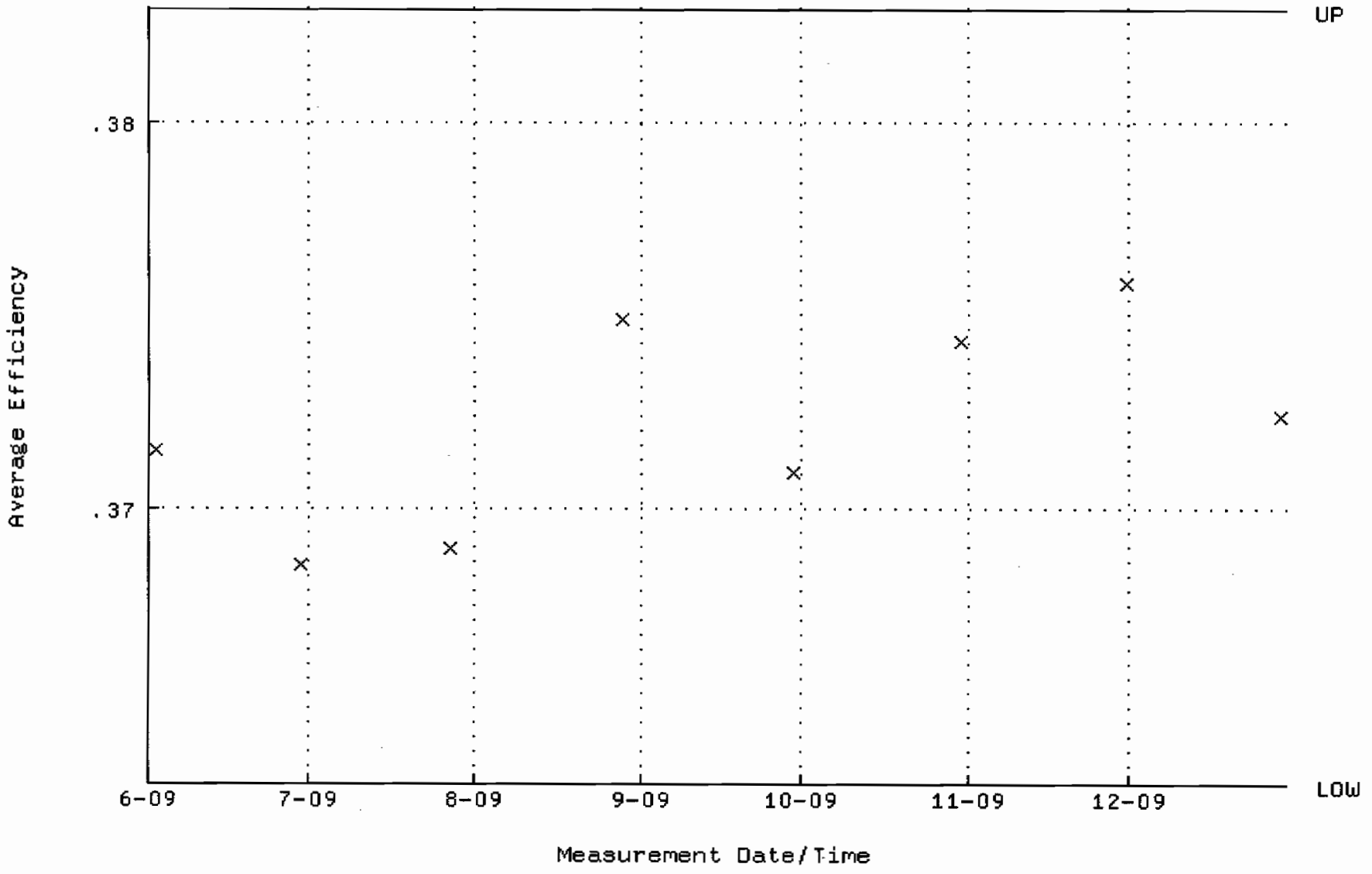

QA filename : DKA100:[ENV_ALPHA.QA.W]W243.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 2-JUN-2009 11:20:01 through 29-DEC-2009 12:00:00
Lower/Upper Lmts: 82.6788 through 91.3818

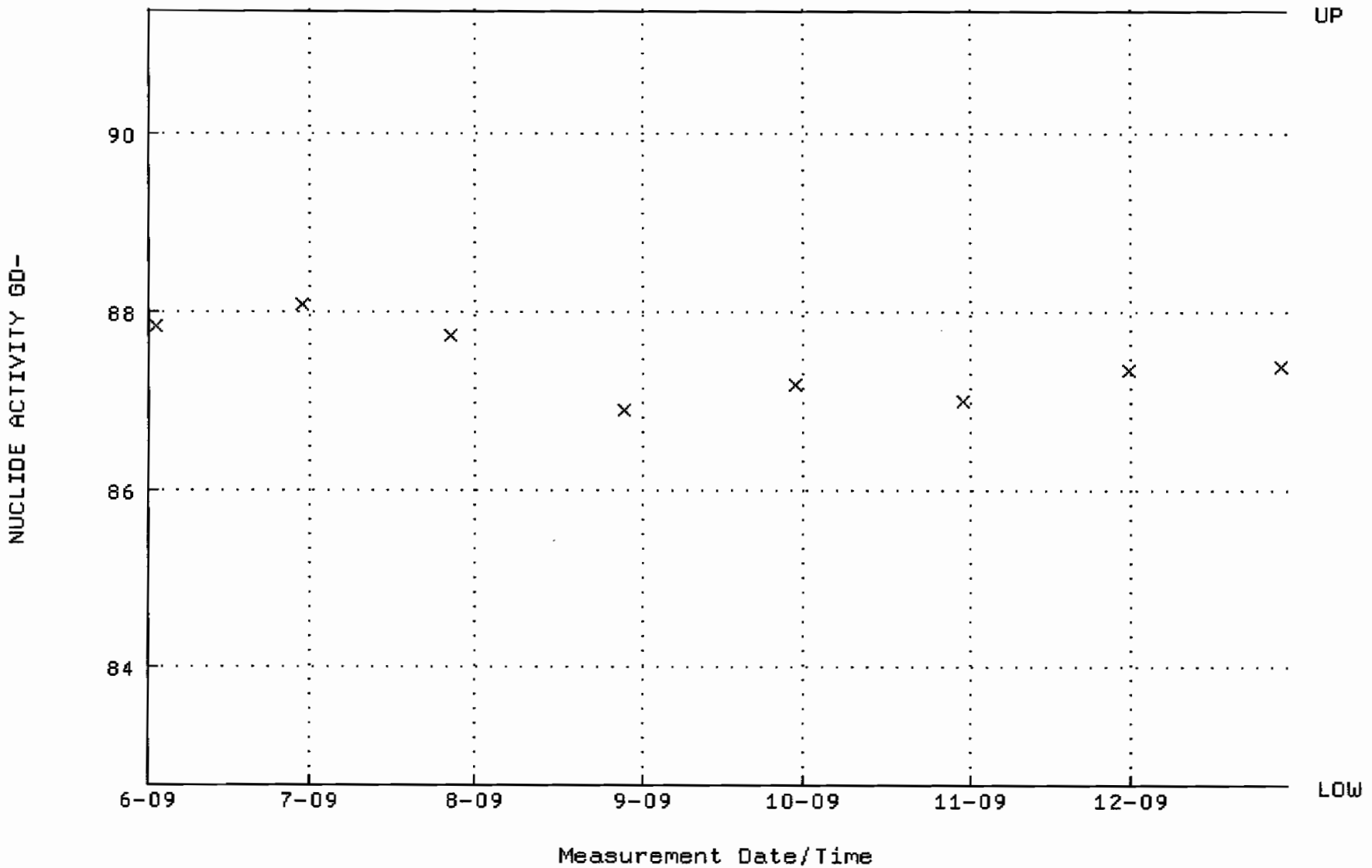

QA filename : DKA100:[ENV_ALPHA.QA.B]B243.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 1-JUN-2009 17:46:38 through 29-DEC-2009 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

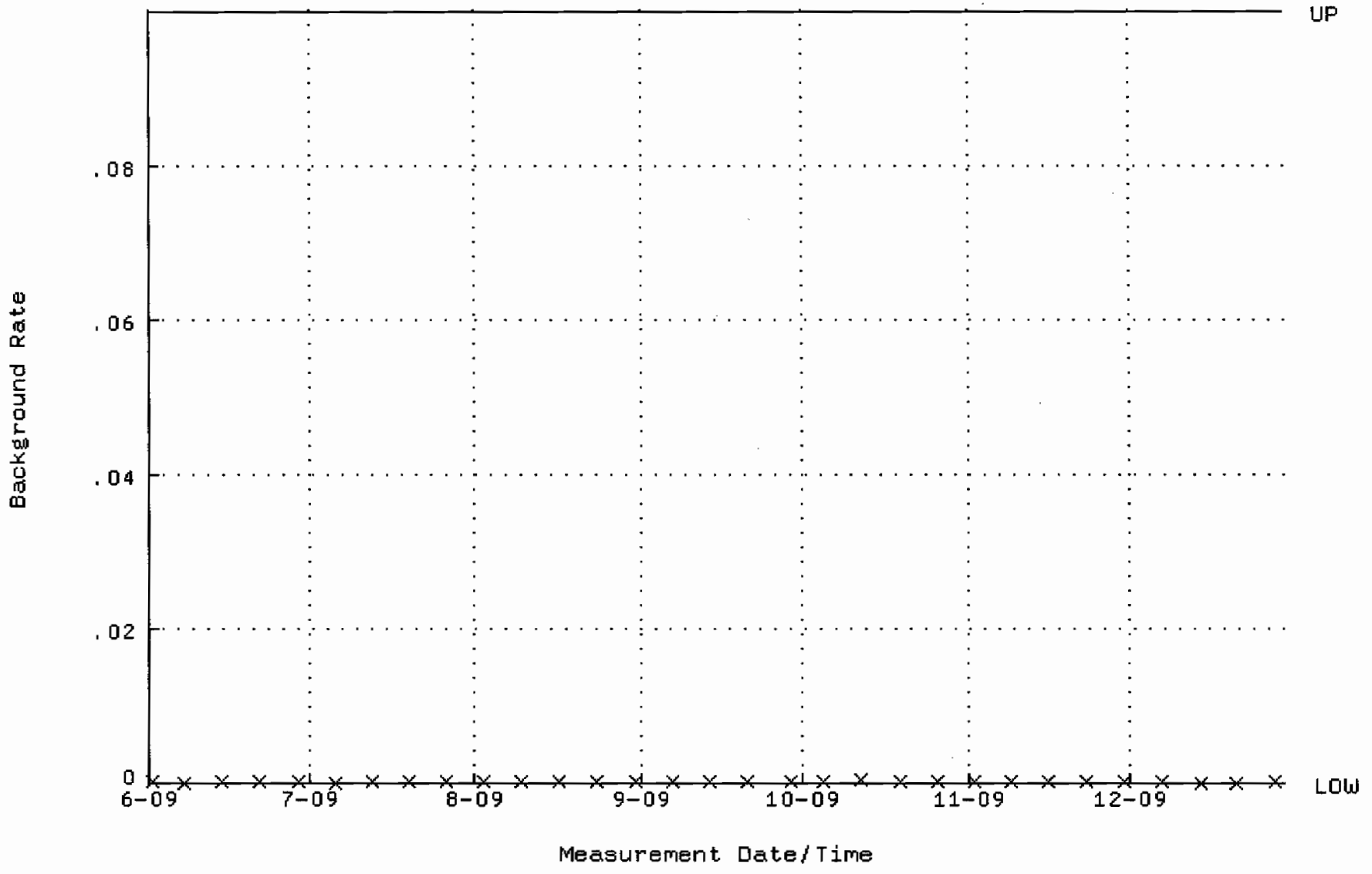

QA filename : DKA100:[ENV_ALPHA.QA.W]W244.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 2-JUN-2009 11:20:06 through 29-DEC-2009 12:00:00
Lower/Upper Lmts: 0.361192 through 0.381192

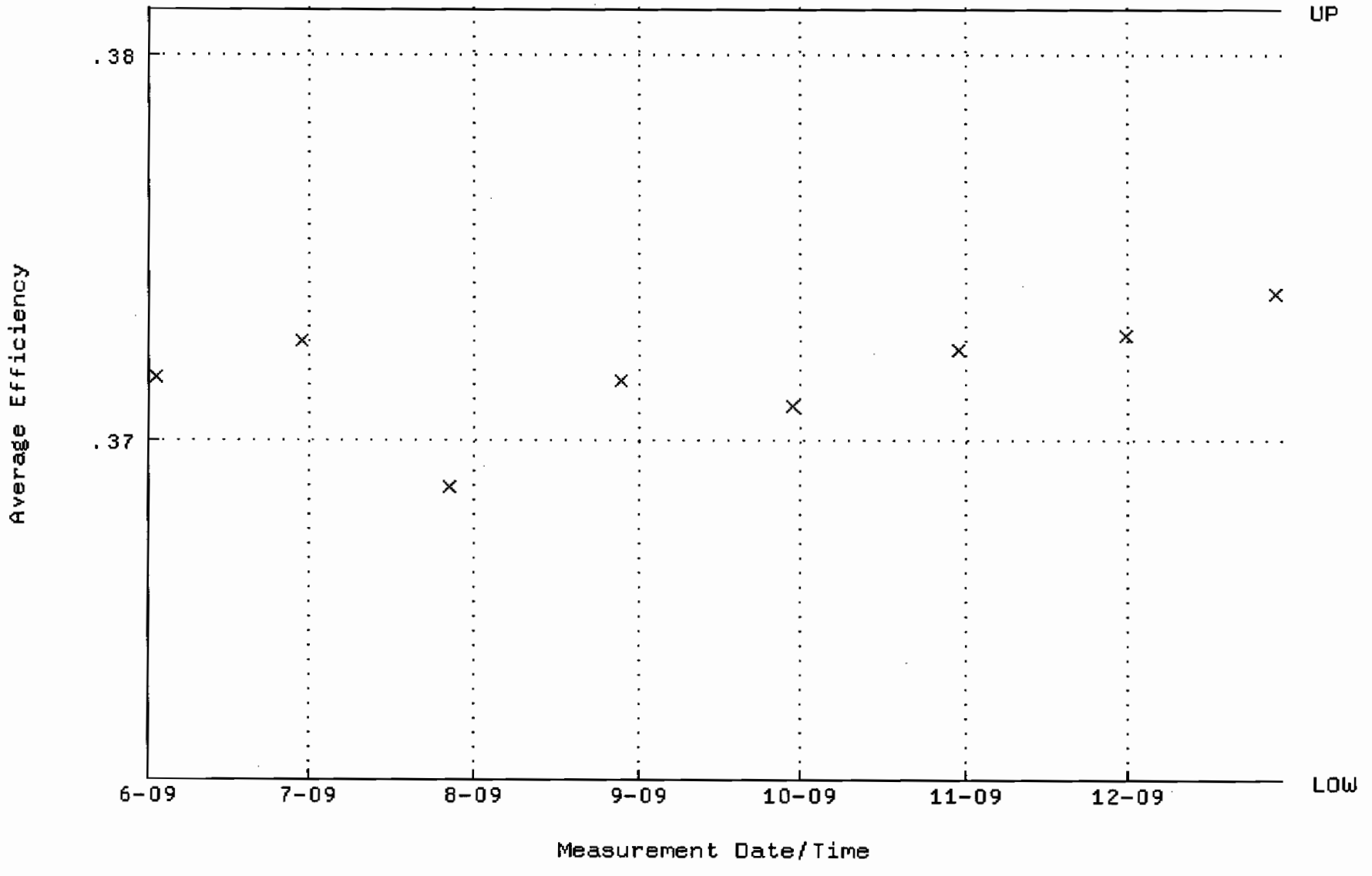

QA filename : DKA100:[ENV_ALPHA.QA.W]W244.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 2-JUN-2009 11:20:06 through 29-DEC-2009 12:00:00
Lower/Upper Lmts: 83.7473 through 92.5629

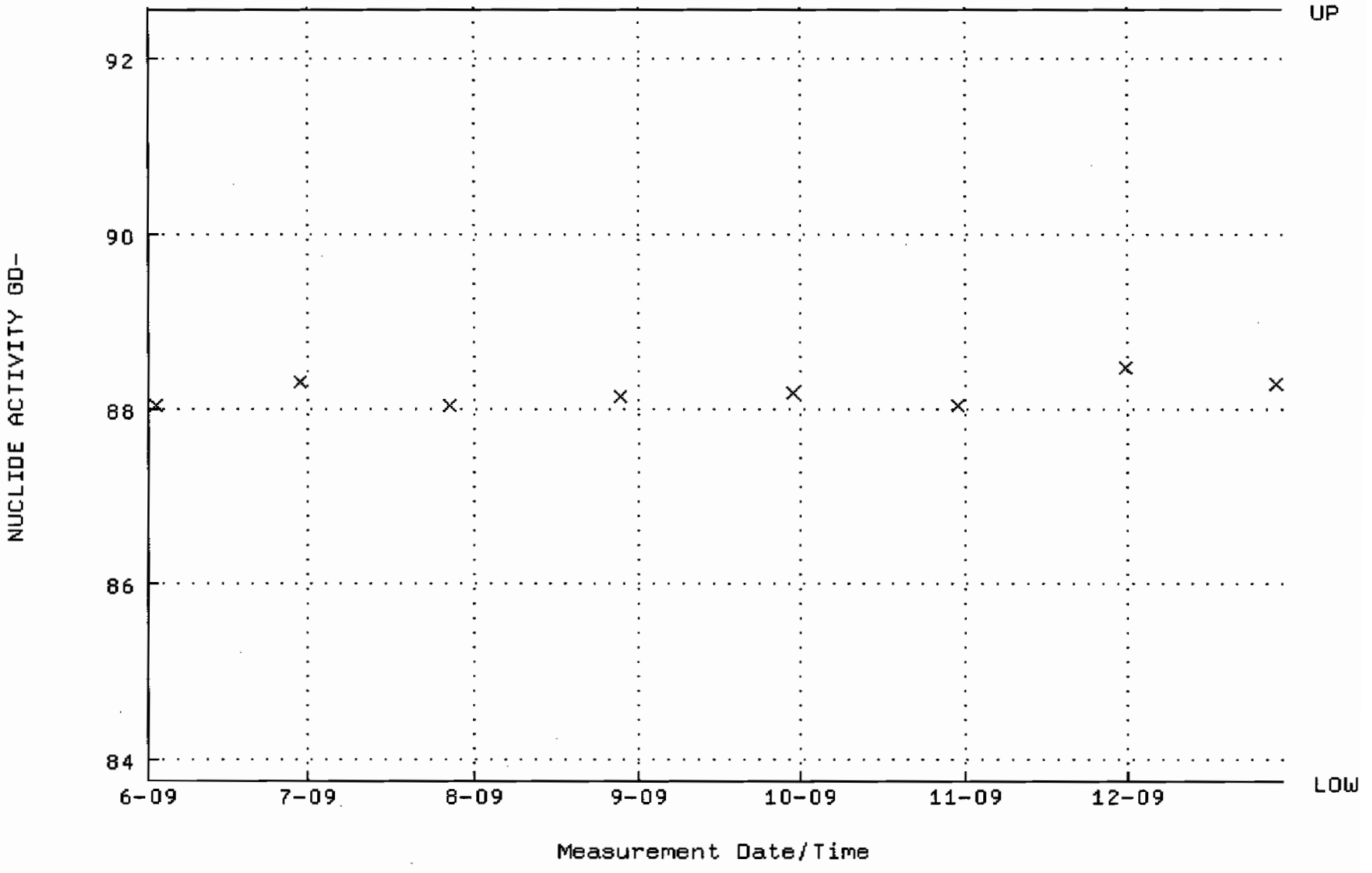

QA filename : DKA100:[ENV_ALPHA.QA.B]B244.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 1-JUN-2009 17:46:44 through 29-DEC-2009 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

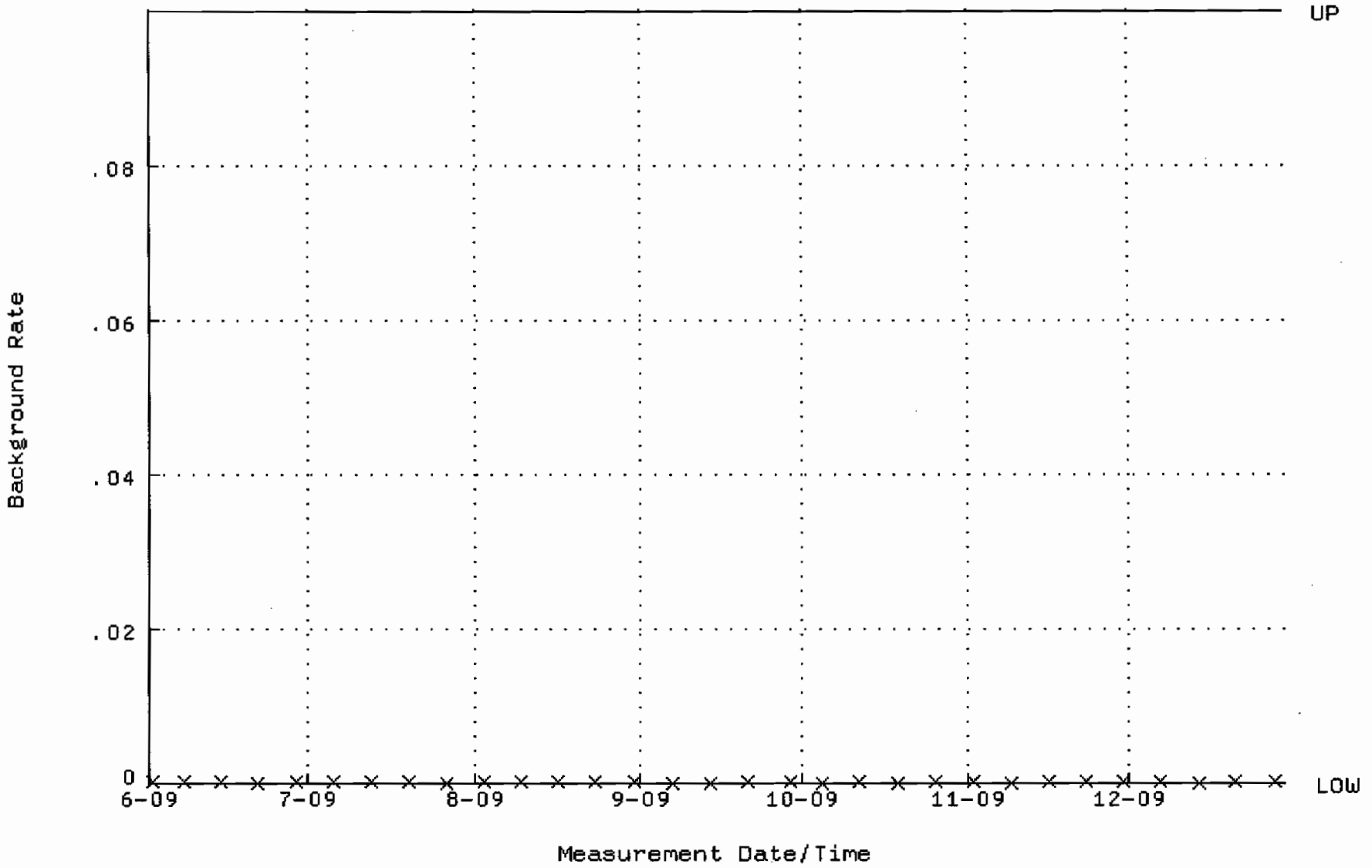

QA filename : DKA100:[ENV_ALPHA.QA.W]W245.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 2-JUN-2009 11:20:11 through 29-DEC-2009 12:00:00
Lower/Upper Lmts: 0.374422 through 0.394422

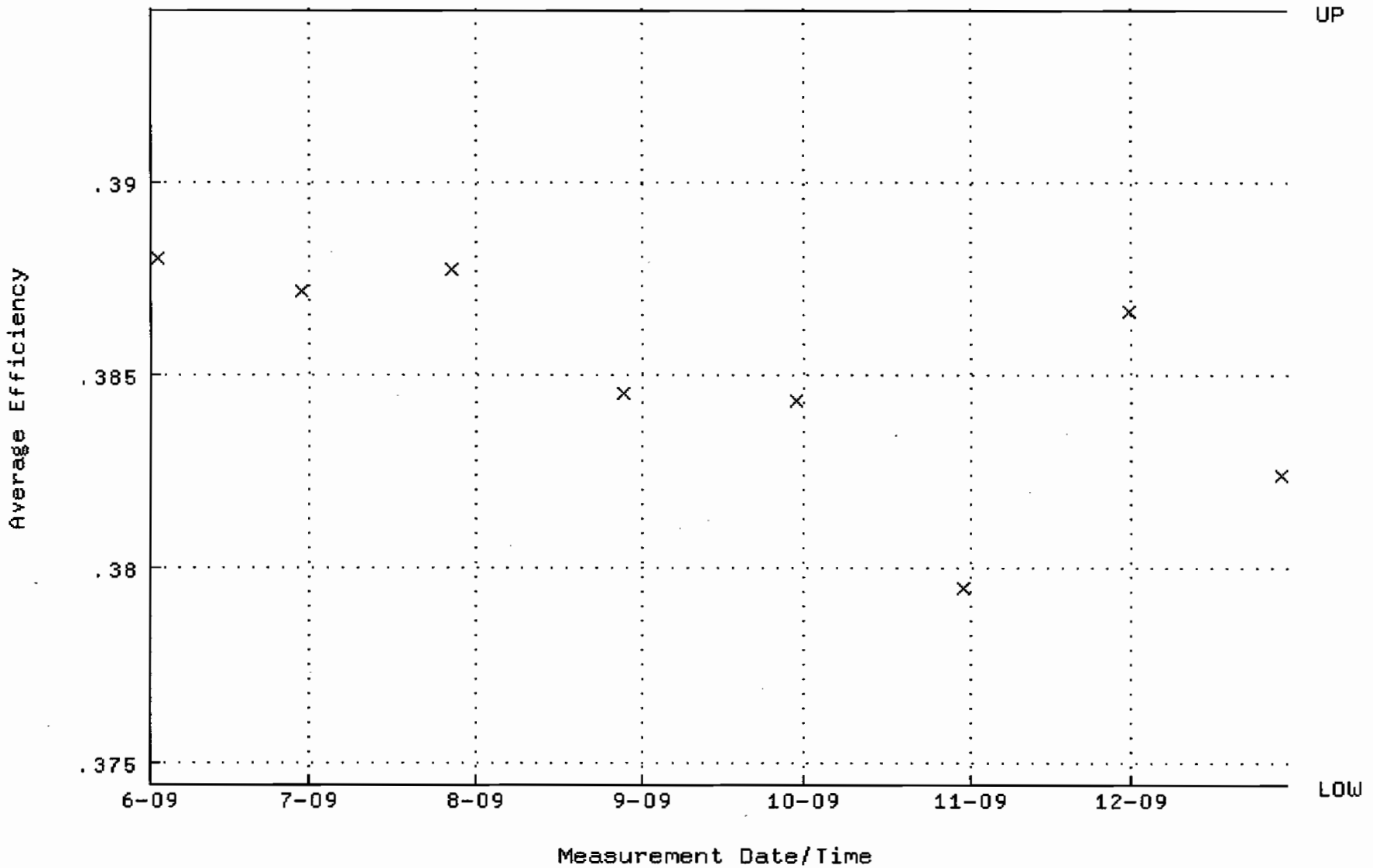

QA filename : DKA100:[ENV_ALPHA.QA.W]W245.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 2-JUN-2009 11:20:11 through 29-DEC-2009 12:00:00
Lower/Upper Lmts: 82.9600 through 91.6926

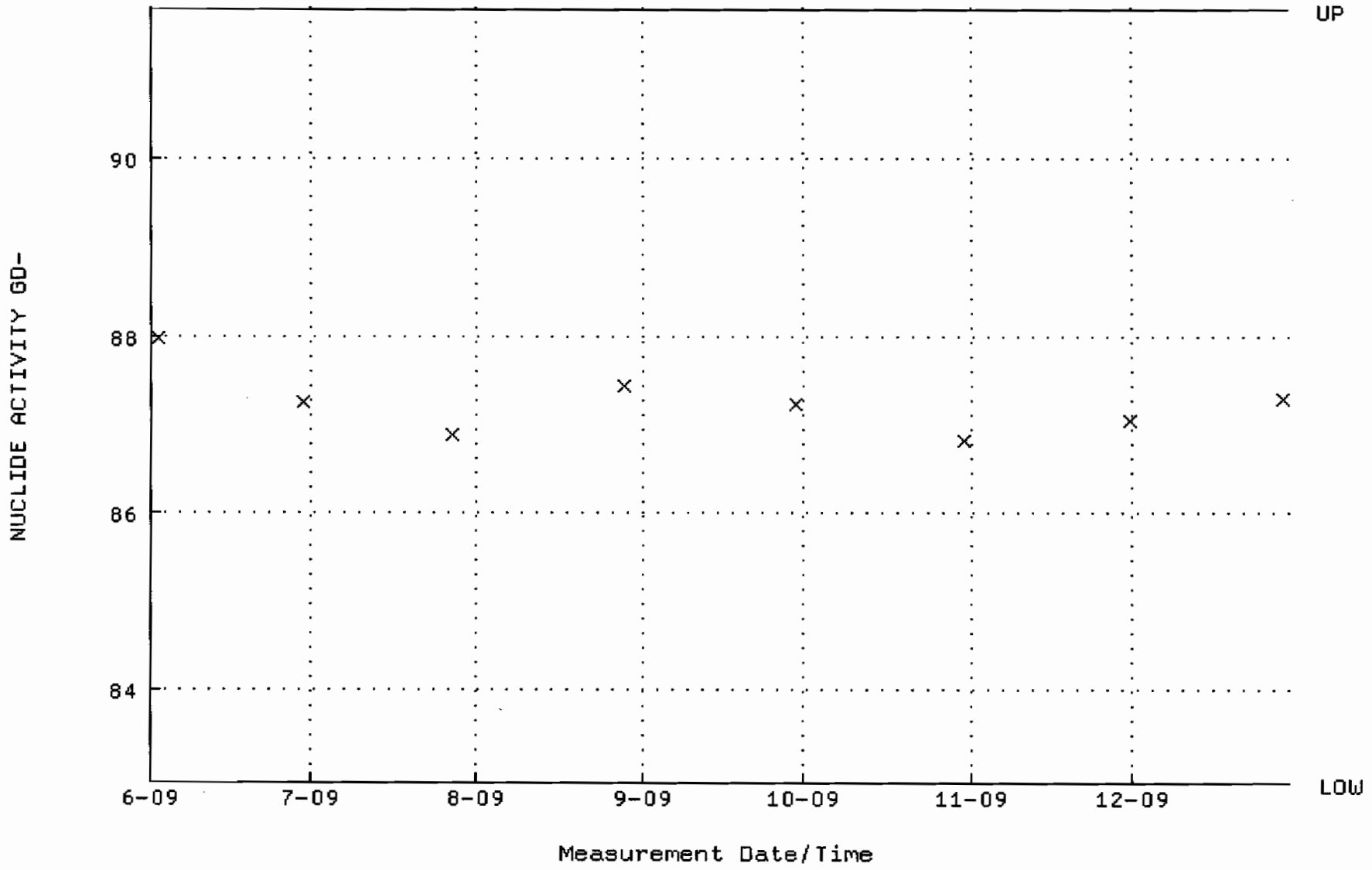

QA filename : DKA100:[ENV_ALPHA.QA.B]B245.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 1-JUN-2009 17:46:50 through 29-DEC-2009 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

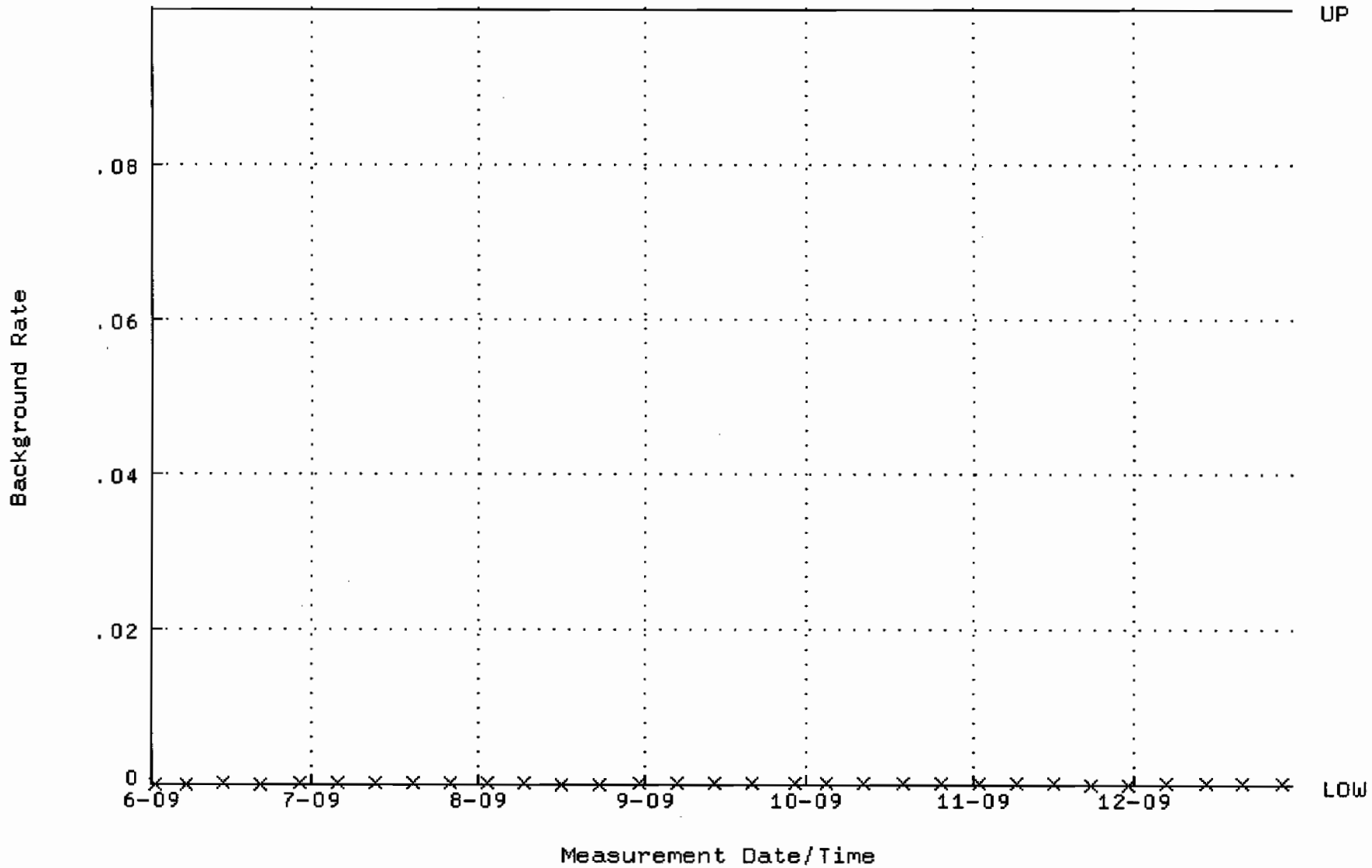

QA filename : DKA100:[ENV_ALPHA.QA.W]W246.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 2-JUN-2009 11:20:15 through 29-DEC-2009 12:00:00
Lower/Upper Lmts: 0.366080 through 0.386080

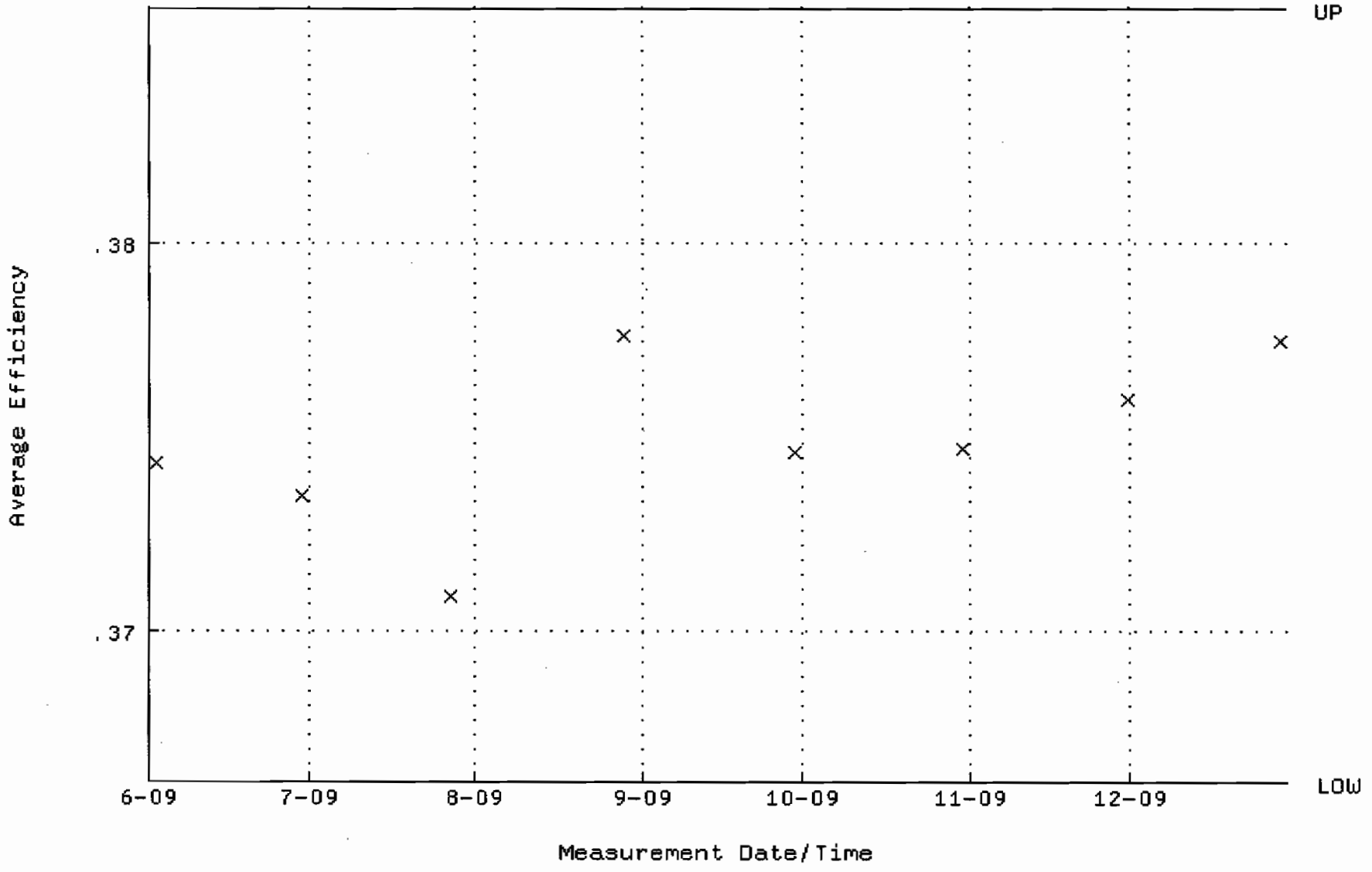

QA filename : DKA100:[ENV_ALPHA.QA.W]W246.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 2-JUN-2009 11:20:15 through 29-DEC-2009 12:00:00
Lower/Upper Lmts: 82.8267 through 91.5453

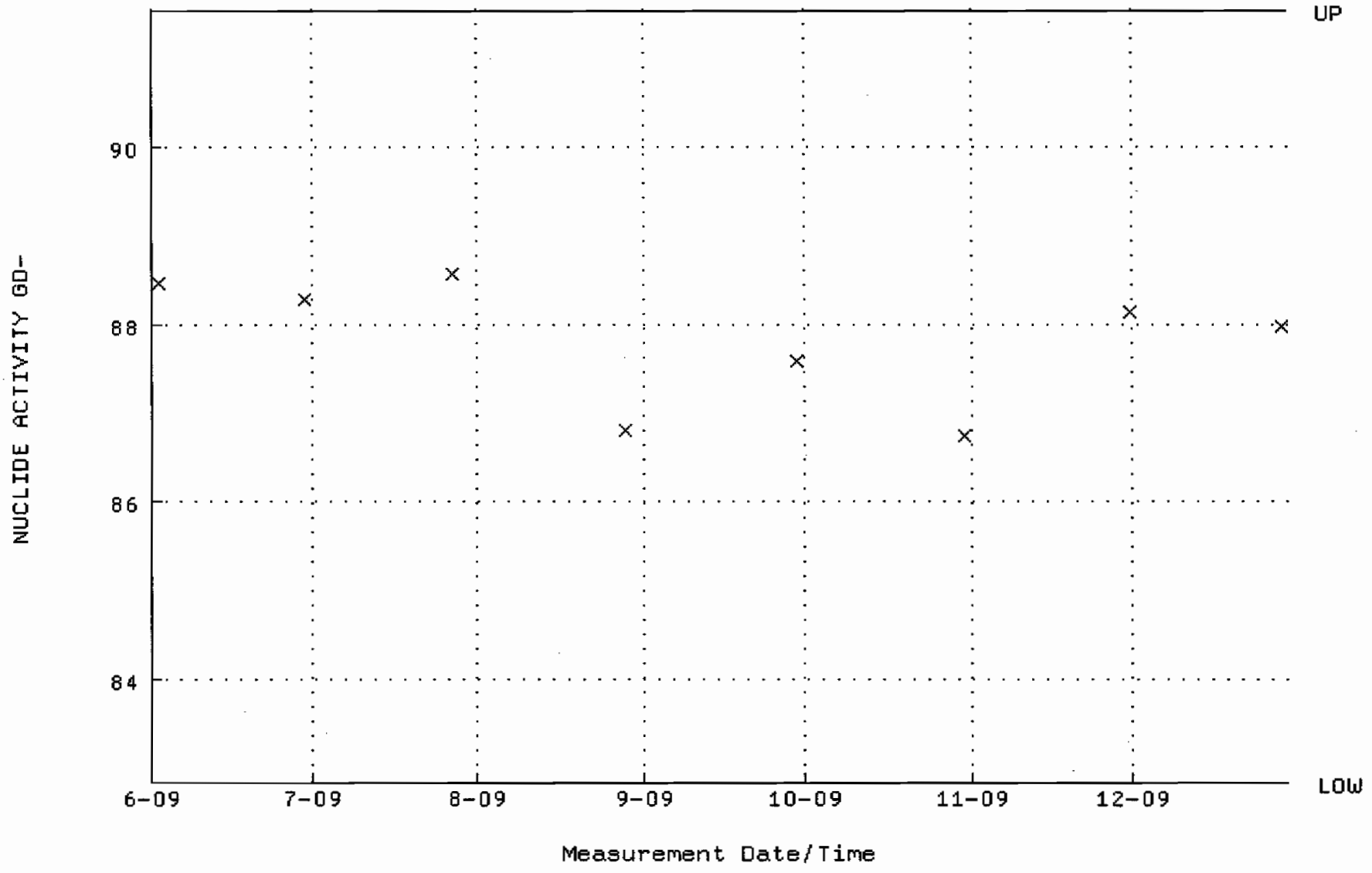

QA filename : DKA100:[ENV_ALPHA.QA.B]B246.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 1-JUN-2009 17:46:56 through 29-DEC-2009 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

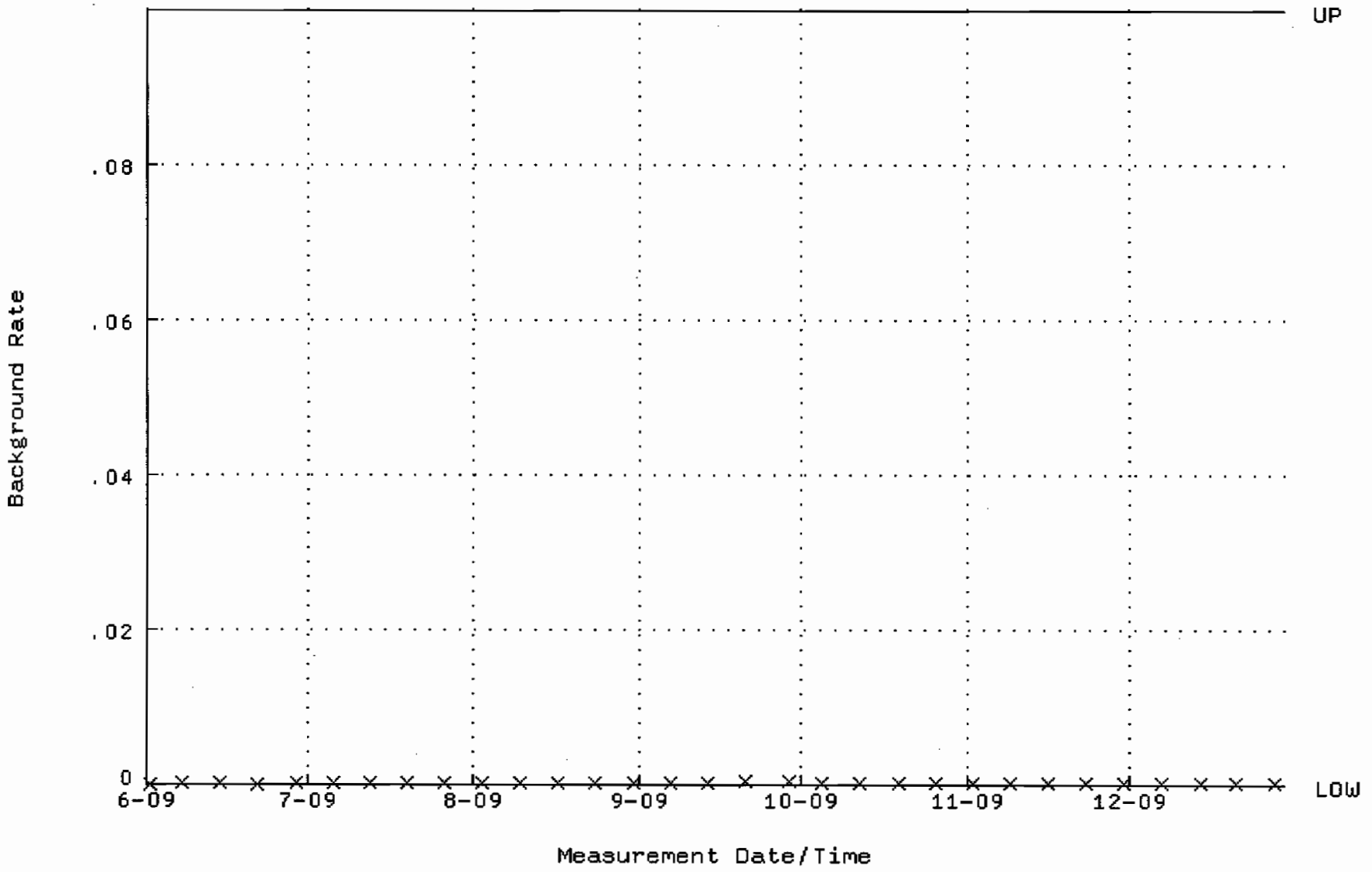

QA filename : DKA100:[ENV_ALPHA.QA.W]W247.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 2-JUN-2009 11:20:20 through 29-DEC-2009 12:00:00
Lower/Upper Lmts: 0.368107 through 0.388107

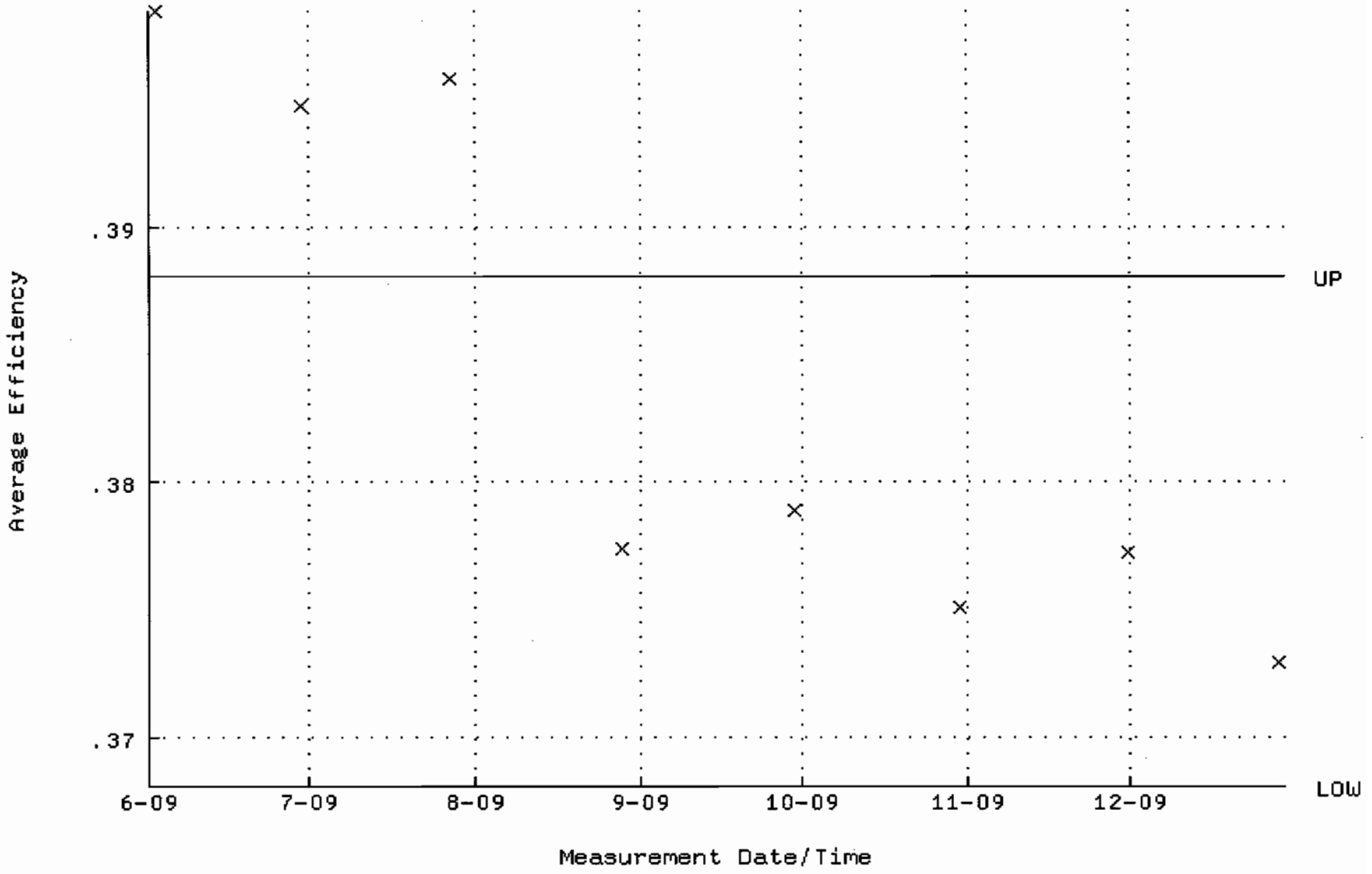

QA filename : DKA100:[ENV_ALPHA.QA.W]W247.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 2-JUN-2009 11:20:20 through 29-DEC-2009 12:00:00
Lower/Upper Lmts: 84.5211 through 93.4181

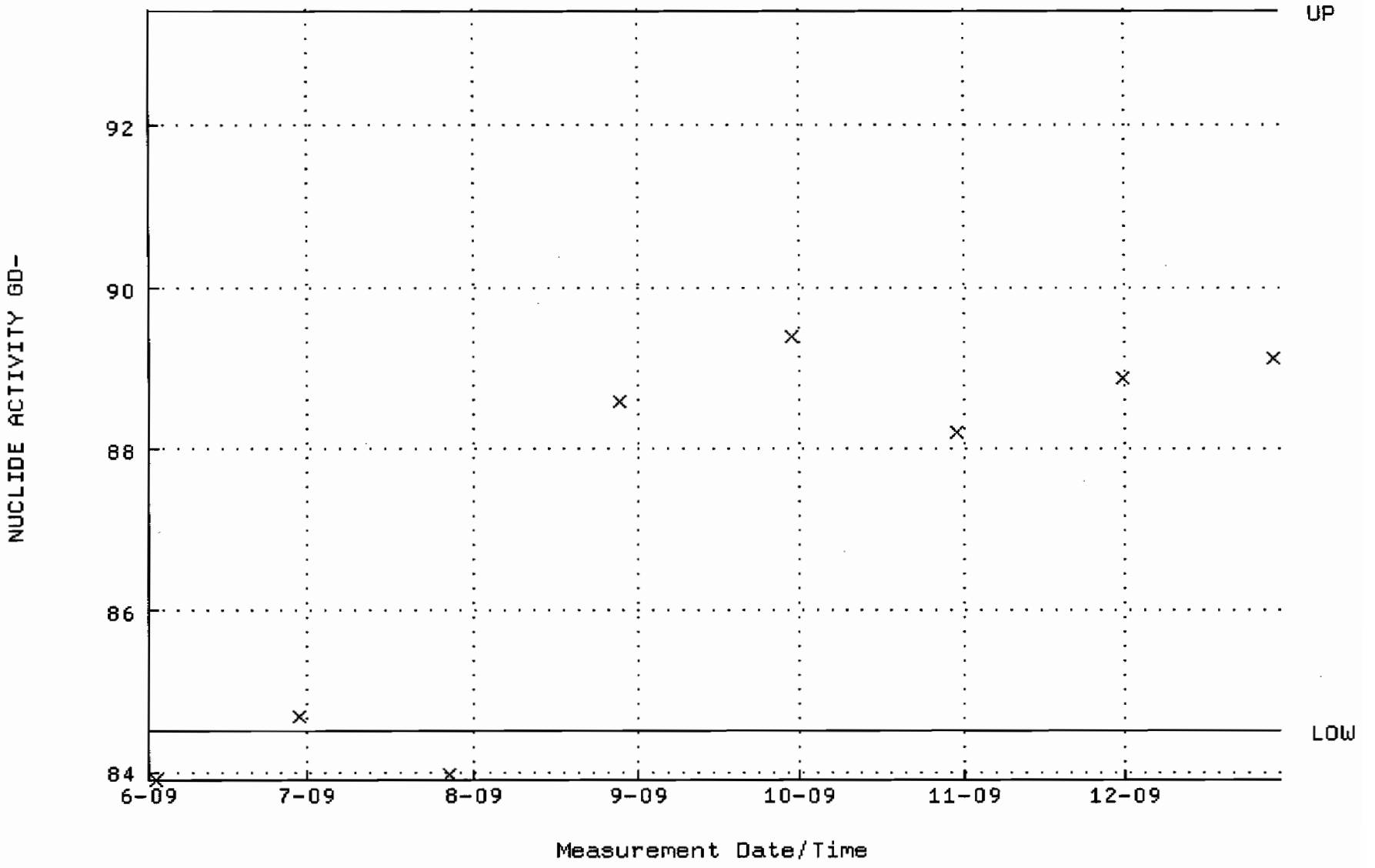

QA filename : DKA100:[ENV_ALPHA.QA.B]B247.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 1-JUN-2009 17:47:02 through 29-DEC-2009 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

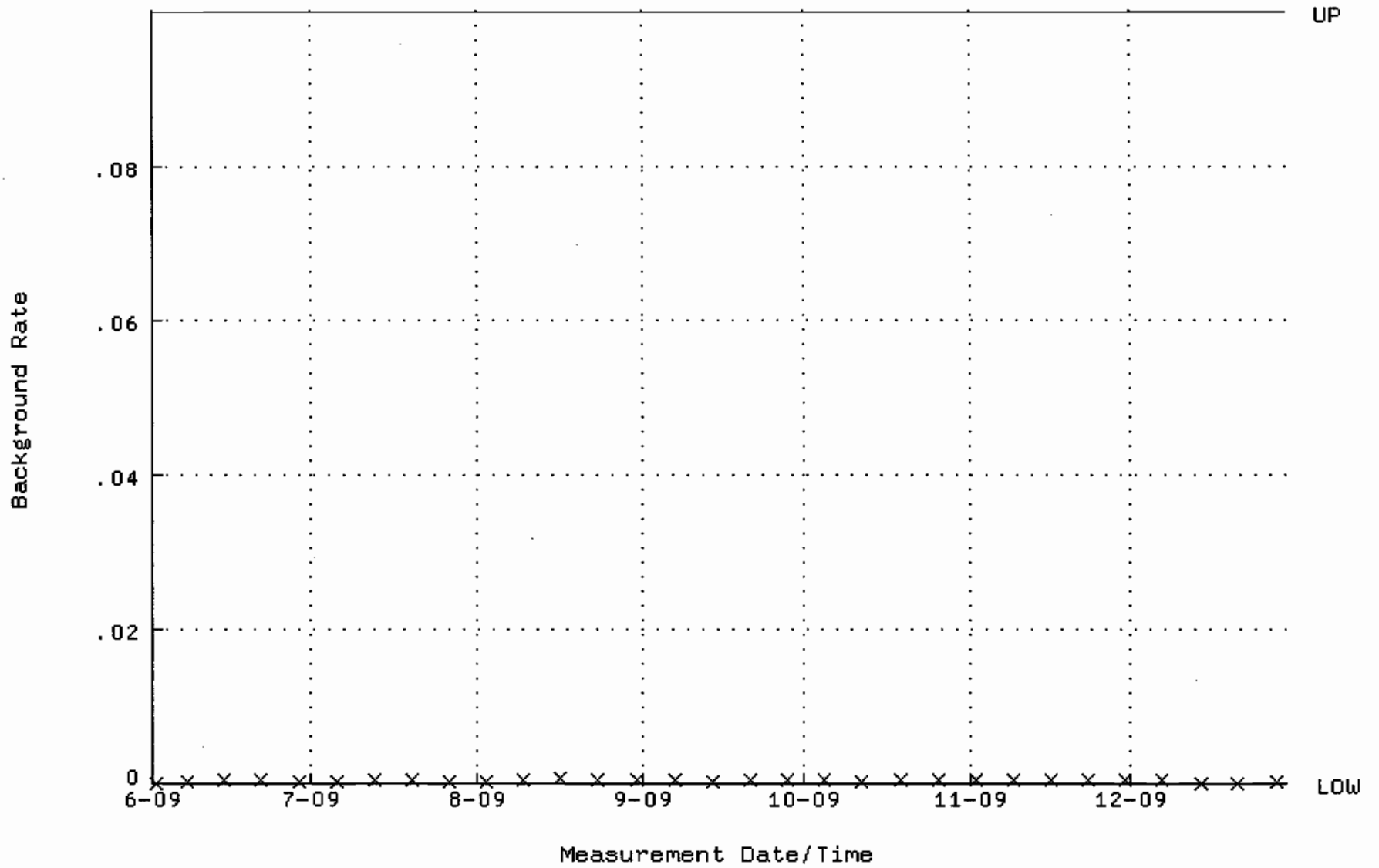

QA filename : DKA100:[ENV_ALPHA.QA.W]W249.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 2-JUN-2009 11:20:29 through 29-DEC-2009 12:00:00
Lower/Upper Lmts: 0.382546 through 0.402546

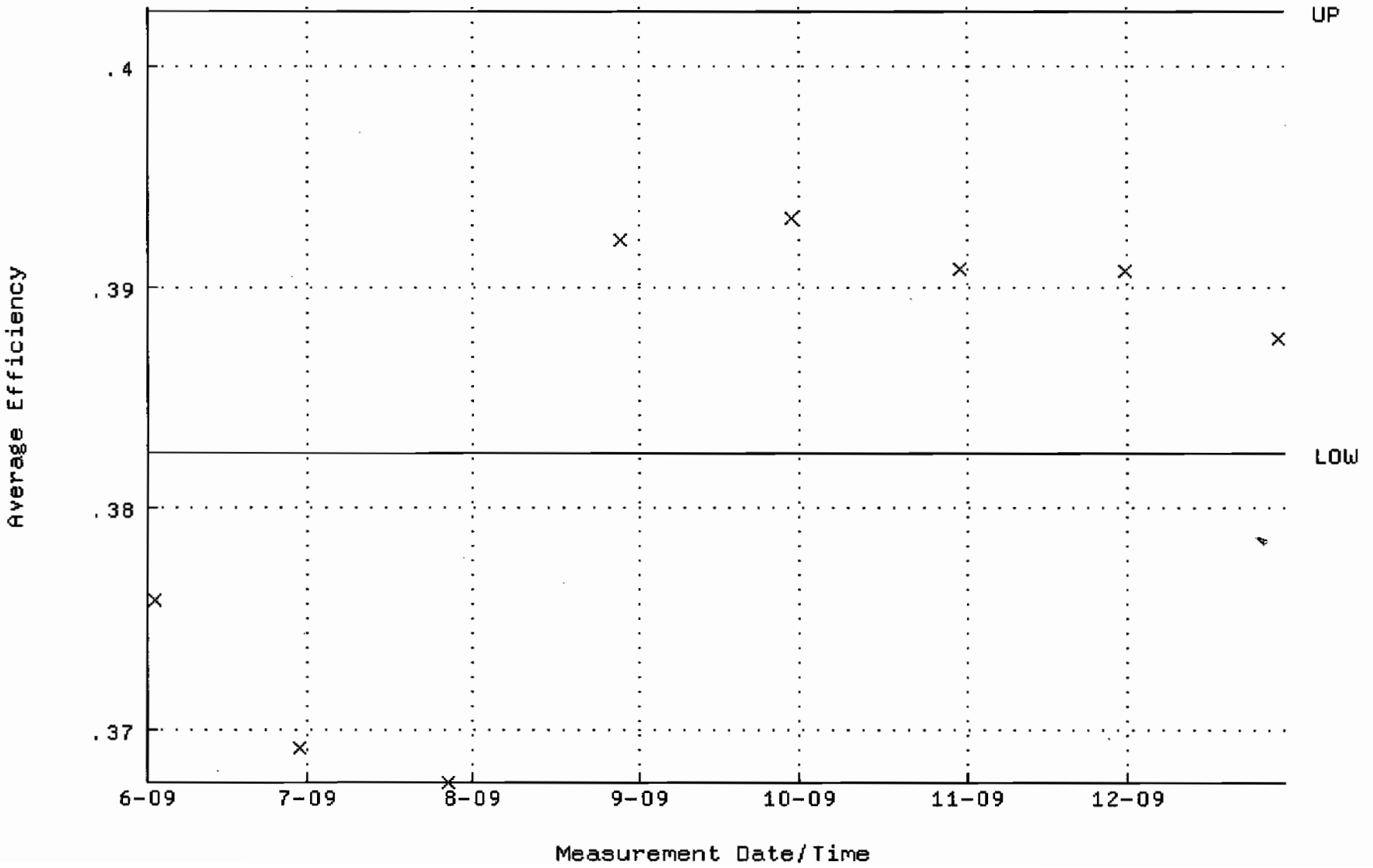

QA filename : DKA100:[ENV_ALPHA.QA.W]W249.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 2-JUN-2009 11:20:29 through 29-DEC-2009 12:00:00
Lower/Upper Lmts: 80.0964 through 88.5276

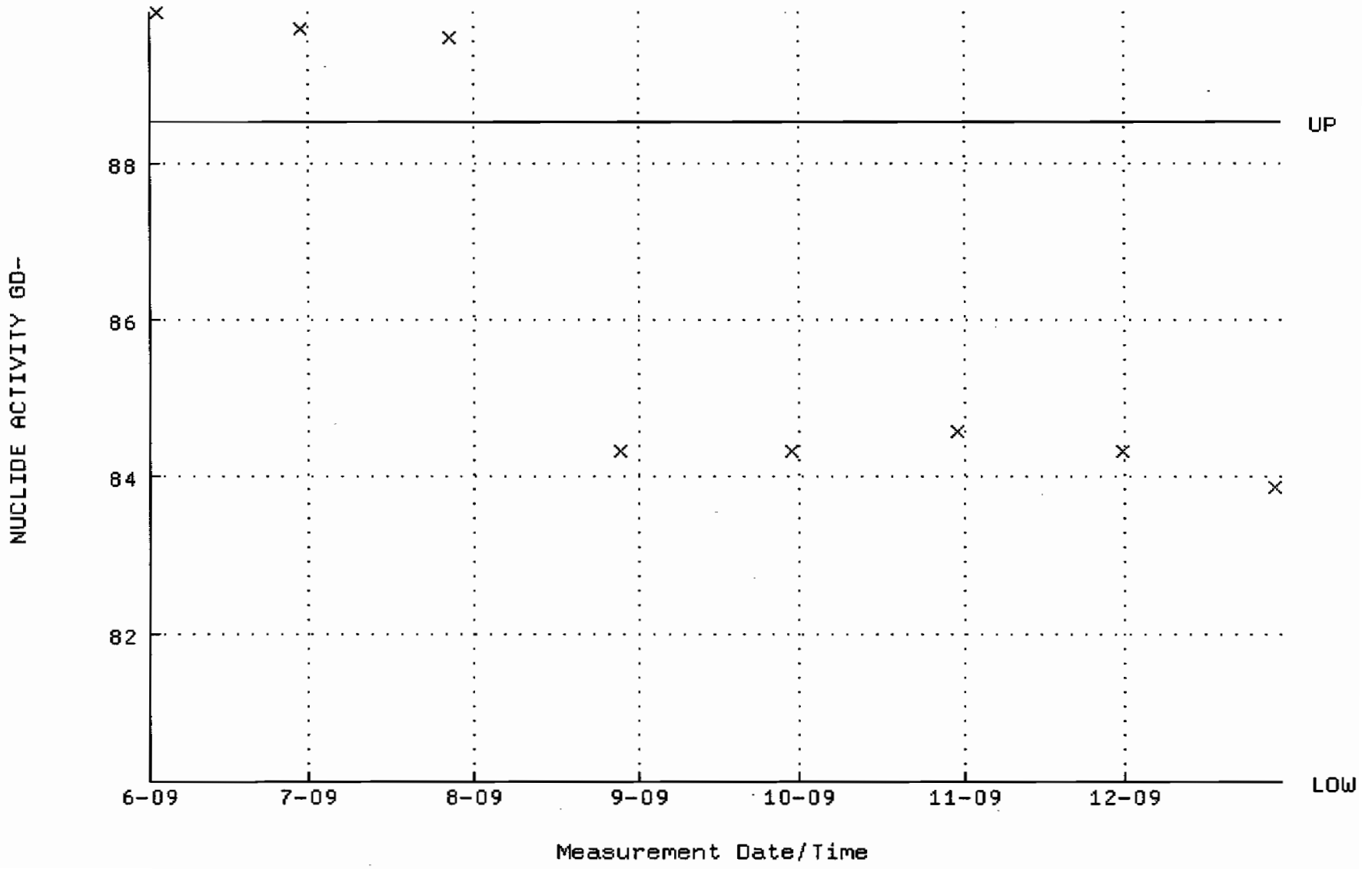

QA filename : DKA100:[ENV_ALPHA.QA.B]B249.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 1-JUN-2009 17:47:13 through 29-DEC-2009 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

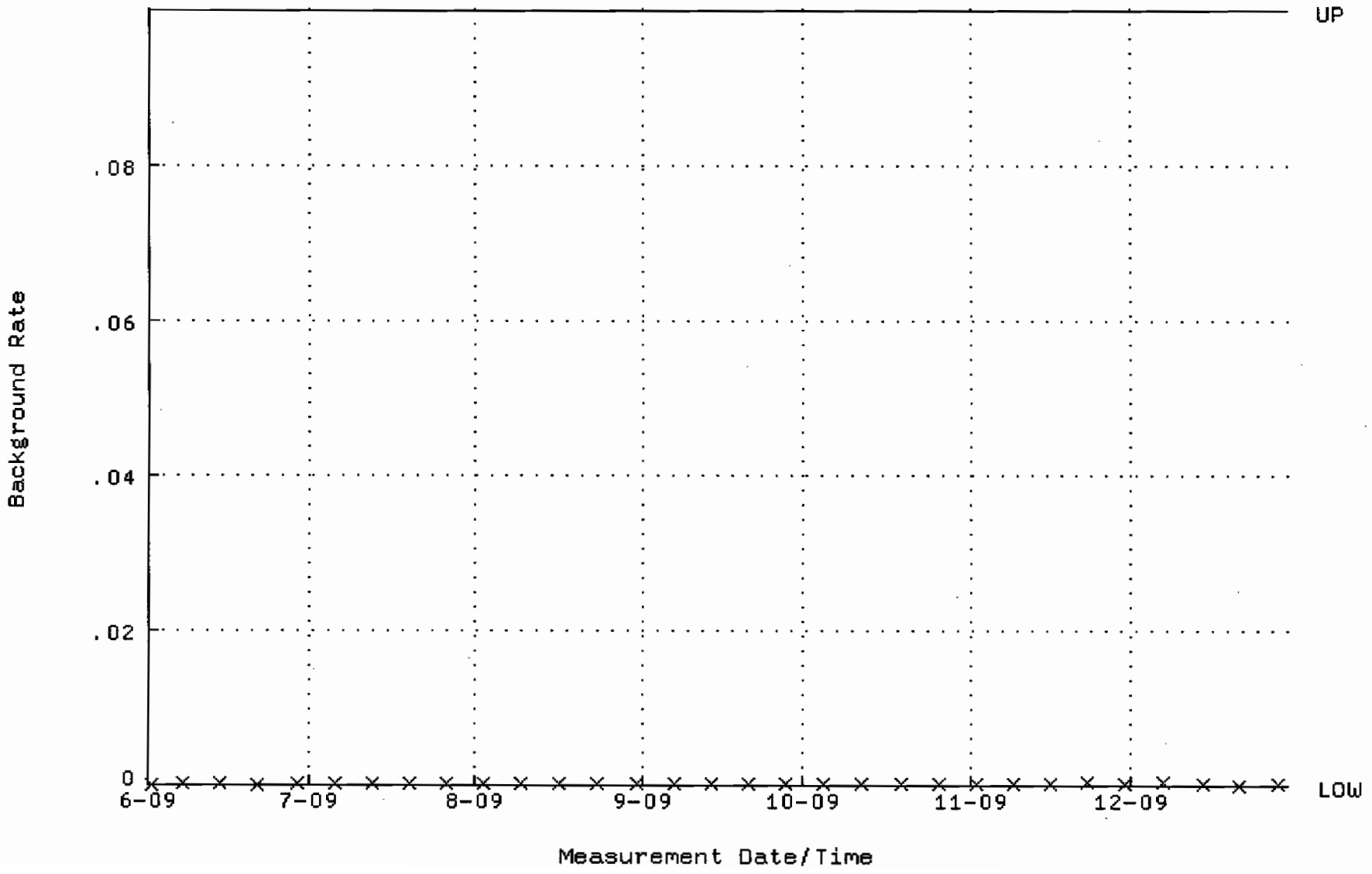

QA filename : DKA100:[ENV_ALPHA.QA.W]W250.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 2-JUN-2009 11:20:35 through 29-DEC-2009 12:00:00
Lower/Upper Lmts: 0.393116 through 0.413116

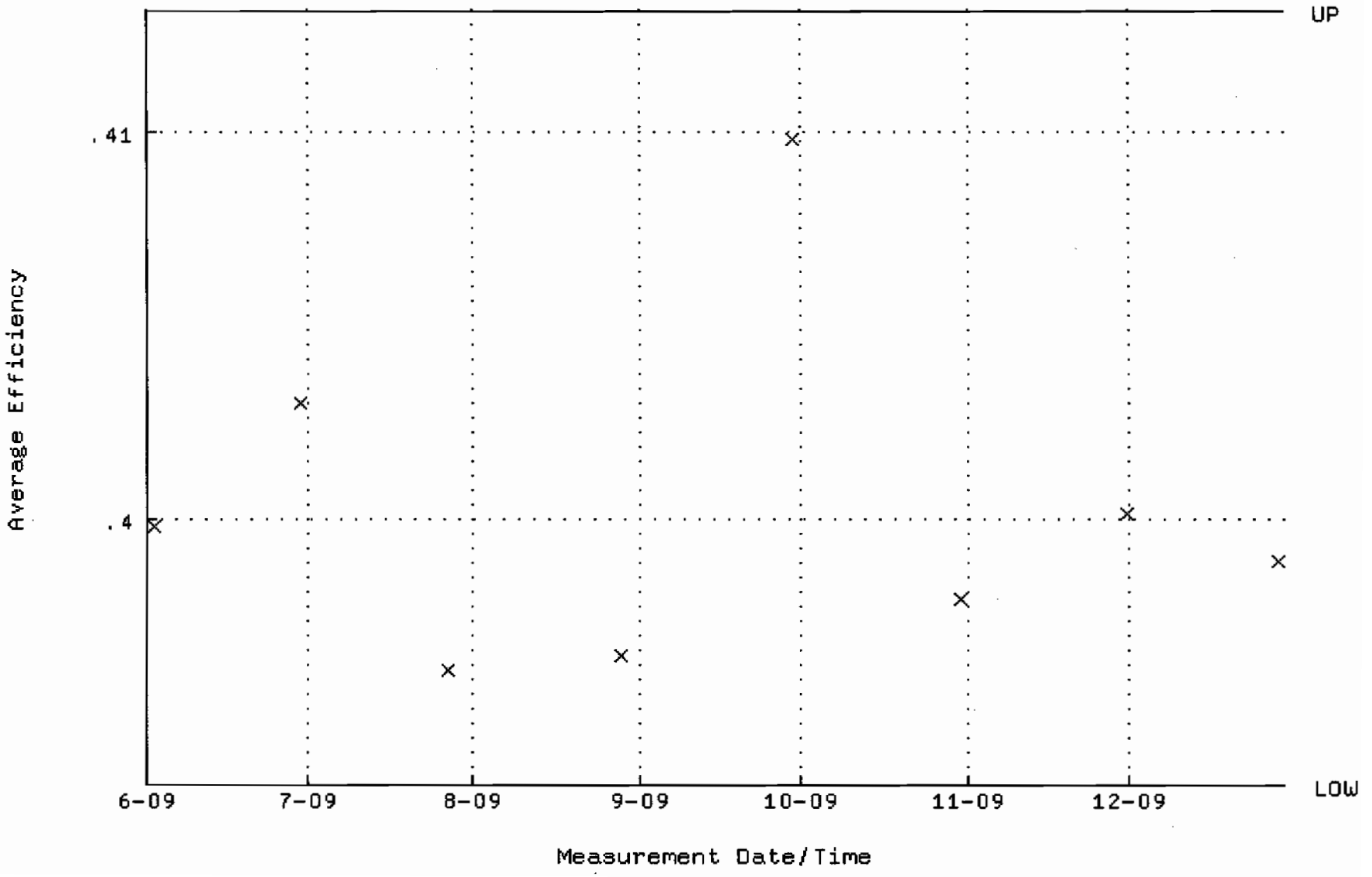

QA filename : DKA100:[ENV_ALPHA.QA.W]W250.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 2-JUN-2009 11:20:35 through 29-DEC-2009 12:00:00
Lower/Upper Lmts: 78.6439 through 86.9223

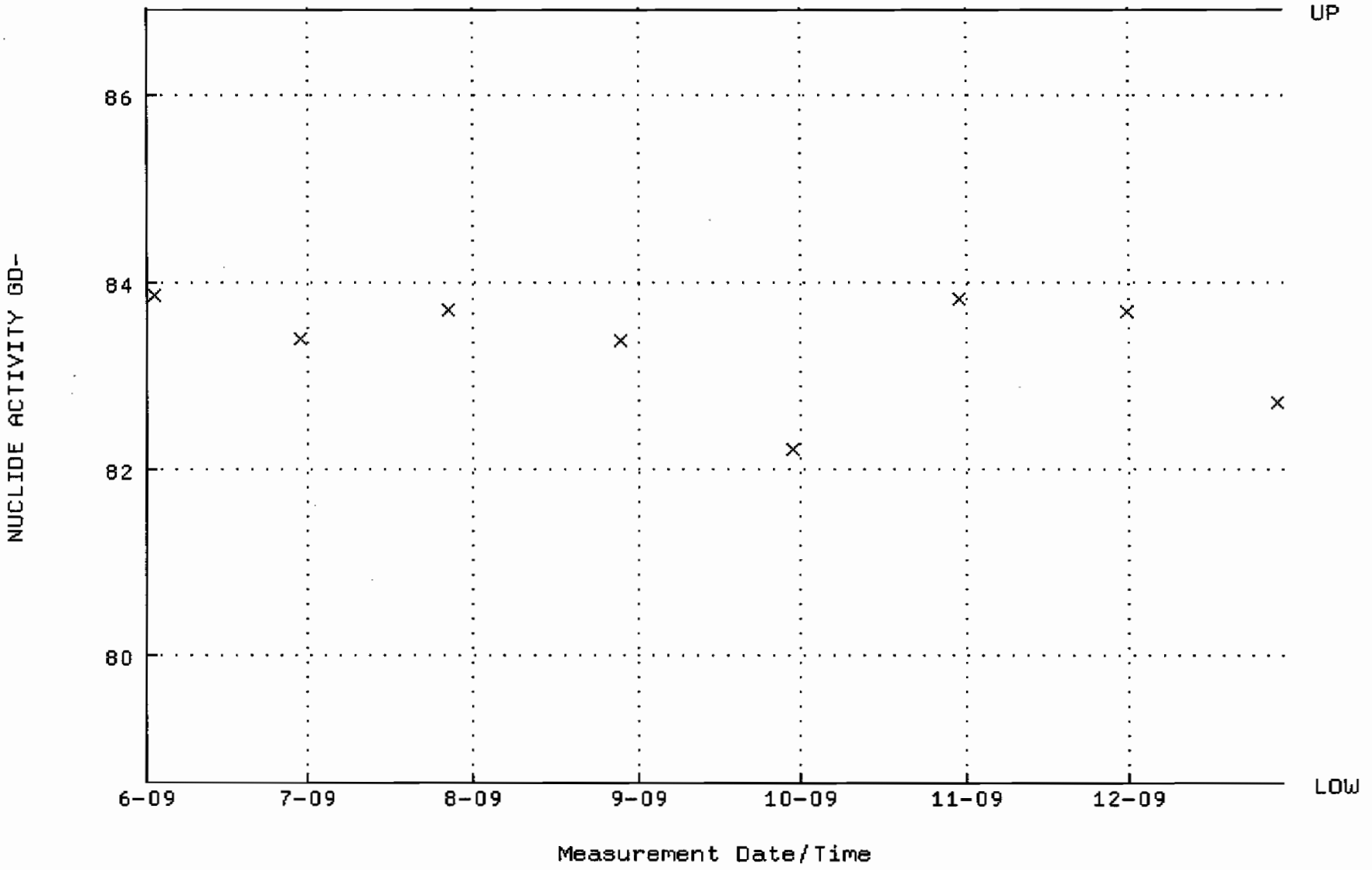

QA filename : DKA100:[ENV_ALPHA.QA.B]B250.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 1-JUN-2009 17:47:17 through 29-DEC-2009 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

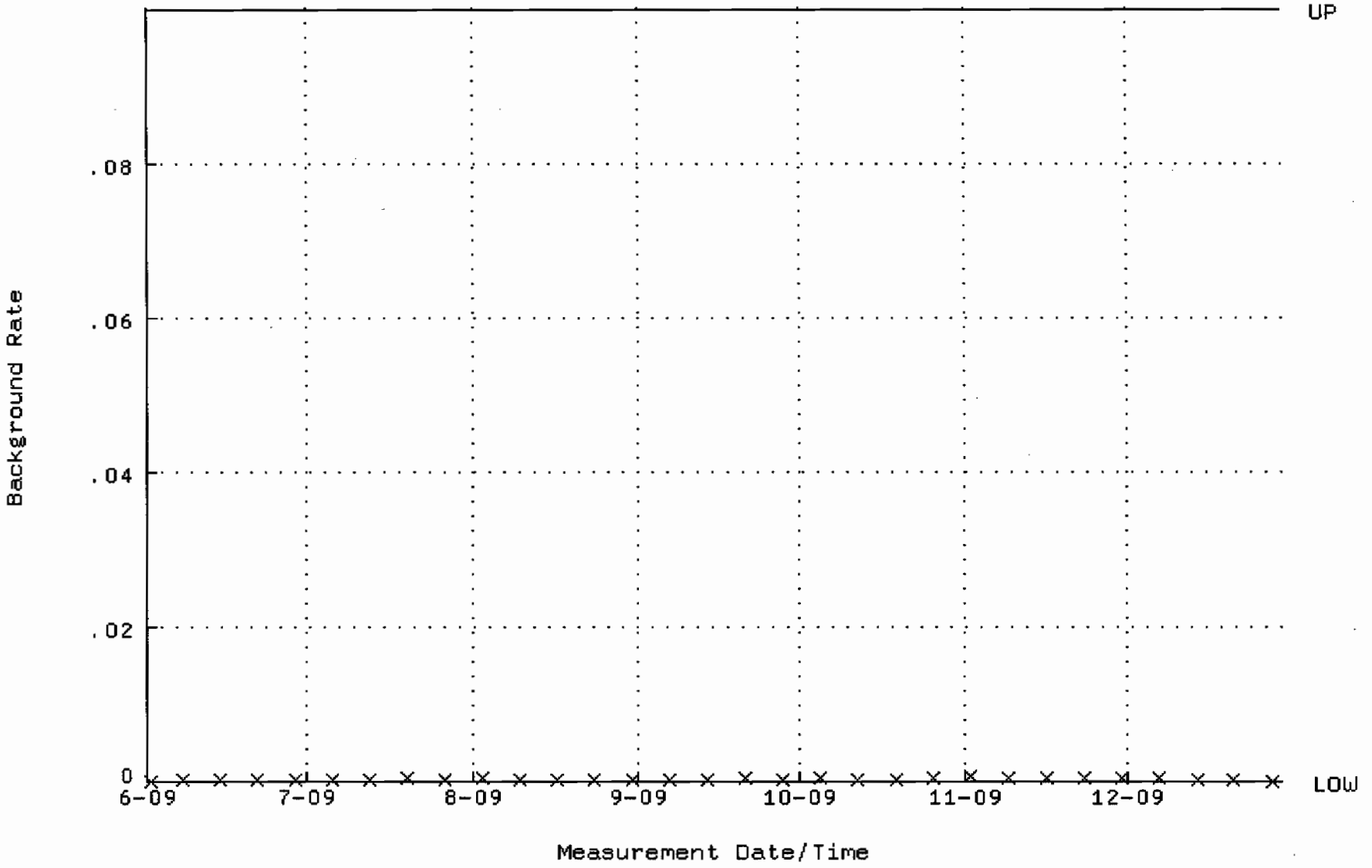

QA filename : DKA100:[ENV_ALPHA.QA.W]W251.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 2-JUN-2009 11:20:39 through 29-DEC-2009 12:00:00
Lower/Upper Lmts: 0.379733 through 0.399733

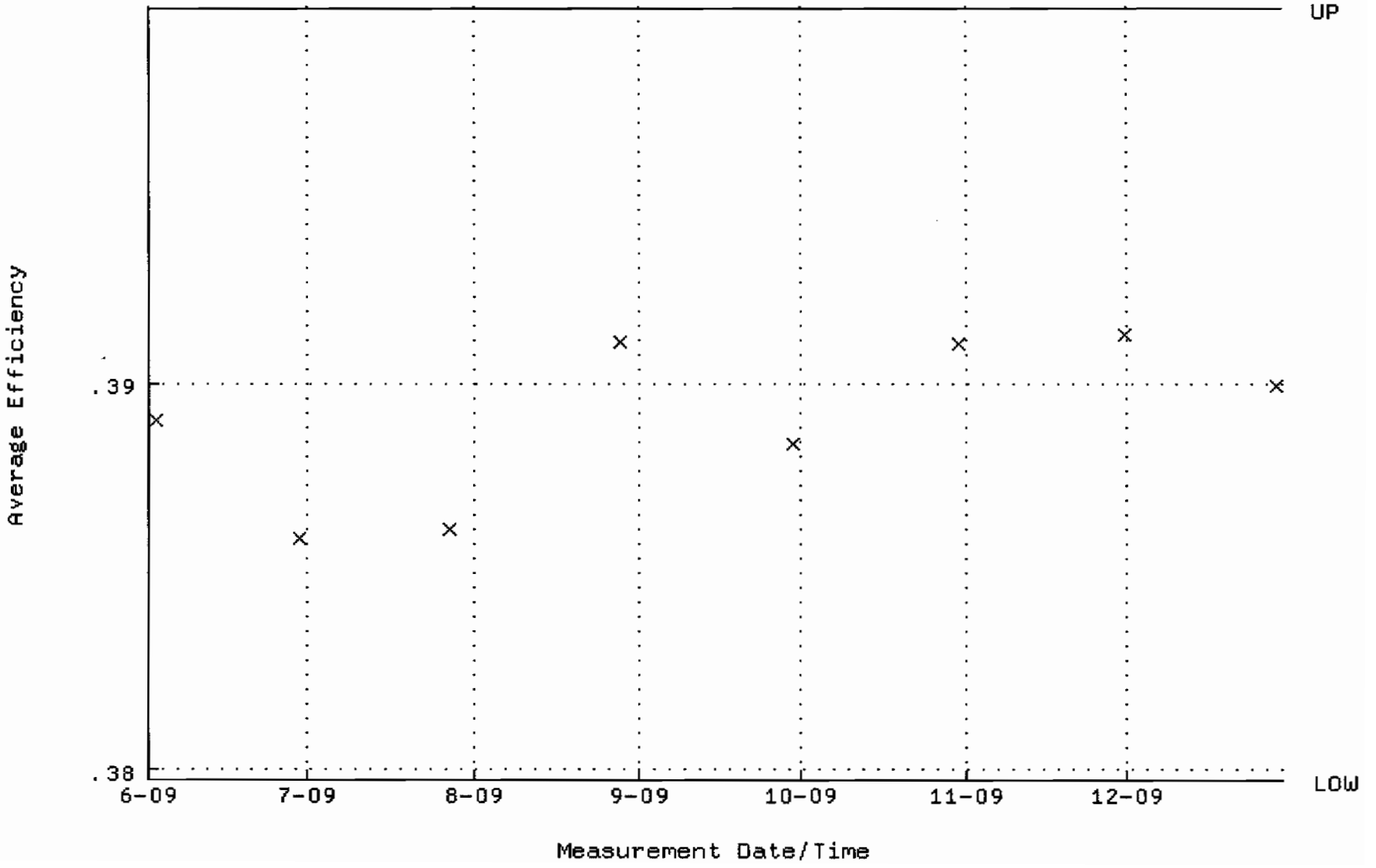

QA filename : DKA100:[ENV_ALPHA.QA.W]W251.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 2-JUN-2009 11:20:39 through 29-DEC-2009 12:00:00
Lower/Upper Lmts: 82.1799 through 90.8305

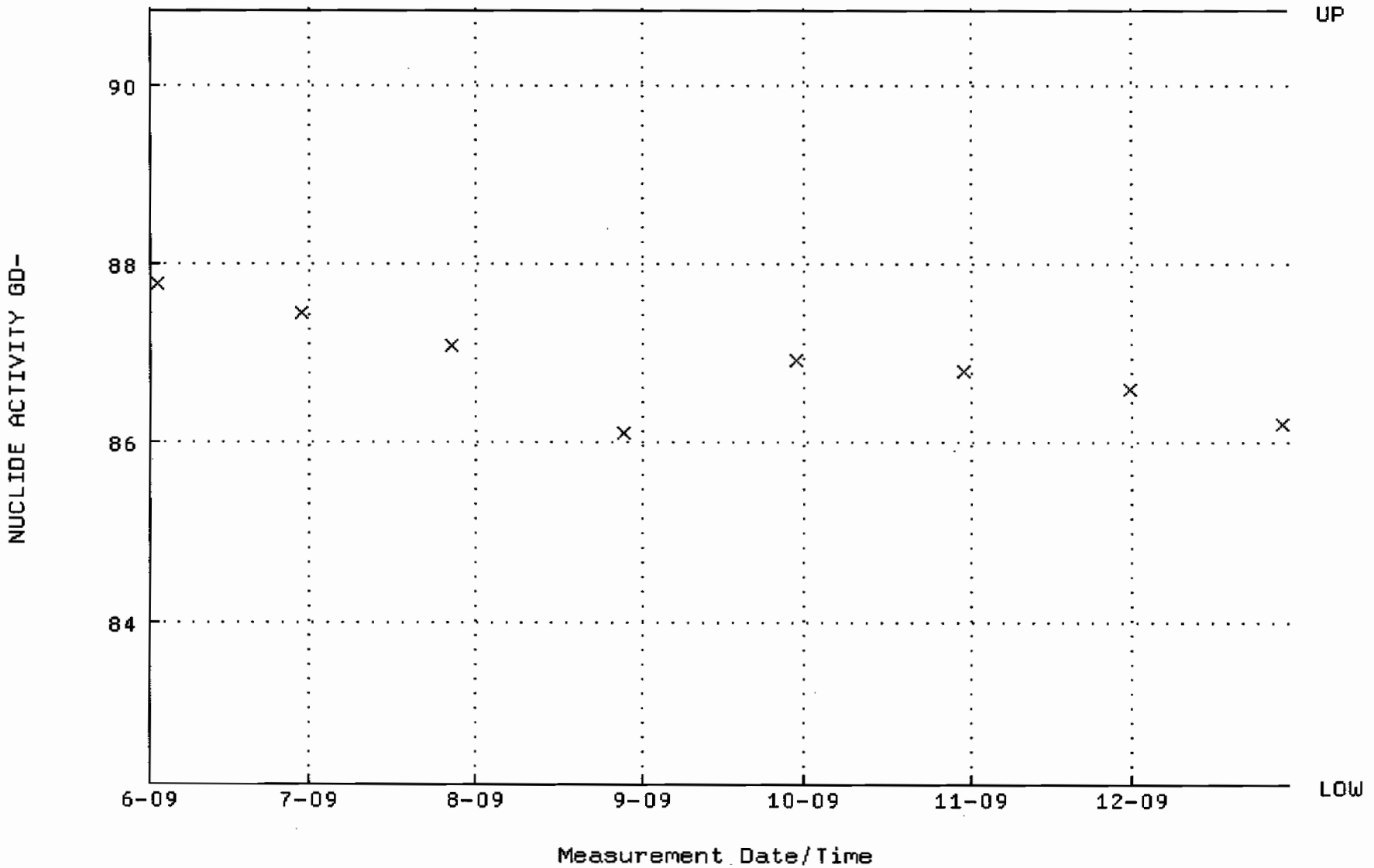

QA filename : DKA100:[ENV_ALPHA.QA.B]B251.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 1-JUN-2009 17:47:23 through 29-DEC-2009 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

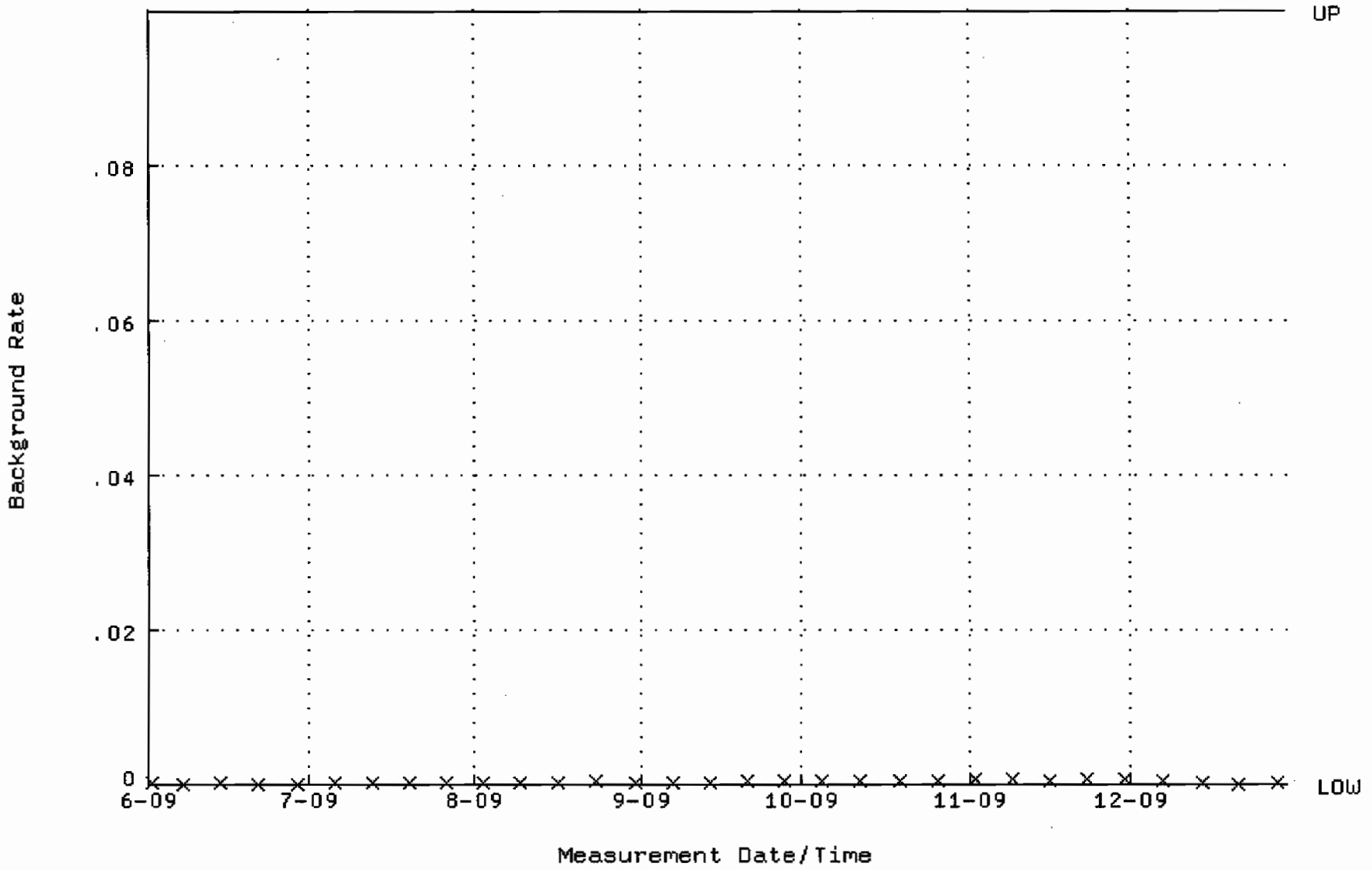

QA filename : DKA100:[ENV_ALPHA.QA.W]W255.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 2-JUN-2009 11:20:57 through 29-DEC-2009 12:00:00
Lower/Upper Lmts: 0.371403 through 0.391403

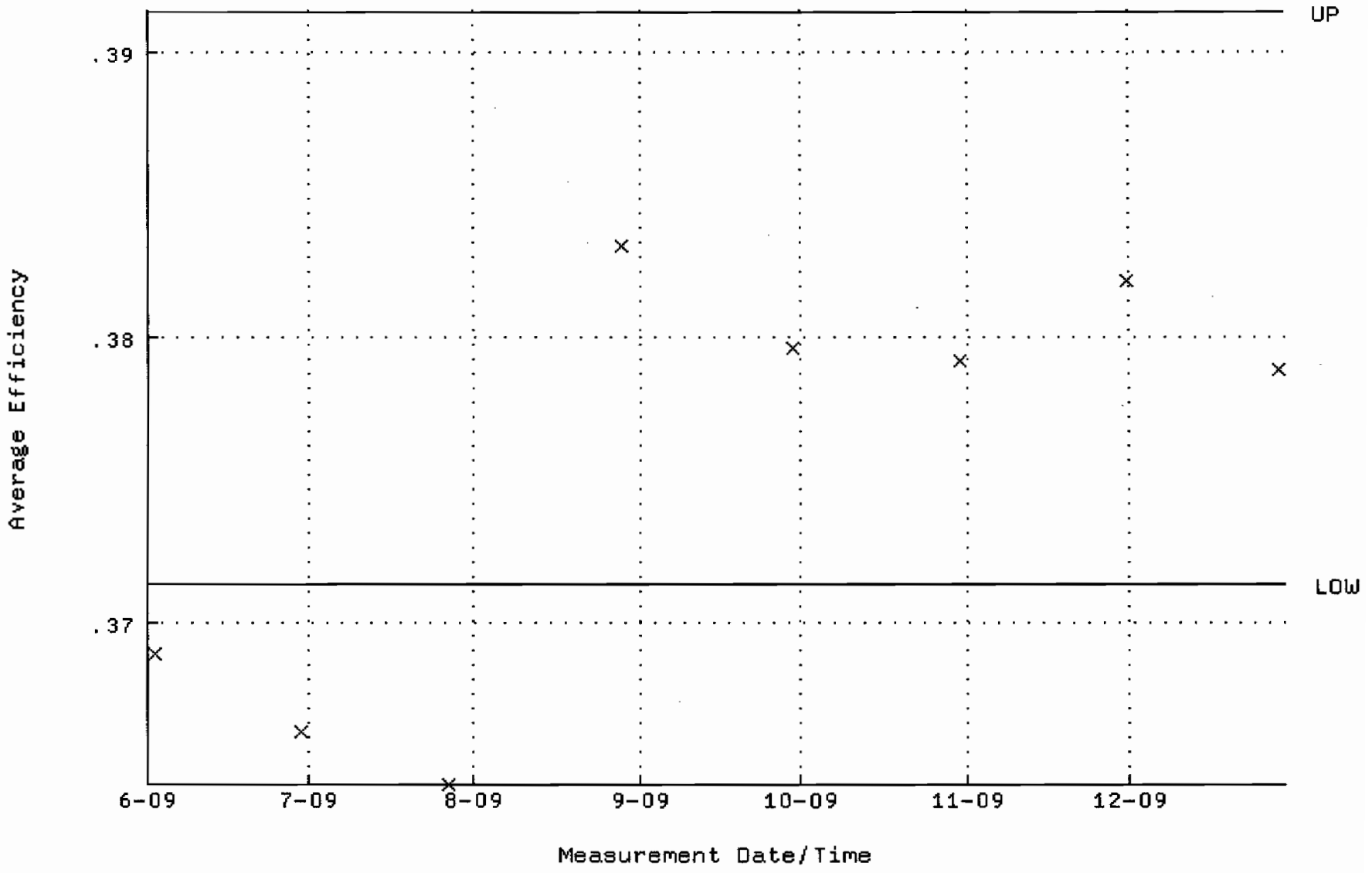

QA filename : DKA100:[ENV_ALPHA.QA.W]W255.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 2-JUN-2009 11:20:57 through 29-DEC-2009 12:00:00
Lower/Upper Lmts: 79.3783 through 87.7339

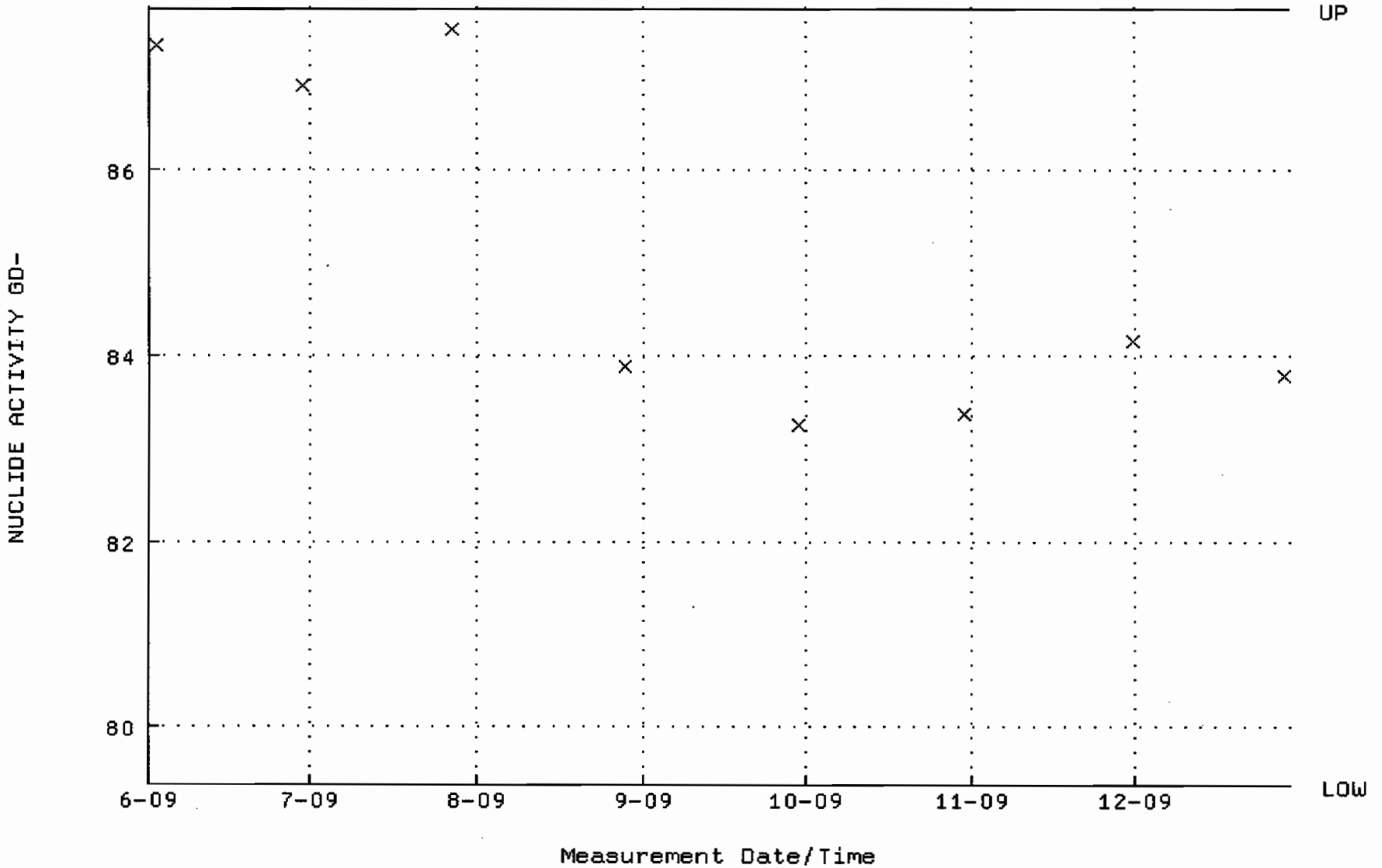

QA filename : DKA100:[ENV_ALPHA.QA.B]B255.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 1-JUN-2009 17:47:46 through 29-DEC-2009 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

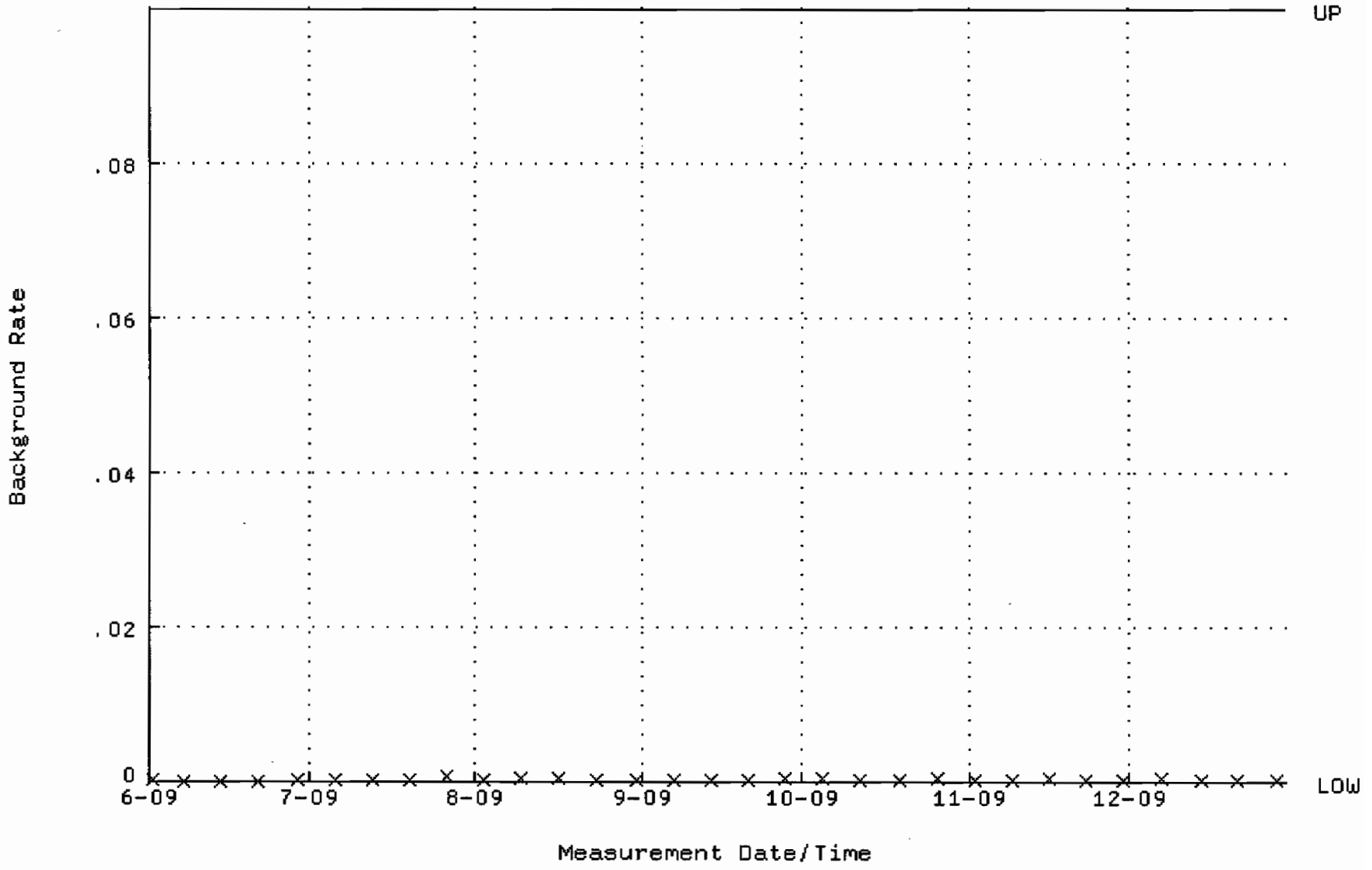

LSCSILVER BKG

Generated 01/09/2010

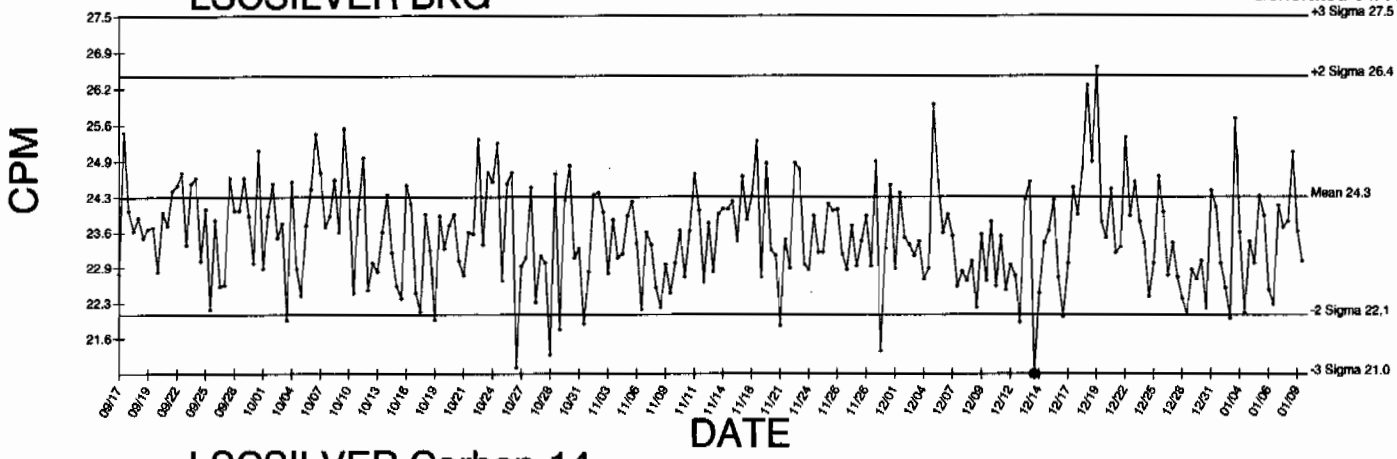

LSCSILVER Carbon-14

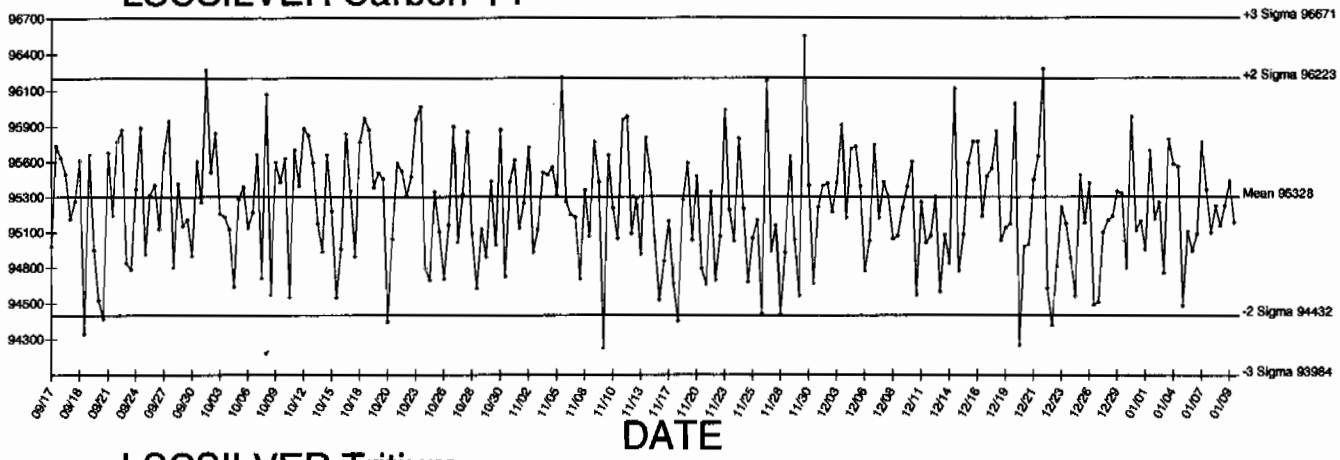

LSCSILVER Tritium

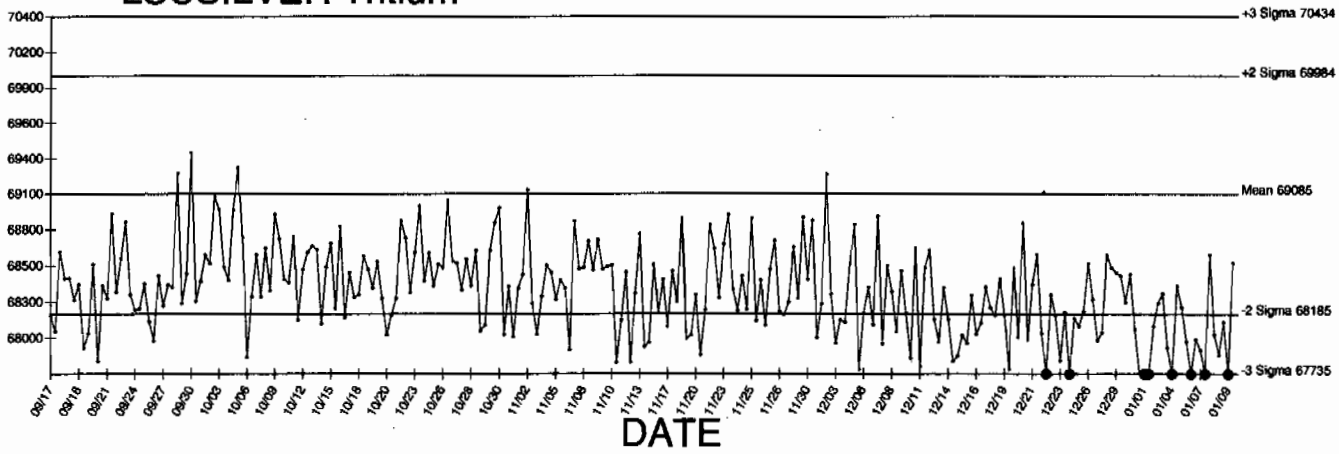

● Denotes Outlier

STANDARDS DATA

Amersham International plc
Amersham Laboratories

0134

NAMAS
CALIBRATION
No. 0146

Certificate of Calibration of Standard Tritium-labelled Water

Description

Radionuclide: TRITIUM (HYDROGEN-3) Product code: TRY·64

Chemical form: water Batch: 111

Measurement

Reference time: 1200 GMT on 1 March 1996

Radioactive concentration of tritium: 488.0 kilobecquerels per gram of water

which is equivalent to: 13.19 microcuries per gram of water

or: 2.93×10^7 disintegrations per minute per gram of water

Method of Measurement
This reference material was calibrated by direct comparison with a standard of tritium-labelled water obtained from the National Institute of Standards and Technology, USA.

Accuracy

The OVERALL UNCERTAINTY of the result quoted above is estimated to be less than ±2.5%

This estimate of uncertainty was calculated in accordance with the recommendations of the International Commission on Radiation Units and Measurements (ICRU Report 12). The limits of uncertainty were taken as the arithmetic sum of the uncertainty due to random variations, calculated at the 99·7% confidence level, and the estimated systematic uncertainties.

Purity

No radioactive impurities were detected. (Impurities with total activity greater than 0.001% of the activity of the tritium would have been detected).

Physical Data

Half-life of tritium: 12·43 ± 0·11 years

Maximum beta energy of tritium: 18·6 keV

Remarks:

The S.I. unit of radioactivity is the becquerel.

1 becquerel (Bq) = 1 nuclear transformation per second, therefore
1 curie (Ci) = $3{\cdot}7 \times 10^{10}$ becquerels exactly.

Useful conversion factors are:

1 microcurie (μCi) = $3{\cdot}7 \times 10^4$ Bq = 37 kilobecquerels (kBq)

1 kilobecquerel (kBq) = 27·027 nanocuries (nCi)

This product meets the quality assurance requirements of NRC Regulatory Guide 4.15 for achieving implicit NIST (NBS) traceability as defined in NCRP58 (1985).

Approved signatory

RC-5-024-061

W. F. Case

W.F. Case

Amersham
The Health Science Group

Standard Traceability Log Rad

Source Material Info	
Parent Code:	0134
Prepared By:	Angela Johnson
Carrier Conc:	DI WATER
Reference Date:	03/01/1996
Ampoule Mass (g):	5 g
Uncertainty:	+/- 2.5 %
LogBook No:	RC S 023 061

A Solution Material Info	
Isotope:	Tritium
Prepared By:	Angela Johnson
Prep Date:	02/21/2001
Verification Date:	09/10/2008
Expiration Date:	03/27/2010
Primary Code:	0134-A
Dilution(mL):	100 mL
Mass of Parent(g):	3.3659 g
Density(g/mL):	1.0004
Balance ID:	38080204

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (kBq/g)) * (conversion dpm to kBq) / (Dilution Vol) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (kBq/g)) * (conversion dpm to kBq) / Density (g/mL)/ (Dilution Vol) = Parent Activity (dpm/g)
(3.3659 g) * (488 kBq/g) * (60000 dpm/kBq) / (100 mL) = 985535.5200 dpm/mL
(3.3659 g) * (488 kBq/g) * (60000 dpm/kBq) / (1.0004 g/mL) / (100 mL) = 985180.3116 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date
07/20/2004	Amanda Fehr	5.86	1000	0134-H	5773.1566 dpm/mL	07/25/2006	07/25/2007
12/20/2005	Amanda Fehr	5.5451	1000	0134-I	5462.92 dpm/mL	12/20/2006	12/20/2007
07/11/2007	Daniel Roy	5.5863	1000	0134-J	5503.5128 dpm/ml	07/29/2008	07/29/2009
03/25/2009	Mary Aders	5.4917	1000	0134-K	5410.3147 dpm/ml	03/27/2009	03/27/2010

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for H-3 Standard 0134-K

M. Aders	Isotope	Detector CPM	BKG CPM	NET CPM	Detector Eff	Standard Mass. Used (mL)	Source DPM/mL
4/9/2009	0134-K N1	1097.2000	54.0000	1043.2000	0.380548	1.0000	2741.3099
	0134-K N2	1073.2000	54.0000	1019.2000	0.380548	1.0000	2678.242955
	0134-K N3	1085.2000	54.0000	1031.2000	0.380548	1.0000	2709.776428
						Average =	2709.776428
Mean Value (Counting) =	2709.776428		**104.954429**	**Pass**			
Stdev =	31.53347278		0.01163693	**Rule 3 (Pass/Fail)**			

Certificate Value =	2581.86	dpm/mL
Lower Limit =	2646.709482	dpm/mL
Upper Limit =	2772.843373	dpm/mL
Rule 1 Pass/Fail	**Fail**	***exception taken due to full recovery of standard**
Two sigma =	63.06694556	dpm/mL
10 % of Mean =	270.9776428	dpm/mL
Rule 2 (Pass/Fail)	**Pass**	

Verification Rules

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 10% of the certificate value.

The analyst prepared three standard verification sources for H-3 source 0134-K by transferring 0.1 mL portions of the standard into glass liquid scintillation vials. Ten mL of Ecoscint Ultra liquid scintillation cocktail was added to each vial and the vials were shaken to mix. A Blank vial was prepared in a similar fashion using 1 mL of DI water and 10 mL of Ecoscint Ultra liquid scintillation cocktail. The standard verification vials and Background source were dark adapted for two hours and counted on Silver for H-3 source standard verification. The H-3 efficiency calibration which was used for verification calculations was performed on 4/9/09 using 0020-A (H-3). Calibration data is recorded in this logbook under H-3 0020. Each verification source calculation was performed as follows:

Source dpm/g = (A - B)/(C)(D)
where:
A = Ver. source cpm,
B = BKG cpm,
C = System efficiency, (cpm/dpm), and
D = mass used for standard verification.

Reference RAD SOP M-001

Mary Fridaens 4/9/09
Amanda L. Fehr 4/9/09

0244-A Characterization

Sample #	Uranium-233/234 Result (pCi/g)	Uranium-238 Result (pCi/g)	Thorium-230 Result (pCi/g)
0244-A 1	6.59	6.12	25.3
0244-A 2	6.36	6.07	28.5
0244-A 3	5.78	5.53	26.5
0244-A 4	6.48	5.97	25.5
0244-A 5	5.65	5.59	26.2
0244-A 6	6.96	5.78	27.0
0244-A 7	5.95	5.75	24.2
0244-A 8	5.29	5.67	27.2
0244-A 9	5.51	6.05	24.3
0244-A 10	6.37	5.57	25.6
0244-A 11	6.50	5.80	25.8
0244-A 12	6.13	5.42	22.4
0244-A 13	5.49	5.24	24.7
0244-A 14	6.19	5.21	26.9
0244-A 15	6.50	6.27	27.6
0244-A 16	6.50	5.24	24.9
0244-A 17	6.25	6.05	24.7
0244-A 18	6.14	6.00	25.4
0244-A 19	6.19	6.14	26.4
0244-A 20	5.67	5.61	23.2
Mean Value	6.13	5.75	25.62
1 sigma	0.439	0.325	1.493
2 sigma	0.878	0.650	2.986
75% Limit	4.60	4.31	19.22
125% Limit	7.66	7.19	32.03
Expected Result	6.2 +/- 4.0	6.0 +/- 4.0	24.5 +/- 0.6
Achieved Results	6.13 +/- 0.439	5.75 +/- 0.325	25.62 +/- 1.493

REFERENCE DATA 4/14/2000 Jeff C Neff 12/1/04

angela L. Johnson 12/3/04

TRM

Invoice:

5 boxes of TRM-1
10 " " TRM-2 and 3
5 " each of NRM-1 through 6
7 " baghouse dirt

Use 1/4 gm x 10 Samples WITH Together for TRM-2

Table 7. Recommended Concentrations of Tailings Reference Materials (pCi/g)

	TRM–1	TRM–2	TRM–3	TRM–4
U–238	99 ± 6	6.0 ± 4.0	19.6 ± 1.4	44.9 ± 1.6
U–234	105 ± 6	6.2 ± 4.0	19.6 ± 1.9	44.6 ± 1.2
Th–230	471 ± 11	24.5 ± 0.6	58.5 ± 2.1	44.0 ± 1.6
Ra–225	489 ± 17	25.4 ± 0.9	60.3 ± 2.3	42.9 ± 1.2
Pb–210	425 ± 24	22.1 ± 1.2	56.0 ± 2.1	38.9 ± 2.0

Attention Nancy Slater At GEL
Not For Log In

9911627-01 -> 05

SF 2001-COC (10-97)
Supersedes (5-97) issue

Internal Lab Batch No.

ANALYSIS REQUEST AND CHAIN OF CUSTODY

SAR/WR No. N/A

Press F1 for instructions for each field.

AR/COC- 602945

Dept. No./Mail Stop: 7132 / 1042
Project/Task Manager: PAM PUISSANT
Project Name:
Record Center Code: N/A
Logbook Ref. No.: N/A
Service Order No.:

Date Samples Shipped: 11-16-99 SMO USE
Carrier/Waybill No.: 7 2 6 1 9 4
Lab Contact: EDIE KENT
Lab Destination: G.E.L.
SMO Contact/Phone: Doug Salmi / 844-3110
Send Report to SMO: Suzi Jensen/844-3184

Contract No.: AJ-2480A
Case No.: 10204 13
SMO Authorization: Doug Salmi
Bill to: Sandia National Laboratories
Supplier Services, Dept. _____
P.O. Box 5800 MS 0154

Location — Tech Area VI — Building N/A — Room N/A

Sample No. - Fraction	ER Sample ID or Sample Location Detail	Beginning Depth in Ft.	ER Site No.	Date/Time Collected	Sample Matrix	Container Type	Container Volume	Preservative	Sample Collection Method	Sample Type	Parameter & Method Requested	Lab Sample ID (LAB USE)
050484 - 001	PEM-1	N/A	N/A	11/15/9 1100	S	P	1 L	4 C	G	SA	See Special Instructions Below	
050485 - 001	TRM-2	N/A	N/A	11/15/9 1100	S	G	1 L	4 C	G	SA		
050486 - 001	~~NRM-1~~ NBHD	N/A	N/A	11/15/9 1100	S	G	1 L	4 C	G	SA		
-												
-												
-												
-												
-												
-												
-												

Reference LOV (available at SMO)

RMMA ☐ Yes ☒ No Ref. No.
Sample Disposal ☐ Return to Client ☒ Disposal by lab

Sample Tracking (SMO USE) — Date Entered (mm/dd/yy) — Entered by

Special Instructions/QC Requirements
EDD ☐ Yes ☒ No
Raw data package ☐ Yes ☒ No
These "samples" are well characterized mud materials being sent to GEL on behalf of Hank Mintzer
Please list as separate report.

Abnormal Conditions on Receipt (LAB USE)

Turnaround Time ☒ Normal ☐ Rush Required Report Date — QC Limits

Sample Team Members	Name	Signature	Init	Company/Organization/Phone
	Douglas E. Perry		DEP	Weston / 7577 / 845-0867

1. Relinquished by	Douglas E. Perry	Org. 7577	Date 11-16-99	Time 0900	4. Relinquished by	Org.	Date
1. Received by		Org.	Date	Time	4. Received by	Org.	Date
2. Relinquished by		Org.	Date	Time	5. Relinquished by	Org.	Date
2. Received by		Org.	Date	Time	5. Received by	Org.	Date
3. Relinquished by		Org.	Date	Time	6. Relinquished by	Org.	Date
3. Received by		Org.	Date	Time	6. Received by	Org.	Date

Original — To Accompany Samples, Laboratory Copy (White)
1st Copy — To Accompany Samples, Return to SMO (Blue)
2nd Copy — SMO Suspense Copy (Yellow)
3rd Copy — Field Copy (Pink)

0244-B Characterization

Sample #	Plutonium-239 Result (pCi/g)	Plutonium-238 Result (pCi/g)	Americium-241 Result (pCi/g)
0244-B 1	39.9	7.88	38.4
0244-B 2	44.1	7.97	40.6
0244-B 3	45.8	6.56	31.8
0244-B 4	43.6	7.69	31.5
0244-B 5	43	7.9	40.2
0244-B 6	43.5	7.84	29.4
0244-B 7	41.3	7.67	36
0244-B 8	44.3	6.95	33.2
0244-B 9	42.7	7.2	29.2
0244-B 10	44.9	7.69	30
0244-B 11	41.4	7.22	30.2
0244-B 12	41.3	7.74	36
0244-B 13	39.2	6.65	33.8
0244-B 14	39.6	7.78	31.1
0244-B 15	45.3	8.41	37.3
0244-B 16	38.1	6.74	33.6
0244-B 17	48.5	8.51	30.5
0244-B 18	36.5	7.23	38.6
0244-B 19	35.3	6.98	30.9
0244-B 20	37.4	8.55	31.3
Mean Value	41.79	7.56	33.68
1 sigma	3.418	0.596	3.724
2 sigma	6.835	1.193	7.448
75% Limit	30.75	6.02	24.38
125% Limit	51.25	10.04	40.63
Expected Result	41.0 +/- 3.0	8.03 +/- 0.37	32.5 +/- 1.1
Achieved Results	41.79 +/- 3.418	7.56 +/- .596	33.68 +/- 3.724

REFERENCE DATA 4/14/2000

Amanda L. Fehr 4/30/04
Matt L. Stokes 5/1/04

PEM-1

PREPARATION AND CHARACTERIZATION OF THE PERFORMANCE EVALUATION SOIL SAMPLE PEM-1

INTRODUCTION

Rust Geotech (Rust) was contracted by Los Alamos National Laboratory (LANL) to prepare and characterize a soil performance evaluation sample designated PEM-1. This report describes sample preparation, homogeneity assessment, and determination of the concentrations of 28 elements and radioactive isotopes in the sample.

SAMPLE PREPARATION

Rust received nine five-gallon buckets of soil from LANL. The soils were dried overnight in ovens at 103 °C. The large pieces of leaves and sticks were removed and the soils were ground with ceramic-plate grinders to a particle size that passed through a 325 mesh screen. The samples were blended at the proportions specified by LANL for 48 hours in a 3-cubic-foot cross-flow blender. The sample identifications and the amounts used are listed in Table 1.

Table 1. Sample Identifications and Amounts Used to Prepare PEM-1

LANL Sample ID	Amount Used (kg)
AAA 1592	1.7
AAA 2505-1	10.9
AAA 2505-2	12.8
AAA 2750-1	8.4
AAA 2750-2	8.4
AAA 3205	12.6
AAA 8581	4.2
AAB 3417	12.8
AAB 3475	12.6

The blended sample was transferred to three five-gallon plastic containers. While the sample was being transferred, 10 samples were taken at pre-determined time intervals to be used for homogeneity assessment and sample characterization. These samples are believed to be representative of the bulk material.

Attention Nancy Slater At GEL
Not For Log In

9911627-01 -> 05

SF 2001-COC (10-97)
Supersedes (5-97) issue

Internal Lab Batch No.

ANALYSIS REQUEST AND CHAIN OF CUSTODY

SAR/WR No. N/A

Press F1 for instructions for each field.

AR/COC- 602945

Dept. No./Mail Stop: 7132 / 1042
Project/Task Manager: PAM PUISSANT
Project Name:
Record Center Code: N/A
Logbook Ref. No.: N/A
Service Order No.:

Date Samples Shipped: 11-16-99 SMO USE
Carrier/Waybill No.: 7-2-6-7-9-9
Lab Contact: EDIE KENT
Lab Destination: G.E.L.
SMO Contact/Phone: Doug Salmi / 844-3110
Send Report to SMO: Suzi Jensen/844-3184

Contract No.: AJ-2480A
Case No.: 10204 1.3
SMO Authorization: Doug Salmi
Bill to: Sandia National Laboratories
Supplier Services, Dept.
P.O. Box 5800 MS 0154

Location — Tech Area VI — Building N/A — Room N/A

Sample No. - Fraction	ER Sample ID or Sample Location Detail	Beginning Depth in Ft.	ER Site No.	Date/Time Collected	Sample Matrix	Container Type	Container Volume	Preservative	Sample Collection Method	Sample Type	Parameter & Method Requested	Lab Sample ID
050484 - 001	PEM-1	N/A	N/A	11/15/9 1100	S	P	1 L	4 C	G	SA	See Special	
050485 - 001	TRM-2	N/A	N/A	11/15/9 1100	S	G	1 L	4 C	G	SA	Instructions	
050486 - 001	~~NRM-2~~ NBHD	N/A	N/A	11/15/9 1100	S	G	1 L	4 C	G	SA	Below	
-												
-												
-												
-												
-												
-												
-												

Reference LOV (available at SMO)

RMMA ☐Yes ☒No Ref. No.
Sample Disposal ☐Return to Client ☒Disposal by lab

Sample Tracking (SMO USE)
Date Entered (mm/dd/yy)
Entered by

Special Instructions/QC Requirements
EDD ☐Yes ☒No
Raw data package ☐Yes ☒No
These "samples" are well characterized and materials being sent to GEL on behalf of Hank Hinton
Please list as separate report.

Abnormal Conditions on Receipt (LAB USE)

Turnaround Time ☒Normal ☐Rush Required Report Date
QC Limits

Sample Team Members	Name	Signature	Init	Company/Organization/Phone
	Douglas E. Perry	Douglas E. Perry	DEP	Weston / 7577 / 845-0867

1. Relinquished by	Douglas E. Perry	Org. WESTON	Date 11-16-99	Time 0900	4. Relinquished by	Org.	Date
1. Received by		Org.	Date	Time	4. Received by	Org.	Date
2. Relinquished by		Org.	Date	Time	5. Relinquished by	Org.	Date
2. Received by		Org.	Date	Time	5. Received by	Org.	Date
3. Relinquished by		Org.	Date	Time	6. Relinquished by	Org.	Date
3. Received by		Org.	Date	Time	6. Received by	Org.	Date

Original — To Accompany Samples, Laboratory Copy (White)
1st Copy — To Accompany Samples, Return to SMO (Blue)
2nd Copy — SMO Suspense Copy (Yellow)
3rd Copy — Field Copy (Pink)

CERTIFICATE OF CALIBRATION
ALPHA STANDARD SOLUTION

Radionuclide	Am-243	Customer:	GENERAL ENGINEERING LABS
Half Life:	7380 ± 40 years	P.O.No.:	9290-RAD
Catalog No.:	7243	Reference Date:	January 1 1994 12:00 PST.
Source No.:	445-96-2	Contained Radioactivity:	(Am-243) 101.2 μCi
		Contained Radioactivity:	(Am-243) 3750 kBq

Description of Solution

a. Mass of solution: 5.3739 g (in a 5 ml Flame Sealed Ampoule)

b. Chemical form: Am(NO3)3 in 2N HNO3

c. Carrier content: None added

d. Density: 1.0651 g/ml @ 20°C.

Radioimpurities None detected

Radioactive Daughters

Np-239 (beta active) in equilibrium

Radionuclide Concentration

(Am-243) 18.84 μCi/g

Method of Calibration

Weighed aliquots of the solution were assayed using gamma spectrometry for Np-239:

Energy peak(s) intergrated under: 228, 278 keV.

Branching ratio(s) used: 0.108, 0.1420 gamma rays per decay.

Uncertainty of Measurement

a. Systematic uncertainty in instrument calibration: ±3.0%

b. Random uncertainty in assay: ±0.4%

c. Random uncertainty in weighing(s): ±0.0%

d. Total uncertainty at the 99% confidence level: ±3.0%

NIST Traceability

This calibration is implicitly traceable to the National Institute of Standards and Technology.

Leak Test(s)

See reverse side for Leak Test(s) applied to this source.

Notes

1. Nuclear data were taken from "Table of Radioactive Isotopes", edited by Virginia S. Shirley, 1986.
2. IPL participates in an NIST measurement assurance program to establish and maintain implicit traceability for a number of nuclides, based on the blind assay (and later NIST certification) of Standard Reference Materials (As in NRC Regulatory Guide 4.15).

Anna U. Kuan
QUALITY CONTROL

Jan 3, 1994
Date Signed

ISOTOPE PRODUCTS LABORATORIES
1800 North Keystone Street
Burbank, California 91504
(818) 843 - 7000

RC-S-005-32

THE LEAK TEST(S) INDICATED BY THE CHECKED BOX(ES) WAS(WERE) APPLIED TO DETERMINE THE INTEGRITY OF THE SOURCE DESCRIBED ON THE FRONT SIDE

☑ **1. STANDARD WIPE TEST**

The source is wiped over its entire surface with a moistened filter paper disk. After drying, the disk is checked for activity using a windowless proportional counter or end-window G.M. tube. Activity levels exceeding 0.001 μCi beta-gamma or 0.0001 μCi alpha are cause for rejection of the source.

☐ **2. SOAK TEST**

The source is immersed in distilled water and maintained at 50 ± 10° C for a minimum of four hours. After removal of the source, the liquid is a) checked for activity using a liquid scintillation counter, or b) evaporated in a planchet and the residue is checked for activity using a windowless proportional counter or end-window G.M. tube. Activity levels exceeding 0.001 μCi beta-gamma or 0.0001 μCi alpha are cause for rejection of the source.

☐ **3. SOAK TEST – BERYLLIUM WINDOW**

The source is immersed in distilled water and maintained at 50 ± 10° C for 20 minutes. The entire surface of the source is then wiped with a moistened cotton swab or filter paper disk. After drying, the swab or disk is checked for activity using a windowless proportional counter or end-window G.M. tube. Activity levels exceeding 0.001 μCi beta-gamma or 0.0001 μCi alpha are cause for rejection of the source.

☐ **4. GAS SOURCE TEST (Radioactive Gas)**

The source is placed in a vacuum desiccator and maintained at a pressure of less than 1 mm Hg for not less than 12 hours. The activity is checked by introducing air into the desiccator and monitoring the air with an end-window G.M. tube. Activity levels exceeding 1000 cpm are cause for rejection of the source.

☑ **5. OTHER LEAK TEST**

The ampoule is kept in an inverted position on a filter paper disk for a minimum of 16 hours. The filter paper disk is then checked for activity using a windowless proportional counter or end-window G.M. tube. Activity levels exceeding 0.001 μCi beta-gamma or 0.0001 μCi alpha are cause for rejection of the source.

☐ **6. LEAK TEST NOT APPLICABLE**

The active area of this source is uncovered or is protected by a very thin coating. Although the deposit is adherent, it is not designed or certified to pass a standard leak test. The inactive portions of the source have been checked using the standard wipe test. Levels of removable activity did not exceed 0.001 μCi beta-gamma or 0.0001 μCi alpha at the time of shipment.

Standard Traceability Log Rad

Source Material Info	
Parent Code:	445-96-2
Prepared By:	Genie Bost
Carrier Conc:	2M HNO3
Reference Date:	01/01/1994
Ampoule Mass (g):	5.3739 g
Uncertainty:	+/- 3 %
LogBook No:	RC S 005 032

A Solution Material Info	
Isotope:	Americium-243
Prepared By:	Angela Johnson
Prep Date:	01/05/1994
Verification Date:	05/11/2009
Expiration Date:	05/11/2010
Primary Code:	445-96-2-A
Dilution(mL):	100 mL
Mass of Parent(g):	5.3419 g
Density(g/mL):	1.0785
Balance ID:	38080204

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (uCi/g)) * (conversion dpm to uCi) / (Dilution Vol) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (uCi/g)) * (conversion dpm to uCi) / Density (g/mL)/ (Dilution Vol) = Parent Activity (dpm/g)
(5.3419 g) * (18.84 uCi/g) * (2220000 dpm/uCi) / (100 mL) = 2234238.9912 dpm/mL
(5.3419 g) * (18.84 uCi/g) * (2220000 dpm/uCi) / (1.0785 g/mL) / (100 mL) = 2071617.0528 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date
01/05/1994	Genie Bost	.0058	100	445-96-2-B	120.1 dpm/ml	01/05/1995	01/05/1996
09/10/2004	Amanda Fehr	.0325	1000	445-96-2-BB	67.328 dpm/mL	09/10/2005	09/10/2006
01/05/1994	Genie Bost	.0025	100	445-96-2-C	51.77 dpm/ml	01/05/1995	01/05/1996
05/27/2005	Brenda Burke	.000246	100	445-96-2-CC	5.10613 dpm/mL	05/31/2005	05/31/2006
03/25/1994	Genie Bost	.0064	100	445-96-2-D	132.53 dpm/ml	01/05/1995	01/05/1996
08/16/2005	Brenda Burke	.001224	500	445-96-2-DD	5.07144 dpm/mL	08/18/2007	08/18/2008
08/04/1994	Genie Bost	.0094	100	445-96-2-E	194.65 dpm/ml	01/05/1995	01/05/1996
10/13/2005	Brenda Burke	.0017	500	445-96-2-EE	7.0435 dpm/mL	11/15/2005	11/15/2006
08/04/1994	Genie Bost	.0046	100	445-96-2-F	95.25 dpm/ml	01/05/1995	01/05/1996
10/14/2005	Mary Aders	.0141	500	445-96-2-FF	58.4196 dpm/mL	10/14/2005	10/14/2006
09/01/1994	Genie Bost	.0031	100	445-96-2-G	64.19 dpm/ml	01/05/1995	01/05/1996
05/10/2006	Mary Aders	2.0753	1000	445-96-2-GG	4299.227 dpm/mL	09/30/2008	09/30/2009
10/17/1994	Genie Bost	.0969	100	445-96-2-H	2006.52 dpm/ml	01/05/1995	01/05/1996
06/07/2006	Mary Aders	.0365	1000	445-96-2-HH	75.614 dpm/mL	06/19/2006	06/19/2007
02/06/1995	Genie Bost	.0043	100	445-96-2-I	89.04 dpm/ml	01/05/1995	01/05/1996
05/11/2006	Brenda Burke	.000009739	100	445-96-2-II	.201761 dpm/mL	07/26/2006	07/26/2007
07/20/1995	Theresa Austin	.0041	100	445-96-2-J	84.9 dpm/ml	01/05/1995	01/05/1996
05/01/2007	Daniel Roy	.0352	1000	445-96-2-JJ	72.9209 dpm/ml	04/30/2008	04/30/2009
08/10/1995	Garret Ray	.0952	100	445-96-2-K	1971.32 dpm/ml	01/05/1995	01/05/1996
06/12/2007	Julie Strock	.01038	250	445-96-2-KK	22.1496 dpm/mL	05/28/2008	05/28/2009

09/11/1995	Theresa Austin	1.0525	100	445-96-2-L	21794.23 dpm/ml	01/05/1995	01/05/1996
09/11/1995	Theresa Austin	.5107	100	445-96-2-L-1	111.3 dpm/ml	01/05/1995	01/05/1996
04/28/1998	Richard Kinney	.1264	100	445-96-2-M	2617.4 dpm/ml	04/28/1998	04/28/1999
11/01/2007	Eric Williamson	.001274	500	445-96-2-MM	5.27945 dpm/mL	04/06/2008	04/06/2010
10/12/1998	Gregory Smith	.1348	100	445-96-2-N	2791.32 dpm/mL	01/05/1995	01/05/1996
01/25/1999	Gregory Smith	1.9382	100	445-96-2-N-1	50.16 dpm/ml	01/05/1995	01/05/1996
04/19/2008	Daniel Roy	.0424	1000	445-96-2-NN	87.8366 dpm/ml	04/16/2009	04/16/2010
04/21/1999	Greg Smith	.1645	100	445-96-2-O	3406.32 dpm/mL	04/21/1999	04/21/2000
07/27/1999	Gregory Smith	1.567	100	445-96-2-O-2	50.56 dpm/ml	05/13/1999	05/13/2000
10/12/1999	Richard Kinney	1.5589	100	445-96-2-O-3	50.31 dpm/mL	05/13/1999	05/13/2000
04/21/1999	Greg Smith	1.5309	100	445-96-2-O-1	49.4 dpm/mL	04/21/1999	04/21/2000
11/10/1999	Joe Davis	.1809	100	445-96-2-P	3745.92 dpm/mL	05/13/1999	05/13/2000
01/04/2008	Julie Strock	.00001005	100	445-96-2-PP	.20819 dpm/mL	12/29/2008	12/29/2009
01/28/2000	Angela Johnson	.0354	1000	445-96-2-Q	73.3 dpm/mL	02/08/2001	02/08/2002
09/29/2008	Julie Strock	.0025219	250	445-96-2-QQ	20.8977 dpm/mL	09/30/2008	09/29/2009
04/18/2000	Robert Timm	.429	250	445-96-2-R	3553.34 dpm/mL	04/18/2000	04/18/2001
04/23/2009	Tina Schoneman	.001251	500	445-96-2-RR	4.8075 dpm/mL	04/23/2009	04/23/2010
04/13/2001	Angela Johnson	.1869	100	445-96-2-S	3870.16 dpm/mL	04/13/2001	04/13/2002
05/08/2009	Mary Aders	.0141	1000	445-96-2-SS	29.2098 dpm/ml	05/11/2009	05/11/2010
07/03/2001	Lonnie Morris	2.0057	1000	445-96-2-T-103	4153.225 dpm/mL	07/03/2002	07/03/2003
07/03/2001	Lonnie Morris	2.0057	1000	445-96-2-T-203	4153.225 dpm/mL	07/03/2002	07/03/2003

07/03/2001	Lonnie Morris	2.0057	1000	445-96-2-T-303	4153.225 dpm/mL	07/03/2002	07/03/2003
06/03/2009	Julie Strock	.00000927	100	445-96-2-TT	.1923 dpm/mL	06/05/2009	06/03/2010
08/23/2001	Angela Johnson	.0194	500	445-96-2-U-103	80.34 dpm/mL	08/23/2001	08/23/2002
08/23/2001	Angela Johnson	.0194	500	445-96-2-U-203	80.34 dpm/mL	08/23/2001	08/23/2002
08/23/2001	Angela Johnson	.0194	500	445-96-2-U-303	80.34 dpm/ml	08/23/2001	08/23/2002
06/02/2009	Mary Aders	2.1177	1000	445-96-2-UU	4385.1449 dpm/ml	06/04/2009	06/04/2010
08/27/2001	Angela Johnson	.0394	1000	445-96-2-V-103	81.586 dpm/mL	08/27/2002	08/27/2003
08/27/2001	Angela Johnson	.0394	1000	445-96-2-V-203	81.586 dpm/mL	08/27/2002	08/27/2003
08/27/2001	Angela Johnson	.0394	1000	445-96-2-V-303	81.586 dpm/mL	08/27/2002	08/27/2003
03/17/2003	Angela Johnson	2.1108	1000	445-96-2-W	4370.857 dpm/mL	03/14/2006	03/14/2007
04/14/2003	Lonnie Morris	.0315	1000	445-96-2-X	65.2559 dpm/mL	04/14/2004	04/14/2005
05/03/2003	Tim Chandler	.0103	1000	445-96-2-Y	21.3376 dpm/mL	05/05/2003	05/05/2004
05/05/2003	Eric Williamson	.011	1000	445-96-2-Z	22.7877 dpm/mL	04/03/2007	04/03/2008

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for Am-243 Standard *445-96-2-SS*

M. Aders	Isotope	Value	Uncertainty
5/15/2009	445-96-2-SS #1	1.360	0.1690
	445-96-2-SS #2	1.370	0.1690
	445-96-2-SS #3	1.290	0.1590

Mean Value (Counting) =	1.340	101.99	**Pass**
Stdev =	0.043588989		**Rule 3 (Pass/Fail)**

Target =	1.314
Lower Limit =	1.252822021
Upper Limit =	1.427177979
Rule 1 Pass/Fail	**Pass**
Two sigma =	0.087177979
10 % of Mean =	0.134
Rule 2 (Pass/Fail)	**Pass**

The analyst prepared three standard verification sources for standard ***445-96-2-SS*** using 0.1 mL for each source. Each standard was combined with 0.1 mL of ***Cm-244*** standard ***0533-O*** and 50 micrograms of neodymium carrier in a disposable centrifuge tube. Each standard was diluted with 4 mL of 2 M HCl and 6 mL of DI Water. Two mL of 48% HF was added to precipitate Nd(and Americium) fluoride. After 30 minutes, each sample was filtered following routine procedures for alpha spectroscopy source preparation. Each source was counted using routine alpha spec procedures. DPM values for Am-243 were calculated by comparison to Am-241certified values.

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 5% of the certificate value.

5/15/09

07/509

1374

National Institute of Standards & Technology

Certificate

Standard Reference Material 4334H
Plutonium-242 Radioactivity Standard

This Standard Reference Material (SRM) consists of radioactive plutonium-242 nitrate and nitric acid dissolved in 5 mL of distilled water. The solution is contained in a flame-sealed NIST borosilicate-glass ampoule. The SRM is intended for the calibration of alpha-particle counting instruments and for the monitoring of radiochemical procedures.

Radiological Hazard: The SRM ampoule contains plutonium-242 with a total activity of approximately 150 Bq. Plutonium-242 decays by alpha-particle emission. None of the alpha particles escape from the SRM ampoule. During the decay process, X-rays and gamma rays with energies from 10 keV to 160 keV are also emitted. Most of these photons escape from the SRM ampoule but their intensities are so small that they do not represent a radiation hazard. Approximate unshielded dose rates at several distances (as of the reference time) are given in note [a]*. The SRM should be used only by persons qualified to handle radioactive material.

Chemical Hazard: The SRM ampoule contains nitric acid (HNO_3) with a concentration of 3 moles per liter of water. The solution is corrosive and represents a health hazard if it comes in contact with eyes or skin. If the ampoule is to be opened to transfer the solution, the recommended procedure is given on page 2. The ampoule should be opened only by persons qualified to handle both radioactive material and strong acid solution.

Storage and Handling: The SRM should be stored and used at a temperature between 5 °C and 65 °C. The solution in an unopened ampoule should remain stable and homogeneous until at least January 2015. The ampoule (or any subsequent container) should always be clearly marked as containing radioactive material. If the ampoule is transported it should be packed, marked, labeled, and shipped in accordance with the applicable national, international, and carrier regulations. The solution in the ampoule is a dangerous good (hazardous material) both because of the radioactivity and because of the strong acid.

Preparation: This Standard Reference Material was prepared in the Physics Laboratory, Ionizing Radiation Division, Radioactivity Group, M.P. Unterweger, Acting Group Leader. The overall technical direction and physical measurements leading to certification were provided by L.L. Lucas of the Radioactivity Group. The support aspects involved in the preparation, certification, and issuance of this SRM were coordinated through the Standard Reference Materials Program.

RECEIVED 4/12/04

Lisa R. Karam, Acting Chief
Ionizing Radiation Division

Gaithersburg, Maryland 20899
January 2005

Robert L. Watters, Jr., Chief
Measurement Services Division

*Notes and references are on pages 5 to 7.

DC-S-051-C913

Recommended Procedure for Opening the SRM Ampoule

1) If the SRM solution is to be diluted, it is recommended that the diluting solution have a composition comparable to that of the SRM solution.

2) Wear eye protection, gloves, and protective clothing and work over a tray with absorbent paper in it. Work in a fume hood. In addition to the radioactive material, the solution contains strong acid and is corrosive.

3) Shake the ampoule to wet all of the inside surface of the ampoule. Return the ampoule to the upright position.

4) Check that all of the liquid has drained out of the neck of the ampoule. If necessary, gently tap the neck to speed the process.

5) Holding the ampoule upright, score the narrowest part of the neck with a scribe or diamond pencil.

6) Lightly wet the scored line. This reduces the crack propagation velocity and makes for a cleaner break.

7) Hold the ampoule upright with a paper towel, a wiper, or a support jig. Position the scored line away from you. Using a paper towel or wiper to avoid contamination, snap off the top of the ampoule by pressing the narrowest part of the neck away from you while pulling the tip of the ampoule towards you.

8) Transfer the solution from the ampoule using a pycnometer or a pipet with dispenser handle. NEVER PIPETTE BY MOUTH.

9) Seal any unused SRM solution in a flame-sealed glass ampoule, if possible, to minimize the evaporation loss.

See also reference [4]*.

*Notes and references are on pages 5 to 7.

PROPERTIES OF SRM 4334H

Certified values

Radionuclide	**Plutonium-242**
Reference time	**1200 EST, 07 June 1994 [b]***
Massic activity of the solution [c]	**26.31 $Bq \cdot g^{-1}$**
Relative expanded uncertainty (k=2)	**0.72% [d] [e]**
Solution density	**$(1.105 \pm 0.002)\ g \cdot mL^{-1}$ at 20 °C [f]**

Uncertified values

Physical Properties:			
Source description	Liquid in flame-sealed NIST borosilicate-glass ampoule		
Ampoule specifications	Body outside diameter Wall thickness Barium content Lead-oxide content Other heavy elements	(16.5 ± 0.5) mm (0.60 ± 0.04) mm Less than 2.5% Less than 0.02% Trace quantities	
Solution mass	Approximately 5.5 g		
Chemical Properties:			
Solution composition	Chemical Formula	Concentration ($mol \cdot L^{-1}$)	Mass Fraction ($g \cdot g^{-1}$)
	H_2O HNO_3 $^{242}Pu^{+6}$	50 3.2 8×10^{-7}	0.81 0.19 2×10^{-7}
Radiological Properties:			
Alpha-particle-emitting impurities	None detected [g] [h]. See table on page 5.		
Beta-particle-emitting impurities	Plutonium-241: $(0.092 \pm 0.018)\ Bq \cdot g^{-1}$ [f] [h]		
Photon-emitting impurities	None detected [i]		
Half lives used	Plutonium-242: (373 500 ± 1100) a [j] [5] Plutonium-241: (14.35 ± 0.10) a [j] [5] Americium-241: (432.2 ± 0.7) a [j] [5]		
Calibration method and measuring instrument(s)	Three $4\pi\alpha$ liquid-scintillation counters, a calibrated germanium detector system, and a silicon surface-barrier detector		

*Notes and references are on pages 5 to 7.

EVALUATION OF THE UNCERTAINTY OF THE MASSIC ACTIVITY [d] [e]*

Input Quantity x_i, the source of uncertainty (and individual uncertainty components where appropriate)	Method Used To Evaluate $u(x_i)$, the standard uncertainty of x_i (A) denotes evaluation by statistical methods (B) denotes evaluation by other methods	Relative Uncertainty Of Input Quantity, $u(x_i)/x_i$, (%) [k]	Relative Sensitivity Factor, $\lvert\partial y/\partial x_i\rvert \cdot (x_i/y)$ [m]	Relative Uncertainty Of Output Quantity, $u_i(y)/y$, (%) [n]
Massic alpha-particle emission rate, corrected for background and decay	Standard deviation of the mean for 80 sets of $4\pi\alpha$ liquid-scintillation measurements (A)	0.05	1.0	0.05
Half life of Pu-242	Standard uncertainty of the half life (A)	0.32 [p]	0.00001 [q]	0.000003
Decay-scheme data	Standard uncertainty of the probability of decay by alpha-particle emission (A)	0.001	1.0	0.001
Extrapolation of alpha-particle-count-rate-versus-energy to zero energy	Estimated (B)	0.25	1.0	0.25
Gravimetric measurements	Estimated (B)	0.10	1.0	0.10
Live time [r]	Estimated (B)	0.10	1.0	0.10
Alpha-particle detection efficiency of scintillators	Estimated (B)	0.15	1.0	0.15
Alpha-particle-emitting impurities	Limit of detection (B) [s]	100.	0.001	0.10
Photon-emitting impurities	Limit of detection (B) [s]	100.	0.001	0.10
Relative Combined Standard Uncertainty of the Output Quantity, $u_c(y)/y$, (%)				0.36
Coverage Factor, k				x 2
Relative Expanded Uncertainty of the Output Quantity, U/y, (%)				0.72

*Notes and references are on pages 5 to 7.

RELATIVE ACTIVITIES OF RADIONUCLIDIC IMPURITIES AT THE REFERENCE TIME [b]

Radionuclide	Half Life (years) [j] [5]	Relative Activity As Determined By	
		LLNL	NIST
Plutonium-242	373 500 ± 1100	1.000 000	1.000 000
Plutonium-241	14.35 ± 0.10	- -	0.0035 ± 0.0004 [t]
Plutonium-240	6 564 ± 11	^{239}Pu + ^{240}Pu <0.000 001 [u]	^{239}Pu + ^{240}Pu 0.000 020 ± 0.000 021 [v]
Plutonium-239	24 110 ± 30		
Plutonium-238	87.7 ± 0.1	^{238}Pu + ^{241}Am <0.000 016 [u]	0.000 009 ± 0.000 016 [v]
Americium-241	432.2 ± 0.7		0.000 000 assumed [t]

NOTES

[a] The Sievert is the SI unit for dose equivalent. See reference [1]. One µSv is equal to 0.1 mrem.

Distance from Ampoule (cm):	1	30	100
Approximate Dose Rate (µSv/h):	<0.1	-	-

[b] The plutonium-242 master solution was chemically purified at 1200 EST, 07 June 1994.

[c] **Massic activity** is the preferred name for the quantity activity divided by the total mass of the sample. See reference [1].

[d] The reported value, y, of massic activity (activity per unit mass) at the reference time was not measured directly but was derived from measurements and calculations of other quantities. This can be expressed as $y = f(x_1, x_2, x_3, \ldots x_n)$, where f is a mathematical function derived from the assumed model of the measurement process. The value, x_i, used for each input quantity i has a **standard uncertainty**, $u(x_i)$, that generates a corresponding uncertainty in y, $u_i(y) = |\partial y/\partial x_i| \cdot u(x_i)$, called a **component of combined standard uncertainty** of y. The **combined standard uncertainty** of y, $u_c(y)$, is the positive square root of the sum of the squares of the components of combined standard uncertainty. The combined standard uncertainty is multiplied by a **coverage factor** of $k = 2$ to obtain U, the **expanded uncertainty** of y.

Since it can be assumed that the possible estimated values of the massic activity are approximately normally distributed with approximate standard deviation $u_c(y)$, the unknown value of the massic activity is believed to lie in the interval $y \pm U$ with a level of confidence of approximately 95 percent.

For further information on the expression of uncertainties, see references [2] and [3].

[e] The value of each component of combined standard uncertainty, and hence the value of the expanded uncertainty itself, is a best estimate based upon all available information, but is only approximately known. That is to say, the "uncertainty of the uncertainty" is large and not well known. This is true for uncertainties evaluated by statistical methods (e.g., the relative standard deviation of the standard deviation of the mean for the massic response is approximately 50%) and for uncertainties evaluated by other methods (which could easily be over estimated or under estimated by substantial amounts). The unknown value of the expanded uncertainty is believed to lie in the interval $U/2$ to $2U$ (i.e., within a factor of 2 of the estimated value).

[f] The stated uncertainty is two times the standard uncertainty.

[g] Estimated limits of detection for alpha-particle-emitting impurities, expressed as massic alpha-particle emission rates (numbers of alpha particles per second per gram), are:
0.003 $s^{-1} \cdot g^{-1}$ for energies less than 3.1 MeV,
0.03 $s^{-1} \cdot g^{-1}$ for energies between 3.1 and 4.4 MeV, and
0.003 $s^{-1} \cdot g^{-1}$ for energies greater than 5.0 MeV.

[h] The plutonium-242 master solution was chemically purified at 1200 EST, 07 June 1994. Americium-241, the daughter of plutonium-241, was removed but has been growing in since that time.

[i] Estimated limits of detection for photon-emitting impurities, expressed as massic photon emission rates (numbers of photons per second per gram), are:
5×10^{-5} $s^{-1} \cdot g^{-1}$ for energies between 19 and 39 keV,
7×10^{-5} $s^{-1} \cdot g^{-1}$ for energies between 49 and 92 keV,
2×10^{-5} $s^{-1} \cdot g^{-1}$ for energies between 106 and 507 keV,
1×10^{-5} $s^{-1} \cdot g^{-1}$ for energies between 515 and 1456 keV, and
5×10^{-6} $s^{-1} \cdot g^{-1}$ for energies between 1465 and 2750 keV,
provided that the photons are separated in energy by 4 keV or more from photons emitted in the decay of plutonium-242, plutonium-241, or americium-241.

[j] The stated uncertainty is the standard uncertainty.

[k] Relative standard uncertainty of the input quantity x_i.

[m] The relative change in the output quantity y divided by the relative change in the input quantity x_i. If $|\partial y/\partial x_i| \cdot (x_i/y) = 1.0$, then a 1% change in x_i results in a 1% change in y. If $|\partial y/\partial x_i| \cdot (x_i/y) = 0.05$, then a 1% change in x_i results in a 0.05% change in y.

[n] Relative component of combined standard uncertainty of output quantity y, rounded to two significant figures or less. The relative component of combined standard uncertainty of y is given by $u_i(y)/y \equiv |\partial y/\partial x_i| \cdot u(x_i)/y = |\partial y/\partial x_i| \cdot (x_i/y) \cdot u(x_i)/x_i$. The numerical values of $u(x_i)/x_i$, $|\partial y/\partial x_i| \cdot (x_i/y)$, and $u_i(y)/y$, all dimensionless quantities, are listed in columns 3, 4, and 5, respectively. Thus, the value in column 5 is equal to the value in column 4 multiplied by the value in column 3. The input quantities are independent, or very nearly so. Hence the covariances are zero or negligible.

[p] The relative standard uncertainty of $\lambda \cdot t$ is determined by the relative standard uncertainty of λ (i.e., of the half life). The relative standard uncertainty of t is negligible.

[q] $|\partial y/\partial x_i| \cdot (x_i/y) = |\lambda \cdot t|$

[r] The live time is determined by counting the pulses from a gated crystal-controlled oscillator.

[s] The standard uncertainty for each undetected impurity that might reasonably be expected to be present is estimated to be equal to the estimated limit of detection for that impurity, i.e. $u(x_i)/x_i$ = 100%. $|\partial y/\partial x_i| \cdot (x_i/y)$ = {(response per Bq of impurity)/(response per Bq of Pu-242)}•{(Bq of impurity)/(Bq of Pu-242)}. Thus $u_i(y)/y$ is the relative change in y if the impurity were present with a massic activity equal to the estimated limit of detection.

[t] The stated uncertainty is the standard uncertainty. The plutonium-241 activity was calculated from a gamma-ray measurement of the americium-241 ingrowth as of 25 November 1998, assuming that americium-241 was completely removed at the time of chemical purification.

[u] Using alpha-particle spectrometry, no alpha-particle emission was detected that could reliably be ascribed to these radionuclides. The value shown is an estimated upper limit based upon background and counting statistics. Measurements were made at the Lawrence Livermore National Laboratory (LLNL) in July of 1994.

[v] Using alpha-particle spectrometry, no alpha-particle emission was detected that could reliably be ascribed to these radionuclides. The stated uncertainty is the standard uncertainty. Measurements were made at the National Institute of Standards and Technology (NIST) in June and July of 1999.

REFERENCES

[1] International Organization for Standardization (ISO), *ISO Standards Handbook - Quantities and Units*, 1993. Available from Global Engineering Documents, 12 Inverness Way East, Englewood, CO 80112, U.S.A. Telephone 1-800-854-7179.

[2] International Organization for Standardization (ISO), *Guide to the Expression of Uncertainty in Measurement*, 1993 (corrected and reprinted, 1995). Available from Global Engineering Documents, 12 Inverness Way East, Englewood, CO 80112, U.S.A. Telephone 1-800-854-7179.

[3] B.N. Taylor and C.E. Kuyatt, *Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Results*, NIST Technical Note 1297, 1994. Available from the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20407, U.S.A.

[4] National Council on Radiation Protection and Measurements Report No. 58, *A Handbook of Radioactivity Measurements Procedures*, Second Edition, 1985. Available from the National Council on Radiation Protection and Measurements, 7910 Woodmont Avenue, Bethesda, MD 20814 U.S.A.

[5] Evaluated Nuclear Structure Data File (ENSDF), January 2005.

Standard Traceability Log Rad

Source Material Info	
Parent Code:	1374
Prepared By:	Mary Aders
Carrier Conc:	0.5M HNO3
Reference Date:	06/07/1994
Ampoule Mass (g):	5.5 g
Uncertainty:	+/- .72 %
LogBook No:	RC-S-051-093

A Solution Material Info	
Isotope:	Plutonium-242
Prepared By:	Ashley Drochter
Prep Date:	12/02/2009
Verification Date:	12/08/2009
Expiration Date:	12/08/2010
Primary Code:	1374-A
Dilution(mL):	250 mL
Mass of Parent(g):	5.3616 g
Density(g/mL):	1.0136
Balance ID:	38080204

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (Bq/g)) * (conversion dpm to Bq) / (Dilution Vol) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (Bq/g)) * (conversion dpm to Bq) / Density (g/mL)/ (Dilution Vol) = Parent Activity (dpm/g)
(5.3616 g) * (26.31 Bq/g) * (60 dpm/Bq) / (250 mL) = 33.8553 dpm/mL
(5.3616 g) * (26.31 Bq/g) * (60 dpm/Bq) / (1.0136 g/mL) / (250 mL) = 33.4010 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for Pu-242 Standard 1374-*A*

A.Drochter	Isotope	Value	Uncertainty
12/8/2009	1374-A	1.610	0.2480
	1374-A	1.580	0.2510
	1374-A	1.530	0.2440
Mean Value (Counting) =	1.573	103.17	**Pass**
Stdev =	0.040414519		**Rule 3 (Pass/Fail)**

Target =	1.52
Lower Limit =	1.492504296
Upper Limit =	1.654162371
Rule 1 Pass/Fail	**Pass**
Two sigma =	0.080829038
10 % of Mean =	0.157333333
Rule 2 (Pass/Fail)	**Pass**

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 5% of the certificate value.

The analyst prepared three standard verification sources for standard 1374-A using 0.1 mL for each source. Each standard was combined with 0.1 mL of Pu239 standard 0338-BB and 50 micrograms of neodymium carrier in a disposable centrifuge tube containing 4 mL of 2 M HCl and 6 mL of DI water. Four drops of 25% Hydrazine dihydrochloride were added to each centrifuge tube and swirled. Two mL of 49% HF was added to precipitate neodymium(and plutonium) fluoride. After 30 minutes, each sample was filtered following routine procedures for alpha spectroscopy source preparation. Each source was counted using routine alpha spec procedures. DPM values for Pu-242 were calculated by comparison to Pu-239 certified values.

not c cell
12/9/09

National Institute of Standards & Technology

Certificate

1163

Standard Reference Material 4321C

Natural Uranium Radioactivity Standard

This Standard Reference Material (SRM) consists of a solution of a standardized and certified quantity of radioactive uranium-238, uranium-235, and uranium-234 in a suitably stable and homogeneous matrix. It is intended primarily for the calibration of instruments that are used to measure radioactivity and for the monitoring of radiochemical procedures. The solution, whose composition is specified in Table 1, is contained in a flame-sealed, 5 mL, NIST, borosilicate-glass ampoule (see Note 1)*.

The certified massic activities for the uranium isotopes at a Reference Time of 1200 EST, 1 August 1997, are:

Uranium-238: (242.0 ± 1.5) $Bq \cdot g^{-1}$

Uranium-235: (11.14 ± 0.07) $Bq \cdot g^{-1}$

Uranium-234: (233.1 ± 2.2) $Bq \cdot g^{-1}$

Additional physical, chemical, and radiological properties for the SRM, as well as details on the standardization method, are given in Table 1. Uncertainty intervals for certified quantities are expanded ($k = 2$) uncertainties calculated according to the ISO and NIST Guidelines (see Note 2). Table 2 contains a specification of the components that comprise the uncertainty analyses.

The certification of this SRM, within the measurement uncertainties specified, is valid for at least five (5) years after receipt. The solution matrix, in an unopened ampoule, is believed to be indefinitely homogeneous and stable, within its half-life-dependent, useful lifetime. NIST will monitor this material and will report any substantive changes in certification to the purchaser. Should any of the certified values change, purchasers of this SRM will be notified of the change by NIST.

This SRM may represent a radiological hazard and a chemical hazard. Consult the Material Safety Data Sheet (MSDS), enclosed with the SRM shipment, for details (see Note 1).

This Standard Reference Material was prepared in the Physics Laboratory, Ionizing Radiation Division, Radioactivity Group, Dr. M.P. Unterweger, Acting Group Leader. The overall technical direction and physical measurements leading to certification were provided by Dr. L.L. Lucas of the Radioactivity Group. The support aspects involved in the preparation, certification, and issuance of this SRM were coordinated through the Standard Reference Materials Program.

Lisa R. Karam, Deputy Chief
Ionizing Radiation Division

Gaithersburg, Maryland 20899
November 1997
Text revised and expiration date extended February 2007

Robert L. Watters, Jr., Chief
Measurement Services Division

RECEIVED 1/15/08

*Notes and references are on page 4

RC-5-048-044

Table 1. Properties of SRM 4321C

Certified values

Radionuclides	**Natural Uranium (Mixture of ^{238}U, ^{235}U, and ^{234}U)**
Reference time	**1200 EST, 1 August 1997**
Massic activities of the solution	**^{238}U : 242.0 $Bq \cdot g^{-1}$** **^{235}U : 11.14 $Bq \cdot g^{-1}$** **^{234}U : 233.1 $Bq \cdot g^{-1}$**
Relative expanded uncertainties ($k = 2$)	**^{238}U : 0.60%** (see Note 2)* **^{235}U : 0.60%** (see Note 2) **^{234}U : 0.96%** (see Note 2)

Uncertified information

Source description	Liquid in flame-sealed, 5 mL NIST borosilicate ampoule (see Note 1)
Solution composition	1.0 $mol \cdot L^{-1}$ HCl with 30 mg $UO_2(NO_3)_2$ per gram of solution
Solution density	(1.053 ± 0.001) $g \cdot mL^{-1}$ at 21.4 °C (see Note 3)
Solution mass	(5.258 ± 0.002) g (see Note 3)
Mass fraction of uranium	(0.01960 ± 0.00010) $g \cdot g^{-1}$ (see Note 3)
Photon-emitting impurities	None detected (see Note 4)
Half-lifes used [1]	^{238}U : $(4.468 \pm 0.003) \times 10^9$ a ‡ ^{235}U : $(7.038 \pm 0.005) \times 10^8$ a ‡ ^{234}U : $(2.455 \pm 0.006) \times 10^5$ a ‡
Calibration method (and instruments)	The certified massic activity for natural uranium was obtained by mass spectrometer, silicon surface-barrier detector, and $4\pi\alpha\beta$ liquid scintillation (LS) counting systems.

‡ See Note 5

*Notes and references are on page 4

Table 2. Uncertainty evaluation for the massic activity for SRM 4321C

	Uncertainty component	Assessment Type†	Relative standard uncertainty contribution on massic activity of Natural Uranium (%)
1	Isotopic uranium atom fraction in SRM 960; standard deviation of the mean for replicate mass-spectrometric measurements for ^{238}U	A	0.001
2	Isotopic uranium atom fraction in SRM 960; standard deviation of the mean for replicate mass-spectrometric measurements for ^{235}U	A	0.07
3	Isotopic uranium atom fraction in SRM 960; standard deviation of the mean for replicate mass-spectrometric measurements for ^{234}U	A	0.3
4	Half life of ^{238}U; standard uncertainty of the half-life	A	0.07
5	Half life of ^{235}U; standard uncertainty of the half-life	A	0.07
6	Half life of ^{234}U; standard uncertainty of the half-life	A	0.24
7	Uranium mass fraction in SRM 960; from SRM960 certificate	B	0.003
8	Quantitative dissolution	B	0.25
9	Gravimetric (mass) measurements	B	0.10
10	Limit for photon-emitting impurities	B	0.10
Relative combined standard uncertainty		^{238}U	**0.30**
		^{235}U	**0.30**
		^{234}U	**0.48**
Relative expanded uncertainty ($k = 2$)		^{238}U	**0.60**
		^{235}U	**0.60**
		^{234}U	**0.96**

† = (A) denotes evaluation by statistical methods; (B) denotes evaluation by other methods.

NOTES

Note 1. Refer to http://physics.nist.gov/Divisions/Div846/srm.html for the standardized ampoule dimensions and for assistance and instructions on how to properly open an ampoule. Information on additional storage and handling requirements is also included in the website.

Note 2. The uncertainties on certified values are expanded uncertainties, $U = ku_c$. The quantity u_c is the combined standard uncertainty calculated according to the ISO and NIST Guides (see references [2] and [3]). The combined standard uncertainty is multiplied by a coverage factor of $k = 2$ and was chosen to obtain an approximate 95 % level of confidence.

Note 3. The stated uncertainty is two times the standard uncertainty. See reference [3]

Note 4. The estimated lower limits of detection for photon-emitting impurities, expressed as massic photon emission rates are;

$1.4\ s^{-1} \cdot g^{-1}$ for 8 keV < E < 59 keV
$1.1\ s^{-1} \cdot g^{-1}$ for 67 keV < E < 88 keV
$0.5\ s^{-1} \cdot g^{-1}$ for 102 keV < E < 197 keV
$0.3\ s^{-1} \cdot g^{-1}$ for 205 keV < E < 762 keV
$0.2\ s^{-1} \cdot g^{-1}$ for 770 keV < E < 996 keV, and
$0.1\ s^{-1} \cdot g^{-1}$ for 1006 keV < E < 1900 keV

provided that the photons are separated in energy by 4 keV or more from photons emitted in the decay of ^{238}U, ^{235}U, ^{234}U, or their progeny

Note 5. The stated uncertainty is the standard uncertainty. See reference [3].

REFERENCES

[1] Evaluated Nuclear Structure Data File (ENSDF), online database, National Nuclear Data Center, Brookhaven Laboratory (Upton, NY), August 2007. Refer to http://www.nndc.bnl.gov/ensdf/

[2] International Organization for Standardization (ISO), *Guide to the Expression of Uncertainty in Measurement*, 1993 (corrected and reprinted, 1995). Available from Global Engineering Documents, 12 Inverness Way East, Englewood, CO 80112, U.S.A. Telephone 1-800-854-7179.

[3] B. N. Taylor and C. E. Kuyatt, *Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Results*, NIST Technical Note 1297, 1994. Available from the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20407, U.S.A.

Standard Traceability Log Rad

Source Material Info	
Parent Code:	1163
Prepared By:	Daniel Roy
Carrier Conc:	1M HCL
Reference Date:	08/01/1997
Ampoule Mass (g):	5.258 g
Uncertainty:	+/- .6 %
LogBook No:	RC-S-048-044

A Solution Material Info	
Isotope:	Uranium-238
Prepared By:	Daniel Roy
Prep Date:	02/23/2008
Verification Date:	10/21/2009
Expiration Date:	10/21/2010
Primary Code:	1163-A
Dilution(mL):	100 mL
Mass of Parent(g):	5.118 g
Density(g/mL):	1.0327
Balance ID:	38080204

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (Bq/g)) * (conversion dpm to Bq) / (Dilution Vol) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (Bq/g)) * (conversion dpm to Bq) / Density (g/mL)/ (Dilution Vol) = Parent Activity (dpm/g)
(5.118 g) * (242 Bq/g) * (60 dpm/Bq) / (100 mL) = 743.1336 dpm/mL
(5.118 g) * (242 Bq/g) * (60 dpm/Bq) / (1.0327 g/mL) / (100 mL) = 719.5817 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date
07/23/2009	Julie Strock	.1	100	1163-090723-1		07/30/2008	07/30/2009
07/23/2009	Julie Strock	1	100	1163-090723-2		07/30/2008	07/30/2009
07/23/2009	Julie Strock	.25	50	1163-090723-3		07/30/2008	07/30/2009
07/23/2009	Julie Strock	.02	20	1163-090723-4		07/30/2008	07/30/2009
07/23/2009	Julie Strock	.2	20	1163-090723-5		07/30/2008	07/30/2009
07/23/2009	Julie Strock	2	20	1163-090723-6		07/30/2008	07/30/2009
07/31/2009	James Schoneman	.1	100	1163-090731-1		08/07/2008	08/07/2009
07/31/2009	James Schoneman	1	100	1163-090731-2		08/07/2008	08/07/2009
07/31/2009	James Schoneman	.02	20	1163-090731-3		08/07/2008	08/07/2009
07/31/2009	James Schoneman	.2	20	1163-090731-4		08/07/2008	08/07/2009
07/31/2009	James Schoneman	2	20	1163-090731-5		08/07/2008	08/07/2009

08/05/2009	James Schoneman	.1	20	1163-090805-1	08/07/2008	08/07/2009
08/06/2009	James Schoneman	.02	20	1163-090806-1	08/07/2008	08/07/2009
08/06/2009	James Schoneman	.2	20	1163-090806-2	08/07/2008	08/07/2009
08/06/2009	James Schoneman	2	20	1163-090806-3	08/07/2008	08/07/2009
08/14/2009	James Schoneman	.1	100	1163-090814-1	08/21/2008	08/21/2009
08/14/2009	James Schoneman	1	100	1163-090814-2	08/21/2008	08/21/2009
08/14/2009	James Schoneman	.02	20	1163-090814-3	08/21/2008	08/21/2009
08/14/2009	James Schoneman	.2	20	1163-090814-4	08/21/2008	08/21/2009
08/14/2009	James Schoneman	2	20	1163-090814-5	08/21/2008	08/21/2009
08/14/2009	James Schoneman	.01	20	1163-090814-6	08/21/2008	08/21/2009
08/14/2009	James Schoneman	.05	25	13451163-090814-1	08/21/2008	08/21/2009
08/18/2009	James Schoneman	.1	20	1163-090818-1	08/21/2008	08/21/2009
08/18/2009	James Schoneman	2.5	25	1163-090818-2	08/21/2008	08/21/2009
08/21/2009	James Schoneman	.1	100	1163-090821-1	08/28/2008	08/28/2009
08/21/2009	James Schoneman	1	100	1163-090821-2	08/28/2008	08/28/2009
08/21/2009	James Schoneman	.02	20	1163-090821-3	08/28/2008	08/28/2009
08/21/2009	James Schoneman	.2	20	1163-090821-4	08/28/2008	08/28/2009
08/21/2009	James Schoneman	2	20	1163-090821-5	08/28/2008	08/28/2009
08/21/2009	James Schoneman	.01	20	1163-090821-6	08/28/2008	08/28/2009
08/21/2009	James Schoneman	.05	25	13451163-090821-1	08/28/2008	08/28/2009
08/28/2009	James Schoneman	.1	100	1163-090828-1	09/04/2008	09/04/2009

08/28/2009	James Schoneman	1	100	1163-090828-2		09/04/2008	09/04/2009
08/28/2009	James Schoneman	.02	20	1163-090828-3		09/04/2008	09/04/2009
08/28/2009	James Schoneman	.2	20	1163-090828-4		09/04/2008	09/04/2009
08/28/2009	James Schoneman	2	20	1163-090828-5		09/04/2008	09/04/2009
08/28/2009	James Schoneman	.01	20	1163-090828-6		09/04/2008	09/04/2009
09/01/2009	James Schoneman	.01	20	1163-090901-1		09/04/2008	09/04/2009
09/02/2009	James Schoneman	.01	20	1163-090902-1		09/04/2008	09/04/2009
09/02/2009	James Schoneman	.01	20	1163-090902-2		09/04/2008	09/04/2009
08/28/2009	James Schoneman	.05	25	11631345-090828-1		09/04/2008	09/04/2009
09/01/2009	James Schoneman	.05	25	11631345-090901-1		09/04/2008	09/04/2009
09/02/2009	James Schoneman	.05	25	11631345-090902		09/04/2008	09/04/2009
09/02/2009	James Schoneman	.05	25	11631345-090902-1		09/04/2008	09/04/2009
09/11/2009	James Schoneman	.1	100	1163-090911-1	999645.956 ug/L	09/18/2008	09/18/2009
09/11/2009	James Schoneman	1	100	1163-090911-2	999.646 ug/L	09/18/2008	09/18/2009
09/11/2009	James Schoneman	.02	20	1163-090911-3	9.99646 ug/L	09/18/2008	09/18/2009
09/11/2009	James Schoneman	.2	20	1163-090911-4	9.99646 ug/L	09/18/2008	09/18/2009
09/11/2009	James Schoneman	2	20	1163-090911-5	9.99646 ug/L	09/18/2008	09/18/2009
09/11/2009	James Schoneman	.01	20	1163-090911-6	9.99646 ug/L	09/18/2008	09/18/2009
09/16/2009	James Schoneman	.02	20	1163-090916-1	9.99646 ug/L	09/18/2008	09/18/2009
09/16/2009	James Schoneman	.2	20	1163-090916-2	9.99646 ug/L	09/18/2008	09/18/2009
09/16/2009	James Schoneman	2	20	1163-090916-3	9.99646 ug/L	09/18/2008	09/18/2009

09/16/2009	James Schoneman	.01	20	1163-090916-4	9.99646 ug/L	09/18/2008	09/18/2009
09/16/2009	James Schoneman	.05	25	11631332-090916-1	9.99646 ug/L	09/18/2008	09/18/2009
09/11/2009	James Schoneman	.05	25	11631345-090911-1	9.99646 ug/L	09/18/2008	09/18/2009
09/18/2009	James Schoneman	.1	20	1163-090918-1	999.646 ug/L	09/18/2008	09/18/2009
09/19/2009	James Schoneman	.1	100	1163-090919-1		09/26/2008	09/26/2009
09/19/2009	James Schoneman	1	100	1163-090919-2		09/26/2008	09/26/2009
09/19/2009	James Schoneman	.02	20	1163-090919-3		09/26/2008	09/26/2009
09/19/2009	James Schoneman	.2	20	1163-090919-4		09/26/2008	09/26/2009
09/19/2009	James Schoneman	2	20	1163-090919-5		09/26/2008	09/26/2009
09/19/2009	James Schoneman	.01	20	1163-090919-6		09/26/2008	09/26/2009
09/19/2009	James Schoneman	.05	25	11631332-090919-1		09/26/2008	09/26/2009
09/28/2009	James Schoneman	.1	100	1163-090928-1		10/05/2008	10/05/2009
09/28/2009	James Schoneman	1	100	1163-090928-2		10/05/2008	10/05/2009
09/28/2009	James Schoneman	.02	20	1163-090928-3		10/05/2008	10/05/2009
09/28/2009	James Schoneman	.2	20	1163-090928-4		10/05/2008	10/05/2009
09/28/2009	James Schoneman	2	20	1163-090928-5		10/05/2008	10/05/2009
09/28/2009	James Schoneman	.01	20	1163-090928-6		10/05/2008	10/05/2009
09/28/2009	James Schoneman	.05	25	11631332-090928-1		10/05/2008	10/05/2009
10/05/2009	James Schoneman	.1	100	1163-091005-1		10/12/2008	10/12/2009
10/05/2009	James Schoneman	1	100	1163-091005-2		10/12/2008	10/12/2009
10/05/2009	James Schoneman	.02	20	1163-091005-3		10/12/2008	10/12/2009

10/05/2009	James Schoneman	.2	20	1163-091005-4	10/12/2008	10/12/2009
10/05/2009	James Schoneman	2	20	1163-091005-5	10/12/2008	10/12/2009
10/05/2009	James Schoneman	.01	20	1163-091005-6	10/12/2008	10/12/2009
10/05/2009	James Schoneman	.05	25	11631332-091005	10/12/2008	10/12/2009
10/08/2009	James Schoneman	.1	20	1163-091008-1	10/12/2008	10/12/2009
10/09/2009	James Schoneman	.1	100	1163-091009-1	10/16/2008	10/16/2009
10/09/2009	James Schoneman	1	100	1163-091009-2	10/16/2008	10/16/2009
10/09/2009	James Schoneman	.02	20	1163-091009-3	10/16/2008	10/16/2009
10/09/2009	James Schoneman	.2	20	1163-091009-4	10/16/2008	10/16/2009
10/09/2009	James Schoneman	2	20	1163-091009-5	10/16/2008	10/16/2009
10/09/2009	James Schoneman	.01	20	1163-091009-6	10/16/2008	10/16/2009
10/12/2009	James Schoneman	.01	20	1163-091012-1	10/16/2008	10/16/2009
10/09/2009	James Schoneman	.05	25	11631332-091009-1	10/16/2008	10/16/2009
10/15/2009	James Schoneman	.1	100	1163-091015-1	10/22/2008	10/22/2009
10/15/2009	James Schoneman	1	100	1163-091015-2	10/22/2008	10/22/2009
10/15/2009	James Schoneman	.02	20	1163-091015-3	10/22/2008	10/22/2009
10/15/2009	James Schoneman	.2	20	1163-091015-4	10/22/2008	10/22/2009
10/15/2009	James Schoneman	2	20	1163-091015-5	10/22/2008	10/22/2009
10/15/2009	James Schoneman	.01	20	1163-091015-6	10/22/2008	10/22/2009
10/15/2009	James Schoneman	.05	25	11631332-091015	10/22/2008	10/22/2009
10/22/2009	James Schoneman	.1	100	1163-091022-1	10/29/2008	10/29/2009

10/22/2009	James Schoneman	1	100	1163-091022-2	10/29/2008	10/29/2009
10/22/2009	James Schoneman	.2	20	1163-091022-4	10/29/2008	10/29/2009
10/22/2009	James Schoneman	2	20	1163-091022-5	10/29/2008	10/29/2009
10/22/2009	James Schoneman	.01	20	1163-091022-6	10/29/2008	10/29/2009
10/22/2009	James Schoneman	.05	25	11631332-091022-1	10/29/2008	10/29/2009
10/22/2009	James Schoneman	.02	20	1163-091022-3	10/29/2008	10/29/2009
10/29/2009	James Schoneman	.1	100	1163-091029-1	11/05/2008	11/05/2009
10/29/2009	James Schoneman	1	100	1163-091029-2	11/05/2008	11/05/2009
10/29/2009	James Schoneman	.02	20	1163-091029-3	11/05/2008	11/05/2009
10/29/2009	James Schoneman	.2	20	1163-091029-4	11/05/2008	11/05/2009
10/29/2009	James Schoneman	2	20	1163-091029-5	11/05/2008	11/05/2009
10/29/2009	James Schoneman	.01	20	1163-091029-6	11/05/2008	11/05/2009
10/29/2009	James Schoneman	.05	25	11631332-091029	11/05/2008	11/05/2009
11/05/2009	James Schoneman	.1	100	1163-091105-1	11/12/2008	11/12/2009
11/05/2009	James Schoneman	1	100	1163-091105-2	11/12/2008	11/12/2009
11/05/2009	James Schoneman	.02	20	1163-091105-3	11/12/2008	11/12/2009
11/05/2009	James Schoneman	.2	20	1163-091105-4	11/12/2008	11/12/2009
11/05/2009	James Schoneman	2	20	1163-091105-5	11/12/2008	11/12/2009
11/05/2009	James Schoneman	.01	20	1163-091105-6	11/12/2008	11/12/2009
11/05/2009	James Schoneman	.05	25	11631332-091105-1	11/12/2008	11/12/2009
11/10/2009	James Schoneman	.1	20	1163-091110-1	11/12/2008	11/12/2009

11/12/2009	James Schoneman	.1	100	1163-091112-1	11/19/2008	11/19/2009
11/12/2009	James Schoneman	1	100	1163-091112-2	11/19/2008	11/19/2009
11/12/2009	James Schoneman	.02	20	1163-091112-3	11/19/2008	11/19/2009
11/12/2009	James Schoneman	.2	20	1163-091112-4	11/19/2008	11/19/2009
11/12/2009	James Schoneman	2	20	1163-091112-5	11/19/2008	11/19/2009
11/12/2009	James Schoneman	.01	20	1163-091112-6	11/19/2008	11/19/2009
11/12/2009	James Schoneman	.05	25	11631332-091112-1	11/19/2008	11/19/2009
11/18/2009	James Schoneman	.1	100	1163-091118-1	11/25/2008	11/25/2009
11/18/2009	James Schoneman	1	100	1163-091118-2	11/25/2008	11/25/2009
11/18/2009	James Schoneman	.02	20	1163-091118-3	11/25/2008	11/25/2009
11/18/2009	James Schoneman	.2	20	1163-091118-4	11/25/2008	11/25/2009
11/18/2009	James Schoneman	2	20	1163-091118-5	11/25/2008	11/25/2009
11/18/2009	James Schoneman	.01	20	1163-091118-6	11/25/2008	11/25/2009
11/18/2009	James Schoneman	.05	25	11631332-091118-1	11/25/2008	11/25/2009
11/30/2009	James Schoneman	.1	100	1163-091130-1	12/06/2008	12/06/2009
11/30/2009	James Schoneman	1	100	1163-091130-2	12/06/2008	12/06/2009
11/30/2009	James Schoneman	.02	20	1163-091130-3	12/06/2008	12/06/2009
11/30/2009	James Schoneman	.2	20	1163-091130-4	12/06/2008	12/06/2009
11/30/2009	James Schoneman	2	20	1163-091130-5	12/06/2008	12/06/2009
11/30/2009	James Schoneman	.01	20	1163-091130-6	12/06/2008	12/06/2009
11/30/2009	James Schoneman	.05	25	11631332-091130-1	12/06/2008	12/06/2009

12/07/2009	James Schoneman	.1	100	1163-091207-1		12/14/2008	12/14/2009
12/07/2009	James Schoneman	1	100	1163-091207-2		12/14/2008	12/14/2009
12/07/2009	James Schoneman	.02	20	1163-091207-3		12/14/2008	12/14/2009
12/07/2009	James Schoneman	.2	20	1163-091207-4		12/14/2008	12/14/2009
12/07/2009	James Schoneman	2	20	1163-091207-5		12/14/2008	12/14/2009
12/07/2009	James Schoneman	.01	20	1163-091207-6		12/14/2008	12/14/2009
12/09/2009	James Schoneman	.01	20	1163-091209-1		12/14/2008	12/14/2009
12/10/2009	James Schoneman	.02	20	1163-091210-2		12/14/2008	12/14/2009
12/10/2009	James Schoneman	.2	20	1163-091210-3		12/14/2008	12/14/2009
12/10/2009	James Schoneman	2	20	1163-091210-4		12/14/2008	12/14/2009
12/07/2009	James Schoneman	.05	25	11631332-091207-1		12/14/2008	12/14/2009
12/10/2009	James Schoneman	.1	20	1163-091210-1		12/14/2008	12/14/2009
12/11/2009	James Schoneman	.1	100	1163-091211-1		12/18/2008	12/18/2009
12/11/2009	James Schoneman	1	100	1163-091211-2		12/18/2008	12/18/2009
12/11/2009	James Schoneman	.02	20	1163-091211-3		12/18/2008	12/18/2009
12/11/2009	James Schoneman	.2	20	1163-091211-4		12/18/2008	12/18/2009
12/11/2009	James Schoneman	2	20	1163-091211-5		12/18/2008	12/18/2009
12/11/2009	James Schoneman	.01	20	1163-091211-6		12/18/2008	12/18/2009
12/11/2009	James Schoneman	.05	25	11631333-091211-1		12/18/2008	12/18/2009
02/27/2008	Daniel Roy	8.0851	100	1163-B	58.1789 dpm/ml	03/01/2008	03/01/2009
02/27/2008	Daniel Roy	8.1015	100	1163-C	58.2969 dpm/ml	03/01/2008	03/01/2009

04/16/2008	Julie Strock	.5619	100	1163-D	4.0433 dpm/mL	04/16/2008	04/16/2009
07/10/2008	Daniel Roy	20.0175	250	1163-E	57.6169 dpm/ml	07/13/2008	07/13/2009
01/05/2009	Tina Schoneman	.519	100	1163-F	3.7346 dpm/mL	01/05/2009	01/05/2010
04/16/2009	Mary Aders	19.4278	250	1163-G	55.9196 dpm/ml	04/16/2009	04/16/2010
10/21/2009	Mary Aders	20.008	250	1163-H	57.5896 dpm/mL	10/21/2009	10/21/2010
08/01/1997	Julie Strock	7.379	250	1163-I	21.2392 dpm/mL	12/07/2009	12/02/2010
08/01/1997	Julie Strock	.106	375	1163-J	.2034 dpm/mL	12/07/2009	12/02/2010

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for Uranium-238 Standard *1163-H*

Analyst: M. Aders	**Serial #**	**Value**	**Uncertainty**
Date: 10/21/2009	1163-H N1	2.660	0.510
	1163-H N2	2.460	0.469
	1163-H N3	2.530	0.409

Mean Value (Counting) =	2.550	**98.298998**	**Pass**
Stdev =	0.101488916		**Rule 3 (Pass/Fail)**

Target =	2.594
Lower Limit =	2.347022169
Upper Limit =	2.752977831
Rule 1 Pass/Fail	**Pass**
Two sigma =	0.202977831
10 % of Mean =	0.255
Rule 2 (Pass/Fail)	**Pass**

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 10% of the certificate value.

The analyst prepared three standard verification sources for standard **1163-H** using 0.1 mL for each source. Each standard was combined with 0.1 mL of **U-232** standard **1283-E** and was diluted to 10 mL with DI water. 50 micrograms of neodymium carrier and 1ml of Titanium Chloride were added. The solution was allowed to sit for 30 seconds. One mL of 49% HF was then added to precipitate neodymium (and uranium) fluoride. After 30 minutes, each sample was filtered following routine procedures for alpha spectroscopy source preparation. Each source was counted using routine alpha spec procedures. DPM values for U-238 were calculated by comparison to U-232 certified values.

10/21/09

11/2/09

Eckert & Ziegler
Analytics

1380 Seaboard Industrial Blvd.
Atlanta, Georgia 30318
Tel 404-352-8677
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www.analyticsinc.com

CERTIFICATE OF CALIBRATION
Standard Radionuclide Source

1283

78747-278

U-232 5 mL Liquid in Flame Sealed Vial

Customer: GEL Laboratories, LLC
P.O. No.: 7319 RD, Item 1

This standard radionuclide source was prepared gravimetrically from a calibrated master solution. The master solution was calibrated using a germanium gamma spectrometer system.

Radionuclide purity and calibration were checked using a germanium gamma spectrometer system. The nuclear decay rate and assay date for this source are given below.

ANALYTICS maintains traceability to the National Institute of Standards and Technology through Measurements Assurance Programs as described in USNRC Reg. Guide 4.15, Revision 1.

Isotope:	U-232
Activity (Bq):	3.754 E3
Half-Life:	68.9 years
Calibration Date:	December 9, 2008 12:00 EST
Relative Expanded Uncertainty (k=2):	5.0%

Comments:
Impurities: U-233 <0.3%, Am-241 <0.15%
5.20453 grams 1M HNO_3 solution.

Source Prepared By: _____
W. Mao, Radiochemist

QA Approved: _____ Date: 12-11-08
D. M. Montgomery, QA Manager

End of Certificate

RECEIVED 12/15/08
RC-S-08

Standard Traceability Log Rad

Source Material Info	
Parent Code:	1283
Prepared By:	Daniel Roy
Carrier Conc:	1M HNO3
Reference Date:	12/09/2008
Ampoule Mass (g):	5.20453 g
Uncertainty:	+/- 5 %
LogBook No:	RC-S-051-002

A Solution Material Info	
Isotope:	Uranium-232
Prepared By:	Daniel Roy
Prep Date:	12/16/2008
Verification Date:	12/30/2008
Expiration Date:	12/30/2009
Primary Code:	1283-A
Dilution(mL):	100 mL
Mass of Parent(g):	5.0245 g
Density(g/mL):	1.0285
Balance ID:	

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (Bq)) * (conversion dpm to Bq) / (Ampoule Mass(g) *(Dilution Vol)) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (Bq)) * (conversion dpm to Bq) / Density / (Ampoule Mass (g) * (Dilution Vol)) = Parent Activity (dpm/g)
(5.0245 g) * (3754 Bq) * (60 dpm/Bq) / (5.20453 g * 100 mL) = 2174.4872 dpm/mL
(5.0245 g) * (3754 Bq) * (60 dpm/Bq) / (1.0285 g/mL)/ (5.20453 g * 100 mL) = 2114.1700 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date
12/16/2008	Daniel Roy	25.1813	1000	1283-B	53.2375 dpm/ml	12/16/2008	12/16/2009
12/30/2008	Tina Schoneman	2.05	250	1283-C	17.336 dpm/mL	12/30/2008	12/30/2009
12/30/2008	Tina Schoneman	.49	250	1283-D	4.1438 dpm/mL	01/09/2009	01/09/2010
01/14/2009	Mary Aders	25.0528	1000	1283-E	52.9659 dpm/ml	01/15/2009	01/15/2010
12/02/2009	Julie Strock	2.076	250	1283-F	17.5561 dpm/mL	01/09/2009	12/30/2009
12/02/2009	Julie Strock	.517	250	1283-G	4.3721 dpm/mL	01/09/2009	12/30/2009
12/09/2009	Ashley Drochter	21.56	1000	1283-H	45.58 dpm/mL	12/09/2009	12/09/2010

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for Uranium-232 Standard *1283-H*

Analyst: A. Drochter	Serial #	Value		Uncertainty	
Date: 12/10/09	1283-H N1	2.020	pCi/L	0.238	pCi/L
	1283-H N2	2.000	pCi/L	0.234	pCi/L
	1283-H N3	2.060	pCi/L	0.242	pCi/L

Mean Value (Counting) =	2.027	pCi/L	**99.66904**	**Pass**
Stdev =	0.030550505	pCi/L		**Rule 3 (Pass/Fail)**

Target =	2.033	pCi/L
Lower Limit =	1.965565657	pCi/L
Upper Limit =	2.087767676	pCi/L
Rule 1 Pass/Fail	**Pass**	
Two sigma =	0.061101009	
10 % of Mean =	0.202666667	
Rule 2 (Pass/Fail)	**Pass**	

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 10% of the certificate value.

The analyst prepared three standard verification sources for standard **1283-H** using 0.1 mL for each source. Each standard was combined with 0.1 mL of **U-238** standard **1163-G** and was diluted to 10 mL with DI water. 50 micrograms of neodymium carrier and 1ml of Titanium Chloride were added. The solution was allowed to sit for 30 seconds. One mL of 49% HF was then added to precipitate neodymium (and uranium) fluoride. After 30 minutes, each sample was filtered following routine procedures for alpha spectroscopy source preparation. Each source was counted using routine alpha spec procedures. DPM values for U-238 were calculated by comparison to U-232 certified values.

Calculation AMD 12/14/09

RUNLOGS

Instrument Run Log

Instrument Type: LSC **Batch ID: 936892**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
243557001	SAMPLE	KXK2	LSCGREEN	04-JAN-10 18:39	DUSE	10mL DW/13mL Ecoscint Ultra	20-AUG-09 00:00
243557002	SAMPLE	KXK2	LSCGREEN	04-JAN-10 20:42	DUSE	10mL DW/13mL Ecoscint Ultra	20-AUG-09 00:00
243557003	SAMPLE	KXK2	LSCGREEN	04-JAN-10 22:46	DUSE	10mL DW/13mL Ecoscint Ultra	20-AUG-09 00:00
243557004	SAMPLE	KXK2	LSCGREEN	05-JAN-10 02:01	DUSE	10mL DW/13mL Ecoscint Ultra	20-AUG-09 00:00
243557005	SAMPLE	KXK2	LSCGREEN	05-JAN-10 04:04	DUSE	10mL DW/13mL Ecoscint Ultra	20-AUG-09 00:00
243557006	SAMPLE	KXK2	LSCGREEN	05-JAN-10 06:08	DUSE	10mL DW/13mL Ecoscint Ultra	20-AUG-09 00:00
243557007	SAMPLE	KXK2	LSCGREEN	05-JAN-10 08:10	DUSE	10mL DW/13mL Ecoscint Ultra	20-AUG-09 00:00
243557008	SAMPLE	KXK2	LSCGREEN	06-JAN-10 12:34	DUSE	10mL DW/13mL Ecoscint Ultra	20-AUG-09 00:00
243557009	SAMPLE	KXK2	LSCGREEN	06-JAN-10 13:36	DUSE	10mL DW/13mL Ecoscint Ultra	20-AUG-09 00:00
243557010	SAMPLE	KXK2	LSCGREEN	06-JAN-10 14:38	DUSE	10mL DW/13mL Ecoscint Ultra	20-AUG-09 00:00
243557011	SAMPLE	KXK2	LSCGREEN	06-JAN-10 15:40	DUSE	10mL DW/13mL Ecoscint Ultra	20-AUG-09 00:00
243557012	SAMPLE	KXK2	LSCGREEN	06-JAN-10 16:43	DUSE	10mL DW/13mL Ecoscint Ultra	20-AUG-09 00:00
243557013	SAMPLE	KXK2	LSCGREEN	06-JAN-10 17:45	DUSE	10mL DW/13mL Ecoscint Ultra	20-AUG-09 00:00
243557014	SAMPLE	KXK2	LSCGREEN	06-JAN-10 18:47	DUSE	10mL DW/13mL Ecoscint Ultra	20-AUG-09 00:00
243557015	SAMPLE	KXK2	LSCGREEN	06-JAN-10 19:50	DUSE	10mL DW/13mL Ecoscint Ultra	20-AUG-09 00:00
1202004648	MB	KXK2	LSCGREEN	06-JAN-10 20:52	DUSE	10mL DW/13mL Ecoscint Ultra	20-AUG-09 00:00
1202004649	DUP	KXK2	LSCGREEN	06-JAN-10 21:54	DUSE	10mL DW/13mL Ecoscint Ultra	20-AUG-09 00:00
243557001	SAMPLE	KXK2	LSCSILVER	08-JAN-10 15:06	DONE	10mL DW/13mL Ecoscint Ultra	21-AUG-09 00:00
243557002	SAMPLE	KXK2	LSCSILVER	08-JAN-10 16:09	DONE	10mL DW/13mL Ecoscint Ultra	21-AUG-09 00:00
243557004	SAMPLE	KXK2	LSCSILVER	08-JAN-10 18:13	DONE	10mL DW/13mL Ecoscint Ultra	21-AUG-09 00:00
243557005	SAMPLE	KXK2	LSCSILVER	08-JAN-10 19:16	DONE	10mL DW/13mL Ecoscint Ultra	21-AUG-09 00:00
243557006	SAMPLE	KXK2	LSCSILVER	08-JAN-10 20:18	DONE	10mL DW/13mL Ecoscint Ultra	21-AUG-09 00:00
243557007	SAMPLE	KXK2	LSCSILVER	08-JAN-10 21:20	DONE	10mL DW/13mL Ecoscint Ultra	21-AUG-09 00:00
243557008	SAMPLE	KXK2	LSCSILVER	08-JAN-10 22:22	DONE	10mL DW/13mL Ecoscint Ultra	21-AUG-09 00:00
243557009	SAMPLE	KXK2	LSCSILVER	08-JAN-10 23:25	DONE	10mL DW/13mL Ecoscint Ultra	21-AUG-09 00:00
243557010	SAMPLE	KXK2	LSCSILVER	09-JAN-10 00:27	DONE	10mL DW/13mL Ecoscint Ultra	21-AUG-09 00:00

Instrument Run Log

Instrument Type: LSC

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
243557011	SAMPLE	KXK2	LSCSILVER	09-JAN-10 01:29	DONE	10mL DW/13mL Ecoscint Ultra	21-AUG-09 00:00
243557012	SAMPLE	KXK2	LSCSILVER	09-JAN-10 02:32	DONE	10mL DW/13mL Ecoscint Ultra	21-AUG-09 00:00
243557013	SAMPLE	KXK2	LSCSILVER	09-JAN-10 04:48	DONE	10mL DW/13mL Ecoscint Ultra	21-AUG-09 00:00
243557014	SAMPLE	KXK2	LSCSILVER	09-JAN-10 05:50	DONE	10mL DW/13mL Ecoscint Ultra	21-AUG-09 00:00
243557015	SAMPLE	KXK2	LSCSILVER	09-JAN-10 06:52	DONE	10mL DW/13mL Ecoscint Ultra	21-AUG-09 00:00
1202004648	MB	KXK2	LSCSILVER	09-JAN-10 07:55	DONE	10mL DW/13mL Ecoscint Ultra	21-AUG-09 00:00
1202004649	DUP	KXK2	LSCSILVER	09-JAN-10 08:57	DONE	10mL DW/13mL Ecoscint Ultra	21-AUG-09 00:00
1202004650	LCS	KXK2	LSCSILVER	09-JAN-10 09:59	DONE	10mL DW/13mL Ecoscint Ultra	21-AUG-09 00:00
243557003	SAMPLE	KXK2	LSCSILVER	09-JAN-10 19:58	DONE	10mL DW/13mL Ecoscint Ultra	21-AUG-09 00:00

Instrument Run Log

Instrument Type: ALPHA SPECTROMETER **Batch ID: 938074**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
1202007337	MB	KXM4	1013	07-JAN-10 11:38	DONE		
1202007338	DUP	KXM4	1014	07-JAN-10 11:38	DONE		
1202007339	LCS	KXM4	1016	07-JAN-10 11:38	DONE		
243557001	SAMPLE	KXM4	1226	07-JAN-10 17:40	DONE		
243557002	SAMPLE	KXM4	1227	07-JAN-10 17:40	DONE		
243557003	SAMPLE	KXM4	1228	07-JAN-10 17:40	DONE		
243557004	SAMPLE	KXM4	1229	07-JAN-10 17:40	DONE		
243557005	SAMPLE	KXM4	1230	07-JAN-10 17:40	DONE		
243557006	SAMPLE	KXM4	1231	07-JAN-10 17:40	DUSE		
243557007	SAMPLE	KXM4	1232	07-JAN-10 17:40	DONE		
243557008	SAMPLE	KXM4	1233	07-JAN-10 17:40	DONE		
243557009	SAMPLE	KXM4	1234	07-JAN-10 17:40	DONE		
243557010	SAMPLE	KXM4	1235	07-JAN-10 17:40	DONE		
243557011	SAMPLE	KXM4	1236	07-JAN-10 17:40	DONE		
243557012	SAMPLE	KXM4	1237	07-JAN-10 17:40	DUSE		
243557013	SAMPLE	KXM4	1238	07-JAN-10 17:40	DONE		
243557006	SAMPLE	KXM4	1241	08-JAN-10 16:49	DONE		
243557012	SAMPLE	KXM4	1242	08-JAN-10 16:49	DONE		

Instrument Run Log

Instrument Type: ALPHA SPECTROMETER **Batch ID: 938075**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
1202007340	MB	KXM4	1072	07-JAN-10 11:38	DONE		
1202007341	DUP	KXM4	1073	07-JAN-10 11:38	DONE		
1202007342	LCS	KXM4	1074	07-JAN-10 11:38	DONE		
243557001	SAMPLE	KXM4	1239	07-JAN-10 17:40	DONE		
243557002	SAMPLE	KXM4	1240	07-JAN-10 17:41	DONE		
243557003	SAMPLE	KXM4	1241	07-JAN-10 17:41	DONE		
243557004	SAMPLE	KXM4	1242	07-JAN-10 17:41	DONE		
243557005	SAMPLE	KXM4	1243	07-JAN-10 17:41	DONE		
243557006	SAMPLE	KXM4	1244	07-JAN-10 17:41	DONE		
243557007	SAMPLE	KXM4	1245	07-JAN-10 17:41	DONE		
243557008	SAMPLE	KXM4	1246	07-JAN-10 17:41	DONE		
243557009	SAMPLE	KXM4	1247	07-JAN-10 17:41	DONE		
243557010	SAMPLE	KXM4	1248	07-JAN-10 17:41	DUSE		
243557011	SAMPLE	KXM4	1249	07-JAN-10 17:41	DONE		
243557012	SAMPLE	KXM4	1250	07-JAN-10 17:41	DONE		
243557013	SAMPLE	KXM4	1251	07-JAN-10 17:41	DONE		

Instrument Run Log

Instrument Type: ALPHA SPECTROMETER **Batch ID: 938076**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
1202007343	MB	KXM4	1149	06-JAN-10 13:52	DONE		
1202007344	DUP	KXM4	1150	06-JAN-10 13:52	DONE		
1202007345	LCS	KXM4	1151	06-JAN-10 13:52	DONE		
243557001	SAMPLE	KXM4	1142	06-JAN-10 18:07	DONE		
243557002	SAMPLE	KXM4	1143	06-JAN-10 18:07	DONE		
243557003	SAMPLE	KXM4	1144	06-JAN-10 18:07	DUSE		
243557004	SAMPLE	KXM4	1145	06-JAN-10 18:07	DONE		
243557005	SAMPLE	KXM4	1146	06-JAN-10 18:07	DONE		
243557006	SAMPLE	KXM4	1147	06-JAN-10 18:07	DONE		
243557007	SAMPLE	KXM4	1148	06-JAN-10 18:07	DONE		
243557008	SAMPLE	KXM4	1161	06-JAN-10 18:07	DONE		
243557009	SAMPLE	KXM4	1162	06-JAN-10 18:07	DONE		
243557010	SAMPLE	KXM4	1163	06-JAN-10 18:07	DUSE		
243557011	SAMPLE	KXM4	1164	06-JAN-10 18:07	DUSE		
243557012	SAMPLE	KXM4	1165	06-JAN-10 18:07	DUSE		
243557013	SAMPLE	KXM4	1166	06-JAN-10 18:07	DUSE		
243557010	SAMPLE	KXM4	1168	09-JAN-10 10:49	DONE		
243557011	SAMPLE	KXM4	1170	09-JAN-10 10:49	DONE		
243557012	SAMPLE	KXM4	1171	09-JAN-10 10:49	DONE		
243557013	SAMPLE	KXM4	1172	09-JAN-10 10:49	DONE		
243557003	SAMPLE	KXM4	1149	09-JAN-10 11:01	DONE		

Instrument Run Log

Instrument Type: ALPHA SPECTROMETER **Batch ID: 938210**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
1202007551	DUP	HAKB	1044	07-JAN-10 10:31	DONE		
1202007552	LCS	HAKB	1045	07-JAN-10 10:31	DONE		
1202007550	MB	HAKB	1046	07-JAN-10 10:31	DONE		
243624007	SAMPLE	HAKB	1077	07-JAN-10 10:31	DONE		
243624008	SAMPLE	HAKB	1078	07-JAN-10 10:31	DONE		
243624009	SAMPLE	HAKB	1079	07-JAN-10 10:31	DONE		
243624010	SAMPLE	HAKB	1080	07-JAN-10 10:31	DONE		
243624011	SAMPLE	HAKB	1256	07-JAN-10 10:33	DONE		
243557014	SAMPLE	HAKB	1001	07-JAN-10 11:38	DONE		
243557015	SAMPLE	HAKB	1002	07-JAN-10 11:38	DONE		
243624001	SAMPLE	HAKB	1003	07-JAN-10 11:38	DONE		
243624002	SAMPLE	HAKB	1004	07-JAN-10 11:38	DONE		
243624003	SAMPLE	HAKB	1005	07-JAN-10 11:38	DUSE		
243624004	SAMPLE	HAKB	1006	07-JAN-10 11:38	DONE		
243624005	SAMPLE	HAKB	1017	07-JAN-10 11:38	DONE		
243624006	SAMPLE	HAKB	1018	07-JAN-10 11:38	DONE		
243624003	SAMPLE	HAKB	1243	08-JAN-10 14:11	DONE		

Instrument Run Log

Instrument Type: ALPHA SPECTROMETER **Batch ID: 938221**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
243624011	SAMPLE	HAKB	1043	07-JAN-10 10:31	DONE		
1202007553	MB	HAKB	1047	07-JAN-10 10:31	DONE		
1202007554	DUP	HAKB	1048	07-JAN-10 10:31	DONE		
243624005	SAMPLE	HAKB	1083	07-JAN-10 10:31	DUSE		
243624006	SAMPLE	HAKB	1084	07-JAN-10 10:31	DONE		
243624007	SAMPLE	HAKB	1085	07-JAN-10 10:31	DONE		
243624008	SAMPLE	HAKB	1086	07-JAN-10 10:31	DONE		
243624009	SAMPLE	HAKB	1087	07-JAN-10 10:31	DONE		
243624010	SAMPLE	HAKB	1088	07-JAN-10 10:31	DONE		
1202007555	LCS	HAKB	1255	07-JAN-10 10:33	DONE		
243557014	SAMPLE	HAKB	1209	07-JAN-10 11:37	DONE		
243557015	SAMPLE	HAKB	1210	07-JAN-10 11:37	DONE		
243624001	SAMPLE	HAKB	1223	07-JAN-10 11:37	DONE		
243624002	SAMPLE	HAKB	1224	07-JAN-10 11:37	DONE		
243624003	SAMPLE	HAKB	1071	07-JAN-10 11:38	DONE		
243624004	SAMPLE	HAKB	1076	07-JAN-10 11:38	DONE		
243624005	SAMPLE	HAKB	1210	08-JAN-10 14:23	DUSE		
243624005	SAMPLE	HAKB	1006	12-JAN-10 15:55	DUSE		

Instrument Run Log

Instrument Type: ALPHA SPECTROMETER **Batch ID: 938222**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
243624011	SAMPLE	HAKB	1114	09-JAN-10 11:00	DONE		
243557014	SAMPLE	HAKB	1130	09-JAN-10 11:00	DONE		
243557015	SAMPLE	HAKB	1135	09-JAN-10 11:01	DUSE		
1202007556	MB	HAKB	1136	09-JAN-10 11:01	DONE		
1202007557	DUP	HAKB	1137	09-JAN-10 11:01	DONE		
1202007558	LCS	HAKB	1138	09-JAN-10 11:01	DONE		
243624001	SAMPLE	HAKB	1139	09-JAN-10 11:01	DONE		
243624002	SAMPLE	HAKB	1140	09-JAN-10 11:01	DONE		
243624003	SAMPLE	HAKB	1141	09-JAN-10 11:01	DONE		
243624004	SAMPLE	HAKB	1142	09-JAN-10 11:01	DONE		
243624005	SAMPLE	HAKB	1143	09-JAN-10 11:01	DONE		
243624006	SAMPLE	HAKB	1144	09-JAN-10 11:01	DONE		
243624007	SAMPLE	HAKB	1145	09-JAN-10 11:01	DONE		
243624008	SAMPLE	HAKB	1146	09-JAN-10 11:01	DONE		
243624009	SAMPLE	HAKB	1147	09-JAN-10 11:01	DONE		
243624010	SAMPLE	HAKB	1148	09-JAN-10 11:01	DONE		
243557015	SAMPLE	HAKB	1132	11-JAN-10 11:56	DONE		

Instrument Run Log

Instrument Type: ALPHA SPECTROMETER **Batch ID: 939711**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
243557010	SAMPLE	KXM4	1001	12-JAN-10 15:55	DONE		
1202010902	MB	KXM4	1002	12-JAN-10 15:55	DONE		
1202010903	DUP	KXM4	1003	12-JAN-10 15:55	DONE		
1202010904	LCS	KXM4	1004	12-JAN-10 15:55	DONE		

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REQUEST NUMBER: 10-1087

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis
General Engineering Laboratories, Inc., Charleston, SC.
2040 Savage Rd
Charleston, SC 29407

These Samples are on:
LANL Request Number: 10-1087
Per Agreement Number: 126310011
Project Cost Code: MR2A054196D0

Please analyse the enclosed samples
according to the schedule indicated:

SHIP DATE: 12/23/2009
TURNAROUND/REPORT DUE: 1/22/2010
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Not Required
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:300.0	1	RE03-09-14231	S	12/22/2009	
		1	RE03-09-14232	S	12/22/2009	
		1	RE03-09-14233	S	12/22/2009	
		1	RE03-09-14234	S	12/22/2009	
		1	RE03-09-14235	S	12/22/2009	
		1	RE03-09-14236	S	12/22/2009	
		1	RE03-09-14238	S	12/22/2009	
		1	RE03-09-14239	S	12/22/2009	
		1	RE03-09-14240	S	12/22/2009	

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REQUEST NUMBER: 10-1087

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:300.0	1	RE03-09-14241	S	12/22/2009	
		1	RE03-10-2736	S	12/22/2009	
		1	RE03-10-2737	S	12/22/2009	
		1	RE03-10-9872	S	12/22/2009	
		1	RE03-10-9873	S	12/22/2009	
		1	RE03-10-9874	S	12/22/2009	
	EPA:353.2	1	RE03-10-2749	W	12/22/2009	
		1	RE03-10-2750	W	12/22/2009	
		1	RE03-10-2762	W	12/22/2009	
		1	RE03-10-2764	W	12/22/2009	
	SW-846:6010B	1	RE03-09-14231	S	12/22/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14232	S	12/22/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14233	S	12/22/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14234	S	12/22/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14235	S	12/22/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14236	S	12/22/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14238	S	12/22/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14239	S	12/22/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14240	S	12/22/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14241	S	12/22/2009	Plus, B, Li, Si, Ti, U
		1	RE03-10-2736	S	12/22/2009	
		1	RE03-10-2737	S	12/22/2009	
		1	RE03-10-2749	W	12/22/2009	
		1	RE03-10-2750	W	12/22/2009	
		1	RE03-10-2762	W	12/22/2009	
		1	RE03-10-2764	W	12/22/2009	
		1	RE03-10-9872	S	12/22/2009	
		1	RE03-10-9873	S	12/22/2009	

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REQUEST NUMBER: 10-1087

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:6010B	1	RE03-10-9874	S	12/22/2009	
	SW-846:6020	1	RE03-09-14231	S	12/22/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14232	S	12/22/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14233	S	12/22/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14234	S	12/22/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14235	S	12/22/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14236	S	12/22/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14238	S	12/22/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14239	S	12/22/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14240	S	12/22/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14241	S	12/22/2009	Plus, B, Li, Si, Ti, U
		1	RE03-10-2736	S	12/22/2009	
		1	RE03-10-2737	S	12/22/2009	
		1	RE03-10-2749	W	12/22/2009	
		1	RE03-10-2750	W	12/22/2009	
		1	RE03-10-2762	W	12/22/2009	
		1	RE03-10-2764	W	12/22/2009	
		1	RE03-10-9872	S	12/22/2009	
		1	RE03-10-9873	S	12/22/2009	
		1	RE03-10-9874	S	12/22/2009	
	SW-846:6850	1	RE03-09-14231	S	12/22/2009	
		1	RE03-09-14232	S	12/22/2009	
		1	RE03-09-14233	S	12/22/2009	
		1	RE03-09-14234	S	12/22/2009	
		1	RE03-09-14235	S	12/22/2009	
		1	RE03-09-14236	S	12/22/2009	
		1	RE03-09-14238	S	12/22/2009	
		1	RE03-09-14239	S	12/22/2009	

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REQUEST NUMBER: 10-1087

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:6850	1	RE03-09-14240	S	12/22/2009	
		1	RE03-09-14241	S	12/22/2009	
		1	RE03-10-2736	S	12/22/2009	
		1	RE03-10-2737	S	12/22/2009	
		1	RE03-10-2749	W	12/22/2009	
		1	RE03-10-2750	W	12/22/2009	
		1	RE03-10-2762	W	12/22/2009	
		1	RE03-10-2764	W	12/22/2009	
		1	RE03-10-9872	S	12/22/2009	
		1	RE03-10-9873	S	12/22/2009	
		1	RE03-10-9874	S	12/22/2009	
	SW-846:7471A	1	RE03-09-14231	S	12/22/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14232	S	12/22/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14233	S	12/22/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14234	S	12/22/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14235	S	12/22/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14236	S	12/22/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14238	S	12/22/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14239	S	12/22/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14240	S	12/22/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14241	S	12/22/2009	Plus, B, Li, Si, Ti, U
		1	RE03-10-2736	S	12/22/2009	
		1	RE03-10-2737	S	12/22/2009	
		1	RE03-10-9872	S	12/22/2009	
		1	RE03-10-9873	S	12/22/2009	
		1	RE03-10-9874	S	12/22/2009	
	SW-846:9012A	1	RE03-09-14231	S	12/22/2009	
		1	RE03-09-14232	S	12/22/2009	

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REQUEST NUMBER: 10-1087

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:9012A	1	RE03-09-14233	S	12/22/2009	
		1	RE03-09-14234	S	12/22/2009	
		1	RE03-09-14235	S	12/22/2009	
		1	RE03-09-14236	S	12/22/2009	
		1	RE03-09-14238	S	12/22/2009	
		1	RE03-09-14239	S	12/22/2009	
		1	RE03-09-14240	S	12/22/2009	
		1	RE03-09-14241	S	12/22/2009	
		1	RE03-10-2736	S	12/22/2009	
		1	RE03-10-2737	S	12/22/2009	
		1	RE03-10-2749	W	12/22/2009	
		1	RE03-10-2750	W	12/22/2009	
		1	RE03-10-2762	W	12/22/2009	
		1	RE03-10-2764	W	12/22/2009	
		1	RE03-10-9872	S	12/22/2009	
		1	RE03-10-9873	S	12/22/2009	
		1	RE03-10-9874	S	12/22/2009	
	SW-846:9045C	1	RE03-09-14231	S	12/22/2009	
		1	RE03-09-14232	S	12/22/2009	
		1	RE03-09-14233	S	12/22/2009	
		1	RE03-09-14234	S	12/22/2009	
		1	RE03-09-14235	S	12/22/2009	
		1	RE03-09-14236	S	12/22/2009	
		1	RE03-09-14238	S	12/22/2009	
		1	RE03-09-14239	S	12/22/2009	
		1	RE03-09-14240	S	12/22/2009	
		1	RE03-09-14241	S	12/22/2009	
		1	RE03-10-2736	S	12/22/2009	

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REQUEST NUMBER: 10-1087

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:9045C	1	RE03-10-2737	S	12/22/2009	
		1	RE03-10-9872	S	12/22/2009	
		1	RE03-10-9873	S	12/22/2009	
		1	RE03-10-9874	S	12/22/2009	

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LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1087C

REQUEST NUMBER: 10-1087

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Valerie Davis

TURNAROUND/REPORT DUE: 1/22/2010

TURNAROUND REQ'D: 30

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

LAB REQUEST COMMENTS:

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE03-09-14233	1	POLY	METALS-GEL	Ice	S
RE03-09-14233	1	POLY	Perchlorate+CN+N03+pH	Ice	S
RE03-09-14236	1	POLY	METALS-GEL	Ice	S
RE03-09-14236	1	POLY	Perchlorate+CN+N03+pH	Ice	S
RE03-09-14239	1	POLY	METALS-GEL	Ice	S
RE03-09-14239	1	POLY	Perchlorate+CN+N03+pH	Ice	S
RE03-09-14240	1	POLY	METALS-GEL	Ice	S
RE03-09-14240	1	POLY	Perchlorate+CN+N03+pH	Ice	S
RE03-09-14231	1	POLY	METALS-GEL	Ice	S
RE03-09-14231	1	POLY	Perchlorate+CN+N03+pH	Ice	S
RE03-09-14232	1	POLY	METALS-GEL	Ice	S
RE03-09-14232	1	POLY	Perchlorate+CN+N03+pH	Ice	S
RE03-09-14235	1	POLY	METALS-GEL	Ice	S
RE03-09-14235	1	POLY	Perchlorate+CN+N03+pH	Ice	S
RE03-09-14238	1	POLY	METALS-GEL	Ice	S
RE03-09-14238	1	POLY	Perchlorate+CN+N03+pH	Ice	S
RE03-09-14234	1	POLY	METALS-GEL	Ice	S
RE03-09-14234	1	POLY	Perchlorate+CN+N03+pH	Ice	S
RE03-09-14241	1	POLY	METALS-GEL	Ice	S
RE03-09-14241	1	POLY	Perchlorate+CN+N03+pH	Ice	S
RE03-10-2737	1	POLY	METALS-GEL	Ice	S
RE03-10-2737	1	POLY	Perchlorate+CN+N03+pH	Ice	S
RE03-10-2736	1	POLY	METALS-GEL	Ice	S
RE03-10-2736	1	POLY	Perchlorate+CN+N03+pH	Ice	S
RE03-10-2750	1	POLY	METALS-GEL	Nitric Acid	W
RE03-10-2750	1	POLY	TCN	Sodium Hydroxide	W
RE03-10-2749	1	POLY	METALS-GEL	Nitric Acid	W
RE03-10-2749	1	POLY	TCN	Sodium Hydroxide	W
RE03-10-2764	1	POLY	METALS-GEL	Nitric Acid	W
RE03-10-2764	1	POLY	TCN	Sodium Hydroxide	W
RE03-10-2762	1	POLY	METALS-GEL	Nitric Acid	W
RE03-10-2762	1	POLY	TCN	Sodium Hydroxide	W

Monday, December 28, 2009

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1087C

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE03-10-2749	1	POLY	NO3NO2	Sulfuric Acid (Hydrogen Sulfate)	W
RE03-10-2749	1	POLY	SW-846:6850	Ice	W
RE03-10-2750	1	POLY	NO3NO2	Sulfuric Acid (Hydrogen Sulfate)	W
RE03-10-2750	1	POLY	SW-846:6850	Ice	W
RE03-10-2762	1	POLY	NO3NO2	Sulfuric Acid (Hydrogen Sulfate)	W
RE03-10-2762	1	POLY	SW-846:6850	Ice	W
RE03-10-2764	1	POLY	NO3NO2	Sulfuric Acid (Hydrogen Sulfate)	W
RE03-10-2764	1	POLY	SW-846:6850	Ice	W
RE03-10-9872	1	POLY	METALS-GEL	Ice	S
RE03-10-9872	1	POLY	Perchlorate+CN+N03+pH	Ice	S
RE03-10-9873	1	POLY	METALS-GEL	Ice	S
RE03-10-9873	1	POLY	Perchlorate+CN+N03+pH	Ice	S
RE03-10-9874	1	POLY	METALS-GEL	Ice	S
RE03-10-9874	1	POLY	Perchlorate+CN+N03+pH	Ice	S

Relinquished By:	Date	Time	Received By:	Date	Time
	12/23/09	2:00			

Printed Name Signature — Printed Name Signature

Printed Name Signature — Printed Name Signature

Printed Name Signature — Printed Name Signature

Received for DISPOSAL By: **Date** **Time** **Remarks:**

Printed Name Signature

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2276 **EVENT NAME:** Soil Sampling at TA-60

SAMPLE ID: RE03-09-14231 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12/22/09	MEDIA:	NA	Qbt-3
TIME COLLECTED (HH:MM)		0830	SUB-MEDIA:	OTHER	NA
PRS ID:	60-006(a)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	03-608410		FIELD QC TYPE:	NA	
LOCATION TYPE:	BH		FIELD PREP:	NA	
TOP DEPTH:	0	JLJ 5' 18	SAMPLE USAGE:	INV	
BOTTOM DEPTH:	0	12-22-09 6' 19	SCREEN/PORT DESC:		NA
FIELD MATRIX:	SR JLJ 12-22-09		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: ——— COMPOSITE TIME INTERVAL: ——— WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: ——— BOREHOLE DIRECTION: ———

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+8082	250 ML AMBER GLASS	Ice	Y	
1		AM-241+ISOPU+ISOU	500 ML POLY	None	Y	
1		H3	500 ML POLY	Ice	Y	
1		METALS-GEL	125 ML POLY	Ice	Y	
1		Perchlorate+CN+N03+pH	500 ML POLY	Ice	Y	

SAMPLE DESC: Qbt 3 tuff, sl. moist, weathered, reddish-gray 5YR5/2

SAMPLE COMMENTS: Samples to be collected from former location of tank.

LOCATION DESC: 6(a)-2

FIELD SCREENING/MEASUREMENT RESULTS: PID = 0 ppm
Background: α = 78 dpm
β = 1356 dpm
Samples < MDA

COLLECTED BY (PRINT) J. Joys, S. Stands **REVIEWED BY (PRINT)** J. Jus

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) J. Joys (Signature)	12-22-09 1715	(Printed Name) (Signature)	12-22-09 1715
RELINQUISHED BY (Printed Name)	Date/Time	RECEIVED BY (Printed Name)	Date/Time

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2276 **EVENT NAME:** Soil Sampling at TA-60

SAMPLE ID: RE03-09-14232 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12-22-09	MEDIA:	NA	Qbt-3
TIME COLLECTED (HH:MM)		0840	SUB-MEDIA:	OTHER	OK
PRS ID:	60-006(a)	OK	SAMPLE TECH CODE:	HA	
LOCATION ID:	03-608410		FIELD QC TYPE:	NA	
LOCATION TYPE:	BH		FIELD PREP:	NA	
TOP DEPTH:	0	22 ~~12-10-09~~ 9'	SAMPLE USAGE:	INV	
BOTTOM DEPTH:	0	23 ~~12-10-09~~ 10'	SCREEN/PORT DESC:		NA
FIELD MATRIX:	S	R 12-22-09 12-22-09	EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+8082	250 ML AMBER GLASS	Ice	Y	
1		AM-241+ISOPU+ISOU	500 ML POLY	None	Y	
1		H3	500 ML POLY	Ice	Y	
1		METALS-GEL	125 ML POLY	Ice	Y	
1		Perchlorate+CN+N03+pH	500 ML POLY	Ice	Y	

SAMPLE DESC: Qbt3, tuff, sl. moist, sl. weathered, reddish-gray 5YR 5/3

SAMPLE COMMENTS: Samples to be collected from former location of tank.

LOCATION DESC: 6(a)-2

FIELD SCREENING/MEASUREMENT RESULTS: PID = 0.3 ppm All < MDA

α 78 dpm
β 1356 dpm

COLLECTED BY (PRINT) M. Sherrod, J. Toya **REVIEWED BY (PRINT)** J. Jones

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) J. Jones	12-22-09	(Printed Name)	12-22-09
(Signature)	1715	(Signature)	1715
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2276 **EVENT NAME:** Soil Sampling at TA-60

SAMPLE ID: RE03-09-14233 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12-22-09	MEDIA:	NA	QBt-3
TIME COLLECTED (HH:MM)		1855	SUB-MEDIA:	OTHER	OK
PRS ID:	60-006(a)	OK	SAMPLE TECH CODE:	HA	
LOCATION ID:	03-608410		FIELD QC TYPE:	NA	
LOCATION TYPE:	BH		FIELD PREP:	NA	
TOP DEPTH:	0	JLS ~~14~~ 27 ft	SAMPLE USAGE:	INV	
BOTTOM DEPTH:	0	12-22-~~25~~ 29 ft	SCREEN/PORT DESC:		NA
FIELD MATRIX:	~~S~~ R JLS 12-22-09		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C ~~+8082~~ 12-10-09	250 ML AMBER GLASS	Ice	Y	
1		AM-241+ISOPU+ISOU	500 ML POLY	None	Y	
1		H3	500 ML POLY	Ice	Y	
1		METALS-GEL	125 ML POLY	Ice	Y	
1		Perchlorate+CN+N03+pH	500 ML POLY	Ice	Y	

SAMPLE DESC: QBt-3, tuff, sl. moist, unweathered, reddish-gray 5YR 5/2

SAMPLE COMMENTS: Samples to be collected from former location of tank.

LOCATION DESC: 60(a)-2

FIELD SCREENING/MEASUREMENT RESULTS: PID = 0.3 ppm All < MDA

α = 78 dpm
β = 1356 dpm

COLLECTED BY (PRINT) J. Toys, M. Sherko **REVIEWED BY (PRINT)** J. Jul

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) J. Jul	12-22-09	(Printed Name)	12-22-09
(Signature)	1715	(Signature)	1715
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2276 **EVENT NAME:** Soil Sampling at TA-60

SAMPLE ID: RE03-09-14234 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12/22/09	MEDIA:	NA	Qbt-3
TIME COLLECTED (HH:MM)		1020	SUB-MEDIA:	OTHER	NA
PRS ID:	60-006(a)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	03-608411		FIELD QC TYPE:	NA	
LOCATION TYPE:	BH		FIELD PREP:	NA	
TOP DEPTH:	0		SAMPLE USAGE:	INV	
BOTTOM DEPTH:	0 JRS 12-22-09	~~5'~~ JRS 12-22-09 18 ft 19 ft	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	SR Qbt-3		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+~~8082~~ 12-1009	250 ML AMBER GLASS	Ice	Y	
1		AM-241+ISOPU+ISOU	500 ML POLY	None	Y	
1		H3	500 ML POLY	Ice	Y	
1		METALS-GEL	125 ML POLY	Ice	Y	
1		Perchlorate+CN+N03+pH	500 ML POLY	Ice	Y	

SAMPLE DESC: tuff, Qbt-3, sl. moist, weathered, reddish-gray 5YR 5/3

SAMPLE COMMENTS: Samples to be collected from former location of tank.

LOCATION DESC: 6(a)-3

FIELD SCREENING/MEASUREMENT RESULTS: PID = 0.0 ppm Samples & MDA
Background: α = 78 dpm
Screening β = 1356 dpm

COLLECTED BY (PRINT) J Toya M. Sherwood **REVIEWED BY (PRINT)** J. Trel

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) J. Trel (Signature)	1715	(Printed Name) (Signature)	12-22-09 1715
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2276 **EVENT NAME:** Soil Sampling at TA-60

SAMPLE ID: RE03-09-14235 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12/22/09	MEDIA:	NA	Qbt-3
TIME COLLECTED (HH:MM)		1030	SUB-MEDIA:	OTHER	NA
PRS ID:	60-006(a)	ok	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	03-608411		FIELD QC TYPE:	NA	
LOCATION TYPE:	BH		FIELD PREP:	NA	
TOP DEPTH:	0	DLJ 12-22-09 9' 22 ft	SAMPLE USAGE:	INV	
BOTTOM DEPTH:	0	10' 23 ft	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	~~S~~R JLJ 12-22-09		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: _____ COMPOSITE TIME INTERVAL: _____ WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: _____ BOREHOLE DIRECTION: _____

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C ~~+8082~~ 12-10-09	250 ML AMBER GLASS	Ice	Y	
1		AM-241+ISOPU+ISOU	500 ML POLY	None	Y	
1		H3	500 ML POLY	Ice	Y	
1		METALS-GEL	125 ML POLY	Ice	Y	
1		Perchlorate+CN+N03+pH	500 ML POLY	Ice	Y	

SAMPLE DESC: tuff, Qbt-3, sl. moist, very weathered, reddish-gray 5YR5/2

SAMPLE COMMENTS: Samples to be collected from former location of tank.

LOCATION DESC: 6(a)-3

FIELD SCREENING/MEASUREMENT RESULTS: PID = 0 ppm
Background: α = 78 dpm
Screening: β = 1356 dpm
Samples < MDA

COLLECTED BY (PRINT) J. Tonza **REVIEWED BY (PRINT)** J. Jordan

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) J. Jordan	12-22-09	(Printed Name)	12-22-09
(Signature)	1715	(Signature)	1715
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2276 **EVENT NAME:** Soil Sampling at TA-60

SAMPLE ID: RE03-09-14236 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12/22/09	MEDIA:	NA	Qbt-3
TIME COLLECTED (HH:MM)		1040	SUB-MEDIA:	OTHER	NA
PRS ID:	60-006(a)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	03-608411		FIELD QC TYPE:	NA	
LOCATION TYPE:	BH		FIELD PREP:	NA	
TOP DEPTH:	0	~~14~~ 27 ft	SAMPLE USAGE:	INV	
BOTTOM DEPTH:	0	~~15~~ 28 ft	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	SL		EXCAVATED: YES / NO / NA		

JLJ 12-22-09

COMPOSITE TYPE: ——— COMPOSITE TIME INTERVAL: ——— WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: ——— BOREHOLE DIRECTION: ———

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+~~8082~~ 12-10-09	250 ML AMBER GLASS	Ice	Y	
1		AM-241+ISOPU+ISOU	500 ML POLY	None	Y	
1		H3	500 ML POLY	Ice	Y	
1		METALS-GEL	125 ML POLY	Ice	Y	
1		Perchlorate+CN+N03+pH	500 ML POLY	Ice	Y	

SAMPLE DESC: Qbt-3, tuff, sl. moist, very weathered, reddish-gray ~~5 YR~~ 5YR 5/2 JLJ 12-22-09

SAMPLE COMMENTS: Samples to be collected from former location of tank.

LOCATION DESC: 6(a)-3

FIELD SCREENING/MEASUREMENT RESULTS: PID = 0 ppm
Background: α = 73 dpm
Screening β = 1356 dpm
Samples < MDA

COLLECTED BY (PRINT) M. Chavez, J. Toya **REVIEWED BY (PRINT)** J. Jusk

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) (Signature)	12-22-09 1715	(Printed Name) (Signature)	12-22-09 1715
RELINQUISHED BY (Printed Name)	Date/Time	RECEIVED BY (Printed Name)	Date/Time

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2276 **EVENT NAME:** Soil Sampling at TA-60

SAMPLE ID: RE03-09-14238 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12/22/09	MEDIA:	NA	Qbt3
TIME COLLECTED (HH:MM)		1205	SUB-MEDIA:	OTHER	
PRS ID:	60-006(a)	ok	SAMPLE TECH CODE:	HA	
LOCATION ID:	03-608412		FIELD QC TYPE:	NA	
LOCATION TYPE:	BH		FIELD PREP:	NA	
TOP DEPTH:	0	JRJ ~~5~~ ~~2~~ 10'	SAMPLE USAGE:	INV	
BOTTOM DEPTH:	0	12-12-09 ~~6~~ ~~3~~ 11'	SCREEN/PORT DESC:		NA
FIELD MATRIX:	~~S~~ R	JRJ 12-22-09	EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: ~~WATER FLOWING: YES / NO / NA~~

BOREHOLE: YES / NO / NA ~~BOREHOLE DECLINATION:~~ ~~BOREHOLE DIRECTION:~~

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+8082	250 ML AMBER GLASS	Ice	Y	
1		AM-241+ISOPU+ISOU	500 ML POLY	None	Y	
1		H3	500 ML POLY	Ice	Y	
1		METALS-GEL	125 ML POLY	Ice	Y	
1		Perchlorate+CN+N03+pH	500 ML POLY	Ice	Y	

SAMPLE DESC: tuff, Qbt3, sl. moist, sl. weathered, reddish-gray 5YR5/3

SAMPLE COMMENTS: Samples to be collected from seepage pit.

LOCATION DESC: 60(a)-4, moved 4 ft north, ~~outside~~ downgradient of seepage pit JRJ 12-22-09

FIELD SCREENING/MEASUREMENT RESULTS: PID = 0.5 ppm All < MDA
α = 78 dpm
β = 1356 dpm

COLLECTED BY (PRINT) J. Fox, M. Shields **REVIEWED BY (PRINT)** J. Jordan

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) J. Jordan	12-22-09	(Printed Name)	12-22-09
(Signature)	1715	(Signature)	1715
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2276 **EVENT NAME:** Soil Sampling at TA-60

SAMPLE ID: RE03-09-14239 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12/22/09	MEDIA:	NA	Qbt3
TIME COLLECTED (HH:MM)		1215	SUB-MEDIA:	OTHER	
PRS ID:	60-006(a)	OK	SAMPLE TECH CODE:	HA	
LOCATION ID:	03-608412		FIELD QC TYPE:	NA	
LOCATION TYPE:	BH		FIELD PREP:	NA	
TOP DEPTH:	0	~~8~~ ~~B~~ 14'	SAMPLE USAGE:	INV	
BOTTOM DEPTH:	0	JWJ 12-22-09 ~~8~~ ~~B~~ 15'	SCREEN/PORT DESC:		NA
FIELD MATRIX:	~~S~~ R JWJ 12-22-09		EXCAVATED: YES / NO	NA	

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: ~~WATER FLOWING: YES / NO / NA~~

BOREHOLE: YES / NO / NA ~~BOREHOLE DECLINATION:~~ ~~BOREHOLE DIRECTION:~~

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+8082	250 ML AMBER GLASS	Ice	Y	
1		AM-241+ISOPU+ISOU	500 ML POLY	None	Y	
1		H3	500 ML POLY	Ice	Y	
1		METALS-GEL	125 ML POLY	Ice	Y	
1		Perchlorate+CN+N03+pH	500 ML POLY	Ice	Y	

SAMPLE DESC: tuff, Qbt 3, sl. moist, sl. weathered, reddish-gray 5YR 5/2

SAMPLE COMMENTS: Samples to be collected from seepage pit.

LOCATION DESC: 6(a)-4 moved 4 ft north, down gradient of seepage pit

FIELD SCREENING/MEASUREMENT RESULTS: PID = 0.5 ppm All < MDA
α = 78 dpm
β = 1356 dpm

COLLECTED BY (PRINT) M. Sheedy, J. Toya **REVIEWED BY (PRINT)** J. J[illegible]

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) J[illegible] (Signature)	12-22-09 1715	(Printed Name) (Signature)	12-22-09 1715
RELINQUISHED BY (Printed Name)	**Date/Time**	**RECEIVED BY** (Printed Name)	**Date/Time**

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2276 **EVENT NAME:** Soil Sampling at TA-60

SAMPLE ID: RE03-09-14240 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12/22/09	MEDIA:	NA	Qbt-3
TIME COLLECTED (HH:MM)		1220	SUB-MEDIA:	OTHER	
PRS ID:	60-006(a)	OK	SAMPLE TECH CODE:	HA	
LOCATION ID:	03-608412		FIELD QC TYPE:	NA	
LOCATION TYPE:	BH		FIELD PREP:	NA	
TOP DEPTH:	0	JJT 12-22-09 18'	SAMPLE USAGE:	INV	
BOTTOM DEPTH:	0	19' 19'	SCREEN/PORT DESC:		NA
FIELD MATRIX:	SR JJT 12-22-09		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA ~~COMPOSITE TIME INTERVAL:~~ ~~WATER FLOWING: YES / NO / NA~~

BOREHOLE: YES / NO / NA ~~BOREHOLE DECLINATION:~~ BOREHOLE DIRECTION:

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C~~+8082~~ 12-10-09	250 ML AMBER GLASS	Ice	Y	
1		AM-241+ISOPU+ISOU	500 ML POLY	None	Y	
1		H3	500 ML POLY	Ice	Y	
1		METALS-GEL	125 ML POLY	Ice	Y	
1		Perchlorate+CN+N03+pH	500 ML POLY	Ice	Y	

SAMPLE DESC: tuff, Qbt3, sl. moist, unweathered reddish-gray 5YR 5/2

SAMPLE COMMENTS: Samples to be collected from seepage pit.

LOCATION DESC: 6a-4 moved 4 ft north, down gradient of seepage pit

FIELD SCREENING/MEASUREMENT RESULTS: PID = 0.0 ppm All < MDA
α = 78 dpm
β = 1356 dpm

COLLECTED BY (PRINT) J. Toya, M. Shando **REVIEWED BY (PRINT)** J. J

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) J. J (Signature)	12-22-09 1715	(Printed Name) (Signature)	12-22-09 1715
RELINQUISHED BY (Printed Name)	Date/Time	RECEIVED BY (Printed Name)	Date/Time

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2276 **EVENT NAME:** Soil Sampling at TA-60

SAMPLE ID: RE03-09-14241 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12/22/09	MEDIA:	NA	Qbt3 OK
TIME COLLECTED (HH:MM)		1230	SUB-MEDIA:	OTHER	
PRS ID:	60-006(a)	OK	SAMPLE TECH CODE:	HA	
LOCATION ID:	03-608412		FIELD QC TYPE:	NA	
LOCATION TYPE:	BH		FIELD PREP:	NA	
TOP DEPTH:	0	JRT ~~14~~ 23'	SAMPLE USAGE:	INV	
BOTTOM DEPTH:	0	12-22-09 ~~15~~ 24'	SCREEN/PORT DESC:		NA
FIELD MATRIX:	SR JRT 12-22-09		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: OK COMPOSITE TIME INTERVAL: WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: BOREHOLE DIRECTION:

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C ~~+8082~~	250 ML AMBER GLASS	Ice	Y	
1		AM-241+ISOPU+ISO U	500 ML POLY	None	Y	
1		H3	500 ML POLY	Ice	Y	
1		METALS-GEL	125 ML POLY	Ice	Y	
1		Perchlorate+CN+N03+pH	500 ML POLY	Ice	Y	

SAMPLE DESC: tuff, Qbt3, sl. moist, unweathered, reddish-gray ~~5YR~~ 5YR 5/2 JRT 12-22-09

SAMPLE COMMENTS: Samples to be collected from seepage pit.

moved 4 ft north, downgradient of seepage pit

LOCATION DESC: 6(a)-4

FIELD SCREENING/MEASUREMENT RESULTS:

Field Screening background PID = 0.0 ppm α = 78 dpm β = 1356 dpm All < MDA

COLLECTED BY (PRINT) M. Shendo **REVIEWED BY (PRINT)** J. Jul

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) (Signature)	12-22-09 1715	(Printed Name) (Signature)	12-22-09 1715
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2276 **EVENT NAME:** Soil Sampling at TA-60

SAMPLE ID: RE03-10-2736 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12/22/09	MEDIA:	ALLH	Qbt-3
TIME COLLECTED (HH:MM)		0855	SUB-MEDIA:	SOIL	ok
PRS ID:	60-006(a)	ok	SAMPLE TECH CODE:	HA	
LOCATION ID:	UNK	03-608410	FIELD QC TYPE:	FD	
LOCATION TYPE:	GENERIC	ok	FIELD PREP:	NA	
TOP DEPTH:	0	27 ft	SAMPLE USAGE:	QC	
BOTTOM DEPTH:	0	28 Ft	SCREEN/PORT DESC:		NA
FIELD MATRIX:	~~S~~ R JLT 12-22-09		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: ——— COMPOSITE TIME INTERVAL: ——— WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: ——— BOREHOLE DIRECTION: ———

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+8082	250 ML AMBER GLASS	Ice	Y	
1		AM-241+ISOPU+ISOU	500 ML POLY	None	Y	
1		H3	500 ML POLY	Ice	Y	
1		METALS-GEL	125 ML POLY	Ice	Y	
1		Perchlorate+CN+N03+pH	500 ML POLY	Ice	Y	

SAMPLE DESC: QC Sample of RE03-09-14233

SAMPLE COMMENTS:

LOCATION DESC: 6(a) - 2

FIELD SCREENING/MEASUREMENT RESULTS: PID = 0.3 ppm All LMDA
α = 78 dpm
β = 1356 dpm

COLLECTED BY (PRINT) J. Toya, M. Shando **REVIEWED BY (PRINT)** J. Trujillo

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) J. Toya (Signature)	12-22-09 1715	(Printed Name) (Signature)	12-22-09 1715
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2276 **EVENT NAME:** Soil Sampling at TA-60

SAMPLE ID: RE03-10-2737 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12/22/09	MEDIA:	ALLH JRJ 12-22-09	O/C QB+3
TIME COLLECTED (HH:MM)		1445	SUB-MEDIA:	~~SOIL~~ R Soil	
PRS ID:	60-006(a)	ok	SAMPLE TECH CODE:	HA	
LOCATION ID:	UNK 03-6084/2	o/c	FIELD QC TYPE:	FD	
LOCATION TYPE:	GENERIC	ok	FIELD PREP:	NA	
TOP DEPTH:	0	60'	SAMPLE USAGE:	QC	
BOTTOM DEPTH:	0	61'	SCREEN/PORT DESC:		NA
FIELD MATRIX:	~~S~~ R JRJ 12-22-09		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+8082	250 ML AMBER GLASS	Ice	Y	
1		AM-241+ISOPU+ISO U	500 ML POLY	None	Y	
1		H3	500 ML POLY	Ice	Y	
1		METALS-GEL	125 ML POLY	Ice	Y	
1		Perchlorate+CN+N03+pH	500 ML POLY	Ice	Y	

SAMPLE DESC: QC Sample of RE03-10-9874

SAMPLE COMMENTS:

Field duplicate of RE03-10-9874

LOCATION DESC:

FIELD SCREENING/MEASUREMENT RESULTS:

Field Screening background

PID = 0.1 ppm
α = 78 dpm
β = 1356 dpm

All < MDA

COLLECTED BY (PRINT) M. Schendo

REVIEWED BY (PRINT) J. Jack

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name)	12-22-09	(Printed Name)	12-22-09
(Signature)	1715	(Signature) JJ	12-22-09 1715
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2276 **EVENT NAME:** Soil Sampling at TA-60

SAMPLE ID: RE03-10-2749 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12-22-09	MEDIA:	NA	OK
TIME COLLECTED (HH:MM)		0855	SUB-MEDIA:	OTHER	
PRS ID:	60-006(a)	OK	SAMPLE TECH CODE:	DC	
LOCATION ID:	UNK	03-608410	FIELD QC TYPE:	FB	
LOCATION TYPE:	GENERIC	OK	FIELD PREP:	UF	
TOP DEPTH:	0	27 ft	SAMPLE USAGE:	QC	
BOTTOM DEPTH:	0	28 ft	SCREEN/PORT DESC:		NA
FIELD MATRIX:	W		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: _____ WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: _____ BOREHOLE DIRECTION: _____

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		METALS-GEL	1 LITER POLY	Nitric Acid	Y	
1		TCN	500 ML POLY	Sodium Hydroxide	Y	
1		NO3NO2	250 ML POLY	Sulfuric Acid (Hydrogen Sulfate)	Y	
1		SW-846:6850	250 ML POLY	Ice	Y	

SAMPLE DESC: QC Sample of RE03-09-14233

SAMPLE COMMENTS:

LOCATION DESC: 6a-2

FIELD SCREENING/MEASUREMENT RESULTS: PID = 0 ppm
α = 78 dpm
β = 1356 dpm
All < MDA

COLLECTED BY (PRINT) M. Sherald **REVIEWED BY (PRINT)** J. Jordan

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) (Signature)	12-22-09 1715	(Printed Name) (Signature)	12-22-09 1715
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name) (Signature)		(Printed Name) (Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2276 **EVENT NAME:** Soil Sampling at TA-60

SAMPLE ID: RE03-10-2750 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12-22-09	MEDIA:	NA	OK
TIME COLLECTED (HH:MM)		1445	SUB-MEDIA:	OTHER	
PRS ID:	60-006(a)	OK	SAMPLE TECH CODE:	DC	
LOCATION ID:	UNK 03-60841d		FIELD QC TYPE:	FB	
LOCATION TYPE:	GENERIC		FIELD PREP:	UF	
TOP DEPTH:	0	60 Ft	SAMPLE USAGE:	QC	
BOTTOM DEPTH:	0	61 Ft	SCREEN/PORT DESC:		NA
FIELD MATRIX:	W		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: _____ WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: _____ BOREHOLE DIRECTION: _____

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		METALS-GEL	1 LITER POLY	Nitric Acid	Y	
1		TCN	500 ML POLY	Sodium Hydroxide	Y	
1		NO3NO2	250 ML POLY	Sulfuric Acid (Hydrogen Sulfate)	Y	
1		SW-846:6850	250 ML POLY	Ice	Y	

SAMPLE DESC: QC Sample of RE03-10-9874

SAMPLE COMMENTS:

LOCATION DESC: 6a-4

FIELD SCREENING/MEASUREMENT RESULTS: PID = 0.1 ppm AIKMDA
α = 78 dpm
β = 1356 dpm

COLLECTED BY (PRINT) J. Toya, M. Shesto **REVIEWED BY (PRINT)** J. T

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) J. T (Signature)	12-22-09 1715	(Printed Name) (Signature)	12-22-09 1715
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name) (Signature)		(Printed Name) (Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2276 **EVENT NAME:** Soil Sampling at TA-60

SAMPLE ID: RE03-10-2762 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12-22-09	MEDIA:	NA	ok
TIME COLLECTED (HH:MM)		0910	SUB-MEDIA:	OTHER	
PRS ID:	60-006(a)	ok	SAMPLE TECH CODE:	DC	
LOCATION ID:	UNK	03-608410	FIELD QC TYPE:	FR	
LOCATION TYPE:	GENERIC	ok	FIELD PREP:	UF	
TOP DEPTH:	0	27 ft	SAMPLE USAGE:	QC	
BOTTOM DEPTH:	0	28 ft	SCREEN/PORT DESC:		NA
FIELD MATRIX:	W		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: _____ WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: _____ BOREHOLE DIRECTION: _____

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		METALS-GEL	1 LITER POLY	Nitric Acid	Y	
1		TCN	500 ML POLY	Sodium Hydroxide	Y	
1		NO3NO2	250 ML POLY	Sulfuric Acid (Hydrogen Sulfate)	Y	
1		SW-846:6850	250 ML POLY	Ice	Y	

SAMPLE DESC: QC Sample of RE03-09-14233

SAMPLE COMMENTS:

LOCATION DESC: 6a-2

FIELD SCREENING/MEASUREMENT RESULTS: PID = 0 ppm All < MDA
α = 78 dpm
β = 1356 dpm

COLLECTED BY (PRINT) M. Shando **REVIEWED BY (PRINT)** J. Jul

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) J. Jul (Signature)	12-22-09 1715	(Printed Name) (Signature)	12-22-09 1715
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name) (Signature)		(Printed Name) (Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2276 **EVENT NAME:** Soil Sampling at TA-60

SAMPLE ID: RE03-10-2764 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12-22-09	MEDIA:	NA	OK
TIME COLLECTED (HH:MM)		1500	SUB-MEDIA:	OTHER	
PRS ID:	60-006(a)	OK	SAMPLE TECH CODE:	DC	
LOCATION ID:	UNK	03-608412	FIELD QC TYPE:	FR	
LOCATION TYPE:	GENERIC	OK	FIELD PREP:	UF	
TOP DEPTH:	0	60 ft	SAMPLE USAGE:	QC	
BOTTOM DEPTH:	0	61 ft	SCREEN/PORT DESC:		NA
FIELD MATRIX:	W		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: _____ WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA ~~BOREHOLE DECLINATION:~~ _____ BOREHOLE DIRECTION: _____

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		METALS-GEL	1 LITER POLY	Nitric Acid	Y	
1		TCN	500 ML POLY	Sodium Hydroxide	Y	
1		NO3NO2	250 ML POLY	Sulfuric Acid (Hydrogen Sulfate)	Y	
1		SW-846:6850	250 ML POLY	Ice	Y	

SAMPLE DESC: QC Sample of RE03-10-9874

SAMPLE COMMENTS:

LOCATION DESC: 6 a-4

FIELD SCREENING/MEASUREMENT RESULTS: PID = 0.1 ppm All < MDA
α = 78 dpm
β = 1356 dpm

COLLECTED BY (PRINT) M. Sheardo / J. Toya **REVIEWED BY (PRINT)** J. Jordan

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) [signature]	12-22-09	(Printed Name) [signature]	12-22-09
(Signature)	1715	(Signature)	1715
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2276 **EVENT NAME:** Soil Sampling at TA-60

SAMPLE ID: RE03-10-9872 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12/22/09	MEDIA:	NA	Qbt-3
TIME COLLECTED (HH:MM)	JRJ 12-22-09	1255	SUB-MEDIA:	OTHER	OK
PRS ID:	~~TA-60~~ 60-006(c)	OK	SAMPLE TECH CODE:	HA	
LOCATION ID:	03-608412		FIELD QC TYPE:	NA	
LOCATION TYPE:	BH		FIELD PREP:	NA	
TOP DEPTH:	0	35'	SAMPLE USAGE:	INV	
BOTTOM DEPTH:	0	36'	SCREEN/PORT DESC:		NA
FIELD MATRIX:	SR JRJ 12-22-09		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: _____ **COMPOSITE TIME INTERVAL:** _____ **WATER FLOWING:** YES / NO / NA

BOREHOLE: YES / NO / NA **BOREHOLE DECLINATION:** _____ **BOREHOLE DIRECTION:** _____

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+8082	250 ML AMBER GLASS	Ice	Y	
1		AM-241+ISOPU+ISOU	500 ML POLY	None	Y	
1		H3	500 ML POLY	Ice	Y	
1		METALS-GEL	125 ML POLY	Ice	Y	
1		Perchlorate+CN+N03+pH	500 ML POLY	Ice	Y	

SAMPLE DESC: tuff, Qbt3, sl. moist, unweathered, reddish-gray 5YR 5/2

SAMPLE COMMENTS: hole moved 4 ft north, down gradient of seepage pit

LOCATION DESC: 6(a)-4

FIELD SCREENING/MEASUREMENT RESULTS:

Field Screening Background PID = 0.5 ppm α = 78 dpm β = 1356 dpm All < MDA

COLLECTED BY (PRINT) M. Shendo **REVIEWED BY (PRINT)** J. Jordan

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) [signature] (Signature)	12-22-09 1715	(Printed Name) [signature] (Signature)	12-22-09 1715
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2276 **EVENT NAME:** Soil Sampling at TA-60

SAMPLE ID: RE03-10-9874 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12/22/09	MEDIA:	NA	Qbt-3 O/C
TIME COLLECTED (HH:MM)		1445	SUB-MEDIA:	OTHER	
PRS ID:	~~TA-60~~ JJ 12-22-09	60-006(a) ok	SAMPLE TECH CODE:	HA	
LOCATION ID:	03-608412		FIELD QC TYPE:	NA	
LOCATION TYPE:	BH		FIELD PREP:	NA	
TOP DEPTH:	0	60'	SAMPLE USAGE:	INV	
BOTTOM DEPTH:	0	61' ~~60~~ JT 12/22/09	SCREEN/PORT DESC:		NA
FIELD MATRIX:	~~S~~ R JJ 12-22-09		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — **COMPOSITE TIME INTERVAL:** — **WATER FLOWING:** YES / NO / NA

BOREHOLE: YES / NO / NA **BOREHOLE DECLINATION:** — **BOREHOLE DIRECTION:** —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+8082	250 ML AMBER GLASS	Ice	Y	
1		AM-241+ISOPU+ISOU	500 ML POLY	None	Y	
1		H3	500 ML POLY	Ice	Y	
1		METALS-GEL	125 ML POLY	Ice	Y	
1		Perchlorate+CN+N03+pH	500 ML POLY	Ice	Y	

SAMPLE DESC: Tuff Qbt3, sl. moist, unweathered, reddish-gray 5YR 5/2

SAMPLE COMMENTS:

LOCATION DESC: b(a)-4

FIELD SCREENING/MEASUREMENT RESULTS: Field screening background PID = 0.1 ppm α = 79 dpm β = 1356 dpm All < MDA

COLLECTED BY (PRINT) M. Shendo **REVIEWED BY (PRINT)** J. J

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) J. J (Signature)	12-22-09 1715	(Printed Name) (Signature)	12-22-09 1715
RELINQUISHED BY (Printed Name)	Date/Time	RECEIVED BY (Printed Name)	Date/Time

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2276 **EVENT NAME:** Soil Sampling at TA-60

SAMPLE ID: RE03-10-9873 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):	12-22-09	12/22/09	MEDIA:	NA	Qbt-3
TIME COLLECTED (HH:MM)	JW 12-22-09	JW ~~1305~~ 1430	SUB-MEDIA:	OTHER	OK
PRS ID:	~~TA-60~~	60-006(a) OK	SAMPLE TECH CODE:	HA	
LOCATION ID:	03-608412		FIELD QC TYPE:	NA	
LOCATION TYPE:	BH		FIELD PREP:	NA	
TOP DEPTH:	0	48' 55 ft	SAMPLE USAGE:	INV	
BOTTOM DEPTH:	0	46' 56 ft	SCREEN/PORT DESC:		NA
FIELD MATRIX:	~~S~~ R JW 12-22-09		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: ~~—~~ NA COMPOSITE TIME INTERVAL: _____ WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: _____ BOREHOLE DIRECTION: _____

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+8082	250 ML AMBER GLASS	Ice	Y	
1		AM-241+ISOPU+ISOU	500 ML POLY	None	Y	
1		H3	500 ML POLY	Ice	Y	
1		METALS-GEL	125 ML POLY	Ice	Y	
1		Perchlorate+CN+N03+pH	500 ML POLY	Ice	Y	

SAMPLE DESC: tuff Qbt-3 + gravel from bottom of seepage pit

SAMPLE COMMENTS: moved 4 ft north, down gradient of seepage pit

LOCATION DESC: 6(a)-4

FIELD SCREENING/MEASUREMENT RESULTS: field screening background PID = 0.5 ppm α = 78 dpm β = 1356 dpm All LMDA

COLLECTED BY (PRINT) M. Shrestha **REVIEWED BY (PRINT)** J. Jones

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) James Joseph (Signature)	12-22-09 1715	(Printed Name) (Signature)	12-22-09 1715
RELINQUISHED BY (Printed Name)	**Date/Time**	**RECEIVED BY** (Printed Name)	**Date/Time**

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2276 **EVENT NAME:** Soil Sampling at TA-60

SAMPLE ID: RE03-10-9878 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12-22-09	MEDIA:	NA	All H
TIME COLLECTED (HH:MM)		0830	SUB-MEDIA:	OTHER	ok
PRS ID:	TA-60 60-006(a)	ok	SAMPLE TECH CODE:	DC	
LOCATION ID:	~~03-608412~~ 60-8410		FIELD QC TYPE:	FTB	
LOCATION TYPE:	BH		FIELD PREP:	NA	
TOP DEPTH:	0	18 ft	SAMPLE USAGE:	QC	
BOTTOM DEPTH:	0	19 ft	SCREEN/PORT DESC:		NA
FIELD MATRIX:	JDS 12-22-09 ~~SR~~ S		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA ~~COMPOSITE TIME INTERVAL:~~ ~~WATER FLOWING: YES / NO / NA~~

BOREHOLE: YES / NO / NA ~~BOREHOLE DECLINATION:~~ ~~BOREHOLE DIRECTION:~~

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
~~2~~ 1	JDS 12-22-09	8260B Trip Blank	40 ML SEPTUM AMBER GLASS	Ice	Y	

SAMPLE DESC: QC Sample of RE03-09-14231

SAMPLE COMMENTS:

LOCATION DESC: 6(a)-2

FIELD SCREENING/MEASUREMENT RESULTS: NA

COLLECTED BY (PRINT) M. Sheridan **REVIEWED BY (PRINT)** J. Jack

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) J. Jack (Signature)	12-22-09 1715	(Printed Name) (Signature)	12-22-09 1715
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name) (Signature)		(Printed Name) (Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2276 **EVENT NAME:** Soil Sampling at TA-60

SAMPLE ID: RE03-10-9886 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12-22-09	MEDIA:	NA	AA
TIME COLLECTED (HH:MM)		1255	SUB-MEDIA:	OTHER	OK
PRS ID:	60-006(a) ~~TA-60~~		SAMPLE TECH CODE:	DC	
LOCATION ID:	03-60-608412 ~~03-610980~~ JJ 12-22-09	OK	FIELD QC TYPE:	FTB	
LOCATION TYPE:	BH	OK	FIELD PREP:	NA	
TOP DEPTH:	0	OK	SAMPLE USAGE:	QC	
BOTTOM DEPTH:	0	35 ft	SCREEN/PORT DESC:		NA
FIELD MATRIX:	S	36 ft	EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: ~~WATER FLOWING: YES / NO / NA~~

BOREHOLE: YES / NO / NA ~~BOREHOLE DECLINATION:~~ ~~BOREHOLE DIRECTION:~~

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	2 JJ 12-22-09	8260B Trip Blank	40 ML SEPTUM AMBER GLASS	Ice	Y	

SAMPLE DESC: QC Sample of RE03-10-9872

SAMPLE COMMENTS:

LOCATION DESC: 6a-4

FIELD SCREENING/MEASUREMENT RESULTS: NA

COLLECTED BY (PRINT) M. Sherald **REVIEWED BY (PRINT)** J. J

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) J. J (Signature)	12-22-09 1715	(Printed Name) (Signature)	12-22-09 1715
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name) (Signature)		(Printed Name) (Signature)	

DATA VALIDATION COVER SHEET

5121-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY

Section I.

REQUEST NUMBER: 10-1087 VALIDATION DATE: 01/28/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Kevin A. Lambert ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☒ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE):

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. It should be noted that the water MS/MSD analyses were performed on a LANL sample from another RN, and the parent sample raw data was not included in the data package. No sample data were qualified.

Reviewed by: Mary Donivan Level: I Date: 01/29/10

VALIDATOR'S SIGNATURE: Kevin A Lambert DATE: 01/28/10

LC/MS/MS PERCHLORATE ANALYTICAL DATA VALIDATION CHECKLIST

5121-2

LC/MS/MS Perchlorate Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The Internal Standard (IS) relativer retention time has shifted by more than 0.98 to 1.02 seconds.	R, PERC0	J, PERC0
☐	☒	☐	2. Required IS retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, PERC0b	R, PERC0b
☐	☐	☒	3. The IS are count is <25% of the expected value.	UJ, PERC1a	J, PERC1a
☐	☐	☒	4. The IS area count is <70% but >25% of the average of that obtained from the calibration standards.	UJ, PERC1b	J, PERC1b
☐	☐	☒	5. The IS area count is >130% of the average of that obtained from the calibration standards.	UJ, PERC1c	J, PERC1c
☐	☐	☒	6. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, PREC1d	R, PERC1d
☐	☒	☐	7. The sample result is ≤ 5X the concentration of the related analyte in the method blank.	U, PERC4	N/A
☐	☒	☐	8. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X.	N/A	J+, PERC4a
☐	☒	☐	9. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, and/or equipment blank.	U, PERC4d	N/A
☐	☒	☐	10. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, PERC4e	R, PERC4e
☐	☒	☐	11. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, PERC7	J, PERC7
☐	☒	☐	12. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.99.	UJ, R, PERC7a	J, PERC7a

LC/MS/MS PERCHLORATE ANALYTICAL DATA VALIDATION CHECKLIST	
5121-2 LC/MS/MS Perchlorate Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	13. The ICV and/or CCV were recovered outside the method limits.	UJ, R, PERC7c	J, PERC7c
☐	☒	☐	14. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, R, PERC7d	J, PERC7d
☐	☒	☐	15. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, PERC7f	R. PERC7f
☐	☒	☐	16. The affected analyte is considered not detected because ion abundance ratios did not meet specifications.	N/A	R, PERC8
☐	☒	☐	17. The ion ratio documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	N/A	R, PERC8a
☐	☒	☐	18. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ PERC9	J-, PERC9
☐	☒	☐	19. The holding time was > 2 times the applicable holding time requirement.	R, PERC9a	J-, PERC9a
☐	☒	☐	20. The LCS percent recovery was <10%. Follow the external laboratory limits.	R, PERC12	J-, PERC12
☐	☒	☐	21. The LCS percent recovery was < the Lower Acceptance Limit but >10%. Follow the external laboratory limits.	UJ, PERC12a	J-, PERC12a
☐	☒	☐	22. The LCS percent recovery was > the Upper Acceptance Limit. Follow the external laboratory limits.	N/A	J+, PERC12b
☐	☒	☐	23. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, PERC12c	R, PERC12c
☐	☒	☐	24. The MS/MSD percent recovery was <10%	R, PERC12d	R, PERC12d
☐	☒	☐	25. The MS/MSD percent recovery was >10% but <75%	UJ, PERC12e	J, PERC12e
☐	☒	☐	26. The MS/MSD percent recovery was >125%.	N/A	J+, PERC12f

LC/MS/MS PERCHLORATE ANALYTICAL DATA VALIDATION CHECKLIST	
5121-2 **LC/MS/MS Perchlorate Analytical Data Validation Checklist**	Records Use only Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	27. The MS/MSD relative percent difference was >20%.	UJ, PERC12g	J, PERC12g
☐	☐	☒	28. The affected analytes are considered suspect because the sample was diluted without any target analytes identified due to matrix interference. Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.	UJ, R, PERC15	N/A
☐	☐	☒	29. The sample was diluted because target analytes were > the initial verification calibration.	UJ, PERC15a	J, PERC15a
☐	☐	☒	30. The Contract Required Detection Limit check standard (CRI) sample did not pass method-acceptance limits.	UJ, R, PERC16	J, PERC16
☐	☐	☒	31. The Interference Check Sample was not within ±20% of the known value.	UJ, PERC16a	J, PERC16a
☐	☐	☒	32. The required CRI sample information is missing. Contact the SMO or external laboratory for information.	R, PERC16c	R, PERC16c
☐	☒	☐	33. The LANL project chemist identified quality deficiencies in the reported data that require further qualification. This code can ONLY be used and/or under advisement by the LANL project chemist.	UJ, R, PERC19	J, R, PERC19
☐	☒	☐	34. Duplicate, dilution, or reanalysis.	UJ, PERC88	J, PERC88

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 936783

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE03-09-14233

Date Received: 24-DEC-09

GEL Job No (SDG): 10-1087

GEL Sample ID: 243550001

Date Filtered: 08-JAN-10

Injection Volume (uL): 20

%Solids: 92.6

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.54	2.16	0.540	ug/kg	U	1	08-JAN-10 18:03	per0108015a
	Perchlorate Isotope Ratio						1	08-JAN-10 18:03	per0108015a
14797-73-0	Perchlorate-101	.54	2.16	0.540	ug/kg	U	1	08-JAN-10 18:03	per0108015a
	Perchlorate-O(18)			5.26	ug/kg		1	08-JAN-10 18:03	per0108015a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 936783

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE03-09-14236

Date Received: 24-DEC-09

GEL Job No (SDG): 10-1087

GEL Sample ID: 243550002

Date Filtered: 08-JAN-10

Injection Volume (uL): 20

%Solids: 84

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.596	2.39	0.959	ug/kg	J	1	08-JAN-10 18:24	per0108018a
	Perchlorate Isotope Ratio			2.98			1	08-JAN-10 18:24	per0108018a
14797-73-0	Perchlorate-101	.596	2.39	1.02	ug/kg	J	1	08-JAN-10 18:24	per0108018a
	Perchlorate-O(18)			6.30	ug/kg		1	08-JAN-10 18:24	per0108018a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 936783

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE03-09-14239

Date Received: 24-DEC-09

GEL Job No (SDG): 10-1087

GEL Sample ID: 243550003

Date Filtered: 08-JAN-10

Injection Volume (uL): 20

%Solids: 94.5

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.529	2.12	0.529	ug/kg	U	1	08-JAN-10 18:31	per0108019a
	Perchlorate Isotope Ratio						1	08-JAN-10 18:31	per0108019a
14797-73-0	Perchlorate-101	.529	2.12	0.529	ug/kg	U	1	08-JAN-10 18:31	per0108019a
	Perchlorate-O(18)			5.17	ug/kg		1	08-JAN-10 18:31	per0108019a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 936783

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE03-09-14240

Date Received: 24-DEC-09

GEL Job No (SDG): 10-1087

GEL Sample ID: 243550004

Date Filtered: 08-JAN-10

Injection Volume (uL): 20

%Solids: 94.6

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.529	2.11	1.28	ug/kg	J	1	08-JAN-10 18:38	per0108020a
	Perchlorate Isotope Ratio			2.95			1	08-JAN-10 18:38	per0108020a
14797-73-0	Perchlorate-101	.529	2.11	1.37	ug/kg	J	1	08-JAN-10 18:38	per0108020a
	Perchlorate-O(18)			5.36	ug/kg		1	08-JAN-10 18:38	per0108020a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 936783

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE03-09-14231

Date Received: 24-DEC-09

GEL Job No (SDG): 10-1087

GEL Sample ID: 243550005

Date Filtered: 08-JAN-10

Injection Volume (uL): 20

%Solids: 92.7

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.539	2.16	0.539	ug/kg	U	1	08-JAN-10 18:46	per0108021a
	Perchlorate Isotope Ratio						1	08-JAN-10 18:46	per0108021a
14797-73-0	Perchlorate-101	.539	2.16	0.539	ug/kg	U	1	08-JAN-10 18:46	per0108021a
	Perchlorate-O(18)			5.18	ug/kg		1	08-JAN-10 18:46	per0108021a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 936783

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE03-09-14232

Date Received: 24-DEC-09

GEL Job No (SDG): 10-1087

GEL Sample ID: 243550006

Date Filtered: 08-JAN-10

Injection Volume (uL): 20

%Solids: 94.2

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.531	2.12	0.531	ug/kg	U	1	08-JAN-10 19:16	per0108025a
	Perchlorate Isotope Ratio						1	08-JAN-10 19:16	per0108025a
14797-73-0	Perchlorate-101	.531	2.12	0.531	ug/kg	U	1	08-JAN-10 19:16	per0108025a
	Perchlorate-O(18)			5.37	ug/kg		1	08-JAN-10 19:16	per0108025a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 936783

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE03-09-14235

Date Received: 24-DEC-09

GEL Job No (SDG): 10-1087

GEL Sample ID: 243550007

Date Filtered: 08-JAN-10

Injection Volume (uL): 20

%Solids: 78

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.645	2.58	1.65	ug/kg	J	1	08-JAN-10 19:23	per0108026a
	Perchlorate Isotope Ratio			3.16			1	08-JAN-10 19:23	per0108026a
14797-73-0	Perchlorate-101	.645	2.58	1.65	ug/kg	J	1	08-JAN-10 19:23	per0108026a
	Perchlorate-O(18)			6.97	ug/kg		1	08-JAN-10 19:23	per0108026a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 936783

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE03-09-14238

Date Received: 24-DEC-09

GEL Job No (SDG): 10-1087

GEL Sample ID: 243550008

Date Filtered: 08-JAN-10

Injection Volume (uL): 20

%Solids: 94.6

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.529	2.11	0.529	ug/kg	U	1	08-JAN-10 19:30	per0108027a
	Perchlorate Isotope Ratio						1	08-JAN-10 19:30	per0108027a
14797-73-0	Perchlorate-101	.529	2.11	0.529	ug/kg	U	1	08-JAN-10 19:30	per0108027a
	Perchlorate-O(18)			4.95	ug/kg		1	08-JAN-10 19:30	per0108027a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 936783

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE03-09-14234

Date Received: 24-DEC-09

GEL Job No (SDG): 10-1087

GEL Sample ID: 243550009

Date Filtered: 08-JAN-10

Injection Volume (uL): 20

%Solids: 92.5

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.54	2.16	0.986	ug/kg	J	1	08-JAN-10 19:38	per0108028a
	Perchlorate Isotope Ratio			2.93			1	08-JAN-10 19:38	per0108028a
14797-73-0	Perchlorate-101	.54	2.16	1.06	ug/kg	J	1	08-JAN-10 19:38	per0108028a
	Perchlorate-O(18)			5.50	ug/kg		1	08-JAN-10 19:38	per0108028a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form I

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 936783

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE03-09-14241

Date Received: 24-DEC-09

GEL Job No (SDG): 10-1087

GEL Sample ID: 243550010

Date Filtered: 08-JAN-10

Injection Volume (uL): 20

%Solids: 87

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.572	2.29	2.94	ug/kg		1	08-JAN-10 19:46	per0108029a
	Perchlorate Isotope Ratio			3.11			1	08-JAN-10 19:46	per0108029a
14797-73-0	Perchlorate-101	.572	2.29	2.99	ug/kg		1	08-JAN-10 19:46	per0108029a
	Perchlorate-O(18)			5.95	ug/kg		1	08-JAN-10 19:46	per0108029a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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01/28/10

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 936783

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE03-10-2737

Date Received: 24-DEC-09

GEL Job No (SDG): 10-1087

GEL Sample ID: 243550011

Date Filtered: 08-JAN-10

Injection Volume (uL): 20

%Solids: 90

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.556	2.23	0.556	ug/kg	U	1	08-JAN-10 19:53	per0108030a
	Perchlorate Isotope Ratio						1	08-JAN-10 19:53	per0108030a
14797-73-0	Perchlorate-101	.556	2.23	0.556	ug/kg	U	1	08-JAN-10 19:53	per0108030a
	Perchlorate-O(18)			6.12	ug/kg		1	08-JAN-10 19:53	per0108030a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 936783

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE03-10-2736

Date Received: 24-DEC-09

GEL Job No (SDG): 10-1087

GEL Sample ID: 243550012

Date Filtered: 08-JAN-10

Injection Volume (uL): 20

%Solids: 93

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.538	2.15	0.538	ug/kg	U	1	08-JAN-10 20:01	per0108031a
	Perchlorate Isotope Ratio						1	08-JAN-10 20:01	per0108031a
14797-73-0	Perchlorate-101	.538	2.15	0.538	ug/kg	U	1	08-JAN-10 20:01	per0108031a
	Perchlorate-O(18)			5.30	ug/kg		1	08-JAN-10 20:01	per0108031a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

KAL
01/28/10

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 936783

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE03-10-9873

Date Received: 24-DEC-09

GEL Job No (SDG): 10-1087

GEL Sample ID: 243550013

Date Filtered: 08-JAN-10

Injection Volume (uL): 20

%Solids: 94.7

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.528	2.11	0.528	ug/kg	U	1	08-JAN-10 20:09	per0108032a
	Perchlorate Isotope Ratio						1	08-JAN-10 20:09	per0108032a
14797-73-0	Perchlorate-101	.528	2.11	0.528	ug/kg	U	1	08-JAN-10 20:09	per0108032a
	Perchlorate-O(18)			5.31	ug/kg		1	08-JAN-10 20:09	per0108032a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 936783

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE03-10-9872

Date Received: 24-DEC-09

GEL Job No (SDG): 10-1087

GEL Sample ID: 243550014

Date Filtered: 08-JAN-10

Injection Volume (uL): 20

%Solids: 88

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.567	2.27	1.29	ug/kg	J	1	08-JAN-10 20:16	per0108033a
	Perchlorate Isotope Ratio			3.26			1	08-JAN-10 20:16	per0108033a
14797-73-0	Perchlorate-101	.567	2.27	1.25	ug/kg	J	1	08-JAN-10 20:16	per0108033a
	Perchlorate-O(18)			5.65	ug/kg		1	08-JAN-10 20:16	per0108033a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 936783

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE03-10-9874

Date Received: 24-DEC-09

GEL Job No (SDG): 10-1087

GEL Sample ID: 243550015

Date Filtered: 08-JAN-10

Injection Volume (uL): 20

%Solids: 93.1

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.537	2.15	0.537	ug/kg	U	1	08-JAN-10 20:24	per0108034a
	Perchlorate Isotope Ratio						1	08-JAN-10 20:24	per0108034a
14797-73-0	Perchlorate-101	.537	2.15	0.537	ug/kg	U	1	08-JAN-10 20:24	per0108034a
	Perchlorate-O(18)			5.76	ug/kg		1	08-JAN-10 20:24	per0108034a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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01/28/10

Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: WATER

Extraction Batch ID: 936758

Extraction Type: Filter/DAI

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

Client Sample No.
RE03-10-2750

Date Received: 24-DEC-09

GEL Job No (SDG): 10-1087-1

GEL Sample ID: 243554001

Date Filtered: 28-DEC-09

Injection Volume (uL): 20

%Solids:

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.05	.2	0.050	ug/L	U	1	29-DEC-09 16:13	per1229025a
	Perchlorate Isotope Ratio						1	29-DEC-09 16:13	per1229025a
14797-73-0	Perchlorate-101	.05	.2	0.050	ug/L	U	1	29-DEC-09 16:13	per1229025a
	Perchlorate-O(18)			0.478	ug/L		1	29-DEC-09 16:13	per1229025a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: WATER

Extraction Batch ID: 936758

Extraction Type: Filter/DAI

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

Client Sample No.
RE03-10-2749

Date Received: 24-DEC-09

GEL Job No (SDG): 10-1087-1

GEL Sample ID: 243554002

Date Filtered: 28-DEC-09

Injection Volume (uL): 20

%Solids:

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.05	.2	0.050	ug/L	U	1	29-DEC-09 16:20	per1229026a
	Perchlorate Isotope Ratio						1	29-DEC-09 16:20	per1229026a
14797-73-0	Perchlorate-101	.05	.2	0.050	ug/L	U	1	29-DEC-09 16:20	per1229026a
	Perchlorate-O(18)			0.496	ug/L		1	29-DEC-09 16:20	per1229026a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: WATER

Extraction Batch ID: 936758

Extraction Type: Filter/DAI

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

Client Sample No.
RE03-10-2764

Date Received: 24-DEC-09

GEL Job No (SDG): 10-1087-1

GEL Sample ID: 243554003

Date Filtered: 28-DEC-09

Injection Volume (uL): 20

%Solids:

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.05	.2	0.050	ug/L	U	1	29-DEC-09 16:27	per1229027a
	Perchlorate Isotope Ratio						1	29-DEC-09 16:27	per1229027a
14797-73-0	Perchlorate-101	.05	.2	0.050	ug/L	U	1	29-DEC-09 16:27	per1229027a
	Perchlorate-O(18)			0.486	ug/L		1	29-DEC-09 16:27	per1229027a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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01/28/10

Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: WATER

Extraction Batch ID: 936758

Extraction Type: Filter/DAI

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

Client Sample No.
RE03-10-2762

Date Received: 24-DEC-09

GEL Job No (SDG): 10-1087-1

GEL Sample ID: 243554004

Date Filtered: 28-DEC-09

Injection Volume (uL): 20

%Solids:

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.05	.2	0.050	ug/L	U	1	29-DEC-09 16:34	per1229028a
	Perchlorate Isotope Ratio						1	29-DEC-09 16:34	per1229028a
14797-73-0	Perchlorate-101	.05	.2	0.050	ug/L	U	1	29-DEC-09 16:34	per1229028a
	Perchlorate-O(18)			0.489	ug/L		1	29-DEC-09 16:34	per1229028a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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01/28/10

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DATA VALIDATION COVER SHEET

5118-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-1087 VALIDATION DATE: 01/28/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Kevin A. Lambert ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☒ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE):

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☐	☐	☒	8. QUANTITATION REPORTS
☐	☐	☒	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. In the water MB, As and B were detected. The As result for sample RE03-10-2750 was a detect ≤5X the MB concentration and, thus, was qualified U,I4. All other associated sample results were NDs and, thus, were not qualified. In the soil MB, Sb, Fe, Ni, and Na were detected. The Sb results for samples -10-9872 and 10-9874 and, the Ni results for samples -09-14231, -09-14232, and -10-2736 were detects ≤5X the MB concentrations and, thus, were qualified U,I4. All Ni results <u>except</u> for samples -09-14231, -09-14232, -09-14235, and -10-2736 and the Na results for samples -09-14235 and -09-14236 were detects >5X but ≤50X the MB concentration and, thus, were qualified J,I4a. The other associated Na results were detects >5X but ≤50X the MB concentration but were qualified NDs and, thus, were not qualified. All other associated sample results were either NDs or detects >50X the MB concentrations and, thus, were not qualified.
2. In the water ICB/CCB, As, B, and K were detected. The As result for sample -10-2750 and the K result for sample -10-2762 were detects ≤5X the greatest ICB/CCB concentration and, thus, were qualified U,I4b. All other associated sample results were NDs and, thus, were not qualified. In the soil ICB/CCB, Sb, Na, Tl, and U were detected. The Sb results for samples -10-9872 and -10-9874 and the Tl results for samples -09-14233, -09-14241, -09-14236,-09 -14235, and -10-9872 were detects ≤5X the greatest ICB/CCB concentrations and, thus, were qualified U,I4b. All other associated sample results were either NDs or detects >5X the ICB/CCB concentrations and, thus, were not qualified.
3. In the FB associated with samples -09-14231, -09-14232, -09-14233, and -10-2736, Si was detected. The associated sample results were detects >5X the FB concentration and, thus, were not qualified. In the FR blanks associated with all field samples, Al, Fe, Mn, Si, Na, and Ti were detected. All associated Na results <u>except</u>

DATA VALIDATION COVER SHEET

5118-1

Data Validation Cover Sheet

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samples -09-14235 and -09-14236 were detects ≤5X the greatest FR blank concentration and, thus, were qualified U,I4d. All other associated sample results were detects >5X the greatest FR blank concentrations and, thus, were not qualified.

4. The water MS %R for Pb and Li were > the laboratory's UAL. All associated sample results were NDs and, thus, were qualified UJ,I6b. The soil MS %R for Al, Fe, Mg, and Ti were > the laboratory UAL. However, the associated parent sample concentration for Fe was >4X the spike concentration. Thus, no sample data were qualified as result, based on professional judgment. All other associated sample results were detects and, thus, were qualified J+,I6b.
5. It should be noted that the parent samples for the water ICP-MS and the soil CVAA matrix QC analyses were performed on a LANL samples from other RNs, and the parent sample raw ICP-MS data was not included in the data package. No sample data were qualified.

Reviewed by: Mary Donivan Level: I Date: 01/29/10

VALIDATOR'S SIGNATURE: Kevin A Lambert DATE: 01/28/10

Form 5118-1, Revision 0.0

LOS ALAMOS
Environmental Restoration Project

METALS ANALYTICAL DATA VALIDATION CHECKLIST

5118-2

Metals Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, I9	J-, I9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, I9a	J-, I9a
☐	☐	☒	3. The instrument performance sample did not pass method acceptance criteria.	R, I16	R, I16
☐	☐	☒	4. The mass calibration is not within 0.1 amu or %RSD is >5% for any isotope (Be, Mg, Co, In, Pb).	UJ, I16a	J, I16a
☐	☐	☒	5. Samples were analyzed outside specific method tune time criteria.	N/A	J, I16b
☐	☐	☒	6. The required instrument performance sample information is missing. Contact the SMO or external laboratory for information.	R, I16c	R, I16c
☐	☒	☐	7. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, I7	J, I7
☐	☒	☐	8. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, I7a	J, I7a
☐	☒	☐	9. The initial Calibration Verification (ICV) and/or Continuing Calibration Verification (CCV) were recovered outside the method-specific limits.	UJ, I7c	J, I7c
☐	☒	☐	10. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, I7d	J, I7d
☐	☒	☐	11. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, I7f	R, I7f
☐	☒	☐	12. Metals interference check sample percent recover value is <50%.	R, I2	J-, I2

METALS ANALYTICAL DATA VALIDATION CHECKLIST

5118-2

Metals Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	13. Metals interference check sample percent recovery value is ≥50% and <80%	UJ, I2a	J-, I2a
☐	☒	☐	14. Metals interference check sample percent recovery value is >120%.	N/A	J+, I2b
☐	☒	☐	15. Metals interference check sample was not analyzed with the samples.	R, I2c	R, I2c
☒	☐	☐	16. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, I4	N/A
☒	☐	☐	17. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X.	N/A	J, I4a
☒	☐	☐	18. The sample result is ≤5X the concentration of the related analyte in the instrument blank and continuing calibration blank.	U, I4b	N/A
☐	☒	☐	19. Continuing calibration blanks were not analyzed at the appropriate method frequency.	UJ, I4c	J, I4c
☒	☐	☐	20. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	U, I4d	N/A
☐	☒	☐	21. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, I4e	R, I4e
☐	☒	☐	22. The associated matrix spike recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I6	R, I6
☐	☒	☐	23. The associated matrix spike recovery was <the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I6a	J+, I6a
☒	☐	☐	24. The associated matrix spike recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	UJ, I6b	J+, I6b

METALS ANALYTICAL DATA VALIDATION CHECKLIST

5118-2 Metals Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	25. Required matrix spike information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. If the LCS information is present, do not Reject. Qualify data based on the LCS information.	R, I6c	R, I6c
☐	☒	☐	26. The sample and the duplicate sample results were ≥5X the RL and the duplicate RPD was >20% for water samples and >35% for soil samples.	UJ, I10a	J, I10a
☐	☒	☐	27. The duplicate sample was not prepared and/or analyzed with the samples for unspecified reasons. The duplicate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	UJ, I10d	J, I10d
☐	☒	☐	28. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I12	R, I12
☐	☒	☐	29. The LCS percent recover was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I12a	J-, I12a
☐	☒	☐	30. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, I12b
☐	☒	☐	31. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. Do not Reject if MS/MSD information is present. Qualify according to MS/MSD criteria.	R, I12c	R, I12c
☐	☐	☒	32. The quantitating IS area count is <10% for metals window in relation to the initial calibration blank. Follow the method-specific windows.	R, I1a	J, I1a

METALS ANALYTICAL DATA VALIDATION CHECKLIST

5118-2

Metals Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	33. The IS area count for the quantitating IS is <60% but >10% for metals window in relation to the initial calibration blank. Follow the method-specific windows.	UJ, I1b	J, I1b
☐	☐	☒	34. The IS area count for the quantitating IS is >125% in relation to the metals initial calibration blank. Follow method-specific windows.	UJ, I1c	J, I1c
☐	☐	☒	35. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, I1d	R, I1d
☐	☐	☒	36. Serial dilution sample RPD was >10% and the sample result was >50X the MDL (>100X the MDL for ICPMS). Qualify ONLY the sample used for the serial dilution.	UJ, I18	J, I18
☐	☐	☒	37. Serial dilution sample was not analyzed with the samples.	UJ, I18a	J, I18
☐	☐	☒	38. The sample result was reported as detected between the IDL and the EDL.	N/A	J, I1
☐	☒	☐	39. Duplicate, dilution, or reanalysis.	UJ, I88	J, I88
☒	☐	☐	40. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB, NQ, NQ
☐	☒	☐	41. The LANL project chemist identified quality deficiencies in the reported data that require further qualification. This code can ONLY be used and/or under advisement by the LANL project chemist.	UJ, R, I19	J, R, I19

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1087 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 243550001 **BASIS:** Dry Weight **DATE COLLECTED** 22-DEC-09

CLIENT ID: RE03-09-14233 **LEVEL:** Low **DATE RECEIVED** 24-DEC-09

MATRIX: SOIL **%SOLIDS:** 92.6

CAS No.	Analyte		Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	J+,I6b	1020000	ug/Kg	N	7200	21200	21200	1	P	HSC	01/15/10 17:20	011510-2	936826
7440-36-0	Antimony		1060	ug/Kg	U	349	1060	1060	1	P	HSC	01/15/10 17:20	011510-2	936826
7440-38-2	Arsenic		0.419	mg/kg	J	0.213	1.06	1.06	2	MS	RMJ	01/14/10 09:07	100113-6	936823
7440-39-3	Barium		18900	ug/Kg		106	529	529	1	P	HSC	01/15/10 17:20	011510-2	936826
7440-41-7	Beryllium		0.423	mg/kg		0.0213	0.106	0.106	2	MS	RMJ	01/16/10 03:46	100115-7	936823
7440-42-8	Boron		1070	ug/Kg	J	1060	5290	5290	1	P	HSC	01/15/10 17:20	011510-2	936826
7440-43-9	Cadmium		529	ug/Kg	U	106	529	529	1	P	HSC	01/15/10 17:20	011510-2	936826
7440-70-2	Calcium		360000	ug/Kg		8470	26500	26500	1	P	HSC	01/15/10 17:20	011510-2	936826
7440-47-3	Chromium		1010	ug/Kg		159	529	529	1	P	HSC	01/15/10 17:20	011510-2	936826
7440-48-4	Cobalt		295	ug/Kg	J	159	529	529	1	P	HSC	01/15/10 17:20	011510-2	936826
7440-50-8	Copper		1450	ug/Kg		318	1060	1060	1	P	HSC	01/15/10 17:20	011510-2	936826
7439-89-6	Iron		7360000	ug/Kg		8470	26500	26500	1	P	HSC	01/15/10 17:20	011510-2	936826
7439-92-1	Lead		2510	ug/Kg		265	1060	1060	1	P	HSC	01/15/10 17:20	011510-2	936826
7439-93-2	Lithium		6.54	mg/kg		0.425	2.13	2.13	2	MS	RMJ	01/16/10 03:46	100115-7	936823
7439-95-4	Magnesium	J+,I6b	199000	ug/Kg	N	9000	31800	31800	1	P	HSC	01/15/10 17:20	011510-2	936826
7439-96-5	Manganese		275000	ug/Kg		212	1060	1060	1	P	HSC	01/15/10 17:20	011510-2	936826
7439-97-6	Mercury		12.4	ug/kg	U	4.22	12.4	12.4	1	AV	JXL1	01/11/10 10:05	011110S1-11	939596
7440-02-0	Nickel	J,I4a	1.21	mg/kg		0.106	0.425	0.425	2	MS	RMJ	01/14/10 09:07	100113-6	936823
7440-09-7	Potassium		169000	ug/Kg		6780	26500	26500	1	P	HSC	01/15/10 17:20	011510-2	936826
7782-49-2	Selenium		1.06	mg/kg	U	0.531	1.06	1.06	2	MS	RMJ	01/14/10 09:07	100113-6	936823
7440-21-3	Silicon		388000	ug/Kg	*N	1590	10600	10600	1	P	HSC	01/15/10 17:20	011510-2	936826
7440-22-4	Silver		262	ug/Kg	J	106	529	529	1	P	HSC	01/15/10 17:20	011510-2	936826
7440-23-5	Sodium	U,I4d	67900	ug/Kg		7410	26500	26500	1	P	HSC	01/15/10 17:20	011510-2	936826
7440-28-0	Thallium	U,I4b	0.0704	mg/kg	J	0.0638	0.213	0.213	2	MS	RMJ	01/14/10 09:07	100113-6	936823
7440-32-6	Titanium	J+,I6b	96300	ug/Kg	*N	106	529	529	1	P	HSC	01/15/10 17:20	011510-2	936826
7440-61-1	Uranium		0.477	mg/kg		0.014	0.0425	0.0425	2	MS	RMJ	01/14/10 09:07	100113-6	936823
7440-62-2	Vanadium		2940	ug/Kg		106	529	529	1	P	HSC	01/15/10 17:20	011510-2	936826
7440-66-6	Zinc		34200	ug/Kg		349	1060	1060	1	P	HSC	01/15/10 17:20	011510-2	936826

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
936823	936822	SW846 3050B	0.508	g	50	mL	12/29/09	BXA1
936826	936825	SW846 3050B	0.51	g	50	mL	01/15/10	AXG2
939596	939594	SW846 7471A Prep	0.522	g	30	mL	01/08/10	TXB3

KAL
01/28/10

METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1087 CONTRACT: LANL01004 METHOD TYPE: SW846

SAMPLE ID: 243550002 BASIS: Dry Weight DATE COLLECTED 22-DEC-09

CLIENT ID: RE03-09-14236 LEVEL: Low DATE RECEIVED 24-DEC-09

MATRIX: SOIL %SOLIDS: 84

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum J+,I6b	7320000	ug/Kg	N	8110	23900	23900	1	P	HSC	01/15/10 17:27	011510-2	936826
7440-36-0	Antimony	1190	ug/Kg	U	394	1190	1190	1	P	HSC	01/15/10 17:27	011510-2	936826
7440-38-2	Arsenic	1.89	mg/kg		0.237	1.18	1.18	2	MS	RMJ	01/14/10 09:13	100113-6	936823
7440-39-3	Barium	35100	ug/Kg		119	596	596	1	P	HSC	01/15/10 17:27	011510-2	936826
7440-41-7	Beryllium	1.45	mg/kg		0.0237	0.118	0.118	2	MS	RMJ	01/16/10 04:17	100115-7	936823
7440-42-8	Boron	5960	ug/Kg	U	1190	5960	5960	1	P	HSC	01/15/10 17:27	011510-2	936826
7440-43-9	Cadmium	596	ug/Kg	U	119	596	596	1	P	HSC	01/15/10 17:27	011510-2	936826
7440-70-2	Calcium	1950000	ug/Kg		9540	29800	29800	1	P	HSC	01/15/10 17:27	011510-2	936826
7440-47-3	Chromium	4490	ug/Kg		179	596	596	1	P	HSC	01/15/10 17:27	011510-2	936826
7440-48-4	Cobalt	1580	ug/Kg		179	596	596	1	P	HSC	01/15/10 17:27	011510-2	936826
7440-50-8	Copper	5540	ug/Kg		358	1190	1190	1	P	HSC	01/15/10 17:27	011510-2	936826
7439-89-6	Iron	11500000	ug/Kg		9540	29800	29800	1	P	HSC	01/15/10 17:27	011510-2	936826
7439-92-1	Lead	8380	ug/Kg		298	1190	1190	1	P	HSC	01/15/10 17:27	011510-2	936826
7439-93-2	Lithium	13.4	mg/kg		0.473	2.37	2.37	2	MS	RMJ	01/16/10 04:17	100115-7	936823
7439-95-4	Magnesium J+,I6b	1280000	ug/Kg	N	10100	35800	35800	1	P	HSC	01/15/10 17:27	011510-2	936826
7439-96-5	Manganese	300000	ug/Kg		239	1190	1190	1	P	HSC	01/15/10 17:27	011510-2	936826
7439-97-6	Mercury	24.6	ug/kg		4.25	12.5	12.5	1	AV	JXL1	01/11/10 10:07	011110S1-11	939596
7440-02-0	Nickel J,I4a	7.38	mg/kg		0.118	0.473	0.473	2	MS	RMJ	01/14/10 09:13	100113-6	936823
7440-09-7	Potassium	936000	ug/Kg		7630	29800	29800	1	P	HSC	01/15/10 17:27	011510-2	936826
7782-49-2	Selenium	1.18	mg/kg	U	0.592	1.18	1.18	2	MS	RMJ	01/14/10 09:13	100113-6	936823
7440-21-3	Silicon	685000	ug/Kg	*N	1790	11900	11900	1	P	HSC	01/15/10 17:27	011510-2	936826
7440-22-4	Silver	494	ug/Kg	J	119	596	596	1	P	HSC	01/15/10 17:27	011510-2	936826
7440-23-5	Sodium J,I4a	234000	ug/Kg		8350	29800	29800	1	P	HSC	01/15/10 17:27	011510-2	936826
7440-28-0	Thallium U,I4b	0.203	mg/kg	J	0.071	0.237	0.237	2	MS	RMJ	01/14/10 09:13	100113-6	936823
7440-32-6	Titanium J+,I6b	148000	ug/Kg	*N	119	596	596	1	P	HSC	01/15/10 17:27	011510-2	936826
7440-61-1	Uranium	0.754	mg/kg		0.0156	0.0473	0.0473	2	MS	RMJ	01/14/10 09:13	100113-6	936823
7440-62-2	Vanadium	10700	ug/Kg		119	596	596	1	P	HSC	01/15/10 17:27	011510-2	936826
7440-66-6	Zinc	38000	ug/Kg		394	1190	1190	1	P	HSC	01/15/10 17:27	011510-2	936826

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
936823	936822	SW846 3050B	0.504	g	50	mL	12/29/09	BXA1
936826	936825	SW846 3050B	0.5	g	50	mL	01/15/10	AXG2
939596	939594	SW846 7471A Prep	0.572	g	30	mL	01/08/10	TXB3

KAL
01/28/10

METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1087 **CONTRACT:** LANL01004 METHOD TYPE: SW846

SAMPLE ID: 243550003 **BASIS:** Dry Weight **DATE COLLECTED** 22-DEC-09

CLIENT ID: RE03-09-14239 **LEVEL:** Low **DATE RECEIVED** 24-DEC-09

MATRIX: SOIL **%SOLIDS:** 94.5

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum J+,I6b	479000	ug/Kg	N	7080	20800	20800	1	P	HSC	01/15/10 17:34	011510-2	936826
7440-36-0	Antimony	1040	ug/Kg	U	344	1040	1040	1	P	HSC	01/15/10 17:34	011510-2	936826
7440-38-2	Arsenic	0.542	mg/kg	J	0.209	1.05	1.05	2	MS	RMJ	01/14/10 09:19	100113-6	936823
7440-39-3	Barium	12700	ug/Kg		104	521	521	1	P	HSC	01/15/10 17:34	011510-2	936826
7440-41-7	Beryllium	0.237	mg/kg		0.0209	0.105	0.105	2	MS	RMJ	01/16/10 04:20	100115-7	936823
7440-42-8	Boron	5210	ug/Kg	U	1040	5210	5210	1	P	HSC	01/15/10 17:34	011510-2	936826
7440-43-9	Cadmium	521	ug/Kg	U	104	521	521	1	P	HSC	01/15/10 17:34	011510-2	936826
7440-70-2	Calcium	200000	ug/Kg		8330	26000	26000	1	P	HSC	01/15/10 17:34	011510-2	936826
7440-47-3	Chromium	1070	ug/Kg		156	521	521	1	P	HSC	01/15/10 17:34	011510-2	936826
7440-48-4	Cobalt	200	ug/Kg	J	156	521	521	1	P	HSC	01/15/10 17:34	011510-2	936826
7440-50-8	Copper	1440	ug/Kg		312	1040	1040	1	P	HSC	01/15/10 17:34	011510-2	936826
7439-89-6	Iron	5370000	ug/Kg		8330	26000	26000	1	P	HSC	01/15/10 17:34	011510-2	936826
7439-92-1	Lead	2530	ug/Kg		260	1040	1040	1	P	HSC	01/15/10 17:34	011510-2	936826
7439-93-2	Lithium	2.65	mg/kg		0.418	2.09	2.09	2	MS	RMJ	01/16/10 04:20	100115-7	936823
7439-95-4	Magnesium J+,I6b	109000	ug/Kg	N	8850	31200	31200	1	P	HSC	01/15/10 17:34	011510-2	936826
7439-96-5	Manganese	259000	ug/Kg		208	1040	1040	1	P	HSC	01/15/10 17:34	011510-2	936826
7439-97-6	Mercury	12.5	ug/kg	U	4.26	12.5	12.5	1	AV	JXL1	01/11/10 10:08	011110S1-11	939596
7440-02-0	Nickel J,I4a	1.13	mg/kg		0.105	0.418	0.418	2	MS	RMJ	01/14/10 09:19	100113-6	936823
7440-09-7	Potassium	110000	ug/Kg		6660	26000	26000	1	P	HSC	01/15/10 17:34	011510-2	936826
7782-49-2	Selenium	1.05	mg/kg	U	0.523	1.05	1.05	2	MS	RMJ	01/14/10 09:19	100113-6	936823
7440-21-3	Silicon	386000	ug/Kg	*N	1560	10400	10400	1	P	HSC	01/15/10 17:34	011510-2	936826
7440-22-4	Silver	210	ug/Kg	J	104	521	521	1	P	HSC	01/15/10 17:34	011510-2	936826
7440-23-5	Sodium U,I4d	81800	ug/Kg		7290	26000	26000	1	P	HSC	01/15/10 17:34	011510-2	936826
7440-28-0	Thallium	0.209	mg/kg	U	0.0627	0.209	0.209	2	MS	RMJ	01/14/10 09:19	100113-6	936823
7440-32-6	Titanium J+,I6b	101000	ug/Kg	*N	104	521	521	1	P	HSC	01/15/10 17:34	011510-2	936826
7440-61-1	Uranium	0.508	mg/kg		0.0138	0.0418	0.0418	2	MS	RMJ	01/14/10 09:19	100113-6	936823
7440-62-2	Vanadium	2620	ug/Kg		104	521	521	1	P	HSC	01/15/10 17:34	011510-2	936826
7440-66-6	Zinc	25400	ug/Kg		344	1040	1040	1	P	HSC	01/15/10 17:34	011510-2	936826

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
936823	936822	SW846 3050B	0.506	g	50	mL	12/29/09	BXA1
936826	936825	SW846 3050B	0.508	g	50	mL	01/15/10	AXG2
939596	939594	SW846 7471A Prep	0.506	g	30	mL	01/08/10	TXB3

KAL
01/28/10

METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1087 CONTRACT: LANL01004 METHOD TYPE: SW846

SAMPLE ID: 243550004 BASIS: Dry Weight DATE COLLECTED 22-DEC-09

CLIENT ID: RE03-09-14240 LEVEL: Low DATE RECEIVED 24-DEC-09

MATRIX: SOIL %SOLIDS: 94.6

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum J+,I6b	1230000	ug/Kg	N	6930	20400	20400	1	P	HSC	01/15/10 17:41	011510-2	936826
7440-36-0	Antimony	1020	ug/Kg	U	336	1020	1020	1	P	HSC	01/15/10 17:41	011510-2	936826
7440-38-2	Arsenic	0.596	mg/kg	J	0.205	1.02	1.02	2	MS	RMJ	01/14/10 09:25	100113-6	936823
7440-39-3	Barium	10300	ug/Kg		102	509	509	1	P	HSC	01/15/10 17:41	011510-2	936826
7440-41-7	Beryllium	0.308	mg/kg		0.0205	0.102	0.102	2	MS	RMJ	01/16/10 04:23	100115-7	936823
7440-42-8	Boron	5090	ug/Kg	U	1020	5090	5090	1	P	HSC	01/15/10 17:41	011510-2	936826
7440-43-9	Cadmium	509	ug/Kg	U	102	509	509	1	P	HSC	01/15/10 17:41	011510-2	936826
7440-70-2	Calcium	326000	ug/Kg		8150	25500	25500	1	P	HSC	01/15/10 17:41	011510-2	936826
7440-47-3	Chromium	1510	ug/Kg		153	509	509	1	P	HSC	01/15/10 17:41	011510-2	936826
7440-48-4	Cobalt	329	ug/Kg	J	153	509	509	1	P	HSC	01/15/10 17:41	011510-2	936826
7440-50-8	Copper	1710	ug/Kg		306	1020	1020	1	P	HSC	01/15/10 17:41	011510-2	936826
7439-89-6	Iron	5420000	ug/Kg		8150	25500	25500	1	P	HSC	01/15/10 17:41	011510-2	936826
7439-92-1	Lead	2990	ug/Kg		255	1020	1020	1	P	HSC	01/15/10 17:41	011510-2	936826
7439-93-2	Lithium	3.11	mg/kg		0.409	2.05	2.05	2	MS	RMJ	01/16/10 04:23	100115-7	936823
7439-95-4	Magnesium J+,I6b	338000	ug/Kg	N	8660	30600	30600	1	P	HSC	01/15/10 17:41	011510-2	936826
7439-96-5	Manganese	200000	ug/Kg		204	1020	1020	1	P	HSC	01/15/10 17:41	011510-2	936826
7439-97-6	Mercury	6.41	ug/kg	J	4.04	11.9	11.9	1	AV	JXL1	01/11/10 10:10	011110S1-11	939596
7440-02-0	Nickel J,I4a	1.59	mg/kg		0.102	0.409	0.409	2	MS	RMJ	01/14/10 09:25	100113-6	936823
7440-09-7	Potassium	271000	ug/Kg		6520	25500	25500	1	P	HSC	01/15/10 17:41	011510-2	936826
7782-49-2	Selenium	1.02	mg/kg	U	0.511	1.02	1.02	2	MS	RMJ	01/14/10 09:25	100113-6	936823
7440-21-3	Silicon	528000	ug/Kg	*N	1530	10200	10200	1	P	HSC	01/15/10 17:41	011510-2	936826
7440-22-4	Silver	211	ug/Kg	J	102	509	509	1	P	HSC	01/15/10 17:41	011510-2	936826
7440-23-5	Sodium U,I4d	111000	ug/Kg		7130	25500	25500	1	P	HSC	01/15/10 17:41	011510-2	936826
7440-28-0	Thallium	0.205	mg/kg	U	0.0614	0.205	0.205	2	MS	RMJ	01/14/10 09:25	100113-6	936823
7440-32-6	Titanium J+,I6b	108000	ug/Kg	*N	102	509	509	1	P	HSC	01/15/10 17:41	011510-2	936826
7440-61-1	Uranium	0.534	mg/kg		0.0135	0.0409	0.0409	2	MS	RMJ	01/14/10 09:25	100113-6	936823
7440-62-2	Vanadium	3780	ug/Kg		102	509	509	1	P	HSC	01/15/10 17:41	011510-2	936826
7440-66-6	Zinc	20000	ug/Kg		336	1020	1020	1	P	HSC	01/15/10 17:41	011510-2	936826

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
936823	936822	SW846 3050B	0.517	g	50	mL	12/29/09	BXA1
936826	936825	SW846 3050B	0.519	g	50	mL	01/15/10	AXG2
939596	939594	SW846 7471A Prep	0.534	g	30	mL	01/08/10	TXB3

KAL
01/28/10

METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1087 CONTRACT: LANL01004 METHOD TYPE: SW846

SAMPLE ID: 243550005 **BASIS:** Dry Weight **DATE COLLECTED** 22-DEC-09

CLIENT ID: RE03-09-14231 LEVEL: Low DATE RECEIVED 24-DEC-09

MATRIX: SOIL %SOLIDS: 92.7

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum J+,I6b	484000	ug/Kg	N	7290	21500	21500	1	P	HSC	01/15/10 17:48	011510-2	936826
7440-36-0	Antimony	1070	ug/Kg	U	354	1070	1070	1	P	HSC	01/15/10 17:48	011510-2	936826
7440-38-2	Arsenic	0.302	mg/kg	J	0.213	1.07	1.07	2	MS	RMJ	01/14/10 09:31	100113-6	936823
7440-39-3	Barium	10000	ug/Kg		107	536	536	1	P	HSC	01/15/10 17:48	011510-2	936826
7440-41-7	Beryllium	0.360	mg/kg		0.0213	0.107	0.107	2	MS	RMJ	01/16/10 04:26	100115-7	936823
7440-42-8	Boron	5360	ug/Kg	U	1070	5360	5360	1	P	HSC	01/15/10 17:48	011510-2	936826
7440-43-9	Cadmium	536	ug/Kg	U	107	536	536	1	P	HSC	01/15/10 17:48	011510-2	936826
7440-70-2	Calcium	270000	ug/Kg		8580	26800	26800	1	P	HSC	01/15/10 17:48	011510-2	936826
7440-47-3	Chromium	683	ug/Kg		161	536	536	1	P	HSC	01/15/10 17:48	011510-2	936826
7440-48-4	Cobalt	214	ug/Kg	J	161	536	536	1	P	HSC	01/15/10 17:48	011510-2	936826
7440-50-8	Copper	1090	ug/Kg		322	1070	1070	1	P	HSC	01/15/10 17:48	011510-2	936826
7439-89-6	Iron	6670000	ug/Kg		8580	26800	26800	1	P	HSC	01/15/10 17:48	011510-2	936826
7439-92-1	Lead	1860	ug/Kg		268	1070	1070	1	P	HSC	01/15/10 17:48	011510-2	936826
7439-93-2	Lithium	7.82	mg/kg		0.426	2.13	2.13	2	MS	RMJ	01/16/10 04:26	100115-7	936823
7439-95-4	Magnesium J+,I6b	87100	ug/Kg	N	9120	32200	32200	1	P	HSC	01/15/10 17:48	011510-2	936826
7439-96-5	Manganese	322000	ug/Kg		215	1070	1070	1	P	HSC	01/15/10 17:48	011510-2	936826
7439-97-6	Mercury	12.5	ug/kg	U	4.27	12.5	12.5	1	AV	JXL1	01/11/10 10:12	011110S1-11	939596
7440-02-0	Nickel U,I4	0.743	mg/kg		0.107	0.426	0.426	2	MS	RMJ	01/14/10 09:31	100113-6	936823
7440-09-7	Potassium	116000	ug/Kg		6860	26800	26800	1	P	HSC	01/15/10 17:48	011510-2	936826
7782-49-2	Selenium	1.07	mg/kg	U	0.533	1.07	1.07	2	MS	RMJ	01/14/10 09:31	100113-6	936823
7440-21-3	Silicon	451000	ug/Kg	*N	1610	10700	10700	1	P	HSC	01/15/10 17:48	011510-2	936826
7440-22-4	Silver	289	ug/Kg	J	107	536	536	1	P	HSC	01/15/10 17:48	011510-2	936826
7440-23-5	Sodium U,I4d	108000	ug/Kg		7510	26800	26800	1	P	HSC	01/15/10 17:48	011510-2	936826
7440-28-0	Thallium	0.213	mg/kg	U	0.064	0.213	0.213	2	MS	RMJ	01/14/10 09:31	100113-6	936823
7440-32-6	Titanium J+,I6b	119000	ug/Kg	*N	107	536	536	1	P	HSC	01/15/10 17:48	011510-2	936826
7440-61-1	Uranium	0.476	mg/kg		0.0141	0.0426	0.0426	2	MS	RMJ	01/14/10 09:31	100113-6	936823
7440-62-2	Vanadium	2100	ug/Kg		107	536	536	1	P	HSC	01/15/10 17:48	011510-2	936826
7440-66-6	Zinc	31400	ug/Kg		354	1070	1070	1	P	HSC	01/15/10 17:48	011510-2	936826

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
936823	936822	SW846 3050B	0.506	g	50	mL	12/29/09	BXA1
936826	936825	SW846 3050B	0.503	g	50	mL	01/15/10	AXG2
939596	939594	SW846 7471A Prep	0.516	g	30	mL	01/08/10	TXB3

KAL
01/28/10

METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1087 CONTRACT: LANL01004 METHOD TYPE: SW846

SAMPLE ID: 243550006 BASIS: Dry Weight DATE COLLECTED 22-DEC-09

CLIENT ID: RE03-09-14232 LEVEL: Low DATE RECEIVED 24-DEC-09

MATRIX: SOIL %SOLIDS: 94.2

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum J+,I6b	406000	ug/Kg	N	6990	20600	20600	1	P	HSC	01/15/10 18:09	011510-2	936826
7440-36-0	Antimony	1030	ug/Kg	U	339	1030	1030	1	P	HSC	01/15/10 18:09	011510-2	936826
7440-38-2	Arsenic	0.385	mg/kg	J	0.208	1.04	1.04	2	MS	RMJ	01/14/10 09:37	100113-6	936823
7440-39-3	Barium	10200	ug/Kg		103	514	514	1	P	HSC	01/15/10 18:09	011510-2	936826
7440-41-7	Beryllium	0.297	mg/kg		0.0208	0.104	0.104	2	MS	RMJ	01/16/10 04:29	100115-7	936823
7440-42-8	Boron	5140	ug/Kg	U	1030	5140	5140	1	P	HSC	01/15/10 18:09	011510-2	936826
7440-43-9	Cadmium	514	ug/Kg	U	103	514	514	1	P	HSC	01/15/10 18:09	011510-2	936826
7440-70-2	Calcium	212000	ug/Kg		8230	25700	25700	1	P	HSC	01/15/10 18:09	011510-2	936826
7440-47-3	Chromium	775	ug/Kg		154	514	514	1	P	HSC	01/15/10 18:09	011510-2	936826
7440-48-4	Cobalt	212	ug/Kg	J	154	514	514	1	P	HSC	01/15/10 18:09	011510-2	936826
7440-50-8	Copper	1170	ug/Kg		308	1030	1030	1	P	HSC	01/15/10 18:09	011510-2	936826
7439-89-6	Iron	7420000	ug/Kg		8230	25700	25700	1	P	HSC	01/15/10 18:09	011510-2	936826
7439-92-1	Lead	2180	ug/Kg		257	1030	1030	1	P	HSC	01/15/10 18:09	011510-2	936826
7439-93-2	Lithium	7.15	mg/kg		0.415	2.08	2.08	2	MS	RMJ	01/16/10 04:29	100115-7	936823
7439-95-4	Magnesium J+,I6b	84600	ug/Kg	N	8740	30800	30800	1	P	HSC	01/15/10 18:09	011510-2	936826
7439-96-5	Manganese	291000	ug/Kg		206	1030	1030	1	P	HSC	01/15/10 18:09	011510-2	936826
7439-97-6	Mercury	11.9	ug/kg	U	4.06	11.9	11.9	1	AV	JXL1	01/11/10 10:13	011110S1-11	939596
7440-02-0	Nickel U,I4	0.589	mg/kg		0.104	0.415	0.415	2	MS	RMJ	01/14/10 09:37	100113-6	936823
7440-09-7	Potassium	112000	ug/Kg		6580	25700	25700	1	P	HSC	01/15/10 18:09	011510-2	936826
7782-49-2	Selenium	1.04	mg/kg	U	0.519	1.04	1.04	2	MS	RMJ	01/14/10 09:37	100113-6	936823
7440-21-3	Silicon	450000	ug/Kg	*N	1540	10300	10300	1	P	HSC	01/15/10 18:09	011510-2	936826
7440-22-4	Silver	295	ug/Kg	J	103	514	514	1	P	HSC	01/15/10 18:09	011510-2	936826
7440-23-5	Sodium U,I4d	109000	ug/Kg		7200	25700	25700	1	P	HSC	01/15/10 18:09	011510-2	936826
7440-28-0	Thallium	0.208	mg/kg	U	0.0623	0.208	0.208	2	MS	RMJ	01/14/10 09:37	100113-6	936823
7440-32-6	Titanium J+,I6b	129000	ug/Kg	*N	103	514	514	1	P	HSC	01/15/10 18:09	011510-2	936826
7440-61-1	Uranium	0.478	mg/kg		0.0137	0.0415	0.0415	2	MS	RMJ	01/14/10 09:37	100113-6	936823
7440-62-2	Vanadium	2240	ug/Kg		103	514	514	1	P	HSC	01/15/10 18:09	011510-2	936826
7440-66-6	Zinc	33900	ug/Kg		339	1030	1030	1	P	HSC	01/15/10 18:09	011510-2	936826

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
936823	936822	SW846 3050B	0.511	g	50	mL	12/29/09	BXA1
936826	936825	SW846 3050B	0.516	g	50	mL	01/15/10	AXG2
939596	939594	SW846 7471A Prep	0.533	g	30	mL	01/08/10	TXB3

KAL
01/28/10

METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1087 CONTRACT: LANL01004 METHOD TYPE: SW846

SAMPLE ID: 243550007 **BASIS:** Dry Weight **DATE COLLECTED** 22-DEC-09

CLIENT ID: RE03-09-14235 LEVEL: Low DATE RECEIVED 24-DEC-09

MATRIX: SOIL %SOLIDS: 78

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum J+,I6b	18300000	ug/Kg	N	8550	25100	25100	1	P	HSC	01/15/10 18:16	011510-2	936826
7440-36-0	Antimony	1260	ug/Kg	U	415	1260	1260	1	P	HSC	01/15/10 18:16	011510-2	936826
7440-38-2	Arsenic	3.11	mg/kg		0.258	1.29	1.29	2	MS	RMJ	01/14/10 09:55	100113-6	936823
7440-39-3	Barium	38800	ug/Kg		126	629	629	1	P	HSC	01/15/10 18:16	011510-2	936826
7440-41-7	Beryllium	2.09	mg/kg		0.0258	0.129	0.129	2	MS	RMJ	01/16/10 04:33	100115-7	936823
7440-42-8	Boron	6290	ug/Kg	U	1260	6290	6290	1	P	HSC	01/15/10 18:16	011510-2	936826
7440-43-9	Cadmium	629	ug/Kg	U	126	629	629	1	P	HSC	01/15/10 18:16	011510-2	936826
7440-70-2	Calcium	2970000	ug/Kg		10100	31400	31400	1	P	HSC	01/15/10 18:16	011510-2	936826
7440-47-3	Chromium	7840	ug/Kg		189	629	629	1	P	HSC	01/15/10 18:16	011510-2	936826
7440-48-4	Cobalt	2240	ug/Kg		189	629	629	1	P	HSC	01/15/10 18:16	011510-2	936826
7440-50-8	Copper	7270	ug/Kg		377	1260	1260	1	P	HSC	01/15/10 18:16	011510-2	936826
7439-89-6	Iron	13700000	ug/Kg		10100	31400	31400	1	P	HSC	01/15/10 18:16	011510-2	936826
7439-92-1	Lead	11700	ug/Kg		314	1260	1260	1	P	HSC	01/15/10 18:16	011510-2	936826
7439-93-2	Lithium	24.4	mg/kg		0.516	2.58	2.58	2	MS	RMJ	01/16/10 04:33	100115-7	936823
7439-95-4	Magnesium J+,I6b	1810000	ug/Kg	N	10700	37700	37700	1	P	HSC	01/15/10 18:16	011510-2	936826
7439-96-5	Manganese	231000	ug/Kg		251	1260	1260	1	P	HSC	01/15/10 18:16	011510-2	936826
7439-97-6	Mercury	42.1	ug/kg		4.97	14.6	14.6	1	AV	JXL1	01/11/10 10:15	011110S1-11	939596
7440-02-0	Nickel	13.2	mg/kg		0.129	0.516	0.516	2	MS	RMJ	01/14/10 09:55	100113-6	936823
7440-09-7	Potassium	1530000	ug/Kg		8050	31400	31400	1	P	HSC	01/15/10 18:16	011510-2	936826
7782-49-2	Selenium	1.29	mg/kg	U	0.645	1.29	1.29	2	MS	RMJ	01/14/10 09:55	100113-6	936823
7440-21-3	Silicon	730000	ug/Kg	*N	1890	12600	12600	1	P	HSC	01/15/10 18:16	011510-2	936826
7440-22-4	Silver	448	ug/Kg	J	126	629	629	1	P	HSC	01/15/10 18:16	011510-2	936826
7440-23-5	Sodium J,I4a	414000	ug/Kg		8800	31400	31400	1	P	HSC	01/15/10 18:16	011510-2	936826
7440-28-0	Thallium U,I4b	0.326	mg/kg		0.0774	0.258	0.258	2	MS	RMJ	01/14/10 09:55	100113-6	936823
7440-32-6	Titanium J+,I6b	329000	ug/Kg	*N	126	629	629	1	P	HSC	01/15/10 18:16	011510-2	936826
7440-61-1	Uranium	1.36	mg/kg		0.017	0.0516	0.0516	2	MS	RMJ	01/14/10 09:55	100113-6	936823
7440-62-2	Vanadium	17000	ug/Kg		126	629	629	1	P	HSC	01/15/10 18:16	011510-2	936826
7440-66-6	Zinc	34900	ug/Kg		415	1260	1260	1	P	HSC	01/15/10 18:16	011510-2	936826

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
936823	936822	SW846 3050B	0.5	g	50	mL	12/29/09	BXA1
936826	936825	SW846 3050B	0.513	g	50	mL	01/15/10	AXG2
939596	939594	SW846 7471A Prep	0.529	g	30	mL	01/08/10	TXB3

KAL
01/28/10

METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1087 CONTRACT: LANL01004 METHOD TYPE: SW846

SAMPLE ID: 243550008 BASIS: Dry Weight DATE COLLECTED 22-DEC-09

CLIENT ID: RE03-09-14238 LEVEL: Low DATE RECEIVED 24-DEC-09

MATRIX: SOIL %SOLIDS: 94.6

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum J+,I6b	798000	ug/Kg	N	6670	19600	19600	1	P	HSC	01/15/10 18:23	011510-2	936826
7440-36-0	Antimony	981	ug/Kg	U	324	981	981	1	P	HSC	01/15/10 18:23	011510-2	936826
7440-38-2	Arsenic	0.588	mg/kg	J	0.211	1.06	1.06	2	MS	RMJ	01/14/10 10:00	100113-6	936823
7440-39-3	Barium	29500	ug/Kg		98.1	490	490	1	P	HSC	01/15/10 18:23	011510-2	936826
7440-41-7	Beryllium	0.254	mg/kg		0.0211	0.106	0.106	2	MS	RMJ	01/16/10 04:36	100115-7	936823
7440-42-8	Boron	4900	ug/Kg	U	981	4900	4900	1	P	HSC	01/15/10 18:23	011510-2	936826
7440-43-9	Cadmium	490	ug/Kg	U	98.1	490	490	1	P	HSC	01/15/10 18:23	011510-2	936826
7440-70-2	Calcium	298000	ug/Kg		7840	24500	24500	1	P	HSC	01/15/10 18:23	011510-2	936826
7440-47-3	Chromium	1030	ug/Kg		147	490	490	1	P	HSC	01/15/10 18:23	011510-2	936826
7440-48-4	Cobalt	262	ug/Kg	J	147	490	490	1	P	HSC	01/15/10 18:23	011510-2	936826
7440-50-8	Copper	2470	ug/Kg		294	981	981	1	P	HSC	01/15/10 18:23	011510-2	936826
7439-89-6	Iron	5770000	ug/Kg		7840	24500	24500	1	P	HSC	01/15/10 18:23	011510-2	936826
7439-92-1	Lead	2730	ug/Kg		245	981	981	1	P	HSC	01/15/10 18:23	011510-2	936826
7439-93-2	Lithium	2.8	mg/kg		0.423	2.11	2.11	2	MS	RMJ	01/16/10 04:36	100115-7	936823
7439-95-4	Magnesium J+,I6b	199000	ug/Kg	N	8340	29400	29400	1	P	HSC	01/15/10 18:23	011510-2	936826
7439-96-5	Manganese	343000	ug/Kg		196	981	981	1	P	HSC	01/15/10 18:23	011510-2	936826
7439-97-6	Mercury	5.68	ug/kg	J	3.71	10.9	10.9	1	AV	JXL1	01/11/10 10:17	011110S1-11	939596
7440-02-0	Nickel J,I4a	1.33	mg/kg		0.106	0.423	0.423	2	MS	RMJ	01/14/10 10:00	100113-6	936823
7440-09-7	Potassium	134000	ug/Kg		6280	24500	24500	1	P	HSC	01/15/10 18:23	011510-2	936826
7782-49-2	Selenium	1.06	mg/kg	U	0.529	1.06	1.06	2	MS	RMJ	01/14/10 10:00	100113-6	936823
7440-21-3	Silicon	500000	ug/Kg	*N	1470	9810	9810	1	P	HSC	01/15/10 18:23	011510-2	936826
7440-22-4	Silver	265	ug/Kg	J	98.1	490	490	1	P	HSC	01/15/10 18:23	011510-2	936826
7440-23-5	Sodium U,I4d	73600	ug/Kg		6860	24500	24500	1	P	HSC	01/15/10 18:23	011510-2	936826
7440-28-0	Thallium	0.211	mg/kg	U	0.0634	0.211	0.211	2	MS	RMJ	01/14/10 10:00	100113-6	936823
7440-32-6	Titanium J+,I6b	99600	ug/Kg	*N	98.1	490	490	1	P	HSC	01/15/10 18:23	011510-2	936826
7440-61-1	Uranium	0.546	mg/kg		0.014	0.0423	0.0423	2	MS	RMJ	01/14/10 10:00	100113-6	936823
7440-62-2	Vanadium	3370	ug/Kg		98.1	490	490	1	P	HSC	01/15/10 18:23	011510-2	936826
7440-66-6	Zinc	30400	ug/Kg		324	981	981	1	P	HSC	01/15/10 18:23	011510-2	936826

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
936823	936822	SW846 3050B	0.5	g	50	mL	12/29/09	BXA1
936826	936825	SW846 3050B	0.539	g	50	mL	01/15/10	AXG2
939596	939594	SW846 7471A Prep	0.581	g	30	mL	01/08/10	TXB3

KAL
01/28/10

METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1087 CONTRACT: LANL01004 METHOD TYPE: SW846

SAMPLE ID: 243550009 **BASIS:** Dry Weight **DATE COLLECTED** 22-DEC-09

CLIENT ID: RE03-09-14234 LEVEL: Low DATE RECEIVED 24-DEC-09

MATRIX: SOIL %SOLIDS: 92.5

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum J+,I6b	971000	ug/Kg	N	7220	21200	21200	1	P	HSC	01/15/10 18:30	011510-2	936826
7440-36-0	Antimony	1060	ug/Kg	U	350	1060	1060	1	P	HSC	01/15/10 18:30	011510-2	936826
7440-38-2	Arsenic	0.585	mg/kg	J	0.216	1.08	1.08	2	MS	RMJ	01/14/10 10:06	100113-6	936823
7440-39-3	Barium	9010	ug/Kg		106	531	531	1	P	HSC	01/15/10 18:30	011510-2	936826
7440-41-7	Beryllium	0.277	mg/kg		0.0216	0.108	0.108	2	MS	RMJ	01/16/10 04:39	100115-7	936823
7440-42-8	Boron	5310	ug/Kg	U	1060	5310	5310	1	P	HSC	01/15/10 18:30	011510-2	936826
7440-43-9	Cadmium	531	ug/Kg	U	106	531	531	1	P	HSC	01/15/10 18:30	011510-2	936826
7440-70-2	Calcium	328000	ug/Kg		8490	26500	26500	1	P	HSC	01/15/10 18:30	011510-2	936826
7440-47-3	Chromium	1020	ug/Kg		159	531	531	1	P	HSC	01/15/10 18:30	011510-2	936826
7440-48-4	Cobalt	342	ug/Kg	J	159	531	531	1	P	HSC	01/15/10 18:30	011510-2	936826
7440-50-8	Copper	1310	ug/Kg		318	1060	1060	1	P	HSC	01/15/10 18:30	011510-2	936826
7439-89-6	Iron	7550000	ug/Kg		8490	26500	26500	1	P	HSC	01/15/10 18:30	011510-2	936826
7439-92-1	Lead	3670	ug/Kg		265	1060	1060	1	P	HSC	01/15/10 18:30	011510-2	936826
7439-93-2	Lithium	8.41	mg/kg		0.432	2.16	2.16	2	MS	RMJ	01/16/10 04:39	100115-7	936823
7439-95-4	Magnesium J+,I6b	208000	ug/Kg	N	9020	31800	31800	1	P	HSC	01/15/10 18:30	011510-2	936826
7439-96-5	Manganese	223000	ug/Kg		212	1060	1060	1	P	HSC	01/15/10 18:30	011510-2	936826
7439-97-6	Mercury	12.7	ug/kg	U	4.32	12.7	12.7	1	AV	JXL1	01/11/10 10:22	011110S1-11	939596
7440-02-0	Nickel J,I4a	1.07	mg/kg		0.108	0.432	0.432	2	MS	RMJ	01/14/10 10:06	100113-6	936823
7440-09-7	Potassium	159000	ug/Kg		6790	26500	26500	1	P	HSC	01/15/10 18:30	011510-2	936826
7782-49-2	Selenium	1.08	mg/kg	U	0.54	1.08	1.08	2	MS	RMJ	01/14/10 10:06	100113-6	936823
7440-21-3	Silicon	538000	ug/Kg	*N	1590	10600	10600	1	P	HSC	01/15/10 18:30	011510-2	936826
7440-22-4	Silver	227	ug/Kg	J	106	531	531	1	P	HSC	01/15/10 18:30	011510-2	936826
7440-23-5	Sodium U,I4d	95600	ug/Kg		7430	26500	26500	1	P	HSC	01/15/10 18:30	011510-2	936826
7440-28-0	Thallium	0.216	mg/kg	U	0.0648	0.216	0.216	2	MS	RMJ	01/14/10 10:06	100113-6	936823
7440-32-6	Titanium J+,I6b	105000	ug/Kg	*N	106	531	531	1	P	HSC	01/15/10 18:30	011510-2	936826
7440-61-1	Uranium	0.497	mg/kg		0.0143	0.0432	0.0432	2	MS	RMJ	01/14/10 10:06	100113-6	936823
7440-62-2	Vanadium	3120	ug/Kg		106	531	531	1	P	HSC	01/15/10 18:30	011510-2	936826
7440-66-6	Zinc	32000	ug/Kg		350	1060	1060	1	P	HSC	01/15/10 18:30	011510-2	936826

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
936823	936822	SW846 3050B	0.5	g	50	mL	12/29/09	BXA1
936826	936825	SW846 3050B	0.509	g	50	mL	01/15/10	AXG2
939596	939594	SW846 7471A Prep	0.51	g	30	mL	01/08/10	TXB3

KAL
01/28/10

METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1087 CONTRACT: LANL01004 METHOD TYPE: SW846

SAMPLE ID: 243550010 BASIS: Dry Weight DATE COLLECTED 22-DEC-09

CLIENT ID: RE03-09-14241 LEVEL: Low DATE RECEIVED 24-DEC-09

MATRIX: SOIL %SOLIDS: 87

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum J+,I6b	4020000	ug/Kg	N	7710	22700	22700	1	P	HSC	01/15/10 18:37	011510-2	936826
7440-36-0	Antimony	1130	ug/Kg	U	374	1130	1130	1	P	HSC	01/15/10 18:37	011510-2	936826
7440-38-2	Arsenic	1.41	mg/kg		0.222	1.11	1.11	2	MS	RMJ	01/14/10 10:12	100113-6	936823
7440-39-3	Barium	17100	ug/Kg		113	567	567	1	P	HSC	01/15/10 18:37	011510-2	936826
7440-41-7	Beryllium	0.810	mg/kg		0.0222	0.111	0.111	2	MS	RMJ	01/16/10 04:42	100115-7	936823
7440-42-8	Boron	5670	ug/Kg	U	1130	5670	5670	1	P	HSC	01/15/10 18:37	011510-2	936826
7440-43-9	Cadmium	567	ug/Kg	U	113	567	567	1	P	HSC	01/15/10 18:37	011510-2	936826
7440-70-2	Calcium	1280000	ug/Kg		9070	28300	28300	1	P	HSC	01/15/10 18:37	011510-2	936826
7440-47-3	Chromium	3030	ug/Kg		170	567	567	1	P	HSC	01/15/10 18:37	011510-2	936826
7440-48-4	Cobalt	857	ug/Kg		170	567	567	1	P	HSC	01/15/10 18:37	011510-2	936826
7440-50-8	Copper	3420	ug/Kg		340	1130	1130	1	P	HSC	01/15/10 18:37	011510-2	936826
7439-89-6	Iron	7310000	ug/Kg		9070	28300	28300	1	P	HSC	01/15/10 18:37	011510-2	936826
7439-92-1	Lead	7110	ug/Kg		283	1130	1130	1	P	HSC	01/15/10 18:37	011510-2	936826
7439-93-2	Lithium	7.98	mg/kg		0.444	2.22	2.22	2	MS	RMJ	01/16/10 04:42	100115-7	936823
7439-95-4	Magnesium J+,I6b	740000	ug/Kg	N	9640	34000	34000	1	P	HSC	01/15/10 18:37	011510-2	936826
7439-96-5	Manganese	163000	ug/Kg		227	1130	1130	1	P	HSC	01/15/10 18:37	011510-2	936826
7439-97-6	Mercury	12	ug/kg	U	4.08	12	12	1	AV	JXL1	01/11/10 10:23	011110S1-11	939596
7440-02-0	Nickel J,I4a	7.28	mg/kg		0.111	0.444	0.444	2	MS	RMJ	01/14/10 10:12	100113-6	936823
7440-09-7	Potassium	523000	ug/Kg		7260	28300	28300	1	P	HSC	01/15/10 18:37	011510-2	936826
7782-49-2	Selenium	1.11	mg/kg	U	0.555	1.11	1.11	2	MS	RMJ	01/14/10 10:12	100113-6	936823
7440-21-3	Silicon	485000	ug/Kg	*N	1700	11300	11300	1	P	HSC	01/15/10 18:37	011510-2	936826
7440-22-4	Silver	244	ug/Kg	J	113	567	567	1	P	HSC	01/15/10 18:37	011510-2	936826
7440-23-5	Sodium U,I4d	175000	ug/Kg		7940	28300	28300	1	P	HSC	01/15/10 18:37	011510-2	936826
7440-28-0	Thallium U,I4b	0.122	mg/kg	J	0.0666	0.222	0.222	2	MS	RMJ	01/14/10 10:12	100113-6	936823
7440-32-6	Titanium J+,I6b	114000	ug/Kg	*N	113	567	567	1	P	HSC	01/15/10 18:37	011510-2	936826
7440-61-1	Uranium	0.810	mg/kg		0.0146	0.0444	0.0444	2	MS	RMJ	01/14/10 10:12	100113-6	936823
7440-62-2	Vanadium	8810	ug/Kg		113	567	567	1	P	HSC	01/15/10 18:37	011510-2	936826
7440-66-6	Zinc	17600	ug/Kg		374	1130	1130	1	P	HSC	01/15/10 18:37	011510-2	936826

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
936823	936822	SW846 3050B	0.516	g	50	mL	12/29/09	BXA1
936826	936825	SW846 3050B	0.505	g	50	mL	01/15/10	AXG2
939596	939594	SW846 7471A Prep	0.573	g	30	mL	01/08/10	TXB3

KAL
01/28/10

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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1087 CONTRACT: LANL01004 METHOD TYPE: SW846

SAMPLE ID: 243550011 **BASIS:** Dry Weight **DATE COLLECTED** 22-DEC-09

CLIENT ID: RE03-10-2737 LEVEL: Low DATE RECEIVED 24-DEC-09

MATRIX: SOIL %SOLIDS: 90

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum J+,I6b	2170000	ug/Kg	N	7390	21700	21700	1	P	HSC	01/15/10 18:45	011510-2	936826
7440-36-0	Antimony	1090	ug/Kg	U	359	1090	1090	1	P	HSC	01/15/10 18:45	011510-2	936826
7440-38-2	Arsenic	0.417	mg/kg	J	0.22	1.1	1.1	2	MS	RMJ	01/14/10 10:18	100113-6	936823
7440-39-3	Barium	15800	ug/Kg		109	543	543	1	P	HSC	01/15/10 18:45	011510-2	936826
7440-41-7	Beryllium	0.583	mg/kg		0.022	0.11	0.11	2	MS	RMJ	01/16/10 04:52	100115-7	936823
7440-42-8	Boron	5430	ug/Kg	U	1090	5430	5430	1	P	HSC	01/15/10 18:45	011510-2	936826
7440-43-9	Cadmium	543	ug/Kg	U	109	543	543	1	P	HSC	01/15/10 18:45	011510-2	936826
7440-70-2	Calcium	403000	ug/Kg		8690	27200	27200	1	P	HSC	01/15/10 18:45	011510-2	936826
7440-47-3	Chromium	1610	ug/Kg		163	543	543	1	P	HSC	01/15/10 18:45	011510-2	936826
7440-48-4	Cobalt	467	ug/Kg	J	163	543	543	1	P	HSC	01/15/10 18:45	011510-2	936826
7440-50-8	Copper	2240	ug/Kg		326	1090	1090	1	P	HSC	01/15/10 18:45	011510-2	936826
7439-89-6	Iron	6850000	ug/Kg		8690	27200	27200	1	P	HSC	01/15/10 18:45	011510-2	936826
7439-92-1	Lead	5960	ug/Kg		272	1090	1090	1	P	HSC	01/15/10 18:45	011510-2	936826
7439-93-2	Lithium	11	mg/kg		0.441	2.2	2.2	2	MS	RMJ	01/16/10 04:52	100115-7	936823
7439-95-4	Magnesium J+,I6b	290000	ug/Kg	N	9240	32600	32600	1	P	HSC	01/15/10 18:45	011510-2	936826
7439-96-5	Manganese	209000	ug/Kg		217	1090	1090	1	P	HSC	01/15/10 18:45	011510-2	936826
7439-97-6	Mercury	12.7	ug/kg	U	4.31	12.7	12.7	1	AV	JXL1	01/11/10 10:25	011110S1-11	939596
7440-02-0	Nickel J,I4a	1.88	mg/kg		0.11	0.441	0.441	2	MS	RMJ	01/14/10 10:18	100113-6	936823
7440-09-7	Potassium	336000	ug/Kg		6950	27200	27200	1	P	HSC	01/15/10 18:45	011510-2	936826
7782-49-2	Selenium	1.1	mg/kg	U	0.551	1.1	1.1	2	MS	RMJ	01/14/10 10:18	100113-6	936823
7440-21-3	Silicon	533000	ug/Kg	*N	1630	10900	10900	1	P	HSC	01/15/10 18:45	011510-2	936826
7440-22-4	Silver	237	ug/Kg	J	109	543	543	1	P	HSC	01/15/10 18:45	011510-2	936826
7440-23-5	Sodium U,I4d	72100	ug/Kg		7610	27200	27200	1	P	HSC	01/15/10 18:45	011510-2	936826
7440-28-0	Thallium	0.220	mg/kg	U	0.0661	0.22	0.22	2	MS	RMJ	01/14/10 10:18	100113-6	936823
7440-32-6	Titanium J+,I6b	116000	ug/Kg	*N	109	543	543	1	P	HSC	01/15/10 18:45	011510-2	936826
7440-61-1	Uranium	0.607	mg/kg		0.0145	0.0441	0.0441	2	MS	RMJ	01/14/10 10:18	100113-6	936823
7440-62-2	Vanadium	3840	ug/Kg		109	543	543	1	P	HSC	01/15/10 18:45	011510-2	936826
7440-66-6	Zinc	44800	ug/Kg		359	1090	1090	1	P	HSC	01/15/10 18:45	011510-2	936826

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
936823	936822	SW846 3050B	0.505	g	50	mL	12/29/09	BXA1
936826	936825	SW846 3050B	0.512	g	50	mL	01/15/10	AXG2
939596	939594	SW846 7471A Prep	0.527	g	30	mL	01/08/10	TXB3

KAL
01/28/10

METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1087 CONTRACT: LANL01004 METHOD TYPE: SW846

SAMPLE ID: 243550012 BASIS: Dry Weight DATE COLLECTED 22-DEC-09

CLIENT ID: RE03-10-2736 LEVEL: Low DATE RECEIVED 24-DEC-09

MATRIX: SOIL %SOLIDS: 93

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum J+,I6b	958000	ug/Kg	N	7260	21300	21300	1	P	HSC	01/15/10 18:52	011510-2	936826
7440-36-0	Antimony	1070	ug/Kg	U	352	1070	1070	1	P	HSC	01/15/10 18:52	011510-2	936826
7440-38-2	Arsenic	0.346	mg/kg	J	0.215	1.07	1.07	2	MS	RMJ	01/14/10 10:24	100113-6	936823
7440-39-3	Barium	25400	ug/Kg		107	534	534	1	P	HSC	01/15/10 18:52	011510-2	936826
7440-41-7	Beryllium	0.359	mg/kg		0.0215	0.107	0.107	2	MS	RMJ	01/16/10 04:55	100115-7	936823
7440-42-8	Boron	5340	ug/Kg	U	1070	5340	5340	1	P	HSC	01/15/10 18:52	011510-2	936826
7440-43-9	Cadmium	534	ug/Kg	U	107	534	534	1	P	HSC	01/15/10 18:52	011510-2	936826
7440-70-2	Calcium	339000	ug/Kg		8540	26700	26700	1	P	HSC	01/15/10 18:52	011510-2	936826
7440-47-3	Chromium	1070	ug/Kg		160	534	534	1	P	HSC	01/15/10 18:52	011510-2	936826
7440-48-4	Cobalt	347	ug/Kg	J	160	534	534	1	P	HSC	01/15/10 18:52	011510-2	936826
7440-50-8	Copper	1380	ug/Kg		320	1070	1070	1	P	HSC	01/15/10 18:52	011510-2	936826
7439-89-6	Iron	6060000	ug/Kg		8540	26700	26700	1	P	HSC	01/15/10 18:52	011510-2	936826
7439-92-1	Lead	2510	ug/Kg		267	1070	1070	1	P	HSC	01/15/10 18:52	011510-2	936826
7439-93-2	Lithium	6.55	mg/kg		0.429	2.15	2.15	2	MS	RMJ	01/16/10 04:55	100115-7	936823
7439-95-4	Magnesium J+,I6b	177000	ug/Kg	N	9070	32000	32000	1	P	HSC	01/15/10 18:52	011510-2	936826
7439-96-5	Manganese	299000	ug/Kg		213	1070	1070	1	P	HSC	01/15/10 18:52	011510-2	936826
7439-97-6	Mercury	11.1	ug/kg	U	3.78	11.1	11.1	1	AV	JXL1	01/11/10 10:27	011110S1-11	939596
7440-02-0	Nickel U,I4	0.734	mg/kg		0.107	0.429	0.429	2	MS	RMJ	01/14/10 10:24	100113-6	936823
7440-09-7	Potassium	150000	ug/Kg		6830	26700	26700	1	P	HSC	01/15/10 18:52	011510-2	936826
7782-49-2	Selenium	1.07	mg/kg	U	0.537	1.07	1.07	2	MS	RMJ	01/14/10 10:24	100113-6	936823
7440-21-3	Silicon	368000	ug/Kg	*N	1600	10700	10700	1	P	HSC	01/15/10 18:52	011510-2	936826
7440-22-4	Silver	173	ug/Kg	J	107	534	534	1	P	HSC	01/15/10 18:52	011510-2	936826
7440-23-5	Sodium U,I4d	60400	ug/Kg		7470	26700	26700	1	P	HSC	01/15/10 18:52	011510-2	936826
7440-28-0	Thallium	0.215	mg/kg	U	0.0644	0.215	0.215	2	MS	RMJ	01/14/10 10:24	100113-6	936823
7440-32-6	Titanium J+,I6b	96400	ug/Kg	*N	107	534	534	1	P	HSC	01/15/10 18:52	011510-2	936826
7440-61-1	Uranium	0.478	mg/kg		0.0142	0.0429	0.0429	2	MS	RMJ	01/14/10 10:24	100113-6	936823
7440-62-2	Vanadium	2720	ug/Kg		107	534	534	1	P	HSC	01/15/10 18:52	011510-2	936826
7440-66-6	Zinc	30400	ug/Kg		352	1070	1070	1	P	HSC	01/15/10 18:52	011510-2	936826

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
936823	936822	SW846 3050B	0.501	g	50	mL	12/29/09	BXA1
936826	936825	SW846 3050B	0.504	g	50	mL	01/15/10	AXG2
939596	939594	SW846 7471A Prep	0.581	g	30	mL	01/08/10	TXB3

KAL
01/28/10

METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1087 CONTRACT: LANL01004 METHOD TYPE: SW846

SAMPLE ID: 243550013 **BASIS:** Dry Weight **DATE COLLECTED** 22-DEC-09

CLIENT ID: RE03-10-9873 LEVEL: Low DATE RECEIVED 24-DEC-09

MATRIX: SOIL %SOLIDS: 94.7

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum J+,I6b	2170000	ug/Kg	N	6890	20300	20300	1	P	HSC	01/15/10 19:12	011510-2	936826
7440-36-0	Antimony	1010	ug/Kg	U	334	1010	1010	1	P	HSC	01/15/10 19:12	011510-2	936826
7440-38-2	Arsenic	0.933	mg/kg	J	0.21	1.05	1.05	2	MS	RMJ	01/14/10 10:30	100113-6	936823
7440-39-3	Barium	45300	ug/Kg		101	507	507	1	P	HSC	01/15/10 19:12	011510-2	936826
7440-41-7	Beryllium	0.213	mg/kg		0.021	0.105	0.105	2	MS	RMJ	01/16/10 04:58	100115-7	936823
7440-42-8	Boron	5070	ug/Kg	U	1010	5070	5070	1	P	HSC	01/15/10 19:12	011510-2	936826
7440-43-9	Cadmium	507	ug/Kg	U	101	507	507	1	P	HSC	01/15/10 19:12	011510-2	936826
7440-70-2	Calcium	587000	ug/Kg		8110	25300	25300	1	P	HSC	01/15/10 19:12	011510-2	936826
7440-47-3	Chromium	3090	ug/Kg		152	507	507	1	P	HSC	01/15/10 19:12	011510-2	936826
7440-48-4	Cobalt	1490	ug/Kg		152	507	507	1	P	HSC	01/15/10 19:12	011510-2	936826
7440-50-8	Copper	2540	ug/Kg		304	1010	1010	1	P	HSC	01/15/10 19:12	011510-2	936826
7439-89-6	Iron	6400000	ug/Kg		8110	25300	25300	1	P	HSC	01/15/10 19:12	011510-2	936826
7439-92-1	Lead	5620	ug/Kg		253	1010	1010	1	P	HSC	01/15/10 19:12	011510-2	936826
7439-93-2	Lithium	5.65	mg/kg		0.42	2.1	2.1	2	MS	RMJ	01/16/10 04:58	100115-7	936823
7439-95-4	Magnesium J+,I6b	422000	ug/Kg	N	8610	30400	30400	1	P	HSC	01/15/10 19:12	011510-2	936826
7439-96-5	Manganese	89400	ug/Kg		203	1010	1010	1	P	HSC	01/15/10 19:12	011510-2	936826
7439-97-6	Mercury	8.85	ug/kg	J	4.09	12	12	1	AV	JXL1	01/11/10 10:29	011110S1-11	939596
7440-02-0	Nickel J,I4a	3.63	mg/kg		0.105	0.42	0.42	2	MS	RMJ	01/14/10 10:30	100113-6	936823
7440-09-7	Potassium	428000	ug/Kg		6480	25300	25300	1	P	HSC	01/15/10 19:12	011510-2	936826
7782-49-2	Selenium	1.05	mg/kg	U	0.525	1.05	1.05	2	MS	RMJ	01/14/10 10:30	100113-6	936823
7440-21-3	Silicon	599000	ug/Kg	*N	1520	10100	10100	1	P	HSC	01/15/10 19:12	011510-2	936826
7440-22-4	Silver	195	ug/Kg	J	101	507	507	1	P	HSC	01/15/10 19:12	011510-2	936826
7440-23-5	Sodium U,I4d	58500	ug/Kg		7090	25300	25300	1	P	HSC	01/15/10 19:12	011510-2	936826
7440-28-0	Thallium	0.210	mg/kg	U	0.063	0.21	0.21	2	MS	RMJ	01/14/10 10:30	100113-6	936823
7440-32-6	Titanium J+,I6b	178000	ug/Kg	*N	101	507	507	1	P	HSC	01/15/10 19:12	011510-2	936826
7440-61-1	Uranium	0.522	mg/kg		0.0139	0.042	0.042	2	MS	RMJ	01/14/10 10:30	100113-6	936823
7440-62-2	Vanadium	9100	ug/Kg		101	507	507	1	P	HSC	01/15/10 19:12	011510-2	936826
7440-66-6	Zinc	24700	ug/Kg		334	1010	1010	1	P	HSC	01/15/10 19:12	011510-2	936826

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
936823	936822	SW846 3050B	0.503	g	50	mL	12/29/09	BXA1
936826	936825	SW846 3050B	0.521	g	50	mL	01/15/10	AXG2
939596	939594	SW846 7471A Prep	0.526	g	30	mL	01/08/10	TXB3

KAL
01/28/10

METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1087 CONTRACT: LANL01004 METHOD TYPE: SW846

SAMPLE ID: 243550014 BASIS: Dry Weight DATE COLLECTED 22-DEC-09

CLIENT ID: RE03-10-9872 LEVEL: Low DATE RECEIVED 24-DEC-09

MATRIX: SOIL %SOLIDS: 88

CAS No.	Analyte		Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	J+,I6b	2020000	ug/Kg	N	7480	22000	22000	1	P	HSC	01/08/10 13:12	010810-1	938259
7440-36-0	Antimony	U,I4	1200	ug/Kg		363	1100	1100	1	P	HSC	01/08/10 13:12	010810-1	938259
7440-38-2	Arsenic		0.885	mg/kg	J	0.223	1.12	1.12	2	MS	BAJ	01/09/10 03:11	100108-4	938263
7440-39-3	Barium		24900	ug/Kg		110	550	550	1	P	HSC	01/08/10 13:12	010810-1	938259
7440-41-7	Beryllium		0.426	mg/kg		0.0223	0.112	0.112	2	MS	BAJ	01/09/10 17:35	100109-5	938263
7440-42-8	Boron		5500	ug/Kg	U	1100	5500	5500	1	P	HSC	01/08/10 13:12	010810-1	938259
7440-43-9	Cadmium		550	ug/Kg	U	110	550	550	1	P	HSC	01/08/10 13:12	010810-1	938259
7440-70-2	Calcium		600000	ug/Kg		8800	27500	27500	1	P	HSC	01/08/10 13:12	010810-1	938259
7440-47-3	Chromium		12000	ug/Kg		165	550	550	1	P	HSC	01/08/10 13:12	010810-1	938259
7440-48-4	Cobalt		1180	ug/Kg		165	550	550	1	P	HSC	01/08/10 13:12	010810-1	938259
7440-50-8	Copper		2320	ug/Kg		330	1100	1100	1	P	HSC	01/08/10 13:12	010810-1	938259
7439-89-6	Iron		7780000	ug/Kg		8800	27500	27500	1	P	HSC	01/08/10 13:12	010810-1	938259
7439-92-1	Lead		5450	ug/Kg		275	1100	1100	1	P	HSC	01/08/10 13:12	010810-1	938259
7439-93-2	Lithium		5.55	mg/kg		0.447	2.23	2.23	2	MS	BAJ	01/09/10 17:35	100109-5	938263
7439-95-4	Magnesium	J+,I6b	352000	ug/Kg	N	9350	33000	33000	1	P	HSC	01/08/10 13:12	010810-1	938259
7439-96-5	Manganese		236000	ug/Kg		220	1100	1100	1	P	HSC	01/08/10 13:12	010810-1	938259
7439-97-6	Mercury		13.5	ug/kg	U	4.58	13.5	13.5	1	AV	JXL1	01/11/10 10:30	011110S1-11	939596
7440-02-0	Nickel	J,I4a	2.16	mg/kg		0.112	0.447	0.447	2	MS	BAJ	01/09/10 17:35	100109-5	938263
7440-09-7	Potassium		334000	ug/Kg		7040	27500	27500	1	P	HSC	01/08/10 13:12	010810-1	938259
7782-49-2	Selenium		1.12	mg/kg	U	0.558	1.12	1.12	2	MS	BAJ	01/09/10 03:11	100108-4	938263
7440-21-3	Silicon		1210000	ug/Kg	*N	1650	11000	11000	1	P	HSC	01/08/10 13:12	010810-1	938259
7440-22-4	Silver		550	ug/Kg	U	110	550	550	1	P	HSC	01/08/10 13:12	010810-1	938259
7440-23-5	Sodium	U,I4d	151000	ug/Kg		7700	27500	27500	1	P	HSC	01/08/10 13:12	010810-1	938259
7440-28-0	Thallium	U,I4b	0.0737	mg/kg	J	0.067	0.223	0.223	2	MS	BAJ	01/09/10 03:11	100108-4	938263
7440-32-6	Titanium	J+,I6b	161000	ug/Kg	*N	110	550	550	1	P	HSC	01/08/10 13:12	010810-1	938259
7440-61-1	Uranium		0.594	mg/kg		0.0147	0.0447	0.0447	2	MS	BAJ	01/09/10 03:11	100108-4	938263
7440-62-2	Vanadium		5470	ug/Kg		110	550	550	1	P	HSC	01/08/10 13:12	010810-1	938259
7440-66-6	Zinc		29500	ug/Kg		363	1100	1100	1	P	HSC	01/08/10 13:12	010810-1	938259

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
938259	938257	SW846 3050B	0.516	g	50	mL	01/05/10	AXG2
938263	938262	SW846 3050B	0.508	g	50	mL	01/05/10	AXG2
939596	939594	SW846 7471A Prep	0.505	g	30	mL	01/08/10	TXB3

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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1087 CONTRACT: LANL01004 METHOD TYPE: SW846

SAMPLE ID: 243550015 **BASIS:** Dry Weight **DATE COLLECTED** 22-DEC-09

CLIENT ID: RE03-10-9874 LEVEL: Low DATE RECEIVED 24-DEC-09

MATRIX: SOIL %SOLIDS: 93.1

CAS No.	Analyte		Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	J+,I6b	3520000	ug/Kg	N	7050	20700	20700	1	P	HSC	01/08/10 13:30	010810-1	938259
7440-36-0	Antimony	U,I4	345	ug/Kg	J	342	1040	1040	1	P	HSC	01/08/10 13:30	010810-1	938259
7440-38-2	Arsenic		0.654	mg/kg	J	0.209	1.04	1.04	2	MS	BAJ	01/09/10 03:42	100108-4	938263
7440-39-3	Barium		14400	ug/Kg		104	518	518	1	P	HSC	01/08/10 13:30	010810-1	938259
7440-41-7	Beryllium		0.928	mg/kg		0.0209	0.104	0.104	2	MS	BAJ	01/09/10 17:44	100109-5	938263
7440-42-8	Boron		5180	ug/Kg	U	1040	5180	5180	1	P	HSC	01/08/10 13:30	010810-1	938259
7440-43-9	Cadmium		518	ug/Kg	U	104	518	518	1	P	HSC	01/08/10 13:30	010810-1	938259
7440-70-2	Calcium		715000	ug/Kg		8290	25900	25900	1	P	HSC	01/08/10 13:30	010810-1	938259
7440-47-3	Chromium		1970	ug/Kg		155	518	518	1	P	HSC	01/08/10 13:30	010810-1	938259
7440-48-4	Cobalt		872	ug/Kg		155	518	518	1	P	HSC	01/08/10 13:30	010810-1	938259
7440-50-8	Copper		2760	ug/Kg		311	1040	1040	1	P	HSC	01/08/10 13:30	010810-1	938259
7439-89-6	Iron		8240000	ug/Kg		8290	25900	25900	1	P	HSC	01/08/10 13:30	010810-1	938259
7439-92-1	Lead		6400	ug/Kg		259	1040	1040	1	P	HSC	01/08/10 13:30	010810-1	938259
7439-93-2	Lithium		12.4	mg/kg		0.418	2.09	2.09	2	MS	BAJ	01/09/10 17:44	100109-5	938263
7439-95-4	Magnesium	J+,I6b	462000	ug/Kg	N	8810	31100	31100	1	P	HSC	01/08/10 13:30	010810-1	938259
7439-96-5	Manganese		332000	ug/Kg		207	1040	1040	1	P	HSC	01/08/10 13:30	010810-1	938259
7439-97-6	Mercury		4.49	ug/kg	J	3.92	11.5	11.5	1	AV	JXL1	01/11/10 10:32	011110S1-11	939596
7440-02-0	Nickel	J,I4a	2.46	mg/kg		0.104	0.418	0.418	2	MS	BAJ	01/09/10 17:44	100109-5	938263
7440-09-7	Potassium		540000	ug/Kg		6630	25900	25900	1	P	HSC	01/08/10 13:30	010810-1	938259
7782-49-2	Selenium		1.04	mg/kg	U	0.522	1.04	1.04	2	MS	BAJ	01/09/10 03:42	100108-4	938263
7440-21-3	Silicon		526000	ug/Kg	*N	1550	10400	10400	1	P	HSC	01/08/10 13:30	010810-1	938259
7440-22-4	Silver		518	ug/Kg	U	104	518	518	1	P	HSC	01/08/10 13:30	010810-1	938259
7440-23-5	Sodium	U,I4d	62400	ug/Kg		7250	25900	25900	1	P	HSC	01/08/10 13:30	010810-1	938259
7440-28-0	Thallium		0.209	mg/kg	U	0.0627	0.209	0.209	2	MS	BAJ	01/09/10 03:42	100108-4	938263
7440-32-6	Titanium	J+,I6b	116000	ug/Kg	*N	104	518	518	1	P	HSC	01/08/10 13:30	010810-1	938259
7440-61-1	Uranium		0.558	mg/kg		0.0138	0.0418	0.0418	2	MS	BAJ	01/09/10 03:42	100108-4	938263
7440-62-2	Vanadium		5230	ug/Kg		104	518	518	1	P	HSC	01/08/10 13:30	010810-1	938259
7440-66-6	Zinc		45700	ug/Kg		342	1040	1040	1	P	HSC	01/08/10 13:30	010810-1	938259

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
938259	938257	SW846 3050B	0.518	g	50	mL	01/05/10	AXG2
938263	938262	SW846 3050B	0.514	g	50	mL	01/05/10	AXG2
939596	939594	SW846 7471A Prep	0.559	g	30	mL	01/08/10	TXB3

KAL
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1087-1 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 243554001 **BASIS:** As Received **DATE COLLECTED** 22-DEC-09

CLIENT ID: RE03-10-2750 **LEVEL:** Low **DATE RECEIVED** 24-DEC-09

MATRIX: WATER **%SOLIDS:** 0

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	200	ug/L	U	68	200	200	1	P	HSC	01/08/10 13:03	010810-1	936813
7440-36-0	Antimony	3	ug/L	U	1	3	3	1	MS	BAJ	01/06/10 07:10	100105-3	936815
7440-38-2	Arsenic U,I4	7.75	ug/L	J	5	30	30	1	P	HSC	01/08/10 13:03	010810-1	936813
7440-39-3	Barium	5	ug/L	U	1	5	5	1	P	HSC	01/08/10 13:03	010810-1	936813
7440-41-7	Beryllium	0.50	ug/L	U	0.1	0.5	0.5	1	MS	BAJ	01/14/10 23:22	100114-6	941231
7440-42-8	Boron	50	ug/L	U	15	50	50	1	P	HSC	01/08/10 13:03	010810-1	936813
7440-43-9	Cadmium	1	ug/L	U	0.11	1	1	1	MS	BAJ	01/06/10 07:10	100105-3	936815
7440-70-2	Calcium	200	ug/L	U	50	200	200	1	P	HSC	01/08/10 13:03	010810-1	936813
7440-47-3	Chromium	5	ug/L	U	1	5	5	1	P	HSC	01/08/10 13:03	010810-1	936813
7440-48-4	Cobalt	5	ug/L	U	1	5	5	1	P	HSC	01/08/10 13:03	010810-1	936813
7440-50-8	Copper	10	ug/L	U	3	10	10	1	P	HSC	01/08/10 13:03	010810-1	936813
7439-89-6	Iron	100	ug/L	U	30	100	100	1	P	HSC	01/08/10 13:03	010810-1	936813
7439-92-1	Lead UJ,I6b	2	ug/L	U	0.5	2	2	1	MS	PRB	01/08/10 16:52	100108-2	936815
7439-93-2	Lithium UJ,I6b	10	ug/L	U	2	10	10	1	MS	BAJ	01/07/10 05:25	100106-4	936815
7439-95-4	Magnesium	300	ug/L	U	85	300	300	1	P	HSC	01/08/10 13:03	010810-1	936813
7439-96-5	Manganese	5	ug/L	U	1	5	5	1	MS	BAJ	01/07/10 05:25	100106-4	936815
7439-97-6	Mercury	0.20	ug/L	U	0.066	0.2	0.2	1	AV	JXL1	01/08/10 10:22	010810W1-7	937645
7440-02-0	Nickel	5	ug/L	U	1.5	5	5	1	P	HSC	01/08/10 13:03	010810-1	936813
7440-09-7	Potassium	150	ug/L	U	50	150	150	1	P	HSC	01/08/10 13:03	010810-1	936813
7782-49-2	Selenium	30	ug/L	U	5	30	30	1	P	HSC	01/08/10 13:03	010810-1	936813
7440-21-3	Silicon	100	ug/L	U	25	100	100	1	P	HSC	01/08/10 13:03	010810-1	936813
7440-22-4	Silver	5	ug/L	U	1	5	5	1	P	HSC	01/08/10 13:03	010810-1	936813
7440-23-5	Sodium	300	ug/L	U	100	300	300	1	P	HSC	01/08/10 13:03	010810-1	936813
7440-28-0	Thallium	1	ug/L	U	0.3	1	1	1	MS	BAJ	01/08/10 13:09	100108-5	936815
7440-32-6	Titanium	5	ug/L	U	1	5	5	1	P	HSC	01/08/10 13:03	010810-1	936813
7440-61-1	Uranium	0.20	ug/L	U	0.05	0.2	0.2	1	MS	BAJ	01/08/10 13:09	100108-5	936815
7440-62-2	Vanadium	5	ug/L	U	1	5	5	1	P	HSC	01/08/10 13:03	010810-1	936813
7440-66-6	Zinc	10	ug/L	U	3.3	10	10	1	P	HSC	01/08/10 13:03	010810-1	936813

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
936813	936812	SW846 3005A	50	mL	50	mL	01/04/10	BXA1
936815	936814	SW846 3005A	50	mL	50	mL	01/04/10	BXA1
937645	937643	SW846 7470A Prep	20	mL	20	mL	01/07/10	AXG2

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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1087-1 CONTRACT: LANL01004 METHOD TYPE: SW846

SAMPLE ID: 243554002 BASIS: As Received DATE COLLECTED 22-DEC-09

CLIENT ID: RE03-10-2749 LEVEL: Low DATE RECEIVED 24-DEC-09

MATRIX: WATER %SOLIDS: 0

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	200	ug/L	U	68	200	200	1	P	HSC	01/08/10 13:44	010810-1	936813
7440-36-0	Antimony	3	ug/L	U	1	3	3	1	MS	BAJ	01/06/10 07:16	100105-3	936815
7440-38-2	Arsenic	30	ug/L	U	5	30	30	1	P	HSC	01/08/10 13:44	010810-1	936813
7440-39-3	Barium	5	ug/L	U	1	5	5	1	P	HSC	01/08/10 13:44	010810-1	936813
7440-41-7	Beryllium	0.50	ug/L	U	0.1	0.5	0.5	1	MS	BAJ	01/14/10 23:28	100114-6	941231
7440-42-8	Boron	50	ug/L	U	15	50	50	1	P	HSC	01/08/10 13:44	010810-1	936813
7440-43-9	Cadmium	1	ug/L	U	0.11	1	1	1	MS	BAJ	01/06/10 07:16	100105-3	936815
7440-70-2	Calcium	200	ug/L	U	50	200	200	1	P	HSC	01/08/10 13:44	010810-1	936813
7440-47-3	Chromium	5	ug/L	U	1	5	5	1	P	HSC	01/08/10 13:44	010810-1	936813
7440-48-4	Cobalt	5	ug/L	U	1	5	5	1	P	HSC	01/08/10 13:44	010810-1	936813
7440-50-8	Copper	10	ug/L	U	3	10	10	1	P	HSC	01/08/10 13:44	010810-1	936813
7439-89-6	Iron	100	ug/L	U	30	100	100	1	P	HSC	01/08/10 13:44	010810-1	936813
7439-92-1	Lead UJ,I6b	2	ug/L	U	0.5	2	2	1	MS	PRB	01/08/10 16:54	100108-2	936815
7439-93-2	Lithium UJ,I6b	10	ug/L	U	2	10	10	1	MS	BAJ	01/07/10 05:27	100106-4	936815
7439-95-4	Magnesium	300	ug/L	U	85	300	300	1	P	HSC	01/08/10 13:44	010810-1	936813
7439-96-5	Manganese	5	ug/L	U	1	5	5	1	MS	BAJ	01/07/10 05:27	100106-4	936815
7439-97-6	Mercury	0.20	ug/L	U	0.066	0.2	0.2	1	AV	JXL1	01/08/10 10:30	010810W1-7	937645
7440-02-0	Nickel	5	ug/L	U	1.5	5	5	1	P	HSC	01/08/10 13:44	010810-1	936813
7440-09-7	Potassium	150	ug/L	U	50	150	150	1	P	HSC	01/08/10 13:44	010810-1	936813
7782-49-2	Selenium	30	ug/L	U	5	30	30	1	P	HSC	01/08/10 13:44	010810-1	936813
7440-21-3	Silicon	98.8	ug/L	J	25	100	100	1	P	HSC	01/08/10 13:44	010810-1	936813
7440-22-4	Silver	5	ug/L	U	1	5	5	1	P	HSC	01/08/10 13:44	010810-1	936813
7440-23-5	Sodium	300	ug/L	U	100	300	300	1	P	HSC	01/08/10 13:44	010810-1	936813
7440-28-0	Thallium	1	ug/L	U	0.3	1	1	1	MS	BAJ	01/08/10 13:13	100108-5	936815
7440-32-6	Titanium	5	ug/L	U	1	5	5	1	P	HSC	01/08/10 13:44	010810-1	936813
7440-61-1	Uranium	0.20	ug/L	U	0.05	0.2	0.2	1	MS	BAJ	01/08/10 13:13	100108-5	936815
7440-62-2	Vanadium	5	ug/L	U	1	5	5	1	P	HSC	01/08/10 13:44	010810-1	936813
7440-66-6	Zinc	10	ug/L	U	3.3	10	10	1	P	HSC	01/08/10 13:44	010810-1	936813

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
936813	936812	SW846 3005A	50	mL	50	mL	01/04/10	BXA1
936815	936814	SW846 3005A	50	mL	50	mL	01/04/10	BXA1
937645	937643	SW846 7470A Prep	20	mL	20	mL	01/07/10	AXG2

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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1087-1 **CONTRACT:** LANL01004 METHOD TYPE: SW846

SAMPLE ID: 243554003 **BASIS:** As Received **DATE COLLECTED** 22-DEC-09

CLIENT ID: RE03-10-2764 **LEVEL:** Low **DATE RECEIVED** 24-DEC-09

MATRIX: WATER **%SOLIDS:** 0

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	200	ug/L	U	68	200	200	1	P	HSC	01/08/10 13:51	010810-1	936813
7440-36-0	Antimony	3	ug/L	U	1	3	3	1	MS	BAJ	01/06/10 07:22	100105-3	936815
7440-38-2	Arsenic	30	ug/L	U	5	30	30	1	P	HSC	01/08/10 13:51	010810-1	936813
7440-39-3	Barium	5	ug/L	U	1	5	5	1	P	HSC	01/08/10 13:51	010810-1	936813
7440-41-7	Beryllium	0.50	ug/L	U	0.1	0.5	0.5	1	MS	BAJ	01/14/10 23:34	100114-6	941231
7440-42-8	Boron	50	ug/L	U	15	50	50	1	P	HSC	01/08/10 13:51	010810-1	936813
7440-43-9	Cadmium	1	ug/L	U	0.11	1	1	1	MS	BAJ	01/06/10 07:22	100105-3	936815
7440-70-2	Calcium	200	ug/L	U	50	200	200	1	P	HSC	01/08/10 13:51	010810-1	936813
7440-47-3	Chromium	5	ug/L	U	1	5	5	1	P	HSC	01/08/10 13:51	010810-1	936813
7440-48-4	Cobalt	5	ug/L	U	1	5	5	1	P	HSC	01/08/10 13:51	010810-1	936813
7440-50-8	Copper	10	ug/L	U	3	10	10	1	P	HSC	01/08/10 13:51	010810-1	936813
7439-89-6	Iron	143	ug/L		30	100	100	1	P	HSC	01/08/10 13:51	010810-1	936813
7439-92-1	Lead UJ,I6b	2	ug/L	U	0.5	2	2	1	MS	PRB	01/08/10 16:56	100108-2	936815
7439-93-2	Lithium UJ,I6b	10	ug/L	U	2	10	10	1	MS	BAJ	01/07/10 05:30	100106-4	936815
7439-95-4	Magnesium	300	ug/L	U	85	300	300	1	P	HSC	01/08/10 13:51	010810-1	936813
7439-96-5	Manganese	4.25	ug/L	J	1	5	5	1	MS	BAJ	01/07/10 05:30	100106-4	936815
7439-97-6	Mercury	0.20	ug/L	U	0.066	0.2	0.2	1	AV	JXL1	01/08/10 10:32	010810W1-7	937645
7440-02-0	Nickel	5	ug/L	U	1.5	5	5	1	P	HSC	01/08/10 13:51	010810-1	936813
7440-09-7	Potassium	150	ug/L	U	50	150	150	1	P	HSC	01/08/10 13:51	010810-1	936813
7782-49-2	Selenium	30	ug/L	U	5	30	30	1	P	HSC	01/08/10 13:51	010810-1	936813
7440-21-3	Silicon	232	ug/L		25	100	100	1	P	HSC	01/08/10 13:51	010810-1	936813
7440-22-4	Silver	5	ug/L	U	1	5	5	1	P	HSC	01/08/10 13:51	010810-1	936813
7440-23-5	Sodium	380	ug/L		100	300	300	1	P	HSC	01/08/10 13:51	010810-1	936813
7440-28-0	Thallium	1	ug/L	U	0.3	1	1	1	MS	BAJ	01/08/10 13:18	100108-5	936815
7440-32-6	Titanium	5	ug/L	U	1	5	5	1	P	HSC	01/08/10 13:51	010810-1	936813
7440-61-1	Uranium	0.20	ug/L	U	0.05	0.2	0.2	1	MS	BAJ	01/08/10 13:18	100108-5	936815
7440-62-2	Vanadium	5	ug/L	U	1	5	5	1	P	HSC	01/08/10 13:51	010810-1	936813
7440-66-6	Zinc	10	ug/L	U	3.3	10	10	1	P	HSC	01/08/10 13:51	010810-1	936813

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
936813	936812	SW846 3005A	50	mL	50	mL	01/04/10	BXA1
936815	936814	SW846 3005A	50	mL	50	mL	01/04/10	BXA1
937645	937643	SW846 7470A Prep	20	mL	20	mL	01/07/10	AXG2

KAL
01/28/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1087-1 CONTRACT: LANL01004 METHOD TYPE: SW846

SAMPLE ID: 243554004 BASIS: As Received DATE COLLECTED 22-DEC-09

CLIENT ID: RE03-10-2762 LEVEL: Low DATE RECEIVED 24-DEC-09

MATRIX: WATER %SOLIDS: 0

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	96.7	ug/L	J	68	200	200	1	P	HSC	01/08/10 13:58	010810-1	936813
7440-36-0	Antimony	3	ug/L	U	1	3	3	1	MS	BAJ	01/06/10 07:29	100105-3	936815
7440-38-2	Arsenic	30	ug/L	U	5	30	30	1	P	HSC	01/08/10 13:58	010810-1	936813
7440-39-3	Barium	5	ug/L	U	1	5	5	1	P	HSC	01/08/10 13:58	010810-1	936813
7440-41-7	Beryllium	0.50	ug/L	U	0.1	0.5	0.5	1	MS	BAJ	01/14/10 23:40	100114-6	941231
7440-42-8	Boron	50	ug/L	U	15	50	50	1	P	HSC	01/08/10 13:58	010810-1	936813
7440-43-9	Cadmium	1	ug/L	U	0.11	1	1	1	MS	BAJ	01/06/10 07:29	100105-3	936815
7440-70-2	Calcium	200	ug/L	U	50	200	200	1	P	HSC	01/08/10 13:58	010810-1	936813
7440-47-3	Chromium	5	ug/L	U	1	5	5	1	P	HSC	01/08/10 13:58	010810-1	936813
7440-48-4	Cobalt	5	ug/L	U	1	5	5	1	P	HSC	01/08/10 13:58	010810-1	936813
7440-50-8	Copper	10	ug/L	U	3	10	10	1	P	HSC	01/08/10 13:58	010810-1	936813
7439-89-6	Iron	274	ug/L		30	100	100	1	P	HSC	01/08/10 13:58	010810-1	936813
7439-92-1	Lead UJ,I6b	2	ug/L	U	0.5	2	2	1	MS	PRB	01/08/10 16:58	100108-2	936815
7439-93-2	Lithium UJ,I6b	10	ug/L	U	2	10	10	1	MS	BAJ	01/07/10 05:33	100106-4	936815
7439-95-4	Magnesium	300	ug/L	U	85	300	300	1	P	HSC	01/08/10 13:58	010810-1	936813
7439-96-5	Manganese	9	ug/L		1	5	5	1	MS	BAJ	01/07/10 05:33	100106-4	936815
7439-97-6	Mercury	0.20	ug/L	U	0.066	0.2	0.2	1	AV	JXL1	01/08/10 10:37	010810W1-7	937645
7440-02-0	Nickel	5	ug/L	U	1.5	5	5	1	P	HSC	01/08/10 13:58	010810-1	936813
7440-09-7	Potassium U,I4b	73.5	ug/L	J	50	150	150	1	P	HSC	01/08/10 13:58	010810-1	936813
7782-49-2	Selenium	30	ug/L	U	5	30	30	1	P	HSC	01/08/10 13:58	010810-1	936813
7440-21-3	Silicon	390	ug/L		25	100	100	1	P	HSC	01/08/10 13:58	010810-1	936813
7440-22-4	Silver	5	ug/L	U	1	5	5	1	P	HSC	01/08/10 13:58	010810-1	936813
7440-23-5	Sodium	262	ug/L	J	100	300	300	1	P	HSC	01/08/10 13:58	010810-1	936813
7440-28-0	Thallium	1	ug/L	U	0.3	1	1	1	MS	BAJ	01/08/10 13:23	100108-5	936815
7440-32-6	Titanium	2.11	ug/L	J	1	5	5	1	P	HSC	01/08/10 13:58	010810-1	936813
7440-61-1	Uranium	0.20	ug/L	U	0.05	0.2	0.2	1	MS	BAJ	01/08/10 13:23	100108-5	936815
7440-62-2	Vanadium	5	ug/L	U	1	5	5	1	P	HSC	01/08/10 13:58	010810-1	936813
7440-66-6	Zinc	10	ug/L	U	3.3	10	10	1	P	HSC	01/08/10 13:58	010810-1	936813

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
936813	936812	SW846 3005A	50	mL	50	mL	01/04/10	BXA1
936815	936814	SW846 3005A	50	mL	50	mL	01/04/10	BXA1
937645	937643	SW846 7470A Prep	20	mL	20	mL	01/07/10	AXG2

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01/28/10

DATA VALIDATION COVER SHEET

5120-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY

Section I.

REQUEST NUMBER: 10-1087 VALIDATION DATE: 01/29/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Kevin A. Lambert ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☒ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE):

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☐	☐	☒	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☒	☐	☐	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. The soil MS %Rs for nitrate as nitrogen were < the laboratory's LAL but ≥10%. The nitrate as nitrogen results for samples RE03-09-14233, and -14231 and , RE03-10-2737, -2736, -9873, -9872, and -9874 were detects and, thus, were qualified J-,I6a. The other associated sample results were NDs and, thus, were qualified UJ,I6a.
2. It should be noted that the parent samples for all water matrix QC analyses, for soil total cyanide matrix QC analyses in Batch #s 936843and 937572, and for soil nitrate as nitrogen matrix QC analyses in Batch # 939817 were performed on LANL samples from other RNs. No sample data were qualified as a result.

Reviewed by: Mary Donivan Level: I Date: 01/29/10

VALIDATOR'S SIGNATURE: Kevin A Lambert DATE: 01/29/10

GENERAL CHEMISTRY ANALYTICAL DATA VALIDATION CHECKLIST

5120-2

General Chemistry Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, I9	J-, I9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, I9a	J-, I9a
☐	☐	☒	3. The affected analytes are regarded as rejected because the analytical holding time was exceeded.	R, I9b	R, I9b
☐	☒	☐	4. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, I7	J, I7
☐	☒	☐	5. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, I7a	J, I7a
☐	☒	☐	6. The ICV and/or CCV were recovered outside the method specific limits.	UJ, I7c	J, I7c
☐	☒	☐	7. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, I7d	J, I7d
☐	☒	☐	8. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, I7f	R, I7f
☐	☐	☒	9. The interference check sample percent recovery value is <50%.	R, I2	J-, I2
☐	☐	☒	10. The interference check sample percent recovery value is ≥50% and <80%.	UJ, I2a	J-, I2a
☐	☐	☒	11. The interference check sample percent recovery value is >120%.	N/A	J+, I2b
☐	☐	☒	12. The interference check sample was not analyzed with the samples.	R, I2c	R, I2c
☐	☒	☐	13. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, I4	N/A

GENERAL CHEMISTRY ANALYTICAL DATA VALIDATION CHECKLIST	
5120-2 General Chemistry Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	14. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X.	N/A	J, I4a
☐	☒	☐	15. The sample result is ≤5X the concentration of the related analyte in the instrument blank and continuing calibration blank.	U, I4b	N/A
☐	☒	☐	16. Continuing calibration blanks were not analyzed at the appropriate method frequency.	UJ, I4c	J, I4c
☐	☒	☐	17. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	U, I4d	N/A
☐	☒	☐	18. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, I4e	R, I4e
☐	☒	☐	19. The associate matrix spike recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I6	R, I6
☒	☐	☐	20. The associated matrix spike recovery was below the Lower Acceptance Limit (LAL) but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I6a	J-, I6a
☐	☒	☐	21. The associated matrix spike recovery was above the Upper Acceptance Limit (UAL). Follow the external laboratory limits located within the associated data package.	UJ, I6b	J+, I6b
☐	☒	☐	22. Required matrix spike information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. If LCS information is present, do not reject. Qualify data based on LCS information.	R, I6c	R, I6c
☐	☒	☐	23. The sample and/or the duplicate sample results RPD is not within the acceptance limits. Follow the external laboratory limits located within the associated data package.	UJ, I10b	J, I10b

GENERAL CHEMISTRY ANALYTICAL DATA VALIDATION CHECKLIST	
5120-2 General Chemistry Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	24. The duplicate sample was not prepared and/or analyzed with the samples for unspecified reasons. The duplicate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	UJ, I10d	J, I10d
☐	☒	☐	25. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I12	R, I12
☐	☒	☐	26. The LCS percent recover was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I12a	J-, I12a
☐	☒	☐	27. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, I12b
☐	☒	☐	28. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. Do not Reject if MS/MSD information is present. Qualify according to MS/MSD criteria.	R, I12c	R, I12c
☐	☒	☐	29. Duplicate, dilution, or reanalysis	UJ, I88	J, I88
☐	☒	☐	30. The LANL project chemist identified quality deficiencies in the reported data that require further qualification. This code can ONLY be used and/or under advisement by the LANL project chemist.	UJ, R, I19	J, R, I19
☒	☐	☐	31. Qualification of data via data validation does not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB NQ, NQ (no qualification)

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: January 13, 2010

Client SDG: 10-1087

Client Sample ID:	RE03-09-14233	Project:	LANL01004
Sample ID:	243550001	Client ID:	LANL010
Matrix:	S		
Collect Date:	22-DEC-09 12:00		
Receive Date:	24-DEC-09		
Collector:	Client		
Moisture:	7.39%		

Parameter	Qualifier	Result		DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Electrode Analysis												
SW9045C pH Federal "As Received"												
pH at Temp 19.1C	H	7.19		0.010	0.100	SU	1	LXA1	12/28/09	1502	937042	1
Flow Injection Analysis												
SW9012A Cyanide, Total Federal "Dry Weight Corrected"												
Cyanide, Total	U	ND		73.4	270	ug/kg	1	AXC2	01/04/10	1134	936843	2
Ion Chromatography												
EPA 300.0 Nitrate in Soil "Dry Weight Corrected"												
Nitrate-N		1.50	J-,I6a	0.293	0.977	mg/kg	1	VH1	12/30/09	0544	937125	3

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 300.0 PREP	EPA 300.0 Total Anions in Soil	VH1	12/28/09	1752	937124
SW846 9010B Prep	SW846 9010B Prep	AXS5	12/31/09	1509	936841

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9045C/9045D	
2	SW846 9012A	
3	EPA 300.0	

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: January 13, 2010

Client SDG: 10-1087

Client Sample ID:	RE03-09-14236	Project:	LANL01004
Sample ID:	243550002	Client ID:	LANL010
Matrix:	S		
Collect Date:	22-DEC-09 12:00		
Receive Date:	24-DEC-09		
Collector:	Client		
Moisture:	16.2%		

Parameter	Qualifier	Result		DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Electrode Analysis											
SW9045C pH Federal "As Received"											
pH at Temp 18.9C	H	7.79		0.010	0.100	SU	1	LXA1 12/28/09	1513	937042	1
Flow Injection Analysis											
SW9012A Cyanide, Total Federal "Dry Weight Corrected"											
Cyanide, Total	U	ND		69.9	257	ug/kg	1	AXC2 01/04/10	1135	936843	2
Ion Chromatography											
EPA 300.0 Nitrate in Soil "Dry Weight Corrected"											
Nitrate-N	U	ND	UJ,I6a	0.347	1.16	mg/kg	1	VH1 12/30/09	0610	937125	3

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 300.0 PREP	EPA 300.0 Total Anions in Soil	VH1	12/28/09	1752	937124
SW846 9010B Prep	SW846 9010B Prep	AXS5	12/31/09	1509	936841

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9045C/9045D	
2	SW846 9012A	
3	EPA 300.0	

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: January 13, 2010

Client SDG: 10-1087

Client Sample ID:	RE03-09-14239	Project:	LANL01004
Sample ID:	243550003	Client ID:	LANL010
Matrix:	S		
Collect Date:	22-DEC-09 12:00		
Receive Date:	24-DEC-09		
Collector:	Client		
Moisture:	5.47%		

Parameter	Qualifier	Result		DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Electrode Analysis											
SW9045C pH Federal "As Received"											
pH at Temp 18.9C	H	7.71		0.010	0.100	SU	1	LXA1 12/28/09	1515	937042	1
Flow Injection Analysis											
SW9012A Cyanide, Total Federal "Dry Weight Corrected"											
Cyanide, Total	U	ND		65.4	240	ug/kg	1	AXC2 01/04/10	1136	936843	2
Ion Chromatography											
EPA 300.0 Nitrate in Soil "Dry Weight Corrected"											
Nitrate-N	U	ND	UJ,I6a	0.317	1.06	mg/kg	1	VH1 12/30/09	0636	937125	3

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 300.0 PREP	EPA 300.0 Total Anions in Soil	VH1	12/28/09	1752	937124
SW846 9010B Prep	SW846 9010B Prep	AXS5	12/31/09	1509	936841

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9045C/9045D	
2	SW846 9012A	
3	EPA 300.0	

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Certificate of Analysis

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TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: January 13, 2010

Client SDG: 10-1087

Client Sample ID:	RE03-09-14240	Project:	LANL01004
Sample ID:	243550004	Client ID:	LANL010
Matrix:	S		
Collect Date:	22-DEC-09 12:00		
Receive Date:	24-DEC-09		
Collector:	Client		
Moisture:	5.42%		

Parameter	Qualifier	Result		DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Electrode Analysis												
SW9045C pH Federal "As Received"												
pH at Temp 18.6C	H	7.45		0.010	0.100	SU	1	LXA1	12/28/09	1520	937042	1
Flow Injection Analysis												
SW9012A Cyanide, Total Federal "Dry Weight Corrected"												
Cyanide, Total	U	ND		71.9	264	ug/kg	1	AXC2	01/04/10	1137	936843	2
Ion Chromatography												
EPA 300.0 Nitrate in Soil "Dry Weight Corrected"												
Nitrate-N	U	ND	UJ,I6a	0.317	1.06	mg/kg	1	VH1	12/30/09	0702	937125	3

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 300.0 PREP	EPA 300.0 Total Anions in Soil	VH1	12/28/09	1752	937124
SW846 9010B Prep	SW846 9010B Prep	AXS5	12/31/09	1509	936841

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9045C/9045D	
2	SW846 9012A	
3	EPA 300.0	

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01/29/10

GEL LABORATORIES LLC

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: January 13, 2010

Client SDG: 10-1087

Client Sample ID:	RE03-09-14231	Project:	LANL01004
Sample ID:	243550005	Client ID:	LANL010
Matrix:	S		
Collect Date:	22-DEC-09 12:00		
Receive Date:	24-DEC-09		
Collector:	Client		
Moisture:	7.32%		

Parameter	Qualifier	Result		DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Electrode Analysis											
SW9045C pH Federal "As Received"											
pH at Temp 18.5C	H	8.11		0.010	0.100	SU	1	LXA1 12/28/09	1522	937042	1
Flow Injection Analysis											
SW9012A Cyanide, Total Federal "Dry Weight Corrected"											
Cyanide, Total	U	ND		65.5	241	ug/kg	1	AXC2 12/31/09	1044	936845	2
Ion Chromatography											
EPA 300.0 Nitrate in Soil "Dry Weight Corrected"											
Nitrate-N		1.33	J-,I6a	0.324	1.08	mg/kg	1	VH1 12/30/09	0728	937125	3

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 300.0 PREP	EPA 300.0 Total Anions in Soil	VH1	12/28/09	1752	937124
SW846 9010B Prep	SW846 9010B Prep	AXS5	12/30/09	1516	936844

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9045C/9045D	
2	SW846 9012A	
3	EPA 300.0	

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Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: January 13, 2010

Client SDG: 10-1087

Client Sample ID:	RE03-09-14232	Project:	LANL01004
Sample ID:	243550006	Client ID:	LANL010
Matrix:	S		
Collect Date:	22-DEC-09 12:00		
Receive Date:	24-DEC-09		
Collector:	Client		
Moisture:	5.77%		

Parameter	Qualifier	Result		DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Electrode Analysis											
SW9045C pH Federal "As Received"											
pH at Temp 18.1C	H	7.92		0.010	0.100	SU	1	LXA1 12/28/09	1526	937042	1
Flow Injection Analysis											
SW9012A Cyanide, Total Federal "Dry Weight Corrected"											
Cyanide, Total	U	ND		64.4	237	ug/kg	1	AXC2 12/31/09	1048	936845	2
Ion Chromatography											
EPA 300.0 Nitrate in Soil "Dry Weight Corrected"											
Nitrate-N	U	ND	UJ,I6a	0.311	1.04	mg/kg	1	VH1 12/30/09	0754	937125	3

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 300.0 PREP	EPA 300.0 Total Anions in Soil	VH1	12/28/09	1752	937124
SW846 9010B Prep	SW846 9010B Prep	AXS5	12/30/09	1516	936844

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9045C/9045D	
2	SW846 9012A	
3	EPA 300.0	

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Project: **LANL ER Project**

Report Date: January 13, 2010

Client SDG: 10-1087

Client Sample ID:	RE03-09-14235	Project:	LANL01004
Sample ID:	243550007	Client ID:	LANL010
Matrix:	S		
Collect Date:	22-DEC-09 12:00		
Receive Date:	24-DEC-09		
Collector:	Client		
Moisture:	22.5%		

Parameter	Qualifier	Result		DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Electrode Analysis												
SW9045C pH Federal "As Received"												
pH at Temp 18.1C	H	8.01		0.010	0.100	SU	1	LXA1	12/28/09	1527	937042	1
Flow Injection Analysis												
SW9012A Cyanide, Total Federal "Dry Weight Corrected"												
Cyanide, Total	U	ND		86.0	316	ug/kg	1	AXC2	12/31/09	1049	936845	2
Ion Chromatography												
EPA 300.0 Nitrate in Soil "Dry Weight Corrected"												
Nitrate-N	U	ND	UJ,I6a	0.387	1.29	mg/kg	1	VH1	12/30/09	0820	937125	3

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 300.0 PREP	EPA 300.0 Total Anions in Soil	VH1	12/28/09	1752	937124
SW846 9010B Prep	SW846 9010B Prep	AXS5	12/30/09	1516	936844

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9045C/9045D	
2	SW846 9012A	
3	EPA 300.0	

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Project: **LANL ER Project**

Report Date: January 13, 2010

Client SDG: 10-1087

Client Sample ID:	RE03-09-14238	Project:	LANL01004
Sample ID:	243550008	Client ID:	LANL010
Matrix:	S		
Collect Date:	22-DEC-09 12:00		
Receive Date:	24-DEC-09		
Collector:	Client		
Moisture:	5.4%		

Parameter	Qualifier	Result		DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Electrode Analysis												
SW9045C pH Federal "As Received"												
pH at Temp 17.9C	H	7.66		0.010	0.100	SU	1	LXA1	12/28/09	1530	937042	1
Flow Injection Analysis												
SW9012A Cyanide, Total Federal "Dry Weight Corrected"												
Cyanide, Total	U	ND		64.2	236	ug/kg	1	AXC2	12/31/09	1050	936845	2
Ion Chromatography												
EPA 300.0 Nitrate in Soil "Dry Weight Corrected"												
Nitrate-N	U	ND	UJ,I6a	0.313	1.04	mg/kg	1	VH1	12/30/09	0846	937125	3

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 300.0 PREP	EPA 300.0 Total Anions in Soil	VH1	12/28/09	1752	937124
SW846 9010B Prep	SW846 9010B Prep	AXS5	12/30/09	1516	936844

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9045C/9045D	
2	SW846 9012A	
3	EPA 300.0	

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Project: **LANL ER Project**

Report Date: January 13, 2010

Client SDG: 10-1087

Client Sample ID:	RE03-09-14234	Project:	LANL01004
Sample ID:	243550009	Client ID:	LANL010
Matrix:	S		
Collect Date:	22-DEC-09 12:00		
Receive Date:	24-DEC-09		
Collector:	Client		
Moisture:	7.45%		

Parameter	Qualifier	Result		DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Electrode Analysis												
SW9045C pH Federal "As Received"												
pH at Temp 17.9C	H	7.48		0.010	0.100	SU	1	LXA1	12/28/09	1533	937042	1
Flow Injection Analysis												
SW9012A Cyanide, Total Federal "Dry Weight Corrected"												
Cyanide, Total	U	ND		73.5	270	ug/kg	1	AXC2	12/31/09	1051	936845	2
Ion Chromatography												
EPA 300.0 Nitrate in Soil "Dry Weight Corrected"												
Nitrate-N	U	ND	UJ,I6a	0.288	0.960	mg/kg	1	VH1	12/30/09	1005	937125	3

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 300.0 PREP	EPA 300.0 Total Anions in Soil	VH1	12/28/09	1752	937124
SW846 9010B Prep	SW846 9010B Prep	AXS5	12/30/09	1516	936844

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9045C/9045D	
2	SW846 9012A	
3	EPA 300.0	

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Project: **LANL ER Project**

Report Date: January 13, 2010

Client SDG: 10-1087

Client Sample ID:	RE03-09-14241	Project:	LANL01004
Sample ID:	243550010	Client ID:	LANL010
Matrix:	S		
Collect Date:	22-DEC-09 12:00		
Receive Date:	24-DEC-09		
Collector:	Client		
Moisture:	12.7%		

Parameter	Qualifier	Result		DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Electrode Analysis												
SW9045C pH Federal "As Received"												
pH at Temp 17.9C	H	7.41		0.010	0.100	SU	1	LXA1	12/28/09	1537	937042	1
Flow Injection Analysis												
SW9012A Cyanide, Total Federal "Dry Weight Corrected"												
Cyanide, Total	U	ND		68.3	251	ug/kg	1	AXC2	12/31/09	1052	936845	2
Ion Chromatography												
EPA 300.0 Nitrate in Soil "Dry Weight Corrected"												
Nitrate-N	U	ND	UJ,I6a	0.283	0.942	mg/kg	1	VH1	12/30/09	1149	937125	3

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 300.0 PREP	EPA 300.0 Total Anions in Soil	VH1	12/28/09	1752	937124
SW846 9010B Prep	SW846 9010B Prep	AXS5	12/30/09	1516	936844

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9045C/9045D	
2	SW846 9012A	
3	EPA 300.0	

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Project: **LANL ER Project**

Report Date: January 13, 2010

Client SDG: 10-1087

Client Sample ID:	RE03-10-2737	Project:	LANL01004
Sample ID:	243550011	Client ID:	LANL010
Matrix:	S		
Collect Date:	22-DEC-09 12:00		
Receive Date:	24-DEC-09		
Collector:	Client		
Moisture:	10.1%		

Parameter	Qualifier	Result		DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Electrode Analysis											
SW9045C pH Federal "As Received"											
pH at Temp 17.7C	H	4.43		0.010	0.100	SU	1	LXA1 12/28/09	1540	937042	1
Flow Injection Analysis											
SW9012A Cyanide, Total Federal "Dry Weight Corrected"											
Cyanide, Total	U	ND		74.2	273	ug/kg	1	AXC2 12/31/09	1056	936845	2
Ion Chromatography											
EPA 300.0 Nitrate in Soil "Dry Weight Corrected"											
Nitrate-N		50.9	J-,I6a	0.287	0.957	mg/kg	1	VH1 12/30/09	1215	937125	3

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 300.0 PREP	EPA 300.0 Total Anions in Soil	VH1	12/28/09	1752	937124
SW846 9010B Prep	SW846 9010B Prep	AXS5	12/30/09	1516	936844

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9045C/9045D	
2	SW846 9012A	
3	EPA 300.0	

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Project: **LANL ER Project**

Report Date: January 13, 2010

Client SDG: 10-1087

Client Sample ID:	RE03-10-2736	Project:	LANL01004
Sample ID:	243550012	Client ID:	LANL010
Matrix:	S		
Collect Date:	22-DEC-09 12:00		
Receive Date:	24-DEC-09		
Collector:	Client		
Moisture:	7.03%		

Parameter	Qualifier	Result		DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Electrode Analysis											
SW9045C pH Federal "As Received"											
pH at Temp 17.9C	H	6.15		0.010	0.100	SU	1	LXA1 12/28/09	1542	937042	1
Flow Injection Analysis											
SW9012A Cyanide, Total Federal "Dry Weight Corrected"											
Cyanide, Total	U	ND		69.0	254	ug/kg	1	AXC2 12/31/09	1057	936845	2
Ion Chromatography											
EPA 300.0 Nitrate in Soil "Dry Weight Corrected"											
Nitrate-N		1.43	J-,I6a	0.316	1.05	mg/kg	1	VH1 12/30/09	1400	937125	3

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 300.0 PREP	EPA 300.0 Total Anions in Soil	VH1	12/28/09	1752	937124
SW846 9010B Prep	SW846 9010B Prep	AXS5	12/30/09	1516	936844

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9045C/9045D	
2	SW846 9012A	
3	EPA 300.0	

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Project: **LANL ER Project**

Report Date: January 13, 2010

Client SDG: 10-1087

Client Sample ID:	RE03-10-9873	Project:	LANL01004
Sample ID:	243550013	Client ID:	LANL010
Matrix:	S		
Collect Date:	22-DEC-09 12:00		
Receive Date:	24-DEC-09		
Collector:	Client		
Moisture:	5.29%		

Parameter	Qualifier	Result		DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Electrode Analysis												
SW9045C pH Federal "As Received"												
pH at Temp 17.9C	H	7.32		0.010	0.100	SU	1	LXA1	12/28/09	1546	937042	1
Flow Injection Analysis												
SW9012A Cyanide, Total Federal "Dry Weight Corrected"												
Cyanide, Total		336		67.7	249	ug/kg	1	AXC2	12/31/09	1058	936845	2
Ion Chromatography												
EPA 300.0 Nitrate in Soil "Dry Weight Corrected"												
Nitrate-N		50.7	J-,I6a	0.312	1.04	mg/kg	1	VH1	12/30/09	1518	937125	3

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 300.0 PREP	EPA 300.0 Total Anions in Soil	VH1	12/28/09	1752	937124
SW846 9010B Prep	SW846 9010B Prep	AXS5	12/30/09	1516	936844

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9045C/9045D	
2	SW846 9012A	
3	EPA 300.0	

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Project: **LANL ER Project**

Report Date: January 13, 2010

Client SDG: 10-1087

Client Sample ID:	RE03-10-9872	Project:	LANL01004
Sample ID:	243550014	Client ID:	LANL010
Matrix:	S		
Collect Date:	22-DEC-09 12:00		
Receive Date:	24-DEC-09		
Collector:	Client		
Moisture:	11.9%		

Parameter	Qualifier	Result		DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Electrode Analysis											
SW9045C pH Federal "As Received"											
pH at Temp 19.6C	H	7.03		0.010	0.100	SU	1	LXA1 01/05/10	1341	938665	1
Flow Injection Analysis											
SW9012A Cyanide, Total Federal "Dry Weight Corrected"											
Cyanide, Total	U	ND		68.9	253	ug/kg	1	AXC2 01/05/10	1320	937572	2
Ion Chromatography											
EPA 300.0 Nitrate in Soil "Dry Weight Corrected"											
Nitrate-N		15.6	J-,I6a	0.340	1.13	mg/kg	1	MAR1 01/12/10	1738	939817	3

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 300.0 PREP	EPA 300.0 Total Anions in Soil	MAR1	01/11/10	1400	939814
SW846 9010B Prep	SW846 9010B Prep	AXS5	01/05/10	1217	937571

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9045C/9045D	
2	SW846 9012A	
3	EPA 300.0	

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Project: **LANL ER Project**

Report Date: January 13, 2010

Client SDG: 10-1087

Client Sample ID:	RE03-10-9874	Project:	LANL01004
Sample ID:	243550015	Client ID:	LANL010
Matrix:	S		
Collect Date:	22-DEC-09 12:00		
Receive Date:	24-DEC-09		
Collector:	Client		
Moisture:	6.86%		

Parameter	Qualifier	Result		DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Electrode Analysis												
SW9045C pH Federal "As Received"												
pH at Temp 19.6C	H	4.25		0.010	0.100	SU	1	LXA1	01/05/10	1343	938665	1
Flow Injection Analysis												
SW9012A Cyanide, Total Federal "Dry Weight Corrected"												
Cyanide, Total	U	ND		62.9	231	ug/kg	1	AXC2	01/05/10	1321	937572	2
Ion Chromatography												
EPA 300.0 Nitrate in Soil "Dry Weight Corrected"												
Nitrate-N		65.0	J-,I6a	0.322	1.07	mg/kg	1	MAR1	01/12/10	1807	939817	3

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 300.0 PREP	EPA 300.0 Total Anions in Soil	MAR1	01/11/10	1400	939814
SW846 9010B Prep	SW846 9010B Prep	AXS5	01/05/10	1217	937571

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9045C/9045D	
2	SW846 9012A	
3	EPA 300.0	

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Project: **LANL ER Project**

Report Date: January 5, 2010

Client SDG: 10-1087-1

Client Sample ID:	RE03-10-2750	Project:	LANL01004
Sample ID:	243554001	Client ID:	LANL010
Matrix:	W		
Collect Date:	22-DEC-09 12:00		
Receive Date:	24-DEC-09		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "As Received"										
Cyanide, Total	U	ND	1.66	5.00	ug/L	1	AXC2 12/30/09	1042	936398	1
Nutrient Analysis										
EPA 353.2 Nitrogen, Nitrate/Nitrite "As Received"										
Nitrogen, Nitrate/Nitrite	U	ND	0.050	0.250	mg/L	5	AXH3 12/28/09	1101	936385	2

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	12/29/09	1423	936396

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	
2	EPA 353.2	

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Project: **LANL ER Project**

Report Date: January 5, 2010

Client SDG: 10-1087-1

Client Sample ID: RE03-10-2749
Sample ID: 243554002
Matrix: W
Collect Date: 22-DEC-09 12:00
Receive Date: 24-DEC-09
Collector: Client

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "As Received"										
Cyanide, Total	U	ND	1.66	5.00	ug/L	1	AXC2 12/30/09	1043	936398	1
Nutrient Analysis										
EPA 353.2 Nitrogen, Nitrate/Nitrite "As Received"										
Nitrogen, Nitrate/Nitrite	U	ND	0.050	0.250	mg/L	5	AXH3 12/28/09	1102	936385	2

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	12/29/09	1423	936396

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	
2	EPA 353.2	

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Project: **LANL ER Project**

Report Date: January 5, 2010

Client SDG: 10-1087-1

Client Sample ID: RE03-10-2764
Sample ID: 243554003
Matrix: W
Collect Date: 22-DEC-09 12:00
Receive Date: 24-DEC-09
Collector: Client

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "As Received"										
Cyanide, Total	U	ND	1.66	5.00	ug/L	1	AXC2 12/30/09	1044	936398	1
Nutrient Analysis										
EPA 353.2 Nitrogen, Nitrate/Nitrite "As Received"										
Nitrogen, Nitrate/Nitrite	U	ND	0.050	0.250	mg/L	5	AXH3 12/28/09	1103	936385	2

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	12/29/09	1423	936396

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	
2	EPA 353.2	

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01/29/10

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2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: January 5, 2010

Client SDG: 10-1087-1

Client Sample ID: RE03-10-2762
Sample ID: 243554004
Matrix: W
Collect Date: 22-DEC-09 12:00
Receive Date: 24-DEC-09
Collector: Client

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "As Received"										
Cyanide, Total	U	ND	1.66	5.00	ug/L	1	AXC2 12/30/09	1045	936398	1
Nutrient Analysis										
EPA 353.2 Nitrogen, Nitrate/Nitrite "As Received"										
Nitrogen, Nitrate/Nitrite	U	ND	0.050	0.250	mg/L	5	AXH3 12/28/09	1104	936385	2

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	12/29/09	1423	936396

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	
2	EPA 353.2	

KAL
01/29/10

Monday, December 28, 2009

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1087C

REQUEST NUMBER: 10-1087

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 1/22/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS: 243550%, 243554%

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE03-09-14233	1	POLY	METALS-GEL	Ice	S
RE03-09-14233	1	POLY	Perchlorate+CN+N03+pH	Ice	S
RE03-09-14236	1	POLY	METALS-GEL	Ice	S
RE03-09-14236	1	POLY	Perchlorate+CN+N03+pH	Ice	S
RE03-09-14239	1	POLY	METALS-GEL	Ice	S
RE03-09-14239	1	POLY	Perchlorate+CN+N03+pH	Ice	S
RE03-09-14240	1	POLY	METALS-GEL	Ice	S
RE03-09-14240	1	POLY	Perchlorate+CN+N03+pH	Ice	S
RE03-09-14231	1	POLY	METALS-GEL	Ice	S
RE03-09-14231	1	POLY	Perchlorate+CN+N03+pH	Ice	S
RE03-09-14232	1	POLY	METALS-GEL	Ice	S
RE03-09-14232	1	POLY	Perchlorate+CN+N03+pH	Ice	S
RE03-09-14235	1	POLY	METALS-GEL	Ice	S
RE03-09-14235	1	POLY	Perchlorate+CN+N03+pH	Ice	S
RE03-09-14238	1	POLY	METALS-GEL	Ice	S
RE03-09-14238	1	POLY	Perchlorate+CN+N03+pH	Ice	S
RE03-09-14234	1	POLY	METALS-GEL	Ice	S
RE03-09-14234	1	POLY	Perchlorate+CN+N03+pH	Ice	S
RE03-09-14241	1	POLY	METALS-GEL	Ice	S
RE03-09-14241	1	POLY	Perchlorate+CN+N03+pH	Ice	S
RE03-10-2737	1	POLY	METALS-GEL	Ice	S
RE03-10-2737	1	POLY	Perchlorate+CN+N03+pH	Ice	S
RE03-10-2736	1	POLY	METALS-GEL	Ice	S
RE03-10-2736	1	POLY	Perchlorate+CN+N03+pH	Ice	S
RE03-10-2750	1	POLY	METALS-GEL	Nitric Acid	W
RE03-10-2750	1	POLY	TCN	Sodium Hydroxide	W
RE03-10-2749	1	POLY	METALS-GEL	Nitric Acid	W
RE03-10-2749	1	POLY	TCN	Sodium Hydroxide	W
RE03-10-2764	1	POLY	METALS-GEL	Nitric Acid	W
RE03-10-2764	1	POLY	TCN	Sodium Hydroxide	W
RE03-10-2762	1	POLY	METALS-GEL	Nitric Acid	W
RE03-10-2762	1	POLY	TCN	Sodium Hydroxide	W

Monday, December 28, 2009

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1087C

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE03-10-2749	1	POLY	NO3NO2	Sulfuric Acid (Hydrogen Sulfate)	W
RE03-10-2749	1	POLY	SW-846:6850	Ice	W
RE03-10-2750	1	POLY	NO3NO2	Sulfuric Acid (Hydrogen Sulfate)	W
RE03-10-2750	1	POLY	SW-846:6850	Ice	W
RE03-10-2762	1	POLY	NO3NO2	Sulfuric Acid (Hydrogen Sulfate)	W
RE03-10-2762	1	POLY	SW-846:6850	Ice	W
RE03-10-2764	1	POLY	NO3NO2	Sulfuric Acid (Hydrogen Sulfate)	W
RE03-10-2764	1	POLY	SW-846:6850	Ice	W
RE03-10-9872	1	POLY	METALS-GEL	Ice	S
RE03-10-9872	1	POLY	Perchlorate+CN+N03+pH	Ice	S
RE03-10-9873	1	POLY	METALS-GEL	Ice	S
RE03-10-9873	1	POLY	Perchlorate+CN+N03+pH	Ice	S
RE03-10-9874	1	POLY	METALS-GEL	Ice	S
RE03-10-9874	1	POLY	Perchlorate+CN+N03+pH	Ice	S

Relinquished By:		Date	Time	Received By:		Date	Time
		12/23/09	2:00	Greg Tyler		12/24/09	0930
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

Received for DISPOSAL By: **Date** **Time** **Remarks:**

Printed Name Signature

Monday, December 28, 2009

REQUEST NUMBER: 10-1087

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis
General Engineering Laboratories, Inc., Charleston, SC.
2040 Savage Rd
Charleston, SC 29407

These Samples are on:
LANL Request Number:10-1087
Per Agreement Number:126310011
Project Cost Code: MR2A054196D0

Please analyse the enclosed samples
according to the schedule indicated:

SHIP DATE: 12/23/2009
TURNAROUND/REPORT DUE: 1/22/2010
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Not Required
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:300.0	1	RE03-09-14231	S	12/22/2009	
		1	RE03-09-14232	S	12/22/2009	
		1	RE03-09-14233	S	12/22/2009	
		1	RE03-09-14234	S	12/22/2009	
		1	RE03-09-14235	S	12/22/2009	
		1	RE03-09-14236	S	12/22/2009	
		1	RE03-09-14238	S	12/22/2009	
		1	RE03-09-14239	S	12/22/2009	
		1	RE03-09-14240	S	12/22/2009	

Monday, December 28, 2009

REQUEST NUMBER: 10-1087

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:300.0	1	RE03-09-14241	S	12/22/2009	
		1	RE03-10-2736	S	12/22/2009	
		1	RE03-10-2737	S	12/22/2009	
		1	RE03-10-9872	S	12/22/2009	
		1	RE03-10-9873	S	12/22/2009	
		1	RE03-10-9874	S	12/22/2009	
	EPA:353.2	1	RE03-10-2749	W	12/22/2009	
		1	RE03-10-2750	W	12/22/2009	
		1	RE03-10-2762	W	12/22/2009	
		1	RE03-10-2764	W	12/22/2009	
	SW-846:6010B	1	RE03-09-14231	S	12/22/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14232	S	12/22/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14233	S	12/22/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14234	S	12/22/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14235	S	12/22/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14236	S	12/22/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14238	S	12/22/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14239	S	12/22/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14240	S	12/22/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14241	S	12/22/2009	Plus, B, Li, Si, Ti, U
		1	RE03-10-2736	S	12/22/2009	
		1	RE03-10-2737	S	12/22/2009	
		1	RE03-10-2749	W	12/22/2009	
		1	RE03-10-2750	W	12/22/2009	
		1	RE03-10-2762	W	12/22/2009	
		1	RE03-10-2764	W	12/22/2009	
		1	RE03-10-9872	S	12/22/2009	
		1	RE03-10-9873	S	12/22/2009	

Monday, December 28, 2009

REQUEST NUMBER: 10-1087

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:6010B	1	RE03-10-9874	S	12/22/2009	
	SW-846:6020	1	RE03-09-14231	S	12/22/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14232	S	12/22/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14233	S	12/22/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14234	S	12/22/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14235	S	12/22/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14236	S	12/22/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14238	S	12/22/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14239	S	12/22/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14240	S	12/22/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14241	S	12/22/2009	Plus, B, Li, Si, Ti, U
		1	RE03-10-2736	S	12/22/2009	
		1	RE03-10-2737	S	12/22/2009	
		1	RE03-10-2749	W	12/22/2009	
		1	RE03-10-2750	W	12/22/2009	
		1	RE03-10-2762	W	12/22/2009	
		1	RE03-10-2764	W	12/22/2009	
		1	RE03-10-9872	S	12/22/2009	
		1	RE03-10-9873	S	12/22/2009	
		1	RE03-10-9874	S	12/22/2009	
	SW-846:6850	1	RE03-09-14231	S	12/22/2009	
		1	RE03-09-14232	S	12/22/2009	
		1	RE03-09-14233	S	12/22/2009	
		1	RE03-09-14234	S	12/22/2009	
		1	RE03-09-14235	S	12/22/2009	
		1	RE03-09-14236	S	12/22/2009	
		1	RE03-09-14238	S	12/22/2009	
		1	RE03-09-14239	S	12/22/2009	

Monday, December 28, 2009

REQUEST NUMBER: 10-1087

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:6850	1	RE03-09-14240	S	12/22/2009	
		1	RE03-09-14241	S	12/22/2009	
		1	RE03-10-2736	S	12/22/2009	
		1	RE03-10-2737	S	12/22/2009	
		1	RE03-10-2749	W	12/22/2009	
		1	RE03-10-2750	W	12/22/2009	
		1	RE03-10-2762	W	12/22/2009	
		1	RE03-10-2764	W	12/22/2009	
		1	RE03-10-9872	S	12/22/2009	
		1	RE03-10-9873	S	12/22/2009	
		1	RE03-10-9874	S	12/22/2009	
	SW-846:7471A	1	RE03-09-14231	S	12/22/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14232	S	12/22/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14233	S	12/22/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14234	S	12/22/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14235	S	12/22/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14236	S	12/22/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14238	S	12/22/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14239	S	12/22/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14240	S	12/22/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14241	S	12/22/2009	Plus, B, Li, Si, Ti, U
		1	RE03-10-2736	S	12/22/2009	
		1	RE03-10-2737	S	12/22/2009	
		1	RE03-10-9872	S	12/22/2009	
		1	RE03-10-9873	S	12/22/2009	
		1	RE03-10-9874	S	12/22/2009	
	SW-846:9012A	1	RE03-09-14231	S	12/22/2009	
		1	RE03-09-14232	S	12/22/2009	

Monday, December 28, 2009

REQUEST NUMBER: 10-1067

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:9012A	1	RE03-09-14233	S	12/22/2009	
		1	RE03-09-14234	S	12/22/2009	
		1	RE03-09-14235	S	12/22/2009	
		1	RE03-09-14236	S	12/22/2009	
		1	RE03-09-14238	S	12/22/2009	
		1	RE03-09-14239	S	12/22/2009	
		1	RE03-09-14240	S	12/22/2009	
		1	RE03-09-14241	S	12/22/2009	
		1	RE03-10-2736	S	12/22/2009	
		1	RE03-10-2737	S	12/22/2009	
		1	RE03-10-2749	W	12/22/2009	
		1	RE03-10-2750	W	12/22/2009	
		1	RE03-10-2762	W	12/22/2009	
		1	RE03-10-2764	W	12/22/2009	
		1	RE03-10-9872	S	12/22/2009	
		1	RE03-10-9873	S	12/22/2009	
		1	RE03-10-9874	S	12/22/2009	
	SW-846:9045C	1	RE03-09-14231	S	12/22/2009	
		1	RE03-09-14232	S	12/22/2009	
		1	RE03-09-14233	S	12/22/2009	
		1	RE03-09-14234	S	12/22/2009	
		1	RE03-09-14235	S	12/22/2009	
		1	RE03-09-14236	S	12/22/2009	
		1	RE03-09-14238	S	12/22/2009	
		1	RE03-09-14239	S	12/22/2009	
		1	RE03-09-14240	S	12/22/2009	
		1	RE03-09-14241	S	12/22/2009	
		1	RE03-10-2736	S	12/22/2009	

Monday, December 28, 2009

REQUEST NUMBER: 10-1087

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:9045C	1	RE03-10-2737	S	12/22/2009	
		1	RE03-10-9872	S	12/22/2009	
		1	RE03-10-9873	S	12/22/2009	
		1	RE03-10-9874	S	12/22/2009	

Final Page of REQUEST NUMBER 10-1087

GEL Laboratories LLC

a member of The GEL Group INC

PO Box 30712 Charleston, SC 29417
2040 Savage Road Charleston, SC 29407
P 843.556.8171 F 843.766.1178

www.gel.com

January 05, 2010

Ms. Joylene Valdez
Los Alamos National Laboratory
PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545

Re: LANL ER Project
Work Orders: 243550 243554
SDG: 10-1087

Dear Ms. Valdez:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the following analytical results for the sample(s) we received on December 24, 2009, and analyzed for General Chemistry, Metals and Perchlorates by LCMSMS. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 4485.

Sincerely,

for

Valerie Davis
Project Manager

Purchase Order: 72733-001-09
Chain of Custody: 10-1087
Enclosures

problem solved

Los Alamos National Laboratory (72733-001-09)
LANL ER Project
Work Order #: 243550 and 243554
SDG: 10-1087

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Case Narrative

Case Narrative for
Los Alamos National Laboratory (72733-001-09)
LANL ER Project
Workorder #: 243550 and 243554
SDG # : 10-1087

January 05, 2010

Laboratory Identification:

GEL Laboratories LLC
2040 Savage Road
Charleston, South Carolina 29407
(843) 556-8171

Summary

Sample receipt The samples arrived at GEL Laboratories LLC, Charleston, South Carolina on December 24, 2009 for analysis. The samples were prepared/analyzed within the required holding time. Shipping container temperatures were checked, documented, and within specifications. The samples were screened according to GEL Standard Operating Procedure. The lab did not received the TCN and Metals container for samples RE03-10-6972 and 6974. Los Alamos was notified and a revised chain was later received. All sample containers arrived without any visible signs of tampering or breakage. Containers were checked for pH, where appropriate, and matched the preservative as documented on the accompanying chain of custody. Shipping container temperature was within specification (0 - 6C).

Sample Identification The laboratory received the following samples:

Laboratory ID	Client ID
243550001	RE03-09-14233
243550002	RE03-09-14236
243550003	RE03-09-14239
243550004	RE03-09-14240
243550005	RE03-09-14231
243550006	RE03-09-14232
243550007	RE03-09-14235
243550008	RE03-09-14238
243550009	RE03-09-14234
243550010	RE03-09-14241
243550011	RE03-10-2737
243550012	RE03-10-2736
243550013	RE03-10-9873
243550014	RE03-10-9872
243550015	RE03-10-9874
243554001	RE03-10-2750
243554002	RE03-10-2749
243554003	RE03-10-2764
243554004	RE03-10-2762

Case Narrative

Sample analyses were conducted using methodology as outlined in GEL Laboratories, LLC (GEL) Standard Operating Procedures. Any technical or administrative problems during analysis, data review, and reduction are contained in the analytical case narratives in the enclosed data package.

Data Package The enclosed data package contains the following sections: Case Narrative, Chain of Custody, Cooler Receipt Checklist, Data Package Qualifier Definitions and data from the following fractions: General Chemistry, Metals and Perchlorates by LCMSMS.

I certify that this data report is in compliance with the terms and conditions of the subcontract and task order, both technically and for completeness, for other than the conditions detailed in the attached case narrative.

for

Valerie Davis

Project Manager

List of current GEL Certifications as of 05 January 2010

State	Certification
Arizona	AZ0668
Arkansas	88-0651
CLIA	42D0904046
California – NELAP	01151CA
Colorado	GEL
Connecticut	PH-0169
Dept. of Navy	NFESC 413
EPA Region 5	WG-15J
Florida – NELAP	E87156
Georgia	E87156 (FL/NELAP)
Georgia DW	967
Hawaii	N/A
ISO 17025	2567.01
Idaho	SC00012
Illinois – NELAP	200029
Indiana	C-SC-01
Kansas – NELAP	E-10332
Kentucky	90129
Louisiana – NELAP	03046
Maryland	270
Massachusetts	M-SC012
Nevada	SC00012
New Jersey – NELAP	SC002
New Mexico	FL NELAP E87156
New York – NELAP	11501
North Carolina	233
North Carolina DW	45709
Oklahoma	9904
Pennsylvania – NELAP	68-00485
South Carolina	10120001/10120002
Tennessee	TN 02934
Texas – NELAP	T104704235-07B-TX
U.S. Dept. of Agriculture	S-52597
Utah – NELAP	GEL
Vermont	VT87156
Virginia	00151
Washington	C1641

Chain of Custody and Supporting Documentation

Monday, December 28, 2009

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1087C

REQUEST NUMBER: 10-1087

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 1/22/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS: 243550%, 243554%

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE03-09-14233	1	POLY	METALS-GEL	Ice	S
RE03-09-14233	1	POLY	Perchlorate+CN+N03+pH	Ice	S
RE03-09-14236	1	POLY	METALS-GEL	Ice	S
RE03-09-14236	1	POLY	Perchlorate+CN+N03+pH	Ice	S
RE03-09-14239	1	POLY	METALS-GEL	Ice	S
RE03-09-14239	1	POLY	Perchlorate+CN+N03+pH	Ice	S
RE03-09-14240	1	POLY	METALS-GEL	Ice	S
RE03-09-14240	1	POLY	Perchlorate+CN+N03+pH	Ice	S
RE03-09-14231	1	POLY	METALS-GEL	Ice	S
RE03-09-14231	1	POLY	Perchlorate+CN+N03+pH	Ice	S
RE03-09-14232	1	POLY	METALS-GEL	Ice	S
RE03-09-14232	1	POLY	Perchlorate+CN+N03+pH	Ice	S
RE03-09-14235	1	POLY	METALS-GEL	Ice	S
RE03-09-14235	1	POLY	Perchlorate+CN+N03+pH	Ice	S
RE03-09-14238	1	POLY	METALS-GEL	Ice	S
RE03-09-14238	1	POLY	Perchlorate+CN+N03+pH	Ice	S
RE03-09-14234	1	POLY	METALS-GEL	Ice	S
RE03-09-14234	1	POLY	Perchlorate+CN+N03+pH	Ice	S
RE03-09-14241	1	POLY	METALS-GEL	Ice	S
RE03-09-14241	1	POLY	Perchlorate+CN+N03+pH	Ice	S
RE03-10-2737	1	POLY	METALS-GEL	Ice	S
RE03-10-2737	1	POLY	Perchlorate+CN+N03+pH	Ice	S
RE03-10-2736	1	POLY	METALS-GEL	Ice	S
RE03-10-2736	1	POLY	Perchlorate+CN+N03+pH	Ice	S
RE03-10-2750	1	POLY	METALS-GEL	Nitric Acid	W
RE03-10-2750	1	POLY	TCN	Sodium Hydroxide	W
RE03-10-2749	1	POLY	METALS-GEL	Nitric Acid	W
RE03-10-2749	1	POLY	TCN	Sodium Hydroxide	W
RE03-10-2764	1	POLY	METALS-GEL	Nitric Acid	W
RE03-10-2764	1	POLY	TCN	Sodium Hydroxide	W
RE03-10-2762	1	POLY	METALS-GEL	Nitric Acid	W
RE03-10-2762	1	POLY	TCN	Sodium Hydroxide	W

Monday, December 28, 2009

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1087C

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE03-10-2749	1	POLY	NO3NO2	Sulfuric Acid (Hydrogen Sulfate)	W
RE03-10-2749	1	POLY	SW-846:6850	Ice	W
RE03-10-2750	1	POLY	NO3NO2	Sulfuric Acid (Hydrogen Sulfate)	W
RE03-10-2750	1	POLY	SW-846:6850	Ice	W
RE03-10-2762	1	POLY	NO3NO2	Sulfuric Acid (Hydrogen Sulfate)	W
RE03-10-2762	1	POLY	SW-846:6850	Ice	W
RE03-10-2764	1	POLY	NO3NO2	Sulfuric Acid (Hydrogen Sulfate)	W
RE03-10-2764	1	POLY	SW-846:6850	Ice	W
RE03-10-9872	1	POLY	METALS-GEL	Ice	S
RE03-10-9872	1	POLY	Perchlorate+CN+N03+pH	Ice	S
RE03-10-9873	1	POLY	METALS-GEL	Ice	S
RE03-10-9873	1	POLY	Perchlorate+CN+N03+pH	Ice	S
RE03-10-9874	1	POLY	METALS-GEL	Ice	S
RE03-10-9874	1	POLY	Perchlorate+CN+N03+pH	Ice	S

Relinquished By:		Date	Time	Received By:		Date	Time
[illegible]		12/23/09	2:00	Greg Tyler	[illegible]	12/24/09	0930
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

Received for DISPOSAL By: **Date** **Time** **Remarks:**

Printed Name Signature

Monday, December 28, 2009

REQUEST NUMBER: 10-1087

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis
General Engineering Laboratories, Inc., Charleston, SC.
2040 Savage Rd
Charleston, SC 29407

These Samples are on:
LANL Request Number:10-1087
Per Agreement Number:126310011
Project Cost Code: MR2A054196D0

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 12/23/2009
TURNAROUND/REPORT DUE: 1/22/2010
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Not Required
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:300.0	1	RE03-09-14231	S	12/22/2009	
		1	RE03-09-14232	S	12/22/2009	
		1	RE03-09-14233	S	12/22/2009	
		1	RE03-09-14234	S	12/22/2009	
		1	RE03-09-14235	S	12/22/2009	
		1	RE03-09-14236	S	12/22/2009	
		1	RE03-09-14238	S	12/22/2009	
		1	RE03-09-14239	S	12/22/2009	
		1	RE03-09-14240	S	12/22/2009	

Monday, December 28, 2009

REQUEST NUMBER: 10-1087

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:300.0	1	RE03-09-14241	S	12/22/2009	
		1	RE03-10-2736	S	12/22/2009	
		1	RE03-10-2737	S	12/22/2009	
		1	RE03-10-9872	S	12/22/2009	
		1	RE03-10-9873	S	12/22/2009	
		1	RE03-10-9874	S	12/22/2009	
	EPA:353.2	1	RE03-10-2749	W	12/22/2009	
		1	RE03-10-2750	W	12/22/2009	
		1	RE03-10-2762	W	12/22/2009	
		1	RE03-10-2764	W	12/22/2009	
	SW-846:6010B	1	RE03-09-14231	S	12/22/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14232	S	12/22/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14233	S	12/22/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14234	S	12/22/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14235	S	12/22/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14236	S	12/22/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14238	S	12/22/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14239	S	12/22/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14240	S	12/22/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14241	S	12/22/2009	Plus, B, Li, Si, Ti, U
		1	RE03-10-2736	S	12/22/2009	
		1	RE03-10-2737	S	12/22/2009	
		1	RE03-10-2749	W	12/22/2009	
		1	RE03-10-2750	W	12/22/2009	
		1	RE03-10-2762	W	12/22/2009	
		1	RE03-10-2764	W	12/22/2009	
		1	RE03-10-9872	S	12/22/2009	
		1	RE03-10-9873	S	12/22/2009	

Monday, December 28, 2009

REQUEST NUMBER: 10-1087

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:6010B	1	RE03-10-9874	S	12/22/2009	
	SW-846:6020	1	RE03-09-14231	S	12/22/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14232	S	12/22/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14233	S	12/22/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14234	S	12/22/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14235	S	12/22/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14236	S	12/22/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14238	S	12/22/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14239	S	12/22/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14240	S	12/22/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14241	S	12/22/2009	Plus, B, Li, Si, Ti, U
		1	RE03-10-2736	S	12/22/2009	
		1	RE03-10-2737	S	12/22/2009	
		1	RE03-10-2749	W	12/22/2009	
		1	RE03-10-2750	W	12/22/2009	
		1	RE03-10-2762	W	12/22/2009	
		1	RE03-10-2764	W	12/22/2009	
		1	RE03-10-9872	S	12/22/2009	
		1	RE03-10-9873	S	12/22/2009	
		1	RE03-10-9874	S	12/22/2009	
	SW-846:6850	1	RE03-09-14231	S	12/22/2009	
		1	RE03-09-14232	S	12/22/2009	
		1	RE03-09-14233	S	12/22/2009	
		1	RE03-09-14234	S	12/22/2009	
		1	RE03-09-14235	S	12/22/2009	
		1	RE03-09-14236	S	12/22/2009	
		1	RE03-09-14238	S	12/22/2009	
		1	RE03-09-14239	S	12/22/2009	

Monday, December 28, 2009

REQUEST NUMBER: 10-1087

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:6850	1	RE03-09-14240	S	12/22/2009	
		1	RE03-09-14241	S	12/22/2009	
		1	RE03-10-2736	S	12/22/2009	
		1	RE03-10-2737	S	12/22/2009	
		1	RE03-10-2749	W	12/22/2009	
		1	RE03-10-2750	W	12/22/2009	
		1	RE03-10-2762	W	12/22/2009	
		1	RE03-10-2764	W	12/22/2009	
		1	RE03-10-9872	S	12/22/2009	
		1	RE03-10-9873	S	12/22/2009	
		1	RE03-10-9874	S	12/22/2009	
	SW-846:7471A	1	RE03-09-14231	S	12/22/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14232	S	12/22/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14233	S	12/22/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14234	S	12/22/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14235	S	12/22/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14236	S	12/22/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14238	S	12/22/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14239	S	12/22/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14240	S	12/22/2009	Plus, B, Li, Si, Ti, U
		1	RE03-09-14241	S	12/22/2009	Plus, B, Li, Si, Ti, U
		1	RE03-10-2736	S	12/22/2009	
		1	RE03-10-2737	S	12/22/2009	
		1	RE03-10-9872	S	12/22/2009	
		1	RE03-10-9873	S	12/22/2009	
		1	RE03-10-9874	S	12/22/2009	
	SW-846:9012A	1	RE03-09-14231	S	12/22/2009	
		1	RE03-09-14232	S	12/22/2009	

Monday, December 28, 2009

REQUEST NUMBER: 10-1087

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:9012A	1	RE03-09-14233	S	12/22/2009	
		1	RE03-09-14234	S	12/22/2009	
		1	RE03-09-14235	S	12/22/2009	
		1	RE03-09-14236	S	12/22/2009	
		1	RE03-09-14238	S	12/22/2009	
		1	RE03-09-14239	S	12/22/2009	
		1	RE03-09-14240	S	12/22/2009	
		1	RE03-09-14241	S	12/22/2009	
		1	RE03-10-2736	S	12/22/2009	
		1	RE03-10-2737	S	12/22/2009	
		1	RE03-10-2749	W	12/22/2009	
		1	RE03-10-2750	W	12/22/2009	
		1	RE03-10-2762	W	12/22/2009	
		1	RE03-10-2764	W	12/22/2009	
		1	RE03-10-9872	S	12/22/2009	
		1	RE03-10-9873	S	12/22/2009	
		1	RE03-10-9874	S	12/22/2009	
	SW-846:9045C	1	RE03-09-14231	S	12/22/2009	
		1	RE03-09-14232	S	12/22/2009	
		1	RE03-09-14233	S	12/22/2009	
		1	RE03-09-14234	S	12/22/2009	
		1	RE03-09-14235	S	12/22/2009	
		1	RE03-09-14236	S	12/22/2009	
		1	RE03-09-14238	S	12/22/2009	
		1	RE03-09-14239	S	12/22/2009	
		1	RE03-09-14240	S	12/22/2009	
		1	RE03-09-14241	S	12/22/2009	
		1	RE03-10-2736	S	12/22/2009	

Monday, December 28, 2009

REQUEST NUMBER: 10-1087

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:9045C	1	RE03-10-2737	S	12/22/2009	
		1	RE03-10-9872	S	12/22/2009	
		1	RE03-10-9873	S	12/22/2009	
		1	RE03-10-9874	S	12/22/2009	

Final Page of REQUEST NUMBER 10-1087

GEL Laboratories LLC

SAMPLE RECEIPT & REVIEW FORM

Client: LANL	**SDG/ARCOC/Work Order: 10-1087**
Received By: Greg Tyler	**Date Received: 12/24/09**

Suspected Hazard Information	**Yes**	**No**	*If Counts > x2 area background on samples not marked "radioactive", contact the Radiation Safety Group of further investigation.
COC/Samples marked as radioactive?		X	Maximum Counts Observed*: **60cpm**
Classified Radioactive II by RSO?		X	
COC/Samples marked containing PCBs?		X	
Shipped as a DOT Hazardous?		X	Hazard Class Shipped: UN#:
Samples identified as Foreign Soil?		X	

	Sample Receipt Criteria	**Yes**	**NA**	**No**	**Comments/Qualifiers (Required for Non-Conforming Items)**
1	Shipping containers received intact and sealed?	X			Circle Applicable: seals broken damaged container leaking container other (describe)
2	Samples requiring cold preservation within 0 ≤ 6 deg. C?	X			Preservation Method: ice bags **blue ice** dry ice **none** other **3-5C** **14,15C**
3	Chain of custody documents included with shipment?	X			
4	Sample containers intact and sealed?	X			Circle Applicable: seals broken damaged container leaking container other (describe)
5	Samples requiring chemical preservation at proper pH?	X			Sample ID's, containers affected and observed pH: If Preservation added, Lot#:
6	VOA vials free of headspace (defined as < 6mm bubble)?		X		Sample ID's and containers affected:
7	Are Encore containers present?			X	(If yes, immediately deliver to Volatiles laboratory)
8	Samples received within holding time?	X			Id's and tests affected:
9	Sample ID's on COC match ID's on bottles?	X			Sample ID's and containers affected:
10	Date & time on COC match date & time on bottles?		X		Sample ID's affected: **No time on Chain of Custody.**
11	Number of containers received match number indicated on COC?			X	Sample ID's affected: **RE03-10-6974, 6972** **The lab did not receive the (1) 1L poly METALS-GEL and the (1) 500ML amber TCN as indicated on COC.**
12	COC form is properly signed in relinquished/received sections?	X			

Comments:

Fed Ex Tracking Numbers

7209 7849 3755 3C	**7209 7849 3803 5C**
7209 7849 3788 4C	**7209 7849 3825 14C**
7209 7849 3799 4C	**7209 7849 3744 14C**
7209 7849 3858 4C	**7209 7849 3733 15C**
7209 7849 3836 5C	**7209 7849 3766 15C**
7209 7849 3777 5C	
7209 7849 3722 5C	
7209 7849 3847 5C	

PM (or PMA) review: Initials JAR Date 12-24-09

GIN ID: SAFA (505)665-9968
'LENE VALDEZ
; ALAMOS NATL LAB.
)0 BLDG 1237 DPU 03

; ALAMOS, NM 87545
ITED STATES US

SHIP DATE: 23DEC09
ACTWGT: 65.0 LB MAN
CAD: 0014176/CA 2434

BILL SENDER

ALERIE DAVIS
ENERAL ENGINEERING LAB
040 SAVAGE RD

HARLESTON SC 29407
43)556-8171
EF: 6B01AMR3A0352VA00

3c

FedEx Express

2 of 2
S# 7209 7849 3755
63
THU - 24DEC A1
PRIORITY OVERNIGHT
trk# 7209 7849 3744 0201

29407
SC-US
CHS

(X CHSA

ORIGIN ID: SAFA (505)665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 123 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 23DEC09
ACTWGT: 51.0 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843)556-8171
REF: 6B01AMR2A05419D0

4c

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3 of 3
MPS# 7209 7849 3788
0263
THU - 24DEC A1
PRIORITY OVERNIGHT
Mstr# 7209 7849 3766 0201

29407
SC-US
CHS

XX CHSA

Part # 156146-434 NRIT V3 09-09

RIGIN ID: SAFA (505)665-9968
OYLENE VALDEZ
OS ALAMOS NATL LAB
A00 BLDG 1237 DPU 03

OS ALAMOS, NM 87545
NITED STATES US

SHIP DATE: 23DEC09
ACTWGT: 51.0 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
843)556-8171
REF: 6B01AMR2A05419D0

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1 of 2
RK# 7209 7849 3799
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THU - 24DEC A1
PRIORITY OVERNIGHT
MASTER

29407
SC-US

XX CHSA

ORIGIN ID: SAFA (505)665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 23DEC09
ACTWGT: 45.0 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843)556-8171
REF: 6B01AMR3A0352VA00

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MPS# 7209 7849 3858
0263
THU - 24DEC A1
PRIORITY OVERNIGHT
Mstr# 7209 7849 3847 0201

29407
SC-US

XX CHSA

IGIN ID: SAFA (505)665-9968
YLENE VALDEZ
5 ALAMOS NATL LAB.
00 BLDG 1237 DPU 03

S ALAMOS, NM 87545
ITED STATES US

SHIP DATE: 23DEC09
ACTWGT: 57.0 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

ALERIE DAVIS
ENERAL ENGINEERING LAB
040 SAVAGE RD

HARLESTON SC 29407
43)556-8171
EF: 6B01AMR3A0352VA00

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MPS# 0263 7209 7849 3836
Mstr# 7209 7849 3814 0201

THU - 24DEC A1
PRIORITY OVERNIGHT

29407
SC-US
CHS

XX CHSA

ORIGIN ID: SAFA (505)665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 23DEC09
ACTWGT: 55.0 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843)556-8171
REF: 6B01AMR2A05419BD0

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2 of 3
MPS# 0263 7209 7849 3777
Mstr# 7209 7849 3766 0201

THU - 24DEC A1
PRIORITY OVERNIGHT

29407
SC-US
CHS

XX CHSA

Part # 156 Inp-Express NIGHT V3 09-09

IGIN ID: SAFA (505)665-9968
YLENE VALDEZ
5 ALAMOS NATL LAB.
00 BLDG 1237 DPU 03

S ALAMOS, NM 87545
ITED STATES US

SHIP DATE: 23DEC09
ACTWGT: 62.0 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

ALERIE DAVIS
ENERAL ENGINEERING LAB
040 SAVAGE RD

HARLESTON SC 29407
43)556-8171
EF: 6B01AMR3A0325VA00

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1 of 2
TRK# 0201 7209 7849 3722
MASTER ##

THU - 24DEC A1
PRIORITY OVERNIGHT

29407
SC-US
CHS

X CHSA

ORIGIN ID: SAFA (505)665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 23DEC09
ACTWGT: 54.0 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843)556-8171
REF: 6B01AMR3A0352VA00

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1 of 2
TRK# 0201 7209 7849 3847
MASTER

THU - 24DEC A1
PRIORITY OVERNIGHT

29407
SC-US
CHS

XX CHSA

ORIGIN ID: SAFA (505)665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 23DEC09
ACTWGT: 62.0 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843)556-8171
REF: 6B01AMR2A0541DO

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2 of 2
MPS# 0263 7209 7849 3803
Mstr# 7209 7849 3799 0201

THU - 24DEC A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

ORIGIN ID: SAFA (505)665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 23DEC09
ACTWGT: 62.0 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843)556-8171
REF: 6B01AMR3A0352VA00

14C
no ice

FedEx Express

2 of 3
MPS# 0263 7209 7849 3825
Mstr# 7209 7849 3814 0201

THU - 24DEC A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

Part #155148-434 NAIT V3 09-09

JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

ACTWGT: 60.0 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843)556-8171
REF: 6B01AMR3A0352VA00

14C
no ice

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1 of 2
TRK# 0201 7209 7849 3744
MASTER

THU - 24DEC A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

ORIGIN ID: SAFA (505)665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 23DEC09
ACTWGT: 64.0 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843)556-8171
REF: 6B01AMR3A0325VA00

15C
no ice

FedEx Express

2 of 2
MPS# 0263 7209 7849 3733
Mstr# 7209 7849 3722 0201

THU - 24DEC A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

ORIGIN ID: BAFA (505)665-9960
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 23DEC09
ACTWGT: 39.0 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843)556-8171
REF: 6B01AMR2A054196D0

15C
NO ice

FedEx Express

1 of 3

TRK# 0201 7209 7849 3766

MASTER

THU - 24DEC A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

Part #-156148-434 NRT V3 09-09

Issues from 12/24/09

Possible incorrect ID?

ID on containers: RE16-10-1103 (not found on COC)

8260B (125 ML amber wide-mouth)
METALS-GEL (125 ML Poly)
Anions + CL04 (125 ML poly)
8270C+NMED (500ML Amber)
AM241+GS+ISOPU+ISOU (100ML poly)

ID on COC: RE16-10-1003 (no containers found for these analyses.)

8260B
METALS-GEL
Anions + CL04
8270C+NMED
AM241+GS+ISOPU+ISOU

OOUR COC SAYS 1103 SO I THINK WE ARE GOOD HERE

Other issues…

Missing Containers

Soils

WST03-10-2201	8260B 40ML (received 1 instead of 2 as indicated on COC.)
WST21-10-9930	8260B 40ML (received 1 instead of 2 as indicated on COC.)
WST21-10-9928	8260B 40ML (received 1 instead of 2 as indicated on COC.)
RE16-10-2867	8260B 40 ML (received 1 instead of 2 as indicated on COC.)
RE-10-7559	AM241+GS+ISOPU+ISOU
	Met+U+CL04+CN
	NMED Explosives list
RE-10-7560	AM241+GS+ISOPU+ISOU
	Met+U+CL04+CN
	NMED Explosives list

Cancel 7559 and 7560

Waters

RE03-10-6972	METALS-GEL
	TCN
RE03-10-~~7560~~ 6974	METALS-GEL
	TCN

We'll see if these show up if not in tomorrows delivery then cancel

Containers Received that were not listed on COC(s)

RE03-10-9872	Perchlorate+CN+NO3+pH (500ML poly) H3 AM241+ISOPU+ISOU (500ML poly) 8270C+8082 (250ML amber) 8260B (125ML amber) METALS-GEL (125ML poly)
RE03-10-9874	Perchlorate+CN+NO3+pH (500ML poly) H3 AM241+ISOPU+ISOU (500ML poly) 8270C+8082 (250ML amber) 8260B (125ML amber) METALS-GEL (125ML poly)

These were added to 10-1086/1087 and 1088 will received revised requestes tommorrow

WSTR47-10-7140	TPH DRO (250ML amber)
WSTR47-10-7141	TPH DRO (250ML amber)

Missing bottles from 10-1000

Data Review Qualifier Flag Definition Sheet

Data Review Qualifier Definitions

Qualifier	Explanation
*	A quality control analyte recovery is outside of specified acceptance criteria
**	Analyte is a surrogate compound
<	Result is less than value reported
>	Result is greater than value reported
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL
A	The TIC is a suspected aldol-condensation product
B	Target analyte was detected in the associated blank
B	Metals-Either presence of analyte detected in the associated blank, or MDL/IDL < sample value < PQL
BD	Results are either below the MDC or tracer recovery is low
C	Analyte has been confirmed by GC/MS analysis
D	Results are reported from a diluted aliquot of the sample
d	5-day BOD-The 2:1 depletion requirement was not met for this sample
E	Organics-Concentration of the target analyte exceeds the instrument calibration range
E	Metals-%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
H	Analytical holding time was exceeded
h	Preparation or preservation holding time was exceeded
J	Value is estimated
N	Metals-The Matrix spike sample recovery is not within specified control limits
N	Organics-Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A	Spike recovery limits do not apply. Sample concentration exceeds spike concentration by 4X or more
ND	Analyte concentration is not detected above the reporting limit
UI	Gamma Spectroscopy-Uncertain identification
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
Z	Paint Filter Test-Particulates passed through the filter, however no free liquids were observed.

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LC/MS/MS PERCHLORATE ANALYSIS

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Perchlorate by LC/MSMS
Los Alamos National Laboratory (LANL)
SDG 10-1087

Method/Analysis Information

Procedure:	**Definitive Low Level Perchlorate Analysis Utilizing Liquid Chromatography/Mass Spectrometry/Mass Spectrometry (LC/MS/MS) by EPA Method 6850 Modified (6850M)**
Analytical Method:	SW846 6850 Modified
Prep Method:	SW846 6850 Modified
Analytical Batch Number:	936784
Prep Batch Number:	936783

Sample Analysis

Sample ID	Client ID
243550001	RE03-09-14233
243550002	RE03-09-14236
243550003	RE03-09-14239
243550004	RE03-09-14240
243550005	RE03-09-14231
243550006	RE03-09-14232
243550007	RE03-09-14235
243550008	RE03-09-14238
243550009	RE03-09-14234
243550010	RE03-09-14241
243550011	RE03-10-2737
243550012	RE03-10-2736
243550013	RE03-10-9873
243550014	RE03-10-9872
243550015	RE03-10-9874

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1202004380	Interference Check Sample (ICS)
1202004376	Method Blank (MB)
1202004379	Laboratory Control Sample (LCS)
1202004377	243550001(RE03-09-14233) Matrix Spike (MS)
1202004378	243550001(RE03-09-14233) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on a "dry weight" basis.

Preparation/Analytical Method Verification

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-067 REV# 6.

Calibration Information

Initial Calibration
All initial calibration requirements have been met for this SDG. Due to software constraints, all Initial Calibration Blanks must be designated as IPB001.

CCV Requirements
All associated calibration verification standard(s) (ICV or CCV) met the acceptance criteria.

CCB Requirements
All continuing calibration blanks (CCB) bracketing the analyses associated with this batch were within acceptance criteria.

CCV Requirements
All continuing calibration checks (CCV) requirements were met by all bracketing CCV standards.

Low Level Standard (CRI) Requirements
All low level calibration verification (CRI) requirements were met by all bracketing CRI standards.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB(s) analyzed with this SDG met the acceptance criteria.

Interference Check Sample (ICS)
The interference check sample (ICS) met all recovery acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

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QC Sample Designation
Sample 243550001 (RE03-09-14233) was chosen for matrix spike and matrix spike duplicate analysis.

Matrix Spike (MS) Recovery Statement
The MS recoveries were within the established acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recoveries were within the established acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD(s) between the MS and MSD met the acceptance limits.

Retention Time Standard Area Acceptance
The retention time standard areas were within the required acceptance criteria for all samples and QC.

Retention Time
During the analysis of Perchlorate by LC/MS/MS, retention time shifts are commonly observed. These retention time shifts, which are caused by fouling of the column by the sample matrices, are problematic when the retention time is used as one of the criterion for confirmation. To overcome this problem, a known amount of O(18) labeled Perchlorate was added to each sample as a retention time standard. The presence of Perchlorate was confirmed by the relative retention time (RRT) of the Perchlorate peak and the O(18) standard. A RRT window of 0.98 to 1.02, as required by Method 332.0, has been used. In addition to the isotopic ratio, the presence of Perchlorate in the samples associated with this data package have been confirmed using the relative retention criteria stated above, not the absolute retention time.

Technical Information

Holding Time Specifications
All samples in this SDG in this analytical batch met the specified holding time. GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-extraction/Re-analysis
Re-extractions or re-analyses were not required in this SDG except for dilutions.

Miscellaneous Information

Data Exception (DER) Documentation
Data exception reports (DERs) are generated to document procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception reports (DER) was not generated for this SDG.

Manual Integrations
Some initial calibration standards, continuing calibration standards, and/or samples may require manual integrations due to software limitations.

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Method Comments
The samples in this SDG were not originally analyzed using EPA Method 314.0.

Additional Comments
The Perchlorate Isotope Ratio on the Form I may differ slightly from the ratio on the corresponding raw data due to rounding rules and/or significant figures or due to software limitations when there are manual integrations, dilutions or other factors. The ratio value of the Form I is the correct value.

The retention time marker, Perchlorate-O (18), is added to all samples, instrument blanks, and standards prior to injection. It is used to verify the retention time of Perchlorate and Perchlorate-101 and to insure an accurate injection occurred. Due to various anions affecting the recovery of Perchlorate-O (18) and not Perchlorate and Perchlorate-101, the calibration curves of Perchlorate and Perchlorate-101 are not internally corrected for using Perchlorate-O (18). They are external calibrations.

Perchlorate Isotope Ratio
The Perchlorate isotope ratio met acceptance criteria for all samples and QC samples. Please see the isotope ratio criteria in the Miscellaneous Section.

System Configuration

The laboratory utilizes a Waters LC 2795 liquid chromatography instrument for perchlorate analysis. It is coupled with either a Micromass Quattro Micro Mass Spectrometer/ Mass Spectrometer, or a Micromass Quattro Ultima Mass Spectrometer/ Mass Spectrometer. Each being designated as LCMSMS #1, and LCMSMS #2, respectively. It is fitted with an electrospray probe that is operated in the negative electrospray ionization mode for perchlorate analysis. The laboratory may also utilize an Agilent 1100 liquid chromatography instrument for perchlorate analysis. It is coupled with an Applied Biosystems 4000 Mass Spectrometer/ Mass Spectrometer, designated as LCMSMS #3 or LCMSMS #4. It is also fitted with an electrospray probe that is operated in the negative electrospray ionization mode for perchlorate analysis.

Chromatographic Columns

Chromatographic separation of perchlorate is accomplished through analysis on the following anion column:

Dionex: IonPac AG-16 2 x 50 mm.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Herbert M Maier **Date:** 01/15/10

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SAMPLE DATA SUMMARY

Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 936783

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE03-09-14233

Date Received: 24-DEC-09

GEL Job No (SDG): 10-1087

GEL Sample ID: 243550001

Date Filtered: 08-JAN-10

Injection Volume (uL): 20

%Solids: 92.6

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.54	2.16	0.540	ug/kg	U	1	08-JAN-10 18:03	per0108015a
	Perchlorate Isotope Ratio						1	08-JAN-10 18:03	per0108015a
14797-73-0	Perchlorate-101	.54	2.16	0.540	ug/kg	U	1	08-JAN-10 18:03	per0108015a
	Perchlorate-O(18)			5.26	ug/kg		1	08-JAN-10 18:03	per0108015a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 936783

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE03-09-14236

Date Received: 24-DEC-09

GEL Job No (SDG): 10-1087

GEL Sample ID: 243550002

Date Filtered: 08-JAN-10

Injection Volume (uL): 20

%Solids: 84

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.596	2.39	0.959	ug/kg	J	1	08-JAN-10 18:24	per0108018a
	Perchlorate Isotope Ratio			2.98			1	08-JAN-10 18:24	per0108018a
14797-73-0	Perchlorate-101	.596	2.39	1.02	ug/kg	J	1	08-JAN-10 18:24	per0108018a
	Perchlorate-O(18)			6.30	ug/kg		1	08-JAN-10 18:24	per0108018a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 936783

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE03-09-14239

Date Received: 24-DEC-09

GEL Job No (SDG): 10-1087

GEL Sample ID: 243550003

Date Filtered: 08-JAN-10

Injection Volume (uL): 20

%Solids: 94.5

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.529	2.12	0.529	ug/kg	U	1	08-JAN-10 18:31	per0108019a
	Perchlorate Isotope Ratio						1	08-JAN-10 18:31	per0108019a
14797-73-0	Perchlorate-101	.529	2.12	0.529	ug/kg	U	1	08-JAN-10 18:31	per0108019a
	Perchlorate-O(18)			5.17	ug/kg		1	08-JAN-10 18:31	per0108019a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 936783

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE03-09-14240

Date Received: 24-DEC-09

GEL Job No (SDG): 10-1087

GEL Sample ID: 243550004

Date Filtered: 08-JAN-10

Injection Volume (uL): 20

%Solids: 94.6

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.529	2.11	1.28	ug/kg	J	1	08-JAN-10 18:38	per0108020a
	Perchlorate Isotope Ratio			2.95			1	08-JAN-10 18:38	per0108020a
14797-73-0	Perchlorate-101	.529	2.11	1.37	ug/kg	J	1	08-JAN-10 18:38	per0108020a
	Perchlorate-O(18)			5.36	ug/kg		1	08-JAN-10 18:38	per0108020a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 936783

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE03-09-14231

Date Received: 24-DEC-09

GEL Job No (SDG): 10-1087

GEL Sample ID: 243550005

Date Filtered: 08-JAN-10

Injection Volume (uL): 20

%Solids: 92.7

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.539	2.16	0.539	ug/kg	U	1	08-JAN-10 18:46	per0108021a
	Perchlorate Isotope Ratio						1	08-JAN-10 18:46	per0108021a
14797-73-0	Perchlorate-101	.539	2.16	0.539	ug/kg	U	1	08-JAN-10 18:46	per0108021a
	Perchlorate-O(18)			5.18	ug/kg		1	08-JAN-10 18:46	per0108021a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 936783

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE03-09-14232

Date Received: 24-DEC-09

GEL Job No (SDG): 10-1087

GEL Sample ID: 243550006

Date Filtered: 08-JAN-10

Injection Volume (uL): 20

%Solids: 94.2

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.531	2.12	0.531	ug/kg	U	1	08-JAN-10 19:16	per0108025a
	Perchlorate Isotope Ratio						1	08-JAN-10 19:16	per0108025a
14797-73-0	Perchlorate-101	.531	2.12	0.531	ug/kg	U	1	08-JAN-10 19:16	per0108025a
	Perchlorate-O(18)			5.37	ug/kg		1	08-JAN-10 19:16	per0108025a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 936783

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE03-09-14235

Date Received: 24-DEC-09

GEL Job No (SDG): 10-1087

GEL Sample ID: 243550007

Date Filtered: 08-JAN-10

Injection Volume (uL): 20

%Solids: 78

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.645	2.58	1.65	ug/kg	J	1	08-JAN-10 19:23	per0108026a
	Perchlorate Isotope Ratio			3.16			1	08-JAN-10 19:23	per0108026a
14797-73-0	Perchlorate-101	.645	2.58	1.65	ug/kg	J	1	08-JAN-10 19:23	per0108026a
	Perchlorate-O(18)			6.97	ug/kg		1	08-JAN-10 19:23	per0108026a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 936783

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE03-09-14238

Date Received: 24-DEC-09

GEL Job No (SDG): 10-1087

GEL Sample ID: 243550008

Date Filtered: 08-JAN-10

Injection Volume (uL): 20

%Solids: 94.6

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.529	2.11	0.529	ug/kg	U	1	08-JAN-10 19:30	per0108027a
	Perchlorate Isotope Ratio						1	08-JAN-10 19:30	per0108027a
14797-73-0	Perchlorate-101	.529	2.11	0.529	ug/kg	U	1	08-JAN-10 19:30	per0108027a
	Perchlorate-O(18)			4.95	ug/kg		1	08-JAN-10 19:30	per0108027a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 936783

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE03-09-14234

Date Received: 24-DEC-09

GEL Job No (SDG): 10-1087

GEL Sample ID: 243550009

Date Filtered: 08-JAN-10

Injection Volume (uL): 20

%Solids: 92.5

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.54	2.16	0.986	ug/kg	J	1	08-JAN-10 19:38	per0108028a
	Perchlorate Isotope Ratio			2.93			1	08-JAN-10 19:38	per0108028a
14797-73-0	Perchlorate-101	.54	2.16	1.06	ug/kg	J	1	08-JAN-10 19:38	per0108028a
	Perchlorate-O(18)			5.50	ug/kg		1	08-JAN-10 19:38	per0108028a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 936783

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE03-09-14241

Date Received: 24-DEC-09

GEL Job No (SDG): 10-1087

GEL Sample ID: 243550010

Date Filtered: 08-JAN-10

Injection Volume (uL): 20

%Solids: 87

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.572	2.29	2.94	ug/kg		1	08-JAN-10 19:46	per0108029a
	Perchlorate Isotope Ratio			3.11			1	08-JAN-10 19:46	per0108029a
14797-73-0	Perchlorate-101	.572	2.29	2.99	ug/kg		1	08-JAN-10 19:46	per0108029a
	Perchlorate-O(18)			5.95	ug/kg		1	08-JAN-10 19:46	per0108029a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 936783

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE03-10-2737

Date Received: 24-DEC-09

GEL Job No (SDG): 10-1087

GEL Sample ID: 243550011

Date Filtered: 08-JAN-10

Injection Volume (uL): 20

%Solids: 90

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.556	2.23	0.556	ug/kg	U	1	08-JAN-10 19:53	per0108030a
	Perchlorate Isotope Ratio						1	08-JAN-10 19:53	per0108030a
14797-73-0	Perchlorate-101	.556	2.23	0.556	ug/kg	U	1	08-JAN-10 19:53	per0108030a
	Perchlorate-O(18)			6.12	ug/kg		1	08-JAN-10 19:53	per0108030a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 936783

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE03-10-2736

Date Received: 24-DEC-09

GEL Job No (SDG): 10-1087

GEL Sample ID: 243550012

Date Filtered: 08-JAN-10

Injection Volume (uL): 20

%Solids: 93

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.538	2.15	0.538	ug/kg	U	1	08-JAN-10 20:01	per0108031a
	Perchlorate Isotope Ratio						1	08-JAN-10 20:01	per0108031a
14797-73-0	Perchlorate-101	.538	2.15	0.538	ug/kg	U	1	08-JAN-10 20:01	per0108031a
	Perchlorate-O(18)			5.30	ug/kg		1	08-JAN-10 20:01	per0108031a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 936783

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE03-10-9873

Date Received: 24-DEC-09

GEL Job No (SDG): 10-1087

GEL Sample ID: 243550013

Date Filtered: 08-JAN-10

Injection Volume (uL): 20

%Solids: 94.7

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.528	2.11	0.528	ug/kg	U	1	08-JAN-10 20:09	per0108032a
	Perchlorate Isotope Ratio						1	08-JAN-10 20:09	per0108032a
14797-73-0	Perchlorate-101	.528	2.11	0.528	ug/kg	U	1	08-JAN-10 20:09	per0108032a
	Perchlorate-O(18)			5.31	ug/kg		1	08-JAN-10 20:09	per0108032a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 936783

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE03-10-9872

Date Received: 24-DEC-09

GEL Job No (SDG): 10-1087

GEL Sample ID: 243550014

Date Filtered: 08-JAN-10

Injection Volume (uL): 20

%Solids: 88

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.567	2.27	1.29	ug/kg	J	1	08-JAN-10 20:16	per0108033a
	Perchlorate Isotope Ratio			3.26			1	08-JAN-10 20:16	per0108033a
14797-73-0	Perchlorate-101	.567	2.27	1.25	ug/kg	J	1	08-JAN-10 20:16	per0108033a
	Perchlorate-O(18)			5.65	ug/kg		1	08-JAN-10 20:16	per0108033a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 936783

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE03-10-9874

Date Received: 24-DEC-09

GEL Job No (SDG): 10-1087

GEL Sample ID: 243550015

Date Filtered: 08-JAN-10

Injection Volume (uL): 20

%Solids: 93.1

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.537	2.15	0.537	ug/kg	U	1	08-JAN-10 20:24	per0108034a
	Perchlorate Isotope Ratio						1	08-JAN-10 20:24	per0108034a
14797-73-0	Perchlorate-101	.537	2.15	0.537	ug/kg	U	1	08-JAN-10 20:24	per0108034a
	Perchlorate-O(18)			5.76	ug/kg		1	08-JAN-10 20:24	per0108034a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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QUALITY CONTROL SUMMARY

Perchlorate Laboratory Control Sample

Lab Name: General Engineering Laboratories

Lab Code: GEL

GEL Job No. (SDG): 10–1087

Extract Batch Code: 936783

Date Filtered: 08–JAN–10

Matrix: SOIL

Sample ID: 1202004379

Analyte^	True	Found	Units	%Rec	Q	Control Limits
Perchlorate	2.00	2.03	ug/kg	102		70 – 130
Perchlorate Isotope Ratio		3.09				–
Perchlorate–101	2.00	2.07	ug/kg	104		70 – 130
Perchlorate–O(18)		4.98	ug/kg			–

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate–101 peak area. The Perchlorate–101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

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Form 5a

Perchlorate Interference Check Sample

Lab Name: General Engineering Laboratories

Lab Code: GEL

GEL Job No. (SDG): 10–1087

Extract Batch Code: 936783

Date Filtered: 08–JAN–10

Matrix: SOIL

Sample ID: 1202004380

Analyte^	True	Found	Units	%Rec	Q	Control Limits
Perchlorate	2.00	1.96	ug/kg	97.9		70 – 130
Perchlorate Isotope Ratio		3.16				
Perchlorate–101	2.00	1.96	ug/kg	97.8		70 – 130
Perchlorate–O(18)		4.99	ug/kg			

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate–101 peak area. The Perchlorate–101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per010810a.qld

Last Altered: Tuesday, January 12, 2010 9:13:40 AM Eastern Standard Time
Printed: Tuesday, January 12, 2010 9:23:47 AM Eastern Standard Time

Name: per0108014a
Date: 08-Jan-2010
Time: 17:56:14
ID: 1202004380
Vial: 1:3,C

|LANL|936784|SOLS|ICS|1|

01-12-10

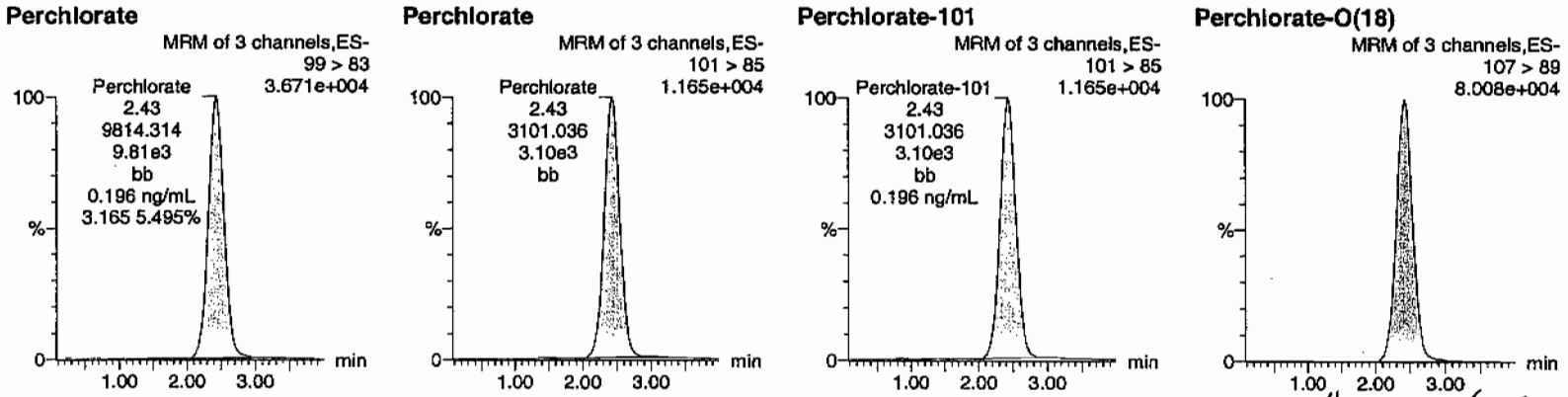

Anne 01/13/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202004380	Perchlorate	99 > 83	2.43	9814.314	9814.314	bb			0.1959	97.94	-2.06	2283.1...	3.16
1202004380	Perchlorate-101	101 > 85	2.43	3101.036	3101.036	bb			0.1955	97.76	-2.24	1578.7...	
1202004380	Perchlorate-O(18)	107 > 89	2.41	21903.729	21903.729	bb			0.4986	99.72	-0.28	4175.4...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Form 6

Perchlorate Spike/Spike Duplicate Summary

Lab Name: General Engineering Laboratories

Lab Code: GEL

GEL Job No (SDG): 10–1087

Extract Batch Code: 936783

Date Extracted: 08–JAN–10

GEL MS/PS ID: 1202004377

Client ID: RE03–09–14233

GEL MSD/PSD ID: 1202004378

QC Type: MS

Compound^	Spike Added	Sample Conc	Units	MS Conc	MS Rec #	MSD Conc	MSD Rec #	RPD #	RPD Limit	Recovery Limit
Perchlorate	2.16	0.0958	ug/kg	2.22	98.3	2.14	94.8	3.47	30	75 – 125
Perchlorate Isotope Ratio	0	0.00		3.07		3.07		0		–
Perchlorate–101	2.16	0.096	ug/kg	2.28	101	2.2	97.6	3.58	30	75 – 125
Perchlorate–O(18)	0	5.26	ug/kg	5.43		5.48		.852		–

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate–101 peak area. The Perchlorate–101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

Comments:

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Form 4

Perchlorate Initial Calibration Blank

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–1087

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id	GEL Sample ID
Perchlorate	0.00	0	NA	08–JAN–10	per0108001a	IPB001
Perchlorate–101	0.00	0	NA	08–JAN–10	per0108001a	IPB001
Perchlorate	0.00	0	NA	08–JAN–10	per0108002a	IPB001
Perchlorate–101	0.00	0	NA	08–JAN–10	per0108002a	IPB001

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per010810a.qld

Last Altered: Tuesday, January 12, 2010 9:13:40 AM Eastern Standard Time
Printed: Tuesday, January 12, 2010 9:23:47 AM Eastern Standard Time

Method: C:\MassLynx\Perchlorate.PRO\MethDB\per010810a.mdb 12 Jan 2010 09:13:13
Calibration: C:\MassLynx\Perchlorate.PRO\CurveDB\per010810a.cdb 12 Jan 2010 09:13:39

Name: per0108001a
Date: 08-Jan-2010
Time: 16:24:47
ID: IPB001
Vial: 1:1,A

CWW
01-12-10

Perchlorate

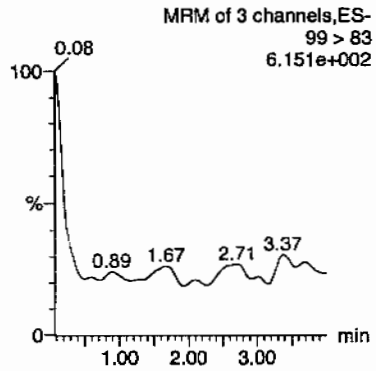

Perchlorate

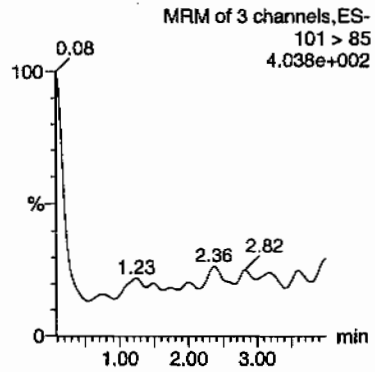

Perchlorate-101

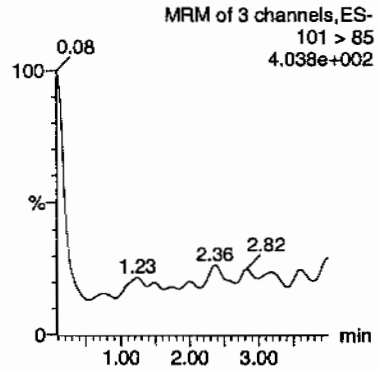

Perchlorate-O(18)

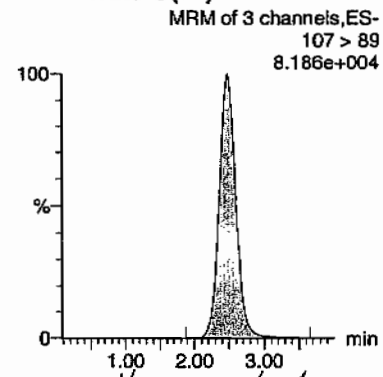

HNW 01/13/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB001	Perchlorate	99 > 83											0.00
IPB001	Perchlorate-101	101 > 85											
IPB001	Perchlorate-O(18)	107 > 89	2.48	22579.689	22579.689	bb			0.5140	102.80	2.80	3296.2...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per010810a.qld

Last Altered: Tuesday, January 12, 2010 9:13:40 AM Eastern Standard Time
Printed: Tuesday, January 12, 2010 9:23:47 AM Eastern Standard Time

Name: per0108002a
Date: 08-Jan-2010
Time: 16:31:49
ID: IPB001
Vial: 1:1,A

CWW 01-12-10

Perchlorate

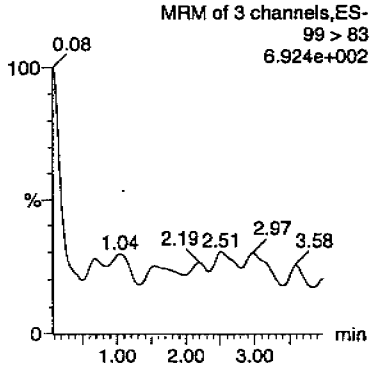

Perchlorate

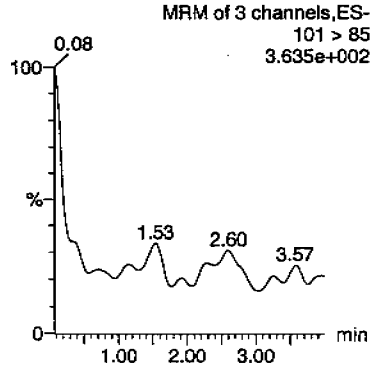

Perchlorate-101

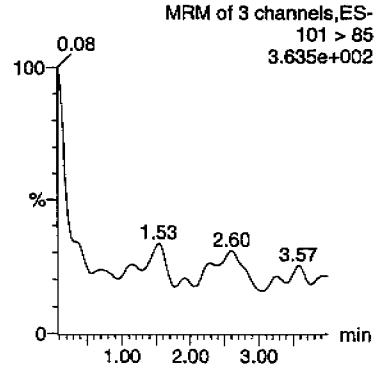

Perchlorate-O(18)

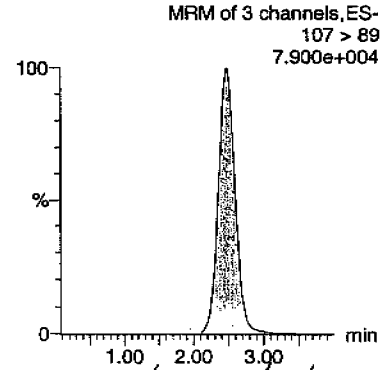

HMM 01/13/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB001	Perchlorate	99 > 83											0.00
IPB001	Perchlorate-101	101 > 85											
IPB001	Perchlorate-O(18)	107 > 89	2.48	21901.832	21901.832	bb			0.4986	99.71	-0.29	20053....	

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Form 4

Perchlorate Continuing Calibration Blank

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–1087

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id	GEL Sample ID
Perchlorate	0.00	0	NA	08–JAN–10	per0108008a	IPB002
Perchlorate–101	0.00	0	NA	08–JAN–10	per0108008a	IPB002
Perchlorate	0.00	0	NA	08–JAN–10	per0108010a	IPB003
Perchlorate–101	0.00	0	NA	08–JAN–10	per0108010a	IPB003
Perchlorate	0.00	0	NA	08–JAN–10	per0108023a	IPB004
Perchlorate–101	0.00	0	NA	08–JAN–10	per0108023a	IPB004
Perchlorate	0.00	0	NA	08–JAN–10	per0108036a	IPB005
Perchlorate–101	0.00	0	NA	08–JAN–10	per0108036a	IPB005

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per010810a.qld

Last Altered: Tuesday, January 12, 2010 9:13:40 AM Eastern Standard Time
Printed: Tuesday, January 12, 2010 9:23:47 AM Eastern Standard Time

Name: per0108008a
Date: 08-Jan-2010
Time: 17:13:57
ID: IPB002
Vial: 1:1,A

CWO 01-12-10

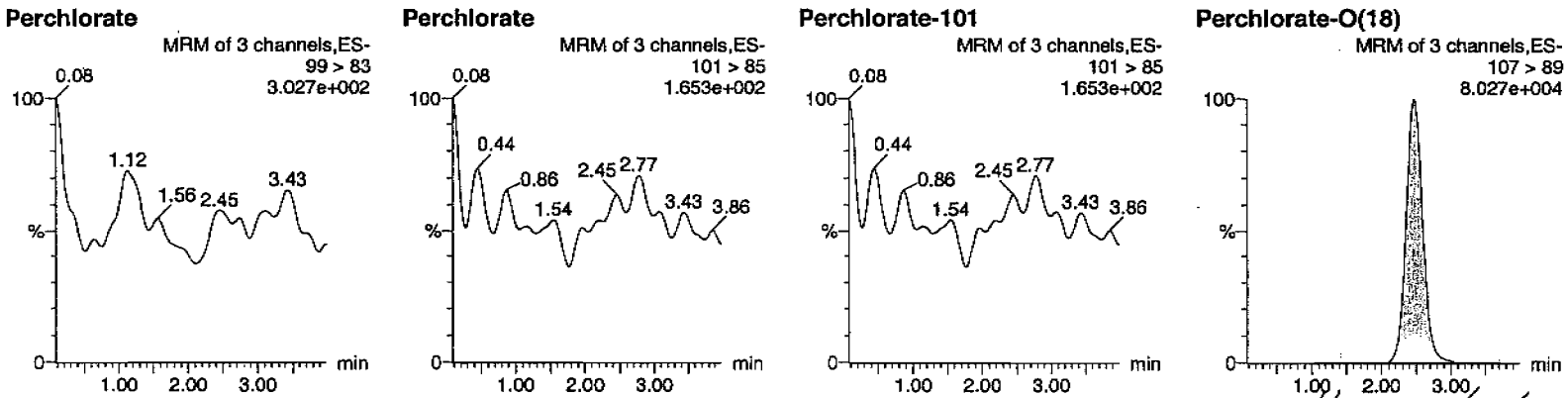

Hmm 01/13/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB002	Perchlorate	99 > 83											0.00
IPB002	Perchlorate-101	101 > 85											
IPB002	Perchlorate-O(18)	107 > 89	2.48	22307.771	22307.771	bb			0.5078	101.56	1.56	15083....	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per010810a.qld

Last Altered: Tuesday, January 12, 2010 9:13:40 AM Eastern Standard Time
Printed: Tuesday, January 12, 2010 9:23:47 AM Eastern Standard Time

Name: per0108010a
Date: 08-Jan-2010
Time: 17:28:02
ID: IPB003
Vial: 1:1,A

CWW
01-12-10

Perchlorate

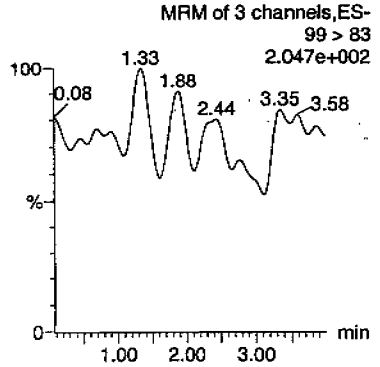

Perchlorate

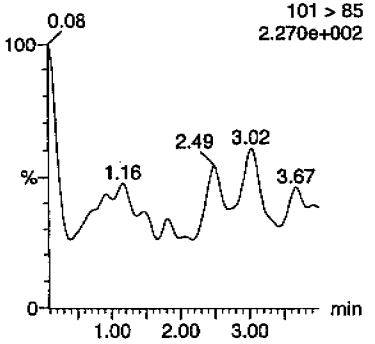

Perchlorate-101

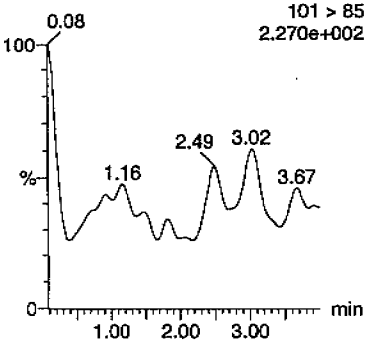

Perchlorate-O(18)

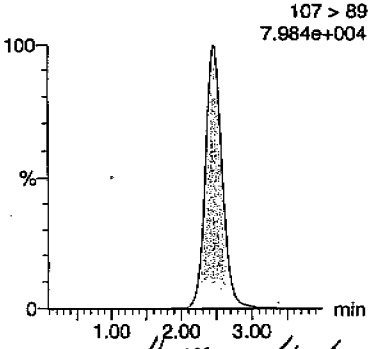

dfm-01/13/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB003	Perchlorate	99 > 83											0.00
IPB003	Perchlorate-101	101 > 85											
IPB003	Perchlorate-O(18)	107 > 89	2.46	22043.236	22043.236	bb			0.5018	100.36 ✓	0.36	7297.0...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per010810a.qld

Last Altered: Tuesday, January 12, 2010 9:13:40 AM Eastern Standard Time
Printed: Tuesday, January 12, 2010 9:23:47 AM Eastern Standard Time

Name: per0108023a
Date: 08-Jan-2010
Time: 19:01:22
ID: IPB004
Vial: 1:1,A

Cmw
01-12-10

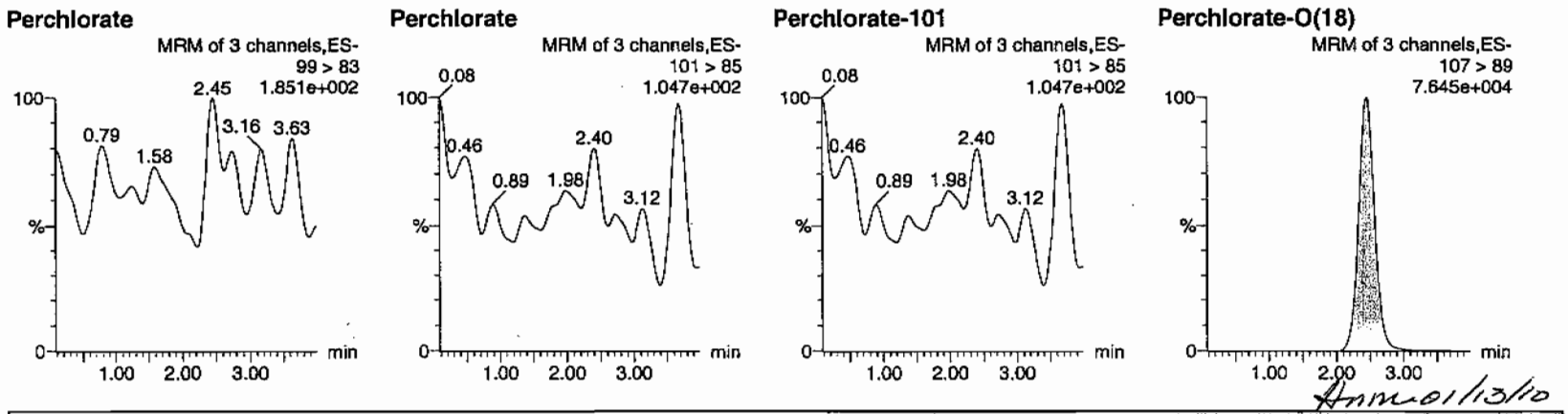

Amm 01/13/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB004	Perchlorate	99 > 83											0.00
IPB004	Perchlorate-101	101 > 85											
IPB004	Perchlorate-O(18)	107 > 89	2.45	21228.150	21228.150	bb			0.4832	96.64	-3.36	11757....	

Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per010810a.qld

Last Altered: Tuesday, January 12, 2010 9:13:40 AM Eastern Standard Time
Printed: Tuesday, January 12, 2010 9:23:47 AM Eastern Standard Time

Name: per0108036a
Date: 08-Jan-2010
Time: 20:40:07
ID: IPB005
Vial: 1:1,A

01-12-10

Perchlorate

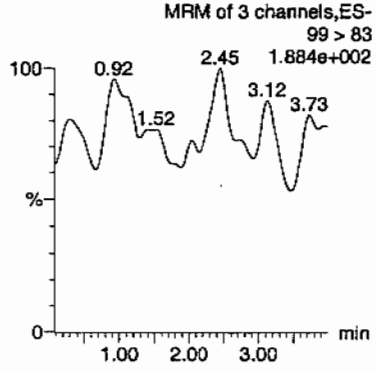

Perchlorate

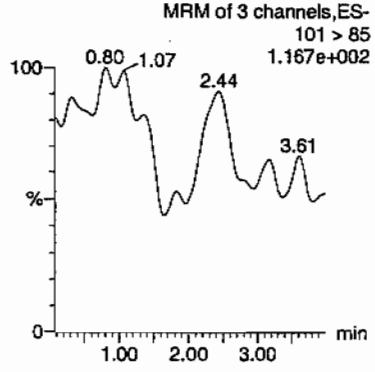

Perchlorate-101

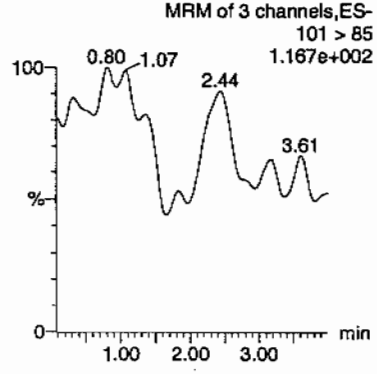

Perchlorate-O(18)

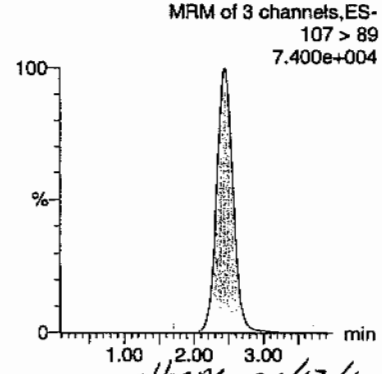

HMM 01/13/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB005	Perchlorate	99 > 83											0.00
IPB005	Perchlorate-101	101 > 85											
IPB005	Perchlorate-O(18)	107 > 89	2.44	20447.766	20447.766	bb			0.4655	93.09	-6.91	19169....	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Nairb.ref

;Positive ion monoisotopic and average masses from solution
;of NaI/Rbi (2.0/0.05ug/ul) in 50/20 2-propanol/H2O.
;Most useful general purpose calibrant for all low
;MW applications, including MS/MS work.
;At high resolution, readily covers from m/z 50-2000.
;At reduced resolution, can be used to over m/z 3000.
;NOT RECOMMENDED FOR PROTEIN WORK. USE MYO, MYOTRP or TRP.
Updated 20 April '95

22.9898	100
84.9118	100
172.8840	100
322.7782	100
472.6725	100
622.5667	100
772.4610	100
922.3552	100
1072.2494	100
; 1222.1437	100
; 1372.0379	100
; 1521.9321	100
; 1671.8264	100
; 1821.7206	100
; 1971.6149	100
; 2121.5091	100
; 2271.4033	100
; 2421.2976	100
; 2571.1918	100
; 2721.0861	100
; 2870.9803	100
; 3020.8745	100
; 3170.7688	100
; 3320.6630	100
; 3470.5572	100
; 3620.4515	100
; 3770.3457	100
; 3920.2400	100

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QUATTRO ULTIMA: nairb_01_08_08.cal

Calibration Report - MS1 Static

Printed: Tue Jan 08 12:19:12 2008

PEAKS HIGHLIGHTED BY CWW 01-09-08

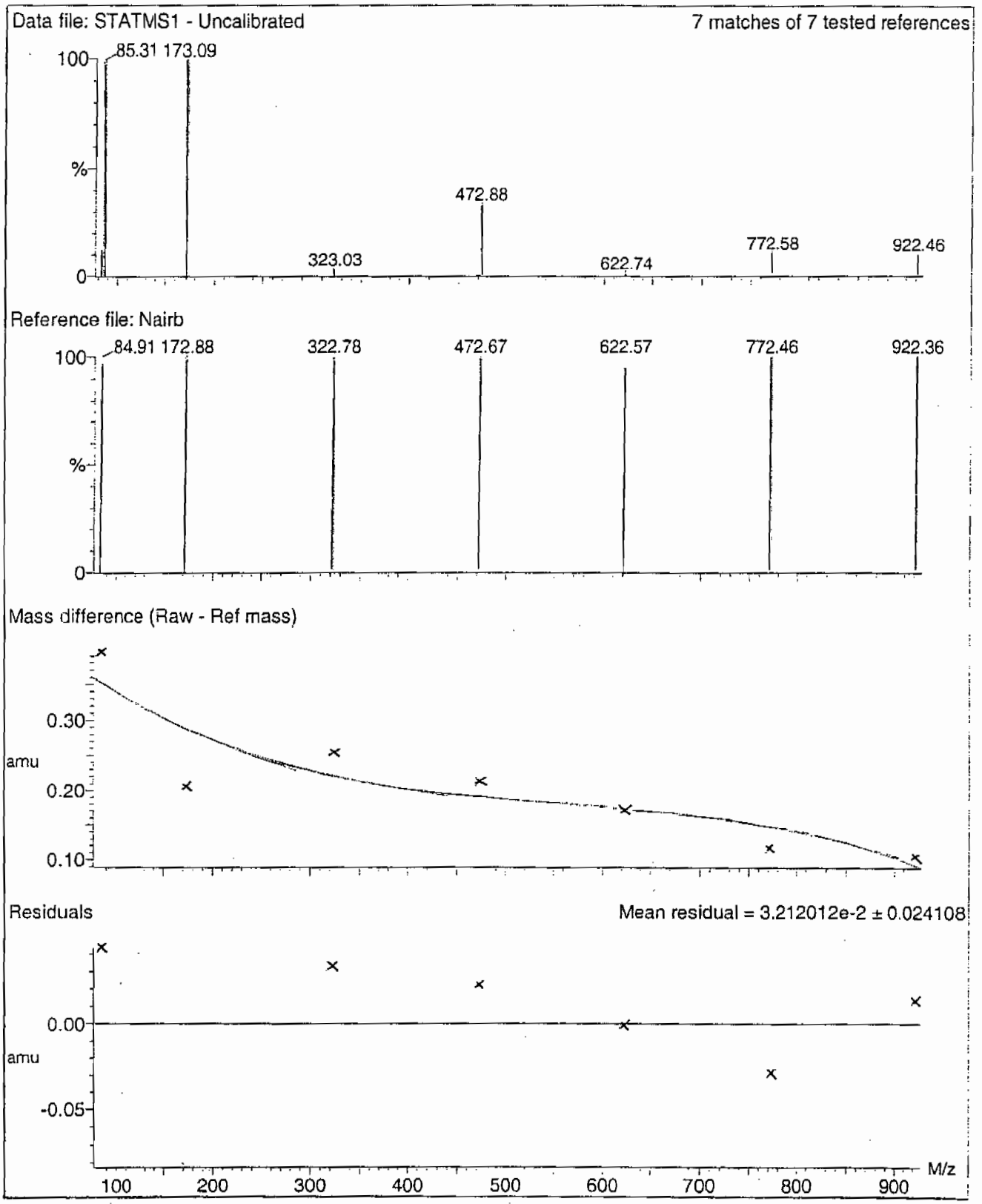

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Calibration Report - MS1 Scanning

Printed: Tue Jan 08 12:20:09 2008

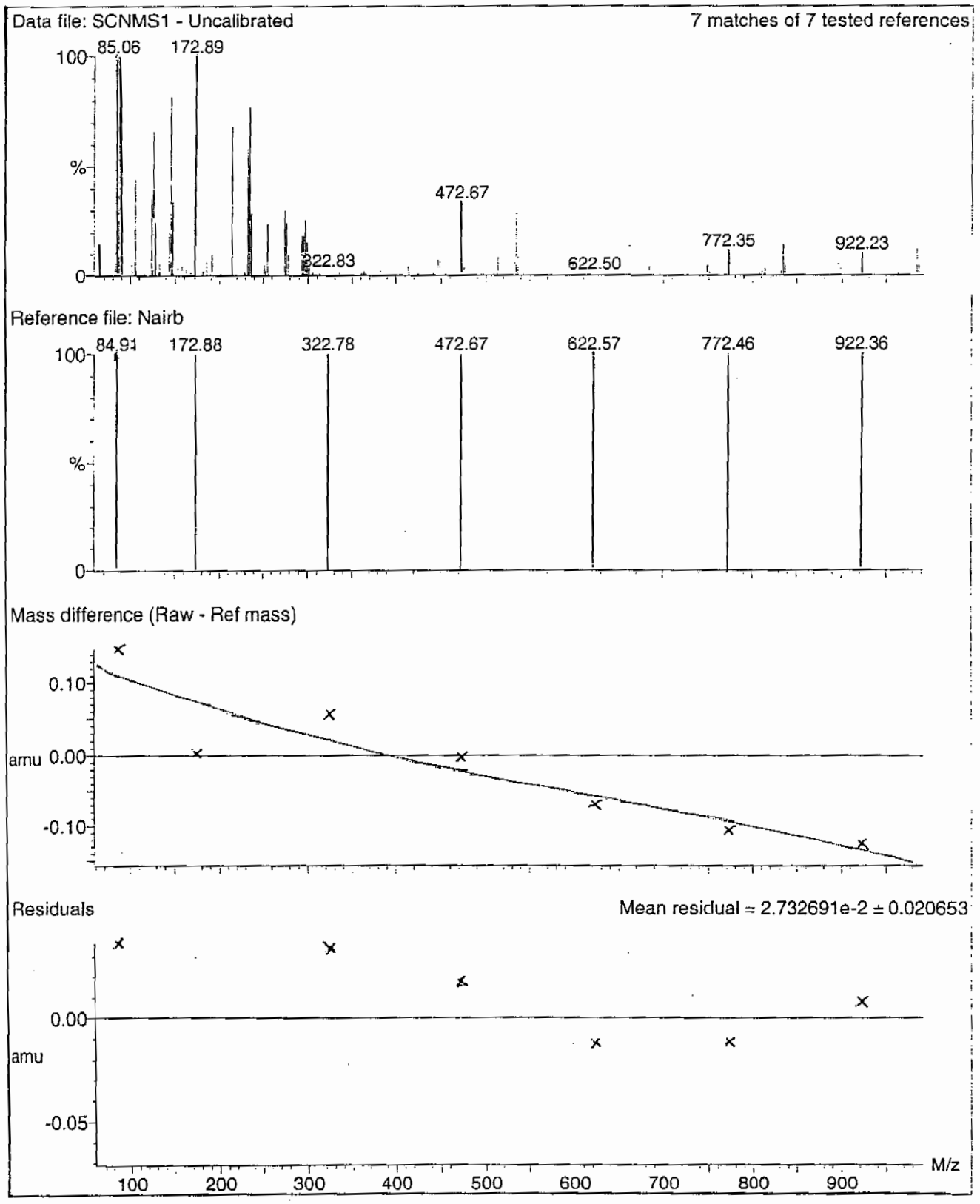

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

Calibration Report - MS1 Scan Speed Compensation

Printed: Tue Jan 08 12:21:04 2008

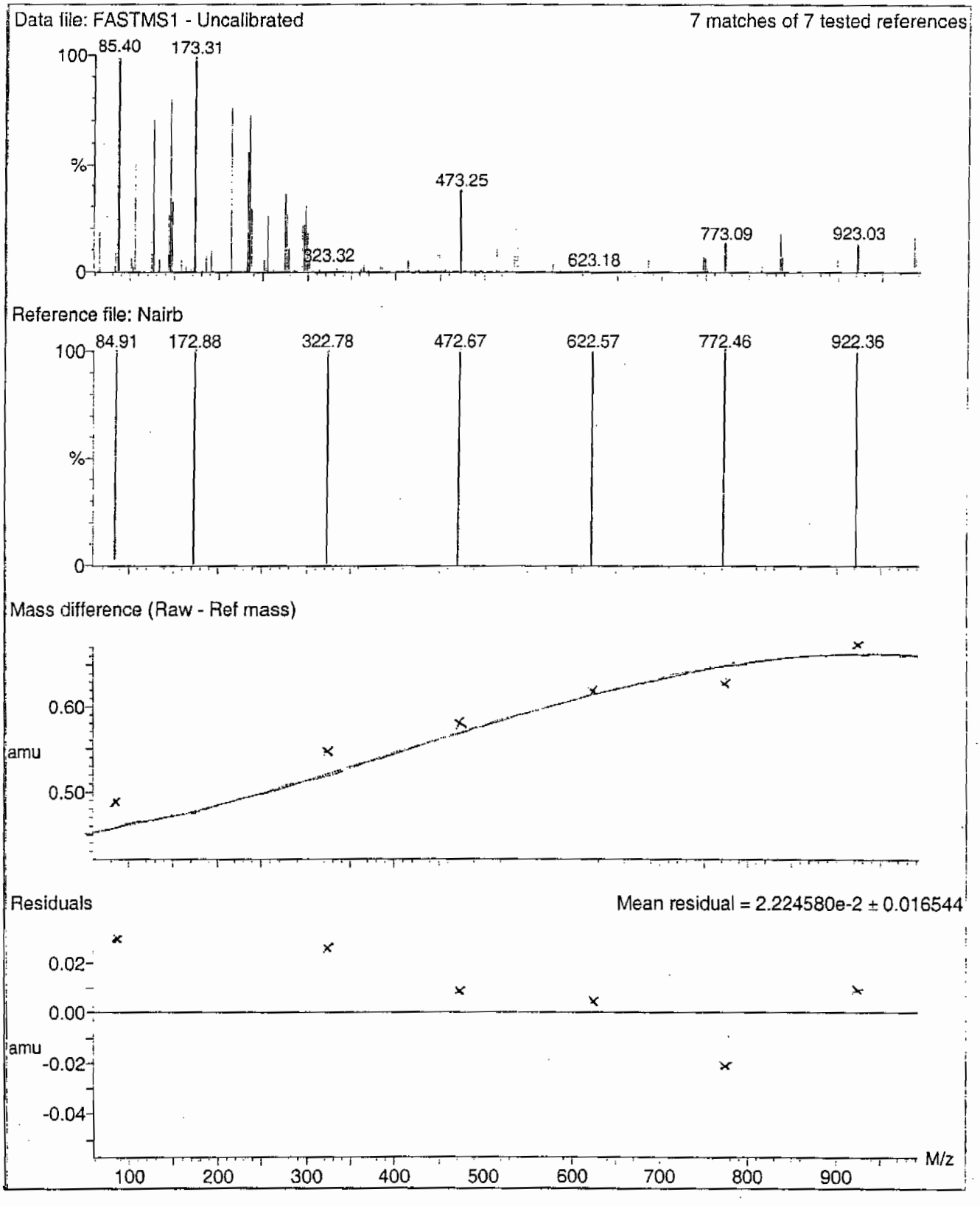

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Calibration Report - MS2 Scan Speed Compensation

Printed: Tue Jan 08 12:23:51 2008

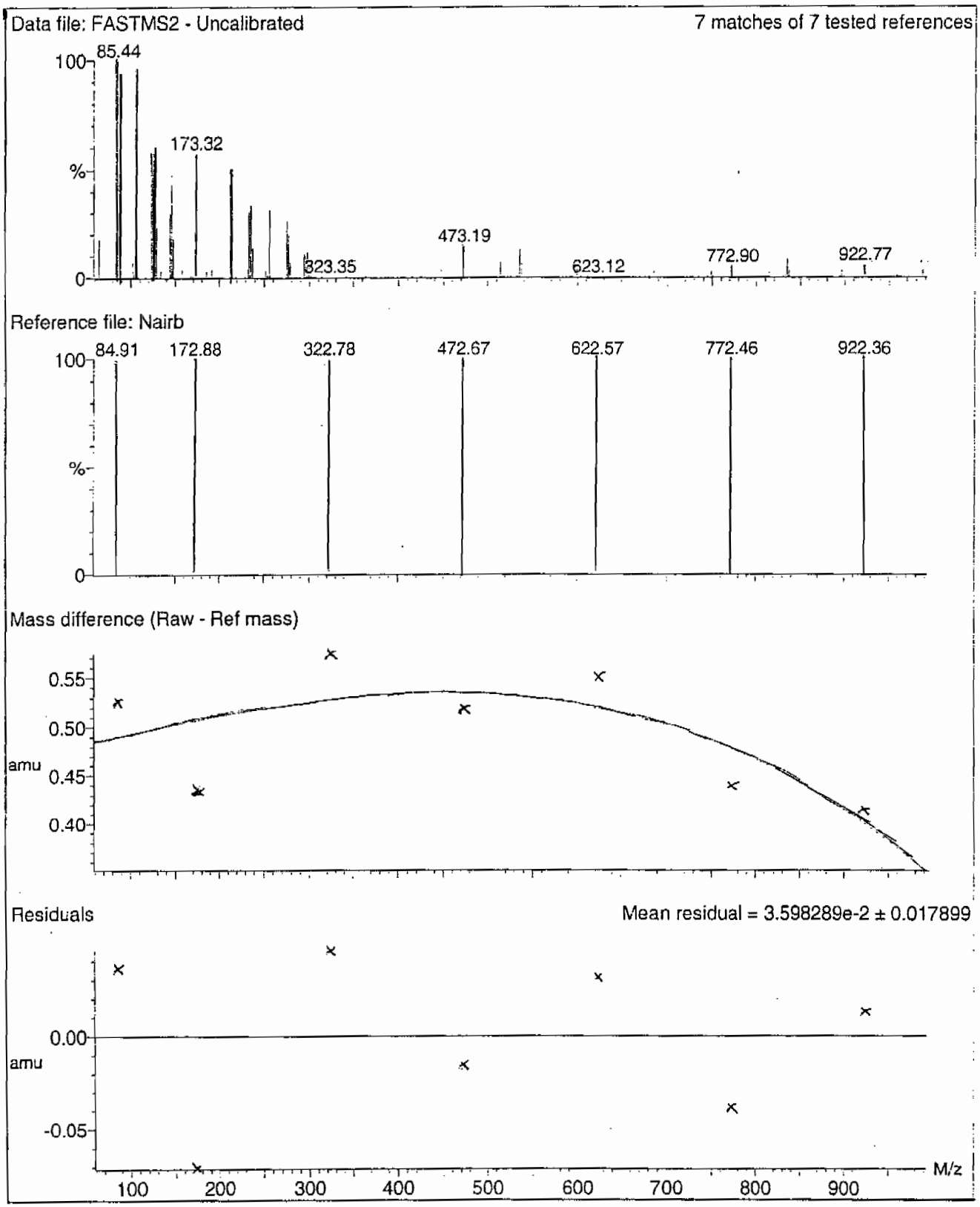

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

Calibration Report - MS2 Scanning

Printed: Tue Jan 08 12:22:56 2008

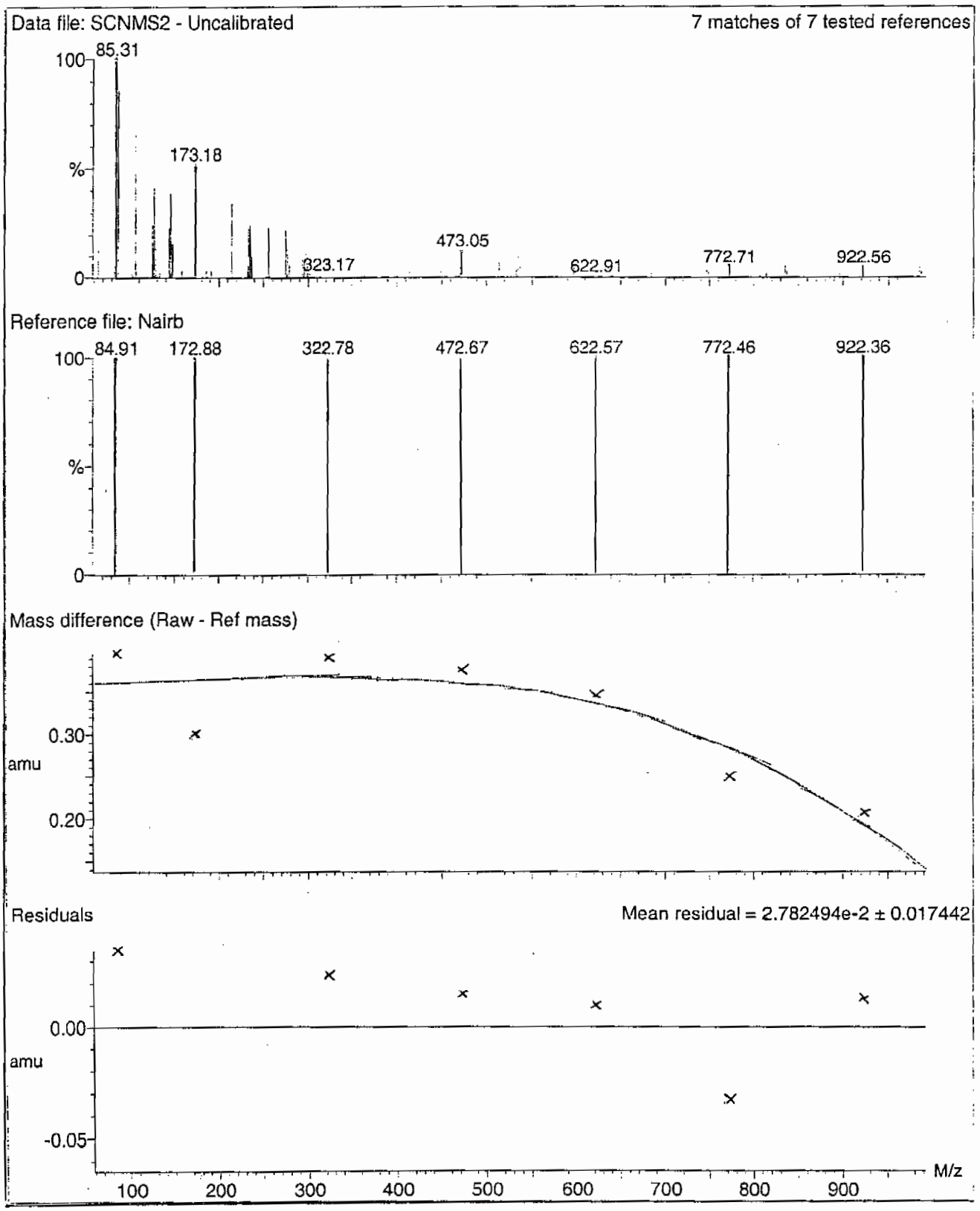

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

Calibration Report - MS2 Static

Printed: Tue Jan 08 12:21:59 2008

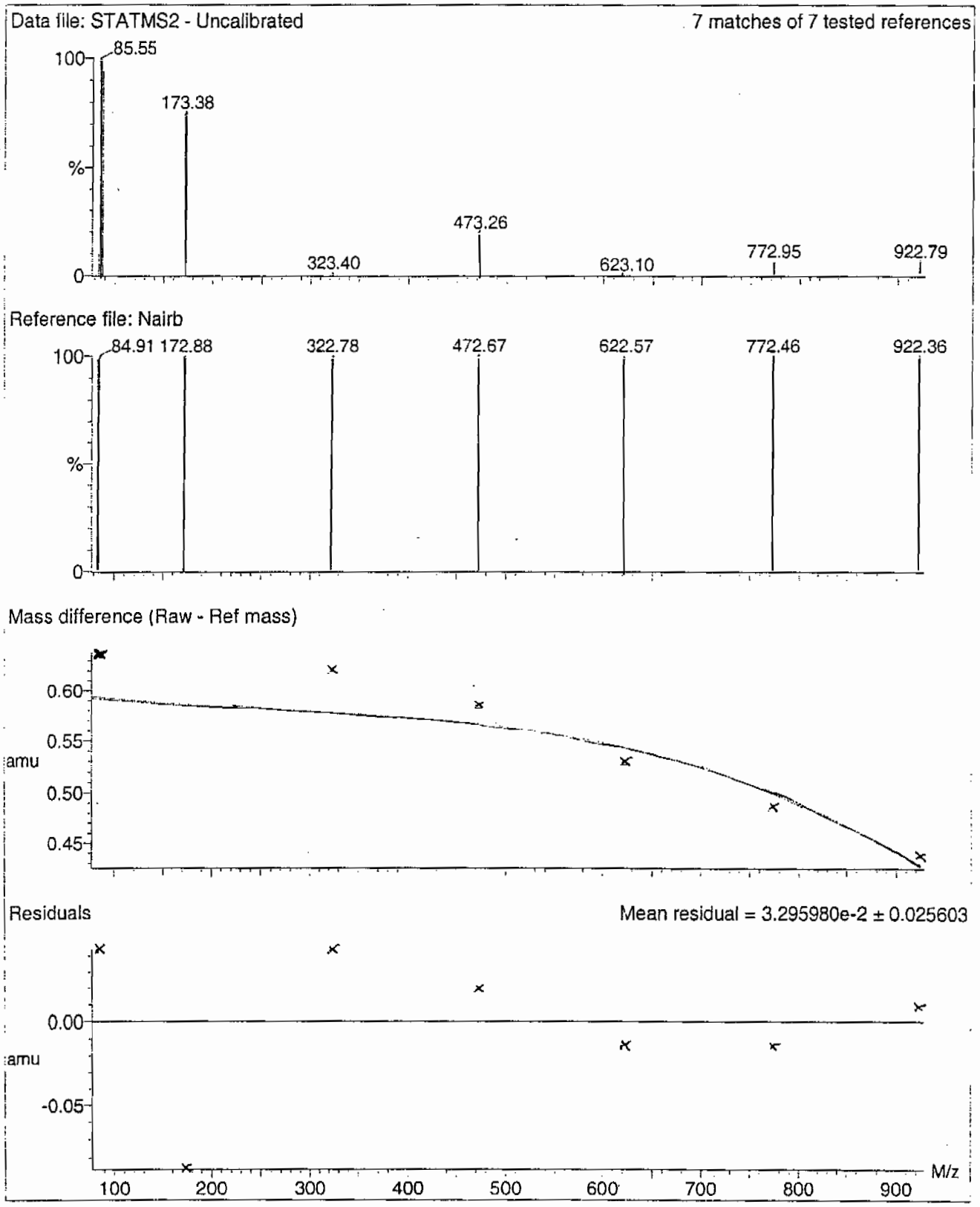

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File: C:\MassLynx\Perchlorate.PRO\ACQUDB\Perchlorate.IPR

Printed: Friday, January 08, 2010 13:02:22 Eastern Standard Time

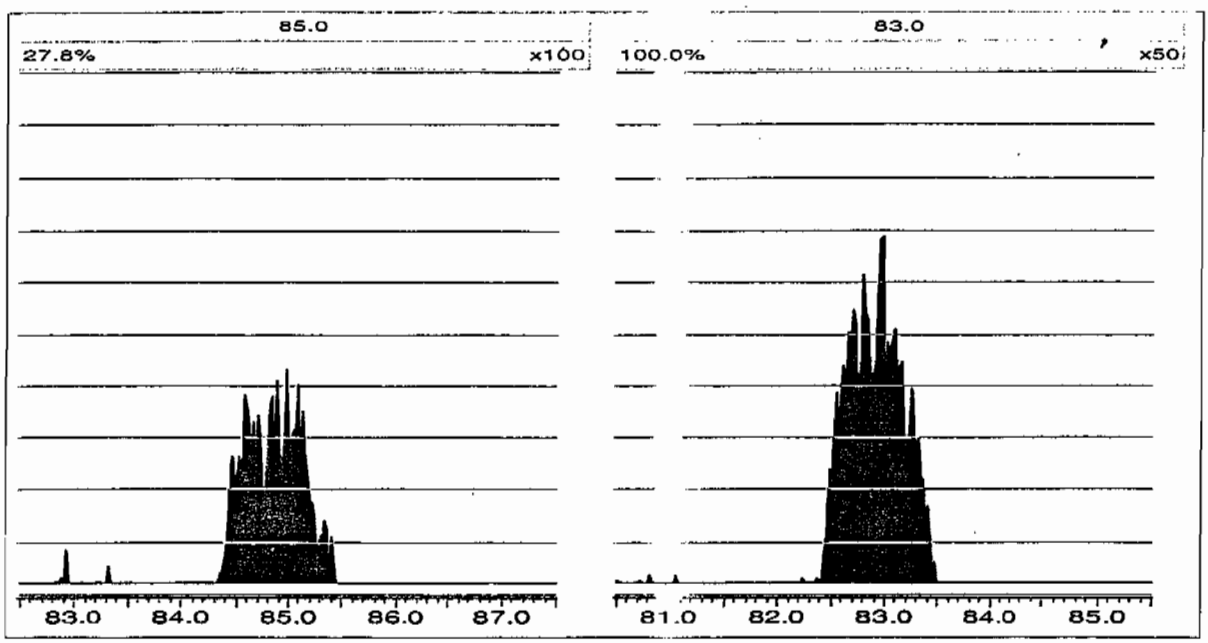

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Form 8

Perchlorate RT And Area Summary

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10–1087

Lab Code: GEL

Instrument ID: LCMSMS

HPLC Column: Phenomenex Ion Pac AG–16 2 X 50 mm

Sample ID	Datafile	Run Date	Area	RT	RT CLO4	RRT	Q 0.98–1.02
MidLevel Standard Area	**per0108006a**	**08–JAN–10**	**22282.7**				
Lower Area Limit			**11141.35**				
Upper Area Limit			**44565.4**				
1202004376	per0108012a	08–JAN–10 17:42	21505.8	2.46	2.48903	1.012	
1202004379	per0108013a	08–JAN–10 17:49	21893.1	2.46	2.47657	1.007	
1202004380	per0108014a	08–JAN–10 17:56	21903.7	2.41	2.42695	1.007	
243550001	per0108015a	08–JAN–10 18:03	21401.1	2.45	2.46423	1.006	
1202004377	per0108016a	08–JAN–10 18:10	22097.9	2.46	2.47655	1.007	
1202004378	per0108017a	08–JAN–10 18:17	22286.9	2.45	2.47658	1.011	
243550002	per0108018a	08–JAN–10 18:24	23185.2	2.46	2.47655	1.007	
243550003	per0108019a	08–JAN–10 18:31	21468.6	2.46	2.47658	1.007	

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Form 8

Perchlorate RT And Area Summary

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10–1087

Lab Code: GEL

Instrument ID: LCMSMS

HPLC Column: Phenomenex Ion Pac AG–16 2 X 50 mm

Sample ID	Datafile	Run Date	Area	RT	RT CLO4	RRT	Q 0.98–1.02
MidLevel Standard Area	**per0108006a**	**08–JAN–10**	**22282.7**				
Lower Area Limit			**11141.35**				
Upper Area Limit			**44565.4**				
243550004	per0108020a	08–JAN–10 18:38	22278.7	2.45	2.47653	1.011	
243550005	per0108021a	08–JAN–10 18:46	21105.9	2.45	2.47655	1.011	
243550006	per0108025a	08–JAN–10 19:16	22241.4	2.45	2.46425	1.006	
243550007	per0108026a	08–JAN–10 19:23	23750.5	2.46	2.47658	1.007	
243550008	per0108027a	08–JAN–10 19:30	20586.5	2.46	2.47655	1.007	
243550009	per0108028a	08–JAN–10 19:38	22346.4	2.45	2.4642	1.006	
243550010	per0108029a	08–JAN–10 19:46	22841.5	2.44	2.45173	1.005	
243550011	per0108030a	08–JAN–10 19:53	24177.7	2.45	2.46425	1.006	

Form 8

Perchlorate RT And Area Summary

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10–1087

Lab Code: GEL

Instrument ID: LCMSMS

HPLC Column: Phenomenex Ion Pac AG–16 2 X 50 mm

Sample ID	Datafile	Run Date	Area	RT	RT CLO4	RRT	Q 0.98–1.02
MidLevel Standard Area	**per0108006a**	**08–JAN–10**	**22282.7**				
Lower Area Limit			**11141.35**				
Upper Area Limit			**44565.4**				
243550012	per0108031a	08–JAN–10 20:01	21631.1	2.44	2.45182	1.005	
243550013	per0108032a	08–JAN–10 20:09	22113.9	2.44	2.45178	1.005	
243550014	per0108033a	08–JAN–10 20:16	21885.9	2.44	2.45173	1.005	
243550015	per0108034a	08–JAN–10 20:24	23574.3	2.44	2.46422	1.01	

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SAMPLE
DATA

Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 936783

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE03-09-14233

Date Received: 24-DEC-09

GEL Job No (SDG): 10-1087

GEL Sample ID: 243550001

Date Filtered: 08-JAN-10

Injection Volume (uL): 20

%Solids: 92.6

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.54	2.16	0.540	ug/kg	U	1	08-JAN-10 18:03	per0108015a
	Perchlorate Isotope Ratio						1	08-JAN-10 18:03	per0108015a
14797-73-0	Perchlorate-101	.54	2.16	0.540	ug/kg	U	1	08-JAN-10 18:03	per0108015a
	Perchlorate-O(18)			5.26	ug/kg		1	08-JAN-10 18:03	per0108015a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per010810a.qld

Last Altered: Tuesday, January 12, 2010 9:13:40 AM Eastern Standard Time
Printed: Tuesday, January 12, 2010 9:23:47 AM Eastern Standard Time

Name: per0108015a
Date: 08-Jan-2010
Time: 18:03:17
ID: 243550001
Vial: 1:3,D

|LANL|936784|SOLID|1|

01-12-10

Perchlorate

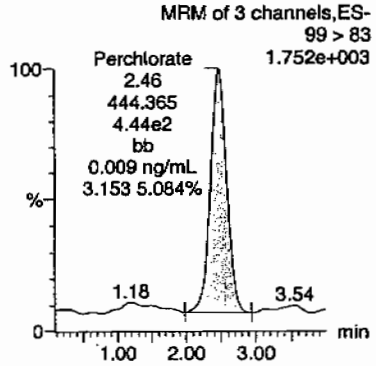

Perchlorate

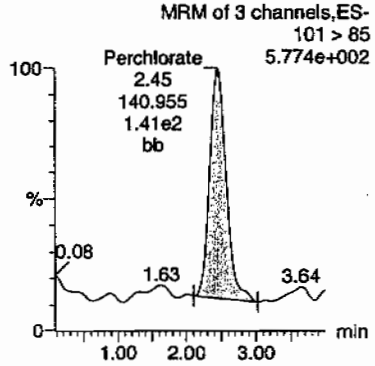

Perchlorate-101

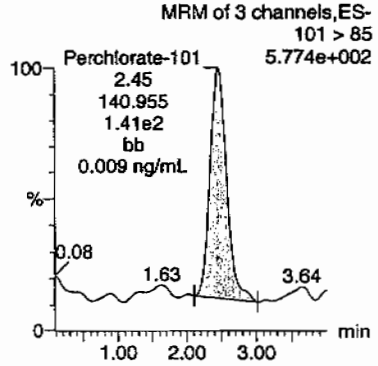

Perchlorate-O(18)

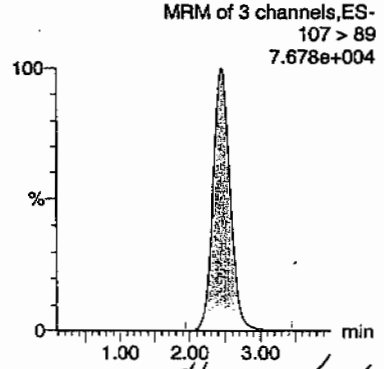

Hmmc01/18/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
243550001	Perchlorate	99 > 83	2.46	444.365	444.365	bb			0.0089			47.782	3.15
243550001	Perchlorate-101	101 > 85	2.45	140.955	140.955	bb			0.0089			82.314	
243550001	Perchlorate-O(18)	107 > 89	2.45	21401.146	21401.146	bb			0.4872	97.43	-2.57	14193....	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 936783

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE03-09-14236

Date Received: 24-DEC-09

GEL Job No (SDG): 10-1087

GEL Sample ID: 243550002

Date Filtered: 08-JAN-10

Injection Volume (uL): 20

%Solids: 84

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.596	2.39	0.959	ug/kg	J	1	08-JAN-10 18:24	per0108018a
	Perchlorate Isotope Ratio			2.98			1	08-JAN-10 18:24	per0108018a
14797-73-0	Perchlorate-101	.596	2.39	1.02	ug/kg	J	1	08-JAN-10 18:24	per0108018a
	Perchlorate-O(18)			6.30	ug/kg		1	08-JAN-10 18:24	per0108018a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per010810a.qld

Last Altered: Tuesday, January 12, 2010 9:13:40 AM Eastern Standard Time
Printed: Tuesday, January 12, 2010 9:23:47 AM Eastern Standard Time

Name: per0108018a
Date: 08-Jan-2010
Time: 18:24:21
ID: 243550002
Vial: 1:4,A

|LANL|936784|SOLID|11

GWW
01-12-10

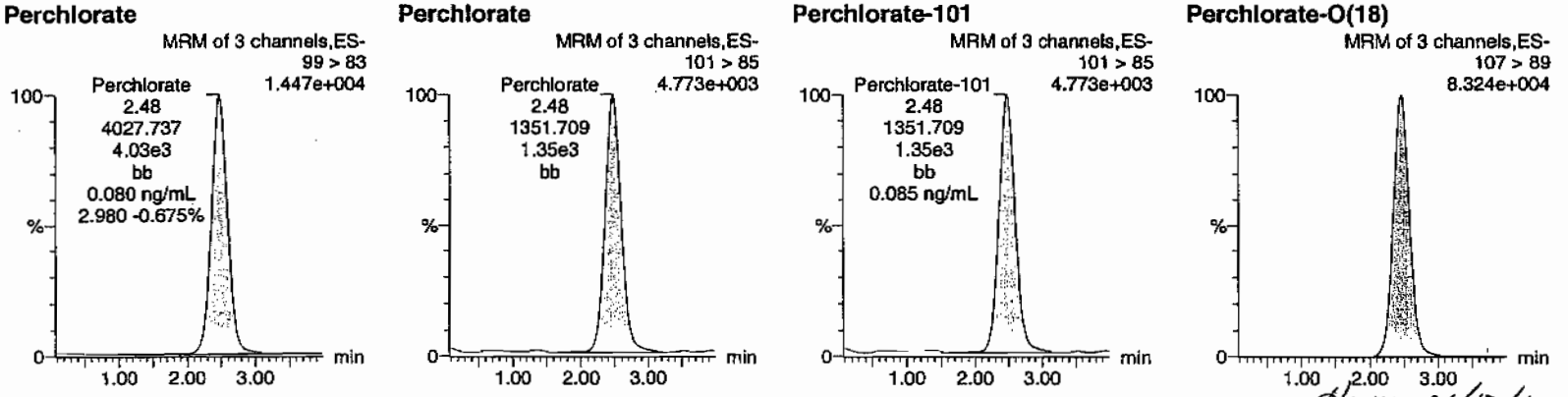

Hmm 01/13/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
243550002	Perchlorate	99 > 83	2.48	4027.737	4027.737	bb			0.0804			2018.6...	2.98
243550002	Perchlorate-101	101 > 85	2.48	1351.709	1351.709	bb			0.0852			226.777	
243550002	Perchlorate-O(18)	107 > 89	2.46	23185.225	23185.225	bb			0.5278	105.55	5.55	8207.1...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 936783

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE03-09-14239

Date Received: 24-DEC-09

GEL Job No (SDG): 10-1087

GEL Sample ID: 243550003

Date Filtered: 08-JAN-10

Injection Volume (uL): 20

%Solids: 94.5

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.529	2.12	0.529	ug/kg	U	1	08-JAN-10 18:31	per0108019a
	Perchlorate Isotope Ratio						1	08-JAN-10 18:31	per0108019a
14797-73-0	Perchlorate-101	.529	2.12	0.529	ug/kg	U	1	08-JAN-10 18:31	per0108019a
	Perchlorate-O(18)			5.17	ug/kg		1	08-JAN-10 18:31	per0108019a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per010810a.qld

Last Altered: Tuesday, January 12, 2010 9:13:40 AM Eastern Standard Time
Printed: Tuesday, January 12, 2010 9:23:47 AM Eastern Standard Time

Name: per0108019a
Date: 08-Jan-2010
Time: 18:31:24
ID: 243550003
Vial: 1:4,B

|LANL|936784|SOW20|1|

CWW
01-12-10

Perchlorate

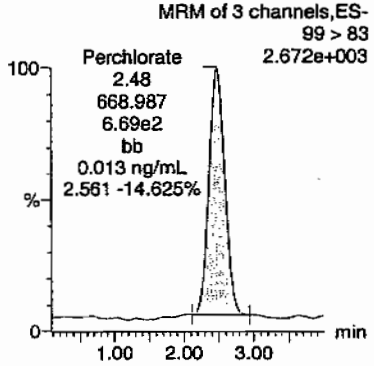

Perchlorate

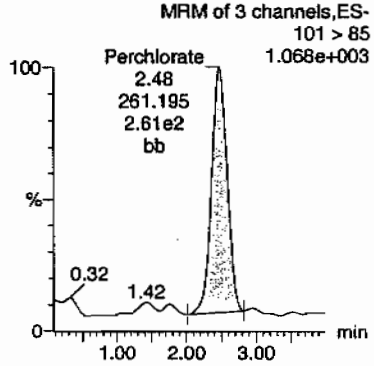

Perchlorate-101

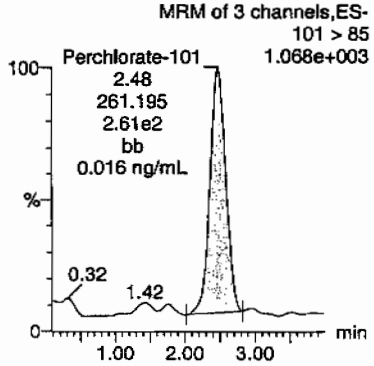

Perchlorate-O(18)

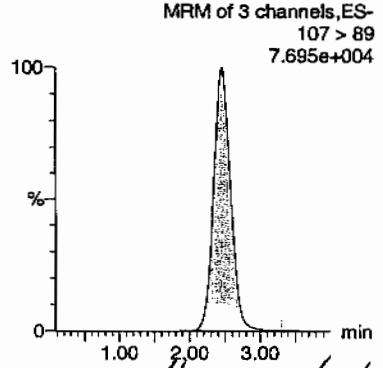

Hmm 01/12/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
243550003	Perchlorate	99 > 83	2.48	668.987	668.987	bb			0.0134			274.268	2.56
243550003	Perchlorate-101	101 > 85	2.48	261.195	261.195	bb			0.0165			57.219	
243550003	Perchlorate-O(18)	107 > 89	2.46	21468.592	21468.592	bb			0.4887	97.74	-2.26	1949.7...	

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 936783

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE03-09-14240

Date Received: 24-DEC-09

GEL Job No (SDG): 10-1087

GEL Sample ID: 243550004

Date Filtered: 08-JAN-10

Injection Volume (uL): 20

%Solids: 94.6

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.529	2.11	1.28	ug/kg	J	1	08-JAN-10 18:38	per0108020a
	Perchlorate Isotope Ratio			2.95			1	08-JAN-10 18:38	per0108020a
14797-73-0	Perchlorate-101	.529	2.11	1.37	ug/kg	J	1	08-JAN-10 18:38	per0108020a
	Perchlorate-O(18)			5.36	ug/kg		1	08-JAN-10 18:38	per0108020a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per010810a.qld

Last Altered: Tuesday, January 12, 2010 9:13:40 AM Eastern Standard Time
Printed: Tuesday, January 12, 2010 9:23:47 AM Eastern Standard Time

Name: per0108020a
Date: 08-Jan-2010
Time: 18:38:54
ID: 243550004
Vial: 1:4,C

|LANL|936784|50220|1|

CWW
01-12-10

Perchlorate

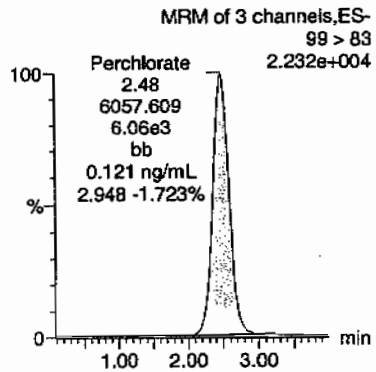

Perchlorate

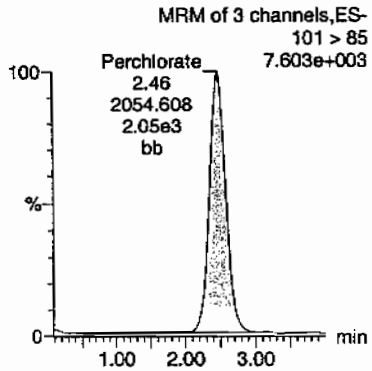

Perchlorate-101

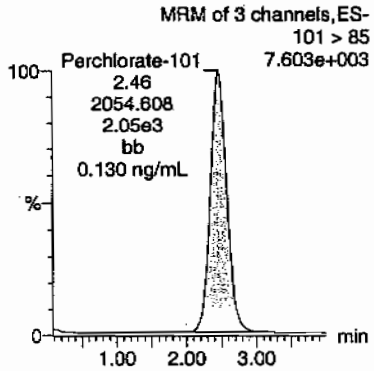

Perchlorate-O(18)

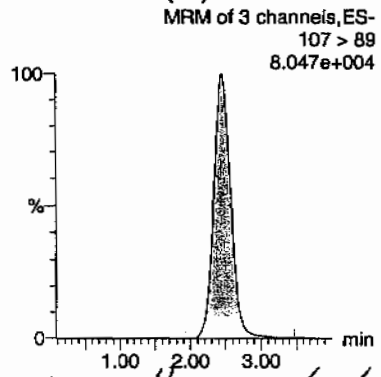

Hnm 01/13/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
243550004	Perchlorate	99 > 83	2.48	6057.609	6057.609	bb			0.1209			1126.6...	2.95
243550004	Perchlorate-101	101 > 85	2.46	2054.608	2054.608	bb			0.1295			811.821	
243550004	Perchlorate-O(18)	107 > 89	2.45	22278.707	22278.707	bb			0.5071	101.43	1.43	3109.5...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 936783

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE03-09-14231

Date Received: 24-DEC-09

GEL Job No (SDG): 10-1087

GEL Sample ID: 243550005

Date Filtered: 08-JAN-10

Injection Volume (uL): 20

%Solids: 92.7

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.539	2.16	0.539	ug/kg	U	1	08-JAN-10 18:46	per0108021a
	Perchlorate Isotope Ratio						1	08-JAN-10 18:46	per0108021a
14797-73-0	Perchlorate-101	.539	2.16	0.539	ug/kg	U	1	08-JAN-10 18:46	per0108021a
	Perchlorate-O(18)			5.18	ug/kg		1	08-JAN-10 18:46	per0108021a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per010810a.qld

Last Altered: Tuesday, January 12, 2010 9:13:40 AM Eastern Standard Time
Printed: Tuesday, January 12, 2010 9:23:47 AM Eastern Standard Time

Name: per0108021a
Date: 08-Jan-2010
Time: 18:46:12
ID: 243550005
Vial: 1:4,D

|LANL|936784|SDLCD|11|

CWW
9-12-10

Perchlorate

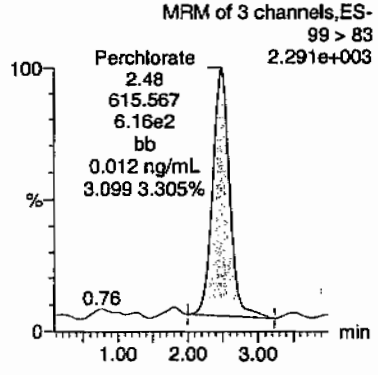

Perchlorate

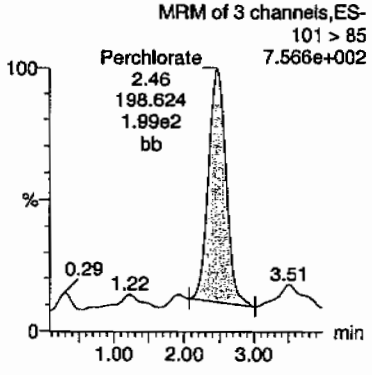

Perchlorate-101

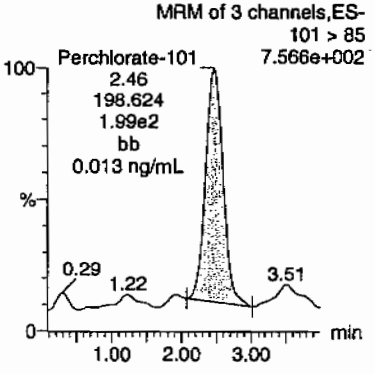

Perchlorate-O(18)

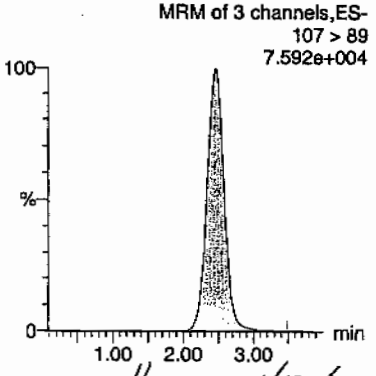

Hmm 01/13/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
243550005	Perchlorate	99 > 83	2.48	615.567	615.567	bb			0.0123			214.878	3.10
243550005	Perchlorate-101	101 > 85	2.46	198.624	198.624	bb			0.0125			116.089	
243550005	Perchlorate-O(18)	107 > 89	2.45	21105.854	21105.854	bb			0.4804	96.09	-3.91	1168.2...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 936783

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE03-09-14232

Date Received: 24-DEC-09

GEL Job No (SDG): 10-1087

GEL Sample ID: 243550006

Date Filtered: 08-JAN-10

Injection Volume (uL): 20

%Solids: 94.2

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.531	2.12	0.531	ug/kg	U	1	08-JAN-10 19:16	per0108025a
	Perchlorate Isotope Ratio						1	08-JAN-10 19:16	per0108025a
14797-73-0	Perchlorate-101	.531	2.12	0.531	ug/kg	U	1	08-JAN-10 19:16	per0108025a
	Perchlorate-O(18)			5.37	ug/kg		1	08-JAN-10 19:16	per0108025a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per010810a.qld

Last Altered: Tuesday, January 12, 2010 9:13:40 AM Eastern Standard Time
Printed: Tuesday, January 12, 2010 9:23:47 AM Eastern Standard Time

Name: per0108025a
Date: 08-Jan-2010
Time: 19:16:15
ID: 243550006
Vial: 1:4,E

LANC|936784|5020|11

GWW
01-12-10

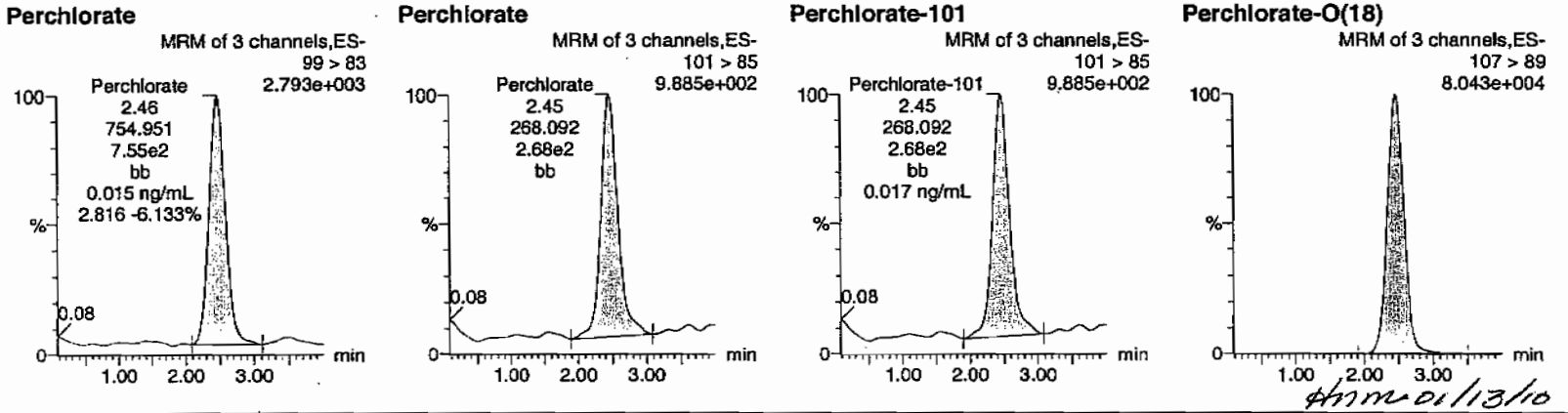

MM 01/13/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
243550006	Perchlorate	99 > 83	2.46	754.951	754.951	bb			0.0151			173.607	2.82
243550006	Perchlorate-101	101 > 85	2.45	268.092	268.092	bb			0.0169			88.101	
243550006	Perchlorate-O(18)	107 > 89	2.45	22241.408	22241.408	bb			0.5063	101.26	1.26	10699....	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 936783

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE03-09-14235

Date Received: 24-DEC-09

GEL Job No (SDG): 10-1087

GEL Sample ID: 243550007

Date Filtered: 08-JAN-10

Injection Volume (uL): 20

%Solids: 78

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.645	2.58	1.65	ug/kg	J	1	08-JAN-10 19:23	per0108026a
	Perchlorate Isotope Ratio			3.16			1	08-JAN-10 19:23	per0108026a
14797-73-0	Perchlorate-101	.645	2.58	1.65	ug/kg	J	1	08-JAN-10 19:23	per0108026a
	Perchlorate-O(18)			6.97	ug/kg		1	08-JAN-10 19:23	per0108026a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per010810a.qld

Last Altered: Tuesday, January 12, 2010 9:13:40 AM Eastern Standard Time
Printed: Tuesday, January 12, 2010 9:23:47 AM Eastern Standard Time

Name: per0108026a
Date: 08-Jan-2010
Time: 19:23:17
ID: 243550007
Vial: 1:4,F

|LANL|9367841|50120|1|

CWW
01-12-10

Perchlorate

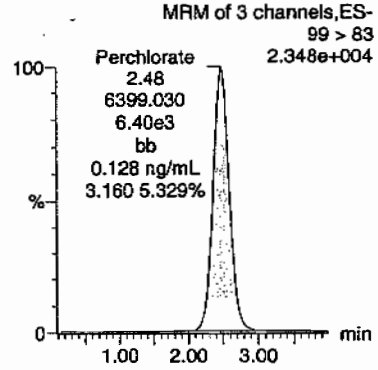

Perchlorate

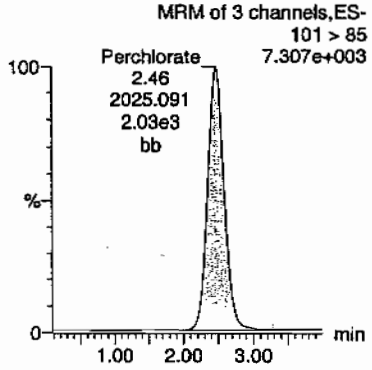

Perchlorate-101

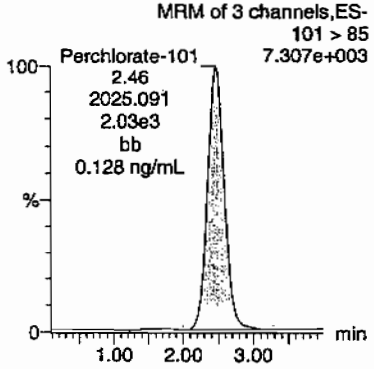

Perchlorate-O(18)

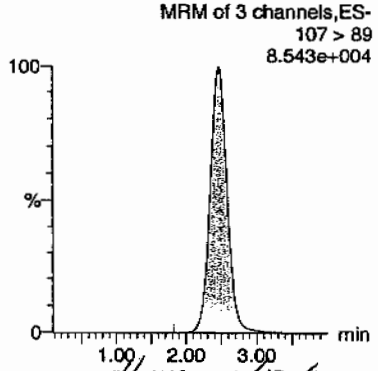

HMM 01/13/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
243550007	Perchlorate	99 > 83	2.48	6399.030	6399.030	bb			0.1277			1112.6...	3.16
243550007	Perchlorate-101	101 > 85	2.46	2025.091	2025.091	bb			0.1277			508.415	
243550007	Perchlorate-O(18)	107 > 89	2.46	23750.469	23750.469	bb			0.5406	108.13	8.13	9935.1...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 936783

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE03-09-14238

Date Received: 24-DEC-09

GEL Job No (SDG): 10-1087

GEL Sample ID: 243550008

Date Filtered: 08-JAN-10

Injection Volume (uL): 20

%Solids: 94.6

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.529	2.11	0.529	ug/kg	U	1	08-JAN-10 19:30	per0108027a
	Perchlorate Isotope Ratio						1	08-JAN-10 19:30	per0108027a
14797-73-0	Perchlorate-101	.529	2.11	0.529	ug/kg	U	1	08-JAN-10 19:30	per0108027a
	Perchlorate-O(18)			4.95	ug/kg		1	08-JAN-10 19:30	per0108027a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per010810a.qld

Last Altered: Tuesday, January 12, 2010 9:13:40 AM Eastern Standard Time
Printed: Tuesday, January 12, 2010 9:23:47 AM Eastern Standard Time

Name: per0108027a
Date: 08-Jan-2010
Time: 19:30:49
ID: 243550008
Vial: 1:5,A

|LANL|936784|SOLID|11

CWW
01-12-10

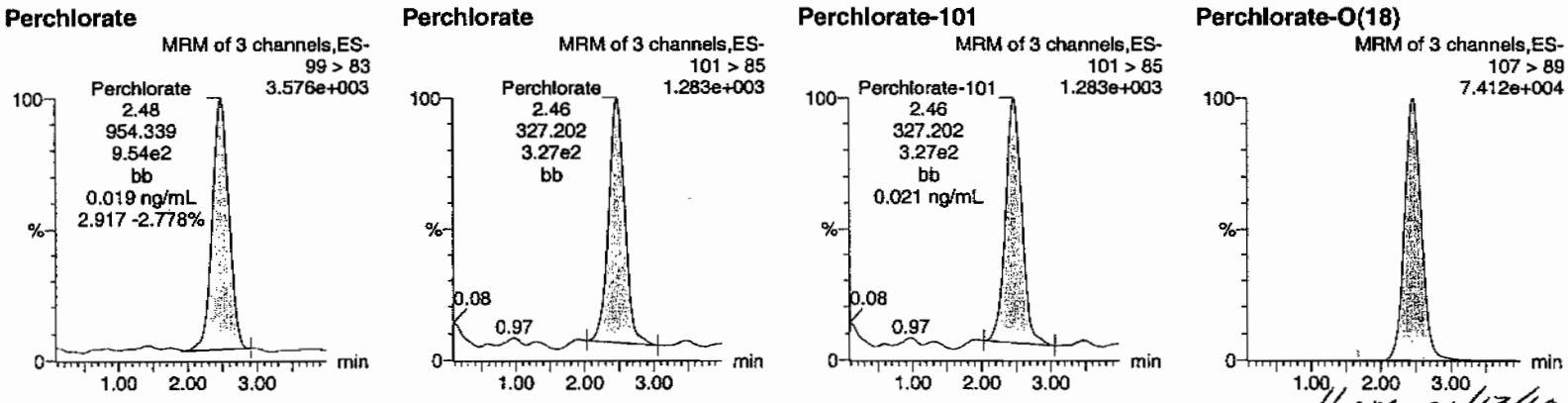

HMM 01/13/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
243550008	Perchlorate	99 > 83	2.48	954.339	954.339	bb			0.0190			626.462	2.92
243550008	Perchlorate-101	101 > 85	2.46	327.202	327.202	bb			0.0206			90.688	
243550008	Perchlorate-O(18)	107 > 89	2.46	20586.482	20586.482	bb			0.4686	93.72	-6.28	4787.3...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 936783

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE03-09-14234

Date Received: 24-DEC-09

GEL Job No (SDG): 10-1087

GEL Sample ID: 243550009

Date Filtered: 08-JAN-10

Injection Volume (uL): 20

%Solids: 92.5

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.54	2.16	0.986	ug/kg	J	1	08-JAN-10 19:38	per0108028a
	Perchlorate Isotope Ratio			2.93			1	08-JAN-10 19:38	per0108028a
14797-73-0	Perchlorate-101	.54	2.16	1.06	ug/kg	J	1	08-JAN-10 19:38	per0108028a
	Perchlorate-O(18)			5.50	ug/kg		1	08-JAN-10 19:38	per0108028a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per010810a.qld

Last Altered: Tuesday, January 12, 2010 9:13:40 AM Eastern Standard Time
Printed: Tuesday, January 12, 2010 9:23:47 AM Eastern Standard Time

Name: per0108028a
Date: 08-Jan-2010
Time: 19:38:23
ID: 243550009 |LANL|936784|SOLID|1|
Vial: 1:5,B

CWW
01-12-10

Perchlorate

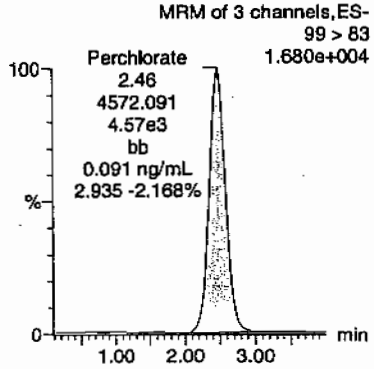

Perchlorate

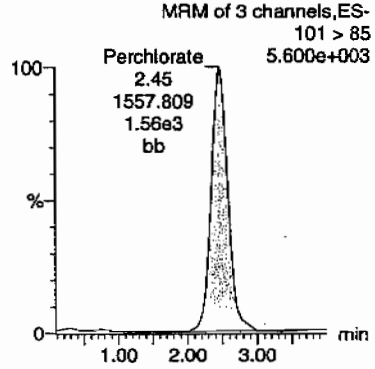

Perchlorate-101

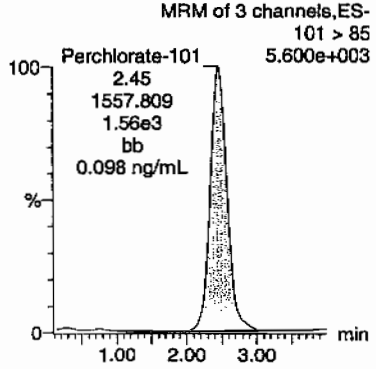

Perchlorate-O(18)

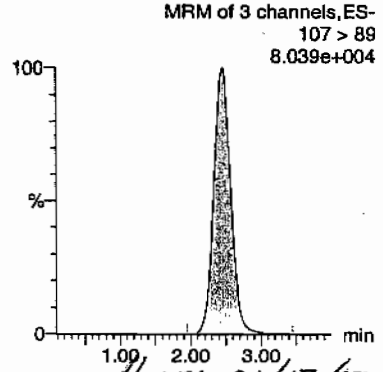

Hnm 01/13/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
243550009	Perchlorate	99 > 83	2.46	4572.091	4572.091	bb			0.0913			1252.5...	2.93
243550009	Perchlorate-101	101 > 85	2.45	1557.809	1557.809	bb			0.0982			400.516	
243550009	Perchlorate-O(18)	107 > 89	2.45	22346.432	22346.432	bb			0.5087	101.74	1.74	4567.6...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 936783

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE03-09-14241

Date Received: 24-DEC-09

GEL Job No (SDG): 10-1087

GEL Sample ID: 243550010

Date Filtered: 08-JAN-10

Injection Volume (uL): 20

%Solids: 87

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.572	2.29	2.94	ug/kg		1	08-JAN-10 19:46	per0108029a
	Perchlorate Isotope Ratio			3.11			1	08-JAN-10 19:46	per0108029a
14797-73-0	Perchlorate-101	.572	2.29	2.99	ug/kg		1	08-JAN-10 19:46	per0108029a
	Perchlorate-O(18)			5.95	ug/kg		1	08-JAN-10 19:46	per0108029a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per010810a.qld

Last Altered: Tuesday, January 12, 2010 9:13:40 AM Eastern Standard Time
Printed: Tuesday, January 12, 2010 9:23:47 AM Eastern Standard Time

Name: per0108029a
Date: 08-Jan-2010
Time: 19:46:11
ID: 243550010
Vial: 1:5,C

|LANL|936784|50120|1|

GWD 01-12-10

Perchlorate

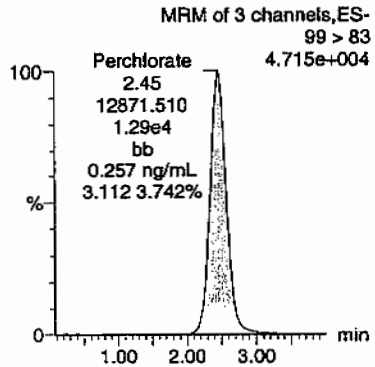

Perchlorate

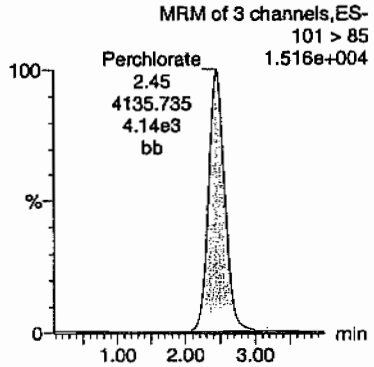

Perchlorate-101

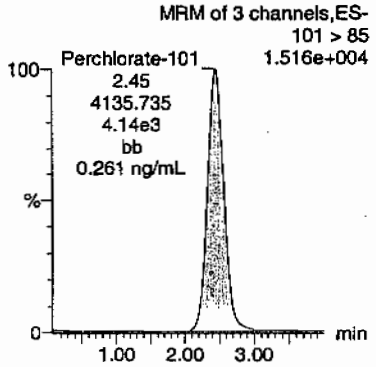

Perchlorate-O(18)

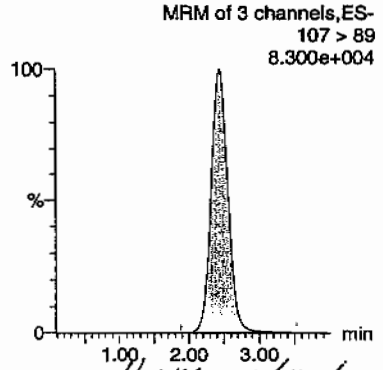

HMM 01/13/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
243550010	Perchlorate	99 > 83	2.45	12871.510	12871.510	bb			0.2569			2495.1...	3.11
243550010	Perchlorate-101	101 > 85	2.45	4135.735	4135.735	bb			0.2608			975.925	
243550010	Perchlorate-O(18)	107 > 89	2.44	22841.521	22841.521	bb			0.5199	103.99	3.99	2647.9...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 936783

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE03-10-2737

Date Received: 24-DEC-09

GEL Job No (SDG): 10-1087

GEL Sample ID: 243550011

Date Filtered: 08-JAN-10

Injection Volume (uL): 20

%Solids: 90

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.556	2.23	0.556	ug/kg	U	1	08-JAN-10 19:53	per0108030a
	Perchlorate Isotope Ratio						1	08-JAN-10 19:53	per0108030a
14797-73-0	Perchlorate-101	.556	2.23	0.556	ug/kg	U	1	08-JAN-10 19:53	per0108030a
	Perchlorate-O(18)			6.12	ug/kg		1	08-JAN-10 19:53	per0108030a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per010810a.qld

Last Altered: Tuesday, January 12, 2010 9:13:40 AM Eastern Standard Time
Printed: Tuesday, January 12, 2010 9:23:47 AM Eastern Standard Time

Name: per0108030a
Date: 08-Jan-2010
Time: 19:53:43
ID: 243550011
Vial: 1:5,D

|LANL|936784|SOLID|1|

AWD 01-12-10

Perchlorate

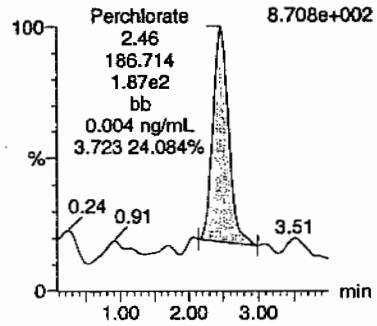

Perchlorate

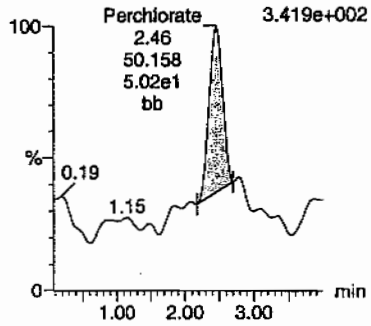

Perchlorate-101

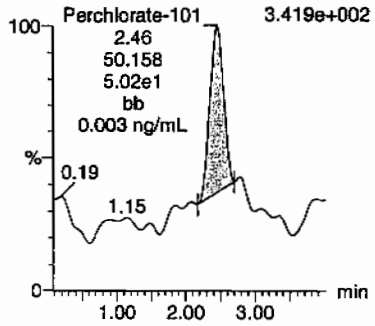

Perchlorate-O(18)

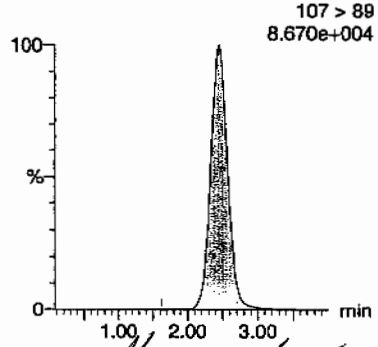

AMM 01/10/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
243550011	Perchlorate	99 > 83	2.46	186.714	186.714	bb			0.0037			42.909	3.72
243550011	Perchlorate-101	101 > 85	2.46	50.158	50.158	bb			0.0032			21.831	
243550011	Perchlorate-O(18)	107 > 89	2.45	24177.711	24177.711	bb			0.5504	110.07	10.07	7109.6...	

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 936783

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE03-10-2736

Date Received: 24-DEC-09

GEL Job No (SDG): 10-1087

GEL Sample ID: 243550012

Date Filtered: 08-JAN-10

Injection Volume (uL): 20

%Solids: 93

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.538	2.15	0.538	ug/kg	U	1	08-JAN-10 20:01	per0108031a
	Perchlorate Isotope Ratio						1	08-JAN-10 20:01	per0108031a
14797-73-0	Perchlorate-101	.538	2.15	0.538	ug/kg	U	1	08-JAN-10 20:01	per0108031a
	Perchlorate-O(18)			5.30	ug/kg		1	08-JAN-10 20:01	per0108031a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per010810a.qld

Last Altered: Tuesday, January 12, 2010 9:13:40 AM Eastern Standard Time
Printed: Tuesday, January 12, 2010 9:23:47 AM Eastern Standard Time

Name: per0108031a
Date: 08-Jan-2010
Time: 20:01:31
ID: 243550012
Vial: 1:5,E

|LANL|936784|50120|1|

CWO
01-12-10

Perchlorate

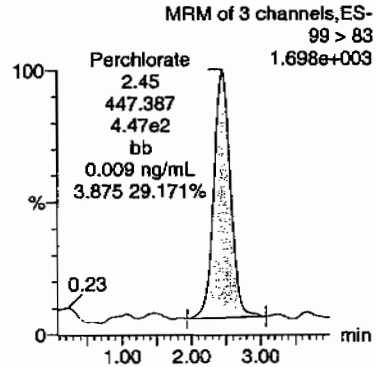

Perchlorate

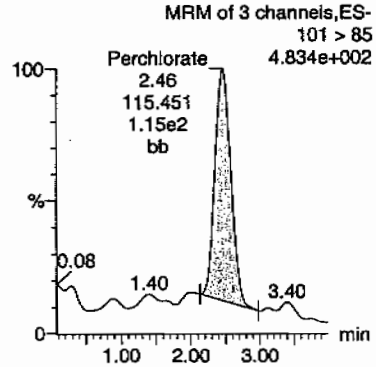

Perchlorate-101

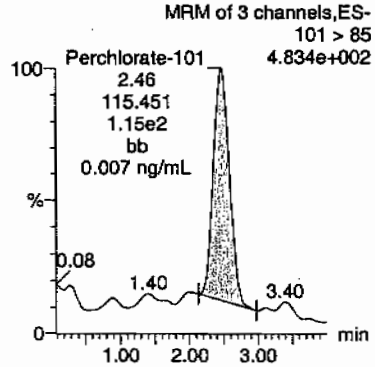

Perchlorate-O(18)

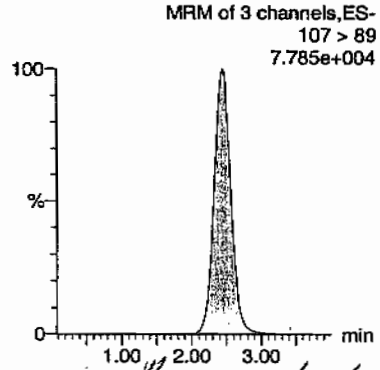

HMM 01/13/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
243550012	Perchlorate	99 > 83	2.45	447.387	447.387	bb			0.0089			114.087	3.88
243550012	Perchlorate-101	101 > 85	2.46	115.451	115.451	bb			0.0073			49.822	
243550012	Perchlorate-O(18)	107 > 89	2.44	21631.105	21631.105	bb			0.4924	98.48	-1.52	9581.3...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 936783

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE03-10-9873

Date Received: 24-DEC-09

GEL Job No (SDG): 10-1087

GEL Sample ID: 243550013

Date Filtered: 08-JAN-10

Injection Volume (uL): 20

%Solids: 94.7

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.528	2.11	0.528	ug/kg	U	1	08-JAN-10 20:09	per0108032a
	Perchlorate Isotope Ratio						1	08-JAN-10 20:09	per0108032a
14797-73-0	Perchlorate-101	.528	2.11	0.528	ug/kg	U	1	08-JAN-10 20:09	per0108032a
	Perchlorate-O(18)			5.31	ug/kg		1	08-JAN-10 20:09	per0108032a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per010810a.qld

Last Altered: Tuesday, January 12, 2010 9:13:40 AM Eastern Standard Time
Printed: Tuesday, January 12, 2010 9:23:47 AM Eastern Standard Time

Name: per0108032a
Date: 08-Jan-2010
Time: 20:09:00
ID: 243550013
Vial: 1:5,F

| LANL | 936784 | SOLID | 1 |

CWW
01-12-10

Perchlorate

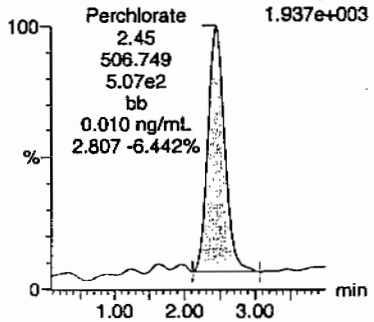

Perchlorate

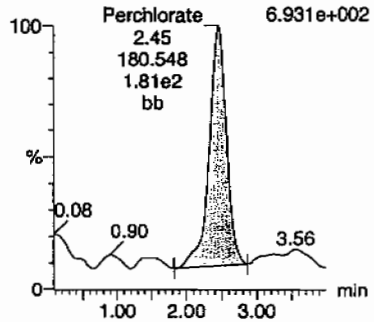

Perchlorate-101

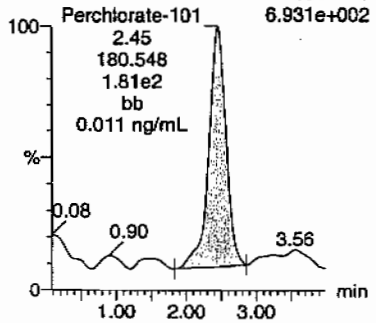

Perchlorate-O(18)

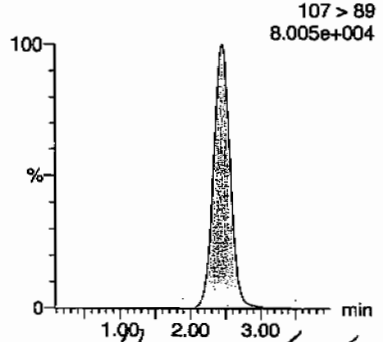

AMM 01/13/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
243550013	Perchlorate	99 > 83	2.45	506.749	506.749	bb			0.0101			150.687	2.81
243550013	Perchlorate-101	101 > 85	2.45	180.548	180.548	bb			0.0114			30.274	
243550013	Perchlorate-O(18)	107 > 89	2.44	22113.904	22113.904	bb			0.5034	100.68	0.68	5118.2...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 936783

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE03-10-9872

Date Received: 24-DEC-09

GEL Job No (SDG): 10-1087

GEL Sample ID: 243550014

Date Filtered: 08-JAN-10

Injection Volume (uL): 20

%Solids: 88

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.567	2.27	1.29	ug/kg	J	1	08-JAN-10 20:16	per0108033a
	Perchlorate Isotope Ratio			3.26			1	08-JAN-10 20:16	per0108033a
14797-73-0	Perchlorate-101	.567	2.27	1.25	ug/kg	J	1	08-JAN-10 20:16	per0108033a
	Perchlorate-O(18)			5.65	ug/kg		1	08-JAN-10 20:16	per0108033a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per010810a.qld

Last Altered: Tuesday, January 12, 2010 9:13:40 AM Eastern Standard Time
Printed: Tuesday, January 12, 2010 9:23:47 AM Eastern Standard Time

Name: per0108033a
Date: 08-Jan-2010
Time: 20:16:18
ID: 243550014
Vial: 1:6,A

|LANL|936784|SOLO|1|

GWO
9-12-10

Perchlorate

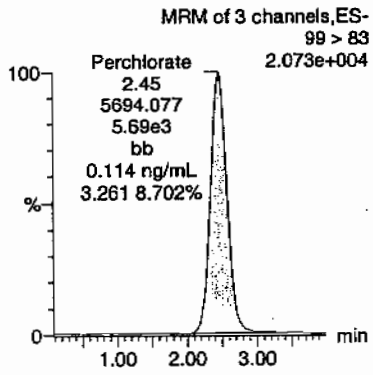

Perchlorate

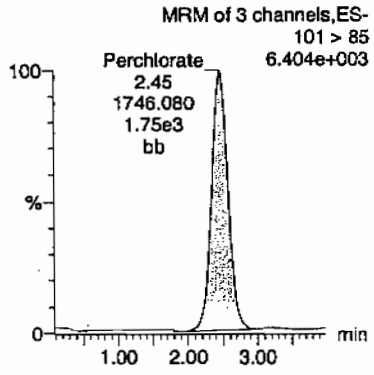

Perchlorate-101

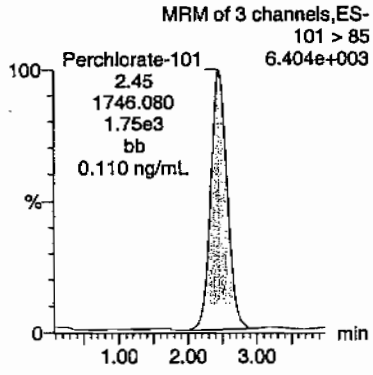

Perchlorate-O(18)

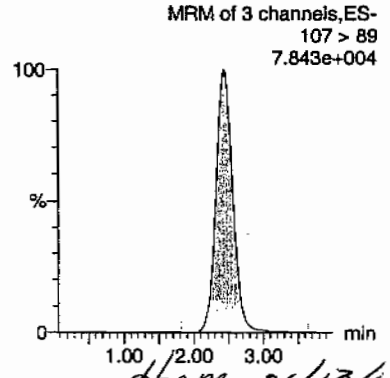

HMM 01/13/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
243550014	Perchlorate	99 > 83	2.45	5694.077	5694.077	bb			0.1136			826.986	3.26
243550014	Perchlorate-101	101 > 85	2.45	1746.080 ✓	1746.080	bb			0.1101			249.121	
243550014	Perchlorate-O(18)	107 > 89	2.44	21885.930	21885.930	bb			0.4982	99.64	-0.36	8399.6...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 936783

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE03-10-9874

Date Received: 24-DEC-09

GEL Job No (SDG): 10-1087

GEL Sample ID: 243550015

Date Filtered: 08-JAN-10

Injection Volume (uL): 20

%Solids: 93.1

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.537	2.15	0.537	ug/kg	U	1	08-JAN-10 20:24	per0108034a
	Perchlorate Isotope Ratio						1	08-JAN-10 20:24	per0108034a
14797-73-0	Perchlorate-101	.537	2.15	0.537	ug/kg	U	1	08-JAN-10 20:24	per0108034a
	Perchlorate-O(18)			5.76	ug/kg		1	08-JAN-10 20:24	per0108034a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per010810a.qld

Last Altered: Tuesday, January 12, 2010 9:13:40 AM Eastern Standard Time
Printed: Tuesday, January 12, 2010 9:23:47 AM Eastern Standard Time

Name: per0108034a
Date: 08-Jan-2010
Time: 20:24:06
ID: 243550015
Vial: 1:6,B

|LANL|936784|SOL20|1|

CWW
01-12-10

Perchlorate

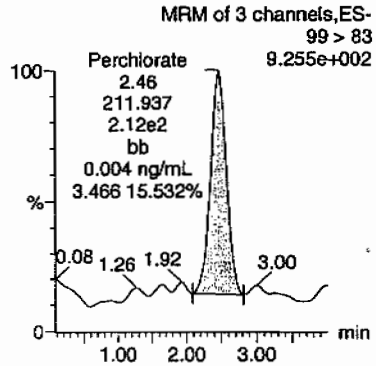

Perchlorate

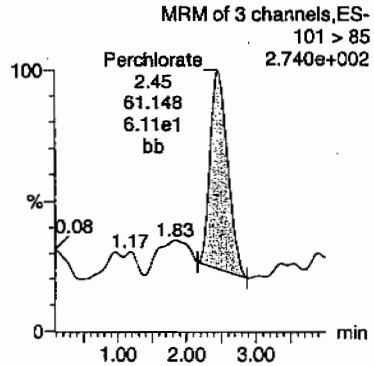

Perchlorate-101

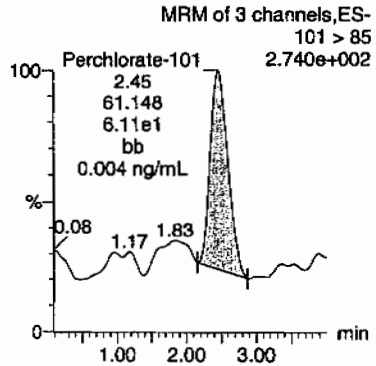

Perchlorate-O(18)

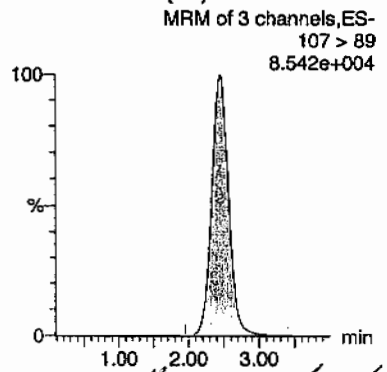

HMM 01/13/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
243550015	Perchlorate	99 > 83	2.46	211.937	211.937	bb			0.0042			25.104	3.47
243550015	Perchlorate-101	101 > 85	2.45	61.148	61.148	bb			0.0039			31.586	
243550015	Perchlorate-O(18)	107 > 89	2.44	23574.270	23574.270	bb			0.5366	107.33	7.33	4725.6...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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STANDARDS DATA

Form 2

Perchlorate Initial Calibration

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10–1087

Lab Code: GEL

Instrument ID: LCMSMS **Date Analyzed:** 08–JAN–10

HPLC Column: Phenomenex Ion Pac AG–16 2 X 50 mm

Calibration Level	1	2	3	4	5
Cal Concentration (ug/L)	0.05	0.1	0.25	0.50	1.0

Parmname Perchlorate

Coefficient of Determination:

Calibration Curve: 50103.98

Response Type: External Standard

Curve Type: RF

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Form 2

Perchlorate Initial Calibration

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10–1087

Lab Code: GEL

Instrument ID: LCMSMS **Date Analyzed:** 08–JAN–10

HPLC Column: Phenomenex Ion Pac AG–16 2 X 50 mm

Calibration Level	1	2	3	4	5
Cal Concentration (ug/L)	0.05	0.1	0.25	0.50	1.0

Parmname Perchlorate–101

Coefficient of Determination:

Calibration Curve: 15860.18

Response Type: External Standard

Curve Type: RF

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

Quantify Calibration Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per010810a.qld

Last Altered: Tuesday, January 12, 2010 9:13:40 AM Eastern Standard Time
Printed: Tuesday, January 12, 2010 9:23:47 AM Eastern Standard Time

Method: C:\MassLynx\Perchlorate.PRO\MethDB\per010810a.mdb 12 Jan 2010 09:13:13
Calibration: C:\MassLynx\Perchlorate.PRO\CurveDB\per010810a.cdb 12 Jan 2010 09:13:39

Compound name: Perchlorate
Response Factor: 50104
RRF SD: 2281.85, % Relative SD: 4.55422
Response type: External Std, Area
Curve type: RF

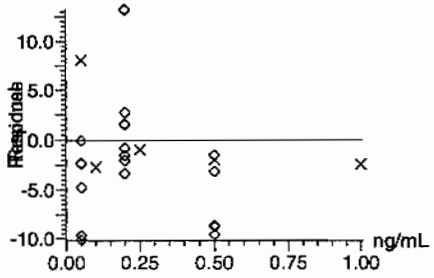

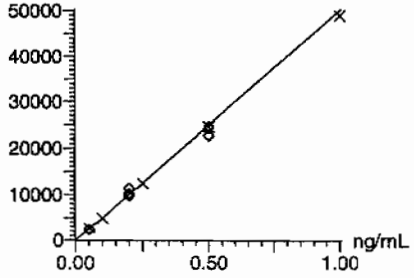

CWW
01-12-10

Compound name: Perchlorate-101
Response Factor: 15860.2
RRF SD: 567.029, % Relative SD: 3.57517
Response type: External Std, Area
Curve type: RF

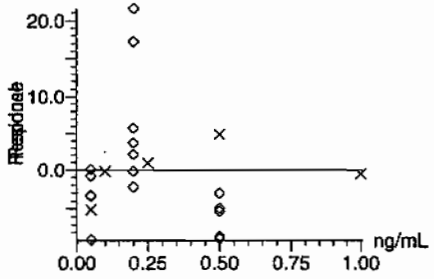

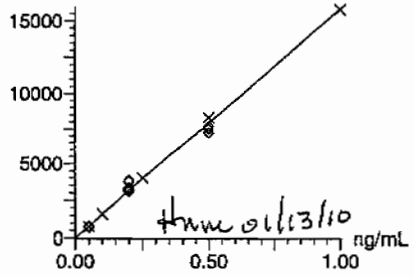

tmw 01/13/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Calibration Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per010810a.qld

Last Altered: Tuesday, January 12, 2010 9:13:40 AM Eastern Standard Time
Printed: Tuesday, January 12, 2010 9:23:47 AM Eastern Standard Time

Compound name: Perchlorate-O(18)
Response Factor: 43930.4
RRF SD: 1337.78, % Relative SD: 3.04523
Response type: External Std, Area
Curve type: RF

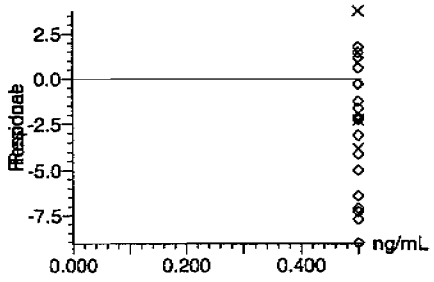

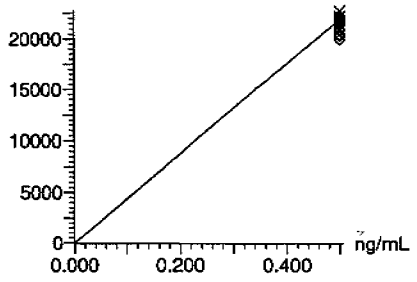

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Form 3

Perchlorate Initial Calibration Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10-1087

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.5	.49	98.48	08-JAN-10 17:21	per0108009a
Perchlorate Isotope Ratio		3.21		08-JAN-10 17:21	per0108009a
Perchlorate-101	.5	.48	96.97	08-JAN-10 17:21	per0108009a

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per010810a.qld

Last Altered: Tuesday, January 12, 2010 9:13:40 AM Eastern Standard Time
Printed: Tuesday, January 12, 2010 9:23:47 AM Eastern Standard Time

Name: per0108009a
Date: 08-Jan-2010
Time: 17:21:00
ID: WCL100104-06ICV
Vial: 1:2,A

CWW
01-12-10

Perchlorate

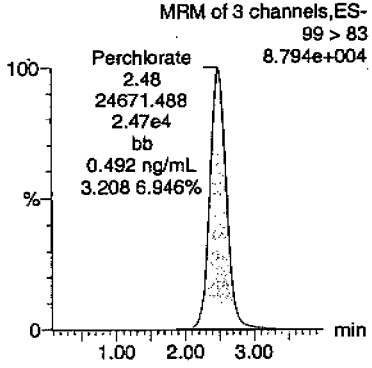

Perchlorate

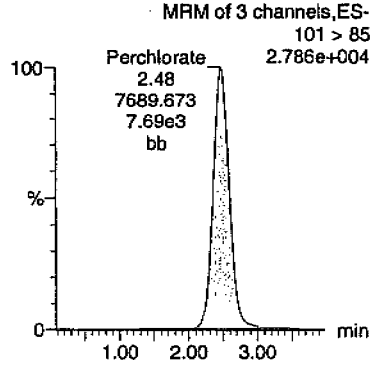

Perchlorate-101

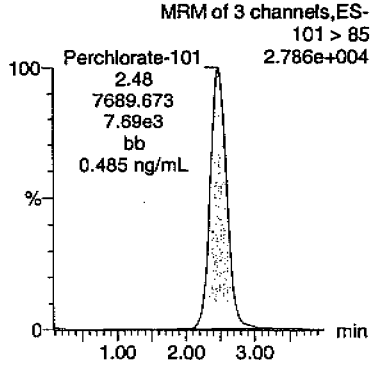

Perchlorate-O(18)

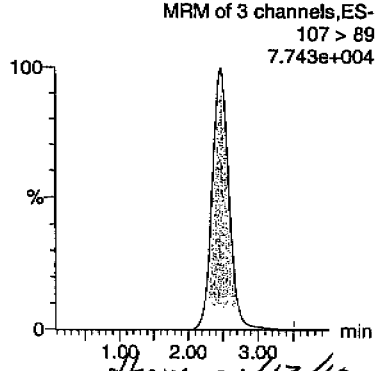

AMM 01/13/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100104-06ICV	Perchlorate	99 > 83	2.48	24671.488	24671.488	bb			0.4924	98.48	-1.52	2729.1...	3.21
WCL100104-06ICV	Perchlorate-101	101 > 85	2.48	7689.673	7689.673	bb			0.4848	96.97	-3.03	1396.1...	
WCL100104-06ICV	Perchlorate-O(18)	107 > 89	2.46	21605.637	21605.637	bb			0.4918	98.36	-1.64	16157....	

Form 3

Perchlorate Continuing Calibration Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–1087

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.5	.48	96.89	08–JAN–10 18:53	per0108022a
Perchlorate Isotope Ratio		3.23		08–JAN–10 18:53	per0108022a
Perchlorate–101	.5	.47	94.68	08–JAN–10 18:53	per0108022a
Perchlorate	.5	.46	91.26	08–JAN–10 20:31	per0108035a
Perchlorate Isotope Ratio		3.15		08–JAN–10 20:31	per0108035a
Perchlorate–101	.5	.46	91.53	08–JAN–10 20:31	per0108035a

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per010810a.qld

Last Altered: Tuesday, January 12, 2010 9:13:40 AM Eastern Standard Time
Printed: Tuesday, January 12, 2010 9:23:47 AM Eastern Standard Time

Name: per0108022a
Date: 08-Jan-2010
Time: 18:53:28
ID: WCL100104-06CCV
Vial: 1:2,A

Pass
01-12-10

Perchlorate

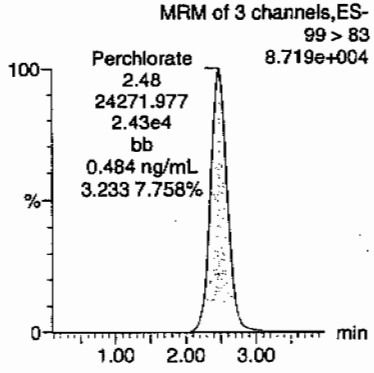

Perchlorate

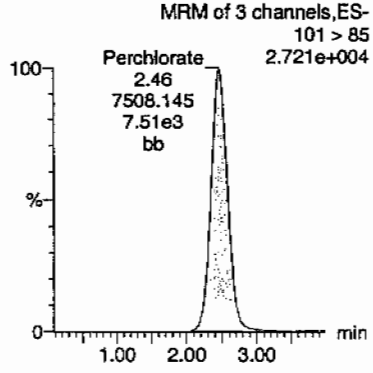

Perchlorate-101

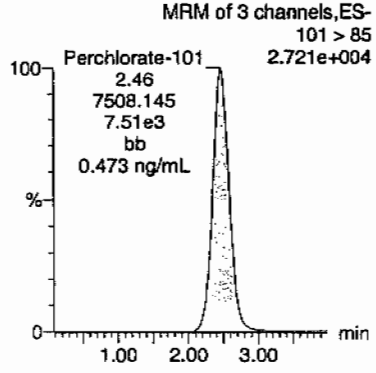

Perchlorate-O(18)

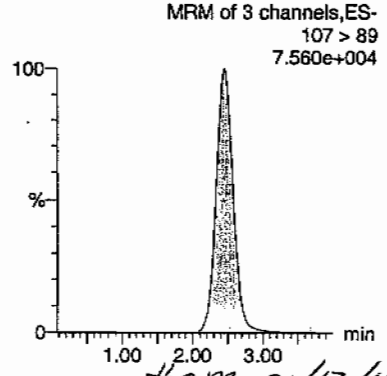

HM 01/13/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100104-06CCV	Perchlorate	99 > 83	2.48	24271.977	24271.977	bb			0.4844	96.89	-3.11	1241.2...	3.23
WCL100104-06CCV	Perchlorate-101	101 > 85	2.46	7508.145	7508.145	bb			0.4734	94.68	-5.32	1505.0...	
WCL100104-06CCV	Perchlorate-O(18)	107 > 89	2.45	21062.768	21062.768	bb			0.4795	95.89	-4.11	5344.3...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per010810a.qld

Last Altered: Tuesday, January 12, 2010 9:13:40 AM Eastern Standard Time
Printed: Tuesday, January 12, 2010 9:23:47 AM Eastern Standard Time

Name: per0108035a
Date: 08-Jan-2010
Time: 20:31:56
ID: WCL100104-06CCV
Vial: 1:2,A

Pass
CWW
01-12-10

Perchlorate

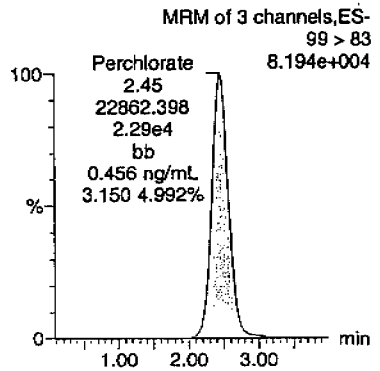

Perchlorate

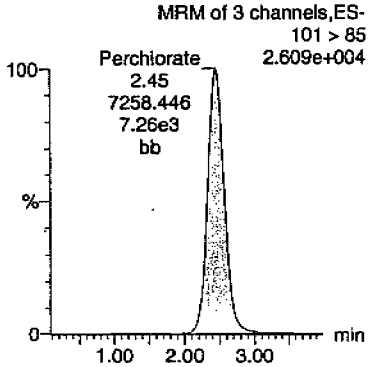

Perchlorate-101

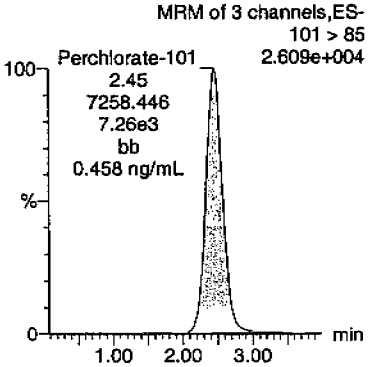

Perchlorate-O(18)

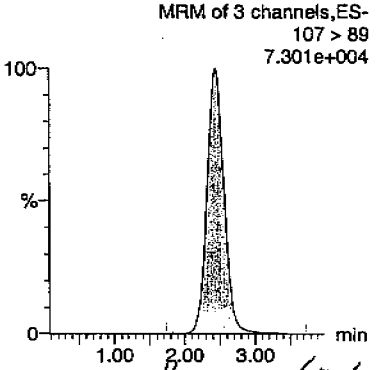

Am 01/13/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100104-06CCV	Perchlorate	99 > 83	2.45	22862.398	22862.398	bb			0.4563	91.26	-8.74	5902.3...	3.15
WCL100104-06CCV	Perchlorate-101	101 > 85	2.45	7258.446	7258.446	bb			0.4577	91.53	-8.47	3560.9...	
WCL100104-06CCV	Perchlorate-O(18)	107 > 89	2.44	20271.133	20271.133	bb			0.4614	92.29	-7.71	1305.8...	

Form 3

Perchlorate MDL Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–1087

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.05	.05	99.96	08–JAN–10 17:35	per0108011a
Perchlorate Isotope Ratio		3.27		08–JAN–10 17:35	per0108011a
Perchlorate–101	.05	.05	96.7	08–JAN–10 17:35	per0108011a
Perchlorate	.05	.05	95.25	08–JAN–10 19:09	per0108024a
Perchlorate Isotope Ratio		3.01		08–JAN–10 19:09	per0108024a
Perchlorate–101	.05	.05	100.08	08–JAN–10 19:09	per0108024a
Perchlorate	.05	.05	97.66	08–JAN–10 20:47	per0108037a
Perchlorate Isotope Ratio		3.39		08–JAN–10 20:47	per0108037a
Perchlorate–101	.05	.05	91.09	08–JAN–10 20:47	per0108037a

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per010810a.qid

Last Altered: Tuesday, January 12, 2010 9:13:40 AM Eastern Standard Time
Printed: Tuesday, January 12, 2010 9:23:47 AM Eastern Standard Time

Name: per0108011a
Date: 08-Jan-2010
Time: 17:35:05
ID: WCL100104-07CRI
Vial: 1:2,B

GWD 01-12-10

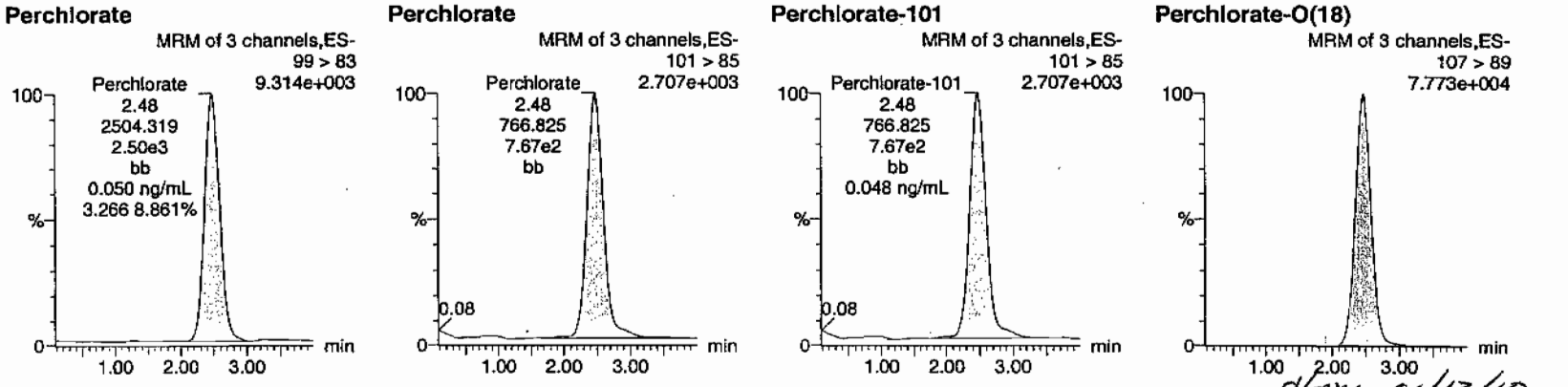

HMM 01/13/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100104-07CRI	Perchlorate	99 > 83	2.48	2504.319	2504.319	bb			0.0500	99.96	-0.04	471.955	3.27
WCL100104-07CRI	Perchlorate-101	101 > 85	2.48	766.825	766.825	bb			0.0483	96.70	-3.30	315.720	
WCL100104-07CRI	Perchlorate-O(18)	107 > 89	2.46	21497.350	21497.350	bb			0.4894	97.87	-2.13	4750.0...	

Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per010810a.qld

Last Altered: Tuesday, January 12, 2010 9:13:40 AM Eastern Standard Time
Printed: Tuesday, January 12, 2010 9:23:47 AM Eastern Standard Time

Name: per0108024a
Date: 08-Jan-2010
Time: 19:09:00
ID: WCL100104-07CRI
Vial: 1:2,B

Pass
aw
01-12-10

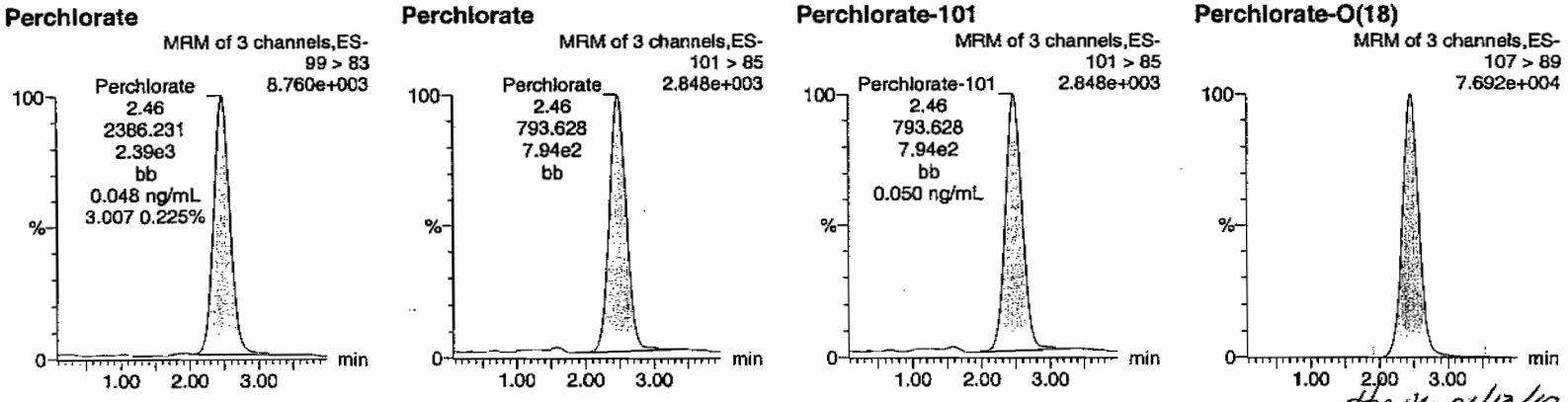

tm in 01/13/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100104-07CRI	Perchlorate	99 > 83	2.46	2386.231	2386.231	bb			0.0476	95.25	-4.75	186.570	3.01
WCL100104-07CRI	Perchlorate-101	101 > 85	2.46	793.628	793.628	bb			0.0500	100.08	0.08	376.505	
WCL100104-07CRI	Perchlorate-O(18)	107 > 89	2.45	21280.730	21280.730	bb			0.4844	96.88	-3.12	2306.3...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per010810a.qld

Last Altered: Tuesday, January 12, 2010 9:13:40 AM Eastern Standard Time
Printed: Tuesday, January 12, 2010 9:23:47 AM Eastern Standard Time

Name: per0108037a
Date: 08-Jan-2010
Time: 20:47:54
ID: WCL100104-07CRI
Vial: 1:2,B

Pass
01-12-10

Perchlorate

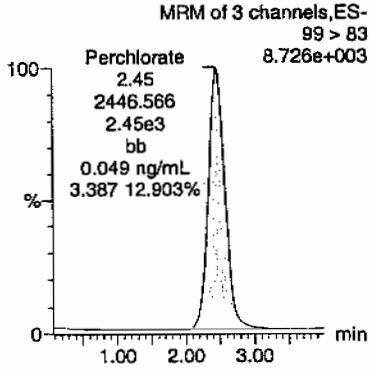

Perchlorate

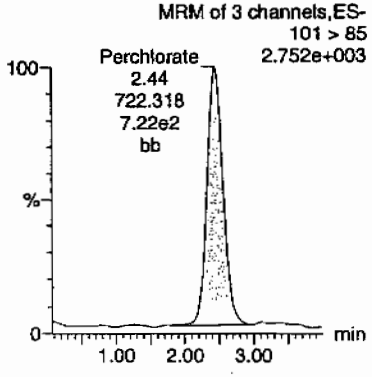

Perchlorate-101

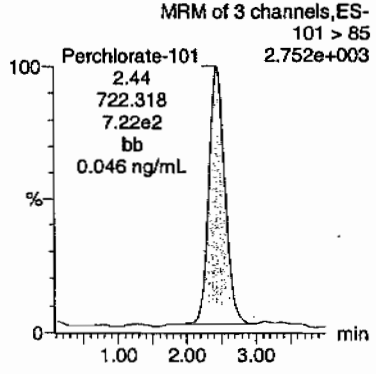

Perchlorate-O(18)

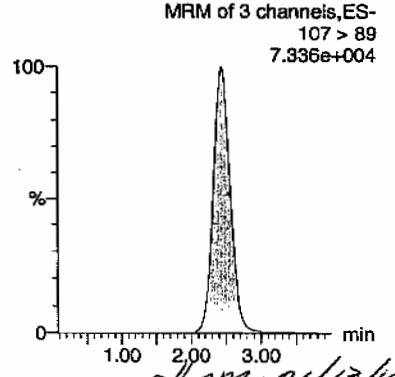

Amm 01/13/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100104-07CRI	Perchlorate	99 > 83	2.45	2446.566	2446.566	bb			0.0488	97.66	-2.34	612.478	3.39
WCL100104-07CRI	Perchlorate-101	101 > 85	2.44	722.318	722.318	bb			0.0455	91.09	-8.91	282.193	
WCL100104-07CRI	Perchlorate-O(18)	107 > 89	2.44	20553.346	20553.346	bb			0.4679	93.57	-6.43	18553....	

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QUALITY CONTROL

Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: EPA 6850 Modified

Matrix: SOIL

Extraction Batch ID: 936783

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
MB

Date Received: 08–JAN–10

GEL Job No (SDG): 10–1087

GEL Sample ID: 1202004376

Date Filtered: 08–JAN–10

Injection Volume (uL): 20

%Solids: 100

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797–73–0	Perchlorate	.5	2	0.500	ug/kg	U	1	08–JAN–10 17:42	per0108012a
	Perchlorate Isotope Ratio						1	08–JAN–10 17:42	per0108012a
14797–73–0	Perchlorate–101	.5	2	0.500	ug/kg	U	1	08–JAN–10 17:42	per0108012a
	Perchlorate–O(18)			4.90	ug/kg		1	08–JAN–10 17:42	per0108012a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate–101 peak area. The Perchlorate–101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per010810a.qld

Last Altered: Tuesday, January 12, 2010 9:13:40 AM Eastern Standard Time
Printed: Tuesday, January 12, 2010 9:23:47 AM Eastern Standard Time

Name: per0108012a
Date: 08-Jan-2010
Time: 17:42:09
ID: 1202004376
Vial: 1:3,A

| LCMS | 936784 | 50ml | MB | 11

CWW 01-12-10

Perchlorate

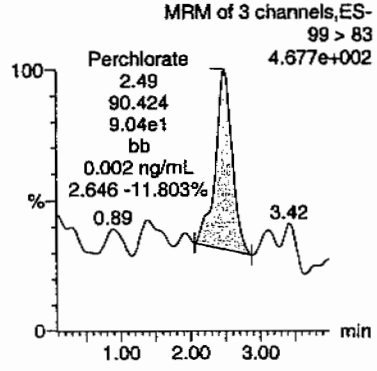

Perchlorate

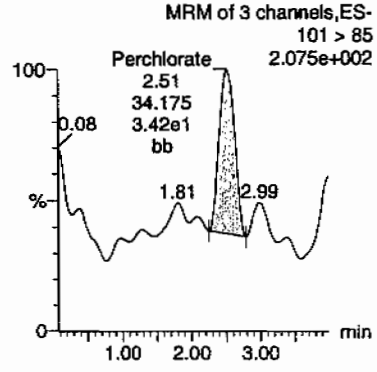

Perchlorate-101

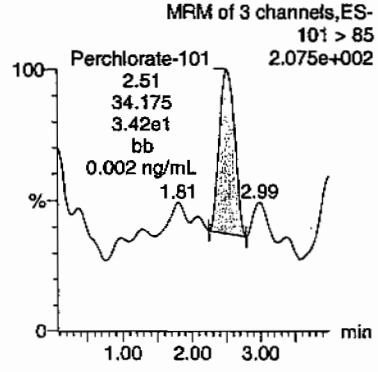

Perchlorate-O(18)

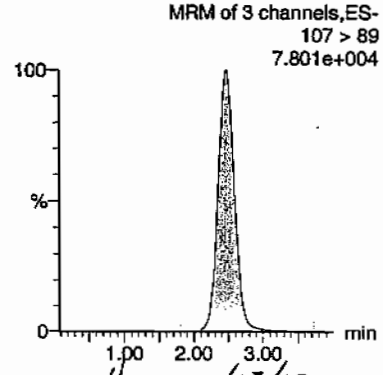

HMM 01/13/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202004376	Perchlorate	99 > 83	2.49	90.424	90.424	bb			0.0018			18.429	2.65
1202004376	Perchlorate-101	101 > 85	2.51	34.175	34.175	bb			0.0022			10.447	
1202004376	Perchlorate-O(18)	107 > 89	2.46	21505.783	21505.783	bb			0.4895	97.91	-2.09	3079.2...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: EPA 6850 Modified

Matrix: SOIL

Extraction Batch ID: 936783

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
LCS

Date Received: 08–JAN–10

GEL Job No (SDG): 10–1087

GEL Sample ID: 1202004379

Date Filtered: 08–JAN–10

Injection Volume (uL): 20

%Solids: 100

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797–73–0	Perchlorate	.5	2	2.03	ug/kg		1	08–JAN–10 17:49	per0108013a
	Perchlorate Isotope Ratio			3.09			1	08–JAN–10 17:49	per0108013a
14797–73–0	Perchlorate–101	.5	2	2.07	ug/kg		1	08–JAN–10 17:49	per0108013a
	Perchlorate–O(18)			4.98	ug/kg		1	08–JAN–10 17:49	per0108013a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate–101 peak area. The Perchlorate–101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per010810a.qld

Last Altered: Tuesday, January 12, 2010 9:13:40 AM Eastern Standard Time
Printed: Tuesday, January 12, 2010 9:23:47 AM Eastern Standard Time

Name: per0108013a
Date: 08-Jan-2010
Time: 17:49:12
ID: 1202004379
Vial: 1:3,B

|LANL|936784|SOLID|LCS|1|

CWW
01-12-10

Perchlorate

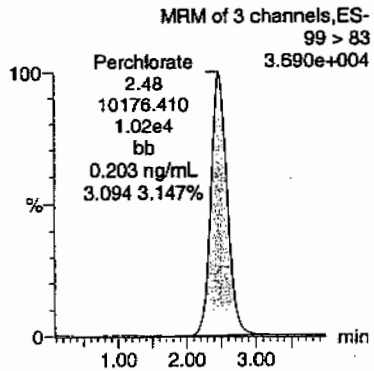

Perchlorate

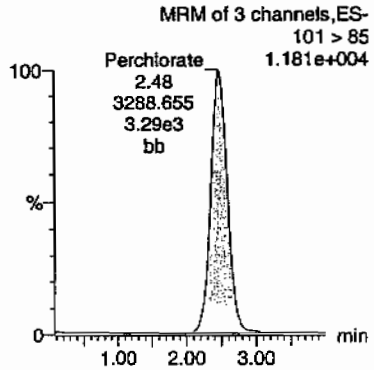

Perchlorate-101

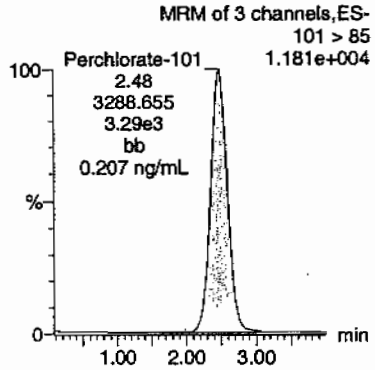

Perchlorate-O(18)

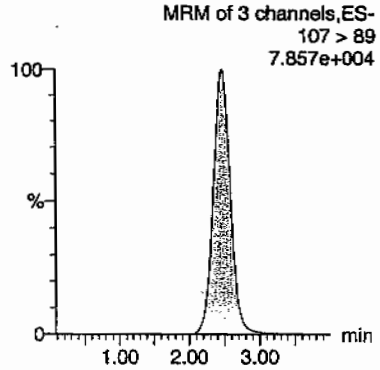

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202004379	Perchlorate	99 > 83	2.48	10176.410	10176.410	bb			0.2031	101.55	1.55	1032.9...	3.09
1202004379	Perchlorate-101	101 > 85	2.48	3288.655	3288.655	bb			0.2074	103.68	3.68	1247.1...	
1202004379	Perchlorate-O(18)	107 > 89	2.46	21893.074	21893.074	bb			0.4984	99.67	-0.33	4580.2...	

$\frac{10176.410}{50104} = 0.2031$

HMM 01/13/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 936783

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE03-09-14233MS

Date Received: 24-DEC-09

GEL Job No (SDG): 10-1087

GEL Sample ID: 1202004377

Date Filtered: 08-JAN-10

Injection Volume (uL): 20

%Solids: 92.6

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.54	2.16	2.22	ug/kg		1	08-JAN-10 18:10	per0108016a
	Perchlorate Isotope Ratio			3.07			1	08-JAN-10 18:10	per0108016a
14797-73-0	Perchlorate-101	.54	2.16	2.28	ug/kg		1	08-JAN-10 18:10	per0108016a
	Perchlorate-O(18)			5.43	ug/kg		1	08-JAN-10 18:10	per0108016a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per010810a.qld

Last Altered: Tuesday, January 12, 2010 9:13:40 AM Eastern Standard Time
Printed: Tuesday, January 12, 2010 9:23:47 AM Eastern Standard Time

Name: per0108016a
Date: 08-Jan-2010
Time: 18:10:18
ID: 1202004377
Vial: 1:3,E

|LANL|936784|SOLID|MS|1|

WWW
01-12-10

Perchlorate

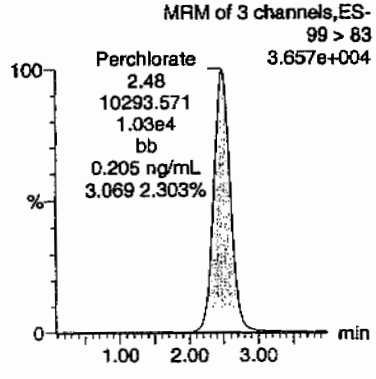

Perchlorate

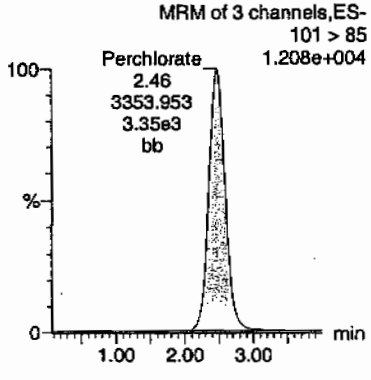

Perchlorate-101

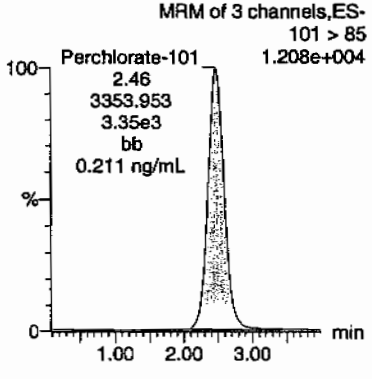

Perchlorate-O(18)

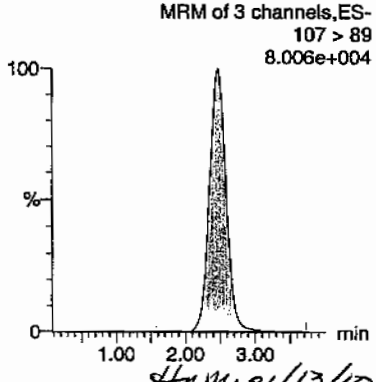

HM 01/13/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202004377	Perchlorate	99 > 83	2.48	10293.571	10293.571	bb			0.2054	102.72	2.72	2760.7...	3.07
1202004377	Perchlorate-101	101 > 85	2.46	3353.953	3353.953	bb			0.2115	105.74	5.74	999.681	
1202004377	Perchlorate-O(18)	107 > 89	2.46	22097.887	22097.887	bb			0.5030	100.60	0.60	6357.3...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 936783

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE03-09-14233MSD

Date Received: 24-DEC-09

GEL Job No (SDG): 10-1087

GEL Sample ID: 1202004378

Date Filtered: 08-JAN-10

Injection Volume (uL): 20

%Solids: 92.6

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.54	2.16	2.14	ug/kg	J	1	08-JAN-10 18:17	per0108017a
	Perchlorate Isotope Ratio			3.07			1	08-JAN-10 18:17	per0108017a
14797-73-0	Perchlorate-101	.54	2.16	2.20	ug/kg		1	08-JAN-10 18:17	per0108017a
	Perchlorate-O(18)			5.48	ug/kg		1	08-JAN-10 18:17	per0108017a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per010810a.qld

Last Altered: Tuesday, January 12, 2010 9:13:40 AM Eastern Standard Time
Printed: Tuesday, January 12, 2010 9:23:47 AM Eastern Standard Time

Name: per0108017a
Date: 08-Jan-2010
Time: 18:17:20
ID: 1202004378
Vial: 1:3,F

|LANC|936784|SOLO|MSD|1|

GWO
01-12-10

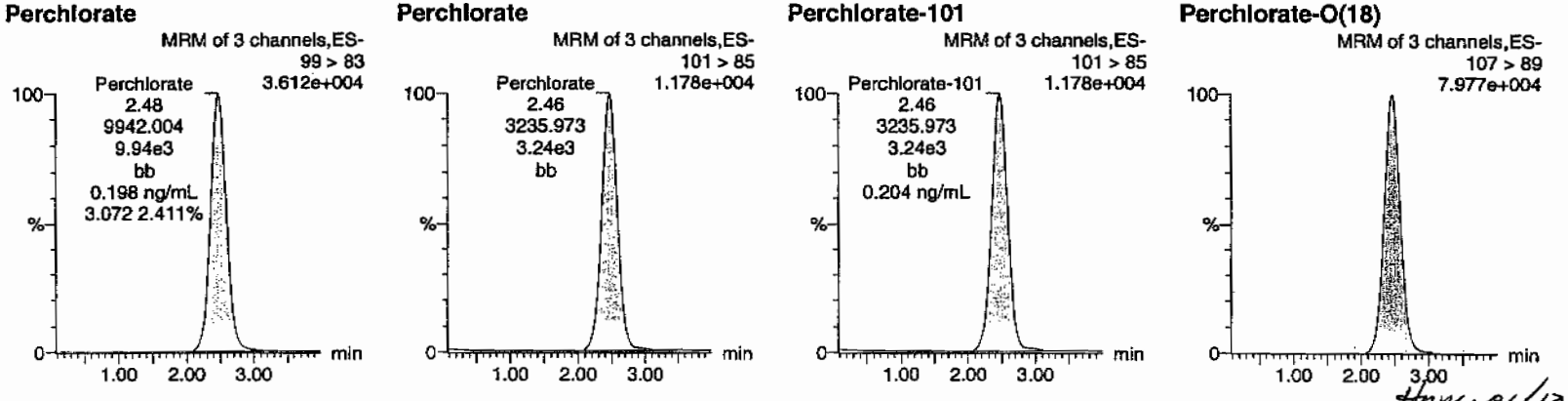

tmm 01/13/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202004378	Perchlorate	99 > 83	2.48	9942.004	9942.004	bb			0.1984	99.21	-0.79	1873.8...	3.07
1202004378	Perchlorate-101	101 > 85	2.46	3235.973	3235.973	bb			0.2040	102.02	2.02	1292.6...	
1202004378	Perchlorate-O(18)	107 > 89	2.45	22286.939	22286.939	bb			0.5073	101.46	1.46	3063.4...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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MISCELLANEOUS DATA

Prep Logbook

Definitive Low Level Perchlorate Analysis Utilizing Liquid Chromatography/Mass Spectrometry/Mass Spectrometry (LC/MS/MS) by EPA Method 6850 Modified (6850M)

Batch ID: 936783 **Verified by:** _____

Analyst: Jareth Shirley

Method: SW846 6850 Modified

Lab SOP: GL-OA-E-067 REV# 6

Instrument: MicroMass Quatro Ultima

Sample ID	Run Date	Aliquot (g)	Prepped Aliquot (mL)	Prepped Factor (mL/g)
1202004376 MB	08-JAN-2010 13:21:41	2	20	10
1202004379 LCS	08-JAN-2010 13:21:41	2	20	10
243550001	08-JAN-2010 13:21:41	2	20	10
1202004377 MS (243550001)	08-JAN-2010 13:21:41	2	20	10
1202004378 MSD (243550001)	08-JAN-2010 13:21:41	2	20	10
243550002	08-JAN-2010 13:21:41	2	20	10
243550003	08-JAN-2010 13:21:41	2	20	10
243550004	08-JAN-2010 13:21:41	2	20	10
243550005	08-JAN-2010 13:21:41	2	20	10
243550006	08-JAN-2010 13:21:41	2	20	10
243550007	08-JAN-2010 13:21:41	2	20	10
243550008	08-JAN-2010 13:21:41	2	20	10
243550009	08-JAN-2010 13:21:41	2	20	10
243550010	08-JAN-2010 13:21:41	2	20	10
243550011	08-JAN-2010 13:21:41	2	20	10
243550012	08-JAN-2010 13:21:41	2	20	10
243550013	08-JAN-2010 13:21:41	2	20	10
243550014	08-JAN-2010 13:21:41	2	20	10
243550015	08-JAN-2010 13:21:41	2	20	10
1202004380 ICS	08-JAN-2010 13:21:41	2	20	10

Type	Sample Id	Description	Serial Number	Spike Amt	Units
ICS	1202004380	10 ug/L ICV/CCV Second Source	UCL091201-01.2	.4	mL
LCS	1202004379	10 ug/L ICV/CCV Second Source	UCL091201-01.2	.4	mL
MS	1202004377	10 ug/L ICV/CCV Second Source	UCL091201-01.2	.4	mL
MSD	1202004378	10 ug/L ICV/CCV Second Source	UCL091201-01.2	.4	mL

Comments:

Desalting cartridges used: 090410-1-Ba & 091002-1-H

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GEL ORGANIC RUN LOG

INSTRUMENT ID: LCMSMS#2

Date: 01/08/10
Extr. Injection Volume: 20uL
Sequence Number: per010810a
Initial Calibration Date: 01/08/10

Method: EPA 6850-Modified
Int. Std.: UCL091019-03.2
Mobile Phase Lot#: 1233781, 1233976
Standard-Samp Reagent Lot#:: 1233976

Reviewed BY: [illegible]
Date: 01/13/10
SOP: GL-OA-E-067 Rev.6
Alt Check Std. ID: WCL100104-06

DataFile	Sample	Analyst	Injection Date	Batch	SDG	Dilution	Client	Comments	QC_Flag
per0108001a	IPB001	CWW	1/8/2010 16:24			1		USE	B
per0108002a	IPB001	CWW	1/8/2010 16:31			1		USE	B
per0108003a	WCLICAL-01	CWW	1/8/2010 16:38			1		USE	I
per0108004a	WCLICAL-02	CWW	1/8/2010 16:45			1		USE	I
per0108005a	WCLICAL-03	CWW	1/8/2010 16:52			1		USE	I
per0108006a	WCLICAL-04	CWW	1/8/2010 16:59			1		USE	I
per0108007a	WCLICAL-05	CWW	1/8/2010 17:06			1		USE	I
per0108008a	IPB002	CWW	1/8/2010 17:13			1		USE	B
per0108009a	WCLICV	CWW	1/8/2010 17:21			1		USE	C
per0108010a	IPB003	CWW	1/8/2010 17:28			1		USE	B
per0108011a	WCLCRI	CWW	1/8/2010 17:35			1		USE	C
per0108012a	1202004376	CWW	1/8/2010 17:42	936784	10-1087	1	LANL	USE	S
per0108013a	1202004379	CWW	1/8/2010 17:49	936784	10-1087	1	LANL	USE	S
per0108014a	1202004380	CWW	1/8/2010 17:56	936784	10-1087	1	LANL	USE	S
per0108015a	243550001	CWW	1/8/2010 18:03	936784	10-1087	1	LANL	USE	S
per0108016a	1202004377	CWW	1/8/2010 18:10	936784	10-1087	1	LANL	USE	S
per0108017a	1202004378	CWW	1/8/2010 18:17	936784	10-1087	1	LANL	USE	S
per0108018a	243550002	CWW	1/8/2010 18:24	936784	10-1087	1	LANL	USE	S
per0108019a	243550003	CWW	1/8/2010 18:31	936784	10-1087	1	LANL	USE	S
per0108020a	243550004	CWW	1/8/2010 18:38	936784	10-1087	1	LANL	USE	S
per0108021a	243550005	CWW	1/8/2010 18:46	936784	10-1087	1	LANL	USE	S
per0108022a	WCLCCV	CWW	1/8/2010 18:53			1		USE	C
per0108023a	IPB004	CWW	1/8/2010 19:01			1		USE	B
per0108024a	WCLCRI	CWW	1/8/2010 19:09			1		USE	C
per0108025a	243550006	CWW	1/8/2010 19:16	936784	10-1087	1	LANL	USE	S
per0108026a	243550007	CWW	1/8/2010 19:23	936784	10-1087	1	LANL	USE	S
per0108027a	243550008	CWW	1/8/2010 19:30	936784	10-1087	1	LANL	USE	S
per0108028a	243550009	CWW	1/8/2010 19:38	936784	10-1087	1	LANL	USE	S
per0108029a	243550010	CWW	1/8/2010 19:46	936784	10-1087	1	LANL	USE	S

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per0108030a	243550011	CWW	1/8/2010 19:53	936784	10-1087	1	LANL	USE	S
per0108031a	243550012	CWW	1/8/2010 20:01	936784	10-1087	1	LANL	USE	S
per0108032a	243550013	CWW	1/8/2010 20:09	936784	10-1087	1	LANL	USE	S
per0108033a	243550014	CWW	1/8/2010 20:16	936784	10-1087	1	LANL	USE	S
per0108034a	243550015	CWW	1/8/2010 20:24	936784	10-1087	1	LANL	USE	S
per0108035a	WCLCCV	CWW	1/8/2010 20:31			1		USE	C
per0108036a	IPB005	CWW	1/8/2010 20:40			1		USE	B
per0108037a	WCLCRI	CWW	1/8/2010 20:47			1		USE	C
per0108038a	1202006984	CWW	1/8/2010 20:55	937885	10-1103	1	LANL	USE	S
per0108039a	1202006985	CWW	1/8/2010 21:03	937885	10-1103	1	LANL	USE	S
per0108040a	1202006988	CWW	1/8/2010 21:11	937885	10-1103	1	LANL	USE	S
per0108041a	243628001	CWW	1/8/2010 21:18	937885	10-1103	1	LANL	USE	S
per0108042a	1202006986	CWW	1/8/2010 21:26	937885	10-1103	1	LANL	USE	S
per0108043a	1202006987	CWW	1/8/2010 21:33	937885	10-1103	1	LANL	USE	S
per0108044a	243628002	CWW	1/8/2010 21:40	937885	10-1103	1	LANL	USE	S
per0108045a	243628003	CWW	1/8/2010 21:47	937885	10-1103	1	LANL	USE	S
per0108046a	WCLCCV	CWW	1/8/2010 21:54			1		USE	C
per0108047a	IPB006	CWW	1/8/2010 22:01			1		USE	B
per0108048a	WCLCRI	CWW	1/8/2010 22:08			1		USE	C
per0108049a	243628004	CWW	1/8/2010 22:15	937885	10-1103	1	LANL	USE	S
per0108050a	243628005	CWW	1/8/2010 22:23	937885	10-1103	1	LANL	USE	S
per0108051a	243628006	CWW	1/8/2010 22:30	937885	10-1103	1	LANL	USE	S
per0108052a	243628007	CWW	1/8/2010 22:37	937885	10-1103	1	LANL	USE	S
per0108053a	243628008	CWW	1/8/2010 22:44	937885	10-1103	1	LANL	USE	S
per0108054a	243628009	CWW	1/8/2010 22:51	937885	10-1103	1	LANL	USE	S
per0108055a	243628010	CWW	1/8/2010 22:58	937885	10-1103	1	LANL	USE	S
per0108056a	243628011	CWW	1/8/2010 23:05	937885	10-1103	1	LANL	USE	S
per0108057a	WCLCCV	CWW	1/8/2010 23:12			1		USE	C
per0108058a	IPB007	CWW	1/8/2010 23:19			1		USE	B
per0108059a	WCLCRI	CWW	1/8/2010 23:26			1		USE	C

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Isotope Ratio Criteria

Isotope Ratio $_{35}Cl/_{37}CL$

2.31-3.85

Tune Criteria

The tuning solution is introduced directly into the mass spectrometer using the ESI interface in the positive ion mode. The mass range scanned is 20 to 1100 amu using at least six scans. The observed mass for the target compound in the daily calibration standards must be within 0.2 amu of the expected value. If it is greater than 0.2 amu, then a mass calibration is performed and the instrument is re-calibrated.

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LC/MS/MS PERCHLORATE ANALYSIS

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Perchlorate by LC/MSMS
Los Alamos National Laboratory (LANL)
SDG 10-1087-1

Method/Analysis Information

Procedure:	**Definitive Low Level Perchlorate Analysis Utilizing Liquid Chromatography/Mass Spectrometry/Mass Spectrometry (LC/MS/MS) by EPA Method 6850 Modified (6850M)**
Analytical Method:	SW846 6850 Modified
Prep Method:	SW846 6850 Modified
Analytical Batch Number:	936761
Prep Batch Number:	936758

Sample Analysis

Sample ID	Client ID
243554001	RE03-10-2750
243554002	RE03-10-2749
243554003	RE03-10-2764
243554004	RE03-10-2762
1202004326	Interference Check Sample (ICS)
1202004322	Method Blank (MB)
1202004325	Laboratory Control Sample (LCS)
1202004323	243506001(RE16-10-2865) Matrix Spike (MS)
1202004324	243506001(RE16-10-2865) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on an "as received" basis.

Preparation/Analytical Method Verification

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-067 REV# 6.

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Calibration Information

Initial Calibration
All initial calibration requirements have been met for this SDG. Due to software constraints, all Initial Calibration Blanks must be designated as IPB001.

CCV Requirements
All associated calibration verification standard(s) (ICV or CCV) met the acceptance criteria.

CCB Requirements
All continuing calibration blanks (CCB) bracketing the analyses associated with this batch were within acceptance criteria.

CCV Requirements
All continuing calibration checks (CCV) requirements were met by all bracketing CCV standards.

Low Level Standard (CRI) Requirements
All low level calibration verification (CRI) requirements were met by all bracketing CRI standards.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB(s) analyzed with this SDG met the acceptance criteria.

Interference Check Sample (ICS)
The interference check sample (ICS) met all recovery acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

QC Sample Designation
Client sample 243506001 (RE16-10-2865) from SDG 10-1066-1 was chosen for matrix spike and matrix spike duplicate analysis. Please see the raw data in the Miscellaneous Section.

Matrix Spike (MS) Recovery Statement
The MS recoveries were within the established acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recoveries were within the established acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD(s) between the MS and MSD met the acceptance limits.

Retention Time Standard Area Acceptance
The retention time standard areas were within the required acceptance criteria for all samples and QC.

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Retention Time
During the analysis of Perchlorate by LC/MS/MS, retention time shifts are commonly observed. These retention time shifts, which are caused by fouling of the column by the sample matrices, are problematic when the retention time is used as one of the criterion for confirmation. To overcome this problem, a known amount of O(18) labeled Perchlorate was added to each sample as a retention time standard. The presence of Perchlorate was confirmed by the relative retention time (RRT) of the Perchlorate peak and the O(18) standard. A RRT window of 0.98 to 1.02, as required by Method 332.0, has been used. In addition to the isotopic ratio, the presence of Perchlorate in the samples associated with this data package have been confirmed using the relative retention criteria stated above, not the absolute retention time.

Technical Information

Holding Time Specifications
All samples in this SDG in this analytical batch met the specified holding time. GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-extraction/Re-analysis
Re-extractions or re-analyses were not required in this SDG except for dilutions.

Miscellaneous Information

Data Exception (DER) Documentation
Data exception reports (DERs) are generated to document procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception reports (DER) was not generated for this SDG.

Manual Integrations
Some initial calibration standards, continuing calibration standards, and/or samples may require manual integrations due to software limitations.

Method Comments
The samples in this SDG were not originally analyzed using EPA Method 314.0.

Additional Comments
The Perchlorate Isotope Ratio on the Form I may differ slightly from the ratio on the corresponding raw data due to rounding rules and/or significant figures or due to software limitations when there are manual integrations, dilutions or other factors. The ratio value of the Form I is the correct value.

The retention time marker, Perchlorate-O (18), is added to all samples, instrument blanks, and standards prior to injection. It is used to verify the retention time of Perchlorate and Perchlorate-101 and to insure an accurate injection occurred. Due to various anions affecting the recovery of Perchlorate-O (18) and not Perchlorate and Perchlorate-101, the calibration curves of Perchlorate and Perchlorate-101 are not internally corrected for using Perchlorate-O (18). They are external calibrations.

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Perchlorate Isotope Ratio
The Perchlorate isotope ratio met acceptance criteria for all samples and QC samples. Please see the isotope ratio criteria in the Miscellaneous Section.

System Configuration

The laboratory utilizes a Waters LC 2795 liquid chromatography instrument for perchlorate analysis. It is coupled with either a Micromass Quattro Micro Mass Spectrometer/ Mass Spectrometer, or a Micromass Quattro Ultima Mass Spectrometer/ Mass Spectrometer. Each being designated as LCMSMS #1, and LCMSMS #2, respectively. It is fitted with an electrospray probe that is operated in the negative electrospray ionization mode for perchlorate analysis. The laboratory may also utilize an Agilent 1100 liquid chromatography instrument for perchlorate analysis. It is coupled with an Applied Biosystems 4000 Mass Spectrometer/ Mass Spectrometer, designated as LCMSMS #3 or LCMSMS #4. It is also fitted with an electrospray probe that is operated in the negative electrospray ionization mode for perchlorate analysis.

Chromatographic Columns

Chromatographic separation of perchlorate is accomplished through analysis on the following anion column:

Dionex: IonPac AG-16 2 x 50 mm.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Herbert M. Moore **Date:** 01/15/10

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SAMPLE DATA SUMMARY

Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: WATER

Extraction Batch ID: 936758

Extraction Type: Filter/DAI

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

Client Sample No.
RE03-10-2750

Date Received: 24-DEC-09

GEL Job No (SDG): 10-1087-1

GEL Sample ID: 243554001

Date Filtered: 28-DEC-09

Injection Volume (uL): 20

%Solids:

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.05	.2	0.050	ug/L	U	1	29-DEC-09 16:13	per1229025a
	Perchlorate Isotope Ratio						1	29-DEC-09 16:13	per1229025a
14797-73-0	Perchlorate-101	.05	.2	0.050	ug/L	U	1	29-DEC-09 16:13	per1229025a
	Perchlorate-O(18)			0.478	ug/L		1	29-DEC-09 16:13	per1229025a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: WATER

Extraction Batch ID: 936758

Extraction Type: Filter/DAI

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

Client Sample No.
RE03-10-2749

Date Received: 24-DEC-09

GEL Job No (SDG): 10-1087-1

GEL Sample ID: 243554002

Date Filtered: 28-DEC-09

Injection Volume (uL): 20

%Solids:

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.05	.2	0.050	ug/L	U	1	29-DEC-09 16:20	per1229026a
	Perchlorate Isotope Ratio						1	29-DEC-09 16:20	per1229026a
14797-73-0	Perchlorate-101	.05	.2	0.050	ug/L	U	1	29-DEC-09 16:20	per1229026a
	Perchlorate-O(18)			0.496	ug/L		1	29-DEC-09 16:20	per1229026a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: WATER

Extraction Batch ID: 936758

Extraction Type: Filter/DAI

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

Client Sample No.
RE03-10-2764

Date Received: 24-DEC-09

GEL Job No (SDG): 10-1087-1

GEL Sample ID: 243554003

Date Filtered: 28-DEC-09

Injection Volume (uL): 20

%Solids:

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.05	.2	0.050	ug/L	U	1	29-DEC-09 16:27	per1229027a
	Perchlorate Isotope Ratio						1	29-DEC-09 16:27	per1229027a
14797-73-0	Perchlorate-101	.05	.2	0.050	ug/L	U	1	29-DEC-09 16:27	per1229027a
	Perchlorate-O(18)			0.486	ug/L		1	29-DEC-09 16:27	per1229027a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: WATER

Extraction Batch ID: 936758

Extraction Type: Filter/DAI

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

Client Sample No.
RE03-10-2762

Date Received: 24-DEC-09

GEL Job No (SDG): 10-1087-1

GEL Sample ID: 243554004

Date Filtered: 28-DEC-09

Injection Volume (uL): 20

%Solids:

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.05	.2	0.050	ug/L	U	1	29-DEC-09 16:34	per1229028a
	Perchlorate Isotope Ratio						1	29-DEC-09 16:34	per1229028a
14797-73-0	Perchlorate-101	.05	.2	0.050	ug/L	U	1	29-DEC-09 16:34	per1229028a
	Perchlorate-O(18)			0.489	ug/L		1	29-DEC-09 16:34	per1229028a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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QUALITY CONTROL SUMMARY

Perchlorate Laboratory Control Sample

Lab Name: General Engineering Laboratories

Lab Code: GEL

GEL Job No. (SDG): 10–1087–1

Extract Batch Code: 936758

Date Filtered: 28–DEC–09

Matrix: WATER

Sample ID: 1202004325

Analyte^	True	Found	Units	%Rec	Q	Control Limits
Perchlorate	0.200	.196	ug/L	97.9		85 – 115
Perchlorate Isotope Ratio		3.1				–
Perchlorate–101	0.200	.192	ug/L	96.0		85 – 115
Perchlorate–O(18)		.498	ug/L			–

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate–101 peak area. The Perchlorate–101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

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Form 5a

Perchlorate Interference Check Sample

Lab Name: General Engineering Laboratories

Lab Code: GEL

GEL Job No. (SDG): 10-1087-1

Extract Batch Code: 936758

Date Filtered: 28-DEC-09

Matrix: WATER

Sample ID: 1202004326

Analyte^	True	Found	Units	%Rec	Q	Control Limits
Perchlorate	0.200	.213	ug/L	107		70 – 130
Perchlorate Isotope Ratio		3.07				
Perchlorate-101	0.200	.211	ug/L	105		70 – 130
Perchlorate-O(18)		.533	ug/L			

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Michael A. Penny

Dataset: C:\MassLynx\Perchlorate.PRO\per122909a.qld

Last Altered: Wednesday, December 30, 2009 6:51:18 AM Eastern Standard Time
Printed: Wednesday, December 30, 2009 6:56:40 AM Eastern Standard Time

Name: per1229014a
Date: 29-Dec-2009
Time: 14:56:22
ID: 1202004326 | LANL | 936761 | LQ | ICS | 1 |
Vial: 1:4,C

MM 12/30/09

Perchlorate

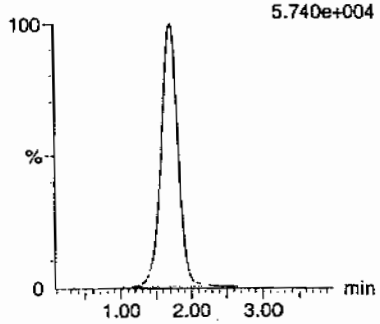

Perchlorate

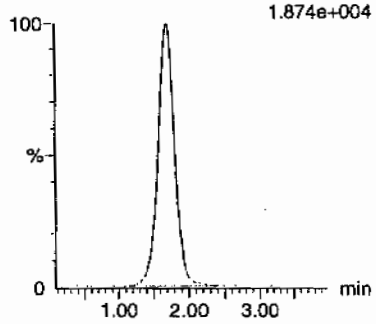

Perchlorate-101

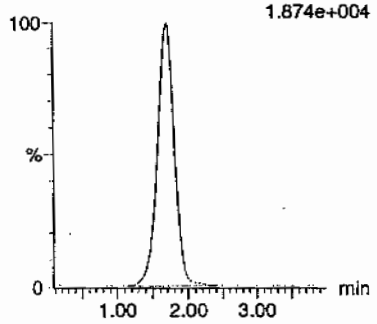

Perchlorate-O(18)

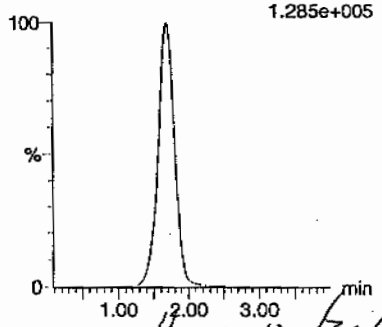

HMW 12/30/09

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202004326	Perchlorate	99 > 83	1.71	15834.586	15834.586	bb			0.2130	106.51	6.51	1818.5...	3.07
1202004326	Perchlorate-101	101 > 85	1.69	5150.890	5150.890	bb			0.2105	105.26	5.26	588.761	
1202004326	Perchlorate-O(18)	107 > 89	1.69	35490.465	35490.465	bb			0.5331	106.63	6.63	9865.6...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Form 6

Perchlorate Spike/Spike Duplicate Summary

Lab Name: General Engineering Laboratories

Lab Code: GEL

GEL Job No (SDG): 10-1087-1

Extract Batch Code: 936758

Date Extracted: 28-DEC-09

GEL MS/PS ID: 1202004323

Client ID: RE16-10-2865

GEL MSD/PSD ID: 1202004324

QC Type: MS

Compound^	Spike Added	Sample Conc	Units	MS Conc	MS Rec #	MSD Conc	MSD Rec #	RPD #	RPD Limit	Recovery Limit
Perchlorate	0.200	0.00116	ug/L	0.197	98	.199	98.7	.701	30	75 – 125
Perchlorate Isotope Ratio	0	0.00		2.96		2.92		0		–
Perchlorate-101	0.200	0.00123	ug/L	0.202	101	.207	103	2.08	30	75 – 125
Perchlorate-O(18)	0	0.500	ug/L	0.490		.499		1.83		–

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

Comments:

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Form 4

Perchlorate Initial Calibration Blank

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–1087–1

Lab Code: GEL

Reporting Units: ug/L

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id	GEL Sample ID
Perchlorate	0.00	0	NA	29–DEC–09	per1229001a	IPB001
Perchlorate–101	0.00	0	NA	29–DEC–09	per1229001a	IPB001
Perchlorate	0.00	0	NA	29–DEC–09	per1229002a	IPB001
Perchlorate–101	0.00	0	NA	29–DEC–09	per1229002a	IPB001

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Michael A. Penny

Dataset: C:\MassLynx\Perchlorate.PRO\per122909a.qld

Last Altered: Wednesday, December 30, 2009 6:51:18 AM Eastern Standard Time
Printed: Wednesday, December 30, 2009 6:56:40 AM Eastern Standard Time

Method: C:\MassLynx\Perchlorate.PRO\MethDB\per122909a.mdb 29 Dec 2009 14:36:05
Calibration: C:\MassLynx\Perchlorate.PRO\CurveDB\per122909a.cdb 30 Dec 2009 06:51:17

Name: per1229001a
Date: 29-Dec-2009
Time: 13:24:44
ID: IPB001
Vial: 1:1,A

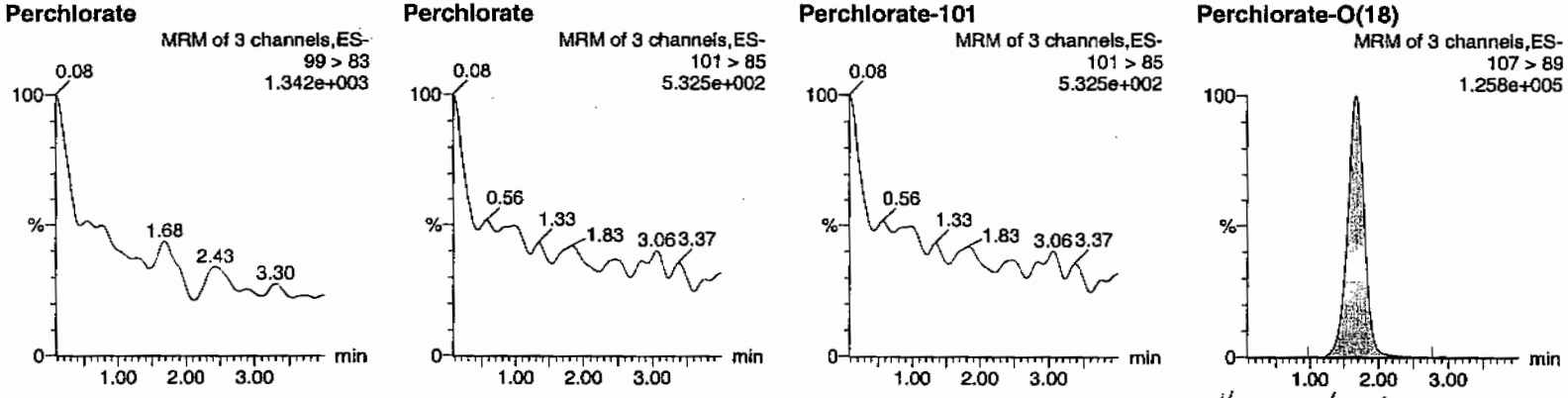

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB001	Perchlorate	99 > 83											0.00
IPB001	Perchlorate-101	101 > 85											
IPB001	Perchlorate-O(18)	107 > 89	1.67	35086.422	35086.422	bb			0.5271	105.42	5.42	10266....	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Michael A. Penny

Dataset: C:\MassLynx\Perchlorate.PRO\per122909a.qld

Last Altered: Wednesday, December 30, 2009 6:51:18 AM Eastern Standard Time
Printed: Wednesday, December 30, 2009 6:56:40 AM Eastern Standard Time

Name: per1229002a
Date: 29-Dec-2009
Time: 13:31:57
ID: IPB001
Vial: 1:1,A

MTP 12/30/09

Perchlorate

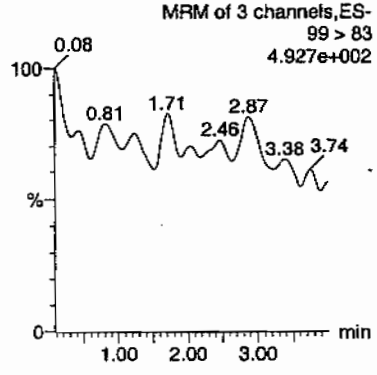

Perchlorate

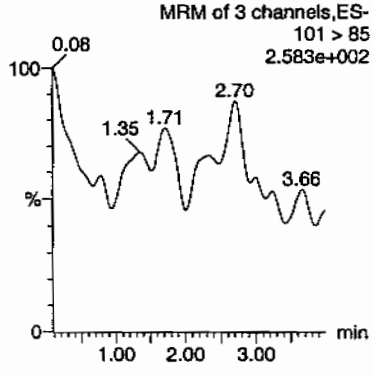

Perchlorate-101

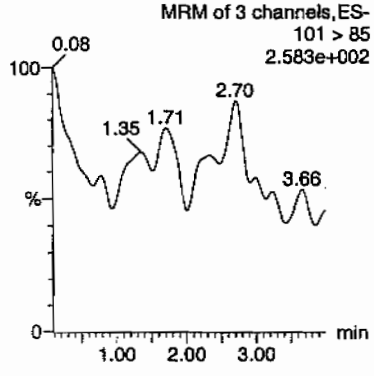

Perchlorate-O(18)

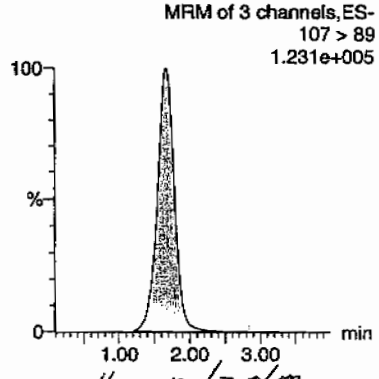

HMM 12/30/09

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB001	Perchlorate	99 > 83											0.00
IPB001	Perchlorate-101	101 > 85											
IPB001	Perchlorate-O(18)	107 > 89	1.67	34490.836	34490.836	bb			0.5181	103.63	3.63	3293.3...	

Form 4

Perchlorate Continuing Calibration Blank

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–1087–1

Lab Code: GEL

Reporting Units: ug/L

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id	GEL Sample ID
Perchlorate	0.00	0	NA	29–DEC–09	per1229008a	IPB002
Perchlorate–101	0.00	0	NA	29–DEC–09	per1229008a	IPB002
Perchlorate	0.00	0	NA	29–DEC–09	per1229010a	IPB003
Perchlorate–101	0.00	0	NA	29–DEC–09	per1229010a	IPB003
Perchlorate	0.00	0	NA	29–DEC–09	per1229023a	IPB004
Perchlorate–101	0.00	0	NA	29–DEC–09	per1229023a	IPB004
Perchlorate	0.00	0	NA	29–DEC–09	per1229030a	IPB005
Perchlorate–101	0.00	0	NA	29–DEC–09	per1229030a	IPB005

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Michael A. Penny

Dataset: C:\MassLynx\Perchlorate.PRO\per122909a.qld

Last Altered: Wednesday, December 30, 2009 6:51:18 AM Eastern Standard Time
Printed: Wednesday, December 30, 2009 6:56:40 AM Eastern Standard Time

Name: per1229008a
Date: 29-Dec-2009
Time: 14:14:07
ID: IPB002
Vial: 1:1,A

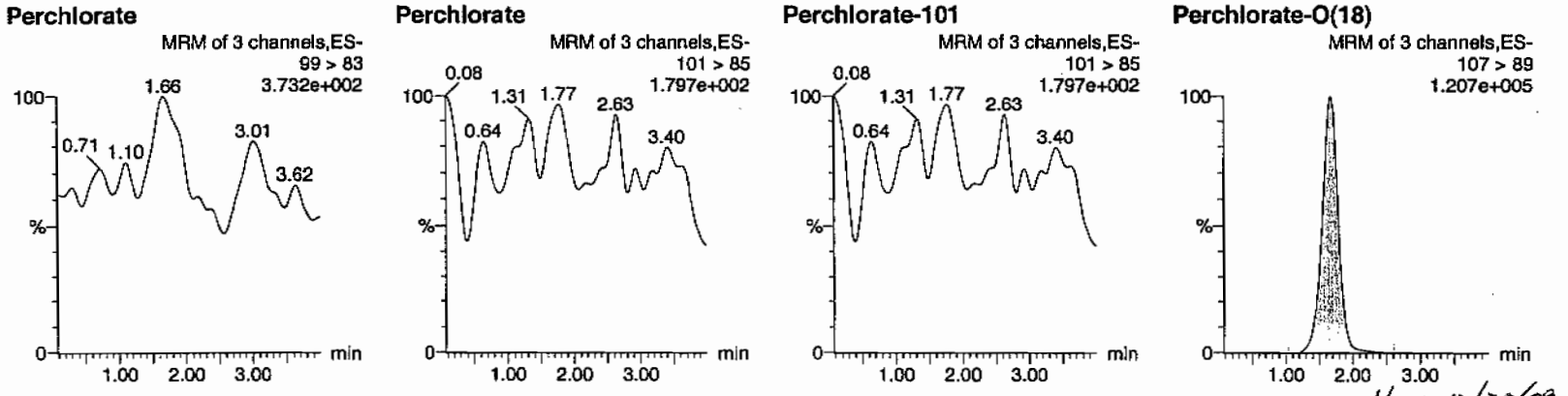

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB002	Perchlorate	99 > 83											0.00
IPB002	Perchlorate-101	101 > 85											
IPB002	Perchlorate-O(18)	107 > 89	1.67	33924.273	33924.273	bb			0.5096	101.92	1.92	7224.2...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Michael A. Penny

Dataset: C:\MassLynx\Perchlorate.PRO\per122909a.qld

Last Altered: Wednesday, December 30, 2009 6:51:18 AM Eastern Standard Time
Printed: Wednesday, December 30, 2009 6:56:40 AM Eastern Standard Time

Name: per1229010a
Date: 29-Dec-2009
Time: 14:28:12
ID: IPB003
Vial: 1:1,A

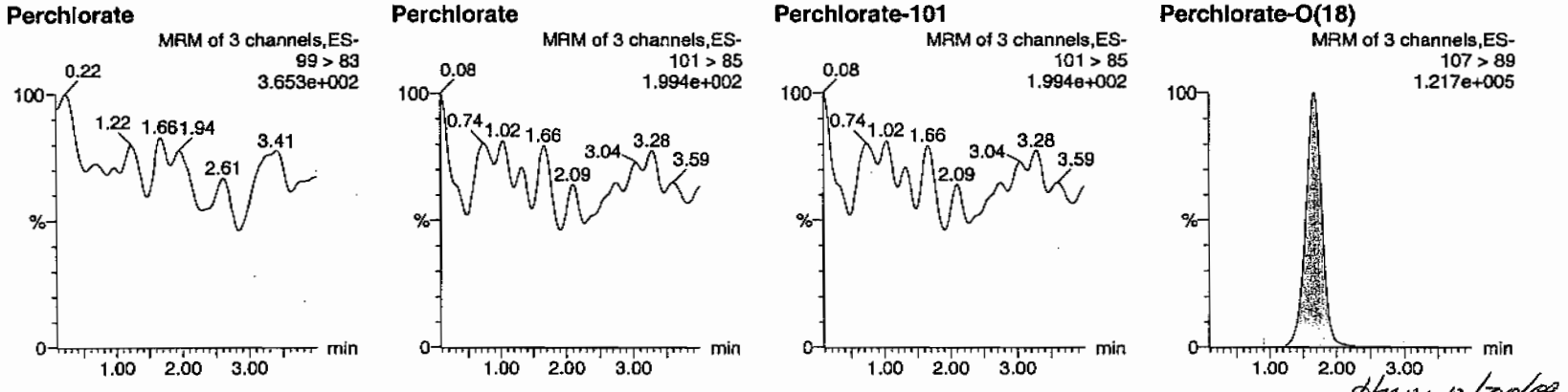

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB003	Perchlorate	99 > 83											0.00
IPB003	Perchlorate-101	101 > 85											
IPB003	Perchlorate-O(18)	107 > 89	1.67	34074.816	34074.816	bb			0.5119	102.38	2.38	3513.1...	

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Michael A. Penny

Dataset: C:\MassLynx\Perchlorate.PRO\per122909a.qld

Last Altered: Wednesday, December 30, 2009 6:51:18 AM Eastern Standard Time
Printed: Wednesday, December 30, 2009 6:56:40 AM Eastern Standard Time

Name: per1229023a
Date: 29-Dec-2009
Time: 15:59:47
ID: IPB004
Vial: 1:1,A

MAP 12/30/09

Perchlorate

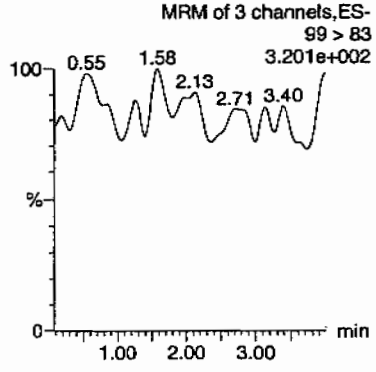

Perchlorate

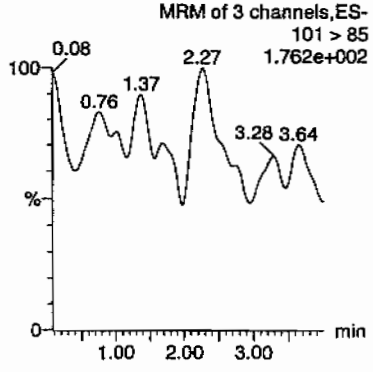

Perchlorate-101

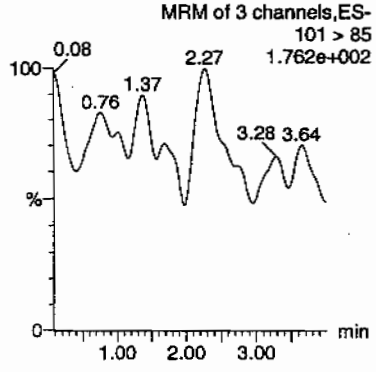

Perchlorate-O(18)

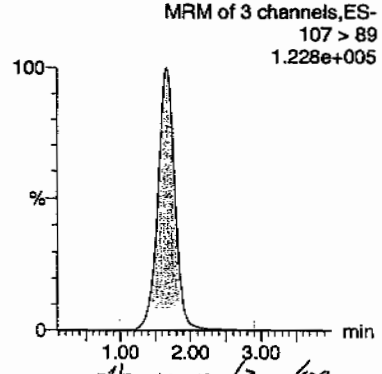

Anne 12/30/09

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB004	Perchlorate	99 > 83											0.00
IPB004	Perchlorate-101	101 > 85											
IPB004	Perchlorate-O(18)	107 > 89	1.67	34397.980	34397.980	bb			0.5167	103.35	3.35	5102.0...	

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Michael A. Penny

Dataset: C:\MassLynx\Perchlorate.PRO\per122909a.qld

Last Altered: Wednesday, December 30, 2009 6:51:18 AM Eastern Standard Time
Printed: Wednesday, December 30, 2009 6:56:40 AM Eastern Standard Time

Name: per1229030a
Date: 29-Dec-2009
Time: 16:49:06
ID: IPB005
Vial: 1:1,A

MMT 12/30/09

Perchlorate

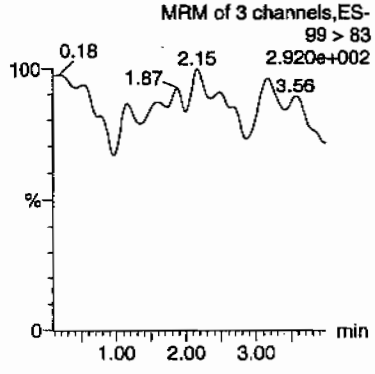

Perchlorate

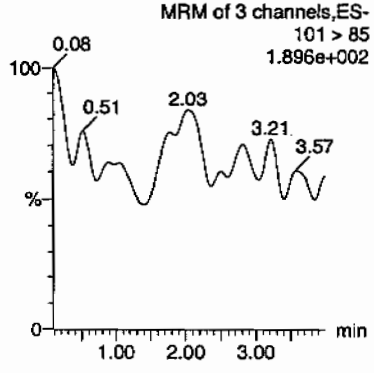

Perchlorate-101

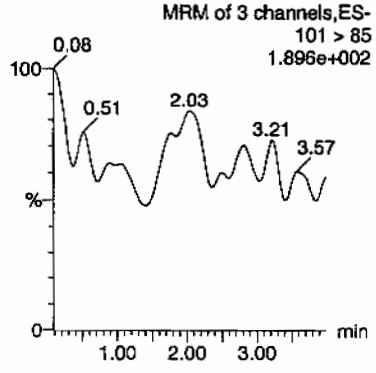

Perchlorate-O(18)

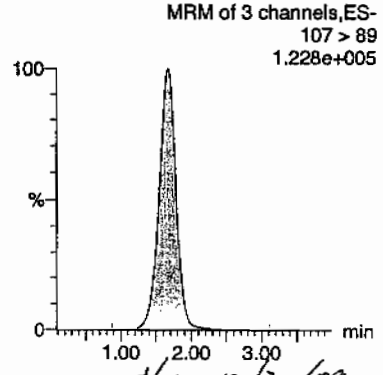

HMW 12/30/09

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB005	Perchlorate	99 > 83											0.00
IPB005	Perchlorate-101	101 > 85											
IPB005	Perchlorate-O(18)	107 > 89	1.67	34324.867	34324.867	bb			0.5156	103.13	3.13	20032....	

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Nairb.ref

;Positive ion monoisotopic and average masses from solution
;of NaI/Rbi (2.0/0.05ug/ul) in 50/20 2-propanol/H2O.
;Most useful general purpose calibrant for all low
;MW applications, including MS/MS work.
;At high resolution, readily covers from m/z 50-2000.
;At reduced resolution, can be used to over m/z 3000.
;NOT RECOMMENDED FOR PROTEIN WORK. USE MYO, MYOTRP or TRP.
Updated 20 April '95

22.9898	100
84.9118	100
172.8840	100
322.7782	100
472.6725	100
622.5667	100
772.4610	100
922.3552	100
1072.2494	100
; 1222.1437	100
; 1372.0379	100
; 1521.9321	100
; 1671.8264	100
; 1821.7206	100
; 1971.6149	100
; 2121.5091	100
; 2271.4033	100
; 2421.2976	100
; 2571.1918	100
; 2721.0861	100
; 2870.9803	100
; 3020.8745	100
; 3170.7688	100
; 3320.6630	100
; 3470.5572	100
; 3620.4515	100
; 3770.3457	100
; 3920.2400	100

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QUATTRO ULTIMA: nairb_01_08_08.cal

Calibration Report - MS1 Static

Printed: Tue Jan 08 12:19:12 2008

PEAKS HIGHLIGHTED BY CWJ 01-09-08

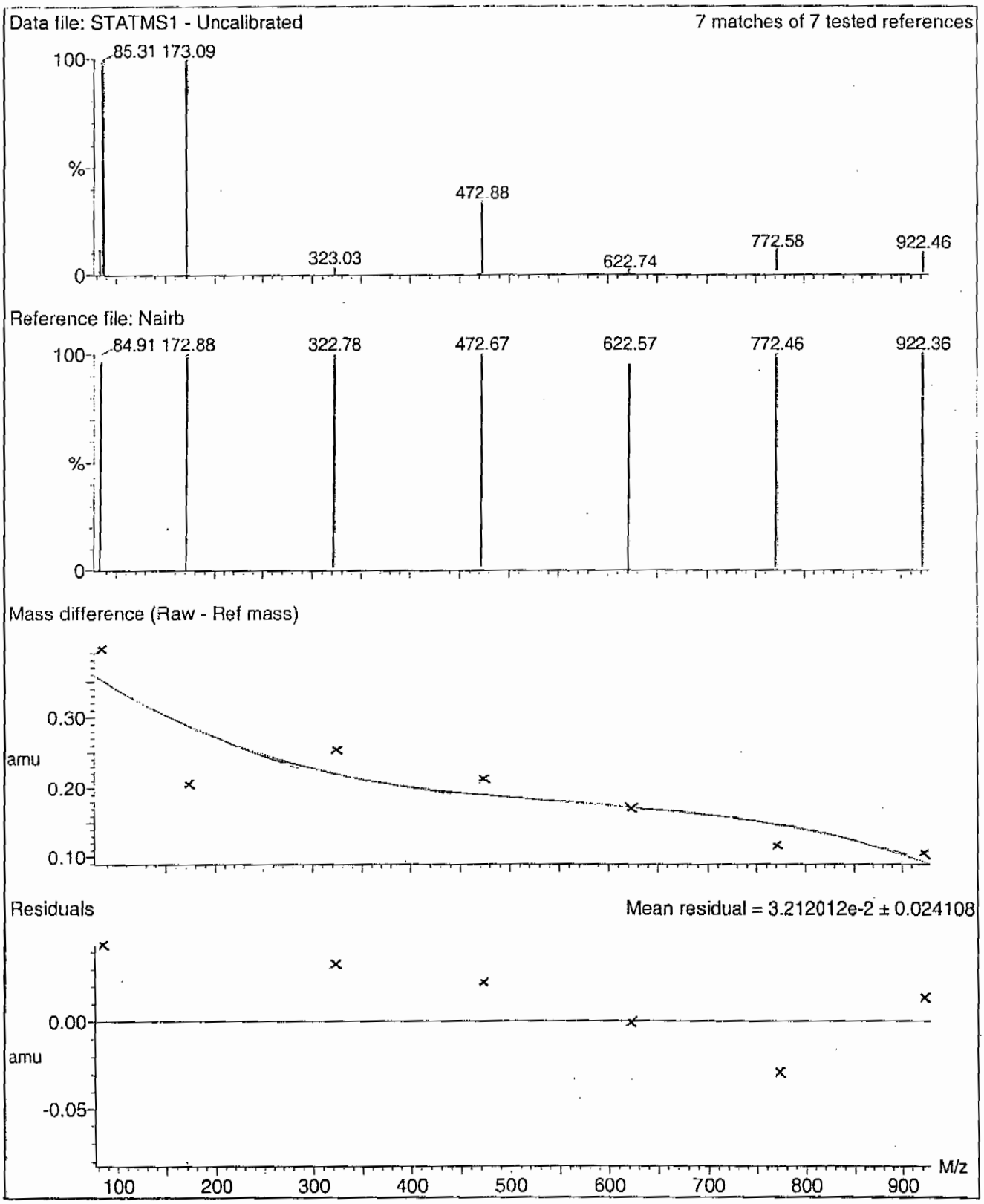

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Calibration Report - MS1 Scanning

Printed: Tue Jan 08 12:20:09 2008

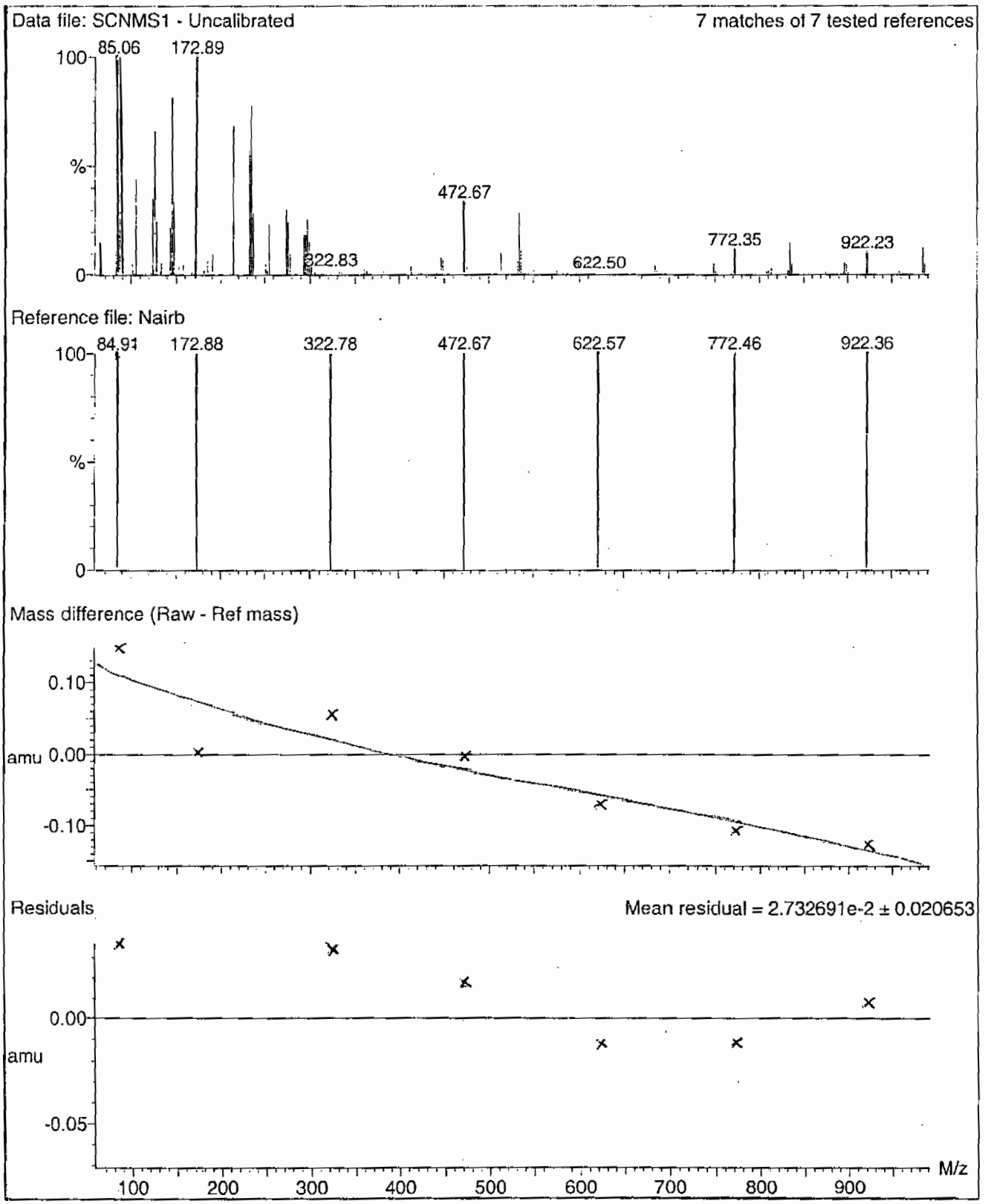

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Calibration Report - MS1 Scan Speed Compensation

Printed: Tue Jan 08 12:21:04 2008

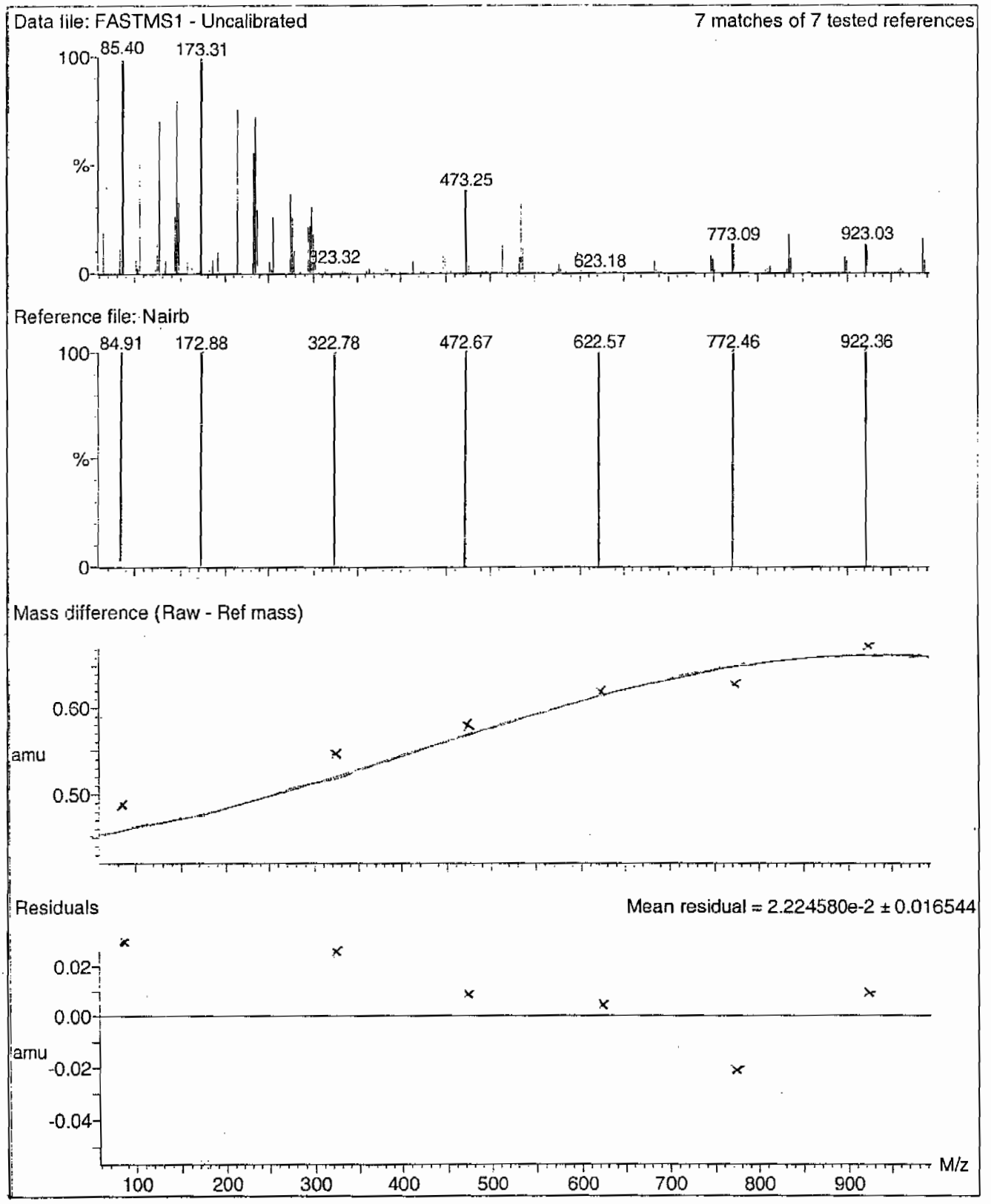

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Calibration Report - MS2 Static

Printed: Tue Jan 08 12:21:59 2008

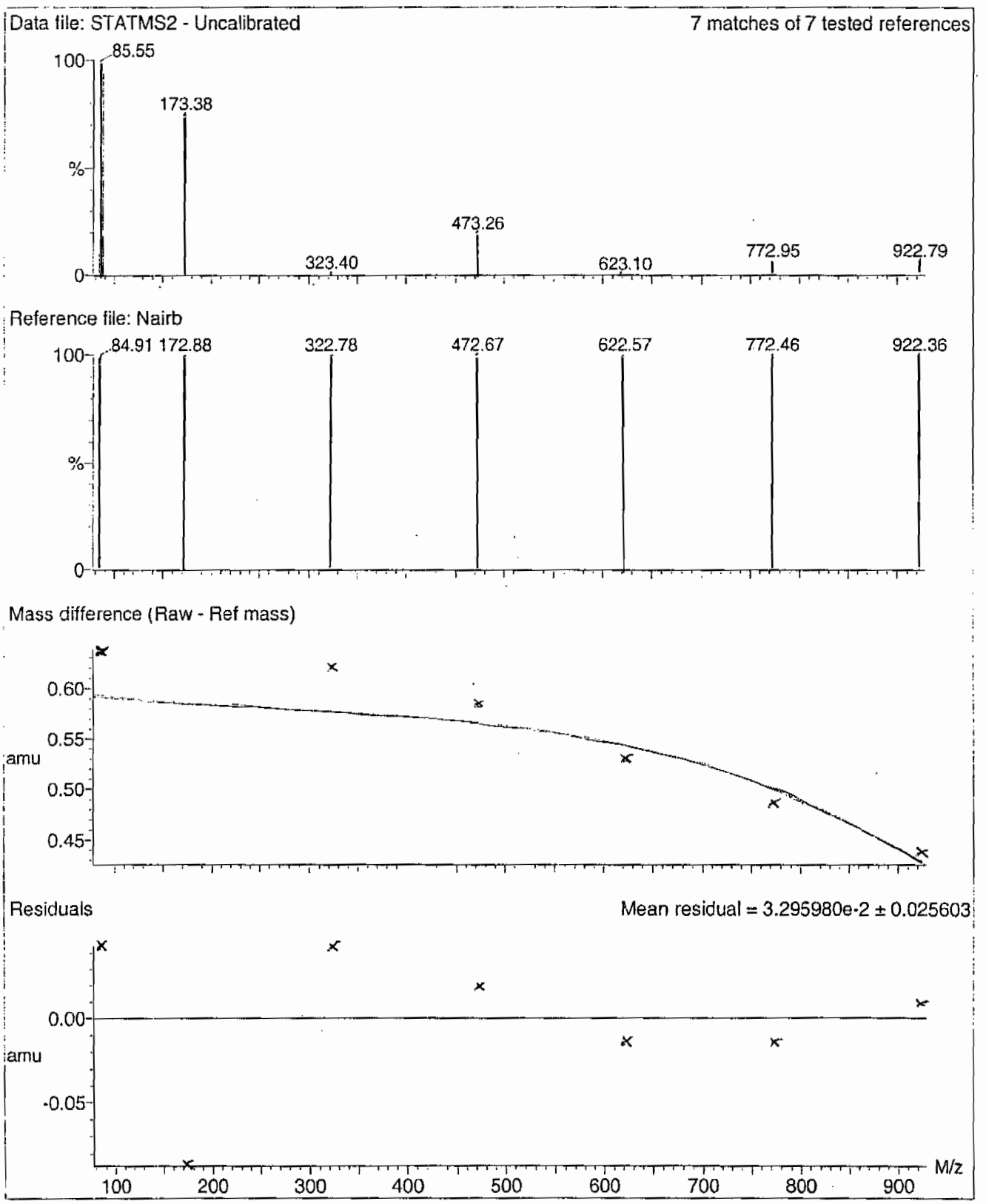

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Calibration Report - MS2 Scanning

Printed: Tue Jan 08 12:22:56 2008

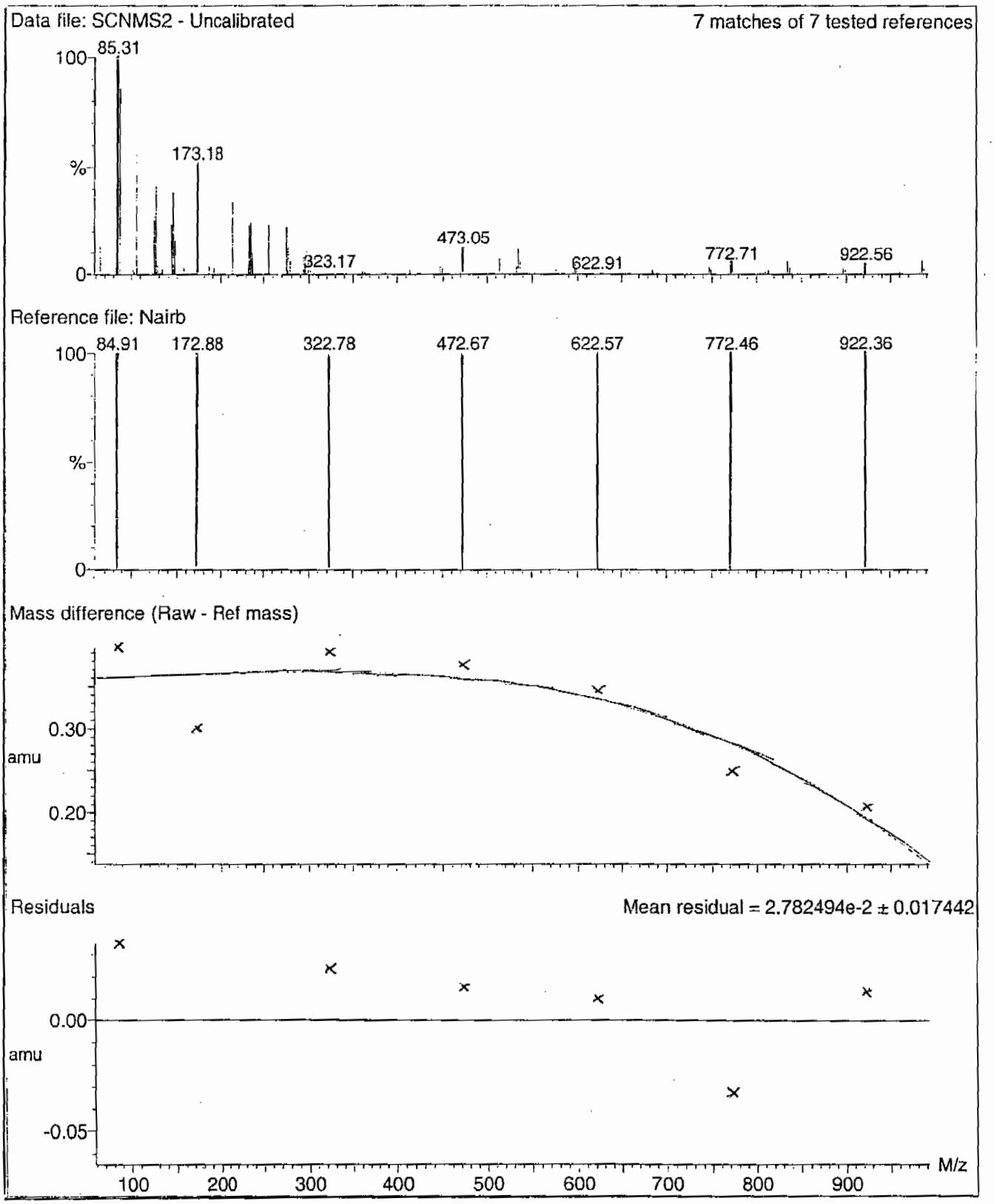

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Calibration Report - MS2 Scan Speed Compensation

Printed: Tue Jan 08 12:23:51 2008

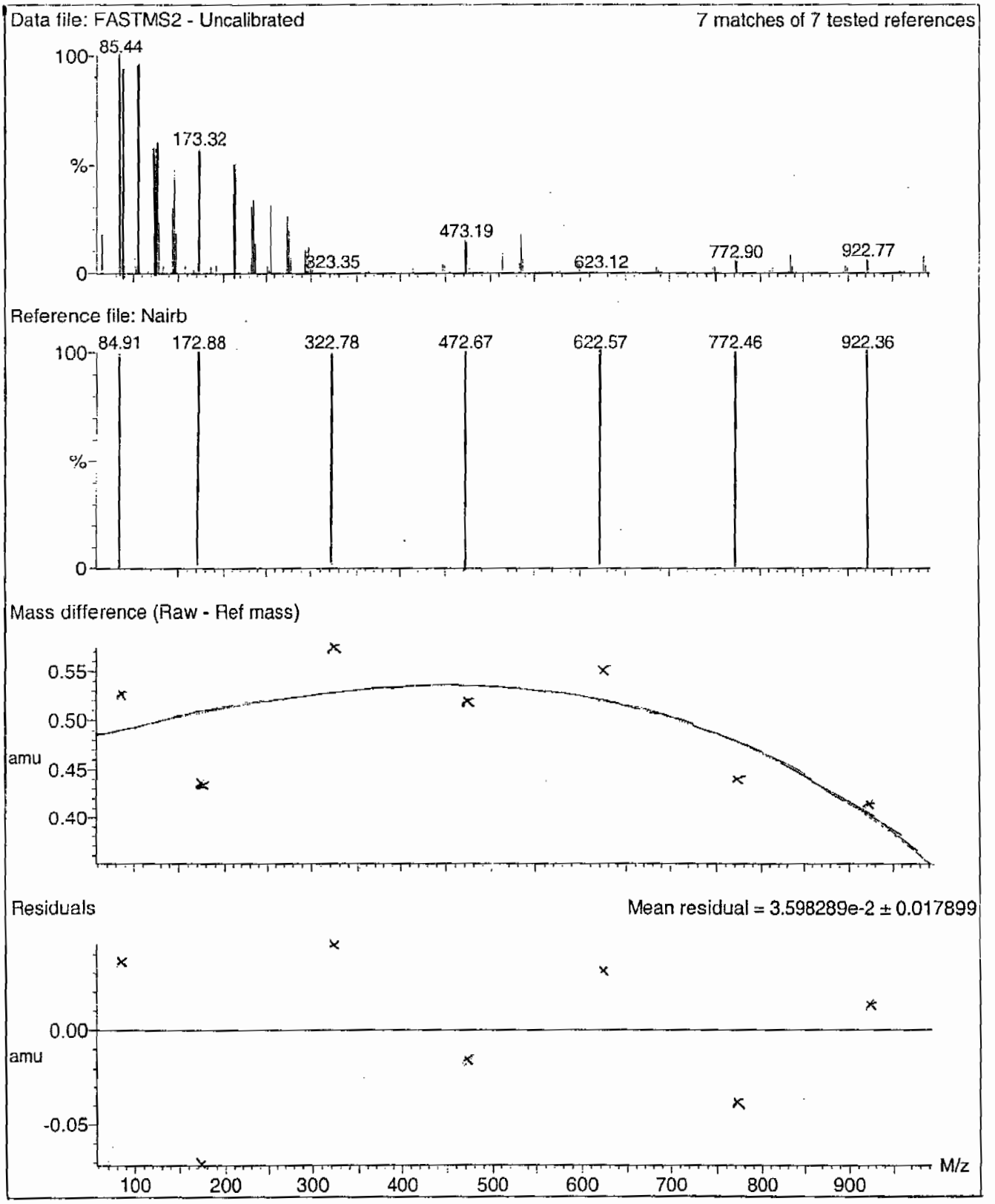

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File: C:\MassLynx\Perchlorate.PRO\ACQUDB\Perchlorate.IPR

Printed: Tuesday, December 29, 2009 13:23:13 Eastern Standard Time

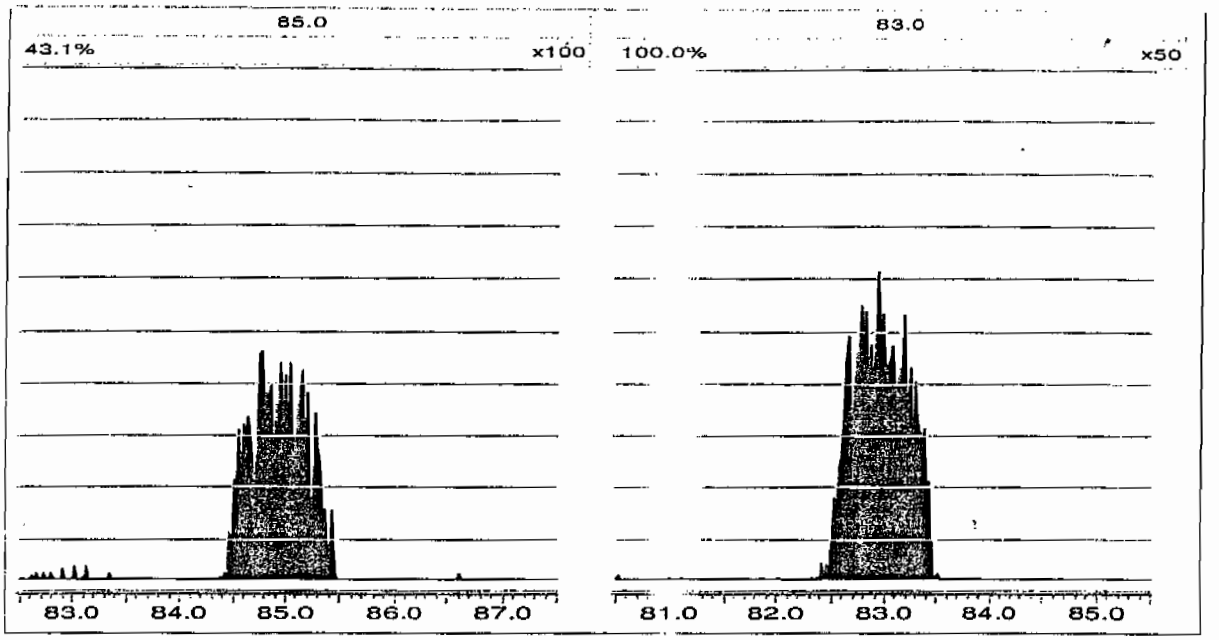

Form 8

Perchlorate RT And Area Summary

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10–1087–1

Lab Code: GEL

Instrument ID: LCMSMS

HPLC Column: Phenomenex Ion Pac AG–16 2 X 50 mm

Sample ID	Datafile	Run Date	Area	RT	RT CLO4	RRT	Q 0.98–1.02
MidLevel Standard Area	**per1229006a**	**29–DEC–09**	**33335.8**				
Lower Area Limit			**16667.9**				
Upper Area Limit			**66671.6**				
1202004322	per1229012a	29–DEC–09 14:42	33205.9	1.67	1.66917	1	
1202004325	per1229013a	29–DEC–09 14:49	33157.7	1.67	1.68163	1.007	
1202004326	per1229014a	29–DEC–09 14:56	35490.5	1.69	1.70643	1.01	
243554001	per1229025a	29–DEC–09 16:13	31787.8	1.66			
243554002	per1229026a	29–DEC–09 16:20	33033.2	1.67	1.66915	.999	
243554003	per1229027a	29–DEC–09 16:27	32334.4	1.66	1.66918	1.006	
243554004	per1229028a	29–DEC–09 16:34	32541.6	1.67	1.66913	.999	

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SAMPLE
DATA

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: WATER

Extraction Batch ID: 936758

Extraction Type: Filter/DAI

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

Client Sample No.
RE03-10-2750

Date Received: 24-DEC-09

GEL Job No (SDG): 10-1087-1

GEL Sample ID: 243554001

Date Filtered: 28-DEC-09

Injection Volume (uL): 20

%Solids:

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.05	.2	0.050	ug/L	U	1	29-DEC-09 16:13	per1229025a
	Perchlorate Isotope Ratio						1	29-DEC-09 16:13	per1229025a
14797-73-0	Perchlorate-101	.05	.2	0.050	ug/L	U	1	29-DEC-09 16:13	per1229025a
	Perchlorate-O(18)			0.478	ug/L		1	29-DEC-09 16:13	per1229025a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Michael A. Penny

Dataset: C:\MassLynx\Perchlorate.PRO\per122909a.qld

Last Altered: Wednesday, December 30, 2009 6:51:18 AM Eastern Standard Time
Printed: Wednesday, December 30, 2009 6:56:40 AM Eastern Standard Time

Name: per1229025a
Date: 29-Dec-2009
Time: 16:13:51
ID: 243554001
Vial: 1:5,E

LANL | 936761 | LSQ | 1 |

12/30/09

Perchlorate

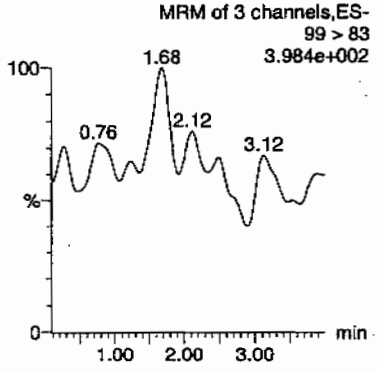

Perchlorate

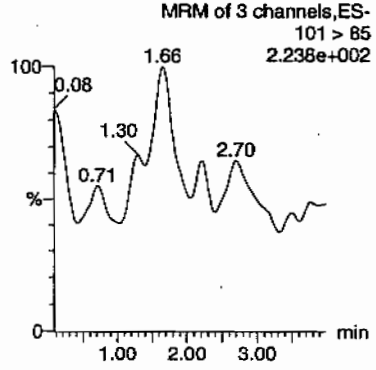

Perchlorate-101

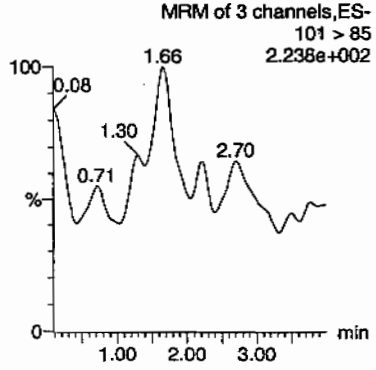

Perchlorate-O(18)

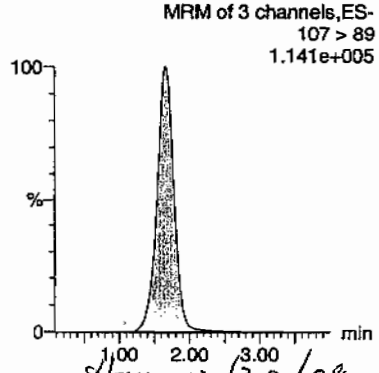

HMM 12/30/09

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	+%Dev	S/N	Ion Ratio
243554001	Perchlorate	99 > 83											0.00
243554001	Perchlorate-101	101 > 85											
243554001	Perchlorate-O(18)	107 > 89	1.66	31787.750	31787.750	bb			0.4775	95.50	-4.50	4621.9...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: WATER

Extraction Batch ID: 936758

Extraction Type: Filter/DAI

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

Client Sample No.
RE03-10-2749

Date Received: 24-DEC-09

GEL Job No (SDG): 10-1087-1

GEL Sample ID: 243554002

Date Filtered: 28-DEC-09

Injection Volume (uL): 20

%Solids:

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.05	.2	0.050	ug/L	U	1	29-DEC-09 16:20	per1229026a
	Perchlorate Isotope Ratio						1	29-DEC-09 16:20	per1229026a
14797-73-0	Perchlorate-101	.05	.2	0.050	ug/L	U	1	29-DEC-09 16:20	per1229026a
	Perchlorate-O(18)			0.496	ug/L		1	29-DEC-09 16:20	per1229026a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Michael A. Penny

Dataset: C:\MassLynx\Perchlorate.PRO\per122909a.qld

Last Altered: Wednesday, December 30, 2009 6:51:18 AM Eastern Standard Time
Printed: Wednesday, December 30, 2009 6:56:40 AM Eastern Standard Time

Name: per1229026a
Date: 29-Dec-2009
Time: 16:20:53
ID: 243554002 | LANC | 936761 | LaQ | 1 |
Vial: 1:5,F

MAP 12/30/09

Perchlorate

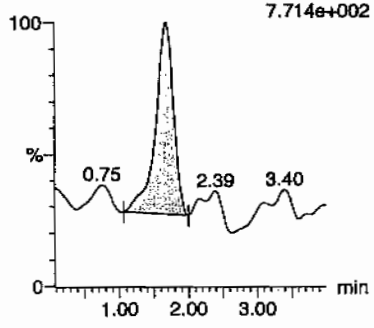

Perchlorate

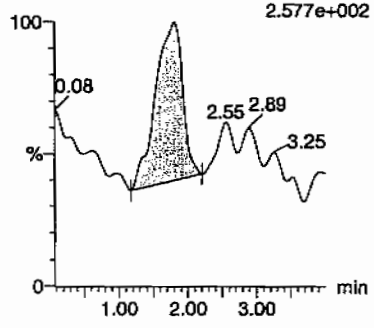

Perchlorate-101

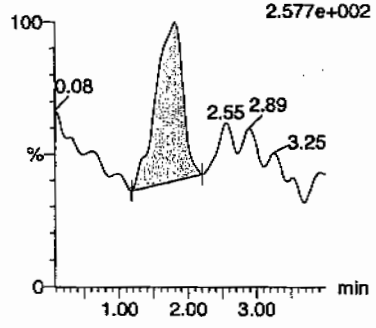

Perchlorate-O(18)

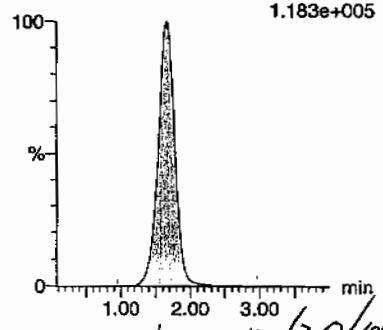

MM 12/30/09

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
243554002	Perchlorate	99 > 83	1.67	173.300	173.300	bb			0.0023			12.321	2.44
243554002	Perchlorate-101	101 > 85	1.82	71.048	71.048	bb			0.0029			16.881	
243554002	Perchlorate-O(18)	107 > 89	1.67	33033.188	33033.188	bb			0.4962	99.25	-0.75	4856.4...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: WATER

Extraction Batch ID: 936758

Extraction Type: Filter/DAI

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

Client Sample No.
RE03-10-2764

Date Received: 24-DEC-09

GEL Job No (SDG): 10-1087-1

GEL Sample ID: 243554003

Date Filtered: 28-DEC-09

Injection Volume (uL): 20

%Solids:

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.05	.2	0.050	ug/L	U	1	29-DEC-09 16:27	per1229027a
	Perchlorate Isotope Ratio						1	29-DEC-09 16:27	per1229027a
14797-73-0	Perchlorate-101	.05	.2	0.050	ug/L	U	1	29-DEC-09 16:27	per1229027a
	Perchlorate-O(18)			0.486	ug/L		1	29-DEC-09 16:27	per1229027a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Michael A. Penny

Dataset: C:\MassLynx\Perchlorate.PRO\per122909a.qld

Last Altered: Wednesday, December 30, 2009 6:51:18 AM Eastern Standard Time
Printed: Wednesday, December 30, 2009 6:56:40 AM Eastern Standard Time

Name: per1229027a
Date: 29-Dec-2009
Time: 16:27:55
ID: 243554003
Vial: 1:6,A

| LANC | 936761 | LCQ | 1 |

MAP 12/30/09

Perchlorate

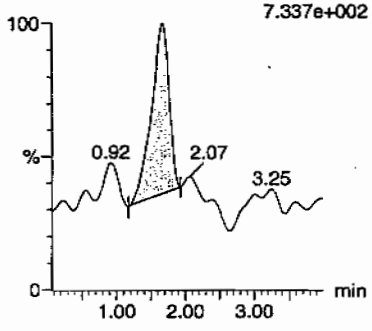

Perchlorate

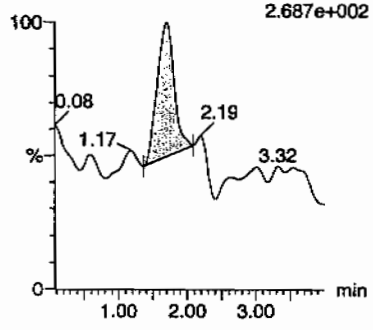

Perchlorate-101

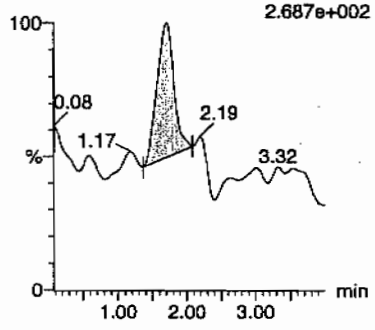

Perchlorate-O(18)

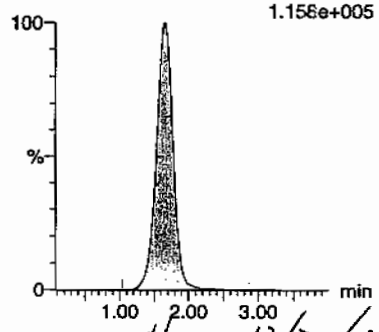

HMM 12/30/09

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
243554003	Perchlorate	99 > 83	1.67	143.140	143.140	bb			0.0019			19.246	3.66
243554003	Perchlorate-101	101 > 85	1.71	39.152	39.152	bb			0.0016			11.590	
243554003	Perchlorate-O(18)	107 > 89	1.66	32334.420	32334.420	bb			0.4857	97.15	-2.85	12277....	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: WATER

Extraction Batch ID: 936758

Extraction Type: Filter/DAI

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

Client Sample No.
RE03-10-2762

Date Received: 24-DEC-09

GEL Job No (SDG): 10-1087-1

GEL Sample ID: 243554004

Date Filtered: 28-DEC-09

Injection Volume (uL): 20

%Solids:

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.05	.2	0.050	ug/L	U	1	29-DEC-09 16:34	per1229028a
	Perchlorate Isotope Ratio						1	29-DEC-09 16:34	per1229028a
14797-73-0	Perchlorate-101	.05	.2	0.050	ug/L	U	1	29-DEC-09 16:34	per1229028a
	Perchlorate-O(18)			0.489	ug/L		1	29-DEC-09 16:34	per1229028a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Michael A. Penny

Dataset: C:\MassLynx\Perchlorate.PRO\per122909a.qld

Last Altered: Wednesday, December 30, 2009 6:51:18 AM Eastern Standard Time
Printed: Wednesday, December 30, 2009 6:56:40 AM Eastern Standard Time

Name: per1229028a
Date: 29-Dec-2009
Time: 16:34:59
ID: 243554004 | LANC | 936761 | LIQ | 1 |
Vial: 1:6,B

HLAP 12/30/09

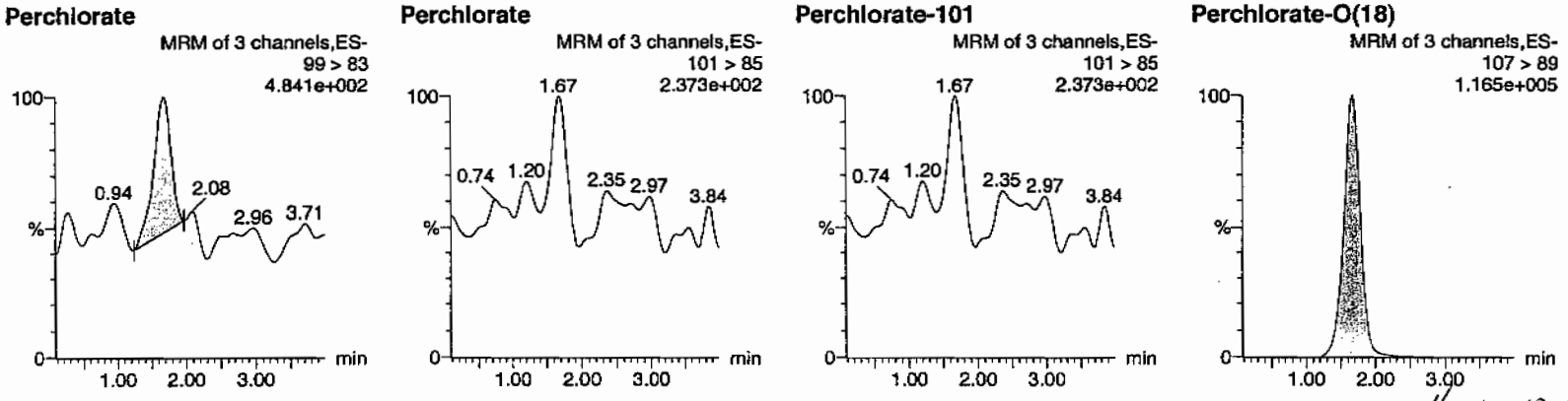

HMM 12/30/09

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
243554004	Perchlorate	99 > 83	1.67	75.657	75.657	bb			0.0010			10.421	0.00
243554004	Perchlorate-101	101 > 85											
243554004	Perchlorate-O(18)	107 > 89	1.67	32541.564	32541.564	bb			0.4888	97.77	-2.23	1795.8...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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STANDARDS DATA

Form 2

Perchlorate Initial Calibration

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10-1087-1

Lab Code: GEL

Instrument ID: LCMSMS **Date Analyzed:** 29-DEC-09

HPLC Column: Phenomenex Ion Pac AG-16 2 X 50 mm

Calibration Level	1	2	3	4	5
Cal Concentration (ug/L)	0.05	0.1	0.25	0.50	1.0

Parmname Perchlorate

Coefficient of Determination:

Calibration Curve: 74334.32

Response Type: External Standard

Curve Type: RF

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Form 2

Perchlorate Initial Calibration

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10–1087–1

Lab Code: GEL

Instrument ID: LCMSMS **Date Analyzed:** 29–DEC–09

HPLC Column: Phenomenex Ion Pac AG–16 2 X 50 mm

Calibration Level	1	2	3	4	5
Cal Concentration (ug/L)	0.05	0.1	0.25	0.50	1.0

Parmname Perchlorate–101

Coefficient of Determination:

Calibration Curve: 24468.6

Response Type: External Standard

Curve Type: RF

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Quantify Calibration Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Michael A. Penny

Dataset: C:\MassLynx\Perchlorate.PRO\per122909a.qld

Last Altered: Wednesday, December 30, 2009 6:51:18 AM Eastern Standard Time
Printed: Wednesday, December 30, 2009 6:56:40 AM Eastern Standard Time

Method: C:\MassLynx\Perchlorate.PRO\MethDB\per122909a.mdb 29 Dec 2009 14:36:05
Calibration: C:\MassLynx\Perchlorate.PRO\CurveDB\per122909a.cdb 30 Dec 2009 06:51:17

Compound name: Perchlorate
Response Factor: 74334.3
RRF SD: 1798.79, % Relative SD: 2.41986
Response type: External Std, Area
Curve type: RF

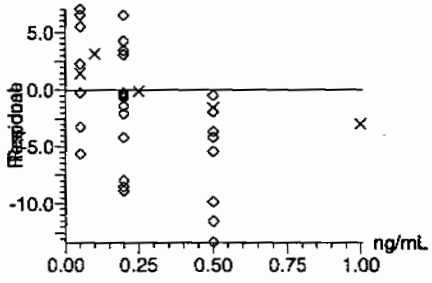

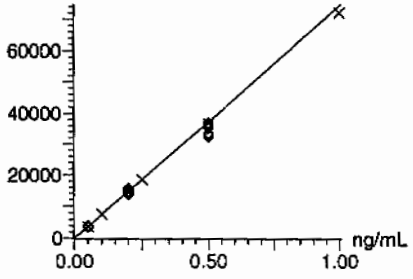

MMP
12/30/09

Compound name: Perchlorate-101
Response Factor: 24468.6
RRF SD: 542.853, % Relative SD: 2.21857
Response type: External Std, Area
Curve type: RF

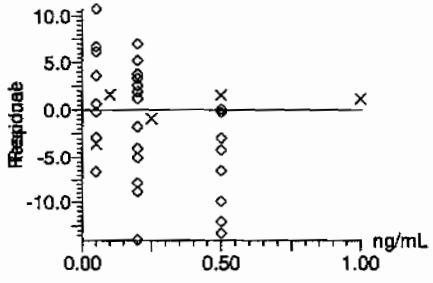

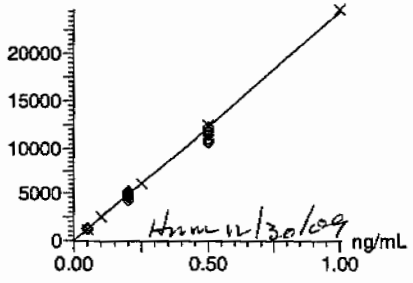

Hmm 12/30/09

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Calibration Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Michael A. Penny

Dataset: C:\MassLynx\Perchlorate.PRO\per122909a.qld

Last Altered: Wednesday, December 30, 2009 6:51:18 AM Eastern Standard Time
Printed: Wednesday, December 30, 2009 6:56:40 AM Eastern Standard Time

Compound name: Perchlorate-O(18)
Response Factor: 66568.2
RRF SD: 652.618, % Relative SD: 0.980376
Response type: External Std, Area
Curve type: RF

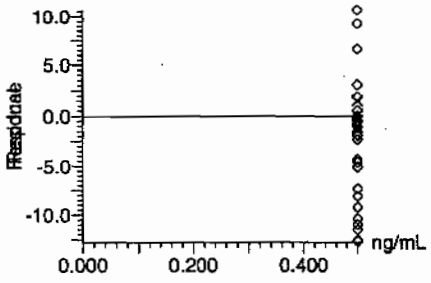

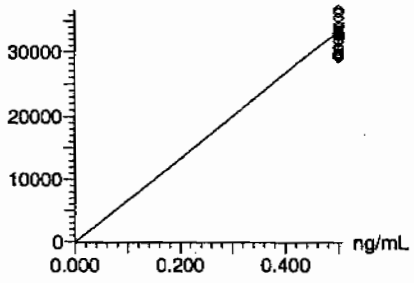

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Form 3

Perchlorate Initial Calibration Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10-1087-1

Lab Code: GEL

Reporting Units: ug/L

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.5	.5	99.53	29-DEC-09 14:21	per1229009a
Perchlorate Isotope Ratio		3.02		29-DEC-09 14:21	per1229009a
Perchlorate-101	.5	.5	100.07	29-DEC-09 14:21	per1229009a

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Michael A. Penny

Dataset: C:\MassLynx\Perchlorate.PRO\per122909a.qld

Last Altered: Wednesday, December 30, 2009 6:51:18 AM Eastern Standard Time
Printed: Wednesday, December 30, 2009 6:56:40 AM Eastern Standard Time

Name: per1229009a
Date: 29-Dec-2009
Time: 14:21:09
ID: WCL091218-06ICV
Vial: 1:2,A

MMT 12/30/09

Perchlorate

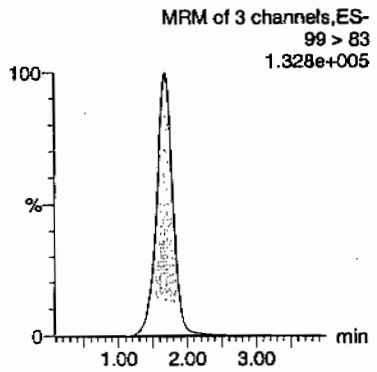

Perchlorate

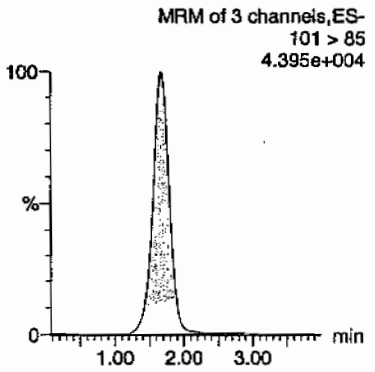

Perchlorate-101

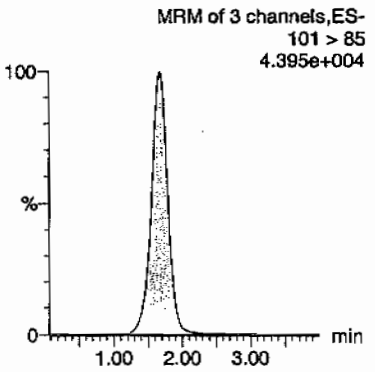

Perchlorate-O(18)

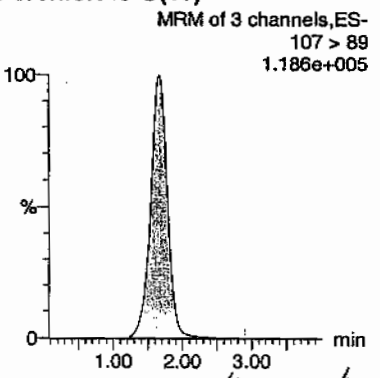

Hmm 12/30/09

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL091218-06ICV	Perchlorate	99 > 83	1.68	36993.602	36993.602	bb			0.4977	99.53	-0.47	3237.0...	3.02
WCL091218-06ICV	Perchlorate-101	101 > 85	1.67	12242.883	12242.883	bb			0.5004	100.07	0.07	2677.3...	
WCL091218-06ICV	Perchlorate-O(18)	107 > 89	1.67	33292.156	33292.156	bb			0.5001	100.02	0.02	9403.9...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Form 3

Perchlorate Continuing Calibration Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10-1087-1

Lab Code: GEL

Reporting Units: ug/L

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.5	.49	98.1	29-DEC-09 15:52	per1229022a
Perchlorate Isotope Ratio		2.99		29-DEC-09 15:52	per1229022a
Perchlorate-101	.5	.5	99.76	29-DEC-09 15:52	per1229022a
Perchlorate	.5	.48	96.39	29-DEC-09 16:42	per1229029a
Perchlorate Isotope Ratio		3.06		29-DEC-09 16:42	per1229029a
Perchlorate-101	.5	.48	95.84	29-DEC-09 16:42	per1229029a

PROPRIETARY INFORMATION - NO unauthorized reproduction without written permission from GEL.

Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Michael A. Penny

Dataset: C:\MassLynx\Perchlorate.PRO\per122909a.qld

Last Altered: Wednesday, December 30, 2009 6:51:18 AM Eastern Standard Time
Printed: Wednesday, December 30, 2009 6:56:40 AM Eastern Standard Time

Name: per1229022a
Date: 29-Dec-2009
Time: 15:52:44
ID: WCL091218-06CCV
Vial: 1:2,A

MMT 12/30/09

Perchlorate

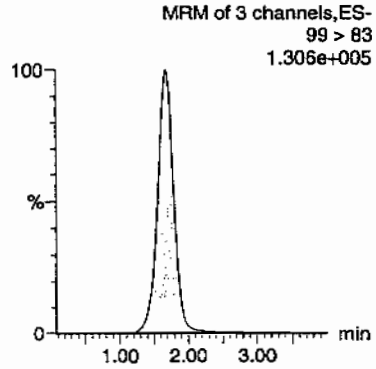

Perchlorate

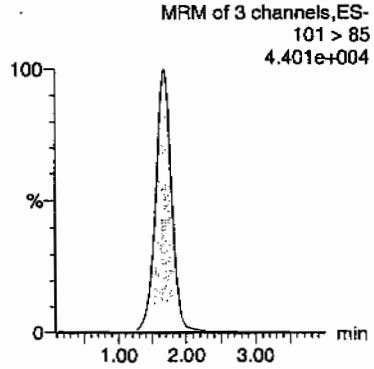

Perchlorate-101

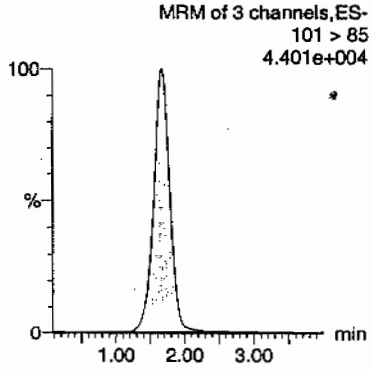

Perchlorate-O(18)

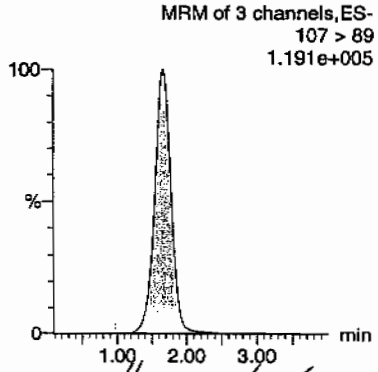

HMM 12/30/09

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL091218-06CCV	Perchlorate	99 > 83	1.68	36461.191	36461.191	bb			0.4905	98.10	-1.90	3999.9...	2.99
WCL091218-06CCV	Perchlorate-101	101 > 85	1.67	12204.641	12204.641	bb			0.4988	99.76	-0.24	3695.9...	
WCL091218-06CCV	Perchlorate-O(18)	107 > 89	1.67	32995.398	32995.398	bb			0.4957	99.13	-0.87	10703....	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Michael A. Penny

Dataset: C:\MassLynx\Perchlorate.PRO\per122909a.qld

Last Altered: Wednesday, December 30, 2009 6:51:18 AM Eastern Standard Time
Printed: Wednesday, December 30, 2009 6:56:40 AM Eastern Standard Time

Name: per1229029a
Date: 29-Dec-2009
Time: 16:42:03
ID: WCL091218-06CCV
Vial: 1:2,A

MMT 12/30/09

Perchlorate

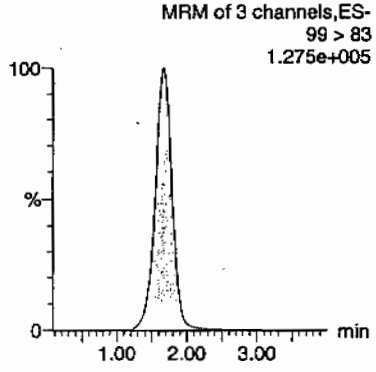

Perchlorate

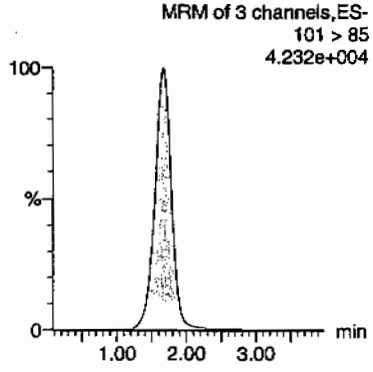

Perchlorate-101

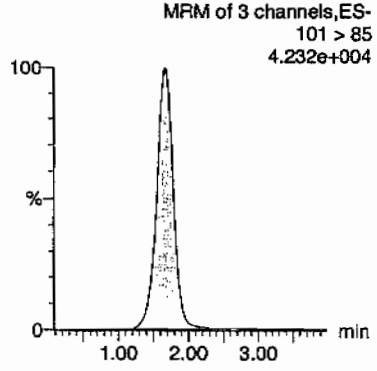

Perchlorate-O(18)

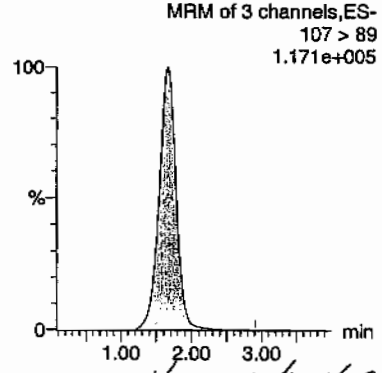

Hjune 12/30/09

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL091218-06CCV	Perchlorate	99 > 83	1.67	35824.668	35824.668	bb			0.4819	96.39	-3.61	5571.2...	3.06
WCL091218-06CCV	Perchlorate-101	101 > 85	1.67	11724.945	11724.945	bb			0.4792	95.84	-4.16	2980.9...	
WCL091218-06CCV	Perchlorate-O(18)	107 > 89	1.66	32661.146	32661.146	bb			0.4906	98.13	-1.87	5311.3...	

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Form 3

Perchlorate MDL Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–1087–1

Lab Code: GEL

Reporting Units: ug/L

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.05	.05	106.51	29–DEC–09 14:35	per1229011a
Perchlorate Isotope Ratio		3.12		29–DEC–09 14:35	per1229011a
Perchlorate–101	.05	.05	103.65	29–DEC–09 14:35	per1229011a
Perchlorate	.05	.05	102.28	29–DEC–09 16:06	per1229024a
Perchlorate Isotope Ratio		2.8		29–DEC–09 16:06	per1229024a
Perchlorate–101	.05	.06	110.81	29–DEC–09 16:06	per1229024a
Perchlorate	.05	.05	107.05	29–DEC–09 16:56	per1229031a
Perchlorate Isotope Ratio		3.05		29–DEC–09 16:56	per1229031a
Perchlorate–101	.05	.05	106.72	29–DEC–09 16:56	per1229031a

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Michael A. Penny

Dataset: C:\MassLynx\Perchlorate.PRO\per122909a.qld

Last Altered: Wednesday, December 30, 2009 6:51:18 AM Eastern Standard Time
Printed: Wednesday, December 30, 2009 6:56:40 AM Eastern Standard Time

Name: per1229011a
Date: 29-Dec-2009
Time: 14:35:14
ID: WCL091218-07CRI
Vial: 1:2,B

MP 12/30/09

Perchlorate

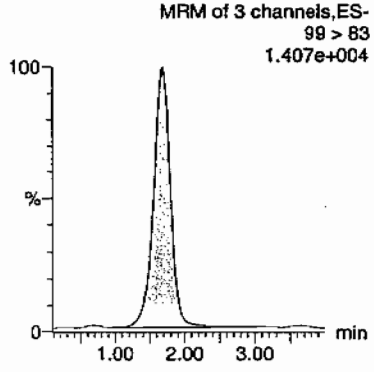

Perchlorate

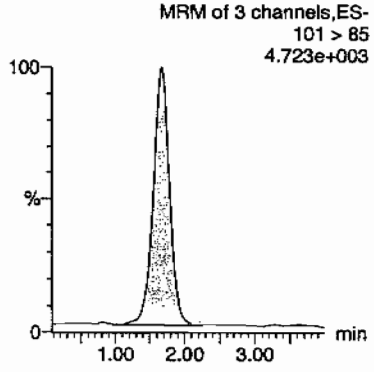

Perchlorate-101

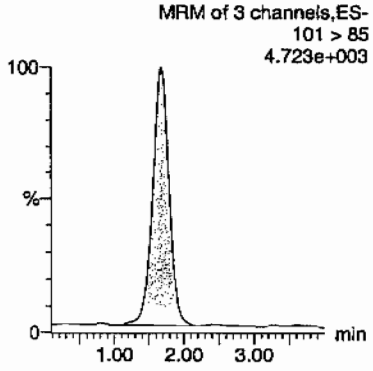

Perchlorate-O(18)

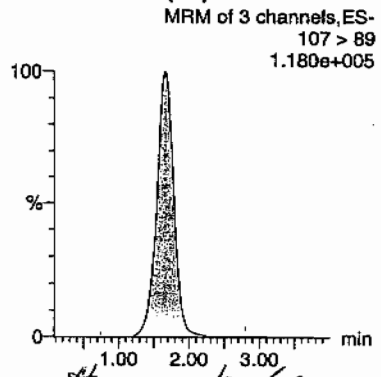

AMM 12/30/09

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL091218-07CRI	Perchlorate	99 > 83	1.68	3958.786	3958.786	bb			0.0533	106.51	6.51	363.360	3.12
WCL091218-07CRI	Perchlorate-101	101 > 85	1.67	1268.100	1268.100	bb			0.0518	103.65	3.65	235.884	
WCL091218-07CRI	Perchlorate-O(18)	107 > 89	1.67	33050.422	33050.422	bb			0.4965	99.30	-0.70	5866.9...	

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Michael A. Penny

Dataset: C:\MassLynx\Perchlorate.PRO\per122909a.qld

Last Altered: Wednesday, December 30, 2009 6:51:18 AM Eastern Standard Time
Printed: Wednesday, December 30, 2009 6:56:40 AM Eastern Standard Time

Name: per1229024a
Date: 29-Dec-2009
Time: 16:06:49
ID: WCL091218-07CRI
Vial: 1:2,B

MM 12/30/09

Perchlorate

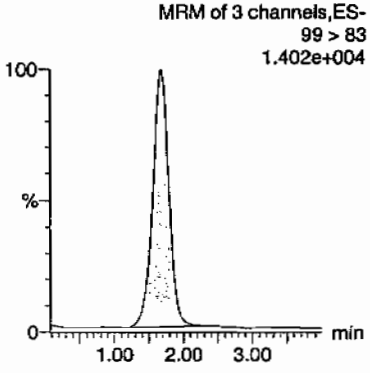

Perchlorate

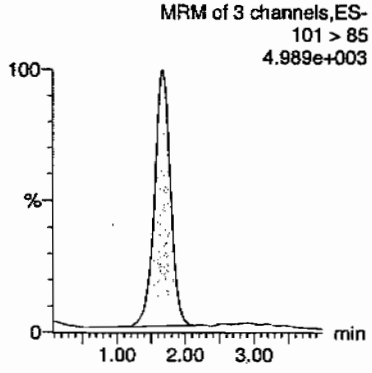

Perchlorate-101

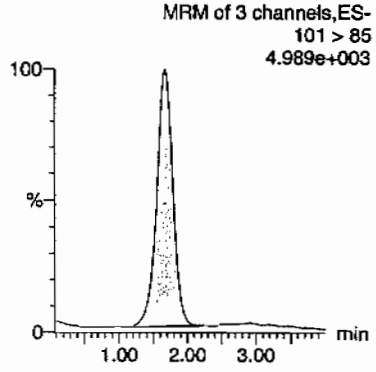

Perchlorate-O(18)

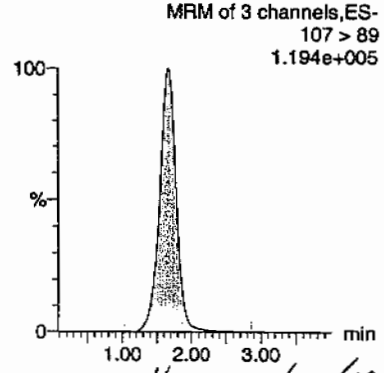

HMW 12/30/09

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL091218-07CRI	Perchlorate	99 > 83	1.67	3801.353	3801.353	bb			0.0511	102.28	2.28	372.962	2.80
WCL091218-07CRI	Perchlorate-101	101 > 85	1.67	1355.651	1355.651	bb			0.0554	110.81	10.81	171.230	
WCL091218-07CRI	Perchlorate-O(18)	107 > 89	1.66	33458.375	33458.375	bb			0.5026	100.52	0.52	8206.0...	

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Michael A. Penny

Dataset: C:\MassLynx\Perchlorate.PRO\per122909a.qld

Last Altered: Wednesday, December 30, 2009 6:51:18 AM Eastern Standard Time
Printed: Wednesday, December 30, 2009 6:56:40 AM Eastern Standard Time

Name: per1229031a
Date: 29-Dec-2009
Time: 16:56:08
ID: WCL091218-07CRI
Vial: 1:2,B

MPT 12/30/09

Perchlorate

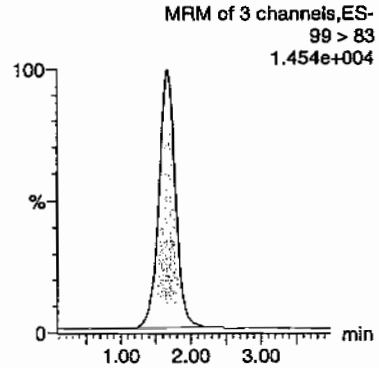

Perchlorate

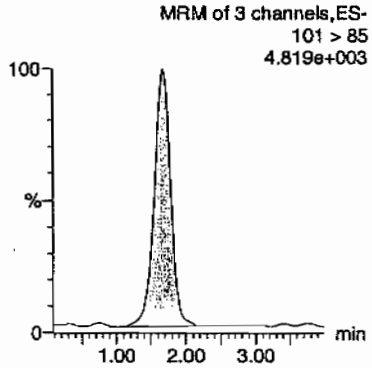

Perchlorate-101

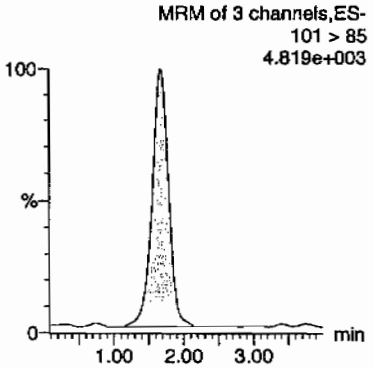

Perchlorate-O(18)

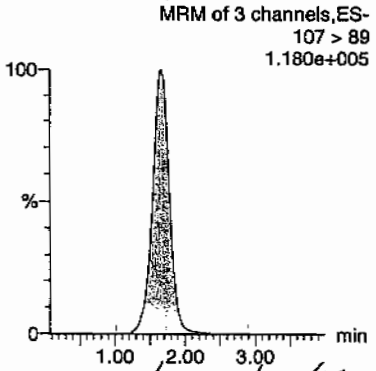

Amw 12/30/09

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL091218-07CRI	Perchlorate	99 > 83	1.67	3978.753	3978.753	bb			0.0535	107.05	7.05	1632.9...	3.05
WCL091218-07CRI	Perchlorate-101	101 > 85	1.67	1305.628	1305.628	bb			0.0534	106.72	6.72	556.260	
WCL091218-07CRI	Perchlorate-O(18)	107 > 89	1.66	32789.859	32789.859	bb			0.4926	98.52	-1.48	4096.5...	

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QUALITY CONTROL

Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: EPA 6850 Modified

Matrix: WATER

Extraction Batch ID: 936758

Extraction Type: Filter/DAI

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

Client Sample No.
MB

Date Received: 28–DEC–09

GEL Job No (SDG): 10–1087–1

GEL Sample ID: 1202004322

Date Filtered: 28–DEC–09

Injection Volume (uL): 20

%Solids:

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797–73–0	Perchlorate	.05	.2	0.050	ug/L	U	1	29–DEC–09 14:42	per1229012a
	Perchlorate Isotope Ratio						1	29–DEC–09 14:42	per1229012a
14797–73–0	Perchlorate–101	.05	.2	0.050	ug/L	U	1	29–DEC–09 14:42	per1229012a
	Perchlorate–O(18)			0.499	ug/L		1	29–DEC–09 14:42	per1229012a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate–101 peak area. The Perchlorate–101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Michael A. Penny

Dataset: C:\MassLynx\Perchlorate.PRO\per122909a.qld

Last Altered: Wednesday, December 30, 2009 6:51:18 AM Eastern Standard Time
Printed: Wednesday, December 30, 2009 6:56:40 AM Eastern Standard Time

Name: per1229012a
Date: 29-Dec-2009
Time: 14:42:16
ID: 1202004322 | LAW | 936761 | % LSS | MB | 1 |
Vial: 1:4,A

MMP 12/30/09

Perchlorate

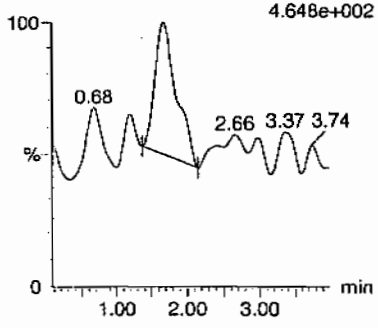

Perchlorate

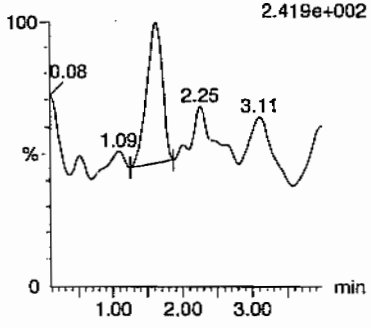

Perchlorate-101

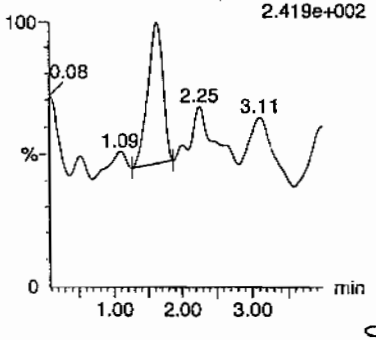

Perchlorate-O(18)

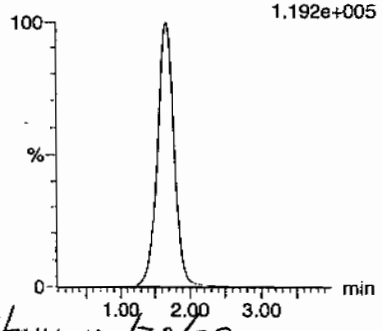

HMM 12/30/09

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202004322	Perchlorate	99 > 83	1.67	80.823	80.823	bb			0.0011			6.539	2.42
1202004322	Perchlorate-101	101 > 85	1.62	33.410	33.410	bb			0.0014			11.423	
1202004322	Perchlorate-O(18)	107 > 89	1.67	33205.934	33205.934	bb			0.4988	99.77	-0.23	2461.8...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: EPA 6850 Modified

Matrix: WATER

Extraction Batch ID: 936758

Extraction Type: Filter/DAI

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

Client Sample No.
LCS

Date Received: 28-DEC-09

GEL Job No (SDG): 10-1087-1

GEL Sample ID: 1202004325

Date Filtered: 28-DEC-09

Injection Volume (uL): 20

%Solids:

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.05	.2	0.196	ug/L	J	1	29-DEC-09 14:49	per1229013a
	Perchlorate Isotope Ratio			3.1			1	29-DEC-09 14:49	per1229013a
14797-73-0	Perchlorate-101	.05	.2	0.192	ug/L	J	1	29-DEC-09 14:49	per1229013a
	Perchlorate-O(18)			0.498	ug/L		1	29-DEC-09 14:49	per1229013a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Michael A. Penny

Dataset: C:\MassLynx\Perchlorate.PRO\per122909a.qld

Last Altered: Wednesday, December 30, 2009 6:51:18 AM Eastern Standard Time
Printed: Wednesday, December 30, 2009 6:56:40 AM Eastern Standard Time

Name: per1229013a
Date: 29-Dec-2009
Time: 14:49:19
ID: 1202004325 | LANU | 936761 | LCB | LCS | 1 |
Vial: 1:4,B

MMT 12/30/09

Perchlorate

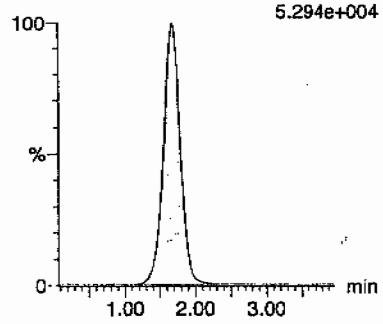

Perchlorate

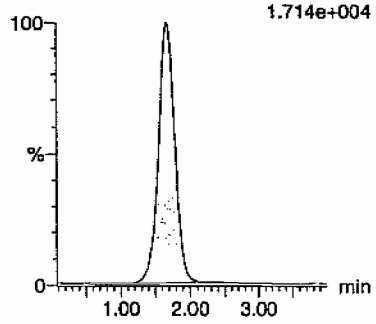

Perchlorate-101

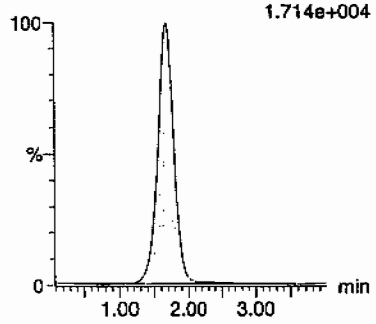

Perchlorate-O(18)

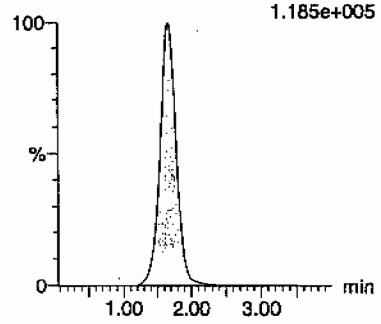

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202004325	Perchlorate	99 > 83	1.68	14561.028	14561.028	bb			0.1959	97.94	-2.06	1129.0...	3.10
1202004325	Perchlorate-101	101 > 85	1.68	4697.516	4697.516	bb			0.1920	95.99	-4.01	985.835	
1202004325	Perchlorate-O(18)	107 > 89	1.67	33157.660	33157.660	bb			0.4981	99.62	-0.38	7610.3...	

$\frac{14561.028}{74334.3} = 0.1959$

MMM 12/30/09

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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MISCELLANEOUS DATA

Prep Logbook

Definitive Low Level Perchlorate Analysis Utilizing Liquid Chromatography/Mass Spectrometry/Mass Spectrometry (LC/MS/MS) by EPA Method 6850 Modified (6850M)

Batch ID: 936758 **Verified by:**
Analyst: Lynne Russell
Method: SW846 6850 Modified

Lab SOP: GL-OA-E-067 REV# 6
Instrument: MicroMass Quatro Ultima

Sample ID	Run Date	Initial Volume (mL)	Final Volume (mL)	Prepped Factor (mL/mL)
1202004322 MB	28-DEC-2009 15:45:50	10	10	1
1202004325 LCS	28-DEC-2009 15:45:50	10	10	1
243506001	28-DEC-2009 15:45:50	10	10	1
1202004323 MS (243506001)	28-DEC-2009 15:45:50	10	10	1
1202004324 MSD (243506001)	28-DEC-2009 15:45:50	10	10	1
243513001	28-DEC-2009 15:45:50	10	10	1
243513002	28-DEC-2009 15:45:50	10	10	1
243539001	28-DEC-2009 15:45:50	10	10	1
243539002	28-DEC-2009 15:45:50	10	10	1
243554001	28-DEC-2009 15:45:50	10	10	1
243554002	28-DEC-2009 15:45:50	10	10	1
243554003	28-DEC-2009 15:45:50	10	10	1
243554004	28-DEC-2009 15:45:50	10	10	1
1202004326 ICS	28-DEC-2009 15:45:50	10	10	1

Type	Sample Id	Description	Serial Number	Spike Amt	Units
ICS	1202004326	10 ug/L ICV/CCV Second Source	UCL091201-01.1	.2	mL
LCS	1202004325	10 ug/L ICV/CCV Second Source	UCL091201-01.1	.2	mL
MS	1202004323	10 ug/L ICV/CCV Second Source	UCL091201-01.1	.2	mL
MSD	1202004324	10 ug/L ICV/CCV Second Source	UCL091201-01.1	.2	mL
RGNT	All	500 ppm Carbonate, Bicarbonate, Chloride, Sulfate	1236492	10	mL

Comments:

De-salting cartridges used: 090407-1-Ba and 091027-1-H.

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GEL ORGANIC RUN LOG

INSTRUMENT ID: LCMSMS#2

Date: 12/29/09
Extr. Injection Volume: 20uL
Sequence Number: per122909a
Initial Calibration Date: 12/29/09

Method: EPA 6850-Modified
Int. Std.: UCL091019-03.2
Mobile Phase Lot#: 1233781, 1233976
Standard-Samp Reagent Lot#:: 1233976

Reviewed BY: [illegible]
Date: 12/30/09
SOP: GL-OA-E-067 Rev.6
Alt Check Std. ID: WCL091218-06

DataFile	Sample	Analyst	Injection Date	Batch	SDG	Dilution	Client	Comments	QC_Flag
per1229001a	IPB001	MAP	12/29/2009 13:24			1		USE	B
per1229002a	IPB001	MAP	12/29/2009 13:31			1		USE	B
per1229003a	WCLICAL-01	MAP	12/29/2009 13:39			1		USE	I
per1229004a	WCLICAL-02	MAP	12/29/2009 13:46			1		USE	I
per1229005a	WCLICAL-03	MAP	12/29/2009 13:53			1		USE	I
per1229006a	WCLICAL-04	MAP	12/29/2009 14:00			1		USE	I
per1229007a	WCLICAL-05	MAP	12/29/2009 14:07			1		USE	I
per1229008a	IPB002	MAP	12/29/2009 14:14			1		USE	B
per1229009a	WCLICV	MAP	12/29/2009 14:21			1		USE	C
per1229010a	IPB003	MAP	12/29/2009 14:28			1		USE	B
per1229011a	WCLCRI	MAP	12/29/2009 14:35			1		USE	C
per1229012a	1202004322	MAP	12/29/2009 14:42	936761	Various	1	LANL	USE	S
per1229013a	1202004325	MAP	12/29/2009 14:49	936761	Various	1	LANL	USE	S
per1229014a	1202004326	MAP	12/29/2009 14:56	936761	Various	1	LANL	USE	S
per1229015a	243506001	MAP	12/29/2009 15:03	936761	10-1066-1	1	LANL	USE	S
per1229016a	1202004323	MAP	12/29/2009 15:10	936761	10-1066-1	1	LANL	USE	S
per1229017a	1202004324	MAP	12/29/2009 15:17	936761	10-1066-1	1	LANL	USE	S
per1229018a	243513001	MAP	12/29/2009 15:24	936761	10-1071	1	LANL	USE	S
per1229019a	243513002	MAP	12/29/2009 15:31	936761	10-1071	1	LANL	USE	S
per1229020a	243539001	MAP	12/29/2009 15:38	936761	10-1079	1	LANL	USE	S
per1229021a	243539002	MAP	12/29/2009 15:45	936761	10-1079	1	LANL	USE	S
per1229022a	WCLCCV	MAP	12/29/2009 15:52			1		USE	C
per1229023a	IPB004	MAP	12/29/2009 15:59			1		USE	B
per1229024a	WCLCRI	MAP	12/29/2009 16:06			1		USE	C
per1229025a	243554001	MAP	12/29/2009 16:13	936761	10-1087-1	1	LANL	USE	S
per1229026a	243554002	MAP	12/29/2009 16:20	936761	10-1087-1	1	LANL	USE	S
per1229027a	243554003	MAP	12/29/2009 16:27	936761	10-1087-1	1	LANL	USE	S
per1229028a	243554004	MAP	12/29/2009 16:34	936761	10-1087-1	1	LANL	USE	S
per1229029a	WCLCCV	MAP	12/29/2009 16:42			1		USE	C

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per1229030a	IPB005	MAP	12/29/2009 16:49			1		USE	B
per1229031a	WCLCRI	MAP	12/29/2009 16:56			1		USE	C
per1229032a	1202004143	MAP	12/29/2009 17:03	936669	Various	1	LANL	USE	S
per1229033a	1202004144	MAP	12/29/2009 17:10	936669	Various	1	LANL	USE	S
per1229034a	1202004147	MAP	12/29/2009 17:17	936669	Various	1	LANL	USE	S
per1229035a	243407001	MAP	12/29/2009 17:24	936669	10-1012-1	1	LANL	USE	S
per1229036a	243407002	MAP	12/29/2009 17:31	936669	10-1012-1	1	LANL	USE	S
per1229037a	243407003	MAP	12/29/2009 17:38	936669	10-1012-1	1	LANL	USE	S
per1229038a	243407004	MAP	12/29/2009 17:45	936669	10-1012-1	1	LANL	USE	S
per1229039a	243407005	MAP	12/29/2009 17:52	936669	10-1012-1	1	LANL	USE	S
per1229040a	243407006	MAP	12/29/2009 17:59	936669	10-1012-1	1	LANL	USE	S
per1229041a	243407007	MAP	12/29/2009 18:06	936669	10-1012-1	1	LANL	USE	S
per1229042a	WCLCCV	MAP	12/29/2009 18:13			1		USE	C
per1229043a	IPB006	MAP	12/29/2009 18:20			1		USE	B
per1229044a	WCLCRI	MAP	12/29/2009 18:27			1		USE	C
per1229045a	243407008	MAP	12/29/2009 18:34	936669	10-1012-1	1	LANL	USE	S
per1229046a	243407009	MAP	12/29/2009 18:42	936669	10-1012-1	1	LANL	USE	S
per1229047a	243457001	MAP	12/29/2009 18:49	936669	10-1038	1	LANL	USE	S
per1229048a	1202004145	MAP	12/29/2009 18:56	936669	10-1038	1	LANL	USE	S
per1229049a	1202004146	MAP	12/29/2009 19:03	936669	10-1038	1	LANL	USE	S
per1229050a	243457002	MAP	12/29/2009 19:10	936669	10-1038	1	LANL	USE	S
per1229051a	243457003	MAP	12/29/2009 19:17	936669	10-1038	1	LANL	USE	S
per1229052a	243457004	MAP	12/29/2009 19:24	936669	10-1038	1	LANL	USE	S
per1229053a	WCLCCV	MAP	12/29/2009 19:31			1		USE	C
per1229054a	IPB007	MAP	12/29/2009 19:38			1		USE	B
per1229055a	WCLCRI	MAP	12/29/2009 19:45			1		USE	C
per1229056a	1202002916	MAP	12/29/2009 19:52	936066	Various	1	LANL	USE	S
per1229057a	1202002917	MAP	12/29/2009 20:00	936066	Various	1	LANL	USE	S
per1229058a	1202002920	MAP	12/29/2009 20:07	936066	Various	1	LANL	USE	S
per1229059a	243285002	MAP	12/29/2009 20:14	936066	10-995	1	LANL	USE	S
per1229060a	243286001	MAP	12/29/2009 20:21	936066	10-998	1	LANL	USE	S
per1229061a	243286004	MAP	12/29/2009 20:28	936066	10-998	1	LANL	USE	S
per1229062a	1202002918	MAP	12/29/2009 20:35	936066	10-998	1	LANL	USE	S
per1229063a	1202002919	MAP	12/29/2009 20:42	936066	10-998	1	LANL	USE	S
per1229064a	243386001	MAP	12/29/2009 20:49	936066	10-1032-1	1	LANL	USE	S
per1229065a	WCLCCV	MAP	12/29/2009 20:56			1		USE	C
per1229066a	IPB008	MAP	12/29/2009 21:03			1		USE	B

per1229067a	WCLCRI	MAP	12/29/2009 21:10			1		USE	C
per1229068a	243396001	MAP	12/29/2009 21:17	936066	10-1010	1	LANL	USE	S
per1229069a	1202003536	MAP	12/29/2009 21:24	936066	10-1010	1	LANL	USE	S
per1229070a	1202003537	MAP	12/29/2009 21:31	936066	10-1010	1	LANL	USE	S
per1229071a	243400001	MAP	12/29/2009 21:39	936066	10-1021	1	LANL	USE	S
per1229072a	243400004	MAP	12/29/2009 21:46	936066	10-1021	1	LANL	USE	S
per1229073a	243405001	MAP	12/29/2009 21:53	936066	10-1012	1	LANL	USE	S
per1229074a	243459001	MAP	12/29/2009 22:00	936066	10-1045	1	LANL	USE	S
per1229075a	243459002	MAP	12/29/2009 22:07	936066	10-1045	1	LANL	USE	S
per1229076a	243461002	MAP	12/29/2009 22:14	936066	10-1050	1	LANL	USE	S
per1229077a	WCLCCV	MAP	12/29/2009 22:21			1		USE	C
per1229078a	IPB009	MAP	12/29/2009 22:28			1		USE	B
per1229079a	WCLCRI	MAP	12/29/2009 22:35			1		USE	C
per1229080a	243466001	MAP	12/29/2009 22:42	936066	10-1056	1	LANL	DUSE-DL	S
per1229081a	243466002	MAP	12/29/2009 22:49	936066	10-1056	1	LANL	DUSE-DL	S
per1229082a	243493001	MAP	12/29/2009 22:56	936066	10-1037-1	1	LANL	USE	S
per1229083a	WCLCCV	MAP	12/29/2009 23:04			1		USE	C
per1229084a	IPB010	MAP	12/29/2009 23:11			1		USE	B
per1229085a	WCLCRI	MAP	12/29/2009 23:18			1		USE	C

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Michael A. Penny

Dataset: C:\MassLynx\Perchlorate.PRO\per122909a.qld

Last Altered: Wednesday, December 30, 2009 6:51:18 AM Eastern Standard Time
Printed: Wednesday, December 30, 2009 6:56:40 AM Eastern Standard Time

Name: per1229016a
Date: 29-Dec-2009
Time: 15:10:27
ID: 1202004323
Vial: 1:4,E

LANL | 936761 | LIQ | 243506001MS | 1 |

MM 12/30/09

Perchlorate

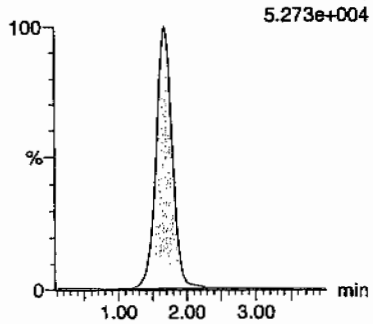

Perchlorate

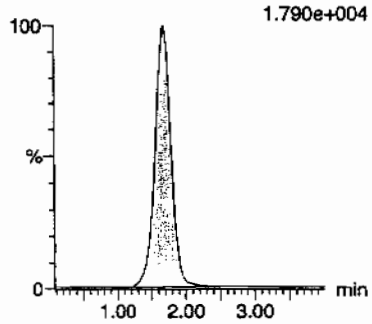

Perchlorate-101

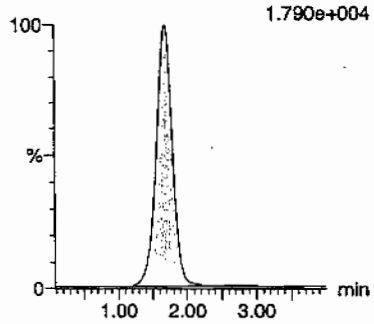

Perchlorate-O(18)

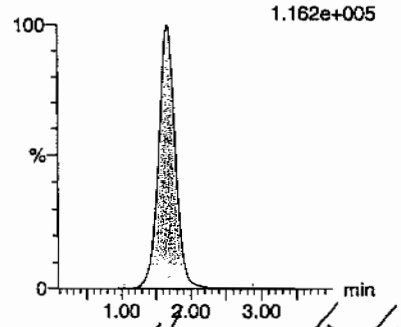

HMM 12/30/09

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202004323	Perchlorate	99 > 83	1.68	14659.936	14659.936	bb			0.1972	98.61	-1.39	756.770	2.96
1202004323	Perchlorate-101	101 > 85	1.68	4953.944	4953.944	bb			0.2025	101.23	1.23	972.027	
1202004323	Perchlorate-O(18)	107 > 89	1.67	32626.404	32626.404	bb			0.4901	98.02	-1.98	15302....	

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Michael A. Penny

Dataset: C:\MassLynx\Perchlorate.PRO\per122909a.qld

Last Altered: Wednesday, December 30, 2009 6:51:18 AM Eastern Standard Time
Printed: Wednesday, December 30, 2009 6:56:40 AM Eastern Standard Time

Name: per1229017a
Date: 29-Dec-2009
Time: 15:17:29
ID: 1202004324
Vial: 1:4,F

LAN | 936761 | LOQ | 243506001 MSD | 1 |

MPP 12/30/09

Perchlorate

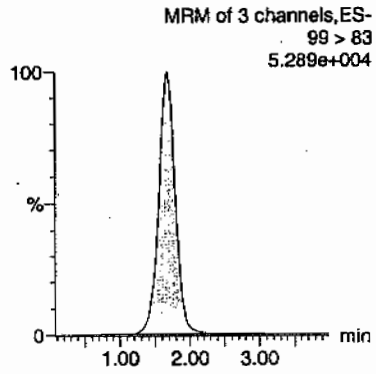

Perchlorate

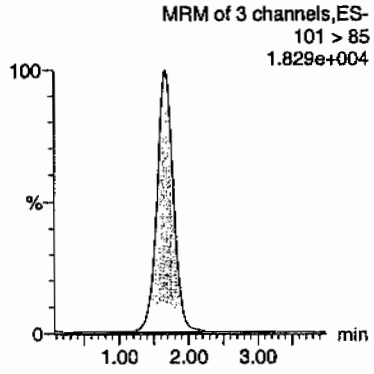

Perchlorate-101

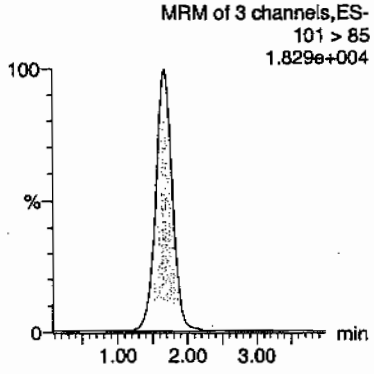

Perchlorate-O(18)

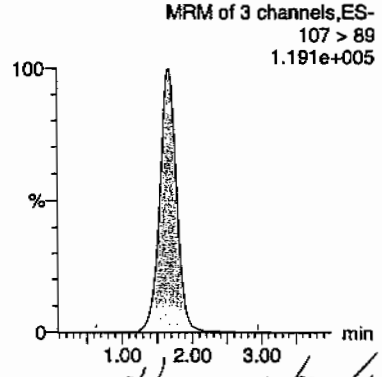

HMM 12/30/09

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202004324	Perchlorate	99 > 83	1.68	14763.000	14763.000	bb			0.1986	99.30	-0.70	2702.8...	2.92
1202004324	Perchlorate-101	101 > 85	1.67	5058.041	5058.041	bb			0.2067	103.36	3.36	2130.0...	
1202004324	Perchlorate-O(18)	107 > 89	1.67	33229.082	33229.082	bb			0.4992	99.83	-0.17	5872.3...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Isotope Ratio Criteria

Isotope Ratio $_{35}Cl/_{37}CL$

2.31-3.85

Tune Criteria

The tuning solution is introduced directly into the mass spectrometer using the ESI interface in the positive ion mode. The mass range scanned is 20 to 1100 amu using at least six scans. The observed mass for the target compound in the daily calibration standards must be within 0.2 amu of the expected value. If it is greater than 0.2 amu, then a mass calibration is performed and the instrument is re-calibrated.

Metals Analysis

Case Narrative

Metals Fractional Narrative
Los Alamos National Laboratory (LANL)
SDG 10-1087

Sample Analysis

Sample ID	Client ID
243550001	RE03-09-14233
243550002	RE03-09-14236
243550003	RE03-09-14239
243550004	RE03-09-14240
243550005	RE03-09-14231
243550006	RE03-09-14232
243550007	RE03-09-14235
243550008	RE03-09-14238
243550009	RE03-09-14234
243550010	RE03-09-14241
243550011	RE03-10-2737
243550012	RE03-10-2736
243550013	RE03-10-9873
243550014	RE03-10-9872
243550015	RE03-10-9874
1202004463	Method Blank (MB) **ICP**
1202007665	Method Blank (MB) **ICP**
1202004464	Laboratory Control Sample (LCS)
1202007670	Laboratory Control Sample (LCS)
1202007667	243550014(RE03-10-9872L) Serial Dilution (SD)

1202004467	243555001(WST21-10-9933L) Serial Dilution (SD)
1202007666	243550014(RE03-10-9872D) Sample Duplicate (DUP)
1202004465	243555001(WST21-10-9933D) Sample Duplicate (DUP)
1202007668	243550014(RE03-10-9872S) Matrix Spike (MS)
1202004466	243555001(WST21-10-9933S) Matrix Spike (MS)
1202007669	243550014(RE03-10-9872SD) Matrix Spike Duplicate (MSD)
1202004468	243555001(WST21-10-9933SD) Matrix Spike Duplicate (MSD)
1202004457	Method Blank (MB) **ICP-MS**
1202007679	Method Blank (MB) **ICP-MS**
1202004458	Laboratory Control Sample (LCS)
1202007684	Laboratory Control Sample (LCS)
1202007681	243550014(RE03-10-9872L) Serial Dilution (SD)
1202004461	243555001(WST21-10-9933L) Serial Dilution (SD)
1202007680	243550014(RE03-10-9872D) Sample Duplicate (DUP)
1202004459	243555001(WST21-10-9933D) Sample Duplicate (DUP)
1202007682	243550014(RE03-10-9872S) Matrix Spike (MS)
1202004460	243555001(WST21-10-9933S) Matrix Spike (MS)
1202007683	243550014(RE03-10-9872SD) Matrix Spike Duplicate (MSD)
1202004462	243555001(WST21-10-9933SD) Matrix Spike Duplicate (MSD)
1202010664	Method Blank (MB) **CVAA**
1202010665	Laboratory Control Sample (LCS)
1202010678	243555001(WST21-10-9933L) Serial Dilution (SD)
1202010666	243555001(WST21-10-9933D) Sample Duplicate (DUP)
1202010667	243555001(WST21-10-9933S) Matrix Spike (MS)
1202010679	243555001(WST21-10-9933SD) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on a "dry weight" basis.

Method/Analysis Information

Analytical Batch:	936826, 938259, 936823, 938263 and 939596
Prep Batch :	936825, 938257, 936822, 938262 and 939594
Standard Operating Procedures:	GL-MA-E-013 REV# 20, GL-MA-E-009 REV# 19, GL-MA-E-014 REV# 21 and GL-MA-E-010 REV# 23
Analytical Method:	SW846 3050B/6010B, SW846 3050B/6020 and SW846 7471A
Prep Method :	SW846 3050B and SW846 7471A Prep

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

System Configuration

The Metals analysis-ICP was performed on a P E 4300 Optima radial/axial-viewing inductively coupled plasma atomic emission spectrometer. The instrument is equipped with a Burgener nebulizer, cyclonic spray chamber, and yttrium or scandium internal standard. Operating conditions for the ICP are set at a power level of 1500 watts. The instrument has a peristaltic pump flow rate of 1.4L/min, argon gas flows of 15 L/min and 0.2 L/min for the torch and auxiliary gases, and a flow setting of 0.65L/min for the nebulizer.

The Metals analysis-ICP was performed on a P E 5300 Optima radial/axial-viewing inductively coupled plasma atomic emission spectrometer. The instrument is equipped with a Burgener nebulizer, cyclonic spray chamber, and yttrium or scandium internal standard. Operating conditions for the ICP are set at a power level of 1500 watts. The instrument has a peristaltic pump flow rate of 1.4L/min, argon gas flows of 15 L/min and 0.2 L/min for the torch and auxiliary gases, and a flow setting of 0.65L/min for the nebulizer.

The Metals analysis - ICPMS was performed on a Perkin Elmer ELAN 9000 inductively coupled plasma mass spectrometer (ICP-MS). The instrument is equipped with a cross-flow nebulizer, quadrupole mass spectrometer, and dual mode electron multiplier detector. Internal standards of scandium, germanium, indium, tantalum, and/or lutetium were utilized to cover the mass spectrum. Operating conditions are set at 1400W power and combined argon pressures of 360+/-7 kPa for the plasma and auxiliary gases, and 0.85 L/min carrier gas flow, and an initial lens voltage of 5.2.

The Metals analysis-Mercury was performed on a Perkin-Elmer Flow Injection Mercury System (FIMS-100) automated mercury analyzer. The instrument consists of a cold vapor atomic absorption spectrometer set to detect mercury at a wavelength of 253.7 nm. Sample introduction through the flow injection system is performed via a peristaltic pump at 9 mL/min and nitrogen carrier gas rate of 80 mL/min.

Calibration Information

Instrument Calibration
All initial calibration requirements have been met for this sample delivery group (SDG).

CRDL Requirements
All CRDL standard(s) met the referenced advisory control limits.

ICSA/ICSAB Statement
All interference check samples (ICSA and ICSAB) associated with this SDG met the established acceptance criteria.

Continuing Calibration Blank (CCB) Requirements
All continuing calibration blanks (CCB) bracketing this batch met the established acceptance criteria.

Continuing Calibration Verification (CCV) Requirements
All continuing calibration verifications (CCV) bracketing this SDG met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MBs analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

Quality Control (QC) Sample Statement
The following samples were selected as the quality control (QC) samples for this SDG: 243555001 and 243550014.

Matrix Spike (MS) Recovery Statement
The percent recoveries (%R) obtained from the MS analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. The MS met the recommended quality control acceptance criteria for percent recoveries for all applicable analytes with the exception of arsenic, aluminum, iron, magnesium, manganese, potassium, silicon, sodium, zinc and titanium, as indicated by the "N" qualifiers.

Matrix Spike Duplicate (MSD) Recovery Statement
The percent recovery (%R) obtained from the MSD analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. The MSD met the recommended quality control acceptance criteria for percent recoveries for all applicable analytes with the exception of antimony, aluminum, iron, magnesium, manganese, potassium, silicon, sodium and zinc, as indicated by the "N" qualifiers.

MS/MSD Relative Percent Difference (RPD) Statement
The relative percent difference (RPD) obtained from the designated matrix spike duplicate (MSD) is evaluated based on acceptance criteria of 20%. The RPD between qualifying elements results in the MS and MSD were within the acceptance limits of 20% with the exception of arsenic, silicon and titanium, as indicated by the "*" qualifiers.

Duplicate Relative Percent Difference (RPD) Statement
The relative percent difference (RPD) obtained from the designated sample duplicate (DUP) is evaluated based on acceptance criteria of 20% when the sample is 5X the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the contract required detection limit (RL), a control of +/-RL is used to evaluate the DUP results. All applicable analytes met these requirements with the exception of arsenic, nickel, uranium, aluminum, iron and titanium, as indicated by the "*" qualifiers.

Serial Dilution % Difference Statement
The serial dilution is used to assess matrix suppression or enhancement. Raw element concentrations that are 25X the IDL/MDL for CVAA, 50X the IDL/MDL for ICP, and 100X the IDL/MDL for ICP-MS analyses are applicable for serial dilution assessment. All applicable analytes met the acceptance criteria of less than 10% difference (%D) with the exception of vanadium, as indicated by the "E" qualifier.

Technical Information

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Sample Dilutions
Dilutions are performed to minimize matrix interferences resulting from elevated mineral element concentrations present in solid samples and/or to bring over range target analyte concentrations into the linear calibration range of the instrument. The samples in this SDG were diluted the standard 2x for solids on the ICPMS.

Preparation Information
The samples in this SDG were prepared exactly according to the cited SOP.

Miscellaneous Information

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. The following DERs were generated for this SDG: 779273, 781174 and 781561. A copy of each NCR is included in the Miscellaneous Data section of this package.

Additional Comments
Additional comments were not required for this SDG.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Kristen Parson **Date:** 1/20/10

Sample Data Summary

METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1087 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 243550001 **BASIS:** Dry Weight **DATE COLLECTED** 22-DEC-09

CLIENT ID: RE03-09-14233 **LEVEL:** Low **DATE RECEIVED** 24-DEC-09

MATRIX: SOIL **%SOLIDS:** 92.6

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	1020000	ug/Kg	N	7200	21200	21200	1	P	HSC	01/15/10 17:20	011510-2	936826
7440-36-0	Antimony	1060	ug/Kg	U	349	1060	1060	1	P	HSC	01/15/10 17:20	011510-2	936826
7440-38-2	Arsenic	0.419	mg/kg	J	0.213	1.06	1.06	2	MS	RMJ	01/14/10 09:07	100113-6	936823
7440-39-3	Barium	18900	ug/Kg		106	529	529	1	P	HSC	01/15/10 17:20	011510-2	936826
7440-41-7	Beryllium	0.423	mg/kg		0.0213	0.106	0.106	2	MS	RMJ	01/16/10 03:46	100115-7	936823
7440-42-8	Boron	1070	ug/Kg	J	1060	5290	5290	1	P	HSC	01/15/10 17:20	011510-2	936826
7440-43-9	Cadmium	529	ug/Kg	U	106	529	529	1	P	HSC	01/15/10 17:20	011510-2	936826
7440-70-2	Calcium	360000	ug/Kg		8470	26500	26500	1	P	HSC	01/15/10 17:20	011510-2	936826
7440-47-3	Chromium	1010	ug/Kg		159	529	529	1	P	HSC	01/15/10 17:20	011510-2	936826
7440-48-4	Cobalt	295	ug/Kg	J	159	529	529	1	P	HSC	01/15/10 17:20	011510-2	936826
7440-50-8	Copper	1450	ug/Kg		318	1060	1060	1	P	HSC	01/15/10 17:20	011510-2	936826
7439-89-6	Iron	7360000	ug/Kg		8470	26500	26500	1	P	HSC	01/15/10 17:20	011510-2	936826
7439-92-1	Lead	2510	ug/Kg		265	1060	1060	1	P	HSC	01/15/10 17:20	011510-2	936826
7439-93-2	Lithium	6.54	mg/kg		0.425	2.13	2.13	2	MS	RMJ	01/16/10 03:46	100115-7	936823
7439-95-4	Magnesium	199000	ug/Kg	N	9000	31800	31800	1	P	HSC	01/15/10 17:20	011510-2	936826
7439-96-5	Manganese	275000	ug/Kg		212	1060	1060	1	P	HSC	01/15/10 17:20	011510-2	936826
7439-97-6	Mercury	12.4	ug/kg	U	4.22	12.4	12.4	1	AV	JXL1	01/11/10 10:05	011110S1-11	939596
7440-02-0	Nickel	1.21	mg/kg		0.106	0.425	0.425	2	MS	RMJ	01/14/10 09:07	100113-6	936823
7440-09-7	Potassium	169000	ug/Kg		6780	26500	26500	1	P	HSC	01/15/10 17:20	011510-2	936826
7782-49-2	Selenium	1.06	mg/kg	U	0.531	1.06	1.06	2	MS	RMJ	01/14/10 09:07	100113-6	936823
7440-21-3	Silicon	388000	ug/Kg	*N	1590	10600	10600	1	P	HSC	01/15/10 17:20	011510-2	936826
7440-22-4	Silver	262	ug/Kg	J	106	529	529	1	P	HSC	01/15/10 17:20	011510-2	936826
7440-23-5	Sodium	67900	ug/Kg		7410	26500	26500	1	P	HSC	01/15/10 17:20	011510-2	936826
7440-28-0	Thallium	0.0704	mg/kg	J	0.0638	0.213	0.213	2	MS	RMJ	01/14/10 09:07	100113-6	936823
7440-32-6	Titanium	96300	ug/Kg	*N	106	529	529	1	P	HSC	01/15/10 17:20	011510-2	936826
7440-61-1	Uranium	0.477	mg/kg		0.014	0.0425	0.0425	2	MS	RMJ	01/14/10 09:07	100113-6	936823
7440-62-2	Vanadium	2940	ug/Kg		106	529	529	1	P	HSC	01/15/10 17:20	011510-2	936826
7440-66-6	Zinc	34200	ug/Kg		349	1060	1060	1	P	HSC	01/15/10 17:20	011510-2	936826

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
936823	936822	SW846 3050B	0.508	g	50	mL	12/29/09	BXA1
936826	936825	SW846 3050B	0.51	g	50	mL	01/15/10	AXG2
939596	939594	SW846 7471A Prep	0.522	g	30	mL	01/08/10	TXB3

METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1087 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 243550002 **BASIS:** Dry Weight **DATE COLLECTED** 22-DEC-09

CLIENT ID: RE03-09-14236 **LEVEL:** Low **DATE RECEIVED** 24-DEC-09

MATRIX: SOIL **%SOLIDS:** 84

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	7320000	ug/Kg	N	8110	23900	23900	1	P	HSC	01/15/10 17:27	011510-2	936826
7440-36-0	Antimony	1190	ug/Kg	U	394	1190	1190	1	P	HSC	01/15/10 17:27	011510-2	936826
7440-38-2	Arsenic	1.89	mg/kg		0.237	1.18	1.18	2	MS	RMJ	01/14/10 09:13	100113-6	936823
7440-39-3	Barium	35100	ug/Kg		119	596	596	1	P	HSC	01/15/10 17:27	011510-2	936826
7440-41-7	Beryllium	1.45	mg/kg		0.0237	0.118	0.118	2	MS	RMJ	01/16/10 04:17	100115-7	936823
7440-42-8	Boron	5960	ug/Kg	U	1190	5960	5960	1	P	HSC	01/15/10 17:27	011510-2	936826
7440-43-9	Cadmium	596	ug/Kg	U	119	596	596	1	P	HSC	01/15/10 17:27	011510-2	936826
7440-70-2	Calcium	1950000	ug/Kg		9540	29800	29800	1	P	HSC	01/15/10 17:27	011510-2	936826
7440-47-3	Chromium	4490	ug/Kg		179	596	596	1	P	HSC	01/15/10 17:27	011510-2	936826
7440-48-4	Cobalt	1580	ug/Kg		179	596	596	1	P	HSC	01/15/10 17:27	011510-2	936826
7440-50-8	Copper	5540	ug/Kg		358	1190	1190	1	P	HSC	01/15/10 17:27	011510-2	936826
7439-89-6	Iron	11500000	ug/Kg		9540	29800	29800	1	P	HSC	01/15/10 17:27	011510-2	936826
7439-92-1	Lead	8380	ug/Kg		298	1190	1190	1	P	HSC	01/15/10 17:27	011510-2	936826
7439-93-2	Lithium	13.4	mg/kg		0.473	2.37	2.37	2	MS	RMJ	01/16/10 04:17	100115-7	936823
7439-95-4	Magnesium	1280000	ug/Kg	N	10100	35800	35800	1	P	HSC	01/15/10 17:27	011510-2	936826
7439-96-5	Manganese	300000	ug/Kg		239	1190	1190	1	P	HSC	01/15/10 17:27	011510-2	936826
7439-97-6	Mercury	24.6	ug/kg		4.25	12.5	12.5	1	AV	JXL1	01/11/10 10:07	011110S1-11	939596
7440-02-0	Nickel	7.38	mg/kg		0.118	0.473	0.473	2	MS	RMJ	01/14/10 09:13	100113-6	936823
7440-09-7	Potassium	936000	ug/Kg		7630	29800	29800	1	P	HSC	01/15/10 17:27	011510-2	936826
7782-49-2	Selenium	1.18	mg/kg	U	0.592	1.18	1.18	2	MS	RMJ	01/14/10 09:13	100113-6	936823
7440-21-3	Silicon	685000	ug/Kg	*N	1790	11900	11900	1	P	HSC	01/15/10 17:27	011510-2	936826
7440-22-4	Silver	494	ug/Kg	J	119	596	596	1	P	HSC	01/15/10 17:27	011510-2	936826
7440-23-5	Sodium	234000	ug/Kg		8350	29800	29800	1	P	HSC	01/15/10 17:27	011510-2	936826
7440-28-0	Thallium	0.203	mg/kg	J	0.071	0.237	0.237	2	MS	RMJ	01/14/10 09:13	100113-6	936823
7440-32-6	Titanium	148000	ug/Kg	*N	119	596	596	1	P	HSC	01/15/10 17:27	011510-2	936826
7440-61-1	Uranium	0.754	mg/kg		0.0156	0.0473	0.0473	2	MS	RMJ	01/14/10 09:13	100113-6	936823
7440-62-2	Vanadium	10700	ug/Kg		119	596	596	1	P	HSC	01/15/10 17:27	011510-2	936826
7440-66-6	Zinc	38000	ug/Kg		394	1190	1190	1	P	HSC	01/15/10 17:27	011510-2	936826

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
936823	936822	SW846 3050B	0.504	g	50	mL	12/29/09	BXA1
936826	936825	SW846 3050B	0.5	g	50	mL	01/15/10	AXG2
939596	939594	SW846 7471A Prep	0.572	g	30	mL	01/08/10	TXB3

METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1087 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 243550003 **BASIS:** Dry Weight **DATE COLLECTED** 22-DEC-09

CLIENT ID: RE03-09-14239 **LEVEL:** Low **DATE RECEIVED** 24-DEC-09

MATRIX: SOIL **%SOLIDS:** 94.5

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	479000	ug/Kg	N	7080	20800	20800	1	P	HSC	01/15/10 17:34	011510-2	936826
7440-36-0	Antimony	1040	ug/Kg	U	344	1040	1040	1	P	HSC	01/15/10 17:34	011510-2	936826
7440-38-2	Arsenic	0.542	mg/kg	J	0.209	1.05	1.05	2	MS	RMJ	01/14/10 09:19	100113-6	936823
7440-39-3	Barium	12700	ug/Kg		104	521	521	1	P	HSC	01/15/10 17:34	011510-2	936826
7440-41-7	Beryllium	0.237	mg/kg		0.0209	0.105	0.105	2	MS	RMJ	01/16/10 04:20	100115-7	936823
7440-42-8	Boron	5210	ug/Kg	U	1040	5210	5210	1	P	HSC	01/15/10 17:34	011510-2	936826
7440-43-9	Cadmium	521	ug/Kg	U	104	521	521	1	P	HSC	01/15/10 17:34	011510-2	936826
7440-70-2	Calcium	200000	ug/Kg		8330	26000	26000	1	P	HSC	01/15/10 17:34	011510-2	936826
7440-47-3	Chromium	1070	ug/Kg		156	521	521	1	P	HSC	01/15/10 17:34	011510-2	936826
7440-48-4	Cobalt	200	ug/Kg	J	156	521	521	1	P	HSC	01/15/10 17:34	011510-2	936826
7440-50-8	Copper	1440	ug/Kg		312	1040	1040	1	P	HSC	01/15/10 17:34	011510-2	936826
7439-89-6	Iron	5370000	ug/Kg		8330	26000	26000	1	P	HSC	01/15/10 17:34	011510-2	936826
7439-92-1	Lead	2530	ug/Kg		260	1040	1040	1	P	HSC	01/15/10 17:34	011510-2	936826
7439-93-2	Lithium	2.65	mg/kg		0.418	2.09	2.09	2	MS	RMJ	01/16/10 04:20	100115-7	936823
7439-95-4	Magnesium	109000	ug/Kg	N	8850	31200	31200	1	P	HSC	01/15/10 17:34	011510-2	936826
7439-96-5	Manganese	259000	ug/Kg		208	1040	1040	1	P	HSC	01/15/10 17:34	011510-2	936826
7439-97-6	Mercury	12.5	ug/kg	U	4.26	12.5	12.5	1	AV	JXL1	01/11/10 10:08	011110S1-11	939596
7440-02-0	Nickel	1.13	mg/kg		0.105	0.418	0.418	2	MS	RMJ	01/14/10 09:19	100113-6	936823
7440-09-7	Potassium	110000	ug/Kg		6660	26000	26000	1	P	HSC	01/15/10 17:34	011510-2	936826
7782-49-2	Selenium	1.05	mg/kg	U	0.523	1.05	1.05	2	MS	RMJ	01/14/10 09:19	100113-6	936823
7440-21-3	Silicon	386000	ug/Kg	*N	1560	10400	10400	1	P	HSC	01/15/10 17:34	011510-2	936826
7440-22-4	Silver	210	ug/Kg	J	104	521	521	1	P	HSC	01/15/10 17:34	011510-2	936826
7440-23-5	Sodium	81800	ug/Kg		7290	26000	26000	1	P	HSC	01/15/10 17:34	011510-2	936826
7440-28-0	Thallium	0.209	mg/kg	U	0.0627	0.209	0.209	2	MS	RMJ	01/14/10 09:19	100113-6	936823
7440-32-6	Titanium	101000	ug/Kg	*N	104	521	521	1	P	HSC	01/15/10 17:34	011510-2	936826
7440-61-1	Uranium	0.508	mg/kg		0.0138	0.0418	0.0418	2	MS	RMJ	01/14/10 09:19	100113-6	936823
7440-62-2	Vanadium	2620	ug/Kg		104	521	521	1	P	HSC	01/15/10 17:34	011510-2	936826
7440-66-6	Zinc	25400	ug/Kg		344	1040	1040	1	P	HSC	01/15/10 17:34	011510-2	936826

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
936823	936822	SW846 3050B	0.506	g	50	mL	12/29/09	BXA1
936826	936825	SW846 3050B	0.508	g	50	mL	01/15/10	AXG2
939596	939594	SW846 7471A Prep	0.506	g	30	mL	01/08/10	TXB3

METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1087 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 243550004 **BASIS:** Dry Weight **DATE COLLECTED** 22-DEC-09

CLIENT ID: RE03-09-14240 **LEVEL:** Low **DATE RECEIVED** 24-DEC-09

MATRIX: SOIL **%SOLIDS:** 94.6

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	1230000	ug/Kg	N	6930	20400	20400	1	P	HSC	01/15/10 17:41	011510-2	936826
7440-36-0	Antimony	1020	ug/Kg	U	336	1020	1020	1	P	HSC	01/15/10 17:41	011510-2	936826
7440-38-2	Arsenic	0.596	mg/kg	J	0.205	1.02	1.02	2	MS	RMJ	01/14/10 09:25	100113-6	936823
7440-39-3	Barium	10300	ug/Kg		102	509	509	1	P	HSC	01/15/10 17:41	011510-2	936826
7440-41-7	Beryllium	0.308	mg/kg		0.0205	0.102	0.102	2	MS	RMJ	01/16/10 04:23	100115-7	936823
7440-42-8	Boron	5090	ug/Kg	U	1020	5090	5090	1	P	HSC	01/15/10 17:41	011510-2	936826
7440-43-9	Cadmium	509	ug/Kg	U	102	509	509	1	P	HSC	01/15/10 17:41	011510-2	936826
7440-70-2	Calcium	326000	ug/Kg		8150	25500	25500	1	P	HSC	01/15/10 17:41	011510-2	936826
7440-47-3	Chromium	1510	ug/Kg		153	509	509	1	P	HSC	01/15/10 17:41	011510-2	936826
7440-48-4	Cobalt	329	ug/Kg	J	153	509	509	1	P	HSC	01/15/10 17:41	011510-2	936826
7440-50-8	Copper	1710	ug/Kg		306	1020	1020	1	P	HSC	01/15/10 17:41	011510-2	936826
7439-89-6	Iron	5420000	ug/Kg		8150	25500	25500	1	P	HSC	01/15/10 17:41	011510-2	936826
7439-92-1	Lead	2990	ug/Kg		255	1020	1020	1	P	HSC	01/15/10 17:41	011510-2	936826
7439-93-2	Lithium	3.11	mg/kg		0.409	2.05	2.05	2	MS	RMJ	01/16/10 04:23	100115-7	936823
7439-95-4	Magnesium	338000	ug/Kg	N	8660	30600	30600	1	P	HSC	01/15/10 17:41	011510-2	936826
7439-96-5	Manganese	200000	ug/Kg		204	1020	1020	1	P	HSC	01/15/10 17:41	011510-2	936826
7439-97-6	Mercury	6.41	ug/kg	J	4.04	11.9	11.9	1	AV	JXLI	01/11/10 10:10	011110S1-11	939596
7440-02-0	Nickel	1.59	mg/kg		0.102	0.409	0.409	2	MS	RMJ	01/14/10 09:25	100113-6	936823
7440-09-7	Potassium	271000	ug/Kg		6520	25500	25500	1	P	HSC	01/15/10 17:41	011510-2	936826
7782-49-2	Selenium	1.02	mg/kg	U	0.511	1.02	1.02	2	MS	RMJ	01/14/10 09:25	100113-6	936823
7440-21-3	Silicon	528000	ug/Kg	*N	1530	10200	10200	1	P	HSC	01/15/10 17:41	011510-2	936826
7440-22-4	Silver	211	ug/Kg	J	102	509	509	1	P	HSC	01/15/10 17:41	011510-2	936826
7440-23-5	Sodium	111000	ug/Kg		7130	25500	25500	1	P	HSC	01/15/10 17:41	011510-2	936826
7440-28-0	Thallium	0.205	mg/kg	U	0.0614	0.205	0.205	2	MS	RMJ	01/14/10 09:25	100113-6	936823
7440-32-6	Titanium	108000	ug/Kg	*N	102	509	509	1	P	HSC	01/15/10 17:41	011510-2	936826
7440-61-1	Uranium	0.534	mg/kg		0.0135	0.0409	0.0409	2	MS	RMJ	01/14/10 09:25	100113-6	936823
7440-62-2	Vanadium	3780	ug/Kg		102	509	509	1	P	HSC	01/15/10 17:41	011510-2	936826
7440-66-6	Zinc	20000	ug/Kg		336	1020	1020	1	P	HSC	01/15/10 17:41	011510-2	936826

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
936823	936822	SW846 3050B	0.517	g	50	mL	12/29/09	BXA1
936826	936825	SW846 3050B	0.519	g	50	mL	01/15/10	AXG2
939596	939594	SW846 7471A Prep	0.534	g	30	mL	01/08/10	TXB3

METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1087 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 243550005 **BASIS:** Dry Weight **DATE COLLECTED** 22-DEC-09

CLIENT ID: RE03-09-14231 **LEVEL:** Low **DATE RECEIVED** 24-DEC-09

MATRIX: SOIL **%SOLIDS:** 92.7

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	484000	ug/Kg	N	7290	21500	21500	1	P	HSC	01/15/10 17:48	011510-2	936826
7440-36-0	Antimony	1070	ug/Kg	U	354	1070	1070	1	P	HSC	01/15/10 17:48	011510-2	936826
7440-38-2	Arsenic	0.302	mg/kg	J	0.213	1.07	1.07	2	MS	RMJ	01/14/10 09:31	100113-6	936823
7440-39-3	Barium	10000	ug/Kg		107	536	536	1	P	HSC	01/15/10 17:48	011510-2	936826
7440-41-7	Beryllium	0.360	mg/kg		0.0213	0.107	0.107	2	MS	RMJ	01/16/10 04:26	100115-7	936823
7440-42-8	Boron	5360	ug/Kg	U	1070	5360	5360	1	P	HSC	01/15/10 17:48	011510-2	936826
7440-43-9	Cadmium	536	ug/Kg	U	107	536	536	1	P	HSC	01/15/10 17:48	011510-2	936826
7440-70-2	Calcium	270000	ug/Kg		8580	26800	26800	1	P	HSC	01/15/10 17:48	011510-2	936826
7440-47-3	Chromium	683	ug/Kg		161	536	536	1	P	HSC	01/15/10 17:48	011510-2	936826
7440-48-4	Cobalt	214	ug/Kg	J	161	536	536	1	P	HSC	01/15/10 17:48	011510-2	936826
7440-50-8	Copper	1090	ug/Kg		322	1070	1070	1	P	HSC	01/15/10 17:48	011510-2	936826
7439-89-6	Iron	6670000	ug/Kg		8580	26800	26800	1	P	HSC	01/15/10 17:48	011510-2	936826
7439-92-1	Lead	1860	ug/Kg		268	1070	1070	1	P	HSC	01/15/10 17:48	011510-2	936826
7439-93-2	Lithium	7.82	mg/kg		0.426	2.13	2.13	2	MS	RMJ	01/16/10 04:26	100115-7	936823
7439-95-4	Magnesium	87100	ug/Kg	N	9120	32200	32200	1	P	HSC	01/15/10 17:48	011510-2	936826
7439-96-5	Manganese	322000	ug/Kg		215	1070	1070	1	P	HSC	01/15/10 17:48	011510-2	936826
7439-97-6	Mercury	12.5	ug/kg	U	4.27	12.5	12.5	1	AV	JXL1	01/11/10 10:12	011110S1-11	939596
7440-02-0	Nickel	0.743	mg/kg		0.107	0.426	0.426	2	MS	RMJ	01/14/10 09:31	100113-6	936823
7440-09-7	Potassium	116000	ug/Kg		6860	26800	26800	1	P	HSC	01/15/10 17:48	011510-2	936826
7782-49-2	Selenium	1.07	mg/kg	U	0.533	1.07	1.07	2	MS	RMJ	01/14/10 09:31	100113-6	936823
7440-21-3	Silicon	451000	ug/Kg	*N	1610	10700	10700	1	P	HSC	01/15/10 17:48	011510-2	936826
7440-22-4	Silver	289	ug/Kg	J	107	536	536	1	P	HSC	01/15/10 17:48	011510-2	936826
7440-23-5	Sodium	108000	ug/Kg		7510	26800	26800	1	P	HSC	01/15/10 17:48	011510-2	936826
7440-28-0	Thallium	0.213	mg/kg	U	0.064	0.213	0.213	2	MS	RMJ	01/14/10 09:31	100113-6	936823
7440-32-6	Titanium	119000	ug/Kg	*N	107	536	536	1	P	HSC	01/15/10 17:48	011510-2	936826
7440-61-1	Uranium	0.476	mg/kg		0.0141	0.0426	0.0426	2	MS	RMJ	01/14/10 09:31	100113-6	936823
7440-62-2	Vanadium	2100	ug/Kg		107	536	536	1	P	HSC	01/15/10 17:48	011510-2	936826
7440-66-6	Zinc	31400	ug/Kg		354	1070	1070	1	P	HSC	01/15/10 17:48	011510-2	936826

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
936823	936822	SW846 3050B	0.506	g	50	mL	12/29/09	BXA1
936826	936825	SW846 3050B	0.503	g	50	mL	01/15/10	AXG2
939596	939594	SW846 7471A Prep	0.516	g	30	mL	01/08/10	TXB3

METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1087 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 243550006 **BASIS:** Dry Weight **DATE COLLECTED** 22-DEC-09

CLIENT ID: RE03-09-14232 **LEVEL:** Low **DATE RECEIVED** 24-DEC-09

MATRIX: SOIL **%SOLIDS:** 94.2

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	406000	ug/Kg	N	6990	20600	20600	1	P	HSC	01/15/10 18:09	011510-2	936826
7440-36-0	Antimony	1030	ug/Kg	U	339	1030	1030	1	P	HSC	01/15/10 18:09	011510-2	936826
7440-38-2	Arsenic	0.385	mg/kg	J	0.208	1.04	1.04	2	MS	RMJ	01/14/10 09:37	100113-6	936823
7440-39-3	Barium	10200	ug/Kg		103	514	514	1	P	HSC	01/15/10 18:09	011510-2	936826
7440-41-7	Beryllium	0.297	mg/kg		0.0208	0.104	0.104	2	MS	RMJ	01/16/10 04:29	100115-7	936823
7440-42-8	Boron	5140	ug/Kg	U	1030	5140	5140	1	P	HSC	01/15/10 18:09	011510-2	936826
7440-43-9	Cadmium	514	ug/Kg	U	103	514	514	1	P	HSC	01/15/10 18:09	011510-2	936826
7440-70-2	Calcium	212000	ug/Kg		8230	25700	25700	1	P	HSC	01/15/10 18:09	011510-2	936826
7440-47-3	Chromium	775	ug/Kg		154	514	514	1	P	HSC	01/15/10 18:09	011510-2	936826
7440-48-4	Cobalt	212	ug/Kg	J	154	514	514	1	P	HSC	01/15/10 18:09	011510-2	936826
7440-50-8	Copper	1170	ug/Kg		308	1030	1030	1	P	HSC	01/15/10 18:09	011510-2	936826
7439-89-6	Iron	7420000	ug/Kg		8230	25700	25700	1	P	HSC	01/15/10 18:09	011510-2	936826
7439-92-1	Lead	2180	ug/Kg		257	1030	1030	1	P	HSC	01/15/10 18:09	011510-2	936826
7439-93-2	Lithium	7.15	mg/kg		0.415	2.08	2.08	2	MS	RMJ	01/16/10 04:29	100115-7	936823
7439-95-4	Magnesium	84600	ug/Kg	N	8740	30800	30800	1	P	HSC	01/15/10 18:09	011510-2	936826
7439-96-5	Manganese	291000	ug/Kg		206	1030	1030	1	P	HSC	01/15/10 18:09	011510-2	936826
7439-97-6	Mercury	11.9	ug/kg	U	4.06	11.9	11.9	1	AV	JXL1	01/11/10 10:13	011110S1-11	939596
7440-02-0	Nickel	0.589	mg/kg		0.104	0.415	0.415	2	MS	RMJ	01/14/10 09:37	100113-6	936823
7440-09-7	Potassium	112000	ug/Kg		6580	25700	25700	1	P	HSC	01/15/10 18:09	011510-2	936826
7782-49-2	Selenium	1.04	mg/kg	U	0.519	1.04	1.04	2	MS	RMJ	01/14/10 09:37	100113-6	936823
7440-21-3	Silicon	450000	ug/Kg	*N	1540	10300	10300	1	P	HSC	01/15/10 18:09	011510-2	936826
7440-22-4	Silver	295	ug/Kg	J	103	514	514	1	P	HSC	01/15/10 18:09	011510-2	936826
7440-23-5	Sodium	109000	ug/Kg		7200	25700	25700	1	P	HSC	01/15/10 18:09	011510-2	936826
7440-28-0	Thallium	0.208	mg/kg	U	0.0623	0.208	0.208	2	MS	RMJ	01/14/10 09:37	100113-6	936823
7440-32-6	Titanium	129000	ug/Kg	*N	103	514	514	1	P	HSC	01/15/10 18:09	011510-2	936826
7440-61-1	Uranium	0.478	mg/kg		0.0137	0.0415	0.0415	2	MS	RMJ	01/14/10 09:37	100113-6	936823
7440-62-2	Vanadium	2240	ug/Kg		103	514	514	1	P	HSC	01/15/10 18:09	011510-2	936826
7440-66-6	Zinc	33900	ug/Kg		339	1030	1030	1	P	HSC	01/15/10 18:09	011510-2	936826

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
936823	936822	SW846 3050B	0.511	g	50	mL	12/29/09	BXA1
936826	936825	SW846 3050B	0.516	g	50	mL	01/15/10	AXG2
939596	939594	SW846 7471A Prep	0.533	g	30	mL	01/08/10	TXB3

METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1087 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 243550007 **BASIS:** Dry Weight **DATE COLLECTED** 22-DEC-09

CLIENT ID: RE03-09-14235 **LEVEL:** Low **DATE RECEIVED** 24-DEC-09

MATRIX: SOIL **%SOLIDS:** 78

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	18300000	ug/Kg	N	8550	25100	25100	1	P	HSC	01/15/10 18:16	011510-2	936826
7440-36-0	Antimony	1260	ug/Kg	U	415	1260	1260	1	P	HSC	01/15/10 18:16	011510-2	936826
7440-38-2	Arsenic	3.11	mg/kg		0.258	1.29	1.29	2	MS	RMJ	01/14/10 09:55	100113-6	936823
7440-39-3	Barium	38800	ug/Kg		126	629	629	1	P	HSC	01/15/10 18:16	011510-2	936826
7440-41-7	Beryllium	2.09	mg/kg		0.0258	0.129	0.129	2	MS	RMJ	01/16/10 04:33	100115-7	936823
7440-42-8	Boron	6290	ug/Kg	U	1260	6290	6290	1	P	HSC	01/15/10 18:16	011510-2	936826
7440-43-9	Cadmium	629	ug/Kg	U	126	629	629	1	P	HSC	01/15/10 18:16	011510-2	936826
7440-70-2	Calcium	2970000	ug/Kg		10100	31400	31400	1	P	HSC	01/15/10 18:16	011510-2	936826
7440-47-3	Chromium	7840	ug/Kg		189	629	629	1	P	HSC	01/15/10 18:16	011510-2	936826
7440-48-4	Cobalt	2240	ug/Kg		189	629	629	1	P	HSC	01/15/10 18:16	011510-2	936826
7440-50-8	Copper	7270	ug/Kg		377	1260	1260	1	P	HSC	01/15/10 18:16	011510-2	936826
7439-89-6	Iron	13700000	ug/Kg		10100	31400	31400	1	P	HSC	01/15/10 18:16	011510-2	936826
7439-92-1	Lead	11700	ug/Kg		314	1260	1260	1	P	HSC	01/15/10 18:16	011510-2	936826
7439-93-2	Lithium	24.4	mg/kg		0.516	2.58	2.58	2	MS	RMJ	01/16/10 04:33	100115-7	936823
7439-95-4	Magnesium	1810000	ug/Kg	N	10700	37700	37700	1	P	HSC	01/15/10 18:16	011510-2	936826
7439-96-5	Manganese	231000	ug/Kg		251	1260	1260	1	P	HSC	01/15/10 18:16	011510-2	936826
7439-97-6	Mercury	42.1	ug/kg		4.97	14.6	14.6	1	AV	JXL1	01/11/10 10:15	011110S1-11	939596
7440-02-0	Nickel	13.2	mg/kg		0.129	0.516	0.516	2	MS	RMJ	01/14/10 09:55	100113-6	936823
7440-09-7	Potassium	1530000	ug/Kg		8050	31400	31400	1	P	HSC	01/15/10 18:16	011510-2	936826
7782-49-2	Selenium	1.29	mg/kg	U	0.645	1.29	1.29	2	MS	RMJ	01/14/10 09:55	100113-6	936823
7440-21-3	Silicon	730000	ug/Kg	*N	1890	12600	12600	1	P	HSC	01/15/10 18:16	011510-2	936826
7440-22-4	Silver	448	ug/Kg	J	126	629	629	1	P	HSC	01/15/10 18:16	011510-2	936826
7440-23-5	Sodium	414000	ug/Kg		8800	31400	31400	1	P	HSC	01/15/10 18:16	011510-2	936826
7440-28-0	Thallium	0.326	mg/kg		0.0774	0.258	0.258	2	MS	RMJ	01/14/10 09:55	100113-6	936823
7440-32-6	Titanium	329000	ug/Kg	*N	126	629	629	1	P	HSC	01/15/10 18:16	011510-2	936826
7440-61-1	Uranium	1.36	mg/kg		0.017	0.0516	0.0516	2	MS	RMJ	01/14/10 09:55	100113-6	936823
7440-62-2	Vanadium	17000	ug/Kg		126	629	629	1	P	HSC	01/15/10 18:16	011510-2	936826
7440-66-6	Zinc	34900	ug/Kg		415	1260	1260	1	P	HSC	01/15/10 18:16	011510-2	936826

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
936823	936822	SW846 3050B	0.5	g	50	mL	12/29/09	BXA1
936826	936825	SW846 3050B	0.513	g	50	mL	01/15/10	AXG2
939596	939594	SW846 7471A Prep	0.529	g	30	mL	01/08/10	TXB3

METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1087 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 243550008 **BASIS:** Dry Weight **DATE COLLECTED** 22-DEC-09

CLIENT ID: RE03-09-14238 **LEVEL:** Low **DATE RECEIVED** 24-DEC-09

MATRIX: SOIL **%SOLIDS:** 94.6

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	798000	ug/Kg	N	6670	19600	19600	1	P	HSC	01/15/10 18:23	011510-2	936826
7440-36-0	Antimony	981	ug/Kg	U	324	981	981	1	P	HSC	01/15/10 18:23	011510-2	936826
7440-38-2	Arsenic	0.588	mg/kg	J	0.211	1.06	1.06	2	MS	RMJ	01/14/10 10:00	100113-6	936823
7440-39-3	Barium	29500	ug/Kg		98.1	490	490	1	P	HSC	01/15/10 18:23	011510-2	936826
7440-41-7	Beryllium	0.254	mg/kg		0.0211	0.106	0.106	2	MS	RMJ	01/16/10 04:36	100115-7	936823
7440-42-8	Boron	4900	ug/Kg	U	981	4900	4900	1	P	HSC	01/15/10 18:23	011510-2	936826
7440-43-9	Cadmium	490	ug/Kg	U	98.1	490	490	1	P	HSC	01/15/10 18:23	011510-2	936826
7440-70-2	Calcium	298000	ug/Kg		7840	24500	24500	1	P	HSC	01/15/10 18:23	011510-2	936826
7440-47-3	Chromium	1030	ug/Kg		147	490	490	1	P	HSC	01/15/10 18:23	011510-2	936826
7440-48-4	Cobalt	262	ug/Kg	J	147	490	490	1	P	HSC	01/15/10 18:23	011510-2	936826
7440-50-8	Copper	2470	ug/Kg		294	981	981	1	P	HSC	01/15/10 18:23	011510-2	936826
7439-89-6	Iron	5770000	ug/Kg		7840	24500	24500	1	P	HSC	01/15/10 18:23	011510-2	936826
7439-92-1	Lead	2730	ug/Kg		245	981	981	1	P	HSC	01/15/10 18:23	011510-2	936826
7439-93-2	Lithium	2.8	mg/kg		0.423	2.11	2.11	2	MS	RMJ	01/16/10 04:36	100115-7	936823
7439-95-4	Magnesium	199000	ug/Kg	N	8340	29400	29400	1	P	HSC	01/15/10 18:23	011510-2	936826
7439-96-5	Manganese	343000	ug/Kg		196	981	981	1	P	HSC	01/15/10 18:23	011510-2	936826
7439-97-6	Mercury	5.68	ug/kg	J	3.71	10.9	10.9	1	AV	JXLI	01/11/10 10:17	011110S1-11	939596
7440-02-0	Nickel	1.33	mg/kg		0.106	0.423	0.423	2	MS	RMJ	01/14/10 10:00	100113-6	936823
7440-09-7	Potassium	134000	ug/Kg		6280	24500	24500	1	P	HSC	01/15/10 18:23	011510-2	936826
7782-49-2	Selenium	1.06	mg/kg	U	0.529	1.06	1.06	2	MS	RMJ	01/14/10 10:00	100113-6	936823
7440-21-3	Silicon	500000	ug/Kg	*N	1470	9810	9810	1	P	HSC	01/15/10 18:23	011510-2	936826
7440-22-4	Silver	265	ug/Kg	J	98.1	490	490	1	P	HSC	01/15/10 18:23	011510-2	936826
7440-23-5	Sodium	73600	ug/Kg		6860	24500	24500	1	P	HSC	01/15/10 18:23	011510-2	936826
7440-28-0	Thallium	0.211	mg/kg	U	0.0634	0.211	0.211	2	MS	RMJ	01/14/10 10:00	100113-6	936823
7440-32-6	Titanium	99600	ug/Kg	*N	98.1	490	490	1	P	HSC	01/15/10 18:23	011510-2	936826
7440-61-1	Uranium	0.546	mg/kg		0.014	0.0423	0.0423	2	MS	RMJ	01/14/10 10:00	100113-6	936823
7440-62-2	Vanadium	3370	ug/Kg		98.1	490	490	1	P	HSC	01/15/10 18:23	011510-2	936826
7440-66-6	Zinc	30400	ug/Kg		324	981	981	1	P	HSC	01/15/10 18:23	011510-2	936826

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
936823	936822	SW846 3050B	0.5	g	50	mL	12/29/09	BXA1
936826	936825	SW846 3050B	0.539	g	50	mL	01/15/10	AXG2
939596	939594	SW846 7471A Prep	0.581	g	30	mL	01/08/10	TXB3

METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1087 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 243550009 **BASIS:** Dry Weight **DATE COLLECTED** 22-DEC-09

CLIENT ID: RE03-09-14234 **LEVEL:** Low **DATE RECEIVED** 24-DEC-09

MATRIX: SOIL **%SOLIDS:** 92.5

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	971000	ug/Kg	N	7220	21200	21200	1	P	HSC	01/15/10 18:30	011510-2	936826
7440-36-0	Antimony	1060	ug/Kg	U	350	1060	1060	1	P	HSC	01/15/10 18:30	011510-2	936826
7440-38-2	Arsenic	0.585	mg/kg	J	0.216	1.08	1.08	2	MS	RMJ	01/14/10 10:06	100113-6	936823
7440-39-3	Barium	9010	ug/Kg		106	531	531	1	P	HSC	01/15/10 18:30	011510-2	936826
7440-41-7	Beryllium	0.277	mg/kg		0.0216	0.108	0.108	2	MS	RMJ	01/16/10 04:39	100115-7	936823
7440-42-8	Boron	5310	ug/Kg	U	1060	5310	5310	1	P	HSC	01/15/10 18:30	011510-2	936826
7440-43-9	Cadmium	531	ug/Kg	U	106	531	531	1	P	HSC	01/15/10 18:30	011510-2	936826
7440-70-2	Calcium	328000	ug/Kg		8490	26500	26500	1	P	HSC	01/15/10 18:30	011510-2	936826
7440-47-3	Chromium	1020	ug/Kg		159	531	531	1	P	HSC	01/15/10 18:30	011510-2	936826
7440-48-4	Cobalt	342	ug/Kg	J	159	531	531	1	P	HSC	01/15/10 18:30	011510-2	936826
7440-50-8	Copper	1310	ug/Kg		318	1060	1060	1	P	HSC	01/15/10 18:30	011510-2	936826
7439-89-6	Iron	7550000	ug/Kg		8490	26500	26500	1	P	HSC	01/15/10 18:30	011510-2	936826
7439-92-1	Lead	3670	ug/Kg		265	1060	1060	1	P	HSC	01/15/10 18:30	011510-2	936826
7439-93-2	Lithium	8.41	mg/kg		0.432	2.16	2.16	2	MS	RMJ	01/16/10 04:39	100115-7	936823
7439-95-4	Magnesium	208000	ug/Kg	N	9020	31800	31800	1	P	HSC	01/15/10 18:30	011510-2	936826
7439-96-5	Manganese	223000	ug/Kg		212	1060	1060	1	P	HSC	01/15/10 18:30	011510-2	936826
7439-97-6	Mercury	12.7	ug/kg	U	4.32	12.7	12.7	1	AV	JXL1	01/11/10 10:22	011110S1-11	939596
7440-02-0	Nickel	1.07	mg/kg		0.108	0.432	0.432	2	MS	RMJ	01/14/10 10:06	100113-6	936823
7440-09-7	Potassium	159000	ug/Kg		6790	26500	26500	1	P	HSC	01/15/10 18:30	011510-2	936826
7782-49-2	Selenium	1.08	mg/kg	U	0.54	1.08	1.08	2	MS	RMJ	01/14/10 10:06	100113-6	936823
7440-21-3	Silicon	538000	ug/Kg	*N	1590	10600	10600	1	P	HSC	01/15/10 18:30	011510-2	936826
7440-22-4	Silver	227	ug/Kg	J	106	531	531	1	P	HSC	01/15/10 18:30	011510-2	936826
7440-23-5	Sodium	95600	ug/Kg		7430	26500	26500	1	P	HSC	01/15/10 18:30	011510-2	936826
7440-28-0	Thallium	0.216	mg/kg	U	0.0648	0.216	0.216	2	MS	RMJ	01/14/10 10:06	100113-6	936823
7440-32-6	Titanium	105000	ug/Kg	*N	106	531	531	1	P	HSC	01/15/10 18:30	011510-2	936826
7440-61-1	Uranium	0.497	mg/kg		0.0143	0.0432	0.0432	2	MS	RMJ	01/14/10 10:06	100113-6	936823
7440-62-2	Vanadium	3120	ug/Kg		106	531	531	1	P	HSC	01/15/10 18:30	011510-2	936826
7440-66-6	Zinc	32000	ug/Kg		350	1060	1060	1	P	HSC	01/15/10 18:30	011510-2	936826

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
936823	936822	SW846 3050B	0.5	g	50	mL	12/29/09	BXA1
936826	936825	SW846 3050B	0.509	g	50	mL	01/15/10	AXG2
939596	939594	SW846 7471A Prep	0.51	g	30	mL	01/08/10	TXB3

METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1087 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 243550010 **BASIS:** Dry Weight **DATE COLLECTED** 22-DEC-09

CLIENT ID: RE03-09-14241 **LEVEL:** Low **DATE RECEIVED** 24-DEC-09

MATRIX: SOIL **%SOLIDS:** 87

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	4020000	ug/Kg	N	7710	22700	22700	1	P	HSC	01/15/10 18:37	011510-2	936826
7440-36-0	Antimony	1130	ug/Kg	U	374	1130	1130	1	P	HSC	01/15/10 18:37	011510-2	936826
7440-38-2	Arsenic	1.41	mg/kg		0.222	1.11	1.11	2	MS	RMJ	01/14/10 10:12	100113-6	936823
7440-39-3	Barium	17100	ug/Kg		113	567	567	1	P	HSC	01/15/10 18:37	011510-2	936826
7440-41-7	Beryllium	0.810	mg/kg		0.0222	0.111	0.111	2	MS	RMJ	01/16/10 04:42	100115-7	936823
7440-42-8	Boron	5670	ug/Kg	U	1130	5670	5670	1	P	HSC	01/15/10 18:37	011510-2	936826
7440-43-9	Cadmium	567	ug/Kg	U	113	567	567	1	P	HSC	01/15/10 18:37	011510-2	936826
7440-70-2	Calcium	1280000	ug/Kg		9070	28300	28300	1	P	HSC	01/15/10 18:37	011510-2	936826
7440-47-3	Chromium	3030	ug/Kg		170	567	567	1	P	HSC	01/15/10 18:37	011510-2	936826
7440-48-4	Cobalt	857	ug/Kg		170	567	567	1	P	HSC	01/15/10 18:37	011510-2	936826
7440-50-8	Copper	3420	ug/Kg		340	1130	1130	1	P	HSC	01/15/10 18:37	011510-2	936826
7439-89-6	Iron	7310000	ug/Kg		9070	28300	28300	1	P	HSC	01/15/10 18:37	011510-2	936826
7439-92-1	Lead	7110	ug/Kg		283	1130	1130	1	P	HSC	01/15/10 18:37	011510-2	936826
7439-93-2	Lithium	7.98	mg/kg		0.444	2.22	2.22	2	MS	RMJ	01/16/10 04:42	100115-7	936823
7439-95-4	Magnesium	740000	ug/Kg	N	9640	34000	34000	1	P	HSC	01/15/10 18:37	011510-2	936826
7439-96-5	Manganese	163000	ug/Kg		227	1130	1130	1	P	HSC	01/15/10 18:37	011510-2	936826
7439-97-6	Mercury	12	ug/kg	U	4.08	12	12	1	AV	JXL1	01/11/10 10:23	011110S1-11	939596
7440-02-0	Nickel	7.28	mg/kg		0.111	0.444	0.444	2	MS	RMJ	01/14/10 10:12	100113-6	936823
7440-09-7	Potassium	523000	ug/Kg		7260	28300	28300	1	P	HSC	01/15/10 18:37	011510-2	936826
7782-49-2	Selenium	1.11	mg/kg	U	0.555	1.11	1.11	2	MS	RMJ	01/14/10 10:12	100113-6	936823
7440-21-3	Silicon	485000	ug/Kg	*N	1700	11300	11300	1	P	HSC	01/15/10 18:37	011510-2	936826
7440-22-4	Silver	244	ug/Kg	J	113	567	567	1	P	HSC	01/15/10 18:37	011510-2	936826
7440-23-5	Sodium	175000	ug/Kg		7940	28300	28300	1	P	HSC	01/15/10 18:37	011510-2	936826
7440-28-0	Thallium	0.122	mg/kg	J	0.0666	0.222	0.222	2	MS	RMJ	01/14/10 10:12	100113-6	936823
7440-32-6	Titanium	114000	ug/Kg	*N	113	567	567	1	P	HSC	01/15/10 18:37	011510-2	936826
7440-61-1	Uranium	0.810	mg/kg		0.0146	0.0444	0.0444	2	MS	RMJ	01/14/10 10:12	100113-6	936823
7440-62-2	Vanadium	8810	ug/Kg		113	567	567	1	P	HSC	01/15/10 18:37	011510-2	936826
7440-66-6	Zinc	17600	ug/Kg		374	1130	1130	1	P	HSC	01/15/10 18:37	011510-2	936826

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
936823	936822	SW846 3050B	0.516	g	50	mL	12/29/09	BXA1
936826	936825	SW846 3050B	0.505	g	50	mL	01/15/10	AXG2
939596	939594	SW846 7471A Prep	0.573	g	30	mL	01/08/10	TXB3

METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1087 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 243550011 **BASIS:** Dry Weight **DATE COLLECTED** 22-DEC-09

CLIENT ID: RE03-10-2737 **LEVEL:** Low **DATE RECEIVED** 24-DEC-09

MATRIX: SOIL **%SOLIDS:** 90

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	2170000	ug/Kg	N	7390	21700	21700	1	P	HSC	01/15/10 18:45	011510-2	936826
7440-36-0	Antimony	1090	ug/Kg	U	359	1090	1090	1	P	HSC	01/15/10 18:45	011510-2	936826
7440-38-2	Arsenic	0.417	mg/kg	J	0.22	1.1	1.1	2	MS	RMJ	01/14/10 10:18	100113-6	936823
7440-39-3	Barium	15800	ug/Kg		109	543	543	1	P	HSC	01/15/10 18:45	011510-2	936826
7440-41-7	Beryllium	0.583	mg/kg		0.022	0.11	0.11	2	MS	RMJ	01/16/10 04:52	100115-7	936823
7440-42-8	Boron	5430	ug/Kg	U	1090	5430	5430	1	P	HSC	01/15/10 18:45	011510-2	936826
7440-43-9	Cadmium	543	ug/Kg	U	109	543	543	1	P	HSC	01/15/10 18:45	011510-2	936826
7440-70-2	Calcium	403000	ug/Kg		8690	27200	27200	1	P	HSC	01/15/10 18:45	011510-2	936826
7440-47-3	Chromium	1610	ug/Kg		163	543	543	1	P	HSC	01/15/10 18:45	011510-2	936826
7440-48-4	Cobalt	467	ug/Kg	J	163	543	543	1	P	HSC	01/15/10 18:45	011510-2	936826
7440-50-8	Copper	2240	ug/Kg		326	1090	1090	1	P	HSC	01/15/10 18:45	011510-2	936826
7439-89-6	Iron	6850000	ug/Kg		8690	27200	27200	1	P	HSC	01/15/10 18:45	011510-2	936826
7439-92-1	Lead	5960	ug/Kg		272	1090	1090	1	P	HSC	01/15/10 18:45	011510-2	936826
7439-93-2	Lithium	11	mg/kg		0.441	2.2	2.2	2	MS	RMJ	01/16/10 04:52	100115-7	936823
7439-95-4	Magnesium	290000	ug/Kg	N	9240	32600	32600	1	P	HSC	01/15/10 18:45	011510-2	936826
7439-96-5	Manganese	209000	ug/Kg		217	1090	1090	1	P	HSC	01/15/10 18:45	011510-2	936826
7439-97-6	Mercury	12.7	ug/kg	U	4.31	12.7	12.7	1	AV	JXL1	01/11/10 10:25	011110S1-11	939596
7440-02-0	Nickel	1.88	mg/kg		0.11	0.441	0.441	2	MS	RMJ	01/14/10 10:18	100113-6	936823
7440-09-7	Potassium	336000	ug/Kg		6950	27200	27200	1	P	HSC	01/15/10 18:45	011510-2	936826
7782-49-2	Selenium	1.1	mg/kg	U	0.551	1.1	1.1	2	MS	RMJ	01/14/10 10:18	100113-6	936823
7440-21-3	Silicon	533000	ug/Kg	*N	1630	10900	10900	1	P	HSC	01/15/10 18:45	011510-2	936826
7440-22-4	Silver	237	ug/Kg	J	109	543	543	1	P	HSC	01/15/10 18:45	011510-2	936826
7440-23-5	Sodium	72100	ug/Kg		7610	27200	27200	1	P	HSC	01/15/10 18:45	011510-2	936826
7440-28-0	Thallium	0.220	mg/kg	U	0.0661	0.22	0.22	2	MS	RMJ	01/14/10 10:18	100113-6	936823
7440-32-6	Titanium	116000	ug/Kg	*N	109	543	543	1	P	HSC	01/15/10 18:45	011510-2	936826
7440-61-1	Uranium	0.607	mg/kg		0.0145	0.0441	0.0441	2	MS	RMJ	01/14/10 10:18	100113-6	936823
7440-62-2	Vanadium	3840	ug/Kg		109	543	543	1	P	HSC	01/15/10 18:45	011510-2	936826
7440-66-6	Zinc	44800	ug/Kg		359	1090	1090	1	P	HSC	01/15/10 18:45	011510-2	936826

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
936823	936822	SW846 3050B	0.505	g	50	mL	12/29/09	BXA1
936826	936825	SW846 3050B	0.512	g	50	mL	01/15/10	AXG2
939596	939594	SW846 7471A Prep	0.527	g	30	mL	01/08/10	TXB3

METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1087 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 243550012 **BASIS:** Dry Weight **DATE COLLECTED** 22-DEC-09

CLIENT ID: RE03-10-2736 **LEVEL:** Low **DATE RECEIVED** 24-DEC-09

MATRIX: SOIL **%SOLIDS:** 93

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	958000	ug/Kg	N	7260	21300	21300	1	P	HSC	01/15/10 18:52	011510-2	936826
7440-36-0	Antimony	1070	ug/Kg	U	352	1070	1070	1	P	HSC	01/15/10 18:52	011510-2	936826
7440-38-2	Arsenic	0.346	mg/kg	J	0.215	1.07	1.07	2	MS	RMJ	01/14/10 10:24	100113-6	936823
7440-39-3	Barium	25400	ug/Kg		107	534	534	1	P	HSC	01/15/10 18:52	011510-2	936826
7440-41-7	Beryllium	0.359	mg/kg		0.0215	0.107	0.107	2	MS	RMJ	01/16/10 04:55	100115-7	936823
7440-42-8	Boron	5340	ug/Kg	U	1070	5340	5340	1	P	HSC	01/15/10 18:52	011510-2	936826
7440-43-9	Cadmium	534	ug/Kg	U	107	534	534	1	P	HSC	01/15/10 18:52	011510-2	936826
7440-70-2	Calcium	339000	ug/Kg		8540	26700	26700	1	P	HSC	01/15/10 18:52	011510-2	936826
7440-47-3	Chromium	1070	ug/Kg		160	534	534	1	P	HSC	01/15/10 18:52	011510-2	936826
7440-48-4	Cobalt	347	ug/Kg	J	160	534	534	1	P	HSC	01/15/10 18:52	011510-2	936826
7440-50-8	Copper	1380	ug/Kg		320	1070	1070	1	P	HSC	01/15/10 18:52	011510-2	936826
7439-89-6	Iron	6060000	ug/Kg		8540	26700	26700	1	P	HSC	01/15/10 18:52	011510-2	936826
7439-92-1	Lead	2510	ug/Kg		267	1070	1070	1	P	HSC	01/15/10 18:52	011510-2	936826
7439-93-2	Lithium	6.55	mg/kg		0.429	2.15	2.15	2	MS	RMJ	01/16/10 04:55	100115-7	936823
7439-95-4	Magnesium	177000	ug/Kg	N	9070	32000	32000	1	P	HSC	01/15/10 18:52	011510-2	936826
7439-96-5	Manganese	299000	ug/Kg		213	1070	1070	1	P	HSC	01/15/10 18:52	011510-2	936826
7439-97-6	Mercury	11.1	ug/kg	U	3.78	11.1	11.1	1	AV	JXL1	01/11/10 10:27	011110S1-11	939596
7440-02-0	Nickel	0.734	mg/kg		0.107	0.429	0.429	2	MS	RMJ	01/14/10 10:24	100113-6	936823
7440-09-7	Potassium	150000	ug/Kg		6830	26700	26700	1	P	HSC	01/15/10 18:52	011510-2	936826
7782-49-2	Selenium	1.07	mg/kg	U	0.537	1.07	1.07	2	MS	RMJ	01/14/10 10:24	100113-6	936823
7440-21-3	Silicon	368000	ug/Kg	*N	1600	10700	10700	1	P	HSC	01/15/10 18:52	011510-2	936826
7440-22-4	Silver	173	ug/Kg	J	107	534	534	1	P	HSC	01/15/10 18:52	011510-2	936826
7440-23-5	Sodium	60400	ug/Kg		7470	26700	26700	1	P	HSC	01/15/10 18:52	011510-2	936826
7440-28-0	Thallium	0.215	mg/kg	U	0.0644	0.215	0.215	2	MS	RMJ	01/14/10 10:24	100113-6	936823
7440-32-6	Titanium	96400	ug/Kg	*N	107	534	534	1	P	HSC	01/15/10 18:52	011510-2	936826
7440-61-1	Uranium	0.478	mg/kg		0.0142	0.0429	0.0429	2	MS	RMJ	01/14/10 10:24	100113-6	936823
7440-62-2	Vanadium	2720	ug/Kg		107	534	534	1	P	HSC	01/15/10 18:52	011510-2	936826
7440-66-6	Zinc	30400	ug/Kg		352	1070	1070	1	P	HSC	01/15/10 18:52	011510-2	936826

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
936823	936822	SW846 3050B	0.501	g	50	mL	12/29/09	BXA1
936826	936825	SW846 3050B	0.504	g	50	mL	01/15/10	AXG2
939596	939594	SW846 7471A Prep	0.581	g	30	mL	01/08/10	TXB3

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1087 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 243550013 **BASIS:** Dry Weight **DATE COLLECTED** 22-DEC-09

CLIENT ID: RE03-10-9873 **LEVEL:** Low **DATE RECEIVED** 24-DEC-09

MATRIX: SOIL **%SOLIDS:** 94.7

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	2170000	ug/Kg	N	6890	20300	20300	1	P	HSC	01/15/10 19:12	011510-2	936826
7440-36-0	Antimony	1010	ug/Kg	U	334	1010	1010	1	P	HSC	01/15/10 19:12	011510-2	936826
7440-38-2	Arsenic	0.933	mg/kg	J	0.21	1.05	1.05	2	MS	RMJ	01/14/10 10:30	100113-6	936823
7440-39-3	Barium	45300	ug/Kg		101	507	507	1	P	HSC	01/15/10 19:12	011510-2	936826
7440-41-7	Beryllium	0.213	mg/kg		0.021	0.105	0.105	2	MS	RMJ	01/16/10 04:58	100115-7	936823
7440-42-8	Boron	5070	ug/Kg	U	1010	5070	5070	1	P	HSC	01/15/10 19:12	011510-2	936826
7440-43-9	Cadmium	507	ug/Kg	U	101	507	507	1	P	HSC	01/15/10 19:12	011510-2	936826
7440-70-2	Calcium	587000	ug/Kg		8110	25300	25300	1	P	HSC	01/15/10 19:12	011510-2	936826
7440-47-3	Chromium	3090	ug/Kg		152	507	507	1	P	HSC	01/15/10 19:12	011510-2	936826
7440-48-4	Cobalt	1490	ug/Kg		152	507	507	1	P	HSC	01/15/10 19:12	011510-2	936826
7440-50-8	Copper	2540	ug/Kg		304	1010	1010	1	P	HSC	01/15/10 19:12	011510-2	936826
7439-89-6	Iron	6400000	ug/Kg		8110	25300	25300	1	P	HSC	01/15/10 19:12	011510-2	936826
7439-92-1	Lead	5620	ug/Kg		253	1010	1010	1	P	HSC	01/15/10 19:12	011510-2	936826
7439-93-2	Lithium	5.65	mg/kg		0.42	2.1	2.1	2	MS	RMJ	01/16/10 04:58	100115-7	936823
7439-95-4	Magnesium	422000	ug/Kg	N	8610	30400	30400	1	P	HSC	01/15/10 19:12	011510-2	936826
7439-96-5	Manganese	89400	ug/Kg		203	1010	1010	1	P	HSC	01/15/10 19:12	011510-2	936826
7439-97-6	Mercury	8.85	ug/kg	J	4.09	12	12	1	AV	JXL1	01/11/10 10:29	011110S1-11	939596
7440-02-0	Nickel	3.63	mg/kg		0.105	0.42	0.42	2	MS	RMJ	01/14/10 10:30	100113-6	936823
7440-09-7	Potassium	428000	ug/Kg		6480	25300	25300	1	P	HSC	01/15/10 19:12	011510-2	936826
7782-49-2	Selenium	1.05	mg/kg	U	0.525	1.05	1.05	2	MS	RMJ	01/14/10 10:30	100113-6	936823
7440-21-3	Silicon	599000	ug/Kg	*N	1520	10100	10100	1	P	HSC	01/15/10 19:12	011510-2	936826
7440-22-4	Silver	195	ug/Kg	J	101	507	507	1	P	HSC	01/15/10 19:12	011510-2	936826
7440-23-5	Sodium	58500	ug/Kg		7090	25300	25300	1	P	HSC	01/15/10 19:12	011510-2	936826
7440-28-0	Thallium	0.210	mg/kg	U	0.063	0.21	0.21	2	MS	RMJ	01/14/10 10:30	100113-6	936823
7440-32-6	Titanium	178000	ug/Kg	*N	101	507	507	1	P	HSC	01/15/10 19:12	011510-2	936826
7440-61-1	Uranium	0.522	mg/kg		0.0139	0.042	0.042	2	MS	RMJ	01/14/10 10:30	100113-6	936823
7440-62-2	Vanadium	9100	ug/Kg		101	507	507	1	P	HSC	01/15/10 19:12	011510-2	936826
7440-66-6	Zinc	24700	ug/Kg		334	1010	1010	1	P	HSC	01/15/10 19:12	011510-2	936826

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
936823	936822	SW846 3050B	0.503	g	50	mL	12/29/09	BXA1
936826	936825	SW846 3050B	0.521	g	50	mL	01/15/10	AXG2
939596	939594	SW846 7471A Prep	0.526	g	30	mL	01/08/10	TXB3

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1087 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 243550014 **BASIS:** Dry Weight **DATE COLLECTED** 22-DEC-09

CLIENT ID: RE03-10-9872 **LEVEL:** Low **DATE RECEIVED** 24-DEC-09

MATRIX: SOIL **%SOLIDS:** 88

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	2020000	ug/Kg	N	7480	22000	22000	1	P	HSC	01/08/10 13:12	010810-1	938259
7440-36-0	Antimony	1200	ug/Kg		363	1100	1100	1	P	HSC	01/08/10 13:12	010810-1	938259
7440-38-2	Arsenic	0.885	mg/kg	J	0.223	1.12	1.12	2	MS	BAJ	01/09/10 03:11	100108-4	938263
7440-39-3	Barium	24900	ug/Kg		110	550	550	1	P	HSC	01/08/10 13:12	010810-1	938259
7440-41-7	Beryllium	0.426	mg/kg		0.0223	0.112	0.112	2	MS	BAJ	01/09/10 17:35	100109-5	938263
7440-42-8	Boron	5500	ug/Kg	U	1100	5500	5500	1	P	HSC	01/08/10 13:12	010810-1	938259
7440-43-9	Cadmium	550	ug/Kg	U	110	550	550	1	P	HSC	01/08/10 13:12	010810-1	938259
7440-70-2	Calcium	600000	ug/Kg		8800	27500	27500	1	P	HSC	01/08/10 13:12	010810-1	938259
7440-47-3	Chromium	12000	ug/Kg		165	550	550	1	P	HSC	01/08/10 13:12	010810-1	938259
7440-48-4	Cobalt	1180	ug/Kg		165	550	550	1	P	HSC	01/08/10 13:12	010810-1	938259
7440-50-8	Copper	2320	ug/Kg		330	1100	1100	1	P	HSC	01/08/10 13:12	010810-1	938259
7439-89-6	Iron	7780000	ug/Kg		8800	27500	27500	1	P	HSC	01/08/10 13:12	010810-1	938259
7439-92-1	Lead	5450	ug/Kg		275	1100	1100	1	P	HSC	01/08/10 13:12	010810-1	938259
7439-93-2	Lithium	5.55	mg/kg		0.447	2.23	2.23	2	MS	BAJ	01/09/10 17:35	100109-5	938263
7439-95-4	Magnesium	352000	ug/Kg	N	9350	33000	33000	1	P	HSC	01/08/10 13:12	010810-1	938259
7439-96-5	Manganese	236000	ug/Kg		220	1100	1100	1	P	HSC	01/08/10 13:12	010810-1	938259
7439-97-6	Mercury	13.5	ug/kg	U	4.58	13.5	13.5	1	AV	JXL1	01/11/10 10:30	011110S1-11	939596
7440-02-0	Nickel	2.16	mg/kg		0.112	0.447	0.447	2	MS	BAJ	01/09/10 17:35	100109-5	938263
7440-09-7	Potassium	334000	ug/Kg		7040	27500	27500	1	P	HSC	01/08/10 13:12	010810-1	938259
7782-49-2	Selenium	1.12	mg/kg	U	0.558	1.12	1.12	2	MS	BAJ	01/09/10 03:11	100108-4	938263
7440-21-3	Silicon	1210000	ug/Kg	*N	1650	11000	11000	1	P	HSC	01/08/10 13:12	010810-1	938259
7440-22-4	Silver	550	ug/Kg	U	110	550	550	1	P	HSC	01/08/10 13:12	010810-1	938259
7440-23-5	Sodium	151000	ug/Kg		7700	27500	27500	1	P	HSC	01/08/10 13:12	010810-1	938259
7440-28-0	Thallium	0.0737	mg/kg	J	0.067	0.223	0.223	2	MS	BAJ	01/09/10 03:11	100108-4	938263
7440-32-6	Titanium	161000	ug/Kg	*N	110	550	550	1	P	HSC	01/08/10 13:12	010810-1	938259
7440-61-1	Uranium	0.594	mg/kg		0.0147	0.0447	0.0447	2	MS	BAJ	01/09/10 03:11	100108-4	938263
7440-62-2	Vanadium	5470	ug/Kg		110	550	550	1	P	HSC	01/08/10 13:12	010810-1	938259
7440-66-6	Zinc	29500	ug/Kg		363	1100	1100	1	P	HSC	01/08/10 13:12	010810-1	938259

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
938259	938257	SW846 3050B	0.516	g	50	mL	01/05/10	AXG2
938263	938262	SW846 3050B	0.508	g	50	mL	01/05/10	AXG2
939596	939594	SW846 7471A Prep	0.505	g	30	mL	01/08/10	TXB3

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1087 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 243550015 **BASIS:** Dry Weight **DATE COLLECTED** 22-DEC-09

CLIENT ID: RE03-10-9874 **LEVEL:** Low **DATE RECEIVED** 24-DEC-09

MATRIX: SOIL **%SOLIDS:** 93.1

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	3520000	ug/Kg	N	7050	20700	20700	1	P	HSC	01/08/10 13:30	010810-1	938259
7440-36-0	Antimony	345	ug/Kg	J	342	1040	1040	1	P	HSC	01/08/10 13:30	010810-1	938259
7440-38-2	Arsenic	0.654	mg/kg	J	0.209	1.04	1.04	2	MS	BAJ	01/09/10 03:42	100108-4	938263
7440-39-3	Barium	14400	ug/Kg		104	518	518	1	P	HSC	01/08/10 13:30	010810-1	938259
7440-41-7	Beryllium	0.928	mg/kg		0.0209	0.104	0.104	2	MS	BAJ	01/09/10 17:44	100109-5	938263
7440-42-8	Boron	5180	ug/Kg	U	1040	5180	5180	1	P	HSC	01/08/10 13:30	010810-1	938259
7440-43-9	Cadmium	518	ug/Kg	U	104	518	518	1	P	HSC	01/08/10 13:30	010810-1	938259
7440-70-2	Calcium	715000	ug/Kg		8290	25900	25900	1	P	HSC	01/08/10 13:30	010810-1	938259
7440-47-3	Chromium	1970	ug/Kg		155	518	518	1	P	HSC	01/08/10 13:30	010810-1	938259
7440-48-4	Cobalt	872	ug/Kg		155	518	518	1	P	HSC	01/08/10 13:30	010810-1	938259
7440-50-8	Copper	2760	ug/Kg		311	1040	1040	1	P	HSC	01/08/10 13:30	010810-1	938259
7439-89-6	Iron	8240000	ug/Kg		8290	25900	25900	1	P	HSC	01/08/10 13:30	010810-1	938259
7439-92-1	Lead	6400	ug/Kg		259	1040	1040	1	P	HSC	01/08/10 13:30	010810-1	938259
7439-93-2	Lithium	12.4	mg/kg		0.418	2.09	2.09	2	MS	BAJ	01/09/10 17:44	100109-5	938263
7439-95-4	Magnesium	462000	ug/Kg	N	8810	31100	31100	1	P	HSC	01/08/10 13:30	010810-1	938259
7439-96-5	Manganese	332000	ug/Kg		207	1040	1040	1	P	HSC	01/08/10 13:30	010810-1	938259
7439-97-6	Mercury	4.49	ug/kg	J	3.92	11.5	11.5	1	AV	JXL1	01/11/10 10:32	011110S1-11	939596
7440-02-0	Nickel	2.46	mg/kg		0.104	0.418	0.418	2	MS	BAJ	01/09/10 17:44	100109-5	938263
7440-09-7	Potassium	540000	ug/Kg		6630	25900	25900	1	P	HSC	01/08/10 13:30	010810-1	938259
7782-49-2	Selenium	1.04	mg/kg	U	0.522	1.04	1.04	2	MS	BAJ	01/09/10 03:42	100108-4	938263
7440-21-3	Silicon	526000	ug/Kg	*N	1550	10400	10400	1	P	HSC	01/08/10 13:30	010810-1	938259
7440-22-4	Silver	518	ug/Kg	U	104	518	518	1	P	HSC	01/08/10 13:30	010810-1	938259
7440-23-5	Sodium	62400	ug/Kg		7250	25900	25900	1	P	HSC	01/08/10 13:30	010810-1	938259
7440-28-0	Thallium	0.209	mg/kg	U	0.0627	0.209	0.209	2	MS	BAJ	01/09/10 03:42	100108-4	938263
7440-32-6	Titanium	116000	ug/Kg	*N	104	518	518	1	P	HSC	01/08/10 13:30	010810-1	938259
7440-61-1	Uranium	0.558	mg/kg		0.0138	0.0418	0.0418	2	MS	BAJ	01/09/10 03:42	100108-4	938263
7440-62-2	Vanadium	5230	ug/Kg		104	518	518	1	P	HSC	01/08/10 13:30	010810-1	938259
7440-66-6	Zinc	45700	ug/Kg		342	1040	1040	1	P	HSC	01/08/10 13:30	010810-1	938259

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
938259	938257	SW846 3050B	0.518	g	50	mL	01/05/10	AXG2
938263	938262	SW846 3050B	0.514	g	50	mL	01/05/10	AXG2
939596	939594	SW846 7471A Prep	0.559	g	30	mL	01/08/10	TXB3

Quality Control Summary

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–1087

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,ICPMS6,OPTIMA1,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
ICV01										
	Aluminum	5180	ug/L	5000	ug/L	103.6	90.0 – 110.0	P	08–JAN–10 11:30	010810–1
	Antimony	473	ug/L	500	ug/L	94.7	90.0 – 110.0	P	08–JAN–10 11:30	010810–1
	Barium	498	ug/L	500	ug/L	99.6	90.0 – 110.0	P	08–JAN–10 11:30	010810–1
	Boron	507	ug/L	500	ug/L	101.4	90.0 – 110.0	P	08–JAN–10 11:30	010810–1
	Cadmium	491	ug/L	500	ug/L	98.1	90.0 – 110.0	P	08–JAN–10 11:30	010810–1
	Calcium	5080	ug/L	5000	ug/L	101.6	90.0 – 110.0	P	08–JAN–10 11:30	010810–1
	Chromium	479	ug/L	500	ug/L	95.7	90.0 – 110.0	P	08–JAN–10 11:30	010810–1
	Cobalt	497	ug/L	500	ug/L	99.5	90.0 – 110.0	P	08–JAN–10 11:30	010810–1
	Copper	488	ug/L	500	ug/L	97.7	90.0 – 110.0	P	08–JAN–10 11:30	010810–1
	Iron	5120	ug/L	5000	ug/L	102.4	90.0 – 110.0	P	08–JAN–10 11:30	010810–1
	Lead	483	ug/L	500	ug/L	96.7	90.0 – 110.0	P	08–JAN–10 11:30	010810–1
	Magnesium	5240	ug/L	5000	ug/L	104.8	90.0 – 110.0	P	08–JAN–10 11:30	010810–1
	Manganese	506	ug/L	500	ug/L	101.2	90.0 – 110.0	P	08–JAN–10 11:30	010810–1
	Potassium	2430	ug/L	2500	ug/L	97.1	90.0 – 110.0	P	08–JAN–10 11:30	010810–1
	Silicon	4610	ug/L	5000	ug/L	92.3	90.0 – 110.0	P	08–JAN–10 11:30	010810–1
	Silver	250	ug/L	250	ug/L	100.1	90.0 – 110.0	P	08–JAN–10 11:30	010810–1
	Sodium	2550	ug/L	2500	ug/L	102.1	90.0 – 110.0	P	08–JAN–10 11:30	010810–1
	Titanium	484	ug/L	500	ug/L	96.7	90.0 – 110.0	P	08–JAN–10 11:30	010810–1
	Vanadium	500	ug/L	500	ug/L	99.9	90.0 – 110.0	P	08–JAN–10 11:30	010810–1
	Zinc	494	ug/L	500	ug/L	98.9	90.0 – 110.0	P	08–JAN–10 11:30	010810–1
	Arsenic	50.7	ug/L	50	ug/L	101.4	90.0 – 110.0	MS	09–JAN–10 01:51	100108–4
	Selenium	51.8	ug/L	50	ug/L	103.5	90.0 – 110.0	MS	09–JAN–10 01:51	100108–4
	Thallium	53.2	ug/L	50	ug/L	106.3	90.0 – 110.0	MS	09–JAN–10 01:51	100108–4
	Uranium	54.5	ug/L	50	ug/L	109.1	90.0 – 110.0	MS	09–JAN–10 01:51	100108–4
	Beryllium	53.4	ug/L	50	ug/L	106.8	90.0 – 110.0	MS	09–JAN–10 17:12	100109–5
	Lithium	53.8	ug/L	50	ug/L	107.6	90.0 – 110.0	MS	09–JAN–10 17:12	100109–5
	Nickel	53.8	ug/L	50	ug/L	107.6	90.0 – 110.0	MS	09–JAN–10 17:12	100109–5
	Mercury	5.23	ug/L	5	ug/L	104.5	90.0 – 110.0	AV	11–JAN–10 09:33	011110S1–11
	Arsenic	48	ug/L	50	ug/L	95.9	90.0 – 110.0	MS	14–JAN–10 07:56	100113–6
	Nickel	51.5	ug/L	50	ug/L	103	90.0 – 110.0	MS	14–JAN–10 07:56	100113–6

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–1087

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,ICPMS6,OPTIMA1,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Selenium	49.4	ug/L	50	ug/L	98.7	90.0 – 110.0	MS	14–JAN–10 07:56	100113–6
	Thallium	48.6	ug/L	50	ug/L	97.2	90.0 – 110.0	MS	14–JAN–10 07:56	100113–6
	Uranium	52.3	ug/L	50	ug/L	104.6	90.0 – 110.0	MS	14–JAN–10 07:56	100113–6
	Aluminum	5080	ug/L	5000	ug/L	101.6	90.0 – 110.0	P	15–JAN–10 09:44	011510–2
	Antimony	522	ug/L	500	ug/L	104.5	90.0 – 110.0	P	15–JAN–10 09:44	011510–2
	Barium	513	ug/L	500	ug/L	102.6	90.0 – 110.0	P	15–JAN–10 09:44	011510–2
	Boron	511	ug/L	500	ug/L	102.2	90.0 – 110.0	P	15–JAN–10 09:44	011510–2
	Cadmium	484	ug/L	500	ug/L	96.9	90.0 – 110.0	P	15–JAN–10 09:44	011510–2
	Calcium	5090	ug/L	5000	ug/L	101.8	90.0 – 110.0	P	15–JAN–10 09:44	011510–2
	Chromium	492	ug/L	500	ug/L	98.4	90.0 – 110.0	P	15–JAN–10 09:44	011510–2
	Cobalt	504	ug/L	500	ug/L	100.8	90.0 – 110.0	P	15–JAN–10 09:44	011510–2
	Copper	508	ug/L	500	ug/L	101.7	90.0 – 110.0	P	15–JAN–10 09:44	011510–2
	Iron	5140	ug/L	5000	ug/L	102.8	90.0 – 110.0	P	15–JAN–10 09:44	011510–2
	Lead	504	ug/L	500	ug/L	100.9	90.0 – 110.0	P	15–JAN–10 09:44	011510–2
	Magnesium	5370	ug/L	5000	ug/L	107.4	90.0 – 110.0	P	15–JAN–10 09:44	011510–2
	Manganese	515	ug/L	500	ug/L	103	90.0 – 110.0	P	15–JAN–10 09:44	011510–2
	Potassium	2450	ug/L	2500	ug/L	98.2	90.0 – 110.0	P	15–JAN–10 09:44	011510–2
	Silicon	4640	ug/L	5000	ug/L	92.8	90.0 – 110.0	P	15–JAN–10 09:44	011510–2
	Silver	258	ug/L	250	ug/L	103	90.0 – 110.0	P	15–JAN–10 09:44	011510–2
	Sodium	2470	ug/L	2500	ug/L	98.7	90.0 – 110.0	P	15–JAN–10 09:44	011510–2
	Titanium	503	ug/L	500	ug/L	100.5	90.0 – 110.0	P	15–JAN–10 09:44	011510–2
	Vanadium	517	ug/L	500	ug/L	103.5	90.0 – 110.0	P	15–JAN–10 09:44	011510–2
	Zinc	502	ug/L	500	ug/L	100.4	90.0 – 110.0	P	15–JAN–10 09:44	011510–2
	Beryllium	51.7	ug/L	50	ug/L	103.4	90.0 – 110.0	MS	16–JAN–10 03:05	100115–7
	Lithium	51.3	ug/L	50	ug/L	102.7	90.0 – 110.0	MS	16–JAN–10 03:05	100115–7
	Arsenic	48.6	ug/L	50	ug/L	97.3	90.0 – 110.0	MS	16–JAN–10 10:14	100115–10
	Calcium	5020	ug/L	5000	ug/L	100.5	90.0 – 110.0	P	19–JAN–10 15:05	011910–3
	Chromium	495	ug/L	500	ug/L	99.1	90.0 – 110.0	P	19–JAN–10 15:05	011910–3
	Cobalt	506	ug/L	500	ug/L	101.3	90.0 – 110.0	P	19–JAN–10 15:05	011910–3
	Lead	505	ug/L	500	ug/L	101	90.0 – 110.0	P	19–JAN–10 15:05	011910–3

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1087

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,ICPMS6,OPTIMA1,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Potassium	2440	ug/L	2500	ug/L	97.7	90.0 – 110.0	P	19-JAN-10 15:05	011910-3
	Silver	258	ug/L	250	ug/L	103.4	90.0 – 110.0	P	19-JAN-10 15:05	011910-3
	Titanium	491	ug/L	500	ug/L	98.1	90.0 – 110.0	P	19-JAN-10 15:05	011910-3
	Vanadium	515	ug/L	500	ug/L	103	90.0 – 110.0	P	19-JAN-10 15:05	011910-3
CCV01										
	Aluminum	5180	ug/L	5000	ug/L	103.6	90.0 – 110.0	P	08-JAN-10 11:52	010810-1
	Antimony	469	ug/L	500	ug/L	93.9	90.0 – 110.0	P	08-JAN-10 11:52	010810-1
	Barium	484	ug/L	500	ug/L	96.7	90.0 – 110.0	P	08-JAN-10 11:52	010810-1
	Boron	483	ug/L	500	ug/L	96.7	90.0 – 110.0	P	08-JAN-10 11:52	010810-1
	Cadmium	485	ug/L	500	ug/L	96.9	90.0 – 110.0	P	08-JAN-10 11:52	010810-1
	Calcium	5040	ug/L	5000	ug/L	100.8	90.0 – 110.0	P	08-JAN-10 11:52	010810-1
	Chromium	487	ug/L	500	ug/L	97.4	90.0 – 110.0	P	08-JAN-10 11:52	010810-1
	Cobalt	483	ug/L	500	ug/L	96.6	90.0 – 110.0	P	08-JAN-10 11:52	010810-1
	Copper	486	ug/L	500	ug/L	97.2	90.0 – 110.0	P	08-JAN-10 11:52	010810-1
	Iron	4800	ug/L	5000	ug/L	96	90.0 – 110.0	P	08-JAN-10 11:52	010810-1
	Lead	483	ug/L	500	ug/L	96.7	90.0 – 110.0	P	08-JAN-10 11:52	010810-1
	Magnesium	4980	ug/L	5000	ug/L	99.6	90.0 – 110.0	P	08-JAN-10 11:52	010810-1
	Manganese	491	ug/L	500	ug/L	98.2	90.0 – 110.0	P	08-JAN-10 11:52	010810-1
	Potassium	5490	ug/L	5000	ug/L	109.8	90.0 – 110.0	P	08-JAN-10 11:52	010810-1
	Silicon	2360	ug/L	2500	ug/L	94.6	90.0 – 110.0	P	08-JAN-10 11:52	010810-1
	Silver	476	ug/L	500	ug/L	95.2	90.0 – 110.0	P	08-JAN-10 11:52	010810-1
	Sodium	10200	ug/L	10000	ug/L	102.4	90.0 – 110.0	P	08-JAN-10 11:52	010810-1
	Titanium	477	ug/L	500	ug/L	95.5	90.0 – 110.0	P	08-JAN-10 11:52	010810-1
	Vanadium	485	ug/L	500	ug/L	97	90.0 – 110.0	P	08-JAN-10 11:52	010810-1
	Zinc	484	ug/L	500	ug/L	96.8	90.0 – 110.0	P	08-JAN-10 11:52	010810-1
	Arsenic	48.6	ug/L	50	ug/L	97.2	90.0 – 110.0	MS	09-JAN-10 02:22	100108-4
	Selenium	49.5	ug/L	50	ug/L	99	90.0 – 110.0	MS	09-JAN-10 02:22	100108-4
	Thallium	51.1	ug/L	50	ug/L	102.2	90.0 – 110.0	MS	09-JAN-10 02:22	100108-4
	Uranium	51.8	ug/L	50	ug/L	103.5	90.0 – 110.0	MS	09-JAN-10 02:22	100108-4
	Beryllium	53.7	ug/L	50	ug/L	107.4	90.0 – 110.0	MS	09-JAN-10 17:21	100109-5

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1087

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,ICPMS6,OPTIMA1,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Lithium	54.2	ug/L	50	ug/L	108.4	90.0 - 110.0	MS	09-JAN-10 17:21	100109-5
	Nickel	53.9	ug/L	50	ug/L	107.8	90.0 - 110.0	MS	09-JAN-10 17:21	100109-5
	Mercury	5.14	ug/L	5	ug/L	102.8	80.0 - 120.0	AV	11-JAN-10 09:38	011110S1-11
	Arsenic	48.4	ug/L	50	ug/L	96.8	90.0 - 110.0	MS	14-JAN-10 08:26	100113-6
	Nickel	51.8	ug/L	50	ug/L	103.6	90.0 - 110.0	MS	14-JAN-10 08:26	100113-6
	Selenium	50.1	ug/L	50	ug/L	100.1	90.0 - 110.0	MS	14-JAN-10 08:26	100113-6
	Thallium	48.8	ug/L	50	ug/L	97.6	90.0 - 110.0	MS	14-JAN-10 08:26	100113-6
	Uranium	53.1	ug/L	50	ug/L	106.2	90.0 - 110.0	MS	14-JAN-10 08:26	100113-6
	Aluminum	5110	ug/L	5000	ug/L	102.1	90.0 - 110.0	P	15-JAN-10 10:45	011510-2
	Antimony	528	ug/L	500	ug/L	105.7	90.0 - 110.0	P	15-JAN-10 10:45	011510-2
	Barium	510	ug/L	500	ug/L	102	90.0 - 110.0	P	15-JAN-10 10:45	011510-2
	Boron	515	ug/L	500	ug/L	102.9	90.0 - 110.0	P	15-JAN-10 10:45	011510-2
	Cadmium	510	ug/L	500	ug/L	102.1	90.0 - 110.0	P	15-JAN-10 10:45	011510-2
	Calcium	5170	ug/L	5000	ug/L	103.4	90.0 - 110.0	P	15-JAN-10 10:45	011510-2
	Chromium	508	ug/L	500	ug/L	101.7	90.0 - 110.0	P	15-JAN-10 10:45	011510-2
	Cobalt	512	ug/L	500	ug/L	102.4	90.0 - 110.0	P	15-JAN-10 10:45	011510-2
	Copper	504	ug/L	500	ug/L	100.9	90.0 - 110.0	P	15-JAN-10 10:45	011510-2
	Iron	5200	ug/L	5000	ug/L	104	90.0 - 110.0	P	15-JAN-10 10:45	011510-2
	Lead	508	ug/L	500	ug/L	101.7	90.0 - 110.0	P	15-JAN-10 10:45	011510-2
	Magnesium	5330	ug/L	5000	ug/L	106.7	90.0 - 110.0	P	15-JAN-10 10:45	011510-2
	Manganese	510	ug/L	500	ug/L	102	90.0 - 110.0	P	15-JAN-10 10:45	011510-2
	Potassium	5190	ug/L	5000	ug/L	103.8	90.0 - 110.0	P	15-JAN-10 10:45	011510-2
	Silicon	2540	ug/L	2500	ug/L	101.4	90.0 - 110.0	P	15-JAN-10 10:45	011510-2
	Silver	517	ug/L	500	ug/L	103.4	90.0 - 110.0	P	15-JAN-10 10:45	011510-2
	Sodium	9980	ug/L	10000	ug/L	99.8	90.0 - 110.0	P	15-JAN-10 10:45	011510-2
	Titanium	500	ug/L	500	ug/L	99.9	90.0 - 110.0	P	15-JAN-10 10:45	011510-2
	Vanadium	513	ug/L	500	ug/L	102.6	90.0 - 110.0	P	15-JAN-10 10:45	011510-2
	Zinc	506	ug/L	500	ug/L	101.1	90.0 - 110.0	P	15-JAN-10 10:45	011510-2
	Beryllium	52.1	ug/L	50	ug/L	104.2	90.0 - 110.0	MS	16-JAN-10 03:21	100115-7
	Lithium	52.8	ug/L	50	ug/L	105.5	90.0 - 110.0	MS	16-JAN-10 03:21	100115-7

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–1087

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,ICPMS6,OPTIMA1,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Arsenic	46.3	ug/L	50	ug/L	92.6	90.0 – 110.0	MS	16–JAN–10 10:28	100115–10
	Calcium	5120	ug/L	5000	ug/L	102.3	90.0 – 110.0	P	19–JAN–10 15:51	011910–3
	Chromium	511	ug/L	500	ug/L	102.3	90.0 – 110.0	P	19–JAN–10 15:51	011910–3
	Cobalt	511	ug/L	500	ug/L	102.2	90.0 – 110.0	P	19–JAN–10 15:51	011910–3
	Lead	507	ug/L	500	ug/L	101.4	90.0 – 110.0	P	19–JAN–10 15:51	011910–3
	Potassium	5340	ug/L	5000	ug/L	106.8	90.0 – 110.0	P	19–JAN–10 15:51	011910–3
	Silver	511	ug/L	500	ug/L	102.2	90.0 – 110.0	P	19–JAN–10 15:51	011910–3
	Titanium	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	19–JAN–10 15:51	011910–3
	Vanadium	515	ug/L	500	ug/L	102.9	90.0 – 110.0	P	19–JAN–10 15:51	011910–3
CCV02										
	Aluminum	5150	ug/L	5000	ug/L	103	90.0 – 110.0	P	08–JAN–10 12:10	010810–1
	Antimony	467	ug/L	500	ug/L	93.4	90.0 – 110.0	P	08–JAN–10 12:10	010810–1
	Barium	483	ug/L	500	ug/L	96.6	90.0 – 110.0	P	08–JAN–10 12:10	010810–1
	Boron	478	ug/L	500	ug/L	95.6	90.0 – 110.0	P	08–JAN–10 12:10	010810–1
	Cadmium	485	ug/L	500	ug/L	97	90.0 – 110.0	P	08–JAN–10 12:10	010810–1
	Calcium	5040	ug/L	5000	ug/L	100.7	90.0 – 110.0	P	08–JAN–10 12:10	010810–1
	Chromium	482	ug/L	500	ug/L	96.5	90.0 – 110.0	P	08–JAN–10 12:10	010810–1
	Cobalt	485	ug/L	500	ug/L	96.9	90.0 – 110.0	P	08–JAN–10 12:10	010810–1
	Copper	474	ug/L	500	ug/L	94.9	90.0 – 110.0	P	08–JAN–10 12:10	010810–1
	Iron	4820	ug/L	5000	ug/L	96.4	90.0 – 110.0	P	08–JAN–10 12:10	010810–1
	Lead	484	ug/L	500	ug/L	96.8	90.0 – 110.0	P	08–JAN–10 12:10	010810–1
	Magnesium	4960	ug/L	5000	ug/L	99.1	90.0 – 110.0	P	08–JAN–10 12:10	010810–1
	Manganese	483	ug/L	500	ug/L	96.5	90.0 – 110.0	P	08–JAN–10 12:10	010810–1
	Potassium	5060	ug/L	5000	ug/L	101.3	90.0 – 110.0	P	08–JAN–10 12:10	010810–1
	Silicon	2350	ug/L	2500	ug/L	94.1	90.0 – 110.0	P	08–JAN–10 12:10	010810–1
	Silver	477	ug/L	500	ug/L	95.5	90.0 – 110.0	P	08–JAN–10 12:10	010810–1
	Sodium	10100	ug/L	10000	ug/L	101.1	90.0 – 110.0	P	08–JAN–10 12:10	010810–1
	Titanium	477	ug/L	500	ug/L	95.5	90.0 – 110.0	P	08–JAN–10 12:10	010810–1
	Vanadium	484	ug/L	500	ug/L	96.9	90.0 – 110.0	P	08–JAN–10 12:10	010810–1
	Zinc	482	ug/L	500	ug/L	96.3	90.0 – 110.0	P	08–JAN–10 12:10	010810–1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–1087

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,ICPMS6,OPTIMA1,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Arsenic	50.4	ug/L	50	ug/L	100.8	90.0 – 110.0	MS	09–JAN–10 02:40	100108–4
	Selenium	51.4	ug/L	50	ug/L	102.8	90.0 – 110.0	MS	09–JAN–10 02:40	100108–4
	Thallium	53.1	ug/L	50	ug/L	106.3	90.0 – 110.0	MS	09–JAN–10 02:40	100108–4
	Uranium	54.4	ug/L	50	ug/L	108.7	90.0 – 110.0	MS	09–JAN–10 02:40	100108–4
	Beryllium	53.4	ug/L	50	ug/L	106.7	90.0 – 110.0	MS	09–JAN–10 17:26	100109–5
	Lithium	54.8	ug/L	50	ug/L	109.6	90.0 – 110.0	MS	09–JAN–10 17:26	100109–5
	Nickel	53.2	ug/L	50	ug/L	106.5	90.0 – 110.0	MS	09–JAN–10 17:26	100109–5
	Mercury	5.18	ug/L	5	ug/L	103.6	80.0 – 120.0	AV	11–JAN–10 09:58	011110S1–11
	Arsenic	47.9	ug/L	50	ug/L	95.8	90.0 – 110.0	MS	14–JAN–10 08:55	100113–6
	Nickel	52	ug/L	50	ug/L	104	90.0 – 110.0	MS	14–JAN–10 08:55	100113–6
	Selenium	50.3	ug/L	50	ug/L	100.5	90.0 – 110.0	MS	14–JAN–10 08:55	100113–6
	Thallium	50.2	ug/L	50	ug/L	100.3	90.0 – 110.0	MS	14–JAN–10 08:55	100113–6
	Uranium	53.7	ug/L	50	ug/L	107.5	90.0 – 110.0	MS	14–JAN–10 08:55	100113–6
	Aluminum	4590	ug/L	5000	ug/L	91.9	90.0 – 110.0	P	15–JAN–10 12:13	011510–2
	Antimony	478	ug/L	500	ug/L	95.6	90.0 – 110.0	P	15–JAN–10 12:13	011510–2
	Barium	461	ug/L	500	ug/L	92.2	90.0 – 110.0	P	15–JAN–10 12:13	011510–2
	Boron	455	ug/L	500	ug/L	91.1	90.0 – 110.0	P	15–JAN–10 12:13	011510–2
	Cadmium	460	ug/L	500	ug/L	92	90.0 – 110.0	P	15–JAN–10 12:13	011510–2
	Calcium	4700	ug/L	5000	ug/L	94	90.0 – 110.0	P	15–JAN–10 12:13	011510–2
	Chromium	459	ug/L	500	ug/L	91.9	90.0 – 110.0	P	15–JAN–10 12:13	011510–2
	Cobalt	462	ug/L	500	ug/L	92.4	90.0 – 110.0	P	15–JAN–10 12:13	011510–2
	Copper	453	ug/L	500	ug/L	90.6	90.0 – 110.0	P	15–JAN–10 12:13	011510–2
	Iron	4880	ug/L	5000	ug/L	97.6	90.0 – 110.0	P	15–JAN–10 12:13	011510–2
	Lead	461	ug/L	500	ug/L	92.2	90.0 – 110.0	P	15–JAN–10 12:13	011510–2
	Magnesium	4780	ug/L	5000	ug/L	95.5	90.0 – 110.0	P	15–JAN–10 12:13	011510–2
	Manganese	463	ug/L	500	ug/L	92.7	90.0 – 110.0	P	15–JAN–10 12:13	011510–2
	Potassium	4570	ug/L	5000	ug/L	91.5	90.0 – 110.0	P	15–JAN–10 12:13	011510–2
	Silicon	2290	ug/L	2500	ug/L	91.5	90.0 – 110.0	P	15–JAN–10 12:13	011510–2
	Silver	468	ug/L	500	ug/L	93.7	90.0 – 110.0	P	15–JAN–10 12:13	011510–2
	Sodium	10000	ug/L	10000	ug/L	100.3	90.0 – 110.0	P	15–JAN–10 12:13	011510–2

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–1087

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,ICPMS6,OPTIMA1,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Titanium	452	ug/L	500	ug/L	90.3	90.0 – 110.0	P	15–JAN–10 12:13	011510–2
	Vanadium	464	ug/L	500	ug/L	92.8	90.0 – 110.0	P	15–JAN–10 12:13	011510–2
	Zinc	455	ug/L	500	ug/L	91	90.0 – 110.0	P	15–JAN–10 12:13	011510–2
	Beryllium	51.4	ug/L	50	ug/L	102.7	90.0 – 110.0	MS	16–JAN–10 03:30	100115–7
	Lithium	51.5	ug/L	50	ug/L	102.9	90.0 – 110.0	MS	16–JAN–10 03:30	100115–7
	Arsenic	46.5	ug/L	50	ug/L	93	90.0 – 110.0	MS	16–JAN–10 10:56	100115–10
	Calcium	5110	ug/L	5000	ug/L	102.2	90.0 – 110.0	P	19–JAN–10 16:26	011910–3
	Chromium	512	ug/L	500	ug/L	102.3	90.0 – 110.0	P	19–JAN–10 16:26	011910–3
	Cobalt	507	ug/L	500	ug/L	101.4	90.0 – 110.0	P	19–JAN–10 16:26	011910–3
	Lead	514	ug/L	500	ug/L	102.7	90.0 – 110.0	P	19–JAN–10 16:26	011910–3
	Potassium	5010	ug/L	5000	ug/L	100.2	90.0 – 110.0	P	19–JAN–10 16:26	011910–3
	Silver	511	ug/L	500	ug/L	102.2	90.0 – 110.0	P	19–JAN–10 16:26	011910–3
	Titanium	504	ug/L	500	ug/L	100.7	90.0 – 110.0	P	19–JAN–10 16:26	011910–3
	Vanadium	514	ug/L	500	ug/L	102.7	90.0 – 110.0	P	19–JAN–10 16:26	011910–3
CCV03										
	Aluminum	5110	ug/L	5000	ug/L	102.2	90.0 – 110.0	P	08–JAN–10 12:24	010810–1
	Antimony	470	ug/L	500	ug/L	94	90.0 – 110.0	P	08–JAN–10 12:24	010810–1
	Barium	490	ug/L	500	ug/L	98.1	90.0 – 110.0	P	08–JAN–10 12:24	010810–1
	Boron	482	ug/L	500	ug/L	96.3	90.0 – 110.0	P	08–JAN–10 12:24	010810–1
	Cadmium	490	ug/L	500	ug/L	97.9	90.0 – 110.0	P	08–JAN–10 12:24	010810–1
	Calcium	4980	ug/L	5000	ug/L	99.5	90.0 – 110.0	P	08–JAN–10 12:24	010810–1
	Chromium	487	ug/L	500	ug/L	97.4	90.0 – 110.0	P	08–JAN–10 12:24	010810–1
	Cobalt	489	ug/L	500	ug/L	97.8	90.0 – 110.0	P	08–JAN–10 12:24	010810–1
	Copper	480	ug/L	500	ug/L	96.1	90.0 – 110.0	P	08–JAN–10 12:24	010810–1
	Iron	4780	ug/L	5000	ug/L	95.5	90.0 – 110.0	P	08–JAN–10 12:24	010810–1
	Lead	485	ug/L	500	ug/L	97	90.0 – 110.0	P	08–JAN–10 12:24	010810–1
	Magnesium	4940	ug/L	5000	ug/L	98.8	90.0 – 110.0	P	08–JAN–10 12:24	010810–1
	Manganese	496	ug/L	500	ug/L	99.2	90.0 – 110.0	P	08–JAN–10 12:24	010810–1
	Potassium	4990	ug/L	5000	ug/L	99.9	90.0 – 110.0	P	08–JAN–10 12:24	010810–1
	Silicon	2390	ug/L	2500	ug/L	95.7	90.0 – 110.0	P	08–JAN–10 12:24	010810–1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1087

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,ICPMS6,OPTIMA1,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Silver	482	ug/L	500	ug/L	96.5	90.0 – 110.0	P	08-JAN-10 12:24	010810-1
	Sodium	10100	ug/L	10000	ug/L	100.7	90.0 – 110.0	P	08-JAN-10 12:24	010810-1
	Titanium	480	ug/L	500	ug/L	96.1	90.0 – 110.0	P	08-JAN-10 12:24	010810-1
	Vanadium	489	ug/L	500	ug/L	97.7	90.0 – 110.0	P	08-JAN-10 12:24	010810-1
	Zinc	487	ug/L	500	ug/L	97.4	90.0 – 110.0	P	08-JAN-10 12:24	010810-1
	Arsenic	49.1	ug/L	50	ug/L	98.2	90.0 – 110.0	MS	09-JAN-10 03:48	100108-4
	Selenium	49.6	ug/L	50	ug/L	99.1	90.0 – 110.0	MS	09-JAN-10 03:48	100108-4
	Thallium	51.4	ug/L	50	ug/L	102.9	90.0 – 110.0	MS	09-JAN-10 03:48	100108-4
	Uranium	52.2	ug/L	50	ug/L	104.5	90.0 – 110.0	MS	09-JAN-10 03:48	100108-4
	Beryllium	54.4	ug/L	50	ug/L	108.7	90.0 – 110.0	MS	09-JAN-10 17:46	100109-5
	Lithium	54.5	ug/L	50	ug/L	109.1	90.0 – 110.0	MS	09-JAN-10 17:46	100109-5
	Nickel	54.7	ug/L	50	ug/L	109.4	90.0 – 110.0	MS	09-JAN-10 17:46	100109-5
	Mercury	5.28	ug/L	5	ug/L	105.5	80.0 – 120.0	AV	11-JAN-10 10:18	011110S1-11
	Arsenic	49.7	ug/L	50	ug/L	99.4	90.0 – 110.0	MS	14-JAN-10 09:43	100113-6
	Nickel	52.4	ug/L	50	ug/L	104.8	90.0 – 110.0	MS	14-JAN-10 09:43	100113-6
	Selenium	51	ug/L	50	ug/L	102	90.0 – 110.0	MS	14-JAN-10 09:43	100113-6
	Thallium	48.1	ug/L	50	ug/L	96.2	90.0 – 110.0	MS	14-JAN-10 09:43	100113-6
	Uranium	53	ug/L	50	ug/L	106.1	90.0 – 110.0	MS	14-JAN-10 09:43	100113-6
	Aluminum	4760	ug/L	5000	ug/L	95.1	90.0 – 110.0	P	15-JAN-10 13:03	011510-2
	Antimony	499	ug/L	500	ug/L	99.9	90.0 – 110.0	P	15-JAN-10 13:03	011510-2
	Barium	484	ug/L	500	ug/L	96.8	90.0 – 110.0	P	15-JAN-10 13:03	011510-2
	Boron	472	ug/L	500	ug/L	94.4	90.0 – 110.0	P	15-JAN-10 13:03	011510-2
	Cadmium	484	ug/L	500	ug/L	96.9	90.0 – 110.0	P	15-JAN-10 13:03	011510-2
	Calcium	4840	ug/L	5000	ug/L	96.7	90.0 – 110.0	P	15-JAN-10 13:03	011510-2
	Chromium	483	ug/L	500	ug/L	96.6	90.0 – 110.0	P	15-JAN-10 13:03	011510-2
	Cobalt	486	ug/L	500	ug/L	97.2	90.0 – 110.0	P	15-JAN-10 13:03	011510-2
	Copper	476	ug/L	500	ug/L	95.2	90.0 – 110.0	P	15-JAN-10 13:03	011510-2
	Iron	4930	ug/L	5000	ug/L	98.7	90.0 – 110.0	P	15-JAN-10 13:03	011510-2
	Lead	484	ug/L	500	ug/L	96.7	90.0 – 110.0	P	15-JAN-10 13:03	011510-2
	Magnesium	5040	ug/L	5000	ug/L	100.9	90.0 – 110.0	P	15-JAN-10 13:03	011510-2

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–1087

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,ICPMS6,OPTIMA1,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Manganese	483	ug/L	500	ug/L	96.7	90.0 – 110.0	P	15–JAN–10 13:03	011510–2
	Potassium	4750	ug/L	5000	ug/L	95	90.0 – 110.0	P	15–JAN–10 13:03	011510–2
	Silicon	2400	ug/L	2500	ug/L	96.2	90.0 – 110.0	P	15–JAN–10 13:03	011510–2
	Silver	491	ug/L	500	ug/L	98.2	90.0 – 110.0	P	15–JAN–10 13:03	011510–2
	Sodium	9810	ug/L	10000	ug/L	98.1	90.0 – 110.0	P	15–JAN–10 13:03	011510–2
	Titanium	474	ug/L	500	ug/L	94.9	90.0 – 110.0	P	15–JAN–10 13:03	011510–2
	Vanadium	487	ug/L	500	ug/L	97.3	90.0 – 110.0	P	15–JAN–10 13:03	011510–2
	Zinc	479	ug/L	500	ug/L	95.8	90.0 – 110.0	P	15–JAN–10 13:03	011510–2
	Beryllium	52.5	ug/L	50	ug/L	104.9	90.0 – 110.0	MS	16–JAN–10 04:08	100115–7
	Lithium	52.7	ug/L	50	ug/L	105.3	90.0 – 110.0	MS	16–JAN–10 04:08	100115–7
	Calcium	5040	ug/L	5000	ug/L	100.7	90.0 – 110.0	P	19–JAN–10 17:21	011910–3
	Chromium	503	ug/L	500	ug/L	100.6	90.0 – 110.0	P	19–JAN–10 17:21	011910–3
	Cobalt	503	ug/L	500	ug/L	100.5	90.0 – 110.0	P	19–JAN–10 17:21	011910–3
	Lead	499	ug/L	500	ug/L	99.9	90.0 – 110.0	P	19–JAN–10 17:21	011910–3
	Potassium	4970	ug/L	5000	ug/L	99.4	90.0 – 110.0	P	19–JAN–10 17:21	011910–3
	Silver	504	ug/L	500	ug/L	100.8	90.0 – 110.0	P	19–JAN–10 17:21	011910–3
	Titanium	499	ug/L	500	ug/L	99.7	90.0 – 110.0	P	19–JAN–10 17:21	011910–3
	Vanadium	506	ug/L	500	ug/L	101.3	90.0 – 110.0	P	19–JAN–10 17:21	011910–3
CCV04										
	Aluminum	5160	ug/L	5000	ug/L	103.2	90.0 – 110.0	P	08–JAN–10 12:57	010810–1
	Antimony	464	ug/L	500	ug/L	92.8	90.0 – 110.0	P	08–JAN–10 12:57	010810–1
	Barium	488	ug/L	500	ug/L	97.5	90.0 – 110.0	P	08–JAN–10 12:57	010810–1
	Boron	481	ug/L	500	ug/L	96.1	90.0 – 110.0	P	08–JAN–10 12:57	010810–1
	Cadmium	488	ug/L	500	ug/L	97.6	90.0 – 110.0	P	08–JAN–10 12:57	010810–1
	Calcium	5070	ug/L	5000	ug/L	101.4	90.0 – 110.0	P	08–JAN–10 12:57	010810–1
	Chromium	486	ug/L	500	ug/L	97.2	90.0 – 110.0	P	08–JAN–10 12:57	010810–1
	Cobalt	488	ug/L	500	ug/L	97.7	90.0 – 110.0	P	08–JAN–10 12:57	010810–1
	Copper	478	ug/L	500	ug/L	95.7	90.0 – 110.0	P	08–JAN–10 12:57	010810–1
	Iron	4980	ug/L	5000	ug/L	99.6	90.0 – 110.0	P	08–JAN–10 12:57	010810–1
	Lead	480	ug/L	500	ug/L	96.1	90.0 – 110.0	P	08–JAN–10 12:57	010810–1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–1087

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,ICPMS6,OPTIMA1,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Magnesium	5080	ug/L	5000	ug/L	101.7	90.0 – 110.0	P	08–JAN–10 12:57	010810–1
	Manganese	495	ug/L	500	ug/L	99	90.0 – 110.0	P	08–JAN–10 12:57	010810–1
	Potassium	5040	ug/L	5000	ug/L	100.7	90.0 – 110.0	P	08–JAN–10 12:57	010810–1
	Silicon	2380	ug/L	2500	ug/L	95.1	90.0 – 110.0	P	08–JAN–10 12:57	010810–1
	Silver	482	ug/L	500	ug/L	96.4	90.0 – 110.0	P	08–JAN–10 12:57	010810–1
	Sodium	10300	ug/L	10000	ug/L	103.1	90.0 – 110.0	P	08–JAN–10 12:57	010810–1
	Titanium	479	ug/L	500	ug/L	95.9	90.0 – 110.0	P	08–JAN–10 12:57	010810–1
	Vanadium	489	ug/L	500	ug/L	97.8	90.0 – 110.0	P	08–JAN–10 12:57	010810–1
	Zinc	486	ug/L	500	ug/L	97.1	90.0 – 110.0	P	08–JAN–10 12:57	010810–1
	Mercury	5.09	ug/L	5	ug/L	101.8	80.0 – 120.0	AV	11–JAN–10 10:39	011110S1–11
	Arsenic	47.3	ug/L	50	ug/L	94.6	90.0 – 110.0	MS	14–JAN–10 10:36	100113–6
	Nickel	52.4	ug/L	50	ug/L	104.9	90.0 – 110.0	MS	14–JAN–10 10:36	100113–6
	Selenium	50.5	ug/L	50	ug/L	100.9	90.0 – 110.0	MS	14–JAN–10 10:36	100113–6
	Thallium	47.3	ug/L	50	ug/L	94.6	90.0 – 110.0	MS	14–JAN–10 10:36	100113–6
	Uranium	51.7	ug/L	50	ug/L	103.3	90.0 – 110.0	MS	14–JAN–10 10:36	100113–6
	Aluminum	4800	ug/L	5000	ug/L	95.9	90.0 – 110.0	P	15–JAN–10 14:06	011510–2
	Antimony	498	ug/L	500	ug/L	99.7	90.0 – 110.0	P	15–JAN–10 14:06	011510–2
	Barium	482	ug/L	500	ug/L	96.4	90.0 – 110.0	P	15–JAN–10 14:06	011510–2
	Boron	473	ug/L	500	ug/L	94.6	90.0 – 110.0	P	15–JAN–10 14:06	011510–2
	Cadmium	482	ug/L	500	ug/L	96.4	90.0 – 110.0	P	15–JAN–10 14:06	011510–2
	Calcium	4950	ug/L	5000	ug/L	99	90.0 – 110.0	P	15–JAN–10 14:06	011510–2
	Chromium	481	ug/L	500	ug/L	96.2	90.0 – 110.0	P	15–JAN–10 14:06	011510–2
	Cobalt	484	ug/L	500	ug/L	96.8	90.0 – 110.0	P	15–JAN–10 14:06	011510–2
	Copper	474	ug/L	500	ug/L	94.9	90.0 – 110.0	P	15–JAN–10 14:06	011510–2
	Iron	5080	ug/L	5000	ug/L	101.6	90.0 – 110.0	P	15–JAN–10 14:06	011510–2
	Lead	482	ug/L	500	ug/L	96.4	90.0 – 110.0	P	15–JAN–10 14:06	011510–2
	Magnesium	5110	ug/L	5000	ug/L	102.2	90.0 – 110.0	P	15–JAN–10 14:06	011510–2
	Manganese	482	ug/L	500	ug/L	96.4	90.0 – 110.0	P	15–JAN–10 14:06	011510–2
	Potassium	4840	ug/L	5000	ug/L	96.9	90.0 – 110.0	P	15–JAN–10 14:06	011510–2
	Silicon	2390	ug/L	2500	ug/L	95.8	90.0 – 110.0	P	15–JAN–10 14:06	011510–2

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–1087

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,ICPMS6,OPTIMA1,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Silver	491	ug/L	500	ug/L	98.1	90.0 – 110.0	P	15–JAN–10 14:06	011510–2
	Sodium	10400	ug/L	10000	ug/L	104.2	90.0 – 110.0	P	15–JAN–10 14:06	011510–2
	Titanium	473	ug/L	500	ug/L	94.6	90.0 – 110.0	P	15–JAN–10 14:06	011510–2
	Vanadium	485	ug/L	500	ug/L	97	90.0 – 110.0	P	15–JAN–10 14:06	011510–2
	Zinc	476	ug/L	500	ug/L	95.2	90.0 – 110.0	P	15–JAN–10 14:06	011510–2
	Beryllium	52.6	ug/L	50	ug/L	105.3	90.0 – 110.0	MS	16–JAN–10 04:45	100115–7
	Lithium	52.5	ug/L	50	ug/L	105	90.0 – 110.0	MS	16–JAN–10 04:45	100115–7
CCV05										
	Aluminum	5260	ug/L	5000	ug/L	105.3	90.0 – 110.0	P	08–JAN–10 13:34	010810–1
	Antimony	476	ug/L	500	ug/L	95.2	90.0 – 110.0	P	08–JAN–10 13:34	010810–1
	Barium	496	ug/L	500	ug/L	99.2	90.0 – 110.0	P	08–JAN–10 13:34	010810–1
	Boron	491	ug/L	500	ug/L	98.1	90.0 – 110.0	P	08–JAN–10 13:34	010810–1
	Cadmium	497	ug/L	500	ug/L	99.3	90.0 – 110.0	P	08–JAN–10 13:34	010810–1
	Calcium	5110	ug/L	5000	ug/L	102.3	90.0 – 110.0	P	08–JAN–10 13:34	010810–1
	Chromium	495	ug/L	500	ug/L	99	90.0 – 110.0	P	08–JAN–10 13:34	010810–1
	Cobalt	499	ug/L	500	ug/L	99.7	90.0 – 110.0	P	08–JAN–10 13:34	010810–1
	Copper	489	ug/L	500	ug/L	97.7	90.0 – 110.0	P	08–JAN–10 13:34	010810–1
	Iron	5030	ug/L	5000	ug/L	100.6	90.0 – 110.0	P	08–JAN–10 13:34	010810–1
	Lead	493	ug/L	500	ug/L	98.6	90.0 – 110.0	P	08–JAN–10 13:34	010810–1
	Magnesium	5070	ug/L	5000	ug/L	101.5	90.0 – 110.0	P	08–JAN–10 13:34	010810–1
	Manganese	509	ug/L	500	ug/L	101.7	90.0 – 110.0	P	08–JAN–10 13:34	010810–1
	Potassium	5130	ug/L	5000	ug/L	102.5	90.0 – 110.0	P	08–JAN–10 13:34	010810–1
	Silicon	2430	ug/L	2500	ug/L	97.1	90.0 – 110.0	P	08–JAN–10 13:34	010810–1
	Silver	491	ug/L	500	ug/L	98.2	90.0 – 110.0	P	08–JAN–10 13:34	010810–1
	Sodium	10500	ug/L	10000	ug/L	105	90.0 – 110.0	P	08–JAN–10 13:34	010810–1
	Titanium	490	ug/L	500	ug/L	98.1	90.0 – 110.0	P	08–JAN–10 13:34	010810–1
	Vanadium	497	ug/L	500	ug/L	99.5	90.0 – 110.0	P	08–JAN–10 13:34	010810–1
	Zinc	496	ug/L	500	ug/L	99.2	90.0 – 110.0	P	08–JAN–10 13:34	010810–1
	Mercury	5.19	ug/L	5	ug/L	103.7	80.0 – 120.0	AV	11–JAN–10 10:59	011110S1–11
	Arsenic	47.5	ug/L	50	ug/L	94.9	90.0 – 110.0	MS	14–JAN–10 11:24	100113–6

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–1087

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,ICPMS6,OPTIMA1,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Nickel	49.6	ug/L	50	ug/L	99.3	90.0 – 110.0	MS	14–JAN–10 11:24	100113–6
	Selenium	50.3	ug/L	50	ug/L	100.6	90.0 – 110.0	MS	14–JAN–10 11:24	100113–6
	Thallium	48.3	ug/L	50	ug/L	96.5	90.0 – 110.0	MS	14–JAN–10 11:24	100113–6
	Uranium	52.6	ug/L	50	ug/L	105.1	90.0 – 110.0	MS	14–JAN–10 11:24	100113–6
	Aluminum	4860	ug/L	5000	ug/L	97.1	90.0 – 110.0	P	15–JAN–10 15:01	011510–2
	Antimony	514	ug/L	500	ug/L	102.9	90.0 – 110.0	P	15–JAN–10 15:01	011510–2
	Barium	497	ug/L	500	ug/L	99.4	90.0 – 110.0	P	15–JAN–10 15:01	011510–2
	Boron	490	ug/L	500	ug/L	97.9	90.0 – 110.0	P	15–JAN–10 15:01	011510–2
	Cadmium	498	ug/L	500	ug/L	99.6	90.0 – 110.0	P	15–JAN–10 15:01	011510–2
	Calcium	4990	ug/L	5000	ug/L	99.9	90.0 – 110.0	P	15–JAN–10 15:01	011510–2
	Chromium	496	ug/L	500	ug/L	99.2	90.0 – 110.0	P	15–JAN–10 15:01	011510–2
	Cobalt	499	ug/L	500	ug/L	99.9	90.0 – 110.0	P	15–JAN–10 15:01	011510–2
	Copper	492	ug/L	500	ug/L	98.3	90.0 – 110.0	P	15–JAN–10 15:01	011510–2
	Iron	5140	ug/L	5000	ug/L	102.8	90.0 – 110.0	P	15–JAN–10 15:01	011510–2
	Lead	497	ug/L	500	ug/L	99.4	90.0 – 110.0	P	15–JAN–10 15:01	011510–2
	Magnesium	5080	ug/L	5000	ug/L	101.7	90.0 – 110.0	P	15–JAN–10 15:01	011510–2
	Manganese	497	ug/L	500	ug/L	99.5	90.0 – 110.0	P	15–JAN–10 15:01	011510–2
	Potassium	4820	ug/L	5000	ug/L	96.4	90.0 – 110.0	P	15–JAN–10 15:01	011510–2
	Silicon	2480	ug/L	2500	ug/L	99.1	90.0 – 110.0	P	15–JAN–10 15:01	011510–2
	Silver	506	ug/L	500	ug/L	101.1	90.0 – 110.0	P	15–JAN–10 15:01	011510–2
	Sodium	10500	ug/L	10000	ug/L	104.9	90.0 – 110.0	P	15–JAN–10 15:01	011510–2
	Titanium	487	ug/L	500	ug/L	97.4	90.0 – 110.0	P	15–JAN–10 15:01	011510–2
	Vanadium	500	ug/L	500	ug/L	100.1	90.0 – 110.0	P	15–JAN–10 15:01	011510–2
	Zinc	492	ug/L	500	ug/L	98.4	90.0 – 110.0	P	15–JAN–10 15:01	011510–2
	Beryllium	50.7	ug/L	50	ug/L	101.4	90.0 – 110.0	MS	16–JAN–10 05:20	100115–7
	Lithium	49.1	ug/L	50	ug/L	98.3	90.0 – 110.0	MS	16–JAN–10 05:20	100115–7
CCV06										
	Aluminum	4800	ug/L	5000	ug/L	96.1	90.0 – 110.0	P	15–JAN–10 16:03	011510–2
	Antimony	515	ug/L	500	ug/L	102.9	90.0 – 110.0	P	15–JAN–10 16:03	011510–2
	Barium	494	ug/L	500	ug/L	98.9	90.0 – 110.0	P	15–JAN–10 16:03	011510–2

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–1087

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,ICPMS6,OPTIMA1,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Boron	491	ug/L	500	ug/L	98.2	90.0 – 110.0	P	15–JAN–10 16:03	011510–2
	Cadmium	495	ug/L	500	ug/L	99.1	90.0 – 110.0	P	15–JAN–10 16:03	011510–2
	Calcium	4850	ug/L	5000	ug/L	97	90.0 – 110.0	P	15–JAN–10 16:03	011510–2
	Chromium	492	ug/L	500	ug/L	98.5	90.0 – 110.0	P	15–JAN–10 16:03	011510–2
	Cobalt	497	ug/L	500	ug/L	99.5	90.0 – 110.0	P	15–JAN–10 16:03	011510–2
	Copper	490	ug/L	500	ug/L	98.1	90.0 – 110.0	P	15–JAN–10 16:03	011510–2
	Iron	4940	ug/L	5000	ug/L	98.8	90.0 – 110.0	P	15–JAN–10 16:03	011510–2
	Lead	496	ug/L	500	ug/L	99.2	90.0 – 110.0	P	15–JAN–10 16:03	011510–2
	Magnesium	5020	ug/L	5000	ug/L	100.4	90.0 – 110.0	P	15–JAN–10 16:03	011510–2
	Manganese	498	ug/L	500	ug/L	99.6	90.0 – 110.0	P	15–JAN–10 16:03	011510–2
	Potassium	4780	ug/L	5000	ug/L	95.5	90.0 – 110.0	P	15–JAN–10 16:03	011510–2
	Silicon	2480	ug/L	2500	ug/L	99.2	90.0 – 110.0	P	15–JAN–10 16:03	011510–2
	Silver	505	ug/L	500	ug/L	101	90.0 – 110.0	P	15–JAN–10 16:03	011510–2
	Sodium	10200	ug/L	10000	ug/L	101.5	90.0 – 110.0	P	15–JAN–10 16:03	011510–2
	Titanium	486	ug/L	500	ug/L	97.1	90.0 – 110.0	P	15–JAN–10 16:03	011510–2
	Vanadium	498	ug/L	500	ug/L	99.5	90.0 – 110.0	P	15–JAN–10 16:03	011510–2
	Zinc	490	ug/L	500	ug/L	98	90.0 – 110.0	P	15–JAN–10 16:03	011510–2
CCV07										
	Aluminum	4890	ug/L	5000	ug/L	97.7	90.0 – 110.0	P	15–JAN–10 16:53	011510–2
	Antimony	514	ug/L	500	ug/L	102.9	90.0 – 110.0	P	15–JAN–10 16:53	011510–2
	Barium	492	ug/L	500	ug/L	98.3	90.0 – 110.0	P	15–JAN–10 16:53	011510–2
	Boron	485	ug/L	500	ug/L	97	90.0 – 110.0	P	15–JAN–10 16:53	011510–2
	Cadmium	491	ug/L	500	ug/L	98.3	90.0 – 110.0	P	15–JAN–10 16:53	011510–2
	Calcium	4970	ug/L	5000	ug/L	99.4	90.0 – 110.0	P	15–JAN–10 16:53	011510–2
	Chromium	488	ug/L	500	ug/L	97.6	90.0 – 110.0	P	15–JAN–10 16:53	011510–2
	Cobalt	495	ug/L	500	ug/L	99	90.0 – 110.0	P	15–JAN–10 16:53	011510–2
	Copper	487	ug/L	500	ug/L	97.4	90.0 – 110.0	P	15–JAN–10 16:53	011510–2
	Iron	5030	ug/L	5000	ug/L	100.6	90.0 – 110.0	P	15–JAN–10 16:53	011510–2
	Lead	494	ug/L	500	ug/L	98.8	90.0 – 110.0	P	15–JAN–10 16:53	011510–2
	Magnesium	5100	ug/L	5000	ug/L	102.1	90.0 – 110.0	P	15–JAN–10 16:53	011510–2

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1087

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,ICPMS6,OPTIMA1,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Manganese	494	ug/L	500	ug/L	98.8	90.0 – 110.0	P	15-JAN-10 16:53	011510-2
	Potassium	4830	ug/L	5000	ug/L	96.7	90.0 – 110.0	P	15-JAN-10 16:53	011510-2
	Silicon	2460	ug/L	2500	ug/L	98.4	90.0 – 110.0	P	15-JAN-10 16:53	011510-2
	Silver	502	ug/L	500	ug/L	100.4	90.0 – 110.0	P	15-JAN-10 16:53	011510-2
	Sodium	10000	ug/L	10000	ug/L	100	90.0 – 110.0	P	15-JAN-10 16:53	011510-2
	Titanium	483	ug/L	500	ug/L	96.7	90.0 – 110.0	P	15-JAN-10 16:53	011510-2
	Vanadium	494	ug/L	500	ug/L	98.8	90.0 – 110.0	P	15-JAN-10 16:53	011510-2
	Zinc	486	ug/L	500	ug/L	97.2	90.0 – 110.0	P	15-JAN-10 16:53	011510-2
CCV08										
	Aluminum	4920	ug/L	5000	ug/L	98.4	90.0 – 110.0	P	15-JAN-10 17:55	011510-2
	Antimony	517	ug/L	500	ug/L	103.4	90.0 – 110.0	P	15-JAN-10 17:55	011510-2
	Barium	496	ug/L	500	ug/L	99.2	90.0 – 110.0	P	15-JAN-10 17:55	011510-2
	Boron	494	ug/L	500	ug/L	98.7	90.0 – 110.0	P	15-JAN-10 17:55	011510-2
	Cadmium	496	ug/L	500	ug/L	99.3	90.0 – 110.0	P	15-JAN-10 17:55	011510-2
	Calcium	4980	ug/L	5000	ug/L	99.6	90.0 – 110.0	P	15-JAN-10 17:55	011510-2
	Chromium	493	ug/L	500	ug/L	98.6	90.0 – 110.0	P	15-JAN-10 17:55	011510-2
	Cobalt	500	ug/L	500	ug/L	100.1	90.0 – 110.0	P	15-JAN-10 17:55	011510-2
	Copper	493	ug/L	500	ug/L	98.7	90.0 – 110.0	P	15-JAN-10 17:55	011510-2
	Iron	5050	ug/L	5000	ug/L	101	90.0 – 110.0	P	15-JAN-10 17:55	011510-2
	Lead	496	ug/L	500	ug/L	99.2	90.0 – 110.0	P	15-JAN-10 17:55	011510-2
	Magnesium	5130	ug/L	5000	ug/L	102.7	90.0 – 110.0	P	15-JAN-10 17:55	011510-2
	Manganese	495	ug/L	500	ug/L	98.9	90.0 – 110.0	P	15-JAN-10 17:55	011510-2
	Potassium	4830	ug/L	5000	ug/L	96.6	90.0 – 110.0	P	15-JAN-10 17:55	011510-2
	Silicon	2490	ug/L	2500	ug/L	99.5	90.0 – 110.0	P	15-JAN-10 17:55	011510-2
	Silver	512	ug/L	500	ug/L	102.4	90.0 – 110.0	P	15-JAN-10 17:55	011510-2
	Sodium	9860	ug/L	10000	ug/L	98.6	90.0 – 110.0	P	15-JAN-10 17:55	011510-2
	Titanium	489	ug/L	500	ug/L	97.8	90.0 – 110.0	P	15-JAN-10 17:55	011510-2
	Vanadium	499	ug/L	500	ug/L	99.8	90.0 – 110.0	P	15-JAN-10 17:55	011510-2
	Zinc	491	ug/L	500	ug/L	98.3	90.0 – 110.0	P	15-JAN-10 17:55	011510-2

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–1087

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,ICPMS6,OPTIMA1,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
CCV09										
	Aluminum	4960	ug/L	5000	ug/L	99.3	90.0 – 110.0	P	15–JAN–10 18:59	011510–2
	Antimony	515	ug/L	500	ug/L	103	90.0 – 110.0	P	15–JAN–10 18:59	011510–2
	Barium	495	ug/L	500	ug/L	99	90.0 – 110.0	P	15–JAN–10 18:59	011510–2
	Boron	490	ug/L	500	ug/L	98	90.0 – 110.0	P	15–JAN–10 18:59	011510–2
	Cadmium	493	ug/L	500	ug/L	98.7	90.0 – 110.0	P	15–JAN–10 18:59	011510–2
	Calcium	4980	ug/L	5000	ug/L	99.5	90.0 – 110.0	P	15–JAN–10 18:59	011510–2
	Chromium	490	ug/L	500	ug/L	98	90.0 – 110.0	P	15–JAN–10 18:59	011510–2
	Cobalt	498	ug/L	500	ug/L	99.6	90.0 – 110.0	P	15–JAN–10 18:59	011510–2
	Copper	492	ug/L	500	ug/L	98.4	90.0 – 110.0	P	15–JAN–10 18:59	011510–2
	Iron	4950	ug/L	5000	ug/L	99	90.0 – 110.0	P	15–JAN–10 18:59	011510–2
	Lead	494	ug/L	500	ug/L	98.8	90.0 – 110.0	P	15–JAN–10 18:59	011510–2
	Magnesium	5010	ug/L	5000	ug/L	100.2	90.0 – 110.0	P	15–JAN–10 18:59	011510–2
	Manganese	494	ug/L	500	ug/L	98.8	90.0 – 110.0	P	15–JAN–10 18:59	011510–2
	Potassium	4830	ug/L	5000	ug/L	96.6	90.0 – 110.0	P	15–JAN–10 18:59	011510–2
	Silicon	2480	ug/L	2500	ug/L	99.1	90.0 – 110.0	P	15–JAN–10 18:59	011510–2
	Silver	510	ug/L	500	ug/L	102	90.0 – 110.0	P	15–JAN–10 18:59	011510–2
	Sodium	9510	ug/L	10000	ug/L	95.1	90.0 – 110.0	P	15–JAN–10 18:59	011510–2
	Titanium	488	ug/L	500	ug/L	97.6	90.0 – 110.0	P	15–JAN–10 18:59	011510–2
	Vanadium	497	ug/L	500	ug/L	99.5	90.0 – 110.0	P	15–JAN–10 18:59	011510–2
	Zinc	489	ug/L	500	ug/L	97.8	90.0 – 110.0	P	15–JAN–10 18:59	011510–2
CCV10										
	Aluminum	4890	ug/L	5000	ug/L	97.8	90.0 – 110.0	P	15–JAN–10 20:02	011510–2
	Antimony	517	ug/L	500	ug/L	103.4	90.0 – 110.0	P	15–JAN–10 20:02	011510–2
	Barium	495	ug/L	500	ug/L	99.1	90.0 – 110.0	P	15–JAN–10 20:02	011510–2
	Boron	496	ug/L	500	ug/L	99.3	90.0 – 110.0	P	15–JAN–10 20:02	011510–2
	Cadmium	495	ug/L	500	ug/L	98.9	90.0 – 110.0	P	15–JAN–10 20:02	011510–2
	Calcium	4960	ug/L	5000	ug/L	99.2	90.0 – 110.0	P	15–JAN–10 20:02	011510–2
	Chromium	493	ug/L	500	ug/L	98.5	90.0 – 110.0	P	15–JAN–10 20:02	011510–2
	Cobalt	498	ug/L	500	ug/L	99.5	90.0 – 110.0	P	15–JAN–10 20:02	011510–2
	Copper	493	ug/L	500	ug/L	98.6	90.0 – 110.0	P	15–JAN–10 20:02	011510–2

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–1087

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,ICPMS6,OPTIMA1,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Iron	5020	ug/L	5000	ug/L	100.3	90.0 – 110.0	P	15–JAN–10 20:02	011510–2
	Lead	495	ug/L	500	ug/L	99	90.0 – 110.0	P	15–JAN–10 20:02	011510–2
	Magnesium	5040	ug/L	5000	ug/L	100.8	90.0 – 110.0	P	15–JAN–10 20:02	011510–2
	Manganese	495	ug/L	500	ug/L	99.1	90.0 – 110.0	P	15–JAN–10 20:02	011510–2
	Potassium	4890	ug/L	5000	ug/L	97.9	90.0 – 110.0	P	15–JAN–10 20:02	011510–2
	Silicon	2480	ug/L	2500	ug/L	99.2	90.0 – 110.0	P	15–JAN–10 20:02	011510–2
	Silver	511	ug/L	500	ug/L	102.2	90.0 – 110.0	P	15–JAN–10 20:02	011510–2
	Sodium	10200	ug/L	10000	ug/L	101.7	90.0 – 110.0	P	15–JAN–10 20:02	011510–2
	Titanium	499	ug/L	500	ug/L	99.8	90.0 – 110.0	P	15–JAN–10 20:02	011510–2
	Vanadium	499	ug/L	500	ug/L	99.8	90.0 – 110.0	P	15–JAN–10 20:02	011510–2
	Zinc	491	ug/L	500	ug/L	98.1	90.0 – 110.0	P	15–JAN–10 20:02	011510–2

METALS
-2b-
CRDL Standard for AA & ICP

SDG No: 10-1087

Contract: LANL01004 **Lab Code:** GEL

AA CRDL Standard Source: SPEX

ICP CRDL Standard Source Solutions Plus

Instrument ID: HG3,ICPMS5,ICPMS6,OPTIMA1,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Advisory Limits (%R)	M	Analysis Date/Time	Run Number
CRDL01										
	Thallium	1.25	ug/L	1	ug/L	124.8	70.0 – 130.0	MS	09-JAN-10 02:03	100108-4
	Arsenic	5.45	ug/L	5	ug/L	108.9	70.0 – 130.0	MS	09-JAN-10 02:03	100108-4
	Selenium	5.74	ug/L	5	ug/L	114.8	70.0 – 130.0	MS	09-JAN-10 02:03	100108-4
	Uranium	.254	ug/L	.2	ug/L	127	70.0 – 130.0	MS	09-JAN-10 02:03	100108-4
	Nickel	2.19	ug/L	2	ug/L	109.3	70.0 – 130.0	MS	09-JAN-10 17:16	100109-5
	Beryllium	.564	ug/L	.5	ug/L	112.8	70.0 – 130.0	MS	09-JAN-10 17:16	100109-5
	Lithium	11.2	ug/L	10	ug/L	112	70.0 – 130.0	MS	09-JAN-10 17:16	100109-5
	Mercury	.174	ug/L	.2	ug/L	87	70.0 – 130.0	AV	11-JAN-10 09:37	011110S1-11
	Nickel	2.17	ug/L	2	ug/L	108.7	70.0 – 130.0	MS	14-JAN-10 08:08	100113-6
	Uranium	.235	ug/L	.2	ug/L	117.5	70.0 – 130.0	MS	14-JAN-10 08:08	100113-6
	Selenium	5.52	ug/L	5	ug/L	110.5	70.0 – 130.0	MS	14-JAN-10 08:08	100113-6
	Arsenic	5.57	ug/L	5	ug/L	111.4	70.0 – 130.0	MS	14-JAN-10 08:08	100113-6
	Thallium	1.07	ug/L	1	ug/L	106.6	70.0 – 130.0	MS	14-JAN-10 08:08	100113-6
	Beryllium	.557	ug/L	.5	ug/L	111.4	70.0 – 130.0	MS	16-JAN-10 03:12	100115-7
	Lithium	11.3	ug/L	10	ug/L	112.7	70.0 – 130.0	MS	16-JAN-10 03:12	100115-7
	Arsenic	5.64	ug/L	5	ug/L	112.7	70.0 – 130.0	MS	16-JAN-10 10:20	100115-10
PQL01										
	Silver	5.07	ug/L	5	ug/L	101.3	70.0 – 130.0	P	08-JAN-10 11:37	010810-1
	Sodium	326	ug/L	300	ug/L	108.6	70.0 – 130.0	P	08-JAN-10 11:37	010810-1
	Antimony	11	ug/L	10	ug/L	110.1	70.0 – 130.0	P	08-JAN-10 11:37	010810-1
	Barium	4.91	ug/L	5	ug/L	98.2	70.0 – 130.0	P	08-JAN-10 11:37	010810-1
	Cadmium	4.66	ug/L	5	ug/L	93.1	70.0 – 130.0	P	08-JAN-10 11:37	010810-1
	Chromium	4.79	ug/L	5	ug/L	95.8	70.0 – 130.0	P	08-JAN-10 11:37	010810-1
	Cobalt	4.69	ug/L	5	ug/L	93.9	70.0 – 130.0	P	08-JAN-10 11:37	010810-1
	Potassium	139	ug/L	150	ug/L	92.4	70.0 – 130.0	P	08-JAN-10 11:37	010810-1
	Manganese	10.1	ug/L	10	ug/L	100.6	70.0 – 130.0	P	08-JAN-10 11:37	010810-1
	Magnesium	314	ug/L	300	ug/L	104.6	70.0 – 130.0	P	08-JAN-10 11:37	010810-1
	Lead	10.1	ug/L	10	ug/L	101.1	70.0 – 130.0	P	08-JAN-10 11:37	010810-1
	Iron	105	ug/L	100	ug/L	105.1	70.0 – 130.0	P	08-JAN-10 11:37	010810-1
	Aluminum	200	ug/L	200	ug/L	100.3	70.0 – 130.0	P	08-JAN-10 11:37	010810-1

METALS
–2b–
CRDL Standard for AA & ICP

SDG No: 10–1087

Contract: LANL01004 **Lab Code:** GEL

AA CRDL Standard Source:

ICP CRDL Standard Source

Instrument ID: HG3,ICPMS5,ICPMS6,OPTIMA1,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Advisory Limits (%R)	M	Analysis Date/Time	Run Number
	Copper	10.6	ug/L	10	ug/L	105.7	70.0 – 130.0	P	08–JAN–10 11:37	010810–1
	Vanadium	5.42	ug/L	5	ug/L	108.5	70.0 – 130.0	P	08–JAN–10 11:37	010810–1
	Zinc	9.85	ug/L	10	ug/L	98.5	70.0 – 130.0	P	08–JAN–10 11:37	010810–1
	Calcium	207	ug/L	200	ug/L	103.4	70.0 – 130.0	P	08–JAN–10 11:37	010810–1
	Boron	49.2	ug/L	50	ug/L	98.5	70.0 – 130.0	P	08–JAN–10 11:37	010810–1
	Silicon	102	ug/L	100	ug/L	101.6	70.0 – 130.0	P	08–JAN–10 11:37	010810–1
	Titanium	4.94	ug/L	5	ug/L	98.8	70.0 – 130.0	P	08–JAN–10 11:37	010810–1
	Aluminum	202	ug/L	200	ug/L	101.2	70.0 – 130.0	P	15–JAN–10 09:57	011510–2
	Iron	109	ug/L	100	ug/L	109.2	70.0 – 130.0	P	15–JAN–10 09:57	011510–2
	Silver	5.05	ug/L	5	ug/L	100.9	70.0 – 130.0	P	15–JAN–10 09:57	011510–2
	Antimony	10.7	ug/L	10	ug/L	106.5	70.0 – 130.0	P	15–JAN–10 09:57	011510–2
	Cadmium	5.25	ug/L	5	ug/L	105	70.0 – 130.0	P	15–JAN–10 09:57	011510–2
	Cobalt	4.74	ug/L	5	ug/L	94.9	70.0 – 130.0	P	15–JAN–10 09:57	011510–2
	Titanium	5.11	ug/L	5	ug/L	102.2	70.0 – 130.0	P	15–JAN–10 09:57	011510–2
	Silicon	97.8	ug/L	100	ug/L	97.8	70.0 – 130.0	P	15–JAN–10 09:57	011510–2
	Boron	50.8	ug/L	50	ug/L	101.5	70.0 – 130.0	P	15–JAN–10 09:57	011510–2
	Calcium	210	ug/L	200	ug/L	105.1	70.0 – 130.0	P	15–JAN–10 09:57	011510–2
	Zinc	10.1	ug/L	10	ug/L	100.5	70.0 – 130.0	P	15–JAN–10 09:57	011510–2
	Vanadium	5.24	ug/L	5	ug/L	104.9	70.0 – 130.0	P	15–JAN–10 09:57	011510–2
	Copper	9.74	ug/L	10	ug/L	97.4	70.0 – 130.0	P	15–JAN–10 09:57	011510–2
	Chromium	4.89	ug/L	5	ug/L	97.8	70.0 – 130.0	P	15–JAN–10 09:57	011510–2
	Barium	5.3	ug/L	5	ug/L	106.1	70.0 – 130.0	P	15–JAN–10 09:57	011510–2
	Sodium	289	ug/L	300	ug/L	96.2	70.0 – 130.0	P	15–JAN–10 09:57	011510–2
	Potassium	121	ug/L	150	ug/L	80.9	70.0 – 130.0	P	15–JAN–10 09:57	011510–2
	Lead	10	ug/L	10	ug/L	100.2	70.0 – 130.0	P	15–JAN–10 09:57	011510–2
	Magnesium	253	ug/L	300	ug/L	84.5	70.0 – 130.0	P	15–JAN–10 09:57	011510–2
	Manganese	10.6	ug/L	10	ug/L	105.8	70.0 – 130.0	P	15–JAN–10 09:57	011510–2
	Lead	9.78	ug/L	10	ug/L	97.8	70.0 – 130.0	P	19–JAN–10 15:19	011910–3
	Potassium	136	ug/L	150	ug/L	90.6	70.0 – 130.0	P	19–JAN–10 15:19	011910–3
	Silver	5.56	ug/L	5	ug/L	111.3	70.0 – 130.0	P	19–JAN–10 15:19	011910–3

METALS
–2b–
CRDL Standard for AA & ICP

SDG No: 10–1087

Contract: LANL01004 **Lab Code:** GEL

AA CRDL Standard Source:

ICP CRDL Standard Source

Instrument ID: HG3,ICPMS5,ICPMS6,OPTIMA1,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Advisory Limits (%R)	M	Analysis Date/Time	Run Number
	Chromium	5.42	ug/L	5	ug/L	108.5	70.0 – 130.0	P	19–JAN–10 15:19	011910–3
	Cobalt	5.39	ug/L	5	ug/L	107.8	70.0 – 130.0	P	19–JAN–10 15:19	011910–3
	Vanadium	4.57	ug/L	5	ug/L	91.4	70.0 – 130.0	P	19–JAN–10 15:19	011910–3
	Calcium	200	ug/L	200	ug/L	99.8	70.0 – 130.0	P	19–JAN–10 15:19	011910–3
	Titanium	5.26	ug/L	5	ug/L	105.3	70.0 – 130.0	P	19–JAN–10 15:19	011910–3

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10–1087

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
ICB01										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	08–JAN–10 11:33	010810–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	08–JAN–10 11:33	010810–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	08–JAN–10 11:33	010810–1
	Boron	10.0	+/–50	U	10.0	50.0	SOL	P	08–JAN–10 11:33	010810–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	08–JAN–10 11:33	010810–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	08–JAN–10 11:33	010810–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	08–JAN–10 11:33	010810–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	08–JAN–10 11:33	010810–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	08–JAN–10 11:33	010810–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	08–JAN–10 11:33	010810–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	08–JAN–10 11:33	010810–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	08–JAN–10 11:33	010810–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	08–JAN–10 11:33	010810–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	08–JAN–10 11:33	010810–1
	Silicon	15.0	+/–100	U	15.0	100	SOL	P	08–JAN–10 11:33	010810–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	08–JAN–10 11:33	010810–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	08–JAN–10 11:33	010810–1
	Titanium	1.0	+/–5	U	1.0	5.0	SOL	P	08–JAN–10 11:33	010810–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	08–JAN–10 11:33	010810–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	08–JAN–10 11:33	010810–1
	Arsenic	1.0	+/–5	U	1.0	5.0	SOL	MS	09–JAN–10 01:57	100108–4
	Selenium	2.5	+/–5	U	2.5	5.0	SOL	MS	09–JAN–10 01:57	100108–4
	Thallium	0.3	+/–1	U	0.3	1.0	SOL	MS	09–JAN–10 01:57	100108–4
	Uranium	0.066	+/–.2	U	0.066	0.2	SOL	MS	09–JAN–10 01:57	100108–4
	Beryllium	0.1	+/–.5	U	0.1	0.5	SOL	MS	09–JAN–10 17:14	100109–5
	Lithium	2.0	+/–10	U	2.0	10.0	SOL	MS	09–JAN–10 17:14	100109–5
	Nickel	0.5	+/–2	U	0.5	2.0	SOL	MS	09–JAN–10 17:14	100109–5
	Mercury	0.068	+/–.2	U	0.068	0.2	SOL	AV	11–JAN–10 09:35	011110S1–11
	Arsenic	1.0	+/–5	U	1.0	5.0	SOL	MS	14–JAN–10 08:02	100113–6
	Nickel	0.5	+/–2	U	0.5	2.0	SOL	MS	14–JAN–10 08:02	100113–6
	Selenium	2.5	+/–5	U	2.5	5.0	SOL	MS	14–JAN–10 08:02	100113–6

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10-1087

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Thallium	0.3	+/-1	U	0.3	1.0	SOL	MS	14-JAN-10 08:02	100113-6
	Uranium	0.082	+/-.2	J	0.066	0.2	SOL	MS	14-JAN-10 08:02	100113-6
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	15-JAN-10 09:51	011510-2
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	15-JAN-10 09:51	011510-2
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	15-JAN-10 09:51	011510-2
	Boron	10.0	+/-50	U	10.0	50.0	SOL	P	15-JAN-10 09:51	011510-2
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	15-JAN-10 09:51	011510-2
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	15-JAN-10 09:51	011510-2
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	15-JAN-10 09:51	011510-2
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	15-JAN-10 09:51	011510-2
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	15-JAN-10 09:51	011510-2
	Iron	80.0	+/-250	U	80.0	250	SOL	P	15-JAN-10 09:51	011510-2
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	15-JAN-10 09:51	011510-2
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	15-JAN-10 09:51	011510-2
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	15-JAN-10 09:51	011510-2
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	15-JAN-10 09:51	011510-2
	Silicon	15.0	+/-100	U	15.0	100	SOL	P	15-JAN-10 09:51	011510-2
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	15-JAN-10 09:51	011510-2
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	15-JAN-10 09:51	011510-2
	Titanium	1.0	+/-5	U	1.0	5.0	SOL	P	15-JAN-10 09:51	011510-2
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	15-JAN-10 09:51	011510-2
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	15-JAN-10 09:51	011510-2
	Beryllium	0.1	+/-.5	U	0.1	0.5	SOL	MS	16-JAN-10 03:09	100115-7
	Lithium	2.0	+/-10	U	2.0	10.0	SOL	MS	16-JAN-10 03:09	100115-7
	Arsenic	1.0	+/-5	U	1.0	5.0	SOL	MS	16-JAN-10 10:17	100115-10
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	19-JAN-10 15:12	011910-3
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	19-JAN-10 15:12	011910-3
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	19-JAN-10 15:12	011910-3
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	19-JAN-10 15:12	011910-3
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	19-JAN-10 15:12	011910-3
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	19-JAN-10 15:12	011910-3

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10–1087

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Titanium	1.0	+/–5	U	1.0	5.0	SOL	P	19–JAN–10 15:12	011910–3
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	19–JAN–10 15:12	011910–3
CCB01										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	08–JAN–10 11:56	010810–1
	Antimony	4.21	+/–10	J	3.3	10.0	SOL	P	08–JAN–10 11:56	010810–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	08–JAN–10 11:56	010810–1
	Boron	10.0	+/–50	U	10.0	50.0	SOL	P	08–JAN–10 11:56	010810–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	08–JAN–10 11:56	010810–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	08–JAN–10 11:56	010810–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	08–JAN–10 11:56	010810–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	08–JAN–10 11:56	010810–1
	Copper	6.05	+/–10	J	3.0	10.0	SOL	P	08–JAN–10 11:56	010810–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	08–JAN–10 11:56	010810–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	08–JAN–10 11:56	010810–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	08–JAN–10 11:56	010810–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	08–JAN–10 11:56	010810–1
	Potassium	154.6	+/–250	J	64.0	250	SOL	P	08–JAN–10 11:56	010810–1
	Silicon	15.0	+/–100	U	15.0	100	SOL	P	08–JAN–10 11:56	010810–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	08–JAN–10 11:56	010810–1
	Sodium	128.54	+/–250	J	70.0	250	SOL	P	08–JAN–10 11:56	010810–1
	Titanium	1.0	+/–5	U	1.0	5.0	SOL	P	08–JAN–10 11:56	010810–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	08–JAN–10 11:56	010810–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	08–JAN–10 11:56	010810–1
	Arsenic	1.0	+/–5	U	1.0	5.0	SOL	MS	09–JAN–10 02:28	100108–4
	Selenium	2.5	+/–5	U	2.5	5.0	SOL	MS	09–JAN–10 02:28	100108–4
	Thallium	0.3	+/–1	U	0.3	1.0	SOL	MS	09–JAN–10 02:28	100108–4
	Uranium	0.066	+/–.2	U	0.066	0.2	SOL	MS	09–JAN–10 02:28	100108–4
	Beryllium	0.1	+/–.5	U	0.1	0.5	SOL	MS	09–JAN–10 17:23	100109–5
	Lithium	2.0	+/–10	U	2.0	10.0	SOL	MS	09–JAN–10 17:23	100109–5
	Nickel	0.5	+/–2	U	0.5	2.0	SOL	MS	09–JAN–10 17:23	100109–5
	Mercury	0.068	+/–.2	U	0.068	0.2	SOL	AV	11–JAN–10 09:40	011110S1–11

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-1087

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Arsenic	1.0	+/-5	U	1.0	5.0	SOL	MS	14-JAN-10 08:31	100113-6
	Nickel	0.5	+/-2	U	0.5	2.0	SOL	MS	14-JAN-10 08:31	100113-6
	Selenium	2.5	+/-5	U	2.5	5.0	SOL	MS	14-JAN-10 08:31	100113-6
	Thallium	0.3	+/-1	U	0.3	1.0	SOL	MS	14-JAN-10 08:31	100113-6
	Uranium	0.066	+/-.2	J	0.066	0.2	SOL	MS	14-JAN-10 08:31	100113-6
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	15-JAN-10 10:52	011510-2
	Antimony	4.05	+/-10	J	3.3	10.0	SOL	P	15-JAN-10 10:52	011510-2
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	15-JAN-10 10:52	011510-2
	Boron	11.63	+/-50	J	10.0	50.0	SOL	P	15-JAN-10 10:52	011510-2
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	15-JAN-10 10:52	011510-2
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	15-JAN-10 10:52	011510-2
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	15-JAN-10 10:52	011510-2
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	15-JAN-10 10:52	011510-2
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	15-JAN-10 10:52	011510-2
	Iron	80.0	+/-250	U	80.0	250	SOL	P	15-JAN-10 10:52	011510-2
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	15-JAN-10 10:52	011510-2
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	15-JAN-10 10:52	011510-2
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	15-JAN-10 10:52	011510-2
	Potassium	103.48	+/-250	J	64.0	250	SOL	P	15-JAN-10 10:52	011510-2
	Silicon	15.0	+/-100	U	15.0	100	SOL	P	15-JAN-10 10:52	011510-2
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	15-JAN-10 10:52	011510-2
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	15-JAN-10 10:52	011510-2
	Titanium	1.0	+/-5	U	1.0	5.0	SOL	P	15-JAN-10 10:52	011510-2
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	15-JAN-10 10:52	011510-2
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	15-JAN-10 10:52	011510-2
	Beryllium	0.1	+/-.5	U	0.1	0.5	SOL	MS	16-JAN-10 03:24	100115-7
	Lithium	2.0	+/-10	U	2.0	10.0	SOL	MS	16-JAN-10 03:24	100115-7
	Arsenic	1.0	+/-5	U	1.0	5.0	SOL	MS	16-JAN-10 10:31	100115-10
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	19-JAN-10 15:58	011910-3
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	19-JAN-10 15:58	011910-3
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	19-JAN-10 15:58	011910-3

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-1087

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	19-JAN-10 15:58	011910-3
	Potassium	141.61	+/-250	J	64.0	250	SOL	P	19-JAN-10 15:58	011910-3
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	19-JAN-10 15:58	011910-3
	Titanium	1.0	+/-5	U	1.0	5.0	SOL	P	19-JAN-10 15:58	011910-3
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	19-JAN-10 15:58	011910-3
CCB02										
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	08-JAN-10 12:13	010810-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	08-JAN-10 12:13	010810-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	08-JAN-10 12:13	010810-1
	Boron	10.0	+/-50	U	10.0	50.0	SOL	P	08-JAN-10 12:13	010810-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	08-JAN-10 12:13	010810-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	08-JAN-10 12:13	010810-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	08-JAN-10 12:13	010810-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	08-JAN-10 12:13	010810-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	08-JAN-10 12:13	010810-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	08-JAN-10 12:13	010810-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	08-JAN-10 12:13	010810-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	08-JAN-10 12:13	010810-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	08-JAN-10 12:13	010810-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	08-JAN-10 12:13	010810-1
	Silicon	15.0	+/-100	U	15.0	100	SOL	P	08-JAN-10 12:13	010810-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	08-JAN-10 12:13	010810-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	08-JAN-10 12:13	010810-1
	Titanium	1.0	+/-5	U	1.0	5.0	SOL	P	08-JAN-10 12:13	010810-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	08-JAN-10 12:13	010810-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	08-JAN-10 12:13	010810-1
	Arsenic	1.0	+/-5	U	1.0	5.0	SOL	MS	09-JAN-10 02:46	100108-4
	Selenium	2.5	+/-5	U	2.5	5.0	SOL	MS	09-JAN-10 02:46	100108-4
	Thallium	0.302	+/-1	J	0.3	1.0	SOL	MS	09-JAN-10 02:46	100108-4
	Uranium	0.075	+/-.2	J	0.066	0.2	SOL	MS	09-JAN-10 02:46	100108-4
	Beryllium	0.1	+/-.5	U	0.1	0.5	SOL	MS	09-JAN-10 17:28	100109-5

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–1087

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Lithium	2.0	+/–10	U	2.0	10.0	SOL	MS	09–JAN–10 17:28	100109–5
	Nickel	0.5	+/–2	U	0.5	2.0	SOL	MS	09–JAN–10 17:28	100109–5
	Mercury	0.068	+/–.2	U	0.068	0.2	SOL	AV	11–JAN–10 10:00	011110S1–11
	Arsenic	1.0	+/–5	U	1.0	5.0	SOL	MS	14–JAN–10 09:01	100113–6
	Nickel	0.5	+/–2	U	0.5	2.0	SOL	MS	14–JAN–10 09:01	100113–6
	Selenium	2.5	+/–5	U	2.5	5.0	SOL	MS	14–JAN–10 09:01	100113–6
	Thallium	0.475	+/–1	J	0.3	1.0	SOL	MS	14–JAN–10 09:01	100113–6
	Uranium	0.066	+/–.2	U	0.066	0.2	SOL	MS	14–JAN–10 09:01	100113–6
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	15–JAN–10 12:20	011510–2
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	15–JAN–10 12:20	011510–2
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	15–JAN–10 12:20	011510–2
	Boron	10.0	+/–50	U	10.0	50.0	SOL	P	15–JAN–10 12:20	011510–2
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	15–JAN–10 12:20	011510–2
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	15–JAN–10 12:20	011510–2
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	15–JAN–10 12:20	011510–2
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	15–JAN–10 12:20	011510–2
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	15–JAN–10 12:20	011510–2
	Iron	80.0	+/–250	U	80.0	250	SOL	P	15–JAN–10 12:20	011510–2
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	15–JAN–10 12:20	011510–2
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	15–JAN–10 12:20	011510–2
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	15–JAN–10 12:20	011510–2
	Potassium	–74.87	+/–250	J	64.0	250	SOL	P	15–JAN–10 12:20	011510–2
	Silicon	15.0	+/–100	U	15.0	100	SOL	P	15–JAN–10 12:20	011510–2
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	15–JAN–10 12:20	011510–2
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	15–JAN–10 12:20	011510–2
	Titanium	1.0	+/–5	U	1.0	5.0	SOL	P	15–JAN–10 12:20	011510–2
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	15–JAN–10 12:20	011510–2
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	15–JAN–10 12:20	011510–2
	Beryllium	0.1	+/–.5	U	0.1	0.5	SOL	MS	16–JAN–10 03:34	100115–7
	Lithium	2.0	+/–10	U	2.0	10.0	SOL	MS	16–JAN–10 03:34	100115–7
	Arsenic	1.0	+/–5	U	1.0	5.0	SOL	MS	16–JAN–10 10:59	100115–10

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–1087

Contract: LANL01004 **Lab Code: GEL**

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	19–JAN–10 16:33	011910–3
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	19–JAN–10 16:33	011910–3
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	19–JAN–10 16:33	011910–3
	Lead	–3.09	+/–10	J	2.5	10.0	SOL	P	19–JAN–10 16:33	011910–3
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	19–JAN–10 16:33	011910–3
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	19–JAN–10 16:33	011910–3
	Titanium	1.0	+/–5	U	1.0	5.0	SOL	P	19–JAN–10 16:33	011910–3
	Vanadium	–1.23	+/–5	J	1.0	5.0	SOL	P	19–JAN–10 16:33	011910–3
CCB03										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	08–JAN–10 12:28	010810–1
	Antimony	3.8	+/–10	J	3.3	10.0	SOL	P	08–JAN–10 12:28	010810–1
	Barium	1.89	+/–5	J	1.0	5.0	SOL	P	08–JAN–10 12:28	010810–1
	Boron	10.0	+/–50	U	10.0	50.0	SOL	P	08–JAN–10 12:28	010810–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	08–JAN–10 12:28	010810–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	08–JAN–10 12:28	010810–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	08–JAN–10 12:28	010810–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	08–JAN–10 12:28	010810–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	08–JAN–10 12:28	010810–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	08–JAN–10 12:28	010810–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	08–JAN–10 12:28	010810–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	08–JAN–10 12:28	010810–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	08–JAN–10 12:28	010810–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	08–JAN–10 12:28	010810–1
	Silicon	15.0	+/–100	U	15.0	100	SOL	P	08–JAN–10 12:28	010810–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	08–JAN–10 12:28	010810–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	08–JAN–10 12:28	010810–1
	Titanium	1.0	+/–5	U	1.0	5.0	SOL	P	08–JAN–10 12:28	010810–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	08–JAN–10 12:28	010810–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	08–JAN–10 12:28	010810–1
	Arsenic	1.0	+/–5	U	1.0	5.0	SOL	MS	09–JAN–10 03:54	100108–4
	Selenium	2.5	+/–5	U	2.5	5.0	SOL	MS	09–JAN–10 03:54	100108–4

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10-1087

Contract: LANL01004 **Lab Code: GEL**

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Thallium	0.3	+/-1	U	0.3	1.0	SOL	MS	09-JAN-10 03:54	100108-4
	Uranium	0.066	+/-.2	U	0.066	0.2	SOL	MS	09-JAN-10 03:54	100108-4
	Beryllium	0.1	+/-.5	U	0.1	0.5	SOL	MS	09-JAN-10 17:48	100109-5
	Lithium	2.0	+/-10	U	2.0	10.0	SOL	MS	09-JAN-10 17:48	100109-5
	Nickel	0.5	+/-2	U	0.5	2.0	SOL	MS	09-JAN-10 17:48	100109-5
	Mercury	0.068	+/-.2	U	0.068	0.2	SOL	AV	11-JAN-10 10:20	011110S1-11
	Arsenic	1.0	+/-5	U	1.0	5.0	SOL	MS	14-JAN-10 09:49	100113-6
	Nickel	0.5	+/-2	U	0.5	2.0	SOL	MS	14-JAN-10 09:49	100113-6
	Selenium	2.5	+/-5	U	2.5	5.0	SOL	MS	14-JAN-10 09:49	100113-6
	Thallium	0.3	+/-1	U	0.3	1.0	SOL	MS	14-JAN-10 09:49	100113-6
	Uranium	0.066	+/-.2	U	0.066	0.2	SOL	MS	14-JAN-10 09:49	100113-6
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	15-JAN-10 13:10	011510-2
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	15-JAN-10 13:10	011510-2
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	15-JAN-10 13:10	011510-2
	Boron	10.0	+/-50	U	10.0	50.0	SOL	P	15-JAN-10 13:10	011510-2
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	15-JAN-10 13:10	011510-2
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	15-JAN-10 13:10	011510-2
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	15-JAN-10 13:10	011510-2
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	15-JAN-10 13:10	011510-2
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	15-JAN-10 13:10	011510-2
	Iron	80.0	+/-250	U	80.0	250	SOL	P	15-JAN-10 13:10	011510-2
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	15-JAN-10 13:10	011510-2
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	15-JAN-10 13:10	011510-2
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	15-JAN-10 13:10	011510-2
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	15-JAN-10 13:10	011510-2
	Silicon	15.0	+/-100	U	15.0	100	SOL	P	15-JAN-10 13:10	011510-2
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	15-JAN-10 13:10	011510-2
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	15-JAN-10 13:10	011510-2
	Titanium	1.0	+/-5	U	1.0	5.0	SOL	P	15-JAN-10 13:10	011510-2
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	15-JAN-10 13:10	011510-2
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	15-JAN-10 13:10	011510-2

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–1087

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Beryllium	0.1	+/–.5	U	0.1	0.5	SOL	MS	16–JAN–10 04:11	100115–7
	Lithium	2.0	+/–10	U	2.0	10.0	SOL	MS	16–JAN–10 04:11	100115–7
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	19–JAN–10 17:28	011910–3
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	19–JAN–10 17:28	011910–3
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	19–JAN–10 17:28	011910–3
	Lead	–3.35	+/–10	J	2.5	10.0	SOL	P	19–JAN–10 17:28	011910–3
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	19–JAN–10 17:28	011910–3
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	19–JAN–10 17:28	011910–3
	Titanium	1.0	+/–5	U	1.0	5.0	SOL	P	19–JAN–10 17:28	011910–3
	Vanadium	–1.06	+/–5	J	1.0	5.0	SOL	P	19–JAN–10 17:28	011910–3
CCB04										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	08–JAN–10 13:00	010810–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	08–JAN–10 13:00	010810–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	08–JAN–10 13:00	010810–1
	Boron	10.0	+/–50	U	10.0	50.0	SOL	P	08–JAN–10 13:00	010810–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	08–JAN–10 13:00	010810–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	08–JAN–10 13:00	010810–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	08–JAN–10 13:00	010810–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	08–JAN–10 13:00	010810–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	08–JAN–10 13:00	010810–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	08–JAN–10 13:00	010810–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	08–JAN–10 13:00	010810–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	08–JAN–10 13:00	010810–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	08–JAN–10 13:00	010810–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	08–JAN–10 13:00	010810–1
	Silicon	15.0	+/–100	U	15.0	100	SOL	P	08–JAN–10 13:00	010810–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	08–JAN–10 13:00	010810–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	08–JAN–10 13:00	010810–1
	Titanium	1.0	+/–5	U	1.0	5.0	SOL	P	08–JAN–10 13:00	010810–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	08–JAN–10 13:00	010810–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	08–JAN–10 13:00	010810–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–1087

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Mercury	0.068	+/–.2	U	0.068	0.2	SOL	AV	11–JAN–10 10:40	011110S1–11
	Arsenic	1.0	+/–5	U	1.0	5.0	SOL	MS	14–JAN–10 10:42	100113–6
	Nickel	0.5	+/–2	U	0.5	2.0	SOL	MS	14–JAN–10 10:42	100113–6
	Selenium	2.5	+/–5	U	2.5	5.0	SOL	MS	14–JAN–10 10:42	100113–6
	Thallium	0.3	+/–1	U	0.3	1.0	SOL	MS	14–JAN–10 10:42	100113–6
	Uranium	0.066	+/–.2	U	0.066	0.2	SOL	MS	14–JAN–10 10:42	100113–6
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	15–JAN–10 14:13	011510–2
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	15–JAN–10 14:13	011510–2
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	15–JAN–10 14:13	011510–2
	Boron	10.0	+/–50	U	10.0	50.0	SOL	P	15–JAN–10 14:13	011510–2
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	15–JAN–10 14:13	011510–2
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	15–JAN–10 14:13	011510–2
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	15–JAN–10 14:13	011510–2
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	15–JAN–10 14:13	011510–2
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	15–JAN–10 14:13	011510–2
	Iron	80.0	+/–250	U	80.0	250	SOL	P	15–JAN–10 14:13	011510–2
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	15–JAN–10 14:13	011510–2
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	15–JAN–10 14:13	011510–2
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	15–JAN–10 14:13	011510–2
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	15–JAN–10 14:13	011510–2
	Silicon	15.0	+/–100	U	15.0	100	SOL	P	15–JAN–10 14:13	011510–2
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	15–JAN–10 14:13	011510–2
	Sodium	150.29	+/–250	J	70.0	250	SOL	P	15–JAN–10 14:13	011510–2
	Titanium	1.0	+/–5	U	1.0	5.0	SOL	P	15–JAN–10 14:13	011510–2
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	15–JAN–10 14:13	011510–2
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	15–JAN–10 14:13	011510–2
	Beryllium	0.1	+/–.5	U	0.1	0.5	SOL	MS	16–JAN–10 04:48	100115–7
	Lithium	2.0	+/–10	U	2.0	10.0	SOL	MS	16–JAN–10 04:48	100115–7
CCB05										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	08–JAN–10 13:38	010810–1
	Antimony	3.37	+/–10	J	3.3	10.0	SOL	P	08–JAN–10 13:38	010810–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–1087

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	08–JAN–10 13:38	010810–1
	Boron	10.0	+/–50	U	10.0	50.0	SOL	P	08–JAN–10 13:38	010810–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	08–JAN–10 13:38	010810–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	08–JAN–10 13:38	010810–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	08–JAN–10 13:38	010810–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	08–JAN–10 13:38	010810–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	08–JAN–10 13:38	010810–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	08–JAN–10 13:38	010810–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	08–JAN–10 13:38	010810–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	08–JAN–10 13:38	010810–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	08–JAN–10 13:38	010810–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	08–JAN–10 13:38	010810–1
	Silicon	15.0	+/–100	U	15.0	100	SOL	P	08–JAN–10 13:38	010810–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	08–JAN–10 13:38	010810–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	08–JAN–10 13:38	010810–1
	Titanium	1.0	+/–5	U	1.0	5.0	SOL	P	08–JAN–10 13:38	010810–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	08–JAN–10 13:38	010810–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	08–JAN–10 13:38	010810–1
	Mercury	0.068	+/–.2	U	0.068	0.2	SOL	AV	11–JAN–10 11:00	011110S1–11
	Arsenic	1.0	+/–5	U	1.0	5.0	SOL	MS	14–JAN–10 11:29	100113–6
	Nickel	0.5	+/–2	U	0.5	2.0	SOL	MS	14–JAN–10 11:29	100113–6
	Selenium	2.5	+/–5	U	2.5	5.0	SOL	MS	14–JAN–10 11:29	100113–6
	Thallium	0.3	+/–1	U	0.3	1.0	SOL	MS	14–JAN–10 11:29	100113–6
	Uranium	0.082	+/–.2	J	0.066	0.2	SOL	MS	14–JAN–10 11:29	100113–6
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	15–JAN–10 15:08	011510–2
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	15–JAN–10 15:08	011510–2
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	15–JAN–10 15:08	011510–2
	Boron	10.0	+/–50	U	10.0	50.0	SOL	P	15–JAN–10 15:08	011510–2
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	15–JAN–10 15:08	011510–2
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	15–JAN–10 15:08	011510–2
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	15–JAN–10 15:08	011510–2

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10–1087

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	15–JAN–10 15:08	011510–2
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	15–JAN–10 15:08	011510–2
	Iron	80.0	+/–250	U	80.0	250	SOL	P	15–JAN–10 15:08	011510–2
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	15–JAN–10 15:08	011510–2
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	15–JAN–10 15:08	011510–2
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	15–JAN–10 15:08	011510–2
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	15–JAN–10 15:08	011510–2
	Silicon	15.0	+/–100	U	15.0	100	SOL	P	15–JAN–10 15:08	011510–2
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	15–JAN–10 15:08	011510–2
	Sodium	98.68	+/–250	J	70.0	250	SOL	P	15–JAN–10 15:08	011510–2
	Titanium	1.0	+/–5	U	1.0	5.0	SOL	P	15–JAN–10 15:08	011510–2
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	15–JAN–10 15:08	011510–2
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	15–JAN–10 15:08	011510–2
	Beryllium	0.1	+/–.5	U	0.1	0.5	SOL	MS	16–JAN–10 05:23	100115–7
	Lithium	2.0	+/–10	U	2.0	10.0	SOL	MS	16–JAN–10 05:23	100115–7
CCB06										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	15–JAN–10 16:10	011510–2
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	15–JAN–10 16:10	011510–2
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	15–JAN–10 16:10	011510–2
	Boron	10.0	+/–50	U	10.0	50.0	SOL	P	15–JAN–10 16:10	011510–2
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	15–JAN–10 16:10	011510–2
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	15–JAN–10 16:10	011510–2
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	15–JAN–10 16:10	011510–2
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	15–JAN–10 16:10	011510–2
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	15–JAN–10 16:10	011510–2
	Iron	80.0	+/–250	U	80.0	250	SOL	P	15–JAN–10 16:10	011510–2
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	15–JAN–10 16:10	011510–2
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	15–JAN–10 16:10	011510–2
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	15–JAN–10 16:10	011510–2
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	15–JAN–10 16:10	011510–2
	Silicon	15.0	+/–100	U	15.0	100	SOL	P	15–JAN–10 16:10	011510–2

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–1087

Contract: LANL01004 **Lab Code: GEL**

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	15–JAN–10 16:10	011510–2
	Sodium	90.64	+/–250	J	70.0	250	SOL	P	15–JAN–10 16:10	011510–2
	Titanium	1.0	+/–5	U	1.0	5.0	SOL	P	15–JAN–10 16:10	011510–2
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	15–JAN–10 16:10	011510–2
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	15–JAN–10 16:10	011510–2
CCB07										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	15–JAN–10 17:00	011510–2
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	15–JAN–10 17:00	011510–2
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	15–JAN–10 17:00	011510–2
	Boron	10.0	+/–50	U	10.0	50.0	SOL	P	15–JAN–10 17:00	011510–2
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	15–JAN–10 17:00	011510–2
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	15–JAN–10 17:00	011510–2
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	15–JAN–10 17:00	011510–2
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	15–JAN–10 17:00	011510–2
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	15–JAN–10 17:00	011510–2
	Iron	80.0	+/–250	U	80.0	250	SOL	P	15–JAN–10 17:00	011510–2
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	15–JAN–10 17:00	011510–2
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	15–JAN–10 17:00	011510–2
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	15–JAN–10 17:00	011510–2
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	15–JAN–10 17:00	011510–2
	Silicon	15.0	+/–100	U	15.0	100	SOL	P	15–JAN–10 17:00	011510–2
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	15–JAN–10 17:00	011510–2
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	15–JAN–10 17:00	011510–2
	Titanium	1.0	+/–5	U	1.0	5.0	SOL	P	15–JAN–10 17:00	011510–2
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	15–JAN–10 17:00	011510–2
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	15–JAN–10 17:00	011510–2
CCB08										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	15–JAN–10 18:02	011510–2
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	15–JAN–10 18:02	011510–2
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	15–JAN–10 18:02	011510–2
	Boron	10.0	+/–50	U	10.0	50.0	SOL	P	15–JAN–10 18:02	011510–2

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-1087

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	15-JAN-10 18:02	011510-2
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	15-JAN-10 18:02	011510-2
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	15-JAN-10 18:02	011510-2
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	15-JAN-10 18:02	011510-2
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	15-JAN-10 18:02	011510-2
	Iron	80.0	+/-250	U	80.0	250	SOL	P	15-JAN-10 18:02	011510-2
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	15-JAN-10 18:02	011510-2
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	15-JAN-10 18:02	011510-2
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	15-JAN-10 18:02	011510-2
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	15-JAN-10 18:02	011510-2
	Silicon	15.0	+/-100	U	15.0	100	SOL	P	15-JAN-10 18:02	011510-2
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	15-JAN-10 18:02	011510-2
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	15-JAN-10 18:02	011510-2
	Titanium	1.0	+/-5	U	1.0	5.0	SOL	P	15-JAN-10 18:02	011510-2
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	15-JAN-10 18:02	011510-2
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	15-JAN-10 18:02	011510-2
CCB09										
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	15-JAN-10 19:06	011510-2
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	15-JAN-10 19:06	011510-2
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	15-JAN-10 19:06	011510-2
	Boron	10.0	+/-50	U	10.0	50.0	SOL	P	15-JAN-10 19:06	011510-2
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	15-JAN-10 19:06	011510-2
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	15-JAN-10 19:06	011510-2
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	15-JAN-10 19:06	011510-2
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	15-JAN-10 19:06	011510-2
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	15-JAN-10 19:06	011510-2
	Iron	80.0	+/-250	U	80.0	250	SOL	P	15-JAN-10 19:06	011510-2
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	15-JAN-10 19:06	011510-2
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	15-JAN-10 19:06	011510-2
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	15-JAN-10 19:06	011510-2
	Potassium	-77.83	+/-250	J	64.0	250	SOL	P	15-JAN-10 19:06	011510-2

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–1087

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Silicon	15.0	+/–100	U	15.0	100	SOL	P	15–JAN–10 19:06	011510–2
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	15–JAN–10 19:06	011510–2
	Sodium	72.72	+/–250	J	70.0	250	SOL	P	15–JAN–10 19:06	011510–2
	Titanium	1.0	+/–5	U	1.0	5.0	SOL	P	15–JAN–10 19:06	011510–2
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	15–JAN–10 19:06	011510–2
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	15–JAN–10 19:06	011510–2
CCB10										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	15–JAN–10 20:09	011510–2
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	15–JAN–10 20:09	011510–2
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	15–JAN–10 20:09	011510–2
	Boron	10.0	+/–50	U	10.0	50.0	SOL	P	15–JAN–10 20:09	011510–2
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	15–JAN–10 20:09	011510–2
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	15–JAN–10 20:09	011510–2
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	15–JAN–10 20:09	011510–2
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	15–JAN–10 20:09	011510–2
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	15–JAN–10 20:09	011510–2
	Iron	80.0	+/–250	U	80.0	250	SOL	P	15–JAN–10 20:09	011510–2
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	15–JAN–10 20:09	011510–2
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	15–JAN–10 20:09	011510–2
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	15–JAN–10 20:09	011510–2
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	15–JAN–10 20:09	011510–2
	Silicon	15.0	+/–100	U	15.0	100	SOL	P	15–JAN–10 20:09	011510–2
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	15–JAN–10 20:09	011510–2
	Sodium	75.41	+/–250	J	70.0	250	SOL	P	15–JAN–10 20:09	011510–2
	Titanium	1.0	+/–5	U	1.0	5.0	SOL	P	15–JAN–10 20:09	011510–2
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	15–JAN–10 20:09	011510–2
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	15–JAN–10 20:09	011510–2

METALS
–3b–
PREPARATION BLANK SUMMARY

SDG NO. 10–1087

Contract: LANL01004

Matrix: SOIL

Sample ID	Analyte	Result	Units	Acceptance Window	Conc Qual	M	MDL	RDL
1202004457								
	Arsenic	0.195	mg/kg	+/–0.977	U	MS	0.195	0.977
	Beryllium	0.0195	mg/kg	+/–0.0977	U	MS	0.0195	0.0977
	Lithium	0.391	mg/kg	+/–1.95	U	MS	0.391	1.95
	Nickel	0.151	mg/kg	+/–0.391	J	MS	0.0977	0.391
	Selenium	0.488	mg/kg	+/–0.977	U	MS	0.488	0.977
	Thallium	0.0586	mg/kg	+/–0.195	U	MS	0.0586	0.195
	Uranium	0.0129	mg/kg	+/–0.0391	U	MS	0.0129	0.0391
1202004463								
	Aluminum	5940	ug/Kg	+/–17500	U	P	5940	17500
	Antimony	288	ug/Kg	+/–874	U	P	288	874
	Barium	87.4	ug/Kg	+/–437	U	P	87.4	437
	Boron	874	ug/Kg	+/–4370	U	P	874	4370
	Cadmium	87.4	ug/Kg	+/–437	U	P	87.4	437
	Calcium	6990	ug/Kg	+/–21900	U	P	6990	21900
	Chromium	131	ug/Kg	+/–437	U	P	131	437
	Cobalt	131	ug/Kg	+/–437	U	P	131	437
	Copper	262	ug/Kg	+/–874	U	P	262	874
	Iron	6990	ug/Kg	+/–21900	U	P	6990	21900
	Lead	219	ug/Kg	+/–874	U	P	219	874
	Magnesium	7430	ug/Kg	+/–26200	U	P	7430	26200
	Manganese	175	ug/Kg	+/–874	U	P	175	874
	Potassium	–6100	ug/Kg	+/–21900	J	P	5590	21900
	Silicon	1310	ug/Kg	+/–8740	U	P	1310	8740
	Silver	87.4	ug/Kg	+/–437	U	P	87.4	437
	Sodium	8320	ug/Kg	+/–21900	J	P	6120	21900
	Titanium	87.4	ug/Kg	+/–437	U	P	87.4	437
	Vanadium	93.3	ug/Kg	+/–437	J	P	87.4	437
	Zinc	288	ug/Kg	+/–874	U	P	288	874
1202007665								
	Aluminum	6720	ug/Kg	+/–19800	U	P	6720	19800
	Antimony	411	ug/Kg	+/–988	J	P	326	988
	Barium	98.8	ug/Kg	+/–494	U	P	98.8	494
	Boron	988	ug/Kg	+/–4940	U	P	988	4940
	Cadmium	98.8	ug/Kg	+/–494	U	P	98.8	494
	Calcium	7910	ug/Kg	+/–24700	U	P	7910	24700
	Chromium	148	ug/Kg	+/–494	U	P	148	494
	Cobalt	148	ug/Kg	+/–494	U	P	148	494

METALS
-3b-
PREPARATION BLANK SUMMARY

SDG NO. 10-1087

Contract: LANL01004

Matrix: SOIL

Sample ID	Analyte	Result	Units	Acceptance Window	Conc Qual	M	MDL	RDL
	Copper	296	ug/Kg	+/-988	U	P	296	988
	Iron	7960	ug/Kg	+/-24700	J	P	7910	24700
	Lead	247	ug/Kg	+/-988	U	P	247	988
	Magnesium	8400	ug/Kg	+/-29600	U	P	8400	29600
	Manganese	198	ug/Kg	+/-988	U	P	198	988
	Potassium	6320	ug/Kg	+/-24700	U	P	6320	24700
	Silicon	1480	ug/Kg	+/-9880	U	P	1480	9880
	Silver	98.8	ug/Kg	+/-494	U	P	98.8	494
	Sodium	6920	ug/Kg	+/-24700	U	P	6920	24700
	Titanium	98.8	ug/Kg	+/-494	U	P	98.8	494
	Vanadium	98.8	ug/Kg	+/-494	U	P	98.8	494
	Zinc	326	ug/Kg	+/-988	U	P	326	988
1202007679								
	Arsenic	0.199	mg/kg	+/-0.996	U	MS	0.199	0.996
	Beryllium	0.0199	mg/kg	+/-0.0996	U	MS	0.0199	0.0996
	Lithium	0.398	mg/kg	+/-1.99	U	MS	0.398	1.99
	Nickel	0.0996	mg/kg	+/-0.398	U	MS	0.0996	0.398
	Selenium	0.498	mg/kg	+/-0.996	U	MS	0.498	0.996
	Thallium	0.0598	mg/kg	+/-0.199	U	MS	0.0598	0.199
	Uranium	0.0132	mg/kg	+/-0.0398	U	MS	0.0132	0.0398
1202010664								
	Mercury	3.97	ug/kg	+/-11.7	U	AV	3.97	11.7

METALS
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Interference Check Sample

SDG No: 10-1087

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Aluminum	518000	ug/L	500000	ug/L	104	80.0 - 120.0	08-JAN-10 11:40	010810-1
	Antimony	-16.6	ug/L					08-JAN-10 11:40	010810-1
	Barium	6.89	ug/L					08-JAN-10 11:40	010810-1
	Boron	-43.0	ug/L					08-JAN-10 11:40	010810-1
	Cadmium	-1.74	ug/L					08-JAN-10 11:40	010810-1
	Calcium	494000	ug/L	500000	ug/L	98.8	80.0 - 120.0	08-JAN-10 11:40	010810-1
	Chromium	-2.24	ug/L					08-JAN-10 11:40	010810-1
	Cobalt	-0.141	ug/L					08-JAN-10 11:40	010810-1
	Copper	-7.64	ug/L					08-JAN-10 11:40	010810-1
	Iron	188000	ug/L	200000	ug/L	93.8	80.0 - 120.0	08-JAN-10 11:40	010810-1
	Lead	-11.3	ug/L					08-JAN-10 11:40	010810-1
	Magnesium	492000	ug/L	500000	ug/L	98.4	80.0 - 120.0	08-JAN-10 11:40	010810-1
	Manganese	14.8	ug/L					08-JAN-10 11:40	010810-1
	Potassium	-13.4	ug/L					08-JAN-10 11:40	010810-1
	Silicon	18.9	ug/L					08-JAN-10 11:40	010810-1
	Silver	-4.69	ug/L					08-JAN-10 11:40	010810-1
	Sodium	33.5	ug/L					08-JAN-10 11:40	010810-1
	Titanium	-3.83	ug/L					08-JAN-10 11:40	010810-1
	Vanadium	0.75	ug/L					08-JAN-10 11:40	010810-1
	Zinc	-16.3	ug/L					08-JAN-10 11:40	010810-1
ICSAB01									
	Aluminum	519000	ug/L	500000	ug/L	104	80.0 - 120.0	08-JAN-10 11:43	010810-1
	Antimony	484	ug/L	500	ug/L	96.8	80.0 - 120.0	08-JAN-10 11:43	010810-1
	Barium	496	ug/L	500	ug/L	99.2	80.0 - 120.0	08-JAN-10 11:43	010810-1
	Boron	475	ug/L	500	ug/L	95	80.0 - 120.0	08-JAN-10 11:43	010810-1
	Cadmium	463	ug/L	500	ug/L	92.5	80.0 - 120.0	08-JAN-10 11:43	010810-1
	Calcium	494000	ug/L	500000	ug/L	98.7	80.0 - 120.0	08-JAN-10 11:43	010810-1
	Chromium	482	ug/L	500	ug/L	96.3	80.0 - 120.0	08-JAN-10 11:43	010810-1
	Cobalt	443	ug/L	500	ug/L	88.5	80.0 - 120.0	08-JAN-10 11:43	010810-1

METALS
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Interference Check Sample

SDG No: 10–1087

Contract: LANL01004 **Lab Code:** GEL

ICS:

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
	Copper	557	ug/L	500	ug/L	111	80.0 – 120.0	08–JAN–10 11:43	010810–1
	Iron	187000	ug/L	200000	ug/L	93.3	80.0 – 120.0	08–JAN–10 11:43	010810–1
	Lead	485	ug/L	500	ug/L	96.9	80.0 – 120.0	08–JAN–10 11:43	010810–1
	Magnesium	494000	ug/L	500000	ug/L	98.8	80.0 – 120.0	08–JAN–10 11:43	010810–1
	Manganese	495	ug/L	500	ug/L	99	80.0 – 120.0	08–JAN–10 11:43	010810–1
	Potassium	5030	ug/L	5000	ug/L	101	80.0 – 120.0	08–JAN–10 11:43	010810–1
	Silicon	5090	ug/L	5000	ug/L	102	80.0 – 120.0	08–JAN–10 11:43	010810–1
	Silver	264	ug/L	250	ug/L	105	80.0 – 120.0	08–JAN–10 11:43	010810–1
	Sodium	5220	ug/L	5000	ug/L	104	80.0 – 120.0	08–JAN–10 11:43	010810–1
	Titanium	492	ug/L	500	ug/L	98.5	80.0 – 120.0	08–JAN–10 11:43	010810–1
	Vanadium	507	ug/L	500	ug/L	101	80.0 – 120.0	08–JAN–10 11:43	010810–1
	Zinc	463	ug/L	500	ug/L	92.5	80.0 – 120.0	08–JAN–10 11:43	010810–1

METALS
-4-
Interference Check Sample

SDG No: 10-1087

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: ICPMS6

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Arsenic	0.306	ug/L					16-JAN-10 10:23	100115-10
ICSAB01									
	Arsenic	21.2	ug/L	20	ug/L	106	80.0 - 120.0	16-JAN-10 10:25	100115-10

METALS
–4–
Interference Check Sample

SDG No: 10–1087

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Aluminum	525000	ug/L	500000	ug/L	105	80.0 – 120.0	15–JAN–10 10:04	011510–2
	Antimony	4.08	ug/L					15–JAN–10 10:04	011510–2
	Barium	1.49	ug/L					15–JAN–10 10:04	011510–2
	Boron	–9.38	ug/L					15–JAN–10 10:04	011510–2
	Cadmium	–0.305	ug/L					15–JAN–10 10:04	011510–2
	Calcium	492000	ug/L	500000	ug/L	98.3	80.0 – 120.0	15–JAN–10 10:04	011510–2
	Chromium	1.64	ug/L					15–JAN–10 10:04	011510–2
	Cobalt	–1.81	ug/L					15–JAN–10 10:04	011510–2
	Copper	3.34	ug/L					15–JAN–10 10:04	011510–2
	Iron	190000	ug/L	200000	ug/L	95.1	80.0 – 120.0	15–JAN–10 10:04	011510–2
	Lead	–0.717	ug/L					15–JAN–10 10:04	011510–2
	Magnesium	498000	ug/L	500000	ug/L	99.5	80.0 – 120.0	15–JAN–10 10:04	011510–2
	Manganese	–1.26	ug/L					15–JAN–10 10:04	011510–2
	Potassium	–180.0	ug/L					15–JAN–10 10:04	011510–2
	Silicon	3.79	ug/L					15–JAN–10 10:04	011510–2
	Silver	1.01	ug/L					15–JAN–10 10:04	011510–2
	Sodium	–1.26	ug/L					15–JAN–10 10:04	011510–2
	Titanium	0.879	ug/L					15–JAN–10 10:04	011510–2
	Vanadium	–1.37	ug/L					15–JAN–10 10:04	011510–2
	Zinc	8.52	ug/L					15–JAN–10 10:04	011510–2
ICSAB01									
	Aluminum	530000	ug/L	500000	ug/L	106	80.0 – 120.0	15–JAN–10 10:10	011510–2
	Antimony	551	ug/L	500	ug/L	110	80.0 – 120.0	15–JAN–10 10:10	011510–2
	Barium	509	ug/L	500	ug/L	102	80.0 – 120.0	15–JAN–10 10:10	011510–2
	Boron	519	ug/L	500	ug/L	104	80.0 – 120.0	15–JAN–10 10:10	011510–2
	Cadmium	468	ug/L	500	ug/L	93.5	80.0 – 120.0	15–JAN–10 10:10	011510–2
	Calcium	493000	ug/L	500000	ug/L	98.7	80.0 – 120.0	15–JAN–10 10:10	011510–2
	Chromium	496	ug/L	500	ug/L	99.2	80.0 – 120.0	15–JAN–10 10:10	011510–2
	Cobalt	456	ug/L	500	ug/L	91.1	80.0 – 120.0	15–JAN–10 10:10	011510–2

METALS
–4–
Interference Check Sample

SDG No: 10–1087

Contract: LANL01004 **Lab Code:** GEL

ICS:

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
	Copper	569	ug/L	500	ug/L	114	80.0 – 120.0	15–JAN–10 10:10	011510–2
	Iron	192000	ug/L	200000	ug/L	95.9	80.0 – 120.0	15–JAN–10 10:10	011510–2
	Lead	472	ug/L	500	ug/L	94.4	80.0 – 120.0	15–JAN–10 10:10	011510–2
	Magnesium	502000	ug/L	500000	ug/L	100	80.0 – 120.0	15–JAN–10 10:10	011510–2
	Manganese	492	ug/L	500	ug/L	98.4	80.0 – 120.0	15–JAN–10 10:10	011510–2
	Potassium	5400	ug/L	5000	ug/L	108	80.0 – 120.0	15–JAN–10 10:10	011510–2
	Silicon	5400	ug/L	5000	ug/L	108	80.0 – 120.0	15–JAN–10 10:10	011510–2
	Silver	280	ug/L	250	ug/L	112	80.0 – 120.0	15–JAN–10 10:10	011510–2
	Sodium	5570	ug/L	5000	ug/L	111	80.0 – 120.0	15–JAN–10 10:10	011510–2
	Titanium	525	ug/L	500	ug/L	105	80.0 – 120.0	15–JAN–10 10:10	011510–2
	Vanadium	520	ug/L	500	ug/L	104	80.0 – 120.0	15–JAN–10 10:10	011510–2
	Zinc	514	ug/L	500	ug/L	103	80.0 – 120.0	15–JAN–10 10:10	011510–2

METALS
–4–
Interference Check Sample

SDG No: 10–1087

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Calcium	495000	ug/L	500000	ug/L	99.1	80.0 – 120.0	19–JAN–10 15:26	011910–3
	Chromium	1.5	ug/L					19–JAN–10 15:26	011910–3
	Cobalt	–1.34	ug/L					19–JAN–10 15:26	011910–3
	Lead	–4.47	ug/L					19–JAN–10 15:26	011910–3
	Potassium	–193.0	ug/L					19–JAN–10 15:26	011910–3
	Silver	–1.36	ug/L					19–JAN–10 15:26	011910–3
	Titanium	0.516	ug/L					19–JAN–10 15:26	011910–3
	Vanadium	–1.67	ug/L					19–JAN–10 15:26	011910–3
ICSAB01									
	Calcium	483000	ug/L	500000	ug/L	96.6	80.0 – 120.0	19–JAN–10 15:32	011910–3
	Chromium	500	ug/L	500	ug/L	100	80.0 – 120.0	19–JAN–10 15:32	011910–3
	Cobalt	450	ug/L	500	ug/L	90	80.0 – 120.0	19–JAN–10 15:32	011910–3
	Lead	465	ug/L	500	ug/L	93.1	80.0 – 120.0	19–JAN–10 15:32	011910–3
	Potassium	5140	ug/L	5000	ug/L	103	80.0 – 120.0	19–JAN–10 15:32	011910–3
	Silver	280	ug/L	250	ug/L	112	80.0 – 120.0	19–JAN–10 15:32	011910–3
	Titanium	513	ug/L	500	ug/L	103	80.0 – 120.0	19–JAN–10 15:32	011910–3
	Vanadium	524	ug/L	500	ug/L	105	80.0 – 120.0	19–JAN–10 15:32	011910–3

METALS
–4–
Interference Check Sample

SDG No: 10–1087

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: ICPMS5

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Arsenic	–0.442	ug/L					09–JAN–10 02:09	100108–4
	Selenium	–0.743	ug/L					09–JAN–10 02:09	100108–4
	Thallium	–0.021	ug/L					09–JAN–10 02:09	100108–4
	Uranium	–0.01	ug/L					09–JAN–10 02:09	100108–4
ICSAB01									
	Arsenic	20.4	ug/L	20	ug/L	102	80.0 – 120.0	09–JAN–10 02:15	100108–4
	Selenium	19.6	ug/L	20	ug/L	98	80.0 – 120.0	09–JAN–10 02:15	100108–4
	Thallium	20.9	ug/L	20	ug/L	104	80.0 – 120.0	09–JAN–10 02:15	100108–4
	Uranium	22.5	ug/L	20	ug/L	112	80.0 – 120.0	09–JAN–10 02:15	100108–4

METALS
-4-
Interference Check Sample

SDG No: 10-1087

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: ICPMS5

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Beryllium	0.064	ug/L					09-JAN-10 17:17	100109-5
	Lithium	0.114	ug/L					09-JAN-10 17:17	100109-5
	Nickel	2.71	ug/L					09-JAN-10 17:17	100109-5
ICSAB01									
	Beryllium	18.8	ug/L	20	ug/L	93.8	80.0 - 120.0	09-JAN-10 17:19	100109-5
	Lithium	19.4	ug/L	20	ug/L	96.8	80.0 - 120.0	09-JAN-10 17:19	100109-5
	Nickel	22.4	ug/L	22.7	ug/L	98.8	80.0 - 120.0	09-JAN-10 17:19	100109-5

METALS
–4–
Interference Check Sample

SDG No: 10–1087

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: ICPMS6

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Arsenic	–0.095	ug/L					14–JAN–10 08:14	100113–6
	Nickel	2.96	ug/L					14–JAN–10 08:14	100113–6
	Selenium	–1.77	ug/L					14–JAN–10 08:14	100113–6
	Thallium	0.005	ug/L					14–JAN–10 08:14	100113–6
	Uranium	–0.002	ug/L					14–JAN–10 08:14	100113–6
ICSAB01									
	Arsenic	20.0	ug/L	20	ug/L	100	80.0 – 120.0	14–JAN–10 08:20	100113–6
	Nickel	21.8	ug/L	22.7	ug/L	96	80.0 – 120.0	14–JAN–10 08:20	100113–6
	Selenium	18.9	ug/L	20	ug/L	94.6	80.0 – 120.0	14–JAN–10 08:20	100113–6
	Thallium	17.5	ug/L	20	ug/L	87.5	80.0 – 120.0	14–JAN–10 08:20	100113–6
	Uranium	20.6	ug/L	20	ug/L	103	80.0 – 120.0	14–JAN–10 08:20	100113–6

METALS
–4–
Interference Check Sample

SDG No: 10–1087

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: ICPMS6

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Beryllium	0.063	ug/L					16–JAN–10 03:15	100115–7
	Lithium	0.129	ug/L					16–JAN–10 03:15	100115–7
ICSAB01									
	Beryllium	20.0	ug/L	20	ug/L	100	80.0 – 120.0	16–JAN–10 03:18	100115–7
	Lithium	20.4	ug/L	20	ug/L	102	80.0 – 120.0	16–JAN–10 03:18	100115–7

METALS
–5a–
Matrix Spike Summary

SDG NO. 10–1087 **Client ID** WST21–10–9933S

Contract: LANL01006 **Level:** Low

Matrix: SOIL **% Solids:** 88

Sample ID: 243555001 **Spike ID:** 1202004460

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Arsenic	mg/kg	75–125	27.1		25.1		9.02	22.6	N	MS
Beryllium	mg/kg	75–125	4.73		0.039	J	5.64	83.3		MS
Lithium	mg/kg	75–125	10.8		4.87		5.64	105		MS
Nickel	mg/kg	75–125	7.55		2.63		5.64	87.2		MS
Selenium	mg/kg	75–125	2.44		0.564	U	2.26	93.3		MS
Thallium	mg/kg	75–125	10.4		0.0677	U	11.3	91.9		MS
Uranium	mg/kg	75–125	10.2		4.98		5.64	91.8		MS

METALS
–5a–

Matrix Spike Duplicate Summary

SDG NO. 10–1087 **Client ID** WST21–10–9933SD

Contract: LANL01006 **Level:** Low

Matrix: SOIL **% Solids:** 88

Sample ID: 243555001 **Spike ID:** 1202004462

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Arsenic	mg/kg	75–125	33.6		25.1		9.04	94.8		MS
Beryllium	mg/kg	75–125	4.54		0.039	J	5.65	79.6		MS
Lithium	mg/kg	75–125	9.67		4.87		5.65	85		MS
Nickel	mg/kg	75–125	7.49		2.63		5.65	86		MS
Selenium	mg/kg	75–125	2.38		0.564	U	2.26	90.3		MS
Thallium	mg/kg	75–125	9.88		0.0677	U	11.3	87.2		MS
Uranium	mg/kg	75–125	10.5		4.98		5.65	98.1		MS

METALS
-5a-
Matrix Spike Summary

SDG NO. 10-1087 **Client ID** WST21-10-9933S

Contract: LANL01006 **Level:** Low

Matrix: SOIL **% Solids:** 88

Sample ID: 243555001 **Spike ID:** 1202004466

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Aluminum	ug/Kg	75-125	1320000		239000		552000	195	N	P
Antimony	ug/Kg	75-125	120000		78100		55200	76.7		P
Barium	ug/Kg		488000		248000		55200	435	N/A	P
Boron	ug/Kg	75-125	82300		16200		55200	120		P
Cadmium	ug/Kg	75-125	49900		1540		55200	87.6		P
Calcium	ug/Kg		124000000		66300000		552000	10500	N/A	P
Chromium	ug/Kg		3900000		3680000		55200	406	N/A	P
Cobalt	ug/Kg	75-125	53600		812	U	55200	96.9		P
Copper	ug/Kg		777000		438000		55200	615	N/A	P
Iron	ug/Kg	75-125	1990000		551000		552000	260	N	P
Lead	ug/Kg	75-125	75600		10300		55200	118		P
Magnesium	ug/Kg	75-125	2780000		1460000		552000	238	N	P
Manganese	ug/Kg	75-125	110000		32500		55200	140	N	P
Potassium	ug/Kg	75-125	1070000		278000		552000	144	N	P
Silicon	ug/Kg	75-125	572000		215000		552000	64.8	N	P
Silver	ug/Kg	75-125	57300		541	U	55200	104		P
Sodium	ug/Kg	75-125	2770000		1180000		552000	288	N	P
Titanium	ug/Kg	75-125	71700		5930		55200	119		P
Vanadium	ug/Kg	75-125	96200		30100		55200	120		P
Zinc	ug/Kg	75-125	279000		122000		55200	285	N	P

METALS
–5a–

Matrix Spike Duplicate Summary

SDG NO. 10–1087 **Client ID** WST21–10–9933SD

Contract: LANL01006 **Level:** Low

Matrix: SOIL **% Solids:** 88

Sample ID: 243555001 **Spike ID:** 1202004468

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Aluminum	ug/Kg	75–125	1220000		239000		551000	179	N	P
Antimony	ug/Kg	75–125	110000		78100		55100	57	N	P
Barium	ug/Kg		454000		248000		55100	374	N/A	P
Boron	ug/Kg	75–125	81400		16200		55100	118		P
Cadmium	ug/Kg	75–125	49300		1540		55100	86.6		P
Calcium	ug/Kg		107000000		66300000		551000	7440	N/A	P
Chromium	ug/Kg		3610000		3680000		55100	–117	N/A	P
Cobalt	ug/Kg	75–125	51800		812	U	55100	93.8		P
Copper	ug/Kg		732000		438000		55100	535	N/A	P
Iron	ug/Kg	75–125	1830000		551000		551000	232	N	P
Lead	ug/Kg	75–125	71600		10300		55100	111		P
Magnesium	ug/Kg	75–125	2820000		1460000		551000	246	N	P
Manganese	ug/Kg	75–125	106000		32500		55100	133	N	P
Potassium	ug/Kg	75–125	988000		278000		551000	129	N	P
Silicon	ug/Kg	75–125	504000		215000		551000	52.6	N	P
Silver	ug/Kg	75–125	55200		541	U	55100	100		P
Sodium	ug/Kg	75–125	2990000		1180000		551000	327	N	P
Titanium	ug/Kg	75–125	67400		5930		55100	112		P
Vanadium	ug/Kg	75–125	92900		30100		55100	114		P
Zinc	ug/Kg	75–125	263000		122000		55100	257	N	P

METALS
-5a-

Matrix Spike Summary

SDG NO. 10-1087 **Client ID** RE03-10-9872S

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 88

Sample ID: 243550014 **Spike ID:** 1202007668

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Aluminum	ug/Kg	75-125	4470000		2020000		546000	450	N	P
Antimony	ug/Kg	75-125	51000		1200		54600	91.3		P
Barium	ug/Kg	75-125	79500		24900		54600	100		P
Boron	ug/Kg	75-125	50400		1100	U	54600	92.4		P
Cadmium	ug/Kg	75-125	52800		110	U	54600	96.7		P
Calcium	ug/Kg	75-125	1110000		600000		546000	93.9		P
Chromium	ug/Kg	75-125	65900		12000		54600	98.8		P
Cobalt	ug/Kg	75-125	52600		1180		54600	94.3		P
Copper	ug/Kg	75-125	55400		2320		54600	97.2		P
Iron	ug/Kg		9270000		7780000		546000	274	N/A	P
Lead	ug/Kg	75-125	58600		5450		54600	97.4		P
Magnesium	ug/Kg	75-125	1070000		352000		546000	131	N	P
Manganese	ug/Kg		294000		236000		54600	107	N/A	P
Potassium	ug/Kg	75-125	952000		334000		546000	113		P
Silicon	ug/Kg	75-125	898000		1210000		546000	-56.4	N	P
Silver	ug/Kg	75-125	52400		110	U	54600	96		P
Sodium	ug/Kg	75-125	681000		151000		546000	97.1		P
Titanium	ug/Kg	75-125	270000		161000		54600	200	N	P
Vanadium	ug/Kg	75-125	57600		5470		54600	95.5		P
Zinc	ug/Kg	75-125	83800		29500		54600	99.6		P

METALS
–5a–
Matrix Spike Duplicate Summary

SDG NO. 10–1087 **Client ID** RE03–10–9872SD

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 88

Sample ID: 243550014 **Spike ID:** 1202007669

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Aluminum	ug/Kg	75–125	4720000		2020000		543000	497	N	P
Antimony	ug/Kg	75–125	49400		1200		54300	88.7		P
Barium	ug/Kg	75–125	80200		24900		54300	102		P
Boron	ug/Kg	75–125	50600		1100	U	54300	93		P
Cadmium	ug/Kg	75–125	52200		110	U	54300	96		P
Calcium	ug/Kg	75–125	1110000		600000		543000	93.9		P
Chromium	ug/Kg	75–125	62100		12000		54300	92.1		P
Cobalt	ug/Kg	75–125	52800		1180		54300	95		P
Copper	ug/Kg	75–125	55500		2320		54300	97.9		P
Iron	ug/Kg		7850000		7780000		543000	13.8	N/A	P
Lead	ug/Kg	75–125	58300		5450		54300	97.2		P
Magnesium	ug/Kg	75–125	1080000		352000		543000	135	N	P
Manganese	ug/Kg		292000		236000		54300	104	N/A	P
Potassium	ug/Kg	75–125	966000		334000		543000	116		P
Silicon	ug/Kg	75–125	1430000		1210000		543000	40.9	N	P
Silver	ug/Kg	75–125	52200		110	U	54300	96.1		P
Sodium	ug/Kg	75–125	680000		151000		543000	97.3		P
Titanium	ug/Kg	75–125	212000		161000		54300	94.8		P
Vanadium	ug/Kg	75–125	57100		5470		54300	94.9		P
Zinc	ug/Kg	75–125	80100		29500		54300	93.2		P

METALS
–5a–
Matrix Spike Summary

SDG NO. 10–1087 **Client ID** RE03–10–9872S

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 88

Sample ID: 243550014 **Spike ID:** 1202007682

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Arsenic	mg/kg	75–125	9.66		0.885	J	8.76	100		MS
Beryllium	mg/kg	75–125	5.79		0.426		5.48	97.9		MS
Lithium	mg/kg	75–125	12		5.55		5.48	118		MS
Nickel	mg/kg	75–125	7.68		2.16		5.48	101		MS
Selenium	mg/kg	75–125	2.18		0.558	U	2.19	91.9		MS
Thallium	mg/kg	75–125	10.9		0.0737	J	11	98.8		MS
Uranium	mg/kg	75–125	6.37		0.594		5.48	105		MS

METALS
–5a–
Matrix Spike Duplicate Summary

SDG NO. 10–1087 **Client ID** RE03–10–9872SD

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 88

Sample ID: 243550014 **Spike ID:** 1202007683

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Arsenic	mg/kg	75–125	8.75		0.885	J	8.76	89.8		MS
Beryllium	mg/kg	75–125	5.44		0.426		5.48	91.5		MS
Lithium	mg/kg	75–125	10.8		5.55		5.48	95.5		MS
Nickel	mg/kg	75–125	7.26		2.16		5.48	93.2		MS
Selenium	mg/kg	75–125	1.93		0.558	U	2.19	80.5		MS
Thallium	mg/kg	75–125	10		0.0737	J	11	90.6		MS
Uranium	mg/kg	75–125	5.83		0.594		5.48	95.6		MS

METALS
–5a–
Matrix Spike Summary

SDG NO. 10–1087 **Client ID** WST21–10–9933S

Contract: LANL01006 **Level:** Low

Matrix: SOIL **% Solids:** 88

Sample ID: 243555001 **Spike ID:** 1202010667

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Mercury	ug/kg	75–125	132		3.9	U	131	98.8		AV

METALS
-5a-
Matrix Spike Duplicate Summary

SDG NO. 10-1087 **Client ID** WST21-10-9933SD

Contract: LANL01006 **Level:** Low

Matrix: SOIL **% Solids:** 88

Sample ID: 243555001 **Spike ID:** 1202010679

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Mercury	ug/kg	75-125	124		3.9	U	123	98.1		AV

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–1087

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** WST21–10–9933D

Sample ID: 243555001 **Duplicate ID:** 1202004459 **Percent Solids for Dup:** 88

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Arsenic	mg/kg	+/–5.52	25.1		18.1		32.2	*	MS
Beryllium	mg/kg		0.039	J	0.0221	U	200		MS
Lithium	mg/kg	+/–2.21	4.87		4.85		.337		MS
Nickel	mg/kg	+/–.441	2.63		1.83		36.2	*	MS
Selenium	mg/kg		0.564	U	0.552	U			MS
Thallium	mg/kg		0.0677	U	0.0662	U			MS
Uranium	mg/kg	+/–20%	4.98		3.21		43.2	*	MS

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–1087

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** WST21–10–9933SD

Sample ID: 1202004460 **Duplicate ID:** 1202004462 **Percent Solids for Dup:** 88

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Arsenic	mg/kg	+/–20	27.1		33.6		21.5	*	MS
Beryllium	mg/kg	+/–20	4.73		4.54		4.29		MS
Lithium	mg/kg	+/–20	10.8		9.67		11.1		MS
Nickel	mg/kg	+/–20	7.55		7.49		.754		MS
Selenium	mg/kg	+/–20	2.44		2.38		2.71		MS
Thallium	mg/kg	+/–20	10.4		9.88		5.09		MS
Uranium	mg/kg	+/–20	10.2		10.5		3.56		MS

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–1087

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** WST21–10–9933D

Sample ID: 243555001 **Duplicate ID:** 1202004465 **Percent Solids for Dup:** 88

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	ug/Kg	+/–20%	239000		358000		40.2	*	P
Antimony	ug/Kg	+/–20%	78100		69700		11.4		P
Barium	ug/Kg	+/–20%	248000		262000		5.37		P
Boron	ug/Kg	+/–5450	16200		16900		3.93		P
Cadmium	ug/Kg	+/–545	1540		1550		.552		P
Calcium	ug/Kg	+/–20%	66300000		65300000		1.53		P
Chromium	ug/Kg	+/–20%	3680000		3230000		12.9		P
Cobalt	ug/Kg		812	U	818	U			P
Copper	ug/Kg	+/–20%	438000		450000		2.75		P
Iron	ug/Kg	+/–20%	551000		769000		33	*	P
Lead	ug/Kg	+/–5450	10300		11800		13.9		P
Magnesium	ug/Kg	+/–20%	1460000		1430000		2.13		P
Manganese	ug/Kg	+/–20%	32500		35200		8		P
Potassium	ug/Kg	+/–136000	278000		291000		4.52		P
Silicon	ug/Kg	+/–20%	215000		198000		7.87		P
Silver	ug/Kg		541	U	545	U			P
Sodium	ug/Kg	+/–20%	1180000		1240000		4.84		P
Titanium	ug/Kg	+/–2730	5930		8680		37.6	*	P
Vanadium	ug/Kg	+/–20%	30100		27800		7.93		P
Zinc	ug/Kg	+/–20%	122000		144000		17.1		P

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–1087

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** WST21–10–9933SD

Sample ID: 1202004466 **Duplicate ID:** 1202004468 **Percent Solids for Dup:** 88

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	ug/Kg	+/–20	1320000		1220000		7.24		P
Antimony	ug/Kg	+/–20	120000		110000		9.51		P
Barium	ug/Kg	+/–20	488000		454000		7.29		P
Boron	ug/Kg	+/–20	82300		81400		1.11		P
Cadmium	ug/Kg	+/–20	49900		49300		1.31		P
Calcium	ug/Kg	+/–20	124000000		107000000		14.8		P
Chromium	ug/Kg	+/–20	3900000		3610000		7.68		P
Cobalt	ug/Kg	+/–20	53600		51800		3.47		P
Copper	ug/Kg	+/–20	777000		732000		5.93		P
Iron	ug/Kg	+/–20	1990000		1830000		8.44		P
Lead	ug/Kg	+/–20	75600		71600		5.4		P
Magnesium	ug/Kg	+/–20	2780000		2820000		1.47		P
Manganese	ug/Kg	+/–20	110000		106000		3.57		P
Potassium	ug/Kg	+/–20	1070000		988000		8.22		P
Silicon	ug/Kg	+/–20	572000		504000		12.6		P
Silver	ug/Kg	+/–20	57300		55200		3.87		P
Sodium	ug/Kg	+/–20	2770000		2990000		7.46		P
Titanium	ug/Kg	+/–20	71700		67400		6.24		P
Vanadium	ug/Kg	+/–20	96200		92900		3.55		P
Zinc	ug/Kg	+/–20	279000		263000		5.8		P

Metals
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Duplicate Sample Summary

SDG No.: 10–1087

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE03–10–9872D

Sample ID: 243550014 **Duplicate ID:** 1202007666 **Percent Solids for Dup:** 88

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	ug/Kg	+/–20%	2020000		2050000		1.42		P
Antimony	ug/Kg	+/–1110	1200		565	J	72.2		P
Barium	ug/Kg	+/–20%	24900		24300		2.63		P
Boron	ug/Kg		1100	U	1110	U			P
Cadmium	ug/Kg		110	U	111	U			P
Calcium	ug/Kg	+/–20%	600000		575000		4.19		P
Chromium	ug/Kg	+/–20%	12000		12500		4.27		P
Cobalt	ug/Kg	+/–554	1180		998		16.6		P
Copper	ug/Kg	+/–1110	2320		1820		24.4		P
Iron	ug/Kg	+/–20%	7780000		7810000		.35		P
Lead	ug/Kg	+/–1110	5450		5260		3.63		P
Magnesium	ug/Kg	+/–20%	352000		352000		.0974		P
Manganese	ug/Kg	+/–20%	236000		260000		9.84		P
Potassium	ug/Kg	+/–20%	334000		330000		1.25		P
Silicon	ug/Kg	+/–20%	1210000		1200000		.803		P
Silver	ug/Kg		110	U	111	U			P
Sodium	ug/Kg	+/–20%	151000		149000		1.69		P
Titanium	ug/Kg	+/–20%	161000		167000		4.07		P
Vanadium	ug/Kg	+/–20%	5470		4970		9.61		P
Zinc	ug/Kg	+/–20%	29500		28700		2.56		P

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–1087

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE03–10–9872SD

Sample ID: 1202007668 **Duplicate ID:** 1202007669 **Percent Solids for Dup:** 88

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	ug/Kg	+/–20	4470000		4720000		5.36		P
Antimony	ug/Kg	+/–20	51000		49400		3.21		P
Barium	ug/Kg	+/–20	79500		80200		.773		P
Boron	ug/Kg	+/–20	50400		50600		.283		P
Cadmium	ug/Kg	+/–20	52800		52200		1.18		P
Calcium	ug/Kg	+/–20	1110000		1110000		.198		P
Chromium	ug/Kg	+/–20	65900		62100		5.96		P
Cobalt	ug/Kg	+/–20	52600		52800		.302		P
Copper	ug/Kg	+/–20	55400		55500		.264		P
Iron	ug/Kg	+/–20	9270000		7850000		16.6		P
Lead	ug/Kg	+/–20	58600		58300		.509		P
Magnesium	ug/Kg	+/–20	1070000		1080000		1.56		P
Manganese	ug/Kg	+/–20	294000		292000		.737		P
Potassium	ug/Kg	+/–20	952000		966000		1.48		P
Silicon	ug/Kg	+/–20	898000		1430000		45.6	*	P
Silver	ug/Kg	+/–20	52400		52200		.332		P
Sodium	ug/Kg	+/–20	681000		680000		.139		P
Titanium	ug/Kg	+/–20	270000		212000		24	*	P
Vanadium	ug/Kg	+/–20	57600		57100		.925		P
Zinc	ug/Kg	+/–20	83800		80100		4.51		P

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–1087

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE03–10–9872D

Sample ID: 243550014 **Duplicate ID:** 1202007680 **Percent Solids for Dup:** 88

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Arsenic	mg/kg	+/–1.11	0.885	J	0.854	J	3.52		MS
Beryllium	mg/kg	+/–.111	0.426		0.452		5.95		MS
Lithium	mg/kg	+/–2.22	5.55		6.16		10.4		MS
Nickel	mg/kg	+/–.443	2.16		2.35		8.5		MS
Selenium	mg/kg		0.558	U	0.554	U			MS
Thallium	mg/kg		0.0737	J	0.0665	U	200		MS
Uranium	mg/kg	+/–20%	0.594		0.623		4.66		MS

Metals
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Duplicate Sample Summary

SDG No.: 10–1087

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE03–10–9872SD

Sample ID: 1202007682 **Duplicate ID:** 1202007683 **Percent Solids for Dup:** 88

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Arsenic	mg/kg	+/–20	9.66		8.75		9.86		MS
Beryllium	mg/kg	+/–20	5.79		5.44		6.28		MS
Lithium	mg/kg	+/–20	12		10.8		10.8		MS
Nickel	mg/kg	+/–20	7.68		7.26		5.52		MS
Selenium	mg/kg	+/–20	2.18		1.93		12.1		MS
Thallium	mg/kg	+/–20	10.9		10		8.63		MS
Uranium	mg/kg	+/–20	6.37		5.83		8.86		MS

Metals
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Duplicate Sample Summary

SDG No.: 10–1087

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** WST21–10–9933D

Sample ID: 243555001 **Duplicate ID:** 1202010666 **Percent Solids for Dup:** 88

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Mercury	ug/kg		3.9	U	5.55	J	200		AV

Metals
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Duplicate Sample Summary

SDG No.: 10–1087

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** WST21–10–9933SD

Sample ID: 1202010667 **Duplicate ID:** 1202010679 **Percent Solids for Dup:** 88

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Mercury	ug/kg	+/–20	132		124		6.3		AV

METALS
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Laboratory Control Sample Summary

SDG NO. 10-1087

Contract: LANL01004

Aqueous LCS Source: **Solid LCS Source:** ERA

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202004458								
	Selenium	mg/kg	286	275		96.1	80.2-125.9	MS
	Thallium	mg/kg	121	108		89.1	78-123.2	MS
	Uranium	mg/kg	2.13	2.14		100	61.9-130.7	MS
	Arsenic	mg/kg	104	100		96.3	83-120	MS
	Beryllium	mg/kg	77.6	73		94	81.2-126.8	MS
	Lithium	mg/kg	10.6	10.1	J	94.8	66.7-133.7	MS
	Nickel	mg/kg	134	142		106	83.3-121.4	MS

METALS
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Laboratory Control Sample Summary

SDG NO. 10-1087

Contract: LANL01004

Aqueous LCS Source:

Solid LCS Source: ERA

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202004464								
	Aluminum	ug/Kg	10500000	7230000		68.9	56-144	P
	Antimony	ug/Kg	173000	178000		103	71-130	P
	Barium	ug/Kg	198000	173000		87.1	80-120	P
	Boron	ug/Kg	141000	141000		99.9	75-125	P
	Cadmium	ug/Kg	60700	56700		93.4	81-120	P
	Calcium	ug/Kg	9870000	9350000		94.8	83-117	P
	Chromium	ug/Kg	236000	230000		97.6	80-120	P
	Cobalt	ug/Kg	91200	87500		96	81-120	P
	Copper	ug/Kg	174000	182000		105	81-118	P
	Iron	ug/Kg	18000000	16400000		91	51-149	P
	Lead	ug/Kg	86000	77200		89.8	79-121	P
	Magnesium	ug/Kg	4000000	3410000		85.1	79-122	P
	Manganese	ug/Kg	558000	510000		91.4	81-119	P
	Potassium	ug/Kg	4300000	3750000		87.2	74-127	P
	Silicon	ug/Kg	1210000	1060000		87.1	10-190	P
	Silver	ug/Kg	30100	29400		97.8	66-134	P
	Sodium	ug/Kg	1020000	1000000		98.2	74-127	P
	Titanium	ug/Kg	462000	516000		112	39-161	P
	Vanadium	ug/Kg	115000	115000		100	79-121	P
	Zinc	ug/Kg	594000	552000		92.9	80-121	P

METALS
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Laboratory Control Sample Summary

SDG NO. 10-1087

Contract: LANL01004

Aqueous LCS Source: **Solid LCS Source:** ERA

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202007670								
	Aluminum	ug/Kg	10400000	8900000		85.9	56-144	P
	Antimony	ug/Kg	171000	173000		101	71-130	P
	Barium	ug/Kg	195000	209000		107	80-120	P
	Silicon	ug/Kg	1190000	1480000		124	10-190	P
	Silver	ug/Kg	29700	33000		111	66-134	P
	Sodium	ug/Kg	1010000	1090000		108	74-127	P
	Titanium	ug/Kg	456000	575000		126	39-161	P
	Vanadium	ug/Kg	113000	126000		111	79-121	P
	Zinc	ug/Kg	586000	605000		103	80-121	P
	Boron	ug/Kg	139000	151000		108	75-125	P
	Cadmium	ug/Kg	59900	61900		103	81-120	P
	Calcium	ug/Kg	9740000	10400000		107	83-117	P
	Chromium	ug/Kg	233000	245000		105	80-120	P
	Cobalt	ug/Kg	90000	98800		110	81-120	P
	Copper	ug/Kg	172000	191000		111	81-118	P
	Iron	ug/Kg	17800000	19400000		109	51-149	P
	Lead	ug/Kg	84800	90800		107	79-121	P
	Magnesium	ug/Kg	3950000	3940000		99.9	79-122	P
	Manganese	ug/Kg	550000	584000		106	81-119	P
	Potassium	ug/Kg	4240000	4250000		100	74-127	P

METALS
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Laboratory Control Sample Summary

SDG NO. 10–1087

Contract: LANL01004

Aqueous LCS Source:

Solid LCS Source: ERA

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202007684								
	Arsenic	mg/kg	104	111		107	83–120	MS
	Beryllium	mg/kg	77.6	84.7		109	81.2–126.8	MS
	Lithium	mg/kg	10.6	10.4	J	97.8	66.7–133.7	MS
	Nickel	mg/kg	134	150		112	83.3–121.4	MS
	Selenium	mg/kg	286	309		108	80.2–125.9	MS
	Thallium	mg/kg	121	144		119	78–123.2	MS
	Uranium	mg/kg	2.13	2.22		104	61.9–130.7	MS

METALS
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Laboratory Control Sample Summary

SDG NO. 10-1087

Contract: LANL01004

Aqueous LCS Source:

Solid LCS Source: ERA

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202010665								
	Mercury	ug/kg	5150	5700		111	71.6-128.3	AV

METALS
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Serial Dilution Sample Summary

SDG NO. 10–1087 **Client ID** WST21–10–9933L

Contract: LANL01004

Matrix: SOLID **Level:** Low

Sample ID: 243555001 **Serial Dilution ID:** 1202004461

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Arsenic	22.2		22.2	J	0			MS
Beryllium	.173	J	.5	U	100			MS
Lithium	21.6		24.3	J	12.3			MS
Nickel	11.7		18		53.8			MS
Selenium	2.5	U	12.5	U				MS
Thallium	.3	U	1.5	U				MS
Uranium	22.1		23.7		7.01		10	MS

METALS
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Serial Dilution Sample Summary

SDG NO. 10–1087 **Client ID** WST21–10–9933L

Contract: LANL01004

Matrix: SOLID **Level:** Low

Sample ID: 243555001 **Serial Dilution ID:** 1202004467

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Aluminum	2200		2190		.455			P
Antimony	722		710		1.66		10	P
Barium	2290		2320		1.09		10	P
Boron	150		149	J	.667			P
Cadmium	14.2		16.3	J	14.4			P
Calcium	122000		113000		7.38		10	P
Chromium	6790		6700		1.33		10	P
Cobalt	1.5	U	7.5	U				P
Copper	4040		3760		6.93		10	P
Iron	5090		4960		2.65		10	P
Lead	18.9		12.5	U	100			P
Magnesium	13500		13500		.37		10	P
Manganese	301		303		.498		10	P
Potassium	514		486	J	5.45			P
Silicon	1980		1870		5.56		10	P
Silver	1	U	5	U				P
Sodium	10900		10700		1.83		10	P
Titanium	11		7.7	J	30			P
Vanadium	55.5		48.7		12.3	E	10	P
Zinc	1120		1110		1.34		10	P

METALS
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Serial Dilution Sample Summary

SDG NO. 10-1087 **Client ID:** RE03-10-9872L

Contract: LANL01004

Matrix: SOLID **Level:** Low

Sample ID: 243550014 **Serial Dilution ID:** 1202007667

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Aluminum	18400		18400		0		10	P
Antimony	10.9		16.5	U	100			P
Barium	227		217		4.63		10	P
Boron	10	U	50	U				P
Cadmium	1	U	5	U				P
Calcium	5450		5400		.917		10	P
Chromium	109		106		3.21		10	P
Cobalt	10.7		8.8	J	17.8			P
Copper	21.1		20.3	J	4.03			P
Iron	70700		71500		1.13		10	P
Lead	49.6		54.5		9.88			P
Magnesium	3200		3180		.625			P
Manganese	2140		2150		.467		10	P
Potassium	3030		3160		4.13			P
Silicon	11000		10800		2.27		10	P
Silver	1	U	5	U				P
Sodium	1370		1440		4.74			P
Titanium	1460		1460		.342		10	P
Vanadium	49.8		53		6.43			P
Zinc	268		247		7.84		10	P

METALS
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Serial Dilution Sample Summary

SDG NO. 10-1087 **Client ID** RE03-10-9872L

Contract: LANL01004

Matrix: SOLID **Level:** Low

Sample ID: 243550014 **Serial Dilution ID:** 1202007681

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Arsenic	3.96	J	5	U	100			MS
Beryllium	1.91		2.05	J	7.07			MS
Lithium	24.8		26.1	J	5.24			MS
Nickel	9.68		10.6		8.99			MS
Selenium	2.5	U	12.5	U				MS
Thallium	.33	J	1.5	U	100			MS
Uranium	2.66		2.68		.564			MS

METALS
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Serial Dilution Sample Summary

SDG NO. 10-1087 **Client ID** WST21-10-9933L

Contract: LANL01004

Matrix: SOLID **Level:** Low

Sample ID: 243555001 **Serial Dilution ID:** 1202010678

Analyte	Initial Value µg/L	C	Serial Value µg/L	C	% Difference	Qual	Acceptance Limit	M
Mercury	.068	U	.34	U				AV

METALS
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SAMPLE PREPARATION SUMMARY

SDG No: 10-1087 **Method Type:** P

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number 936825							
1202004463	MB for batch 936825	MB	S	15-JAN-10	.572g	50mL	
1202004464	LCS for batch 936825	LCS	S	15-JAN-10	.522g	50mL	
1202004466	WST21-10-9933S	MS	S	15-JAN-10	.516g	50mL	
1202004468	WST21-10-9933SD	MSD	S	15-JAN-10	.517g	50mL	
1202004465	WST21-10-9933D	DUP	S	15-JAN-10	.522g	50mL	
243550001	RE03-09-14233	SAMPLE	S	15-JAN-10	.51g	50mL	
243550002	RE03-09-14236	SAMPLE	S	15-JAN-10	.5g	50mL	
243550003	RE03-09-14239	SAMPLE	S	15-JAN-10	.508g	50mL	
243550004	RE03-09-14240	SAMPLE	S	15-JAN-10	.519g	50mL	
243550005	RE03-09-14231	SAMPLE	S	15-JAN-10	.503g	50mL	
243550006	RE03-09-14232	SAMPLE	S	15-JAN-10	.516g	50mL	
243550007	RE03-09-14235	SAMPLE	S	15-JAN-10	.513g	50mL	
243550008	RE03-09-14238	SAMPLE	S	15-JAN-10	.539g	50mL	
243550009	RE03-09-14234	SAMPLE	S	15-JAN-10	.509g	50mL	
243550010	RE03-09-14241	SAMPLE	S	15-JAN-10	.505g	50mL	
243550011	RE03-10-2737	SAMPLE	S	15-JAN-10	.512g	50mL	
243550012	RE03-10-2736	SAMPLE	S	15-JAN-10	.504g	50mL	
243550013	RE03-10-9873	SAMPLE	S	15-JAN-10	.521g	50mL	

METALS
–13–
SAMPLE PREPARATION SUMMARY

SDG No: 10–1087 **Method Type:** P

Contract: **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number	938257						
1202007665	MB for batch 938257	MB	S	05–JAN–10	.506g	50mL	
1202007670	LCS for batch 938257	LCS	S	05–JAN–10	.513g	50mL	
1202007668	RE03–10–9872S	MS	S	05–JAN–10	.52g	50mL	
1202007669	RE03–10–9872SD	MSD	S	05–JAN–10	.522g	50mL	
1202007666	RE03–10–9872D	DUP	S	05–JAN–10	.512g	50mL	
243550014	RE03–10–9872	SAMPLE	S	05–JAN–10	.516g	50mL	
243550015	RE03–10–9874	SAMPLE	S	05–JAN–10	.518g	50mL	

METALS
–13–
SAMPLE PREPARATION SUMMARY

SDG No: 10–1087 **Method Type:** MS

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number	936822						
1202004457	MB for batch 936822	MB	S	29–DEC–09	.512g	50mL	
1202004458	LCS for batch 936822	LCS	S	29–DEC–09	.513g	50mL	
1202004460	WST21–10–9933S	MS	S	29–DEC–09	.505g	50mL	
1202004462	WST21–10–9933SD	MSD	S	29–DEC–09	.504g	50mL	
1202004459	WST21–10–9933D	DUP	S	29–DEC–09	.516g	50mL	
243550001	RE03–09–14233	SAMPLE	S	29–DEC–09	.508g	50mL	
243550002	RE03–09–14236	SAMPLE	S	29–DEC–09	.504g	50mL	
243550003	RE03–09–14239	SAMPLE	S	29–DEC–09	.506g	50mL	
243550004	RE03–09–14240	SAMPLE	S	29–DEC–09	.517g	50mL	
243550005	RE03–09–14231	SAMPLE	S	29–DEC–09	.506g	50mL	
243550006	RE03–09–14232	SAMPLE	S	29–DEC–09	.511g	50mL	
243550007	RE03–09–14235	SAMPLE	S	29–DEC–09	.5g	50mL	
243550008	RE03–09–14238	SAMPLE	S	29–DEC–09	.5g	50mL	
243550009	RE03–09–14234	SAMPLE	S	29–DEC–09	.5g	50mL	
243550010	RE03–09–14241	SAMPLE	S	29–DEC–09	.516g	50mL	
243550011	RE03–10–2737	SAMPLE	S	29–DEC–09	.505g	50mL	
243550012	RE03–10–2736	SAMPLE	S	29–DEC–09	.501g	50mL	
243550013	RE03–10–9873	SAMPLE	S	29–DEC–09	.503g	50mL	

METALS
-13-
SAMPLE PREPARATION SUMMARY

SDG No: 10-1087 **Method Type:** MS

Contract: **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number	938262						
1202007679	MB for batch 938262	MB	S	05-JAN-10	.502g	50mL	
1202007684	LCS for batch 938262	LCS	S	05-JAN-10	.512g	50mL	
1202007682	RE03-10-9872S	MS	S	05-JAN-10	.518g	50mL	
1202007683	RE03-10-9872SD	MSD	S	05-JAN-10	.518g	50mL	
1202007680	RE03-10-9872D	DUP	S	05-JAN-10	.512g	50mL	
243550014	RE03-10-9872	SAMPLE	S	05-JAN-10	.508g	50mL	
243550015	RE03-10-9874	SAMPLE	S	05-JAN-10	.514g	50mL	

METALS
-13-
SAMPLE PREPARATION SUMMARY

SDG No: 10-1087 **Method Type:** AV

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number	939594						
1202010664	MB for batch 939594	MB	S	08-JAN-10	.514g	30mL	
1202010665	LCS for batch 939594	LCS	S	08-JAN-10	.209g	30mL	
1202010667	WST21-10-9933S	MS	S	08-JAN-10	.523g	30mL	
1202010679	WST21-10-9933SD	MSD	S	08-JAN-10	.554g	30mL	
1202010666	WST21-10-9933D	DUP	S	08-JAN-10	.529g	30mL	
243550001	RE03-09-14233	SAMPLE	S	08-JAN-10	.522g	30mL	
243550002	RE03-09-14236	SAMPLE	S	08-JAN-10	.572g	30mL	
243550003	RE03-09-14239	SAMPLE	S	08-JAN-10	.506g	30mL	
243550004	RE03-09-14240	SAMPLE	S	08-JAN-10	.534g	30mL	
243550005	RE03-09-14231	SAMPLE	S	08-JAN-10	.516g	30mL	
243550006	RE03-09-14232	SAMPLE	S	08-JAN-10	.533g	30mL	
243550007	RE03-09-14235	SAMPLE	S	08-JAN-10	.529g	30mL	
243550008	RE03-09-14238	SAMPLE	S	08-JAN-10	.581g	30mL	
243550009	RE03-09-14234	SAMPLE	S	08-JAN-10	.51g	30mL	
243550010	RE03-09-14241	SAMPLE	S	08-JAN-10	.573g	30mL	
243550011	RE03-10-2737	SAMPLE	S	08-JAN-10	.527g	30mL	
243550012	RE03-10-2736	SAMPLE	S	08-JAN-10	.581g	30mL	
243550013	RE03-10-9873	SAMPLE	S	08-JAN-10	.526g	30mL	
243550014	RE03-10-9872	SAMPLE	S	08-JAN-10	.505g	30mL	

METALS
-13-
SAMPLE PREPARATION SUMMARY

SDG No: 10-1087 **Method Type**: AV

Contract: **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
243550015	RE03-10-9874	SAMPLE	S	08-JAN-10	.559g	30mL	

Metals
–14–
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: ICPMS5
Start Date: 09–JAN–10 **End Date:** 09–JAN–10

Client Sdg: 10–1087
Method MS
Data File: 100108–4

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Li	Mg	Mn	Hg	Ni	K	Se	Si	Ag	Na	Tl	Ti	U	V	Zn
S0.0	1	01:33			X																	X				X		X		
S10	1	01:39			X																	X				X		X		
S100	1	01:45			X																	X				X		X		
ICV01	1	01:51			X																	X				X		X		
ICB01	1	01:57			X																	X				X		X		
CRDL01	1	02:03			X																	X				X		X		
ICSA01	1	02:09			X																	X				X		X		
ICSAB01	1	02:15			X																	X				X		X		
CCV01	1	02:22			X																	X				X		X		
CCB01	1	02:28			X																	X				X		X		
LR01	1	02:34			X																	X				X		X		
CCV02	1	02:40			X																	X				X		X		
CCB02	1	02:46			X																	X				X		X		
1202007679	2	02:52			X																	X				X		X		
ZZZZZZ	20	02:58																												
1202007684	40	03:05			X																	X				X		X		
243550014	2	03:11			X																	X				X		X		
1202007680	2	03:17			X																	X				X		X		
1202007682	2	03:23			X																	X				X		X		
1202007683	2	03:29			X																	X				X		X		
1202007681	10	03:35			X																	X				X		X		
243550015	2	03:42			X																	X				X		X		
CCV03	1	03:48			X																	X				X		X		
CCB03	1	03:54			X																	X				X		X		

Metals
–14–
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: ICPMS5
Start Date: 09–JAN–10 **End Date:** 09–JAN–10

Client Sdg: 10–1087
Method MS
Data File: 100109–5

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Li	Mg	Mn	Hg	Ni	K	Se	Si	Ag	Na	Tl	Ti	U	V	Zn
S0.0	1	17:07					X									X				X										
S10	1	17:09					X									X				X										
S100	1	17:10					X									X				X										
ICV01	1	17:12					X									X				X										
ICB01	1	17:14					X									X				X										
CRDL01	1	17:16					X									X				X										
ICSA01	1	17:17					X									X				X										
ICSAB01	1	17:19					X									X				X										
CCV01	1	17:21					X									X				X										
CCB01	1	17:23					X									X				X										
LR01	1	17:24					X									X				X										
CCV02	1	17:26					X									X				X										
CCB02	1	17:28					X									X				X										
1202007679	2	17:30					X									X				X										
1202007684	20	17:31														X														
1202007684	40	17:33					X													X										
243550014	2	17:35					X									X				X										
1202007680	2	17:37					X									X				X										
1202007682	2	17:39					X									X				X										
1202007683	2	17:40					X									X				X										
1202007681	10	17:42					X									X				X										
243550015	2	17:44					X									X				X										
CCV03	1	17:46					X									X				X										
CCB03	1	17:48					X									X				X										

Metals
-14-
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: ICPMS6
Start Date: 14-JAN-10 **End Date:** 14-JAN-10

Client Sdg: 10-1087
Method MS
Data File: 100113-6

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Li	Mg	Mn	Hg	Ni	K	Se	Si	Ag	Na	Tl	Ti	U	V	Zn
S0.0	1	07:38			X															X		X				X		X		
S10	1	07:44			X															X		X				X		X		
S100	1	07:50			X															X		X				X		X		
ICV01	1	07:56			X															X		X				X		X		
ICB01	1	08:02			X															X		X				X		X		
CRDL01	1	08:08			X															X		X				X		X		
ICSA01	1	08:14			X															X		X				X		X		
ICSAB01	1	08:20			X															X		X				X		X		
CCV01	1	08:26			X															X		X				X		X		
CCB01	1	08:31			X															X		X				X		X		
1202004457	2	08:37			X															X		X				X		X		
ZZZZZZ	20	08:43																												
1202004458	40	08:49			X															X		X				X		X		
CCV02	1	08:55			X															X		X				X		X		
CCB02	1	09:01			X															X		X				X		X		
243550001	2	09:07			X															X		X				X		X		
243550002	2	09:13			X															X		X				X		X		
243550003	2	09:19			X															X		X				X		X		
243550004	2	09:25			X															X		X				X		X		
243550005	2	09:31			X															X		X				X		X		
243550006	2	09:37			X															X		X				X		X		
CCV03	1	09:43			X															X		X				X		X		
CCB03	1	09:49			X															X		X				X		X		
243550007	2	09:55			X															X		X				X		X		
243550008	2	10:00			X															X		X				X		X		
243550009	2	10:06			X															X		X				X		X		
243550010	2	10:12			X															X		X				X		X		
243550011	2	10:18			X															X		X				X		X		
243550012	2	10:24			X															X		X				X		X		
243550013	2	10:30			X															X		X				X		X		
CCV04	1	10:36			X															X		X				X		X		
CCB04	1	10:42			X															X		X				X		X		
ZZZZZZ	2	10:48																												
1202004459	2	10:54																		X		X				X		X		
1202004460	2	11:00																		X		X				X		X		
1202004462	2	11:06																		X		X				X		X		
1202004461	10	11:12																		X		X				X		X		
ZZZZZZ	2	11:18																												
CCV05	1	11:24			X															X		X				X		X		
CCB05	1	11:29			X															X		X				X		X		

Metals
–14–
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: ICPMS6
Start Date: 16–JAN–10 **End Date:** 16–JAN–10

Client Sdg: 10–1087
Method MS
Data File: 100115–10

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Li	Mg	Mn	Hg	Ni	K	Se	Si	Ag	Na	Tl	Ti	U	V	Zn
S0.0	1	10:06			X																									
S10	1	10:09			X																									
S100	1	10:12			X																									
ICV01	1	10:14			X																									
ICB01	1	10:17			X																									
CRDL01	1	10:20			X																									
ICSA01	1	10:23			X																									
ICSAB01	1	10:25			X																									
CCV01	1	10:28			X																									
CCB01	1	10:31			X																									
ZZZZZZ	2	10:34																												
ZZZZZZ	40	10:37																												
ZZZZZZ	10	10:39																												
1202004459	10	10:42			X																									
1202004460	10	10:45			X																									
1202004462	10	10:48			X																									
1202004461	50	10:50			X																									
ZZZZZZ	20	10:53																												
CCV02	1	10:56			X																									
CCB02	1	10:59			X																									

Metals
-14-
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: ICPMS6
Start Date: 16-JAN-10 **End Date:** 16-JAN-10

Client Sdg: 10-1087
Method MS
Data File: 100115-7

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Li	Mg	Mn	Hg	Ni	K	Se	Si	Ag	Na	Tl	Ti	U	V	Zn
S0.0	1	02:56					X									X														
S10	1	02:59					X									X														
S100	1	03:02					X									X														
ICV01	1	03:05					X									X														
ICB01	1	03:09					X									X														
CRDL01	1	03:12					X									X														
ICSA01	1	03:15					X									X														
ICSAB01	1	03:18					X									X														
CCV01	1	03:21					X									X														
CCB01	1	03:24					X									X														
LR01	1	03:27					X									X														
CCV02	1	03:30					X									X														
CCB02	1	03:34					X									X														
1202004457	2	03:37					X									X														
1202004458	20	03:40														X														
1202004458	40	03:43					X																							
243550001	2	03:46					X									X														
ZZZZZZ	2	03:52																												
ZZZZZZ	2	03:55																												
ZZZZZZ	2	03:58																												
ZZZZZZ	2	04:02																												
ZZZZZZ	10	04:05																												
CCV03	1	04:08					X									X														
CCB03	1	04:11					X									X														
243550002	2	04:17					X									X														
243550003	2	04:20					X									X														
243550004	2	04:23					X									X														
243550005	2	04:26					X									X														
243550006	2	04:29					X									X														
243550007	2	04:33					X									X														
243550008	2	04:36					X									X														
243550009	2	04:39					X									X														
243550010	2	04:42					X									X														
CCV04	1	04:45					X									X														
CCB04	1	04:48					X									X														
243550011	2	04:52					X									X														
243550012	2	04:55					X									X														
243550013	2	04:58					X									X														
ZZZZZZ	2	05:01																												
1202004459	2	05:04					X									X														

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time																											
1202004460	2	05:07					X									X													
1202004462	2	05:11					X									X													
1202004461	10	05:14					X									X													
ZZZZZZ	2	05:17																											
CCV05	1	05:20					X									X													
CCB05	1	05:23					X									X													

Metals
–14–
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: OPTIMA3
Start Date: 15–JAN–10 **End Date:** 15–JAN–10

Client Sdg: 10–1087
Method P
Data File: 011510–2

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Li	Mg	Mn	Hg	Ni	K	Se	Si	Ag	Na	Tl	Ti	U	V	Zn
S0.0	1	09:11	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
S0.1	1	09:18		X		X		X	X		X	X	X		X			X			X		X	X			X		X	X
S0.5	1	09:24	X	X		X		X	X	X	X	X	X		X		X	X			X		X	X			X		X	X
SCAL	1	09:31	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
S10	1	09:38	X							X				X			X								X					
ICV01	1	09:44	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
ICB01	1	09:51	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
PQL01	1	09:57	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
ICSA01	1	10:04	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
ICSAB01	1	10:10	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
LR01	1	10:16	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
LR02	1	10:22	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
ZZZZZZ	1	10:29																												
ZZZZZZ	1	10:36																												
CCV01	1	10:45	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
CCB01	1	10:52	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
ZZZZZZ	1	10:59																												
ZZZZZZ	1	11:06																												
ZZZZZZ	1	11:13																												
ZZZZZZ	1	11:19																												
ZZZZZZ	5	11:26																												
ZZZZZZ	5	11:33																												
ZZZZZZ	5	11:40																												
ZZZZZZ	5	11:47																												
ZZZZZZ	25	11:53																												
ZZZZZZ	10	12:00																												
CCV02	1	12:13	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
CCB02	1	12:20	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
ZZZZZZ	5	12:29																												
ZZZZZZ	5	12:36																												
ZZZZZZ	5	12:43																												
ZZZZZZ	25	12:50																												
ZZZZZZ	10	12:56																												
CCV03	1	13:03	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
CCB03	1	13:10	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
ZZZZZZ	1	13:24																												
ZZZZZZ	1	13:31																												
ZZZZZZ	1	13:38																												
ZZZZZZ	1	13:45																												
ZZZZZZ	1	13:52																												

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time																												
ZZZZZZ	5	13:59																												
CCV04	1	14:06	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
CCB04	1	14:13	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
CCV05	1	15:01	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
CCB05	1	15:08	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
ZZZZZZ	1	15:15																												
ZZZZZZ	1	15:22																												
ZZZZZZ	1	15:28																												
ZZZZZZ	1	15:35																												
ZZZZZZ	1	15:42																												
ZZZZZZ	1	15:49																												
ZZZZZZ	5	15:56																												
CCV06	1	16:03	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
CCB06	1	16:10	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
ZZZZZZ	1	16:17																												
ZZZZZZ	1	16:24																												
ZZZZZZ	1	16:32																												
ZZZZZZ	1	16:39																												
ZZZZZZ	1	16:46																												
CCV07	1	16:53	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
CCB07	1	17:00	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
1202004463	1	17:07	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
1202004464	1	17:14	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
243550001	1	17:20	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
243550002	1	17:27	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
243550003	1	17:34	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
243550004	1	17:41	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
243550005	1	17:48	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
CCV08	1	17:55	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
CCB08	1	18:02	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
243550006	1	18:09	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
243550007	1	18:16	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
243550008	1	18:23	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
243550009	1	18:30	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
243550010	1	18:37	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
243550011	1	18:45	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
243550012	1	18:52	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
CCV09	1	18:59	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
CCB09	1	19:06	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
243550013	1	19:12	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Li	Mg	Mn	Hg	Ni	K	Se	Si	Ag	Na	Tl	Ti	U	V	Zn
ZZZZZZ	1	19:19																												
1202004465	1	19:27	X	X		X		X	X				X	X			X	X					X		X					X
1202004466	1	19:34	X	X		X		X	X				X	X			X	X					X		X					X
1202004468	1	19:41	X	X		X		X	X				X	X			X	X					X		X					X
1202004467	5	19:48	X	X		X		X	X				X	X			X	X					X		X					X
ZZZZZZ	1	19:55																												
CCV10	1	20:02	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
CCB10	1	20:09	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X

Metals
–14–
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: OPTIMA3
Start Date: 19–JAN–10 **End Date:** 19–JAN–10

Client Sdg: 10–1087
Method P
Data File: 011910–3

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Li	Mg	Mn	Hg	Ni	K	Se	Si	Ag	Na	Tl	Ti	U	V	Zn
S0.0	1	14:33								X	X	X			X						X			X			X		X	
S0.1	1	14:40									X	X			X						X			X			X		X	
S0.5	1	14:46								X	X	X			X						X			X			X		X	
SCAL	1	14:53								X	X	X			X						X			X			X		X	
S10	1	15:00								X																				
ICV01	1	15:05								X	X	X			X						X			X			X		X	
ICB01	1	15:12								X	X	X			X						X			X			X		X	
PQL01	1	15:19								X	X	X			X						X			X			X		X	
ICSA01	1	15:26								X	X	X			X						X			X			X		X	
ICSAB01	1	15:32								X	X	X			X						X			X			X		X	
LR01	1	15:38								X	X	X			X						X			X			X		X	
LR02	1	15:44								X	X	X			X						X			X			X		X	
CCV01	1	15:51								X	X	X			X						X			X			X		X	
CCB01	1	15:58								X	X	X			X						X			X			X		X	
LR03	1	16:20								X	X	X			X						X			X			X		X	
CCV02	1	16:26								X	X	X			X						X			X			X		X	
CCB02	1	16:33								X	X	X			X						X			X			X		X	
ZZZZZZ	5	16:40																												
1202004465	5	16:47								X	X	X			X						X			X			X		X	
1202004466	5	16:54								X	X	X			X						X			X			X		X	
1202004468	5	17:00								X	X	X			X						X			X			X		X	
1202004467	25	17:07								X	X	X			X						X			X			X		X	
ZZZZZZ	5	17:14																												
CCV03	1	17:21								X	X	X			X						X			X			X		X	
CCB03	1	17:28								X	X	X			X						X			X			X		X	

Metals
–14–
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: HG3
Start Date: 11–JAN–10 **End Date:** 11–JAN–10

Client Sdg: 10–1087
Method AV
Data File: 011110S1–11

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Li	Mg	Mn	Hg	Ni	K	Se	Si	Ag	Na	Tl	Ti	U	V	Zn
S0.0	1	09:23																	X											
S0.2	1	09:25																	X											
S0.5	1	09:27																	X											
S2.0	1	09:28																	X											
S5.0	1	09:30																	X											
S10.0	1	09:32																	X											
ICV01	1	09:33																	X											
ICB01	1	09:35																	X											
CRDL01	1	09:37																	X											
CCV01	1	09:38																	X											
CCB01	1	09:40																	X											
ZZZZZZ	1	09:42																												
ZZZZZZ	1	09:43																												
ZZZZZZ	1	09:45																												
ZZZZZZ	1	09:47																												
ZZZZZZ	1	09:48																												
ZZZZZZ	1	09:50																												
ZZZZZZ	1	09:52																												
1202010664	1	09:53																	X											
1202010665	10	09:55																	X											
ZZZZZZ	1	09:57																												
CCV02	1	09:58																	X											
CCB02	1	10:00																	X											
ZZZZZZ	1	10:02																												
ZZZZZZ	1	10:03																												
243550001	1	10:05																	X											
243550002	1	10:07																	X											
243550003	1	10:08																	X											
243550004	1	10:10																	X											
243550005	1	10:12																	X											
243550006	1	10:13																	X											
243550007	1	10:15																	X											
243550008	1	10:17																	X											
CCV03	1	10:18																	X											
CCB03	1	10:20																	X											
243550009	1	10:22																	X											
243550010	1	10:23																	X											
243550011	1	10:25																	X											
243550012	1	10:27																	X											
243550013	1	10:29																	X											

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time																												
243550014	1	10:30																	X											
243550015	1	10:32																	X											
ZZZZZZ	1	10:34																												
1202010666	1	10:35																	X											
1202010667	1	10:37																	X											
CCV04	1	10:39																	X											
CCB04	1	10:40																	X											
1202010679	1	10:42																	X											
1202010678	5	10:44																	X											
ZZZZZZ	1	10:45																												
ZZZZZZ	1	10:47																												
ZZZZZZ	10	10:49																												
ZZZZZZ	1	10:50																												
ZZZZZZ	1	10:52																												
ZZZZZZ	1	10:54																												
ZZZZZZ	1	10:55																												
ZZZZZZ	1	10:57																												
CCV05	1	10:59																	X											
CCB05	1	11:00																	X											

Metals
–14–
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: OPTIMA1
Start Date: 08–JAN–10 **End Date:** 08–JAN–10

Client Sdg: 10–1087
Method P
Data File: 010810–1

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Li	Mg	Mn	Hg	Ni	K	Se	Si	Ag	Na	Tl	Ti	U	V	Zn
S0.0	1	11:14	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
S0.1	1	11:17		X		X		X	X		X	X	X		X			X			X		X	X			X		X	X
S0.5	1	11:20	X	X		X		X	X	X	X	X	X		X		X	X			X		X	X			X		X	X
SCAL	1	11:24	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
S10	1	11:27	X							X				X			X								X					
ICV01	1	11:30	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
ICB01	1	11:33	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
PQL01	1	11:37	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
ICSA01	1	11:40	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
ICSAB01	1	11:43	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
LR01	1	11:46	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
LR02	1	11:48	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
CCV01	1	11:52	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
CCB01	1	11:56	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
CCV02	1	12:10	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
CCB02	1	12:13	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
LR03	1	12:21	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
CCV03	1	12:24	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
CCB03	1	12:28	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
ZZZZZZ	1	12:32																												
ZZZZZZ	1	12:35																												
ZZZZZZ	1	12:39																												
ZZZZZZ	1	12:42																												
ZZZZZZ	1	12:46																												
ZZZZZZ	1	12:49																												
ZZZZZZ	1	12:53																												
CCV04	1	12:57	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
CCB04	1	13:00	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
1202007665	1	13:05	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
1202007670	1	13:09	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
243550014	1	13:12	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
1202007666	1	13:16	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
1202007668	1	13:20	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
1202007669	1	13:23	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
1202007667	5	13:27	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
243550015	1	13:30	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
CCV05	1	13:34	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X
CCB05	1	13:38	X	X		X		X	X	X	X	X	X	X	X		X	X			X		X	X	X		X		X	X

Standards

METALS
–10–
Instrument Detection Limits

SDG NO. 10–1087

Contract: LANL01004 **Lab Code: GEL** **MDL Effective Date:** 01–JUL–09

ICP/MS	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
SOLID	Aluminum		15.0	50
	Antimony		0.5	3
	Arsenic		1.0	5
	Barium		0.5	2
	Beryllium		0.1	.5
	Boron		4.0	15
	Cadmium		0.1	1
	Calcium		33.0	100
	Chromium		1.0	3
	Cobalt		0.3	1
	Copper		0.33	1
	Iron		25.0	100
	Lead		0.5	2
	Lithium		2.0	10
	Magnesium		7.5	25
	Manganese		1.0	5
	Nickel		0.5	2
	Potassium		80.0	300
	Selenium		2.5	5
	Silver		0.2	1
	Sodium		80.0	250
	Thallium		0.3	1
	Titanium		2.0	10
	Uranium		0.066	.2
	Vanadium		2.0	10
	Zinc		2.0	10

METALS
–10–
Instrument Detection Limits

SDG NO. 10–1087

Contract: LANL01004 **Lab Code: GEL** **MDL Effective Date:** 15–JUN–09

MERCURY	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
SOLID	Mercury		0.068	.2

METALS
–10–
Instrument Detection Limits

SDG NO. 10–1087

Contract: LANL01004 **Lab Code: GEL** **MDL Effective Date:** 01–JUL–09

ICP	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
SOLID	Aluminum	396.153	68.0	200
	Antimony	206.836	3.3	10
	Arsenic	188.979	5.0	30
	Barium	233.527	1.0	5
	Beryllium	313.107	1.0	5
	Boron	249.677	10.0	50
	Cadmium	226.502	1.0	5
	Calcium	317.933	80.0	250
	Chromium	267.716	1.5	5
	Cobalt	228.616	1.5	5
	Copper	324.752	3.0	10
	Iron	238.204	80.0	250
	Lead	220.353	2.5	10
	Magnesium	279.077	85.0	300
	Manganese	257.61	2.0	10
	Nickel	231.604	1.5	5
	Potassium	766.49	64.0	250
	Selenium	196.026	5.0	30
	Silicon	251.611	15.0	100
	Silver	328.068	1.0	5
	Sodium	589.592	70.0	250
	Thallium	190.801	5.0	20
	Titanium	334.94	1.0	5
	Uranium	409.014	10.0	50
	Vanadium	292.402	1.0	5
	Zinc	213.857	3.3	10

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA3
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-1087
Effective Dates: 01-NOV-09

Parmname	Wavelength	Aluminum	Antimony	Arsenic	Barium	Beryllium
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.02738	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	-0.44940	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	-0.22121	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	-0.33886	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	-0.13648	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	-0.05571	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.19671	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	-0.02739	0.00000	0.00000	0.00000	0.00000
Tin	189.927	-0.00058	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	0.00000

METALS
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Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA3
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-1087
Effective Dates: 01-NOV-09

Parmname	Wavelength	Boron	Cadmium	Chromium	Cobalt	Copper
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	24.5549	0.00000	0.00000
Arsenic	188.979	0.52529	0.00000	-0.67113	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	2.54031	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.38952	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	-31.5465	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	0.78023
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.63859	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	160.41
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	5.22870	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.35099	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	1.93161	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.39273	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	1.19810

METALS
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Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA3
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-1087
Effective Dates: 01-NOV-09

Parmname	Wavelength	Iron	Lead	Magnesium	Manganese	Molybdenum
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	42.8126
Antimony	206.836	-0.01635	0.00000	0.00000	0.00000	-22.2146
Arsenic	188.979	-0.21271	0.00000	0.00000	0.00000	1.34645
Barium	233.527	-0.03709	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.13266	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.09998	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	-0.01788	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.01425	0.00000	0.00000	0.00000	-2.64232
Copper	324.752	-0.05101	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.09069	0.00000	0.00000	0.00000	-2.44485
Magnesium	279.077	0.85543	0.00000	0.00000	0.00000	-20.2401
Manganese	257.61	-0.09972	0.00000	0.01862	0.00000	0.00000
Molybdenum	202.031	-0.07094	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.80633	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	-0.03176	0.00000	0.01823	12.4291	-3.60863
Selenium	196.026	-3.00009	0.00000	0.00000	0.00000	-3.17982
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	17.4444
Silver	328.068	-0.31825	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	-5.85948	0.00000
Tin	189.927	-0.01337	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.12581	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.15211	0.00000	-0.02256	0.00000	-14.2921
Zinc	213.857	0.09548	0.00000	0.03423	0.00000	0.00000

METALS
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Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA3
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-1087
Effective Dates: 01-NOV-09

Parmname	Wavelength	Nickel	Phosphorous	Potassium	Selenium	Silicon
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	-0.64279	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	0.44040	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.33191	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	6.38465	0.00000	0.00000	0.00000	0.00000

METALS
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Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA3
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-1087
Effective Dates: 01-NOV-09

Parmname	Wavelength	Silver	Strontium	Sulfur	Thallium	Tin
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	0.00000	-17.4077
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	-13.8713
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	3.10491
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	0.00000

METALS
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Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA3
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-1087
Effective Dates: 01-NOV-09

Parmname	Wavelength	Titanium	Uranium	Vanadium	Zinc
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	2.73145	0.00000	-2.31857	0.00000
Arsenic	188.979	-8.38419	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	-2.24883	0.00000
Beryllium	313.107	-1.96555	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.32181	-1.76281	0.00000
Cobalt	228.616	2.12623	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.85359	-3.92851	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	-7.67419	0.00000	2.18873	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.44145	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	1.10141	-1.94183	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000

METALS
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Interelement Correction Factors

Lab Code: GEL **GEL Job No:** 10-1087
Contract: LANL01004
Instrument: OPTIMA1 **Effective Dates:** 01-NOV-09
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Parmname	Wavelength	Aluminum	Antimony	Arsenic	Barium	Beryllium
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	-0.08714	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	-0.36980	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	-0.02864	0.00000	0.00000	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	0.00000

METALS
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Interelement Correction Factors

Lab Code: GEL
GEL Job No: 10-1087
Contract: LANL01004
Instrument: OPTIMA1
Effective Dates: 01-NOV-09
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Parmname	Wavelength	Boron	Cadmium	Chromium	Cobalt	Copper
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	4.75140	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	-33.0980	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	1.36057
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.03970	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	122.96
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	4.07230	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	1.45160

METALS
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Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA1
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-1087
Effective Dates: 01-NOV-09

Parmname	Wavelength	Iron	Lead	Magnesium	Manganese	Molybdenum
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	38.0301
Antimony	206.836	0.00000	0.00000	0.00000	0.00000	1.47380
Arsenic	188.979	-0.82061	0.00000	0.00000	0.00000	1.83900
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.31446	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.07749	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	-2.33110
Copper	324.752	-0.24488	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.01248	0.00000	0.00000	0.00000	-2.95230
Magnesium	279.077	1.47510	0.00000	0.00000	0.00000	-24.9658
Manganese	257.61	-0.12666	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	-0.03930	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	1.17810	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	-0.61937	0.00000	0.41160	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	17.0660
Silver	328.068	-0.07890	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.14830	0.00000	0.14260	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	-4.63400	0.00000
Tin	189.927	-0.09214	0.00000	-0.16050	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.18670	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	-0.08158	0.00000	0.00000	0.00000	-6.97050
Zinc	213.857	0.06940	0.00000	0.02727	0.00000	0.00000

METALS
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Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA1
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-1087
Effective Dates: 01-NOV-09

Parmname	Wavelength	Nickel	Phosphorous	Selenium	Silicon	Silver
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barinm	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	-1.09390	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	5.19130	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA1
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-1087
Effective Dates: 01-NOV-09

Parmname	Wavelength	Sulfur	Thallium	Tin	Titanium	Uranium
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	-3.74360	-0.55870
Arsenic	188.979	0.00000	0.00000	0.00000	-2.71110	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.37024	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	-0.71290
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	2.08900	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	0.84100
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	-21.8313	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	38.5869	36.0710	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	-7.24690	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	-1.61770
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA1
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-1087
Effective Dates: 01-NOV-09

Parmname	Wavelength	Vanadium	Zinc
Aluminum	396.153	0.00000	0.00000
Antimony	206.836	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000
Barium	233.527	-2.10080	0.00000
Beryllium	313.107	0.00000	0.00000
Boron	249.677	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000
Chromium	267.716	-2.34600	0.00000
Cobalt	228.616	0.00000	0.00000
Copper	324.752	0.00000	0.00000
Iron	238.204	0.00000	0.00000
Lead	220.353	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000
Manganese	257.61	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000
Nickel	231.604	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000
Selenium	196.026	0.00000	0.00000
Silicon	251.611	0.00000	0.00000
Silver	328.068	-6.85200	0.00000
Sulfur	181.975	0.00000	0.00000
Thallium	190.801	0.00000	0.00000
Tin	189.927	0.00000	0.00000
Titanium	334.94	0.00000	0.00000
Uranium	409.014	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000
Zinc	213.857	0.00000	0.00000

METALS
–12–
Linear Ranges

SDG NO. 10–1087

Contract: LANL01004 **Lab Code: GEL**

Instrument ID ICPMS5

Analyte	Integration Time (msec)	LDR	Units	Effective Date
Aluminum	1	50000	ug/L	01–NOV–09
Antimony	1000	250	ug/L	01–NOV–09
Arsenic	1000	1000	ug/L	01–NOV–09
Barium	1000	1000	ug/L	01–NOV–09
Boron	1000	200	ug/L	01–NOV–09
Cadmium	1000	1000	ug/L	01–NOV–09
Calcium	500	50000	ug/L	01–NOV–09
Chromium	1000	1000	ug/L	01–NOV–09
Cobalt	1000	1000	ug/L	01–NOV–09
Copper	1000	1000	ug/L	01–NOV–09
Iron	500	50000	ug/L	01–NOV–09
Lead	1000	5000	ug/L	01–NOV–09
Lithium	1000	1000	ug/L	01–NOV–09
Magnesium	1	50000	ug/L	01–NOV–09
Manganese	1000	1000	ug/L	01–NOV–09
Nickel	1000	1000	ug/L	01–NOV–09
Potassium	1	50000	ug/L	01–NOV–09
Selenium	1000	500	ug/L	01–NOV–09
Silver	1000	250	ug/L	01–NOV–09
Sodium	1	50000	ug/L	01–NOV–09
Thallium	1000	500	ug/L	01–NOV–09
Titanium	1000	100	ug/L	01–NOV–09
Uranium	1000	5000	ug/L	01–NOV–09
Vanadium	1000	100	ug/L	01–NOV–09
Zinc	1000	2500	ug/L	01–NOV–09
Beryllium	1000	1000	ug/L	01–NOV–09

METALS
–12–
Linear Ranges

SDG NO. 10–1087

Contract: LANL01004 **Lab Code: GEL**

Instrument ID ICPMS6

Analyte	Integration Time (msec)	LDR	Units	Effective Date
Aluminum	1	50000	ug/L	01–NOV–09
Antimony	1000	250	ug/L	01–NOV–09
Arsenic	1000	1000	ug/L	01–NOV–09
Barium	1000	1000	ug/L	01–NOV–09
Beryllium	1000	1000	ug/L	01–NOV–09
Boron	1000	200	ug/L	01–NOV–09
Cadmium	1000	1000	ug/L	01–NOV–09
Calcium	500	50000	ug/L	01–NOV–09
Chromium	1000	1000	ug/L	01–NOV–09
Cobalt	1000	1000	ug/L	01–NOV–09
Copper	1000	1000	ug/L	01–NOV–09
Iron	500	50000	ug/L	01–NOV–09
Lead	1000	5000	ug/L	01–NOV–09
Lithium	1000	1000	ug/L	01–NOV–09
Magnesium	1	50000	ug/L	01–NOV–09
Manganese	1000	1000	ug/L	01–NOV–09
Nickel	1000	1000	ug/L	01–NOV–09
Potassium	1	50000	ug/L	01–NOV–09
Selenium	1000	500	ug/L	01–NOV–09
Silver	1000	250	ug/L	01–NOV–09
Sodium	1	50000	ug/L	01–NOV–09
Thallium	1000	500	ug/L	01–NOV–09
Titanium	1000	100	ug/L	01–NOV–09
Uranium	1000	5000	ug/L	01–NOV–09
Vanadium	1000	100	ug/L	01–NOV–09
Zinc	1000	2500	ug/L	01–NOV–09

METALS
–12–
Linear Ranges

SDG NO. 10–1087

Contract: LANL01004 **Lab Code: GEL**

Instrument ID OPTIMA3

Analyte	Integration Time (sec)	LDR	Units	Effective Date
Iron	20	500000	ug/L	01–NOV–09
Lead	20	25000	ug/L	01–NOV–09
Magnesium	20	500000	ug/L	01–NOV–09
Manganese	20	10000	ug/L	01–NOV–09
Nickel	20	10000	ug/L	01–NOV–09
Potassium	20	300000	ug/L	01–NOV–09
Selenium	20	10000	ug/L	01–NOV–09
Silicon	20	50000	ug/L	01–NOV–09
Silver	20	1000	ug/L	01–NOV–09
Sodium	20	500000	ug/L	01–NOV–09
Thallium	20	10000	ug/L	01–NOV–09
Titanium	20	10000	ug/L	01–NOV–09
Uranium	20	15000	ug/L	01–NOV–09
Vanadium	20	10000	ug/L	01–NOV–09
Zinc	20	15000	ug/L	01–NOV–09
Aluminum	20	500000	ug/L	01–NOV–09
Antimony	20	10000	ug/L	01–NOV–09
Arsenic	20	10000	ug/L	01–NOV–09
Barium	20	15000	ug/L	01–NOV–09
Beryllium	20	3000	ug/L	01–NOV–09
Boron	20	5000	ug/L	01–NOV–09
Cadmium	20	10000	ug/L	01–NOV–09
Calcium	20	500000	ug/L	01–NOV–09
Chromium	20	25000	ug/L	01–NOV–09
Cobalt	20	10000	ug/L	01–NOV–09
Copper	20	20000	ug/L	01–NOV–09

METALS
–12–
Linear Ranges

SDG NO. 10–1087

Contract: LANL01004 **Lab Code: GEL**

Instrument ID OPTIMA1

Analyte	Integration Time (sec)	LDR	Units	Effective Date
Aluminum	20	500000	ug/L	01–NOV–09
Antimony	20	10000	ug/L	01–NOV–09
Arsenic	20	10000	ug/L	01–NOV–09
Barium	20	15000	ug/L	01–NOV–09
Beryllium	20	3000	ug/L	01–NOV–09
Boron	20	5000	ug/L	01–NOV–09
Cadmium	20	10000	ug/L	01–NOV–09
Calcium	20	500000	ug/L	01–NOV–09
Chromium	20	25000	ug/L	01–NOV–09
Cobalt	20	10000	ug/L	01–NOV–09
Copper	20	20000	ug/L	01–NOV–09
Iron	20	500000	ug/L	01–NOV–09
Lead	20	25000	ug/L	01–NOV–09
Magnesium	20	500000	ug/L	01–NOV–09
Manganese	20	10000	ug/L	01–NOV–09
Nickel	20	10000	ug/L	01–NOV–09
Potassium	20	300000	ug/L	01–NOV–09
Selenium	20	10000	ug/L	01–NOV–09
Silicon	20	50000	ug/L	01–NOV–09
Silver	20	1000	ug/L	01–NOV–09
Sodium	20	500000	ug/L	01–NOV–09
Thallium	20	10000	ug/L	01–NOV–09
Titanium	20	10000	ug/L	01–NOV–09
Uranium	20	15000	ug/L	01–NOV–09
Vanadium	20	10000	ug/L	01–NOV–09
Zinc	20	15000	ug/L	01–NOV–09

Raw Data

Method: Hg_ReAlign
Result: 012010

Sample ID: Hg_ReAlign

Hg 253.652

Rep: 1

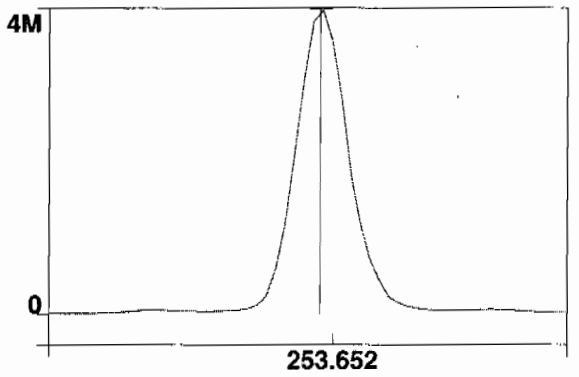

Intensity: 3982375.8 cps
Conc:

1

==========

Analysis Begun

Start Time: 1/8/2010 11:14:16 **Plasma On Time: 1/6/2010 20:35:26**
Logged In Analyst: optima **Technique: ICP Continuous**
Spectrometer Model: Optima 4300 DV, S/N 077N1030502Autosampler Model: AS-93plus

Sample Information File: C:\pe\optima1\Sample Information\010810.sif
Batch ID:
Results Data Set: 010810
Results Library: c:\pe\optima1\Results\Results.mdb

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Sequence No.: 1 **Autosampler Location: 8**
Sample ID: S0 **Date Collected: 1/8/2010 11:14:16**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: S0

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	59636.7	59636.7	0.000	%	11:14:51
1	Al 396.153Radial†	33.6	33.7	[0.00]	µg/L	11:14:51
1	Ca 317.933Radial†	210.4	210.9	[0.00]	µg/L	11:15:11
1	Fe 238.204 Radial†	8.4	8.4	[0.00]	µg/L	11:15:11
1	K 766.490 Radial†	489.9	491.1	[0.00]	µg/L	11:14:51
1	Mg 279.077 IEC†	7.8	7.8	[0.00]	µg/L	11:15:11
1	Na 589.592 Radial†	135.5	135.8	[0.00]	µg/L	11:14:51
1	Sr 421.552†	-50.1	-50.2	[0.00]	µg/L	11:14:51
1	Sc 361.383	1761056.9	1761056.9	0.0000	%	11:16:12
1	Y 371.029	1080002.4	1080002.4	0.0000	%	11:16:12
1	Ag 328.068†	-197.5	-197.3	[0.00]	µg/L	11:16:18
1	As 188.979†	-5.3	-5.3	[0.00]	µg/L	11:16:39
1	B 249.677†	374.7	374.2	[0.00]	µg/L	11:16:18
1	Ba 233.527†	-44.7	-44.6	[0.00]	µg/L	11:16:39
1	Be 313.107†	4050.9	4045.8	[0.00]	µg/L	11:16:12
1	Cd 226.502†	-129.2	-129.0	[0.00]	µg/L	11:16:39
1	Co 228.616†	13.0	13.0	[0.00]	µg/L	11:16:39
1	Cr 267.716†	-153.1	-152.9	[0.00]	µg/L	11:16:18
1	Cu 324.752†	5840.2	5832.9	[0.00]	µg/L	11:16:18
1	Mn 257.610†	-212.7	-212.4	[0.00]	µg/L	11:16:39
1	Mo 202.031†	24.2	24.2	[0.00]	µg/L	11:16:39
1	Ni 231.604†	322.4	322.0	[0.00]	µg/L	11:16:39
1	P 214.914†	257.1	256.7	[0.00]	µg/L	11:16:39
1	Pb 220.353†	79.6	79.5	[0.00]	µg/L	11:16:39
1	S 181.975 Axial†	30.5	30.5	[0.00]	µg/L	11:16:39
1	Sb 206.836†	22.0	22.0	[0.00]	µg/L	11:16:39
1	Se 196.026†	18.3	18.3	[0.00]	µg/L	11:16:39
1	SiO2†	3640.3	3635.7	[0.00]	µg/L	11:16:18
1	Si 251.611†	317.9	317.5	[0.00]	µg/L	11:16:39
1	Sn 189.927†	32.7	32.6	[0.00]	µg/L	11:16:39
1	Ti 334.940†	514.5	513.9	[0.00]	µg/L	11:16:18
1	Tl 190.801†	-30.0	-29.9	[0.00]	µg/L	11:16:39
1	U 409.014†	76.9	76.8	[0.00]	µg/L	11:16:18
1	V 292.402†	-325.8	-325.4	[0.00]	µg/L	11:16:18
1	Zn 213.857†	613.2	612.4	[0.00]	µg/L	11:16:39
2	Sc RADIAL	59934.9	59934.9	0.000	%	11:15:16
2	Al 396.153Radial†	30.4	30.3	[0.00]	µg/L	11:15:16
2	Ca 317.933Radial†	218.9	218.3	[0.00]	µg/L	11:15:37
2	Fe 238.204 Radial†	8.2	8.2	[0.00]	µg/L	11:15:37
2	K 766.490 Radial†	520.5	519.2	[0.00]	µg/L	11:15:16
2	Mg 279.077 IEC†	13.4	13.3	[0.00]	µg/L	11:15:37
2	Na 589.592 Radial†	160.7	160.3	[0.00]	µg/L	11:15:16
2	Sr 421.552†	-8.1	-8.1	[0.00]	µg/L	11:15:16
2	Sc 361.383	1746290.0	1746290.0	0.0000	%	11:16:44
2	Y 371.029	1069590.8	1069590.8	0.0000	%	11:16:44
2	Ag 328.068†	-230.8	-232.5	[0.00]	µg/L	11:16:50
2	As 188.979†	-2.5	-2.5	[0.00]	µg/L	11:17:10

2	B 249.677†	345.3	347.8	[0.00]	µg/L	11:16:50
2	Ba 233.527†	-39.5	-39.8	[0.00]	µg/L	11:17:10
2	Be 313.107†	3982.3	4010.9	[0.00]	µg/L	11:16:44
2	Cd 226.502†	-111.6	-112.4	[0.00]	µg/L	11:17:10
2	Co 228.616†	23.6	23.8	[0.00]	µg/L	11:17:10
2	Cr 267.716†	-95.3	-96.0	[0.00]	µg/L	11:16:50
2	Cu 324.752†	5881.5	5923.8	[0.00]	µg/L	11:16:50
2	Mn 257.610†	-199.3	-200.7	[0.00]	µg/L	11:17:10
2	Mo 202.031†	15.3	15.5	[0.00]	µg/L	11:17:10
2	Ni 231.604†	322.4	324.7	[0.00]	µg/L	11:17:10
2	P 214.914†	259.8	261.6	[0.00]	µg/L	11:17:10
2	Pb 220.353†	86.5	87.1	[0.00]	µg/L	11:17:10
2	S 181.975 Axial†	31.3	31.5	[0.00]	µg/L	11:17:10
2	Sb 206.836†	28.1	28.3	[0.00]	µg/L	11:17:10
2	Se 196.026†	13.9	14.0	[0.00]	µg/L	11:17:10
2	SiO2†	3651.5	3677.7	[0.00]	µg/L	11:16:50
2	Si 251.611†	342.1	344.6	[0.00]	µg/L	11:17:10
2	Sn 189.927†	28.9	29.1	[0.00]	µg/L	11:17:10
2	Ti 334.940†	551.5	555.4	[0.00]	µg/L	11:16:50
2	Tl 190.801†	-23.8	-24.0	[0.00]	µg/L	11:17:10
2	U 409.014†	160.2	161.3	[0.00]	µg/L	11:16:50
2	V 292.402†	-312.0	-314.2	[0.00]	µg/L	11:16:50
2	Zn 213.857†	612.4	616.8	[0.00]	µg/L	11:17:10
3	Sc RADIAL	59763.6	59763.6	0.000	%	11:15:42
3	Al 396.153Radial†	25.8	25.9	[0.00]	µg/L	11:15:42
3	Ca 317.933Radial†	208.3	208.3	[0.00]	µg/L	11:16:03
3	Fe 238.204 Radial†	8.9	8.9	[0.00]	µg/L	11:16:03
3	K 766.490 Radial†	491.0	491.1	[0.00]	µg/L	11:15:42
3	Mg 279.077 IEC†	12.5	12.5	[0.00]	µg/L	11:16:03
3	Na 589.592 Radial†	130.4	130.4	[0.00]	µg/L	11:15:42
3	Sr 421.552†	-26.7	-26.7	[0.00]	µg/L	11:15:42
3	Sc 361.383	1769208.7	1769208.7	0.0000	%	11:17:16
3	Y 371.029	1085705.9	1085705.9	0.0000	%	11:17:16
3	Ag 328.068†	-221.5	-220.2	[0.00]	µg/L	11:17:22
3	As 188.979†	-3.6	-3.5	[0.00]	µg/L	11:17:42
3	B 249.677†	349.5	347.4	[0.00]	µg/L	11:17:22
3	Ba 233.527†	-47.0	-46.8	[0.00]	µg/L	11:17:42
3	Be 313.107†	4008.4	3985.0	[0.00]	µg/L	11:17:16
3	Cd 226.502†	-132.8	-132.0	[0.00]	µg/L	11:17:42
3	Co 228.616†	11.0	11.0	[0.00]	µg/L	11:17:42
3	Cr 267.716†	-159.4	-158.5	[0.00]	µg/L	11:17:22
3	Cu 324.752†	5887.7	5853.2	[0.00]	µg/L	11:17:22
3	Mn 257.610†	-205.3	-204.1	[0.00]	µg/L	11:17:42
3	Mo 202.031†	19.1	19.0	[0.00]	µg/L	11:17:42
3	Ni 231.604†	326.8	324.9	[0.00]	µg/L	11:17:42
3	P 214.914†	251.0	249.6	[0.00]	µg/L	11:17:42
3	Pb 220.353†	84.1	83.6	[0.00]	µg/L	11:17:42
3	S 181.975 Axial†	33.2	33.0	[0.00]	µg/L	11:17:42
3	Sb 206.836†	22.4	22.2	[0.00]	µg/L	11:17:42
3	Se 196.026†	10.1	10.1	[0.00]	µg/L	11:17:42
3	SiO2†	3661.4	3640.0	[0.00]	µg/L	11:17:22
3	Si 251.611†	334.1	332.1	[0.00]	µg/L	11:17:42
3	Sn 189.927†	26.3	26.1	[0.00]	µg/L	11:17:42
3	Ti 334.940†	575.2	571.9	[0.00]	µg/L	11:17:22
3	Tl 190.801†	-27.7	-27.5	[0.00]	µg/L	11:17:42
3	U 409.014†	85.2	84.7	[0.00]	µg/L	11:17:22
3	V 292.402†	-328.9	-327.0	[0.00]	µg/L	11:17:22
3	Zn 213.857†	615.9	612.3	[0.00]	µg/L	11:17:42

Mean Data: S0

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1758851.9	11617.39	0.66%	0.0000	%
Sc RADIAL	59778.4	149.66	0.25%	0.000	%
Y 371.029	1078433.0	8171.36	0.76%	0.0000	%
Ag 328.068†	-216.6	17.88	8.25%	[0.00]	µg/L
Al 396.153Radial†	30.0	3.94	13.14%	[0.00]	µg/L
As 188.979†	-3.8	1.41	37.34%	[0.00]	µg/L
B 249.677†	356.5	15.37	4.31%	[0.00]	µg/L
Ba 233.527†	-43.7	3.57	8.16%	[0.00]	µg/L

Be 313.107†	4013.9	30.54	0.76%	[0.00]	µg/L
Ca 317.933Radial†	212.5	5.20	2.45%	[0.00]	µg/L
Cd 226.502†	-124.5	10.54	8.47%	[0.00]	µg/L
Co 228.616†	15.9	6.91	43.44%	[0.00]	µg/L
Cr 267.716†	-135.8	34.60	25.48%	[0.00]	µg/L
Cu 324.752†	5870.0	47.69	0.81%	[0.00]	µg/L
Fe 238.204 Radial†	8.5	0.37	4.34%	[0.00]	µg/L
K 766.490 Radial†	500.5	16.22	3.24%	[0.00]	µg/L
Mg 279.077 IEC†	11.2	2.99	26.67%	[0.00]	µg/L
Mn 257.610†	-205.7	6.04	2.93%	[0.00]	µg/L
Mo 202.031†	19.5	4.39	22.44%	[0.00]	µg/L
Na 589.592 Radial†	142.2	15.89	11.18%	[0.00]	µg/L
Ni 231.604†	323.8	1.63	0.50%	[0.00]	µg/L
P 214.914†	256.0	6.08	2.38%	[0.00]	µg/L
Pb 220.353†	83.4	3.82	4.58%	[0.00]	µg/L
S 181.975 Axial†	31.6	1.27	4.02%	[0.00]	µg/L
Sb 206.836†	24.2	3.59	14.83%	[0.00]	µg/L
Se 196.026†	14.1	4.10	29.04%	[0.00]	µg/L
SiO2†	3651.2	23.11	0.63%	[0.00]	µg/L
Si 251.611†	331.4	13.55	4.09%	[0.00]	µg/L
Sn 189.927†	29.3	3.26	11.15%	[0.00]	µg/L
Sr 421.552†	-28.3	21.11	74.49%	[0.00]	µg/L
Ti 334.940†	547.1	29.89	5.46%	[0.00]	µg/L
Tl 190.801†	-27.2	2.98	10.98%	[0.00]	µg/L
U 409.014†	107.6	46.70	43.40%	[0.00]	µg/L
V 292.402†	-322.2	6.94	2.15%	[0.00]	µg/L
Zn 213.857†	613.8	2.59	0.42%	[0.00]	µg/L

Sequence No.: 2
Sample ID: S0.1
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 2
Date Collected: 1/8/2010 11:17:51
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	61053.7	61053.7	102	%	11:18:26
1	K 766.490 Radial†	1993.9	1451.8	[1000]	µg/L	11:18:26
1	Sr 421.552†	9230.8	9066.4	[100]	µg/L	11:18:26
1	Sc 361.383	1785361.0	1785361.0	101.51	%	11:18:47
1	Y 371.029	1094934.9	1094934.9	101.53	%	11:18:47
1	Ag 328.068†	10844.8	10900.4	[100]	µg/L	11:18:52
1	As 188.979†	55.2	58.1	[100]	µg/L	11:19:13
1	B 249.677†	2975.3	2574.6	[100]	µg/L	11:18:52
1	Ba 233.527†	3584.3	3574.8	[100]	µg/L	11:18:52
1	Be 313.107†	160907.1	154504.0	[100]	µg/L	11:18:47
1	Cd 226.502†	3564.2	3635.7	[100]	µg/L	11:18:52
1	Co 228.616†	1993.5	1948.0	[100]	µg/L	11:19:13
1	Cr 267.716†	4327.4	4399.0	[100]	µg/L	11:18:52
1	Cu 324.752†	19981.8	13815.2	[100]	µg/L	11:18:52
1	Mn 257.610†	29070.5	28844.6	[100]	µg/L	11:18:52
1	Mo 202.031†	875.7	843.1	[100]	µg/L	11:19:13
1	Ni 231.604†	2105.9	1750.8	[100]	µg/L	11:18:52
1	P 214.914†	574.5	310.0	[500]	µg/L	11:19:13
1	Pb 220.353†	455.4	365.2	[100]	µg/L	11:19:13
1	S 181.975 Axial†	91.8	58.8	[200]	µg/L	11:19:13
1	Sb 206.836†	141.4	115.2	[100]	µg/L	11:19:13
1	Se 196.026†	115.4	99.6	[100]	µg/L	11:19:13
1	SiO2†	10054.3	6253.9	[1069.5]	µg/L	11:18:52
1	Si 251.611†	7959.6	7510.0	[500]	µg/L	11:18:52
1	Sn 189.927†	223.0	190.5	[100]	µg/L	11:19:13
1	Ti 334.940†	41662.1	40496.4	[100]	µg/L	11:18:52
1	Tl 190.801†	32.6	59.3	[100]	µg/L	11:19:13
1	U 409.014†	1082.9	959.2	[100]	µg/L	11:18:52
1	V 292.402†	7983.1	8186.8	[100]	µg/L	11:18:52
1	Zn 213.857†	4643.1	3960.4	[100]	µg/L	11:18:52
2	Sc RADIAL	60248.4	60248.4	101	%	11:18:31
2	K 766.490 Radial†	2004.0	1487.9	[1000]	µg/L	11:18:31
2	Sr 421.552†	9164.3	9121.2	[100]	µg/L	11:18:31
2	Sc 361.383	1776114.8	1776114.8	100.98	%	11:19:19
2	Y 371.029	1088557.3	1088557.3	100.94	%	11:19:19
2	Ag 328.068†	10760.8	10872.8	[100]	µg/L	11:19:24
2	As 188.979†	55.2	58.4	[100]	µg/L	11:19:45
2	B 249.677†	2964.0	2578.7	[100]	µg/L	11:19:24
2	Ba 233.527†	3561.0	3570.1	[100]	µg/L	11:19:24
2	Be 313.107†	160528.4	154954.2	[100]	µg/L	11:19:19
2	Cd 226.502†	3503.9	3594.3	[100]	µg/L	11:19:24
2	Co 228.616†	2001.5	1966.1	[100]	µg/L	11:19:45
2	Cr 267.716†	4297.1	4391.1	[100]	µg/L	11:19:24
2	Cu 324.752†	19940.6	13876.8	[100]	µg/L	11:19:24
2	Mn 257.610†	28870.7	28795.9	[100]	µg/L	11:19:24
2	Mo 202.031†	880.5	852.4	[100]	µg/L	11:19:45
2	Ni 231.604†	2114.8	1770.4	[100]	µg/L	11:19:24
2	P 214.914†	586.4	324.8	[500]	µg/L	11:19:45
2	Pb 220.353†	435.5	347.8	[100]	µg/L	11:19:45
2	S 181.975 Axial†	91.2	58.6	[200]	µg/L	11:19:45
2	Sb 206.836†	139.0	113.4	[100]	µg/L	11:19:45
2	Se 196.026†	117.4	102.1	[100]	µg/L	11:19:45
2	SiO2†	10006.4	6258.0	[1069.5]	µg/L	11:19:24
2	Si 251.611†	7911.2	7502.9	[500]	µg/L	11:19:24
2	Sn 189.927†	226.4	194.9	[100]	µg/L	11:19:45
2	Ti 334.940†	41305.9	40357.4	[100]	µg/L	11:19:24
2	Tl 190.801†	33.8	60.6	[100]	µg/L	11:19:45
2	U 409.014†	1038.4	920.7	[100]	µg/L	11:19:24
2	V 292.402†	7919.1	8164.3	[100]	µg/L	11:19:24

2	Zn 213.857†	4598.2	3939.7	[100]	µg/L	11:19:24
3	Sc RADIAL	60994.9	60994.9	102	%	11:18:37
3	K 766.490 Radial†	2053.4	1512.0	[1000]	µg/L	11:18:37
3	Sr 421.552†	9293.9	9136.9	[100]	µg/L	11:18:37
3	Sc 361.383	1779481.4	1779481.4	101.17	%	11:19:51
3	Y 371.029	1090515.3	1090515.3	101.12	%	11:19:51
3	Ag 328.068†	10858.4	10949.2	[100]	µg/L	11:19:56
3	As 188.979†	56.7	59.8	[100]	µg/L	11:20:17
3	B 249.677†	2981.7	2590.6	[100]	µg/L	11:19:56
3	Ba 233.527†	3625.7	3627.4	[100]	µg/L	11:19:56
3	Be 313.107†	161670.8	155782.7	[100]	µg/L	11:19:51
3	Cd 226.502†	3544.3	3627.7	[100]	µg/L	11:19:56
3	Co 228.616†	1989.1	1950.1	[100]	µg/L	11:20:17
3	Cr 267.716†	4373.4	4458.4	[100]	µg/L	11:19:56
3	Cu 324.752†	20040.5	13938.1	[100]	µg/L	11:19:56
3	Mn 257.610†	29200.7	29067.9	[100]	µg/L	11:19:56
3	Mo 202.031†	876.5	846.7	[100]	µg/L	11:20:17
3	Ni 231.604†	2150.6	1801.9	[100]	µg/L	11:19:56
3	P 214.914†	577.1	314.4	[500]	µg/L	11:20:17
3	Pb 220.353†	444.6	356.1	[100]	µg/L	11:20:17
3	S 181.975 Axial†	85.1	52.5	[200]	µg/L	11:20:17
3	Sb 206.836†	141.9	116.1	[100]	µg/L	11:20:17
3	Se 196.026†	106.7	91.3	[100]	µg/L	11:20:17
3	SiO2†	10087.7	6319.6	[1069.5]	µg/L	11:19:56
3	Si 251.611†	7999.9	7575.8	[500]	µg/L	11:19:56
3	Sn 189.927†	228.9	196.9	[100]	µg/L	11:20:17
3	Ti 334.940†	41771.1	40739.8	[100]	µg/L	11:19:56
3	Tl 190.801†	34.4	61.2	[100]	µg/L	11:20:17
3	U 409.014†	1211.5	1089.8	[100]	µg/L	11:19:56
3	V 292.402†	7988.5	8218.1	[100]	µg/L	11:19:56
3	Zn 213.857†	4688.6	4020.4	[100]	µg/L	11:19:56

Mean Data: S0.1

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1780319.1	4679.67	0.26%	101.22	%
Sc RADIAL	60765.7	448.91	0.74%	102	%
Y 371.029	1091335.8	3267.04	0.30%	101.20	%
Ag 328.068†	10907.5	38.67	0.35%	[100]	µg/L
As 188.979†	58.8	0.88	1.49%	[100]	µg/L
B 249.677†	2581.3	8.31	0.32%	[100]	µg/L
Ba 233.527†	3590.8	31.79	0.89%	[100]	µg/L
Be 313.107†	155080.3	648.59	0.42%	[100]	µg/L
Cd 226.502†	3619.2	21.97	0.61%	[100]	µg/L
Co 228.616†	1954.8	9.90	0.51%	[100]	µg/L
Cr 267.716†	4416.2	36.81	0.83%	[100]	µg/L
Cu 324.752†	13876.7	61.49	0.44%	[100]	µg/L
K 766.490 Radial†	1483.9	30.31	2.04%	[1000]	µg/L
Mn 257.610†	28902.8	145.05	0.50%	[100]	µg/L
Mo 202.031†	847.4	4.67	0.55%	[100]	µg/L
Ni 231.604†	1774.3	25.78	1.45%	[100]	µg/L
P 214.914†	316.4	7.58	2.40%	[500]	µg/L
Pb 220.353†	356.4	8.67	2.43%	[100]	µg/L
S 181.975 Axial†	56.6	3.58	6.32%	[200]	µg/L
Sb 206.836†	114.9	1.36	1.18%	[100]	µg/L
Se 196.026†	97.7	5.64	5.77%	[100]	µg/L
SiO2†	6277.1	36.81	0.59%	[1069.5]	µg/L
Si 251.611†	7529.5	40.19	0.53%	[500]	µg/L
Sn 189.927†	194.1	3.32	1.71%	[100]	µg/L
Sr 421.552†	9108.1	37.02	0.41%	[100]	µg/L
Ti 334.940†	40531.2	193.57	0.48%	[100]	µg/L
Tl 190.801†	60.4	0.99	1.63%	[100]	µg/L
U 409.014†	989.9	88.66	8.96%	[100]	µg/L
V 292.402†	8189.7	27.00	0.33%	[100]	µg/L
Zn 213.857†	3973.5	41.93	1.06%	[100]	µg/L

Sequence No.: 3
Sample ID: S0.5
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 3
Date Collected: 1/8/2010 11:20:25
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	60385.6	60385.6	101	%	11:20:58
1	Al 396.153Radial†	7114.9	7013.4	[5000]	µg/L	11:20:58
1	Ca 317.933Radial†	6047.2	5773.9	[5000]	µg/L	11:21:18
1	K 766.490 Radial†	8009.5	7428.5	[5000]	µg/L	11:20:58
1	Mg 279.077 IEC†	535.2	518.6	[5000]	µg/L	11:21:18
1	Sr 421.552†	44960.4	44536.7	[500]	µg/L	11:20:58
1	Sc 361.383	1769056.4	1769056.4	100.58	%	11:22:21
1	Y 371.029	1081110.3	1081110.3	100.25	%	11:22:21
1	Ag 328.068†	53320.0	53229.1	[500]	µg/L	11:22:27
1	As 188.979†	293.8	295.8	[500]	µg/L	11:22:47
1	B 249.677†	13219.6	12786.9	[500]	µg/L	11:22:27
1	Ba 233.527†	17541.8	17484.3	[500]	µg/L	11:22:27
1	Be 313.107†	767759.8	759317.3	[500]	µg/L	11:22:21
1	Cd 226.502†	17596.6	17619.6	[500]	µg/L	11:22:27
1	Co 228.616†	9784.3	9712.0	[500]	µg/L	11:22:27
1	Cr 267.716†	21463.8	21475.8	[500]	µg/L	11:22:27
1	Cu 324.752†	75145.4	68841.9	[500]	µg/L	11:22:27
1	Mn 257.610†	142455.5	141839.6	[500]	µg/L	11:22:21
1	Mo 202.031†	4107.1	4063.9	[500]	µg/L	11:22:47
1	Ni 231.604†	8924.0	8548.7	[500]	µg/L	11:22:27
1	P 214.914†	1840.1	1573.5	[2500]	µg/L	11:22:47
1	Pb 220.353†	1899.8	1805.4	[500]	µg/L	11:22:47
1	S 181.975 Axial†	310.5	277.1	[1000]	µg/L	11:22:47
1	Sb 206.836†	580.4	552.9	[500]	µg/L	11:22:47
1	Se 196.026†	513.5	496.4	[500]	µg/L	11:22:47
1	SiO2†	34881.8	31029.5	[5347.5]	µg/L	11:22:27
1	Si 251.611†	37298.3	36751.8	[2500]	µg/L	11:22:27
1	Sn 189.927†	992.1	957.1	[500]	µg/L	11:22:47
1	Ti 334.940†	201785.1	200074.1	[500]	µg/L	11:22:21
1	Tl 190.801†	283.8	309.3	[500]	µg/L	11:22:47
1	U 409.014†	4932.3	4796.2	[500]	µg/L	11:22:27
1	V 292.402†	39870.0	39962.2	[500]	µg/L	11:22:27
1	Zn 213.857†	20147.2	19417.1	[500]	µg/L	11:22:27
2	Sc RADIAL	59821.9	59821.9	100	%	11:21:24
2	Al 396.153Radial†	7094.0	7058.9	[5000]	µg/L	11:21:24
2	Ca 317.933Radial†	6002.2	5785.3	[5000]	µg/L	11:21:44
2	K 766.490 Radial†	8032.7	7526.4	[5000]	µg/L	11:21:24
2	Mg 279.077 IEC†	534.7	523.2	[5000]	µg/L	11:21:44
2	Sr 421.552†	44884.9	44880.6	[500]	µg/L	11:21:24
2	Sc 361.383	1772520.8	1772520.8	100.78	%	11:22:53
2	Y 371.029	1083521.4	1083521.4	100.47	%	11:22:53
2	Ag 328.068†	53331.6	53137.0	[500]	µg/L	11:22:59
2	As 188.979†	297.7	299.2	[500]	µg/L	11:23:19
2	B 249.677†	13255.4	12796.7	[500]	µg/L	11:22:59
2	Ba 233.527†	17503.7	17412.5	[500]	µg/L	11:22:59
2	Be 313.107†	768321.8	758383.0	[500]	µg/L	11:22:53
2	Cd 226.502†	17597.4	17586.2	[500]	µg/L	11:22:59
2	Co 228.616†	9760.9	9669.7	[500]	µg/L	11:22:59
2	Cr 267.716†	21466.6	21436.8	[500]	µg/L	11:22:59
2	Cu 324.752†	75094.4	68645.3	[500]	µg/L	11:22:59
2	Mn 257.610†	142739.6	141844.6	[500]	µg/L	11:22:53
2	Mo 202.031†	4115.3	4064.0	[500]	µg/L	11:23:19
2	Ni 231.604†	8895.0	8502.6	[500]	µg/L	11:22:59
2	P 214.914†	1831.3	1561.2	[2500]	µg/L	11:23:19
2	Pb 220.353†	1899.0	1801.0	[500]	µg/L	11:23:19
2	S 181.975 Axial†	304.7	270.7	[1000]	µg/L	11:23:19
2	Sb 206.836†	575.7	547.1	[500]	µg/L	11:23:19
2	Se 196.026†	512.5	494.4	[500]	µg/L	11:23:19
2	SiO2†	34823.1	30903.4	[5347.5]	µg/L	11:22:59

2	Si 251.611†	37311.2	36692.1	[2500]	µg/L	11:22:59
2	Sn 189.927†	995.1	958.2	[500]	µg/L	11:23:19
2	Ti 334.940†	202118.7	200013.0	[500]	µg/L	11:22:53
2	Tl 190.801†	278.3	303.3	[500]	µg/L	11:23:19
2	U 409.014†	4923.2	4777.6	[500]	µg/L	11:22:59
2	V 292.402†	39868.7	39883.4	[500]	µg/L	11:22:59
2	Zn 213.857†	20157.9	19388.6	[500]	µg/L	11:22:59
3	Sc RADIAL	60375.2	60375.2	101	%	11:21:50
3	Al 396.153Radial†	7179.0	7078.1	[5000]	µg/L	11:21:50
3	Ca 317.933Radial†	6070.6	5798.1	[5000]	µg/L	11:22:10
3	K 766.490 Radial†	8094.0	7513.5	[5000]	µg/L	11:21:50
3	Mg 279.077 IEC†	545.7	529.1	[5000]	µg/L	11:22:10
3	Sr 421.552†	45242.7	44823.8	[500]	µg/L	11:21:50
3	Sc 361.383	1775448.3	1775448.3	100.94	%	11:23:25
3	Y 371.029	1085932.3	1085932.3	100.70	%	11:23:25
3	Ag 328.068†	52484.6	52210.7	[500]	µg/L	11:23:31
3	As 188.979†	261.3	262.6	[500]	µg/L	11:23:51
3	B 249.677†	13025.4	12547.2	[500]	µg/L	11:23:31
3	Ba 233.527†	17037.1	16921.6	[500]	µg/L	11:23:31
3	Be 313.107†	756399.1	745314.5	[500]	µg/L	11:23:25
3	Cd 226.502†	17029.6	16994.8	[500]	µg/L	11:23:31
3	Co 228.616†	9428.4	9324.4	[500]	µg/L	11:23:31
3	Cr 267.716†	20562.5	20506.1	[500]	µg/L	11:23:31
3	Cu 324.752†	73000.2	66447.8	[500]	µg/L	11:23:31
3	Mn 257.610†	140315.0	139209.1	[500]	µg/L	11:23:25
3	Mo 202.031†	3663.7	3609.9	[500]	µg/L	11:23:51
3	Ni 231.604†	8584.9	8180.8	[500]	µg/L	11:23:31
3	P 214.914†	1671.1	1399.5	[2500]	µg/L	11:23:51
3	Pb 220.353†	1741.5	1641.8	[500]	µg/L	11:23:51
3	S 181.975 Axial†	285.4	251.1	[1000]	µg/L	11:23:51
3	Sb 206.836†	520.7	491.7	[500]	µg/L	11:23:51
3	Se 196.026†	472.8	454.3	[500]	µg/L	11:23:51
3	SiO2†	34139.8	30169.5	[5347.5]	µg/L	11:23:31
3	Si 251.611†	36435.9	35763.9	[2500]	µg/L	11:23:31
3	Sn 189.927†	871.7	834.3	[500]	µg/L	11:23:51
3	Ti 334.940†	198584.5	196181.1	[500]	µg/L	11:23:25
3	Tl 190.801†	264.1	288.8	[500]	µg/L	11:23:51
3	U 409.014†	4623.5	4472.7	[500]	µg/L	11:23:31
3	V 292.402†	38400.9	38364.1	[500]	µg/L	11:23:31
3	Zn 213.857†	19493.2	18697.2	[500]	µg/L	11:23:31

Mean Data: S0.5

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1772341.8	3199.72	0.18%	100.77	%
Sc RADIAL	60194.2	322.51	0.54%	101	%
Y 371.029	1083521.3	2410.96	0.22%	100.47	%
Ag 328.068†	52858.9	563.29	1.07%	[500]	µg/L
Al 396.153Radial†	7050.1	33.20	0.47%	[5000]	µg/L
As 188.979†	285.9	20.20	7.06%	[500]	µg/L
B 249.677†	12710.2	141.33	1.11%	[500]	µg/L
Ba 233.527†	17272.8	306.28	1.77%	[500]	µg/L
Be 313.107†	754338.3	7828.72	1.04%	[500]	µg/L
Ca 317.933Radial†	5785.7	12.10	0.21%	[5000]	µg/L
Cd 226.502†	17400.2	351.44	2.02%	[500]	µg/L
Co 228.616†	9568.7	212.62	2.22%	[500]	µg/L
Cr 267.716†	21139.6	548.94	2.60%	[500]	µg/L
Cu 324.752†	67978.3	1329.11	1.96%	[500]	µg/L
K 766.490 Radial†	7489.5	53.19	0.71%	[5000]	µg/L
Mg 279.077 IEC†	523.6	5.25	1.00%	[5000]	µg/L
Mn 257.610†	140964.4	1520.17	1.08%	[500]	µg/L
Mo 202.031†	3912.6	262.13	6.70%	[500]	µg/L
Ni 231.604†	8410.7	200.44	2.38%	[500]	µg/L
P 214.914†	1511.4	97.09	6.42%	[2500]	µg/L
Pb 220.353†	1749.4	93.21	5.33%	[500]	µg/L
S 181.975 Axial†	266.3	13.55	5.09%	[1000]	µg/L
Sb 206.836†	530.6	33.78	6.37%	[500]	µg/L
Se 196.026†	481.7	23.78	4.94%	[500]	µg/L
SiO2†	30700.8	464.41	1.51%	[5347.5]	µg/L
Si 251.611†	36402.6	553.93	1.52%	[2500]	µg/L

Sn 189.927†	916.5	71.22	7.77%	[500] µg/L
Sr 421.552†	44747.0	184.36	0.41%	[500] µg/L
Ti 334.940†	198756.1	2230.17	1.12%	[500] µg/L
Tl 190.801†	300.5	10.53	3.51%	[500] µg/L
U 409.014†	4682.2	181.66	3.88%	[500] µg/L
V 292.402†	39403.2	900.79	2.29%	[500] µg/L
Zn 213.857†	19167.6	407.67	2.13%	[500] µg/L

Sequence No.: 4
Sample ID: SCAL
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 4
Date Collected: 1/8/2010 11:24:00
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: SCAL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	61017.4	61017.4	102	%	11:24:33
1	Al 396.153Radial†	14953.2	14619.6	[10000]	µg/L	11:24:33
1	Ca 317.933Radial†	12410.7	11946.2	[10000]	µg/L	11:24:54
1	Fe 238.204 Radial†	825.4	800.1	[10000]	µg/L	11:24:54
1	K 766.490 Radial†	16146.3	15317.9	[10000]	µg/L	11:24:33
1	Mg 279.077 IEC†	1114.8	1080.9	[10000]	µg/L	11:24:54
1	Na 589.592 Radial†	27126.1	26433.1	[10000]	µg/L	11:24:33
1	Sr 421.552†	94045.7	92164.4	[1000]	µg/L	11:24:33
1	Sc 361.383	1792443.9	1792443.9	101.91	%	11:25:57
1	Y 371.029	1096105.8	1096105.8	101.64	%	11:25:57
1	Ag 328.068†	113710.1	111795.7	[1000]	µg/L	11:26:03
1	As 188.979†	618.0	610.2	[1000]	µg/L	11:26:24
1	B 249.677†	27352.9	26483.9	[1000]	µg/L	11:26:03
1	Ba 233.527†	36731.0	36086.4	[1000]	µg/L	11:26:03
1	Be 313.107†	1601636.8	1567606.8	[1000]	µg/L	11:25:57
1	Cd 226.502†	36517.3	35957.4	[1000]	µg/L	11:26:03
1	Co 228.616†	20388.7	19990.7	[1000]	µg/L	11:26:03
1	Cr 267.716†	45143.8	44433.6	[1000]	µg/L	11:26:03
1	Cu 324.752†	153033.2	144295.2	[1000]	µg/L	11:26:03
1	Mn 257.610†	295039.5	289716.0	[1000]	µg/L	11:26:03
1	Mo 202.031†	8711.6	8528.8	[1000]	µg/L	11:26:24
1	Ni 231.604†	18169.5	17505.2	[1000]	µg/L	11:26:03
1	P 214.914†	3553.1	3230.6	[5000]	µg/L	11:26:24
1	Pb 220.353†	3927.3	3770.3	[1000]	µg/L	11:26:24
1	S 181.975 Axial†	608.1	565.0	[2000]	µg/L	11:26:24
1	Sb 206.836†	1224.7	1177.5	[1000]	µg/L	11:26:24
1	Se 196.026†	1028.9	995.4	[1000]	µg/L	11:26:24
1	SiO2†	68830.6	63889.5	[10695]	µg/L	11:26:03
1	Si 251.611†	77456.4	75673.4	[5000]	µg/L	11:26:03
1	Sn 189.927†	2087.1	2018.7	[1000]	µg/L	11:26:24
1	Ti 334.940†	428320.3	419746.1	[1000]	µg/L	11:25:57
1	Tl 190.801†	624.7	640.1	[1000]	µg/L	11:26:24
1	U 409.014†	10180.5	9882.2	[1000]	µg/L	11:26:03
1	V 292.402†	84154.9	82899.9	[1000]	µg/L	11:26:03
1	Zn 213.857†	40867.8	39488.1	[1000]	µg/L	11:26:03
2	Sc RADIAL	60724.9	60724.9	102	%	11:24:59
2	Al 396.153Radial†	14973.3	14709.9	[10000]	µg/L	11:24:59
2	Ca 317.933Radial†	12421.9	12015.7	[10000]	µg/L	11:25:20
2	Fe 238.204 Radial†	823.4	802.1	[10000]	µg/L	11:25:20
2	K 766.490 Radial†	16230.2	15476.8	[10000]	µg/L	11:24:59
2	Mg 279.077 IEC†	1102.8	1074.4	[10000]	µg/L	11:25:20
2	Na 589.592 Radial†	27290.7	26723.1	[10000]	µg/L	11:24:59
2	Sr 421.552†	94368.8	92926.1	[1000]	µg/L	11:24:59
2	Sc 361.383	1788672.2	1788672.2	101.70	%	11:26:31
2	Y 371.029	1092155.7	1092155.7	101.27	%	11:26:31
2	Ag 328.068†	114500.9	112808.6	[1000]	µg/L	11:26:37
2	As 188.979†	617.7	611.2	[1000]	µg/L	11:26:57
2	B 249.677†	27575.9	26759.7	[1000]	µg/L	11:26:37
2	Ba 233.527†	36940.3	36368.2	[1000]	µg/L	11:26:37
2	Be 313.107†	1600338.1	1569643.8	[1000]	µg/L	11:26:31
2	Cd 226.502†	36888.5	36397.9	[1000]	µg/L	11:26:37
2	Co 228.616†	20452.4	20095.5	[1000]	µg/L	11:26:37
2	Cr 267.716†	45458.2	44836.1	[1000]	µg/L	11:26:37
2	Cu 324.752†	154018.5	145580.8	[1000]	µg/L	11:26:37
2	Mn 257.610†	297326.8	292575.6	[1000]	µg/L	11:26:37
2	Mo 202.031†	8689.4	8525.0	[1000]	µg/L	11:26:57
2	Ni 231.604†	18278.6	17650.0	[1000]	µg/L	11:26:37
2	P 214.914†	3544.6	3229.5	[5000]	µg/L	11:26:57
2	Pb 220.353†	3918.8	3770.0	[1000]	µg/L	11:26:57

2	S 181.975 Axial†	607.4	565.6	[2000]	µg/L	11:26:57
2	Sb 206.836†	1210.8	1166.4	[1000]	µg/L	11:26:57
2	Se 196.026†	1008.2	977.3	[1000]	µg/L	11:26:57
2	SiO2†	69462.6	64653.4	[10695]	µg/L	11:26:37
2	Si 251.611†	78173.6	76538.9	[5000]	µg/L	11:26:37
2	Sn 189.927†	2078.0	2014.1	[1000]	µg/L	11:26:57
2	Ti 334.940†	428272.3	420585.1	[1000]	µg/L	11:26:31
2	Tl 190.801†	619.9	636.8	[1000]	µg/L	11:26:57
2	U 409.014†	10162.6	9885.5	[1000]	µg/L	11:26:37
2	V 292.402†	84788.5	83697.1	[1000]	µg/L	11:26:37
2	Zn 213.857†	41091.8	39792.9	[1000]	µg/L	11:26:37
3	Sc RADIAL	60638.9	60638.9	101	%	11:25:25
3	Al 396.153Radial†	15073.8	14829.9	[10000]	µg/L	11:25:25
3	Ca 317.933Radial†	12434.6	12045.6	[10000]	µg/L	11:25:46
3	Fe 238.204 Radial†	823.0	802.8	[10000]	µg/L	11:25:46
3	K 766.490 Radial†	16188.0	15457.8	[10000]	µg/L	11:25:25
3	Mg 279.077 IEC†	1107.2	1080.3	[10000]	µg/L	11:25:46
3	Na 589.592 Radial†	27344.2	26814.0	[10000]	µg/L	11:25:25
3	Sr 421.552†	94682.3	93366.9	[1000]	µg/L	11:25:25
3	Sc 361.383	1788043.5	1788043.5	101.66	%	11:27:04
3	Y 371.029	1092245.8	1092245.8	101.28	%	11:27:04
3	Ag 328.068†	110931.6	109337.2	[1000]	µg/L	11:27:10
3	As 188.979†	556.7	551.4	[1000]	µg/L	11:27:30
3	B 249.677†	26625.0	25833.8	[1000]	µg/L	11:27:10
3	Ba 233.527†	35165.3	34634.9	[1000]	µg/L	11:27:10
3	Be 313.107†	1559825.0	1530345.4	[1000]	µg/L	11:27:04
3	Cd 226.502†	34946.3	34500.2	[1000]	µg/L	11:27:10
3	Co 228.616†	19384.4	19052.0	[1000]	µg/L	11:27:10
3	Cr 267.716†	42472.0	41914.3	[1000]	µg/L	11:27:10
3	Cu 324.752†	146416.8	138156.4	[1000]	µg/L	11:27:10
3	Mn 257.610†	280878.1	276498.2	[1000]	µg/L	11:27:10
3	Mo 202.031†	7853.0	7705.2	[1000]	µg/L	11:27:30
3	Ni 231.604†	17248.5	16643.1	[1000]	µg/L	11:27:10
3	P 214.914†	3253.7	2944.6	[5000]	µg/L	11:27:30
3	Pb 220.353†	3611.1	3468.7	[1000]	µg/L	11:27:30
3	S 181.975 Axial†	570.1	529.1	[2000]	µg/L	11:27:30
3	Sb 206.836†	1104.3	1062.1	[1000]	µg/L	11:27:30
3	Se 196.026†	943.9	914.4	[1000]	µg/L	11:27:30
3	SiO2†	66627.1	61888.2	[10695]	µg/L	11:27:10
3	Si 251.611†	74855.6	73302.1	[5000]	µg/L	11:27:10
3	Sn 189.927†	1859.6	1799.9	[1000]	µg/L	11:27:30
3	Ti 334.940†	416761.9	409410.8	[1000]	µg/L	11:27:04
3	Tl 190.801†	574.4	592.2	[1000]	µg/L	11:27:30
3	U 409.014†	9552.3	9288.7	[1000]	µg/L	11:27:10
3	V 292.402†	79717.5	78738.2	[1000]	µg/L	11:27:10
3	Zn 213.857†	38949.0	37699.3	[1000]	µg/L	11:27:10

Mean Data: SCAL

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1789719.9	2379.92	0.13%	101.76	%
Sc RADIAL	60793.8	198.40	0.33%	102	%
Y 371.029	1093502.5	2255.04	0.21%	101.40	%
Ag 328.068†	111313.8	1785.18	1.60%	[1000]	µg/L
Al 396.153Radial†	14719.8	105.50	0.72%	[10000]	µg/L
As 188.979†	590.9	34.25	5.80%	[1000]	µg/L
B 249.677†	26359.1	475.36	1.80%	[1000]	µg/L
Ba 233.527†	35696.5	930.08	2.61%	[1000]	µg/L
Be 313.107†	1555865.3	22124.36	1.42%	[1000]	µg/L
Ca 317.933Radial†	12002.5	50.99	0.42%	[10000]	µg/L
Cd 226.502†	35618.5	993.21	2.79%	[1000]	µg/L
Co 228.616†	19712.7	574.59	2.91%	[1000]	µg/L
Cr 267.716†	43728.0	1583.52	3.62%	[1000]	µg/L
Cu 324.752†	142677.5	3967.75	2.78%	[1000]	µg/L
Fe 238.204 Radial†	801.7	1.40	0.17%	[10000]	µg/L
K 766.490 Radial†	15417.5	86.76	0.56%	[10000]	µg/L
Mg 279.077 IEC†	1078.5	3.58	0.33%	[10000]	µg/L
Mn 257.610†	286263.3	8576.79	3.00%	[1000]	µg/L
Mo 202.031†	8253.0	474.38	5.75%	[1000]	µg/L
Na 589.592 Radial†	26656.7	198.93	0.75%	[10000]	µg/L

Ni 231.604†	17266.1	544.37	3.15%	[1000]	µg/L
P 214.914†	3134.9	164.81	5.26%	[5000]	µg/L
Pb 220.353†	3669.7	174.03	4.74%	[1000]	µg/L
S 181.975 Axial†	553.3	20.90	3.78%	[2000]	µg/L
Sb 206.836†	1135.4	63.68	5.61%	[1000]	µg/L
Se 196.026†	962.4	42.53	4.42%	[1000]	µg/L
SiO2†	63477.0	1427.99	2.25%	[10695]	µg/L
Si 251.611†	75171.5	1675.73	2.23%	[5000]	µg/L
Sn 189.927†	1944.2	124.99	6.43%	[1000]	µg/L
Sr 421.552†	92819.1	608.38	0.66%	[1000]	µg/L
Ti 334.940†	416580.7	6223.46	1.49%	[1000]	µg/L
Tl 190.801†	623.0	26.76	4.30%	[1000]	µg/L
U 409.014†	9685.5	343.59	3.55%	[1000]	µg/L
V 292.402†	81778.4	2662.91	3.26%	[1000]	µg/L
Zn 213.857†	38993.4	1131.06	2.90%	[1000]	µg/L

Sequence No.: 5
Sample ID: S10
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 5
Date Collected: 1/8/2010 11:27:40
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S10

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	59755.3	59755.3	100.0	%	11:28:13
1	Al 396.153Radial†	69154.2	69151.0	[50000]	µg/L	11:28:13
1	Ca 317.933Radial†	57022.4	56832.0	[50000]	µg/L	11:28:13
1	Fe 238.204 Radial†	1537.2	1529.3	[20000]	µg/L	11:28:33
1	Mg 279.077 IEC†	5122.6	5113.4	[50000]	µg/L	11:28:33
1	Na 589.592 Radial†	50484.9	50362.2	[20000]	µg/L	11:28:13
1	Sc 361.383	1799172.1	1799172.1	102.29	%	11:29:37
1	Y 371.029	1094289.6	1094289.6	101.47	%	11:29:37
2	Sc RADIAL	60007.7	60007.7	100	%	11:28:39
2	Al 396.153Radial†	69580.0	69284.1	[50000]	µg/L	11:28:39
2	Ca 317.933Radial†	57326.2	56894.7	[50000]	µg/L	11:28:39
2	Fe 238.204 Radial†	1533.6	1519.3	[20000]	µg/L	11:28:59
2	Mg 279.077 IEC†	5121.6	5090.8	[50000]	µg/L	11:28:59
2	Na 589.592 Radial†	50784.8	50448.5	[20000]	µg/L	11:28:39
2	Sc 361.383	1795835.6	1795835.6	102.10	%	11:29:45
2	Y 371.029	1091491.1	1091491.1	101.21	%	11:29:45
3	Sc RADIAL	60079.6	60079.6	101	%	11:29:04
3	Al 396.153Radial†	70037.9	69656.9	[50000]	µg/L	11:29:04
3	Ca 317.933Radial†	57776.5	57274.3	[50000]	µg/L	11:29:04
3	Fe 238.204 Radial†	1535.7	1519.5	[20000]	µg/L	11:29:25
3	Mg 279.077 IEC†	5093.9	5057.2	[50000]	µg/L	11:29:25
3	Na 589.592 Radial†	51138.3	50739.8	[20000]	µg/L	11:29:04
3	Sc 361.383	1792002.1	1792002.1	101.88	%	11:29:52
3	Y 371.029	1089285.6	1089285.6	101.01	%	11:29:52

Mean Data: S10

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1795669.9	3587.87	0.20%	102.09	%
Sc RADIAL	59947.5	170.31	0.28%	100	%
Y 371.029	1091688.8	2507.83	0.23%	101.23	%
Al 396.153Radial†	69364.0	262.23	0.38%	[50000]	µg/L
Ca 317.933Radial†	57000.3	239.35	0.42%	[50000]	µg/L
Fe 238.204 Radial†	1522.7	5.72	0.38%	[20000]	µg/L
Mg 279.077 IEC†	5087.1	28.31	0.56%	[50000]	µg/L
Na 589.592 Radial†	50516.9	197.85	0.39%	[20000]	µg/L

Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 328.068	3	Lin Thru 0	0.0	110.2	0.00000	0.999795	
Al 396.153Radial	3	Lin Thru 0	0.0	1.391	0.00000	0.999931	
As 188.979	3	Lin Thru 0	0.0	0.5871	0.00000	0.999916	
B 249.677	3	Lin Thru 0	0.0	26.17	0.00000	0.999897	
Ba 233.527	3	Lin Thru 0	0.0	35.47	0.00000	0.999916	
Be 313.107	3	Lin Thru 0	0.0	1546	0.00000	0.999926	
Ca 317.933Radial	3	Lin Thru 0	0.0	1.142	0.00000	0.999948	
Cd 226.502	3	Lin Thru 0	0.0	35.46	0.00000	0.999956	
Co 228.616	3	Lin Thru 0	0.0	19.60	0.00000	0.999932	
Cr 267.716	3	Lin Thru 0	0.0	43.44	0.00000	0.999911	
Cu 324.752	3	Lin Thru 0	0.0	141.3	0.00000	0.999819	
Fe 238.204 Radia	2	Lin Thru 0	0.0	0.0769	0.00000	0.999780	
K 766.490 Radial	3	Lin Thru 0	0.0	1.533	0.00000	0.999931	
Mg 279.077 IEC	3	Lin Thru 0	0.0	0.1020	0.00000	0.999931	
Mn 257.610	3	Lin Thru 0	0.0	285.4	0.00000	0.999981	
Mo 202.031	3	Lin Thru 0	0.0	8.170	0.00000	0.999777	
Na 589.592 Radia	2	Lin Thru 0	0.0	2.554	0.00000	0.999760	

Ni 231.604	3	Lin Thru 0	0.0	17.18	0.00000	0.999943
P 214.914	3	Lin Thru 0	0.0	0.6226	0.00000	0.999896
Pb 220.353	3	Lin Thru 0	0.0	3.635	0.00000	0.999823
S 181.975 Axial	3	Lin Thru 0	0.0	0.2746	0.00000	0.999884
Sb 206.836	3	Lin Thru 0	0.0	1.121	0.00000	0.999649
Se 196.026	3	Lin Thru 0	0.0	0.9627	0.00000	0.999999
SiO2	3	Lin Thru 0	0.0	5.896	0.00000	0.999914
Si 251.611	3	Lin Thru 0	0.0	14.94	0.00000	0.999920
Sn 189.927	3	Lin Thru 0	0.0	1.922	0.00000	0.999734
Sr 421.552	3	Lin Thru 0	0.0	92.15	0.00000	0.999896
Ti 334.940	3	Lin Thru 0	0.0	412.7	0.00000	0.999829
Tl 190.801	3	Lin Thru 0	0.0	0.6185	0.00000	0.999896
U 409.014	3	Lin Thru 0	0.0	9.623	0.00000	0.999908
V 292.402	3	Lin Thru 0	0.0	81.19	0.00000	0.999893
Zn 213.857	3	Lin Thru 0	0.0	38.87	0.00000	0.999975

Sequence No.: 6
Sample ID: ICV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 9
Date Collected: 1/8/2010 11:30:02
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	59638.2	59638.2	99.8	%			11:30:35
1	Al 396.153Radial†	7252.1	7239.2	5184.8	µg/L	5184.8	ppb	11:30:35
1	Ca 317.933Radial†	6004.6	5806.2	5082.2	µg/L	5082.2	ppb	11:30:55
1	Fe 238.204 Radial†	400.5	393.0	5124.2	µg/L	5124.2	ppb	11:30:55
1	K 766.490 Radial†	4248.3	3757.9	2452.0	µg/L	2452.0	ppb	11:30:35
1	Mg 279.077 IEC†	549.1	539.2	5292.2	µg/L	5292.2	ppb	11:30:55
1	Na 589.592 Radial†	6635.0	6508.5	2548.5	µg/L	2548.5	ppb	11:30:35
1	Sr 421.552†	46982.1	47120.9	511.37	µg/L	511.37	ppb	11:30:35
1	Sc 361.383	1774319.9	1774319.9	100.88	%			11:31:58
1	Y 371.029	1084699.1	1084699.1	100.58	%			11:31:58
1	Ag 328.068†	27174.5	27154.2	250.26	µg/L	250.26	ppb	11:32:03
1	As 188.979†	282.9	284.2	484.04	µg/L	484.04	ppb	11:32:24
1	B 249.677†	13778.6	13302.0	506.71	µg/L	506.71	ppb	11:32:03
1	Ba 233.527†	17801.5	17690.0	499.78	µg/L	499.78	ppb	11:32:03
1	Be 313.107†	406618.9	399060.3	257.87	µg/L	257.87	ppb	11:31:58
1	Cd 226.502†	17502.2	17474.0	492.94	µg/L	492.94	ppb	11:32:03
1	Co 228.616†	9910.3	9808.0	500.72	µg/L	500.72	ppb	11:32:03
1	Cr 267.716†	21055.7	21008.0	484.74	µg/L	484.74	ppb	11:32:03
1	Cu 324.752†	75925.5	69393.7	491.53	µg/L	491.53	ppb	11:32:03
1	Mn 257.610†	146124.0	145055.9	508.85	µg/L	508.85	ppb	11:31:58
1	Mo 202.031†	4462.6	4404.2	539.28	µg/L	539.28	ppb	11:32:24
1	Ni 231.604†	8837.9	8437.0	491.03	µg/L	491.03	ppb	11:32:03
1	P 214.914†	1851.3	1579.2	2483.9	µg/L	2483.9	ppb	11:32:24
1	Pb 220.353†	1902.4	1802.4	496.47	µg/L	496.47	ppb	11:32:24
1	S 181.975 Axial†	715.3	677.4	2465.0	µg/L	2465.0	ppb	11:32:24
1	Sb 206.836†	575.3	546.1	485.72	µg/L	485.72	ppb	11:32:24
1	Se 196.026†	2451.5	2416.0	2513.0	µg/L	2513.0	ppb	11:32:24
1	SiO2†	63261.6	59059.0	10016	µg/L	10016	ppb	11:32:03
1	Si 251.611†	70867.0	69917.8	4631.1	µg/L	4631.1	ppb	11:32:03
1	Sn 189.927†	1079.0	1040.4	542.67	µg/L	542.67	ppb	11:32:24
1	Ti 334.940†	203391.5	201071.4	486.90	µg/L	486.90	ppb	11:31:58
1	Tl 190.801†	294.1	318.7	517.17	µg/L	517.17	ppb	11:32:24
1	U 409.014†	4794.5	4645.1	481.42	µg/L	481.42	ppb	11:32:03
1	V 292.402†	40567.1	40535.7	503.96	µg/L	503.96	ppb	11:32:03
1	Zn 213.857†	20295.0	19504.2	497.14	µg/L	497.14	ppb	11:32:03
2	Sc RADIAL	60186.0	60186.0	101	%			11:31:01
2	Al 396.153Radial†	7304.5	7225.1	5174.7	µg/L	5174.7	ppb	11:31:01
2	Ca 317.933Radial†	6034.2	5780.8	5060.0	µg/L	5060.0	ppb	11:31:21
2	Fe 238.204 Radial†	402.8	391.6	5106.2	µg/L	5106.2	ppb	11:31:21
2	K 766.490 Radial†	4252.8	3723.5	2429.6	µg/L	2429.6	ppb	11:31:01
2	Mg 279.077 IEC†	545.2	530.4	5205.3	µg/L	5205.3	ppb	11:31:21
2	Na 589.592 Radial†	6671.6	6484.2	2539.0	µg/L	2539.0	ppb	11:31:01
2	Sr 421.552†	47495.1	47201.8	512.25	µg/L	512.25	ppb	11:31:01
2	Sc 361.383	1769604.0	1769604.0	100.61	%			11:32:30
2	Y 371.029	1082591.4	1082591.4	100.39	%			11:32:30
2	Ag 328.068†	27275.4	27326.3	251.85	µg/L	251.85	ppb	11:32:35
2	As 188.979†	275.8	277.9	473.21	µg/L	473.21	ppb	11:32:56
2	B 249.677†	13842.5	13401.9	510.54	µg/L	510.54	ppb	11:32:35
2	Ba 233.527†	17902.9	17837.8	503.96	µg/L	503.96	ppb	11:32:35
2	Be 313.107†	407030.1	400543.1	258.83	µg/L	258.83	ppb	11:32:30
2	Cd 226.502†	17573.1	17590.8	496.24	µg/L	496.24	ppb	11:32:35
2	Co 228.616†	9952.2	9875.8	504.17	µg/L	504.17	ppb	11:32:35
2	Cr 267.716†	21159.2	21166.4	488.39	µg/L	488.39	ppb	11:32:35
2	Cu 324.752†	76239.6	69906.4	495.15	µg/L	495.15	ppb	11:32:35
2	Mn 257.610†	146152.7	145470.4	510.30	µg/L	510.30	ppb	11:32:30
2	Mo 202.031†	4442.2	4395.7	538.23	µg/L	538.23	ppb	11:32:56
2	Ni 231.604†	8902.4	8524.5	496.12	µg/L	496.12	ppb	11:32:35
2	P 214.914†	1854.1	1586.9	2495.8	µg/L	2495.8	ppb	11:32:56
2	Pb 220.353†	1897.8	1802.8	496.57	µg/L	496.57	ppb	11:32:56

2	S 181.975 Axial†	711.1	675.2	2457.0	µg/L	2457.0 ppb	11:32:56
2	Sb 206.836†	577.3	549.6	488.82	µg/L	488.82 ppb	11:32:56
2	Se 196.026†	2448.6	2419.6	2516.7	µg/L	2516.7 ppb	11:32:56
2	SiO2†	63461.1	59424.3	10078	µg/L	10078 ppb	11:32:35
2	Si 251.611†	70943.7	70181.2	4648.6	µg/L	4648.6 ppb	11:32:35
2	Sn 189.927†	1082.5	1046.6	545.89	µg/L	545.89 ppb	11:32:56
2	Ti 334.940†	203348.3	201565.6	488.10	µg/L	488.10 ppb	11:32:30
2	Tl 190.801†	297.7	323.0	524.18	µg/L	524.18 ppb	11:32:56
2	U 409.014†	4837.2	4700.3	487.16	µg/L	487.16 ppb	11:32:35
2	V 292.402†	40808.4	40882.6	508.23	µg/L	508.23 ppb	11:32:35
2	Zn 213.857†	20413.5	19675.7	501.52	µg/L	501.52 ppb	11:32:35
3	Sc RADIAL	59781.5	59781.5	100	%		11:31:26
3	Al 396.153Radial†	7262.4	7232.1	5182.0	µg/L	5182.0 ppb	11:31:26
3	Ca 317.933Radial†	6032.4	5819.5	5093.8	µg/L	5093.8 ppb	11:31:47
3	Fe 238.204 Radial†	401.6	393.1	5125.1	µg/L	5125.1 ppb	11:31:47
3	K 766.490 Radial†	4183.5	3682.9	2403.0	µg/L	2403.0 ppb	11:31:26
3	Mg 279.077 IEC†	543.2	532.0	5219.8	µg/L	5219.8 ppb	11:31:47
3	Na 589.592 Radial†	6703.4	6560.9	2569.0	µg/L	2569.0 ppb	11:31:26
3	Sr 421.552†	47602.6	47628.4	516.88	µg/L	516.88 ppb	11:31:26
3	Sc 361.383	1758901.8	1758901.8	100.00	%		11:33:02
3	Y 371.029	1075781.6	1075781.6	99.754	%		11:33:02
3	Ag 328.068†	26769.3	26985.2	248.61	µg/L	248.61 ppb	11:33:08
3	As 188.979†	250.9	254.7	433.76	µg/L	433.76 ppb	11:33:28
3	B 249.677†	13579.6	13222.8	503.69	µg/L	503.69 ppb	11:33:08
3	Ba 233.527†	17290.2	17333.4	489.69	µg/L	489.69 ppb	11:33:08
3	Be 313.107†	395563.7	391538.6	253.01	µg/L	253.01 ppb	11:33:02
3	Cd 226.502†	16978.4	17102.4	482.43	µg/L	482.43 ppb	11:33:08
3	Co 228.616†	9564.2	9548.0	487.33	µg/L	487.33 ppb	11:33:08
3	Cr 267.716†	19926.6	20061.8	462.92	µg/L	462.92 ppb	11:33:08
3	Cu 324.752†	73464.3	67592.3	478.78	µg/L	478.78 ppb	11:33:08
3	Mn 257.610†	142071.3	142273.0	499.10	µg/L	499.10 ppb	11:33:02
3	Mo 202.031†	3940.8	3921.1	480.15	µg/L	480.15 ppb	11:33:28
3	Ni 231.604†	8527.9	8203.8	477.46	µg/L	477.46 ppb	11:33:08
3	P 214.914†	1698.5	1442.4	2264.4	µg/L	2264.4 ppb	11:33:28
3	Pb 220.353†	1744.4	1661.0	457.41	µg/L	457.41 ppb	11:33:28
3	S 181.975 Axial†	667.3	635.7	2313.1	µg/L	2313.1 ppb	11:33:28
3	Sb 206.836†	525.0	500.8	445.44	µg/L	445.44 ppb	11:33:28
3	Se 196.026†	2251.6	2237.4	2327.4	µg/L	2327.4 ppb	11:33:28
3	SiO2†	61826.4	58173.5	9866.3	µg/L	9866.3 ppb	11:33:08
3	Si 251.611†	69186.9	68853.6	4563.9	µg/L	4563.9 ppb	11:33:08
3	Sn 189.927†	943.8	914.5	477.15	µg/L	477.15 ppb	11:33:28
3	Ti 334.940†	197113.8	196561.2	475.97	µg/L	475.97 ppb	11:33:02
3	Tl 190.801†	283.3	310.4	503.76	µg/L	503.76 ppb	11:33:28
3	U 409.014†	4626.7	4519.0	468.32	µg/L	468.32 ppb	11:33:08
3	V 292.402†	38833.9	39154.9	486.52	µg/L	486.52 ppb	11:33:08
3	Zn 213.857†	19622.6	19008.2	484.46	µg/L	484.46 ppb	11:33:08

Mean Data: ICV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1767608.6	100.50	%	0.449				0.45%
Sc RADIAL	59868.6	100	%	0.5				0.47%
Y 371.029	1081024.0	100.24	%	0.432				0.43%
Ag 328.068†	27155.2	250.24	µg/L	1.620	250.24	ppb	1.620	0.65%
QC value within limits for Ag 328.068 Recovery = 100.10%								
Al 396.153Radial†	7232.1	5180.5	µg/L	5.20	5180.5	ppb	5.20	0.10%
QC value within limits for Al 396.153Radial Recovery = 103.61%								
As 188.979†	272.2	463.67	µg/L	26.463	463.67	ppb	26.463	5.71%
QC value within limits for As 188.979 Recovery = 92.73%								
B 249.677†	13308.9	506.98	µg/L	3.434	506.98	ppb	3.434	0.68%
QC value within limits for B 249.677 Recovery = 101.40%								
Ba 233.527†	17620.4	497.81	µg/L	7.334	497.81	ppb	7.334	1.47%
QC value within limits for Ba 233.527 Recovery = 99.56%								
Be 313.107†	397047.3	256.57	µg/L	3.119	256.57	ppb	3.119	1.22%
QC value within limits for Be 313.107 Recovery = 102.63%								
Ca 317.933Radial†	5802.2	5078.7	µg/L	17.21	5078.7	ppb	17.21	0.34%
QC value within limits for Ca 317.933Radial Recovery = 101.57%								
Cd 226.502†	17389.1	490.54	µg/L	7.211	490.54	ppb	7.211	1.47%
QC value within limits for Cd 226.502 Recovery = 98.11%								
Co 228.616†	9743.9	497.41	µg/L	8.893	497.41	ppb	8.893	1.79%

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   QC value within limits for Co 228.616  Recovery = 99.48%
Cr 267.716†            20745.4      478.68 µg/L        13.774      478.68 ppb         13.774   2.88%
   QC value within limits for Cr 267.716  Recovery = 95.74%
Cu 324.752†            68964.1      488.49 µg/L         8.600      488.49 ppb          8.600   1.76%
   QC value within limits for Cu 324.752  Recovery = 97.70%
Fe 238.204 Radial†       392.6      5118.5 µg/L         10.68      5118.5 ppb          10.68   0.21%
   QC value within limits for Fe 238.204 Radial  Recovery = 102.37%
K 766.490 Radial†       3721.4      2428.2 µg/L         24.50      2428.2 ppb          24.50   1.01%
   QC value within limits for K 766.490 Radial  Recovery = 97.13%
Mg 279.077 IEC†          533.9      5239.1 µg/L         46.56      5239.1 ppb          46.56   0.89%
   QC value within limits for Mg 279.077 IEC  Recovery = 104.78%
Mn 257.610†           144266.4      506.09 µg/L         6.091      506.09 ppb          6.091   1.20%
   QC value within limits for Mn 257.610  Recovery = 101.22%
Mo 202.031†            4240.3      519.22 µg/L        33.840      519.22 ppb         33.840   6.52%
   QC value within limits for Mo 202.031  Recovery = 103.84%
Na 589.592 Radial†      6517.9      2552.2 µg/L         15.34      2552.2 ppb          15.34   0.60%
   QC value within limits for Na 589.592 Radial  Recovery = 102.09%
Ni 231.604†            8388.4      488.20 µg/L         9.646      488.20 ppb          9.646   1.98%
   QC value within limits for Ni 231.604  Recovery = 97.64%
P 214.914†             1536.2      2414.7 µg/L        130.35      2414.7 ppb         130.35   5.40%
   QC value within limits for P 214.914  Recovery = 96.59%
Pb 220.353†            1755.4      483.48 µg/L        22.578      483.48 ppb         22.578   4.67%
   QC value within limits for Pb 220.353  Recovery = 96.70%
S 181.975 Axial†         662.7      2411.7 µg/L         85.51      2411.7 ppb          85.51   3.55%
   QC value within limits for S 181.975 Axial  Recovery = 96.47%
Sb 206.836†              532.1      473.33 µg/L        24.200      473.33 ppb         24.200   5.11%
   QC value within limits for Sb 206.836  Recovery = 94.67%
Se 196.026†            2357.6      2452.4 µg/L        108.25      2452.4 ppb         108.25   4.41%
   QC value within limits for Se 196.026  Recovery = 98.10%
SiO2†                 58885.6      9987.1 µg/L        109.08      9987.1 ppb         109.08   1.09%
   QC value within limits for SiO2  Recovery = 93.38%
Si 251.611†           69650.8      4614.5 µg/L         44.76      4614.5 ppb          44.76   0.97%
   QC value within limits for Si 251.611  Recovery = 92.29%
Sn 189.927†            1000.5      521.90 µg/L        38.793      521.90 ppb         38.793   7.43%
   QC value within limits for Sn 189.927  Recovery = 104.38%
Sr 421.552†           47317.0      513.50 µg/L         2.959      513.50 ppb          2.959   0.58%
   QC value within limits for Sr 421.552  Recovery = 102.70%
Ti 334.940†          199732.7      483.66 µg/L         6.683      483.66 ppb          6.683   1.38%
   QC value within limits for Ti 334.940  Recovery = 96.73%
Tl 190.801†              317.4      515.04 µg/L        10.374      515.04 ppb         10.374   2.01%
   QC value within limits for Tl 190.801  Recovery = 103.01%
U 409.014†             4621.4      478.97 µg/L         9.657      478.97 ppb          9.657   2.02%
   QC value within limits for U 409.014  Recovery = 95.79%
V 292.402†            40191.1      499.57 µg/L        11.503      499.57 ppb         11.503   2.30%
   QC value within limits for V 292.402  Recovery = 99.91%
Zn 213.857†           19396.0      494.38 µg/L         8.858      494.38 ppb          8.858   1.79%
   QC value within limits for Zn 213.857  Recovery = 98.88%
All analyte(s) passed QC.
```

Sequence No.: 7
Sample ID: ICB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 10
Date Collected: 1/8/2010 11:33:38
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	58798.5	58798.5	98.4	%			11:34:11
1	Al 396.153Radial†	30.3	0.8	0.5459	µg/L	0.5459	ppb	11:34:11
1	Ca 317.933Radial†	217.2	8.3	7.2452	µg/L	7.2452	ppb	11:34:31
1	Fe 238.204 Radial†	9.8	1.5	19.106	µg/L	19.106	ppb	11:34:31
1	K 766.490 Radial†	514.7	22.8	14.906	µg/L	14.906	ppb	11:34:11
1	Mg 279.077 IEC†	5.7	-5.4	-53.212	µg/L	-53.212	ppb	11:34:31
1	Na 589.592 Radial†	182.4	43.3	16.964	µg/L	16.964	ppb	11:34:11
1	Sr 421.552†	-8.8	19.4	0.2101	µg/L	0.2101	ppb	11:34:11
1	Sc 361.383	1660608.4	1660608.4	94.414	%			11:35:33
1	Y 371.029	1016885.7	1016885.7	94.293	%			11:35:33
1	Ag 328.068†	-203.2	1.4	0.0162	µg/L	0.0162	ppb	11:35:38
1	As 188.979†	-8.7	-5.4	-9.2407	µg/L	-9.2407	ppb	11:35:59
1	B 249.677†	417.1	85.3	3.2523	µg/L	3.2523	ppb	11:35:38
1	Ba 233.527†	-34.8	6.9	0.1953	µg/L	0.1953	ppb	11:35:59
1	Be 313.107†	4151.4	383.1	0.2475	µg/L	0.2475	ppb	11:35:33
1	Cd 226.502†	-116.0	1.6	0.0418	µg/L	0.0418	ppb	11:35:59
1	Co 228.616†	16.6	1.7	0.0886	µg/L	0.0886	ppb	11:35:59
1	Cr 267.716†	-152.2	-25.4	-0.5837	µg/L	-0.5837	ppb	11:35:38
1	Cu 324.752†	5799.9	273.1	1.9342	µg/L	1.9342	ppb	11:35:38
1	Mn 257.610†	-175.6	19.7	0.0715	µg/L	0.0715	ppb	11:35:59
1	Mo 202.031†	28.2	10.3	1.2585	µg/L	1.2585	ppb	11:35:59
1	Ni 231.604†	325.7	21.1	1.2284	µg/L	1.2284	ppb	11:35:59
1	P 214.914†	253.8	12.8	20.331	µg/L	20.331	ppb	11:35:59
1	Pb 220.353†	71.0	-8.2	-2.2612	µg/L	-2.2612	ppb	11:35:59
1	S 181.975 Axial†	29.8	-0.0	-0.1517	µg/L	-0.1517	ppb	11:35:59
1	Sb 206.836†	22.2	-0.7	-0.6368	µg/L	-0.6368	ppb	11:35:59
1	Se 196.026†	5.5	-8.4	-8.6473	µg/L	-8.6473	ppb	11:35:59
1	SiO2†	3609.9	172.4	29.232	µg/L	29.232	ppb	11:35:38
1	Si 251.611†	351.8	41.3	2.7653	µg/L	2.7653	ppb	11:35:59
1	Sn 189.927†	25.5	-2.3	-1.2118	µg/L	-1.2118	ppb	11:35:59
1	Ti 334.940†	677.3	170.3	0.4122	µg/L	0.4122	ppb	11:35:38
1	Tl 190.801†	-27.8	-2.2	-3.6265	µg/L	-3.6265	ppb	11:35:59
1	U 409.014†	67.9	-35.6	-3.7062	µg/L	-3.7062	ppb	11:35:38
1	V 292.402†	-283.9	21.5	0.2681	µg/L	0.2681	ppb	11:35:38
1	Zn 213.857†	622.7	45.7	1.1623	µg/L	1.1623	ppb	11:35:59
2	Sc RADIAL	59320.9	59320.9	99.2	%			11:34:37
2	Al 396.153Radial†	35.0	5.3	3.7332	µg/L	3.7332	ppb	11:34:37
2	Ca 317.933Radial†	211.0	0.1	0.1052	µg/L	0.1052	ppb	11:34:57
2	Fe 238.204 Radial†	8.8	0.4	5.3693	µg/L	5.3693	ppb	11:34:57
2	K 766.490 Radial†	439.8	-57.3	-37.357	µg/L	-37.357	ppb	11:34:37
2	Mg 279.077 IEC†	14.2	3.1	30.437	µg/L	30.437	ppb	11:34:57
2	Na 589.592 Radial†	213.0	72.4	28.362	µg/L	28.362	ppb	11:34:37
2	Sr 421.552†	-4.5	23.8	0.2579	µg/L	0.2579	ppb	11:34:37
2	Sc 361.383	1719626.0	1719626.0	97.770	%			11:36:05
2	Y 371.029	1053682.4	1053682.4	97.705	%			11:36:05
2	Ag 328.068†	-210.5	1.4	0.0171	µg/L	0.0171	ppb	11:36:10
2	As 188.979†	-4.1	-0.5	-0.7700	µg/L	-0.7700	ppb	11:36:31
2	B 249.677†	415.8	68.8	2.6260	µg/L	2.6260	ppb	11:36:10
2	Ba 233.527†	-38.5	4.3	0.1237	µg/L	0.1237	ppb	11:36:31
2	Be 313.107†	4102.6	182.2	0.1178	µg/L	0.1178	ppb	11:36:05
2	Cd 226.502†	-118.5	3.3	0.0871	µg/L	0.0871	ppb	11:36:31
2	Co 228.616†	7.9	-7.8	-0.3954	µg/L	-0.3954	ppb	11:36:31
2	Cr 267.716†	-156.9	-24.7	-0.5666	µg/L	-0.5666	ppb	11:36:10
2	Cu 324.752†	5813.9	76.6	0.5424	µg/L	0.5424	ppb	11:36:10
2	Mn 257.610†	-191.5	9.9	0.0353	µg/L	0.0353	ppb	11:36:31
2	Mo 202.031†	32.0	13.1	1.6090	µg/L	1.6090	ppb	11:36:31
2	Ni 231.604†	321.8	5.3	0.3091	µg/L	0.3091	ppb	11:36:31
2	P 214.914†	245.8	-4.6	-7.5149	µg/L	-7.5149	ppb	11:36:31
2	Pb 220.353†	79.5	-2.1	-0.5628	µg/L	-0.5628	ppb	11:36:31

2	S 181.975 Axial†	27.2	-3.8	-14.022 µg/L	-14.022 ppb	11:36:31
2	Sb 206.836†	21.9	-1.7	-1.5549 µg/L	-1.5549 ppb	11:36:31
2	Se 196.026†	10.0	-3.9	-4.1234 µg/L	-4.1234 ppb	11:36:31
2	SiO2†	3551.5	-18.7	-3.1645 µg/L	-3.1645 ppb	11:36:10
2	Si 251.611†	362.7	39.6	2.7612 µg/L	2.7612 ppb	11:36:31
2	Sn 189.927†	22.4	-6.4	-3.3166 µg/L	-3.3166 ppb	11:36:31
2	Ti 334.940†	581.8	48.1	0.1164 µg/L	0.1164 ppb	11:36:10
2	Tl 190.801†	-26.1	0.5	0.7647 µg/L	0.7647 ppb	11:36:31
2	U 409.014†	27.0	-79.9	-8.3086 µg/L	-8.3086 ppb	11:36:10
2	V 292.402†	-267.3	48.8	0.5988 µg/L	0.5988 ppb	11:36:10
2	Zn 213.857†	621.5	21.9	0.5587 µg/L	0.5587 ppb	11:36:31
3	Sc RADIAL	58774.0	58774.0	98.3 %		11:35:03
3	Al 396.153Radial†	30.0	0.5	0.3401 µg/L	0.3401 ppb	11:35:03
3	Ca 317.933Radial†	215.2	6.4	5.6045 µg/L	5.6045 ppb	11:35:23
3	Fe 238.204 Radial†	8.8	0.5	5.9118 µg/L	5.9118 ppb	11:35:23
3	K 766.490 Radial†	490.3	-1.8	-1.1606 µg/L	-1.1606 ppb	11:35:03
3	Mg 279.077 IEC†	8.8	-2.2	-21.573 µg/L	-21.573 ppb	11:35:23
3	Na 589.592 Radial†	205.7	67.1	26.266 µg/L	26.266 ppb	11:35:03
3	Sr 421.552†	-38.4	-10.8	-0.1168 µg/L	-0.1168 ppb	11:35:03
3	Sc 361.383	1716568.2	1716568.2	97.596 %		11:36:37
3	Y 371.029	1053107.5	1053107.5	97.652 %		11:36:37
3	Ag 328.068†	-180.7	31.5	0.2876 µg/L	0.2876 ppb	11:36:42
3	As 188.979†	-4.3	-0.6	-1.0469 µg/L	-1.0469 ppb	11:37:03
3	B 249.677†	410.2	63.8	2.4361 µg/L	2.4361 ppb	11:36:42
3	Ba 233.527†	-49.8	-7.3	-0.2054 µg/L	-0.2054 ppb	11:37:03
3	Be 313.107†	4061.7	147.8	0.0955 µg/L	0.0955 ppb	11:36:37
3	Cd 226.502†	-121.0	0.5	0.0147 µg/L	0.0147 ppb	11:37:03
3	Co 228.616†	10.9	-4.7	-0.2394 µg/L	-0.2394 ppb	11:37:03
3	Cr 267.716†	-137.2	-4.8	-0.1095 µg/L	-0.1095 ppb	11:36:42
3	Cu 324.752†	5880.2	155.1	1.0978 µg/L	1.0978 ppb	11:36:42
3	Mn 257.610†	-160.2	41.6	0.1465 µg/L	0.1465 ppb	11:37:03
3	Mo 202.031†	28.0	9.1	1.1131 µg/L	1.1131 ppb	11:37:03
3	Ni 231.604†	313.1	-3.0	-0.1750 µg/L	-0.1750 ppb	11:37:03
3	P 214.914†	253.1	3.4	5.2568 µg/L	5.2568 ppb	11:37:03
3	Pb 220.353†	74.5	-7.1	-1.9410 µg/L	-1.9410 ppb	11:37:03
3	S 181.975 Axial†	36.9	6.2	22.520 µg/L	22.520 ppb	11:37:03
3	Sb 206.836†	20.7	-3.0	-2.6319 µg/L	-2.6319 ppb	11:37:03
3	Se 196.026†	14.8	1.0	1.0835 µg/L	1.0835 ppb	11:37:03
3	SiO2†	3587.2	24.4	4.1396 µg/L	4.1396 ppb	11:36:42
3	Si 251.611†	360.0	37.5	2.4926 µg/L	2.4926 ppb	11:37:03
3	Sn 189.927†	28.0	-0.6	-0.3252 µg/L	-0.3252 ppb	11:37:03
3	Ti 334.940†	642.1	110.8	0.2682 µg/L	0.2682 ppb	11:36:42
3	Tl 190.801†	-25.6	1.0	1.5632 µg/L	1.5632 ppb	11:37:03
3	U 409.014†	125.8	21.3	2.2152 µg/L	2.2152 ppb	11:36:42
3	V 292.402†	-303.0	11.7	0.1556 µg/L	0.1556 ppb	11:36:42
3	Zn 213.857†	619.8	21.3	0.5451 µg/L	0.5451 ppb	11:37:03

Mean Data: ICB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1698934.2	96.593	%	1.8891				1.96%
Sc RADIAL	58964.5	98.6	%	0.52				0.52%
Y 371.029	1041225.2	96.550	%	1.9547				2.02%
Ag 328.068†	11.4	0.1070	µg/L	0.15644	0.1070	ppb	0.15644	146.25%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	2.2	1.5397	µg/L	1.90237	1.5397	ppb	1.90237	123.55%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-2.2	-3.6859	µg/L	4.81264	-3.6859	ppb	4.81264	130.57%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	72.6	2.7715	µg/L	0.42712	2.7715	ppb	0.42712	15.41%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	1.3	0.0379	µg/L	0.21372	0.0379	ppb	0.21372	564.20%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	237.7	0.1536	µg/L	0.08210	0.1536	ppb	0.08210	53.45%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	4.9	4.3183	µg/L	3.73972	4.3183	ppb	3.73972	86.60%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	1.8	0.0479	µg/L	0.03656	0.0479	ppb	0.03656	76.39%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	-3.6	-0.1821	µg/L	0.24706	-0.1821	ppb	0.24706	135.68%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -18.3     -0.4199 µg/L       0.26894     -0.4199 ppb        0.26894  64.04%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              168.2      1.1915 µg/L       0.70060      1.1915 ppb        0.70060  58.80%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         0.8      10.129 µg/L        7.7788      10.129 ppb         7.7788  76.80%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        -12.1     -7.8707 µg/L      26.76983     -7.8707 ppb       26.76983 340.12%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           -1.5     -14.783 µg/L       42.2358     -14.783 ppb        42.2358 285.71%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               23.7      0.0844 µg/L       0.05674      0.0844 ppb        0.05674  67.22%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               10.8      1.3268 µg/L       0.25494      1.3268 ppb        0.25494  19.21%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        60.9      23.864 µg/L        6.0666      23.864 ppb         6.0666  25.42%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                7.8      0.4542 µg/L       0.71288      0.4542 ppb        0.71288 156.97%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 3.9      6.0244 µg/L      13.93891      6.0244 ppb       13.93891 231.38%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               -5.8     -1.5883 µg/L       0.90243     -1.5883 ppb        0.90243  56.82%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           0.8      2.7822 µg/L      18.44671      2.7822 ppb       18.44671 663.03%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               -1.8     -1.6078 µg/L       0.99861     -1.6078 ppb        0.99861  62.11%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               -3.7     -3.8957 µg/L       4.86938     -3.8957 ppb        4.86938 124.99%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     59.4      10.069 µg/L       16.9928      10.069 ppb        16.9928 168.76%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               39.4      2.6730 µg/L       0.15627      2.6730 ppb        0.15627   5.85%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               -3.1     -1.6178 µg/L       1.53649     -1.6178 ppb        1.53649  94.97%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               10.8      0.1171 µg/L       0.20394      0.1171 ppb        0.20394 174.20%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              109.7      0.2656 µg/L       0.14790      0.2656 ppb        0.14790  55.68%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               -0.3     -0.4329 µg/L       2.79443     -0.4329 ppb        2.79443 645.55%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -31.4     -3.2665 µg/L       5.27564     -3.2665 ppb        5.27564 161.51%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                27.3      0.3408 µg/L       0.23036      0.3408 ppb        0.23036  67.59%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               29.6      0.7554 µg/L       0.35246      0.7554 ppb        0.35246  46.66%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 8
Sample ID: PQL
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 101
Date Collected: 1/8/2010 11:37:11
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: PQL

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	57924.8	57924.8	96.9	%			11:37:44
1	Al 396.153Radial†	290.4	269.7	193.61	µg/L	193.61	ppb	11:37:44
1	Ca 317.933Radial†	433.1	234.5	205.23	µg/L	205.23	ppb	11:38:04
1	Fe 238.204 Radial†	15.3	7.3	94.995	µg/L	94.995	ppb	11:38:04
1	K 766.490 Radial†	682.7	204.1	133.19	µg/L	133.19	ppb	11:37:44
1	Mg 279.077 IEC†	40.9	31.0	304.02	µg/L	304.02	ppb	11:38:04
1	Na 589.592 Radial†	933.7	821.4	321.65	µg/L	321.65	ppb	11:37:44
1	Sr 421.552†	433.5	475.7	5.1624	µg/L	5.1624	ppb	11:37:44
1	Sc 361.383	1706233.5	1706233.5	97.008	%			11:39:06
1	Y 371.029	1045780.8	1045780.8	96.972	%			11:39:06
1	Ag 328.068†	390.3	619.0	5.6610	µg/L	5.6610	ppb	11:39:12
1	As 188.979†	10.9	15.0	25.468	µg/L	25.468	ppb	11:39:32
1	B 249.677†	1622.3	1315.9	50.255	µg/L	50.255	ppb	11:39:12
1	Ba 233.527†	137.2	185.1	5.2304	µg/L	5.2304	ppb	11:39:32
1	Be 313.107†	11440.2	7779.1	5.0284	µg/L	5.0284	ppb	11:39:06
1	Cd 226.502†	43.9	169.7	4.8147	µg/L	4.8147	ppb	11:39:32
1	Co 228.616†	103.5	90.8	4.6419	µg/L	4.6419	ppb	11:39:32
1	Cr 267.716†	72.3	210.3	4.8521	µg/L	4.8521	ppb	11:39:12
1	Cu 324.752†	7300.4	1655.6	11.724	µg/L	11.724	ppb	11:39:12
1	Mn 257.610†	2667.1	2955.0	10.365	µg/L	10.365	ppb	11:39:12
1	Mo 202.031†	86.1	69.2	8.4707	µg/L	8.4707	ppb	11:39:32
1	Ni 231.604†	413.9	102.8	5.9854	µg/L	5.9854	ppb	11:39:32
1	P 214.914†	345.1	99.8	158.97	µg/L	158.97	ppb	11:39:32
1	Pb 220.353†	119.7	39.9	10.960	µg/L	10.960	ppb	11:39:32
1	S 181.975 Axial†	57.5	27.6	100.46	µg/L	100.46	ppb	11:39:32
1	Sb 206.836†	34.7	11.6	10.376	µg/L	10.376	ppb	11:39:32
1	Se 196.026†	46.3	33.6	35.068	µg/L	35.068	ppb	11:39:32
1	SiO2†	4792.0	1288.7	218.56	µg/L	218.56	ppb	11:39:12
1	Si 251.611†	1830.8	1555.9	103.40	µg/L	103.40	ppb	11:39:12
1	Sn 189.927†	45.7	17.8	9.3606	µg/L	9.3606	ppb	11:39:32
1	Ti 334.940†	2575.8	2108.1	5.0959	µg/L	5.0959	ppb	11:39:12
1	Tl 190.801†	-12.9	13.9	22.453	µg/L	22.453	ppb	11:39:32
1	U 409.014†	572.0	482.1	50.064	µg/L	50.064	ppb	11:39:12
1	V 292.402†	99.2	424.4	5.3706	µg/L	5.3706	ppb	11:39:12
1	Zn 213.857†	991.2	407.9	10.420	µg/L	10.420	ppb	11:39:32
2	Sc RADIAL	57210.8	57210.8	95.7	%			11:38:10
2	Al 396.153Radial†	295.0	278.2	199.67	µg/L	199.67	ppb	11:38:10
2	Ca 317.933Radial†	433.5	240.4	210.44	µg/L	210.44	ppb	11:38:30
2	Fe 238.204 Radial†	17.1	9.4	121.72	µg/L	121.72	ppb	11:38:30
2	K 766.490 Radial†	679.1	209.1	136.43	µg/L	136.43	ppb	11:38:10
2	Mg 279.077 IEC†	40.0	30.6	299.66	µg/L	299.66	ppb	11:38:30
2	Na 589.592 Radial†	945.3	845.5	331.08	µg/L	331.08	ppb	11:38:10
2	Sr 421.552†	412.9	459.8	4.9894	µg/L	4.9894	ppb	11:38:10
2	Sc 361.383	1713724.1	1713724.1	97.434	%			11:39:38
2	Y 371.029	1050300.6	1050300.6	97.391	%			11:39:38
2	Ag 328.068†	315.8	540.7	4.9532	µg/L	4.9532	ppb	11:39:44
2	As 188.979†	13.7	17.8	30.343	µg/L	30.343	ppb	11:40:04
2	B 249.677†	1640.5	1327.3	50.681	µg/L	50.681	ppb	11:39:44
2	Ba 233.527†	132.6	179.8	5.0797	µg/L	5.0797	ppb	11:40:04
2	Be 313.107†	11372.5	7658.1	4.9501	µg/L	4.9501	ppb	11:39:38
2	Cd 226.502†	48.0	173.7	4.9277	µg/L	4.9277	ppb	11:40:04
2	Co 228.616†	106.0	92.9	4.7525	µg/L	4.7525	ppb	11:40:04
2	Cr 267.716†	67.7	205.3	4.7375	µg/L	4.7375	ppb	11:39:44
2	Cu 324.752†	7168.8	1487.6	10.538	µg/L	10.538	ppb	11:39:44
2	Mn 257.610†	2660.9	2936.7	10.304	µg/L	10.304	ppb	11:39:44
2	Mo 202.031†	102.4	85.6	10.477	µg/L	10.477	ppb	11:40:04
2	Ni 231.604†	422.1	109.3	6.3639	µg/L	6.3639	ppb	11:40:04
2	P 214.914†	349.8	103.0	164.23	µg/L	164.23	ppb	11:40:04
2	Pb 220.353†	119.1	38.8	10.646	µg/L	10.646	ppb	11:40:04

2	S 181.975 Axial†	59.4	29.3	106.55 µg/L	106.55 ppb	11:40:04
2	Sb 206.836†	39.5	16.4	14.599 µg/L	14.599 ppb	11:40:04
2	Se 196.026†	48.5	35.7	37.219 µg/L	37.219 ppb	11:40:04
2	SiO2†	4819.7	1295.5	219.71 µg/L	219.71 ppb	11:39:44
2	Si 251.611†	1863.5	1581.1	105.16 µg/L	105.16 ppb	11:39:44
2	Sn 189.927†	40.7	12.5	6.6160 µg/L	6.6160 ppb	11:40:04
2	Ti 334.940†	2609.2	2130.9	5.1507 µg/L	5.1507 ppb	11:39:44
2	Tl 190.801†	-15.9	10.8	17.460 µg/L	17.460 ppb	11:40:04
2	U 409.014†	613.9	522.5	54.260 µg/L	54.260 ppb	11:39:44
2	V 292.402†	105.4	430.4	5.4651 µg/L	5.4651 ppb	11:39:44
2	Zn 213.857†	985.3	397.4	10.143 µg/L	10.143 ppb	11:40:04
3	Sc RADIAL	57537.8	57537.8	96.3 %		11:38:36
3	Al 396.153Radial†	308.0	290.0	208.20 µg/L	208.20 ppb	11:38:36
3	Ca 317.933Radial†	429.6	233.8	204.69 µg/L	204.69 ppb	11:38:56
3	Fe 238.204 Radial†	15.5	7.6	98.606 µg/L	98.606 ppb	11:38:56
3	K 766.490 Radial†	697.2	223.9	146.06 µg/L	146.06 ppb	11:38:36
3	Mg 279.077 IEC†	43.9	34.4	337.79 µg/L	337.79 ppb	11:38:56
3	Na 589.592 Radial†	935.6	829.8	324.95 µg/L	324.95 ppb	11:38:36
3	Sr 421.552†	441.6	487.2	5.2870 µg/L	5.2870 ppb	11:38:36
3	Sc 361.383	1730138.2	1730138.2	98.367 %		11:40:10
3	Y 371.029	1060222.0	1060222.0	98.311 %		11:40:10
3	Ag 328.068†	278.9	500.1	4.5832 µg/L	4.5832 ppb	11:40:15
3	As 188.979†	10.3	14.3	24.300 µg/L	24.300 ppb	11:40:36
3	B 249.677†	1554.4	1223.7	46.733 µg/L	46.733 ppb	11:40:15
3	Ba 233.527†	110.9	156.5	4.4229 µg/L	4.4229 ppb	11:40:36
3	Be 313.107†	11150.2	7321.3	4.7326 µg/L	4.7326 ppb	11:40:10
3	Cd 226.502†	24.1	149.0	4.2254 µg/L	4.2254 ppb	11:40:36
3	Co 228.616†	105.8	91.7	4.6893 µg/L	4.6893 ppb	11:40:36
3	Cr 267.716†	70.0	206.9	4.7751 µg/L	4.7751 ppb	11:40:15
3	Cu 324.752†	7087.0	1334.6	9.4535 µg/L	9.4535 ppb	11:40:15
3	Mn 257.610†	2465.6	2712.3	9.5150 µg/L	9.5150 ppb	11:40:15
3	Mo 202.031†	94.8	76.8	9.4077 µg/L	9.4077 ppb	11:40:36
3	Ni 231.604†	401.0	83.8	4.8800 µg/L	4.8800 ppb	11:40:36
3	P 214.914†	334.6	84.2	134.32 µg/L	134.32 ppb	11:40:36
3	Pb 220.353†	113.3	31.8	8.7304 µg/L	8.7304 ppb	11:40:36
3	S 181.975 Axial†	53.2	22.4	81.579 µg/L	81.579 ppb	11:40:36
3	Sb 206.836†	32.7	9.1	8.0679 µg/L	8.0679 ppb	11:40:36
3	Se 196.026†	43.0	29.6	30.918 µg/L	30.918 ppb	11:40:36
3	SiO2†	4739.3	1166.8	197.89 µg/L	197.89 ppb	11:40:15
3	Si 251.611†	1752.9	1450.6	96.290 µg/L	96.290 ppb	11:40:15
3	Sn 189.927†	49.2	20.8	10.926 µg/L	10.926 ppb	11:40:36
3	Ti 334.940†	2398.6	1891.4	4.5707 µg/L	4.5707 ppb	11:40:15
3	Tl 190.801†	-14.4	12.6	20.315 µg/L	20.315 ppb	11:40:36
3	U 409.014†	541.3	442.7	45.970 µg/L	45.970 ppb	11:40:15
3	V 292.402†	105.9	429.8	5.4366 µg/L	5.4366 ppb	11:40:15
3	Zn 213.857†	949.7	351.6	8.9793 µg/L	8.9793 ppb	11:40:36

Mean Data: PQL

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1716698.6	97.603	%	0.6952				0.71%
Sc RADIAL	57557.8	96.3	%	0.60				0.62%
Y 371.029	1052101.1	97.558	%	0.6850				0.70%
Ag 328.068†	553.3	5.0658	µg/L	0.54764	5.0658	ppb	0.54764	10.81%
QC value within limits for Ag 328.068 Recovery = 101.32%								
Al 396.153Radial†	279.3	200.49	µg/L	7.327	200.49	ppb	7.327	3.65%
QC value within limits for Al 396.153Radial Recovery = 100.25%								
As 188.979†	15.7	26.704	µg/L	3.2053	26.704	ppb	3.2053	12.00%
QC value within limits for As 188.979 Recovery = 89.01%								
B 249.677†	1289.0	49.223	µg/L	2.1672	49.223	ppb	2.1672	4.40%
QC value within limits for B 249.677 Recovery = 98.45%								
Ba 233.527†	173.8	4.9110	µg/L	0.42934	4.9110	ppb	0.42934	8.74%
QC value within limits for Ba 233.527 Recovery = 98.22%								
Be 313.107†	7586.2	4.9037	µg/L	0.15328	4.9037	ppb	0.15328	3.13%
QC value within limits for Be 313.107 Recovery = 98.07%								
Ca 317.933Radial†	236.2	206.79	µg/L	3.178	206.79	ppb	3.178	1.54%
QC value within limits for Ca 317.933Radial Recovery = 103.39%								
Cd 226.502†	164.1	4.6559	µg/L	0.37713	4.6559	ppb	0.37713	8.10%
QC value within limits for Cd 226.502 Recovery = 93.12%								
Co 228.616†	91.8	4.6945	µg/L	0.05548	4.6945	ppb	0.05548	1.18%

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   QC value within limits for Co 228.616  Recovery = 93.89%
Cr 267.716†              207.5      4.7882 µg/L       0.05841      4.7882 ppb        0.05841   1.22%
   QC value within limits for Cr 267.716  Recovery = 95.76%
Cu 324.752†             1492.6      10.572 µg/L        1.1359      10.572 ppb         1.1359  10.74%
   QC value within limits for Cu 324.752  Recovery = 105.72%
Fe 238.204 Radial†         8.1      105.11 µg/L        14.498      105.11 ppb         14.498  13.79%
   QC value within limits for Fe 238.204 Radial  Recovery = 105.11%
K 766.490 Radial†        212.4      138.56 µg/L         6.696      138.56 ppb          6.696   4.83%
   QC value within limits for K 766.490 Radial  Recovery = 92.37%
Mg 279.077 IEC†           32.0      313.82 µg/L        20.871      313.82 ppb         20.871   6.65%
   QC value within limits for Mg 279.077 IEC  Recovery = 104.61%
Mn 257.610†             2868.0      10.061 µg/L        0.4741      10.061 ppb         0.4741   4.71%
   QC value within limits for Mn 257.610  Recovery = 100.61%
Mo 202.031†               77.2      9.4517 µg/L       1.00373      9.4517 ppb        1.00373  10.62%
   QC value within limits for Mo 202.031  Recovery = 94.52%
Na 589.592 Radial†       832.3      325.89 µg/L         4.789      325.89 ppb          4.789   1.47%
   QC value within limits for Na 589.592 Radial  Recovery = 108.63%
Ni 231.604†               98.7      5.7431 µg/L       0.77105      5.7431 ppb        0.77105  13.43%
   QC value within limits for Ni 231.604  Recovery = 114.86%
P 214.914†                95.7      152.50 µg/L        15.966      152.50 ppb         15.966  10.47%
   QC value within limits for P 214.914  Recovery = 101.67%
Pb 220.353†               36.8      10.112 µg/L        1.2070      10.112 ppb         1.2070  11.94%
   QC value within limits for Pb 220.353  Recovery = 101.12%
S 181.975 Axial†          26.4      96.195 µg/L       13.0179      96.195 ppb        13.0179  13.53%
   QC value within limits for S 181.975 Axial  Recovery = 96.19%
Sb 206.836†               12.4      11.014 µg/L        3.3119      11.014 ppb         3.3119  30.07%
   QC value within limits for Sb 206.836  Recovery = 110.14%
Se 196.026†               33.0      34.402 µg/L        3.2030      34.402 ppb         3.2030   9.31%
   QC value within limits for Se 196.026  Recovery = 114.67%
SiO2†                   1250.3      212.05 µg/L        12.279      212.05 ppb         12.279   5.79%
   QC value within limits for SiO2  Recovery = 99.56%
Si 251.611†             1529.2      101.62 µg/L         4.697      101.62 ppb          4.697   4.62%
   QC value within limits for Si 251.611  Recovery = 101.62%
Sn 189.927†               17.0      8.9675 µg/L       2.18171      8.9675 ppb        2.18171  24.33%
   QC value within limits for Sn 189.927  Recovery = 89.68%
Sr 421.552†              474.2      5.1463 µg/L       0.14946      5.1463 ppb        0.14946   2.90%
   QC value within limits for Sr 421.552  Recovery = 102.93%
Ti 334.940†             2043.5      4.9391 µg/L       0.32021      4.9391 ppb        0.32021   6.48%
   QC value within limits for Ti 334.940  Recovery = 98.78%
Tl 190.801†               12.4      20.076 µg/L        2.5051      20.076 ppb         2.5051  12.48%
   QC value within limits for Tl 190.801  Recovery = 100.38%
U 409.014†               482.4      50.098 µg/L        4.1455      50.098 ppb         4.1455   8.27%
   QC value within limits for U 409.014  Recovery = 100.20%
V 292.402†               428.2      5.4241 µg/L       0.04850      5.4241 ppb        0.04850   0.89%
   QC value within limits for V 292.402  Recovery = 108.48%
Zn 213.857†              385.6      9.8474 µg/L       0.76450      9.8474 ppb        0.76450   7.76%
   QC value within limits for Zn 213.857  Recovery = 98.47%
All analyte(s) passed QC.
```

Sequence No.: 9
Sample ID: ICSA
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 103
Date Collected: 1/8/2010 11:40:45
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSA

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56937.4	56937.4	95.2	%			11:41:27
1	Al 396.153Radial†	682466.3	716488.9	515190	µg/L	515190	ppb	11:41:21
1	Ca 317.933Radial†	533560.0	559970.2	490140	µg/L	490140	ppb	11:41:21
1	Fe 238.204 Radial†	13753.3	14431.0	187560	µg/L	187560	ppb	11:41:27
1	K 766.490 Radial†	497.1	21.5	14.014	µg/L	14.014	ppb	11:41:27
1	Mg 279.077 IEC†	47951.1	50332.5	493160	µg/L	493160	ppb	11:41:27
1	Na 589.592 Radial†	186.1	53.2	20.833	µg/L	20.833	ppb	11:41:27
1	Sr 421.552†	315.5	359.6	3.9028	µg/L	3.9028	ppb	11:41:27
1	Sc 361.383	1654775.7	1654775.7	94.083	%			11:42:00
1	Y 371.029	1004199.6	1004199.6	93.117	%			11:42:00
1	Ag 328.068†	-2233.4	-2157.2	-4.8138	µg/L	-4.8138	ppb	11:42:00
1	As 188.979†	15.8	20.6	-54.573	µg/L	-54.573	ppb	11:42:21
1	B 249.677†	736.4	426.2	-42.693	µg/L	-42.693	ppb	11:42:00
1	Ba 233.527†	188.5	244.1	6.8711	µg/L	6.8711	ppb	11:42:21
1	Be 313.107†	3503.6	-289.9	-0.1969	µg/L	-0.1969	ppb	11:42:00
1	Cd 226.502†	697.2	865.5	-1.8248	µg/L	-1.8248	ppb	11:42:21
1	Co 228.616†	2.3	-13.4	-0.7724	µg/L	-0.7724	ppb	11:42:21
1	Cr 267.716†	-223.2	-101.4	-2.3466	µg/L	-2.3466	ppb	11:42:21
1	Cu 324.752†	2291.7	-3434.1	-7.2726	µg/L	-7.2726	ppb	11:42:00
1	Mn 257.610†	-2557.7	-2512.9	14.772	µg/L	14.772	ppb	11:42:00
1	Mo 202.031†	-91.3	-116.6	-6.8959	µg/L	-6.8959	ppb	11:42:21
1	Ni 231.604†	300.2	-4.8	-0.2773	µg/L	-0.2773	ppb	11:42:21
1	P 214.914†	276.6	38.0	29.931	µg/L	29.931	ppb	11:42:21
1	Pb 220.353†	-8.3	-92.2	-12.285	µg/L	-12.285	ppb	11:42:21
1	S 181.975 Axial†	68.1	40.7	50.111	µg/L	50.111	ppb	11:42:21
1	Sb 206.836†	64.7	44.6	-11.804	µg/L	-11.804	ppb	11:42:21
1	Se 196.026†	-52.5	-69.9	-2.2964	µg/L	-2.2964	ppb	11:42:21
1	SiO2†	3308.9	-134.1	-22.747	µg/L	-22.747	ppb	11:42:21
1	Si 251.611†	502.5	202.7	19.398	µg/L	19.398	ppb	11:42:21
1	Sn 189.927†	-277.6	-324.3	23.490	µg/L	23.490	ppb	11:42:21
1	Ti 334.940†	10358.8	10463.3	-3.5742	µg/L	-3.5742	ppb	11:42:00
1	Tl 190.801†	15.0	43.1	-33.070	µg/L	-33.070	ppb	11:42:21
1	U 409.014†	512.7	437.4	-18.906	µg/L	-18.906	ppb	11:42:00
1	V 292.402†	-683.2	-404.0	0.3958	µg/L	0.3958	ppb	11:42:00
1	Zn 213.857†	1872.0	1375.9	-16.185	µg/L	-16.185	ppb	11:42:21
2	Sc RADIAL	57440.6	57440.6	96.1	%			11:41:38
2	Al 396.153Radial†	690668.0	718747.4	516820	µg/L	516820	ppb	11:41:32
2	Ca 317.933Radial†	541140.7	562951.9	492750	µg/L	492750	ppb	11:41:32
2	Fe 238.204 Radial†	13892.2	14449.0	187790	µg/L	187790	ppb	11:41:38
2	K 766.490 Radial†	422.1	-61.2	-39.916	µg/L	-39.916	ppb	11:41:38
2	Mg 279.077 IEC†	48150.2	50098.7	490870	µg/L	490870	ppb	11:41:38
2	Na 589.592 Radial†	241.0	108.7	42.556	µg/L	42.556	ppb	11:41:38
2	Sr 421.552†	273.8	313.3	3.3999	µg/L	3.3999	ppb	11:41:38
2	Sc 361.383	1653276.7	1653276.7	93.997	%			11:42:27
2	Y 371.029	1002991.8	1002991.8	93.005	%			11:42:27
2	Ag 328.068†	-2192.6	-2116.0	-4.4191	µg/L	-4.4191	ppb	11:42:27
2	As 188.979†	14.9	19.6	-56.766	µg/L	-56.766	ppb	11:42:48
2	B 249.677†	719.9	409.4	-43.410	µg/L	-43.410	ppb	11:42:27
2	Ba 233.527†	193.7	249.8	7.0337	µg/L	7.0337	ppb	11:42:48
2	Be 313.107†	3398.3	-398.5	-0.2671	µg/L	-0.2671	ppb	11:42:27
2	Cd 226.502†	705.9	875.4	-1.5730	µg/L	-1.5730	ppb	11:42:48
2	Co 228.616†	21.7	7.2	0.2734	µg/L	0.2734	ppb	11:42:48
2	Cr 267.716†	-208.4	-85.9	-1.9893	µg/L	-1.9893	ppb	11:42:48
2	Cu 324.752†	2201.5	-3527.9	-7.9150	µg/L	-7.9150	ppb	11:42:27
2	Mn 257.610†	-2502.1	-2456.2	15.000	µg/L	15.000	ppb	11:42:27
2	Mo 202.031†	-113.8	-140.6	-9.8314	µg/L	-9.8314	ppb	11:42:48
2	Ni 231.604†	306.7	2.5	0.1447	µg/L	0.1447	ppb	11:42:48
2	P 214.914†	252.5	12.6	-10.649	µg/L	-10.649	ppb	11:42:48
2	Pb 220.353†	-7.3	-91.2	-11.975	µg/L	-11.975	ppb	11:42:48

2	S 181.975 Axial†	65.2	37.7	39.265 µg/L	39.265 ppb	11:42:48
2	Sb 206.836†	58.5	38.1	-17.914 µg/L	-17.914 ppb	11:42:48
2	Se 196.026†	-47.3	-64.5	4.9179 µg/L	4.9179 ppb	11:42:48
2	SiO2†	3332.2	-106.1	-17.997 µg/L	-17.997 ppb	11:42:48
2	Si 251.611†	484.4	183.9	18.566 µg/L	18.566 ppb	11:42:48
2	Sn 189.927†	-293.8	-341.8	14.357 µg/L	14.357 ppb	11:42:48
2	Ti 334.940†	10319.4	10431.4	-3.8056 µg/L	-3.8056 ppb	11:42:27
2	Tl 190.801†	13.3	41.3	-36.486 µg/L	-36.486 ppb	11:42:48
2	U 409.014†	561.6	489.9	-13.648 µg/L	-13.648 ppb	11:42:27
2	V 292.402†	-664.4	-384.6	0.6295 µg/L	0.6295 ppb	11:42:27
2	Zn 213.857†	1877.6	1383.7	-16.049 µg/L	-16.049 ppb	11:42:48
3	Sc RADIAL	56928.1	56928.1	95.2 %		11:41:49
3	Al 396.153Radial†	692143.0	726766.7	522580 µg/L	522580 ppb	11:41:43
3	Ca 317.933Radial†	543607.1	570611.5	499460 µg/L	499460 ppb	11:41:43
3	Fe 238.204 Radial†	13726.8	14405.6	187230 µg/L	187230 ppb	11:41:49
3	K 766.490 Radial†	455.7	-21.9	-14.292 µg/L	-14.292 ppb	11:41:49
3	Mg 279.077 IEC†	47802.4	50184.5	491710 µg/L	491710 ppb	11:41:49
3	Na 589.592 Radial†	226.0	95.1	37.238 µg/L	37.238 ppb	11:41:49
3	Sr 421.552†	324.1	368.7	4.0014 µg/L	4.0014 ppb	11:41:49
3	Sc 361.383	1660494.8	1660494.8	94.408 %		11:42:55
3	Y 371.029	1009354.3	1009354.3	93.595 %		11:42:55
3	Ag 328.068†	-2242.7	-2158.9	-4.8497 µg/L	-4.8497 ppb	11:42:55
3	As 188.979†	10.9	15.3	-65.901 µg/L	-65.901 ppb	11:43:15
3	B 249.677†	732.2	419.1	-42.861 µg/L	-42.861 ppb	11:42:55
3	Ba 233.527†	185.4	240.1	6.7606 µg/L	6.7606 ppb	11:43:15
3	Be 313.107†	3589.1	-212.2	-0.1466 µg/L	-0.1466 ppb	11:42:55
3	Cd 226.502†	697.4	863.1	-1.8314 µg/L	-1.8314 ppb	11:43:15
3	Co 228.616†	18.1	3.3	0.0766 µg/L	0.0766 ppb	11:43:15
3	Cr 267.716†	-226.2	-103.8	-2.3987 µg/L	-2.3987 ppb	11:43:15
3	Cu 324.752†	2241.1	-3496.1	-7.7412 µg/L	-7.7412 ppb	11:42:55
3	Mn 257.610†	-2571.6	-2518.2	14.712 µg/L	14.712 ppb	11:42:55
3	Mo 202.031†	-108.1	-134.0	-9.0465 µg/L	-9.0465 ppb	11:43:15
3	Ni 231.604†	303.1	-2.8	-0.1606 µg/L	-0.1606 ppb	11:43:15
3	P 214.914†	274.1	34.3	27.116 µg/L	27.116 ppb	11:43:15
3	Pb 220.353†	0.0	-83.4	-9.6513 µg/L	-9.6513 ppb	11:43:15
3	S 181.975 Axial†	60.9	32.9	21.871 µg/L	21.871 ppb	11:43:15
3	Sb 206.836†	57.2	36.4	-20.117 µg/L	-20.117 ppb	11:43:15
3	Se 196.026†	-55.5	-72.9	-1.3181 µg/L	-1.3181 ppb	11:43:15
3	SiO2†	3310.8	-144.3	-24.469 µg/L	-24.469 ppb	11:43:15
3	Si 251.611†	491.4	189.1	18.682 µg/L	18.682 ppb	11:43:15
3	Sn 189.927†	-285.2	-331.4	21.591 µg/L	21.591 ppb	11:43:15
3	Ti 334.940†	10400.8	10469.8	-4.1081 µg/L	-4.1081 ppb	11:42:55
3	Tl 190.801†	19.0	47.3	-28.330 µg/L	-28.330 ppb	11:43:15
3	U 409.014†	686.0	619.0	-0.5268 µg/L	-0.5268 ppb	11:42:55
3	V 292.402†	-622.6	-337.3	1.2242 µg/L	1.2242 ppb	11:42:55
3	Zn 213.857†	1861.6	1358.1	-16.552 µg/L	-16.552 ppb	11:43:15

Mean Data: ICSA

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1656182.4	94.163	%	0.2166				0.23%
Sc RADIAL	57102.1	95.5	%	0.49				0.51%
Y 371.029	1005515.2	93.239	%	0.3133				0.34%
Ag 328.068†	-2144.0	-4.6942	µg/L	0.23894	-4.6942	ppb	0.23894	5.09%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	720667.7	518200	µg/L	3883.8	518200	ppb	3883.8	0.75%
QC value within limits for Al 396.153Radial Recovery = 103.64%								
As 188.979†	18.5	-59.080	µg/L	6.0081	-59.080	ppb	6.0081	10.17%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	418.2	-42.988	µg/L	0.3752	-42.988	ppb	0.3752	0.87%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	244.7	6.8885	µg/L	0.13737	6.8885	ppb	0.13737	1.99%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-300.2	-0.2035	µg/L	0.06050	-0.2035	ppb	0.06050	29.73%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	564511.2	494120	µg/L	4804.9	494120	ppb	4804.9	0.97%
QC value within limits for Ca 317.933Radial Recovery = 98.82%								
Cd 226.502†	868.0	-1.7431	µg/L	0.14733	-1.7431	ppb	0.14733	8.45%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	-1.0	-0.1408	µg/L	0.55578	-0.1408	ppb	0.55578	394.76%

QC value within limits for Co 228.616 Recovery = Not calculated

Cr 267.716†	-97.1	-2.2449 µg/L	0.22283	-2.2449 ppb	0.22283	9.93%

QC value within limits for Cr 267.716 Recovery = Not calculated

Cu 324.752†	-3486.1	-7.6429 µg/L	0.33232	-7.6429 ppb	0.33232	4.35%

QC value within limits for Cu 324.752 Recovery = Not calculated

Fe 238.204 Radial†	14428.5	187530 µg/L	283.7	187530 ppb	283.7	0.15%

QC value within limits for Fe 238.204 Radial Recovery = 93.76%

K 766.490 Radial†	-20.5	-13.398 µg/L	26.9764	-13.398 ppb	26.9764	201.35%

QC value within limits for K 766.490 Radial Recovery = Not calculated

Mg 279.077 IEC†	50205.3	491910 µg/L	1159.7	491910 ppb	1159.7	0.24%

QC value within limits for Mg 279.077 IEC Recovery = 98.38%

Mn 257.610†	-2495.8	14.828 µg/L	0.1521	14.828 ppb	0.1521	1.03%

QC value within limits for Mn 257.610 Recovery = Not calculated

Mo 202.031†	-130.4	-8.5913 µg/L	1.51979	-8.5913 ppb	1.51979	17.69%

QC value within limits for Mo 202.031 Recovery = Not calculated

Na 589.592 Radial†	85.7	33.543 µg/L	11.3232	33.543 ppb	11.3232	33.76%

QC value within limits for Na 589.592 Radial Recovery = Not calculated

Ni 231.604†	-1.7	-0.0977 µg/L	0.21787	-0.0977 ppb	0.21787	222.92%

QC value within limits for Ni 231.604 Recovery = Not calculated

P 214.914†	28.3	15.466 µg/L	22.6601	15.466 ppb	22.6601	146.52%

QC value within limits for P 214.914 Recovery = Not calculated

Pb 220.353†	-88.9	-11.304 µg/L	1.4394	-11.304 ppb	1.4394	12.73%

QC value within limits for Pb 220.353 Recovery = Not calculated

S 181.975 Axial†	37.1	37.082 µg/L	14.2462	37.082 ppb	14.2462	38.42%

QC value within limits for S 181.975 Axial Recovery = Not calculated

Sb 206.836†	39.7	-16.612 µg/L	4.3069	-16.612 ppb	4.3069	25.93%

QC value within limits for Sb 206.836 Recovery = Not calculated

Se 196.026†	-69.1	0.4344 µg/L	3.91347	0.4344 ppb	3.91347	900.79%

QC value within limits for Se 196.026 Recovery = Not calculated

SiO2†	-128.2	-21.737 µg/L	3.3518	-21.737 ppb	3.3518	15.42%

QC value within limits for SiO2 Recovery = Not calculated

Si 251.611†	191.9	18.882 µg/L	0.4504	18.882 ppb	0.4504	2.39%

QC value within limits for Si 251.611 Recovery = Not calculated

Sn 189.927†	-332.5	19.813 µg/L	4.8191	19.813 ppb	4.8191	24.32%

QC value within limits for Sn 189.927 Recovery = Not calculated

Sr 421.552†	347.2	3.7681 µg/L	0.32260	3.7681 ppb	0.32260	8.56%

QC value within limits for Sr 421.552 Recovery = Not calculated

Ti 334.940†	10454.8	-3.8293 µg/L	0.26774	-3.8293 ppb	0.26774	6.99%

QC value within limits for Ti 334.940 Recovery = Not calculated

Tl 190.801†	43.9	-32.629 µg/L	4.0958	-32.629 ppb	4.0958	12.55%

QC value within limits for Tl 190.801 Recovery = Not calculated

U 409.014†	515.4	-11.027 µg/L	9.4659	-11.027 ppb	9.4659	85.84%

QC value within limits for U 409.014 Recovery = Not calculated

V 292.402†	-375.3	0.7498 µg/L	0.42712	0.7498 ppb	0.42712	56.96%

QC value within limits for V 292.402 Recovery = Not calculated

Zn 213.857†	1372.5	-16.262 µg/L	0.2605	-16.262 ppb	0.2605	1.60%

QC value within limits for Zn 213.857 Recovery = Not calculated

All analyte(s) passed QC.

Sequence No.: 10
Sample ID: ICSAB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 104
Date Collected: 1/8/2010 11:43:24
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSAB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	57722.5	57722.5	96.6	%			11:44:03
1	Al 396.153Radial†	697642.1	722459.3	519470	µg/L	519470	ppb	11:43:58
1	Ca 317.933Radial†	545317.3	564526.7	494130	µg/L	494130	ppb	11:43:58
1	Fe 238.204 Radial†	13854.3	14339.2	186380	µg/L	186380	ppb	11:44:03
1	K 766.490 Radial†	7882.9	7663.1	5000.1	µg/L	5000.1	ppb	11:44:03
1	Mg 279.077 IEC†	48677.2	50399.6	493830	µg/L	493830	ppb	11:44:03
1	Na 589.592 Radial†	12949.1	13268.1	5195.4	µg/L	5195.4	ppb	11:44:03
1	Sr 421.552†	43883.4	45474.7	493.51	µg/L	493.51	ppb	11:44:03
1	Sc 361.383	1660312.6	1660312.6	94.398	%			11:44:38
1	Y 371.029	1008123.4	1008123.4	93.480	%			11:44:38
1	Ag 328.068†	25303.4	27021.8	263.34	µg/L	263.34	ppb	11:44:38
1	As 188.979†	290.4	311.4	440.04	µg/L	440.04	ppb	11:44:59
1	B 249.677†	13440.4	13881.6	471.87	µg/L	471.87	ppb	11:44:38
1	Ba 233.527†	16489.8	17512.2	494.76	µg/L	494.76	ppb	11:44:38
1	Be 313.107†	348356.9	365017.9	235.84	µg/L	235.84	ppb	11:44:38
1	Cd 226.502†	16215.2	17302.0	462.71	µg/L	462.71	ppb	11:44:38
1	Co 228.616†	8145.2	8612.7	439.52	µg/L	439.52	ppb	11:44:59
1	Cr 267.716†	19489.1	20781.6	479.52	µg/L	479.52	ppb	11:44:38
1	Cu 324.752†	77187.8	75898.9	554.02	µg/L	554.02	ppb	11:44:38
1	Mn 257.610†	126377.9	134084.1	493.20	µg/L	493.20	ppb	11:44:38
1	Mo 202.031†	3715.5	3916.5	486.70	µg/L	486.70	ppb	11:44:59
1	Ni 231.604†	7508.4	7630.2	444.07	µg/L	444.07	ppb	11:44:59
1	P 214.914†	1751.0	1598.9	2482.3	µg/L	2482.3	ppb	11:44:59
1	Pb 220.353†	1685.7	1702.4	481.82	µg/L	481.82	ppb	11:44:59
1	S 181.975 Axial†	722.6	733.9	2574.1	µg/L	2574.1	ppb	11:44:59
1	Sb 206.836†	599.5	610.9	492.21	µg/L	492.21	ppb	11:44:59
1	Se 196.026†	2121.2	2232.9	2396.7	µg/L	2396.7	ppb	11:44:59
1	SiO2†	64162.9	64319.8	10909	µg/L	10909	ppb	11:44:38
1	Si 251.611†	72388.3	76353.1	5068.3	µg/L	5068.3	ppb	11:44:38
1	Sn 189.927†	655.0	664.6	539.25	µg/L	539.25	ppb	11:44:59
1	Ti 334.940†	202799.1	214288.2	490.06	µg/L	490.06	ppb	11:44:38
1	Tl 190.801†	304.9	350.1	465.70	µg/L	465.70	ppb	11:44:59
1	U 409.014†	5175.1	5374.7	494.13	µg/L	494.13	ppb	11:44:38
1	V 292.402†	37656.3	40213.4	504.91	µg/L	504.91	ppb	11:44:38
1	Zn 213.857†	19499.6	20043.0	461.28	µg/L	461.28	ppb	11:44:38
2	Sc RADIAL	58276.4	58276.4	97.5	%			11:44:15
2	Al 396.153Radial†	696748.6	714676.2	513870	µg/L	513870	ppb	11:44:09
2	Ca 317.933Radial†	544983.5	558817.0	489130	µg/L	489130	ppb	11:44:09
2	Fe 238.204 Radial†	14059.6	14413.5	187350	µg/L	187350	ppb	11:44:15
2	K 766.490 Radial†	8036.5	7743.2	5052.3	µg/L	5052.3	ppb	11:44:15
2	Mg 279.077 IEC†	49272.0	50530.7	495120	µg/L	495120	ppb	11:44:15
2	Na 589.592 Radial†	13165.2	13362.3	5232.3	µg/L	5232.3	ppb	11:44:15
2	Sr 421.552†	44555.8	45732.5	496.31	µg/L	496.31	ppb	11:44:15
2	Sc 361.383	1652918.8	1652918.8	93.977	%			11:45:06
2	Y 371.029	1004682.7	1004682.7	93.161	%			11:45:06
2	Ag 328.068†	25171.0	27000.8	263.24	µg/L	263.24	ppb	11:45:06
2	As 188.979†	290.1	312.4	443.16	µg/L	443.16	ppb	11:45:27
2	B 249.677†	13479.9	13987.3	475.60	µg/L	475.60	ppb	11:45:06
2	Ba 233.527†	16401.4	17496.3	494.32	µg/L	494.32	ppb	11:45:06
2	Be 313.107†	347735.7	366007.7	236.48	µg/L	236.48	ppb	11:45:06
2	Cd 226.502†	16126.0	17284.0	462.06	µg/L	462.06	ppb	11:45:06
2	Co 228.616†	8153.4	8660.1	441.94	µg/L	441.94	ppb	11:45:27
2	Cr 267.716†	19500.6	20886.2	481.93	µg/L	481.93	ppb	11:45:06
2	Cu 324.752†	77260.1	76341.6	557.24	µg/L	557.24	ppb	11:45:06
2	Mn 257.610†	126340.3	134643.0	495.28	µg/L	495.28	ppb	11:45:06
2	Mo 202.031†	3742.9	3963.2	492.46	µg/L	492.46	ppb	11:45:27
2	Ni 231.604†	7524.9	7683.4	447.17	µg/L	447.17	ppb	11:45:27
2	P 214.914†	1743.7	1599.5	2479.6	µg/L	2479.6	ppb	11:45:27
2	Pb 220.353†	1701.4	1727.0	488.43	µg/L	488.43	ppb	11:45:27

2	S 181.975 Axial†	733.6	749.0	2628.8 µg/L	2628.8 ppb	11:45:27
2	Sb 206.836†	588.5	602.0	484.75 µg/L	484.75 ppb	11:45:27
2	Se 196.026†	2119.9	2241.6	2403.4 µg/L	2403.4 ppb	11:45:27
2	SiO2†	64096.2	64552.9	10948 µg/L	10948 ppb	11:45:06
2	Si 251.611†	72482.0	76795.9	5097.7 µg/L	5097.7 ppb	11:45:06
2	Sn 189.927†	653.1	665.7	538.84 µg/L	538.84 ppb	11:45:27
2	Ti 334.940†	202684.5	215127.2	492.39 µg/L	492.39 ppb	11:45:06
2	Tl 190.801†	291.9	337.7	446.67 µg/L	446.67 ppb	11:45:27
2	U 409.014†	5107.1	5326.8	489.28 µg/L	489.28 ppb	11:45:06
2	V 292.402†	37662.0	40397.9	507.24 µg/L	507.24 ppb	11:45:06
2	Zn 213.857†	19423.1	20054.1	461.28 µg/L	461.28 ppb	11:45:06
3	Sc RADIAL	57565.0	57565.0	96.3 %		11:44:26
3	Al 396.153Radial†	699782.0	726658.1	522490 µg/L	522490 ppb	11:44:20
3	Ca 317.933Radial†	547438.2	568274.2	497410 µg/L	497410 ppb	11:44:20
3	Fe 238.204 Radial†	13801.5	14323.6	186180 µg/L	186180 ppb	11:44:26
3	K 766.490 Radial†	7918.0	7722.0	5038.5 µg/L	5038.5 ppb	11:44:26
3	Mg 279.077 IEC†	48519.1	50373.5	493580 µg/L	493580 ppb	11:44:26
3	Na 589.592 Radial†	12967.7	13324.1	5217.4 µg/L	5217.4 ppb	11:44:26
3	Sr 421.552†	43689.6	45397.8	492.67 µg/L	492.67 ppb	11:44:26
3	Sc 361.383	1646528.4	1646528.4	93.614 %		11:45:34
3	Y 371.029	999888.7	999888.7	92.717 %		11:45:34
3	Ag 328.068†	25175.0	27109.1	264.14 µg/L	264.14 ppb	11:45:34
3	As 188.979†	295.6	319.5	453.03 µg/L	453.03 ppb	11:45:55
3	B 249.677†	13448.3	14009.3	476.81 µg/L	476.81 ppb	11:45:34
3	Ba 233.527†	16490.2	17658.8	498.90 µg/L	498.90 ppb	11:45:34
3	Be 313.107†	347883.5	367601.7	237.51 µg/L	237.51 ppb	11:45:34
3	Cd 226.502†	16100.9	17323.7	463.35 µg/L	463.35 ppb	11:45:34
3	Co 228.616†	8206.3	8750.2	446.54 µg/L	446.54 ppb	11:45:55
3	Cr 267.716†	19480.7	20945.4	483.30 µg/L	483.30 ppb	11:45:34
3	Cu 324.752†	77362.0	76769.5	560.16 µg/L	560.16 ppb	11:45:34
3	Mn 257.610†	126336.3	135160.5	496.94 µg/L	496.94 ppb	11:45:34
3	Mo 202.031†	3758.7	3995.5	496.37 µg/L	496.37 ppb	11:45:55
3	Ni 231.604†	7572.6	7765.3	451.94 µg/L	451.94 ppb	11:45:55
3	P 214.914†	1751.5	1615.0	2508.9 µg/L	2508.9 ppb	11:45:55
3	Pb 220.353†	1678.4	1709.5	483.90 µg/L	483.90 ppb	11:45:55
3	S 181.975 Axial†	731.2	749.4	2630.8 µg/L	2630.8 ppb	11:45:55
3	Sb 206.836†	576.9	592.0	474.98 µg/L	474.98 ppb	11:45:55
3	Se 196.026†	2140.0	2271.8	2438.6 µg/L	2438.6 ppb	11:45:55
3	SiO2†	64135.7	64859.7	11000 µg/L	11000 ppb	11:45:34
3	Si 251.611†	72460.2	77071.9	5115.8 µg/L	5115.8 ppb	11:45:34
3	Sn 189.927†	661.7	677.5	546.68 µg/L	546.68 ppb	11:45:55
3	Ti 334.940†	202953.4	216251.5	494.63 µg/L	494.63 ppb	11:45:34
3	Tl 190.801†	300.5	348.1	461.75 µg/L	461.75 ppb	11:45:55
3	U 409.014†	5064.6	5302.5	486.47 µg/L	486.47 ppb	11:45:34
3	V 292.402†	37664.3	40555.9	509.18 µg/L	509.18 ppb	11:45:34
3	Zn 213.857†	19476.6	20191.4	465.10 µg/L	465.10 ppb	11:45:34

Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1653253.2	93.996	%	0.3922				0.42%
Sc RADIAL	57854.7	96.8	%	0.63				0.65%
Y 371.029	1004231.6	93.120	%	0.3835				0.41%
Ag 328.068†	27043.9	263.57	µg/L	0.496	263.57	ppb	0.496	0.19%
QC value within limits for Ag 328.068 Recovery = 105.43%								
Al 396.153Radial†	721264.6	518610	µg/L	4371.5	518610	ppb	4371.5	0.84%
QC value within limits for Al 396.153Radial Recovery = 103.72%								
As 188.979†	314.4	445.41	µg/L	6.780	445.41	ppb	6.780	1.52%
QC value within limits for As 188.979 Recovery = 89.08%								
B 249.677†	13959.4	474.76	µg/L	2.576	474.76	ppb	2.576	0.54%
QC value within limits for B 249.677 Recovery = 94.95%								
Ba 233.527†	17555.8	495.99	µg/L	2.529	495.99	ppb	2.529	0.51%
QC value within limits for Ba 233.527 Recovery = 99.20%								
Be 313.107†	366209.1	236.61	µg/L	0.842	236.61	ppb	0.842	0.36%
QC value within limits for Be 313.107 Recovery = 94.64%								
Ca 317.933Radial†	563872.7	493560	µg/L	4168.5	493560	ppb	4168.5	0.84%
QC value within limits for Ca 317.933Radial Recovery = 98.71%								
Cd 226.502†	17303.3	462.71	µg/L	0.644	462.71	ppb	0.644	0.14%
QC value within limits for Cd 226.502 Recovery = 92.54%								
Co 228.616†	8674.3	442.67	µg/L	3.569	442.67	ppb	3.569	0.81%

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   QC value within limits for Co 228.616  Recovery = 88.53%
Cr 267.716†            20871.0      481.58 µg/L         1.914      481.58 ppb          1.914   0.40%
   QC value within limits for Cr 267.716  Recovery = 96.32%
Cu 324.752†            76336.7      557.14 µg/L         3.073      557.14 ppb          3.073   0.55%
   QC value within limits for Cu 324.752  Recovery = 111.43%
Fe 238.204 Radial†     14358.8      186640 µg/L         624.0      186640 ppb          624.0   0.33%
   QC value within limits for Fe 238.204 Radial  Recovery = 93.32%
K 766.490 Radial†       7709.4      5030.3 µg/L         27.05      5030.3 ppb          27.05   0.54%
   QC value within limits for K 766.490 Radial  Recovery = 100.61%
Mg 279.077 IEC†        50434.6      494170 µg/L         825.1      494170 ppb          825.1   0.17%
   QC value within limits for Mg 279.077 IEC  Recovery = 98.83%
Mn 257.610†           134629.2      495.14 µg/L         1.877      495.14 ppb          1.877   0.38%
   QC value within limits for Mn 257.610  Recovery = 99.03%
Mo 202.031†             3958.4      491.85 µg/L         4.865      491.85 ppb          4.865   0.99%
   QC value within limits for Mo 202.031  Recovery = 98.37%
Na 589.592 Radial†     13318.2      5215.0 µg/L         18.56      5215.0 ppb          18.56   0.36%
   QC value within limits for Na 589.592 Radial  Recovery = 104.30%
Ni 231.604†             7693.0      447.73 µg/L         3.962      447.73 ppb          3.962   0.88%
   QC value within limits for Ni 231.604  Recovery = 89.55%
P 214.914†              1604.5      2490.3 µg/L         16.18      2490.3 ppb          16.18   0.65%
   QC value within limits for P 214.914  Recovery = 99.61%
Pb 220.353†             1712.9      484.71 µg/L         3.380      484.71 ppb          3.380   0.70%
   QC value within limits for Pb 220.353  Recovery = 96.94%
S 181.975 Axial†         744.1      2611.3 µg/L         32.15      2611.3 ppb          32.15   1.23%
   QC value within limits for S 181.975 Axial  Recovery = 104.45%
Sb 206.836†              601.7      483.98 µg/L         8.641      483.98 ppb          8.641   1.79%
   QC value within limits for Sb 206.836  Recovery = 96.80%
Se 196.026†             2248.8      2412.9 µg/L         22.47      2412.9 ppb          22.47   0.93%
   QC value within limits for Se 196.026  Recovery = 96.52%
SiO2†                  64577.5       10952 µg/L          45.9       10952 ppb           45.9   0.42%
   QC value within limits for SiO2  Recovery = 102.41%
Si 251.611†            76740.3      5094.0 µg/L         23.97      5094.0 ppb          23.97   0.47%
   QC value within limits for Si 251.611  Recovery = 101.88%
Sn 189.927†              669.3      541.59 µg/L         4.413      541.59 ppb          4.413   0.81%
   QC value within limits for Sn 189.927  Recovery = 108.32%
Sr 421.552†            45535.0      494.16 µg/L         1.902      494.16 ppb          1.902   0.38%
   QC value within limits for Sr 421.552  Recovery = 98.83%
Ti 334.940†           215222.3      492.36 µg/L         2.282      492.36 ppb          2.282   0.46%
   QC value within limits for Ti 334.940  Recovery = 98.47%
Tl 190.801†              345.3      458.04 µg/L        10.045      458.04 ppb         10.045   2.19%
   QC value within limits for Tl 190.801  Recovery = 91.61%
U 409.014†              5334.7      489.96 µg/L         3.876      489.96 ppb          3.876   0.79%
   QC value within limits for U 409.014  Recovery = 97.99%
V 292.402†             40389.1      507.11 µg/L         2.137      507.11 ppb          2.137   0.42%
   QC value within limits for V 292.402  Recovery = 101.42%
Zn 213.857†            20096.2      462.55 µg/L         2.208      462.55 ppb          2.208   0.48%
   QC value within limits for Zn 213.857  Recovery = 92.51%
All analyte(s) passed QC.
```

Sequence No.: 11
Sample ID: LR1
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 105
Date Collected: 1/8/2010 11:46:04
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	55889.9	55889.9	93.5	%			11:46:43
1	Al 396.153Radial†	684356.2	731940.3	526300	µg/L	526300	ppb	11:46:38
1	Ca 317.933Radial†	535989.4	573068.3	501610	µg/L	501610	ppb	11:46:38
1	Fe 238.204 Radial†	32700.5	34967.2	454470	µg/L	454470	ppb	11:46:43
1	K 766.490 Radial†	675.6	222.2	144.96	µg/L	144.96	ppb	11:46:43
1	Mg 279.077 IEC†	46679.5	49916.1	488680	µg/L	488680	ppb	11:46:43
1	Na 589.592 Radial†	1219437.6	1304137.6	510660	µg/L	510660	ppb	11:46:38
1	Sr 421.552†	437.5	496.2	5.3855	µg/L	5.3855	ppb	11:46:43
1	Sc 361.383	1640975.1	1640975.1	93.298	%			11:47:18
1	Y 371.029	991974.2	991974.2	91.983	%			11:47:18
1	Ag 328.068†	-4454.5	-4557.8	-5.7052	µg/L	-5.7052	ppb	11:47:18
1	As 188.979†	-4.0	-0.6	-49.465	µg/L	-49.465	ppb	11:47:39
1	B 249.677†	1284.9	1020.8	-103.90	µg/L	-103.90	ppb	11:47:18
1	Ba 233.527†	455.3	531.8	14.931	µg/L	14.931	ppb	11:47:39
1	Be 313.107†	-539.7	-4592.3	-2.9799	µg/L	-2.9799	ppb	11:47:18
1	Cd 226.502†	1845.7	2102.7	6.0962	µg/L	6.0962	ppb	11:47:18
1	Co 228.616†	111.3	103.4	5.1427	µg/L	5.1427	ppb	11:47:39
1	Cr 267.716†	-243.2	-124.9	-2.9416	µg/L	-2.9416	ppb	11:47:39
1	Cu 324.752†	-3601.7	-9730.4	-27.594	µg/L	-27.594	ppb	11:47:18
1	Mn 257.610†	-13561.7	-14330.1	6.9205	µg/L	6.9205	ppb	11:47:18
1	Mo 202.031†	-220.3	-255.7	-13.432	µg/L	-13.432	ppb	11:47:39
1	Ni 231.604†	278.0	-25.8	-1.5027	µg/L	-1.5027	ppb	11:47:39
1	P 214.914†	452.1	228.6	30.348	µg/L	30.348	ppb	11:47:39
1	Pb 220.353†	98.3	22.0	3.8659	µg/L	3.8659	ppb	11:47:39
1	S 181.975 Axial†	60.7	33.4	-15.566	µg/L	-15.566	ppb	11:47:39
1	Sb 206.836†	62.8	43.1	-6.1375	µg/L	-6.1375	ppb	11:47:39
1	Se 196.026†	-290.2	-325.2	-261.63	µg/L	-261.63	ppb	11:47:39
1	SiO2†	3197.1	-224.4	-38.056	µg/L	-38.056	ppb	11:47:39
1	Si 251.611†	-185.5	-530.2	-27.999	µg/L	-27.999	ppb	11:47:39
1	Sn 189.927†	-345.1	-399.1	-66.356	µg/L	-66.356	ppb	11:47:39
1	Ti 334.940†	11216.5	11475.1	-1.7991	µg/L	-1.7991	ppb	11:47:18
1	Tl 190.801†	4.8	32.3	-53.188	µg/L	-53.188	ppb	11:47:39
1	U 409.014†	131588.2	140933.0	14530	µg/L	14530	ppb	11:47:18
1	V 292.402†	-2486.6	-2343.0	7.6935	µg/L	7.6935	ppb	11:47:18
1	Zn 213.857†	3295.3	2918.2	-49.150	µg/L	-49.150	ppb	11:47:39
2	Sc RADIAL	56137.8	56137.8	93.9	%			11:46:55
2	Al 396.153Radial†	692057.2	736907.8	529880	µg/L	529880	ppb	11:46:50
2	Ca 317.933Radial†	541888.1	576817.6	504890	µg/L	504890	ppb	11:46:50
2	Fe 238.204 Radial†	32915.0	35041.0	455430	µg/L	455430	ppb	11:46:55
2	K 766.490 Radial†	729.6	276.5	180.41	µg/L	180.41	ppb	11:46:55
2	Mg 279.077 IEC†	46910.0	49941.0	488930	µg/L	488930	ppb	11:46:55
2	Na 589.592 Radial†	1230751.8	1310425.0	513130	µg/L	513130	ppb	11:46:50
2	Sr 421.552†	417.3	472.7	5.1298	µg/L	5.1298	ppb	11:46:55
2	Sc 361.383	1650850.7	1650850.7	93.860	%			11:47:46
2	Y 371.029	998146.6	998146.6	92.555	%			11:47:46
2	Ag 328.068†	-4392.3	-4463.0	-4.7745	µg/L	-4.7745	ppb	11:47:46
2	As 188.979†	3.5	7.5	-36.304	µg/L	-36.304	ppb	11:48:06
2	B 249.677†	1271.1	997.8	-105.08	µg/L	-105.08	ppb	11:47:46
2	Ba 233.527†	444.7	517.6	14.529	µg/L	14.529	ppb	11:48:06
2	Be 313.107†	-568.8	-4619.9	-2.9979	µg/L	-2.9979	ppb	11:47:46
2	Cd 226.502†	1900.5	2149.4	7.2656	µg/L	7.2656	ppb	11:47:46
2	Co 228.616†	116.0	107.6	5.3567	µg/L	5.3567	ppb	11:48:06
2	Cr 267.716†	-266.5	-148.2	-3.4812	µg/L	-3.4812	ppb	11:48:06
2	Cu 324.752†	-3663.6	-9773.3	-27.811	µg/L	-27.811	ppb	11:47:46
2	Mn 257.610†	-13676.2	-14365.1	6.9184	µg/L	6.9184	ppb	11:47:46
2	Mo 202.031†	-232.5	-267.3	-14.818	µg/L	-14.818	ppb	11:48:06
2	Ni 231.604†	266.1	-40.3	-2.3480	µg/L	-2.3480	ppb	11:48:06
2	P 214.914†	442.1	215.1	8.7721	µg/L	8.7721	ppb	11:48:06
2	Pb 220.353†	104.3	27.8	5.5555	µg/L	5.5555	ppb	11:48:06

2	S 181.975 Axial†	75.2	48.5	39.290 µg/L	39.290 ppb	11:48:06
2	Sb 206.836†	54.1	33.5	-15.106 µg/L	-15.106 ppb	11:48:06
2	Se 196.026†	-291.5	-324.7	-259.89 µg/L	-259.89 ppb	11:48:06
2	SiO2†	3237.9	-201.4	-34.162 µg/L	-34.162 ppb	11:48:06
2	Si 251.611†	-151.4	-492.7	-25.362 µg/L	-25.362 ppb	11:48:06
2	Sn 189.927†	-353.6	-405.9	-69.314 µg/L	-69.314 ppb	11:48:06
2	Ti 334.940†	11539.8	11747.6	-1.3325 µg/L	-1.3325 ppb	11:47:46
2	Tl 190.801†	4.3	31.7	-54.755 µg/L	-54.755 ppb	11:48:06
2	U 409.014†	132245.0	140789.0	14515 µg/L	14515 ppb	11:47:46
2	V 292.402†	-2567.1	-2412.9	6.8269 µg/L	6.8269 ppb	11:47:46
2	Zn 213.857†	3295.0	2896.8	-49.958 µg/L	-49.958 ppb	11:48:06
3	Sc RADIAL	56075.9	56075.9	93.8 %		11:47:07
3	Al 396.153Radial†	684842.3	730029.5	524930 µg/L	524930 ppb	11:47:02
3	Ca 317.933Radial†	535208.0	570333.0	499210 µg/L	499210 ppb	11:47:02
3	Fe 238.204 Radial†	32963.0	35130.9	456600 µg/L	456600 ppb	11:47:07
3	K 766.490 Radial†	743.6	292.3	190.71 µg/L	190.71 ppb	11:47:07
3	Mg 279.077 IEC†	46986.7	50077.8	490270 µg/L	490270 ppb	11:47:07
3	Na 589.592 Radial†	1218564.6	1298879.1	508600 µg/L	508600 ppb	11:47:02
3	Sr 421.552†	402.7	457.7	4.9667 µg/L	4.9667 ppb	11:47:07
3	Sc 361.383	1652337.1	1652337.1	93.944 %		11:48:13
3	Y 371.029	999558.8	999558.8	92.686 %		11:48:13
3	Ag 328.068†	-4390.6	-4457.0	-4.6155 µg/L	-4.6155 ppb	11:48:13
3	As 188.979†	-1.3	2.4	-43.526 µg/L	-43.526 ppb	11:48:34
3	B 249.677†	1290.0	1016.6	-104.73 µg/L	-104.73 ppb	11:48:13
3	Ba 233.527†	438.0	510.0	14.320 µg/L	14.320 ppb	11:48:34
3	Be 313.107†	-562.9	-4613.1	-2.9934 µg/L	-2.9934 ppb	11:48:13
3	Cd 226.502†	1853.7	2097.6	5.6711 µg/L	5.6711 ppb	11:48:13
3	Co 228.616†	123.7	115.7	5.7722 µg/L	5.7722 ppb	11:48:34
3	Cr 267.716†	-231.7	-110.9	-2.6172 µg/L	-2.6172 ppb	11:48:34
3	Cu 324.752†	-3634.3	-9738.6	-27.459 µg/L	-27.459 ppb	11:48:13
3	Mn 257.610†	-13718.6	-14397.2	6.9529 µg/L	6.9529 ppb	11:48:13
3	Mo 202.031†	-225.1	-259.1	-13.771 µg/L	-13.771 ppb	11:48:34
3	Ni 231.604†	284.0	-21.5	-1.2544 µg/L	-1.2544 ppb	11:48:34
3	P 214.914†	438.2	210.5	-1.8041 µg/L	-1.8041 ppb	11:48:34
3	Pb 220.353†	105.0	28.3	5.5191 µg/L	5.5191 ppb	11:48:34
3	S 181.975 Axial†	73.6	46.7	32.476 µg/L	32.476 ppb	11:48:34
3	Sb 206.836†	48.5	27.4	-19.904 µg/L	-19.904 ppb	11:48:34
3	Se 196.026†	-306.7	-340.6	-279.02 µg/L	-279.02 ppb	11:48:34
3	SiO2†	3151.5	-296.5	-50.292 µg/L	-50.292 ppb	11:48:34
3	Si 251.611†	-174.9	-517.6	-27.090 µg/L	-27.090 ppb	11:48:34
3	Sn 189.927†	-351.4	-403.3	-69.130 µg/L	-69.130 ppb	11:48:34
3	Ti 334.940†	11394.6	11582.1	-1.3986 µg/L	-1.3986 ppb	11:48:13
3	Tl 190.801†	4.9	32.4	-52.510 µg/L	-52.510 ppb	11:48:34
3	U 409.014†	132703.7	141150.6	14552 µg/L	14552 ppb	11:48:13
3	V 292.402†	-2425.2	-2259.3	8.8193 µg/L	8.8193 ppb	11:48:13
3	Zn 213.857†	3308.6	2908.1	-49.992 µg/L	-49.992 ppb	11:48:34

Mean Data: LR1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1648054.3	93.701	%	0.3511				0.37%
Sc RADIAL	56034.5	93.7	%	0.22				0.23%
Y 371.029	996559.9	92.408	%	0.3740				0.40%
Ag 328.068†	-4492.6	-5.0317	µg/L	0.58859	-5.0317	ppb	0.58859	11.70%
Al 396.153Radial†	732959.2	527040	µg/L	2553.0	527040	ppb	2553.0	0.48%
QC value within limits for Al 396.153Radial Recovery = 105.41%								
As 188.979†	3.1	-43.098	µg/L	6.5908	-43.098	ppb	6.5908	15.29%
B 249.677†	1011.7	-104.57	µg/L	0.606	-104.57	ppb	0.606	0.58%
Ba 233.527†	519.8	14.593	µg/L	0.3104	14.593	ppb	0.3104	2.13%
Be 313.107†	-4608.4	-2.9904	µg/L	0.00940	-2.9904	ppb	0.00940	0.31%
Ca 317.933Radial†	573406.3	501900	µg/L	2849.5	501900	ppb	2849.5	0.57%
QC value within limits for Ca 317.933Radial Recovery = 100.38%								
Cd 226.502†	2116.6	6.3443	µg/L	0.82568	6.3443	ppb	0.82568	13.01%
Co 228.616†	108.9	5.4239	µg/L	0.32004	5.4239	ppb	0.32004	5.90%
Cr 267.716†	-128.0	-3.0134	µg/L	0.43645	-3.0134	ppb	0.43645	14.48%
Cu 324.752†	-9747.4	-27.622	µg/L	0.1773	-27.622	ppb	0.1773	0.64%
Fe 238.204 Radial†	35046.4	455500	µg/L	1065.7	455500	ppb	1065.7	0.23%
QC value within limits for Fe 238.204 Radial Recovery = 91.10%								
K 766.490 Radial†	263.6	172.02	µg/L	24.001	172.02	ppb	24.001	13.95%
Mg 279.077 IEC†	49978.3	489290	µg/L	852.1	489290	ppb	852.1	0.17%

QC value within limits for Mg 279.077 IEC Recovery = 97.86%

Mn 257.610†	-14364.2	6.9306 µg/L	0.01935	6.9306 ppb	0.01935	0.28%
Mo 202.031†	-260.7	-14.007 µg/L	0.7222	-14.007 ppb	0.7222	5.16%
Na 589.592 Radial†	1304480.6	510800 µg/L	2263.5	510800 ppb	2263.5	0.44%

QC value within limits for Na 589.592 Radial Recovery = 102.16%

Ni 231.604†	-29.2	-1.7017 µg/L	0.57330	-1.7017 ppb	0.57330	33.69%
P 214.914†	218.1	12.439 µg/L	16.3867	12.439 ppb	16.3867	131.74%
Pb 220.353†	26.0	4.9802 µg/L	0.96515	4.9802 ppb	0.96515	19.38%
S 181.975 Axial†	42.9	18.733 µg/L	29.8985	18.733 ppb	29.8985	159.60%
Sb 206.836†	34.7	-13.716 µg/L	6.9879	-13.716 ppb	6.9879	50.95%
Se 196.026†	-330.2	-266.85 µg/L	10.576	-266.85 ppb	10.576	3.96%
SiO2†	-240.8	-40.836 µg/L	8.4170	-40.836 ppb	8.4170	20.61%
Si 251.611†	-513.5	-26.817 µg/L	1.3397	-26.817 ppb	1.3397	5.00%
Sn 189.927†	-402.8	-68.266 µg/L	1.6574	-68.266 ppb	1.6574	2.43%
Sr 421.552†	475.5	5.1607 µg/L	0.21106	5.1607 ppb	0.21106	4.09%
Ti 334.940†	11601.6	-1.5101 µg/L	0.25247	-1.5101 ppb	0.25247	16.72%
Tl 190.801†	32.1	-53.485 µg/L	1.1515	-53.485 ppb	1.1515	2.15%
U 409.014†	140957.6	14532 µg/L	19.0	14532 ppb	19.0	0.13%

QC value within limits for U 409.014 Recovery = 96.88%

V 292.402†	-2338.4	7.7799 µg/L	0.99904	7.7799 ppb	0.99904	12.84%
Zn 213.857†	2907.7	-49.700 µg/L	0.4768	-49.700 ppb	0.4768	0.96%

All analyte(s) passed QC.

Sequence No.: 12
Sample ID: LR2
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 108
Date Collected: 1/8/2010 11:48:43
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR2

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	57279.2	57279.2	95.8	%			11:49:26
1	Al 396.153Radial†	717.0	718.3	139.61	µg/L	139.61	ppb	11:49:26
1	Ca 317.933Radial†	500.0	309.3	270.77	µg/L	270.77	ppb	11:49:46
1	Fe 238.204 Radial†	-0.1	-8.6	208.37	µg/L	208.37	ppb	11:49:46
1	K 766.490 Radial†	442630.5	461442.5	301090	µg/L	301090	ppb	11:49:20
1	Mg 279.077 IEC†	8.4	-2.4	223.79	µg/L	223.79	ppb	11:49:46
1	Na 589.592 Radial†	2587.0	2557.7	1001.5	µg/L	1001.5	ppb	11:49:26
1	Sr 421.552†	857656.3	895105.3	9714.0	µg/L	9714.0	ppb	11:49:20
1	Sc 361.383	1740600.1	1740600.1	98.962	%			11:51:18
1	Y 371.029	1061386.8	1061386.8	98.419	%			11:51:18
1	Ag 328.068†	-7202.5	-7061.4	3.8583	µg/L	3.8583	ppb	11:51:18
1	As 188.979†	5533.2	5595.0	9537.9	µg/L	9537.9	ppb	11:51:23
1	B 249.677†	129109.6	130106.9	4971.9	µg/L	4971.9	ppb	11:51:18
1	Ba 233.527†	469969.5	474941.3	13411	µg/L	13411	ppb	11:51:18
1	Be 313.107†	4378519.1	4420418.1	2854.8	µg/L	2854.8	ppb	11:51:07
1	Cd 226.502†	338389.5	342062.3	9657.1	µg/L	9657.1	ppb	11:51:18
1	Co 228.616†	187345.7	189294.3	9662.2	µg/L	9662.2	ppb	11:51:18
1	Cr 267.716†	1046847.6	1057960.6	24376	µg/L	24376	ppb	11:51:18
1	Cu 324.752†	2866669.5	2890859.2	20457	µg/L	20457	ppb	11:51:18
1	Mn 257.610†	2722410.3	2751163.1	9638.8	µg/L	9638.8	ppb	11:51:18
1	Mo 202.031†	80144.6	80965.4	9910.2	µg/L	9910.2	ppb	11:51:18
1	Ni 231.604†	167970.1	169407.6	9859.4	µg/L	9859.4	ppb	11:51:18
1	P 214.914†	11246.3	11108.3	15563	µg/L	15563	ppb	11:51:23
1	Pb 220.353†	91449.8	92325.3	25401	µg/L	25401	ppb	11:51:18
1	S 181.975 Axial†	13548.1	13658.6	49734	µg/L	49734	ppb	11:51:23
1	Sb 206.836†	11003.3	11094.5	9805.0	µg/L	9805.0	ppb	11:51:23
1	Se 196.026†	9335.0	9418.8	10114	µg/L	10114	ppb	11:51:23
1	SiO2†	574983.0	577361.1	97921	µg/L	97921	ppb	11:51:18
1	Si 251.611†	673216.4	679944.3	44464	µg/L	44464	ppb	11:51:18
1	Sn 189.927†	20579.7	20766.3	10804	µg/L	10804	ppb	11:51:23
1	Ti 334.940†	3930346.0	3971012.3	9621.8	µg/L	9621.8	ppb	11:51:07
1	Tl 190.801†	6112.1	6203.4	10089	µg/L	10089	ppb	11:51:23
1	U 409.014†	870.1	771.6	80.183	µg/L	80.183	ppb	11:51:18
1	V 292.402†	796512.8	805187.2	9986.6	µg/L	9986.6	ppb	11:51:18
1	Zn 213.857†	560404.1	565666.7	14472	µg/L	14472	ppb	11:51:18
2	Sc RADIAL	57145.4	57145.4	95.6	%			11:49:58
2	Al 396.153Radial†	539.9	534.8	10.242	µg/L	10.242	ppb	11:49:58
2	Ca 317.933Radial†	413.1	219.6	192.20	µg/L	192.20	ppb	11:50:18
2	Fe 238.204 Radial†	-6.5	-15.3	118.15	µg/L	118.15	ppb	11:50:18
2	K 766.490 Radial†	443791.6	463738.7	302580	µg/L	302580	ppb	11:49:52
2	Mg 279.077 IEC†	-3.5	-14.8	100.62	µg/L	100.62	ppb	11:50:18
2	Na 589.592 Radial†	1879.6	1824.1	714.25	µg/L	714.25	ppb	11:49:58
2	Sr 421.552†	862257.0	902013.6	9789.0	µg/L	9789.0	ppb	11:49:52
2	Sc 361.383	1727466.4	1727466.4	98.216	%			11:51:43
2	Y 371.029	1052359.7	1052359.7	97.582	%			11:51:43
2	Ag 328.068†	-6983.6	-6893.9	4.8273	µg/L	4.8273	ppb	11:51:43
2	As 188.979†	5520.9	5625.0	9589.5	µg/L	9589.5	ppb	11:51:48
2	B 249.677†	127521.1	129481.5	4948.0	µg/L	4948.0	ppb	11:51:43
2	Ba 233.527†	463051.7	471508.3	13314	µg/L	13314	ppb	11:51:43
2	Be 313.107†	4387027.1	4462718.9	2882.2	µg/L	2882.2	ppb	11:51:32
2	Cd 226.502†	333028.0	339203.0	9576.4	µg/L	9576.4	ppb	11:51:43
2	Co 228.616†	184699.9	188039.7	9597.8	µg/L	9597.8	ppb	11:51:43
2	Cr 267.716†	1028772.2	1047599.3	24137	µg/L	24137	ppb	11:51:43
2	Cu 324.752†	2825604.4	2871071.4	20317	µg/L	20317	ppb	11:51:43
2	Mn 257.610†	2681474.5	2730398.5	9566.0	µg/L	9566.0	ppb	11:51:43
2	Mo 202.031†	78998.5	80414.2	9842.8	µg/L	9842.8	ppb	11:51:43
2	Ni 231.604†	165349.0	168029.3	9779.2	µg/L	9779.2	ppb	11:51:43
2	P 214.914†	11132.5	11078.8	15532	µg/L	15532	ppb	11:51:48
2	Pb 220.353†	90113.9	91667.7	25220	µg/L	25220	ppb	11:51:43

2	S 181.975 Axial†	13441.2	13653.8	49717	µg/L	49717 ppb	11:51:48
2	Sb 206.836†	10959.2	11134.1	9842.0	µg/L	9842.0 ppb	11:51:48
2	Se 196.026†	9283.1	9437.6	10135	µg/L	10135 ppb	11:51:48
2	SiO2†	567484.0	574143.1	97375	µg/L	97375 ppb	11:51:43
2	Si 251.611†	664741.3	676487.2	44233	µg/L	44233 ppb	11:51:43
2	Sn 189.927†	20274.0	20613.0	10724	µg/L	10724 ppb	11:51:48
2	Ti 334.940†	3944956.0	4016082.8	9731.0	µg/L	9731.0 ppb	11:51:32
2	Tl 190.801†	6076.8	6214.3	10107	µg/L	10107 ppb	11:51:48
2	U 409.014†	929.0	838.2	87.129	µg/L	87.129 ppb	11:51:43
2	V 292.402†	784163.5	798732.8	9906.6	µg/L	9906.6 ppb	11:51:43
2	Zn 213.857†	552804.1	562233.9	14385	µg/L	14385 ppb	11:51:43
3	Sc RADIAL	57191.8	57191.8	95.7	%		11:50:30
3	Al 396.153Radial†	486.2	478.2	-2.8549	µg/L	-2.8549 ppb	11:50:30
3	Ca 317.933Radial†	373.4	177.7	155.56	µg/L	155.56 ppb	11:50:50
3	Fe 238.204 Radial†	-9.3	-18.3	56.184	µg/L	56.184 ppb	11:50:50
3	K 766.490 Radial†	444148.9	463735.5	302580	µg/L	302580 ppb	11:50:24
3	Mg 279.077 IEC†	-3.9	-15.3	78.172	µg/L	78.172 ppb	11:50:50
3	Na 589.592 Radial†	1524.6	1451.3	568.31	µg/L	568.31 ppb	11:50:30
3	Sr 421.552†	859696.3	898605.4	9752.0	µg/L	9752.0 ppb	11:50:24
3	Sc 361.383	1738407.6	1738407.6	98.838	%		11:52:08
3	Y 371.029	1060029.1	1060029.1	98.293	%		11:52:08
3	Ag 328.068†	-6589.8	-6450.7	3.8035	µg/L	3.8035 ppb	11:52:08
3	As 188.979†	5121.7	5185.7	8841.2	µg/L	8841.2 ppb	11:52:13
3	B 249.677†	122552.8	123637.5	4724.7	µg/L	4724.7 ppb	11:52:08
3	Ba 233.527†	435367.2	440531.0	12439	µg/L	12439 ppb	11:52:08
3	Be 313.107†	4200319.5	4245702.9	2742.0	µg/L	2742.0 ppb	11:51:57
3	Cd 226.502†	313326.4	317135.7	8953.3	µg/L	8953.3 ppb	11:52:08
3	Co 228.616†	171845.1	173850.2	8873.0	µg/L	8873.0 ppb	11:52:08
3	Cr 267.716†	941581.5	952790.6	21953	µg/L	21953 ppb	11:52:08
3	Cu 324.752†	2633906.3	2659012.0	18816	µg/L	18816 ppb	11:52:08
3	Mn 257.610†	2498805.8	2528398.4	8858.3	µg/L	8858.3 ppb	11:52:08
3	Mo 202.031†	73637.6	74484.0	9116.9	µg/L	9116.9 ppb	11:52:08
3	Ni 231.604†	153888.7	155374.6	9042.7	µg/L	9042.7 ppb	11:52:08
3	P 214.914†	10163.0	10026.6	14001	µg/L	14001 ppb	11:52:13
3	Pb 220.353†	85488.2	86410.1	23773	µg/L	23773 ppb	11:52:08
3	S 181.975 Axial†	12510.2	12625.6	45973	µg/L	45973 ppb	11:52:13
3	Sb 206.836†	10050.8	10144.9	8969.0	µg/L	8969.0 ppb	11:52:13
3	Se 196.026†	8600.8	8687.9	9356.1	µg/L	9356.1 ppb	11:52:13
3	SiO2†	540263.2	542965.8	92088	µg/L	92088 ppb	11:52:08
3	Si 251.611†	632371.8	639477.3	41829	µg/L	41829 ppb	11:52:08
3	Sn 189.927†	18209.8	18394.7	9569.9	µg/L	9569.9 ppb	11:52:13
3	Ti 334.940†	3779120.0	3823016.8	9263.2	µg/L	9263.2 ppb	11:51:57
3	Tl 190.801†	5798.6	5893.9	9586.6	µg/L	9586.6 ppb	11:52:13
3	U 409.014†	832.1	734.3	76.337	µg/L	76.337 ppb	11:52:08
3	V 292.402†	730069.5	738977.6	9165.5	µg/L	9165.5 ppb	11:52:08
3	Zn 213.857†	516937.6	522403.1	13366	µg/L	13366 ppb	11:52:08

Mean Data: LR2

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1735491.3	98.672	%	0.4000				0.41%
Sc RADIAL	57205.5	95.7	%	0.11				0.12%
Y 371.029	1057925.2	98.098	%	0.4513				0.46%
Ag 328.068†	-6802.0	4.1630	µg/L	0.57591	4.1630	ppb	0.57591	13.83%
Al 396.153Radial†	577.1	48.999	µg/L	78.7449	48.999	ppb	78.7449	160.71%
As 188.979†	5468.5	9322.8	µg/L	417.89	9322.8	ppb	417.89	4.48%
QC value within limits for As 188.979 Recovery = 93.23%								
B 249.677†	127742.0	4881.6	µg/L	136.34	4881.6	ppb	136.34	2.79%
QC value within limits for B 249.677 Recovery = 97.63%								
Ba 233.527†	462326.9	13055	µg/L	535.3	13055	ppb	535.3	4.10%
QC value less than the lower limit for Ba 233.527 Recovery = 87.03%								
Be 313.107†	4376279.9	2826.3	µg/L	74.30	2826.3	ppb	74.30	2.63%
QC value within limits for Be 313.107 Recovery = 94.21%								
Ca 317.933Radial†	235.5	206.18	µg/L	58.865	206.18	ppb	58.865	28.55%
Cd 226.502†	332800.4	9395.6	µg/L	385.17	9395.6	ppb	385.17	4.10%
QC value within limits for Cd 226.502 Recovery = 93.96%								
Co 228.616†	183728.1	9377.7	µg/L	438.22	9377.7	ppb	438.22	4.67%
QC value within limits for Co 228.616 Recovery = 93.78%								
Cr 267.716†	1019450.2	23488	µg/L	1335.2	23488	ppb	1335.2	5.68%
QC value within limits for Cr 267.716 Recovery = 93.95%								

Cu 324.752†	2806980.9	19864 µg/L	909.5	19864 ppb	909.5	4.58%
QC value within limits for Cu 324.752 Recovery = 99.32%						
Fe 238.204 Radial†	-14.1	127.57 µg/L	76.531	127.57 ppb	76.531	59.99%
K 766.490 Radial†	462972.3	302080 µg/L	864.4	302080 ppb	864.4	0.29%
QC value within limits for K 766.490 Radial Recovery = 100.69%						
Mg 279.077 IEC†	-10.8	134.19 µg/L	78.398	134.19 ppb	78.398	58.42%
Mn 257.610†	2669986.7	9354.4 µg/L	431.14	9354.4 ppb	431.14	4.61%
QC value within limits for Mn 257.610 Recovery = 93.54%						
Mo 202.031†	78621.2	9623.3 µg/L	439.85	9623.3 ppb	439.85	4.57%
QC value within limits for Mo 202.031 Recovery = 96.23%						
Na 589.592 Radial†	1944.4	761.36 µg/L	220.412	761.36 ppb	220.412	28.95%
Ni 231.604†	164270.5	9560.4 µg/L	450.16	9560.4 ppb	450.16	4.71%
QC value within limits for Ni 231.604 Recovery = 95.60%						
P 214.914†	10737.9	15032 µg/L	893.1	15032 ppb	893.1	5.94%
QC value within limits for P 214.914 Recovery = 100.21%						
Pb 220.353†	90134.4	24798 µg/L	892.0	24798 ppb	892.0	3.60%
QC value within limits for Pb 220.353 Recovery = 99.19%						
S 181.975 Axial†	13312.7	48474 µg/L	2166.4	48474 ppb	2166.4	4.47%
QC value within limits for S 181.975 Axial Recovery = 96.95%						
Sb 206.836†	10791.2	9538.7 µg/L	493.69	9538.7 ppb	493.69	5.18%
QC value within limits for Sb 206.836 Recovery = 95.39%						
Se 196.026†	9181.4	9868.3 µg/L	443.67	9868.3 ppb	443.67	4.50%
QC value within limits for Se 196.026 Recovery = 98.68%						
SiO2†	564823.3	95795 µg/L	3222.0	95795 ppb	3222.0	3.36%
QC value less than the lower limit for SiO2 Recovery = 89.53%						
Si 251.611†	665303.0	43509 µg/L	1459.0	43509 ppb	1459.0	3.35%
QC value less than the lower limit for Si 251.611 Recovery = 87.02%						
Sn 189.927†	19924.7	10366 µg/L	690.5	10366 ppb	690.5	6.66%
QC value within limits for Sn 189.927 Recovery = 103.66%						
Sr 421.552†	898574.8	9751.7 µg/L	37.49	9751.7 ppb	37.49	0.38%
QC value within limits for Sr 421.552 Recovery = 97.52%						
Ti 334.940†	3936703.9	9538.7 µg/L	244.73	9538.7 ppb	244.73	2.57%
QC value within limits for Ti 334.940 Recovery = 95.39%						
Tl 190.801†	6103.9	9927.5 µg/L	295.32	9927.5 ppb	295.32	2.97%
QC value within limits for Tl 190.801 Recovery = 99.27%						
U 409.014†	781.4	81.216 µg/L	5.4693	81.216 ppb	5.4693	6.73%
V 292.402†	780965.8	9686.2 µg/L	452.71	9686.2 ppb	452.71	4.67%
QC value within limits for V 292.402 Recovery = 96.86%						
Zn 213.857†	550101.2	14074 µg/L	615.0	14074 ppb	615.0	4.37%
QC value within limits for Zn 213.857 Recovery = 93.83%						

QC Failed. Continue with analysis.

Sequence No.: 13
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 1/8/2010 11:52:23
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	58071.3	58071.3	97.1	%			11:53:00
1	Al 396.153Radial†	7033.5	7210.3	5165.7	µg/L	5165.7	ppb	11:53:00
1	Ca 317.933Radial†	5796.7	5754.6	5037.0	µg/L	5037.0	ppb	11:53:21
1	Fe 238.204 Radial†	365.3	367.5	4792.8	µg/L	4792.8	ppb	11:53:21
1	K 766.490 Radial†	8847.5	8607.1	5616.1	µg/L	5616.1	ppb	11:53:00
1	Mg 279.077 IEC†	502.5	506.0	4966.2	µg/L	4966.2	ppb	11:53:21
1	Na 589.592 Radial†	25509.4	26117.1	10227	µg/L	10227	ppb	11:53:00
1	Sr 421.552†	43316.5	44618.2	484.21	µg/L	484.21	ppb	11:53:00
1	Sc 361.383	1748586.4	1748586.4	99.416	%			11:54:24
1	Y 371.029	1068904.3	1068904.3	99.116	%			11:54:24
1	Ag 328.068†	52404.0	52928.3	484.11	µg/L	484.11	ppb	11:54:29
1	As 188.979†	296.1	301.6	513.70	µg/L	513.70	ppb	11:54:50
1	B 249.677†	13211.2	12932.3	492.69	µg/L	492.69	ppb	11:54:29
1	Ba 233.527†	17332.5	17477.9	493.79	µg/L	493.79	ppb	11:54:29
1	Be 313.107†	752692.5	753097.5	486.80	µg/L	486.80	ppb	11:54:24
1	Cd 226.502†	17330.9	17557.1	495.34	µg/L	495.34	ppb	11:54:29
1	Co 228.616†	9670.5	9711.3	495.69	µg/L	495.69	ppb	11:54:29
1	Cr 267.716†	21343.4	21604.5	498.45	µg/L	498.45	ppb	11:54:29
1	Cu 324.752†	75558.4	70132.0	496.72	µg/L	496.72	ppb	11:54:29
1	Mn 257.610†	140054.4	141082.4	494.89	µg/L	494.89	ppb	11:54:24
1	Mo 202.031†	4048.2	4052.4	496.20	µg/L	496.20	ppb	11:54:50
1	Ni 231.604†	8801.5	8529.4	496.40	µg/L	496.40	ppb	11:54:29
1	P 214.914†	1792.4	1547.0	2431.0	µg/L	2431.0	ppb	11:54:50
1	Pb 220.353†	1880.5	1808.1	497.88	µg/L	497.88	ppb	11:54:50
1	S 181.975 Axial†	303.6	273.7	995.13	µg/L	995.13	ppb	11:54:50
1	Sb 206.836†	569.6	548.7	488.07	µg/L	488.07	ppb	11:54:50
1	Se 196.026†	497.9	486.7	512.47	µg/L	512.47	ppb	11:54:50
1	SiO2†	34445.4	30996.5	5257.0	µg/L	5257.0	ppb	11:54:29
1	Si 251.611†	36892.5	36777.7	2414.4	µg/L	2414.4	ppb	11:54:29
1	Sn 189.927†	985.1	961.6	501.67	µg/L	501.67	ppb	11:54:50
1	Ti 334.940†	198158.1	198774.3	481.34	µg/L	481.34	ppb	11:54:24
1	Tl 190.801†	277.4	306.2	496.96	µg/L	496.96	ppb	11:54:50
1	U 409.014†	4881.3	4802.3	497.83	µg/L	497.83	ppb	11:54:29
1	V 292.402†	39463.5	40017.4	497.29	µg/L	497.29	ppb	11:54:29
1	Zn 213.857†	19929.8	19433.0	495.36	µg/L	495.36	ppb	11:54:29
2	Sc RADIAL	58383.1	58383.1	97.7	%			11:53:26
2	Al 396.153Radial†	7088.6	7228.1	5178.5	µg/L	5178.5	ppb	11:53:26
2	Ca 317.933Radial†	5790.9	5716.8	5003.9	µg/L	5003.9	ppb	11:53:46
2	Fe 238.204 Radial†	366.7	367.0	4785.6	µg/L	4785.6	ppb	11:53:46
2	K 766.490 Radial†	8696.4	8403.7	5483.3	µg/L	5483.3	ppb	11:53:26
2	Mg 279.077 IEC†	505.5	506.4	4970.0	µg/L	4970.0	ppb	11:53:46
2	Na 589.592 Radial†	25645.2	26115.9	10226	µg/L	10226	ppb	11:53:26
2	Sr 421.552†	43504.0	44572.0	483.71	µg/L	483.71	ppb	11:53:26
2	Sc 361.383	1756331.4	1756331.4	99.857	%			11:54:57
2	Y 371.029	1074035.9	1074035.9	99.592	%			11:54:57
2	Ag 328.068†	52126.9	52418.4	479.45	µg/L	479.45	ppb	11:55:03
2	As 188.979†	292.7	296.9	505.69	µg/L	505.69	ppb	11:55:23
2	B 249.677†	13113.7	12776.0	486.72	µg/L	486.72	ppb	11:55:03
2	Ba 233.527†	17191.1	17259.5	487.62	µg/L	487.62	ppb	11:55:03
2	Be 313.107†	754893.6	751963.0	486.07	µg/L	486.07	ppb	11:54:57
2	Cd 226.502†	17229.0	17378.2	490.28	µg/L	490.28	ppb	11:55:03
2	Co 228.616†	9564.4	9562.2	488.09	µg/L	488.09	ppb	11:55:03
2	Cr 267.716†	21276.7	21443.0	494.72	µg/L	494.72	ppb	11:55:03
2	Cu 324.752†	74995.7	69233.3	490.36	µg/L	490.36	ppb	11:55:03
2	Mn 257.610†	140475.9	140883.3	494.19	µg/L	494.19	ppb	11:54:57
2	Mo 202.031†	4066.0	4052.3	496.19	µg/L	496.19	ppb	11:55:23
2	Ni 231.604†	8703.8	8392.5	488.43	µg/L	488.43	ppb	11:55:03
2	P 214.914†	1790.7	1537.3	2416.3	µg/L	2416.3	ppb	11:55:23
2	Pb 220.353†	1890.3	1809.6	498.32	µg/L	498.32	ppb	11:55:23

2	S 181.975 Axial†	301.2	270.0	981.75 µg/L	981.75 ppb	11:55:23
2	Sb 206.836†	568.8	545.4	485.15 µg/L	485.15 ppb	11:55:23
2	Se 196.026†	495.5	482.1	507.50 µg/L	507.50 ppb	11:55:23
2	SiO2†	34136.7	30534.5	5178.7 µg/L	5178.7 ppb	11:55:03
2	Si 251.611†	36557.6	36278.7	2381.0 µg/L	2381.0 ppb	11:55:03
2	Sn 189.927†	987.8	960.0	500.81 µg/L	500.81 ppb	11:55:23
2	Ti 334.940†	198971.6	198710.0	481.18 µg/L	481.18 ppb	11:54:57
2	Tl 190.801†	279.1	306.7	497.77 µg/L	497.77 ppb	11:55:23
2	U 409.014†	4822.2	4721.5	489.44 µg/L	489.44 ppb	11:55:03
2	V 292.402†	39241.2	39619.6	492.38 µg/L	492.38 ppb	11:55:03
2	Zn 213.857†	19776.7	19191.2	489.19 µg/L	489.19 ppb	11:55:03
3	Sc RADIAL	57446.5	57446.5	96.1 %		11:53:52
3	Al 396.153Radial†	6994.9	7248.9	5195.8 µg/L	5195.8 ppb	11:53:52
3	Ca 317.933Radial†	5771.6	5793.3	5070.9 µg/L	5070.9 ppb	11:54:12
3	Fe 238.204 Radial†	363.9	370.1	4825.9 µg/L	4825.9 ppb	11:54:12
3	K 766.490 Radial†	8387.9	8227.9	5368.6 µg/L	5368.6 ppb	11:53:52
3	Mg 279.077 IEC†	501.5	510.6	5009.6 µg/L	5009.6 ppb	11:54:12
3	Na 589.592 Radial†	25339.5	26225.9	10269 µg/L	10269 ppb	11:53:52
3	Sr 421.552†	42915.5	44685.9	484.95 µg/L	484.95 ppb	11:53:52
3	Sc 361.383	1754101.5	1754101.5	99.730 %		11:55:30
3	Y 371.029	1072719.8	1072719.8	99.470 %		11:55:30
3	Ag 328.068†	50378.4	50731.4	463.96 µg/L	463.96 ppb	11:55:36
3	As 188.979†	259.9	264.4	450.40 µg/L	450.40 ppb	11:55:56
3	B 249.677†	12676.4	12354.2	470.59 µg/L	470.59 ppb	11:55:36
3	Ba 233.527†	16527.4	16615.9	469.42 µg/L	469.42 ppb	11:55:36
3	Be 313.107†	735323.9	733301.3	474.01 µg/L	474.01 ppb	11:55:30
3	Cd 226.502†	16433.8	16602.8	468.36 µg/L	468.36 ppb	11:55:36
3	Co 228.616†	9102.2	9110.9	464.94 µg/L	464.94 ppb	11:55:36
3	Cr 267.716†	20078.3	20268.5	467.63 µg/L	467.63 ppb	11:55:36
3	Cu 324.752†	72140.3	66465.7	470.78 µg/L	470.78 ppb	11:55:36
3	Mn 257.610†	137283.8	137861.3	483.61 µg/L	483.61 ppb	11:55:30
3	Mo 202.031†	3564.9	3555.0	435.32 µg/L	435.32 ppb	11:55:56
3	Ni 231.604†	8245.8	7944.3	462.35 µg/L	462.35 ppb	11:55:36
3	P 214.914†	1622.2	1370.6	2149.4 µg/L	2149.4 ppb	11:55:56
3	Pb 220.353†	1727.3	1648.6	453.90 µg/L	453.90 ppb	11:55:56
3	S 181.975 Axial†	285.5	254.6	925.69 µg/L	925.69 ppb	11:55:56
3	Sb 206.836†	511.7	488.9	434.89 µg/L	434.89 ppb	11:55:56
3	Se 196.026†	442.4	429.4	452.71 µg/L	452.71 ppb	11:55:56
3	SiO2†	33073.0	29511.4	5005.2 µg/L	5005.2 ppb	11:55:36
3	Si 251.611†	35209.2	34973.1	2297.7 µg/L	2297.7 ppb	11:55:36
3	Sn 189.927†	859.3	832.4	434.45 µg/L	434.45 ppb	11:55:56
3	Ti 334.940†	193931.9	193910.0	469.55 µg/L	469.55 ppb	11:55:30
3	Tl 190.801†	252.6	280.4	455.33 µg/L	455.33 ppb	11:55:56
3	U 409.014†	4557.1	4461.8	462.44 µg/L	462.44 ppb	11:55:36
3	V 292.402†	37086.8	37509.4	465.92 µg/L	465.92 ppb	11:55:36
3	Zn 213.857†	18893.2	18330.5	467.20 µg/L	467.20 ppb	11:55:36

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1753006.4	99.668	%	0.2267				0.23%
Sc RADIAL	57967.0	97.0	%	0.80				0.82%
Y 371.029	1071886.7	99.393	%	0.2471				0.25%
Ag 328.068†	52026.0	475.84	µg/L	10.547	475.84	ppb	10.547	2.22%
QC value within limits for Ag 328.068 Recovery = 95.17%								
Al 396.153Radial†	7229.1	5180.0	µg/L	15.09	5180.0	ppb	15.09	0.29%
QC value within limits for Al 396.153Radial Recovery = 103.60%								
As 188.979†	287.6	489.93	µg/L	34.466	489.93	ppb	34.466	7.03%
QC value within limits for As 188.979 Recovery = 97.99%								
B 249.677†	12687.5	483.33	µg/L	11.433	483.33	ppb	11.433	2.37%
QC value within limits for B 249.677 Recovery = 96.67%								
Ba 233.527†	17117.8	483.61	µg/L	12.670	483.61	ppb	12.670	2.62%
QC value within limits for Ba 233.527 Recovery = 96.72%								
Be 313.107†	746120.6	482.29	µg/L	7.186	482.29	ppb	7.186	1.49%
QC value within limits for Be 313.107 Recovery = 96.46%								
Ca 317.933Radial†	5754.9	5037.3	µg/L	33.49	5037.3	ppb	33.49	0.66%
QC value within limits for Ca 317.933Radial Recovery = 100.75%								
Cd 226.502†	17179.3	484.66	µg/L	14.341	484.66	ppb	14.341	2.96%
QC value within limits for Cd 226.502 Recovery = 96.93%								
Co 228.616†	9461.5	482.91	µg/L	16.018	482.91	ppb	16.018	3.32%

QC value within limits for Co 228.616 Recovery = 96.58%

Cr 267.716†	21105.3	486.93 µg/L	16.824	486.93 ppb	16.824	3.46%

QC value within limits for Cr 267.716 Recovery = 97.39%

Cu 324.752†	68610.3	485.96 µg/L	13.521	485.96 ppb	13.521	2.78%

QC value within limits for Cu 324.752 Recovery = 97.19%

Fe 238.204 Radial†	368.2	4801.4 µg/L	21.53	4801.4 ppb	21.53	0.45%

QC value within limits for Fe 238.204 Radial Recovery = 96.03%

K 766.490 Radial†	8412.9	5489.3 µg/L	123.82	5489.3 ppb	123.82	2.26%

QC value within limits for K 766.490 Radial Recovery = 109.79%

Mg 279.077 IEC†	507.7	4981.9 µg/L	24.03	4981.9 ppb	24.03	0.48%

QC value within limits for Mg 279.077 IEC Recovery = 99.64%

Mn 257.610†	139942.3	490.90 µg/L	6.321	490.90 ppb	6.321	1.29%

QC value within limits for Mn 257.610 Recovery = 98.18%

Mo 202.031†	3886.6	475.91 µg/L	35.146	475.91 ppb	35.146	7.39%

QC value within limits for Mo 202.031 Recovery = 95.18%

Na 589.592 Radial†	26153.0	10241 µg/L	24.7	10241 ppb	24.7	0.24%

QC value within limits for Na 589.592 Radial Recovery = 102.41%

Ni 231.604†	8288.7	482.40 µg/L	17.811	482.40 ppb	17.811	3.69%

QC value within limits for Ni 231.604 Recovery = 96.48%

P 214.914†	1485.0	2332.2 µg/L	158.47	2332.2 ppb	158.47	6.79%

QC value within limits for P 214.914 Recovery = 93.29%

Pb 220.353†	1755.4	483.37 µg/L	25.525	483.37 ppb	25.525	5.28%

QC value within limits for Pb 220.353 Recovery = 96.67%

S 181.975 Axial†	266.1	967.53 µg/L	36.840	967.53 ppb	36.840	3.81%

QC value within limits for S 181.975 Axial Recovery = 96.75%

Sb 206.836†	527.7	469.37 µg/L	29.895	469.37 ppb	29.895	6.37%

QC value within limits for Sb 206.836 Recovery = 93.87%

Se 196.026†	466.1	490.90 µg/L	33.160	490.90 ppb	33.160	6.75%

QC value within limits for Se 196.026 Recovery = 98.18%

SiO2†	30347.5	5147.0 µg/L	128.90	5147.0 ppb	128.90	2.50%

QC value within limits for SiO2 Recovery = 96.25%

Si 251.611†	36009.8	2364.4 µg/L	60.08	2364.4 ppb	60.08	2.54%

QC value within limits for Si 251.611 Recovery = 94.57%

Sn 189.927†	918.0	478.98 µg/L	38.567	478.98 ppb	38.567	8.05%

QC value within limits for Sn 189.927 Recovery = 95.80%

Sr 421.552†	44625.3	484.29 µg/L	0.622	484.29 ppb	0.622	0.13%

QC value within limits for Sr 421.552 Recovery = 96.86%

Ti 334.940†	197131.5	477.36 µg/L	6.762	477.36 ppb	6.762	1.42%

QC value within limits for Ti 334.940 Recovery = 95.47%

Tl 190.801†	297.8	483.35 µg/L	24.271	483.35 ppb	24.271	5.02%

QC value within limits for Tl 190.801 Recovery = 96.67%

U 409.014†	4661.9	483.23 µg/L	18.493	483.23 ppb	18.493	3.83%

QC value within limits for U 409.014 Recovery = 96.65%

V 292.402†	39048.8	485.20 µg/L	16.874	485.20 ppb	16.874	3.48%

QC value within limits for V 292.402 Recovery = 97.04%

Zn 213.857†	18984.9	483.92 µg/L	14.802	483.92 ppb	14.802	3.06%

QC value within limits for Zn 213.857 Recovery = 96.78%

All analyte(s) passed QC.

Sequence No.: 14
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 1/8/2010 11:56:05
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56625.5	56625.5	94.7	%			11:56:38
1	Al 396.153Radial†	72.8	46.9	33.742	µg/L	33.742	ppb	11:56:38
1	Ca 317.933Radial†	225.2	25.2	22.042	µg/L	22.042	ppb	11:56:58
1	Fe 238.204 Radial†	13.6	5.9	76.371	µg/L	76.371	ppb	11:56:58
1	K 766.490 Radial†	744.4	285.4	186.24	µg/L	186.24	ppb	11:56:38
1	Mg 279.077 IEC†	15.8	5.4	53.179	µg/L	53.179	ppb	11:56:58
1	Na 589.592 Radial†	489.3	374.3	146.58	µg/L	146.58	ppb	11:56:38
1	Sr 421.552†	73.5	105.9	1.1498	µg/L	1.1498	ppb	11:56:38
1	Sc 361.383	1727662.8	1727662.8	98.227	%			11:58:00
1	Y 371.029	1060459.4	1060459.4	98.333	%			11:58:00
1	Ag 328.068†	-232.2	-19.8	-0.1708	µg/L	-0.1708	ppb	11:58:05
1	As 188.979†	3.4	7.2	12.295	µg/L	12.295	ppb	11:58:26
1	B 249.677†	482.3	134.5	5.1170	µg/L	5.1170	ppb	11:58:05
1	Ba 233.527†	-31.9	11.3	0.3188	µg/L	0.3188	ppb	11:58:26
1	Be 313.107†	4274.6	337.9	0.2183	µg/L	0.2183	ppb	11:58:00
1	Cd 226.502†	-115.9	6.5	0.1722	µg/L	0.1722	ppb	11:58:26
1	Co 228.616†	21.4	5.9	0.2992	µg/L	0.2992	ppb	11:58:26
1	Cr 267.716†	-135.8	-2.5	-0.0568	µg/L	-0.0568	ppb	11:58:05
1	Cu 324.752†	6627.7	877.3	6.2155	µg/L	6.2155	ppb	11:58:05
1	Mn 257.610†	-104.2	99.7	0.3589	µg/L	0.3589	ppb	11:58:26
1	Mo 202.031†	15.4	-3.9	-0.4757	µg/L	-0.4757	ppb	11:58:26
1	Ni 231.604†	321.7	3.7	0.2163	µg/L	0.2163	ppb	11:58:26
1	P 214.914†	258.8	7.5	11.167	µg/L	11.167	ppb	11:58:26
1	Pb 220.353†	87.4	5.5	1.5115	µg/L	1.5115	ppb	11:58:26
1	S 181.975 Axial†	35.0	4.0	14.468	µg/L	14.468	ppb	11:58:26
1	Sb 206.836†	27.6	3.9	3.5222	µg/L	3.5222	ppb	11:58:26
1	Se 196.026†	24.5	10.8	11.392	µg/L	11.392	ppb	11:58:26
1	SiO2†	3580.6	-5.9	-1.0067	µg/L	-1.0067	ppb	11:58:05
1	Si 251.611†	415.5	91.6	6.0060	µg/L	6.0060	ppb	11:58:26
1	Sn 189.927†	31.0	2.3	1.2104	µg/L	1.2104	ppb	11:58:26
1	Ti 334.940†	708.9	174.6	0.4218	µg/L	0.4218	ppb	11:58:05
1	Tl 190.801†	-30.5	-3.9	-6.2855	µg/L	-6.2855	ppb	11:58:26
1	U 409.014†	99.6	-6.2	-0.6629	µg/L	-0.6629	ppb	11:58:05
1	V 292.402†	-286.3	30.7	0.3762	µg/L	0.3762	ppb	11:58:05
1	Zn 213.857†	645.3	43.2	1.0792	µg/L	1.0792	ppb	11:58:26
2	Sc RADIAL	56097.4	56097.4	93.8	%			11:57:04
2	Al 396.153Radial†	62.4	36.6	26.256	µg/L	26.256	ppb	11:57:04
2	Ca 317.933Radial†	231.4	34.0	29.797	µg/L	29.797	ppb	11:57:24
2	Fe 238.204 Radial†	12.6	5.0	64.488	µg/L	64.488	ppb	11:57:24
2	K 766.490 Radial†	695.1	240.3	156.79	µg/L	156.79	ppb	11:57:04
2	Mg 279.077 IEC†	14.1	3.8	37.631	µg/L	37.631	ppb	11:57:24
2	Na 589.592 Radial†	440.2	326.9	128.02	µg/L	128.02	ppb	11:57:04
2	Sr 421.552†	31.4	61.7	0.6701	µg/L	0.6701	ppb	11:57:04
2	Sc 361.383	1722880.9	1722880.9	97.955	%			11:58:32
2	Y 371.029	1058547.5	1058547.5	98.156	%			11:58:32
2	Ag 328.068†	-272.7	-61.8	-0.5482	µg/L	-0.5482	ppb	11:58:37
2	As 188.979†	-3.6	0.0	0.0810	µg/L	0.0810	ppb	11:58:58
2	B 249.677†	477.0	130.5	4.9655	µg/L	4.9655	ppb	11:58:37
2	Ba 233.527†	-16.2	27.2	0.7692	µg/L	0.7692	ppb	11:58:58
2	Be 313.107†	4202.4	276.3	0.1785	µg/L	0.1785	ppb	11:58:32
2	Cd 226.502†	-103.4	18.9	0.5236	µg/L	0.5236	ppb	11:58:58
2	Co 228.616†	15.1	-0.5	-0.0230	µg/L	-0.0230	ppb	11:58:58
2	Cr 267.716†	-134.4	-1.5	-0.0313	µg/L	-0.0313	ppb	11:58:37
2	Cu 324.752†	6614.0	882.1	6.2477	µg/L	6.2477	ppb	11:58:37
2	Mn 257.610†	-78.8	125.3	0.4472	µg/L	0.4472	ppb	11:58:58
2	Mo 202.031†	29.7	10.7	1.3148	µg/L	1.3148	ppb	11:58:58
2	Ni 231.604†	327.2	10.2	0.5922	µg/L	0.5922	ppb	11:58:58
2	P 214.914†	261.2	10.7	16.450	µg/L	16.450	ppb	11:58:58
2	Pb 220.353†	82.5	0.8	0.2248	µg/L	0.2248	ppb	11:58:58

2	S 181.975 Axial†	34.0	3.0	10.946 µg/L	10.946 ppb	11:58:58
2	Sb 206.836†	26.8	3.2	2.8535 µg/L	2.8535 ppb	11:58:58
2	Se 196.026†	22.9	9.3	9.8238 µg/L	9.8238 ppb	11:58:58
2	SiO2†	3640.4	65.3	11.072 µg/L	11.072 ppb	11:58:37
2	Si 251.611†	425.2	102.6	6.6218 µg/L	6.6218 ppb	11:58:58
2	Sn 189.927†	36.0	7.5	3.9216 µg/L	3.9216 ppb	11:58:58
2	Ti 334.940†	701.8	169.4	0.4087 µg/L	0.4087 ppb	11:58:37
2	Tl 190.801†	-23.6	3.1	4.9967 µg/L	4.9967 ppb	11:58:58
2	U 409.014†	93.1	-12.5	-1.3145 µg/L	-1.3145 ppb	11:58:37
2	V 292.402†	-230.3	87.1	1.0812 µg/L	1.0812 ppb	11:58:37
2	Zn 213.857†	657.5	57.4	1.4470 µg/L	1.4470 ppb	11:58:58
3	Sc RADIAL	56841.2	56841.2	95.1 %		11:57:30
3	Al 396.153Radial†	55.3	28.2	20.209 µg/L	20.209 ppb	11:57:30
3	Ca 317.933Radial†	223.9	23.0	20.102 µg/L	20.102 ppb	11:57:50
3	Fe 238.204 Radial†	11.2	3.3	43.277 µg/L	43.277 ppb	11:57:50
3	K 766.490 Radial†	651.9	185.1	120.78 µg/L	120.78 ppb	11:57:30
3	Mg 279.077 IEC†	11.8	1.2	11.569 µg/L	11.569 ppb	11:57:50
3	Na 589.592 Radial†	404.8	283.5	111.02 µg/L	111.02 ppb	11:57:30
3	Sr 421.552†	3.1	31.6	0.3430 µg/L	0.3430 ppb	11:57:30
3	Sc 361.383	1727196.9	1727196.9	98.200 %		11:59:03
3	Y 371.029	1058418.7	1058418.7	98.144 %		11:59:03
3	Ag 328.068†	-229.0	-16.5	-0.1400 µg/L	-0.1400 ppb	11:59:09
3	As 188.979†	-4.6	-0.9	-1.5625 µg/L	-1.5625 ppb	11:59:29
3	B 249.677†	473.2	125.4	4.7798 µg/L	4.7798 ppb	11:59:09
3	Ba 233.527†	-32.1	11.0	0.3123 µg/L	0.3123 ppb	11:59:29
3	Be 313.107†	4343.7	409.4	0.2646 µg/L	0.2646 ppb	11:59:03
3	Cd 226.502†	-107.6	14.9	0.4124 µg/L	0.4124 ppb	11:59:29
3	Co 228.616†	20.3	4.7	0.2425 µg/L	0.2425 ppb	11:59:29
3	Cr 267.716†	-94.1	39.9	0.9218 µg/L	0.9218 ppb	11:59:09
3	Cu 324.752†	6551.9	802.0	5.6795 µg/L	5.6795 ppb	11:59:09
3	Mn 257.610†	-101.7	102.2	0.3634 µg/L	0.3634 ppb	11:59:29
3	Mo 202.031†	27.6	8.5	1.0464 µg/L	1.0464 ppb	11:59:29
3	Ni 231.604†	333.8	16.0	0.9334 µg/L	0.9334 ppb	11:59:29
3	P 214.914†	265.4	14.3	22.205 µg/L	22.205 ppb	11:59:29
3	Pb 220.353†	87.8	6.0	1.6442 µg/L	1.6442 ppb	11:59:29
3	S 181.975 Axial†	34.2	3.1	11.378 µg/L	11.378 ppb	11:59:29
3	Sb 206.836†	30.6	7.0	6.2557 µg/L	6.2557 ppb	11:59:29
3	Se 196.026†	15.1	1.3	1.4613 µg/L	1.4613 ppb	11:59:29
3	SiO2†	3610.7	25.7	4.3609 µg/L	4.3609 ppb	11:59:09
3	Si 251.611†	400.3	76.3	4.9394 µg/L	4.9394 ppb	11:59:29
3	Sn 189.927†	33.0	4.4	2.2631 µg/L	2.2631 ppb	11:59:29
3	Ti 334.940†	707.8	173.7	0.4196 µg/L	0.4196 ppb	11:59:09
3	Tl 190.801†	-33.2	-6.6	-10.695 µg/L	-10.695 ppb	11:59:29
3	U 409.014†	65.7	-40.7	-4.2338 µg/L	-4.2338 ppb	11:59:09
3	V 292.402†	-238.2	79.6	0.9826 µg/L	0.9826 ppb	11:59:09
3	Zn 213.857†	653.2	51.3	1.2958 µg/L	1.2958 ppb	11:59:29

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1725913.5	98.127	%	0.1499				0.15%
Sc RADIAL	56521.4	94.6	%	0.64				0.68%
Y 371.029	1059141.9	98.211	%	0.1060				0.11%
Ag 328.068†	-32.7	-0.2864	µg/L	0.22731	-0.2864	ppb	0.22731	79.38%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	37.2	26.736	µg/L	6.7795	26.736	ppb	6.7795	25.36%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	2.1	3.6045	µg/L	7.57087	3.6045	ppb	7.57087	210.04%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	130.1	4.9541	µg/L	0.16886	4.9541	ppb	0.16886	3.41%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	16.5	0.4668	µg/L	0.26196	0.4668	ppb	0.26196	56.12%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	341.2	0.2205	µg/L	0.04310	0.2205	ppb	0.04310	19.55%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	27.4	23.980	µg/L	5.1303	23.980	ppb	5.1303	21.39%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	13.4	0.3694	µg/L	0.17962	0.3694	ppb	0.17962	48.63%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	3.4	0.1729	µg/L	0.17204	0.1729	ppb	0.17204	99.51%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                12.0      0.2779 µg/L       0.55776      0.2779 ppb        0.55776 200.71%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               853.8      6.0476 µg/L       0.31917      6.0476 ppb        0.31917   5.28%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          4.7      61.379 µg/L       16.7650      61.379 ppb        16.7650  27.31%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         236.9      154.60 µg/L        32.786      154.60 ppb         32.786  21.21%
   QC value greater than the upper limit for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             3.5      34.126 µg/L       21.0252      34.126 ppb        21.0252  61.61%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               109.1      0.3898 µg/L       0.04971      0.3898 ppb        0.04971  12.75%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 5.1      0.6285 µg/L       0.96565      0.6285 ppb        0.96565 153.64%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        328.3      128.54 µg/L        17.785      128.54 ppb         17.785  13.84%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                10.0      0.5806 µg/L       0.35872      0.5806 ppb        0.35872  61.78%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 10.8      16.607 µg/L        5.5207      16.607 ppb         5.5207  33.24%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                 4.1      1.1269 µg/L       0.78398      1.1269 ppb        0.78398  69.57%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            3.4      12.264 µg/L        1.9209      12.264 ppb         1.9209  15.66%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 4.7      4.2105 µg/L       1.80249      4.2105 ppb        1.80249  42.81%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 7.1      7.5589 µg/L       5.33863      7.5589 ppb        5.33863  70.63%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                      28.4      4.8088 µg/L       6.05186      4.8088 ppb        6.05186 125.85%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†                90.2      5.8557 µg/L       0.85124      5.8557 ppb        0.85124  14.54%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 4.7      2.4650 µg/L       1.36686      2.4650 ppb        1.36686  55.45%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                66.4      0.7210 µg/L       0.40579      0.7210 ppb        0.40579  56.28%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               172.6      0.4167 µg/L       0.00699      0.4167 ppb        0.00699   1.68%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                -2.5     -3.9947 µg/L       8.09290     -3.9947 ppb        8.09290 202.59%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                -19.8     -2.0704 µg/L       1.90165     -2.0704 ppb        1.90165  91.85%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 65.8      0.8134 µg/L       0.38176      0.8134 ppb        0.38176  46.94%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                50.6      1.2740 µg/L       0.18487      1.2740 ppb        0.18487  14.51%
   QC value within limits for Zn 213.857  Recovery = Not calculated
QC Failed.  Continue with analysis.
```

==========

Analysis Begun

Start Time: 1/8/2010 12:10:12 **Plasma On Time: 1/6/2010 20:35:26**
Logged In Analyst: optima **Technique: ICP Continuous**
Spectrometer Model: Optima 4300 DV, S/N 077N1030502Autosampler Model: AS-93plus

Sample Information File: C:\pe\optima1\Sample Information\010810.sif
Batch ID:
Results Data Set: 010810
Results Library: c:\pe\optima1\Results\Results.mdb

==========

Method Loaded
Method Name: Gen Eng fast_new Si **Method Last Saved: 1/8/2010 10:46:30**
IEC File: 101509.iec **MSF File:**
Method Description:

Analyte	Calibration Equation	Processing	View	Internal Standard	IEC
Ag 328.068	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Al 396.153Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
As 188.979	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
B 249.677	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ba 233.527	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Be 313.107	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ca 317.933Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
Cd 226.502	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Co 228.616	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cr 267.716	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cu 324.752	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Fe 238.204 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
K 766.490 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
Mg 279.077 IEC	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
Mn 257.610	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Mo 202.031	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Na 589.592 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
Ni 231.604	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
P 214.914	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Pb 220.353	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
S 181.975 Axial	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sb 206.836	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sc 361.383	Lin Thru 0	Peak Area	Axial	n/a	n/a
Sc RADIAL	Lin, Calc Int	Peak Area	Radial	n/a	n/a
Se 196.026	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
SiO2	Lin Thru 0	Peak Area	Axial	Sc 361.383	No
Si 251.611	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sn 189.927	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sr 421.552	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
Ti 334.940	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Tl 190.801	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
U 409.014	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
V 292.402	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y 371.029	Lin, Calc Int	Peak Area	Axial	n/a	n/a
Zn 213.857	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes

==========

Sequence No.: 1 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 1/8/2010 12:10:14**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	57120.6	57120.6	95.6	%			12:10:48
1	Al 396.153Radial†	6905.9	7197.2	5156.3	µg/L	5156.3	ppb	12:10:48
1	Ca 317.933Radial†	5754.2	5809.5	5085.0	µg/L	5085.0	ppb	12:11:09
1	Fe 238.204 Radial†	365.0	373.4	4869.8	µg/L	4869.8	ppb	12:11:09

1	K 766.490 Radial†	7839.7	7704.0	5026.8 µg/L	5026.8 ppb	12:10:48
1	Mg 279.077 IEC†	498.2	510.2	5007.1 µg/L	5007.1 ppb	12:11:09
1	Na 589.592 Radial†	24721.3	25729.4	10075 µg/L	10075 ppb	12:10:48
1	Sr 421.552†	42182.4	44173.5	479.39 µg/L	479.39 ppb	12:10:48
1	Sc 361.383	1745371.5	1745371.5	99.234 %		12:12:11
1	Y 371.029	1066392.9	1066392.9	98.884 %		12:12:11
1	Ag 328.068†	51809.6	52426.4	479.52 µg/L	479.52 ppb	12:12:17
1	As 188.979†	284.3	290.2	494.32 µg/L	494.32 ppb	12:12:37
1	B 249.677†	12860.2	12603.1	480.08 µg/L	480.08 ppb	12:12:17
1	Ba 233.527†	17078.0	17253.7	487.45 µg/L	487.45 ppb	12:12:17
1	Be 313.107†	751933.3	753726.9	487.21 µg/L	487.21 ppb	12:12:11
1	Cd 226.502†	17110.8	17367.4	489.97 µg/L	489.97 ppb	12:12:17
1	Co 228.616†	9536.9	9594.7	489.74 µg/L	489.74 ppb	12:12:17
1	Cr 267.716†	20925.3	21222.7	489.65 µg/L	489.65 ppb	12:12:17
1	Cu 324.752†	72909.9	67603.0	478.83 µg/L	478.83 ppb	12:12:17
1	Mn 257.610†	137881.6	139152.3	488.14 µg/L	488.14 ppb	12:12:17
1	Mo 202.031†	4033.7	4045.3	495.34 µg/L	495.34 ppb	12:12:37
1	Ni 231.604†	8671.5	8414.7	489.73 µg/L	489.73 ppb	12:12:17
1	P 214.914†	1803.4	1561.3	2456.1 µg/L	2456.1 ppb	12:12:37
1	Pb 220.353†	1876.9	1808.0	497.90 µg/L	497.90 ppb	12:12:37
1	S 181.975 Axial†	296.5	267.1	971.19 µg/L	971.19 ppb	12:12:37
1	Sb 206.836†	564.6	544.8	484.59 µg/L	484.59 ppb	12:12:37
1	Se 196.026†	486.5	476.1	500.82 µg/L	500.82 ppb	12:12:37
1	SiO2†	33775.9	30385.7	5153.4 µg/L	5153.4 ppb	12:12:17
1	Si 251.611†	36099.0	36046.4	2365.8 µg/L	2365.8 ppb	12:12:17
1	Sn 189.927†	976.9	955.1	498.30 µg/L	498.30 ppb	12:12:37
1	Ti 334.940†	197530.4	198509.0	480.69 µg/L	480.69 ppb	12:12:11
1	Tl 190.801†	271.1	300.3	487.46 µg/L	487.46 ppb	12:12:37
1	U 409.014†	4761.2	4690.4	486.18 µg/L	486.18 ppb	12:12:17
1	V 292.402†	38877.8	39500.2	490.90 µg/L	490.90 ppb	12:12:17
1	Zn 213.857†	19563.4	19100.7	486.85 µg/L	486.85 ppb	12:12:17
2	Sc RADIAL	57468.8	57468.8	96.1 %		12:11:14
2	Al 396.153Radial†	7008.9	7260.6	5201.7 µg/L	5201.7 ppb	12:11:14
2	Ca 317.933Radial†	5719.6	5736.9	5021.5 µg/L	5021.5 ppb	12:11:35
2	Fe 238.204 Radial†	363.0	369.1	4813.0 µg/L	4813.0 ppb	12:11:35
2	K 766.490 Radial†	8006.9	7828.2	5107.8 µg/L	5107.8 ppb	12:11:14
2	Mg 279.077 IEC†	494.7	503.4	4940.7 µg/L	4940.7 ppb	12:11:35
2	Na 589.592 Radial†	25186.3	26056.3	10203 µg/L	10203 ppb	12:11:14
2	Sr 421.552†	43235.3	45001.1	488.37 µg/L	488.37 ppb	12:11:14
2	Sc 361.383	1726894.0	1726894.0	98.183 %		12:12:43
2	Y 371.029	1055183.4	1055183.4	97.844 %		12:12:43
2	Ag 328.068†	51920.9	53098.4	485.64 µg/L	485.64 ppb	12:12:49
2	As 188.979†	282.4	291.4	496.26 µg/L	496.26 ppb	12:13:09
2	B 249.677†	12884.0	12766.0	486.33 µg/L	486.33 ppb	12:12:49
2	Ba 233.527†	17064.2	17423.7	492.26 µg/L	492.26 ppb	12:12:49
2	Be 313.107†	744730.6	754498.7	487.71 µg/L	487.71 ppb	12:12:43
2	Cd 226.502†	17132.8	17574.3	495.82 µg/L	495.82 ppb	12:12:49
2	Co 228.616†	9527.0	9687.4	494.48 µg/L	494.48 ppb	12:12:49
2	Cr 267.716†	20913.0	21435.8	494.56 µg/L	494.56 ppb	12:12:49
2	Cu 324.752†	73011.5	68492.7	485.12 µg/L	485.12 ppb	12:12:49
2	Mn 257.610†	137903.1	140660.9	493.41 µg/L	493.41 ppb	12:12:49
2	Mo 202.031†	4023.1	4078.0	499.33 µg/L	499.33 ppb	12:13:09
2	Ni 231.604†	8693.2	8530.2	496.45 µg/L	496.45 ppb	12:12:49
2	P 214.914†	1786.7	1563.8	2459.5 µg/L	2459.5 ppb	12:13:09
2	Pb 220.353†	1877.9	1829.2	503.73 µg/L	503.73 ppb	12:13:09
2	S 181.975 Axial†	302.8	276.7	1006.3 µg/L	1006.3 ppb	12:13:09
2	Sb 206.836†	562.0	548.2	487.59 µg/L	487.59 ppb	12:13:09
2	Se 196.026†	499.9	495.0	520.55 µg/L	520.55 ppb	12:13:09
2	SiO2†	33827.5	30802.3	5224.1 µg/L	5224.1 ppb	12:12:49
2	Si 251.611†	36216.7	36555.5	2399.6 µg/L	2399.6 ppb	12:12:49
2	Sn 189.927†	974.3	963.1	502.41 µg/L	502.41 ppb	12:13:09
2	Ti 334.940†	195620.2	198693.2	481.14 µg/L	481.14 ppb	12:12:43
2	Tl 190.801†	276.0	308.3	500.36 µg/L	500.36 ppb	12:13:09
2	U 409.014†	4744.1	4724.3	489.72 µg/L	489.72 ppb	12:12:49
2	V 292.402†	38824.7	39865.4	495.43 µg/L	495.43 ppb	12:12:49
2	Zn 213.857†	19589.7	19338.4	492.94 µg/L	492.94 ppb	12:12:49
3	Sc RADIAL	57793.6	57793.6	96.7 %		12:11:40
3	Al 396.153Radial†	6898.2	7105.2	5092.3 µg/L	5092.3 ppb	12:11:40
3	Ca 317.933Radial†	5732.0	5716.3	5003.5 µg/L	5003.5 ppb	12:12:01
3	Fe 238.204 Radial†	362.7	366.7	4781.2 µg/L	4781.2 ppb	12:12:01
3	K 766.490 Radial†	7969.9	7743.1	5052.3 µg/L	5052.3 ppb	12:11:40

3	Mg 279.077 IEC†	495.7	501.5	4920.5 µg/L	4920.5 ppb	12:12:01
3	Na 589.592 Radial†	24946.8	25661.3	10048 µg/L	10048 ppb	12:11:40
3	Sr 421.552†	42610.7	44102.4	478.62 µg/L	478.62 ppb	12:11:40
3	Sc 361.383	1755762.0	1755762.0	99.824 %		12:13:15
3	Y 371.029	1073125.4	1073125.4	99.508 %		12:13:15
3	Ag 328.068†	50709.8	51015.7	466.55 µg/L	466.55 ppb	12:13:21
3	As 188.979†	259.0	263.2	448.40 µg/L	448.40 ppb	12:13:41
3	B 249.677†	12609.8	12275.5	467.60 µg/L	467.60 ppb	12:13:21
3	Ba 233.527†	16515.4	16588.2	468.64 µg/L	468.64 ppb	12:13:21
3	Be 313.107†	741229.4	738519.9	477.38 µg/L	477.38 ppb	12:13:15
3	Cd 226.502†	16502.0	16655.5	469.86 µg/L	469.86 ppb	12:13:21
3	Co 228.616†	9199.9	9200.2	469.50 µg/L	469.50 ppb	12:13:21
3	Cr 267.716†	19878.4	20049.1	462.58 µg/L	462.58 ppb	12:13:21
3	Cu 324.752†	70547.4	64801.6	459.00 µg/L	459.00 ppb	12:13:21
3	Mn 257.610†	132531.0	132970.0	466.47 µg/L	466.47 ppb	12:13:21
3	Mo 202.031†	3586.8	3573.5	437.59 µg/L	437.59 ppb	12:13:41
3	Ni 231.604†	8355.4	8046.2	468.29 µg/L	468.29 ppb	12:13:21
3	P 214.914†	1640.1	1387.0	2177.2 µg/L	2177.2 ppb	12:13:41
3	Pb 220.353†	1715.2	1634.8	450.13 µg/L	450.13 ppb	12:13:41
3	S 181.975 Axial†	275.9	244.7	889.64 µg/L	889.64 ppb	12:13:41
3	Sb 206.836†	505.3	482.0	428.74 µg/L	428.74 ppb	12:13:41
3	Se 196.026†	459.2	445.9	469.45 µg/L	469.45 ppb	12:13:41
3	SiO2†	32937.1	29343.9	4976.8 µg/L	4976.8 ppb	12:13:21
3	Si 251.611†	35160.5	34891.0	2292.3 µg/L	2292.3 ppb	12:13:21
3	Sn 189.927†	861.7	833.9	435.21 µg/L	435.21 ppb	12:13:41
3	Ti 334.940†	194395.3	194190.3	470.23 µg/L	470.23 ppb	12:13:15
3	Tl 190.801†	252.3	279.9	454.34 µg/L	454.34 ppb	12:13:41
3	U 409.014†	4539.9	4440.3	460.21 µg/L	460.21 ppb	12:13:21
3	V 292.402†	37210.7	37598.4	467.03 µg/L	467.03 ppb	12:13:21
3	Zn 213.857†	18830.9	18250.2	465.13 µg/L	465.13 ppb	12:13:21

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1742675.8	99.080	%	0.8313				0.84%
Sc RADIAL	57461.0	96.1	%	0.56				0.59%
Y 371.029	1064900.6	98.745	%	0.8404				0.85%
Ag 328.068†	52180.2	477.24	µg/L	9.750	477.24	ppb	9.750	2.04%
QC value within limits for Ag 328.068 Recovery = 95.45%								
Al 396.153Radial†	7187.7	5150.1	µg/L	54.97	5150.1	ppb	54.97	1.07%
QC value within limits for Al 396.153Radial Recovery = 103.00%								
As 188.979†	281.6	479.66	µg/L	27.091	479.66	ppb	27.091	5.65%
QC value within limits for As 188.979 Recovery = 95.93%								
B 249.677†	12548.2	478.00	µg/L	9.539	478.00	ppb	9.539	2.00%
QC value within limits for B 249.677 Recovery = 95.60%								
Ba 233.527†	17088.5	482.78	µg/L	12.481	482.78	ppb	12.481	2.59%
QC value within limits for Ba 233.527 Recovery = 96.56%								
Be 313.107†	748915.2	484.10	µg/L	5.824	484.10	ppb	5.824	1.20%
QC value within limits for Be 313.107 Recovery = 96.82%								
Ca 317.933Radial†	5754.2	5036.7	µg/L	42.82	5036.7	ppb	42.82	0.85%
QC value within limits for Ca 317.933Radial Recovery = 100.73%								
Cd 226.502†	17199.1	485.22	µg/L	13.616	485.22	ppb	13.616	2.81%
QC value within limits for Cd 226.502 Recovery = 97.04%								
Co 228.616†	9494.1	484.58	µg/L	13.268	484.58	ppb	13.268	2.74%
QC value within limits for Co 228.616 Recovery = 96.92%								
Cr 267.716†	20902.6	482.26	µg/L	17.223	482.26	ppb	17.223	3.57%
QC value within limits for Cr 267.716 Recovery = 96.45%								
Cu 324.752†	66965.8	474.32	µg/L	13.634	474.32	ppb	13.634	2.87%
QC value within limits for Cu 324.752 Recovery = 94.86%								
Fe 238.204 Radial†	369.7	4821.4	µg/L	44.92	4821.4	ppb	44.92	0.93%
QC value within limits for Fe 238.204 Radial Recovery = 96.43%								
K 766.490 Radial†	7758.5	5062.3	µg/L	41.44	5062.3	ppb	41.44	0.82%
QC value within limits for K 766.490 Radial Recovery = 101.25%								
Mg 279.077 IEC†	505.1	4956.1	µg/L	45.32	4956.1	ppb	45.32	0.91%
QC value within limits for Mg 279.077 IEC Recovery = 99.12%								
Mn 257.610†	137594.4	482.67	µg/L	14.281	482.67	ppb	14.281	2.96%
QC value within limits for Mn 257.610 Recovery = 96.53%								
Mo 202.031†	3898.9	477.42	µg/L	34.551	477.42	ppb	34.551	7.24%
QC value within limits for Mo 202.031 Recovery = 95.48%								
Na 589.592 Radial†	25815.7	10109	µg/L	82.7	10109	ppb	82.7	0.82%

QC value within limits for Na 589.592 Radial Recovery = 101.09%

Ni 231.604†	8330.4	484.82 µg/L	14.710	484.82 ppb	14.710	3.03%

QC value within limits for Ni 231.604 Recovery = 96.96%

P 214.914†	1504.0	2364.2 µg/L	162.02	2364.2 ppb	162.02	6.85%

QC value within limits for P 214.914 Recovery = 94.57%

Pb 220.353†	1757.4	483.92 µg/L	29.409	483.92 ppb	29.409	6.08%

QC value within limits for Pb 220.353 Recovery = 96.78%

S 181.975 Axial†	262.9	955.70 µg/L	59.839	955.70 ppb	59.839	6.26%

QC value within limits for S 181.975 Axial Recovery = 95.57%

Sb 206.836†	525.0	466.97 µg/L	33.143	466.97 ppb	33.143	7.10%

QC value within limits for Sb 206.836 Recovery = 93.39%

Se 196.026†	472.3	496.94 µg/L	25.767	496.94 ppb	25.767	5.19%

QC value within limits for Se 196.026 Recovery = 99.39%

SiO2†	30177.3	5118.1 µg/L	127.41	5118.1 ppb	127.41	2.49%

QC value within limits for SiO2 Recovery = 95.71%

Si 251.611†	35831.0	2352.5 µg/L	54.89	2352.5 ppb	54.89	2.33%

QC value within limits for Si 251.611 Recovery = 94.10%

Sn 189.927†	917.4	478.64 µg/L	37.668	478.64 ppb	37.668	7.87%

QC value within limits for Sn 189.927 Recovery = 95.73%

Sr 421.552†	44425.7	482.12 µg/L	5.422	482.12 ppb	5.422	1.12%

QC value within limits for Sr 421.552 Recovery = 96.42%

Ti 334.940†	197130.8	477.36 µg/L	6.173	477.36 ppb	6.173	1.29%

QC value within limits for Ti 334.940 Recovery = 95.47%

Tl 190.801†	296.2	480.72 µg/L	23.737	480.72 ppb	23.737	4.94%

QC value within limits for Tl 190.801 Recovery = 96.14%

U 409.014†	4618.3	478.70 µg/L	16.113	478.70 ppb	16.113	3.37%

QC value within limits for U 409.014 Recovery = 95.74%

V 292.402†	38988.0	484.45 µg/L	15.259	484.45 ppb	15.259	3.15%

QC value within limits for V 292.402 Recovery = 96.89%

Zn 213.857†	18896.4	481.64 µg/L	14.616	481.64 ppb	14.616	3.03%

QC value within limits for Zn 213.857 Recovery = 96.33%

All analyte(s) passed QC.

Sequence No.: 2
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 1/8/2010 12:13:50
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56758.0	56758.0	94.9	%			12:14:23
1	Al 396.153Radial†	32.9	4.7	3.3299	µg/L	3.3299	ppb	12:14:23
1	Ca 317.933Radial†	210.5	9.2	8.0315	µg/L	8.0315	ppb	12:14:43
1	Fe 238.204 Radial†	12.0	4.1	53.462	µg/L	53.462	ppb	12:14:43
1	K 766.490 Radial†	507.3	33.8	22.058	µg/L	22.058	ppb	12:14:23
1	Mg 279.077 IEC†	12.1	1.5	15.042	µg/L	15.042	ppb	12:14:43
1	Na 589.592 Radial†	297.2	170.9	66.910	µg/L	66.910	ppb	12:14:23
1	Sr 421.552†	3.6	32.2	0.3492	µg/L	0.3492	ppb	12:14:23
1	Sc 361.383	1736581.7	1736581.7	98.734	%			12:15:45
1	Y 371.029	1065166.8	1065166.8	98.770	%			12:15:45
1	Ag 328.068†	-184.0	30.3	0.2839	µg/L	0.2839	ppb	12:15:51
1	As 188.979†	-7.0	-3.3	-5.6062	µg/L	-5.6062	ppb	12:16:11
1	B 249.677†	420.5	69.4	2.6341	µg/L	2.6341	ppb	12:15:51
1	Ba 233.527†	-34.4	8.9	0.2530	µg/L	0.2530	ppb	12:16:11
1	Be 313.107†	4120.0	158.9	0.1027	µg/L	0.1027	ppb	12:15:45
1	Cd 226.502†	-125.0	-2.2	-0.0752	µg/L	-0.0752	ppb	12:16:11
1	Co 228.616†	3.5	-12.3	-0.6270	µg/L	-0.6270	ppb	12:16:11
1	Cr 267.716†	-130.9	3.2	0.0763	µg/L	0.0763	ppb	12:15:51
1	Cu 324.752†	6035.6	243.0	1.7242	µg/L	1.7242	ppb	12:15:51
1	Mn 257.610†	-175.5	28.0	0.1047	µg/L	0.1047	ppb	12:15:51
1	Mo 202.031†	25.5	6.2	0.7661	µg/L	0.7661	ppb	12:16:11
1	Ni 231.604†	325.7	6.1	0.3525	µg/L	0.3525	ppb	12:16:11
1	P 214.914†	266.4	13.8	21.913	µg/L	21.913	ppb	12:16:11
1	Pb 220.353†	83.9	1.6	0.4397	µg/L	0.4397	ppb	12:16:11
1	S 181.975 Axial†	35.9	4.7	17.011	µg/L	17.011	ppb	12:16:11
1	Sb 206.836†	15.4	-8.5	-7.6314	µg/L	-7.6314	ppb	12:16:11
1	Se 196.026†	15.3	1.4	1.4650	µg/L	1.4650	ppb	12:16:11
1	SiO2†	3571.4	-34.0	-5.7631	µg/L	-5.7631	ppb	12:15:51
1	Si 251.611†	345.5	18.5	1.2192	µg/L	1.2192	ppb	12:16:11
1	Sn 189.927†	28.6	-0.3	-0.1521	µg/L	-0.1521	ppb	12:16:11
1	Ti 334.940†	568.2	28.5	0.0685	µg/L	0.0685	ppb	12:15:51
1	Tl 190.801†	-24.3	2.5	4.0529	µg/L	4.0529	ppb	12:16:11
1	U 409.014†	13.7	-93.7	-9.7497	µg/L	-9.7497	ppb	12:15:51
1	V 292.402†	-263.9	54.9	0.6669	µg/L	0.6669	ppb	12:15:51
1	Zn 213.857†	622.2	16.3	0.4012	µg/L	0.4012	ppb	12:16:11
2	Sc RADIAL	56667.4	56667.4	94.8	%			12:14:49
2	Al 396.153Radial†	33.7	5.5	4.0026	µg/L	4.0026	ppb	12:14:49
2	Ca 317.933Radial†	208.0	6.9	6.0383	µg/L	6.0383	ppb	12:15:09
2	Fe 238.204 Radial†	10.5	2.6	33.414	µg/L	33.414	ppb	12:15:09
2	K 766.490 Radial†	533.2	62.1	40.487	µg/L	40.487	ppb	12:14:49
2	Mg 279.077 IEC†	10.0	-0.6	-6.3441	µg/L	-6.3441	ppb	12:15:09
2	Na 589.592 Radial†	249.0	120.5	47.171	µg/L	47.171	ppb	12:14:49
2	Sr 421.552†	8.7	37.5	0.4074	µg/L	0.4074	ppb	12:14:49
2	Sc 361.383	1720990.0	1720990.0	97.847	%			12:16:17
2	Y 371.029	1055314.4	1055314.4	97.856	%			12:16:17
2	Ag 328.068†	-285.1	-74.8	-0.6738	µg/L	-0.6738	ppb	12:16:22
2	As 188.979†	-7.5	-3.9	-6.7004	µg/L	-6.7004	ppb	12:16:43
2	B 249.677†	399.7	52.0	1.9758	µg/L	1.9758	ppb	12:16:22
2	Ba 233.527†	-40.6	2.2	0.0628	µg/L	0.0628	ppb	12:16:43
2	Be 313.107†	4123.9	200.8	0.1297	µg/L	0.1297	ppb	12:16:17
2	Cd 226.502†	-124.0	-2.2	-0.0703	µg/L	-0.0703	ppb	12:16:43
2	Co 228.616†	13.2	-2.4	-0.1235	µg/L	-0.1235	ppb	12:16:43
2	Cr 267.716†	-130.2	2.7	0.0633	µg/L	0.0633	ppb	12:16:22
2	Cu 324.752†	5965.3	226.5	1.6061	µg/L	1.6061	ppb	12:16:22
2	Mn 257.610†	-197.3	4.1	0.0186	µg/L	0.0186	ppb	12:16:22
2	Mo 202.031†	16.4	-2.7	-0.3342	µg/L	-0.3342	ppb	12:16:43
2	Ni 231.604†	322.9	6.1	0.3572	µg/L	0.3572	ppb	12:16:43
2	P 214.914†	249.5	-0.9	-1.7421	µg/L	-1.7421	ppb	12:16:43
2	Pb 220.353†	95.4	14.1	3.8810	µg/L	3.8810	ppb	12:16:43

2	S 181.975 Axial†	30.2	-0.8	-2.8476 µg/L	-2.8476 ppb	12:16:43
2	Sb 206.836†	23.1	-0.6	-0.5288 µg/L	-0.5288 ppb	12:16:43
2	Se 196.026†	15.8	2.0	2.0887 µg/L	2.0887 ppb	12:16:43
2	SiO2†	3580.0	7.6	1.2931 µg/L	1.2931 ppb	12:16:22
2	Si 251.611†	358.4	34.9	2.2891 µg/L	2.2891 ppb	12:16:43
2	Sn 189.927†	30.0	1.4	0.7418 µg/L	0.7418 ppb	12:16:43
2	Ti 334.940†	638.0	105.0	0.2540 µg/L	0.2540 ppb	12:16:22
2	Tl 190.801†	-32.4	-6.0	-9.7066 µg/L	-9.7066 ppb	12:16:43
2	U 409.014†	65.9	-40.2	-4.1886 µg/L	-4.1886 ppb	12:16:22
2	V 292.402†	-292.0	23.7	0.2839 µg/L	0.2839 ppb	12:16:22
2	Zn 213.857†	622.1	22.0	0.5529 µg/L	0.5529 ppb	12:16:43
3	Sc RADIAL	56791.0	56791.0	95.0 %		12:15:15
3	Al 396.153Radial†	52.0	24.8	17.814 µg/L	17.814 ppb	12:15:15
3	Ca 317.933Radial†	206.5	4.8	4.2088 µg/L	4.2088 ppb	12:15:35
3	Fe 238.204 Radial†	10.2	2.2	28.938 µg/L	28.938 ppb	12:15:35
3	K 766.490 Radial†	538.7	66.6	43.469 µg/L	43.469 ppb	12:15:15
3	Mg 279.077 IEC†	14.6	4.1	40.504 µg/L	40.504 ppb	12:15:35
3	Na 589.592 Radial†	248.4	119.3	46.723 µg/L	46.723 ppb	12:15:15
3	Sr 421.552†	-30.6	-3.9	-0.0419 µg/L	-0.0419 ppb	12:15:15
3	Sc 361.383	1724731.5	1724731.5	98.060 %		12:16:49
3	Y 371.029	1058224.3	1058224.3	98.126 %		12:16:49
3	Ag 328.068†	-136.4	77.5	0.7095 µg/L	0.7095 ppb	12:16:54
3	As 188.979†	-6.3	-2.7	-4.5557 µg/L	-4.5557 ppb	12:17:15
3	B 249.677†	377.4	28.4	1.0749 µg/L	1.0749 ppb	12:16:54
3	Ba 233.527†	-32.9	10.1	0.2872 µg/L	0.2872 ppb	12:17:15
3	Be 313.107†	4223.6	293.3	0.1896 µg/L	0.1896 ppb	12:16:49
3	Cd 226.502†	-119.8	2.3	0.0638 µg/L	0.0638 ppb	12:17:15
3	Co 228.616†	15.8	0.2	0.0113 µg/L	0.0113 ppb	12:17:15
3	Cr 267.716†	-126.2	7.1	0.1653 µg/L	0.1653 ppb	12:16:54
3	Cu 324.752†	6044.6	294.2	2.0842 µg/L	2.0842 ppb	12:16:54
3	Mn 257.610†	-138.7	64.3	0.2289 µg/L	0.2289 ppb	12:16:54
3	Mo 202.031†	15.9	-3.4	-0.4112 µg/L	-0.4112 ppb	12:17:15
3	Ni 231.604†	323.0	5.6	0.3231 µg/L	0.3231 ppb	12:17:15
3	P 214.914†	256.6	5.7	8.8840 µg/L	8.8840 ppb	12:17:15
3	Pb 220.353†	88.2	6.5	1.7855 µg/L	1.7855 ppb	12:17:15
3	S 181.975 Axial†	34.9	4.0	14.521 µg/L	14.521 ppb	12:17:15
3	Sb 206.836†	31.5	7.9	7.0701 µg/L	7.0701 ppb	12:17:15
3	Se 196.026†	20.7	7.0	7.2597 µg/L	7.2597 ppb	12:17:15
3	SiO2†	3602.4	22.5	3.8198 µg/L	3.8198 ppb	12:16:54
3	Si 251.611†	365.4	41.2	2.7648 µg/L	2.7648 ppb	12:17:15
3	Sn 189.927†	27.6	-1.1	-0.5786 µg/L	-0.5786 ppb	12:17:15
3	Ti 334.940†	594.4	59.1	0.1429 µg/L	0.1429 ppb	12:16:54
3	Tl 190.801†	-25.7	1.0	1.5761 µg/L	1.5761 ppb	12:17:15
3	U 409.014†	133.2	28.3	2.9310 µg/L	2.9310 ppb	12:16:54
3	V 292.402†	-273.4	43.4	0.5371 µg/L	0.5371 ppb	12:16:54
3	Zn 213.857†	634.0	32.8	0.8301 µg/L	0.8301 ppb	12:17:15

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1727434.4	98.214	%	0.4628				0.47%
Sc RADIAL	56738.8	94.9	%	0.11				0.11%
Y 371.029	1059568.5	98.251	%	0.4694				0.48%
Ag 328.068†	11.0	0.1065	µg/L	0.70847	0.1065	ppb	0.70847	665.10%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	11.7	8.3823	µg/L	8.17530	8.3823	ppb	8.17530	97.53%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-3.3	-5.6208	µg/L	1.07244	-5.6208	ppb	1.07244	19.08%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	49.9	1.8949	µg/L	0.78275	1.8949	ppb	0.78275	41.31%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	7.1	0.2010	µg/L	0.12088	0.2010	ppb	0.12088	60.14%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	217.7	0.1407	µg/L	0.04446	0.1407	ppb	0.04446	31.60%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	7.0	6.0929	µg/L	1.91195	6.0929	ppb	1.91195	31.38%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	-0.7	-0.0272	µg/L	0.07884	-0.0272	ppb	0.07884	289.54%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	-4.8	-0.2464	µg/L	0.33645	-0.2464	ppb	0.33645	136.55%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                 4.4      0.1017 µg/L       0.05552      0.1017 ppb        0.05552  54.61%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               254.6      1.8049 µg/L       0.24905      1.8049 ppb        0.24905  13.80%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          3.0     38.605 µg/L       13.0597     38.605 ppb        13.0597  33.83%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          54.2     35.338 µg/L       11.5972     35.338 ppb        11.5972  32.82%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             1.7     16.401 µg/L       23.4534     16.401 ppb        23.4534 143.00%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                32.1      0.1174 µg/L       0.10576      0.1174 ppb        0.10576  90.07%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 0.0      0.0069 µg/L       0.65860      0.0069 ppb        0.65860 >999.9%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        136.9     53.601 µg/L       11.5282     53.601 ppb        11.5282  21.51%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                 5.9      0.3443 µg/L       0.01851      0.3443 ppb        0.01851   5.38%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                  6.2      9.6849 µg/L      11.84766      9.6849 ppb       11.84766 122.33%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                 7.4      2.0354 µg/L       1.73421      2.0354 ppb        1.73421  85.20%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            2.6      9.5615 µg/L      10.81852      9.5615 ppb       10.81852 113.15%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                -0.4     -0.3634 µg/L       7.35219     -0.3634 ppb        7.35219 >999.9%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 3.4      3.6044 µg/L       3.18083      3.6044 ppb        3.18083  88.25%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                      -1.3     -0.2167 µg/L       4.96665     -0.2167 ppb        4.96665 >999.9%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†                31.5      2.0910 µg/L       0.79160      2.0910 ppb        0.79160  37.86%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 0.0      0.0037 µg/L       0.67386      0.0037 ppb        0.67386 >999.9%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                22.0      0.2382 µg/L       0.24433      0.2382 ppb        0.24433 102.56%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                64.2      0.1551 µg/L       0.09336      0.1551 ppb        0.09336  60.19%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                -0.8     -1.3592 µg/L       7.33436     -1.3592 ppb        7.33436 539.60%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                -35.2     -3.6691 µg/L       6.35625     -3.6691 ppb        6.35625 173.24%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 40.7      0.4959 µg/L       0.19479      0.4959 ppb        0.19479  39.28%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                23.7      0.5947 µg/L       0.21749      0.5947 ppb        0.21749  36.57%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
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Analysis Begun

Start Time: 1/8/2010 12:21:13 **Plasma On Time: 1/6/2010 20:35:26**
Logged In Analyst: optima **Technique: ICP Continuous**
Spectrometer Model: Optima 4300 DV, S/N 077N1030502Autosampler Model: AS-93plus

Sample Information File: C:\pe\optima1\Sample Information\010810.sif
Batch ID:
Results Data Set: 010810
Results Library: c:\pe\optima1\Results\Results.mdb

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Sequence No.: 1 **Autosampler Location: 113**
Sample ID: LR2 **Date Collected: 1/8/2010 12:21:15**
Analyst: HSC **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: LR2

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	57582.5	57582.5	96.3	%			12:21:50
1	Al 396.153Radial†	46.2	18.0	12.950	µg/L	12.950	ppb	12:21:50
1	Ca 317.933Radial†	211.0	6.5	5.7096	µg/L	5.7096	ppb	12:22:10
1	Fe 238.204 Radial†	8.7	0.5	5.9018	µg/L	5.9018	ppb	12:22:10
1	K 766.490 Radial†	524.7	44.3	28.889	µg/L	28.889	ppb	12:21:50
1	Mg 279.077 IEC†	10.0	-0.8	-8.2473	µg/L	-8.2473	ppb	12:22:10
1	Na 589.592 Radial†	196.3	61.6	24.109	µg/L	24.109	ppb	12:21:50
1	Sr 421.552†	-25.7	1.7	0.0183	µg/L	0.0183	ppb	12:21:50
1	Sc 361.383	1751924.9	1751924.9	99.606	%			12:23:14
1	Y 371.029	1070254.0	1070254.0	99.242	%			12:23:14
1	Ag 328.068†	-270.2	-54.6	-0.4855	µg/L	-0.4855	ppb	12:23:19
1	As 188.979†	-1.1	2.6	4.5071	µg/L	4.5071	ppb	12:23:40
1	B 249.677†	390.8	35.9	1.3691	µg/L	1.3691	ppb	12:23:19
1	Ba 233.527†	349371.0	350796.1	9890.0	µg/L	9890.0	ppb	12:23:14
1	Be 313.107†	4037.3	39.4	0.0254	µg/L	0.0254	ppb	12:23:14
1	Cd 226.502†	-129.7	-5.7	-0.1693	µg/L	-0.1693	ppb	12:23:40
1	Co 228.616†	-212.9	-229.7	-11.718	µg/L	-11.718	ppb	12:23:40
1	Cr 267.716†	-97.4	38.0	0.8772	µg/L	0.8772	ppb	12:23:19
1	Cu 324.752†	5937.2	90.7	0.6421	µg/L	0.6421	ppb	12:23:19
1	Mn 257.610†	-153.0	52.1	0.1833	µg/L	0.1833	ppb	12:23:19
1	Mo 202.031†	24.2	4.7	0.5763	µg/L	0.5763	ppb	12:23:40
1	Ni 231.604†	254.9	-67.9	-3.9513	µg/L	-3.9513	ppb	12:23:40
1	P 214.914†	260.7	5.7	9.0625	µg/L	9.0625	ppb	12:23:40
1	Pb 220.353†	94.0	11.0	3.0302	µg/L	3.0302	ppb	12:23:40
1	S 181.975 Axial†	32.0	0.5	1.7917	µg/L	1.7917	ppb	12:23:40
1	Sb 206.836†	33.5	9.4	8.4008	µg/L	8.4008	ppb	12:23:40
1	Se 196.026†	19.9	5.8	6.0766	µg/L	6.0766	ppb	12:23:40
1	SiO2†	446511.7	444626.0	75409	µg/L	75409	ppb	12:23:14
1	Si 251.611†	519019.4	520740.2	34854	µg/L	34854	ppb	12:23:14
1	Sn 189.927†	24.9	-4.2	-2.2036	µg/L	-2.2036	ppb	12:23:40
1	Ti 334.940†	618.1	73.5	0.1777	µg/L	0.1777	ppb	12:23:19
1	Tl 190.801†	-30.3	-3.3	-5.2656	µg/L	-5.2656	ppb	12:23:40
1	U 409.014†	78.6	-28.7	-2.9811	µg/L	-2.9811	ppb	12:23:19
1	V 292.402†	-209.0	112.3	1.3829	µg/L	1.3829	ppb	12:23:19
1	Zn 213.857†	676.5	65.4	1.6992	µg/L	1.6992	ppb	12:23:40
2	Sc RADIAL	57624.9	57624.9	96.4	%			12:22:16
2	Al 396.153Radial†	73.4	46.2	33.198	µg/L	33.198	ppb	12:22:16
2	Ca 317.933Radial†	217.8	13.4	11.752	µg/L	11.752	ppb	12:22:36
2	Fe 238.204 Radial†	9.3	1.1	14.189	µg/L	14.189	ppb	12:22:36
2	K 766.490 Radial†	521.6	40.7	26.527	µg/L	26.527	ppb	12:22:16
2	Mg 279.077 IEC†	13.1	2.3	22.977	µg/L	22.977	ppb	12:22:36
2	Na 589.592 Radial†	176.0	40.5	15.844	µg/L	15.844	ppb	12:22:16
2	Sr 421.552†	-6.0	22.2	0.2405	µg/L	0.2405	ppb	12:22:16
2	Sc 361.383	1740213.9	1740213.9	98.940	%			12:23:46
2	Y 371.029	1063469.8	1063469.8	98.612	%			12:23:46
2	Ag 328.068†	-224.4	-10.1	-0.0839	µg/L	-0.0839	ppb	12:23:51
2	As 188.979†	-2.9	0.9	1.4684	µg/L	1.4684	ppb	12:24:12

2	B 249.677†	411.0	59.0	2.2492 µg/L	2.2492 ppb	12:23:51
2	Ba 233.527†	346757.3	350514.9	9882.1 µg/L	9882.1 ppb	12:23:46
2	Be 313.107†	4005.6	34.6	0.0223 µg/L	0.0223 ppb	12:23:46
2	Cd 226.502†	-122.1	1.0	0.0167 µg/L	0.0167 ppb	12:24:12
2	Co 228.616†	-214.7	-232.9	-11.883 µg/L	-11.883 ppb	12:24:12
2	Cr 267.716†	-117.2	17.4	0.4021 µg/L	0.4021 ppb	12:23:51
2	Cu 324.752†	6021.5	216.0	1.5301 µg/L	1.5301 ppb	12:23:51
2	Mn 257.610†	-159.8	44.3	0.1569 µg/L	0.1569 ppb	12:23:51
2	Mo 202.031†	21.9	2.6	0.3175 µg/L	0.3175 ppb	12:24:12
2	Ni 231.604†	239.7	-81.6	-4.7469 µg/L	-4.7469 ppb	12:24:12
2	P 214.914†	263.0	9.9	15.613 µg/L	15.613 ppb	12:24:12
2	Pb 220.353†	93.7	11.3	3.1148 µg/L	3.1148 ppb	12:24:12
2	S 181.975 Axial†	33.8	2.6	9.2968 µg/L	9.2968 ppb	12:24:12
2	Sb 206.836†	25.4	1.5	1.3391 µg/L	1.3391 ppb	12:24:12
2	Se 196.026†	19.5	5.6	5.8729 µg/L	5.8729 ppb	12:24:12
2	SiO2†	444178.2	445284.3	75521 µg/L	75521 ppb	12:23:46
2	Si 251.611†	516046.4	521241.9	34888 µg/L	34888 ppb	12:23:46
2	Sn 189.927†	22.6	-6.4	-3.3273 µg/L	-3.3273 ppb	12:24:12
2	Ti 334.940†	564.2	23.1	0.0554 µg/L	0.0554 ppb	12:23:51
2	Tl 190.801†	-35.4	-8.7	-13.970 µg/L	-13.970 ppb	12:24:12
2	U 409.014†	32.3	-74.9	-7.7915 µg/L	-7.7915 ppb	12:23:51
2	V 292.402†	-236.0	83.7	1.0209 µg/L	1.0209 ppb	12:23:51
2	Zn 213.857†	685.2	78.7	2.0433 µg/L	2.0433 ppb	12:24:12
3	Sc RADIAL	57014.6	57014.6	95.4 %		12:22:42
3	Al 396.153Radial†	39.1	11.0	7.9456 µg/L	7.9456 ppb	12:22:42
3	Ca 317.933Radial†	224.5	22.9	20.014 µg/L	20.014 ppb	12:23:02
3	Fe 238.204 Radial†	9.6	1.5	19.377 µg/L	19.377 ppb	12:23:02
3	K 766.490 Radial†	500.8	24.6	16.068 µg/L	16.068 ppb	12:22:42
3	Mg 279.077 IEC†	13.6	3.0	29.559 µg/L	29.559 ppb	12:23:02
3	Na 589.592 Radial†	211.2	79.3	31.039 µg/L	31.039 ppb	12:22:42
3	Sr 421.552†	-37.7	-11.1	-0.1209 µg/L	-0.1209 ppb	12:22:42
3	Sc 361.383	1752993.8	1752993.8	99.667 %		12:24:18
3	Y 371.029	1071246.8	1071246.8	99.334 %		12:24:18
3	Ag 328.068†	-223.1	-7.2	-0.0541 µg/L	-0.0541 ppb	12:24:23
3	As 188.979†	-2.3	1.5	2.5505 µg/L	2.5505 ppb	12:24:44
3	B 249.677†	405.3	50.1	1.9100 µg/L	1.9100 ppb	12:24:23
3	Ba 233.527†	339316.3	340494.0	9599.5 µg/L	9599.5 ppb	12:24:18
3	Be 313.107†	4043.4	43.0	0.0277 µg/L	0.0277 ppb	12:24:18
3	Cd 226.502†	-136.1	-12.1	-0.3545 µg/L	-0.3545 ppb	12:24:44
3	Co 228.616†	-187.0	-203.5	-10.386 µg/L	-10.386 ppb	12:24:44
3	Cr 267.716†	-125.9	9.4	0.2203 µg/L	0.2203 ppb	12:24:23
3	Cu 324.752†	5943.9	93.8	0.6656 µg/L	0.6656 ppb	12:24:23
3	Mn 257.610†	-151.3	53.9	0.1914 µg/L	0.1914 ppb	12:24:23
3	Mo 202.031†	15.5	-4.0	-0.4838 µg/L	-0.4838 ppb	12:24:44
3	Ni 231.604†	238.4	-84.7	-4.9267 µg/L	-4.9267 ppb	12:24:44
3	P 214.914†	259.0	3.9	6.0461 µg/L	6.0461 ppb	12:24:44
3	Pb 220.353†	100.1	17.0	4.6945 µg/L	4.6945 ppb	12:24:44
3	S 181.975 Axial†	24.3	-7.3	-26.418 µg/L	-26.418 ppb	12:24:44
3	Sb 206.836†	29.4	5.4	4.7687 µg/L	4.7687 ppb	12:24:44
3	Se 196.026†	12.6	-1.5	-1.5448 µg/L	-1.5448 ppb	12:24:44
3	SiO2†	436757.6	434566.0	73703 µg/L	73703 ppb	12:24:18
3	Si 251.611†	507474.5	508839.0	34058 µg/L	34058 ppb	12:24:18
3	Sn 189.927†	24.0	-5.2	-2.6893 µg/L	-2.6893 ppb	12:24:44
3	Ti 334.940†	650.8	106.0	0.2556 µg/L	0.2556 ppb	12:24:23
3	Tl 190.801†	-26.8	0.2	0.4380 µg/L	0.4380 ppb	12:24:44
3	U 409.014†	31.6	-75.9	-7.8935 µg/L	-7.8935 ppb	12:24:23
3	V 292.402†	-204.5	117.0	1.4255 µg/L	1.4255 ppb	12:24:23
3	Zn 213.857†	675.0	63.5	1.6517 µg/L	1.6517 ppb	12:24:44

Mean Data: LR2

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1748377.5	99.404	%	0.4031				0.41%
Sc RADIAL	57407.3	96.0	%	0.57				0.59%
Y 371.029	1068323.5	99.063	%	0.3925				0.40%
Ag 328.068†	-24.0	-0.2078	µg/L	0.24092	-0.2078	ppb	0.24092	115.92%
Al 396.153Radial†	25.1	18.031	µg/L	13.3709	18.031	ppb	13.3709	74.15%
As 188.979†	1.7	2.8420	µg/L	1.54016	2.8420	ppb	1.54016	54.19%
B 249.677†	48.3	1.8428	µg/L	0.44387	1.8428	ppb	0.44387	24.09%
Ba 233.527†	347268.3	9790.5	µg/L	165.45	9790.5	ppb	165.45	1.69%

Be 313.107†	39.0	0.0251	µg/L	0.00270	0.0251	ppb	0.00270 10.73%
Ca 317.933Radial†	14.3	12.492	µg/L	7.1807	12.492	ppb	7.1807 57.48%
Cd 226.502†	-5.6	-0.1690	µg/L	0.18561	-0.1690	ppb	0.18561 109.82%
Co 228.616†	-222.0	-11.329	µg/L	0.8209	-11.329	ppb	0.8209 7.25%
Cr 267.716†	21.6	0.4999	µg/L	0.33918	0.4999	ppb	0.33918 67.85%
Cu 324.752†	133.5	0.9459	µg/L	0.50606	0.9459	ppb	0.50606 53.50%
Fe 238.204 Radial†	1.0	13.156	µg/L	6.7969	13.156	ppb	6.7969 51.66%
K 766.490 Radial†	36.5	23.828	µg/L	6.8232	23.828	ppb	6.8232 28.64%
Mg 279.077 IEC†	1.5	14.763	µg/L	20.1973	14.763	ppb	20.1973 136.81%
Mn 257.610†	50.1	0.1772	µg/L	0.01804	0.1772	ppb	0.01804 10.18%
Mo 202.031†	1.1	0.1366	µg/L	0.55271	0.1366	ppb	0.55271 404.52%
Na 589.592 Radial†	60.4	23.664	µg/L	7.6070	23.664	ppb	7.6070 32.15%
Ni 231.604†	-78.0	-4.5416	µg/L	0.51910	-4.5416	ppb	0.51910 11.43%
P 214.914†	6.5	10.241	µg/L	4.8912	10.241	ppb	4.8912 47.76%
Pb 220.353†	13.1	3.6132	µg/L	0.93739	3.6132	ppb	0.93739 25.94%
S 181.975 Axial†	-1.4	-5.1097	µg/L	18.83089	-5.1097	ppb	18.83089 368.53%
Sb 206.836†	5.4	4.8362	µg/L	3.53134	4.8362	ppb	3.53134 73.02%
Se 196.026†	3.3	3.4682	µg/L	4.34258	3.4682	ppb	4.34258 125.21%
SiO2†	441492.1	74878	µg/L	1018.8	74878	ppb	1018.8 1.36%
Si 251.611†	516940.3	34600	µg/L	469.9	34600	ppb	469.9 1.36%
Sn 189.927†	-5.3	-2.7401	µg/L	0.56356	-2.7401	ppb	0.56356 20.57%
Sr 421.552†	4.2	0.0459	µg/L	0.18227	0.0459	ppb	0.18227 396.76%
Ti 334.940†	67.5	0.1629	µg/L	0.10092	0.1629	ppb	0.10092 61.96%
Tl 190.801†	-3.9	-6.2660	µg/L	7.25611	-6.2660	ppb	7.25611 115.80%
U 409.014†	-59.8	-6.2221	µg/L	2.80720	-6.2221	ppb	2.80720 45.12%
V 292.402†	104.3	1.2764	µg/L	0.22232	1.2764	ppb	0.22232 17.42%
Zn 213.857†	69.2	1.7980	µg/L	0.21369	1.7980	ppb	0.21369 11.88%

Sequence No.: 2
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 1/8/2010 12:24:54
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	57952.7	57952.7	96.9	%			12:25:29
1	Al 396.153Radial†	6946.9	7135.8	5112.0	µg/L	5112.0	ppb	12:25:29
1	Ca 317.933Radial†	5723.9	5691.7	4982.0	µg/L	4982.0	ppb	12:25:49
1	Fe 238.204 Radial†	362.7	365.6	4768.2	µg/L	4768.2	ppb	12:25:49
1	K 766.490 Radial†	7887.2	7635.2	4981.9	µg/L	4981.9	ppb	12:25:29
1	Mg 279.077 IEC†	501.8	506.4	4970.2	µg/L	4970.2	ppb	12:25:49
1	Na 589.592 Radial†	24991.5	25636.7	10039	µg/L	10039	ppb	12:25:29
1	Sr 421.552†	42804.7	44181.5	479.47	µg/L	479.47	ppb	12:25:29
1	Sc 361.383	1738409.4	1738409.4	98.838	%			12:26:52
1	Y 371.029	1061647.4	1061647.4	98.444	%			12:26:52
1	Ag 328.068†	52318.1	53149.9	486.11	µg/L	486.11	ppb	12:26:58
1	As 188.979†	289.1	296.3	504.68	µg/L	504.68	ppb	12:27:18
1	B 249.677†	12939.7	12735.3	485.17	µg/L	485.17	ppb	12:26:58
1	Ba 233.527†	17303.7	17550.9	495.84	µg/L	495.84	ppb	12:26:58
1	Be 313.107†	751640.1	756464.9	488.98	µg/L	488.98	ppb	12:26:52
1	Cd 226.502†	17243.5	17570.7	495.72	µg/L	495.72	ppb	12:26:58
1	Co 228.616†	9615.4	9712.5	495.76	µg/L	495.76	ppb	12:26:58
1	Cr 267.716†	21096.2	21480.0	495.58	µg/L	495.58	ppb	12:26:58
1	Cu 324.752†	73618.9	68614.6	485.98	µg/L	485.98	ppb	12:26:58
1	Mn 257.610†	140420.4	142277.3	499.07	µg/L	499.07	ppb	12:26:52
1	Mo 202.031†	4045.6	4073.7	498.81	µg/L	498.81	ppb	12:27:18
1	Ni 231.604†	8703.2	8481.7	493.63	µg/L	493.63	ppb	12:26:58
1	P 214.914†	1805.6	1570.9	2470.7	µg/L	2470.7	ppb	12:27:18
1	Pb 220.353†	1874.3	1812.9	499.25	µg/L	499.25	ppb	12:27:18
1	S 181.975 Axial†	299.9	271.8	988.22	µg/L	988.22	ppb	12:27:18
1	Sb 206.836†	566.6	549.1	488.40	µg/L	488.40	ppb	12:27:18
1	Se 196.026†	485.5	477.1	501.74	µg/L	501.74	ppb	12:27:18
1	SiO2†	34294.8	31046.9	5265.6	µg/L	5265.6	ppb	12:26:58
1	Si 251.611†	36686.2	36786.2	2415.0	µg/L	2415.0	ppb	12:26:58
1	Sn 189.927†	982.9	965.2	503.53	µg/L	503.53	ppb	12:27:18
1	Ti 334.940†	197857.6	199637.2	483.43	µg/L	483.43	ppb	12:26:52
1	Tl 190.801†	276.7	307.1	498.42	µg/L	498.42	ppb	12:27:18
1	U 409.014†	4689.2	4636.7	480.63	µg/L	480.63	ppb	12:26:58
1	V 292.402†	39092.2	39874.1	495.51	µg/L	495.51	ppb	12:26:58
1	Zn 213.857†	19725.1	19343.3	493.09	µg/L	493.09	ppb	12:26:58
2	Sc RADIAL	58165.1	58165.1	97.3	%			12:25:55
2	Al 396.153Radial†	6975.3	7138.8	5114.2	µg/L	5114.2	ppb	12:25:55
2	Ca 317.933Radial†	5733.0	5679.5	4971.3	µg/L	4971.3	ppb	12:26:15
2	Fe 238.204 Radial†	362.5	364.0	4747.4	µg/L	4747.4	ppb	12:26:15
2	K 766.490 Radial†	7933.6	7653.1	4993.6	µg/L	4993.6	ppb	12:25:55
2	Mg 279.077 IEC†	500.0	502.7	4933.6	µg/L	4933.6	ppb	12:26:15
2	Na 589.592 Radial†	25151.7	25707.1	10066	µg/L	10066	ppb	12:25:55
2	Sr 421.552†	43018.2	44239.6	480.11	µg/L	480.11	ppb	12:25:55
2	Sc 361.383	1742163.1	1742163.1	99.051	%			12:27:24
2	Y 371.029	1063914.6	1063914.6	98.654	%			12:27:24
2	Ag 328.068†	52295.8	53013.4	484.86	µg/L	484.86	ppb	12:27:30
2	As 188.979†	286.8	293.4	499.63	µg/L	499.63	ppb	12:27:50
2	B 249.677†	12969.3	12737.1	485.25	µg/L	485.25	ppb	12:27:30
2	Ba 233.527†	17273.2	17482.4	493.91	µg/L	493.91	ppb	12:27:30
2	Be 313.107†	752831.7	756029.5	488.70	µg/L	488.70	ppb	12:27:24
2	Cd 226.502†	17196.7	17485.9	493.33	µg/L	493.33	ppb	12:27:30
2	Co 228.616†	9592.8	9668.8	493.53	µg/L	493.53	ppb	12:27:30
2	Cr 267.716†	21024.2	21361.4	492.85	µg/L	492.85	ppb	12:27:30
2	Cu 324.752†	73666.0	68501.7	485.18	µg/L	485.18	ppb	12:27:30
2	Mn 257.610†	140426.4	141977.4	498.02	µg/L	498.02	ppb	12:27:24
2	Mo 202.031†	4047.6	4066.8	497.96	µg/L	497.96	ppb	12:27:50
2	Ni 231.604†	8720.7	8480.4	493.55	µg/L	493.55	ppb	12:27:30
2	P 214.914†	1797.9	1559.1	2451.9	µg/L	2451.9	ppb	12:27:50
2	Pb 220.353†	1875.8	1810.3	498.53	µg/L	498.53	ppb	12:27:50

2	S 181.975 Axial†	298.7	269.9	981.47 µg/L	981.47 ppb	12:27:50
2	Sb 206.836†	561.5	542.7	482.68 µg/L	482.68 ppb	12:27:50
2	Se 196.026†	497.5	488.2	513.29 µg/L	513.29 ppb	12:27:50
2	SiO2†	34269.5	30946.6	5248.6 µg/L	5248.6 ppb	12:27:30
2	Si 251.611†	36712.9	36733.2	2411.6 µg/L	2411.6 ppb	12:27:30
2	Sn 189.927†	978.7	958.8	500.18 µg/L	500.18 ppb	12:27:50
2	Ti 334.940†	198073.2	199423.5	482.91 µg/L	482.91 ppb	12:27:24
2	Tl 190.801†	273.4	303.2	492.16 µg/L	492.16 ppb	12:27:50
2	U 409.014†	4714.3	4651.8	482.20 µg/L	482.20 ppb	12:27:30
2	V 292.402†	39063.4	39759.8	494.10 µg/L	494.10 ppb	12:27:30
2	Zn 213.857†	19702.8	19277.8	491.41 µg/L	491.41 ppb	12:27:30
3	Sc RADIAL	57916.1	57916.1	96.9 %		12:26:21
3	Al 396.153Radial†	6924.3	7117.0	5100.6 µg/L	5100.6 ppb	12:26:21
3	Ca 317.933Radial†	5710.7	5681.8	4973.3 µg/L	4973.3 ppb	12:26:41
3	Fe 238.204 Radial†	365.6	368.9	4809.8 µg/L	4809.8 ppb	12:26:41
3	K 766.490 Radial†	7917.5	7671.6	5005.7 µg/L	5005.7 ppb	12:26:21
3	Mg 279.077 IEC†	496.0	500.8	4913.6 µg/L	4913.6 ppb	12:26:41
3	Na 589.592 Radial†	25102.7	25767.7	10090 µg/L	10090 ppb	12:26:21
3	Sr 421.552†	42885.8	44293.1	480.69 µg/L	480.69 ppb	12:26:21
3	Sc 361.383	1742463.1	1742463.1	99.068 %		12:27:56
3	Y 371.029	1064682.5	1064682.5	98.725 %		12:27:56
3	Ag 328.068†	51372.8	52072.7	476.21 µg/L	476.21 ppb	12:28:02
3	As 188.979†	256.0	262.2	446.58 µg/L	446.58 ppb	12:28:23
3	B 249.677†	12697.6	12460.6	474.66 µg/L	474.66 ppb	12:28:02
3	Ba 233.527†	16844.8	17046.9	481.60 µg/L	481.60 ppb	12:28:02
3	Be 313.107†	740839.3	743793.4	480.79 µg/L	480.79 ppb	12:27:56
3	Cd 226.502†	16732.0	17013.9	479.98 µg/L	479.98 ppb	12:28:02
3	Co 228.616†	9287.6	9359.0	477.61 µg/L	477.61 ppb	12:28:02
3	Cr 267.716†	20142.0	20467.2	472.23 µg/L	472.23 ppb	12:28:02
3	Cu 324.752†	71503.2	66305.7	469.65 µg/L	469.65 ppb	12:28:02
3	Mn 257.610†	138374.4	139881.7	490.68 µg/L	490.68 ppb	12:27:56
3	Mo 202.031†	3614.3	3628.8	444.36 µg/L	444.36 ppb	12:28:23
3	Ni 231.604†	8411.8	8167.1	475.32 µg/L	475.32 ppb	12:28:02
3	P 214.914†	1664.0	1423.7	2234.9 µg/L	2234.9 ppb	12:28:23
3	Pb 220.353†	1726.8	1659.6	456.95 µg/L	456.95 ppb	12:28:23
3	S 181.975 Axial†	280.7	251.7	915.19 µg/L	915.19 ppb	12:28:23
3	Sb 206.836†	513.2	493.9	439.29 µg/L	439.29 ppb	12:28:23
3	Se 196.026†	454.3	444.4	467.85 µg/L	467.85 ppb	12:28:23
3	SiO2†	33513.5	30177.6	5118.2 µg/L	5118.2 ppb	12:28:02
3	Si 251.611†	35808.0	35813.3	2353.6 µg/L	2353.6 ppb	12:28:02
3	Sn 189.927†	862.5	841.4	439.08 µg/L	439.08 ppb	12:28:23
3	Ti 334.940†	194663.2	195947.1	474.49 µg/L	474.49 ppb	12:27:56
3	Tl 190.801†	260.4	290.0	470.83 µg/L	470.83 ppb	12:28:23
3	U 409.014†	4623.1	4559.0	472.55 µg/L	472.55 ppb	12:28:02
3	V 292.402†	37679.5	38356.1	476.43 µg/L	476.43 ppb	12:28:02
3	Zn 213.857†	19118.4	18684.4	476.25 µg/L	476.25 ppb	12:28:02

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1741011.8	98.986	%	0.1284				0.13%
Sc RADIAL	58011.3	97.0	%	0.22				0.23%
Y 371.029	1063414.8	98.607	%	0.1463				0.15%
Ag 328.068†	52745.3	482.39	µg/L	5.392	482.39	ppb	5.392	1.12%
QC value within limits for Ag 328.068 Recovery = 96.48%								
Al 396.153Radial†	7130.5	5108.9	µg/L	7.34	5108.9	ppb	7.34	0.14%
QC value within limits for Al 396.153Radial Recovery = 102.18%								
As 188.979†	283.9	483.63	µg/L	32.182	483.63	ppb	32.182	6.65%
QC value within limits for As 188.979 Recovery = 96.73%								
B 249.677†	12644.3	481.69	µg/L	6.091	481.69	ppb	6.091	1.26%
QC value within limits for B 249.677 Recovery = 96.34%								
Ba 233.527†	17360.1	490.45	µg/L	7.728	490.45	ppb	7.728	1.58%
QC value within limits for Ba 233.527 Recovery = 98.09%								
Be 313.107†	752095.9	486.16	µg/L	4.650	486.16	ppb	4.650	0.96%
QC value within limits for Be 313.107 Recovery = 97.23%								
Ca 317.933Radial†	5684.3	4975.5	µg/L	5.69	4975.5	ppb	5.69	0.11%
QC value within limits for Ca 317.933Radial Recovery = 99.51%								
Cd 226.502†	17356.8	489.67	µg/L	8.479	489.67	ppb	8.479	1.73%
QC value within limits for Cd 226.502 Recovery = 97.93%								
Co 228.616†	9580.1	488.96	µg/L	9.897	488.96	ppb	9.897	2.02%

QC value within limits for Co 228.616 Recovery = 97.79%

Cr 267.716†	21102.9	486.89 µg/L	12.769	486.89 ppb	12.769	2.62%

QC value within limits for Cr 267.716 Recovery = 97.38%

Cu 324.752†	67807.3	480.27 µg/L	9.208	480.27 ppb	9.208	1.92%

QC value within limits for Cu 324.752 Recovery = 96.05%

Fe 238.204 Radial†	366.2	4775.1 µg/L	31.81	4775.1 ppb	31.81	0.67%

QC value within limits for Fe 238.204 Radial Recovery = 95.50%

K 766.490 Radial†	7653.3	4993.7 µg/L	11.87	4993.7 ppb	11.87	0.24%

QC value within limits for K 766.490 Radial Recovery = 99.87%

Mg 279.077 IEC†	503.3	4939.1 µg/L	28.70	4939.1 ppb	28.70	0.58%

QC value within limits for Mg 279.077 IEC Recovery = 98.78%

Mn 257.610†	141378.8	495.93 µg/L	4.569	495.93 ppb	4.569	0.92%

QC value within limits for Mn 257.610 Recovery = 99.19%

Mo 202.031†	3923.1	480.38 µg/L	31.196	480.38 ppb	31.196	6.49%

QC value within limits for Mo 202.031 Recovery = 96.08%

Na 589.592 Radial†	25703.8	10065 µg/L	25.7	10065 ppb	25.7	0.26%

QC value within limits for Na 589.592 Radial Recovery = 100.65%

Ni 231.604†	8376.4	487.50 µg/L	10.551	487.50 ppb	10.551	2.16%

QC value within limits for Ni 231.604 Recovery = 97.50%

P 214.914†	1517.9	2385.8 µg/L	131.10	2385.8 ppb	131.10	5.49%

QC value within limits for P 214.914 Recovery = 95.43%

Pb 220.353†	1761.0	484.91 µg/L	24.221	484.91 ppb	24.221	4.99%

QC value within limits for Pb 220.353 Recovery = 96.98%

S 181.975 Axial†	264.5	961.63 µg/L	40.356	961.63 ppb	40.356	4.20%

QC value within limits for S 181.975 Axial Recovery = 96.16%

Sb 206.836†	528.5	470.12 µg/L	26.854	470.12 ppb	26.854	5.71%

QC value within limits for Sb 206.836 Recovery = 94.02%

Se 196.026†	469.9	494.29 µg/L	23.618	494.29 ppb	23.618	4.78%

QC value within limits for Se 196.026 Recovery = 98.86%

SiO2†	30723.7	5210.8 µg/L	80.66	5210.8 ppb	80.66	1.55%

QC value within limits for SiO2 Recovery = 97.44%

Si 251.611†	36444.3	2393.4 µg/L	34.51	2393.4 ppb	34.51	1.44%

QC value within limits for Si 251.611 Recovery = 95.74%

Sn 189.927†	921.8	480.93 µg/L	36.279	480.93 ppb	36.279	7.54%

QC value within limits for Sn 189.927 Recovery = 96.19%

Sr 421.552†	44238.1	480.09 µg/L	0.606	480.09 ppb	0.606	0.13%

QC value within limits for Sr 421.552 Recovery = 96.02%

Ti 334.940†	198335.9	480.28 µg/L	5.019	480.28 ppb	5.019	1.05%

QC value within limits for Ti 334.940 Recovery = 96.06%

Tl 190.801†	300.1	487.14 µg/L	14.463	487.14 ppb	14.463	2.97%

QC value within limits for Tl 190.801 Recovery = 97.43%

U 409.014†	4615.9	478.46 µg/L	5.182	478.46 ppb	5.182	1.08%

QC value within limits for U 409.014 Recovery = 95.69%

V 292.402†	39330.0	488.68 µg/L	10.636	488.68 ppb	10.636	2.18%

QC value within limits for V 292.402 Recovery = 97.74%

Zn 213.857†	19101.8	486.91 µg/L	9.278	486.91 ppb	9.278	1.91%

QC value within limits for Zn 213.857 Recovery = 97.38%

All analyte(s) passed QC.

Sequence No.: 3
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 1/8/2010 12:28:31
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56725.0	56725.0	94.9	%			12:29:04
1	Al 396.153Radial†	35.6	7.6	5.4456	µg/L	5.4456	ppb	12:29:04
1	Ca 317.933Radial†	224.5	24.1	21.061	µg/L	21.061	ppb	12:29:24
1	Fe 238.204 Radial†	11.1	3.2	41.578	µg/L	41.578	ppb	12:29:24
1	K 766.490 Radial†	508.7	35.6	23.209	µg/L	23.209	ppb	12:29:04
1	Mg 279.077 IEC†	10.5	-0.1	-1.2380	µg/L	-1.2380	ppb	12:29:24
1	Na 589.592 Radial†	256.2	127.9	50.067	µg/L	50.067	ppb	12:29:04
1	Sr 421.552†	42.3	72.9	0.7915	µg/L	0.7915	ppb	12:29:04
1	Sc 361.383	1729345.4	1729345.4	98.322	%			12:30:26
1	Y 371.029	1060107.4	1060107.4	98.301	%			12:30:26
1	Ag 328.068†	-257.7	-45.5	-0.4048	µg/L	-0.4048	ppb	12:30:32
1	As 188.979†	-9.6	-5.9	-10.127	µg/L	-10.127	ppb	12:30:52
1	B 249.677†	382.2	32.2	1.2184	µg/L	1.2184	ppb	12:30:32
1	Ba 233.527†	30.5	74.7	2.1073	µg/L	2.1073	ppb	12:30:52
1	Be 313.107†	4185.4	242.9	0.1570	µg/L	0.1570	ppb	12:30:26
1	Cd 226.502†	-121.4	1.0	0.0210	µg/L	0.0210	ppb	12:30:52
1	Co 228.616†	11.5	-4.3	-0.2168	µg/L	-0.2168	ppb	12:30:52
1	Cr 267.716†	-142.7	-9.4	-0.2142	µg/L	-0.2142	ppb	12:30:32
1	Cu 324.752†	5965.1	196.9	1.3969	µg/L	1.3969	ppb	12:30:32
1	Mn 257.610†	-139.5	63.9	0.2291	µg/L	0.2291	ppb	12:30:32
1	Mo 202.031†	22.6	3.4	0.4217	µg/L	0.4217	ppb	12:30:52
1	Ni 231.604†	316.9	-1.5	-0.0881	µg/L	-0.0881	ppb	12:30:52
1	P 214.914†	264.1	12.6	20.028	µg/L	20.028	ppb	12:30:52
1	Pb 220.353†	81.5	-0.6	-0.1510	µg/L	-0.1510	ppb	12:30:52
1	S 181.975 Axial†	28.2	-2.9	-10.731	µg/L	-10.731	ppb	12:30:52
1	Sb 206.836†	24.6	0.9	0.7634	µg/L	0.7634	ppb	12:30:52
1	Se 196.026†	11.6	-2.4	-2.4070	µg/L	-2.4070	ppb	12:30:52
1	SiO2†	3737.6	150.2	25.475	µg/L	25.475	ppb	12:30:32
1	Si 251.611†	500.2	177.3	11.841	µg/L	11.841	ppb	12:30:52
1	Sn 189.927†	29.1	0.3	0.1675	µg/L	0.1675	ppb	12:30:52
1	Ti 334.940†	591.7	54.7	0.1313	µg/L	0.1313	ppb	12:30:32
1	Tl 190.801†	-29.1	-2.5	-3.9669	µg/L	-3.9669	ppb	12:30:52
1	U 409.014†	73.4	-33.0	-3.4346	µg/L	-3.4346	ppb	12:30:32
1	V 292.402†	-265.3	52.3	0.6430	µg/L	0.6430	ppb	12:30:32
1	Zn 213.857†	615.3	11.9	0.2938	µg/L	0.2938	ppb	12:30:52
2	Sc RADIAL	56672.3	56672.3	94.8	%			12:29:30
2	Al 396.153Radial†	58.3	31.6	22.687	µg/L	22.687	ppb	12:29:30
2	Ca 317.933Radial†	219.7	19.2	16.787	µg/L	16.787	ppb	12:29:50
2	Fe 238.204 Radial†	9.3	1.3	16.410	µg/L	16.410	ppb	12:29:50
2	K 766.490 Radial†	529.6	58.2	37.986	µg/L	37.986	ppb	12:29:30
2	Mg 279.077 IEC†	11.0	0.4	3.9392	µg/L	3.9392	ppb	12:29:50
2	Na 589.592 Radial†	223.8	93.9	36.770	µg/L	36.770	ppb	12:29:30
2	Sr 421.552†	32.0	62.0	0.6733	µg/L	0.6733	ppb	12:29:30
2	Sc 361.383	1725439.4	1725439.4	98.100	%			12:30:58
2	Y 371.029	1058464.4	1058464.4	98.148	%			12:30:58
2	Ag 328.068†	-201.5	11.2	0.1082	µg/L	0.1082	ppb	12:31:04
2	As 188.979†	-1.4	2.3	3.9310	µg/L	3.9310	ppb	12:31:24
2	B 249.677†	410.4	61.9	2.3601	µg/L	2.3601	ppb	12:31:04
2	Ba 233.527†	27.5	71.8	2.0256	µg/L	2.0256	ppb	12:31:24
2	Be 313.107†	4272.2	341.0	0.2204	µg/L	0.2204	ppb	12:30:58
2	Cd 226.502†	-115.0	7.2	0.1930	µg/L	0.1930	ppb	12:31:24
2	Co 228.616†	3.6	-12.2	-0.6226	µg/L	-0.6226	ppb	12:31:24
2	Cr 267.716†	-122.5	10.9	0.2520	µg/L	0.2520	ppb	12:31:04
2	Cu 324.752†	5879.2	123.0	0.8721	µg/L	0.8721	ppb	12:31:04
2	Mn 257.610†	-171.6	30.8	0.1100	µg/L	0.1100	ppb	12:31:04
2	Mo 202.031†	23.2	4.1	0.4969	µg/L	0.4969	ppb	12:31:24
2	Ni 231.604†	315.4	-2.3	-0.1366	µg/L	-0.1366	ppb	12:31:24
2	P 214.914†	268.7	17.9	28.641	µg/L	28.641	ppb	12:31:24
2	Pb 220.353†	87.1	5.4	1.4956	µg/L	1.4956	ppb	12:31:24

2	S 181.975 Axial†	27.1	-4.1	-14.840 µg/L	-14.840 ppb	12:31:24
2	Sb 206.836†	30.0	6.4	5.6720 µg/L	5.6720 ppb	12:31:24
2	Se 196.026†	12.3	-1.6	-1.6029 µg/L	-1.6029 ppb	12:31:24
2	SiO2†	3725.9	146.9	24.920 µg/L	24.920 ppb	12:31:04
2	Si 251.611†	474.4	152.2	10.195 µg/L	10.195 ppb	12:31:24
2	Sn 189.927†	26.8	-2.0	-1.0271 µg/L	-1.0271 ppb	12:31:24
2	Ti 334.940†	658.9	124.6	0.3009 µg/L	0.3009 ppb	12:31:04
2	Tl 190.801†	-32.7	-6.2	-10.014 µg/L	-10.014 ppb	12:31:24
2	U 409.014†	5.9	-101.6	-10.560 µg/L	-10.560 ppb	12:31:04
2	V 292.402†	-258.7	58.5	0.7071 µg/L	0.7071 ppb	12:31:04
2	Zn 213.857†	625.5	23.8	0.6067 µg/L	0.6067 ppb	12:31:24
3	Sc RADIAL	56844.3	56844.3	95.1 %		12:29:56
3	Al 396.153Radial†	41.8	14.0	10.090 µg/L	10.090 ppb	12:29:56
3	Ca 317.933Radial†	225.5	24.7	21.589 µg/L	21.589 ppb	12:30:16
3	Fe 238.204 Radial†	10.0	2.1	26.715 µg/L	26.715 ppb	12:30:16
3	K 766.490 Radial†	550.7	78.7	51.332 µg/L	51.332 ppb	12:29:56
3	Mg 279.077 IEC†	14.5	4.1	39.715 µg/L	39.715 ppb	12:30:16
3	Na 589.592 Radial†	233.3	103.1	40.384 µg/L	40.384 ppb	12:29:56
3	Sr 421.552†	-6.0	22.0	0.2391 µg/L	0.2391 ppb	12:29:56
3	Sc 361.383	1726480.2	1726480.2	98.159 %		12:31:30
3	Y 371.029	1057805.5	1057805.5	98.087 %		12:31:30
3	Ag 328.068†	-242.3	-30.2	-0.2656 µg/L	-0.2656 ppb	12:31:35
3	As 188.979†	-3.7	-0.0	-0.0783 µg/L	-0.0783 ppb	12:31:56
3	B 249.677†	371.5	22.0	0.8330 µg/L	0.8330 ppb	12:31:35
3	Ba 233.527†	10.2	54.2	1.5291 µg/L	1.5291 ppb	12:31:56
3	Be 313.107†	4324.6	391.8	0.2532 µg/L	0.2532 ppb	12:31:30
3	Cd 226.502†	-118.3	4.0	0.1090 µg/L	0.1090 ppb	12:31:56
3	Co 228.616†	23.8	8.3	0.4241 µg/L	0.4241 ppb	12:31:56
3	Cr 267.716†	-121.2	12.3	0.2860 µg/L	0.2860 ppb	12:31:35
3	Cu 324.752†	5897.3	137.9	0.9784 µg/L	0.9784 ppb	12:31:35
3	Mn 257.610†	-125.8	77.6	0.2753 µg/L	0.2753 ppb	12:31:35
3	Mo 202.031†	19.0	-0.2	-0.0251 µg/L	-0.0251 ppb	12:31:56
3	Ni 231.604†	322.9	5.1	0.2956 µg/L	0.2956 ppb	12:31:56
3	P 214.914†	258.4	7.3	11.542 µg/L	11.542 ppb	12:31:56
3	Pb 220.353†	90.9	9.2	2.5189 µg/L	2.5189 ppb	12:31:56
3	S 181.975 Axial†	28.1	-3.1	-11.123 µg/L	-11.123 ppb	12:31:56
3	Sb 206.836†	29.2	5.5	4.9498 µg/L	4.9498 ppb	12:31:56
3	Se 196.026†	8.3	-5.7	-5.8463 µg/L	-5.8463 ppb	12:31:56
3	SiO2†	3678.0	95.8	16.253 µg/L	16.253 ppb	12:31:35
3	Si 251.611†	461.2	138.4	9.2943 µg/L	9.2943 ppb	12:31:56
3	Sn 189.927†	25.8	-3.0	-1.5373 µg/L	-1.5373 ppb	12:31:56
3	Ti 334.940†	684.8	150.5	0.3634 µg/L	0.3634 ppb	12:31:35
3	Tl 190.801†	-25.3	1.4	2.2308 µg/L	2.2308 ppb	12:31:56
3	U 409.014†	109.7	4.1	0.4227 µg/L	0.4227 ppb	12:31:35
3	V 292.402†	-243.2	74.4	0.9177 µg/L	0.9177 ppb	12:31:35
3	Zn 213.857†	624.2	22.1	0.5590 µg/L	0.5590 ppb	12:31:56

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1727088.3	98.194	%	0.1150				0.12%
Sc RADIAL	56747.2	94.9	%	0.15				0.16%
Y 371.029	1058792.4	98.179	%	0.1099				0.11%
Ag 328.068†	-21.5	-0.1874	µg/L	0.26527	-0.1874	ppb	0.26527	141.56%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	17.7	12.741	µg/L	8.9213	12.741	ppb	8.9213	70.02%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-1.2	-2.0915	µg/L	7.24202	-2.0915	ppb	7.24202	346.27%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	38.7	1.4705	µg/L	0.79413	1.4705	ppb	0.79413	54.00%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	66.9	1.8873	µg/L	0.31296	1.8873	ppb	0.31296	16.58%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	325.2	0.2102	µg/L	0.04891	0.2102	ppb	0.04891	23.26%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	22.6	19.812	µg/L	2.6334	19.812	ppb	2.6334	13.29%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	4.1	0.1077	µg/L	0.08604	0.1077	ppb	0.08604	79.89%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	-2.7	-0.1384	µg/L	0.52774	-0.1384	ppb	0.52774	381.22%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                 4.6      0.1079 µg/L       0.27953      0.1079 ppb        0.27953 258.97%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               152.6      1.0825 µg/L       0.27744      1.0825 ppb        0.27744  25.63%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          2.2      28.234 µg/L       12.6524      28.234 ppb        12.6524  44.81%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          57.5      37.509 µg/L       14.0676      37.509 ppb        14.0676  37.50%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             1.4      14.139 µg/L       22.3006      14.139 ppb        22.3006 157.73%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                57.4      0.2048 µg/L       0.08528      0.2048 ppb        0.08528  41.64%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 2.4      0.2978 µg/L       0.28218      0.2978 ppb        0.28218  94.75%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        108.3      42.407 µg/L        6.8755      42.407 ppb         6.8755  16.21%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                 0.4      0.0236 µg/L       0.23678      0.0236 ppb        0.23678 >999.9%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 12.6      20.070 µg/L        8.5498      20.070 ppb         8.5498  42.60%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                 4.7      1.2878 µg/L       1.34700      1.2878 ppb        1.34700 104.59%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -3.4     -12.231 µg/L        2.2676     -12.231 ppb         2.2676  18.54%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 4.3      3.7951 µg/L       2.65020      3.7951 ppb        2.65020  69.83%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -3.2     -3.2854 µg/L       2.25396     -3.2854 ppb        2.25396  68.61%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     131.0      22.216 µg/L        5.1719      22.216 ppb         5.1719  23.28%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               156.0      10.443 µg/L        1.2912      10.443 ppb         1.2912  12.36%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                -1.5     -0.7990 µg/L       0.87500     -0.7990 ppb        0.87500 109.52%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                52.3      0.5680 µg/L       0.29085      0.5680 ppb        0.29085  51.21%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               109.9      0.2652 µg/L       0.12010      0.2652 ppb        0.12010  45.28%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                -2.4     -3.9168 µg/L       6.12269     -3.9168 ppb        6.12269 156.32%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                -43.5     -4.5241 µg/L       5.57199     -4.5241 ppb        5.57199 123.16%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 61.7      0.7560 µg/L       0.14371      0.7560 ppb        0.14371  19.01%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                19.3      0.4865 µg/L       0.16861      0.4865 ppb        0.16861  34.66%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 11
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 1/8/2010 12:57:02
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	57123.7	57123.7	95.6	%			12:57:40
1	Al 396.153Radial†	6863.6	7152.6	5124.2	µg/L	5124.2	ppb	12:57:40
1	Ca 317.933Radial†	5714.1	5767.2	5048.0	µg/L	5048.0	ppb	12:58:00
1	Fe 238.204 Radial†	372.9	381.7	4977.9	µg/L	4977.9	ppb	12:58:00
1	K 766.490 Radial†	7773.2	7634.0	4981.1	µg/L	4981.1	ppb	12:57:40
1	Mg 279.077 IEC†	503.4	515.6	5060.3	µg/L	5060.3	ppb	12:58:00
1	Na 589.592 Radial†	25159.2	26186.2	10254	µg/L	10254	ppb	12:57:40
1	Sr 421.552†	42703.6	44716.4	485.28	µg/L	485.28	ppb	12:57:40
1	Sc 361.383	1747415.9	1747415.9	99.350	%			12:59:03
1	Y 371.029	1068177.9	1068177.9	99.049	%			12:59:03
1	Ag 328.068†	52569.9	53130.6	485.95	µg/L	485.95	ppb	12:59:09
1	As 188.979†	285.1	290.7	495.13	µg/L	495.13	ppb	12:59:29
1	B 249.677†	12976.4	12704.8	483.94	µg/L	483.94	ppb	12:59:09
1	Ba 233.527†	17273.8	17430.6	492.45	µg/L	492.45	ppb	12:59:09
1	Be 313.107†	756501.7	757438.7	489.61	µg/L	489.61	ppb	12:59:03
1	Cd 226.502†	17264.0	17501.5	493.74	µg/L	493.74	ppb	12:59:09
1	Co 228.616†	9615.3	9662.3	493.19	µg/L	493.19	ppb	12:59:09
1	Cr 267.716†	21173.4	21447.8	494.84	µg/L	494.84	ppb	12:59:09
1	Cu 324.752†	73945.4	68559.4	485.61	µg/L	485.61	ppb	12:59:09
1	Mn 257.610†	141175.7	142305.4	499.20	µg/L	499.20	ppb	12:59:03
1	Mo 202.031†	4057.6	4064.6	497.71	µg/L	497.71	ppb	12:59:29
1	Ni 231.604†	8738.3	8471.7	493.05	µg/L	493.05	ppb	12:59:09
1	P 214.914†	1797.1	1552.9	2441.6	µg/L	2441.6	ppb	12:59:29
1	Pb 220.353†	1866.9	1795.7	494.50	µg/L	494.50	ppb	12:59:29
1	S 181.975 Axial†	304.2	274.6	998.34	µg/L	998.34	ppb	12:59:29
1	Sb 206.836†	561.3	540.8	481.04	µg/L	481.04	ppb	12:59:29
1	Se 196.026†	496.1	485.3	510.26	µg/L	510.26	ppb	12:59:29
1	SiO2†	34208.2	30780.9	5220.5	µg/L	5220.5	ppb	12:59:09
1	Si 251.611†	36652.4	36560.9	2400.0	µg/L	2400.0	ppb	12:59:09
1	Sn 189.927†	982.9	960.1	500.87	µg/L	500.87	ppb	12:59:29
1	Ti 334.940†	198962.5	199717.6	483.62	µg/L	483.62	ppb	12:59:03
1	Tl 190.801†	277.1	306.1	496.80	µg/L	496.80	ppb	12:59:29
1	U 409.014†	4825.9	4749.9	492.35	µg/L	492.35	ppb	12:59:09
1	V 292.402†	39300.7	39880.1	495.61	µg/L	495.61	ppb	12:59:09
1	Zn 213.857†	19780.1	19295.8	491.81	µg/L	491.81	ppb	12:59:09
2	Sc RADIAL	56568.5	56568.5	94.6	%			12:58:05
2	Al 396.153Radial†	6875.0	7235.2	5183.6	µg/L	5183.6	ppb	12:58:05
2	Ca 317.933Radial†	5683.9	5793.9	5071.4	µg/L	5071.4	ppb	12:58:26
2	Fe 238.204 Radial†	369.7	382.2	4984.0	µg/L	4984.0	ppb	12:58:26
2	K 766.490 Radial†	7800.6	7742.8	5052.1	µg/L	5052.1	ppb	12:58:05
2	Mg 279.077 IEC†	503.8	521.2	5114.7	µg/L	5114.7	ppb	12:58:26
2	Na 589.592 Radial†	25083.7	26364.8	10324	µg/L	10324	ppb	12:58:05
2	Sr 421.552†	42573.3	45017.4	488.55	µg/L	488.55	ppb	12:58:05
2	Sc 361.383	1753374.1	1753374.1	99.689	%			12:59:36
2	Y 371.029	1071463.6	1071463.6	99.354	%			12:59:36
2	Ag 328.068†	52677.0	53058.2	485.30	µg/L	485.30	ppb	12:59:42
2	As 188.979†	282.1	286.7	488.38	µg/L	488.38	ppb	13:00:02
2	B 249.677†	13072.4	12756.7	485.92	µg/L	485.92	ppb	12:59:42
2	Ba 233.527†	17396.5	17494.6	494.26	µg/L	494.26	ppb	12:59:42
2	Be 313.107†	758939.5	757296.6	489.52	µg/L	489.52	ppb	12:59:36
2	Cd 226.502†	17368.7	17547.4	495.04	µg/L	495.04	ppb	12:59:42
2	Co 228.616†	9695.7	9710.0	495.63	µg/L	495.63	ppb	12:59:42
2	Cr 267.716†	21224.2	21426.3	494.35	µg/L	494.35	ppb	12:59:42
2	Cu 324.752†	74169.4	68531.2	485.41	µg/L	485.41	ppb	12:59:42
2	Mn 257.610†	141512.5	142160.4	498.69	µg/L	498.69	ppb	12:59:36
2	Mo 202.031†	4064.6	4057.7	496.86	µg/L	496.86	ppb	13:00:02
2	Ni 231.604†	8820.8	8524.5	496.12	µg/L	496.12	ppb	12:59:42
2	P 214.914†	1809.3	1559.0	2451.4	µg/L	2451.4	ppb	13:00:02
2	Pb 220.353†	1888.1	1810.6	498.59	µg/L	498.59	ppb	13:00:02

2	S 181.975 Axial†	300.9	270.2	982.36 µg/L	982.36 ppb	13:00:02
2	Sb 206.836†	568.5	546.1	485.76 µg/L	485.76 ppb	13:00:02
2	Se 196.026†	494.9	482.3	507.29 µg/L	507.29 ppb	13:00:02
2	SiO2†	34418.4	30874.8	5236.4 µg/L	5236.4 ppb	12:59:42
2	Si 251.611†	36857.8	36641.5	2405.4 µg/L	2405.4 ppb	12:59:42
2	Sn 189.927†	987.4	961.2	501.47 µg/L	501.47 ppb	13:00:02
2	Ti 334.940†	199530.2	199606.5	483.35 µg/L	483.35 ppb	12:59:36
2	Tl 190.801†	279.1	307.2	498.53 µg/L	498.53 ppb	13:00:02
2	U 409.014†	4868.8	4776.4	495.10 µg/L	495.10 ppb	12:59:42
2	V 292.402†	39570.0	40015.8	497.28 µg/L	497.28 ppb	12:59:42
2	Zn 213.857†	19871.8	19320.1	492.42 µg/L	492.42 ppb	12:59:42
3	Sc RADIAL	56853.4	56853.4	95.1 %		12:58:31
3	Al 396.153Radial†	6900.0	7225.0	5178.5 µg/L	5178.5 ppb	12:58:31
3	Ca 317.933Radial†	5740.1	5822.9	5096.8 µg/L	5096.8 ppb	12:58:51
3	Fe 238.204 Radial†	371.0	381.6	4975.1 µg/L	4975.1 ppb	12:58:51
3	K 766.490 Radial†	7871.7	7776.3	5073.9 µg/L	5073.9 ppb	12:58:31
3	Mg 279.077 IEC†	503.0	517.7	5078.7 µg/L	5078.7 ppb	12:58:51
3	Na 589.592 Radial†	25250.6	26407.5	10340 µg/L	10340 ppb	12:58:31
3	Sr 421.552†	42775.2	45004.2	488.40 µg/L	488.40 ppb	12:58:31
3	Sc 361.383	1745488.1	1745488.1	99.240 %		13:00:10
3	Y 371.029	1067725.7	1067725.7	99.007 %		13:00:10
3	Ag 328.068†	51319.8	51929.3	474.90 µg/L	474.90 ppb	13:00:15
3	As 188.979†	256.0	261.7	445.85 µg/L	445.85 ppb	13:00:36
3	B 249.677†	12646.4	12386.7	471.78 µg/L	471.78 ppb	13:00:15
3	Ba 233.527†	16678.2	16849.6	476.03 µg/L	476.03 ppb	13:00:15
3	Be 313.107†	738713.5	740355.4	478.57 µg/L	478.57 ppb	13:00:10
3	Cd 226.502†	16615.6	16867.3	475.81 µg/L	475.81 ppb	13:00:15
3	Co 228.616†	9276.3	9331.5	476.19 µg/L	476.19 ppb	13:00:15
3	Cr 267.716†	20025.6	20314.7	468.71 µg/L	468.71 ppb	13:00:15
3	Cu 324.752†	70874.4	65547.1	464.29 µg/L	464.29 ppb	13:00:15
3	Mn 257.610†	137769.5	139030.0	487.72 µg/L	487.72 ppb	13:00:10
3	Mo 202.031†	3560.9	3568.6	437.00 µg/L	437.00 ppb	13:00:36
3	Ni 231.604†	8410.9	8151.4	474.41 µg/L	474.41 ppb	13:00:15
3	P 214.914†	1632.3	1388.8	2179.1 µg/L	2179.1 ppb	13:00:36
3	Pb 220.353†	1696.8	1626.4	447.79 µg/L	447.79 ppb	13:00:36
3	S 181.975 Axial†	275.4	245.8	893.69 µg/L	893.69 ppb	13:00:36
3	Sb 206.836†	498.9	478.5	425.58 µg/L	425.58 ppb	13:00:36
3	Se 196.026†	454.6	444.0	467.46 µg/L	467.46 ppb	13:00:36
3	SiO2†	33228.8	29832.0	5059.6 µg/L	5059.6 ppb	13:00:15
3	Si 251.611†	35471.0	35411.2	2327.3 µg/L	2327.3 ppb	13:00:15
3	Sn 189.927†	843.1	820.3	428.13 µg/L	428.13 ppb	13:00:36
3	Ti 334.940†	193608.9	194544.2	471.08 µg/L	471.08 ppb	13:00:10
3	Tl 190.801†	250.3	279.4	453.65 µg/L	453.65 ppb	13:00:36
3	U 409.014†	4528.6	4455.7	461.77 µg/L	461.77 ppb	13:00:15
3	V 292.402†	37509.5	38118.9	473.44 µg/L	473.44 ppb	13:00:15
3	Zn 213.857†	18999.7	18531.3	472.27 µg/L	472.27 ppb	13:00:15

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	1748759.3	99.426	%	0.2337				0.24%
Sc RADIAL	56848.5	95.1	%	0.46				0.49%
Y 371.029	1069122.4	99.137	%	0.1892				0.19%
Ag 328.068†	52706.0	482.05	µg/L	6.203	482.05	ppb	6.203	1.29%
QC value within limits for Ag 328.068 Recovery = 96.41%								
Al 396.153Radial†	7204.3	5162.1	µg/L	32.93	5162.1	ppb	32.93	0.64%
QC value within limits for Al 396.153Radial Recovery = 103.24%								
As 188.979†	279.7	476.45	µg/L	26.719	476.45	ppb	26.719	5.61%
QC value within limits for As 188.979 Recovery = 95.29%								
B 249.677†	12616.1	480.55	µg/L	7.654	480.55	ppb	7.654	1.59%
QC value within limits for B 249.677 Recovery = 96.11%								
Ba 233.527†	17258.3	487.58	µg/L	10.045	487.58	ppb	10.045	2.06%
QC value within limits for Ba 233.527 Recovery = 97.52%								
Be 313.107†	751696.9	485.90	µg/L	6.349	485.90	ppb	6.349	1.31%
QC value within limits for Be 313.107 Recovery = 97.18%								
Ca 317.933Radial†	5794.7	5072.1	µg/L	24.40	5072.1	ppb	24.40	0.48%
QC value within limits for Ca 317.933Radial Recovery = 101.44%								
Cd 226.502†	17305.4	488.20	µg/L	10.745	488.20	ppb	10.745	2.20%
QC value within limits for Cd 226.502 Recovery = 97.64%								
Co 228.616†	9567.9	488.34	µg/L	10.587	488.34	ppb	10.587	2.17%

QC value within limits for Co 228.616 Recovery = 97.67%

Cr 267.716†	21062.9	485.97 µg/L	14.948	485.97 ppb	14.948	3.08%

QC value within limits for Cr 267.716 Recovery = 97.19%

Cu 324.752†	67545.9	478.44 µg/L	12.250	478.44 ppb	12.250	2.56%

QC value within limits for Cu 324.752 Recovery = 95.69%

Fe 238.204 Radial†	381.8	4979.0 µg/L	4.54	4979.0 ppb	4.54	0.09%

QC value within limits for Fe 238.204 Radial Recovery = 99.58%

K 766.490 Radial†	7717.7	5035.7 µg/L	48.54	5035.7 ppb	48.54	0.96%

QC value within limits for K 766.490 Radial Recovery = 100.71%

Mg 279.077 IEC†	518.2	5084.6 µg/L	27.66	5084.6 ppb	27.66	0.54%

QC value within limits for Mg 279.077 IEC Recovery = 101.69%

Mn 257.610†	141165.3	495.20 µg/L	6.484	495.20 ppb	6.484	1.31%

QC value within limits for Mn 257.610 Recovery = 99.04%

Mo 202.031†	3897.0	477.19 µg/L	34.810	477.19 ppb	34.810	7.29%

QC value within limits for Mo 202.031 Recovery = 95.44%

Na 589.592 Radial†	26319.5	10306 µg/L	46.0	10306 ppb	46.0	0.45%

QC value within limits for Na 589.592 Radial Recovery = 103.06%

Ni 231.604†	8382.5	487.86 µg/L	11.749	487.86 ppb	11.749	2.41%

QC value within limits for Ni 231.604 Recovery = 97.57%

P 214.914†	1500.2	2357.4 µg/L	154.47	2357.4 ppb	154.47	6.55%

QC value within limits for P 214.914 Recovery = 94.30%

Pb 220.353†	1744.2	480.29 µg/L	28.224	480.29 ppb	28.224	5.88%

QC value within limits for Pb 220.353 Recovery = 96.06%

S 181.975 Axial†	263.5	958.13 µg/L	56.377	958.13 ppb	56.377	5.88%

QC value within limits for S 181.975 Axial Recovery = 95.81%

Sb 206.836†	521.8	464.13 µg/L	33.466	464.13 ppb	33.466	7.21%

QC value within limits for Sb 206.836 Recovery = 92.83%

Se 196.026†	470.5	495.00 µg/L	23.895	495.00 ppb	23.895	4.83%

QC value within limits for Se 196.026 Recovery = 99.00%

SiO2†	30495.9	5172.1 µg/L	97.83	5172.1 ppb	97.83	1.89%

QC value within limits for SiO2 Recovery = 96.72%

Si 251.611†	36204.5	2377.6 µg/L	43.60	2377.6 ppb	43.60	1.83%

QC value within limits for Si 251.611 Recovery = 95.10%

Sn 189.927†	913.9	476.82 µg/L	42.169	476.82 ppb	42.169	8.84%

QC value within limits for Sn 189.927 Recovery = 95.36%

Sr 421.552†	44912.7	487.41 µg/L	1.846	487.41 ppb	1.846	0.38%

QC value within limits for Sr 421.552 Recovery = 97.48%

Ti 334.940†	197956.1	479.35 µg/L	7.162	479.35 ppb	7.162	1.49%

QC value within limits for Ti 334.940 Recovery = 95.87%

Tl 190.801†	297.5	482.99 µg/L	25.424	482.99 ppb	25.424	5.26%

QC value within limits for Tl 190.801 Recovery = 96.60%

U 409.014†	4660.7	483.07 µg/L	18.500	483.07 ppb	18.500	3.83%

QC value within limits for U 409.014 Recovery = 96.61%

V 292.402†	39338.3	488.77 µg/L	13.306	488.77 ppb	13.306	2.72%

QC value within limits for V 292.402 Recovery = 97.75%

Zn 213.857†	19049.1	485.50 µg/L	11.460	485.50 ppb	11.460	2.36%

QC value within limits for Zn 213.857 Recovery = 97.10%

All analyte(s) passed QC.

Sequence No.: 12
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 1/8/2010 13:00:45
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	55616.4	55616.4	93.0	%			13:01:18
1	Al 396.153Radial†	39.6	12.7	9.0736	µg/L	9.0736	ppb	13:01:18
1	Ca 317.933Radial†	202.5	5.1	4.4515	µg/L	4.4515	ppb	13:01:39
1	Fe 238.204 Radial†	10.8	3.1	40.066	µg/L	40.066	ppb	13:01:39
1	K 766.490 Radial†	547.3	87.8	57.281	µg/L	57.281	ppb	13:01:18
1	Mg 279.077 IEC†	12.8	2.5	24.560	µg/L	24.560	ppb	13:01:39
1	Na 589.592 Radial†	239.6	115.4	45.176	µg/L	45.176	ppb	13:01:18
1	Sr 421.552†	38.4	69.7	0.7559	µg/L	0.7559	ppb	13:01:18
1	Sc 361.383	1721254.1	1721254.1	97.862	%			13:02:40
1	Y 371.029	1054257.6	1054257.6	97.758	%			13:02:40
1	Ag 328.068†	-258.7	-47.7	-0.4260	µg/L	-0.4260	ppb	13:02:46
1	As 188.979†	-5.5	-1.8	-3.1273	µg/L	-3.1273	ppb	13:03:06
1	B 249.677†	368.6	20.2	0.7585	µg/L	0.7585	ppb	13:02:46
1	Ba 233.527†	-45.6	-2.9	-0.0797	µg/L	-0.0797	ppb	13:03:06
1	Be 313.107†	4008.3	81.9	0.0530	µg/L	0.0530	ppb	13:02:40
1	Cd 226.502†	-136.0	-14.5	-0.4217	µg/L	-0.4217	ppb	13:03:06
1	Co 228.616†	5.1	-10.7	-0.5423	µg/L	-0.5423	ppb	13:03:06
1	Cr 267.716†	-160.4	-28.1	-0.6461	µg/L	-0.6461	ppb	13:02:46
1	Cu 324.752†	5770.7	26.8	0.1931	µg/L	0.1931	ppb	13:02:46
1	Mn 257.610†	-195.8	5.6	0.0248	µg/L	0.0248	ppb	13:03:06
1	Mo 202.031†	24.6	5.6	0.6851	µg/L	0.6851	ppb	13:03:06
1	Ni 231.604†	313.9	-3.1	-0.1789	µg/L	-0.1789	ppb	13:03:06
1	P 214.914†	256.2	5.9	9.2941	µg/L	9.2941	ppb	13:03:06
1	Pb 220.353†	79.9	-1.8	-0.4756	µg/L	-0.4756	ppb	13:03:06
1	S 181.975 Axial†	27.2	-3.9	-14.044	µg/L	-14.044	ppb	13:03:06
1	Sb 206.836†	24.0	0.3	0.3037	µg/L	0.3037	ppb	13:03:06
1	Se 196.026†	-0.3	-14.4	-14.903	µg/L	-14.903	ppb	13:03:06
1	SiO2†	3561.8	-11.6	-1.9641	µg/L	-1.9641	ppb	13:02:46
1	Si 251.611†	348.8	25.0	1.7100	µg/L	1.7100	ppb	13:03:06
1	Sn 189.927†	25.5	-3.2	-1.6820	µg/L	-1.6820	ppb	13:03:06
1	Ti 334.940†	495.9	-40.4	-0.0980	µg/L	-0.0980	ppb	13:02:46
1	Tl 190.801†	-29.1	-2.6	-4.1890	µg/L	-4.1890	ppb	13:03:06
1	U 409.014†	14.0	-93.3	-9.7041	µg/L	-9.7041	ppb	13:02:46
1	V 292.402†	-267.8	48.5	0.5877	µg/L	0.5877	ppb	13:02:46
1	Zn 213.857†	605.9	5.3	0.1249	µg/L	0.1249	ppb	13:03:06
2	Sc RADIAL	56156.0	56156.0	93.9	%			13:01:44
2	Al 396.153Radial†	39.4	12.0	8.6259	µg/L	8.6259	ppb	13:01:44
2	Ca 317.933Radial†	201.6	2.1	1.8304	µg/L	1.8304	ppb	13:02:04
2	Fe 238.204 Radial†	9.0	1.1	14.645	µg/L	14.645	ppb	13:02:04
2	K 766.490 Radial†	485.3	16.1	10.512	µg/L	10.512	ppb	13:01:44
2	Mg 279.077 IEC†	14.6	4.3	42.097	µg/L	42.097	ppb	13:02:04
2	Na 589.592 Radial†	196.4	66.9	26.181	µg/L	26.181	ppb	13:01:44
2	Sr 421.552†	-28.9	-2.5	-0.0266	µg/L	-0.0266	ppb	13:01:44
2	Sc 361.383	1708004.7	1708004.7	97.109	%			13:03:12
2	Y 371.029	1047457.1	1047457.1	97.128	%			13:03:12
2	Ag 328.068†	-200.5	10.1	0.0995	µg/L	0.0995	ppb	13:03:18
2	As 188.979†	-7.4	-3.9	-6.6015	µg/L	-6.6015	ppb	13:03:38
2	B 249.677†	388.6	43.7	1.6665	µg/L	1.6665	ppb	13:03:18
2	Ba 233.527†	-46.2	-3.9	-0.1069	µg/L	-0.1069	ppb	13:03:38
2	Be 313.107†	4065.0	172.1	0.1113	µg/L	0.1113	ppb	13:03:12
2	Cd 226.502†	-123.7	-2.9	-0.0805	µg/L	-0.0805	ppb	13:03:38
2	Co 228.616†	8.4	-7.3	-0.3715	µg/L	-0.3715	ppb	13:03:38
2	Cr 267.716†	-97.2	35.7	0.8239	µg/L	0.8239	ppb	13:03:18
2	Cu 324.752†	5762.7	64.3	0.4564	µg/L	0.4564	ppb	13:03:18
2	Mn 257.610†	-167.7	33.0	0.1176	µg/L	0.1176	ppb	13:03:38
2	Mo 202.031†	15.6	-3.4	-0.4204	µg/L	-0.4204	ppb	13:03:38
2	Ni 231.604†	321.3	7.0	0.4073	µg/L	0.4073	ppb	13:03:38
2	P 214.914†	265.8	17.7	28.366	µg/L	28.366	ppb	13:03:38
2	Pb 220.353†	77.0	-4.2	-1.1541	µg/L	-1.1541	ppb	13:03:38

2	S 181.975 Axial†	30.1	-0.7	-2.5695 µg/L	-2.5695 ppb	13:03:38
2	Sb 206.836†	28.6	5.3	4.7296 µg/L	4.7296 ppb	13:03:38
2	Se 196.026†	17.1	3.5	3.6324 µg/L	3.6324 ppb	13:03:38
2	SiO2†	3550.5	5.1	0.8638 µg/L	0.8638 ppb	13:03:18
2	Si 251.611†	332.5	11.0	0.8708 µg/L	0.8708 ppb	13:03:38
2	Sn 189.927†	22.2	-6.4	-3.3226 µg/L	-3.3226 ppb	13:03:38
2	Ti 334.940†	521.5	-10.1	-0.0245 µg/L	-0.0245 ppb	13:03:18
2	Tl 190.801†	-27.0	-0.6	-1.0212 µg/L	-1.0212 ppb	13:03:38
2	U 409.014†	134.8	31.2	3.2365 µg/L	3.2365 ppb	13:03:18
2	V 292.402†	-237.7	77.4	0.9566 µg/L	0.9566 ppb	13:03:18
2	Zn 213.857†	611.7	16.1	0.4066 µg/L	0.4066 ppb	13:03:38
3	Sc RADIAL	55630.9	55630.9	93.1 %		13:02:10
3	Al 396.153Radial†	19.5	-9.0	-6.5415 µg/L	-6.5415 ppb	13:02:10
3	Ca 317.933Radial†	190.9	-7.4	-6.4861 µg/L	-6.4861 ppb	13:02:30
3	Fe 238.204 Radial†	9.5	1.7	22.375 µg/L	22.375 ppb	13:02:30
3	K 766.490 Radial†	528.7	67.6	44.110 µg/L	44.110 ppb	13:02:10
3	Mg 279.077 IEC†	11.9	1.6	15.226 µg/L	15.226 ppb	13:02:30
3	Na 589.592 Radial†	171.2	41.8	16.365 µg/L	16.365 ppb	13:02:10
3	Sr 421.552†	-13.0	14.3	0.1555 µg/L	0.1555 ppb	13:02:10
3	Sc 361.383	1714377.1	1714377.1	97.471 %		13:03:44
3	Y 371.029	1050368.5	1050368.5	97.398 %		13:03:44
3	Ag 328.068†	-263.4	-53.6	-0.4822 µg/L	-0.4822 ppb	13:03:50
3	As 188.979†	-3.6	0.1	0.0969 µg/L	0.0969 ppb	13:04:10
3	B 249.677†	378.1	31.4	1.1944 µg/L	1.1944 ppb	13:03:50
3	Ba 233.527†	-22.4	20.8	0.5861 µg/L	0.5861 ppb	13:04:10
3	Be 313.107†	4169.5	263.8	0.1705 µg/L	0.1705 ppb	13:03:44
3	Cd 226.502†	-126.9	-5.7	-0.1598 µg/L	-0.1598 ppb	13:04:10
3	Co 228.616†	14.4	-1.2	-0.0570 µg/L	-0.0570 ppb	13:04:10
3	Cr 267.716†	-120.4	12.3	0.2837 µg/L	0.2837 ppb	13:03:50
3	Cu 324.752†	5779.3	59.2	0.4213 µg/L	0.4213 ppb	13:03:50
3	Mn 257.610†	-165.3	36.2	0.1296 µg/L	0.1296 ppb	13:04:10
3	Mo 202.031†	27.8	9.0	1.1033 µg/L	1.1033 ppb	13:04:10
3	Ni 231.604†	316.1	0.5	0.0295 µg/L	0.0295 ppb	13:04:10
3	P 214.914†	261.6	12.4	19.802 µg/L	19.802 ppb	13:04:10
3	Pb 220.353†	85.9	4.7	1.2845 µg/L	1.2845 ppb	13:04:10
3	S 181.975 Axial†	31.8	0.9	3.4268 µg/L	3.4268 ppb	13:04:10
3	Sb 206.836†	17.6	-6.1	-5.4620 µg/L	-5.4620 ppb	13:04:10
3	Se 196.026†	11.4	-2.4	-2.4428 µg/L	-2.4428 ppb	13:04:10
3	SiO2†	3548.7	-10.4	-1.7713 µg/L	-1.7713 ppb	13:03:50
3	Si 251.611†	334.7	12.0	0.7995 µg/L	0.7995 ppb	13:04:10
3	Sn 189.927†	26.6	-2.0	-1.0371 µg/L	-1.0371 ppb	13:04:10
3	Ti 334.940†	598.9	67.4	0.1637 µg/L	0.1637 ppb	13:03:50
3	Tl 190.801†	-23.7	2.8	4.5647 µg/L	4.5647 ppb	13:04:10
3	U 409.014†	157.3	53.8	5.5899 µg/L	5.5899 ppb	13:03:50
3	V 292.402†	-282.2	32.7	0.4199 µg/L	0.4199 ppb	13:03:50
3	Zn 213.857†	614.9	17.0	0.4307 µg/L	0.4307 ppb	13:04:10

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1714545.3	97.481	%	0.3767				0.39%
Sc RADIAL	55801.1	93.3	%	0.51				0.55%
Y 371.029	1050694.4	97.428	%	0.3164				0.32%
Ag 328.068†	-30.4	-0.2695	µg/L	0.32086	-0.2695	ppb	0.32086	119.04%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	5.2	3.7193	µg/L	8.88899	3.7193	ppb	8.88899	238.99%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-1.9	-3.2106	µg/L	3.34996	-3.2106	ppb	3.34996	104.34%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	31.8	1.2065	µg/L	0.45415	1.2065	ppb	0.45415	37.64%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	4.7	0.1332	µg/L	0.39249	0.1332	ppb	0.39249	294.65%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	172.6	0.1116	µg/L	0.05874	0.1116	ppb	0.05874	52.63%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-0.1	-0.0680	µg/L	5.71058	-0.0680	ppb	5.71058	>999.9%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	-7.7	-0.2207	µg/L	0.17858	-0.2207	ppb	0.17858	80.93%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	-6.4	-0.3236	µg/L	0.24615	-0.3236	ppb	0.24615	76.07%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                 6.6      0.1538 µg/L       0.74355      0.1538 ppb        0.74355 483.34%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†                50.1      0.3569 µg/L       0.14298      0.3569 ppb        0.14298  40.06%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          2.0      25.695 µg/L       13.0318      25.695 ppb        13.0318  50.72%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          57.2      37.301 µg/L       24.1165      37.301 ppb        24.1165  64.65%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             2.8      27.294 µg/L       13.6424      27.294 ppb        13.6424  49.98%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                25.0      0.0906 µg/L       0.05737      0.0906 ppb        0.05737  63.29%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 3.7      0.4560 µg/L       0.78723      0.4560 ppb        0.78723 172.63%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†         74.7      29.241 µg/L       14.6471      29.241 ppb        14.6471  50.09%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                 1.5      0.0860 µg/L       0.29715      0.0860 ppb        0.29715 345.68%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 12.0      19.154 µg/L        9.5522      19.154 ppb         9.5522  49.87%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -0.4     -0.1150 µg/L       1.25864     -0.1150 ppb        1.25864 >999.9%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -1.2     -4.3957 µg/L       8.87761     -4.3957 ppb        8.87761 201.96%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                -0.2     -0.1429 µg/L       5.11046     -0.1429 ppb        5.11046 >999.9%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -4.4     -4.5713 µg/L       9.44951     -4.5713 ppb        9.44951 206.71%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                      -5.6     -0.9572 µg/L       1.58001     -0.9572 ppb        1.58001 165.07%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†                16.0      1.1268 µg/L       0.50636      1.1268 ppb        0.50636  44.94%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                -3.9     -2.0139 µg/L       1.17834     -2.0139 ppb        1.17834  58.51%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                27.2      0.2949 µg/L       0.40949      0.2949 ppb        0.40949 138.84%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                 5.7      0.0137 µg/L       0.13500      0.0137 ppb        0.13500 983.91%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                -0.1     -0.2152 µg/L       4.43216     -0.2152 ppb        4.43216 >999.9%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 -2.8     -0.2926 µg/L       8.23516     -0.2926 ppb        8.23516 >999.9%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 52.9      0.6547 µg/L       0.27454      0.6547 ppb        0.27454  41.93%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                12.8      0.3207 µg/L       0.17001      0.3207 ppb        0.17001  53.01%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
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Analysis Begun

Start Time: 1/8/2010 13:05:29 **Plasma On Time:** 1/6/2010 20:35:26
Logged In Analyst: optima **Technique:** ICP Continuous
Spectrometer Model: Optima 4300 DV, S/N 077N1030502 **Autosampler Model:** AS-93plus

Sample Information File: C:\pe\optima1\Sample Information\010810.sif
Batch ID:
Results Data Set: 010810
Results Library: c:\pe\optima1\Results\Results.mdb

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Sequence No.: 1 **Autosampler Location:** 301
Sample ID: 1202007665|938259|1 **Date Collected:** 1/8/2010 13:05:31
Analyst: HSC **Data Type:** Original
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: 1202007665|938259|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	55598.4	55598.4	93.0	%			13:06:08
1	Al 396.153Radial†	21.6	-6.7	-4.8570	µg/L	-4.8570	ppb	13:06:08
1	Ca 317.933Radial†	219.5	23.5	20.540	µg/L	20.540	ppb	13:06:28
1	Fe 238.204 Radial†	12.6	5.0	65.038	µg/L	65.038	ppb	13:06:28
1	K 766.490 Radial†	469.9	4.7	3.0891	µg/L	3.0891	ppb	13:06:08
1	Mg 279.077 IEC†	10.3	-0.1	-1.2392	µg/L	-1.2392	ppb	13:06:28
1	Na 589.592 Radial†	198.0	70.8	27.706	µg/L	27.706	ppb	13:06:08
1	Sr 421.552†	-24.3	2.2	0.0235	µg/L	0.0235	ppb	13:06:08
1	Sc 361.383	1708450.4	1708450.4	97.134	%			13:07:30
1	Y 371.029	1045418.0	1045418.0	96.939	%			13:07:30
1	Ag 328.068†	-275.8	-67.3	-0.5979	µg/L	-0.5979	ppb	13:07:35
1	As 188.979†	-9.0	-5.5	-9.3391	µg/L	-9.3391	ppb	13:07:56
1	B 249.677†	351.6	5.5	0.1888	µg/L	0.1888	ppb	13:07:35
1	Ba 233.527†	-41.3	1.2	0.0370	µg/L	0.0370	ppb	13:07:56
1	Be 313.107†	3991.0	94.8	0.0612	µg/L	0.0612	ppb	13:07:30
1	Cd 226.502†	-122.4	-1.5	-0.0555	µg/L	-0.0555	ppb	13:07:56
1	Co 228.616†	3.2	-12.7	-0.6458	µg/L	-0.6458	ppb	13:07:56
1	Cr 267.716†	-105.0	27.7	0.6407	µg/L	0.6407	ppb	13:07:35
1	Cu 324.752†	5754.7	54.4	0.3911	µg/L	0.3911	ppb	13:07:35
1	Mn 257.610†	-72.9	130.7	0.4661	µg/L	0.4661	ppb	13:07:56
1	Mo 202.031†	20.9	2.0	0.2468	µg/L	0.2468	ppb	13:07:56
1	Ni 231.604†	325.0	10.8	0.6261	µg/L	0.6261	ppb	13:07:56
1	P 214.914†	258.2	9.8	15.587	µg/L	15.587	ppb	13:07:56
1	Pb 220.353†	93.8	13.2	3.6309	µg/L	3.6309	ppb	13:07:56
1	S 181.975 Axial†	35.4	4.8	17.316	µg/L	17.316	ppb	13:07:56
1	Sb 206.836†	27.0	3.6	3.1987	µg/L	3.1987	ppb	13:07:56
1	Se 196.026†	17.0	3.3	3.4825	µg/L	3.4825	ppb	13:07:56
1	SiO2†	3682.1	139.6	23.668	µg/L	23.668	ppb	13:07:35
1	Si 251.611†	496.2	179.4	12.079	µg/L	12.079	ppb	13:07:56
1	Sn 189.927†	24.3	-4.2	-2.2011	µg/L	-2.2011	ppb	13:07:56
1	Ti 334.940†	611.5	82.4	0.1985	µg/L	0.1985	ppb	13:07:35
1	Tl 190.801†	-30.4	-4.1	-6.6216	µg/L	-6.6216	ppb	13:07:56
1	U 409.014†	51.1	-55.0	-5.7301	µg/L	-5.7301	ppb	13:07:35
1	V 292.402†	-222.7	92.9	1.1384	µg/L	1.1384	ppb	13:07:35
1	Zn 213.857†	659.0	64.6	1.6417	µg/L	1.6417	ppb	13:07:56
2	Sc RADIAL	55428.1	55428.1	92.7	%			13:06:34
2	Al 396.153Radial†	12.9	-16.1	-11.588	µg/L	-11.588	ppb	13:06:34
2	Ca 317.933Radial†	225.9	31.1	27.232	µg/L	27.232	ppb	13:06:54
2	Fe 238.204 Radial†	14.2	6.8	88.388	µg/L	88.388	ppb	13:06:54
2	K 766.490 Radial†	505.8	45.1	29.395	µg/L	29.395	ppb	13:06:34
2	Mg 279.077 IEC†	8.9	-1.6	-15.504	µg/L	-15.504	ppb	13:06:54
2	Na 589.592 Radial†	208.0	82.2	32.183	µg/L	32.183	ppb	13:06:34
2	Sr 421.552†	-25.7	0.6	0.0065	µg/L	0.0065	ppb	13:06:34
2	Sc 361.383	1684898.9	1684898.9	95.795	%			13:08:02
2	Y 371.029	1031207.7	1031207.7	95.621	%			13:08:02
2	Ag 328.068†	-330.3	-128.2	-1.1532	µg/L	-1.1532	ppb	13:08:07
2	As 188.979†	-6.3	-2.8	-4.7850	µg/L	-4.7850	ppb	13:08:28

2	B 249.677†	385.6	46.0	1.7313 µg/L	1.7313 ppb	13:08:07
2	Ba 233.527†	-44.8	-3.1	-0.0855 µg/L	-0.0855 ppb	13:08:28
2	Be 313.107†	3951.5	111.0	0.0717 µg/L	0.0717 ppb	13:08:02
2	Cd 226.502†	-114.2	5.3	0.1344 µg/L	0.1344 ppb	13:08:28
2	Co 228.616†	5.6	-10.0	-0.5104 µg/L	-0.5104 ppb	13:08:28
2	Cr 267.716†	-110.4	20.5	0.4734 µg/L	0.4734 ppb	13:08:07
2	Cu 324.752†	5697.2	77.3	0.5552 µg/L	0.5552 ppb	13:08:07
2	Mn 257.610†	-71.7	130.9	0.4696 µg/L	0.4696 ppb	13:08:28
2	Mo 202.031†	22.4	3.9	0.4782 µg/L	0.4782 ppb	13:08:28
2	Ni 231.604†	324.7	15.2	0.8821 µg/L	0.8821 ppb	13:08:28
2	P 214.914†	260.8	16.2	25.870 µg/L	25.870 ppb	13:08:28
2	Pb 220.353†	79.9	-0.0	-0.0060 µg/L	-0.0060 ppb	13:08:28
2	S 181.975 Axial†	27.3	-3.1	-11.306 µg/L	-11.306 ppb	13:08:28
2	Sb 206.836†	33.5	10.8	9.6262 µg/L	9.6262 ppb	13:08:28
2	Se 196.026†	13.0	-0.6	-0.5473 µg/L	-0.5473 ppb	13:08:28
2	SiO2†	3723.7	235.9	40.017 µg/L	40.017 ppb	13:08:07
2	Si 251.611†	497.2	187.7	12.551 µg/L	12.551 ppb	13:08:28
2	Sn 189.927†	27.2	-0.9	-0.4633 µg/L	-0.4633 ppb	13:08:28
2	Ti 334.940†	607.6	87.2	0.2096 µg/L	0.2096 ppb	13:08:07
2	Tl 190.801†	-29.7	-3.8	-6.1639 µg/L	-6.1639 ppb	13:08:28
2	U 409.014†	64.4	-40.4	-4.2164 µg/L	-4.2164 ppb	13:08:07
2	V 292.402†	-275.1	35.0	0.4305 µg/L	0.4305 ppb	13:08:07
2	Zn 213.857†	661.4	76.6	1.9421 µg/L	1.9421 ppb	13:08:28
3	Sc RADIAL	55253.5	55253.5	92.4 %		13:06:59
3	Al 396.153Radial†	27.9	0.3	0.1815 µg/L	0.1815 ppb	13:06:59
3	Ca 317.933Radial†	226.3	32.3	28.258 µg/L	28.258 ppb	13:07:20
3	Fe 238.204 Radial†	14.1	6.8	88.356 µg/L	88.356 ppb	13:07:20
3	K 766.490 Radial†	513.5	55.1	35.956 µg/L	35.956 ppb	13:06:59
3	Mg 279.077 IEC†	13.4	3.3	32.351 µg/L	32.351 ppb	13:07:20
3	Na 589.592 Radial†	188.2	61.5	24.079 µg/L	24.079 ppb	13:06:59
3	Sr 421.552†	-17.6	9.3	0.1011 µg/L	0.1011 ppb	13:06:59
3	Sc 361.383	1690973.1	1690973.1	96.141 %		13:08:33
3	Y 371.029	1036611.7	1036611.7	96.122 %		13:08:33
3	Ag 328.068†	-236.8	-29.6	-0.2576 µg/L	-0.2576 ppb	13:08:39
3	As 188.979†	-4.7	-1.1	-1.8920 µg/L	-1.8920 ppb	13:08:59
3	B 249.677†	379.6	38.4	1.4383 µg/L	1.4383 ppb	13:08:39
3	Ba 233.527†	-36.1	6.2	0.1749 µg/L	0.1749 ppb	13:08:59
3	Be 313.107†	3993.3	139.7	0.0903 µg/L	0.0903 ppb	13:08:33
3	Cd 226.502†	-122.4	-2.8	-0.0971 µg/L	-0.0971 ppb	13:08:59
3	Co 228.616†	4.1	-11.6	-0.5941 µg/L	-0.5941 ppb	13:08:59
3	Cr 267.716†	-119.3	11.7	0.2709 µg/L	0.2709 ppb	13:08:39
3	Cu 324.752†	5792.7	155.2	1.1063 µg/L	1.1063 ppb	13:08:39
3	Mn 257.610†	-97.1	104.8	0.3783 µg/L	0.3783 ppb	13:08:59
3	Mo 202.031†	21.2	2.5	0.3146 µg/L	0.3146 ppb	13:08:59
3	Ni 231.604†	303.5	-8.2	-0.4756 µg/L	-0.4756 ppb	13:08:59
3	P 214.914†	262.8	17.4	27.654 µg/L	27.654 ppb	13:08:59
3	Pb 220.353†	87.9	8.0	2.2077 µg/L	2.2077 ppb	13:08:59
3	S 181.975 Axial†	29.8	-0.6	-2.3416 µg/L	-2.3416 ppb	13:08:59
3	Sb 206.836†	22.9	-0.4	-0.3455 µg/L	-0.3455 ppb	13:08:59
3	Se 196.026†	14.4	0.8	0.8738 µg/L	0.8738 ppb	13:08:59
3	SiO2†	3679.4	175.9	29.833 µg/L	29.833 ppb	13:08:39
3	Si 251.611†	490.3	178.6	12.002 µg/L	12.002 ppb	13:08:59
3	Sn 189.927†	24.5	-3.8	-1.9939 µg/L	-1.9939 ppb	13:08:59
3	Ti 334.940†	641.1	119.8	0.2886 µg/L	0.2886 ppb	13:08:39
3	Tl 190.801†	-26.9	-0.8	-1.3702 µg/L	-1.3702 ppb	13:08:59
3	U 409.014†	45.3	-60.5	-6.3080 µg/L	-6.3080 ppb	13:08:39
3	V 292.402†	-258.4	53.4	0.6522 µg/L	0.6522 ppb	13:08:39
3	Zn 213.857†	648.5	60.7	1.5395 µg/L	1.5395 ppb	13:08:59

Mean Data: 1202007665|938259|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1694774.1	96.357	%	0.6952				0.72%
Sc RADIAL	55426.7	92.7	%	0.29				0.31%
Y 371.029	1037745.8	96.227	%	0.6651				0.69%
Ag 328.068†	-75.0	-0.6696	µg/L	0.45213	-0.6696	ppb	0.45213	67.53%
Al 396.153Radial†	-7.5	-5.4213	µg/L	5.90514	-5.4213	ppb	5.90514	108.93%
As 188.979†	-3.1	-5.3387	µg/L	3.75428	-5.3387	ppb	3.75428	70.32%
B 249.677†	30.0	1.1195	µg/L	0.81919	1.1195	ppb	0.81919	73.17%
Ba 233.527†	1.4	0.0421	µg/L	0.13026	0.0421	ppb	0.13026	309.20%

Be 313.107†	115.2	0.0744	µg/L	0.01469	0.0744	ppb	0.01469	19.74%
Ca 317.933Radial†	29.0	25.343	µg/L	4.1914	25.343	ppb	4.1914	16.54%
Cd 226.502†	0.3	-0.0061	µg/L	0.12340	-0.0061	ppb	0.12340	>999.9%
Co 228.616†	-11.4	-0.5834	µg/L	0.06831	-0.5834	ppb	0.06831	11.71%
Cr 267.716†	20.0	0.4616	µg/L	0.18519	0.4616	ppb	0.18519	40.12%
Cu 324.752†	95.7	0.6842	µg/L	0.37465	0.6842	ppb	0.37465	54.76%
Fe 238.204 Radial†	6.2	80.594	µg/L	13.4715	80.594	ppb	13.4715	16.72%
K 766.490 Radial†	35.0	22.813	µg/L	17.3939	22.813	ppb	17.3939	76.24%
Mg 279.077 IEC†	0.5	5.2025	µg/L	24.56947	5.2025	ppb	24.56947	472.27%
Mn 257.610†	122.1	0.4380	µg/L	0.05177	0.4380	ppb	0.05177	11.82%
Mo 202.031†	2.8	0.3465	µg/L	0.11896	0.3465	ppb	0.11896	34.33%
Na 589.592 Radial†	71.5	27.989	µg/L	4.0592	27.989	ppb	4.0592	14.50%
Ni 231.604†	5.9	0.3442	µg/L	0.72145	0.3442	ppb	0.72145	209.60%
P 214.914†	14.5	23.037	µg/L	6.5132	23.037	ppb	6.5132	28.27%
Pb 220.353†	7.1	1.9442	µg/L	1.83269	1.9442	ppb	1.83269	94.26%
S 181.975 Axial†	0.3	1.2228	µg/L	14.64009	1.2228	ppb	14.64009	>999.9%
Sb 206.836†	4.7	4.1598	µg/L	5.05485	4.1598	ppb	5.05485	121.52%
Se 196.026†	1.2	1.2697	µg/L	2.04386	1.2697	ppb	2.04386	160.97%
SiO2†	183.8	31.173	µg/L	8.2562	31.173	ppb	8.2562	26.49%
Si 251.611†	181.9	12.211	µg/L	0.2971	12.211	ppb	0.2971	2.43%
Sn 189.927†	-3.0	-1.5528	µg/L	0.94917	-1.5528	ppb	0.94917	61.13%
Sr 421.552†	4.0	0.0437	µg/L	0.05042	0.0437	ppb	0.05042	115.37%
Ti 334.940†	96.5	0.2322	µg/L	0.04914	0.2322	ppb	0.04914	21.16%
Tl 190.801†	-2.9	-4.7186	µg/L	2.90880	-4.7186	ppb	2.90880	61.65%
U 409.014†	-52.0	-5.4182	µg/L	1.08010	-5.4182	ppb	1.08010	19.93%
V 292.402†	60.4	0.7404	µg/L	0.36213	0.7404	ppb	0.36213	48.91%
Zn 213.857†	67.3	1.7078	µg/L	0.20925	1.7078	ppb	0.20925	12.25%

Sequence No.: 2
Sample ID: 1202007670|938259|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 302
Date Collected: 1/8/2010 13:09:09
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202007670|938259|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	57524.2	57524.2	96.2	%			13:09:42
1	Al 396.153Radial†	121803.5	126546.6	90972	µg/L	90972	ppb	13:09:42
1	Ca 317.933Radial†	117552.6	121946.5	106740	µg/L	106740	ppb	13:09:42
1	Fe 238.204 Radial†	14804.3	15375.9	199870	µg/L	199870	ppb	13:10:02
1	K 766.490 Radial†	64482.0	66508.4	43396	µg/L	43396	ppb	13:09:42
1	Mg 279.077 IEC†	4014.0	4160.1	40502	µg/L	40502	ppb	13:10:02
1	Na 589.592 Radial†	27463.5	28397.5	11120	µg/L	11120	ppb	13:09:42
1	Sr 421.552†	211835.9	220165.3	2389.3	µg/L	2389.3	ppb	13:09:42
1	Sc 361.383	1730101.9	1730101.9	98.365	%			13:11:07
1	Y 371.029	1081873.3	1081873.3	100.32	%			13:11:07
1	Ag 328.068†	33838.7	34617.6	338.81	µg/L	338.81	ppb	13:11:13
1	As 188.979†	680.0	695.0	1205.6	µg/L	1205.6	ppb	13:11:34
1	B 249.677†	41977.9	42319.0	1554.3	µg/L	1554.3	ppb	13:11:13
1	Ba 233.527†	75160.2	76452.9	2158.2	µg/L	2158.2	ppb	13:11:13
1	Be 313.107†	1288576.9	1305976.0	842.29	µg/L	842.29	ppb	13:11:07
1	Cd 226.502†	23058.2	23565.9	638.14	µg/L	638.14	ppb	13:11:13
1	Co 228.616†	19928.9	20244.1	1021.9	µg/L	1021.9	ppb	13:11:13
1	Cr 267.716†	108365.3	110301.9	2542.0	µg/L	2542.0	ppb	13:11:13
1	Cu 324.752†	277920.6	276669.0	1976.0	µg/L	1976.0	ppb	13:11:13
1	Mn 257.610†	1680791.5	1708927.8	6012.4	µg/L	6012.4	ppb	13:11:07
1	Mo 202.031†	4447.0	4501.3	558.82	µg/L	558.82	ppb	13:11:34
1	Ni 231.604†	25438.7	25537.6	1486.3	µg/L	1486.3	ppb	13:11:13
1	P 214.914†	5513.0	5348.6	8173.2	µg/L	8173.2	ppb	13:11:34
1	Pb 220.353†	3458.2	3432.3	943.52	µg/L	943.52	ppb	13:11:34
1	S 181.975 Axial†	1167.1	1154.9	4169.7	µg/L	4169.7	ppb	13:11:34
1	Sb 206.836†	2019.7	2029.1	1808.5	µg/L	1808.5	ppb	13:11:34
1	Se 196.026†	2922.0	2956.4	3151.0	µg/L	3151.0	ppb	13:11:34
1	SiO2†	197040.2	196663.4	33354	µg/L	33354	ppb	13:11:13
1	Si 251.611†	228825.9	232297.0	15265	µg/L	15265	ppb	13:11:13
1	Sn 189.927†	2161.2	2167.9	1122.2	µg/L	1122.2	ppb	13:11:34
1	Ti 334.940†	2410779.5	2450293.7	5930.8	µg/L	5930.8	ppb	13:11:07
1	Tl 190.801†	794.1	834.5	1388.3	µg/L	1388.3	ppb	13:11:34
1	U 409.014†	-754.2	-874.3	-134.55	µg/L	-134.55	ppb	13:11:13
1	V 292.402†	103020.6	105054.7	1303.4	µg/L	1303.4	ppb	13:11:13
1	Zn 213.857†	242228.9	245640.3	6254.7	µg/L	6254.7	ppb	13:11:13
2	Sc RADIAL	57751.0	57751.0	96.6	%			13:10:08
2	Al 396.153Radial†	122729.1	127007.7	91304	µg/L	91304	ppb	13:10:08
2	Ca 317.933Radial†	118320.0	122261.2	107020	µg/L	107020	ppb	13:10:08
2	Fe 238.204 Radial†	14797.5	15308.5	199000	µg/L	199000	ppb	13:10:29
2	K 766.490 Radial†	64952.6	66732.3	43542	µg/L	43542	ppb	13:10:08
2	Mg 279.077 IEC†	4012.3	4142.0	40326	µg/L	40326	ppb	13:10:29
2	Na 589.592 Radial†	27709.8	28540.4	11176	µg/L	11176	ppb	13:10:08
2	Sr 421.552†	213403.6	220923.6	2397.5	µg/L	2397.5	ppb	13:10:08
2	Sc 361.383	1732553.5	1732553.5	98.505	%			13:11:41
2	Y 371.029	1082777.3	1082777.3	100.40	%			13:11:41
2	Ag 328.068†	33929.6	34661.2	339.14	µg/L	339.14	ppb	13:11:47
2	As 188.979†	685.9	700.1	1214.0	µg/L	1214.0	ppb	13:12:07
2	B 249.677†	42069.0	42351.1	1555.8	µg/L	1555.8	ppb	13:11:47
2	Ba 233.527†	75322.2	76509.2	2159.7	µg/L	2159.7	ppb	13:11:47
2	Be 313.107†	1289682.4	1305244.6	841.82	µg/L	841.82	ppb	13:11:41
2	Cd 226.502†	23159.6	23635.6	640.23	µg/L	640.23	ppb	13:11:47
2	Co 228.616†	19990.6	20278.1	1023.6	µg/L	1023.6	ppb	13:11:47
2	Cr 267.716†	108542.8	110326.2	2542.5	µg/L	2542.5	ppb	13:11:47
2	Cu 324.752†	278579.3	276937.8	1977.8	µg/L	1977.8	ppb	13:11:47
2	Mn 257.610†	1684627.9	1710404.6	6017.5	µg/L	6017.5	ppb	13:11:41
2	Mo 202.031†	4449.4	4497.4	558.30	µg/L	558.30	ppb	13:12:07
2	Ni 231.604†	25442.7	25505.1	1484.4	µg/L	1484.4	ppb	13:11:47
2	P 214.914†	5520.0	5347.8	8172.7	µg/L	8172.7	ppb	13:12:07
2	Pb 220.353†	3466.5	3435.7	944.49	µg/L	944.49	ppb	13:12:07

2	S 181.975 Axial†	1168.9	1155.0	4170.2 µg/L	4170.2 ppb	13:12:07
2	Sb 206.836†	2021.3	2027.8	1807.3 µg/L	1807.3 ppb	13:12:07
2	Se 196.026†	2947.7	2978.3	3174.0 µg/L	3174.0 ppb	13:12:07
2	SiO2†	197341.5	196685.8	33358 µg/L	33358 ppb	13:11:47
2	Si 251.611†	229138.9	232285.5	15264 µg/L	15264 ppb	13:11:47
2	Sn 189.927†	2150.7	2154.1	1115.2 µg/L	1115.2 ppb	13:12:07
2	Ti 334.940†	2413970.4	2450065.0	5930.2 µg/L	5930.2 ppb	13:11:41
2	Tl 190.801†	793.0	832.2	1384.6 µg/L	1384.6 ppb	13:12:07
2	U 409.014†	-720.0	-838.6	-130.69 µg/L	-130.69 ppb	13:11:47
2	V 292.402†	103270.6	105160.3	1304.7 µg/L	1304.7 ppb	13:11:47
2	Zn 213.857†	242628.3	245697.3	6256.4 µg/L	6256.4 ppb	13:11:47
3	Sc RADIAL	57587.0	57587.0	96.3 %		13:10:34
3	Al 396.153Radial†	122927.5	127575.3	91713 µg/L	91713 ppb	13:10:34
3	Ca 317.933Radial†	118559.3	122858.4	107540 µg/L	107540 ppb	13:10:34
3	Fe 238.204 Radial†	14789.8	15344.1	199460 µg/L	199460 ppb	13:10:55
3	K 766.490 Radial†	65245.5	67227.9	43865 µg/L	43865 ppb	13:10:34
3	Mg 279.077 IEC†	4014.1	4155.7	40459 µg/L	40459 ppb	13:10:55
3	Na 589.592 Radial†	27761.1	28675.4	11228 µg/L	11228 ppb	13:10:34
3	Sr 421.552†	213721.3	221882.5	2408.0 µg/L	2408.0 ppb	13:10:34
3	Sc 361.383	1745058.0	1745058.0	99.216 %		13:12:14
3	Y 371.029	1090290.8	1090290.8	101.10 %		13:12:14
3	Ag 328.068†	33882.2	34366.6	336.26 µg/L	336.26 ppb	13:12:20
3	As 188.979†	655.1	664.1	1152.4 µg/L	1152.4 ppb	13:12:41
3	B 249.677†	41693.6	41666.7	1529.5 µg/L	1529.5 ppb	13:12:20
3	Ba 233.527†	74053.9	74683.0	2108.2 µg/L	2108.2 ppb	13:12:20
3	Be 313.107†	1280027.7	1286131.8	829.50 µg/L	829.50 ppb	13:12:14
3	Cd 226.502†	22860.8	23166.0	626.88 µg/L	626.88 ppb	13:12:20
3	Co 228.616†	19599.5	19738.5	996.21 µg/L	996.21 ppb	13:12:20
3	Cr 267.716†	106116.2	107090.8	2468.0 µg/L	2468.0 ppb	13:12:20
3	Cu 324.752†	273638.0	269931.0	1928.3 µg/L	1928.3 ppb	13:12:20
3	Mn 257.610†	1675864.4	1689317.1	5943.7 µg/L	5943.7 ppb	13:12:14
3	Mo 202.031†	4207.8	4221.5	524.55 µg/L	524.55 ppb	13:12:41
3	Ni 231.604†	24960.3	24833.8	1445.3 µg/L	1445.3 ppb	13:12:20
3	P 214.914†	5281.8	5067.5	7726.8 µg/L	7726.8 ppb	13:12:41
3	Pb 220.353†	3352.3	3295.4	905.86 µg/L	905.86 ppb	13:12:41
3	S 181.975 Axial†	1130.5	1107.8	3998.4 µg/L	3998.4 ppb	13:12:41
3	Sb 206.836†	1924.8	1915.9	1707.4 µg/L	1707.4 ppb	13:12:41
3	Se 196.026†	2839.4	2847.7	3038.9 µg/L	3038.9 ppb	13:12:41
3	SiO2†	194251.7	192136.0	32587 µg/L	32587 ppb	13:12:20
3	Si 251.611†	225512.8	226964.0	14914 µg/L	14914 ppb	13:12:20
3	Sn 189.927†	2043.1	2030.0	1050.8 µg/L	1050.8 ppb	13:12:41
3	Ti 334.940†	2392130.4	2410492.0	5834.3 µg/L	5834.3 ppb	13:12:14
3	Tl 190.801†	754.0	787.1	1310.6 µg/L	1310.6 ppb	13:12:41
3	U 409.014†	-727.0	-840.3	-130.99 µg/L	-130.99 ppb	13:12:20
3	V 292.402†	101143.8	102265.5	1268.8 µg/L	1268.8 ppb	13:12:20
3	Zn 213.857†	239081.1	240357.1	6119.2 µg/L	6119.2 ppb	13:12:20

Mean Data: 1202007670|938259|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1735904.4	98.695	%	0.4561				0.46%
Sc RADIAL	57620.7	96.4	%	0.20				0.20%
Y 371.029	1084980.4	100.61	%	0.428				0.43%
Ag 328.068†	34548.5	338.07	µg/L	1.576	338.07	ppb	1.576	0.47%
Al 396.153Radial†	127043.2	91330	µg/L	371.2	91330	ppb	371.2	0.41%
As 188.979†	686.4	1190.7	µg/L	33.43	1190.7	ppb	33.43	2.81%
B 249.677†	42112.3	1546.6	µg/L	14.77	1546.6	ppb	14.77	0.95%
Ba 233.527†	75881.7	2142.0	µg/L	29.32	2142.0	ppb	29.32	1.37%
Be 313.107†	1299117.5	837.87	µg/L	7.255	837.87	ppb	7.255	0.87%
Ca 317.933Radial†	122355.4	107100	µg/L	405.4	107100	ppb	405.4	0.38%
Cd 226.502†	23455.8	635.08	µg/L	7.181	635.08	ppb	7.181	1.13%
Co 228.616†	20086.9	1013.9	µg/L	15.35	1013.9	ppb	15.35	1.51%
Cr 267.716†	109239.6	2517.5	µg/L	42.88	2517.5	ppb	42.88	1.70%
Cu 324.752†	274512.6	1960.7	µg/L	28.09	1960.7	ppb	28.09	1.43%
Fe 238.204 Radial†	15342.8	199440	µg/L	438.5	199440	ppb	438.5	0.22%
K 766.490 Radial†	66822.9	43601	µg/L	240.2	43601	ppb	240.2	0.55%
Mg 279.077 IEC†	4152.6	40429	µg/L	91.7	40429	ppb	91.7	0.23%
Mn 257.610†	1702883.2	5991.2	µg/L	41.24	5991.2	ppb	41.24	0.69%
Mo 202.031†	4406.7	547.22	µg/L	19.637	547.22	ppb	19.637	3.59%
Na 589.592 Radial†	28537.8	11175	µg/L	54.4	11175	ppb	54.4	0.49%

Ni 231.604†	25292.1	1472.0 µg/L	23.12	1472.0 ppb	23.12	1.57%
P 214.914†	5254.7	8024.3 µg/L	257.60	8024.3 ppb	257.60	3.21%
Pb 220.353†	3387.8	931.29 µg/L	22.031	931.29 ppb	22.031	2.37%
S 181.975 Axial†	1139.2	4112.8 µg/L	99.05	4112.8 ppb	99.05	2.41%
Sb 206.836†	1990.9	1774.4 µg/L	58.01	1774.4 ppb	58.01	3.27%
Se 196.026†	2927.5	3121.3 µg/L	72.29	3121.3 ppb	72.29	2.32%
SiO2†	195161.7	33100 µg/L	444.4	33100 ppb	444.4	1.34%
Si 251.611†	230515.5	15148 µg/L	202.1	15148 ppb	202.1	1.33%
Sn 189.927†	2117.3	1096.1 µg/L	39.39	1096.1 ppb	39.39	3.59%
Sr 421.552†	220990.4	2398.3 µg/L	9.34	2398.3 ppb	9.34	0.39%
Ti 334.940†	2436950.2	5898.5 µg/L	55.54	5898.5 ppb	55.54	0.94%
Tl 190.801†	817.9	1361.2 µg/L	43.79	1361.2 ppb	43.79	3.22%
U 409.014†	-851.1	-132.08 µg/L	2.149	-132.08 ppb	2.149	1.63%
V 292.402†	104160.2	1292.3 µg/L	20.35	1292.3 ppb	20.35	1.58%
Zn 213.857†	243898.3	6210.1 µg/L	78.75	6210.1 ppb	78.75	1.27%

Sequence No.: 3
Sample ID: 243550014|938259|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 303
Date Collected: 1/8/2010 13:12:49
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 243550014|938259|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56124.2	56124.2	93.9	%			13:13:22
1	Al 396.153Radial†	23991.4	25523.5	18352	µg/L	18352	ppb	13:13:22
1	Ca 317.933Radial†	6064.3	6246.6	5467.6	µg/L	5467.6	ppb	13:13:42
1	Fe 238.204 Radial†	5104.8	5428.6	70556	µg/L	70556	ppb	13:13:42
1	K 766.490 Radial†	4843.4	4658.2	3039.5	µg/L	3039.5	ppb	13:13:22
1	Mg 279.077 IEC†	326.8	336.9	3198.8	µg/L	3198.8	ppb	13:13:42
1	Na 589.592 Radial†	3438.6	3520.4	1378.5	µg/L	1378.5	ppb	13:13:22
1	Sr 421.552†	3273.0	3514.5	38.141	µg/L	38.141	ppb	13:13:22
1	Sc 361.383	1717455.7	1717455.7	97.646	%			13:14:45
1	Y 371.029	1136888.5	1136888.5	105.42	%			13:14:45
1	Ag 328.068†	-950.6	-756.9	-0.9797	µg/L	-0.9797	ppb	13:14:51
1	As 188.979†	9.0	13.0	36.332	µg/L	36.332	ppb	13:15:12
1	B 249.677†	614.3	272.7	-11.768	µg/L	-11.768	ppb	13:14:51
1	Ba 233.527†	7833.6	8066.1	227.51	µg/L	227.51	ppb	13:14:51
1	Be 313.107†	12191.9	8471.8	4.9372	µg/L	4.9372	ppb	13:14:51
1	Cd 226.502†	175.7	304.4	-1.3684	µg/L	-1.3684	ppb	13:15:12
1	Co 228.616†	264.2	254.6	9.9653	µg/L	9.9653	ppb	13:15:12
1	Cr 267.716†	4429.4	4671.9	107.65	µg/L	107.65	ppb	13:14:51
1	Cu 324.752†	7607.9	1921.3	20.002	µg/L	20.002	ppb	13:14:51
1	Mn 257.610†	595776.2	610342.0	2147.2	µg/L	2147.2	ppb	13:14:45
1	Mo 202.031†	106.9	89.9	13.783	µg/L	13.783	ppb	13:15:12
1	Ni 231.604†	599.9	290.5	16.908	µg/L	16.908	ppb	13:15:12
1	P 214.914†	743.7	505.7	734.06	µg/L	734.06	ppb	13:15:12
1	Pb 220.353†	261.2	184.1	50.433	µg/L	50.433	ppb	13:15:12
1	S 181.975 Axial†	80.8	51.1	174.99	µg/L	174.99	ppb	13:15:12
1	Sb 206.836†	29.2	5.7	9.4067	µg/L	9.4067	ppb	13:15:12
1	Se 196.026†	-43.1	-58.2	-55.800	µg/L	-55.800	ppb	13:15:12
1	SiO2†	138946.1	138644.0	23514	µg/L	23514	ppb	13:14:51
1	Si 251.611†	161296.2	164852.5	10980	µg/L	10980	ppb	13:14:45
1	Sn 189.927†	16.1	-12.8	-18.517	µg/L	-18.517	ppb	13:15:12
1	Ti 334.940†	589397.3	603056.6	1460.9	µg/L	1460.9	ppb	13:14:45
1	Tl 190.801†	-41.3	-15.1	-6.4798	µg/L	-6.4798	ppb	13:15:12
1	U 409.014†	-1102.8	-1237.0	-142.04	µg/L	-142.04	ppb	13:14:45
1	V 292.402†	3420.1	3824.7	49.008	µg/L	49.008	ppb	13:14:51
1	Zn 213.857†	11438.4	11100.3	266.25	µg/L	266.25	ppb	13:14:51
2	Sc RADIAL	55947.0	55947.0	93.6	%			13:13:48
2	Al 396.153Radial†	23985.8	25598.5	18406	µg/L	18406	ppb	13:13:48
2	Ca 317.933Radial†	6056.9	6259.1	5478.6	µg/L	5478.6	ppb	13:14:08
2	Fe 238.204 Radial†	5136.6	5479.8	71222	µg/L	71222	ppb	13:14:08
2	K 766.490 Radial†	4859.6	4691.9	3061.4	µg/L	3061.4	ppb	13:13:48
2	Mg 279.077 IEC†	326.0	337.1	3200.2	µg/L	3200.2	ppb	13:14:08
2	Na 589.592 Radial†	3413.5	3505.1	1372.5	µg/L	1372.5	ppb	13:13:48
2	Sr 421.552†	3117.8	3359.7	36.460	µg/L	36.460	ppb	13:13:48
2	Sc 361.383	1702064.7	1702064.7	96.771	%			13:15:18
2	Y 371.029	1128200.1	1128200.1	104.61	%			13:15:18
2	Ag 328.068†	-938.0	-752.6	-0.8836	µg/L	-0.8836	ppb	13:15:24
2	As 188.979†	4.7	8.6	28.985	µg/L	28.985	ppb	13:15:44
2	B 249.677†	630.9	295.5	-11.106	µg/L	-11.106	ppb	13:15:24
2	Ba 233.527†	7736.6	8038.4	226.73	µg/L	226.73	ppb	13:15:24
2	Be 313.107†	12886.6	9302.7	5.4699	µg/L	5.4699	ppb	13:15:24
2	Cd 226.502†	172.8	303.1	-1.5005	µg/L	-1.5005	ppb	13:15:44
2	Co 228.616†	278.1	271.5	10.803	µg/L	10.803	ppb	13:15:44
2	Cr 267.716†	4456.6	4741.1	109.24	µg/L	109.24	ppb	13:15:24
2	Cu 324.752†	7614.1	1998.2	20.607	µg/L	20.607	ppb	13:15:24
2	Mn 257.610†	594582.8	614626.0	2162.3	µg/L	2162.3	ppb	13:15:18
2	Mo 202.031†	111.5	95.7	14.514	µg/L	14.514	ppb	13:15:44
2	Ni 231.604†	601.0	297.3	17.300	µg/L	17.300	ppb	13:15:44
2	P 214.914†	738.1	506.8	734.95	µg/L	734.95	ppb	13:15:44
2	Pb 220.353†	254.9	179.9	49.292	µg/L	49.292	ppb	13:15:44

2	S 181.975 Axial†	74.7	45.5	154.69	µg/L	154.69 ppb	13:15:44
2	Sb 206.836†	28.2	4.9	8.7193	µg/L	8.7193 ppb	13:15:44
2	Se 196.026†	-32.5	-47.7	-44.863	µg/L	-44.863 ppb	13:15:44
2	SiO2†	137017.9	137938.2	23395	µg/L	23395 ppb	13:15:24
2	Si 251.611†	161021.7	166062.6	11061	µg/L	11061 ppb	13:15:18
2	Sn 189.927†	12.1	-16.7	-20.692	µg/L	-20.692 ppb	13:15:44
2	Ti 334.940†	589062.9	608169.2	1473.3	µg/L	1473.3 ppb	13:15:18
2	Tl 190.801†	-42.1	-16.3	-8.2238	µg/L	-8.2238 ppb	13:15:44
2	U 409.014†	-1108.5	-1253.1	-143.83	µg/L	-143.83 ppb	13:15:18
2	V 292.402†	3446.5	3883.7	49.755	µg/L	49.755 ppb	13:15:24
2	Zn 213.857†	11400.9	11167.5	267.80	µg/L	267.80 ppb	13:15:24
3	Sc RADIAL	56143.3	56143.3	93.9	%		13:14:14
3	Al 396.153Radial†	24038.8	25565.3	18382	µg/L	18382 ppb	13:14:14
3	Ca 317.933Radial†	6004.5	6180.7	5410.0	µg/L	5410.0 ppb	13:14:34
3	Fe 238.204 Radial†	5097.3	5418.8	70428	µg/L	70428 ppb	13:14:34
3	K 766.490 Radial†	4791.8	4601.5	3002.5	µg/L	3002.5 ppb	13:14:14
3	Mg 279.077 IEC†	326.6	336.6	3195.8	µg/L	3195.8 ppb	13:14:34
3	Na 589.592 Radial†	3428.0	3507.7	1373.5	µg/L	1373.5 ppb	13:14:14
3	Sr 421.552†	3051.6	3277.5	35.569	µg/L	35.569 ppb	13:14:14
3	Sc 361.383	1710706.7	1710706.7	97.263	%		13:15:51
3	Y 371.029	1129808.4	1129808.4	104.76	%		13:15:51
3	Ag 328.068†	-905.4	-714.3	-0.5926	µg/L	-0.5926 ppb	13:15:56
3	As 188.979†	0.6	4.4	21.642	µg/L	21.642 ppb	13:16:17
3	B 249.677†	655.8	317.8	-10.003	µg/L	-10.003 ppb	13:15:56
3	Ba 233.527†	7741.1	8002.7	225.72	µg/L	225.72 ppb	13:15:56
3	Be 313.107†	14814.2	11217.2	6.7170	µg/L	6.7170 ppb	13:15:56
3	Cd 226.502†	189.6	319.4	-0.9237	µg/L	-0.9237 ppb	13:16:17
3	Co 228.616†	289.4	281.6	11.369	µg/L	11.369 ppb	13:16:17
3	Cr 267.716†	4550.1	4813.9	110.92	µg/L	110.92 ppb	13:15:56
3	Cu 324.752†	7954.4	2308.3	22.729	µg/L	22.729 ppb	13:15:56
3	Mn 257.610†	586880.1	603602.7	2123.6	µg/L	2123.6 ppb	13:15:51
3	Mo 202.031†	106.1	89.6	13.733	µg/L	13.733 ppb	13:16:17
3	Ni 231.604†	630.5	324.4	18.878	µg/L	18.878 ppb	13:16:17
3	P 214.914†	714.3	478.4	690.21	µg/L	690.21 ppb	13:16:17
3	Pb 220.353†	255.3	179.0	49.042	µg/L	49.042 ppb	13:16:17
3	S 181.975 Axial†	74.0	44.4	150.90	µg/L	150.90 ppb	13:16:17
3	Sb 206.836†	34.9	11.7	14.715	µg/L	14.715 ppb	13:16:17
3	Se 196.026†	-35.5	-50.6	-47.935	µg/L	-47.935 ppb	13:16:17
3	SiO2†	136110.1	136289.5	23115	µg/L	23115 ppb	13:15:56
3	Si 251.611†	158749.8	162886.2	10849	µg/L	10849 ppb	13:15:51
3	Sn 189.927†	20.3	-8.4	-16.206	µg/L	-16.206 ppb	13:16:17
3	Ti 334.940†	582235.3	598074.4	1448.8	µg/L	1448.8 ppb	13:15:51
3	Tl 190.801†	-36.4	-10.3	1.1710	µg/L	1.1710 ppb	13:16:17
3	U 409.014†	-1057.5	-1194.9	-137.64	µg/L	-137.64 ppb	13:15:51
3	V 292.402†	3527.5	3949.0	50.542	µg/L	50.542 ppb	13:15:56
3	Zn 213.857†	11540.1	11251.1	270.15	µg/L	270.15 ppb	13:15:56

Mean Data: 243550014|938259|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1710075.7	97.227	%	0.4386				0.45%
Sc RADIAL	56071.5	93.8	%	0.18				0.19%
Y 371.029	1131632.3	104.93	%	0.429				0.41%
Ag 328.068†	-741.3	-0.8186	µg/L	0.20155	-0.8186	ppb	0.20155	24.62%
Al 396.153Radial†	25562.4	18380	µg/L	27.0	18380	ppb	27.0	0.15%
As 188.979†	8.7	28.986	µg/L	7.3447	28.986	ppb	7.3447	25.34%
B 249.677†	295.3	-10.959	µg/L	0.8913	-10.959	ppb	0.8913	8.13%
Ba 233.527†	8035.7	226.65	µg/L	0.895	226.65	ppb	0.895	0.39%
Be 313.107†	9663.9	5.7080	µg/L	0.91347	5.7080	ppb	0.91347	16.00%
Ca 317.933Radial†	6228.8	5452.1	µg/L	36.86	5452.1	ppb	36.86	0.68%
Cd 226.502†	309.0	-1.2642	µg/L	0.30216	-1.2642	ppb	0.30216	23.90%
Co 228.616†	269.2	10.713	µg/L	0.7064	10.713	ppb	0.7064	6.59%
Cr 267.716†	4742.3	109.27	µg/L	1.636	109.27	ppb	1.636	1.50%
Cu 324.752†	2075.9	21.113	µg/L	1.4322	21.113	ppb	1.4322	6.78%
Fe 238.204 Radial†	5442.4	70736	µg/L	426.1	70736	ppb	426.1	0.60%
K 766.490 Radial†	4650.6	3034.4	µg/L	29.80	3034.4	ppb	29.80	0.98%
Mg 279.077 IEC†	336.9	3198.3	µg/L	2.25	3198.3	ppb	2.25	0.07%
Mn 257.610†	609523.6	2144.4	µg/L	19.52	2144.4	ppb	19.52	0.91%
Mo 202.031†	91.7	14.010	µg/L	0.4373	14.010	ppb	0.4373	3.12%
Na 589.592 Radial†	3511.1	1374.8	µg/L	3.19	1374.8	ppb	3.19	0.23%

Ni 231.604†	304.0	17.695	µg/L	1.0431	17.695	ppb	1.0431	5.90%
P 214.914†	497.0	719.74	µg/L	25.577	719.74	ppb	25.577	3.55%
Pb 220.353†	181.0	49.589	µg/L	0.7415	49.589	ppb	0.7415	1.50%
S 181.975 Axial†	47.0	160.19	µg/L	12.955	160.19	ppb	12.955	8.09%
Sb 206.836†	7.5	10.947	µg/L	3.2812	10.947	ppb	3.2812	29.97%
Se 196.026†	-52.2	-49.533	µg/L	5.6406	-49.533	ppb	5.6406	11.39%
SiO2†	137623.9	23341	µg/L	204.9	23341	ppb	204.9	0.88%
Si 251.611†	164600.4	10963	µg/L	106.9	10963	ppb	106.9	0.98%
Sn 189.927†	-12.6	-18.472	µg/L	2.2435	-18.472	ppb	2.2435	12.15%
Sr 421.552†	3383.9	36.723	µg/L	1.3058	36.723	ppb	1.3058	3.56%
Ti 334.940†	603100.1	1461.0	µg/L	12.23	1461.0	ppb	12.23	0.84%
Tl 190.801†	-13.9	-4.5109	µg/L	4.99730	-4.5109	ppb	4.99730	110.78%
U 409.014†	-1228.3	-141.17	µg/L	3.189	-141.17	ppb	3.189	2.26%
V 292.402†	3885.8	49.768	µg/L	0.7671	49.768	ppb	0.7671	1.54%
Zn 213.857†	11172.9	268.06	µg/L	1.964	268.06	ppb	1.964	0.73%

Sequence No.: 4
Sample ID: 1202007666|938259|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 304
Date Collected: 1/8/2010 13:16:25
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202007666|938259|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	55777.8	55777.8	93.3	%			13:16:58
1	Al 396.153Radial†	24062.2	25758.0	18521	µg/L	18521	ppb	13:16:58
1	Ca 317.933Radial†	5787.3	5989.9	5243.0	µg/L	5243.0	ppb	13:17:18
1	Fe 238.204 Radial†	5104.0	5461.6	70984	µg/L	70984	ppb	13:17:18
1	K 766.490 Radial†	4747.4	4587.4	2993.2	µg/L	2993.2	ppb	13:16:58
1	Mg 279.077 IEC†	324.7	336.8	3197.7	µg/L	3197.7	ppb	13:17:18
1	Na 589.592 Radial†	3324.3	3420.6	1339.4	µg/L	1339.4	ppb	13:16:58
1	Sr 421.552†	2969.3	3210.7	34.843	µg/L	34.843	ppb	13:16:58
1	Sc 361.383	1728447.5	1728447.5	98.271	%			13:18:22
1	Y 371.029	1141247.2	1141247.2	105.82	%			13:18:22
1	Ag 328.068†	-962.5	-762.8	-1.0245	µg/L	-1.0245	ppb	13:18:27
1	As 188.979†	1.8	5.6	23.951	µg/L	23.951	ppb	13:18:48
1	B 249.677†	556.5	209.8	-14.303	µg/L	-14.303	ppb	13:18:27
1	Ba 233.527†	7587.8	7765.0	219.01	µg/L	219.01	ppb	13:18:27
1	Be 313.107†	11506.2	7694.7	4.4142	µg/L	4.4142	ppb	13:18:27
1	Cd 226.502†	153.0	280.1	-2.1158	µg/L	-2.1158	ppb	13:18:48
1	Co 228.616†	264.9	253.7	9.8012	µg/L	9.8012	ppb	13:18:48
1	Cr 267.716†	4723.5	4942.4	113.87	µg/L	113.87	ppb	13:18:27
1	Cu 324.752†	7171.4	1427.6	16.547	µg/L	16.547	ppb	13:18:27
1	Mn 257.610†	658120.5	669903.0	2356.0	µg/L	2356.0	ppb	13:18:22
1	Mo 202.031†	99.2	81.4	12.755	µg/L	12.755	ppb	13:18:48
1	Ni 231.604†	574.0	260.3	15.149	µg/L	15.149	ppb	13:18:48
1	P 214.914†	677.0	432.9	617.16	µg/L	617.16	ppb	13:18:48
1	Pb 220.353†	250.3	171.3	46.918	µg/L	46.918	ppb	13:18:48
1	S 181.975 Axial†	79.1	48.8	166.77	µg/L	166.77	ppb	13:18:48
1	Sb 206.836†	23.2	-0.5	4.0049	µg/L	4.0049	ppb	13:18:48
1	Se 196.026†	-43.4	-58.3	-55.998	µg/L	-55.998	ppb	13:18:48
1	SiO2†	135840.7	134579.1	22825	µg/L	22825	ppb	13:18:27
1	Si 251.611†	160078.4	162562.8	10825	µg/L	10825	ppb	13:18:22
1	Sn 189.927†	14.5	-14.5	-19.531	µg/L	-19.531	ppb	13:18:48
1	Ti 334.940†	615537.4	625818.0	1516.1	µg/L	1516.1	ppb	13:18:22
1	Tl 190.801†	-41.5	-15.1	-5.0538	µg/L	-5.0538	ppb	13:18:48
1	U 409.014†	-1124.3	-1251.7	-143.64	µg/L	-143.64	ppb	13:18:22
1	V 292.402†	3146.1	3523.6	45.301	µg/L	45.301	ppb	13:18:27
1	Zn 213.857†	11311.8	10897.0	260.92	µg/L	260.92	ppb	13:18:27
2	Sc RADIAL	56298.7	56298.7	94.2	%			13:17:24
2	Al 396.153Radial†	24198.9	25664.6	18454	µg/L	18454	ppb	13:17:24
2	Ca 317.933Radial†	5761.7	5905.3	5168.9	µg/L	5168.9	ppb	13:17:44
2	Fe 238.204 Radial†	5105.1	5412.2	70342	µg/L	70342	ppb	13:17:44
2	K 766.490 Radial†	4756.1	4549.6	2968.5	µg/L	2968.5	ppb	13:17:24
2	Mg 279.077 IEC†	323.7	332.5	3156.4	µg/L	3156.4	ppb	13:17:44
2	Na 589.592 Radial†	3352.8	3417.9	1338.4	µg/L	1338.4	ppb	13:17:24
2	Sr 421.552†	2969.2	3181.1	34.522	µg/L	34.522	ppb	13:17:24
2	Sc 361.383	1736170.5	1736170.5	98.710	%			13:18:54
2	Y 371.029	1147584.7	1147584.7	106.41	%			13:18:54
2	Ag 328.068†	-1007.6	-804.1	-1.4526	µg/L	-1.4526	ppb	13:18:59
2	As 188.979†	1.2	5.0	22.947	µg/L	22.947	ppb	13:19:20
2	B 249.677†	543.2	193.8	-14.713	µg/L	-14.713	ppb	13:18:59
2	Ba 233.527†	7729.3	7874.0	222.08	µg/L	222.08	ppb	13:18:59
2	Be 313.107†	11677.3	7815.9	4.4925	µg/L	4.4925	ppb	13:18:59
2	Cd 226.502†	167.1	293.8	-1.6311	µg/L	-1.6311	ppb	13:19:20
2	Co 228.616†	248.4	235.7	8.8837	µg/L	8.8837	ppb	13:19:20
2	Cr 267.716†	4776.8	4975.0	114.62	µg/L	114.62	ppb	13:18:59
2	Cu 324.752†	7239.8	1464.3	16.749	µg/L	16.749	ppb	13:18:59
2	Mn 257.610†	661695.8	670546.0	2358.1	µg/L	2358.1	ppb	13:18:54
2	Mo 202.031†	102.5	84.3	13.079	µg/L	13.079	ppb	13:19:20
2	Ni 231.604†	570.0	253.6	14.760	µg/L	14.760	ppb	13:19:20
2	P 214.914†	689.5	442.5	633.27	µg/L	633.27	ppb	13:19:20
2	Pb 220.353†	260.2	180.2	49.372	µg/L	49.372	ppb	13:19:20

2	S 181.975 Axial†	70.8	40.1	134.96	µg/L	134.96 ppb	13:19:20
2	Sb 206.836†	26.7	2.9	7.0871	µg/L	7.0871 ppb	13:19:20
2	Se 196.026†	-39.3	-54.0	-51.596	µg/L	-51.596 ppb	13:19:20
2	SiO2†	137384.0	135527.6	22986	µg/L	22986 ppb	13:18:59
2	Si 251.611†	160882.0	162652.3	10831	µg/L	10831 ppb	13:18:54
2	Sn 189.927†	14.0	-15.1	-19.722	µg/L	-19.722 ppb	13:19:20
2	Ti 334.940†	618474.6	626007.3	1516.5	µg/L	1516.5 ppb	13:18:54
2	Tl 190.801†	-38.9	-12.3	-0.5404	µg/L	-0.5404 ppb	13:19:20
2	U 409.014†	-992.6	-1113.1	-129.11	µg/L	-129.11 ppb	13:18:54
2	V 292.402†	3133.6	3496.7	44.977	µg/L	44.977 ppb	13:18:59
2	Zn 213.857†	11427.4	10962.8	262.79	µg/L	262.79 ppb	13:18:59
3	Sc RADIAL	56393.1	56393.1	94.3	%		13:17:50
3	Al 396.153Radial†	24324.8	25755.1	18519	µg/L	18519 ppb	13:17:50
3	Ca 317.933Radial†	5752.7	5885.5	5151.6	µg/L	5151.6 ppb	13:18:10
3	Fe 238.204 Radial†	5087.1	5383.9	69976	µg/L	69976 ppb	13:18:10
3	K 766.490 Radial†	4749.3	4534.0	2958.4	µg/L	2958.4 ppb	13:17:50
3	Mg 279.077 IEC†	326.1	334.4	3175.7	µg/L	3175.7 ppb	13:18:10
3	Na 589.592 Radial†	3377.3	3437.8	1346.2	µg/L	1346.2 ppb	13:17:50
3	Sr 421.552†	2972.9	3179.6	34.507	µg/L	34.507 ppb	13:17:50
3	Sc 361.383	1748762.1	1748762.1	99.426	%		13:19:26
3	Y 371.029	1152662.3	1152662.3	106.88	%		13:19:26
3	Ag 328.068†	-944.3	-733.1	-0.8418	µg/L	-0.8418 ppb	13:19:32
3	As 188.979†	1.7	5.5	23.628	µg/L	23.628 ppb	13:19:52
3	B 249.677†	574.5	221.3	-13.546	µg/L	-13.546 ppb	13:19:32
3	Ba 233.527†	7572.9	7660.3	216.06	µg/L	216.06 ppb	13:19:32
3	Be 313.107†	11469.6	7521.8	4.3095	µg/L	4.3095 ppb	13:19:32
3	Cd 226.502†	134.7	259.9	-2.5446	µg/L	-2.5446 ppb	13:19:52
3	Co 228.616†	238.5	224.0	8.3214	µg/L	8.3214 ppb	13:19:52
3	Cr 267.716†	4654.0	4816.6	110.97	µg/L	110.97 ppb	13:19:32
3	Cu 324.752†	7174.6	1346.0	15.878	µg/L	15.878 ppb	13:19:32
3	Mn 257.610†	658398.0	662402.5	2329.6	µg/L	2329.6 ppb	13:19:26
3	Mo 202.031†	94.9	75.9	12.039	µg/L	12.039 ppb	13:19:52
3	Ni 231.604†	563.5	242.9	14.137	µg/L	14.137 ppb	13:19:52
3	P 214.914†	673.2	421.1	599.44	µg/L	599.44 ppb	13:19:52
3	Pb 220.353†	250.1	168.1	46.061	µg/L	46.061 ppb	13:19:52
3	S 181.975 Axial†	76.2	45.0	152.95	µg/L	152.95 ppb	13:19:52
3	Sb 206.836†	23.8	-0.3	4.2040	µg/L	4.2040 ppb	13:19:52
3	Se 196.026†	-35.2	-49.6	-47.020	µg/L	-47.020 ppb	13:19:52
3	SiO2†	135027.1	132155.0	22414	µg/L	22414 ppb	13:19:32
3	Si 251.611†	160366.6	160960.4	10718	µg/L	10718 ppb	13:19:26
3	Sn 189.927†	12.0	-17.2	-20.774	µg/L	-20.774 ppb	13:19:52
3	Ti 334.940†	614957.4	617958.4	1497.0	µg/L	1497.0 ppb	13:19:26
3	Tl 190.801†	-47.3	-20.4	-13.905	µg/L	-13.905 ppb	13:19:52
3	U 409.014†	-1114.0	-1228.0	-140.98	µg/L	-140.98 ppb	13:19:26
3	V 292.402†	3103.2	3443.3	44.283	µg/L	44.283 ppb	13:19:32
3	Zn 213.857†	11169.2	10619.8	254.07	µg/L	254.07 ppb	13:19:32

Mean Data: 1202007666|938259|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1737793.4	98.803	%	0.5830				0.59%
Sc RADIAL	56156.6	93.9	%	0.55				0.59%
Y 371.029	1147164.8	106.37	%	0.530				0.50%
Ag 328.068†	-766.7	-1.1063	µg/L	0.31350	-1.1063	ppb	0.31350	28.34%
Al 396.153Radial†	25725.9	18498	µg/L	38.2	18498	ppb	38.2	0.21%
As 188.979†	5.4	23.509	µg/L	0.5125	23.509	ppb	0.5125	2.18%
B 249.677†	208.3	-14.187	µg/L	0.5916	-14.187	ppb	0.5916	4.17%
Ba 233.527†	7766.4	219.05	µg/L	3.014	219.05	ppb	3.014	1.38%
Be 313.107†	7677.5	4.4054	µg/L	0.09179	4.4054	ppb	0.09179	2.08%
Ca 317.933Radial†	5926.9	5187.8	µg/L	48.52	5187.8	ppb	48.52	0.94%
Cd 226.502†	278.0	-2.0972	µg/L	0.45706	-2.0972	ppb	0.45706	21.79%
Co 228.616†	237.8	9.0021	µg/L	0.74696	9.0021	ppb	0.74696	8.30%
Cr 267.716†	4911.3	113.15	µg/L	1.926	113.15	ppb	1.926	1.70%
Cu 324.752†	1412.6	16.391	µg/L	0.4558	16.391	ppb	0.4558	2.78%
Fe 238.204 Radial†	5419.2	70434	µg/L	510.6	70434	ppb	510.6	0.72%
K 766.490 Radial†	4557.0	2973.4	µg/L	17.93	2973.4	ppb	17.93	0.60%
Mg 279.077 IEC†	334.6	3176.6	µg/L	20.67	3176.6	ppb	20.67	0.65%
Mn 257.610†	667617.2	2347.9	µg/L	15.91	2347.9	ppb	15.91	0.68%
Mo 202.031†	80.5	12.624	µg/L	0.5318	12.624	ppb	0.5318	4.21%
Na 589.592 Radial†	3425.4	1341.3	µg/L	4.23	1341.3	ppb	4.23	0.32%

Ni 231.604†	252.3	14.682 µg/L	0.5103	14.682 ppb	0.5103	3.48%
P 214.914†	432.2	616.62 µg/L	16.922	616.62 ppb	16.922	2.74%
Pb 220.353†	173.2	47.451 µg/L	1.7187	47.451 ppb	1.7187	3.62%
S 181.975 Axial†	44.6	151.56 µg/L	15.950	151.56 ppb	15.950	10.52%
Sb 206.836†	0.7	5.0987 µg/L	1.72490	5.0987 ppb	1.72490	33.83%
Se 196.026†	-53.9	-51.538 µg/L	4.4893	-51.538 ppb	4.4893	8.71%
SiO2†	134087.2	22741 µg/L	295.0	22741 ppb	295.0	1.30%
Si 251.611†	162058.5	10791 µg/L	63.3	10791 ppb	63.3	0.59%
Sn 189.927†	-15.6	-20.009 µg/L	0.6696	-20.009 ppb	0.6696	3.35%
Sr 421.552†	3190.5	34.624 µg/L	0.1900	34.624 ppb	0.1900	0.55%
Ti 334.940†	623261.2	1509.9 µg/L	11.13	1509.9 ppb	11.13	0.74%
Tl 190.801†	-15.9	-6.4998 µg/L	6.79869	-6.4998 ppb	6.79869	104.60%
U 409.014†	-1197.6	-137.91 µg/L	7.734	-137.91 ppb	7.734	5.61%
V 292.402†	3487.9	44.854 µg/L	0.5203	44.854 ppb	0.5203	1.16%
Zn 213.857†	10826.5	259.26 µg/L	4.592	259.26 ppb	4.592	1.77%

Sequence No.: 5
Sample ID: 1202007668|938259|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 305
Date Collected: 1/8/2010 13:20:01
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202007668|938259|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56933.6	56933.6	95.2	%			13:20:34
1	Al 396.153Radial†	54461.3	57152.6	41077	µg/L	41077	ppb	13:20:34
1	Ca 317.933Radial†	11263.7	11614.0	10166	µg/L	10166	ppb	13:20:54
1	Fe 238.204 Radial†	6234.0	6537.0	84978	µg/L	84978	ppb	13:20:54
1	K 766.490 Radial†	13228.4	13388.9	8736.1	µg/L	8736.1	ppb	13:20:34
1	Mg 279.077 IEC†	970.5	1007.8	9767.2	µg/L	9767.2	ppb	13:20:54
1	Na 589.592 Radial†	15371.6	15997.5	6264.2	µg/L	6264.2	ppb	13:20:34
1	Sr 421.552†	45203.9	47491.0	515.39	µg/L	515.39	ppb	13:20:34
1	Sc 361.383	1743871.2	1743871.2	99.148	%			13:21:59
1	Y 371.029	1173497.2	1173497.2	108.82	%			13:21:59
1	Ag 328.068†	51373.5	52031.5	482.54	µg/L	482.54	ppb	13:22:05
1	As 188.979†	287.8	294.1	518.27	µg/L	518.27	ppb	13:22:25
1	B 249.677†	13139.3	12895.7	466.08	µg/L	466.08	ppb	13:22:05
1	Ba 233.527†	25781.0	26046.2	735.43	µg/L	735.43	ppb	13:22:05
1	Be 313.107†	769789.3	772388.3	498.53	µg/L	498.53	ppb	13:21:59
1	Cd 226.502†	17440.8	17715.1	488.49	µg/L	488.49	ppb	13:22:05
1	Co 228.616†	9584.8	9651.2	488.40	µg/L	488.40	ppb	13:22:05
1	Cr 267.716†	26184.0	26544.7	612.25	µg/L	612.25	ppb	13:22:05
1	Cu 324.752†	76596.2	71384.2	512.86	µg/L	512.86	ppb	13:22:05
1	Mn 257.610†	765400.7	772181.6	2716.1	µg/L	2716.1	ppb	13:21:59
1	Mo 202.031†	3953.8	3968.2	489.05	µg/L	489.05	ppb	13:22:25
1	Ni 231.604†	8868.8	8621.2	501.75	µg/L	501.75	ppb	13:22:05
1	P 214.914†	1074.3	827.5	1192.9	µg/L	1192.9	ppb	13:22:25
1	Pb 220.353†	2046.7	1980.8	545.55	µg/L	545.55	ppb	13:22:25
1	S 181.975 Axial†	1445.0	1425.8	5177.5	µg/L	5177.5	ppb	13:22:25
1	Sb 206.836†	551.7	532.3	479.79	µg/L	479.79	ppb	13:22:25
1	Se 196.026†	432.3	421.9	449.33	µg/L	449.33	ppb	13:22:25
1	SiO2†	109506.1	106795.7	18113	µg/L	18113	ppb	13:22:05
1	Si 251.611†	125917.3	126667.6	8357.6	µg/L	8357.6	ppb	13:22:05
1	Sn 189.927†	968.3	947.3	480.80	µg/L	480.80	ppb	13:22:25
1	Ti 334.940†	1020965.8	1029189.3	2493.1	µg/L	2493.1	ppb	13:21:59
1	Tl 190.801†	250.3	279.6	476.74	µg/L	476.74	ppb	13:22:25
1	U 409.014†	3677.9	3601.9	357.81	µg/L	357.81	ppb	13:21:59
1	V 292.402†	42175.6	42860.1	534.34	µg/L	534.34	ppb	13:22:05
1	Zn 213.857†	31511.3	31168.2	775.39	µg/L	775.39	ppb	13:22:05
2	Sc RADIAL	57019.9	57019.9	95.4	%			13:21:00
2	Al 396.153Radial†	54350.3	56949.7	40931	µg/L	40931	ppb	13:21:00
2	Ca 317.933Radial†	11270.5	11603.2	10156	µg/L	10156	ppb	13:21:20
2	Fe 238.204 Radial†	6219.3	6511.7	84649	µg/L	84649	ppb	13:21:20
2	K 766.490 Radial†	13201.0	13339.2	8703.7	µg/L	8703.7	ppb	13:21:00
2	Mg 279.077 IEC†	968.7	1004.4	9733.8	µg/L	9733.8	ppb	13:21:20
2	Na 589.592 Radial†	15296.5	15894.3	6223.8	µg/L	6223.8	ppb	13:21:00
2	Sr 421.552†	45111.3	47322.1	513.56	µg/L	513.56	ppb	13:21:00
2	Sc 361.383	1735717.2	1735717.2	98.685	%			13:22:33
2	Y 371.029	1168830.5	1168830.5	108.38	%			13:22:33
2	Ag 328.068†	51355.2	52256.3	484.57	µg/L	484.57	ppb	13:22:38
2	As 188.979†	290.9	298.5	525.74	µg/L	525.74	ppb	13:22:59
2	B 249.677†	13111.6	12929.9	467.49	µg/L	467.49	ppb	13:22:38
2	Ba 233.527†	25811.3	26199.0	739.74	µg/L	739.74	ppb	13:22:38
2	Be 313.107†	763976.2	770145.1	497.08	µg/L	497.08	ppb	13:22:33
2	Cd 226.502†	17351.2	17707.0	488.30	µg/L	488.30	ppb	13:22:38
2	Co 228.616†	9566.4	9678.0	489.78	µg/L	489.78	ppb	13:22:38
2	Cr 267.716†	26170.4	26654.9	614.79	µg/L	614.79	ppb	13:22:38
2	Cu 324.752†	76621.8	71773.1	515.59	µg/L	515.59	ppb	13:22:38
2	Mn 257.610†	760173.8	770511.6	2710.2	µg/L	2710.2	ppb	13:22:33
2	Mo 202.031†	3959.9	3993.1	492.09	µg/L	492.09	ppb	13:22:59
2	Ni 231.604†	8909.4	8704.3	506.59	µg/L	506.59	ppb	13:22:38
2	P 214.914†	1075.0	833.4	1202.5	µg/L	1202.5	ppb	13:22:59
2	Pb 220.353†	2033.7	1977.4	544.61	µg/L	544.61	ppb	13:22:59

2	S 181.975 Axial†	1430.4	1417.8	5148.6 µg/L	5148.6 ppb	13:22:59
2	Sb 206.836†	544.5	527.6	475.57 µg/L	475.57 ppb	13:22:59
2	Se 196.026†	433.0	424.6	452.18 µg/L	452.18 ppb	13:22:59
2	SiO2†	109278.8	107084.2	18162 µg/L	18162 ppb	13:22:38
2	Si 251.611†	125848.3	127194.2	8392.7 µg/L	8392.7 ppb	13:22:38
2	Sn 189.927†	974.1	957.9	486.33 µg/L	486.33 ppb	13:22:59
2	Ti 334.940†	1014680.1	1027657.3	2489.4 µg/L	2489.4 ppb	13:22:33
2	Tl 190.801†	255.2	285.8	486.69 µg/L	486.69 ppb	13:22:59
2	U 409.014†	3582.4	3522.5	349.62 µg/L	349.62 ppb	13:22:33
2	V 292.402†	42187.8	43072.3	536.95 µg/L	536.95 ppb	13:22:38
2	Zn 213.857†	31499.3	31305.3	778.98 µg/L	778.98 ppb	13:22:38
3	Sc RADIAL	56570.6	56570.6	94.6 %		13:21:26
3	Al 396.153Radial†	54007.2	57039.7	40997 µg/L	40997 ppb	13:21:26
3	Ca 317.933Radial†	11280.7	11707.8	10248 µg/L	10248 ppb	13:21:46
3	Fe 238.204 Radial†	6214.8	6558.7	85259 µg/L	85259 ppb	13:21:46
3	K 766.490 Radial†	13129.2	13373.3	8725.9 µg/L	8725.9 ppb	13:21:26
3	Mg 279.077 IEC†	971.6	1015.5	9841.3 µg/L	9841.3 ppb	13:21:46
3	Na 589.592 Radial†	15183.6	15902.4	6226.9 µg/L	6226.9 ppb	13:21:26
3	Sr 421.552†	44729.4	47294.0	513.25 µg/L	513.25 ppb	13:21:26
3	Sc 361.383	1752156.5	1752156.5	99.619 %		13:23:07
3	Y 371.029	1176217.3	1176217.3	109.07 %		13:23:07
3	Ag 328.068†	50651.4	51061.6	473.61 µg/L	473.61 ppb	13:23:13
3	As 188.979†	268.7	273.5	483.20 µg/L	483.20 ppb	13:23:33
3	B 249.677†	12858.1	12550.7	452.81 µg/L	452.81 ppb	13:23:13
3	Ba 233.527†	25064.6	25204.1	711.64 µg/L	711.64 ppb	13:23:13
3	Be 313.107†	756395.3	755271.8	487.48 µg/L	487.48 ppb	13:23:07
3	Cd 226.502†	17026.4	17216.0	474.34 µg/L	474.34 ppb	13:23:13
3	Co 228.616†	9255.5	9274.9	469.24 µg/L	469.24 ppb	13:23:13
3	Cr 267.716†	25120.9	25352.7	584.76 µg/L	584.76 ppb	13:23:13
3	Cu 324.752†	74306.7	68720.7	494.04 µg/L	494.04 ppb	13:23:13
3	Mn 257.610†	755027.8	758118.6	2666.8 µg/L	2666.8 ppb	13:23:07
3	Mo 202.031†	3741.2	3735.9	460.63 µg/L	460.63 ppb	13:23:33
3	Ni 231.604†	8615.7	8324.8	484.50 µg/L	484.50 ppb	13:23:13
3	P 214.914†	1045.3	793.3	1139.3 µg/L	1139.3 ppb	13:23:33
3	Pb 220.353†	1964.4	1888.5	520.10 µg/L	520.10 ppb	13:23:33
3	S 181.975 Axial†	1394.7	1368.3	4968.4 µg/L	4968.4 ppb	13:23:33
3	Sb 206.836†	518.5	496.3	447.64 µg/L	447.64 ppb	13:23:33
3	Se 196.026†	425.7	413.2	440.35 µg/L	440.35 ppb	13:23:33
3	SiO2†	104697.6	101446.6	17205 µg/L	17205 ppb	13:23:13
3	Si 251.611†	120215.1	120343.1	7937.9 µg/L	7937.9 ppb	13:23:13
3	Sn 189.927†	909.9	884.1	447.88 µg/L	447.88 ppb	13:23:33
3	Ti 334.940†	1004268.7	1007559.1	2440.7 µg/L	2440.7 ppb	13:23:07
3	Tl 190.801†	246.2	274.3	467.66 µg/L	467.66 ppb	13:23:33
3	U 409.014†	3555.7	3461.6	343.18 µg/L	343.18 ppb	13:23:07
3	V 292.402†	40598.8	41076.1	512.15 µg/L	512.15 ppb	13:23:13
3	Zn 213.857†	30690.6	30194.1	750.37 µg/L	750.37 ppb	13:23:13

Mean Data: 1202007668|938259|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1743915.0	99.151	%	0.4673				0.47%
Sc RADIAL	56841.3	95.1	%	0.40				0.42%
Y 371.029	1172848.3	108.75	%	0.346				0.32%
Ag 328.068†	51783.1	480.24	µg/L	5.832	480.24	ppb	5.832	1.21%
Al 396.153Radial†	57047.3	41002	µg/L	73.1	41002	ppb	73.1	0.18%
As 188.979†	288.7	509.07	µg/L	22.713	509.07	ppb	22.713	4.46%
B 249.677†	12792.1	462.12	µg/L	8.100	462.12	ppb	8.100	1.75%
Ba 233.527†	25816.4	728.94	µg/L	15.134	728.94	ppb	15.134	2.08%
Be 313.107†	765935.0	494.37	µg/L	6.005	494.37	ppb	6.005	1.21%
Ca 317.933Radial†	11641.7	10190	µg/L	50.3	10190	ppb	50.3	0.49%
Cd 226.502†	17546.0	483.71	µg/L	8.114	483.71	ppb	8.114	1.68%
Co 228.616†	9534.7	482.47	µg/L	11.481	482.47	ppb	11.481	2.38%
Cr 267.716†	26184.1	603.93	µg/L	16.654	603.93	ppb	16.654	2.76%
Cu 324.752†	70626.0	507.50	µg/L	11.732	507.50	ppb	11.732	2.31%
Fe 238.204 Radial†	6535.8	84962	µg/L	305.5	84962	ppb	305.5	0.36%
K 766.490 Radial†	13367.1	8721.9	µg/L	16.59	8721.9	ppb	16.59	0.19%
Mg 279.077 IEC†	1009.2	9780.8	µg/L	55.01	9780.8	ppb	55.01	0.56%
Mn 257.610†	766937.3	2697.7	µg/L	26.89	2697.7	ppb	26.89	1.00%
Mo 202.031†	3899.1	480.59	µg/L	17.352	480.59	ppb	17.352	3.61%
Na 589.592 Radial†	15931.4	6238.3	µg/L	22.48	6238.3	ppb	22.48	0.36%

Ni 231.604†	8550.1	497.61 µg/L	11.611	497.61 ppb	11.611	2.33%
P 214.914†	818.1	1178.2 µg/L	34.06	1178.2 ppb	34.06	2.89%
Pb 220.353†	1948.9	536.75 µg/L	14.430	536.75 ppb	14.430	2.69%
S 181.975 Axial†	1404.0	5098.1 µg/L	113.32	5098.1 ppb	113.32	2.22%
Sb 206.836†	518.7	467.67 µg/L	17.472	467.67 ppb	17.472	3.74%
Se 196.026†	419.9	447.28 µg/L	6.174	447.28 ppb	6.174	1.38%
SiO2†	105108.8	17827 µg/L	538.5	17827 ppb	538.5	3.02%
Si 251.611†	124735.0	8229.4 µg/L	253.04	8229.4 ppb	253.04	3.07%
Sn 189.927†	929.7	471.67 µg/L	20.793	471.67 ppb	20.793	4.41%
Sr 421.552†	47369.0	514.07 µg/L	1.156	514.07 ppb	1.156	0.22%
Ti 334.940†	1021468.6	2474.4 µg/L	29.25	2474.4 ppb	29.25	1.18%
Tl 190.801†	279.9	477.03 µg/L	9.517	477.03 ppb	9.517	1.99%
U 409.014†	3528.7	350.20 µg/L	7.330	350.20 ppb	7.330	2.09%
V 292.402†	42336.2	527.81 µg/L	13.626	527.81 ppb	13.626	2.58%
Zn 213.857†	30889.2	768.24 µg/L	15.586	768.24 ppb	15.586	2.03%

Sequence No.: 6
Sample ID: 1202007669|938259|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 306
Date Collected: 1/8/2010 13:23:42
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202007669|938259|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56949.9	56949.9	95.3	%			13:24:15
1	Al 396.153Radial†	57435.5	60258.2	43310	µg/L	43310	ppb	13:24:15
1	Ca 317.933Radial†	11348.2	11699.3	10240	µg/L	10240	ppb	13:24:35
1	Fe 238.204 Radial†	5322.2	5578.1	72515	µg/L	72515	ppb	13:24:35
1	K 766.490 Radial†	13427.9	13594.3	8870.2	µg/L	8870.2	ppb	13:24:15
1	Mg 279.077 IEC†	993.5	1031.6	10019	µg/L	10019	ppb	13:24:35
1	Na 589.592 Radial†	15295.9	15913.4	6231.2	µg/L	6231.2	ppb	13:24:15
1	Sr 421.552†	45096.2	47364.3	514.02	µg/L	514.02	ppb	13:24:15
1	Sc 361.383	1751572.5	1751572.5	99.586	%			13:25:40
1	Y 371.029	1172926.3	1172926.3	108.76	%			13:25:40
1	Ag 328.068†	51891.4	52323.7	484.19	µg/L	484.19	ppb	13:25:46
1	As 188.979†	283.9	288.8	505.82	µg/L	505.82	ppb	13:26:06
1	B 249.677†	13156.7	12854.9	468.44	µg/L	468.44	ppb	13:25:46
1	Ba 233.527†	26246.7	26399.5	745.38	µg/L	745.38	ppb	13:25:46
1	Be 313.107†	764309.8	763472.3	492.96	µg/L	492.96	ppb	13:25:40
1	Cd 226.502†	17348.8	17545.3	485.45	µg/L	485.45	ppb	13:25:46
1	Co 228.616†	9662.7	9686.9	491.32	µg/L	491.32	ppb	13:25:46
1	Cr 267.716†	24923.6	25162.9	580.44	µg/L	580.44	ppb	13:25:46
1	Cu 324.752†	77692.6	72145.5	517.12	µg/L	517.12	ppb	13:25:46
1	Mn 257.610†	764919.2	768303.8	2700.9	µg/L	2700.9	ppb	13:25:40
1	Mo 202.031†	3946.9	3943.8	485.57	µg/L	485.57	ppb	13:26:06
1	Ni 231.604†	8986.2	8699.8	506.32	µg/L	506.32	ppb	13:25:46
1	P 214.914†	1029.0	777.3	1127.2	µg/L	1127.2	ppb	13:26:06
1	Pb 220.353†	2057.6	1982.8	546.29	µg/L	546.29	ppb	13:26:06
1	S 181.975 Axial†	1431.1	1405.4	5105.3	µg/L	5105.3	ppb	13:26:06
1	Sb 206.836†	539.5	517.6	464.83	µg/L	464.83	ppb	13:26:06
1	Se 196.026†	428.6	416.2	443.60	µg/L	443.60	ppb	13:26:06
1	SiO2†	172607.8	169674.0	28777	µg/L	28777	ppb	13:25:40
1	Si 251.611†	199469.3	199966.9	13282	µg/L	13282	ppb	13:25:40
1	Sn 189.927†	983.8	958.6	489.21	µg/L	489.21	ppb	13:26:06
1	Ti 334.940†	807755.3	810565.2	1963.4	µg/L	1963.4	ppb	13:25:40
1	Tl 190.801†	254.8	283.0	478.28	µg/L	478.28	ppb	13:26:06
1	U 409.014†	3722.9	3630.8	363.14	µg/L	363.14	ppb	13:25:40
1	V 292.402†	42218.8	42716.4	532.19	µg/L	532.19	ppb	13:25:46
1	Zn 213.857†	30355.5	29867.8	745.29	µg/L	745.29	ppb	13:25:46
2	Sc RADIAL	57338.2	57338.2	95.9	%			13:24:41
2	Al 396.153Radial†	58124.2	60567.9	43533	µg/L	43533	ppb	13:24:41
2	Ca 317.933Radial†	11379.4	11651.2	10198	µg/L	10198	ppb	13:25:01
2	Fe 238.204 Radial†	5343.8	5562.7	72315	µg/L	72315	ppb	13:25:01
2	K 766.490 Radial†	13605.0	13683.6	8928.4	µg/L	8928.4	ppb	13:24:41
2	Mg 279.077 IEC†	1000.7	1032.0	10023	µg/L	10023	ppb	13:25:01
2	Na 589.592 Radial†	15502.7	16020.3	6273.1	µg/L	6273.1	ppb	13:24:41
2	Sr 421.552†	45671.5	47643.6	517.05	µg/L	517.05	ppb	13:24:41
2	Sc 361.383	1755977.9	1755977.9	99.837	%			13:26:15
2	Y 371.029	1173399.3	1173399.3	108.81	%			13:26:15
2	Ag 328.068†	51724.0	52025.3	481.45	µg/L	481.45	ppb	13:26:20
2	As 188.979†	287.9	292.2	511.52	µg/L	511.52	ppb	13:26:41
2	B 249.677†	13134.2	12799.2	466.37	µg/L	466.37	ppb	13:26:20
2	Ba 233.527†	26195.7	26282.3	742.07	µg/L	742.07	ppb	13:26:20
2	Be 313.107†	765737.9	762977.3	492.64	µg/L	492.64	ppb	13:26:15
2	Cd 226.502†	17280.9	17433.7	482.33	µg/L	482.33	ppb	13:26:20
2	Co 228.616†	9649.6	9649.4	489.40	µg/L	489.40	ppb	13:26:20
2	Cr 267.716†	24815.0	24991.4	576.48	µg/L	576.48	ppb	13:26:20
2	Cu 324.752†	77539.7	71796.6	514.63	µg/L	514.63	ppb	13:26:20
2	Mn 257.610†	767537.3	768999.3	2703.3	µg/L	2703.3	ppb	13:26:15
2	Mo 202.031†	3935.8	3922.7	482.98	µg/L	482.98	ppb	13:26:41
2	Ni 231.604†	8968.6	8659.4	503.97	µg/L	503.97	ppb	13:26:20
2	P 214.914†	1033.0	778.7	1130.0	µg/L	1130.0	ppb	13:26:41
2	Pb 220.353†	2040.1	1960.1	540.04	µg/L	540.04	ppb	13:26:41

2	S 181.975 Axial†	1418.4	1389.1	5045.9 µg/L	5045.9 ppb	13:26:41
2	Sb 206.836†	533.5	510.2	458.32 µg/L	458.32 ppb	13:26:41
2	Se 196.026†	415.0	401.5	428.38 µg/L	428.38 ppb	13:26:41
2	SiO2†	172548.3	169179.5	28693 µg/L	28693 ppb	13:26:15
2	Si 251.611†	199471.8	199466.9	13249 µg/L	13249 ppb	13:26:15
2	Sn 189.927†	975.8	948.2	483.80 µg/L	483.80 ppb	13:26:41
2	Ti 334.940†	809782.0	810560.3	1963.4 µg/L	1963.4 ppb	13:26:15
2	Tl 190.801†	253.9	281.4	475.86 µg/L	475.86 ppb	13:26:41
2	U 409.014†	3792.5	3691.1	369.45 µg/L	369.45 ppb	13:26:15
2	V 292.402†	42045.0	42436.0	528.73 µg/L	528.73 ppb	13:26:20
2	Zn 213.857†	30295.3	29731.0	741.85 µg/L	741.85 ppb	13:26:20
3	Sc RADIAL	57429.0	57429.0	96.1 %		13:25:06
3	Al 396.153Radial†	58079.0	60425.0	43431 µg/L	43431 ppb	13:25:06
3	Ca 317.933Radial†	11386.8	11640.2	10189 µg/L	10189 ppb	13:25:27
3	Fe 238.204 Radial†	5323.1	5532.3	71920 µg/L	71920 ppb	13:25:27
3	K 766.490 Radial†	13527.0	13579.9	8860.8 µg/L	8860.8 ppb	13:25:06
3	Mg 279.077 IEC†	987.8	1017.0	9875.8 µg/L	9875.8 ppb	13:25:27
3	Na 589.592 Radial†	15486.7	15978.1	6256.6 µg/L	6256.6 ppb	13:25:06
3	Sr 421.552†	45709.6	47607.8	516.66 µg/L	516.66 ppb	13:25:06
3	Sc 361.383	1754590.2	1754590.2	99.758 %		13:26:49
3	Y 371.029	1170903.1	1170903.1	108.57 %		13:26:49
3	Ag 328.068†	51079.1	51419.8	475.82 µg/L	475.82 ppb	13:26:54
3	As 188.979†	276.5	280.9	492.26 µg/L	492.26 ppb	13:27:15
3	B 249.677†	12975.9	12651.0	460.83 µg/L	460.83 ppb	13:26:54
3	Ba 233.527†	25565.2	25671.0	724.81 µg/L	724.81 ppb	13:26:54
3	Be 313.107†	752619.4	750433.5	484.54 µg/L	484.54 ppb	13:26:49
3	Cd 226.502†	16896.4	17061.9	471.88 µg/L	471.88 ppb	13:26:54
3	Co 228.616†	9392.4	9399.3	476.65 µg/L	476.65 ppb	13:26:54
3	Cr 267.716†	23937.2	24131.2	556.65 µg/L	556.65 ppb	13:26:54
3	Cu 324.752†	75510.7	69824.1	500.64 µg/L	500.64 ppb	13:26:54
3	Mn 257.610†	754685.3	756724.1	2660.3 µg/L	2660.3 ppb	13:26:49
3	Mo 202.031†	3731.4	3720.9	458.27 µg/L	458.27 ppb	13:27:15
3	Ni 231.604†	8747.2	8444.6	491.47 µg/L	491.47 ppb	13:26:54
3	P 214.914†	1009.0	755.5	1094.3 µg/L	1094.3 ppb	13:27:15
3	Pb 220.353†	1972.9	1894.3	521.90 µg/L	521.90 ppb	13:27:15
3	S 181.975 Axial†	1369.2	1340.9	4870.5 µg/L	4870.5 ppb	13:27:15
3	Sb 206.836†	513.5	490.6	440.80 µg/L	440.80 ppb	13:27:15
3	Se 196.026†	410.8	397.7	424.33 µg/L	424.33 ppb	13:27:15
3	SiO2†	167662.7	164418.8	27886 µg/L	27886 ppb	13:26:49
3	Si 251.611†	193758.2	193897.4	12879 µg/L	12879 ppb	13:26:49
3	Sn 189.927†	919.5	892.4	454.84 µg/L	454.84 ppb	13:27:15
3	Ti 334.940†	795164.1	796548.4	1929.5 µg/L	1929.5 ppb	13:26:49
3	Tl 190.801†	250.0	277.8	469.57 µg/L	469.57 ppb	13:27:15
3	U 409.014†	3665.7	3567.0	356.62 µg/L	356.62 ppb	13:26:49
3	V 292.402†	40833.6	41255.0	513.97 µg/L	513.97 ppb	13:26:54
3	Zn 213.857†	29591.1	29049.1	724.50 µg/L	724.50 ppb	13:26:54

Mean Data: 1202007669|938259|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1754046.9	99.727	%	0.1281				0.13%
Sc RADIAL	57239.0	95.8	%	0.43				0.44%
Y 371.029	1172409.6	108.71	%	0.123				0.11%
Ag 328.068†	51922.9	480.49	µg/L	4.268	480.49	ppb	4.268	0.89%
Al 396.153Radial†	60417.0	43425	µg/L	111.5	43425	ppb	111.5	0.26%
As 188.979†	287.3	503.20	µg/L	9.893	503.20	ppb	9.893	1.97%
B 249.677†	12768.4	465.21	µg/L	3.933	465.21	ppb	3.933	0.85%
Ba 233.527†	26117.6	737.42	µg/L	11.048	737.42	ppb	11.048	1.50%
Be 313.107†	758961.0	490.05	µg/L	4.771	490.05	ppb	4.771	0.97%
Ca 317.933Radial†	11663.5	10209	µg/L	27.5	10209	ppb	27.5	0.27%
Cd 226.502†	17347.0	479.89	µg/L	7.107	479.89	ppb	7.107	1.48%
Co 228.616†	9578.6	485.79	µg/L	7.973	485.79	ppb	7.973	1.64%
Cr 267.716†	24761.8	571.19	µg/L	12.749	571.19	ppb	12.749	2.23%
Cu 324.752†	71255.4	510.80	µg/L	8.885	510.80	ppb	8.885	1.74%
Fe 238.204 Radial†	5557.7	72250	µg/L	302.8	72250	ppb	302.8	0.42%
K 766.490 Radial†	13619.3	8886.4	µg/L	36.63	8886.4	ppb	36.63	0.41%
Mg 279.077 IEC†	1026.9	9972.6	µg/L	83.84	9972.6	ppb	83.84	0.84%
Mn 257.610†	764675.7	2688.2	µg/L	24.19	2688.2	ppb	24.19	0.90%
Mo 202.031†	3862.5	475.61	µg/L	15.073	475.61	ppb	15.073	3.17%
Na 589.592 Radial†	15970.6	6253.6	µg/L	21.08	6253.6	ppb	21.08	0.34%

Ni 231.604†	8601.3	500.59 µg/L	7.983	500.59 ppb	7.983	1.59%
P 214.914†	770.5	1117.2 µg/L	19.88	1117.2 ppb	19.88	1.78%
Pb 220.353†	1945.7	536.08 µg/L	12.668	536.08 ppb	12.668	2.36%
S 181.975 Axial†	1378.5	5007.2 µg/L	122.09	5007.2 ppb	122.09	2.44%
Sb 206.836†	506.1	454.65 µg/L	12.431	454.65 ppb	12.431	2.73%
Se 196.026†	405.1	432.10 µg/L	10.158	432.10 ppb	10.158	2.35%
SiO2†	167757.4	28452 µg/L	492.2	28452 ppb	492.2	1.73%
Si 251.611†	197777.1	13137 µg/L	223.8	13137 ppb	223.8	1.70%
Sn 189.927†	933.1	475.95 µg/L	18.480	475.95 ppb	18.480	3.88%
Sr 421.552†	47538.6	515.91 µg/L	1.649	515.91 ppb	1.649	0.32%
Ti 334.940†	805891.3	1952.1 µg/L	19.60	1952.1 ppb	19.60	1.00%
Tl 190.801†	280.7	474.57 µg/L	4.498	474.57 ppb	4.498	0.95%
U 409.014†	3629.6	363.07 µg/L	6.413	363.07 ppb	6.413	1.77%
V 292.402†	42135.8	524.96 µg/L	9.674	524.96 ppb	9.674	1.84%
Zn 213.857†	29549.3	737.21 µg/L	11.147	737.21 ppb	11.147	1.51%

Sequence No.: 7
Sample ID: 1202007667|938259|5
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 307
Date Collected: 1/8/2010 13:27:24
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202007667|938259|5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56302.2	56302.2	94.2	%			13:27:57
1	Al 396.153Radial†	4848.4	5117.8	3679.9	µg/L	3679.9	ppb	13:27:57
1	Ca 317.933Radial†	1360.5	1232.0	1078.4	µg/L	1078.4	ppb	13:28:17
1	Fe 238.204 Radial†	1039.6	1095.3	14235	µg/L	14235	ppb	13:28:17
1	K 766.490 Radial†	1399.2	985.2	642.81	µg/L	642.81	ppb	13:27:57
1	Mg 279.077 IEC†	74.2	67.5	641.19	µg/L	641.19	ppb	13:28:17
1	Na 589.592 Radial†	847.0	757.2	296.48	µg/L	296.48	ppb	13:27:57
1	Sr 421.552†	601.3	666.7	7.2355	µg/L	7.2355	ppb	13:27:57
1	Sc 361.383	1735402.1	1735402.1	98.667	%			13:29:19
1	Y 371.029	1079958.4	1079958.4	100.14	%			13:29:19
1	Ag 328.068†	-386.0	-174.5	-0.3919	µg/L	-0.3919	ppb	13:29:25
1	As 188.979†	-4.3	-0.6	1.8800	µg/L	1.8800	ppb	13:29:45
1	B 249.677†	428.4	77.7	-1.5064	µg/L	-1.5064	ppb	13:29:25
1	Ba 233.527†	1490.3	1554.1	43.837	µg/L	43.837	ppb	13:29:45
1	Be 313.107†	5553.8	1615.0	0.9363	µg/L	0.9363	ppb	13:29:19
1	Cd 226.502†	-57.8	65.9	-0.1505	µg/L	-0.1505	ppb	13:29:45
1	Co 228.616†	51.4	36.2	1.2446	µg/L	1.2446	ppb	13:29:45
1	Cr 267.716†	744.1	890.0	20.509	µg/L	20.509	ppb	13:29:25
1	Cu 324.752†	6125.8	338.6	3.6888	µg/L	3.6888	ppb	13:29:25
1	Mn 257.610†	120465.3	122298.8	430.27	µg/L	430.27	ppb	13:29:19
1	Mo 202.031†	39.8	20.8	3.0994	µg/L	3.0994	ppb	13:29:45
1	Ni 231.604†	378.7	60.0	3.4893	µg/L	3.4893	ppb	13:29:45
1	P 214.914†	356.2	105.0	152.89	µg/L	152.89	ppb	13:29:45
1	Pb 220.353†	122.3	40.5	11.101	µg/L	11.101	ppb	13:29:45
1	S 181.975 Axial†	37.7	6.6	21.662	µg/L	21.662	ppb	13:29:45
1	Sb 206.836†	28.0	4.2	4.5849	µg/L	4.5849	ppb	13:29:45
1	Se 196.026†	9.7	-4.3	-3.4697	µg/L	-3.4697	ppb	13:29:45
1	SiO2†	30232.7	26990.1	4577.6	µg/L	4577.6	ppb	13:29:25
1	Si 251.611†	31825.6	31924.2	2126.1	µg/L	2126.1	ppb	13:29:25
1	Sn 189.927†	21.2	-7.8	-6.4524	µg/L	-6.4524	ppb	13:29:45
1	Ti 334.940†	119387.9	120454.0	291.80	µg/L	291.80	ppb	13:29:19
1	Tl 190.801†	-29.0	-2.2	0.0455	µg/L	0.0455	ppb	13:29:45
1	U 409.014†	-165.3	-275.1	-31.312	µg/L	-31.312	ppb	13:29:19
1	V 292.402†	487.9	816.7	10.440	µg/L	10.440	ppb	13:29:25
1	Zn 213.857†	2684.3	2106.7	50.301	µg/L	50.301	ppb	13:29:45
2	Sc RADIAL	56054.7	56054.7	93.8	%			13:28:23
2	Al 396.153Radial†	4830.3	5121.2	3682.3	µg/L	3682.3	ppb	13:28:23
2	Ca 317.933Radial†	1356.1	1233.6	1079.8	µg/L	1079.8	ppb	13:28:43
2	Fe 238.204 Radial†	1037.1	1097.5	14265	µg/L	14265	ppb	13:28:43
2	K 766.490 Radial†	1366.0	956.3	623.98	µg/L	623.98	ppb	13:28:23
2	Mg 279.077 IEC†	73.7	67.4	639.48	µg/L	639.48	ppb	13:28:43
2	Na 589.592 Radial†	813.0	724.9	283.85	µg/L	283.85	ppb	13:28:23
2	Sr 421.552†	585.6	652.9	7.0852	µg/L	7.0852	ppb	13:28:23
2	Sc 361.383	1718518.8	1718518.8	97.707	%			13:29:52
2	Y 371.029	1069090.5	1069090.5	99.134	%			13:29:52
2	Ag 328.068†	-369.2	-161.2	-0.2669	µg/L	-0.2669	ppb	13:29:57
2	As 188.979†	-4.6	-0.9	1.2836	µg/L	1.2836	ppb	13:30:18
2	B 249.677†	460.3	114.6	-0.1069	µg/L	-0.1069	ppb	13:29:57
2	Ba 233.527†	1487.6	1566.3	44.179	µg/L	44.179	ppb	13:30:18
2	Be 313.107†	5837.3	1960.4	1.1594	µg/L	1.1594	ppb	13:29:52
2	Cd 226.502†	-61.2	61.8	-0.2644	µg/L	-0.2644	ppb	13:30:18
2	Co 228.616†	63.6	49.1	1.9030	µg/L	1.9030	ppb	13:30:18
2	Cr 267.716†	828.2	983.4	22.661	µg/L	22.661	ppb	13:29:57
2	Cu 324.752†	6160.1	434.7	4.3714	µg/L	4.3714	ppb	13:29:57
2	Mn 257.610†	119510.4	122521.0	431.05	µg/L	431.05	ppb	13:29:52
2	Mo 202.031†	39.0	20.4	3.0520	µg/L	3.0520	ppb	13:30:18
2	Ni 231.604†	363.9	48.6	2.8277	µg/L	2.8277	ppb	13:30:18
2	P 214.914†	349.6	101.8	147.70	µg/L	147.70	ppb	13:30:18
2	Pb 220.353†	120.0	39.4	10.798	µg/L	10.798	ppb	13:30:18

2	S 181.975 Axial†	42.6	11.9	41.129 µg/L	41.129 ppb	13:30:18
2	Sb 206.836†	27.5	4.0	4.4213 µg/L	4.4213 ppb	13:30:18
2	Se 196.026†	3.1	-11.0	-10.487 µg/L	-10.487 ppb	13:30:18
2	SiO2†	30777.7	27848.8	4723.2 µg/L	4723.2 ppb	13:29:57
2	Si 251.611†	32468.8	32899.5	2191.2 µg/L	2191.2 ppb	13:29:57
2	Sn 189.927†	29.0	0.4	-2.1810 µg/L	-2.1810 ppb	13:30:18
2	Ti 334.940†	118433.1	120665.6	292.31 µg/L	292.31 ppb	13:29:52
2	Tl 190.801†	-32.1	-5.7	-5.6376 µg/L	-5.6376 ppb	13:30:18
2	U 409.014†	-60.6	-169.6	-20.352 µg/L	-20.352 ppb	13:29:52
2	V 292.402†	503.8	837.8	10.718 µg/L	10.718 ppb	13:29:57
2	Zn 213.857†	2680.5	2129.6	50.884 µg/L	50.884 ppb	13:30:18
3	Sc RADIAL	55843.2	55843.2	93.4 %		13:28:48
3	Al 396.153Radial†	4810.3	5119.3	3680.9 µg/L	3680.9 ppb	13:28:48
3	Ca 317.933Radial†	1351.9	1234.6	1080.6 µg/L	1080.6 ppb	13:29:09
3	Fe 238.204 Radial†	1035.1	1099.5	14291 µg/L	14291 ppb	13:29:09
3	K 766.490 Radial†	1363.9	959.5	626.07 µg/L	626.07 ppb	13:28:48
3	Mg 279.077 IEC†	72.3	66.2	628.02 µg/L	628.02 ppb	13:29:09
3	Na 589.592 Radial†	800.2	714.5	279.76 µg/L	279.76 ppb	13:28:48
3	Sr 421.552†	618.2	690.1	7.4888 µg/L	7.4888 ppb	13:28:48
3	Sc 361.383	1731143.7	1731143.7	98.425 %		13:30:24
3	Y 371.029	1076672.0	1076672.0	99.837 %		13:30:24
3	Ag 328.068†	-321.0	-109.5	0.2045 µg/L	0.2045 ppb	13:30:30
3	As 188.979†	-1.1	2.6	7.3585 µg/L	7.3585 ppb	13:30:50
3	B 249.677†	426.2	76.6	-1.5679 µg/L	-1.5679 ppb	13:30:30
3	Ba 233.527†	1419.7	1486.1	41.920 µg/L	41.920 ppb	13:30:50
3	Be 313.107†	6493.0	2583.1	1.5630 µg/L	1.5630 ppb	13:30:24
3	Cd 226.502†	-31.9	92.0	0.5812 µg/L	0.5812 ppb	13:30:50
3	Co 228.616†	68.5	53.7	2.1438 µg/L	2.1438 ppb	13:30:50
3	Cr 267.716†	724.7	872.1	20.097 µg/L	20.097 ppb	13:30:30
3	Cu 324.752†	6166.8	395.5	4.0964 µg/L	4.0964 ppb	13:30:30
3	Mn 257.610†	119512.7	121631.3	427.94 µg/L	427.94 ppb	13:30:24
3	Mo 202.031†	47.1	28.3	4.0298 µg/L	4.0298 ppb	13:30:50
3	Ni 231.604†	378.3	60.5	3.5197 µg/L	3.5197 ppb	13:30:50
3	P 214.914†	352.3	102.0	147.91 µg/L	147.91 ppb	13:30:50
3	Pb 220.353†	121.1	39.6	10.850 µg/L	10.850 ppb	13:30:50
3	S 181.975 Axial†	44.0	13.1	45.460 µg/L	45.460 ppb	13:30:50
3	Sb 206.836†	22.3	-1.5	-0.4879 µg/L	-0.4879 ppb	13:30:50
3	Se 196.026†	7.4	-6.6	-5.8751 µg/L	-5.8751 ppb	13:30:50
3	SiO2†	30139.1	26970.3	4574.2 µg/L	4574.2 ppb	13:30:30
3	Si 251.611†	31748.2	31925.0	2126.1 µg/L	2126.1 ppb	13:30:30
3	Sn 189.927†	25.3	-3.5	-4.2419 µg/L	-4.2419 ppb	13:30:50
3	Ti 334.940†	118265.8	119611.6	289.76 µg/L	289.76 ppb	13:30:24
3	Tl 190.801†	-25.1	1.7	6.3092 µg/L	6.3092 ppb	13:30:50
3	U 409.014†	-117.7	-227.2	-26.341 µg/L	-26.341 ppb	13:30:24
3	V 292.402†	504.9	835.1	10.683 µg/L	10.683 ppb	13:30:30
3	Zn 213.857†	2547.2	1974.1	46.873 µg/L	46.873 ppb	13:30:50

Mean Data: 1202007667|938259|5

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1728354.9	98.266	%	0.4992				0.51%
Sc RADIAL	56066.7	93.8	%	0.38				0.41%
Y 371.029	1075240.3	99.704	%	0.5168				0.52%
Ag 328.068†	-148.4	-0.1514	µg/L	0.31454	-0.1514	ppb	0.31454	207.69%
Al 396.153Radial†	5119.5	3681.0	µg/L	1.23	3681.0	ppb	1.23	0.03%
As 188.979†	0.4	3.5074	µg/L	3.34848	3.5074	ppb	3.34848	95.47%
B 249.677†	89.6	-1.0604	µg/L	0.82633	-1.0604	ppb	0.82633	77.93%
Ba 233.527†	1535.5	43.312	µg/L	1.2176	43.312	ppb	1.2176	2.81%
Be 313.107†	2052.8	1.2196	µg/L	0.31767	1.2196	ppb	0.31767	26.05%
Ca 317.933Radial†	1233.4	1079.6	µg/L	1.15	1079.6	ppb	1.15	0.11%
Cd 226.502†	73.3	0.0554	µg/L	0.45884	0.0554	ppb	0.45884	827.90%
Co 228.616†	46.4	1.7638	µg/L	0.46547	1.7638	ppb	0.46547	26.39%
Cr 267.716†	915.2	21.089	µg/L	1.3770	21.089	ppb	1.3770	6.53%
Cu 324.752†	389.6	4.0522	µg/L	0.34346	4.0522	ppb	0.34346	8.48%
Fe 238.204 Radial†	1097.4	14264	µg/L	27.8	14264	ppb	27.8	0.20%
K 766.490 Radial†	967.0	630.95	µg/L	10.319	630.95	ppb	10.319	1.64%
Mg 279.077 IEC†	67.0	636.23	µg/L	7.159	636.23	ppb	7.159	1.13%
Mn 257.610†	122150.4	429.75	µg/L	1.620	429.75	ppb	1.620	0.38%
Mo 202.031†	23.1	3.3937	µg/L	0.55133	3.3937	ppb	0.55133	16.25%
Na 589.592 Radial†	732.2	286.70	µg/L	8.716	286.70	ppb	8.716	3.04%

Ni 231.604†	56.3	3.2789	µg/L	0.39102	3.2789	ppb	0.39102 11.93%
P 214.914†	102.9	149.50	µg/L	2.935	149.50	ppb	2.935 1.96%
Pb 220.353†	39.8	10.916	µg/L	0.1618	10.916	ppb	0.1618 1.48%
S 181.975 Axial†	10.5	36.084	µg/L	12.6758	36.084	ppb	12.6758 35.13%
Sb 206.836†	2.2	2.8394	µg/L	2.88270	2.8394	ppb	2.88270 101.52%
Se 196.026†	-7.3	-6.6106	µg/L	3.56610	-6.6106	ppb	3.56610 53.94%
SiO2†	27269.8	4625.0	µg/L	85.07	4625.0	ppb	85.07 1.84%
Si 251.611†	32249.5	2147.8	µg/L	37.58	2147.8	ppb	37.58 1.75%
Sn 189.927†	-3.6	-4.2918	µg/L	2.13616	-4.2918	ppb	2.13616 49.77%
Sr 421.552†	669.9	7.2698	µg/L	0.20398	7.2698	ppb	0.20398 2.81%
Ti 334.940†	120243.8	291.29	µg/L	1.351	291.29	ppb	1.351 0.46%
Tl 190.801†	-2.1	0.2390	µg/L	5.97575	0.2390	ppb	5.97575 >999.9%
U 409.014†	-224.0	-26.002	µg/L	5.4881	-26.002	ppb	5.4881 21.11%
V 292.402†	829.9	10.614	µg/L	0.1518	10.614	ppb	0.1518 1.43%
Zn 213.857†	2070.2	49.353	µg/L	2.1673	49.353	ppb	2.1673 4.39%

Sequence No.: 8
Sample ID: 243550015|938259|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 308
Date Collected: 1/8/2010 13:30:59
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 243550015|938259|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56896.3	56896.3	95.2	%			13:31:32
1	Al 396.153Radial†	44874.3	47117.5	33880	µg/L	33880	ppb	13:31:32
1	Ca 317.933Radial†	7704.1	7881.9	6899.0	µg/L	6899.0	ppb	13:31:32
1	Fe 238.204 Radial†	5872.5	6161.4	80081	µg/L	80081	ppb	13:31:52
1	K 766.490 Radial†	8060.3	7968.1	5199.1	µg/L	5199.1	ppb	13:31:32
1	Mg 279.077 IEC†	459.4	471.5	4504.4	µg/L	4504.4	ppb	13:31:52
1	Na 589.592 Radial†	1587.7	1526.0	597.52	µg/L	597.52	ppb	13:31:32
1	Sr 421.552†	3781.9	4001.8	43.429	µg/L	43.429	ppb	13:31:32
1	Sc 361.383	1728015.0	1728015.0	98.247	%			13:32:55
1	Y 371.029	1132156.7	1132156.7	104.98	%			13:32:55
1	Ag 328.068†	-976.0	-776.8	-0.3985	µg/L	-0.3985	ppb	13:33:00
1	As 188.979†	2.1	5.9	24.591	µg/L	24.591	ppb	13:33:21
1	B 249.677†	587.6	241.7	-15.947	µg/L	-15.947	ppb	13:33:00
1	Ba 233.527†	4850.3	4980.6	140.52	µg/L	140.52	ppb	13:33:21
1	Be 313.107†	19270.2	15600.2	9.6729	µg/L	9.6729	ppb	13:33:00
1	Cd 226.502†	207.0	335.1	-1.8319	µg/L	-1.8319	ppb	13:33:21
1	Co 228.616†	226.9	215.1	8.6424	µg/L	8.6424	ppb	13:33:21
1	Cr 267.716†	685.2	833.2	19.292	µg/L	19.292	ppb	13:33:21
1	Cu 324.752†	8445.7	2726.5	26.564	µg/L	26.564	ppb	13:33:00
1	Mn 257.610†	898744.2	914988.3	3215.8	µg/L	3215.8	ppb	13:32:55
1	Mo 202.031†	44.5	25.7	6.2932	µg/L	6.2932	ppb	13:33:21
1	Ni 231.604†	613.6	300.7	17.500	µg/L	17.500	ppb	13:33:21
1	P 214.914†	1621.3	1394.2	2154.9	µg/L	2154.9	ppb	13:33:21
1	Pb 220.353†	296.3	218.2	60.121	µg/L	60.121	ppb	13:33:21
1	S 181.975 Axial†	82.6	52.4	178.22	µg/L	178.22	ppb	13:33:21
1	Sb 206.836†	29.1	5.4	8.1161	µg/L	8.1161	ppb	13:33:21
1	Se 196.026†	-44.4	-59.3	-54.369	µg/L	-54.369	ppb	13:33:21
1	SiO2†	67335.6	64886.1	11005	µg/L	11005	ppb	13:33:00
1	Si 251.611†	75655.0	76673.7	5090.1	µg/L	5090.1	ppb	13:33:00
1	Sn 189.927†	-1.4	-30.7	-29.035	µg/L	-29.035	ppb	13:33:21
1	Ti 334.940†	454761.3	462329.5	1119.8	µg/L	1119.8	ppb	13:32:55
1	Tl 190.801†	-43.9	-17.5	-8.5553	µg/L	-8.5553	ppb	13:33:21
1	U 409.014†	-1067.7	-1194.3	-139.47	µg/L	-139.47	ppb	13:32:55
1	V 292.402†	3562.7	3948.5	50.759	µg/L	50.759	ppb	13:33:00
1	Zn 213.857†	18335.7	18049.0	442.42	µg/L	442.42	ppb	13:33:00
2	Sc RADIAL	56927.0	56927.0	95.2	%			13:31:57
2	Al 396.153Radial†	44957.3	47179.1	33924	µg/L	33924	ppb	13:31:57
2	Ca 317.933Radial†	7700.4	7873.6	6891.8	µg/L	6891.8	ppb	13:31:57
2	Fe 238.204 Radial†	5811.9	6094.5	79210	µg/L	79210	ppb	13:32:18
2	K 766.490 Radial†	8019.2	7920.4	5168.0	µg/L	5168.0	ppb	13:31:57
2	Mg 279.077 IEC†	454.4	466.0	4451.5	µg/L	4451.5	ppb	13:32:18
2	Na 589.592 Radial†	1594.8	1532.5	600.10	µg/L	600.10	ppb	13:31:57
2	Sr 421.552†	3791.0	4009.2	43.510	µg/L	43.510	ppb	13:31:57
2	Sc 361.383	1733399.5	1733399.5	98.553	%			13:33:27
2	Y 371.029	1135926.5	1135926.5	105.33	%			13:33:27
2	Ag 328.068†	-1064.4	-863.4	-1.2557	µg/L	-1.2557	ppb	13:33:33
2	As 188.979†	1.8	5.6	23.949	µg/L	23.949	ppb	13:33:53
2	B 249.677†	578.6	230.6	-16.095	µg/L	-16.095	ppb	13:33:33
2	Ba 233.527†	4826.9	4941.5	139.42	µg/L	139.42	ppb	13:33:53
2	Be 313.107†	19289.7	15559.0	9.6477	µg/L	9.6477	ppb	13:33:33
2	Cd 226.502†	212.5	340.1	-1.5620	µg/L	-1.5620	ppb	13:33:53
2	Co 228.616†	225.6	213.0	8.5462	µg/L	8.5462	ppb	13:33:53
2	Cr 267.716†	690.7	836.6	19.370	µg/L	19.370	ppb	13:33:53
2	Cu 324.752†	8458.8	2713.0	26.390	µg/L	26.390	ppb	13:33:33
2	Mn 257.610†	898846.5	912250.5	3206.1	µg/L	3206.1	ppb	13:33:27
2	Mo 202.031†	48.1	29.3	6.6978	µg/L	6.6978	ppb	13:33:53
2	Ni 231.604†	623.0	308.3	17.945	µg/L	17.945	ppb	13:33:53
2	P 214.914†	1624.5	1392.4	2153.1	µg/L	2153.1	ppb	13:33:53
2	Pb 220.353†	302.6	223.7	61.637	µg/L	61.637	ppb	13:33:53

2	S 181.975 Axial†	77.2	46.7	157.52 µg/L	157.52 ppb	13:33:53
2	Sb 206.836†	19.0	-4.9	-1.0756 µg/L	-1.0756 ppb	13:33:53
2	Se 196.026†	-53.2	-68.1	-63.485 µg/L	-63.485 ppb	13:33:53
2	SiO2†	67659.6	65001.9	11024 µg/L	11024 ppb	13:33:33
2	Si 251.611†	75909.5	76692.7	5091.5 µg/L	5091.5 ppb	13:33:33
2	Sn 189.927†	-0.4	-29.6	-28.352 µg/L	-28.352 ppb	13:33:53
2	Ti 334.940†	454581.4	460709.1	1115.9 µg/L	1115.9 ppb	13:33:27
2	Tl 190.801†	-41.8	-15.2	-4.9573 µg/L	-4.9573 ppb	13:33:53
2	U 409.014†	-958.4	-1080.1	-127.43 µg/L	-127.43 ppb	13:33:27
2	V 292.402†	3543.9	3918.1	50.382 µg/L	50.382 ppb	13:33:33
2	Zn 213.857†	18357.9	18013.6	441.74 µg/L	441.74 ppb	13:33:33
3	Sc RADIAL	56995.4	56995.4	95.3 %		13:32:23
3	Al 396.153Radial†	45161.6	47336.7	34037 µg/L	34037 ppb	13:32:23
3	Ca 317.933Radial†	7720.5	7885.0	6901.7 µg/L	6901.7 ppb	13:32:23
3	Fe 238.204 Radial†	5815.2	6090.6	79160 µg/L	79160 ppb	13:32:44
3	K 766.490 Radial†	8162.6	8060.7	5259.5 µg/L	5259.5 ppb	13:32:23
3	Mg 279.077 IEC†	452.1	463.0	4421.9 µg/L	4421.9 ppb	13:32:44
3	Na 589.592 Radial†	1619.5	1556.4	609.46 µg/L	609.46 ppb	13:32:23
3	Sr 421.552†	3809.0	4023.4	43.663 µg/L	43.663 ppb	13:32:23
3	Sc 361.383	1717768.0	1717768.0	97.664 %		13:33:59
3	Y 371.029	1126540.6	1126540.6	104.46 %		13:33:59
3	Ag 328.068†	-998.0	-805.2	-0.7323 µg/L	-0.7323 ppb	13:34:05
3	As 188.979†	9.3	13.3	36.923 µg/L	36.923 ppb	13:34:25
3	B 249.677†	594.7	252.5	-15.244 µg/L	-15.244 ppb	13:34:05
3	Ba 233.527†	4653.8	4808.8	135.68 µg/L	135.68 ppb	13:34:25
3	Be 313.107†	19005.5	15446.2	9.5754 µg/L	9.5754 ppb	13:34:05
3	Cd 226.502†	193.4	322.4	-2.0476 µg/L	-2.0476 ppb	13:34:25
3	Co 228.616†	213.9	203.1	8.0451 µg/L	8.0451 ppb	13:34:25
3	Cr 267.716†	647.5	798.8	18.499 µg/L	18.499 ppb	13:34:25
3	Cu 324.752†	8447.7	2779.8	26.858 µg/L	26.858 ppb	13:34:05
3	Mn 257.610†	889386.7	910863.9	3201.2 µg/L	3201.2 ppb	13:33:59
3	Mo 202.031†	51.4	33.1	7.1618 µg/L	7.1618 ppb	13:34:25
3	Ni 231.604†	610.5	301.2	17.531 µg/L	17.531 ppb	13:34:25
3	P 214.914†	1582.8	1364.6	2108.5 µg/L	2108.5 ppb	13:34:25
3	Pb 220.353†	306.4	230.4	63.481 µg/L	63.481 ppb	13:34:25
3	S 181.975 Axial†	79.8	50.1	169.93 µg/L	169.93 ppb	13:34:25
3	Sb 206.836†	23.2	-0.4	2.9446 µg/L	2.9446 ppb	13:34:25
3	Se 196.026†	-46.3	-61.6	-56.570 µg/L	-56.570 ppb	13:34:25
3	SiO2†	66496.4	64435.6	10928 µg/L	10928 ppb	13:34:05
3	Si 251.611†	74636.1	76089.8	5051.2 µg/L	5051.2 ppb	13:34:05
3	Sn 189.927†	-1.2	-30.4	-28.763 µg/L	-28.763 ppb	13:34:25
3	Ti 334.940†	449823.2	460034.6	1114.3 µg/L	1114.3 ppb	13:33:59
3	Tl 190.801†	-38.6	-12.4	-0.4419 µg/L	-0.4419 ppb	13:34:25
3	U 409.014†	-886.5	-1015.3	-120.70 µg/L	-120.70 ppb	13:33:59
3	V 292.402†	3501.6	3907.6	50.265 µg/L	50.265 ppb	13:34:05
3	Zn 213.857†	18031.1	17848.5	437.51 µg/L	437.51 ppb	13:34:05

Mean Data: 243550015|938259|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1726394.1	98.155	%	0.4515				0.46%
Sc RADIAL	56939.6	95.3	%	0.08				0.09%
Y 371.029	1131541.3	104.92	%	0.438				0.42%
Ag 328.068†	-815.2	-0.7955	µg/L	0.43212	-0.7955	ppb	0.43212	54.32%
Al 396.153Radial†	47211.1	33947	µg/L	81.3	33947	ppb	81.3	0.24%
As 188.979†	8.3	28.487	µg/L	7.3123	28.487	ppb	7.3123	25.67%
B 249.677†	241.6	-15.762	µg/L	0.4544	-15.762	ppb	0.4544	2.88%
Ba 233.527†	4910.3	138.54	µg/L	2.539	138.54	ppb	2.539	1.83%
Be 313.107†	15535.1	9.6320	µg/L	0.05063	9.6320	ppb	0.05063	0.53%
Ca 317.933Radial†	7880.2	6897.5	µg/L	5.15	6897.5	ppb	5.15	0.07%
Cd 226.502†	332.6	-1.8139	µg/L	0.24329	-1.8139	ppb	0.24329	13.41%
Co 228.616†	210.4	8.4112	µg/L	0.32074	8.4112	ppb	0.32074	3.81%
Cr 267.716†	822.8	19.054	µg/L	0.4823	19.054	ppb	0.4823	2.53%
Cu 324.752†	2739.8	26.604	µg/L	0.2366	26.604	ppb	0.2366	0.89%
Fe 238.204 Radial†	6115.5	79484	µg/L	517.6	79484	ppb	517.6	0.65%
K 766.490 Radial†	7983.1	5208.9	µg/L	46.54	5208.9	ppb	46.54	0.89%
Mg 279.077 IEC†	466.8	4459.3	µg/L	41.83	4459.3	ppb	41.83	0.94%
Mn 257.610†	912700.9	3207.7	µg/L	7.42	3207.7	ppb	7.42	0.23%
Mo 202.031†	29.4	6.7176	µg/L	0.43465	6.7176	ppb	0.43465	6.47%
Na 589.592 Radial†	1538.3	602.36	µg/L	6.282	602.36	ppb	6.282	1.04%

Ni 231.604†	303.4	17.659	µg/L	0.2488	17.659	ppb	0.2488	1.41%
P 214.914†	1383.8	2138.8	µg/L	26.28	2138.8	ppb	26.28	1.23%
Pb 220.353†	224.1	61.746	µg/L	1.6829	61.746	ppb	1.6829	2.73%
S 181.975 Axial†	49.7	168.56	µg/L	10.418	168.56	ppb	10.418	6.18%
Sb 206.836†	0.0	3.3284	µg/L	4.60782	3.3284	ppb	4.60782	138.44%
Se 196.026†	-63.0	-58.141	µg/L	4.7568	-58.141	ppb	4.7568	8.18%
SiO2†	64774.5	10986	µg/L	50.7	10986	ppb	50.7	0.46%
Si 251.611†	76485.4	5077.6	µg/L	22.89	5077.6	ppb	22.89	0.45%
Sn 189.927†	-30.2	-28.717	µg/L	0.3439	-28.717	ppb	0.3439	1.20%
Sr 421.552†	4011.5	43.534	µg/L	0.1187	43.534	ppb	0.1187	0.27%
Ti 334.940†	461024.4	1116.7	µg/L	2.86	1116.7	ppb	2.86	0.26%
Tl 190.801†	-15.0	-4.6515	µg/L	4.06536	-4.6515	ppb	4.06536	87.40%
U 409.014†	-1096.6	-129.20	µg/L	9.509	-129.20	ppb	9.509	7.36%
V 292.402†	3924.7	50.468	µg/L	0.2580	50.468	ppb	0.2580	0.51%
Zn 213.857†	17970.4	440.56	µg/L	2.660	440.56	ppb	2.660	0.60%

Sequence No.: 9
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 1/8/2010 13:34:34
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56463.0	56463.0	94.5	%			13:35:13
1	Al 396.153Radial†	6972.4	7351.9	5267.0	µg/L	5267.0	ppb	13:35:13
1	Ca 317.933Radial†	5731.6	5855.6	5125.4	µg/L	5125.4	ppb	13:35:33
1	Fe 238.204 Radial†	373.2	386.6	5040.8	µg/L	5040.8	ppb	13:35:33
1	K 766.490 Radial†	7874.0	7835.9	5112.8	µg/L	5112.8	ppb	13:35:13
1	Mg 279.077 IEC†	503.2	521.5	5118.4	µg/L	5118.4	ppb	13:35:33
1	Na 589.592 Radial†	25532.7	26889.7	10529	µg/L	10529	ppb	13:35:13
1	Sr 421.552†	43266.2	45835.0	497.42	µg/L	497.42	ppb	13:35:13
1	Sc 361.383	1734616.4	1734616.4	98.622	%			13:36:36
1	Y 371.029	1062280.6	1062280.6	98.502	%			13:36:36
1	Ag 328.068†	52896.0	53851.7	492.54	µg/L	492.54	ppb	13:36:41
1	As 188.979†	290.3	298.1	507.69	µg/L	507.69	ppb	13:37:02
1	B 249.677†	13092.0	12918.5	492.08	µg/L	492.08	ppb	13:36:41
1	Ba 233.527†	17382.4	17669.0	499.19	µg/L	499.19	ppb	13:36:41
1	Be 313.107†	762212.6	768848.1	496.98	µg/L	496.98	ppb	13:36:36
1	Cd 226.502†	17353.3	17720.2	499.92	µg/L	499.92	ppb	13:36:41
1	Co 228.616†	9726.7	9846.7	502.61	µg/L	502.61	ppb	13:36:41
1	Cr 267.716†	21281.4	21714.5	501.00	µg/L	501.00	ppb	13:36:41
1	Cu 324.752†	74428.2	69598.1	492.97	µg/L	492.97	ppb	13:36:41
1	Mn 257.610†	142912.3	145114.7	509.05	µg/L	509.05	ppb	13:36:36
1	Mo 202.031†	4130.9	4169.1	510.50	µg/L	510.50	ppb	13:37:02
1	Ni 231.604†	8804.5	8603.7	500.73	µg/L	500.73	ppb	13:36:41
1	P 214.914†	1835.1	1604.7	2524.3	µg/L	2524.3	ppb	13:37:02
1	Pb 220.353†	1914.3	1857.6	511.56	µg/L	511.56	ppb	13:37:02
1	S 181.975 Axial†	308.5	281.2	1022.4	µg/L	1022.4	ppb	13:37:02
1	Sb 206.836†	571.4	555.2	493.81	µg/L	493.81	ppb	13:37:02
1	Se 196.026†	505.2	498.1	523.80	µg/L	523.80	ppb	13:37:02
1	SiO2†	34541.9	31373.3	5321.0	µg/L	5321.0	ppb	13:36:41
1	Si 251.611†	36968.7	37153.9	2438.6	µg/L	2438.6	ppb	13:36:41
1	Sn 189.927†	1002.4	987.2	514.96	µg/L	514.96	ppb	13:37:02
1	Ti 334.940†	201083.3	203345.7	492.41	µg/L	492.41	ppb	13:36:36
1	Tl 190.801†	282.0	313.1	508.12	µg/L	508.12	ppb	13:37:02
1	U 409.014†	4908.2	4869.2	504.73	µg/L	504.73	ppb	13:36:41
1	V 292.402†	39554.2	40429.0	502.48	µg/L	502.48	ppb	13:36:41
1	Zn 213.857†	19970.8	19636.0	500.50	µg/L	500.50	ppb	13:36:41
2	Sc RADIAL	56850.0	56850.0	95.1	%			13:35:38
2	Al 396.153Radial†	7014.3	7345.6	5262.7	µg/L	5262.7	ppb	13:35:38
2	Ca 317.933Radial†	5748.1	5831.7	5104.5	µg/L	5104.5	ppb	13:35:59
2	Fe 238.204 Radial†	375.2	386.0	5033.5	µg/L	5033.5	ppb	13:35:59
2	K 766.490 Radial†	7970.7	7880.8	5142.1	µg/L	5142.1	ppb	13:35:38
2	Mg 279.077 IEC†	499.4	513.9	5043.5	µg/L	5043.5	ppb	13:35:59
2	Na 589.592 Radial†	25568.2	26743.1	10472	µg/L	10472	ppb	13:35:38
2	Sr 421.552†	43434.2	45699.9	495.95	µg/L	495.95	ppb	13:35:38
2	Sc 361.383	1726946.0	1726946.0	98.186	%			13:37:08
2	Y 371.029	1055953.2	1055953.2	97.916	%			13:37:08
2	Ag 328.068†	53140.8	54339.3	497.01	µg/L	497.01	ppb	13:37:14
2	As 188.979†	291.7	300.9	512.48	µg/L	512.48	ppb	13:37:34
2	B 249.677†	13179.4	13066.4	497.74	µg/L	497.74	ppb	13:37:14
2	Ba 233.527†	17502.4	17869.5	504.85	µg/L	504.85	ppb	13:37:14
2	Be 313.107†	763797.3	773894.7	500.25	µg/L	500.25	ppb	13:37:08
2	Cd 226.502†	17532.4	17980.8	507.28	µg/L	507.28	ppb	13:37:14
2	Co 228.616†	9798.0	9963.1	508.53	µg/L	508.53	ppb	13:37:14
2	Cr 267.716†	21405.9	21937.1	506.13	µg/L	506.13	ppb	13:37:14
2	Cu 324.752†	74742.2	70253.1	497.60	µg/L	497.60	ppb	13:37:14
2	Mn 257.610†	143534.4	146392.0	513.52	µg/L	513.52	ppb	13:37:08
2	Mo 202.031†	4072.0	4127.7	505.43	µg/L	505.43	ppb	13:37:34
2	Ni 231.604†	8886.0	8726.4	507.87	µg/L	507.87	ppb	13:37:14
2	P 214.914†	1822.8	1600.5	2516.6	µg/L	2516.6	ppb	13:37:34
2	Pb 220.353†	1890.2	1841.7	507.15	µg/L	507.15	ppb	13:37:34

2	S 181.975 Axial†	301.3	275.2	1000.5 µg/L	1000.5 ppb	13:37:34
2	Sb 206.836†	568.4	554.7	493.39 µg/L	493.39 ppb	13:37:34
2	Se 196.026†	491.6	486.6	511.84 µg/L	511.84 ppb	13:37:34
2	SiO2†	34724.4	31714.7	5378.9 µg/L	5378.9 ppb	13:37:14
2	Si 251.611†	37271.0	37628.2	2470.7 µg/L	2470.7 ppb	13:37:14
2	Sn 189.927†	977.0	965.8	503.85 µg/L	503.85 ppb	13:37:34
2	Ti 334.940†	201447.7	204622.4	495.50 µg/L	495.50 ppb	13:37:08
2	Tl 190.801†	279.9	312.3	506.84 µg/L	506.84 ppb	13:37:34
2	U 409.014†	4934.6	4918.1	509.82 µg/L	509.82 ppb	13:37:14
2	V 292.402†	39841.4	40899.7	508.25 µg/L	508.25 ppb	13:37:14
2	Zn 213.857†	20094.1	19851.5	506.00 µg/L	506.00 ppb	13:37:14
3	Sc RADIAL	56872.9	56872.9	95.1 %		13:36:04
3	Al 396.153Radial†	7010.2	7338.4	5259.5 µg/L	5259.5 ppb	13:36:04
3	Ca 317.933Radial†	5753.3	5834.7	5107.1 µg/L	5107.1 ppb	13:36:25
3	Fe 238.204 Radial†	374.2	384.8	5017.3 µg/L	5017.3 ppb	13:36:25
3	K 766.490 Radial†	7944.3	7849.7	5121.9 µg/L	5121.9 ppb	13:36:04
3	Mg 279.077 IEC†	501.1	515.5	5058.0 µg/L	5058.0 ppb	13:36:25
3	Na 589.592 Radial†	25656.0	26824.6	10504 µg/L	10504 ppb	13:36:04
3	Sr 421.552†	43508.4	45759.5	496.60 µg/L	496.60 ppb	13:36:04
3	Sc 361.383	1731365.8	1731365.8	98.437 %		13:37:40
3	Y 371.029	1058063.3	1058063.3	98.111 %		13:37:40
3	Ag 328.068†	51751.0	52789.2	482.76 µg/L	482.76 ppb	13:37:46
3	As 188.979†	262.0	269.9	459.75 µg/L	459.75 ppb	13:38:06
3	B 249.677†	12799.8	12646.5	481.70 µg/L	481.70 ppb	13:37:46
3	Ba 233.527†	16820.7	17131.5	483.99 µg/L	483.99 ppb	13:37:46
3	Be 313.107†	746399.1	754234.5	487.54 µg/L	487.54 ppb	13:37:40
3	Cd 226.502†	16727.4	17117.5	482.88 µg/L	482.88 ppb	13:37:46
3	Co 228.616†	9361.4	9494.1	484.50 µg/L	484.50 ppb	13:37:46
3	Cr 267.716†	20230.5	20687.5	477.31 µg/L	477.31 ppb	13:37:46
3	Cu 324.752†	71807.9	67077.8	475.13 µg/L	475.13 ppb	13:37:46
3	Mn 257.610†	141110.9	143556.9	503.59 µg/L	503.59 ppb	13:37:40
3	Mo 202.031†	3639.4	3677.7	450.35 µg/L	450.35 ppb	13:38:06
3	Ni 231.604†	8477.6	8288.3	482.38 µg/L	482.38 ppb	13:37:46
3	P 214.914†	1662.1	1432.6	2248.3 µg/L	2248.3 ppb	13:38:06
3	Pb 220.353†	1730.0	1674.0	460.92 µg/L	460.92 ppb	13:38:06
3	S 181.975 Axial†	274.5	247.2	898.50 µg/L	898.50 ppb	13:38:06
3	Sb 206.836†	511.8	495.7	440.92 µg/L	440.92 ppb	13:38:06
3	Se 196.026†	455.8	448.9	472.62 µg/L	472.62 ppb	13:38:06
3	SiO2†	33642.8	30525.7	5177.2 µg/L	5177.2 ppb	13:37:46
3	Si 251.611†	35882.2	36120.5	2373.5 µg/L	2373.5 ppb	13:37:46
3	Sn 189.927†	863.1	847.5	442.31 µg/L	442.31 ppb	13:38:06
3	Ti 334.940†	197049.3	199630.5	483.41 µg/L	483.41 ppb	13:37:40
3	Tl 190.801†	260.0	291.3	472.96 µg/L	472.96 ppb	13:38:06
3	U 409.014†	4622.9	4588.7	475.59 µg/L	475.59 ppb	13:37:46
3	V 292.402†	37860.2	38783.4	481.74 µg/L	481.74 ppb	13:37:46
3	Zn 213.857†	19176.2	18866.8	480.84 µg/L	480.84 ppb	13:37:46

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	1730976.1	98.415	%	0.2189				0.22%
Sc RADIAL	56728.6	94.9	%	0.39				0.41%
Y 371.029	1058765.7	98.176	%	0.2987				0.30%
Ag 328.068†	53660.1	490.77	µg/L	7.287	490.77	ppb	7.287	1.48%
QC value within limits for Ag 328.068 Recovery = 98.15%								
Al 396.153Radial†	7345.3	5263.1	µg/L	3.73	5263.1	ppb	3.73	0.07%
QC value within limits for Al 396.153Radial Recovery = 105.26%								
As 188.979†	289.6	493.31	µg/L	29.160	493.31	ppb	29.160	5.91%
QC value within limits for As 188.979 Recovery = 98.66%								
B 249.677†	12877.1	490.51	µg/L	8.136	490.51	ppb	8.136	1.66%
QC value within limits for B 249.677 Recovery = 98.10%								
Ba 233.527†	17556.6	496.01	µg/L	10.787	496.01	ppb	10.787	2.17%
QC value within limits for Ba 233.527 Recovery = 99.20%								
Be 313.107†	765659.1	494.92	µg/L	6.600	494.92	ppb	6.600	1.33%
QC value within limits for Be 313.107 Recovery = 98.98%								
Ca 317.933Radial†	5840.7	5112.4	µg/L	11.40	5112.4	ppb	11.40	0.22%
QC value within limits for Ca 317.933Radial Recovery = 102.25%								
Cd 226.502†	17606.1	496.69	µg/L	12.513	496.69	ppb	12.513	2.52%
QC value within limits for Cd 226.502 Recovery = 99.34%								
Co 228.616†	9768.0	498.55	µg/L	12.521	498.55	ppb	12.521	2.51%

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   QC value within limits for Co 228.616  Recovery = 99.71%
Cr 267.716†            21446.4      494.81 µg/L        15.375      494.81 ppb         15.375   3.11%
   QC value within limits for Cr 267.716  Recovery = 98.96%
Cu 324.752†            68976.4      488.57 µg/L        11.864      488.57 ppb         11.864   2.43%
   QC value within limits for Cu 324.752  Recovery = 97.71%
Fe 238.204 Radial†       385.8      5030.5 µg/L         12.06      5030.5 ppb          12.06   0.24%
   QC value within limits for Fe 238.204 Radial  Recovery = 100.61%
K 766.490 Radial†       7855.5      5125.6 µg/L         15.00      5125.6 ppb          15.00   0.29%
   QC value within limits for K 766.490 Radial  Recovery = 102.51%
Mg 279.077 IEC†          517.0      5073.3 µg/L         39.69      5073.3 ppb          39.69   0.78%
   QC value within limits for Mg 279.077 IEC  Recovery = 101.47%
Mn 257.610†           145021.2      508.72 µg/L         4.976      508.72 ppb          4.976   0.98%
   QC value within limits for Mn 257.610  Recovery = 101.74%
Mo 202.031†            3991.5      488.76 µg/L        33.361      488.76 ppb         33.361   6.83%
   QC value within limits for Mo 202.031  Recovery = 97.75%
Na 589.592 Radial†     26819.1       10502 µg/L          28.8       10502 ppb           28.8   0.27%
   QC value within limits for Na 589.592 Radial  Recovery = 105.02%
Ni 231.604†            8539.5      496.99 µg/L        13.151      496.99 ppb         13.151   2.65%
   QC value within limits for Ni 231.604  Recovery = 99.40%
P 214.914†             1545.9      2429.7 µg/L        157.13      2429.7 ppb         157.13   6.47%
   QC value within limits for P 214.914  Recovery = 97.19%
Pb 220.353†            1791.1      493.21 µg/L        28.053      493.21 ppb         28.053   5.69%
   QC value within limits for Pb 220.353  Recovery = 98.64%
S 181.975 Axial†         267.8      973.80 µg/L        66.120      973.80 ppb         66.120   6.79%
   QC value within limits for S 181.975 Axial  Recovery = 97.38%
Sb 206.836†              535.2      476.04 µg/L        30.416      476.04 ppb         30.416   6.39%
   QC value within limits for Sb 206.836  Recovery = 95.21%
Se 196.026†              477.9      502.75 µg/L        26.771      502.75 ppb         26.771   5.32%
   QC value within limits for Se 196.026  Recovery = 100.55%
SiO2†                  31204.6      5292.3 µg/L        103.83      5292.3 ppb         103.83   1.96%
   QC value within limits for SiO2  Recovery = 98.97%
Si 251.611†            36967.5      2427.6 µg/L         49.50      2427.6 ppb          49.50   2.04%
   QC value within limits for Si 251.611  Recovery = 97.10%
Sn 189.927†              933.5      487.04 µg/L        39.132      487.04 ppb         39.132   8.03%
   QC value within limits for Sn 189.927  Recovery = 97.41%
Sr 421.552†            45764.8      496.66 µg/L         0.735      496.66 ppb          0.735   0.15%
   QC value within limits for Sr 421.552  Recovery = 99.33%
Ti 334.940†           202532.9      490.44 µg/L         6.284      490.44 ppb          6.284   1.28%
   QC value within limits for Ti 334.940  Recovery = 98.09%
Tl 190.801†              305.5      495.97 µg/L        19.944      495.97 ppb         19.944   4.02%
   QC value within limits for Tl 190.801  Recovery = 99.19%
U 409.014†              4792.0      496.71 µg/L        18.470      496.71 ppb         18.470   3.72%
   QC value within limits for U 409.014  Recovery = 99.34%
V 292.402†             40037.4      497.49 µg/L        13.939      497.49 ppb         13.939   2.80%
   QC value within limits for V 292.402  Recovery = 99.50%
Zn 213.857†            19451.5      495.78 µg/L        13.230      495.78 ppb         13.230   2.67%
   QC value within limits for Zn 213.857  Recovery = 99.16%
All analyte(s) passed QC.
```

Sequence No.: 10
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 1/8/2010 13:38:15
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	55888.9	55888.9	93.5	%			13:38:48
1	Al 396.153Radial†	21.9	-6.6	-4.7392	µg/L	-4.7392	ppb	13:38:48
1	Ca 317.933Radial†	193.9	-5.1	-4.4644	µg/L	-4.4644	ppb	13:39:08
1	Fe 238.204 Radial†	11.2	3.4	44.779	µg/L	44.779	ppb	13:39:08
1	K 766.490 Radial†	524.3	60.4	39.388	µg/L	39.388	ppb	13:38:48
1	Mg 279.077 IEC†	8.8	-1.8	-17.434	µg/L	-17.434	ppb	13:39:08
1	Na 589.592 Radial†	220.6	93.8	36.736	µg/L	36.736	ppb	13:38:48
1	Sr 421.552†	-11.3	16.2	0.1760	µg/L	0.1760	ppb	13:38:48
1	Sc 361.383	1708912.9	1708912.9	97.161	%			13:40:10
1	Y 371.029	1046722.4	1046722.4	97.060	%			13:40:10
1	Ag 328.068†	-283.0	-74.6	-0.6679	µg/L	-0.6679	ppb	13:40:15
1	As 188.979†	-2.3	1.4	2.3588	µg/L	2.3588	ppb	13:40:36
1	B 249.677†	439.6	96.0	3.6545	µg/L	3.6545	ppb	13:40:15
1	Ba 233.527†	-43.0	-0.6	-0.0143	µg/L	-0.0143	ppb	13:40:36
1	Be 313.107†	4064.3	169.1	0.1094	µg/L	0.1094	ppb	13:40:10
1	Cd 226.502†	-115.2	5.9	0.1608	µg/L	0.1608	ppb	13:40:36
1	Co 228.616†	5.3	-10.4	-0.5311	µg/L	-0.5311	ppb	13:40:36
1	Cr 267.716†	-126.5	5.6	0.1313	µg/L	0.1313	ppb	13:40:15
1	Cu 324.752†	5802.6	102.1	0.7269	µg/L	0.7269	ppb	13:40:15
1	Mn 257.610†	-119.2	83.0	0.2966	µg/L	0.2966	ppb	13:40:36
1	Mo 202.031†	24.0	5.1	0.6279	µg/L	0.6279	ppb	13:40:36
1	Ni 231.604†	319.1	4.6	0.2666	µg/L	0.2666	ppb	13:40:36
1	P 214.914†	270.4	22.4	35.755	µg/L	35.755	ppb	13:40:36
1	Pb 220.353†	87.8	6.9	1.9039	µg/L	1.9039	ppb	13:40:36
1	S 181.975 Axial†	32.4	1.7	6.0824	µg/L	6.0824	ppb	13:40:36
1	Sb 206.836†	24.0	0.5	0.4714	µg/L	0.4714	ppb	13:40:36
1	Se 196.026†	12.1	-1.7	-1.7339	µg/L	-1.7339	ppb	13:40:36
1	SiO2†	3602.2	56.3	9.5449	µg/L	9.5449	ppb	13:40:15
1	Si 251.611†	390.9	70.9	4.7926	µg/L	4.7926	ppb	13:40:36
1	Sn 189.927†	25.2	-3.3	-1.7384	µg/L	-1.7384	ppb	13:40:36
1	Ti 334.940†	476.5	-56.6	-0.1370	µg/L	-0.1370	ppb	13:40:15
1	Tl 190.801†	-27.8	-1.5	-2.3798	µg/L	-2.3798	ppb	13:40:36
1	U 409.014†	105.6	1.1	0.1051	µg/L	0.1051	ppb	13:40:15
1	V 292.402†	-248.6	66.4	0.8233	µg/L	0.8233	ppb	13:40:15
1	Zn 213.857†	617.2	21.4	0.5360	µg/L	0.5360	ppb	13:40:36
2	Sc RADIAL	55953.2	55953.2	93.6	%			13:39:14
2	Al 396.153Radial†	45.6	18.8	13.463	µg/L	13.463	ppb	13:39:14
2	Ca 317.933Radial†	203.6	5.0	4.3443	µg/L	4.3443	ppb	13:39:34
2	Fe 238.204 Radial†	11.6	3.9	50.554	µg/L	50.554	ppb	13:39:34
2	K 766.490 Radial†	520.1	55.2	35.987	µg/L	35.987	ppb	13:39:14
2	Mg 279.077 IEC†	8.9	-1.7	-16.237	µg/L	-16.237	ppb	13:39:34
2	Na 589.592 Radial†	197.0	68.3	26.764	µg/L	26.764	ppb	13:39:14
2	Sr 421.552†	-5.8	22.1	0.2401	µg/L	0.2401	ppb	13:39:14
2	Sc 361.383	1711358.1	1711358.1	97.300	%			13:40:42
2	Y 371.029	1049312.7	1049312.7	97.300	%			13:40:42
2	Ag 328.068†	-242.9	-33.1	-0.2929	µg/L	-0.2929	ppb	13:40:47
2	As 188.979†	-5.7	-2.1	-3.5365	µg/L	-3.5365	ppb	13:41:08
2	B 249.677†	399.9	54.5	2.0662	µg/L	2.0662	ppb	13:40:47
2	Ba 233.527†	-41.3	1.3	0.0384	µg/L	0.0384	ppb	13:41:08
2	Be 313.107†	4220.8	324.0	0.2094	µg/L	0.2094	ppb	13:40:42
2	Cd 226.502†	-114.4	6.9	0.1843	µg/L	0.1843	ppb	13:41:08
2	Co 228.616†	13.8	-1.7	-0.0854	µg/L	-0.0854	ppb	13:41:08
2	Cr 267.716†	-105.9	27.0	0.6216	µg/L	0.6216	ppb	13:40:47
2	Cu 324.752†	5832.3	124.1	0.8830	µg/L	0.8830	ppb	13:40:47
2	Mn 257.610†	-59.1	145.0	0.5145	µg/L	0.5145	ppb	13:41:08
2	Mo 202.031†	25.8	7.0	0.8530	µg/L	0.8530	ppb	13:41:08
2	Ni 231.604†	322.7	7.8	0.4563	µg/L	0.4563	ppb	13:41:08
2	P 214.914†	263.3	14.6	23.184	µg/L	23.184	ppb	13:41:08
2	Pb 220.353†	76.8	-4.5	-1.2282	µg/L	-1.2282	ppb	13:41:08

2	S 181.975 Axial†	33.6	2.9	10.416 µg/L	10.416 ppb	13:41:08
2	Sb 206.836†	29.5	6.2	5.5101 µg/L	5.5101 ppb	13:41:08
2	Se 196.026†	14.2	0.5	0.5514 µg/L	0.5514 ppb	13:41:08
2	SiO2†	3670.6	121.4	20.582 µg/L	20.582 ppb	13:40:47
2	Si 251.611†	395.2	74.8	5.1149 µg/L	5.1149 ppb	13:41:08
2	Sn 189.927†	21.3	-7.4	-3.8649 µg/L	-3.8649 ppb	13:41:08
2	Ti 334.940†	637.9	108.5	0.2626 µg/L	0.2626 ppb	13:40:47
2	Tl 190.801†	-30.5	-4.2	-6.7445 µg/L	-6.7445 ppb	13:41:08
2	U 409.014†	71.3	-34.3	-3.5751 µg/L	-3.5751 ppb	13:40:47
2	V 292.402†	-277.3	37.2	0.4596 µg/L	0.4596 ppb	13:40:47
2	Zn 213.857†	610.2	13.3	0.3256 µg/L	0.3256 ppb	13:41:08
3	Sc RADIAL	56063.1	56063.1	93.8 %		13:39:40
3	Al 396.153Radial†	61.7	35.8	25.729 µg/L	25.729 ppb	13:39:40
3	Ca 317.933Radial†	197.0	-2.5	-2.1865 µg/L	-2.1865 ppb	13:40:00
3	Fe 238.204 Radial†	12.6	4.9	63.786 µg/L	63.786 ppb	13:40:00
3	K 766.490 Radial†	491.3	23.4	15.281 µg/L	15.281 ppb	13:39:40
3	Mg 279.077 IEC†	11.0	0.5	5.2062 µg/L	5.2062 ppb	13:40:00
3	Na 589.592 Radial†	160.7	29.1	11.409 µg/L	11.409 ppb	13:39:40
3	Sr 421.552†	14.2	43.4	0.4713 µg/L	0.4713 ppb	13:39:40
3	Sc 361.383	1714901.7	1714901.7	97.501 %		13:41:13
3	Y 371.029	1051063.1	1051063.1	97.462 %		13:41:13
3	Ag 328.068†	-264.1	-54.2	-0.4803 µg/L	-0.4803 ppb	13:41:19
3	As 188.979†	-8.2	-4.6	-7.8629 µg/L	-7.8629 ppb	13:41:39
3	B 249.677†	399.7	53.5	2.0249 µg/L	2.0249 ppb	13:41:19
3	Ba 233.527†	-31.9	11.0	0.3133 µg/L	0.3133 ppb	13:41:39
3	Be 313.107†	4583.3	686.8	0.4439 µg/L	0.4439 ppb	13:41:13
3	Cd 226.502†	-101.3	20.5	0.5657 µg/L	0.5657 ppb	13:41:39
3	Co 228.616†	17.4	1.9	0.0966 µg/L	0.0966 ppb	13:41:39
3	Cr 267.716†	-84.2	49.5	1.1408 µg/L	1.1408 ppb	13:41:19
3	Cu 324.752†	5874.0	154.6	1.0996 µg/L	1.0996 ppb	13:41:19
3	Mn 257.610†	2.7	208.5	0.7385 µg/L	0.7385 ppb	13:41:39
3	Mo 202.031†	19.2	0.1	0.0184 µg/L	0.0184 ppb	13:41:39
3	Ni 231.604†	335.7	20.4	1.1901 µg/L	1.1901 ppb	13:41:39
3	P 214.914†	264.8	15.6	24.802 µg/L	24.802 ppb	13:41:39
3	Pb 220.353†	83.5	2.2	0.6097 µg/L	0.6097 ppb	13:41:39
3	S 181.975 Axial†	32.2	1.3	4.8588 µg/L	4.8588 ppb	13:41:39
3	Sb 206.836†	28.1	4.6	4.1357 µg/L	4.1357 ppb	13:41:39
3	Se 196.026†	17.6	3.9	4.0495 µg/L	4.0495 ppb	13:41:39
3	SiO2†	3639.2	81.4	13.799 µg/L	13.799 ppb	13:41:19
3	Si 251.611†	419.5	98.8	6.7142 µg/L	6.7142 ppb	13:41:39
3	Sn 189.927†	22.4	-6.3	-3.2757 µg/L	-3.2757 ppb	13:41:39
3	Ti 334.940†	736.2	208.0	0.5040 µg/L	0.5040 ppb	13:41:19
3	Tl 190.801†	-22.6	4.0	6.4970 µg/L	6.4970 ppb	13:41:39
3	U 409.014†	29.4	-77.4	-8.0585 µg/L	-8.0585 ppb	13:41:19
3	V 292.402†	-235.0	81.1	0.9881 µg/L	0.9881 ppb	13:41:19
3	Zn 213.857†	625.8	28.0	0.6951 µg/L	0.6951 ppb	13:41:39

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1711724.2	97.321	%	0.1712				0.18%
Sc RADIAL	55968.4	93.6	%	0.15				0.16%
Y 371.029	1049032.7	97.274	%	0.2025				0.21%
Ag 328.068†	-54.0	-0.4803	µg/L	0.18750	-0.4803	ppb	0.18750	39.03%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	16.0	11.485	µg/L	15.3304	11.485	ppb	15.3304	133.49%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-1.8	-3.0136	µg/L	5.13088	-3.0136	ppb	5.13088	170.26%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	68.0	2.5819	µg/L	0.92920	2.5819	ppb	0.92920	35.99%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	3.9	0.1125	µg/L	0.17587	0.1125	ppb	0.17587	156.38%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	393.3	0.2543	µg/L	0.17171	0.2543	ppb	0.17171	67.53%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-0.9	-0.7688	µg/L	4.57224	-0.7688	ppb	4.57224	594.69%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	11.1	0.3036	µg/L	0.22725	0.3036	ppb	0.22725	74.85%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	-3.4	-0.1733	µg/L	0.32299	-0.1733	ppb	0.32299	186.37%

```
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              27.3      0.6312 µg/L       0.50480      0.6312 ppb        0.50480  79.97%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             126.9      0.9032 µg/L       0.18718      0.9032 ppb        0.18718  20.73%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        4.1      53.040 µg/L        9.7443     53.040 ppb         9.7443  18.37%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        46.3      30.219 µg/L       13.0473     30.219 ppb        13.0473  43.18%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          -1.0     -9.4881 µg/L      12.73965    -9.4881 ppb       12.73965 134.27%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†             145.5      0.5165 µg/L       0.22095      0.5165 ppb        0.22095  42.78%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               4.1      0.4998 µg/L       0.43183      0.4998 ppb        0.43183  86.41%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       63.8      24.970 µg/L       12.7582     24.970 ppb        12.7582  51.09%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              11.0      0.6377 µg/L       0.48772      0.6377 ppb        0.48772  76.48%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               17.5      27.914 µg/L        6.8385     27.914 ppb         6.8385  24.50%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               1.5      0.4284 µg/L       1.57390      0.4284 ppb        1.57390 367.36%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          2.0      7.1191 µg/L       2.92021      7.1191 ppb        2.92021  41.02%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               3.8      3.3724 µg/L       2.60466      3.3724 ppb        2.60466  77.23%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               0.9      0.9557 µg/L       2.91283      0.9557 ppb        2.91283 304.80%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    86.3      14.642 µg/L        5.5669     14.642 ppb         5.5669  38.02%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†              81.5      5.5406 µg/L       1.02911      5.5406 ppb        1.02911  18.57%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†              -5.7     -2.9597 µg/L       1.09794     -2.9597 ppb        1.09794  37.10%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              27.3      0.2958 µg/L       0.15534      0.2958 ppb        0.15534  52.52%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              86.6      0.2099 µg/L       0.32373      0.2099 ppb        0.32373 154.23%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -0.5     -0.8758 µg/L       6.74768     -0.8758 ppb        6.74768 770.50%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              -36.9     -3.8428 µg/L       4.08842     -3.8428 ppb        4.08842 106.39%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               61.6      0.7570 µg/L       0.27042      0.7570 ppb        0.27042  35.72%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              20.9      0.5189 µg/L       0.18534      0.5189 ppb        0.18534  35.72%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Method: Hg_ReAlign
Result: 012010

Sample ID: Hg_ReAlign

Hg 253.652

Rep: 1

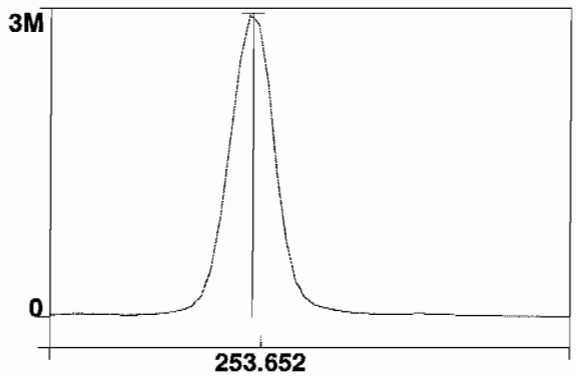

Intensity: 3340351.6 cps
Conc:

1

1/15/2010 09:07:36 Hg ReAlign... Actual peak offset (nm): -0.009
Drift (nm): -0.000 Slit adjustment: 5

Analysis Begun

Start Time: 1/15/2010 09:11:55 **Plasma On Time: 1/11/2010 06:15:31**
Logged In Analyst: Optima3 **Technique: ICP Continuous**
Spectrometer Model: Optima 5300 DV, S/N 077C7090601Autosampler Model: S10

Sample Information File: C:\pe\Optima3\Sample Information\011510.sif
Batch ID:
Results Data Set: 011510
Results Library: C:\pe\Optima3\Results\Results.mdb

Method Loaded
Method Name: General Eng.2AX **Method Last Saved: 1/14/2010 11:38:24**
IEC File: 011110.iec **MSF File:**
Method Description:

Analyte	Calibration Equation	Processing	View	Internal Standard	IEC
Ag 328.068	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Al 396.153Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
As 188.979	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
B 249.677	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ba 233.527	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Be 313.107	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ca 317.933Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	No
Cd 226.502	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Co 228.616	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cr 267.716	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cu 324.752	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Fe 238.204 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
K 766.490 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Mg 279.077 IEC	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Mn 257.610	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Mo 202.031	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Na 589.592 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	No
Ni 231.604	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
P 214.914	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Pb 220.353	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
S 181.975 Axial	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sb 206.836	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sc 361.383	Lin Thru 0	Peak Area	Axial	n/a	n/a
Sc Radial	Lin, Calc Int	Peak Area	Radial	n/a	n/a
Se 196.026	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Si 251.611	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sn 189.927	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sr 421.552	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Ti 334.940	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Tl 190.801	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
U 409.014	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
V 292.402	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y 371.029	Lin, Calc Int	Peak Area	Axial	n/a	n/a
Zn 213.857	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y RADIAL	Lin, Calc Int	Peak Area	Radial	n/a	n/a
SiO2	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes

Sequence No.: 1 **Autosampler Location: 8**
Sample ID: S0 **Date Collected: 1/15/2010 09:11:57**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: S0

	Net	Corrected	Calib.	Analysis

Rep1#	Analyte	Intensity	Intensity	Conc.	Units	Time
1	Sc Radial	4993.8	4993.8	0.000	%	09:13:50
1	Y RADIAL	5409.7	5409.7	0.000	%	09:13:50
1	Al 396.153Radial†	-11.7	-11.9	[0.00]	ug/L	09:13:50
1	Ca 317.933Radial†	21.6	22.0	[0.00]	ug/L	09:14:10
1	Fe 238.204 Radial†	9.1	9.3	[0.00]	ug/L	09:14:10
1	K 766.490 Radial†	2972.7	3029.6	[0.00]	ug/L	09:13:50
1	Mg 279.077 IEC†	-1.6	-1.6	[0.00]	ug/L	09:14:10
1	Na 589.592 Radial†	-1621.2	-1652.3	[0.00]	ug/L	09:13:50
1	Sr 421.552†	8.3	8.5	[0.00]	ug/L	09:13:50
1	Sc 361.383	845175.5	845175.5	0.0000	%	09:15:07
1	Y 371.029	717797.6	717797.6	0.0000	%	09:15:07
1	Ag 328.068†	329.1	326.3	[0.00]	ug/L	09:15:07
1	As 188.979†	-17.7	-17.5	[0.00]	ug/L	09:15:27
1	B 249.677†	-443.3	-439.5	[0.00]	ug/L	09:15:27
1	Ba 233.527†	-9.3	-9.3	[0.00]	ug/L	09:15:27
1	Be 313.107†	-4301.3	-4263.9	[0.00]	ug/L	09:15:07
1	Cd 226.502†	-206.7	-204.9	[0.00]	ug/L	09:15:27
1	Co 228.616†	-47.2	-46.8	[0.00]	ug/L	09:15:27
1	Cr 267.716†	88.7	87.9	[0.00]	ug/L	09:15:27
1	Cu 324.752†	6536.0	6479.2	[0.00]	ug/L	09:15:07
1	Mn 257.610†	444.9	441.0	[0.00]	ug/L	09:15:27
1	Mo 202.031†	17.1	16.9	[0.00]	ug/L	09:15:27
1	Ni 231.604†	88.4	87.7	[0.00]	ug/L	09:15:27
1	P 214.914†	217.5	215.6	[0.00]	ug/L	09:15:27
1	Pb 220.353†	-56.2	-55.7	[0.00]	ug/L	09:15:27
1	S 181.975 Axial†	45.6	45.2	[0.00]	ug/L	09:15:27
1	Sb 206.836†	44.5	44.1	[0.00]	ug/L	09:15:27
1	Se 196.026†	-30.1	-29.8	[0.00]	ug/L	09:15:27
1	Si 251.611†	448.6	444.7	[0.00]	ug/L	09:15:27
1	Sn 189.927†	5.7	5.7	[0.00]	ug/L	09:15:27
1	Ti 334.940†	-1255.6	-1244.7	[0.00]	ug/L	09:15:07
1	Tl 190.801†	-28.8	-28.5	[0.00]	ug/L	09:15:27
1	U 409.014†	-2057.4	-2039.6	[0.00]	ug/L	09:15:07
1	V 292.402†	-1416.3	-1404.0	[0.00]	ug/L	09:15:07
1	Zn 213.857†	669.8	664.0	[0.00]	ug/L	09:15:27
1	SiO2†	434.1	430.3	[0.00]	ug/L	09:16:23
2	Sc Radial	5149.5	5149.5	0.000	%	09:14:15
2	Y RADIAL	5541.8	5541.8	0.000	%	09:14:15
2	Al 396.153Radial†	-6.2	-6.2	[0.00]	ug/L	09:14:15
2	Ca 317.933Radial†	13.8	13.6	[0.00]	ug/L	09:14:35
2	Fe 238.204 Radial†	10.1	10.0	[0.00]	ug/L	09:14:35
2	K 766.490 Radial†	3055.9	3020.2	[0.00]	ug/L	09:14:15
2	Mg 279.077 IEC†	6.3	6.2	[0.00]	ug/L	09:14:35
2	Na 589.592 Radial†	-1517.5	-1499.8	[0.00]	ug/L	09:14:15
2	Sr 421.552†	50.5	49.9	[0.00]	ug/L	09:14:15
2	Sc 361.383	836519.4	836519.4	0.0000	%	09:15:32
2	Y 371.029	711476.1	711476.1	0.0000	%	09:15:32
2	Ag 328.068†	335.0	335.5	[0.00]	ug/L	09:15:32
2	As 188.979†	-24.2	-24.2	[0.00]	ug/L	09:15:52
2	B 249.677†	-471.2	-472.0	[0.00]	ug/L	09:15:52
2	Ba 233.527†	-7.0	-7.0	[0.00]	ug/L	09:15:52
2	Be 313.107†	-4350.3	-4357.1	[0.00]	ug/L	09:15:32
2	Cd 226.502†	-198.1	-198.4	[0.00]	ug/L	09:15:52
2	Co 228.616†	-67.2	-67.3	[0.00]	ug/L	09:15:52
2	Cr 267.716†	114.5	114.7	[0.00]	ug/L	09:15:52
2	Cu 324.752†	6444.5	6454.6	[0.00]	ug/L	09:15:32
2	Mn 257.610†	418.5	419.2	[0.00]	ug/L	09:15:52
2	Mo 202.031†	19.8	19.8	[0.00]	ug/L	09:15:52
2	Ni 231.604†	82.0	82.2	[0.00]	ug/L	09:15:52
2	P 214.914†	225.2	225.5	[0.00]	ug/L	09:15:52
2	Pb 220.353†	-53.0	-53.1	[0.00]	ug/L	09:15:52
2	S 181.975 Axial†	50.7	50.7	[0.00]	ug/L	09:15:52
2	Sb 206.836†	26.5	26.5	[0.00]	ug/L	09:15:52
2	Se 196.026†	-33.0	-33.0	[0.00]	ug/L	09:15:52
2	Si 251.611†	447.0	447.7	[0.00]	ug/L	09:15:52
2	Sn 189.927†	6.1	6.1	[0.00]	ug/L	09:15:52
2	Ti 334.940†	-1373.2	-1375.4	[0.00]	ug/L	09:15:32
2	Tl 190.801†	-32.5	-32.6	[0.00]	ug/L	09:15:52
2	U 409.014†	-1960.8	-1963.9	[0.00]	ug/L	09:15:32
2	V 292.402†	-1368.7	-1370.8	[0.00]	ug/L	09:15:32

2	Zn 213.857†	670.4	671.4	[0.00]	ug/L	09:15:52
2	SiO2†	476.4	477.2	[0.00]	ug/L	09:16:28
3	Sc Radial	5124.9	5124.9	0.000	%	09:14:40
3	Y RADIAL	5564.7	5564.7	0.000	%	09:14:40
3	Al 396.153Radial†	-14.2	-14.1	[0.00]	ug/L	09:14:40
3	Ca 317.933Radial†	16.6	16.5	[0.00]	ug/L	09:15:00
3	Fe 238.204 Radial†	10.4	10.3	[0.00]	ug/L	09:15:00
3	K 766.490 Radial†	2980.2	2959.6	[0.00]	ug/L	09:14:40
3	Mg 279.077 IEC†	2.8	2.8	[0.00]	ug/L	09:15:00
3	Na 589.592 Radial†	-1537.5	-1526.8	[0.00]	ug/L	09:14:40
3	Sr 421.552†	47.4	47.0	[0.00]	ug/L	09:14:40
3	Sc 361.383	831812.8	831812.8	0.0000	%	09:15:57
3	Y 371.029	706525.1	706525.1	0.0000	%	09:15:57
3	Ag 328.068†	231.7	233.4	[0.00]	ug/L	09:15:57
3	As 188.979†	-19.9	-20.1	[0.00]	ug/L	09:16:17
3	B 249.677†	-483.4	-486.9	[0.00]	ug/L	09:16:17
3	Ba 233.527†	-4.2	-4.2	[0.00]	ug/L	09:16:17
3	Be 313.107†	-4382.7	-4414.5	[0.00]	ug/L	09:15:57
3	Cd 226.502†	-189.9	-191.3	[0.00]	ug/L	09:16:17
3	Co 228.616†	-64.8	-65.3	[0.00]	ug/L	09:16:17
3	Cr 267.716†	61.7	62.2	[0.00]	ug/L	09:16:17
3	Cu 324.752†	6415.9	6462.4	[0.00]	ug/L	09:15:57
3	Mn 257.610†	415.0	418.0	[0.00]	ug/L	09:16:17
3	Mo 202.031†	25.2	25.4	[0.00]	ug/L	09:16:17
3	Ni 231.604†	85.5	86.1	[0.00]	ug/L	09:16:17
3	P 214.914†	215.8	217.4	[0.00]	ug/L	09:16:17
3	Pb 220.353†	-68.8	-69.3	[0.00]	ug/L	09:16:17
3	S 181.975 Axial†	42.5	42.8	[0.00]	ug/L	09:16:17
3	Sb 206.836†	38.2	38.5	[0.00]	ug/L	09:16:17
3	Se 196.026†	-22.3	-22.4	[0.00]	ug/L	09:16:17
3	Si 251.611†	459.1	462.4	[0.00]	ug/L	09:16:17
3	Sn 189.927†	4.3	4.3	[0.00]	ug/L	09:16:17
3	Ti 334.940†	-1306.3	-1315.8	[0.00]	ug/L	09:15:57
3	Tl 190.801†	-32.0	-32.3	[0.00]	ug/L	09:16:17
3	U 409.014†	-1910.9	-1924.7	[0.00]	ug/L	09:15:57
3	V 292.402†	-1368.1	-1378.1	[0.00]	ug/L	09:15:57
3	Zn 213.857†	664.8	669.6	[0.00]	ug/L	09:16:17
3	SiO2†	460.2	463.5	[0.00]	ug/L	09:16:33

Mean Data: S0

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	837835.9	6777.92	0.81%	0.0000	%
Sc Radial	5089.4	83.71	1.64%	0.000	%
Y 371.029	711932.9	5650.09	0.79%	0.0000	%
Y RADIAL	5505.4	83.68	1.52%	0.000	%
Ag 328.068†	298.4	56.47	18.92%	[0.00]	ug/L
Al 396.153Radial†	-10.7	4.09	38.12%	[0.00]	ug/L
As 188.979†	-20.6	3.39	16.47%	[0.00]	ug/L
B 249.677†	-466.1	24.26	5.20%	[0.00]	ug/L
Ba 233.527†	-6.8	2.54	37.35%	[0.00]	ug/L
Be 313.107†	-4345.2	75.98	1.75%	[0.00]	ug/L
Ca 317.933Radial†	17.4	4.28	24.60%	[0.00]	ug/L
Cd 226.502†	-198.2	6.80	3.43%	[0.00]	ug/L
Co 228.616†	-59.8	11.31	18.91%	[0.00]	ug/L
Cr 267.716†	88.3	26.26	29.74%	[0.00]	ug/L
Cu 324.752†	6465.4	12.56	0.19%	[0.00]	ug/L
Fe 238.204 Radial†	9.9	0.52	5.29%	[0.00]	ug/L
K 766.490 Radial†	3003.1	38.03	1.27%	[0.00]	ug/L
Mg 279.077 IEC†	2.5	3.95	159.86%	[0.00]	ug/L
Mn 257.610†	426.1	12.96	3.04%	[0.00]	ug/L
Mo 202.031†	20.7	4.31	20.81%	[0.00]	ug/L
Na 589.592 Radial†	-1559.6	81.35	5.22%	[0.00]	ug/L
Ni 231.604†	85.3	2.83	3.32%	[0.00]	ug/L
P 214.914†	219.5	5.27	2.40%	[0.00]	ug/L
Pb 220.353†	-59.3	8.69	14.64%	[0.00]	ug/L
S 181.975 Axial†	46.3	4.06	8.78%	[0.00]	ug/L
Sb 206.836†	36.4	8.99	24.71%	[0.00]	ug/L
Se 196.026†	-28.4	5.45	19.16%	[0.00]	ug/L
Si 251.611†	451.6	9.49	2.10%	[0.00]	ug/L

Sn 189.927†	5.4	0.94	17.49%	[0.00] ug/L
Sr 421.552†	35.1	23.16	65.90%	[0.00] ug/L
Ti 334.940†	-1311.9	65.44	4.99%	[0.00] ug/L
Tl 190.801†	-31.1	2.26	7.27%	[0.00] ug/L
U 409.014†	-1976.1	58.38	2.95%	[0.00] ug/L
V 292.402†	-1384.3	17.46	1.26%	[0.00] ug/L
Zn 213.857†	668.3	3.88	0.58%	[0.00] ug/L
SiO2†	457.0	24.12	5.28%	[0.00] ug/L

Sequence No.: 2
Sample ID: S0.1
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 2
Date Collected: 1/15/2010 09:18:43
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc Radial	5032.4	5032.4	98.9	%	09:20:41
1	Y RADIAL	5434.2	5434.2	98.71	%	09:20:41
1	K 766.490 Radial†	8175.8	5265.2	[1000]	ug/L	09:20:36
1	Sr 421.552†	14935.6	15069.4	[100]	ug/L	09:20:41
1	Sc 361.383	843678.2	843678.2	100.70	%	09:21:08
1	Y 371.029	713837.0	713837.0	100.27	%	09:21:08
1	Ag 328.068†	21195.2	20750.0	[100]	ug/L	09:21:08
1	As 188.979†	203.2	222.4	[100]	ug/L	09:21:28
1	B 249.677†	3518.5	3960.2	[100]	ug/L	09:21:08
1	Ba 233.527†	12432.3	12353.1	[100]	ug/L	09:21:08
1	Be 313.107†	253421.7	256012.0	[100]	ug/L	09:21:08
1	Cd 226.502†	8539.9	8678.9	[100]	ug/L	09:21:08
1	Co 228.616†	4532.5	4560.9	[100]	ug/L	09:21:28
1	Cr 267.716†	8688.8	8540.3	[100]	ug/L	09:21:08
1	Cu 324.752†	37991.0	31262.5	[100]	ug/L	09:21:08
1	Mn 257.610†	88656.6	87616.6	[100]	ug/L	09:21:08
1	Mo 202.031†	1380.9	1350.6	[100]	ug/L	09:21:28
1	Ni 231.604†	3848.5	3736.5	[100]	ug/L	09:21:28
1	P 214.914†	983.8	757.4	[500]	ug/L	09:21:28
1	Pb 220.353†	720.7	775.0	[100]	ug/L	09:21:28
1	S 181.975 Axial†	176.8	129.4	[200]	ug/L	09:21:28
1	Sb 206.836†	311.6	273.1	[100]	ug/L	09:21:28
1	Se 196.026†	122.7	150.2	[100]	ug/L	09:21:28
1	Si 251.611†	15323.4	14765.7	[500]	ug/L	09:21:08
1	Sn 189.927†	546.7	537.5	[100]	ug/L	09:21:28
1	Ti 334.940†	57850.8	58762.2	[100]	ug/L	09:21:08
1	Tl 190.801†	282.1	311.3	[100]	ug/L	09:21:28
1	U 409.014†	1330.2	3297.0	[100]	ug/L	09:21:08
1	V 292.402†	12544.5	13842.0	[100]	ug/L	09:21:08
1	Zn 213.857†	10898.2	10154.4	[100]	ug/L	09:21:08
1	SiO2†	15282.1	14719.3	[1069.5]	ug/L	09:22:24
2	Sc Radial	5139.9	5139.9	101	%	09:20:51
2	Y RADIAL	5585.9	5585.9	101.5	%	09:20:51
2	K 766.490 Radial†	8174.9	5091.4	[1000]	ug/L	09:20:46
2	Sr 421.552†	15354.8	15168.8	[100]	ug/L	09:20:51
2	Sc 361.383	844934.3	844934.3	100.85	%	09:21:33
2	Y 371.029	715636.5	715636.5	100.52	%	09:21:33
2	Ag 328.068†	21219.7	20743.0	[100]	ug/L	09:21:33
2	As 188.979†	208.6	227.4	[100]	ug/L	09:21:53
2	B 249.677†	3550.8	3987.1	[100]	ug/L	09:21:33
2	Ba 233.527†	12383.1	12285.8	[100]	ug/L	09:21:33
2	Be 313.107†	253932.7	256144.6	[100]	ug/L	09:21:33
2	Cd 226.502†	8477.1	8604.1	[100]	ug/L	09:21:33
2	Co 228.616†	4525.3	4547.1	[100]	ug/L	09:21:53
2	Cr 267.716†	8755.7	8593.9	[100]	ug/L	09:21:33
2	Cu 324.752†	38150.2	31364.3	[100]	ug/L	09:21:33
2	Mn 257.610†	88680.3	87509.2	[100]	ug/L	09:21:33
2	Mo 202.031†	1381.6	1349.3	[100]	ug/L	09:21:53
2	Ni 231.604†	3846.3	3728.7	[100]	ug/L	09:21:53
2	P 214.914†	984.6	756.8	[500]	ug/L	09:21:53
2	Pb 220.353†	733.7	786.9	[100]	ug/L	09:21:53
2	S 181.975 Axial†	182.8	135.0	[200]	ug/L	09:21:53
2	Sb 206.836†	300.2	261.3	[100]	ug/L	09:21:53
2	Se 196.026†	118.3	145.8	[100]	ug/L	09:21:53
2	Si 251.611†	15327.6	14747.2	[500]	ug/L	09:21:33
2	Sn 189.927†	540.4	530.5	[100]	ug/L	09:21:53
2	Ti 334.940†	57758.3	58585.0	[100]	ug/L	09:21:33
2	Tl 190.801†	284.5	313.2	[100]	ug/L	09:21:53
2	U 409.014†	1324.5	3289.4	[100]	ug/L	09:21:33

2	V 292.402†	12634.8	13913.0	[100]	ug/L	09:21:33
2	Zn 213.857†	10887.5	10127.7	[100]	ug/L	09:21:33
2	SiO2†	15174.1	14589.6	[1069.5]	ug/L	09:22:29
3	Sc Radial	5122.4	5122.4	101	%	09:21:01
3	Y RADIAL	5528.5	5528.5	100.4	%	09:21:01
3	K 766.490 Radial†	7977.9	4923.4	[1000]	ug/L	09:20:56
3	Sr 421.552†	15223.3	15090.1	[100]	ug/L	09:21:01
3	Sc 361.383	844087.6	844087.6	100.75	%	09:21:59
3	Y 371.029	714886.8	714886.8	100.41	%	09:21:59
3	Ag 328.068†	21182.3	20727.0	[100]	ug/L	09:21:59
3	As 188.979†	201.9	221.0	[100]	ug/L	09:22:19
3	B 249.677†	3500.3	3940.5	[100]	ug/L	09:21:59
3	Ba 233.527†	12362.6	12277.9	[100]	ug/L	09:21:59
3	Be 313.107†	253154.8	255625.0	[100]	ug/L	09:21:59
3	Cd 226.502†	8501.4	8636.6	[100]	ug/L	09:21:59
3	Co 228.616†	4554.5	4580.6	[100]	ug/L	09:22:19
3	Cr 267.716†	8612.7	8460.7	[100]	ug/L	09:21:59
3	Cu 324.752†	37989.6	31242.8	[100]	ug/L	09:21:59
3	Mn 257.610†	88488.3	87406.8	[100]	ug/L	09:21:59
3	Mo 202.031†	1388.4	1357.4	[100]	ug/L	09:22:19
3	Ni 231.604†	3866.9	3753.0	[100]	ug/L	09:22:19
3	P 214.914†	988.2	761.3	[500]	ug/L	09:22:19
3	Pb 220.353†	738.2	792.0	[100]	ug/L	09:22:19
3	S 181.975 Axial†	181.4	133.8	[200]	ug/L	09:22:19
3	Sb 206.836†	307.2	268.5	[100]	ug/L	09:22:19
3	Se 196.026†	127.8	155.3	[100]	ug/L	09:22:19
3	Si 251.611†	15317.6	14752.6	[500]	ug/L	09:21:59
3	Sn 189.927†	545.9	536.4	[100]	ug/L	09:22:19
3	Ti 334.940†	57908.7	58791.7	[100]	ug/L	09:21:59
3	Tl 190.801†	277.4	306.5	[100]	ug/L	09:22:19
3	U 409.014†	1269.1	3235.7	[100]	ug/L	09:21:59
3	V 292.402†	12489.0	13780.8	[100]	ug/L	09:21:59
3	Zn 213.857†	10848.2	10099.5	[100]	ug/L	09:21:59
3	SiO2†	15567.4	14995.1	[1069.5]	ug/L	09:22:34

Mean Data: S0.1

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	844233.4	640.62	0.08%	100.76	%
Sc Radial	5098.2	57.65	1.13%	100	%
Y 371.029	714786.8	903.91	0.13%	100.40	%
Y RADIAL	5516.2	76.59	1.39%	100.2	%
Ag 328.068†	20740.0	11.80	0.06%	[100]	ug/L
As 188.979†	223.6	3.38	1.51%	[100]	ug/L
B 249.677†	3962.6	23.41	0.59%	[100]	ug/L
Ba 233.527†	12305.6	41.31	0.34%	[100]	ug/L
Be 313.107†	255927.2	269.99	0.11%	[100]	ug/L
Cd 226.502†	8639.9	37.54	0.43%	[100]	ug/L
Co 228.616†	4562.8	16.83	0.37%	[100]	ug/L
Cr 267.716†	8531.6	67.04	0.79%	[100]	ug/L
Cu 324.752†	31289.9	65.18	0.21%	[100]	ug/L
K 766.490 Radial†	5093.3	170.92	3.36%	[1000]	ug/L
Mn 257.610†	87510.9	104.89	0.12%	[100]	ug/L
Mo 202.031†	1352.5	4.33	0.32%	[100]	ug/L
Ni 231.604†	3739.4	12.37	0.33%	[100]	ug/L
P 214.914†	758.5	2.44	0.32%	[500]	ug/L
Pb 220.353†	784.7	8.72	1.11%	[100]	ug/L
S 181.975 Axial†	132.7	2.98	2.25%	[200]	ug/L
Sb 206.836†	267.6	5.96	2.23%	[100]	ug/L
Se 196.026†	150.4	4.76	3.16%	[100]	ug/L
Si 251.611†	14755.2	9.49	0.06%	[500]	ug/L
Sn 189.927†	534.8	3.79	0.71%	[100]	ug/L
Sr 421.552†	15109.4	52.40	0.35%	[100]	ug/L
Ti 334.940†	58713.0	111.82	0.19%	[100]	ug/L
Tl 190.801†	310.3	3.45	1.11%	[100]	ug/L
U 409.014†	3274.1	33.43	1.02%	[100]	ug/L
V 292.402†	13845.3	66.14	0.48%	[100]	ug/L
Zn 213.857†	10127.2	27.44	0.27%	[100]	ug/L
SiO2†	14768.0	207.10	1.40%	[1069.5]	ug/L

Sequence No.: 3
Sample ID: S0.5
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 3
Date Collected: 1/15/2010 09:24:45
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc Radial	5002.2	5002.2	98.3	%	09:26:38
1	Y RADIAL	5354.6	5354.6	97.26	%	09:26:38
1	Al 396.153Radial†	6385.8	6507.8	[5000]	ug/L	09:26:38
1	Ca 317.933Radial†	3054.5	3090.3	[5000]	ug/L	09:26:58
1	K 766.490 Radial†	29472.3	26982.7	[5000]	ug/L	09:26:38
1	Mg 279.077 IEC†	157.6	157.8	[5000]	ug/L	09:26:58
1	Sr 421.552†	75649.8	76933.0	[500]	ug/L	09:26:38
1	Sc 361.383	852644.5	852644.5	101.77	%	09:27:55
1	Y 371.029	712173.5	712173.5	100.03	%	09:27:55
1	Ag 328.068†	109282.3	107085.9	[500]	ug/L	09:28:00
1	As 188.979†	1130.0	1130.9	[500]	ug/L	09:28:20
1	B 249.677†	21023.8	21124.8	[500]	ug/L	09:28:00
1	Ba 233.527†	63270.0	62177.9	[500]	ug/L	09:28:00
1	Be 313.107†	1346405.4	1327366.3	[500]	ug/L	09:27:55
1	Cd 226.502†	44503.8	43929.1	[500]	ug/L	09:28:00
1	Co 228.616†	24205.6	23845.0	[500]	ug/L	09:28:00
1	Cr 267.716†	44539.6	43677.8	[500]	ug/L	09:28:00
1	Cu 324.752†	170739.9	161309.1	[500]	ug/L	09:28:00
1	Mn 257.610†	452420.6	444136.9	[500]	ug/L	09:27:55
1	Mo 202.031†	7039.6	6896.6	[500]	ug/L	09:28:20
1	Ni 231.604†	20120.3	19685.6	[500]	ug/L	09:28:00
1	P 214.914†	4277.1	3983.3	[2500]	ug/L	09:28:20
1	Pb 220.353†	3964.6	3955.1	[500]	ug/L	09:28:20
1	S 181.975 Axial†	744.5	685.3	[1000]	ug/L	09:28:20
1	Sb 206.836†	1455.0	1393.3	[500]	ug/L	09:28:20
1	Se 196.026†	743.2	758.7	[500]	ug/L	09:28:20
1	Si 251.611†	78182.9	76373.5	[2500]	ug/L	09:28:00
1	Sn 189.927†	2796.9	2743.0	[500]	ug/L	09:28:20
1	Ti 334.940†	300918.2	297003.8	[500]	ug/L	09:28:00
1	Tl 190.801†	1577.5	1581.2	[500]	ug/L	09:28:20
1	U 409.014†	14661.1	16382.5	[500]	ug/L	09:28:00
1	V 292.402†	71381.5	71526.1	[500]	ug/L	09:28:00
1	Zn 213.857†	53381.1	51785.6	[500]	ug/L	09:28:00
1	SiO2†	77649.5	75843.9	[5347.5]	ug/L	09:29:28
2	Sc Radial	4903.9	4903.9	96.4	%	09:27:03
2	Y RADIAL	5274.9	5274.9	95.81	%	09:27:03
2	Al 396.153Radial†	6343.2	6593.8	[5000]	ug/L	09:27:03
2	Ca 317.933Radial†	3087.2	3186.5	[5000]	ug/L	09:27:23
2	K 766.490 Radial†	29242.8	27345.7	[5000]	ug/L	09:27:03
2	Mg 279.077 IEC†	157.8	161.3	[5000]	ug/L	09:27:23
2	Sr 421.552†	74830.2	77625.1	[500]	ug/L	09:27:03
2	Sc 361.383	838610.9	838610.9	100.09	%	09:28:26
2	Y 371.029	702182.6	702182.6	98.630	%	09:28:26
2	Ag 328.068†	109049.3	108650.1	[500]	ug/L	09:28:31
2	As 188.979†	1120.8	1140.4	[500]	ug/L	09:28:51
2	B 249.677†	20893.5	21340.3	[500]	ug/L	09:28:31
2	Ba 233.527†	63181.8	63130.3	[500]	ug/L	09:28:31
2	Be 313.107†	1349011.5	1352110.1	[500]	ug/L	09:28:26
2	Cd 226.502†	44436.6	44593.7	[500]	ug/L	09:28:31
2	Co 228.616†	24123.3	24160.8	[500]	ug/L	09:28:31
2	Cr 267.716†	44541.2	44411.8	[500]	ug/L	09:28:31
2	Cu 324.752†	169892.6	163270.2	[500]	ug/L	09:28:31
2	Mn 257.610†	451858.0	451014.3	[500]	ug/L	09:28:26
2	Mo 202.031†	7013.4	6986.2	[500]	ug/L	09:28:51
2	Ni 231.604†	20007.9	19904.1	[500]	ug/L	09:28:31
2	P 214.914†	4245.0	4021.6	[2500]	ug/L	09:28:51
2	Pb 220.353†	3952.7	4008.4	[500]	ug/L	09:28:51
2	S 181.975 Axial†	736.3	689.3	[1000]	ug/L	09:28:51
2	Sb 206.836†	1438.3	1400.5	[500]	ug/L	09:28:51

2	Se 196.026†	745.3	773.1	[500]	ug/L	09:28:51
2	Si 251.611†	77793.7	77270.3	[2500]	ug/L	09:28:31
2	Sn 189.927†	2790.0	2782.1	[500]	ug/L	09:28:51
2	Ti 334.940†	300082.9	301117.5	[500]	ug/L	09:28:31
2	Tl 190.801†	1577.2	1606.8	[500]	ug/L	09:28:51
2	U 409.014†	14676.4	16638.9	[500]	ug/L	09:28:31
2	V 292.402†	71243.8	72562.3	[500]	ug/L	09:28:31
2	Zn 213.857†	53262.6	52545.0	[500]	ug/L	09:28:31
2	SiO2†	77797.8	77268.9	[5347.5]	ug/L	09:29:33
3	Sc Radial	4859.5	4859.5	95.5	%	09:27:28
3	Y RADIAL	5242.8	5242.8	95.23	%	09:27:28
3	Al 396.153Radial†	6317.4	6627.1	[5000]	ug/L	09:27:28
3	Ca 317.933Radial†	3075.3	3203.4	[5000]	ug/L	09:27:48
3	K 766.490 Radial†	29196.4	27574.6	[5000]	ug/L	09:27:28
3	Mg 279.077 IEC†	155.0	159.9	[5000]	ug/L	09:27:48
3	Sr 421.552†	74329.3	77810.8	[500]	ug/L	09:27:28
3	Sc 361.383	845358.2	845358.2	100.90	%	09:28:57
3	Y 371.029	708763.2	708763.2	99.555	%	09:28:57
3	Ag 328.068†	109097.2	107828.0	[500]	ug/L	09:29:02
3	As 188.979†	1134.1	1144.7	[500]	ug/L	09:29:22
3	B 249.677†	20966.6	21246.2	[500]	ug/L	09:29:02
3	Ba 233.527†	63178.9	62623.5	[500]	ug/L	09:29:02
3	Be 313.107†	1330190.8	1322699.6	[500]	ug/L	09:28:57
3	Cd 226.502†	44386.1	44189.4	[500]	ug/L	09:29:02
3	Co 228.616†	24097.1	23942.5	[500]	ug/L	09:29:02
3	Cr 267.716†	44463.5	43979.6	[500]	ug/L	09:29:02
3	Cu 324.752†	170431.1	162449.2	[500]	ug/L	09:29:02
3	Mn 257.610†	445645.6	441254.0	[500]	ug/L	09:28:57
3	Mo 202.031†	7007.5	6924.4	[500]	ug/L	09:29:22
3	Ni 231.604†	20040.0	19776.4	[500]	ug/L	09:29:02
3	P 214.914†	4253.0	3995.6	[2500]	ug/L	09:29:22
3	Pb 220.353†	3949.4	3973.6	[500]	ug/L	09:29:22
3	S 181.975 Axial†	735.5	682.7	[1000]	ug/L	09:29:22
3	Sb 206.836†	1452.6	1403.3	[500]	ug/L	09:29:22
3	Se 196.026†	735.0	756.9	[500]	ug/L	09:29:22
3	Si 251.611†	78079.0	76932.7	[2500]	ug/L	09:29:02
3	Sn 189.927†	2813.5	2783.0	[500]	ug/L	09:29:22
3	Ti 334.940†	300451.0	299089.5	[500]	ug/L	09:29:02
3	Tl 190.801†	1571.0	1588.1	[500]	ug/L	09:29:22
3	U 409.014†	14813.5	16657.7	[500]	ug/L	09:29:02
3	V 292.402†	71270.3	72020.4	[500]	ug/L	09:29:02
3	Zn 213.857†	53289.5	52147.0	[500]	ug/L	09:29:02
3	SiO2†	76458.5	75321.2	[5347.5]	ug/L	09:29:38

Mean Data: S0.5

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	845537.8	7018.56	0.83%	100.92	%
Sc Radial	4921.9	73.04	1.48%	96.7	%
Y 371.029	707706.4	5078.58	0.72%	99.406	%
Y RADIAL	5290.8	57.56	1.09%	96.10	%
Ag 328.068†	107854.7	782.45	0.73%	[500]	ug/L
Al 396.153Radial†	6576.2	61.56	0.94%	[5000]	ug/L
As 188.979†	1138.7	7.01	0.62%	[500]	ug/L
B 249.677†	21237.1	108.04	0.51%	[500]	ug/L
Ba 233.527†	62643.9	476.49	0.76%	[500]	ug/L
Be 313.107†	1334058.7	15806.17	1.18%	[500]	ug/L
Ca 317.933Radial†	3160.1	60.99	1.93%	[5000]	ug/L
Cd 226.502†	44237.4	334.91	0.76%	[500]	ug/L
Co 228.616†	23982.8	161.73	0.67%	[500]	ug/L
Cr 267.716†	44023.1	368.93	0.84%	[500]	ug/L
Cu 324.752†	162342.8	984.89	0.61%	[500]	ug/L
K 766.490 Radial†	27301.0	298.44	1.09%	[5000]	ug/L
Mg 279.077 IEC†	159.7	1.74	1.09%	[5000]	ug/L
Mn 257.610†	445468.4	5014.51	1.13%	[500]	ug/L
Mo 202.031†	6935.7	45.86	0.66%	[500]	ug/L
Ni 231.604†	19788.7	109.76	0.55%	[500]	ug/L
P 214.914†	4000.2	19.54	0.49%	[2500]	ug/L
Pb 220.353†	3979.0	27.08	0.68%	[500]	ug/L
S 181.975 Axial†	685.8	3.34	0.49%	[1000]	ug/L

Sb 206.836†	1399.1	5.13	0.37%	[500]	ug/L
Se 196.026†	762.9	8.85	1.16%	[500]	ug/L
Si 251.611†	76858.8	452.94	0.59%	[2500]	ug/L
Sn 189.927†	2769.4	22.85	0.83%	[500]	ug/L
Sr 421.552†	77456.3	462.63	0.60%	[500]	ug/L
Ti 334.940†	299070.3	2056.91	0.69%	[500]	ug/L
Tl 190.801†	1592.1	13.26	0.83%	[500]	ug/L
U 409.014†	16559.7	153.74	0.93%	[500]	ug/L
V 292.402†	72036.3	518.26	0.72%	[500]	ug/L
Zn 213.857†	52159.2	379.86	0.73%	[500]	ug/L
SiO2†	76144.7	1008.08	1.32%	[5347.5]	ug/L

Sequence No.: 4
Sample ID: SCAL
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 4
Date Collected: 1/15/2010 09:31:48
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: SCAL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc Radial	4872.5	4872.5	95.7	%	09:34:01
1	Y RADIAL	5197.1	5197.1	94.40	%	09:34:01
1	Al 396.153Radial†	12194.5	12747.9	[10000]	ug/L	09:33:41
1	Ca 317.933Radial†	6002.0	6251.7	[10000]	ug/L	09:34:01
1	Fe 238.204 Radial†	1115.3	1155.0	[10000]	ug/L	09:34:01
1	K 766.490 Radial†	53688.2	53074.3	[10000]	ug/L	09:33:41
1	Mg 279.077 IEC†	300.6	311.5	[10000]	ug/L	09:34:01
1	Na 589.592 Radial†	30426.1	33339.7	[10000]	ug/L	09:33:41
1	Sr 421.552†	144699.1	151103.1	[1000]	ug/L	09:33:41
1	Sc 361.383	836872.9	836872.9	99.885	%	09:35:00
1	Y 371.029	698763.7	698763.7	98.150	%	09:35:00
1	Ag 328.068†	208707.6	208649.3	[1000]	ug/L	09:35:00
1	As 188.979†	2217.7	2240.8	[1000]	ug/L	09:35:20
1	B 249.677†	41481.3	41995.1	[1000]	ug/L	09:35:00
1	Ba 233.527†	122536.0	122683.8	[1000]	ug/L	09:35:00
1	Be 313.107†	2574993.8	2582302.1	[1000]	ug/L	09:35:00
1	Cd 226.502†	86241.1	86538.5	[1000]	ug/L	09:35:00
1	Co 228.616†	46623.3	46736.8	[1000]	ug/L	09:35:00
1	Cr 267.716†	85871.1	85881.6	[1000]	ug/L	09:35:00
1	Cu 324.752†	327261.6	321172.7	[1000]	ug/L	09:35:00
1	Mn 257.610†	868467.4	869040.7	[1000]	ug/L	09:35:00
1	Mo 202.031†	13626.4	13621.4	[1000]	ug/L	09:35:20
1	Ni 231.604†	38571.5	38530.6	[1000]	ug/L	09:35:00
1	P 214.914†	8116.1	7905.9	[5000]	ug/L	09:35:20
1	Pb 220.353†	7752.0	7820.3	[1000]	ug/L	09:35:20
1	S 181.975 Axial†	1384.4	1339.7	[2000]	ug/L	09:35:20
1	Sb 206.836†	2774.8	2741.6	[1000]	ug/L	09:35:20
1	Se 196.026†	1467.1	1497.3	[1000]	ug/L	09:35:20
1	Si 251.611†	151107.4	150829.7	[5000]	ug/L	09:35:00
1	Sn 189.927†	5436.4	5437.2	[1000]	ug/L	09:35:20
1	Ti 334.940†	596068.9	598066.8	[1000]	ug/L	09:35:00
1	Tl 190.801†	3081.5	3116.2	[1000]	ug/L	09:35:20
1	U 409.014†	29762.5	31772.8	[1000]	ug/L	09:35:00
1	V 292.402†	139561.3	141106.2	[1000]	ug/L	09:35:00
1	Zn 213.857†	102488.3	101937.9	[1000]	ug/L	09:35:00
1	SiO2†	151332.8	151050.0	[10695]	ug/L	09:36:21
2	Sc Radial	4874.1	4874.1	95.8	%	09:34:26
2	Y RADIAL	5221.4	5221.4	94.84	%	09:34:26
2	Al 396.153Radial†	12313.4	12867.8	[10000]	ug/L	09:34:06
2	Ca 317.933Radial†	6037.5	6286.7	[10000]	ug/L	09:34:26
2	Fe 238.204 Radial†	1122.4	1162.1	[10000]	ug/L	09:34:26
2	K 766.490 Radial†	54586.5	53993.8	[10000]	ug/L	09:34:06
2	Mg 279.077 IEC†	303.7	314.7	[10000]	ug/L	09:34:26
2	Na 589.592 Radial†	30758.9	33676.7	[10000]	ug/L	09:34:06
2	Sr 421.552†	146603.8	153042.4	[1000]	ug/L	09:34:06
2	Sc 361.383	840446.7	840446.7	100.31	%	09:35:28
2	Y 371.029	702636.8	702636.8	98.694	%	09:35:28
2	Ag 328.068†	209967.0	209016.4	[1000]	ug/L	09:35:28
2	As 188.979†	2250.6	2264.2	[1000]	ug/L	09:35:48
2	B 249.677†	41696.0	42032.6	[1000]	ug/L	09:35:28
2	Ba 233.527†	122717.2	122342.7	[1000]	ug/L	09:35:28
2	Be 313.107†	2588537.4	2584841.4	[1000]	ug/L	09:35:28
2	Cd 226.502†	86527.7	86457.1	[1000]	ug/L	09:35:28
2	Co 228.616†	46656.1	46571.0	[1000]	ug/L	09:35:28
2	Cr 267.716†	86268.4	85912.1	[1000]	ug/L	09:35:28
2	Cu 324.752†	329279.4	321791.2	[1000]	ug/L	09:35:28
2	Mn 257.610†	870276.8	867147.2	[1000]	ug/L	09:35:28
2	Mo 202.031†	13776.9	13713.4	[1000]	ug/L	09:35:48
2	Ni 231.604†	38781.0	38575.2	[1000]	ug/L	09:35:28

2	P 214.914†	8230.1	7985.0	[5000]	ug/L	09:35:48
2	Pb 220.353†	7817.9	7852.9	[1000]	ug/L	09:35:48
2	S 181.975 Axial†	1417.6	1367.0	[2000]	ug/L	09:35:48
2	Sb 206.836†	2815.9	2770.7	[1000]	ug/L	09:35:48
2	Se 196.026†	1481.1	1505.0	[1000]	ug/L	09:35:48
2	Si 251.611†	151500.3	150578.1	[5000]	ug/L	09:35:28
2	Sn 189.927†	5485.2	5462.8	[1000]	ug/L	09:35:48
2	Ti 334.940†	598457.6	597910.5	[1000]	ug/L	09:35:28
2	Tl 190.801†	3124.5	3146.0	[1000]	ug/L	09:35:48
2	U 409.014†	29676.3	31560.2	[1000]	ug/L	09:35:28
2	V 292.402†	140289.8	141238.4	[1000]	ug/L	09:35:28
2	Zn 213.857†	102791.4	101803.7	[1000]	ug/L	09:35:28
2	SiO2†	151329.4	150402.3	[10695]	ug/L	09:36:26
3	Sc Radial	4899.7	4899.7	96.3	%	09:34:51
3	Y RADIAL	5235.3	5235.3	95.09	%	09:34:51
3	Al 396.153Radial†	12337.4	12825.6	[10000]	ug/L	09:34:31
3	Ca 317.933Radial†	6058.0	6275.1	[10000]	ug/L	09:34:51
3	Fe 238.204 Radial†	1136.8	1170.9	[10000]	ug/L	09:34:51
3	K 766.490 Radial†	54444.7	53548.8	[10000]	ug/L	09:34:31
3	Mg 279.077 IEC†	302.1	311.3	[10000]	ug/L	09:34:51
3	Na 589.592 Radial†	30781.1	33532.2	[10000]	ug/L	09:34:31
3	Sr 421.552†	146452.1	152085.4	[1000]	ug/L	09:34:31
3	Sc 361.383	839209.6	839209.6	100.16	%	09:35:56
3	Y 371.029	701252.8	701252.8	98.500	%	09:35:56
3	Ag 328.068†	209398.7	208757.5	[1000]	ug/L	09:35:56
3	As 188.979†	2231.6	2248.5	[1000]	ug/L	09:36:16
3	B 249.677†	41650.4	42048.4	[1000]	ug/L	09:35:56
3	Ba 233.527†	122693.4	122499.4	[1000]	ug/L	09:35:56
3	Be 313.107†	2585318.1	2585431.3	[1000]	ug/L	09:35:56
3	Cd 226.502†	86323.1	86380.0	[1000]	ug/L	09:35:56
3	Co 228.616†	46703.7	46687.1	[1000]	ug/L	09:35:56
3	Cr 267.716†	86061.9	85832.8	[1000]	ug/L	09:35:56
3	Cu 324.752†	328470.6	321467.5	[1000]	ug/L	09:35:56
3	Mn 257.610†	870612.0	868760.8	[1000]	ug/L	09:35:56
3	Mo 202.031†	13745.7	13702.5	[1000]	ug/L	09:36:16
3	Ni 231.604†	38633.6	38485.0	[1000]	ug/L	09:35:56
3	P 214.914†	8229.7	7996.7	[5000]	ug/L	09:36:16
3	Pb 220.353†	7829.6	7876.2	[1000]	ug/L	09:36:16
3	S 181.975 Axial†	1408.7	1360.1	[2000]	ug/L	09:36:16
3	Sb 206.836†	2808.1	2767.1	[1000]	ug/L	09:36:16
3	Se 196.026†	1495.2	1521.2	[1000]	ug/L	09:36:16
3	Si 251.611†	151409.3	150709.9	[5000]	ug/L	09:35:56
3	Sn 189.927†	5490.5	5476.1	[1000]	ug/L	09:36:16
3	Ti 334.940†	598480.4	598812.7	[1000]	ug/L	09:35:56
3	Tl 190.801†	3140.4	3166.3	[1000]	ug/L	09:36:16
3	U 409.014†	29829.6	31756.8	[1000]	ug/L	09:35:56
3	V 292.402†	140132.8	141287.7	[1000]	ug/L	09:35:56
3	Zn 213.857†	102615.2	101778.9	[1000]	ug/L	09:35:56
3	SiO2†	151803.5	151098.0	[10695]	ug/L	09:36:32

Mean Data: SCAL

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	838843.1	1814.89	0.22%	100.12	%
Sc Radial	4882.1	15.26	0.31%	95.9	%
Y 371.029	700884.4	1962.64	0.28%	98.448	%
Y RADIAL	5217.9	19.35	0.37%	94.78	%
Ag 328.068†	208807.7	188.61	0.09%	[1000]	ug/L
Al 396.153Radial†	12813.8	60.82	0.47%	[10000]	ug/L
As 188.979†	2251.2	11.92	0.53%	[1000]	ug/L
B 249.677†	42025.4	27.37	0.07%	[1000]	ug/L
Ba 233.527†	122508.6	170.71	0.14%	[1000]	ug/L
Be 313.107†	2584191.6	1662.70	0.06%	[1000]	ug/L
Ca 317.933Radial†	6271.2	17.87	0.28%	[10000]	ug/L
Cd 226.502†	86458.6	79.25	0.09%	[1000]	ug/L
Co 228.616†	46665.0	85.09	0.18%	[1000]	ug/L
Cr 267.716†	85875.5	40.02	0.05%	[1000]	ug/L
Cu 324.752†	321477.1	309.31	0.10%	[1000]	ug/L
Fe 238.204 Radial†	1162.7	7.96	0.68%	[10000]	ug/L
K 766.490 Radial†	53539.0	459.86	0.86%	[10000]	ug/L

Mg 279.077 IEC†	312.5	1.89	0.60%	[10000]	ug/L
Mn 257.610†	868316.2	1022.06	0.12%	[1000]	ug/L
Mo 202.031†	13679.1	50.25	0.37%	[1000]	ug/L
Na 589.592 Radial†	33516.2	169.09	0.50%	[10000]	ug/L
Ni 231.604†	38530.3	45.07	0.12%	[1000]	ug/L
P 214.914†	7962.5	49.40	0.62%	[5000]	ug/L
Pb 220.353†	7849.8	28.07	0.36%	[1000]	ug/L
S 181.975 Axial†	1355.6	14.17	1.05%	[2000]	ug/L
Sb 206.836†	2759.8	15.87	0.57%	[1000]	ug/L
Se 196.026†	1507.8	12.21	0.81%	[1000]	ug/L
Si 251.611†	150705.9	125.88	0.08%	[5000]	ug/L
Sn 189.927†	5458.7	19.75	0.36%	[1000]	ug/L
Sr 421.552†	152077.0	969.63	0.64%	[1000]	ug/L
Ti 334.940†	598263.3	482.14	0.08%	[1000]	ug/L
Tl 190.801†	3142.8	25.22	0.80%	[1000]	ug/L
U 409.014†	31696.6	118.42	0.37%	[1000]	ug/L
V 292.402†	141210.8	93.84	0.07%	[1000]	ug/L
Zn 213.857†	101840.2	85.54	0.08%	[1000]	ug/L
SiO2†	150850.1	388.54	0.26%	[10695]	ug/L

Sequence No.: 5
Sample ID: S10
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 5
Date Collected: 1/15/2010 09:38:42
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S10

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc Radial	4914.4	4914.4	96.6	%	09:40:56
1	Y RADIAL	5253.3	5253.3	95.42	%	09:40:56
1	Al 396.153Radial†	61566.8	63769.6	[50000]	ug/L	09:40:36
1	Ca 317.933Radial†	29476.0	30508.1	[50000]	ug/L	09:40:36
1	Fe 238.204 Radial†	2145.1	2211.6	[20000]	ug/L	09:40:56
1	Mg 279.077 IEC†	1425.9	1474.2	[50000]	ug/L	09:40:56
1	Na 589.592 Radial†	62185.8	65959.5	[20000]	ug/L	09:40:36
1	Sc 361.383	828589.2	828589.2	98.896	%	09:41:53
1	Y 371.029	689041.9	689041.9	96.785	%	09:41:53
2	Sc Radial	4939.0	4939.0	97.0	%	09:41:21
2	Y RADIAL	5305.4	5305.4	96.37	%	09:41:21
2	Al 396.153Radial†	61036.9	62905.7	[50000]	ug/L	09:41:01
2	Ca 317.933Radial†	29221.0	30093.2	[50000]	ug/L	09:41:01
2	Fe 238.204 Radial†	2175.5	2231.8	[20000]	ug/L	09:41:21
2	Mg 279.077 IEC†	1446.2	1487.7	[50000]	ug/L	09:41:21
2	Na 589.592 Radial†	61456.2	64886.7	[20000]	ug/L	09:41:01
2	Sc 361.383	832593.3	832593.3	99.374	%	09:41:59
2	Y 371.029	692250.7	692250.7	97.235	%	09:41:59
3	Sc Radial	4902.1	4902.1	96.3	%	09:41:46
3	Y RADIAL	5246.4	5246.4	95.30	%	09:41:46
3	Al 396.153Radial†	61512.1	63872.7	[50000]	ug/L	09:41:26
3	Ca 317.933Radial†	29497.9	30607.4	[50000]	ug/L	09:41:26
3	Fe 238.204 Radial†	2146.2	2218.3	[20000]	ug/L	09:41:46
3	Mg 279.077 IEC†	1437.4	1489.8	[50000]	ug/L	09:41:46
3	Na 589.592 Radial†	62236.4	66173.6	[20000]	ug/L	09:41:26
3	Sc 361.383	837505.8	837505.8	99.961	%	09:42:04
3	Y 371.029	696343.1	696343.1	97.810	%	09:42:04

Mean Data: S10

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	832896.1	4466.02	0.54%	99.410	%
Sc Radial	4918.5	18.80	0.38%	96.6	%
Y 371.029	692545.3	3659.49	0.53%	97.277	%
Y RADIAL	5268.4	32.24	0.61%	95.69	%
Al 396.153Radial†	63516.0	531.05	0.84%	[50000]	ug/L
Ca 317.933Radial†	30402.9	272.79	0.90%	[50000]	ug/L
Fe 238.204 Radial†	2220.6	10.31	0.46%	[20000]	ug/L
Mg 279.077 IEC†	1483.9	8.47	0.57%	[50000]	ug/L
Na 589.592 Radial†	65673.3	689.54	1.05%	[20000]	ug/L

Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 328.068	3	Lin Thru 0	0.0	210.2	0.00000	0.999914	
Al 396.153Radial	3	Lin Thru 0	0.0	1.271	0.00000	0.999993	
As 188.979	3	Lin Thru 0	0.0	2.256	0.00000	0.999989	
B 249.677	3	Lin Thru 0	0.0	42.10	0.00000	0.999977	
Ba 233.527	3	Lin Thru 0	0.0	123.1	0.00000	0.999960	
Be 313.107	3	Lin Thru 0	0.0	2601	0.00000	0.999916	
Ca 317.933Radial	3	Lin Thru 0	0.0	0.6090	0.00000	0.999975	
Cd 226.502	3	Lin Thru 0	0.0	86.86	0.00000	0.999957	
Co 228.616	3	Lin Thru 0	0.0	46.91	0.00000	0.999936	
Cr 267.716	3	Lin Thru 0	0.0	86.30	0.00000	0.999949	
Cu 324.752	3	Lin Thru 0	0.0	322.0	0.00000	0.999989	
Fe 238.204 Radia	2	Lin Thru 0	0.0	0.1121	0.00000	0.999825	
K 766.490 Radial	3	Lin Thru 0	0.0	5.373	0.00000	0.999958	

Mg 279.077 IEC	3	Lin Thru 0	0.0	0.0298	0.00000	0.999923
Mn 257.610	3	Lin Thru 0	0.0	872.9	0.00000	0.999947
Mo 202.031	3	Lin Thru 0	0.0	13.72	0.00000	0.999984
Na 589.592 Radia	2	Lin Thru 0	0.0	3.297	0.00000	0.999966
Ni 231.604	3	Lin Thru 0	0.0	38.73	0.00000	0.999937
P 214.914	3	Lin Thru 0	0.0	1.593	0.00000	0.999989
Pb 220.353	3	Lin Thru 0	0.0	7.871	0.00000	0.999985
S 181.975 Axial	3	Lin Thru 0	0.0	0.6793	0.00000	0.999987
Sb 206.836	3	Lin Thru 0	0.0	2.767	0.00000	0.999980
Se 196.026	3	Lin Thru 0	0.0	1.511	0.00000	0.999989
Si 251.611	3	Lin Thru 0	0.0	30.26	0.00000	0.999966
Sn 189.927	3	Lin Thru 0	0.0	5.474	0.00000	0.999981
Sr 421.552	3	Lin Thru 0	0.0	152.6	0.00000	0.999972
Ti 334.940	3	Lin Thru 0	0.0	598.2	0.00000	0.999999
Tl 190.801	3	Lin Thru 0	0.0	3.151	0.00000	0.999985
U 409.014	3	Lin Thru 0	0.0	31.99	0.00000	0.999841
V 292.402	3	Lin Thru 0	0.0	141.8	0.00000	0.999965
Zn 213.857	3	Lin Thru 0	0.0	102.3	0.00000	0.999953
SiO2	3	Lin Thru 0	0.0	14.13	0.00000	0.999991

Sequence No.: 6
Sample ID: ICV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 9
Date Collected: 1/15/2010 09:44:15
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5020.3	5020.3	98.6	%			09:46:08
1	Y RADIAL	5385.8	5385.8	97.83	%			09:46:08
1	Al 396.153Radial†	6343.9	6441.9	5041.3	ug/L	5041.3	ppb	09:46:08
1	Ca 317.933Radial†	3021.8	3046.1	5001.6	ug/L	5001.6	ppb	09:46:28
1	Fe 238.204 Radial†	564.9	562.8	5037.0	ug/L	5037.0	ppb	09:46:28
1	K 766.490 Radial†	15792.3	13006.6	2417.3	ug/L	2417.3	ppb	09:46:08
1	Mg 279.077 IEC†	158.3	158.0	5308.9	ug/L	5308.9	ppb	09:46:28
1	Na 589.592 Radial†	6510.3	8159.5	2474.6	ug/L	2474.6	ppb	09:46:08
1	Sr 421.552†	77787.2	78823.1	516.39	ug/L	516.39	ppb	09:46:08
1	Sc 361.383	840153.9	840153.9	100.28	%			09:47:26
1	Y 371.029	706219.7	706219.7	99.197	%			09:47:26
1	Ag 328.068†	53926.0	53478.9	257.67	ug/L	257.67	ppb	09:47:26
1	As 188.979†	1055.5	1073.1	479.84	ug/L	479.84	ppb	09:47:46
1	B 249.677†	21205.2	21612.8	511.16	ug/L	511.16	ppb	09:47:26
1	Ba 233.527†	63057.3	62890.1	512.31	ug/L	512.31	ppb	09:47:26
1	Be 313.107†	675607.4	678088.5	261.88	ug/L	261.88	ppb	09:47:26
1	Cd 226.502†	42198.0	42279.7	486.67	ug/L	486.67	ppb	09:47:46
1	Co 228.616†	23736.2	23730.5	506.00	ug/L	506.00	ppb	09:47:46
1	Cr 267.716†	42597.6	42391.8	491.82	ug/L	491.82	ppb	09:47:26
1	Cu 324.752†	170761.7	163825.1	508.69	ug/L	508.69	ppb	09:47:26
1	Mn 257.610†	450493.6	448824.6	514.48	ug/L	514.48	ppb	09:47:26
1	Mo 202.031†	7518.7	7477.2	545.60	ug/L	545.60	ppb	09:47:46
1	Ni 231.604†	19514.3	19375.2	499.97	ug/L	499.97	ppb	09:47:46
1	P 214.914†	4234.0	4002.8	2413.3	ug/L	2413.3	ppb	09:47:46
1	Pb 220.353†	3927.5	3976.0	506.89	ug/L	506.89	ppb	09:47:46
1	S 181.975 Axial†	1743.0	1691.9	2489.8	ug/L	2489.8	ppb	09:47:46
1	Sb 206.836†	1446.7	1406.4	528.06	ug/L	528.06	ppb	09:47:46
1	Se 196.026†	3726.5	3744.7	2496.1	ug/L	2496.1	ppb	09:47:46
1	Si 251.611†	141269.2	140427.9	4634.7	ug/L	4634.7	ppb	09:47:26
1	Sn 189.927†	2975.3	2961.7	541.93	ug/L	541.93	ppb	09:47:46
1	Ti 334.940†	300081.7	300565.7	502.33	ug/L	502.33	ppb	09:47:26
1	Tl 190.801†	1632.5	1659.2	530.05	ug/L	530.05	ppb	09:47:46
1	U 409.014†	14186.5	16123.4	502.39	ug/L	502.39	ppb	09:47:26
1	V 292.402†	71070.0	72258.3	517.06	ug/L	517.06	ppb	09:47:26
1	Zn 213.857†	52595.1	51781.7	501.68	ug/L	501.68	ppb	09:47:26
1	SiO2†	142163.1	141313.8	9986.8	ug/L	9986.8	ppb	09:48:43
2	Sc Radial	4854.3	4854.3	95.4	%			09:46:33
2	Y RADIAL	5273.5	5273.5	95.79	%			09:46:33
2	Al 396.153Radial†	6225.9	6538.1	5116.9	ug/L	5116.9	ppb	09:46:33
2	Ca 317.933Radial†	3021.5	3150.5	5173.1	ug/L	5173.1	ppb	09:46:53
2	Fe 238.204 Radial†	570.4	588.1	5262.8	ug/L	5262.8	ppb	09:46:53
2	K 766.490 Radial†	15533.6	13282.6	2468.6	ug/L	2468.6	ppb	09:46:33
2	Mg 279.077 IEC†	155.7	160.8	5402.6	ug/L	5402.6	ppb	09:46:53
2	Na 589.592 Radial†	6285.2	8149.2	2471.5	ug/L	2471.5	ppb	09:46:33
2	Sr 421.552†	76129.5	79780.8	522.66	ug/L	522.66	ppb	09:46:33
2	Sc 361.383	840426.9	840426.9	100.31	%			09:47:52
2	Y 371.029	706082.1	706082.1	99.178	%			09:47:52
2	Ag 328.068†	53882.2	53417.7	257.45	ug/L	257.45	ppb	09:47:52
2	As 188.979†	1056.0	1073.4	480.00	ug/L	480.00	ppb	09:48:12
2	B 249.677†	21123.9	21524.8	509.04	ug/L	509.04	ppb	09:47:52
2	Ba 233.527†	63214.6	63026.5	513.43	ug/L	513.43	ppb	09:47:52
2	Be 313.107†	675631.0	677893.2	261.81	ug/L	261.81	ppb	09:47:52
2	Cd 226.502†	42150.1	42218.3	485.94	ug/L	485.94	ppb	09:48:12
2	Co 228.616†	23749.4	23736.0	506.11	ug/L	506.11	ppb	09:48:12
2	Cr 267.716†	42615.3	42395.6	491.87	ug/L	491.87	ppb	09:47:52
2	Cu 324.752†	170644.7	163653.2	508.17	ug/L	508.17	ppb	09:47:52
2	Mn 257.610†	451274.8	449457.5	515.22	ug/L	515.22	ppb	09:47:52
2	Mo 202.031†	7525.1	7481.1	545.90	ug/L	545.90	ppb	09:48:12
2	Ni 231.604†	19509.2	19363.7	499.67	ug/L	499.67	ppb	09:48:12

2	P 214.914†	4233.0	4000.5	2411.8 ug/L	2411.8 ppb	09:48:12
2	Pb 220.353†	3935.5	3982.7	507.74 ug/L	507.74 ppb	09:48:12
2	S 181.975 Axial†	1742.5	1690.9	2488.3 ug/L	2488.3 ppb	09:48:12
2	Sb 206.836†	1436.4	1395.6	524.20 ug/L	524.20 ppb	09:48:12
2	Se 196.026†	3740.1	3757.0	2505.0 ug/L	2505.0 ppb	09:48:12
2	Si 251.611†	141507.9	140620.1	4641.0 ug/L	4641.0 ppb	09:47:52
2	Sn 189.927†	2983.4	2968.9	543.26 ug/L	543.26 ppb	09:48:12
2	Ti 334.940†	300420.0	300805.7	502.75 ug/L	502.75 ppb	09:47:52
2	Tl 190.801†	1637.9	1664.0	531.59 ug/L	531.59 ppb	09:48:12
2	U 409.014†	14260.3	16192.4	504.52 ug/L	504.52 ppb	09:47:52
2	V 292.402†	71150.7	72315.6	517.44 ug/L	517.44 ppb	09:47:52
2	Zn 213.857†	52700.4	51869.5	502.52 ug/L	502.52 ppb	09:47:52
2	SiO2†	140968.5	140076.9	9899.2 ug/L	9899.2 ppb	09:48:48
3	Sc Radial	4941.0	4941.0	97.1 %		09:46:58
3	Y RADIAL	5300.1	5300.1	96.27 %		09:46:58
3	Al 396.153Radial†	6283.2	6482.6	5073.6 ug/L	5073.6 ppb	09:46:58
3	Ca 317.933Radial†	3031.7	3105.4	5099.0 ug/L	5099.0 ppb	09:47:18
3	Fe 238.204 Radial†	564.5	571.6	5114.9 ug/L	5114.9 ppb	09:47:18
3	K 766.490 Radial†	15863.0	13336.1	2478.6 ug/L	2478.6 ppb	09:46:58
3	Mg 279.077 IEC†	158.4	160.7	5400.1 ug/L	5400.1 ppb	09:47:18
3	Na 589.592 Radial†	6336.0	8085.9	2452.3 ug/L	2452.3 ppb	09:46:58
3	Sr 421.552†	77081.1	79360.3	519.91 ug/L	519.91 ppb	09:46:58
3	Sc 361.383	848710.3	848710.3	101.30 %		09:48:18
3	Y 371.029	712023.5	712023.5	100.01 %		09:48:18
3	Ag 328.068†	54424.3	53428.6	257.45 ug/L	257.45 ppb	09:48:18
3	As 188.979†	1057.2	1064.3	475.96 ug/L	475.96 ppb	09:48:38
3	B 249.677†	21496.7	21687.4	512.94 ug/L	512.94 ppb	09:48:18
3	Ba 233.527†	63896.7	63084.8	513.90 ug/L	513.90 ppb	09:48:18
3	Be 313.107†	682194.3	677798.6	261.77 ug/L	261.77 ppb	09:48:18
3	Cd 226.502†	42085.8	41744.8	480.50 ug/L	480.50 ppb	09:48:38
3	Co 228.616†	23664.0	23420.6	499.37 ug/L	499.37 ppb	09:48:38
3	Cr 267.716†	43038.6	42398.9	491.90 ug/L	491.90 ppb	09:48:18
3	Cu 324.752†	172399.9	163725.5	508.38 ug/L	508.38 ppb	09:48:18
3	Mn 257.610†	455842.7	449576.0	515.34 ug/L	515.34 ppb	09:48:18
3	Mo 202.031†	7505.4	7388.5	539.14 ug/L	539.14 ppb	09:48:38
3	Ni 231.604†	19470.7	19135.9	493.80 ug/L	493.80 ppb	09:48:38
3	P 214.914†	4226.8	3953.1	2382.1 ug/L	2382.1 ppb	09:48:38
3	Pb 220.353†	3897.3	3906.7	498.08 ug/L	498.08 ppb	09:48:38
3	S 181.975 Axial†	1739.4	1670.8	2458.8 ug/L	2458.8 ppb	09:48:38
3	Sb 206.836†	1425.1	1370.4	514.84 ug/L	514.84 ppb	09:48:38
3	Se 196.026†	3708.3	3689.2	2459.7 ug/L	2459.7 ppb	09:48:38
3	Si 251.611†	142936.3	140653.3	4642.2 ug/L	4642.2 ppb	09:48:18
3	Sn 189.927†	2973.7	2930.2	536.19 ug/L	536.19 ppb	09:48:38
3	Ti 334.940†	303323.6	300749.2	502.64 ug/L	502.64 ppb	09:48:18
3	Tl 190.801†	1634.2	1644.4	525.39 ug/L	525.39 ppb	09:48:38
3	U 409.014†	14515.6	16305.7	508.08 ug/L	508.08 ppb	09:48:18
3	V 292.402†	71869.3	72332.7	517.49 ug/L	517.49 ppb	09:48:18
3	Zn 213.857†	53175.5	51825.9	502.14 ug/L	502.14 ppb	09:48:18
3	SiO2†	140465.0	138208.3	9767.2 ug/L	9767.2 ppb	09:48:53

Mean Data: ICV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	843097.1	100.63	%	0.580				0.58%
Sc Radial	4938.5	97.0	%	1.63				1.68%
Y 371.029	708108.4	99.463	%	0.4763				0.48%
Y RADIAL	5319.8	96.63	%	1.066				1.10%
Ag 328.068†	53441.7	257.52	ug/L	0.126	257.52	ppb	0.126	0.05%
QC value within limits for Ag 328.068 Recovery = 103.01%								
Al 396.153Radial†	6487.5	5077.3	ug/L	37.97	5077.3	ppb	37.97	0.75%
QC value within limits for Al 396.153Radial Recovery = 101.55%								
As 188.979†	1070.3	478.60	ug/L	2.288	478.60	ppb	2.288	0.48%
QC value within limits for As 188.979 Recovery = 95.72%								
B 249.677†	21608.3	511.05	ug/L	1.955	511.05	ppb	1.955	0.38%
QC value within limits for B 249.677 Recovery = 102.21%								
Ba 233.527†	63000.5	513.21	ug/L	0.814	513.21	ppb	0.814	0.16%
QC value within limits for Ba 233.527 Recovery = 102.64%								
Be 313.107†	677926.8	261.82	ug/L	0.056	261.82	ppb	0.056	0.02%
QC value within limits for Be 313.107 Recovery = 104.73%								
Ca 317.933Radial†	3100.6	5091.2	ug/L	85.98	5091.2	ppb	85.98	1.69%

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   QC value within limits for Ca 317.933Radial  Recovery = 101.82%
Cd 226.502†            42080.9      484.37 ug/L        3.371      484.37 ppb        3.371   0.70%
   QC value within limits for Cd 226.502  Recovery = 96.87%
Co 228.616†            23629.0      503.83 ug/L        3.856      503.83 ppb        3.856   0.77%
   QC value within limits for Co 228.616  Recovery = 100.77%
Cr 267.716†            42395.4      491.87 ug/L        0.042      491.87 ppb        0.042   0.01%
   QC value within limits for Cr 267.716  Recovery = 98.37%
Cu 324.752†           163734.6      508.41 ug/L        0.263      508.41 ppb        0.263   0.05%
   QC value within limits for Cu 324.752  Recovery = 101.68%
Fe 238.204 Radial†       574.2      5138.2 ug/L       114.72      5138.2 ppb       114.72   2.23%
   QC value within limits for Fe 238.204 Radial  Recovery = 102.76%
K 766.490 Radial†      13208.4      2454.8 ug/L        32.90      2454.8 ppb        32.90   1.34%
   QC value within limits for K 766.490 Radial  Recovery = 98.19%
Mg 279.077 IEC†          159.8      5370.5 ug/L        53.40      5370.5 ppb        53.40   0.99%
   QC value within limits for Mg 279.077 IEC  Recovery = 107.41%
Mn 257.610†           449286.0      515.02 ug/L        0.468      515.02 ppb        0.468   0.09%
   QC value within limits for Mn 257.610  Recovery = 103.00%
Mo 202.031†             7449.0      543.54 ug/L        3.820      543.54 ppb        3.820   0.70%
   QC value within limits for Mo 202.031  Recovery = 108.71%
Na 589.592 Radial†      8131.5      2466.2 ug/L        12.10      2466.2 ppb        12.10   0.49%
   QC value within limits for Na 589.592 Radial  Recovery = 98.65%
Ni 231.604†            19291.6      497.81 ug/L        3.483      497.81 ppb        3.483   0.70%
   QC value within limits for Ni 231.604  Recovery = 99.56%
P 214.914†              3985.5      2402.4 ug/L        17.62      2402.4 ppb        17.62   0.73%
   QC value within limits for P 214.914  Recovery = 96.10%
Pb 220.353†             3955.2      504.24 ug/L        5.352      504.24 ppb        5.352   1.06%
   QC value within limits for Pb 220.353  Recovery = 100.85%
S 181.975 Axial†        1684.5      2479.0 ug/L        17.48      2479.0 ppb        17.48   0.71%
   QC value within limits for S 181.975 Axial  Recovery = 99.16%
Sb 206.836†             1390.8      522.36 ug/L        6.797      522.36 ppb        6.797   1.30%
   QC value within limits for Sb 206.836  Recovery = 104.47%
Se 196.026†             3730.3      2486.9 ug/L        24.01      2486.9 ppb        24.01   0.97%
   QC value within limits for Se 196.026  Recovery = 99.48%
Si 251.611†           140567.1      4639.3 ug/L         4.05      4639.3 ppb         4.05   0.09%
   QC value within limits for Si 251.611  Recovery = 92.79%
Sn 189.927†             2953.6      540.46 ug/L        3.755      540.46 ppb        3.755   0.69%
   QC value within limits for Sn 189.927  Recovery = 108.09%
Sr 421.552†            79321.4      519.65 ug/L        3.144      519.65 ppb        3.144   0.61%
   QC value within limits for Sr 421.552  Recovery = 103.93%
Ti 334.940†           300706.9      502.57 ug/L        0.216      502.57 ppb        0.216   0.04%
   QC value within limits for Ti 334.940  Recovery = 100.51%
Tl 190.801†             1655.8      529.01 ug/L        3.228      529.01 ppb        3.228   0.61%
   QC value within limits for Tl 190.801  Recovery = 105.80%
U 409.014†             16207.2      504.99 ug/L        2.876      504.99 ppb        2.876   0.57%
   QC value within limits for U 409.014  Recovery = 101.00%
V 292.402†             72302.2      517.33 ug/L        0.237      517.33 ppb        0.237   0.05%
   QC value within limits for V 292.402  Recovery = 103.47%
Zn 213.857†            51825.7      502.11 ug/L        0.421      502.11 ppb        0.421   0.08%
   QC value within limits for Zn 213.857  Recovery = 100.42%
SiO2†                 139866.3      9884.4 ug/L       110.56      9884.4 ppb       110.56   1.12%
   QC value within limits for SiO2  Recovery = 92.42%
All analyte(s) passed QC.
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Sequence No.: 7
Sample ID: ICB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 10
Date Collected: 1/15/2010 09:51:05
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5070.0	5070.0	99.6	%			09:52:58
1	Y RADIAL	5502.8	5502.8	99.95	%			09:52:58
1	Al 396.153Radial†	2.8	13.5	10.613	ug/L	10.613	ppb	09:52:58
1	Ca 317.933Radial†	10.5	-6.8	-11.168	ug/L	-11.168	ppb	09:53:18
1	Fe 238.204 Radial†	9.6	-0.2	-1.9337	ug/L	-1.9337	ppb	09:53:18
1	K 766.490 Radial†	2892.9	-99.2	-18.457	ug/L	-18.457	ppb	09:52:58
1	Mg 279.077 IEC†	2.0	-0.5	-16.284	ug/L	-16.284	ppb	09:53:18
1	Na 589.592 Radial†	-1591.1	-37.5	-11.371	ug/L	-11.371	ppb	09:52:58
1	Sr 421.552†	-20.6	-55.9	-0.3659	ug/L	-0.3659	ppb	09:52:58
1	Sc 361.383	832489.7	832489.7	99.362	%			09:54:14
1	Y 371.029	708111.9	708111.9	99.463	%			09:54:14
1	Ag 328.068†	316.0	19.6	0.0926	ug/L	0.0926	ppb	09:54:14
1	As 188.979†	-11.8	8.7	3.8757	ug/L	3.8757	ppb	09:54:34
1	B 249.677†	-275.7	188.6	4.4808	ug/L	4.4808	ppb	09:54:34
1	Ba 233.527†	14.6	21.5	0.1741	ug/L	0.1741	ppb	09:54:34
1	Be 313.107†	-4213.2	104.9	0.0401	ug/L	0.0401	ppb	09:54:14
1	Cd 226.502†	-174.7	22.4	0.2576	ug/L	0.2576	ppb	09:54:34
1	Co 228.616†	-64.2	-4.8	-0.1024	ug/L	-0.1024	ppb	09:54:34
1	Cr 267.716†	70.6	-17.2	-0.1998	ug/L	-0.1998	ppb	09:54:34
1	Cu 324.752†	6300.0	-125.0	-0.3876	ug/L	-0.3876	ppb	09:54:14
1	Mn 257.610†	420.1	-3.3	-0.0033	ug/L	-0.0033	ppb	09:54:34
1	Mo 202.031†	23.4	2.9	0.2078	ug/L	0.2078	ppb	09:54:34
1	Ni 231.604†	90.7	5.9	0.1533	ug/L	0.1533	ppb	09:54:34
1	P 214.914†	204.9	-13.3	-8.2412	ug/L	-8.2412	ppb	09:54:34
1	Pb 220.353†	-77.0	-18.1	-2.2990	ug/L	-2.2990	ppb	09:54:34
1	S 181.975 Axial†	49.1	3.1	4.6010	ug/L	4.6010	ppb	09:54:34
1	Sb 206.836†	29.8	-6.4	-2.3145	ug/L	-2.3145	ppb	09:54:34
1	Se 196.026†	-29.4	-1.2	-0.7956	ug/L	-0.7956	ppb	09:54:34
1	Si 251.611†	476.4	27.9	0.9203	ug/L	0.9203	ppb	09:54:34
1	Sn 189.927†	7.0	1.7	0.3096	ug/L	0.3096	ppb	09:54:34
1	Ti 334.940†	-1369.8	-66.7	-0.1111	ug/L	-0.1111	ppb	09:54:14
1	Tl 190.801†	-33.3	-2.4	-0.7597	ug/L	-0.7597	ppb	09:54:34
1	U 409.014†	-1998.4	-35.1	-1.0982	ug/L	-1.0982	ppb	09:54:14
1	V 292.402†	-1419.7	-44.5	-0.3127	ug/L	-0.3127	ppb	09:54:14
1	Zn 213.857†	641.1	-23.1	-0.2263	ug/L	-0.2263	ppb	09:54:34
1	SiO2†	491.6	37.8	2.6694	ug/L	2.6694	ppb	09:55:30
2	Sc Radial	5058.1	5058.1	99.4	%			09:53:23
2	Y RADIAL	5471.0	5471.0	99.38	%			09:53:23
2	Al 396.153Radial†	-13.9	-3.2	-2.5596	ug/L	-2.5596	ppb	09:53:23
2	Ca 317.933Radial†	19.3	2.0	3.3462	ug/L	3.3462	ppb	09:53:43
2	Fe 238.204 Radial†	10.0	0.2	1.3744	ug/L	1.3744	ppb	09:53:43
2	K 766.490 Radial†	2768.8	-217.2	-40.436	ug/L	-40.436	ppb	09:53:23
2	Mg 279.077 IEC†	1.6	-0.9	-28.918	ug/L	-28.918	ppb	09:53:43
2	Na 589.592 Radial†	-1542.8	7.4	2.2321	ug/L	2.2321	ppb	09:53:23
2	Sr 421.552†	7.4	-27.7	-0.1816	ug/L	-0.1816	ppb	09:53:23
2	Sc 361.383	839765.2	839765.2	100.23	%			09:54:40
2	Y 371.029	713904.5	713904.5	100.28	%			09:54:40
2	Ag 328.068†	340.4	41.2	0.1978	ug/L	0.1978	ppb	09:54:40
2	As 188.979†	-22.2	-1.6	-0.7031	ug/L	-0.7031	ppb	09:55:00
2	B 249.677†	-279.6	187.2	4.4467	ug/L	4.4467	ppb	09:55:00
2	Ba 233.527†	-6.2	0.6	0.0049	ug/L	0.0049	ppb	09:55:00
2	Be 313.107†	-4171.4	183.3	0.0706	ug/L	0.0706	ppb	09:54:40
2	Cd 226.502†	-177.4	21.3	0.2442	ug/L	0.2442	ppb	09:55:00
2	Co 228.616†	-75.4	-15.4	-0.3278	ug/L	-0.3278	ppb	09:55:00
2	Cr 267.716†	50.6	-37.8	-0.4377	ug/L	-0.4377	ppb	09:55:00
2	Cu 324.752†	6352.9	-127.1	-0.3934	ug/L	-0.3934	ppb	09:54:40
2	Mn 257.610†	440.5	13.4	0.0167	ug/L	0.0167	ppb	09:55:00
2	Mo 202.031†	21.6	0.9	0.0640	ug/L	0.0640	ppb	09:55:00
2	Ni 231.604†	90.4	4.8	0.1249	ug/L	0.1249	ppb	09:55:00

2	P 214.914†	206.0	-14.0	-8.7237 ug/L	-8.7237 ppb	09:55:00
2	Pb 220.353†	-72.7	-13.2	-1.6817 ug/L	-1.6817 ppb	09:55:00
2	S 181.975 Axial†	49.1	2.8	4.0677 ug/L	4.0677 ppb	09:55:00
2	Sb 206.836†	38.7	2.2	0.7932 ug/L	0.7932 ppb	09:55:00
2	Se 196.026†	-31.6	-3.1	-2.0447 ug/L	-2.0447 ppb	09:55:00
2	Si 251.611†	483.5	30.8	1.0186 ug/L	1.0186 ppb	09:55:00
2	Sn 189.927†	3.4	-2.0	-0.3621 ug/L	-0.3621 ppb	09:55:00
2	Ti 334.940†	-1293.0	21.9	0.0405 ug/L	0.0405 ppb	09:54:40
2	Tl 190.801†	-32.1	-0.8	-0.2659 ug/L	-0.2659 ppb	09:55:00
2	U 409.014†	-2049.9	-69.2	-2.1611 ug/L	-2.1611 ppb	09:54:40
2	V 292.402†	-1406.1	-18.5	-0.1347 ug/L	-0.1347 ppb	09:54:40
2	Zn 213.857†	649.2	-20.6	-0.2021 ug/L	-0.2021 ppb	09:55:00
2	SiO2†	491.0	32.8	2.3226 ug/L	2.3226 ppb	09:55:35
3	Sc Radial	5045.9	5045.9	99.1 %		09:53:48
3	Y RADIAL	5487.4	5487.4	99.67 %		09:53:48
3	Al 396.153Radial†	11.7	22.5	17.709 ug/L	17.709 ppb	09:53:48
3	Ca 317.933Radial†	13.9	-3.3	-5.4804 ug/L	-5.4804 ppb	09:54:08
3	Fe 238.204 Radial†	10.2	0.4	3.6010 ug/L	3.6010 ppb	09:54:08
3	K 766.490 Radial†	2875.8	-102.5	-19.081 ug/L	-19.081 ppb	09:53:48
3	Mg 279.077 IEC†	1.8	-0.7	-21.969 ug/L	-21.969 ppb	09:54:08
3	Na 589.592 Radial†	-1570.2	-24.1	-7.3069 ug/L	-7.3069 ppb	09:53:48
3	Sr 421.552†	5.9	-29.2	-0.1910 ug/L	-0.1910 ppb	09:53:48
3	Sc 361.383	834596.7	834596.7	99.613 %		09:55:05
3	Y 371.029	709753.9	709753.9	99.694 %		09:55:05
3	Ag 328.068†	262.7	-34.7	-0.1640 ug/L	-0.1640 ppb	09:55:05
3	As 188.979†	-25.5	-5.0	-2.2167 ug/L	-2.2167 ppb	09:55:25
3	B 249.677†	-312.3	152.6	3.6259 ug/L	3.6259 ppb	09:55:25
3	Ba 233.527†	18.6	25.5	0.2063 ug/L	0.2063 ppb	09:55:25
3	Be 313.107†	-4284.5	44.1	0.0170 ug/L	0.0170 ppb	09:55:05
3	Cd 226.502†	-198.6	-1.1	-0.0141 ug/L	-0.0141 ppb	09:55:25
3	Co 228.616†	-77.8	-18.3	-0.3896 ug/L	-0.3896 ppb	09:55:25
3	Cr 267.716†	94.3	6.4	0.0744 ug/L	0.0744 ppb	09:55:25
3	Cu 324.752†	6365.9	-74.8	-0.2309 ug/L	-0.2309 ppb	09:55:05
3	Mn 257.610†	442.6	18.2	0.0221 ug/L	0.0221 ppb	09:55:25
3	Mo 202.031†	26.2	5.5	0.4041 ug/L	0.4041 ppb	09:55:25
3	Ni 231.604†	70.0	-15.0	-0.3881 ug/L	-0.3881 ppb	09:55:25
3	P 214.914†	204.3	-14.5	-9.0228 ug/L	-9.0228 ppb	09:55:25
3	Pb 220.353†	-56.8	2.3	0.3012 ug/L	0.3012 ppb	09:55:25
3	S 181.975 Axial†	41.5	-4.6	-6.8439 ug/L	-6.8439 ppb	09:55:25
3	Sb 206.836†	32.0	-4.3	-1.5356 ug/L	-1.5356 ppb	09:55:25
3	Se 196.026†	-34.1	-5.8	-3.8439 ug/L	-3.8439 ppb	09:55:25
3	Si 251.611†	485.0	35.3	1.1619 ug/L	1.1619 ppb	09:55:25
3	Sn 189.927†	9.8	4.5	0.8147 ug/L	0.8147 ppb	09:55:25
3	Ti 334.940†	-1288.0	18.9	0.0336 ug/L	0.0336 ppb	09:55:05
3	Tl 190.801†	-34.4	-3.3	-1.0599 ug/L	-1.0599 ppb	09:55:25
3	U 409.014†	-2037.5	-69.3	-2.1681 ug/L	-2.1681 ppb	09:55:05
3	V 292.402†	-1453.9	-75.2	-0.5303 ug/L	-0.5303 ppb	09:55:05
3	Zn 213.857†	656.5	-9.3	-0.0887 ug/L	-0.0887 ppb	09:55:25
3	SiO2†	472.2	17.1	1.1984 ug/L	1.1984 ppb	09:55:40

Mean Data: ICB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	835617.2	99.735	%	0.4468				0.45%
Sc Radial	5058.0	99.4	%	0.24				0.24%
Y 371.029	710590.1	99.811	%	0.4194				0.42%
Y RADIAL	5487.1	99.67	%	0.288				0.29%
Ag 328.068†	8.7	0.0421	ug/L	0.18612	0.0421	ppb	0.18612	441.87%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	10.9	8.5876	ug/L	10.28516	8.5876	ppb	10.28516	119.77%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	0.7	0.3186	ug/L	3.17208	0.3186	ppb	3.17208	995.57%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	176.1	4.1845	ug/L	0.48407	4.1845	ppb	0.48407	11.57%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	15.9	0.1284	ug/L	0.10818	0.1284	ppb	0.10818	84.22%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	110.8	0.0426	ug/L	0.02687	0.0426	ppb	0.02687	63.11%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-2.7	-4.4339	ug/L	7.31329	-4.4339	ppb	7.31329	164.94%

```
   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              14.2      0.1626 ug/L       0.15315      0.1626 ppb        0.15315  94.21%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†             -12.9     -0.2733 ug/L       0.15117     -0.2733 ppb        0.15117  55.32%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†             -16.2     -0.1877 ug/L       0.25624     -0.1877 ppb        0.25624 136.50%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -109.0     -0.3373 ug/L       0.09214     -0.3373 ppb        0.09214  27.32%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        0.1      1.0139 ug/L       2.78494      1.0139 ppb        2.78494 274.67%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†      -139.7     -25.991 ug/L       12.5131     -25.991 ppb        12.5131  48.14%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          -0.7     -22.390 ug/L        6.3272     -22.390 ppb         6.3272  28.26%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               9.4      0.0118 ug/L       0.01338      0.0118 ppb        0.01338 113.42%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               3.1      0.2253 ug/L       0.17074      0.2253 ppb        0.17074  75.78%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      -18.1     -5.4819 ug/L       6.98272     -5.4819 ppb        6.98272 127.38%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              -1.4     -0.0366 ug/L       0.30476     -0.0366 ppb        0.30476 832.08%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†              -13.9     -8.6626 ug/L       0.39436     -8.6626 ppb        0.39436   4.55%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -9.7     -1.2265 ug/L       1.35852     -1.2265 ppb        1.35852 110.76%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          0.4      0.6083 ug/L       6.45928      0.6083 ppb        6.45928 >999.9%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -2.8     -1.0190 ug/L       1.61697     -1.0190 ppb        1.61697 158.69%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              -3.4     -2.2281 ug/L       1.53240     -2.2281 ppb        1.53240  68.78%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†              31.4      1.0336 ug/L       0.12151      1.0336 ppb        0.12151  11.76%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               1.4      0.2541 ug/L       0.59034      0.2541 ppb        0.59034 232.35%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             -37.6     -0.2462 ug/L       0.10380     -0.2462 ppb        0.10380  42.16%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              -8.6     -0.0123 ug/L       0.08562     -0.0123 ppb        0.08562 694.89%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -2.2     -0.6952 ug/L       0.40090     -0.6952 ppb        0.40090  57.67%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              -57.9     -1.8091 ug/L       0.61572     -1.8091 ppb        0.61572  34.03%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              -46.1     -0.3259 ug/L       0.19813     -0.3259 ppb        0.19813  60.80%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†             -17.7     -0.1724 ug/L       0.07345     -0.1724 ppb        0.07345  42.61%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                    29.2      2.0635 ug/L       0.76896      2.0635 ppb        0.76896  37.27%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 8
Sample ID: PQL
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 11
Date Collected: 1/15/2010 09:57:52
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: PQL

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	5057.0	5057.0	99.4	%			09:59:45
1	Y RADIAL	5479.5	5479.5	99.53	%			09:59:45
1	Al 396.153Radial†	257.2	269.6	211.60	ug/L	211.60	ppb	09:59:45
1	Ca 317.933Radial†	147.5	131.1	215.24	ug/L	215.24	ppb	10:00:05
1	Fe 238.204 Radial†	21.2	11.4	102.27	ug/L	102.27	ppb	10:00:05
1	K 766.490 Radial†	3617.3	637.3	118.42	ug/L	118.42	ppb	09:59:45
1	Mg 279.077 IEC†	11.4	9.0	300.92	ug/L	300.92	ppb	10:00:05
1	Na 589.592 Radial†	-614.7	941.0	285.40	ug/L	285.40	ppb	09:59:45
1	Sr 421.552†	784.7	754.6	4.9422	ug/L	4.9422	ppb	09:59:45
1	Sc 361.383	846290.2	846290.2	101.01	%			10:01:02
1	Y 371.029	719316.2	719316.2	101.04	%			10:01:02
1	Ag 328.068†	1334.4	1022.7	4.8675	ug/L	4.8675	ppb	10:01:02
1	As 188.979†	41.9	62.1	27.578	ug/L	27.578	ppb	10:01:22
1	B 249.677†	1692.3	2141.5	50.841	ug/L	50.841	ppb	10:01:02
1	Ba 233.527†	641.2	641.6	5.2278	ug/L	5.2278	ppb	10:01:22
1	Be 313.107†	8942.0	13197.9	5.0864	ug/L	5.0864	ppb	10:01:02
1	Cd 226.502†	246.6	442.3	5.0970	ug/L	5.0970	ppb	10:01:22
1	Co 228.616†	169.5	227.6	4.8621	ug/L	4.8621	ppb	10:01:22
1	Cr 267.716†	513.1	419.7	4.8485	ug/L	4.8485	ppb	10:01:22
1	Cu 324.752†	9723.3	3160.8	9.7869	ug/L	9.7869	ppb	10:01:02
1	Mn 257.610†	9704.2	9181.1	10.516	ug/L	10.516	ppb	10:01:02
1	Mo 202.031†	158.4	136.1	9.9361	ug/L	9.9361	ppb	10:01:22
1	Ni 231.604†	292.1	203.9	5.2614	ug/L	5.2614	ppb	10:01:22
1	P 214.914†	445.9	222.0	137.42	ug/L	137.42	ppb	10:01:22
1	Pb 220.353†	14.5	73.7	9.4176	ug/L	9.4176	ppb	10:01:22
1	S 181.975 Axial†	116.5	69.1	101.72	ug/L	101.72	ppb	10:01:22
1	Sb 206.836†	70.6	33.6	12.493	ug/L	12.493	ppb	10:01:22
1	Se 196.026†	17.5	45.8	30.679	ug/L	30.679	ppb	10:01:22
1	Si 251.611†	3455.4	2969.3	98.018	ug/L	98.018	ppb	10:01:22
1	Sn 189.927†	63.1	57.1	10.470	ug/L	10.470	ppb	10:01:22
1	Ti 334.940†	1761.3	3055.6	5.0846	ug/L	5.0846	ppb	10:01:02
1	Tl 190.801†	31.7	62.5	19.909	ug/L	19.909	ppb	10:01:22
1	U 409.014†	-58.6	1918.1	59.941	ug/L	59.941	ppb	10:01:02
1	V 292.402†	-677.8	713.3	5.2705	ug/L	5.2705	ppb	10:01:02
1	Zn 213.857†	1723.6	1038.1	10.088	ug/L	10.088	ppb	10:01:22
1	SiO2†	3593.0	3100.1	219.14	ug/L	219.14	ppb	10:02:18
2	Sc Radial	5036.4	5036.4	99.0	%			10:00:10
2	Y RADIAL	5455.0	5455.0	99.08	%			10:00:10
2	Al 396.153Radial†	248.5	261.9	205.50	ug/L	205.50	ppb	10:00:10
2	Ca 317.933Radial†	141.9	126.0	206.97	ug/L	206.97	ppb	10:00:30
2	Fe 238.204 Radial†	24.5	14.9	133.32	ug/L	133.32	ppb	10:00:30
2	K 766.490 Radial†	3585.7	620.2	115.24	ug/L	115.24	ppb	10:00:10
2	Mg 279.077 IEC†	8.5	6.2	207.23	ug/L	207.23	ppb	10:00:30
2	Na 589.592 Radial†	-603.7	949.6	288.01	ug/L	288.01	ppb	10:00:10
2	Sr 421.552†	786.2	759.4	4.9735	ug/L	4.9735	ppb	10:00:10
2	Sc 361.383	847052.9	847052.9	101.10	%			10:01:27
2	Y 371.029	720859.8	720859.8	101.25	%			10:01:27
2	Ag 328.068†	1359.4	1046.3	4.9942	ug/L	4.9942	ppb	10:01:27
2	As 188.979†	44.2	64.3	28.566	ug/L	28.566	ppb	10:01:47
2	B 249.677†	1719.0	2166.4	51.428	ug/L	51.428	ppb	10:01:27
2	Ba 233.527†	663.5	663.1	5.4043	ug/L	5.4043	ppb	10:01:47
2	Be 313.107†	9078.4	13324.8	5.1355	ug/L	5.1355	ppb	10:01:27
2	Cd 226.502†	261.2	456.6	5.2570	ug/L	5.2570	ppb	10:01:47
2	Co 228.616†	168.4	226.4	4.8379	ug/L	4.8379	ppb	10:01:47
2	Cr 267.716†	535.5	441.4	5.1022	ug/L	5.1022	ppb	10:01:47
2	Cu 324.752†	9720.1	3149.0	9.7536	ug/L	9.7536	ppb	10:01:27
2	Mn 257.610†	9792.5	9259.8	10.613	ug/L	10.613	ppb	10:01:27
2	Mo 202.031†	164.6	142.1	10.375	ug/L	10.375	ppb	10:01:47
2	Ni 231.604†	279.4	191.1	4.9305	ug/L	4.9305	ppb	10:01:47

2	P 214.914†	460.3	235.8	146.10 ug/L	146.10 ppb	10:01:47
2	Pb 220.353†	6.3	65.6	8.3858 ug/L	8.3858 ppb	10:01:47
2	S 181.975 Axial†	115.8	68.3	100.45 ug/L	100.45 ppb	10:01:47
2	Sb 206.836†	62.8	25.7	9.6531 ug/L	9.6531 ppb	10:01:47
2	Se 196.026†	13.6	41.9	28.211 ug/L	28.211 ppb	10:01:47
2	Si 251.611†	3457.7	2968.5	97.988 ug/L	97.988 ppb	10:01:47
2	Sn 189.927†	60.8	54.7	10.031 ug/L	10.031 ppb	10:01:47
2	Ti 334.940†	1823.0	3115.1	5.1919 ug/L	5.1919 ppb	10:01:27
2	Tl 190.801†	35.7	66.4	21.140 ug/L	21.140 ppb	10:01:47
2	U 409.014†	-162.1	1815.8	56.739 ug/L	56.739 ppb	10:01:27
2	V 292.402†	-621.2	769.8	5.6630 ug/L	5.6630 ppb	10:01:27
2	Zn 213.857†	1729.7	1042.5	10.131 ug/L	10.131 ppb	10:01:47
2	SiO2†	3616.3	3120.0	220.54 ug/L	220.54 ppb	10:02:23
3	Sc Radial	5093.3	5093.3	100 %		10:00:35
3	Y RADIAL	5536.9	5536.9	100.6 %		10:00:35
3	Al 396.153Radial†	231.6	242.2	190.01 ug/L	190.01 ppb	10:00:35
3	Ca 317.933Radial†	144.4	126.9	208.36 ug/L	208.36 ppb	10:00:55
3	Fe 238.204 Radial†	20.2	10.3	92.046 ug/L	92.046 ppb	10:00:55
3	K 766.490 Radial†	3707.0	701.0	130.28 ug/L	130.28 ppb	10:00:35
3	Mg 279.077 IEC†	10.0	7.5	252.25 ug/L	252.25 ppb	10:00:55
3	Na 589.592 Radial†	-596.7	963.4	292.19 ug/L	292.19 ppb	10:00:35
3	Sr 421.552†	754.0	718.3	4.7043 ug/L	4.7043 ppb	10:00:35
3	Sc 361.383	847203.2	847203.2	101.12 %		10:01:52
3	Y 371.029	719825.8	719825.8	101.11 %		10:01:52
3	Ag 328.068†	1422.8	1108.7	5.2773 ug/L	5.2773 ppb	10:01:52
3	As 188.979†	47.0	67.1	29.761 ug/L	29.761 ppb	10:02:12
3	B 249.677†	1659.6	2107.4	50.035 ug/L	50.035 ppb	10:01:52
3	Ba 233.527†	648.4	648.0	5.2784 ug/L	5.2784 ppb	10:02:12
3	Be 313.107†	9043.0	13288.2	5.1211 ug/L	5.1211 ppb	10:01:52
3	Cd 226.502†	272.5	467.7	5.3886 ug/L	5.3886 ppb	10:02:12
3	Co 228.616†	153.8	211.9	4.5294 ug/L	4.5294 ppb	10:02:12
3	Cr 267.716†	502.0	408.2	4.7171 ug/L	4.7171 ppb	10:02:12
3	Cu 324.752†	9693.8	3121.2	9.6672 ug/L	9.6672 ppb	10:01:52
3	Mn 257.610†	9791.2	9256.8	10.604 ug/L	10.604 ppb	10:01:52
3	Mo 202.031†	160.6	138.1	10.079 ug/L	10.079 ppb	10:02:12
3	Ni 231.604†	283.8	195.3	5.0413 ug/L	5.0413 ppb	10:02:12
3	P 214.914†	463.8	239.2	148.24 ug/L	148.24 ppb	10:02:12
3	Pb 220.353†	37.1	96.0	12.252 ug/L	12.252 ppb	10:02:12
3	S 181.975 Axial†	112.0	64.5	94.974 ug/L	94.974 ppb	10:02:12
3	Sb 206.836†	63.2	26.1	9.8095 ug/L	9.8095 ppb	10:02:12
3	Se 196.026†	25.5	53.6	35.812 ug/L	35.812 ppb	10:02:12
3	Si 251.611†	3438.8	2949.2	97.353 ug/L	97.353 ppb	10:02:12
3	Sn 189.927†	64.3	58.2	10.671 ug/L	10.671 ppb	10:02:12
3	Ti 334.940†	1735.8	3028.6	5.0455 ug/L	5.0455 ppb	10:01:52
3	Tl 190.801†	37.1	67.8	21.585 ug/L	21.585 ppb	10:02:12
3	U 409.014†	-272.8	1706.3	53.322 ug/L	53.322 ppb	10:01:52
3	V 292.402†	-744.8	647.7	4.7980 ug/L	4.7980 ppb	10:01:52
3	Zn 213.857†	1707.9	1020.7	9.9203 ug/L	9.9203 ppb	10:02:12
3	SiO2†	3615.7	3118.7	220.46 ug/L	220.46 ppb	10:02:28

Mean Data: PQL

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	846848.8	101.08	%	0.058				0.06%
Sc Radial	5062.2	99.5	%	0.57				0.57%
Y 371.029	720000.6	101.13	%	0.110				0.11%
Y RADIAL	5490.5	99.73	%	0.764				0.77%
Ag 328.068†	1059.2	5.0463	ug/L	0.20985	5.0463	ppb	0.20985	4.16%
QC value within limits for Ag 328.068 Recovery = 100.93%								
Al 396.153Radial†	257.9	202.37	ug/L	11.132	202.37	ppb	11.132	5.50%
QC value within limits for Al 396.153Radial Recovery = 101.19%								
As 188.979†	64.5	28.635	ug/L	1.0935	28.635	ppb	1.0935	3.82%
QC value within limits for As 188.979 Recovery = 95.45%								
B 249.677†	2138.4	50.768	ug/L	0.6995	50.768	ppb	0.6995	1.38%
QC value within limits for B 249.677 Recovery = 101.54%								
Ba 233.527†	650.9	5.3035	ug/L	0.09089	5.3035	ppb	0.09089	1.71%
QC value within limits for Ba 233.527 Recovery = 106.07%								
Be 313.107†	13270.3	5.1143	ug/L	0.02520	5.1143	ppb	0.02520	0.49%
QC value within limits for Be 313.107 Recovery = 102.29%								
Ca 317.933Radial†	128.0	210.19	ug/L	4.429	210.19	ppb	4.429	2.11%

QC value within limits for Ca 317.933Radial Recovery = 105.10%

Cd 226.502†	455.5	5.2475 ug/L	0.14602	5.2475 ppb	0.14602	2.78%
QC value within limits for Cd 226.502 Recovery = 104.95%						
Co 228.616†	222.0	4.7431 ug/L	0.18553	4.7431 ppb	0.18553	3.91%
QC value within limits for Co 228.616 Recovery = 94.86%						
Cr 267.716†	423.1	4.8893 ug/L	0.19575	4.8893 ppb	0.19575	4.00%
QC value within limits for Cr 267.716 Recovery = 97.79%						
Cu 324.752†	3143.7	9.7359 ug/L	0.06180	9.7359 ppb	0.06180	0.63%
QC value within limits for Cu 324.752 Recovery = 97.36%						
Fe 238.204 Radial†	12.2	109.21 ug/L	21.492	109.21 ppb	21.492	19.68%
QC value within limits for Fe 238.204 Radial Recovery = 109.21%						
K 766.490 Radial†	652.9	121.31 ug/L	7.924	121.31 ppb	7.924	6.53%
QC value within limits for K 766.490 Radial Recovery = 80.87%						
Mg 279.077 IEC†	7.5	253.47 ug/L	46.858	253.47 ppb	46.858	18.49%
QC value within limits for Mg 279.077 IEC Recovery = 84.49%						
Mn 257.610†	9232.6	10.578 ug/L	0.0536	10.578 ppb	0.0536	0.51%
QC value within limits for Mn 257.610 Recovery = 105.78%						
Mo 202.031†	138.8	10.130 ug/L	0.2238	10.130 ppb	0.2238	2.21%
QC value within limits for Mo 202.031 Recovery = 101.30%						
Na 589.592 Radial†	951.4	288.54 ug/L	3.427	288.54 ppb	3.427	1.19%
QC value within limits for Na 589.592 Radial Recovery = 96.18%						
Ni 231.604†	196.8	5.0777 ug/L	0.16844	5.0777 ppb	0.16844	3.32%
QC value within limits for Ni 231.604 Recovery = 101.55%						
P 214.914†	232.3	143.92 ug/L	5.733	143.92 ppb	5.733	3.98%
QC value within limits for P 214.914 Recovery = 95.95%						
Pb 220.353†	78.4	10.018 ug/L	2.0017	10.018 ppb	2.0017	19.98%
QC value within limits for Pb 220.353 Recovery = 100.18%						
S 181.975 Axial†	67.3	99.049 ug/L	3.5855	99.049 ppb	3.5855	3.62%
QC value within limits for S 181.975 Axial Recovery = 99.05%						
Sb 206.836†	28.5	10.652 ug/L	1.5963	10.652 ppb	1.5963	14.99%
QC value within limits for Sb 206.836 Recovery = 106.52%						
Se 196.026†	47.1	31.567 ug/L	3.8775	31.567 ppb	3.8775	12.28%
QC value within limits for Se 196.026 Recovery = 105.22%						
Si 251.611†	2962.4	97.786 ug/L	0.3752	97.786 ppb	0.3752	0.38%
QC value within limits for Si 251.611 Recovery = 97.79%						
Sn 189.927†	56.7	10.391 ug/L	0.3276	10.391 ppb	0.3276	3.15%
QC value within limits for Sn 189.927 Recovery = 103.91%						
Sr 421.552†	744.1	4.8733 ug/L	0.14722	4.8733 ppb	0.14722	3.02%
QC value within limits for Sr 421.552 Recovery = 97.47%						
Ti 334.940†	3066.4	5.1073 ug/L	0.07582	5.1073 ppb	0.07582	1.48%
QC value within limits for Ti 334.940 Recovery = 102.15%						
Tl 190.801†	65.6	20.878 ug/L	0.8681	20.878 ppb	0.8681	4.16%
QC value within limits for Tl 190.801 Recovery = 104.39%						
U 409.014†	1813.4	56.667 ug/L	3.3099	56.667 ppb	3.3099	5.84%
QC value within limits for U 409.014 Recovery = 113.33%						
V 292.402†	710.3	5.2438 ug/L	0.43312	5.2438 ppb	0.43312	8.26%
QC value within limits for V 292.402 Recovery = 104.88%						
Zn 213.857†	1033.8	10.046 ug/L	0.1112	10.046 ppb	0.1112	1.11%
QC value within limits for Zn 213.857 Recovery = 100.46%						
SiO2†	3112.9	220.05 ug/L	0.785	220.05 ppb	0.785	0.36%
QC value within limits for SiO2 Recovery = 103.31%						

All analyte(s) passed QC.

Sequence No.: 9
Sample ID: ICSA
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 13
Date Collected: 1/15/2010 10:04:38
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSA

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4444.8	4444.8	87.3	%			10:06:39
1	Y RADIAL	4819.9	4819.9	87.55	%			10:06:39
1	Al 396.153Radial†	582931.4	667481.0	525090	ug/L	525090	ppb	10:06:34
1	Ca 317.933Radial†	261853.9	299811.6	492290	ug/L	492290	ppb	10:06:34
1	Fe 238.204 Radial†	18663.6	21360.4	190590	ug/L	190590	ppb	10:06:39
1	K 766.490 Radial†	2645.8	26.4	-159.74	ug/L	-159.74	ppb	10:06:34
1	Mg 279.077 IEC†	12974.3	14853.4	498910	ug/L	498910	ppb	10:06:39
1	Na 589.592 Radial†	-1364.2	-2.4	-0.7405	ug/L	-0.7405	ppb	10:06:39
1	Sr 421.552†	501.0	538.5	-0.1479	ug/L	-0.1479	ppb	10:06:39
1	Sc 361.383	710662.7	710662.7	84.821	%			10:07:06
1	Y 371.029	589396.5	589396.5	82.788	%			10:07:06
1	Ag 328.068†	-9338.0	-11307.5	1.2714	ug/L	1.2714	ppb	10:07:06
1	As 188.979†	-75.2	-68.1	14.314	ug/L	14.314	ppb	10:07:27
1	B 249.677†	323.8	847.9	-10.810	ug/L	-10.810	ppb	10:07:06
1	Ba 233.527†	-460.5	-536.1	1.4799	ug/L	1.4799	ppb	10:07:27
1	Be 313.107†	-4102.9	-492.0	-0.2449	ug/L	-0.2449	ppb	10:07:06
1	Cd 226.502†	1246.2	1667.4	-0.4817	ug/L	-0.4817	ppb	10:07:27
1	Co 228.616†	-17.8	38.8	-1.9200	ug/L	-1.9200	ppb	10:07:27
1	Cr 267.716†	-95.5	-200.9	1.3886	ug/L	1.3886	ppb	10:07:27
1	Cu 324.752†	3711.7	-2089.5	3.5830	ug/L	3.5830	ppb	10:07:06
1	Mn 257.610†	518.4	185.0	-1.3715	ug/L	-1.3715	ppb	10:07:06
1	Mo 202.031†	-206.8	-264.5	1.3709	ug/L	1.3709	ppb	10:07:27
1	Ni 231.604†	197.7	147.7	3.8143	ug/L	3.8143	ppb	10:07:27
1	P 214.914†	186.3	0.1	-21.984	ug/L	-21.984	ppb	10:07:27
1	Pb 220.353†	-744.8	-818.7	-0.7981	ug/L	-0.7981	ppb	10:07:27
1	S 181.975 Axial†	70.9	37.4	-43.393	ug/L	-43.393	ppb	10:07:27
1	Sb 206.836†	61.4	36.0	2.1726	ug/L	2.1726	ppb	10:07:27
1	Se 196.026†	-915.4	-1050.8	-43.920	ug/L	-43.920	ppb	10:07:27
1	Si 251.611†	485.1	120.3	4.2135	ug/L	4.2135	ppb	10:07:27
1	Sn 189.927†	-359.3	-429.0	-0.3627	ug/L	-0.3627	ppb	10:07:27
1	Ti 334.940†	-13576.4	-14693.9	0.6849	ug/L	0.6849	ppb	10:07:06
1	Tl 190.801†	-91.6	-76.9	-24.643	ug/L	-24.643	ppb	10:07:27
1	U 409.014†	-865.9	955.2	8.1397	ug/L	8.1397	ppb	10:07:06
1	V 292.402†	895.8	2440.4	-1.0912	ug/L	-1.0912	ppb	10:07:27
1	Zn 213.857†	2909.2	2761.5	8.4830	ug/L	8.4830	ppb	10:07:27
1	SiO2†	410.7	27.2	2.4481	ug/L	2.4481	ppb	10:08:23
2	Sc Radial	4480.5	4480.5	88.0	%			10:06:50
2	Y RADIAL	4835.5	4835.5	87.83	%			10:06:50
2	Al 396.153Radial†	583483.6	662782.7	521400	ug/L	521400	ppb	10:06:45
2	Ca 317.933Radial†	261587.2	297116.4	487870	ug/L	487870	ppb	10:06:45
2	Fe 238.204 Radial†	18806.3	21352.0	190510	ug/L	190510	ppb	10:06:50
2	K 766.490 Radial†	2567.0	-87.3	-179.42	ug/L	-179.42	ppb	10:06:45
2	Mg 279.077 IEC†	13048.6	14819.3	497760	ug/L	497760	ppb	10:06:50
2	Na 589.592 Radial†	-1395.2	-25.1	-7.6117	ug/L	-7.6117	ppb	10:06:50
2	Sr 421.552†	523.7	559.8	0.0245	ug/L	0.0245	ppb	10:06:50
2	Sc 361.383	715834.3	715834.3	85.438	%			10:07:32
2	Y 371.029	592899.3	592899.3	83.280	%			10:07:32
2	Ag 328.068†	-9513.5	-11433.3	0.7055	ug/L	0.7055	ppb	10:07:32
2	As 188.979†	-76.7	-69.1	13.827	ug/L	13.827	ppb	10:07:52
2	B 249.677†	362.8	890.7	-9.7820	ug/L	-9.7820	ppb	10:07:32
2	Ba 233.527†	-471.0	-544.5	1.4083	ug/L	1.4083	ppb	10:07:52
2	Be 313.107†	-4117.8	-474.5	-0.2375	ug/L	-0.2375	ppb	10:07:32
2	Cd 226.502†	1267.4	1681.6	-0.3100	ug/L	-0.3100	ppb	10:07:52
2	Co 228.616†	-4.0	55.2	-1.5735	ug/L	-1.5735	ppb	10:07:52
2	Cr 267.716†	-55.2	-152.9	1.9421	ug/L	1.9421	ppb	10:07:52
2	Cu 324.752†	3618.8	-2229.9	3.1430	ug/L	3.1430	ppb	10:07:32
2	Mn 257.610†	633.0	314.8	-1.1834	ug/L	-1.1834	ppb	10:07:32
2	Mo 202.031†	-218.9	-276.9	0.4066	ug/L	0.4066	ppb	10:07:52
2	Ni 231.604†	182.8	128.6	3.3196	ug/L	3.3196	ppb	10:07:52

2	P 214.914†	162.9	-28.8	-40.888 ug/L	-40.888 ppb	10:07:52
2	Pb 220.353†	-768.1	-839.7	-4.3251 ug/L	-4.3251 ppb	10:07:52
2	S 181.975 Axial†	57.6	21.1	-66.653 ug/L	-66.653 ppb	10:07:52
2	Sb 206.836†	74.3	50.5	7.5017 ug/L	7.5017 ppb	10:07:52
2	Se 196.026†	-888.9	-1012.0	-18.687 ug/L	-18.687 ppb	10:07:52
2	Si 251.611†	478.2	108.2	3.8234 ug/L	3.8234 ppb	10:07:52
2	Sn 189.927†	-361.4	-428.4	-0.9125 ug/L	-0.9125 ppb	10:07:52
2	Ti 334.940†	-13508.4	-14498.8	0.5110 ug/L	0.5110 ppb	10:07:32
2	Tl 190.801†	-84.6	-67.8	-21.770 ug/L	-21.770 ppb	10:07:52
2	U 409.014†	-861.0	968.4	8.5587 ug/L	8.5587 ppb	10:07:32
2	V 292.402†	822.3	2346.7	-1.7760 ug/L	-1.7760 ppb	10:07:52
2	Zn 213.857†	2927.3	2757.9	8.4590 ug/L	8.4590 ppb	10:07:52
2	SiO2†	416.5	30.5	2.7060 ug/L	2.7060 ppb	10:08:28
3	Sc Radial	4506.6	4506.6	88.5 %		10:07:00
3	Y RADIAL	4835.6	4835.6	87.83 %		10:07:00
3	Al 396.153Radial†	595089.2	672048.8	528690 ug/L	528690 ppb	10:06:55
3	Ca 317.933Radial†	266968.2	301471.5	495020 ug/L	495020 ppb	10:06:55
3	Fe 238.204 Radial†	18834.5	21260.0	189690 ug/L	189690 ppb	10:07:00
3	K 766.490 Radial†	2485.5	-196.3	-202.10 ug/L	-202.10 ppb	10:06:55
3	Mg 279.077 IEC†	13080.7	14769.7	496100 ug/L	496100 ppb	10:07:00
3	Na 589.592 Radial†	-1367.7	15.1	4.5842 ug/L	4.5842 ppb	10:07:00
3	Sr 421.552†	529.3	562.6	-0.0104 ug/L	-0.0104 ppb	10:07:00
3	Sc 361.383	717063.0	717063.0	85.585 %		10:07:57
3	Y 371.029	594877.8	594877.8	83.558 %		10:07:57
3	Ag 328.068†	-9404.2	-11286.5	1.0418 ug/L	1.0418 ppb	10:07:57
3	As 188.979†	-89.3	-83.8	7.1435 ug/L	7.1435 ppb	10:08:17
3	B 249.677†	439.4	979.5	-7.5390 ug/L	-7.5390 ppb	10:07:57
3	Ba 233.527†	-449.7	-518.6	1.5947 ug/L	1.5947 ppb	10:08:17
3	Be 313.107†	-4140.9	-493.1	-0.2450 ug/L	-0.2450 ppb	10:07:57
3	Cd 226.502†	1277.1	1690.4	-0.1230 ug/L	-0.1230 ppb	10:08:17
3	Co 228.616†	-18.9	37.7	-1.9327 ug/L	-1.9327 ppb	10:08:17
3	Cr 267.716†	-80.4	-182.2	1.5869 ug/L	1.5869 ppb	10:08:17
3	Cu 324.752†	3677.0	-2169.1	3.2876 ug/L	3.2876 ppb	10:07:57
3	Mn 257.610†	604.1	279.7	-1.2364 ug/L	-1.2364 ppb	10:07:57
3	Mo 202.031†	-221.3	-279.3	0.2498 ug/L	0.2498 ppb	10:08:17
3	Ni 231.604†	219.9	171.6	4.4296 ug/L	4.4296 ppb	10:08:17
3	P 214.914†	177.5	-12.1	-27.975 ug/L	-27.975 ppb	10:08:17
3	Pb 220.353†	-732.2	-796.1	2.9716 ug/L	2.9716 ppb	10:08:17
3	S 181.975 Axial†	70.7	36.3	-45.612 ug/L	-45.612 ppb	10:08:17
3	Sb 206.836†	63.3	37.6	2.5748 ug/L	2.5748 ppb	10:08:17
3	Se 196.026†	-929.2	-1057.3	-50.961 ug/L	-50.961 ppb	10:08:17
3	Si 251.611†	466.7	93.7	3.3470 ug/L	3.3470 ppb	10:08:17
3	Sn 189.927†	-367.1	-434.3	-0.9304 ug/L	-0.9304 ppb	10:08:17
3	Ti 334.940†	-13616.7	-14598.2	1.4396 ug/L	1.4396 ppb	10:07:57
3	Tl 190.801†	-68.3	-48.6	-15.665 ug/L	-15.665 ppb	10:08:17
3	U 409.014†	-826.4	1010.5	9.9703 ug/L	9.9703 ppb	10:07:57
3	V 292.402†	876.1	2408.0	-1.2563 ug/L	-1.2563 ppb	10:08:17
3	Zn 213.857†	2940.8	2767.7	8.6275 ug/L	8.6275 ppb	10:08:17
3	SiO2†	498.3	125.3	9.4219 ug/L	9.4219 ppb	10:08:33

Mean Data: ICSA

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	714520.0	85.282	%	0.4054				0.48%
Sc Radial	4477.3	88.0	%	0.61				0.69%
Y 371.029	592391.2	83.209	%	0.3899				0.47%
Y RADIAL	4830.3	87.74	%	0.164				0.19%
Ag 328.068†	-11342.4	1.0062	ug/L	0.28462	1.0062	ppb	0.28462	28.29%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	667437.5	525060	ug/L	3644.8	525060	ppb	3644.8	0.69%
QC value within limits for Al 396.153Radial Recovery = 105.01%								
As 188.979†	-73.7	11.761	ug/L	4.0066	11.761	ppb	4.0066	34.07%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	906.0	-9.3771	ug/L	1.67285	-9.3771	ppb	1.67285	17.84%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-533.1	1.4943	ug/L	0.09405	1.4943	ppb	0.09405	6.29%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-486.5	-0.2425	ug/L	0.00433	-0.2425	ppb	0.00433	1.79%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	299466.5	491720	ug/L	3609.1	491720	ppb	3609.1	0.73%

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   QC value within limits for Ca 317.933Radial  Recovery = 98.34%
Cd 226.502†            1679.8     -0.3049 ug/L       0.17940     -0.3049 ppb        0.17940  58.84%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†              43.9     -1.8087 ug/L       0.20379     -1.8087 ppb        0.20379  11.27%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†            -178.7      1.6392 ug/L       0.28044      1.6392 ppb        0.28044  17.11%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†           -2162.8      3.3379 ug/L       0.22428      3.3379 ppb        0.22428   6.72%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†    21324.2      190260 ug/L         496.9      190260 ppb          496.9   0.26%
   QC value within limits for Fe 238.204 Radial  Recovery = 95.13%
K 766.490 Radial†       -85.7     -180.42 ug/L        21.197     -180.42 ppb         21.197  11.75%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†       14814.1      497590 ug/L        1415.0      497590 ppb         1415.0   0.28%
   QC value within limits for Mg 279.077 IEC  Recovery = 99.52%
Mn 257.610†              259.8     -1.2638 ug/L       0.09702     -1.2638 ppb        0.09702   7.68%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†            -273.6      0.6757 ug/L       0.60709      0.6757 ppb        0.60709  89.84%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       -4.1     -1.2560 ug/L       6.11427     -1.2560 ppb        6.11427 486.80%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              149.3      3.8545 ug/L       0.55610      3.8545 ppb        0.55610  14.43%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -13.6     -30.282 ug/L        9.6610     -30.282 ppb         9.6610  31.90%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†            -818.2     -0.7172 ug/L       3.64901     -0.7172 ppb        3.64901 508.80%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         31.6     -51.886 ug/L       12.8365     -51.886 ppb        12.8365  24.74%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              41.4      4.0830 ug/L       2.96747      4.0830 ppb        2.96747  72.68%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†           -1040.0     -37.856 ug/L       16.9701     -37.856 ppb        16.9701  44.83%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†              107.4      3.7946 ug/L       0.43394      3.7946 ppb        0.43394  11.44%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†            -430.6     -0.7352 ug/L       0.32275     -0.7352 ppb        0.32275  43.90%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              553.6     -0.0446 ug/L       0.09119     -0.0446 ppb        0.09119 204.46%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†          -14597.0      0.8785 ug/L       0.49366      0.8785 ppb        0.49366  56.19%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -64.4     -20.693 ug/L        4.5847     -20.693 ppb         4.5847  22.16%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               978.0      8.8896 ug/L       0.95908      8.8896 ppb        0.95908  10.79%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              2398.4     -1.3745 ug/L       0.35735     -1.3745 ppb        0.35735  26.00%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†             2762.3      8.5232 ug/L       0.09113      8.5232 ppb        0.09113   1.07%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                    61.0      4.8587 ug/L       3.95396      4.8587 ppb        3.95396  81.38%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 10
Sample ID: ICSAB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 14
Date Collected: 1/15/2010 10:10:44
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSAB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4419.6	4419.6	86.8	%			10:12:42
1	Y RADIAL	4794.9	4794.9	87.09	%			10:12:42
1	Al 396.153Radial†	588337.2	677510.0	532960	ug/L	532960	ppb	10:12:37
1	Ca 317.933Radial†	262671.4	302461.7	496640	ug/L	496640	ppb	10:12:37
1	Fe 238.204 Radial†	18627.3	21440.4	191310	ug/L	191310	ppb	10:12:42
1	K 766.490 Radial†	28811.7	30174.9	5447.0	ug/L	5447.0	ppb	10:12:37
1	Mg 279.077 IEC†	12934.5	14892.2	500220	ug/L	500220	ppb	10:12:42
1	Na 589.592 Radial†	14516.7	18276.3	5542.9	ug/L	5542.9	ppb	10:12:42
1	Sr 421.552†	67974.6	78241.0	508.90	ug/L	508.90	ppb	10:12:37
1	Sc 361.383	727819.3	727819.3	86.869	%			10:13:10
1	Y 371.029	603053.5	603053.5	84.707	%			10:13:10
1	Ag 328.068†	41065.3	46974.3	280.42	ug/L	280.42	ppb	10:13:10
1	As 188.979†	939.9	1102.5	536.62	ug/L	536.62	ppb	10:13:30
1	B 249.677†	19802.7	23262.2	520.23	ug/L	520.23	ppb	10:13:10
1	Ba 233.527†	53668.0	61787.2	509.06	ug/L	509.06	ppb	10:13:10
1	Be 313.107†	562939.8	652378.5	251.99	ug/L	251.99	ppb	10:13:10
1	Cd 226.502†	36641.3	42378.2	468.54	ug/L	468.54	ppb	10:13:30
1	Co 228.616†	18665.7	21547.0	456.62	ug/L	456.62	ppb	10:13:30
1	Cr 267.716†	36939.1	42434.5	495.95	ug/L	495.95	ppb	10:13:10
1	Cu 324.752†	161839.2	179837.2	568.25	ug/L	568.25	ppb	10:13:10
1	Mn 257.610†	374464.8	430642.5	491.80	ug/L	491.80	ppb	10:13:10
1	Mo 202.031†	5779.4	6632.3	504.30	ug/L	504.30	ppb	10:13:30
1	Ni 231.604†	15497.7	17755.0	458.16	ug/L	458.16	ppb	10:13:30
1	P 214.914†	3784.0	4136.5	2467.9	ug/L	2467.9	ppb	10:13:30
1	Pb 220.353†	2464.0	2895.8	473.74	ug/L	473.74	ppb	10:13:30
1	S 181.975 Axial†	1689.0	1898.1	2694.4	ug/L	2694.4	ppb	10:13:30
1	Sb 206.836†	1350.4	1518.1	555.96	ug/L	555.96	ppb	10:13:30
1	Se 196.026†	2494.9	2900.5	2574.8	ug/L	2574.8	ppb	10:13:30
1	Si 251.611†	142361.5	163429.2	5395.7	ug/L	5395.7	ppb	10:13:10
1	Sn 189.927†	2051.0	2355.6	509.04	ug/L	509.04	ppb	10:13:30
1	Ti 334.940†	258477.9	298861.1	524.97	ug/L	524.97	ppb	10:13:10
1	Tl 190.801†	1221.3	1437.0	459.59	ug/L	459.59	ppb	10:13:30
1	U 409.014†	13208.0	17180.6	514.20	ug/L	514.20	ppb	10:13:10
1	V 292.402†	64131.6	75210.0	519.51	ug/L	519.51	ppb	10:13:10
1	Zn 213.857†	48246.3	54870.8	514.00	ug/L	514.00	ppb	10:13:10
1	SiO2†	141668.8	162626.3	11497	ug/L	11497	ppb	10:14:27
2	Sc Radial	4425.7	4425.7	87.0	%			10:12:52
2	Y RADIAL	4769.5	4769.5	86.63	%			10:12:52
2	Al 396.153Radial†	586470.5	674429.1	530530	ug/L	530530	ppb	10:12:47
2	Ca 317.933Radial†	261540.5	300744.1	493820	ug/L	493820	ppb	10:12:47
2	Fe 238.204 Radial†	18674.1	21464.6	191530	ug/L	191530	ppb	10:12:52
2	K 766.490 Radial†	28610.6	29897.9	5396.4	ug/L	5396.4	ppb	10:12:47
2	Mg 279.077 IEC†	12973.7	14916.8	501040	ug/L	501040	ppb	10:12:52
2	Na 589.592 Radial†	14595.7	18344.2	5563.5	ug/L	5563.5	ppb	10:12:52
2	Sr 421.552†	67459.1	77540.2	504.33	ug/L	504.33	ppb	10:12:47
2	Sc 361.383	725308.8	725308.8	86.569	%			10:13:36
2	Y 371.029	600645.4	600645.4	84.368	%			10:13:36
2	Ag 328.068†	40731.2	46752.0	279.47	ug/L	279.47	ppb	10:13:36
2	As 188.979†	945.8	1113.1	541.36	ug/L	541.36	ppb	10:13:56
2	B 249.677†	19619.9	23129.9	517.05	ug/L	517.05	ppb	10:13:36
2	Ba 233.527†	53401.0	61692.6	508.30	ug/L	508.30	ppb	10:13:36
2	Be 313.107†	559535.3	650688.9	251.34	ug/L	251.34	ppb	10:13:36
2	Cd 226.502†	36521.9	42386.2	468.61	ug/L	468.61	ppb	10:13:56
2	Co 228.616†	18578.2	21520.3	456.05	ug/L	456.05	ppb	10:13:56
2	Cr 267.716†	36859.5	42489.7	496.60	ug/L	496.60	ppb	10:13:36
2	Cu 324.752†	161049.8	179570.2	567.43	ug/L	567.43	ppb	10:13:36
2	Mn 257.610†	372756.3	430161.0	491.24	ug/L	491.24	ppb	10:13:36
2	Mo 202.031†	5780.4	6656.5	506.05	ug/L	506.05	ppb	10:13:56
2	Ni 231.604†	15376.5	17676.7	456.14	ug/L	456.14	ppb	10:13:56

2	P 214.914†	3765.2	4129.9	2463.2 ug/L	2463.2 ppb	10:13:56
2	Pb 220.353†	2450.9	2890.5	472.48 ug/L	472.48 ppb	10:13:56
2	S 181.975 Axial†	1667.7	1880.2	2668.6 ug/L	2668.6 ppb	10:13:56
2	Sb 206.836†	1324.6	1493.7	547.25 ug/L	547.25 ppb	10:13:56
2	Se 196.026†	2481.6	2895.0	2571.7 ug/L	2571.7 ppb	10:13:56
2	Si 251.611†	141674.2	163202.5	5388.1 ug/L	5388.1 ppb	10:13:36
2	Sn 189.927†	2047.3	2359.6	509.34 ug/L	509.34 ppb	10:13:56
2	Ti 334.940†	257374.1	298616.0	524.11 ug/L	524.11 ppb	10:13:36
2	Tl 190.801†	1214.0	1433.5	458.46 ug/L	458.46 ppb	10:13:56
2	U 409.014†	13296.2	17335.1	519.00 ug/L	519.00 ppb	10:13:36
2	V 292.402†	64034.6	75353.4	520.54 ug/L	520.54 ppb	10:13:36
2	Zn 213.857†	48036.1	54820.3	513.49 ug/L	513.49 ppb	10:13:36
2	SiO2†	140940.5	162349.5	11477 ug/L	11477 ppb	10:14:32
3	Sc Radial	4504.0	4504.0	88.5 %		10:13:02
3	Y RADIAL	4900.5	4900.5	89.01 %		10:13:02
3	Al 396.153Radial†	592262.7	669253.8	526460 ug/L	526460 ppb	10:12:57
3	Ca 317.933Radial†	264093.0	298401.5	489980 ug/L	489980 ppb	10:12:57
3	Fe 238.204 Radial†	19114.0	21588.6	192640 ug/L	192640 ppb	10:13:02
3	K 766.490 Radial†	28928.1	29684.9	5358.1 ug/L	5358.1 ppb	10:12:57
3	Mg 279.077 IEC†	13296.8	15022.6	504600 ug/L	504600 ppb	10:13:02
3	Na 589.592 Radial†	14935.3	18436.2	5591.4 ug/L	5591.4 ppb	10:13:02
3	Sr 421.552†	68255.4	77091.9	501.43 ug/L	501.43 ppb	10:12:57
3	Sc 361.383	727758.9	727758.9	86.862 %		10:14:02
3	Y 371.029	600953.3	600953.3	84.411 %		10:14:02
3	Ag 328.068†	41038.2	46947.1	280.81 ug/L	280.81 ppb	10:14:02
3	As 188.979†	951.8	1116.3	543.06 ug/L	543.06 ppb	10:14:22
3	B 249.677†	19803.1	23264.5	520.08 ug/L	520.08 ppb	10:14:02
3	Ba 233.527†	53763.9	61902.7	510.04 ug/L	510.04 ppb	10:14:02
3	Be 313.107†	561553.7	650836.6	251.40 ug/L	251.40 ppb	10:14:02
3	Cd 226.502†	36429.2	42137.5	465.63 ug/L	465.63 ppb	10:14:22
3	Co 228.616†	18554.0	21420.2	453.89 ug/L	453.89 ppb	10:14:22
3	Cr 267.716†	36924.4	42421.2	495.83 ug/L	495.83 ppb	10:14:02
3	Cu 324.752†	162562.2	180685.1	570.95 ug/L	570.95 ppb	10:14:02
3	Mn 257.610†	374972.1	431262.4	492.47 ug/L	492.47 ppb	10:14:02
3	Mo 202.031†	5759.0	6609.3	502.65 ug/L	502.65 ppb	10:14:22
3	Ni 231.604†	15376.1	17616.5	454.59 ug/L	454.59 ppb	10:14:22
3	P 214.914†	3750.4	4098.1	2440.6 ug/L	2440.6 ppb	10:14:22
3	Pb 220.353†	2447.5	2877.1	469.71 ug/L	469.71 ppb	10:14:22
3	S 181.975 Axial†	1682.7	1891.0	2685.2 ug/L	2685.2 ppb	10:14:22
3	Sb 206.836†	1338.2	1504.2	551.05 ug/L	551.05 ppb	10:14:22
3	Se 196.026†	2491.9	2897.2	2576.6 ug/L	2576.6 ppb	10:14:22
3	Si 251.611†	142722.2	163858.1	5409.8 ug/L	5409.8 ppb	10:14:02
3	Sn 189.927†	2033.4	2335.6	504.39 ug/L	504.39 ppb	10:14:22
3	Ti 334.940†	258901.9	299374.0	524.57 ug/L	524.57 ppb	10:14:02
3	Tl 190.801†	1211.0	1425.3	455.89 ug/L	455.89 ppb	10:14:22
3	U 409.014†	13327.7	17319.7	518.40 ug/L	518.40 ppb	10:14:02
3	V 292.402†	64375.7	75497.1	521.41 ug/L	521.41 ppb	10:14:02
3	Zn 213.857†	48386.0	55036.3	515.50 ug/L	515.50 ppb	10:14:02
3	SiO2†	142446.4	163535.1	11561 ug/L	11561 ppb	10:14:38

Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	726962.3	86.767	%	0.1710				0.20%
Sc Radial	4449.8	87.4	%	0.92				1.06%
Y 371.029	601550.7	84.495	%	0.1841				0.22%
Y RADIAL	4821.6	87.58	%	1.261				1.44%
Ag 328.068†	46891.1	280.23	ug/L	0.690	280.23	ppb	0.690	0.25%
QC value within limits for Ag 328.068 Recovery = 112.09%								
Al 396.153Radial†	673731.0	529990	ug/L	3282.1	529990	ppb	3282.1	0.62%
QC value within limits for Al 396.153Radial Recovery = 106.00%								
As 188.979†	1110.7	540.35	ug/L	3.337	540.35	ppb	3.337	0.62%
QC value within limits for As 188.979 Recovery = 108.07%								
B 249.677†	23218.8	519.12	ug/L	1.792	519.12	ppb	1.792	0.35%
QC value within limits for B 249.677 Recovery = 103.82%								
Ba 233.527†	61794.2	509.14	ug/L	0.874	509.14	ppb	0.874	0.17%
QC value within limits for Ba 233.527 Recovery = 101.83%								
Be 313.107†	651301.3	251.57	ug/L	0.360	251.57	ppb	0.360	0.14%
QC value within limits for Be 313.107 Recovery = 100.63%								
Ca 317.933Radial†	300535.7	493480	ug/L	3346.5	493480	ppb	3346.5	0.68%

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   QC value within limits for Ca 317.933Radial  Recovery = 98.70%
Cd 226.502†          42300.6      467.59 ug/L        1.700      467.59 ppb        1.700   0.36%
   QC value within limits for Cd 226.502  Recovery = 93.52%
Co 228.616†          21495.8      455.52 ug/L        1.438      455.52 ppb        1.438   0.32%
   QC value within limits for Co 228.616  Recovery = 91.10%
Cr 267.716†          42448.5      496.13 ug/L        0.413      496.13 ppb        0.413   0.08%
   QC value within limits for Cr 267.716  Recovery = 99.23%
Cu 324.752†         180030.8      568.88 ug/L        1.842      568.88 ppb        1.842   0.32%
   QC value within limits for Cu 324.752  Recovery = 113.78%
Fe 238.204 Radial†   21497.8      191830 ug/L        709.2      191830 ppb        709.2   0.37%
   QC value within limits for Fe 238.204 Radial  Recovery = 95.91%
K 766.490 Radial†    29919.2      5400.5 ug/L        44.63      5400.5 ppb        44.63   0.83%
   QC value within limits for K 766.490 Radial  Recovery = 108.01%
Mg 279.077 IEC†      14943.9      501950 ug/L       2326.8      501950 ppb       2326.8   0.46%
   QC value within limits for Mg 279.077 IEC  Recovery = 100.39%
Mn 257.610†         430688.6      491.84 ug/L        0.614      491.84 ppb        0.614   0.12%
   QC value within limits for Mn 257.610  Recovery = 98.37%
Mo 202.031†           6632.7      504.33 ug/L        1.698      504.33 ppb        1.698   0.34%
   QC value within limits for Mo 202.031  Recovery = 100.87%
Na 589.592 Radial†   18352.2      5565.9 ug/L        24.33      5565.9 ppb        24.33   0.44%
   QC value within limits for Na 589.592 Radial  Recovery = 111.32%
Ni 231.604†          17682.7      456.30 ug/L        1.791      456.30 ppb        1.791   0.39%
   QC value within limits for Ni 231.604  Recovery = 91.26%
P 214.914†            4121.5      2457.2 ug/L        14.58      2457.2 ppb        14.58   0.59%
   QC value within limits for P 214.914  Recovery = 98.29%
Pb 220.353†           2887.8      471.98 ug/L        2.058      471.98 ppb        2.058   0.44%
   QC value within limits for Pb 220.353  Recovery = 94.40%
S 181.975 Axial†      1889.7      2682.7 ug/L        13.10      2682.7 ppb        13.10   0.49%
   QC value within limits for S 181.975 Axial  Recovery = 107.31%
Sb 206.836†           1505.4      551.42 ug/L        4.368      551.42 ppb        4.368   0.79%
   QC value within limits for Sb 206.836  Recovery = 110.28%
Se 196.026†           2897.6      2574.4 ug/L         2.47      2574.4 ppb         2.47   0.10%
   QC value within limits for Se 196.026  Recovery = 102.98%
Si 251.611†         163496.6      5397.9 ug/L        11.02      5397.9 ppb        11.02   0.20%
   QC value within limits for Si 251.611  Recovery = 107.96%
Sn 189.927†           2350.3      507.59 ug/L        2.772      507.59 ppb        2.772   0.55%
   QC value within limits for Sn 189.927  Recovery = 101.52%
Sr 421.552†          77624.4      504.89 ug/L        3.770      504.89 ppb        3.770   0.75%
   QC value within limits for Sr 421.552  Recovery = 100.98%
Ti 334.940†         298950.4      524.55 ug/L        0.429      524.55 ppb        0.429   0.08%
   QC value within limits for Ti 334.940  Recovery = 104.91%
Tl 190.801†           1431.9      457.98 ug/L        1.895      457.98 ppb        1.895   0.41%
   QC value within limits for Tl 190.801  Recovery = 91.60%
U 409.014†           17278.5      517.20 ug/L        2.617      517.20 ppb        2.617   0.51%
   QC value within limits for U 409.014  Recovery = 103.44%
V 292.402†           75353.5      520.49 ug/L        0.952      520.49 ppb        0.952   0.18%
   QC value within limits for V 292.402  Recovery = 104.10%
Zn 213.857†          54909.1      514.33 ug/L        1.045      514.33 ppb        1.045   0.20%
   QC value within limits for Zn 213.857  Recovery = 102.87%
SiO2†               162837.0       11512 ug/L         43.9       11512 ppb         43.9   0.38%
   QC value within limits for SiO2  Recovery = 107.64%
All analyte(s) passed QC.
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Sequence No.: 11
Sample ID: LR1
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 15
Date Collected: 1/15/2010 10:16:48
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4337.9	4337.9	85.2	%			10:18:46
1	Y RADIAL	4705.2	4705.2	85.46	%			10:18:46
1	Al 396.153Radial†	567242.3	665524.3	523560	ug/L	523560	ppb	10:18:41
1	Ca 317.933Radial†	252919.9	296719.3	487210	ug/L	487210	ppb	10:18:41
1	Fe 238.204 Radial†	43439.8	50955.6	454650	ug/L	454650	ppb	10:18:46
1	K 766.490 Radial†	3637.8	1264.9	-128.54	ug/L	-128.54	ppb	10:18:41
1	Mg 279.077 IEC†	12643.4	14831.3	497890	ug/L	497890	ppb	10:18:46
1	Na 589.592 Radial†	1447180.3	1699455.0	515420	ug/L	515420	ppb	10:18:41
1	Sr 421.552†	740.2	833.3	1.8216	ug/L	1.8216	ppb	10:18:46
1	Sc 361.383	702032.2	702032.2	83.791	%			10:19:14
1	Y 371.029	581949.9	581949.9	81.742	%			10:19:14
1	Ag 328.068†	-22562.5	-27225.5	-1.3965	ug/L	-1.3965	ppb	10:19:14
1	As 188.979†	-191.5	-208.0	14.208	ug/L	14.208	ppb	10:19:34
1	B 249.677†	1572.1	2342.4	-18.207	ug/L	-18.207	ppb	10:19:14
1	Ba 233.527†	-1407.6	-1673.1	0.3047	ug/L	0.3047	ppb	10:19:34
1	Be 313.107†	-10722.8	-8451.8	-3.3078	ug/L	-3.3078	ppb	10:19:14
1	Cd 226.502†	3240.1	4065.1	2.8467	ug/L	2.8467	ppb	10:19:34
1	Co 228.616†	205.8	305.4	-0.1117	ug/L	-0.1117	ppb	10:19:34
1	Cr 267.716†	84.6	12.7	2.9114	ug/L	2.9114	ppb	10:19:34
1	Cu 324.752†	773.4	-5542.4	-1.6845	ug/L	-1.6845	ppb	10:19:14
1	Mn 257.610†	-21909.9	-26574.3	-5.9179	ug/L	-5.9179	ppb	10:19:14
1	Mo 202.031†	-481.1	-594.8	-2.2767	ug/L	-2.2767	ppb	10:19:34
1	Ni 231.604†	273.0	240.5	6.2067	ug/L	6.2067	ppb	10:19:34
1	P 214.914†	527.4	409.9	24.180	ug/L	24.180	ppb	10:19:34
1	Pb 220.353†	-555.3	-603.4	0.8464	ug/L	0.8464	ppb	10:19:34
1	S 181.975 Axial†	91.2	62.6	-5.9887	ug/L	-5.9887	ppb	10:19:34
1	Sb 206.836†	55.7	30.0	6.1095	ug/L	6.1095	ppb	10:19:34
1	Se 196.026†	-2100.0	-2477.9	-123.48	ug/L	-123.48	ppb	10:19:34
1	Si 251.611†	-458.4	-998.6	-32.472	ug/L	-32.472	ppb	10:19:34
1	Sn 189.927†	-395.3	-477.2	-5.4829	ug/L	-5.4829	ppb	10:19:34
1	Ti 334.940†	-13886.4	-15260.7	-7.6443	ug/L	-7.6443	ppb	10:19:14
1	Tl 190.801†	-106.8	-96.3	-31.019	ug/L	-31.019	ppb	10:19:34
1	U 409.014†	411761.8	493390.5	15373	ug/L	15373	ppb	10:19:14
1	V 292.402†	2483.7	4348.5	3.0183	ug/L	3.0183	ppb	10:19:34
1	Zn 213.857†	5583.8	5995.6	14.473	ug/L	14.473	ppb	10:19:34
1	SiO2†	-458.3	-1004.0	-69.877	ug/L	-69.877	ppb	10:20:31
2	Sc Radial	4249.5	4249.5	83.5	%			10:18:56
2	Y RADIAL	4599.5	4599.5	83.55	%			10:18:56
2	Al 396.153Radial†	576870.6	690896.8	543520	ug/L	543520	ppb	10:18:51
2	Ca 317.933Radial†	257019.0	307800.1	505410	ug/L	505410	ppb	10:18:51
2	Fe 238.204 Radial†	42933.9	51409.7	458700	ug/L	458700	ppb	10:18:56
2	K 766.490 Radial†	3758.4	1498.1	-99.885	ug/L	-99.885	ppb	10:18:51
2	Mg 279.077 IEC†	12532.6	15007.1	503790	ug/L	503790	ppb	10:18:56
2	Na 589.592 Radial†	1478732.4	1772555.9	537590	ug/L	537590	ppb	10:18:51
2	Sr 421.552†	687.7	788.4	1.3917	ug/L	1.3917	ppb	10:18:56
2	Sc 361.383	699430.5	699430.5	83.481	%			10:19:40
2	Y 371.029	580066.5	580066.5	81.478	%			10:19:40
2	Ag 328.068†	-22628.4	-27404.6	-1.1878	ug/L	-1.1878	ppb	10:19:40
2	As 188.979†	-179.4	-194.4	21.190	ug/L	21.190	ppb	10:20:00
2	B 249.677†	1456.5	2210.8	-21.988	ug/L	-21.988	ppb	10:19:40
2	Ba 233.527†	-1320.2	-1574.6	1.2271	ug/L	1.2271	ppb	10:20:00
2	Be 313.107†	-10665.2	-8430.4	-3.2995	ug/L	-3.2995	ppb	10:19:40
2	Cd 226.502†	3200.7	4032.3	2.0512	ug/L	2.0512	ppb	10:20:00
2	Co 228.616†	176.3	271.0	-0.9020	ug/L	-0.9020	ppb	10:20:00
2	Cr 267.716†	6.1	-80.9	1.9040	ug/L	1.9040	ppb	10:20:00
2	Cu 324.752†	873.7	-5418.8	-1.0868	ug/L	-1.0868	ppb	10:19:40
2	Mn 257.610†	-21802.8	-26543.3	-5.7236	ug/L	-5.7236	ppb	10:19:40
2	Mo 202.031†	-477.9	-593.2	-1.6237	ug/L	-1.6237	ppb	10:20:00
2	Ni 231.604†	297.5	271.0	6.9950	ug/L	6.9950	ppb	10:20:00

2	P 214.914†	536.8	423.5	34.379 ug/L	34.379 ppb	10:20:00
2	Pb 220.353†	-549.7	-599.1	5.6129 ug/L	5.6129 ppb	10:20:00
2	S 181.975 Axial†	97.8	70.9	2.5602 ug/L	2.5602 ppb	10:20:00
2	Sb 206.836†	57.0	31.9	6.3985 ug/L	6.3985 ppb	10:20:00
2	Se 196.026†	-2100.6	-2487.8	-115.78 ug/L	-115.78 ppb	10:20:00
2	Si 251.611†	-422.5	-957.6	-31.119 ug/L	-31.119 ppb	10:20:00
2	Sn 189.927†	-382.4	-463.4	-0.1426 ug/L	-0.1426 ppb	10:20:00
2	Ti 334.940†	-13811.4	-15232.5	-5.6392 ug/L	-5.6392 ppb	10:19:40
2	Tl 190.801†	-102.9	-92.1	-29.674 ug/L	-29.674 ppb	10:20:00
2	U 409.014†	410261.6	493421.5	15373 ug/L	15373 ppb	10:19:40
2	V 292.402†	2386.3	4242.8	1.8006 ug/L	1.8006 ppb	10:20:00
2	Zn 213.857†	5584.6	6021.4	14.326 ug/L	14.326 ppb	10:20:00
2	SiO2†	-578.8	-1150.4	-80.241 ug/L	-80.241 ppb	10:20:36
3	Sc Radial	4263.4	4263.4	83.8 %		10:19:07
3	Y RADIAL	4639.6	4639.6	84.27 %		10:19:07
3	Al 396.153Radial†	573261.6	684332.0	538350 ug/L	538350 ppb	10:19:02
3	Ca 317.933Radial†	256343.1	305987.8	502430 ug/L	502430 ppb	10:19:02
3	Fe 238.204 Radial†	43051.5	51382.1	458460 ug/L	458460 ppb	10:19:07
3	K 766.490 Radial†	3799.2	1532.1	-90.752 ug/L	-90.752 ppb	10:19:02
3	Mg 279.077 IEC†	12590.5	15027.2	504470 ug/L	504470 ppb	10:19:07
3	Na 589.592 Radial†	1470769.9	1757266.0	532950 ug/L	532950 ppb	10:19:02
3	Sr 421.552†	707.0	808.8	1.5474 ug/L	1.5474 ppb	10:19:07
3	Sc 361.383	708139.5	708139.5	84.520 %		10:20:06
3	Y 371.029	587746.7	587746.7	82.556 %		10:20:06
3	Ag 328.068†	-22716.0	-27174.9	-0.1439 ug/L	-0.1439 ppb	10:20:06
3	As 188.979†	-178.6	-190.7	22.761 ug/L	22.761 ppb	10:20:26
3	B 249.677†	1406.7	2130.5	-23.857 ug/L	-23.857 ppb	10:20:06
3	Ba 233.527†	-1330.6	-1567.4	1.2765 ug/L	1.2765 ppb	10:20:26
3	Be 313.107†	-10741.1	-8363.2	-3.2750 ug/L	-3.2750 ppb	10:20:06
3	Cd 226.502†	3213.3	4000.0	1.7069 ug/L	1.7069 ppb	10:20:26
3	Co 228.616†	193.2	288.4	-0.5226 ug/L	-0.5226 ppb	10:20:26
3	Cr 267.716†	6.5	-80.6	1.8988 ug/L	1.8988 ppb	10:20:26
3	Cu 324.752†	866.8	-5439.9	-1.1707 ug/L	-1.1707 ppb	10:20:06
3	Mn 257.610†	-22379.8	-26904.7	-6.1897 ug/L	-6.1897 ppb	10:20:06
3	Mo 202.031†	-464.8	-570.6	-0.0341 ug/L	-0.0341 ppb	10:20:26
3	Ni 231.604†	282.4	248.8	6.4204 ug/L	6.4204 ppb	10:20:26
3	P 214.914†	520.5	396.3	16.216 ug/L	16.216 ppb	10:20:26
3	Pb 220.353†	-567.3	-611.9	2.8633 ug/L	2.8633 ppb	10:20:26
3	S 181.975 Axial†	90.0	60.3	-12.176 ug/L	-12.176 ppb	10:20:26
3	Sb 206.836†	38.3	8.9	-1.8146 ug/L	-1.8146 ppb	10:20:26
3	Se 196.026†	-2146.7	-2511.5	-132.48 ug/L	-132.48 ppb	10:20:26
3	Si 251.611†	-463.5	-999.9	-32.537 ug/L	-32.537 ppb	10:20:26
3	Sn 189.927†	-399.2	-477.6	-3.1959 ug/L	-3.1959 ppb	10:20:26
3	Ti 334.940†	-14286.9	-15591.7	-6.6984 ug/L	-6.6984 ppb	10:20:06
3	Tl 190.801†	-100.6	-87.9	-28.357 ug/L	-28.357 ppb	10:20:26
3	U 409.014†	415639.4	493740.1	15383 ug/L	15383 ppb	10:20:06
3	V 292.402†	2359.1	4175.5	1.4178 ug/L	1.4178 ppb	10:20:26
3	Zn 213.857†	5562.5	5912.9	13.294 ug/L	13.294 ppb	10:20:26
3	SiO2†	-438.2	-975.5	-67.907 ug/L	-67.907 ppb	10:20:41

Mean Data: LR1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	703200.8	83.931	%	0.5336				0.64%
Sc Radial	4283.6	84.2	%	0.93				1.11%
Y 371.029	583254.3	81.925	%	0.5622				0.69%
Y RADIAL	4648.1	84.43	%	0.969				1.15%
Ag 328.068†	-27268.3	-0.9094	ug/L	0.67111	-0.9094	ppb	0.67111	73.80%
Al 396.153Radial†	680251.0	535140	ug/L	10360.0	535140	ppb	10360.0	1.94%
QC value within limits for Al 396.153Radial Recovery = 107.03%								
As 188.979†	-197.7	19.386	ug/L	4.5525	19.386	ppb	4.5525	23.48%
B 249.677†	2227.9	-21.351	ug/L	2.8787	-21.351	ppb	2.8787	13.48%
Ba 233.527†	-1605.1	0.9361	ug/L	0.54741	0.9361	ppb	0.54741	58.48%
Be 313.107†	-8415.1	-3.2941	ug/L	0.01706	-3.2941	ppb	0.01706	0.52%
Ca 317.933Radial†	303502.4	498350	ug/L	9759.7	498350	ppb	9759.7	1.96%
QC value within limits for Ca 317.933Radial Recovery = 99.67%								
Cd 226.502†	4032.4	2.2016	ug/L	0.58458	2.2016	ppb	0.58458	26.55%
Co 228.616†	288.2	-0.5121	ug/L	0.39524	-0.5121	ppb	0.39524	77.18%
Cr 267.716†	-49.6	2.2380	ug/L	0.58313	2.2380	ppb	0.58313	26.06%
Cu 324.752†	-5467.1	-1.3140	ug/L	0.32361	-1.3140	ppb	0.32361	24.63%

Fe 238.204 Radial†	51249.1	457270	ug/L	2271.8	457270	ppb	2271.8	0.50%
QC value within limits for Fe 238.204 Radial Recovery = 91.45%								
K 766.490 Radial†	1431.7	-106.39	ug/L	19.718	-106.39	ppb	19.718	18.53%
Mg 279.077 IEC†	14955.2	502050	ug/L	3618.9	502050	ppb	3618.9	0.72%
QC value within limits for Mg 279.077 IEC Recovery = 100.41%								
Mn 257.610†	-26674.1	-5.9437	ug/L	0.23409	-5.9437	ppb	0.23409	3.94%
Mo 202.031†	-586.2	-1.3115	ug/L	1.15345	-1.3115	ppb	1.15345	87.95%
Na 589.592 Radial†	1743092.3	528650	ug/L	11693.5	528650	ppb	11693.5	2.21%
QC value within limits for Na 589.592 Radial Recovery = 105.73%								
Ni 231.604†	253.5	6.5407	ug/L	0.40767	6.5407	ppb	0.40767	6.23%
P 214.914†	409.9	24.925	ug/L	9.1048	24.925	ppb	9.1048	36.53%
Pb 220.353†	-604.8	3.1075	ug/L	2.39259	3.1075	ppb	2.39259	76.99%
S 181.975 Axial†	64.6	-5.2016	ug/L	7.39973	-5.2016	ppb	7.39973	142.26%
Sb 206.836†	23.6	3.5645	ug/L	4.66063	3.5645	ppb	4.66063	130.75%
Se 196.026†	-2492.4	-123.91	ug/L	8.356	-123.91	ppb	8.356	6.74%
Si 251.611†	-985.4	-32.043	ug/L	0.8004	-32.043	ppb	0.8004	2.50%
Sn 189.927†	-472.7	-2.9405	ug/L	2.67930	-2.9405	ppb	2.67930	91.12%
Sr 421.552†	810.2	1.5869	ug/L	0.21764	1.5869	ppb	0.21764	13.71%
Ti 334.940†	-15361.6	-6.6606	ug/L	1.00307	-6.6606	ppb	1.00307	15.06%
Tl 190.801†	-92.1	-29.683	ug/L	1.3308	-29.683	ppb	1.3308	4.48%
U 409.014†	493517.4	15376	ug/L	5.9	15376	ppb	5.9	0.04%
QC value within limits for U 409.014 Recovery = 102.51%								
V 292.402†	4255.6	2.0789	ug/L	0.83575	2.0789	ppb	0.83575	40.20%
Zn 213.857†	5976.6	14.031	ug/L	0.6428	14.031	ppb	0.6428	4.58%
SiO2†	-1043.3	-72.675	ug/L	6.6258	-72.675	ppb	6.6258	9.12%

All analyte(s) passed QC.

Sequence No.: 12
Sample ID: LR2
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 16
Date Collected: 1/15/2010 10:22:51
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR2

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4942.7	4942.7	97.1	%			10:24:48
1	Y RADIAL	5258.3	5258.3	95.51	%			10:24:48
1	Al 396.153Radial†	609.7	638.5	22.484	ug/L	22.484	ppb	10:24:48
1	Ca 317.933Radial†	29.9	13.4	21.935	ug/L	21.935	ppb	10:25:08
1	Fe 238.204 Radial†	-19.0	-29.5	23.971	ug/L	23.971	ppb	10:25:08
1	K 766.490 Radial†	1533682.7	1576202.3	293340	ug/L	293340	ppb	10:24:43
1	Mg 279.077 IEC†	-5.1	-7.7	-154.34	ug/L	-154.34	ppb	10:25:08
1	Na 589.592 Radial†	-659.4	880.7	267.09	ug/L	267.09	ppb	10:24:48
1	Sr 421.552†	1428431.5	1470795.0	9636.2	ug/L	9636.2	ppb	10:24:43
1	Sc 361.383	814992.0	814992.0	97.273	%			10:26:25
1	Y 371.029	673195.2	673195.2	94.559	%			10:26:25
1	Ag 328.068†	-7512.1	-8021.1	2.7006	ug/L	2.7006	ppb	10:26:30
1	As 188.979†	22395.3	23043.6	10276	ug/L	10276	ppb	10:26:30
1	B 249.677†	207928.1	214222.3	5061.6	ug/L	5061.6	ppb	10:26:30
1	Ba 233.527†	1727066.3	1775482.0	14450	ug/L	14450	ppb	10:26:25
1	Be 313.107†	7369259.3	7580161.6	2937.3	ug/L	2937.3	ppb	10:26:19
1	Cd 226.502†	830389.3	853863.0	9836.8	ug/L	9836.8	ppb	10:26:25
1	Co 228.616†	437564.8	449889.4	9587.8	ug/L	9587.8	ppb	10:26:30
1	Cr 267.716†	2045104.1	2102339.2	24375	ug/L	24375	ppb	10:26:25
1	Cu 324.752†	6338780.5	6509988.4	20214	ug/L	20214	ppb	10:26:19
1	Mn 257.610†	8095960.4	8322460.6	9534.7	ug/L	9534.7	ppb	10:26:19
1	Mo 202.031†	132028.5	135708.5	9894.1	ug/L	9894.1	ppb	10:26:30
1	Ni 231.604†	366717.0	376910.6	9726.2	ug/L	9726.2	ppb	10:26:30
1	P 214.914†	29139.4	29736.7	14747	ug/L	14747	ppb	10:26:30
1	Pb 220.353†	188649.5	193996.6	24659	ug/L	24659	ppb	10:26:30
1	S 181.975 Axial†	34948.4	35881.7	52824	ug/L	52824	ppb	10:26:30
1	Sb 206.836†	28622.1	29387.9	10993	ug/L	10993	ppb	10:26:30
1	Se 196.026†	15128.7	15581.2	10339	ug/L	10339	ppb	10:26:30
1	Si 251.611†	1448575.7	1488727.1	49083	ug/L	49083	ppb	10:26:25
1	Sn 189.927†	56547.7	58127.3	10619	ug/L	10619	ppb	10:26:30
1	Ti 334.940†	5792094.3	5955756.1	9948.2	ug/L	9948.2	ppb	10:26:19
1	Tl 190.801†	30011.2	30883.5	9869.2	ug/L	9869.2	ppb	10:26:30
1	U 409.014†	-817.6	1135.5	-18.986	ug/L	-18.986	ppb	10:26:30
1	V 292.402†	1395997.2	1436510.7	10254	ug/L	10254	ppb	10:26:25
1	Zn 213.857†	1431439.4	1470893.7	14285	ug/L	14285	ppb	10:26:25
1	SiO2†	1464950.2	1505555.2	106290	ug/L	106290	ppb	10:27:16
2	Sc Radial	4824.6	4824.6	94.8	%			10:25:19
2	Y RADIAL	5197.4	5197.4	94.41	%			10:25:19
2	Al 396.153Radial†	573.1	615.2	3.8995	ug/L	3.8995	ppb	10:25:19
2	Ca 317.933Radial†	28.0	12.1	19.907	ug/L	19.907	ppb	10:25:39
2	Fe 238.204 Radial†	-18.9	-29.8	20.200	ug/L	20.200	ppb	10:25:39
2	K 766.490 Radial†	1515979.4	1596168.1	297060	ug/L	297060	ppb	10:25:14
2	Mg 279.077 IEC†	-3.3	-5.9	-95.774	ug/L	-95.774	ppb	10:25:39
2	Na 589.592 Radial†	-693.4	828.2	251.18	ug/L	251.18	ppb	10:25:19
2	Sr 421.552†	1412634.6	1490120.1	9762.8	ug/L	9762.8	ppb	10:25:14
2	Sc 361.383	821598.5	821598.5	98.062	%			10:26:45
2	Y 371.029	679561.8	679561.8	95.453	%			10:26:45
2	Ag 328.068†	-7437.4	-7882.8	3.2647	ug/L	3.2647	ppb	10:26:50
2	As 188.979†	22623.1	23090.8	10296	ug/L	10296	ppb	10:26:50
2	B 249.677†	210646.9	215276.1	5086.7	ug/L	5086.7	ppb	10:26:50
2	Ba 233.527†	1733910.4	1768184.7	14390	ug/L	14390	ppb	10:26:45
2	Be 313.107†	7405141.6	7555835.7	2927.9	ug/L	2927.9	ppb	10:26:38
2	Cd 226.502†	833845.7	850523.4	9798.3	ug/L	9798.3	ppb	10:26:45
2	Co 228.616†	440504.1	449269.7	9574.7	ug/L	9574.7	ppb	10:26:50
2	Cr 267.716†	2054550.5	2095066.7	24290	ug/L	24290	ppb	10:26:45
2	Cu 324.752†	6379444.3	6499056.8	20181	ug/L	20181	ppb	10:26:38
2	Mn 257.610†	8125127.1	8285279.1	9492.1	ug/L	9492.1	ppb	10:26:38
2	Mo 202.031†	133179.3	135790.7	9900.1	ug/L	9900.1	ppb	10:26:50
2	Ni 231.604†	369574.4	376793.0	9723.2	ug/L	9723.2	ppb	10:26:50

2	P 214.914†	29412.3	29774.0	14777	ug/L	14777 ppb	10:26:50
2	Pb 220.353†	189900.9	193713.3	24623	ug/L	24623 ppb	10:26:50
2	S 181.975 Axial†	35306.5	35958.0	52937	ug/L	52937 ppb	10:26:50
2	Sb 206.836†	28922.7	29457.9	11018	ug/L	11018 ppb	10:26:50
2	Se 196.026†	15309.2	15640.2	10378	ug/L	10378 ppb	10:26:50
2	Si 251.611†	1455564.9	1483879.9	48923	ug/L	48923 ppb	10:26:45
2	Sn 189.927†	56789.6	57906.5	10579	ug/L	10579 ppb	10:26:50
2	Ti 334.940†	5819727.0	5936055.1	9915.2	ug/L	9915.2 ppb	10:26:38
2	Tl 190.801†	30335.0	30965.6	9894.9	ug/L	9894.9 ppb	10:26:50
2	U 409.014†	-705.2	1257.0	-15.000	ug/L	-15.000 ppb	10:26:50
2	V 292.402†	1404224.6	1433360.9	10232	ug/L	10232 ppb	10:26:45
2	Zn 213.857†	1436702.7	1464428.2	14222	ug/L	14222 ppb	10:26:45
2	SiO2†	1452293.8	1480538.8	104520	ug/L	104520 ppb	10:27:21
3	Sc Radial	4761.2	4761.2	93.6	%		10:25:49
3	Y RADIAL	5098.5	5098.5	92.61	%		10:25:49
3	Al 396.153Radial†	575.6	625.9	22.448	ug/L	22.448 ppb	10:25:49
3	Ca 317.933Radial†	29.0	13.7	22.418	ug/L	22.418 ppb	10:26:09
3	Fe 238.204 Radial†	-20.6	-31.9	-3.7273	ug/L	-3.7273 ppb	10:26:09
3	K 766.490 Radial†	1501349.2	1601822.6	298110	ug/L	298110 ppb	10:25:44
3	Mg 279.077 IEC†	-8.2	-11.3	-277.47	ug/L	-277.47 ppb	10:26:09
3	Na 589.592 Radial†	-725.4	784.2	237.83	ug/L	237.83 ppb	10:25:49
3	Sr 421.552†	1395634.3	1491789.6	9773.8	ug/L	9773.8 ppb	10:25:44
3	Sc 361.383	828227.8	828227.8	98.853	%		10:27:04
3	Y 371.029	685875.7	685875.7	96.340	%		10:27:04
3	Ag 328.068†	-7433.6	-7818.2	3.6242	ug/L	3.6242 ppb	10:27:09
3	As 188.979†	22223.6	22502.1	10036	ug/L	10036 ppb	10:27:09
3	B 249.677†	206655.6	209519.1	4950.5	ug/L	4950.5 ppb	10:27:09
3	Ba 233.527†	1748232.3	1768520.1	14393	ug/L	14393 ppb	10:27:04
3	Be 313.107†	7527779.0	7619452.7	2952.5	ug/L	2952.5 ppb	10:26:58
3	Cd 226.502†	841482.2	851442.3	9808.8	ug/L	9808.8 ppb	10:27:04
3	Co 228.616†	434993.1	440099.2	9378.6	ug/L	9378.6 ppb	10:27:09
3	Cr 267.716†	2071379.3	2095320.7	24293	ug/L	24293 ppb	10:27:04
3	Cu 324.752†	6471497.9	6540107.2	20308	ug/L	20308 ppb	10:26:58
3	Mn 257.610†	8232473.6	8327551.0	9540.5	ug/L	9540.5 ppb	10:26:58
3	Mo 202.031†	131418.6	132922.4	9691.0	ug/L	9691.0 ppb	10:27:09
3	Ni 231.604†	364947.9	369096.3	9524.6	ug/L	9524.6 ppb	10:27:09
3	P 214.914†	28897.4	29013.2	14272	ug/L	14272 ppb	10:27:09
3	Pb 220.353†	187619.3	189855.2	24133	ug/L	24133 ppb	10:27:09
3	S 181.975 Axial†	34728.8	35085.4	51652	ug/L	51652 ppb	10:27:09
3	Sb 206.836†	28465.2	28759.0	10757	ug/L	10757 ppb	10:27:09
3	Se 196.026†	15048.0	15251.0	10120	ug/L	10120 ppb	10:27:09
3	Si 251.611†	1467930.6	1484508.3	48946	ug/L	48946 ppb	10:27:04
3	Sn 189.927†	56119.5	56765.1	10370	ug/L	10370 ppb	10:27:09
3	Ti 334.940†	5898378.3	5968116.3	9968.9	ug/L	9968.9 ppb	10:26:58
3	Tl 190.801†	29890.3	30268.2	9675.0	ug/L	9675.0 ppb	10:27:09
3	U 409.014†	-873.4	1092.5	-20.146	ug/L	-20.146 ppb	10:27:09
3	V 292.402†	1417430.9	1435258.6	10242	ug/L	10242 ppb	10:27:04
3	Zn 213.857†	1447458.5	1463581.8	14215	ug/L	14215 ppb	10:27:04
3	SiO2†	1464505.9	1481038.3	104560	ug/L	104560 ppb	10:27:27

Mean Data: LR2

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	821606.1	98.063	%	0.7899				0.81%
Sc Radial	4842.8	95.2	%	1.81				1.90%
Y 371.029	679544.2	95.451	%	0.8906				0.93%
Y RADIAL	5184.8	94.18	%	1.465				1.56%
Ag 328.068†	-7907.4	3.1965	ug/L	0.46558	3.1965	ppb	0.46558	14.57%
Al 396.153Radial†	626.6	16.277	ug/L	10.7193	16.277	ppb	10.7193	65.86%
As 188.979†	22878.8	10203	ug/L	144.5	10203	ppb	144.5	1.42%
QC value within limits for As 188.979 Recovery = 102.03%								
B 249.677†	213005.9	5032.9	ug/L	72.49	5032.9	ppb	72.49	1.44%
QC value within limits for B 249.677 Recovery = 100.66%								
Ba 233.527†	1770728.9	14411	ug/L	33.5	14411	ppb	33.5	0.23%
QC value within limits for Ba 233.527 Recovery = 96.07%								
Be 313.107†	7585150.0	2939.2	ug/L	12.40	2939.2	ppb	12.40	0.42%
QC value within limits for Be 313.107 Recovery = 97.97%								
Ca 317.933Radial†	13.0	21.420	ug/L	1.3323	21.420	ppb	1.3323	6.22%
Cd 226.502†	851942.9	9814.6	ug/L	19.88	9814.6	ppb	19.88	0.20%
QC value within limits for Cd 226.502 Recovery = 98.15%								

Co 228.616†	446419.4	9513.7 ug/L	117.17	9513.7 ppb	117.17	1.23%
QC value within limits for Co 228.616 Recovery = 95.14%						
Cr 267.716†	2097575.5	24319 ug/L	47.8	24319 ppb	47.8	0.20%
QC value within limits for Cr 267.716 Recovery = 97.28%						
Cu 324.752†	6516384.1	20234 ug/L	66.0	20234 ppb	66.0	0.33%
QC value within limits for Cu 324.752 Recovery = 101.17%						
Fe 238.204 Radial†	-30.4	13.481 ug/L	15.0220	13.481 ppb	15.0220	111.43%
K 766.490 Radial†	1591397.7	296170 ug/L	2505.2	296170 ppb	2505.2	0.85%
QC value within limits for K 766.490 Radial Recovery = 98.72%						
Mg 279.077 IEC†	-8.3	-175.86 ug/L	92.739	-175.86 ppb	92.739	52.73%
Mn 257.610†	8311763.6	9522.4 ug/L	26.44	9522.4 ppb	26.44	0.28%
QC value within limits for Mn 257.610 Recovery = 95.22%						
Mo 202.031†	134807.2	9828.4 ug/L	119.04	9828.4 ppb	119.04	1.21%
QC value within limits for Mo 202.031 Recovery = 98.28%						
Na 589.592 Radial†	831.0	252.03 ug/L	14.647	252.03 ppb	14.647	5.81%
Ni 231.604†	374266.6	9658.0 ug/L	115.55	9658.0 ppb	115.55	1.20%
QC value within limits for Ni 231.604 Recovery = 96.58%						
P 214.914†	29508.0	14599 ug/L	283.2	14599 ppb	283.2	1.94%
QC value within limits for P 214.914 Recovery = 97.32%						
Pb 220.353†	192521.7	24472 ug/L	294.3	24472 ppb	294.3	1.20%
QC value within limits for Pb 220.353 Recovery = 97.89%						
S 181.975 Axial†	35641.7	52471 ug/L	711.5	52471 ppb	711.5	1.36%
QC value within limits for S 181.975 Axial Recovery = 104.94%						
Sb 206.836†	29201.6	10923 ug/L	143.7	10923 ppb	143.7	1.32%
QC value within limits for Sb 206.836 Recovery = 109.23%						
Se 196.026†	15490.8	10279 ug/L	139.2	10279 ppb	139.2	1.35%
QC value within limits for Se 196.026 Recovery = 102.79%						
Si 251.611†	1485705.1	48984 ug/L	86.6	48984 ppb	86.6	0.18%
QC value within limits for Si 251.611 Recovery = 97.97%						
Sn 189.927†	57599.7	10523 ug/L	133.6	10523 ppb	133.6	1.27%
QC value within limits for Sn 189.927 Recovery = 105.23%						
Sr 421.552†	1484234.9	9724.3 ug/L	76.45	9724.3 ppb	76.45	0.79%
QC value within limits for Sr 421.552 Recovery = 97.24%						
Ti 334.940†	5953309.1	9944.1 ug/L	27.04	9944.1 ppb	27.04	0.27%
QC value within limits for Ti 334.940 Recovery = 99.44%						
Tl 190.801†	30705.8	9813.0 ug/L	120.20	9813.0 ppb	120.20	1.22%
QC value within limits for Tl 190.801 Recovery = 98.13%						
U 409.014†	1161.7	-18.044 ug/L	2.6988	-18.044 ppb	2.6988	14.96%
V 292.402†	1435043.4	10243 ug/L	11.0	10243 ppb	11.0	0.11%
QC value within limits for V 292.402 Recovery = 102.43%						
Zn 213.857†	1466301.2	14241 ug/L	38.7	14241 ppb	38.7	0.27%
QC value within limits for Zn 213.857 Recovery = 94.94%						
SiO2†	1489044.1	105120 ug/L	1010.7	105120 ppb	1010.7	0.96%
QC value within limits for SiO2 Recovery = 98.24%						

All analyte(s) passed QC.

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Analysis Begun

Start Time: 1/15/2010 10:45:35 **Plasma On Time: 1/11/2010 06:15:31**
Logged In Analyst: Optima3 **Technique: ICP Continuous**
Spectrometer Model: Optima 5300 DV, S/N 077C7090601Autosampler Model: S10

Sample Information File: C:\pe\Optima3\Sample Information\011510.sif
Batch ID:
Results Data Set: 011510
Results Library: C:\pe\Optima3\Results\Results.mdb

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Method Loaded
Method Name: General Eng.2AX **Method Last Saved: 1/15/2010 09:16:34**
IEC File: 011110.iec **MSF File:**
Method Description:

Analyte	Calibration Equation	Processing	View	Internal Standard	IEC
Ag 328.068	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Al 396.153Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
As 188.979	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
B 249.677	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ba 233.527	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Be 313.107	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ca 317.933Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	No
Cd 226.502	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Co 228.616	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cr 267.716	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cu 324.752	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Fe 238.204 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
K 766.490 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Mg 279.077 IEC	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Mn 257.610	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Mo 202.031	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Na 589.592 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	No
Ni 231.604	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
P 214.914	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Pb 220.353	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
S 181.975 Axial	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sb 206.836	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sc 361.383	Lin Thru 0	Peak Area	Axial	n/a	n/a
Sc Radial	Lin, Calc Int	Peak Area	Radial	n/a	n/a
Se 196.026	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Si 251.611	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sn 189.927	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sr 421.552	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Ti 334.940	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Tl 190.801	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
U 409.014	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
V 292.402	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y 371.029	Lin, Calc Int	Peak Area	Axial	n/a	n/a
Zn 213.857	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y RADIAL	Lin, Calc Int	Peak Area	Radial	n/a	n/a
SiO2	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes

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Sequence No.: 1 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 1/15/2010 10:45:36**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4951.5	4951.5	97.3	%			10:47:29
1	Y RADIAL	5356.2	5356.2	97.29	%			10:47:29
1	Al 396.153Radial†	6319.9	6506.6	5094.2	ug/L	5094.2	ppb	10:47:29

1	Ca 317.933Radial†	3100.2	3169.1	5203.7 ug/L	5203.7 ppb	10:47:49
1	Fe 238.204 Radial†	577.5	583.8	5223.9 ug/L	5223.9 ppb	10:47:49
1	K 766.490 Radial†	30098.9	27933.9	5192.6 ug/L	5192.6 ppb	10:47:29
1	Mg 279.077 IEC†	160.2	162.2	5448.9 ug/L	5448.9 ppb	10:47:49
1	Na 589.592 Radial†	30402.4	32808.6	9950.3 ug/L	9950.3 ppb	10:47:29
1	Sr 421.552†	73432.7	75442.3	494.24 ug/L	494.24 ppb	10:47:29
1	Sc 361.383	850905.5	850905.5	101.56 %		10:48:46
1	Y 371.029	710598.8	710598.8	99.813 %		10:48:46
1	Ag 328.068†	109572.8	107591.4	515.17 ug/L	515.17 ppb	10:48:51
1	As 188.979†	1140.5	1143.6	511.18 ug/L	511.18 ppb	10:49:11
1	B 249.677†	21545.6	21680.8	512.74 ug/L	512.74 ppb	10:48:51
1	Ba 233.527†	63471.6	62503.5	509.16 ug/L	509.16 ppb	10:48:51
1	Be 313.107†	1344526.1	1328219.8	511.86 ug/L	511.86 ppb	10:48:46
1	Cd 226.502†	44804.2	44314.2	510.08 ug/L	510.08 ppb	10:48:51
1	Co 228.616†	24267.0	23954.1	510.66 ug/L	510.66 ppb	10:48:51
1	Cr 267.716†	44550.5	43777.9	507.87 ug/L	507.87 ppb	10:48:51
1	Cu 324.752†	170914.5	161823.9	502.47 ug/L	502.47 ppb	10:48:51
1	Mn 257.610†	451831.3	444465.2	509.50 ug/L	509.50 ppb	10:48:46
1	Mo 202.031†	7039.7	6910.9	504.32 ug/L	504.32 ppb	10:49:11
1	Ni 231.604†	20081.3	19687.5	508.03 ug/L	508.03 ppb	10:48:51
1	P 214.914†	4288.3	4003.0	2414.2 ug/L	2414.2 ppb	10:49:11
1	Pb 220.353†	3974.9	3973.2	506.43 ug/L	506.43 ppb	10:49:11
1	S 181.975 Axial†	750.0	692.2	1018.1 ug/L	1018.1 ppb	10:49:11
1	Sb 206.836†	1458.3	1399.5	524.19 ug/L	524.19 ppb	10:49:11
1	Se 196.026†	748.7	765.6	525.45 ug/L	525.45 ppb	10:49:11
1	Si 251.611†	78273.4	76619.6	2526.2 ug/L	2526.2 ppb	10:48:51
1	Sn 189.927†	2817.9	2769.2	506.79 ug/L	506.79 ppb	10:49:11
1	Ti 334.940†	301451.2	298133.0	498.27 ug/L	498.27 ppb	10:48:51
1	Tl 190.801†	1592.6	1599.3	510.98 ug/L	510.98 ppb	10:49:11
1	U 409.014†	14914.2	16661.2	519.14 ug/L	519.14 ppb	10:48:51
1	V 292.402†	71350.5	71638.9	512.11 ug/L	512.11 ppb	10:48:51
1	Zn 213.857†	53520.6	52030.2	504.05 ug/L	504.05 ppb	10:48:51
1	SiO2†	77380.4	75734.9	5346.5 ug/L	5346.5 ppb	10:50:19
2	Sc Radial	4998.8	4998.8	98.2 %		10:47:54
2	Y RADIAL	5378.3	5378.3	97.69 %		10:47:54
2	Al 396.153Radial†	6374.3	6500.5	5089.2 ug/L	5089.2 ppb	10:47:54
2	Ca 317.933Radial†	3089.8	3128.4	5136.9 ug/L	5136.9 ppb	10:48:14
2	Fe 238.204 Radial†	576.9	577.5	5168.2 ug/L	5168.2 ppb	10:48:14
2	K 766.490 Radial†	30238.1	27782.8	5164.5 ug/L	5164.5 ppb	10:47:54
2	Mg 279.077 IEC†	154.2	154.5	5191.7 ug/L	5191.7 ppb	10:48:14
2	Na 589.592 Radial†	30728.7	32845.1	9961.3 ug/L	9961.3 ppb	10:47:54
2	Sr 421.552†	74238.0	75547.8	494.93 ug/L	494.93 ppb	10:47:54
2	Sc 361.383	850113.7	850113.7	101.47 %		10:49:17
2	Y 371.029	711579.0	711579.0	99.950 %		10:49:17
2	Ag 328.068†	110250.0	108359.3	518.81 ug/L	518.81 ppb	10:49:22
2	As 188.979†	1150.8	1154.8	516.13 ug/L	516.13 ppb	10:49:42
2	B 249.677†	21670.0	21823.2	516.12 ug/L	516.12 ppb	10:49:22
2	Ba 233.527†	63592.3	62680.6	510.61 ug/L	510.61 ppb	10:49:22
2	Be 313.107†	1348612.9	1333480.8	513.89 ug/L	513.89 ppb	10:49:17
2	Cd 226.502†	44765.6	44317.3	510.12 ug/L	510.12 ppb	10:49:22
2	Co 228.616†	24385.6	24093.3	513.63 ug/L	513.63 ppb	10:49:22
2	Cr 267.716†	44568.3	43836.3	508.55 ug/L	508.55 ppb	10:49:22
2	Cu 324.752†	172152.0	163200.3	506.74 ug/L	506.74 ppb	10:49:22
2	Mn 257.610†	452062.4	445107.3	510.24 ug/L	510.24 ppb	10:49:17
2	Mo 202.031†	7075.3	6952.4	507.34 ug/L	507.34 ppb	10:49:42
2	Ni 231.604†	20113.8	19738.0	509.33 ug/L	509.33 ppb	10:49:22
2	P 214.914†	4307.4	4025.7	2427.7 ug/L	2427.7 ppb	10:49:42
2	Pb 220.353†	3976.8	3978.7	507.14 ug/L	507.14 ppb	10:49:42
2	S 181.975 Axial†	752.4	695.2	1022.6 ug/L	1022.6 ppb	10:49:42
2	Sb 206.836†	1463.6	1406.1	526.67 ug/L	526.67 ppb	10:49:42
2	Se 196.026†	754.8	772.4	529.74 ug/L	529.74 ppb	10:49:42
2	Si 251.611†	78731.8	77143.2	2543.5 ug/L	2543.5 ppb	10:49:22
2	Sn 189.927†	2832.6	2786.4	509.91 ug/L	509.91 ppb	10:49:42
2	Ti 334.940†	302706.7	299646.8	500.81 ug/L	500.81 ppb	10:49:22
2	Tl 190.801†	1588.4	1596.6	510.14 ug/L	510.14 ppb	10:49:42
2	U 409.014†	14988.5	16748.1	521.86 ug/L	521.86 ppb	10:49:22
2	V 292.402†	71514.6	71866.0	513.76 ug/L	513.76 ppb	10:49:22
2	Zn 213.857†	53814.6	52369.0	507.35 ug/L	507.35 ppb	10:49:22
2	SiO2†	77904.5	76322.4	5388.0 ug/L	5388.0 ppb	10:50:24
3	Sc Radial	4989.5	4989.5	98.0 %		10:48:19
3	Y RADIAL	5368.3	5368.3	97.51 %		10:48:19

3	Al 396.153Radial†	6417.9	6557.2	5133.7 ug/L	5133.7 ppb	10:48:19
3	Ca 317.933Radial†	3098.9	3143.6	5161.8 ug/L	5161.8 ppb	10:48:39
3	Fe 238.204 Radial†	580.6	582.4	5211.8 ug/L	5211.8 ppb	10:48:39
3	K 766.490 Radial†	30461.8	28068.6	5217.6 ug/L	5217.6 ppb	10:48:19
3	Mg 279.077 IEC†	158.7	159.4	5356.2 ug/L	5356.2 ppb	10:48:39
3	Na 589.592 Radial†	30886.7	33064.7	10028 ug/L	10028 ppb	10:48:19
3	Sr 421.552†	74414.5	75869.4	497.04 ug/L	497.04 ppb	10:48:19
3	Sc 361.383	844526.0	844526.0	100.80 %		10:49:48
3	Y 371.029	706233.9	706233.9	99.199 %		10:49:48
3	Ag 328.068†	109137.2	107974.3	516.99 ug/L	516.99 ppb	10:49:53
3	As 188.979†	1151.2	1162.7	519.62 ug/L	519.62 ppb	10:50:13
3	B 249.677†	21488.7	21784.6	515.20 ug/L	515.20 ppb	10:49:53
3	Ba 233.527†	63149.1	62655.7	510.40 ug/L	510.40 ppb	10:49:53
3	Be 313.107†	1336662.8	1330419.3	512.71 ug/L	512.71 ppb	10:49:48
3	Cd 226.502†	44540.5	44385.9	510.90 ug/L	510.90 ppb	10:49:53
3	Co 228.616†	24117.3	23986.0	511.35 ug/L	511.35 ppb	10:49:53
3	Cr 267.716†	44280.4	43841.4	508.61 ug/L	508.61 ppb	10:49:53
3	Cu 324.752†	170009.3	162197.2	503.63 ug/L	503.63 ppb	10:49:53
3	Mn 257.610†	449091.0	445107.3	510.24 ug/L	510.24 ppb	10:49:48
3	Mo 202.031†	7056.8	6980.2	509.37 ug/L	509.37 ppb	10:50:13
3	Ni 231.604†	20028.5	19784.5	510.54 ug/L	510.54 ppb	10:49:53
3	P 214.914†	4307.4	4053.8	2446.0 ug/L	2446.0 ppb	10:50:13
3	Pb 220.353†	3987.9	4015.6	511.84 ug/L	511.84 ppb	10:50:13
3	S 181.975 Axial†	752.3	700.1	1029.7 ug/L	1029.7 ppb	10:50:13
3	Sb 206.836†	1475.5	1427.5	534.49 ug/L	534.49 ppb	10:50:13
3	Se 196.026†	744.6	767.2	526.46 ug/L	526.46 ppb	10:50:13
3	Si 251.611†	78041.3	76971.5	2537.8 ug/L	2537.8 ppb	10:49:53
3	Sn 189.927†	2828.4	2800.6	512.52 ug/L	512.52 ppb	10:50:13
3	Ti 334.940†	299892.1	298828.4	499.43 ug/L	499.43 ppb	10:49:53
3	Tl 190.801†	1589.6	1608.2	513.80 ug/L	513.80 ppb	10:50:13
3	U 409.014†	14783.3	16642.2	518.55 ug/L	518.55 ppb	10:49:53
3	V 292.402†	70984.3	71806.3	513.36 ug/L	513.36 ppb	10:49:53
3	Zn 213.857†	53244.5	52154.4	505.24 ug/L	505.24 ppb	10:49:53
3	SiO2†	76912.1	75845.8	5354.2 ug/L	5354.2 ppb	10:50:29

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	848515.1	101.27	%	0.415				0.41%
Sc Radial	4979.9	97.8	%	0.49				0.50%
Y 371.029	709470.6	99.654	%	0.3997				0.40%
Y RADIAL	5367.6	97.50	%	0.201				0.21%
Ag 328.068†	107975.0	516.99	ug/L	1.821	516.99	ppb	1.821	0.35%
QC value within limits for Ag 328.068 Recovery = 103.40%								
Al 396.153Radial†	6521.4	5105.7	ug/L	24.36	5105.7	ppb	24.36	0.48%
QC value within limits for Al 396.153Radial Recovery = 102.11%								
As 188.979†	1153.7	515.64	ug/L	4.243	515.64	ppb	4.243	0.82%
QC value within limits for As 188.979 Recovery = 103.13%								
B 249.677†	21762.9	514.69	ug/L	1.750	514.69	ppb	1.750	0.34%
QC value within limits for B 249.677 Recovery = 102.94%								
Ba 233.527†	62613.3	510.06	ug/L	0.780	510.06	ppb	0.780	0.15%
QC value within limits for Ba 233.527 Recovery = 102.01%								
Be 313.107†	1330706.6	512.82	ug/L	1.019	512.82	ppb	1.019	0.20%
QC value within limits for Be 313.107 Recovery = 102.56%								
Ca 317.933Radial†	3147.0	5167.5	ug/L	33.76	5167.5	ppb	33.76	0.65%
QC value within limits for Ca 317.933Radial Recovery = 103.35%								
Cd 226.502†	44339.1	510.37	ug/L	0.466	510.37	ppb	0.466	0.09%
QC value within limits for Cd 226.502 Recovery = 102.07%								
Co 228.616†	24011.1	511.88	ug/L	1.554	511.88	ppb	1.554	0.30%
QC value within limits for Co 228.616 Recovery = 102.38%								
Cr 267.716†	43818.5	508.35	ug/L	0.409	508.35	ppb	0.409	0.08%
QC value within limits for Cr 267.716 Recovery = 101.67%								
Cu 324.752†	162407.1	504.28	ug/L	2.208	504.28	ppb	2.208	0.44%
QC value within limits for Cu 324.752 Recovery = 100.86%								
Fe 238.204 Radial†	581.2	5201.3	ug/L	29.30	5201.3	ppb	29.30	0.56%
QC value within limits for Fe 238.204 Radial Recovery = 104.03%								
K 766.490 Radial†	27928.4	5191.6	ug/L	26.59	5191.6	ppb	26.59	0.51%
QC value within limits for K 766.490 Radial Recovery = 103.83%								
Mg 279.077 IEC†	158.7	5332.3	ug/L	130.23	5332.3	ppb	130.23	2.44%
QC value within limits for Mg 279.077 IEC Recovery = 106.65%								

Mn 257.610†	444893.3	509.99 ug/L	0.427	509.99 ppb	0.427	0.08%
QC value within limits for Mn 257.610 Recovery = 102.00%						
Mo 202.031†	6947.8	507.01 ug/L	2.542	507.01 ppb	2.542	0.50%
QC value within limits for Mo 202.031 Recovery = 101.40%						
Na 589.592 Radial†	32906.1	9979.9 ug/L	42.02	9979.9 ppb	42.02	0.42%
QC value within limits for Na 589.592 Radial Recovery = 99.80%						
Ni 231.604†	19736.7	509.30 ug/L	1.252	509.30 ppb	1.252	0.25%
QC value within limits for Ni 231.604 Recovery = 101.86%						
P 214.914†	4027.5	2429.3 ug/L	15.94	2429.3 ppb	15.94	0.66%
QC value within limits for P 214.914 Recovery = 97.17%						
Pb 220.353†	3989.2	508.47 ug/L	2.941	508.47 ppb	2.941	0.58%
QC value within limits for Pb 220.353 Recovery = 101.69%						
S 181.975 Axial†	695.8	1023.4 ug/L	5.84	1023.4 ppb	5.84	0.57%
QC value within limits for S 181.975 Axial Recovery = 102.34%						
Sb 206.836†	1411.0	528.45 ug/L	5.376	528.45 ppb	5.376	1.02%
QC value within limits for Sb 206.836 Recovery = 105.69%						
Se 196.026†	768.4	527.22 ug/L	2.242	527.22 ppb	2.242	0.43%
QC value within limits for Se 196.026 Recovery = 105.44%						
Si 251.611†	76911.4	2535.8 ug/L	8.80	2535.8 ppb	8.80	0.35%
QC value within limits for Si 251.611 Recovery = 101.43%						
Sn 189.927†	2785.4	509.74 ug/L	2.866	509.74 ppb	2.866	0.56%
QC value within limits for Sn 189.927 Recovery = 101.95%						
Sr 421.552†	75619.8	495.40 ug/L	1.458	495.40 ppb	1.458	0.29%
QC value within limits for Sr 421.552 Recovery = 99.08%						
Ti 334.940†	298869.4	499.50 ug/L	1.272	499.50 ppb	1.272	0.25%
QC value within limits for Ti 334.940 Recovery = 99.90%						
Tl 190.801†	1601.4	511.64 ug/L	1.916	511.64 ppb	1.916	0.37%
QC value within limits for Tl 190.801 Recovery = 102.33%						
U 409.014†	16683.8	519.85 ug/L	1.768	519.85 ppb	1.768	0.34%
QC value within limits for U 409.014 Recovery = 103.97%						
V 292.402†	71770.4	513.08 ug/L	0.861	513.08 ppb	0.861	0.17%
QC value within limits for V 292.402 Recovery = 102.62%						
Zn 213.857†	52184.5	505.54 ug/L	1.672	505.54 ppb	1.672	0.33%
QC value within limits for Zn 213.857 Recovery = 101.11%						
SiO2†	75967.7	5362.9 ug/L	22.07	5362.9 ppb	22.07	0.41%
QC value within limits for SiO2 Recovery = 100.29%						

All analyte(s) passed QC.

Sequence No.: 2
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 1/15/2010 10:52:38
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	5005.3	5005.3	98.3	%			10:54:31
1	Y RADIAL	5441.4	5441.4	98.84	%			10:54:31
1	Al 396.153Radial†	-6.8	3.8	3.0275	ug/L	3.0275	ppb	10:54:31
1	Ca 317.933Radial†	15.8	-1.3	-2.1797	ug/L	-2.1797	ppb	10:54:51
1	Fe 238.204 Radial†	10.4	0.7	6.4922	ug/L	6.4922	ppb	10:54:51
1	K 766.490 Radial†	3617.6	675.2	125.66	ug/L	125.66	ppb	10:54:31
1	Mg 279.077 IEC†	2.6	0.2	5.9433	ug/L	5.9433	ppb	10:54:51
1	Na 589.592 Radial†	-1480.4	54.4	16.487	ug/L	16.487	ppb	10:54:31
1	Sr 421.552†	11.4	-23.5	-0.1540	ug/L	-0.1540	ppb	10:54:31
1	Sc 361.383	832717.4	832717.4	99.389	%			10:55:48
1	Y 371.029	708330.2	708330.2	99.494	%			10:55:48
1	Ag 328.068†	337.6	41.3	0.2048	ug/L	0.2048	ppb	10:55:48
1	As 188.979†	-12.8	7.7	3.4281	ug/L	3.4281	ppb	10:56:08
1	B 249.677†	40.5	506.8	12.040	ug/L	12.040	ppb	10:56:08
1	Ba 233.527†	-12.1	-5.4	-0.0431	ug/L	-0.0431	ppb	10:56:08
1	Be 313.107†	-4261.4	57.6	0.0218	ug/L	0.0218	ppb	10:55:48
1	Cd 226.502†	-160.1	37.1	0.4253	ug/L	0.4253	ppb	10:56:08
1	Co 228.616†	-79.6	-20.3	-0.4326	ug/L	-0.4326	ppb	10:56:08
1	Cr 267.716†	59.9	-28.0	-0.3216	ug/L	-0.3216	ppb	10:56:08
1	Cu 324.752†	6377.0	-49.2	-0.1487	ug/L	-0.1487	ppb	10:55:48
1	Mn 257.610†	401.2	-22.5	-0.0253	ug/L	-0.0253	ppb	10:56:08
1	Mo 202.031†	19.3	-1.3	-0.0920	ug/L	-0.0920	ppb	10:56:08
1	Ni 231.604†	79.5	-5.4	-0.1379	ug/L	-0.1379	ppb	10:56:08
1	P 214.914†	197.2	-21.1	-13.221	ug/L	-13.221	ppb	10:56:08
1	Pb 220.353†	-73.3	-14.4	-1.8314	ug/L	-1.8314	ppb	10:56:08
1	S 181.975 Axial†	37.2	-8.8	-13.003	ug/L	-13.003	ppb	10:56:08
1	Sb 206.836†	40.2	4.0	1.4685	ug/L	1.4685	ppb	10:56:08
1	Se 196.026†	-20.0	8.3	5.5398	ug/L	5.5398	ppb	10:56:08
1	Si 251.611†	480.6	32.0	1.0581	ug/L	1.0581	ppb	10:56:08
1	Sn 189.927†	9.6	4.3	0.7844	ug/L	0.7844	ppb	10:56:08
1	Ti 334.940†	-1384.1	-80.7	-0.1325	ug/L	-0.1325	ppb	10:55:48
1	Tl 190.801†	-24.4	6.6	2.0946	ug/L	2.0946	ppb	10:56:08
1	U 409.014†	-2180.9	-218.3	-6.8243	ug/L	-6.8243	ppb	10:55:48
1	V 292.402†	-1352.2	23.8	0.1531	ug/L	0.1531	ppb	10:55:48
1	Zn 213.857†	663.3	-1.0	-0.0094	ug/L	-0.0094	ppb	10:56:08
1	SiO2†	553.2	99.6	7.0534	ug/L	7.0534	ppb	10:57:04
2	Sc Radial	5038.9	5038.9	99.0	%			10:54:56
2	Y RADIAL	5480.4	5480.4	99.55	%			10:54:56
2	Al 396.153Radial†	-7.0	3.7	2.8928	ug/L	2.8928	ppb	10:54:56
2	Ca 317.933Radial†	18.0	0.8	1.3283	ug/L	1.3283	ppb	10:55:17
2	Fe 238.204 Radial†	8.9	-0.9	-8.0695	ug/L	-8.0695	ppb	10:55:17
2	K 766.490 Radial†	3413.7	444.7	82.760	ug/L	82.760	ppb	10:54:56
2	Mg 279.077 IEC†	4.5	2.1	68.998	ug/L	68.998	ppb	10:55:17
2	Na 589.592 Radial†	-1463.7	81.3	24.651	ug/L	24.651	ppb	10:54:56
2	Sr 421.552†	21.9	-13.1	-0.0856	ug/L	-0.0856	ppb	10:54:56
2	Sc 361.383	847945.6	847945.6	101.21	%			10:56:14
2	Y 371.029	722577.0	722577.0	101.50	%			10:56:14
2	Ag 328.068†	342.0	39.6	0.1795	ug/L	0.1795	ppb	10:56:14
2	As 188.979†	-14.3	6.4	2.8432	ug/L	2.8432	ppb	10:56:34
2	B 249.677†	41.9	507.5	12.057	ug/L	12.057	ppb	10:56:34
2	Ba 233.527†	7.0	13.7	0.1100	ug/L	0.1100	ppb	10:56:34
2	Be 313.107†	-4283.5	112.7	0.0433	ug/L	0.0433	ppb	10:56:14
2	Cd 226.502†	-171.2	29.1	0.3364	ug/L	0.3364	ppb	10:56:34
2	Co 228.616†	-63.5	-3.0	-0.0626	ug/L	-0.0626	ppb	10:56:34
2	Cr 267.716†	70.5	-18.6	-0.2187	ug/L	-0.2187	ppb	10:56:34
2	Cu 324.752†	6490.7	-52.1	-0.1652	ug/L	-0.1652	ppb	10:56:14
2	Mn 257.610†	419.3	-11.8	-0.0171	ug/L	-0.0171	ppb	10:56:34
2	Mo 202.031†	23.5	2.5	0.1817	ug/L	0.1817	ppb	10:56:34
2	Ni 231.604†	83.5	-2.8	-0.0718	ug/L	-0.0718	ppb	10:56:34

2	P 214.914†	201.5	-20.4	-12.736 ug/L	-12.736 ppb	10:56:34
2	Pb 220.353†	-69.0	-8.8	-1.1204 ug/L	-1.1204 ppb	10:56:34
2	S 181.975 Axial†	50.0	3.1	4.5779 ug/L	4.5779 ppb	10:56:34
2	Sb 206.836†	61.0	23.9	8.6633 ug/L	8.6633 ppb	10:56:34
2	Se 196.026†	-34.1	-5.2	-3.4809 ug/L	-3.4809 ppb	10:56:34
2	Si 251.611†	487.8	30.4	1.0038 ug/L	1.0038 ppb	10:56:34
2	Sn 189.927†	12.7	7.2	1.3155 ug/L	1.3155 ppb	10:56:34
2	Ti 334.940†	-1351.0	-22.9	-0.0459 ug/L	-0.0459 ppb	10:56:14
2	Tl 190.801†	-36.9	-5.3	-1.6813 ug/L	-1.6813 ppb	10:56:34
2	U 409.014†	-1832.9	165.0	5.1586 ug/L	5.1586 ppb	10:56:14
2	V 292.402†	-1472.6	-70.7	-0.4835 ug/L	-0.4835 ppb	10:56:14
2	Zn 213.857†	666.0	-10.3	-0.0992 ug/L	-0.0992 ppb	10:56:34
2	SiO2†	461.7	-0.8	-0.0593 ug/L	-0.0593 ppb	10:57:09
3	Sc Radial	4984.5	4984.5	97.9 %		10:55:22
3	Y RADIAL	5427.0	5427.0	98.58 %		10:55:22
3	Al 396.153Radial†	3.8	14.6	11.506 ug/L	11.506 ppb	10:55:22
3	Ca 317.933Radial†	9.9	-7.2	-11.880 ug/L	-11.880 ppb	10:55:42
3	Fe 238.204 Radial†	11.1	1.5	13.439 ug/L	13.439 ppb	10:55:42
3	K 766.490 Radial†	3478.2	548.2	102.03 ug/L	102.03 ppb	10:55:22
3	Mg 279.077 IEC†	1.5	-0.9	-30.702 ug/L	-30.702 ppb	10:55:42
3	Na 589.592 Radial†	-1449.5	79.7	24.165 ug/L	24.165 ppb	10:55:22
3	Sr 421.552†	11.2	-23.7	-0.1554 ug/L	-0.1554 ppb	10:55:22
3	Sc 361.383	839001.8	839001.8	100.14 %		10:56:39
3	Y 371.029	713291.3	713291.3	100.19 %		10:56:39
3	Ag 328.068†	340.9	42.1	0.2037 ug/L	0.2037 ppb	10:56:39
3	As 188.979†	-16.8	3.8	1.6914 ug/L	1.6914 ppb	10:56:59
3	B 249.677†	-11.4	454.7	10.801 ug/L	10.801 ppb	10:56:59
3	Ba 233.527†	2.7	9.5	0.0775 ug/L	0.0775 ppb	10:56:59
3	Be 313.107†	-4314.7	36.4	0.0138 ug/L	0.0138 ppb	10:56:39
3	Cd 226.502†	-188.1	10.3	0.1172 ug/L	0.1172 ppb	10:56:59
3	Co 228.616†	-69.8	-9.9	-0.2107 ug/L	-0.2107 ppb	10:56:59
3	Cr 267.716†	73.0	-15.3	-0.1779 ug/L	-0.1779 ppb	10:56:59
3	Cu 324.752†	6350.1	-124.1	-0.3852 ug/L	-0.3852 ppb	10:56:39
3	Mn 257.610†	410.0	-16.6	-0.0165 ug/L	-0.0165 ppb	10:56:59
3	Mo 202.031†	19.7	-1.1	-0.0779 ug/L	-0.0779 ppb	10:56:59
3	Ni 231.604†	67.8	-17.6	-0.4548 ug/L	-0.4548 ppb	10:56:59
3	P 214.914†	214.0	-5.8	-3.5945 ug/L	-3.5945 ppb	10:56:59
3	Pb 220.353†	-57.3	2.1	0.2668 ug/L	0.2668 ppb	10:56:59
3	S 181.975 Axial†	42.7	-3.6	-5.2860 ug/L	-5.2860 ppb	10:56:59
3	Sb 206.836†	42.0	5.6	2.0202 ug/L	2.0202 ppb	10:56:59
3	Se 196.026†	-32.2	-3.7	-2.4292 ug/L	-2.4292 ppb	10:56:59
3	Si 251.611†	485.4	33.2	1.0969 ug/L	1.0969 ppb	10:56:59
3	Sn 189.927†	9.0	3.6	0.6596 ug/L	0.6596 ppb	10:56:59
3	Ti 334.940†	-1365.6	-51.8	-0.0859 ug/L	-0.0859 ppb	10:56:39
3	Tl 190.801†	-29.7	1.4	0.4583 ug/L	0.4583 ppb	10:56:59
3	U 409.014†	-1955.0	23.8	0.7433 ug/L	0.7433 ppb	10:56:39
3	V 292.402†	-1400.7	-14.5	-0.1042 ug/L	-0.1042 ppb	10:56:39
3	Zn 213.857†	671.3	2.0	0.0217 ug/L	0.0217 ppb	10:56:59
3	SiO2†	487.7	30.0	2.1289 ug/L	2.1289 ppb	10:57:14

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	839888.3	100.24	%	0.913				0.91%
Sc Radial	5009.6	98.4	%	0.54				0.55%
Y 371.029	714732.8	100.39	%	1.016				1.01%
Y RADIAL	5449.6	98.99	%	0.501				0.51%
Ag 328.068†	41.0	0.1960	ug/L	0.01435	0.1960	ppb	0.01435	7.32%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	7.4	5.8087	ug/L	4.93425	5.8087	ppb	4.93425	84.95%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	6.0	2.6542	ug/L	0.88368	2.6542	ppb	0.88368	33.29%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	489.7	11.633	ug/L	0.7207	11.633	ppb	0.7207	6.20%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	5.9	0.0481	ug/L	0.08065	0.0481	ppb	0.08065	167.62%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	68.9	0.0263	ug/L	0.01522	0.0263	ppb	0.01522	57.86%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-2.6	-4.2437	ug/L	6.84167	-4.2437	ppb	6.84167	161.22%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                25.5      0.2930 ug/L       0.15853      0.2930 ppb        0.15853  54.11%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†               -11.1     -0.2353 ug/L       0.18618     -0.2353 ppb        0.18618  79.13%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†               -20.7     -0.2394 ug/L       0.07407     -0.2394 ppb        0.07407  30.94%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               -75.2     -0.2330 ug/L       0.13203     -0.2330 ppb        0.13203  56.67%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          0.4      3.9540 ug/L      10.97673      3.9540 ppb       10.97673 277.61%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         556.0      103.48 ug/L        21.489      103.48 ppb         21.489  20.77%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             0.4      14.746 ug/L       50.4295      14.746 ppb        50.4295 341.98%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               -17.0     -0.0196 ug/L       0.00494     -0.0196 ppb        0.00494  25.15%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 0.1      0.0039 ug/L       0.15411      0.0039 ppb        0.15411 >999.9%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†         71.8      21.768 ug/L        4.5797      21.768 ppb         4.5797  21.04%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                -8.6     -0.2215 ug/L       0.20475     -0.2215 ppb        0.20475  92.43%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -15.8     -9.8503 ug/L       5.42314     -9.8503 ppb        5.42314  55.06%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -7.1     -0.8950 ug/L       1.06709     -0.8950 ppb        1.06709 119.22%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -3.1     -4.5704 ug/L       8.81233     -4.5704 ppb        8.81233 192.81%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                11.2      4.0507 ug/L       4.00414      4.0507 ppb        4.00414  98.85%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -0.2     -0.1234 ug/L       4.93259     -0.1234 ppb        4.93259 >999.9%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                31.9      1.0529 ug/L       0.04678      1.0529 ppb        0.04678   4.44%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 5.0      0.9198 ug/L       0.34829      0.9198 ppb        0.34829  37.87%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               -20.1     -0.1317 ug/L       0.03992     -0.1317 ppb        0.03992  30.32%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               -51.8     -0.0881 ug/L       0.04335     -0.0881 ppb        0.04335  49.19%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 0.9      0.2905 ug/L       1.89356      0.2905 ppb        1.89356 651.73%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 -9.8     -0.3075 ug/L       6.06016     -0.3075 ppb        6.06016 >999.9%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                -20.4     -0.1449 ug/L       0.32027     -0.1449 ppb        0.32027 221.05%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                -3.1     -0.0290 ug/L       0.06278     -0.0290 ppb        0.06278 216.51%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                      43.0      3.0410 ug/L       3.64304      3.0410 ppb        3.64304 119.80%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
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Analysis Begun

Start Time: 1/15/2010 12:13:31
Plasma On Time: 1/11/2010 06:15:31
Logged In Analyst: Optima3
Technique: ICP Continuous
Spectrometer Model: Optima 5300 DV, S/N 077C7090601Autosampler Model: S10

Sample Information File: C:\pe\Optima3\Sample Information\011510.sif
Batch ID:
Results Data Set: 011510
Results Library: C:\pe\Optima3\Results\Results.mdb

==========

Sequence No.: 1
Autosampler Location: 7
Sample ID: CCV
Date Collected: 1/15/2010 12:13:31
Analyst:
Data Type: Original
Initial Sample Wt:
Initial Sample Vol:
Dilution:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5252.5	5252.5	103	%			12:15:23
1	Y RADIAL	5606.5	5606.5	101.8	%			12:15:23
1	Al 396.153Radial†	6018.2	5842.0	4573.3	ug/L	4573.3	ppb	12:15:23
1	Ca 317.933Radial†	2944.5	2835.7	4656.2	ug/L	4656.2	ppb	12:15:43
1	Fe 238.204 Radial†	569.4	541.9	4848.7	ug/L	4848.7	ppb	12:15:43
1	K 766.490 Radial†	28394.5	24509.6	4555.5	ug/L	4555.5	ppb	12:15:23
1	Mg 279.077 IEC†	145.0	138.0	4636.8	ug/L	4636.8	ppb	12:15:43
1	Na 589.592 Radial†	32620.9	33167.6	10059	ug/L	10059	ppb	12:15:23
1	Sr 421.552†	73966.9	71634.9	469.30	ug/L	469.30	ppb	12:15:23
1	Sc 361.383	898813.9	898813.9	107.28	%			12:16:40
1	Y 371.029	750628.9	750628.9	105.44	%			12:16:40
1	Ag 328.068†	105179.7	97745.6	468.06	ug/L	468.06	ppb	12:16:45
1	As 188.979†	1099.4	1045.4	467.25	ug/L	467.25	ppb	12:17:05
1	B 249.677†	20033.9	19140.9	452.60	ug/L	452.60	ppb	12:16:45
1	Ba 233.527†	60830.9	56710.8	461.98	ug/L	461.98	ppb	12:16:45
1	Be 313.107†	1286671.3	1203725.2	463.88	ug/L	463.88	ppb	12:16:40
1	Cd 226.502†	42761.6	40058.7	461.08	ug/L	461.08	ppb	12:16:45
1	Co 228.616†	23186.5	21673.3	462.05	ug/L	462.05	ppb	12:16:45
1	Cr 267.716†	42601.9	39623.4	459.68	ug/L	459.68	ppb	12:16:45
1	Cu 324.752†	163147.1	145613.3	452.15	ug/L	452.15	ppb	12:16:45
1	Mn 257.610†	436356.8	406327.1	465.80	ug/L	465.80	ppb	12:16:40
1	Mo 202.031†	6856.4	6370.6	464.89	ug/L	464.89	ppb	12:17:05
1	Ni 231.604†	19260.5	17868.5	461.09	ug/L	461.09	ppb	12:16:45
1	P 214.914†	4179.6	3676.5	2219.2	ug/L	2219.2	ppb	12:17:05
1	Pb 220.353†	3855.8	3653.5	465.66	ug/L	465.66	ppb	12:17:05
1	S 181.975 Axial†	726.8	631.3	928.49	ug/L	928.49	ppb	12:17:05
1	Sb 206.836†	1411.5	1279.3	479.33	ug/L	479.33	ppb	12:17:05
1	Se 196.026†	724.2	703.5	483.01	ug/L	483.01	ppb	12:17:05
1	Si 251.611†	74919.7	69385.4	2287.6	ug/L	2287.6	ppb	12:16:45
1	Sn 189.927†	2743.6	2552.1	467.04	ug/L	467.04	ppb	12:17:05
1	Ti 334.940†	288797.5	270516.6	452.13	ug/L	452.13	ppb	12:16:45
1	Tl 190.801†	1567.0	1491.8	476.57	ug/L	476.57	ppb	12:17:05
1	U 409.014†	14049.6	15072.5	469.63	ug/L	469.63	ppb	12:16:45
1	V 292.402†	68177.9	64936.8	464.29	ug/L	464.29	ppb	12:16:45
1	Zn 213.857†	51228.3	47084.5	456.12	ug/L	456.12	ppb	12:16:45
1	SiO2†	73560.6	68113.1	4808.1	ug/L	4808.1	ppb	12:18:13
2	Sc Radial	5169.4	5169.4	102	%			12:15:48
2	Y RADIAL	5544.5	5544.5	100.7	%			12:15:48
2	Al 396.153Radial†	5994.5	5912.5	4629.0	ug/L	4629.0	ppb	12:15:48
2	Ca 317.933Radial†	2970.3	2907.0	4773.2	ug/L	4773.2	ppb	12:16:08
2	Fe 238.204 Radial†	571.8	553.1	4948.9	ug/L	4948.9	ppb	12:16:08
2	K 766.490 Radial†	28196.0	24756.6	4601.4	ug/L	4601.4	ppb	12:15:48
2	Mg 279.077 IEC†	149.2	144.5	4853.9	ug/L	4853.9	ppb	12:16:08
2	Na 589.592 Radial†	32042.0	33105.9	10040	ug/L	10040	ppb	12:15:48
2	Sr 421.552†	73264.7	72096.0	472.32	ug/L	472.32	ppb	12:15:48
2	Sc 361.383	899367.0	899367.0	107.34	%			12:17:11
2	Y 371.029	751392.6	751392.6	105.54	%			12:17:11

2	Ag 328.068†	105831.8	98292.9	470.69 ug/L	470.69 ppb	12:17:16
2	As 188.979†	1077.3	1024.2	457.92 ug/L	457.92 ppb	12:17:36
2	B 249.677†	20349.5	19423.4	459.29 ug/L	459.29 ppb	12:17:16
2	Ba 233.527†	61023.4	56855.2	463.16 ug/L	463.16 ppb	12:17:16
2	Be 313.107†	1280527.2	1197263.9	461.40 ug/L	461.40 ppb	12:17:11
2	Cd 226.502†	42828.0	40096.1	461.50 ug/L	461.50 ppb	12:17:16
2	Co 228.616†	23256.0	21724.7	463.13 ug/L	463.13 ppb	12:17:16
2	Cr 267.716†	42790.4	39774.6	461.43 ug/L	461.43 ppb	12:17:16
2	Cu 324.752†	164456.6	146739.8	455.65 ug/L	455.65 ppb	12:17:16
2	Mn 257.610†	434222.2	404088.4	463.24 ug/L	463.24 ppb	12:17:11
2	Mo 202.031†	6764.6	6281.1	458.38 ug/L	458.38 ppb	12:17:36
2	Ni 231.604†	19204.5	17805.3	459.46 ug/L	459.46 ppb	12:17:16
2	P 214.914†	4107.3	3606.8	2174.5 ug/L	2174.5 ppb	12:17:36
2	Pb 220.353†	3805.7	3604.7	459.45 ug/L	459.45 ppb	12:17:36
2	S 181.975 Axial†	725.1	629.3	925.51 ug/L	925.51 ppb	12:17:36
2	Sb 206.836†	1404.8	1272.3	476.54 ug/L	476.54 ppb	12:17:36
2	Se 196.026†	718.4	697.6	479.42 ug/L	479.42 ppb	12:17:36
2	Si 251.611†	75239.7	69640.5	2296.1 ug/L	2296.1 ppb	12:17:16
2	Sn 189.927†	2699.8	2509.7	459.31 ug/L	459.31 ppb	12:17:36
2	Ti 334.940†	289865.7	271346.3	453.51 ug/L	453.51 ppb	12:17:16
2	Tl 190.801†	1499.9	1428.4	456.45 ug/L	456.45 ppb	12:17:36
2	U 409.014†	14291.4	15289.7	476.40 ug/L	476.40 ppb	12:17:16
2	V 292.402†	68498.3	65196.3	466.03 ug/L	466.03 ppb	12:17:16
2	Zn 213.857†	51314.5	47135.4	456.61 ug/L	456.61 ppb	12:17:16
2	SiO2†	75325.2	69714.8	4921.7 ug/L	4921.7 ppb	12:18:18
3	Sc Radial	5346.5	5346.5	105 %		12:16:13
3	Y RADIAL	5706.3	5706.3	103.6 %		12:16:13
3	Al 396.153Radial†	6137.6	5853.2	4582.4 ug/L	4582.4 ppb	12:16:13
3	Ca 317.933Radial†	3009.0	2846.9	4674.6 ug/L	4674.6 ppb	12:16:33
3	Fe 238.204 Radial†	579.6	541.8	4848.2 ug/L	4848.2 ppb	12:16:33
3	K 766.490 Radial†	28952.7	24557.3	4564.4 ug/L	4564.4 ppb	12:16:13
3	Mg 279.077 IEC†	153.9	144.0	4838.9 ug/L	4838.9 ppb	12:16:33
3	Na 589.592 Radial†	32958.6	32933.4	9988.1 ug/L	9988.1 ppb	12:16:13
3	Sr 421.552†	75387.2	71727.1	469.90 ug/L	469.90 ppb	12:16:13
3	Sc 361.383	906753.4	906753.4	108.23 %		12:17:42
3	Y 371.029	758027.0	758027.0	106.47 %		12:17:42
3	Ag 328.068†	105669.5	97339.7	466.11 ug/L	466.11 ppb	12:17:47
3	As 188.979†	1074.8	1013.7	453.21 ug/L	453.21 ppb	12:18:07
3	B 249.677†	20293.9	19217.6	454.43 ug/L	454.43 ppb	12:17:47
3	Ba 233.527†	60740.5	56130.7	457.26 ug/L	457.26 ppb	12:17:47
3	Be 313.107†	1286834.5	1193374.3	459.90 ug/L	459.90 ppb	12:17:42
3	Cd 226.502†	42778.7	39725.5	457.24 ug/L	457.24 ppb	12:17:47
3	Co 228.616†	23297.1	21586.2	460.19 ug/L	460.19 ppb	12:17:47
3	Cr 267.716†	42690.4	39357.5	456.59 ug/L	456.59 ppb	12:17:47
3	Cu 324.752†	163979.4	145050.8	450.40 ug/L	450.40 ppb	12:17:47
3	Mn 257.610†	435653.8	402116.0	460.97 ug/L	460.97 ppb	12:17:42
3	Mo 202.031†	6806.9	6268.9	457.48 ug/L	457.48 ppb	12:18:07
3	Ni 231.604†	19214.3	17668.6	455.93 ug/L	455.93 ppb	12:17:47
3	P 214.914†	4147.0	3612.3	2179.1 ug/L	2179.1 ppb	12:18:07
3	Pb 220.353†	3828.5	3596.9	458.45 ug/L	458.45 ppb	12:18:07
3	S 181.975 Axial†	712.6	612.2	900.34 ug/L	900.34 ppb	12:18:07
3	Sb 206.836†	1419.4	1275.2	477.52 ug/L	477.52 ppb	12:18:07
3	Se 196.026†	715.8	689.9	473.94 ug/L	473.94 ppb	12:18:07
3	Si 251.611†	75183.1	69017.3	2275.5 ug/L	2275.5 ppb	12:17:47
3	Sn 189.927†	2710.4	2499.0	457.34 ug/L	457.34 ppb	12:18:07
3	Ti 334.940†	289623.2	268922.4	449.45 ug/L	449.45 ppb	12:17:47
3	Tl 190.801†	1517.8	1433.5	458.05 ug/L	458.05 ppb	12:18:07
3	U 409.014†	14326.1	15213.3	474.04 ug/L	474.04 ppb	12:17:47
3	V 292.402†	68348.9	64538.4	461.39 ug/L	461.39 ppb	12:17:47
3	Zn 213.857†	51246.0	46682.8	452.23 ug/L	452.23 ppb	12:17:47
3	SiO2†	75871.9	69648.2	4917.0 ug/L	4917.0 ppb	12:18:23

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	901644.8	107.62	%	0.529				0.49%
Sc Radial	5256.1	103	%	1.7				1.69%
Y 371.029	753349.5	105.82	%	0.572				0.54%
Y RADIAL	5619.1	102.1	%	1.48				1.45%
Ag 328.068†	97792.7	468.29	ug/L	2.300	468.29	ppb	2.300	0.49%

```
   QC value within limits for Ag 328.068  Recovery = 93.66%
Al 396.153Radial†       5869.2      4594.9 ug/L        29.88      4594.9 ppb        29.88   0.65%
   QC value within limits for Al 396.153Radial  Recovery = 91.90%
As 188.979†             1027.8      459.46 ug/L        7.149      459.46 ppb        7.149   1.56%
   QC value within limits for As 188.979  Recovery = 91.89%
B 249.677†             19260.6      455.44 ug/L        3.459      455.44 ppb        3.459   0.76%
   QC value within limits for B 249.677  Recovery = 91.09%
Ba 233.527†            56565.6      460.80 ug/L        3.122      460.80 ppb        3.122   0.68%
   QC value within limits for Ba 233.527  Recovery = 92.16%
Be 313.107†          1198121.1      461.73 ug/L        2.013      461.73 ppb        2.013   0.44%
   QC value within limits for Be 313.107  Recovery = 92.35%
Ca 317.933Radial†       2863.2      4701.4 ug/L        62.93      4701.4 ppb        62.93   1.34%
   QC value within limits for Ca 317.933Radial  Recovery = 94.03%
Cd 226.502†            39960.1      459.94 ug/L        2.347      459.94 ppb        2.347   0.51%
   QC value within limits for Cd 226.502  Recovery = 91.99%
Co 228.616†            21661.4      461.79 ug/L        1.490      461.79 ppb        1.490   0.32%
   QC value within limits for Co 228.616  Recovery = 92.36%
Cr 267.716†            39585.2      459.24 ug/L        2.451      459.24 ppb        2.451   0.53%
   QC value within limits for Cr 267.716  Recovery = 91.85%
Cu 324.752†           145801.3      452.73 ug/L        2.672      452.73 ppb        2.672   0.59%
   QC value within limits for Cu 324.752  Recovery = 90.55%
Fe 238.204 Radial†       545.6      4882.0 ug/L        58.02      4882.0 ppb        58.02   1.19%
   QC value within limits for Fe 238.204 Radial  Recovery = 97.64%
K 766.490 Radial†      24607.9      4573.8 ug/L        24.37      4573.8 ppb        24.37   0.53%
   QC value within limits for K 766.490 Radial  Recovery = 91.48%
Mg 279.077 IEC†          142.2      4776.5 ug/L       121.27      4776.5 ppb       121.27   2.54%
   QC value within limits for Mg 279.077 IEC  Recovery = 95.53%
Mn 257.610†           404177.1      463.34 ug/L        2.418      463.34 ppb        2.418   0.52%
   QC value within limits for Mn 257.610  Recovery = 92.67%
Mo 202.031†             6306.8      460.25 ug/L        4.045      460.25 ppb        4.045   0.88%
   QC value within limits for Mo 202.031  Recovery = 92.05%
Na 589.592 Radial†     33069.0       10029 ug/L         36.8       10029 ppb         36.8   0.37%
   QC value within limits for Na 589.592 Radial  Recovery = 100.29%
Ni 231.604†            17780.8      458.83 ug/L        2.637      458.83 ppb        2.637   0.57%
   QC value within limits for Ni 231.604  Recovery = 91.77%
P 214.914†              3631.9      2190.9 ug/L        24.55      2190.9 ppb        24.55   1.12%
   QC value less than the lower limit for P 214.914  Recovery = 87.64%
Pb 220.353†             3618.4      461.19 ug/L        3.908      461.19 ppb        3.908   0.85%
   QC value within limits for Pb 220.353  Recovery = 92.24%
S 181.975 Axial†         624.2      918.12 ug/L       15.464      918.12 ppb       15.464   1.68%
   QC value within limits for S 181.975 Axial  Recovery = 91.81%
Sb 206.836†             1275.6      477.79 ug/L        1.417      477.79 ppb        1.417   0.30%
   QC value within limits for Sb 206.836  Recovery = 95.56%
Se 196.026†              697.0      478.79 ug/L        4.568      478.79 ppb        4.568   0.95%
   QC value within limits for Se 196.026  Recovery = 95.76%
Si 251.611†            69347.7      2286.4 ug/L        10.35      2286.4 ppb        10.35   0.45%
   QC value within limits for Si 251.611  Recovery = 91.46%
Sn 189.927†             2520.3      461.23 ug/L        5.125      461.23 ppb        5.125   1.11%
   QC value within limits for Sn 189.927  Recovery = 92.25%
Sr 421.552†            71819.3      470.50 ug/L        1.598      470.50 ppb        1.598   0.34%
   QC value within limits for Sr 421.552  Recovery = 94.10%
Ti 334.940†           270261.8      451.70 ug/L        2.065      451.70 ppb        2.065   0.46%
   QC value within limits for Ti 334.940  Recovery = 90.34%
Tl 190.801†             1451.3      463.69 ug/L       11.183      463.69 ppb       11.183   2.41%
   QC value within limits for Tl 190.801  Recovery = 92.74%
U 409.014†             15191.8      473.35 ug/L        3.439      473.35 ppb        3.439   0.73%
   QC value within limits for U 409.014  Recovery = 94.67%
V 292.402†             64890.5      463.90 ug/L        2.343      463.90 ppb        2.343   0.51%
   QC value within limits for V 292.402  Recovery = 92.78%
Zn 213.857†            46967.5      454.98 ug/L        2.401      454.98 ppb        2.401   0.53%
   QC value within limits for Zn 213.857  Recovery = 91.00%
SiO2†                  69158.7      4882.3 ug/L        64.24      4882.3 ppb        64.24   1.32%
   QC value within limits for SiO2  Recovery = 91.30%
QC Failed.  Continue with analysis.
```

Sequence No.: 2
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 1/15/2010 12:20:33
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5520.4	5520.4	108	%			12:22:25
1	Y RADIAL	5984.8	5984.8	108.7	%			12:22:25
1	Al 396.153Radial†	-0.8	10.0	7.8558	ug/L	7.8558	ppb	12:22:25
1	Ca 317.933Radial†	17.8	-1.0	-1.6323	ug/L	-1.6323	ppb	12:22:45
1	Fe 238.204 Radial†	13.4	2.5	22.012	ug/L	22.012	ppb	12:22:45
1	K 766.490 Radial†	2799.3	-422.4	-78.644	ug/L	-78.644	ppb	12:22:25
1	Mg 279.077 IEC†	2.3	-0.4	-12.811	ug/L	-12.811	ppb	12:22:45
1	Na 589.592 Radial†	-1507.9	169.5	51.410	ug/L	51.410	ppb	12:22:25
1	Sr 421.552†	18.7	-17.9	-0.1174	ug/L	-0.1174	ppb	12:22:25
1	Sc 361.383	967338.4	967338.4	115.46	%			12:23:42
1	Y 371.029	821076.0	821076.0	115.33	%			12:23:42
1	Ag 328.068†	375.3	26.7	0.1304	ug/L	0.1304	ppb	12:23:47
1	As 188.979†	-22.6	1.0	0.4537	ug/L	0.4537	ppb	12:24:07
1	B 249.677†	-261.0	240.1	5.6995	ug/L	5.6995	ppb	12:24:07
1	Ba 233.527†	-2.9	4.3	0.0384	ug/L	0.0384	ppb	12:24:07
1	Be 313.107†	-4274.1	643.3	0.2477	ug/L	0.2477	ppb	12:23:47
1	Cd 226.502†	-174.7	46.9	0.5393	ug/L	0.5393	ppb	12:24:07
1	Co 228.616†	-77.6	-7.4	-0.1584	ug/L	-0.1584	ppb	12:24:07
1	Cr 267.716†	75.1	-23.2	-0.2710	ug/L	-0.2710	ppb	12:24:07
1	Cu 324.752†	6317.1	-994.0	-3.0912	ug/L	-3.0912	ppb	12:23:47
1	Mn 257.610†	407.7	-72.9	-0.0809	ug/L	-0.0809	ppb	12:24:07
1	Mo 202.031†	18.8	-4.4	-0.3193	ug/L	-0.3193	ppb	12:24:07
1	Ni 231.604†	51.8	-40.5	-1.0450	ug/L	-1.0450	ppb	12:24:07
1	P 214.914†	224.5	-25.1	-15.152	ug/L	-15.152	ppb	12:24:07
1	Pb 220.353†	-68.1	0.3	0.0432	ug/L	0.0432	ppb	12:24:07
1	S 181.975 Axial†	41.0	-10.8	-15.868	ug/L	-15.868	ppb	12:24:07
1	Sb 206.836†	41.0	-0.9	-0.3361	ug/L	-0.3361	ppb	12:24:07
1	Se 196.026†	-28.7	3.6	2.4300	ug/L	2.4300	ppb	12:24:07
1	Si 251.611†	452.8	-59.4	-1.9579	ug/L	-1.9579	ppb	12:24:07
1	Sn 189.927†	5.3	-0.8	-0.1479	ug/L	-0.1479	ppb	12:24:07
1	Ti 334.940†	-1407.3	93.1	0.1517	ug/L	0.1517	ppb	12:23:47
1	Tl 190.801†	-29.9	5.2	1.6583	ug/L	1.6583	ppb	12:24:07
1	U 409.014†	-1881.5	346.5	10.830	ug/L	10.830	ppb	12:23:42
1	V 292.402†	-1385.7	184.2	1.3118	ug/L	1.3118	ppb	12:23:47
1	Zn 213.857†	628.3	-124.1	-1.2045	ug/L	-1.2045	ppb	12:24:07
1	SiO2†	468.1	-51.5	-3.6390	ug/L	-3.6390	ppb	12:25:13
2	Sc Radial	5600.3	5600.3	110	%			12:22:50
2	Y RADIAL	6059.9	6059.9	110.1	%			12:22:50
2	Al 396.153Radial†	5.8	16.0	12.590	ug/L	12.590	ppb	12:22:50
2	Ca 317.933Radial†	15.3	-3.5	-5.6666	ug/L	-5.6666	ppb	12:23:10
2	Fe 238.204 Radial†	12.4	1.4	12.226	ug/L	12.226	ppb	12:23:10
2	K 766.490 Radial†	2917.2	-352.1	-65.547	ug/L	-65.547	ppb	12:22:50
2	Mg 279.077 IEC†	0.6	-1.9	-63.867	ug/L	-63.867	ppb	12:23:10
2	Na 589.592 Radial†	-1521.7	176.8	53.618	ug/L	53.618	ppb	12:22:50
2	Sr 421.552†	-5.1	-39.8	-0.2606	ug/L	-0.2606	ppb	12:22:50
2	Sc 361.383	865498.8	865498.8	103.30	%			12:24:12
2	Y 371.029	735102.8	735102.8	103.25	%			12:24:12
2	Ag 328.068†	273.0	-34.1	-0.1650	ug/L	-0.1650	ppb	12:24:17
2	As 188.979†	-21.4	-0.1	-0.0494	ug/L	-0.0494	ppb	12:24:37
2	B 249.677†	-288.1	187.2	4.4461	ug/L	4.4461	ppb	12:24:37
2	Ba 233.527†	-17.5	-10.2	-0.0824	ug/L	-0.0824	ppb	12:24:37
2	Be 313.107†	-4216.1	263.8	0.1016	ug/L	0.1016	ppb	12:24:17
2	Cd 226.502†	-183.2	20.8	0.2400	ug/L	0.2400	ppb	12:24:37
2	Co 228.616†	-61.2	0.6	0.0117	ug/L	0.0117	ppb	12:24:37
2	Cr 267.716†	67.5	-22.9	-0.2683	ug/L	-0.2683	ppb	12:24:37
2	Cu 324.752†	6323.9	-343.6	-1.0708	ug/L	-1.0708	ppb	12:24:17
2	Mn 257.610†	406.1	-32.9	-0.0339	ug/L	-0.0339	ppb	12:24:37
2	Mo 202.031†	19.6	-1.8	-0.1270	ug/L	-0.1270	ppb	12:24:37
2	Ni 231.604†	80.6	-7.3	-0.1890	ug/L	-0.1890	ppb	12:24:37

2	P 214.914†	221.4	-5.2	-3.0521 ug/L	-3.0521 ppb	12:24:37
2	Pb 220.353†	-63.8	-2.5	-0.3096 ug/L	-0.3096 ppb	12:24:37
2	S 181.975 Axial†	40.8	-6.7	-9.9380 ug/L	-9.9380 ppb	12:24:37
2	Sb 206.836†	44.0	6.2	2.2503 ug/L	2.2503 ppb	12:24:37
2	Se 196.026†	-30.3	-0.9	-0.5724 ug/L	-0.5724 ppb	12:24:37
2	Si 251.611†	453.9	-12.2	-0.4017 ug/L	-0.4017 ppb	12:24:37
2	Sn 189.927†	10.0	4.3	0.7863 ug/L	0.7863 ppb	12:24:37
2	Ti 334.940†	-1310.3	43.6	0.0738 ug/L	0.0738 ppb	12:24:17
2	Tl 190.801†	-35.7	-3.4	-1.0781 ug/L	-1.0781 ppb	12:24:37
2	U 409.014†	-1771.6	261.1	8.1610 ug/L	8.1610 ppb	12:24:12
2	V 292.402†	-1440.5	-10.1	-0.0606 ug/L	-0.0606 ppb	12:24:17
2	Zn 213.857†	617.5	-70.5	-0.6880 ug/L	-0.6880 ppb	12:24:37
2	SiO2†	471.3	-0.7	-0.0477 ug/L	-0.0477 ppb	12:25:18
3	Sc Radial	5729.0	5729.0	113 %		12:23:15
3	Y RADIAL	6202.9	6202.9	112.7 %		12:23:15
3	Al 396.153Radial†	0.9	11.6	9.1025 ug/L	9.1025 ppb	12:23:15
3	Ca 317.933Radial†	22.3	2.4	3.9975 ug/L	3.9975 ppb	12:23:35
3	Fe 238.204 Radial†	10.8	-0.3	-2.4222 ug/L	-2.4222 ppb	12:23:35
3	K 766.490 Radial†	2894.3	-432.0	-80.426 ug/L	-80.426 ppb	12:23:15
3	Mg 279.077 IEC†	2.9	0.1	3.3390 ug/L	3.3390 ppb	12:23:35
3	Na 589.592 Radial†	-1523.5	206.2	62.541 ug/L	62.541 ppb	12:23:15
3	Sr 421.552†	-3.1	-37.9	-0.2483 ug/L	-0.2483 ppb	12:23:15
3	Sc 361.383	928835.2	928835.2	110.86 %		12:24:42
3	Y 371.029	789709.6	789709.6	110.92 %		12:24:42
3	Ag 328.068†	298.9	-28.7	-0.1406 ug/L	-0.1406 ppb	12:24:47
3	As 188.979†	-14.7	7.3	3.2541 ug/L	3.2541 ppb	12:25:07
3	B 249.677†	-270.2	222.4	5.2841 ug/L	5.2841 ppb	12:25:07
3	Ba 233.527†	-6.5	1.0	0.0103 ug/L	0.0103 ppb	12:25:07
3	Be 313.107†	-4261.1	501.5	0.1931 ug/L	0.1931 ppb	12:24:47
3	Cd 226.502†	-181.8	34.2	0.3954 ug/L	0.3954 ppb	12:25:07
3	Co 228.616†	-78.3	-10.8	-0.2318 ug/L	-0.2318 ppb	12:25:07
3	Cr 267.716†	72.8	-22.6	-0.2639 ug/L	-0.2639 ppb	12:25:07
3	Cu 324.752†	6368.1	-721.2	-2.2445 ug/L	-2.2445 ppb	12:24:47
3	Mn 257.610†	385.5	-78.3	-0.0901 ug/L	-0.0901 ppb	12:25:07
3	Mo 202.031†	20.1	-2.6	-0.1912 ug/L	-0.1912 ppb	12:25:07
3	Ni 231.604†	67.8	-24.1	-0.6234 ug/L	-0.6234 ppb	12:25:07
3	P 214.914†	217.4	-23.4	-14.253 ug/L	-14.253 ppb	12:25:07
3	Pb 220.353†	-72.1	-5.7	-0.7156 ug/L	-0.7156 ppb	12:25:07
3	S 181.975 Axial†	56.1	4.4	6.4102 ug/L	6.4102 ppb	12:25:07
3	Sb 206.836†	43.0	2.4	0.8446 ug/L	0.8446 ppb	12:25:07
3	Se 196.026†	-28.2	3.0	1.9553 ug/L	1.9553 ppb	12:25:07
3	Si 251.611†	447.6	-47.9	-1.5795 ug/L	-1.5795 ppb	12:25:07
3	Sn 189.927†	4.0	-1.8	-0.3251 ug/L	-0.3251 ppb	12:25:07
3	Ti 334.940†	-1387.5	60.4	0.0973 ug/L	0.0973 ppb	12:24:47
3	Tl 190.801†	-28.5	5.4	1.7264 ug/L	1.7264 ppb	12:25:07
3	U 409.014†	-1871.8	287.7	8.9944 ug/L	8.9944 ppb	12:24:42
3	V 292.402†	-1366.2	151.9	1.0866 ug/L	1.0866 ppb	12:24:47
3	Zn 213.857†	636.9	-93.9	-0.9102 ug/L	-0.9102 ppb	12:25:07
3	SiO2†	471.0	-32.1	-2.2666 ug/L	-2.2666 ppb	12:25:23

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	920557.5	109.87	%	6.137				5.59%
Sc Radial	5616.6	110	%	2.1				1.87%
Y 371.029	781962.8	109.84	%	6.111				5.56%
Y RADIAL	6082.5	110.5	%	2.01				1.82%
Ag 328.068†	-12.1	-0.0584	ug/L	0.16397	-0.0584	ppb	0.16397	280.75%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	12.5	9.8493	ug/L	2.45369	9.8493	ppb	2.45369	24.91%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	2.7	1.2194	ug/L	1.77989	1.2194	ppb	1.77989	145.96%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	216.6	5.1433	ug/L	0.63850	5.1433	ppb	0.63850	12.41%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-1.6	-0.0112	ug/L	0.06324	-0.0112	ppb	0.06324	562.35%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	469.5	0.1808	ug/L	0.07381	0.1808	ppb	0.07381	40.82%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-0.7	-1.1005	ug/L	4.85398	-1.1005	ppb	4.85398	441.08%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                34.0      0.3916 ug/L       0.14970      0.3916 ppb        0.14970  38.23%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                -5.9     -0.1261 ug/L       0.12490     -0.1261 ppb        0.12490  99.01%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†               -22.9     -0.2677 ug/L       0.00358     -0.2677 ppb        0.00358   1.34%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -686.2     -2.1355 ug/L       1.01464     -2.1355 ppb        1.01464  47.51%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         1.2      10.605 ug/L       12.2973      10.605 ppb        12.2973 115.96%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        -402.2     -74.873 ug/L        8.1250     -74.873 ppb         8.1250  10.85%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -0.7     -24.446 ug/L       35.0813     -24.446 ppb        35.0813 143.50%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               -61.4     -0.0683 ug/L       0.03013     -0.0683 ppb        0.03013  44.12%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                -2.9     -0.2125 ug/L       0.09790     -0.2125 ppb        0.09790  46.08%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       184.2      55.857 ug/L        5.8930      55.857 ppb         5.8930  10.55%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               -24.0     -0.6191 ug/L       0.42801     -0.6191 ppb        0.42801  69.13%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -17.9     -10.819 ug/L        6.7412     -10.819 ppb         6.7412  62.31%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -2.6     -0.3273 ug/L       0.37969     -0.3273 ppb        0.37969 116.00%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -4.4     -6.4652 ug/L      11.53784     -6.4652 ppb       11.53784 178.46%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 2.5      0.9196 ug/L       1.29486      0.9196 ppb        1.29486 140.80%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 1.9      1.2710 ug/L       1.61395      1.2710 ppb        1.61395 126.99%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†               -39.8     -1.3130 ug/L       0.81159     -1.3130 ppb        0.81159  61.81%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 0.6      0.1044 ug/L       0.59710      0.1044 ppb        0.59710 571.84%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               -31.9     -0.2087 ug/L       0.07938     -0.2087 ppb        0.07938  38.03%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                65.7      0.1076 ug/L       0.03997      0.1076 ppb        0.03997  37.13%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 2.4      0.7689 ug/L       1.59985      0.7689 ppb        1.59985 208.08%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                298.4      9.3284 ug/L       1.36539      9.3284 ppb        1.36539  14.64%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                108.7      0.7793 ug/L       0.73604      0.7793 ppb        0.73604  94.45%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               -96.2     -0.9342 ug/L       0.25912     -0.9342 ppb        0.25912  27.74%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                     -28.1     -1.9845 ug/L       1.81220     -1.9845 ppb        1.81220  91.32%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 6
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 1/15/2010 13:03:54
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	5112.0	5112.0	100	%			13:05:46
1	Y RADIAL	5544.1	5544.1	100.7	%			13:05:46
1	Al 396.153Radial†	6014.0	5998.1	4695.4	ug/L	4695.4	ppb	13:05:46
1	Ca 317.933Radial†	2958.0	2927.5	4807.0	ug/L	4807.0	ppb	13:06:06
1	Fe 238.204 Radial†	561.2	548.8	4911.4	ug/L	4911.4	ppb	13:06:06
1	K 766.490 Radial†	28472.5	25343.3	4710.7	ug/L	4710.7	ppb	13:05:46
1	Mg 279.077 IEC†	150.6	147.5	4956.3	ug/L	4956.3	ppb	13:06:06
1	Na 589.592 Radial†	30684.1	32107.9	9737.8	ug/L	9737.8	ppb	13:05:46
1	Sr 421.552†	71841.8	71488.5	468.34	ug/L	468.34	ppb	13:05:46
1	Sc 361.383	878604.8	878604.8	104.87	%			13:07:03
1	Y 371.029	733655.0	733655.0	103.05	%			13:07:03
1	Ag 328.068†	106289.3	101058.9	483.89	ug/L	483.89	ppb	13:07:08
1	As 188.979†	1107.8	1077.0	481.38	ug/L	481.38	ppb	13:07:28
1	B 249.677†	20066.0	19601.0	463.47	ug/L	463.47	ppb	13:07:08
1	Ba 233.527†	61544.6	58695.6	478.14	ug/L	478.14	ppb	13:07:08
1	Be 313.107†	1299564.7	1243607.7	479.26	ug/L	479.26	ppb	13:07:03
1	Cd 226.502†	43427.3	41610.4	478.95	ug/L	478.95	ppb	13:07:08
1	Co 228.616†	23550.9	22517.9	480.06	ug/L	480.06	ppb	13:07:08
1	Cr 267.716†	43273.1	41176.8	477.70	ug/L	477.70	ppb	13:07:08
1	Cu 324.752†	165157.9	151028.9	468.95	ug/L	468.95	ppb	13:07:08
1	Mn 257.610†	441093.3	420199.7	481.69	ug/L	481.69	ppb	13:07:03
1	Mo 202.031†	6905.6	6564.4	479.03	ug/L	479.03	ppb	13:07:28
1	Ni 231.604†	19446.6	18458.9	476.33	ug/L	476.33	ppb	13:07:08
1	P 214.914†	4217.5	3802.2	2294.8	ug/L	2294.8	ppb	13:07:28
1	Pb 220.353†	3910.0	3787.9	482.79	ug/L	482.79	ppb	13:07:28
1	S 181.975 Axial†	732.4	652.1	959.16	ug/L	959.16	ppb	13:07:28
1	Sb 206.836†	1437.1	1334.0	499.58	ug/L	499.58	ppb	13:07:28
1	Se 196.026†	732.3	726.7	498.60	ug/L	498.60	ppb	13:07:28
1	Si 251.611†	75862.2	71890.5	2370.2	ug/L	2370.2	ppb	13:07:08
1	Sn 189.927†	2755.6	2622.4	479.90	ug/L	479.90	ppb	13:07:28
1	Ti 334.940†	292388.9	280133.5	468.18	ug/L	468.18	ppb	13:07:08
1	Tl 190.801†	1547.8	1507.1	481.53	ug/L	481.53	ppb	13:07:28
1	U 409.014†	14392.6	15700.9	489.22	ug/L	489.22	ppb	13:07:08
1	V 292.402†	68969.9	67153.8	480.14	ug/L	480.14	ppb	13:07:08
1	Zn 213.857†	51938.0	48859.7	473.34	ug/L	473.34	ppb	13:07:08
1	SiO2†	75997.7	72014.3	5083.9	ug/L	5083.9	ppb	13:08:36
2	Sc Radial	5131.5	5131.5	101	%			13:06:11
2	Y RADIAL	5542.6	5542.6	100.7	%			13:06:11
2	Al 396.153Radial†	6090.3	6051.1	4737.2	ug/L	4737.2	ppb	13:06:11
2	Ca 317.933Radial†	2950.7	2909.1	4776.7	ug/L	4776.7	ppb	13:06:31
2	Fe 238.204 Radial†	560.4	545.9	4885.4	ug/L	4885.4	ppb	13:06:31
2	K 766.490 Radial†	28608.6	25370.8	4715.8	ug/L	4715.8	ppb	13:06:11
2	Mg 279.077 IEC†	152.4	148.7	4996.4	ug/L	4996.4	ppb	13:06:31
2	Na 589.592 Radial†	30740.3	32047.8	9719.5	ug/L	9719.5	ppb	13:06:11
2	Sr 421.552†	72455.3	71825.9	470.55	ug/L	470.55	ppb	13:06:11
2	Sc 361.383	878390.4	878390.4	104.84	%			13:07:34
2	Y 371.029	734545.2	734545.2	103.18	%			13:07:34
2	Ag 328.068†	107412.2	102154.7	489.10	ug/L	489.10	ppb	13:07:39
2	As 188.979†	1096.0	1066.0	476.56	ug/L	476.56	ppb	13:07:59
2	B 249.677†	20413.3	19936.9	471.44	ug/L	471.44	ppb	13:07:39
2	Ba 233.527†	61974.3	59119.8	481.60	ug/L	481.60	ppb	13:07:39
2	Be 313.107†	1306911.5	1250917.7	482.08	ug/L	482.08	ppb	13:07:34
2	Cd 226.502†	43739.0	41917.8	482.50	ug/L	482.50	ppb	13:07:39
2	Co 228.616†	23751.7	22715.0	484.24	ug/L	484.24	ppb	13:07:39
2	Cr 267.716†	43528.0	41430.0	480.63	ug/L	480.63	ppb	13:07:39
2	Cu 324.752†	166866.9	152697.4	474.13	ug/L	474.13	ppb	13:07:39
2	Mn 257.610†	443029.8	422149.4	483.92	ug/L	483.92	ppb	13:07:34
2	Mo 202.031†	6862.2	6524.7	476.13	ug/L	476.13	ppb	13:07:59
2	Ni 231.604†	19615.7	18624.7	480.61	ug/L	480.61	ppb	13:07:39

2	P 214.914†	4199.2	3785.8	2283.5 ug/L	2283.5 ppb	13:07:59
2	Pb 220.353†	3876.8	3757.1	478.87 ug/L	478.87 ppb	13:07:59
2	S 181.975 Axial†	723.2	643.5	946.48 ug/L	946.48 ppb	13:07:59
2	Sb 206.836†	1425.9	1323.7	495.78 ug/L	495.78 ppb	13:07:59
2	Se 196.026†	726.2	721.1	494.76 ug/L	494.76 ppb	13:07:59
2	Si 251.611†	76727.3	72733.3	2398.1 ug/L	2398.1 ppb	13:07:39
2	Sn 189.927†	2755.8	2623.2	480.04 ug/L	480.04 ppb	13:07:59
2	Ti 334.940†	294814.8	282515.4	472.15 ug/L	472.15 ppb	13:07:39
2	Tl 190.801†	1543.2	1503.1	480.29 ug/L	480.29 ppb	13:07:59
2	U 409.014†	14694.3	15992.0	498.32 ug/L	498.32 ppb	13:07:39
2	V 292.402†	69599.8	67770.8	484.47 ug/L	484.47 ppb	13:07:39
2	Zn 213.857†	52247.5	49167.0	476.31 ug/L	476.31 ppb	13:07:39
2	SiO2†	75945.1	71981.8	5081.6 ug/L	5081.6 ppb	13:08:41
3	Sc Radial	5040.0	5040.0	99.0 %		13:06:36
3	Y RADIAL	5436.9	5436.9	98.76 %		13:06:36
3	Al 396.153Radial†	6110.2	6180.8	4838.7 ug/L	4838.7 ppb	13:06:36
3	Ca 317.933Radial†	2988.3	3000.2	4926.4 ug/L	4926.4 ppb	13:06:56
3	Fe 238.204 Radial†	563.2	558.9	5001.2 ug/L	5001.2 ppb	13:06:56
3	K 766.490 Radial†	28641.7	25919.4	4817.8 ug/L	4817.8 ppb	13:06:36
3	Mg 279.077 IEC†	155.1	154.2	5180.1 ug/L	5180.1 ppb	13:06:56
3	Na 589.592 Radial†	31020.7	32884.6	9973.3 ug/L	9973.3 ppb	13:06:36
3	Sr 421.552†	72575.5	73252.0	479.89 ug/L	479.89 ppb	13:06:36
3	Sc 361.383	862497.3	862497.3	102.94 %		13:08:05
3	Y 371.029	721599.8	721599.8	101.36 %		13:08:05
3	Ag 328.068†	107646.4	104270.1	499.25 ug/L	499.25 ppb	13:08:10
3	As 188.979†	1104.6	1093.6	488.88 ug/L	488.88 ppb	13:08:30
3	B 249.677†	20440.5	20322.1	480.54 ug/L	480.54 ppb	13:08:10
3	Ba 233.527†	62219.9	60447.7	492.42 ug/L	492.42 ppb	13:08:10
3	Be 313.107†	1278283.6	1246078.8	480.24 ug/L	480.24 ppb	13:08:05
3	Cd 226.502†	43770.7	42717.3	491.70 ug/L	491.70 ppb	13:08:10
3	Co 228.616†	23808.7	23187.8	494.32 ug/L	494.32 ppb	13:08:10
3	Cr 267.716†	43637.7	42301.7	490.75 ug/L	490.75 ppb	13:08:10
3	Cu 324.752†	167176.4	155931.0	484.18 ug/L	484.18 ppb	13:08:10
3	Mn 257.610†	435148.9	422280.6	484.07 ug/L	484.07 ppb	13:08:05
3	Mo 202.031†	6883.7	6666.2	486.46 ug/L	486.46 ppb	13:08:30
3	Ni 231.604†	19677.4	19029.4	491.05 ug/L	491.05 ppb	13:08:10
3	P 214.914†	4218.7	3878.6	2339.7 ug/L	2339.7 ppb	13:08:30
3	Pb 220.353†	3889.6	3837.7	489.15 ug/L	489.15 ppb	13:08:30
3	S 181.975 Axial†	728.5	661.4	972.77 ug/L	972.77 ppb	13:08:30
3	Sb 206.836†	1418.5	1341.5	502.59 ug/L	502.59 ppb	13:08:30
3	Se 196.026†	734.2	741.6	508.80 ug/L	508.80 ppb	13:08:30
3	Si 251.611†	76829.1	74180.7	2445.8 ug/L	2445.8 ppb	13:08:10
3	Sn 189.927†	2753.9	2669.8	488.57 ug/L	488.57 ppb	13:08:30
3	Ti 334.940†	295883.1	288734.8	482.55 ug/L	482.55 ppb	13:08:10
3	Tl 190.801†	1551.7	1538.5	491.54 ug/L	491.54 ppb	13:08:30
3	U 409.014†	14471.1	16033.4	499.58 ug/L	499.58 ppb	13:08:10
3	V 292.402†	69903.1	69288.7	495.29 ug/L	495.29 ppb	13:08:10
3	Zn 213.857†	52419.7	50252.6	486.83 ug/L	486.83 ppb	13:08:10
3	SiO2†	76711.2	74060.8	5228.5 ug/L	5228.5 ppb	13:08:46

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	873164.2	104.22	%	1.103				1.06%
Sc Radial	5094.5	100	%	0.9				0.95%
Y 371.029	729933.3	102.53	%	1.016				0.99%
Y RADIAL	5507.9	100.0	%	1.12				1.12%
Ag 328.068†	102494.5	490.75	ug/L	7.810	490.75	ppb	7.810	1.59%
QC value within limits for Ag 328.068 Recovery = 98.15%								
Al 396.153Radial†	6076.7	4757.1	ug/L	73.73	4757.1	ppb	73.73	1.55%
QC value within limits for Al 396.153Radial Recovery = 95.14%								
As 188.979†	1078.9	482.27	ug/L	6.213	482.27	ppb	6.213	1.29%
QC value within limits for As 188.979 Recovery = 96.45%								
B 249.677†	19953.4	471.82	ug/L	8.544	471.82	ppb	8.544	1.81%
QC value within limits for B 249.677 Recovery = 94.36%								
Ba 233.527†	59421.0	484.05	ug/L	7.446	484.05	ppb	7.446	1.54%
QC value within limits for Ba 233.527 Recovery = 96.81%								
Be 313.107†	1246868.1	480.52	ug/L	1.431	480.52	ppb	1.431	0.30%
QC value within limits for Be 313.107 Recovery = 96.10%								
Ca 317.933Radial†	2945.6	4836.7	ug/L	79.11	4836.7	ppb	79.11	1.64%

QC value within limits for Ca 317.933Radial Recovery = 96.73%

Cd 226.502†	42081.8	484.39 ug/L	6.579	484.39 ppb	6.579	1.36%

QC value within limits for Cd 226.502 Recovery = 96.88%

Co 228.616†	22806.9	486.21 ug/L	7.332	486.21 ppb	7.332	1.51%

QC value within limits for Co 228.616 Recovery = 97.24%

Cr 267.716†	41636.2	483.03 ug/L	6.848	483.03 ppb	6.848	1.42%

QC value within limits for Cr 267.716 Recovery = 96.61%

Cu 324.752†	153219.1	475.75 ug/L	7.739	475.75 ppb	7.739	1.63%

QC value within limits for Cu 324.752 Recovery = 95.15%

Fe 238.204 Radial†	551.2	4932.7 ug/L	60.79	4932.7 ppb	60.79	1.23%

QC value within limits for Fe 238.204 Radial Recovery = 98.65%

K 766.490 Radial†	25544.5	4748.1 ug/L	60.40	4748.1 ppb	60.40	1.27%

QC value within limits for K 766.490 Radial Recovery = 94.96%

Mg 279.077 IEC†	150.1	5044.3 ug/L	119.32	5044.3 ppb	119.32	2.37%

QC value within limits for Mg 279.077 IEC Recovery = 100.89%

Mn 257.610†	421543.2	483.23 ug/L	1.334	483.23 ppb	1.334	0.28%

QC value within limits for Mn 257.610 Recovery = 96.65%

Mo 202.031†	6585.1	480.54 ug/L	5.326	480.54 ppb	5.326	1.11%

QC value within limits for Mo 202.031 Recovery = 96.11%

Na 589.592 Radial†	32346.8	9810.2 ug/L	141.55	9810.2 ppb	141.55	1.44%

QC value within limits for Na 589.592 Radial Recovery = 98.10%

Ni 231.604†	18704.4	482.66 ug/L	7.573	482.66 ppb	7.573	1.57%

QC value within limits for Ni 231.604 Recovery = 96.53%

P 214.914†	3822.2	2306.0 ug/L	29.75	2306.0 ppb	29.75	1.29%

QC value within limits for P 214.914 Recovery = 92.24%

Pb 220.353†	3794.3	483.60 ug/L	5.187	483.60 ppb	5.187	1.07%

QC value within limits for Pb 220.353 Recovery = 96.72%

S 181.975 Axial†	652.3	959.47 ug/L	13.146	959.47 ppb	13.146	1.37%

QC value within limits for S 181.975 Axial Recovery = 95.95%

Sb 206.836†	1333.1	499.32 ug/L	3.410	499.32 ppb	3.410	0.68%

QC value within limits for Sb 206.836 Recovery = 99.86%

Se 196.026†	729.8	500.72 ug/L	7.254	500.72 ppb	7.254	1.45%

QC value within limits for Se 196.026 Recovery = 100.14%

Si 251.611†	72934.8	2404.7 ug/L	38.23	2404.7 ppb	38.23	1.59%

QC value within limits for Si 251.611 Recovery = 96.19%

Sn 189.927†	2638.4	482.84 ug/L	4.969	482.84 ppb	4.969	1.03%

QC value within limits for Sn 189.927 Recovery = 96.57%

Sr 421.552†	72188.8	472.92 ug/L	6.132	472.92 ppb	6.132	1.30%

QC value within limits for Sr 421.552 Recovery = 94.58%

Ti 334.940†	283794.6	474.30 ug/L	7.420	474.30 ppb	7.420	1.56%

QC value within limits for Ti 334.940 Recovery = 94.86%

Tl 190.801†	1516.3	484.45 ug/L	6.167	484.45 ppb	6.167	1.27%

QC value within limits for Tl 190.801 Recovery = 96.89%

U 409.014†	15908.7	495.71 ug/L	5.651	495.71 ppb	5.651	1.14%

QC value within limits for U 409.014 Recovery = 99.14%

V 292.402†	68071.1	486.63 ug/L	7.807	486.63 ppb	7.807	1.60%

QC value within limits for V 292.402 Recovery = 97.33%

Zn 213.857†	49426.4	478.83 ug/L	7.088	478.83 ppb	7.088	1.48%

QC value within limits for Zn 213.857 Recovery = 95.77%

SiO2†	72685.6	5131.3 ug/L	84.15	5131.3 ppb	84.15	1.64%

QC value within limits for SiO2 Recovery = 95.96%

All analyte(s) passed QC.

Sequence No.: 7
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 1/15/2010 13:10:56
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5104.8	5104.8	100	%			13:12:48
1	Y RADIAL	5518.7	5518.7	100.2	%			13:12:48
1	Al 396.153Radial†	-25.4	-14.6	-11.476	ug/L	-11.476	ppb	13:12:48
1	Ca 317.933Radial†	10.3	-7.1	-11.727	ug/L	-11.727	ppb	13:13:08
1	Fe 238.204 Radial†	10.5	0.6	5.5469	ug/L	5.5469	ppb	13:13:08
1	K 766.490 Radial†	2834.3	-177.5	-33.027	ug/L	-33.027	ppb	13:12:48
1	Mg 279.077 IEC†	2.2	-0.3	-9.9377	ug/L	-9.9377	ppb	13:13:08
1	Na 589.592 Radial†	-1538.7	25.6	7.7524	ug/L	7.7524	ppb	13:12:48
1	Sr 421.552†	-3.6	-38.7	-0.2537	ug/L	-0.2537	ppb	13:12:48
1	Sc 361.383	855107.0	855107.0	102.06	%			13:14:05
1	Y 371.029	727467.0	727467.0	102.18	%			13:14:05
1	Ag 328.068†	213.3	-89.4	-0.4246	ug/L	-0.4246	ppb	13:14:05
1	As 188.979†	-22.6	-1.6	-0.7024	ug/L	-0.7024	ppb	13:14:25
1	B 249.677†	-418.5	56.0	1.3314	ug/L	1.3314	ppb	13:14:25
1	Ba 233.527†	1.0	7.7	0.0648	ug/L	0.0648	ppb	13:14:25
1	Be 313.107†	-4216.0	214.3	0.0822	ug/L	0.0822	ppb	13:14:05
1	Cd 226.502†	-188.2	13.9	0.1598	ug/L	0.1598	ppb	13:14:25
1	Co 228.616†	-81.5	-20.1	-0.4269	ug/L	-0.4269	ppb	13:14:25
1	Cr 267.716†	53.5	-35.8	-0.4160	ug/L	-0.4160	ppb	13:14:25
1	Cu 324.752†	6255.7	-336.0	-1.0461	ug/L	-1.0461	ppb	13:14:05
1	Mn 257.610†	399.8	-34.4	-0.0384	ug/L	-0.0384	ppb	13:14:25
1	Mo 202.031†	23.5	2.3	0.1691	ug/L	0.1691	ppb	13:14:25
1	Ni 231.604†	78.0	-8.9	-0.2296	ug/L	-0.2296	ppb	13:14:25
1	P 214.914†	226.5	2.4	1.6926	ug/L	1.6926	ppb	13:14:25
1	Pb 220.353†	-64.4	-3.8	-0.4829	ug/L	-0.4829	ppb	13:14:25
1	S 181.975 Axial†	40.4	-6.7	-9.8427	ug/L	-9.8427	ppb	13:14:25
1	Sb 206.836†	30.9	-6.1	-2.1857	ug/L	-2.1857	ppb	13:14:25
1	Se 196.026†	-29.0	-0.0	0.0160	ug/L	0.0160	ppb	13:14:25
1	Si 251.611†	438.5	-21.9	-0.7267	ug/L	-0.7267	ppb	13:14:25
1	Sn 189.927†	6.2	0.7	0.1247	ug/L	0.1247	ppb	13:14:25
1	Ti 334.940†	-1395.1	-55.0	-0.0948	ug/L	-0.0948	ppb	13:14:05
1	Tl 190.801†	-37.8	-5.9	-1.8786	ug/L	-1.8786	ppb	13:14:25
1	U 409.014†	-1843.0	170.2	5.3227	ug/L	5.3227	ppb	13:14:05
1	V 292.402†	-1302.7	107.9	0.7732	ug/L	0.7732	ppb	13:14:05
1	Zn 213.857†	633.6	-47.6	-0.4625	ug/L	-0.4625	ppb	13:14:25
1	SiO2†	471.6	5.1	0.3541	ug/L	0.3541	ppb	13:15:21
2	Sc Radial	5018.5	5018.5	98.6	%			13:13:13
2	Y RADIAL	5429.4	5429.4	98.62	%			13:13:13
2	Al 396.153Radial†	-13.3	-2.7	-2.1813	ug/L	-2.1813	ppb	13:13:13
2	Ca 317.933Radial†	14.4	-2.8	-4.6279	ug/L	-4.6279	ppb	13:13:33
2	Fe 238.204 Radial†	9.4	-0.3	-2.8711	ug/L	-2.8711	ppb	13:13:33
2	K 766.490 Radial†	2925.3	-36.5	-6.7966	ug/L	-6.7966	ppb	13:13:13
2	Mg 279.077 IEC†	0.7	-1.7	-58.641	ug/L	-58.641	ppb	13:13:33
2	Na 589.592 Radial†	-1490.3	48.2	14.630	ug/L	14.630	ppb	13:13:13
2	Sr 421.552†	-3.2	-38.4	-0.2516	ug/L	-0.2516	ppb	13:13:13
2	Sc 361.383	866663.5	866663.5	103.44	%			13:14:30
2	Y 371.029	737282.9	737282.9	103.56	%			13:14:30
2	Ag 328.068†	244.3	-62.2	-0.2966	ug/L	-0.2966	ppb	13:14:30
2	As 188.979†	-19.2	2.1	0.9196	ug/L	0.9196	ppb	13:14:50
2	B 249.677†	-430.5	49.9	1.1862	ug/L	1.1862	ppb	13:14:50
2	Ba 233.527†	0.4	7.2	0.0603	ug/L	0.0603	ppb	13:14:50
2	Be 313.107†	-4270.4	216.9	0.0834	ug/L	0.0834	ppb	13:14:30
2	Cd 226.502†	-181.1	23.1	0.2665	ug/L	0.2665	ppb	13:14:50
2	Co 228.616†	-64.6	-2.7	-0.0555	ug/L	-0.0555	ppb	13:14:50
2	Cr 267.716†	88.7	-2.6	-0.0301	ug/L	-0.0301	ppb	13:14:50
2	Cu 324.752†	6249.0	-424.3	-1.3197	ug/L	-1.3197	ppb	13:14:30
2	Mn 257.610†	390.8	-48.3	-0.0532	ug/L	-0.0532	ppb	13:14:50
2	Mo 202.031†	29.4	7.8	0.5648	ug/L	0.5648	ppb	13:14:50
2	Ni 231.604†	52.3	-34.8	-0.8983	ug/L	-0.8983	ppb	13:14:50

2	P 214.914†	212.9	-13.7	-8.3359 ug/L	-8.3359 ppb	13:14:50
2	Pb 220.353†	-57.7	3.5	0.4529 ug/L	0.4529 ppb	13:14:50
2	S 181.975 Axial†	46.7	-1.1	-1.6629 ug/L	-1.6629 ppb	13:14:50
2	Sb 206.836†	37.2	-0.4	-0.1392 ug/L	-0.1392 ppb	13:14:50
2	Se 196.026†	-36.4	-6.7	-4.4492 ug/L	-4.4492 ppb	13:14:50
2	Si 251.611†	456.4	-10.4	-0.3495 ug/L	-0.3495 ppb	13:14:50
2	Sn 189.927†	7.6	2.0	0.3627 ug/L	0.3627 ppb	13:14:50
2	Ti 334.940†	-1350.6	6.3	0.0131 ug/L	0.0131 ppb	13:14:30
2	Tl 190.801†	-30.2	1.9	0.6161 ug/L	0.6161 ppb	13:14:50
2	U 409.014†	-1923.1	116.9	3.6564 ug/L	3.6564 ppb	13:14:30
2	V 292.402†	-1319.5	108.7	0.7810 ug/L	0.7810 ppb	13:14:30
2	Zn 213.857†	620.5	-68.5	-0.6618 ug/L	-0.6618 ppb	13:14:50
2	SiO2†	436.0	-35.5	-2.5289 ug/L	-2.5289 ppb	13:15:26
3	Sc Radial	5177.3	5177.3	102 %		13:13:38
3	Y RADIAL	5619.8	5619.8	102.1 %		13:13:38
3	Al 396.153Radial†	1.9	12.6	9.9316 ug/L	9.9316 ppb	13:13:38
3	Ca 317.933Radial†	12.8	-4.8	-7.8515 ug/L	-7.8515 ppb	13:13:59
3	Fe 238.204 Radial†	11.3	1.2	10.947 ug/L	10.947 ppb	13:13:59
3	K 766.490 Radial†	2879.5	-172.5	-32.114 ug/L	-32.114 ppb	13:13:38
3	Mg 279.077 IEC†	-1.2	-3.7	-123.44 ug/L	-123.44 ppb	13:13:59
3	Na 589.592 Radial†	-1487.2	97.7	29.616 ug/L	29.616 ppb	13:13:38
3	Sr 421.552†	6.6	-28.6	-0.1875 ug/L	-0.1875 ppb	13:13:38
3	Sc 361.383	869549.8	869549.8	103.79 %		13:14:56
3	Y 371.029	738751.2	738751.2	103.77 %		13:14:56
3	Ag 328.068†	344.6	33.6	0.1601 ug/L	0.1601 ppb	13:14:56
3	As 188.979†	-21.6	-0.2	-0.0821 ug/L	-0.0821 ppb	13:15:16
3	B 249.677†	-423.6	58.0	1.3756 ug/L	1.3756 ppb	13:15:16
3	Ba 233.527†	-4.8	2.2	0.0185 ug/L	0.0185 ppb	13:15:16
3	Be 313.107†	-4293.9	207.9	0.0797 ug/L	0.0797 ppb	13:14:56
3	Cd 226.502†	-171.6	32.9	0.3785 ug/L	0.3785 ppb	13:15:16
3	Co 228.616†	-72.7	-10.3	-0.2206 ug/L	-0.2206 ppb	13:15:16
3	Cr 267.716†	77.3	-13.8	-0.1611 ug/L	-0.1611 ppb	13:15:16
3	Cu 324.752†	6221.8	-470.5	-1.4635 ug/L	-1.4635 ppb	13:14:56
3	Mn 257.610†	399.6	-41.1	-0.0409 ug/L	-0.0409 ppb	13:15:16
3	Mo 202.031†	8.8	-12.2	-0.8900 ug/L	-0.8900 ppb	13:15:16
3	Ni 231.604†	72.3	-15.7	-0.4042 ug/L	-0.4042 ppb	13:15:16
3	P 214.914†	218.3	-9.2	-5.4666 ug/L	-5.4666 ppb	13:15:16
3	Pb 220.353†	-63.2	-1.6	-0.1985 ug/L	-0.1985 ppb	13:15:16
3	S 181.975 Axial†	57.1	8.7	12.870 ug/L	12.870 ppb	13:15:16
3	Sb 206.836†	32.4	-5.2	-1.8848 ug/L	-1.8848 ppb	13:15:16
3	Se 196.026†	-28.6	0.9	0.6243 ug/L	0.6243 ppb	13:15:16
3	Si 251.611†	449.5	-18.5	-0.6005 ug/L	-0.6005 ppb	13:15:16
3	Sn 189.927†	12.0	6.2	1.1361 ug/L	1.1361 ppb	13:15:16
3	Ti 334.940†	-1416.6	-53.0	-0.0820 ug/L	-0.0820 ppb	13:14:56
3	Tl 190.801†	-29.6	2.6	0.8249 ug/L	0.8249 ppb	13:15:16
3	U 409.014†	-1866.4	177.7	5.5553 ug/L	5.5553 ppb	13:14:56
3	V 292.402†	-1396.0	39.2	0.2708 ug/L	0.2708 ppb	13:14:56
3	Zn 213.857†	622.5	-68.5	-0.6662 ug/L	-0.6662 ppb	13:15:16
3	SiO2†	427.2	-45.4	-3.1903 ug/L	-3.1903 ppb	13:15:31

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	863773.4	103.10	%	0.912				0.88%
Sc Radial	5100.2	100	%	1.6				1.56%
Y 371.029	734500.4	103.17	%	0.862				0.84%
Y RADIAL	5522.6	100.3	%	1.73				1.72%
Ag 328.068†	-39.3	-0.1870	ug/L	0.30738	-0.1870	ppb	0.30738	164.37%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-1.6	-1.2419	ug/L	10.73470	-1.2419	ppb	10.73470	864.37%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	0.1	0.0451	ug/L	0.81845	0.0451	ppb	0.81845	>999.9%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	54.6	1.2977	ug/L	0.09907	1.2977	ppb	0.09907	7.63%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	5.7	0.0479	ug/L	0.02553	0.0479	ppb	0.02553	53.31%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	213.0	0.0818	ug/L	0.00188	0.0818	ppb	0.00188	2.30%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-4.9	-8.0690	ug/L	3.55478	-8.0690	ppb	3.55478	44.06%

QC value within limits for Ca 317.933Radial Recovery = Not calculated

Cd 226.502†	23.3	0.2683 ug/L	0.10937	0.2683 ppb	0.10937	40.77%

QC value within limits for Cd 226.502 Recovery = Not calculated

Co 228.616†	-11.0	-0.2343 ug/L	0.18608	-0.2343 ppb	0.18608	79.41%

QC value within limits for Co 228.616 Recovery = Not calculated

Cr 267.716†	-17.4	-0.2024 ug/L	0.19624	-0.2024 ppb	0.19624	96.94%

QC value within limits for Cr 267.716 Recovery = Not calculated

Cu 324.752†	-410.3	-1.2764 ug/L	0.21200	-1.2764 ppb	0.21200	16.61%

QC value within limits for Cu 324.752 Recovery = Not calculated

Fe 238.204 Radial†	0.5	4.5409 ug/L	6.96370	4.5409 ppb	6.96370	153.36%

QC value within limits for Fe 238.204 Radial Recovery = Not calculated

K 766.490 Radial†	-128.8	-23.979 ug/L	14.8877	-23.979 ppb	14.8877	62.09%

QC value within limits for K 766.490 Radial Recovery = Not calculated

Mg 279.077 IEC†	-1.9	-64.007 ug/L	56.9425	-64.007 ppb	56.9425	88.96%

QC value within limits for Mg 279.077 IEC Recovery = Not calculated

Mn 257.610†	-41.3	-0.0442 ug/L	0.00793	-0.0442 ppb	0.00793	17.93%

QC value within limits for Mn 257.610 Recovery = Not calculated

Mo 202.031†	-0.7	-0.0520 ug/L	0.75217	-0.0520 ppb	0.75217	>999.9%

QC value within limits for Mo 202.031 Recovery = Not calculated

Na 589.592 Radial†	57.1	17.333 ug/L	11.1794	17.333 ppb	11.1794	64.50%

QC value within limits for Na 589.592 Radial Recovery = Not calculated

Ni 231.604†	-19.8	-0.5107 ug/L	0.34686	-0.5107 ppb	0.34686	67.92%

QC value within limits for Ni 231.604 Recovery = Not calculated

P 214.914†	-6.8	-4.0366 ug/L	5.16488	-4.0366 ppb	5.16488	127.95%

QC value within limits for P 214.914 Recovery = Not calculated

Pb 220.353†	-0.6	-0.0762 ug/L	0.47975	-0.0762 ppb	0.47975	629.85%

QC value within limits for Pb 220.353 Recovery = Not calculated

S 181.975 Axial†	0.3	0.4548 ug/L	11.50346	0.4548 ppb	11.50346	>999.9%

QC value within limits for S 181.975 Axial Recovery = Not calculated

Sb 206.836†	-3.9	-1.4032 ug/L	1.10500	-1.4032 ppb	1.10500	78.75%

QC value within limits for Sb 206.836 Recovery = Not calculated

Se 196.026†	-1.9	-1.2696 ug/L	2.77038	-1.2696 ppb	2.77038	218.21%

QC value within limits for Se 196.026 Recovery = Not calculated

Si 251.611†	-16.9	-0.5589 ug/L	0.19200	-0.5589 ppb	0.19200	34.35%

QC value within limits for Si 251.611 Recovery = Not calculated

Sn 189.927†	3.0	0.5412 ug/L	0.52878	0.5412 ppb	0.52878	97.71%

QC value within limits for Sn 189.927 Recovery = Not calculated

Sr 421.552†	-35.3	-0.2310 ug/L	0.03765	-0.2310 ppb	0.03765	16.30%

QC value within limits for Sr 421.552 Recovery = Not calculated

Ti 334.940†	-33.9	-0.0546 ug/L	0.05894	-0.0546 ppb	0.05894	107.95%

QC value within limits for Ti 334.940 Recovery = Not calculated

Tl 190.801†	-0.5	-0.1459 ug/L	1.50420	-0.1459 ppb	1.50420	>999.9%

QC value within limits for Tl 190.801 Recovery = Not calculated

U 409.014†	155.0	4.8448 ug/L	1.03571	4.8448 ppb	1.03571	21.38%

QC value within limits for U 409.014 Recovery = Not calculated

V 292.402†	85.3	0.6084 ug/L	0.29234	0.6084 ppb	0.29234	48.05%

QC value within limits for V 292.402 Recovery = Not calculated

Zn 213.857†	-61.5	-0.5968 ug/L	0.11639	-0.5968 ppb	0.11639	19.50%

QC value within limits for Zn 213.857 Recovery = Not calculated

SiO2†	-25.3	-1.7884 ug/L	1.88466	-1.7884 ppb	1.88466	105.38%

QC value within limits for SiO2 Recovery = Not calculated

All analyte(s) passed QC.

Sequence No.: 7
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 1/15/2010 14:06:38
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	5063.1	5063.1	99.5	%			14:08:30
1	Y RADIAL	5458.5	5458.5	99.15	%			14:08:30
1	Al 396.153Radial†	6105.0	6147.5	4813.0	ug/L	4813.0	ppb	14:08:30
1	Ca 317.933Radial†	3017.2	3015.5	4951.5	ug/L	4951.5	ppb	14:08:50
1	Fe 238.204 Radial†	574.0	567.2	5074.8	ug/L	5074.8	ppb	14:08:50
1	K 766.490 Radial†	28787.0	25933.5	4820.2	ug/L	4820.2	ppb	14:08:30
1	Mg 279.077 IEC†	153.6	151.9	5105.0	ug/L	5105.0	ppb	14:08:50
1	Na 589.592 Radial†	32676.2	34405.7	10435	ug/L	10435	ppb	14:08:30
1	Sr 421.552†	73739.1	74087.2	485.36	ug/L	485.36	ppb	14:08:30
1	Sc 361.383	882075.8	882075.8	105.28	%			14:09:48
1	Y 371.029	736833.1	736833.1	103.50	%			14:09:48
1	Ag 328.068†	106512.1	100871.6	483.04	ug/L	483.04	ppb	14:09:53
1	As 188.979†	1089.9	1055.9	472.04	ug/L	472.04	ppb	14:10:13
1	B 249.677†	20204.6	19657.3	464.79	ug/L	464.79	ppb	14:09:53
1	Ba 233.527†	61352.0	58281.8	474.78	ug/L	474.78	ppb	14:09:53
1	Be 313.107†	1301246.3	1240328.3	477.99	ug/L	477.99	ppb	14:09:48
1	Cd 226.502†	43310.0	41336.1	475.78	ug/L	475.78	ppb	14:09:53
1	Co 228.616†	23472.9	22355.4	476.59	ug/L	476.59	ppb	14:09:53
1	Cr 267.716†	43141.2	40889.2	474.36	ug/L	474.36	ppb	14:09:53
1	Cu 324.752†	164898.9	150163.1	466.28	ug/L	466.28	ppb	14:09:53
1	Mn 257.610†	442082.4	419484.0	480.88	ug/L	480.88	ppb	14:09:48
1	Mo 202.031†	6880.3	6514.5	475.41	ug/L	475.41	ppb	14:10:13
1	Ni 231.604†	19429.6	18369.8	474.03	ug/L	474.03	ppb	14:09:53
1	P 214.914†	4212.4	3781.7	2282.3	ug/L	2282.3	ppb	14:10:13
1	Pb 220.353†	3874.7	3739.8	476.67	ug/L	476.67	ppb	14:10:13
1	S 181.975 Axial†	725.5	642.9	945.55	ug/L	945.55	ppb	14:10:13
1	Sb 206.836†	1423.1	1315.3	492.72	ug/L	492.72	ppb	14:10:13
1	Se 196.026†	722.7	714.8	491.27	ug/L	491.27	ppb	14:10:13
1	Si 251.611†	75792.0	71539.1	2358.6	ug/L	2358.6	ppb	14:09:53
1	Sn 189.927†	2757.6	2613.9	478.38	ug/L	478.38	ppb	14:10:13
1	Ti 334.940†	292032.0	278697.3	465.79	ug/L	465.79	ppb	14:09:53
1	Tl 190.801†	1538.2	1492.2	476.80	ug/L	476.80	ppb	14:10:13
1	U 409.014†	14443.1	15694.8	489.02	ug/L	489.02	ppb	14:09:53
1	V 292.402†	68935.9	66862.8	478.02	ug/L	478.02	ppb	14:09:53
1	Zn 213.857†	51668.8	48409.0	468.94	ug/L	468.94	ppb	14:09:53
1	SiO2†	75047.2	70826.3	4999.9	ug/L	4999.9	ppb	14:11:20
2	Sc Radial	4948.1	4948.1	97.2	%			14:08:55
2	Y RADIAL	5346.7	5346.7	97.12	%			14:08:55
2	Al 396.153Radial†	5959.3	6140.2	4807.2	ug/L	4807.2	ppb	14:08:55
2	Ca 317.933Radial†	2980.0	3047.7	5004.4	ug/L	5004.4	ppb	14:09:15
2	Fe 238.204 Radial†	564.2	570.4	5104.3	ug/L	5104.3	ppb	14:09:15
2	K 766.490 Radial†	28421.3	26229.9	4875.4	ug/L	4875.4	ppb	14:08:55
2	Mg 279.077 IEC†	152.6	154.5	5190.9	ug/L	5190.9	ppb	14:09:15
2	Na 589.592 Radial†	31969.3	34442.0	10446	ug/L	10446	ppb	14:08:55
2	Sr 421.552†	72382.1	74414.2	487.50	ug/L	487.50	ppb	14:08:55
2	Sc 361.383	872847.5	872847.5	104.18	%			14:10:19
2	Y 371.029	730332.3	730332.3	102.58	%			14:10:19
2	Ag 328.068†	107403.6	102797.1	492.23	ug/L	492.23	ppb	14:10:24
2	As 188.979†	1091.8	1068.6	477.76	ug/L	477.76	ppb	14:10:44
2	B 249.677†	20411.3	20058.6	474.29	ug/L	474.29	ppb	14:10:24
2	Ba 233.527†	61872.1	59397.1	483.86	ug/L	483.86	ppb	14:10:24
2	Be 313.107†	1291178.8	1243732.3	479.32	ug/L	479.32	ppb	14:10:19
2	Cd 226.502†	43484.8	41938.7	482.72	ug/L	482.72	ppb	14:10:24
2	Co 228.616†	23700.5	22809.7	486.26	ug/L	486.26	ppb	14:10:24
2	Cr 267.716†	43411.5	41581.9	482.40	ug/L	482.40	ppb	14:10:24
2	Cu 324.752†	166366.8	153228.1	475.79	ug/L	475.79	ppb	14:10:24
2	Mn 257.610†	438331.3	420322.9	481.84	ug/L	481.84	ppb	14:10:19
2	Mo 202.031†	6848.3	6552.9	478.21	ug/L	478.21	ppb	14:10:44
2	Ni 231.604†	19551.2	18681.7	482.08	ug/L	482.08	ppb	14:10:24

2	P 214.914†	4169.7	3782.9	2281.2 ug/L	2281.2 ppb	14:10:44
2	Pb 220.353†	3892.5	3795.7	483.78 ug/L	483.78 ppb	14:10:44
2	S 181.975 Axial†	721.3	646.1	950.31 ug/L	950.31 ppb	14:10:44
2	Sb 206.836†	1420.8	1327.5	497.21 ug/L	497.21 ppb	14:10:44
2	Se 196.026†	719.4	718.9	494.09 ug/L	494.09 ppb	14:10:44
2	Si 251.611†	76219.7	72710.8	2397.3 ug/L	2397.3 ppb	14:10:24
2	Sn 189.927†	2739.6	2624.3	480.28 ug/L	480.28 ppb	14:10:44
2	Ti 334.940†	294327.7	283833.5	474.37 ug/L	474.37 ppb	14:10:24
2	Tl 190.801†	1543.1	1512.3	483.20 ug/L	483.20 ppb	14:10:44
2	U 409.014†	14707.0	16093.1	501.45 ug/L	501.45 ppb	14:10:24
2	V 292.402†	69429.9	68029.3	486.29 ug/L	486.29 ppb	14:10:24
2	Zn 213.857†	51988.5	49234.8	476.94 ug/L	476.94 ppb	14:10:24
2	SiO2†	76061.5	72553.5	5122.0 ug/L	5122.0 ppb	14:11:25
3	Sc Radial	5080.7	5080.7	99.8 %		14:09:21
3	Y RADIAL	5468.3	5468.3	99.33 %		14:09:21
3	Al 396.153Radial†	6066.3	6087.4	4765.3 ug/L	4765.3 ppb	14:09:21
3	Ca 317.933Radial†	2994.9	2982.6	4897.5 ug/L	4897.5 ppb	14:09:41
3	Fe 238.204 Radial†	574.2	565.3	5058.8 ug/L	5058.8 ppb	14:09:41
3	K 766.490 Radial†	28964.8	26010.9	4834.7 ug/L	4834.7 ppb	14:09:21
3	Mg 279.077 IEC†	152.1	149.8	5034.9 ug/L	5034.9 ppb	14:09:41
3	Na 589.592 Radial†	32625.4	34240.5	10385 ug/L	10385 ppb	14:09:21
3	Sr 421.552†	73802.7	73893.1	484.09 ug/L	484.09 ppb	14:09:21
3	Sc 361.383	863318.9	863318.9	103.04 %		14:10:50
3	Y 371.029	723187.9	723187.9	101.58 %		14:10:50
3	Ag 328.068†	107107.5	103647.5	496.28 ug/L	496.28 ppb	14:10:55
3	As 188.979†	1105.9	1093.8	488.95 ug/L	488.95 ppb	14:11:15
3	B 249.677†	20415.0	20278.5	479.51 ug/L	479.51 ppb	14:10:55
3	Ba 233.527†	61676.9	59863.1	487.66 ug/L	487.66 ppb	14:10:55
3	Be 313.107†	1281346.1	1247869.1	480.92 ug/L	480.92 ppb	14:10:50
3	Cd 226.502†	43443.8	42359.6	487.57 ug/L	487.57 ppb	14:10:55
3	Co 228.616†	23598.4	22961.7	489.51 ug/L	489.51 ppb	14:10:55
3	Cr 267.716†	43309.9	41943.2	486.59 ug/L	486.59 ppb	14:10:55
3	Cu 324.752†	166162.3	154792.2	480.64 ug/L	480.64 ppb	14:10:55
3	Mn 257.610†	434718.6	421460.7	483.14 ug/L	483.14 ppb	14:10:50
3	Mo 202.031†	6864.9	6641.5	484.66 ug/L	484.66 ppb	14:11:15
3	Ni 231.604†	19427.1	18768.3	484.31 ug/L	484.31 ppb	14:10:55
3	P 214.914†	4185.4	3842.4	2317.6 ug/L	2317.6 ppb	14:11:15
3	Pb 220.353†	3866.7	3811.9	485.84 ug/L	485.84 ppb	14:11:15
3	S 181.975 Axial†	730.7	662.8	974.94 ug/L	974.94 ppb	14:11:15
3	Sb 206.836†	1426.9	1348.4	505.02 ug/L	505.02 ppb	14:11:15
3	Se 196.026†	720.5	727.6	499.70 ug/L	499.70 ppb	14:11:15
3	Si 251.611†	76257.5	73555.0	2425.2 ug/L	2425.2 ppb	14:10:55
3	Sn 189.927†	2752.1	2665.5	487.79 ug/L	487.79 ppb	14:11:15
3	Ti 334.940†	293598.8	286244.4	478.40 ug/L	478.40 ppb	14:10:55
3	Tl 190.801†	1547.7	1533.1	489.82 ug/L	489.82 ppb	14:11:15
3	U 409.014†	14660.1	16203.4	504.90 ug/L	504.90 ppb	14:10:55
3	V 292.402†	69313.0	68651.4	490.78 ug/L	490.78 ppb	14:10:55
3	Zn 213.857†	51889.7	49689.7	481.37 ug/L	481.37 ppb	14:10:55
3	SiO2†	76919.6	74192.1	5237.8 ug/L	5237.8 ppb	14:11:31

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	872747.4	104.17	%	1.119				1.07%
Sc Radial	5030.6	98.8	%	1.42				1.43%
Y 371.029	730117.8	102.55	%	0.959				0.93%
Y RADIAL	5424.5	98.53	%	1.227				1.25%
Ag 328.068†	102438.7	490.52	ug/L	6.785	490.52	ppb	6.785	1.38%
QC value within limits for Ag 328.068 Recovery = 98.10%								
Al 396.153Radial†	6125.0	4795.2	ug/L	26.04	4795.2	ppb	26.04	0.54%
QC value within limits for Al 396.153Radial Recovery = 95.90%								
As 188.979†	1072.7	479.58	ug/L	8.599	479.58	ppb	8.599	1.79%
QC value within limits for As 188.979 Recovery = 95.92%								
B 249.677†	19998.1	472.86	ug/L	7.464	472.86	ppb	7.464	1.58%
QC value within limits for B 249.677 Recovery = 94.57%								
Ba 233.527†	59180.7	482.10	ug/L	6.617	482.10	ppb	6.617	1.37%
QC value within limits for Ba 233.527 Recovery = 96.42%								
Be 313.107†	1243976.5	479.41	ug/L	1.466	479.41	ppb	1.466	0.31%
QC value within limits for Be 313.107 Recovery = 95.88%								
Ca 317.933Radial†	3015.3	4951.1	ug/L	53.44	4951.1	ppb	53.44	1.08%

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   QC value within limits for Ca 317.933Radial  Recovery = 99.02%
Cd 226.502†            41878.1      482.02 ug/L         5.929      482.02 ppb          5.929   1.23%
   QC value within limits for Cd 226.502  Recovery = 96.40%
Co 228.616†            22708.9      484.12 ug/L         6.721      484.12 ppb          6.721   1.39%
   QC value within limits for Co 228.616  Recovery = 96.82%
Cr 267.716†            41471.5      481.12 ug/L         6.212      481.12 ppb          6.212   1.29%
   QC value within limits for Cr 267.716  Recovery = 96.22%
Cu 324.752†           152727.8      474.23 ug/L         7.307      474.23 ppb          7.307   1.54%
   QC value within limits for Cu 324.752  Recovery = 94.85%
Fe 238.204 Radial†       567.6      5079.3 ug/L        23.09      5079.3 ppb          23.09   0.45%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.59%
K 766.490 Radial†      26058.1      4843.4 ug/L        28.59      4843.4 ppb          28.59   0.59%
   QC value within limits for K 766.490 Radial  Recovery = 96.87%
Mg 279.077 IEC†          152.1      5110.3 ug/L        78.14      5110.3 ppb          78.14   1.53%
   QC value within limits for Mg 279.077 IEC  Recovery = 102.21%
Mn 257.610†           420422.5      481.95 ug/L         1.137      481.95 ppb          1.137   0.24%
   QC value within limits for Mn 257.610  Recovery = 96.39%
Mo 202.031†             6569.7      479.43 ug/L         4.746      479.43 ppb          4.746   0.99%
   QC value within limits for Mo 202.031  Recovery = 95.89%
Na 589.592 Radial†     34362.7       10422 ug/L          32.6       10422 ppb           32.6   0.31%
   QC value within limits for Na 589.592 Radial  Recovery = 104.22%
Ni 231.604†            18606.6      480.14 ug/L         5.407      480.14 ppb          5.407   1.13%
   QC value within limits for Ni 231.604  Recovery = 96.03%
P 214.914†              3802.3      2293.7 ug/L        20.73      2293.7 ppb          20.73   0.90%
   QC value within limits for P 214.914  Recovery = 91.75%
Pb 220.353†             3782.4      482.10 ug/L         4.810      482.10 ppb          4.810   1.00%
   QC value within limits for Pb 220.353  Recovery = 96.42%
S 181.975 Axial†         650.6      956.93 ug/L        15.774      956.93 ppb         15.774   1.65%
   QC value within limits for S 181.975 Axial  Recovery = 95.69%
Sb 206.836†             1330.4      498.31 ug/L         6.224      498.31 ppb          6.224   1.25%
   QC value within limits for Sb 206.836  Recovery = 99.66%
Se 196.026†              720.5      495.02 ug/L         4.293      495.02 ppb          4.293   0.87%
   QC value within limits for Se 196.026  Recovery = 99.00%
Si 251.611†            72601.7      2393.7 ug/L        33.40      2393.7 ppb          33.40   1.40%
   QC value within limits for Si 251.611  Recovery = 95.75%
Sn 189.927†             2634.6      482.15 ug/L         4.978      482.15 ppb          4.978   1.03%
   QC value within limits for Sn 189.927  Recovery = 96.43%
Sr 421.552†            74131.5      485.65 ug/L         1.725      485.65 ppb          1.725   0.36%
   QC value within limits for Sr 421.552  Recovery = 97.13%
Ti 334.940†           282925.1      472.85 ug/L         6.438      472.85 ppb          6.438   1.36%
   QC value within limits for Ti 334.940  Recovery = 94.57%
Tl 190.801†             1512.6      483.27 ug/L         6.511      483.27 ppb          6.511   1.35%
   QC value within limits for Tl 190.801  Recovery = 96.65%
U 409.014†             15997.1      498.46 ug/L         8.351      498.46 ppb          8.351   1.68%
   QC value within limits for U 409.014  Recovery = 99.69%
V 292.402†             67847.8      485.03 ug/L         6.474      485.03 ppb          6.474   1.33%
   QC value within limits for V 292.402  Recovery = 97.01%
Zn 213.857†            49111.2      475.75 ug/L         6.301      475.75 ppb          6.301   1.32%
   QC value within limits for Zn 213.857  Recovery = 95.15%
SiO2†                  72524.0      5119.9 ug/L       119.00      5119.9 ppb         119.00   2.32%
   QC value within limits for SiO2  Recovery = 95.74%
All analyte(s) passed QC.
```

Sequence No.: 8
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 1/15/2010 14:13:40
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5214.3	5214.3	102	%			14:15:33
1	Y RADIAL	5623.8	5623.8	102.2	%			14:15:33
1	Al 396.153Radial†	10.7	21.1	16.639	ug/L	16.639	ppb	14:15:33
1	Ca 317.933Radial†	18.6	0.8	1.2695	ug/L	1.2695	ppb	14:15:53
1	Fe 238.204 Radial†	10.3	0.2	1.7841	ug/L	1.7841	ppb	14:15:53
1	K 766.490 Radial†	2841.6	-229.6	-42.803	ug/L	-42.803	ppb	14:15:33
1	Mg 279.077 IEC†	2.4	-0.2	-5.7157	ug/L	-5.7157	ppb	14:15:53
1	Na 589.592 Radial†	-1056.7	528.2	160.21	ug/L	160.21	ppb	14:15:33
1	Sr 421.552†	-22.9	-57.5	-0.3764	ug/L	-0.3764	ppb	14:15:33
1	Sc 361.383	851409.6	851409.6	101.62	%			14:16:50
1	Y 371.029	725380.5	725380.5	101.89	%			14:16:50
1	Ag 328.068†	357.6	53.6	0.2586	ug/L	0.2586	ppb	14:16:50
1	As 188.979†	-27.6	-6.6	-2.9092	ug/L	-2.9092	ppb	14:17:10
1	B 249.677†	-334.3	137.2	3.2583	ug/L	3.2583	ppb	14:17:10
1	Ba 233.527†	-1.0	5.8	0.0485	ug/L	0.0485	ppb	14:17:10
1	Be 313.107†	-4260.8	152.3	0.0586	ug/L	0.0586	ppb	14:16:50
1	Cd 226.502†	-180.0	21.1	0.2420	ug/L	0.2420	ppb	14:17:10
1	Co 228.616†	-68.5	-7.6	-0.1634	ug/L	-0.1634	ppb	14:17:10
1	Cr 267.716†	91.5	1.8	0.0219	ug/L	0.0219	ppb	14:17:10
1	Cu 324.752†	6206.0	-358.4	-1.1122	ug/L	-1.1122	ppb	14:16:50
1	Mn 257.610†	437.1	4.0	0.0050	ug/L	0.0050	ppb	14:17:10
1	Mo 202.031†	13.8	-7.1	-0.5195	ug/L	-0.5195	ppb	14:17:10
1	Ni 231.604†	61.5	-24.8	-0.6408	ug/L	-0.6408	ppb	14:17:10
1	P 214.914†	235.9	12.6	8.1261	ug/L	8.1261	ppb	14:17:10
1	Pb 220.353†	-67.5	-7.0	-0.8906	ug/L	-0.8906	ppb	14:17:10
1	S 181.975 Axial†	47.1	0.1	0.1583	ug/L	0.1583	ppb	14:17:10
1	Sb 206.836†	42.8	5.7	2.0560	ug/L	2.0560	ppb	14:17:10
1	Se 196.026†	-43.9	-14.8	-9.7788	ug/L	-9.7788	ppb	14:17:10
1	Si 251.611†	466.6	7.6	0.2585	ug/L	0.2585	ppb	14:17:10
1	Sn 189.927†	6.2	0.8	0.1402	ug/L	0.1402	ppb	14:17:10
1	Ti 334.940†	-1334.3	-1.1	-0.0009	ug/L	-0.0009	ppb	14:16:50
1	Tl 190.801†	-37.9	-6.1	-1.9430	ug/L	-1.9430	ppb	14:17:10
1	U 409.014†	-2032.6	-24.2	-0.7555	ug/L	-0.7555	ppb	14:16:50
1	V 292.402†	-1315.1	90.2	0.6270	ug/L	0.6270	ppb	14:16:50
1	Zn 213.857†	649.5	-29.2	-0.2795	ug/L	-0.2795	ppb	14:17:10
1	SiO2†	451.1	-13.1	-0.9152	ug/L	-0.9152	ppb	14:18:06
2	Sc Radial	5101.6	5101.6	100	%			14:15:58
2	Y RADIAL	5535.5	5535.5	100.5	%			14:15:58
2	Al 396.153Radial†	13.6	24.3	19.107	ug/L	19.107	ppb	14:15:58
2	Ca 317.933Radial†	18.5	1.1	1.7786	ug/L	1.7786	ppb	14:16:18
2	Fe 238.204 Radial†	10.6	0.7	6.4563	ug/L	6.4563	ppb	14:16:18
2	K 766.490 Radial†	2877.4	-132.7	-24.744	ug/L	-24.744	ppb	14:15:58
2	Mg 279.077 IEC†	4.2	1.7	58.171	ug/L	58.171	ppb	14:16:18
2	Na 589.592 Radial†	-1117.1	445.2	135.02	ug/L	135.02	ppb	14:15:58
2	Sr 421.552†	-9.8	-44.9	-0.2945	ug/L	-0.2945	ppb	14:15:58
2	Sc 361.383	848625.4	848625.4	101.29	%			14:17:15
2	Y 371.029	722358.6	722358.6	101.46	%			14:17:15
2	Ag 328.068†	350.2	47.4	0.2275	ug/L	0.2275	ppb	14:17:15
2	As 188.979†	-27.1	-6.2	-2.7356	ug/L	-2.7356	ppb	14:17:35
2	B 249.677†	-321.1	149.1	3.5424	ug/L	3.5424	ppb	14:17:35
2	Ba 233.527†	-10.4	-3.5	-0.0267	ug/L	-0.0267	ppb	14:17:35
2	Be 313.107†	-4216.1	182.7	0.0703	ug/L	0.0703	ppb	14:17:15
2	Cd 226.502†	-186.6	14.0	0.1608	ug/L	0.1608	ppb	14:17:35
2	Co 228.616†	-81.6	-20.8	-0.4428	ug/L	-0.4428	ppb	14:17:35
2	Cr 267.716†	82.4	-6.9	-0.0802	ug/L	-0.0802	ppb	14:17:35
2	Cu 324.752†	6276.0	-269.2	-0.8370	ug/L	-0.8370	ppb	14:17:15
2	Mn 257.610†	434.4	2.8	0.0014	ug/L	0.0014	ppb	14:17:35
2	Mo 202.031†	20.6	-0.4	-0.0288	ug/L	-0.0288	ppb	14:17:35
2	Ni 231.604†	68.2	-17.9	-0.4629	ug/L	-0.4629	ppb	14:17:35

2	P 214.914†	219.2	-3.1	-1.7646 ug/L	-1.7646 ppb	14:17:35
2	Pb 220.353†	-59.5	0.6	0.0816 ug/L	0.0816 ppb	14:17:35
2	S 181.975 Axial†	55.2	8.3	12.151 ug/L	12.151 ppb	14:17:35
2	Sb 206.836†	50.7	13.7	4.9435 ug/L	4.9435 ppb	14:17:35
2	Se 196.026†	-30.3	-1.5	-0.9736 ug/L	-0.9736 ppb	14:17:35
2	Si 251.611†	470.9	13.3	0.4415 ug/L	0.4415 ppb	14:17:35
2	Sn 189.927†	1.2	-4.2	-0.7616 ug/L	-0.7616 ppb	14:17:35
2	Ti 334.940†	-1318.2	10.5	0.0120 ug/L	0.0120 ppb	14:17:15
2	Tl 190.801†	-36.2	-4.6	-1.4680 ug/L	-1.4680 ppb	14:17:35
2	U 409.014†	-1916.2	84.2	2.6308 ug/L	2.6308 ppb	14:17:15
2	V 292.402†	-1325.2	76.0	0.5407 ug/L	0.5407 ppb	14:17:15
2	Zn 213.857†	644.1	-32.5	-0.3138 ug/L	-0.3138 ppb	14:17:35
2	SiO2†	478.8	15.7	1.1130 ug/L	1.1130 ppb	14:18:11
3	Sc Radial	5097.7	5097.7	100 %		14:16:23
3	Y RADIAL	5546.6	5546.6	100.7 %		14:16:23
3	Al 396.153Radial†	10.0	20.7	16.287 ug/L	16.287 ppb	14:16:23
3	Ca 317.933Radial†	16.8	-0.6	-1.0234 ug/L	-1.0234 ppb	14:16:43
3	Fe 238.204 Radial†	9.9	-0.0	-0.1597 ug/L	-0.1597 ppb	14:16:43
3	K 766.490 Radial†	2942.0	-66.0	-12.347 ug/L	-12.347 ppb	14:16:23
3	Mg 279.077 IEC†	4.1	1.6	54.493 ug/L	54.493 ppb	14:16:43
3	Na 589.592 Radial†	-1048.2	513.2	155.64 ug/L	155.64 ppb	14:16:23
3	Sr 421.552†	14.8	-20.4	-0.1334 ug/L	-0.1334 ppb	14:16:23
3	Sc 361.383	839976.8	839976.8	100.26 %		14:17:40
3	Y 371.029	716227.1	716227.1	100.60 %		14:17:40
3	Ag 328.068†	305.4	6.2	0.0302 ug/L	0.0302 ppb	14:17:40
3	As 188.979†	-19.5	1.1	0.5056 ug/L	0.5056 ppb	14:18:00
3	B 249.677†	-346.0	120.9	2.8748 ug/L	2.8748 ppb	14:18:00
3	Ba 233.527†	-15.9	-9.0	-0.0739 ug/L	-0.0739 ppb	14:18:00
3	Be 313.107†	-4220.4	135.5	0.0519 ug/L	0.0519 ppb	14:17:40
3	Cd 226.502†	-178.3	20.3	0.2334 ug/L	0.2334 ppb	14:18:00
3	Co 228.616†	-85.7	-25.7	-0.5469 ug/L	-0.5469 ppb	14:18:00
3	Cr 267.716†	75.2	-13.3	-0.1536 ug/L	-0.1536 ppb	14:18:00
3	Cu 324.752†	6260.0	-221.4	-0.6863 ug/L	-0.6863 ppb	14:17:40
3	Mn 257.610†	414.8	-12.4	-0.0164 ug/L	-0.0164 ppb	14:18:00
3	Mo 202.031†	24.5	3.7	0.2690 ug/L	0.2690 ppb	14:18:00
3	Ni 231.604†	75.3	-10.3	-0.2644 ug/L	-0.2644 ppb	14:18:00
3	P 214.914†	219.2	-0.9	-0.4229 ug/L	-0.4229 ppb	14:18:00
3	Pb 220.353†	-45.3	14.2	1.8070 ug/L	1.8070 ppb	14:18:00
3	S 181.975 Axial†	45.9	-0.4	-0.6593 ug/L	-0.6593 ppb	14:18:00
3	Sb 206.836†	37.7	1.2	0.4433 ug/L	0.4433 ppb	14:18:00
3	Se 196.026†	-33.1	-4.6	-3.0451 ug/L	-3.0451 ppb	14:18:00
3	Si 251.611†	456.1	3.3	0.1069 ug/L	0.1069 ppb	14:18:00
3	Sn 189.927†	2.5	-2.9	-0.5290 ug/L	-0.5290 ppb	14:18:00
3	Ti 334.940†	-1379.0	-63.6	-0.1100 ug/L	-0.1100 ppb	14:17:40
3	Tl 190.801†	-31.7	-0.5	-0.1544 ug/L	-0.1544 ppb	14:18:00
3	U 409.014†	-2040.5	-59.3	-1.8531 ug/L	-1.8531 ppb	14:17:40
3	V 292.402†	-1412.4	-24.5	-0.1712 ug/L	-0.1712 ppb	14:17:40
3	Zn 213.857†	647.7	-22.3	-0.2154 ug/L	-0.2154 ppb	14:18:00
3	SiO2†	468.8	10.6	0.7436 ug/L	0.7436 ppb	14:18:16

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	846670.6	101.05	%	0.712				0.70%
Sc Radial	5137.9	101	%	1.3				1.29%
Y 371.029	721322.0	101.32	%	0.655				0.65%
Y RADIAL	5568.6	101.1	%	0.87				0.86%
Ag 328.068†	35.7	0.1721	ug/L	0.12384	0.1721	ppb	0.12384	71.96%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	22.0	17.344	ug/L	1.5365	17.344	ppb	1.5365	8.86%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-3.9	-1.7131	ug/L	1.92336	-1.7131	ppb	1.92336	112.27%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	135.7	3.2252	ug/L	0.33501	3.2252	ppb	0.33501	10.39%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-2.2	-0.0174	ug/L	0.06176	-0.0174	ppb	0.06176	355.62%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	156.8	0.0602	ug/L	0.00933	0.0602	ppb	0.00933	15.48%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	0.4	0.6749	ug/L	1.49263	0.6749	ppb	1.49263	221.17%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                18.5      0.2121 ug/L       0.04462      0.2121 ppb        0.04462  21.04%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†               -18.0     -0.3844 ug/L       0.19834     -0.3844 ppb        0.19834  51.60%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                -6.1     -0.0706 ug/L       0.08813     -0.0706 ppb        0.08813 124.76%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -283.0     -0.8785 ug/L       0.21597     -0.8785 ppb        0.21597  24.58%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          0.3      2.6935 ug/L       3.40047      2.6935 ppb        3.40047 126.25%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        -142.8     -26.631 ug/L       15.3152     -26.631 ppb        15.3152  57.51%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             1.1      35.649 ug/L       35.8704      35.649 ppb        35.8704 100.62%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                -1.9     -0.0033 ug/L       0.01146     -0.0033 ppb        0.01146 345.40%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                -1.3     -0.0931 ug/L       0.39817     -0.0931 ppb        0.39817 427.76%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        495.5      150.29 ug/L        13.418      150.29 ppb         13.418   8.93%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               -17.7     -0.4560 ug/L       0.18827     -0.4560 ppb        0.18827  41.28%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                  2.9      1.9795 ug/L       5.36522      1.9795 ppb        5.36522 271.03%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                 2.6      0.3327 ug/L       1.36619      0.3327 ppb        1.36619 410.68%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            2.6      3.8833 ug/L       7.17167      3.8833 ppb        7.17167 184.68%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 6.9      2.4809 ug/L       2.27999      2.4809 ppb        2.27999  91.90%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -7.0     -4.5992 ug/L       4.60374     -4.5992 ppb        4.60374 100.10%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                 8.1      0.2690 ug/L       0.16756      0.2690 ppb        0.16756  62.30%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                -2.1     -0.3835 ug/L       0.46814     -0.3835 ppb        0.46814 122.08%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               -40.9     -0.2681 ug/L       0.12364     -0.2681 ppb        0.12364  46.12%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               -18.0     -0.0330 ug/L       0.06699     -0.0330 ppb        0.06699 203.18%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                -3.7     -1.1884 ug/L       0.92651     -1.1884 ppb        0.92651  77.96%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                  0.2      0.0074 ug/L       2.33726      0.0074 ppb        2.33726 >999.9%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 47.2      0.3322 ug/L       0.43808      0.3322 ppb        0.43808 131.88%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               -28.0     -0.2696 ug/L       0.04994     -0.2696 ppb        0.04994  18.52%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                       4.4      0.3138 ug/L       1.08029      0.3138 ppb        1.08029 344.26%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Analysis Begun

Start Time: 1/15/2010 15:01:36
Plasma On Time: 1/15/2010 14:57:04
Logged In Analyst: Optima3
Technique: ICP Continuous
Spectrometer Model: Optima 5300 DV, S/N 077C7090601Autosampler Model: S10

Sample Information File: C:\pe\Optima3\Sample Information\011510A.sif
Batch ID:
Results Data Set: 011510
Results Library: C:\pe\Optima3\Results\Results.mdb

Sequence No.: 1
Autosampler Location: 7
Sample ID: CCV
Date Collected: 1/15/2010 15:01:37
Analyst:
Data Type: Original
Initial Sample Wt:
Initial Sample Vol:
Dilution:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5288.0	5288.0	104	%			15:03:29
1	Y RADIAL	5669.2	5669.2	103.0	%			15:03:29
1	Al 396.153Radial†	6395.5	6166.0	4827.4	ug/L	4827.4	ppb	15:03:29
1	Ca 317.933Radial†	3149.5	3013.8	4948.7	ug/L	4948.7	ppb	15:03:49
1	Fe 238.204 Radial†	600.3	567.9	5081.2	ug/L	5081.2	ppb	15:03:49
1	K 766.490 Radial†	29821.9	25698.7	4776.5	ug/L	4776.5	ppb	15:03:29
1	Mg 279.077 IEC†	160.1	151.6	5094.1	ug/L	5094.1	ppb	15:03:49
1	Na 589.592 Radial†	34242.8	34516.3	10468	ug/L	10468	ppb	15:03:29
1	Sr 421.552†	77552.9	74604.9	488.75	ug/L	488.75	ppb	15:03:29
1	Sc 361.383	900377.4	900377.4	107.46	%			15:04:46
1	Y 371.029	752849.0	752849.0	105.75	%			15:04:46
1	Ag 328.068†	110161.0	102210.7	489.43	ug/L	489.43	ppb	15:04:51
1	As 188.979†	1142.4	1083.6	484.39	ug/L	484.39	ppb	15:05:11
1	B 249.677†	21001.1	20008.5	473.11	ug/L	473.11	ppb	15:04:51
1	Ba 233.527†	63266.3	58878.5	479.64	ug/L	479.64	ppb	15:04:51
1	Be 313.107†	1340056.6	1251319.5	482.23	ug/L	482.23	ppb	15:04:46
1	Cd 226.502†	44675.6	41770.5	480.78	ug/L	480.78	ppb	15:04:51
1	Co 228.616†	24239.5	22615.6	482.13	ug/L	482.13	ppb	15:04:51
1	Cr 267.716†	44548.2	41365.5	479.89	ug/L	479.89	ppb	15:04:51
1	Cu 324.752†	171179.6	152823.8	474.53	ug/L	474.53	ppb	15:04:51
1	Mn 257.610†	452075.6	420247.6	481.75	ug/L	481.75	ppb	15:04:46
1	Mo 202.031†	7088.7	6575.6	479.86	ug/L	479.86	ppb	15:05:11
1	Ni 231.604†	20053.2	18574.9	479.32	ug/L	479.32	ppb	15:04:51
1	P 214.914†	4341.2	3820.2	2304.9	ug/L	2304.9	ppb	15:05:11
1	Pb 220.353†	4015.7	3796.1	483.84	ug/L	483.84	ppb	15:05:11
1	S 181.975 Axial†	757.5	658.6	968.73	ug/L	968.73	ppb	15:05:11
1	Sb 206.836†	1468.4	1330.0	498.23	ug/L	498.23	ppb	15:05:11
1	Se 196.026†	762.6	738.0	506.65	ug/L	506.65	ppb	15:05:11
1	Si 251.611†	78377.2	72481.5	2389.7	ug/L	2389.7	ppb	15:04:51
1	Sn 189.927†	2846.5	2643.4	483.77	ug/L	483.77	ppb	15:05:11
1	Ti 334.940†	301280.4	281665.0	470.75	ug/L	470.75	ppb	15:04:51
1	Tl 190.801†	1605.3	1524.9	487.18	ug/L	487.18	ppb	15:05:11
1	U 409.014†	15022.6	15955.2	497.15	ug/L	497.15	ppb	15:04:51
1	V 292.402†	71182.7	67622.5	483.45	ug/L	483.45	ppb	15:04:51
1	Zn 213.857†	53436.3	49056.2	475.22	ug/L	475.22	ppb	15:04:51
1	SiO2†	78714.5	72789.9	5138.7	ug/L	5138.7	ppb	15:06:19
2	Sc Radial	5157.2	5157.2	101	%			15:03:54
2	Y RADIAL	5527.1	5527.1	100.4	%			15:03:54
2	Al 396.153Radial†	6360.4	6287.5	4921.2	ug/L	4921.2	ppb	15:03:54
2	Ca 317.933Radial†	3143.0	3084.3	5064.5	ug/L	5064.5	ppb	15:04:14
2	Fe 238.204 Radial†	599.5	581.8	5206.4	ug/L	5206.4	ppb	15:04:14
2	K 766.490 Radial†	29673.0	26279.6	4884.5	ug/L	4884.5	ppb	15:03:54
2	Mg 279.077 IEC†	155.0	150.5	5057.6	ug/L	5057.6	ppb	15:04:14
2	Na 589.592 Radial†	33796.8	34912.0	10588	ug/L	10588	ppb	15:03:54
2	Sr 421.552†	76973.3	75926.0	497.41	ug/L	497.41	ppb	15:03:54
2	Sc 361.383	840934.5	840934.5	100.37	%			15:05:17
2	Y 371.029	703103.6	703103.6	98.760	%			15:05:17

2	Ag 328.068†	109958.8	109255.2	523.10 ug/L	523.10 ppb	15:05:22
2	As 188.979†	1152.2	1168.5	522.23 ug/L	522.23 ppb	15:05:42
2	B 249.677†	20928.7	21317.7	504.10 ug/L	504.10 ppb	15:05:22
2	Ba 233.527†	63382.6	63155.9	514.48 ug/L	514.48 ppb	15:05:22
2	Be 313.107†	1357293.9	1356637.9	522.80 ug/L	522.80 ppb	15:05:17
2	Cd 226.502†	44713.0	44746.5	515.06 ug/L	515.06 ppb	15:05:22
2	Co 228.616†	24277.3	24247.6	516.94 ug/L	516.94 ppb	15:05:22
2	Cr 267.716†	44391.7	44139.9	512.07 ug/L	512.07 ppb	15:05:22
2	Cu 324.752†	171114.0	164018.1	509.28 ug/L	509.28 ppb	15:05:22
2	Mn 257.610†	457813.0	455700.0	522.38 ug/L	522.38 ppb	15:05:17
2	Mo 202.031†	7138.1	7091.1	517.46 ug/L	517.46 ppb	15:05:42
2	Ni 231.604†	20005.6	19846.6	512.13 ug/L	512.13 ppb	15:05:22
2	P 214.914†	4362.3	4126.7	2490.6 ug/L	2490.6 ppb	15:05:42
2	Pb 220.353†	4045.1	4089.5	521.20 ug/L	521.20 ppb	15:05:42
2	S 181.975 Axial†	763.9	714.9	1051.5 ug/L	1051.5 ppb	15:05:42
2	Sb 206.836†	1481.8	1440.0	539.29 ug/L	539.29 ppb	15:05:42
2	Se 196.026†	768.2	793.8	544.06 ug/L	544.06 ppb	15:05:42
2	Si 251.611†	78569.3	77828.2	2566.0 ug/L	2566.0 ppb	15:05:22
2	Sn 189.927†	2852.9	2837.0	519.15 ug/L	519.15 ppb	15:05:42
2	Ti 334.940†	301209.6	301411.7	503.75 ug/L	503.75 ppb	15:05:22
2	Tl 190.801†	1608.5	1633.7	521.97 ug/L	521.97 ppb	15:05:42
2	U 409.014†	15009.1	16929.8	527.53 ug/L	527.53 ppb	15:05:22
2	V 292.402†	71263.5	72385.2	517.57 ug/L	517.57 ppb	15:05:22
2	Zn 213.857†	53377.5	52512.5	508.72 ug/L	508.72 ppb	15:05:22
2	SiO2†	78862.4	78114.8	5514.6 ug/L	5514.6 ppb	15:06:24
3	Sc Radial	5227.5	5227.5	103 %		15:04:19
3	Y RADIAL	5648.0	5648.0	102.6 %		15:04:19
3	Al 396.153Radial†	6315.7	6159.5	4822.1 ug/L	4822.1 ppb	15:04:19
3	Ca 317.933Radial†	3127.1	3027.1	4970.5 ug/L	4970.5 ppb	15:04:39
3	Fe 238.204 Radial†	600.0	574.3	5139.0 ug/L	5139.0 ppb	15:04:39
3	K 766.490 Radial†	29600.7	25815.7	4798.3 ug/L	4798.3 ppb	15:04:19
3	Mg 279.077 IEC†	158.4	151.7	5098.5 ug/L	5098.5 ppb	15:04:39
3	Na 589.592 Radial†	33695.1	34364.7	10422 ug/L	10422 ppb	15:04:19
3	Sr 421.552†	76461.2	74406.4	487.45 ug/L	487.45 ppb	15:04:19
3	Sc 361.383	891794.6	891794.6	106.44 %		15:05:48
3	Y 371.029	746726.3	746726.3	104.89 %		15:05:48
3	Ag 328.068†	112499.0	105393.8	504.65 ug/L	504.65 ppb	15:05:53
3	As 188.979†	1133.8	1085.8	485.49 ug/L	485.49 ppb	15:06:13
3	B 249.677†	21622.3	20780.2	491.39 ug/L	491.39 ppb	15:05:53
3	Ba 233.527†	64840.0	60923.6	496.30 ug/L	496.30 ppb	15:05:53
3	Be 313.107†	1345481.1	1268416.9	488.84 ug/L	488.84 ppb	15:05:48
3	Cd 226.502†	45819.6	43245.4	497.77 ug/L	497.77 ppb	15:05:53
3	Co 228.616†	24840.7	23397.5	498.78 ug/L	498.78 ppb	15:05:53
3	Cr 267.716†	45542.0	42698.2	495.35 ug/L	495.35 ppb	15:05:53
3	Cu 324.752†	175106.4	158046.1	490.74 ug/L	490.74 ppb	15:05:53
3	Mn 257.610†	453169.3	425323.8	487.57 ug/L	487.57 ppb	15:05:48
3	Mo 202.031†	7103.8	6653.3	485.53 ug/L	485.53 ppb	15:06:13
3	Ni 231.604†	20465.2	19141.6	493.94 ug/L	493.94 ppb	15:05:53
3	P 214.914†	4357.4	3874.2	2335.5 ug/L	2335.5 ppb	15:06:13
3	Pb 220.353†	3991.4	3809.2	485.50 ug/L	485.50 ppb	15:06:13
3	S 181.975 Axial†	749.9	658.2	968.12 ug/L	968.12 ppb	15:06:13
3	Sb 206.836†	1476.4	1350.7	505.84 ug/L	505.84 ppb	15:06:13
3	Se 196.026†	756.8	739.4	507.76 ug/L	507.76 ppb	15:06:13
3	Si 251.611†	80376.7	75061.9	2474.9 ug/L	2474.9 ppb	15:05:53
3	Sn 189.927†	2831.8	2655.1	485.90 ug/L	485.90 ppb	15:06:13
3	Ti 334.940†	308238.4	290900.1	486.18 ug/L	486.18 ppb	15:05:53
3	Tl 190.801†	1601.5	1535.7	490.66 ug/L	490.66 ppb	15:06:13
3	U 409.014†	15356.8	16403.7	511.13 ug/L	511.13 ppb	15:05:53
3	V 292.402†	72988.7	69956.8	499.99 ug/L	499.99 ppb	15:05:53
3	Zn 213.857†	54705.8	50727.5	491.43 ug/L	491.43 ppb	15:05:53
3	SiO2†	79617.0	74342.7	5248.5 ug/L	5248.5 ppb	15:06:29

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	877702.2	104.76	%	3.835				3.66%
Sc Radial	5224.2	103	%	1.3				1.25%
Y 371.029	734226.3	103.13	%	3.810				3.69%
Y RADIAL	5614.8	102.0	%	1.39				1.36%
Ag 328.068†	105619.9	505.72	ug/L	16.860	505.72	ppb	16.860	3.33%

QC value within limits for Ag 328.068 Recovery = 101.14%

Al 396.153Radial†	6204.4	4856.9 ug/L	55.74	4856.9 ppb	55.74	1.15%

QC value within limits for Al 396.153Radial Recovery = 97.14%

As 188.979†	1112.7	497.37 ug/L	21.539	497.37 ppb	21.539	4.33%

QC value within limits for As 188.979 Recovery = 99.47%

B 249.677†	20702.1	489.53 ug/L	15.574	489.53 ppb	15.574	3.18%

QC value within limits for B 249.677 Recovery = 97.91%

Ba 233.527†	60986.0	496.81 ug/L	17.423	496.81 ppb	17.423	3.51%

QC value within limits for Ba 233.527 Recovery = 99.36%

Be 313.107†	1292124.8	497.95 ug/L	21.769	497.95 ppb	21.769	4.37%

QC value within limits for Be 313.107 Recovery = 99.59%

Ca 317.933Radial†	3041.7	4994.6 ug/L	61.52	4994.6 ppb	61.52	1.23%

QC value within limits for Ca 317.933Radial Recovery = 99.89%

Cd 226.502†	43254.2	497.87 ug/L	17.138	497.87 ppb	17.138	3.44%

QC value within limits for Cd 226.502 Recovery = 99.57%

Co 228.616†	23420.3	499.28 ug/L	17.408	499.28 ppb	17.408	3.49%

QC value within limits for Co 228.616 Recovery = 99.86%

Cr 267.716†	42734.5	495.77 ug/L	16.097	495.77 ppb	16.097	3.25%

QC value within limits for Cr 267.716 Recovery = 99.15%

Cu 324.752†	158296.0	491.52 ug/L	17.388	491.52 ppb	17.388	3.54%

QC value within limits for Cu 324.752 Recovery = 98.30%

Fe 238.204 Radial†	574.6	5142.2 ug/L	62.64	5142.2 ppb	62.64	1.22%

QC value within limits for Fe 238.204 Radial Recovery = 102.84%

K 766.490 Radial†	25931.3	4819.8 ug/L	57.10	4819.8 ppb	57.10	1.18%

QC value within limits for K 766.490 Radial Recovery = 96.40%

Mg 279.077 IEC†	151.3	5083.4 ug/L	22.46	5083.4 ppb	22.46	0.44%

QC value within limits for Mg 279.077 IEC Recovery = 101.67%

Mn 257.610†	433757.2	497.24 ug/L	21.971	497.24 ppb	21.971	4.42%

QC value within limits for Mn 257.610 Recovery = 99.45%

Mo 202.031†	6773.3	494.28 ug/L	20.270	494.28 ppb	20.270	4.10%

QC value within limits for Mo 202.031 Recovery = 98.86%

Na 589.592 Radial†	34597.7	10493 ug/L	85.7	10493 ppb	85.7	0.82%

QC value within limits for Na 589.592 Radial Recovery = 104.93%

Ni 231.604†	19187.7	495.13 ug/L	16.439	495.13 ppb	16.439	3.32%

QC value within limits for Ni 231.604 Recovery = 99.03%

P 214.914†	3940.4	2377.0 ug/L	99.57	2377.0 ppb	99.57	4.19%

QC value within limits for P 214.914 Recovery = 95.08%

Pb 220.353†	3898.3	496.85 ug/L	21.109	496.85 ppb	21.109	4.25%

QC value within limits for Pb 220.353 Recovery = 99.37%

S 181.975 Axial†	677.2	996.11 ug/L	47.952	996.11 ppb	47.952	4.81%

QC value within limits for S 181.975 Axial Recovery = 99.61%

Sb 206.836†	1373.6	514.45 ug/L	21.847	514.45 ppb	21.847	4.25%

QC value within limits for Sb 206.836 Recovery = 102.89%

Se 196.026†	757.1	519.49 ug/L	21.285	519.49 ppb	21.285	4.10%

QC value within limits for Se 196.026 Recovery = 103.90%

Si 251.611†	75123.9	2476.9 ug/L	88.14	2476.9 ppb	88.14	3.56%

QC value within limits for Si 251.611 Recovery = 99.08%

Sn 189.927†	2711.8	496.28 ug/L	19.842	496.28 ppb	19.842	4.00%

QC value within limits for Sn 189.927 Recovery = 99.26%

Sr 421.552†	74979.1	491.20 ug/L	5.411	491.20 ppb	5.411	1.10%

QC value within limits for Sr 421.552 Recovery = 98.24%

Ti 334.940†	291325.6	486.89 ug/L	16.515	486.89 ppb	16.515	3.39%

QC value within limits for Ti 334.940 Recovery = 97.38%

Tl 190.801†	1564.8	499.94 ug/L	19.157	499.94 ppb	19.157	3.83%

QC value within limits for Tl 190.801 Recovery = 99.99%

U 409.014†	16429.6	511.94 ug/L	15.208	511.94 ppb	15.208	2.97%

QC value within limits for U 409.014 Recovery = 102.39%

V 292.402†	69988.2	500.33 ug/L	17.063	500.33 ppb	17.063	3.41%

QC value within limits for V 292.402 Recovery = 100.07%

Zn 213.857†	50765.4	491.79 ug/L	16.757	491.79 ppb	16.757	3.41%

QC value within limits for Zn 213.857 Recovery = 98.36%

SiO2†	75082.5	5300.6 ug/L	193.27	5300.6 ppb	193.27	3.65%

QC value within limits for SiO2 Recovery = 99.12%

All analyte(s) passed QC.

Sequence No.: 2
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 1/15/2010 15:08:39
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5246.8	5246.8	103	%			15:10:31
1	Y RADIAL	5720.5	5720.5	103.9	%			15:10:31
1	Al 396.153Radial†	1.2	11.9	9.3232	ug/L	9.3232	ppb	15:10:31
1	Ca 317.933Radial†	20.9	2.9	4.7267	ug/L	4.7267	ppb	15:10:51
1	Fe 238.204 Radial†	11.2	1.0	9.2873	ug/L	9.2873	ppb	15:10:51
1	K 766.490 Radial†	2817.3	-270.3	-50.364	ug/L	-50.364	ppb	15:10:31
1	Mg 279.077 IEC†	-0.1	-2.6	-86.930	ug/L	-86.930	ppb	15:10:51
1	Na 589.592 Radial†	-1192.2	403.2	122.29	ug/L	122.29	ppb	15:10:31
1	Sr 421.552†	33.4	-2.7	-0.0178	ug/L	-0.0178	ppb	15:10:31
1	Sc 361.383	879454.7	879454.7	104.97	%			15:11:48
1	Y 371.029	747538.3	747538.3	105.00	%			15:11:48
1	Ag 328.068†	227.3	-81.8	-0.3879	ug/L	-0.3879	ppb	15:11:48
1	As 188.979†	-24.9	-3.1	-1.3830	ug/L	-1.3830	ppb	15:12:08
1	B 249.677†	-425.0	61.2	1.4540	ug/L	1.4540	ppb	15:12:08
1	Ba 233.527†	1.9	8.6	0.0713	ug/L	0.0713	ppb	15:12:08
1	Be 313.107†	-4315.6	233.8	0.0900	ug/L	0.0900	ppb	15:11:48
1	Cd 226.502†	-183.0	23.9	0.2743	ug/L	0.2743	ppb	15:12:08
1	Co 228.616†	-76.4	-13.0	-0.2762	ug/L	-0.2762	ppb	15:12:08
1	Cr 267.716†	65.0	-26.4	-0.3063	ug/L	-0.3063	ppb	15:12:08
1	Cu 324.752†	6453.0	-317.8	-0.9886	ug/L	-0.9886	ppb	15:11:48
1	Mn 257.610†	391.2	-53.4	-0.0567	ug/L	-0.0567	ppb	15:12:08
1	Mo 202.031†	30.1	7.9	0.5790	ug/L	0.5790	ppb	15:12:08
1	Ni 231.604†	72.4	-16.4	-0.4224	ug/L	-0.4224	ppb	15:12:08
1	P 214.914†	205.6	-23.6	-14.647	ug/L	-14.647	ppb	15:12:08
1	Pb 220.353†	-60.1	2.1	0.2645	ug/L	0.2645	ppb	15:12:08
1	S 181.975 Axial†	40.9	-7.3	-10.685	ug/L	-10.685	ppb	15:12:08
1	Sb 206.836†	38.6	0.4	0.1683	ug/L	0.1683	ppb	15:12:08
1	Se 196.026†	-32.2	-2.2	-1.4260	ug/L	-1.4260	ppb	15:12:08
1	Si 251.611†	464.1	-9.4	-0.3183	ug/L	-0.3183	ppb	15:12:08
1	Sn 189.927†	5.2	-0.5	-0.0821	ug/L	-0.0821	ppb	15:12:08
1	Ti 334.940†	-1352.2	23.8	0.0457	ug/L	0.0457	ppb	15:11:48
1	Tl 190.801†	-35.8	-3.0	-0.9476	ug/L	-0.9476	ppb	15:12:08
1	U 409.014†	-1931.6	135.8	4.2464	ug/L	4.2464	ppb	15:11:48
1	V 292.402†	-1381.7	68.0	0.4929	ug/L	0.4929	ppb	15:11:48
1	Zn 213.857†	649.7	-49.4	-0.4793	ug/L	-0.4793	ppb	15:12:08
1	SiO2†	454.7	-23.8	-1.7028	ug/L	-1.7028	ppb	15:13:04
2	Sc Radial	5268.2	5268.2	104	%			15:10:56
2	Y RADIAL	5687.8	5687.8	103.3	%			15:10:56
2	Al 396.153Radial†	-7.1	3.9	3.0803	ug/L	3.0803	ppb	15:10:56
2	Ca 317.933Radial†	21.1	3.0	4.9557	ug/L	4.9557	ppb	15:11:16
2	Fe 238.204 Radial†	9.1	-1.1	-9.6282	ug/L	-9.6282	ppb	15:11:16
2	K 766.490 Radial†	2830.2	-269.0	-50.092	ug/L	-50.092	ppb	15:10:56
2	Mg 279.077 IEC†	1.5	-1.1	-35.797	ug/L	-35.797	ppb	15:11:16
2	Na 589.592 Radial†	-1337.3	267.7	81.188	ug/L	81.188	ppb	15:10:56
2	Sr 421.552†	18.8	-17.0	-0.1115	ug/L	-0.1115	ppb	15:10:56
2	Sc 361.383	877415.2	877415.2	104.72	%			15:12:13
2	Y 371.029	746267.4	746267.4	104.82	%			15:12:13
2	Ag 328.068†	370.5	55.4	0.2584	ug/L	0.2584	ppb	15:12:13
2	As 188.979†	-18.8	2.6	1.1608	ug/L	1.1608	ppb	15:12:33
2	B 249.677†	-457.5	29.3	0.6976	ug/L	0.6976	ppb	15:12:33
2	Ba 233.527†	-6.6	0.5	0.0040	ug/L	0.0040	ppb	15:12:33
2	Be 313.107†	-4419.6	124.9	0.0481	ug/L	0.0481	ppb	15:12:13
2	Cd 226.502†	-186.9	19.7	0.2280	ug/L	0.2280	ppb	15:12:33
2	Co 228.616†	-81.3	-17.8	-0.3791	ug/L	-0.3791	ppb	15:12:33
2	Cr 267.716†	51.7	-38.9	-0.4524	ug/L	-0.4524	ppb	15:12:33
2	Cu 324.752†	6492.1	-266.2	-0.8286	ug/L	-0.8286	ppb	15:12:13
2	Mn 257.610†	435.5	-10.3	-0.0112	ug/L	-0.0112	ppb	15:12:33
2	Mo 202.031†	19.7	-1.9	-0.1389	ug/L	-0.1389	ppb	15:12:33
2	Ni 231.604†	53.5	-34.2	-0.8830	ug/L	-0.8830	ppb	15:12:33

2	P 214.914†	217.6	-11.8	-7.2144 ug/L	-7.2144 ppb	15:12:33
2	Pb 220.353†	-53.9	7.9	1.0020 ug/L	1.0020 ppb	15:12:33
2	S 181.975 Axial†	35.2	-12.7	-18.661 ug/L	-18.661 ppb	15:12:33
2	Sb 206.836†	32.9	-4.9	-1.7999 ug/L	-1.7999 ppb	15:12:33
2	Se 196.026†	-26.0	3.6	2.3487 ug/L	2.3487 ppb	15:12:33
2	Si 251.611†	462.5	-9.9	-0.3267 ug/L	-0.3267 ppb	15:12:33
2	Sn 189.927†	2.3	-3.1	-0.5726 ug/L	-0.5726 ppb	15:12:33
2	Ti 334.940†	-1352.1	20.9	0.0374 ug/L	0.0374 ppb	15:12:13
2	Tl 190.801†	-38.3	-5.4	-1.7201 ug/L	-1.7201 ppb	15:12:33
2	U 409.014†	-1973.2	91.9	2.8754 ug/L	2.8754 ppb	15:12:13
2	V 292.402†	-1434.7	14.3	0.1052 ug/L	0.1052 ppb	15:12:13
2	Zn 213.857†	647.4	-50.1	-0.4822 ug/L	-0.4822 ppb	15:12:33
2	SiO2†	459.7	-18.1	-1.2739 ug/L	-1.2739 ppb	15:13:09
3	Sc Radial	5168.4	5168.4	102 %		15:11:21
3	Y RADIAL	5637.2	5637.2	102.4 %		15:11:21
3	Al 396.153Radial†	-20.8	-9.8	-7.6999 ug/L	-7.6999 ppb	15:11:21
3	Ca 317.933Radial†	17.5	-0.2	-0.2919 ug/L	-0.2919 ppb	15:11:41
3	Fe 238.204 Radial†	10.8	0.8	6.7954 ug/L	6.7954 ppb	15:11:41
3	K 766.490 Radial†	2863.9	-183.0	-34.104 ug/L	-34.104 ppb	15:11:21
3	Mg 279.077 IEC†	0.7	-1.8	-61.262 ug/L	-61.262 ppb	15:11:41
3	Na 589.592 Radial†	-1273.9	305.2	92.561 ug/L	92.561 ppb	15:11:21
3	Sr 421.552†	45.2	9.4	0.0613 ug/L	0.0613 ppb	15:11:21
3	Sc 361.383	877856.2	877856.2	104.78 %		15:12:39
3	Y 371.029	746759.2	746759.2	104.89 %		15:12:39
3	Ag 328.068†	307.0	-5.4	-0.0249 ug/L	-0.0249 ppb	15:12:39
3	As 188.979†	-22.4	-0.8	-0.3544 ug/L	-0.3544 ppb	15:12:59
3	B 249.677†	-450.2	36.5	0.8661 ug/L	0.8661 ppb	15:12:59
3	Ba 233.527†	-10.3	-3.0	-0.0234 ug/L	-0.0234 ppb	15:12:59
3	Be 313.107†	-4392.4	153.1	0.0589 ug/L	0.0589 ppb	15:12:39
3	Cd 226.502†	-202.2	5.2	0.0599 ug/L	0.0599 ppb	15:12:59
3	Co 228.616†	-76.9	-13.5	-0.2881 ug/L	-0.2881 ppb	15:12:59
3	Cr 267.716†	92.7	0.2	0.0018 ug/L	0.0018 ppb	15:12:59
3	Cu 324.752†	6417.4	-340.6	-1.0592 ug/L	-1.0592 ppb	15:12:39
3	Mn 257.610†	416.6	-28.5	-0.0295 ug/L	-0.0295 ppb	15:12:59
3	Mo 202.031†	25.0	3.2	0.2310 ug/L	0.2310 ppb	15:12:59
3	Ni 231.604†	80.3	-8.7	-0.2246 ug/L	-0.2246 ppb	15:12:59
3	P 214.914†	219.2	-10.3	-6.2797 ug/L	-6.2797 ppb	15:12:59
3	Pb 220.353†	-58.0	4.0	0.5119 ug/L	0.5119 ppb	15:12:59
3	S 181.975 Axial†	51.7	3.0	4.4836 ug/L	4.4836 ppb	15:12:59
3	Sb 206.836†	30.5	-7.3	-2.6449 ug/L	-2.6449 ppb	15:12:59
3	Se 196.026†	-34.5	-4.5	-2.9645 ug/L	-2.9645 ppb	15:12:59
3	Si 251.611†	473.8	0.7	0.0190 ug/L	0.0190 ppb	15:12:59
3	Sn 189.927†	-0.9	-6.2	-1.1404 ug/L	-1.1404 ppb	15:12:59
3	Ti 334.940†	-1368.7	5.7	0.0128 ug/L	0.0128 ppb	15:12:39
3	Tl 190.801†	-41.1	-8.1	-2.5770 ug/L	-2.5770 ppb	15:12:59
3	U 409.014†	-1947.6	117.2	3.6633 ug/L	3.6633 ppb	15:12:39
3	V 292.402†	-1401.6	46.7	0.3372 ug/L	0.3372 ppb	15:12:39
3	Zn 213.857†	654.5	-43.7	-0.4249 ug/L	-0.4249 ppb	15:12:59
3	SiO2†	462.7	-15.4	-1.0968 ug/L	-1.0968 ppb	15:13:14

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	878242.0	104.82	%	0.128				0.12%
Sc Radial	5227.8	103	%	1.0				1.00%
Y 371.029	746855.0	104.91	%	0.090				0.09%
Y RADIAL	5681.8	103.2	%	0.76				0.74%
Ag 328.068†	-10.6	-0.0515	ug/L	0.32393	-0.0515	ppb	0.32393	629.27%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	2.0	1.5679	ug/L	8.61172	1.5679	ppb	8.61172	549.27%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-0.4	-0.1922	ug/L	1.27966	-0.1922	ppb	1.27966	665.88%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	42.3	1.0059	ug/L	0.39714	1.0059	ppb	0.39714	39.48%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	2.0	0.0173	ug/L	0.04877	0.0173	ppb	0.04877	281.83%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	170.6	0.0657	ug/L	0.02175	0.0657	ppb	0.02175	33.12%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	1.9	3.1301	ug/L	2.96583	3.1301	ppb	2.96583	94.75%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              16.3      0.1874 ug/L       0.11283      0.1874 ppb        0.11283  60.20%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†             -14.8     -0.3144 ug/L       0.05627     -0.3144 ppb        0.05627  17.90%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†             -21.7     -0.2523 ug/L       0.23186     -0.2523 ppb        0.23186  91.91%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -308.2     -0.9588 ug/L       0.11819     -0.9588 ppb        0.11819  12.33%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        0.2      2.1515 ug/L      10.27735      2.1515 ppb       10.27735 477.69%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†      -240.8     -44.853 ug/L        9.3106     -44.853 ppb         9.3106  20.76%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          -1.8     -61.330 ug/L       25.5667     -61.330 ppb        25.5667  41.69%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†             -30.7     -0.0325 ug/L       0.02286     -0.0325 ppb        0.02286  70.39%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               3.1      0.2237 ug/L       0.35897      0.2237 ppb        0.35897 160.47%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       325.4      98.681 ug/L       21.2246      98.681 ppb        21.2246  21.51%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†             -19.8     -0.5100 ug/L       0.33785     -0.5100 ppb        0.33785  66.24%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†              -15.2     -9.3803 ug/L       4.58479     -9.3803 ppb        4.58479  48.88%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               4.7      0.5928 ug/L       0.37532      0.5928 ppb        0.37532  63.31%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         -5.6     -8.2874 ug/L      11.75708     -8.2874 ppb       11.75708 141.87%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -3.9     -1.4255 ug/L       1.44350     -1.4255 ppb        1.44350 101.26%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              -1.0     -0.6806 ug/L       2.73395     -0.6806 ppb        2.73395 401.69%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†              -6.2     -0.2087 ug/L       0.19724     -0.2087 ppb        0.19724  94.52%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†              -3.3     -0.5984 ug/L       0.52962     -0.5984 ppb        0.52962  88.51%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              -3.5     -0.0226 ug/L       0.08648     -0.0226 ppb        0.08648 381.89%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              16.8      0.0320 ug/L       0.01710      0.0320 ppb        0.01710  53.46%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -5.5     -1.7482 ug/L       0.81504     -1.7482 ppb        0.81504  46.62%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              115.0      3.5950 ug/L       0.68801      3.5950 ppb        0.68801  19.14%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               43.0      0.3118 ug/L       0.19509      0.3118 ppb        0.19509  62.58%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†             -47.7     -0.4621 ug/L       0.03228     -0.4621 ppb        0.03228   6.99%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                   -19.1     -1.3578 ug/L       0.31163     -1.3578 ppb        0.31163  22.95%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 10
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 1/15/2010 16:03:50
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5239.6	5239.6	103	%			16:05:42
1	Y RADIAL	5638.4	5638.4	102.4	%			16:05:42
1	Al 396.153Radial†	6434.6	6260.9	4901.0	ug/L	4901.0	ppb	16:05:42
1	Ca 317.933Radial†	3078.9	2973.3	4882.2	ug/L	4882.2	ppb	16:06:02
1	Fe 238.204 Radial†	580.6	554.1	4958.8	ug/L	4958.8	ppb	16:06:02
1	K 766.490 Radial†	30008.6	26145.3	4859.7	ug/L	4859.7	ppb	16:05:42
1	Mg 279.077 IEC†	156.2	149.2	5014.0	ug/L	5014.0	ppb	16:06:02
1	Na 589.592 Radial†	33453.9	34054.6	10328	ug/L	10328	ppb	16:05:42
1	Sr 421.552†	77210.2	74961.9	491.09	ug/L	491.09	ppb	16:05:42
1	Sc 361.383	873027.1	873027.1	104.20	%			16:07:00
1	Y 371.029	729093.4	729093.4	102.41	%			16:07:00
1	Ag 328.068†	111188.4	106408.1	509.42	ug/L	509.42	ppb	16:07:05
1	As 188.979†	1164.8	1138.5	508.77	ug/L	508.77	ppb	16:07:25
1	B 249.677†	21270.9	20879.6	493.77	ug/L	493.77	ppb	16:07:05
1	Ba 233.527†	63764.6	61201.1	498.55	ug/L	498.55	ppb	16:07:05
1	Be 313.107†	1344460.7	1294611.5	498.92	ug/L	498.92	ppb	16:07:00
1	Cd 226.502†	44971.9	43357.4	499.08	ug/L	499.08	ppb	16:07:05
1	Co 228.616†	24414.7	23490.3	500.79	ug/L	500.79	ppb	16:07:05
1	Cr 267.716†	44655.1	42766.8	496.14	ug/L	496.14	ppb	16:07:05
1	Cu 324.752†	172885.3	159451.0	495.09	ug/L	495.09	ppb	16:07:05
1	Mn 257.610†	455627.4	436835.2	500.75	ug/L	500.75	ppb	16:07:00
1	Mo 202.031†	7185.3	6875.0	501.68	ug/L	501.68	ppb	16:07:25
1	Ni 231.604†	20182.6	19283.7	497.61	ug/L	497.61	ppb	16:07:05
1	P 214.914†	4404.6	4007.6	2418.7	ug/L	2418.7	ppb	16:07:25
1	Pb 220.353†	4051.4	3947.5	503.14	ug/L	503.14	ppb	16:07:25
1	S 181.975 Axial†	759.6	682.7	1004.2	ug/L	1004.2	ppb	16:07:25
1	Sb 206.836†	1500.4	1403.6	525.56	ug/L	525.56	ppb	16:07:25
1	Se 196.026†	762.9	760.6	521.26	ug/L	521.26	ppb	16:07:25
1	Si 251.611†	79530.2	75872.8	2501.6	ug/L	2501.6	ppb	16:07:05
1	Sn 189.927†	2874.8	2753.5	503.87	ug/L	503.87	ppb	16:07:25
1	Ti 334.940†	303945.0	293005.1	489.69	ug/L	489.69	ppb	16:07:05
1	Tl 190.801†	1629.2	1594.7	509.46	ug/L	509.46	ppb	16:07:25
1	U 409.014†	15202.3	16565.6	516.21	ug/L	516.21	ppb	16:07:05
1	V 292.402†	71751.4	70243.5	502.27	ug/L	502.27	ppb	16:07:05
1	Zn 213.857†	53892.0	51051.3	494.58	ug/L	494.58	ppb	16:07:05
1	SiO2†	80280.5	76587.5	5406.9	ug/L	5406.9	ppb	16:08:33
2	Sc Radial	5493.8	5493.8	108	%			16:06:08
2	Y RADIAL	5917.2	5917.2	107.5	%			16:06:08
2	Al 396.153Radial†	6412.2	5950.8	4657.4	ug/L	4657.4	ppb	16:06:08
2	Ca 317.933Radial†	3124.1	2876.7	4723.6	ug/L	4723.6	ppb	16:06:28
2	Fe 238.204 Radial†	589.3	536.0	4797.8	ug/L	4797.8	ppb	16:06:28
2	K 766.490 Radial†	30152.8	24929.9	4633.7	ug/L	4633.7	ppb	16:06:08
2	Mg 279.077 IEC†	160.2	145.9	4902.9	ug/L	4902.9	ppb	16:06:28
2	Na 589.592 Radial†	33426.9	32525.8	9864.5	ug/L	9864.5	ppb	16:06:08
2	Sr 421.552†	77038.7	71332.3	467.31	ug/L	467.31	ppb	16:06:08
2	Sc 361.383	880676.4	880676.4	105.11	%			16:07:31
2	Y 371.029	735908.9	735908.9	103.37	%			16:07:31
2	Ag 328.068†	111155.8	105450.3	504.80	ug/L	504.80	ppb	16:07:36
2	As 188.979†	1157.6	1121.9	501.38	ug/L	501.38	ppb	16:07:56
2	B 249.677†	21362.5	20789.4	491.66	ug/L	491.66	ppb	16:07:36
2	Ba 233.527†	63860.9	60761.1	494.96	ug/L	494.96	ppb	16:07:36
2	Be 313.107†	1357352.1	1295668.8	499.31	ug/L	499.31	ppb	16:07:31
2	Cd 226.502†	45036.0	43043.5	495.48	ug/L	495.48	ppb	16:07:36
2	Co 228.616†	24542.0	23408.0	499.03	ug/L	499.03	ppb	16:07:36
2	Cr 267.716†	44782.6	42515.9	493.23	ug/L	493.23	ppb	16:07:36
2	Cu 324.752†	172758.8	157889.5	490.24	ug/L	490.24	ppb	16:07:36
2	Mn 257.610†	458840.1	436093.7	499.89	ug/L	499.89	ppb	16:07:31
2	Mo 202.031†	7154.2	6785.5	495.14	ug/L	495.14	ppb	16:07:56
2	Ni 231.604†	20182.8	19115.7	493.27	ug/L	493.27	ppb	16:07:36

2	P 214.914†	4379.8	3947.3	2381.8 ug/L	2381.8 ppb	16:07:56
2	Pb 220.353†	4038.2	3901.1	497.20 ug/L	497.20 ppb	16:07:56
2	S 181.975 Axial†	750.1	667.4	981.65 ug/L	981.65 ppb	16:07:56
2	Sb 206.836†	1476.6	1368.4	512.57 ug/L	512.57 ppb	16:07:56
2	Se 196.026†	761.1	752.5	515.35 ug/L	515.35 ppb	16:07:56
2	Si 251.611†	79462.6	75145.6	2477.6 ug/L	2477.6 ppb	16:07:36
2	Sn 189.927†	2853.5	2709.3	495.76 ug/L	495.76 ppb	16:07:56
2	Ti 334.940†	304312.5	290821.2	486.03 ug/L	486.03 ppb	16:07:36
2	Tl 190.801†	1611.4	1564.1	499.75 ug/L	499.75 ppb	16:07:56
2	U 409.014†	15161.3	16399.8	511.05 ug/L	511.05 ppb	16:07:36
2	V 292.402†	71749.0	69643.1	497.96 ug/L	497.96 ppb	16:07:36
2	Zn 213.857†	53823.9	50537.3	489.61 ug/L	489.61 ppb	16:07:36
2	SiO2†	79891.5	75548.2	5333.5 ug/L	5333.5 ppb	16:08:38
3	Sc Radial	5282.5	5282.5	104 %		16:06:33
3	Y RADIAL	5636.6	5636.6	102.4 %		16:06:33
3	Al 396.153Radial†	6417.5	6193.7	4848.9 ug/L	4848.9 ppb	16:06:33
3	Ca 317.933Radial†	3146.3	3013.9	4948.8 ug/L	4948.8 ppb	16:06:53
3	Fe 238.204 Radial†	597.6	565.9	5063.6 ug/L	5063.6 ppb	16:06:53
3	K 766.490 Radial†	30131.6	26027.1	4837.7 ug/L	4837.7 ppb	16:06:33
3	Mg 279.077 IEC†	161.6	153.2	5147.9 ug/L	5147.9 ppb	16:06:53
3	Na 589.592 Radial†	33482.5	33818.3	10256 ug/L	10256 ppb	16:06:33
3	Sr 421.552†	77337.3	74475.3	487.90 ug/L	487.90 ppb	16:06:33
3	Sc 361.383	893423.7	893423.7	106.63 %		16:08:02
3	Y 371.029	745783.4	745783.4	104.75 %		16:08:02
3	Ag 328.068†	111850.4	104592.8	500.79 ug/L	500.79 ppb	16:08:07
3	As 188.979†	1152.4	1101.3	492.27 ug/L	492.27 ppb	16:08:27
3	B 249.677†	21480.4	20610.0	487.38 ug/L	487.38 ppb	16:08:07
3	Ba 233.527†	64096.5	60115.3	489.71 ug/L	489.71 ppb	16:08:07
3	Be 313.107†	1356040.5	1276014.4	491.75 ug/L	491.75 ppb	16:08:02
3	Cd 226.502†	45313.9	42692.8	491.41 ug/L	491.41 ppb	16:08:07
3	Co 228.616†	24577.0	23107.6	492.61 ug/L	492.61 ppb	16:08:07
3	Cr 267.716†	44900.7	42018.8	487.47 ug/L	487.47 ppb	16:08:07
3	Cu 324.752†	173617.1	156349.5	485.48 ug/L	485.48 ppb	16:08:07
3	Mn 257.610†	459353.9	430347.3	493.32 ug/L	493.32 ppb	16:08:02
3	Mo 202.031†	7124.5	6660.5	486.05 ug/L	486.05 ppb	16:08:27
3	Ni 231.604†	20256.8	18911.1	488.00 ug/L	488.00 ppb	16:08:07
3	P 214.914†	4346.2	3856.3	2325.4 ug/L	2325.4 ppb	16:08:27
3	Pb 220.353†	4015.6	3825.1	487.54 ug/L	487.54 ppb	16:08:27
3	S 181.975 Axial†	754.6	661.3	972.71 ug/L	972.71 ppb	16:08:27
3	Sb 206.836†	1479.4	1351.0	505.95 ug/L	505.95 ppb	16:08:27
3	Se 196.026†	761.5	742.6	509.62 ug/L	509.62 ppb	16:08:27
3	Si 251.611†	80096.4	74661.3	2461.7 ug/L	2461.7 ppb	16:08:07
3	Sn 189.927†	2832.6	2651.0	485.15 ug/L	485.15 ppb	16:08:27
3	Ti 334.940†	305721.2	288011.5	481.35 ug/L	481.35 ppb	16:08:07
3	Tl 190.801†	1593.6	1525.6	487.49 ug/L	487.49 ppb	16:08:27
3	U 409.014†	15098.4	16135.0	502.76 ug/L	502.76 ppb	16:08:07
3	V 292.402†	72040.4	68942.4	492.84 ug/L	492.84 ppb	16:08:07
3	Zn 213.857†	54126.2	50090.2	485.25 ug/L	485.25 ppb	16:08:07
3	SiO2†	81044.5	75545.0	5333.5 ug/L	5333.5 ppb	16:08:43

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	882375.7	105.32	%	1.230				1.17%
Sc Radial	5338.6	105	%	2.7				2.55%
Y 371.029	736928.6	103.51	%	1.179				1.14%
Y RADIAL	5730.7	104.1	%	2.93				2.82%
Ag 328.068†	105483.7	505.00	ug/L	4.319	505.00	ppb	4.319	0.86%
QC value within limits for Ag 328.068 Recovery = 101.00%								
Al 396.153Radial†	6135.1	4802.4	ug/L	128.26	4802.4	ppb	128.26	2.67%
QC value within limits for Al 396.153Radial Recovery = 96.05%								
As 188.979†	1120.5	500.81	ug/L	8.264	500.81	ppb	8.264	1.65%
QC value within limits for As 188.979 Recovery = 100.16%								
B 249.677†	20759.7	490.94	ug/L	3.261	490.94	ppb	3.261	0.66%
QC value within limits for B 249.677 Recovery = 98.19%								
Ba 233.527†	60692.5	494.41	ug/L	4.446	494.41	ppb	4.446	0.90%
QC value within limits for Ba 233.527 Recovery = 98.88%								
Be 313.107†	1288764.9	496.66	ug/L	4.259	496.66	ppb	4.259	0.86%
QC value within limits for Be 313.107 Recovery = 99.33%								
Ca 317.933Radial†	2954.6	4851.5	ug/L	115.73	4851.5	ppb	115.73	2.39%

```
   QC value within limits for Ca 317.933Radial  Recovery = 97.03%
Cd 226.502†            43031.2      495.32 ug/L        3.838      495.32 ppb        3.838   0.77%
   QC value within limits for Cd 226.502  Recovery = 99.06%
Co 228.616†            23335.3      497.48 ug/L        4.304      497.48 ppb        4.304   0.87%
   QC value within limits for Co 228.616  Recovery = 99.50%
Cr 267.716†            42433.8      492.28 ug/L        4.414      492.28 ppb        4.414   0.90%
   QC value within limits for Cr 267.716  Recovery = 98.46%
Cu 324.752†           157896.6      490.27 ug/L        4.809      490.27 ppb        4.809   0.98%
   QC value within limits for Cu 324.752  Recovery = 98.05%
Fe 238.204 Radial†       552.0      4940.1 ug/L      133.93      4940.1 ppb      133.93   2.71%
   QC value within limits for Fe 238.204 Radial  Recovery = 98.80%
K 766.490 Radial†      25700.8      4777.0 ug/L      124.61      4777.0 ppb      124.61   2.61%
   QC value within limits for K 766.490 Radial  Recovery = 95.54%
Mg 279.077 IEC†          149.4      5021.6 ug/L      122.66      5021.6 ppb      122.66   2.44%
   QC value within limits for Mg 279.077 IEC  Recovery = 100.43%
Mn 257.610†           434425.4      497.99 ug/L        4.063      497.99 ppb        4.063   0.82%
   QC value within limits for Mn 257.610  Recovery = 99.60%
Mo 202.031†             6773.6      494.29 ug/L        7.848      494.29 ppb        7.848   1.59%
   QC value within limits for Mo 202.031  Recovery = 98.86%
Na 589.592 Radial†     33466.2       10150 ug/L      249.6        10150 ppb      249.6   2.46%
   QC value within limits for Na 589.592 Radial  Recovery = 101.50%
Ni 231.604†            19103.5      492.96 ug/L        4.815      492.96 ppb        4.815   0.98%
   QC value within limits for Ni 231.604  Recovery = 98.59%
P 214.914†              3937.0      2375.3 ug/L       47.00      2375.3 ppb       47.00   1.98%
   QC value within limits for P 214.914  Recovery = 95.01%
Pb 220.353†             3891.2      495.96 ug/L        7.875      495.96 ppb        7.875   1.59%
   QC value within limits for Pb 220.353  Recovery = 99.19%
S 181.975 Axial†         670.5      986.19 ug/L       16.229      986.19 ppb       16.229   1.65%
   QC value within limits for S 181.975 Axial  Recovery = 98.62%
Sb 206.836†             1374.3      514.70 ug/L        9.976      514.70 ppb        9.976   1.94%
   QC value within limits for Sb 206.836  Recovery = 102.94%
Se 196.026†              751.9      515.41 ug/L        5.816      515.41 ppb        5.816   1.13%
   QC value within limits for Se 196.026  Recovery = 103.08%
Si 251.611†            75226.6      2480.3 ug/L       20.06      2480.3 ppb       20.06   0.81%
   QC value within limits for Si 251.611  Recovery = 99.21%
Sn 189.927†             2704.6      494.93 ug/L        9.384      494.93 ppb        9.384   1.90%
   QC value within limits for Sn 189.927  Recovery = 98.99%
Sr 421.552†            73589.8      482.10 ug/L       12.907      482.10 ppb       12.907   2.68%
   QC value within limits for Sr 421.552  Recovery = 96.42%
Ti 334.940†           290612.6      485.69 ug/L        4.181      485.69 ppb        4.181   0.86%
   QC value within limits for Ti 334.940  Recovery = 97.14%
Tl 190.801†             1561.5      498.90 ug/L       11.008      498.90 ppb       11.008   2.21%
   QC value within limits for Tl 190.801  Recovery = 99.78%
U 409.014†             16366.8      510.01 ug/L        6.787      510.01 ppb        6.787   1.33%
   QC value within limits for U 409.014  Recovery = 102.00%
V 292.402†             69609.7      497.69 ug/L        4.718      497.69 ppb        4.718   0.95%
   QC value within limits for V 292.402  Recovery = 99.54%
Zn 213.857†            50559.6      489.81 ug/L        4.668      489.81 ppb        4.668   0.95%
   QC value within limits for Zn 213.857  Recovery = 97.96%
SiO2†                  75893.6      5358.0 ug/L       42.36      5358.0 ppb       42.36   0.79%
   QC value within limits for SiO2  Recovery = 100.20%
All analyte(s) passed QC.
```

Sequence No.: 11
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 1/15/2010 16:10:53
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	5229.2	5229.2	103	%			16:12:46
1	Y RADIAL	5672.3	5672.3	103.0	%			16:12:46
1	Al 396.153Radial†	-26.7	-15.2	-12.020	ug/L	-12.020	ppb	16:12:46
1	Ca 317.933Radial†	17.6	-0.3	-0.4685	ug/L	-0.4685	ppb	16:13:06
1	Fe 238.204 Radial†	11.4	1.2	10.799	ug/L	10.799	ppb	16:13:06
1	K 766.490 Radial†	2959.1	-123.2	-22.971	ug/L	-22.971	ppb	16:12:46
1	Mg 279.077 IEC†	6.8	4.1	138.85	ug/L	138.85	ppb	16:13:06
1	Na 589.592 Radial†	-1277.5	316.3	95.921	ug/L	95.921	ppb	16:12:46
1	Sr 421.552†	28.9	-7.0	-0.0459	ug/L	-0.0459	ppb	16:12:46
1	Sc 361.383	895446.3	895446.3	106.88	%			16:14:03
1	Y 371.029	759058.2	759058.2	106.62	%			16:14:03
1	Ag 328.068†	312.6	-5.9	-0.0292	ug/L	-0.0292	ppb	16:14:08
1	As 188.979†	-20.9	1.0	0.4525	ug/L	0.4525	ppb	16:14:28
1	B 249.677†	-276.6	207.3	4.9231	ug/L	4.9231	ppb	16:14:28
1	Ba 233.527†	-8.3	-1.0	-0.0062	ug/L	-0.0062	ppb	16:14:28
1	Be 313.107†	-4386.0	241.4	0.0936	ug/L	0.0936	ppb	16:14:08
1	Cd 226.502†	-175.3	34.2	0.3944	ug/L	0.3944	ppb	16:14:28
1	Co 228.616†	-80.7	-15.7	-0.3337	ug/L	-0.3337	ppb	16:14:28
1	Cr 267.716†	90.1	-3.9	-0.0478	ug/L	-0.0478	ppb	16:14:28
1	Cu 324.752†	6558.3	-329.1	-1.0262	ug/L	-1.0262	ppb	16:14:08
1	Mn 257.610†	451.6	-3.5	-0.0087	ug/L	-0.0087	ppb	16:14:28
1	Mo 202.031†	32.6	9.8	0.7118	ug/L	0.7118	ppb	16:14:28
1	Ni 231.604†	75.2	-15.0	-0.3869	ug/L	-0.3869	ppb	16:14:28
1	P 214.914†	212.1	-21.0	-13.020	ug/L	-13.020	ppb	16:14:28
1	Pb 220.353†	-59.3	3.9	0.4920	ug/L	0.4920	ppb	16:14:28
1	S 181.975 Axial†	49.4	-0.1	-0.0863	ug/L	-0.0863	ppb	16:14:28
1	Sb 206.836†	24.4	-13.5	-4.8755	ug/L	-4.8755	ppb	16:14:28
1	Se 196.026†	-29.0	1.3	0.8846	ug/L	0.8846	ppb	16:14:28
1	Si 251.611†	762.5	261.9	8.6462	ug/L	8.6462	ppb	16:14:28
1	Sn 189.927†	2.7	-2.9	-0.5266	ug/L	-0.5266	ppb	16:14:28
1	Ti 334.940†	-1187.8	200.5	0.3200	ug/L	0.3200	ppb	16:14:08
1	Tl 190.801†	-36.3	-2.8	-0.8947	ug/L	-0.8947	ppb	16:14:28
1	U 409.014†	-1806.2	286.0	8.9414	ug/L	8.9414	ppb	16:14:03
1	V 292.402†	-1378.7	94.3	0.6930	ug/L	0.6930	ppb	16:14:08
1	Zn 213.857†	666.7	-44.5	-0.4323	ug/L	-0.4323	ppb	16:14:28
1	SiO2†	764.3	258.1	18.250	ug/L	18.250	ppb	16:15:34
2	Sc Radial	5214.5	5214.5	102	%			16:13:11
2	Y RADIAL	5661.0	5661.0	102.8	%			16:13:11
2	Al 396.153Radial†	-6.3	4.6	3.6553	ug/L	3.6553	ppb	16:13:11
2	Ca 317.933Radial†	24.1	6.1	10.068	ug/L	10.068	ppb	16:13:31
2	Fe 238.204 Radial†	10.0	-0.1	-1.1178	ug/L	-1.1178	ppb	16:13:31
2	K 766.490 Radial†	2737.9	-330.9	-61.629	ug/L	-61.629	ppb	16:13:11
2	Mg 279.077 IEC†	-0.2	-2.7	-90.379	ug/L	-90.379	ppb	16:13:31
2	Na 589.592 Radial†	-1288.4	302.2	91.656	ug/L	91.656	ppb	16:13:11
2	Sr 421.552†	-8.9	-43.8	-0.2874	ug/L	-0.2874	ppb	16:13:11
2	Sc 361.383	893439.0	893439.0	106.64	%			16:14:33
2	Y 371.029	758882.7	758882.7	106.59	%			16:14:33
2	Ag 328.068†	361.5	40.6	0.1903	ug/L	0.1903	ppb	16:14:38
2	As 188.979†	-24.5	-2.4	-1.0534	ug/L	-1.0534	ppb	16:14:58
2	B 249.677†	-302.1	182.8	4.3439	ug/L	4.3439	ppb	16:14:58
2	Ba 233.527†	-9.6	-2.2	-0.0155	ug/L	-0.0155	ppb	16:14:58
2	Be 313.107†	-4457.1	165.4	0.0637	ug/L	0.0637	ppb	16:14:38
2	Cd 226.502†	-196.4	14.1	0.1632	ug/L	0.1632	ppb	16:14:58
2	Co 228.616†	-71.7	-7.4	-0.1597	ug/L	-0.1597	ppb	16:14:58
2	Cr 267.716†	55.2	-36.5	-0.4246	ug/L	-0.4246	ppb	16:14:58
2	Cu 324.752†	6561.8	-312.0	-0.9731	ug/L	-0.9731	ppb	16:14:38
2	Mn 257.610†	463.4	8.4	0.0133	ug/L	0.0133	ppb	16:14:58
2	Mo 202.031†	14.4	-7.2	-0.5277	ug/L	-0.5277	ppb	16:14:58
2	Ni 231.604†	66.3	-23.1	-0.5968	ug/L	-0.5968	ppb	16:14:58

2	P 214.914†	209.4	-23.2	-14.345 ug/L	-14.345 ppb	16:14:58
2	Pb 220.353†	-54.3	8.5	1.0754 ug/L	1.0754 ppb	16:14:58
2	S 181.975 Axial†	42.9	-6.0	-8.8692 ug/L	-8.8692 ppb	16:14:58
2	Sb 206.836†	37.9	-0.9	-0.3069 ug/L	-0.3069 ppb	16:14:58
2	Se 196.026†	-30.1	0.2	0.1237 ug/L	0.1237 ppb	16:14:58
2	Si 251.611†	733.0	235.8	7.8015 ug/L	7.8015 ppb	16:14:58
2	Sn 189.927†	9.5	3.6	0.6509 ug/L	0.6509 ppb	16:14:58
2	Ti 334.940†	-1380.4	17.4	0.0346 ug/L	0.0346 ppb	16:14:38
2	Tl 190.801†	-30.4	2.6	0.8243 ug/L	0.8243 ppb	16:14:58
2	U 409.014†	-1842.2	248.5	7.7694 ug/L	7.7694 ppb	16:14:33
2	V 292.402†	-1336.0	131.5	0.9335 ug/L	0.9335 ppb	16:14:38
2	Zn 213.857†	677.5	-33.0	-0.3176 ug/L	-0.3176 ppb	16:14:58
2	SiO2†	818.1	310.2	21.967 ug/L	21.967 ppb	16:15:39
3	Sc Radial	5175.1	5175.1	102 %		16:13:36
3	Y RADIAL	5627.1	5627.1	102.2 %		16:13:36
3	Al 396.153Radial†	-6.0	4.8	3.8216 ug/L	3.8216 ppb	16:13:36
3	Ca 317.933Radial†	21.3	3.5	5.8094 ug/L	5.8094 ppb	16:13:56
3	Fe 238.204 Radial†	10.1	0.1	0.5772 ug/L	0.5772 ppb	16:13:56
3	K 766.490 Radial†	2832.8	-217.3	-40.472 ug/L	-40.472 ppb	16:13:36
3	Mg 279.077 IEC†	1.3	-1.2	-38.727 ug/L	-38.727 ppb	16:13:56
3	Na 589.592 Radial†	-1303.2	278.1	84.331 ug/L	84.331 ppb	16:13:36
3	Sr 421.552†	13.5	-21.9	-0.1435 ug/L	-0.1435 ppb	16:13:36
3	Sc 361.383	892340.7	892340.7	106.51 %		16:15:03
3	Y 371.029	756244.7	756244.7	106.22 %		16:15:03
3	Ag 328.068†	385.9	63.9	0.3038 ug/L	0.3038 ppb	16:15:08
3	As 188.979†	-18.3	3.4	1.5266 ug/L	1.5266 ppb	16:15:28
3	B 249.677†	-316.7	168.8	4.0105 ug/L	4.0105 ppb	16:15:28
3	Ba 233.527†	-6.1	1.1	0.0103 ug/L	0.0103 ppb	16:15:28
3	Be 313.107†	-4381.0	231.8	0.0892 ug/L	0.0892 ppb	16:15:08
3	Cd 226.502†	-169.6	39.0	0.4494 ug/L	0.4494 ppb	16:15:28
3	Co 228.616†	-83.5	-18.6	-0.3968 ug/L	-0.3968 ppb	16:15:28
3	Cr 267.716†	65.4	-26.9	-0.3117 ug/L	-0.3117 ppb	16:15:28
3	Cu 324.752†	6571.8	-295.0	-0.9181 ug/L	-0.9181 ppb	16:15:08
3	Mn 257.610†	449.4	-4.1	-0.0031 ug/L	-0.0031 ppb	16:15:28
3	Mo 202.031†	17.7	-4.1	-0.2994 ug/L	-0.2994 ppb	16:15:28
3	Ni 231.604†	75.3	-14.6	-0.3770 ug/L	-0.3770 ppb	16:15:28
3	P 214.914†	222.7	-10.4	-6.3565 ug/L	-6.3565 ppb	16:15:28
3	Pb 220.353†	-76.2	-12.2	-1.5494 ug/L	-1.5494 ppb	16:15:28
3	S 181.975 Axial†	51.3	1.9	2.8430 ug/L	2.8430 ppb	16:15:28
3	Sb 206.836†	40.5	1.6	0.5734 ug/L	0.5734 ppb	16:15:28
3	Se 196.026†	-35.4	-4.8	-3.1841 ug/L	-3.1841 ppb	16:15:28
3	Si 251.611†	762.9	264.7	8.7530 ug/L	8.7530 ppb	16:15:28
3	Sn 189.927†	4.8	-0.9	-0.1632 ug/L	-0.1632 ppb	16:15:28
3	Ti 334.940†	-1363.4	31.9	0.0556 ug/L	0.0556 ppb	16:15:08
3	Tl 190.801†	-40.9	-7.3	-2.3164 ug/L	-2.3164 ppb	16:15:28
3	U 409.014†	-1972.9	123.7	3.8679 ug/L	3.8679 ppb	16:15:03
3	V 292.402†	-1371.2	96.9	0.6857 ug/L	0.6857 ppb	16:15:08
3	Zn 213.857†	678.8	-31.0	-0.2996 ug/L	-0.2996 ppb	16:15:28
3	SiO2†	862.1	352.4	24.951 ug/L	24.951 ppb	16:15:44

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	893742.0	106.67	%	0.188				0.18%
Sc Radial	5206.3	102	%	0.6				0.54%
Y 371.029	758061.9	106.48	%	0.221				0.21%
Y RADIAL	5653.5	102.7	%	0.43				0.42%
Ag 328.068†	32.9	0.1550	ug/L	0.16928	0.1550	ppb	0.16928	109.22%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-1.9	-1.5144	ug/L	9.09867	-1.5144	ppb	9.09867	600.80%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	0.7	0.3086	ug/L	1.29599	0.3086	ppb	1.29599	420.01%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	186.3	4.4258	ug/L	0.46179	4.4258	ppb	0.46179	10.43%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-0.7	-0.0038	ug/L	0.01307	-0.0038	ppb	0.01307	344.43%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	212.9	0.0822	ug/L	0.01616	0.0822	ppb	0.01616	19.66%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	3.1	5.1363	ug/L	5.30035	5.1363	ppb	5.30035	103.19%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              29.1      0.3357 ug/L       0.15191      0.3357 ppb        0.15191  45.25%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†             -13.9     -0.2968 ug/L       0.12279     -0.2968 ppb        0.12279  41.37%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†             -22.4     -0.2614 ug/L       0.19335     -0.2614 ppb        0.19335  73.97%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -312.0     -0.9725 ug/L       0.05407     -0.9725 ppb        0.05407   5.56%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        0.4      3.4194 ug/L       6.44676      3.4194 ppb        6.44676 188.53%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†      -223.8     -41.691 ug/L      19.3578     -41.691 ppb       19.3578  46.43%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           0.1      3.2481 ug/L     120.24085      3.2481 ppb      120.24085 >999.9%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               0.3      0.0005 ug/L       0.01139      0.0005 ppb        0.01139 >999.9%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              -0.5     -0.0385 ug/L       0.65969     -0.0385 ppb        0.65969 >999.9%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      298.9      90.636 ug/L       5.8618      90.636 ppb         5.8618   6.47%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†             -17.6     -0.4536 ug/L       0.12411     -0.4536 ppb        0.12411  27.36%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†              -18.2     -11.240 ug/L       4.2810      -11.240 ppb         4.2810  38.09%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               0.0      0.0060 ug/L       1.37829      0.0060 ppb        1.37829 >999.9%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         -1.4     -2.0375 ug/L       6.09504     -2.0375 ppb        6.09504 299.14%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -4.3     -1.5363 ug/L       2.92513     -1.5363 ppb        2.92513 190.40%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              -1.1     -0.7253 ug/L       2.16315     -0.7253 ppb        2.16315 298.25%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†             254.1      8.4002 ug/L       0.52126      8.4002 ppb        0.52126   6.21%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†              -0.1     -0.0129 ug/L       0.60293     -0.0129 ppb        0.60293 >999.9%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             -24.3     -0.1589 ug/L       0.12145     -0.1589 ppb        0.12145  76.41%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              83.3      0.1367 ug/L       0.15902      0.1367 ppb        0.15902 116.29%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -2.5     -0.7956 ug/L       1.57270     -0.7956 ppb        1.57270 197.67%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              219.4      6.8596 ug/L       2.65630      6.8596 ppb        2.65630  38.72%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              107.5      0.7707 ug/L       0.14100      0.7707 ppb        0.14100  18.29%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†             -36.2     -0.3498 ug/L       0.07196     -0.3498 ppb        0.07196  20.57%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                   306.9     21.723 ug/L        3.3573      21.723 ppb         3.3573  15.46%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 17
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 1/15/2010 16:53:14
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5377.7	5377.7	106	%			16:55:06
1	Y RADIAL	5752.9	5752.9	104.5	%			16:55:06
1	Al 396.153Radial†	6522.3	6183.4	4840.7	ug/L	4840.7	ppb	16:55:06
1	Ca 317.933Radial†	3210.0	3020.6	4959.8	ug/L	4959.8	ppb	16:55:26
1	Fe 238.204 Radial†	602.7	560.5	5016.0	ug/L	5016.0	ppb	16:55:26
1	K 766.490 Radial†	30545.6	25905.1	4815.1	ug/L	4815.1	ppb	16:55:06
1	Mg 279.077 IEC†	160.3	149.3	5015.1	ug/L	5015.1	ppb	16:55:26
1	Na 589.592 Radial†	33128.5	32912.3	9981.7	ug/L	9981.7	ppb	16:55:06
1	Sr 421.552†	77749.2	73546.2	481.82	ug/L	481.82	ppb	16:55:06
1	Sc 361.383	892494.0	892494.0	106.52	%			16:56:23
1	Y 371.029	743582.2	743582.2	104.45	%			16:56:23
1	Ag 328.068†	111161.3	104055.2	498.20	ug/L	498.20	ppb	16:56:29
1	As 188.979†	1170.9	1119.8	500.47	ug/L	500.47	ppb	16:56:49
1	B 249.677†	21158.5	20328.8	480.70	ug/L	480.70	ppb	16:56:29
1	Ba 233.527†	63915.6	60008.1	488.83	ug/L	488.83	ppb	16:56:29
1	Be 313.107†	1350150.2	1271809.5	490.13	ug/L	490.13	ppb	16:56:23
1	Cd 226.502†	44986.0	42429.2	488.38	ug/L	488.38	ppb	16:56:29
1	Co 228.616†	24539.3	23096.3	492.38	ug/L	492.38	ppb	16:56:29
1	Cr 267.716†	44570.0	41752.1	484.37	ug/L	484.37	ppb	16:56:29
1	Cu 324.752†	172557.9	155524.8	482.91	ug/L	482.91	ppb	16:56:29
1	Mn 257.610†	459025.3	430487.6	493.48	ug/L	493.48	ppb	16:56:23
1	Mo 202.031†	7156.7	6697.7	488.76	ug/L	488.76	ppb	16:56:49
1	Ni 231.604†	20176.7	18855.7	486.57	ug/L	486.57	ppb	16:56:29
1	P 214.914†	4410.5	3920.9	2366.6	ug/L	2366.6	ppb	16:56:49
1	Pb 220.353†	4060.8	3871.4	493.44	ug/L	493.44	ppb	16:56:49
1	S 181.975 Axial†	764.8	671.7	987.95	ug/L	987.95	ppb	16:56:49
1	Sb 206.836†	1495.2	1367.2	511.98	ug/L	511.98	ppb	16:56:49
1	Se 196.026†	767.4	748.8	513.58	ug/L	513.58	ppb	16:56:49
1	Si 251.611†	79508.9	74188.1	2446.0	ug/L	2446.0	ppb	16:56:29
1	Sn 189.927†	2873.1	2691.8	492.60	ug/L	492.60	ppb	16:56:49
1	Ti 334.940†	304860.1	287501.8	480.51	ug/L	480.51	ppb	16:56:29
1	Tl 190.801†	1627.0	1558.5	497.92	ug/L	497.92	ppb	16:56:49
1	U 409.014†	15408.1	16440.5	512.32	ug/L	512.32	ppb	16:56:29
1	V 292.402†	71620.4	68618.6	490.62	ug/L	490.62	ppb	16:56:29
1	Zn 213.857†	53837.9	49872.4	483.14	ug/L	483.14	ppb	16:56:29
1	SiO2†	81208.9	75778.5	5350.0	ug/L	5350.0	ppb	16:57:56
2	Sc Radial	5367.4	5367.4	105	%			16:55:31
2	Y RADIAL	5783.1	5783.1	105.0	%			16:55:31
2	Al 396.153Radial†	6605.7	6274.2	4912.0	ug/L	4912.0	ppb	16:55:31
2	Ca 317.933Radial†	3216.1	3032.1	4978.8	ug/L	4978.8	ppb	16:55:51
2	Fe 238.204 Radial†	602.5	561.4	5023.9	ug/L	5023.9	ppb	16:55:51
2	K 766.490 Radial†	30727.5	26132.5	4857.4	ug/L	4857.4	ppb	16:55:31
2	Mg 279.077 IEC†	167.1	155.9	5239.5	ug/L	5239.5	ppb	16:55:51
2	Na 589.592 Radial†	33272.5	33108.4	10041	ug/L	10041	ppb	16:55:31
2	Sr 421.552†	78617.2	74509.3	488.13	ug/L	488.13	ppb	16:55:31
2	Sc 361.383	901587.5	901587.5	107.61	%			16:56:54
2	Y 371.029	750965.9	750965.9	105.48	%			16:56:54
2	Ag 328.068†	112674.9	104409.2	499.89	ug/L	499.89	ppb	16:57:00
2	As 188.979†	1156.4	1095.2	489.57	ug/L	489.57	ppb	16:57:20
2	B 249.677†	21439.2	20389.3	482.14	ug/L	482.14	ppb	16:57:00
2	Ba 233.527†	64601.5	60040.3	489.10	ug/L	489.10	ppb	16:57:00
2	Be 313.107†	1370541.3	1277975.0	492.50	ug/L	492.50	ppb	16:56:54
2	Cd 226.502†	45479.4	42461.7	488.75	ug/L	488.75	ppb	16:57:00
2	Co 228.616†	24770.7	23079.0	492.02	ug/L	492.02	ppb	16:57:00
2	Cr 267.716†	45193.7	41909.7	486.20	ug/L	486.20	ppb	16:57:00
2	Cu 324.752†	174895.4	156063.1	484.58	ug/L	484.58	ppb	16:57:00
2	Mn 257.610†	464707.1	431421.4	494.54	ug/L	494.54	ppb	16:56:54
2	Mo 202.031†	7250.9	6717.4	490.20	ug/L	490.20	ppb	16:57:20
2	Ni 231.604†	20415.0	18886.1	487.35	ug/L	487.35	ppb	16:57:00

2	P 214.914†	4443.5	3909.8	2359.3 ug/L	2359.3 ppb	16:57:20
2	Pb 220.353†	4097.0	3866.6	492.84 ug/L	492.84 ppb	16:57:20
2	S 181.975 Axial†	768.1	667.5	981.80 ug/L	981.80 ppb	16:57:20
2	Sb 206.836†	1523.7	1379.6	516.45 ug/L	516.45 ppb	16:57:20
2	Se 196.026†	768.1	742.2	509.25 ug/L	509.25 ppb	16:57:20
2	Si 251.611†	80366.0	74231.7	2447.5 ug/L	2447.5 ppb	16:57:00
2	Sn 189.927†	2888.2	2678.6	490.20 ug/L	490.20 ppb	16:57:20
2	Ti 334.940†	307869.5	287411.9	480.34 ug/L	480.34 ppb	16:57:00
2	Tl 190.801†	1632.9	1548.6	494.78 ug/L	494.78 ppb	16:57:20
2	U 409.014†	15471.5	16353.5	509.60 ug/L	509.60 ppb	16:57:00
2	V 292.402†	72556.8	68810.6	492.00 ug/L	492.00 ppb	16:57:00
2	Zn 213.857†	54421.9	49905.4	483.46 ug/L	483.46 ppb	16:57:00
2	SiO2†	79705.3	73612.3	5196.6 ug/L	5196.6 ppb	16:58:01
3	Sc Radial	5343.3	5343.3	105 %		16:55:56
3	Y RADIAL	5734.0	5734.0	104.2 %		16:55:56
3	Al 396.153Radial†	6565.1	6263.9	4903.8 ug/L	4903.8 ppb	16:55:56
3	Ca 317.933Radial†	3197.6	3028.3	4972.4 ug/L	4972.4 ppb	16:56:16
3	Fe 238.204 Radial†	602.4	563.9	5046.6 ug/L	5046.6 ppb	16:56:16
3	K 766.490 Radial†	30434.5	25985.3	4830.0 ug/L	4830.0 ppb	16:55:56
3	Mg 279.077 IEC†	160.6	150.5	5055.9 ug/L	5055.9 ppb	16:56:16
3	Na 589.592 Radial†	32907.4	32903.5	9979.1 ug/L	9979.1 ppb	16:55:56
3	Sr 421.552†	77800.1	74068.4	485.24 ug/L	485.24 ppb	16:55:56
3	Sc 361.383	894184.5	894184.5	106.73 %		16:57:25
3	Y 371.029	746203.8	746203.8	104.81 %		16:57:25
3	Ag 328.068†	113673.4	106211.7	508.51 ug/L	508.51 ppb	16:57:31
3	As 188.979†	1175.3	1121.8	501.42 ug/L	501.42 ppb	16:57:51
3	B 249.677†	21711.5	20809.4	492.09 ug/L	492.09 ppb	16:57:31
3	Ba 233.527†	65085.1	60990.4	496.84 ug/L	496.84 ppb	16:57:31
3	Be 313.107†	1361507.2	1280054.7	493.32 ug/L	493.32 ppb	16:57:25
3	Cd 226.502†	45866.5	43174.3	496.96 ug/L	496.96 ppb	16:57:31
3	Co 228.616†	25001.8	23486.1	500.68 ug/L	500.68 ppb	16:57:31
3	Cr 267.716†	45462.8	42509.6	493.16 ug/L	493.16 ppb	16:57:31
3	Cu 324.752†	176609.3	159014.6	493.75 ug/L	493.75 ppb	16:57:31
3	Mn 257.610†	460756.3	431294.9	494.41 ug/L	494.41 ppb	16:57:25
3	Mo 202.031†	7217.9	6742.3	492.02 ug/L	492.02 ppb	16:57:51
3	Ni 231.604†	20576.8	19194.8	495.31 ug/L	495.31 ppb	16:57:31
3	P 214.914†	4417.8	3919.9	2363.8 ug/L	2363.8 ppb	16:57:51
3	Pb 220.353†	4080.9	3883.1	494.93 ug/L	494.93 ppb	16:57:51
3	S 181.975 Axial†	764.2	669.7	985.07 ug/L	985.07 ppb	16:57:51
3	Sb 206.836†	1506.3	1375.0	514.89 ug/L	514.89 ppb	16:57:51
3	Se 196.026†	768.1	748.1	513.25 ug/L	513.25 ppb	16:57:51
3	Si 251.611†	80992.4	75437.0	2487.3 ug/L	2487.3 ppb	16:57:31
3	Sn 189.927†	2887.2	2699.8	494.08 ug/L	494.08 ppb	16:57:51
3	Ti 334.940†	310850.3	292573.5	488.98 ug/L	488.98 ppb	16:57:31
3	Tl 190.801†	1638.3	1566.2	500.39 ug/L	500.39 ppb	16:57:51
3	U 409.014†	15378.5	16385.4	510.57 ug/L	510.57 ppb	16:57:31
3	V 292.402†	73053.4	69834.1	499.22 ug/L	499.22 ppb	16:57:31
3	Zn 213.857†	54848.7	50724.0	491.39 ug/L	491.39 ppb	16:57:31
3	SiO2†	80032.0	74531.7	5261.7 ug/L	5261.7 ppb	16:58:06

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	896088.6	106.95	%	0.577				0.54%
Sc Radial	5362.8	105	%	0.3				0.33%
Y 371.029	746917.3	104.91	%	0.526				0.50%
Y RADIAL	5756.7	104.6	%	0.45				0.43%
Ag 328.068†	104892.0	502.20	ug/L	5.527	502.20	ppb	5.527	1.10%
QC value within limits for Ag 328.068 Recovery = 100.44%								
Al 396.153Radial†	6240.5	4885.5	ug/L	39.04	4885.5	ppb	39.04	0.80%
QC value within limits for Al 396.153Radial Recovery = 97.71%								
As 188.979†	1112.3	497.15	ug/L	6.588	497.15	ppb	6.588	1.33%
QC value within limits for As 188.979 Recovery = 99.43%								
B 249.677†	20509.2	484.98	ug/L	6.202	484.98	ppb	6.202	1.28%
QC value within limits for B 249.677 Recovery = 97.00%								
Ba 233.527†	60346.3	491.59	ug/L	4.545	491.59	ppb	4.545	0.92%
QC value within limits for Ba 233.527 Recovery = 98.32%								
Be 313.107†	1276613.1	491.98	ug/L	1.657	491.98	ppb	1.657	0.34%
QC value within limits for Be 313.107 Recovery = 98.40%								
Ca 317.933Radial†	3027.0	4970.3	ug/L	9.68	4970.3	ppb	9.68	0.19%

QC value within limits for Ca 317.933Radial Recovery = 99.41%

Cd 226.502†	42688.4	491.37 ug/L	4.850	491.37 ppb	4.850	0.99%
QC value within limits for Cd 226.502 Recovery = 98.27%						
Co 228.616†	23220.4	495.02 ug/L	4.900	495.02 ppb	4.900	0.99%
QC value within limits for Co 228.616 Recovery = 99.00%						
Cr 267.716†	42057.2	487.91 ug/L	4.638	487.91 ppb	4.638	0.95%
QC value within limits for Cr 267.716 Recovery = 97.58%						
Cu 324.752†	156867.5	487.08 ug/L	5.835	487.08 ppb	5.835	1.20%
QC value within limits for Cu 324.752 Recovery = 97.42%						
Fe 238.204 Radial†	562.0	5028.8 ug/L	15.90	5028.8 ppb	15.90	0.32%
QC value within limits for Fe 238.204 Radial Recovery = 100.58%						
K 766.490 Radial†	26007.6	4834.2 ug/L	21.45	4834.2 ppb	21.45	0.44%
QC value within limits for K 766.490 Radial Recovery = 96.68%						
Mg 279.077 IEC†	151.9	5103.5 ug/L	119.54	5103.5 ppb	119.54	2.34%
QC value within limits for Mg 279.077 IEC Recovery = 102.07%						
Mn 257.610†	431068.0	494.14 ug/L	0.578	494.14 ppb	0.578	0.12%
QC value within limits for Mn 257.610 Recovery = 98.83%						
Mo 202.031†	6719.2	490.32 ug/L	1.633	490.32 ppb	1.633	0.33%
QC value within limits for Mo 202.031 Recovery = 98.06%						
Na 589.592 Radial†	32974.7	10001 ug/L	35.1	10001 ppb	35.1	0.35%
QC value within limits for Na 589.592 Radial Recovery = 100.01%						
Ni 231.604†	18978.8	489.74 ug/L	4.841	489.74 ppb	4.841	0.99%
QC value within limits for Ni 231.604 Recovery = 97.95%						
P 214.914†	3916.9	2363.2 ug/L	3.69	2363.2 ppb	3.69	0.16%
QC value within limits for P 214.914 Recovery = 94.53%						
Pb 220.353†	3873.7	493.74 ug/L	1.076	493.74 ppb	1.076	0.22%
QC value within limits for Pb 220.353 Recovery = 98.75%						
S 181.975 Axial†	669.7	984.94 ug/L	3.076	984.94 ppb	3.076	0.31%
QC value within limits for S 181.975 Axial Recovery = 98.49%						
Sb 206.836†	1374.0	514.44 ug/L	2.268	514.44 ppb	2.268	0.44%
QC value within limits for Sb 206.836 Recovery = 102.89%						
Se 196.026†	746.4	512.03 ug/L	2.413	512.03 ppb	2.413	0.47%
QC value within limits for Se 196.026 Recovery = 102.41%						
Si 251.611†	74618.9	2460.2 ug/L	23.41	2460.2 ppb	23.41	0.95%
QC value within limits for Si 251.611 Recovery = 98.41%						
Sn 189.927†	2690.1	492.29 ug/L	1.956	492.29 ppb	1.956	0.40%
QC value within limits for Sn 189.927 Recovery = 98.46%						
Sr 421.552†	74041.3	485.06 ug/L	3.159	485.06 ppb	3.159	0.65%
QC value within limits for Sr 421.552 Recovery = 97.01%						
Ti 334.940†	289162.4	483.28 ug/L	4.941	483.28 ppb	4.941	1.02%
QC value within limits for Ti 334.940 Recovery = 96.66%						
Tl 190.801†	1557.7	497.70 ug/L	2.814	497.70 ppb	2.814	0.57%
QC value within limits for Tl 190.801 Recovery = 99.54%						
U 409.014†	16393.1	510.83 ug/L	1.379	510.83 ppb	1.379	0.27%
QC value within limits for U 409.014 Recovery = 102.17%						
V 292.402†	69087.8	493.95 ug/L	4.621	493.95 ppb	4.621	0.94%
QC value within limits for V 292.402 Recovery = 98.79%						
Zn 213.857†	50167.3	486.00 ug/L	4.674	486.00 ppb	4.674	0.96%
QC value within limits for Zn 213.857 Recovery = 97.20%						
SiO2†	74640.8	5269.4 ug/L	76.97	5269.4 ppb	76.97	1.46%
QC value within limits for SiO2 Recovery = 98.54%						

All analyte(s) passed QC.

Sequence No.: 18
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 1/15/2010 17:00:16
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	5380.3	5380.3	106	%			17:02:09
1	Y RADIAL	5814.9	5814.9	105.6	%			17:02:09
1	Al 396.153Radial†	14.2	24.2	18.998	ug/L	18.998	ppb	17:02:09
1	Ca 317.933Radial†	23.2	4.5	7.4250	ug/L	7.4250	ppb	17:02:29
1	Fe 238.204 Radial†	9.6	-0.8	-7.1129	ug/L	-7.1129	ppb	17:02:29
1	K 766.490 Radial†	2819.9	-335.7	-62.511	ug/L	-62.511	ppb	17:02:09
1	Mg 279.077 IEC†	1.7	-0.9	-29.215	ug/L	-29.215	ppb	17:02:29
1	Na 589.592 Radial†	-1364.1	269.3	81.660	ug/L	81.660	ppb	17:02:09
1	Sr 421.552†	-10.3	-44.9	-0.2944	ug/L	-0.2944	ppb	17:02:09
1	Sc 361.383	875445.6	875445.6	104.49	%			17:03:26
1	Y 371.029	741958.0	741958.0	104.22	%			17:03:26
1	Ag 328.068†	237.4	-71.2	-0.3412	ug/L	-0.3412	ppb	17:03:26
1	As 188.979†	-16.1	5.2	2.2824	ug/L	2.2824	ppb	17:03:46
1	B 249.677†	-403.8	79.7	1.8941	ug/L	1.8941	ppb	17:03:46
1	Ba 233.527†	-9.7	-2.5	-0.0188	ug/L	-0.0188	ppb	17:03:46
1	Be 313.107†	-4461.2	75.7	0.0295	ug/L	0.0295	ppb	17:03:26
1	Cd 226.502†	-195.6	11.0	0.1280	ug/L	0.1280	ppb	17:03:46
1	Co 228.616†	-68.8	-6.0	-0.1280	ug/L	-0.1280	ppb	17:03:46
1	Cr 267.716†	98.9	6.4	0.0738	ug/L	0.0738	ppb	17:03:46
1	Cu 324.752†	6632.7	-117.7	-0.3678	ug/L	-0.3678	ppb	17:03:26
1	Mn 257.610†	464.6	18.5	0.0217	ug/L	0.0217	ppb	17:03:46
1	Mo 202.031†	23.0	1.3	0.0908	ug/L	0.0908	ppb	17:03:46
1	Ni 231.604†	59.2	-28.7	-0.7402	ug/L	-0.7402	ppb	17:03:46
1	P 214.914†	218.3	-10.6	-6.5337	ug/L	-6.5337	ppb	17:03:46
1	Pb 220.353†	-44.9	16.4	2.0892	ug/L	2.0892	ppb	17:03:46
1	S 181.975 Axial†	46.1	-2.2	-3.2015	ug/L	-3.2015	ppb	17:03:46
1	Sb 206.836†	33.0	-4.8	-1.7122	ug/L	-1.7122	ppb	17:03:46
1	Se 196.026†	-26.2	3.4	2.1974	ug/L	2.1974	ppb	17:03:46
1	Si 251.611†	584.5	107.8	3.5627	ug/L	3.5627	ppb	17:03:46
1	Sn 189.927†	9.0	3.3	0.5993	ug/L	0.5993	ppb	17:03:46
1	Ti 334.940†	-1271.5	95.1	0.1607	ug/L	0.1607	ppb	17:03:26
1	Tl 190.801†	-45.4	-12.4	-3.9211	ug/L	-3.9211	ppb	17:03:46
1	U 409.014†	-1940.6	118.8	3.7146	ug/L	3.7146	ppb	17:03:26
1	V 292.402†	-1337.2	104.6	0.7465	ug/L	0.7465	ppb	17:03:26
1	Zn 213.857†	665.4	-31.5	-0.3021	ug/L	-0.3021	ppb	17:03:46
1	SiO2†	579.7	97.8	6.9190	ug/L	6.9190	ppb	17:04:42
2	Sc Radial	5435.4	5435.4	107	%			17:02:34
2	Y RADIAL	5882.6	5882.6	106.9	%			17:02:34
2	Al 396.153Radial†	-4.6	6.4	5.0330	ug/L	5.0330	ppb	17:02:34
2	Ca 317.933Radial†	25.1	6.1	10.044	ug/L	10.044	ppb	17:02:54
2	Fe 238.204 Radial†	10.0	-0.5	-4.1944	ug/L	-4.1944	ppb	17:02:54
2	K 766.490 Radial†	2832.5	-351.0	-65.358	ug/L	-65.358	ppb	17:02:34
2	Mg 279.077 IEC†	4.5	1.8	59.014	ug/L	59.014	ppb	17:02:54
2	Na 589.592 Radial†	-1410.9	238.5	72.339	ug/L	72.339	ppb	17:02:34
2	Sr 421.552†	-2.2	-37.2	-0.2437	ug/L	-0.2437	ppb	17:02:34
2	Sc 361.383	897266.1	897266.1	107.09	%			17:03:51
2	Y 371.029	761104.9	761104.9	106.91	%			17:03:51
2	Ag 328.068†	286.5	-30.8	-0.1492	ug/L	-0.1492	ppb	17:03:51
2	As 188.979†	-26.2	-3.8	-1.6948	ug/L	-1.6948	ppb	17:04:11
2	B 249.677†	-406.7	86.3	2.0519	ug/L	2.0519	ppb	17:04:11
2	Ba 233.527†	-4.1	3.0	0.0267	ug/L	0.0267	ppb	17:04:11
2	Be 313.107†	-4455.1	185.1	0.0716	ug/L	0.0716	ppb	17:03:51
2	Cd 226.502†	-190.9	20.0	0.2312	ug/L	0.2312	ppb	17:04:11
2	Co 228.616†	-74.5	-9.7	-0.2081	ug/L	-0.2081	ppb	17:04:11
2	Cr 267.716†	72.3	-20.7	-0.2412	ug/L	-0.2412	ppb	17:04:11
2	Cu 324.752†	6505.7	-390.6	-1.2165	ug/L	-1.2165	ppb	17:03:51
2	Mn 257.610†	438.7	-16.5	-0.0217	ug/L	-0.0217	ppb	17:04:11
2	Mo 202.031†	21.7	-0.4	-0.0325	ug/L	-0.0325	ppb	17:04:11
2	Ni 231.604†	73.8	-16.4	-0.4237	ug/L	-0.4237	ppb	17:04:11

2	P 214.914†	216.0	-17.8	-10.912 ug/L	-10.912 ppb	17:04:11
2	Pb 220.353†	-62.2	1.3	0.1677 ug/L	0.1677 ppb	17:04:11
2	S 181.975 Axial†	45.9	-3.4	-4.9632 ug/L	-4.9632 ppb	17:04:11
2	Sb 206.836†	43.3	4.0	1.4481 ug/L	1.4481 ppb	17:04:11
2	Se 196.026†	-28.7	1.6	1.0738 ug/L	1.0738 ppb	17:04:11
2	Si 251.611†	599.6	108.3	3.5812 ug/L	3.5812 ppb	17:04:11
2	Sn 189.927†	4.0	-1.7	-0.3024 ug/L	-0.3024 ppb	17:04:11
2	Ti 334.940†	-1279.2	117.5	0.1902 ug/L	0.1902 ppb	17:03:51
2	Tl 190.801†	-36.3	-2.7	-0.8715 ug/L	-0.8715 ppb	17:04:11
2	U 409.014†	-1901.4	200.6	6.2717 ug/L	6.2717 ppb	17:03:51
2	V 292.402†	-1324.3	147.7	1.0553 ug/L	1.0553 ppb	17:03:51
2	Zn 213.857†	681.6	-31.9	-0.3071 ug/L	-0.3071 ppb	17:04:11
2	SiO2†	615.8	118.0	8.3534 ug/L	8.3534 ppb	17:04:47
3	Sc Radial	5335.7	5335.7	105 %		17:02:59
3	Y RADIAL	5782.1	5782.1	105.0 %		17:02:59
3	Al 396.153Radial†	3.0	13.6	10.716 ug/L	10.716 ppb	17:02:59
3	Ca 317.933Radial†	24.0	5.5	8.9715 ug/L	8.9715 ppb	17:03:19
3	Fe 238.204 Radial†	11.0	0.6	5.5692 ug/L	5.5692 ppb	17:03:19
3	K 766.490 Radial†	2797.3	-334.9	-62.361 ug/L	-62.361 ppb	17:02:59
3	Mg 279.077 IEC†	-1.5	-3.9	-132.22 ug/L	-132.22 ppb	17:03:19
3	Na 589.592 Radial†	-1473.2	154.4	46.838 ug/L	46.838 ppb	17:02:59
3	Sr 421.552†	-13.5	-48.0	-0.3146 ug/L	-0.3146 ppb	17:02:59
3	Sc 361.383	882139.2	882139.2	105.29 %		17:04:16
3	Y 371.029	748196.3	748196.3	105.09 %		17:04:16
3	Ag 328.068†	290.7	-22.3	-0.1086 ug/L	-0.1086 ppb	17:04:16
3	As 188.979†	-25.3	-3.5	-1.5384 ug/L	-1.5384 ppb	17:04:36
3	B 249.677†	-397.7	88.4	2.0987 ug/L	2.0987 ppb	17:04:36
3	Ba 233.527†	-10.3	-3.0	-0.0219 ug/L	-0.0219 ppb	17:04:36
3	Be 313.107†	-4405.9	160.5	0.0621 ug/L	0.0621 ppb	17:04:16
3	Cd 226.502†	-183.2	24.2	0.2793 ug/L	0.2793 ppb	17:04:36
3	Co 228.616†	-71.9	-8.4	-0.1805 ug/L	-0.1805 ppb	17:04:36
3	Cr 267.716†	93.6	0.7	0.0052 ug/L	0.0052 ppb	17:04:36
3	Cu 324.752†	6471.0	-319.4	-0.9968 ug/L	-0.9968 ppb	17:04:16
3	Mn 257.610†	433.1	-14.7	-0.0109 ug/L	-0.0109 ppb	17:04:36
3	Mo 202.031†	21.9	0.1	0.0069 ug/L	0.0069 ppb	17:04:36
3	Ni 231.604†	69.2	-19.6	-0.5063 ug/L	-0.5063 ppb	17:04:36
3	P 214.914†	221.4	-9.2	-5.5978 ug/L	-5.5978 ppb	17:04:36
3	Pb 220.353†	-56.4	5.8	0.7398 ug/L	0.7398 ppb	17:04:36
3	S 181.975 Axial†	51.6	2.7	4.0242 ug/L	4.0242 ppb	17:04:36
3	Sb 206.836†	36.6	-1.6	-0.5824 ug/L	-0.5824 ppb	17:04:36
3	Se 196.026†	-34.8	-4.6	-3.0281 ug/L	-3.0281 ppb	17:04:36
3	Si 251.611†	596.1	114.6	3.7878 ug/L	3.7878 ppb	17:04:36
3	Sn 189.927†	2.8	-2.7	-0.4996 ug/L	-0.4996 ppb	17:04:36
3	Ti 334.940†	-1279.9	96.3	0.1687 ug/L	0.1687 ppb	17:04:16
3	Tl 190.801†	-28.2	4.4	1.3918 ug/L	1.3918 ppb	17:04:36
3	U 409.014†	-1752.0	312.0	9.7534 ug/L	9.7534 ppb	17:04:16
3	V 292.402†	-1322.6	128.1	0.9192 ug/L	0.9192 ppb	17:04:16
3	Zn 213.857†	671.7	-30.4	-0.2932 ug/L	-0.2932 ppb	17:04:36
3	SiO2†	588.1	101.6	7.1902 ug/L	7.1902 ppb	17:04:52

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	884950.3	105.62	%	1.334				1.26%
Sc Radial	5383.8	106	%	1.0				0.93%
Y 371.029	750419.7	105.41	%	1.372				1.30%
Y RADIAL	5826.5	105.8	%	0.93				0.88%
Ag 328.068†	-41.4	-0.1996	ug/L	0.12423	-0.1996	ppb	0.12423	62.22%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	14.7	11.582	ug/L	7.0229	11.582	ppb	7.0229	60.63%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-0.7	-0.3169	ug/L	2.25245	-0.3169	ppb	2.25245	710.68%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	84.8	2.0149	ug/L	0.10721	2.0149	ppb	0.10721	5.32%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-0.8	-0.0047	ug/L	0.02725	-0.0047	ppb	0.02725	582.48%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	140.4	0.0544	ug/L	0.02212	0.0544	ppb	0.02212	40.67%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	5.4	8.8137	ug/L	1.31684	8.8137	ppb	1.31684	14.94%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                18.4      0.2128 ug/L       0.07727      0.2128 ppb        0.07727  36.30%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                -8.1     -0.1722 ug/L       0.04068     -0.1722 ppb        0.04068  23.62%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                -4.5     -0.0541 ug/L       0.16563     -0.0541 ppb        0.16563 306.27%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -275.9     -0.8604 ug/L       0.44049     -0.8604 ppb        0.44049  51.20%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -0.2     -1.9127 ug/L       6.64179     -1.9127 ppb        6.64179 347.25%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        -340.5     -63.410 ug/L        1.6886     -63.410 ppb         1.6886   2.66%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -1.0     -34.141 ug/L       95.7128     -34.141 ppb        95.7128 280.35%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                -4.2     -0.0036 ug/L       0.02261     -0.0036 ppb        0.02261 624.89%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 0.3      0.0217 ug/L       0.06298      0.0217 ppb        0.06298 289.65%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       220.7      66.946 ug/L       18.0267      66.946 ppb        18.0267  26.93%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              -21.6     -0.5567 ug/L       0.16416     -0.5567 ppb        0.16416  29.49%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -12.5     -7.6812 ug/L       2.83696     -7.6812 ppb        2.83696  36.93%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                 7.8      0.9989 ug/L       0.98661      0.9989 ppb        0.98661  98.77%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -0.9     -1.3802 ug/L       4.76248     -1.3802 ppb        4.76248 345.06%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                -0.8     -0.2822 ug/L       1.60143     -0.2822 ppb        1.60143 567.56%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 0.1      0.0810 ug/L       2.75055      0.0810 ppb        2.75055 >999.9%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†               110.3      3.6439 ug/L       0.12495      3.6439 ppb        0.12495   3.43%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                -0.4     -0.0676 ug/L       0.58587     -0.0676 ppb        0.58587 866.78%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               -43.4     -0.2842 ug/L       0.03651     -0.2842 ppb        0.03651  12.84%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               103.0      0.1732 ug/L       0.01525      0.1732 ppb        0.01525   8.81%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                -3.6     -1.1336 ug/L       2.66616     -1.1336 ppb        2.66616 235.19%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                210.5      6.5799 ug/L       3.03115      6.5799 ppb        3.03115  46.07%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                126.8      0.9070 ug/L       0.15476      0.9070 ppb        0.15476  17.06%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               -31.3     -0.3008 ug/L       0.00703     -0.3008 ppb        0.00703   2.34%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                     105.8      7.4875 ug/L       0.76205      7.4875 ppb        0.76205  10.18%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 19
Sample ID: 1202004463|936826|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 40
Date Collected: 1/15/2010 17:07:02
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202004463|936826|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5397.7	5397.7	106	%			17:08:54
1	Y RADIAL	5874.0	5874.0	106.7	%			17:08:54
1	Al 396.153Radial†	-16.9	-5.2	-4.1113	ug/L	-4.1113	ppb	17:08:54
1	Ca 317.933Radial†	28.0	9.0	14.850	ug/L	14.850	ppb	17:09:14
1	Fe 238.204 Radial†	13.2	2.6	23.347	ug/L	23.347	ppb	17:09:14
1	K 766.490 Radial†	2848.7	-317.2	-59.072	ug/L	-59.072	ppb	17:08:54
1	Mg 279.077 IEC†	1.6	-1.0	-33.625	ug/L	-33.625	ppb	17:09:14
1	Na 589.592 Radial†	-1307.2	327.1	99.206	ug/L	99.206	ppb	17:08:54
1	Sr 421.552†	6.3	-29.2	-0.1917	ug/L	-0.1917	ppb	17:08:54
1	Sc 361.383	896797.3	896797.3	107.04	%			17:10:11
1	Y 371.029	758617.4	758617.4	106.56	%			17:10:11
1	Ag 328.068†	335.4	15.0	0.0754	ug/L	0.0754	ppb	17:10:16
1	As 188.979†	-26.5	-4.2	-1.8543	ug/L	-1.8543	ppb	17:10:36
1	B 249.677†	-421.9	72.0	1.7071	ug/L	1.7071	ppb	17:10:36
1	Ba 233.527†	6.8	13.2	0.1101	ug/L	0.1101	ppb	17:10:36
1	Be 313.107†	-4403.4	231.2	0.0894	ug/L	0.0894	ppb	17:10:16
1	Cd 226.502†	-195.6	15.5	0.1775	ug/L	0.1775	ppb	17:10:36
1	Co 228.616†	-77.4	-12.5	-0.2677	ug/L	-0.2677	ppb	17:10:36
1	Cr 267.716†	89.2	-4.9	-0.0588	ug/L	-0.0588	ppb	17:10:36
1	Cu 324.752†	6417.7	-469.6	-1.4621	ug/L	-1.4621	ppb	17:10:16
1	Mn 257.610†	716.8	243.6	0.2828	ug/L	0.2828	ppb	17:10:36
1	Mo 202.031†	20.5	-1.5	-0.1106	ug/L	-0.1106	ppb	17:10:36
1	Ni 231.604†	71.9	-18.2	-0.4696	ug/L	-0.4696	ppb	17:10:36
1	P 214.914†	233.6	-1.3	-0.5315	ug/L	-0.5315	ppb	17:10:36
1	Pb 220.353†	-61.4	2.0	0.2463	ug/L	0.2463	ppb	17:10:36
1	S 181.975 Axial†	42.6	-6.4	-9.4938	ug/L	-9.4938	ppb	17:10:36
1	Sb 206.836†	30.9	-7.6	-2.7107	ug/L	-2.7107	ppb	17:10:36
1	Se 196.026†	-32.3	-1.7	-1.0513	ug/L	-1.0513	ppb	17:10:36
1	Si 251.611†	702.7	205.0	6.7754	ug/L	6.7754	ppb	17:10:36
1	Sn 189.927†	13.4	7.2	1.3134	ug/L	1.3134	ppb	17:10:36
1	Ti 334.940†	-1264.5	130.6	0.2192	ug/L	0.2192	ppb	17:10:16
1	Tl 190.801†	-33.8	-0.4	-0.1256	ug/L	-0.1256	ppb	17:10:36
1	U 409.014†	-1808.3	286.7	8.9593	ug/L	8.9593	ppb	17:10:11
1	V 292.402†	-1327.8	143.8	1.0258	ug/L	1.0258	ppb	17:10:16
1	Zn 213.857†	735.5	18.8	0.1865	ug/L	0.1865	ppb	17:10:36
1	SiO2†	770.9	263.3	18.636	ug/L	18.636	ppb	17:11:42
2	Sc Radial	5569.7	5569.7	109	%			17:09:19
2	Y RADIAL	5986.2	5986.2	108.7	%			17:09:19
2	Al 396.153Radial†	-4.8	6.4	5.0001	ug/L	5.0001	ppb	17:09:19
2	Ca 317.933Radial†	29.1	9.2	15.099	ug/L	15.099	ppb	17:09:39
2	Fe 238.204 Radial†	15.2	4.0	36.081	ug/L	36.081	ppb	17:09:39
2	K 766.490 Radial†	2809.3	-436.1	-81.216	ug/L	-81.216	ppb	17:09:19
2	Mg 279.077 IEC†	1.0	-1.6	-53.048	ug/L	-53.048	ppb	17:09:39
2	Na 589.592 Radial†	-1362.3	314.8	95.476	ug/L	95.476	ppb	17:09:19
2	Sr 421.552†	21.0	-16.0	-0.1047	ug/L	-0.1047	ppb	17:09:19
2	Sc 361.383	905846.4	905846.4	108.12	%			17:10:41
2	Y 371.029	765922.5	765922.5	107.58	%			17:10:41
2	Ag 328.068†	407.7	78.7	0.3821	ug/L	0.3821	ppb	17:10:47
2	As 188.979†	-14.6	7.1	3.1722	ug/L	3.1722	ppb	17:11:07
2	B 249.677†	-419.3	78.3	1.8537	ug/L	1.8537	ppb	17:11:07
2	Ba 233.527†	-7.5	-0.1	0.0028	ug/L	0.0028	ppb	17:11:07
2	Be 313.107†	-4401.3	274.3	0.1062	ug/L	0.1062	ppb	17:10:47
2	Cd 226.502†	-192.1	20.5	0.2341	ug/L	0.2341	ppb	17:11:07
2	Co 228.616†	-70.4	-5.3	-0.1138	ug/L	-0.1138	ppb	17:11:07
2	Cr 267.716†	110.6	14.0	0.1605	ug/L	0.1605	ppb	17:11:07
2	Cu 324.752†	6424.9	-522.8	-1.6273	ug/L	-1.6273	ppb	17:10:47
2	Mn 257.610†	735.2	253.9	0.2967	ug/L	0.2967	ppb	17:11:07
2	Mo 202.031†	21.5	-0.8	-0.0548	ug/L	-0.0548	ppb	17:11:07
2	Ni 231.604†	68.2	-22.2	-0.5744	ug/L	-0.5744	ppb	17:11:07

2	P 214.914†	218.0	-17.8	-10.884	ug/L	-10.884 ppb	17:11:07
2	Pb 220.353†	-63.4	0.7	0.0893	ug/L	0.0893 ppb	17:11:07
2	S 181.975 Axial†	44.3	-5.3	-7.8019	ug/L	-7.8019 ppb	17:11:07
2	Sb 206.836†	41.2	1.7	0.6565	ug/L	0.6565 ppb	17:11:07
2	Se 196.026†	-26.6	3.8	2.6485	ug/L	2.6485 ppb	17:11:07
2	Si 251.611†	739.5	232.4	7.6812	ug/L	7.6812 ppb	17:11:07
2	Sn 189.927†	15.0	8.5	1.5553	ug/L	1.5553 ppb	17:11:07
2	Ti 334.940†	-1211.6	191.3	0.3216	ug/L	0.3216 ppb	17:10:47
2	Tl 190.801†	-40.8	-6.6	-2.0995	ug/L	-2.0995 ppb	17:11:07
2	U 409.014†	-1781.7	328.1	10.253	ug/L	10.253 ppb	17:10:41
2	V 292.402†	-1322.1	161.5	1.1511	ug/L	1.1511 ppb	17:10:47
2	Zn 213.857†	728.7	5.6	0.0572	ug/L	0.0572 ppb	17:11:07
2	SiO2†	736.9	224.6	15.896	ug/L	15.896 ppb	17:11:47
3	Sc Radial	5516.3	5516.3	108	%		17:09:45
3	Y RADIAL	5972.4	5972.4	108.5	%		17:09:45
3	Al 396.153Radial†	12.5	22.2	17.473	ug/L	17.473 ppb	17:09:45
3	Ca 317.933Radial†	27.5	8.0	13.112	ug/L	13.112 ppb	17:10:05
3	Fe 238.204 Radial†	13.6	2.7	24.062	ug/L	24.062 ppb	17:10:05
3	K 766.490 Radial†	2852.9	-371.0	-69.095	ug/L	-69.095 ppb	17:09:45
3	Mg 279.077 IEC†	7.7	4.6	154.78	ug/L	154.78 ppb	17:10:05
3	Na 589.592 Radial†	-1366.2	299.2	90.732	ug/L	90.732 ppb	17:09:45
3	Sr 421.552†	21.0	-15.8	-0.1035	ug/L	-0.1035 ppb	17:09:45
3	Sc 361.383	904991.1	904991.1	108.02	%		17:11:12
3	Y 371.029	765753.8	765753.8	107.56	%		17:11:12
3	Ag 328.068†	340.9	17.2	0.0857	ug/L	0.0857 ppb	17:11:17
3	As 188.979†	-8.8	12.5	5.5294	ug/L	5.5294 ppb	17:11:37
3	B 249.677†	-449.1	50.3	1.1931	ug/L	1.1931 ppb	17:11:37
3	Ba 233.527†	0.5	7.3	0.0620	ug/L	0.0620 ppb	17:11:37
3	Be 313.107†	-4475.5	201.8	0.0785	ug/L	0.0785 ppb	17:11:17
3	Cd 226.502†	-193.0	19.5	0.2238	ug/L	0.2238 ppb	17:11:37
3	Co 228.616†	-85.5	-19.4	-0.4130	ug/L	-0.4130 ppb	17:11:37
3	Cr 267.716†	123.4	26.0	0.2994	ug/L	0.2994 ppb	17:11:37
3	Cu 324.752†	6521.5	-427.9	-1.3327	ug/L	-1.3327 ppb	17:11:17
3	Mn 257.610†	709.2	230.5	0.2601	ug/L	0.2601 ppb	17:11:37
3	Mo 202.031†	29.3	6.5	0.4728	ug/L	0.4728 ppb	17:11:37
3	Ni 231.604†	86.5	-5.2	-0.1351	ug/L	-0.1351 ppb	17:11:37
3	P 214.914†	217.9	-17.8	-10.908	ug/L	-10.908 ppb	17:11:37
3	Pb 220.353†	-68.4	-4.0	-0.5068	ug/L	-0.5068 ppb	17:11:37
3	S 181.975 Axial†	50.1	0.1	0.2000	ug/L	0.2000 ppb	17:11:37
3	Sb 206.836†	40.5	1.1	0.4308	ug/L	0.4308 ppb	17:11:37
3	Se 196.026†	-25.3	5.0	3.4128	ug/L	3.4128 ppb	17:11:37
3	Si 251.611†	719.1	214.2	7.0727	ug/L	7.0727 ppb	17:11:37
3	Sn 189.927†	8.2	2.2	0.4031	ug/L	0.4031 ppb	17:11:37
3	Ti 334.940†	-1156.0	241.7	0.3889	ug/L	0.3889 ppb	17:11:17
3	Tl 190.801†	-33.2	0.4	0.1241	ug/L	0.1241 ppb	17:11:37
3	U 409.014†	-1797.3	312.1	9.7545	ug/L	9.7545 ppb	17:11:12
3	V 292.402†	-1342.1	141.8	1.0244	ug/L	1.0244 ppb	17:11:17
3	Zn 213.857†	743.0	19.5	0.1913	ug/L	0.1913 ppb	17:11:37
3	SiO2†	767.6	253.6	17.938	ug/L	17.938 ppb	17:11:52

Mean Data: 1202004463|936826|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	902545.0	107.72	%	0.596				0.55%
Sc Radial	5494.6	108	%	1.7				1.60%
Y 371.029	763431.2	107.23	%	0.586				0.55%
Y RADIAL	5944.2	108.0	%	1.11				1.03%
Ag 328.068†	37.0	0.1810	ug/L	0.17416	0.1810	ppb	0.17416	96.20%
Al 396.153Radial†	7.8	6.1206	ug/L	10.83575	6.1206	ppb	10.83575	177.04%
As 188.979†	5.1	2.2824	ug/L	3.77143	2.2824	ppb	3.77143	165.24%
B 249.677†	66.9	1.5846	ug/L	0.34688	1.5846	ppb	0.34688	21.89%
Ba 233.527†	6.8	0.0583	ug/L	0.05375	0.0583	ppb	0.05375	92.15%
Be 313.107†	235.8	0.0914	ug/L	0.01394	0.0914	ppb	0.01394	15.26%
Ca 317.933Radial†	8.7	14.353	ug/L	1.0823	14.353	ppb	1.0823	7.54%
Cd 226.502†	18.5	0.2118	ug/L	0.03016	0.2118	ppb	0.03016	14.24%
Co 228.616†	-12.4	-0.2649	ug/L	0.14963	-0.2649	ppb	0.14963	56.50%
Cr 267.716†	11.7	0.1337	ug/L	0.18060	0.1337	ppb	0.18060	135.03%
Cu 324.752†	-473.5	-1.4740	ug/L	0.14762	-1.4740	ppb	0.14762	10.01%
Fe 238.204 Radial†	3.1	27.830	ug/L	7.1542	27.830	ppb	7.1542	25.71%
K 766.490 Radial†	-374.8	-69.794	ug/L	11.0888	-69.794	ppb	11.0888	15.89%

Mg 279.077 IEC†	0.7	22.703	ug/L	114.7951	22.703	ppb	114.7951 505.64%
Mn 257.610†	242.7	0.2798	ug/L	0.01846	0.2798	ppb	0.01846 6.60%
Mo 202.031†	1.4	0.1024	ug/L	0.32192	0.1024	ppb	0.32192 314.26%
Na 589.592 Radial†	313.7	95.138	ug/L	4.2469	95.138	ppb	4.2469 4.46%
Ni 231.604†	-15.2	-0.3930	ug/L	0.22946	-0.3930	ppb	0.22946 58.38%
P 214.914†	-12.3	-7.4415	ug/L	5.98422	-7.4415	ppb	5.98422 80.42%
Pb 220.353†	-0.4	-0.0571	ug/L	0.39734	-0.0571	ppb	0.39734 696.14%
S 181.975 Axial†	-3.9	-5.6986	ug/L	5.17787	-5.6986	ppb	5.17787 90.86%
Sb 206.836†	-1.6	-0.5411	ug/L	1.88228	-0.5411	ppb	1.88228 347.85%
Se 196.026†	2.4	1.6700	ug/L	2.38751	1.6700	ppb	2.38751 142.97%
Si 251.611†	217.2	7.1764	ug/L	0.46171	7.1764	ppb	0.46171 6.43%
Sn 189.927†	6.0	1.0906	ug/L	0.60752	1.0906	ppb	0.60752 55.71%
Sr 421.552†	-20.3	-0.1333	ug/L	0.05055	-0.1333	ppb	0.05055 37.93%
Ti 334.940†	187.9	0.3099	ug/L	0.08543	0.3099	ppb	0.08543 27.57%
Tl 190.801†	-2.2	-0.7003	ug/L	1.21817	-0.7003	ppb	1.21817 173.94%
U 409.014†	309.0	9.6556	ug/L	0.65255	9.6556	ppb	0.65255 6.76%
V 292.402†	149.0	1.0671	ug/L	0.07275	1.0671	ppb	0.07275 6.82%
Zn 213.857†	14.7	0.1450	ug/L	0.07606	0.1450	ppb	0.07606 52.45%
SiO2†	247.2	17.490	ug/L	1.4237	17.490	ppb	1.4237 8.14%

Sequence No.: 20
Sample ID: 1202004464|936826|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 41
Date Collected: 1/15/2010 17:14:03
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202004464|936826|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	5493.0	5493.0	108	%			17:16:16
1	Y RADIAL	6467.1	6467.1	117.5	%			17:16:16
1	Al 396.153Radial†	103424.8	95835.1	75366	ug/L	75366	ppb	17:15:56
1	Ca 317.933Radial†	64220.7	59483.9	97673	ug/L	97673	ppb	17:15:56
1	Fe 238.204 Radial†	20750.5	19215.8	171480	ug/L	171480	ppb	17:15:56
1	K 766.490 Radial†	230362.9	210431.0	39126	ug/L	39126	ppb	17:15:56
1	Mg 279.077 IEC†	1148.6	1061.7	35503	ug/L	35503	ppb	17:16:16
1	Na 589.592 Radial†	35632.5	34573.6	10486	ug/L	10486	ppb	17:15:56
1	Sr 421.552†	371346.7	344022.2	2253.2	ug/L	2253.2	ppb	17:15:56
1	Sc 361.383	893815.7	893815.7	106.68	%			17:17:17
1	Y 371.029	813191.3	813191.3	114.22	%			17:17:17
1	Ag 328.068†	56161.1	52345.3	308.34	ug/L	308.34	ppb	17:17:17
1	As 188.979†	2388.3	2259.3	1086.9	ug/L	1086.9	ppb	17:17:22
1	B 249.677†	67148.3	63408.9	1475.8	ug/L	1475.8	ppb	17:17:17
1	Ba 233.527†	235879.0	221112.7	1804.6	ug/L	1804.6	ppb	17:17:17
1	Be 313.107†	2174627.3	2042775.1	797.71	ug/L	797.71	ppb	17:17:17
1	Cd 226.502†	56261.7	52936.2	592.56	ug/L	592.56	ppb	17:17:22
1	Co 228.616†	46370.0	43525.6	915.02	ug/L	915.02	ppb	17:17:22
1	Cr 267.716†	221565.7	207600.7	2410.6	ug/L	2410.6	ppb	17:17:17
1	Cu 324.752†	659135.8	611388.6	1907.6	ug/L	1907.6	ppb	17:17:17
1	Mn 257.610†	4956352.2	4645508.9	5337.7	ug/L	5337.7	ppb	17:17:17
1	Mo 202.031†	7706.1	7202.7	539.60	ug/L	539.60	ppb	17:17:22
1	Ni 231.604†	54647.8	51139.8	1319.9	ug/L	1319.9	ppb	17:17:22
1	P 214.914†	13939.0	12846.5	7575.2	ug/L	7575.2	ppb	17:17:22
1	Pb 220.353†	6723.4	6361.6	810.00	ug/L	810.00	ppb	17:17:22
1	S 181.975 Axial†	2991.6	2758.0	4046.2	ug/L	4046.2	ppb	17:17:22
1	Sb 206.836†	5517.5	5135.5	1871.4	ug/L	1871.4	ppb	17:17:22
1	Se 196.026†	4116.6	3887.3	3139.1	ug/L	3139.1	ppb	17:17:22
1	Si 251.611†	356167.9	333409.5	11013	ug/L	11013	ppb	17:17:17
1	Sn 189.927†	5809.7	5440.4	1011.6	ug/L	1011.6	ppb	17:17:22
1	Ti 334.940†	3433465.9	3219739.2	5392.2	ug/L	5392.2	ppb	17:17:17
1	Tl 190.801†	3823.6	3615.3	1211.2	ug/L	1211.2	ppb	17:17:22
1	U 409.014†	-6627.4	-4236.2	-157.36	ug/L	-157.36	ppb	17:17:17
1	V 292.402†	184214.3	174061.3	1204.2	ug/L	1204.2	ppb	17:17:17
1	Zn 213.857†	634156.7	593771.0	5775.1	ug/L	5775.1	ppb	17:17:17
1	SiO2†	355998.9	333245.6	23571	ug/L	23571	ppb	17:17:56
2	Sc Radial	5519.6	5519.6	108	%			17:16:41
2	Y RADIAL	6489.5	6489.5	117.9	%			17:16:41
2	Al 396.153Radial†	104900.4	96734.6	76073	ug/L	76073	ppb	17:16:21
2	Ca 317.933Radial†	64878.0	59803.7	98198	ug/L	98198	ppb	17:16:21
2	Fe 238.204 Radial†	20879.3	19242.0	171710	ug/L	171710	ppb	17:16:21
2	K 766.490 Radial†	232726.0	211583.1	39340	ug/L	39340	ppb	17:16:21
2	Mg 279.077 IEC†	1159.2	1066.4	35658	ug/L	35658	ppb	17:16:41
2	Na 589.592 Radial†	35848.9	34614.3	10498	ug/L	10498	ppb	17:16:21
2	Sr 421.552†	375226.2	345944.1	2265.8	ug/L	2265.8	ppb	17:16:21
2	Sc 361.383	891459.4	891459.4	106.40	%			17:17:31
2	Y 371.029	811424.0	811424.0	113.97	%			17:17:31
2	Ag 328.068†	55681.4	52033.7	306.92	ug/L	306.92	ppb	17:17:31
2	As 188.979†	2415.5	2290.8	1100.8	ug/L	1100.8	ppb	17:17:36
2	B 249.677†	66757.8	63208.3	1471.0	ug/L	1471.0	ppb	17:17:31
2	Ba 233.527†	235321.9	221173.5	1805.1	ug/L	1805.1	ppb	17:17:31
2	Be 313.107†	2164774.8	2038903.3	796.20	ug/L	796.20	ppb	17:17:31
2	Cd 226.502†	56504.0	53303.4	596.77	ug/L	596.77	ppb	17:17:36
2	Co 228.616†	46585.7	43843.3	921.82	ug/L	921.82	ppb	17:17:36
2	Cr 267.716†	220932.0	207554.1	2410.1	ug/L	2410.1	ppb	17:17:31
2	Cu 324.752†	655297.7	609414.5	1901.5	ug/L	1901.5	ppb	17:17:31
2	Mn 257.610†	4938454.6	4640968.1	5332.5	ug/L	5332.5	ppb	17:17:31
2	Mo 202.031†	7757.9	7270.5	544.57	ug/L	544.57	ppb	17:17:36
2	Ni 231.604†	54882.6	51495.9	1329.1	ug/L	1329.1	ppb	17:17:36

2	P 214.914†	13981.8	12921.2	7623.3 ug/L	7623.3 ppb	17:17:36
2	Pb 220.353†	6676.8	6334.5	806.70 ug/L	806.70 ppb	17:17:36
2	S 181.975 Axial†	3017.4	2789.7	4092.6 ug/L	4092.6 ppb	17:17:36
2	Sb 206.836†	5525.3	5156.6	1879.2 ug/L	1879.2 ppb	17:17:36
2	Se 196.026†	4115.7	3896.6	3146.1 ug/L	3146.1 ppb	17:17:36
2	Si 251.611†	354216.8	332458.2	10982 ug/L	10982 ppb	17:17:31
2	Sn 189.927†	5806.8	5452.2	1013.9 ug/L	1013.9 ppb	17:17:36
2	Ti 334.940†	3418470.9	3214153.2	5382.9 ug/L	5382.9 ppb	17:17:31
2	Tl 190.801†	3842.7	3642.6	1219.7 ug/L	1219.7 ppb	17:17:36
2	U 409.014†	-6678.5	-4300.7	-159.41 ug/L	-159.41 ppb	17:17:31
2	V 292.402†	183558.1	173900.9	1203.1 ug/L	1203.1 ppb	17:17:31
2	Zn 213.857†	631750.5	593080.8	5768.2 ug/L	5768.2 ppb	17:17:31
2	SiO2†	356268.4	334380.9	23652 ug/L	23652 ppb	17:18:01
3	Sc Radial	5551.2	5551.2	109 %		17:17:06
3	Y RADIAL	6524.9	6524.9	118.5 %		17:17:06
3	Al 396.153Radial†	104149.8	95495.8	75099 ug/L	75099 ppb	17:16:46
3	Ca 317.933Radial†	64474.6	59093.3	97031 ug/L	97031 ppb	17:16:46
3	Fe 238.204 Radial†	20802.9	19062.4	170110 ug/L	170110 ppb	17:16:46
3	K 766.490 Radial†	231990.5	209687.0	38987 ug/L	38987 ppb	17:16:46
3	Mg 279.077 IEC†	1160.8	1061.8	35505 ug/L	35505 ppb	17:17:06
3	Na 589.592 Radial†	35667.6	34259.9	10390 ug/L	10390 ppb	17:16:46
3	Sr 421.552†	372920.1	341860.0	2239.0 ug/L	2239.0 ppb	17:16:46
3	Sc 361.383	900517.0	900517.0	107.48 %		17:17:45
3	Y 371.029	819157.2	819157.2	115.06 %		17:17:45
3	Ag 328.068†	56277.8	52062.2	306.52 ug/L	306.52 ppb	17:17:45
3	As 188.979†	2392.1	2246.1	1080.6 ug/L	1080.6 ppb	17:17:50
3	B 249.677†	67220.2	63007.4	1466.5 ug/L	1466.5 ppb	17:17:45
3	Ba 233.527†	236125.1	219696.3	1793.1 ug/L	1793.1 ppb	17:17:45
3	Be 313.107†	2177099.6	2029906.2	792.72 ug/L	792.72 ppb	17:17:45
3	Cd 226.502†	56105.7	52398.7	586.50 ug/L	586.50 ppb	17:17:50
3	Co 228.616†	46176.4	43022.1	904.34 ug/L	904.34 ppb	17:17:50
3	Cr 267.716†	221557.4	206047.5	2392.6 ug/L	2392.6 ppb	17:17:45
3	Cu 324.752†	660162.0	607745.6	1896.2 ug/L	1896.2 ppb	17:17:45
3	Mn 257.610†	4959217.7	4613601.7	5301.0 ug/L	5301.0 ppb	17:17:45
3	Mo 202.031†	7730.4	7171.6	537.22 ug/L	537.22 ppb	17:17:50
3	Ni 231.604†	54480.6	50603.1	1306.0 ug/L	1306.0 ppb	17:17:50
3	P 214.914†	13872.1	12687.0	7478.3 ug/L	7478.3 ppb	17:17:50
3	Pb 220.353†	6697.2	6290.4	801.01 ug/L	801.01 ppb	17:17:50
3	S 181.975 Axial†	2960.3	2707.9	3972.5 ug/L	3972.5 ppb	17:17:50
3	Sb 206.836†	5466.1	5049.3	1840.0 ug/L	1840.0 ppb	17:17:50
3	Se 196.026†	4074.0	3818.9	3089.4 ug/L	3089.4 ppb	17:17:50
3	Si 251.611†	360016.8	334506.0	11050 ug/L	11050 ppb	17:17:45
3	Sn 189.927†	5773.3	5366.0	997.94 ug/L	997.94 ppb	17:17:50
3	Ti 334.940†	3449297.0	3210518.1	5376.7 ug/L	5376.7 ppb	17:17:45
3	Tl 190.801†	3828.7	3593.3	1204.0 ug/L	1204.0 ppb	17:17:50
3	U 409.014†	-6566.9	-4133.8	-153.96 ug/L	-153.96 ppb	17:17:45
3	V 292.402†	184482.7	173026.0	1197.1 ug/L	1197.1 ppb	17:17:45
3	Zn 213.857†	635183.5	590302.7	5741.4 ug/L	5741.4 ppb	17:17:45
3	SiO2†	363871.8	338087.3	23914 ug/L	23914 ppb	17:18:06

Mean Data: 1202004464|936826|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	895264.1	106.85	%	0.561				0.52%
Sc Radial	5521.3	108	%	0.6				0.53%
Y 371.029	814590.8	114.42	%	0.569				0.50%
Y RADIAL	6493.8	118.0	%	0.53				0.45%
Ag 328.068†	52147.1	307.26	ug/L	0.954	307.26	ppb	0.954	0.31%
Al 396.153Radial†	96021.9	75513	ug/L	503.4	75513	ppb	503.4	0.67%
As 188.979†	2265.4	1089.4	ug/L	10.34	1089.4	ppb	10.34	0.95%
B 249.677†	63208.2	1471.1	ug/L	4.64	1471.1	ppb	4.64	0.32%
Ba 233.527†	220660.8	1801.0	ug/L	6.83	1801.0	ppb	6.83	0.38%
Be 313.107†	2037194.9	795.54	ug/L	2.555	795.54	ppb	2.555	0.32%
Ca 317.933Radial†	59460.3	97634	ug/L	584.3	97634	ppb	584.3	0.60%
Cd 226.502†	52879.4	591.94	ug/L	5.160	591.94	ppb	5.160	0.87%
Co 228.616†	43463.7	913.73	ug/L	8.813	913.73	ppb	8.813	0.96%
Cr 267.716†	207067.4	2404.4	ug/L	10.26	2404.4	ppb	10.26	0.43%
Cu 324.752†	609516.2	1901.8	ug/L	5.70	1901.8	ppb	5.70	0.30%
Fe 238.204 Radial†	19173.4	171100	ug/L	866.0	171100	ppb	866.0	0.51%
K 766.490 Radial†	210567.0	39151	ug/L	177.6	39151	ppb	177.6	0.45%

Mg 279.077 IEC†	1063.3	35555	ug/L	89.0	35555	ppb	89.0	0.25%
Mn 257.610†	4633359.6	5323.7	ug/L	19.86	5323.7	ppb	19.86	0.37%
Mo 202.031†	7215.0	540.47	ug/L	3.750	540.47	ppb	3.750	0.69%
Na 589.592 Radial†	34482.6	10458	ug/L	58.8	10458	ppb	58.8	0.56%
Ni 231.604†	51079.6	1318.3	ug/L	11.60	1318.3	ppb	11.60	0.88%
P 214.914†	12818.3	7558.9	ug/L	73.88	7558.9	ppb	73.88	0.98%
Pb 220.353†	6328.9	805.90	ug/L	4.546	805.90	ppb	4.546	0.56%
S 181.975 Axial†	2751.9	4037.1	ug/L	60.56	4037.1	ppb	60.56	1.50%
Sb 206.836†	5113.8	1863.5	ug/L	20.75	1863.5	ppb	20.75	1.11%
Se 196.026†	3867.6	3124.8	ug/L	30.92	3124.8	ppb	30.92	0.99%
Si 251.611†	333457.9	11015	ug/L	33.9	11015	ppb	33.9	0.31%
Sn 189.927†	5419.5	1007.8	ug/L	8.63	1007.8	ppb	8.63	0.86%
Sr 421.552†	343942.1	2252.7	ug/L	13.38	2252.7	ppb	13.38	0.59%
Ti 334.940†	3214803.5	5383.9	ug/L	7.80	5383.9	ppb	7.80	0.14%
Tl 190.801†	3617.1	1211.6	ug/L	7.89	1211.6	ppb	7.89	0.65%
U 409.014†	-4223.6	-156.91	ug/L	2.749	-156.91	ppb	2.749	1.75%
V 292.402†	173662.7	1201.5	ug/L	3.83	1201.5	ppb	3.83	0.32%
Zn 213.857†	592384.9	5761.6	ug/L	17.79	5761.6	ppb	17.79	0.31%
SiO2†	335237.9	23712	ug/L	179.3	23712	ppb	179.3	0.76%

Sequence No.: 21
Sample ID: 243550001|936826|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 42
Date Collected: 1/15/2010 17:20:17
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 243550001|936826|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5448.6	5448.6	107	%			17:22:10
1	Y RADIAL	7656.3	7656.3	139.1	%			17:22:10
1	Al 396.153Radial†	13109.5	12255.9	9641.2	ug/L	9641.2	ppb	17:22:10
1	Ca 317.933Radial†	2234.6	2069.9	3398.8	ug/L	3398.8	ppb	17:22:30
1	Fe 238.204 Radial†	8396.1	7832.7	69887	ug/L	69887	ppb	17:22:10
1	K 766.490 Radial†	12392.0	8571.8	1593.0	ug/L	1593.0	ppb	17:22:10
1	Mg 279.077 IEC†	65.2	58.4	1890.2	ug/L	1890.2	ppb	17:22:30
1	Na 589.592 Radial†	591.1	2111.7	640.45	ug/L	640.45	ppb	17:22:10
1	Sr 421.552†	3074.8	2836.9	18.561	ug/L	18.561	ppb	17:22:10
1	Sc 361.383	904571.6	904571.6	107.97	%			17:23:27
1	Y 371.029	987559.3	987559.3	138.72	%			17:23:27
1	Ag 328.068†	-4280.2	-4262.8	2.6324	ug/L	2.6324	ppb	17:23:32
1	As 188.979†	-35.5	-12.3	18.797	ug/L	18.797	ppb	17:23:52
1	B 249.677†	490.0	920.0	10.489	ug/L	10.489	ppb	17:23:32
1	Ba 233.527†	23483.6	21757.9	179.01	ug/L	179.01	ppb	17:23:32
1	Be 313.107†	987.8	5260.1	4.0868	ug/L	4.0868	ppb	17:23:32
1	Cd 226.502†	442.4	607.9	-0.2557	ug/L	-0.2557	ppb	17:23:52
1	Co 228.616†	219.8	263.4	2.7932	ug/L	2.7932	ppb	17:23:52
1	Cr 267.716†	861.1	709.3	9.7154	ug/L	9.7154	ppb	17:23:32
1	Cu 324.752†	10401.1	3168.3	13.653	ug/L	13.653	ppb	17:23:32
1	Mn 257.610†	2440270.1	2259810.5	2595.8	ug/L	2595.8	ppb	17:23:27
1	Mo 202.031†	96.9	69.0	10.498	ug/L	10.498	ppb	17:23:52
1	Ni 231.604†	409.1	293.6	7.5764	ug/L	7.5764	ppb	17:23:52
1	P 214.914†	1193.6	886.0	500.22	ug/L	500.22	ppb	17:23:52
1	Pb 220.353†	175.8	222.1	23.674	ug/L	23.674	ppb	17:23:52
1	S 181.975 Axial†	100.8	47.1	67.587	ug/L	67.587	ppb	17:23:52
1	Sb 206.836†	36.2	-2.9	-2.3454	ug/L	-2.3454	ppb	17:23:52
1	Se 196.026†	-326.4	-273.9	48.167	ug/L	48.167	ppb	17:23:52
1	Si 251.611†	120263.7	110939.5	3666.7	ug/L	3666.7	ppb	17:23:32
1	Sn 189.927†	1.2	-4.3	0.9088	ug/L	0.9088	ppb	17:23:52
1	Ti 334.940†	585757.4	543854.4	909.61	ug/L	909.61	ppb	17:23:27
1	Tl 190.801†	-122.7	-82.5	-6.3712	ug/L	-6.3712	ppb	17:23:52
1	U 409.014†	-9371.0	-6703.6	-217.56	ug/L	-217.56	ppb	17:23:27
1	V 292.402†	4475.2	5529.4	27.569	ug/L	27.569	ppb	17:23:32
1	Zn 213.857†	37118.3	33711.5	322.61	ug/L	322.61	ppb	17:23:32
1	SiO2†	121192.3	111794.2	7912.2	ug/L	7912.2	ppb	17:25:00
2	Sc Radial	5429.2	5429.2	107	%			17:22:35
2	Y RADIAL	7600.8	7600.8	138.1	%			17:22:35
2	Al 396.153Radial†	12991.1	12188.6	9588.3	ug/L	9588.3	ppb	17:22:35
2	Ca 317.933Radial†	2239.0	2081.5	3417.8	ug/L	3417.8	ppb	17:22:55
2	Fe 238.204 Radial†	8315.0	7784.6	69458	ug/L	69458	ppb	17:22:35
2	K 766.490 Radial†	12460.8	8677.7	1612.7	ug/L	1612.7	ppb	17:22:35
2	Mg 279.077 IEC†	62.0	55.6	1796.7	ug/L	1796.7	ppb	17:22:55
2	Na 589.592 Radial†	590.6	2113.2	640.91	ug/L	640.91	ppb	17:22:35
2	Sr 421.552†	3037.8	2812.5	18.401	ug/L	18.401	ppb	17:22:35
2	Sc 361.383	913024.7	913024.7	108.97	%			17:23:58
2	Y 371.029	993146.2	993146.2	139.50	%			17:23:58
2	Ag 328.068†	-4312.9	-4256.1	2.5254	ug/L	2.5254	ppb	17:24:03
2	As 188.979†	-38.2	-14.5	17.700	ug/L	17.700	ppb	17:24:23
2	B 249.677†	441.5	871.2	9.4008	ug/L	9.4008	ppb	17:24:03
2	Ba 233.527†	23686.1	21742.4	178.87	ug/L	178.87	ppb	17:24:03
2	Be 313.107†	1140.1	5391.4	4.1349	ug/L	4.1349	ppb	17:24:03
2	Cd 226.502†	453.4	614.2	-0.1390	ug/L	-0.1390	ppb	17:24:23
2	Co 228.616†	231.2	272.0	2.9832	ug/L	2.9832	ppb	17:24:23
2	Cr 267.716†	830.2	673.5	9.2924	ug/L	9.2924	ppb	17:24:03
2	Cu 324.752†	10541.0	3207.5	13.751	ug/L	13.751	ppb	17:24:03
2	Mn 257.610†	2461339.3	2258218.6	2593.9	ug/L	2593.9	ppb	17:23:58
2	Mo 202.031†	91.2	63.0	10.026	ug/L	10.026	ppb	17:24:23
2	Ni 231.604†	389.1	271.7	7.0119	ug/L	7.0119	ppb	17:24:23

2	P 214.914†	1216.1	896.5	507.07 ug/L	507.07 ppb	17:24:23
2	Pb 220.353†	180.2	224.7	24.026 ug/L	24.026 ppb	17:24:23
2	S 181.975 Axial†	98.4	44.0	63.002 ug/L	63.002 ppb	17:24:23
2	Sb 206.836†	39.9	0.2	-1.2390 ug/L	-1.2390 ppb	17:24:23
2	Se 196.026†	-344.4	-287.6	37.680 ug/L	37.680 ppb	17:24:23
2	Si 251.611†	121408.6	110958.9	3667.3 ug/L	3667.3 ppb	17:24:03
2	Sn 189.927†	0.7	-4.7	0.8218 ug/L	0.8218 ppb	17:24:23
2	Ti 334.940†	590556.2	543235.0	908.59 ug/L	908.59 ppb	17:23:58
2	Tl 190.801†	-118.0	-77.1	-4.6765 ug/L	-4.6765 ppb	17:24:23
2	U 409.014†	-9412.4	-6661.2	-216.18 ug/L	-216.18 ppb	17:23:58
2	V 292.402†	4576.4	5583.8	28.012 ug/L	28.012 ppb	17:24:03
2	Zn 213.857†	37557.9	33796.6	323.48 ug/L	323.48 ppb	17:24:03
2	SiO2†	121615.6	111143.4	7866.2 ug/L	7866.2 ppb	17:25:05
3	Sc Radial	5476.3	5476.3	108 %		17:23:00
3	Y RADIAL	7669.1	7669.1	139.3 %		17:23:00
3	Al 396.153Radial†	13064.5	12152.2	9559.6 ug/L	9559.6 ppb	17:23:00
3	Ca 317.933Radial†	2245.1	2069.1	3397.5 ug/L	3397.5 ppb	17:23:20
3	Fe 238.204 Radial†	8370.2	7768.9	69318 ug/L	69318 ppb	17:23:00
3	K 766.490 Radial†	12357.3	8481.1	1576.1 ug/L	1576.1 ppb	17:23:00
3	Mg 279.077 IEC†	67.3	60.1	1947.0 ug/L	1947.0 ppb	17:23:20
3	Na 589.592 Radial†	601.3	2118.4	642.48 ug/L	642.48 ppb	17:23:00
3	Sr 421.552†	3021.8	2773.1	18.143 ug/L	18.143 ppb	17:23:00
3	Sc 361.383	917728.4	917728.4	109.54 %		17:24:29
3	Y 371.029	998083.4	998083.4	140.19 %		17:24:29
3	Ag 328.068†	-4383.4	-4300.2	2.2736 ug/L	2.2736 ppb	17:24:34
3	As 188.979†	-31.5	-8.1	20.495 ug/L	20.495 ppb	17:24:54
3	B 249.677†	488.0	911.6	10.384 ug/L	10.384 ppb	17:24:34
3	Ba 233.527†	23797.9	21733.0	178.79 ug/L	178.79 ppb	17:24:34
3	Be 313.107†	1048.1	5302.1	4.1029 ug/L	4.1029 ppb	17:24:34
3	Cd 226.502†	439.4	599.4	-0.2961 ug/L	-0.2961 ppb	17:24:54
3	Co 228.616†	212.2	253.5	2.5883 ug/L	2.5883 ppb	17:24:54
3	Cr 267.716†	868.7	704.8	9.6535 ug/L	9.6535 ppb	17:24:34
3	Cu 324.752†	10549.5	3165.7	13.617 ug/L	13.617 ppb	17:24:34
3	Mn 257.610†	2475935.2	2259967.6	2595.9 ug/L	2595.9 ppb	17:24:29
3	Mo 202.031†	83.8	55.8	9.4903 ug/L	9.4903 ppb	17:24:54
3	Ni 231.604†	397.0	277.1	7.1510 ug/L	7.1510 ppb	17:24:54
3	P 214.914†	1201.3	877.2	495.11 ug/L	495.11 ppb	17:24:54
3	Pb 220.353†	174.8	219.0	23.305 ug/L	23.305 ppb	17:24:54
3	S 181.975 Axial†	101.2	46.1	66.053 ug/L	66.053 ppb	17:24:54
3	Sb 206.836†	41.8	1.8	-0.6822 ug/L	-0.6822 ppb	17:24:54
3	Se 196.026†	-333.4	-276.0	44.931 ug/L	44.931 ppb	17:24:54
3	Si 251.611†	122004.2	110931.6	3666.4 ug/L	3666.4 ppb	17:24:34
3	Sn 189.927†	4.8	-1.0	1.4952 ug/L	1.4952 ppb	17:24:54
3	Ti 334.940†	594274.9	543852.5	909.60 ug/L	909.60 ppb	17:24:29
3	Tl 190.801†	-118.6	-77.2	-4.6746 ug/L	-4.6746 ppb	17:24:54
3	U 409.014†	-9615.9	-6802.7	-220.59 ug/L	-220.59 ppb	17:24:29
3	V 292.402†	4568.9	5555.4	27.817 ug/L	27.817 ppb	17:24:34
3	Zn 213.857†	37640.6	33695.5	322.51 ug/L	322.51 ppb	17:24:34
3	SiO2†	121148.7	110145.2	7795.5 ug/L	7795.5 ppb	17:25:10

Mean Data: 243550001|936826|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	911774.9	108.82	%	0.796				0.73%
Sc Radial	5451.4	107	%	0.5				0.43%
Y 371.029	992929.6	139.47	%	0.740				0.53%
Y RADIAL	7642.1	138.8	%	0.66				0.48%
Ag 328.068†	-4273.0	2.4771	ug/L	0.18418	2.4771	ppb	0.18418	7.44%
Al 396.153Radial†	12198.9	9596.4	ug/L	41.39	9596.4	ppb	41.39	0.43%
As 188.979†	-11.6	18.997	ug/L	1.4085	18.997	ppb	1.4085	7.41%
B 249.677†	900.9	10.091	ug/L	0.6002	10.091	ppb	0.6002	5.95%
Ba 233.527†	21744.4	178.89	ug/L	0.111	178.89	ppb	0.111	0.06%
Be 313.107†	5317.9	4.1082	ug/L	0.02450	4.1082	ppb	0.02450	0.60%
Ca 317.933Radial†	2073.5	3404.7	ug/L	11.34	3404.7	ppb	11.34	0.33%
Cd 226.502†	607.2	-0.2303	ug/L	0.08158	-0.2303	ppb	0.08158	35.43%
Co 228.616†	262.9	2.7882	ug/L	0.19751	2.7882	ppb	0.19751	7.08%
Cr 267.716†	695.9	9.5538	ug/L	0.22843	9.5538	ppb	0.22843	2.39%
Cu 324.752†	3180.5	13.674	ug/L	0.0697	13.674	ppb	0.0697	0.51%
Fe 238.204 Radial†	7795.4	69554	ug/L	296.3	69554	ppb	296.3	0.43%
K 766.490 Radial†	8576.9	1593.9	ug/L	18.31	1593.9	ppb	18.31	1.15%

Mg 279.077 IEC†	58.1	1878.0	ug/L	75.85	1878.0	ppb	75.85	4.04%
Mn 257.610†	2259332.2	2595.2	ug/L	1.11	2595.2	ppb	1.11	0.04%
Mo 202.031†	62.6	10.005	ug/L	0.5044	10.005	ppb	0.5044	5.04%
Na 589.592 Radial†	2114.5	641.28	ug/L	1.064	641.28	ppb	1.064	0.17%
Ni 231.604†	280.8	7.2464	ug/L	0.29407	7.2464	ppb	0.29407	4.06%
P 214.914†	886.6	500.80	ug/L	6.001	500.80	ppb	6.001	1.20%
Pb 220.353†	221.9	23.669	ug/L	0.3605	23.669	ppb	0.3605	1.52%
S 181.975 Axial†	45.7	65.547	ug/L	2.3339	65.547	ppb	2.3339	3.56%
Sb 206.836†	-0.3	-1.4222	ug/L	0.84662	-1.4222	ppb	0.84662	59.53%
Se 196.026†	-279.2	43.593	ug/L	5.3703	43.593	ppb	5.3703	12.32%
Si 251.611†	110943.3	3666.8	ug/L	0.46	3666.8	ppb	0.46	0.01%
Sn 189.927†	-3.4	1.0752	ug/L	0.36626	1.0752	ppb	0.36626	34.06%
Sr 421.552†	2807.5	18.369	ug/L	0.2108	18.369	ppb	0.2108	1.15%
Ti 334.940†	543647.3	909.27	ug/L	0.590	909.27	ppb	0.590	0.06%
Tl 190.801†	-78.9	-5.2408	ug/L	0.97896	-5.2408	ppb	0.97896	18.68%
U 409.014†	-6722.5	-218.11	ug/L	2.256	-218.11	ppb	2.256	1.03%
V 292.402†	5556.2	27.799	ug/L	0.2216	27.799	ppb	0.2216	0.80%
Zn 213.857†	33734.5	322.87	ug/L	0.537	322.87	ppb	0.537	0.17%
SiO2†	111027.6	7858.0	ug/L	58.77	7858.0	ppb	58.77	0.75%

Sequence No.: 22
Sample ID: 243550002|936826|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 43
Date Collected: 1/15/2010 17:27:20
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 243550002|936826|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	5330.4	5330.4	105	%			17:29:33
1	Y RADIAL	7221.7	7221.7	131.2	%			17:29:33
1	Al 396.153Radial†	82231.9	78524.2	61773	ug/L	61773	ppb	17:29:13
1	Ca 317.933Radial†	10550.7	10056.2	16512	ug/L	16512	ppb	17:29:13
1	Fe 238.204 Radial†	11373.1	10849.0	96800	ug/L	96800	ppb	17:29:13
1	K 766.490 Radial†	47842.7	42676.1	7935.5	ug/L	7935.5	ppb	17:29:13
1	Mg 279.077 IEC†	338.7	320.9	10681	ug/L	10681	ppb	17:29:33
1	Na 589.592 Radial†	5229.9	6553.0	1987.4	ug/L	1987.4	ppb	17:29:13
1	Sr 421.552†	17012.3	16207.9	106.07	ug/L	106.07	ppb	17:29:13
1	Sc 361.383	897242.2	897242.2	107.09	%			17:30:30
1	Y 371.029	950234.9	950234.9	133.47	%			17:30:30
1	Ag 328.068†	-5858.2	-5768.7	4.3326	ug/L	4.3326	ppb	17:30:35
1	As 188.979†	6.9	27.1	45.368	ug/L	45.368	ppb	17:30:55
1	B 249.677†	590.8	1017.8	8.4077	ug/L	8.4077	ppb	17:30:35
1	Ba 233.527†	38498.9	35956.7	295.35	ug/L	295.35	ppb	17:30:35
1	Be 313.107†	18252.4	21389.1	11.029	ug/L	11.029	ppb	17:30:35
1	Cd 226.502†	641.1	796.9	-0.8501	ug/L	-0.8501	ppb	17:30:55
1	Co 228.616†	820.5	826.0	13.750	ug/L	13.750	ppb	17:30:55
1	Cr 267.716†	3387.9	3075.3	37.777	ug/L	37.777	ppb	17:30:55
1	Cu 324.752†	21195.2	13326.4	46.661	ug/L	46.661	ppb	17:30:35
1	Mn 257.610†	2336830.1	2181682.7	2508.6	ug/L	2508.6	ppb	17:30:30
1	Mo 202.031†	54.0	29.7	9.8762	ug/L	9.8762	ppb	17:30:55
1	Ni 231.604†	2011.5	1793.0	46.284	ug/L	46.284	ppb	17:30:55
1	P 214.914†	1313.8	1007.3	561.25	ug/L	561.25	ppb	17:30:55
1	Pb 220.353†	503.2	529.2	71.468	ug/L	71.468	ppb	17:30:55
1	S 181.975 Axial†	170.0	112.4	153.95	ug/L	153.95	ppb	17:30:55
1	Sb 206.836†	41.3	2.2	-2.3486	ug/L	-2.3486	ppb	17:30:55
1	Se 196.026†	-462.2	-403.1	53.498	ug/L	53.498	ppb	17:30:55
1	Si 251.611†	188385.3	175460.8	5799.2	ug/L	5799.2	ppb	17:30:35
1	Sn 189.927†	-76.0	-76.4	-9.8186	ug/L	-9.8186	ppb	17:30:55
1	Ti 334.940†	789827.3	738844.9	1236.7	ug/L	1236.7	ppb	17:30:30
1	Tl 190.801†	-120.7	-81.6	-3.9683	ug/L	-3.9683	ppb	17:30:55
1	U 409.014†	-11788.8	-9032.2	-293.49	ug/L	-293.49	ppb	17:30:30
1	V 292.402†	14523.9	14946.5	89.716	ug/L	89.716	ppb	17:30:35
1	Zn 213.857†	36806.5	33701.2	319.61	ug/L	319.61	ppb	17:30:35
1	SiO2†	185908.6	173142.6	12254	ug/L	12254	ppb	17:32:03
2	Sc Radial	5366.7	5366.7	105	%			17:29:58
2	Y RADIAL	7289.3	7289.3	132.4	%			17:29:58
2	Al 396.153Radial†	81893.3	77672.4	61103	ug/L	61103	ppb	17:29:38
2	Ca 317.933Radial†	10489.0	9929.6	16304	ug/L	16304	ppb	17:29:38
2	Fe 238.204 Radial†	11335.8	10740.2	95829	ug/L	95829	ppb	17:29:38
2	K 766.490 Radial†	47403.7	41951.2	7800.7	ug/L	7800.7	ppb	17:29:38
2	Mg 279.077 IEC†	342.8	322.7	10742	ug/L	10742	ppb	17:29:58
2	Na 589.592 Radial†	5204.1	6494.8	1969.8	ug/L	1969.8	ppb	17:29:38
2	Sr 421.552†	16931.4	16021.4	104.85	ug/L	104.85	ppb	17:29:38
2	Sc 361.383	898858.5	898858.5	107.28	%			17:31:01
2	Y 371.029	950883.0	950883.0	133.56	%			17:31:01
2	Ag 328.068†	-5839.4	-5741.4	4.1490	ug/L	4.1490	ppb	17:31:06
2	As 188.979†	-1.3	19.4	41.781	ug/L	41.781	ppb	17:31:26
2	B 249.677†	590.3	1016.3	8.5327	ug/L	8.5327	ppb	17:31:06
2	Ba 233.527†	38257.6	35667.1	292.97	ug/L	292.97	ppb	17:31:06
2	Be 313.107†	18105.9	21221.9	10.972	ug/L	10.972	ppb	17:31:06
2	Cd 226.502†	660.0	813.4	-0.5600	ug/L	-0.5600	ppb	17:31:26
2	Co 228.616†	796.0	801.7	13.238	ug/L	13.238	ppb	17:31:26
2	Cr 267.716†	3401.3	3082.2	37.837	ug/L	37.837	ppb	17:31:26
2	Cu 324.752†	21081.2	13184.6	46.171	ug/L	46.171	ppb	17:31:06
2	Mn 257.610†	2351500.8	2191433.6	2519.7	ug/L	2519.7	ppb	17:31:01
2	Mo 202.031†	45.3	21.6	9.2044	ug/L	9.2044	ppb	17:31:26
2	Ni 231.604†	1992.5	1771.9	45.741	ug/L	45.741	ppb	17:31:26

2	P 214.914†	1325.3	1015.8	567.28	ug/L	567.28 ppb	17:31:26
2	Pb 220.353†	495.5	521.2	70.399	ug/L	70.399 ppb	17:31:26
2	S 181.975 Axial†	163.1	105.7	144.19	ug/L	144.19 ppb	17:31:26
2	Sb 206.836†	37.4	-1.6	-3.7624	ug/L	-3.7624 ppb	17:31:26
2	Se 196.026†	-445.2	-386.5	61.275	ug/L	61.275 ppb	17:31:26
2	Si 251.611†	186298.2	173199.0	5724.5	ug/L	5724.5 ppb	17:31:06
2	Sn 189.927†	-81.3	-81.2	-10.744	ug/L	-10.744 ppb	17:31:26
2	Ti 334.940†	793394.2	740843.4	1240.0	ug/L	1240.0 ppb	17:31:01
2	Tl 190.801†	-137.4	-97.0	-8.7753	ug/L	-8.7753 ppb	17:31:26
2	U 409.014†	-11946.7	-9159.6	-297.36	ug/L	-297.36 ppb	17:31:01
2	V 292.402†	14347.0	14757.3	88.504	ug/L	88.504 ppb	17:31:06
2	Zn 213.857†	36575.5	33424.1	317.00	ug/L	317.00 ppb	17:31:06
2	SiO2†	189636.4	176305.2	12478	ug/L	12478 ppb	17:32:08
3	Sc Radial	5370.4	5370.4	106	%		17:30:23
3	Y RADIAL	7261.7	7261.7	131.9	%		17:30:23
3	Al 396.153Radial†	82034.3	77752.1	61166	ug/L	61166 ppb	17:30:03
3	Ca 317.933Radial†	10526.7	9958.4	16352	ug/L	16352 ppb	17:30:03
3	Fe 238.204 Radial†	11351.1	10747.2	95892	ug/L	95892 ppb	17:30:03
3	K 766.490 Radial†	47411.6	41927.4	7796.2	ug/L	7796.2 ppb	17:30:03
3	Mg 279.077 IEC†	343.4	323.0	10752	ug/L	10752 ppb	17:30:23
3	Na 589.592 Radial†	5089.2	6382.5	1935.7	ug/L	1935.7 ppb	17:30:03
3	Sr 421.552†	16952.5	16030.2	104.90	ug/L	104.90 ppb	17:30:03
3	Sc 361.383	908465.6	908465.6	108.43	%		17:31:32
3	Y 371.029	961051.9	961051.9	134.99	%		17:31:32
3	Ag 328.068†	-5954.7	-5790.2	3.9393	ug/L	3.9393 ppb	17:31:37
3	As 188.979†	5.8	25.9	44.696	ug/L	44.696 ppb	17:31:57
3	B 249.677†	609.7	1028.4	8.8111	ug/L	8.8111 ppb	17:31:37
3	Ba 233.527†	38899.5	35882.0	294.72	ug/L	294.72 ppb	17:31:37
3	Be 313.107†	18634.7	21531.1	11.096	ug/L	11.096 ppb	17:31:37
3	Cd 226.502†	665.3	811.8	-0.5849	ug/L	-0.5849 ppb	17:31:57
3	Co 228.616†	780.6	779.7	12.764	ug/L	12.764 ppb	17:31:57
3	Cr 267.716†	3384.4	3033.0	37.269	ug/L	37.269 ppb	17:31:57
3	Cu 324.752†	21449.3	13316.3	46.582	ug/L	46.582 ppb	17:31:37
3	Mn 257.610†	2375926.9	2190781.6	2518.9	ug/L	2518.9 ppb	17:31:32
3	Mo 202.031†	41.1	17.2	8.8915	ug/L	8.8915 ppb	17:31:57
3	Ni 231.604†	1988.7	1748.7	45.143	ug/L	45.143 ppb	17:31:57
3	P 214.914†	1306.4	985.4	548.08	ug/L	548.08 ppb	17:31:57
3	Pb 220.353†	487.6	509.1	68.866	ug/L	68.866 ppb	17:31:57
3	S 181.975 Axial†	171.2	111.6	152.86	ug/L	152.86 ppb	17:31:57
3	Sb 206.836†	53.7	13.2	1.5866	ug/L	1.5866 ppb	17:31:57
3	Se 196.026†	-451.3	-387.7	60.670	ug/L	60.670 ppb	17:31:57
3	Si 251.611†	187496.3	172467.6	5700.3	ug/L	5700.3 ppb	17:31:37
3	Sn 189.927†	-68.3	-68.4	-8.3901	ug/L	-8.3901 ppb	17:31:57
3	Ti 334.940†	803241.5	742104.6	1242.1	ug/L	1242.1 ppb	17:31:32
3	Tl 190.801†	-128.1	-87.0	-5.5889	ug/L	-5.5889 ppb	17:31:57
3	U 409.014†	-11981.3	-9073.7	-294.68	ug/L	-294.68 ppb	17:31:32
3	V 292.402†	14692.2	14934.2	89.742	ug/L	89.742 ppb	17:31:37
3	Zn 213.857†	37146.2	33589.9	318.61	ug/L	318.61 ppb	17:31:37
3	SiO2†	188151.0	173066.0	12249	ug/L	12249 ppb	17:32:13

Mean Data: 243550002|936826|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	901522.1	107.60	%	0.724				0.67%
Sc Radial	5355.8	105	%	0.4				0.41%
Y 371.029	954056.6	134.01	%	0.852				0.64%
Y RADIAL	7257.6	131.8	%	0.62				0.47%
Ag 328.068†	-5766.8	4.1403	ug/L	0.19679	4.1403	ppb	0.19679	4.75%
Al 396.153Radial†	77982.9	61347	ug/L	370.1	61347	ppb	370.1	0.60%
As 188.979†	24.1	43.948	ug/L	1.9069	43.948	ppb	1.9069	4.34%
B 249.677†	1020.8	8.5839	ug/L	0.20651	8.5839	ppb	0.20651	2.41%
Ba 233.527†	35835.3	294.35	ug/L	1.235	294.35	ppb	1.235	0.42%
Be 313.107†	21380.7	11.032	ug/L	0.0619	11.032	ppb	0.0619	0.56%
Ca 317.933Radial†	9981.4	16390	ug/L	108.9	16390	ppb	108.9	0.66%
Cd 226.502†	807.4	-0.6650	ug/L	0.16077	-0.6650	ppb	0.16077	24.18%
Co 228.616†	802.5	13.251	ug/L	0.4935	13.251	ppb	0.4935	3.72%
Cr 267.716†	3063.5	37.627	ug/L	0.3119	37.627	ppb	0.3119	0.83%
Cu 324.752†	13275.8	46.471	ug/L	0.2629	46.471	ppb	0.2629	0.57%
Fe 238.204 Radial†	10778.8	96174	ug/L	543.3	96174	ppb	543.3	0.56%
K 766.490 Radial†	42184.9	7844.1	ug/L	79.17	7844.1	ppb	79.17	1.01%

Mg 279.077 IEC†	322.2	10725	ug/L	38.2	10725	ppb	38.2	0.36%
Mn 257.610†	2187966.0	2515.7	ug/L	6.19	2515.7	ppb	6.19	0.25%
Mo 202.031†	22.8	9.3240	ug/L	0.50314	9.3240	ppb	0.50314	5.40%
Na 589.592 Radial†	6476.8	1964.3	ug/L	26.29	1964.3	ppb	26.29	1.34%
Ni 231.604†	1771.2	45.723	ug/L	0.5708	45.723	ppb	0.5708	1.25%
P 214.914†	1002.8	558.87	ug/L	9.817	558.87	ppb	9.817	1.76%
Pb 220.353†	519.8	70.245	ug/L	1.3080	70.245	ppb	1.3080	1.86%
S 181.975 Axial†	109.9	150.34	ug/L	5.347	150.34	ppb	5.347	3.56%
Sb 206.836†	4.6	-1.5081	ug/L	2.77178	-1.5081	ppb	2.77178	183.79%
Se 196.026†	-392.5	58.481	ug/L	4.3261	58.481	ppb	4.3261	7.40%
Si 251.611†	173709.1	5741.4	ug/L	51.57	5741.4	ppb	51.57	0.90%
Sn 189.927†	-75.3	-9.6511	ug/L	1.18607	-9.6511	ppb	1.18607	12.29%
Sr 421.552†	16086.5	105.27	ug/L	0.689	105.27	ppb	0.689	0.65%
Ti 334.940†	740597.6	1239.6	ug/L	2.73	1239.6	ppb	2.73	0.22%
Tl 190.801†	-88.5	-6.1108	ug/L	2.44566	-6.1108	ppb	2.44566	40.02%
U 409.014†	-9088.5	-295.17	ug/L	1.982	-295.17	ppb	1.982	0.67%
V 292.402†	14879.4	89.321	ug/L	0.7073	89.321	ppb	0.7073	0.79%
Zn 213.857†	33571.7	318.41	ug/L	1.317	318.41	ppb	1.317	0.41%
SiO2†	174171.3	12327	ug/L	130.8	12327	ppb	130.8	1.06%

Sequence No.: 23
Sample ID: 243550003|936826|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 44
Date Collected: 1/15/2010 17:34:24
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 243550003|936826|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5529.1	5529.1	109	%			17:36:17
1	Y RADIAL	7484.4	7484.4	135.9	%			17:36:17
1	Al 396.153Radial†	6343.3	5849.6	4601.5	ug/L	4601.5	ppb	17:36:17
1	Ca 317.933Radial†	1286.8	1167.1	1916.3	ug/L	1916.3	ppb	17:36:37
1	Fe 238.204 Radial†	6317.9	5805.7	51801	ug/L	51801	ppb	17:36:17
1	K 766.490 Radial†	9495.3	5737.1	1065.8	ug/L	1065.8	ppb	17:36:17
1	Mg 279.077 IEC†	38.5	33.0	1053.6	ug/L	1053.6	ppb	17:36:37
1	Na 589.592 Radial†	1084.6	2558.0	775.79	ug/L	775.79	ppb	17:36:17
1	Sr 421.552†	2273.4	2057.5	13.466	ug/L	13.466	ppb	17:36:17
1	Sc 361.383	923932.0	923932.0	110.28	%			17:37:34
1	Y 371.029	971939.3	971939.3	136.52	%			17:37:34
1	Ag 328.068†	-3032.2	-3048.1	2.5420	ug/L	2.5420	ppb	17:37:39
1	As 188.979†	-18.6	3.7	22.186	ug/L	22.186	ppb	17:37:59
1	B 249.677†	-8.2	458.7	2.4715	ug/L	2.4715	ppb	17:37:39
1	Ba 233.527†	16096.8	14603.6	120.32	ug/L	120.32	ppb	17:37:39
1	Be 313.107†	-6413.8	-1470.9	1.6425	ug/L	1.6425	ppb	17:37:39
1	Cd 226.502†	253.0	427.6	-0.4603	ug/L	-0.4603	ppb	17:37:59
1	Co 228.616†	169.3	213.3	1.8222	ug/L	1.8222	ppb	17:37:59
1	Cr 267.716†	959.8	782.1	10.195	ug/L	10.195	ppb	17:37:39
1	Cu 324.752†	10881.6	3402.2	13.415	ug/L	13.415	ppb	17:37:39
1	Mn 257.610†	2388539.8	2165539.0	2486.0	ug/L	2486.0	ppb	17:37:34
1	Mo 202.031†	76.3	48.5	7.5817	ug/L	7.5817	ppb	17:37:59
1	Ni 231.604†	461.6	333.2	8.6016	ug/L	8.6016	ppb	17:37:59
1	P 214.914†	1056.3	738.4	420.71	ug/L	420.71	ppb	17:37:59
1	Pb 220.353†	180.3	222.9	24.386	ug/L	24.386	ppb	17:37:59
1	S 181.975 Axial†	70.3	17.5	24.847	ug/L	24.847	ppb	17:37:59
1	Sb 206.836†	41.0	0.8	-1.5698	ug/L	-1.5698	ppb	17:37:59
1	Se 196.026†	-260.3	-207.6	32.541	ug/L	32.541	ppb	17:37:59
1	Si 251.611†	121973.0	110155.4	3640.8	ug/L	3640.8	ppb	17:37:39
1	Sn 189.927†	2.9	-2.7	0.6641	ug/L	0.6641	ppb	17:37:59
1	Ti 334.940†	640117.3	581780.3	972.88	ug/L	972.88	ppb	17:37:34
1	Tl 190.801†	-105.5	-64.5	-0.6334	ug/L	-0.6334	ppb	17:37:59
1	U 409.014†	-9130.7	-6303.8	-203.00	ug/L	-203.00	ppb	17:37:34
1	V 292.402†	3679.7	4721.1	24.420	ug/L	24.420	ppb	17:37:39
1	Zn 213.857†	28489.1	25166.0	240.84	ug/L	240.84	ppb	17:37:39
1	SiO2†	125178.3	113056.6	8001.6	ug/L	8001.6	ppb	17:39:07
2	Sc Radial	5509.3	5509.3	108	%			17:36:42
2	Y RADIAL	7459.8	7459.8	135.5	%			17:36:42
2	Al 396.153Radial†	6325.5	5854.1	4605.1	ug/L	4605.1	ppb	17:36:42
2	Ca 317.933Radial†	1292.5	1176.6	1931.9	ug/L	1931.9	ppb	17:37:02
2	Fe 238.204 Radial†	6275.8	5787.6	51640	ug/L	51640	ppb	17:36:42
2	K 766.490 Radial†	9459.2	5735.1	1065.5	ug/L	1065.5	ppb	17:36:42
2	Mg 279.077 IEC†	41.3	35.7	1145.3	ug/L	1145.3	ppb	17:37:02
2	Na 589.592 Radial†	1125.7	2599.5	788.39	ug/L	788.39	ppb	17:36:42
2	Sr 421.552†	2226.7	2021.9	13.232	ug/L	13.232	ppb	17:36:42
2	Sc 361.383	916965.5	916965.5	109.44	%			17:38:05
2	Y 371.029	964818.5	964818.5	135.52	%			17:38:05
2	Ag 328.068†	-3129.8	-3158.1	1.9747	ug/L	1.9747	ppb	17:38:10
2	As 188.979†	-17.9	4.2	22.372	ug/L	22.372	ppb	17:38:30
2	B 249.677†	-54.0	416.7	1.5008	ug/L	1.5008	ppb	17:38:10
2	Ba 233.527†	16326.4	14924.3	122.92	ug/L	122.92	ppb	17:38:10
2	Be 313.107†	-6389.1	-1492.5	1.6318	ug/L	1.6318	ppb	17:38:10
2	Cd 226.502†	268.9	443.9	-0.2571	ug/L	-0.2571	ppb	17:38:30
2	Co 228.616†	173.5	218.3	1.9379	ug/L	1.9379	ppb	17:38:30
2	Cr 267.716†	954.1	783.5	10.210	ug/L	10.210	ppb	17:38:10
2	Cu 324.752†	11086.2	3664.1	14.222	ug/L	14.222	ppb	17:38:10
2	Mn 257.610†	2371109.4	2166068.2	2486.6	ug/L	2486.6	ppb	17:38:05
2	Mo 202.031†	90.9	62.4	8.5791	ug/L	8.5791	ppb	17:38:30
2	Ni 231.604†	446.8	322.9	8.3356	ug/L	8.3356	ppb	17:38:30

2	P 214.914†	1050.0	739.9	421.64 ug/L	421.64 ppb	17:38:30
2	Pb 220.353†	170.5	215.1	23.417 ug/L	23.417 ppb	17:38:30
2	S 181.975 Axial†	64.0	12.2	17.095 ug/L	17.095 ppb	17:38:30
2	Sb 206.836†	43.7	3.5	-0.5629 ug/L	-0.5629 ppb	17:38:30
2	Se 196.026†	-250.8	-200.8	36.546 ug/L	36.546 ppb	17:38:30
2	Si 251.611†	123998.3	112846.3	3729.7 ug/L	3729.7 ppb	17:38:10
2	Sn 189.927†	7.3	1.3	1.3916 ug/L	1.3916 ppb	17:38:30
2	Ti 334.940†	634580.6	581131.4	971.79 ug/L	971.79 ppb	17:38:05
2	Tl 190.801†	-107.8	-67.4	-1.5455 ug/L	-1.5455 ppb	17:38:30
2	U 409.014†	-9192.1	-6422.9	-206.70 ug/L	-206.70 ppb	17:38:05
2	V 292.402†	3870.0	4920.4	25.860 ug/L	25.860 ppb	17:38:10
2	Zn 213.857†	28833.8	25677.2	245.85 ug/L	245.85 ppb	17:38:10
2	SiO2†	125003.7	113759.5	8051.3 ug/L	8051.3 ppb	17:39:12
3	Sc Radial	5546.5	5546.5	109 %		17:37:07
3	Y RADIAL	7494.5	7494.5	136.1 %		17:37:07
3	Al 396.153Radial†	6359.0	5845.6	4598.4 ug/L	4598.4 ppb	17:37:07
3	Ca 317.933Radial†	1290.9	1167.1	1916.4 ug/L	1916.4 ppb	17:37:27
3	Fe 238.204 Radial†	6280.3	5752.8	51329 ug/L	51329 ppb	17:37:07
3	K 766.490 Radial†	9364.8	5589.7	1038.4 ug/L	1038.4 ppb	17:37:07
3	Mg 279.077 IEC†	35.2	29.8	947.21 ug/L	947.21 ppb	17:37:27
3	Na 589.592 Radial†	1152.3	2617.0	793.68 ug/L	793.68 ppb	17:37:07
3	Sr 421.552†	2246.9	2026.6	13.263 ug/L	13.263 ppb	17:37:07
3	Sc 361.383	915797.7	915797.7	109.31 %		17:38:36
3	Y 371.029	963513.8	963513.8	135.34 %		17:38:36
3	Ag 328.068†	-3201.8	-3227.6	1.5421 ug/L	1.5421 ppb	17:38:41
3	As 188.979†	-37.3	-13.5	14.433 ug/L	14.433 ppb	17:39:01
3	B 249.677†	-14.1	453.2	2.4167 ug/L	2.4167 ppb	17:38:41
3	Ba 233.527†	16405.3	15015.5	123.65 ug/L	123.65 ppb	17:38:41
3	Be 313.107†	-6544.2	-1641.9	1.5692 ug/L	1.5692 ppb	17:38:41
3	Cd 226.502†	268.7	444.1	-0.2231 ug/L	-0.2231 ppb	17:39:01
3	Co 228.616†	175.6	220.4	1.9900 ug/L	1.9900 ppb	17:39:01
3	Cr 267.716†	978.9	807.3	10.480 ug/L	10.480 ppb	17:38:41
3	Cu 324.752†	10938.3	3541.7	13.826 ug/L	13.826 ppb	17:38:41
3	Mn 257.610†	2359345.3	2158068.3	2477.4 ug/L	2477.4 ppb	17:38:36
3	Mo 202.031†	77.3	50.0	7.6514 ug/L	7.6514 ppb	17:39:01
3	Ni 231.604†	463.7	338.9	8.7471 ug/L	8.7471 ppb	17:39:01
3	P 214.914†	1035.1	727.5	414.18 ug/L	414.18 ppb	17:39:01
3	Pb 220.353†	183.9	227.6	25.030 ug/L	25.030 ppb	17:39:01
3	S 181.975 Axial†	65.0	13.2	18.582 ug/L	18.582 ppb	17:39:01
3	Sb 206.836†	26.7	-12.0	-6.1809 ug/L	-6.1809 ppb	17:39:01
3	Se 196.026†	-256.5	-206.2	31.927 ug/L	31.927 ppb	17:39:01
3	Si 251.611†	124130.7	113111.9	3738.5 ug/L	3738.5 ppb	17:38:41
3	Sn 189.927†	8.8	2.6	1.6360 ug/L	1.6360 ppb	17:39:01
3	Ti 334.940†	632299.3	579783.7	969.55 ug/L	969.55 ppb	17:38:36
3	Tl 190.801†	-109.2	-68.8	-2.0654 ug/L	-2.0654 ppb	17:39:01
3	U 409.014†	-9197.3	-6438.3	-207.15 ug/L	-207.15 ppb	17:38:36
3	V 292.402†	3778.5	4841.2	25.331 ug/L	25.331 ppb	17:38:41
3	Zn 213.857†	28800.3	25680.2	245.91 ug/L	245.91 ppb	17:38:41
3	SiO2†	125256.1	114136.1	8078.0 ug/L	8078.0 ppb	17:39:17

Mean Data: 243550003|936826|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	918898.4	109.68	%	0.525				0.48%
Sc Radial	5528.3	109	%	0.4				0.34%
Y 371.029	966757.2	135.79	%	0.637				0.47%
Y RADIAL	7479.6	135.9	%	0.32				0.24%
Ag 328.068†	-3144.6	2.0196	ug/L	0.50149	2.0196	ppb	0.50149	24.83%
Al 396.153Radial†	5849.8	4601.7	ug/L	3.32	4601.7	ppb	3.32	0.07%
As 188.979†	-1.9	19.664	ug/L	4.5311	19.664	ppb	4.5311	23.04%
B 249.677†	442.9	2.1297	ug/L	0.54528	2.1297	ppb	0.54528	25.60%
Ba 233.527†	14847.8	122.30	ug/L	1.753	122.30	ppb	1.753	1.43%
Be 313.107†	-1535.1	1.6145	ug/L	0.03959	1.6145	ppb	0.03959	2.45%
Ca 317.933Radial†	1170.3	1921.6	ug/L	8.98	1921.6	ppb	8.98	0.47%
Cd 226.502†	438.5	-0.3135	ug/L	0.12828	-0.3135	ppb	0.12828	40.92%
Co 228.616†	217.4	1.9167	ug/L	0.08588	1.9167	ppb	0.08588	4.48%
Cr 267.716†	791.0	10.295	ug/L	0.1604	10.295	ppb	0.1604	1.56%
Cu 324.752†	3536.0	13.821	ug/L	0.4035	13.821	ppb	0.4035	2.92%
Fe 238.204 Radial†	5782.0	51590	ug/L	239.6	51590	ppb	239.6	0.46%
K 766.490 Radial†	5687.3	1056.6	ug/L	15.72	1056.6	ppb	15.72	1.49%

Mg 279.077 IEC†	32.8	1048.7	ug/L	99.12	1048.7	ppb	99.12	9.45%
Mn 257.610†	2163225.2	2483.4	ug/L	5.14	2483.4	ppb	5.14	0.21%
Mo 202.031†	53.6	7.9374	ug/L	0.55684	7.9374	ppb	0.55684	7.02%
Na 589.592 Radial†	2591.5	785.95	ug/L	9.190	785.95	ppb	9.190	1.17%
Ni 231.604†	331.7	8.5614	ug/L	0.20867	8.5614	ppb	0.20867	2.44%
P 214.914†	735.2	418.84	ug/L	4.067	418.84	ppb	4.067	0.97%
Pb 220.353†	221.8	24.278	ug/L	0.8116	24.278	ppb	0.8116	3.34%
S 181.975 Axial†	14.3	20.175	ug/L	4.1144	20.175	ppb	4.1144	20.39%
Sb 206.836†	-2.5	-2.7712	ug/L	2.99547	-2.7712	ppb	2.99547	108.09%
Se 196.026†	-204.8	33.672	ug/L	2.5084	33.672	ppb	2.5084	7.45%
Si 251.611†	112037.9	3703.0	ug/L	54.06	3703.0	ppb	54.06	1.46%
Sn 189.927†	0.4	1.2306	ug/L	0.50554	1.2306	ppb	0.50554	41.08%
Sr 421.552†	2035.3	13.320	ug/L	0.1267	13.320	ppb	0.1267	0.95%
Ti 334.940†	580898.5	971.41	ug/L	1.697	971.41	ppb	1.697	0.17%
Tl 190.801†	-66.9	-1.4148	ug/L	0.72491	-1.4148	ppb	0.72491	51.24%
U 409.014†	-6388.3	-205.62	ug/L	2.278	-205.62	ppb	2.278	1.11%
V 292.402†	4827.6	25.204	ug/L	0.7280	25.204	ppb	0.7280	2.89%
Zn 213.857†	25507.8	244.20	ug/L	2.910	244.20	ppb	2.910	1.19%
SiO2†	113650.7	8043.6	ug/L	38.77	8043.6	ppb	38.77	0.48%

Sequence No.: 24
Sample ID: 243550004|936826|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 45
Date Collected: 1/15/2010 17:41:27
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 243550004|936826|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5442.3	5442.3	107	%			17:43:20
1	Y RADIAL	7391.5	7391.5	134.3	%			17:43:20
1	Al 396.153Radial†	16452.6	15396.4	12112	ug/L	12112	ppb	17:43:20
1	Ca 317.933Radial†	2119.5	1964.7	3226.0	ug/L	3226.0	ppb	17:43:40
1	Fe 238.204 Radial†	6414.3	5988.5	53432	ug/L	53432	ppb	17:43:20
1	K 766.490 Radial†	18589.0	14380.4	2674.2	ug/L	2674.2	ppb	17:43:20
1	Mg 279.077 IEC†	111.7	102.0	3370.0	ug/L	3370.0	ppb	17:43:40
1	Na 589.592 Radial†	2183.6	3601.6	1092.3	ug/L	1092.3	ppb	17:43:20
1	Sr 421.552†	3715.9	3439.8	22.512	ug/L	22.512	ppb	17:43:20
1	Sc 361.383	923011.9	923011.9	110.17	%			17:44:37
1	Y 371.029	968285.4	968285.4	136.01	%			17:44:37
1	Ag 328.068†	-3151.8	-3159.3	2.5905	ug/L	2.5905	ppb	17:44:42
1	As 188.979†	-24.3	-1.4	21.014	ug/L	21.014	ppb	17:45:02
1	B 249.677†	-38.7	431.0	1.5425	ug/L	1.5425	ppb	17:44:42
1	Ba 233.527†	13422.9	12191.1	100.79	ug/L	100.79	ppb	17:44:42
1	Be 313.107†	-4928.8	-128.8	2.3438	ug/L	2.3438	ppb	17:44:42
1	Cd 226.502†	277.7	450.3	-0.3690	ug/L	-0.3690	ppb	17:45:02
1	Co 228.616†	260.8	296.6	3.3890	ug/L	3.3890	ppb	17:45:02
1	Cr 267.716†	1386.9	1170.6	14.753	ug/L	14.753	ppb	17:44:42
1	Cu 324.752†	12021.6	4446.9	16.756	ug/L	16.756	ppb	17:44:42
1	Mn 257.610†	1877231.5	1703573.4	1956.9	ug/L	1956.9	ppb	17:44:37
1	Mo 202.031†	59.8	33.6	6.6369	ug/L	6.6369	ppb	17:45:02
1	Ni 231.604†	645.8	500.8	12.928	ug/L	12.928	ppb	17:45:02
1	P 214.914†	805.9	512.0	278.56	ug/L	278.56	ppb	17:45:02
1	Pb 220.353†	205.5	245.9	28.780	ug/L	28.780	ppb	17:45:02
1	S 181.975 Axial†	89.0	34.5	48.550	ug/L	48.550	ppb	17:45:02
1	Sb 206.836†	41.0	0.8	-1.9877	ug/L	-1.9877	ppb	17:45:02
1	Se 196.026†	-273.3	-219.6	30.327	ug/L	30.327	ppb	17:45:02
1	Si 251.611†	173920.7	157419.7	5202.9	ug/L	5202.9	ppb	17:44:37
1	Sn 189.927†	1.3	-4.2	0.6200	ug/L	0.6200	ppb	17:45:02
1	Ti 334.940†	693227.9	630568.4	1054.4	ug/L	1054.4	ppb	17:44:37
1	Tl 190.801†	-115.3	-73.5	-5.3809	ug/L	-5.3809	ppb	17:45:02
1	U 409.014†	-9765.2	-6888.0	-221.46	ug/L	-221.46	ppb	17:44:37
1	V 292.402†	5700.8	6559.1	37.055	ug/L	37.055	ppb	17:44:42
1	Zn 213.857†	23362.7	20538.4	195.43	ug/L	195.43	ppb	17:44:42
1	SiO2†	169888.6	153754.2	10882	ug/L	10882	ppb	17:46:10
2	Sc Radial	5476.1	5476.1	108	%			17:43:45
2	Y RADIAL	7428.9	7428.9	134.9	%			17:43:45
2	Al 396.153Radial†	16539.3	15382.0	12101	ug/L	12101	ppb	17:43:45
2	Ca 317.933Radial†	2092.8	1927.6	3165.2	ug/L	3165.2	ppb	17:44:05
2	Fe 238.204 Radial†	6436.6	5972.2	53287	ug/L	53287	ppb	17:43:45
2	K 766.490 Radial†	18629.5	14310.7	2661.2	ug/L	2661.2	ppb	17:43:45
2	Mg 279.077 IEC†	111.2	100.9	3334.7	ug/L	3334.7	ppb	17:44:05
2	Na 589.592 Radial†	2222.6	3625.3	1099.5	ug/L	1099.5	ppb	17:43:45
2	Sr 421.552†	3728.1	3429.6	22.446	ug/L	22.446	ppb	17:43:45
2	Sc 361.383	917036.2	917036.2	109.45	%			17:45:08
2	Y 371.029	958656.8	958656.8	134.66	%			17:45:08
2	Ag 328.068†	-3345.6	-3355.1	1.6114	ug/L	1.6114	ppb	17:45:13
2	As 188.979†	-24.5	-1.8	20.824	ug/L	20.824	ppb	17:45:33
2	B 249.677†	4.6	470.3	2.5008	ug/L	2.5008	ppb	17:45:13
2	Ba 233.527†	13540.7	12378.1	102.31	ug/L	102.31	ppb	17:45:13
2	Be 313.107†	-4779.4	-21.4	2.3886	ug/L	2.3886	ppb	17:45:13
2	Cd 226.502†	270.7	445.5	-0.4075	ug/L	-0.4075	ppb	17:45:33
2	Co 228.616†	244.8	283.5	3.1099	ug/L	3.1099	ppb	17:45:33
2	Cr 267.716†	1396.9	1188.0	14.951	ug/L	14.951	ppb	17:45:13
2	Cu 324.752†	12089.0	4579.6	17.158	ug/L	17.158	ppb	17:45:13
2	Mn 257.610†	1868793.8	1706968.5	1960.7	ug/L	1960.7	ppb	17:45:08
2	Mo 202.031†	63.7	37.5	6.9065	ug/L	6.9065	ppb	17:45:33
2	Ni 231.604†	655.1	513.2	13.248	ug/L	13.248	ppb	17:45:33

2	P 214.914†	798.1	509.7	277.15 ug/L	277.15 ppb	17:45:33
2	Pb 220.353†	221.2	261.4	30.766 ug/L	30.766 ppb	17:45:33
2	S 181.975 Axial†	84.9	31.3	43.880 ug/L	43.880 ppb	17:45:33
2	Sb 206.836†	37.6	-2.0	-3.0192 ug/L	-3.0192 ppb	17:45:33
2	Se 196.026†	-267.4	-215.9	32.325 ug/L	32.325 ppb	17:45:33
2	Si 251.611†	172450.9	157105.5	5192.6 ug/L	5192.6 ppb	17:45:08
2	Sn 189.927†	4.2	-1.6	1.0915 ug/L	1.0915 ppb	17:45:33
2	Ti 334.940†	689767.4	631507.3	1056.0 ug/L	1056.0 ppb	17:45:08
2	Tl 190.801†	-115.8	-74.6	-5.6976 ug/L	-5.6976 ppb	17:45:33
2	U 409.014†	-9571.4	-6768.7	-217.71 ug/L	-217.71 ppb	17:45:08
2	V 292.402†	5725.8	6615.6	37.483 ug/L	37.483 ppb	17:45:13
2	Zn 213.857†	23439.1	20746.5	197.47 ug/L	197.47 ppb	17:45:13
2	SiO2†	171398.7	156138.8	11051 ug/L	11051 ppb	17:46:15
3	Sc Radial	5458.4	5458.4	107 %		17:44:10
3	Y RADIAL	7363.8	7363.8	133.8 %		17:44:10
3	Al 396.153Radial†	16349.4	15254.8	12000 ug/L	12000 ppb	17:44:10
3	Ca 317.933Radial†	2122.4	1961.6	3220.9 ug/L	3220.9 ppb	17:44:30
3	Fe 238.204 Radial†	6357.8	5918.1	52804 ug/L	52804 ppb	17:44:10
3	K 766.490 Radial†	18471.1	14219.1	2644.2 ug/L	2644.2 ppb	17:44:10
3	Mg 279.077 IEC†	107.7	98.0	3237.1 ug/L	3237.1 ppb	17:44:30
3	Na 589.592 Radial†	2119.1	3535.5	1072.2 ug/L	1072.2 ppb	17:44:10
3	Sr 421.552†	3692.9	3408.1	22.305 ug/L	22.305 ppb	17:44:10
3	Sc 361.383	921498.3	921498.3	109.99 %		17:45:39
3	Y 371.029	963906.0	963906.0	135.39 %		17:45:39
3	Ag 328.068†	-3234.2	-3239.0	2.0069 ug/L	2.0069 ppb	17:45:44
3	As 188.979†	-13.8	8.1	25.135 ug/L	25.135 ppb	17:46:04
3	B 249.677†	3.4	469.2	2.5530 ug/L	2.5530 ppb	17:45:44
3	Ba 233.527†	13452.9	12238.3	101.15 ug/L	101.15 ppb	17:45:44
3	Be 313.107†	-4737.4	37.9	2.4244 ug/L	2.4244 ppb	17:45:44
3	Cd 226.502†	268.2	442.0	-0.3994 ug/L	-0.3994 ppb	17:46:04
3	Co 228.616†	250.5	287.6	3.1907 ug/L	3.1907 ppb	17:46:04
3	Cr 267.716†	1377.5	1164.1	14.666 ug/L	14.666 ppb	17:45:44
3	Cu 324.752†	11892.3	4347.2	16.413 ug/L	16.413 ppb	17:45:44
3	Mn 257.610†	1877679.3	1706779.5	1960.5 ug/L	1960.5 ppb	17:45:39
3	Mo 202.031†	61.9	35.6	6.7316 ug/L	6.7316 ppb	17:46:04
3	Ni 231.604†	635.9	492.8	12.721 ug/L	12.721 ppb	17:46:04
3	P 214.914†	801.2	509.0	277.18 ug/L	277.18 ppb	17:46:04
3	Pb 220.353†	203.8	244.6	28.657 ug/L	28.657 ppb	17:46:04
3	S 181.975 Axial†	93.6	38.9	54.957 ug/L	54.957 ppb	17:46:04
3	Sb 206.836†	36.5	-3.2	-3.4987 ug/L	-3.4987 ppb	17:46:04
3	Se 196.026†	-261.2	-209.1	35.217 ug/L	35.217 ppb	17:46:04
3	Si 251.611†	172312.2	156216.5	5163.2 ug/L	5163.2 ppb	17:45:39
3	Sn 189.927†	-12.3	-16.6	-1.6516 ug/L	-1.6516 ppb	17:46:04
3	Ti 334.940†	696885.3	634927.4	1061.7 ug/L	1061.7 ppb	17:45:39
3	Tl 190.801†	-118.8	-76.9	-6.3592 ug/L	-6.3592 ppb	17:46:04
3	U 409.014†	-9768.8	-6905.8	-221.94 ug/L	-221.94 ppb	17:45:39
3	V 292.402†	5626.7	6500.2	36.722 ug/L	36.722 ppb	17:45:44
3	Zn 213.857†	23272.2	20490.9	195.03 ug/L	195.03 ppb	17:45:44
3	SiO2†	172137.2	156052.0	11045 ug/L	11045 ppb	17:46:20

Mean Data: 243550004|936826|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	920515.5	109.87	%	0.371				0.34%
Sc Radial	5458.9	107	%	0.3				0.31%
Y 371.029	963616.1	135.35	%	0.677				0.50%
Y RADIAL	7394.8	134.3	%	0.59				0.44%
Ag 328.068†	-3251.1	2.0696	ug/L	0.49254	2.0696	ppb	0.49254	23.80%
Al 396.153Radial†	15344.4	12071	ug/L	61.3	12071	ppb	61.3	0.51%
As 188.979†	1.6	22.324	ug/L	2.4358	22.324	ppb	2.4358	10.91%
B 249.677†	456.8	2.1988	ug/L	0.56892	2.1988	ppb	0.56892	25.87%
Ba 233.527†	12269.1	101.42	ug/L	0.792	101.42	ppb	0.792	0.78%
Be 313.107†	-37.4	2.3856	ug/L	0.04040	2.3856	ppb	0.04040	1.69%
Ca 317.933Radial†	1951.3	3204.0	ug/L	33.73	3204.0	ppb	33.73	1.05%
Cd 226.502†	445.9	-0.3920	ug/L	0.02030	-0.3920	ppb	0.02030	5.18%
Co 228.616†	289.2	3.2299	ug/L	0.14359	3.2299	ppb	0.14359	4.45%
Cr 267.716†	1174.3	14.790	ug/L	0.1463	14.790	ppb	0.1463	0.99%
Cu 324.752†	4457.9	16.776	ug/L	0.3727	16.776	ppb	0.3727	2.22%
Fe 238.204 Radial†	5959.6	53175	ug/L	328.8	53175	ppb	328.8	0.62%
K 766.490 Radial†	14303.4	2659.9	ug/L	15.05	2659.9	ppb	15.05	0.57%

Mg 279.077 IEC†	100.3	3313.9	ug/L	68.87	3313.9	ppb	68.87	2.08%
Mn 257.610†	1705773.8	1959.4	ug/L	2.17	1959.4	ppb	2.17	0.11%
Mo 202.031†	35.6	6.7583	ug/L	0.13675	6.7583	ppb	0.13675	2.02%
Na 589.592 Radial†	3587.4	1088.0	ug/L	14.11	1088.0	ppb	14.11	1.30%
Ni 231.604†	502.3	12.966	ug/L	0.2655	12.966	ppb	0.2655	2.05%
P 214.914†	510.2	277.63	ug/L	0.802	277.63	ppb	0.802	0.29%
Pb 220.353†	250.7	29.401	ug/L	1.1838	29.401	ppb	1.1838	4.03%
S 181.975 Axial†	34.9	49.129	ug/L	5.5612	49.129	ppb	5.5612	11.32%
Sb 206.836†	-1.5	-2.8352	ug/L	0.77215	-2.8352	ppb	0.77215	27.23%
Se 196.026†	-214.9	32.623	ug/L	2.4589	32.623	ppb	2.4589	7.54%
Si 251.611†	156913.9	5186.2	ug/L	20.63	5186.2	ppb	20.63	0.40%
Sn 189.927†	-7.5	0.0200	ug/L	1.46667	0.0200	ppb	1.46667	>999.9%
Sr 421.552†	3425.8	22.421	ug/L	0.1062	22.421	ppb	0.1062	0.47%
Ti 334.940†	632334.4	1057.4	ug/L	3.84	1057.4	ppb	3.84	0.36%
Tl 190.801†	-75.0	-5.8126	ug/L	0.49919	-5.8126	ppb	0.49919	8.59%
U 409.014†	-6854.2	-220.37	ug/L	2.315	-220.37	ppb	2.315	1.05%
V 292.402†	6558.3	37.087	ug/L	0.3819	37.087	ppb	0.3819	1.03%
Zn 213.857†	20591.9	195.98	ug/L	1.312	195.98	ppb	1.312	0.67%
SiO2†	155315.0	10993	ug/L	95.7	10993	ppb	95.7	0.87%

Sequence No.: 25
Sample ID: 243550005|936826|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 46
Date Collected: 1/15/2010 17:48:31
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 243550005|936826|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	5596.5	5596.5	110	%			17:50:24
1	Y RADIAL	7590.1	7590.1	137.9	%			17:50:24
1	Al 396.153Radial†	6331.7	5768.7	4537.9	ug/L	4537.9	ppb	17:50:24
1	Ca 317.933Radial†	1708.6	1536.4	2522.7	ug/L	2522.7	ppb	17:50:44
1	Fe 238.204 Radial†	7732.7	7022.1	62655	ug/L	62655	ppb	17:50:24
1	K 766.490 Radial†	9801.7	5910.4	1097.6	ug/L	1097.6	ppb	17:50:24
1	Mg 279.077 IEC†	30.5	25.2	782.32	ug/L	782.32	ppb	17:50:44
1	Na 589.592 Radial†	2006.7	3384.5	1026.5	ug/L	1026.5	ppb	17:50:24
1	Sr 421.552†	2053.3	1832.1	11.985	ug/L	11.985	ppb	17:50:24
1	Sc 361.383	931959.6	931959.6	111.23	%			17:51:42
1	Y 371.029	985781.2	985781.2	138.47	%			17:51:42
1	Ag 328.068†	-3738.7	-3659.5	3.1429	ug/L	3.1429	ppb	17:51:47
1	As 188.979†	-39.3	-14.7	17.773	ug/L	17.773	ppb	17:52:07
1	B 249.677†	-89.5	385.7	-1.0285	ug/L	-1.0285	ppb	17:51:47
1	Ba 233.527†	12483.1	11229.2	93.219	ug/L	93.219	ppb	17:51:47
1	Be 313.107†	-5593.9	-683.8	2.2606	ug/L	2.2606	ppb	17:51:47
1	Cd 226.502†	377.2	537.3	-0.3252	ug/L	-0.3252	ppb	17:52:07
1	Co 228.616†	211.5	250.0	2.1457	ug/L	2.1457	ppb	17:52:07
1	Cr 267.716†	618.0	467.4	6.7617	ug/L	6.7617	ppb	17:51:47
1	Cu 324.752†	9638.7	2199.8	10.267	ug/L	10.267	ppb	17:51:47
1	Mn 257.610†	2909171.1	2614931.9	3002.0	ug/L	3002.0	ppb	17:51:42
1	Mo 202.031†	84.2	55.0	8.9051	ug/L	8.9051	ppb	17:52:07
1	Ni 231.604†	275.0	161.9	4.1764	ug/L	4.1764	ppb	17:52:07
1	P 214.914†	990.1	670.6	370.18	ug/L	370.18	ppb	17:52:07
1	Pb 220.353†	139.7	185.0	18.534	ug/L	18.534	ppb	17:52:07
1	S 181.975 Axial†	70.3	17.0	24.127	ug/L	24.127	ppb	17:52:07
1	Sb 206.836†	44.4	3.6	-0.7530	ug/L	-0.7530	ppb	17:52:07
1	Se 196.026†	-317.9	-257.4	35.142	ug/L	35.142	ppb	17:52:07
1	Si 251.611†	142404.2	127570.4	4216.4	ug/L	4216.4	ppb	17:51:47
1	Sn 189.927†	7.8	1.7	1.7399	ug/L	1.7399	ppb	17:52:07
1	Ti 334.940†	738103.9	664870.7	1111.9	ug/L	1111.9	ppb	17:51:42
1	Tl 190.801†	-129.1	-84.9	-3.4804	ug/L	-3.4804	ppb	17:52:07
1	U 409.014†	-9908.6	-6931.8	-223.86	ug/L	-223.86	ppb	17:51:42
1	V 292.402†	3228.2	4286.5	19.592	ug/L	19.592	ppb	17:51:47
1	Zn 213.857†	34634.1	30467.8	291.63	ug/L	291.63	ppb	17:51:47
1	SiO2†	142319.0	127488.5	9023.0	ug/L	9023.0	ppb	17:53:14
2	Sc Radial	5592.0	5592.0	110	%			17:50:49
2	Y RADIAL	7602.6	7602.6	138.1	%			17:50:49
2	Al 396.153Radial†	6294.4	5739.4	4514.8	ug/L	4514.8	ppb	17:50:49
2	Ca 317.933Radial†	1713.6	1542.2	2532.3	ug/L	2532.3	ppb	17:51:09
2	Fe 238.204 Radial†	7683.8	6983.4	62309	ug/L	62309	ppb	17:50:49
2	K 766.490 Radial†	9638.1	5768.7	1071.2	ug/L	1071.2	ppb	17:50:49
2	Mg 279.077 IEC†	31.3	26.0	808.90	ug/L	808.90	ppb	17:51:09
2	Na 589.592 Radial†	1899.3	3288.3	997.27	ug/L	997.27	ppb	17:50:49
2	Sr 421.552†	2044.8	1825.9	11.944	ug/L	11.944	ppb	17:50:49
2	Sc 361.383	925005.6	925005.6	110.40	%			17:52:13
2	Y 371.029	977184.0	977184.0	137.26	%			17:52:13
2	Ag 328.068†	-3787.8	-3729.2	2.6974	ug/L	2.6974	ppb	17:52:18
2	As 188.979†	-27.1	-4.0	22.495	ug/L	22.495	ppb	17:52:38
2	B 249.677†	-76.7	396.6	-0.7107	ug/L	-0.7107	ppb	17:52:18
2	Ba 233.527†	12385.7	11225.3	93.177	ug/L	93.177	ppb	17:52:18
2	Be 313.107†	-5516.8	-651.7	2.2820	ug/L	2.2820	ppb	17:52:18
2	Cd 226.502†	348.4	513.8	-0.5594	ug/L	-0.5594	ppb	17:52:38
2	Co 228.616†	199.3	240.4	1.9374	ug/L	1.9374	ppb	17:52:38
2	Cr 267.716†	548.5	408.6	6.0732	ug/L	6.0732	ppb	17:52:18
2	Cu 324.752†	9547.5	2182.3	10.194	ug/L	10.194	ppb	17:52:18
2	Mn 257.610†	2892143.8	2619170.8	3006.8	ug/L	3006.8	ppb	17:52:13
2	Mo 202.031†	80.9	52.6	8.6988	ug/L	8.6988	ppb	17:52:38
2	Ni 231.604†	306.1	191.9	4.9517	ug/L	4.9517	ppb	17:52:38

2	P 214.914†	981.6	669.6	369.81	ug/L	369.81 ppb	17:52:38
2	Pb 220.353†	111.9	160.7	15.483	ug/L	15.483 ppb	17:52:38
2	S 181.975 Axial†	72.8	19.7	28.114	ug/L	28.114 ppb	17:52:38
2	Sb 206.836†	33.1	-6.4	-4.3851	ug/L	-4.3851 ppb	17:52:38
2	Se 196.026†	-306.7	-249.3	39.327	ug/L	39.327 ppb	17:52:38
2	Si 251.611†	140905.2	127175.2	4203.3	ug/L	4203.3 ppb	17:52:18
2	Sn 189.927†	6.5	0.5	1.5269	ug/L	1.5269 ppb	17:52:38
2	Ti 334.940†	735243.0	667267.9	1115.9	ug/L	1115.9 ppb	17:52:13
2	Tl 190.801†	-126.6	-83.5	-2.9965	ug/L	-2.9965 ppb	17:52:38
2	U 409.014†	-9802.2	-6902.4	-222.90	ug/L	-222.90 ppb	17:52:13
2	V 292.402†	3167.3	4253.1	19.403	ug/L	19.403 ppb	17:52:18
2	Zn 213.857†	34372.9	30465.4	291.64	ug/L	291.64 ppb	17:52:18
2	SiO2†	141996.2	128158.0	9070.4	ug/L	9070.4 ppb	17:53:19
3	Sc Radial	5676.4	5676.4	112	%		17:51:14
3	Y RADIAL	7710.0	7710.0	140.0	%		17:51:14
3	Al 396.153Radial†	6343.3	5698.0	4482.3	ug/L	4482.3 ppb	17:51:14
3	Ca 317.933Radial†	1722.1	1526.6	2506.7	ug/L	2506.7 ppb	17:51:34
3	Fe 238.204 Radial†	7722.4	6913.9	61689	ug/L	61689 ppb	17:51:14
3	K 766.490 Radial†	9731.9	5722.3	1062.6	ug/L	1062.6 ppb	17:51:14
3	Mg 279.077 IEC†	32.9	27.1	844.54	ug/L	844.54 ppb	17:51:34
3	Na 589.592 Radial†	1966.9	3323.1	1007.8	ug/L	1007.8 ppb	17:51:14
3	Sr 421.552†	2050.8	1803.6	11.798	ug/L	11.798 ppb	17:51:14
3	Sc 361.383	921708.2	921708.2	110.01	%		17:52:43
3	Y 371.029	976201.0	976201.0	137.12	%		17:52:43
3	Ag 328.068†	-3831.6	-3781.3	2.2521	ug/L	2.2521 ppb	17:52:48
3	As 188.979†	-40.2	-15.9	16.995	ug/L	16.995 ppb	17:53:09
3	B 249.677†	-36.5	432.9	0.2514	ug/L	0.2514 ppb	17:52:48
3	Ba 233.527†	12467.1	11339.4	94.086	ug/L	94.086 ppb	17:52:48
3	Be 313.107†	-5600.9	-746.1	2.2301	ug/L	2.2301 ppb	17:52:48
3	Cd 226.502†	363.6	528.7	-0.3247	ug/L	-0.3247 ppb	17:53:09
3	Co 228.616†	195.5	237.6	1.9009	ug/L	1.9009 ppb	17:53:09
3	Cr 267.716†	564.9	425.2	6.2553	ug/L	6.2553 ppb	17:52:48
3	Cu 324.752†	9515.1	2183.9	10.167	ug/L	10.167 ppb	17:52:48
3	Mn 257.610†	2867788.5	2606403.3	2992.1	ug/L	2992.1 ppb	17:52:43
3	Mo 202.031†	80.2	52.2	8.6237	ug/L	8.6237 ppb	17:53:09
3	Ni 231.604†	306.9	193.7	4.9979	ug/L	4.9979 ppb	17:53:09
3	P 214.914†	993.1	683.2	378.85	ug/L	378.85 ppb	17:53:09
3	Pb 220.353†	133.5	180.7	18.078	ug/L	18.078 ppb	17:53:09
3	S 181.975 Axial†	72.5	19.7	28.104	ug/L	28.104 ppb	17:53:09
3	Sb 206.836†	39.0	-0.9	-2.3978	ug/L	-2.3978 ppb	17:53:09
3	Se 196.026†	-308.7	-252.2	35.440	ug/L	35.440 ppb	17:53:09
3	Si 251.611†	140447.3	127215.5	4204.6	ug/L	4204.6 ppb	17:52:48
3	Sn 189.927†	3.8	-1.9	1.0683	ug/L	1.0683 ppb	17:53:09
3	Ti 334.940†	728087.3	663145.8	1109.0	ug/L	1109.0 ppb	17:52:43
3	Tl 190.801†	-120.9	-78.7	-1.6017	ug/L	-1.6017 ppb	17:53:09
3	U 409.014†	-9842.8	-6971.1	-224.98	ug/L	-224.98 ppb	17:52:43
3	V 292.402†	3196.9	4290.3	19.758	ug/L	19.758 ppb	17:52:48
3	Zn 213.857†	34581.8	30766.6	294.64	ug/L	294.64 ppb	17:52:48
3	SiO2†	141806.1	128445.2	9090.7	ug/L	9090.7 ppb	17:53:25

Mean Data: 243550005|936826|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	926224.5	110.55	%	0.625				0.57%
Sc Radial	5621.6	110	%	0.9				0.84%
Y 371.029	979722.0	137.61	%	0.740				0.54%
Y RADIAL	7634.2	138.7	%	1.20				0.86%
Ag 328.068†	-3723.4	2.6975	ug/L	0.44540	2.6975	ppb	0.44540	16.51%
Al 396.153Radial†	5735.4	4511.7	ug/L	27.91	4511.7	ppb	27.91	0.62%
As 188.979†	-11.5	19.088	ug/L	2.9761	19.088	ppb	2.9761	15.59%
B 249.677†	405.1	-0.4959	ug/L	0.66644	-0.4959	ppb	0.66644	134.38%
Ba 233.527†	11264.6	93.494	ug/L	0.5128	93.494	ppb	0.5128	0.55%
Be 313.107†	-693.9	2.2575	ug/L	0.02610	2.2575	ppb	0.02610	1.16%
Ca 317.933Radial†	1535.1	2520.6	ug/L	12.93	2520.6	ppb	12.93	0.51%
Cd 226.502†	526.6	-0.4031	ug/L	0.13534	-0.4031	ppb	0.13534	33.58%
Co 228.616†	242.6	1.9947	ug/L	0.13203	1.9947	ppb	0.13203	6.62%
Cr 267.716†	433.7	6.3634	ug/L	0.35674	6.3634	ppb	0.35674	5.61%
Cu 324.752†	2188.7	10.209	ug/L	0.0517	10.209	ppb	0.0517	0.51%
Fe 238.204 Radial†	6973.1	62218	ug/L	489.2	62218	ppb	489.2	0.79%
K 766.490 Radial†	5800.4	1077.1	ug/L	18.23	1077.1	ppb	18.23	1.69%

Mg 279.077 IEC†	26.1	811.92 ug/L	31.221	811.92 ppb	31.221	3.85%
Mn 257.610†	2613502.0	3000.3 ug/L	7.49	3000.3 ppb	7.49	0.25%
Mo 202.031†	53.3	8.7425 ug/L	0.14570	8.7425 ppb	0.14570	1.67%
Na 589.592 Radial†	3332.0	1010.5 ug/L	14.78	1010.5 ppb	14.78	1.46%
Ni 231.604†	182.5	4.7086 ug/L	0.46154	4.7086 ppb	0.46154	9.80%
P 214.914†	674.5	372.95 ug/L	5.117	372.95 ppb	5.117	1.37%
Pb 220.353†	175.5	17.365 ug/L	1.6457	17.365 ppb	1.6457	9.48%
S 181.975 Axial†	18.8	26.782 ug/L	2.2989	26.782 ppb	2.2989	8.58%
Sb 206.836†	-1.2	-2.5120 ug/L	1.81874	-2.5120 ppb	1.81874	72.40%
Se 196.026†	-253.0	36.636 ug/L	2.3347	36.636 ppb	2.3347	6.37%
Si 251.611†	127320.3	4208.1 ug/L	7.19	4208.1 ppb	7.19	0.17%
Sn 189.927†	0.1	1.4451 ug/L	0.34321	1.4451 ppb	0.34321	23.75%
Sr 421.552†	1820.5	11.909 ug/L	0.0981	11.909 ppb	0.0981	0.82%
Ti 334.940†	665094.8	1112.3 ug/L	3.46	1112.3 ppb	3.46	0.31%
Tl 190.801†	-82.4	-2.6929 ug/L	0.97543	-2.6929 ppb	0.97543	36.22%
U 409.014†	-6935.1	-223.91 ug/L	1.039	-223.91 ppb	1.039	0.46%
V 292.402†	4276.6	19.584 ug/L	0.1780	19.584 ppb	0.1780	0.91%
Zn 213.857†	30566.6	292.64 ug/L	1.735	292.64 ppb	1.735	0.59%
SiO2†	128030.5	9061.4 ug/L	34.75	9061.4 ppb	34.75	0.38%

Sequence No.: 26
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 1/15/2010 17:55:35
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	5427.4	5427.4	107	%			17:57:27
1	Y RADIAL	5794.5	5794.5	105.3	%			17:57:27
1	Al 396.153Radial†	6678.9	6273.6	4911.5	ug/L	4911.5	ppb	17:57:27
1	Ca 317.933Radial†	3213.7	2996.2	4919.8	ug/L	4919.8	ppb	17:57:47
1	Fe 238.204 Radial†	603.6	556.2	4977.4	ug/L	4977.4	ppb	17:57:47
1	K 766.490 Radial†	30874.8	25948.7	4823.2	ug/L	4823.2	ppb	17:57:27
1	Mg 279.077 IEC†	164.1	151.4	5086.5	ug/L	5086.5	ppb	17:57:47
1	Na 589.592 Radial†	33296.3	32782.2	9942.3	ug/L	9942.3	ppb	17:57:27
1	Sr 421.552†	79089.2	74128.3	485.63	ug/L	485.63	ppb	17:57:27
1	Sc 361.383	896578.3	896578.3	107.01	%			17:58:45
1	Y 371.029	746223.3	746223.3	104.82	%			17:58:45
1	Ag 328.068†	113453.7	105722.0	506.14	ug/L	506.14	ppb	17:58:50
1	As 188.979†	1167.6	1111.7	496.89	ug/L	496.89	ppb	17:59:10
1	B 249.677†	21514.7	20571.2	486.46	ug/L	486.46	ppb	17:58:50
1	Ba 233.527†	64524.1	60303.4	491.24	ug/L	491.24	ppb	17:58:50
1	Be 313.107†	1363367.5	1278386.9	492.66	ug/L	492.66	ppb	17:58:45
1	Cd 226.502†	45560.9	42774.0	492.36	ug/L	492.36	ppb	17:58:50
1	Co 228.616†	24771.5	23208.4	494.77	ug/L	494.77	ppb	17:58:50
1	Cr 267.716†	45078.9	42037.1	487.68	ug/L	487.68	ppb	17:58:50
1	Cu 324.752†	174379.1	156488.6	485.90	ug/L	485.90	ppb	17:58:50
1	Mn 257.610†	461595.7	430926.6	493.98	ug/L	493.98	ppb	17:58:45
1	Mo 202.031†	7227.5	6733.3	491.35	ug/L	491.35	ppb	17:59:10
1	Ni 231.604†	20430.6	19006.7	490.46	ug/L	490.46	ppb	17:58:50
1	P 214.914†	4455.9	3944.4	2380.8	ug/L	2380.8	ppb	17:59:10
1	Pb 220.353†	4098.6	3889.4	495.74	ug/L	495.74	ppb	17:59:10
1	S 181.975 Axial†	775.3	678.2	997.58	ug/L	997.58	ppb	17:59:10
1	Sb 206.836†	1508.1	1372.9	514.10	ug/L	514.10	ppb	17:59:10
1	Se 196.026†	773.0	750.8	514.77	ug/L	514.77	ppb	17:59:10
1	Si 251.611†	80220.9	74513.4	2456.7	ug/L	2456.7	ppb	17:58:50
1	Sn 189.927†	2891.0	2696.2	493.40	ug/L	493.40	ppb	17:59:10
1	Ti 334.940†	307464.0	288631.4	482.38	ug/L	482.38	ppb	17:58:50
1	Tl 190.801†	1637.0	1560.9	498.69	ug/L	498.69	ppb	17:59:10
1	U 409.014†	15272.1	16247.6	506.28	ug/L	506.28	ppb	17:58:50
1	V 292.402†	72399.7	69040.5	493.63	ug/L	493.63	ppb	17:58:50
1	Zn 213.857†	54399.6	50167.0	486.00	ug/L	486.00	ppb	17:58:50
1	SiO2†	81083.8	75314.3	5317.1	ug/L	5317.1	ppb	18:00:17
2	Sc Radial	5355.8	5355.8	105	%			17:57:52
2	Y RADIAL	5744.8	5744.8	104.3	%			17:57:52
2	Al 396.153Radial†	6582.3	6265.6	4905.3	ug/L	4905.3	ppb	17:57:52
2	Ca 317.933Radial†	3227.1	3049.2	5006.8	ug/L	5006.8	ppb	17:58:12
2	Fe 238.204 Radial†	610.3	570.1	5101.6	ug/L	5101.6	ppb	17:58:12
2	K 766.490 Radial†	30444.0	25926.4	4819.1	ug/L	4819.1	ppb	17:57:52
2	Mg 279.077 IEC†	162.4	151.8	5102.2	ug/L	5102.2	ppb	17:58:12
2	Na 589.592 Radial†	32338.0	32289.0	9792.7	ug/L	9792.7	ppb	17:57:52
2	Sr 421.552†	77320.9	73439.6	481.12	ug/L	481.12	ppb	17:57:52
2	Sc 361.383	899086.6	899086.6	107.31	%			17:59:16
2	Y 371.029	748223.2	748223.2	105.10	%			17:59:16
2	Ag 328.068†	114336.5	106248.9	508.69	ug/L	508.69	ppb	17:59:21
2	As 188.979†	1161.6	1103.0	493.11	ug/L	493.11	ppb	17:59:41
2	B 249.677†	21746.5	20731.1	490.23	ug/L	490.23	ppb	17:59:21
2	Ba 233.527†	64925.7	60509.4	492.92	ug/L	492.92	ppb	17:59:21
2	Be 313.107†	1371513.4	1282423.6	494.22	ug/L	494.22	ppb	17:59:16
2	Cd 226.502†	45758.0	42838.9	493.09	ug/L	493.09	ppb	17:59:21
2	Co 228.616†	24956.5	23316.1	497.05	ug/L	497.05	ppb	17:59:21
2	Cr 267.716†	45394.2	42213.5	489.73	ug/L	489.73	ppb	17:59:21
2	Cu 324.752†	176409.8	157926.4	490.37	ug/L	490.37	ppb	17:59:21
2	Mn 257.610†	464558.1	432483.7	495.77	ug/L	495.77	ppb	17:59:16
2	Mo 202.031†	7207.3	6695.6	488.61	ug/L	488.61	ppb	17:59:41
2	Ni 231.604†	20518.7	19035.5	491.21	ug/L	491.21	ppb	17:59:21

2	P 214.914†	4415.7	3895.3	2349.0 ug/L	2349.0 ppb	17:59:41
2	Pb 220.353†	4075.0	3856.8	491.57 ug/L	491.57 ppb	17:59:41
2	S 181.975 Axial†	760.8	662.7	974.67 ug/L	974.67 ppb	17:59:41
2	Sb 206.836†	1498.1	1359.7	509.18 ug/L	509.18 ppb	17:59:41
2	Se 196.026†	780.9	756.1	518.69 ug/L	518.69 ppb	17:59:41
2	Si 251.611†	80901.1	74938.1	2470.8 ug/L	2470.8 ppb	17:59:21
2	Sn 189.927†	2869.2	2668.4	488.33 ug/L	488.33 ppb	17:59:41
2	Ti 334.940†	310826.2	290962.9	486.29 ug/L	486.29 ppb	17:59:21
2	Tl 190.801†	1620.2	1541.0	492.39 ug/L	492.39 ppb	17:59:41
2	U 409.014†	15315.0	16247.8	506.27 ug/L	506.27 ppb	17:59:21
2	V 292.402†	72835.2	69257.6	495.10 ug/L	495.10 ppb	17:59:21
2	Zn 213.857†	54887.5	50479.9	489.03 ug/L	489.03 ppb	17:59:21
2	SiO2†	81715.4	75691.5	5343.8 ug/L	5343.8 ppb	18:00:22
3	Sc Radial	5366.3	5366.3	105 %		17:58:18
3	Y RADIAL	5782.1	5782.1	105.0 %		17:58:18
3	Al 396.153Radial†	6647.4	6315.1	4943.9 ug/L	4943.9 ppb	17:58:18
3	Ca 317.933Radial†	3232.9	3048.7	5006.0 ug/L	5006.0 ppb	17:58:38
3	Fe 238.204 Radial†	608.2	567.0	5074.1 ug/L	5074.1 ppb	17:58:38
3	K 766.490 Radial†	30670.3	26084.7	4848.5 ug/L	4848.5 ppb	17:58:18
3	Mg 279.077 IEC†	166.2	155.2	5213.9 ug/L	5213.9 ppb	17:58:38
3	Na 589.592 Radial†	32597.2	32474.9	9849.1 ug/L	9849.1 ppb	17:58:18
3	Sr 421.552†	78001.3	73941.6	484.41 ug/L	484.41 ppb	17:58:18
3	Sc 361.383	887871.7	887871.7	105.97 %		17:59:47
3	Y 371.029	740803.1	740803.1	104.06 %		17:59:47
3	Ag 328.068†	115633.8	108818.9	520.94 ug/L	520.94 ppb	17:59:52
3	As 188.979†	1181.9	1135.9	507.73 ug/L	507.73 ppb	18:00:12
3	B 249.677†	22083.4	21305.0	503.84 ug/L	503.84 ppb	17:59:52
3	Ba 233.527†	65562.2	61874.3	504.04 ug/L	504.04 ppb	17:59:52
3	Be 313.107†	1353655.2	1281715.5	493.98 ug/L	493.98 ppb	17:59:47
3	Cd 226.502†	46131.8	43730.3	503.37 ug/L	503.37 ppb	17:59:52
3	Co 228.616†	25253.6	23890.3	509.29 ug/L	509.29 ppb	17:59:52
3	Cr 267.716†	45845.5	43173.6	500.86 ug/L	500.86 ppb	17:59:52
3	Cu 324.752†	178774.0	162233.8	503.74 ug/L	503.74 ppb	17:59:52
3	Mn 257.610†	457464.5	431258.1	494.36 ug/L	494.36 ppb	17:59:47
3	Mo 202.031†	7247.1	6818.0	497.53 ug/L	497.53 ppb	18:00:12
3	Ni 231.604†	20660.9	19411.3	500.90 ug/L	500.90 ppb	17:59:52
3	P 214.914†	4489.6	4017.1	2422.9 ug/L	2422.9 ppb	18:00:12
3	Pb 220.353†	4101.0	3929.2	500.80 ug/L	500.80 ppb	18:00:12
3	S 181.975 Axial†	776.5	686.5	1009.7 ug/L	1009.7 ppb	18:00:12
3	Sb 206.836†	1533.8	1410.9	528.12 ug/L	528.12 ppb	18:00:12
3	Se 196.026†	781.8	766.2	525.29 ug/L	525.29 ppb	18:00:12
3	Si 251.611†	81856.9	76792.4	2532.0 ug/L	2532.0 ppb	17:59:52
3	Sn 189.927†	2919.4	2749.5	503.16 ug/L	503.16 ppb	18:00:12
3	Ti 334.940†	314224.1	297828.0	497.75 ug/L	497.75 ppb	17:59:52
3	Tl 190.801†	1637.7	1576.6	503.70 ug/L	503.70 ppb	18:00:12
3	U 409.014†	15767.0	16854.5	525.22 ug/L	525.22 ppb	17:59:52
3	V 292.402†	73819.2	71043.5	507.85 ug/L	507.85 ppb	17:59:52
3	Zn 213.857†	55309.1	51523.9	499.15 ug/L	499.15 ppb	17:59:52
3	SiO2†	80502.5	75508.8	5330.7 ug/L	5330.7 ppb	18:00:28

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	894512.2	106.76	%	0.703				0.66%
Sc Radial	5383.2	106	%	0.8				0.72%
Y 371.029	745083.2	104.66	%	0.539				0.52%
Y RADIAL	5773.8	104.9	%	0.47				0.45%
Ag 328.068†	106929.9	511.92	ug/L	7.916	511.92	ppb	7.916	1.55%
QC value within limits for Ag 328.068 Recovery = 102.38%								
Al 396.153Radial†	6284.8	4920.2	ug/L	20.70	4920.2	ppb	20.70	0.42%
QC value within limits for Al 396.153Radial Recovery = 98.40%								
As 188.979†	1116.9	499.24	ug/L	7.589	499.24	ppb	7.589	1.52%
QC value within limits for As 188.979 Recovery = 99.85%								
B 249.677†	20869.1	493.51	ug/L	9.140	493.51	ppb	9.140	1.85%
QC value within limits for B 249.677 Recovery = 98.70%								
Ba 233.527†	60895.7	496.07	ug/L	6.955	496.07	ppb	6.955	1.40%
QC value within limits for Ba 233.527 Recovery = 99.21%								
Be 313.107†	1280842.0	493.62	ug/L	0.839	493.62	ppb	0.839	0.17%
QC value within limits for Be 313.107 Recovery = 98.72%								
Ca 317.933Radial†	3031.4	4977.5	ug/L	50.00	4977.5	ppb	50.00	1.00%

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   QC value within limits for Ca 317.933Radial  Recovery = 99.55%
Cd 226.502†            43114.4      496.27 ug/L         6.155      496.27 ppb          6.155   1.24%
   QC value within limits for Cd 226.502  Recovery = 99.25%
Co 228.616†            23471.6      500.37 ug/L         7.806      500.37 ppb          7.806   1.56%
   QC value within limits for Co 228.616  Recovery = 100.07%
Cr 267.716†            42474.7      492.75 ug/L         7.094      492.75 ppb          7.094   1.44%
   QC value within limits for Cr 267.716  Recovery = 98.55%
Cu 324.752†           158882.9      493.34 ug/L         9.279      493.34 ppb          9.279   1.88%
   QC value within limits for Cu 324.752  Recovery = 98.67%
Fe 238.204 Radial†       564.4      5051.0 ug/L        65.24      5051.0 ppb         65.24   1.29%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.02%
K 766.490 Radial†      25986.6      4830.3 ug/L        15.93      4830.3 ppb         15.93   0.33%
   QC value within limits for K 766.490 Radial  Recovery = 96.61%
Mg 279.077 IEC†          152.8      5134.2 ug/L        69.44      5134.2 ppb         69.44   1.35%
   QC value within limits for Mg 279.077 IEC  Recovery = 102.68%
Mn 257.610†           431556.1      494.70 ug/L         0.946      494.70 ppb          0.946   0.19%
   QC value within limits for Mn 257.610  Recovery = 98.94%
Mo 202.031†             6749.0      492.50 ug/L         4.569      492.50 ppb          4.569   0.93%
   QC value within limits for Mo 202.031  Recovery = 98.50%
Na 589.592 Radial†     32515.4      9861.3 ug/L        75.54      9861.3 ppb         75.54   0.77%
   QC value within limits for Na 589.592 Radial  Recovery = 98.61%
Ni 231.604†            19151.2      494.19 ug/L         5.823      494.19 ppb          5.823   1.18%
   QC value within limits for Ni 231.604  Recovery = 98.84%
P 214.914†              3952.3      2384.2 ug/L        37.09      2384.2 ppb         37.09   1.56%
   QC value within limits for P 214.914  Recovery = 95.37%
Pb 220.353†             3891.8      496.04 ug/L         4.623      496.04 ppb          4.623   0.93%
   QC value within limits for Pb 220.353  Recovery = 99.21%
S 181.975 Axial†         675.8      993.98 ug/L        17.788      993.98 ppb         17.788   1.79%
   QC value within limits for S 181.975 Axial  Recovery = 99.40%
Sb 206.836†             1381.2      517.13 ug/L         9.827      517.13 ppb          9.827   1.90%
   QC value within limits for Sb 206.836  Recovery = 103.43%
Se 196.026†              757.7      519.58 ug/L         5.319      519.58 ppb          5.319   1.02%
   QC value within limits for Se 196.026  Recovery = 103.92%
Si 251.611†            75414.6      2486.5 ug/L        40.01      2486.5 ppb         40.01   1.61%
   QC value within limits for Si 251.611  Recovery = 99.46%
Sn 189.927†             2704.7      494.97 ug/L         7.538      494.97 ppb          7.538   1.52%
   QC value within limits for Sn 189.927  Recovery = 98.99%
Sr 421.552†            73836.5      483.72 ug/L         2.334      483.72 ppb          2.334   0.48%
   QC value within limits for Sr 421.552  Recovery = 96.74%
Ti 334.940†           292474.1      488.81 ug/L         7.985      488.81 ppb          7.985   1.63%
   QC value within limits for Ti 334.940  Recovery = 97.76%
Tl 190.801†             1559.5      498.26 ug/L         5.670      498.26 ppb          5.670   1.14%
   QC value within limits for Tl 190.801  Recovery = 99.65%
U 409.014†             16450.0      512.59 ug/L        10.936      512.59 ppb         10.936   2.13%
   QC value within limits for U 409.014  Recovery = 102.52%
V 292.402†             69780.5      498.86 ug/L         7.820      498.86 ppb          7.820   1.57%
   QC value within limits for V 292.402  Recovery = 99.77%
Zn 213.857†            50723.6      491.39 ug/L         6.891      491.39 ppb          6.891   1.40%
   QC value within limits for Zn 213.857  Recovery = 98.28%
SiO2†                  75504.9      5330.5 ug/L        13.39      5330.5 ppb         13.39   0.25%
   QC value within limits for SiO2  Recovery = 99.68%
All analyte(s) passed QC.
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Sequence No.: 27
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 1/15/2010 18:02:38
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	5382.3	5382.3	106	%			18:04:29
1	Y RADIAL	5825.3	5825.3	105.8	%			18:04:29
1	Al 396.153Radial†	-18.9	-7.1	-5.5911	ug/L	-5.5911	ppb	18:04:29
1	Ca 317.933Radial†	17.1	-1.2	-1.9573	ug/L	-1.9573	ppb	18:04:49
1	Fe 238.204 Radial†	10.6	0.2	1.8061	ug/L	1.8061	ppb	18:04:49
1	K 766.490 Radial†	2817.3	-339.2	-63.166	ug/L	-63.166	ppb	18:04:29
1	Mg 279.077 IEC†	4.0	1.3	44.850	ug/L	44.850	ppb	18:04:49
1	Na 589.592 Radial†	-1352.9	280.4	85.040	ug/L	85.040	ppb	18:04:29
1	Sr 421.552†	28.2	-8.5	-0.0555	ug/L	-0.0555	ppb	18:04:29
1	Sc 361.383	908640.3	908640.3	108.45	%			18:05:46
1	Y 371.029	768966.3	768966.3	108.01	%			18:05:46
1	Ag 328.068†	332.8	8.5	0.0372	ug/L	0.0372	ppb	18:05:51
1	As 188.979†	-24.1	-1.7	-0.7393	ug/L	-0.7393	ppb	18:06:11
1	B 249.677†	-389.8	106.7	2.5341	ug/L	2.5341	ppb	18:06:11
1	Ba 233.527†	-10.3	-2.6	-0.0190	ug/L	-0.0190	ppb	18:06:11
1	Be 313.107†	-4453.1	239.1	0.0922	ug/L	0.0922	ppb	18:05:51
1	Cd 226.502†	-168.7	42.6	0.4920	ug/L	0.4920	ppb	18:06:11
1	Co 228.616†	-77.4	-11.6	-0.2472	ug/L	-0.2472	ppb	18:06:11
1	Cr 267.716†	80.6	-13.9	-0.1637	ug/L	-0.1637	ppb	18:06:11
1	Cu 324.752†	6513.9	-459.1	-1.4312	ug/L	-1.4312	ppb	18:05:51
1	Mn 257.610†	421.7	-37.2	-0.0443	ug/L	-0.0443	ppb	18:06:11
1	Mo 202.031†	17.7	-4.4	-0.3180	ug/L	-0.3180	ppb	18:06:11
1	Ni 231.604†	66.0	-24.4	-0.6309	ug/L	-0.6309	ppb	18:06:11
1	P 214.914†	225.5	-11.6	-6.9792	ug/L	-6.9792	ppb	18:06:11
1	Pb 220.353†	-60.0	4.0	0.5121	ug/L	0.5121	ppb	18:06:11
1	S 181.975 Axial†	37.7	-11.5	-16.941	ug/L	-16.941	ppb	18:06:11
1	Sb 206.836†	40.7	1.2	0.4260	ug/L	0.4260	ppb	18:06:11
1	Se 196.026†	-36.0	-4.8	-3.1719	ug/L	-3.1719	ppb	18:06:11
1	Si 251.611†	530.2	37.4	1.2384	ug/L	1.2384	ppb	18:06:11
1	Sn 189.927†	10.4	4.2	0.7703	ug/L	0.7703	ppb	18:06:11
1	Ti 334.940†	-1353.4	64.0	0.0986	ug/L	0.0986	ppb	18:05:51
1	Tl 190.801†	-35.2	-1.3	-0.4288	ug/L	-0.4288	ppb	18:06:11
1	U 409.014†	-1784.3	330.8	10.342	ug/L	10.342	ppb	18:05:46
1	V 292.402†	-1328.1	159.7	1.1426	ug/L	1.1426	ppb	18:05:51
1	Zn 213.857†	635.1	-82.8	-0.8031	ug/L	-0.8031	ppb	18:06:11
1	SiO2†	538.7	39.7	2.8181	ug/L	2.8181	ppb	18:07:17
2	Sc Radial	5344.9	5344.9	105	%			18:04:54
2	Y RADIAL	5813.0	5813.0	105.6	%			18:04:54
2	Al 396.153Radial†	-10.0	1.2	0.9218	ug/L	0.9218	ppb	18:04:54
2	Ca 317.933Radial†	15.9	-2.3	-3.7319	ug/L	-3.7319	ppb	18:05:14
2	Fe 238.204 Radial†	9.3	-1.0	-8.5838	ug/L	-8.5838	ppb	18:05:14
2	K 766.490 Radial†	2806.3	-331.0	-61.630	ug/L	-61.630	ppb	18:04:54
2	Mg 279.077 IEC†	2.3	-0.3	-8.7956	ug/L	-8.7956	ppb	18:05:14
2	Na 589.592 Radial†	-1475.6	154.6	46.875	ug/L	46.875	ppb	18:04:54
2	Sr 421.552†	56.0	18.2	0.1193	ug/L	0.1193	ppb	18:04:54
2	Sc 361.383	892132.5	892132.5	106.48	%			18:06:16
2	Y 371.029	754644.1	754644.1	106.00	%			18:06:16
2	Ag 328.068†	340.9	21.8	0.0997	ug/L	0.0997	ppb	18:06:21
2	As 188.979†	-15.2	6.3	2.7880	ug/L	2.7880	ppb	18:06:41
2	B 249.677†	-373.0	115.8	2.7533	ug/L	2.7533	ppb	18:06:41
2	Ba 233.527†	-13.9	-6.2	-0.0490	ug/L	-0.0490	ppb	18:06:41
2	Be 313.107†	-4484.7	133.5	0.0519	ug/L	0.0519	ppb	18:06:21
2	Cd 226.502†	-165.0	43.3	0.4997	ug/L	0.4997	ppb	18:06:41
2	Co 228.616†	-61.7	1.9	0.0390	ug/L	0.0390	ppb	18:06:41
2	Cr 267.716†	78.7	-14.4	-0.1679	ug/L	-0.1679	ppb	18:06:41
2	Cu 324.752†	6521.4	-340.9	-1.0619	ug/L	-1.0619	ppb	18:06:21
2	Mn 257.610†	422.0	-29.8	-0.0346	ug/L	-0.0346	ppb	18:06:41
2	Mo 202.031†	18.4	-3.4	-0.2487	ug/L	-0.2487	ppb	18:06:41
2	Ni 231.604†	69.7	-19.8	-0.5125	ug/L	-0.5125	ppb	18:06:41

2	P 214.914†	220.2	-12.7	-7.7448	ug/L	-7.7448	ppb	18:06:41
2	Pb 220.353†	-71.0	-7.4	-0.9333	ug/L	-0.9333	ppb	18:06:41
2	S 181.975 Axial†	50.4	1.1	1.6385	ug/L	1.6385	ppb	18:06:41
2	Sb 206.836†	35.6	-3.0	-1.0887	ug/L	-1.0887	ppb	18:06:41
2	Se 196.026†	-37.1	-6.4	-4.2901	ug/L	-4.2901	ppb	18:06:41
2	Si 251.611†	521.1	37.8	1.2520	ug/L	1.2520	ppb	18:06:41
2	Sn 189.927†	4.6	-1.1	-0.1983	ug/L	-0.1983	ppb	18:06:41
2	Ti 334.940†	-1234.7	152.3	0.2528	ug/L	0.2528	ppb	18:06:21
2	Tl 190.801†	-25.8	6.9	2.2044	ug/L	2.2044	ppb	18:06:41
2	U 409.014†	-1931.6	162.0	5.0664	ug/L	5.0664	ppb	18:06:16
2	V 292.402†	-1361.1	106.1	0.7555	ug/L	0.7555	ppb	18:06:21
2	Zn 213.857†	646.2	-61.5	-0.5951	ug/L	-0.5951	ppb	18:06:41
2	SiO2†	542.0	52.0	3.6867	ug/L	3.6867	ppb	18:07:22
3	Sc Radial	5363.7	5363.7	105	%			18:05:19
3	Y RADIAL	5826.8	5826.8	105.8	%			18:05:19
3	Al 396.153Radial†	1.5	12.1	9.5572	ug/L	9.5572	ppb	18:05:19
3	Ca 317.933Radial†	16.7	-1.6	-2.5833	ug/L	-2.5833	ppb	18:05:39
3	Fe 238.204 Radial†	11.6	1.2	10.314	ug/L	10.314	ppb	18:05:39
3	K 766.490 Radial†	2990.2	-165.9	-30.900	ug/L	-30.900	ppb	18:05:19
3	Mg 279.077 IEC†	2.4	-0.2	-7.1949	ug/L	-7.1949	ppb	18:05:39
3	Na 589.592 Radial†	-1461.5	172.9	52.431	ug/L	52.431	ppb	18:05:19
3	Sr 421.552†	-24.8	-58.7	-0.3844	ug/L	-0.3844	ppb	18:05:19
3	Sc 361.383	903168.4	903168.4	107.80	%			18:06:47
3	Y 371.029	763763.6	763763.6	107.28	%			18:06:47
3	Ag 328.068†	237.3	-78.2	-0.3703	ug/L	-0.3703	ppb	18:06:52
3	As 188.979†	-20.7	1.4	0.6083	ug/L	0.6083	ppb	18:07:12
3	B 249.677†	-413.5	82.5	1.9598	ug/L	1.9598	ppb	18:07:12
3	Ba 233.527†	-2.1	4.9	0.0419	ug/L	0.0419	ppb	18:07:12
3	Be 313.107†	-4443.0	223.5	0.0860	ug/L	0.0860	ppb	18:06:52
3	Cd 226.502†	-185.3	26.3	0.3031	ug/L	0.3031	ppb	18:07:12
3	Co 228.616†	-84.3	-18.4	-0.3922	ug/L	-0.3922	ppb	18:07:12
3	Cr 267.716†	81.0	-13.1	-0.1531	ug/L	-0.1531	ppb	18:07:12
3	Cu 324.752†	6528.0	-409.6	-1.2746	ug/L	-1.2746	ppb	18:06:52
3	Mn 257.610†	426.6	-30.4	-0.0335	ug/L	-0.0335	ppb	18:07:12
3	Mo 202.031†	21.2	-1.0	-0.0757	ug/L	-0.0757	ppb	18:07:12
3	Ni 231.604†	76.9	-13.9	-0.3598	ug/L	-0.3598	ppb	18:07:12
3	P 214.914†	209.4	-25.3	-15.627	ug/L	-15.627	ppb	18:07:12
3	Pb 220.353†	-67.9	-3.6	-0.4582	ug/L	-0.4582	ppb	18:07:12
3	S 181.975 Axial†	46.7	-2.9	-4.3344	ug/L	-4.3344	ppb	18:07:12
3	Sb 206.836†	31.3	-7.3	-2.6442	ug/L	-2.6442	ppb	18:07:12
3	Se 196.026†	-26.4	4.0	2.6707	ug/L	2.6707	ppb	18:07:12
3	Si 251.611†	515.0	26.2	0.8662	ug/L	0.8662	ppb	18:07:12
3	Sn 189.927†	9.9	3.8	0.6924	ug/L	0.6924	ppb	18:07:12
3	Ti 334.940†	-1409.9	4.0	0.0044	ug/L	0.0044	ppb	18:06:52
3	Tl 190.801†	-28.9	4.3	1.3590	ug/L	1.3590	ppb	18:07:12
3	U 409.014†	-1922.0	193.1	6.0365	ug/L	6.0365	ppb	18:06:47
3	V 292.402†	-1361.4	121.4	0.8652	ug/L	0.8652	ppb	18:06:52
3	Zn 213.857†	631.4	-82.6	-0.8045	ug/L	-0.8045	ppb	18:07:12
3	SiO2†	523.8	28.9	2.0506	ug/L	2.0506	ppb	18:07:27

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	901313.7	107.58	%	1.004				0.93%
Sc Radial	5363.7	105	%	0.4				0.35%
Y 371.029	762458.0	107.10	%	1.018				0.95%
Y RADIAL	5821.7	105.7	%	0.14				0.13%
Ag 328.068†	-16.0	-0.0778	ug/L	0.25526	-0.0778	ppb	0.25526	328.01%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	2.1	1.6293	ug/L	7.59889	1.6293	ppb	7.59889	466.39%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	2.0	0.8857	ug/L	1.77993	0.8857	ppb	1.77993	200.97%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	101.7	2.4157	ug/L	0.40980	2.4157	ppb	0.40980	16.96%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-1.3	-0.0087	ug/L	0.04632	-0.0087	ppb	0.04632	532.19%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	198.7	0.0767	ug/L	0.02169	0.0767	ppb	0.02169	28.28%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-1.7	-2.7575	ug/L	0.90002	-2.7575	ppb	0.90002	32.64%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              37.4      0.4316 ug/L       0.11137      0.4316 ppb        0.11137  25.80%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†              -9.4     -0.2001 ug/L       0.21946     -0.2001 ppb        0.21946 109.65%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†             -13.8     -0.1615 ug/L       0.00763     -0.1615 ppb        0.00763   4.72%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -403.2     -1.2559 ug/L       0.18536     -1.2559 ppb        0.18536  14.76%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        0.1      1.1789 ug/L       9.46467      1.1789 ppb        9.46467 802.83%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       -278.7     -51.899 ug/L      18.2018     -51.899 ppb       18.2018  35.07%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           0.3      9.6198 ug/L      30.52069      9.6198 ppb       30.52069 317.27%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†             -32.5     -0.0375 ug/L       0.00596     -0.0375 ppb        0.00596  15.90%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              -2.9     -0.2141 ug/L       0.12481     -0.2141 ppb        0.12481  58.29%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      202.6      61.449 ug/L      20.6189      61.449 ppb       20.6189  33.55%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†             -19.4     -0.5011 ug/L       0.13589     -0.5011 ppb        0.13589  27.12%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†              -16.5     -10.117 ug/L        4.7872     -10.117 ppb        4.7872  47.32%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -2.3     -0.2931 ug/L       0.73667     -0.2931 ppb        0.73667 251.31%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         -4.4     -6.5456 ug/L       9.48505     -6.5456 ppb        9.48505 144.91%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -3.1     -1.1023 ug/L       1.53516     -1.1023 ppb        1.53516 139.27%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              -2.4     -1.5971 ug/L       3.73803     -1.5971 ppb        3.73803 234.05%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†              33.8      1.1189 ug/L       0.21892      1.1189 ppb        0.21892  19.57%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               2.3      0.4215 ug/L       0.53816      0.4215 ppb        0.53816 127.69%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             -16.3     -0.1069 ug/L       0.25574     -0.1069 ppb        0.25574 239.31%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              73.5      0.1186 ug/L       0.12539      0.1186 ppb        0.12539 105.76%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               3.3      1.0449 ug/L       1.34439      1.0449 ppb        1.34439 128.67%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              228.6      7.1483 ug/L       2.80805      7.1483 ppb        2.80805  39.28%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              129.1      0.9211 ug/L       0.19950      0.9211 ppb        0.19950  21.66%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†             -75.6     -0.7342 ug/L       0.12051     -0.7342 ppb        0.12051  16.41%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                    40.2      2.8518 ug/L       0.81854      2.8518 ppb        0.81854  28.70%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 28
Sample ID: 243550006|936826|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 47
Date Collected: 1/15/2010 18:09:38
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 243550006|936826|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5511.9	5511.9	108	%			18:11:31
1	Y RADIAL	7586.6	7586.6	137.8	%			18:11:31
1	Al 396.153Radial†	5419.1	5014.4	3944.4	ug/L	3944.4	ppb	18:11:31
1	Ca 317.933Radial†	1372.3	1249.7	2052.0	ug/L	2052.0	ppb	18:11:51
1	Fe 238.204 Radial†	8789.3	8105.6	72322	ug/L	72322	ppb	18:11:31
1	K 766.490 Radial†	9544.9	5810.0	1079.1	ug/L	1079.1	ppb	18:11:31
1	Mg 279.077 IEC†	31.9	27.0	831.15	ug/L	831.15	ppb	18:11:51
1	Na 589.592 Radial†	2151.1	3545.8	1075.4	ug/L	1075.4	ppb	18:11:31
1	Sr 421.552†	1870.9	1692.3	11.072	ug/L	11.072	ppb	18:11:31
1	Sc 361.383	905130.3	905130.3	108.03	%			18:12:48
1	Y 371.029	968826.1	968826.1	136.08	%			18:12:48
1	Ag 328.068†	-4442.5	-4410.6	2.7331	ug/L	2.7331	ppb	18:12:54
1	As 188.979†	-42.3	-18.6	19.555	ug/L	19.555	ppb	18:13:14
1	B 249.677†	77.3	537.6	1.0109	ug/L	1.0109	ppb	18:12:54
1	Ba 233.527†	12970.1	12012.6	99.888	ug/L	99.888	ppb	18:12:54
1	Be 313.107†	-7818.2	-2891.7	1.7342	ug/L	1.7342	ppb	18:12:54
1	Cd 226.502†	461.9	625.8	-0.3078	ug/L	-0.3078	ppb	18:13:14
1	Co 228.616†	220.3	263.7	2.0094	ug/L	2.0094	ppb	18:13:14
1	Cr 267.716†	689.5	550.0	7.9175	ug/L	7.9175	ppb	18:12:54
1	Cu 324.752†	9611.5	2431.5	11.505	ug/L	11.505	ppb	18:12:54
1	Mn 257.610†	2663070.0	2464650.7	2830.8	ug/L	2830.8	ppb	18:12:48
1	Mo 202.031†	116.4	87.0	11.985	ug/L	11.985	ppb	18:13:14
1	Ni 231.604†	283.3	177.0	4.5656	ug/L	4.5656	ppb	18:13:14
1	P 214.914†	1084.8	784.7	433.70	ug/L	433.70	ppb	18:13:14
1	Pb 220.353†	163.9	211.1	20.799	ug/L	20.799	ppb	18:13:14
1	S 181.975 Axial†	77.1	25.1	36.212	ug/L	36.212	ppb	18:13:14
1	Sb 206.836†	28.8	-9.7	-5.6581	ug/L	-5.6581	ppb	18:13:14
1	Se 196.026†	-357.5	-302.5	36.922	ug/L	36.922	ppb	18:13:14
1	Si 251.611†	143269.9	132166.5	4368.2	ug/L	4368.2	ppb	18:12:48
1	Sn 189.927†	24.0	16.9	4.6111	ug/L	4.6111	ppb	18:13:14
1	Ti 334.940†	808693.5	749880.9	1254.0	ug/L	1254.0	ppb	18:12:48
1	Tl 190.801†	-136.1	-94.9	-6.3058	ug/L	-6.3058	ppb	18:13:14
1	U 409.014†	-10066.6	-7342.1	-237.79	ug/L	-237.79	ppb	18:12:48
1	V 292.402†	3746.9	4852.6	22.036	ug/L	22.036	ppb	18:12:54
1	Zn 213.857†	38238.8	34727.5	332.32	ug/L	332.32	ppb	18:12:54
1	SiO2†	144453.0	133256.3	9431.2	ug/L	9431.2	ppb	18:14:21
2	Sc Radial	5539.0	5539.0	109	%			18:11:56
2	Y RADIAL	7618.8	7618.8	138.4	%			18:11:56
2	Al 396.153Radial†	5436.1	5005.5	3937.4	ug/L	3937.4	ppb	18:11:56
2	Ca 317.933Radial†	1379.3	1250.0	2052.5	ug/L	2052.5	ppb	18:12:16
2	Fe 238.204 Radial†	8790.2	8066.8	71976	ug/L	71976	ppb	18:11:56
2	K 766.490 Radial†	9575.6	5795.1	1076.4	ug/L	1076.4	ppb	18:11:56
2	Mg 279.077 IEC†	30.1	25.2	772.11	ug/L	772.11	ppb	18:12:16
2	Na 589.592 Radial†	2091.6	3481.5	1055.9	ug/L	1055.9	ppb	18:11:56
2	Sr 421.552†	1826.1	1642.7	10.747	ug/L	10.747	ppb	18:11:56
2	Sc 361.383	910768.9	910768.9	108.70	%			18:13:19
2	Y 371.029	973849.2	973849.2	136.79	%			18:13:19
2	Ag 328.068†	-4428.7	-4372.5	2.8003	ug/L	2.8003	ppb	18:13:25
2	As 188.979†	-44.1	-19.9	18.836	ug/L	18.836	ppb	18:13:45
2	B 249.677†	-2.4	463.9	-0.6854	ug/L	-0.6854	ppb	18:13:25
2	Ba 233.527†	12954.9	11924.3	99.159	ug/L	99.159	ppb	18:13:25
2	Be 313.107†	-8104.7	-3110.5	1.6415	ug/L	1.6415	ppb	18:13:25
2	Cd 226.502†	457.2	618.8	-0.3520	ug/L	-0.3520	ppb	18:13:45
2	Co 228.616†	225.2	267.0	2.0934	ug/L	2.0934	ppb	18:13:45
2	Cr 267.716†	649.9	509.6	7.4422	ug/L	7.4422	ppb	18:13:25
2	Cu 324.752†	9597.3	2363.4	11.275	ug/L	11.275	ppb	18:13:25
2	Mn 257.610†	2669812.9	2455592.3	2820.4	ug/L	2820.4	ppb	18:13:19
2	Mo 202.031†	122.5	92.0	12.320	ug/L	12.320	ppb	18:13:45
2	Ni 231.604†	300.4	191.0	4.9281	ug/L	4.9281	ppb	18:13:45

2	P 214.914†	1092.8	785.7	434.69	ug/L	434.69 ppb	18:13:45
2	Pb 220.353†	154.8	201.7	19.644	ug/L	19.644 ppb	18:13:45
2	S 181.975 Axial†	72.6	20.5	29.502	ug/L	29.502 ppb	18:13:45
2	Sb 206.836†	33.4	-5.6	-4.2042	ug/L	-4.2042 ppb	18:13:45
2	Se 196.026†	-343.0	-287.1	45.983	ug/L	45.983 ppb	18:13:45
2	Si 251.611†	144122.2	132129.5	4367.0	ug/L	4367.0 ppb	18:13:19
2	Sn 189.927†	15.2	8.6	3.0960	ug/L	3.0960 ppb	18:13:45
2	Ti 334.940†	811256.8	747604.5	1250.2	ug/L	1250.2 ppb	18:13:19
2	Tl 190.801†	-132.3	-90.5	-5.0039	ug/L	-5.0039 ppb	18:13:45
2	U 409.014†	-10130.3	-7343.0	-237.78	ug/L	-237.78 ppb	18:13:19
2	V 292.402†	3693.2	4781.7	21.595	ug/L	21.595 ppb	18:13:25
2	Zn 213.857†	38083.4	34365.4	328.81	ug/L	328.81 ppb	18:13:25
2	SiO2†	144382.3	132363.4	9368.0	ug/L	9368.0 ppb	18:14:26
3	Sc Radial	5423.9	5423.9	107	%		18:12:21
3	Y RADIAL	7459.4	7459.4	135.5	%		18:12:21
3	Al 396.153Radial†	5365.4	5045.2	3968.6	ug/L	3968.6 ppb	18:12:21
3	Ca 317.933Radial†	1361.2	1259.9	2068.7	ug/L	2068.7 ppb	18:12:41
3	Fe 238.204 Radial†	8624.8	8083.0	72120	ug/L	72120 ppb	18:12:21
3	K 766.490 Radial†	9515.1	5925.0	1100.5	ug/L	1100.5 ppb	18:12:21
3	Mg 279.077 IEC†	32.4	27.9	863.55	ug/L	863.55 ppb	18:12:41
3	Na 589.592 Radial†	2005.1	3441.0	1043.6	ug/L	1043.6 ppb	18:12:21
3	Sr 421.552†	1811.9	1665.0	10.893	ug/L	10.893 ppb	18:12:21
3	Sc 361.383	913147.0	913147.0	108.99	%		18:13:50
3	Y 371.029	977452.2	977452.2	137.30	%		18:13:50
3	Ag 328.068†	-4387.4	-4323.9	3.0729	ug/L	3.0729 ppb	18:13:56
3	As 188.979†	-46.2	-21.8	18.078	ug/L	18.078 ppb	18:14:16
3	B 249.677†	26.0	490.0	-0.0884	ug/L	-0.0884 ppb	18:13:56
3	Ba 233.527†	12960.6	11898.5	98.954	ug/L	98.954 ppb	18:13:56
3	Be 313.107†	-7929.9	-2930.7	1.7144	ug/L	1.7144 ppb	18:13:56
3	Cd 226.502†	451.5	612.5	-0.4381	ug/L	-0.4381 ppb	18:14:16
3	Co 228.616†	225.2	266.5	2.0762	ug/L	2.0762 ppb	18:14:16
3	Cr 267.716†	632.5	492.0	7.2392	ug/L	7.2392 ppb	18:13:56
3	Cu 324.752†	9603.9	2346.4	11.227	ug/L	11.227 ppb	18:13:56
3	Mn 257.610†	2681238.5	2459679.3	2825.0	ug/L	2825.0 ppb	18:13:50
3	Mo 202.031†	125.8	94.7	12.528	ug/L	12.528 ppb	18:14:16
3	Ni 231.604†	295.4	185.7	4.7920	ug/L	4.7920 ppb	18:14:16
3	P 214.914†	1085.9	776.9	429.02	ug/L	429.02 ppb	18:14:16
3	Pb 220.353†	186.6	230.6	23.300	ug/L	23.300 ppb	18:14:16
3	S 181.975 Axial†	70.2	18.1	25.968	ug/L	25.968 ppb	18:14:16
3	Sb 206.836†	31.2	-7.7	-4.9449	ug/L	-4.9449 ppb	18:14:16
3	Se 196.026†	-361.9	-303.6	35.528	ug/L	35.528 ppb	18:14:16
3	Si 251.611†	145238.4	132808.4	4389.5	ug/L	4389.5 ppb	18:13:50
3	Sn 189.927†	18.7	11.8	3.6756	ug/L	3.6756 ppb	18:14:16
3	Ti 334.940†	814481.1	748619.3	1251.9	ug/L	1251.9 ppb	18:13:50
3	Tl 190.801†	-121.2	-80.1	-1.6485	ug/L	-1.6485 ppb	18:14:16
3	U 409.014†	-9929.2	-7134.2	-231.27	ug/L	-231.27 ppb	18:13:50
3	V 292.402†	3711.3	4789.6	21.644	ug/L	21.644 ppb	18:13:56
3	Zn 213.857†	38171.3	34354.8	328.70	ug/L	328.70 ppb	18:13:56
3	SiO2†	142134.4	129955.0	9197.5	ug/L	9197.5 ppb	18:14:32

Mean Data: 243550006|936826|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	909682.1	108.58	%	0.491				0.45%
Sc Radial	5491.6	108	%	1.2				1.10%
Y 371.029	973375.8	136.72	%	0.609				0.45%
Y RADIAL	7555.0	137.2	%	1.53				1.12%
Ag 328.068†	-4369.0	2.8687	ug/L	0.17992	2.8687	ppb	0.17992	6.27%
Al 396.153Radial†	5021.7	3950.1	ug/L	16.37	3950.1	ppb	16.37	0.41%
As 188.979†	-20.1	18.823	ug/L	0.7386	18.823	ppb	0.7386	3.92%
B 249.677†	497.2	0.0790	ug/L	0.86047	0.0790	ppb	0.86047	>999.9%
Ba 233.527†	11945.1	99.334	ug/L	0.4910	99.334	ppb	0.4910	0.49%
Be 313.107†	-2977.7	1.6967	ug/L	0.04886	1.6967	ppb	0.04886	2.88%
Ca 317.933Radial†	1253.2	2057.7	ug/L	9.52	2057.7	ppb	9.52	0.46%
Cd 226.502†	619.0	-0.3660	ug/L	0.06628	-0.3660	ppb	0.06628	18.11%
Co 228.616†	265.7	2.0597	ug/L	0.04435	2.0597	ppb	0.04435	2.15%
Cr 267.716†	517.2	7.5329	ug/L	0.34814	7.5329	ppb	0.34814	4.62%
Cu 324.752†	2380.4	11.336	ug/L	0.1487	11.336	ppb	0.1487	1.31%
Fe 238.204 Radial†	8085.1	72139	ug/L	174.1	72139	ppb	174.1	0.24%
K 766.490 Radial†	5843.4	1085.3	ug/L	13.23	1085.3	ppb	13.23	1.22%

Mg 279.077 IEC†	26.7	822.27 ug/L	46.360	822.27 ppb	46.360	5.64%
Mn 257.610†	2459974.1	2825.4 ug/L	5.21	2825.4 ppb	5.21	0.18%
Mo 202.031†	91.3	12.278 ug/L	0.2741	12.278 ppb	0.2741	2.23%
Na 589.592 Radial†	3489.4	1058.3 ug/L	16.03	1058.3 ppb	16.03	1.51%
Ni 231.604†	184.6	4.7619 ug/L	0.18309	4.7619 ppb	0.18309	3.84%
P 214.914†	782.4	432.47 ug/L	3.030	432.47 ppb	3.030	0.70%
Pb 220.353†	214.5	21.248 ug/L	1.8688	21.248 ppb	1.8688	8.80%
S 181.975 Axial†	21.3	30.561 ug/L	5.2031	30.561 ppb	5.2031	17.03%
Sb 206.836†	-7.7	-4.9357 ug/L	0.72701	-4.9357 ppb	0.72701	14.73%
Se 196.026†	-297.7	39.477 ug/L	5.6767	39.477 ppb	5.6767	14.38%
Si 251.611†	132368.2	4374.9 ug/L	12.61	4374.9 ppb	12.61	0.29%
Sn 189.927†	12.4	3.7942 ug/L	0.76448	3.7942 ppb	0.76448	20.15%
Sr 421.552†	1666.7	10.904 ug/L	0.1626	10.904 ppb	0.1626	1.49%
Ti 334.940†	748701.6	1252.0 ug/L	1.90	1252.0 ppb	1.90	0.15%
Tl 190.801†	-88.5	-4.3194 ug/L	2.40294	-4.3194 ppb	2.40294	55.63%
U 409.014†	-7273.1	-235.61 ug/L	3.763	-235.61 ppb	3.763	1.60%
V 292.402†	4808.0	21.758 ug/L	0.2418	21.758 ppb	0.2418	1.11%
Zn 213.857†	34482.6	329.94 ug/L	2.059	329.94 ppb	2.059	0.62%
SiO2†	131858.2	9332.2 ug/L	120.87	9332.2 ppb	120.87	1.30%

Sequence No.: 29
Sample ID: 243550007|936826|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 48
Date Collected: 1/15/2010 18:16:43
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 243550007|936826|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5480.9	5480.9	108	%			18:18:56
1	Y RADIAL	7108.6	7108.6	129.1	%			18:18:56
1	Al 396.153Radial†	202129.8	187701.0	147660	ug/L	147660	ppb	18:18:36
1	Ca 317.933Radial†	15717.3	14577.1	23936	ug/L	23936	ppb	18:18:36
1	Fe 238.204 Radial†	13374.7	12409.4	110720	ug/L	110720	ppb	18:18:36
1	K 766.490 Radial†	74395.6	66077.8	12288	ug/L	12288	ppb	18:18:36
1	Mg 279.077 IEC†	468.8	432.8	14428	ug/L	14428	ppb	18:18:56
1	Na 589.592 Radial†	10192.5	11024.0	3343.4	ug/L	3343.4	ppb	18:18:36
1	Sr 421.552†	24927.9	23111.9	151.24	ug/L	151.24	ppb	18:18:36
1	Sc 361.383	904625.2	904625.2	107.97	%			18:19:53
1	Y 371.029	909176.6	909176.6	127.71	%			18:19:53
1	Ag 328.068†	-6994.1	-6776.1	4.1438	ug/L	4.1438	ppb	18:19:58
1	As 188.979†	-16.6	5.2	50.899	ug/L	50.899	ppb	18:20:19
1	B 249.677†	706.1	1120.1	8.5555	ug/L	8.5555	ppb	18:19:58
1	Ba 233.527†	40626.8	37634.1	309.52	ug/L	309.52	ppb	18:19:58
1	Be 313.107†	19892.7	22769.1	14.689	ug/L	14.689	ppb	18:19:58
1	Cd 226.502†	790.2	930.1	-0.7448	ug/L	-0.7448	ppb	18:20:19
1	Co 228.616†	1202.2	1173.3	18.051	ug/L	18.051	ppb	18:20:19
1	Cr 267.716†	5702.2	5192.9	62.652	ug/L	62.652	ppb	18:19:58
1	Cu 324.752†	25124.7	16804.3	58.194	ug/L	58.194	ppb	18:19:58
1	Mn 257.610†	1722867.5	1595240.5	1837.9	ug/L	1837.9	ppb	18:19:53
1	Mo 202.031†	0.9	-19.9	7.4324	ug/L	7.4324	ppb	18:20:19
1	Ni 231.604†	2586.8	2310.5	59.643	ug/L	59.643	ppb	18:20:19
1	P 214.914†	1858.0	1501.3	879.29	ug/L	879.29	ppb	18:20:19
1	Pb 220.353†	568.3	585.6	95.779	ug/L	95.779	ppb	18:20:19
1	S 181.975 Axial†	359.1	286.3	393.84	ug/L	393.84	ppb	18:20:19
1	Sb 206.836†	79.4	37.1	3.7501	ug/L	3.7501	ppb	18:20:19
1	Se 196.026†	-532.8	-465.1	62.568	ug/L	62.568	ppb	18:20:19
1	Si 251.611†	192145.8	177507.9	5866.9	ug/L	5866.9	ppb	18:19:58
1	Sn 189.927†	-107.9	-105.3	-13.733	ug/L	-13.733	ppb	18:20:19
1	Ti 334.940†	1686529.9	1563323.7	2615.7	ug/L	2615.7	ppb	18:19:53
1	Tl 190.801†	-168.2	-124.6	-9.5377	ug/L	-9.5377	ppb	18:20:19
1	U 409.014†	-11717.6	-8876.4	-290.26	ug/L	-290.26	ppb	18:19:53
1	V 292.402†	22234.7	21977.4	135.85	ug/L	135.85	ppb	18:19:58
1	Zn 213.857†	32681.9	29600.6	278.08	ug/L	278.08	ppb	18:19:58
1	SiO2†	193224.1	178501.2	12634	ug/L	12634	ppb	18:21:26
2	Sc Radial	5477.3	5477.3	108	%			18:19:21
2	Y RADIAL	7143.7	7143.7	129.8	%			18:19:21
2	Al 396.153Radial†	201626.7	187357.8	147390	ug/L	147390	ppb	18:19:01
2	Ca 317.933Radial†	15653.0	14527.1	23853	ug/L	23853	ppb	18:19:01
2	Fe 238.204 Radial†	13293.7	12342.3	110120	ug/L	110120	ppb	18:19:01
2	K 766.490 Radial†	74188.8	65931.5	12261	ug/L	12261	ppb	18:19:01
2	Mg 279.077 IEC†	467.9	432.3	14412	ug/L	14412	ppb	18:19:21
2	Na 589.592 Radial†	10126.2	10968.7	3326.6	ug/L	3326.6	ppb	18:19:01
2	Sr 421.552†	24763.5	22974.5	150.34	ug/L	150.34	ppb	18:19:01
2	Sc 361.383	921060.9	921060.9	109.93	%			18:20:24
2	Y 371.029	927052.7	927052.7	130.22	%			18:20:24
2	Ag 328.068†	-7123.7	-6778.4	3.9313	ug/L	3.9313	ppb	18:20:29
2	As 188.979†	-36.9	-12.9	42.780	ug/L	42.780	ppb	18:20:50
2	B 249.677†	717.2	1118.5	8.6160	ug/L	8.6160	ppb	18:20:29
2	Ba 233.527†	40794.7	37115.4	305.28	ug/L	305.28	ppb	18:20:29
2	Be 313.107†	20038.0	22572.6	14.632	ug/L	14.632	ppb	18:20:29
2	Cd 226.502†	792.1	918.7	-0.8145	ug/L	-0.8145	ppb	18:20:50
2	Co 228.616†	1210.1	1160.6	17.771	ug/L	17.771	ppb	18:20:50
2	Cr 267.716†	5712.3	5107.8	61.652	ug/L	61.652	ppb	18:20:29
2	Cu 324.752†	25335.3	16580.7	57.468	ug/L	57.468	ppb	18:20:29
2	Mn 257.610†	1754836.4	1595847.3	1838.6	ug/L	1838.6	ppb	18:20:24
2	Mo 202.031†	3.0	-18.0	7.5229	ug/L	7.5229	ppb	18:20:50
2	Ni 231.604†	2618.9	2296.9	59.293	ug/L	59.293	ppb	18:20:50

2	P 214.914†	1849.5	1462.9	855.72	ug/L	855.72 ppb	18:20:50
2	Pb 220.353†	527.4	539.1	89.861	ug/L	89.861 ppb	18:20:50
2	S 181.975 Axial†	353.3	275.1	377.42	ug/L	377.42 ppb	18:20:50
2	Sb 206.836†	70.8	28.0	0.4174	ug/L	0.4174 ppb	18:20:50
2	Se 196.026†	-545.4	-467.7	58.871	ug/L	58.871 ppb	18:20:50
2	Si 251.611†	191290.1	173554.0	5736.3	ug/L	5736.3 ppb	18:20:29
2	Sn 189.927†	-108.7	-104.2	-13.565	ug/L	-13.565 ppb	18:20:50
2	Ti 334.940†	1722499.7	1568170.4	2623.8	ug/L	2623.8 ppb	18:20:24
2	Tl 190.801†	-153.0	-108.0	-4.1824	ug/L	-4.1824 ppb	18:20:50
2	U 409.014†	-11929.1	-8875.2	-290.15	ug/L	-290.15 ppb	18:20:24
2	V 292.402†	22291.4	21661.5	133.70	ug/L	133.70 ppb	18:20:29
2	Zn 213.857†	32909.0	29267.1	274.88	ug/L	274.88 ppb	18:20:29
2	SiO2†	194360.8	176341.8	12481	ug/L	12481 ppb	18:21:31
3	Sc Radial	5536.9	5536.9	109	%		18:19:46
3	Y RADIAL	7206.3	7206.3	130.9	%		18:19:46
3	Al 396.153Radial†	196755.4	180862.6	142280	ug/L	142280 ppb	18:19:26
3	Ca 317.933Radial†	15292.2	14038.8	23052	ug/L	23052 ppb	18:19:26
3	Fe 238.204 Radial†	13036.5	11972.9	106830	ug/L	106830 ppb	18:19:26
3	K 766.490 Radial†	72575.1	63705.8	11847	ug/L	11847 ppb	18:19:26
3	Mg 279.077 IEC†	472.6	431.9	14402	ug/L	14402 ppb	18:19:46
3	Na 589.592 Radial†	9794.6	10562.6	3203.4	ug/L	3203.4 ppb	18:19:26
3	Sr 421.552†	24145.0	22158.3	145.00	ug/L	145.00 ppb	18:19:26
3	Sc 361.383	916753.3	916753.3	109.42	%		18:20:55
3	Y 371.029	923896.3	923896.3	129.77	%		18:20:55
3	Ag 328.068†	-7148.0	-6831.0	2.6217	ug/L	2.6217 ppb	18:21:00
3	As 188.979†	-36.6	-12.9	41.993	ug/L	41.993 ppb	18:21:21
3	B 249.677†	674.3	1082.4	8.2940	ug/L	8.2940 ppb	18:21:00
3	Ba 233.527†	41252.0	37707.7	309.99	ug/L	309.99 ppb	18:21:00
3	Be 313.107†	20391.9	22981.7	14.780	ug/L	14.780 ppb	18:21:00
3	Cd 226.502†	801.8	931.0	-0.3301	ug/L	-0.3301 ppb	18:21:21
3	Co 228.616†	1198.8	1155.4	17.718	ug/L	17.718 ppb	18:21:21
3	Cr 267.716†	5791.3	5204.5	62.706	ug/L	62.706 ppb	18:21:00
3	Cu 324.752†	25439.9	16784.5	57.922	ug/L	57.922 ppb	18:21:00
3	Mn 257.610†	1744682.2	1594067.7	1836.2	ug/L	1836.2 ppb	18:20:55
3	Mo 202.031†	3.6	-17.4	7.2999	ug/L	7.2999 ppb	18:21:21
3	Ni 231.604†	2632.2	2320.3	59.895	ug/L	59.895 ppb	18:21:21
3	P 214.914†	1885.1	1503.3	882.33	ug/L	882.33 ppb	18:21:21
3	Pb 220.353†	566.4	577.0	93.882	ug/L	93.882 ppb	18:21:21
3	S 181.975 Axial†	357.1	280.1	385.68	ug/L	385.68 ppb	18:21:21
3	Sb 206.836†	64.8	22.8	-1.4124	ug/L	-1.4124 ppb	18:21:21
3	Se 196.026†	-541.0	-466.0	48.889	ug/L	48.889 ppb	18:21:21
3	Si 251.611†	193036.8	175968.0	5816.0	ug/L	5816.0 ppb	18:21:00
3	Sn 189.927†	-117.4	-112.7	-15.280	ug/L	-15.280 ppb	18:21:21
3	Ti 334.940†	1711843.0	1565793.4	2619.7	ug/L	2619.7 ppb	18:20:55
3	Tl 190.801†	-162.3	-117.1	-7.1298	ug/L	-7.1298 ppb	18:21:21
3	U 409.014†	-11615.2	-8639.2	-282.40	ug/L	-282.40 ppb	18:20:55
3	V 292.402†	22326.1	21788.5	135.09	ug/L	135.09 ppb	18:21:00
3	Zn 213.857†	33178.9	29654.4	278.98	ug/L	278.98 ppb	18:21:00
3	SiO2†	192985.2	175915.3	12451	ug/L	12451 ppb	18:21:37

Mean Data: 243550007|936826|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	914146.5	109.11	%	1.017				0.93%
Sc Radial	5498.4	108	%	0.7				0.61%
Y 371.029	920041.9	129.23	%	1.340				1.04%
Y RADIAL	7152.8	129.9	%	0.90				0.69%
Ag 328.068†	-6795.2	3.5656	ug/L	0.82430	3.5656	ppb	0.82430	23.12%
Al 396.153Radial†	185307.1	145780	ug/L	3031.0	145780	ppb	3031.0	2.08%
As 188.979†	-6.9	45.224	ug/L	4.9303	45.224	ppb	4.9303	10.90%
B 249.677†	1107.0	8.4885	ug/L	0.17111	8.4885	ppb	0.17111	2.02%
Ba 233.527†	37485.7	308.26	ug/L	2.596	308.26	ppb	2.596	0.84%
Be 313.107†	22774.5	14.700	ug/L	0.0748	14.700	ppb	0.0748	0.51%
Ca 317.933Radial†	14381.0	23614	ug/L	488.4	23614	ppb	488.4	2.07%
Cd 226.502†	926.6	-0.6298	ug/L	0.26187	-0.6298	ppb	0.26187	41.58%
Co 228.616†	1163.1	17.847	ug/L	0.1791	17.847	ppb	0.1791	1.00%
Cr 267.716†	5168.4	62.337	ug/L	0.5937	62.337	ppb	0.5937	0.95%
Cu 324.752†	16723.2	57.862	ug/L	0.3669	57.862	ppb	0.3669	0.63%
Fe 238.204 Radial†	12241.5	109230	ug/L	2097.5	109230	ppb	2097.5	1.92%
K 766.490 Radial†	65238.3	12132	ug/L	247.2	12132	ppb	247.2	2.04%

Mg 279.077 IEC†	432.4	14414	ug/L	13.2	14414	ppb	13.2	0.09%
Mn 257.610†	1595051.8	1837.6	ug/L	1.22	1837.6	ppb	1.22	0.07%
Mo 202.031†	-18.4	7.4184	ug/L	0.11213	7.4184	ppb	0.11213	1.51%
Na 589.592 Radial†	10851.8	3291.2	ug/L	76.42	3291.2	ppb	76.42	2.32%
Ni 231.604†	2309.2	59.610	ug/L	0.3025	59.610	ppb	0.3025	0.51%
P 214.914†	1489.2	872.45	ug/L	14.561	872.45	ppb	14.561	1.67%
Pb 220.353†	567.2	93.174	ug/L	3.0221	93.174	ppb	3.0221	3.24%
S 181.975 Axial†	280.5	385.65	ug/L	8.209	385.65	ppb	8.209	2.13%
Sb 206.836†	29.3	0.9184	ug/L	2.61747	0.9184	ppb	2.61747	285.01%
Se 196.026†	-466.2	56.776	ug/L	7.0761	56.776	ppb	7.0761	12.46%
Si 251.611†	175676.6	5806.4	ug/L	65.87	5806.4	ppb	65.87	1.13%
Sn 189.927†	-107.4	-14.193	ug/L	0.9452	-14.193	ppb	0.9452	6.66%
Sr 421.552†	22748.3	148.86	ug/L	3.374	148.86	ppb	3.374	2.27%
Ti 334.940†	1565762.5	2619.8	ug/L	4.05	2619.8	ppb	4.05	0.15%
Tl 190.801†	-116.6	-6.9500	ug/L	2.68218	-6.9500	ppb	2.68218	38.59%
U 409.014†	-8796.9	-287.60	ug/L	4.506	-287.60	ppb	4.506	1.57%
V 292.402†	21809.1	134.88	ug/L	1.090	134.88	ppb	1.090	0.81%
Zn 213.857†	29507.4	277.32	ug/L	2.155	277.32	ppb	2.155	0.78%
SiO2†	176919.4	12522	ug/L	98.1	12522	ppb	98.1	0.78%

Sequence No.: 30
Sample ID: 243550008|936826|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 49
Date Collected: 1/15/2010 18:23:48
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 243550008|936826|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5518.6	5518.6	108	%			18:25:41
1	Y RADIAL	7795.0	7795.0	141.6	%			18:25:41
1	Al 396.153Radial†	11165.2	10307.5	8108.5	ug/L	8108.5	ppb	18:25:41
1	Ca 317.933Radial†	2017.8	1843.5	3027.0	ug/L	3027.0	ppb	18:26:01
1	Fe 238.204 Radial†	7140.9	6575.6	58671	ug/L	58671	ppb	18:25:41
1	K 766.490 Radial†	11336.3	7451.5	1384.2	ug/L	1384.2	ppb	18:25:41
1	Mg 279.077 IEC†	69.0	61.1	1993.4	ug/L	1993.4	ppb	18:26:01
1	Na 589.592 Radial†	1043.7	2522.2	764.93	ug/L	764.93	ppb	18:25:41
1	Sr 421.552†	4898.7	4482.5	29.346	ug/L	29.346	ppb	18:25:41
1	Sc 361.383	924789.1	924789.1	110.38	%			18:26:59
1	Y 371.029	1011322.7	1011322.7	142.05	%			18:26:59
1	Ag 328.068†	-3564.5	-3527.7	2.5746	ug/L	2.5746	ppb	18:27:04
1	As 188.979†	-20.2	2.3	23.553	ug/L	23.553	ppb	18:27:24
1	B 249.677†	-17.2	450.6	1.1597	ug/L	1.1597	ppb	18:27:04
1	Ba 233.527†	40814.6	36983.8	302.41	ug/L	302.41	ppb	18:27:04
1	Be 313.107†	-4258.7	486.9	2.4932	ug/L	2.4932	ppb	18:27:04
1	Cd 226.502†	363.9	527.9	-0.0242	ug/L	-0.0242	ppb	18:27:24
1	Co 228.616†	223.6	262.4	2.7676	ug/L	2.7676	ppb	18:27:24
1	Cr 267.716†	958.1	779.7	10.345	ug/L	10.345	ppb	18:27:04
1	Cu 324.752†	14884.6	7019.6	25.052	ug/L	25.052	ppb	18:27:04
1	Mn 257.610†	3375944.2	3058095.2	3509.3	ug/L	3509.3	ppb	18:26:59
1	Mo 202.031†	81.8	53.4	8.4853	ug/L	8.4853	ppb	18:27:24
1	Ni 231.604†	823.6	660.8	17.059	ug/L	17.059	ppb	18:27:24
1	P 214.914†	1004.5	690.5	383.77	ug/L	383.77	ppb	18:27:24
1	Pb 220.353†	217.1	256.0	28.710	ug/L	28.710	ppb	18:27:24
1	S 181.975 Axial†	70.7	17.8	24.670	ug/L	24.670	ppb	18:27:24
1	Sb 206.836†	32.7	-6.8	-4.3648	ug/L	-4.3648	ppb	18:27:24
1	Se 196.026†	-300.8	-244.1	31.064	ug/L	31.064	ppb	18:27:24
1	Si 251.611†	170629.4	154134.4	5094.3	ug/L	5094.3	ppb	18:26:59
1	Sn 189.927†	-6.7	-11.4	-0.6402	ug/L	-0.6402	ppb	18:27:24
1	Ti 334.940†	669169.1	607562.5	1016.1	ug/L	1016.1	ppb	18:26:59
1	Tl 190.801†	-144.9	-100.1	-6.7104	ug/L	-6.7104	ppb	18:27:24
1	U 409.014†	-11736.8	-8657.2	-277.36	ug/L	-277.36	ppb	18:26:59
1	V 292.402†	5429.2	6303.0	34.416	ug/L	34.416	ppb	18:27:04
1	Zn 213.857†	36576.0	32468.6	311.47	ug/L	311.47	ppb	18:27:04
1	SiO2†	171159.3	154609.0	10943	ug/L	10943	ppb	18:28:31
2	Sc Radial	5551.6	5551.6	109	%			18:26:06
2	Y RADIAL	7832.6	7832.6	142.3	%			18:26:06
2	Al 396.153Radial†	11294.5	10364.8	8153.6	ug/L	8153.6	ppb	18:26:06
2	Ca 317.933Radial†	2038.4	1851.3	3039.8	ug/L	3039.8	ppb	18:26:26
2	Fe 238.204 Radial†	7191.4	6582.8	58735	ug/L	58735	ppb	18:26:06
2	K 766.490 Radial†	11206.2	7270.0	1350.4	ug/L	1350.4	ppb	18:26:06
2	Mg 279.077 IEC†	70.8	62.5	2037.8	ug/L	2037.8	ppb	18:26:26
2	Na 589.592 Radial†	996.7	2473.3	750.12	ug/L	750.12	ppb	18:26:06
2	Sr 421.552†	4961.0	4512.8	29.544	ug/L	29.544	ppb	18:26:06
2	Sc 361.383	919463.2	919463.2	109.74	%			18:27:30
2	Y 371.029	1008352.3	1008352.3	141.64	%			18:27:30
2	Ag 328.068†	-3577.1	-3557.9	2.4588	ug/L	2.4588	ppb	18:27:35
2	As 188.979†	-15.5	6.5	25.409	ug/L	25.409	ppb	18:27:55
2	B 249.677†	-41.0	428.7	0.6301	ug/L	0.6301	ppb	18:27:35
2	Ba 233.527†	40694.6	37088.6	303.26	ug/L	303.26	ppb	18:27:35
2	Be 313.107†	-4411.4	325.5	2.4249	ug/L	2.4249	ppb	18:27:35
2	Cd 226.502†	367.9	533.5	0.0318	ug/L	0.0318	ppb	18:27:55
2	Co 228.616†	224.2	264.1	2.8092	ug/L	2.8092	ppb	18:27:55
2	Cr 267.716†	969.2	794.9	10.526	ug/L	10.526	ppb	18:27:35
2	Cu 324.752†	14912.6	7123.3	25.382	ug/L	25.382	ppb	18:27:35
2	Mn 257.610†	3340663.9	3043663.1	3492.7	ug/L	3492.7	ppb	18:27:30
2	Mo 202.031†	85.0	56.7	8.7309	ug/L	8.7309	ppb	18:27:55
2	Ni 231.604†	817.6	659.7	17.029	ug/L	17.029	ppb	18:27:55

2	P 214.914†	1025.9	715.3	399.23	ug/L	399.23 ppb	18:27:55
2	Pb 220.353†	207.4	248.4	27.737	ug/L	27.737 ppb	18:27:55
2	S 181.975 Axial†	73.2	20.5	28.607	ug/L	28.607 ppb	18:27:55
2	Sb 206.836†	43.9	3.6	-0.5665	ug/L	-0.5665 ppb	18:27:55
2	Se 196.026†	-292.9	-238.5	34.995	ug/L	34.995 ppb	18:27:55
2	Si 251.611†	170408.7	154828.7	5117.3	ug/L	5117.3 ppb	18:27:30
2	Sn 189.927†	1.3	-4.2	0.6860	ug/L	0.6860 ppb	18:27:55
2	Ti 334.940†	663527.9	605933.7	1013.4	ug/L	1013.4 ppb	18:27:30
2	Tl 190.801†	-136.0	-92.8	-4.4955	ug/L	-4.4955 ppb	18:27:55
2	U 409.014†	-11936.1	-8900.4	-284.96	ug/L	-284.96 ppb	18:27:30
2	V 292.402†	5431.6	6333.7	34.616	ug/L	34.616 ppb	18:27:35
2	Zn 213.857†	36500.1	32591.4	312.67	ug/L	312.67 ppb	18:27:35
2	SiO2†	174416.7	158475.5	11216	ug/L	11216 ppb	18:28:37
3	Sc Radial	5485.1	5485.1	108	%		18:26:31
3	Y RADIAL	7728.1	7728.1	140.4	%		18:26:31
3	Al 396.153Radial†	11175.0	10379.5	8165.2	ug/L	8165.2 ppb	18:26:31
3	Ca 317.933Radial†	2028.7	1864.9	3062.3	ug/L	3062.3 ppb	18:26:51
3	Fe 238.204 Radial†	7154.9	6628.9	59146	ug/L	59146 ppb	18:26:31
3	K 766.490 Radial†	11200.1	7389.0	1372.5	ug/L	1372.5 ppb	18:26:31
3	Mg 279.077 IEC†	70.7	63.1	2059.4	ug/L	2059.4 ppb	18:26:51
3	Na 589.592 Radial†	934.4	2426.6	735.94	ug/L	735.94 ppb	18:26:31
3	Sr 421.552†	4877.0	4490.0	29.394	ug/L	29.394 ppb	18:26:31
3	Sc 361.383	928469.3	928469.3	110.82	%		18:28:01
3	Y 371.029	1016510.9	1016510.9	142.78	%		18:28:01
3	Ag 328.068†	-3500.5	-3457.1	3.0662	ug/L	3.0662 ppb	18:28:06
3	As 188.979†	-22.7	0.1	22.687	ug/L	22.687 ppb	18:28:26
3	B 249.677†	-0.4	465.7	1.4435	ug/L	1.4435 ppb	18:28:06
3	Ba 233.527†	40379.5	36444.6	298.04	ug/L	298.04 ppb	18:28:06
3	Be 313.107†	-4485.3	297.7	2.4218	ug/L	2.4218 ppb	18:28:06
3	Cd 226.502†	358.6	521.8	-0.1444	ug/L	-0.1444 ppb	18:28:26
3	Co 228.616†	208.7	248.2	2.4522	ug/L	2.4522 ppb	18:28:26
3	Cr 267.716†	984.1	799.8	10.588	ug/L	10.588 ppb	18:28:06
3	Cu 324.752†	14918.4	6996.8	25.009	ug/L	25.009 ppb	18:28:06
3	Mn 257.610†	3382824.3	3052180.5	3502.5	ug/L	3502.5 ppb	18:28:01
3	Mo 202.031†	69.8	42.3	7.7118	ug/L	7.7118 ppb	18:28:26
3	Ni 231.604†	819.8	654.4	16.895	ug/L	16.895 ppb	18:28:26
3	P 214.914†	1001.5	684.2	379.49	ug/L	379.49 ppb	18:28:26
3	Pb 220.353†	203.5	243.0	27.019	ug/L	27.019 ppb	18:28:26
3	S 181.975 Axial†	75.9	22.3	31.230	ug/L	31.230 ppb	18:28:26
3	Sb 206.836†	35.3	-4.6	-3.5642	ug/L	-3.5642 ppb	18:28:26
3	Se 196.026†	-292.6	-235.6	38.276	ug/L	38.276 ppb	18:28:26
3	Si 251.611†	171262.3	154092.8	5093.0	ug/L	5093.0 ppb	18:28:01
3	Sn 189.927†	-3.8	-8.8	-0.1444	ug/L	-0.1444 ppb	18:28:26
3	Ti 334.940†	672231.9	607923.2	1016.7	ug/L	1016.7 ppb	18:28:01
3	Tl 190.801†	-150.7	-104.9	-8.2396	ug/L	-8.2396 ppb	18:28:26
3	U 409.014†	-11921.9	-8782.1	-281.31	ug/L	-281.31 ppb	18:28:01
3	V 292.402†	5412.8	6268.7	34.087	ug/L	34.087 ppb	18:28:06
3	Zn 213.857†	36222.6	32018.4	307.03	ug/L	307.03 ppb	18:28:06
3	SiO2†	173071.9	155720.3	11021	ug/L	11021 ppb	18:28:42

Mean Data: 243550008|936826|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	924240.6	110.31	%	0.540				0.49%
Sc Radial	5518.4	108	%	0.7				0.60%
Y 371.029	1012062.0	142.16	%	0.580				0.41%
Y RADIAL	7785.2	141.4	%	0.96				0.68%
Ag 328.068†	-3514.3	2.6998	ug/L	0.32248	2.6998	ppb	0.32248	11.94%
Al 396.153Radial†	10350.6	8142.4	ug/L	29.94	8142.4	ppb	29.94	0.37%
As 188.979†	3.0	23.883	ug/L	1.3907	23.883	ppb	1.3907	5.82%
B 249.677†	448.3	1.0778	ug/L	0.41286	1.0778	ppb	0.41286	38.31%
Ba 233.527†	36839.0	301.24	ug/L	2.801	301.24	ppb	2.801	0.93%
Be 313.107†	370.0	2.4467	ug/L	0.04035	2.4467	ppb	0.04035	1.65%
Ca 317.933Radial†	1853.2	3043.0	ug/L	17.87	3043.0	ppb	17.87	0.59%
Cd 226.502†	527.7	-0.0456	ug/L	0.08999	-0.0456	ppb	0.08999	197.29%
Co 228.616†	258.2	2.6763	ug/L	0.19524	2.6763	ppb	0.19524	7.30%
Cr 267.716†	791.5	10.486	ug/L	0.1261	10.486	ppb	0.1261	1.20%
Cu 324.752†	7046.6	25.148	ug/L	0.2040	25.148	ppb	0.2040	0.81%
Fe 238.204 Radial†	6595.8	58851	ug/L	258.0	58851	ppb	258.0	0.44%
K 766.490 Radial†	7370.2	1369.0	ug/L	17.15	1369.0	ppb	17.15	1.25%

Mg 279.077 IEC†	62.2	2030.2	ug/L	33.61	2030.2	ppb	33.61	1.66%
Mn 257.610†	3051312.9	3501.5	ug/L	8.31	3501.5	ppb	8.31	0.24%
Mo 202.031†	50.8	8.3093	ug/L	0.53183	8.3093	ppb	0.53183	6.40%
Na 589.592 Radial†	2474.0	750.33	ug/L	14.493	750.33	ppb	14.493	1.93%
Ni 231.604†	658.3	16.994	ug/L	0.0874	16.994	ppb	0.0874	0.51%
P 214.914†	696.7	387.50	ug/L	10.382	387.50	ppb	10.382	2.68%
Pb 220.353†	249.1	27.822	ug/L	0.8487	27.822	ppb	0.8487	3.05%
S 181.975 Axial†	20.2	28.169	ug/L	3.3021	28.169	ppb	3.3021	11.72%
Sb 206.836†	-2.6	-2.8318	ug/L	2.00227	-2.8318	ppb	2.00227	70.71%
Se 196.026†	-239.4	34.778	ug/L	3.6111	34.778	ppb	3.6111	10.38%
Si 251.611†	154352.0	5101.5	ug/L	13.66	5101.5	ppb	13.66	0.27%
Sn 189.927†	-8.1	-0.0328	ug/L	0.67008	-0.0328	ppb	0.67008	>999.9%
Sr 421.552†	4495.1	29.428	ug/L	0.1032	29.428	ppb	0.1032	0.35%
Ti 334.940†	607139.8	1015.4	ug/L	1.77	1015.4	ppb	1.77	0.17%
Tl 190.801†	-99.3	-6.4818	ug/L	1.88248	-6.4818	ppb	1.88248	29.04%
U 409.014†	-8779.9	-281.21	ug/L	3.805	-281.21	ppb	3.805	1.35%
V 292.402†	6301.8	34.373	ug/L	0.2672	34.373	ppb	0.2672	0.78%
Zn 213.857†	32359.5	310.39	ug/L	2.971	310.39	ppb	2.971	0.96%
SiO2†	156268.3	11060	ug/L	140.9	11060	ppb	140.9	1.27%

Sequence No.: 31
Sample ID: 243550009|936826|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 50
Date Collected: 1/15/2010 18:30:53
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 243550009|936826|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	5636.3	5636.3	111	%			18:32:46
1	Y RADIAL	7622.7	7622.7	138.5	%			18:32:46
1	Al 396.153Radial†	12771.1	11542.6	9079.9	ug/L	9079.9	ppb	18:32:46
1	Ca 317.933Radial†	2084.9	1865.2	3062.6	ug/L	3062.6	ppb	18:33:06
1	Fe 238.204 Radial†	8813.3	7948.3	70918	ug/L	70918	ppb	18:32:46
1	K 766.490 Radial†	12240.4	8049.5	1496.0	ug/L	1496.0	ppb	18:32:46
1	Mg 279.077 IEC†	67.0	58.0	1875.9	ug/L	1875.9	ppb	18:33:06
1	Na 589.592 Radial†	1582.7	2988.8	906.45	ug/L	906.45	ppb	18:32:46
1	Sr 421.552†	3427.4	3059.7	20.023	ug/L	20.023	ppb	18:32:46
1	Sc 361.383	921831.9	921831.9	110.03	%			18:34:03
1	Y 371.029	965131.8	965131.8	135.56	%			18:34:03
1	Ag 328.068†	-4665.0	-4538.4	1.6680	ug/L	1.6680	ppb	18:34:08
1	As 188.979†	-31.6	-8.2	21.483	ug/L	21.483	ppb	18:34:28
1	B 249.677†	21.2	485.4	-0.0038	ug/L	-0.0038	ppb	18:34:08
1	Ba 233.527†	11279.0	10258.1	85.604	ug/L	85.604	ppb	18:34:08
1	Be 313.107†	-6199.2	-1289.2	1.7327	ug/L	1.7327	ppb	18:34:08
1	Cd 226.502†	478.0	632.6	-0.0772	ug/L	-0.0772	ppb	18:34:28
1	Co 228.616†	254.7	291.3	3.1850	ug/L	3.1850	ppb	18:34:28
1	Cr 267.716†	920.6	748.5	10.192	ug/L	10.192	ppb	18:34:08
1	Cu 324.752†	10213.6	2817.5	12.618	ug/L	12.618	ppb	18:34:08
1	Mn 257.610†	2007757.4	1824387.3	2097.1	ug/L	2097.1	ppb	18:34:03
1	Mo 202.031†	149.7	115.4	13.953	ug/L	13.953	ppb	18:34:28
1	Ni 231.604†	436.8	311.7	8.0432	ug/L	8.0432	ppb	18:34:28
1	P 214.914†	1153.7	829.0	463.68	ug/L	463.68	ppb	18:34:28
1	Pb 220.353†	284.0	317.5	35.574	ug/L	35.574	ppb	18:34:28
1	S 181.975 Axial†	81.5	27.8	39.200	ug/L	39.200	ppb	18:34:28
1	Sb 206.836†	46.8	6.1	0.7899	ug/L	0.7899	ppb	18:34:28
1	Se 196.026†	-355.2	-294.4	37.956	ug/L	37.956	ppb	18:34:28
1	Si 251.611†	169412.7	153524.5	5074.1	ug/L	5074.1	ppb	18:34:03
1	Sn 189.927†	-2.9	-8.1	0.1870	ug/L	0.1870	ppb	18:34:28
1	Ti 334.940†	644551.1	587132.4	981.92	ug/L	981.92	ppb	18:34:03
1	Tl 190.801†	-114.8	-73.2	-5.2052	ug/L	-5.2052	ppb	18:34:28
1	U 409.014†	-9504.9	-6662.7	-216.40	ug/L	-216.40	ppb	18:34:03
1	V 292.402†	4918.8	5854.9	29.688	ug/L	29.688	ppb	18:34:08
1	Zn 213.857†	35767.5	31840.1	304.22	ug/L	304.22	ppb	18:34:08
1	SiO2†	167746.7	152004.8	10758	ug/L	10758	ppb	18:35:36
2	Sc Radial	5446.5	5446.5	107	%			18:33:11
2	Y RADIAL	7405.4	7405.4	134.5	%			18:33:11
2	Al 396.153Radial†	12789.1	11961.3	9409.3	ug/L	9409.3	ppb	18:33:11
2	Ca 317.933Radial†	2084.4	1930.3	3169.6	ug/L	3169.6	ppb	18:33:31
2	Fe 238.204 Radial†	8784.5	8198.6	73152	ug/L	73152	ppb	18:33:11
2	K 766.490 Radial†	12184.7	8382.6	1557.9	ug/L	1557.9	ppb	18:33:11
2	Mg 279.077 IEC†	70.2	63.1	2043.4	ug/L	2043.4	ppb	18:33:31
2	Na 589.592 Radial†	1537.6	2996.4	908.75	ug/L	908.75	ppb	18:33:11
2	Sr 421.552†	3436.1	3175.6	20.782	ug/L	20.782	ppb	18:33:11
2	Sc 361.383	931941.0	931941.0	111.23	%			18:34:34
2	Y 371.029	977582.2	977582.2	137.31	%			18:34:34
2	Ag 328.068†	-4572.0	-4408.8	3.0040	ug/L	3.0040	ppb	18:34:39
2	As 188.979†	-39.0	-14.5	19.185	ug/L	19.185	ppb	18:34:59
2	B 249.677†	-28.4	440.6	-1.4311	ug/L	-1.4311	ppb	18:34:39
2	Ba 233.527†	11212.5	10087.1	84.281	ug/L	84.281	ppb	18:34:39
2	Be 313.107†	-6362.8	-1375.1	1.6985	ug/L	1.6985	ppb	18:34:39
2	Cd 226.502†	466.4	617.5	-0.4825	ug/L	-0.4825	ppb	18:34:59
2	Co 228.616†	267.2	300.1	3.3384	ug/L	3.3384	ppb	18:34:59
2	Cr 267.716†	879.0	702.0	9.6961	ug/L	9.6961	ppb	18:34:39
2	Cu 324.752†	10194.7	2699.9	12.371	ug/L	12.371	ppb	18:34:39
2	Mn 257.610†	2024110.4	1819294.5	2091.4	ug/L	2091.4	ppb	18:34:34
2	Mo 202.031†	144.0	108.7	13.644	ug/L	13.644	ppb	18:34:59
2	Ni 231.604†	448.2	317.6	8.1978	ug/L	8.1978	ppb	18:34:59

2	P 214.914†	1144.4	809.4	449.70	ug/L	449.70 ppb	18:34:59
2	Pb 220.353†	271.9	303.8	33.687	ug/L	33.687 ppb	18:34:59
2	S 181.975 Axial†	76.5	22.5	31.364	ug/L	31.364 ppb	18:34:59
2	Sb 206.836†	36.2	-3.8	-2.7623	ug/L	-2.7623 ppb	18:34:59
2	Se 196.026†	-354.3	-290.1	48.135	ug/L	48.135 ppb	18:34:59
2	Si 251.611†	169848.2	152245.7	5031.9	ug/L	5031.9 ppb	18:34:34
2	Sn 189.927†	1.6	-4.0	0.9882	ug/L	0.9882 ppb	18:34:59
2	Ti 334.940†	651275.3	586823.0	981.40	ug/L	981.40 ppb	18:34:34
2	Tl 190.801†	-107.6	-65.6	-2.8372	ug/L	-2.8372 ppb	18:34:59
2	U 409.014†	-9623.0	-6675.3	-217.04	ug/L	-217.04 ppb	18:34:34
2	V 292.402†	4851.7	5746.1	28.592	ug/L	28.592 ppb	18:34:39
2	Zn 213.857†	35527.4	31271.6	298.44	ug/L	298.44 ppb	18:34:39
2	SiO2†	170096.5	152463.6	10791	ug/L	10791 ppb	18:35:41
3	Sc Radial	5699.7	5699.7	112	%		18:33:36
3	Y RADIAL	7655.4	7655.4	139.1	%		18:33:36
3	Al 396.153Radial†	12747.0	11392.7	8962.0	ug/L	8962.0 ppb	18:33:36
3	Ca 317.933Radial†	2093.7	1852.1	3041.1	ug/L	3041.1 ppb	18:33:56
3	Fe 238.204 Radial†	8728.5	7784.0	69452	ug/L	69452 ppb	18:33:36
3	K 766.490 Radial†	12017.7	7727.7	1436.1	ug/L	1436.1 ppb	18:33:36
3	Mg 279.077 IEC†	70.3	60.3	1952.3	ug/L	1952.3 ppb	18:33:56
3	Na 589.592 Radial†	1526.7	2922.9	886.47	ug/L	886.47 ppb	18:33:36
3	Sr 421.552†	3442.6	3038.8	19.887	ug/L	19.887 ppb	18:33:36
3	Sc 361.383	926127.4	926127.4	110.54	%		18:35:05
3	Y 371.029	969633.1	969633.1	136.20	%		18:35:05
3	Ag 328.068†	-4559.8	-4423.5	1.7414	ug/L	1.7414 ppb	18:35:10
3	As 188.979†	-44.9	-20.0	15.971	ug/L	15.971 ppb	18:35:30
3	B 249.677†	44.2	506.1	0.7269	ug/L	0.7269 ppb	18:35:10
3	Ba 233.527†	11231.5	10167.6	84.824	ug/L	84.824 ppb	18:35:10
3	Be 313.107†	-6146.6	-1215.5	1.7812	ug/L	1.7812 ppb	18:35:10
3	Cd 226.502†	486.3	638.2	0.1381	ug/L	0.1381 ppb	18:35:30
3	Co 228.616†	253.6	289.2	3.1428	ug/L	3.1428 ppb	18:35:30
3	Cr 267.716†	816.8	650.7	9.0309	ug/L	9.0309 ppb	18:35:10
3	Cu 324.752†	10118.5	2688.5	12.140	ug/L	12.140 ppb	18:35:10
3	Mn 257.610†	2029916.8	1835970.5	2110.2	ug/L	2110.2 ppb	18:35:05
3	Mo 202.031†	150.4	115.3	13.836	ug/L	13.836 ppb	18:35:30
3	Ni 231.604†	472.3	341.9	8.8247	ug/L	8.8247 ppb	18:35:30
3	P 214.914†	1160.5	830.3	465.73	ug/L	465.73 ppb	18:35:30
3	Pb 220.353†	273.8	307.0	34.357	ug/L	34.357 ppb	18:35:30
3	S 181.975 Axial†	81.3	27.3	38.487	ug/L	38.487 ppb	18:35:30
3	Sb 206.836†	48.2	7.2	1.1028	ug/L	1.1028 ppb	18:35:30
3	Se 196.026†	-353.7	-291.6	35.024	ug/L	35.024 ppb	18:35:30
3	Si 251.611†	170802.0	154067.2	5092.1	ug/L	5092.1 ppb	18:35:05
3	Sn 189.927†	-4.4	-9.4	-0.0819	ug/L	-0.0819 ppb	18:35:30
3	Ti 334.940†	653406.5	592426.5	990.76	ug/L	990.76 ppb	18:35:05
3	Tl 190.801†	-116.3	-74.0	-5.3363	ug/L	-5.3363 ppb	18:35:30
3	U 409.014†	-9587.6	-6697.6	-217.32	ug/L	-217.32 ppb	18:35:05
3	V 292.402†	4954.6	5866.5	29.974	ug/L	29.974 ppb	18:35:10
3	Zn 213.857†	35727.1	31652.8	302.52	ug/L	302.52 ppb	18:35:10
3	SiO2†	172447.0	155550.0	11009	ug/L	11009 ppb	18:35:46

Mean Data: 243550009|936826|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	926633.5	110.60	%	0.606				0.55%
Sc Radial	5594.2	110	%	2.6				2.36%
Y 371.029	970782.4	136.36	%	0.886				0.65%
Y RADIAL	7561.2	137.3	%	2.47				1.80%
Ag 328.068†	-4456.9	2.1378	ug/L	0.75104	2.1378	ppb	0.75104	35.13%
Al 396.153Radial†	11632.2	9150.4	ug/L	231.84	9150.4	ppb	231.84	2.53%
As 188.979†	-14.2	18.880	ug/L	2.7684	18.880	ppb	2.7684	14.66%
B 249.677†	477.4	-0.2360	ug/L	1.09759	-0.2360	ppb	1.09759	465.06%
Ba 233.527†	10170.9	84.903	ug/L	0.6652	84.903	ppb	0.6652	0.78%
Be 313.107†	-1293.3	1.7375	ug/L	0.04153	1.7375	ppb	0.04153	2.39%
Ca 317.933Radial†	1882.5	3091.1	ug/L	68.81	3091.1	ppb	68.81	2.23%
Cd 226.502†	629.4	-0.1405	ug/L	0.31509	-0.1405	ppb	0.31509	224.23%
Co 228.616†	293.5	3.2221	ug/L	0.10294	3.2221	ppb	0.10294	3.19%
Cr 267.716†	700.4	9.6397	ug/L	0.58262	9.6397	ppb	0.58262	6.04%
Cu 324.752†	2735.3	12.376	ug/L	0.2389	12.376	ppb	0.2389	1.93%
Fe 238.204 Radial†	7977.0	71174	ug/L	1863.1	71174	ppb	1863.1	2.62%
K 766.490 Radial†	8053.3	1496.6	ug/L	60.93	1496.6	ppb	60.93	4.07%

Mg 279.077 IEC†	60.5	1957.2	ug/L	83.87	1957.2	ppb	83.87	4.29%
Mn 257.610†	1826550.8	2099.6	ug/L	9.62	2099.6	ppb	9.62	0.46%
Mo 202.031†	113.1	13.811	ug/L	0.1559	13.811	ppb	0.1559	1.13%
Na 589.592 Radial†	2969.4	900.55	ug/L	12.256	900.55	ppb	12.256	1.36%
Ni 231.604†	323.7	8.3552	ug/L	0.41385	8.3552	ppb	0.41385	4.95%
P 214.914†	822.9	459.70	ug/L	8.725	459.70	ppb	8.725	1.90%
Pb 220.353†	309.4	34.539	ug/L	0.9571	34.539	ppb	0.9571	2.77%
S 181.975 Axial†	25.9	36.350	ug/L	4.3329	36.350	ppb	4.3329	11.92%
Sb 206.836†	3.2	-0.2898	ug/L	2.14689	-0.2898	ppb	2.14689	740.71%
Se 196.026†	-292.0	40.372	ug/L	6.8811	40.372	ppb	6.8811	17.04%
Si 251.611†	153279.1	5066.0	ug/L	30.91	5066.0	ppb	30.91	0.61%
Sn 189.927†	-7.1	0.3644	ug/L	0.55668	0.3644	ppb	0.55668	152.75%
Sr 421.552†	3091.4	20.231	ug/L	0.4825	20.231	ppb	0.4825	2.39%
Ti 334.940†	588794.0	984.69	ug/L	5.261	984.69	ppb	5.261	0.53%
Tl 190.801†	-71.0	-4.4596	ug/L	1.40651	-4.4596	ppb	1.40651	31.54%
U 409.014†	-6678.5	-216.92	ug/L	0.472	-216.92	ppb	0.472	0.22%
V 292.402†	5822.5	29.418	ug/L	0.7297	29.418	ppb	0.7297	2.48%
Zn 213.857†	31588.1	301.73	ug/L	2.968	301.73	ppb	2.968	0.98%
SiO2†	153339.5	10853	ug/L	136.5	10853	ppb	136.5	1.26%

Sequence No.: 32
Sample ID: 243550010|936826|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 51
Date Collected: 1/15/2010 18:37:57
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 243550010|936826|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	5596.4	5596.4	110	%			18:39:50
1	Y RADIAL	7069.8	7069.8	128.4	%			18:39:50
1	Al 396.153Radial†	49405.2	44939.9	35353	ug/L	35353	ppb	18:39:50
1	Ca 317.933Radial†	7543.2	6842.4	11235	ug/L	11235	ppb	18:39:50
1	Fe 238.204 Radial†	7941.1	7211.8	64347	ug/L	64347	ppb	18:39:50
1	K 766.490 Radial†	30401.4	24643.9	4581.8	ug/L	4581.8	ppb	18:39:50
1	Mg 279.077 IEC†	218.3	196.1	6520.8	ug/L	6520.8	ppb	18:40:10
1	Na 589.592 Radial†	3893.1	5100.1	1546.8	ug/L	1546.8	ppb	18:39:50
1	Sr 421.552†	11642.0	10552.1	69.051	ug/L	69.051	ppb	18:39:50
1	Sc 361.383	911791.9	911791.9	108.83	%			18:41:07
1	Y 371.029	892857.9	892857.9	125.41	%			18:41:07
1	Ag 328.068†	-4066.1	-4034.6	2.0198	ug/L	2.0198	ppb	18:41:12
1	As 188.979†	3.3	23.6	34.256	ug/L	34.256	ppb	18:41:32
1	B 249.677†	-4.0	462.4	0.5042	ug/L	0.5042	ppb	18:41:12
1	Ba 233.527†	19843.7	18241.0	150.38	ug/L	150.38	ppb	18:41:12
1	Be 313.107†	6439.5	10262.4	6.2329	ug/L	6.2329	ppb	18:41:12
1	Cd 226.502†	384.2	551.2	-0.3190	ug/L	-0.3190	ppb	18:41:32
1	Co 228.616†	491.0	511.0	7.9128	ug/L	7.9128	ppb	18:41:32
1	Cr 267.716†	2473.3	2184.4	26.771	ug/L	26.771	ppb	18:41:32
1	Cu 324.752†	16400.5	8604.8	30.243	ug/L	30.243	ppb	18:41:12
1	Mn 257.610†	1364119.9	1253049.3	1441.7	ug/L	1441.7	ppb	18:41:07
1	Mo 202.031†	26.2	3.3	5.3719	ug/L	5.3719	ppb	18:41:32
1	Ni 231.604†	1608.2	1392.4	35.946	ug/L	35.946	ppb	18:41:32
1	P 214.914†	873.9	583.5	317.77	ug/L	317.77	ppb	18:41:32
1	Pb 220.353†	461.1	483.0	62.968	ug/L	62.968	ppb	18:41:32
1	S 181.975 Axial†	162.7	103.2	145.33	ug/L	145.33	ppb	18:41:32
1	Sb 206.836†	42.6	2.8	-1.5530	ug/L	-1.5530	ppb	18:41:32
1	Se 196.026†	-324.8	-270.0	33.922	ug/L	33.922	ppb	18:41:32
1	Si 251.611†	141634.1	129694.5	4286.6	ug/L	4286.6	ppb	18:41:12
1	Sn 189.927†	-59.6	-60.2	-8.2021	ug/L	-8.2021	ppb	18:41:32
1	Ti 334.940†	654263.8	602508.0	1008.3	ug/L	1008.3	ppb	18:41:07
1	Tl 190.801†	-111.1	-70.9	-7.5052	ug/L	-7.5052	ppb	18:41:32
1	U 409.014†	-9572.6	-6820.1	-220.61	ug/L	-220.61	ppb	18:41:07
1	V 292.402†	12120.1	12521.4	77.604	ug/L	77.604	ppb	18:41:12
1	Zn 213.857†	18661.8	16479.8	154.54	ug/L	154.54	ppb	18:41:12
1	SiO2†	141953.9	129983.0	9199.7	ug/L	9199.7	ppb	18:42:40
2	Sc Radial	5545.4	5545.4	109	%			18:40:15
2	Y RADIAL	7001.7	7001.7	127.2	%			18:40:15
2	Al 396.153Radial†	49044.3	45021.6	35418	ug/L	35418	ppb	18:40:15
2	Ca 317.933Radial†	7494.0	6860.3	11265	ug/L	11265	ppb	18:40:15
2	Fe 238.204 Radial†	7862.9	7206.4	64299	ug/L	64299	ppb	18:40:15
2	K 766.490 Radial†	30228.6	24739.5	4599.5	ug/L	4599.5	ppb	18:40:15
2	Mg 279.077 IEC†	218.5	198.1	6587.9	ug/L	6587.9	ppb	18:40:35
2	Na 589.592 Radial†	3827.3	5072.2	1538.3	ug/L	1538.3	ppb	18:40:15
2	Sr 421.552†	11542.3	10557.9	69.089	ug/L	69.089	ppb	18:40:15
2	Sc 361.383	913366.4	913366.4	109.01	%			18:41:38
2	Y 371.029	894409.9	894409.9	125.63	%			18:41:38
2	Ag 328.068†	-4145.9	-4101.4	1.6887	ug/L	1.6887	ppb	18:41:43
2	As 188.979†	-5.4	15.7	30.733	ug/L	30.733	ppb	18:42:03
2	B 249.677†	-14.5	452.8	0.2844	ug/L	0.2844	ppb	18:41:43
2	Ba 233.527†	20141.9	18483.0	152.34	ug/L	152.34	ppb	18:41:43
2	Be 313.107†	6637.6	10433.9	6.2968	ug/L	6.2968	ppb	18:41:43
2	Cd 226.502†	392.6	558.4	-0.2317	ug/L	-0.2317	ppb	18:42:03
2	Co 228.616†	467.7	488.9	7.4425	ug/L	7.4425	ppb	18:42:03
2	Cr 267.716†	2481.8	2188.3	26.817	ug/L	26.817	ppb	18:42:03
2	Cu 324.752†	16599.8	8761.7	30.727	ug/L	30.727	ppb	18:41:43
2	Mn 257.610†	1368415.8	1254829.0	1443.7	ug/L	1443.7	ppb	18:41:38
2	Mo 202.031†	12.4	-9.4	4.4420	ug/L	4.4420	ppb	18:42:03
2	Ni 231.604†	1595.6	1378.4	35.583	ug/L	35.583	ppb	18:42:03

2	P 214.914†	866.4	575.2	312.52 ug/L	312.52 ppb	18:42:03
2	Pb 220.353†	464.8	485.7	63.322 ug/L	63.322 ppb	18:42:03
2	S 181.975 Axial†	167.9	107.7	151.94 ug/L	151.94 ppb	18:42:03
2	Sb 206.836†	41.2	1.4	-2.0577 ug/L	-2.0577 ppb	18:42:03
2	Se 196.026†	-322.7	-267.6	35.356 ug/L	35.356 ppb	18:42:03
2	Si 251.611†	143382.1	131073.6	4332.2 ug/L	4332.2 ppb	18:41:43
2	Sn 189.927†	-61.4	-61.7	-8.4854 ug/L	-8.4854 ppb	18:42:03
2	Ti 334.940†	654816.1	601978.2	1007.5 ug/L	1007.5 ppb	18:41:38
2	Tl 190.801†	-116.3	-75.6	-8.9779 ug/L	-8.9779 ppb	18:42:03
2	U 409.014†	-9527.3	-6763.4	-218.83 ug/L	-218.83 ppb	18:41:38
2	V 292.402†	12305.0	12671.8	78.665 ug/L	78.665 ppb	18:41:43
2	Zn 213.857†	18993.1	16754.1	157.23 ug/L	157.23 ppb	18:41:43
2	SiO2†	141234.2	129097.9	9137.1 ug/L	9137.1 ppb	18:42:45
3	Sc Radial	5603.1	5603.1	110 %		18:40:40
3	Y RADIAL	7088.2	7088.2	128.7 %		18:40:40
3	Al 396.153Radial†	49714.9	45167.3	35532 ug/L	35532 ppb	18:40:40
3	Ca 317.933Radial†	7645.1	6926.7	11374 ug/L	11374 ppb	18:40:40
3	Fe 238.204 Radial†	8005.2	7261.3	64789 ug/L	64789 ppb	18:40:40
3	K 766.490 Radial†	30816.2	24987.5	4645.7 ug/L	4645.7 ppb	18:40:40
3	Mg 279.077 IEC†	217.1	194.7	6475.6 ug/L	6475.6 ppb	18:41:00
3	Na 589.592 Radial†	3892.3	5095.0	1545.2 ug/L	1545.2 ppb	18:40:40
3	Sr 421.552†	11708.4	10599.8	69.362 ug/L	69.362 ppb	18:40:40
3	Sc 361.383	924397.5	924397.5	110.33 %		18:42:09
3	Y 371.029	905141.9	905141.9	127.14 %		18:42:09
3	Ag 328.068†	-3984.6	-3909.8	2.7534 ug/L	2.7534 ppb	18:42:14
3	As 188.979†	-2.8	18.0	31.870 ug/L	31.870 ppb	18:42:34
3	B 249.677†	-38.2	431.5	-0.2998 ug/L	-0.2998 ppb	18:42:14
3	Ba 233.527†	19918.2	18059.9	148.92 ug/L	148.92 ppb	18:42:14
3	Be 313.107†	6450.2	10191.4	6.2011 ug/L	6.2011 ppb	18:42:14
3	Cd 226.502†	383.5	545.8	-0.4273 ug/L	-0.4273 ppb	18:42:34
3	Co 228.616†	468.0	484.0	7.3351 ug/L	7.3351 ppb	18:42:34
3	Cr 267.716†	2485.5	2164.5	26.549 ug/L	26.549 ppb	18:42:34
3	Cu 324.752†	16404.8	8403.2	29.641 ug/L	29.641 ppb	18:42:14
3	Mn 257.610†	1380618.5	1250909.8	1439.3 ug/L	1439.3 ppb	18:42:09
3	Mo 202.031†	29.6	6.1	5.6087 ug/L	5.6087 ppb	18:42:34
3	Ni 231.604†	1602.0	1366.7	35.281 ug/L	35.281 ppb	18:42:34
3	P 214.914†	875.3	573.9	311.51 ug/L	311.51 ppb	18:42:34
3	Pb 220.353†	457.1	473.7	61.777 ug/L	61.777 ppb	18:42:34
3	S 181.975 Axial†	173.5	111.0	156.78 ug/L	156.78 ppb	18:42:34
3	Sb 206.836†	39.7	-0.4	-2.7199 ug/L	-2.7199 ppb	18:42:34
3	Se 196.026†	-325.4	-266.5	37.694 ug/L	37.694 ppb	18:42:34
3	Si 251.611†	141116.3	127450.4	4212.4 ug/L	4212.4 ppb	18:42:14
3	Sn 189.927†	-71.6	-70.2	-10.014 ug/L	-10.014 ppb	18:42:34
3	Ti 334.940†	662008.9	601329.6	1006.4 ug/L	1006.4 ppb	18:42:09
3	Tl 190.801†	-110.1	-68.6	-6.8018 ug/L	-6.8018 ppb	18:42:34
3	U 409.014†	-9751.2	-6862.1	-221.97 ug/L	-221.97 ppb	18:42:09
3	V 292.402†	12191.6	12434.2	76.927 ug/L	76.927 ppb	18:42:14
3	Zn 213.857†	18849.2	16415.8	153.88 ug/L	153.88 ppb	18:42:14
3	SiO2†	141934.8	128186.9	9072.5 ug/L	9072.5 ppb	18:42:50

Mean Data: 243550010|936826|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	916518.6	109.39	%	0.820				0.75%
Sc Radial	5581.7	110	%	0.6				0.57%
Y 371.029	897469.9	126.06	%	0.940				0.75%
Y RADIAL	7053.2	128.1	%	0.83				0.65%
Ag 328.068†	-4015.3	2.1540	ug/L	0.54489	2.1540	ppb	0.54489	25.30%
Al 396.153Radial†	45042.9	35434	ug/L	90.6	35434	ppb	90.6	0.26%
As 188.979†	19.1	32.287	ug/L	1.7980	32.287	ppb	1.7980	5.57%
B 249.677†	448.9	0.1629	ug/L	0.41553	0.1629	ppb	0.41553	255.03%
Ba 233.527†	18261.3	150.54	ug/L	1.720	150.54	ppb	1.720	1.14%
Be 313.107†	10295.9	6.2436	ug/L	0.04875	6.2436	ppb	0.04875	0.78%
Ca 317.933Radial†	6876.5	11291	ug/L	73.0	11291	ppb	73.0	0.65%
Cd 226.502†	551.8	-0.3260	ug/L	0.09802	-0.3260	ppb	0.09802	30.07%
Co 228.616†	494.6	7.5635	ug/L	0.30729	7.5635	ppb	0.30729	4.06%
Cr 267.716†	2179.1	26.712	ug/L	0.1434	26.712	ppb	0.1434	0.54%
Cu 324.752†	8589.9	30.204	ug/L	0.5437	30.204	ppb	0.5437	1.80%
Fe 238.204 Radial†	7226.5	64478	ug/L	270.2	64478	ppb	270.2	0.42%
K 766.490 Radial†	24790.3	4609.0	ug/L	32.98	4609.0	ppb	32.98	0.72%

Mg 279.077 IEC†	196.3	6528.1	ug/L	56.50	6528.1	ppb	56.50	0.87%
Mn 257.610†	1252929.4	1441.5	ug/L	2.22	1441.5	ppb	2.22	0.15%
Mo 202.031†	0.0	5.1409	ug/L	0.61670	5.1409	ppb	0.61670	12.00%
Na 589.592 Radial†	5089.1	1543.4	ug/L	4.50	1543.4	ppb	4.50	0.29%
Ni 231.604†	1379.1	35.604	ug/L	0.3327	35.604	ppb	0.3327	0.93%
P 214.914†	577.5	313.94	ug/L	3.361	313.94	ppb	3.361	1.07%
Pb 220.353†	480.8	62.689	ug/L	0.8097	62.689	ppb	0.8097	1.29%
S 181.975 Axial†	107.3	151.35	ug/L	5.751	151.35	ppb	5.751	3.80%
Sb 206.836†	1.2	-2.1102	ug/L	0.58523	-2.1102	ppb	0.58523	27.73%
Se 196.026†	-268.0	35.657	ug/L	1.9039	35.657	ppb	1.9039	5.34%
Si 251.611†	129406.2	4277.1	ug/L	60.45	4277.1	ppb	60.45	1.41%
Sn 189.927†	-64.0	-8.9006	ug/L	0.97490	-8.9006	ppb	0.97490	10.95%
Sr 421.552†	10569.9	69.167	ug/L	0.1697	69.167	ppb	0.1697	0.25%
Ti 334.940†	601938.6	1007.4	ug/L	0.97	1007.4	ppb	0.97	0.10%
Tl 190.801†	-71.7	-7.7616	ug/L	1.11048	-7.7616	ppb	1.11048	14.31%
U 409.014†	-6815.2	-220.47	ug/L	1.574	-220.47	ppb	1.574	0.71%
V 292.402†	12542.5	77.732	ug/L	0.8760	77.732	ppb	0.8760	1.13%
Zn 213.857†	16549.9	155.22	ug/L	1.774	155.22	ppb	1.774	1.14%
SiO2†	129089.3	9136.4	ug/L	63.57	9136.4	ppb	63.57	0.70%

Sequence No.: 33
Sample ID: 243550011|936826|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 52
Date Collected: 1/15/2010 18:45:01
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 243550011|936826|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5559.5	5559.5	109	%			18:46:54
1	Y RADIAL	7074.6	7074.6	128.5	%			18:46:54
1	Al 396.153Radial†	27797.9	25457.8	20027	ug/L	20027	ppb	18:46:54
1	Ca 317.933Radial†	2520.2	2289.7	3759.7	ug/L	3759.7	ppb	18:47:14
1	Fe 238.204 Radial†	7768.5	7101.7	63365	ug/L	63365	ppb	18:46:54
1	K 766.490 Radial†	21507.4	16685.4	3103.2	ug/L	3103.2	ppb	18:46:54
1	Mg 279.077 IEC†	94.5	84.0	2756.8	ug/L	2756.8	ppb	18:47:14
1	Na 589.592 Radial†	629.8	2136.1	647.86	ug/L	647.86	ppb	18:46:54
1	Sr 421.552†	4128.9	3744.6	24.505	ug/L	24.505	ppb	18:46:54
1	Sc 361.383	915027.3	915027.3	109.21	%			18:48:11
1	Y 371.029	902163.2	902163.2	126.72	%			18:48:11
1	Ag 328.068†	-3890.2	-3860.4	2.4363	ug/L	2.4363	ppb	18:48:16
1	As 188.979†	-22.8	-0.3	23.975	ug/L	23.975	ppb	18:48:36
1	B 249.677†	-9.5	457.4	0.5554	ug/L	0.5554	ppb	18:48:16
1	Ba 233.527†	19426.8	17794.7	146.63	ug/L	146.63	ppb	18:48:16
1	Be 313.107†	2681.8	6800.8	5.0396	ug/L	5.0396	ppb	18:48:16
1	Cd 226.502†	432.6	594.3	0.2692	ug/L	0.2692	ppb	18:48:36
1	Co 228.616†	318.2	351.1	4.3975	ug/L	4.3975	ppb	18:48:36
1	Cr 267.716†	1382.7	1177.8	15.016	ug/L	15.016	ppb	18:48:36
1	Cu 324.752†	13209.5	5629.7	20.936	ug/L	20.936	ppb	18:48:16
1	Mn 257.610†	1823534.1	1669275.2	1918.6	ug/L	1918.6	ppb	18:48:11
1	Mo 202.031†	34.2	10.6	5.7386	ug/L	5.7386	ppb	18:48:36
1	Ni 231.604†	604.7	468.3	12.088	ug/L	12.088	ppb	18:48:36
1	P 214.914†	2906.5	2441.8	1482.9	ug/L	1482.9	ppb	18:48:36
1	Pb 220.353†	429.3	452.4	55.760	ug/L	55.760	ppb	18:48:36
1	S 181.975 Axial†	178.5	117.1	168.71	ug/L	168.71	ppb	18:48:36
1	Sb 206.836†	44.0	3.9	-0.9012	ug/L	-0.9012	ppb	18:48:36
1	Se 196.026†	-313.9	-259.0	37.184	ug/L	37.184	ppb	18:48:36
1	Si 251.611†	163973.0	149688.7	4947.4	ug/L	4947.4	ppb	18:48:16
1	Sn 189.927†	5.1	-0.7	1.5091	ug/L	1.5091	ppb	18:48:36
1	Ti 334.940†	696233.8	638811.6	1068.3	ug/L	1068.3	ppb	18:48:11
1	Tl 190.801†	-108.6	-68.3	-3.8042	ug/L	-3.8042	ppb	18:48:36
1	U 409.014†	-8506.6	-5813.0	-188.98	ug/L	-188.98	ppb	18:48:11
1	V 292.402†	5643.0	6551.3	35.568	ug/L	35.568	ppb	18:48:16
1	Zn 213.857†	47745.6	43049.5	414.46	ug/L	414.46	ppb	18:48:16
1	SiO2†	164073.0	149774.9	10600	ug/L	10600	ppb	18:49:44
2	Sc Radial	5590.2	5590.2	110	%			18:47:19
2	Y RADIAL	7096.4	7096.4	128.9	%			18:47:19
2	Al 396.153Radial†	27917.4	25427.3	20003	ug/L	20003	ppb	18:47:19
2	Ca 317.933Radial†	2519.7	2276.6	3738.1	ug/L	3738.1	ppb	18:47:39
2	Fe 238.204 Radial†	7769.2	7063.4	63023	ug/L	63023	ppb	18:47:19
2	K 766.490 Radial†	21688.2	16742.2	3113.8	ug/L	3113.8	ppb	18:47:19
2	Mg 279.077 IEC†	91.0	80.4	2635.9	ug/L	2635.9	ppb	18:47:39
2	Na 589.592 Radial†	726.0	2220.6	673.47	ug/L	673.47	ppb	18:47:19
2	Sr 421.552†	4176.1	3766.9	24.652	ug/L	24.652	ppb	18:47:19
2	Sc 361.383	922437.0	922437.0	110.10	%			18:48:42
2	Y 371.029	906313.9	906313.9	127.30	%			18:48:42
2	Ag 328.068†	-3989.4	-3921.9	2.0341	ug/L	2.0341	ppb	18:48:47
2	As 188.979†	-47.6	-22.6	13.999	ug/L	13.999	ppb	18:49:07
2	B 249.677†	-3.1	463.3	0.7511	ug/L	0.7511	ppb	18:48:47
2	Ba 233.527†	19468.7	17689.9	145.76	ug/L	145.76	ppb	18:48:47
2	Be 313.107†	2782.7	6872.7	5.0732	ug/L	5.0732	ppb	18:48:47
2	Cd 226.502†	419.9	579.6	0.1347	ug/L	0.1347	ppb	18:49:07
2	Co 228.616†	307.2	338.8	4.1331	ug/L	4.1331	ppb	18:49:07
2	Cr 267.716†	1364.9	1151.4	14.705	ug/L	14.705	ppb	18:49:07
2	Cu 324.752†	13165.5	5492.6	20.493	ug/L	20.493	ppb	18:48:47
2	Mn 257.610†	1841248.5	1671952.6	1921.6	ug/L	1921.6	ppb	18:48:42
2	Mo 202.031†	27.1	3.9	5.2243	ug/L	5.2243	ppb	18:49:07
2	Ni 231.604†	623.4	480.9	12.413	ug/L	12.413	ppb	18:49:07

2	P 214.914†	2905.6	2419.6	1469.3	ug/L	1469.3 ppb	18:49:07
2	Pb 220.353†	418.1	439.1	54.093	ug/L	54.093 ppb	18:49:07
2	S 181.975 Axial†	181.6	118.7	170.99	ug/L	170.99 ppb	18:49:07
2	Sb 206.836†	38.2	-1.6	-2.9649	ug/L	-2.9649 ppb	18:49:07
2	Se 196.026†	-319.2	-261.5	34.412	ug/L	34.412 ppb	18:49:07
2	Si 251.611†	163924.2	148438.3	4906.1	ug/L	4906.1 ppb	18:48:47
2	Sn 189.927†	-2.6	-7.7	0.2158	ug/L	0.2158 ppb	18:49:07
2	Ti 334.940†	703600.6	640382.0	1071.0	ug/L	1071.0 ppb	18:48:42
2	Tl 190.801†	-114.9	-73.2	-5.3168	ug/L	-5.3168 ppb	18:49:07
2	U 409.014†	-8660.2	-5889.9	-191.35	ug/L	-191.35 ppb	18:48:42
2	V 292.402†	5637.8	6505.1	35.275	ug/L	35.275 ppb	18:48:47
2	Zn 213.857†	47973.5	42905.3	413.08	ug/L	413.08 ppb	18:48:47
2	SiO2†	164960.5	149374.2	10572	ug/L	10572 ppb	18:49:49
3	Sc Radial	5714.6	5714.6	112	%		18:47:44
3	Y RADIAL	7243.0	7243.0	131.6	%		18:47:44
3	Al 396.153Radial†	28350.9	25259.8	19871	ug/L	19871 ppb	18:47:44
3	Ca 317.933Radial†	2506.9	2215.2	3637.3	ug/L	3637.3 ppb	18:48:04
3	Fe 238.204 Radial†	7889.2	7016.2	62602	ug/L	62602 ppb	18:47:44
3	K 766.490 Radial†	21913.3	16512.6	3071.1	ug/L	3071.1 ppb	18:47:44
3	Mg 279.077 IEC†	91.9	79.3	2600.8	ug/L	2600.8 ppb	18:48:04
3	Na 589.592 Radial†	726.6	2206.7	669.26	ug/L	669.26 ppb	18:47:44
3	Sr 421.552†	4265.9	3764.0	24.634	ug/L	24.634 ppb	18:47:44
3	Sc 361.383	925256.7	925256.7	110.43	%		18:49:13
3	Y 371.029	908944.0	908944.0	127.67	%		18:49:13
3	Ag 328.068†	-3963.1	-3887.1	2.0701	ug/L	2.0701 ppb	18:49:18
3	As 188.979†	-42.5	-17.9	15.999	ug/L	15.999 ppb	18:49:38
3	B 249.677†	-30.2	438.8	0.2366	ug/L	0.2366 ppb	18:49:18
3	Ba 233.527†	19325.1	17506.0	144.26	ug/L	144.26 ppb	18:49:18
3	Be 313.107†	2726.1	6813.7	5.0505	ug/L	5.0505 ppb	18:49:18
3	Cd 226.502†	421.5	579.9	0.1794	ug/L	0.1794 ppb	18:49:38
3	Co 228.616†	319.9	349.5	4.3657	ug/L	4.3657 ppb	18:49:38
3	Cr 267.716†	1361.5	1144.6	14.620	ug/L	14.620 ppb	18:49:38
3	Cu 324.752†	13193.8	5481.8	20.442	ug/L	20.442 ppb	18:49:18
3	Mn 257.610†	1844397.5	1669707.7	1919.0	ug/L	1919.0 ppb	18:49:13
3	Mo 202.031†	27.1	3.8	5.1794	ug/L	5.1794 ppb	18:49:38
3	Ni 231.604†	583.1	442.7	11.425	ug/L	11.425 ppb	18:49:38
3	P 214.914†	2896.5	2403.3	1459.4	ug/L	1459.4 ppb	18:49:38
3	Pb 220.353†	423.7	443.0	54.604	ug/L	54.604 ppb	18:49:38
3	S 181.975 Axial†	176.8	113.8	163.85	ug/L	163.85 ppb	18:49:38
3	Sb 206.836†	48.6	7.6	0.3748	ug/L	0.3748 ppb	18:49:38
3	Se 196.026†	-318.4	-259.8	34.127	ug/L	34.127 ppb	18:49:38
3	Si 251.611†	163179.1	147310.0	4868.8	ug/L	4868.8 ppb	18:49:18
3	Sn 189.927†	-0.4	-5.8	0.5494	ug/L	0.5494 ppb	18:49:38
3	Ti 334.940†	705725.6	640358.6	1070.9	ug/L	1070.9 ppb	18:49:13
3	Tl 190.801†	-112.7	-70.9	-4.6014	ug/L	-4.6014 ppb	18:49:38
3	U 409.014†	-8967.2	-6143.9	-199.24	ug/L	-199.24 ppb	18:49:13
3	V 292.402†	5610.1	6464.4	35.033	ug/L	35.033 ppb	18:49:18
3	Zn 213.857†	47688.2	42514.2	409.30	ug/L	409.30 ppb	18:49:18
3	SiO2†	163606.8	147691.8	10453	ug/L	10453 ppb	18:49:54

Mean Data: 243550011|936826|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	920907.0	109.91	%	0.631				0.57%
Sc Radial	5621.4	110	%	1.6				1.46%
Y 371.029	905807.1	127.23	%	0.480				0.38%
Y RADIAL	7138.0	129.7	%	1.66				1.28%
Ag 328.068†	-3889.8	2.1802	ug/L	0.22255	2.1802	ppb	0.22255	10.21%
Al 396.153Radial†	25381.6	19967	ug/L	83.9	19967	ppb	83.9	0.42%
As 188.979†	-13.6	17.991	ug/L	5.2775	17.991	ppb	5.2775	29.33%
B 249.677†	453.2	0.5144	ug/L	0.25970	0.5144	ppb	0.25970	50.49%
Ba 233.527†	17663.6	145.55	ug/L	1.200	145.55	ppb	1.200	0.82%
Be 313.107†	6829.0	5.0544	ug/L	0.01715	5.0544	ppb	0.01715	0.34%
Ca 317.933Radial†	2260.5	3711.7	ug/L	65.30	3711.7	ppb	65.30	1.76%
Cd 226.502†	584.6	0.1944	ug/L	0.06847	0.1944	ppb	0.06847	35.22%
Co 228.616†	346.5	4.2988	ug/L	0.14438	4.2988	ppb	0.14438	3.36%
Cr 267.716†	1157.9	14.780	ug/L	0.2084	14.780	ppb	0.2084	1.41%
Cu 324.752†	5534.7	20.623	ug/L	0.2715	20.623	ppb	0.2715	1.32%
Fe 238.204 Radial†	7060.4	62996	ug/L	382.1	62996	ppb	382.1	0.61%
K 766.490 Radial†	16646.7	3096.0	ug/L	22.23	3096.0	ppb	22.23	0.72%

Mg 279.077 IEC†	81.3	2664.5	ug/L	81.83	2664.5	ppb	81.83	3.07%
Mn 257.610†	1670311.8	1919.7	ug/L	1.65	1919.7	ppb	1.65	0.09%
Mo 202.031†	6.1	5.3808	ug/L	0.31068	5.3808	ppb	0.31068	5.77%
Na 589.592 Radial†	2187.8	663.53	ug/L	13.734	663.53	ppb	13.734	2.07%
Ni 231.604†	464.0	11.975	ug/L	0.5035	11.975	ppb	0.5035	4.20%
P 214.914†	2421.6	1470.6	ug/L	11.79	1470.6	ppb	11.79	0.80%
Pb 220.353†	444.8	54.819	ug/L	0.8543	54.819	ppb	0.8543	1.56%
S 181.975 Axial†	116.6	167.85	ug/L	3.644	167.85	ppb	3.644	2.17%
Sb 206.836†	3.3	-1.1638	ug/L	1.68528	-1.1638	ppb	1.68528	144.81%
Se 196.026†	-260.1	35.241	ug/L	1.6884	35.241	ppb	1.6884	4.79%
Si 251.611†	148479.0	4907.5	ug/L	39.33	4907.5	ppb	39.33	0.80%
Sn 189.927†	-4.7	0.7581	ug/L	0.67144	0.7581	ppb	0.67144	88.57%
Sr 421.552†	3758.5	24.597	ug/L	0.0797	24.597	ppb	0.0797	0.32%
Ti 334.940†	639850.7	1070.1	ug/L	1.51	1070.1	ppb	1.51	0.14%
Tl 190.801†	-70.8	-4.5741	ug/L	0.75668	-4.5741	ppb	0.75668	16.54%
U 409.014†	-5948.9	-193.19	ug/L	5.372	-193.19	ppb	5.372	2.78%
V 292.402†	6506.9	35.292	ug/L	0.2678	35.292	ppb	0.2678	0.76%
Zn 213.857†	42823.0	412.28	ug/L	2.668	412.28	ppb	2.668	0.65%
SiO2†	148947.0	10542	ug/L	78.2	10542	ppb	78.2	0.74%

Sequence No.: 34
Sample ID: 243550012|936826|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 53
Date Collected: 1/15/2010 18:52:05
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 243550012|936826|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	5688.9	5688.9	112	%			18:53:58
1	Y RADIAL	7625.2	7625.2	138.5	%			18:53:58
1	Al 396.153Radial†	12664.1	11340.3	8921.0	ug/L	8921.0	ppb	18:53:58
1	Ca 317.933Radial†	2141.8	1898.7	3117.7	ug/L	3117.7	ppb	18:54:18
1	Fe 238.204 Radial†	7117.1	6357.2	56722	ug/L	56722	ppb	18:53:58
1	K 766.490 Radial†	11651.3	7420.4	1378.7	ug/L	1378.7	ppb	18:53:58
1	Mg 279.077 IEC†	59.1	50.4	1634.3	ug/L	1634.3	ppb	18:54:18
1	Na 589.592 Radial†	400.9	1918.3	581.79	ug/L	581.79	ppb	18:53:58
1	Sr 421.552†	2636.3	2323.4	15.199	ug/L	15.199	ppb	18:53:58
1	Sc 361.383	919753.3	919753.3	109.78	%			18:55:15
1	Y 371.029	963231.4	963231.4	135.30	%			18:55:15
1	Ag 328.068†	-3611.3	-3588.1	1.5482	ug/L	1.5482	ppb	18:55:21
1	As 188.979†	-31.4	-8.0	17.545	ug/L	17.545	ppb	18:55:41
1	B 249.677†	-205.3	279.1	-2.5971	ug/L	-2.5971	ppb	18:55:21
1	Ba 233.527†	31738.3	28918.3	236.79	ug/L	236.79	ppb	18:55:21
1	Be 313.107†	-1749.4	2751.6	3.1061	ug/L	3.1061	ppb	18:55:21
1	Cd 226.502†	386.0	549.8	0.4398	ug/L	0.4398	ppb	18:55:41
1	Co 228.616†	230.7	270.0	3.1640	ug/L	3.1640	ppb	18:55:41
1	Cr 267.716†	933.0	761.6	10.051	ug/L	10.051	ppb	18:55:21
1	Cu 324.752†	10542.0	3137.7	12.850	ug/L	12.850	ppb	18:55:21
1	Mn 257.610†	2681119.4	2441900.5	2803.1	ug/L	2803.1	ppb	18:55:15
1	Mo 202.031†	81.2	53.3	8.3239	ug/L	8.3239	ppb	18:55:41
1	Ni 231.604†	434.5	310.5	8.0142	ug/L	8.0142	ppb	18:55:41
1	P 214.914†	1288.4	954.2	553.42	ug/L	553.42	ppb	18:55:41
1	Pb 220.353†	183.8	226.8	25.363	ug/L	25.363	ppb	18:55:41
1	S 181.975 Axial†	89.9	35.6	50.723	ug/L	50.723	ppb	18:55:41
1	Sb 206.836†	47.5	6.8	0.8494	ug/L	0.8494	ppb	18:55:41
1	Se 196.026†	-289.6	-235.4	30.479	ug/L	30.479	ppb	18:55:41
1	Si 251.611†	114452.9	103807.6	3431.0	ug/L	3431.0	ppb	18:55:21
1	Sn 189.927†	1.5	-4.0	0.7018	ug/L	0.7018	ppb	18:55:41
1	Ti 334.940†	590921.2	539603.0	902.48	ug/L	902.48	ppb	18:55:15
1	Tl 190.801†	-121.3	-79.4	-4.4242	ug/L	-4.4242	ppb	18:55:41
1	U 409.014†	-8782.0	-6023.8	-194.80	ug/L	-194.80	ppb	18:55:15
1	V 292.402†	3864.1	4904.2	25.103	ug/L	25.103	ppb	18:55:21
1	Zn 213.857†	33353.2	29714.2	284.82	ug/L	284.82	ppb	18:55:21
1	SiO2†	118403.2	107400.7	7601.3	ug/L	7601.3	ppb	18:56:48
2	Sc Radial	5590.4	5590.4	110	%			18:54:23
2	Y RADIAL	7519.7	7519.7	136.6	%			18:54:23
2	Al 396.153Radial†	12580.9	11464.1	9018.3	ug/L	9018.3	ppb	18:54:23
2	Ca 317.933Radial†	2135.4	1926.7	3163.6	ug/L	3163.6	ppb	18:54:43
2	Fe 238.204 Radial†	6998.4	6361.3	56759	ug/L	56759	ppb	18:54:23
2	K 766.490 Radial†	11642.4	7595.9	1411.3	ug/L	1411.3	ppb	18:54:23
2	Mg 279.077 IEC†	60.7	52.8	1715.9	ug/L	1715.9	ppb	18:54:43
2	Na 589.592 Radial†	351.7	1879.8	570.12	ug/L	570.12	ppb	18:54:23
2	Sr 421.552†	2621.4	2351.3	15.381	ug/L	15.381	ppb	18:54:23
2	Sc 361.383	912947.6	912947.6	108.96	%			18:55:46
2	Y 371.029	953070.1	953070.1	133.87	%			18:55:46
2	Ag 328.068†	-3556.7	-3562.5	1.6898	ug/L	1.6898	ppb	18:55:51
2	As 188.979†	-31.9	-8.6	17.279	ug/L	17.279	ppb	18:56:11
2	B 249.677†	-199.1	283.4	-2.5023	ug/L	-2.5023	ppb	18:55:51
2	Ba 233.527†	31799.7	29190.2	239.00	ug/L	239.00	ppb	18:55:51
2	Be 313.107†	-1735.7	2752.3	3.1081	ug/L	3.1081	ppb	18:55:51
2	Cd 226.502†	351.1	520.4	0.0959	ug/L	0.0959	ppb	18:56:11
2	Co 228.616†	231.2	272.0	3.2076	ug/L	3.2076	ppb	18:56:11
2	Cr 267.716†	904.3	741.6	9.8237	ug/L	9.8237	ppb	18:55:51
2	Cu 324.752†	10463.5	3137.2	12.854	ug/L	12.854	ppb	18:55:51
2	Mn 257.610†	2664032.9	2444426.6	2806.0	ug/L	2806.0	ppb	18:55:46
2	Mo 202.031†	87.2	59.3	8.7660	ug/L	8.7660	ppb	18:56:11
2	Ni 231.604†	454.1	331.4	8.5542	ug/L	8.5542	ppb	18:56:11

2	P 214.914†	1277.0	952.4	552.33 ug/L	552.33 ppb	18:56:11
2	Pb 220.353†	158.8	205.1	22.628 ug/L	22.628 ppb	18:56:11
2	S 181.975 Axial†	89.6	36.0	51.289 ug/L	51.289 ppb	18:56:11
2	Sb 206.836†	35.6	-3.7	-2.9585 ug/L	-2.9585 ppb	18:56:11
2	Se 196.026†	-298.7	-245.7	23.809 ug/L	23.809 ppb	18:56:11
2	Si 251.611†	114372.7	104511.3	3454.2 ug/L	3454.2 ppb	18:55:51
2	Sn 189.927†	3.4	-2.3	1.0236 ug/L	1.0236 ppb	18:56:11
2	Ti 334.940†	587049.1	540062.2	903.25 ug/L	903.25 ppb	18:55:46
2	Tl 190.801†	-131.3	-89.4	-7.5763 ug/L	-7.5763 ppb	18:56:11
2	U 409.014†	-8986.6	-6271.2	-202.54 ug/L	-202.54 ppb	18:55:46
2	V 292.402†	3924.7	4986.2	25.668 ug/L	25.668 ppb	18:55:51
2	Zn 213.857†	33267.7	29862.3	286.26 ug/L	286.26 ppb	18:55:51
2	SiO2†	116042.6	106038.4	7504.9 ug/L	7504.9 ppb	18:56:53
3	Sc Radial	5434.1	5434.1	107 %		18:54:48
3	Y RADIAL	7330.9	7330.9	133.2 %		18:54:48
3	Al 396.153Radial†	12188.4	11425.8	8988.2 ug/L	8988.2 ppb	18:54:48
3	Ca 317.933Radial†	2138.7	1985.6	3260.4 ug/L	3260.4 ppb	18:55:08
3	Fe 238.204 Radial†	6833.5	6390.1	57015 ug/L	57015 ppb	18:54:48
3	K 766.490 Radial†	11454.1	7724.3	1435.2 ug/L	1435.2 ppb	18:54:48
3	Mg 279.077 IEC†	56.1	50.1	1623.6 ug/L	1623.6 ppb	18:55:08
3	Na 589.592 Radial†	254.4	1797.9	545.29 ug/L	545.29 ppb	18:54:48
3	Sr 421.552†	2522.5	2327.3	15.224 ug/L	15.224 ppb	18:54:48
3	Sc 361.383	920001.3	920001.3	109.81 %		18:56:17
3	Y 371.029	962970.0	962970.0	135.26 %		18:56:17
3	Ag 328.068†	-3614.3	-3589.9	1.6350 ug/L	1.6350 ppb	18:56:22
3	As 188.979†	-42.3	-18.0	13.218 ug/L	13.218 ppb	18:56:42
3	B 249.677†	-114.5	361.9	-0.6799 ug/L	-0.6799 ppb	18:56:22
3	Ba 233.527†	31870.7	29031.1	237.71 ug/L	237.71 ppb	18:56:22
3	Be 313.107†	-1758.5	2743.7	3.1066 ug/L	3.1066 ppb	18:56:22
3	Cd 226.502†	369.5	534.7	0.2360 ug/L	0.2360 ppb	18:56:42
3	Co 228.616†	242.8	280.9	3.3891 ug/L	3.3891 ppb	18:56:42
3	Cr 267.716†	946.5	773.7	10.198 ug/L	10.198 ppb	18:56:22
3	Cu 324.752†	10592.6	3181.2	13.000 ug/L	13.000 ppb	18:56:22
3	Mn 257.610†	2681783.7	2441847.2	2803.1 ug/L	2803.1 ppb	18:56:17
3	Mo 202.031†	80.7	52.7	8.3099 ug/L	8.3099 ppb	18:56:42
3	Ni 231.604†	459.6	333.2	8.5999 ug/L	8.5999 ppb	18:56:42
3	P 214.914†	1275.9	942.4	545.80 ug/L	545.80 ppb	18:56:42
3	Pb 220.353†	158.7	203.9	22.441 ug/L	22.441 ppb	18:56:42
3	S 181.975 Axial†	90.1	35.8	51.070 ug/L	51.070 ppb	18:56:42
3	Sb 206.836†	33.3	-6.0	-3.7945 ug/L	-3.7945 ppb	18:56:42
3	Se 196.026†	-289.9	-235.6	31.339 ug/L	31.339 ppb	18:56:42
3	Si 251.611†	115079.3	104350.0	3448.9 ug/L	3448.9 ppb	18:56:22
3	Sn 189.927†	4.3	-1.5	1.1839 ug/L	1.1839 ppb	18:56:42
3	Ti 334.940†	592105.0	540536.0	904.06 ug/L	904.06 ppb	18:56:17
3	Tl 190.801†	-115.7	-74.2	-2.7751 ug/L	-2.7751 ppb	18:56:42
3	U 409.014†	-8799.9	-6037.9	-195.28 ug/L	-195.28 ppb	18:56:17
3	V 292.402†	3947.1	4978.9	25.584 ug/L	25.584 ppb	18:56:22
3	Zn 213.857†	33335.8	29690.2	284.55 ug/L	284.55 ppb	18:56:22
3	SiO2†	114073.2	103428.3	7320.1 ug/L	7320.1 ppb	18:56:58

Mean Data: 243550012|936826|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	917567.4	109.52	%	0.478				0.44%
Sc Radial	5571.1	109	%	2.5				2.31%
Y 371.029	959757.2	134.81	%	0.814				0.60%
Y RADIAL	7491.9	136.1	%	2.71				1.99%
Ag 328.068†	-3580.1	1.6243	ug/L	0.07140	1.6243	ppb	0.07140	4.40%
Al 396.153Radial†	11410.1	8975.8	ug/L	49.83	8975.8	ppb	49.83	0.56%
As 188.979†	-11.5	16.014	ug/L	2.4249	16.014	ppb	2.4249	15.14%
B 249.677†	308.1	-1.9264	ug/L	1.08061	-1.9264	ppb	1.08061	56.09%
Ba 233.527†	29046.6	237.83	ug/L	1.111	237.83	ppb	1.111	0.47%
Be 313.107†	2749.2	3.1069	ug/L	0.00106	3.1069	ppb	0.00106	0.03%
Ca 317.933Radial†	1937.0	3180.6	ug/L	72.88	3180.6	ppb	72.88	2.29%
Cd 226.502†	535.0	0.2572	ug/L	0.17291	0.2572	ppb	0.17291	67.22%
Co 228.616†	274.3	3.2536	ug/L	0.11935	3.2536	ppb	0.11935	3.67%
Cr 267.716†	759.0	10.024	ug/L	0.1884	10.024	ppb	0.1884	1.88%
Cu 324.752†	3152.0	12.901	ug/L	0.0857	12.901	ppb	0.0857	0.66%
Fe 238.204 Radial†	6369.5	56832	ug/L	159.8	56832	ppb	159.8	0.28%
K 766.490 Radial†	7580.2	1408.4	ug/L	28.38	1408.4	ppb	28.38	2.01%

Mg 279.077 IEC†	51.1	1657.9	ug/L	50.50	1657.9	ppb	50.50	3.05%
Mn 257.610†	2442724.8	2804.1	ug/L	1.68	2804.1	ppb	1.68	0.06%
Mo 202.031†	55.1	8.4666	ug/L	0.25933	8.4666	ppb	0.25933	3.06%
Na 589.592 Radial†	1865.4	565.73	ug/L	18.644	565.73	ppb	18.644	3.30%
Ni 231.604†	325.1	8.3894	ug/L	0.32580	8.3894	ppb	0.32580	3.88%
P 214.914†	949.7	550.52	ug/L	4.123	550.52	ppb	4.123	0.75%
Pb 220.353†	211.9	23.477	ug/L	1.6360	23.477	ppb	1.6360	6.97%
S 181.975 Axial†	35.8	51.027	ug/L	0.2853	51.027	ppb	0.2853	0.56%
Sb 206.836†	-1.0	-1.9679	ug/L	2.47537	-1.9679	ppb	2.47537	125.79%
Se 196.026†	-238.9	28.542	ug/L	4.1215	28.542	ppb	4.1215	14.44%
Si 251.611†	104223.0	3444.7	ug/L	12.18	3444.7	ppb	12.18	0.35%
Sn 189.927†	-2.6	0.9698	ug/L	0.24552	0.9698	ppb	0.24552	25.32%
Sr 421.552†	2334.0	15.268	ug/L	0.0991	15.268	ppb	0.0991	0.65%
Ti 334.940†	540067.1	903.26	ug/L	0.790	903.26	ppb	0.790	0.09%
Tl 190.801†	-81.0	-4.9252	ug/L	2.43946	-4.9252	ppb	2.43946	49.53%
U 409.014†	-6110.9	-197.54	ug/L	4.336	-197.54	ppb	4.336	2.20%
V 292.402†	4956.4	25.452	ug/L	0.3047	25.452	ppb	0.3047	1.20%
Zn 213.857†	29755.6	285.21	ug/L	0.918	285.21	ppb	0.918	0.32%
SiO2†	105622.4	7475.4	ug/L	142.86	7475.4	ppb	142.86	1.91%

Sequence No.: 35
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 1/15/2010 18:59:08
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	5464.5	5464.5	107	%			19:01:00
1	Y RADIAL	5862.9	5862.9	106.5	%			19:01:00
1	Al 396.153Radial†	6793.2	6337.7	4961.9	ug/L	4961.9	ppb	19:01:00
1	Ca 317.933Radial†	3289.1	3046.0	5001.5	ug/L	5001.5	ppb	19:01:20
1	Fe 238.204 Radial†	603.0	551.8	4938.0	ug/L	4938.0	ppb	19:01:20
1	K 766.490 Radial†	31120.0	25980.8	4829.3	ug/L	4829.3	ppb	19:01:00
1	Mg 279.077 IEC†	162.6	149.0	5005.8	ug/L	5005.8	ppb	19:01:20
1	Na 589.592 Radial†	32149.1	31502.1	9554.0	ug/L	9554.0	ppb	19:01:00
1	Sr 421.552†	78731.0	73291.8	480.15	ug/L	480.15	ppb	19:01:00
1	Sc 361.383	906470.3	906470.3	108.19	%			19:02:17
1	Y 371.029	753746.7	753746.7	105.87	%			19:02:17
1	Ag 328.068†	115184.0	106164.3	508.23	ug/L	508.23	ppb	19:02:22
1	As 188.979†	1193.8	1124.0	502.37	ug/L	502.37	ppb	19:02:43
1	B 249.677†	21761.5	20579.9	486.67	ug/L	486.67	ppb	19:02:22
1	Ba 233.527†	65717.6	60748.5	494.86	ug/L	494.86	ppb	19:02:22
1	Be 313.107†	1373758.2	1274087.8	491.02	ug/L	491.02	ppb	19:02:17
1	Cd 226.502†	46134.1	42839.2	493.11	ug/L	493.11	ppb	19:02:22
1	Co 228.616†	25193.9	23346.1	497.70	ug/L	497.70	ppb	19:02:22
1	Cr 267.716†	45745.4	42193.5	489.49	ug/L	489.49	ppb	19:02:22
1	Cu 324.752†	177753.0	157828.8	490.06	ug/L	490.06	ppb	19:02:22
1	Mn 257.610†	466357.9	430621.0	493.63	ug/L	493.63	ppb	19:02:17
1	Mo 202.031†	7306.3	6732.4	491.28	ug/L	491.28	ppb	19:02:43
1	Ni 231.604†	20773.8	19115.6	493.27	ug/L	493.27	ppb	19:02:22
1	P 214.914†	4468.3	3910.4	2358.7	ug/L	2358.7	ppb	19:02:43
1	Pb 220.353†	4127.1	3873.9	493.79	ug/L	493.79	ppb	19:02:43
1	S 181.975 Axial†	779.8	674.5	992.06	ug/L	992.06	ppb	19:02:43
1	Sb 206.836†	1537.6	1384.8	518.37	ug/L	518.37	ppb	19:02:43
1	Se 196.026†	777.0	746.6	511.86	ug/L	511.86	ppb	19:02:43
1	Si 251.611†	81621.1	74989.5	2472.5	ug/L	2472.5	ppb	19:02:22
1	Sn 189.927†	2920.2	2693.7	492.96	ug/L	492.96	ppb	19:02:43
1	Ti 334.940†	313686.5	291247.3	486.77	ug/L	486.77	ppb	19:02:22
1	Tl 190.801†	1648.3	1554.6	496.72	ug/L	496.72	ppb	19:02:43
1	U 409.014†	15616.9	16410.5	511.38	ug/L	511.38	ppb	19:02:22
1	V 292.402†	73600.5	69412.1	496.26	ug/L	496.26	ppb	19:02:22
1	Zn 213.857†	55283.3	50429.1	488.54	ug/L	488.54	ppb	19:02:22
1	SiO2†	82448.9	75749.2	5347.9	ug/L	5347.9	ppb	19:03:50
2	Sc Radial	5543.6	5543.6	109	%			19:01:25
2	Y RADIAL	5993.8	5993.8	108.9	%			19:01:25
2	Al 396.153Radial†	6931.0	6373.9	4990.4	ug/L	4990.4	ppb	19:01:25
2	Ca 317.933Radial†	3297.5	3010.0	4942.4	ug/L	4942.4	ppb	19:01:45
2	Fe 238.204 Radial†	609.8	550.0	4922.4	ug/L	4922.4	ppb	19:01:45
2	K 766.490 Radial†	31475.8	25893.9	4813.2	ug/L	4813.2	ppb	19:01:25
2	Mg 279.077 IEC†	163.6	147.7	4964.6	ug/L	4964.6	ppb	19:01:45
2	Na 589.592 Radial†	32512.4	31408.3	9525.6	ug/L	9525.6	ppb	19:01:25
2	Sr 421.552†	79927.8	73344.3	480.49	ug/L	480.49	ppb	19:01:25
2	Sc 361.383	905821.3	905821.3	108.11	%			19:02:48
2	Y 371.029	755273.8	755273.8	106.09	%			19:02:48
2	Ag 328.068†	115373.5	106415.8	509.43	ug/L	509.43	ppb	19:02:53
2	As 188.979†	1177.1	1109.4	495.87	ug/L	495.87	ppb	19:03:14
2	B 249.677†	21959.9	20777.8	491.37	ug/L	491.37	ppb	19:02:53
2	Ba 233.527†	65557.7	60644.1	494.01	ug/L	494.01	ppb	19:02:53
2	Be 313.107†	1379412.4	1280227.3	493.38	ug/L	493.38	ppb	19:02:48
2	Cd 226.502†	46045.0	42787.3	492.52	ug/L	492.52	ppb	19:02:53
2	Co 228.616†	25142.4	23315.2	497.04	ug/L	497.04	ppb	19:02:53
2	Cr 267.716†	45740.3	42219.1	489.79	ug/L	489.79	ppb	19:02:53
2	Cu 324.752†	178075.1	158244.5	491.35	ug/L	491.35	ppb	19:02:53
2	Mn 257.610†	466806.7	431344.9	494.46	ug/L	494.46	ppb	19:02:48
2	Mo 202.031†	7301.8	6733.1	491.33	ug/L	491.33	ppb	19:03:14
2	Ni 231.604†	20669.6	19032.9	491.14	ug/L	491.14	ppb	19:02:53

2	P 214.914†	4499.4	3942.2	2378.4 ug/L	2378.4 ppb	19:03:14
2	Pb 220.353†	4110.2	3861.0	492.16 ug/L	492.16 ppb	19:03:14
2	S 181.975 Axial†	776.3	671.7	987.98 ug/L	987.98 ppb	19:03:14
2	Sb 206.836†	1519.8	1369.4	512.79 ug/L	512.79 ppb	19:03:14
2	Se 196.026†	773.0	743.4	509.74 ug/L	509.74 ppb	19:03:14
2	Si 251.611†	81528.8	74958.2	2471.4 ug/L	2471.4 ppb	19:02:53
2	Sn 189.927†	2911.5	2687.6	491.83 ug/L	491.83 ppb	19:03:14
2	Ti 334.940†	313654.8	291425.8	487.07 ug/L	487.07 ppb	19:02:53
2	Tl 190.801†	1659.0	1565.6	500.20 ug/L	500.20 ppb	19:03:14
2	U 409.014†	15534.8	16344.9	509.33 ug/L	509.33 ppb	19:02:53
2	V 292.402†	73621.4	69480.2	496.74 ug/L	496.74 ppb	19:02:53
2	Zn 213.857†	55235.3	50421.4	488.47 ug/L	488.47 ppb	19:02:53
2	SiO2†	81945.0	75337.7	5318.7 ug/L	5318.7 ppb	19:03:55
3	Sc Radial	5422.8	5422.8	107 %		19:01:50
3	Y RADIAL	5853.3	5853.3	106.3 %		19:01:50
3	Al 396.153Radial†	6714.8	6312.6	4942.0 ug/L	4942.0 ppb	19:01:50
3	Ca 317.933Radial†	3251.0	3033.7	4981.3 ug/L	4981.3 ppb	19:02:10
3	Fe 238.204 Radial†	604.0	557.0	4984.5 ug/L	4984.5 ppb	19:02:10
3	K 766.490 Radial†	30968.2	26060.9	4844.3 ug/L	4844.3 ppb	19:01:50
3	Mg 279.077 IEC†	163.0	150.5	5057.7 ug/L	5057.7 ppb	19:02:10
3	Na 589.592 Radial†	31491.1	31114.3	9436.4 ug/L	9436.4 ppb	19:01:50
3	Sr 421.552†	77431.7	72635.3	475.85 ug/L	475.85 ppb	19:01:50
3	Sc 361.383	901883.0	901883.0	107.64 %		19:03:19
3	Y 371.029	751783.7	751783.7	105.60 %		19:03:19
3	Ag 328.068†	115450.4	106953.3	512.01 ug/L	512.01 ppb	19:03:24
3	As 188.979†	1179.3	1116.2	498.92 ug/L	498.92 ppb	19:03:44
3	B 249.677†	21910.8	20820.9	492.38 ug/L	492.38 ppb	19:03:24
3	Ba 233.527†	65586.9	60936.0	496.39 ug/L	496.39 ppb	19:03:24
3	Be 313.107†	1367956.7	1275156.6	491.44 ug/L	491.44 ppb	19:03:19
3	Cd 226.502†	46009.6	42940.4	494.27 ug/L	494.27 ppb	19:03:24
3	Co 228.616†	25178.0	23449.8	499.91 ug/L	499.91 ppb	19:03:24
3	Cr 267.716†	45656.8	42326.2	491.03 ug/L	491.03 ppb	19:03:24
3	Cu 324.752†	178536.1	159392.0	494.91 ug/L	494.91 ppb	19:03:24
3	Mn 257.610†	463597.2	430248.8	493.20 ug/L	493.20 ppb	19:03:19
3	Mo 202.031†	7320.2	6779.6	494.73 ug/L	494.73 ppb	19:03:44
3	Ni 231.604†	20625.5	19075.5	492.24 ug/L	492.24 ppb	19:03:24
3	P 214.914†	4482.2	3944.4	2379.0 ug/L	2379.0 ppb	19:03:44
3	Pb 220.353†	4122.1	3888.7	495.67 ug/L	495.67 ppb	19:03:44
3	S 181.975 Axial†	777.9	676.4	994.86 ug/L	994.86 ppb	19:03:44
3	Sb 206.836†	1517.1	1373.0	514.19 ug/L	514.19 ppb	19:03:44
3	Se 196.026†	773.3	746.8	512.21 ug/L	512.21 ppb	19:03:44
3	Si 251.611†	81687.5	75434.9	2487.2 ug/L	2487.2 ppb	19:03:24
3	Sn 189.927†	2914.4	2702.0	494.48 ug/L	494.48 ppb	19:03:44
3	Ti 334.940†	314338.6	293327.9	490.24 ug/L	490.24 ppb	19:03:24
3	Tl 190.801†	1655.4	1568.9	501.27 ug/L	501.27 ppb	19:03:44
3	U 409.014†	15566.1	16436.7	512.19 ug/L	512.19 ppb	19:03:24
3	V 292.402†	73625.0	69780.8	498.90 ug/L	498.90 ppb	19:03:24
3	Zn 213.857†	55152.6	50567.6	489.89 ug/L	489.89 ppb	19:03:24
3	SiO2†	81978.5	75699.8	5344.3 ug/L	5344.3 ppb	19:04:00

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	904724.9	107.98	%	0.296				0.27%
Sc Radial	5476.9	108	%	1.2				1.12%
Y 371.029	753601.4	105.85	%	0.246				0.23%
Y RADIAL	5903.3	107.2	%	1.43				1.33%
Ag 328.068†	106511.2	509.89	ug/L	1.931	509.89	ppb	1.931	0.38%
QC value within limits for Ag 328.068 Recovery = 101.98%								
Al 396.153Radial†	6341.4	4964.8	ug/L	24.30	4964.8	ppb	24.30	0.49%
QC value within limits for Al 396.153Radial Recovery = 99.30%								
As 188.979†	1116.5	499.05	ug/L	3.252	499.05	ppb	3.252	0.65%
QC value within limits for As 188.979 Recovery = 99.81%								
B 249.677†	20726.2	490.14	ug/L	3.049	490.14	ppb	3.049	0.62%
QC value within limits for B 249.677 Recovery = 98.03%								
Ba 233.527†	60776.2	495.09	ug/L	1.205	495.09	ppb	1.205	0.24%
QC value within limits for Ba 233.527 Recovery = 99.02%								
Be 313.107†	1276490.6	491.94	ug/L	1.260	491.94	ppb	1.260	0.26%
QC value within limits for Be 313.107 Recovery = 98.39%								
Ca 317.933Radial†	3029.9	4975.1	ug/L	30.07	4975.1	ppb	30.07	0.60%

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   QC value within limits for Ca 317.933Radial  Recovery = 99.50%
Cd 226.502†            42855.7      493.30 ug/L         0.894      493.30 ppb          0.894   0.18%
   QC value within limits for Cd 226.502  Recovery = 98.66%
Co 228.616†            23370.3      498.22 ug/L         1.503      498.22 ppb          1.503   0.30%
   QC value within limits for Co 228.616  Recovery = 99.64%
Cr 267.716†            42246.2      490.10 ug/L         0.818      490.10 ppb          0.818   0.17%
   QC value within limits for Cr 267.716  Recovery = 98.02%
Cu 324.752†           158488.4      492.11 ug/L         2.515      492.11 ppb          2.515   0.51%
   QC value within limits for Cu 324.752  Recovery = 98.42%
Fe 238.204 Radial†       552.9      4948.3 ug/L         32.31      4948.3 ppb          32.31   0.65%
   QC value within limits for Fe 238.204 Radial  Recovery = 98.97%
K 766.490 Radial†      25978.5      4828.9 ug/L         15.55      4828.9 ppb          15.55   0.32%
   QC value within limits for K 766.490 Radial  Recovery = 96.58%
Mg 279.077 IEC†          149.1      5009.4 ug/L         46.67      5009.4 ppb          46.67   0.93%
   QC value within limits for Mg 279.077 IEC  Recovery = 100.19%
Mn 257.610†           430738.2      493.76 ug/L         0.638      493.76 ppb          0.638   0.13%
   QC value within limits for Mn 257.610  Recovery = 98.75%
Mo 202.031†             6748.4      492.45 ug/L         1.976      492.45 ppb          1.976   0.40%
   QC value within limits for Mo 202.031  Recovery = 98.49%
Na 589.592 Radial†     31341.6      9505.4 ug/L         61.36      9505.4 ppb          61.36   0.65%
   QC value within limits for Na 589.592 Radial  Recovery = 95.05%
Ni 231.604†            19074.7      492.22 ug/L         1.067      492.22 ppb          1.067   0.22%
   QC value within limits for Ni 231.604  Recovery = 98.44%
P 214.914†              3932.3      2372.0 ug/L         11.55      2372.0 ppb          11.55   0.49%
   QC value within limits for P 214.914  Recovery = 94.88%
Pb 220.353†             3874.6      493.87 ug/L         1.758      493.87 ppb          1.758   0.36%
   QC value within limits for Pb 220.353  Recovery = 98.77%
S 181.975 Axial†         674.2      991.63 ug/L         3.460      991.63 ppb          3.460   0.35%
   QC value within limits for S 181.975 Axial  Recovery = 99.16%
Sb 206.836†             1375.7      515.11 ug/L         2.901      515.11 ppb          2.901   0.56%
   QC value within limits for Sb 206.836  Recovery = 103.02%
Se 196.026†              745.6      511.27 ug/L         1.339      511.27 ppb          1.339   0.26%
   QC value within limits for Se 196.026  Recovery = 102.25%
Si 251.611†            75127.5      2477.0 ug/L          8.79      2477.0 ppb           8.79   0.35%
   QC value within limits for Si 251.611  Recovery = 99.08%
Sn 189.927†             2694.4      493.09 ug/L         1.329      493.09 ppb          1.329   0.27%
   QC value within limits for Sn 189.927  Recovery = 98.62%
Sr 421.552†            73090.5      478.83 ug/L         2.588      478.83 ppb          2.588   0.54%
   QC value within limits for Sr 421.552  Recovery = 95.77%
Ti 334.940†           292000.3      488.03 ug/L         1.924      488.03 ppb          1.924   0.39%
   QC value within limits for Ti 334.940  Recovery = 97.61%
Tl 190.801†             1563.0      499.40 ug/L         2.381      499.40 ppb          2.381   0.48%
   QC value within limits for Tl 190.801  Recovery = 99.88%
U 409.014†             16397.4      510.97 ug/L         1.474      510.97 ppb          1.474   0.29%
   QC value within limits for U 409.014  Recovery = 102.19%
V 292.402†             69557.7      497.30 ug/L         1.407      497.30 ppb          1.407   0.28%
   QC value within limits for V 292.402  Recovery = 99.46%
Zn 213.857†            50472.7      488.97 ug/L         0.797      488.97 ppb          0.797   0.16%
   QC value within limits for Zn 213.857  Recovery = 97.79%
SiO2†                  75595.6      5337.0 ug/L         15.88      5337.0 ppb          15.88   0.30%
   QC value within limits for SiO2  Recovery = 99.80%
All analyte(s) passed QC.
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Sequence No.: 36
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 1/15/2010 19:06:10
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5394.5	5394.5	106	%			19:08:02
1	Y RADIAL	5872.7	5872.7	106.7	%			19:08:02
1	Al 396.153Radial†	0.0	10.7	8.4092	ug/L	8.4092	ppb	19:08:02
1	Ca 317.933Radial†	17.4	-0.9	-1.5316	ug/L	-1.5316	ppb	19:08:22
1	Fe 238.204 Radial†	12.0	1.5	13.403	ug/L	13.403	ppb	19:08:22
1	K 766.490 Radial†	2755.7	-403.4	-75.100	ug/L	-75.100	ppb	19:08:02
1	Mg 279.077 IEC†	-0.6	-3.0	-100.57	ug/L	-100.57	ppb	19:08:22
1	Na 589.592 Radial†	-1399.3	239.5	72.631	ug/L	72.631	ppb	19:08:02
1	Sr 421.552†	18.4	-17.8	-0.1168	ug/L	-0.1168	ppb	19:08:02
1	Sc 361.383	897102.9	897102.9	107.07	%			19:09:19
1	Y 371.029	761358.6	761358.6	106.94	%			19:09:19
1	Ag 328.068†	393.1	68.7	0.3262	ug/L	0.3262	ppb	19:09:19
1	As 188.979†	-17.7	4.0	1.7891	ug/L	1.7891	ppb	19:09:39
1	B 249.677†	-447.7	48.0	1.1388	ug/L	1.1388	ppb	19:09:39
1	Ba 233.527†	-10.9	-3.4	-0.0252	ug/L	-0.0252	ppb	19:09:39
1	Be 313.107†	-4505.2	137.6	0.0533	ug/L	0.0533	ppb	19:09:19
1	Cd 226.502†	-188.0	22.6	0.2601	ug/L	0.2601	ppb	19:09:39
1	Co 228.616†	-69.5	-5.1	-0.1075	ug/L	-0.1075	ppb	19:09:39
1	Cr 267.716†	70.1	-22.8	-0.2672	ug/L	-0.2672	ppb	19:09:39
1	Cu 324.752†	6424.0	-465.8	-1.4513	ug/L	-1.4513	ppb	19:09:19
1	Mn 257.610†	431.8	-22.8	-0.0207	ug/L	-0.0207	ppb	19:09:39
1	Mo 202.031†	29.7	7.0	0.5115	ug/L	0.5115	ppb	19:09:39
1	Ni 231.604†	58.4	-30.8	-0.7944	ug/L	-0.7944	ppb	19:09:39
1	P 214.914†	218.1	-15.8	-9.6436	ug/L	-9.6436	ppb	19:09:39
1	Pb 220.353†	-58.6	4.6	0.5927	ug/L	0.5927	ppb	19:09:39
1	S 181.975 Axial†	42.7	-6.4	-9.3627	ug/L	-9.3627	ppb	19:09:39
1	Sb 206.836†	38.6	-0.3	-0.1126	ug/L	-0.1126	ppb	19:09:39
1	Se 196.026†	-24.8	5.3	3.5579	ug/L	3.5579	ppb	19:09:39
1	Si 251.611†	502.3	17.5	0.5727	ug/L	0.5727	ppb	19:09:39
1	Sn 189.927†	4.6	-1.1	-0.1920	ug/L	-0.1920	ppb	19:09:39
1	Ti 334.940†	-1292.4	104.9	0.1789	ug/L	0.1789	ppb	19:09:19
1	Tl 190.801†	-35.4	-1.9	-0.6111	ug/L	-0.6111	ppb	19:09:39
1	U 409.014†	-1757.8	334.4	10.453	ug/L	10.453	ppb	19:09:19
1	V 292.402†	-1353.3	120.4	0.8727	ug/L	0.8727	ppb	19:09:19
1	Zn 213.857†	617.1	-92.0	-0.8936	ug/L	-0.8936	ppb	19:09:39
1	SiO2†	541.7	48.9	3.4474	ug/L	3.4474	ppb	19:10:35
2	Sc Radial	5424.0	5424.0	107	%			19:08:27
2	Y RADIAL	5876.7	5876.7	106.7	%			19:08:27
2	Al 396.153Radial†	-16.4	-4.7	-3.6615	ug/L	-3.6615	ppb	19:08:27
2	Ca 317.933Radial†	17.7	-0.8	-1.3139	ug/L	-1.3139	ppb	19:08:47
2	Fe 238.204 Radial†	10.6	0.1	1.0392	ug/L	1.0392	ppb	19:08:47
2	K 766.490 Radial†	2801.8	-374.2	-69.675	ug/L	-69.675	ppb	19:08:27
2	Mg 279.077 IEC†	1.3	-1.2	-40.931	ug/L	-40.931	ppb	19:08:47
2	Na 589.592 Radial†	-1400.7	245.4	74.426	ug/L	74.426	ppb	19:08:27
2	Sr 421.552†	-13.7	-48.0	-0.3142	ug/L	-0.3142	ppb	19:08:27
2	Sc 361.383	897665.7	897665.7	107.14	%			19:09:44
2	Y 371.029	761811.8	761811.8	107.01	%			19:09:44
2	Ag 328.068†	285.5	-32.0	-0.1546	ug/L	-0.1546	ppb	19:09:44
2	As 188.979†	-29.2	-6.6	-2.9433	ug/L	-2.9433	ppb	19:10:04
2	B 249.677†	-447.1	48.8	1.1595	ug/L	1.1595	ppb	19:10:04
2	Ba 233.527†	-11.8	-4.2	-0.0324	ug/L	-0.0324	ppb	19:10:04
2	Be 313.107†	-4535.0	112.5	0.0438	ug/L	0.0438	ppb	19:09:44
2	Cd 226.502†	-171.3	38.3	0.4420	ug/L	0.4420	ppb	19:10:04
2	Co 228.616†	-81.6	-16.4	-0.3496	ug/L	-0.3496	ppb	19:10:04
2	Cr 267.716†	66.6	-26.1	-0.3046	ug/L	-0.3046	ppb	19:10:04
2	Cu 324.752†	6497.0	-401.5	-1.2509	ug/L	-1.2509	ppb	19:09:44
2	Mn 257.610†	428.2	-26.4	-0.0285	ug/L	-0.0285	ppb	19:10:04
2	Mo 202.031†	22.0	-0.2	-0.0113	ug/L	-0.0113	ppb	19:10:04
2	Ni 231.604†	72.3	-17.8	-0.4597	ug/L	-0.4597	ppb	19:10:04

2	P 214.914†	223.3	-11.1	-6.6964 ug/L	-6.6964 ppb	19:10:04
2	Pb 220.353†	-55.9	7.2	0.9156 ug/L	0.9156 ppb	19:10:04
2	S 181.975 Axial†	39.4	-9.5	-13.957 ug/L	-13.957 ppb	19:10:04
2	Sb 206.836†	42.4	3.2	1.1526 ug/L	1.1526 ppb	19:10:04
2	Se 196.026†	-27.3	2.9	1.9355 ug/L	1.9355 ppb	19:10:04
2	Si 251.611†	497.9	13.1	0.4339 ug/L	0.4339 ppb	19:10:04
2	Sn 189.927†	4.9	-0.8	-0.1510 ug/L	-0.1510 ppb	19:10:04
2	Ti 334.940†	-1237.7	156.8	0.2619 ug/L	0.2619 ppb	19:09:44
2	Tl 190.801†	-37.7	-4.0	-1.2813 ug/L	-1.2813 ppb	19:10:04
2	U 409.014†	-1850.1	249.2	7.7923 ug/L	7.7923 ppb	19:09:44
2	V 292.402†	-1352.2	122.2	0.8758 ug/L	0.8758 ppb	19:09:44
2	Zn 213.857†	613.8	-95.5	-0.9284 ug/L	-0.9284 ppb	19:10:04
2	SiO2†	501.6	11.2	0.7902 ug/L	0.7902 ppb	19:10:40
3	Sc Radial	5454.3	5454.3	107 %		19:08:52
3	Y RADIAL	5895.3	5895.3	107.1 %		19:08:52
3	Al 396.153Radial†	-1.8	9.0	7.1138 ug/L	7.1138 ppb	19:08:52
3	Ca 317.933Radial†	18.2	-0.4	-0.7185 ug/L	-0.7185 ppb	19:09:12
3	Fe 238.204 Radial†	12.0	1.3	11.639 ug/L	11.639 ppb	19:09:12
3	K 766.490 Radial†	2707.8	-476.6	-88.725 ug/L	-88.725 ppb	19:08:52
3	Mg 279.077 IEC†	2.9	0.3	8.8815 ug/L	8.8815 ppb	19:09:12
3	Na 589.592 Radial†	-1420.3	234.4	71.093 ug/L	71.093 ppb	19:08:52
3	Sr 421.552†	17.9	-18.4	-0.1207 ug/L	-0.1207 ppb	19:08:52
3	Sc 361.383	896692.7	896692.7	107.02 %		19:10:10
3	Y 371.029	760769.8	760769.8	106.86 %		19:10:10
3	Ag 328.068†	300.6	-17.5	-0.0829 ug/L	-0.0829 ppb	19:10:10
3	As 188.979†	-25.1	-2.9	-1.2802 ug/L	-1.2802 ppb	19:10:30
3	B 249.677†	-480.6	17.0	0.4041 ug/L	0.4041 ppb	19:10:30
3	Ba 233.527†	-19.4	-11.4	-0.0906 ug/L	-0.0906 ppb	19:10:30
3	Be 313.107†	-4500.4	140.2	0.0545 ug/L	0.0545 ppb	19:10:10
3	Cd 226.502†	-181.0	29.1	0.3348 ug/L	0.3348 ppb	19:10:30
3	Co 228.616†	-82.4	-17.2	-0.3670 ug/L	-0.3670 ppb	19:10:30
3	Cr 267.716†	53.8	-38.0	-0.4418 ug/L	-0.4418 ppb	19:10:30
3	Cu 324.752†	6458.6	-430.7	-1.3408 ug/L	-1.3408 ppb	19:10:10
3	Mn 257.610†	412.9	-40.3	-0.0454 ug/L	-0.0454 ppb	19:10:30
3	Mo 202.031†	19.4	-2.6	-0.1877 ug/L	-0.1877 ppb	19:10:30
3	Ni 231.604†	67.1	-22.6	-0.5834 ug/L	-0.5834 ppb	19:10:30
3	P 214.914†	213.9	-19.6	-12.065 ug/L	-12.065 ppb	19:10:30
3	Pb 220.353†	-59.9	3.4	0.4290 ug/L	0.4290 ppb	19:10:30
3	S 181.975 Axial†	50.0	0.4	0.6191 ug/L	0.6191 ppb	19:10:30
3	Sb 206.836†	39.3	0.3	0.1149 ug/L	0.1149 ppb	19:10:30
3	Se 196.026†	-28.4	1.9	1.2684 ug/L	1.2684 ppb	19:10:30
3	Si 251.611†	502.9	18.3	0.6078 ug/L	0.6078 ppb	19:10:30
3	Sn 189.927†	10.7	4.6	0.8453 ug/L	0.8453 ppb	19:10:30
3	Ti 334.940†	-1236.4	156.7	0.2583 ug/L	0.2583 ppb	19:10:10
3	Tl 190.801†	-37.6	-4.0	-1.2683 ug/L	-1.2683 ppb	19:10:30
3	U 409.014†	-1874.2	224.9	7.0298 ug/L	7.0298 ppb	19:10:10
3	V 292.402†	-1387.6	87.8	0.6284 ug/L	0.6284 ppb	19:10:10
3	Zn 213.857†	622.6	-86.6	-0.8421 ug/L	-0.8421 ppb	19:10:30
3	SiO2†	546.5	53.6	3.7984 ug/L	3.7984 ppb	19:10:45

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	897153.8	107.08	%	0.058				0.05%
Sc Radial	5424.3	107	%	0.6				0.55%
Y 371.029	761313.4	106.94	%	0.073				0.07%
Y RADIAL	5881.6	106.8	%	0.22				0.21%
Ag 328.068†	6.4	0.0296	ug/L	0.25938	0.0296	ppb	0.25938	877.18%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	5.0	3.9538	ug/L	6.62675	3.9538	ppb	6.62675	167.60%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-1.8	-0.8115	ug/L	2.40073	-0.8115	ppb	2.40073	295.85%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	37.9	0.9008	ug/L	0.43027	0.9008	ppb	0.43027	47.76%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-6.3	-0.0494	ug/L	0.03585	-0.0494	ppb	0.03585	72.55%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	130.1	0.0506	ug/L	0.00585	0.0506	ppb	0.00585	11.56%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-0.7	-1.1880	ug/L	0.42095	-1.1880	ppb	0.42095	35.43%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              30.0      0.3456 ug/L       0.09141      0.3456 ppb        0.09141  26.45%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†             -12.9     -0.2747 ug/L       0.14508     -0.2747 ppb        0.14508  52.81%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†             -29.0     -0.3379 ug/L       0.09194     -0.3379 ppb        0.09194  27.21%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -432.7     -1.3477 ug/L       0.10041     -1.3477 ppb        0.10041   7.45%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       1.0      8.6934 ug/L       6.68723      8.6934 ppb        6.68723  76.92%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†      -418.0     -77.833 ug/L        9.8146     -77.833 ppb         9.8146  12.61%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          -1.3     -44.206 ug/L       54.7987     -44.206 ppb        54.7987 123.96%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†             -29.8     -0.0315 ug/L       0.01263     -0.0315 ppb        0.01263  40.07%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              1.4      0.1042 ug/L       0.36358      0.1042 ppb        0.36358 348.97%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†     239.8      72.717 ug/L        1.6677      72.717 ppb         1.6677   2.29%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†             -23.7     -0.6125 ug/L       0.16928     -0.6125 ppb        0.16928  27.64%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†              -15.5     -9.4684 ug/L       2.68867     -9.4684 ppb        2.68867  28.40%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              5.1      0.6458 ug/L       0.24758      0.6458 ppb        0.24758  38.34%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         -5.1     -7.5669 ug/L       7.45219     -7.5669 ppb        7.45219  98.48%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              1.0      0.3850 ug/L       0.67447      0.3850 ppb        0.67447 175.20%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              3.4      2.2539 ug/L       1.17752      2.2539 ppb        1.17752  52.24%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†             16.3      0.5381 ug/L       0.09198      0.5381 ppb        0.09198  17.09%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†              0.9      0.1674 ug/L       0.58741      0.1674 ppb        0.58741 350.83%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             -28.1     -0.1839 ug/L       0.11288     -0.1839 ppb        0.11288  61.37%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             139.5      0.2331 ug/L       0.04692      0.2331 ppb        0.04692  20.14%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -3.3     -1.0535 ug/L       0.38327     -1.0535 ppb        0.38327  36.38%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              269.5      8.4251 ug/L       1.79729      8.4251 ppb        1.79729  21.33%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              110.1      0.7923 ug/L       0.14195      0.7923 ppb        0.14195  17.92%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†             -91.4     -0.8880 ug/L       0.04344     -0.8880 ppb        0.04344   4.89%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                    37.9      2.6787 ug/L       1.64486      2.6787 ppb        1.64486  61.41%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 37
Sample ID: 243550013|936826|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 54
Date Collected: 1/15/2010 19:12:54
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 243550013|936826|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5508.3	5508.3	108	%			19:14:47
1	Y RADIAL	6579.8	6579.8	119.5	%			19:14:47
1	Al 396.153Radial†	29415.8	27189.3	21389	ug/L	21389	ppb	19:14:47
1	Ca 317.933Radial†	3858.2	3547.3	5824.8	ug/L	5824.8	ppb	19:15:07
1	Fe 238.204 Radial†	7704.3	7108.5	63426	ug/L	63426	ppb	19:14:47
1	K 766.490 Radial†	27833.1	22713.1	4224.8	ug/L	4224.8	ppb	19:14:47
1	Mg 279.077 IEC†	135.9	123.1	4070.8	ug/L	4070.8	ppb	19:15:07
1	Na 589.592 Radial†	396.5	1926.0	584.11	ug/L	584.11	ppb	19:14:47
1	Sr 421.552†	9912.7	9123.6	59.732	ug/L	59.732	ppb	19:14:47
1	Sc 361.383	915201.8	915201.8	109.23	%			19:16:04
1	Y 371.029	848775.6	848775.6	119.22	%			19:16:04
1	Ag 328.068†	-4008.2	-3967.7	2.0905	ug/L	2.0905	ppb	19:16:04
1	As 188.979†	-41.6	-17.5	22.344	ug/L	22.344	ppb	19:16:24
1	B 249.677†	159.2	611.9	4.1815	ug/L	4.1815	ppb	19:16:04
1	Ba 233.527†	60005.3	54939.6	448.58	ug/L	448.58	ppb	19:16:04
1	Be 313.107†	-6552.4	-1653.3	3.3541	ug/L	3.3541	ppb	19:16:04
1	Cd 226.502†	444.4	605.1	0.4050	ug/L	0.4050	ppb	19:16:24
1	Co 228.616†	910.4	893.3	14.647	ug/L	14.647	ppb	19:16:24
1	Cr 267.716†	2825.5	2498.4	30.373	ug/L	30.373	ppb	19:16:24
1	Cu 324.752†	14669.8	6964.3	25.048	ug/L	25.048	ppb	19:16:04
1	Mn 257.610†	838849.1	767511.5	885.40	ug/L	885.40	ppb	19:16:04
1	Mo 202.031†	35.9	12.2	5.8803	ug/L	5.8803	ppb	19:16:24
1	Ni 231.604†	978.4	810.4	20.913	ug/L	20.913	ppb	19:16:24
1	P 214.914†	2112.0	1714.0	1025.5	ug/L	1025.5	ppb	19:16:24
1	Pb 220.353†	426.1	449.4	55.704	ug/L	55.704	ppb	19:16:24
1	S 181.975 Axial†	663.2	560.9	821.67	ug/L	821.67	ppb	19:16:24
1	Sb 206.836†	48.8	8.2	-1.6022	ug/L	-1.6022	ppb	19:16:24
1	Se 196.026†	-317.6	-262.4	35.242	ug/L	35.242	ppb	19:16:24
1	Si 251.611†	196135.5	179103.7	5919.7	ug/L	5919.7	ppb	19:16:04
1	Sn 189.927†	-39.1	-41.2	-5.5724	ug/L	-5.5724	ppb	19:16:24
1	Ti 334.940†	1146836.2	1051201.2	1757.9	ug/L	1757.9	ppb	19:16:04
1	Tl 190.801†	-119.4	-78.2	-6.3130	ug/L	-6.3130	ppb	19:16:24
1	U 409.014†	-6299.2	-3790.7	-125.80	ug/L	-125.80	ppb	19:16:04
1	V 292.402†	14251.0	14430.6	90.554	ug/L	90.554	ppb	19:16:04
1	Zn 213.857†	28772.6	25672.0	244.57	ug/L	244.57	ppb	19:16:04
1	SiO2†	193736.5	176902.1	12520	ug/L	12520	ppb	19:17:22
2	Sc Radial	5593.8	5593.8	110	%			19:15:12
2	Y RADIAL	6701.9	6701.9	121.7	%			19:15:12
2	Al 396.153Radial†	29821.2	27142.6	21352	ug/L	21352	ppb	19:15:12
2	Ca 317.933Radial†	3825.2	3462.9	5686.1	ug/L	5686.1	ppb	19:15:32
2	Fe 238.204 Radial†	7762.7	7052.8	62929	ug/L	62929	ppb	19:15:12
2	K 766.490 Radial†	28195.6	22649.7	4213.1	ug/L	4213.1	ppb	19:15:12
2	Mg 279.077 IEC†	139.8	124.7	4124.5	ug/L	4124.5	ppb	19:15:32
2	Na 589.592 Radial†	369.3	1895.6	574.90	ug/L	574.90	ppb	19:15:12
2	Sr 421.552†	9994.0	9057.6	59.300	ug/L	59.300	ppb	19:15:12
2	Sc 361.383	904502.1	904502.1	107.96	%			19:16:30
2	Y 371.029	839645.2	839645.2	117.94	%			19:16:30
2	Ag 328.068†	-3982.9	-3987.7	1.8311	ug/L	1.8311	ppb	19:16:30
2	As 188.979†	-39.5	-16.0	22.860	ug/L	22.860	ppb	19:16:50
2	B 249.677†	136.8	592.8	3.8092	ug/L	3.8092	ppb	19:16:30
2	Ba 233.527†	59070.7	54723.7	446.81	ug/L	446.81	ppb	19:16:30
2	Be 313.107†	-6600.4	-1768.7	3.3022	ug/L	3.3022	ppb	19:16:30
2	Cd 226.502†	439.3	605.2	0.4579	ug/L	0.4579	ppb	19:16:50
2	Co 228.616†	902.8	896.1	14.721	ug/L	14.721	ppb	19:16:50
2	Cr 267.716†	2845.4	2547.4	30.929	ug/L	30.929	ppb	19:16:50
2	Cu 324.752†	14585.4	7045.0	25.272	ug/L	25.272	ppb	19:16:30
2	Mn 257.610†	826567.0	765218.9	882.73	ug/L	882.73	ppb	19:16:30
2	Mo 202.031†	43.4	19.5	6.3753	ug/L	6.3753	ppb	19:16:50
2	Ni 231.604†	977.4	820.0	21.161	ug/L	21.161	ppb	19:16:50

2	P 214.914†	2089.4	1715.9	1027.1	ug/L	1027.1 ppb	19:16:50
2	Pb 220.353†	418.4	446.9	55.420	ug/L	55.420 ppb	19:16:50
2	S 181.975 Axial†	676.9	580.8	850.98	ug/L	850.98 ppb	19:16:50
2	Sb 206.836†	50.3	10.2	-0.8720	ug/L	-0.8720 ppb	19:16:50
2	Se 196.026†	-310.7	-259.4	35.592	ug/L	35.592 ppb	19:16:50
2	Si 251.611†	193606.5	178885.2	5912.4	ug/L	5912.4 ppb	19:16:30
2	Sn 189.927†	-29.4	-32.6	-4.0273	ug/L	-4.0273 ppb	19:16:50
2	Ti 334.940†	1131282.1	1049213.1	1754.6	ug/L	1754.6 ppb	19:16:30
2	Tl 190.801†	-118.5	-78.7	-6.4953	ug/L	-6.4953 ppb	19:16:50
2	U 409.014†	-6198.8	-3765.8	-124.97	ug/L	-124.97 ppb	19:16:30
2	V 292.402†	13912.3	14271.2	89.515	ug/L	89.515 ppb	19:16:30
2	Zn 213.857†	28369.3	25610.0	244.01	ug/L	244.01 ppb	19:16:30
2	SiO2†	196143.6	181229.9	12827	ug/L	12827 ppb	19:17:27
3	Sc Radial	5465.1	5465.1	107	%		19:15:37
3	Y RADIAL	6549.3	6549.3	119.0	%		19:15:37
3	Al 396.153Radial†	29253.0	27252.6	21439	ug/L	21439 ppb	19:15:37
3	Ca 317.933Radial†	3854.1	3571.7	5864.8	ug/L	5864.8 ppb	19:15:57
3	Fe 238.204 Radial†	7624.3	7090.2	63263	ug/L	63263 ppb	19:15:37
3	K 766.490 Radial†	27668.9	22763.5	4234.2	ug/L	4234.2 ppb	19:15:37
3	Mg 279.077 IEC†	142.5	130.2	4310.4	ug/L	4310.4 ppb	19:15:57
3	Na 589.592 Radial†	351.5	1886.9	572.28	ug/L	572.28 ppb	19:15:37
3	Sr 421.552†	9765.8	9059.2	59.310	ug/L	59.310 ppb	19:15:37
3	Sc 361.383	918940.1	918940.1	109.68	%		19:16:56
3	Y 371.029	852695.7	852695.7	119.77	%		19:16:56
3	Ag 328.068†	-4063.8	-4003.6	1.8549	ug/L	1.8549 ppb	19:16:56
3	As 188.979†	-37.5	-13.6	23.946	ug/L	23.946 ppb	19:17:16
3	B 249.677†	150.4	603.3	4.0031	ug/L	4.0031 ppb	19:16:56
3	Ba 233.527†	59946.7	54662.7	446.33	ug/L	446.33 ppb	19:16:56
3	Be 313.107†	-6645.7	-1714.0	3.3144	ug/L	3.3144 ppb	19:16:56
3	Cd 226.502†	440.8	600.1	0.3656	ug/L	0.3656 ppb	19:17:16
3	Co 228.616†	919.9	898.5	14.774	ug/L	14.774 ppb	19:17:16
3	Cr 267.716†	2828.1	2490.2	30.270	ug/L	30.270 ppb	19:17:16
3	Cu 324.752†	14632.4	6875.6	24.759	ug/L	24.759 ppb	19:16:56
3	Mn 257.610†	837166.4	762853.3	880.04	ug/L	880.04 ppb	19:16:56
3	Mo 202.031†	36.7	12.8	5.9114	ug/L	5.9114 ppb	19:17:16
3	Ni 231.604†	964.1	793.7	20.482	ug/L	20.482 ppb	19:17:16
3	P 214.914†	2110.8	1705.0	1020.1	ug/L	1020.1 ppb	19:17:16
3	Pb 220.353†	423.3	445.3	55.206	ug/L	55.206 ppb	19:17:16
3	S 181.975 Axial†	661.9	557.2	816.31	ug/L	816.31 ppb	19:17:16
3	Sb 206.836†	49.0	8.3	-1.5292	ug/L	-1.5292 ppb	19:17:16
3	Se 196.026†	-319.4	-262.8	34.432	ug/L	34.432 ppb	19:17:16
3	Si 251.611†	196432.0	178643.7	5904.5	ug/L	5904.5 ppb	19:16:56
3	Sn 189.927†	-23.1	-26.4	-2.8729	ug/L	-2.8729 ppb	19:17:16
3	Ti 334.940†	1146790.1	1046888.1	1750.7	ug/L	1750.7 ppb	19:16:56
3	Tl 190.801†	-118.4	-76.8	-5.9625	ug/L	-5.9625 ppb	19:17:16
3	U 409.014†	-6046.2	-3536.5	-117.84	ug/L	-117.84 ppb	19:16:56
3	V 292.402†	14108.9	14248.0	89.318	ug/L	89.318 ppb	19:16:56
3	Zn 213.857†	28691.5	25490.9	242.81	ug/L	242.81 ppb	19:16:56
3	SiO2†	194603.1	176970.8	12525	ug/L	12525 ppb	19:17:32

Mean Data: 243550013|936826|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	912881.3	108.96	%	0.894				0.82%
Sc Radial	5522.4	109	%	1.3				1.19%
Y 371.029	847038.8	118.98	%	0.941				0.79%
Y RADIAL	6610.3	120.1	%	1.47				1.22%
Ag 328.068†	-3986.3	1.9255	ug/L	0.14339	1.9255	ppb	0.14339	7.45%
Al 396.153Radial†	27194.8	21393	ug/L	43.4	21393	ppb	43.4	0.20%
As 188.979†	-15.7	23.050	ug/L	0.8173	23.050	ppb	0.8173	3.55%
B 249.677†	602.7	3.9979	ug/L	0.18619	3.9979	ppb	0.18619	4.66%
Ba 233.527†	54775.3	447.24	ug/L	1.189	447.24	ppb	1.189	0.27%
Be 313.107†	-1712.0	3.3235	ug/L	0.02715	3.3235	ppb	0.02715	0.82%
Ca 317.933Radial†	3527.3	5791.9	ug/L	93.78	5791.9	ppb	93.78	1.62%
Cd 226.502†	603.4	0.4095	ug/L	0.04629	0.4095	ppb	0.04629	11.30%
Co 228.616†	896.0	14.714	ug/L	0.0640	14.714	ppb	0.0640	0.44%
Cr 267.716†	2512.0	30.524	ug/L	0.3545	30.524	ppb	0.3545	1.16%
Cu 324.752†	6961.6	25.026	ug/L	0.2568	25.026	ppb	0.2568	1.03%
Fe 238.204 Radial†	7083.8	63206	ug/L	253.6	63206	ppb	253.6	0.40%
K 766.490 Radial†	22708.8	4224.0	ug/L	10.59	4224.0	ppb	10.59	0.25%

Mg 279.077 IEC†	126.0	4168.6	ug/L	125.74	4168.6	ppb	125.74	3.02%
Mn 257.610†	765194.6	882.72	ug/L	2.681	882.72	ppb	2.681	0.30%
Mo 202.031†	14.8	6.0557	ug/L	0.27725	6.0557	ppb	0.27725	4.58%
Na 589.592 Radial†	1902.8	577.10	ug/L	6.215	577.10	ppb	6.215	1.08%
Ni 231.604†	808.0	20.852	ug/L	0.3439	20.852	ppb	0.3439	1.65%
P 214.914†	1711.6	1024.3	ug/L	3.65	1024.3	ppb	3.65	0.36%
Pb 220.353†	447.2	55.443	ug/L	0.2498	55.443	ppb	0.2498	0.45%
S 181.975 Axial†	566.3	829.65	ug/L	18.663	829.65	ppb	18.663	2.25%
Sb 206.836†	8.9	-1.3345	ug/L	0.40215	-1.3345	ppb	0.40215	30.14%
Se 196.026†	-261.5	35.089	ug/L	0.5951	35.089	ppb	0.5951	1.70%
Si 251.611†	178877.5	5912.2	ug/L	7.61	5912.2	ppb	7.61	0.13%
Sn 189.927†	-33.4	-4.1575	ug/L	1.35444	-4.1575	ppb	1.35444	32.58%
Sr 421.552†	9080.1	59.447	ug/L	0.2466	59.447	ppb	0.2466	0.41%
Ti 334.940†	1049100.8	1754.4	ug/L	3.62	1754.4	ppb	3.62	0.21%
Tl 190.801†	-77.9	-6.2570	ug/L	0.27078	-6.2570	ppb	0.27078	4.33%
U 409.014†	-3697.7	-122.87	ug/L	4.379	-122.87	ppb	4.379	3.56%
V 292.402†	14316.6	89.796	ug/L	0.6640	89.796	ppb	0.6640	0.74%
Zn 213.857†	25590.9	243.80	ug/L	0.894	243.80	ppb	0.894	0.37%
SiO2†	178367.6	12624	ug/L	175.5	12624	ppb	175.5	1.39%

Sequence No.: 39
Sample ID: 1202004465|936826|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 56
Date Collected: 1/15/2010 19:27:02
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202004465|936826|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	5271.5	5271.5	104	%			19:29:20
1	Y RADIAL	5656.4	5656.4	102.7	%			19:29:20
1	Al 396.153Radial†	4246.3	4110.4	3229.7	ug/L	3229.7	ppb	19:29:00
1	Ca 317.933Radial†	342545.7	330696.4	543000	ug/L	543000	ppb	19:28:55
1	Fe 238.204 Radial†	816.6	778.5	6946.5	ug/L	6946.5	ppb	19:29:20
1	K 766.490 Radial†	17531.4	13922.7	2405.0	ug/L	2405.0	ppb	19:29:00
1	Mg 279.077 IEC†	403.3	386.9	12994	ug/L	12994	ppb	19:29:20
1	Na 589.592 Radial†	36659.7	36953.1	11207	ug/L	11207	ppb	19:29:00
1	Sr 421.552†	496615.7	479426.9	3137.0	ug/L	3137.0	ppb	19:28:55
1	Sc 361.383	853330.7	853330.7	101.85	%			19:30:28
1	Y 371.029	705542.2	705542.2	99.102	%			19:30:28
1	Ag 328.068†	711.2	399.9	-2.3165	ug/L	-2.3165	ppb	19:30:33
1	As 188.979†	337.4	351.9	157.52	ug/L	157.52	ppb	19:30:53
1	B 249.677†	6111.8	6467.0	152.47	ug/L	152.47	ppb	19:30:33
1	Ba 233.527†	297004.1	291617.9	2370.4	ug/L	2370.4	ppb	19:30:33
1	Be 313.107†	-6332.3	-1872.2	-0.6893	ug/L	-0.6893	ppb	19:30:33
1	Cd 226.502†	1109.2	1287.3	14.127	ug/L	14.127	ppb	19:30:53
1	Co 228.616†	463.5	514.9	0.4573	ug/L	0.4573	ppb	19:30:53
1	Cr 267.716†	2314901.7	2272779.3	26336	ug/L	26336	ppb	19:30:28
1	Cu 324.752†	1364344.6	1333105.3	4139.8	ug/L	4139.8	ppb	19:30:28
1	Mn 257.610†	284101.7	278516.9	319.24	ug/L	319.24	ppb	19:30:33
1	Mo 202.031†	1138.2	1096.8	86.962	ug/L	86.962	ppb	19:30:53
1	Ni 231.604†	310.7	219.8	5.6681	ug/L	5.6681	ppb	19:30:53
1	P 214.914†	13430.1	12966.7	7310.1	ug/L	7310.1	ppb	19:30:53
1	Pb 220.353†	690.1	736.9	101.75	ug/L	101.75	ppb	19:30:53
1	S 181.975 Axial†	2877.0	2778.5	4089.8	ug/L	4089.8	ppb	19:30:53
1	Sb 206.836†	1809.8	1740.5	630.48	ug/L	630.48	ppb	19:30:53
1	Se 196.026†	-61.6	-32.0	1.9842	ug/L	1.9842	ppb	19:30:53
1	Si 251.611†	55845.4	54379.8	1796.4	ug/L	1796.4	ppb	19:30:33
1	Sn 189.927†	-350.3	-349.3	18.818	ug/L	18.818	ppb	19:30:53
1	Ti 334.940†	6870.3	8057.5	75.675	ug/L	75.675	ppb	19:30:33
1	Tl 190.801†	-32.6	-0.9	0.8437	ug/L	0.8437	ppb	19:30:53
1	U 409.014†	1330.8	3282.7	42.898	ug/L	42.898	ppb	19:30:33
1	V 292.402†	34205.8	34969.0	237.54	ug/L	237.54	ppb	19:30:33
1	Zn 213.857†	137494.3	134329.3	1306.4	ug/L	1306.4	ppb	19:30:33
1	SiO2†	56768.0	55280.2	3910.3	ug/L	3910.3	ppb	19:32:00
2	Sc Radial	5219.3	5219.3	103	%			19:29:50
2	Y RADIAL	5612.2	5612.2	101.9	%			19:29:50
2	Al 396.153Radial†	4262.5	4167.1	3274.2	ug/L	3274.2	ppb	19:29:30
2	Ca 317.933Radial†	343376.2	334811.7	549760	ug/L	549760	ppb	19:29:25
2	Fe 238.204 Radial†	827.3	796.9	7110.4	ug/L	7110.4	ppb	19:29:50
2	K 766.490 Radial†	17574.6	14134.0	2442.0	ug/L	2442.0	ppb	19:29:30
2	Mg 279.077 IEC†	404.7	392.2	13171	ug/L	13171	ppb	19:29:50
2	Na 589.592 Radial†	36791.6	37435.5	11354	ug/L	11354	ppb	19:29:30
2	Sr 421.552†	497028.2	484621.4	3171.0	ug/L	3171.0	ppb	19:29:25
2	Sc 361.383	846640.8	846640.8	101.05	%			19:30:59
2	Y 371.029	700715.5	700715.5	98.424	%			19:30:59
2	Ag 328.068†	743.7	437.6	-2.1580	ug/L	-2.1580	ppb	19:31:04
2	As 188.979†	339.4	356.5	159.59	ug/L	159.59	ppb	19:31:24
2	B 249.677†	6201.3	6602.9	155.67	ug/L	155.67	ppb	19:31:04
2	Ba 233.527†	299326.9	296220.7	2407.8	ug/L	2407.8	ppb	19:31:04
2	Be 313.107†	-6526.2	-2113.1	-0.7823	ug/L	-0.7823	ppb	19:31:04
2	Cd 226.502†	1100.2	1287.0	14.106	ug/L	14.106	ppb	19:31:24
2	Co 228.616†	470.6	525.5	0.7009	ug/L	0.7009	ppb	19:31:24
2	Cr 267.716†	2297400.4	2273419.5	26343	ug/L	26343	ppb	19:30:59
2	Cu 324.752†	1347245.7	1326769.2	4120.1	ug/L	4120.1	ppb	19:30:59
2	Mn 257.610†	286369.6	282965.3	324.35	ug/L	324.35	ppb	19:31:04
2	Mo 202.031†	1160.6	1127.8	89.317	ug/L	89.317	ppb	19:31:24
2	Ni 231.604†	328.5	239.8	6.1845	ug/L	6.1845	ppb	19:31:24

2	P 214.914†	13493.1	13133.3	7418.4	ug/L	7418.4 ppb	19:31:24
2	Pb 220.353†	731.6	783.3	107.78	ug/L	107.78 ppb	19:31:24
2	S 181.975 Axial†	2904.0	2827.6	4162.1	ug/L	4162.1 ppb	19:31:24
2	Sb 206.836†	1830.4	1774.9	642.97	ug/L	642.97 ppb	19:31:24
2	Se 196.026†	-62.5	-33.4	1.5909	ug/L	1.5909 ppb	19:31:24
2	Si 251.611†	56416.9	55378.6	1829.3	ug/L	1829.3 ppb	19:31:04
2	Sn 189.927†	-353.5	-355.2	18.778	ug/L	18.778 ppb	19:31:24
2	Ti 334.940†	6730.9	7972.8	76.423	ug/L	76.423 ppb	19:31:04
2	Tl 190.801†	-41.1	-9.5	-1.8851	ug/L	-1.8851 ppb	19:31:24
2	U 409.014†	1307.1	3269.6	42.454	ug/L	42.454 ppb	19:31:04
2	V 292.402†	34562.1	35587.0	241.91	ug/L	241.91 ppb	19:31:04
2	Zn 213.857†	138792.1	136680.3	1329.4	ug/L	1329.4 ppb	19:31:04
2	SiO2†	55982.4	54943.2	3886.4	ug/L	3886.4 ppb	19:32:05
3	Sc Radial	5169.7	5169.7	102	%		19:30:21
3	Y RADIAL	5531.7	5531.7	100.5	%		19:30:21
3	Al 396.153Radial†	4320.6	4264.2	3350.5	ug/L	3350.5 ppb	19:30:01
3	Ca 317.933Radial†	340406.8	335099.5	550230	ug/L	550230 ppb	19:29:56
3	Fe 238.204 Radial†	816.7	794.2	7086.3	ug/L	7086.3 ppb	19:30:21
3	K 766.490 Radial†	17644.9	14367.5	2485.2	ug/L	2485.2 ppb	19:30:01
3	Mg 279.077 IEC†	400.1	391.4	13145	ug/L	13145 ppb	19:30:21
3	Na 589.592 Radial†	37392.3	38370.8	11637	ug/L	11637 ppb	19:30:01
3	Sr 421.552†	493845.8	486136.4	3180.9	ug/L	3180.9 ppb	19:29:56
3	Sc 361.383	840756.0	840756.0	100.35	%		19:31:30
3	Y 371.029	695611.1	695611.1	97.707	%		19:31:30
3	Ag 328.068†	687.7	387.0	-2.4119	ug/L	-2.4119 ppb	19:31:35
3	As 188.979†	350.4	369.8	165.46	ug/L	165.46 ppb	19:31:55
3	B 249.677†	6182.8	6627.5	156.26	ug/L	156.26 ppb	19:31:35
3	Ba 233.527†	298480.0	297450.1	2417.8	ug/L	2417.8 ppb	19:31:35
3	Be 313.107†	-6564.8	-2196.8	-0.8145	ug/L	-0.8145 ppb	19:31:35
3	Cd 226.502†	1113.7	1308.0	14.351	ug/L	14.351 ppb	19:31:55
3	Co 228.616†	463.4	521.6	0.6035	ug/L	0.6035 ppb	19:31:55
3	Cr 267.716†	2285307.5	2277282.1	26388	ug/L	26388 ppb	19:31:30
3	Cu 324.752†	1334479.7	1323379.4	4109.6	ug/L	4109.6 ppb	19:31:30
3	Mn 257.610†	285461.7	284044.1	325.58	ug/L	325.58 ppb	19:31:35
3	Mo 202.031†	1156.7	1132.0	89.628	ug/L	89.628 ppb	19:31:55
3	Ni 231.604†	327.5	241.0	6.2167	ug/L	6.2167 ppb	19:31:55
3	P 214.914†	13510.7	13244.3	7490.3	ug/L	7490.3 ppb	19:31:55
3	Pb 220.353†	689.4	746.4	103.12	ug/L	103.12 ppb	19:31:55
3	S 181.975 Axial†	2900.8	2844.4	4186.9	ug/L	4186.9 ppb	19:31:55
3	Sb 206.836†	1819.6	1776.9	643.69	ug/L	643.69 ppb	19:31:55
3	Se 196.026†	-68.9	-40.2	-2.9955	ug/L	-2.9955 ppb	19:31:55
3	Si 251.611†	56052.0	55405.8	1830.2	ug/L	1830.2 ppb	19:31:35
3	Sn 189.927†	-344.1	-348.3	20.102	ug/L	20.102 ppb	19:31:55
3	Ti 334.940†	6681.9	7970.7	76.468	ug/L	76.468 ppb	19:31:35
3	Tl 190.801†	-29.5	1.7	1.6938	ug/L	1.6938 ppb	19:31:55
3	U 409.014†	1330.0	3301.4	43.351	ug/L	43.351 ppb	19:31:35
3	V 292.402†	34388.8	35653.7	242.37	ug/L	242.37 ppb	19:31:35
3	Zn 213.857†	138149.2	137001.1	1332.6	ug/L	1332.6 ppb	19:31:35
3	SiO2†	56501.7	55848.4	3950.5	ug/L	3950.5 ppb	19:32:10

Mean Data: 1202004465|936826|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	846909.2	101.08	%	0.751				0.74%
Sc Radial	5220.2	103	%	1.0				0.97%
Y 371.029	700622.9	98.411	%	0.6976				0.71%
Y RADIAL	5600.1	101.7	%	1.15				1.13%
Ag 328.068†	408.1	-2.2955	ug/L	0.12827	-2.2955	ppb	0.12827	5.59%
Al 396.153Radial†	4180.6	3284.8	ug/L	61.13	3284.8	ppb	61.13	1.86%
As 188.979†	359.4	160.86	ug/L	4.117	160.86	ppb	4.117	2.56%
B 249.677†	6565.8	154.80	ug/L	2.039	154.80	ppb	2.039	1.32%
Ba 233.527†	295096.2	2398.7	ug/L	24.99	2398.7	ppb	24.99	1.04%
Be 313.107†	-2060.7	-0.7620	ug/L	0.06500	-0.7620	ppb	0.06500	8.53%
Ca 317.933Radial†	333535.9	547670	ug/L	4044.7	547670	ppb	4044.7	0.74%
Cd 226.502†	1294.1	14.195	ug/L	0.1358	14.195	ppb	0.1358	0.96%
Co 228.616†	520.7	0.5872	ug/L	0.12264	0.5872	ppb	0.12264	20.88%
Cr 267.716†	2274493.6	26356	ug/L	28.2	26356	ppb	28.2	0.11%
Cu 324.752†	1327751.3	4123.2	ug/L	15.33	4123.2	ppb	15.33	0.37%
Fe 238.204 Radial†	789.8	7047.7	ug/L	88.50	7047.7	ppb	88.50	1.26%
K 766.490 Radial†	14141.4	2444.1	ug/L	40.14	2444.1	ppb	40.14	1.64%

Mg 279.077 IEC†	390.1	13103	ug/L	95.5	13103	ppb	95.5	0.73%
Mn 257.610†	281842.1	323.06	ug/L	3.361	323.06	ppb	3.361	1.04%
Mo 202.031†	1118.9	88.636	ug/L	1.4574	88.636	ppb	1.4574	1.64%
Na 589.592 Radial†	37586.5	11399	ug/L	218.6	11399	ppb	218.6	1.92%
Ni 231.604†	233.5	6.0231	ug/L	0.30784	6.0231	ppb	0.30784	5.11%
P 214.914†	13114.8	7406.3	ug/L	90.68	7406.3	ppb	90.68	1.22%
Pb 220.353†	755.5	104.22	ug/L	3.164	104.22	ppb	3.164	3.04%
S 181.975 Axial†	2816.8	4146.3	ug/L	50.42	4146.3	ppb	50.42	1.22%
Sb 206.836†	1764.1	639.04	ug/L	7.427	639.04	ppb	7.427	1.16%
Se 196.026†	-35.2	0.1932	ug/L	2.76849	0.1932	ppb	2.76849	>999.9%
Si 251.611†	55054.7	1818.6	ug/L	19.31	1818.6	ppb	19.31	1.06%
Sn 189.927†	-350.9	19.233	ug/L	0.7529	19.233	ppb	0.7529	3.91%
Sr 421.552†	483394.9	3163.0	ug/L	23.02	3163.0	ppb	23.02	0.73%
Ti 334.940†	8000.3	76.188	ug/L	0.4454	76.188	ppb	0.4454	0.58%
Tl 190.801†	-2.9	0.2175	ug/L	1.86981	0.2175	ppb	1.86981	859.76%
U 409.014†	3284.6	42.901	ug/L	0.4484	42.901	ppb	0.4484	1.05%
V 292.402†	35403.2	240.60	ug/L	2.666	240.60	ppb	2.666	1.11%
Zn 213.857†	136003.6	1322.8	ug/L	14.27	1322.8	ppb	14.27	1.08%
SiO2†	55357.3	3915.7	ug/L	32.37	3915.7	ppb	32.37	0.83%

Sequence No.: 40
Sample ID: 1202004466|936826|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 57
Date Collected: 1/15/2010 19:34:21
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202004466|936826|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4912.5	4912.5	96.5	%			19:36:39
1	Y RADIAL	5294.9	5294.9	96.18	%			19:36:39
1	Al 396.153Radial†	14809.1	15353.1	12050	ug/L	12050	ppb	19:36:19
1	Ca 317.933Radial†	602622.9	624303.1	1025100	ug/L	1025100	ppb	19:36:14
1	Fe 238.204 Radial†	1962.1	2022.9	18063	ug/L	18063	ppb	19:36:39
1	K 766.490 Radial†	54648.9	53613.4	9624.6	ug/L	9624.6	ppb	19:36:14
1	Mg 279.077 IEC†	725.2	748.9	25151	ug/L	25151	ppb	19:36:39
1	Na 589.592 Radial†	79152.6	83562.2	25343	ug/L	25343	ppb	19:36:14
1	Sr 421.552†	914555.5	947449.3	6199.8	ug/L	6199.8	ppb	19:36:14
1	Sc 361.383	814458.1	814458.1	97.210	%			19:37:49
1	Y 371.029	675087.2	675087.2	94.825	%			19:37:49
1	Ag 328.068†	102191.1	104826.0	493.43	ug/L	493.43	ppb	19:37:49
1	As 188.979†	1656.1	1724.2	771.21	ug/L	771.21	ppb	19:38:09
1	B 249.677†	30128.0	31458.9	743.11	ug/L	743.11	ppb	19:37:49
1	Ba 233.527†	528601.1	543780.6	4421.0	ug/L	4421.0	ppb	19:37:49
1	Be 313.107†	1164987.9	1202772.3	463.59	ug/L	463.59	ppb	19:37:49
1	Cd 226.502†	38263.5	39559.9	453.99	ug/L	453.99	ppb	19:38:09
1	Co 228.616†	20415.1	21060.9	437.28	ug/L	437.28	ppb	19:38:09
1	Cr 267.716†	2608363.1	2683144.0	31092	ug/L	31092	ppb	19:37:49
1	Cu 324.752†	2211227.7	2268232.3	7043.8	ug/L	7043.8	ppb	19:37:49
1	Mn 257.610†	843267.1	867045.7	994.09	ug/L	994.09	ppb	19:37:49
1	Mo 202.031†	7676.6	7876.2	587.83	ug/L	587.83	ppb	19:38:09
1	Ni 231.604†	16609.1	17000.5	438.69	ug/L	438.69	ppb	19:38:09
1	P 214.914†	23570.7	24027.7	13673	ug/L	13673	ppb	19:38:09
1	Pb 220.353†	4484.0	4672.0	611.21	ug/L	611.21	ppb	19:38:09
1	S 181.975 Axial†	8141.3	8328.7	12259	ug/L	12259	ppb	19:38:09
1	Sb 206.836†	2922.7	2970.2	1092.6	ug/L	1092.6	ppb	19:38:09
1	Se 196.026†	621.1	667.3	503.04	ug/L	503.04	ppb	19:38:09
1	Si 251.611†	153103.1	157046.1	5183.6	ug/L	5183.6	ppb	19:37:49
1	Sn 189.927†	2105.6	2160.7	550.82	ug/L	550.82	ppb	19:38:09
1	Ti 334.940†	279398.2	288729.8	606.64	ug/L	606.64	ppb	19:37:49
1	Tl 190.801†	1221.2	1287.4	413.89	ug/L	413.89	ppb	19:38:09
1	U 409.014†	16994.4	19458.2	536.68	ug/L	536.68	ppb	19:37:49
1	V 292.402†	109078.1	113593.3	796.50	ug/L	796.50	ppb	19:37:49
1	Zn 213.857†	253004.7	259598.5	2522.9	ug/L	2522.9	ppb	19:37:49
1	SiO2†	153119.7	157057.8	11100	ug/L	11100	ppb	19:39:09
2	Sc Radial	5005.8	5005.8	98.4	%			19:37:10
2	Y RADIAL	5381.0	5381.0	97.74	%			19:37:10
2	Al 396.153Radial†	14992.3	15253.4	11972	ug/L	11972	ppb	19:36:50
2	Ca 317.933Radial†	603822.9	613890.2	1008000	ug/L	1008000	ppb	19:36:45
2	Fe 238.204 Radial†	1994.5	2018.0	18018	ug/L	18018	ppb	19:37:10
2	K 766.490 Radial†	54717.1	52627.8	9447.1	ug/L	9447.1	ppb	19:36:45
2	Mg 279.077 IEC†	739.8	749.7	25178	ug/L	25178	ppb	19:37:10
2	Na 589.592 Radial†	78967.9	81846.4	24823	ug/L	24823	ppb	19:36:45
2	Sr 421.552†	911885.8	927080.4	6066.4	ug/L	6066.4	ppb	19:36:45
2	Sc 361.383	827327.9	827327.9	98.746	%			19:38:16
2	Y 371.029	684755.4	684755.4	96.183	%			19:38:16
2	Ag 328.068†	103673.8	104692.2	493.01	ug/L	493.01	ppb	19:38:16
2	As 188.979†	1641.0	1682.4	752.69	ug/L	752.69	ppb	19:38:37
2	B 249.677†	30810.2	31667.6	748.10	ug/L	748.10	ppb	19:38:16
2	Ba 233.527†	537210.1	544040.1	4423.1	ug/L	4423.1	ppb	19:38:16
2	Be 313.107†	1182376.2	1201738.9	463.19	ug/L	463.19	ppb	19:38:16
2	Cd 226.502†	38292.4	38977.0	447.28	ug/L	447.28	ppb	19:38:37
2	Co 228.616†	20438.4	20757.8	430.82	ug/L	430.82	ppb	19:38:37
2	Cr 267.716†	2645944.9	2679463.1	31049	ug/L	31049	ppb	19:38:16
2	Cu 324.752†	2246916.8	2268989.7	7046.2	ug/L	7046.2	ppb	19:38:16
2	Mn 257.610†	857186.7	867647.9	994.78	ug/L	994.78	ppb	19:38:16
2	Mo 202.031†	7689.7	7766.7	579.64	ug/L	579.64	ppb	19:38:37
2	Ni 231.604†	16633.2	16759.1	432.46	ug/L	432.46	ppb	19:38:37

2	P 214.914†	23570.7	23650.6	13435 ug/L	13435 ppb	19:38:37
2	Pb 220.353†	4495.4	4611.8	603.20 ug/L	603.20 ppb	19:38:37
2	S 181.975 Axial†	8137.5	8194.6	12062 ug/L	12062 ppb	19:38:37
2	Sb 206.836†	2939.2	2940.2	1081.5 ug/L	1081.5 ppb	19:38:37
2	Se 196.026†	642.6	679.2	510.71 ug/L	510.71 ppb	19:38:37
2	Si 251.611†	155598.3	157123.0	5186.2 ug/L	5186.2 ppb	19:38:16
2	Sn 189.927†	2106.6	2128.0	542.25 ug/L	542.25 ppb	19:38:37
2	Ti 334.940†	283477.9	288390.4	603.79 ug/L	603.79 ppb	19:38:16
2	Tl 190.801†	1224.4	1271.1	408.72 ug/L	408.72 ppb	19:38:37
2	U 409.014†	17278.3	19473.8	537.27 ug/L	537.27 ppb	19:38:16
2	V 292.402†	110804.6	113596.2	796.43 ug/L	796.43 ppb	19:38:16
2	Zn 213.857†	257608.3	260211.9	2528.9 ug/L	2528.9 ppb	19:38:16
2	SiO2†	153049.4	154536.3	10922 ug/L	10922 ppb	19:39:15
3	Sc Radial	4969.1	4969.1	97.6 %		19:37:41
3	Y RADIAL	5357.9	5357.9	97.32 %		19:37:41
3	Al 396.153Radial†	14639.9	15005.1	11776 ug/L	11776 ppb	19:37:21
3	Ca 317.933Radial†	606056.9	620712.7	1019200 ug/L	1019200 ppb	19:37:16
3	Fe 238.204 Radial†	1973.6	2011.5	17961 ug/L	17961 ppb	19:37:41
3	K 766.490 Radial†	55232.8	53566.9	9617.9 ug/L	9617.9 ppb	19:37:16
3	Mg 279.077 IEC†	732.6	747.9	25118 ug/L	25118 ppb	19:37:41
3	Na 589.592 Radial†	79648.4	83136.4	25214 ug/L	25214 ppb	19:37:16
3	Sr 421.552†	919371.7	941595.4	6161.5 ug/L	6161.5 ppb	19:37:16
3	Sc 361.383	813341.0	813341.0	97.076 %		19:38:44
3	Y 371.029	671958.1	671958.1	94.385 %		19:38:44
3	Ag 328.068†	101936.0	104707.6	492.91 ug/L	492.91 ppb	19:38:44
3	As 188.979†	1659.1	1729.6	773.59 ug/L	773.59 ppb	19:39:04
3	B 249.677†	30153.5	31527.7	744.76 ug/L	744.76 ppb	19:38:44
3	Ba 233.527†	528482.7	544405.4	4426.1 ug/L	4426.1 ppb	19:38:44
3	Be 313.107†	1160139.2	1199423.6	462.30 ug/L	462.30 ppb	19:38:44
3	Cd 226.502†	38312.8	39664.8	455.21 ug/L	455.21 ppb	19:39:04
3	Co 228.616†	20454.5	21130.3	438.77 ug/L	438.77 ppb	19:39:04
3	Cr 267.716†	2604430.9	2682778.7	31087 ug/L	31087 ppb	19:38:44
3	Cu 324.752†	2202543.0	2262410.2	7025.7 ug/L	7025.7 ppb	19:38:44
3	Mn 257.610†	842543.2	867491.4	994.60 ug/L	994.60 ppb	19:38:44
3	Mo 202.031†	7689.0	7899.8	589.47 ug/L	589.47 ppb	19:39:04
3	Ni 231.604†	16663.6	17080.1	440.74 ug/L	440.74 ppb	19:39:04
3	P 214.914†	23586.7	24077.6	13708 ug/L	13708 ppb	19:39:04
3	Pb 220.353†	4492.4	4687.0	612.96 ug/L	612.96 ppb	19:39:04
3	S 181.975 Axial†	8165.1	8364.8	12312 ug/L	12312 ppb	19:39:04
3	Sb 206.836†	2937.6	2989.7	1099.7 ug/L	1099.7 ppb	19:39:04
3	Se 196.026†	633.8	681.3	511.98 ug/L	511.98 ppb	19:39:04
3	Si 251.611†	152763.4	156912.5	5179.1 ug/L	5179.1 ppb	19:38:44
3	Sn 189.927†	2113.3	2171.6	551.92 ug/L	551.92 ppb	19:39:04
3	Ti 334.940†	278655.0	288359.1	605.23 ug/L	605.23 ppb	19:38:44
3	Tl 190.801†	1195.1	1262.3	405.90 ug/L	405.90 ppb	19:39:04
3	U 409.014†	16956.7	19443.4	536.24 ug/L	536.24 ppb	19:38:44
3	V 292.402†	108789.4	113450.0	795.53 ug/L	795.53 ppb	19:38:44
3	Zn 213.857†	252727.7	259670.6	2523.6 ug/L	2523.6 ppb	19:38:44
3	SiO2†	151573.7	155681.5	11003 ug/L	11003 ppb	19:39:20

Mean Data: 1202004466|936826|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	818375.7	97.677	%	0.9277				0.95%
Sc Radial	4962.4	97.5	%	0.92				0.95%
Y 371.029	677266.9	95.131	%	0.9371				0.99%
Y RADIAL	5344.6	97.08	%	0.810				0.83%
Ag 328.068†	104741.9	493.12	ug/L	0.276	493.12	ppb	0.276	0.06%
Al 396.153Radial†	15203.8	11933	ug/L	141.1	11933	ppb	141.1	1.18%
As 188.979†	1712.1	765.83	ug/L	11.445	765.83	ppb	11.445	1.49%
B 249.677†	31551.4	745.32	ug/L	2.540	745.32	ppb	2.540	0.34%
Ba 233.527†	544075.4	4423.4	ug/L	2.55	4423.4	ppb	2.55	0.06%
Be 313.107†	1201311.6	463.02	ug/L	0.660	463.02	ppb	0.660	0.14%
Ca 317.933Radial†	619635.4	1017400	ug/L	8685.2	1017400	ppb	8685.2	0.85%
Cd 226.502†	39400.6	452.16	ug/L	4.270	452.16	ppb	4.270	0.94%
Co 228.616†	20983.0	435.62	ug/L	4.225	435.62	ppb	4.225	0.97%
Cr 267.716†	2681795.3	31076	ug/L	23.5	31076	ppb	23.5	0.08%
Cu 324.752†	2266544.1	7038.6	ug/L	11.18	7038.6	ppb	11.18	0.16%
Fe 238.204 Radial†	2017.5	18014	ug/L	51.0	18014	ppb	51.0	0.28%
K 766.490 Radial†	53269.4	9563.2	ug/L	100.62	9563.2	ppb	100.62	1.05%

Mg 279.077 IEC†	748.8	25149	ug/L	29.8	25149	ppb	29.8	0.12%
Mn 257.610†	867395.0	994.49	ug/L	0.354	994.49	ppb	0.354	0.04%
Mo 202.031†	7847.6	585.65	ug/L	5.269	585.65	ppb	5.269	0.90%
Na 589.592 Radial†	82848.3	25126	ug/L	271.0	25126	ppb	271.0	1.08%
Ni 231.604†	16946.6	437.30	ug/L	4.314	437.30	ppb	4.314	0.99%
P 214.914†	23918.6	13605	ug/L	148.0	13605	ppb	148.0	1.09%
Pb 220.353†	4656.9	609.12	ug/L	5.207	609.12	ppb	5.207	0.85%
S 181.975 Axial†	8296.0	12211	ug/L	132.0	12211	ppb	132.0	1.08%
Sb 206.836†	2966.7	1091.3	ug/L	9.18	1091.3	ppb	9.18	0.84%
Se 196.026†	675.9	508.58	ug/L	4.838	508.58	ppb	4.838	0.95%
Si 251.611†	157027.2	5183.0	ug/L	3.58	5183.0	ppb	3.58	0.07%
Sn 189.927†	2153.4	548.33	ug/L	5.292	548.33	ppb	5.292	0.97%
Sr 421.552†	938708.4	6142.6	ug/L	68.64	6142.6	ppb	68.64	1.12%
Ti 334.940†	288493.1	605.22	ug/L	1.424	605.22	ppb	1.424	0.24%
Tl 190.801†	1273.6	409.50	ug/L	4.049	409.50	ppb	4.049	0.99%
U 409.014†	19458.5	536.73	ug/L	0.516	536.73	ppb	0.516	0.10%
V 292.402†	113546.5	796.16	ug/L	0.542	796.16	ppb	0.542	0.07%
Zn 213.857†	259827.0	2525.1	ug/L	3.30	2525.1	ppb	3.30	0.13%
SiO2†	155758.5	11008	ug/L	89.3	11008	ppb	89.3	0.81%

Sequence No.: 41
Sample ID: 1202004468|936826|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 58
Date Collected: 1/15/2010 19:41:31
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202004468|936826|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5059.5	5059.5	99.4	%			19:43:49
1	Y RADIAL	5464.3	5464.3	99.25	%			19:43:49
1	Al 396.153Radial†	14226.0	14320.7	11237	ug/L	11237	ppb	19:43:29
1	Ca 317.933Radial†	569669.2	573012.1	940890	ug/L	940890	ppb	19:43:24
1	Fe 238.204 Radial†	1869.5	1870.6	16704	ug/L	16704	ppb	19:43:49
1	K 766.490 Radial†	55813.9	53140.0	9563.8	ug/L	9563.8	ppb	19:43:29
1	Mg 279.077 IEC†	762.2	764.2	25669	ug/L	25669	ppb	19:43:49
1	Na 589.592 Radial†	88249.2	90329.4	27395	ug/L	27395	ppb	19:43:29
1	Sr 421.552†	874724.6	879849.1	5757.5	ug/L	5757.5	ppb	19:43:24
1	Sc 361.383	824459.6	824459.6	98.403	%			19:44:58
1	Y 371.029	683797.0	683797.0	96.048	%			19:44:58
1	Ag 328.068†	102592.8	103958.9	490.02	ug/L	490.02	ppb	19:44:58
1	As 188.979†	1626.2	1673.2	748.23	ug/L	748.23	ppb	19:45:18
1	B 249.677†	30449.2	31409.3	742.17	ug/L	742.17	ppb	19:44:58
1	Ba 233.527†	500143.0	508264.3	4132.3	ug/L	4132.3	ppb	19:44:58
1	Be 313.107†	1174178.5	1197573.8	461.58	ug/L	461.58	ppb	19:44:58
1	Cd 226.502†	38248.5	39067.3	448.45	ug/L	448.45	ppb	19:45:18
1	Co 228.616†	20487.0	20879.2	433.86	ug/L	433.86	ppb	19:45:18
1	Cr 267.716†	2537471.5	2578551.8	29880	ug/L	29880	ppb	19:44:58
1	Cu 324.752†	2116760.7	2144638.1	6660.0	ug/L	6660.0	ppb	19:44:58
1	Mn 257.610†	827945.3	840952.0	964.04	ug/L	964.04	ppb	19:44:58
1	Mo 202.031†	7950.5	8058.8	600.03	ug/L	600.03	ppb	19:45:18
1	Ni 231.604†	16692.9	16878.4	435.54	ug/L	435.54	ppb	19:45:18
1	P 214.914†	22739.9	22889.3	13035	ug/L	13035	ppb	19:45:18
1	Pb 220.353†	4455.3	4586.9	599.01	ug/L	599.01	ppb	19:45:18
1	S 181.975 Axial†	8039.9	8124.1	11958	ug/L	11958	ppb	19:45:18
1	Sb 206.836†	2693.3	2700.7	995.27	ug/L	995.27	ppb	19:45:18
1	Se 196.026†	632.8	671.5	501.36	ug/L	501.36	ppb	19:45:18
1	Si 251.611†	137290.2	139066.1	4589.1	ug/L	4589.1	ppb	19:44:58
1	Sn 189.927†	2075.1	2103.4	527.53	ug/L	527.53	ppb	19:45:18
1	Ti 334.940†	281482.8	287361.6	593.45	ug/L	593.45	ppb	19:44:58
1	Tl 190.801†	1192.9	1243.4	399.76	ug/L	399.76	ppb	19:45:18
1	U 409.014†	16739.6	18987.3	524.82	ug/L	524.82	ppb	19:44:58
1	V 292.402†	110262.8	113436.1	796.21	ug/L	796.21	ppb	19:44:58
1	Zn 213.857†	243283.5	246562.3	2396.1	ug/L	2396.1	ppb	19:44:58
1	SiO2†	135221.0	136957.9	9677.3	ug/L	9677.3	ppb	19:46:18
2	Sc Radial	5085.0	5085.0	99.9	%			19:44:19
2	Y RADIAL	5497.9	5497.9	99.86	%			19:44:19
2	Al 396.153Radial†	14161.6	14184.5	11131	ug/L	11131	ppb	19:43:59
2	Ca 317.933Radial†	563484.8	563951.6	926010	ug/L	926010	ppb	19:43:54
2	Fe 238.204 Radial†	1856.0	1847.7	16499	ug/L	16499	ppb	19:44:19
2	K 766.490 Radial†	55626.1	52670.7	9481.6	ug/L	9481.6	ppb	19:43:59
2	Mg 279.077 IEC†	757.4	755.6	25379	ug/L	25379	ppb	19:44:19
2	Na 589.592 Radial†	87812.1	89447.2	27128	ug/L	27128	ppb	19:43:59
2	Sr 421.552†	862192.9	862898.6	5646.6	ug/L	5646.6	ppb	19:43:54
2	Sc 361.383	825316.9	825316.9	98.506	%			19:45:26
2	Y 371.029	684081.7	684081.7	96.088	%			19:45:26
2	Ag 328.068†	102478.2	103734.2	489.07	ug/L	489.07	ppb	19:45:26
2	As 188.979†	1596.9	1641.7	734.27	ug/L	734.27	ppb	19:45:46
2	B 249.677†	30445.5	31373.4	741.36	ug/L	741.36	ppb	19:45:26
2	Ba 233.527†	500105.5	507698.2	4127.7	ug/L	4127.7	ppb	19:45:26
2	Be 313.107†	1172663.1	1194796.1	460.51	ug/L	460.51	ppb	19:45:26
2	Cd 226.502†	37853.7	38626.0	443.39	ug/L	443.39	ppb	19:45:46
2	Co 228.616†	20279.4	20646.8	428.92	ug/L	428.92	ppb	19:45:46
2	Cr 267.716†	2534581.5	2572939.5	29815	ug/L	29815	ppb	19:45:26
2	Cu 324.752†	2119143.0	2144822.2	6660.5	ug/L	6660.5	ppb	19:45:26
2	Mn 257.610†	828156.4	840292.3	963.28	ug/L	963.28	ppb	19:45:26
2	Mo 202.031†	7849.8	7948.2	591.78	ug/L	591.78	ppb	19:45:46
2	Ni 231.604†	16524.1	16689.5	430.66	ug/L	430.66	ppb	19:45:46

2	P 214.914†	22552.4	22674.9	12901 ug/L	12901 ppb	19:45:46
2	Pb 220.353†	4447.6	4574.4	597.11 ug/L	597.11 ppb	19:45:46
2	S 181.975 Axial†	7966.3	8040.8	11835 ug/L	11835 ppb	19:45:46
2	Sb 206.836†	2683.4	2687.7	990.34 ug/L	990.34 ppb	19:45:46
2	Se 196.026†	615.2	653.0	488.40 ug/L	488.40 ppb	19:45:46
2	Si 251.611†	137302.3	138933.4	4584.8 ug/L	4584.8 ppb	19:45:26
2	Sn 189.927†	2049.3	2075.0	520.08 ug/L	520.08 ppb	19:45:46
2	Ti 334.940†	281917.1	287505.4	591.74 ug/L	591.74 ppb	19:45:26
2	Tl 190.801†	1181.2	1230.2	395.62 ug/L	395.62 ppb	19:45:46
2	U 409.014†	17147.0	19383.2	537.37 ug/L	537.37 ppb	19:45:26
2	V 292.402†	110305.1	113362.6	795.65 ug/L	795.65 ppb	19:45:26
2	Zn 213.857†	243226.2	246247.3	2393.1 ug/L	2393.1 ppb	19:45:26
2	SiO2†	135045.0	136636.5	9654.8 ug/L	9654.8 ppb	19:46:23
3	Sc Radial	5072.3	5072.3	99.7 %		19:44:50
3	Y RADIAL	5509.8	5509.8	100.1 %		19:44:50
3	Al 396.153Radial†	13955.4	14013.0	10995 ug/L	10995 ppb	19:44:30
3	Ca 317.933Radial†	557036.2	558888.7	917700 ug/L	917700 ppb	19:44:25
3	Fe 238.204 Radial†	1858.0	1854.4	16559 ug/L	16559 ppb	19:44:50
3	K 766.490 Radial†	54954.4	52135.8	9384.9 ug/L	9384.9 ppb	19:44:30
3	Mg 279.077 IEC†	764.0	764.0	25663 ug/L	25663 ppb	19:44:50
3	Na 589.592 Radial†	86682.7	88533.4	26851 ug/L	26851 ppb	19:44:30
3	Sr 421.552†	852119.1	854944.5	5594.5 ug/L	5594.5 ppb	19:44:25
3	Sc 361.383	823662.8	823662.8	98.308 %		19:45:53
3	Y 371.029	681923.6	681923.6	95.785 %		19:45:53
3	Ag 328.068†	101459.1	102906.5	485.25 ug/L	485.25 ppb	19:45:53
3	As 188.979†	1619.2	1667.6	745.71 ug/L	745.71 ppb	19:46:13
3	B 249.677†	30001.3	30983.7	732.07 ug/L	732.07 ppb	19:45:53
3	Ba 233.527†	495874.4	504414.0	4101.0 ug/L	4101.0 ppb	19:45:53
3	Be 313.107†	1159580.4	1183879.0	456.31 ug/L	456.31 ppb	19:45:53
3	Cd 226.502†	38311.8	39169.3	449.64 ug/L	449.64 ppb	19:46:13
3	Co 228.616†	20513.6	20926.4	434.98 ug/L	434.98 ppb	19:46:13
3	Cr 267.716†	2512011.1	2555148.2	29608 ug/L	29608 ppb	19:45:53
3	Cu 324.752†	2101353.1	2131046.6	6617.8 ug/L	6617.8 ppb	19:45:53
3	Mn 257.610†	821107.1	834810.2	956.99 ug/L	956.99 ppb	19:45:53
3	Mo 202.031†	7937.1	8052.9	599.32 ug/L	599.32 ppb	19:46:13
3	Ni 231.604†	16741.0	16943.8	437.23 ug/L	437.23 ppb	19:46:13
3	P 214.914†	22805.0	22977.9	13099 ug/L	13099 ppb	19:46:13
3	Pb 220.353†	4479.3	4615.8	602.22 ug/L	602.22 ppb	19:46:13
3	S 181.975 Axial†	8080.1	8172.9	12030 ug/L	12030 ppb	19:46:13
3	Sb 206.836†	2695.0	2705.0	996.84 ug/L	996.84 ppb	19:46:13
3	Se 196.026†	621.4	660.5	493.61 ug/L	493.61 ppb	19:46:13
3	Si 251.611†	136156.7	138048.0	4555.5 ug/L	4555.5 ppb	19:45:53
3	Sn 189.927†	2078.9	2109.3	525.09 ug/L	525.09 ppb	19:46:13
3	Ti 334.940†	279343.4	285462.1	587.27 ug/L	587.27 ppb	19:45:53
3	Tl 190.801†	1198.0	1249.7	401.73 ug/L	401.73 ppb	19:46:13
3	U 409.014†	16645.8	18908.3	522.98 ug/L	522.98 ppb	19:45:53
3	V 292.402†	109193.5	112456.7	789.41 ug/L	789.41 ppb	19:45:53
3	Zn 213.857†	240714.1	244187.8	2373.0 ug/L	2373.0 ppb	19:45:53
3	SiO2†	135255.9	137126.3	9689.3 ug/L	9689.3 ppb	19:46:29

Mean Data: 1202004468|936826|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	824479.8	98.406	%	0.0987				0.10%
Sc Radial	5072.3	99.7	%	0.25				0.25%
Y 371.029	683267.5	95.974	%	0.1647				0.17%
Y RADIAL	5490.7	99.73	%	0.428				0.43%
Ag 328.068†	103533.2	488.11	ug/L	2.523	488.11	ppb	2.523	0.52%
Al 396.153Radial†	14172.7	11121	ug/L	121.3	11121	ppb	121.3	1.09%
As 188.979†	1660.9	742.73	ug/L	7.440	742.73	ppb	7.440	1.00%
B 249.677†	31255.5	738.53	ug/L	5.608	738.53	ppb	5.608	0.76%
Ba 233.527†	506792.2	4120.4	ug/L	16.90	4120.4	ppb	16.90	0.41%
Be 313.107†	1192083.0	459.47	ug/L	2.788	459.47	ppb	2.788	0.61%
Ca 317.933Radial†	565284.1	928200	ug/L	11749.1	928200	ppb	11749.1	1.27%
Cd 226.502†	38954.2	447.16	ug/L	3.318	447.16	ppb	3.318	0.74%
Co 228.616†	20817.5	432.59	ug/L	3.226	432.59	ppb	3.226	0.75%
Cr 267.716†	2568879.8	29767	ug/L	141.6	29767	ppb	141.6	0.48%
Cu 324.752†	2140169.0	6646.1	ug/L	24.53	6646.1	ppb	24.53	0.37%
Fe 238.204 Radial†	1857.6	16587	ug/L	105.3	16587	ppb	105.3	0.64%
K 766.490 Radial†	52648.8	9476.8	ug/L	89.56	9476.8	ppb	89.56	0.95%

Mg 279.077 IEC†	761.3	25570	ug/L	165.6	25570	ppb	165.6	0.65%
Mn 257.610†	838684.8	961.44	ug/L	3.869	961.44	ppb	3.869	0.40%
Mo 202.031†	8020.0	597.04	ug/L	4.576	597.04	ppb	4.576	0.77%
Na 589.592 Radial†	89436.6	27125	ug/L	272.4	27125	ppb	272.4	1.00%
Ni 231.604†	16837.2	434.48	ug/L	3.408	434.48	ppb	3.408	0.78%
P 214.914†	22847.4	13012	ug/L	101.4	13012	ppb	101.4	0.78%
Pb 220.353†	4592.4	599.45	ug/L	2.582	599.45	ppb	2.582	0.43%
S 181.975 Axial†	8112.6	11941	ug/L	98.3	11941	ppb	98.3	0.82%
Sb 206.836†	2697.8	994.15	ug/L	3.391	994.15	ppb	3.391	0.34%
Se 196.026†	661.7	494.46	ug/L	6.522	494.46	ppb	6.522	1.32%
Si 251.611†	138682.5	4576.5	ug/L	18.31	4576.5	ppb	18.31	0.40%
Sn 189.927†	2095.9	524.23	ug/L	3.802	524.23	ppb	3.802	0.73%
Sr 421.552†	865897.4	5666.2	ug/L	83.25	5666.2	ppb	83.25	1.47%
Ti 334.940†	286776.4	590.82	ug/L	3.194	590.82	ppb	3.194	0.54%
Tl 190.801†	1241.1	399.04	ug/L	3.122	399.04	ppb	3.122	0.78%
U 409.014†	19092.9	528.39	ug/L	7.830	528.39	ppb	7.830	1.48%
V 292.402†	113085.1	793.76	ug/L	3.772	793.76	ppb	3.772	0.48%
Zn 213.857†	245665.8	2387.4	ug/L	12.58	2387.4	ppb	12.58	0.53%
SiO2†	136906.9	9673.8	ug/L	17.50	9673.8	ppb	17.50	0.18%

Sequence No.: 42
Sample ID: 1202004467|936826|5
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 59
Date Collected: 1/15/2010 19:48:39
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202004467|936826|5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5039.7	5039.7	99.0	%			19:50:33
1	Y RADIAL	5436.7	5436.7	98.75	%			19:50:33
1	Al 396.153Radial†	587.5	604.0	474.36	ug/L	474.36	ppb	19:50:33
1	Ca 317.933Radial†	74713.8	75433.1	123860	ug/L	123860	ppb	19:50:33
1	Fe 238.204 Radial†	126.5	117.9	1051.7	ug/L	1051.7	ppb	19:50:53
1	K 766.490 Radial†	5649.1	2701.7	460.46	ug/L	460.46	ppb	19:50:33
1	Mg 279.077 IEC†	86.0	84.4	2835.7	ug/L	2835.7	ppb	19:50:53
1	Na 589.592 Radial†	6012.7	7631.6	2314.5	ug/L	2314.5	ppb	19:50:33
1	Sr 421.552†	100911.7	101871.6	666.51	ug/L	666.51	ppb	19:50:33
1	Sc 361.383	893163.2	893163.2	106.60	%			19:51:50
1	Y 371.029	746563.8	746563.8	104.86	%			19:51:50
1	Ag 328.068†	459.5	132.7	-0.5230	ug/L	-0.5230	ppb	19:51:50
1	As 188.979†	49.2	66.7	29.767	ug/L	29.767	ppb	19:52:10
1	B 249.677†	823.4	1238.5	29.244	ug/L	29.244	ppb	19:52:10
1	Ba 233.527†	60491.0	56750.7	461.29	ug/L	461.29	ppb	19:51:50
1	Be 313.107†	-4887.0	-239.1	-0.0963	ug/L	-0.0963	ppb	19:51:50
1	Cd 226.502†	100.7	292.7	3.2665	ug/L	3.2665	ppb	19:52:10
1	Co 228.616†	63.4	119.3	0.0979	ug/L	0.0979	ppb	19:52:10
1	Cr 267.716†	557228.7	522622.7	6055.8	ug/L	6055.8	ppb	19:51:50
1	Cu 324.752†	264235.7	241402.2	749.63	ug/L	749.63	ppb	19:51:50
1	Mn 257.610†	56511.7	52585.0	60.232	ug/L	60.232	ppb	19:51:50
1	Mo 202.031†	259.6	222.8	17.799	ug/L	17.799	ppb	19:52:10
1	Ni 231.604†	136.9	43.1	1.1120	ug/L	1.1120	ppb	19:52:10
1	P 214.914†	2840.9	2445.4	1384.6	ug/L	1384.6	ppb	19:52:10
1	Pb 220.353†	79.3	133.7	18.943	ug/L	18.943	ppb	19:52:10
1	S 181.975 Axial†	606.2	522.4	768.95	ug/L	768.95	ppb	19:52:10
1	Sb 206.836†	455.5	390.9	140.93	ug/L	140.93	ppb	19:52:10
1	Se 196.026†	-32.2	-1.8	2.3317	ug/L	2.3317	ppb	19:52:10
1	Si 251.611†	12472.7	11248.5	371.58	ug/L	371.58	ppb	19:51:50
1	Sn 189.927†	-316.8	-302.6	-36.440	ug/L	-36.440	ppb	19:52:10
1	Ti 334.940†	-2622.1	-1147.7	12.262	ug/L	12.262	ppb	19:51:50
1	Tl 190.801†	-45.9	-12.0	-3.6337	ug/L	-3.6337	ppb	19:52:10
1	U 409.014†	-1238.9	813.9	11.774	ug/L	11.774	ppb	19:51:50
1	V 292.402†	6369.6	7359.3	49.867	ug/L	49.867	ppb	19:51:50
1	Zn 213.857†	24823.7	22617.7	219.91	ug/L	219.91	ppb	19:51:50
1	SiO2†	12079.3	10874.0	769.18	ug/L	769.18	ppb	19:53:07
2	Sc Radial	5533.2	5533.2	109	%			19:50:58
2	Y RADIAL	5951.6	5951.6	108.1	%			19:50:58
2	Al 396.153Radial†	559.0	524.9	412.11	ug/L	412.11	ppb	19:50:58
2	Ca 317.933Radial†	71851.5	66070.7	108490	ug/L	108490	ppb	19:50:58
2	Fe 238.204 Radial†	127.1	107.0	954.92	ug/L	954.92	ppb	19:51:18
2	K 766.490 Radial†	5646.4	2190.4	370.53	ug/L	370.53	ppb	19:50:58
2	Mg 279.077 IEC†	87.3	77.8	2613.7	ug/L	2613.7	ppb	19:51:18
2	Na 589.592 Radial†	5690.7	6793.8	2060.5	ug/L	2060.5	ppb	19:50:58
2	Sr 421.552†	96384.5	88618.1	579.79	ug/L	579.79	ppb	19:50:58
2	Sc 361.383	873341.9	873341.9	104.24	%			19:52:16
2	Y 371.029	728458.4	728458.4	102.32	%			19:52:16
2	Ag 328.068†	418.4	103.0	-0.4805	ug/L	-0.4805	ppb	19:52:16
2	As 188.979†	42.1	61.0	27.206	ug/L	27.206	ppb	19:52:36
2	B 249.677†	863.4	1294.4	30.587	ug/L	30.587	ppb	19:52:36
2	Ba 233.527†	60021.8	57588.4	468.10	ug/L	468.10	ppb	19:52:16
2	Be 313.107†	-4835.3	-293.5	-0.1175	ug/L	-0.1175	ppb	19:52:16
2	Cd 226.502†	102.7	296.7	3.3223	ug/L	3.3223	ppb	19:52:36
2	Co 228.616†	60.4	117.7	0.0316	ug/L	0.0316	ppb	19:52:36
2	Cr 267.716†	552317.2	529774.3	6138.7	ug/L	6138.7	ppb	19:52:16
2	Cu 324.752†	262283.2	245154.6	761.28	ug/L	761.28	ppb	19:52:16
2	Mn 257.610†	56128.3	53420.3	61.189	ug/L	61.189	ppb	19:52:16
2	Mo 202.031†	251.0	220.1	17.411	ug/L	17.411	ppb	19:52:36
2	Ni 231.604†	110.7	20.9	0.5369	ug/L	0.5369	ppb	19:52:36

2	P 214.914†	2863.1	2527.2	1433.6	ug/L	1433.6 ppb	19:52:36
2	Pb 220.353†	77.4	133.6	18.630	ug/L	18.630 ppb	19:52:36
2	S 181.975 Axial†	612.5	541.3	796.89	ug/L	796.89 ppb	19:52:36
2	Sb 206.836†	462.1	406.9	146.68	ug/L	146.68 ppb	19:52:36
2	Se 196.026†	-33.5	-3.7	0.7400	ug/L	0.7400 ppb	19:52:36
2	Si 251.611†	12525.7	11564.9	382.04	ug/L	382.04 ppb	19:52:16
2	Sn 189.927†	-317.1	-309.6	-40.060	ug/L	-40.060 ppb	19:52:36
2	Ti 334.940†	-2638.0	-1218.8	10.071	ug/L	10.071 ppb	19:52:16
2	Tl 190.801†	-47.2	-14.2	-4.3299	ug/L	-4.3299 ppb	19:52:36
2	U 409.014†	-1332.6	697.6	7.9631	ug/L	7.9631 ppb	19:52:16
2	V 292.402†	6330.9	7457.8	50.532	ug/L	50.532 ppb	19:52:16
2	Zn 213.857†	24624.2	22954.7	223.20	ug/L	223.20 ppb	19:52:16
2	SiO2†	12394.1	11433.2	808.76	ug/L	808.76 ppb	19:53:12
3	Sc Radial	5487.2	5487.2	108	%		19:51:23
3	Y RADIAL	5891.2	5891.2	107.0	%		19:51:23
3	Al 396.153Radial†	574.4	543.5	426.81	ug/L	426.81 ppb	19:51:23
3	Ca 317.933Radial†	71415.1	66220.4	108730	ug/L	108730 ppb	19:51:23
3	Fe 238.204 Radial†	127.5	108.4	967.42	ug/L	967.42 ppb	19:51:43
3	K 766.490 Radial†	5537.0	2132.5	359.68	ug/L	359.68 ppb	19:51:23
3	Mg 279.077 IEC†	86.6	77.9	2615.1	ug/L	2615.1 ppb	19:51:43
3	Na 589.592 Radial†	5591.8	6746.1	2046.0	ug/L	2046.0 ppb	19:51:23
3	Sr 421.552†	96009.1	89013.5	582.38	ug/L	582.38 ppb	19:51:23
3	Sc 361.383	892688.2	892688.2	106.55	%		19:52:42
3	Y 371.029	743464.9	743464.9	104.43	%		19:52:42
3	Ag 328.068†	460.4	133.7	-0.3354	ug/L	-0.3354 ppb	19:52:42
3	As 188.979†	42.9	60.9	27.146	ug/L	27.146 ppb	19:53:02
3	B 249.677†	839.6	1254.1	29.627	ug/L	29.627 ppb	19:53:02
3	Ba 233.527†	60188.1	56496.6	459.23	ug/L	459.23 ppb	19:52:42
3	Be 313.107†	-4839.0	-196.5	-0.0801	ug/L	-0.0801 ppb	19:52:42
3	Cd 226.502†	91.1	283.7	3.1717	ug/L	3.1717 ppb	19:53:02
3	Co 228.616†	68.0	123.7	0.2081	ug/L	0.2081 ppb	19:53:02
3	Cr 267.716†	552928.9	518865.2	6012.3	ug/L	6012.3 ppb	19:52:42
3	Cu 324.752†	262917.2	240296.6	746.20	ug/L	746.20 ppb	19:52:42
3	Mn 257.610†	56258.4	52375.4	59.993	ug/L	59.993 ppb	19:52:42
3	Mo 202.031†	247.6	211.6	16.798	ug/L	16.798 ppb	19:53:02
3	Ni 231.604†	125.9	32.8	0.8453	ug/L	0.8453 ppb	19:53:02
3	P 214.914†	2832.5	2438.9	1381.3	ug/L	1381.3 ppb	19:53:02
3	Pb 220.353†	98.2	151.6	20.922	ug/L	20.922 ppb	19:53:02
3	S 181.975 Axial†	605.9	522.4	768.94	ug/L	768.94 ppb	19:53:02
3	Sb 206.836†	450.3	386.3	139.27	ug/L	139.27 ppb	19:53:02
3	Se 196.026†	-35.0	-4.4	0.3427	ug/L	0.3427 ppb	19:53:02
3	Si 251.611†	12360.4	11149.3	368.31	ug/L	368.31 ppb	19:52:42
3	Sn 189.927†	-301.7	-288.5	-36.175	ug/L	-36.175 ppb	19:53:02
3	Ti 334.940†	-2676.9	-1200.4	10.180	ug/L	10.180 ppb	19:52:42
3	Tl 190.801†	-39.3	-5.8	-1.6682	ug/L	-1.6682 ppb	19:53:02
3	U 409.014†	-1349.7	709.3	8.6085	ug/L	8.6085 ppb	19:52:42
3	V 292.402†	6419.3	7409.2	50.226	ug/L	50.226 ppb	19:52:42
3	Zn 213.857†	24705.1	22518.7	218.96	ug/L	218.96 ppb	19:52:42
3	SiO2†	12630.9	11397.8	806.27	ug/L	806.27 ppb	19:53:17

Mean Data: 1202004467|936826|5

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	886397.8	105.80	%	1.350				1.28%
Sc Radial	5353.4	105	%	5.4				5.09%
Y 371.029	739495.7	103.87	%	1.360				1.31%
Y RADIAL	5759.8	104.6	%	5.11				4.89%
Ag 328.068†	123.1	-0.4463	ug/L	0.09836	-0.4463	ppb	0.09836	22.04%
Al 396.153Radial†	557.4	437.76	ug/L	32.539	437.76	ppb	32.539	7.43%
As 188.979†	62.9	28.040	ug/L	1.4962	28.040	ppb	1.4962	5.34%
B 249.677†	1262.3	29.820	ug/L	0.6921	29.820	ppb	0.6921	2.32%
Ba 233.527†	56945.2	462.87	ug/L	4.642	462.87	ppb	4.642	1.00%
Be 313.107†	-243.0	-0.0980	ug/L	0.01874	-0.0980	ppb	0.01874	19.14%
Ca 317.933Radial†	69241.4	113690	ug/L	8805.5	113690	ppb	8805.5	7.74%
Cd 226.502†	291.0	3.2535	ug/L	0.07615	3.2535	ppb	0.07615	2.34%
Co 228.616†	120.2	0.1125	ug/L	0.08913	0.1125	ppb	0.08913	79.21%
Cr 267.716†	523754.1	6069.0	ug/L	64.21	6069.0	ppb	64.21	1.06%
Cu 324.752†	242284.4	752.37	ug/L	7.906	752.37	ppb	7.906	1.05%
Fe 238.204 Radial†	111.1	991.33	ug/L	52.616	991.33	ppb	52.616	5.31%
K 766.490 Radial†	2341.5	396.89	ug/L	55.317	396.89	ppb	55.317	13.94%

Mg 279.077 IEC†	80.0	2688.2	ug/L	127.77	2688.2	ppb	127.77	4.75%
Mn 257.610†	52793.6	60.472	ug/L	0.6328	60.472	ppb	0.6328	1.05%
Mo 202.031†	218.2	17.336	ug/L	0.5047	17.336	ppb	0.5047	2.91%
Na 589.592 Radial†	7057.2	2140.3	ug/L	151.05	2140.3	ppb	151.05	7.06%
Ni 231.604†	32.3	0.8314	ug/L	0.28783	0.8314	ppb	0.28783	34.62%
P 214.914†	2470.5	1399.8	ug/L	29.31	1399.8	ppb	29.31	2.09%
Pb 220.353†	139.6	19.498	ug/L	1.2427	19.498	ppb	1.2427	6.37%
S 181.975 Axial†	528.7	778.26	ug/L	16.133	778.26	ppb	16.133	2.07%
Sb 206.836†	394.7	142.30	ug/L	3.889	142.30	ppb	3.889	2.73%
Se 196.026†	-3.3	1.1381	ug/L	1.05259	1.1381	ppb	1.05259	92.48%
Si 251.611†	11320.9	373.98	ug/L	7.171	373.98	ppb	7.171	1.92%
Sn 189.927†	-300.2	-37.558	ug/L	2.1704	-37.558	ppb	2.1704	5.78%
Sr 421.552†	93167.7	609.56	ug/L	49.336	609.56	ppb	49.336	8.09%
Ti 334.940†	-1189.0	10.838	ug/L	1.2347	10.838	ppb	1.2347	11.39%
Tl 190.801†	-10.6	-3.2106	ug/L	1.38037	-3.2106	ppb	1.38037	42.99%
U 409.014†	740.3	9.4484	ug/L	2.03942	9.4484	ppb	2.03942	21.58%
V 292.402†	7408.8	50.208	ug/L	0.3326	50.208	ppb	0.3326	0.66%
Zn 213.857†	22697.0	220.69	ug/L	2.227	220.69	ppb	2.227	1.01%
SiO2†	11235.0	794.74	ug/L	22.170	794.74	ppb	22.170	2.79%

Sequence No.: 44
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 1/15/2010 20:02:34
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	5497.9	5497.9	108	%			20:04:26
1	Y RADIAL	5880.6	5880.6	106.8	%			20:04:26
1	Al 396.153Radial†	6696.0	6209.2	4860.5	ug/L	4860.5	ppb	20:04:26
1	Ca 317.933Radial†	3235.9	2978.1	4890.0	ug/L	4890.0	ppb	20:04:46
1	Fe 238.204 Radial†	606.2	551.3	4933.8	ug/L	4933.8	ppb	20:04:46
1	K 766.490 Radial†	31667.1	26311.0	4890.6	ug/L	4890.6	ppb	20:04:26
1	Mg 279.077 IEC†	162.7	148.2	4979.1	ug/L	4979.1	ppb	20:04:46
1	Na 589.592 Radial†	34600.4	33589.2	10187	ug/L	10187	ppb	20:04:26
1	Sr 421.552†	80532.7	74513.8	488.16	ug/L	488.16	ppb	20:04:26
1	Sc 361.383	894617.0	894617.0	106.78	%			20:05:43
1	Y 371.029	747071.6	747071.6	104.94	%			20:05:43
1	Ag 328.068†	114805.7	107220.6	513.27	ug/L	513.27	ppb	20:05:49
1	As 188.979†	1169.8	1116.1	498.96	ug/L	498.96	ppb	20:06:09
1	B 249.677†	21978.4	21049.5	497.81	ug/L	497.81	ppb	20:05:49
1	Ba 233.527†	65436.8	61290.4	499.27	ug/L	499.27	ppb	20:05:49
1	Be 313.107†	1374490.5	1291597.2	497.78	ug/L	497.78	ppb	20:05:43
1	Cd 226.502†	45955.3	43236.7	497.69	ug/L	497.69	ppb	20:05:49
1	Co 228.616†	25048.4	23518.4	501.36	ug/L	501.36	ppb	20:05:49
1	Cr 267.716†	45794.0	42799.2	496.51	ug/L	496.51	ppb	20:05:49
1	Cu 324.752†	177371.5	159648.4	495.70	ug/L	495.70	ppb	20:05:49
1	Mn 257.610†	462802.5	433002.4	496.36	ug/L	496.36	ppb	20:05:43
1	Mo 202.031†	7290.2	6806.8	496.71	ug/L	496.71	ppb	20:06:09
1	Ni 231.604†	20636.3	19241.2	496.51	ug/L	496.51	ppb	20:05:49
1	P 214.914†	4478.5	3974.7	2397.9	ug/L	2397.9	ppb	20:06:09
1	Pb 220.353†	4114.8	3913.0	498.74	ug/L	498.74	ppb	20:06:09
1	S 181.975 Axial†	769.5	674.4	991.93	ug/L	991.93	ppb	20:06:09
1	Sb 206.836†	1509.5	1377.3	515.85	ug/L	515.85	ppb	20:06:09
1	Se 196.026†	786.8	765.3	524.25	ug/L	524.25	ppb	20:06:09
1	Si 251.611†	81340.7	75726.5	2496.8	ug/L	2496.8	ppb	20:05:49
1	Sn 189.927†	2913.1	2722.8	498.27	ug/L	498.27	ppb	20:06:09
1	Ti 334.940†	317596.8	298751.0	499.30	ug/L	499.30	ppb	20:05:43
1	Tl 190.801†	1651.2	1577.6	504.09	ug/L	504.09	ppb	20:06:09
1	U 409.014†	15685.5	16666.0	519.35	ug/L	519.35	ppb	20:05:49
1	V 292.402†	73363.5	70091.4	501.13	ug/L	501.13	ppb	20:05:49
1	Zn 213.857†	55188.3	51017.1	494.26	ug/L	494.26	ppb	20:05:49
1	SiO2†	82124.2	76454.8	5397.7	ug/L	5397.7	ppb	20:07:16
2	Sc Radial	5381.2	5381.2	106	%			20:04:51
2	Y RADIAL	5842.9	5842.9	106.1	%			20:04:51
2	Al 396.153Radial†	6586.8	6240.3	4885.2	ug/L	4885.2	ppb	20:04:51
2	Ca 317.933Radial†	3251.7	3058.0	5021.2	ug/L	5021.2	ppb	20:05:11
2	Fe 238.204 Radial†	610.9	567.9	5082.3	ug/L	5082.3	ppb	20:05:11
2	K 766.490 Radial†	30938.5	26257.5	4880.6	ug/L	4880.6	ppb	20:04:51
2	Mg 279.077 IEC†	161.1	149.9	5035.8	ug/L	5035.8	ppb	20:05:11
2	Na 589.592 Radial†	33636.6	33372.1	10121	ug/L	10121	ppb	20:04:51
2	Sr 421.552†	78580.2	74283.6	486.65	ug/L	486.65	ppb	20:04:51
2	Sc 361.383	902179.8	902179.8	107.68	%			20:06:15
2	Y 371.029	751794.0	751794.0	105.60	%			20:06:15
2	Ag 328.068†	115900.1	107335.7	513.87	ug/L	513.87	ppb	20:06:20
2	As 188.979†	1177.1	1113.7	497.92	ug/L	497.92	ppb	20:06:40
2	B 249.677†	22244.5	21124.1	499.57	ug/L	499.57	ppb	20:06:20
2	Ba 233.527†	65794.2	61108.5	497.80	ug/L	497.80	ppb	20:06:20
2	Be 313.107†	1375948.5	1282160.3	494.15	ug/L	494.15	ppb	20:06:15
2	Cd 226.502†	46306.9	43202.4	497.28	ug/L	497.28	ppb	20:06:20
2	Co 228.616†	25191.8	23454.9	500.00	ug/L	500.00	ppb	20:06:20
2	Cr 267.716†	45899.8	42537.9	493.49	ug/L	493.49	ppb	20:06:20
2	Cu 324.752†	179200.0	159954.0	496.66	ug/L	496.66	ppb	20:06:20
2	Mn 257.610†	465017.8	431426.4	494.56	ug/L	494.56	ppb	20:06:15
2	Mo 202.031†	7310.1	6768.1	493.89	ug/L	493.89	ppb	20:06:40
2	Ni 231.604†	20760.2	19194.2	495.30	ug/L	495.30	ppb	20:06:20

2	P 214.914†	4485.9	3946.4	2379.9 ug/L	2379.9 ppb	20:06:40
2	Pb 220.353†	4125.0	3890.2	495.82 ug/L	495.82 ppb	20:06:40
2	S 181.975 Axial†	777.9	676.1	994.48 ug/L	994.48 ppb	20:06:40
2	Sb 206.836†	1540.0	1393.8	521.70 ug/L	521.70 ppb	20:06:40
2	Se 196.026†	783.1	755.7	518.37 ug/L	518.37 ppb	20:06:40
2	Si 251.611†	81998.3	75698.6	2495.9 ug/L	2495.9 ppb	20:06:20
2	Sn 189.927†	2924.8	2710.8	496.09 ug/L	496.09 ppb	20:06:40
2	Ti 334.940†	319481.3	298007.6	498.07 ug/L	498.07 ppb	20:06:15
2	Tl 190.801†	1644.2	1558.1	497.90 ug/L	497.90 ppb	20:06:40
2	U 409.014†	15797.0	16646.4	518.73 ug/L	518.73 ppb	20:06:20
2	V 292.402†	73986.9	70094.4	501.09 ug/L	501.09 ppb	20:06:20
2	Zn 213.857†	55584.3	50951.6	493.61 ug/L	493.61 ppb	20:06:20
2	SiO2†	81847.7	75553.3	5333.9 ug/L	5333.9 ppb	20:07:21
3	Sc Radial	5447.9	5447.9	107 %		20:05:16
3	Y RADIAL	5880.8	5880.8	106.8 %		20:05:16
3	Al 396.153Radial†	6727.4	6295.4	4928.7 ug/L	4928.7 ppb	20:05:16
3	Ca 317.933Radial†	3257.0	3025.3	4967.5 ug/L	4967.5 ppb	20:05:36
3	Fe 238.204 Radial†	612.4	562.3	5031.6 ug/L	5031.6 ppb	20:05:36
3	K 766.490 Radial†	31499.9	26423.8	4911.5 ug/L	4911.5 ppb	20:05:16
3	Mg 279.077 IEC†	165.2	151.8	5101.2 ug/L	5101.2 ppb	20:05:36
3	Na 589.592 Radial†	34295.1	33597.9	10190 ug/L	10190 ppb	20:05:16
3	Sr 421.552†	80193.5	74881.0	490.56 ug/L	490.56 ppb	20:05:16
3	Sc 361.383	912508.7	912508.7	108.91 %		20:06:46
3	Y 371.029	760415.7	760415.7	106.81 %		20:06:46
3	Ag 328.068†	115307.9	105573.6	505.45 ug/L	505.45 ppb	20:06:51
3	As 188.979†	1191.4	1114.5	498.26 ug/L	498.26 ppb	20:07:11
3	B 249.677†	22123.7	20779.4	491.41 ug/L	491.41 ppb	20:06:51
3	Ba 233.527†	65397.4	60052.6	489.20 ug/L	489.20 ppb	20:06:51
3	Be 313.107†	1399141.5	1288991.5	496.78 ug/L	496.78 ppb	20:06:46
3	Cd 226.502†	46062.2	42491.0	489.09 ug/L	489.09 ppb	20:06:51
3	Co 228.616†	25042.5	23053.0	491.42 ug/L	491.42 ppb	20:06:51
3	Cr 267.716†	45888.3	42044.9	487.77 ug/L	487.77 ppb	20:06:51
3	Cu 324.752†	177964.6	156936.0	487.29 ug/L	487.29 ppb	20:06:51
3	Mn 257.610†	471242.7	432253.7	495.50 ug/L	495.50 ppb	20:06:46
3	Mo 202.031†	7332.3	6711.5	489.77 ug/L	489.77 ppb	20:07:11
3	Ni 231.604†	20646.4	18871.5	486.97 ug/L	486.97 ppb	20:06:51
3	P 214.914†	4490.4	3903.4	2354.7 ug/L	2354.7 ppb	20:07:11
3	Pb 220.353†	4126.6	3848.2	490.51 ug/L	490.51 ppb	20:07:11
3	S 181.975 Axial†	780.1	670.0	985.37 ug/L	985.37 ppb	20:07:11
3	Sb 206.836†	1535.0	1373.0	514.00 ug/L	514.00 ppb	20:07:11
3	Se 196.026†	785.3	749.5	514.11 ug/L	514.11 ppb	20:07:11
3	Si 251.611†	81401.0	74288.2	2449.3 ug/L	2449.3 ppb	20:06:51
3	Sn 189.927†	2919.5	2675.2	489.58 ug/L	489.58 ppb	20:07:11
3	Ti 334.940†	323714.1	298535.7	498.95 ug/L	498.95 ppb	20:06:46
3	Tl 190.801†	1665.3	1560.2	498.62 ug/L	498.62 ppb	20:07:11
3	U 409.014†	15775.0	16460.2	512.92 ug/L	512.92 ppb	20:06:51
3	V 292.402†	73830.6	69173.2	494.53 ug/L	494.53 ppb	20:06:51
3	Zn 213.857†	55165.1	49982.5	484.21 ug/L	484.21 ppb	20:06:51
3	SiO2†	81838.3	74684.3	5272.5 ug/L	5272.5 ppb	20:07:27

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	903101.8	107.79	%	1.072				0.99%
Sc Radial	5442.3	107	%	1.2				1.08%
Y 371.029	753093.7	105.78	%	0.950				0.90%
Y RADIAL	5868.1	106.6	%	0.40				0.37%
Ag 328.068†	106710.0	510.86	ug/L	4.700	510.86	ppb	4.700	0.92%
QC value within limits for Ag 328.068 Recovery = 102.17%								
Al 396.153Radial†	6248.3	4891.5	ug/L	34.52	4891.5	ppb	34.52	0.71%
QC value within limits for Al 396.153Radial Recovery = 97.83%								
As 188.979†	1114.8	498.38	ug/L	0.528	498.38	ppb	0.528	0.11%
QC value within limits for As 188.979 Recovery = 99.68%								
B 249.677†	20984.3	496.26	ug/L	4.294	496.26	ppb	4.294	0.87%
QC value within limits for B 249.677 Recovery = 99.25%								
Ba 233.527†	60817.1	495.43	ug/L	5.438	495.43	ppb	5.438	1.10%
QC value within limits for Ba 233.527 Recovery = 99.09%								
Be 313.107†	1287583.0	496.23	ug/L	1.875	496.23	ppb	1.875	0.38%
QC value within limits for Be 313.107 Recovery = 99.25%								
Ca 317.933Radial†	3020.4	4959.6	ug/L	65.94	4959.6	ppb	65.94	1.33%

QC value within limits for Ca 317.933Radial Recovery = 99.19%

Cd 226.502†	42976.7	494.69 ug/L	4.853	494.69 ppb	4.853	0.98%
QC value within limits for Cd 226.502 Recovery = 98.94%						
Co 228.616†	23342.1	497.59 ug/L	5.388	497.59 ppb	5.388	1.08%
QC value within limits for Co 228.616 Recovery = 99.52%						
Cr 267.716†	42460.7	492.59 ug/L	4.442	492.59 ppb	4.442	0.90%
QC value within limits for Cr 267.716 Recovery = 98.52%						
Cu 324.752†	158846.1	493.22 ug/L	5.156	493.22 ppb	5.156	1.05%
QC value within limits for Cu 324.752 Recovery = 98.64%						
Fe 238.204 Radial†	560.5	5015.9 ug/L	75.47	5015.9 ppb	75.47	1.50%
QC value within limits for Fe 238.204 Radial Recovery = 100.32%						
K 766.490 Radial†	26330.8	4894.2 ug/L	15.79	4894.2 ppb	15.79	0.32%
QC value within limits for K 766.490 Radial Recovery = 97.88%						
Mg 279.077 IEC†	150.0	5038.7 ug/L	61.09	5038.7 ppb	61.09	1.21%
QC value within limits for Mg 279.077 IEC Recovery = 100.77%						
Mn 257.610†	432227.5	495.47 ug/L	0.897	495.47 ppb	0.897	0.18%
QC value within limits for Mn 257.610 Recovery = 99.09%						
Mo 202.031†	6762.1	493.46 ug/L	3.489	493.46 ppb	3.489	0.71%
QC value within limits for Mo 202.031 Recovery = 98.69%						
Na 589.592 Radial†	33519.7	10166 ug/L	38.8	10166 ppb	38.8	0.38%
QC value within limits for Na 589.592 Radial Recovery = 101.66%						
Ni 231.604†	19102.3	492.93 ug/L	5.193	492.93 ppb	5.193	1.05%
QC value within limits for Ni 231.604 Recovery = 98.59%						
P 214.914†	3941.5	2377.5 ug/L	21.71	2377.5 ppb	21.71	0.91%
QC value within limits for P 214.914 Recovery = 95.10%						
Pb 220.353†	3883.8	495.02 ug/L	4.175	495.02 ppb	4.175	0.84%
QC value within limits for Pb 220.353 Recovery = 99.00%						
S 181.975 Axial†	673.5	990.60 ug/L	4.701	990.60 ppb	4.701	0.47%
QC value within limits for S 181.975 Axial Recovery = 99.06%						
Sb 206.836†	1381.4	517.18 ug/L	4.021	517.18 ppb	4.021	0.78%
QC value within limits for Sb 206.836 Recovery = 103.44%						
Se 196.026†	756.8	518.91 ug/L	5.091	518.91 ppb	5.091	0.98%
QC value within limits for Se 196.026 Recovery = 103.78%						
Si 251.611†	75237.7	2480.7 ug/L	27.14	2480.7 ppb	27.14	1.09%
QC value within limits for Si 251.611 Recovery = 99.23%						
Sn 189.927†	2703.0	494.64 ug/L	4.521	494.64 ppb	4.521	0.91%
QC value within limits for Sn 189.927 Recovery = 98.93%						
Sr 421.552†	74559.5	488.46 ug/L	1.974	488.46 ppb	1.974	0.40%
QC value within limits for Sr 421.552 Recovery = 97.69%						
Ti 334.940†	298431.5	498.77 ug/L	0.632	498.77 ppb	0.632	0.13%
QC value within limits for Ti 334.940 Recovery = 99.75%						
Tl 190.801†	1565.3	500.20 ug/L	3.384	500.20 ppb	3.384	0.68%
QC value within limits for Tl 190.801 Recovery = 100.04%						
U 409.014†	16590.8	517.00 ug/L	3.544	517.00 ppb	3.544	0.69%
QC value within limits for U 409.014 Recovery = 103.40%						
V 292.402†	69786.4	498.91 ug/L	3.797	498.91 ppb	3.797	0.76%
QC value within limits for V 292.402 Recovery = 99.78%						
Zn 213.857†	50650.4	490.69 ug/L	5.624	490.69 ppb	5.624	1.15%
QC value within limits for Zn 213.857 Recovery = 98.14%						
SiO2†	75564.1	5334.7 ug/L	62.56	5334.7 ppb	62.56	1.17%
QC value within limits for SiO2 Recovery = 99.76%						

All analyte(s) passed QC.

Sequence No.: 45
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 1/15/2010 20:09:36
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	5350.4	5350.4	105	%			20:11:28
1	Y RADIAL	5780.0	5780.0	105.0	%			20:11:28
1	Al 396.153Radial†	-14.0	-2.6	-2.0870	ug/L	-2.0870	ppb	20:11:28
1	Ca 317.933Radial†	15.4	-2.7	-4.4301	ug/L	-4.4301	ppb	20:11:48
1	Fe 238.204 Radial†	9.6	-0.7	-6.2913	ug/L	-6.2913	ppb	20:11:48
1	K 766.490 Radial†	3051.4	-100.6	-18.751	ug/L	-18.751	ppb	20:11:28
1	Mg 279.077 IEC†	3.3	0.7	24.061	ug/L	24.061	ppb	20:11:48
1	Na 589.592 Radial†	-1364.3	261.9	79.419	ug/L	79.419	ppb	20:11:28
1	Sr 421.552†	34.7	-2.1	-0.0141	ug/L	-0.0141	ppb	20:11:28
1	Sc 361.383	899120.0	899120.0	107.31	%			20:12:45
1	Y 371.029	762024.7	762024.7	107.04	%			20:12:45
1	Ag 328.068†	346.5	24.5	0.1138	ug/L	0.1138	ppb	20:12:45
1	As 188.979†	-21.1	0.9	0.3955	ug/L	0.3955	ppb	20:13:05
1	B 249.677†	-424.7	70.4	1.6734	ug/L	1.6734	ppb	20:13:05
1	Ba 233.527†	-1.3	5.6	0.0470	ug/L	0.0470	ppb	20:13:05
1	Be 313.107†	-4466.0	183.5	0.0710	ug/L	0.0710	ppb	20:12:45
1	Cd 226.502†	-186.0	24.9	0.2876	ug/L	0.2876	ppb	20:13:05
1	Co 228.616†	-68.4	-4.0	-0.0841	ug/L	-0.0841	ppb	20:13:05
1	Cr 267.716†	68.5	-24.5	-0.2845	ug/L	-0.2845	ppb	20:13:05
1	Cu 324.752†	6555.3	-356.9	-1.1112	ug/L	-1.1112	ppb	20:12:45
1	Mn 257.610†	412.7	-41.6	-0.0492	ug/L	-0.0492	ppb	20:13:05
1	Mo 202.031†	25.0	2.6	0.1889	ug/L	0.1889	ppb	20:13:05
1	Ni 231.604†	69.7	-20.4	-0.5267	ug/L	-0.5267	ppb	20:13:05
1	P 214.914†	206.7	-26.9	-16.676	ug/L	-16.676	ppb	20:13:05
1	Pb 220.353†	-71.6	-7.4	-0.9403	ug/L	-0.9403	ppb	20:13:05
1	S 181.975 Axial†	49.4	-0.2	-0.3331	ug/L	-0.3331	ppb	20:13:05
1	Sb 206.836†	39.4	0.3	0.0942	ug/L	0.0942	ppb	20:13:05
1	Se 196.026†	-31.9	-1.2	-0.8457	ug/L	-0.8457	ppb	20:13:05
1	Si 251.611†	514.6	28.0	0.9217	ug/L	0.9217	ppb	20:13:05
1	Sn 189.927†	-0.5	-5.9	-1.0759	ug/L	-1.0759	ppb	20:13:05
1	Ti 334.940†	-1282.1	117.2	0.1914	ug/L	0.1914	ppb	20:12:45
1	Tl 190.801†	-43.9	-9.7	-3.0879	ug/L	-3.0879	ppb	20:13:05
1	U 409.014†	-1949.8	159.2	4.9768	ug/L	4.9768	ppb	20:12:45
1	V 292.402†	-1367.3	110.2	0.7909	ug/L	0.7909	ppb	20:12:45
1	Zn 213.857†	668.5	-45.4	-0.4382	ug/L	-0.4382	ppb	20:13:05
1	SiO2†	914.1	394.8	27.938	ug/L	27.938	ppb	20:14:01
2	Sc Radial	5491.3	5491.3	108	%			20:11:53
2	Y RADIAL	5948.3	5948.3	108.0	%			20:11:53
2	Al 396.153Radial†	-30.5	-17.5	-13.766	ug/L	-13.766	ppb	20:11:53
2	Ca 317.933Radial†	19.9	1.1	1.8118	ug/L	1.8118	ppb	20:12:13
2	Fe 238.204 Radial†	11.1	0.4	3.5858	ug/L	3.5858	ppb	20:12:13
2	K 766.490 Radial†	3077.7	-150.7	-28.073	ug/L	-28.073	ppb	20:11:53
2	Mg 279.077 IEC†	2.6	-0.0	-1.5156	ug/L	-1.5156	ppb	20:12:13
2	Na 589.592 Radial†	-1407.0	255.6	77.524	ug/L	77.524	ppb	20:11:53
2	Sr 421.552†	62.4	22.7	0.1488	ug/L	0.1488	ppb	20:11:53
2	Sc 361.383	888710.2	888710.2	106.07	%			20:13:10
2	Y 371.029	752849.5	752849.5	105.75	%			20:13:10
2	Ag 328.068†	377.5	57.5	0.2710	ug/L	0.2710	ppb	20:13:10
2	As 188.979†	-15.3	6.1	2.7241	ug/L	2.7241	ppb	20:13:30
2	B 249.677†	-402.3	86.9	2.0641	ug/L	2.0641	ppb	20:13:30
2	Ba 233.527†	7.8	14.2	0.1159	ug/L	0.1159	ppb	20:13:30
2	Be 313.107†	-4424.1	174.4	0.0674	ug/L	0.0674	ppb	20:13:10
2	Cd 226.502†	-182.3	26.4	0.3042	ug/L	0.3042	ppb	20:13:30
2	Co 228.616†	-87.5	-22.7	-0.4844	ug/L	-0.4844	ppb	20:13:30
2	Cr 267.716†	88.4	-5.0	-0.0593	ug/L	-0.0593	ppb	20:13:30
2	Cu 324.752†	6564.9	-276.3	-0.8612	ug/L	-0.8612	ppb	20:13:10
2	Mn 257.610†	401.0	-48.1	-0.0547	ug/L	-0.0547	ppb	20:13:30
2	Mo 202.031†	18.1	-3.7	-0.2662	ug/L	-0.2662	ppb	20:13:30
2	Ni 231.604†	79.0	-10.9	-0.2803	ug/L	-0.2803	ppb	20:13:30

2	P 214.914†	208.5	-23.0	-14.238	ug/L	-14.238 ppb	20:13:30
2	Pb 220.353†	-47.0	15.0	1.9024	ug/L	1.9024 ppb	20:13:30
2	S 181.975 Axial†	41.2	-7.5	-10.988	ug/L	-10.988 ppb	20:13:30
2	Sb 206.836†	33.8	-4.5	-1.6264	ug/L	-1.6264 ppb	20:13:30
2	Se 196.026†	-19.4	10.1	6.7203	ug/L	6.7203 ppb	20:13:30
2	Si 251.611†	522.1	40.7	1.3470	ug/L	1.3470 ppb	20:13:30
2	Sn 189.927†	8.6	2.7	0.4979	ug/L	0.4979 ppb	20:13:30
2	Ti 334.940†	-1306.5	80.2	0.1318	ug/L	0.1318 ppb	20:13:10
2	Tl 190.801†	-24.6	8.0	2.5346	ug/L	2.5346 ppb	20:13:30
2	U 409.014†	-1892.7	191.7	5.9922	ug/L	5.9922 ppb	20:13:10
2	V 292.402†	-1426.6	39.4	0.2849	ug/L	0.2849 ppb	20:13:10
2	Zn 213.857†	692.6	-15.4	-0.1482	ug/L	-0.1482 ppb	20:13:30
2	SiO2†	466.7	-17.0	-1.1982	ug/L	-1.1982 ppb	20:14:06
3	Sc Radial	5373.9	5373.9	106	%		20:12:18
3	Y RADIAL	5819.1	5819.1	105.7	%		20:12:18
3	Al 396.153Radial†	-4.0	6.9	5.4311	ug/L	5.4311 ppb	20:12:18
3	Ca 317.933Radial†	20.3	1.8	3.0121	ug/L	3.0121 ppb	20:12:38
3	Fe 238.204 Radial†	10.9	0.5	4.3366	ug/L	4.3366 ppb	20:12:38
3	K 766.490 Radial†	2939.7	-219.1	-40.809	ug/L	-40.809 ppb	20:12:18
3	Mg 279.077 IEC†	3.0	0.4	11.932	ug/L	11.932 ppb	20:12:38
3	Na 589.592 Radial†	-1405.6	228.4	69.279	ug/L	69.279 ppb	20:12:18
3	Sr 421.552†	47.2	9.5	0.0625	ug/L	0.0625 ppb	20:12:18
3	Sc 361.383	883320.0	883320.0	105.43	%		20:13:35
3	Y 371.029	748764.2	748764.2	105.17	%		20:13:35
3	Ag 328.068†	409.6	90.1	0.4246	ug/L	0.4246 ppb	20:13:35
3	As 188.979†	-13.7	7.6	3.3544	ug/L	3.3544 ppb	20:13:55
3	B 249.677†	-421.5	66.4	1.5763	ug/L	1.5763 ppb	20:13:55
3	Ba 233.527†	18.0	23.9	0.1949	ug/L	0.1949 ppb	20:13:55
3	Be 313.107†	-4447.0	127.2	0.0489	ug/L	0.0489 ppb	20:13:35
3	Cd 226.502†	-166.7	40.1	0.4627	ug/L	0.4627 ppb	20:13:55
3	Co 228.616†	-76.5	-12.7	-0.2704	ug/L	-0.2704 ppb	20:13:55
3	Cr 267.716†	94.5	1.3	0.0126	ug/L	0.0126 ppb	20:13:55
3	Cu 324.752†	6644.3	-163.2	-0.5115	ug/L	-0.5115 ppb	20:13:35
3	Mn 257.610†	436.3	-12.3	-0.0141	ug/L	-0.0141 ppb	20:13:55
3	Mo 202.031†	27.0	4.9	0.3584	ug/L	0.3584 ppb	20:13:55
3	Ni 231.604†	68.4	-20.4	-0.5271	ug/L	-0.5271 ppb	20:13:55
3	P 214.914†	208.5	-21.8	-13.569	ug/L	-13.569 ppb	20:13:55
3	Pb 220.353†	-52.7	9.4	1.1963	ug/L	1.1963 ppb	20:13:55
3	S 181.975 Axial†	37.3	-10.9	-16.031	ug/L	-16.031 ppb	20:13:55
3	Sb 206.836†	33.3	-4.8	-1.7144	ug/L	-1.7144 ppb	20:13:55
3	Se 196.026†	-33.8	-3.6	-2.3765	ug/L	-2.3765 ppb	20:13:55
3	Si 251.611†	498.2	20.9	0.6874	ug/L	0.6874 ppb	20:13:55
3	Sn 189.927†	11.8	5.8	1.0590	ug/L	1.0590 ppb	20:13:55
3	Ti 334.940†	-1375.7	7.1	0.0073	ug/L	0.0073 ppb	20:13:35
3	Tl 190.801†	-37.8	-4.7	-1.4899	ug/L	-1.4899 ppb	20:13:55
3	U 409.014†	-1782.2	285.7	8.9298	ug/L	8.9298 ppb	20:13:35
3	V 292.402†	-1393.1	63.0	0.4660	ug/L	0.4660 ppb	20:13:35
3	Zn 213.857†	684.5	-19.1	-0.1830	ug/L	-0.1830 ppb	20:13:55
3	SiO2†	524.7	40.7	2.8701	ug/L	2.8701 ppb	20:14:11

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	890383.4	106.27	%	0.959				0.90%
Sc Radial	5405.2	106	%	1.5				1.40%
Y 371.029	754546.2	105.99	%	0.954				0.90%
Y RADIAL	5849.1	106.2	%	1.60				1.51%
Ag 328.068†	57.4	0.2698	ug/L	0.15540	0.2698	ppb	0.15540	57.60%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-4.4	-3.4741	ug/L	9.67354	-3.4741	ppb	9.67354	278.45%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	4.9	2.1580	ug/L	1.55857	2.1580	ppb	1.55857	72.22%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	74.5	1.7713	ug/L	0.25819	1.7713	ppb	0.25819	14.58%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	14.5	0.1193	ug/L	0.07404	0.1193	ppb	0.07404	62.07%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	161.7	0.0624	ug/L	0.01183	0.0624	ppb	0.01183	18.95%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	0.1	0.1313	ug/L	3.99562	0.1313	ppb	3.99562	>999.9%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              30.4      0.3515 ug/L       0.09666      0.3515 ppb        0.09666  27.50%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†             -13.1     -0.2797 ug/L       0.20031     -0.2797 ppb        0.20031  71.63%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -9.4     -0.1104 ug/L       0.15499     -0.1104 ppb        0.15499 140.35%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -265.5     -0.8280 ug/L       0.30125     -0.8280 ppb        0.30125  36.38%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        0.1      0.5437 ug/L       5.93119      0.5437 ppb        5.93119 >999.9%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†      -156.8     -29.211 ug/L       11.0730     -29.211 ppb        11.0730  37.91%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           0.3      11.492 ug/L       12.7939      11.492 ppb        12.7939 111.33%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†             -34.0     -0.0393 ug/L       0.02199     -0.0393 ppb        0.02199  55.91%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               1.3      0.0937 ug/L       0.32301      0.0937 ppb        0.32301 344.83%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      248.6      75.407 ug/L        5.3913      75.407 ppb         5.3913   7.15%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†             -17.2     -0.4447 ug/L       0.14239     -0.4447 ppb        0.14239  32.02%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†              -23.9     -14.828 ug/L        1.6352     -14.828 ppb         1.6352  11.03%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               5.7      0.7195 ug/L       1.48017      0.7195 ppb        1.48017 205.73%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         -6.2     -9.1174 ug/L       8.01447     -9.1174 ppb        8.01447  87.90%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -3.0     -1.0822 ug/L       1.01975     -1.0822 ppb        1.01975  94.23%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               1.8      1.1660 ug/L       4.87067      1.1660 ppb        4.87067 417.71%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†              29.8      0.9853 ug/L       0.33438      0.9853 ppb        0.33438  33.93%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               0.9      0.1603 ug/L       1.10676      0.1603 ppb        1.10676 690.35%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              10.0      0.0657 ug/L       0.08149      0.0657 ppb        0.08149 123.95%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              68.2      0.1102 ug/L       0.09392      0.1102 ppb        0.09392  85.25%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -2.1     -0.6811 ug/L       2.89718     -0.6811 ppb        2.89718 425.39%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              212.2      6.6329 ug/L       2.05291      6.6329 ppb        2.05291  30.95%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               70.9      0.5139 ug/L       0.25636      0.5139 ppb        0.25636  49.88%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†             -26.6     -0.2565 ug/L       0.15832     -0.2565 ppb        0.15832  61.73%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                   139.5      9.8701 ug/L      15.77919      9.8701 ppb       15.77919 159.87%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Analysis Begun

Start Time: 1/19/2010 14:33:04 **Plasma On Time: 1/18/2010 05:48:39**
Logged In Analyst: Optima3 **Technique: ICP Continuous**
Spectrometer Model: Optima 5300 DV, S/N 077C7090601Autosampler Model: S10

Sample Information File: C:\pe\Optima3\Sample Information\011910.sif
Batch ID:
Results Data Set: 011910
Results Library: C:\pe\Optima3\Results\Results.mdb

Method Loaded
Method Name: General Eng.2AX **Method Last Saved: 1/19/2010 13:21:41**
IEC File: 011110.iec **MSF File:**
Method Description:

Analyte	Calibration Equation	Processing	View	Internal Standard	IEC
Ag 328.068	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Al 396.153Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
As 188.979	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
B 249.677	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ba 233.527	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Be 313.107	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ca 317.933Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	No
Cd 226.502	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Co 228.616	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cr 267.716	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cu 324.752	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Fe 238.204 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
K 766.490 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Mg 279.077 IEC	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Mn 257.610	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Mo 202.031	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Na 589.592 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	No
Ni 231.604	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
P 214.914	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Pb 220.353	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
S 181.975 Axial	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sb 206.836	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sc 361.383	Lin Thru 0	Peak Area	Axial	n/a	n/a
Sc Radial	Lin, Calc Int	Peak Area	Radial	n/a	n/a
Se 196.026	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Si 251.611	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sn 189.927	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sr 421.552	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Ti 334.940	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Tl 190.801	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
U 409.014	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
V 292.402	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y 371.029	Lin, Calc Int	Peak Area	Axial	n/a	n/a
Zn 213.857	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y RADIAL	Lin, Calc Int	Peak Area	Radial	n/a	n/a
SiO2	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes

Sequence No.: 1 **Autosampler Location: 8**
Sample ID: S0 **Date Collected: 1/19/2010 14:33:06**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: S0

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc Radial	5710.9	5710.9	0.000	%	14:34:58
1	Y RADIAL	6012.3	6012.3	0.000	%	14:34:58
1	Al 396.153Radial†	-1.3	-1.3	[0.00]	ug/L	14:34:58

1	Ca 317.933Radial†	26.8	26.4	[0.00] ug/L	14:35:18
1	Fe 238.204 Radial†	13.0	12.8	[0.00] ug/L	14:35:18
1	K 766.490 Radial†	2902.9	2862.3	[0.00] ug/L	14:34:58
1	Mg 279.077 IEC†	2.2	2.2	[0.00] ug/L	14:35:18
1	Na 589.592 Radial†	-1009.4	-995.3	[0.00] ug/L	14:34:58
1	Sr 421.552†	27.2	26.8	[0.00] ug/L	14:34:58
1	Sc 361.383	974278.1	974278.1	0.0000 %	14:36:15
1	Y 371.029	819551.5	819551.5	0.0000 %	14:36:15
1	Ag 328.068†	480.4	481.9	[0.00] ug/L	14:36:20
1	As 188.979†	-20.3	-20.3	[0.00] ug/L	14:36:40
1	B 249.677†	-541.4	-543.1	[0.00] ug/L	14:36:40
1	Ba 233.527†	13.9	13.9	[0.00] ug/L	14:36:40
1	Be 313.107†	-4446.6	-4460.6	[0.00] ug/L	14:36:20
1	Cd 226.502†	-217.4	-218.1	[0.00] ug/L	14:36:40
1	Co 228.616†	-79.8	-80.0	[0.00] ug/L	14:36:40
1	Cr 267.716†	102.5	102.8	[0.00] ug/L	14:36:40
1	Cu 324.752†	6191.7	6211.2	[0.00] ug/L	14:36:20
1	Mn 257.610†	487.1	488.6	[0.00] ug/L	14:36:40
1	Mo 202.031†	21.5	21.5	[0.00] ug/L	14:36:40
1	Ni 231.604†	119.6	120.0	[0.00] ug/L	14:36:40
1	P 214.914†	228.2	228.9	[0.00] ug/L	14:36:40
1	Pb 220.353†	-27.1	-27.2	[0.00] ug/L	14:36:40
1	S 181.975 Axial†	43.1	43.3	[0.00] ug/L	14:36:40
1	Sb 206.836†	50.2	50.3	[0.00] ug/L	14:36:40
1	Se 196.026†	-25.2	-25.3	[0.00] ug/L	14:36:40
1	Si 251.611†	550.2	551.9	[0.00] ug/L	14:36:40
1	Sn 189.927†	-0.1	-0.1	[0.00] ug/L	14:36:40
1	Ti 334.940†	-1388.4	-1392.7	[0.00] ug/L	14:36:20
1	Tl 190.801†	-38.7	-38.9	[0.00] ug/L	14:36:40
1	U 409.014†	-1874.1	-1880.0	[0.00] ug/L	14:36:15
1	V 292.402†	-1448.3	-1452.9	[0.00] ug/L	14:36:20
1	Zn 213.857†	809.2	811.7	[0.00] ug/L	14:36:40
1	SiO2†	540.7	542.4	[0.00] ug/L	14:37:46
2	Sc Radial	5622.3	5622.3	0.000 %	14:35:23
2	Y RADIAL	5950.5	5950.5	0.000 %	14:35:23
2	Al 396.153Radial†	7.8	7.8	[0.00] ug/L	14:35:23
2	Ca 317.933Radial†	23.3	23.3	[0.00] ug/L	14:35:43
2	Fe 238.204 Radial†	13.9	14.0	[0.00] ug/L	14:35:43
2	K 766.490 Radial†	2985.5	2990.1	[0.00] ug/L	14:35:23
2	Mg 279.077 IEC†	3.9	3.9	[0.00] ug/L	14:35:43
2	Na 589.592 Radial†	-1080.6	-1082.3	[0.00] ug/L	14:35:23
2	Sr 421.552†	-21.8	-21.8	[0.00] ug/L	14:35:23
2	Sc 361.383	976207.8	976207.8	0.0000 %	14:36:45
2	Y 371.029	820570.1	820570.1	0.0000 %	14:36:45
2	Ag 328.068†	465.1	465.6	[0.00] ug/L	14:36:50
2	As 188.979†	-24.3	-24.3	[0.00] ug/L	14:37:10
2	B 249.677†	-531.6	-532.2	[0.00] ug/L	14:37:10
2	Ba 233.527†	5.9	5.9	[0.00] ug/L	14:37:10
2	Be 313.107†	-4460.6	-4465.8	[0.00] ug/L	14:36:50
2	Cd 226.502†	-217.9	-218.2	[0.00] ug/L	14:37:10
2	Co 228.616†	-81.8	-81.9	[0.00] ug/L	14:37:10
2	Cr 267.716†	83.8	83.9	[0.00] ug/L	14:37:10
2	Cu 324.752†	6172.5	6179.7	[0.00] ug/L	14:36:50
2	Mn 257.610†	493.9	494.5	[0.00] ug/L	14:37:10
2	Mo 202.031†	19.0	19.0	[0.00] ug/L	14:37:10
2	Ni 231.604†	111.2	111.3	[0.00] ug/L	14:37:10
2	P 214.914†	227.8	228.1	[0.00] ug/L	14:37:10
2	Pb 220.353†	-22.0	-22.0	[0.00] ug/L	14:37:10
2	S 181.975 Axial†	47.9	48.0	[0.00] ug/L	14:37:10
2	Sb 206.836†	42.8	42.8	[0.00] ug/L	14:37:10
2	Se 196.026†	-32.5	-32.6	[0.00] ug/L	14:37:10
2	Si 251.611†	513.0	513.6	[0.00] ug/L	14:37:10
2	Sn 189.927†	6.8	6.8	[0.00] ug/L	14:37:10
2	Ti 334.940†	-1443.1	-1444.7	[0.00] ug/L	14:36:50
2	Tl 190.801†	-43.9	-44.0	[0.00] ug/L	14:37:10
2	U 409.014†	-1825.5	-1827.6	[0.00] ug/L	14:36:45
2	V 292.402†	-1409.3	-1410.9	[0.00] ug/L	14:36:50
2	Zn 213.857†	821.7	822.6	[0.00] ug/L	14:37:10
2	SiO2†	559.5	560.2	[0.00] ug/L	14:37:51
3	Sc Radial	5559.8	5559.8	0.000 %	14:35:48
3	Y RADIAL	5884.7	5884.7	0.000 %	14:35:48

3	Al 396.153Radial†	-16.7	-16.9	[0.00] ug/L	14:35:48
3	Ca 317.933Radial†	24.5	24.8	[0.00] ug/L	14:36:08
3	Fe 238.204 Radial†	10.2	10.3	[0.00] ug/L	14:36:08
3	K 766.490 Radial†	2849.3	2885.8	[0.00] ug/L	14:35:48
3	Mg 279.077 IEC†	1.3	1.3	[0.00] ug/L	14:36:08
3	Na 589.592 Radial†	-1065.6	-1079.3	[0.00] ug/L	14:35:48
3	Sr 421.552†	30.2	30.6	[0.00] ug/L	14:35:48
3	Sc 361.383	981559.2	981559.2	0.0000 %	14:37:15
3	Y 371.029	825711.7	825711.7	0.0000 %	14:37:15
3	Ag 328.068†	473.3	471.2	[0.00] ug/L	14:37:21
3	As 188.979†	-16.4	-16.3	[0.00] ug/L	14:37:41
3	B 249.677†	-549.3	-547.0	[0.00] ug/L	14:37:41
3	Ba 233.527†	8.7	8.6	[0.00] ug/L	14:37:41
3	Be 313.107†	-4416.7	-4397.8	[0.00] ug/L	14:37:21
3	Cd 226.502†	-213.9	-213.0	[0.00] ug/L	14:37:41
3	Co 228.616†	-61.1	-60.9	[0.00] ug/L	14:37:41
3	Cr 267.716†	79.3	79.0	[0.00] ug/L	14:37:41
3	Cu 324.752†	6263.8	6237.0	[0.00] ug/L	14:37:21
3	Mn 257.610†	499.9	497.7	[0.00] ug/L	14:37:41
3	Mo 202.031†	29.6	29.5	[0.00] ug/L	14:37:41
3	Ni 231.604†	115.3	114.8	[0.00] ug/L	14:37:41
3	P 214.914†	221.0	220.1	[0.00] ug/L	14:37:41
3	Pb 220.353†	-21.2	-21.1	[0.00] ug/L	14:37:41
3	S 181.975 Axial†	50.3	50.1	[0.00] ug/L	14:37:41
3	Sb 206.836†	32.7	32.6	[0.00] ug/L	14:37:41
3	Se 196.026†	-29.1	-28.9	[0.00] ug/L	14:37:41
3	Si 251.611†	528.2	525.9	[0.00] ug/L	14:37:41
3	Sn 189.927†	7.0	7.0	[0.00] ug/L	14:37:41
3	Ti 334.940†	-1355.0	-1349.2	[0.00] ug/L	14:37:21
3	Tl 190.801†	-29.1	-29.0	[0.00] ug/L	14:37:41
3	U 409.014†	-1729.5	-1722.1	[0.00] ug/L	14:37:15
3	V 292.402†	-1505.1	-1498.7	[0.00] ug/L	14:37:21
3	Zn 213.857†	805.8	802.3	[0.00] ug/L	14:37:41
3	SiO2†	537.6	535.3	[0.00] ug/L	14:37:56

Mean Data: S0

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	977348.4	3772.18	0.39%	0.0000	%
Sc Radial	5631.0	75.93	1.35%	0.000	%
Y 371.029	821944.4	3302.05	0.40%	0.0000	%
Y RADIAL	5949.2	63.81	1.07%	0.000	%
Ag 328.068†	472.9	8.28	1.75%	[0.00]	ug/L
Al 396.153Radial†	-3.5	12.52	360.90%	[0.00]	ug/L
As 188.979†	-20.3	4.02	19.79%	[0.00]	ug/L
B 249.677†	-540.8	7.65	1.41%	[0.00]	ug/L
Ba 233.527†	9.5	4.08	42.99%	[0.00]	ug/L
Be 313.107†	-4441.4	37.84	0.85%	[0.00]	ug/L
Ca 317.933Radial†	24.8	1.53	6.15%	[0.00]	ug/L
Cd 226.502†	-216.4	2.96	1.37%	[0.00]	ug/L
Co 228.616†	-74.3	11.62	15.65%	[0.00]	ug/L
Cr 267.716†	88.6	12.59	14.22%	[0.00]	ug/L
Cu 324.752†	6209.3	28.65	0.46%	[0.00]	ug/L
Fe 238.204 Radial†	12.4	1.87	15.09%	[0.00]	ug/L
K 766.490 Radial†	2912.8	68.03	2.34%	[0.00]	ug/L
Mg 279.077 IEC†	2.5	1.34	53.97%	[0.00]	ug/L
Mn 257.610†	493.6	4.62	0.94%	[0.00]	ug/L
Mo 202.031†	23.3	5.48	23.48%	[0.00]	ug/L
Na 589.592 Radial†	-1052.3	49.38	4.69%	[0.00]	ug/L
Ni 231.604†	115.4	4.37	3.79%	[0.00]	ug/L
P 214.914†	225.7	4.88	2.16%	[0.00]	ug/L
Pb 220.353†	-23.4	3.28	13.99%	[0.00]	ug/L
S 181.975 Axial†	47.1	3.50	7.42%	[0.00]	ug/L
Sb 206.836†	41.9	8.92	21.28%	[0.00]	ug/L
Se 196.026†	-28.9	3.63	12.55%	[0.00]	ug/L
Si 251.611†	530.5	19.54	3.68%	[0.00]	ug/L
Sn 189.927†	4.6	4.02	87.75%	[0.00]	ug/L
Sr 421.552†	11.8	29.19	246.37%	[0.00]	ug/L
Ti 334.940†	-1395.6	47.84	3.43%	[0.00]	ug/L
Tl 190.801†	-37.3	7.63	20.47%	[0.00]	ug/L

U 409.014†	-1809.9	80.43	4.44%	[0.00] ug/L
V 292.402†	-1454.2	43.89	3.02%	[0.00] ug/L
Zn 213.857†	812.2	10.16	1.25%	[0.00] ug/L
SiO2†	546.0	12.83	2.35%	[0.00] ug/L

Sequence No.: 2
Sample ID: S0.1
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 2
Date Collected: 1/19/2010 14:40:06
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc Radial	5724.9	5724.9	102	%	14:42:03
1	Y RADIAL	6030.9	6030.9	101.4	%	14:42:03
1	K 766.490 Radial†	8244.2	5196.2	[1000]	ug/L	14:41:58
1	Sr 421.552†	17057.9	16766.3	[100]	ug/L	14:42:03
1	Sc 361.383	972057.1	972057.1	99.459	%	14:42:30
1	Y 371.029	815600.8	815600.8	99.228	%	14:42:30
1	Ag 328.068†	24470.8	24131.0	[100]	ug/L	14:42:30
1	As 188.979†	252.4	274.1	[100]	ug/L	14:42:50
1	B 249.677†	4161.0	4724.4	[100]	ug/L	14:42:30
1	Ba 233.527†	14667.5	14737.9	[100]	ug/L	14:42:30
1	Be 313.107†	297370.7	303430.8	[100]	ug/L	14:42:30
1	Cd 226.502†	9736.6	10006.0	[100]	ug/L	14:42:50
1	Co 228.616†	5432.6	5536.4	[100]	ug/L	14:42:50
1	Cr 267.716†	9789.5	9754.2	[100]	ug/L	14:42:30
1	Cu 324.752†	42362.2	36383.5	[100]	ug/L	14:42:30
1	Mn 257.610†	103176.9	103244.9	[100]	ug/L	14:42:30
1	Mo 202.031†	1618.6	1604.1	[100]	ug/L	14:42:50
1	Ni 231.604†	4564.3	4473.8	[100]	ug/L	14:42:50
1	P 214.914†	1158.9	939.5	[500]	ug/L	14:42:50
1	Pb 220.353†	885.4	913.6	[100]	ug/L	14:42:50
1	S 181.975 Axial†	207.7	161.7	[200]	ug/L	14:42:50
1	Sb 206.836†	356.6	316.7	[100]	ug/L	14:42:50
1	Se 196.026†	133.7	163.4	[100]	ug/L	14:42:50
1	Si 251.611†	17889.3	17456.2	[500]	ug/L	14:42:30
1	Sn 189.927†	644.6	643.5	[100]	ug/L	14:42:50
1	Ti 334.940†	68903.0	70673.7	[100]	ug/L	14:42:30
1	Tl 190.801†	342.5	381.6	[100]	ug/L	14:42:50
1	U 409.014†	2042.9	3864.0	[100]	ug/L	14:42:30
1	V 292.402†	14415.9	15948.6	[100]	ug/L	14:42:30
1	Zn 213.857†	12633.3	11889.9	[100]	ug/L	14:42:30
1	SiO2†	17928.1	17479.7	[1069.5]	ug/L	14:43:48
2	Sc Radial	5665.3	5665.3	101	%	14:42:13
2	Y RADIAL	5931.0	5931.0	99.69	%	14:42:13
2	K 766.490 Radial†	8215.5	5253.1	[1000]	ug/L	14:42:08
2	Sr 421.552†	17032.1	16917.3	[100]	ug/L	14:42:13
2	Sc 361.383	984694.4	984694.4	100.75	%	14:42:56
2	Y 371.029	824867.2	824867.2	100.36	%	14:42:56
2	Ag 328.068†	24612.9	23956.4	[100]	ug/L	14:42:56
2	As 188.979†	243.0	261.5	[100]	ug/L	14:43:16
2	B 249.677†	4265.4	4774.3	[100]	ug/L	14:42:56
2	Ba 233.527†	14871.7	14751.3	[100]	ug/L	14:42:56
2	Be 313.107†	300453.2	302653.2	[100]	ug/L	14:42:56
2	Cd 226.502†	9716.6	9860.5	[100]	ug/L	14:43:16
2	Co 228.616†	5427.8	5461.6	[100]	ug/L	14:43:16
2	Cr 267.716†	9906.0	9743.5	[100]	ug/L	14:42:56
2	Cu 324.752†	42828.0	36299.2	[100]	ug/L	14:42:56
2	Mn 257.610†	104356.7	103084.6	[100]	ug/L	14:42:56
2	Mo 202.031†	1615.1	1579.7	[100]	ug/L	14:43:16
2	Ni 231.604†	4543.4	4394.2	[100]	ug/L	14:43:16
2	P 214.914†	1159.6	925.2	[500]	ug/L	14:43:16
2	Pb 220.353†	872.1	889.0	[100]	ug/L	14:43:16
2	S 181.975 Axial†	211.9	163.2	[200]	ug/L	14:43:16
2	Sb 206.836†	356.5	311.9	[100]	ug/L	14:43:16
2	Se 196.026†	147.9	175.8	[100]	ug/L	14:43:16
2	Si 251.611†	18031.3	17366.4	[500]	ug/L	14:42:56
2	Sn 189.927†	643.9	634.5	[100]	ug/L	14:43:16
2	Ti 334.940†	69777.7	70652.7	[100]	ug/L	14:42:56
2	Tl 190.801†	342.9	377.7	[100]	ug/L	14:43:16
2	U 409.014†	2050.1	3844.7	[100]	ug/L	14:42:56

2	V 292.402†	14609.1	15954.3	[100]	ug/L	14:42:56
2	Zn 213.857†	12784.6	11877.0	[100]	ug/L	14:42:56
2	SiO2†	17884.6	17205.2	[1069.5]	ug/L	14:43:53
3	Sc Radial	5570.0	5570.0	98.9	%	14:42:23
3	Y RADIAL	5873.3	5873.3	98.72	%	14:42:23
3	K 766.490 Radial†	8256.1	5433.8	[1000]	ug/L	14:42:18
3	Sr 421.552†	16896.4	17069.6	[100]	ug/L	14:42:23
3	Sc 361.383	970590.5	970590.5	99.309	%	14:43:22
3	Y 371.029	812835.8	812835.8	98.892	%	14:43:22
3	Ag 328.068†	24321.4	24017.8	[100]	ug/L	14:43:22
3	As 188.979†	245.7	267.7	[100]	ug/L	14:43:42
3	B 249.677†	4132.4	4701.9	[100]	ug/L	14:43:22
3	Ba 233.527†	14709.6	14802.6	[100]	ug/L	14:43:22
3	Be 313.107†	295348.1	301845.9	[100]	ug/L	14:43:22
3	Cd 226.502†	9766.0	10050.4	[100]	ug/L	14:43:42
3	Co 228.616†	5463.5	5575.8	[100]	ug/L	14:43:42
3	Cr 267.716†	9691.7	9670.6	[100]	ug/L	14:43:22
3	Cu 324.752†	42117.8	36201.7	[100]	ug/L	14:43:22
3	Mn 257.610†	102845.5	103067.9	[100]	ug/L	14:43:22
3	Mo 202.031†	1621.4	1609.3	[100]	ug/L	14:43:42
3	Ni 231.604†	4569.5	4486.0	[100]	ug/L	14:43:42
3	P 214.914†	1168.9	951.3	[500]	ug/L	14:43:42
3	Pb 220.353†	906.6	936.3	[100]	ug/L	14:43:42
3	S 181.975 Axial†	208.5	162.8	[200]	ug/L	14:43:42
3	Sb 206.836†	356.0	316.6	[100]	ug/L	14:43:42
3	Se 196.026†	153.3	183.3	[100]	ug/L	14:43:42
3	Si 251.611†	17778.7	17372.0	[500]	ug/L	14:43:22
3	Sn 189.927†	647.4	647.3	[100]	ug/L	14:43:42
3	Ti 334.940†	68634.7	70508.1	[100]	ug/L	14:43:22
3	Tl 190.801†	346.9	386.6	[100]	ug/L	14:43:42
3	U 409.014†	1849.1	3671.9	[100]	ug/L	14:43:22
3	V 292.402†	14359.8	15913.9	[100]	ug/L	14:43:22
3	Zn 213.857†	12630.3	11906.0	[100]	ug/L	14:43:22
3	SiO2†	17779.6	17357.4	[1069.5]	ug/L	14:43:58

Mean Data: S0.1

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	975780.7	7754.25	0.79%	99.840	%
Sc Radial	5653.4	78.13	1.38%	100	%
Y 371.029	817767.9	6301.65	0.77%	99.492	%
Y RADIAL	5945.1	79.77	1.34%	99.93	%
Ag 328.068†	24035.1	88.59	0.37%	[100]	ug/L
As 188.979†	267.8	6.30	2.35%	[100]	ug/L
B 249.677†	4733.5	37.08	0.78%	[100]	ug/L
Ba 233.527†	14763.9	34.15	0.23%	[100]	ug/L
Be 313.107†	302643.3	792.50	0.26%	[100]	ug/L
Cd 226.502†	9972.3	99.35	1.00%	[100]	ug/L
Co 228.616†	5524.6	58.02	1.05%	[100]	ug/L
Cr 267.716†	9722.8	45.49	0.47%	[100]	ug/L
Cu 324.752†	36294.8	90.96	0.25%	[100]	ug/L
K 766.490 Radial†	5294.4	124.05	2.34%	[1000]	ug/L
Mn 257.610†	103132.5	97.75	0.09%	[100]	ug/L
Mo 202.031†	1597.7	15.82	0.99%	[100]	ug/L
Ni 231.604†	4451.3	49.88	1.12%	[100]	ug/L
P 214.914†	938.7	13.06	1.39%	[500]	ug/L
Pb 220.353†	913.0	23.68	2.59%	[100]	ug/L
S 181.975 Axial†	162.6	0.79	0.49%	[200]	ug/L
Sb 206.836†	315.1	2.73	0.87%	[100]	ug/L
Se 196.026†	174.1	10.03	5.76%	[100]	ug/L
Si 251.611†	17398.2	50.32	0.29%	[500]	ug/L
Sn 189.927†	641.8	6.58	1.03%	[100]	ug/L
Sr 421.552†	16917.7	151.64	0.90%	[100]	ug/L
Ti 334.940†	70611.5	90.16	0.13%	[100]	ug/L
Tl 190.801†	381.9	4.46	1.17%	[100]	ug/L
U 409.014†	3793.5	105.77	2.79%	[100]	ug/L
V 292.402†	15938.9	21.86	0.14%	[100]	ug/L
Zn 213.857†	11891.0	14.53	0.12%	[100]	ug/L
SiO2†	17347.5	137.54	0.79%	[1069.5]	ug/L

Sequence No.: 3
Sample ID: S0.5
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 3
Date Collected: 1/19/2010 14:46:08
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc Radial	5591.3	5591.3	99.3	%	14:48:00
1	Y RADIAL	5860.4	5860.4	98.51	%	14:48:00
1	Al 396.153Radial†	6880.9	6933.2	[5000]	ug/L	14:48:00
1	Ca 317.933Radial†	3366.3	3365.4	[5000]	ug/L	14:48:20
1	K 766.490 Radial†	29596.5	26894.0	[5000]	ug/L	14:48:00
1	Mg 279.077 IEC†	172.4	171.1	[5000]	ug/L	14:48:20
1	Sr 421.552†	85853.4	86451.2	[500]	ug/L	14:48:00
1	Sc 361.383	978719.3	978719.3	100.14	%	14:49:19
1	Y 371.029	811642.6	811642.6	98.747	%	14:49:19
1	Ag 328.068†	122185.9	121541.8	[500]	ug/L	14:49:19
1	As 188.979†	1342.7	1361.2	[500]	ug/L	14:49:40
1	B 249.677†	24304.3	24811.0	[500]	ug/L	14:49:19
1	Ba 233.527†	74197.6	74084.2	[500]	ug/L	14:49:19
1	Be 313.107†	1541818.9	1544100.6	[500]	ug/L	14:49:19
1	Cd 226.502†	50915.9	51060.9	[500]	ug/L	14:49:19
1	Co 228.616†	27426.2	27462.0	[500]	ug/L	14:49:40
1	Cr 267.716†	49377.8	49220.1	[500]	ug/L	14:49:19
1	Cu 324.752†	192563.3	186084.3	[500]	ug/L	14:49:19
1	Mn 257.610†	516812.7	515595.2	[500]	ug/L	14:49:19
1	Mo 202.031†	8104.4	8069.7	[500]	ug/L	14:49:40
1	Ni 231.604†	22395.4	22248.7	[500]	ug/L	14:49:40
1	P 214.914†	4982.2	4749.5	[2500]	ug/L	14:49:40
1	Pb 220.353†	4617.8	4634.7	[500]	ug/L	14:49:40
1	S 181.975 Axial†	861.5	813.2	[1000]	ug/L	14:49:40
1	Sb 206.836†	1698.7	1654.5	[500]	ug/L	14:49:40
1	Se 196.026†	863.1	890.8	[500]	ug/L	14:49:40
1	Si 251.611†	90851.8	90194.1	[2500]	ug/L	14:49:19
1	Sn 189.927†	3262.5	3253.3	[500]	ug/L	14:49:40
1	Ti 334.940†	358049.2	358943.2	[500]	ug/L	14:49:19
1	Tl 190.801†	1835.5	1870.2	[500]	ug/L	14:49:40
1	U 409.014†	16430.0	18216.9	[500]	ug/L	14:49:19
1	V 292.402†	80309.6	81651.2	[500]	ug/L	14:49:19
1	Zn 213.857†	61141.4	60243.5	[500]	ug/L	14:49:19
1	SiO2†	89969.2	89297.2	[5347.5]	ug/L	14:50:40
2	Sc Radial	5497.6	5497.6	97.6	%	14:48:26
2	Y RADIAL	5751.0	5751.0	96.67	%	14:48:26
2	Al 396.153Radial†	6812.0	6980.7	[5000]	ug/L	14:48:26
2	Ca 317.933Radial†	3360.1	3416.8	[5000]	ug/L	14:48:46
2	K 766.490 Radial†	29159.8	26954.5	[5000]	ug/L	14:48:26
2	Mg 279.077 IEC†	175.7	177.5	[5000]	ug/L	14:48:46
2	Sr 421.552†	84608.6	86649.5	[500]	ug/L	14:48:26
2	Sc 361.383	965897.7	965897.7	98.828	%	14:49:47
2	Y 371.029	802545.7	802545.7	97.640	%	14:49:47
2	Ag 328.068†	120561.6	121517.9	[500]	ug/L	14:49:47
2	As 188.979†	1354.4	1390.8	[500]	ug/L	14:50:07
2	B 249.677†	23924.2	24748.6	[500]	ug/L	14:49:47
2	Ba 233.527†	73233.0	74091.7	[500]	ug/L	14:49:47
2	Be 313.107†	1522583.9	1545075.5	[500]	ug/L	14:49:47
2	Cd 226.502†	50200.9	51012.5	[500]	ug/L	14:49:47
2	Co 228.616†	27536.7	27937.4	[500]	ug/L	14:50:07
2	Cr 267.716†	48729.2	49218.3	[500]	ug/L	14:49:47
2	Cu 324.752†	189211.0	185244.8	[500]	ug/L	14:49:47
2	Mn 257.610†	509357.8	514902.7	[500]	ug/L	14:49:47
2	Mo 202.031†	8150.9	8224.2	[500]	ug/L	14:50:07
2	Ni 231.604†	22519.4	22671.0	[500]	ug/L	14:50:07
2	P 214.914†	5010.0	4843.7	[2500]	ug/L	14:50:07
2	Pb 220.353†	4663.3	4742.0	[500]	ug/L	14:50:07
2	S 181.975 Axial†	875.6	838.9	[1000]	ug/L	14:50:07
2	Sb 206.836†	1700.1	1678.3	[500]	ug/L	14:50:07

2	Se 196.026†	873.5	912.8	[500]	ug/L	14:50:07
2	Si 251.611†	89332.4	89861.0	[2500]	ug/L	14:49:47
2	Sn 189.927†	3258.3	3292.3	[500]	ug/L	14:50:07
2	Ti 334.940†	352567.1	358142.3	[500]	ug/L	14:49:47
2	Tl 190.801†	1864.4	1923.8	[500]	ug/L	14:50:07
2	U 409.014†	16129.9	18131.0	[500]	ug/L	14:49:47
2	V 292.402†	79294.1	81688.3	[500]	ug/L	14:49:47
2	Zn 213.857†	60246.7	60148.7	[500]	ug/L	14:49:47
2	SiO2†	90174.4	90697.5	[5347.5]	ug/L	14:50:45
3	Sc Radial	5547.3	5547.3	98.5	%	14:48:51
3	Y RADIAL	5827.7	5827.7	97.96	%	14:48:51
3	Al 396.153Radial†	6854.9	6961.9	[5000]	ug/L	14:48:51
3	Ca 317.933Radial†	3388.3	3414.7	[5000]	ug/L	14:49:11
3	K 766.490 Radial†	29267.1	26796.2	[5000]	ug/L	14:48:51
3	Mg 279.077 IEC†	176.0	176.2	[5000]	ug/L	14:49:11
3	Sr 421.552†	85120.7	86394.1	[500]	ug/L	14:48:51
3	Sc 361.383	968007.2	968007.2	99.044	%	14:50:14
3	Y 371.029	803609.0	803609.0	97.769	%	14:50:14
3	Ag 328.068†	120861.1	121554.5	[500]	ug/L	14:50:14
3	As 188.979†	1331.3	1364.5	[500]	ug/L	14:50:34
3	B 249.677†	23997.0	24769.3	[500]	ug/L	14:50:14
3	Ba 233.527†	73566.5	74266.9	[500]	ug/L	14:50:14
3	Be 313.107†	1524422.8	1543574.7	[500]	ug/L	14:50:14
3	Cd 226.502†	50362.6	51065.0	[500]	ug/L	14:50:14
3	Co 228.616†	27512.5	27852.3	[500]	ug/L	14:50:34
3	Cr 267.716†	48961.8	49345.7	[500]	ug/L	14:50:14
3	Cu 324.752†	189817.2	185439.6	[500]	ug/L	14:50:14
3	Mn 257.610†	511483.2	515925.4	[500]	ug/L	14:50:14
3	Mo 202.031†	8101.6	8156.4	[500]	ug/L	14:50:34
3	Ni 231.604†	22463.6	22565.0	[500]	ug/L	14:50:34
3	P 214.914†	5017.4	4840.1	[2500]	ug/L	14:50:34
3	Pb 220.353†	4660.4	4728.8	[500]	ug/L	14:50:34
3	S 181.975 Axial†	862.2	823.4	[1000]	ug/L	14:50:34
3	Sb 206.836†	1696.0	1670.4	[500]	ug/L	14:50:34
3	Se 196.026†	863.6	900.9	[500]	ug/L	14:50:34
3	Si 251.611†	89618.2	89952.6	[2500]	ug/L	14:50:14
3	Sn 189.927†	3255.0	3281.8	[500]	ug/L	14:50:34
3	Ti 334.940†	354003.7	358815.3	[500]	ug/L	14:50:14
3	Tl 190.801†	1846.9	1902.0	[500]	ug/L	14:50:34
3	U 409.014†	16254.0	18220.8	[500]	ug/L	14:50:14
3	V 292.402†	79405.6	81626.1	[500]	ug/L	14:50:14
3	Zn 213.857†	60472.8	60244.1	[500]	ug/L	14:50:14
3	SiO2†	91204.5	91538.6	[5347.5]	ug/L	14:50:50

Mean Data: S0.5

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	970874.7	6874.99	0.71%	99.338	%
Sc Radial	5545.4	46.87	0.85%	98.5	%
Y 371.029	805932.4	4973.63	0.62%	98.052	%
Y RADIAL	5813.0	56.13	0.97%	97.71	%
Ag 328.068†	121538.1	18.58	0.02%	[500]	ug/L
Al 396.153Radial†	6958.6	23.92	0.34%	[5000]	ug/L
As 188.979†	1372.1	16.21	1.18%	[500]	ug/L
B 249.677†	24776.3	31.79	0.13%	[500]	ug/L
Ba 233.527†	74147.6	103.39	0.14%	[500]	ug/L
Be 313.107†	1544250.3	761.53	0.05%	[500]	ug/L
Ca 317.933Radial†	3398.9	29.11	0.86%	[5000]	ug/L
Cd 226.502†	51046.1	29.22	0.06%	[500]	ug/L
Co 228.616†	27750.6	253.50	0.91%	[500]	ug/L
Cr 267.716†	49261.4	73.03	0.15%	[500]	ug/L
Cu 324.752†	185589.5	439.40	0.24%	[500]	ug/L
K 766.490 Radial†	26881.6	79.89	0.30%	[5000]	ug/L
Mg 279.077 IEC†	174.9	3.38	1.93%	[5000]	ug/L
Mn 257.610†	515474.4	521.95	0.10%	[500]	ug/L
Mo 202.031†	8150.1	77.42	0.95%	[500]	ug/L
Ni 231.604†	22494.9	219.70	0.98%	[500]	ug/L
P 214.914†	4811.1	53.39	1.11%	[2500]	ug/L
Pb 220.353†	4701.9	58.52	1.24%	[500]	ug/L
S 181.975 Axial†	825.2	12.94	1.57%	[1000]	ug/L

Sb 206.836†	1667.8	12.17	0.73%	[500]	ug/L
Se 196.026†	901.5	11.04	1.22%	[500]	ug/L
Si 251.611†	90002.5	172.09	0.19%	[2500]	ug/L
Sn 189.927†	3275.8	20.18	0.62%	[500]	ug/L
Sr 421.552†	86498.3	134.07	0.15%	[500]	ug/L
Ti 334.940†	358633.6	430.24	0.12%	[500]	ug/L
Tl 190.801†	1898.7	26.96	1.42%	[500]	ug/L
U 409.014†	18189.6	50.76	0.28%	[500]	ug/L
V 292.402†	81655.2	31.32	0.04%	[500]	ug/L
Zn 213.857†	60212.1	54.93	0.09%	[500]	ug/L
SiO2†	90511.1	1132.27	1.25%	[5347.5]	ug/L

Sequence No.: 4
Sample ID: SCAL
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 4
Date Collected: 1/19/2010 14:53:01
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: SCAL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc Radial	5417.2	5417.2	96.2	%	14:55:14
1	Y RADIAL	5617.4	5617.4	94.42	%	14:55:14
1	Al 396.153Radial†	13742.4	14288.4	[10000]	ug/L	14:54:54
1	Ca 317.933Radial†	6570.7	6805.2	[10000]	ug/L	14:55:14
1	Fe 238.204 Radial†	1210.9	1246.3	[10000]	ug/L	14:55:14
1	K 766.490 Radial†	55918.3	55213.2	[10000]	ug/L	14:54:54
1	Mg 279.077 IEC†	338.2	349.0	[10000]	ug/L	14:55:14
1	Na 589.592 Radial†	39706.2	42326.1	[10000]	ug/L	14:54:54
1	Sr 421.552†	171914.4	178689.9	[1000]	ug/L	14:54:54
1	Sc 361.383	968216.6	968216.6	99.066	%	14:56:12
1	Y 371.029	776701.8	776701.8	94.496	%	14:56:18
1	Ag 328.068†	240729.0	242526.6	[1000]	ug/L	14:56:18
1	As 188.979†	2647.3	2692.6	[1000]	ug/L	14:56:38
1	B 249.677†	48638.4	49637.9	[1000]	ug/L	14:56:18
1	Ba 233.527†	144912.5	146269.8	[1000]	ug/L	14:56:18
1	Be 313.107†	3047639.1	3080824.5	[1000]	ug/L	14:56:12
1	Cd 226.502†	99249.3	100401.8	[1000]	ug/L	14:56:18
1	Co 228.616†	54263.9	54850.0	[1000]	ug/L	14:56:18
1	Cr 267.716†	96701.8	97525.3	[1000]	ug/L	14:56:18
1	Cu 324.752†	370693.6	367980.6	[1000]	ug/L	14:56:18
1	Mn 257.610†	1016803.3	1025899.8	[1000]	ug/L	14:56:12
1	Mo 202.031†	15926.5	16053.4	[1000]	ug/L	14:56:38
1	Ni 231.604†	44065.1	44365.3	[1000]	ug/L	14:56:18
1	P 214.914†	9654.4	9519.7	[5000]	ug/L	14:56:38
1	Pb 220.353†	9039.8	9148.5	[1000]	ug/L	14:56:38
1	S 181.975 Axial†	1677.3	1646.0	[2000]	ug/L	14:56:38
1	Sb 206.836†	3314.4	3303.8	[1000]	ug/L	14:56:38
1	Se 196.026†	1719.8	1764.9	[1000]	ug/L	14:56:38
1	Si 251.611†	176111.1	177241.6	[5000]	ug/L	14:56:18
1	Sn 189.927†	6410.1	6466.0	[1000]	ug/L	14:56:38
1	Ti 334.940†	714158.4	722289.6	[1000]	ug/L	14:56:12
1	Tl 190.801†	3654.9	3726.6	[1000]	ug/L	14:56:38
1	U 409.014†	35803.7	37951.3	[1000]	ug/L	14:56:18
1	V 292.402†	159907.3	162869.6	[1000]	ug/L	14:56:18
1	Zn 213.857†	118529.3	118835.0	[1000]	ug/L	14:56:18
1	SiO2†	177868.8	179000.5	[10695]	ug/L	14:57:48
2	Sc Radial	5477.1	5477.1	97.3	%	14:55:39
2	Y RADIAL	5695.1	5695.1	95.73	%	14:55:39
2	Al 396.153Radial†	13593.2	13978.8	[10000]	ug/L	14:55:19
2	Ca 317.933Radial†	6634.3	6796.0	[10000]	ug/L	14:55:39
2	Fe 238.204 Radial†	1230.2	1252.4	[10000]	ug/L	14:55:39
2	K 766.490 Radial†	55148.0	53785.5	[10000]	ug/L	14:55:19
2	Mg 279.077 IEC†	339.4	346.5	[10000]	ug/L	14:55:39
2	Na 589.592 Radial†	39161.3	41314.5	[10000]	ug/L	14:55:19
2	Sr 421.552†	169291.2	174038.3	[1000]	ug/L	14:55:19
2	Sc 361.383	965912.4	965912.4	98.830	%	14:56:44
2	Y 371.029	775762.4	775762.4	94.381	%	14:56:50
2	Ag 328.068†	239947.8	242315.8	[1000]	ug/L	14:56:50
2	As 188.979†	2636.2	2687.8	[1000]	ug/L	14:57:10
2	B 249.677†	48596.8	49712.9	[1000]	ug/L	14:56:50
2	Ba 233.527†	144927.2	146633.6	[1000]	ug/L	14:56:50
2	Be 313.107†	3044944.0	3085436.3	[1000]	ug/L	14:56:44
2	Cd 226.502†	99434.3	100828.0	[1000]	ug/L	14:56:50
2	Co 228.616†	54366.5	55084.4	[1000]	ug/L	14:56:50
2	Cr 267.716†	96713.2	97769.7	[1000]	ug/L	14:56:50
2	Cu 324.752†	368508.8	366662.5	[1000]	ug/L	14:56:50
2	Mn 257.610†	1014442.9	1025959.9	[1000]	ug/L	14:56:44
2	Mo 202.031†	15824.4	15988.5	[1000]	ug/L	14:57:10
2	Ni 231.604†	43966.5	44371.7	[1000]	ug/L	14:56:50

2	P 214.914†	9602.9	9490.9	[5000]	ug/L	14:57:10
2	Pb 220.353†	9008.4	9138.4	[1000]	ug/L	14:57:10
2	S 181.975 Axial†	1672.5	1645.2	[2000]	ug/L	14:57:10
2	Sb 206.836†	3306.0	3303.3	[1000]	ug/L	14:57:10
2	Se 196.026†	1719.1	1768.4	[1000]	ug/L	14:57:10
2	Si 251.611†	175506.9	177054.3	[5000]	ug/L	14:56:50
2	Sn 189.927†	6401.0	6472.2	[1000]	ug/L	14:57:10
2	Ti 334.940†	711837.8	721661.3	[1000]	ug/L	14:56:44
2	Tl 190.801†	3633.2	3713.5	[1000]	ug/L	14:57:10
2	U 409.014†	35589.1	37820.3	[1000]	ug/L	14:56:50
2	V 292.402†	159459.1	162801.1	[1000]	ug/L	14:56:50
2	Zn 213.857†	118463.9	119054.3	[1000]	ug/L	14:56:50
2	SiO2†	176906.1	178454.6	[10695]	ug/L	14:57:53
3	Sc Radial	5430.2	5430.2	96.4	%	14:56:04
3	Y RADIAL	5632.7	5632.7	94.68	%	14:56:04
3	Al 396.153Radial†	13548.9	14053.4	[10000]	ug/L	14:55:44
3	Ca 317.933Radial†	6566.1	6784.0	[10000]	ug/L	14:56:04
3	Fe 238.204 Radial†	1205.9	1238.1	[10000]	ug/L	14:56:04
3	K 766.490 Radial†	55187.9	54315.7	[10000]	ug/L	14:55:44
3	Mg 279.077 IEC†	339.4	349.5	[10000]	ug/L	14:56:04
3	Na 589.592 Radial†	39238.3	41741.5	[10000]	ug/L	14:55:44
3	Sr 421.552†	169705.6	175968.7	[1000]	ug/L	14:55:44
3	Sc 361.383	962598.0	962598.0	98.491	%	14:57:16
3	Y 371.029	776648.2	776648.2	94.489	%	14:57:22
3	Ag 328.068†	240960.7	244180.2	[1000]	ug/L	14:57:22
3	As 188.979†	2661.4	2722.5	[1000]	ug/L	14:57:42
3	B 249.677†	48868.7	50158.3	[1000]	ug/L	14:57:22
3	Ba 233.527†	145261.4	147477.8	[1000]	ug/L	14:57:22
3	Be 313.107†	3029751.4	3080619.4	[1000]	ug/L	14:57:16
3	Cd 226.502†	99521.6	101263.0	[1000]	ug/L	14:57:22
3	Co 228.616†	54392.6	55300.3	[1000]	ug/L	14:57:22
3	Cr 267.716†	96867.4	98263.2	[1000]	ug/L	14:57:22
3	Cu 324.752†	370638.4	370108.6	[1000]	ug/L	14:57:22
3	Mn 257.610†	1012811.7	1027838.0	[1000]	ug/L	14:57:16
3	Mo 202.031†	15956.4	16177.5	[1000]	ug/L	14:57:42
3	Ni 231.604†	44127.4	44688.3	[1000]	ug/L	14:57:22
3	P 214.914†	9681.4	9604.1	[5000]	ug/L	14:57:42
3	Pb 220.353†	9068.5	9230.9	[1000]	ug/L	14:57:42
3	S 181.975 Axial†	1677.8	1656.3	[2000]	ug/L	14:57:42
3	Sb 206.836†	3340.6	3349.9	[1000]	ug/L	14:57:42
3	Se 196.026†	1724.6	1780.0	[1000]	ug/L	14:57:42
3	Si 251.611†	176323.0	178494.4	[5000]	ug/L	14:57:22
3	Sn 189.927†	6449.0	6543.2	[1000]	ug/L	14:57:42
3	Ti 334.940†	710108.0	722385.0	[1000]	ug/L	14:57:16
3	Tl 190.801†	3675.9	3769.5	[1000]	ug/L	14:57:42
3	U 409.014†	35825.1	38183.9	[1000]	ug/L	14:57:22
3	V 292.402†	159971.8	163877.3	[1000]	ug/L	14:57:22
3	Zn 213.857†	118803.6	119811.9	[1000]	ug/L	14:57:22
3	SiO2†	177243.4	179413.5	[10695]	ug/L	14:57:58

Mean Data: SCAL

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	965575.6	2824.41	0.29%	98.795	%
Sc Radial	5441.5	31.50	0.58%	96.6	%
Y 371.029	776370.8	527.59	0.07%	94.455	%
Y RADIAL	5648.4	41.19	0.73%	94.94	%
Ag 328.068†	243007.5	1021.03	0.42%	[1000]	ug/L
Al 396.153Radial†	14106.9	161.57	1.15%	[10000]	ug/L
As 188.979†	2701.0	18.81	0.70%	[1000]	ug/L
B 249.677†	49836.4	281.29	0.56%	[1000]	ug/L
Ba 233.527†	146793.7	619.74	0.42%	[1000]	ug/L
Be 313.107†	3082293.4	2723.79	0.09%	[1000]	ug/L
Ca 317.933Radial†	6795.1	10.63	0.16%	[10000]	ug/L
Cd 226.502†	100830.9	430.63	0.43%	[1000]	ug/L
Co 228.616†	55078.2	225.23	0.41%	[1000]	ug/L
Cr 267.716†	97852.7	375.91	0.38%	[1000]	ug/L
Cu 324.752†	368250.6	1738.86	0.47%	[1000]	ug/L
Fe 238.204 Radial†	1245.6	7.17	0.58%	[10000]	ug/L
K 766.490 Radial†	54438.2	721.70	1.33%	[10000]	ug/L

Mg 279.077 IEC†	348.3	1.65	0.47%	[10000]	ug/L
Mn 257.610†	1026565.9	1102.07	0.11%	[1000]	ug/L
Mo 202.031†	16073.1	96.07	0.60%	[1000]	ug/L
Na 589.592 Radial†	41794.0	507.87	1.22%	[10000]	ug/L
Ni 231.604†	44475.1	184.63	0.42%	[1000]	ug/L
P 214.914†	9538.2	58.81	0.62%	[5000]	ug/L
Pb 220.353†	9172.6	50.75	0.55%	[1000]	ug/L
S 181.975 Axial†	1649.2	6.22	0.38%	[2000]	ug/L
Sb 206.836†	3319.0	26.78	0.81%	[1000]	ug/L
Se 196.026†	1771.1	7.87	0.44%	[1000]	ug/L
Si 251.611†	177596.8	782.97	0.44%	[5000]	ug/L
Sn 189.927†	6493.8	42.93	0.66%	[1000]	ug/L
Sr 421.552†	176232.3	2336.95	1.33%	[1000]	ug/L
Ti 334.940†	722111.9	393.19	0.05%	[1000]	ug/L
Tl 190.801†	3736.5	29.30	0.78%	[1000]	ug/L
U 409.014†	37985.2	184.15	0.48%	[1000]	ug/L
V 292.402†	163182.7	602.54	0.37%	[1000]	ug/L
Zn 213.857†	119233.7	512.60	0.43%	[1000]	ug/L
SiO2†	178956.2	480.97	0.27%	[10695]	ug/L

Sequence No.: 5
Sample ID: S10
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 5
Date Collected: 1/19/2010 15:00:09
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S10

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc Radial	5480.9	5480.9	97.3	%	15:02:23
1	Y RADIAL	5706.6	5706.6	95.92	%	15:02:23
1	Al 396.153Radial†	68354.4	70230.6	[50000]	ug/L	15:02:03
1	Ca 317.933Radial†	32210.3	33067.9	[50000]	ug/L	15:02:23
1	Fe 238.204 Radial†	2409.2	2462.8	[20000]	ug/L	15:02:23
1	Mg 279.077 IEC†	1635.1	1677.4	[50000]	ug/L	15:02:23
1	Na 589.592 Radial†	84994.7	88375.5	[20000]	ug/L	15:02:03
1	Sc 361.383	940672.9	940672.9	96.247	%	15:03:20
1	Y 371.029	776506.4	776506.4	94.472	%	15:03:20
2	Sc Radial	5510.4	5510.4	97.9	%	15:02:48
2	Y RADIAL	5731.2	5731.2	96.34	%	15:02:48
2	Al 396.153Radial†	66119.6	67570.2	[50000]	ug/L	15:02:28
2	Ca 317.933Radial†	32283.0	32964.7	[50000]	ug/L	15:02:48
2	Fe 238.204 Radial†	2421.1	2461.7	[20000]	ug/L	15:02:48
2	Mg 279.077 IEC†	1632.1	1665.3	[50000]	ug/L	15:02:48
2	Na 589.592 Radial†	81908.9	84753.9	[20000]	ug/L	15:02:28
2	Sc 361.383	940232.7	940232.7	96.202	%	15:03:25
2	Y 371.029	775766.4	775766.4	94.382	%	15:03:25
3	Sc Radial	5474.2	5474.2	97.2	%	15:03:13
3	Y RADIAL	5688.2	5688.2	95.61	%	15:03:13
3	Al 396.153Radial†	67179.6	69107.9	[50000]	ug/L	15:02:53
3	Ca 317.933Radial†	32243.1	33142.1	[50000]	ug/L	15:03:13
3	Fe 238.204 Radial†	2415.1	2472.0	[20000]	ug/L	15:03:13
3	Mg 279.077 IEC†	1630.9	1675.1	[50000]	ug/L	15:03:13
3	Na 589.592 Radial†	82912.3	86340.0	[20000]	ug/L	15:02:53
3	Sc 361.383	928405.9	928405.9	94.992	%	15:03:31
3	Y 371.029	766148.3	766148.3	93.212	%	15:03:31

Mean Data: S10

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	936437.2	6958.74	0.74%	95.814	%
Sc Radial	5488.5	19.28	0.35%	97.5	%
Y 371.029	772807.1	5778.51	0.75%	94.022	%
Y RADIAL	5708.7	21.58	0.38%	95.96	%
Al 396.153Radial†	68969.5	1335.56	1.94%	[50000]	ug/L
Ca 317.933Radial†	33058.2	89.07	0.27%	[50000]	ug/L
Fe 238.204 Radial†	2465.5	5.64	0.23%	[20000]	ug/L
Mg 279.077 IEC†	1672.6	6.41	0.38%	[50000]	ug/L
Na 589.592 Radial†	86489.8	1815.45	2.10%	[20000]	ug/L

Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 328.068	3	Lin Thru 0	0.0	243.0	0.00000	1.000000	
Al 396.153Radial	3	Lin Thru 0	0.0	1.381	0.00000	0.999990	
As 188.979	3	Lin Thru 0	0.0	2.709	0.00000	0.999979	
B 249.677	3	Lin Thru 0	0.0	49.76	0.00000	0.999988	
Ba 233.527	3	Lin Thru 0	0.0	147.1	0.00000	0.999992	
Be 313.107	3	Lin Thru 0	0.0	3083	0.00000	0.999998	
Ca 317.933Radial	3	Lin Thru 0	0.0	0.6620	0.00000	0.999982	
Cd 226.502	3	Lin Thru 0	0.0	101.1	0.00000	0.999987	
Co 228.616	3	Lin Thru 0	0.0	55.16	0.00000	0.999995	
Cr 267.716	3	Lin Thru 0	0.0	97.98	0.00000	0.999996	
Cu 324.752	3	Lin Thru 0	0.0	368.8	0.00000	0.999994	
Fe 238.204 Radia	2	Lin Thru 0	0.0	0.1235	0.00000	0.999991	
K 766.490 Radial	3	Lin Thru 0	0.0	5.429	0.00000	0.999985	

Mg 279.077 IEC	3	Lin Thru 0	0.0	0.0335	0.00000	0.999960
Mn 257.610	3	Lin Thru 0	0.0	1027	0.00000	0.999998
Mo 202.031	3	Lin Thru 0	0.0	16.12	0.00000	0.999984
Na 589.592 Radia	2	Lin Thru 0	0.0	4.295	0.00000	0.999909
Ni 231.604	3	Lin Thru 0	0.0	44.58	0.00000	0.999989
P 214.914	3	Lin Thru 0	0.0	1.911	0.00000	0.999993
Pb 220.353	3	Lin Thru 0	0.0	9.218	0.00000	0.999950
S 181.975 Axial	3	Lin Thru 0	0.0	0.8246	0.00000	0.999999
Sb 206.836	3	Lin Thru 0	0.0	3.321	0.00000	0.999988
Se 196.026	3	Lin Thru 0	0.0	1.777	0.00000	0.999973
Si 251.611	3	Lin Thru 0	0.0	35.61	0.00000	0.999983
Sn 189.927	3	Lin Thru 0	0.0	6.505	0.00000	0.999993
Sr 421.552	3	Lin Thru 0	0.0	175.5	0.00000	0.999968
Ti 334.940	3	Lin Thru 0	0.0	721.0	0.00000	0.999995
Tl 190.801	3	Lin Thru 0	0.0	3.749	0.00000	0.999978
U 409.014	3	Lin Thru 0	0.0	37.67	0.00000	0.999856
V 292.402	3	Lin Thru 0	0.0	163.2	0.00000	0.999998
Zn 213.857	3	Lin Thru 0	0.0	119.5	0.00000	0.999992
SiO2	3	Lin Thru 0	0.0	16.77	0.00000	0.999985

Sequence No.: 6
Sample ID: ICV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 9
Date Collected: 1/19/2010 15:05:42
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5526.1	5526.1	98.1	%			15:07:34
1	Y RADIAL	5787.9	5787.9	97.29	%			15:07:34
1	Al 396.153Radial†	6898.6	7033.1	5068.0	ug/L	5068.0	ppb	15:07:34
1	Ca 317.933Radial†	3301.4	3339.3	5043.9	ug/L	5043.9	ppb	15:07:54
1	Fe 238.204 Radial†	614.5	613.8	4983.5	ug/L	4983.5	ppb	15:07:54
1	K 766.490 Radial†	15999.7	13390.6	2463.0	ug/L	2463.0	ppb	15:07:34
1	Mg 279.077 IEC†	173.7	174.5	5205.3	ug/L	5205.3	ppb	15:07:54
1	Na 589.592 Radial†	8954.3	10176.6	2369.1	ug/L	2369.1	ppb	15:07:34
1	Sr 421.552†	89080.9	90760.2	517.01	ug/L	517.01	ppb	15:07:34
1	Sc 361.383	966027.7	966027.7	98.842	%			15:08:52
1	Y 371.029	804058.3	804058.3	97.824	%			15:08:52
1	Ag 328.068†	61900.8	62153.3	258.96	ug/L	258.96	ppb	15:08:52
1	As 188.979†	1240.8	1275.7	474.98	ug/L	474.98	ppb	15:09:12
1	B 249.677†	25248.6	26085.3	521.97	ug/L	521.97	ppb	15:08:52
1	Ba 233.527†	75216.8	76088.7	518.54	ug/L	518.54	ppb	15:08:52
1	Be 313.107†	786814.3	800476.2	260.75	ug/L	260.75	ppb	15:08:52
1	Cd 226.502†	50362.6	51169.2	506.16	ug/L	506.16	ppb	15:08:52
1	Co 228.616†	27558.7	27955.9	506.95	ug/L	506.95	ppb	15:09:12
1	Cr 267.716†	48063.7	48538.4	496.00	ug/L	496.00	ppb	15:08:52
1	Cu 324.752†	194312.5	190380.3	516.22	ug/L	516.22	ppb	15:08:52
1	Mn 257.610†	521032.5	526644.8	512.84	ug/L	512.84	ppb	15:08:52
1	Mo 202.031†	8505.2	8581.5	532.88	ug/L	532.88	ppb	15:09:12
1	Ni 231.604†	22024.4	22167.2	496.97	ug/L	496.97	ppb	15:09:12
1	P 214.914†	4991.0	4823.7	2424.2	ug/L	2424.2	ppb	15:09:12
1	Pb 220.353†	4576.9	4654.0	506.61	ug/L	506.61	ppb	15:09:12
1	S 181.975 Axial†	2042.5	2019.3	2447.8	ug/L	2447.8	ppb	15:09:12
1	Sb 206.836†	1662.3	1639.8	513.09	ug/L	513.09	ppb	15:09:12
1	Se 196.026†	4495.0	4576.6	2595.0	ug/L	2595.0	ppb	15:09:12
1	Si 251.611†	173592.4	175096.2	4910.6	ug/L	4910.6	ppb	15:08:52
1	Sn 189.927†	3392.4	3427.6	527.79	ug/L	527.79	ppb	15:09:12
1	Ti 334.940†	349117.4	354604.2	491.66	ug/L	491.66	ppb	15:08:52
1	Tl 190.801†	1914.6	1974.3	529.95	ug/L	529.95	ppb	15:09:12
1	U 409.014†	16849.4	18856.8	498.95	ug/L	498.95	ppb	15:08:52
1	V 292.402†	80567.4	82965.7	515.59	ug/L	515.59	ppb	15:08:52
1	Zn 213.857†	61289.5	61195.5	507.89	ug/L	507.89	ppb	15:08:52
1	SiO2†	171438.5	172901.6	10298	ug/L	10298	ppb	15:10:10
2	Sc Radial	5535.7	5535.7	98.3	%			15:08:00
2	Y RADIAL	5805.9	5805.9	97.59	%			15:08:00
2	Al 396.153Radial†	6898.2	7020.5	5058.9	ug/L	5058.9	ppb	15:08:00
2	Ca 317.933Radial†	3303.3	3335.4	5038.0	ug/L	5038.0	ppb	15:08:20
2	Fe 238.204 Radial†	619.4	617.7	5015.1	ug/L	5015.1	ppb	15:08:20
2	K 766.490 Radial†	15942.6	13304.4	2447.1	ug/L	2447.1	ppb	15:08:00
2	Mg 279.077 IEC†	176.2	176.7	5272.9	ug/L	5272.9	ppb	15:08:20
2	Na 589.592 Radial†	8901.4	10106.9	2352.9	ug/L	2352.9	ppb	15:08:00
2	Sr 421.552†	88788.3	90305.1	514.42	ug/L	514.42	ppb	15:08:00
2	Sc 361.383	960979.3	960979.3	98.325	%			15:09:18
2	Y 371.029	800020.5	800020.5	97.333	%			15:09:18
2	Ag 328.068†	61437.7	62011.3	258.39	ug/L	258.39	ppb	15:09:18
2	As 188.979†	1253.7	1295.3	482.23	ug/L	482.23	ppb	15:09:38
2	B 249.677†	25059.0	26026.6	520.78	ug/L	520.78	ppb	15:09:18
2	Ba 233.527†	74853.6	76119.2	518.74	ug/L	518.74	ppb	15:09:18
2	Be 313.107†	782127.0	799891.0	260.56	ug/L	260.56	ppb	15:09:18
2	Cd 226.502†	49951.7	51019.0	504.67	ug/L	504.67	ppb	15:09:18
2	Co 228.616†	27520.3	28063.3	508.90	ug/L	508.90	ppb	15:09:38
2	Cr 267.716†	47793.7	48519.2	495.81	ug/L	495.81	ppb	15:09:18
2	Cu 324.752†	192990.5	190068.6	515.38	ug/L	515.38	ppb	15:09:18
2	Mn 257.610†	518080.4	526411.6	512.61	ug/L	512.61	ppb	15:09:18
2	Mo 202.031†	8470.7	8591.6	533.51	ug/L	533.51	ppb	15:09:38
2	Ni 231.604†	22009.3	22268.8	499.25	ug/L	499.25	ppb	15:09:38

2	P 214.914†	4980.2	4839.3	2432.6 ug/L	2432.6 ppb	15:09:38
2	Pb 220.353†	4558.0	4659.0	507.15 ug/L	507.15 ppb	15:09:38
2	S 181.975 Axial†	2037.1	2024.7	2454.4 ug/L	2454.4 ppb	15:09:38
2	Sb 206.836†	1661.1	1647.4	515.45 ug/L	515.45 ppb	15:09:38
2	Se 196.026†	4476.3	4581.5	2597.9 ug/L	2597.9 ppb	15:09:38
2	Si 251.611†	172424.5	174831.0	4903.2 ug/L	4903.2 ppb	15:09:18
2	Sn 189.927†	3399.6	3452.9	531.68 ug/L	531.68 ppb	15:09:38
2	Ti 334.940†	346711.2	354012.6	490.84 ug/L	490.84 ppb	15:09:18
2	Tl 190.801†	1909.5	1979.3	531.25 ug/L	531.25 ppb	15:09:38
2	U 409.014†	16530.2	18621.7	492.71 ug/L	492.71 ppb	15:09:18
2	V 292.402†	80139.3	82958.6	515.54 ug/L	515.54 ppb	15:09:18
2	Zn 213.857†	61014.6	61241.7	508.26 ug/L	508.26 ppb	15:09:18
2	SiO2†	171881.0	174262.8	10379 ug/L	10379 ppb	15:10:15
3	Sc Radial	5586.1	5586.1	99.2 %		15:08:25
3	Y RADIAL	5861.9	5861.9	98.53 %		15:08:25
3	Al 396.153Radial†	6945.3	7004.7	5047.6 ug/L	5047.6 ppb	15:08:25
3	Ca 317.933Radial†	3301.0	3302.7	4988.7 ug/L	4988.7 ppb	15:08:45
3	Fe 238.204 Radial†	622.5	615.1	4994.6 ug/L	4994.6 ppb	15:08:45
3	K 766.490 Radial†	15928.9	13144.4	2417.6 ug/L	2417.6 ppb	15:08:25
3	Mg 279.077 IEC†	176.6	175.5	5236.3 ug/L	5236.3 ppb	15:08:45
3	Na 589.592 Radial†	8852.8	9976.4	2322.5 ug/L	2322.5 ppb	15:08:25
3	Sr 421.552†	89290.9	89997.7	512.67 ug/L	512.67 ppb	15:08:25
3	Sc 361.383	965607.2	965607.2	98.799 %		15:09:44
3	Y 371.029	803394.3	803394.3	97.743 %		15:09:44
3	Ag 328.068†	61579.9	61855.7	257.74 ug/L	257.74 ppb	15:09:44
3	As 188.979†	1241.0	1276.4	475.25 ug/L	475.25 ppb	15:10:04
3	B 249.677†	25198.5	26045.7	521.18 ug/L	521.18 ppb	15:09:44
3	Ba 233.527†	74833.2	75733.6	516.12 ug/L	516.12 ppb	15:09:44
3	Be 313.107†	783410.1	797377.3	259.74 ug/L	259.74 ppb	15:09:44
3	Cd 226.502†	50057.1	50882.2	503.32 ug/L	503.32 ppb	15:09:44
3	Co 228.616†	27333.5	27740.1	503.03 ug/L	503.03 ppb	15:10:04
3	Cr 267.716†	47897.7	48391.6	494.51 ug/L	494.51 ppb	15:09:44
3	Cu 324.752†	193670.4	189816.1	514.69 ug/L	514.69 ppb	15:09:44
3	Mn 257.610†	518841.7	524656.9	510.91 ug/L	510.91 ppb	15:09:44
3	Mo 202.031†	8440.7	8520.0	529.07 ug/L	529.07 ppb	15:10:04
3	Ni 231.604†	21865.1	22015.6	493.57 ug/L	493.57 ppb	15:10:04
3	P 214.914†	4946.9	4781.4	2402.3 ug/L	2402.3 ppb	15:10:04
3	Pb 220.353†	4520.2	4598.5	500.58 ug/L	500.58 ppb	15:10:04
3	S 181.975 Axial†	2035.6	2013.3	2440.5 ug/L	2440.5 ppb	15:10:04
3	Sb 206.836†	1654.6	1632.9	510.87 ug/L	510.87 ppb	15:10:04
3	Se 196.026†	4436.0	4518.9	2562.6 ug/L	2562.6 ppb	15:10:04
3	Si 251.611†	172956.5	174529.1	4894.7 ug/L	4894.7 ppb	15:09:44
3	Sn 189.927†	3375.1	3411.6	525.32 ug/L	525.32 ppb	15:10:04
3	Ti 334.940†	347377.6	352997.0	489.43 ug/L	489.43 ppb	15:09:44
3	Tl 190.801†	1896.5	1956.8	525.26 ug/L	525.26 ppb	15:10:04
3	U 409.014†	16447.2	18457.1	488.35 ug/L	488.35 ppb	15:09:44
3	V 292.402†	80211.0	82640.5	513.53 ug/L	513.53 ppb	15:09:44
3	Zn 213.857†	61029.8	60959.6	505.94 ug/L	505.94 ppb	15:09:44
3	SiO2†	173595.0	175159.9	10432 ug/L	10432 ppb	15:10:20

Mean Data: ICV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	964204.7	98.655	%	0.2866				0.29%
Sc Radial	5549.3	98.5	%	0.57				0.58%
Y 371.029	802491.1	97.633	%	0.2634				0.27%
Y RADIAL	5818.5	97.80	%	0.649				0.66%
Ag 328.068†	62006.8	258.37	ug/L	0.610	258.37	ppb	0.610	0.24%
QC value within limits for Ag 328.068 Recovery = 103.35%								
Al 396.153Radial†	7019.4	5058.2	ug/L	10.21	5058.2	ppb	10.21	0.20%
QC value within limits for Al 396.153Radial Recovery = 101.16%								
As 188.979†	1282.5	477.49	ug/L	4.111	477.49	ppb	4.111	0.86%
QC value within limits for As 188.979 Recovery = 95.50%								
B 249.677†	26052.5	521.31	ug/L	0.605	521.31	ppb	0.605	0.12%
QC value within limits for B 249.677 Recovery = 104.26%								
Ba 233.527†	75980.5	517.80	ug/L	1.460	517.80	ppb	1.460	0.28%
QC value within limits for Ba 233.527 Recovery = 103.56%								
Be 313.107†	799248.2	260.35	ug/L	0.537	260.35	ppb	0.537	0.21%
QC value within limits for Be 313.107 Recovery = 104.14%								
Ca 317.933Radial†	3325.8	5023.5	ug/L	30.29	5023.5	ppb	30.29	0.60%

QC value within limits for Ca 317.933Radial Recovery = 100.47%

Cd 226.502†	51023.4	504.72 ug/L	1.423	504.72 ppb	1.423	0.28%
QC value within limits for Cd 226.502 Recovery = 100.94%						
Co 228.616†	27919.8	506.30 ug/L	2.988	506.30 ppb	2.988	0.59%
QC value within limits for Co 228.616 Recovery = 101.26%						
Cr 267.716†	48483.1	495.44 ug/L	0.814	495.44 ppb	0.814	0.16%
QC value within limits for Cr 267.716 Recovery = 99.09%						
Cu 324.752†	190088.3	515.43 ug/L	0.763	515.43 ppb	0.763	0.15%
QC value within limits for Cu 324.752 Recovery = 103.09%						
Fe 238.204 Radial†	615.5	4997.8 ug/L	16.04	4997.8 ppb	16.04	0.32%
QC value within limits for Fe 238.204 Radial Recovery = 99.96%						
K 766.490 Radial†	13279.8	2442.6 ug/L	22.99	2442.6 ppb	22.99	0.94%
QC value within limits for K 766.490 Radial Recovery = 97.70%						
Mg 279.077 IEC†	175.6	5238.2 ug/L	33.82	5238.2 ppb	33.82	0.65%
QC value within limits for Mg 279.077 IEC Recovery = 104.76%						
Mn 257.610†	525904.4	512.12 ug/L	1.058	512.12 ppb	1.058	0.21%
QC value within limits for Mn 257.610 Recovery = 102.42%						
Mo 202.031†	8564.4	531.82 ug/L	2.404	531.82 ppb	2.404	0.45%
QC value within limits for Mo 202.031 Recovery = 106.36%						
Na 589.592 Radial†	10086.6	2348.2 ug/L	23.66	2348.2 ppb	23.66	1.01%
QC value within limits for Na 589.592 Radial Recovery = 93.93%						
Ni 231.604†	22150.5	496.59 ug/L	2.856	496.59 ppb	2.856	0.58%
QC value within limits for Ni 231.604 Recovery = 99.32%						
P 214.914†	4814.8	2419.7 ug/L	15.62	2419.7 ppb	15.62	0.65%
QC value within limits for P 214.914 Recovery = 96.79%						
Pb 220.353†	4637.2	504.78 ug/L	3.648	504.78 ppb	3.648	0.72%
QC value within limits for Pb 220.353 Recovery = 100.96%						
S 181.975 Axial†	2019.1	2447.6 ug/L	6.91	2447.6 ppb	6.91	0.28%
QC value within limits for S 181.975 Axial Recovery = 97.90%						
Sb 206.836†	1640.1	513.13 ug/L	2.293	513.13 ppb	2.293	0.45%
QC value within limits for Sb 206.836 Recovery = 102.63%						
Se 196.026†	4559.0	2585.2 ug/L	19.62	2585.2 ppb	19.62	0.76%
QC value within limits for Se 196.026 Recovery = 103.41%						
Si 251.611†	174818.8	4902.8 ug/L	7.95	4902.8 ppb	7.95	0.16%
QC value within limits for Si 251.611 Recovery = 98.06%						
Sn 189.927†	3430.7	528.27 ug/L	3.206	528.27 ppb	3.206	0.61%
QC value within limits for Sn 189.927 Recovery = 105.65%						
Sr 421.552†	90354.3	514.70 ug/L	2.185	514.70 ppb	2.185	0.42%
QC value within limits for Sr 421.552 Recovery = 102.94%						
Ti 334.940†	353871.3	490.64 ug/L	1.130	490.64 ppb	1.130	0.23%
QC value within limits for Ti 334.940 Recovery = 98.13%						
Tl 190.801†	1970.1	528.82 ug/L	3.148	528.82 ppb	3.148	0.60%
QC value within limits for Tl 190.801 Recovery = 105.76%						
U 409.014†	18645.2	493.34 ug/L	5.333	493.34 ppb	5.333	1.08%
QC value within limits for U 409.014 Recovery = 98.67%						
V 292.402†	82854.9	514.89 ug/L	1.179	514.89 ppb	1.179	0.23%
QC value within limits for V 292.402 Recovery = 102.98%						
Zn 213.857†	61132.3	507.36 ug/L	1.247	507.36 ppb	1.247	0.25%
QC value within limits for Zn 213.857 Recovery = 101.47%						
SiO2†	174108.1	10370 ug/L	67.9	10370 ppb	67.9	0.65%
QC value within limits for SiO2 Recovery = 96.96%						

All analyte(s) passed QC.

Sequence No.: 7
Sample ID: ICB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 10
Date Collected: 1/19/2010 15:12:31
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	5642.7	5642.7	100	%			15:14:24
1	Y RADIAL	5945.2	5945.2	99.93	%			15:14:24
1	Al 396.153Radial†	16.6	20.0	14.471	ug/L	14.471	ppb	15:14:24
1	Ca 317.933Radial†	16.2	-8.6	-13.031	ug/L	-13.031	ppb	15:14:44
1	Fe 238.204 Radial†	14.6	2.2	17.652	ug/L	17.652	ppb	15:14:44
1	K 766.490 Radial†	2801.2	-117.3	-21.597	ug/L	-21.597	ppb	15:14:24
1	Mg 279.077 IEC†	-1.5	-3.9	-117.58	ug/L	-117.58	ppb	15:14:44
1	Na 589.592 Radial†	-1100.4	-45.9	-10.688	ug/L	-10.688	ppb	15:14:24
1	Sr 421.552†	18.6	6.7	0.0382	ug/L	0.0382	ppb	15:14:24
1	Sc 361.383	982454.7	982454.7	100.52	%			15:15:41
1	Y 371.029	826250.8	826250.8	100.52	%			15:15:41
1	Ag 328.068†	436.4	-38.8	-0.1577	ug/L	-0.1577	ppb	15:15:46
1	As 188.979†	-27.1	-6.6	-2.4473	ug/L	-2.4473	ppb	15:16:06
1	B 249.677†	-212.3	329.6	6.6212	ug/L	6.6212	ppb	15:15:46
1	Ba 233.527†	-5.8	-15.3	-0.1046	ug/L	-0.1046	ppb	15:16:06
1	Be 313.107†	-4489.4	-24.7	-0.0078	ug/L	-0.0078	ppb	15:15:46
1	Cd 226.502†	-203.6	13.8	0.1355	ug/L	0.1355	ppb	15:16:06
1	Co 228.616†	-81.0	-6.3	-0.1124	ug/L	-0.1124	ppb	15:16:06
1	Cr 267.716†	108.1	19.0	0.1923	ug/L	0.1923	ppb	15:16:06
1	Cu 324.752†	6154.9	-86.4	-0.2344	ug/L	-0.2344	ppb	15:15:46
1	Mn 257.610†	472.7	-23.3	-0.0162	ug/L	-0.0162	ppb	15:16:06
1	Mo 202.031†	38.1	14.6	0.9072	ug/L	0.9072	ppb	15:16:06
1	Ni 231.604†	117.5	1.5	0.0340	ug/L	0.0340	ppb	15:16:06
1	P 214.914†	224.5	-2.4	-1.1985	ug/L	-1.1985	ppb	15:16:06
1	Pb 220.353†	-33.6	-10.0	-1.0809	ug/L	-1.0809	ppb	15:16:06
1	S 181.975 Axial†	46.3	-1.1	-1.2963	ug/L	-1.2963	ppb	15:16:06
1	Sb 206.836†	35.2	-6.9	-2.0646	ug/L	-2.0646	ppb	15:16:06
1	Se 196.026†	-16.5	12.5	7.0891	ug/L	7.0891	ppb	15:16:06
1	Si 251.611†	516.6	-16.6	-0.4768	ug/L	-0.4768	ppb	15:16:06
1	Sn 189.927†	2.1	-2.5	-0.3870	ug/L	-0.3870	ppb	15:16:06
1	Ti 334.940†	-1339.9	62.6	0.0938	ug/L	0.0938	ppb	15:15:46
1	Tl 190.801†	-39.3	-1.9	-0.4945	ug/L	-0.4945	ppb	15:16:06
1	U 409.014†	-1744.9	74.1	1.9643	ug/L	1.9643	ppb	15:15:41
1	V 292.402†	-1549.5	-87.3	-0.5232	ug/L	-0.5232	ppb	15:15:46
1	Zn 213.857†	765.4	-50.8	-0.4270	ug/L	-0.4270	ppb	15:16:06
1	SiO2†	524.4	-24.3	-1.4733	ug/L	-1.4733	ppb	15:17:12
2	Sc Radial	5687.4	5687.4	101	%			15:14:49
2	Y RADIAL	6006.0	6006.0	101.0	%			15:14:49
2	Al 396.153Radial†	-8.0	-4.5	-3.2463	ug/L	-3.2463	ppb	15:14:49
2	Ca 317.933Radial†	14.2	-10.8	-16.333	ug/L	-16.333	ppb	15:15:09
2	Fe 238.204 Radial†	14.4	1.9	15.183	ug/L	15.183	ppb	15:15:09
2	K 766.490 Radial†	2799.2	-141.2	-26.011	ug/L	-26.011	ppb	15:14:49
2	Mg 279.077 IEC†	-0.9	-3.4	-100.94	ug/L	-100.94	ppb	15:15:09
2	Na 589.592 Radial†	-1050.2	12.5	2.9085	ug/L	2.9085	ppb	15:14:49
2	Sr 421.552†	38.0	25.8	0.1472	ug/L	0.1472	ppb	15:14:49
2	Sc 361.383	976418.1	976418.1	99.905	%			15:16:11
2	Y 371.029	820289.9	820289.9	99.799	%			15:16:11
2	Ag 328.068†	456.4	-16.1	-0.0625	ug/L	-0.0625	ppb	15:16:16
2	As 188.979†	-20.3	-0.0	-0.0114	ug/L	-0.0114	ppb	15:16:36
2	B 249.677†	-241.1	299.4	6.0140	ug/L	6.0140	ppb	15:16:16
2	Ba 233.527†	0.9	-8.6	-0.0597	ug/L	-0.0597	ppb	15:16:36
2	Be 313.107†	-4459.2	-22.0	-0.0072	ug/L	-0.0072	ppb	15:16:16
2	Cd 226.502†	-217.6	-1.4	-0.0164	ug/L	-0.0164	ppb	15:16:36
2	Co 228.616†	-73.3	0.9	0.0164	ug/L	0.0164	ppb	15:16:36
2	Cr 267.716†	97.6	9.1	0.0927	ug/L	0.0927	ppb	15:16:36
2	Cu 324.752†	6050.6	-152.9	-0.4129	ug/L	-0.4129	ppb	15:16:16
2	Mn 257.610†	461.5	-31.7	-0.0252	ug/L	-0.0252	ppb	15:16:36
2	Mo 202.031†	23.8	0.5	0.0341	ug/L	0.0341	ppb	15:16:36
2	Ni 231.604†	99.5	-15.8	-0.3539	ug/L	-0.3539	ppb	15:16:36

2	P 214.914†	219.0	-6.5	-3.3020 ug/L	-3.3020 ppb	15:16:36
2	Pb 220.353†	-33.5	-10.1	-1.1013 ug/L	-1.1013 ppb	15:16:36
2	S 181.975 Axial†	50.2	3.1	3.7741 ug/L	3.7741 ppb	15:16:36
2	Sb 206.836†	34.9	-6.9	-2.0803 ug/L	-2.0803 ppb	15:16:36
2	Se 196.026†	-36.2	-7.3	-4.0399 ug/L	-4.0399 ppb	15:16:36
2	Si 251.611†	525.2	-4.8	-0.1340 ug/L	-0.1340 ppb	15:16:36
2	Sn 189.927†	8.7	4.2	0.6361 ug/L	0.6361 ppb	15:16:36
2	Ti 334.940†	-1408.0	-13.8	-0.0124 ug/L	-0.0124 ppb	15:16:16
2	Tl 190.801†	-28.9	8.3	2.2184 ug/L	2.2184 ppb	15:16:36
2	U 409.014†	-1869.1	-60.9	-1.6198 ug/L	-1.6198 ppb	15:16:11
2	V 292.402†	-1556.9	-104.2	-0.6452 ug/L	-0.6452 ppb	15:16:16
2	Zn 213.857†	760.7	-50.8	-0.4236 ug/L	-0.4236 ppb	15:16:36
2	SiO2†	533.1	-12.4	-0.7394 ug/L	-0.7394 ppb	15:17:17
3	Sc Radial	5604.1	5604.1	99.5 %		15:15:14
3	Y RADIAL	5877.4	5877.4	98.79 %		15:15:14
3	Al 396.153Radial†	1.0	4.5	3.2169 ug/L	3.2169 ppb	15:15:14
3	Ca 317.933Radial†	19.1	-5.6	-8.4982 ug/L	-8.4982 ppb	15:15:34
3	Fe 238.204 Radial†	13.8	1.5	12.029 ug/L	12.029 ppb	15:15:34
3	K 766.490 Radial†	3007.3	109.1	20.103 ug/L	20.103 ppb	15:15:14
3	Mg 279.077 IEC†	5.0	2.5	75.896 ug/L	75.896 ppb	15:15:34
3	Na 589.592 Radial†	-1188.2	-141.7	-32.988 ug/L	-32.988 ppb	15:15:14
3	Sr 421.552†	27.7	16.0	0.0913 ug/L	0.0913 ppb	15:15:14
3	Sc 361.383	977319.7	977319.7	99.997 %		15:16:41
3	Y 371.029	820914.0	820914.0	99.875 %		15:16:41
3	Ag 328.068†	431.7	-41.2	-0.1680 ug/L	-0.1680 ppb	15:16:46
3	As 188.979†	-23.2	-2.9	-1.0780 ug/L	-1.0780 ppb	15:17:06
3	B 249.677†	-206.6	334.2	6.7129 ug/L	6.7129 ppb	15:16:46
3	Ba 233.527†	3.8	-5.7	-0.0391 ug/L	-0.0391 ppb	15:17:06
3	Be 313.107†	-4431.9	9.3	0.0032 ug/L	0.0032 ppb	15:16:46
3	Cd 226.502†	-218.1	-1.7	-0.0184 ug/L	-0.0184 ppb	15:17:06
3	Co 228.616†	-61.1	13.2	0.2388 ug/L	0.2388 ppb	15:17:06
3	Cr 267.716†	98.8	10.3	0.1041 ug/L	0.1041 ppb	15:17:06
3	Cu 324.752†	6138.5	-70.6	-0.1914 ug/L	-0.1914 ppb	15:16:46
3	Mn 257.610†	467.5	-26.1	-0.0273 ug/L	-0.0273 ppb	15:17:06
3	Mo 202.031†	28.0	4.6	0.2890 ug/L	0.2890 ppb	15:17:06
3	Ni 231.604†	104.5	-10.8	-0.2427 ug/L	-0.2427 ppb	15:17:06
3	P 214.914†	221.5	-4.2	-2.1826 ug/L	-2.1826 ppb	15:17:06
3	Pb 220.353†	-30.2	-6.8	-0.7362 ug/L	-0.7362 ppb	15:17:06
3	S 181.975 Axial†	48.7	1.6	1.9567 ug/L	1.9567 ppb	15:17:06
3	Sb 206.836†	38.4	-3.5	-1.0548 ug/L	-1.0548 ppb	15:17:06
3	Se 196.026†	-26.7	2.2	1.2910 ug/L	1.2910 ppb	15:17:06
3	Si 251.611†	524.3	-6.2	-0.1776 ug/L	-0.1776 ppb	15:17:06
3	Sn 189.927†	0.2	-4.4	-0.6725 ug/L	-0.6725 ppb	15:17:06
3	Ti 334.940†	-1350.4	45.1	0.0547 ug/L	0.0547 ppb	15:16:46
3	Tl 190.801†	-31.0	6.3	1.6707 ug/L	1.6707 ppb	15:17:06
3	U 409.014†	-1767.8	42.1	1.1148 ug/L	1.1148 ppb	15:16:41
3	V 292.402†	-1507.7	-53.6	-0.3224 ug/L	-0.3224 ppb	15:16:46
3	Zn 213.857†	760.8	-51.4	-0.4297 ug/L	-0.4297 ppb	15:17:06
3	SiO2†	536.3	-9.7	-0.5854 ug/L	-0.5854 ppb	15:17:22

Mean Data: ICB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	978730.8	100.14	%	0.333				0.33%
Sc Radial	5644.7	100	%	0.7				0.74%
Y 371.029	822484.9	100.07	%	0.399				0.40%
Y RADIAL	5942.9	99.89	%	1.082				1.08%
Ag 328.068†	-32.1	-0.1294	ug/L	0.05816	-0.1294	ppb	0.05816	44.95%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	6.7	4.8140	ug/L	8.96619	4.8140	ppb	8.96619	186.25%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-3.2	-1.1789	ug/L	1.22108	-1.1789	ppb	1.22108	103.57%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	321.0	6.4494	ug/L	0.37982	6.4494	ppb	0.37982	5.89%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-9.9	-0.0678	ug/L	0.03353	-0.0678	ppb	0.03353	49.46%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-12.5	-0.0039	ug/L	0.00616	-0.0039	ppb	0.00616	156.23%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-8.4	-12.621	ug/L	3.9334	-12.621	ppb	3.9334	31.17%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                 3.6      0.0336 ug/L       0.08827      0.0336 ppb        0.08827 263.03%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                 2.6      0.0476 ug/L       0.17765      0.0476 ppb        0.17765 372.94%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                12.8      0.1297 ug/L       0.05447      0.1297 ppb        0.05447  42.00%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -103.3     -0.2796 ug/L       0.11744     -0.2796 ppb        0.11744  42.01%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          1.8      14.955 ug/L        2.8185      14.955 ppb         2.8185  18.85%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         -49.8     -9.1681 ug/L      25.44583     -9.1681 ppb       25.44583 277.55%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -1.6     -47.544 ug/L      107.2251     -47.544 ppb      107.2251 225.53%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               -27.0     -0.0229 ug/L       0.00591     -0.0229 ppb        0.00591  25.83%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 6.6      0.4101 ug/L       0.44895      0.4101 ppb        0.44895 109.48%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        -58.4     -13.589 ug/L       18.1232     -13.589 ppb       18.1232 133.36%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                -8.4     -0.1875 ug/L       0.19973     -0.1875 ppb        0.19973 106.50%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -4.3     -2.2277 ug/L       1.05246     -2.2277 ppb        1.05246  47.24%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -9.0     -0.9728 ug/L       0.20514     -0.9728 ppb        0.20514  21.09%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            1.2      1.4782 ug/L       2.56888      1.4782 ppb        2.56888 173.79%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                -5.8     -1.7332 ug/L       0.58761     -1.7332 ppb        0.58761  33.90%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 2.5      1.4467 ug/L       5.56612      1.4467 ppb        5.56612 384.74%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                -9.2     -0.2628 ug/L       0.18662     -0.2628 ppb        0.18662  71.02%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                -0.9     -0.1412 ug/L       0.68807     -0.1412 ppb        0.68807 487.44%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                16.2      0.0922 ug/L       0.05449      0.0922 ppb        0.05449  59.08%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                31.3      0.0453 ug/L       0.05371      0.0453 ppb        0.05371 118.46%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 4.2      1.1315 ug/L       1.43455      1.1315 ppb        1.43455 126.78%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 18.4      0.4864 ug/L       1.87288      0.4864 ppb        1.87288 385.04%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                -81.7     -0.4969 ug/L       0.16303     -0.4969 ppb        0.16303  32.81%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               -51.0     -0.4268 ug/L       0.00304     -0.4268 ppb        0.00304   0.71%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                     -15.5     -0.9327 ug/L       0.47445     -0.9327 ppb        0.47445  50.87%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 8
Sample ID: PQL
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 11
Date Collected: 1/19/2010 15:19:33
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: PQL

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	5689.5	5689.5	101	%			15:21:26
1	Y RADIAL	5987.5	5987.5	100.6	%			15:21:26
1	Al 396.153Radial†	246.1	247.0	178.34	ug/L	178.34	ppb	15:21:26
1	Ca 317.933Radial†	158.8	132.3	199.85	ug/L	199.85	ppb	15:21:46
1	Fe 238.204 Radial†	23.1	10.5	84.875	ug/L	84.875	ppb	15:21:46
1	K 766.490 Radial†	3646.9	696.6	128.11	ug/L	128.11	ppb	15:21:26
1	Mg 279.077 IEC†	11.1	8.5	252.42	ug/L	252.42	ppb	15:21:46
1	Na 589.592 Radial†	199.0	1249.2	290.83	ug/L	290.83	ppb	15:21:26
1	Sr 421.552†	896.7	875.7	4.9870	ug/L	4.9870	ppb	15:21:26
1	Sc 361.383	898180.9	898180.9	91.900	%			15:22:43
1	Y 371.029	792857.6	792857.6	96.461	%			15:22:43
1	Ag 328.068†	1621.4	1291.3	5.3123	ug/L	5.3123	ppb	15:22:43
1	As 188.979†	57.8	83.3	30.768	ug/L	30.768	ppb	15:23:03
1	B 249.677†	2093.0	2818.2	56.606	ug/L	56.606	ppb	15:22:43
1	Ba 233.527†	783.3	842.8	5.7421	ug/L	5.7421	ppb	15:23:03
1	Be 313.107†	11185.2	16612.5	5.4005	ug/L	5.4005	ppb	15:22:43
1	Cd 226.502†	297.0	539.6	5.3443	ug/L	5.3443	ppb	15:23:03
1	Co 228.616†	211.2	304.0	5.5280	ug/L	5.5280	ppb	15:23:03
1	Cr 267.716†	559.0	519.7	5.2909	ug/L	5.2909	ppb	15:23:03
1	Cu 324.752†	9922.7	4588.0	12.415	ug/L	12.415	ppb	15:22:43
1	Mn 257.610†	11295.6	11797.6	11.480	ug/L	11.480	ppb	15:22:43
1	Mo 202.031†	201.5	195.9	12.164	ug/L	12.164	ppb	15:23:03
1	Ni 231.604†	328.8	242.4	5.4350	ug/L	5.4350	ppb	15:23:03
1	P 214.914†	511.7	331.1	170.90	ug/L	170.90	ppb	15:23:03
1	Pb 220.353†	51.1	79.0	8.6246	ug/L	8.6246	ppb	15:23:03
1	S 181.975 Axial†	133.1	97.8	118.51	ug/L	118.51	ppb	15:23:03
1	Sb 206.836†	71.5	35.9	11.244	ug/L	11.244	ppb	15:23:03
1	Se 196.026†	13.8	44.0	25.110	ug/L	25.110	ppb	15:23:03
1	Si 251.611†	4120.1	3952.7	110.85	ug/L	110.85	ppb	15:22:43
1	Sn 189.927†	78.1	80.4	12.386	ug/L	12.386	ppb	15:23:03
1	Ti 334.940†	2292.7	3890.3	5.3759	ug/L	5.3759	ppb	15:22:43
1	Tl 190.801†	48.0	89.5	23.937	ug/L	23.937	ppb	15:23:03
1	U 409.014†	218.7	2047.8	54.346	ug/L	54.346	ppb	15:22:43
1	V 292.402†	-674.3	720.4	4.6758	ug/L	4.6758	ppb	15:22:43
1	Zn 213.857†	1991.9	1355.2	11.284	ug/L	11.284	ppb	15:23:03
1	SiO2†	4147.4	3967.0	236.26	ug/L	236.26	ppb	15:23:59
2	Sc Radial	5762.7	5762.7	102	%			15:21:51
2	Y RADIAL	6073.9	6073.9	102.1	%			15:21:51
2	Al 396.153Radial†	279.3	276.4	199.63	ug/L	199.63	ppb	15:21:51
2	Ca 317.933Radial†	155.0	126.6	191.25	ug/L	191.25	ppb	15:22:11
2	Fe 238.204 Radial†	23.9	11.0	89.063	ug/L	89.063	ppb	15:22:11
2	K 766.490 Radial†	3754.7	756.1	139.08	ug/L	139.08	ppb	15:21:51
2	Mg 279.077 IEC†	13.2	10.5	311.95	ug/L	311.95	ppb	15:22:11
2	Na 589.592 Radial†	169.0	1217.4	283.41	ug/L	283.41	ppb	15:21:51
2	Sr 421.552†	895.8	863.5	4.9178	ug/L	4.9178	ppb	15:21:51
2	Sc 361.383	899795.5	899795.5	92.065	%			15:23:08
2	Y 371.029	792381.2	792381.2	96.403	%			15:23:08
2	Ag 328.068†	1645.9	1314.9	5.4132	ug/L	5.4132	ppb	15:23:08
2	As 188.979†	53.2	78.1	28.873	ug/L	28.873	ppb	15:23:28
2	B 249.677†	2152.8	2879.1	57.829	ug/L	57.829	ppb	15:23:08
2	Ba 233.527†	771.6	828.6	5.6450	ug/L	5.6450	ppb	15:23:28
2	Be 313.107†	11113.2	16512.4	5.3679	ug/L	5.3679	ppb	15:23:08
2	Cd 226.502†	295.1	536.9	5.3165	ug/L	5.3165	ppb	15:23:28
2	Co 228.616†	199.4	290.9	5.2860	ug/L	5.2860	ppb	15:23:28
2	Cr 267.716†	570.5	531.1	5.4084	ug/L	5.4084	ppb	15:23:28
2	Cu 324.752†	9971.6	4621.7	12.509	ug/L	12.509	ppb	15:23:08
2	Mn 257.610†	11316.3	11798.0	11.479	ug/L	11.479	ppb	15:23:08
2	Mo 202.031†	182.0	174.3	10.823	ug/L	10.823	ppb	15:23:28
2	Ni 231.604†	348.4	263.1	5.8986	ug/L	5.8986	ppb	15:23:28

2	P 214.914†	519.2	338.2	174.60 ug/L	174.60 ppb	15:23:28
2	Pb 220.353†	69.1	98.5	10.739 ug/L	10.739 ppb	15:23:28
2	S 181.975 Axial†	132.8	97.1	117.70 ug/L	117.70 ppb	15:23:28
2	Sb 206.836†	67.4	31.3	9.8117 ug/L	9.8117 ppb	15:23:28
2	Se 196.026†	22.8	53.7	30.616 ug/L	30.616 ppb	15:23:28
2	Si 251.611†	4165.3	3993.8	112.02 ug/L	112.02 ppb	15:23:08
2	Sn 189.927†	72.7	74.4	11.472 ug/L	11.472 ppb	15:23:28
2	Ti 334.940†	2235.7	3823.9	5.2797 ug/L	5.2797 ppb	15:23:08
2	Tl 190.801†	43.1	84.1	22.491 ug/L	22.491 ppb	15:23:28
2	U 409.014†	65.6	1881.2	49.922 ug/L	49.922 ppb	15:23:08
2	V 292.402†	-712.7	680.1	4.4015 ug/L	4.4015 ppb	15:23:08
2	Zn 213.857†	1974.1	1332.1	11.087 ug/L	11.087 ppb	15:23:28
2	SiO2†	4117.7	3926.7	233.90 ug/L	233.90 ppb	15:24:04
3	Sc Radial	5610.2	5610.2	99.6 %		15:22:16
3	Y RADIAL	5905.4	5905.4	99.26 %		15:22:16
3	Al 396.153Radial†	261.6	266.0	192.12 ug/L	192.12 ppb	15:22:16
3	Ca 317.933Radial†	161.8	137.6	207.83 ug/L	207.83 ppb	15:22:36
3	Fe 238.204 Radial†	26.4	14.2	114.73 ug/L	114.73 ppb	15:22:36
3	K 766.490 Radial†	3661.8	762.6	140.27 ug/L	140.27 ppb	15:22:16
3	Mg 279.077 IEC†	11.0	8.6	255.52 ug/L	255.52 ppb	15:22:36
3	Na 589.592 Radial†	187.6	1240.6	288.81 ug/L	288.81 ppb	15:22:16
3	Sr 421.552†	890.7	882.2	5.0243 ug/L	5.0243 ppb	15:22:16
3	Sc 361.383	902348.3	902348.3	92.326 %		15:23:34
3	Y 371.029	796516.3	796516.3	96.906 %		15:23:34
3	Ag 328.068†	1773.2	1447.7	5.9661 ug/L	5.9661 ppb	15:23:34
3	As 188.979†	57.4	82.4	30.475 ug/L	30.475 ppb	15:23:54
3	B 249.677†	2161.2	2881.6	57.876 ug/L	57.876 ppb	15:23:34
3	Ba 233.527†	779.3	834.6	5.6868 ug/L	5.6868 ppb	15:23:54
3	Be 313.107†	11102.4	16466.6	5.3526 ug/L	5.3526 ppb	15:23:34
3	Cd 226.502†	295.9	536.9	5.3140 ug/L	5.3140 ppb	15:23:54
3	Co 228.616†	203.6	294.7	5.3566 ug/L	5.3566 ppb	15:23:54
3	Cr 267.716†	586.7	546.9	5.5688 ug/L	5.5688 ppb	15:23:54
3	Cu 324.752†	9921.1	4536.4	12.277 ug/L	12.277 ppb	15:23:34
3	Mn 257.610†	11349.9	11799.6	11.485 ug/L	11.485 ppb	15:23:34
3	Mo 202.031†	186.5	178.7	11.098 ug/L	11.098 ppb	15:23:54
3	Ni 231.604†	349.8	263.6	5.9093 ug/L	5.9093 ppb	15:23:54
3	P 214.914†	510.3	327.0	168.75 ug/L	168.75 ppb	15:23:54
3	Pb 220.353†	62.7	91.3	9.9640 ug/L	9.9640 ppb	15:23:54
3	S 181.975 Axial†	131.9	95.7	116.02 ug/L	116.02 ppb	15:23:54
3	Sb 206.836†	63.7	27.1	8.5699 ug/L	8.5699 ppb	15:23:54
3	Se 196.026†	31.8	63.4	36.153 ug/L	36.153 ppb	15:23:54
3	Si 251.611†	4173.2	3989.5	111.90 ug/L	111.90 ppb	15:23:34
3	Sn 189.927†	77.0	78.9	12.159 ug/L	12.159 ppb	15:23:54
3	Ti 334.940†	2143.0	3716.6	5.1363 ug/L	5.1363 ppb	15:23:34
3	Tl 190.801†	45.3	86.3	23.084 ug/L	23.084 ppb	15:23:54
3	U 409.014†	178.5	2003.2	53.158 ug/L	53.158 ppb	15:23:34
3	V 292.402†	-680.2	717.4	4.6357 ug/L	4.6357 ppb	15:23:34
3	Zn 213.857†	1985.3	1338.1	11.135 ug/L	11.135 ppb	15:23:54
3	SiO2†	4147.4	3946.2	235.05 ug/L	235.05 ppb	15:24:09

Mean Data: PQL

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	900108.2	92.097	%	0.2150				0.23%
Sc Radial	5687.5	101	%	1.4				1.34%
Y 371.029	793918.4	96.590	%	0.2753				0.28%
Y RADIAL	5988.9	100.7	%	1.42				1.41%
Ag 328.068†	1351.3	5.5639	ug/L	0.35198	5.5639	ppb	0.35198	6.33%
QC value within limits for Ag 328.068 Recovery = 111.28%								
Al 396.153Radial†	263.1	190.03	ug/L	10.798	190.03	ppb	10.798	5.68%
QC value within limits for Al 396.153Radial Recovery = 95.01%								
As 188.979†	81.3	30.039	ug/L	1.0199	30.039	ppb	1.0199	3.40%
QC value within limits for As 188.979 Recovery = 100.13%								
B 249.677†	2859.6	57.437	ug/L	0.7200	57.437	ppb	0.7200	1.25%
QC value within limits for B 249.677 Recovery = 114.87%								
Ba 233.527†	835.3	5.6913	ug/L	0.04871	5.6913	ppb	0.04871	0.86%
QC value within limits for Ba 233.527 Recovery = 113.83%								
Be 313.107†	16530.5	5.3737	ug/L	0.02446	5.3737	ppb	0.02446	0.46%
QC value within limits for Be 313.107 Recovery = 107.47%								
Ca 317.933Radial†	132.2	199.64	ug/L	8.289	199.64	ppb	8.289	4.15%

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   QC value within limits for Ca 317.933Radial  Recovery = 99.82%
Cd 226.502†              537.8      5.3249 ug/L       0.01679      5.3249 ppb        0.01679   0.32%
   QC value within limits for Cd 226.502  Recovery = 106.50%
Co 228.616†              296.6      5.3902 ug/L       0.12445      5.3902 ppb        0.12445   2.31%
   QC value within limits for Co 228.616  Recovery = 107.80%
Cr 267.716†              532.6      5.4227 ug/L       0.13953      5.4227 ppb        0.13953   2.57%
   QC value within limits for Cr 267.716  Recovery = 108.45%
Cu 324.752†             4582.0      12.401 ug/L        0.1167      12.401 ppb         0.1167   0.94%
   QC value within limits for Cu 324.752  Recovery = 124.01%
Fe 238.204 Radial†        11.9      96.222 ug/L       16.1621      96.222 ppb        16.1621  16.80%
   QC value within limits for Fe 238.204 Radial  Recovery = 96.22%
K 766.490 Radial†        738.5      135.82 ug/L         6.704      135.82 ppb          6.704   4.94%
   QC value within limits for K 766.490 Radial  Recovery = 90.55%
Mg 279.077 IEC†           9.2      273.30 ug/L        33.514      273.30 ppb         33.514  12.26%
   QC value within limits for Mg 279.077 IEC  Recovery = 91.10%
Mn 257.610†            11798.4      11.481 ug/L        0.0033      11.481 ppb         0.0033   0.03%
   QC value within limits for Mn 257.610  Recovery = 114.81%
Mo 202.031†              183.0      11.362 ug/L        0.7082      11.362 ppb         0.7082   6.23%
   QC value within limits for Mo 202.031  Recovery = 113.62%
Na 589.592 Radial†      1235.7      287.68 ug/L         3.837      287.68 ppb          3.837   1.33%
   QC value within limits for Na 589.592 Radial  Recovery = 95.89%
Ni 231.604†              256.4      5.7476 ug/L       0.27083      5.7476 ppb        0.27083   4.71%
   QC value within limits for Ni 231.604  Recovery = 114.95%
P 214.914†               332.1      171.42 ug/L         2.959      171.42 ppb          2.959   1.73%
   QC value within limits for P 214.914  Recovery = 114.28%
Pb 220.353†               89.6      9.7759 ug/L       1.06978      9.7759 ppb        1.06978  10.94%
   QC value within limits for Pb 220.353  Recovery = 97.76%
S 181.975 Axial†          96.8      117.41 ug/L         1.274      117.41 ppb          1.274   1.08%
   QC value within limits for S 181.975 Axial  Recovery = 117.41%
Sb 206.836†               31.4      9.8751 ug/L       1.33801      9.8751 ppb        1.33801  13.55%
   QC value within limits for Sb 206.836  Recovery = 98.75%
Se 196.026†               53.7      30.626 ug/L        5.5217      30.626 ppb         5.5217  18.03%
   QC value within limits for Se 196.026  Recovery = 102.09%
Si 251.611†             3978.7      111.59 ug/L         0.643      111.59 ppb          0.643   0.58%
   QC value within limits for Si 251.611  Recovery = 111.59%
Sn 189.927†               77.9      12.005 ug/L        0.4757      12.005 ppb         0.4757   3.96%
   QC value within limits for Sn 189.927  Recovery = 120.05%
Sr 421.552†              873.8      4.9764 ug/L       0.05406      4.9764 ppb        0.05406   1.09%
   QC value within limits for Sr 421.552  Recovery = 99.53%
Ti 334.940†             3810.3      5.2640 ug/L       0.12059      5.2640 ppb        0.12059   2.29%
   QC value within limits for Ti 334.940  Recovery = 105.28%
Tl 190.801†               86.6      23.171 ug/L        0.7270      23.171 ppb         0.7270   3.14%
   QC value within limits for Tl 190.801  Recovery = 115.86%
U 409.014†              1977.4      52.475 ug/L        2.2900      52.475 ppb         2.2900   4.36%
   QC value within limits for U 409.014  Recovery = 104.95%
V 292.402†               706.0      4.5710 ug/L       0.14811      4.5710 ppb        0.14811   3.24%
   QC value within limits for V 292.402  Recovery = 91.42%
Zn 213.857†             1341.8      11.169 ug/L        0.1030      11.169 ppb         0.1030   0.92%
   QC value within limits for Zn 213.857  Recovery = 111.69%
SiO2†                   3946.6      235.07 ug/L         1.184      235.07 ppb          1.184   0.50%
   QC value within limits for SiO2  Recovery = 110.36%
All analyte(s) passed QC.
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Sequence No.: 9
Sample ID: ICSA
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 13
Date Collected: 1/19/2010 15:26:19
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSA

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4904.7	4904.7	87.1	%			15:28:19
1	Y RADIAL	5107.6	5107.6	85.85	%			15:28:19
1	Al 396.153Radial†	646888.6	742683.4	537900	ug/L	537900	ppb	15:28:14
1	Ca 317.933Radial†	288776.5	331513.7	500750	ug/L	500750	ppb	15:28:14
1	Fe 238.204 Radial†	20127.7	23095.9	186960	ug/L	186960	ppb	15:28:19
1	K 766.490 Radial†	2428.6	-124.5	-190.43	ug/L	-190.43	ppb	15:28:14
1	Mg 279.077 IEC†	14434.4	16569.3	494130	ug/L	494130	ppb	15:28:19
1	Na 589.592 Radial†	-823.2	107.2	24.950	ug/L	24.950	ppb	15:28:19
1	Sr 421.552†	564.4	636.1	-0.1152	ug/L	-0.1152	ppb	15:28:19
1	Sc 361.383	819339.4	819339.4	83.833	%			15:28:46
1	Y 371.029	673993.8	673993.8	82.000	%			15:28:46
1	Ag 328.068†	-11002.7	-13597.5	-2.1776	ug/L	-2.1776	ppb	15:28:46
1	As 188.979†	-85.1	-81.1	13.670	ug/L	13.670	ppb	15:29:06
1	B 249.677†	417.2	1038.4	-9.4976	ug/L	-9.4976	ppb	15:28:46
1	Ba 233.527†	-642.4	-775.8	0.4500	ug/L	0.4500	ppb	15:29:06
1	Be 313.107†	-4281.9	-666.3	-0.2742	ug/L	-0.2742	ppb	15:28:46
1	Cd 226.502†	1391.1	1875.7	-0.7452	ug/L	-0.7452	ppb	15:29:06
1	Co 228.616†	-10.8	61.3	-1.5772	ug/L	-1.5772	ppb	15:29:06
1	Cr 267.716†	-113.4	-223.9	1.3589	ug/L	1.3589	ppb	15:29:06
1	Cu 324.752†	2592.4	-3116.9	1.4265	ug/L	1.4265	ppb	15:28:46
1	Mn 257.610†	-564.2	-1166.6	-2.8812	ug/L	-2.8812	ppb	15:28:46
1	Mo 202.031†	-216.5	-281.6	3.0016	ug/L	3.0016	ppb	15:29:06
1	Ni 231.604†	221.7	149.2	3.3453	ug/L	3.3453	ppb	15:29:06
1	P 214.914†	176.9	-14.7	-23.132	ug/L	-23.132	ppb	15:29:06
1	Pb 220.353†	-884.4	-1031.6	-5.4427	ug/L	-5.4427	ppb	15:29:06
1	S 181.975 Axial†	74.9	42.2	-49.602	ug/L	-49.602	ppb	15:29:06
1	Sb 206.836†	60.7	30.5	-1.9169	ug/L	-1.9169	ppb	15:29:06
1	Se 196.026†	-1096.8	-1279.3	14.550	ug/L	14.550	ppb	15:29:06
1	Si 251.611†	467.5	27.1	0.9767	ug/L	0.9767	ppb	15:29:06
1	Sn 189.927†	-367.9	-443.4	11.068	ug/L	11.068	ppb	15:29:06
1	Ti 334.940†	-16642.1	-18455.9	1.1776	ug/L	1.1776	ppb	15:28:46
1	Tl 190.801†	-86.3	-65.6	-17.755	ug/L	-17.755	ppb	15:29:06
1	U 409.014†	-506.7	1205.5	10.696	ug/L	10.696	ppb	15:28:46
1	V 292.402†	989.8	2634.8	-1.6938	ug/L	-1.6938	ppb	15:29:06
1	Zn 213.857†	3396.2	3239.0	8.9656	ug/L	8.9656	ppb	15:29:06
1	SiO2†	432.7	-29.8	-1.3027	ug/L	-1.3027	ppb	15:30:02
2	Sc Radial	5004.5	5004.5	88.9	%			15:28:29
2	Y RADIAL	5216.0	5216.0	87.68	%			15:28:29
2	Al 396.153Radial†	653724.8	735569.3	532750	ug/L	532750	ppb	15:28:24
2	Ca 317.933Radial†	291101.4	327520.1	494710	ug/L	494710	ppb	15:28:24
2	Fe 238.204 Radial†	20457.3	23006.1	186240	ug/L	186240	ppb	15:28:29
2	K 766.490 Radial†	2418.8	-191.1	-200.67	ug/L	-200.67	ppb	15:28:24
2	Mg 279.077 IEC†	14685.7	16521.8	492710	ug/L	492710	ppb	15:28:29
2	Na 589.592 Radial†	-834.9	112.9	26.277	ug/L	26.277	ppb	15:28:29
2	Sr 421.552†	586.6	648.2	-0.0010	ug/L	-0.0010	ppb	15:28:29
2	Sc 361.383	816765.9	816765.9	83.570	%			15:29:11
2	Y 371.029	673481.5	673481.5	81.938	%			15:29:11
2	Ag 328.068†	-10677.7	-13250.0	-0.8938	ug/L	-0.8938	ppb	15:29:11
2	As 188.979†	-100.7	-100.1	6.4870	ug/L	6.4870	ppb	15:29:31
2	B 249.677†	371.7	985.6	-10.440	ug/L	-10.440	ppb	15:29:11
2	Ba 233.527†	-669.0	-810.0	0.1953	ug/L	0.1953	ppb	15:29:31
2	Be 313.107†	-4274.6	-673.6	-0.2767	ug/L	-0.2767	ppb	15:29:11
2	Cd 226.502†	1377.0	1864.1	-0.7866	ug/L	-0.7866	ppb	15:29:31
2	Co 228.616†	-16.6	54.4	-1.6941	ug/L	-1.6941	ppb	15:29:31
2	Cr 267.716†	-138.4	-254.2	1.0393	ug/L	1.0393	ppb	15:29:31
2	Cu 324.752†	2702.0	-2976.1	1.7750	ug/L	1.7750	ppb	15:29:11
2	Mn 257.610†	-641.3	-1260.9	-2.9868	ug/L	-2.9868	ppb	15:29:11
2	Mo 202.031†	-230.2	-298.8	1.8033	ug/L	1.8033	ppb	15:29:31
2	Ni 231.604†	243.8	176.4	3.9567	ug/L	3.9567	ppb	15:29:31

2	P 214.914†	187.7	-1.1	-16.822	ug/L	-16.822 ppb	15:29:31
2	Pb 220.353†	-843.2	-985.6	-1.6026	ug/L	-1.6026 ppb	15:29:31
2	S 181.975 Axial†	70.5	37.2	-54.710	ug/L	-54.710 ppb	15:29:31
2	Sb 206.836†	68.3	39.8	0.9435	ug/L	0.9435 ppb	15:29:31
2	Se 196.026†	-1068.5	-1249.6	27.994	ug/L	27.994 ppb	15:29:31
2	Si 251.611†	482.0	46.3	1.5289	ug/L	1.5289 ppb	15:29:31
2	Sn 189.927†	-385.3	-465.6	6.7355	ug/L	6.7355 ppb	15:29:31
2	Ti 334.940†	-16616.6	-18488.0	0.4442	ug/L	0.4442 ppb	15:29:11
2	Tl 190.801†	-80.6	-59.2	-16.044	ug/L	-16.044 ppb	15:29:31
2	U 409.014†	-798.4	854.6	1.4627	ug/L	1.4627 ppb	15:29:11
2	V 292.402†	978.6	2625.1	-1.7075	ug/L	-1.7075 ppb	15:29:31
2	Zn 213.857†	3403.9	3260.9	9.2150	ug/L	9.2150 ppb	15:29:31
2	SiO2†	524.0	81.0	5.3384	ug/L	5.3384 ppb	15:30:07
3	Sc Radial	4923.0	4923.0	87.4	%		15:28:39
3	Y RADIAL	5148.7	5148.7	86.54	%		15:28:39
3	Al 396.153Radial†	635968.2	727430.5	526860	ug/L	526860 ppb	15:28:34
3	Ca 317.933Radial†	283991.7	324807.8	490620	ug/L	490620 ppb	15:28:34
3	Fe 238.204 Radial†	20199.6	23092.2	186930	ug/L	186930 ppb	15:28:39
3	K 766.490 Radial†	2430.1	-133.2	-188.63	ug/L	-188.63 ppb	15:28:34
3	Mg 279.077 IEC†	14483.2	16563.5	493950	ug/L	493950 ppb	15:28:39
3	Na 589.592 Radial†	-863.3	64.8	15.079	ug/L	15.079 ppb	15:28:39
3	Sr 421.552†	587.9	660.5	0.0996	ug/L	0.0996 ppb	15:28:39
3	Sc 361.383	813200.2	813200.2	83.205	%		15:29:37
3	Y 371.029	670972.5	670972.5	81.632	%		15:29:37
3	Ag 328.068†	-10712.5	-13347.8	-1.0140	ug/L	-1.0140 ppb	15:29:37
3	As 188.979†	-95.0	-93.8	8.9796	ug/L	8.9796 ppb	15:29:57
3	B 249.677†	399.8	1021.3	-9.8378	ug/L	-9.8378 ppb	15:29:37
3	Ba 233.527†	-627.2	-763.2	0.5346	ug/L	0.5346 ppb	15:29:57
3	Be 313.107†	-4358.8	-797.2	-0.3165	ug/L	-0.3165 ppb	15:29:37
3	Cd 226.502†	1361.4	1852.6	-0.9723	ug/L	-0.9723 ppb	15:29:57
3	Co 228.616†	26.8	106.4	-0.7633	ug/L	-0.7633 ppb	15:29:57
3	Cr 267.716†	-52.4	-151.5	2.1007	ug/L	2.1007 ppb	15:29:57
3	Cu 324.752†	2646.7	-3028.4	1.6704	ug/L	1.6704 ppb	15:29:37
3	Mn 257.610†	-652.9	-1278.2	-2.9858	ug/L	-2.9858 ppb	15:29:37
3	Mo 202.031†	-235.3	-306.1	1.3544	ug/L	1.3544 ppb	15:29:57
3	Ni 231.604†	250.1	185.3	4.1554	ug/L	4.1554 ppb	15:29:57
3	P 214.914†	180.8	-8.4	-22.618	ug/L	-22.618 ppb	15:29:57
3	Pb 220.353†	-865.3	-1016.5	-6.3599	ug/L	-6.3599 ppb	15:29:57
3	S 181.975 Axial†	86.5	56.8	-29.879	ug/L	-29.879 ppb	15:29:57
3	Sb 206.836†	50.6	18.9	-5.1672	ug/L	-5.1672 ppb	15:29:57
3	Se 196.026†	-1090.6	-1281.8	11.505	ug/L	11.505 ppb	15:29:57
3	Si 251.611†	459.4	21.7	0.8433	ug/L	0.8433 ppb	15:29:57
3	Sn 189.927†	-374.1	-454.2	7.8706	ug/L	7.8706 ppb	15:29:57
3	Ti 334.940†	-16463.4	-18391.0	-0.0726	ug/L	-0.0726 ppb	15:29:37
3	Tl 190.801†	-91.5	-72.7	-19.655	ug/L	-19.655 ppb	15:29:57
3	U 409.014†	-813.2	832.5	0.7958	ug/L	0.7958 ppb	15:29:37
3	V 292.402†	997.6	2653.2	-1.6210	ug/L	-1.6210 ppb	15:29:57
3	Zn 213.857†	3406.1	3281.5	9.3187	ug/L	9.3187 ppb	15:29:57
3	SiO2†	469.9	18.7	1.6352	ug/L	1.6352 ppb	15:30:12

Mean Data: ICSA

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	816435.2	83.536	%	0.3154				0.38%
Sc Radial	4944.1	87.8	%	0.94				1.07%
Y 371.029	672815.9	81.857	%	0.1967				0.24%
Y RADIAL	5157.4	86.69	%	0.920				1.06%
Ag 328.068†	-13398.4	-1.3618	ug/L	0.70907	-1.3618	ppb	0.70907	52.07%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	735227.7	532500	ug/L	5527.7	532500	ppb	5527.7	1.04%
QC value within limits for Al 396.153Radial Recovery = 106.50%								
As 188.979†	-91.7	9.7121	ug/L	3.64693	9.7121	ppb	3.64693	37.55%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	1015.1	-9.9252	ug/L	0.47730	-9.9252	ppb	0.47730	4.81%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-783.0	0.3933	ug/L	0.17661	0.3933	ppb	0.17661	44.91%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-712.4	-0.2891	ug/L	0.02372	-0.2891	ppb	0.02372	8.20%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	327947.2	495360	ug/L	5095.3	495360	ppb	5095.3	1.03%

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   QC value within limits for Ca 317.933Radial  Recovery = 99.07%
Cd 226.502†            1864.1     -0.8347 ug/L       0.12092     -0.8347 ppb        0.12092  14.49%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†              74.1     -1.3448 ug/L       0.50702     -1.3448 ppb        0.50702  37.70%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†            -209.9      1.4996 ug/L       0.54449      1.4996 ppb        0.54449  36.31%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†           -3040.5      1.6240 ug/L       0.17885      1.6240 ppb        0.17885  11.01%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†    23064.7      186710 ug/L         411.4      186710 ppb          411.4   0.22%
   QC value within limits for Fe 238.204 Radial  Recovery = 93.35%
K 766.490 Radial†      -149.6     -193.25 ug/L         6.494     -193.25 ppb          6.494   3.36%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†       16551.5      493600 ug/L         773.7      493600 ppb          773.7   0.16%
   QC value within limits for Mg 279.077 IEC  Recovery = 98.72%
Mn 257.610†           -1235.2     -2.9512 ug/L       0.06069     -2.9512 ppb        0.06069   2.06%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†            -295.5      2.0531 ug/L       0.85155      2.0531 ppb        0.85155  41.48%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       94.9      22.102 ug/L        6.1181      22.102 ppb         6.1181  27.68%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†             170.3      3.8191 ug/L       0.42223      3.8191 ppb        0.42223  11.06%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -8.1     -20.857 ug/L        3.5043     -20.857 ppb         3.5043  16.80%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†           -1011.2     -4.4684 ug/L       2.52385     -4.4684 ppb        2.52385  56.48%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         45.4     -44.730 ug/L       13.1128     -44.730 ppb        13.1128  29.32%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              29.7     -2.0469 ug/L       3.05740     -2.0469 ppb        3.05740 149.37%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†           -1270.2      18.016 ug/L        8.7738      18.016 ppb         8.7738  48.70%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†              31.7      1.1163 ug/L       0.36350      1.1163 ppb        0.36350  32.56%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†            -454.4      8.5579 ug/L       2.24630      8.5579 ppb        2.24630  26.25%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             648.3     -0.0056 ug/L       0.10748     -0.0056 ppb        0.10748 >999.9%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†          -18445.0      0.5164 ug/L       0.62825      0.5164 ppb        0.62825 121.66%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†             -65.9     -17.818 ug/L        1.8063     -17.818 ppb         1.8063  10.14%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              964.2      4.3182 ug/L       5.53336      4.3182 ppb        5.53336 128.14%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†             2637.7     -1.6741 ug/L       0.04652     -1.6741 ppb        0.04652   2.78%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†            3260.4      9.1664 ug/L       0.18150      9.1664 ppb        0.18150   1.98%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                    23.3      1.8903 ug/L       3.32791      1.8903 ppb        3.32791 176.05%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 10
Sample ID: ICSAB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 14
Date Collected: 1/19/2010 15:32:24
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSAB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	5014.8	5014.8	89.1	%			15:34:21
1	Y RADIAL	5246.2	5246.2	88.18	%			15:34:21
1	Al 396.153Radial†	634525.8	712495.4	516020	ug/L	516020	ppb	15:34:16
1	Ca 317.933Radial†	283576.5	318395.6	480930	ug/L	480930	ppb	15:34:16
1	Fe 238.204 Radial†	20671.0	23198.5	187810	ug/L	187810	ppb	15:34:21
1	K 766.490 Radial†	28104.6	28645.1	5112.3	ug/L	5112.3	ppb	15:34:16
1	Mg 279.077 IEC†	14649.7	16447.2	490490	ug/L	490490	ppb	15:34:21
1	Na 589.592 Radial†	20003.4	23513.5	5474.0	ug/L	5474.0	ppb	15:34:21
1	Sr 421.552†	78910.8	88594.9	501.12	ug/L	501.12	ppb	15:34:16
1	Sc 361.383	836874.1	836874.1	85.627	%			15:34:49
1	Y 371.029	689312.4	689312.4	83.864	%			15:34:49
1	Ag 328.068†	46905.2	54305.6	279.48	ug/L	279.48	ppb	15:34:49
1	As 188.979†	1094.3	1298.3	526.25	ug/L	526.25	ppb	15:35:09
1	B 249.677†	23107.3	27526.8	521.41	ug/L	521.41	ppb	15:34:49
1	Ba 233.527†	62710.5	73227.3	504.70	ug/L	504.70	ppb	15:34:49
1	Be 313.107†	655555.2	770035.4	250.87	ug/L	250.87	ppb	15:34:49
1	Cd 226.502†	43264.3	50742.9	483.04	ug/L	483.04	ppb	15:34:49
1	Co 228.616†	21167.3	24794.6	446.86	ug/L	446.86	ppb	15:35:09
1	Cr 267.716†	41515.6	48395.7	498.12	ug/L	498.12	ppb	15:34:49
1	Cu 324.752†	181603.3	205877.2	567.90	ug/L	567.90	ppb	15:34:49
1	Mn 257.610†	429953.5	501630.2	486.70	ug/L	486.70	ppb	15:34:49
1	Mo 202.031†	6529.7	7602.4	491.99	ug/L	491.99	ppb	15:35:09
1	Ni 231.604†	17467.4	20284.1	454.76	ug/L	454.76	ppb	15:35:09
1	P 214.914†	4392.8	4904.5	2437.3	ug/L	2437.3	ppb	15:35:09
1	Pb 220.353†	2818.8	3315.4	461.89	ug/L	461.89	ppb	15:35:09
1	S 181.975 Axial†	1949.3	2229.4	2606.8	ug/L	2606.8	ppb	15:35:09
1	Sb 206.836†	1529.0	1743.7	532.43	ug/L	532.43	ppb	15:35:09
1	Se 196.026†	2819.1	3321.2	2604.5	ug/L	2604.5	ppb	15:35:09
1	Si 251.611†	163607.8	190539.8	5345.1	ug/L	5345.1	ppb	15:34:49
1	Sn 189.927†	2381.2	2776.4	503.07	ug/L	503.07	ppb	15:35:09
1	Ti 334.940†	299159.0	350770.1	510.50	ug/L	510.50	ppb	15:34:49
1	Tl 190.801†	1411.9	1686.1	453.12	ug/L	453.12	ppb	15:35:09
1	U 409.014†	15602.8	20031.7	509.31	ug/L	509.31	ppb	15:34:49
1	V 292.402†	73202.6	86944.2	521.93	ug/L	521.93	ppb	15:34:49
1	Zn 213.857†	55666.2	64197.9	515.50	ug/L	515.50	ppb	15:34:49
1	SiO2†	163655.6	190580.2	11354	ug/L	11354	ppb	15:36:07
2	Sc Radial	5021.6	5021.6	89.2	%			15:34:31
2	Y RADIAL	5282.1	5282.1	88.79	%			15:34:31
2	Al 396.153Radial†	633480.5	710365.7	514470	ug/L	514470	ppb	15:34:26
2	Ca 317.933Radial†	282519.2	316782.0	478490	ug/L	478490	ppb	15:34:26
2	Fe 238.204 Radial†	20809.4	23322.5	188810	ug/L	188810	ppb	15:34:31
2	K 766.490 Radial†	28012.8	28499.8	5086.4	ug/L	5086.4	ppb	15:34:26
2	Mg 279.077 IEC†	14809.2	16604.0	495160	ug/L	495160	ppb	15:34:31
2	Na 589.592 Radial†	20174.8	23675.6	5511.8	ug/L	5511.8	ppb	15:34:31
2	Sr 421.552†	78635.8	88167.5	498.71	ug/L	498.71	ppb	15:34:26
2	Sc 361.383	831001.6	831001.6	85.026	%			15:35:15
2	Y 371.029	682618.1	682618.1	83.049	%			15:35:15
2	Ag 328.068†	46392.5	54089.7	278.95	ug/L	278.95	ppb	15:35:15
2	As 188.979†	1082.7	1293.7	524.80	ug/L	524.80	ppb	15:35:35
2	B 249.677†	22973.2	27559.7	521.90	ug/L	521.90	ppb	15:35:15
2	Ba 233.527†	62491.5	73487.3	506.50	ug/L	506.50	ppb	15:35:15
2	Be 313.107†	650308.9	769275.4	250.62	ug/L	250.62	ppb	15:35:15
2	Cd 226.502†	42954.6	50735.7	482.87	ug/L	482.87	ppb	15:35:15
2	Co 228.616†	21174.6	24977.9	450.18	ug/L	450.18	ppb	15:35:35
2	Cr 267.716†	41287.1	48469.5	498.90	ug/L	498.90	ppb	15:35:15
2	Cu 324.752†	180522.6	206105.0	568.57	ug/L	568.57	ppb	15:35:15
2	Mn 257.610†	428382.6	503331.1	488.27	ug/L	488.27	ppb	15:35:15
2	Mo 202.031†	6547.0	7676.6	496.64	ug/L	496.64	ppb	15:35:35
2	Ni 231.604†	17451.4	20409.4	457.57	ug/L	457.57	ppb	15:35:35

2	P 214.914†	4391.7	4939.4	2454.3 ug/L	2454.3 ppb	15:35:35
2	Pb 220.353†	2812.5	3331.3	463.15 ug/L	463.15 ppb	15:35:35
2	S 181.975 Axial†	1954.7	2251.8	2634.4 ug/L	2634.4 ppb	15:35:35
2	Sb 206.836†	1570.4	1805.0	551.03 ug/L	551.03 ppb	15:35:35
2	Se 196.026†	2829.0	3356.1	2627.5 ug/L	2627.5 ppb	15:35:35
2	Si 251.611†	162836.3	190982.8	5357.4 ug/L	5357.4 ppb	15:35:15
2	Sn 189.927†	2357.2	2767.7	501.39 ug/L	501.39 ppb	15:35:35
2	Ti 334.940†	297688.4	351509.5	510.82 ug/L	510.82 ppb	15:35:15
2	Tl 190.801†	1396.7	1680.0	451.48 ug/L	451.48 ppb	15:35:35
2	U 409.014†	15488.8	20026.4	509.05 ug/L	509.05 ppb	15:35:15
2	V 292.402†	72832.2	87112.8	522.97 ug/L	522.97 ppb	15:35:15
2	Zn 213.857†	55403.0	64347.8	516.64 ug/L	516.64 ppb	15:35:15
2	SiO2†	162672.4	190774.5	11365 ug/L	11365 ppb	15:36:12
3	Sc Radial	4990.2	4990.2	88.6 %		15:34:42
3	Y RADIAL	5254.6	5254.6	88.33 %		15:34:42
3	Al 396.153Radial†	645760.6	728691.7	527750 ug/L	527750 ppb	15:34:37
3	Ca 317.933Radial†	287590.2	324497.2	490150 ug/L	490150 ppb	15:34:37
3	Fe 238.204 Radial†	20655.2	23295.3	188590 ug/L	188590 ppb	15:34:42
3	K 766.490 Radial†	28508.5	29256.8	5221.9 ug/L	5221.9 ppb	15:34:37
3	Mg 279.077 IEC†	14653.4	16532.6	493040 ug/L	493040 ppb	15:34:42
3	Na 589.592 Radial†	20013.7	23636.1	5502.6 ug/L	5502.6 ppb	15:34:42
3	Sr 421.552†	80276.1	90573.2	512.33 ug/L	512.33 ppb	15:34:37
3	Sc 361.383	824309.7	824309.7	84.341 %		15:35:41
3	Y 371.029	677556.2	677556.2	82.433 %		15:35:41
3	Ag 328.068†	46303.9	54427.6	280.13 ug/L	280.13 ppb	15:35:41
3	As 188.979†	1104.1	1329.4	537.91 ug/L	537.91 ppb	15:36:01
3	B 249.677†	22978.7	27785.6	526.46 ug/L	526.46 ppb	15:35:41
3	Ba 233.527†	62476.0	74065.6	510.43 ug/L	510.43 ppb	15:35:41
3	Be 313.107†	650914.9	776203.0	252.88 ug/L	252.88 ppb	15:35:41
3	Cd 226.502†	43147.8	51374.9	489.22 ug/L	489.22 ppb	15:35:41
3	Co 228.616†	21153.2	25154.7	453.39 ug/L	453.39 ppb	15:36:01
3	Cr 267.716†	41323.0	48906.3	503.35 ug/L	503.35 ppb	15:35:41
3	Cu 324.752†	179896.5	207086.2	571.22 ug/L	571.22 ppb	15:35:41
3	Mn 257.610†	428271.7	507289.6	492.18 ug/L	492.18 ppb	15:35:41
3	Mo 202.031†	6563.6	7758.8	501.86 ug/L	501.86 ppb	15:36:01
3	Ni 231.604†	17462.0	20588.6	461.58 ug/L	461.58 ppb	15:36:01
3	P 214.914†	4369.0	4954.4	2465.2 ug/L	2465.2 ppb	15:36:01
3	Pb 220.353†	2825.7	3373.7	470.85 ug/L	470.85 ppb	15:36:01
3	S 181.975 Axial†	1947.9	2262.4	2644.7 ug/L	2644.7 ppb	15:36:01
3	Sb 206.836†	1557.4	1804.6	550.79 ug/L	550.79 ppb	15:36:01
3	Se 196.026†	2830.4	3384.8	2644.8 ug/L	2644.8 ppb	15:36:01
3	Si 251.611†	162836.2	192537.4	5401.0 ug/L	5401.0 ppb	15:35:41
3	Sn 189.927†	2386.3	2824.7	511.92 ug/L	511.92 ppb	15:36:01
3	Ti 334.940†	297485.3	354111.1	516.16 ug/L	516.16 ppb	15:35:41
3	Tl 190.801†	1418.8	1719.5	462.04 ug/L	462.04 ppb	15:36:01
3	U 409.014†	15434.3	20109.7	511.28 ug/L	511.28 ppb	15:35:41
3	V 292.402†	72722.7	87678.3	526.50 ug/L	526.50 ppb	15:35:41
3	Zn 213.857†	55425.0	64902.9	521.27 ug/L	521.27 ppb	15:35:41
3	SiO2†	161920.1	191435.7	11404 ug/L	11404 ppb	15:36:17

Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	830728.5	84.998	%	0.6432				0.76%
Sc Radial	5008.9	89.0	%	0.29				0.33%
Y 371.029	683162.3	83.115	%	0.7174				0.86%
Y RADIAL	5261.0	88.43	%	0.315				0.36%
Ag 328.068†	54274.3	279.52	ug/L	0.587	279.52	ppb	0.587	0.21%
QC value within limits for Ag 328.068 Recovery = 111.81%								
Al 396.153Radial†	717184.3	519410	ug/L	7258.8	519410	ppb	7258.8	1.40%
QC value within limits for Al 396.153Radial Recovery = 103.88%								
As 188.979†	1307.1	529.66	ug/L	7.187	529.66	ppb	7.187	1.36%
QC value within limits for As 188.979 Recovery = 105.93%								
B 249.677†	27624.0	523.26	ug/L	2.788	523.26	ppb	2.788	0.53%
QC value within limits for B 249.677 Recovery = 104.65%								
Ba 233.527†	73593.4	507.21	ug/L	2.932	507.21	ppb	2.932	0.58%
QC value within limits for Ba 233.527 Recovery = 101.44%								
Be 313.107†	771837.9	251.45	ug/L	1.238	251.45	ppb	1.238	0.49%
QC value within limits for Be 313.107 Recovery = 100.58%								
Ca 317.933Radial†	319891.6	483190	ug/L	6146.7	483190	ppb	6146.7	1.27%

QC value within limits for Ca 317.933Radial Recovery = 96.64%

Cd 226.502†	50951.2	485.04 ug/L	3.617	485.04 ppb	3.617	0.75%
QC value within limits for Cd 226.502 Recovery = 97.01%						
Co 228.616†	24975.8	450.15 ug/L	3.265	450.15 ppb	3.265	0.73%
QC value within limits for Co 228.616 Recovery = 90.03%						
Cr 267.716†	48590.5	500.12 ug/L	2.824	500.12 ppb	2.824	0.56%
QC value within limits for Cr 267.716 Recovery = 100.02%						
Cu 324.752†	206356.1	569.23 ug/L	1.755	569.23 ppb	1.755	0.31%
QC value within limits for Cu 324.752 Recovery = 113.85%						
Fe 238.204 Radial†	23272.1	188400 ug/L	527.8	188400 ppb	527.8	0.28%
QC value within limits for Fe 238.204 Radial Recovery = 94.20%						
K 766.490 Radial†	28800.6	5140.2 ug/L	71.93	5140.2 ppb	71.93	1.40%
QC value within limits for K 766.490 Radial Recovery = 102.80%						
Mg 279.077 IEC†	16528.0	492900 ug/L	2341.3	492900 ppb	2341.3	0.48%
QC value within limits for Mg 279.077 IEC Recovery = 98.58%						
Mn 257.610†	504083.6	489.05 ug/L	2.824	489.05 ppb	2.824	0.58%
QC value within limits for Mn 257.610 Recovery = 97.81%						
Mo 202.031†	7679.3	496.83 ug/L	4.938	496.83 ppb	4.938	0.99%
QC value within limits for Mo 202.031 Recovery = 99.37%						
Na 589.592 Radial†	23608.4	5496.1 ug/L	19.68	5496.1 ppb	19.68	0.36%
QC value within limits for Na 589.592 Radial Recovery = 109.92%						
Ni 231.604†	20427.4	457.97 ug/L	3.431	457.97 ppb	3.431	0.75%
QC value within limits for Ni 231.604 Recovery = 91.59%						
P 214.914†	4932.8	2452.3 ug/L	14.04	2452.3 ppb	14.04	0.57%
QC value within limits for P 214.914 Recovery = 98.09%						
Pb 220.353†	3340.1	465.30 ug/L	4.848	465.30 ppb	4.848	1.04%
QC value within limits for Pb 220.353 Recovery = 93.06%						
S 181.975 Axial†	2247.9	2628.6 ug/L	19.55	2628.6 ppb	19.55	0.74%
QC value within limits for S 181.975 Axial Recovery = 105.15%						
Sb 206.836†	1784.4	544.75 ug/L	10.671	544.75 ppb	10.671	1.96%
QC value within limits for Sb 206.836 Recovery = 108.95%						
Se 196.026†	3354.0	2625.6 ug/L	20.18	2625.6 ppb	20.18	0.77%
QC value within limits for Se 196.026 Recovery = 105.02%						
Si 251.611†	191353.3	5367.8 ug/L	29.40	5367.8 ppb	29.40	0.55%
QC value within limits for Si 251.611 Recovery = 107.36%						
Sn 189.927†	2789.6	505.46 ug/L	5.655	505.46 ppb	5.655	1.12%
QC value within limits for Sn 189.927 Recovery = 101.09%						
Sr 421.552†	89111.9	504.05 ug/L	7.266	504.05 ppb	7.266	1.44%
QC value within limits for Sr 421.552 Recovery = 100.81%						
Ti 334.940†	352130.2	512.50 ug/L	3.180	512.50 ppb	3.180	0.62%
QC value within limits for Ti 334.940 Recovery = 102.50%						
Tl 190.801†	1695.2	455.55 ug/L	5.682	455.55 ppb	5.682	1.25%
QC value within limits for Tl 190.801 Recovery = 91.11%						
U 409.014†	20055.9	509.88 ug/L	1.218	509.88 ppb	1.218	0.24%
QC value within limits for U 409.014 Recovery = 101.98%						
V 292.402†	87245.1	523.80 ug/L	2.394	523.80 ppb	2.394	0.46%
QC value within limits for V 292.402 Recovery = 104.76%						
Zn 213.857†	64482.9	517.80 ug/L	3.060	517.80 ppb	3.060	0.59%
QC value within limits for Zn 213.857 Recovery = 103.56%						
SiO2†	190930.2	11374 ug/L	26.6	11374 ppb	26.6	0.23%
QC value within limits for SiO2 Recovery = 106.35%						

All analyte(s) passed QC.

Sequence No.: 11
Sample ID: LR1
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 15
Date Collected: 1/19/2010 15:38:28
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4954.2	4954.2	88.0	%			15:40:27
1	Y RADIAL	5228.0	5228.0	87.88	%			15:40:27
1	Al 396.153Radial†	635420.3	722239.8	523100	ug/L	523100	ppb	15:40:21
1	Ca 317.933Radial†	283338.9	322026.0	486410	ug/L	486410	ppb	15:40:21
1	Fe 238.204 Radial†	47301.8	53752.1	435130	ug/L	435130	ppb	15:40:27
1	K 766.490 Radial†	2654.0	103.8	-340.09	ug/L	-340.09	ppb	15:40:21
1	Mg 279.077 IEC†	14256.7	16202.1	482910	ug/L	482910	ppb	15:40:27
1	Na 589.592 Radial†	1903361.0	2164465.3	503890	ug/L	503890	ppb	15:40:21
1	Sr 421.552†	832.0	933.8	1.6878	ug/L	1.6878	ppb	15:40:27
1	Sc 361.383	833087.8	833087.8	85.240	%			15:40:56
1	Y 371.029	687206.4	687206.4	83.607	%			15:40:56
1	Ag 328.068†	-25705.9	-30630.2	-3.5293	ug/L	-3.5293	ppb	15:40:56
1	As 188.979†	-221.8	-239.9	13.263	ug/L	13.263	ppb	15:41:16
1	B 249.677†	1479.4	2276.3	-24.934	ug/L	-24.934	ppb	15:40:56
1	Ba 233.527†	-1803.1	-2124.8	-1.1474	ug/L	-1.1474	ppb	15:41:16
1	Be 313.107†	-11528.7	-9083.6	-3.0042	ug/L	-3.0042	ppb	15:40:56
1	Cd 226.502†	3585.4	4422.7	1.6524	ug/L	1.6524	ppb	15:41:16
1	Co 228.616†	213.9	325.3	-0.4338	ug/L	-0.4338	ppb	15:41:16
1	Cr 267.716†	25.1	-59.1	2.1175	ug/L	2.1175	ppb	15:41:16
1	Cu 324.752†	-511.0	-6808.8	-3.4942	ug/L	-3.4942	ppb	15:40:56
1	Mn 257.610†	-27918.6	-33246.7	-9.1454	ug/L	-9.1454	ppb	15:40:56
1	Mo 202.031†	-523.0	-636.9	0.0487	ug/L	0.0487	ppb	15:41:16
1	Ni 231.604†	323.9	264.7	5.9336	ug/L	5.9336	ppb	15:41:16
1	P 214.914†	630.3	513.7	51.803	ug/L	51.803	ppb	15:41:16
1	Pb 220.353†	-630.3	-716.0	1.5974	ug/L	1.5974	ppb	15:41:16
1	S 181.975 Axial†	105.4	76.6	-5.1750	ug/L	-5.1750	ppb	15:41:16
1	Sb 206.836†	45.6	11.5	-1.4750	ug/L	-1.4750	ppb	15:41:16
1	Se 196.026†	-2577.5	-2994.9	-79.229	ug/L	-79.229	ppb	15:41:16
1	Si 251.611†	-641.9	-1283.5	-35.558	ug/L	-35.558	ppb	15:41:16
1	Sn 189.927†	-403.3	-477.8	7.7910	ug/L	7.7910	ppb	15:41:16
1	Ti 334.940†	-16859.7	-18383.6	-6.1318	ug/L	-6.1318	ppb	15:40:56
1	Tl 190.801†	-120.9	-104.5	-28.325	ug/L	-28.325	ppb	15:41:16
1	U 409.014†	466068.8	548584.9	14515	ug/L	14515	ppb	15:40:56
1	V 292.402†	2480.9	4364.7	0.0528	ug/L	0.0528	ppb	15:40:56
1	Zn 213.857†	6418.7	6718.0	14.011	ug/L	14.011	ppb	15:41:16
1	SiO2†	-652.7	-1311.7	-77.156	ug/L	-77.156	ppb	15:42:13
2	Sc Radial	4848.8	4848.8	86.1	%			15:40:38
2	Y RADIAL	5105.0	5105.0	85.81	%			15:40:38
2	Al 396.153Radial†	642112.1	745702.3	540090	ug/L	540090	ppb	15:40:33
2	Ca 317.933Radial†	286168.4	332308.8	501950	ug/L	501950	ppb	15:40:33
2	Fe 238.204 Radial†	47356.0	54983.2	445090	ug/L	445090	ppb	15:40:38
2	K 766.490 Radial†	2663.1	180.0	-337.31	ug/L	-337.31	ppb	15:40:33
2	Mg 279.077 IEC†	14289.1	16591.7	494520	ug/L	494520	ppb	15:40:38
2	Na 589.592 Radial†	1920287.4	2231124.0	519410	ug/L	519410	ppb	15:40:33
2	Sr 421.552†	878.5	1008.4	1.9967	ug/L	1.9967	ppb	15:40:38
2	Sc 361.383	808294.8	808294.8	82.703	%			15:41:22
2	Y 371.029	667366.3	667366.3	81.194	%			15:41:22
2	Ag 328.068†	-25607.4	-31436.1	-4.1632	ug/L	-4.1632	ppb	15:41:22
2	As 188.979†	-220.1	-245.9	13.384	ug/L	13.384	ppb	15:41:42
2	B 249.677†	1424.5	2263.2	-26.816	ug/L	-26.816	ppb	15:41:22
2	Ba 233.527†	-1819.1	-2209.1	-1.4163	ug/L	-1.4163	ppb	15:41:42
2	Be 313.107†	-11450.6	-9404.1	-3.1096	ug/L	-3.1096	ppb	15:41:22
2	Cd 226.502†	3583.0	4548.8	1.9507	ug/L	1.9507	ppb	15:41:42
2	Co 228.616†	208.0	325.7	-0.5677	ug/L	-0.5677	ppb	15:41:42
2	Cr 267.716†	93.9	25.0	3.0067	ug/L	3.0067	ppb	15:41:42
2	Cu 324.752†	-629.2	-6970.1	-3.6311	ug/L	-3.6311	ppb	15:41:22
2	Mn 257.610†	-28216.2	-34611.1	-9.9644	ug/L	-9.9644	ppb	15:41:22
2	Mo 202.031†	-504.1	-632.9	1.2566	ug/L	1.2566	ppb	15:41:42
2	Ni 231.604†	308.2	257.3	5.7690	ug/L	5.7690	ppb	15:41:42

2	P 214.914†	588.8	486.2	33.656	ug/L	33.656 ppb	15:41:42
2	Pb 220.353†	-610.6	-714.8	4.6952	ug/L	4.6952 ppb	15:41:42
2	S 181.975 Axial†	109.8	85.7	2.7052	ug/L	2.7052 ppb	15:41:42
2	Sb 206.836†	41.7	8.5	-2.6525	ug/L	-2.6525 ppb	15:41:42
2	Se 196.026†	-2559.4	-3065.8	-81.651	ug/L	-81.651 ppb	15:41:42
2	Si 251.611†	-622.8	-1283.5	-35.561	ug/L	-35.561 ppb	15:41:42
2	Sn 189.927†	-417.0	-508.7	5.5540	ug/L	5.5540 ppb	15:41:42
2	Ti 334.940†	-16740.6	-18846.3	-5.8202	ug/L	-5.8202 ppb	15:41:22
2	Tl 190.801†	-119.8	-107.6	-29.160	ug/L	-29.160 ppb	15:41:42
2	U 409.014†	464983.3	564043.8	14924	ug/L	14924 ppb	15:41:22
2	V 292.402†	2458.2	4426.4	-0.0062	ug/L	-0.0062 ppb	15:41:22
2	Zn 213.857†	6374.3	6895.2	14.529	ug/L	14.529 ppb	15:41:42
2	SiO2†	-610.3	-1283.8	-75.500	ug/L	-75.500 ppb	15:42:18
3	Sc Radial	5069.3	5069.3	90.0	%		15:40:49
3	Y RADIAL	5338.2	5338.2	89.73	%		15:40:49
3	Al 396.153Radial†	628793.6	698473.2	505890	ug/L	505890 ppb	15:40:44
3	Ca 317.933Radial†	281162.2	312292.8	471710	ug/L	471710 ppb	15:40:44
3	Fe 238.204 Radial†	46028.9	51117.0	413790	ug/L	413790 ppb	15:40:49
3	K 766.490 Radial†	2511.1	-123.4	-370.99	ug/L	-370.99 ppb	15:40:44
3	Mg 279.077 IEC†	13869.1	15403.4	459110	ug/L	459110 ppb	15:40:49
3	Na 589.592 Radial†	1887759.4	2097992.8	488420	ug/L	488420 ppb	15:40:44
3	Sr 421.552†	823.3	902.7	1.6202	ug/L	1.6202 ppb	15:40:49
3	Sc 361.383	810328.1	810328.1	82.911	%		15:41:47
3	Y 371.029	669862.6	669862.6	81.497	%		15:41:47
3	Ag 328.068†	-25666.1	-31429.2	-13.854	ug/L	-13.854 ppb	15:41:47
3	As 188.979†	-195.1	-215.0	17.451	ug/L	17.451 ppb	15:42:07
3	B 249.677†	1333.5	2149.1	-24.027	ug/L	-24.027 ppb	15:41:47
3	Ba 233.527†	-1815.5	-2199.1	-2.2998	ug/L	-2.2998 ppb	15:42:07
3	Be 313.107†	-11461.5	-9382.5	-3.1023	ug/L	-3.1023 ppb	15:41:47
3	Cd 226.502†	3580.3	4534.7	5.0428	ug/L	5.0428 ppb	15:42:07
3	Co 228.616†	210.6	328.2	-0.0728	ug/L	-0.0728 ppb	15:42:07
3	Cr 267.716†	33.0	-48.7	1.6485	ug/L	1.6485 ppb	15:42:07
3	Cu 324.752†	-596.7	-6929.0	-5.1741	ug/L	-5.1741 ppb	15:41:47
3	Mn 257.610†	-28074.1	-34354.2	-11.356	ug/L	-11.356 ppb	15:41:47
3	Mo 202.031†	-518.8	-649.0	-2.5343	ug/L	-2.5343 ppb	15:42:07
3	Ni 231.604†	321.4	272.3	6.1059	ug/L	6.1059 ppb	15:42:07
3	P 214.914†	609.8	509.8	62.678	ug/L	62.678 ppb	15:42:07
3	Pb 220.353†	-626.3	-732.0	-2.0543	ug/L	-2.0543 ppb	15:42:07
3	S 181.975 Axial†	116.1	92.9	17.871	ug/L	17.871 ppb	15:42:07
3	Sb 206.836†	66.6	38.5	6.5496	ug/L	6.5496 ppb	15:42:07
3	Se 196.026†	-2579.8	-3082.6	-206.13	ug/L	-206.13 ppb	15:42:07
3	Si 251.611†	-584.7	-1235.7	-34.206	ug/L	-34.206 ppb	15:42:07
3	Sn 189.927†	-392.1	-477.5	5.2361	ug/L	5.2361 ppb	15:42:07
3	Ti 334.940†	-16708.5	-18756.8	-6.8536	ug/L	-6.8536 ppb	15:41:47
3	Tl 190.801†	-112.9	-98.9	-26.821	ug/L	-26.821 ppb	15:42:07
3	U 409.014†	466026.3	563891.0	14924	ug/L	14924 ppb	15:41:47
3	V 292.402†	2521.4	4495.2	4.2671	ug/L	4.2671 ppb	15:41:47
3	Zn 213.857†	6425.4	6937.6	17.917	ug/L	17.917 ppb	15:42:07
3	SiO2†	-619.7	-1293.3	-76.039	ug/L	-76.039 ppb	15:42:23

Mean Data: LR1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	817236.9	83.618	%	1.4084				1.68%
Sc Radial	4957.4	88.0	%	1.96				2.22%
Y 371.029	674811.8	82.099	%	1.3147				1.60%
Y RADIAL	5223.7	87.81	%	1.961				2.23%
Ag 328.068†	-31165.1	-7.1823	ug/L	5.78686	-7.1823	ppb	5.78686	80.57%
Al 396.153Radial†	722138.4	523030	ug/L	17103.4	523030	ppb	17103.4	3.27%
QC value within limits for Al 396.153Radial Recovery = 104.61%								
As 188.979†	-233.6	14.700	ug/L	2.3838	14.700	ppb	2.3838	16.22%
B 249.677†	2229.5	-25.259	ug/L	1.4226	-25.259	ppb	1.4226	5.63%
Ba 233.527†	-2177.7	-1.6212	ug/L	0.60289	-1.6212	ppb	0.60289	37.19%
Be 313.107†	-9290.1	-3.0720	ug/L	0.05886	-3.0720	ppb	0.05886	1.92%
Ca 317.933Radial†	322209.2	486690	ug/L	15118.8	486690	ppb	15118.8	3.11%
QC value within limits for Ca 317.933Radial Recovery = 97.34%								
Cd 226.502†	4502.1	2.8820	ug/L	1.87729	2.8820	ppb	1.87729	65.14%
Co 228.616†	326.4	-0.3581	ug/L	0.25599	-0.3581	ppb	0.25599	71.49%
Cr 267.716†	-27.6	2.2576	ug/L	0.68982	2.2576	ppb	0.68982	30.56%
Cu 324.752†	-6902.6	-4.0998	ug/L	0.93286	-4.0998	ppb	0.93286	22.75%

Fe 238.204 Radial†	53284.1	431340	ug/L	15988.8	431340	ppb	15988.8	3.71%
QC value less than the lower limit for Fe 238.204 Radial Recovery = 86.27%								
K 766.490 Radial†	53.5	-349.46	ug/L	18.694	-349.46	ppb	18.694	5.35%
Mg 279.077 IEC†	16065.7	478850	ug/L	18055.7	478850	ppb	18055.7	3.77%
QC value within limits for Mg 279.077 IEC Recovery = 95.77%								
Mn 257.610†	-34070.7	-10.155	ug/L	1.1175	-10.155	ppb	1.1175	11.00%
Mo 202.031†	-639.6	-0.4097	ug/L	1.93654	-0.4097	ppb	1.93654	472.71%
Na 589.592 Radial†	2164527.4	503910	ug/L	15496.7	503910	ppb	15496.7	3.08%
QC value within limits for Na 589.592 Radial Recovery = 100.78%								
Ni 231.604†	264.8	5.9362	ug/L	0.16845	5.9362	ppb	0.16845	2.84%
P 214.914†	503.2	49.379	ug/L	14.6621	49.379	ppb	14.6621	29.69%
Pb 220.353†	-720.9	1.4128	ug/L	3.37855	1.4128	ppb	3.37855	239.15%
S 181.975 Axial†	85.1	5.1339	ug/L	11.71363	5.1339	ppb	11.71363	228.16%
Sb 206.836†	19.5	0.8074	ug/L	5.00767	0.8074	ppb	5.00767	620.25%
Se 196.026†	-3047.8	-122.34	ug/L	72.579	-122.34	ppb	72.579	59.33%
Si 251.611†	-1267.6	-35.109	ug/L	0.7812	-35.109	ppb	0.7812	2.23%
Sn 189.927†	-488.0	6.1937	ug/L	1.39242	6.1937	ppb	1.39242	22.48%
Sr 421.552†	948.3	1.7682	ug/L	0.20071	1.7682	ppb	0.20071	11.35%
Ti 334.940†	-18662.2	-6.2685	ug/L	0.53008	-6.2685	ppb	0.53008	8.46%
Tl 190.801†	-103.7	-28.102	ug/L	1.1850	-28.102	ppb	1.1850	4.22%
U 409.014†	558839.9	14787	ug/L	236.2	14787	ppb	236.2	1.60%
QC value within limits for U 409.014 Recovery = 98.58%								
V 292.402†	4428.8	1.4379	ug/L	2.45035	1.4379	ppb	2.45035	170.41%
Zn 213.857†	6850.3	15.486	ug/L	2.1217	15.486	ppb	2.1217	13.70%
SiO2†	-1296.3	-76.232	ug/L	0.8447	-76.232	ppb	0.8447	1.11%

QC Failed. Continue with analysis.

Sequence No.: 12
Sample ID: LR2
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 16
Date Collected: 1/19/2010 15:44:32
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR2

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5506.8	5506.8	97.8	%			15:46:30
1	Y RADIAL	5794.9	5794.9	97.41	%			15:46:30
1	Al 396.153Radial†	624.4	642.0	-9.6790	ug/L	-9.6790	ppb	15:46:30
1	Ca 317.933Radial†	34.0	9.9	14.950	ug/L	14.950	ppb	15:46:50
1	Fe 238.204 Radial†	-19.9	-32.8	19.367	ug/L	19.367	ppb	15:46:50
1	K 766.490 Radial†	1534691.8	1566386.5	288490	ug/L	288490	ppb	15:46:25
1	Mg 279.077 IEC†	-6.3	-8.9	-163.94	ug/L	-163.94	ppb	15:46:50
1	Na 589.592 Radial†	-270.9	775.3	180.49	ug/L	180.49	ppb	15:46:30
1	Sr 421.552†	1619188.1	1655689.1	9432.3	ug/L	9432.3	ppb	15:46:25
1	Sc 361.383	927949.5	927949.5	94.946	%			15:48:07
1	Y 371.029	762701.5	762701.5	92.792	%			15:48:07
1	Ag 328.068†	-7970.8	-8868.1	4.8381	ug/L	4.8381	ppb	15:48:12
1	As 188.979†	26132.3	27543.7	10226	ug/L	10226	ppb	15:48:12
1	B 249.677†	242006.1	255429.9	5106.1	ug/L	5106.1	ppb	15:48:07
1	Ba 233.527†	1984967.0	2090626.1	14235	ug/L	14235	ppb	15:48:07
1	Be 313.107†	8432353.5	8885686.4	2904.0	ug/L	2904.0	ppb	15:48:01
1	Cd 226.502†	951974.1	1002868.3	9928.7	ug/L	9928.7	ppb	15:48:07
1	Co 228.616†	498152.7	524745.9	9511.0	ug/L	9511.0	ppb	15:48:12
1	Cr 267.716†	2288092.7	2409809.5	24609	ug/L	24609	ppb	15:48:07
1	Cu 324.752†	7042058.7	7410729.3	20095	ug/L	20095	ppb	15:48:01
1	Mn 257.610†	9196726.6	9685815.4	9426.8	ug/L	9426.8	ppb	15:48:01
1	Mo 202.031†	149796.8	157747.8	9787.4	ug/L	9787.4	ppb	15:48:12
1	Ni 231.604†	425009.0	447518.7	10033	ug/L	10033	ppb	15:48:07
1	P 214.914†	33043.8	34577.2	14204	ug/L	14204	ppb	15:48:12
1	Pb 220.353†	215958.9	227478.7	24690	ug/L	24690	ppb	15:48:12
1	S 181.975 Axial†	40456.9	42563.5	51617	ug/L	51617	ppb	15:48:12
1	Sb 206.836†	32955.3	34667.8	10808	ug/L	10808	ppb	15:48:12
1	Se 196.026†	17201.9	18146.5	10240	ug/L	10240	ppb	15:48:12
1	Si 251.611†	1647057.8	1734207.5	48581	ug/L	48581	ppb	15:48:07
1	Sn 189.927†	64722.4	68163.3	10479	ug/L	10479	ppb	15:48:12
1	Ti 334.940†	6616341.1	6969953.8	9657.9	ug/L	9657.9	ppb	15:48:01
1	Tl 190.801†	34503.0	36377.0	9766.7	ug/L	9766.7	ppb	15:48:12
1	U 409.014†	-437.1	1349.5	-19.181	ug/L	-19.181	ppb	15:48:12
1	V 292.402†	1586524.1	1672435.9	10368	ug/L	10368	ppb	15:48:07
1	Zn 213.857†	1628033.1	1713888.3	14255	ug/L	14255	ppb	15:48:07
1	SiO2†	1661168.0	1749053.4	104050	ug/L	104050	ppb	15:49:00
2	Sc Radial	5311.6	5311.6	94.3	%			15:47:00
2	Y RADIAL	5544.0	5544.0	93.19	%			15:47:00
2	Al 396.153Radial†	637.9	679.7	17.752	ug/L	17.752	ppb	15:47:00
2	Ca 317.933Radial†	39.1	16.6	25.091	ug/L	25.091	ppb	15:47:20
2	Fe 238.204 Radial†	-19.3	-32.9	17.994	ug/L	17.994	ppb	15:47:20
2	K 766.490 Radial†	1519198.2	1607634.2	296090	ug/L	296090	ppb	15:46:55
2	Mg 279.077 IEC†	-7.1	-10.0	-195.16	ug/L	-195.16	ppb	15:47:20
2	Na 589.592 Radial†	-345.8	685.6	159.62	ug/L	159.62	ppb	15:47:00
2	Sr 421.552†	1599878.3	1696066.4	9662.3	ug/L	9662.3	ppb	15:46:55
2	Sc 361.383	928940.2	928940.2	95.047	%			15:48:27
2	Y 371.029	763584.2	763584.2	92.900	%			15:48:27
2	Ag 328.068†	-7930.9	-8817.1	5.0757	ug/L	5.0757	ppb	15:48:32
2	As 188.979†	26171.3	27555.4	10232	ug/L	10232	ppb	15:48:32
2	B 249.677†	243300.5	256519.9	5128.0	ug/L	5128.0	ppb	15:48:27
2	Ba 233.527†	1987882.0	2091463.5	14241	ug/L	14241	ppb	15:48:27
2	Be 313.107†	8567686.2	9018600.1	2947.4	ug/L	2947.4	ppb	15:48:20
2	Cd 226.502†	953153.3	1003039.7	9930.4	ug/L	9930.4	ppb	15:48:27
2	Co 228.616†	497935.3	523957.6	9496.5	ug/L	9496.5	ppb	15:48:32
2	Cr 267.716†	2290087.6	2409338.3	24604	ug/L	24604	ppb	15:48:27
2	Cu 324.752†	7152348.1	7518856.3	20388	ug/L	20388	ppb	15:48:20
2	Mn 257.610†	9322101.2	9807393.6	9545.1	ug/L	9545.1	ppb	15:48:20
2	Mo 202.031†	149934.2	157724.1	9785.9	ug/L	9785.9	ppb	15:48:32
2	Ni 231.604†	425183.5	447225.0	10027	ug/L	10027	ppb	15:48:27

2	P 214.914†	33196.6	34700.8	14210	ug/L	14210 ppb	15:48:32
2	Pb 220.353†	215763.8	227031.0	24642	ug/L	24642 ppb	15:48:32
2	S 181.975 Axial†	40610.0	42679.1	51757	ug/L	51757 ppb	15:48:32
2	Sb 206.836†	33074.0	34755.6	10833	ug/L	10833 ppb	15:48:32
2	Se 196.026†	17263.7	18192.2	10266	ug/L	10266 ppb	15:48:32
2	Si 251.611†	1652731.2	1738326.5	48696	ug/L	48696 ppb	15:48:27
2	Sn 189.927†	64691.0	68057.5	10463	ug/L	10463 ppb	15:48:32
2	Ti 334.940†	6714736.9	7066045.5	9791.1	ug/L	9791.1 ppb	15:48:20
2	Tl 190.801†	34603.5	36444.1	9786.3	ug/L	9786.3 ppb	15:48:32
2	U 409.014†	-250.7	1546.1	-13.951	ug/L	-13.951 ppb	15:48:32
2	V 292.402†	1589460.4	1673743.3	10376	ug/L	10376 ppb	15:48:27
2	Zn 213.857†	1630372.1	1714520.5	14260	ug/L	14260 ppb	15:48:27
2	SiO2†	1669252.2	1755693.0	104440	ug/L	104440 ppb	15:49:07
3	Sc Radial	5406.3	5406.3	96.0	%		15:47:31
3	Y RADIAL	5629.5	5629.5	94.63	%		15:47:31
3	Al 396.153Radial†	636.5	666.4	-2.7110	ug/L	-2.7110 ppb	15:47:31
3	Ca 317.933Radial†	30.9	7.3	11.011	ug/L	11.011 ppb	15:47:51
3	Fe 238.204 Radial†	-20.6	-33.8	17.353	ug/L	17.353 ppb	15:47:51
3	K 766.490 Radial†	1537032.8	1597998.2	294320	ug/L	294320 ppb	15:47:26
3	Mg 279.077 IEC†	-5.5	-8.2	-140.69	ug/L	-140.69 ppb	15:47:51
3	Na 589.592 Radial†	-286.6	753.7	175.46	ug/L	175.46 ppb	15:47:31
3	Sr 421.552†	1617752.6	1684973.5	9599.1	ug/L	9599.1 ppb	15:47:26
3	Sc 361.383	908610.2	908610.2	92.967	%		15:48:47
3	Y 371.029	746622.6	746622.6	90.836	%		15:48:47
3	Ag 328.068†	-8079.3	-9163.5	4.0320	ug/L	4.0320 ppb	15:48:52
3	As 188.979†	26185.1	28186.4	10464	ug/L	10464 ppb	15:48:52
3	B 249.677†	239191.2	257827.2	5153.7	ug/L	5153.7 ppb	15:48:47
3	Ba 233.527†	1966795.9	2115578.4	14405	ug/L	14405 ppb	15:48:47
3	Be 313.107†	8423250.0	9064926.7	2962.6	ug/L	2962.6 ppb	15:48:40
3	Cd 226.502†	942890.5	1014438.4	10043	ug/L	10043 ppb	15:48:47
3	Co 228.616†	498792.3	536601.2	9726.1	ug/L	9726.1 ppb	15:48:52
3	Cr 267.716†	2265795.0	2437118.2	24888	ug/L	24888 ppb	15:48:47
3	Cu 324.752†	7006616.7	7530471.6	20419	ug/L	20419 ppb	15:48:40
3	Mn 257.610†	9175009.4	9868623.1	9604.7	ug/L	9604.7 ppb	15:48:40
3	Mo 202.031†	149990.3	161314.0	10009	ug/L	10009 ppb	15:48:52
3	Ni 231.604†	420660.5	452368.9	10142	ug/L	10142 ppb	15:48:47
3	P 214.914†	33120.5	35400.5	14572	ug/L	14572 ppb	15:48:52
3	Pb 220.353†	216271.5	232656.2	25252	ug/L	25252 ppb	15:48:52
3	S 181.975 Axial†	40433.1	43444.8	52685	ug/L	52685 ppb	15:48:52
3	Sb 206.836†	32920.8	35369.4	11027	ug/L	11027 ppb	15:48:52
3	Se 196.026†	17201.1	18531.4	10457	ug/L	10457 ppb	15:48:52
3	Si 251.611†	1627549.2	1750146.0	49026	ug/L	49026 ppb	15:48:47
3	Sn 189.927†	64842.0	69742.9	10722	ug/L	10722 ppb	15:48:52
3	Ti 334.940†	6593855.1	7094088.6	9829.9	ug/L	9829.9 ppb	15:48:40
3	Tl 190.801†	34564.1	37216.2	9991.7	ug/L	9991.7 ppb	15:48:52
3	U 409.014†	-414.9	1363.6	-19.430	ug/L	-19.430 ppb	15:48:52
3	V 292.402†	1568930.6	1689077.4	10473	ug/L	10473 ppb	15:48:47
3	Zn 213.857†	1612713.1	1733905.8	14421	ug/L	14421 ppb	15:48:47
3	SiO2†	1651155.2	1775522.3	105620	ug/L	105620 ppb	15:49:14

Mean Data: LR2

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	921833.3	94.320	%	1.1728				1.24%
Sc Radial	5408.3	96.0	%	1.73				1.80%
Y 371.029	757636.1	92.176	%	1.1617				1.26%
Y RADIAL	5656.1	95.07	%	2.145				2.26%
Ag 328.068†	-8949.5	4.6486	ug/L	0.54705	4.6486	ppb	0.54705	11.77%
Al 396.153Radial†	662.7	1.7874	ug/L	14.25808	1.7874	ppb	14.25808	797.70%
As 188.979†	27761.8	10307	ug/L	135.9	10307	ppb	135.9	1.32%
QC value within limits for As 188.979 Recovery = 103.07%								
B 249.677†	256592.3	5129.3	ug/L	23.81	5129.3	ppb	23.81	0.46%
QC value within limits for B 249.677 Recovery = 102.59%								
Ba 233.527†	2099222.7	14294	ug/L	96.5	14294	ppb	96.5	0.67%
QC value within limits for Ba 233.527 Recovery = 95.29%								
Be 313.107†	8989737.7	2938.0	ug/L	30.38	2938.0	ppb	30.38	1.03%
QC value within limits for Be 313.107 Recovery = 97.93%								
Ca 317.933Radial†	11.3	17.017	ug/L	7.2642	17.017	ppb	7.2642	42.69%
Cd 226.502†	1006782.2	9967.4	ug/L	65.65	9967.4	ppb	65.65	0.66%
QC value within limits for Cd 226.502 Recovery = 99.67%								

Co 228.616†	528434.9	9577.8 ug/L	128.56	9577.8 ppb	128.56	1.34%
QC value within limits for Co 228.616 Recovery = 95.78%						
Cr 267.716†	2418755.3	24701 ug/L	162.4	24701 ppb	162.4	0.66%
QC value within limits for Cr 267.716 Recovery = 98.80%						
Cu 324.752†	7486685.7	20301 ug/L	179.1	20301 ppb	179.1	0.88%
QC value within limits for Cu 324.752 Recovery = 101.50%						
Fe 238.204 Radial†	-33.1	18.238 ug/L	1.0294	18.238 ppb	1.0294	5.64%
K 766.490 Radial†	1590673.0	292970 ug/L	3974.2	292970 ppb	3974.2	1.36%
QC value within limits for K 766.490 Radial Recovery = 97.66%						
Mg 279.077 IEC†	-9.1	-166.60 ug/L	27.336	-166.60 ppb	27.336	16.41%
Mn 257.610†	9787277.4	9525.6 ug/L	90.56	9525.6 ppb	90.56	0.95%
QC value within limits for Mn 257.610 Recovery = 95.26%						
Mo 202.031†	158928.6	9860.6 ug/L	128.17	9860.6 ppb	128.17	1.30%
QC value within limits for Mo 202.031 Recovery = 98.61%						
Na 589.592 Radial†	738.2	171.86 ug/L	10.891	171.86 ppb	10.891	6.34%
Ni 231.604†	449037.5	10067 ug/L	64.7	10067 ppb	64.7	0.64%
QC value within limits for Ni 231.604 Recovery = 100.67%						
P 214.914†	34892.8	14329 ug/L	211.0	14329 ppb	211.0	1.47%
QC value within limits for P 214.914 Recovery = 95.52%						
Pb 220.353†	229055.3	24861 ug/L	339.4	24861 ppb	339.4	1.37%
QC value within limits for Pb 220.353 Recovery = 99.45%						
S 181.975 Axial†	42895.8	52020 ug/L	580.8	52020 ppb	580.8	1.12%
QC value within limits for S 181.975 Axial Recovery = 104.04%						
Sb 206.836†	34930.9	10889 ug/L	119.9	10889 ppb	119.9	1.10%
QC value within limits for Sb 206.836 Recovery = 108.89%						
Se 196.026†	18290.0	10321 ug/L	118.7	10321 ppb	118.7	1.15%
QC value within limits for Se 196.026 Recovery = 103.21%						
Si 251.611†	1740893.3	48768 ug/L	230.8	48768 ppb	230.8	0.47%
QC value within limits for Si 251.611 Recovery = 97.54%						
Sn 189.927†	68654.6	10555 ug/L	145.1	10555 ppb	145.1	1.37%
QC value within limits for Sn 189.927 Recovery = 105.55%						
Sr 421.552†	1678909.7	9564.6 ug/L	118.84	9564.6 ppb	118.84	1.24%
QC value within limits for Sr 421.552 Recovery = 95.65%						
Ti 334.940†	7043362.6	9759.6 ug/L	90.25	9759.6 ppb	90.25	0.92%
QC value within limits for Ti 334.940 Recovery = 97.60%						
Tl 190.801†	36679.1	9848.2 ug/L	124.62	9848.2 ppb	124.62	1.27%
QC value within limits for Tl 190.801 Recovery = 98.48%						
U 409.014†	1419.7	-17.521 ug/L	3.0941	-17.521 ppb	3.0941	17.66%
V 292.402†	1678418.9	10406 ug/L	58.4	10406 ppb	58.4	0.56%
QC value within limits for V 292.402 Recovery = 104.06%						
Zn 213.857†	1720771.6	14312 ug/L	94.7	14312 ppb	94.7	0.66%
QC value within limits for Zn 213.857 Recovery = 95.41%						
SiO2†	1760089.6	104710 ug/L	818.0	104710 ppb	818.0	0.78%
QC value within limits for SiO2 Recovery = 97.86%						

All analyte(s) passed QC.

Sequence No.: 13
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 1/19/2010 15:51:23
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5285.9	5285.9	93.9	%			15:53:16
1	Y RADIAL	5569.4	5569.4	93.62	%			15:53:16
1	Al 396.153Radial†	6564.6	6996.8	5043.3	ug/L	5043.3	ppb	15:53:16
1	Ca 317.933Radial†	3149.6	3330.4	5030.5	ug/L	5030.5	ppb	15:53:36
1	Fe 238.204 Radial†	576.5	601.7	4886.5	ug/L	4886.5	ppb	15:53:36
1	K 766.490 Radial†	29816.0	28850.3	5307.7	ug/L	5307.7	ppb	15:53:16
1	Mg 279.077 IEC†	160.9	168.9	5038.7	ug/L	5038.7	ppb	15:53:36
1	Na 589.592 Radial†	37696.1	41210.0	9593.8	ug/L	9593.8	ppb	15:53:16
1	Sr 421.552†	81237.1	86530.1	492.91	ug/L	492.91	ppb	15:53:16
1	Sc 361.383	928764.0	928764.0	95.029	%			15:54:33
1	Y 371.029	770918.6	770918.6	93.792	%			15:54:33
1	Ag 328.068†	118374.7	124094.0	513.84	ug/L	513.84	ppb	15:54:39
1	As 188.979†	1332.7	1422.7	529.39	ug/L	529.39	ppb	15:54:59
1	B 249.677†	24993.6	26841.8	537.16	ug/L	537.16	ppb	15:54:39
1	Ba 233.527†	71680.6	75420.8	514.00	ug/L	514.00	ppb	15:54:39
1	Be 313.107†	1471065.5	1552459.5	504.68	ug/L	504.68	ppb	15:54:33
1	Cd 226.502†	49172.1	51960.7	514.02	ug/L	514.02	ppb	15:54:39
1	Co 228.616†	26902.9	28384.5	514.62	ug/L	514.62	ppb	15:54:39
1	Cr 267.716†	47882.3	50298.5	513.97	ug/L	513.97	ppb	15:54:39
1	Cu 324.752†	184280.8	187711.4	508.97	ug/L	508.97	ppb	15:54:39
1	Mn 257.610†	494516.2	519891.2	506.27	ug/L	506.27	ppb	15:54:33
1	Mo 202.031†	7689.2	8068.1	501.02	ug/L	501.02	ppb	15:54:59
1	Ni 231.604†	21861.8	22890.1	513.18	ug/L	513.18	ppb	15:54:39
1	P 214.914†	4721.4	4742.7	2383.1	ug/L	2383.1	ppb	15:54:59
1	Pb 220.353†	4395.4	4648.7	505.97	ug/L	505.97	ppb	15:54:59
1	S 181.975 Axial†	839.9	836.8	1013.8	ug/L	1013.8	ppb	15:54:59
1	Sb 206.836†	1633.9	1677.5	523.33	ug/L	523.33	ppb	15:54:59
1	Se 196.026†	812.9	884.4	517.02	ug/L	517.02	ppb	15:54:59
1	Si 251.611†	87701.8	91759.1	2570.7	ug/L	2570.7	ppb	15:54:39
1	Sn 189.927†	3092.1	3249.3	500.37	ug/L	500.37	ppb	15:54:59
1	Ti 334.940†	342297.9	361599.3	501.36	ug/L	501.36	ppb	15:54:33
1	Tl 190.801†	1773.4	1903.4	511.04	ug/L	511.04	ppb	15:54:59
1	U 409.014†	16498.3	19171.3	507.28	ug/L	507.28	ppb	15:54:39
1	V 292.402†	77870.6	83398.2	517.80	ug/L	517.80	ppb	15:54:39
1	Zn 213.857†	59264.2	61552.2	510.79	ug/L	510.79	ppb	15:54:39
1	SiO2†	86812.3	90807.5	5402.2	ug/L	5402.2	ppb	15:56:06
2	Sc Radial	5086.7	5086.7	90.3	%			15:53:41
2	Y RADIAL	5340.4	5340.4	89.77	%			15:53:41
2	Al 396.153Radial†	6412.7	7102.4	5119.6	ug/L	5119.6	ppb	15:53:41
2	Ca 317.933Radial†	3177.9	3493.1	5276.3	ug/L	5276.3	ppb	15:54:01
2	Fe 238.204 Radial†	585.2	635.4	5159.2	ug/L	5159.2	ppb	15:54:01
2	K 766.490 Radial†	29050.5	29246.6	5380.5	ug/L	5380.5	ppb	15:53:41
2	Mg 279.077 IEC†	164.0	179.0	5341.1	ug/L	5341.1	ppb	15:54:01
2	Na 589.592 Radial†	36511.9	41471.5	9654.7	ug/L	9654.7	ppb	15:53:41
2	Sr 421.552†	79107.1	87561.0	498.79	ug/L	498.79	ppb	15:53:41
2	Sc 361.383	921311.1	921311.1	94.266	%			15:55:05
2	Y 371.029	765736.8	765736.8	93.162	%			15:55:05
2	Ag 328.068†	116855.3	123489.9	511.42	ug/L	511.42	ppb	15:55:10
2	As 188.979†	1310.1	1410.1	524.77	ug/L	524.77	ppb	15:55:30
2	B 249.677†	24633.9	26672.9	533.74	ug/L	533.74	ppb	15:55:10
2	Ba 233.527†	70782.8	75078.6	511.67	ug/L	511.67	ppb	15:55:10
2	Be 313.107†	1457443.2	1550531.3	504.05	ug/L	504.05	ppb	15:55:05
2	Cd 226.502†	48356.2	51513.8	509.57	ug/L	509.57	ppb	15:55:10
2	Co 228.616†	26474.7	28159.2	510.54	ug/L	510.54	ppb	15:55:10
2	Cr 267.716†	47235.3	50019.7	511.12	ug/L	511.12	ppb	15:55:10
2	Cu 324.752†	182088.3	186954.3	506.93	ug/L	506.93	ppb	15:55:10
2	Mn 257.610†	489879.3	519181.9	505.59	ug/L	505.59	ppb	15:55:05
2	Mo 202.031†	7669.3	8112.4	503.79	ug/L	503.79	ppb	15:55:30
2	Ni 231.604†	21632.7	22833.1	511.90	ug/L	511.90	ppb	15:55:10

2	P 214.914†	4705.2	4765.6	2395.3 ug/L	2395.3 ppb	15:55:30
2	Pb 220.353†	4379.2	4669.0	508.17 ug/L	508.17 ppb	15:55:30
2	S 181.975 Axial†	821.5	824.3	998.67 ug/L	998.67 ppb	15:55:30
2	Sb 206.836†	1633.9	1691.4	527.59 ug/L	527.59 ppb	15:55:30
2	Se 196.026†	815.7	894.3	523.57 ug/L	523.57 ppb	15:55:30
2	Si 251.611†	86565.6	91300.3	2557.8 ug/L	2557.8 ppb	15:55:10
2	Sn 189.927†	3079.9	3262.6	502.47 ug/L	502.47 ppb	15:55:30
2	Ti 334.940†	339258.9	361289.4	500.94 ug/L	500.94 ppb	15:55:05
2	Tl 190.801†	1757.6	1901.8	510.63 ug/L	510.63 ppb	15:55:30
2	U 409.014†	16336.1	19139.6	506.41 ug/L	506.41 ppb	15:55:10
2	V 292.402†	76831.5	82958.8	515.11 ug/L	515.11 ppb	15:55:10
2	Zn 213.857†	58339.0	61075.2	506.78 ug/L	506.78 ppb	15:55:10
2	SiO2†	86447.8	91159.9	5423.2 ug/L	5423.2 ppb	15:56:12
3	Sc Radial	5248.0	5248.0	93.2 %		15:54:06
3	Y RADIAL	5513.5	5513.5	92.68 %		15:54:06
3	Al 396.153Radial†	6616.8	7103.2	5120.2 ug/L	5120.2 ppb	15:54:06
3	Ca 317.933Radial†	3132.4	3336.2	5039.3 ug/L	5039.3 ppb	15:54:26
3	Fe 238.204 Radial†	573.0	602.5	4892.1 ug/L	4892.1 ppb	15:54:26
3	K 766.490 Radial†	29710.9	28966.8	5329.1 ug/L	5329.1 ppb	15:54:06
3	Mg 279.077 IEC†	160.0	169.2	5047.6 ug/L	5047.6 ppb	15:54:26
3	Na 589.592 Radial†	37760.2	41568.7	9677.3 ug/L	9677.3 ppb	15:54:06
3	Sr 421.552†	81539.5	87479.4	498.32 ug/L	498.32 ppb	15:54:06
3	Sc 361.383	925023.5	925023.5	94.646 %		15:55:36
3	Y 371.029	769190.4	769190.4	93.582 %		15:55:36
3	Ag 328.068†	116405.3	122517.0	507.32 ug/L	507.32 ppb	15:55:41
3	As 188.979†	1330.7	1426.3	530.69 ug/L	530.69 ppb	15:56:01
3	B 249.677†	24378.0	26297.8	526.25 ug/L	526.25 ppb	15:55:41
3	Ba 233.527†	70496.3	74474.5	507.55 ug/L	507.55 ppb	15:55:41
3	Be 313.107†	1466074.9	1553446.3	505.00 ug/L	505.00 ppb	15:55:36
3	Cd 226.502†	48255.0	51201.0	506.49 ug/L	506.49 ppb	15:55:41
3	Co 228.616†	26449.0	28019.4	508.00 ug/L	508.00 ppb	15:55:41
3	Cr 267.716†	47219.7	49802.1	508.89 ug/L	508.89 ppb	15:55:41
3	Cu 324.752†	180933.7	184959.1	501.51 ug/L	501.51 ppb	15:55:41
3	Mn 257.610†	491867.3	519196.7	505.59 ug/L	505.59 ppb	15:55:36
3	Mo 202.031†	7706.4	8118.9	504.18 ug/L	504.18 ppb	15:56:01
3	Ni 231.604†	21511.6	22613.0	506.97 ug/L	506.97 ppb	15:55:41
3	P 214.914†	4751.6	4794.7	2411.8 ug/L	2411.8 ppb	15:56:01
3	Pb 220.353†	4381.7	4653.0	506.46 ug/L	506.46 ppb	15:56:01
3	S 181.975 Axial†	829.7	829.5	1004.9 ug/L	1004.9 ppb	15:56:01
3	Sb 206.836†	1640.7	1691.6	527.65 ug/L	527.65 ppb	15:56:01
3	Se 196.026†	817.5	892.6	521.72 ug/L	521.72 ppb	15:56:01
3	Si 251.611†	86189.8	90534.8	2536.3 ug/L	2536.3 ppb	15:55:41
3	Sn 189.927†	3088.2	3258.3	501.76 ug/L	501.76 ppb	15:56:01
3	Ti 334.940†	340615.1	361278.0	500.92 ug/L	500.92 ppb	15:55:36
3	Tl 190.801†	1766.8	1904.0	511.23 ug/L	511.23 ppb	15:56:01
3	U 409.014†	16312.0	19044.6	503.92 ug/L	503.92 ppb	15:55:41
3	V 292.402†	76499.7	82281.1	511.00 ug/L	511.00 ppb	15:55:41
3	Zn 213.857†	58205.0	60685.2	503.58 ug/L	503.58 ppb	15:55:41
3	SiO2†	87774.5	92193.6	5484.8 ug/L	5484.8 ppb	15:56:17

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	925032.9	94.647	%	0.3813				0.40%
Sc Radial	5206.8	92.5	%	1.88				2.03%
Y 371.029	768615.3	93.512	%	0.3210				0.34%
Y RADIAL	5474.4	92.02	%	2.007				2.18%
Ag 328.068†	123367.0	510.86	ug/L	3.293	510.86	ppb	3.293	0.64%
QC value within limits for Ag 328.068 Recovery = 102.17%								
Al 396.153Radial†	7067.5	5094.4	ug/L	44.26	5094.4	ppb	44.26	0.87%
QC value within limits for Al 396.153Radial Recovery = 101.89%								
As 188.979†	1419.7	528.28	ug/L	3.114	528.28	ppb	3.114	0.59%
QC value within limits for As 188.979 Recovery = 105.66%								
B 249.677†	26604.2	532.38	ug/L	5.582	532.38	ppb	5.582	1.05%
QC value within limits for B 249.677 Recovery = 106.48%								
Ba 233.527†	74991.3	511.07	ug/L	3.265	511.07	ppb	3.265	0.64%
QC value within limits for Ba 233.527 Recovery = 102.21%								
Be 313.107†	1552145.7	504.58	ug/L	0.481	504.58	ppb	0.481	0.10%
QC value within limits for Be 313.107 Recovery = 100.92%								
Ca 317.933Radial†	3386.6	5115.4	ug/L	139.45	5115.4	ppb	139.45	2.73%

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   QC value within limits for Ca 317.933Radial  Recovery = 102.31%
Cd 226.502†            51558.5      510.03 ug/L        3.782      510.03 ppb        3.782   0.74%
   QC value within limits for Cd 226.502  Recovery = 102.01%
Co 228.616†            28187.7      511.05 ug/L        3.336      511.05 ppb        3.336   0.65%
   QC value within limits for Co 228.616  Recovery = 102.21%
Cr 267.716†            50040.1      511.33 ug/L        2.543      511.33 ppb        2.543   0.50%
   QC value within limits for Cr 267.716  Recovery = 102.27%
Cu 324.752†           186541.6      505.80 ug/L        3.856      505.80 ppb        3.856   0.76%
   QC value within limits for Cu 324.752  Recovery = 101.16%
Fe 238.204 Radial†       613.2      4979.3 ug/L       155.89      4979.3 ppb       155.89   3.13%
   QC value within limits for Fe 238.204 Radial  Recovery = 99.59%
K 766.490 Radial†      29021.2      5339.1 ug/L       37.46       5339.1 ppb        37.46   0.70%
   QC value within limits for K 766.490 Radial  Recovery = 106.78%
Mg 279.077 IEC†          172.4      5142.5 ug/L       172.09      5142.5 ppb       172.09   3.35%
   QC value within limits for Mg 279.077 IEC  Recovery = 102.85%
Mn 257.610†           519423.2      505.81 ug/L        0.390      505.81 ppb        0.390   0.08%
   QC value within limits for Mn 257.610  Recovery = 101.16%
Mo 202.031†             8099.8      503.00 ug/L        1.723      503.00 ppb        1.723   0.34%
   QC value within limits for Mo 202.031  Recovery = 100.60%
Na 589.592 Radial†     41416.7      9642.0 ug/L        43.19      9642.0 ppb        43.19   0.45%
   QC value within limits for Na 589.592 Radial  Recovery = 96.42%
Ni 231.604†            22778.7      510.68 ug/L        3.280      510.68 ppb        3.280   0.64%
   QC value within limits for Ni 231.604  Recovery = 102.14%
P 214.914†              4767.7      2396.7 ug/L        14.40      2396.7 ppb        14.40   0.60%
   QC value within limits for P 214.914  Recovery = 95.87%
Pb 220.353†             4656.9      506.86 ug/L        1.155      506.86 ppb        1.155   0.23%
   QC value within limits for Pb 220.353  Recovery = 101.37%
S 181.975 Axial†         830.2      1005.8 ug/L         7.60      1005.8 ppb         7.60   0.76%
   QC value within limits for S 181.975 Axial  Recovery = 100.58%
Sb 206.836†             1686.8      526.19 ug/L        2.480      526.19 ppb        2.480   0.47%
   QC value within limits for Sb 206.836  Recovery = 105.24%
Se 196.026†              890.4      520.77 ug/L        3.378      520.77 ppb        3.378   0.65%
   QC value within limits for Se 196.026  Recovery = 104.15%
Si 251.611†            91198.1      2554.9 ug/L        17.39      2554.9 ppb        17.39   0.68%
   QC value within limits for Si 251.611  Recovery = 102.20%
Sn 189.927†             3256.7      501.54 ug/L        1.068      501.54 ppb        1.068   0.21%
   QC value within limits for Sn 189.927  Recovery = 100.31%
Sr 421.552†            87190.2      496.67 ug/L        3.264      496.67 ppb        3.264   0.66%
   QC value within limits for Sr 421.552  Recovery = 99.33%
Ti 334.940†           361388.9      501.07 ug/L        0.249      501.07 ppb        0.249   0.05%
   QC value within limits for Ti 334.940  Recovery = 100.21%
Tl 190.801†             1903.1      510.97 ug/L        0.310      510.97 ppb        0.310   0.06%
   QC value within limits for Tl 190.801  Recovery = 102.19%
U 409.014†             19118.5      505.87 ug/L        1.740      505.87 ppb        1.740   0.34%
   QC value within limits for U 409.014  Recovery = 101.17%
V 292.402†             82879.4      514.64 ug/L        3.428      514.64 ppb        3.428   0.67%
   QC value within limits for V 292.402  Recovery = 102.93%
Zn 213.857†            61104.2      507.05 ug/L        3.611      507.05 ppb        3.611   0.71%
   QC value within limits for Zn 213.857  Recovery = 101.41%
SiO2†                  91387.0      5436.7 ug/L        42.93      5436.7 ppb        42.93   0.79%
   QC value within limits for SiO2  Recovery = 101.67%
All analyte(s) passed QC.
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Sequence No.: 14
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 1/19/2010 15:58:27
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Rep1#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5312.2	5312.2	94.3	%			16:00:19
1	Y RADIAL	5632.2	5632.2	94.67	%			16:00:19
1	Al 396.153Radial†	2.2	5.9	4.2393	ug/L	4.2393	ppb	16:00:19
1	Ca 317.933Radial†	21.0	-2.5	-3.8401	ug/L	-3.8401	ppb	16:00:39
1	Fe 238.204 Radial†	13.2	1.6	13.079	ug/L	13.079	ppb	16:00:39
1	K 766.490 Radial†	3521.4	820.0	151.03	ug/L	151.03	ppb	16:00:19
1	Mg 279.077 IEC†	-0.6	-3.1	-91.711	ug/L	-91.711	ppb	16:00:39
1	Na 589.592 Radial†	-910.2	87.4	20.352	ug/L	20.352	ppb	16:00:19
1	Sr 421.552†	-9.6	-22.0	-0.1252	ug/L	-0.1252	ppb	16:00:19
1	Sc 361.383	948021.7	948021.7	96.999	%			16:01:36
1	Y 371.029	797986.7	797986.7	97.085	%			16:01:36
1	Ag 328.068†	410.9	-49.3	-0.2016	ug/L	-0.2016	ppb	16:01:41
1	As 188.979†	6.7	27.2	10.051	ug/L	10.051	ppb	16:02:01
1	B 249.677†	635.4	1195.8	24.029	ug/L	24.029	ppb	16:01:41
1	Ba 233.527†	16.0	7.0	0.0475	ug/L	0.0475	ppb	16:02:01
1	Be 313.107†	-4350.7	-43.9	-0.0142	ug/L	-0.0142	ppb	16:01:41
1	Cd 226.502†	-180.1	30.7	0.3035	ug/L	0.3035	ppb	16:02:01
1	Co 228.616†	-71.5	0.6	0.0104	ug/L	0.0104	ppb	16:02:01
1	Cr 267.716†	118.8	33.9	0.3449	ug/L	0.3449	ppb	16:02:01
1	Cu 324.752†	6152.9	133.9	0.3622	ug/L	0.3622	ppb	16:01:41
1	Mn 257.610†	503.8	25.8	0.0301	ug/L	0.0301	ppb	16:02:01
1	Mo 202.031†	22.5	-0.1	-0.0067	ug/L	-0.0067	ppb	16:02:01
1	Ni 231.604†	121.4	9.8	0.2202	ug/L	0.2202	ppb	16:02:01
1	P 214.914†	218.6	-0.4	-0.2610	ug/L	-0.2610	ppb	16:02:01
1	Pb 220.353†	-13.6	9.4	1.0148	ug/L	1.0148	ppb	16:02:01
1	S 181.975 Axial†	47.2	1.5	1.8133	ug/L	1.8133	ppb	16:02:01
1	Sb 206.836†	40.1	-0.6	-0.1553	ug/L	-0.1553	ppb	16:02:01
1	Se 196.026†	-24.7	3.5	2.0017	ug/L	2.0017	ppb	16:02:01
1	Si 251.611†	642.3	131.7	3.6987	ug/L	3.6987	ppb	16:02:01
1	Sn 189.927†	15.1	11.0	1.6844	ug/L	1.6844	ppb	16:02:01
1	Ti 334.940†	-1344.6	9.3	0.0185	ug/L	0.0185	ppb	16:01:41
1	Tl 190.801†	-31.0	5.4	1.4294	ug/L	1.4294	ppb	16:02:01
1	U 409.014†	-1647.0	112.0	2.9704	ug/L	2.9704	ppb	16:01:36
1	V 292.402†	-1434.3	-24.5	-0.1486	ug/L	-0.1486	ppb	16:01:41
1	Zn 213.857†	903.1	118.8	0.9911	ug/L	0.9911	ppb	16:02:01
1	SiO2†	653.6	127.9	7.6261	ug/L	7.6261	ppb	16:03:07
2	Sc Radial	5329.5	5329.5	94.6	%			16:00:44
2	Y RADIAL	5670.1	5670.1	95.31	%			16:00:44
2	Al 396.153Radial†	25.7	30.7	22.175	ug/L	22.175	ppb	16:00:44
2	Ca 317.933Radial†	15.5	-8.5	-12.833	ug/L	-12.833	ppb	16:01:04
2	Fe 238.204 Radial†	12.2	0.5	4.3245	ug/L	4.3245	ppb	16:01:04
2	K 766.490 Radial†	3550.3	838.4	154.44	ug/L	154.44	ppb	16:00:44
2	Mg 279.077 IEC†	4.0	1.7	51.570	ug/L	51.570	ppb	16:01:04
2	Na 589.592 Radial†	-1027.0	-32.8	-7.6352	ug/L	-7.6352	ppb	16:00:44
2	Sr 421.552†	16.9	6.0	0.0343	ug/L	0.0343	ppb	16:00:44
2	Sc 361.383	932947.0	932947.0	95.457	%			16:02:06
2	Y 371.029	786789.0	786789.0	95.723	%			16:02:06
2	Ag 328.068†	442.2	-9.7	-0.0391	ug/L	-0.0391	ppb	16:02:11
2	As 188.979†	2.2	22.6	8.3467	ug/L	8.3467	ppb	16:02:31
2	B 249.677†	561.6	1129.0	22.689	ug/L	22.689	ppb	16:02:11
2	Ba 233.527†	11.3	2.3	0.0146	ug/L	0.0146	ppb	16:02:31
2	Be 313.107†	-4365.6	-131.9	-0.0430	ug/L	-0.0430	ppb	16:02:11
2	Cd 226.502†	-180.3	27.5	0.2710	ug/L	0.2710	ppb	16:02:31
2	Co 228.616†	-79.1	-8.6	-0.1543	ug/L	-0.1543	ppb	16:02:31
2	Cr 267.716†	83.5	-1.1	-0.0111	ug/L	-0.0111	ppb	16:02:31
2	Cu 324.752†	6233.2	320.6	0.8708	ug/L	0.8708	ppb	16:02:11
2	Mn 257.610†	487.2	16.8	0.0147	ug/L	0.0147	ppb	16:02:31
2	Mo 202.031†	30.5	8.7	0.5369	ug/L	0.5369	ppb	16:02:31
2	Ni 231.604†	94.5	-16.4	-0.3672	ug/L	-0.3672	ppb	16:02:31

2	P 214.914†	225.6	10.6	5.4213	ug/L	5.4213 ppb	16:02:31
2	Pb 220.353†	-32.4	-10.5	-1.1358	ug/L	-1.1358 ppb	16:02:31
2	S 181.975 Axial†	51.4	6.7	8.0876	ug/L	8.0876 ppb	16:02:31
2	Sb 206.836†	42.9	3.1	0.9663	ug/L	0.9663 ppb	16:02:31
2	Se 196.026†	-25.6	2.1	1.1980	ug/L	1.1980 ppb	16:02:31
2	Si 251.611†	634.1	133.8	3.7510	ug/L	3.7510 ppb	16:02:31
2	Sn 189.927†	16.9	13.1	2.0138	ug/L	2.0138 ppb	16:02:31
2	Ti 334.940†	-1392.9	-63.7	-0.0932	ug/L	-0.0932 ppb	16:02:11
2	Tl 190.801†	-39.3	-3.9	-1.0358	ug/L	-1.0358 ppb	16:02:31
2	U 409.014†	-1810.1	-86.4	-2.2933	ug/L	-2.2933 ppb	16:02:06
2	V 292.402†	-1493.0	-109.8	-0.6695	ug/L	-0.6695 ppb	16:02:11
2	Zn 213.857†	908.8	139.9	1.1715	ug/L	1.1715 ppb	16:02:31
2	SiO2†	617.2	100.6	5.9868	ug/L	5.9868 ppb	16:03:12
3	Sc Radial	5275.8	5275.8	93.7	%		16:01:09
3	Y RADIAL	5595.7	5595.7	94.06	%		16:01:09
3	Al 396.153Radial†	-2.8	0.5	0.3519	ug/L	0.3519 ppb	16:01:09
3	Ca 317.933Radial†	22.5	-0.9	-1.3099	ug/L	-1.3099 ppb	16:01:29
3	Fe 238.204 Radial†	11.7	0.2	1.2656	ug/L	1.2656 ppb	16:01:29
3	K 766.490 Radial†	3336.1	648.0	119.35	ug/L	119.35 ppb	16:01:09
3	Mg 279.077 IEC†	1.0	-1.4	-40.838	ug/L	-40.838 ppb	16:01:29
3	Na 589.592 Radial†	-1000.4	-15.5	-3.6031	ug/L	-3.6031 ppb	16:01:09
3	Sr 421.552†	24.7	14.5	0.0824	ug/L	0.0824 ppb	16:01:09
3	Sc 361.383	937015.1	937015.1	95.873	%		16:02:37
3	Y 371.029	789652.5	789652.5	96.071	%		16:02:37
3	Ag 328.068†	354.9	-102.8	-0.4253	ug/L	-0.4253 ppb	16:02:42
3	As 188.979†	8.7	29.4	10.834	ug/L	10.834 ppb	16:03:02
3	B 249.677†	543.9	1108.0	22.267	ug/L	22.267 ppb	16:02:42
3	Ba 233.527†	4.5	-4.8	-0.0333	ug/L	-0.0333 ppb	16:03:02
3	Be 313.107†	-4411.4	-159.8	-0.0516	ug/L	-0.0516 ppb	16:02:42
3	Cd 226.502†	-197.3	10.6	0.1055	ug/L	0.1055 ppb	16:03:02
3	Co 228.616†	-59.9	11.8	0.2141	ug/L	0.2141 ppb	16:03:02
3	Cr 267.716†	102.6	18.4	0.1871	ug/L	0.1871 ppb	16:03:02
3	Cu 324.752†	6160.4	216.3	0.5855	ug/L	0.5855 ppb	16:02:42
3	Mn 257.610†	503.5	31.6	0.0325	ug/L	0.0325 ppb	16:03:02
3	Mo 202.031†	27.7	5.6	0.3454	ug/L	0.3454 ppb	16:03:02
3	Ni 231.604†	105.6	-5.2	-0.1160	ug/L	-0.1160 ppb	16:03:02
3	P 214.914†	224.3	8.2	4.1995	ug/L	4.1995 ppb	16:03:02
3	Pb 220.353†	-2.5	20.9	2.2629	ug/L	2.2629 ppb	16:03:02
3	S 181.975 Axial†	39.2	-6.3	-7.5989	ug/L	-7.5989 ppb	16:03:02
3	Sb 206.836†	45.3	5.4	1.6470	ug/L	1.6470 ppb	16:03:02
3	Se 196.026†	-26.5	1.3	0.7327	ug/L	0.7327 ppb	16:03:02
3	Si 251.611†	649.3	146.7	4.1164	ug/L	4.1164 ppb	16:03:02
3	Sn 189.927†	11.2	7.1	1.0917	ug/L	1.0917 ppb	16:03:02
3	Ti 334.940†	-1263.2	78.0	0.1105	ug/L	0.1105 ppb	16:02:42
3	Tl 190.801†	-36.3	-0.6	-0.1529	ug/L	-0.1529 ppb	16:03:02
3	U 409.014†	-1672.6	65.3	1.7324	ug/L	1.7324 ppb	16:02:37
3	V 292.402†	-1445.2	-53.2	-0.3193	ug/L	-0.3193 ppb	16:02:42
3	Zn 213.857†	909.1	136.0	1.1382	ug/L	1.1382 ppb	16:03:02
3	SiO2†	638.7	120.3	7.1630	ug/L	7.1630 ppb	16:03:17

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	939327.9	96.110	%	0.7980				0.83%
Sc Radial	5305.9	94.2	%	0.49				0.52%
Y 371.029	791476.1	96.293	%	0.7078				0.73%
Y RADIAL	5632.6	94.68	%	0.625				0.66%
Ag 328.068†	-53.9	-0.2220	ug/L	0.19393	-0.2220	ppb	0.19393	87.37%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	12.3	8.9220	ug/L	11.64061	8.9220	ppb	11.64061	130.47%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	26.4	9.7441	ug/L	1.27192	9.7441	ppb	1.27192	13.05%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	1144.3	22.995	ug/L	0.9197	22.995	ppb	0.9197	4.00%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	1.5	0.0096	ug/L	0.04062	0.0096	ppb	0.04062	422.58%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-111.9	-0.0363	ug/L	0.01957	-0.0363	ppb	0.01957	53.97%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-4.0	-5.9943	ug/L	6.05600	-5.9943	ppb	6.05600	101.03%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                23.0      0.2267 ug/L       0.10623      0.2267 ppb        0.10623  46.87%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                 1.3      0.0234 ug/L       0.18454      0.0234 ppb        0.18454 787.44%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                17.1      0.1737 ug/L       0.17837      0.1737 ppb        0.17837 102.71%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               223.6      0.6061 ug/L       0.25494      0.6061 ppb        0.25494  42.06%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          0.8      6.2231 ug/L       6.13135      6.2231 ppb        6.13135  98.53%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         768.8      141.61 ug/L        19.348      141.61 ppb         19.348  13.66%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -0.9     -26.993 ug/L       72.6371     -26.993 ppb        72.6371 269.10%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                24.7      0.0258 ug/L       0.00967      0.0258 ppb        0.00967  37.48%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 4.7      0.2918 ug/L       0.27574      0.2918 ppb        0.27574  94.48%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†         13.0      3.0378 ug/L      15.12919      3.0378 ppb       15.12919 498.04%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                -3.9     -0.0877 ug/L       0.29470     -0.0877 ppb        0.29470 336.13%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                  6.2      3.1199 ug/L       2.99102      3.1199 ppb        2.99102  95.87%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                 6.6      0.7140 ug/L       1.71919      0.7140 ppb        1.71919 240.78%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            0.6      0.7673 ug/L       7.89539      0.7673 ppb        7.89539 >999.9%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 2.6      0.8193 ug/L       0.91009      0.8193 ppb        0.91009 111.08%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 2.3      1.3108 ug/L       0.64198      1.3108 ppb        0.64198  48.98%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†               137.4      3.8553 ug/L       0.22757      3.8553 ppb        0.22757   5.90%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                10.4      1.5966 ug/L       0.46726      1.5966 ppb        0.46726  29.27%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                -0.5     -0.0028 ug/L       0.10868     -0.0028 ppb        0.10868 >999.9%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                 7.9      0.0119 ug/L       0.10204      0.0119 ppb        0.10204 855.13%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 0.3      0.0802 ug/L       1.24902      0.0802 ppb        1.24902 >999.9%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 30.3      0.8032 ug/L       2.75213      0.8032 ppb        2.75213 342.66%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                -62.5     -0.3791 ug/L       0.26557     -0.3791 ppb        0.26557  70.05%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               131.5      1.1003 ug/L       0.09600      1.1003 ppb        0.09600   8.73%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                     116.2      6.9253 ug/L       0.84508      6.9253 ppb        0.84508  12.20%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
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Analysis Begun

Start Time: 1/19/2010 16:20:05 **Plasma On Time: 1/18/2010 05:48:39**
Logged In Analyst: Optima3 **Technique: ICP Continuous**
Spectrometer Model: Optima 5300 DV, S/N 077C7090601Autosampler Model: S10

Sample Information File: C:\pe\Optima3\Sample Information\011910B.sif
Batch ID:
Results Data Set: 011910
Results Library: C:\pe\Optima3\Results\Results.mdb

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Method Loaded
Method Name: General Eng.2AX **Method Last Saved: 1/19/2010 14:37:57**
IEC File: 011110.iec **MSF File:**
Method Description:

Analyte	Calibration Equation	Processing	View	Internal Standard	IEC
Ag 328.068	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Al 396.153Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
As 188.979	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
B 249.677	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ba 233.527	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Be 313.107	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ca 317.933Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	No
Cd 226.502	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Co 228.616	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cr 267.716	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cu 324.752	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Fe 238.204 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
K 766.490 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Mg 279.077 IEC	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Mn 257.610	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Mo 202.031	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Na 589.592 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	No
Ni 231.604	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
P 214.914	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Pb 220.353	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
S 181.975 Axial	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sb 206.836	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sc 361.383	Lin Thru 0	Peak Area	Axial	n/a	n/a
Sc Radial	Lin, Calc Int	Peak Area	Radial	n/a	n/a
Se 196.026	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Si 251.611	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sn 189.927	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sr 421.552	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Ti 334.940	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Tl 190.801	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
U 409.014	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
V 292.402	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y 371.029	Lin, Calc Int	Peak Area	Axial	n/a	n/a
Zn 213.857	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y RADIAL	Lin, Calc Int	Peak Area	Radial	n/a	n/a
SiO2	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes

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Sequence No.: 1 **Autosampler Location: 37**
Sample ID: LR1 **Date Collected: 1/19/2010 16:20:06**
Analyst: HSC **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: LR1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5137.3	5137.3	91.2	%			16:22:00
1	Y RADIAL	5426.6	5426.6	91.22	%			16:22:00
1	Al 396.153Radial†	-31.5	-31.0	-21.116	ug/L	-21.116	ppb	16:22:00

1	Ca 317.933Radial†	8.6	-15.4	-23.329 ug/L	-23.329 ppb	16:22:20
1	Fe 238.204 Radial†	43314.9	47465.5	384240 ug/L	384240 ppb	16:22:00
1	K 766.490 Radial†	2720.4	69.1	12.794 ug/L	12.794 ppb	16:22:00
1	Mg 279.077 IEC†	11.1	9.7	-112.24 ug/L	-112.24 ppb	16:22:20
1	Na 589.592 Radial†	-1003.5	-47.6	-11.090 ug/L	-11.090 ppb	16:22:00
1	Sr 421.552†	96.5	93.9	0.5351 ug/L	0.5351 ppb	16:22:00
1	Sc 361.383	899988.3	899988.3	92.085 %		16:23:17
1	Y 371.029	753720.7	753720.7	91.700 %		16:23:17
1	Ag 328.068†	-27787.6	-30649.1	-1.5210 ug/L	-1.5210 ppb	16:23:17
1	As 188.979†	-220.8	-219.5	9.0684 ug/L	9.0684 ppb	16:23:37
1	B 249.677†	2120.5	2843.5	-5.2693 ug/L	-5.2693 ppb	16:23:17
1	Ba 233.527†	-1978.6	-2158.1	-2.8611 ug/L	-2.8611 ppb	16:23:37
1	Be 313.107†	-4261.6	-186.6	-0.0608 ug/L	-0.0608 ppb	16:23:17
1	Cd 226.502†	3350.6	3855.1	-1.5340 ug/L	-1.5340 ppb	16:23:37
1	Co 228.616†	205.8	297.8	-0.2193 ug/L	-0.2193 ppb	16:23:37
1	Cr 267.716†	-562.5	-699.5	0.3824 ug/L	0.3824 ppb	16:23:37
1	Cu 324.752†	-2353.0	-8764.6	-3.4606 ug/L	-3.4606 ppb	16:23:17
1	Mn 257.610†	-41180.8	-45214.1	-6.0675 ug/L	-6.0675 ppb	16:23:17
1	Mo 202.031†	-389.7	-446.6	2.1217 ug/L	2.1217 ppb	16:23:37
1	Ni 231.604†	225.4	129.4	2.9001 ug/L	2.9001 ppb	16:23:37
1	P 214.914†	782.4	623.9	21.721 ug/L	21.721 ppb	16:23:37
1	Pb 220.353†	225.9	268.7	-7.6184 ug/L	-7.6184 ppb	16:23:37
1	S 181.975 Axial†	57.0	14.8	17.946 ug/L	17.946 ppb	16:23:37
1	Sb 206.836†	9.9	-31.2	-0.2107 ug/L	-0.2107 ppb	16:23:37
1	Se 196.026†	-2185.3	-2344.2	33.631 ug/L	33.631 ppb	16:23:37
1	Si 251.611†	-790.4	-1388.8	-38.660 ug/L	-38.660 ppb	16:23:37
1	Sn 189.927†	-24.5	-31.1	1.6730 ug/L	1.6730 ppb	16:23:37
1	Ti 334.940†	-1371.9	-94.2	-0.1807 ug/L	-0.1807 ppb	16:23:37
1	Tl 190.801†	-46.3	-13.0	-3.8098 ug/L	-3.8098 ppb	16:23:37
1	U 409.014†	366.2	2207.6	14.822 ug/L	14.822 ppb	16:23:17
1	V 292.402†	6838.1	8880.0	-1.8126 ug/L	-1.8126 ppb	16:23:37
1	Zn 213.857†	4798.5	4398.7	-0.4394 ug/L	-0.4394 ppb	16:23:37
1	SiO2†	-756.0	-1367.0	-80.772 ug/L	-80.772 ppb	16:24:34
2	Sc Radial	5181.8	5181.8	92.0 %		16:22:25
2	Y RADIAL	5450.7	5450.7	91.62 %		16:22:25
2	Al 396.153Radial†	-24.4	-23.1	-15.362 ug/L	-15.362 ppb	16:22:25
2	Ca 317.933Radial†	13.5	-10.2	-15.344 ug/L	-15.344 ppb	16:22:45
2	Fe 238.204 Radial†	43614.1	47382.5	383560 ug/L	383560 ppb	16:22:25
2	K 766.490 Radial†	2687.0	7.2	1.3888 ug/L	1.3888 ppb	16:22:25
2	Mg 279.077 IEC†	11.5	10.0	-103.18 ug/L	-103.18 ppb	16:22:45
2	Na 589.592 Radial†	-1087.2	-129.2	-30.073 ug/L	-30.073 ppb	16:22:25
2	Sr 421.552†	101.2	98.1	0.5593 ug/L	0.5593 ppb	16:22:25
2	Sc 361.383	892242.4	892242.4	91.292 %		16:23:42
2	Y 371.029	746877.5	746877.5	90.867 %		16:23:42
2	Ag 328.068†	-27389.8	-30475.3	-1.0207 ug/L	-1.0207 ppb	16:23:42
2	As 188.979†	-226.7	-228.0	5.7611 ug/L	5.7611 ppb	16:24:03
2	B 249.677†	2285.8	3044.6	-1.1212 ug/L	-1.1212 ppb	16:23:42
2	Ba 233.527†	-1990.6	-2189.9	-3.0954 ug/L	-3.0954 ppb	16:24:03
2	Be 313.107†	-4283.3	-250.4	-0.0816 ug/L	-0.0816 ppb	16:23:42
2	Cd 226.502†	3339.8	3874.8	-1.2689 ug/L	-1.2689 ppb	16:24:03
2	Co 228.616†	240.9	338.1	0.5223 ug/L	0.5223 ppb	16:24:03
2	Cr 267.716†	-600.5	-746.3	-0.1082 ug/L	-0.1082 ppb	16:24:03
2	Cu 324.752†	-2135.0	-8548.0	-2.9099 ug/L	-2.9099 ppb	16:23:42
2	Mn 257.610†	-40471.3	-44825.2	-5.7557 ug/L	-5.7557 ppb	16:23:42
2	Mo 202.031†	-385.4	-445.5	2.1357 ug/L	2.1357 ppb	16:24:03
2	Ni 231.604†	226.3	132.5	2.9689 ug/L	2.9689 ppb	16:24:03
2	P 214.914†	767.7	615.3	17.627 ug/L	17.627 ppb	16:24:03
2	Pb 220.353†	251.8	299.3	-4.2403 ug/L	-4.2403 ppb	16:24:03
2	S 181.975 Axial†	67.7	27.1	32.849 ug/L	32.849 ppb	16:24:03
2	Sb 206.836†	24.6	-14.9	4.6711 ug/L	4.6711 ppb	16:24:03
2	Se 196.026†	-2184.0	-2363.4	20.463 ug/L	20.463 ppb	16:24:03
2	Si 251.611†	-808.4	-1416.0	-39.424 ug/L	-39.424 ppb	16:24:03
2	Sn 189.927†	-23.3	-30.1	1.8258 ug/L	1.8258 ppb	16:24:03
2	Ti 334.940†	-1391.6	-128.8	-0.2289 ug/L	-0.2289 ppb	16:24:03
2	Tl 190.801†	-44.3	-11.2	-3.3316 ug/L	-3.3316 ppb	16:24:03
2	U 409.014†	429.4	2280.2	16.828 ug/L	16.828 ppb	16:23:42
2	V 292.402†	6933.8	9049.3	-0.6722 ug/L	-0.6722 ppb	16:24:03
2	Zn 213.857†	4842.1	4491.8	0.4034 ug/L	0.4034 ppb	16:24:03
2	SiO2†	-862.9	-1491.1	-88.179 ug/L	-88.179 ppb	16:24:39
3	Sc Radial	5203.4	5203.4	92.4 %		16:22:50
3	Y RADIAL	5501.6	5501.6	92.48 %		16:22:50

3	Al 396.153Radial†	-8.6	-5.8	-2.8667	ug/L	-2.8667 ppb	16:22:50
3	Ca 317.933Radial†	11.9	-11.9	-18.034	ug/L	-18.034 ppb	16:23:10
3	Fe 238.204 Radial†	43633.7	47207.2	382140	ug/L	382140 ppb	16:22:50
3	K 766.490 Radial†	2583.7	-116.7	-21.438	ug/L	-21.438 ppb	16:22:50
3	Mg 279.077 IEC†	12.8	11.4	-59.895	ug/L	-59.895 ppb	16:23:10
3	Na 589.592 Radial†	-1030.6	-63.0	-14.676	ug/L	-14.676 ppb	16:22:50
3	Sr 421.552†	73.1	67.2	0.3830	ug/L	0.3830 ppb	16:22:50
3	Sc 361.383	908070.6	908070.6	92.912	%		16:24:08
3	Y 371.029	759574.4	759574.4	92.412	%		16:24:08
3	Ag 328.068†	-28001.8	-30611.0	-2.0467	ug/L	-2.0467 ppb	16:24:08
3	As 188.979†	-222.6	-219.2	8.6712	ug/L	8.6712 ppb	16:24:28
3	B 249.677†	2283.3	2998.3	-1.8193	ug/L	-1.8193 ppb	16:24:08
3	Ba 233.527†	-1976.9	-2137.2	-2.7841	ug/L	-2.7841 ppb	16:24:28
3	Be 313.107†	-4356.3	-247.3	-0.0804	ug/L	-0.0804 ppb	16:24:08
3	Cd 226.502†	3354.7	3827.1	-1.5942	ug/L	-1.5942 ppb	16:24:28
3	Co 228.616†	215.7	306.4	-0.0341	ug/L	-0.0341 ppb	16:24:28
3	Cr 267.716†	-610.0	-745.1	-0.1260	ug/L	-0.1260 ppb	16:24:28
3	Cu 324.752†	-2314.0	-8699.9	-3.3974	ug/L	-3.3974 ppb	16:24:08
3	Mn 257.610†	-41257.0	-44898.1	-5.9685	ug/L	-5.9685 ppb	16:24:08
3	Mo 202.031†	-400.6	-454.5	1.4641	ug/L	1.4641 ppb	16:24:28
3	Ni 231.604†	225.0	126.8	2.8404	ug/L	2.8404 ppb	16:24:28
3	P 214.914†	794.3	629.2	26.168	ug/L	26.168 ppb	16:24:28
3	Pb 220.353†	221.6	261.9	-8.1576	ug/L	-8.1576 ppb	16:24:28
3	S 181.975 Axial†	67.0	25.0	30.307	ug/L	30.307 ppb	16:24:28
3	Sb 206.836†	26.4	-13.5	5.0534	ug/L	5.0534 ppb	16:24:28
3	Se 196.026†	-2205.7	-2345.0	25.786	ug/L	25.786 ppb	16:24:28
3	Si 251.611†	-757.5	-1345.8	-37.447	ug/L	-37.447 ppb	16:24:28
3	Sn 189.927†	-22.5	-28.8	2.0012	ug/L	2.0012 ppb	16:24:28
3	Ti 334.940†	-1360.3	-68.5	-0.1495	ug/L	-0.1495 ppb	16:24:28
3	Tl 190.801†	-68.0	-36.0	-9.9244	ug/L	-9.9244 ppb	16:24:28
3	U 409.014†	472.1	2318.1	17.994	ug/L	17.994 ppb	16:24:08
3	V 292.402†	6795.8	8768.4	-2.1923	ug/L	-2.1923 ppb	16:24:28
3	Zn 213.857†	4845.4	4402.8	-0.2022	ug/L	-0.2022 ppb	16:24:28
3	SiO2†	-842.0	-1452.2	-85.845	ug/L	-85.845 ppb	16:24:44

Mean Data: LR1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	900100.4	92.096	%	0.8098				0.88%
Sc Radial	5174.2	91.9	%	0.60				0.65%
Y 371.029	753390.8	91.660	%	0.7732				0.84%
Y RADIAL	5459.7	91.77	%	0.644				0.70%
Ag 328.068†	-30578.5	-1.5294	ug/L	0.51303	-1.5294	ppb	0.51303	33.54%
Al 396.153Radial†	-20.0	-13.115	ug/L	9.3297	-13.115	ppb	9.3297	71.14%
As 188.979†	-222.2	7.8335	ug/L	1.80578	7.8335	ppb	1.80578	23.05%
B 249.677†	2962.1	-2.7366	ug/L	2.22100	-2.7366	ppb	2.22100	81.16%
Ba 233.527†	-2161.8	-2.9136	ug/L	0.16216	-2.9136	ppb	0.16216	5.57%
Be 313.107†	-228.1	-0.0743	ug/L	0.01169	-0.0743	ppb	0.01169	15.73%
Ca 317.933Radial†	-12.5	-18.903	ug/L	4.0628	-18.903	ppb	4.0628	21.49%
Cd 226.502†	3852.3	-1.4657	ug/L	0.17307	-1.4657	ppb	0.17307	11.81%
Co 228.616†	314.1	0.0896	ug/L	0.38598	0.0896	ppb	0.38598	430.75%
Cr 267.716†	-730.3	0.0494	ug/L	0.28849	0.0494	ppb	0.28849	583.82%
Cu 324.752†	-8670.8	-3.2560	ug/L	0.30138	-3.2560	ppb	0.30138	9.26%
Fe 238.204 Radial†	47351.7	383310	ug/L	1067.6	383310	ppb	1067.6	0.28%
K 766.490 Radial†	-13.5	-2.4187	ug/L	17.43077	-2.4187	ppb	17.43077	720.67%
Mg 279.077 IEC†	10.4	-91.774	ug/L	27.9773	-91.774	ppb	27.9773	30.48%
Mn 257.610†	-44979.1	-5.9306	ug/L	0.15934	-5.9306	ppb	0.15934	2.69%
Mo 202.031†	-448.9	1.9072	ug/L	0.38376	1.9072	ppb	0.38376	20.12%
Na 589.592 Radial†	-80.0	-18.613	ug/L	10.0852	-18.613	ppb	10.0852	54.18%
Ni 231.604†	129.6	2.9032	ug/L	0.06428	2.9032	ppb	0.06428	2.21%
P 214.914†	622.8	21.839	ug/L	4.2719	21.839	ppb	4.2719	19.56%
Pb 220.353†	276.6	-6.6721	ug/L	2.12319	-6.6721	ppb	2.12319	31.82%
S 181.975 Axial†	22.3	27.034	ug/L	7.9722	27.034	ppb	7.9722	29.49%
Sb 206.836†	-19.9	3.1712	ug/L	2.93506	3.1712	ppb	2.93506	92.55%
Se 196.026†	-2350.8	26.627	ug/L	6.6245	26.627	ppb	6.6245	24.88%
Si 251.611†	-1383.5	-38.511	ug/L	0.9974	-38.511	ppb	0.9974	2.59%
Sn 189.927†	-30.0	1.8333	ug/L	0.16425	1.8333	ppb	0.16425	8.96%
Sr 421.552†	86.4	0.4925	ug/L	0.09554	0.4925	ppb	0.09554	19.40%
Ti 334.940†	-97.2	-0.1864	ug/L	0.04000	-0.1864	ppb	0.04000	21.46%
Tl 190.801†	-20.1	-5.6886	ug/L	3.67607	-5.6886	ppb	3.67607	64.62%

U 409.014†	2268.6	16.548	ug/L	1.6042	16.548	ppb	1.6042 9.69%
V 292.402†	8899.3	-1.5590	ug/L	0.79111	-1.5590	ppb	0.79111 50.74%
Zn 213.857†	4431.1	-0.0794	ug/L	0.43460	-0.0794	ppb	0.43460 547.13%
SiO2†	-1436.8	-84.932	ug/L	3.7868	-84.932	ppb	3.7868 4.46%

Sequence No.: 2
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 1/19/2010 16:26:55
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5355.2	5355.2	95.1	%			16:28:48
1	Y RADIAL	5635.9	5635.9	94.73	%			16:28:48
1	Al 396.153Radial†	6720.9	7070.6	5096.4	ug/L	5096.4	ppb	16:28:48
1	Ca 317.933Radial†	3177.1	3315.9	5008.6	ug/L	5008.6	ppb	16:29:08
1	Fe 238.204 Radial†	587.2	605.1	4913.3	ug/L	4913.3	ppb	16:29:08
1	K 766.490 Radial†	28711.7	27278.0	5018.0	ug/L	5018.0	ppb	16:28:48
1	Mg 279.077 IEC†	164.5	170.5	5085.6	ug/L	5085.6	ppb	16:29:08
1	Na 589.592 Radial†	38793.6	41844.3	9741.5	ug/L	9741.5	ppb	16:28:48
1	Sr 421.552†	83174.6	87447.4	498.14	ug/L	498.14	ppb	16:28:48
1	Sc 361.383	933188.1	933188.1	95.482	%			16:30:07
1	Y 371.029	774903.1	774903.1	94.277	%			16:30:07
1	Ag 328.068†	118272.0	123395.9	510.97	ug/L	510.97	ppb	16:30:07
1	As 188.979†	1280.1	1361.0	506.63	ug/L	506.63	ppb	16:30:27
1	B 249.677†	23882.0	25552.9	511.28	ug/L	511.28	ppb	16:30:07
1	Ba 233.527†	71970.3	75366.6	513.62	ug/L	513.62	ppb	16:30:07
1	Be 313.107†	1489740.9	1564679.7	508.65	ug/L	508.65	ppb	16:30:07
1	Cd 226.502†	49190.5	51734.7	511.77	ug/L	511.77	ppb	16:30:07
1	Co 228.616†	26551.2	27881.9	505.52	ug/L	505.52	ppb	16:30:27
1	Cr 267.716†	47853.0	50029.0	511.22	ug/L	511.22	ppb	16:30:07
1	Cu 324.752†	186156.7	188756.7	511.82	ug/L	511.82	ppb	16:30:07
1	Mn 257.610†	499934.4	523098.7	509.39	ug/L	509.39	ppb	16:30:07
1	Mo 202.031†	7836.8	8184.3	508.23	ug/L	508.23	ppb	16:30:27
1	Ni 231.604†	21710.9	22623.0	507.19	ug/L	507.19	ppb	16:30:27
1	P 214.914†	4816.1	4818.3	2422.1	ug/L	2422.1	ppb	16:30:27
1	Pb 220.353†	4465.5	4700.2	511.58	ug/L	511.58	ppb	16:30:27
1	S 181.975 Axial†	830.8	822.9	997.03	ug/L	997.03	ppb	16:30:27
1	Sb 206.836†	1620.3	1655.1	516.77	ug/L	516.77	ppb	16:30:27
1	Se 196.026†	822.3	890.1	520.40	ug/L	520.40	ppb	16:30:27
1	Si 251.611†	87767.5	91390.4	2560.2	ug/L	2560.2	ppb	16:30:07
1	Sn 189.927†	3134.8	3278.6	504.88	ug/L	504.88	ppb	16:30:27
1	Ti 334.940†	345947.3	363713.8	504.30	ug/L	504.30	ppb	16:30:07
1	Tl 190.801†	1779.4	1900.9	510.45	ug/L	510.45	ppb	16:30:27
1	U 409.014†	15784.9	18341.8	485.26	ug/L	485.26	ppb	16:30:07
1	V 292.402†	77616.9	82744.1	513.85	ug/L	513.85	ppb	16:30:07
1	Zn 213.857†	59159.5	61146.9	507.43	ug/L	507.43	ppb	16:30:07
1	SiO2†	87384.0	90973.2	5411.9	ug/L	5411.9	ppb	16:31:27
2	Sc Radial	5166.1	5166.1	91.7	%			16:29:13
2	Y RADIAL	5420.8	5420.8	91.12	%			16:29:13
2	Al 396.153Radial†	6513.6	7103.3	5120.1	ug/L	5120.1	ppb	16:29:13
2	Ca 317.933Radial†	3175.4	3436.4	5190.6	ug/L	5190.6	ppb	16:29:33
2	Fe 238.204 Radial†	587.4	627.9	5098.1	ug/L	5098.1	ppb	16:29:33
2	K 766.490 Radial†	27758.3	27343.6	5030.0	ug/L	5030.0	ppb	16:29:13
2	Mg 279.077 IEC†	163.5	175.8	5243.6	ug/L	5243.6	ppb	16:29:33
2	Na 589.592 Radial†	37318.2	41728.8	9714.6	ug/L	9714.6	ppb	16:29:13
2	Sr 421.552†	80406.8	87631.0	499.19	ug/L	499.19	ppb	16:29:13
2	Sc 361.383	929745.0	929745.0	95.129	%			16:30:34
2	Y 371.029	771734.8	771734.8	93.891	%			16:30:34
2	Ag 328.068†	117802.2	123360.8	510.88	ug/L	510.88	ppb	16:30:34
2	As 188.979†	1272.7	1358.2	505.62	ug/L	505.62	ppb	16:30:54
2	B 249.677†	23711.8	25466.6	509.52	ug/L	509.52	ppb	16:30:34
2	Ba 233.527†	71679.7	75340.2	513.45	ug/L	513.45	ppb	16:30:34
2	Be 313.107†	1483723.7	1564132.4	508.47	ug/L	508.47	ppb	16:30:34
2	Cd 226.502†	49221.3	51957.8	513.96	ug/L	513.96	ppb	16:30:34
2	Co 228.616†	26471.2	27900.8	505.86	ug/L	505.86	ppb	16:30:54
2	Cr 267.716†	47751.2	50107.6	512.02	ug/L	512.02	ppb	16:30:34
2	Cu 324.752†	184724.4	187973.1	509.70	ug/L	509.70	ppb	16:30:34
2	Mn 257.610†	498320.9	523341.6	509.64	ug/L	509.64	ppb	16:30:34
2	Mo 202.031†	7802.1	8178.3	507.87	ug/L	507.87	ppb	16:30:54
2	Ni 231.604†	21644.5	22637.4	507.52	ug/L	507.52	ppb	16:30:54

2	P 214.914†	4809.7	4830.3	2428.7 ug/L	2428.7 ppb	16:30:54
2	Pb 220.353†	4469.2	4721.5	513.87 ug/L	513.87 ppb	16:30:54
2	S 181.975 Axial†	814.7	809.3	980.45 ug/L	980.45 ppb	16:30:54
2	Sb 206.836†	1620.2	1661.3	518.65 ug/L	518.65 ppb	16:30:54
2	Se 196.026†	823.7	894.8	523.69 ug/L	523.69 ppb	16:30:54
2	Si 251.611†	87341.2	91282.6	2557.2 ug/L	2557.2 ppb	16:30:34
2	Sn 189.927†	3128.5	3284.1	505.76 ug/L	505.76 ppb	16:30:54
2	Ti 334.940†	344439.2	363470.2	503.97 ug/L	503.97 ppb	16:30:34
2	Tl 190.801†	1761.8	1889.3	507.35 ug/L	507.35 ppb	16:30:54
2	U 409.014†	15770.8	18388.2	486.47 ug/L	486.47 ppb	16:30:34
2	V 292.402†	77274.0	82684.7	513.46 ug/L	513.46 ppb	16:30:34
2	Zn 213.857†	58959.5	61166.0	507.57 ug/L	507.57 ppb	16:30:34
2	SiO2†	86205.3	90073.1	5358.2 ug/L	5358.2 ppb	16:31:32
3	Sc Radial	5312.3	5312.3	94.3 %		16:29:38
3	Y RADIAL	5576.3	5576.3	93.73 %		16:29:38
3	Al 396.153Radial†	6656.2	7059.0	5087.8 ug/L	5087.8 ppb	16:29:38
3	Ca 317.933Radial†	3229.4	3398.2	5133.0 ug/L	5133.0 ppb	16:29:58
3	Fe 238.204 Radial†	596.6	620.0	5034.4 ug/L	5034.4 ppb	16:29:58
3	K 766.490 Radial†	28277.3	27060.8	4978.0 ug/L	4978.0 ppb	16:29:38
3	Mg 279.077 IEC†	167.4	174.9	5219.1 ug/L	5219.1 ppb	16:29:58
3	Na 589.592 Radial†	37875.0	41199.3	9591.3 ug/L	9591.3 ppb	16:29:38
3	Sr 421.552†	82067.0	86978.2	495.47 ug/L	495.47 ppb	16:29:38
3	Sc 361.383	926499.4	926499.4	94.797 %		16:31:02
3	Y 371.029	769448.4	769448.4	93.613 %		16:31:02
3	Ag 328.068†	117271.7	123235.0	510.35 ug/L	510.35 ppb	16:31:02
3	As 188.979†	1283.6	1374.4	511.58 ug/L	511.58 ppb	16:31:22
3	B 249.677†	23570.7	25405.1	508.28 ug/L	508.28 ppb	16:31:02
3	Ba 233.527†	71361.2	75268.2	512.96 ug/L	512.96 ppb	16:31:02
3	Be 313.107†	1472416.2	1557668.1	506.37 ug/L	506.37 ppb	16:31:02
3	Cd 226.502†	48848.2	51745.6	511.87 ug/L	511.87 ppb	16:31:02
3	Co 228.616†	26547.3	28078.5	509.09 ug/L	509.09 ppb	16:31:22
3	Cr 267.716†	47542.5	50063.2	511.57 ug/L	511.57 ppb	16:31:02
3	Cu 324.752†	183478.0	187338.6	507.98 ug/L	507.98 ppb	16:31:02
3	Mn 257.610†	495346.9	522039.5	508.36 ug/L	508.36 ppb	16:31:02
3	Mo 202.031†	7852.1	8259.8	512.92 ug/L	512.92 ppb	16:31:22
3	Ni 231.604†	21705.7	22781.6	510.75 ug/L	510.75 ppb	16:31:22
3	P 214.914†	4812.9	4851.4	2440.1 ug/L	2440.1 ppb	16:31:22
3	Pb 220.353†	4466.3	4734.9	515.34 ug/L	515.34 ppb	16:31:22
3	S 181.975 Axial†	829.6	828.0	1003.2 ug/L	1003.2 ppb	16:31:22
3	Sb 206.836†	1628.3	1675.8	523.15 ug/L	523.15 ppb	16:31:22
3	Se 196.026†	837.6	912.5	533.40 ug/L	533.40 ppb	16:31:22
3	Si 251.611†	86764.2	90995.6	2549.1 ug/L	2549.1 ppb	16:31:02
3	Sn 189.927†	3125.6	3292.5	507.04 ug/L	507.04 ppb	16:31:22
3	Ti 334.940†	342404.5	362592.2	502.75 ug/L	502.75 ppb	16:31:02
3	Tl 190.801†	1789.1	1924.6	516.73 ug/L	516.73 ppb	16:31:22
3	U 409.014†	15666.0	18335.7	485.08 ug/L	485.08 ppb	16:31:02
3	V 292.402†	77013.7	82694.6	513.60 ug/L	513.60 ppb	16:31:02
3	Zn 213.857†	58609.9	61014.4	506.29 ug/L	506.29 ppb	16:31:02
3	SiO2†	87828.1	92102.4	5479.1 ug/L	5479.1 ppb	16:31:38

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	929810.8	95.136	%	0.3422				0.36%
Sc Radial	5277.9	93.7	%	1.76				1.88%
Y 371.029	772028.8	93.927	%	0.3333				0.35%
Y RADIAL	5544.3	93.19	%	1.867				2.00%
Ag 328.068†	123330.6	510.73	ug/L	0.338	510.73	ppb	0.338	0.07%
QC value within limits for Ag 328.068 Recovery = 102.15%								
Al 396.153Radial†	7077.6	5101.4	ug/L	16.73	5101.4	ppb	16.73	0.33%
QC value within limits for Al 396.153Radial Recovery = 102.03%								
As 188.979†	1364.5	507.94	ug/L	3.186	507.94	ppb	3.186	0.63%
QC value within limits for As 188.979 Recovery = 101.59%								
B 249.677†	25474.9	509.69	ug/L	1.507	509.69	ppb	1.507	0.30%
QC value within limits for B 249.677 Recovery = 101.94%								
Ba 233.527†	75325.0	513.34	ug/L	0.345	513.34	ppb	0.345	0.07%
QC value within limits for Ba 233.527 Recovery = 102.67%								
Be 313.107†	1562160.1	507.83	ug/L	1.267	507.83	ppb	1.267	0.25%
QC value within limits for Be 313.107 Recovery = 101.57%								
Ca 317.933Radial†	3383.5	5110.7	ug/L	93.00	5110.7	ppb	93.00	1.82%

QC value within limits for Ca 317.933Radial Recovery = 102.21%

Cd 226.502†	51812.7	512.53 ug/L	1.237	512.53 ppb	1.237	0.24%
QC value within limits for Cd 226.502 Recovery = 102.51%						
Co 228.616†	27953.8	506.82 ug/L	1.974	506.82 ppb	1.974	0.39%
QC value within limits for Co 228.616 Recovery = 101.36%						
Cr 267.716†	50066.6	511.60 ug/L	0.403	511.60 ppb	0.403	0.08%
QC value within limits for Cr 267.716 Recovery = 102.32%						
Cu 324.752†	188022.8	509.83 ug/L	1.923	509.83 ppb	1.923	0.38%
QC value within limits for Cu 324.752 Recovery = 101.97%						
Fe 238.204 Radial†	617.7	5015.3 ug/L	93.91	5015.3 ppb	93.91	1.87%
QC value within limits for Fe 238.204 Radial Recovery = 100.31%						
K 766.490 Radial†	27227.5	5008.7 ug/L	27.23	5008.7 ppb	27.23	0.54%
QC value within limits for K 766.490 Radial Recovery = 100.17%						
Mg 279.077 IEC†	173.7	5182.8 ug/L	85.04	5182.8 ppb	85.04	1.64%
QC value within limits for Mg 279.077 IEC Recovery = 103.66%						
Mn 257.610†	522826.6	509.13 ug/L	0.675	509.13 ppb	0.675	0.13%
QC value within limits for Mn 257.610 Recovery = 101.83%						
Mo 202.031†	8207.5	509.68 ug/L	2.818	509.68 ppb	2.818	0.55%
QC value within limits for Mo 202.031 Recovery = 101.94%						
Na 589.592 Radial†	41590.8	9682.5 ug/L	80.06	9682.5 ppb	80.06	0.83%
QC value within limits for Na 589.592 Radial Recovery = 96.82%						
Ni 231.604†	22680.6	508.49 ug/L	1.966	508.49 ppb	1.966	0.39%
QC value within limits for Ni 231.604 Recovery = 101.70%						
P 214.914†	4833.3	2430.3 ug/L	9.10	2430.3 ppb	9.10	0.37%
QC value within limits for P 214.914 Recovery = 97.21%						
Pb 220.353†	4718.9	513.60 ug/L	1.898	513.60 ppb	1.898	0.37%
QC value within limits for Pb 220.353 Recovery = 102.72%						
S 181.975 Axial†	820.1	993.56 ug/L	11.755	993.56 ppb	11.755	1.18%
QC value within limits for S 181.975 Axial Recovery = 99.36%						
Sb 206.836†	1664.1	519.52 ug/L	3.278	519.52 ppb	3.278	0.63%
QC value within limits for Sb 206.836 Recovery = 103.90%						
Se 196.026†	899.1	525.83 ug/L	6.759	525.83 ppb	6.759	1.29%
QC value within limits for Se 196.026 Recovery = 105.17%						
Si 251.611†	91222.9	2555.5 ug/L	5.76	2555.5 ppb	5.76	0.23%
QC value within limits for Si 251.611 Recovery = 102.22%						
Sn 189.927†	3285.1	505.89 ug/L	1.089	505.89 ppb	1.089	0.22%
QC value within limits for Sn 189.927 Recovery = 101.18%						
Sr 421.552†	87352.2	497.60 ug/L	1.918	497.60 ppb	1.918	0.39%
QC value within limits for Sr 421.552 Recovery = 99.52%						
Ti 334.940†	363258.7	503.67 ug/L	0.817	503.67 ppb	0.817	0.16%
QC value within limits for Ti 334.940 Recovery = 100.73%						
Tl 190.801†	1904.9	511.51 ug/L	4.779	511.51 ppb	4.779	0.93%
QC value within limits for Tl 190.801 Recovery = 102.30%						
U 409.014†	18355.2	485.60 ug/L	0.755	485.60 ppb	0.755	0.16%
QC value within limits for U 409.014 Recovery = 97.12%						
V 292.402†	82707.8	513.63 ug/L	0.198	513.63 ppb	0.198	0.04%
QC value within limits for V 292.402 Recovery = 102.73%						
Zn 213.857†	61109.1	507.10 ug/L	0.702	507.10 ppb	0.702	0.14%
QC value within limits for Zn 213.857 Recovery = 101.42%						
SiO2†	91049.5	5416.4 ug/L	60.57	5416.4 ppb	60.57	1.12%
QC value within limits for SiO2 Recovery = 101.29%						

All analyte(s) passed QC.

Sequence No.: 3
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 1/19/2010 16:33:48
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5357.1	5357.1	95.1	%			16:35:40
1	Y RADIAL	5716.6	5716.6	96.09	%			16:35:40
1	Al 396.153Radial†	3.3	6.9	5.0441	ug/L	5.0441	ppb	16:35:40
1	Ca 317.933Radial†	27.6	4.2	6.2990	ug/L	6.2990	ppb	16:36:00
1	Fe 238.204 Radial†	11.5	-0.2	-1.8820	ug/L	-1.8820	ppb	16:36:00
1	K 766.490 Radial†	2901.9	137.6	25.341	ug/L	25.341	ppb	16:35:40
1	Mg 279.077 IEC†	3.1	0.8	24.412	ug/L	24.412	ppb	16:36:00
1	Na 589.592 Radial†	-1046.5	-47.7	-11.114	ug/L	-11.114	ppb	16:35:40
1	Sr 421.552†	17.1	6.1	0.0349	ug/L	0.0349	ppb	16:35:40
1	Sc 361.383	886978.7	886978.7	90.754	%			16:36:57
1	Y 371.029	775466.6	775466.6	94.345	%			16:36:57
1	Ag 328.068†	453.4	26.7	0.1063	ug/L	0.1063	ppb	16:36:57
1	As 188.979†	-16.7	1.9	0.6924	ug/L	0.6924	ppb	16:37:17
1	B 249.677†	6.4	547.9	11.011	ug/L	11.011	ppb	16:36:57
1	Ba 233.527†	10.2	1.7	0.0078	ug/L	0.0078	ppb	16:37:17
1	Be 313.107†	-4348.8	-350.5	-0.1144	ug/L	-0.1144	ppb	16:36:57
1	Cd 226.502†	-222.7	-28.9	-0.2871	ug/L	-0.2871	ppb	16:37:17
1	Co 228.616†	-73.2	-6.4	-0.1169	ug/L	-0.1169	ppb	16:37:17
1	Cr 267.716†	108.7	31.2	0.3183	ug/L	0.3183	ppb	16:37:17
1	Cu 324.752†	6123.1	537.6	1.4606	ug/L	1.4606	ppb	16:36:57
1	Mn 257.610†	455.4	8.2	0.0068	ug/L	0.0068	ppb	16:37:17
1	Mo 202.031†	15.1	-6.7	-0.4167	ug/L	-0.4167	ppb	16:37:17
1	Ni 231.604†	102.7	-2.2	-0.0492	ug/L	-0.0492	ppb	16:37:17
1	P 214.914†	221.4	18.2	9.2440	ug/L	9.2440	ppb	16:37:17
1	Pb 220.353†	-51.0	-32.7	-3.5524	ug/L	-3.5524	ppb	16:37:17
1	S 181.975 Axial†	54.0	12.4	15.044	ug/L	15.044	ppb	16:37:17
1	Sb 206.836†	37.3	-0.8	-0.2435	ug/L	-0.2435	ppb	16:37:17
1	Se 196.026†	-25.9	0.4	0.2124	ug/L	0.2124	ppb	16:37:17
1	Si 251.611†	540.0	64.5	1.8176	ug/L	1.8176	ppb	16:37:17
1	Sn 189.927†	3.0	-1.3	-0.1983	ug/L	-0.1983	ppb	16:37:17
1	Ti 334.940†	-1475.4	-230.1	-0.3182	ug/L	-0.3182	ppb	16:36:57
1	Tl 190.801†	-32.9	1.1	0.2837	ug/L	0.2837	ppb	16:37:17
1	U 409.014†	-1815.3	-190.4	-5.0550	ug/L	-5.0550	ppb	16:36:57
1	V 292.402†	-1576.8	-283.3	-1.7509	ug/L	-1.7509	ppb	16:36:57
1	Zn 213.857†	817.8	88.9	0.7426	ug/L	0.7426	ppb	16:37:17
1	SiO2†	552.5	62.9	3.7619	ug/L	3.7619	ppb	16:38:13
2	Sc Radial	5413.1	5413.1	96.1	%			16:36:05
2	Y RADIAL	5768.4	5768.4	96.96	%			16:36:05
2	Al 396.153Radial†	-16.9	-14.2	-10.283	ug/L	-10.283	ppb	16:36:05
2	Ca 317.933Radial†	23.9	0.0	0.0039	ug/L	0.0039	ppb	16:36:25
2	Fe 238.204 Radial†	13.0	1.1	8.9447	ug/L	8.9447	ppb	16:36:25
2	K 766.490 Radial†	2971.6	178.5	32.886	ug/L	32.886	ppb	16:36:05
2	Mg 279.077 IEC†	1.6	-0.9	-25.665	ug/L	-25.665	ppb	16:36:25
2	Na 589.592 Radial†	-1115.1	-107.7	-25.082	ug/L	-25.082	ppb	16:36:05
2	Sr 421.552†	26.4	15.6	0.0889	ug/L	0.0889	ppb	16:36:05
2	Sc 361.383	896352.2	896352.2	91.713	%			16:37:22
2	Y 371.029	787241.2	787241.2	95.778	%			16:37:22
2	Ag 328.068†	326.2	-117.3	-0.4788	ug/L	-0.4788	ppb	16:37:22
2	As 188.979†	-12.5	6.7	2.4655	ug/L	2.4655	ppb	16:37:42
2	B 249.677†	22.0	564.7	11.347	ug/L	11.347	ppb	16:37:22
2	Ba 233.527†	15.3	7.1	0.0463	ug/L	0.0463	ppb	16:37:42
2	Be 313.107†	-4367.4	-320.7	-0.1046	ug/L	-0.1046	ppb	16:37:22
2	Cd 226.502†	-216.6	-19.8	-0.1980	ug/L	-0.1980	ppb	16:37:42
2	Co 228.616†	-75.0	-7.5	-0.1348	ug/L	-0.1348	ppb	16:37:42
2	Cr 267.716†	81.6	0.4	0.0057	ug/L	0.0057	ppb	16:37:42
2	Cu 324.752†	6117.0	460.5	1.2530	ug/L	1.2530	ppb	16:37:22
2	Mn 257.610†	439.2	-14.6	-0.0123	ug/L	-0.0123	ppb	16:37:42
2	Mo 202.031†	31.3	10.8	0.6704	ug/L	0.6704	ppb	16:37:42
2	Ni 231.604†	119.0	14.4	0.3220	ug/L	0.3220	ppb	16:37:42

2	P 214.914†	236.3	32.0	16.489 ug/L	16.489 ppb	16:37:42
2	Pb 220.353†	-45.5	-26.2	-2.8490 ug/L	-2.8490 ppb	16:37:42
2	S 181.975 Axial†	50.3	7.7	9.3595 ug/L	9.3595 ppb	16:37:42
2	Sb 206.836†	36.1	-2.6	-0.7456 ug/L	-0.7456 ppb	16:37:42
2	Se 196.026†	-26.8	-0.2	-0.1044 ug/L	-0.1044 ppb	16:37:42
2	Si 251.611†	543.4	62.1	1.7344 ug/L	1.7344 ppb	16:37:42
2	Sn 189.927†	9.8	6.1	0.9427 ug/L	0.9427 ppb	16:37:42
2	Ti 334.940†	-1453.5	-189.3	-0.2573 ug/L	-0.2573 ppb	16:37:22
2	Tl 190.801†	-30.2	4.3	1.1504 ug/L	1.1504 ppb	16:37:42
2	U 409.014†	-1900.4	-262.2	-6.9633 ug/L	-6.9633 ppb	16:37:22
2	V 292.402†	-1504.1	-185.8	-1.1440 ug/L	-1.1440 ppb	16:37:22
2	Zn 213.857†	830.8	93.6	0.7790 ug/L	0.7790 ppb	16:37:42
2	SiO2†	553.2	57.2	3.3924 ug/L	3.3924 ppb	16:38:18
3	Sc Radial	5340.3	5340.3	94.8 %		16:36:30
3	Y RADIAL	5661.0	5661.0	95.16 %		16:36:30
3	Al 396.153Radial†	-9.8	-6.9	-4.9983 ug/L	-4.9983 ppb	16:36:30
3	Ca 317.933Radial†	29.5	6.3	9.5302 ug/L	9.5302 ppb	16:36:50
3	Fe 238.204 Radial†	11.9	0.2	1.6040 ug/L	1.6040 ppb	16:36:50
3	K 766.490 Radial†	2928.5	175.1	32.261 ug/L	32.261 ppb	16:36:30
3	Mg 279.077 IEC†	0.9	-1.5	-45.358 ug/L	-45.358 ppb	16:36:50
3	Na 589.592 Radial†	-1113.3	-121.6	-28.319 ug/L	-28.319 ppb	16:36:30
3	Sr 421.552†	38.1	28.3	0.1613 ug/L	0.1613 ppb	16:36:30
3	Sc 361.383	888901.3	888901.3	90.950 %		16:37:48
3	Y 371.029	777254.7	777254.7	94.563 %		16:37:48
3	Ag 328.068†	481.4	56.4	0.2349 ug/L	0.2349 ppb	16:37:48
3	As 188.979†	-27.9	-10.3	-3.8165 ug/L	-3.8165 ppb	16:38:08
3	B 249.677†	10.1	551.8	11.090 ug/L	11.090 ppb	16:37:48
3	Ba 233.527†	1.1	-8.3	-0.0582 ug/L	-0.0582 ppb	16:38:08
3	Be 313.107†	-4392.6	-388.2	-0.1262 ug/L	-0.1262 ppb	16:37:48
3	Cd 226.502†	-211.3	-15.9	-0.1585 ug/L	-0.1585 ppb	16:38:08
3	Co 228.616†	-68.1	-0.6	-0.0106 ug/L	-0.0106 ppb	16:38:08
3	Cr 267.716†	95.4	16.3	0.1677 ug/L	0.1677 ppb	16:38:08
3	Cu 324.752†	6110.9	509.7	1.3859 ug/L	1.3859 ppb	16:37:48
3	Mn 257.610†	485.6	40.3	0.0412 ug/L	0.0412 ppb	16:38:08
3	Mo 202.031†	27.5	6.9	0.4292 ug/L	0.4292 ppb	16:38:08
3	Ni 231.604†	118.9	15.4	0.3451 ug/L	0.3451 ppb	16:38:08
3	P 214.914†	227.6	24.5	12.570 ug/L	12.570 ppb	16:38:08
3	Pb 220.353†	-45.2	-26.3	-2.8537 ug/L	-2.8537 ppb	16:38:08
3	S 181.975 Axial†	42.1	-0.9	-1.0520 ug/L	-1.0520 ppb	16:38:08
3	Sb 206.836†	34.7	-3.7	-1.0972 ug/L	-1.0972 ppb	16:38:08
3	Se 196.026†	-30.6	-4.7	-2.6231 ug/L	-2.6231 ppb	16:38:08
3	Si 251.611†	537.8	60.8	1.7034 ug/L	1.7034 ppb	16:38:08
3	Sn 189.927†	12.9	9.6	1.4828 ug/L	1.4828 ppb	16:38:08
3	Ti 334.940†	-1349.0	-87.7	-0.1137 ug/L	-0.1137 ppb	16:37:48
3	Tl 190.801†	-32.2	1.9	0.5136 ug/L	0.5136 ppb	16:38:08
3	U 409.014†	-1885.3	-263.0	-6.9817 ug/L	-6.9817 ppb	16:37:48
3	V 292.402†	-1441.5	-130.8	-0.8099 ug/L	-0.8099 ppb	16:37:48
3	Zn 213.857†	830.8	101.2	0.8432 ug/L	0.8432 ppb	16:38:08
3	SiO2†	554.1	63.2	3.7595 ug/L	3.7595 ppb	16:38:23

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	890744.1	91.139	%	0.5066				0.56%
Sc Radial	5370.2	95.4	%	0.68				0.71%
Y 371.029	779987.5	94.895	%	0.7720				0.81%
Y RADIAL	5715.3	96.07	%	0.903				0.94%
Ag 328.068†	-11.4	-0.0458	ug/L	0.38041	-0.0458	ppb	0.38041	829.83%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-4.7	-3.4125	ug/L	7.78584	-3.4125	ppb	7.78584	228.16%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-0.6	-0.2195	ug/L	3.23877	-0.2195	ppb	3.23877	>999.9%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	554.8	11.149	ug/L	0.1761	11.149	ppb	0.1761	1.58%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	0.2	-0.0014	ug/L	0.05286	-0.0014	ppb	0.05286	>999.9%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-353.1	-0.1151	ug/L	0.01082	-0.1151	ppb	0.01082	9.40%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	3.5	5.2777	ug/L	4.84459	5.2777	ppb	4.84459	91.79%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              -21.5     -0.2145 ug/L       0.06587     -0.2145 ppb        0.06587  30.70%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†               -4.9     -0.0874 ug/L       0.06716     -0.0874 ppb        0.06716  76.81%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†               16.0      0.1639 ug/L       0.15637      0.1639 ppb        0.15637  95.39%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              502.6      1.3665 ug/L       0.10512      1.3665 ppb        0.10512   7.69%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         0.4      2.8889 ug/L       5.52653      2.8889 ppb        5.52653 191.30%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        163.7      30.163 ug/L        4.1874      30.163 ppb         4.1874  13.88%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           -0.5     -15.537 ug/L       35.9705     -15.537 ppb        35.9705 231.51%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               11.3      0.0119 ug/L       0.02715      0.0119 ppb        0.02715 228.22%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                3.7      0.2276 ug/L       0.57091      0.2276 ppb        0.57091 250.81%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       -92.4     -21.505 ug/L        9.1433     -21.505 ppb         9.1433  42.52%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                9.2      0.2060 ug/L       0.22133      0.2060 ppb        0.22133 107.45%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                24.9      12.768 ug/L        3.6265      12.768 ppb         3.6265  28.40%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -28.4     -3.0850 ug/L       0.40477     -3.0850 ppb        0.40477  13.12%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           6.4      7.7839 ug/L       8.16293      7.7839 ppb        8.16293 104.87%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               -2.4     -0.6954 ug/L       0.42908     -0.6954 ppb        0.42908  61.70%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               -1.5     -0.8384 ug/L       1.55371     -0.8384 ppb        1.55371 185.33%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†               62.5      1.7518 ug/L       0.05909      1.7518 ppb        0.05909   3.37%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                4.8      0.7424 ug/L       0.85824      0.7424 ppb        0.85824 115.61%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               16.7      0.0951 ug/L       0.06342      0.0951 ppb        0.06342  66.71%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             -169.0     -0.2297 ug/L       0.10503     -0.2297 ppb        0.10503  45.72%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                2.4      0.6492 ug/L       0.44898      0.6492 ppb        0.44898  69.16%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              -238.5     -6.3333 ug/L       1.10712     -6.3333 ppb        1.10712  17.48%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              -200.0     -1.2349 ug/L       0.47706     -1.2349 ppb        0.47706  38.63%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               94.6      0.7882 ug/L       0.05094      0.7882 ppb        0.05094   6.46%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                     61.1      3.6379 ug/L       0.21265      3.6379 ppb        0.21265   5.85%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 5
Sample ID: 1202004465|936826|5
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 39
Date Collected: 1/19/2010 16:47:21
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202004465|936826|5

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	5282.3	5282.3	93.8	%			16:49:14
1	Y RADIAL	5557.5	5557.5	93.42	%			16:49:14
1	Al 396.153Radial†	918.3	982.4	710.88	ug/L	710.88	ppb	16:49:14
1	Ca 317.933Radial†	74585.4	79484.7	120060	ug/L	120060	ppb	16:49:14
1	Fe 238.204 Radial†	187.4	187.4	1517.3	ug/L	1517.3	ppb	16:49:34
1	K 766.490 Radial†	5668.1	3129.5	535.35	ug/L	535.35	ppb	16:49:14
1	Mg 279.077 IEC†	94.6	98.4	2933.9	ug/L	2933.9	ppb	16:49:34
1	Na 589.592 Radial†	7892.2	9465.5	2203.6	ug/L	2203.6	ppb	16:49:14
1	Sr 421.552†	109487.6	116704.2	663.96	ug/L	663.96	ppb	16:49:14
1	Sc 361.383	930877.1	930877.1	95.245	%			16:50:31
1	Y 371.029	772803.1	772803.1	94.021	%			16:50:31
1	Ag 328.068†	527.8	81.3	-0.6106	ug/L	-0.6106	ppb	16:50:31
1	As 188.979†	76.8	101.0	37.606	ug/L	37.606	ppb	16:50:51
1	B 249.677†	1357.0	1965.5	39.244	ug/L	39.244	ppb	16:50:51
1	Ba 233.527†	76394.2	80198.4	545.37	ug/L	545.37	ppb	16:50:31
1	Be 313.107†	-4933.1	-738.0	-0.2342	ug/L	-0.2342	ppb	16:50:31
1	Cd 226.502†	110.5	332.4	3.1374	ug/L	3.1374	ppb	16:50:51
1	Co 228.616†	83.2	161.6	0.5731	ug/L	0.5731	ppb	16:50:51
1	Cr 267.716†	550367.5	577754.4	5896.7	ug/L	5896.7	ppb	16:50:31
1	Cu 324.752†	309148.9	318373.0	863.36	ug/L	863.36	ppb	16:50:31
1	Mn 257.610†	70713.5	73750.1	71.808	ug/L	71.808	ppb	16:50:31
1	Mo 202.031†	230.7	218.9	15.129	ug/L	15.129	ppb	16:50:51
1	Ni 231.604†	176.0	69.4	1.5551	ug/L	1.5551	ppb	16:50:51
1	P 214.914†	3345.7	3287.0	1547.3	ug/L	1547.3	ppb	16:50:51
1	Pb 220.353†	147.8	178.5	21.188	ug/L	21.188	ppb	16:50:51
1	S 181.975 Axial†	685.7	672.8	815.73	ug/L	815.73	ppb	16:50:51
1	Sb 206.836†	470.3	451.9	135.74	ug/L	135.74	ppb	16:50:51
1	Se 196.026†	-41.1	-14.2	-2.4953	ug/L	-2.4953	ppb	16:50:51
1	Si 251.611†	26678.8	27480.1	771.55	ug/L	771.55	ppb	16:50:31
1	Sn 189.927†	-309.6	-329.6	-32.405	ug/L	-32.405	ppb	16:50:51
1	Ti 334.940†	230.1	1637.1	15.993	ug/L	15.993	ppb	16:50:31
1	Tl 190.801†	-39.8	-4.5	-0.9596	ug/L	-0.9596	ppb	16:50:51
1	U 409.014†	-957.7	804.4	7.9883	ug/L	7.9883	ppb	16:50:31
1	V 292.402†	6817.0	8611.4	50.668	ug/L	50.668	ppb	16:50:31
1	Zn 213.857†	34119.9	35011.1	291.73	ug/L	291.73	ppb	16:50:31
1	SiO2†	26427.4	27200.7	1621.9	ug/L	1621.9	ppb	16:51:48
2	Sc Radial	5337.0	5337.0	94.8	%			16:49:39
2	Y RADIAL	5612.6	5612.6	94.34	%			16:49:39
2	Al 396.153Radial†	906.8	960.2	694.81	ug/L	694.81	ppb	16:49:39
2	Ca 317.933Radial†	75117.3	79231.1	119680	ug/L	119680	ppb	16:49:39
2	Fe 238.204 Radial†	186.6	184.5	1493.5	ug/L	1493.5	ppb	16:49:59
2	K 766.490 Radial†	5755.0	3159.3	540.98	ug/L	540.98	ppb	16:49:39
2	Mg 279.077 IEC†	91.6	94.2	2808.5	ug/L	2808.5	ppb	16:49:59
2	Na 589.592 Radial†	7857.7	9342.9	2175.1	ug/L	2175.1	ppb	16:49:39
2	Sr 421.552†	110846.3	116941.6	665.31	ug/L	665.31	ppb	16:49:39
2	Sc 361.383	920856.4	920856.4	94.220	%			16:50:57
2	Y 371.029	762835.1	762835.1	92.809	%			16:50:57
2	Ag 328.068†	494.9	52.3	-0.7254	ug/L	-0.7254	ppb	16:50:57
2	As 188.979†	74.9	99.8	37.167	ug/L	37.167	ppb	16:51:17
2	B 249.677†	1352.8	1976.6	39.472	ug/L	39.472	ppb	16:51:17
2	Ba 233.527†	76010.2	80663.7	548.53	ug/L	548.53	ppb	16:50:57
2	Be 313.107†	-4986.4	-850.9	-0.2709	ug/L	-0.2709	ppb	16:50:57
2	Cd 226.502†	123.6	347.6	3.2881	ug/L	3.2881	ppb	16:51:17
2	Co 228.616†	61.6	139.7	0.1614	ug/L	0.1614	ppb	16:51:17
2	Cr 267.716†	547825.2	581344.2	5933.4	ug/L	5933.4	ppb	16:50:57
2	Cu 324.752†	305257.7	317775.1	861.74	ug/L	861.74	ppb	16:50:57
2	Mn 257.610†	70310.3	74130.1	72.181	ug/L	72.181	ppb	16:50:57
2	Mo 202.031†	227.4	218.1	15.069	ug/L	15.069	ppb	16:51:17
2	Ni 231.604†	155.4	49.6	1.1105	ug/L	1.1105	ppb	16:51:17

2	P 214.914†	3368.7	3349.6	1580.4 ug/L	1580.4 ppb	16:51:17
2	Pb 220.353†	146.9	179.3	21.263 ug/L	21.263 ppb	16:51:17
2	S 181.975 Axial†	679.3	673.8	816.99 ug/L	816.99 ppb	16:51:17
2	Sb 206.836†	466.8	453.5	136.22 ug/L	136.22 ppb	16:51:17
2	Se 196.026†	-34.1	-7.2	1.3202 ug/L	1.3202 ppb	16:51:17
2	Si 251.611†	26324.6	27409.1	769.55 ug/L	769.55 ppb	16:50:57
2	Sn 189.927†	-301.5	-324.6	-31.684 ug/L	-31.684 ppb	16:51:17
2	Ti 334.940†	210.5	1619.0	15.917 ug/L	15.917 ppb	16:50:57
2	Tl 190.801†	-43.8	-9.2	-2.2130 ug/L	-2.2130 ppb	16:51:17
2	U 409.014†	-1219.6	515.5	0.2382 ug/L	0.2382 ppb	16:50:57
2	V 292.402†	6757.5	8626.2	50.731 ug/L	50.731 ppb	16:50:57
2	Zn 213.857†	33942.4	35212.5	293.43 ug/L	293.43 ppb	16:50:57
2	SiO2†	26649.4	27738.3	1654.0 ug/L	1654.0 ppb	16:51:53
3	Sc Radial	5432.0	5432.0	96.5 %		16:50:04
3	Y RADIAL	5747.9	5747.9	96.62 %		16:50:04
3	Al 396.153Radial†	946.1	984.2	712.17 ug/L	712.17 ppb	16:50:04
3	Ca 317.933Radial†	76147.8	78913.2	119200 ug/L	119200 ppb	16:50:04
3	Fe 238.204 Radial†	186.6	181.0	1465.5 ug/L	1465.5 ppb	16:50:24
3	K 766.490 Radial†	5767.7	3066.3	524.01 ug/L	524.01 ppb	16:50:04
3	Mg 279.077 IEC†	95.7	96.7	2883.9 ug/L	2883.9 ppb	16:50:24
3	Na 589.592 Radial†	8020.2	9366.4	2180.5 ug/L	2180.5 ppb	16:50:04
3	Sr 421.552†	112919.0	117044.8	665.90 ug/L	665.90 ppb	16:50:04
3	Sc 361.383	918672.7	918672.7	93.996 %		16:51:23
3	Y 371.029	760874.5	760874.5	92.570 %		16:51:23
3	Ag 328.068†	488.0	46.2	-0.7539 ug/L	-0.7539 ppb	16:51:23
3	As 188.979†	65.1	89.6	33.400 ug/L	33.400 ppb	16:51:43
3	B 249.677†	1320.7	1945.8	38.858 ug/L	38.858 ppb	16:51:43
3	Ba 233.527†	75958.4	80800.4	549.46 ug/L	549.46 ppb	16:51:23
3	Be 313.107†	-4999.2	-877.1	-0.2794 ug/L	-0.2794 ppb	16:51:23
3	Cd 226.502†	115.7	339.6	3.2125 ug/L	3.2125 ppb	16:51:43
3	Co 228.616†	67.5	146.0	0.2765 ug/L	0.2765 ppb	16:51:43
3	Cr 267.716†	547147.5	582005.3	5940.1 ug/L	5940.1 ppb	16:51:23
3	Cu 324.752†	305991.8	319326.3	865.94 ug/L	865.94 ppb	16:51:23
3	Mn 257.610†	70263.7	74257.8	72.299 ug/L	72.299 ppb	16:51:23
3	Mo 202.031†	237.8	229.6	15.779 ug/L	15.779 ppb	16:51:43
3	Ni 231.604†	169.6	65.0	1.4573 ug/L	1.4573 ppb	16:51:43
3	P 214.914†	3360.6	3349.5	1579.5 ug/L	1579.5 ppb	16:51:43
3	Pb 220.353†	155.8	189.2	22.327 ug/L	22.327 ppb	16:51:43
3	S 181.975 Axial†	682.3	678.8	823.00 ug/L	823.00 ppb	16:51:43
3	Sb 206.836†	470.9	459.0	137.90 ug/L	137.90 ppb	16:51:43
3	Se 196.026†	-34.6	-7.8	0.8886 ug/L	0.8886 ppb	16:51:43
3	Si 251.611†	26530.0	27694.0	777.55 ug/L	777.55 ppb	16:51:23
3	Sn 189.927†	-302.0	-325.8	-31.955 ug/L	-31.955 ppb	16:51:43
3	Ti 334.940†	208.9	1617.8	15.841 ug/L	15.841 ppb	16:51:23
3	Tl 190.801†	-44.4	-10.0	-2.4123 ug/L	-2.4123 ppb	16:51:43
3	U 409.014†	-1079.8	661.1	4.0912 ug/L	4.0912 ppb	16:51:23
3	V 292.402†	6832.9	8723.5	51.348 ug/L	51.348 ppb	16:51:23
3	Zn 213.857†	33928.7	35283.5	294.02 ug/L	294.02 ppb	16:51:23
3	SiO2†	26686.4	27844.9	1660.3 ug/L	1660.3 ppb	16:51:58

Mean Data: 1202004465|936826|5

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	923468.7	94.487	%	0.6659				0.70%
Sc Radial	5350.4	95.0	%	1.35				1.42%
Y 371.029	765504.2	93.133	%	0.7782				0.84%
Y RADIAL	5639.3	94.79	%	1.647				1.74%
Ag 328.068†	59.9	-0.6966	ug/L	0.07587	-0.6966	ppb	0.07587	10.89%
Al 396.153Radial†	975.6	705.95	ug/L	9.673	705.95	ppb	9.673	1.37%
As 188.979†	96.8	36.058	ug/L	2.3122	36.058	ppb	2.3122	6.41%
B 249.677†	1962.6	39.191	ug/L	0.3102	39.191	ppb	0.3102	0.79%
Ba 233.527†	80554.2	547.78	ug/L	2.145	547.78	ppb	2.145	0.39%
Be 313.107†	-822.0	-0.2615	ug/L	0.02402	-0.2615	ppb	0.02402	9.18%
Ca 317.933Radial†	79209.6	119640	ug/L	432.5	119640	ppb	432.5	0.36%
Cd 226.502†	339.9	3.2127	ug/L	0.07534	3.2127	ppb	0.07534	2.35%
Co 228.616†	149.1	0.3370	ug/L	0.21240	0.3370	ppb	0.21240	63.03%
Cr 267.716†	580368.0	5923.4	ug/L	23.35	5923.4	ppb	23.35	0.39%
Cu 324.752†	318491.5	863.68	ug/L	2.120	863.68	ppb	2.120	0.25%
Fe 238.204 Radial†	184.3	1492.1	ug/L	25.90	1492.1	ppb	25.90	1.74%
K 766.490 Radial†	3118.4	533.45	ug/L	8.648	533.45	ppb	8.648	1.62%

Mg 279.077 IEC†	96.4	2875.4	ug/L	63.13	2875.4	ppb	63.13	2.20%
Mn 257.610†	74046.0	72.096	ug/L	0.2562	72.096	ppb	0.2562	0.36%
Mo 202.031†	222.2	15.326	ug/L	0.3938	15.326	ppb	0.3938	2.57%
Na 589.592 Radial†	9391.6	2186.4	ug/L	15.15	2186.4	ppb	15.15	0.69%
Ni 231.604†	61.3	1.3743	ug/L	0.23363	1.3743	ppb	0.23363	17.00%
P 214.914†	3328.7	1569.1	ug/L	18.87	1569.1	ppb	18.87	1.20%
Pb 220.353†	182.3	21.593	ug/L	0.6371	21.593	ppb	0.6371	2.95%
S 181.975 Axial†	675.1	818.57	ug/L	3.886	818.57	ppb	3.886	0.47%
Sb 206.836†	454.8	136.62	ug/L	1.135	136.62	ppb	1.135	0.83%
Se 196.026†	-9.8	-0.0955	ug/L	2.08945	-0.0955	ppb	2.08945	>999.9%
Si 251.611†	27527.7	772.88	ug/L	4.160	772.88	ppb	4.160	0.54%
Sn 189.927†	-326.7	-32.015	ug/L	0.3643	-32.015	ppb	0.3643	1.14%
Sr 421.552†	116896.9	665.06	ug/L	0.998	665.06	ppb	0.998	0.15%
Ti 334.940†	1624.6	15.917	ug/L	0.0763	15.917	ppb	0.0763	0.48%
Tl 190.801†	-7.9	-1.8616	ug/L	0.78750	-1.8616	ppb	0.78750	42.30%
U 409.014†	660.3	4.1059	ug/L	3.87506	4.1059	ppb	3.87506	94.38%
V 292.402†	8653.7	50.916	ug/L	0.3755	50.916	ppb	0.3755	0.74%
Zn 213.857†	35169.0	293.06	ug/L	1.185	293.06	ppb	1.185	0.40%
SiO2†	27594.6	1645.4	ug/L	20.59	1645.4	ppb	20.59	1.25%

Sequence No.: 6
Sample ID: 1202004466|936826|5
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 40
Date Collected: 1/19/2010 16:54:09
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202004466|936826|5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5150.6	5150.6	91.5	%			16:56:01
1	Y RADIAL	5413.1	5413.1	90.99	%			16:56:01
1	Al 396.153Radial†	3174.0	3473.5	2509.9	ug/L	2509.9	ppb	16:56:01
1	Ca 317.933Radial†	136686.7	149410.0	225680	ug/L	225680	ppb	16:56:01
1	Fe 238.204 Radial†	433.5	461.6	3739.6	ug/L	3739.6	ppb	16:56:21
1	K 766.490 Radial†	12781.2	11060.5	1959.6	ug/L	1959.6	ppb	16:56:01
1	Mg 279.077 IEC†	170.0	183.3	5467.0	ug/L	5467.0	ppb	16:56:21
1	Na 589.592 Radial†	18324.6	21085.9	4908.9	ug/L	4908.9	ppb	16:56:01
1	Sr 421.552†	207770.6	227136.6	1292.3	ug/L	1292.3	ppb	16:56:01
1	Sc 361.383	869862.2	869862.2	89.002	%			16:57:18
1	Y 371.029	724690.2	724690.2	88.168	%			16:57:18
1	Ag 328.068†	23201.1	25595.0	104.08	ug/L	104.08	ppb	16:57:18
1	As 188.979†	363.6	428.9	159.78	ug/L	159.78	ppb	16:57:39
1	B 249.677†	6795.2	8175.6	163.41	ug/L	163.41	ppb	16:57:18
1	Ba 233.527†	130025.0	146082.3	993.59	ug/L	993.59	ppb	16:57:18
1	Be 313.107†	272383.7	310482.7	100.94	ug/L	100.94	ppb	16:57:18
1	Cd 226.502†	9074.2	10411.9	102.72	ug/L	102.72	ppb	16:57:39
1	Co 228.616†	4838.4	5510.5	97.234	ug/L	97.234	ppb	16:57:39
1	Cr 267.716†	617060.3	693219.9	7075.3	ug/L	7075.3	ppb	16:57:18
1	Cu 324.752†	486012.4	539858.2	1464.0	ug/L	1464.0	ppb	16:57:18
1	Mn 257.610†	202488.7	227016.1	221.09	ug/L	221.09	ppb	16:57:18
1	Mo 202.031†	1735.3	1926.4	122.50	ug/L	122.50	ppb	16:57:39
1	Ni 231.604†	4062.3	4448.9	99.742	ug/L	99.742	ppb	16:57:39
1	P 214.914†	5556.0	6016.8	2856.2	ug/L	2856.2	ppb	16:57:39
1	Pb 220.353†	1067.4	1222.7	136.55	ug/L	136.55	ppb	16:57:39
1	S 181.975 Axial†	1814.3	1991.3	2414.4	ug/L	2414.4	ppb	16:57:39
1	Sb 206.836†	743.7	793.7	242.42	ug/L	242.42	ppb	16:57:39
1	Se 196.026†	107.0	149.2	97.811	ug/L	97.811	ppb	16:57:39
1	Si 251.611†	53012.6	59032.7	1656.3	ug/L	1656.3	ppb	16:57:18
1	Sn 189.927†	263.8	291.8	79.224	ug/L	79.224	ppb	16:57:39
1	Ti 334.940†	64833.3	74240.1	130.18	ug/L	130.18	ppb	16:57:18
1	Tl 190.801†	278.5	350.1	94.531	ug/L	94.531	ppb	16:57:39
1	U 409.014†	2543.9	4668.2	107.68	ug/L	107.68	ppb	16:57:18
1	V 292.402†	24256.8	28708.3	174.71	ug/L	174.71	ppb	16:57:18
1	Zn 213.857†	60904.8	67618.4	563.02	ug/L	563.02	ppb	16:57:18
1	SiO2†	53213.0	59242.4	3530.0	ug/L	3530.0	ppb	16:58:35
2	Sc Radial	5151.7	5151.7	91.5	%			16:56:26
2	Y RADIAL	5422.0	5422.0	91.14	%			16:56:26
2	Al 396.153Radial†	3202.1	3503.5	2531.7	ug/L	2531.7	ppb	16:56:26
2	Ca 317.933Radial†	137098.3	149829.7	226310	ug/L	226310	ppb	16:56:26
2	Fe 238.204 Radial†	443.1	472.0	3823.8	ug/L	3823.8	ppb	16:56:46
2	K 766.490 Radial†	12711.5	10981.5	1944.8	ug/L	1944.8	ppb	16:56:26
2	Mg 279.077 IEC†	170.5	183.9	5483.1	ug/L	5483.1	ppb	16:56:46
2	Na 589.592 Radial†	18462.2	21232.2	4942.9	ug/L	4942.9	ppb	16:56:26
2	Sr 421.552†	208902.0	228327.4	1299.1	ug/L	1299.1	ppb	16:56:26
2	Sc 361.383	872636.6	872636.6	89.286	%			16:57:44
2	Y 371.029	726234.6	726234.6	88.356	%			16:57:44
2	Ag 328.068†	23174.4	25482.3	103.64	ug/L	103.64	ppb	16:57:44
2	As 188.979†	374.8	440.1	163.91	ug/L	163.91	ppb	16:58:04
2	B 249.677†	6777.6	8131.6	162.51	ug/L	162.51	ppb	16:57:44
2	Ba 233.527†	130109.0	145711.9	991.08	ug/L	991.08	ppb	16:57:44
2	Be 313.107†	271784.4	308838.5	100.40	ug/L	100.40	ppb	16:57:44
2	Cd 226.502†	9059.4	10362.9	102.22	ug/L	102.22	ppb	16:58:04
2	Co 228.616†	4843.8	5499.3	97.037	ug/L	97.037	ppb	16:58:04
2	Cr 267.716†	617610.7	691632.1	7059.1	ug/L	7059.1	ppb	16:57:44
2	Cu 324.752†	483144.6	534910.1	1450.6	ug/L	1450.6	ppb	16:57:44
2	Mn 257.610†	202379.0	226169.8	220.28	ug/L	220.28	ppb	16:57:44
2	Mo 202.031†	1745.4	1931.5	122.83	ug/L	122.83	ppb	16:58:04
2	Ni 231.604†	4057.5	4429.0	99.295	ug/L	99.295	ppb	16:58:04

2	P 214.914†	5572.1	6015.0	2857.9 ug/L	2857.9 ppb	16:58:04
2	Pb 220.353†	1079.0	1231.9	137.57 ug/L	137.57 ppb	16:58:04
2	S 181.975 Axial†	1836.7	2009.9	2437.0 ug/L	2437.0 ppb	16:58:04
2	Sb 206.836†	760.6	810.0	247.34 ug/L	247.34 ppb	16:58:04
2	Se 196.026†	118.5	161.6	105.14 ug/L	105.14 ppb	16:58:04
2	Si 251.611†	52918.9	58738.4	1648.1 ug/L	1648.1 ppb	16:57:44
2	Sn 189.927†	268.3	295.9	79.944 ug/L	79.944 ppb	16:58:04
2	Ti 334.940†	64649.5	73802.7	129.66 ug/L	129.66 ppb	16:57:44
2	Tl 190.801†	261.8	330.5	89.289 ug/L	89.289 ppb	16:58:04
2	U 409.014†	2523.9	4636.7	106.87 ug/L	106.87 ppb	16:57:44
2	V 292.402†	24271.9	28638.6	174.28 ug/L	174.28 ppb	16:57:44
2	Zn 213.857†	60885.3	67379.0	561.03 ug/L	561.03 ppb	16:57:44
2	SiO2†	53350.7	59206.5	3527.9 ug/L	3527.9 ppb	16:58:40
3	Sc Radial	5196.1	5196.1	92.3 %		16:56:52
3	Y RADIAL	5455.4	5455.4	91.70 %		16:56:52
3	Al 396.153Radial†	3190.1	3460.5	2500.6 ug/L	2500.6 ppb	16:56:52
3	Ca 317.933Radial†	137039.6	148484.5	224280 ug/L	224280 ppb	16:56:52
3	Fe 238.204 Radial†	432.5	456.4	3697.2 ug/L	3697.2 ppb	16:57:12
3	K 766.490 Radial†	12729.7	10882.4	1927.2 ug/L	1927.2 ppb	16:56:52
3	Mg 279.077 IEC†	167.1	178.7	5327.3 ug/L	5327.3 ppb	16:57:12
3	Na 589.592 Radial†	18454.2	21051.0	4900.7 ug/L	4900.7 ppb	16:56:52
3	Sr 421.552†	209820.7	227370.1	1293.6 ug/L	1293.6 ppb	16:56:52
3	Sc 361.383	871712.2	871712.2	89.192 %		16:58:10
3	Y 371.029	725207.2	725207.2	88.231 %		16:58:10
3	Ag 328.068†	23227.5	25569.3	103.98 ug/L	103.98 ppb	16:58:10
3	As 188.979†	362.1	426.3	158.83 ug/L	158.83 ppb	16:58:30
3	B 249.677†	6761.9	8122.1	162.34 ug/L	162.34 ppb	16:58:10
3	Ba 233.527†	130502.3	146307.3	995.12 ug/L	995.12 ppb	16:58:10
3	Be 313.107†	272190.0	309616.0	100.66 ug/L	100.66 ppb	16:58:10
3	Cd 226.502†	9053.3	10366.8	102.27 ug/L	102.27 ppb	16:58:30
3	Co 228.616†	4852.2	5514.4	97.304 ug/L	97.304 ppb	16:58:30
3	Cr 267.716†	618645.8	693526.2	7078.5 ug/L	7078.5 ppb	16:58:10
3	Cu 324.752†	485791.0	538451.0	1460.2 ug/L	1460.2 ppb	16:58:10
3	Mn 257.610†	203059.0	227172.6	221.25 ug/L	221.25 ppb	16:58:10
3	Mo 202.031†	1731.9	1918.5	121.99 ug/L	121.99 ppb	16:58:30
3	Ni 231.604†	4060.0	4436.6	99.465 ug/L	99.465 ppb	16:58:30
3	P 214.914†	5557.9	6005.7	2851.2 ug/L	2851.2 ppb	16:58:30
3	Pb 220.353†	1072.3	1225.6	136.84 ug/L	136.84 ppb	16:58:30
3	S 181.975 Axial†	1832.5	2007.4	2433.9 ug/L	2433.9 ppb	16:58:30
3	Sb 206.836†	743.3	791.4	241.71 ug/L	241.71 ppb	16:58:30
3	Se 196.026†	113.4	156.0	101.52 ug/L	101.52 ppb	16:58:30
3	Si 251.611†	53154.5	59065.5	1657.2 ug/L	1657.2 ppb	16:58:10
3	Sn 189.927†	261.3	288.4	78.484 ug/L	78.484 ppb	16:58:30
3	Ti 334.940†	64946.5	74212.4	129.96 ug/L	129.96 ppb	16:58:10
3	Tl 190.801†	272.9	343.2	92.688 ug/L	92.688 ppb	16:58:30
3	U 409.014†	2415.9	4518.6	103.70 ug/L	103.70 ppb	16:58:10
3	V 292.402†	24242.6	28634.5	174.24 ug/L	174.24 ppb	16:58:10
3	Zn 213.857†	61026.4	67609.5	562.96 ug/L	562.96 ppb	16:58:10
3	SiO2†	52996.9	58873.2	3508.0 ug/L	3508.0 ppb	16:58:45

Mean Data: 1202004466|936826|5

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	871403.7	89.160	%	0.1445				0.16%
Sc Radial	5166.2	91.7	%	0.46				0.50%
Y 371.029	725377.3	88.251	%	0.0956				0.11%
Y RADIAL	5430.1	91.28	%	0.375				0.41%
Ag 328.068†	25548.9	103.90	ug/L	0.234	103.90	ppb	0.234	0.23%
Al 396.153Radial†	3479.2	2514.1	ug/L	15.94	2514.1	ppb	15.94	0.63%
As 188.979†	431.8	160.84	ug/L	2.704	160.84	ppb	2.704	1.68%
B 249.677†	8143.1	162.75	ug/L	0.575	162.75	ppb	0.575	0.35%
Ba 233.527†	146033.8	993.26	ug/L	2.042	993.26	ppb	2.042	0.21%
Be 313.107†	309645.8	100.67	ug/L	0.267	100.67	ppb	0.267	0.27%
Ca 317.933Radial†	149241.4	225430	ug/L	1039.6	225430	ppb	1039.6	0.46%
Cd 226.502†	10380.5	102.40	ug/L	0.272	102.40	ppb	0.272	0.27%
Co 228.616†	5508.1	97.192	ug/L	0.1382	97.192	ppb	0.1382	0.14%
Cr 267.716†	692792.7	7071.0	ug/L	10.38	7071.0	ppb	10.38	0.15%
Cu 324.752†	537739.7	1458.3	ug/L	6.91	1458.3	ppb	6.91	0.47%
Fe 238.204 Radial†	463.3	3753.5	ug/L	64.46	3753.5	ppb	64.46	1.72%
K 766.490 Radial†	10974.8	1943.9	ug/L	16.19	1943.9	ppb	16.19	0.83%

Mg 279.077 IEC†	182.0	5425.8	ug/L	85.64	5425.8	ppb	85.64	1.58%
Mn 257.610†	226786.2	220.87	ug/L	0.521	220.87	ppb	0.521	0.24%
Mo 202.031†	1925.4	122.44	ug/L	0.423	122.44	ppb	0.423	0.35%
Na 589.592 Radial†	21123.0	4917.5	ug/L	22.38	4917.5	ppb	22.38	0.46%
Ni 231.604†	4438.2	99.501	ug/L	0.2253	99.501	ppb	0.2253	0.23%
P 214.914†	6012.5	2855.1	ug/L	3.47	2855.1	ppb	3.47	0.12%
Pb 220.353†	1226.7	136.99	ug/L	0.523	136.99	ppb	0.523	0.38%
S 181.975 Axial†	2002.9	2428.4	ug/L	12.23	2428.4	ppb	12.23	0.50%
Sb 206.836†	798.4	243.82	ug/L	3.065	243.82	ppb	3.065	1.26%
Se 196.026†	155.6	101.49	ug/L	3.662	101.49	ppb	3.662	3.61%
Si 251.611†	58945.5	1653.9	ug/L	5.06	1653.9	ppb	5.06	0.31%
Sn 189.927†	292.0	79.217	ug/L	0.7299	79.217	ppb	0.7299	0.92%
Sr 421.552†	227611.4	1295.0	ug/L	3.59	1295.0	ppb	3.59	0.28%
Ti 334.940†	74085.1	129.93	ug/L	0.260	129.93	ppb	0.260	0.20%
Tl 190.801†	341.3	92.169	ug/L	2.6592	92.169	ppb	2.6592	2.89%
U 409.014†	4607.8	106.08	ug/L	2.100	106.08	ppb	2.100	1.98%
V 292.402†	28660.5	174.41	ug/L	0.259	174.41	ppb	0.259	0.15%
Zn 213.857†	67535.6	562.34	ug/L	1.132	562.34	ppb	1.132	0.20%
SiO2†	59107.4	3522.0	ug/L	12.13	3522.0	ppb	12.13	0.34%

Sequence No.: 7
Sample ID: 1202004468|936826|5
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 41
Date Collected: 1/19/2010 17:00:55
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202004468|936826|5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5218.7	5218.7	92.7	%			17:02:47
1	Y RADIAL	5490.3	5490.3	92.29	%			17:02:47
1	Al 396.153Radial†	2910.9	3144.3	2271.6	ug/L	2271.6	ppb	17:02:47
1	Ca 317.933Radial†	120190.4	129661.3	195850	ug/L	195850	ppb	17:02:47
1	Fe 238.204 Radial†	391.8	410.4	3325.1	ug/L	3325.1	ppb	17:03:07
1	K 766.490 Radial†	12131.4	10177.1	1806.8	ug/L	1806.8	ppb	17:02:47
1	Mg 279.077 IEC†	164.8	175.4	5229.8	ug/L	5229.8	ppb	17:03:07
1	Na 589.592 Radial†	18731.5	21263.6	4950.2	ug/L	4950.2	ppb	17:02:47
1	Sr 421.552†	183208.4	197671.1	1124.6	ug/L	1124.6	ppb	17:02:47
1	Sc 361.383	881844.3	881844.3	90.228	%			17:04:05
1	Y 371.029	736238.6	736238.6	89.573	%			17:04:05
1	Ag 328.068†	22383.7	24334.9	99.144	ug/L	99.144	ppb	17:04:05
1	As 188.979†	353.5	412.1	153.42	ug/L	153.42	ppb	17:04:25
1	B 249.677†	6361.5	7591.2	151.74	ug/L	151.74	ppb	17:04:05
1	Ba 233.527†	117595.4	130321.6	886.42	ug/L	886.42	ppb	17:04:05
1	Be 313.107†	263676.0	296673.7	96.449	ug/L	96.449	ppb	17:04:05
1	Cd 226.502†	8771.5	9937.9	98.064	ug/L	98.064	ppb	17:04:25
1	Co 228.616†	4714.5	5299.3	93.621	ug/L	93.621	ppb	17:04:25
1	Cr 267.716†	575108.5	637304.4	6504.6	ug/L	6504.6	ppb	17:04:05
1	Cu 324.752†	447500.0	489755.1	1328.1	ug/L	1328.1	ppb	17:04:05
1	Mn 257.610†	191052.5	211250.0	205.72	ug/L	205.72	ppb	17:04:05
1	Mo 202.031†	1740.8	1906.0	120.85	ug/L	120.85	ppb	17:04:25
1	Ni 231.604†	3970.7	4285.3	96.074	ug/L	96.074	ppb	17:04:25
1	P 214.914†	5243.3	5585.5	2657.7	ug/L	2657.7	ppb	17:04:25
1	Pb 220.353†	1026.6	1161.2	129.37	ug/L	129.37	ppb	17:04:25
1	S 181.975 Axial†	1762.0	1905.8	2310.7	ug/L	2310.7	ppb	17:04:25
1	Sb 206.836†	656.5	685.6	209.78	ug/L	209.78	ppb	17:04:25
1	Se 196.026†	117.0	158.6	101.62	ug/L	101.62	ppb	17:04:25
1	Si 251.611†	43647.7	47844.3	1342.1	ug/L	1342.1	ppb	17:04:05
1	Sn 189.927†	244.9	266.9	70.847	ug/L	70.847	ppb	17:04:25
1	Ti 334.940†	62471.8	70633.1	121.40	ug/L	121.40	ppb	17:04:05
1	Tl 190.801†	263.1	328.9	88.784	ug/L	88.784	ppb	17:04:25
1	U 409.014†	2235.6	4287.6	98.898	ug/L	98.898	ppb	17:04:05
1	V 292.402†	23449.5	27443.3	167.19	ug/L	167.19	ppb	17:04:05
1	Zn 213.857†	55992.1	61243.8	509.91	ug/L	509.91	ppb	17:04:05
1	SiO2†	44090.1	48319.2	2878.6	ug/L	2878.6	ppb	17:05:21
2	Sc Radial	5139.9	5139.9	91.3	%			17:03:12
2	Y RADIAL	5380.9	5380.9	90.45	%			17:03:12
2	Al 396.153Radial†	2828.2	3101.9	2240.8	ug/L	2240.8	ppb	17:03:12
2	Ca 317.933Radial†	117988.0	129236.0	195210	ug/L	195210	ppb	17:03:12
2	Fe 238.204 Radial†	391.6	416.7	3376.1	ug/L	3376.1	ppb	17:03:33
2	K 766.490 Radial†	11905.7	10130.4	1798.5	ug/L	1798.5	ppb	17:03:12
2	Mg 279.077 IEC†	165.8	179.2	5343.9	ug/L	5343.9	ppb	17:03:33
2	Na 589.592 Radial†	18201.2	20992.5	4887.1	ug/L	4887.1	ppb	17:03:12
2	Sr 421.552†	178921.0	196003.6	1115.2	ug/L	1115.2	ppb	17:03:12
2	Sc 361.383	865015.0	865015.0	88.506	%			17:04:30
2	Y 371.029	719990.2	719990.2	87.596	%			17:04:30
2	Ag 328.068†	22624.0	25089.1	102.29	ug/L	102.29	ppb	17:04:30
2	As 188.979†	355.6	422.1	157.17	ug/L	157.17	ppb	17:04:50
2	B 249.677†	6422.4	7797.2	155.87	ug/L	155.87	ppb	17:04:30
2	Ba 233.527†	118834.3	134257.0	913.19	ug/L	913.19	ppb	17:04:30
2	Be 313.107†	266067.6	305061.4	99.176	ug/L	99.176	ppb	17:04:30
2	Cd 226.502†	8817.8	10179.3	100.45	ug/L	100.45	ppb	17:04:50
2	Co 228.616†	4723.1	5410.7	95.569	ug/L	95.569	ppb	17:04:50
2	Cr 267.716†	580485.1	655780.0	6693.2	ug/L	6693.2	ppb	17:04:30
2	Cu 324.752†	452401.4	504942.3	1369.3	ug/L	1369.3	ppb	17:04:30
2	Mn 257.610†	192921.3	217481.0	211.78	ug/L	211.78	ppb	17:04:30
2	Mo 202.031†	1748.3	1952.0	123.70	ug/L	123.70	ppb	17:04:50
2	Ni 231.604†	3981.1	4382.7	98.258	ug/L	98.258	ppb	17:04:50

2	P 214.914†	5271.5	5730.4	2725.3 ug/L	2725.3 ppb	17:04:50
2	Pb 220.353†	1023.7	1180.0	131.38 ug/L	131.38 ppb	17:04:50
2	S 181.975 Axial†	1775.6	1959.0	2375.3 ug/L	2375.3 ppb	17:04:50
2	Sb 206.836†	673.9	719.5	220.07 ug/L	220.07 ppb	17:04:50
2	Se 196.026†	103.7	146.1	94.761 ug/L	94.761 ppb	17:04:50
2	Si 251.611†	44440.4	49681.1	1393.7 ug/L	1393.7 ppb	17:04:30
2	Sn 189.927†	254.0	282.4	73.139 ug/L	73.139 ppb	17:04:50
2	Ti 334.940†	63269.5	72881.5	124.35 ug/L	124.35 ppb	17:04:30
2	Tl 190.801†	250.4	320.2	86.486 ug/L	86.486 ppb	17:04:50
2	U 409.014†	2413.5	4536.8	105.09 ug/L	105.09 ppb	17:04:30
2	V 292.402†	23668.9	28196.8	171.78 ug/L	171.78 ppb	17:04:30
2	Zn 213.857†	56565.7	63099.3	525.37 ug/L	525.37 ppb	17:04:30
2	SiO2†	44083.5	49262.4	2934.8 ug/L	2934.8 ppb	17:05:26
3	Sc Radial	5308.8	5308.8	94.3 %		17:03:38
3	Y RADIAL	5524.4	5524.4	92.86 %		17:03:38
3	Al 396.153Radial†	2959.2	3142.3	2270.1 ug/L	2270.1 ppb	17:03:38
3	Ca 317.933Radial†	120481.3	127769.0	192990 ug/L	192990 ppb	17:03:38
3	Fe 238.204 Radial†	389.7	401.0	3248.7 ug/L	3248.7 ppb	17:03:58
3	K 766.490 Radial†	12177.8	10004.1	1776.0 ug/L	1776.0 ppb	17:03:38
3	Mg 279.077 IEC†	165.3	172.9	5155.7 ug/L	5155.7 ppb	17:03:58
3	Na 589.592 Radial†	18809.9	21003.8	4889.7 ug/L	4889.7 ppb	17:03:38
3	Sr 421.552†	184028.5	195186.2	1110.5 ug/L	1110.5 ppb	17:03:38
3	Sc 361.383	891316.8	891316.8	91.197 %		17:04:56
3	Y 371.029	742674.6	742674.6	90.356 %		17:04:56
3	Ag 328.068†	22592.3	24300.0	99.011 ug/L	99.011 ppb	17:04:56
3	As 188.979†	350.7	404.9	150.77 ug/L	150.77 ppb	17:05:16
3	B 249.677†	6477.7	7643.7	152.81 ug/L	152.81 ppb	17:04:56
3	Ba 233.527†	118568.0	130002.9	884.25 ug/L	884.25 ppb	17:04:56
3	Be 313.107†	265520.9	295590.9	96.098 ug/L	96.098 ppb	17:04:56
3	Cd 226.502†	8793.8	9859.0	97.292 ug/L	97.292 ppb	17:05:16
3	Co 228.616†	4733.3	5264.4	92.997 ug/L	92.997 ppb	17:05:16
3	Cr 267.716†	579549.6	635400.2	6485.2 ug/L	6485.2 ppb	17:04:56
3	Cu 324.752†	452626.8	490105.9	1329.1 ug/L	1329.1 ppb	17:04:56
3	Mn 257.610†	192924.1	211052.0	205.52 ug/L	205.52 ppb	17:04:56
3	Mo 202.031†	1760.9	1907.5	120.90 ug/L	120.90 ppb	17:05:16
3	Ni 231.604†	3982.5	4251.5	95.316 ug/L	95.316 ppb	17:05:16
3	P 214.914†	5264.6	5547.1	2637.5 ug/L	2637.5 ppb	17:05:16
3	Pb 220.353†	1038.0	1161.6	129.37 ug/L	129.37 ppb	17:05:16
3	S 181.975 Axial†	1763.8	1886.9	2287.8 ug/L	2287.8 ppb	17:05:16
3	Sb 206.836†	667.6	690.2	211.13 ug/L	211.13 ppb	17:05:16
3	Se 196.026†	105.8	145.0	93.677 ug/L	93.677 ppb	17:05:16
3	Si 251.611†	44346.0	48095.9	1349.2 ug/L	1349.2 ppb	17:04:56
3	Sn 189.927†	247.7	267.1	70.438 ug/L	70.438 ppb	17:05:16
3	Ti 334.940†	63243.0	70742.9	121.18 ug/L	121.18 ppb	17:04:56
3	Tl 190.801†	272.0	335.5	90.540 ug/L	90.540 ppb	17:05:16
3	U 409.014†	2377.0	4416.3	102.37 ug/L	102.37 ppb	17:04:56
3	V 292.402†	23667.8	27406.4	166.99 ug/L	166.99 ppb	17:04:56
3	Zn 213.857†	56519.3	61162.4	509.24 ug/L	509.24 ppb	17:04:56
3	SiO2†	44189.8	47909.1	2854.1 ug/L	2854.1 ppb	17:05:31

Mean Data: 1202004468|936826|5

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	879392.0	89.977	%	1.3630				1.51%
Sc Radial	5222.5	92.7	%	1.50				1.62%
Y 371.029	732967.8	89.175	%	1.4223				1.59%
Y RADIAL	5465.2	91.86	%	1.260				1.37%
Ag 328.068†	24574.7	100.15	ug/L	1.854	100.15	ppb	1.854	1.85%
Al 396.153Radial†	3129.5	2260.8	ug/L	17.38	2260.8	ppb	17.38	0.77%
As 188.979†	413.0	153.79	ug/L	3.215	153.79	ppb	3.215	2.09%
B 249.677†	7677.4	153.47	ug/L	2.141	153.47	ppb	2.141	1.40%
Ba 233.527†	131527.2	894.62	ug/L	16.116	894.62	ppb	16.116	1.80%
Be 313.107†	299108.6	97.241	ug/L	1.6852	97.241	ppb	1.6852	1.73%
Ca 317.933Radial†	128888.8	194680	ug/L	1499.5	194680	ppb	1499.5	0.77%
Cd 226.502†	9992.1	98.603	ug/L	1.6466	98.603	ppb	1.6466	1.67%
Co 228.616†	5324.8	94.062	ug/L	1.3419	94.062	ppb	1.3419	1.43%
Cr 267.716†	642828.2	6561.0	ug/L	114.89	6561.0	ppb	114.89	1.75%
Cu 324.752†	494934.4	1342.2	ug/L	23.51	1342.2	ppb	23.51	1.75%
Fe 238.204 Radial†	409.4	3316.6	ug/L	64.08	3316.6	ppb	64.08	1.93%
K 766.490 Radial†	10103.9	1793.8	ug/L	15.97	1793.8	ppb	15.97	0.89%

Mg 279.077 IEC†	175.8	5243.2 ug/L	94.80	5243.2 ppb	94.80	1.81%
Mn 257.610†	213261.0	207.67 ug/L	3.560	207.67 ppb	3.560	1.71%
Mo 202.031†	1921.8	121.81 ug/L	1.631	121.81 ppb	1.631	1.34%
Na 589.592 Radial†	21086.6	4909.0 ug/L	35.71	4909.0 ppb	35.71	0.73%
Ni 231.604†	4306.5	96.549 ug/L	1.5274	96.549 ppb	1.5274	1.58%
P 214.914†	5621.0	2673.5 ug/L	46.00	2673.5 ppb	46.00	1.72%
Pb 220.353†	1167.6	130.04 ug/L	1.160	130.04 ppb	1.160	0.89%
S 181.975 Axial†	1917.2	2324.6 ug/L	45.38	2324.6 ppb	45.38	1.95%
Sb 206.836†	698.4	213.66 ug/L	5.596	213.66 ppb	5.596	2.62%
Se 196.026†	149.9	96.686 ug/L	4.3076	96.686 ppb	4.3076	4.46%
Si 251.611†	48540.4	1361.7 ug/L	27.95	1361.7 ppb	27.95	2.05%
Sn 189.927†	272.1	71.475 ug/L	1.4555	71.475 ppb	1.4555	2.04%
Sr 421.552†	196287.0	1116.8 ug/L	7.21	1116.8 ppb	7.21	0.65%
Ti 334.940†	71419.2	122.31 ug/L	1.771	122.31 ppb	1.771	1.45%
Tl 190.801†	328.2	88.603 ug/L	2.0329	88.603 ppb	2.0329	2.29%
U 409.014†	4413.6	102.12 ug/L	3.101	102.12 ppb	3.101	3.04%
V 292.402†	27682.2	168.65 ug/L	2.712	168.65 ppb	2.712	1.61%
Zn 213.857†	61835.2	514.84 ug/L	9.124	514.84 ppb	9.124	1.77%
SiO2†	48496.9	2889.2 ug/L	41.34	2889.2 ppb	41.34	1.43%

Sequence No.: 8
Sample ID: 1202004467|936826|25
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 42
Date Collected: 1/19/2010 17:07:42
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202004467|936826|25

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5349.0	5349.0	95.0	%			17:09:35
1	Y RADIAL	5603.7	5603.7	94.19	%			17:09:35
1	Al 396.153Radial†	116.1	125.6	90.840	ug/L	90.840	ppb	17:09:35
1	Ca 317.933Radial†	14248.5	14974.9	22619	ug/L	22619	ppb	17:09:35
1	Fe 238.204 Radial†	37.5	27.1	219.61	ug/L	219.61	ppb	17:09:55
1	K 766.490 Radial†	3188.4	443.8	74.020	ug/L	74.020	ppb	17:09:35
1	Mg 279.077 IEC†	21.0	19.6	584.27	ug/L	584.27	ppb	17:09:55
1	Na 589.592 Radial†	446.6	1522.4	354.41	ug/L	354.41	ppb	17:09:35
1	Sr 421.552†	19985.5	21027.5	119.62	ug/L	119.62	ppb	17:09:35
1	Sc 361.383	885475.0	885475.0	90.600	%			17:10:52
1	Y 371.029	769452.6	769452.6	93.614	%			17:10:52
1	Ag 328.068†	370.7	-63.8	-0.4496	ug/L	-0.4496	ppb	17:10:52
1	As 188.979†	-7.1	12.5	4.6333	ug/L	4.6333	ppb	17:11:12
1	B 249.677†	-46.3	489.7	9.8036	ug/L	9.8036	ppb	17:11:12
1	Ba 233.527†	13731.6	15146.8	103.00	ug/L	103.00	ppb	17:10:52
1	Be 313.107†	-4579.7	-613.5	-0.2013	ug/L	-0.2013	ppb	17:10:52
1	Cd 226.502†	-147.7	53.4	0.5043	ug/L	0.5043	ppb	17:11:12
1	Co 228.616†	-42.8	27.0	-0.0507	ug/L	-0.0507	ppb	17:11:12
1	Cr 267.716†	119118.0	131388.7	1341.0	ug/L	1341.0	ppb	17:10:52
1	Cu 324.752†	59457.0	59416.7	161.13	ug/L	161.13	ppb	17:10:52
1	Mn 257.610†	12809.0	13644.4	13.277	ug/L	13.277	ppb	17:10:52
1	Mo 202.031†	70.6	54.6	3.6749	ug/L	3.6749	ppb	17:11:12
1	Ni 231.604†	112.6	8.9	0.2002	ug/L	0.2002	ppb	17:11:12
1	P 214.914†	789.5	645.7	305.50	ug/L	305.50	ppb	17:11:12
1	Pb 220.353†	-12.2	9.9	1.4213	ug/L	1.4213	ppb	17:11:12
1	S 181.975 Axial†	149.2	117.6	142.57	ug/L	142.57	ppb	17:11:12
1	Sb 206.836†	130.6	102.2	30.442	ug/L	30.442	ppb	17:11:12
1	Se 196.026†	-31.6	-6.0	-2.5674	ug/L	-2.5674	ppb	17:11:12
1	Si 251.611†	5285.0	5302.8	148.88	ug/L	148.88	ppb	17:11:12
1	Sn 189.927†	-166.3	-188.2	-25.486	ug/L	-25.486	ppb	17:11:12
1	Ti 334.940†	-1925.5	-729.7	1.4934	ug/L	1.4934	ppb	17:10:52
1	Tl 190.801†	-38.0	-4.7	-1.2181	ug/L	-1.2181	ppb	17:11:12
1	U 409.014†	-1954.7	-347.6	-12.255	ug/L	-12.255	ppb	17:10:52
1	V 292.402†	212.9	1689.2	9.8686	ug/L	9.8686	ppb	17:11:12
1	Zn 213.857†	6054.6	5870.6	48.899	ug/L	48.899	ppb	17:11:12
1	SiO2†	5355.7	5365.4	319.91	ug/L	319.91	ppb	17:12:08
2	Sc Radial	5269.6	5269.6	93.6	%			17:10:00
2	Y RADIAL	5541.0	5541.0	93.14	%			17:10:00
2	Al 396.153Radial†	124.5	136.5	98.708	ug/L	98.708	ppb	17:10:00
2	Ca 317.933Radial†	14095.8	15037.7	22714	ug/L	22714	ppb	17:10:00
2	Fe 238.204 Radial†	32.9	22.8	184.57	ug/L	184.57	ppb	17:10:20
2	K 766.490 Radial†	3373.5	692.1	119.73	ug/L	119.73	ppb	17:10:00
2	Mg 279.077 IEC†	19.3	18.1	539.73	ug/L	539.73	ppb	17:10:20
2	Na 589.592 Radial†	444.5	1527.3	355.56	ug/L	355.56	ppb	17:10:00
2	Sr 421.552†	19791.9	21137.5	120.25	ug/L	120.25	ppb	17:10:00
2	Sc 361.383	887509.0	887509.0	90.808	%			17:11:17
2	Y 371.029	772352.0	772352.0	93.966	%			17:11:17
2	Ag 328.068†	382.6	-51.6	-0.4146	ug/L	-0.4146	ppb	17:11:17
2	As 188.979†	1.7	22.2	8.2223	ug/L	8.2223	ppb	17:11:37
2	B 249.677†	-40.7	496.0	9.9357	ug/L	9.9357	ppb	17:11:37
2	Ba 233.527†	13685.2	15061.0	102.42	ug/L	102.42	ppb	17:11:17
2	Be 313.107†	-4557.3	-577.3	-0.1893	ug/L	-0.1893	ppb	17:11:17
2	Cd 226.502†	-146.6	55.0	0.5239	ug/L	0.5239	ppb	17:11:37
2	Co 228.616†	-42.4	27.5	-0.0412	ug/L	-0.0412	ppb	17:11:37
2	Cr 267.716†	119145.4	131117.5	1338.2	ug/L	1338.2	ppb	17:11:17
2	Cu 324.752†	59242.7	59030.3	160.08	ug/L	160.08	ppb	17:11:17
2	Mn 257.610†	12827.2	13632.1	13.264	ug/L	13.264	ppb	17:11:17
2	Mo 202.031†	63.8	46.9	3.1938	ug/L	3.1938	ppb	17:11:37
2	Ni 231.604†	140.9	39.8	0.8934	ug/L	0.8934	ppb	17:11:37

2	P 214.914†	787.2	641.2	303.37	ug/L	303.37 ppb	17:11:37
2	Pb 220.353†	-1.8	21.4	2.6721	ug/L	2.6721 ppb	17:11:37
2	S 181.975 Axial†	155.7	124.3	150.76	ug/L	150.76 ppb	17:11:37
2	Sb 206.836†	120.3	90.6	26.877	ug/L	26.877 ppb	17:11:37
2	Se 196.026†	-25.9	0.4	0.9173	ug/L	0.9173 ppb	17:11:37
2	Si 251.611†	5230.5	5229.5	146.82	ug/L	146.82 ppb	17:11:37
2	Sn 189.927†	-185.4	-208.7	-28.634	ug/L	-28.634 ppb	17:11:37
2	Ti 334.940†	-1862.7	-655.7	1.6125	ug/L	1.6125 ppb	17:11:17
2	Tl 190.801†	-46.2	-13.6	-3.5912	ug/L	-3.5912 ppb	17:11:37
2	U 409.014†	-1889.3	-270.6	-10.200	ug/L	-10.200 ppb	17:11:17
2	V 292.402†	182.9	1655.6	9.6650	ug/L	9.6650 ppb	17:11:37
2	Zn 213.857†	6045.9	5845.7	48.691	ug/L	48.691 ppb	17:11:37
2	SiO2†	5355.9	5352.1	319.12	ug/L	319.12 ppb	17:12:13
3	Sc Radial	5359.8	5359.8	95.2	%		17:10:25
3	Y RADIAL	5638.5	5638.5	94.78	%		17:10:25
3	Al 396.153Radial†	120.7	130.2	94.163	ug/L	94.163 ppb	17:10:25
3	Ca 317.933Radial†	14252.0	14948.4	22579	ug/L	22579 ppb	17:10:25
3	Fe 238.204 Radial†	33.3	22.7	183.40	ug/L	183.40 ppb	17:10:45
3	K 766.490 Radial†	3317.8	573.0	97.825	ug/L	97.825 ppb	17:10:25
3	Mg 279.077 IEC†	21.6	20.2	603.89	ug/L	603.89 ppb	17:10:45
3	Na 589.592 Radial†	511.7	1589.9	370.14	ug/L	370.14 ppb	17:10:25
3	Sr 421.552†	20023.5	21025.0	119.61	ug/L	119.61 ppb	17:10:25
3	Sc 361.383	883476.2	883476.2	90.395	%		17:11:43
3	Y 371.029	765440.3	765440.3	93.126	%		17:11:43
3	Ag 328.068†	359.0	-75.8	-0.5132	ug/L	-0.5132 ppb	17:11:43
3	As 188.979†	-2.6	17.5	6.4816	ug/L	6.4816 ppb	17:12:03
3	B 249.677†	-6.0	534.2	10.703	ug/L	10.703 ppb	17:12:03
3	Ba 233.527†	13574.1	15006.9	102.05	ug/L	102.05 ppb	17:11:43
3	Be 313.107†	-4509.8	-547.6	-0.1798	ug/L	-0.1798 ppb	17:11:43
3	Cd 226.502†	-150.1	50.3	0.4779	ug/L	0.4779 ppb	17:12:03
3	Co 228.616†	-40.9	29.1	-0.0112	ug/L	-0.0112 ppb	17:12:03
3	Cr 267.716†	118382.4	130872.3	1335.7	ug/L	1335.7 ppb	17:11:43
3	Cu 324.752†	58940.5	58993.8	159.98	ug/L	159.98 ppb	17:11:43
3	Mn 257.610†	12730.1	13589.1	13.219	ug/L	13.219 ppb	17:11:43
3	Mo 202.031†	68.3	52.2	3.5246	ug/L	3.5246 ppb	17:12:03
3	Ni 231.604†	114.1	10.9	0.2442	ug/L	0.2442 ppb	17:12:03
3	P 214.914†	786.2	644.0	304.88	ug/L	304.88 ppb	17:12:03
3	Pb 220.353†	-9.5	12.9	1.7476	ug/L	1.7476 ppb	17:12:03
3	S 181.975 Axial†	159.7	129.6	157.12	ug/L	157.12 ppb	17:12:03
3	Sb 206.836†	134.0	106.4	31.672	ug/L	31.672 ppb	17:12:03
3	Se 196.026†	-32.2	-6.7	-3.0985	ug/L	-3.0985 ppb	17:12:03
3	Si 251.611†	5208.4	5231.4	146.87	ug/L	146.87 ppb	17:12:03
3	Sn 189.927†	-167.8	-190.2	-25.809	ug/L	-25.809 ppb	17:12:03
3	Ti 334.940†	-1903.6	-710.3	1.5140	ug/L	1.5140 ppb	17:11:43
3	Tl 190.801†	-35.1	-1.5	-0.3707	ug/L	-0.3707 ppb	17:12:03
3	U 409.014†	-1853.3	-240.3	-9.3905	ug/L	-9.3905 ppb	17:11:43
3	V 292.402†	179.5	1652.7	9.6562	ug/L	9.6562 ppb	17:12:03
3	Zn 213.857†	6017.1	5844.3	48.684	ug/L	48.684 ppb	17:12:03
3	SiO2†	5517.3	5557.6	331.37	ug/L	331.37 ppb	17:12:18

Mean Data: 1202004467|936826|25

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	885486.8	90.601	%	0.2063				0.23%
Sc Radial	5326.1	94.6	%	0.87				0.92%
Y 371.029	769081.6	93.569	%	0.4223				0.45%
Y RADIAL	5594.4	94.04	%	0.830				0.88%
Ag 328.068†	-63.7	-0.4591	ug/L	0.04997	-0.4591	ppb	0.04997	10.88%
Al 396.153Radial†	130.8	94.571	ug/L	3.9499	94.571	ppb	3.9499	4.18%
As 188.979†	17.4	6.4458	ug/L	1.79475	6.4458	ppb	1.79475	27.84%
B 249.677†	506.6	10.148	ug/L	0.4859	10.148	ppb	0.4859	4.79%
Ba 233.527†	15071.6	102.49	ug/L	0.481	102.49	ppb	0.481	0.47%
Be 313.107†	-579.4	-0.1901	ug/L	0.01074	-0.1901	ppb	0.01074	5.65%
Ca 317.933Radial†	14987.0	22638	ug/L	69.3	22638	ppb	69.3	0.31%
Cd 226.502†	52.9	0.5020	ug/L	0.02309	0.5020	ppb	0.02309	4.60%
Co 228.616†	27.9	-0.0344	ug/L	0.02064	-0.0344	ppb	0.02064	60.04%
Cr 267.716†	131126.2	1338.3	ug/L	2.64	1338.3	ppb	2.64	0.20%
Cu 324.752†	59146.9	160.40	ug/L	0.637	160.40	ppb	0.637	0.40%
Fe 238.204 Radial†	24.2	195.86	ug/L	20.575	195.86	ppb	20.575	10.50%
K 766.490 Radial†	569.6	97.193	ug/L	22.8627	97.193	ppb	22.8627	23.52%

Mg 279.077 IEC†	19.3	575.96	ug/L	32.875	575.96	ppb	32.875	5.71%
Mn 257.610†	13621.9	13.253	ug/L	0.0304	13.253	ppb	0.0304	0.23%
Mo 202.031†	51.3	3.4644	ug/L	0.24613	3.4644	ppb	0.24613	7.10%
Na 589.592 Radial†	1546.5	360.04	ug/L	8.766	360.04	ppb	8.766	2.43%
Ni 231.604†	19.9	0.4459	ug/L	0.38815	0.4459	ppb	0.38815	87.04%
P 214.914†	643.6	304.58	ug/L	1.093	304.58	ppb	1.093	0.36%
Pb 220.353†	14.8	1.9470	ug/L	0.64878	1.9470	ppb	0.64878	33.32%
S 181.975 Axial†	123.8	150.15	ug/L	7.296	150.15	ppb	7.296	4.86%
Sb 206.836†	99.7	29.663	ug/L	2.4901	29.663	ppb	2.4901	8.39%
Se 196.026†	-4.1	-1.5829	ug/L	2.18143	-1.5829	ppb	2.18143	137.82%
Si 251.611†	5254.6	147.52	ug/L	1.172	147.52	ppb	1.172	0.79%
Sn 189.927†	-195.7	-26.643	ug/L	1.7316	-26.643	ppb	1.7316	6.50%
Sr 421.552†	21063.3	119.83	ug/L	0.365	119.83	ppb	0.365	0.30%
Ti 334.940†	-698.6	1.5399	ug/L	0.06366	1.5399	ppb	0.06366	4.13%
Tl 190.801†	-6.6	-1.7267	ug/L	1.66937	-1.7267	ppb	1.66937	96.68%
U 409.014†	-286.2	-10.615	ug/L	1.4764	-10.615	ppb	1.4764	13.91%
V 292.402†	1665.8	9.7299	ug/L	0.12018	9.7299	ppb	0.12018	1.24%
Zn 213.857†	5853.5	48.758	ug/L	0.1221	48.758	ppb	0.1221	0.25%
SiO2†	5425.0	323.47	ug/L	6.857	323.47	ppb	6.857	2.12%

Sequence No.: 10
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 1/19/2010 17:21:15
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	5353.0	5353.0	95.1	%			17:23:07
1	Y RADIAL	5607.8	5607.8	94.26	%			17:23:07
1	Al 396.153Radial†	6620.8	6968.1	5022.6	ug/L	5022.6	ppb	17:23:07
1	Ca 317.933Radial†	3156.1	3295.2	4977.3	ug/L	4977.3	ppb	17:23:27
1	Fe 238.204 Radial†	585.9	604.0	4904.3	ug/L	4904.3	ppb	17:23:27
1	K 766.490 Radial†	28242.4	26796.2	4929.3	ug/L	4929.3	ppb	17:23:07
1	Mg 279.077 IEC†	163.5	169.6	5058.4	ug/L	5058.4	ppb	17:23:27
1	Na 589.592 Radial†	38233.8	41271.5	9608.1	ug/L	9608.1	ppb	17:23:07
1	Sr 421.552†	82790.2	87077.6	496.03	ug/L	496.03	ppb	17:23:07
1	Sc 361.383	940895.5	940895.5	96.270	%			17:24:24
1	Y 371.029	780991.2	780991.2	95.018	%			17:24:24
1	Ag 328.068†	116938.2	120995.7	501.04	ug/L	501.04	ppb	17:24:29
1	As 188.979†	1276.2	1346.0	501.04	ug/L	501.04	ppb	17:24:49
1	B 249.677†	23186.0	24625.0	492.66	ug/L	492.66	ppb	17:24:29
1	Ba 233.527†	70567.1	73291.6	499.49	ug/L	499.49	ppb	17:24:29
1	Be 313.107†	1476842.6	1538501.0	500.14	ug/L	500.14	ppb	17:24:24
1	Cd 226.502†	48191.9	50275.4	497.33	ug/L	497.33	ppb	17:24:29
1	Co 228.616†	26399.1	27496.2	498.52	ug/L	498.52	ppb	17:24:29
1	Cr 267.716†	47131.9	48869.4	499.36	ug/L	499.36	ppb	17:24:29
1	Cu 324.752†	182063.1	182907.5	495.95	ug/L	495.95	ppb	17:24:29
1	Mn 257.610†	495836.5	514553.0	501.07	ug/L	501.07	ppb	17:24:24
1	Mo 202.031†	7747.7	8024.5	498.32	ug/L	498.32	ppb	17:24:49
1	Ni 231.604†	21541.5	22260.7	499.07	ug/L	499.07	ppb	17:24:29
1	P 214.914†	4795.9	4756.0	2392.5	ug/L	2392.5	ppb	17:24:49
1	Pb 220.353†	4400.0	4593.9	500.01	ug/L	500.01	ppb	17:24:49
1	S 181.975 Axial†	826.9	811.9	983.59	ug/L	983.59	ppb	17:24:49
1	Sb 206.836†	1613.8	1634.4	510.22	ug/L	510.22	ppb	17:24:49
1	Se 196.026†	825.8	886.8	518.42	ug/L	518.42	ppb	17:24:49
1	Si 251.611†	86173.3	88981.4	2492.7	ug/L	2492.7	ppb	17:24:29
1	Sn 189.927†	3114.4	3230.5	497.48	ug/L	497.48	ppb	17:24:49
1	Ti 334.940†	343673.4	358383.8	496.90	ug/L	496.90	ppb	17:24:24
1	Tl 190.801†	1768.6	1874.4	503.33	ug/L	503.33	ppb	17:24:49
1	U 409.014†	16399.5	18844.8	498.64	ug/L	498.64	ppb	17:24:29
1	V 292.402†	76623.7	81046.4	503.34	ug/L	503.34	ppb	17:24:29
1	Zn 213.857†	58206.0	59648.9	494.96	ug/L	494.96	ppb	17:24:29
1	SiO2†	86824.8	89642.7	5332.8	ug/L	5332.8	ppb	17:25:57
2	Sc Radial	5292.4	5292.4	94.0	%			17:23:32
2	Y RADIAL	5536.2	5536.2	93.06	%			17:23:32
2	Al 396.153Radial†	6672.0	7102.3	5120.1	ug/L	5120.1	ppb	17:23:32
2	Ca 317.933Radial†	3172.1	3350.2	5060.4	ug/L	5060.4	ppb	17:23:52
2	Fe 238.204 Radial†	587.1	612.3	4971.7	ug/L	4971.7	ppb	17:23:52
2	K 766.490 Radial†	28289.6	27186.7	5001.2	ug/L	5001.2	ppb	17:23:32
2	Mg 279.077 IEC†	163.1	171.1	5103.2	ug/L	5103.2	ppb	17:23:52
2	Na 589.592 Radial†	38324.4	41828.5	9737.8	ug/L	9737.8	ppb	17:23:32
2	Sr 421.552†	82658.1	87934.4	500.91	ug/L	500.91	ppb	17:23:32
2	Sc 361.383	940773.1	940773.1	96.258	%			17:24:55
2	Y 371.029	780866.2	780866.2	95.002	%			17:24:55
2	Ag 328.068†	116987.2	121062.5	501.33	ug/L	501.33	ppb	17:25:00
2	As 188.979†	1274.8	1344.7	500.61	ug/L	500.61	ppb	17:25:21
2	B 249.677†	23227.8	24671.6	493.58	ug/L	493.58	ppb	17:25:00
2	Ba 233.527†	70681.3	73419.7	500.37	ug/L	500.37	ppb	17:25:00
2	Be 313.107†	1488373.7	1550680.0	504.10	ug/L	504.10	ppb	17:24:55
2	Cd 226.502†	48231.7	50323.3	497.80	ug/L	497.80	ppb	17:25:00
2	Co 228.616†	26412.6	27513.7	498.82	ug/L	498.82	ppb	17:25:00
2	Cr 267.716†	47158.6	48903.4	499.71	ug/L	499.71	ppb	17:25:00
2	Cu 324.752†	182374.1	183255.2	496.89	ug/L	496.89	ppb	17:25:00
2	Mn 257.610†	499333.0	518252.4	504.68	ug/L	504.68	ppb	17:24:55
2	Mo 202.031†	7686.0	7961.4	494.41	ug/L	494.41	ppb	17:25:21
2	Ni 231.604†	21591.5	22315.6	500.30	ug/L	500.30	ppb	17:25:00

2	P 214.914†	4744.6	4703.4	2364.8 ug/L	2364.8 ppb	17:25:21
2	Pb 220.353†	4369.0	4562.3	496.59 ug/L	496.59 ppb	17:25:21
2	S 181.975 Axial†	816.8	801.4	970.88 ug/L	970.88 ppb	17:25:21
2	Sb 206.836†	1612.2	1633.0	509.61 ug/L	509.61 ppb	17:25:21
2	Se 196.026†	808.8	869.2	508.80 ug/L	508.80 ppb	17:25:21
2	Si 251.611†	86315.5	89140.8	2497.2 ug/L	2497.2 ppb	17:25:00
2	Sn 189.927†	3080.1	3195.3	492.08 ug/L	492.08 ppb	17:25:21
2	Ti 334.940†	345814.8	360655.0	500.06 ug/L	500.06 ppb	17:24:55
2	Tl 190.801†	1754.6	1860.1	499.56 ug/L	499.56 ppb	17:25:21
2	U 409.014†	16528.7	18981.3	502.25 ug/L	502.25 ppb	17:25:00
2	V 292.402†	76671.7	81106.7	503.65 ug/L	503.65 ppb	17:25:00
2	Zn 213.857†	58303.6	59758.1	495.86 ug/L	495.86 ppb	17:25:00
2	SiO2†	86979.1	89814.7	5343.2 ug/L	5343.2 ppb	17:26:02
3	Sc Radial	5291.3	5291.3	94.0 %		17:23:57
3	Y RADIAL	5603.1	5603.1	94.18 %		17:23:57
3	Al 396.153Radial†	6642.4	7072.4	5098.2 ug/L	5098.2 ppb	17:23:57
3	Ca 317.933Radial†	3178.9	3358.2	5072.5 ug/L	5072.5 ppb	17:24:17
3	Fe 238.204 Radial†	589.0	614.4	4989.3 ug/L	4989.3 ppb	17:24:17
3	K 766.490 Radial†	28199.2	27097.1	4984.7 ug/L	4984.7 ppb	17:23:57
3	Mg 279.077 IEC†	160.6	168.4	5025.4 ug/L	5025.4 ppb	17:24:17
3	Na 589.592 Radial†	38259.1	41768.0	9723.7 ug/L	9723.7 ppb	17:23:57
3	Sr 421.552†	82614.9	87907.9	500.76 ug/L	500.76 ppb	17:23:57
3	Sc 361.383	931120.6	931120.6	95.270 %		17:25:26
3	Y 371.029	772431.1	772431.1	93.976 %		17:25:26
3	Ag 328.068†	117725.7	123097.6	509.74 ug/L	509.74 ppb	17:25:32
3	As 188.979†	1262.9	1345.9	501.05 ug/L	501.05 ppb	17:25:52
3	B 249.677†	23419.0	25122.5	502.61 ug/L	502.61 ppb	17:25:32
3	Ba 233.527†	71351.9	74884.9	510.35 ug/L	510.35 ppb	17:25:32
3	Be 313.107†	1466812.1	1544077.0	501.95 ug/L	501.95 ppb	17:25:26
3	Cd 226.502†	48791.8	51430.6	508.76 ug/L	508.76 ppb	17:25:32
3	Co 228.616†	26755.2	28157.8	510.51 ug/L	510.51 ppb	17:25:32
3	Cr 267.716†	47613.6	49888.9	509.78 ug/L	509.78 ppb	17:25:32
3	Cu 324.752†	183141.4	186024.6	504.40 ug/L	504.40 ppb	17:25:32
3	Mn 257.610†	493195.1	517187.4	503.64 ug/L	503.64 ppb	17:25:26
3	Mo 202.031†	7680.0	8038.0	499.16 ug/L	499.16 ppb	17:25:52
3	Ni 231.604†	21809.7	22777.1	510.65 ug/L	510.65 ppb	17:25:32
3	P 214.914†	4724.7	4733.6	2379.1 ug/L	2379.1 ppb	17:25:52
3	Pb 220.353†	4366.8	4607.0	501.44 ug/L	501.44 ppb	17:25:52
3	S 181.975 Axial†	818.0	811.5	983.12 ug/L	983.12 ppb	17:25:52
3	Sb 206.836†	1595.1	1632.4	509.66 ug/L	509.66 ppb	17:25:52
3	Se 196.026†	813.1	882.4	516.28 ug/L	516.28 ppb	17:25:52
3	Si 251.611†	87034.0	90824.5	2544.5 ug/L	2544.5 ppb	17:25:32
3	Sn 189.927†	3083.5	3232.0	497.73 ug/L	497.73 ppb	17:25:52
3	Ti 334.940†	341282.7	359622.1	498.63 ug/L	498.63 ppb	17:25:26
3	Tl 190.801†	1745.7	1869.7	502.04 ug/L	502.04 ppb	17:25:52
3	U 409.014†	16566.5	19198.9	508.01 ug/L	508.01 ppb	17:25:32
3	V 292.402†	77212.0	82499.6	512.26 ug/L	512.26 ppb	17:25:32
3	Zn 213.857†	58866.0	60976.3	505.98 ug/L	505.98 ppb	17:25:32
3	SiO2†	87813.5	91627.2	5451.2 ug/L	5451.2 ppb	17:26:07

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	937596.4	95.933	%	0.5738				0.60%
Sc Radial	5312.3	94.3	%	0.63				0.67%
Y 371.029	778096.2	94.665	%	0.5969				0.63%
Y RADIAL	5582.3	93.83	%	0.673				0.72%
Ag 328.068†	121718.6	504.04	ug/L	4.943	504.04	ppb	4.943	0.98%
QC value within limits for Ag 328.068 Recovery = 100.81%								
Al 396.153Radial†	7047.6	5080.3	ug/L	51.13	5080.3	ppb	51.13	1.01%
QC value within limits for Al 396.153Radial Recovery = 101.61%								
As 188.979†	1345.5	500.90	ug/L	0.252	500.90	ppb	0.252	0.05%
QC value within limits for As 188.979 Recovery = 100.18%								
B 249.677†	24806.4	496.28	ug/L	5.497	496.28	ppb	5.497	1.11%
QC value within limits for B 249.677 Recovery = 99.26%								
Ba 233.527†	73865.4	503.40	ug/L	6.030	503.40	ppb	6.030	1.20%
QC value within limits for Ba 233.527 Recovery = 100.68%								
Be 313.107†	1544419.3	502.07	ug/L	1.981	502.07	ppb	1.981	0.39%
QC value within limits for Be 313.107 Recovery = 100.41%								
Ca 317.933Radial†	3334.5	5036.7	ug/L	51.84	5036.7	ppb	51.84	1.03%

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   QC value within limits for Ca 317.933Radial  Recovery = 100.73%
Cd 226.502†            50676.4      501.30 ug/L        6.468      501.30 ppb        6.468   1.29%
   QC value within limits for Cd 226.502  Recovery = 100.26%
Co 228.616†            27722.6      502.61 ug/L        6.838      502.61 ppb        6.838   1.36%
   QC value within limits for Co 228.616  Recovery = 100.52%
Cr 267.716†            49220.6      502.95 ug/L        5.916      502.95 ppb        5.916   1.18%
   QC value within limits for Cr 267.716  Recovery = 100.59%
Cu 324.752†           184062.4      499.08 ug/L        4.631      499.08 ppb        4.631   0.93%
   QC value within limits for Cu 324.752  Recovery = 99.82%
Fe 238.204 Radial†       610.3      4955.1 ug/L       44.83      4955.1 ppb        44.83   0.90%
   QC value within limits for Fe 238.204 Radial  Recovery = 99.10%
K 766.490 Radial†      27026.7      4971.7 ug/L       37.63      4971.7 ppb        37.63   0.76%
   QC value within limits for K 766.490 Radial  Recovery = 99.43%
Mg 279.077 IEC†          169.7      5062.3 ug/L       39.04      5062.3 ppb        39.04   0.77%
   QC value within limits for Mg 279.077 IEC  Recovery = 101.25%
Mn 257.610†           516664.3      503.13 ug/L        1.857      503.13 ppb        1.857   0.37%
   QC value within limits for Mn 257.610  Recovery = 100.63%
Mo 202.031†             8008.0      497.30 ug/L        2.534      497.30 ppb        2.534   0.51%
   QC value within limits for Mo 202.031  Recovery = 99.46%
Na 589.592 Radial†     41622.7      9689.9 ug/L       71.15      9689.9 ppb        71.15   0.73%
   QC value within limits for Na 589.592 Radial  Recovery = 96.90%
Ni 231.604†            22451.2      503.34 ug/L        6.358      503.34 ppb        6.358   1.26%
   QC value within limits for Ni 231.604  Recovery = 100.67%
P 214.914†              4731.0      2378.8 ug/L       13.90      2378.8 ppb        13.90   0.58%
   QC value within limits for P 214.914  Recovery = 95.15%
Pb 220.353†             4587.7      499.35 ug/L        2.495      499.35 ppb        2.495   0.50%
   QC value within limits for Pb 220.353  Recovery = 99.87%
S 181.975 Axial†         808.2      979.20 ug/L        7.204      979.20 ppb        7.204   0.74%
   QC value within limits for S 181.975 Axial  Recovery = 97.92%
Sb 206.836†             1633.2      509.83 ug/L        0.339      509.83 ppb        0.339   0.07%
   QC value within limits for Sb 206.836  Recovery = 101.97%
Se 196.026†              879.5      514.50 ug/L        5.055      514.50 ppb        5.055   0.98%
   QC value within limits for Se 196.026  Recovery = 102.90%
Si 251.611†            89648.9      2511.5 ug/L       28.66      2511.5 ppb        28.66   1.14%
   QC value within limits for Si 251.611  Recovery = 100.46%
Sn 189.927†             3219.3      495.76 ug/L        3.190      495.76 ppb        3.190   0.64%
   QC value within limits for Sn 189.927  Recovery = 99.15%
Sr 421.552†            87639.9      499.24 ug/L        2.775      499.24 ppb        2.775   0.56%
   QC value within limits for Sr 421.552  Recovery = 99.85%
Ti 334.940†           359553.6      498.53 ug/L        1.580      498.53 ppb        1.580   0.32%
   QC value within limits for Ti 334.940  Recovery = 99.71%
Tl 190.801†             1868.0      501.64 ug/L        1.916      501.64 ppb        1.916   0.38%
   QC value within limits for Tl 190.801  Recovery = 100.33%
U 409.014†             19008.3      502.97 ug/L        4.724      502.97 ppb        4.724   0.94%
   QC value within limits for U 409.014  Recovery = 100.59%
V 292.402†             81550.9      506.42 ug/L        5.061      506.42 ppb        5.061   1.00%
   QC value within limits for V 292.402  Recovery = 101.28%
Zn 213.857†            60127.8      498.94 ug/L        6.118      498.94 ppb        6.118   1.23%
   QC value within limits for Zn 213.857  Recovery = 99.79%
SiO2†                  90361.5      5375.7 ug/L       65.54      5375.7 ppb        65.54   1.22%
   QC value within limits for SiO2  Recovery = 100.53%
All analyte(s) passed QC.
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Sequence No.: 11
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 1/19/2010 17:28:17
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5276.5	5276.5	93.7	%			17:30:09
1	Y RADIAL	5618.2	5618.2	94.44	%			17:30:09
1	Al 396.153Radial†	-4.9	-1.8	-1.3322	ug/L	-1.3322	ppb	17:30:09
1	Ca 317.933Radial†	15.6	-8.2	-12.406	ug/L	-12.406	ppb	17:30:29
1	Fe 238.204 Radial†	9.0	-2.8	-22.448	ug/L	-22.448	ppb	17:30:29
1	K 766.490 Radial†	2952.8	238.5	43.935	ug/L	43.935	ppb	17:30:09
1	Mg 279.077 IEC†	2.4	0.1	3.3158	ug/L	3.3158	ppb	17:30:29
1	Na 589.592 Radial†	-1101.9	-123.7	-28.791	ug/L	-28.791	ppb	17:30:09
1	Sr 421.552†	60.3	52.5	0.2991	ug/L	0.2991	ppb	17:30:09
1	Sc 361.383	908061.3	908061.3	92.911	%			17:31:26
1	Y 371.029	769827.9	769827.9	93.659	%			17:31:26
1	Ag 328.068†	427.8	-12.5	-0.0580	ug/L	-0.0580	ppb	17:31:26
1	As 188.979†	-23.9	-5.4	-2.0178	ug/L	-2.0178	ppb	17:31:46
1	B 249.677†	-206.3	318.8	6.4102	ug/L	6.4102	ppb	17:31:46
1	Ba 233.527†	7.4	-1.5	-0.0135	ug/L	-0.0135	ppb	17:31:46
1	Be 313.107†	-4426.0	-322.4	-0.1048	ug/L	-0.1048	ppb	17:31:26
1	Cd 226.502†	-213.0	-12.9	-0.1261	ug/L	-0.1261	ppb	17:31:46
1	Co 228.616†	-76.3	-7.9	-0.1395	ug/L	-0.1395	ppb	17:31:46
1	Cr 267.716†	113.5	33.6	0.3436	ug/L	0.3436	ppb	17:31:46
1	Cu 324.752†	6010.7	260.0	0.7076	ug/L	0.7076	ppb	17:31:26
1	Mn 257.610†	469.7	12.0	0.0093	ug/L	0.0093	ppb	17:31:46
1	Mo 202.031†	37.4	16.9	1.0463	ug/L	1.0463	ppb	17:31:46
1	Ni 231.604†	117.2	10.7	0.2412	ug/L	0.2412	ppb	17:31:46
1	P 214.914†	229.6	21.5	11.107	ug/L	11.107	ppb	17:31:46
1	Pb 220.353†	-44.9	-24.9	-2.6953	ug/L	-2.6953	ppb	17:31:46
1	S 181.975 Axial†	44.9	1.2	1.3949	ug/L	1.3949	ppb	17:31:46
1	Sb 206.836†	32.1	-7.4	-2.2043	ug/L	-2.2043	ppb	17:31:46
1	Se 196.026†	-30.2	-3.5	-2.0589	ug/L	-2.0589	ppb	17:31:46
1	Si 251.611†	484.7	-8.7	-0.2585	ug/L	-0.2585	ppb	17:31:46
1	Sn 189.927†	5.4	1.2	0.1880	ug/L	0.1880	ppb	17:31:46
1	Ti 334.940†	-1371.7	-80.8	-0.1112	ug/L	-0.1112	ppb	17:31:26
1	Tl 190.801†	-42.3	-8.2	-2.1945	ug/L	-2.1945	ppb	17:31:46
1	U 409.014†	-1919.0	-255.5	-6.7808	ug/L	-6.7808	ppb	17:31:26
1	V 292.402†	-1533.7	-196.6	-1.1996	ug/L	-1.1996	ppb	17:31:26
1	Zn 213.857†	779.5	26.7	0.2233	ug/L	0.2233	ppb	17:31:46
1	SiO2†	507.9	0.7	0.0126	ug/L	0.0126	ppb	17:32:42
2	Sc Radial	5317.2	5317.2	94.4	%			17:30:34
2	Y RADIAL	5641.2	5641.2	94.82	%			17:30:34
2	Al 396.153Radial†	-24.0	-21.9	-15.849	ug/L	-15.849	ppb	17:30:34
2	Ca 317.933Radial†	17.2	-6.6	-10.001	ug/L	-10.001	ppb	17:30:54
2	Fe 238.204 Radial†	12.0	0.4	3.1353	ug/L	3.1353	ppb	17:30:54
2	K 766.490 Radial†	2927.2	187.2	34.497	ug/L	34.497	ppb	17:30:34
2	Mg 279.077 IEC†	4.2	2.0	58.467	ug/L	58.467	ppb	17:30:54
2	Na 589.592 Radial†	-1202.0	-220.7	-51.386	ug/L	-51.386	ppb	17:30:34
2	Sr 421.552†	56.7	48.2	0.2746	ug/L	0.2746	ppb	17:30:34
2	Sc 361.383	905759.6	905759.6	92.675	%			17:31:51
2	Y 371.029	767575.7	767575.7	93.385	%			17:31:51
2	Ag 328.068†	436.4	-2.1	-0.0041	ug/L	-0.0041	ppb	17:31:51
2	As 188.979†	-20.4	-1.7	-0.6305	ug/L	-0.6305	ppb	17:32:11
2	B 249.677†	-254.0	266.7	5.3586	ug/L	5.3586	ppb	17:32:11
2	Ba 233.527†	4.5	-4.6	-0.0343	ug/L	-0.0343	ppb	17:32:11
2	Be 313.107†	-4333.8	-234.9	-0.0765	ug/L	-0.0765	ppb	17:31:51
2	Cd 226.502†	-196.9	4.0	0.0367	ug/L	0.0367	ppb	17:32:11
2	Co 228.616†	-75.0	-6.7	-0.1227	ug/L	-0.1227	ppb	17:32:11
2	Cr 267.716†	124.3	45.5	0.4671	ug/L	0.4671	ppb	17:32:11
2	Cu 324.752†	6060.4	330.1	0.9011	ug/L	0.9011	ppb	17:31:51
2	Mn 257.610†	460.6	3.5	0.0013	ug/L	0.0013	ppb	17:32:11
2	Mo 202.031†	15.5	-6.6	-0.4110	ug/L	-0.4110	ppb	17:32:11
2	Ni 231.604†	93.0	-15.0	-0.3356	ug/L	-0.3356	ppb	17:32:11

2	P 214.914†	212.1	3.1	1.4789 ug/L	1.4789 ppb	17:32:11
2	Pb 220.353†	-49.5	-30.0	-3.2641 ug/L	-3.2641 ppb	17:32:11
2	S 181.975 Axial†	38.1	-6.1	-7.3354 ug/L	-7.3354 ppb	17:32:11
2	Sb 206.836†	34.5	-4.6	-1.3781 ug/L	-1.3781 ppb	17:32:11
2	Se 196.026†	-21.9	5.3	2.9974 ug/L	2.9974 ppb	17:32:11
2	Si 251.611†	501.3	10.4	0.2972 ug/L	0.2972 ppb	17:32:11
2	Sn 189.927†	14.6	11.2	1.7135 ug/L	1.7135 ppb	17:32:11
2	Ti 334.940†	-1376.8	-90.0	-0.1264 ug/L	-0.1264 ppb	17:31:51
2	Tl 190.801†	-34.4	0.2	0.0529 ug/L	0.0529 ppb	17:32:11
2	U 409.014†	-2050.4	-402.5	-10.688 ug/L	-10.688 ppb	17:31:51
2	V 292.402†	-1550.3	-218.7	-1.3657 ug/L	-1.3657 ppb	17:31:51
2	Zn 213.857†	778.3	27.6	0.2313 ug/L	0.2313 ppb	17:32:11
2	SiO2†	504.0	-2.1	-0.1166 ug/L	-0.1166 ppb	17:32:47
3	Sc Radial	5322.3	5322.3	94.5 %		17:30:59
3	Y RADIAL	5671.2	5671.2	95.33 %		17:30:59
3	Al 396.153Radial†	-13.1	-10.4	-7.5866 ug/L	-7.5866 ppb	17:30:59
3	Ca 317.933Radial†	18.3	-5.5	-8.3161 ug/L	-8.3161 ppb	17:31:19
3	Fe 238.204 Radial†	12.9	1.2	10.033 ug/L	10.033 ppb	17:31:19
3	K 766.490 Radial†	2940.1	197.8	36.449 ug/L	36.449 ppb	17:30:59
3	Mg 279.077 IEC†	3.0	0.6	19.151 ug/L	19.151 ppb	17:31:19
3	Na 589.592 Radial†	-1062.7	-72.1	-16.788 ug/L	-16.788 ppb	17:30:59
3	Sr 421.552†	16.2	5.3	0.0303 ug/L	0.0303 ppb	17:30:59
3	Sc 361.383	923855.8	923855.8	94.527 %		17:32:16
3	Y 371.029	783220.6	783220.6	95.289 %		17:32:16
3	Ag 328.068†	404.9	-44.6	-0.1798 ug/L	-0.1798 ppb	17:32:16
3	As 188.979†	-24.5	-5.6	-2.0728 ug/L	-2.0728 ppb	17:32:36
3	B 249.677†	-245.6	281.0	5.6453 ug/L	5.6453 ppb	17:32:36
3	Ba 233.527†	13.4	4.7	0.0310 ug/L	0.0310 ppb	17:32:36
3	Be 313.107†	-4543.6	-365.3	-0.1188 ug/L	-0.1188 ppb	17:32:16
3	Cd 226.502†	-216.4	-12.5	-0.1258 ug/L	-0.1258 ppb	17:32:36
3	Co 228.616†	-75.5	-5.6	-0.0993 ug/L	-0.0993 ppb	17:32:36
3	Cr 267.716†	110.6	28.4	0.2905 ug/L	0.2905 ppb	17:32:36
3	Cu 324.752†	6171.3	319.3	0.8683 ug/L	0.8683 ppb	17:32:16
3	Mn 257.610†	469.2	2.8	0.0029 ug/L	0.0029 ppb	17:32:36
3	Mo 202.031†	32.5	11.0	0.6852 ug/L	0.6852 ppb	17:32:36
3	Ni 231.604†	110.3	1.3	0.0299 ug/L	0.0299 ppb	17:32:36
3	P 214.914†	235.4	23.4	12.050 ug/L	12.050 ppb	17:32:36
3	Pb 220.353†	-57.8	-37.7	-4.0901 ug/L	-4.0901 ppb	17:32:36
3	S 181.975 Axial†	50.9	6.7	8.1310 ug/L	8.1310 ppb	17:32:36
3	Sb 206.836†	33.2	-6.8	-2.0393 ug/L	-2.0393 ppb	17:32:36
3	Se 196.026†	-31.8	-4.7	-2.5932 ug/L	-2.5932 ppb	17:32:36
3	Si 251.611†	499.9	-1.6	-0.0542 ug/L	-0.0542 ppb	17:32:36
3	Sn 189.927†	5.3	1.0	0.1513 ug/L	0.1513 ppb	17:32:36
3	Ti 334.940†	-1400.7	-86.3	-0.1210 ug/L	-0.1210 ppb	17:32:16
3	Tl 190.801†	-33.3	2.1	0.5545 ug/L	0.5545 ppb	17:32:36
3	U 409.014†	-1832.9	-129.1	-3.4303 ug/L	-3.4303 ppb	17:32:16
3	V 292.402†	-1470.8	-101.8	-0.6215 ug/L	-0.6215 ppb	17:32:16
3	Zn 213.857†	788.1	21.5	0.1776 ug/L	0.1776 ppb	17:32:36
3	SiO2†	496.8	-20.4	-1.2330 ug/L	-1.2330 ppb	17:32:52

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	912558.9	93.371	%	1.0079				1.08%
Sc Radial	5305.3	94.2	%	0.45				0.47%
Y 371.029	773541.4	94.111	%	1.0290				1.09%
Y RADIAL	5643.5	94.86	%	0.448				0.47%
Ag 328.068†	-19.7	-0.0806	ug/L	0.09004	-0.0806	ppb	0.09004	111.67%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-11.4	-8.2560	ug/L	7.28164	-8.2560	ppb	7.28164	88.20%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-4.3	-1.5737	ug/L	0.81730	-1.5737	ppb	0.81730	51.93%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	288.8	5.8047	ug/L	0.54362	5.8047	ppb	0.54362	9.37%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-0.5	-0.0056	ug/L	0.03336	-0.0056	ppb	0.03336	598.24%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-307.5	-0.1000	ug/L	0.02154	-0.1000	ppb	0.02154	21.54%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-6.8	-10.241	ug/L	2.0553	-10.241	ppb	2.0553	20.07%

```
   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                -7.1     -0.0717 ug/L       0.09388     -0.0717 ppb        0.09388 130.87%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                -6.7     -0.1205 ug/L       0.02021     -0.1205 ppb        0.02021  16.77%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                35.8      0.3671 ug/L       0.09062      0.3671 ppb        0.09062  24.69%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               303.1      0.8257 ug/L       0.10353      0.8257 ppb        0.10353  12.54%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -0.4     -3.0932 ug/L      17.11263     -3.0932 ppb       17.11263 553.23%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         207.8      38.294 ug/L        4.9823      38.294 ppb         4.9823  13.01%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            0.9      26.978 ug/L       28.3965      26.978 ppb        28.3965 105.26%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                6.1       0.0045 ug/L       0.00425       0.0045 ppb        0.00425  94.35%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                7.1       0.4402 ug/L       0.75891       0.4402 ppb        0.75891 172.41%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      -138.8     -32.322 ug/L       17.5672     -32.322 ppb        17.5672  54.35%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               -1.0     -0.0215 ug/L       0.29182     -0.0215 ppb        0.29182 >999.9%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                16.0      8.2121 ug/L       5.85017      8.2121 ppb        5.85017  71.24%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -30.9     -3.3498 ug/L       0.70136     -3.3498 ppb        0.70136  20.94%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           0.6      0.7302 ug/L       7.75458      0.7302 ppb        7.75458 >999.9%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               -6.3     -1.8739 ug/L       0.43725     -1.8739 ppb        0.43725  23.33%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               -1.0     -0.5516 ug/L       3.08510     -0.5516 ppb        3.08510 559.35%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                0.0     -0.0052 ug/L       0.28109     -0.0052 ppb        0.28109 >999.9%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                4.5      0.6843 ug/L       0.89154      0.6843 ppb        0.89154 130.29%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               35.3      0.2013 ug/L       0.14865      0.2013 ppb        0.14865  73.84%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              -85.7     -0.1195 ug/L       0.00774     -0.1195 ppb        0.00774   6.47%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               -2.0     -0.5290 ug/L       1.46399     -0.5290 ppb        1.46399 276.72%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              -262.4     -6.9664 ug/L       3.63236     -6.9664 ppb        3.63236  52.14%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              -172.3     -1.0623 ug/L       0.39065     -1.0623 ppb        0.39065  36.77%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               25.3      0.2107 ug/L       0.02894      0.2107 ppb        0.02894  13.73%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                     -7.3     -0.4457 ug/L       0.68495     -0.4457 ppb        0.68495 153.69%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

ICPMS #5 Daily Performance Report

Sample ID: Sample
Sample Date/Time: Friday, January 08, 2010 10:59:59
Sample Description:
Method File: c:\elandata\Method\Daily2.mth
Dataset File: c:\elandata\Dataset\default2\Sample.1689
Tuning File: c:\elandata\Tuning\default2.tun
Optimization File: c:\elandata\Optimize\default.dac
Dual Detector Mode: Pulse
Acq. Dead Time(ns): 35
Current Dead Time (ns): 35
Number of Replicates: 5

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Be	9.0	4767.6	4767.596	120.642	2.5
	Mg	24.0	49237.9	49237.914	510.851	1.0
	Co	58.9	103615.2	103615.209	338.035	0.3
	Rh	102.9	196977.6	196977.555	1320.738	0.7
	In	114.9	257255.3	257255.341	1918.410	0.7
	Pb	208.0	242068.0	242068.034	2508.523	1.0
⌈>	Ba	137.9	252609.2	252609.245	2391.730	0.9
⌊	Ba++	69.0	4450.6	0.018	0.000	2.7
⌈>	Ce	139.9	314412.9	314412.927	1289.266	0.4
⌊	CeO	155.9	6624.0	0.021	0.000	1.7
	Bkgd	220.0	25.3	25.300	2.564	10.1

Current Optimization File Data

Current Value	Description
0.85	Nebulizer Gas Flow
8.75	Lens Voltage
1450.00	ICP RF Power
-1718.75	Analog Stage Voltage
1200.00	Pulse Stage Voltage
275.00	Discriminator Threshold
-6.00	AC Rod Offset

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	19	9.5	5638.8
Co	59	19	10.3	104053.9
In	115	19	11.5	254758.5

ICPMS #5 Instrument Tuning Report

File Name: default2.tun
File Path: c:\elandata\Tuning

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Pk. Width
He	3.0	3.0	595	2065	0.639
Be	9.0	9.0	2043	2070	0.662
Mg	24.0	24.0	5695	2070	0.717
Mg	25.0	25.0	5923	2070	0.660
Mg	26.0	26.0	6188	2070	0.678
Co	58.9	59.0	14188	2105	0.646
Rh	102.9	102.9	24878	2165	0.633
In	114.9	114.9	27792	2185	0.632
Ce	139.9	139.9	33864	2200	0.646
Pb	206.0	206.0	49948	2270	0.707
Pb	207.0	207.0	50159	2235	0.687
Pb	208.0	208.0	50451	2260	0.738
U	238.1	238.1	57724	2275	0.748

ICPMS#5 - Summary Report

Sample ID: Blank
Sample Date/Time: Saturday, January 09, 2010 01:33:16
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100108\Blank.189

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7		ug/L		87	
	Be	9		ug/L		12	
	B	11		ug/L		3079	
	Na	23		ug/L		66825	
	Mg	24		ug/L		3667	
	Al	27		ug/L		24020	
	P	31		ug/L		7323	
	K	39		ug/L		778307	
	Ca	43		ug/L		591	
>	Sc	45		ug/L		548733	
	Ti	47		ug/L		494	
	V	51		ug/L		24468	
	Cr	52		ug/L		-4913	
	Cr	53		ug/L		178572	
	Mn	55		ug/L		1543	
	Fe	57		ug/L		6998	
	Co	59		ug/L		160	
	Ni	60		ug/L		223	
	Cu	63		ug/L		435	
	Cu	65		ug/L		298	
	Zn	66		ug/L		340	
	Zn	67		ug/L		20240	
	Zn	68		ug/L		2139	
>	Ge	74		ug/L		511724	
	As	75		ug/L		582	
	Se	77		ug/L		9643	
	Se	82		ug/L		-30	
	Kr	83		ug/L		163	
	Sr	88		ug/L		307	
	Y	89		ug/L		56	
	Mo	98		ug/L		159	
	Ag	107		ug/L		81	
	Cd	111		ug/L		38	
	Cd	114		ug/L		56	
>	In	115		ug/L		291985	
	Sn	120		ug/L		411	
	Sb	121		ug/L		595	
	Sb	123		ug/L		443	
	Ba	135		ug/L		42	
	Ba	137		ug/L		63	
	Ho	165		ug/L		26	
>	Lu	175		ug/L		535818	
	Tl	205		ug/L		3778	
	Pb	208		ug/L		661	
	Bi	209		ug/L		125	
	Th	232		ug/L		1184	
	U	238		ug/L		653	

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	0.9999
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9999
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9999
U	238Linear Thru Zero	0.9999

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
Li	7					
Be	9					
B	11					
Na	23					
Mg	24					
Al	27					
P	31					
K	39					
Ca	43					
Sc	45					
Ti	47					
V	51					
Cr	52					
Cr	53					
Mn	55					
Fe	57					
Co	59					
Ni	60					
Cu	63					
Cu	65					
Zn	66					
Zn	67					
Zn	68					
Ge	74					
As	75					
Se	77					
Se	82					
Kr	83					
Sr	88					
Y	89					
Mo	98					
Ag	107					
Cd	111					
Cd	114					
In	115					
Sn	120					
Sb	121					
Sb	123					
Ba	135					
Ba	137					
Ho	165					
Lu	175					
Tl	205					
Pb	208					
Bi	209					
Th	232					
U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Saturday, January 09, 2010 01:39:23
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100108\Standard 1.190

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	10.000	ug/L	3.659	16000	0.029
	Be	9	10.000	ug/L	1.741	4354	0.008
	B	11	20.000	ug/L	2.144	11698	0.015
	Na	23	1000.000	ug/L	8.929	5102039	9.081
	Mg	24	1000.000	ug/L	2.752	3375938	6.085
	Al	27	1000.000	ug/L	8.650	5161569	9.270
	P	31	1000.000	ug/L	0.232	293943	0.517
	K	39	1000.000	ug/L	1.835	7317419	11.784
	Ca	43	1000.000	ug/L	2.467	14953	0.026
>	Sc	45		ug/L		554261	554260.851
	Ti	47	10.000	ug/L	1.354	7475	0.013
	V	51	10.000	ug/L	5.275	110448	0.155
	Cr	52	10.000	ug/L	1.635	61187	0.119
	Cr	53		ug/L		188803	0.015
	Mn	55	10.000	ug/L	1.335	104771	0.186
	Fe	57	1000.000	ug/L	0.898	215645	0.376
	Co	59	10.000	ug/L	1.439	78522	0.141
	Ni	60	10.000	ug/L	1.520	16893	0.030
	Cu	63		ug/L		40646	0.073
	Cu	65	10.000	ug/L	2.082	20370	0.036
	Zn	66	10.000	ug/L	1.897	13424	0.026
	Zn	67		ug/L		22314	0.005
	Zn	68		ug/L		12049	0.020
>	Ge	74		ug/L		505549	505549.156
	As	75	10.000	ug/L	4.534	14246	0.027
	Se	77		ug/L		11097	0.003
	Se	82	10.000	ug/L	3.692	1225	0.002
	Kr	83		ug/L		156	-0.000
	Sr	88	10.000	ug/L	1.464	164074	0.557
	Y	89		ug/L		67	0.000
	Mo	98	10.000	ug/L	2.673	39844	0.135
	Ag	107	10.000	ug/L	0.512	67055	0.228
	Cd	111	10.000	ug/L	2.599	15940	0.054
	Cd	114		ug/L		37815	0.129
>	In	115		ug/L		293890	293890.281
	Sn	120	10.000	ug/L	1.204	69652	0.236
	Sb	121	10.000	ug/L	3.728	56944	0.192
	Sb	123		ug/L		44806	0.151
	Ba	135		ug/L		17193	0.032
	Ba	137	10.000	ug/L	1.973	30247	0.056
	Ho	165		ug/L		24	-0.000
>	Lu	175		ug/L		540710	540709.638
	Tl	205	10.000	ug/L	0.865	253691	0.462
	Pb	208	10.000	ug/L	1.390	376775	0.696
	Bi	209		ug/L		163	0.000
	Th	232	10.000	ug/L	0.757	451952	0.834
	U	238	10.000	ug/L	1.046	462748	0.855

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	1.0000
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
Pb	208Linear Thru Zero	1.0000
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈	Li	7					
|	Be	9					
|	B	11					
|	Na	23					
|	Mg	24					
|	Al	27					
|	P	31					
|	K	39					
|	Ca	43					
|>	Sc	45					
|	Ti	47					
|	V	51					
|	Cr	52					
|	Cr	53					
|	Mn	55					
|	Fe	57					
|	Co	59					
|	Ni	60					
|	Cu	63					
⌊	Cu	65					
⌈	Zn	66					
|	Zn	67					
|	Zn	68					
|>	Ge	74					
|	As	75					
|	Se	77					
|	Se	82					
⌊	Kr	83					
⌈	Sr	88					
|	Y	89					
|	Mo	98					
|	Ag	107					
|	Cd	111					
|	Cd	114					
|>	In	115					
|	Sn	120					
|	Sb	121					
⌊	Sb	123					
⌈	Ba	135					
|	Ba	137					
|	Ho	165					
|>	Lu	175					
|	Tl	205					
|	Pb	208					
|	Bi	209					
|	Th	232					
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Saturday, January 09, 2010 01:45:27
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100108\Standard 2.191

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**100.046**	ug/L	1.232	161348	0.301
	Be	9	**100.032**	ug/L	0.974	43355	0.081
	B	11	**200.045**	ug/L	1.573	87909	0.159
	Na	23	**9985.485**	ug/L	3.833	42479196	79.180
	Mg	24	**9998.653**	ug/L	10.321	32132867	60.031
	Al	27	**9995.358**	ug/L	7.392	47414796	88.549
	P	31	**9998.084**	ug/L	2.289	2723529	5.072
	K	39	**9996.807**	ug/L	8.007	61931950	114.158
	Ca	43	**9997.586**	ug/L	1.961	136000	0.253
>	Sc	45		ug/L		535673	535673.125
	Ti	47	**99.988**	ug/L	3.366	67093	0.124
	V	51	**99.903**	ug/L	3.658	778496	1.409
	Cr	52	**99.945**	ug/L	2.528	600913	1.131
	Cr	53		ug/L		229963	0.104
	Mn	55	**99.946**	ug/L	3.247	947237	1.766
	Fe	57	**9987.978**	ug/L	1.901	1803735	3.355
	Co	59	**99.953**	ug/L	1.950	723316	1.350
	Ni	60	**99.973**	ug/L	1.022	156968	0.293
	Cu	63		ug/L		378854	0.706
	Cu	65	**99.976**	ug/L	1.193	189605	0.353
	Zn	66	**100.012**	ug/L	1.044	127844	0.262
	Zn	67		ug/L		39535	0.042
	Zn	68		ug/L		97942	0.197
>	Ge	74		ug/L		486412	486411.986
	As	75	**100.032**	ug/L	2.991	136422	0.279
	Se	77		ug/L		18478	0.019
	Se	82	**100.054**	ug/L	1.550	12748	0.026
	Kr	83		ug/L		168	0.000
	Sr	88	**99.917**	ug/L	1.797	1454339	5.142
	Y	89		ug/L		198	0.001
	Mo	98	**100.001**	ug/L	1.929	382182	1.351
	Ag	107	**99.950**	ug/L	1.550	613379	2.169
	Cd	111	**99.994**	ug/L	1.923	152144	0.538
	Cd	114		ug/L		363326	1.285
>	In	115		ug/L		282784	282784.006
	Sn	120	**99.983**	ug/L	0.447	655589	2.317
	Sb	121	**100.020**	ug/L	3.812	553896	1.957
	Sb	123		ug/L		437690	1.547
	Ba	135		ug/L		167031	0.316
	Ba	137	**99.990**	ug/L	2.237	292254	0.553
	Ho	165		ug/L		30	0.000
>	Lu	175		ug/L		528695	528695.359
	Tl	205	**99.846**	ug/L	2.015	2117682	3.999
	Pb	208	**99.895**	ug/L	2.230	3325890	6.291
	Bi	209		ug/L		409	0.001
	Th	232	**99.892**	ug/L	2.769	3974179	7.517
	U	238	**99.910**	ug/L	1.101	4142571	7.835

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	0.9999
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9999
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9999
U	238Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45					
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115					
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175					
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Saturday, January 09, 2010 01:51:31
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100108\QC Std 1.192

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**53.130**	ug/L	1.881	84438	0.160
	Be	9	**53.545**	ug/L	1.291	22869	0.043
	B	11	**112.144**	ug/L	0.854	49863	0.089
	Na	23	**5256.804**	ug/L	6.789	22071041	41.684
	Mg	24	**5674.128**	ug/L	6.170	17970139	34.067
	Al	27	**5565.622**	ug/L	13.875	26052086	49.306
	P	31	**4885.229**	ug/L	2.886	1314437	2.478
	K	39	**5379.253**	ug/L	10.363	33151809	61.428
	Ca	43	**5108.676**	ug/L	2.736	68736	0.129
>	Sc	45		ug/L		527734	527733.864
	Ti	47	**53.180**	ug/L	0.808	35390	0.066
	V	51	**53.860**	ug/L	1.568	424465	0.760
	Cr	52	**54.055**	ug/L	1.702	318059	0.612
	Cr	53		ug/L		200628	0.055
	Mn	55	**55.193**	ug/L	1.049	516168	0.975
	Fe	57	**5516.842**	ug/L	0.702	984805	1.853
	Co	59	**52.998**	ug/L	1.693	377949	0.716
	Ni	60	**54.654**	ug/L	1.759	84629	0.160
	Cu	63		ug/L		201092	0.380
	Cu	65	**53.216**	ug/L	1.353	99566	0.188
	Zn	66	**53.330**	ug/L	1.528	68599	0.140
	Zn	67		ug/L		29637	0.021
	Zn	68		ug/L		53043	0.104
>	Ge	74		ug/L		488283	488282.515
	As	75	**50.679**	ug/L	0.994	69675	0.142
	Se	77		ug/L		14090	0.010
	Se	82	**51.754**	ug/L	0.764	6606	0.014
	Kr	83		ug/L		164	0.000
	Sr	88	**55.967**	ug/L	1.053	812643	2.880
	Y	89		ug/L		100	0.000
	Mo	98	**51.074**	ug/L	1.760	194776	0.690
	Ag	107	**53.962**	ug/L	1.186	330330	1.171
	Cd	111	**52.573**	ug/L	0.927	79805	0.283
	Cd	114		ug/L		191185	0.678
>	In	115		ug/L		282034	282033.571
	Sn	120	**52.357**	ug/L	0.459	342579	1.213
	Sb	121	**53.623**	ug/L	0.881	296521	1.049
	Sb	123		ug/L		232053	0.821
	Ba	135		ug/L		86892	0.166
	Ba	137	**52.957**	ug/L	2.702	153371	0.293
	Ho	165		ug/L		50	0.000
>	Lu	175		ug/L		523743	523743.436
	Tl	205	**53.153**	ug/L	0.409	1118763	2.129
	Pb	208	**55.613**	ug/L	2.631	1834614	3.502
	Bi	209		ug/L		453	0.001
	Th	232	**51.109**	ug/L	3.789	2014944	3.846
	U	238	**54.527**	ug/L	0.398	2240265	4.276

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	0.9999
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9999
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9999
U	238Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7	106.259				
	Be	9	107.091				
	B	11	112.144				
	Na	23	105.136				
	Mg	24	113.483				
	Al	27	110.210				
	P	31	97.705				
	K	39	107.585				
	Ca	43	102.174				
>	Sc	45		96.2			
	Ti	47	106.361				
	V	51	107.720				
	Cr	52	108.111				
	Cr	53					
	Mn	55	110.386				
	Fe	57	110.337				
	Co	59	105.996				
	Ni	60	109.308				
	Cu	63					
	Cu	65	106.432				
	Zn	66	106.661				
	Zn	67					
	Zn	68					
>	Ge	74		95.4			
	As	75	101.357				
	Se	77					
	Se	82	103.508				
	Kr	83					
	Sr	88	111.934				
	Y	89					
	Mo	98	102.148				
	Ag	107	107.923				
	Cd	111	105.145				
	Cd	114					
>	In	115		96.6			
	Sn	120	104.714				
	Sb	121	107.245				
	Sb	123					
	Ba	135					
	Ba	137	105.915				
	Ho	165					
>	Lu	175		97.7			
	Tl	205	106.305				
	Pb	208	111.226				
	Bi	209					
	Th	232	102.217				
	U	238	109.054				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 1	B	11	ICV is out of limits (+/- 10%)
QC Std 1	Mg	24	ICV is out of limits (+/- 10%)
QC Std 1	Al	27	ICV is out of limits (+/- 10%)
QC Std 1	Mn	55	ICV is out of limits (+/- 10%)
QC Std 1	Fe	57	ICV is out of limits (+/- 10%)
QC Std 1	Sr	88	ICV is out of limits (+/- 10%)
QC Std 1	Pb	208	ICV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Saturday, January 09, 2010 01:57:39
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100108\QC Std 2.193

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	0.023	ug/L	33.723	121	0.000
	Be	9	0.011	ug/L	67.732	17	0.000
	B	11	2.208	ug/L	33.339	3940	0.002
	Na	23	-1.662	ug/L	72.837	58118	-0.013
	Mg	24	0.538	ug/L	237.745	5335	0.003
	Al	27	0.265	ug/L	412.768	24689	0.002
	P	31	1.265	ug/L	132.300	7487	0.001
	K	39	-3.279	ug/L	181.229	739335	-0.037
	Ca	43	1.037	ug/L	511.144	590	0.000
>	Sc	45		ug/L		535560	535560.418
	Ti	47	-0.022	ug/L	245.082	467	-0.000
	V	51	0.069	ug/L	793.411	24432	0.001
	Cr	52	0.103	ug/L	88.472	-4169	0.001
	Cr	53		ug/L		163136	-0.021
	Mn	55	-0.001	ug/L	624.858	1493	-0.000
	Fe	57	0.228	ug/L	293.429	6871	0.000
	Co	59	0.003	ug/L	30.565	176	0.000
	Ni	60	-0.009	ug/L	68.322	203	-0.000
	Cu	63		ug/L		415	-0.000
	Cu	65	-0.013	ug/L	40.088	267	-0.000
	Zn	66	0.021	ug/L	132.902	351	0.000
	Zn	67		ug/L		17852	-0.003
	Zn	68		ug/L		1917	-0.000
>	Ge	74		ug/L		487987	487987.118
	As	75	-0.498	ug/L	128.436	-129	-0.001
	Se	77		ug/L		8550	-0.001
	Se	82	-0.073	ug/L	76.560	-38	-0.000
	Kr	83		ug/L		162	0.000
	Sr	88	0.003	ug/L	100.973	335	0.000
	Y	89		ug/L		54	0.000
	Mo	98	0.043	ug/L	16.733	318	0.001
	Ag	107	0.005	ug/L	71.385	111	0.000
	Cd	111	-0.003	ug/L	144.352	32	-0.000
	Cd	114		ug/L		70	0.000
>	In	115		ug/L		282558	282558.262
	Sn	120	0.070	ug/L	11.186	858	0.002
	Sb	121	0.517	ug/L	17.806	3433	0.010
	Sb	123		ug/L		2603	0.008
	Ba	135		ug/L		47	0.000
	Ba	137	0.004	ug/L	134.587	73	0.000
	Ho	165		ug/L		22	-0.000
>	Lu	175		ug/L		527330	527329.801
	Tl	205	0.194	ug/L	30.406	7804	0.008
	Pb	208	0.003	ug/L	48.655	736	0.000
	Bi	209		ug/L		125	0.000
	Th	232	0.063	ug/L	22.924	3654	0.005
	U	238	0.006	ug/L	37.400	899	0.000

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	0.9999
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9999
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9999
U	238Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		97.6			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		95.4			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		96.8			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		98.4			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Saturday, January 09, 2010 02:03:46
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100108\QC Std 3.194

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**11.160**	**ug/L**	1.699	17882	0.034
	Be	9	**0.592**	**ug/L**	4.909	266	0.000
	B	11	**15.897**	**ug/L**	0.783	9653	0.013
	Na	23	**283.070**	**ug/L**	3.731	1254080	2.245
	Mg	24	**15.480**	**ug/L**	10.625	52764	0.093
	Al	27	**36.731**	**ug/L**	2.723	195664	0.325
	P	31	**63.292**	**ug/L**	5.406	24096	0.032
	K	39	**316.241**	**ug/L**	3.653	2666831	3.611
	Ca	43	**223.034**	**ug/L**	0.732	3561	0.006
>	Sc	45		**ug/L**		530120	530119.777
	Ti	47	**9.611**	**ug/L**	2.472	6816	0.012
	V	51	**11.743**	**ug/L**	5.888	111413	0.166
	Cr	52	**11.398**	**ug/L**	1.567	63632	0.129
	Cr	53		**ug/L**		186028	0.026
	Mn	55	**6.162**	**ug/L**	2.246	59211	0.109
	Fe	57	**123.659**	**ug/L**	2.698	28780	0.042
	Co	59	**1.153**	**ug/L**	3.176	8408	0.016
	Ni	60	**2.271**	**ug/L**	3.073	3738	0.007
	Cu	63		**ug/L**		4927	0.009
	Cu	65	**1.161**	**ug/L**	3.317	2465	0.004
	Zn	66	**11.089**	**ug/L**	1.268	14584	0.029
	Zn	67		**ug/L**		22250	0.006
	Zn	68		**ug/L**		12639	0.022
>	Ge	74		**ug/L**		490413	490413.171
	As	75	**5.446**	**ug/L**	11.955	8013	0.015
	Se	77		**ug/L**		10305	0.002
	Se	82	**5.738**	**ug/L**	1.488	710	0.002
	Kr	83		**ug/L**		158	0.000
	Sr	88	**12.294**	**ug/L**	3.361	180297	0.633
	Y	89		**ug/L**		62	0.000
	Mo	98	**0.533**	**ug/L**	2.574	2203	0.007
	Ag	107	**1.089**	**ug/L**	2.096	6802	0.024
	Cd	111	**1.121**	**ug/L**	5.077	1753	0.006
	Cd	114		**ug/L**		4042	0.014
>	In	115		**ug/L**		284600	284599.644
	Sn	120	**5.543**	**ug/L**	3.674	36939	0.128
	Sb	121	**3.306**	**ug/L**	3.734	18992	0.065
	Sb	123		**ug/L**		14790	0.050
	Ba	135		**ug/L**		3710	0.007
	Ba	137	**2.233**	**ug/L**	1.426	6527	0.012
	Ho	165		**ug/L**		28	0.000
>	Lu	175		**ug/L**		523587	523587.229
	Tl	205	**1.248**	**ug/L**	0.608	29869	0.050
	Pb	208	**2.452**	**ug/L**	1.726	81493	0.154
	Bi	209		**ug/L**		156	0.000
	Th	232	**1.278**	**ug/L**	0.615	51512	0.096
	U	238	**0.254**	**ug/L**	1.274	11061	0.020

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	0.9999
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9999
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9999
U	238Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈	Li	7	111.595				
|	Be	9	118.301				
|	B	11	105.978				
|	Na	23	113.228				
|	Mg	24	103.199				
|	Al	27	122.437				
|	P	31	126.585				
|	K	39	105.414				
|	Ca	43	111.517				
|>	Sc	45		96.6			
|	Ti	47	96.115				
|	V	51	117.431				
|	Cr	52	113.984				
|	Cr	53					
|	Mn	55	123.243				
|	Fe	57	123.659				
|	Co	59	115.276				
|	Ni	60	113.536				
|	Cu	63					
⌊	Cu	65	116.123				
⌈	Zn	66	110.891				
|	Zn	67					
|	Zn	68					
|>	Ge	74		95.8			
|	As	75	108.923				
|	Se	77					
|	Se	82	114.757				
⌊	Kr	83					
⌈	Sr	88	122.940				
|	Y	89					
|	Mo	98	106.513				
|	Ag	107	108.882				
|	Cd	111	112.123				
|	Cd	114					
|>	In	115		97.5			
|	Sn	120	110.857				
|	Sb	121	110.194				
⌊	Sb	123					
⌈	Ba	135					
|	Ba	137	111.671				
|	Ho	165					
|>	Lu	175		97.7			
|	Tl	205	124.822				
|	Pb	208	122.598				
|	Bi	209					
|	Th	232	127.795				
⌊	U	238	126.919				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Saturday, January 09, 2010 02:09:52
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100108\QC Std 4.195

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.194**	**ug/L**	5.095	371	0.001
	Be	9	**0.072**	**ug/L**	37.427	41	0.000
	B	11	**-0.980**	**ug/L**	11.214	2417	-0.001
	Na	23	**96951.606**	**ug/L**	2.277	384429163	768.782
	Mg	24	**99506.032**	**ug/L**	1.758	298735250	597.422
	Al	27	**94589.933**	**ug/L**	4.966	418743858	837.970
	P	31	**93394.716**	**ug/L**	4.396	23680062	47.376
	K	39	**100781.104**	**ug/L**	3.108	576149290	1150.859
	Ca	43	**93450.976**	**ug/L**	3.233	1181763	2.364
>	Sc	45		**ug/L**		500002	500002.141
	Ti	47	**1446.748**	**ug/L**	1.321	900315	1.800
	V	51	**-0.278**	**ug/L**	34.106	20322	-0.004
	Cr	52	**2.949**	**ug/L**	6.293	12198	0.033
	Cr	53		**ug/L**		121549	-0.082
	Mn	55	**6.402**	**ug/L**	2.329	57959	0.113
	Fe	57	**102830.721**	**ug/L**	2.129	17273495	34.545
	Co	59	**0.299**	**ug/L**	1.552	2165	0.004
	Ni	60	**2.805**	**ug/L**	3.008	4307	0.008
	Cu	63		**ug/L**		7384	0.014
	Cu	65	**2.693**	**ug/L**	1.933	5031	0.010
	Zn	66	**3.384**	**ug/L**	1.231	4408	0.009
	Zn	67		**ug/L**		14564	-0.008
	Zn	68		**ug/L**		2237	0.001
>	Ge	74		**ug/L**		462227	462226.950
	As	75	**-0.442**	**ug/L**	78.153	-41	-0.001
	Se	77		**ug/L**		8698	-0.000
	Se	82	**-0.743**	**ug/L**	30.863	-117	-0.000
	Kr	83		**ug/L**		314	0.000
	Sr	88	**1.289**	**ug/L**	1.610	18159	0.066
	Y	89		**ug/L**		514	0.002
	Mo	98	**1992.465**	**ug/L**	1.374	7256859	26.922
	Ag	107	**0.064**	**ug/L**	11.600	448	0.001
	Cd	111	**0.493**	**ug/L**	41.662	750	0.003
	Cd	114		**ug/L**		9279	0.034
>	In	115		**ug/L**		269541	269541.041
	Sn	120	**0.113**	**ug/L**	5.865	1083	0.003
	Sb	121	**0.176**	**ug/L**	18.328	1477	0.003
	Sb	123		**ug/L**		1141	0.003
	Ba	135		**ug/L**		1135	0.002
	Ba	137	**0.686**	**ug/L**	1.540	1982	0.004
	Ho	165		**ug/L**		1202	0.002
>	Lu	175		**ug/L**		507037	507037.283
	Tl	205	**-0.021**	**ug/L**	25.844	3142	-0.001
	Pb	208	**0.184**	**ug/L**	1.932	6512	0.012
	Bi	209		**ug/L**		1308	0.002
	Th	232	**0.071**	**ug/L**	31.560	3844	0.005
	U	238	**-0.010**	**ug/L**	1.241	234	-0.001

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	0.9999
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9999
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9999
U	238Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23	96.952				
	Mg	24	99.506				
	Al	27	94.590				
	P	31	93.395				
	K	39	100.781				
	Ca	43	93.451				
>	Sc	45		91.1			
	Ti	47	72.337				
	V	51					
	Cr	52	79.698				
	Cr	53					
	Mn	55	110.385				
	Fe	57	102.831				
	Co	59	119.583				
	Ni	60	103.892				
	Cu	63					
	Cu	65	92.848				
	Zn	66	94.012				
	Zn	67					
	Zn	68					
>	Ge	74		90.3			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88	107.388				
	Y	89					
	Mo	98	99.623				
	Ag	107					
	Cd	111	123.332				
	Cd	114					
>	In	115		92.3			
	Sn	120					
	Sb	121	176.152				
	Sb	123					
	Ba	135					
	Ba	137	102.366				
	Ho	165					
>	Lu	175		94.6			
	Tl	205					
	Pb	208	92.172				
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 4	Ti	47	ICSA is out of limits

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Saturday, January 09, 2010 02:15:58
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100108\QC Std 5.196

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**22.191**	ug/L	1.059	33444	0.067
	Be	9	**19.577**	ug/L	1.733	7925	0.016
	B	11	**16.751**	ug/L	4.050	9437	0.013
	Na	23	**93954.904**	ug/L	1.491	372335442	745.020
	Mg	24	**91291.777**	ug/L	8.350	273798806	548.105
	Al	27	**87841.074**	ug/L	0.919	388870800	778.182
	P	31	**91418.868**	ug/L	2.518	23178718	46.374
	K	39	**103869.051**	ug/L	2.456	593453805	1186.122
	Ca	43	**91578.213**	ug/L	3.201	1157966	2.316
>	Sc	45		ug/L		499709	499708.718
	Ti	47	**1431.536**	ug/L	0.852	890500	1.781
	V	51	**21.498**	ug/L	4.081	173811	0.303
	Cr	52	**23.954**	ug/L	2.739	130981	0.271
	Cr	53		ug/L		133039	-0.059
	Mn	55	**28.311**	ug/L	0.777	251428	0.500
	Fe	57	**104770.109**	ug/L	2.245	17593010	35.196
	Co	59	**21.279**	ug/L	2.483	143789	0.287
	Ni	60	**23.022**	ug/L	1.220	33877	0.067
	Cu	63		ug/L		77396	0.154
	Cu	65	**21.842**	ug/L	0.241	38862	0.077
	Zn	66	**22.148**	ug/L	2.001	27131	0.058
	Zn	67		ug/L		18210	-0.000
	Zn	68		ug/L		19514	0.038
>	Ge	74		ug/L		461988	461988.349
	As	75	**20.357**	ug/L	2.541	26799	0.057
	Se	77		ug/L		10327	0.004
	Se	82	**19.599**	ug/L	1.350	2350	0.005
	Kr	83		ug/L		310	0.000
	Sr	88	**24.023**	ug/L	1.422	332562	1.236
	Y	89		ug/L		538	0.002
	Mo	98	**1996.750**	ug/L	1.193	7251297	26.980
	Ag	107	**20.246**	ug/L	2.379	118152	0.439
	Cd	111	**20.146**	ug/L	1.423	29166	0.108
	Cd	114		ug/L		76976	0.286
>	In	115		ug/L		268776	268776.322
	Sn	120	**20.683**	ug/L	0.671	129200	0.479
	Sb	121	**21.669**	ug/L	0.396	114524	0.424
	Sb	123		ug/L		89326	0.331
	Ba	135		ug/L		33085	0.065
	Ba	137	**20.750**	ug/L	1.612	58208	0.115
	Ho	165		ug/L		1249	0.002
>	Lu	175		ug/L		506894	506893.882
	Tl	205	**20.879**	ug/L	1.733	427480	0.836
	Pb	208	**21.503**	ug/L	1.155	687031	1.354
	Bi	209		ug/L		1860	0.003
	Th	232	**22.131**	ug/L	1.092	845336	1.666
	U	238	**22.466**	ug/L	1.455	893694	1.762

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	0.9999
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9999
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9999
U	238Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7	110.954				
	Be	9	97.886				
	B	11	83.753				
	Na	23	93.955				
	Mg	24	91.292				
	Al	27	87.841				
	P	31	91.419				
	K	39	103.869				
	Ca	43	91.578				
>	Sc	45			91.1		
	Ti	47	71.577				
	V	51	107.489				
	Cr	52	101.071				
	Cr	53					
	Mn	55	109.733				
	Fe	57	104.770				
	Co	59	105.083				
	Ni	60	101.417				
	Cu	63					
	Cu	65	95.382				
	Zn	66	93.849				
	Zn	67					
	Zn	68					
>	Ge	74			90.3		
	As	75	101.785				
	Se	77					
	Se	82	97.996				
	Kr	83					
	Sr	88	113.314				
	Y	89					
	Mo	98	99.838				
	Ag	107	101.232				
	Cd	111	98.757				
	Cd	114					
>	In	115			92.1		
	Sn	120	103.414				
	Sb	121	107.807				
	Sb	123					
	Ba	135					
	Ba	137	100.386				
	Ho	165					
>	Lu	175			94.6		
	Tl	205	104.397				
	Pb	208	106.449				
	Bi	209					
	Th	232	110.657				
	U	238	112.330				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 5	Ti	47	ICSAB is out of limits

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Saturday, January 09, 2010 02:22:06
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100108\QC Std 6.197

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**52.368**	**ug/L**	1.211	84470	0.158
	Be	9	**50.643**	**ug/L**	1.604	21951	0.041
	B	11	**97.336**	**ug/L**	2.568	44314	0.077
	Na	23	**4933.190**	**ug/L**	1.586	21012841	39.118
	Mg	24	**4868.519**	**ug/L**	5.192	15658497	29.230
	Al	27	**4539.668**	**ug/L**	7.721	21558101	40.217
	P	31	**4602.411**	**ug/L**	0.641	1257388	2.335
	K	39	**4938.620**	**ug/L**	9.671	30965975	56.396
	Ca	43	**4837.981**	**ug/L**	1.672	66105	0.122
>	Sc	45		**ug/L**		535518	535517.945
	Ti	47	**51.071**	**ug/L**	1.624	34510	0.064
	V	51	**51.357**	**ug/L**	1.367	411875	0.725
	Cr	52	**51.974**	**ug/L**	1.888	310205	0.588
	Cr	53		**ug/L**		177873	0.007
	Mn	55	**53.554**	**ug/L**	0.636	508336	0.946
	Fe	57	**5307.557**	**ug/L**	1.491	961650	1.783
	Co	59	**52.076**	**ug/L**	0.822	376927	0.704
	Ni	60	**52.976**	**ug/L**	0.844	83264	0.155
	Cu	63		**ug/L**		199511	0.372
	Cu	65	**51.842**	**ug/L**	1.842	98448	0.183
	Zn	66	**50.344**	**ug/L**	0.717	66671	0.132
	Zn	67		**ug/L**		26621	0.013
	Zn	68		**ug/L**		50914	0.097
>	Ge	74		**ug/L**		502599	502599.359
	As	75	**48.619**	**ug/L**	2.897	68824	0.136
	Se	77		**ug/L**		11905	0.005
	Se	82	**49.494**	**ug/L**	3.172	6501	0.013
	Kr	83		**ug/L**		137	-0.000
	Sr	88	**53.018**	**ug/L**	1.825	790829	2.729
	Y	89		**ug/L**		82	0.000
	Mo	98	**49.253**	**ug/L**	2.338	192911	0.665
	Ag	107	**51.628**	**ug/L**	1.962	324565	1.120
	Cd	111	**50.598**	**ug/L**	2.996	78878	0.272
	Cd	114		**ug/L**		185745	0.641
>	In	115		**ug/L**		289682	289681.562
	Sn	120	**49.861**	**ug/L**	1.634	335067	1.155
	Sb	121	**50.617**	**ug/L**	1.417	287537	0.991
	Sb	123		**ug/L**		225492	0.777
	Ba	135		**ug/L**		85134	0.159
	Ba	137	**50.485**	**ug/L**	1.943	149805	0.279
	Ho	165		**ug/L**		46	0.000
>	Lu	175		**ug/L**		536543	536543.352
	Tl	205	**51.073**	**ug/L**	2.469	1101311	2.046
	Pb	208	**52.904**	**ug/L**	1.972	1788172	3.332
	Bi	209		**ug/L**		484	0.001
	Th	232	**49.460**	**ug/L**	3.772	1997952	3.722
	U	238	**51.749**	**ug/L**	2.052	2177915	4.058

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	0.9999
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7	104.737				
	Be	9	101.285				
	B	11	97.336				
	Na	23	98.664				
	Mg	24	97.370				
	Al	27	89.894				
	P	31	92.048				
	K	39	98.772				
	Ca	43	96.760				
>	Sc	45		97.6			
	Ti	47	102.143				
	V	51	102.713				
	Cr	52	103.947				
	Cr	53					
	Mn	55	107.109				
	Fe	57	106.151				
	Co	59	104.153				
	Ni	60	105.952				
	Cu	63					
	Cu	65	103.684				
	Zn	66	100.688				
	Zn	67					
	Zn	68					
>	Ge	74		98.2			
	As	75	97.238				
	Se	77					
	Se	82	98.989				
	Kr	83					
	Sr	88	106.036				
	Y	89					
	Mo	98	98.505				
	Ag	107	103.257				
	Cd	111	101.195				
	Cd	114					
>	In	115		99.2			
	Sn	120	99.722				
	Sb	121	101.233				
	Sb	123					
	Ba	135					
	Ba	137	100.969				
	Ho	165					
>	Lu	175		100.1			
	Tl	205	102.146				
	Pb	208	105.808				
	Bi	209					
	Th	232	98.920				
	U	238	103.498				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 6	Al	27	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Saturday, January 09, 2010 02:28:14
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100108\QC Std 7.198

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.015**	**ug/L**	13.745	114	0.000
	Be	9	**0.010**	**ug/L**	148.196	17	0.000
	B	11	**-0.661**	**ug/L**	93.170	2851	-0.001
	Na	23	**-3.334**	**ug/L**	28.807	53434	-0.026
	Mg	24	**0.375**	**ug/L**	81.631	5001	0.002
	Al	27	**0.577**	**ug/L**	116.188	27360	0.005
	P	31	**-0.932**	**ug/L**	63.639	7210	-0.000
	K	39	**-4.144**	**ug/L**	118.688	768140	-0.047
	Ca	43	**-0.309**	**ug/L**	890.288	599	-0.000
>	Sc	45		**ug/L**		560156	560156.481
	Ti	47	**0.007**	**ug/L**	522.467	509	0.000
	V	51	**-0.541**	**ug/L**	78.614	20690	-0.008
	Cr	52	**-0.189**	**ug/L**	19.774	-6214	-0.002
	Cr	53		**ug/L**		150975	-0.056
	Mn	55	**-0.015**	**ug/L**	22.230	1425	-0.000
	Fe	57	**-0.635**	**ug/L**	48.591	7024	-0.000
	Co	59	**0.002**	**ug/L**	137.608	177	0.000
	Ni	60	**-0.021**	**ug/L**	42.673	193	-0.000
	Cu	63		**ug/L**		435	-0.000
	Cu	65	**-0.007**	**ug/L**	113.406	291	-0.000
	Zn	66	**0.031**	**ug/L**	77.292	391	0.000
	Zn	67		**ug/L**		16270	-0.009
	Zn	68		**ug/L**		1668	-0.001
>	Ge	74		**ug/L**		524953	524953.459
	As	75	**-0.350**	**ug/L**	56.948	84	-0.001
	Se	77		**ug/L**		7068	-0.005
	Se	82	**0.052**	**ug/L**	267.400	-24	0.000
	Kr	83		**ug/L**		159	-0.000
	Sr	88	**0.003**	**ug/L**	63.533	359	0.000
	Y	89		**ug/L**		53	-0.000
	Mo	98	**0.099**	**ug/L**	17.106	574	0.001
	Ag	107	**0.002**	**ug/L**	94.386	97	0.000
	Cd	111	**-0.005**	**ug/L**	94.471	31	-0.000
	Cd	114		**ug/L**		63	0.000
>	In	115		**ug/L**		304113	304113.395
	Sn	120	**0.044**	**ug/L**	17.747	739	0.001
	Sb	121	**0.231**	**ug/L**	26.459	1995	0.005
	Sb	123		**ug/L**		1534	0.004
	Ba	135		**ug/L**		58	0.000
	Ba	137	**0.001**	**ug/L**	415.261	67	0.000
	Ho	165		**ug/L**		25	-0.000
>	Lu	175		**ug/L**		546550	546550.136
	Tl	205	**0.230**	**ug/L**	31.470	8909	0.009
	Pb	208	**0.002**	**ug/L**	38.428	734	0.000
	Bi	209		**ug/L**		118	-0.000
	Th	232	**0.056**	**ug/L**	23.051	3531	0.004
	U	238	**0.005**	**ug/L**	28.424	887	0.000

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	0.9999
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9999
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9999
U	238Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		102.1			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		102.6			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		104.2			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		102.0			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 10
Sample Date/Time: Saturday, January 09, 2010 02:34:21
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100108\QC Std 10.199

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**980.627**	**ug/L**	2.192	1482746	2.951
	Be	9	**994.913**	**ug/L**	0.853	404455	0.805
	B	11	**-2.007**	**ug/L**	2.275	2020	-0.002
	Na	23	**48651.897**	**ug/L**	7.977	193953054	385.787
	Mg	24	**49922.875**	**ug/L**	7.280	150622815	299.731
	Al	27	**49075.447**	**ug/L**	3.413	218490159	434.758
	P	31	**23979.794**	**ug/L**	0.697	6119324	12.164
	K	39	**53765.813**	**ug/L**	9.253	309295445	613.973
	Ca	43	**48762.543**	**ug/L**	0.672	620270	1.233
>	Sc	45		**ug/L**		502501	502501.009
	Ti	47	**37.602**	**ug/L**	3.329	23962	0.047
	V	51	**1003.716**	**ug/L**	1.904	7137952	14.160
	Cr	52	**963.269**	**ug/L**	0.326	5473480	10.901
	Cr	53		**ug/L**		800756	1.268
	Mn	55	**1010.749**	**ug/L**	0.597	8977208	17.862
	Fe	57	**52402.148**	**ug/L**	1.104	8852279	17.604
	Co	59	**920.826**	**ug/L**	1.953	6251581	12.440
	Ni	60	**912.117**	**ug/L**	1.375	1341872	2.670
	Cu	63		**ug/L**		3384782	6.735
	Cu	65	**863.172**	**ug/L**	1.287	1533779	3.052
	Zn	66	**2433.764**	**ug/L**	0.715	2981344	6.381
	Zn	67		**ug/L**		471119	0.969
	Zn	68		**ug/L**		1869357	3.997
>	Ge	74		**ug/L**		467196	467195.583
	As	75	**874.055**	**ug/L**	1.228	1141204	2.442
	Se	77		**ug/L**		52218	0.093
	Se	82	**476.321**	**ug/L**	1.693	58401	0.125
	Kr	83		**ug/L**		215	0.000
	Sr	88	**1092.106**	**ug/L**	1.381	14710194	56.207
	Y	89		**ug/L**		561	0.002
	Mo	98	**1048.858**	**ug/L**	2.754	3708401	14.172
	Ag	107	**237.745**	**ug/L**	0.578	1350349	5.159
	Cd	111	**926.456**	**ug/L**	0.481	1304536	4.984
	Cd	114		**ug/L**		3431941	13.113
>	In	115		**ug/L**		261732	261731.753
	Sn	120	**1008.647**	**ug/L**	2.493	6116483	23.374
	Sb	121	**237.204**	**ug/L**	2.771	1215176	4.642
	Sb	123		**ug/L**		976015	3.729
	Ba	135		**ug/L**		1428636	2.793
	Ba	137	**977.582**	**ug/L**	2.884	2764575	5.405
	Ho	165		**ug/L**		414	0.001
>	Lu	175		**ug/L**		511588	511588.033
	Tl	205	**490.119**	**ug/L**	1.914	10046130	19.632
	Pb	208	**5083.010**	**ug/L**	1.637	163755567	320.124
	Bi	209		**ug/L**		4530	0.009
	Th	232	**2552.251**	**ug/L**	1.895	98251237	192.070
	U	238	**5358.011**	**ug/L**	1.262	214955004	420.198

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	0.9999
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9999
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9999
U	238Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7	98.063				
	Be	9	99.491				
	B	11					
	Na	23	97.304				
	Mg	24	99.846				
	Al	27	98.151				
	P	31	95.919				
	K	39	107.532				
	Ca	43	97.525				
>	Sc	45		91.6			
	Ti	47					
	V	51	100.372				
	Cr	52	96.327				
	Cr	53					
	Mn	55	101.075				
	Fe	57	104.804				
	Co	59	92.083				
	Ni	60	91.212				
	Cu	63					
	Cu	65	86.317				
	Zn	66	97.351				
	Zn	67					
	Zn	68					
>	Ge	74		91.3			
	As	75	87.405				
	Se	77					
	Se	82	95.264				
	Kr	83					
	Sr	88	109.211				
	Y	89					
	Mo	98	104.886				
	Ag	107	95.098				
	Cd	111	92.646				
	Cd	114					
>	In	115		89.6			
	Sn	120	100.865				
	Sb	121	94.882				
	Sb	123					
	Ba	135					
	Ba	137	97.758				
	Ho	165					
>	Lu	175		95.5			
	Tl	205	98.024				
	Pb	208	101.660				
	Bi	209					
	Th	232	102.090				
	U	238	107.160				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 10	Cu	65	LRS is out of limits (+/- 10%)
QC Std 10	As	75	LRS is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 11
Sample Date/Time: Saturday, January 09, 2010 02:40:25
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100108\QC Std 11.200

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**51.158**	**ug/L**	0.894	85063	0.154
	Be	9	**51.558**	**ug/L**	3.223	23037	0.042
	B	11	**102.322**	**ug/L**	0.591	47861	0.081
	Na	23	**5163.198**	**ug/L**	6.545	22675727	40.942
	Mg	24	**4927.417**	**ug/L**	4.568	16338391	29.584
	Al	27	**4964.785**	**ug/L**	8.941	24315280	43.983
	P	31	**4815.550**	**ug/L**	1.647	1355842	2.443
	K	39	**5048.379**	**ug/L**	1.713	32605350	57.649
	Ca	43	**5125.850**	**ug/L**	1.196	72158	0.130
>	Sc	45		**ug/L**		552043	552043.253
	Ti	47	**51.221**	**ug/L**	3.595	35678	0.064
	V	51	**52.982**	**ug/L**	2.279	437181	0.747
	Cr	52	**53.188**	**ug/L**	0.799	327336	0.602
	Cr	53		**ug/L**		187205	0.014
	Mn	55	**54.449**	**ug/L**	0.854	532754	0.962
	Fe	57	**5383.259**	**ug/L**	0.376	1005389	1.808
	Co	59	**52.563**	**ug/L**	0.980	392164	0.710
	Ni	60	**54.126**	**ug/L**	1.619	87685	0.158
	Cu	63		**ug/L**		208020	0.376
	Cu	65	**52.552**	**ug/L**	2.926	102869	0.186
	Zn	66	**52.299**	**ug/L**	2.351	70020	0.137
	Zn	67		**ug/L**		29057	0.018
	Zn	68		**ug/L**		54113	0.102
>	Ge	74		**ug/L**		508222	508221.839
	As	75	**50.398**	**ug/L**	3.845	72121	0.141
	Se	77		**ug/L**		12277	0.005
	Se	82	**51.377**	**ug/L**	3.878	6825	0.013
	Kr	83		**ug/L**		156	-0.000
	Sr	88	**54.946**	**ug/L**	1.498	828255	2.828
	Y	89		**ug/L**		91	0.000
	Mo	98	**51.241**	**ug/L**	1.534	202866	0.692
	Ag	107	**53.316**	**ug/L**	1.263	338831	1.157
	Cd	111	**52.580**	**ug/L**	0.812	82860	0.283
	Cd	114		**ug/L**		194404	0.664
>	In	115		**ug/L**		292791	292791.303
	Sn	120	**53.205**	**ug/L**	2.724	361373	1.233
	Sb	121	**54.456**	**ug/L**	1.947	312613	1.066
	Sb	123		**ug/L**		244973	0.835
	Ba	135		**ug/L**		89523	0.167
	Ba	137	**53.068**	**ug/L**	1.919	157531	0.293
	Ho	165		**ug/L**		53	0.000
>	Lu	175		**ug/L**		536777	536776.514
	Tl	205	**53.128**	**ug/L**	1.765	1146012	2.128
	Pb	208	**55.204**	**ug/L**	0.471	1866806	3.477
	Bi	209		**ug/L**		483	0.001
	Th	232	**52.991**	**ug/L**	2.344	2141414	3.988
	U	238	**54.366**	**ug/L**	2.100	2288929	4.264

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	0.9999
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9999
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9999
U	238Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7	102.315				
	Be	9	103.117				
	B	11	102.322				
	Na	23	103.264				
	Mg	24	98.548				
	Al	27	98.313				
	P	31	96.311				
	K	39	100.968				
	Ca	43	102.517				
>	Sc	45		100.6			
	Ti	47	102.442				
	V	51	105.964				
	Cr	52	106.376				
	Cr	53					
	Mn	55	108.899				
	Fe	57	107.665				
	Co	59	105.126				
	Ni	60	108.252				
	Cu	63					
	Cu	65	105.105				
	Zn	66	104.598				
	Zn	67					
	Zn	68					
>	Ge	74		99.3			
	As	75	100.796				
	Se	77					
	Se	82	102.755				
	Kr	83					
	Sr	88	109.893				
	Y	89					
	Mo	98	102.482				
	Ag	107	106.632				
	Cd	111	105.160				
	Cd	114					
>	In	115		100.3			
	Sn	120	106.411				
	Sb	121	108.912				
	Sb	123					
	Ba	135					
	Ba	137	106.135				
	Ho	165					
>	Lu	175		100.2			
	Tl	205	106.256				
	Pb	208	110.407				
	Bi	209					
	Th	232	105.981				
	U	238	108.732				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 11	Pb	208	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 12
Sample Date/Time: Saturday, January 09, 2010 02:46:33
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100108\QC Std 12.201

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.076**	**ug/L**	11.341	216	0.000
	Be	9	**0.027**	**ug/L**	40.810	25	0.000
	B	11	**-0.945**	**ug/L**	24.580	2714	-0.001
	Na	23	**-3.961**	**ug/L**	31.903	50423	-0.031
	Mg	24	**0.885**	**ug/L**	130.860	6669	0.005
	Al	27	**1.480**	**ug/L**	80.281	31703	0.013
	P	31	**-1.369**	**ug/L**	55.620	7061	-0.001
	K	39	**-3.027**	**ug/L**	170.484	772363	-0.035
	Ca	43	**-3.779**	**ug/L**	85.090	547	-0.000
>	Sc	45		**ug/L**		558029	558029.457
	Ti	47	**-0.098**	**ug/L**	38.912	434	-0.000
	V	51	**-0.369**	**ug/L**	39.671	21966	-0.005
	Cr	52	**0.026**	**ug/L**	415.749	-4834	0.000
	Cr	53		**ug/L**		148736	-0.059
	Mn	55	**-0.007**	**ug/L**	33.277	1496	-0.000
	Fe	57	**-2.227**	**ug/L**	55.575	6698	-0.001
	Co	59	**0.010**	**ug/L**	56.509	241	0.000
	Ni	60	**-0.011**	**ug/L**	77.276	209	-0.000
	Cu	63		**ug/L**		636	0.000
	Cu	65	**0.025**	**ug/L**	26.047	352	0.000
	Zn	66	**0.001**	**ug/L**	1599.048	347	0.000
	Zn	67		**ug/L**		16784	-0.007
	Zn	68		**ug/L**		1704	-0.001
>	Ge	74		**ug/L**		520638	520637.996
	As	75	**0.108**	**ug/L**	122.739	748	0.000
	Se	77		**ug/L**		6967	-0.005
	Se	82	**0.251**	**ug/L**	16.255	4	0.000
	Kr	83		**ug/L**		145	-0.000
	Sr	88	**0.014**	**ug/L**	82.551	525	0.001
	Y	89		**ug/L**		47	-0.000
	Mo	98	**0.134**	**ug/L**	8.097	702	0.002
	Ag	107	**0.009**	**ug/L**	50.469	142	0.000
	Cd	111	**0.015**	**ug/L**	46.364	63	0.000
	Cd	114		**ug/L**		110	0.000
>	In	115		**ug/L**		298634	298634.117
	Sn	120	**0.288**	**ug/L**	5.554	2414	0.007
	Sb	121	**0.831**	**ug/L**	9.219	5467	0.016
	Sb	123		**ug/L**		4249	0.013
	Ba	135		**ug/L**		54	0.000
	Ba	137	**0.010**	**ug/L**	94.914	94	0.000
	Ho	165		**ug/L**		28	0.000
>	Lu	175		**ug/L**		541370	541370.495
	Tl	205	**0.302**	**ug/L**	21.664	10372	0.012
	Pb	208	**0.048**	**ug/L**	50.669	2301	0.003
	Bi	209		**ug/L**		123	-0.000
	Th	232	**0.125**	**ug/L**	0.994	6280	0.009
	U	238	**0.075**	**ug/L**	19.370	3830	0.006

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	0.9999
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9999
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9999
U	238Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		101.7			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		101.7			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		102.3			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		101.0			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202007679
Sample Date/Time: Saturday, January 09, 2010 02:52:42
Sample Type:
Sample Description: LANL 6020 MB
Number of Replicates: 3
Batch ID: 938263|2|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100108\1202007679.202

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.019**	ug/L	23.180	124	0.000
	Be	9	**0.008**	ug/L	63.304	17	0.000
	B	11	**-2.979**	ug/L	9.162	1862	-0.002
	Na	23	**-4.913**	ug/L	40.526	47414	-0.039
	Mg	24	**-0.144**	ug/L	615.686	3334	-0.001
	Al	27	**1.367**	ug/L	23.346	32036	0.012
	P	31	**19.936**	ug/L	9.960	13443	0.010
	K	39	**-9.544**	ug/L	49.515	750570	-0.109
	Ca	43	**-1.840**	ug/L	188.910	590	-0.000
>	Sc	45		ug/L		573197	573197.260
	Ti	47	**0.097**	ug/L	64.303	585	0.000
	V	51	**-0.440**	ug/L	66.241	21985	-0.006
	Cr	52	**0.589**	ug/L	25.499	-1306	0.007
	Cr	53		ug/L		123110	-0.111
	Mn	55	**0.133**	ug/L	4.157	2962	0.002
	Fe	57	**10.267**	ug/L	3.771	9287	0.003
	Co	59	**-0.003**	ug/L	12.195	147	-0.000
	Ni	60	**0.002**	ug/L	708.369	236	0.000
	Cu	63		ug/L		711	0.000
	Cu	65	**0.047**	ug/L	14.122	406	0.000
	Zn	66	**0.625**	ug/L	3.135	1196	0.002
	Zn	67		ug/L		13728	-0.013
	Zn	68		ug/L		2220	0.000
>	Ge	74		ug/L		519246	519245.797
	As	75	**-0.058**	ug/L	311.043	506	-0.000
	Se	77		ug/L		5249	-0.009
	Se	82	**0.055**	ug/L	23.136	-23	0.000
	Kr	83		ug/L		159	-0.000
	Sr	88	**0.012**	ug/L	16.947	502	0.001
	Y	89		ug/L		73	0.000
	Mo	98	**0.080**	ug/L	13.777	489	0.001
	Ag	107	**-0.002**	ug/L	105.372	69	-0.000
	Cd	111	**-0.000**	ug/L	2894.075	39	-0.000
	Cd	114		ug/L		58	0.000
>	In	115		ug/L		301517	301517.087
	Sn	120	**0.266**	ug/L	0.321	2281	0.006
	Sb	121	**0.352**	ug/L	19.158	2691	0.007
	Sb	123		ug/L		2116	0.006
	Ba	135		ug/L		109	0.000
	Ba	137	**0.037**	ug/L	4.514	175	0.000
	Ho	165		ug/L		24	-0.000
>	Lu	175		ug/L		545891	545890.741
	Tl	205	**0.106**	ug/L	17.570	6160	0.004
	Pb	208	**0.012**	ug/L	13.837	1087	0.001
	Bi	209		ug/L		185	0.000
	Th	232	**0.228**	ug/L	17.597	10573	0.017
	U	238	**0.021**	ug/L	15.805	1585	0.002

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	0.9999
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9999
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9999
U	238Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		104.5			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		101.5			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		103.3			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		101.9			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202007684
Sample Date/Time: Saturday, January 09, 2010 03:05:03
Sample Type:
Sample Description: LANL 6020 LCS
Number of Replicates: 3
Batch ID: 938263|40|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100108\1202007684.204

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**2.559**	**ug/L**	3.478	4495	0.008
	Be	9	**20.561**	**ug/L**	1.274	9530	0.017
	B	11	**36.344**	**ug/L**	2.684	19693	0.029
	Na	23	**267.037**	**ug/L**	3.479	1281380	2.117
	Mg	24	**1100.955**	**ug/L**	2.435	3786490	6.610
	Al	27	**3016.226**	**ug/L**	5.098	15305600	26.721
	P	31	**228.029**	**ug/L**	4.110	73800	0.116
	K	39	**1236.434**	**ug/L**	6.953	8894179	14.119
	Ca	43	**2834.080**	**ug/L**	1.498	41627	0.072
>	Sc	45		**ug/L**		572267	572267.349
	Ti	47	**107.729**	**ug/L**	1.886	77199	0.134
	V	51	**35.389**	**ug/L**	2.764	311119	0.499
	Cr	52	**66.469**	**ug/L**	2.218	425219	0.752
	Cr	53		**ug/L**		185037	-0.002
	Mn	55	**147.923**	**ug/L**	1.936	1497180	2.614
	Fe	57	**4830.736**	**ug/L**	2.177	935741	1.623
	Co	59	**26.701**	**ug/L**	1.950	206549	0.361
	Ni	60	**39.007**	**ug/L**	4.789	65531	0.114
	Cu	63		**ug/L**		201889	0.352
	Cu	65	**49.037**	**ug/L**	1.697	99503	0.173
	Zn	66	**164.454**	**ug/L**	1.737	226248	0.431
	Zn	67		**ug/L**		51185	0.058
	Zn	68		**ug/L**		171393	0.323
>	Ge	74		**ug/L**		524019	524019.379
	As	75	**28.503**	**ug/L**	0.548	42315	0.080
	Se	77		**ug/L**		14458	0.009
	Se	82	**79.006**	**ug/L**	1.862	10838	0.021
	Kr	83		**ug/L**		165	-0.000
	Sr	88	**64.981**	**ug/L**	1.457	1014024	3.344
	Y	89		**ug/L**		57740	0.190
	Mo	98	**13.338**	**ug/L**	1.398	54791	0.180
	Ag	107	**8.075**	**ug/L**	1.221	53204	0.175
	Cd	111	**16.581**	**ug/L**	3.346	27081	0.089
	Cd	114		**ug/L**		65347	0.215
>	In	115		**ug/L**		303148	303148.072
	Sn	120	**9.918**	**ug/L**	2.114	70090	0.230
	Sb	121	**9.297**	**ug/L**	1.394	55764	0.182
	Sb	123		**ug/L**		43373	0.142
	Ba	135		**ug/L**		95583	0.177
	Ba	137	**56.343**	**ug/L**	1.474	168173	0.312
	Ho	165		**ug/L**		3906	0.007
>	Lu	175		**ug/L**		539743	539742.629
	Tl	205	**36.919**	**ug/L**	1.027	801937	1.479
	Pb	208	**25.106**	**ug/L**	2.317	853961	1.581
	Bi	209		**ug/L**		7343	0.013
	Th	232	**2.617**	**ug/L**	1.287	107466	0.197
	U	238	**0.569**	**ug/L**	2.534	24717	0.045

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	0.9999
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9999
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9999
U	238Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		104.3			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		102.4			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		103.8			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		100.7			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
	Ti	47	Sample is out of limits (over linear range)

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 243550014
Sample Date/Time: Saturday, January 09, 2010 03:11:15
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 938263|2|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100108\243550014.205

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**22.675**	ug/L	4.383	42567	0.068
	Be	9	**1.827**	ug/L	3.085	934	0.001
	B	11	**0.225**	ug/L	124.542	3604	0.000
	Na	23	**770.005**	ug/L	3.819	3878494	6.106
	Mg	24	**2278.365**	ug/L	2.758	8519603	13.679
	Al	27	**15611.657**	ug/L	1.522	86145563	138.303
	P	31	**332.083**	ug/L	1.233	113192	0.168
	K	39	**2229.425**	ug/L	3.549	16740980	25.459
	Ca	43	**2347.744**	ug/L	1.034	37640	0.059
>	Sc	45		ug/L		622674	622674.008
	Ti	47	**277.082**	ug/L	2.794	215169	0.345
	V	51	**20.572**	ug/L	0.867	208469	0.290
	Cr	52	**27.350**	ug/L	0.026	187157	0.310
	Cr	53		ug/L		127371	-0.121
	Mn	55	**697.655**	ug/L	2.914	7676672	12.329
	Fe	57	**18128.706**	ug/L	1.270	3799645	6.090
	Co	59	**4.240**	ug/L	2.697	35837	0.057
	Ni	60	**9.512**	ug/L	1.890	17588	0.028
	Cu	63		ug/L		45548	0.072
	Cu	65	**10.406**	ug/L	2.475	23243	0.037
	Zn	66	**106.980**	ug/L	1.455	141373	0.280
	Zn	67		ug/L		34998	0.030
	Zn	68		ug/L		109288	0.213
>	Ge	74		ug/L		502891	502890.743
	As	75	**3.962**	ug/L	6.147	6137	0.011
	Se	77		ug/L		4715	-0.009
	Se	82	**0.751**	ug/L	30.675	70	0.000
	Kr	83		ug/L		324	0.000
	Sr	88	**20.936**	ug/L	1.905	322733	1.078
	Y	89		ug/L		1730654	5.784
	Mo	98	**2.689**	ug/L	0.320	11034	0.036
	Ag	107	**0.222**	ug/L	2.586	1527	0.005
	Cd	111	**1.140**	ug/L	4.994	1874	0.006
	Cd	114		ug/L		337	0.001
>	In	115		ug/L		299236	299236.112
	Sn	120	**0.966**	ug/L	1.447	7117	0.022
	Sb	121	**0.175**	ug/L	15.980	1634	0.003
	Sb	123		ug/L		1280	0.003
	Ba	135		ug/L		211742	0.367
	Ba	137	**116.422**	ug/L	3.240	370840	0.644
	Ho	165		ug/L		128167	0.222
>	Lu	175		ug/L		576118	576117.641
	Tl	205	**0.330**	ug/L	17.350	11671	0.013
	Pb	208	**20.543**	ug/L	1.326	746058	1.294
	Bi	209		ug/L		6275	0.011
	Th	232	**23.441**	ug/L	1.363	1017518	1.764
	U	238	**2.661**	ug/L	2.244	120914	0.209

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	0.9999
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9999
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9999
U	238Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		113.5			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		98.3			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		102.5			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		107.5			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
	Ti	47	Sample is out of limits (over linear range)

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202007680
Sample Date/Time: Saturday, January 09, 2010 03:17:27
Sample Type:
Sample Description: LANL 6020 DUP
Number of Replicates: 3
Batch ID: 938263|2|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100108\1202007680.206

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**25.107**	**ug/L**	2.018	47191	0.076
	Be	9	**1.959**	**ug/L**	1.927	1002	0.002
	B	11	**-0.148**	**ug/L**	89.556	3424	-0.000
	Na	23	**765.932**	**ug/L**	11.688	3859598	6.073
	Mg	24	**2693.290**	**ug/L**	5.446	10080746	16.170
	Al	27	**17772.990**	**ug/L**	6.052	98129523	157.450
	P	31	**356.177**	**ug/L**	1.388	120924	0.181
	K	39	**2304.797**	**ug/L**	1.122	17287439	26.319
	Ca	43	**2590.998**	**ug/L**	1.872	41510	0.066
>	Sc	45		**ug/L**		623284	623283.808
	Ti	47	**313.399**	**ug/L**	0.877	243586	0.390
	V	51	**23.298**	**ug/L**	3.196	232611	0.329
	Cr	52	**34.412**	**ug/L**	2.672	237116	0.389
	Cr	53		**ug/L**		127036	-0.122
	Mn	55	**713.228**	**ug/L**	1.205	7857262	12.604
	Fe	57	**19542.289**	**ug/L**	0.758	4099834	6.565
	Co	59	**4.712**	**ug/L**	0.718	39859	0.064
	Ni	60	**10.469**	**ug/L**	1.876	19353	0.031
	Cu	63		**ug/L**		51217	0.081
	Cu	65	**11.522**	**ug/L**	2.345	25725	0.041
	Zn	66	**103.422**	**ug/L**	2.774	137297	0.271
	Zn	67		**ug/L**		34373	0.028
	Zn	68		**ug/L**		107137	0.208
>	Ge	74		**ug/L**		505223	505223.234
	As	75	**3.855**	**ug/L**	5.042	6016	0.011
	Se	77		**ug/L**		4549	-0.010
	Se	82	**0.936**	**ug/L**	18.429	95	0.000
	Kr	83		**ug/L**		310	0.000
	Sr	88	**23.680**	**ug/L**	1.534	367931	1.219
	Y	89		**ug/L**		1712284	5.676
	Mo	98	**2.655**	**ug/L**	2.485	10984	0.036
	Ag	107	**0.245**	**ug/L**	5.357	1686	0.005
	Cd	111	**1.219**	**ug/L**	5.049	2017	0.007
	Cd	114		**ug/L**		357	0.001
>	In	115		**ug/L**		301669	301669.145
	Sn	120	**0.990**	**ug/L**	1.719	7344	0.023
	Sb	121	**0.151**	**ug/L**	9.768	1505	0.003
	Sb	123		**ug/L**		1168	0.002
	Ba	135		**ug/L**		326426	0.563
	Ba	137	**176.529**	**ug/L**	0.629	566240	0.976
	Ho	165		**ug/L**		129205	0.223
>	Lu	175		**ug/L**		580115	580114.999
	Tl	205	**0.209**	**ug/L**	8.282	8955	0.008
	Pb	208	**20.739**	**ug/L**	0.514	758423	1.306
	Bi	209		**ug/L**		7224	0.012
	Th	232	**24.123**	**ug/L**	0.676	1054419	1.815
	U	238	**2.810**	**ug/L**	0.705	128525	0.220

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	0.9999
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		113.6			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		98.7			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		103.3			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		108.3			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
	Ti	47	Sample is out of limits (over linear range)

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202007682
Sample Date/Time: Saturday, January 09, 2010 03:23:37
Sample Type:
Sample Description: LANL 6020 MS
Number of Replicates: 3
Batch ID: 938263|2|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100108\1202007682.207

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**50.953**	ug/L	2.930	97652	0.153
	Be	9	**25.476**	ug/L	0.973	13131	0.021
	B	11	**45.500**	ug/L	2.356	26523	0.036
	Na	23	**1777.256**	ug/L	2.185	9044308	14.093
	Mg	24	**3902.078**	ug/L	3.764	14918458	23.428
	Al	27	**23699.636**	ug/L	11.888	133734040	209.954
	P	31	**1182.039**	ug/L	1.404	390034	0.600
	K	39	**3813.970**	ug/L	8.391	28597989	43.553
	Ca	43	**3618.206**	ug/L	1.432	58923	0.092
>	Sc	45		ug/L		636396	636396.117
	Ti	47	**402.018**	ug/L	2.160	318845	0.500
	V	51	**51.654**	ug/L	1.556	492052	0.729
	Cr	52	**63.726**	ug/L	1.233	453221	0.721
	Cr	53		ug/L		150169	-0.089
	Mn	55	**811.394**	ug/L	1.239	9126175	14.339
	Fe	57	**22002.798**	ug/L	1.882	4712165	7.392
	Co	59	**29.001**	ug/L	2.295	249536	0.392
	Ni	60	**35.068**	ug/L	1.596	65576	0.103
	Cu	63		ug/L		159780	0.250
	Cu	65	**34.911**	ug/L	0.716	78892	0.123
	Zn	66	**140.371**	ug/L	1.768	186650	0.368
	Zn	67		ug/L		41498	0.042
	Zn	68		ug/L		144249	0.281
>	Ge	74		ug/L		506334	506334.021
	As	75	**44.092**	ug/L	0.799	62934	0.123
	Se	77		ug/L		5407	-0.008
	Se	82	**9.952**	ug/L	4.734	1293	0.003
	Kr	83		ug/L		339	0.000
	Sr	88	**52.406**	ug/L	0.439	807759	2.697
	Y	89		ug/L		1898780	6.342
	Mo	98	**27.738**	ug/L	0.234	112364	0.375
	Ag	107	**26.184**	ug/L	1.780	170190	0.568
	Cd	111	**6.935**	ug/L	2.166	11208	0.037
	Cd	114		ug/L		20121	0.067
>	In	115		ug/L		299372	299371.557
	Sn	120	**18.711**	ug/L	0.589	130230	0.434
	Sb	121	**46.664**	ug/L	1.674	273992	0.913
	Sb	123		ug/L		215744	0.719
	Ba	135		ug/L		293316	0.500
	Ba	137	**157.822**	ug/L	3.117	512001	0.873
	Ho	165		ug/L		147017	0.250
>	Lu	175		ug/L		586938	586938.465
	Tl	205	**49.754**	ug/L	2.984	1173408	1.993
	Pb	208	**117.541**	ug/L	1.920	4344389	7.403
	Bi	209		ug/L		8506	0.014
	Th	232	**50.033**	ug/L	3.819	2210044	3.765
	U	238	**29.075**	ug/L	2.382	1338576	2.280

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	0.9999
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9999
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9999
U	238Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		116.0			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		98.9			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		102.5			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		109.5			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
	Ti	47	Sample is out of limits (over linear range)

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202007683
Sample Date/Time: Saturday, January 09, 2010 03:29:47
Sample Type:
Sample Description: LANL 6020 MSD
Number of Replicates: 3
Batch ID: 938263|2|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100108\1202007683.208

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**45.744**	**ug/L**	0.414	85705	0.138
	Be	9	**23.023**	**ug/L**	0.703	11598	0.019
	B	11	**41.857**	**ug/L**	0.338	24120	0.033
	Na	23	**1721.055**	**ug/L**	17.684	8560087	13.647
	Mg	24	**3338.610**	**ug/L**	6.009	12468222	20.045
	Al	27	**19350.730**	**ug/L**	1.941	106639871	171.428
	P	31	**1126.661**	**ug/L**	1.389	363739	0.572
	K	39	**3595.726**	**ug/L**	7.209	26412155	41.061
	Ca	43	**3302.939**	**ug/L**	2.188	52622	0.084
>	Sc	45		**ug/L**		621956	621956.394
	Ti	47	**363.626**	**ug/L**	0.886	281956	0.452
	V	51	**46.089**	**ug/L**	1.380	432110	0.650
	Cr	52	**57.222**	**ug/L**	1.683	397183	0.648
	Cr	53		**ug/L**		143080	-0.095
	Mn	55	**1056.549**	**ug/L**	0.769	11614293	18.672
	Fe	57	**19566.073**	**ug/L**	2.150	4095639	6.573
	Co	59	**33.691**	**ug/L**	2.027	283257	0.455
	Ni	60	**33.121**	**ug/L**	1.029	60550	0.097
	Cu	63		**ug/L**		142832	0.229
	Cu	65	**32.137**	**ug/L**	0.152	71007	0.114
	Zn	66	**128.211**	**ug/L**	0.529	169219	0.336
	Zn	67		**ug/L**		38562	0.037
	Zn	68		**ug/L**		129263	0.253
>	Ge	74		**ug/L**		502422	502422.069
	As	75	**39.950**	**ug/L**	1.832	56635	0.112
	Se	77		**ug/L**		5273	-0.008
	Se	82	**8.819**	**ug/L**	7.708	1134	0.002
	Kr	83		**ug/L**		330	0.000
	Sr	88	**46.681**	**ug/L**	1.247	711532	2.402
	Y	89		**ug/L**		1780527	6.015
	Mo	98	**25.784**	**ug/L**	2.032	103283	0.348
	Ag	107	**23.824**	**ug/L**	1.868	153123	0.517
	Cd	111	**6.228**	**ug/L**	3.906	9954	0.034
	Cd	114		**ug/L**		18236	0.061
>	In	115		**ug/L**		296067	296067.212
	Sn	120	**17.919**	**ug/L**	2.762	123325	0.415
	Sb	121	**45.671**	**ug/L**	2.106	265150	0.894
	Sb	123		**ug/L**		206664	0.697
	Ba	135		**ug/L**		261033	0.445
	Ba	137	**142.513**	**ug/L**	1.060	461893	0.788
	Ho	165		**ug/L**		136905	0.234
>	Lu	175		**ug/L**		586193	586193.466
	Tl	205	**45.640**	**ug/L**	1.686	1075635	1.828
	Pb	208	**105.389**	**ug/L**	0.725	3891574	6.637
	Bi	209		**ug/L**		7015	0.012
	Th	232	**44.203**	**ug/L**	2.170	1950874	3.327
	U	238	**26.609**	**ug/L**	1.553	1223791	2.087

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	0.9999
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		113.3			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		98.2			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		101.4			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		109.4			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
	Ti	47	Sample is out of limits (over linear range)
	Mn	55	Sample is out of limits (over linear range)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: 1202007681
Sample Date/Time: Saturday, January 09, 2010 03:35:58
Sample Type:
Sample Description: LANL 6020 SDILT
Number of Replicates: 3
Batch ID: 938263|10|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100108\1202007681.209

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**5.163**	**ug/L**	0.329	8710	0.016
	Be	9	**0.380**	**ug/L**	3.627	183	0.000
	B	11	**-2.190**	**ug/L**	19.316	2149	-0.002
	Na	23	**166.280**	**ug/L**	6.647	799494	1.319
	Mg	24	**464.199**	**ug/L**	2.143	1550112	2.787
	Al	27	**3201.789**	**ug/L**	2.427	15761512	28.365
	P	31	**71.278**	**ug/L**	1.788	27472	0.036
	K	39	**473.841**	**ug/L**	8.354	3793901	5.411
	Ca	43	**503.593**	**ug/L**	3.179	7663	0.013
>	Sc	45		**ug/L**		555018	555017.761
	Ti	47	**59.854**	**ug/L**	4.320	41805	0.074
	V	51	**4.057**	**ug/L**	6.729	56483	0.057
	Cr	52	**6.324**	**ug/L**	1.476	34745	0.072
	Cr	53		**ug/L**		114058	-0.120
	Mn	55	**151.418**	**ug/L**	3.860	1485860	2.676
	Fe	57	**4183.917**	**ug/L**	3.390	786789	1.406
	Co	59	**0.924**	**ug/L**	3.843	7084	0.012
	Ni	60	**2.065**	**ug/L**	1.899	3579	0.006
	Cu	63		**ug/L**		9607	0.017
	Cu	65	**2.275**	**ug/L**	2.755	4764	0.008
	Zn	66	**22.347**	**ug/L**	2.321	29832	0.059
	Zn	67		**ug/L**		16333	-0.007
	Zn	68		**ug/L**		23215	0.042
>	Ge	74		**ug/L**		503571	503570.583
	As	75	**0.424**	**ug/L**	21.991	1168	0.001
	Se	77		**ug/L**		5172	-0.009
	Se	82	**0.197**	**ug/L**	26.498	-4	0.000
	Kr	83		**ug/L**		182	0.000
	Sr	88	**4.199**	**ug/L**	3.329	63832	0.216
	Y	89		**ug/L**		373040	1.269
	Mo	98	**0.529**	**ug/L**	3.559	2260	0.007
	Ag	107	**0.036**	**ug/L**	4.051	314	0.001
	Cd	111	**0.199**	**ug/L**	8.496	353	0.001
	Cd	114		**ug/L**		104	0.000
>	In	115		**ug/L**		294013	294013.422
	Sn	120	**0.196**	**ug/L**	4.238	1746	0.005
	Sb	121	**0.078**	**ug/L**	26.170	1047	0.002
	Sb	123		**ug/L**		799	0.001
	Ba	135		**ug/L**		41845	0.076
	Ba	137	**24.466**	**ug/L**	3.273	74136	0.135
	Ho	165		**ug/L**		25095	0.046
>	Lu	175		**ug/L**		547881	547880.904
	Tl	205	**-0.005**	**ug/L**	287.977	3757	-0.000
	Pb	208	**4.278**	**ug/L**	2.679	148213	0.269
	Bi	209		**ug/L**		1418	0.002
	Th	232	**5.098**	**ug/L**	2.119	211328	0.384
	U	238	**0.535**	**ug/L**	1.654	23654	0.042

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	0.9999
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		101.1			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		98.4			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		100.7			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		102.3			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 243550015
Sample Date/Time: Saturday, January 09, 2010 03:42:09
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 938263|2|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100108\243550015.210

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**54.337**	ug/L	1.922	108924	0.163
	Be	9	**4.059**	ug/L	3.150	2201	0.003
	B	11	**1.546**	ug/L	9.236	4549	0.001
	Na	23	**313.700**	ug/L	6.073	1735070	2.487
	Mg	24	**3922.091**	ug/L	1.975	15676802	23.548
	Al	27	**30210.636**	ug/L	1.258	178196266	267.635
	P	31	**896.371**	ug/L	3.128	311378	0.455
	K	39	**4027.111**	ug/L	17.162	31512433	45.987
	Ca	43	**2817.443**	ug/L	3.514	48118	0.071
>	Sc	45		ug/L		665578	665577.884
	Ti	47	**338.311**	ug/L	1.414	280740	0.421
	V	51	**23.955**	ug/L	2.019	254527	0.338
	Cr	52	**16.664**	ug/L	1.205	119539	0.189
	Cr	53		ug/L		108429	-0.162
	Mn	55	**1072.498**	ug/L	1.039	12615041	18.953
	Fe	57	**28524.114**	ug/L	2.331	6383921	9.582
	Co	59	**4.142**	ug/L	2.964	37419	0.056
	Ni	60	**11.275**	ug/L	3.570	22224	0.033
	Cu	63		ug/L		70002	0.104
	Cu	65	**14.620**	ug/L	1.791	34755	0.052
	Zn	66	**189.175**	ug/L	1.649	247054	0.496
	Zn	67		ug/L		50191	0.061
	Zn	68		ug/L		187262	0.372
>	Ge	74		ug/L		497560	497560.336
	As	75	**3.130**	ug/L	7.978	4911	0.009
	Se	77		ug/L		4392	-0.010
	Se	82	**0.942**	ug/L	12.647	94	0.000
	Kr	83		ug/L		312	0.000
	Sr	88	**26.588**	ug/L	1.227	404603	1.368
	Y	89		ug/L		1666855	5.643
	Mo	98	**0.983**	ug/L	4.059	4084	0.013
	Ag	107	**0.336**	ug/L	4.165	2235	0.007
	Cd	111	**1.488**	ug/L	1.192	2404	0.008
	Cd	114		ug/L		1314	0.004
>	In	115		ug/L		295495	295495.285
	Sn	120	**0.818**	ug/L	2.197	6014	0.019
	Sb	121	**0.112**	ug/L	5.232	1248	0.002
	Sb	123		ug/L		1025	0.002
	Ba	135		ug/L		152449	0.265
	Ba	137	**82.648**	ug/L	0.161	262525	0.457
	Ho	165		ug/L		117273	0.204
>	Lu	175		ug/L		574382	574382.073
	Tl	205	**0.212**	ug/L	3.673	8921	0.008
	Pb	208	**30.336**	ug/L	1.541	1098005	1.911
	Bi	209		ug/L		8849	0.015
	Th	232	**24.273**	ug/L	0.782	1050435	1.827
	U	238	**2.671**	ug/L	0.725	121027	0.209

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	0.9999
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9999
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9999
U	238Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		121.3			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		97.2			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		101.2			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		107.2			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Lu 175 Int Std for sa	Sc	45	
	Ti	47	Sample is out of limits (over linear range)
	Mn	55	Sample is out of limits (over linear range)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 8
Sample Date/Time: Saturday, January 09, 2010 03:48:18
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100108\QC Std 8.211

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**51.447**	**ug/L**	2.154	84984	0.155
	Be	9	**50.615**	**ug/L**	1.862	22468	0.041
	B	11	**96.417**	**ug/L**	2.132	45006	0.076
	Na	23	**4569.813**	**ug/L**	4.191	19954640	36.237
	Mg	24	**4926.290**	**ug/L**	6.341	16215487	29.577
	Al	27	**4709.556**	**ug/L**	3.447	22925835	41.722
	P	31	**4637.254**	**ug/L**	0.830	1297637	2.352
	K	39	**4819.077**	**ug/L**	5.433	30965975	55.031
	Ca	43	**4976.705**	**ug/L**	2.075	69619	0.126
>	Sc	45		**ug/L**		548599	548599.214
	Ti	47	**49.388**	**ug/L**	1.631	34200	0.061
	V	51	**51.658**	**ug/L**	3.147	424175	0.729
	Cr	52	**52.514**	**ug/L**	2.443	321024	0.594
	Cr	53		**ug/L**		172302	-0.011
	Mn	55	**54.174**	**ug/L**	1.196	526648	0.957
	Fe	57	**5352.930**	**ug/L**	2.995	993403	1.798
	Co	59	**51.516**	**ug/L**	2.936	381866	0.696
	Ni	60	**53.376**	**ug/L**	3.171	85893	0.156
	Cu	63		**ug/L**		204696	0.372
	Cu	65	**51.849**	**ug/L**	2.185	100831	0.183
	Zn	66	**51.419**	**ug/L**	0.450	68760	0.135
	Zn	67		**ug/L**		25143	0.010
	Zn	68		**ug/L**		52796	0.100
>	Ge	74		**ug/L**		507558	507557.867
	As	75	**49.101**	**ug/L**	1.337	70192	0.137
	Se	77		**ug/L**		12216	0.005
	Se	82	**49.562**	**ug/L**	2.987	6574	0.013
	Kr	83		**ug/L**		152	-0.000
	Sr	88	**54.328**	**ug/L**	1.576	808363	2.796
	Y	89		**ug/L**		153	0.000
	Mo	98	**49.963**	**ug/L**	2.186	195244	0.675
	Ag	107	**52.349**	**ug/L**	1.073	328401	1.136
	Cd	111	**51.230**	**ug/L**	1.897	79686	0.276
	Cd	114		**ug/L**		187732	0.649
>	In	115		**ug/L**		289031	289030.917
	Sn	120	**50.720**	**ug/L**	1.602	340078	1.175
	Sb	121	**51.389**	**ug/L**	0.783	291237	1.006
	Sb	123		**ug/L**		228467	0.789
	Ba	135		**ug/L**		86598	0.163
	Ba	137	**52.225**	**ug/L**	2.457	153216	0.289
	Ho	165		**ug/L**		52	0.000
>	Lu	175		**ug/L**		530495	530494.651
	Tl	205	**51.424**	**ug/L**	0.796	1096508	2.060
	Pb	208	**53.788**	**ug/L**	1.532	1797590	3.388
	Bi	209		**ug/L**		525	0.001
	Th	232	**49.194**	**ug/L**	0.468	1965059	3.702
	U	238	**52.235**	**ug/L**	1.357	2173660	4.097

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	0.9999
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7	102.894				
	Be	9	101.229				
	B	11	96.417				
	Na	23	91.396				
	Mg	24	98.526				
	Al	27	93.259				
	P	31	92.745				
	K	39	96.382				
	Ca	43	99.534				
>	Sc	45		100.0			
	Ti	47	98.775				
	V	51	103.316				
	Cr	52	105.028				
	Cr	53					
	Mn	55	108.347				
	Fe	57	107.059				
	Co	59	103.032				
	Ni	60	106.751				
	Cu	63					
	Cu	65	103.697				
	Zn	66	102.837				
	Zn	67					
	Zn	68					
>	Ge	74		99.2			
	As	75	98.202				
	Se	77					
	Se	82	99.123				
	Kr	83					
	Sr	88	108.655				
	Y	89					
	Mo	98	99.926				
	Ag	107	104.699				
	Cd	111	102.460				
	Cd	114					
>	In	115		99.0			
	Sn	120	101.440				
	Sb	121	102.777				
	Sb	123					
	Ba	135					
	Ba	137	104.449				
	Ho	165					
>	Lu	175		99.0			
	Tl	205	102.847				
	Pb	208	107.577				
	Bi	209					
	Th	232	98.388				
	U	238	104.471				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 9
Sample Date/Time: Saturday, January 09, 2010 03:54:26
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100108\QC Std 9.212

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.044**	ug/L	32.992	165	0.000
	Be	9	**0.010**	ug/L	62.237	17	0.000
	B	11	**-2.086**	ug/L	30.760	2234	-0.002
	Na	23	**-7.009**	ug/L	24.136	37384	-0.056
	Mg	24	**0.066**	ug/L	1183.801	4001	0.000
	Al	27	**-0.806**	ug/L	69.928	20682	-0.007
	P	31	**-4.485**	ug/L	48.031	6248	-0.002
	K	39	**-16.740**	ug/L	21.300	692745	-0.191
	Ca	43	**-5.390**	ug/L	10.332	531	-0.000
>	Sc	45		ug/L		564456	564456.318
	Ti	47	**-0.118**	ug/L	27.749	425	-0.000
	V	51	**-0.556**	ug/L	131.224	20729	-0.008
	Cr	52	**0.461**	ug/L	17.027	-2109	0.005
	Cr	53		ug/L		140471	-0.077
	Mn	55	**0.005**	ug/L	26.214	1639	0.000
	Fe	57	**-1.038**	ug/L	94.314	7002	-0.000
	Co	59	**0.004**	ug/L	87.103	195	0.000
	Ni	60	**-0.028**	ug/L	33.531	182	-0.000
	Cu	63		ug/L		416	-0.000
	Cu	65	**-0.038**	ug/L	11.969	230	-0.000
	Zn	66	**-0.003**	ug/L	179.154	343	-0.000
	Zn	67		ug/L		14524	-0.012
	Zn	68		ug/L		1446	-0.001
>	Ge	74		ug/L		523246	523246.425
	As	75	**-0.093**	ug/L	84.872	459	-0.000
	Se	77		ug/L		7396	-0.005
	Se	82	**0.242**	ug/L	64.310	2	0.000
	Kr	83		ug/L		139	-0.000
	Sr	88	**0.003**	ug/L	27.117	353	0.000
	Y	89		ug/L		67	0.000
	Mo	98	**0.033**	ug/L	41.265	294	0.000
	Ag	107	**0.002**	ug/L	132.350	95	0.000
	Cd	111	**-0.003**	ug/L	84.762	34	-0.000
	Cd	114		ug/L		72	0.000
>	In	115		ug/L		296972	296971.880
	Sn	120	**0.060**	ug/L	13.844	832	0.001
	Sb	121	**0.278**	ug/L	19.614	2220	0.005
	Sb	123		ug/L		1715	0.004
	Ba	135		ug/L		45	0.000
	Ba	137	**0.004**	ug/L	89.138	75	0.000
	Ho	165		ug/L		30	0.000
>	Lu	175		ug/L		540917	540917.336
	Tl	205	**0.190**	ug/L	35.957	7931	0.008
	Pb	208	**0.005**	ug/L	16.986	837	0.000
	Bi	209		ug/L		126	0.000
	Th	232	**0.044**	ug/L	23.529	2975	0.003
	U	238	**0.007**	ug/L	27.079	949	0.001

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	0.9999
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9999
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9999
U	238Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		102.9			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		102.3			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		101.7			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		101.0			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS #5 Daily Performance Report

Sample ID: Sample
Sample Date/Time: Saturday, January 09, 2010 09:32:11
Sample Description:
Method File: c:\elandata\Method\Daily2.mth
Dataset File: c:\elandata\Dataset\default2\Sample.1692
Tuning File: c:\elandata\Tuning\default2.tun
Optimization File: c:\elandata\Optimize\default.dac
Dual Detector Mode: Pulse

Acq. Dead Time(ns): 35
Current Dead Time (ns): 35

Number of Replicates: 5

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Be	9.0	3715.5	3715.483	73.002	2.0
	Mg	24.0	44175.4	44175.399	349.529	0.8
	Co	58.9	92047.6	92047.626	1068.423	1.2
	Rh	102.9	169378.8	169378.842	1166.712	0.7
	In	114.9	225662.4	225662.371	746.609	0.3
	Pb	208.0	243919.2	243919.213	1476.487	0.6
⌈>	Ba	137.9	231662.1	231662.110	1234.367	0.5
⌊	Ba++	69.0	4212.6	0.018	0.000	1.9
⌈>	Ce	139.9	289007.6	289007.560	3016.536	1.0
⌊	CeO	155.9	5735.8	0.020	0.000	2.4
	Bkgd	220.0	19.4	19.400	2.535	13.1

Current Optimization File Data

Current Value	Description
0.85	Nebulizer Gas Flow
8.75	Lens Voltage
1450.00	ICP RF Power
-1718.75	Analog Stage Voltage
1200.00	Pulse Stage Voltage
275.00	Discriminator Threshold
-6.00	AC Rod Offset

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	19	9.8	5088.6
Co	59	19	10.8	90719.8
In	115	19	12.0	220833.4

ICPMS #5 Instrument Tuning Report

File Name: default2.tun
File Path: c:\elandata\Tuning

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Pk. Width
He	3.0	3.0	598	2065	0.590
Be	9.0	9.0	2049	2070	0.630
Mg	24.0	24.0	5691	2070	0.677
Mg	25.0	25.0	5919	2070	0.600
Mg	26.0	26.0	6198	2070	0.651
Co	58.9	58.9	14184	2105	0.626
Rh	102.9	102.9	24876	2165	0.620
In	114.9	115.0	27802	2185	0.614
Ce	139.9	139.9	33874	2200	0.630
Pb	206.0	206.0	49948	2270	0.671
Pb	207.0	207.0	50171	2235	0.674
Pb	208.0	208.0	50451	2260	0.716
U	238.1	238.0	57724	2275	0.734

ICPMS#5 - Summary Report

Sample ID: Blank
Sample Date/Time: Saturday, January 09, 2010 17:07:16
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li be and ni.mth
Dataset File: C:\elandata\Dataset\100109\Blank.141

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7		ug/L		24	
	Be	9		ug/L		17	
>	Sc	45		ug/L		510997	
	Ni	60		ug/L		99	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Simple Linear	
Be	9	Simple Linear	
Sc	45	Simple Linear	
Ni	60	Simple Linear	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
>	Sc	45					
	Ni	60					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Saturday, January 09, 2010 17:09:02
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li be and ni.mth
Dataset File: C:\elandata\Dataset\100109\Standard 1.142

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	10.000	ug/L	3.691	15345	0.028
	Be	9	10.000	ug/L	4.423	3630	0.007
>	Sc	45		ug/L		538257	538257.165
	Ni	60	10.000	ug/L	1.949	12476	0.023

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
>	Sc	45					
	Ni	60					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Saturday, January 09, 2010 17:10:45
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li be and ni.mth
Dataset File: C:\elandata\Dataset\100109\Standard 2.143

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**100.022**	**ug/L**	3.119	152905	0.291
	Be	9	**100.018**	**ug/L**	1.993	35907	0.068
>	Sc	45		**ug/L**		524902	524902.369
	Ni	60	**100.007**	**ug/L**	4.752	121534	0.231

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
>	Sc	45					
	Ni	60					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Saturday, January 09, 2010 17:12:28
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li be and ni.mth
Dataset File: C:\elandata\Dataset\100109\QC Std 1.144

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**53.816**	**ug/L**	1.695	83435	0.157
	Be	9	**53.393**	**ug/L**	0.937	19441	0.037
>	Sc	45		**ug/L**		532168	532167.970
	Ni	60	**53.789**	**ug/L**	0.668	66340	0.124

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7	107.632				
	Be	9	106.787				
>	Sc	45		104.1			
	Ni	60	107.579				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Saturday, January 09, 2010 17:14:14
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li be and ni.mth
Dataset File: C:\elandata\Dataset\100109\QC Std 2.145

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	0.025	ug/L	0.665	64	0.000
	Be	9	-0.000	ug/L	5268.487	18	-0.000
>	Sc	45		ug/L		532298	532298.203
	Ni	60	0.013	ug/L	58.319	120	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
>	Sc	45			104.2		
	Ni	60					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Saturday, January 09, 2010 17:16:01
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li be and ni.mth
Dataset File: C:\elandata\Dataset\100109\QC Std 3.146

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Li	7	**11.202**	**ug/L**	2.472	17492	0.033
|	Be	9	**0.564**	**ug/L**	10.884	225	0.000
|>	Sc	45		**ug/L**		535486	535485.803
⌊	Ni	60	**2.186**	**ug/L**	2.667	2812	0.005

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈	Li	7	112.018				
|	Be	9	112.811				
|>	Sc	45		104.8			
⌊	Ni	60	109.306				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Saturday, January 09, 2010 17:17:46
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li be and ni.mth
Dataset File: C:\elandata\Dataset\100109\QC Std 4.147

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.114**	**ug/L**	13.470	198	0.000
	Be	9	**0.064**	**ug/L**	24.375	41	0.000
>	Sc	45		**ug/L**		522350	522349.534
	Ni	60	**2.709**	**ug/L**	4.728	3374	0.006

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
>	Sc	45			102.2		
	Ni	60	100.333				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Saturday, January 09, 2010 17:19:31
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li be and ni.mth
Dataset File: C:\elandata\Dataset\100109\QC Std 5.148

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**19.368**	**ug/L**	2.007	28928	0.056
	Be	9	**18.755**	**ug/L**	3.336	6586	0.013
>	Sc	45		**ug/L**		512472	512472.409
	Ni	60	**22.422**	**ug/L**	1.309	26691	0.052

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7	96.839				
	Be	9	93.777				
>	Sc	45		100.3			
	Ni	60	98.773				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Saturday, January 09, 2010 17:21:16
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li be and ni.mth
Dataset File: C:\elandata\Dataset\100109\QC Std 6.149

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**54.213**	**ug/L**	3.863	81177	0.158
	Be	9	**53.697**	**ug/L**	2.552	18886	0.037
>	Sc	45		**ug/L**		514164	514163.799
	Ni	60	**53.875**	**ug/L**	2.534	64190	0.125

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7	108.427				
	Be	9	107.393				
>	Sc	45		100.6			
	Ni	60	107.751				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Saturday, January 09, 2010 17:23:02
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li be and ni.mth
Dataset File: C:\elandata\Dataset\100109\QC Std 7.150

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	0.018	ug/L	12.439	50	0.000
	Be	9	0.010	ug/L	113.190	21	0.000
>	Sc	45		ug/L		509175	509175.240
	Ni	60	0.024	ug/L	17.156	127	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
>	Sc	45		99.6			
	Ni	60					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 10
Sample Date/Time: Saturday, January 09, 2010 17:24:48
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li be and ni.mth
Dataset File: C:\elandata\Dataset\100109\QC Std 10.151

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**993.374**	**ug/L**	5.520	1366893	2.893
	Be	9	**1007.930**	**ug/L**	2.787	325670	0.689
>	Sc	45		**ug/L**		472769	472768.824
	Ni	60	**895.577**	**ug/L**	2.638	979543	2.072

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7	99.337				
	Be	9	100.793				
>	Sc	45			92.5		
	Ni	60	89.558				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 10	Ni	60	LRS is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 11
Sample Date/Time: Saturday, January 09, 2010 17:26:31
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li be and ni.mth
Dataset File: C:\elandata\Dataset\100109\QC Std 11.152

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**54.786**	**ug/L**	2.526	83566	0.160
	Be	9	**53.362**	**ug/L**	1.135	19118	0.036
>	Sc	45		**ug/L**		523663	523662.816
	Ni	60	**53.233**	**ug/L**	1.713	64599	0.123

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7	109.572				
	Be	9	106.723				
>	Sc	45		102.5			
	Ni	60	106.466				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 12
Sample Date/Time: Saturday, January 09, 2010 17:28:17
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li be and ni.mth
Dataset File: C:\elandata\Dataset\100109\QC Std 12.153

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	0.090	ug/L	6.737	159	0.000
	Be	9	0.018	ug/L	82.210	24	0.000
>	Sc	45		ug/L		513497	513496.560
	Ni	60	0.025	ug/L	36.167	129	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
>	Sc	45			100.5		
	Ni	60					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202007679
Sample Date/Time: Saturday, January 09, 2010 17:30:05
Sample Type:
Sample Description: LANL 6020 MB
Number of Replicates: 3
Batch ID: 938263|2|baj
Method File: c:\elandata\Method\li be and ni.mth
Dataset File: C:\elandata\Dataset\100109\1202007679.154

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Li	7	**0.047**	**ug/L**	2.093	96	0.000
|	Be	9	**-0.001**	**ug/L**	1148.476	17	-0.000
|>	Sc	45		**ug/L**		523463	523462.987
⌊	Ni	60	**0.043**	**ug/L**	53.401	154	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈	Li	7					
|	Be	9					
|>	Sc	45		102.4			
⌊	Ni	60					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202007684
Sample Date/Time: Saturday, January 09, 2010 17:31:52
Sample Type:
Sample Description: LANL 6020 LCS
Number of Replicates: 3
Batch ID: 938263|20|baj
Method File: c:\elandata\Method\Ni be and ni.mth
Dataset File: C:\elandata\Dataset\100109\1202007684.155

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**5.310**	**ug/L**	0.201	8217	0.015
	Be	9	**42.055**	**ug/L**	2.071	15245	0.029
>	Sc	45		**ug/L**		529695	529695.365
	Ni	60	**73.417**	**ug/L**	1.220	90088	0.170

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
>	Sc	45		103.7			
	Ni	60					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202007684
Sample Date/Time: Saturday, January 09, 2010 17:33:39
Sample Type:
Sample Description: LANL 6020 LCS
Number of Replicates: 3
Batch ID: 938263|40|baj
Method File: c:\elandata\Method\li be and ni.mth
Dataset File: C:\elandata\Dataset\100109\1202007684.156

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**2.865**	**ug/L**	3.657	4391	0.008
	Be	9	**21.686**	**ug/L**	3.025	7776	0.015
>	Sc	45		**ug/L**		523488	523487.868
	Ni	60	**38.513**	**ug/L**	1.523	46752	0.089

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
>	Sc	45			102.4		
	Ni	60					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 243550014
Sample Date/Time: Saturday, January 09, 2010 17:35:27
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 938263|2|baj
Method File: c:\elandata\Method\li be and ni.mth
Dataset File: C:\elandata\Dataset\100109\243550014.157

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**24.844**	**ug/L**	2.939	39540	0.072
	Be	9	**1.908**	**ug/L**	3.154	731	0.001
>	Sc	45		**ug/L**		546090	546089.960
	Ni	60	**9.675**	**ug/L**	2.151	12333	0.022

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
>	Sc	45		106.9			
	Ni	60					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202007680
Sample Date/Time: Saturday, January 09, 2010 17:37:16
Sample Type:
Sample Description: LANL 6020 DUP
Number of Replicates: 3
Batch ID: 938263|2|baj
Method File: c:\elandata\Method\li be and ni.mth
Dataset File: C:\elandata\Dataset\100109\1202007680.158

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	27.793	ug/L	4.196	43512	0.081
	Be	9	2.041	ug/L	2.288	768	0.001
>	Sc	45		ug/L		537539	537538.826
	Ni	60	10.617	ug/L	2.260	13306	0.025

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
>	Sc	45		105.2			
	Ni	60					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202007682
Sample Date/Time: Saturday, January 09, 2010 17:39:05
Sample Type:
Sample Description: LANL 6020 MS
Number of Replicates: 3
Batch ID: 938263|2|baj
Method File: c:\elandata\Method\li be and ni.mth
Dataset File: C:\elandata\Dataset\100109\1202007682.159

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**54.824**	**ug/L**	4.110	87062	0.160
	Be	9	**26.430**	**ug/L**	4.040	9868	0.018
>	Sc	45		**ug/L**		545389	545389.174
	Ni	60	**35.044**	**ug/L**	1.602	44324	0.081

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
>	Sc	45		106.7			
	Ni	60					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202007683
Sample Date/Time: Saturday, January 09, 2010 17:40:55
Sample Type:
Sample Description: LANL 6020 MSD
Number of Replicates: 3
Batch ID: 938263|2|baj
Method File: c:\elandata\Method\li be and ni.mth
Dataset File: C:\elandata\Dataset\100109\1202007683.160

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**49.210**	**ug/L**	3.037	77666	0.143
	Be	9	**24.820**	**ug/L**	1.986	9210	0.017
>	Sc	45		**ug/L**		541779	541779.025
	Ni	60	**33.161**	**ug/L**	1.106	41679	0.077

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
>	Sc	45		106.0			
	Ni	60					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202007681
Sample Date/Time: Saturday, January 09, 2010 17:42:43
Sample Type:
Sample Description: LANL 6020 SDILT
Number of Replicates: 3
Batch ID: 938263|10|baj
Method File: c:\elandata\Method\li be and ni.mth
Dataset File: C:\elandata\Dataset\100109\1202007681.161

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**5.216**	**ug/L**	4.008	7732	0.015
	Be	9	**0.409**	**ug/L**	16.841	159	0.000
>	Sc	45		**ug/L**		507586	507586.105
	Ni	60	**2.108**	**ug/L**	3.211	2574	0.005

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
>	Sc	45			99.3		
	Ni	60					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 243550015
Sample Date/Time: Saturday, January 09, 2010 17:44:31
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 938263|2|baj
Method File: c:\elandata\Method\li be and ni.mth
Dataset File: C:\elandata\Dataset\100109\243550015.162

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**59.411**	**ug/L**	1.859	95949	0.173
	Be	9	**4.444**	**ug/L**	4.243	1703	0.003
>	Sc	45		**ug/L**		554415	554414.834
	Ni	60	**11.764**	**ug/L**	2.889	15198	0.027

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
>	Sc	45		108.5			
	Ni	60					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Saturday, January 09, 2010 17:46:17
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li be and ni.mth
Dataset File: C:\elandata\Dataset\100109\QC Std 6.163

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**54.531**	**ug/L**	4.465	82617	0.159
	Be	9	**54.347**	**ug/L**	3.671	19343	0.037
>	Sc	45		**ug/L**		520481	520481.020
	Ni	60	**54.694**	**ug/L**	2.550	65941	0.127

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7	109.061				
	Be	9	108.694				
>	Sc	45		101.9			
	Ni	60	109.387				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Saturday, January 09, 2010 17:48:03
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\li be and ni.mth
Dataset File: C:\elandata\Dataset\100109\QC Std 7.164

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.067**	**ug/L**	3.187	126	0.000
	Be	9	**-0.002**	**ug/L**	124.063	17	-0.000
>	Sc	45		**ug/L**		522103	522102.611
	Ni	60	**0.022**	**ug/L**	30.073	127	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
>	Sc	45			102.2		
	Ni	60					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS #6 Daily Performance Report

Sample ID: Sample
Sample Date/Time: Wednesday, January 13, 2010 20:57:07
Sample Description:
Method File: C:\elandata\Method\Daily2.mth
Dataset File: c:\elandata\Dataset\091212\Sample.253
Tuning File: c:\elandata\Tuning\default2.tun
Optimization File: c:\elandata\Optimize\default.dac
Dual Detector Mode: Pulse

Acq. Dead Time(ns): 35
Current Dead Time (ns): 35

Number of Replicates: 5

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Be	9.0	1350.3	1350.264	59.715	4.4
	Mg	24.0	21710.1	21710.085	198.441	0.9
	Co	58.9	35532.9	35532.939	346.878	1.0
	Rh	102.9	71212.3	71212.257	487.557	0.7
	In	114.9	79251.2	79251.233	730.355	0.9
	Pb	208.0	47871.9	47871.877	217.644	0.5
⌈>	Ba	137.9	74019.4	74019.382	314.317	0.4
⌊	Ba++	69.0	2339.2	0.032	0.000	1.0
⌈>	Ce	139.9	94879.4	94879.437	473.097	0.5
⌊	CeO	155.9	1513.3	0.016	0.000	1.5
	Bkgd	220.0	23.1	23.100	1.517	6.6

Current Optimization File Data

Current Value	Description
0.84	Nebulizer Gas Flow
13.25	Lens Voltage
1450.00	ICP RF Power
-1781.25	Analog Stage Voltage
900.00	Pulse Stage Voltage
30.00	Discriminator Threshold
-6.00	AC Rod Offset

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	25	11.3	2876.6
Co	59	25	12.5	34989.5
In	115	25	14.0	76766.4

ICPMS #6 Instrument Tuning Report

File Name: default2.tun
File Path: c:\elandata\Tuning

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Pk. Width
He	3.0	3.0	588	2080	0.658
Be	9.0	9.0	2039	2080	0.673
Mg	24.0	24.0	5686	2120	0.635
Mg	25.0	25.0	5929	2080	0.698
Mg	26.0	26.0	6162	2120	0.689
Co	58.9	59.0	14181	2170	0.640
Rh	102.9	102.8	24853	2230	0.702
In	114.9	114.9	27786	2260	0.690
Ce	139.9	139.9	33855	2280	0.747
Pb	206.0	206.0	49948	2430	0.693
Pb	207.0	207.0	50135	2385	0.676
Pb	208.0	208.0	50463	2430	0.715
U	238.1	238.0	57731	2470	0.711

Report Date/Time: Wednesday, January 13, 2010 20:56:04

ICPMS#6 - Summary Report

Sample ID: Blank
Sample Date/Time: Thursday, January 14, 2010 07:38:53
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 noirs thtimozr.mth
Dataset File: C:\elandata\Dataset\100113\Blank.116

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7		ug/L		87	
	Be	9		ug/L		13	
	B	11		ug/L		1576	
	Na	23		ug/L		20015	
	Mg	24		ug/L		1667	
	Al	27		ug/L		6335	
	P	31		ug/L		7546	
	K	39		ug/L		633099	
	Ca	43		ug/L		819	
>	Sc	45		ug/L		1497417	
	V	51		ug/L		27543	
	Cr	52		ug/L		8568	
	Cr	53		ug/L		189829	
	Mn	55		ug/L		1773	
	Fe	57		ug/L		5299	
	Co	59		ug/L		176	
	Ni	60		ug/L		78	
	Cu	63		ug/L		160	
	Cu	65		ug/L		121	
	Zn	66		ug/L		141	
	Zn	67		ug/L		22408	
	Zn	68		ug/L		1425	
>	Ge	74		ug/L		291834	
	As	75		ug/L		321	
	Se	77		ug/L		10632	
	Se	82		ug/L		2	
	Kr	83		ug/L		91	
	Sr	88		ug/L		140	
	Y	89		ug/L		41	
	Ag	107		ug/L		66	
	Cd	111		ug/L		11	
	Cd	114		ug/L		31	
>	In	115		ug/L		160164	
	Sn	120		ug/L		319	
	Sb	121		ug/L		788	
	Sb	123		ug/L		574	
	Ba	135		ug/L		28	
	Ba	137		ug/L		39	
	Ho	165		ug/L		16	
>	Lu	175		ug/L		204784	
	Tl	205		ug/L		668	
	Pb	208		ug/L		257	
	Bi	209		ug/L		23	
	U	238		ug/L		115	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	0.9997
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	0.9996
Cr	52	Linear Thru Zero	0.9999
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	0.9999
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	0.9999
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115					
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175					
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

Sample ID: Blank

Report Date/Time: Thursday, January 14, 2010 07:41:25

ICPMS#6 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Thursday, January 14, 2010 07:44:47
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 nolrs thtimozr.mth
Dataset File: C:\elandata\Dataset\100113\Standard 1.117

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	10.000	ug/L	3.100	10308	0.007
	Be	9	10.000	ug/L	1.858	3878	0.003
	B	11	20.000	ug/L	1.478	8616	0.005
	Na	23	1000.000	ug/L	3.982	3608616	2.546
	Mg	24	1000.000	ug/L	5.642	2519187	1.786
	Al	27	1000.000	ug/L	1.614	3861251	2.735
	P	31	1000.000	ug/L	0.832	202935	0.139
	K	39	1000.000	ug/L	6.055	4705138	2.916
	Ca	43	1000.000	ug/L	1.628	9823	0.006
>	Sc	45		ug/L		1409765	1409764.734
	V	51	10.000	ug/L	2.817	67103	0.029
	Cr	52	10.000	ug/L	2.165	39292	0.022
	Cr	53		ug/L		130747	-0.034
	Mn	55	10.000	ug/L	0.655	55399	0.038
	Fe	57	1000.000	ug/L	2.167	112698	0.076
	Co	59	10.000	ug/L	1.840	40406	0.029
	Ni	60	10.000	ug/L	2.099	8622	0.006
	Cu	63		ug/L		23138	0.016
	Cu	65	10.000	ug/L	1.662	11108	0.008
	Zn	66	10.000	ug/L	2.180	6653	0.023
	Zn	67		ug/L		13550	-0.028
	Zn	68		ug/L		5740	0.016
>	Ge	74		ug/L		278686	278686.165
	As	75	10.000	ug/L	2.908	6808	0.023
	Se	77		ug/L		6240	-0.014
	Se	82	10.000	ug/L	3.413	597	0.002
	Kr	83		ug/L		104	0.000
	Sr	88	10.000	ug/L	1.356	76156	0.499
	Y	89		ug/L		56	0.000
	Ag	107	10.000	ug/L	1.249	31782	0.208
	Cd	111	10.000	ug/L	0.595	7367	0.048
	Cd	114		ug/L		16958	0.111
>	In	115		ug/L		152424	152424.086
	Sn	120	10.000	ug/L	1.315	29542	0.192
	Sb	121	10.000	ug/L	9.462	24435	0.155
	Sb	123		ug/L		18735	0.119
	Ba	135		ug/L		7053	0.036
	Ba	137	10.000	ug/L	0.855	12541	0.065
	Ho	165		ug/L		24	0.000
>	Lu	175		ug/L		193146	193145.964
	Tl	205	10.000	ug/L	2.198	54713	0.280
	Pb	208	10.000	ug/L	1.879	91624	0.473
	Bi	209		ug/L		51	0.000
	U	238	10.000	ug/L	2.112	95000	0.491

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115					
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175					
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Thursday, January 14, 2010 07:50:39
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 noirs thtimozr.mth
Dataset File: C:\elandata\Dataset\100113\Standard 2.118

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**100.010**	**ug/L**	3.076	101563	0.073
	Be	9	**100.004**	**ug/L**	0.776	38128	0.028
	B	11	**200.098**	**ug/L**	2.316	75126	0.053
	Na	23	**10005.935**	**ug/L**	2.648	37510680	27.079
	Mg	24	**10007.078**	**ug/L**	1.446	26639179	19.236
	Al	27	**9997.383**	**ug/L**	7.310	36899479	26.645
	P	31	**9997.417**	**ug/L**	0.650	1881441	1.354
	K	39	**10010.676**	**ug/L**	3.285	45835858	32.675
	Ca	43	**10001.763**	**ug/L**	0.902	91270	0.065
>	Sc	45		**ug/L**		1384700	1384699.726
	V	51	**100.024**	**ug/L**	1.217	439933	0.299
	Cr	52	**100.125**	**ug/L**	1.056	358745	0.253
	Cr	53		**ug/L**		154747	-0.015
	Mn	55	**99.990**	**ug/L**	0.527	524322	0.377
	Fe	57	**9995.545**	**ug/L**	0.708	1017378	0.731
	Co	59	**99.964**	**ug/L**	1.126	381538	0.275
	Ni	60	**99.971**	**ug/L**	1.643	81633	0.059
	Cu	63		**ug/L**		193251	0.139
	Cu	65	**99.849**	**ug/L**	1.785	93798	0.068
	Zn	66	**99.967**	**ug/L**	1.119	62309	0.226
	Zn	67		**ug/L**		21324	0.001
	Zn	68		**ug/L**		46246	0.164
>	Ge	74		**ug/L**		274602	274602.053
	As	75	**100.081**	**ug/L**	1.276	70061	0.254
	Se	77		**ug/L**		10058	0.000
	Se	82	**100.058**	**ug/L**	2.146	6231	0.023
	Kr	83		**ug/L**		92	0.000
	Sr	88	**100.006**	**ug/L**	1.673	737337	5.020
	Y	89		**ug/L**		103	0.000
	Ag	107	**99.996**	**ug/L**	0.486	304472	2.073
	Cd	111	**100.027**	**ug/L**	0.616	72875	0.496
	Cd	114		**ug/L**		163618	1.114
>	In	115		**ug/L**		146850	146849.602
	Sn	120	**100.024**	**ug/L**	1.113	288990	1.966
	Sb	121	**100.106**	**ug/L**	1.373	256466	1.741
	Sb	123		**ug/L**		199686	1.356
	Ba	135		**ug/L**		68701	0.366
	Ba	137	**100.004**	**ug/L**	1.483	122153	0.650
	Ho	165		**ug/L**		24	0.000
>	Lu	175		**ug/L**		187881	187880.965
	Tl	205	**100.000**	**ug/L**	0.585	526891	2.801
	Pb	208	**99.998**	**ug/L**	0.606	887527	4.723
	Bi	209		**ug/L**		279	0.001
	U	238	**99.984**	**ug/L**	0.755	908708	4.836

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	0.9999
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	0.9999
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	0.9999
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	0.9999
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115					
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175					
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Thursday, January 14, 2010 07:56:32
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 noirs thtimozr.mth
Dataset File: C:\elandata\Dataset\100113\QC Std 1.119

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**53.074**	**ug/L**	2.782	53374	0.039
	Be	9	**52.559**	**ug/L**	1.836	19838	0.014
	B	11	**103.689**	**ug/L**	0.394	39229	0.028
	Na	23	**4980.917**	**ug/L**	8.404	18489884	13.480
	Mg	24	**5172.758**	**ug/L**	9.290	13627006	9.943
	Al	27	**4970.618**	**ug/L**	5.337	18164234	13.248
	P	31	**5080.316**	**ug/L**	0.565	949668	0.688
	K	39	**4429.914**	**ug/L**	2.650	20395587	14.459
	Ca	43	**4976.108**	**ug/L**	1.499	45321	0.033
>	Sc	45		**ug/L**		1370504	1370503.718
	V	51	**50.535**	**ug/L**	1.242	232467	0.151
	Cr	52	**50.071**	**ug/L**	0.171	181487	0.127
	Cr	53		**ug/L**		136163	-0.027
	Mn	55	**52.263**	**ug/L**	1.852	272013	0.197
	Fe	57	**5178.713**	**ug/L**	0.938	524041	0.379
	Co	59	**51.398**	**ug/L**	0.126	194249	0.142
	Ni	60	**51.477**	**ug/L**	2.154	41642	0.030
	Cu	63		**ug/L**		96869	0.071
	Cu	65	**51.153**	**ug/L**	0.891	47616	0.035
	Zn	66	**52.491**	**ug/L**	2.010	32243	0.119
	Zn	67		**ug/L**		16352	-0.016
	Zn	68		**ug/L**		24275	0.085
>	Ge	74		**ug/L**		270110	270110.105
	As	75	**47.962**	**ug/L**	1.364	33181	0.122
	Se	77		**ug/L**		7909	-0.007
	Se	82	**49.363**	**ug/L**	0.922	3025	0.011
	Kr	83		**ug/L**		105	0.000
	Sr	88	**51.323**	**ug/L**	1.409	378412	2.576
	Y	89		**ug/L**		84	0.000
	Ag	107	**49.795**	**ug/L**	0.192	151646	1.032
	Cd	111	**50.265**	**ug/L**	1.488	36620	0.249
	Cd	114		**ug/L**		83317	0.567
>	In	115		**ug/L**		146846	146846.166
	Sn	120	**50.233**	**ug/L**	1.774	145260	0.987
	Sb	121	**49.211**	**ug/L**	5.841	126369	0.856
	Sb	123		**ug/L**		96564	0.654
	Ba	135		**ug/L**		34479	0.182
	Ba	137	**49.528**	**ug/L**	1.456	61018	0.322
	Ho	165		**ug/L**		32	0.000
>	Lu	175		**ug/L**		189459	189459.183
	Tl	205	**48.595**	**ug/L**	1.842	258463	1.361
	Pb	208	**49.944**	**ug/L**	1.214	447061	2.359
	Bi	209		**ug/L**		120	0.001
	U	238	**52.303**	**ug/L**	1.238	479337	2.530

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	0.9999
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	0.9999
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	0.9999
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	0.9999
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7	106.147				
	Be	9	105.119				
	B	11	103.689				
	Na	23	99.618				
	Mg	24	103.455				
	Al	27	98.428				
	P	31	101.606				
	K	39	88.598				
	Ca	43	99.522				
>	Sc	45		91.5			
	V	51	101.071				
	Cr	52	100.141				
	Cr	53					
	Mn	55	104.525				
	Fe	57	103.574				
	Co	59	102.796				
	Ni	60	102.955				
	Cu	63					
	Cu	65	102.306				
	Zn	66	104.983				
	Zn	67					
	Zn	68					
>	Ge	74		92.6			
	As	75	95.924				
	Se	77					
	Se	82	98.725				
	Kr	83					
	Sr	88	102.647				
	Y	89					
	Ag	107	99.589				
	Cd	111	100.530				
	Cd	114					
>	In	115		91.7			
	Sn	120	100.466				
	Sb	121	98.422				
	Sb	123					
	Ba	135					
	Ba	137	99.056				
	Ho	165					
>	Lu	175		92.5			
	Tl	205	97.191				
	Pb	208	99.887				
	Bi	209					
	U	238	104.606				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 1	K	39	ICV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Thursday, January 14, 2010 08:02:27
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 noirs thtimozr.mth
Dataset File: C:\elandata\Dataset\100113\QC Std 2.120

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.021**	**ug/L**	69.693	109	0.000
	Be	9	**0.020**	**ug/L**	9.005	21	0.000
	B	11	**2.592**	**ug/L**	22.269	2582	0.001
	Na	23	**1.631**	**ug/L**	60.349	26358	0.004
	Mg	24	**0.241**	**ug/L**	169.601	2334	0.000
	Al	27	**-0.319**	**ug/L**	142.505	5001	-0.001
	P	31	**-0.463**	**ug/L**	272.778	7384	-0.000
	K	39	**-3.260**	**ug/L**	172.873	611501	-0.011
	Ca	43	**2.788**	**ug/L**	30.862	838	0.000
>	Sc	45		**ug/L**		1483444	1483443.925
	V	51	**1.663**	**ug/L**	53.400	34698	0.005
	Cr	52	**-0.170**	**ug/L**	74.444	7851	-0.000
	Cr	53		**ug/L**		189286	0.001
	Mn	55	**-0.026**	**ug/L**	16.027	1609	-0.000
	Fe	57	**5.336**	**ug/L**	65.689	5826	0.000
	Co	59	**0.003**	**ug/L**	109.255	187	0.000
	Ni	60	**0.020**	**ug/L**	33.204	95	0.000
	Cu	63		**ug/L**		172	0.000
	Cu	65	**-0.001**	**ug/L**	371.967	119	-0.000
	Zn	66	**0.016**	**ug/L**	142.193	148	0.000
	Zn	67		**ug/L**		22051	0.000
	Zn	68		**ug/L**		1406	0.000
>	Ge	74		**ug/L**		285972	285972.487
	As	75	**-0.158**	**ug/L**	409.061	198	-0.000
	Se	77		**ug/L**		10706	0.001
	Se	82	**-0.149**	**ug/L**	26.850	-8	-0.000
	Kr	83		**ug/L**		99	0.000
	Sr	88	**0.000**	**ug/L**	756.864	143	0.000
	Y	89		**ug/L**		51	0.000
	Ag	107	**0.006**	**ug/L**	48.744	86	0.000
	Cd	111	**0.013**	**ug/L**	49.956	22	0.000
	Cd	114		**ug/L**		37	0.000
>	In	115		**ug/L**		159657	159656.585
	Sn	120	**0.145**	**ug/L**	36.766	772	0.003
	Sb	121	**1.431**	**ug/L**	39.409	4758	0.025
	Sb	123		**ug/L**		3705	0.020
	Ba	135		**ug/L**		24	-0.000
	Ba	137	**-0.005**	**ug/L**	110.280	32	-0.000
	Ho	165		**ug/L**		19	0.000
>	Lu	175		**ug/L**		202036	202035.620
	Tl	205	**0.236**	**ug/L**	24.442	1997	0.007
	Pb	208	**0.004**	**ug/L**	57.466	293	0.000
	Bi	209		**ug/L**		22	-0.000
	U	238	**0.082**	**ug/L**	39.126	917	0.004

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	0.9999
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	0.9999
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	0.9999
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	0.9999
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		99.1			
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		98.0			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		99.7			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		98.7			
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

Sample ID: QC Std 2

Report Date/Time: Thursday, January 14, 2010 08:04:59

ICPMS#6 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Thursday, January 14, 2010 08:08:22
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 nolrs thtimozr.mth
Dataset File: C:\elandata\Dataset\100113\QC Std 3.121

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**11.433**	**ug/L**	2.950	11728	0.008
	Be	9	**0.606**	**ug/L**	1.766	244	0.000
	B	11	**16.171**	**ug/L**	1.149	7444	0.004
	Na	23	**251.228**	**ug/L**	9.243	964330	0.680
	Mg	24	**16.419**	**ug/L**	13.515	45406	0.032
	Al	27	**32.102**	**ug/L**	8.605	124879	0.086
	P	31	**45.107**	**ug/L**	3.607	15501	0.006
	K	39	**298.661**	**ug/L**	2.517	1943822	0.975
	Ca	43	**203.916**	**ug/L**	4.139	2614	0.001
>	Sc	45		**ug/L**		1390673	1390673.262
	V	51	**10.444**	**ug/L**	8.155	69063	0.031
	Cr	52	**9.629**	**ug/L**	0.710	41839	0.024
	Cr	53		**ug/L**		129993	-0.033
	Mn	55	**5.586**	**ug/L**	0.618	30974	0.021
	Fe	57	**113.734**	**ug/L**	0.913	16492	0.008
	Co	59	**1.100**	**ug/L**	0.687	4377	0.003
	Ni	60	**2.174**	**ug/L**	1.893	1854	0.001
	Cu	63		**ug/L**		2313	0.002
	Cu	65	**1.170**	**ug/L**	1.092	1214	0.001
	Zn	66	**11.347**	**ug/L**	0.619	7105	0.026
	Zn	67		**ug/L**		13275	-0.028
	Zn	68		**ug/L**		5867	0.017
>	Ge	74		**ug/L**		271321	271321.018
	As	75	**5.570**	**ug/L**	3.528	4134	0.014
	Se	77		**ug/L**		6331	-0.013
	Se	82	**5.523**	**ug/L**	4.213	341	0.001
	Kr	83		**ug/L**		99	0.000
	Sr	88	**11.088**	**ug/L**	0.552	83617	0.557
	Y	89		**ug/L**		49	0.000
	Ag	107	**0.996**	**ug/L**	3.476	3159	0.021
	Cd	111	**1.074**	**ug/L**	3.917	810	0.005
	Cd	114		**ug/L**		1870	0.012
>	In	115		**ug/L**		150002	150001.957
	Sn	120	**5.263**	**ug/L**	3.112	15814	0.103
	Sb	121	**2.782**	**ug/L**	7.736	8001	0.048
	Sb	123		**ug/L**		6177	0.038
	Ba	135		**ug/L**		1497	0.008
	Ba	137	**2.106**	**ug/L**	0.572	2639	0.014
	Ho	165		**ug/L**		21	0.000
>	Lu	175		**ug/L**		190152	190151.781
	Tl	205	**1.066**	**ug/L**	1.188	6297	0.030
	Pb	208	**2.160**	**ug/L**	0.937	19632	0.102
	Bi	209		**ug/L**		26	0.000
	U	238	**0.235**	**ug/L**	0.539	2271	0.011

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	0.9999
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	0.9999
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	0.9999
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	0.9999
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7	114.326				
	Be	9	121.181				
	B	11	107.809				
	Na	23	100.491				
	Mg	24	109.462				
	Al	27	107.005				
	P	31	90.213				
	K	39	99.554				
	Ca	43	101.958				
>	Sc	45		92.9			
	V	51	104.438				
	Cr	52	96.286				
	Cr	53					
	Mn	55	111.724				
	Fe	57	113.734				
	Co	59	109.975				
	Ni	60	108.686				
	Cu	63					
	Cu	65	116.953				
	Zn	66	113.473				
	Zn	67					
	Zn	68					
>	Ge	74		93.0			
	As	75	111.405				
	Se	77					
	Se	82	110.463				
	Kr	83					
	Sr	88	110.877				
	Y	89					
	Ag	107	99.630				
	Cd	111	107.407				
	Cd	114					
>	In	115		93.7			
	Sn	120	105.266				
	Sb	121	92.729				
	Sb	123					
	Ba	135					
	Ba	137	105.293				
	Ho	165					
>	Lu	175		92.9			
	Tl	205	106.571				
	Pb	208	107.981				
	Bi	209					
	U	238	117.630				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Thursday, January 14, 2010 08:14:15
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 nolrs thtimozr.mth
Dataset File: C:\elandata\Dataset\100113\QC Std 4.122

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.205**	**ug/L**	6.594	271	0.000
	Be	9	**0.075**	**ug/L**	22.046	38	0.000
	B	11	**0.740**	**ug/L**	33.581	1627	0.000
	Na	23	**104342.227**	**ug/L**	2.896	367873795	282.379
	Mg	24	**92321.297**	**ug/L**	1.225	231221109	177.466
	Al	27	**101026.223**	**ug/L**	5.635	350722454	269.255
	P	31	**93178.296**	**ug/L**	0.592	16443910	12.617
	K	39	**87168.302**	**ug/L**	3.764	371252185	284.514
	Ca	43	**89792.793**	**ug/L**	0.721	765247	0.587
>	Sc	45		**ug/L**		1302805	1302804.612
	V	51	**-1.359**	**ug/L**	35.412	18659	-0.004
	Cr	52	**0.879**	**ug/L**	7.961	10351	0.002
	Cr	53		**ug/L**		97584	-0.052
	Mn	55	**5.616**	**ug/L**	1.939	29159	0.021
	Fe	57	**95697.985**	**ug/L**	1.028	9124650	7.001
	Co	59	**0.335**	**ug/L**	4.704	1355	0.001
	Ni	60	**2.963**	**ug/L**	6.066	2342	0.002
	Cu	63		**ug/L**		3714	0.003
	Cu	65	**3.157**	**ug/L**	1.959	2892	0.002
	Zn	66	**3.983**	**ug/L**	0.379	2400	0.009
	Zn	67		**ug/L**		10827	-0.034
	Zn	68		**ug/L**		1301	0.000
>	Ge	74		**ug/L**		252432	252431.652
	As	75	**-0.095**	**ug/L**	580.656	217	-0.000
	Se	77		**ug/L**		5942	-0.013
	Se	82	**-1.773**	**ug/L**	13.631	-100	-0.000
	Kr	83		**ug/L**		206	0.001
	Sr	88	**1.104**	**ug/L**	0.826	7919	0.055
	Y	89		**ug/L**		285	0.002
	Ag	107	**0.237**	**ug/L**	36.295	750	0.005
	Cd	111	**0.930**	**ug/L**	36.414	660	0.005
	Cd	114		**ug/L**		4442	0.031
>	In	115		**ug/L**		140675	140675.115
	Sn	120	**0.057**	**ug/L**	2.512	439	0.001
	Sb	121	**0.103**	**ug/L**	59.825	944	0.002
	Sb	123		**ug/L**		757	0.002
	Ba	135		**ug/L**		478	0.002
	Ba	137	**0.639**	**ug/L**	3.101	802	0.004
	Ho	165		**ug/L**		402	0.002
>	Lu	175		**ug/L**		184715	184715.054
	Tl	205	**0.005**	**ug/L**	68.271	629	0.000
	Pb	208	**0.182**	**ug/L**	3.792	1817	0.009
	Bi	209		**ug/L**		288	0.001
	U	238	**-0.002**	**ug/L**	75.179	89	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	0.9999
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	0.9999
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	0.9999
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	0.9999
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23	104.342				
	Mg	24	92.321				
	Al	27	101.026				
	P	31	93.178				
	K	39	87.168				
	Ca	43	89.793				
>	Sc	45		87.0			
	V	51					
	Cr	52	23.762				
	Cr	53					
	Mn	55	96.819				
	Fe	57	95.698				
	Co	59	134.032				
	Ni	60	109.741				
	Cu	63					
	Cu	65	108.859				
	Zn	66	110.645				
	Zn	67					
	Zn	68					
>	Ge	74		86.5			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88	92.006				
	Y	89					
	Ag	107					
	Cd	111	232.530				
	Cd	114					
>	In	115		87.8			
	Sn	120					
	Sb	121	102.877				
	Sb	123					
	Ba	135					
	Ba	137	95.362				
	Ho	165					
>	Lu	175		90.2			
	Tl	205					
	Pb	208	90.834				
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Thursday, January 14, 2010 08:20:10
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 nolrs thtimozr.mth
Dataset File: C:\elandata\Dataset\100113\QC Std 5.123

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**21.905**	**ug/L**	0.773	20637	0.016
	Be	9	**20.947**	**ug/L**	1.330	7397	0.006
	B	11	**20.610**	**ug/L**	4.173	8368	0.005
	Na	23	**97074.752**	**ug/L**	2.432	336586860	262.711
	Mg	24	**103274.097**	**ug/L**	4.707	254378042	198.520
	Al	27	**94104.042**	**ug/L**	4.811	321273831	250.806
	P	31	**93710.716**	**ug/L**	2.423	16261140	12.689
	K	39	**89686.855**	**ug/L**	8.055	375452283	292.735
	Ca	43	**89690.659**	**ug/L**	0.960	751657	0.586
>	Sc	45		**ug/L**		1281119	1281118.670
	V	51	**18.174**	**ug/L**	3.607	93233	0.054
	Cr	52	**20.400**	**ug/L**	1.563	73459	0.052
	Cr	53		**ug/L**		99310	-0.049
	Mn	55	**25.415**	**ug/L**	0.361	124436	0.096
	Fe	57	**94154.500**	**ug/L**	0.694	8828392	6.888
	Co	59	**19.728**	**ug/L**	0.880	69787	0.054
	Ni	60	**21.786**	**ug/L**	0.511	16512	0.013
	Cu	63		**ug/L**		36455	0.028
	Cu	65	**21.598**	**ug/L**	0.994	18853	0.015
	Zn	66	**22.573**	**ug/L**	0.865	12936	0.051
	Zn	67		**ug/L**		12223	-0.028
	Zn	68		**ug/L**		9048	0.031
>	Ge	74		**ug/L**		250643	250642.860
	As	75	**19.990**	**ug/L**	4.914	12995	0.051
	Se	77		**ug/L**		6372	-0.011
	Se	82	**18.909**	**ug/L**	2.524	1076	0.004
	Kr	83		**ug/L**		210	0.001
	Sr	88	**21.431**	**ug/L**	0.499	148539	1.076
	Y	89		**ug/L**		262	0.002
	Ag	107	**18.740**	**ug/L**	1.759	53653	0.388
	Cd	111	**19.581**	**ug/L**	1.808	13409	0.097
	Cd	114		**ug/L**		33384	0.242
>	In	115		**ug/L**		137962	137962.384
	Sn	120	**19.818**	**ug/L**	1.991	54013	0.390
	Sb	121	**20.487**	**ug/L**	1.975	49844	0.356
	Sb	123		**ug/L**		38474	0.275
	Ba	135		**ug/L**		13058	0.073
	Ba	137	**19.603**	**ug/L**	1.533	22874	0.127
	Ho	165		**ug/L**		382	0.002
>	Lu	175		**ug/L**		179261	179261.489
	Tl	205	**17.505**	**ug/L**	2.439	88482	0.490
	Pb	208	**19.024**	**ug/L**	0.700	161281	0.898
	Bi	209		**ug/L**		409	0.002
	U	238	**20.600**	**ug/L**	0.654	178710	0.996

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	0.9999
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	0.9999
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	0.9999
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	0.9999
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

Sample ID: QC Std 5

Report Date/Time: Thursday, January 14, 2010 08:22:40

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7	109.524				
	Be	9	104.734				
	B	11	103.051				
	Na	23	97.075				
	Mg	24	103.274				
	Al	27	94.104				
	P	31	93.711				
	K	39	89.687				
	Ca	43	89.691				
>	Sc	45		85.6			
	V	51	90.870				
	Cr	52	86.075				
	Cr	53					
	Mn	55	98.509				
	Fe	57	94.154				
	Co	59	97.423				
	Ni	60	95.974				
	Cu	63					
	Cu	65	94.315				
	Zn	66	95.647				
	Zn	67					
	Zn	68					
>	Ge	74		85.9			
	As	75	99.949				
	Se	77					
	Se	82	94.543				
	Kr	83					
	Sr	88	101.090				
	Y	89					
	Ag	107	93.701				
	Cd	111	95.986				
	Cd	114					
>	In	115		86.1			
	Sn	120	99.091				
	Sb	121	101.927				
	Sb	123					
	Ba	135					
	Ba	137	94.838				
	Ho	165					
>	Lu	175		87.5			
	Tl	205	87.523				
	Pb	208	94.177				
	Bi	209					
	U	238	102.999				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Thursday, January 14, 2010 08:26:03
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 nolrs thtimozr.mth
Dataset File: C:\elandata\Dataset\100113\QC Std 6.124

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**57.822**	**ug/L**	3.524	55200	0.042
	Be	9	**55.949**	**ug/L**	2.070	20050	0.015
	B	11	**104.889**	**ug/L**	3.144	37674	0.028
	Na	23	**4626.865**	**ug/L**	14.041	16326818	12.522
	Mg	24	**5417.036**	**ug/L**	6.022	13558994	10.413
	Al	27	**5144.571**	**ug/L**	5.455	17856554	13.711
	P	31	**5085.475**	**ug/L**	1.790	902826	0.689
	K	39	**4657.724**	**ug/L**	6.173	20341374	15.203
	Ca	43	**4985.436**	**ug/L**	1.221	43118	0.033
>	Sc	45		**ug/L**		1301399	1301399.408
	V	51	**50.422**	**ug/L**	2.129	220273	0.151
	Cr	52	**50.008**	**ug/L**	1.206	172117	0.127
	Cr	53		**ug/L**		126016	-0.030
	Mn	55	**52.115**	**ug/L**	0.877	257563	0.197
	Fe	57	**5175.676**	**ug/L**	1.572	497285	0.379
	Co	59	**51.125**	**ug/L**	3.248	183431	0.141
	Ni	60	**51.787**	**ug/L**	2.017	39774	0.031
	Cu	63		**ug/L**		91752	0.070
	Cu	65	**51.180**	**ug/L**	0.761	45240	0.035
	Zn	66	**52.228**	**ug/L**	1.109	30401	0.118
	Zn	67		**ug/L**		15353	-0.017
	Zn	68		**ug/L**		22601	0.083
>	Ge	74		**ug/L**		255923	255922.761
	As	75	**48.422**	**ug/L**	0.734	31735	0.123
	Se	77		**ug/L**		7288	-0.008
	Se	82	**50.069**	**ug/L**	2.468	2907	0.011
	Kr	83		**ug/L**		92	0.000
	Sr	88	**50.512**	**ug/L**	1.141	358319	2.536
	Y	89		**ug/L**		79	0.000
	Ag	107	**49.274**	**ug/L**	1.421	144350	1.021
	Cd	111	**49.866**	**ug/L**	0.394	34955	0.247
	Cd	114		**ug/L**		79486	0.562
>	In	115		**ug/L**		141269	141268.744
	Sn	120	**49.370**	**ug/L**	0.605	137363	0.970
	Sb	121	**47.342**	**ug/L**	5.118	117058	0.824
	Sb	123		**ug/L**		90016	0.634
	Ba	135		**ug/L**		32840	0.183
	Ba	137	**50.037**	**ug/L**	2.761	58361	0.325
	Ho	165		**ug/L**		27	0.000
>	Lu	175		**ug/L**		179376	179375.982
	Tl	205	**48.804**	**ug/L**	1.905	245775	1.367
	Pb	208	**50.143**	**ug/L**	1.103	424982	2.368
	Bi	209		**ug/L**		109	0.000
	U	238	**53.088**	**ug/L**	0.904	460680	2.568

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	0.9999
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	0.9999
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	0.9999
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	0.9999
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7	115.644				
	Be	9	111.898				
	B	11	104.889				
	Na	23	92.537				
	Mg	24	108.341				
	Al	27	101.873				
	P	31	101.710				
	K	39	93.154				
	Ca	43	99.709				
>	Sc	45		86.9			
	V	51	100.844				
	Cr	52	100.017				
	Cr	53					
	Mn	55	104.230				
	Fe	57	103.514				
	Co	59	102.250				
	Ni	60	103.574				
	Cu	63					
	Cu	65	102.359				
	Zn	66	104.456				
	Zn	67					
	Zn	68					
>	Ge	74		87.7			
	As	75	96.844				
	Se	77					
	Se	82	100.139				
	Kr	83					
	Sr	88	101.023				
	Y	89					
	Ag	107	98.547				
	Cd	111	99.731				
	Cd	114					
>	In	115		88.2			
	Sn	120	98.741				
	Sb	121	94.685				
	Sb	123					
	Ba	135					
	Ba	137	100.074				
	Ho	165					
>	Lu	175		87.6			
	Tl	205	97.607				
	Pb	208	100.286				
	Bi	209					
	U	238	106.177				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 6	Li	7	CCV is out of limits (+/- 10%)
QC Std 6	Be	9	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Thursday, January 14, 2010 08:31:58
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 noirs thtimozr.mth
Dataset File: C:\elandata\Dataset\100113\QC Std 7.125

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.063**	ug/L	26.352	148	0.000
	Be	9	**0.005**	ug/L	61.010	14	0.000
	B	11	**1.796**	ug/L	25.509	2178	0.000
	Na	23	**5.711**	ug/L	19.573	41059	0.015
	Mg	24	**0.641**	ug/L	37.026	3334	0.001
	Al	27	**1.052**	ug/L	53.629	10004	0.003
	P	31	**-1.015**	ug/L	116.078	6982	-0.000
	K	39	**-0.224**	ug/L	1794.259	601053	-0.001
	Ca	43	**2.792**	ug/L	256.398	805	0.000
>	Sc	45		ug/L		1424665	1424665.378
	V	51	**0.151**	ug/L	579.668	26801	0.000
	Cr	52	**-0.871**	ug/L	12.155	5005	-0.002
	Cr	53		ug/L		178406	-0.002
	Mn	55	**-0.052**	ug/L	30.203	1411	-0.000
	Fe	57	**9.617**	ug/L	52.883	6038	0.001
	Co	59	**0.007**	ug/L	53.697	196	0.000
	Ni	60	**0.022**	ug/L	83.668	93	0.000
	Cu	63		ug/L		182	0.000
	Cu	65	**0.031**	ug/L	50.247	145	0.000
	Zn	66	**0.000**	ug/L	5243.412	134	0.000
	Zn	67		ug/L		20980	-0.001
	Zn	68		ug/L		1315	-0.000
>	Ge	74		ug/L		276732	276732.026
	As	75	**-0.791**	ug/L	31.336	-251	-0.002
	Se	77		ug/L		10178	0.000
	Se	82	**-0.212**	ug/L	43.513	-11	-0.000
	Kr	83		ug/L		94	0.000
	Sr	88	**0.001**	ug/L	230.888	144	0.000
	Y	89		ug/L		38	-0.000
	Ag	107	**0.000**	ug/L	5068.495	65	0.000
	Cd	111	**0.014**	ug/L	99.753	22	0.000
	Cd	114		ug/L		42	0.000
>	In	115		ug/L		155781	155781.048
	Sn	120	**0.117**	ug/L	37.543	669	0.002
	Sb	121	**0.998**	ug/L	46.867	3467	0.017
	Sb	123		ug/L		2637	0.013
	Ba	135		ug/L		26	-0.000
	Ba	137	**-0.005**	ug/L	74.496	31	-0.000
	Ho	165		ug/L		16	0.000
>	Lu	175		ug/L		195755	195754.761
	Tl	205	**0.234**	ug/L	21.690	1922	0.007
	Pb	208	**0.003**	ug/L	106.806	275	0.000
	Bi	209		ug/L		22	0.000
	U	238	**0.066**	ug/L	47.736	732	0.003

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	0.9999
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	0.9999
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	0.9999
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	0.9999
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		95.1			
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		94.8			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		97.3			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		95.6			
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202004457
Sample Date/Time: Thursday, January 14, 2010 08:37:54
Sample Type:
Sample Description: LANL 6020 MB
Number of Replicates: 3
Batch ID: 936823|2|rmj
Method File: c:\elandata\Method\6020 nolrs thtimozr.mth
Dataset File: C:\elandata\Dataset\100113\1202004457.126

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**-0.013**	**ug/L**	137.843	72	-0.000
	Be	9	**0.005**	**ug/L**	130.740	15	0.000
	B	11	**0.121**	**ug/L**	48.283	1603	0.000
	Na	23	**15.703**	**ug/L**	30.066	82580	0.042
	Mg	24	**0.595**	**ug/L**	90.625	3334	0.001
	Al	27	**1.882**	**ug/L**	41.066	13673	0.005
	P	31	**12.679**	**ug/L**	9.751	9988	0.002
	K	39	**-11.533**	**ug/L**	53.020	569485	-0.038
	Ca	43	**-14.318**	**ug/L**	19.160	670	-0.000
>	Sc	45		**ug/L**		1478392	1478392.137
	V	51	**-1.799**	**ug/L**	12.795	19235	-0.005
	Cr	52	**-1.294**	**ug/L**	5.334	3619	-0.003
	Cr	53		**ug/L**		102134	-0.058
	Mn	55	**0.084**	**ug/L**	5.547	2220	0.000
	Fe	57	**13.225**	**ug/L**	7.803	6662	0.001
	Co	59	**0.004**	**ug/L**	17.363	190	0.000
	Ni	60	**0.773**	**ug/L**	1.894	750	0.000
	Cu	63		**ug/L**		826	0.000
	Cu	65	**0.322**	**ug/L**	7.930	442	0.000
	Zn	66	**0.699**	**ug/L**	5.912	594	0.002
	Zn	67		**ug/L**		10066	-0.042
	Zn	68		**ug/L**		1215	-0.001
>	Ge	74		**ug/L**		287264	287264.479
	As	75	**-0.131**	**ug/L**	316.803	218	-0.000
	Se	77		**ug/L**		4647	-0.020
	Se	82	**-0.212**	**ug/L**	137.152	-12	-0.000
	Kr	83		**ug/L**		88	-0.000
	Sr	88	**0.025**	**ug/L**	11.625	343	0.001
	Y	89		**ug/L**		46	0.000
	Ag	107	**-0.006**	**ug/L**	42.778	45	-0.000
	Cd	111	**0.011**	**ug/L**	92.169	20	0.000
	Cd	114		**ug/L**		30	-0.000
>	In	115		**ug/L**		161174	161174.446
	Sn	120	**0.034**	**ug/L**	20.867	428	0.001
	Sb	121	**-0.065**	**ug/L**	53.724	611	-0.001
	Sb	123		**ug/L**		476	-0.001
	Ba	135		**ug/L**		57	0.000
	Ba	137	**0.049**	**ug/L**	28.058	104	0.000
	Ho	165		**ug/L**		19	0.000
>	Lu	175		**ug/L**		205209	205208.544
	Tl	205	**0.096**	**ug/L**	16.007	1222	0.003
	Pb	208	**0.050**	**ug/L**	1.161	746	0.002
	Bi	209		**ug/L**		36	0.000
	U	238	**0.007**	**ug/L**	38.355	183	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	0.9999
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	0.9999
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	0.9999
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	0.9999
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		98.7			
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		98.4			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		100.6			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		100.2			
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202004458
Sample Date/Time: Thursday, January 14, 2010 08:49:47
Sample Type:
Sample Description: LANL 6020 LCS
Number of Replicates: 3
Batch ID: 936823|40|rmj
Method File: c:\elandata\Method\6020 noirs thtimozr.mth
Dataset File: C:\elandata\Dataset\100113\1202004458.128

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**2.747**	ug/L	3.736	2834	0.002
	Be	9	**20.660**	ug/L	0.908	7798	0.006
	B	11	**40.802**	ug/L	3.398	16299	0.011
	Na	23	**271.776**	ug/L	11.127	1025852	0.736
	Mg	24	**1042.700**	ug/L	7.423	2744989	2.004
	Al	27	**3396.259**	ug/L	5.417	12401463	9.052
	P	31	**184.433**	ug/L	0.695	41094	0.025
	K	39	**1031.880**	ug/L	10.943	5193057	3.368
	Ca	43	**2398.370**	ug/L	1.301	22212	0.016
>	Sc	45		ug/L		1369214	1369213.821
	V	51	**27.896**	ug/L	1.278	139481	0.083
	Cr	52	**58.858**	ug/L	1.866	211743	0.149
	Cr	53		ug/L		143770	-0.022
	Mn	55	**136.640**	ug/L	1.054	707872	0.516
	Fe	57	**4352.196**	ug/L	0.422	440774	0.318
	Co	59	**23.874**	ug/L	0.405	90229	0.066
	Ni	60	**36.526**	ug/L	1.663	29537	0.022
	Cu	63		ug/L		83270	0.061
	Cu	65	**43.723**	ug/L	1.162	40674	0.030
	Zn	66	**145.878**	ug/L	1.648	89022	0.330
	Zn	67		ug/L		25895	0.019
	Zn	68		ug/L		65662	0.239
>	Ge	74		ug/L		269044	269043.642
	As	75	**25.696**	ug/L	1.665	17842	0.065
	Se	77		ug/L		8937	-0.003
	Se	82	**70.525**	ug/L	2.002	4303	0.016
	Kr	83		ug/L		105	0.000
	Sr	88	**55.761**	ug/L	1.804	415581	2.799
	Y	89		ug/L		24362	0.164
	Ag	107	**6.493**	ug/L	1.944	20039	0.135
	Cd	111	**14.539**	ug/L	1.112	10715	0.072
	Cd	114		ug/L		24974	0.168
>	In	115		ug/L		148443	148442.504
	Sn	120	**9.239**	ug/L	0.690	27252	0.182
	Sb	121	**14.953**	ug/L	1.688	39340	0.260
	Sb	123		ug/L		30270	0.200
	Ba	135		ug/L		32256	0.169
	Ba	137	**45.575**	ug/L	1.140	56676	0.296
	Ho	165		ug/L		1204	0.006
>	Lu	175		ug/L		191228	191228.076
	Tl	205	**27.669**	ug/L	0.787	148844	0.775
	Pb	208	**19.637**	ug/L	2.294	177555	0.927
	Bi	209		ug/L		1452	0.007
	U	238	**0.548**	ug/L	0.665	5173	0.026

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	0.9999
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	0.9999
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	0.9999
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	0.9999
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45			91.4		
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74			92.2		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115			92.7		
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175			93.4		
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Thursday, January 14, 2010 08:55:41
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 nolrs thtlmozr.mth
Dataset File: C:\elandata\Dataset\100113\QC Std 6.129

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**55.692**	**ug/L**	1.907	54152	0.041
	Be	9	**54.496**	**ug/L**	2.884	19882	0.015
	B	11	**102.234**	**ug/L**	4.551	37399	0.027
	Na	23	**5069.385**	**ug/L**	2.815	18192890	13.719
	Mg	24	**4956.902**	**ug/L**	3.814	12623140	9.528
	Al	27	**4974.051**	**ug/L**	3.652	17565505	13.257
	P	31	**5100.551**	**ug/L**	1.573	921758	0.691
	K	39	**4806.425**	**ug/L**	9.762	21331479	15.688
	Ca	43	**5027.345**	**ug/L**	2.342	44254	0.033
>	Sc	45		**ug/L**		1325183	1325182.921
	V	51	**49.677**	**ug/L**	1.180	221354	0.149
	Cr	52	**49.735**	**ug/L**	2.159	174320	0.126
	Cr	53		**ug/L**		132254	-0.027
	Mn	55	**51.599**	**ug/L**	0.968	259686	0.195
	Fe	57	**5188.951**	**ug/L**	2.047	507628	0.380
	Co	59	**51.022**	**ug/L**	1.095	186427	0.141
	Ni	60	**51.981**	**ug/L**	1.363	40651	0.031
	Cu	63		**ug/L**		95120	0.072
	Cu	65	**50.880**	**ug/L**	0.840	45790	0.034
	Zn	66	**51.583**	**ug/L**	0.744	30837	0.117
	Zn	67		**ug/L**		15989	-0.016
	Zn	68		**ug/L**		23521	0.085
>	Ge	74		**ug/L**		262825	262825.382
	As	75	**47.912**	**ug/L**	0.176	32251	0.122
	Se	77		**ug/L**		7659	-0.007
	Se	82	**50.263**	**ug/L**	1.160	2997	0.011
	Kr	83		**ug/L**		92	0.000
	Sr	88	**52.242**	**ug/L**	1.396	371066	2.622
	Y	89		**ug/L**		73	0.000
	Ag	107	**50.394**	**ug/L**	1.010	147826	1.045
	Cd	111	**50.181**	**ug/L**	0.552	35221	0.249
	Cd	114		**ug/L**		81447	0.576
>	In	115		**ug/L**		141454	141453.906
	Sn	120	**50.298**	**ug/L**	1.277	140121	0.989
	Sb	121	**48.229**	**ug/L**	5.918	119387	0.839
	Sb	123		**ug/L**		91174	0.641
	Ba	135		**ug/L**		33834	0.188
	Ba	137	**51.434**	**ug/L**	1.074	60167	0.334
	Ho	165		**ug/L**		24	0.000
>	Lu	175		**ug/L**		179882	179881.901
	Tl	205	**50.163**	**ug/L**	0.322	253347	1.405
	Pb	208	**51.347**	**ug/L**	1.250	436434	2.425
	Bi	209		**ug/L**		108	0.000
	U	238	**53.734**	**ug/L**	0.390	467609	2.599

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	0.9999
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	0.9999
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	0.9999
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	0.9999
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7	111.385				
	Be	9	108.992				
	B	11	102.234				
	Na	23	101.388				
	Mg	24	99.138				
	Al	27	98.496				
	P	31	102.011				
	K	39	96.129				
	Ca	43	100.547				
>	Sc	45		88.5			
	V	51	99.355				
	Cr	52	99.471				
	Cr	53					
	Mn	55	103.198				
	Fe	57	103.779				
	Co	59	102.043				
	Ni	60	103.962				
	Cu	63					
	Cu	65	101.759				
	Zn	66	103.166				
	Zn	67					
	Zn	68					
>	Ge	74		90.1			
	As	75	95.824				
	Se	77					
	Se	82	100.525				
	Kr	83					
	Sr	88	104.483				
	Y	89					
	Ag	107	100.787				
	Cd	111	100.363				
	Cd	114					
>	In	115		88.3			
	Sn	120	100.597				
	Sb	121	96.457				
	Sb	123					
	Ba	135					
	Ba	137	102.868				
	Ho	165					
>	Lu	175		87.8			
	Tl	205	100.326				
	Pb	208	102.694				
	Bi	209					
	U	238	107.468				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 6	Li	7	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Thursday, January 14, 2010 09:01:36
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 nolrs thtimozr.mth
Dataset File: C:\elandata\Dataset\100113\QC Std 7.130

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.010**	**ug/L**	83.446	93	0.000
	Be	9	**0.006**	**ug/L**	238.814	14	0.000
	B	11	**1.753**	**ug/L**	36.507	2182	0.000
	Na	23	**1.147**	**ug/L**	51.412	23686	0.003
	Mg	24	**-0.217**	**ug/L**	1.668	1000	-0.000
	Al	27	**-0.628**	**ug/L**	88.072	3667	-0.002
	P	31	**-0.577**	**ug/L**	109.096	7131	-0.000
	K	39	**-0.835**	**ug/L**	885.152	603864	-0.003
	Ca	43	**1.688**	**ug/L**	348.772	801	0.000
>	Sc	45		**ug/L**		1437197	1437196.902
	V	51	**0.538**	**ug/L**	111.751	28758	0.002
	Cr	52	**-0.322**	**ug/L**	53.508	7048	-0.001
	Cr	53		**ug/L**		184526	0.002
	Mn	55	**-0.050**	**ug/L**	6.406	1433	-0.000
	Fe	57	**2.072**	**ug/L**	61.704	5303	0.000
	Co	59	**0.001**	**ug/L**	258.136	172	0.000
	Ni	60	**0.016**	**ug/L**	72.044	89	0.000
	Cu	63		**ug/L**		174	0.000
	Cu	65	**0.024**	**ug/L**	142.124	140	0.000
	Zn	66	**0.038**	**ug/L**	30.859	158	0.000
	Zn	67		**ug/L**		20944	-0.001
	Zn	68		**ug/L**		1385	0.000
>	Ge	74		**ug/L**		277369	277369.312
	As	75	**0.032**	**ug/L**	2194.592	328	0.000
	Se	77		**ug/L**		10599	0.002
	Se	82	**-0.144**	**ug/L**	291.730	-7	-0.000
	Kr	83		**ug/L**		92	0.000
	Sr	88	**0.001**	**ug/L**	159.480	139	0.000
	Y	89		**ug/L**		49	0.000
	Ag	107	**0.006**	**ug/L**	16.377	81	0.000
	Cd	111	**0.005**	**ug/L**	223.846	14	0.000
	Cd	114		**ug/L**		29	-0.000
>	In	115		**ug/L**		152604	152604.419
	Sn	120	**0.103**	**ug/L**	45.098	613	0.002
	Sb	121	**0.973**	**ug/L**	43.953	3338	0.017
	Sb	123		**ug/L**		2537	0.013
	Ba	135		**ug/L**		28	0.000
	Ba	137	**-0.001**	**ug/L**	337.814	35	-0.000
	Ho	165		**ug/L**		18	0.000
>	Lu	175		**ug/L**		195365	195364.917
	Tl	205	**0.475**	**ug/L**	17.026	3236	0.013
	Pb	208	**0.001**	**ug/L**	294.162	254	0.000
	Bi	209		**ug/L**		25	0.000
	U	238	**0.062**	**ug/L**	51.027	698	0.003

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	0.9999
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	0.9999
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	0.9999
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	0.9999
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		96.0			
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		95.0			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		95.3			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		95.4			
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 243550001
Sample Date/Time: Thursday, January 14, 2010 09:07:32
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 936823|2|rmj
Method File: c:\elandata\Method\6020 nolrs thtimozr.mth
Dataset File: C:\elandata\Dataset\100113\243550001.131

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**41.185**	**ug/L**	2.676	43383	0.030
	Be	9	**2.573**	**ug/L**	5.156	1028	0.001
	B	11	**3.626**	**ug/L**	6.176	2894	0.001
	Na	23	**541.322**	**ug/L**	2.658	2121014	1.465
	Mg	24	**1776.231**	**ug/L**	8.064	4899628	3.414
	Al	27	**12852.166**	**ug/L**	7.869	49140172	34.254
	P	31	**223.068**	**ug/L**	0.990	50571	0.030
	K	39	**1697.828**	**ug/L**	5.928	8559983	5.542
	Ca	43	**1614.919**	**ug/L**	1.707	15928	0.011
>	Sc	45		**ug/L**		1434900	1434900.025
	V	51	**11.557**	**ug/L**	2.196	76021	0.035
	Cr	52	**5.446**	**ug/L**	3.929	27986	0.014
	Cr	53		**ug/L**		95052	-0.061
	Mn	55	**962.279**	**ug/L**	1.281	5214150	3.633
	Fe	57	**16441.967**	**ug/L**	1.238	1730881	1.203
	Co	59	**2.056**	**ug/L**	1.913	8296	0.006
	Ni	60	**5.694**	**ug/L**	1.683	4889	0.003
	Cu	63		**ug/L**		14778	0.010
	Cu	65	**7.407**	**ug/L**	2.212	7319	0.005
	Zn	66	**102.523**	**ug/L**	1.102	62332	0.232
	Zn	67		**ug/L**		19049	-0.006
	Zn	68		**ug/L**		45321	0.164
>	Ge	74		**ug/L**		267870	267869.526
	As	75	**1.970**	**ug/L**	19.238	1633	0.005
	Se	77		**ug/L**		4074	-0.021
	Se	82	**0.353**	**ug/L**	87.632	23	0.000
	Kr	83		**ug/L**		175	0.000
	Sr	88	**10.190**	**ug/L**	2.221	78431	0.512
	Y	89		**ug/L**		839620	5.485
	Ag	107	**0.115**	**ug/L**	3.666	429	0.002
	Cd	111	**0.887**	**ug/L**	3.961	684	0.004
	Cd	114		**ug/L**		262	0.002
>	In	115		**ug/L**		153093	153092.678
	Sn	120	**1.685**	**ug/L**	0.975	5375	0.033
	Sb	121	**0.103**	**ug/L**	21.413	1027	0.002
	Sb	123		**ug/L**		816	0.002
	Ba	135		**ug/L**		63913	0.309
	Ba	137	**83.951**	**ug/L**	1.012	112726	0.546
	Ho	165		**ug/L**		37171	0.180
>	Lu	175		**ug/L**		206548	206547.640
	Tl	205	**0.331**	**ug/L**	9.205	2591	0.009
	Pb	208	**9.090**	**ug/L**	1.829	88905	0.429
	Bi	209		**ug/L**		530	0.002
	U	238	**2.242**	**ug/L**	1.761	22504	0.108

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	0.9999
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	0.9999
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	0.9999
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	0.9999
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		95.8			
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		91.8			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		95.6			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		100.9			
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 243550002
Sample Date/Time: Thursday, January 14, 2010 09:13:29
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 936823|2|rmj
Method File: c:\elandata\Method\6020 noirs thtimozr.mth
Dataset File: C:\elandata\Dataset\100113\243550002.132

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**77.010**	ug/L	2.770	81677	0.056
	Be	9	**8.004**	ug/L	2.126	3198	0.002
	B	11	**20.276**	ug/L	3.224	9319	0.005
	Na	23	**1063.389**	ug/L	9.198	4178950	2.878
	Mg	24	**11156.313**	ug/L	1.988	31013750	21.445
	Al	27	**84816.706**	ug/L	7.763	326773273	226.054
	P	31	**373.454**	ug/L	2.808	80410	0.051
	K	39	**7609.051**	ug/L	5.030	36522596	24.836
	Ca	43	**7950.478**	ug/L	0.735	75937	0.052
>	Sc	45		ug/L		1446165	1446164.775
	V	51	**66.278**	ug/L	0.215	313430	0.198
	Cr	52	**38.081**	ug/L	0.918	147624	0.096
	Cr	53		ug/L		95320	-0.061
	Mn	55	**1003.596**	ug/L	1.317	5480659	3.789
	Fe	57	**49347.866**	ug/L	1.113	5225455	3.610
	Co	59	**9.468**	ug/L	0.619	37896	0.026
	Ni	60	**31.203**	ug/L	0.328	26663	0.018
	Cu	63		ug/L		58938	0.041
	Cu	65	**29.402**	ug/L	2.292	28926	0.020
	Zn	66	**182.052**	ug/L	0.988	107847	0.412
	Zn	67		ug/L		25563	0.021
	Zn	68		ug/L		78036	0.294
>	Ge	74		ug/L		261246	261245.685
	As	75	**7.991**	ug/L	1.916	5585	0.020
	Se	77		ug/L		3363	-0.024
	Se	82	**-1.092**	ug/L	37.929	-63	-0.000
	Kr	83		ug/L		262	0.001
	Sr	88	**60.650**	ug/L	1.308	454127	3.045
	Y	89		ug/L		928380	6.225
	Ag	107	**0.406**	ug/L	7.174	1315	0.008
	Cd	111	**1.616**	ug/L	3.900	1206	0.008
	Cd	114		ug/L		298	0.002
>	In	115		ug/L		149123	149123.497
	Sn	120	**1.299**	ug/L	2.047	4104	0.026
	Sb	121	**0.090**	ug/L	10.997	966	0.002
	Sb	123		ug/L		714	0.001
	Ba	135		ug/L		140385	0.693
	Ba	137	**189.135**	ug/L	1.060	248943	1.229
	Ho	165		ug/L		41754	0.206
>	Lu	175		ug/L		202486	202486.344
	Tl	205	**0.858**	ug/L	2.164	5524	0.024
	Pb	208	**31.830**	ug/L	1.877	304606	1.503
	Bi	209		ug/L		8455	0.042
	U	238	**3.184**	ug/L	1.377	31300	0.154

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	0.9999
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	0.9999
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	0.9999
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	0.9999
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		96.6			
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		89.5			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		93.1			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		98.9			
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Al 27 Upper, S, EEE	Al	27	Sample is out of limits (over linear range)
Mn 55 Upper, S, EEE	Mn	55	Sample is out of limits (over linear range)

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: 243550003
Sample Date/Time: Thursday, January 14, 2010 09:19:25
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 936823|2|rmj
Method File: c:\elandata\Method\6020 nolrs thtimozr.mth
Dataset File: C:\elandata\Dataset\100113\243550003.133

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**18.292**	**ug/L**	1.501	18605	0.013
	Be	9	**1.490**	**ug/L**	0.555	579	0.000
	B	11	**1.168**	**ug/L**	11.007	1884	0.000
	Na	23	**681.674**	**ug/L**	3.240	2567820	1.845
	Mg	24	**781.649**	**ug/L**	8.862	2078672	1.503
	Al	27	**4745.744**	**ug/L**	3.115	17487892	12.648
	P	31	**176.221**	**ug/L**	0.304	39942	0.024
	K	39	**1135.537**	**ug/L**	0.928	5706656	3.706
	Ca	43	**859.162**	**ug/L**	1.049	8516	0.006
>	Sc	45		**ug/L**		1382048	1382048.305
	V	51	**7.319**	**ug/L**	2.973	55689	0.022
	Cr	52	**3.975**	**ug/L**	2.385	21810	0.010
	Cr	53		**ug/L**		81533	-0.068
	Mn	55	**981.386**	**ug/L**	1.617	5121907	3.705
	Fe	57	**11464.639**	**ug/L**	1.324	1163945	0.839
	Co	59	**1.389**	**ug/L**	1.555	5451	0.004
	Ni	60	**5.397**	**ug/L**	1.963	4467	0.003
	Cu	63		**ug/L**		14961	0.011
	Cu	65	**7.767**	**ug/L**	1.954	7386	0.005
	Zn	66	**99.720**	**ug/L**	0.731	58474	0.226
	Zn	67		**ug/L**		17225	-0.010
	Zn	68		**ug/L**		42182	0.158
>	Ge	74		**ug/L**		258324	258324.239
	As	75	**2.593**	**ug/L**	22.710	1985	0.007
	Se	77		**ug/L**		3180	-0.024
	Se	82	**0.519**	**ug/L**	64.270	32	0.000
	Kr	83		**ug/L**		147	0.000
	Sr	88	**7.213**	**ug/L**	1.385	53899	0.362
	Y	89		**ug/L**		799330	5.383
	Ag	107	**0.154**	**ug/L**	7.407	536	0.003
	Cd	111	**1.033**	**ug/L**	5.346	772	0.005
	Cd	114		**ug/L**		120	0.001
>	In	115		**ug/L**		148498	148497.632
	Sn	120	**1.419**	**ug/L**	1.183	4438	0.028
	Sb	121	**0.041**	**ug/L**	19.766	836	0.001
	Sb	123		**ug/L**		632	0.001
	Ba	135		**ug/L**		47654	0.243
	Ba	137	**66.104**	**ug/L**	1.241	84302	0.430
	Ho	165		**ug/L**		37784	0.193
>	Lu	175		**ug/L**		196138	196137.984
	Tl	205	**0.139**	**ug/L**	3.808	1405	0.004
	Pb	208	**8.213**	**ug/L**	0.889	76323	0.388
	Bi	209		**ug/L**		638	0.003
	U	238	**2.431**	**ug/L**	0.725	23170	0.118

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	0.9999
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	0.9999
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	0.9999
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	0.9999
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		92.3			
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		88.5			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		92.7			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		95.8			
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 243550004
Sample Date/Time: Thursday, January 14, 2010 09:25:21
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 936823|2|rmj
Method File: c:\elandata\Method\6020 noirs thtimozr.mth
Dataset File: C:\elandata\Dataset\100113\243550004.134

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**22.826**	**ug/L**	3.612	23204	0.017
	Be	9	**1.959**	**ug/L**	5.983	758	0.001
	B	11	**2.993**	**ug/L**	7.016	2557	0.001
	Na	23	**677.420**	**ug/L**	11.087	2552051	1.833
	Mg	24	**1874.190**	**ug/L**	12.893	4986685	3.603
	Al	27	**12417.194**	**ug/L**	5.151	45769546	33.094
	P	31	**187.463**	**ug/L**	1.727	42074	0.025
	K	39	**1423.789**	**ug/L**	3.533	7010626	4.647
	Ca	43	**1408.451**	**ug/L**	2.603	13485	0.009
>	Sc	45		**ug/L**		1382948	1382947.616
	V	51	**14.583**	**ug/L**	4.913	85763	0.044
	Cr	52	**5.163**	**ug/L**	1.627	25978	0.013
	Cr	53		**ug/L**		81346	-0.068
	Mn	55	**766.697**	**ug/L**	1.165	4004702	2.894
	Fe	57	**14044.466**	**ug/L**	1.214	1425831	1.027
	Co	59	**2.079**	**ug/L**	0.687	8084	0.006
	Ni	60	**7.778**	**ug/L**	2.535	6409	0.005
	Cu	63		**ug/L**		17597	0.013
	Cu	65	**9.025**	**ug/L**	2.259	8568	0.006
	Zn	66	**74.304**	**ug/L**	1.308	43514	0.168
	Zn	67		**ug/L**		15041	-0.018
	Zn	68		**ug/L**		31671	0.118
>	Ge	74		**ug/L**		257812	257812.497
	As	75	**2.915**	**ug/L**	13.615	2192	0.007
	Se	77		**ug/L**		3248	-0.024
	Se	82	**0.485**	**ug/L**	51.270	30	0.000
	Kr	83		**ug/L**		153	0.000
	Sr	88	**11.772**	**ug/L**	1.078	87101	0.591
	Y	89		**ug/L**		764249	5.193
	Ag	107	**0.158**	**ug/L**	6.900	543	0.003
	Cd	111	**0.873**	**ug/L**	3.106	648	0.004
	Cd	114		**ug/L**		88	0.000
>	In	115		**ug/L**		147175	147175.248
	Sn	120	**1.082**	**ug/L**	2.611	3423	0.021
	Sb	121	**0.001**	**ug/L**	129.854	727	0.000
	Sb	123		**ug/L**		563	0.000
	Ba	135		**ug/L**		45336	0.235
	Ba	137	**64.167**	**ug/L**	0.453	80460	0.417
	Ho	165		**ug/L**		35456	0.184
>	Lu	175		**ug/L**		192837	192836.722
	Tl	205	**0.173**	**ug/L**	8.506	1562	0.005
	Pb	208	**9.509**	**ug/L**	0.153	86839	0.449
	Bi	209		**ug/L**		988	0.005
	U	238	**2.610**	**ug/L**	1.953	24452	0.126

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	0.9999
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	0.9999
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	0.9999
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	0.9999
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		92.4			
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		88.3			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		91.9			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		94.2			
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 243550005
Sample Date/Time: Thursday, January 14, 2010 09:31:17
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 936823|2|rmj
Method File: c:\elandata\Method\6020 noirs thtimozr.mth
Dataset File: C:\elandata\Dataset\100113\243550005.135

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**55.837**	**ug/L**	4.001	56321	0.041
	Be	9	**2.356**	**ug/L**	1.882	903	0.001
	B	11	**1.487**	**ug/L**	9.749	1991	0.000
	Na	23	**745.579**	**ug/L**	8.556	2793852	2.018
	Mg	24	**926.603**	**ug/L**	4.903	2451174	1.781
	Al	27	**5715.198**	**ug/L**	6.920	20955534	15.232
	P	31	**240.454**	**ug/L**	1.596	51699	0.033
	K	39	**1412.825**	**ug/L**	1.832	6922173	4.611
	Ca	43	**1509.135**	**ug/L**	1.146	14313	0.010
>	Sc	45		**ug/L**		1374927	1374926.832
	V	51	**5.585**	**ug/L**	3.850	48265	0.017
	Cr	52	**2.431**	**ug/L**	3.229	16325	0.006
	Cr	53		**ug/L**		79112	-0.069
	Mn	55	**1384.155**	**ug/L**	1.538	7185631	5.225
	Fe	57	**14967.046**	**ug/L**	1.368	1510149	1.095
	Co	59	**1.568**	**ug/L**	0.770	6100	0.004
	Ni	60	**3.483**	**ug/L**	0.079	2893	0.002
	Cu	63		**ug/L**		11326	0.008
	Cu	65	**5.851**	**ug/L**	1.575	5563	0.004
	Zn	66	**94.774**	**ug/L**	1.265	55488	0.215
	Zn	67		**ug/L**		16485	-0.013
	Zn	68		**ug/L**		39806	0.149
>	Ge	74		**ug/L**		257898	257897.736
	As	75	**1.414**	**ug/L**	9.533	1209	0.004
	Se	77		**ug/L**		3167	-0.024
	Se	82	**-0.036**	**ug/L**	422.155	-0	-0.000
	Kr	83		**ug/L**		168	0.000
	Sr	88	**7.883**	**ug/L**	1.447	57424	0.396
	Y	89		**ug/L**		793455	5.479
	Ag	107	**0.151**	**ug/L**	5.997	513	0.003
	Cd	111	**1.004**	**ug/L**	9.598	731	0.005
	Cd	114		**ug/L**		198	0.001
>	In	115		**ug/L**		144815	144815.124
	Sn	120	**1.827**	**ug/L**	0.813	5490	0.036
	Sb	121	**0.092**	**ug/L**	18.063	943	0.002
	Sb	123		**ug/L**		717	0.001
	Ba	135		**ug/L**		46171	0.241
	Ba	137	**66.898**	**ug/L**	1.838	83265	0.435
	Ho	165		**ug/L**		34201	0.179
>	Lu	175		**ug/L**		191426	191425.955
	Tl	205	**0.084**	**ug/L**	8.984	1073	0.002
	Pb	208	**4.692**	**ug/L**	0.852	42653	0.222
	Bi	209		**ug/L**		206	0.001
	U	238	**2.234**	**ug/L**	0.871	20793	0.108

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	0.9999
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	0.9999
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	0.9999
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	0.9999
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		91.8			
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		88.4			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		90.4			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		93.5			
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Mn 55 Upper, S, EEI	Mn	55	Sample is out of limits (over linear range)

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: 243550006
Sample Date/Time: Thursday, January 14, 2010 09:37:14
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 936823|2|rm|
Method File: c:\elandata\Method\6020 noirs thtimozr.mth
Dataset File: C:\elandata\Dataset\100113\243550006.136

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**52.538**	**ug/L**	2.983	52988	0.038
	Be	9	**2.151**	**ug/L**	4.988	825	0.001
	B	11	**0.849**	**ug/L**	8.795	1757	0.000
	Na	23	**1031.672**	**ug/L**	4.030	3855673	2.792
	Mg	24	**601.423**	**ug/L**	3.119	1590598	1.156
	Al	27	**4321.197**	**ug/L**	3.952	15838614	11.517
	P	31	**268.085**	**ug/L**	1.012	56823	0.036
	K	39	**1498.672**	**ug/L**	6.468	7304519	4.892
	Ca	43	**1195.771**	**ug/L**	1.102	11493	0.008
>	Sc	45		**ug/L**		1374514	1374513.836
	V	51	**3.550**	**ug/L**	1.500	39883	0.011
	Cr	52	**3.923**	**ug/L**	1.325	21511	0.010
	Cr	53		**ug/L**		78821	-0.069
	Mn	55	**1011.045**	**ug/L**	0.381	5247965	3.817
	Fe	57	**14865.991**	**ug/L**	1.975	1499520	1.087
	Co	59	**1.333**	**ug/L**	1.286	5208	0.004
	Ni	60	**2.838**	**ug/L**	1.173	2370	0.002
	Cu	63		**ug/L**		11617	0.008
	Cu	65	**6.057**	**ug/L**	0.727	5753	0.004
	Zn	66	**91.520**	**ug/L**	2.192	54019	0.207
	Zn	67		**ug/L**		16151	-0.015
	Zn	68		**ug/L**		39309	0.146
>	Ge	74		**ug/L**		260015	260014.883
	As	75	**1.855**	**ug/L**	14.604	1508	0.005
	Se	77		**ug/L**		3055	-0.025
	Se	82	**1.018**	**ug/L**	29.471	62	0.000
	Kr	83		**ug/L**		130	0.000
	Sr	88	**7.373**	**ug/L**	1.291	54132	0.370
	Y	89		**ug/L**		822606	5.638
	Ag	107	**0.151**	**ug/L**	2.511	516	0.003
	Cd	111	**1.012**	**ug/L**	9.999	742	0.005
	Cd	114		**ug/L**		170	0.001
>	In	115		**ug/L**		145914	145913.922
	Sn	120	**2.309**	**ug/L**	1.935	6914	0.045
	Sb	121	**0.074**	**ug/L**	6.721	906	0.001
	Sb	123		**ug/L**		715	0.001
	Ba	135		**ug/L**		35603	0.183
	Ba	137	**50.337**	**ug/L**	1.298	63561	0.327
	Ho	165		**ug/L**		36523	0.188
>	Lu	175		**ug/L**		194152	194151.716
	Tl	205	**0.047**	**ug/L**	15.615	890	0.001
	Pb	208	**6.171**	**ug/L**	0.682	56828	0.291
	Bi	209		**ug/L**		136	0.001
	U	238	**2.302**	**ug/L**	1.142	21725	0.111

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	0.9999
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	0.9999
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	0.9999
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	0.9999
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		91.8			
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		89.1			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		91.1			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		94.8			
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Mn 55 Upper, S, EEI	Mn	55	Sample is out of limits (over linear range)

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Thursday, January 14, 2010 09:43:09
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 nolrs thtimozr.mth
Dataset File: C:\elandata\Dataset\100113\QC Std 6.137

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**68.214**	ug/L	3.218	62572	0.050
	Be	9	**64.824**	ug/L	0.834	22327	0.018
	B	11	**111.796**	ug/L	2.052	38507	0.030
	Na	23	**5245.309**	ug/L	12.453	17748712	14.195
	Mg	24	**5477.958**	ug/L	2.247	13169962	10.530
	Al	27	**4940.625**	ug/L	4.805	16478922	13.168
	P	31	**5024.931**	ug/L	1.123	857430	0.680
	K	39	**4799.207**	ug/L	3.334	20115961	15.664
	Ca	43	**4867.836**	ug/L	1.071	40484	0.032
>	Sc	45		ug/L		1250851	1250851.407
	V	51	**48.574**	ug/L	0.405	204830	0.145
	Cr	52	**50.084**	ug/L	1.527	165682	0.127
	Cr	53		ug/L		119683	-0.031
	Mn	55	**52.401**	ug/L	0.690	248925	0.198
	Fe	57	**5250.457**	ug/L	0.825	484840	0.384
	Co	59	**52.103**	ug/L	2.000	179680	0.144
	Ni	60	**52.409**	ug/L	1.749	38687	0.031
	Cu	63		ug/L		90055	0.072
	Cu	65	**51.219**	ug/L	0.912	43510	0.035
	Zn	66	**53.445**	ug/L	0.601	29610	0.121
	Zn	67		ug/L		14794	-0.016
	Zn	68		ug/L		21900	0.085
>	Ge	74		ug/L		243632	243632.041
	As	75	**49.681**	ug/L	0.642	30988	0.126
	Se	77		ug/L		6728	-0.009
	Se	82	**51.013**	ug/L	0.347	2819	0.012
	Kr	83		ug/L		100	0.000
	Sr	88	**51.032**	ug/L	1.153	346115	2.562
	Y	89		ug/L		118	0.001
	Ag	107	**50.140**	ug/L	0.246	140443	1.039
	Cd	111	**51.103**	ug/L	0.682	34247	0.253
	Cd	114		ug/L		77960	0.577
>	In	115		ug/L		135061	135060.906
	Sn	120	**50.139**	ug/L	1.224	133374	0.985
	Sb	121	**49.007**	ug/L	6.877	115820	0.853
	Sb	123		ug/L		89276	0.657
	Ba	135		ug/L		31514	0.183
	Ba	137	**50.347**	ug/L	2.148	56459	0.327
	Ho	165		ug/L		31	0.000
>	Lu	175		ug/L		172432	172431.784
	Tl	205	**48.096**	ug/L	1.317	232876	1.347
	Pb	208	**50.127**	ug/L	0.233	408427	2.367
	Bi	209		ug/L		89	0.000
	U	238	**53.024**	ug/L	1.432	442332	2.565

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	0.9999
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	0.9999
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	0.9999
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	0.9999
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7	136.429				
	Be	9	129.647				
	B	11	111.796				
	Na	23	104.906				
	Mg	24	109.559				
	Al	27	97.834				
	P	31	100.499				
	K	39	95.984				
	Ca	43	97.357				
>	Sc	45		83.5			
	V	51	97.149				
	Cr	52	100.169				
	Cr	53					
	Mn	55	104.802				
	Fe	57	105.009				
	Co	59	104.205				
	Ni	60	104.819				
	Cu	63					
	Cu	65	102.437				
	Zn	66	106.890				
	Zn	67					
	Zn	68					
>	Ge	74		83.5			
	As	75	99.362				
	Se	77					
	Se	82	102.026				
	Kr	83					
	Sr	88	102.064				
	Y	89					
	Ag	107	100.281				
	Cd	111	102.205				
	Cd	114					
>	In	115		84.3			
	Sn	120	100.278				
	Sb	121	98.014				
	Sb	123					
	Ba	135					
	Ba	137	100.694				
	Ho	165					
>	Lu	175		84.2			
	Tl	205	96.193				
	Pb	208	100.254				
	Bi	209					
	U	238	106.048				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 6	Li	7	CCV is out of limits (+/- 10%)
QC Std 6	Be	9	CCV is out of limits (+/- 10%)
QC Std 6	B	11	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Thursday, January 14, 2010 09:49:03
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 nolrs thtimozr.mth
Dataset File: C:\elandata\Dataset\100113\QC Std 7.138

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.070**	**ug/L**	21.351	149	0.000
	Be	9	**0.020**	**ug/L**	60.091	19	0.000
	B	11	**1.832**	**ug/L**	34.586	2091	0.000
	Na	23	**0.593**	**ug/L**	298.156	20349	0.002
	Mg	24	**0.315**	**ug/L**	70.945	2334	0.001
	Al	27	**-0.667**	**ug/L**	104.426	3334	-0.002
	P	31	**1.996**	**ug/L**	52.857	7212	0.000
	K	39	**9.024**	**ug/L**	60.692	614270	0.029
	Ca	43	**0.893**	**ug/L**	370.986	751	0.000
>	Sc	45		**ug/L**		1358542	1358541.775
	V	51	**-0.632**	**ug/L**	77.061	22431	-0.002
	Cr	52	**-0.425**	**ug/L**	21.035	6311	-0.001
	Cr	53		**ug/L**		173192	0.001
	Mn	55	**0.006**	**ug/L**	150.800	1641	0.000
	Fe	57	**2.500**	**ug/L**	92.903	5056	0.000
	Co	59	**0.009**	**ug/L**	63.498	192	0.000
	Ni	60	**0.027**	**ug/L**	59.638	93	0.000
	Cu	63		**ug/L**		182	0.000
	Cu	65	**0.005**	**ug/L**	293.214	115	0.000
	Zn	66	**0.030**	**ug/L**	94.507	146	0.000
	Zn	67		**ug/L**		21419	0.004
	Zn	68		**ug/L**		1426	0.000
>	Ge	74		**ug/L**		265228	265228.436
	As	75	**-0.646**	**ug/L**	106.155	-144	-0.002
	Se	77		**ug/L**		9260	-0.002
	Se	82	**-0.285**	**ug/L**	103.411	-15	-0.000
	Kr	83		**ug/L**		85	0.000
	Sr	88	**0.003**	**ug/L**	37.182	151	0.000
	Y	89		**ug/L**		58	0.000
	Ag	107	**0.008**	**ug/L**	12.364	86	0.000
	Cd	111	**0.028**	**ug/L**	63.763	31	0.000
	Cd	114		**ug/L**		35	0.000
>	In	115		**ug/L**		145994	145993.567
	Sn	120	**0.105**	**ug/L**	44.481	591	0.002
	Sb	121	**0.992**	**ug/L**	48.016	3235	0.017
	Sb	123		**ug/L**		2527	0.014
	Ba	135		**ug/L**		24	-0.000
	Ba	137	**-0.005**	**ug/L**	17.004	30	-0.000
	Ho	165		**ug/L**		22	0.000
>	Lu	175		**ug/L**		184515	184514.839
	Tl	205	**0.179**	**ug/L**	25.120	1531	0.005
	Pb	208	**0.004**	**ug/L**	34.308	268	0.000
	Bi	209		**ug/L**		19	-0.000
	U	238	**0.061**	**ug/L**	47.873	651	0.003

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	0.9999
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	0.9999
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	0.9999
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	0.9999
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

Sample ID: QC Std 7

Report Date/Time: Thursday, January 14, 2010 09:51:35

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45			90.7		
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74			90.9		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115			91.2		
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175			90.1		
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 243550007
Sample Date/Time: Thursday, January 14, 2010 09:55:00
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 936823|2|rmj
Method File: c:\elandata\Method\6020 noirs thtlmozr.mth
Dataset File: C:\elandata\Dataset\100113\243550007.139

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**125.711**	**ug/L**	5.825	138548	0.092
	Be	9	**10.559**	**ug/L**	3.351	4383	0.003
	B	11	**30.578**	**ug/L**	0.245	13813	0.008
	Na	23	**2005.436**	**ug/L**	8.625	8184435	5.427
	Mg	24	**15115.895**	**ug/L**	4.687	43702183	29.057
	Al	27	**137811.878**	**ug/L**	7.720	552932265	367.297
	P	31	**535.524**	**ug/L**	1.296	116666	0.073
	K	39	**12405.966**	**ug/L**	2.779	61540574	40.493
	Ca	43	**12198.613**	**ug/L**	0.692	120741	0.080
>	Sc	45		**ug/L**		1504238	1504238.273
	V	51	**107.244**	**ug/L**	0.652	510394	0.321
	Cr	52	**63.366**	**ug/L**	0.736	249782	0.160
	Cr	53		**ug/L**		108012	-0.055
	Mn	55	**1550.987**	**ug/L**	0.738	8809436	5.855
	Fe	57	**73814.671**	**ug/L**	0.947	8127249	5.400
	Co	59	**20.569**	**ug/L**	2.060	85411	0.057
	Ni	60	**51.091**	**ug/L**	2.498	45350	0.030
	Cu	63		**ug/L**		77719	0.052
	Cu	65	**37.803**	**ug/L**	1.895	38646	0.026
	Zn	66	**206.198**	**ug/L**	0.677	124810	0.467
	Zn	67		**ug/L**		29642	0.034
	Zn	68		**ug/L**		91818	0.339
>	Ge	74		**ug/L**		266945	266945.320
	As	75	**12.043**	**ug/L**	3.015	8453	0.031
	Se	77		**ug/L**		3345	-0.024
	Se	82	**-2.831**	**ug/L**	11.730	-170	-0.001
	Kr	83		**ug/L**		376	0.001
	Sr	88	**93.174**	**ug/L**	0.368	715715	4.677
	Y	89		**ug/L**		760438	4.970
	Ag	107	**0.556**	**ug/L**	5.943	1826	0.012
	Cd	111	**1.966**	**ug/L**	5.383	1503	0.010
	Cd	114		**ug/L**		337	0.002
>	In	115		**ug/L**		152992	152991.971
	Sn	120	**1.121**	**ug/L**	3.733	3676	0.022
	Sb	121	**0.097**	**ug/L**	32.438	1011	0.002
	Sb	123		**ug/L**		782	0.002
	Ba	135		**ug/L**		180847	0.895
	Ba	137	**241.574**	**ug/L**	0.800	317278	1.570
	Ho	165		**ug/L**		35143	0.174
>	Lu	175		**ug/L**		202047	202047.167
	Tl	205	**1.264**	**ug/L**	1.940	7813	0.035
	Pb	208	**54.401**	**ug/L**	1.096	519351	2.569
	Bi	209		**ug/L**		8274	0.041
	U	238	**5.276**	**ug/L**	0.393	51674	0.255

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	0.9999
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	0.9999
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	0.9999
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	0.9999
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		100.5			
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		91.5			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		95.5			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		98.7			
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Al 27 Upper, S, EEE	Al	27	Sample is out of limits (over linear range)
V 51 Upper, S, EEE	V	51	Sample is out of limits (over linear range)
Mn 55 Upper, S, EEE	Mn	55	Sample is out of limits (over linear range)
Fe 57 Upper, S, EEE	Fe	57	Sample is out of limits (over linear range)

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: 243550008
Sample Date/Time: Thursday, January 14, 2010 10:00:57
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 936823|2|rmj
Method File: c:\elandata\Method\6020 nolrs thtimozr.mth
Dataset File: C:\elandata\Dataset\100113\243550008.140

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**19.673**	**ug/L**	0.788	19784	0.014
	Be	9	**1.688**	**ug/L**	2.278	647	0.000
	B	11	**2.463**	**ug/L**	5.865	2334	0.001
	Na	23	**648.751**	**ug/L**	2.934	2418009	1.756
	Mg	24	**1313.439**	**ug/L**	3.537	3452320	2.525
	Al	27	**6328.708**	**ug/L**	0.837	23062175	16.867
	P	31	**166.870**	**ug/L**	2.952	37771	0.023
	K	39	**1173.645**	**ug/L**	7.334	5812229	3.831
	Ca	43	**1059.341**	**ug/L**	2.641	10212	0.007
>	Sc	45		**ug/L**		1366907	1366906.663
	V	51	**8.893**	**ug/L**	5.412	61508	0.027
	Cr	52	**1.826**	**ug/L**	6.116	14135	0.005
	Cr	53		**ug/L**		78784	-0.069
	Mn	55	**1042.752**	**ug/L**	0.720	5382624	3.937
	Fe	57	**12492.134**	**ug/L**	1.509	1254035	0.914
	Co	59	**1.657**	**ug/L**	3.241	6401	0.005
	Ni	60	**6.310**	**ug/L**	2.719	5153	0.004
	Cu	63		**ug/L**		16642	0.012
	Cu	65	**8.719**	**ug/L**	1.696	8186	0.006
	Zn	66	**104.224**	**ug/L**	0.931	60766	0.236
	Zn	67		**ug/L**		17704	-0.008
	Zn	68		**ug/L**		44400	0.168
>	Ge	74		**ug/L**		256864	256863.990
	As	75	**2.782**	**ug/L**	17.036	2095	0.007
	Se	77		**ug/L**		2971	-0.025
	Se	82	**0.751**	**ug/L**	38.856	45	0.000
	Kr	83		**ug/L**		157	0.000
	Sr	88	**10.957**	**ug/L**	0.377	81127	0.550
	Y	89		**ug/L**		806568	5.477
	Ag	107	**0.189**	**ug/L**	7.629	639	0.004
	Cd	111	**1.114**	**ug/L**	9.754	824	0.006
	Cd	114		**ug/L**		192	0.001
>	In	115		**ug/L**		147268	147268.206
	Sn	120	**1.506**	**ug/L**	1.969	4655	0.030
	Sb	121	**0.048**	**ug/L**	32.153	847	0.001
	Sb	123		**ug/L**		687	0.001
	Ba	135		**ug/L**		62564	0.323
	Ba	137	**88.189**	**ug/L**	1.675	110963	0.573
	Ho	165		**ug/L**		38501	0.199
>	Lu	175		**ug/L**		193562	193562.429
	Tl	205	**0.091**	**ug/L**	17.088	1124	0.003
	Pb	208	**8.415**	**ug/L**	1.274	77175	0.397
	Bi	209		**ug/L**		672	0.003
	U	238	**2.583**	**ug/L**	0.369	24289	0.125

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	0.9999
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	0.9999
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	0.9999
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	0.9999
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		91.3			
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		88.0			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		91.9			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		94.5			
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Mn 55 Upper, S, EE	Mn	55	Sample is out of limits (over linear range)

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: 243550009
Sample Date/Time: Thursday, January 14, 2010 10:06:53
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 936823|2|rmj
Method File: c:\elandata\Method\6020 noirs thtimozr.mth
Dataset File: C:\elandata\Dataset\100113\243550009.141

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**61.326**	**ug/L**	3.192	60830	0.045
	Be	9	**1.835**	**ug/L**	2.920	694	0.001
	B	11	**2.305**	**ug/L**	5.907	2251	0.001
	Na	23	**566.114**	**ug/L**	18.447	2086370	1.532
	Mg	24	**1429.589**	**ug/L**	2.973	3716209	2.748
	Al	27	**8860.863**	**ug/L**	10.933	31932242	23.616
	P	31	**155.658**	**ug/L**	3.199	35303	0.021
	K	39	**1271.749**	**ug/L**	4.026	6183161	4.151
	Ca	43	**1193.741**	**ug/L**	2.326	11287	0.008
>	Sc	45		**ug/L**		1352039	1352038.991
	V	51	**8.217**	**ug/L**	2.339	58114	0.025
	Cr	52	**4.027**	**ug/L**	2.547	21510	0.010
	Cr	53		**ug/L**		78675	-0.069
	Mn	55	**669.645**	**ug/L**	2.468	3418907	2.528
	Fe	57	**15981.903**	**ug/L**	2.441	1585192	1.169
	Co	59	**1.788**	**ug/L**	3.555	6820	0.005
	Ni	60	**4.965**	**ug/L**	1.039	4026	0.003
	Cu	63		**ug/L**		12287	0.009
	Cu	65	**6.496**	**ug/L**	1.779	6059	0.004
	Zn	66	**88.574**	**ug/L**	1.405	51739	0.201
	Zn	67		**ug/L**		16146	-0.014
	Zn	68		**ug/L**		37430	0.141
>	Ge	74		**ug/L**		257304	257303.587
	As	75	**2.709**	**ug/L**	9.426	2050	0.007
	Se	77		**ug/L**		2909	-0.025
	Se	82	**0.249**	**ug/L**	60.899	16	0.000
	Kr	83		**ug/L**		145	0.000
	Sr	88	**10.784**	**ug/L**	2.109	79174	0.541
	Y	89		**ug/L**		755694	5.175
	Ag	107	**0.158**	**ug/L**	5.662	537	0.003
	Cd	111	**0.985**	**ug/L**	5.387	724	0.005
	Cd	114		**ug/L**		191	0.001
>	In	115		**ug/L**		146043	146043.299
	Sn	120	**1.235**	**ug/L**	1.913	3836	0.024
	Sb	121	**-0.001**	**ug/L**	1773.035	716	-0.000
	Sb	123		**ug/L**		568	0.000
	Ba	135		**ug/L**		47690	0.252
	Ba	137	**68.631**	**ug/L**	0.859	84360	0.446
	Ho	165		**ug/L**		32328	0.171
>	Lu	175		**ug/L**		189038	189037.735
	Tl	205	**0.097**	**ug/L**	9.867	1131	0.003
	Pb	208	**10.700**	**ug/L**	0.849	95765	0.505
	Bi	209		**ug/L**		1044	0.005
	U	238	**2.298**	**ug/L**	0.636	21120	0.111

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	0.9999
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	0.9999
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	0.9999
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	0.9999
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		90.3			
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		88.2			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		91.2			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		92.3			
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 243550010
Sample Date/Time: Thursday, January 14, 2010 10:12:50
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 936823|2|rmj
Method File: c:\elandata\Method\6020 nolrs thtimozr.mth
Dataset File: C:\elandata\Dataset\100113\243550010.142

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**55.333**	**ug/L**	3.590	56720	0.041
	Be	9	**5.467**	**ug/L**	2.923	2114	0.002
	B	11	**15.146**	**ug/L**	2.351	7098	0.004
	Na	23	**990.903**	**ug/L**	0.861	3766312	2.682
	Mg	24	**8889.577**	**ug/L**	9.168	23875147	17.088
	Al	27	**65717.774**	**ug/L**	5.454	244636451	175.151
	P	31	**213.212**	**ug/L**	1.763	47378	0.029
	K	39	**5836.197**	**ug/L**	4.090	27209334	19.049
	Ca	43	**5865.508**	**ug/L**	1.055	54329	0.038
>	Sc	45		**ug/L**		1397388	1397387.986
	V	51	**54.217**	**ug/L**	0.600	252408	0.162
	Cr	52	**32.982**	**ug/L**	1.679	124604	0.083
	Cr	53		**ug/L**		86987	-0.064
	Mn	55	**832.815**	**ug/L**	1.144	4395213	3.144
	Fe	57	**39098.351**	**ug/L**	0.833	4001616	2.860
	Co	59	**12.800**	**ug/L**	0.491	49446	0.035
	Ni	60	**32.813**	**ug/L**	0.340	27090	0.019
	Cu	63		**ug/L**		43001	0.031
	Cu	65	**22.174**	**ug/L**	2.045	21105	0.015
	Zn	66	**109.441**	**ug/L**	0.931	63185	0.248
	Zn	67		**ug/L**		18218	-0.005
	Zn	68		**ug/L**		46651	0.179
>	Ge	74		**ug/L**		254405	254405.406
	As	75	**6.362**	**ug/L**	4.517	4389	0.016
	Se	77		**ug/L**		2783	-0.025
	Se	82	**-0.365**	**ug/L**	52.118	-19	-0.000
	Kr	83		**ug/L**		189	0.000
	Sr	88	**45.297**	**ug/L**	2.623	330754	2.274
	Y	89		**ug/L**		666281	4.582
	Ag	107	**0.340**	**ug/L**	3.776	1086	0.007
	Cd	111	**1.298**	**ug/L**	7.519	946	0.006
	Cd	114		**ug/L**		200	0.001
>	In	115		**ug/L**		145440	145439.953
	Sn	120	**0.762**	**ug/L**	3.006	2468	0.015
	Sb	121	**0.019**	**ug/L**	50.634	763	0.000
	Sb	123		**ug/L**		580	0.000
	Ba	135		**ug/L**		98033	0.513
	Ba	137	**140.092**	**ug/L**	1.879	174094	0.911
	Ho	165		**ug/L**		31143	0.163
>	Lu	175		**ug/L**		191176	191176.016
	Tl	205	**0.551**	**ug/L**	2.986	3572	0.015
	Pb	208	**30.365**	**ug/L**	1.430	274377	1.434
	Bi	209		**ug/L**		3667	0.019
	U	238	**3.651**	**ug/L**	1.647	33868	0.177

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	0.9999
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	0.9999
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	0.9999
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	0.9999
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		93.3			
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		87.2			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		90.8			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		93.4			
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Al 27 Upper, S, EEE	Al	27	Sample is out of limits (over linear range)

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: 243550011
Sample Date/Time: Thursday, January 14, 2010 10:18:46
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 936823|2|rmj
Method File: c:\elandata\Method\6020 noirs thtimozr.mth
Dataset File: C:\elandata\Dataset\100113\243550011.143

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**77.010**	ug/L	1.875	77121	0.056
	Be	9	**3.845**	ug/L	2.364	1457	0.001
	B	11	**6.467**	ug/L	5.241	3785	0.002
	Na	23	**581.882**	ug/L	4.116	2168323	1.575
	Mg	24	**3223.254**	ug/L	4.245	8463489	6.196
	Al	27	**23259.754**	ug/L	6.029	84620440	61.992
	P	31	**723.527**	ug/L	1.680	140643	0.098
	K	39	**3068.856**	ug/L	4.823	14249519	10.017
	Ca	43	**1884.736**	ug/L	2.047	17565	0.012
>	Sc	45		ug/L		1365582	1365581.613
	V	51	**18.909**	ug/L	1.786	102376	0.057
	Cr	52	**10.077**	ug/L	1.328	42629	0.025
	Cr	53		ug/L		77651	-0.070
	Mn	55	**687.219**	ug/L	0.920	3544562	2.594
	Fe	57	**22290.324**	ug/L	1.151	2231299	1.631
	Co	59	**3.055**	ug/L	1.592	11652	0.008
	Ni	60	**8.520**	ug/L	3.911	6924	0.005
	Cu	63		ug/L		22291	0.016
	Cu	65	**11.704**	ug/L	2.176	10938	0.008
	Zn	66	**181.804**	ug/L	0.642	104495	0.412
	Zn	67		ug/L		23658	0.017
	Zn	68		ug/L		74233	0.288
>	Ge	74		ug/L		253443	253442.952
	As	75	**1.894**	ug/L	13.159	1497	0.005
	Se	77		ug/L		2750	-0.026
	Se	82	**-0.174**	ug/L	62.691	-8	-0.000
	Kr	83		ug/L		158	0.000
	Sr	88	**13.767**	ug/L	1.046	99835	0.691
	Y	89		ug/L		627086	4.346
	Ag	107	**0.233**	ug/L	5.889	758	0.005
	Cd	111	**1.288**	ug/L	2.136	932	0.006
	Cd	114		ug/L		465	0.003
>	In	115		ug/L		144285	144285.161
	Sn	120	**1.502**	ug/L	2.522	4547	0.030
	Sb	121	**-0.031**	ug/L	42.013	633	-0.001
	Sb	123		ug/L		476	-0.000
	Ba	135		ug/L		51376	0.272
	Ba	137	**74.673**	ug/L	1.169	91716	0.485
	Ho	165		ug/L		28604	0.151
>	Lu	175		ug/L		188901	188901.278
	Tl	205	**0.143**	ug/L	8.928	1374	0.004
	Pb	208	**24.304**	ug/L	0.643	217063	1.148
	Bi	209		ug/L		1040	0.005
	U	238	**2.755**	ug/L	0.409	25274	0.133

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	0.9999
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	0.9999
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	0.9999
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	0.9999
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		91.2			
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		86.8			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		90.1			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		92.2			
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 243550012
Sample Date/Time: Thursday, January 14, 2010 10:24:43
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 936823|2|rmj
Method File: c:\elandata\Method\6020 noirs thtimozr.mth
Dataset File: C:\elandata\Dataset\100113\243550012.144

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**47.568**	ug/L	1.786	46088	0.035
	Be	9	**2.554**	ug/L	3.178	939	0.001
	B	11	**2.079**	ug/L	9.131	2121	0.001
	Na	23	**716.714**	ug/L	7.345	2578334	1.940
	Mg	24	**1012.903**	ug/L	4.944	2573597	1.947
	Al	27	**7315.122**	ug/L	4.075	25745370	19.496
	P	31	**260.563**	ug/L	1.250	53239	0.035
	K	39	**1303.238**	ug/L	12.118	6183161	4.254
	Ca	43	**1243.394**	ug/L	0.821	11452	0.008
>	Sc	45		ug/L		1320414	1320414.480
	V	51	**5.538**	ug/L	5.618	46182	0.017
	Cr	52	**2.830**	ug/L	5.296	17002	0.007
	Cr	53		ug/L		75397	-0.070
	Mn	55	**874.953**	ug/L	1.089	4362287	3.303
	Fe	57	**15273.269**	ug/L	1.775	1479587	1.117
	Co	59	**1.516**	ug/L	1.526	5669	0.004
	Ni	60	**3.418**	ug/L	5.166	2727	0.002
	Cu	63		ug/L		10699	0.008
	Cu	65	**5.781**	ug/L	2.586	5277	0.004
	Zn	66	**102.459**	ug/L	1.027	58172	0.232
	Zn	67		ug/L		16747	-0.010
	Zn	68		ug/L		42091	0.163
>	Ge	74		ug/L		250141	250141.141
	As	75	**1.610**	ug/L	17.242	1296	0.004
	Se	77		ug/L		2761	-0.025
	Se	82	**0.100**	ug/L	292.459	7	0.000
	Kr	83		ug/L		161	0.000
	Sr	88	**6.876**	ug/L	2.026	48664	0.345
	Y	89		ug/L		785226	5.583
	Ag	107	**0.145**	ug/L	6.209	481	0.003
	Cd	111	**1.054**	ug/L	2.246	745	0.005
	Cd	114		ug/L		172	0.001
>	In	115		ug/L		140657	140656.609
	Sn	120	**2.185**	ug/L	2.151	6322	0.043
	Sb	121	**0.002**	ug/L	362.318	698	0.000
	Sb	123		ug/L		520	0.000
	Ba	135		ug/L		37935	0.203
	Ba	137	**54.995**	ug/L	0.928	66643	0.357
	Ho	165		ug/L		34503	0.185
>	Lu	175		ug/L		186352	186352.487
	Tl	205	**0.016**	ug/L	30.943	691	0.000
	Pb	208	**5.361**	ug/L	0.914	47411	0.253
	Bi	209		ug/L		199	0.001
	U	238	**2.227**	ug/L	0.309	20176	0.108

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	0.9999
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	0.9999
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	0.9999
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	0.9999
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		88.2			
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		85.7			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		87.8			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		91.0			
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 243550013
Sample Date/Time: Thursday, January 14, 2010 10:30:40
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 936823|2|rmj
Method File: c:\elandata\Method\6020 noirs thtlmozr.mth
Dataset File: C:\elandata\Dataset\100113\243550013.145

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**39.196**	**ug/L**	3.962	40505	0.029
	Be	9	**1.389**	**ug/L**	5.154	550	0.000
	B	11	**5.075**	**ug/L**	6.938	3381	0.001
	Na	23	**1116.485**	**ug/L**	6.426	4273568	3.022
	Mg	24	**5946.145**	**ug/L**	6.604	16097224	11.430
	Al	27	**19519.052**	**ug/L**	7.643	73266754	52.022
	P	31	**1287.621**	**ug/L**	2.411	252547	0.174
	K	39	**3054.549**	**ug/L**	3.783	14631865	9.970
	Ca	43	**18035.307**	**ug/L**	2.074	166704	0.118
>	Sc	45		**ug/L**		1407724	1407723.830
	V	51	**51.828**	**ug/L**	2.672	244237	0.155
	Cr	52	**20.219**	**ug/L**	0.809	80080	0.051
	Cr	53		**ug/L**		87775	-0.064
	Mn	55	**433.464**	**ug/L**	1.912	2305347	1.636
	Fe	57	**27274.042**	**ug/L**	1.862	2813662	1.995
	Co	59	**10.666**	**ug/L**	1.021	41537	0.029
	Ni	60	**17.272**	**ug/L**	2.758	14401	0.010
	Cu	63		**ug/L**		53027	0.038
	Cu	65	**27.279**	**ug/L**	0.609	26135	0.018
	Zn	66	**85.194**	**ug/L**	0.471	50970	0.193
	Zn	67		**ug/L**		16844	-0.013
	Zn	68		**ug/L**		39037	0.143
>	Ge	74		**ug/L**		263482	263481.962
	As	75	**4.446**	**ug/L**	7.326	3262	0.011
	Se	77		**ug/L**		3448	-0.023
	Se	82	**-0.261**	**ug/L**	40.643	-14	-0.000
	Kr	83		**ug/L**		135	0.000
	Sr	88	**75.886**	**ug/L**	1.319	556961	3.809
	Y	89		**ug/L**		349974	2.394
	Ag	107	**0.245**	**ug/L**	6.413	801	0.005
	Cd	111	**0.944**	**ug/L**	9.671	695	0.005
	Cd	114		**ug/L**		420	0.003
>	In	115		**ug/L**		146193	146192.550
	Sn	120	**1.274**	**ug/L**	2.967	3951	0.025
	Sb	121	**-0.022**	**ug/L**	34.455	662	-0.000
	Sb	123		**ug/L**		553	0.000
	Ba	135		**ug/L**		185868	0.988
	Ba	137	**269.564**	**ug/L**	1.239	329587	1.752
	Ho	165		**ug/L**		16191	0.086
>	Lu	175		**ug/L**		188098	188097.527
	Tl	205	**0.152**	**ug/L**	3.824	1414	0.004
	Pb	208	**19.302**	**ug/L**	0.783	171696	0.912
	Bi	209		**ug/L**		4097	0.022
	U	238	**2.486**	**ug/L**	1.005	22720	0.120

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	0.9999
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	0.9999
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	0.9999
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	0.9999
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		94.0			
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		90.3			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		91.3			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		91.9			
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Thursday, January 14, 2010 10:36:35
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 nolrs thtimozr.mth
Dataset File: C:\elandata\Dataset\100113\QC Std 6.146

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**62.912**	**ug/L**	2.573	61093	0.046
	Be	9	**60.791**	**ug/L**	1.572	22161	0.017
	B	11	**105.787**	**ug/L**	2.424	38636	0.028
	Na	23	**5177.761**	**ug/L**	3.789	18571361	14.012
	Mg	24	**5149.445**	**ug/L**	7.195	13099229	9.899
	Al	27	**5288.756**	**ug/L**	8.101	18654860	14.096
	P	31	**5045.180**	**ug/L**	0.192	911158	0.683
	K	39	**4808.253**	**ug/L**	7.427	21354305	15.694
	Ca	43	**4905.197**	**ug/L**	1.028	43165	0.032
>	Sc	45		**ug/L**		1323980	1323979.627
	V	51	**49.139**	**ug/L**	0.964	219045	0.147
	Cr	52	**50.113**	**ug/L**	1.354	175458	0.127
	Cr	53		**ug/L**		121907	-0.035
	Mn	55	**51.748**	**ug/L**	0.916	260238	0.195
	Fe	57	**5229.691**	**ug/L**	1.559	511152	0.383
	Co	59	**51.652**	**ug/L**	1.046	188563	0.142
	Ni	60	**52.426**	**ug/L**	2.216	40960	0.031
	Cu	63		**ug/L**		95147	0.072
	Cu	65	**50.967**	**ug/L**	1.202	45827	0.035
	Zn	66	**52.933**	**ug/L**	0.922	31119	0.120
	Zn	67		**ug/L**		15362	-0.017
	Zn	68		**ug/L**		22836	0.083
>	Ge	74		**ug/L**		258503	258503.441
	As	75	**47.322**	**ug/L**	4.385	31326	0.120
	Se	77		**ug/L**		7040	-0.009
	Se	82	**50.454**	**ug/L**	4.566	2958	0.011
	Kr	83		**ug/L**		85	0.000
	Sr	88	**50.581**	**ug/L**	0.829	359717	2.539
	Y	89		**ug/L**		122	0.001
	Ag	107	**50.745**	**ug/L**	1.396	149043	1.052
	Cd	111	**50.869**	**ug/L**	1.432	35748	0.252
	Cd	114		**ug/L**		80167	0.566
>	In	115		**ug/L**		141626	141625.526
	Sn	120	**50.009**	**ug/L**	1.664	139486	0.983
	Sb	121	**48.200**	**ug/L**	6.147	119483	0.838
	Sb	123		**ug/L**		92786	0.651
	Ba	135		**ug/L**		32712	0.181
	Ba	137	**49.599**	**ug/L**	1.399	58337	0.322
	Ho	165		**ug/L**		25	0.000
>	Lu	175		**ug/L**		180859	180859.486
	Tl	205	**47.304**	**ug/L**	1.243	240233	1.325
	Pb	208	**49.220**	**ug/L**	0.668	420626	2.325
	Bi	209		**ug/L**		106	0.000
	U	238	**51.655**	**ug/L**	1.031	451949	2.498

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	0.9999
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	0.9999
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	0.9999
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	0.9999
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7	125.824				
	Be	9	121.581				
	B	11	105.787				
	Na	23	103.555				
	Mg	24	102.989				
	Al	27	104.728				
	P	31	100.904				
	K	39	96.165				
	Ca	43	98.104				
>	Sc	45		88.4			
	V	51	98.279				
	Cr	52	100.225				
	Cr	53					
	Mn	55	103.496				
	Fe	57	104.594				
	Co	59	103.305				
	Ni	60	104.852				
	Cu	63					
	Cu	65	101.933				
	Zn	66	105.866				
	Zn	67					
	Zn	68					
>	Ge	74		88.6			
	As	75	94.644				
	Se	77					
	Se	82	100.908				
	Kr	83					
	Sr	88	101.162				
	Y	89					
	Ag	107	101.491				
	Cd	111	101.739				
	Cd	114					
>	In	115		88.4			
	Sn	120	100.018				
	Sb	121	96.399				
	Sb	123					
	Ba	135					
	Ba	137	99.199				
	Ho	165					
>	Lu	175		88.3			
	Tl	205	94.608				
	Pb	208	98.439				
	Bi	209					
	U	238	103.310				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 6	Li	7	CCV is out of limits (+/- 10%)
QC Std 6	Be	9	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Thursday, January 14, 2010 10:42:30
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 nolrs thtlmozr.mth
Dataset File: C:\elandata\Dataset\100113\QC Std 7.147

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.071**	**ug/L**	2.722	151	0.000
	Be	9	**0.011**	**ug/L**	73.805	16	0.000
	B	11	**1.858**	**ug/L**	26.520	2128	0.000
	Na	23	**-0.015**	**ug/L**	6969.585	18345	-0.000
	Mg	24	**0.304**	**ug/L**	72.953	2334	0.001
	Al	27	**0.049**	**ug/L**	1115.780	6001	0.000
	P	31	**0.269**	**ug/L**	576.485	6984	0.000
	K	39	**5.164**	**ug/L**	109.915	604886	0.017
	Ca	43	**-2.190**	**ug/L**	108.183	733	-0.000
>	Sc	45		**ug/L**		1375990	1375989.699
	V	51	**0.061**	**ug/L**	839.970	25552	0.000
	Cr	52	**0.311**	**ug/L**	28.450	8956	0.001
	Cr	53		**ug/L**		174073	-0.000
	Mn	55	**-0.008**	**ug/L**	35.082	1587	-0.000
	Fe	57	**6.023**	**ug/L**	73.206	5475	0.000
	Co	59	**0.007**	**ug/L**	28.062	188	0.000
	Ni	60	**0.005**	**ug/L**	239.716	76	0.000
	Cu	63		**ug/L**		164	0.000
	Cu	65	**0.002**	**ug/L**	239.902	113	0.000
	Zn	66	**0.005**	**ug/L**	321.703	134	0.000
	Zn	67		**ug/L**		21518	0.002
	Zn	68		**ug/L**		1378	0.000
>	Ge	74		**ug/L**		271978	271977.679
	As	75	**-0.470**	**ug/L**	28.822	-26	-0.001
	Se	77		**ug/L**		9441	-0.002
	Se	82	**-0.252**	**ug/L**	22.978	-14	-0.000
	Kr	83		**ug/L**		92	0.000
	Sr	88	**0.003**	**ug/L**	62.188	156	0.000
	Y	89		**ug/L**		48	0.000
	Ag	107	**0.006**	**ug/L**	45.266	81	0.000
	Cd	111	**0.026**	**ug/L**	181.045	30	0.000
	Cd	114		**ug/L**		38	0.000
>	In	115		**ug/L**		150837	150837.462
	Sn	120	**0.111**	**ug/L**	43.858	629	0.002
	Sb	121	**0.966**	**ug/L**	50.317	3271	0.017
	Sb	123		**ug/L**		2531	0.013
	Ba	135		**ug/L**		29	0.000
	Ba	137	**-0.000**	**ug/L**	2762.458	36	-0.000
	Ho	165		**ug/L**		15	-0.000
>	Lu	175		**ug/L**		189514	189514.380
	Tl	205	**0.166**	**ug/L**	36.953	1500	0.005
	Pb	208	**0.004**	**ug/L**	28.175	276	0.000
	Bi	209		**ug/L**		23	0.000
	U	238	**0.060**	**ug/L**	51.596	652	0.003

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	0.9999
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	0.9999
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	0.9999
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	0.9999
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		91.9			
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		93.2			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		94.2			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		92.5			
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202004459
Sample Date/Time: Thursday, January 14, 2010 10:54:24
Sample Type:
Sample Description: LANL 6020 DUP
Number of Replicates: 3
Batch ID: 936823|2|rmj
Method File: c:\elandata\Method\6020 nolrs thtimozr.mth
Dataset File: C:\elandata\Dataset\100113\1202004459.149

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**25.380**	**ug/L**	4.120	25242	0.019
	Be	9	**0.104**	**ug/L**	9.296	50	0.000
	B	11	**114.531**	**ug/L**	1.759	42634	0.030
	Na	23	**5128.338**	**ug/L**	2.737	18800020	13.879
	Mg	24	**9905.643**	**ug/L**	3.032	25768618	19.041
	Al	27	**2076.070**	**ug/L**	5.374	7492435	5.533
	P	31	**3387.306**	**ug/L**	1.138	627495	0.459
	K	39	**1160.648**	**ug/L**	3.709	5698096	3.788
	Ca	43	**250594.114**	**ug/L**	1.376	2217112	1.638
>	Sc	45		**ug/L**		1353216	1353215.513
	V	51	**-662.905**	**ug/L**	11.505	-2658974	-1.984
	Cr	52	**19681.195**	**ug/L**	1.911	67404587	49.803
	Cr	53		**ug/L**		8133002	5.883
	Mn	55	**181.435**	**ug/L**	0.852	928492	0.685
	Fe	57	**3763.654**	**ug/L**	1.348	377371	0.275
	Co	59	**1.927**	**ug/L**	0.291	7345	0.005
	Ni	60	**8.273**	**ug/L**	1.200	6667	0.005
	Cu	63		**ug/L**		3652759	2.699
	Cu	65	**1833.287**	**ug/L**	0.172	1681161	1.242
	Zn	66	**732.278**	**ug/L**	1.317	443391	1.659
	Zn	67		**ug/L**		81162	0.227
	Zn	68		**ug/L**		329861	1.229
>	Ge	74		**ug/L**		267253	267252.532
	As	75	**90.842**	**ug/L**	0.561	61913	0.231
	Se	77		**ug/L**		4616	-0.019
	Se	82	**0.802**	**ug/L**	15.414	50	0.000
	Kr	83		**ug/L**		115	0.000
	Sr	88	**1511.389**	**ug/L**	2.351	10721530	75.870
	Y	89		**ug/L**		15535	0.110
	Ag	107	**0.165**	**ug/L**	6.378	541	0.003
	Cd	111	**7.193**	**ug/L**	2.185	5053	0.036
	Cd	114		**ug/L**		10754	0.076
>	In	115		**ug/L**		141328	141328.012
	Sn	120	**2.349**	**ug/L**	0.909	6808	0.046
	Sb	121	**0.356**	**ug/L**	3.323	1570	0.006
	Sb	123		**ug/L**		1280	0.005
	Ba	135		**ug/L**		896901	4.555
	Ba	137	**1205.605**	**ug/L**	1.424	1543009	7.836
	Ho	165		**ug/L**		707	0.004
>	Lu	175		**ug/L**		196924	196923.652
	Tl	205	**0.045**	**ug/L**	23.228	889	0.001
	Pb	208	**38.845**	**ug/L**	0.937	361496	1.835
	Bi	209		**ug/L**		697	0.003
	U	238	**14.560**	**ug/L**	1.050	138781	0.704

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	0.9999
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	0.9999
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	0.9999
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	0.9999
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		90.4			
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		91.6			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		88.2			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		96.2			
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Ca 43 Upper, S, EEE	Ca	43	Sample is out of limits (over linear range)
V 51 Lower	V	51	Sample is out of limits (<-PQL)
Cr 52 Upper, S, EEE	Cr	52	Sample is out of limits (over linear range)
Cu 65 Upper, S, EEE	Cu	65	Sample is out of limits (over linear range)
Sr 88 Upper, S, EEE	Sr	88	Sample is out of limits (over linear range)

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: 1202004460
Sample Date/Time: Thursday, January 14, 2010 11:00:21
Sample Type:
Sample Description: LANL 6020 MS
Number of Replicates: 3
Batch ID: 936823|2|rmj
Method File: c:\elandata\Method\6020 nolrs thtimozr.mth
Dataset File: C:\elandata\Dataset\100113\1202004460.150

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**53.650**	ug/L	3.928	53642	0.039
	Be	9	**24.735**	ug/L	1.479	9290	0.007
	B	11	**187.207**	ug/L	0.875	69283	0.050
	Na	23	**7109.790**	ug/L	10.805	26240655	19.241
	Mg	24	**12489.892**	ug/L	3.664	32733109	24.009
	Al	27	**4665.495**	ug/L	7.915	16952916	12.434
	P	31	**5739.014**	ug/L	0.447	1065968	0.777
	K	39	**2665.846**	ug/L	5.056	12440509	8.701
	Ca	43	**335256.361**	ug/L	1.229	2987450	2.191
>	Sc	45		ug/L		1362954	1362953.837
	V	51	**-467.345**	ug/L	18.598	-1877578	-1.399
	Cr	52	**15126.677**	ug/L	0.705	52181820	38.278
	Cr	53		ug/L		6400701	4.570
	Mn	55	**244.065**	ug/L	1.045	1257286	0.921
	Fe	57	**6550.311**	ug/L	0.315	657908	0.479
	Co	59	**26.236**	ug/L	0.359	98682	0.072
	Ni	60	**33.463**	ug/L	0.727	26943	0.020
	Cu	63		ug/L		4121875	3.025
	Cu	65	**1995.965**	ug/L	2.531	1843046	1.352
	Zn	66	**844.821**	ug/L	1.695	524353	1.914
	Zn	67		ug/L		95367	0.271
	Zn	68		ug/L		393976	1.433
>	Ge	74		ug/L		273960	273960.403
	As	75	**131.858**	ug/L	0.623	91990	0.335
	Se	77		ug/L		5583	-0.016
	Se	82	**10.820**	ug/L	0.678	674	0.002
	Kr	83		ug/L		133	0.000
	Sr	88	**1936.372**	ug/L	0.384	14168707	97.204
	Y	89		ug/L		26082	0.179
	Ag	107	**23.060**	ug/L	1.276	69729	0.478
	Cd	111	**13.216**	ug/L	1.991	9564	0.066
	Cd	114		ug/L		21606	0.148
>	In	115		ug/L		145757	145756.797
	Sn	120	**25.361**	ug/L	2.353	72929	0.498
	Sb	121	**66.516**	ug/L	2.011	169342	1.157
	Sb	123		ug/L		131243	0.897
	Ba	135		ug/L		1061245	5.237
	Ba	137	**1365.132**	ug/L	0.612	1797876	8.873
	Ho	165		ug/L		1275	0.006
>	Lu	175		ug/L		202628	202627.625
	Tl	205	**46.099**	ug/L	0.676	262324	1.291
	Pb	208	**145.558**	ug/L	0.121	1393184	6.874
	Bi	209		ug/L		1361	0.007
	U	238	**45.038**	ug/L	1.422	441506	2.178

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	0.9999
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	0.9999
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	0.9999
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	0.9999
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		91.0			
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		93.9			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		91.0			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		98.9			
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Ca 43 Upper, S, EEE	Ca	43	Sample is out of limits (over linear range)
V 51 Lower	V	51	Sample is out of limits (<-PQL)
Cr 52 Upper, S, EEE	Cr	52	Sample is out of limits (over linear range)
Cu 65 Upper, S, EEE	Cu	65	Sample is out of limits (over linear range)
Sr 88 Upper, S, EEE	Sr	88	Sample is out of limits (over linear range)

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: 1202004462
Sample Date/Time: Thursday, January 14, 2010 11:06:18
Sample Type:
Sample Description: LANL 6020 MSD
Number of Replicates: 3
Batch ID: 936823|2|rmj
Method File: c:\elandata\Method\6020 nolrs thtimozr.mth
Dataset File: C:\elandata\Dataset\100113\1202004462.151

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**47.630**	**ug/L**	4.502	47677	0.035
	Be	9	**23.172**	**ug/L**	3.930	8710	0.006
	B	11	**169.573**	**ug/L**	0.958	62946	0.045
	Na	23	**10155.833**	**ug/L**	2.922	37510680	27.485
	Mg	24	**11883.065**	**ug/L**	1.643	31166098	22.842
	Al	27	**5270.526**	**ug/L**	1.776	19167661	14.047
	P	31	**6615.432**	**ug/L**	0.939	1228826	0.896
	K	39	**2792.959**	**ug/L**	3.802	13014028	9.116
	Ca	43	**394713.078**	**ug/L**	0.877	3519963	2.580
>	Sc	45		**ug/L**		1364241	1364240.503
	V	51	**-375.721**	**ug/L**	10.945	-1509445	-1.124
	Cr	52	**12690.990**	**ug/L**	1.263	43814317	32.114
	Cr	53		**ug/L**		5315058	3.770
	Mn	55	**246.358**	**ug/L**	1.257	1270275	0.930
	Fe	57	**8137.839**	**ug/L**	2.138	816826	0.595
	Co	59	**25.125**	**ug/L**	1.805	94588	0.069
	Ni	60	**33.146**	**ug/L**	0.214	26715	0.020
	Cu	63		**ug/L**		4393568	3.221
	Cu	65	**2219.020**	**ug/L**	5.904	2052541	1.504
	Zn	66	**999.592**	**ug/L**	0.670	605889	2.264
	Zn	67		**ug/L**		107885	0.326
	Zn	68		**ug/L**		453131	1.689
>	Ge	74		**ug/L**		267550	267550.009
	As	75	**146.821**	**ug/L**	0.905	100007	0.373
	Se	77		**ug/L**		6071	-0.014
	Se	82	**10.510**	**ug/L**	9.679	639	0.002
	Kr	83		**ug/L**		123	0.000
	Sr	88	**2193.912**	**ug/L**	0.382	15985731	110.132
	Y	89		**ug/L**		30734	0.211
	Ag	107	**21.965**	**ug/L**	1.741	66148	0.455
	Cd	111	**14.360**	**ug/L**	2.091	10348	0.071
	Cd	114		**ug/L**		23456	0.161
>	In	115		**ug/L**		145154	145153.871
	Sn	120	**26.758**	**ug/L**	2.205	76621	0.526
	Sb	121	**54.966**	**ug/L**	1.621	139495	0.956
	Sb	123		**ug/L**		109512	0.751
	Ba	135		**ug/L**		1116393	5.514
	Ba	137	**1443.405**	**ug/L**	0.495	1899571	9.382
	Ho	165		**ug/L**		1469	0.007
>	Lu	175		**ug/L**		202478	202478.188
	Tl	205	**43.725**	**ug/L**	1.502	248644	1.225
	Pb	208	**160.040**	**ug/L**	0.959	1530585	7.558
	Bi	209		**ug/L**		1627	0.008
	U	238	**46.578**	**ug/L**	0.776	456276	2.253

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	0.9999
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	0.9999
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	0.9999
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	0.9999
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45			91.1		
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74			91.7		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115			90.6		
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175			98.9		
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Ca 43 Upper, S, EEE	Ca	43	Sample is out of limits (over linear range)
V 51 Lower	V	51	Sample is out of limits (<-PQL)
Cr 52 Upper, S, EEE	Cr	52	Sample is out of limits (over linear range)
Cu 65 Upper, S, EEE	Cu	65	Sample is out of limits (over linear range)
Sr 88 Upper, S, EEE	Sr	88	Sample is out of limits (over linear range)

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: 1202004461
Sample Date/Time: Thursday, January 14, 2010 11:12:15
Sample Type:
Sample Description: LANL 6020 SDILT
Number of Replicates: 3
Batch ID: 936823|10|rmj
Method File: c:\elandata\Method\6020 nolrs thtimozr.mth
Dataset File: C:\elandata\Dataset\100113\1202004461.152

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**4.877**	**ug/L**	3.326	4812	0.004
	Be	9	**0.057**	**ug/L**	29.599	32	0.000
	B	11	**28.637**	**ug/L**	3.196	11482	0.008
	Na	23	**1806.005**	**ug/L**	12.294	6491829	4.888
	Mg	24	**2444.097**	**ug/L**	6.509	6227235	4.698
	Al	27	**774.722**	**ug/L**	1.456	2741405	2.065
	P	31	**1189.020**	**ug/L**	1.571	219992	0.161
	K	39	**393.749**	**ug/L**	6.028	2262689	1.285
	Ca	43	**82158.753**	**ug/L**	0.233	712162	0.537
>	Sc	45		**ug/L**		1324929	1324928.635
	V	51	**-58.733**	**ug/L**	18.632	-208433	-0.176
	Cr	52	**3161.142**	**ug/L**	0.972	10605866	7.999
	Cr	53		**ug/L**		1298931	0.854
	Mn	55	**48.599**	**ug/L**	1.050	244642	0.183
	Fe	57	**1414.961**	**ug/L**	0.982	141827	0.104
	Co	59	**0.580**	**ug/L**	2.532	2274	0.002
	Ni	60	**3.604**	**ug/L**	1.094	2883	0.002
	Cu	63		**ug/L**		954564	0.720
	Cu	65	**522.380**	**ug/L**	1.005	469095	0.354
	Zn	66	**215.157**	**ug/L**	0.623	125781	0.487
	Zn	67		**ug/L**		31393	0.045
	Zn	68		**ug/L**		94884	0.363
>	Ge	74		**ug/L**		257838	257838.355
	As	75	**23.079**	**ug/L**	1.350	15388	0.059
	Se	77		**ug/L**		3989	-0.021
	Se	82	**-0.102**	**ug/L**	162.956	-4	-0.000
	Kr	83		**ug/L**		107	0.000
	Sr	88	**429.475**	**ug/L**	2.079	3093512	21.559
	Y	89		**ug/L**		5816	0.040
	Ag	107	**0.020**	**ug/L**	19.880	118	0.000
	Cd	111	**1.959**	**ug/L**	5.452	1404	0.010
	Cd	114		**ug/L**		3350	0.023
>	In	115		**ug/L**		143512	143512.172
	Sn	120	**1.043**	**ug/L**	1.178	3229	0.021
	Sb	121	**-0.052**	**ug/L**	14.107	577	-0.001
	Sb	123		**ug/L**		513	-0.000
	Ba	135		**ug/L**		233020	1.200
	Ba	137	**322.957**	**ug/L**	1.831	407649	2.099
	Ho	165		**ug/L**		273	0.001
>	Lu	175		**ug/L**		194180	194180.065
	Tl	205	**0.159**	**ug/L**	26.187	1499	0.004
	Pb	208	**14.617**	**ug/L**	1.249	134286	0.690
	Bi	209		**ug/L**		304	0.001
	U	238	**4.732**	**ug/L**	1.314	44557	0.229

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	0.9999
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	0.9999
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	0.9999
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	0.9999
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45			88.5		
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74			88.4		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115			89.6		
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175			94.8		
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Ca 43 Upper, S, EEE	Ca	43	Sample is out of limits (over linear range)
V 51 Lower	V	51	Sample is out of limits (<-PQL)
Cr 52 Upper, S, EEE	Cr	52	Sample is out of limits (over linear range)

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Thursday, January 14, 2010 11:24:02
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 nolrs thtimozr.mth
Dataset File: C:\elandata\Dataset\100113\QC Std 6.154

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**49.546**	ug/L	2.460	46664	0.036
	Be	9	**53.425**	ug/L	1.885	18882	0.015
	B	11	**104.885**	ug/L	1.969	37140	0.028
	Na	23	**5159.920**	ug/L	9.286	17932691	13.964
	Mg	24	**5319.810**	ug/L	3.338	13123713	10.226
	Al	27	**4972.942**	ug/L	2.157	17013897	13.254
	P	31	**5005.287**	ug/L	0.658	876260	0.678
	K	39	**4395.135**	ug/L	2.163	18951803	14.346
	Ca	43	**4856.619**	ug/L	0.532	41438	0.032
>	Sc	45		ug/L		1283386	1283386.365
	V	51	**47.156**	ug/L	1.213	204704	0.141
	Cr	52	**48.521**	ug/L	0.962	164913	0.123
	Cr	53		ug/L		104089	-0.046
	Mn	55	**50.059**	ug/L	0.668	244050	0.189
	Fe	57	**4986.903**	ug/L	1.659	472701	0.365
	Co	59	**49.140**	ug/L	1.328	173906	0.135
	Ni	60	**49.631**	ug/L	0.860	37597	0.029
	Cu	63		ug/L		88252	0.069
	Cu	65	**48.930**	ug/L	0.906	42654	0.033
	Zn	66	**52.148**	ug/L	1.840	29534	0.118
	Zn	67		ug/L		14897	-0.017
	Zn	68		ug/L		22129	0.084
>	Ge	74		ug/L		249027	249026.599
	As	75	**47.454**	ug/L	0.809	30269	0.120
	Se	77		ug/L		4942	-0.017
	Se	82	**50.306**	ug/L	2.187	2842	0.011
	Kr	83		ug/L		91	0.000
	Sr	88	**50.252**	ug/L	0.378	349348	2.523
	Y	89		ug/L		91	0.000
	Ag	107	**49.132**	ug/L	0.410	141062	1.019
	Cd	111	**49.508**	ug/L	1.107	34009	0.246
	Cd	114		ug/L		77623	0.561
>	In	115		ug/L		138440	138440.104
	Sn	120	**49.381**	ug/L	1.398	134641	0.971
	Sb	121	**47.652**	ug/L	5.534	115429	0.829
	Sb	123		ug/L		89565	0.643
	Ba	135		ug/L		32165	0.172
	Ba	137	**46.521**	ug/L	0.940	56398	0.302
	Ho	165		ug/L		23	0.000
>	Lu	175		ug/L		186407	186407.184
	Tl	205	**48.262**	ug/L	0.795	252606	1.352
	Pb	208	**49.581**	ug/L	0.417	436735	2.342
	Bi	209		ug/L		109	0.000
	U	238	**52.557**	ug/L	1.887	473918	2.542

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	0.9999
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	0.9999
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	0.9999
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	0.9999
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7	99.091				
	Be	9	106.850				
	B	11	104.885				
	Na	23	103.198				
	Mg	24	106.396				
	Al	27	98.474				
	P	31	100.106				
	K	39	87.903				
	Ca	43	97.132				
>	Sc	45		85.7			
	V	51	94.313				
	Cr	52	97.042				
	Cr	53					
	Mn	55	100.119				
	Fe	57	99.738				
	Co	59	98.279				
	Ni	60	99.262				
	Cu	63					
	Cu	65	97.861				
	Zn	66	104.296				
	Zn	67					
	Zn	68					
>	Ge	74		85.3			
	As	75	94.909				
	Se	77					
	Se	82	100.612				
	Kr	83					
	Sr	88	100.505				
	Y	89					
	Ag	107	98.265				
	Cd	111	99.016				
	Cd	114					
>	In	115		86.4			
	Sn	120	98.761				
	Sb	121	95.304				
	Sb	123					
	Ba	135					
	Ba	137	93.041				
	Ho	165					
>	Lu	175		91.0			
	Tl	205	96.525				
	Pb	208	99.163				
	Bi	209					
	U	238	105.113				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 6	K	39	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Thursday, January 14, 2010 11:29:57
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 nolrs thtimozr.mth
Dataset File: C:\elandata\Dataset\100113\QC Std 7.155

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	0.092	ug/L	43.178	170	0.000
	Be	9	0.024	ug/L	35.204	20	0.000
	B	11	2.512	ug/L	24.278	2339	0.001
	Na	23	1.322	ug/L	132.353	23019	0.004
	Mg	24	1.211	ug/L	67.326	4668	0.002
	Al	27	-0.577	ug/L	71.888	3667	-0.002
	P	31	7.855	ug/L	12.216	8302	0.001
	K	39	20.900	ug/L	8.663	667930	0.068
	Ca	43	-3.936	ug/L	62.692	709	-0.000
>	Sc	45		ug/L		1360195	1360195.011
	V	51	-0.399	ug/L	270.348	23413	-0.001
	Cr	52	-0.998	ug/L	7.985	4345	-0.003
	Cr	53		ug/L		148090	-0.018
	Mn	55	-0.079	ug/L	6.975	1205	-0.000
	Fe	57	8.472	ug/L	66.733	5652	0.001
	Co	59	-0.001	ug/L	499.182	157	-0.000
	Ni	60	0.000	ug/L	8183.184	71	0.000
	Cu	63		ug/L		634	0.000
	Cu	65	0.219	ug/L	10.309	312	0.000
	Zn	66	0.095	ug/L	43.146	183	0.000
	Zn	67		ug/L		20939	0.003
	Zn	68		ug/L		1688	0.002
>	Ge	74		ug/L		262461	262461.361
	As	75	-0.567	ug/L	101.916	-90	-0.001
	Se	77		ug/L		6276	-0.013
	Se	82	-0.175	ug/L	33.119	-9	-0.000
	Kr	83		ug/L		87	0.000
	Sr	88	0.029	ug/L	20.554	347	0.001
	Y	89		ug/L		45	0.000
	Ag	107	0.003	ug/L	130.625	70	0.000
	Cd	111	0.009	ug/L	101.730	17	0.000
	Cd	114		ug/L		38	0.000
>	In	115		ug/L		149255	149255.105
	Sn	120	0.132	ug/L	29.039	685	0.003
	Sb	121	1.069	ug/L	49.067	3513	0.019
	Sb	123		ug/L		2744	0.015
	Ba	135		ug/L		61	0.000
	Ba	137	0.041	ug/L	39.961	93	0.000
	Ho	165		ug/L		18	0.000
>	Lu	175		ug/L		201981	201981.316
	Tl	205	0.132	ug/L	33.210	1407	0.004
	Pb	208	0.003	ug/L	125.423	280	0.000
	Bi	209		ug/L		20	-0.000
	U	238	0.082	ug/L	48.776	915	0.004

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	0.9999
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	0.9999
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	0.9999
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	0.9999
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		90.8			
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		89.9			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		93.2			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		98.6			
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS #6 Daily Performance Report

Sample ID: Sample
Sample Date/Time: Friday, January 15, 2010 23:34:07
Sample Description:
Method File: C:\elandata\Method\Daily2.mth
Dataset File: c:\elandata\Dataset\091212\Sample.255
Tuning File: c:\elandata\Tuning\default2.tun
Optimization File: c:\elandata\Optimize\default.dac
Dual Detector Mode: Pulse

Acq. Dead Time(ns): 35
Current Dead Time (ns): 35

Number of Replicates: 5

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Be	9.0	1798.3	1798.313	74.522	4.1
	Mg	24.0	22465.5	22465.457	489.213	2.2
	Co	58.9	34520.7	34520.662	386.104	1.1
	Rh	102.9	68325.0	68325.013	651.900	1.0
	In	114.9	76064.2	76064.170	453.325	0.6
	Pb	208.0	45597.7	45597.655	216.888	0.5
⌈>	Ba	137.9	70330.7	70330.696	178.418	0.3
⌊	Ba++	69.0	1852.8	0.026	0.001	2.4
⌈>	Ce	139.9	90202.9	90202.891	531.819	0.6
⌊	CeO	155.9	1524.2	0.017	0.000	2.5
	Bkgd	220.0	19.7	19.700	2.439	12.4

Current Optimization File Data

Current Value	Description
0.82	Nebulizer Gas Flow
13.25	Lens Voltage
1450.00	ICP RF Power
-1781.25	Analog Stage Voltage
900.00	Pulse Stage Voltage
30.00	Discriminator Threshold
-6.00	AC Rod Offset

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	19	12.3	3023.0
Co	59	19	13.0	34010.4
In	115	19	14.8	73040.2

ICPMS #6 Instrument Tuning Report

File Name: default2.tun
File Path: c:\elandata\Tuning

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Pk. Width
He	3.0	3.0	582	2080	0.656
Be	9.0	9.1	2045	2080	0.677
Mg	24.0	24.0	5682	2120	0.620
Mg	25.0	24.9	5901	2080	0.665
Mg	26.0	25.9	6158	2120	0.710
Co	58.9	58.9	14165	2170	0.644
Rh	102.9	102.8	24851	2230	0.709
In	114.9	114.9	27784	2260	0.696
Ce	139.9	139.9	33853	2280	0.752
Pb	206.0	206.0	49948	2430	0.732
Pb	207.0	207.0	50135	2385	0.694
Pb	208.0	208.0	50451	2430	0.719
U	238.1	238.0	57731	2470	0.716

Report Date/Time: Friday, January 15, 2010 23:33:21

ICPMS#6 - Summary Report

Sample ID: Blank
Sample Date/Time: Saturday, January 16, 2010 02:56:40
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beli.mth
Dataset File: C:\elandata\Dataset\100115\Blank.059

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Li	7		ug/L		74	
|	Be	9		ug/L		13	
⌊>	Sc	45		ug/L		999339	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	
Be	9	Simple Linear	
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈	Li	7					
|	Be	9					
⌊>	Sc	45					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Saturday, January 16, 2010 02:59:48
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\bell.mth
Dataset File: C:\elandata\Dataset\100115\Standard 1.060

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	**10.000**	**ug/L**	1.719	15680	0.018
Be	9	**10.000**	**ug/L**	2.022	4212	0.005
Sc	45		**ug/L**		860147	860147.218

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
Li	7					
Be	9					
Sc	45					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Saturday, January 16, 2010 03:02:53
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\bell.mth
Dataset File: C:\elandata\Dataset\100115\Standard 2.061

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	99.969	ug/L	1.243	154471	0.176
Be	9	99.969	ug/L	1.235	41522	0.047
Sc	45		ug/L		876980	876980.083

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
Li	7					
Be	9					
Sc	45					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Saturday, January 16, 2010 03:05:59
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beli.mth
Dataset File: C:\elandata\Dataset\100115\QC Std 1.062

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	**51.341**	**ug/L**	1.324	78882	0.090
Be	9	**51.710**	**ug/L**	1.412	21353	0.024
Sc	45		**ug/L**		871712	871711.558

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
Li	7	102.681				
Be	9	103.419				
Sc	45		87.2			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Saturday, January 16, 2010 03:09:07
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\bell.mth
Dataset File: C:\elandata\Dataset\100115\QC Std 2.063

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	0.020	ug/L	19.027	111	0.000
Be	9	-0.000	ug/L	3874.845	13	-0.000
Sc	45		ug/L		1018537	1018537.423

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
Li	7					
Be	9					
Sc	45		101.9			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Saturday, January 16, 2010 03:12:15
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\bell.mth
Dataset File: C:\elandata\Dataset\100115\QC Std 3.064

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Li	7	**11.274**	**ug/L**	1.494	17403	0.020
|	Be	9	**0.557**	**ug/L**	3.157	241	0.000
⌊>	Sc	45		**ug/L**		873117	873117.327

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈	Li	7	112.736				
|	Be	9	111.385				
⌊>	Sc	45		87.4			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Saturday, January 16, 2010 03:15:22
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\bell.mth
Dataset File: C:\elandata\Dataset\100115\QC Std 4.065

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	**0.129**	**ug/L**	7.211	256	0.000
Be	9	**0.063**	**ug/L**	19.175	36	0.000
Sc	45		**ug/L**		849525	849524.682

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
Li	7					
Be	9					
Sc	45		85.0			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Saturday, January 16, 2010 03:18:29
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beli.mth
Dataset File: C:\elandata\Dataset\100115\QC Std 5.066

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	**20.394**	**ug/L**	0.328	30066	0.036
Be	9	**19.995**	**ug/L**	1.076	7919	0.009
Sc	45		**ug/L**		835236	835235.943

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
Li	7	101.971				
Be	9	99.973				
Sc	45		83.6			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Saturday, January 16, 2010 03:21:35
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beli.mth
Dataset File: C:\elandata\Dataset\100115\QC Std 6.067

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	**52.746**	**ug/L**	0.778	80281	0.093
Be	9	**52.087**	**ug/L**	2.669	21299	0.025
Sc	45		**ug/L**		863545	863544.531

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
Li	7	105.492				
Be	9	104.175				
Sc	45		86.4			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Saturday, January 16, 2010 03:24:43
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beli.mth
Dataset File: C:\elandata\Dataset\100115\QC Std 7.068

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	0.025	ug/L	37.131	120	0.000
Be	9	0.004	ug/L	76.111	15	0.000
Sc	45		ug/L		1012406	1012406.418

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
Li	7					
Be	9					
Sc	45		101.3			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 10
Sample Date/Time: Saturday, January 16, 2010 03:27:51
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beli.mth
Dataset File: C:\elandata\Dataset\100115\QC Std 10.069

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	**1016.557**	**ug/L**	1.195	1468313	1.791
Be	9	**1027.612**	**ug/L**	0.759	399061	0.487
Sc	45		**ug/L**		820032	820031.850

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
Li	7	101.656				
Be	9	102.761				
Sc	45		82.1			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 11
Sample Date/Time: Saturday, January 16, 2010 03:30:56
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beli.mth
Dataset File: C:\elandata\Dataset\100115\QC Std 11.070

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	**51.450**	**ug/L**	1.422	81284	0.091
Be	9	**51.364**	**ug/L**	1.300	21811	0.024
Sc	45		**ug/L**		896376	896375.848

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
Li	7	102.899				
Be	9	102.728				
Sc	45		89.7			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 12
Sample Date/Time: Saturday, January 16, 2010 03:34:05
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\bell.mth
Dataset File: C:\elandata\Dataset\100115\QC Std 12.071

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	0.088	ug/L	6.788	241	0.000
Be	9	0.013	ug/L	79.289	20	0.000
Sc	45		ug/L		1049823	1049823.020

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
Li	7					
Be	9					
Sc	45		105.1			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202004457
Sample Date/Time: Saturday, January 16, 2010 03:37:14
Sample Type:
Sample Description: LANL 6020 MB
Number of Replicates: 3
Batch ID: 936823|2|rm|
Method File: c:\elandata\Method\beli.mth
Dataset File: C:\elandata\Dataset\100115\1202004457.072

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	**0.044**	**ug/L**	6.435	171	0.000
Be	9	**0.005**	**ug/L**	96.924	17	0.000
Sc	45		**ug/L**		1120667	1120666.957

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
Li	7					
Be	9					
Sc	45		112.1			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202004458
Sample Date/Time: Saturday, January 16, 2010 03:40:24
Sample Type:
Sample Description: LANL 6020 LCS
Number of Replicates: 3
Batch ID: 936823|20|rmj
Method File: c:\elandata\Method\beli.mth
Dataset File: C:\elandata\Dataset\100115\1202004458.073

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Li	7	**5.157**	**ug/L**	1.086	9069	0.009
|	Be	9	**38.166**	**ug/L**	0.734	17910	0.018
⌊>	Sc	45		**ug/L**		990297	990296.965

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈	Li	7					
|	Be	9					
⌊>	Sc	45		99.1			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202004458
Sample Date/Time: Saturday, January 16, 2010 03:43:33
Sample Type:
Sample Description: LANL 6020 LCS
Number of Replicates: 3
Batch ID: 936823|40|rmj
Method File: c:\elandata\Method\beli.mth
Dataset File: C:\elandata\Dataset\100115\1202004458.074

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Li	7	2.536	ug/L	1.380	4433	0.004
|	Be	9	18.716	ug/L	1.867	8664	0.009
⌊>	Sc	45		ug/L		976193	976192.714

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈	Li	7					
|	Be	9					
⌊>	Sc	45		97.7			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 243550001
Sample Date/Time: Saturday, January 16, 2010 03:46:42
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 936823|2|rmj
Method File: c:\elandata\Method\beli.mth
Dataset File: C:\elandata\Dataset\100115\243550001.075

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Li	7	**30.775**	**ug/L**	1.199	61696	0.054
|	Be	9	**1.992**	**ug/L**	4.603	1086	0.001
⌊>	Sc	45		**ug/L**		1136806	1136805.683

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈	Li	7					
|	Be	9					
⌊>	Sc	45		113.8			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Saturday, January 16, 2010 04:08:16
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beli.mth
Dataset File: C:\elandata\Dataset\100115\QC Std 6.081

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	52.648	ug/L	0.753	81078	0.093
Be	9	52.455	ug/L	0.499	21713	0.025
Sc	45		ug/L		873672	873671.657

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
Li	7	105.297				
Be	9	104.911				
Sc	45		87.4			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Saturday, January 16, 2010 04:11:24
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beli.mth
Dataset File: C:\elandata\Dataset\100115\QC Std 7.082

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	0.034	ug/L	23.709	139	0.000
Be	9	0.001	ug/L	1343.079	14	0.000
Sc	45		ug/L		1032656	1032656.312

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
Li	7					
Be	9					
Sc	45		103.3			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 243550002
Sample Date/Time: Saturday, January 16, 2010 04:17:18
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 936823|2|rmj
Method File: c:\elandata\Method\beli.mth
Dataset File: C:\elandata\Dataset\100115\243550002.083

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**56.788**	**ug/L**	1.059	114230	0.100
	Be	9	**6.122**	**ug/L**	3.676	3321	0.003
>	Sc	45		**ug/L**		1141140	1141139.786

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
>	Sc	45		114.2			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 243550003
Sample Date/Time: Saturday, January 16, 2010 04:20:28
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 936823|2|rmj
Method File: c:\elandata\Method\bell.mth
Dataset File: C:\elandata\Dataset\100115\243550003.084

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Li	7	**12.667**	**ug/L**	0.134	24386	0.022
|	Be	9	**1.132**	**ug/L**	1.238	598	0.001
⌊>	Sc	45		**ug/L**		1089315	1089314.779

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈	Li	7					
|	Be	9					
⌊>	Sc	45			109.0		

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 243550004
Sample Date/Time: Saturday, January 16, 2010 04:23:37
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 936823|2|rm|
Method File: c:\elandata\Method\beli.mth
Dataset File: C:\elandata\Dataset\100115\243550004.085

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Li	7	**15.202**	**ug/L**	3.038	29188	0.027
|	Be	9	**1.506**	**ug/L**	1.506	789	0.001
⌊>	Sc	45		**ug/L**		1087223	1087223.038

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈	Li	7					
|	Be	9					
⌊>	Sc	45		108.8			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 243550005
Sample Date/Time: Saturday, January 16, 2010 04:26:47
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 936823|2|rmj
Method File: c:\elandata\Method\beli.mth
Dataset File: C:\elandata\Dataset\100115\243550005.086

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**36.657**	**ug/L**	1.127	70378	0.065
	Be	9	**1.686**	**ug/L**	3.656	883	0.001
>	Sc	45		**ug/L**		1088667	1088666.690

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
>	Sc	45		108.9			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 243550006
Sample Date/Time: Saturday, January 16, 2010 04:29:56
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 936823|2|rmj
Method File: c:\elandata\Method\bell.mth
Dataset File: C:\elandata\Dataset\100115\243550006.087

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Li	7	**34.432**	**ug/L**	1.054	65916	0.061
|	Be	9	**1.432**	**ug/L**	2.582	750	0.001
⌊>	Sc	45		**ug/L**		1085595	1085594.641

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈	Li	7					
|	Be	9					
⌊>	Sc	45		108.6			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 243550007
Sample Date/Time: Saturday, January 16, 2010 04:33:06
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 936823|2|rmj
Method File: c:\elandata\Method\beli.mth
Dataset File: C:\elandata\Dataset\100115\243550007.088

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	**94.655**	**ug/L**	0.868	196712	0.167
Be	9	**8.108**	**ug/L**	0.620	4543	0.004
Sc	45		**ug/L**		1179295	1179294.795

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
Li	7					
Be	9					
Sc	45		118.0			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 243550008
Sample Date/Time: Saturday, January 16, 2010 04:36:16
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 936823|2|rmj
Method File: c:\elandata\Method\beli.mth
Dataset File: C:\elandata\Dataset\100115\243550008.089

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	**13.267**	**ug/L**	0.311	25581	0.023
Be	9	**1.203**	**ug/L**	5.468	635	0.001
Sc	45		**ug/L**		1091273	1091273.483

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
Li	7					
Be	9					
Sc	45		109.2			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 243550009
Sample Date/Time: Saturday, January 16, 2010 04:39:26
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 936823|2|rmj
Method File: c:\elandata\Method\beli.mth
Dataset File: C:\elandata\Dataset\100115\243550009.090

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**38.937**	**ug/L**	1.387	74718	0.069
	Be	9	**1.281**	**ug/L**	3.050	674	0.001
>	Sc	45		**ug/L**		1088350	1088350.220

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
>	Sc	45		108.9			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 243550010
Sample Date/Time: Saturday, January 16, 2010 04:42:36
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 936823|2|rmj
Method File: c:\elandata\Method\beli.mth
Dataset File: C:\elandata\Dataset\100115\243550010.091

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Li	7	35.959	ug/L	1.545	71304	0.063
|	Be	9	3.652	ug/L	1.646	1960	0.002
⌊>	Sc	45		ug/L		1124764	1124763.978

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈	Li	7					
|	Be	9					
⌊>	Sc	45		112.6			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 8
Sample Date/Time: Saturday, January 16, 2010 04:45:45
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beli.mth
Dataset File: C:\elandata\Dataset\100115\QC Std 8.092

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	**52.492**	**ug/L**	2.429	81544	0.092
Be	9	**52.628**	**ug/L**	1.471	21976	0.025
Sc	45		**ug/L**		881621	881620.804

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
Li	7	104.983				
Be	9	105.255				
Sc	45		88.2			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 9
Sample Date/Time: Saturday, January 16, 2010 04:48:53
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beli.mth
Dataset File: C:\elandata\Dataset\100115\QC Std 9.093

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	0.026	ug/L	35.359	125	0.000
Be	9	0.004	ug/L	231.651	15	0.000
Sc	45		ug/L		1041374	1041373.607

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
Li	7					
Be	9					
Sc	45		104.2			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 243550011
Sample Date/Time: Saturday, January 16, 2010 04:52:03
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 936823|2|rmj
Method File: c:\elandata\Method\beli.mth
Dataset File: C:\elandata\Dataset\100115\243550011.094

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	49.746	ug/L	0.924	98071	0.088
	Be	9	2.646	ug/L	1.761	1415	0.001
>	Sc	45		ug/L		1118439	1118438.970

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
>	Sc	45		111.9			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 243550012
Sample Date/Time: Saturday, January 16, 2010 04:55:13
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 936823|2|rmj
Method File: c:\elandata\Method\beli.mth
Dataset File: C:\elandata\Dataset\100115\243550012.095

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	30.491	ug/L	0.858	57833	0.054
Be	9	1.674	ug/L	5.278	867	0.001
Sc	45		ug/L		1075402	1075401.922

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
Li	7					
Be	9					
Sc	45		107.6			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 243550013
Sample Date/Time: Saturday, January 16, 2010 04:58:24
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 936823|2|rmj
Method File: c:\elandata\Method\beli.mth
Dataset File: C:\elandata\Dataset\100115\243550013.096

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	**26.895**	**ug/L**	1.167	52577	0.047
Be	9	**1.017**	**ug/L**	5.819	548	0.000
Sc	45		**ug/L**		1108276	1108275.703

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
Li	7					
Be	9					
Sc	45		110.9			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202004459
Sample Date/Time: Saturday, January 16, 2010 05:04:44
Sample Type:
Sample Description: LANL 6020 DUP
Number of Replicates: 3
Batch ID: 936823|2|rmj
Method File: c:\elandata\Method\bell.mth
Dataset File: C:\elandata\Dataset\100115\1202004459.098

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	**21.979**	**ug/L**	1.625	42287	0.039
Be	9	**0.086**	**ug/L**	9.203	58	0.000
Sc	45		**ug/L**		1090239	1090239.155

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
Li	7					
Be	9					
Sc	45		109.1			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202004460
Sample Date/Time: Saturday, January 16, 2010 05:07:55
Sample Type:
Sample Description: LANL 6020 MS
Number of Replicates: 3
Batch ID: 936823|2|rmj
Method File: c:\elandata\Method\beli.mth
Dataset File: C:\elandata\Dataset\100115\1202004460.099

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Li	7	**47.908**	**ug/L**	1.947	92563	0.084
|	Be	9	**20.993**	**ug/L**	1.093	10911	0.010
⌊>	Sc	45		**ug/L**		1096170	1096170.014

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈	Li	7					
|	Be	9					
⌊>	Sc	45		109.7			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202004462
Sample Date/Time: Saturday, January 16, 2010 05:11:05
Sample Type:
Sample Description: LANL 6020 MSD
Number of Replicates: 3
Batch ID: 936823|2|rmj
Method File: c:\elandata\Method\beli.mth
Dataset File: C:\elandata\Dataset\100115\1202004462.100

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	**42.788**	**ug/L**	1.958	82530	0.075
Be	9	**20.071**	**ug/L**	1.055	10413	0.010
Sc	45		**ug/L**		1094180	1094180.097

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
Li	7					
Be	9					
Sc	45		109.5			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202004461
Sample Date/Time: Saturday, January 16, 2010 05:14:15
Sample Type:
Sample Description: LANL 6020 SDILT
Number of Replicates: 3
Batch ID: 936823|10|rmj
Method File: c:\elandata\Method\bell.mth
Dataset File: C:\elandata\Dataset\100115\1202004461.101

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	**4.846**	**ug/L**	1.987	8661	0.009
Be	9	**0.052**	**ug/L**	42.761	38	0.000
Sc	45		**ug/L**		1006285	1006285.244

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
Li	7					
Be	9					
Sc	45		100.7			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 8
Sample Date/Time: Saturday, January 16, 2010 05:20:30
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beli.mth
Dataset File: C:\elandata\Dataset\100115\QC Std 8.103

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	**49.127**	**ug/L**	0.832	81378	0.087
Be	9	**50.701**	**ug/L**	1.285	22571	0.024
Sc	45		**ug/L**		939651	939650.743

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
Li	7	98.254				
Be	9	101.401				
Sc	45		94.0			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 9
Sample Date/Time: Saturday, January 16, 2010 05:23:39
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beli.mth
Dataset File: C:\elandata\Dataset\100115\QC Std 9.104

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	0.055	ug/L	24.527	182	0.000
Be	9	0.006	ug/L	105.471	16	0.000
Sc	45		ug/L		1059834	1059834.420

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
Li	7					
Be	9					
Sc	45		106.1			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: Blank
Sample Date/Time: Saturday, January 16, 2010 10:06:31
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\asse.mth
Dataset File: C:\elandata\Dataset\100115\Blank.180

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Ge	74		ug/L		231540	
	As	75		ug/L		370	
	Se	77		ug/L		4196	
	Se	82		ug/L		-14	
	Kr	83		ug/L		86	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Ge	74	Simple Linear	
As	75	Simple Linear	
Se	77	Simple Linear	
Se	82	Simple Linear	
Kr	83	Simple Linear	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Saturday, January 16, 2010 10:09:17
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\asse.mth
Dataset File: C:\elandata\Dataset\100115\Standard 1.181

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Ge	74		ug/L		220625	220625.208
As	75	10.000	ug/L	1.230	8023	0.035
Se	77		ug/L		3860	-0.001
Se	82	10.000	ug/L	1.874	615	0.003
Kr	83		ug/L		87	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
Ge	74					
As	75					
Se	77					
Se	82					
Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Saturday, January 16, 2010 10:12:02
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\asse.mth
Dataset File: C:\elandata\Dataset\100115\Standard 2.182

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Ge	74		ug/L		218039	218039.201
	As	75	99.980	ug/L	2.077	74612	0.341
	Se	77		ug/L		8038	0.019
	Se	82	100.006	ug/L	0.387	6232	0.029
	Kr	83		ug/L		88	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Saturday, January 16, 2010 10:14:47
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\asse.mth
Dataset File: C:\elandata\Dataset\100115\QC Std 1.183

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Ge	74		ug/L		213600	213600.085
As	75	**48.643**	ug/L	2.265	35737	0.166
Se	77		ug/L		5714	0.009
Se	82	**50.935**	ug/L	1.367	3104	0.015
Kr	83		ug/L		88	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
Ge	74		92.3			
As	75	97.285				
Se	77					
Se	82	101.870				
Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Saturday, January 16, 2010 10:17:34
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\asse.mth
Dataset File: C:\elandata\Dataset\100115\QC Std 2.184

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Ge	74		ug/L		229015	229014.996
	As	75	-0.087	ug/L	494.752	295	-0.000
	Se	77		ug/L		4234	0.000
	Se	82	-0.158	ug/L	224.437	-24	-0.000
	Kr	83		ug/L		90	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Ge	74		98.9			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Saturday, January 16, 2010 10:20:22
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\asse.mth
Dataset File: C:\elandata\Dataset\100115\QC Std 3.185

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Ge	74		ug/L		218308	218307.931
	As	75	5.636	ug/L	3.127	4542	0.019
	Se	77		ug/L		3636	-0.001
	Se	82	5.517	ug/L	5.599	332	0.002
	Kr	83		ug/L		82	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Ge	74		94.3			
	As	75	112.720				
	Se	77					
	Se	82	110.332				
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Saturday, January 16, 2010 10:23:08
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\asse.mth
Dataset File: C:\elandata\Dataset\100115\QC Std 4.186

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Ge	74		ug/L		204893	204892.586
	As	75	0.306	ug/L	93.005	541	0.001
	Se	77		ug/L		4344	0.003
	Se	82	-1.448	ug/L	37.715	-97	-0.000
	Kr	83		ug/L		194	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Ge	74		88.5			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Saturday, January 16, 2010 10:25:55
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\asse.mth
Dataset File: C:\elandata\Dataset\100115\QC Std 5.187

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Ge	74		ug/L		199058	199057.631
	As	75	**21.173**	ug/L	3.116	14678	0.072
	Se	77		ug/L		5061	0.007
	Se	82	**20.527**	ug/L	3.701	1158	0.006
	Kr	83		ug/L		193	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Ge	74		86.0			
	As	75	105.865				
	Se	77					
	Se	82	102.636				
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Saturday, January 16, 2010 10:28:41
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\asse.mth
Dataset File: C:\elandata\Dataset\100115\QC Std 6.188

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Ge	74		ug/L		209148	209147.794
As	75	46.318	ug/L	1.907	33335	0.158
Se	77		ug/L		5236	0.007
Se	82	48.788	ug/L	1.451	2909	0.014
Kr	83		ug/L		87	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
Ge	74		90.3			
As	75	92.636				
Se	77					
Se	82	97.575				
Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Saturday, January 16, 2010 10:31:28
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\asse.mth
Dataset File: C:\elandata\Dataset\100115\QC Std 7.189

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Ge	74		ug/L		225453	225453.331
As	75	-0.346	ug/L	29.837	95	-0.001
Se	77		ug/L		3880	-0.001
Se	82	0.062	ug/L	436.266	-10	0.000
Kr	83		ug/L		82	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
Ge	74		97.4			
As	75					
Se	77					
Se	82					
Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202004459
Sample Date/Time: Saturday, January 16, 2010 10:42:37
Sample Type:
Sample Description: LANL 6020 DUP
Number of Replicates: 3
Batch ID: 936823|10|rm|
Method File: c:\elandata\Method\asse.mth
Dataset File: C:\elandata\Dataset\100115\1202004459.193

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Ge	74		ug/L		224767	224766.641
	As	75	16.403	ug/L	4.031	12917	0.056
	Se	77		ug/L		4137	0.000
	Se	82	0.675	ug/L	13.999	30	0.000
	Kr	83		ug/L		95	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Ge	74		97.1			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202004460
Sample Date/Time: Saturday, January 16, 2010 10:45:23
Sample Type:
Sample Description: LANL 6020 MS
Number of Replicates: 3
Batch ID: 936823|10|rmj
Method File: c:\elandata\Method\asse.mth
Dataset File: C:\elandata\Dataset\100115\1202004460.194

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Ge	74		ug/L		223907	223906.512
	As	75	24.028	ug/L	1.906	18687	0.082
	Se	77		ug/L		4369	0.001
	Se	82	2.076	ug/L	10.944	120	0.001
	Kr	83		ug/L		115	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Ge	74		96.7			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202004462
Sample Date/Time: Saturday, January 16, 2010 10:48:09
Sample Type:
Sample Description: LANL 6020 MSD
Number of Replicates: 3
Batch ID: 936823|10|rmj
Method File: c:\elandata\Method\asse.mth
Dataset File: C:\elandata\Dataset\100115\1202004462.195

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Ge	74		ug/L		223890	223889.660
	As	75	**29.761**	ug/L	0.597	23061	0.101
	Se	77		ug/L		4568	0.002
	Se	82	**2.496**	ug/L	35.206	146	0.001
	Kr	83		ug/L		97	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Ge	74		96.7			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202004461
Sample Date/Time: Saturday, January 16, 2010 10:50:56
Sample Type:
Sample Description: LANL 6020 SDILT
Number of Replicates: 3
Batch ID: 936823|50|rmj
Method File: c:\elandata\Method\asse.mth
Dataset File: C:\elandata\Dataset\100115\1202004461.196

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Ge	74		ug/L		218285	218285.379
	As	75	4.443	ug/L	4.995	3654	0.015
	Se	77		ug/L		3692	-0.001
	Se	82	0.113	ug/L	176.320	-6	0.000
	Kr	83		ug/L		92	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Ge	74		94.3			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Saturday, January 16, 2010 10:56:29
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\asse.mth
Dataset File: C:\elandata\Dataset\100115\QC Std 6.198

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Ge	74		ug/L		210568	210567.697
	As	75	46.483	ug/L	0.745	33686	0.158
	Se	77		ug/L		5122	0.006
	Se	82	49.035	ug/L	2.442	2945	0.014
	Kr	83		ug/L		86	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Ge	74		90.9			
	As	75	92.966				
	Se	77					
	Se	82	98.070				
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Saturday, January 16, 2010 10:59:17
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\asse.mth
Dataset File: C:\elandata\Dataset\100115\QC Std 7.199

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Ge	74		ug/L		224498	224498.347
	As	75	-0.211	ug/L	296.618	194	-0.001
	Se	77		ug/L		3473	-0.003
	Se	82	-0.086	ug/L	289.913	-19	-0.000
	Kr	83		ug/L		84	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Ge	74		97.0			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

Analysis Begun

Logged In Analyst: Administrator **Technique: AA FIMS-MHS**
Spectrometer Model: FIMS-100, S/N B050-9550 **Autosampler Model: S10**

Sample Information File: C:\data-AA\Administrator\Sample Information\011110S1.SIF
Batch ID:
Results Data Set: 011110S1
Results Library: C:\data-AA\Administrator\Results\Results.mdb

Method Loaded
Method Name: SOIL **Method Last Saved: 1/4/2010 13:53:20**
Method Description: 7471A, ILM04 ANALYST JXL

Sequence No.: 1 **Autosampler Location: 1**
Sample ID: Calib Blank **Date Collected: 1/11/2010 09:22:27**
Analyst: **Data Type: Original**

Replicate Data: Calib Blank

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.00]	0.0001	-0.0004	0.0001	09:23:19	Yes
2		[0.00]	0.0000	-0.0012	0.0000	09:23:48	Yes
Mean:		[0.00]	0.0000				
SD:		0.00	0.0000				
%RSD:		0.00	48.93				

Auto-zero performed.

Sequence No.: 2 **Autosampler Location: 2**
Sample ID: S0.2 **Date Collected: 1/11/2010 09:24:07**
Analyst: **Data Type: Original**

Replicate Data: S0.2

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.2]	0.0023	0.0091	0.0023	09:24:58	Yes
2		[0.2]	0.0023	0.0094	0.0023	09:25:28	Yes
Mean:		[0.2]	0.0023				
SD:		0.0	0.0000				
%RSD:		0.0	0.38				

Standard number 1 applied. [0.2]
Correlation Coef.: 1.000000 Slope: 0.01133 Intercept: 0.00000

Sequence No.: 3 **Autosampler Location: 3**
Sample ID: S0.5 **Date Collected: 1/11/2010 09:25:47**
Analyst: **Data Type: Original**

Replicate Data: S0.5

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.5]	0.0057	0.0239	0.0057	09:26:38	Yes
2		[0.5]	0.0057	0.0244	0.0058	09:27:08	Yes
Mean:		[0.5]	0.0057				
SD:		0.0	0.0000				
%RSD:		0.0	0.58				

Standard number 2 applied. [0.5]
Correlation Coef.: 0.999992 Slope: 0.01144 Intercept: -0.00001

Sequence No.: 4 **Autosampler Location: 4**
Sample ID: S2.0 **Date Collected: 1/11/2010 09:27:28**
Analyst: **Data Type: Original**

Replicate Data: S2.0

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[2.0]	0.0226	0.0984	0.0227	09:28:19	Yes
2		[2.0]	0.0225	0.0979	0.0226	09:28:49	Yes
Mean:		[2.0]	0.0226				
SD:		0.0	0.0001				
%RSD:		0.0	0.33				

Standard number 3 applied. [2.0]
Correlation Coef.: 0.999994 Slope: 0.01128 Intercept: 0.00002

Sequence No.: 5 **Autosampler Location: 5**
Sample ID: S5.0 **Date Collected: 1/11/2010 09:29:09**
Analyst: **Data Type: Original**

Replicate Data: S5.0

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[5.0]	0.0574	0.2521	0.0574	09:30:00	Yes
2		[5.0]	0.0567	0.2493	0.0568	09:30:30	Yes
Mean:		[5.0]	0.0570				
SD:		0.0	0.0005				
%RSD:		0.0	0.80				

Standard number 4 applied. [5.0]
Correlation Coef.: 0.999990 Slope: 0.01140 Intercept: -0.00004

Sequence No.: 6 **Autosampler Location: 6**
Sample ID: S10.0 **Date Collected: 1/11/2010 09:30:50**
Analyst: **Data Type: Original**

Replicate Data: S10.0

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[10.0]	0.1087	0.4815	0.1087	09:31:40	Yes
2		[10.0]	0.1085	0.4779	0.1085	09:32:10	Yes
Mean:		[10.0]	0.1086				
SD:		0.0	0.0001				
%RSD:		0.0	0.13				

Standard number 5 applied. [10.0]
Correlation Coef.: 0.999696 Slope: 0.01091 Intercept: 0.00052

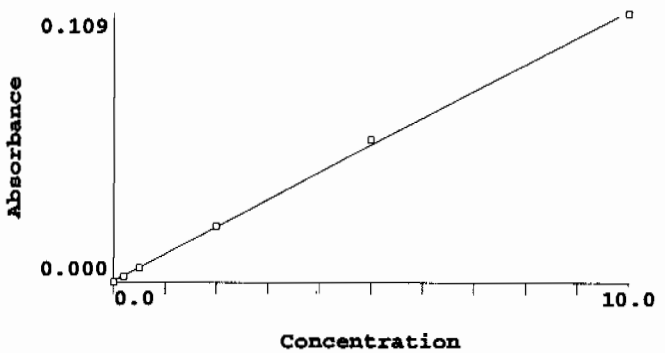

Calibration data for Hg 253.7 **Equation: Linear, Calculated Intercept**

ID	Mean Signal (Abs)	Entered Conc. ug/L	Calculated Conc. ug/L	Standard Deviation	%RSD
Calib Blank	0.0000	0	-0.048	0.00	48.9
S0.2	0.0023	0.2	0.160	0.00	0.4
S0.5	0.0057	0.5	0.477	0.00	0.6
S2.0	0.0226	2.0	2.022	0.00	0.3

S5.0	0.0570	5.0	5.182	0.00	0.8
S10.0	0.1086	10.0	9.906	0.00	0.1

Correlation Coef.: 0.999696 Slope: 0.01091 Intercept: 0.00052

Sequence No.: 7 **Autosampler Location: 9**
Sample ID: ICV **Date Collected: 1/11/2010 09:32:29**
Analyst: **Data Type: Original**

Replicate Data: ICV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.216	5.216	0.0574	0.2525	0.0574	09:33:19	Yes
2	5.235	5.235	0.0576	0.2524	0.0577	09:33:49	Yes
Mean:	5.226	5.226	0.0575				
SD:	0.014	0.014	0.0001				
%RSD:	0.259	0.259	0.26				

QC value within limits for Hg 253.7 Recovery = 104.52%
All analyte(s) passed QC.

Sequence No.: 8 **Autosampler Location: 10**
Sample ID: ICB **Date Collected: 1/11/2010 09:34:09**
Analyst: **Data Type: Original**

Replicate Data: ICB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.039	-0.039	0.0001	-0.0004	0.0001	09:35:01	Yes
2	-0.035	-0.035	0.0001	-0.0004	0.0002	09:35:30	Yes
Mean:	-0.037	-0.037	0.0001				
SD:	0.003	0.003	0.0000				
%RSD:	7.949	7.949	28.67				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 9 **Autosampler Location: 11**
Sample ID: CRDL **Date Collected: 1/11/2010 09:35:50**
Analyst: **Data Type: Original**

Replicate Data: CRDL

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.177	0.177	0.0024	0.0102	0.0025	09:36:42	Yes
2	0.170	0.170	0.0024	0.0094	0.0024	09:37:12	Yes
Mean:	0.174	0.174	0.0024				
SD:	0.005	0.005	0.0001				
%RSD:	2.819	2.819	2.21				

QC value within limits for Hg 253.7 Recovery = 86.81%
All analyte(s) passed QC.

Sequence No.: 10 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 1/11/2010 09:37:32**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.171	5.171	0.0569	0.2500	0.0570	09:38:23	Yes
2	5.113	5.113	0.0563	0.2462	0.0563	09:38:53	Yes
Mean:	5.142	5.142	0.0566				
SD:	0.041	0.041	0.0004				
%RSD:	0.800	0.800	0.79				

QC value within limits for Hg 253.7 Recovery = 102.83%
All analyte(s) passed QC.

Sequence No.: 11
Sample ID: CCB
Analyst:
Autosampler Location: 8
Date Collected: 1/11/2010 09:39:12
Data Type: Original

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.045	-0.045	0.0000	-0.0006	0.0001	09:40:02	Yes
2	-0.041	-0.041	0.0001	-0.0002	0.0001	09:40:32	Yes
Mean:	-0.043	-0.043	0.0001				
SD:	0.003	0.003	0.0000				
%RSD:	6.269	6.269	54.71				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 12
Sample ID: IDL1
Analyst: JXL
Autosampler Location: 12
Date Collected: 1/11/2010 09:40:51
Data Type: Original

Replicate Data: IDL1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.044	-0.044	0.0000	-0.0005	0.0001	09:41:43	Yes
2	-0.042	-0.042	0.0001	-0.0002	0.0001	09:42:13	Yes
Mean:	-0.043	-0.043	0.0001				
SD:	0.001	0.001	0.0000				
%RSD:	2.437	2.437	21.94				

Sequence No.: 13
Sample ID: IDL2
Analyst: JXL
Autosampler Location: 13
Date Collected: 1/11/2010 09:42:33
Data Type: Original

Replicate Data: IDL2

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.043	-0.043	0.0000	-0.0004	0.0001	09:43:25	Yes
2	-0.044	-0.044	0.0000	-0.0004	0.0001	09:43:55	Yes
Mean:	-0.044	-0.044	0.0000				
SD:	0.001	0.001	0.0000				
%RSD:	1.555	1.555	17.40				

Sequence No.: 14
Sample ID: IDL3
Analyst: JXL
Autosampler Location: 14
Date Collected: 1/11/2010 09:44:16
Data Type: Original

Replicate Data: IDL3

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.044	-0.044	0.0000	-0.0005	0.0001	09:45:06	Yes
2	-0.042	-0.042	0.0001	-0.0004	0.0001	09:45:36	Yes
Mean:	-0.043	-0.043	0.0001				
SD:	0.002	0.002	0.0000				
%RSD:	3.620	3.620	33.84				

Sequence No.: 15
Sample ID: IDL4
Analyst: JXL
Autosampler Location: 15
Date Collected: 1/11/2010 09:45:55
Data Type: Original

Replicate Data: IDL4

Repl	SampleConc	StndConc	BlnkCorr	Peak	Peak	Time	Peak

#	ug/L	ug/L	Signal	Area	Height		Stored
1	-0.038	-0.038	0.0001	-0.0001	0.0001	09:46:46	Yes
2	-0.044	-0.044	0.0000	-0.0014	0.0001	09:47:16	Yes
Mean:	-0.041	-0.041	0.0001				
SD:	0.004	0.004	0.0000				
%RSD:	10.10	10.10	65.94				

==========

Sequence No.: 16 **Autosampler Location: 16**
Sample ID: IDL5 **Date Collected: 1/11/2010 09:47:35**
Analyst: JXL **Data Type: Original**

Replicate Data: IDL5

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.032	-0.032	0.0002	0.0000	0.0002	09:48:25	Yes
2	-0.036	-0.036	0.0001	-0.0001	0.0002	09:48:55	Yes
Mean:	-0.034	-0.034	0.0002				
SD:	0.003	0.003	0.0000				
%RSD:	8.117	8.117	19.60				

==========

Sequence No.: 17 **Autosampler Location: 17**
Sample ID: IDL6 **Date Collected: 1/11/2010 09:49:14**
Analyst: JXL **Data Type: Original**

Replicate Data: IDL6

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.040	-0.040	0.0001	-0.0008	0.0001	09:50:04	Yes
2	-0.032	-0.032	0.0002	-0.0003	0.0002	09:50:34	Yes
Mean:	-0.036	-0.036	0.0001				
SD:	0.006	0.006	0.0001				
%RSD:	15.19	15.19	48.82				

==========

Sequence No.: 18 **Autosampler Location: 18**
Sample ID: IDL7 **Date Collected: 1/11/2010 09:50:53**
Analyst: JXL **Data Type: Original**

Replicate Data: IDL7

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.038	-0.038	0.0001	-0.0003	0.0001	09:51:44	Yes
2	-0.035	-0.035	0.0001	-0.0002	0.0002	09:52:14	Yes
Mean:	-0.037	-0.037	0.0001				
SD:	0.002	0.002	0.0000				
%RSD:	4.475	4.475	14.96				

==========

Sequence No.: 19 **Autosampler Location: 19**
Sample ID: 1202010664|939596|1 **Date Collected: 1/11/2010 09:52:33**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202010664|939596|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.036	-0.036	0.0001	-0.0003	0.0002	09:53:24	Yes
2	-0.035	-0.035	0.0001	0.0003	0.0002	09:53:54	Yes
Mean:	-0.036	-0.036	0.0001				
SD:	0.001	0.001	0.0000				
%RSD:	2.138	2.138	6.41				

==========

Sequence No.: 20 **Autosampler Location: 20**
Sample ID: 1202010665|939596|10 **Date Collected: 1/11/2010 09:54:13**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202010665|939596|10

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	3.981	3.981	0.0439	0.1898	0.0440	09:55:04	Yes
2	3.968	3.968	0.0438	0.1888	0.0438	09:55:34	Yes
Mean:	3.974	3.974	0.0439				
SD:	0.009	0.009	0.0001				
%RSD:	0.221	0.221	0.22				

Sequence No.: 21
Sample ID: 243547002|939596|1
Analyst: JXL
Autosampler Location: 21
Date Collected: 1/11/2010 09:55:54
Data Type: Original

Replicate Data: 243547002|939596|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.029	-0.029	0.0002	0.0004	0.0002	09:56:44	Yes
2	-0.030	-0.030	0.0002	0.0006	0.0002	09:57:14	Yes
Mean:	-0.030	-0.030	0.0002				
SD:	0.001	0.001	0.0000				
%RSD:	1.793	1.793	3.00				

Sequence No.: 22
Sample ID: CCV
Analyst:
Autosampler Location: 7
Date Collected: 1/11/2010 09:57:34
Data Type: Original

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.204	5.204	0.0573	0.2479	0.0573	09:58:24	Yes
2	5.153	5.153	0.0567	0.2457	0.0568	09:58:54	Yes
Mean:	5.178	5.178	0.0570				
SD:	0.036	0.036	0.0004				
%RSD:	0.701	0.701	0.69				

QC value within limits for Hg 253.7 Recovery = 103.57%
All analyte(s) passed QC.

Sequence No.: 23
Sample ID: CCB
Analyst:
Autosampler Location: 8
Date Collected: 1/11/2010 09:59:13
Data Type: Original

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.040	-0.040	0.0001	0.0000	0.0001	10:00:04	Yes
2	-0.041	-0.041	0.0001	-0.0001	0.0001	10:00:34	Yes
Mean:	-0.041	-0.041	0.0001				
SD:	0.000	0.000	0.0000				
%RSD:	0.267	0.267	1.55				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 24
Sample ID: 243547003|939596|1
Analyst: JXL
Autosampler Location: 22
Date Collected: 1/11/2010 10:00:53
Data Type: Original

Replicate Data: 243547003|939596|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.031	-0.031	0.0002	0.0004	0.0002	10:01:45	Yes
2	-0.028	-0.028	0.0002	0.0007	0.0003	10:02:14	Yes

Mean:	-0.029	-0.029	0.0002
SD:	0.002	0.002	0.0000
%RSD:	8.471	8.471	13.74

==========

Sequence No.: 25 **Autosampler Location: 23**
Sample ID: 243549002|939596|1 **Date Collected: 1/11/2010 10:02:34**
Analyst: JXL **Data Type: Original**

Replicate Data: 243549002|939596|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.088	0.088	0.0015	0.0060	0.0015	10:03:25	Yes
2	0.081	0.081	0.0014	0.0058	0.0014	10:03:55	Yes
Mean:	0.085	0.085	0.0014				
SD:	0.005	0.005	0.0001				
%RSD:	5.600	5.600	3.59				

==========

Sequence No.: 26 **Autosampler Location: 24**
Sample ID: 243550001|939596|1 **Date Collected: 1/11/2010 10:04:15**
Analyst: JXL **Data Type: Original**

Replicate Data: 243550001|939596|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.017	0.017	0.0007	0.0028	0.0007	10:05:07	Yes
2	0.014	0.014	0.0007	0.0028	0.0007	10:05:37	Yes
Mean:	0.015	0.015	0.0007				
SD:	0.002	0.002	0.0000				
%RSD:	15.12	15.12	3.68				

==========

Sequence No.: 27 **Autosampler Location: 25**
Sample ID: 243550002|939596|1 **Date Collected: 1/11/2010 10:05:57**
Analyst: JXL **Data Type: Original**

Replicate Data: 243550002|939596|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.394	0.394	0.0048	0.0205	0.0049	10:06:48	Yes
2	0.394	0.394	0.0048	0.0203	0.0049	10:07:18	Yes
Mean:	0.394	0.394	0.0048				
SD:	0.000	0.000	0.0000				
%RSD:	0.010	0.010	0.01				

==========

Sequence No.: 28 **Autosampler Location: 26**
Sample ID: 243550003|939596|1 **Date Collected: 1/11/2010 10:07:38**
Analyst: JXL **Data Type: Original**

Replicate Data: 243550003|939596|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.068	0.068	0.0013	0.0058	0.0013	10:08:29	Yes
2	0.063	0.063	0.0012	0.0047	0.0012	10:08:59	Yes
Mean:	0.066	0.066	0.0012				
SD:	0.004	0.004	0.0000				
%RSD:	6.294	6.294	3.65				

==========

Sequence No.: 29 **Autosampler Location: 27**
Sample ID: 243550004|939596|1 **Date Collected: 1/11/2010 10:09:18**
Analyst: JXL **Data Type: Original**

Replicate Data: 243550004|939596|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.106	0.106	0.0017	0.0071	0.0017	10:10:09	Yes
2	0.110	0.110	0.0017	0.0072	0.0018	10:10:39	Yes
Mean:	0.108	0.108	0.0017				
SD:	0.003	0.003	0.0000				
%RSD:	2.835	2.835	1.97				

Sequence No.: 30 **Autosampler Location: 28**
Sample ID: 243550005|939596|1 **Date Collected: 1/11/2010 10:10:58**
Analyst: JXL **Data Type: Original**

Replicate Data: 243550005|939596|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.023	-0.023	0.0003	0.0011	0.0003	10:11:49	Yes
2	-0.024	-0.024	0.0003	0.0011	0.0003	10:12:19	Yes
Mean:	-0.024	-0.024	0.0003				
SD:	0.001	0.001	0.0000				
%RSD:	3.308	3.308	3.33				

Sequence No.: 31 **Autosampler Location: 29**
Sample ID: 243550006|939596|1 **Date Collected: 1/11/2010 10:12:38**
Analyst: JXL **Data Type: Original**

Replicate Data: 243550006|939596|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.021	-0.021	0.0003	0.0013	0.0003	10:13:28	Yes
2	-0.023	-0.023	0.0003	0.0012	0.0003	10:13:58	Yes
Mean:	-0.022	-0.022	0.0003				
SD:	0.001	0.001	0.0000				
%RSD:	4.018	4.018	3.48				

Sequence No.: 32 **Autosampler Location: 30**
Sample ID: 243550007|939596|1 **Date Collected: 1/11/2010 10:14:17**
Analyst: JXL **Data Type: Original**

Replicate Data: 243550007|939596|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.578	0.578	0.0068	0.0297	0.0069	10:15:08	Yes
2	0.573	0.573	0.0068	0.0295	0.0068	10:15:38	Yes
Mean:	0.575	0.575	0.0068				
SD:	0.004	0.004	0.0000				
%RSD:	0.663	0.663	0.61				

Sequence No.: 33 **Autosampler Location: 31**
Sample ID: 243550008|939596|1 **Date Collected: 1/11/2010 10:15:57**
Analyst: JXL **Data Type: Original**

Replicate Data: 243550008|939596|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.105	0.105	0.0017	0.0077	0.0017	10:16:47	Yes
2	0.104	0.104	0.0017	0.0079	0.0017	10:17:17	Yes
Mean:	0.104	0.104	0.0017				
SD:	0.000	0.000	0.0000				
%RSD:	0.377	0.377	0.26				

Sequence No.: 34 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 1/11/2010 10:17:37**

Analyst: Data Type: Original

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.283	5.283	0.0581	0.2521	0.0582	10:18:27	Yes
2	5.269	5.269	0.0580	0.2503	0.0580	10:18:57	Yes
Mean:	5.276	5.276	0.0581				
SD:	0.010	0.010	0.0001				
%RSD:	0.187	0.187	0.19				

QC value within limits for Hg 253.7 Recovery = 105.52%
All analyte(s) passed QC.

Sequence No.: 35 Autosampler Location: 8
Sample ID: CCB Date Collected: 1/11/2010 10:19:16
Analyst: Data Type: Original

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.034	-0.034	0.0001	0.0012	0.0002	10:20:07	Yes
2	-0.015	-0.015	0.0004	0.0027	0.0004	10:20:37	Yes
Mean:	-0.025	-0.025	0.0003				
SD:	0.014	0.014	0.0001				
%RSD:	55.66	55.66	59.72				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 36 Autosampler Location: 32
Sample ID: 243550009|939596|1 Date Collected: 1/11/2010 10:20:56
Analyst: JXL Data Type: Original

Replicate Data: 243550009|939596|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.010	-0.010	0.0004	0.0015	0.0004	10:21:47	Yes
2	-0.008	-0.008	0.0004	0.0018	0.0005	10:22:17	Yes
Mean:	-0.009	-0.009	0.0004				
SD:	0.002	0.002	0.0000				
%RSD:	17.42	17.42	4.15				

Sequence No.: 37 Autosampler Location: 33
Sample ID: 243550010|939596|1 Date Collected: 1/11/2010 10:22:37
Analyst: JXL Data Type: Original

Replicate Data: 243550010|939596|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.006	0.006	0.0006	0.0026	0.0006	10:23:28	Yes
2	0.008	0.008	0.0006	0.0026	0.0006	10:23:57	Yes
Mean:	0.007	0.007	0.0006				
SD:	0.001	0.001	0.0000				
%RSD:	16.74	16.74	2.10				

Sequence No.: 38 Autosampler Location: 34
Sample ID: 243550011|939596|1 Date Collected: 1/11/2010 10:24:17
Analyst: JXL Data Type: Original

Replicate Data: 243550011|939596|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.037	0.037	0.0009	0.0041	0.0010	10:25:08	Yes

2	0.037	0.037	0.0009	0.0039	0.0010	10:25:39	Yes
Mean:	0.037	0.037	0.0009				
SD:	0.000	0.000	0.0000				
%RSD:	0.354	0.354	0.15				

Sequence No.: 39 **Autosampler Location: 35**
Sample ID: 243550012|939596|1 **Date Collected: 1/11/2010 10:25:58**
Analyst: JXL **Data Type: Original**

Replicate Data: 243550012|939596|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.009	0.009	0.0006	0.0029	0.0007	10:26:49	Yes
2	0.014	0.014	0.0007	0.0030	0.0007	10:27:19	Yes
Mean:	0.012	0.012	0.0006				
SD:	0.004	0.004	0.0000				
%RSD:	30.32	30.32	6.08				

Sequence No.: 40 **Autosampler Location: 36**
Sample ID: 243550013|939596|1 **Date Collected: 1/11/2010 10:27:39**
Analyst: JXL **Data Type: Original**

Replicate Data: 243550013|939596|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.147	0.147	0.0021	0.0093	0.0022	10:28:31	Yes
2	0.148	0.148	0.0021	0.0093	0.0022	10:29:00	Yes
Mean:	0.147	0.147	0.0021				
SD:	0.001	0.001	0.0000				
%RSD:	0.521	0.521	0.39				

Sequence No.: 41 **Autosampler Location: 37**
Sample ID: 243550014|939596|1 **Date Collected: 1/11/2010 10:29:21**
Analyst: JXL **Data Type: Original**

Replicate Data: 243550014|939596|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.063	0.063	0.0012	0.0054	0.0012	10:30:13	Yes
2	0.062	0.062	0.0012	0.0058	0.0012	10:30:43	Yes
Mean:	0.063	0.063	0.0012				
SD:	0.000	0.000	0.0000				
%RSD:	0.547	0.547	0.31				

Sequence No.: 42 **Autosampler Location: 38**
Sample ID: 243550015|939596|1 **Date Collected: 1/11/2010 10:31:03**
Analyst: JXL **Data Type: Original**

Replicate Data: 243550015|939596|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.076	0.076	0.0013	0.0084	0.0014	10:31:54	Yes
2	0.079	0.079	0.0014	0.0091	0.0014	10:32:24	Yes
Mean:	0.078	0.078	0.0014				
SD:	0.003	0.003	0.0000				
%RSD:	3.367	3.367	2.09				

Sequence No.: 43 **Autosampler Location: 39**
Sample ID: 243555001|939596|1 **Date Collected: 1/11/2010 10:32:44**
Analyst: JXL **Data Type: Original**

Replicate Data: 243555001|939596|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.056	0.056	0.0011	0.0058	0.0012	10:33:35	Yes
2	0.055	0.055	0.0011	0.0054	0.0012	10:34:05	Yes
Mean:	0.056	0.056	0.0011				
SD:	0.001	0.001	0.0000				
%RSD:	1.351	1.351	0.73				

==========

Sequence No.: 44 Autosampler Location: 40
Sample ID: 1202010666|939596|1 Date Collected: 1/11/2010 10:34:24
Analyst: JXL Data Type: Original

Replicate Data: 1202010666|939596|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.087	0.087	0.0015	0.0067	0.0015	10:35:15	Yes
2	0.085	0.085	0.0014	0.0065	0.0015	10:35:45	Yes
Mean:	0.086	0.086	0.0015				
SD:	0.002	0.002	0.0000				
%RSD:	1.814	1.814	1.17				

==========

Sequence No.: 45 Autosampler Location: 41
Sample ID: 1202010667|939596|1 Date Collected: 1/11/2010 10:36:05
Analyst: JXL Data Type: Original

Replicate Data: 1202010667|939596|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.031	2.031	0.0227	0.0980	0.0227	10:36:55	Yes
2	2.019	2.019	0.0225	0.0970	0.0226	10:37:25	Yes
Mean:	2.025	2.025	0.0226				
SD:	0.009	0.009	0.0001				
%RSD:	0.422	0.422	0.41				

==========

Sequence No.: 46 Autosampler Location: 7
Sample ID: CCV Date Collected: 1/11/2010 10:37:45
Analyst: Data Type: Original

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.100	5.100	0.0561	0.2421	0.0562	10:38:35	Yes
2	5.084	5.084	0.0560	0.2394	0.0560	10:39:05	Yes
Mean:	5.092	5.092	0.0561				
SD:	0.011	0.011	0.0001				
%RSD:	0.223	0.223	0.22				

QC value within limits for Hg 253.7 Recovery = 101.84%
All analyte(s) passed QC.

==========

Sequence No.: 47 Autosampler Location: 8
Sample ID: CCB Date Collected: 1/11/2010 10:39:24
Analyst: Data Type: Original

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.031	-0.031	0.0002	0.0007	0.0002	10:40:14	Yes
2	-0.031	-0.031	0.0002	0.0007	0.0002	10:40:44	Yes
Mean:	-0.031	-0.031	0.0002				
SD:	0.000	0.000	0.0000				
%RSD:	0.792	0.792	1.47				

QC value within limits for Hg 253.7 Recovery = Not calculated

All analyte(s) passed QC.

Sequence No.: 48
Sample ID: 1202010679|939596|1
Analyst: JXL
Autosampler Location: 42
Date Collected: 1/11/2010 10:41:04
Data Type: Original

Replicate Data: 1202010679|939596|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.025	2.025	0.0226	0.0972	0.0226	10:41:55	Yes
2	2.003	2.003	0.0224	0.0958	0.0224	10:42:25	Yes
Mean:	2.014	2.014	0.0225				
SD:	0.015	0.015	0.0002				
%RSD:	0.746	0.746	0.73				

Sequence No.: 49
Sample ID: 1202010678|939596|5
Analyst: JXL
Autosampler Location: 43
Date Collected: 1/11/2010 10:42:44
Data Type: Original

Replicate Data: 1202010678|939596|5

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.019	-0.019	0.0003	0.0012	0.0004	10:43:35	Yes
2	-0.023	-0.023	0.0003	0.0009	0.0003	10:44:05	Yes
Mean:	-0.021	-0.021	0.0003				
SD:	0.003	0.003	0.0000				
%RSD:	15.78	15.78	12.39				

Sequence No.: 50
Sample ID: 243555002|939596|1
Analyst: JXL
Autosampler Location: 44
Date Collected: 1/11/2010 10:44:25
Data Type: Original

Replicate Data: 243555002|939596|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	1.096	1.096	0.0125	0.0543	0.0125	10:45:15	Yes
2	1.099	1.099	0.0125	0.0540	0.0125	10:45:45	Yes
Mean:	1.097	1.097	0.0125				
SD:	0.002	0.002	0.0000				
%RSD:	0.185	0.185	0.18				

Sequence No.: 51
Sample ID: 1202010629|939579|1
Analyst: JXL
Autosampler Location: 45
Date Collected: 1/11/2010 10:46:05
Data Type: Original

Replicate Data: 1202010629|939579|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.038	-0.038	0.0001	0.0006	0.0001	10:46:56	Yes
2	-0.040	-0.040	0.0001	0.0004	0.0001	10:47:26	Yes
Mean:	-0.039	-0.039	0.0001				
SD:	0.001	0.001	0.0000				
%RSD:	3.619	3.619	16.20				

Sequence No.: 52
Sample ID: 1202010630|939579|10
Analyst: JXL
Autosampler Location: 46
Date Collected: 1/11/2010 10:47:46
Data Type: Original

Replicate Data: 1202010630|939579|10

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored

Replicate Data: 243602005|939579|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.003	0.003	0.0006	0.0025	0.0006	10:57:04	Yes
2	0.006	0.006	0.0006	0.0029	0.0006	10:57:34	Yes
Mean:	0.005	0.005	0.0006				
SD:	0.002	0.002	0.0000				
%RSD:	44.02	44.02	4.04				

Sequence No.: 58
Sample ID: CCV
Analyst:
Autosampler Location: 7
Date Collected: 1/11/2010 10:57:54
Data Type: Original

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.206	5.206	0.0573	0.2443	0.0573	10:58:44	Yes
2	5.166	5.166	0.0569	0.2433	0.0569	10:59:14	Yes
Mean:	5.186	5.186	0.0571				
SD:	0.028	0.028	0.0003				
%RSD:	0.547	0.547	0.54				

QC value within limits for Hg 253.7 Recovery = 103.73%
All analyte(s) passed QC.

Sequence No.: 59
Sample ID: CCB
Analyst:
Autosampler Location: 8
Date Collected: 1/11/2010 10:59:32
Data Type: Original

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.034	-0.034	0.0002	0.0006	0.0002	11:00:24	Yes
2	-0.030	-0.030	0.0002	0.0009	0.0002	11:00:53	Yes
Mean:	-0.032	-0.032	0.0002				
SD:	0.003	0.003	0.0000				
%RSD:	9.053	9.053	18.19				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 60
Sample ID: 243623001|939579|1
Analyst: JXL
Autosampler Location: 52
Date Collected: 1/11/2010 11:01:13
Data Type: Original

Replicate Data: 243623001|939579|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.282	0.282	0.0036	0.0159	0.0036	11:02:04	Yes
2	0.287	0.287	0.0036	0.0159	0.0037	11:02:34	Yes
Mean:	0.284	0.284	0.0036				
SD:	0.003	0.003	0.0000				
%RSD:	1.129	1.129	0.97				

Sequence No.: 61
Sample ID: 1202010631|939579|1
Analyst: JXL
Autosampler Location: 53
Date Collected: 1/11/2010 11:02:54
Data Type: Original

Replicate Data: 1202010631|939579|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.346	0.346	0.0043	0.0184	0.0043	11:03:45	Yes
2	0.346	0.346	0.0043	0.0188	0.0043	11:04:15	Yes
Mean:	0.346	0.346	0.0043				

Miscellaneous

Prep LogBook

Analyst: BXA1 Verified by:_____

Batch: 936822

Lab SOP: GL-MA-E-009 REV# 19

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1202004458	UI062540-MS	.513	g
MS	1202004460	UI091015-A	.5	mL
MS	1202004460	UI091015-B	.5	mL
MSD	1202004462	UI091015-A	.5	mL
MSD	1202004462	UI091015-B	.5	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1202004457		SW846 3050B	29-DEC-2009 17:55	0.512 g	50 mL	97.65625	SOIL
LCS	1202004458		SW846 3050B	29-DEC-2009 17:55	0.513 g	50 mL	97.46589	SOIL
SAMPLE	243550001		SW846 3050B	29-DEC-2009 17:55	0.508 g	50 mL	98.4252	SOIL
SAMPLE	243550002		SW846 3050B	29-DEC-2009 17:55	0.504 g	50 mL	99.20635	SOIL
SAMPLE	243550003		SW846 3050B	29-DEC-2009 17:55	0.506 g	50 mL	98.81423	SOIL
SAMPLE	243550004		SW846 3050B	29-DEC-2009 17:55	0.517 g	50 mL	96.7118	SOIL
SAMPLE	243550005		SW846 3050B	29-DEC-2009 17:55	0.506 g	50 mL	98.81423	SOIL
SAMPLE	243550006		SW846 3050B	29-DEC-2009 17:55	0.511 g	50 mL	97.84736	SOIL
SAMPLE	243550007		SW846 3050B	29-DEC-2009 17:55	0.5 g	50 mL	100	SOIL
SAMPLE	243550008		SW846 3050B	29-DEC-2009 17:55	0.5 g	50 mL	100	SOIL
SAMPLE	243550009		SW846 3050B	29-DEC-2009 17:55	0.5 g	50 mL	100	SOIL
SAMPLE	243550010		SW846 3050B	29-DEC-2009 17:55	0.516 g	50 mL	96.89922	SOIL
SAMPLE	243550011		SW846 3050B	29-DEC-2009 17:55	0.505 g	50 mL	99.0099	SOIL
SAMPLE	243550012		SW846 3050B	29-DEC-2009 17:55	0.501 g	50 mL	99.8004	SOIL
SAMPLE	243550013		SW846 3050B	29-DEC-2009 17:55	0.503 g	50 mL	99.40358	SOIL
SAMPLE	243555001		SW846 3050B	29-DEC-2009 17:55	0.505 g	50 mL	99.0099	SOIL
DUP	1202004459	243555001	SW846 3050B	29-DEC-2009 17:55	0.516 g	50 mL	96.89922	SOIL
MS	1202004460	243555001	SW846 3050B	29-DEC-2009 17:55	0.505 g	50 mL	99.0099	SOIL
MSD	1202004462	243555001	SW846 3050B	29-DEC-2009 17:55	0.504 g	50 mL	99.20635	SOIL
SDILT	1202004461	243555001	SW846 3050B	29-DEC-2009 17:55	0.505 g	50 mL	99.0099	SOIL
SAMPLE	243555002		SW846 3050B	29-DEC-2009 17:55	0.518 g	50 mL	96.5251	SOIL

Reagent/Solvent Lot ID	Amount	Description
1203655-02	1.5 mL	Hydrogen Peroxide 30%
1234886	5 mL	Nitric Acid CONC.

Comments. sample#243550001 are wooden pieces.

Prep LogBook

Analyst: TXB3 Verified by:_____

Batch: 939594

Lab SOP: GL-MA-E-010 REV# 23

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1202010665	UI031809A	.209	g
MS	1202010667	WHG100108-14	.3	mL
MSD	1202010679	WHG100108-14	.3	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1202010664		SW846 7471A Prep	08-JAN-2010 14:10	0.514 g	30 mL	58.36576	SOIL
LCS	1202010665		SW846 7471A Prep	08-JAN-2010 14:10	0.209 g	30 mL	143.54067	SOIL
SAMPLE	243547002		SW846 7471A Prep	08-JAN-2010 14:10	0.565 g	30 mL	53.09735	SOIL
SAMPLE	243547003		SW846 7471A Prep	08-JAN-2010 14:10	0.549 g	30 mL	54.64481	SOIL
SAMPLE	243549002		SW846 7471A Prep	08-JAN-2010 14:10	0.534 g	30 mL	56.17978	SOIL
SAMPLE	243550001		SW846 7471A Prep	08-JAN-2010 14:10	0.522 g	30 mL	57.47126	SOIL
SAMPLE	243550002		SW846 7471A Prep	08-JAN-2010 14:10	0.572 g	30 mL	52.44755	SOIL
SAMPLE	243550003		SW846 7471A Prep	08-JAN-2010 14:10	0.506 g	30 mL	59.28854	SOIL
SAMPLE	243550004		SW846 7471A Prep	08-JAN-2010 14:10	0.534 g	30 mL	56.17978	SOIL
SAMPLE	243550005		SW846 7471A Prep	08-JAN-2010 14:10	0.516 g	30 mL	58.13953	SOIL
SAMPLE	243550006		SW846 7471A Prep	08-JAN-2010 14:10	0.533 g	30 mL	56.28518	SOIL
SAMPLE	243550007		SW846 7471A Prep	08-JAN-2010 14:10	0.529 g	30 mL	56.71078	SOIL
SAMPLE	243550008		SW846 7471A Prep	08-JAN-2010 14:10	0.581 g	30 mL	51.63511	SOIL
SAMPLE	243550009		SW846 7471A Prep	08-JAN-2010 14:10	0.51 g	30 mL	58.82353	SOIL
SAMPLE	243550010		SW846 7471A Prep	08-JAN-2010 14:10	0.573 g	30 mL	52.35602	SOIL
SAMPLE	243550011		SW846 7471A Prep	08-JAN-2010 14:10	0.527 g	30 mL	56.926	SOIL
SAMPLE	243550012		SW846 7471A Prep	08-JAN-2010 14:10	0.581 g	30 mL	51.63511	SOIL
SAMPLE	243550013		SW846 7471A Prep	08-JAN-2010 14:10	0.526 g	30 mL	57.03422	SOIL
SAMPLE	243550014		SW846 7471A Prep	08-JAN-2010 14:10	0.505 g	30 mL	59.40594	SOIL
SAMPLE	243550015		SW846 7471A Prep	08-JAN-2010 14:10	0.559 g	30 mL	53.66726	SOIL
SAMPLE	243555001		SW846 7471A Prep	08-JAN-2010 14:10	0.596 g	30 mL	50.33557	SOIL
DUP	1202010666	243555001	SW846 7471A Prep	08-JAN-2010 14:10	0.529 g	30 mL	56.71078	SOIL
MS	1202010667	243555001	SW846 7471A Prep	08-JAN-2010 14:10	0.523 g	30 mL	57.36138	SOIL
MSD	1202010679	243555001	SW846 7471A Prep	08-JAN-2010 14:10	0.554 g	30 mL	54.15162	SOIL
SDILT	1202010678	243555001	SW846 7471A Prep	08-JAN-2010 14:10	0.596 g	30 mL	50.33557	SOIL
SAMPLE	243555002		SW846 7471A Prep	08-JAN-2010 14:10	0.533 g	30 mL	56.28518	SOIL

Reagent/Solvent Lot ID	Amount	Description
1236355-A	1.125 mL	Hydrochloric Acid Conc.
1240182-1	.375 mL	NITRIC ACID
1244904-C	7.5 mL	5% KMnO4 solution

Comments: Sample 243555001 is pieces of wood.
Digestion Start Date: 08-JAN-10 14:10
Digestion End Date: 08-JAN-10 14:40

Prep LogBook

1206350-C	2 mL	Hg reducing agent
WHG100108-07	30 uL	Mercury Working Standard 1st Source CAL S 0.2/CRA
WHG100108-08	75 uL	Mercury Working Standard 1st Source CAL S 0.5
WHG100108-11	1.5 mL	Mercury Working 1st Source CAL S 10.0
WHG100108-09	300 uL	Mercury Working 1st Source CAL S 2.0
WHG100108-10	750 uL	Mercury Working 1st Source CAL S 5.0/CCV
WHG100108-12	750 uL	Mercury Working 2nd Source S 5.0/ICV

Prep LogBook

Analyst: AXG2 Verified by:_____

Batch: 938257

Lab SOP: GL-MA-E-009 REV# 19

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1202007670	UI062540-I	.506	g
MS	1202007668	UI091124-01	.25	mL
MS	1202007668	UI091124-06	.25	mL
MSD	1202007669	UI091124-01	.25	mL
MSD	1202007669	UI091124-06	.25	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1202007665		SW846 3050B	05-JAN-2010 06:50	0.506 g	50 mL	98.81423	SOIL
LCS	1202007670		SW846 3050B	05-JAN-2010 06:50	0.513 g	50 mL	97.46589	SOIL
SAMPLE	243550014		SW846 3050B	05-JAN-2010 06:50	0.516 g	50 mL	96.89922	SOIL
DUP	1202007666	243550014	SW846 3050B	05-JAN-2010 06:50	0.512 g	50 mL	97.65625	SOIL
SDILT	1202007667	243550014	SW846 3050B	05-JAN-2010 06:50	0.516 g	50 mL	96.89922	SOIL
MS	1202007668	243550014	SW846 3050B	05-JAN-2010 06:50	0.52 g	50 mL	96.15385	SOIL
MSD	1202007669	243550014	SW846 3050B	05-JAN-2010 06:50	0.522 g	50 mL	95.78544	SOIL
SAMPLE	243550015		SW846 3050B	05-JAN-2010 06:50	0.518 g	50 mL	96.5251	SOIL

Reagent/Solvent Lot ID	Amount	Description
1244970	10 mL	HYDROCHLORIC ACID
1234886	1.25 mL	Nitric Acid CONC.

Comments Sample 243550014 consist of gray, clumpy soil with rocks.

Prep LogBook

Analyst: AXG2 Verified by:_____

Batch: 938262

Lab SOP: GL-MA-E-009 REV# 19

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1202007684	UI062540-MS	.512	g
MS	1202007682	UI091015-A	.5	mL
MS	1202007682	UI091015-B	.5	mL
MSD	1202007683	UI091015-A	.5	mL
MSD	1202007683	UI091015-B	.5	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1202007679		SW846 3050B	05-JAN-2010 06:50	0.502 g	50 mL	99.60159	SOIL
LCS	1202007684		SW846 3050B	05-JAN-2010 06:50	0.512 g	50 mL	97.65625	SOIL
SAMPLE	243550014		SW846 3050B	05-JAN-2010 06:50	0.508 g	50 mL	98.4252	SOIL
DUP	1202007680	243550014	SW846 3050B	05-JAN-2010 06:50	0.512 g	50 mL	97.65625	SOIL
SDILT	1202007681	243550014	SW846 3050B	05-JAN-2010 06:50	0.508 g	50 mL	98.4252	SOIL
MS	1202007682	243550014	SW846 3050B	05-JAN-2010 06:50	0.518 g	50 mL	96.5251	SOIL
MSD	1202007683	243550014	SW846 3050B	05-JAN-2010 06:50	0.518 g	50 mL	96.5251	SOIL
SAMPLE	243550015		SW846 3050B	05-JAN-2010 06:50	0.514 g	50 mL	97.27626	SOIL

Reagent/Solvent Lot ID	Amount	Description
1203655-02	1.5 mL	Hydrogen Peroxide 30%
1234886	5 mL	Nitric Acid CONC.

Comments: Sample 243550014 consist of gray, clumpy soil with rocks.

Prep LogBook

Analyst: AXG2 Verified by:_____

Batch: 936825

Lab SOP: GL-MA-E-009 REV# 19

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1202004464	UI062540-I	.522	g
MS	1202004466	UI091124-01	.25	mL
MS	1202004466	UI091124-06	.25	mL
MSD	1202004468	UI091124-01	.25	mL
MSD	1202004468	UI091124-06	.25	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1202004463		SW846 3050B	15-JAN-2010 08:00	0.572 g	50 mL	87.41259	SOIL
LCS	1202004464		SW846 3050B	15-JAN-2010 08:00	0.522 g	50 mL	95.78544	SOIL
SAMPLE	243550001		SW846 3050B	15-JAN-2010 08:00	0.51 g	50 mL	98.03922	SOIL
SAMPLE	243550002		SW846 3050B	15-JAN-2010 08:00	0.5 g	50 mL	100	SOIL
SAMPLE	243550003		SW846 3050B	15-JAN-2010 08:00	0.508 g	50 mL	98.4252	SOIL
SAMPLE	243550004		SW846 3050B	15-JAN-2010 08:00	0.519 g	50 mL	96.33911	SOIL
SAMPLE	243550005		SW846 3050B	15-JAN-2010 08:00	0.503 g	50 mL	99.40358	SOIL
SAMPLE	243550006		SW846 3050B	15-JAN-2010 08:00	0.516 g	50 mL	96.89922	SOIL
SAMPLE	243550007		SW846 3050B	15-JAN-2010 08:00	0.513 g	50 mL	97.46589	SOIL
SAMPLE	243550008		SW846 3050B	15-JAN-2010 08:00	0.539 g	50 mL	92.76438	SOIL
SAMPLE	243550009		SW846 3050B	15-JAN-2010 08:00	0.509 g	50 mL	98.23183	SOIL
SAMPLE	243550010		SW846 3050B	15-JAN-2010 08:00	0.505 g	50 mL	99.0099	SOIL
SAMPLE	243550011		SW846 3050B	15-JAN-2010 08:00	0.512 g	50 mL	97.65625	SOIL
SAMPLE	243550012		SW846 3050B	15-JAN-2010 08:00	0.504 g	50 mL	99.20635	SOIL
SAMPLE	243550013		SW846 3050B	15-JAN-2010 08:00	0.521 g	50 mL	95.96929	SOIL
SAMPLE	243555001		SW846 3050B	15-JAN-2010 08:00	0.526 g	50 mL	95.05703	SOIL
DUP	1202004465	243555001	SW846 3050B	15-JAN-2010 08:00	0.522 g	50 mL	95.78544	SOIL
MS	1202004466	243555001	SW846 3050B	15-JAN-2010 08:00	0.516 g	50 mL	96.89922	SOIL
MSD	1202004468	243555001	SW846 3050B	15-JAN-2010 08:00	0.517 g	50 mL	96.7118	SOIL
SDILT	1202004467	243555001	SW846 3050B	15-JAN-2010 08:00	0.526 g	50 mL	95.05703	SOIL
SAMPLE	243555002		SW846 3050B	15-JAN-2010 08:00	0.505 g	50 mL	99.0099	SOIL

Reagent/Solvent Lot ID	Amount	Description
1252838	10 mL	HYDROCHLORIC ACID
1252836	1.25 mL	Nitric Acid CONC.

Comments sample#243550001 are wooden pieces.

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
12-JAN-10	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
ICP	SW846 3050B/6010B	Solid	LANL
Batch ID:	**Sample Numbers:**		
938259	See Below		

Potentially affected work order(s)(SDG): 243550(10-1087)

Application Issues:

Failed Recovery for MS/PS

Failed RPD for MS/MSD, or PS/PSD

Failed Recovery for MSD/PSD

Specification and Requirements Exception Description:	DER Disposition:
1. Failed Recovery for MS/PS: QC 1202007668MS 2. Failed RPD for MS/MSD, or PS/PSD: QC 1202007669MSD 3. Failed Recovery for MSD/PSD: QC 1202007669MSD	1. The matrix spike recovery failed outside of the control limits for aluminum,magnesium,silicon and titanium due to possible matrix interferences and/or non-homogeneity. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported. 2. The matrix spike and matrix spike duplicate % RPD failed outside of the control limits for silicon and titanium due to possible matrix interferences and/or sample non-homogeneity. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported. 3. The matrix spike duplicate recovery failed outside of the control limits for aluminum,magnesium and silicon due to possible matrix interferences and/or non-homogeneity. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported.

Originator's Name:
Helen Carnello 13-JAN-10

Data Validator/Group Leader:
Louise Smith 13-JAN-10

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
19-JAN-10	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
ICP/MS	SW846 3050B/6020	Solid	LANL
Batch ID:	**Sample Numbers:**		
936823	See Below		

Potentially affected work order(s)(SDG): 243550(10-1087),243555(10-1089-1)

Application Issues:

Failed Recovery for MS/PS

Failed RPD for MS/MSD, or PS/PSD

Failed RPD for DUP

Specification and Requirements Exception Description:	DER Disposition:
1. Failed Recovery for MS/PS: QC 1202004460MS 2. Failed RPD for DUP: QC 1202004459DUP 3. Failed RPD for MS/MSD, or PS/PSD: QC 1202004462MSD	The matrix spike failed outside of the control limits for As due to possible matrix interferences and/or sample non-homogeneity. Per GEL's accredited methods and SOP's, a corrective action is not required and the data is qualified and reported. The sample and sample duplicate %RPD failed outside the control limits for U, As and Ni due to possible sample homogeneity and/or matrix interference. Per GEL's accredited methods and SOP's, a corrective action is not required and the data is qualified and reported. The matrix spike and matrix spike duplicate % RPD failed outside of the control limits for As due to possible matrix interferences and/or sample non-homogeneity. Per GEL's accredited methods and SOP's, a corrective action is not required and the data is qualified and reported.

Originator's Name:

Rose Jenkins 19-JAN-10

Data Validator/Group Leader:

Samantha Jacobs 20-JAN-10

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
20-JAN-10	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
ICP	SW846 3050B/6010B	Solid	LANL
Batch ID:	**Sample Numbers:**		
936826	See Below		

Potentially affected work order(s)(SDG): 243550(10-1087),243555(10-1089-1)

Application Issues:

Failed Recovery for MS/PS

Failed RPD for DUP

Failed Recovery for MSD/PSD

Specification and Requirements Exception Description:	DER Disposition:
1. Failed Recovery for MS/PS: QC 1202004466MS 2. Failed RPD for DUP: QC 1202004465DUP 3. Failed Recovery for MSD/PSD: QC 1202004468MSD	1. The matrix spike recovery failed outside of the control limits for aluminum,iron,magnesium,manganese,silicon,sodium,zinc and potassium due to possible matrix interferences and/or non-homogeneity. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported. 2. The sample and sample duplicate % RPD failed outside the control limits for aluminum,iron and titanium due to possible sample non-homogeneity and/or matrix interference. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported. 3. The matrix spike duplicate recovery failed outside of the control limits for aluminum,antimony,iron,magnesium,manganese,silicon,sodium, zinc and potassium due to possible matrix interferences and/or non-homogeneity. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported.

Originator's Name:

Helen Camello 20-JAN-10

Data Validator/Group Leader:

Eric Lawson 20-JAN-10

Standard Logbook

Serial ID:	UHG1167639-01	**Opened:**	13-AUG-09	**Amount :**	125 mL
Name:	MHGSTOCK1	**Received:**	13-AUG-09	**Catalog Number :**	PLHG4-2Y
Type:	Source Material	**Expires:**	13-AUG-10	**Lot Number :**	15-37HG
Employee:	Bryan Davis			**Solvent :**	10% HNO3
Supplier:	Spex				

Description: Mercury Source Standard #1 1,000 mg/L

Comments: None

Analyte	Concentration	Analyte	Concentration
Mercury	1000 mg/L		

Serial ID:	UHG1167641-02	**Opened:**	13-AUG-09	**Amount :**	100 mL
Name:	MHGSTOCK2	**Received:**	13-AUG-09	**Catalog Number :**	AHG1KN-100
Type:	Source Material	**Expires:**	13-AUG-10	**Lot Number :**	4905530
Employee:	Bryan Davis			**Solvent :**	3% HNO3
Supplier:	Ricca Chemical Company				

Description: Mercury Source Standard #2 1,000 mg/L

Comments: None

Analyte	Concentration	Analyte	Concentration
Mercury	999.7 mg/L		

Serial ID:	UI031809A	**Opened:**	18-MAR-09	**Catalog Number :**	540
Name:	METALSOILSRM	**Received:**	18-MAR-09	**Lot Number :**	D061-540
Type:	Source Material	**Expires:**	10-OCT-10		
Employee:	Jamie Johnson				
Supplier:	ERA				

Description: Metals LCS Soil SRM

Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	10600 mg/kg	Antimony	126 mg/kg
Arsenic	225 mg/kg	Barium	565 mg/kg
Beryllium	162 mg/kg	Boron	107 mg/kg
Cadmium	69.1 mg/kg	Calcium	10000 mg/kg
Chromium	124 mg/kg	Cobalt	115 mg/kg
Copper	66.7 mg/kg	Iron	17600 mg/kg
Lead	223 mg/kg	Magnesium	4260 mg/kg
Manganese	368 mg/kg	Mercury	5.15 mg/kg
Molybdenum	107 mg/kg	Nickel	172 mg/kg
Potassium	4090 mg/kg	Selenium	147 mg/kg
Silver	35.2 mg/kg	Sodium	538 mg/kg
Strontium	117 mg/kg	Thallium	173 mg/kg
Tin	164 mg/kg	Titanium	381 mg/kg
Vanadium	93.9 mg/kg	Zinc	349 mg/kg

Standard Logbook

Serial ID: UI062540-I **Opened:** 12-JUN-09 **Amount :** 80 g
Name: ICP SOIL SRM **Received:** 12-JUN-09 **Lot Number :** D062-540
Type: Source Material **Expires:** 31-JAN-12
Employee: Bryan Davis
Supplier: ERA
Description: Metals Soil LCS SRM ICP/Hg
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	10500 mg/kg	Antimony	173 mg/kg
Arsenic	104 mg/kg	Barium	198 mg/kg
Beryllium	77.6 mg/kg	Boron	141 mg/kg
Cadmium	60.7 mg/kg	Calcium	9870 mg/kg
Chromium	236 mg/kg	Cobalt	91.2 mg/kg
Copper	174 mg/kg	Iron	18000 mg/kg
Lead	86 mg/kg	Magnesium	4000 mg/kg
Manganese	558 mg/kg	Mercury	8.46 mg/kg
Molybdenum	48.6 mg/kg	Nickel	134 mg/kg
Phosphorous	736 mg/kg	Potassium	4300 mg/kg
Selenium	286 mg/kg	Silica	2591 mg/kg
Silicon	1211 mg/kg	Silver	30.1 mg/kg
Sodium	1020 mg/kg	Strontium	227 mg/kg
Sulfur	385 mg/kg	Thallium	121 mg/kg
Tin	104 mg/kg	Titanium	462 mg/kg
Vanadium	115 mg/kg	Zinc	594 mg/kg

Serial ID: UI062540-MS **Opened:** 12-JUN-09 **Lot Number :** D062-540
Name: ICPMS SOIL SRM **Received:** 12-JUN-09
Type: Source Material **Expires:** 31-JAN-12
Employee: Bryan Davis
Supplier: ERA
Description: Metals Soil LCS SRM ICPMS
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	10500 mg/kg	Antimony	67.4 mg/kg
Arsenic	104 mg/kg	Barium	198 mg/kg
Beryllium	77.6 mg/kg	Boron	141 mg/kg
Cadmium	60.6 mg/kg	Calcium	9870 mg/kg
Chromium	236 mg/kg	Cobalt	91.2 mg/kg
Copper	174 mg/kg	Iron	18000 mg/kg
Lead	86 mg/kg	Lithium	10.6 mg/kg
Magnesium	4000 mg/kg	Manganese	558 mg/kg
Mercury	8.46 mg/kg	Molybdenum	48.6 mg/kg
Nickel	134 mg/kg	Phosphorous	755 mg/kg
Potassium	4300 mg/kg	Selenium	286 mg/kg
Silver	30.1 mg/kg	Sodium	1020 mg/kg

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Strontium	227 mg/kg	Thallium	121 mg/kg
Thorium	9.84 mg/kg	Tin	104 mg/kg
Titanium	462 mg/kg	Uranium	2.13 mg/kg
Uranium-235	.0153 mg/kg	Uranium-238	2.11 mg/kg
Vanadium	92.4 mg/kg	Zinc	594 mg/kg
Zirconium	10.6 mg/kg		

Serial ID: UI090422-40 **Opened:** 04-MAY-09 **Amount :** 500 mL
Name: TRACE ICP ICSA SOLN A **Received:** 22-APR-09 **Catalog Number :** 160005-01-03
Type: Source Material **Expires:** 04-MAY-10 **Lot Number :** 1013357
Employee: Helen Camello **Solvent :** 5%HNO3
Supplier: o2si
Description: TRACE ICP ICSA SOLN A mg/L+/-0.5%IN5%HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	5000 mg/L	Calcium	5000 mg/L
Iron	2000 mg/L	Magnesium	5000 mg/L

Serial ID: UI090610-03 **Opened:** 10-JUN-09 **Catalog Number :** 060074-06-01
Name: ICPMS Tungsten - 10mg/L S **Received:** 10-JUN-09 **Lot Number :** 1016338
Type: Source Material **Expires:** 10-JUN-10 **Solvent :** 2% HNO3
Employee: Paul Boyd
Supplier: O2SI
Description: ICPMS Tungsten standard SPIKE - 10mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Tungsten	10 mg/L		

Serial ID: UI090701-09 **Opened:** 01-JUL-09 **Amount :** 250 mL
Name: ICP-MS CRDL Master #1 **Received:** 01-JUL-09 **Catalog Number :** 160044-09-02
Type: Source Material **Expires:** 01-JUL-10 **Lot Number :** 1016477
Employee: Paul Boyd **Solvent :** +/- 0.5% IN 2% HNO3
Supplier: O2SI
Description: ICPMS CRDL Master Soln #1
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	15 mg/L	Arsenic	5 mg/L
Barium	2 mg/L	Beryllium	.5 mg/L
Boron	15 mg/L	Cadmium	1 mg/L
Calcium	100 mg/L	Chromium	3 mg/L
Cobalt	1 mg/L	Copper	1 mg/L

Analyte	Concentration	Analyte	Concentration
Iron	25 mg/L	Lead	2 mg/L
Lithium	10 mg/L	Magnesium	15 mg/L
Manganese	5 mg/L	Nickel	2 mg/L
Phosphorous	50 mg/L	Potassium	300 mg/L
Selenium	5 mg/L	Sodium	250 mg/L
Strontium	10 mg/L	Thallium	1 mg/L
Thorium	1 mg/L	Uranium	.2 mg/L
Vanadium	10 mg/L	Zinc	10 mg/L

Serial ID: UI090701-10 **Opened:** 01-JUL-09 **Amount :** 250 mL
Name: ICP-MS CRDL Master #2 **Received:** 01-JUL-09 **Catalog Number :** 160044-08-02
Type: Source Material **Expires:** 01-JUL-10 **Lot Number :** 1016476
Employee: Paul Boyd **Solvent :** +/- 0.5% IN 2% HNO3
Supplier: 02SI
Description: ICPMS CRDL Soln #2
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	2 mg/L	Molybdenum	.5 mg/L
Silver	1 mg/L	Tin	2 mg/L
Titanium	10 mg/L	Tungsten	5 mg/L
Zirconium	2 mg/L		

Serial ID: UI090701-40 **Opened:** 01-JUL-09 **Amount :** 500 mL
Name: TRACE ICP Stock PQL St **Received:** 30-JUN-09 **Catalog Number :** 160543-01-03
Type: Source Material **Expires:** 01-JUL-10 **Lot Number :** 1016475
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3+TrHF
Supplier: 02si
Description: TRACE ICP Stock PQL Standard
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	100 mg/L	Antimony	5 mg/L
Arsenic	15 mg/L	Barium	2.5 mg/L
Beryllium	2.5 mg/L	Boron	25 mg/L
Cadmium	2.5 mg/L	Calcium	100 mg/L
Chromium	2.5 mg/L	Cobalt	2.5 mg/L
Copper	5 mg/L	Iron	50 mg/L
Lead	5 mg/L	Magnesium	150 mg/L
Manganese	5 mg/L	Molybdenum	5 mg/L
Nickel	2.5 mg/L	Phosphorous	75 mg/L
Potassium	75 mg/L	Selenium	15 mg/L
Silicon	50 mg/L	Silver	2.5 mg/L
Sodium	150 mg/L	Strontium	2.5 mg/L
Sulfur	50 mg/L	Thallium	10 mg/L

Analyte	Concentration	Analyte	Concentration
Tin	5 mg/L	Titanium	2.5 mg/L
Uranium	25 mg/L	Vanadium	2.5 mg/L
Zinc	5 mg/L		

Serial ID: UI090828-42 **Opened:** 16-SEP-09 **Amount :** 500 mL
Name: TRACE ICP Na-1000SOUR **Received:** 27-AUG-09 **Catalog Number :** 060011-02-03
Type: Source Material **Expires:** 16-SEP-10 **Lot Number :** 1017098
Employee: Helen Camello **Solvent :** 1%HNO3
Supplier: 02SI
Description: Sodium 1000 +/- 3 ug/mL in 1% HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Sodium	1000 ug/mL		

Serial ID: UI090925-40 **Opened:** 23-OCT-09 **Amount :** 500 mL
Name: SECOND SOURCE STD -1 **Received:** 25-SEP-09 **Catalog Number :** SGELMX38-500N
Type: Source Material **Expires:** 30-SEP-10 **Lot Number :** 4909129
Employee: Helen Camello **Solvent :** 5%HNO3
Supplier: SPECTRO PURE
Description: SECOND SOURCE STD #1A 5%HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Arsenic	100 mg/L
Barium	100 mg/L	Boron	100 mg/L
Cadmium	100 mg/L	Calcium	1000 mg/L
Chromium	100 mg/L	Cobalt	100 mg/L
Copper	100 mg/L	Iron	1000 mg/L
Lead	100 mg/L	Phosphorous	500 mg/L
Potassium	500 mg/L	Selenium	500 mg/L
Sodium	500 mg/L	Strontium	100 mg/L

Serial ID: UI090925-41 **Opened:** 23-OCT-09 **Amount :** 500 mL
Name: SECOND SOURCE STD -1 **Received:** 25-SEP-09 **Catalog Number :** SGELMX39-500B
Type: Source Material **Expires:** 30-SEP-10 **Lot Number :** 4909130
Employee: Helen Camello **Solvent :** 5%HNO3,TR.HF
Supplier: SPECTRO PURE
Description: SECOND SOURCE STD #1B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	100 mg/L	Beryllium	50 mg/L
Magnesium	1000 mg/L	Manganese	100 mg/L

Analyte	Concentration	Analyte	Concentration
Molybdenum	100 mg/L	Nickel	100 mg/L
Silver	50 mg/L	Sulfur	500 mg/L
Thallium	100 mg/L	Tin	100 mg/L
Titanium	100 mg/L	Uranium	100 mg/L
Vanadium	100 mg/L	Zinc	100 mg/L

Serial ID: UI091015-42 **Opened:** 28-OCT-09 **Amount :** 500 mL
Name: SI 1000mg/L **Received:** 15-OCT-09 **Catalog Number :** 060014-02-03
Type: Source Material **Expires:** 28-OCT-10 **Lot Number :** 1017581
Employee: Helen Camello **Solvent :** 0.3%H2O(NH4)2SiF6
Supplier: o2si
Description: Silicon 1000mg/L+/-0.3%in H2O(NH4)2SiF6
Comments: None

Analyte	Concentration	Analyte	Concentration
Silica	2139 mg/L	Silicon	1000 mg/L

Serial ID: UI091015-A **Opened:** 15-OCT-09 **Catalog Number :** 160067-03
Name: ICP-MS DOE SOIL SPIKE **Received:** 15-OCT-09 **Lot Number :** 1017142
Type: Source Material **Expires:** 15-OCT-10
Employee: Francena Armstrong
Supplier: 02si
Description: ICP-MS Spike for soil products.
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	200 mg/L	Arsenic	8 mg/L
Barium	5 mg/L	Beryllium	5 mg/L
Boron	10 mg/L	Cadmium	1 mg/L
Calcium	200 mg/L	Chromium	5 mg/L
Cobalt	5 mg/L	Copper	5 mg/L
Iron	200 mg/L	Lead	20 mg/L
Lithium	5 mg/L	Magnesium	200 mg/L
Manganese	5 mg/L	Nickel	5 mg/L
Phosphorus, Total as P	200 mg/L	Potassium	200 mg/L
Selenium	2 mg/L	Sodium	200 mg/L
Strontium	5 mg/L	Thallium	10 mg/L
Thorium	5 mg/L	Uranium	5 mg/L
Uranium-235	.036 mg/L	Uranium-238	4.964 mg/L
Vanadium	5 mg/L	Zinc	5 mg/L

Standard Logbook

Serial ID: UI091015-B **Opened:** 15-OCT-09 **Catalog Number :** 160067-03
Name: ICP-MS DOE SOIL SPIKE **Received:** 15-OCT-09 **Lot Number :** 1017142
Type: Source Material **Expires:** 15-OCT-10
Employee: Francena Armstrong
Supplier: 02si
Description: ICP-MS Spike for Soil Products
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	20 mg/L	Molybdenum	5 mg/L
Silicon	200 mg/L	Silver	5 mg/L
Tin	5 mg/L	Zirconium	5 mg/L

Serial ID: UI091102-40 **Opened:** 16-NOV-09 **Amount :** 500 mL
Name: TRACE CALSTD#1A SOUF **Received:** 02-NOV-09 **Catalog Number :** HP2270-1-500
Type: Source Material **Expires:** 31-OCT-10 **Lot Number :** 0930215
Employee: Helen Camello **Solvent :** HNO3
Supplier: Environmental Express
Description: Trace Calibration Std #1A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	2000 mg/L	Arsenic	200 mg/L
Barium	200 mg/L	Beryllium	200 mg/L
Boron	200 mg/L	Cadmium	200 mg/L
Calcium	2000 mg/L	Chromium	200 mg/L
Cobalt	200 mg/L	Copper	200 mg/L
Iron	2000 mg/L	Lead	200 mg/L
Magnesium	2000 mg/L	Manganese	200 mg/L
Nickel	200 mg/L	Phosphorous	1000 mg/L
Potassium	2000 mg/L	Selenium	200 mg/L
Sodium	2000 mg/L	Strontium	200 mg/L
Thallium	200 mg/L	Uranium	200 mg/L
Vanadium	200 mg/L	Zinc	200 mg/L

Serial ID: UI091102-41 **Opened:** 16-NOV-09 **Amount :** 500 mL
Name: TRACE CALSTD#1B SOUF **Received:** 02-NOV-09 **Catalog Number :** HP2270-2-500
Type: Source Material **Expires:** 31-OCT-10 **Lot Number :** 0930216
Employee: Helen Camello **Solvent :** HNO3
Supplier: Environmental Express
Description: Trace Calibration Standard #1B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	200 mg/L	Molybdenum	200 mg/L
Silver	200 mg/L	Sulfur	400 mg/L

Analyte	Concentration	Analyte	Concentration
Tin	200 mg/L	Titanium	200 mg/L

Serial ID: UI091102-42 **Opened:** 17-NOV-09 **Amount :** 200 mL
Name: SILICON **Received:** 02-NOV-09 **Catalog Number :** HP100050-4F
Type: Source Material **Expires:** 17-NOV-10 **Lot Number :** 0921924
Employee: Helen Camello **Solvent :** H20/tr HF
Supplier: ENVIRNMENTAL EXPRESS
Description: SILICON 1000mg/L H20/tr HF
Comments: None

Analyte	Concentration	Analyte	Concentration
Silica	2139 mg/L	Silicon	1000 mg/L

Serial ID: UI091124-01 **Opened:** 24-NOV-09 **Lot Number :** 1017642
Name: METALSPIKE-1 **Received:** 24-NOV-09
Type: Source Material **Expires:** 24-NOV-10
Employee: Francena Armstrong
Supplier: OS2I
Description: Metals Spike Mix I
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 ug/mL	Arsenic	100 ug/mL
Barium	100 ug/mL	Beryllium	100 ug/mL
Boron	100 ug/mL	Cadmium	100 ug/mL
Calcium	1000 ug/mL	Cobalt	100 ug/mL
Iron	1000 ug/mL	Lead	100 ug/mL
Magnesium	1000 ug/mL	Phosphorous	100 ug/mL
Potassium	1000 ug/mL	Silver	100 ug/mL
Sodium	1000 ug/mL	Strontium	100 ug/mL

Serial ID: UI091124-06 **Opened:** 24-NOV-09 **Lot Number :** 1017643
Name: METALSPIKE-2 **Received:** 24-NOV-09
Type: Source Material **Expires:** 24-NOV-10
Employee: Francena Armstrong
Supplier: OS2I
Description: Metals Spike Mix II
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	100 ug/mL	Chromium	100 ug/mL
Copper	100 ug/mL	Manganese	100 ug/mL
Molybdenum	100 ug/mL	Nickel	100 ug/mL
Selenium	100 ug/mL	Silica	2141 ug/mL

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Silicon	1000 ug/mL	Sulfur	1000 ug/mL
Thallium	100 ug/mL	Tin	100 ug/mL
Titanium	100 ug/mL	Uranium	100 ug/mL
Vanadium	100 ug/mL	Zinc	100 ug/mL

Serial ID: UI091212-11 **Opened:** 12-DEC-09 **Amount :** 1000 mL
Name: ICP-MS ICSA Master A **Received:** 12-DEC-09 **Catalog Number :** 160013-01-01L
Type: Source Material **Expires:** 12-DEC-10 **Lot Number :** 1015303
Employee: Paul Boyd **Solvent :** 2% HNO3
Supplier: 02SI
Description: ICP-MS ICSA Master A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Calcium	1000 mg/L
Carbon	2000 mg/L	Chloride	10000 mg/L
Iron	1000 mg/L	Magnesium	1000 mg/L
Molybdenum	20 mg/L	Phosphorous	1000 mg/L
Potassium	1000 mg/L	Sodium	1000 mg/L
Sulfur	1000 mg/L	Titanium	20 mg/L

Serial ID: UI091212-60 **Opened:** 12-DEC-09 **Amount :** .5 mL
Name: ICPMS High Range Standa **Received:** 12-DEC-09 **Catalog Number :** 160212-02-01
Type: Source Material **Expires:** 12-DEC-10 **Lot Number :** 1018064
Employee: Paul Boyd **Solvent :** 2%HNO3 + Tr HF
Supplier: O2SI
Description: Linear Range Standard A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	5000 mg/L	Arsenic	100 mg/L
Barium	250 mg/L	Beryllium	100 mg/L
Cadmium	100 mg/L	Calcium	5000 mg/L
Chromium	100 mg/L	Cobalt	100 mg/L
Copper	100 mg/L	Iron	5000 mg/L
Lead	500 mg/L	Lithium	100 mg/L
Magnesium	5000 mg/L	Manganese	100 mg/L
Nickel	100 mg/L	Phosphorous	2500 mg/L
Potassium	5000 mg/L	Selenium	50 mg/L
Sodium	5000 mg/L	Strontium	100 mg/L
Thallium	50 mg/L	Thorium	250 mg/L
Uranium	500 mg/L	Vanadium	100 mg/L
Zinc	250 mg/L		

Standard Logbook

Serial ID: UI091212-61 **Opened:** 12-DEC-09 **Amount :** .5 mL
Name: ICPMS High Range Standar **Received:** 12-DEC-09 **Catalog Number :** 160212-02-01
Type: Source Material **Expires:** 12-DEC-10 **Lot Number :** 1018064
Employee: Paul Boyd **Solvent :** 2%HNO3 + Tr HF
Supplier: O2SI
Description: Linear Range Standard B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	25 mg/L	Molybdenum	100 mg/L
Silver	25 mg/L	Tin	100 mg/L
Tungsten	100 mg/L	Zirconium	50 mg/L

Serial ID: UI091215-48 **Opened:** 04-JAN-10 **Amount :** 1000 mL
Name: Trace ICP ICSA **Received:** 18-DEC-09 **Catalog Number :** 160005-02
Type: Source Material **Expires:** 04-JAN-11 **Lot Number :** 1018219
Employee: Helen Camello **Solvent :** 3% HCl + 1% HNO3
Supplier: o2si
Description: Trace ICP Interferent Check Standard A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 UG/L	Calcium	500000 UG/L
Iron	200000 UG/L	Magnesium	500000 UG/L

Serial ID: UI091217-06 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master A **Received:** 17-DEC-09 **Catalog Number :** 160055-01
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018209
Employee: Paul Boyd **Solvent :** +/- 0.5% in 5% HNO3 100 cm2
Supplier: 02SI
Description: ICPMS ICV/CCV SOLN A - 10ppm
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	2020 mg/L	Calcium	2000 mg/L
Iron	2000 mg/L	Magnesium	2000 mg/L
Phosphorous	2000 mg/L	Potassium	2000 mg/L
Sodium	2000 mg/L		

Serial ID: UI091217-07 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master B **Received:** 17-DEC-09 **Catalog Number :** 160054-02
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018210
Employee: Paul Boyd **Solvent :** +/- 0.5% in 5% HNO3 100 cm2
Supplier: 02SI
Description: ICPMS ICV/CCV Soln B - 10ppm
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	20 mg/L	Barium	20 mg/L
Beryllium	20 mg/L	Boron	40 mg/L
Cadmium	20 mg/L	Chromium	20 mg/L
Cobalt	20 mg/L	Copper	20 mg/L
Lead	20 mg/L	Lithium	20 mg/L
Manganese	20 mg/L	Nickel	20 mg/L
Selenium	20 mg/L	Strontium	20 mg/L
Thallium	20 mg/L	Thorium	20 mg/L
Uranium	20 mg/L	Vanadium	20 mg/L
Zinc	20 mg/L		

Serial ID: UI091217-08 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master C **Received:** 17-DEC-09 **Catalog Number :** 160054-03
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018211
Employee: Paul Boyd **Solvent :** +/- 0.5% in 5% HNO3 100 cm2
Supplier: 02SI
Description: ICPMS ICV/CCV Soln C - 10ppm
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	20 mg/L	Molybdenum	20 mg/L
Silver	20 mg/L	Tin	20 mg/L
Titanium	20 mg/L	Tungsten	20 mg/L
Zirconium	20 mg/L		

Serial ID: UI091217-12 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICSAB Master B **Received:** 17-DEC-09 **Catalog Number :** 160033-02
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018212
Employee: Paul Boyd **Solvent :** +/- 0.5% in 2% HNO3
Supplier: 02SI
Description: ICPMS ICSAB Master B
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	2 mg/L	Barium	2 mg/L
Beryllium	2 mg/L	Boron	2 mg/L
Cadmium	2 mg/L	Chromium	2 mg/L
Cobalt	2 mg/L	Copper	2 mg/L
Lead	2 mg/L	Lithium	2 mg/L
Manganese	2 mg/L	Nickel	2 mg/L
Selenium	2 mg/L	Strontium	2 mg/L
Thallium	2 mg/L	Thorium	2 mg/L
Uranium	2 mg/L	Vanadium	2 mg/L
Zinc	2 mg/L		

Standard Logbook

Serial ID: UI091217-13 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICSAB Master C **Received:** 17-DEC-09 **Catalog Number :** 160033-03
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1016926
Employee: Paul Boyd **Solvent :** +/- 0.5% in 2% HNO3
Supplier: 02SI
Description: ICPMS ICSAB Master C
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	2 mg/L	Silver	2 mg/L
Tin	2 mg/L	Tungsten	2 mg/L
Zirconium	2 mg/L		

Serial ID: UI091228-40 **Opened:** 28-DEC-09 **Amount :** 500 mL
Name: ICP HIGH RANGE STD-A **Received:** 21-DEC-09 **Catalog Number :** 160211-05-03
Type: Source Material **Expires:** 28-DEC-10 **Lot Number :** 1018160
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3
Supplier: 02SI
Description: ICP HIGH RANGE STD SOLUTION A
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	10000 ug/L	Arsenic	10000 ug/L
Barium	15000 ug/L	Beryllium	3000 ug/L
Boron	5000 ug/L	Cadmium	10000 ug/L
Chromium	25000 ug/L	Cobalt	10000 ug/L
Copper	20000 ug/L	Lead	25000 ug/L
Manganese	10000 ug/L	Molybdenum	10000 ug/L
Nickel	10000 ug/L	Phosphorous	15000 ug/L
Potassium	300000 ug/L	Selenium	10000 ug/L
Silica	107000 ug/L	Silicon	50000 ug/L
Silver	1000 ug/L	Strontium	10000 ug/L
Sulfur	50000 ug/L	Thallium	10000 ug/L
Tin	10000 ug/L	Titanium	10000 ug/L
Vanadium	10000 ug/L	Zinc	15000 ug/L

Serial ID: UI091228-41 **Opened:** 28-DEC-09 **Amount :** 500 mL
Name: ICP HIGH RANGE STD B **Received:** 21-DEC-09 **Catalog Number :** 160211-05-03
Type: Source Material **Expires:** 28-DEC-10 **Lot Number :** 1018160
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3
Supplier: 02SI
Description: ICP HIGH RANGE STD SOLUTION B
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 ug/L	Calcium	500000 ug/L

Analyte	Concentration	Analyte	Concentration
Iron	500000 ug/L	Magnesium	500000 ug/L
Sodium	500000 ug/L	Uranium	15000 ug/L

Serial ID: UI100114-40 **Opened:** 14-JAN-10 **Amount :** 500 mL
Name: ICP HIGH RANGE STD-A **Received:** 14-JAN-10 **Catalog Number :** 160211-05-03
Type: Source Material **Expires:** 14-JAN-11 **Lot Number :** 1018160
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3
Supplier: 02SI
Description: ICP HIGH RANGE STD SOLUTION A
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	10000 ug/L	Arsenic	10000 ug/L
Barium	15000 ug/L	Beryllium	3000 ug/L
Boron	5000 ug/L	Cadmium	10000 ug/L
Chromium	25000 ug/L	Cobalt	10000 ug/L
Copper	20000 ug/L	Lead	25000 ug/L
Manganese	10000 ug/L	Molybdenum	10000 ug/L
Nickel	10000 ug/L	Phosphorous	15000 ug/L
Potassium	300000 ug/L	Selenium	10000 ug/L
Silica	107000 ug/L	Silicon	50000 ug/L
Silver	1000 ug/L	Strontium	10000 ug/L
Sulfur	50000 ug/L	Thallium	10000 ug/L
Tin	10000 ug/L	Titanium	10000 ug/L
Vanadium	10000 ug/L	Zinc	15000 ug/L

Serial ID: UI100114-41 **Opened:** 14-JAN-10 **Amount :** 500 mL
Name: ICP HIGH RANGE STD B **Received:** 14-JAN-10 **Catalog Number :** 160211-05-03
Type: Source Material **Expires:** 14-JAN-11 **Lot Number :** 1018160
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3
Supplier: 02SI
Description: ICP HIGH RANGE STD SOLUTION B
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 ug/L	Calcium	500000 ug/L
Iron	500000 ug/L	Magnesium	500000 ug/L
Sodium	500000 ug/L	Uranium	15000 ug/L

Serial ID: UMS090303-01 **Opened:** 03-MAR-09 **Amount :** 250 mL
Name: ICPMSCalSPIKEB **Received:** 03-MAR-09 **Catalog Number :** ZGEL-100-250
Type: Source Material **Expires:** 28-FEB-10 **Lot Number :** 14-81JB
Employee: Paul Boyd
Supplier: SPEX

Description: ICPMS Calibration Standard Solution B
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	10 mg/L	Barium	10 mg/L
Beryllium	10 mg/L	Boron	20 mg/L
Cadmium	10 mg/L	Chromium	10 mg/L
Cobalt	10 mg/L	Copper	10 mg/L
Lead	10 mg/L	Lithium	10 mg/L
Manganese	10 mg/L	Nickel	10 mg/L
Selenium	10 mg/L	Silver	10 mg/L
Strontium	10 mg/L	Thallium	10 mg/L
Thorium	10 mg/L	Uranium	10 mg/L
Vanadium	10 mg/L	Zinc	10 mg/L

Serial ID: UMS090303-02 **Opened:** 03-MAR-09 **Catalog Number :** ZGEL-102-250
Name: ICPMSCalSPIKEA **Received:** 03-MAR-09 **Lot Number :** 14-83JB
Type: Source Material **Expires:** 28-FEB-10
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Calcium	1000 mg/L
Iron	1000 mg/L	Magnesium	1000 mg/L
Phosphorous	1000 mg/L	Potassium	1000 mg/L
Sodium	1000 mg/L		

Serial ID: UMS090303-03 **Opened:** 03-MAR-09 **Amount :** 250 ml
Name: ICPMSCalSPIKEC **Received:** 03-MAR-09 **Catalog Number :** ZGEL-101-250
Type: Source Material **Expires:** 28-FEB-10 **Lot Number :** 15-199JB
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution C
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	10 mg/L	Molybdenum	10 mg/L
Tin	10 mg/L	Titanium	10 mg/L
Zirconium	10 mg/L		

Standard Logbook

Serial ID: IHG100108-01 **Opened:** 08-JAN-10 **Instrument Id :** Mercury
Name: MHGINTER1 **Received:** 08-JAN-10 **Pipet Id :** Minou1
Type: Intermediate **Expires:** 09-JAN-10 **Solvent :** 1mL HNO3 + Typel H2O
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Intermediate 1st Source 200 ug/L
Comments: Prepare fresh daily

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167639-01	Mercury	1000 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: IHG100108-02 **Opened:** 08-JAN-10 **Pipet Id :** Minou1
Name: MHGINTER2 **Received:** 08-JAN-10 **Solvent :** 2% HNO3-1240182
Type: Intermediate **Expires:** 09-JAN-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Intermediate 2nd Source 200 ug/L
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167641-02	Mercury	999.7 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: WHG100108-07 **Opened:** 08-JAN-10 **Pipet Id :** Hg1289245
Name: MHGWORKCALS0.2CRA **Received:** 08-JAN-10 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 15-JAN-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working Standard 1st Source CAL S 0.2/CRA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100108-01	Mercury	200 ug/L	30 uL	30 mL	.2 ug/L

Serial ID: WHG100108-08 **Opened:** 08-JAN-10 **Pipet Id :** Hg1289245
Name: MHGWORKCALS0.5 **Received:** 08-JAN-10 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 15-JAN-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working Standard 1st Source CAL S 0.5
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100108-01	Mercury	200 ug/L	75 uL	30 mL	.5 ug/L

Standard Logbook

Serial ID: WHG100108-09 **Opened:** 08-JAN-10 **Pipet Id :** Hg1289245
Name: MHGWORKCALS2.0 **Received:** 08-JAN-10 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 15-JAN-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL S 2.0
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100108-01	Mercury	200 ug/L	300 uL	30 mL	2 ug/L

Serial ID: WHG100108-10 **Opened:** 08-JAN-10 **Pipet Id :** Hg1289245
Name: MHGWORKCALS5.0CCV **Received:** 08-JAN-10 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 15-JAN-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL S 5.0/CCV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100108-01	Mercury	200 ug/L	750 uL	30 mL	5 ug/L

Serial ID: WHG100108-11 **Opened:** 08-JAN-10 **Pipet Id :** Hg1289245
Name: MHGWORKCALS10.0 **Received:** 08-JAN-10 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 15-JAN-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working 1st Source CAL S 10.0
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100108-01	Mercury	200 ug/L	1.5 mL	30 mL	10 ug/L

Serial ID: WHG100108-12 **Opened:** 08-JAN-10 **Pipet Id :** Hg1289245
Name: MHGWORKS5.0ICV **Received:** 08-JAN-10 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 15-JAN-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 2nd Source S 5.0/ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100108-02	Mercury	200 ug/L	750 uL	30 mL	5 ug/L

Standard Logbook

Serial ID: WHG100108-14 **Opened:** 08-JAN-10 **Pipet Id :** Hg1289245
Name: MHGSOILMSSPIKE **Received:** 08-JAN-10 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 15-JAN-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury soil working intermediate standard for MS
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167639-01	Mercury	1000 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: WI100108-42 **Opened:** 08-JAN-10 **Balance Id :** 216
Name: TRACE ICP 0.1 PPM STD. **Received:** 02-NOV-09 **Pipet Id :** 1099667
Type: Working **Expires:** 09-JAN-10 **Solvent :** 3%HCL and 1%HNO3 -1249941
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP 0.1 PPM CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WI100108-44	Aluminum	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100108-44	Antimony	1000 ug/L	10 mL	100 mL	100 ug/L
WI100108-44	Arsenic	1000 ug/L	10 mL	100 mL	100 ug/L
WI100108-44	Barium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100108-44	Beryllium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100108-44	Boron	1000 ug/L	10 mL	100 mL	100 ug/L
WI100108-44	Cadmium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100108-44	Calcium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100108-44	Chromium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100108-44	Cobalt	1000 ug/L	10 mL	100 mL	100 ug/L
WI100108-44	Copper	1000 ug/L	10 mL	100 mL	100 ug/L
WI100108-44	Iron	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100108-44	Lead	1000 ug/L	10 mL	100 mL	100 ug/L
WI100108-44	Magnesium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100108-44	Manganese	1000 ug/L	10 mL	100 mL	100 ug/L
WI100108-44	Molybdenum	1000 ug/L	10 mL	100 mL	100 ug/L
WI100108-44	Nickel	1000 ug/L	10 mL	100 mL	100 ug/L
WI100108-44	Phosphorous	5000 ug/L	10 mL	100 mL	500 ug/L
WI100108-44	Potassium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100108-44	Selenium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100108-44	Silica	10698 ug/L	10 mL	100 mL	1069 ug/L
WI100108-44	Silicon	5000 ug/L	10 mL	100 mL	500 ug/L
WI100108-44	Silver	1000 ug/L	10 mL	100 mL	100 ug/L
WI100108-44	Sodium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100108-44	Strontium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100108-44	Sulfur	2000 ug/L	10 mL	100 mL	200 ug/L
WI100108-44	Thallium	1000 ug/L	10 mL	100 mL	100 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WI100108-44	Tin	1000 ug/L	10 mL	100 mL	100 ug/L
WI100108-44	Titanium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100108-44	Uranium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100108-44	Vanadium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100108-44	Zinc	1000 ug/L	10 mL	100 mL	100 ug/L

Serial ID: WI100108-43 **Opened:** 08-JAN-10 **Balance Id :** 216
Name: TRACE ICP 0.5/CCV STD. **Received:** 02-NOV-09 **Pipet Id :** 1099667
Type: Working **Expires:** 09-JAN-10 **Solvent :** 3%HCL and 1%HNO3 -1249941
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP 0.5/CCV CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090828-42	Sodium	1000 ug/mL	5 mL	1000 mL	5000 UG/L
UI091015-42	Silica	2139 mg/L	2.5 mL	1000 mL	5348.25 UG/L
UI091015-42	Silicon	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI091102-40	Aluminum	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Arsenic	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Barium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Beryllium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Boron	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Cadmium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Calcium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Chromium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Cobalt	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Copper	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Iron	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Lead	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Magnesium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Manganese	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Nickel	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Phosphorous	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI091102-40	Potassium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Selenium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Sodium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Strontium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Thallium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Uranium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Vanadium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Zinc	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Antimony	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Molybdenum	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Silver	200 mg/L	2.5 mL	1000 mL	500 UG/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091102-41	Sulfur	400 mg/L	2.5 mL	1000 mL	1000 UG/L
UI091102-41	Tin	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Titanium	200 mg/L	2.5 mL	1000 mL	500 UG/L

Serial ID: WI100108-44 **Opened:** 08-JAN-10 **Balance Id :** 216
Name: TRACE ICP SCAL 1.0 **Received:** 02-NOV-09 **Pipet Id :** 1099667
Type: Working **Expires:** 09-JAN-10 **Solvent :** 3%HCL and 1 %HNO3-1249941
Employee: Helen Camello
Supplier: o2si
Description: Trace ICP Calibration Standard 1.0ppm
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091015-42	Silica	2139 mg/L	2.5 mL	500 mL	10698 ug/L
UI091015-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI091102-40	Aluminum	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Arsenic	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Barium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Beryllium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Boron	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Cadmium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Calcium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Chromium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Cobalt	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Copper	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Iron	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Lead	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Magnesium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Manganese	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Nickel	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Phosphorous	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI091102-40	Potassium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Selenium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Sodium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Strontium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Thallium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Uranium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Vanadium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Zinc	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Antimony	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Molybdenum	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Silver	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Sulfur	400 mg/L	2.5 mL	500 mL	2000 ug/L
UI091102-41	Tin	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Titanium	200 mg/L	2.5 mL	500 mL	1000 ug/L

Standard Logbook

Serial ID: WI100108-45 **Opened:** 08-JAN-10 **Balance Id :** 216
Name: TRACE ICP S-10 STD **Received:** 22-APR-09 **Pipet Id :** 1099667
Type: Working **Expires:** 09-JAN-10 **Solvent :** 3%HCL and 1%HNO3 -1249941
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP S-10 CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090422-40	Aluminum	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Calcium	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Iron	2000 mg/L	5 mL	500 mL	20000 UG/L
UI090422-40	Magnesium	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090828-42	Sodium	1000 ug/mL	10 mL	500 mL	20000 UG/L

Serial ID: WI100108-46 **Opened:** 08-JAN-10 **Balance Id :** 216
Name: ICP TRACE ICV **Received:** 25-SEP-09 **Pipet Id :** 1099667
Type: Working **Expires:** 09-JAN-10 **Solvent :** 3%HCL AND 1%HNO3-1249941
Employee: Helen Camello
Supplier: GEL
Description: Initial Calibration Verification ICP Trace Metals
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090925-40	Aluminum	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Arsenic	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Barium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Boron	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cadmium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Calcium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Chromium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cobalt	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Copper	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Iron	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Lead	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Phosphorous	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Potassium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Selenium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Sodium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Strontium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Antimony	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Beryllium	50 mg/L	2.5 mL	500 mL	250 ug/L
UI090925-41	Magnesium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-41	Manganese	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Molybdenum	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Nickel	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Silver	50 mg/L	2.5 mL	500 mL	250 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090925-41	Sulfur	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-41	Thallium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Tin	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Titanium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Uranium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Vanadium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Zinc	100 mg/L	2.5 mL	500 mL	500 ug/L
UI091102-42	Silica	2139 mg/L	2.5 mL	500 mL	10695 ug/L
UI091102-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L

Serial ID: WI100108-47 **Opened:** 08-JAN-10 **Balance Id :** 216
Name: PQL Working Standard **Received:** 08-JAN-10 **Pipet Id :** 1099667
Type: Working **Expires:** 09-JAN-10 **Solvent :** 3%HCL &1%HNO3-1249941
Employee: Helen Camello
Supplier: 02si
Description: PQL Working Standard
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-40	Aluminum	100 mg/L	2 mL	1000 mL	200 ug/L
UI090701-40	Antimony	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Arsenic	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Barium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Beryllium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Boron	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Cadmium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Calcium	100 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Chromium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Cobalt	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Copper	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Iron	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Lead	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Magnesium	150 mg/L	2 mL	1000 mL	300 ug/L
UI090701-40	Manganese	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Molybdenum	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Nickel	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Phosphorous	75 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Potassium	75 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Selenium	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Silicon	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Silver	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sodium	150 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Strontium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sulfur	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Thallium	10 mg/L	2 mL	1000 mL	20 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-40	Tin	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Titanium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Uranium	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Vanadium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Zinc	5 mg/L	2 mL	1000 mL	10 ug/L

Serial ID: WI100115-42 **Opened:** 15-JAN-10 **Balance Id :** 216
Name: TRACE ICP 0.1 PPM STD. **Received:** 02-NOV-09 **Pipet Id :** 1099667
Type: Working **Expires:** 16-JAN-10 **Solvent :** 3%HCL and 1%HNO3 -1253514
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP 0.1 PPM CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WI100115-44	Aluminum	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100115-44	Antimony	1000 ug/L	10 mL	100 mL	100 ug/L
WI100115-44	Arsenic	1000 ug/L	10 mL	100 mL	100 ug/L
WI100115-44	Barium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100115-44	Beryllium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100115-44	Boron	1000 ug/L	10 mL	100 mL	100 ug/L
WI100115-44	Cadmium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100115-44	Calcium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100115-44	Chromium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100115-44	Cobalt	1000 ug/L	10 mL	100 mL	100 ug/L
WI100115-44	Copper	1000 ug/L	10 mL	100 mL	100 ug/L
WI100115-44	Iron	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100115-44	Lead	1000 ug/L	10 mL	100 mL	100 ug/L
WI100115-44	Magnesium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100115-44	Manganese	1000 ug/L	10 mL	100 mL	100 ug/L
WI100115-44	Molybdenum	1000 ug/L	10 mL	100 mL	100 ug/L
WI100115-44	Nickel	1000 ug/L	10 mL	100 mL	100 ug/L
WI100115-44	Phosphorous	5000 ug/L	10 mL	100 mL	500 ug/L
WI100115-44	Potassium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100115-44	Selenium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100115-44	Silica	10698 ug/L	10 mL	100 mL	1069 ug/L
WI100115-44	Silicon	5000 ug/L	10 mL	100 mL	500 ug/L
WI100115-44	Silver	1000 ug/L	10 mL	100 mL	100 ug/L
WI100115-44	Sodium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100115-44	Strontium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100115-44	Sulfur	2000 ug/L	10 mL	100 mL	200 ug/L
WI100115-44	Thallium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100115-44	Tin	1000 ug/L	10 mL	100 mL	100 ug/L
WI100115-44	Titanium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100115-44	Uranium	1000 ug/L	10 mL	100 mL	100 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WI100115-44	Vanadium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100115-44	Zinc	1000 ug/L	10 mL	100 mL	100 ug/L

Serial ID: WI100115-43 **Opened:** 15-JAN-10 **Balance Id :** 216
Name: TRACE ICP 0.5/CCV STD. **Received:** 02-NOV-09 **Pipet Id :** 1099667
Type: Working **Expires:** 16-JAN-10 **Solvent :** 3%HCL and 1%HNO3 -1253514
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP 0.5/CCV CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090828-42	Sodium	1000 ug/mL	5 mL	1000 mL	5000 UG/L
UI091015-42	Silica	2139 mg/L	2.5 mL	1000 mL	5348.25 UG/L
UI091015-42	Silicon	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI091102-40	Aluminum	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Arsenic	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Barium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Beryllium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Boron	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Cadmium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Calcium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Chromium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Cobalt	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Copper	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Iron	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Lead	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Magnesium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Manganese	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Nickel	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Phosphorous	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI091102-40	Potassium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Selenium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Sodium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Strontium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Thallium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Uranium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Vanadium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Zinc	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Antimony	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Molybdenum	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Silver	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Sulfur	400 mg/L	2.5 mL	1000 mL	1000 UG/L
UI091102-41	Tin	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Titanium	200 mg/L	2.5 mL	1000 mL	500 UG/L

Standard Logbook

Serial ID: WI100115-44 **Opened:** 15-JAN-10 **Balance Id :** 216
Name: TRACE ICP SCAL 1.0 **Received:** 02-NOV-09 **Pipet Id :** 1099667
Type: Working **Expires:** 16-JAN-10 **Solvent :** 3%HCL and 1 %HNO3-1253514
Employee: Helen Carnello
Supplier: o2si
Description: Trace ICP Calibration Standard 1.0ppm
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091015-42	Silica	2139 mg/L	2.5 mL	500 mL	10698 ug/L
UI091015-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI091102-40	Aluminum	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Arsenic	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Barium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Beryllium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Boron	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Cadmium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Calcium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Chromium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Cobalt	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Copper	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Iron	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Lead	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Magnesium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Manganese	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Nickel	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Phosphorous	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI091102-40	Potassium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Selenium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Sodium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Strontium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Thallium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Uranium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Vanadium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Zinc	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Antimony	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Molybdenum	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Silver	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Sulfur	400 mg/L	2.5 mL	500 mL	2000 ug/L
UI091102-41	Tin	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Titanium	200 mg/L	2.5 mL	500 mL	1000 ug/L

Standard Logbook

Serial ID: WI100115-45 **Opened:** 15-JAN-10 **Balance Id :** 216
Name: TRACE ICP S-10 STD **Received:** 22-APR-09 **Pipet Id :** 1099667
Type: Working **Expires:** 16-JAN-10 **Solvent :** 3%HCL and 1%HNO3 -1253514
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP S-10 CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090422-40	Aluminum	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Calcium	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Iron	2000 mg/L	5 mL	500 mL	20000 UG/L
UI090422-40	Magnesium	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090828-42	Sodium	1000 ug/mL	10 mL	500 mL	20000 UG/L

Serial ID: WI100115-46 **Opened:** 15-JAN-10 **Balance Id :** 216
Name: ICP TRACE ICV **Received:** 25-SEP-09 **Pipet Id :** 1099667
Type: Working **Expires:** 16-JAN-10 **Solvent :** 3%HCL AND 1%HNO3-1253514
Employee: Helen Camello
Supplier: GEL
Description: Initial Calibration Verification ICP Trace Metals
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090925-40	Aluminum	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Arsenic	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Barium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Boron	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cadmium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Calcium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Chromium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cobalt	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Copper	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Iron	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Lead	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Phosphorous	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Potassium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Selenium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Sodium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Strontium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Antimony	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Beryllium	50 mg/L	2.5 mL	500 mL	250 ug/L
UI090925-41	Magnesium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-41	Manganese	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Molybdenum	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Nickel	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Silver	50 mg/L	2.5 mL	500 mL	250 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090925-41	Sulfur	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-41	Thallium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Tin	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Titanium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Uranium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Vanadium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Zinc	100 mg/L	2.5 mL	500 mL	500 ug/L
UI091102-42	Silica	2139 mg/L	2.5 mL	500 mL	10695 ug/L
UI091102-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L

Serial ID: WI100115-47 **Opened:** 15-JAN-10 **Balance Id :** 216
Name: PQL Working Standard **Received:** 30-JUN-09 **Pipet Id :** 1099667
Type: Working **Expires:** 16-JAN-10 **Solvent :** 3%HCL &1%HNO3-1253514
Employee: Helen Camello
Supplier: 02si
Description: PQL Working Standard
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-40	Aluminum	100 mg/L	2 mL	1000 mL	200 ug/L
UI090701-40	Antimony	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Arsenic	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Barium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Beryllium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Boron	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Cadmium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Calcium	100 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Chromium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Cobalt	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Copper	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Iron	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Lead	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Magnesium	150 mg/L	2 mL	1000 mL	300 ug/L
UI090701-40	Manganese	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Molybdenum	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Nickel	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Phosphorous	75 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Potassium	75 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Selenium	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Silicon	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Silver	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sodium	150 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Strontium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sulfur	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Thallium	10 mg/L	2 mL	1000 mL	20 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-40	Tin	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Titanium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Uranium	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Vanadium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Zinc	5 mg/L	2 mL	1000 mL	10 ug/L

Serial ID: WI100119-42 **Opened:** 19-JAN-10 **Balance Id :** 216
Name: TRACE ICP 0.1 PPM STD. **Received:** 02-NOV-09 **Pipet Id :** 1099667
Type: Working **Expires:** 20-JAN-10 **Solvent :** 3%HCL and 1%HNO3 -1256122
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP 0.1 PPM CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WI100119-44	Aluminum	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100119-44	Antimony	1000 ug/L	10 mL	100 mL	100 ug/L
WI100119-44	Arsenic	1000 ug/L	10 mL	100 mL	100 ug/L
WI100119-44	Barium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100119-44	Beryllium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100119-44	Boron	1000 ug/L	10 mL	100 mL	100 ug/L
WI100119-44	Cadmium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100119-44	Calcium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100119-44	Chromium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100119-44	Cobalt	1000 ug/L	10 mL	100 mL	100 ug/L
WI100119-44	Copper	1000 ug/L	10 mL	100 mL	100 ug/L
WI100119-44	Iron	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100119-44	Lead	1000 ug/L	10 mL	100 mL	100 ug/L
WI100119-44	Magnesium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100119-44	Manganese	1000 ug/L	10 mL	100 mL	100 ug/L
WI100119-44	Molybdenum	1000 ug/L	10 mL	100 mL	100 ug/L
WI100119-44	Nickel	1000 ug/L	10 mL	100 mL	100 ug/L
WI100119-44	Phosphorous	5000 ug/L	10 mL	100 mL	500 ug/L
WI100119-44	Potassium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100119-44	Selenium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100119-44	Silica	10698 ug/L	10 mL	100 mL	1069 ug/L
WI100119-44	Silicon	5000 ug/L	10 mL	100 mL	500 ug/L
WI100119-44	Silver	1000 ug/L	10 mL	100 mL	100 ug/L
WI100119-44	Sodium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100119-44	Strontium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100119-44	Sulfur	2000 ug/L	10 mL	100 mL	200 ug/L
WI100119-44	Thallium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100119-44	Tin	1000 ug/L	10 mL	100 mL	100 ug/L
WI100119-44	Titanium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100119-44	Uranium	1000 ug/L	10 mL	100 mL	100 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WI100119-44	Vanadium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100119-44	Zinc	1000 ug/L	10 mL	100 mL	100 ug/L

Serial ID: WI100119-43 **Opened:** 19-JAN-10 **Balance Id :** 216
Name: TRACE ICP 0.5/CCV STD. **Received:** 02-NOV-09 **Pipet Id :** 1099667
Type: Working **Expires:** 20-JAN-10 **Solvent :** 3%HCL and 1%HNO3 -1256122
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP 0.5/CCV CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090828-42	Sodium	1000 ug/mL	5 mL	1000 mL	5000 UG/L
UI091015-42	Silica	2139 mg/L	2.5 mL	1000 mL	5348.25 UG/L
UI091015-42	Silicon	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI091102-40	Aluminum	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Arsenic	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Barium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Beryllium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Boron	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Cadmium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Calcium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Chromium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Cobalt	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Copper	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Iron	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Lead	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Magnesium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Manganese	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Nickel	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Phosphorous	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI091102-40	Potassium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Selenium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Sodium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Strontium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Thallium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Uranium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Vanadium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Zinc	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Antimony	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Molybdenum	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Silver	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Sulfur	400 mg/L	2.5 mL	1000 mL	1000 UG/L
UI091102-41	Tin	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Titanium	200 mg/L	2.5 mL	1000 mL	500 UG/L

Standard Logbook

Serial ID: WI100119-44 **Opened:** 19-JAN-10 **Balance Id :** 216
Name: TRACE ICP SCAL 1.0 **Received:** 02-NOV-09 **Pipet Id :** 1099667
Type: Working **Expires:** 20-JAN-10 **Solvent :** 3%HCL and 1 %HNO3-1256122
Employee: Helen Camello
Supplier: o2si
Description: Trace ICP Calibration Standard 1.0ppm
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091015-42	Silica	2139 mg/L	2.5 mL	500 mL	10698 ug/L
UI091015-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI091102-40	Aluminum	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Arsenic	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Barium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Beryllium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Boron	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Cadmium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Calcium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Chromium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Cobalt	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Copper	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Iron	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Lead	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Magnesium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Manganese	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Nickel	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Phosphorous	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI091102-40	Potassium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Selenium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Sodium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Strontium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Thallium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Uranium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Vanadium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Zinc	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Antimony	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Molybdenum	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Silver	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Sulfur	400 mg/L	2.5 mL	500 mL	2000 ug/L
UI091102-41	Tin	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Titanium	200 mg/L	2.5 mL	500 mL	1000 ug/L

Standard Logbook

Serial ID: WI100119-45 **Opened:** 19-JAN-10 **Balance Id :** 216
Name: TRACE ICP S-10 STD **Received:** 22-APR-09 **Pipet Id :** 1099667
Type: Working **Expires:** 20-JAN-10 **Solvent :** 3%HCL and 1%HNO3 -1256122
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP S-10 CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090422-40	Aluminum	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Calcium	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Iron	2000 mg/L	5 mL	500 mL	20000 UG/L
UI090422-40	Magnesium	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090828-42	Sodium	1000 ug/mL	10 mL	500 mL	20000 UG/L

Serial ID: WI100119-46 **Opened:** 19-JAN-10 **Balance Id :** 216
Name: ICP TRACE ICV **Received:** 25-SEP-09 **Pipet Id :** 1099667
Type: Working **Expires:** 20-JAN-10 **Solvent :** 3%HCL AND 1%HNO3-1256122
Employee: Helen Camello
Supplier: GEL
Description: Initial Calibration Verification ICP Trace Metals
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090925-40	Aluminum	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Arsenic	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Barium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Boron	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cadmium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Calcium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Chromium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cobalt	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Copper	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Iron	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Lead	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Phosphorous	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Potassium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Selenium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Sodium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Strontium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Antimony	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Beryllium	50 mg/L	2.5 mL	500 mL	250 ug/L
UI090925-41	Magnesium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-41	Manganese	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Molybdenum	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Nickel	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Silver	50 mg/L	2.5 mL	500 mL	250 ug/L

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Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090925-41	Sulfur	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-41	Thallium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Tin	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Titanium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Uranium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Vanadium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Zinc	100 mg/L	2.5 mL	500 mL	500 ug/L
UI091102-42	Silica	2139 mg/L	2.5 mL	500 mL	10695 ug/L
UI091102-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L

Serial ID: WI100119-47 **Opened:** 19-JAN-10 **Balance Id :** 216
Name: PQL Working Standard **Received:** 30-JUN-09 **Pipet Id :** 1099667
Type: Working **Expires:** 20-JAN-10 **Solvent :** 3%HCL &1%HNO3-1256122
Employee: Helen Camello
Supplier: 02si
Description: PQL Working Standard
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-40	Aluminum	100 mg/L	2 mL	1000 mL	200 ug/L
UI090701-40	Antimony	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Arsenic	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Barium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Beryllium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Boron	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Cadmium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Calcium	100 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Chromium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Cobalt	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Copper	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Iron	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Lead	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Magnesium	150 mg/L	2 mL	1000 mL	300 ug/L
UI090701-40	Manganese	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Molybdenum	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Nickel	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Phosphorous	75 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Potassium	75 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Selenium	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Silicon	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Silver	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sodium	150 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Strontium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sulfur	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Thallium	10 mg/L	2 mL	1000 mL	20 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-40	Tin	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Titanium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Uranium	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Vanadium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Zinc	5 mg/L	2 mL	1000 mL	10 ug/L

Serial ID: WMS100108-04 **Opened:** 08-JAN-10 **Amount :** 50 mL
Name: ICPMS Cal Standard 100 **Received:** 08-JAN-10 **Balance Id :** 4025216
Type: Working **Expires:** 09-JAN-10 **Pipet Id :** 3541598
Employee: Paul Boyd **Solvent :** 2%HNO3/1%HCl-1249336
Supplier: GEL
Description: ICPMS Calibration Standard (100 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090610-03	Tungsten	10 mg/L	.5 mL	50 mL	100 ug/L
UMS090303-01	Arsenic	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Barium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Beryllium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Boron	20 mg/L	.5 mL	50 mL	200 ug/l
UMS090303-01	Cadmium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Chromium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Cobalt	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Copper	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Lead	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Lithium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Manganese	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Nickel	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Selenium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Silver	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Strontium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Thallium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Thorium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Uranium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Vanadium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Zinc	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-02	Aluminum	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Calcium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Iron	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Magnesium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Phosphorous	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Potassium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Sodium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-03	Antimony	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Molybdenum	10 mg/L	.5 mL	50 mL	100 ug/l

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Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UMS090303-03	Tin	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Titanium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Zirconium	10 mg/L	.5 mL	50 mL	100 ug/l

Serial ID: WMS100108-05 **Opened:** 08-JAN-10 **Balance Id :** 40245216
Name: ICPMS ICV **Received:** 08-JAN-10 **Pipet Id :** 3541598
Type: Working **Expires:** 09-JAN-10 **Solvent :** 2%HNO3/1%HCl - 1249336
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-06	Aluminum	2020 mg/L	.125 mL	50 mL	5050 ug/L
UI091217-06	Calcium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Iron	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Magnesium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Phosphorous	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Potassium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Sodium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-07	Arsenic	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Barium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Beryllium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Boron	40 mg/L	.125 mL	50 mL	100 ug/L
UI091217-07	Cadmium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Chromium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Cobalt	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Copper	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lead	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lithium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Manganese	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Nickel	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Selenium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Strontium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thallium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thorium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Uranium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Vanadium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Zinc	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Antimony	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Molybdenum	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Silver	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tin	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Titanium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tungsten	20 mg/L	.125 mL	50 mL	50 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-08	Zirconium	20 mg/L	.125 mL	50 mL	50 ug/L

Serial ID: WMS100108-06 **Opened:** 08-JAN-10 **Balance Id :** 40245216
Name: ICPMS CRDL **Received:** 08-JAN-10 **Pipet Id :** 3820544
Type: Working **Expires:** 09-JAN-10 **Solvent :** 2%HNO3/1%HCl - 1249336
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS CRDL
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Aluminum	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Arsenic	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Barium	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Beryllium	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-09	Boron	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Cadmium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Calcium	100 mg/L	.05 mL	50 mL	100 ug/L
UI090701-09	Chromium	3 mg/L	.05 mL	50 mL	3 ug/L
UI090701-09	Cobalt	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Copper	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Iron	25 mg/L	.05 mL	50 mL	25 ug/L
UI090701-09	Lead	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Lithium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Magnesium	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Manganese	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Nickel	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Phosphorous	50 mg/L	.05 mL	50 mL	50 ug/L
UI090701-09	Potassium	300 mg/L	.05 mL	50 mL	300 ug/L
UI090701-09	Selenium	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Sodium	250 mg/L	.05 mL	50 mL	250 ug/L
UI090701-09	Strontium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Thallium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Thorium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Uranium	.2 mg/L	.05 mL	50 mL	.2 ug/L
UI090701-09	Vanadium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Zinc	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Antimony	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-10	Molybdenum	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-10	Silver	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-10	Tin	2 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Titanium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Tungsten	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Zirconium	2 mg/L	.05 mL	50 mL	2 ug/L

Standard Logbook

Serial ID: WMS100108-07 **Opened:** 08-JAN-10 **Balance Id :** 40245216
Name: ICPMS ICSA **Received:** 08-JAN-10 **Lot Number :** 1010773
Type: Working **Expires:** 09-JAN-10 **Pipet Id :** 3541598
Employee: Paul Boyd **Solvent :** 2%HNO3/1%HCl - 1249336
Supplier: GEL
Description: ICPMS ICSA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI091212-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI091212-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: WMS100108-08 **Opened:** 08-JAN-10 **Balance Id :** 40245216
Name: ICPMS ICSAB **Received:** 08-JAN-10 **Pipet Id :** 1758088
Type: Working **Expires:** 09-JAN-10 **Solvent :** 2%HNO3/1%HCl - 1249336
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS ICSAB
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI091212-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI091212-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L
UI091217-12	Arsenic	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Barium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Beryllium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Boron	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Cadmium	2 mg/L	.5 mL	50 mL	20.2 ug/L
UI091217-12	Chromium	2 mg/L	.5 mL	50 mL	22.2 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-12	Cobalt	2 mg/L	.5 mL	50 mL	20.4 ug/L
UI091217-12	Copper	2 mg/L	.5 mL	50 mL	23.4 ug/L
UI091217-12	Lead	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Lithium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Manganese	2 mg/L	.5 mL	50 mL	22.7 ug/L
UI091217-12	Nickel	2 mg/L	.5 mL	50 mL	22.4 ug/L
UI091217-12	Selenium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Strontium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thallium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thorium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Uranium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Vanadium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Zinc	2 mg/L	.5 mL	50 mL	27 ug/L
UI091217-13	Antimony	2 mg/L	.5 mL	50 mL	20.5 ug/L
UI091217-13	Silver	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tin	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tungsten	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Zirconium	2 mg/L	.5 mL	50 mL	20 ug/L

Serial ID: WMS100108-70 **Opened:** 08-JAN-10 **Balance Id :** 40245216
Name: ICPMS LINEAR RANGE ST **Received:** 08-JAN-10 **Pipet Id :** 1758088
Type: Working **Expires:** 09-JAN-10 **Solvent :** 2%HNO3/1%HCl - 1249336
Employee: Paul Boyd
Supplier: 02SI
Description: ICPMS LINEAR RANGE STANDARD
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-60	Aluminum	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Arsenic	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Barium	250 mg/L	.5 mL	50 mL	2500 ug/L
UI091212-60	Beryllium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Cadmium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Calcium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Chromium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Cobalt	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Copper	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Iron	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Lead	500 mg/L	.5 mL	50 mL	5000 ug/L
UI091212-60	Lithium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Magnesium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Manganese	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Nickel	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Phosphorous	2500 mg/L	.5 mL	50 mL	25000 ug/L
UI091212-60	Potassium	5000 mg/L	.5 mL	50 mL	50000 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-60	Selenium	50 mg/L	.5 mL	50 mL	500 ug/L
UI091212-60	Sodium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Strontium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Thallium	50 mg/L	.5 mL	50 mL	500 ug/L
UI091212-60	Thorium	250 mg/L	.5 mL	50 mL	2500 ug/L
UI091212-60	Uranium	500 mg/L	.5 mL	50 mL	5000 ug/L
UI091212-60	Vanadium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Zinc	250 mg/L	.5 mL	50 mL	2500 ug/L
UI091212-61	Antimony	25 mg/L	.5 mL	50 mL	250 ug/L
UI091212-61	Molybdenum	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-61	Silver	25 mg/L	.5 mL	50 mL	250 ug/L
UI091212-61	Tin	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-61	Tungsten	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-61	Zirconium	50 mg/L	.5 mL	50 mL	500 ug/L

Serial ID: WMS100109-04 **Opened:** 09-JAN-10 **Amount :** 50 mL
Name: ICPMS Cal Standard 100 **Received:** 09-JAN-10 **Balance Id :** 4025216
Type: Working **Expires:** 10-JAN-10 **Pipet Id :** 3541598
Employee: Elizabeth Janssen **Solvent :** 2%HNO3/1%HCl-1249336
Supplier: GEL
Description: ICPMS Calibration Standard (100 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090610-03	Tungsten	10 mg/L	.5 mL	50 mL	100 ug/L
UMS090303-01	Arsenic	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Barium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Beryllium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Boron	20 mg/L	.5 mL	50 mL	200 ug/l
UMS090303-01	Cadmium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Chromium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Cobalt	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Copper	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Lead	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Lithium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Manganese	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Nickel	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Selenium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Silver	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Strontium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Thallium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Thorium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Uranium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Vanadium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Zinc	10 mg/L	.5 mL	50 mL	100 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UMS090303-02	Aluminum	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Calcium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Iron	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Magnesium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Phosphorous	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Potassium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Sodium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-03	Antimony	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Molybdenum	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Tin	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Titanium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Zirconium	10 mg/L	.5 mL	50 mL	100 ug/l

Serial ID: WMS100109-04A **Opened:** 09-JAN-10 **Balance Id :** 4025216
Name: ICPMS Cal Standard 10 **Received:** 09-JAN-10 **Pipet Id :** 3541598
Type: Working **Expires:** 10-JAN-10 **Solvent :** 2%HNO3/1%HCl - 1249336
Employee: Elizabeth Janssen
Supplier: GEL
Description: ICPMS Calibration Standard (10 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100109-04	Aluminum	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100109-04	Antimony	100 ug/l	5 mL	50 mL	10 ug/l
WMS100109-04	Arsenic	100 ug/l	5 mL	50 mL	10 ug/l
WMS100109-04	Barium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100109-04	Beryllium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100109-04	Boron	200 ug/l	5 mL	50 mL	20 ug/l
WMS100109-04	Cadmium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100109-04	Calcium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100109-04	Chromium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100109-04	Cobalt	100 ug/l	5 mL	50 mL	10 ug/l
WMS100109-04	Copper	100 ug/l	5 mL	50 mL	10 ug/l
WMS100109-04	Iron	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100109-04	Lead	100 ug/l	5 mL	50 mL	10 ug/l
WMS100109-04	Lithium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100109-04	Magnesium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100109-04	Manganese	100 ug/l	5 mL	50 mL	10 ug/l
WMS100109-04	Molybdenum	100 ug/l	5 mL	50 mL	10 ug/l
WMS100109-04	Nickel	100 ug/l	5 mL	50 mL	10 ug/l
WMS100109-04	Phosphorous	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100109-04	Potassium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100109-04	Selenium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100109-04	Silver	100 ug/l	5 mL	50 mL	10 ug/l
WMS100109-04	Sodium	10000 ug/l	5 mL	50 mL	1000 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100109-04	Strontium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100109-04	Thallium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100109-04	Thorium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100109-04	Tin	100 ug/l	5 mL	50 mL	10 ug/l
WMS100109-04	Titanium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100109-04	Tungsten	100 ug/L	5 mL	50 mL	10 ug/L
WMS100109-04	Uranium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100109-04	Vanadium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100109-04	Zinc	100 ug/l	5 mL	50 mL	10 ug/l
WMS100109-04	Zirconium	100 ug/l	5 mL	50 mL	10 ug/l

Serial ID: WMS100109-05 **Opened:** 09-JAN-10 **Balance Id :** 40245216
Name: ICPMS ICV **Received:** 09-JAN-10 **Pipet Id :** 3541598
Type: Working **Expires:** 10-JAN-10 **Solvent :** 2%HNO3/1%HCl - 1249336
Employee: Elizabeth Janssen
Supplier: GEL
Description: ICPMS ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-06	Aluminum	2020 mg/L	.125 mL	50 mL	5050 ug/L
UI091217-06	Calcium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Iron	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Magnesium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Phosphorous	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Potassium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Sodium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-07	Arsenic	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Barium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Beryllium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Boron	40 mg/L	.125 mL	50 mL	100 ug/L
UI091217-07	Cadmium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Chromium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Cobalt	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Copper	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lead	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lithium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Manganese	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Nickel	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Selenium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Strontium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thallium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thorium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Uranium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Vanadium	20 mg/L	.125 mL	50 mL	50 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-07	Zinc	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Antimony	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Molybdenum	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Silver	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tin	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Titanium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tungsten	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Zirconium	20 mg/L	.125 mL	50 mL	50 ug/L

Serial ID: WMS100109-06 **Opened:** 09-JAN-10 **Balance Id :** 40245216
Name: ICPMS CRDL **Received:** 09-JAN-10 **Pipet Id :** 3820544
Type: Working **Expires:** 10-JAN-10 **Solvent :** 2%HNO3/1%HCl - 1249336
Employee: Elizabeth Janssen
Supplier: GEL
Description: ICPMS CRDL
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Aluminum	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Arsenic	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Barium	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Beryllium	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-09	Boron	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Cadmium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Calcium	100 mg/L	.05 mL	50 mL	100 ug/L
UI090701-09	Chromium	3 mg/L	.05 mL	50 mL	3 ug/L
UI090701-09	Cobalt	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Copper	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Iron	25 mg/L	.05 mL	50 mL	25 ug/L
UI090701-09	Lead	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Lithium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Magnesium	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Manganese	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Nickel	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Phosphorous	50 mg/L	.05 mL	50 mL	50 ug/L
UI090701-09	Potassium	300 mg/L	.05 mL	50 mL	300 ug/L
UI090701-09	Selenium	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Sodium	250 mg/L	.05 mL	50 mL	250 ug/L
UI090701-09	Strontium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Thallium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Thorium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Uranium	.2 mg/L	.05 mL	50 mL	.2 ug/L
UI090701-09	Vanadium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Zinc	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Antimony	2 mg/L	.05 mL	50 mL	2 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-10	Molybdenum	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-10	Silver	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-10	Tin	2 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Titanium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Tungsten	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Zirconium	2 mg/L	.05 mL	50 mL	2 ug/L

Serial ID: WMS100109-07 **Opened:** 09-JAN-10 **Balance Id :** 40245216
Name: ICPMS ICSA **Received:** 09-JAN-10 **Lot Number :** 1010773
Type: Working **Expires:** 10-JAN-10 **Pipet Id :** 3541598
Employee: Elizabeth Janssen **Solvent :** 2%HNO3/1%HCl - 1249336
Supplier: GEL
Description: ICPMS ICSA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI091212-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI091212-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: WMS100109-08 **Opened:** 09-JAN-10 **Balance Id :** 40245216
Name: ICPMS ICSAB **Received:** 09-JAN-10 **Pipet Id :** 1758088
Type: Working **Expires:** 10-JAN-10 **Solvent :** 2%HNO3/1%HCl - 1249336
Employee: Elizabeth Janssen
Supplier: GEL
Description: ICPMS ICSAB
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI091212-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI091212-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L
UI091217-12	Arsenic	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Barium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Beryllium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Boron	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Cadmium	2 mg/L	.5 mL	50 mL	20.2 ug/L
UI091217-12	Chromium	2 mg/L	.5 mL	50 mL	22.2 ug/L
UI091217-12	Cobalt	2 mg/L	.5 mL	50 mL	20.4 ug/L
UI091217-12	Copper	2 mg/L	.5 mL	50 mL	23.4 ug/L
UI091217-12	Lead	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Lithium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Manganese	2 mg/L	.5 mL	50 mL	22.7 ug/L
UI091217-12	Nickel	2 mg/L	.5 mL	50 mL	22.4 ug/L
UI091217-12	Selenium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Strontium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thallium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thorium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Uranium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Vanadium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Zinc	2 mg/L	.5 mL	50 mL	27 ug/L
UI091217-13	Antimony	2 mg/L	.5 mL	50 mL	20.5 ug/L
UI091217-13	Silver	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tin	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tungsten	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Zirconium	2 mg/L	.5 mL	50 mL	20 ug/L

Serial ID: WMS100109-70 **Opened:** 09-JAN-10 **Balance Id :** 40245216
Name: ICPMS LINEAR RANGE ST **Received:** 09-JAN-10 **Pipet Id :** 1758088
Type: Working **Expires:** 10-JAN-10 **Solvent :** 2%HNO3/1%HCl - 1249336
Employee: Elizabeth Janssen
Supplier: 02SI
Description: ICPMS LINEAR RANGE STANDARD
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-60	Aluminum	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Arsenic	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Barium	250 mg/L	.5 mL	50 mL	2500 ug/L
UI091212-60	Beryllium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Cadmium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Calcium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Chromium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Cobalt	100 mg/L	.5 mL	50 mL	1000 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-60	Copper	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Iron	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Lead	500 mg/L	.5 mL	50 mL	5000 ug/L
UI091212-60	Lithium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Magnesium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Manganese	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Nickel	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Phosphorous	2500 mg/L	.5 mL	50 mL	25000 ug/L
UI091212-60	Potassium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Selenium	50 mg/L	.5 mL	50 mL	500 ug/L
UI091212-60	Sodium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Strontium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Thallium	50 mg/L	.5 mL	50 mL	500 ug/L
UI091212-60	Thorium	250 mg/L	.5 mL	50 mL	2500 ug/L
UI091212-60	Uranium	500 mg/L	.5 mL	50 mL	5000 ug/L
UI091212-60	Vanadium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Zinc	250 mg/L	.5 mL	50 mL	2500 ug/L
UI091212-61	Antimony	25 mg/L	.5 mL	50 mL	250 ug/L
UI091212-61	Molybdenum	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-61	Silver	25 mg/L	.5 mL	50 mL	250 ug/L
UI091212-61	Tin	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-61	Tungsten	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-61	Zirconium	50 mg/L	.5 mL	50 mL	500 ug/L

Serial ID: WMS100113-04AB **Opened:** 13-JAN-10 **Balance Id :** 40245216
Name: ICPMS Cal Standard 10 **Received:** 13-JAN-10 **Pipet Id :** 3541598
Type: Working **Expires:** 14-JAN-10 **Solvent :** 2%HNO3/1%HCl - 1238829
Employee: Rose Jenkins
Supplier: GEL
Description: ICPMS Calibration Standard (10 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100113-04B	Aluminum	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100113-04B	Antimony	100 ug/l	5 mL	50 mL	10 ug/l
WMS100113-04B	Arsenic	100 ug/l	5 mL	50 mL	10 ug/l
WMS100113-04B	Barium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100113-04B	Beryllium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100113-04B	Boron	200 ug/l	5 mL	50 mL	20 ug/l
WMS100113-04B	Cadmium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100113-04B	Calcium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100113-04B	Chromium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100113-04B	Cobalt	100 ug/l	5 mL	50 mL	10 ug/l
WMS100113-04B	Copper	100 ug/l	5 mL	50 mL	10 ug/l
WMS100113-04B	Iron	10000 ug/l	5 mL	50 mL	1000 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100113-04B	Lead	100 ug/l	5 mL	50 mL	10 ug/l
WMS100113-04B	Lithium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100113-04B	Magnesium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100113-04B	Manganese	100 ug/l	5 mL	50 mL	10 ug/l
WMS100113-04B	Molybdenum	100 ug/l	5 mL	50 mL	10 ug/l
WMS100113-04B	Nickel	100 ug/l	5 mL	50 mL	10 ug/l
WMS100113-04B	Phosphorous	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100113-04B	Potassium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100113-04B	Selenium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100113-04B	Silver	100 ug/l	5 mL	50 mL	10 ug/l
WMS100113-04B	Sodium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100113-04B	Strontium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100113-04B	Thallium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100113-04B	Thorium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100113-04B	Tin	100 ug/l	5 mL	50 mL	10 ug/l
WMS100113-04B	Titanium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100113-04B	Tungsten	100 ug/L	5 mL	50 mL	10 ug/L
WMS100113-04B	Uranium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100113-04B	Vanadium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100113-04B	Zinc	100 ug/l	5 mL	50 mL	10 ug/l
WMS100113-04B	Zirconium	100 ug/l	5 mL	50 mL	10 ug/l

Serial ID: WMS100113-04B **Opened:** 13-JAN-10 **Amount :** 50 mL
Name: ICPMS Cal Standard 100 **Received:** 13-JAN-10 **Balance Id :** 40245216
Type: Working **Expires:** 14-JAN-10 **Pipet Id :** 1758088
Employee: Rose Jenkins **Solvent :** 2%HNO3/1%HCl- 1238829
Supplier: GEL
Description: ICPMS Calibration Standard (100 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090610-03	Tungsten	10 mg/L	.5 mL	50 mL	100 ug/L
UMS090303-01	Arsenic	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Barium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Beryllium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Boron	20 mg/L	.5	50 mL	200 ug/l
UMS090303-01	Cadmium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Chromium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Cobalt	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Copper	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Lead	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Lithium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Manganese	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Nickel	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Selenium	10 mg/L	.5	50 mL	100 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UMS090303-01	Silver	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Strontium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Thallium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Thorium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Uranium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Vanadium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Zinc	10 mg/L	.5	50 mL	100 ug/l
UMS090303-02	Aluminum	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Calcium	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Iron	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Magnesium	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Phosphorous	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Potassium	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Sodium	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-03	Antimony	10 mg/L	.5	50 mL	100 ug/l
UMS090303-03	Molybdenum	10 mg/L	.5	50 mL	100 ug/l
UMS090303-03	Tin	10 mg/L	.5	50 mL	100 ug/l
UMS090303-03	Titanium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-03	Zirconium	10 mg/L	.5	50 mL	100 ug/l

Serial ID: WMS100113-05B **Opened:** 13-JAN-10 **Balance Id :** 40245216
Name: ICPMS ICV **Received:** 13-JAN-10 **Pipet Id :** 1758088
Type: Working **Expires:** 14-JAN-10 **Solvent :** 2%HNO3/1%HCl - 1238829
Employee: Rose Jenkins
Supplier: GEL
Description: ICPMS ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-06	Aluminum	2020 mg/L	.125 mL	50 mL	5050 ug/L
UI091217-06	Calcium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Iron	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Magnesium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Phosphorous	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Potassium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Sodium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-07	Arsenic	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Barium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Beryllium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Boron	40 mg/L	.125 mL	50 mL	100 ug/L
UI091217-07	Cadmium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Chromium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Cobalt	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Copper	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lead	20 mg/L	.125 mL	50 mL	50 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-07	Lithium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Manganese	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Nickel	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Selenium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Strontium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thallium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thorium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Uranium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Vanadium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Zinc	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Antimony	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Molybdenum	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Silver	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tin	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Titanium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tungsten	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Zirconium	20 mg/L	.125 mL	50 mL	50 ug/L

Serial ID: WMS100113-06B **Opened:** 13-JAN-10 **Balance Id :** 40245216
Name: ICPMS CRDL **Received:** 13-JAN-10 **Pipet Id :** 3820544
Type: Working **Expires:** 14-JAN-10 **Solvent :** 2%HNO3/1%HCl - 1238829
Employee: Rose Jenkins
Supplier: GEL
Description: ICPMS CRDL
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Aluminum	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Arsenic	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Barium	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Beryllium	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-09	Boron	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Cadmium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Calcium	100 mg/L	.05 mL	50 mL	100 ug/L
UI090701-09	Chromium	3 mg/L	.05 mL	50 mL	3 ug/L
UI090701-09	Cobalt	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Copper	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Iron	25 mg/L	.05 mL	50 mL	25 ug/L
UI090701-09	Lead	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Lithium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Magnesium	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Manganese	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Nickel	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Phosphorous	50 mg/L	.05 mL	50 mL	50 ug/L
UI090701-09	Potassium	300 mg/L	.05 mL	50 mL	300 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Selenium	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Sodium	250 mg/L	.05 mL	50 mL	250 ug/L
UI090701-09	Strontium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Thallium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Thorium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Uranium	.2 mg/L	.05 mL	50 mL	.2 ug/L
UI090701-09	Vanadium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Zinc	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Antimony	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-10	Molybdenum	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-10	Silver	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-10	Tin	2 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Titanium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Tungsten	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Zirconium	2 mg/L	.05 mL	50 mL	2 ug/L

Serial ID: WMS100113-07B **Opened:** 13-JAN-10 **Balance Id :** 40245216
Name: ICPMS ICSA **Received:** 13-JAN-10 **Lot Number :** 1010773
Type: Working **Expires:** 14-JAN-10 **Pipet Id :** 3541598
Employee: Rose Jenkins **Solvent :** 2%HNO3/1%HCl - 1238829
Supplier: GEL
Description: ICPMS ICSA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI091212-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI091212-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: WMS100113-08B **Opened:** 13-JAN-10 **Balance Id :** 40245216
Name: ICPMS ICSAB **Received:** 13-JAN-10 **Pipet Id :** 3541598/1758088
Type: Working **Expires:** 14-JAN-10 **Solvent :** 2%HNO3/1%HCl - 1238829
Employee: Rose Jenkins
Supplier: GEL
Description: ICPMS ICSAB
Comments: None

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI091212-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI091212-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L
UI091217-12	Arsenic	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Barium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Beryllium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Boron	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Cadmium	2 mg/L	.5 mL	50 mL	20.2 ug/L
UI091217-12	Chromium	2 mg/L	.5 mL	50 mL	22.2 ug/L
UI091217-12	Cobalt	2 mg/L	.5 mL	50 mL	20.4 ug/L
UI091217-12	Copper	2 mg/L	.5 mL	50 mL	23.4 ug/L
UI091217-12	Lead	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Lithium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Manganese	2 mg/L	.5 mL	50 mL	22.7 ug/L
UI091217-12	Nickel	2 mg/L	.5 mL	50 mL	22.4 ug/L
UI091217-12	Selenium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Strontium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thallium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thorium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Uranium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Vanadium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Zinc	2 mg/L	.5 mL	50 mL	27 ug/L
UI091217-13	Antimony	2 mg/L	.5 mL	50 mL	20.5 ug/L
UI091217-13	Silver	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tin	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tungsten	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Zirconium	2 mg/L	.5 mL	50 mL	20 ug/L

Serial ID: WMS100115-04AB **Opened:** 15-JAN-10 **Balance Id :** 40245216
Name: ICPMS Cal Standard 10 **Received:** 15-JAN-10 **Pipet Id :** 3541598
Type: Working **Expires:** 16-JAN-10 **Solvent :** 2%HNO3/1%HCl - 1238829
Employee: Rose Jenkins
Supplier: GEL
Description: ICPMS Calibration Standard (10 ppb)
Comments: None

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100115-04B	Aluminum	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100115-04B	Antimony	100 ug/l	5 mL	50 mL	10 ug/l
WMS100115-04B	Arsenic	100 ug/l	5 mL	50 mL	10 ug/l
WMS100115-04B	Barium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100115-04B	Beryllium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100115-04B	Boron	200 ug/l	5 mL	50 mL	20 ug/l
WMS100115-04B	Cadmium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100115-04B	Calcium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100115-04B	Chromium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100115-04B	Cobalt	100 ug/l	5 mL	50 mL	10 ug/l
WMS100115-04B	Copper	100 ug/l	5 mL	50 mL	10 ug/l
WMS100115-04B	Iron	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100115-04B	Lead	100 ug/l	5 mL	50 mL	10 ug/l
WMS100115-04B	Lithium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100115-04B	Magnesium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100115-04B	Manganese	100 ug/l	5 mL	50 mL	10 ug/l
WMS100115-04B	Molybdenum	100 ug/l	5 mL	50 mL	10 ug/l
WMS100115-04B	Nickel	100 ug/l	5 mL	50 mL	10 ug/l
WMS100115-04B	Phosphorous	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100115-04B	Potassium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100115-04B	Selenium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100115-04B	Silver	100 ug/l	5 mL	50 mL	10 ug/l
WMS100115-04B	Sodium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100115-04B	Strontium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100115-04B	Thallium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100115-04B	Thorium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100115-04B	Tin	100 ug/l	5 mL	50 mL	10 ug/l
WMS100115-04B	Titanium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100115-04B	Tungsten	100 ug/L	5 mL	50 mL	10 ug/L
WMS100115-04B	Uranium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100115-04B	Vanadium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100115-04B	Zinc	100 ug/l	5 mL	50 mL	10 ug/l
WMS100115-04B	Zirconium	100 ug/l	5 mL	50 mL	10 ug/l

Serial ID: WMS100115-04B **Opened:** 15-JAN-10 **Amount :** 50 mL
Name: ICPMS Cal Standard 100 **Received:** 15-JAN-10 **Balance Id :** 40245216
Type: Working **Expires:** 16-JAN-10 **Pipet Id :** 1758088
Employee: Rose Jenkins **Solvent :** 2%HNO3/1%HCl- 1238829
Supplier: GEL
Description: ICPMS Calibration Standard (100 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090610-03	Tungsten	10 mg/L	.5 mL	50 mL	100 ug/L
UMS090303-01	Arsenic	10 mg/L	.5	50 mL	100 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UMS090303-01	Barium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Beryllium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Boron	20 mg/L	.5	50 mL	200 ug/l
UMS090303-01	Cadmium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Chromium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Cobalt	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Copper	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Lead	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Lithium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Manganese	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Nickel	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Selenium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Silver	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Strontium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Thallium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Thorium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Uranium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Vanadium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Zinc	10 mg/L	.5	50 mL	100 ug/l
UMS090303-02	Aluminum	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Calcium	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Iron	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Magnesium	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Phosphorous	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Potassium	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Sodium	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-03	Antimony	10 mg/L	.5	50 mL	100 ug/l
UMS090303-03	Molybdenum	10 mg/L	.5	50 mL	100 ug/l
UMS090303-03	Tin	10 mg/L	.5	50 mL	100 ug/l
UMS090303-03	Titanium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-03	Zirconium	10 mg/L	.5	50 mL	100 ug/l

Serial ID: WMS100115-05B **Opened:** 15-JAN-10 **Balance Id :** 40245216
Name: ICPMS ICV **Received:** 15-JAN-10 **Pipet Id :** 1758088
Type: Working **Expires:** 16-JAN-10 **Solvent :** 2%HNO3/1%HCl - 1238829
Employee: Rose Jenkins
Supplier: GEL
Description: ICPMS ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-06	Aluminum	2020 mg/L	.125 mL	50 mL	5050 ug/L
UI091217-06	Calcium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Iron	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Magnesium	2000 mg/L	.125 mL	50 mL	5000 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-06	Phosphorous	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Potassium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Sodium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-07	Arsenic	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Barium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Beryllium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Boron	40 mg/L	.125 mL	50 mL	100 ug/L
UI091217-07	Cadmium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Chromium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Cobalt	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Copper	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lead	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lithium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Manganese	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Nickel	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Selenium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Strontium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thallium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thorium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Uranium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Vanadium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Zinc	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Antimony	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Molybdenum	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Silver	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tin	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Titanium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tungsten	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Zirconium	20 mg/L	.125 mL	50 mL	50 ug/L

Serial ID: WMS100115-06B **Opened:** 15-JAN-10 **Balance Id :** 40245216
Name: ICPMS CRDL **Received:** 15-JAN-10 **Pipet Id :** 3820544
Type: Working **Expires:** 16-JAN-10 **Solvent :** 2%HNO3/1%HCl - 1238829
Employee: Rose Jenkins
Supplier: GEL
Description: ICPMS CRDL
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Aluminum	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Arsenic	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Barium	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Beryllium	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-09	Boron	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Cadmium	1 mg/L	.05 mL	50 mL	1 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Calcium	100 mg/L	.05 mL	50 mL	100 ug/L
UI090701-09	Chromium	3 mg/L	.05 mL	50 mL	3 ug/L
UI090701-09	Cobalt	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Copper	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Iron	25 mg/L	.05 mL	50 mL	25 ug/L
UI090701-09	Lead	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Lithium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Magnesium	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Manganese	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Nickel	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Phosphorous	50 mg/L	.05 mL	50 mL	50 ug/L
UI090701-09	Potassium	300 mg/L	.05 mL	50 mL	300 ug/L
UI090701-09	Selenium	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Sodium	250 mg/L	.05 mL	50 mL	250 ug/L
UI090701-09	Strontium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Thallium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Thorium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Uranium	.2 mg/L	.05 mL	50 mL	.2 ug/L
UI090701-09	Vanadium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Zinc	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Antimony	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-10	Molybdenum	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-10	Silver	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-10	Tin	2 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Titanium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Tungsten	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Zirconium	2 mg/L	.05 mL	50 mL	2 ug/L

Serial ID: WMS100115-07B **Opened:** 15-JAN-10 **Balance Id :** 40245216
Name: ICPMS ICSA **Received:** 15-JAN-10 **Lot Number :** 1010773
Type: Working **Expires:** 16-JAN-10 **Pipet Id :** 3541598
Employee: Rose Jenkins **Solvent :** 2%HNO3/1%HCl - 1238829
Supplier: GEL
Description: ICPMS ICSA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI091212-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI091212-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: WMS100115-08B **Opened:** 15-JAN-10 **Balance Id :** 40245216
Name: ICPMS ICSAB **Received:** 15-JAN-10 **Pipet Id :** 3541598/1758088
Type: Working **Expires:** 16-JAN-10 **Solvent :** 2%HNO3/1%HCl - 1238829
Employee: Rose Jenkins
Supplier: GEL
Description: ICPMS ICSAB
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI091212-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI091212-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L
UI091217-12	Arsenic	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Barium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Beryllium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Boron	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Cadmium	2 mg/L	.5 mL	50 mL	20.2 ug/L
UI091217-12	Chromium	2 mg/L	.5 mL	50 mL	22.2 ug/L
UI091217-12	Cobalt	2 mg/L	.5 mL	50 mL	20.4 ug/L
UI091217-12	Copper	2 mg/L	.5 mL	50 mL	23.4 ug/L
UI091217-12	Lead	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Lithium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Manganese	2 mg/L	.5 mL	50 mL	22.7 ug/L
UI091217-12	Nickel	2 mg/L	.5 mL	50 mL	22.4 ug/L
UI091217-12	Selenium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Strontium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thallium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thorium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Uranium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Vanadium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Zinc	2 mg/L	.5 mL	50 mL	27 ug/L
UI091217-13	Antimony	2 mg/L	.5 mL	50 mL	20.5 ug/L
UI091217-13	Silver	2 mg/L	.5 mL	50 mL	20 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-13	Tin	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tungsten	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Zirconium	2 mg/L	.5 mL	50 mL	20 ug/L

Serial ID: WMS100115-70B **Opened:** 15-JAN-10 **Balance Id :** 40245216
Name: ICPMS LINEAR RANGE ST **Received:** 15-JAN-10 **Pipet Id :** 3541598
Type: Working **Expires:** 16-JAN-10 **Solvent :** 2%HNO3/1%HCl - 1238829
Employee: Rose Jenkins
Supplier: 02SI
Description: ICPMS LINEAR RANGE STANDARD
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-60	Aluminum	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Arsenic	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Barium	250 mg/L	.5 mL	50 mL	2500 ug/L
UI091212-60	Beryllium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Cadmium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Calcium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Chromium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Cobalt	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Copper	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Iron	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Lead	500 mg/L	.5 mL	50 mL	5000 ug/L
UI091212-60	Lithium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Magnesium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Manganese	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Nickel	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Phosphorous	2500 mg/L	.5 mL	50 mL	25000 ug/L
UI091212-60	Potassium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Selenium	50 mg/L	.5 mL	50 mL	500 ug/L
UI091212-60	Sodium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Strontium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Thallium	50 mg/L	.5 mL	50 mL	500 ug/L
UI091212-60	Thorium	250 mg/L	.5 mL	50 mL	2500 ug/L
UI091212-60	Uranium	500 mg/L	.5 mL	50 mL	5000 ug/L
UI091212-60	Vanadium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Zinc	250 mg/L	.5 mL	50 mL	2500 ug/L
UI091212-61	Antimony	25 mg/L	.5 mL	50 mL	250 ug/L
UI091212-61	Molybdenum	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-61	Silver	25 mg/L	.5 mL	50 mL	250 ug/L
UI091212-61	Tin	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-61	Tungsten	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-61	Zirconium	50 mg/L	.5 mL	50 mL	500 ug/L

Standard Logbook

Serial ID: 1156689-A **Opened:** 20-JUL-09 **Lot Number :** 41226920
Name: B-KMnO4(VWR)-MER **Received:** 20-JUL-09
Type: Reagent/Solvent **Expires:** 20-JUL-10
Employee: Tara Griffin **Verified:** 07-AUG-07
Supplier: VWR
Description: Potassium Permanganate
Comments: None

Serial ID: 1164796-A **Opened:** 06-AUG-09 **Lot Number :** 49149927
Name: B-NH2OH.HCl-MER **Received:** 06-AUG-09
Type: Reagent/Solvent **Expires:** 06-AUG-10
Employee: Tara Griffin
Supplier: Fisher Scientific
Description: Hydroxlyamine Hydrochloride
Comments: None

Serial ID: 1203655-02 **Opened:** 15-OCT-09 **Lot Number :** ZU74081198 mL
Name: B-H2O2 **Received:** 15-OCT-09
Type: Reagent/Solvent **Expires:** 15-OCT-10
Employee: Francena Armstrong
Supplier: EM SCIENCE
Description: Hydrogen Peroxide 30%
Comments: None

Serial ID: 1206350-C **Opened:** 22-OCT-09 **Balance Id :** BAL-002
Name: B-NaCl.NH2OH.HCl-MER **Received:** 22-OCT-09
Type: Reagent/Solvent **Expires:** 15-JAN-10
Employee: Tara Griffin
Supplier: GEL
Description: Hg reducing agent
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1164796-A	B-NH2OH.HCl-MER	N/A	120 g	1000 mL	N/A

Serial ID: 1234886 **Opened:** 27-NOV-09 **Lot Number :** H20053 L
Name: I-HNO3 **Received:** 27-NOV-09
Type: Reagent/Solvent **Expires:** 27-NOV-10
Employee: Bryan Davis
Supplier: BAKER
Description: Nitric Acid CONC.
Comments: None

Standard Logbook

Serial ID: 1236355-A **Opened:** 01-DEC-09 **Lot Number :** 200930201
Name: B-HCl-MER **Received:** 01-DEC-09
Type: Reagent/Solvent **Expires:** 01-DEC-10
Employee: Tara Griffin
Supplier: Aristar
Description: Hydrochloric Acid Conc.
Comments: None

Serial ID: 1238345 **Opened:** 04-DEC-09 **Lot Number :** H20053 L
Name: I-HNO3 **Received:** 04-DEC-09
Type: Reagent/Solvent **Expires:** 04-DEC-10
Employee: Francena Armstrong
Supplier: BAKER
Description: Nitric Acid CONC.
Comments: None

Serial ID: 1240182-1 **Opened:** 09-DEC-09 **Instrument Id :** MERCURY
Name: B-HNO3-MER **Received:** 09-DEC-09 **Lot Number :** H34040
Type: Reagent/Solvent **Expires:** 09-DEC-10
Employee: Tara Griffin
Supplier: Mallinckrodt Chemicals
Description: NITRIC ACID
Comments: None

Serial ID: 1244904-C **Opened:** 18-DEC-09 **Balance Id :** BAL-002
Name: B-KMnO4-MER **Received:** 18-DEC-09
Type: Reagent/Solvent **Expires:** 18-JUN-10
Employee: Tara Griffin
Supplier: GEL
Description: 5% KMnO4 solution
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1156689-A	B-KMnO4(VWR)-MER	Crystals	50 g	1000 mL	3%

Serial ID: 1244970 **Opened:** 18-DEC-09 **Lot Number :** H41032
Name: I-HCL **Received:** 18-DEC-09 **Preservative_Id :** 5 none
Type: Reagent/Solvent **Expires:** 18-DEC-10
Employee: Francena Armstrong
Supplier: J.T. BAKER
Description: HYDROCHLORIC ACID
Comments: None

Standard Logbook

Serial ID: 1249336 **Opened:** 04-JAN-10 **Solvent :** Type I Water
Name: B-2%HNO3/1%HCl-ICPMS **Received:** 04-JAN-10
Type: Reagent/Solvent **Expires:** 11-JAN-10
Employee: Paul Boyd
Supplier: GEL
Description: 2%HNO3/1%HCl Solution (Type I Water)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1238345	I-HNO3	69.0-70.0	180 mL	9 l	N/A
1244970	I-HCL	36.5-38.0	90 mL	9 l	N/A

Serial ID: 1249941 **Opened:** 04-JAN-10 **Amount :** 20 L
Name: B-ICP-RINSE SOLN **Received:** 15-DEC-10 **Lot Number :** H04040+G34050
Type: Reagent/Solvent **Expires:** 10-JAN-10 **Solvent :** 3%HCL+1%HNO3
Employee: Helen Camello
Supplier: GEL
Description: 3%HCL+1%HNO3 RINSE SOLN.
Comments: None

Serial ID: 1252836 **Opened:** 08-JAN-10 **Lot Number :** H20053 L
Name: I-HNO3 **Received:** 08-JAN-10
Type: Reagent/Solvent **Expires:** 08-JAN-11
Employee: Francena Armstrong
Supplier: BAKER
Description: Nitric Acid CONC.
Comments: None

Serial ID: 1252838 **Opened:** 08-JAN-10 **Lot Number :** H41032
Name: I-HCL **Received:** 08-JAN-10 **Preservative_Id :** 5 none
Type: Reagent/Solvent **Expires:** 08-JAN-11
Employee: Francena Armstrong
Supplier: J.T. BAKER
Description: HYDROCHLORIC ACID
Comments: None

Serial ID: 1253206 **Opened:** 11-JAN-10 **Solvent :** Type I Water
Name: B-2%HNO3/1%HCl-ICPMS **Received:** 11-JAN-10
Type: Reagent/Solvent **Expires:** 18-JAN-10
Employee: Paul Boyd
Supplier: GEL
Description: 2%HNO3/1%HCl Solution (Type I Water)
Comments: None

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1238345	I-HNO3	69.0-70.0	180 mL	9 l	N/A
1244970	I-HCL	36.5-38.0	90 mL	9 l	N/A

Serial ID: 1253514 **Opened:** 11-JAN-10 **Amount :** 20 L
Name: B-ICP-RINSE SOLN **Received:** 11-JAN-10 **Lot Number :** H04040+G34050
Type: Reagent/Solvent **Expires:** 17-JAN-10 **Solvent :** 3%HCL+1%HNO3
Employee: Helen Camello
Supplier: GEL
Description: 3%HCL+1%HNO3 RINSE SOLN.
Comments: None

Serial ID: 1256122 **Opened:** 18-JAN-10 **Amount :** 20 L
Name: B-ICP-RINSE SOLN **Received:** 18-DEC-10 **Lot Number :** H04040+G34050
Type: Reagent/Solvent **Expires:** 24-JAN-10 **Solvent :** 3%HCL+1%HNO3
Employee: Helen Camello
Supplier: GEL
Description: 3%HCL+1%HNO3 RINSE SOLN.
Comments: None

Metals Analysis

Case Narrative

Metals Fractional Narrative
Los Alamos National Laboratory (LANL)
SDG 10-1087-1

Sample Analysis

Sample ID	Client ID
243554001	RE03-10-2750
243554002	RE03-10-2749
243554003	RE03-10-2764
243554004	RE03-10-2762
1202004435	Method Blank (MB) **ICP**
1202004436	Laboratory Control Sample (LCS)
1202004439	243554001(RE03-10-2750L) Serial Dilution (SD)
1202004437	243554001(RE03-10-2750D) Sample Duplicate (DUP)
1202004438	243554001(RE03-10-2750S) Matrix Spike (MS)
1202004440	Method Blank (MB) **ICP-MS**
1202014492	Method Blank (MB) **ICP-MS**
1202004441	Laboratory Control Sample (LCS)
1202014493	Laboratory Control Sample (LCS)
1202004444	243493001(RE12-10-7298L) Serial Dilution (SD)
1202014496	243493001(RE12-10-7298L) Serial Dilution (SD)
1202004442	243493001(RE12-10-7298D) Sample Duplicate (DUP)
1202014494	243493001(RE12-10-7298D) Sample Duplicate (DUP)
1202004443	243493001(RE12-10-7298S) Matrix Spike (MS)
1202014495	243493001(RE12-10-7298S) Matrix Spike (MS)
1202006469	Method Blank (MB) **CVAA**
1202006473	Laboratory Control Sample (LCS)
1202006471	243554001(RE03-10-2750L) Serial Dilution (SD)
1202006470	243554001(RE03-10-2750D) Sample Duplicate (DUP)
1202006472	243554001(RE03-10-2750S) Matrix Spike (MS)

The samples in this SDG were analyzed on an "as received" basis.

Method/Analysis Information

Analytical Batch:	936813, 936815, 941231 and 937645
Prep Batch :	936812, 936814, 941230 and 937643
Standard Operating Procedures:	GL-MA-E-013 REV# 20, GL-MA-E-006 REV# 9, GL-MA-E-014 REV# 21 and GL-MA-E-010 REV# 23
Analytical Method:	SW846 3005/6010B, SW846 3005/6020 and SW846 7470A
Prep Method :	SW846 3005A and SW846 7470A Prep

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

System Configuration

The Metals analysis-ICP was performed on a P E 5300 Optima radial/axial-viewing inductively coupled plasma atomic emission spectrometer. The instrument is equipped with a Burgener nebulizer, cyclonic spray chamber, and yttrium or scandium internal standard. Operating conditions for the ICP are set at a power level of 1500 watts. The instrument has a peristaltic pump flow rate of 1.4L/min, argon gas flows of 15 L/min and 0.2 L/min for the torch and auxiliary gases, and a flow setting of 0.65L/min for the nebulizer.

The Metals analysis - ICPMS was performed on a Perkin Elmer ELAN 6100E inductively coupled plasma mass spectrometer (ICP-MS). The instrument is equipped with a cross-flow nebulizer, quadrupole mass spectrometer, and dual mode electron multiplier detector. Internal standards of scandium, germanium, indium, tantalum, and/or lutetium were utilized to cover the mass spectrum. Operating conditions are set at 1400W power and combined argon pressures of 360+/-7 kPa for the plasma and auxiliary gases, and 0.85 L/min carrier gas flow, and an initial lens voltage of 5.2.

The Metals analysis - ICPMS was performed on a Perkin Elmer ELAN 9000 inductively coupled plasma mass spectrometer (ICP-MS). The instrument is equipped with a cross-flow nebulizer, quadrupole mass spectrometer, and dual mode electron multiplier detector. Internal standards of scandium, germanium, indium, tantalum, and/or lutetium were utilized to cover the mass spectrum. Operating conditions are set at 1400W power and combined argon pressures of 360+/-7 kPa for the plasma and auxiliary gases, and 0.85 L/min carrier gas flow, and an initial lens voltage of 5.2.

The Metals analysis-Mercury was performed on a Perkin-Elmer Flow Injection Mercury System (FIMS-100) automated mercury analyzer. The instrument consists of a cold vapor atomic absorption spectrometer set to detect mercury at a wavelength of 253.7 nm. Sample introduction

through the flow injection system is performed via a peristaltic pump at 9 mL/min and nitrogen carrier gas rate of 80 mL/min.

Calibration Information

Instrument Calibration
All initial calibration requirements have been met for this sample delivery group (SDG).

CRDL Requirements
All CRDL standard(s) met the referenced advisory control limits.

ICSA/ICSAB Statement
All interference check samples (ICSA and ICSAB) associated with this SDG met the established acceptance criteria.

Continuing Calibration Blank (CCB) Requirements
All continuing calibration blanks (CCB) bracketing this batch met the established acceptance criteria.

Continuing Calibration Verification (CCV) Requirements
All continuing calibration verifications (CCV) bracketing this SDG met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MBs analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

Quality Control (QC) Sample Statement
The following samples were selected as the quality control (QC) samples for this SDG: 243554001 (RE03-10-2750)-ICP and CVAA and 243493001 (RE12-10-7298)-ICP-MS.

Matrix Spike (MS) Recovery Statement
The percent recoveries (%R) obtained from the MS analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. The MS met the recommended quality control acceptance criteria for percent recoveries for all applicable analytes with the exception of lead and lithium as indicated by the "N" qualifiers.

Duplicate Relative Percent Difference (RPD) Statement
The RPD obtained from the designated sample duplicate (DUP) is evaluated based on acceptance criteria of 20% when the sample is >5X the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control of +/-RL is used to evaluate the DUP results. All applicable analytes met these requirements.

Serial Dilution % Difference Statement
The serial dilution is used to assess matrix suppression or enhancement. Raw element concentrations that are 25X the IDL/MDL for CVAA, 50X the IDL/MDL for ICP, and 100X the IDL/MDL for ICP-MS analyses are applicable for serial dilution assessment. All applicable analytes met the acceptance criteria of less than 10% difference (%D).

Technical Information

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Sample Dilutions
Dilutions are performed to minimize matrix interferences resulting from elevated mineral element concentrations present in solid samples and/or to bring over range target analyte concentrations into the linear calibration range of the instrument. The samples in this SDG did not require dilutions.

Preparation Information
The samples in this SDG were prepared exactly according to the cited SOP.

Miscellaneous Information

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. The following DER was generated for this SDG: DER ID 779760. A copy is included in the Miscellaneous Data section of this package..

Additional Comments
Additional comments were not required for this SDG.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Nik-Lide A. Ehrau **Date:** 1-20-10

Sample Data Summary

METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1087-1 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 243554001 **BASIS:** As Received **DATE COLLECTED** 22-DEC-09

CLIENT ID: RE03-10-2750 **LEVEL:** Low **DATE RECEIVED** 24-DEC-09

MATRIX: WATER **%SOLIDS:** 0

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	200	ug/L	U	68	200	200	1	P	HSC	01/08/10 13:03	010810-1	936813
7440-36-0	Antimony	3	ug/L	U	1	3	3	1	MS	BAJ	01/06/10 07:10	100105-3	936815
7440-38-2	Arsenic	7.75	ug/L	J	5	30	30	1	P	HSC	01/08/10 13:03	010810-1	936813
7440-39-3	Barium	5	ug/L	U	1	5	5	1	P	HSC	01/08/10 13:03	010810-1	936813
7440-41-7	Beryllium	0.50	ug/L	U	0.1	0.5	0.5	1	MS	BAJ	01/14/10 23:22	100114-6	941231
7440-42-8	Boron	50	ug/L	U	15	50	50	1	P	HSC	01/08/10 13:03	010810-1	936813
7440-43-9	Cadmium	1	ug/L	U	0.11	1	1	1	MS	BAJ	01/06/10 07:10	100105-3	936815
7440-70-2	Calcium	200	ug/L	U	50	200	200	1	P	HSC	01/08/10 13:03	010810-1	936813
7440-47-3	Chromium	5	ug/L	U	1	5	5	1	P	HSC	01/08/10 13:03	010810-1	936813
7440-48-4	Cobalt	5	ug/L	U	1	5	5	1	P	HSC	01/08/10 13:03	010810-1	936813
7440-50-8	Copper	10	ug/L	U	3	10	10	1	P	HSC	01/08/10 13:03	010810-1	936813
7439-89-6	Iron	100	ug/L	U	30	100	100	1	P	HSC	01/08/10 13:03	010810-1	936813
7439-92-1	Lead	2	ug/L	U	0.5	2	2	1	MS	PRB	01/08/10 16:52	100108-2	936815
7439-93-2	Lithium	10	ug/L	U	2	10	10	1	MS	BAJ	01/07/10 05:25	100106-4	936815
7439-95-4	Magnesium	300	ug/L	U	85	300	300	1	P	HSC	01/08/10 13:03	010810-1	936813
7439-96-5	Manganese	5	ug/L	U	1	5	5	1	MS	BAJ	01/07/10 05:25	100106-4	936815
7439-97-6	Mercury	0.20	ug/L	U	0.066	0.2	0.2	1	AV	JXL1	01/08/10 10:22	010810W1-7	937645
7440-02-0	Nickel	5	ug/L	U	1.5	5	5	1	P	HSC	01/08/10 13:03	010810-1	936813
7440-09-7	Potassium	150	ug/L	U	50	150	150	1	P	HSC	01/08/10 13:03	010810-1	936813
7782-49-2	Selenium	30	ug/L	U	5	30	30	1	P	HSC	01/08/10 13:03	010810-1	936813
7440-21-3	Silicon	100	ug/L	U	25	100	100	1	P	HSC	01/08/10 13:03	010810-1	936813
7440-22-4	Silver	5	ug/L	U	1	5	5	1	P	HSC	01/08/10 13:03	010810-1	936813
7440-23-5	Sodium	300	ug/L	U	100	300	300	1	P	HSC	01/08/10 13:03	010810-1	936813
7440-28-0	Thallium	1	ug/L	U	0.3	1	1	1	MS	BAJ	01/08/10 13:09	100108-5	936815
7440-32-6	Titanium	5	ug/L	U	1	5	5	1	P	HSC	01/08/10 13:03	010810-1	936813
7440-61-1	Uranium	0.20	ug/L	U	0.05	0.2	0.2	1	MS	BAJ	01/08/10 13:09	100108-5	936815
7440-62-2	Vanadium	5	ug/L	U	1	5	5	1	P	HSC	01/08/10 13:03	010810-1	936813
7440-66-6	Zinc	10	ug/L	U	3.3	10	10	1	P	HSC	01/08/10 13:03	010810-1	936813

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
936813	936812	SW846 3005A	50	mL	50	mL	01/04/10	BXA1
936815	936814	SW846 3005A	50	mL	50	mL	01/04/10	BXA1
937645	937643	SW846 7470A Prep	20	mL	20	mL	01/07/10	AXG2

METALS
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INORGANICS ANALYSIS DATA PACKAGE

941231	941230	SW846 3005A	25	mL	25	mL	01/13/10	FGA

METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1087-1 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 243554002 **BASIS:** As Received **DATE COLLECTED** 22-DEC-09

CLIENT ID: RE03-10-2749 **LEVEL:** Low **DATE RECEIVED** 24-DEC-09

MATRIX: WATER **%SOLIDS:** 0

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	200	ug/L	U	68	200	200	1	P	HSC	01/08/10 13:44	010810-1	936813
7440-36-0	Antimony	3	ug/L	U	1	3	3	1	MS	BAJ	01/06/10 07:16	100105-3	936815
7440-38-2	Arsenic	30	ug/L	U	5	30	30	1	P	HSC	01/08/10 13:44	010810-1	936813
7440-39-3	Barium	5	ug/L	U	1	5	5	1	P	HSC	01/08/10 13:44	010810-1	936813
7440-41-7	Beryllium	0.50	ug/L	U	0.1	0.5	0.5	1	MS	BAJ	01/14/10 23:28	100114-6	941231
7440-42-8	Boron	50	ug/L	U	15	50	50	1	P	HSC	01/08/10 13:44	010810-1	936813
7440-43-9	Cadmium	1	ug/L	U	0.11	1	1	1	MS	BAJ	01/06/10 07:16	100105-3	936815
7440-70-2	Calcium	200	ug/L	U	50	200	200	1	P	HSC	01/08/10 13:44	010810-1	936813
7440-47-3	Chromium	5	ug/L	U	1	5	5	1	P	HSC	01/08/10 13:44	010810-1	936813
7440-48-4	Cobalt	5	ug/L	U	1	5	5	1	P	HSC	01/08/10 13:44	010810-1	936813
7440-50-8	Copper	10	ug/L	U	3	10	10	1	P	HSC	01/08/10 13:44	010810-1	936813
7439-89-6	Iron	100	ug/L	U	30	100	100	1	P	HSC	01/08/10 13:44	010810-1	936813
7439-92-1	Lead	2	ug/L	U	0.5	2	2	1	MS	PRB	01/08/10 16:54	100108-2	936815
7439-93-2	Lithium	10	ug/L	U	2	10	10	1	MS	BAJ	01/07/10 05:27	100106-4	936815
7439-95-4	Magnesium	300	ug/L	U	85	300	300	1	P	HSC	01/08/10 13:44	010810-1	936813
7439-96-5	Manganese	5	ug/L	U	1	5	5	1	MS	BAJ	01/07/10 05:27	100106-4	936815
7439-97-6	Mercury	0.20	ug/L	U	0.066	0.2	0.2	1	AV	JXL1	01/08/10 10:30	010810W1-7	937645
7440-02-0	Nickel	5	ug/L	U	1.5	5	5	1	P	HSC	01/08/10 13:44	010810-1	936813
7440-09-7	Potassium	150	ug/L	U	50	150	150	1	P	HSC	01/08/10 13:44	010810-1	936813
7782-49-2	Selenium	30	ug/L	U	5	30	30	1	P	HSC	01/08/10 13:44	010810-1	936813
7440-21-3	Silicon	98.8	ug/L	J	25	100	100	1	P	HSC	01/08/10 13:44	010810-1	936813
7440-22-4	Silver	5	ug/L	U	1	5	5	1	P	HSC	01/08/10 13:44	010810-1	936813
7440-23-5	Sodium	300	ug/L	U	100	300	300	1	P	HSC	01/08/10 13:44	010810-1	936813
7440-28-0	Thallium	1	ug/L	U	0.3	1	1	1	MS	BAJ	01/08/10 13:13	100108-5	936815
7440-32-6	Titanium	5	ug/L	U	1	5	5	1	P	HSC	01/08/10 13:44	010810-1	936813
7440-61-1	Uranium	0.20	ug/L	U	0.05	0.2	0.2	1	MS	BAJ	01/08/10 13:13	100108-5	936815
7440-62-2	Vanadium	5	ug/L	U	1	5	5	1	P	HSC	01/08/10 13:44	010810-1	936813
7440-66-6	Zinc	10	ug/L	U	3.3	10	10	1	P	HSC	01/08/10 13:44	010810-1	936813

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
936813	936812	SW846 3005A	50	mL	50	mL	01/04/10	BXA1
936815	936814	SW846 3005A	50	mL	50	mL	01/04/10	BXA1
937645	937643	SW846 7470A Prep	20	mL	20	mL	01/07/10	AXG2

METALS
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INORGANICS ANALYSIS DATA PACKAGE

941231	941230	SW846 3005A	25	mL	25	mL	01/13/10	FGA

METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1087-1 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 243554003 **BASIS:** As Received **DATE COLLECTED** 22-DEC-09

CLIENT ID: RE03-10-2764 **LEVEL:** Low **DATE RECEIVED** 24-DEC-09

MATRIX: WATER **%SOLIDS:** 0

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	200	ug/L	U	68	200	200	1	P	HSC	01/08/10 13:51	010810-1	936813
7440-36-0	Antimony	3	ug/L	U	1	3	3	1	MS	BAJ	01/06/10 07:22	100105-3	936815
7440-38-2	Arsenic	30	ug/L	U	5	30	30	1	P	HSC	01/08/10 13:51	010810-1	936813
7440-39-3	Barium	5	ug/L	U	1	5	5	1	P	HSC	01/08/10 13:51	010810-1	936813
7440-41-7	Beryllium	0.50	ug/L	U	0.1	0.5	0.5	1	MS	BAJ	01/14/10 23:34	100114-6	941231
7440-42-8	Boron	50	ug/L	U	15	50	50	1	P	HSC	01/08/10 13:51	010810-1	936813
7440-43-9	Cadmium	1	ug/L	U	0.11	1	1	1	MS	BAJ	01/06/10 07:22	100105-3	936815
7440-70-2	Calcium	200	ug/L	U	50	200	200	1	P	HSC	01/08/10 13:51	010810-1	936813
7440-47-3	Chromium	5	ug/L	U	1	5	5	1	P	HSC	01/08/10 13:51	010810-1	936813
7440-48-4	Cobalt	5	ug/L	U	1	5	5	1	P	HSC	01/08/10 13:51	010810-1	936813
7440-50-8	Copper	10	ug/L	U	3	10	10	1	P	HSC	01/08/10 13:51	010810-1	936813
7439-89-6	Iron	143	ug/L		30	100	100	1	P	HSC	01/08/10 13:51	010810-1	936813
7439-92-1	Lead	2	ug/L	U	0.5	2	2	1	MS	PRB	01/08/10 16:56	100108-2	936815
7439-93-2	Lithium	10	ug/L	U	2	10	10	1	MS	BAJ	01/07/10 05:30	100106-4	936815
7439-95-4	Magnesium	300	ug/L	U	85	300	300	1	P	HSC	01/08/10 13:51	010810-1	936813
7439-96-5	Manganese	4.25	ug/L	J	1	5	5	1	MS	BAJ	01/07/10 05:30	100106-4	936815
7439-97-6	Mercury	0.20	ug/L	U	0.066	0.2	0.2	1	AV	JXL1	01/08/10 10:32	010810W1-7	937645
7440-02-0	Nickel	5	ug/L	U	1.5	5	5	1	P	HSC	01/08/10 13:51	010810-1	936813
7440-09-7	Potassium	150	ug/L	U	50	150	150	1	P	HSC	01/08/10 13:51	010810-1	936813
7782-49-2	Selenium	30	ug/L	U	5	30	30	1	P	HSC	01/08/10 13:51	010810-1	936813
7440-21-3	Silicon	232	ug/L		25	100	100	1	P	HSC	01/08/10 13:51	010810-1	936813
7440-22-4	Silver	5	ug/L	U	1	5	5	1	P	HSC	01/08/10 13:51	010810-1	936813
7440-23-5	Sodium	380	ug/L		100	300	300	1	P	HSC	01/08/10 13:51	010810-1	936813
7440-28-0	Thallium	1	ug/L	U	0.3	1	1	1	MS	BAJ	01/08/10 13:18	100108-5	936815
7440-32-6	Titanium	5	ug/L	U	1	5	5	1	P	HSC	01/08/10 13:51	010810-1	936813
7440-61-1	Uranium	0.20	ug/L	U	0.05	0.2	0.2	1	MS	BAJ	01/08/10 13:18	100108-5	936815
7440-62-2	Vanadium	5	ug/L	U	1	5	5	1	P	HSC	01/08/10 13:51	010810-1	936813
7440-66-6	Zinc	10	ug/L	U	3.3	10	10	1	P	HSC	01/08/10 13:51	010810-1	936813

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
936813	936812	SW846 3005A	50	mL	50	mL	01/04/10	BXA1
936815	936814	SW846 3005A	50	mL	50	mL	01/04/10	BXA1
937645	937643	SW846 7470A Prep	20	mL	20	mL	01/07/10	AXG2

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

941231	941230	SW846 3005A	25	mL	25	mL	01/13/10	FGA

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1087-1 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 243554004 **BASIS:** As Received **DATE COLLECTED** 22-DEC-09

CLIENT ID: RE03-10-2762 **LEVEL:** Low **DATE RECEIVED** 24-DEC-09

MATRIX: WATER **%SOLIDS:** 0

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	96.7	ug/L	J	68	200	200	1	P	HSC	01/08/10 13:58	010810-1	936813
7440-36-0	Antimony	3	ug/L	U	1	3	3	1	MS	BAJ	01/06/10 07:29	100105-3	936815
7440-38-2	Arsenic	30	ug/L	U	5	30	30	1	P	HSC	01/08/10 13:58	010810-1	936813
7440-39-3	Barium	5	ug/L	U	1	5	5	1	P	HSC	01/08/10 13:58	010810-1	936813
7440-41-7	Beryllium	0.50	ug/L	U	0.1	0.5	0.5	1	MS	BAJ	01/14/10 23:40	100114-6	941231
7440-42-8	Boron	50	ug/L	U	15	50	50	1	P	HSC	01/08/10 13:58	010810-1	936813
7440-43-9	Cadmium	1	ug/L	U	0.11	1	1	1	MS	BAJ	01/06/10 07:29	100105-3	936815
7440-70-2	Calcium	200	ug/L	U	50	200	200	1	P	HSC	01/08/10 13:58	010810-1	936813
7440-47-3	Chromium	5	ug/L	U	1	5	5	1	P	HSC	01/08/10 13:58	010810-1	936813
7440-48-4	Cobalt	5	ug/L	U	1	5	5	1	P	HSC	01/08/10 13:58	010810-1	936813
7440-50-8	Copper	10	ug/L	U	3	10	10	1	P	HSC	01/08/10 13:58	010810-1	936813
7439-89-6	Iron	274	ug/L		30	100	100	1	P	HSC	01/08/10 13:58	010810-1	936813
7439-92-1	Lead	2	ug/L	U	0.5	2	2	1	MS	PRB	01/08/10 16:58	100108-2	936815
7439-93-2	Lithium	10	ug/L	U	2	10	10	1	MS	BAJ	01/07/10 05:33	100106-4	936815
7439-95-4	Magnesium	300	ug/L	U	85	300	300	1	P	HSC	01/08/10 13:58	010810-1	936813
7439-96-5	Manganese	9	ug/L		1	5	5	1	MS	BAJ	01/07/10 05:33	100106-4	936815
7439-97-6	Mercury	0.20	ug/L	U	0.066	0.2	0.2	1	AV	JXL1	01/08/10 10:37	010810W1-7	937645
7440-02-0	Nickel	5	ug/L	U	1.5	5	5	1	P	HSC	01/08/10 13:58	010810-1	936813
7440-09-7	Potassium	73.5	ug/L	J	50	150	150	1	P	HSC	01/08/10 13:58	010810-1	936813
7782-49-2	Selenium	30	ug/L	U	5	30	30	1	P	HSC	01/08/10 13:58	010810-1	936813
7440-21-3	Silicon	390	ug/L		25	100	100	1	P	HSC	01/08/10 13:58	010810-1	936813
7440-22-4	Silver	5	ug/L	U	1	5	5	1	P	HSC	01/08/10 13:58	010810-1	936813
7440-23-5	Sodium	262	ug/L	J	100	300	300	1	P	HSC	01/08/10 13:58	010810-1	936813
7440-28-0	Thallium	1	ug/L	U	0.3	1	1	1	MS	BAJ	01/08/10 13:23	100108-5	936815
7440-32-6	Titanium	2.11	ug/L	J	1	5	5	1	P	HSC	01/08/10 13:58	010810-1	936813
7440-61-1	Uranium	0.20	ug/L	U	0.05	0.2	0.2	1	MS	BAJ	01/08/10 13:23	100108-5	936815
7440-62-2	Vanadium	5	ug/L	U	1	5	5	1	P	HSC	01/08/10 13:58	010810-1	936813
7440-66-6	Zinc	10	ug/L	U	3.3	10	10	1	P	HSC	01/08/10 13:58	010810-1	936813

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
936813	936812	SW846 3005A	50	mL	50	mL	01/04/10	BXA1
936815	936814	SW846 3005A	50	mL	50	mL	01/04/10	BXA1
937645	937643	SW846 7470A Prep	20	mL	20	mL	01/07/10	AXG2

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

941231	941230	SW846 3005A	25	mL	25	mL	01/13/10	FGA

Quality Control Summary

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–1087–1

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS3,ICPMS5,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
ICV01										
	Antimony	52.4	ug/L	50	ug/L	104.7	90.0 – 110.0	MS	06–JAN–10 03:04	100105–3
	Cadmium	51.9	ug/L	50	ug/L	103.9	90.0 – 110.0	MS	06–JAN–10 03:04	100105–3
	Lithium	49.4	ug/L	50	ug/L	98.8	90.0 – 110.0	MS	07–JAN–10 04:46	100106–4
	Manganese	54.3	ug/L	50	ug/L	108.6	90.0 – 110.0	MS	07–JAN–10 04:46	100106–4
	Mercury	5.24	ug/L	5	ug/L	104.7	90.0 – 110.0	AV	08–JAN–10 09:18	010810W1–7
	Aluminum	4920	ug/L	5000	ug/L	98.3	90.0 – 110.0	P	08–JAN–10 11:40	010810–1
	Arsenic	473	ug/L	500	ug/L	94.7	90.0 – 110.0	P	08–JAN–10 11:40	010810–1
	Barium	496	ug/L	500	ug/L	99.1	90.0 – 110.0	P	08–JAN–10 11:40	010810–1
	Boron	498	ug/L	500	ug/L	99.6	90.0 – 110.0	P	08–JAN–10 11:40	010810–1
	Calcium	4860	ug/L	5000	ug/L	97.3	90.0 – 110.0	P	08–JAN–10 11:40	010810–1
	Chromium	476	ug/L	500	ug/L	95.1	90.0 – 110.0	P	08–JAN–10 11:40	010810–1
	Cobalt	490	ug/L	500	ug/L	98.1	90.0 – 110.0	P	08–JAN–10 11:40	010810–1
	Copper	490	ug/L	500	ug/L	98.1	90.0 – 110.0	P	08–JAN–10 11:40	010810–1
	Iron	4960	ug/L	5000	ug/L	99.2	90.0 – 110.0	P	08–JAN–10 11:40	010810–1
	Magnesium	5110	ug/L	5000	ug/L	102.1	90.0 – 110.0	P	08–JAN–10 11:40	010810–1
	Nickel	486	ug/L	500	ug/L	97.2	90.0 – 110.0	P	08–JAN–10 11:40	010810–1
	Potassium	2440	ug/L	2500	ug/L	97.6	90.0 – 110.0	P	08–JAN–10 11:40	010810–1
	Selenium	2540	ug/L	2500	ug/L	101.5	90.0 – 110.0	P	08–JAN–10 11:40	010810–1
	Silicon	4660	ug/L	5000	ug/L	93.3	90.0 – 110.0	P	08–JAN–10 11:40	010810–1
	Silver	252	ug/L	250	ug/L	100.7	90.0 – 110.0	P	08–JAN–10 11:40	010810–1
	Sodium	2410	ug/L	2500	ug/L	96.2	90.0 – 110.0	P	08–JAN–10 11:40	010810–1
	Titanium	485	ug/L	500	ug/L	97	90.0 – 110.0	P	08–JAN–10 11:40	010810–1
	Vanadium	500	ug/L	500	ug/L	100.1	90.0 – 110.0	P	08–JAN–10 11:40	010810–1
	Zinc	492	ug/L	500	ug/L	98.4	90.0 – 110.0	P	08–JAN–10 11:40	010810–1
	Thallium	51.7	ug/L	50	ug/L	103.5	90.0 – 110.0	MS	08–JAN–10 11:58	100108–5
	Uranium	52.4	ug/L	50	ug/L	104.7	90.0 – 110.0	MS	08–JAN–10 11:58	100108–5
	Lead	52.6	ug/L	50	ug/L	105.2	90.0 – 110.0	MS	08–JAN–10 15:27	100108–2
	Beryllium	53	ug/L	50	ug/L	106	90.0 – 110.0	MS	14–JAN–10 21:31	100114–6
CCV01										
	Antimony	50.7	ug/L	50	ug/L	101.4	90.0 – 110.0	MS	06–JAN–10 03:35	100105–3

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–1087–1

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS3,ICPMS5,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Cadmium	48.1	ug/L	50	ug/L	96.2	90.0 – 110.0	MS	06–JAN–10 03:35	100105–3
	Lithium	52.1	ug/L	50	ug/L	104.3	90.0 – 110.0	MS	07–JAN–10 04:59	100106–4
	Manganese	52.5	ug/L	50	ug/L	105	90.0 – 110.0	MS	07–JAN–10 04:59	100106–4
	Mercury	5.21	ug/L	5	ug/L	104.1	80.0 – 120.0	AV	08–JAN–10 09:23	010810W1–7
	Thallium	51.3	ug/L	50	ug/L	102.7	90.0 – 110.0	MS	08–JAN–10 12:21	100108–5
	Uranium	51.4	ug/L	50	ug/L	102.8	90.0 – 110.0	MS	08–JAN–10 12:21	100108–5
	Aluminum	4870	ug/L	5000	ug/L	97.3	90.0 – 110.0	P	08–JAN–10 12:26	010810–1
	Arsenic	503	ug/L	500	ug/L	100.7	90.0 – 110.0	P	08–JAN–10 12:26	010810–1
	Barium	485	ug/L	500	ug/L	97	90.0 – 110.0	P	08–JAN–10 12:26	010810–1
	Boron	509	ug/L	500	ug/L	101.8	90.0 – 110.0	P	08–JAN–10 12:26	010810–1
	Calcium	4970	ug/L	5000	ug/L	99.4	90.0 – 110.0	P	08–JAN–10 12:26	010810–1
	Chromium	484	ug/L	500	ug/L	96.7	90.0 – 110.0	P	08–JAN–10 12:26	010810–1
	Cobalt	478	ug/L	500	ug/L	95.6	90.0 – 110.0	P	08–JAN–10 12:26	010810–1
	Copper	480	ug/L	500	ug/L	96	90.0 – 110.0	P	08–JAN–10 12:26	010810–1
	Iron	5050	ug/L	5000	ug/L	101	90.0 – 110.0	P	08–JAN–10 12:26	010810–1
	Magnesium	5030	ug/L	5000	ug/L	100.7	90.0 – 110.0	P	08–JAN–10 12:26	010810–1
	Nickel	479	ug/L	500	ug/L	95.8	90.0 – 110.0	P	08–JAN–10 12:26	010810–1
	Potassium	5100	ug/L	5000	ug/L	102.1	90.0 – 110.0	P	08–JAN–10 12:26	010810–1
	Selenium	513	ug/L	500	ug/L	102.5	90.0 – 110.0	P	08–JAN–10 12:26	010810–1
	Silicon	2400	ug/L	2500	ug/L	96.1	90.0 – 110.0	P	08–JAN–10 12:26	010810–1
	Silver	481	ug/L	500	ug/L	96.3	90.0 – 110.0	P	08–JAN–10 12:26	010810–1
	Sodium	9820	ug/L	10000	ug/L	98.2	90.0 – 110.0	P	08–JAN–10 12:26	010810–1
	Titanium	482	ug/L	500	ug/L	96.4	90.0 – 110.0	P	08–JAN–10 12:26	010810–1
	Vanadium	487	ug/L	500	ug/L	97.4	90.0 – 110.0	P	08–JAN–10 12:26	010810–1
	Zinc	484	ug/L	500	ug/L	96.8	90.0 – 110.0	P	08–JAN–10 12:26	010810–1
	Lead	52.2	ug/L	50	ug/L	104.4	90.0 – 110.0	MS	08–JAN–10 15:38	100108–2
	Beryllium	54.7	ug/L	50	ug/L	109.4	90.0 – 110.0	MS	14–JAN–10 22:02	100114–6
CCV02										
	Antimony	53.6	ug/L	50	ug/L	107.3	90.0 – 110.0	MS	06–JAN–10 03:53	100105–3
	Cadmium	50.3	ug/L	50	ug/L	100.7	90.0 – 110.0	MS	06–JAN–10 03:53	100105–3

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1087-1

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS3,ICPMS5,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Lithium	47.6	ug/L	50	ug/L	95.3	90.0 – 110.0	MS	07-JAN-10 05:20	100106-4
	Manganese	53.2	ug/L	50	ug/L	106.5	90.0 – 110.0	MS	07-JAN-10 05:20	100106-4
	Mercury	5.2	ug/L	5	ug/L	104.1	80.0 – 120.0	AV	08-JAN-10 09:47	010810W1-7
	Thallium	51.5	ug/L	50	ug/L	103.1	90.0 – 110.0	MS	08-JAN-10 12:59	100108-5
	Uranium	50.7	ug/L	50	ug/L	101.5	90.0 – 110.0	MS	08-JAN-10 12:59	100108-5
	Aluminum	4880	ug/L	5000	ug/L	97.6	90.0 – 110.0	P	08-JAN-10 13:31	010810-1
	Arsenic	500	ug/L	500	ug/L	100.1	90.0 – 110.0	P	08-JAN-10 13:31	010810-1
	Barium	490	ug/L	500	ug/L	97.9	90.0 – 110.0	P	08-JAN-10 13:31	010810-1
	Boron	490	ug/L	500	ug/L	98.1	90.0 – 110.0	P	08-JAN-10 13:31	010810-1
	Calcium	4890	ug/L	5000	ug/L	97.8	90.0 – 110.0	P	08-JAN-10 13:31	010810-1
	Chromium	487	ug/L	500	ug/L	97.4	90.0 – 110.0	P	08-JAN-10 13:31	010810-1
	Cobalt	486	ug/L	500	ug/L	97.3	90.0 – 110.0	P	08-JAN-10 13:31	010810-1
	Copper	485	ug/L	500	ug/L	97	90.0 – 110.0	P	08-JAN-10 13:31	010810-1
	Iron	5030	ug/L	5000	ug/L	100.6	90.0 – 110.0	P	08-JAN-10 13:31	010810-1
	Magnesium	4990	ug/L	5000	ug/L	99.8	90.0 – 110.0	P	08-JAN-10 13:31	010810-1
	Nickel	485	ug/L	500	ug/L	97	90.0 – 110.0	P	08-JAN-10 13:31	010810-1
	Potassium	5040	ug/L	5000	ug/L	100.8	90.0 – 110.0	P	08-JAN-10 13:31	010810-1
	Selenium	518	ug/L	500	ug/L	103.7	90.0 – 110.0	P	08-JAN-10 13:31	010810-1
	Silicon	2420	ug/L	2500	ug/L	96.9	90.0 – 110.0	P	08-JAN-10 13:31	010810-1
	Silver	487	ug/L	500	ug/L	97.4	90.0 – 110.0	P	08-JAN-10 13:31	010810-1
	Sodium	9940	ug/L	10000	ug/L	99.4	90.0 – 110.0	P	08-JAN-10 13:31	010810-1
	Titanium	487	ug/L	500	ug/L	97.4	90.0 – 110.0	P	08-JAN-10 13:31	010810-1
	Vanadium	491	ug/L	500	ug/L	98.1	90.0 – 110.0	P	08-JAN-10 13:31	010810-1
	Zinc	487	ug/L	500	ug/L	97.4	90.0 – 110.0	P	08-JAN-10 13:31	010810-1
	Lead	53.2	ug/L	50	ug/L	106.4	90.0 – 110.0	MS	08-JAN-10 15:44	100108-2
	Beryllium	51.5	ug/L	50	ug/L	103.1	90.0 – 110.0	MS	14-JAN-10 22:20	100114-6
CCV03										
	Antimony	50.1	ug/L	50	ug/L	100.2	90.0 – 110.0	MS	06-JAN-10 04:49	100105-3
	Cadmium	48.3	ug/L	50	ug/L	96.7	90.0 – 110.0	MS	06-JAN-10 04:49	100105-3
	Lithium	46.1	ug/L	50	ug/L	92.2	90.0 – 110.0	MS	07-JAN-10 05:35	100106-4

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–1087–1

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS3,ICPMS5,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Manganese	51.6	ug/L	50	ug/L	103.2	90.0 – 110.0	MS	07–JAN–10 05:35	100106–4
	Mercury	5.26	ug/L	5	ug/L	105.2	80.0 – 120.0	AV	08–JAN–10 10:10	010810W1–7
	Thallium	51.2	ug/L	50	ug/L	102.3	90.0 – 110.0	MS	08–JAN–10 13:28	100108–5
	Uranium	50.6	ug/L	50	ug/L	101.2	90.0 – 110.0	MS	08–JAN–10 13:28	100108–5
	Aluminum	5230	ug/L	5000	ug/L	104.6	90.0 – 110.0	P	08–JAN–10 14:18	010810–1
	Arsenic	503	ug/L	500	ug/L	100.6	90.0 – 110.0	P	08–JAN–10 14:18	010810–1
	Barium	496	ug/L	500	ug/L	99.2	90.0 – 110.0	P	08–JAN–10 14:18	010810–1
	Boron	492	ug/L	500	ug/L	98.5	90.0 – 110.0	P	08–JAN–10 14:18	010810–1
	Calcium	5180	ug/L	5000	ug/L	103.6	90.0 – 110.0	P	08–JAN–10 14:18	010810–1
	Chromium	491	ug/L	500	ug/L	98.3	90.0 – 110.0	P	08–JAN–10 14:18	010810–1
	Cobalt	490	ug/L	500	ug/L	98	90.0 – 110.0	P	08–JAN–10 14:18	010810–1
	Copper	491	ug/L	500	ug/L	98.2	90.0 – 110.0	P	08–JAN–10 14:18	010810–1
	Iron	5360	ug/L	5000	ug/L	107.3	90.0 – 110.0	P	08–JAN–10 14:18	010810–1
	Magnesium	5230	ug/L	5000	ug/L	104.6	90.0 – 110.0	P	08–JAN–10 14:18	010810–1
	Nickel	488	ug/L	500	ug/L	97.6	90.0 – 110.0	P	08–JAN–10 14:18	010810–1
	Potassium	5410	ug/L	5000	ug/L	108.1	90.0 – 110.0	P	08–JAN–10 14:18	010810–1
	Selenium	525	ug/L	500	ug/L	105	90.0 – 110.0	P	08–JAN–10 14:18	010810–1
	Silicon	2450	ug/L	2500	ug/L	97.9	90.0 – 110.0	P	08–JAN–10 14:18	010810–1
	Silver	491	ug/L	500	ug/L	98.1	90.0 – 110.0	P	08–JAN–10 14:18	010810–1
	Sodium	10800	ug/L	10000	ug/L	107.6	90.0 – 110.0	P	08–JAN–10 14:18	010810–1
	Titanium	493	ug/L	500	ug/L	98.7	90.0 – 110.0	P	08–JAN–10 14:18	010810–1
	Vanadium	496	ug/L	500	ug/L	99.1	90.0 – 110.0	P	08–JAN–10 14:18	010810–1
	Zinc	493	ug/L	500	ug/L	98.5	90.0 – 110.0	P	08–JAN–10 14:18	010810–1
	Lead	51.9	ug/L	50	ug/L	103.7	90.0 – 110.0	MS	08–JAN–10 16:11	100108–2
	Beryllium	50.6	ug/L	50	ug/L	101.1	90.0 – 110.0	MS	14–JAN–10 23:10	100114–6
CCV04										
	Antimony	50.6	ug/L	50	ug/L	101.2	90.0 – 110.0	MS	06–JAN–10 05:38	100105–3
	Cadmium	49.9	ug/L	50	ug/L	99.9	90.0 – 110.0	MS	06–JAN–10 05:38	100105–3
	Mercury	5.18	ug/L	5	ug/L	103.6	80.0 – 120.0	AV	08–JAN–10 10:33	010810W1–7
	Lead	52.6	ug/L	50	ug/L	105.2	90.0 – 110.0	MS	08–JAN–10 16:28	100108–2

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–1087–1

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS3,ICPMS5,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Beryllium	51.2	ug/L	50	ug/L	102.4	90.0 – 110.0	MS	14–JAN–10 23:47	100114–6
CCV05										
	Antimony	50.9	ug/L	50	ug/L	101.8	90.0 – 110.0	MS	06–JAN–10 06:09	100105–3
	Cadmium	48.9	ug/L	50	ug/L	97.8	90.0 – 110.0	MS	06–JAN–10 06:09	100105–3
	Mercury	5.27	ug/L	5	ug/L	105.4	80.0 – 120.0	AV	08–JAN–10 10:57	010810W1–7
	Lead	51.4	ug/L	50	ug/L	102.8	90.0 – 110.0	MS	08–JAN–10 16:47	100108–2
CCV06										
	Antimony	51.1	ug/L	50	ug/L	102.2	90.0 – 110.0	MS	06–JAN–10 06:58	100105–3
	Cadmium	49.2	ug/L	50	ug/L	98.5	90.0 – 110.0	MS	06–JAN–10 06:58	100105–3
	Lead	51.5	ug/L	50	ug/L	103.1	90.0 – 110.0	MS	08–JAN–10 17:04	100108–2
CCV07										
	Antimony	50.4	ug/L	50	ug/L	100.8	90.0 – 110.0	MS	06–JAN–10 07:35	100105–3
	Cadmium	49.4	ug/L	50	ug/L	98.7	90.0 – 110.0	MS	06–JAN–10 07:35	100105–3

METALS
–2b–
CRDL Standard for AA & ICP

SDG No: 10–1087–1

Contract: LANL01004 **Lab Code:** GEL

AA CRDL Standard Source: SPEX

ICP CRDL Standard Source Solutions Plus

Instrument ID: HG3,ICPMS3,ICPMS5,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Advisory Limits (%R)	M	Analysis Date/Time	Run Number
CRDL01										
	Cadmium	1.09	ug/L	1	ug/L	108.6	70.0 – 130.0	MS	06–JAN–10 03:17	100105–3
	Antimony	3.38	ug/L	3	ug/L	112.6	70.0 – 130.0	MS	06–JAN–10 03:17	100105–3
	Manganese	6.17	ug/L	5	ug/L	123.4	70.0 – 130.0	MS	07–JAN–10 04:51	100106–4
	Lithium	10.6	ug/L	10	ug/L	106.3	70.0 – 130.0	MS	07–JAN–10 04:51	100106–4
	Mercury	.209	ug/L	.2	ug/L	104.5	70.0 – 130.0	AV	08–JAN–10 09:22	010810W1–7
	Thallium	1.2	ug/L	1	ug/L	119.9	70.0 – 130.0	MS	08–JAN–10 12:07	100108–5
	Uranium	.259	ug/L	.2	ug/L	129.5	70.0 – 130.0	MS	08–JAN–10 12:07	100108–5
	Lead	2.23	ug/L	2	ug/L	111.7	70.0 – 130.0	MS	08–JAN–10 15:31	100108–2
	Beryllium	.521	ug/L	.5	ug/L	104.2	70.0 – 130.0	MS	14–JAN–10 21:44	100114–6
PQL01										
	Aluminum	187	ug/L	200	ug/L	93.7	70.0 – 130.0	P	08–JAN–10 11:54	010810–1
	Iron	127	ug/L	100	ug/L	127.4	70.0 – 130.0	P	08–JAN–10 11:54	010810–1
	Magnesium	225	ug/L	300	ug/L	74.9	70.0 – 130.0	P	08–JAN–10 11:54	010810–1
	Nickel	5.33	ug/L	5	ug/L	106.5	70.0 – 130.0	P	08–JAN–10 11:54	010810–1
	Potassium	151	ug/L	150	ug/L	100.7	70.0 – 130.0	P	08–JAN–10 11:54	010810–1
	Silver	5.23	ug/L	5	ug/L	104.6	70.0 – 130.0	P	08–JAN–10 11:54	010810–1
	Sodium	294	ug/L	300	ug/L	97.8	70.0 – 130.0	P	08–JAN–10 11:54	010810–1
	Arsenic	33.6	ug/L	30	ug/L	112	70.0 – 130.0	P	08–JAN–10 11:54	010810–1
	Barium	5.37	ug/L	5	ug/L	107.4	70.0 – 130.0	P	08–JAN–10 11:54	010810–1
	Chromium	4.95	ug/L	5	ug/L	99.1	70.0 – 130.0	P	08–JAN–10 11:54	010810–1
	Cobalt	5.18	ug/L	5	ug/L	103.6	70.0 – 130.0	P	08–JAN–10 11:54	010810–1
	Copper	10.6	ug/L	10	ug/L	105.7	70.0 – 130.0	P	08–JAN–10 11:54	010810–1
	Vanadium	4.95	ug/L	5	ug/L	99	70.0 – 130.0	P	08–JAN–10 11:54	010810–1
	Zinc	10.8	ug/L	10	ug/L	107.7	70.0 – 130.0	P	08–JAN–10 11:54	010810–1
	Calcium	207	ug/L	200	ug/L	103.4	70.0 – 130.0	P	08–JAN–10 11:54	010810–1
	Selenium	30.2	ug/L	30	ug/L	100.5	70.0 – 130.0	P	08–JAN–10 11:54	010810–1
	Boron	54.3	ug/L	50	ug/L	108.7	70.0 – 130.0	P	08–JAN–10 11:54	010810–1
	Silicon	105	ug/L	100	ug/L	105.3	70.0 – 130.0	P	08–JAN–10 11:54	010810–1
	Titanium	5.15	ug/L	5	ug/L	103	70.0 – 130.0	P	08–JAN–10 11:54	010810–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–1087–1

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
ICB01										
	Antimony	1.0	+/–3	U	1.0	3.0	LIQ	MS	06–JAN–10 03:10	100105–3
	Cadmium	0.11	+/–1	U	0.11	1.0	LIQ	MS	06–JAN–10 03:10	100105–3
	Lithium	2.0	+/–10	U	2.0	10.0	LIQ	MS	07–JAN–10 04:49	100106–4
	Manganese	1.0	+/–5	U	1.0	5.0	LIQ	MS	07–JAN–10 04:49	100106–4
	Mercury	0.066	+/–.2	U	0.066	0.2	LIQ	AV	08–JAN–10 09:20	010810W1–7
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	08–JAN–10 11:47	010810–1
	Arsenic	5.0	+/–30	U	5.0	30.0	LIQ	P	08–JAN–10 11:47	010810–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	08–JAN–10 11:47	010810–1
	Boron	15.0	+/–50	U	15.0	50.0	LIQ	P	08–JAN–10 11:47	010810–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	08–JAN–10 11:47	010810–1
	Chromium	1.0	+/–5	U	1.0	5.0	LIQ	P	08–JAN–10 11:47	010810–1
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	08–JAN–10 11:47	010810–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	08–JAN–10 11:47	010810–1
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	08–JAN–10 11:47	010810–1
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	08–JAN–10 11:47	010810–1
	Nickel	1.5	+/–5	U	1.5	5.0	LIQ	P	08–JAN–10 11:47	010810–1
	Potassium	50.0	+/–150	U	50.0	150	LIQ	P	08–JAN–10 11:47	010810–1
	Selenium	5.0	+/–30	U	5.0	30.0	LIQ	P	08–JAN–10 11:47	010810–1
	Silicon	25.0	+/–100	U	25.0	100	LIQ	P	08–JAN–10 11:47	010810–1
	Silver	1.0	+/–5	U	1.0	5.0	LIQ	P	08–JAN–10 11:47	010810–1
	Sodium	100	+/–300	U	100	300	LIQ	P	08–JAN–10 11:47	010810–1
	Titanium	1.0	+/–5	U	1.0	5.0	LIQ	P	08–JAN–10 11:47	010810–1
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	08–JAN–10 11:47	010810–1
	Zinc	3.3	+/–10	U	3.3	10.0	LIQ	P	08–JAN–10 11:47	010810–1
	Thallium	0.3	+/–1	U	0.3	1.0	LIQ	MS	08–JAN–10 12:02	100108–5
	Uranium	0.05	+/–.2	U	0.05	0.2	LIQ	MS	08–JAN–10 12:02	100108–5
	Lead	0.5	+/–2	U	0.5	2.0	LIQ	MS	08–JAN–10 15:29	100108–2
	Beryllium	0.1	+/–.5	U	0.1	0.5	LIQ	MS	14–JAN–10 21:38	100114–6
CCB01										
	Antimony	1.0	+/–3	U	1.0	3.0	LIQ	MS	06–JAN–10 03:41	100105–3
	Cadmium	0.11	+/–1	U	0.11	1.0	LIQ	MS	06–JAN–10 03:41	100105–3

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–1087–1

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Lithium	2.0	+/–10	U	2.0	10.0	LIQ	MS	07–JAN–10 05:02	100106–4
	Manganese	1.0	+/–5	U	1.0	5.0	LIQ	MS	07–JAN–10 05:02	100106–4
	Mercury	0.066	+/–.2	U	0.066	0.2	LIQ	AV	08–JAN–10 09:25	010810W1–7
	Thallium	0.3	+/–1	U	0.3	1.0	LIQ	MS	08–JAN–10 12:26	100108–5
	Uranium	0.05	+/–.2	U	0.05	0.2	LIQ	MS	08–JAN–10 12:26	100108–5
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	08–JAN–10 12:33	010810–1
	Arsenic	11.15	+/–30	J	5.0	30.0	LIQ	P	08–JAN–10 12:33	010810–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	08–JAN–10 12:33	010810–1
	Boron	21.76	+/–50	J	15.0	50.0	LIQ	P	08–JAN–10 12:33	010810–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	08–JAN–10 12:33	010810–1
	Chromium	1.0	+/–5	U	1.0	5.0	LIQ	P	08–JAN–10 12:33	010810–1
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	08–JAN–10 12:33	010810–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	08–JAN–10 12:33	010810–1
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	08–JAN–10 12:33	010810–1
	Magnesium	–109.57	+/–300	J	85.0	300	LIQ	P	08–JAN–10 12:33	010810–1
	Nickel	1.5	+/–5	U	1.5	5.0	LIQ	P	08–JAN–10 12:33	010810–1
	Potassium	104.21	+/–150	J	50.0	150	LIQ	P	08–JAN–10 12:33	010810–1
	Selenium	5.0	+/–30	U	5.0	30.0	LIQ	P	08–JAN–10 12:33	010810–1
	Silicon	25.0	+/–100	U	25.0	100	LIQ	P	08–JAN–10 12:33	010810–1
	Silver	1.0	+/–5	U	1.0	5.0	LIQ	P	08–JAN–10 12:33	010810–1
	Sodium	100	+/–300	U	100	300	LIQ	P	08–JAN–10 12:33	010810–1
	Titanium	1.0	+/–5	U	1.0	5.0	LIQ	P	08–JAN–10 12:33	010810–1
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	08–JAN–10 12:33	010810–1
	Zinc	3.3	+/–10	U	3.3	10.0	LIQ	P	08–JAN–10 12:33	010810–1
	Lead	0.5	+/–2	U	0.5	2.0	LIQ	MS	08–JAN–10 15:40	100108–2
	Beryllium	0.1	+/–.5	U	0.1	0.5	LIQ	MS	14–JAN–10 22:08	100114–6
CCB02										
	Antimony	1.19	+/–3	J	1.0	3.0	LIQ	MS	06–JAN–10 03:59	100105–3
	Cadmium	0.11	+/–1	U	0.11	1.0	LIQ	MS	06–JAN–10 03:59	100105–3
	Lithium	2.0	+/–10	U	2.0	10.0	LIQ	MS	07–JAN–10 05:22	100106–4
	Manganese	1.0	+/–5	U	1.0	5.0	LIQ	MS	07–JAN–10 05:22	100106–4

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–1087–1

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Mercury	0.066	+/–.2	U	0.066	0.2	LIQ	AV	08–JAN–10 09:49	010810W1–7
	Thallium	0.3	+/–1	U	0.3	1.0	LIQ	MS	08–JAN–10 13:04	100108–5
	Uranium	0.05	+/–.2	U	0.05	0.2	LIQ	MS	08–JAN–10 13:04	100108–5
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	08–JAN–10 13:37	010810–1
	Arsenic	5.0	+/–30	U	5.0	30.0	LIQ	P	08–JAN–10 13:37	010810–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	08–JAN–10 13:37	010810–1
	Boron	15.0	+/–50	U	15.0	50.0	LIQ	P	08–JAN–10 13:37	010810–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	08–JAN–10 13:37	010810–1
	Chromium	1.0	+/–5	U	1.0	5.0	LIQ	P	08–JAN–10 13:37	010810–1
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	08–JAN–10 13:37	010810–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	08–JAN–10 13:37	010810–1
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	08–JAN–10 13:37	010810–1
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	08–JAN–10 13:37	010810–1
	Nickel	1.5	+/–5	U	1.5	5.0	LIQ	P	08–JAN–10 13:37	010810–1
	Potassium	50.0	+/–150	U	50.0	150	LIQ	P	08–JAN–10 13:37	010810–1
	Selenium	5.0	+/–30	U	5.0	30.0	LIQ	P	08–JAN–10 13:37	010810–1
	Silicon	25.0	+/–100	U	25.0	100	LIQ	P	08–JAN–10 13:37	010810–1
	Silver	1.0	+/–5	U	1.0	5.0	LIQ	P	08–JAN–10 13:37	010810–1
	Sodium	100	+/–300	U	100	300	LIQ	P	08–JAN–10 13:37	010810–1
	Titanium	1.0	+/–5	U	1.0	5.0	LIQ	P	08–JAN–10 13:37	010810–1
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	08–JAN–10 13:37	010810–1
	Zinc	3.3	+/–10	U	3.3	10.0	LIQ	P	08–JAN–10 13:37	010810–1
	Lead	0.5	+/–2	U	0.5	2.0	LIQ	MS	08–JAN–10 15:46	100108–2
	Beryllium	0.1	+/–.5	U	0.1	0.5	LIQ	MS	14–JAN–10 22:26	100114–6
CCB03										
	Antimony	1.0	+/–3	U	1.0	3.0	LIQ	MS	06–JAN–10 04:55	100105–3
	Cadmium	0.11	+/–1	U	0.11	1.0	LIQ	MS	06–JAN–10 04:55	100105–3
	Lithium	2.0	+/–10	U	2.0	10.0	LIQ	MS	07–JAN–10 05:38	100106–4
	Manganese	1.0	+/–5	U	1.0	5.0	LIQ	MS	07–JAN–10 05:38	100106–4
	Mercury	0.066	+/–.2	U	0.066	0.2	LIQ	AV	08–JAN–10 10:12	010810W1–7
	Thallium	0.3	+/–1	U	0.3	1.0	LIQ	MS	08–JAN–10 13:32	100108–5

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–1087–1

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Uranium	0.05	+/–.2	U	0.05	0.2	LIQ	MS	08–JAN–10 13:32	100108–5
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	08–JAN–10 14:25	010810–1
	Arsenic	5.0	+/–30	U	5.0	30.0	LIQ	P	08–JAN–10 14:25	010810–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	08–JAN–10 14:25	010810–1
	Boron	15.0	+/–50	U	15.0	50.0	LIQ	P	08–JAN–10 14:25	010810–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	08–JAN–10 14:25	010810–1
	Chromium	1.0	+/–5	U	1.0	5.0	LIQ	P	08–JAN–10 14:25	010810–1
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	08–JAN–10 14:25	010810–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	08–JAN–10 14:25	010810–1
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	08–JAN–10 14:25	010810–1
	Magnesium	–87.38	+/–300	J	85.0	300	LIQ	P	08–JAN–10 14:25	010810–1
	Nickel	1.5	+/–5	U	1.5	5.0	LIQ	P	08–JAN–10 14:25	010810–1
	Potassium	50.0	+/–150	U	50.0	150	LIQ	P	08–JAN–10 14:25	010810–1
	Selenium	5.0	+/–30	U	5.0	30.0	LIQ	P	08–JAN–10 14:25	010810–1
	Silicon	25.0	+/–100	U	25.0	100	LIQ	P	08–JAN–10 14:25	010810–1
	Silver	1.0	+/–5	U	1.0	5.0	LIQ	P	08–JAN–10 14:25	010810–1
	Sodium	100	+/–300	U	100	300	LIQ	P	08–JAN–10 14:25	010810–1
	Titanium	1.0	+/–5	U	1.0	5.0	LIQ	P	08–JAN–10 14:25	010810–1
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	08–JAN–10 14:25	010810–1
	Zinc	3.3	+/–10	U	3.3	10.0	LIQ	P	08–JAN–10 14:25	010810–1
	Lead	0.5	+/–2	U	0.5	2.0	LIQ	MS	08–JAN–10 16:13	100108–2
	Beryllium	0.1	+/–.5	U	0.1	0.5	LIQ	MS	14–JAN–10 23:16	100114–6
CCB04										
	Antimony	1.0	+/–3	U	1.0	3.0	LIQ	MS	06–JAN–10 05:44	100105–3
	Cadmium	0.11	+/–1	U	0.11	1.0	LIQ	MS	06–JAN–10 05:44	100105–3
	Mercury	0.066	+/–.2	U	0.066	0.2	LIQ	AV	08–JAN–10 10:35	010810W1–7
	Lead	0.5	+/–2	U	0.5	2.0	LIQ	MS	08–JAN–10 16:31	100108–2
	Beryllium	0.1	+/–.5	U	0.1	0.5	LIQ	MS	14–JAN–10 23:53	100114–6
CCB05										
	Antimony	1.0	+/–3	U	1.0	3.0	LIQ	MS	06–JAN–10 06:15	100105–3
	Cadmium	0.11	+/–1	U	0.11	1.0	LIQ	MS	06–JAN–10 06:15	100105–3

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–1087–1

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Mercury	0.066	+/–.2	U	0.066	0.2	LIQ	AV	08–JAN–10 10:59	010810W1–7
	Lead	0.5	+/–2	U	0.5	2.0	LIQ	MS	08–JAN–10 16:49	100108–2
CCB06										
	Antimony	1.0	+/–3	U	1.0	3.0	LIQ	MS	06–JAN–10 07:04	100105–3
	Cadmium	0.11	+/–1	U	0.11	1.0	LIQ	MS	06–JAN–10 07:04	100105–3
	Lead	0.5	+/–2	U	0.5	2.0	LIQ	MS	08–JAN–10 17:06	100108–2
CCB07										
	Antimony	1.0	+/–3	U	1.0	3.0	LIQ	MS	06–JAN–10 07:41	100105–3
	Cadmium	0.11	+/–1	U	0.11	1.0	LIQ	MS	06–JAN–10 07:41	100105–3

METALS
–3b–
PREPARATION BLANK SUMMARY

SDG NO. 10–1087–1

Contract: LANL01004

Matrix: WATER

Sample ID	Analyte	Result	Units	Acceptance Window	Conc Qual	M	MDL	RDL
1202004435								
	Aluminum	68	ug/L	+/–200	U	P	68	200
	Arsenic	10.9	ug/L	+/–30	J	P	5	30
	Barium	1	ug/L	+/–5	U	P	1	5
	Calcium	50	ug/L	+/–200	U	P	50	200
	Cobalt	1	ug/L	+/–5	U	P	1	5
	Iron	30	ug/L	+/–100	U	P	30	100
	Nickel	1.5	ug/L	+/–5	U	P	1.5	5
	Selenium	5	ug/L	+/–30	U	P	5	30
	Silver	1	ug/L	+/–5	U	P	1	5
	Zinc	3.3	ug/L	+/–10	U	P	3.3	10
	Vanadium	1	ug/L	+/–5	U	P	1	5
	Titanium	1	ug/L	+/–5	U	P	1	5
	Sodium	100	ug/L	+/–300	U	P	100	300
	Silicon	25	ug/L	+/–100	U	P	25	100
	Potassium	50	ug/L	+/–150	U	P	50	150
	Magnesium	85	ug/L	+/–300	U	P	85	300
	Copper	3	ug/L	+/–10	U	P	3	10
	Chromium	1	ug/L	+/–5	U	P	1	5
	Boron	15.1	ug/L	+/–50	J	P	15	50
1202004440								
	Antimony	1	ug/L	+/–3	U	MS	1	3
	Lithium	2	ug/L	+/–10	U	MS	2	10
	Thallium	0.3	ug/L	+/–1	U	MS	0.3	1
	Uranium	0.05	ug/L	+/–0.2	U	MS	0.05	0.2
	Manganese	1	ug/L	+/–5	U	MS	1	5
	Lead	0.5	ug/L	+/–2	U	MS	0.5	2
	Cadmium	0.11	ug/L	+/–1	U	MS	0.11	1
1202006469								
	Mercury	0.066	ug/L	+/–0.2	U	AV	0.066	0.2
1202014492								
	Beryllium	0.1	ug/L	+/–0.5	U	MS	0.1	0.5

METALS
–4–
Interference Check Sample

SDG No: 10–1087–1

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Aluminum	519000	ug/L	500000	ug/L	104	80.0 – 120.0	08–JAN–10 12:01	010810–1
	Arsenic	0.906	ug/L					08–JAN–10 12:01	010810–1
	Barium	–0.576	ug/L					08–JAN–10 12:01	010810–1
	Boron	–9.79	ug/L					08–JAN–10 12:01	010810–1
	Calcium	486000	ug/L	500000	ug/L	97.2	80.0 – 120.0	08–JAN–10 12:01	010810–1
	Chromium	1.39	ug/L					08–JAN–10 12:01	010810–1
	Cobalt	–1.11	ug/L					08–JAN–10 12:01	010810–1
	Copper	0.013	ug/L					08–JAN–10 12:01	010810–1
	Iron	192000	ug/L	200000	ug/L	95.8	80.0 – 120.0	08–JAN–10 12:01	010810–1
	Magnesium	493000	ug/L	500000	ug/L	98.7	80.0 – 120.0	08–JAN–10 12:01	010810–1
	Nickel	3.72	ug/L					08–JAN–10 12:01	010810–1
	Potassium	16.7	ug/L					08–JAN–10 12:01	010810–1
	Selenium	34.1	ug/L					08–JAN–10 12:01	010810–1
	Silicon	1.14	ug/L					08–JAN–10 12:01	010810–1
	Silver	3.18	ug/L					08–JAN–10 12:01	010810–1
	Sodium	14.0	ug/L					08–JAN–10 12:01	010810–1
	Titanium	3.89	ug/L					08–JAN–10 12:01	010810–1
	Vanadium	–3.48	ug/L					08–JAN–10 12:01	010810–1
	Zinc	–0.666	ug/L					08–JAN–10 12:01	010810–1
ICSAB01									
	Aluminum	510000	ug/L	500000	ug/L	102	80.0 – 120.0	08–JAN–10 12:07	010810–1
	Arsenic	501	ug/L	500	ug/L	100	80.0 – 120.0	08–JAN–10 12:07	010810–1
	Barium	492	ug/L	500	ug/L	98.5	80.0 – 120.0	08–JAN–10 12:07	010810–1
	Boron	498	ug/L	500	ug/L	99.6	80.0 – 120.0	08–JAN–10 12:07	010810–1
	Calcium	478000	ug/L	500000	ug/L	95.5	80.0 – 120.0	08–JAN–10 12:07	010810–1
	Chromium	469	ug/L	500	ug/L	93.8	80.0 – 120.0	08–JAN–10 12:07	010810–1
	Cobalt	456	ug/L	500	ug/L	91.2	80.0 – 120.0	08–JAN–10 12:07	010810–1
	Copper	556	ug/L	500	ug/L	111	80.0 – 120.0	08–JAN–10 12:07	010810–1
	Iron	192000	ug/L	200000	ug/L	96.1	80.0 – 120.0	08–JAN–10 12:07	010810–1

METALS
-4-
Interference Check Sample

SDG No: 10-1087-1

Contract: LANL01004 **Lab Code:** GEL

ICS:

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
	Magnesium	490000	ug/L	500000	ug/L	98.1	80.0 - 120.0	08-JAN-10 12:07	010810-1
	Nickel	456	ug/L	500	ug/L	91.2	80.0 - 120.0	08-JAN-10 12:07	010810-1
	Potassium	5410	ug/L	5000	ug/L	108	80.0 - 120.0	08-JAN-10 12:07	010810-1
	Selenium	2590	ug/L	2500	ug/L	104	80.0 - 120.0	08-JAN-10 12:07	010810-1
	Silicon	5170	ug/L	5000	ug/L	103	80.0 - 120.0	08-JAN-10 12:07	010810-1
	Silver	272	ug/L	250	ug/L	109	80.0 - 120.0	08-JAN-10 12:07	010810-1
	Sodium	5580	ug/L	5000	ug/L	112	80.0 - 120.0	08-JAN-10 12:07	010810-1
	Titanium	510	ug/L	500	ug/L	102	80.0 - 120.0	08-JAN-10 12:07	010810-1
	Vanadium	498	ug/L	500	ug/L	99.6	80.0 - 120.0	08-JAN-10 12:07	010810-1
	Zinc	480	ug/L	500	ug/L	96	80.0 - 120.0	08-JAN-10 12:07	010810-1

METALS
-4-
Interference Check Sample

SDG No: 10-1087-1

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: ICPMS3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Lead	0.201	ug/L					08-JAN-10 15:33	100108-2
ICSAB01									
	Lead	21.5	ug/L	20.5	ug/L	105	80.0 - 120.0	08-JAN-10 15:35	100108-2

METALS
–4–
Interference Check Sample

SDG No: 10–1087–1

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: ICPMS5

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Antimony	0.29	ug/L					06–JAN–10 03:23	100105–3
	Cadmium	0.537	ug/L					06–JAN–10 03:23	100105–3
ICSAB01									
	Antimony	23.4	ug/L	20.1	ug/L	116	80.0 – 120.0	06–JAN–10 03:29	100105–3
	Cadmium	19.6	ug/L	20.4	ug/L	95.9	80.0 – 120.0	06–JAN–10 03:29	100105–3

METALS
–4–
Interference Check Sample

SDG No: 10–1087–1

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: ICPMS5

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Lithium	0.152	ug/L					07–JAN–10 04:54	100106–4
	Manganese	6.14	ug/L					07–JAN–10 04:54	100106–4
ICSAB01									
	Lithium	22.7	ug/L	20	ug/L	114	80.0 – 120.0	07–JAN–10 04:56	100106–4
	Manganese	26.7	ug/L	25.8	ug/L	104	80.0 – 120.0	07–JAN–10 04:56	100106–4

METALS
–4–
Interference Check Sample

SDG No: 10–1087–1

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: ICPMS5

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Thallium	0.011	ug/L					08–JAN–10 12:12	100108–5
	Uranium	0.0	ug/L					08–JAN–10 12:12	100108–5
ICSAB01									
	Thallium	21.5	ug/L	20	ug/L	108	80.0 – 120.0	08–JAN–10 12:16	100108–5
	Uranium	23.3	ug/L	20	ug/L	116	80.0 – 120.0	08–JAN–10 12:16	100108–5

METALS
-4-
Interference Check Sample

SDG No: 10-1087-1

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: ICPMS5

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Beryllium	0.077	ug/L					14-JAN-10 21:50	100114-6
ICSAB01									
	Beryllium	20.9	ug/L	20	ug/L	104	80.0 - 120.0	14-JAN-10 21:56	100114-6

METALS
–5a–
Matrix Spike Summary

SDG NO. 10–1087–1 **Client ID** RE03–10–2750S

Contract: LANL01004 **Level:** Low

Matrix: WATER **% Solids:**

Sample ID: 243554001 **Spike ID:** 1202004438

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Aluminum	ug/L	75–125	5210		68	U	5000	104		P
Arsenic	ug/L	75–125	520		7.75	J	500	102		P
Barium	ug/L	75–125	526		1	U	500	105		P
Boron	ug/L	75–125	513		15	U	500	100		P
Calcium	ug/L	75–125	5210		50	U	5000	104		P
Chromium	ug/L	75–125	511		1	U	500	102		P
Cobalt	ug/L	75–125	503		1	U	500	101		P
Copper	ug/L	75–125	517		3	U	500	103		P
Iron	ug/L	75–125	5350		30	U	5000	107		P
Magnesium	ug/L	75–125	5190		85	U	5000	104		P
Nickel	ug/L	75–125	508		1.5	U	500	101		P
Potassium	ug/L	75–125	5370		50	U	5000	107		P
Selenium	ug/L	75–125	516		5	U	500	103		P
Silicon	ug/L	75–125	5030		25	U	5000	100		P
Silver	ug/L	75–125	511		1	U	500	102		P
Sodium	ug/L	75–125	5310		100	U	5000	105		P
Titanium	ug/L	75–125	519		1	U	500	104		P
Vanadium	ug/L	75–125	521		1	U	500	104		P
Zinc	ug/L	75–125	500		3.3	U	500	99.7		P

METALS
–5a–
Matrix Spike Summary

SDG NO. 10–1087–1 **Client ID** RE12–10–7298S

Contract: LANL01004 **Level:** Low

Matrix: WATER **% Solids:**

Sample ID: 243493001 **Spike ID:** 1202004443

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Antimony	ug/L	75–125	214		1	U	200	107		MS
Cadmium	ug/L	75–125	11.4		0.11	U	10	114		MS
Lead	ug/L	75–125	51.5		0.5	U	40	128	N	MS
Lithium	ug/L	75–125	63.2		2	U	50	126	N	MS
Manganese	ug/L	75–125	58.4		1.03	J	50	115		MS
Thallium	ug/L	75–125	109		0.3	U	100	109		MS
Uranium	ug/L	75–125	62.2		0.05	U	50	124		MS

METALS
-5a-
Matrix Spike Summary

SDG NO. 10-1087-1 **Client ID** RE03-10-2750S

Contract: LANL01004 **Level:** Low

Matrix: WATER **% Solids:**

Sample ID: 243554001 **Spike ID:** 1202006472

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Mercury	ug/L	75-125	2.11		0.066	U	2	105		AV

METALS
–5a–

Matrix Spike Summary

SDG NO. 10–1087–1 **Client ID** RE12–10–7298S

Contract: LANL01004 **Level:** Low

Matrix: WATER **% Solids:**

Sample ID: 243493001 **Spike ID:** 1202014495

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Beryllium	ug/L	75–125	55.2		0.1	U	50	110		MS

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–1087–1

Contract: LANL01004 **Lab Code:** GEL

Matrix: LIQUID **Level:** Low **Client ID:** RE03–10–2750D

Sample ID: 243554001 **Duplicate ID:** 1202004437 **Percent Solids for Dup:** N/A

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	ug/L		68	U	68	U			P
Arsenic	ug/L	+/–30	7.75	J	6	J	25.5		P
Barium	ug/L		1	U	1	U			P
Boron	ug/L		15	U	15	U			P
Calcium	ug/L		50	U	50	U			P
Chromium	ug/L		1	U	1	U			P
Cobalt	ug/L		1	U	1	U			P
Copper	ug/L		3	U	3	U			P
Iron	ug/L		30	U	30	U			P
Magnesium	ug/L		85	U	85	U			P
Nickel	ug/L		1.5	U	1.5	U			P
Potassium	ug/L		50	U	56	J	200		P
Selenium	ug/L		5	U	5	U			P
Silicon	ug/L		25	U	25	U			P
Silver	ug/L		1	U	1	U			P
Sodium	ug/L		100	U	100	U			P
Titanium	ug/L		1	U	1	U			P
Vanadium	ug/L		1	U	1	U			P
Zinc	ug/L		3.3	U	3.3	U			P

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–1087–1

Contract: LANL01004 **Lab Code:** GEL

Matrix: LIQUID **Level:** Low **Client ID:** RE12–10–7298D

Sample ID: 243493001 **Duplicate ID:** 1202004442 **Percent Solids for Dup:** N/A

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Antimony	ug/L		1	U	1	U			MS
Cadmium	ug/L		0.11	U	0.11	U			MS
Lead	ug/L		0.5	U	0.5	U			MS
Lithium	ug/L		2	U	2	U			MS
Manganese	ug/L	+/–5	1.03	J	1.06	J	2.87		MS
Thallium	ug/L		0.3	U	0.3	U			MS
Uranium	ug/L		0.05	U	0.05	U			MS

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–1087–1

Contract: LANL01004 **Lab Code:** GEL

Matrix: LIQUID **Level:** Low **Client ID:** RE03–10–2750D

Sample ID: 243554001 **Duplicate ID:** 1202006470 **Percent Solids for Dup:** N/A

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Mercury	ug/L		0.066	U	0.066	U			AV

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–1087–1

Contract: LANL01004 **Lab Code:** GEL

Matrix: LIQUID **Level:** Low **Client ID:** RE12–10–7298D

Sample ID: 243493001 **Duplicate ID:** 1202014494 **Percent Solids for Dup:** N/A

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Beryllium	ug/L		0.1	U	0.1	U			MS

METALS
–7–
Laboratory Control Sample Summary

SDG NO. 10–1087–1

Contract: LANL01004

Aqueous LCS Source: OS2I **Solid LCS Source:**

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202004436								
	Aluminum	ug/L	5000	5230		105	80–120	P
	Arsenic	ug/L	500	528		106	80–120	P
	Barium	ug/L	500	538		108	80–120	P
	Boron	ug/L	500	520		104	80–120	P
	Calcium	ug/L	5000	5190		104	80–120	P
	Chromium	ug/L	500	515		103	80–120	P
	Cobalt	ug/L	500	507		101	80–120	P
	Copper	ug/L	500	518		104	80–120	P
	Iron	ug/L	5000	5380		108	80–120	P
	Magnesium	ug/L	5000	5260		105	80–120	P
	Nickel	ug/L	500	512		102	80–120	P
	Potassium	ug/L	5000	5360		107	80–120	P
	Selenium	ug/L	500	527		105	80–120	P
	Silicon	ug/L	5000	5050		101	80–120	P
	Silver	ug/L	500	514		103	80–120	P
	Sodium	ug/L	5000	5500		110	80–120	P
	Titanium	ug/L	500	521		104	80–120	P
	Vanadium	ug/L	500	524		105	80–120	P
	Zinc	ug/L	500	504		101	80–120	P

METALS
–7–
Laboratory Control Sample Summary

SDG NO. 10–1087–1

Contract: LANL01004

Aqueous LCS Source: O2si **Solid LCS Source:**

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202004441								
	Antimony	ug/L	50	57.2		114	80–120	MS
	Cadmium	ug/L	50	50.8		102	80–120	MS
	Lead	ug/L	50	59.6		119	80–120	MS
	Lithium	ug/L	50	58.9		118	80–120	MS
	Manganese	ug/L	50	56.9		114	80–120	MS
	Thallium	ug/L	50	55.6		111	80–120	MS
	Uranium	ug/L	50	59.5		119	80–120	MS

METALS
-7-
Laboratory Control Sample Summary

SDG NO. 10-1087-1

Contract: LANL01004

Aqueous LCS Source: GEL **Solid LCS Source:**

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202006473								
	Mercury	ug/L	2	2.09		104	80-120	AV

METALS
-7-
Laboratory Control Sample Summary

SDG NO. 10-1087-1

Contract: LANL01004

Aqueous LCS Source: O2si **Solid LCS Source:**

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202014493								
	Beryllium	ug/L	50	55.3		111	80-120	MS

METALS
-9-
Serial Dilution Sample Summary

SDG NO. 10-1087-1 **Client ID** RE03-10-2750L

Contract: LANL01004

Matrix: LIQUID **Level:** Low

Sample ID: 243554001 **Serial Dilution ID:** 1202004439

Analyte	Initial Value µg/L	C	Serial Value µg/L	C	% Difference	Qual	Acceptance Limit	M
Aluminum	68	U	340	U				P
Arsenic	7.75	J	25	U	100			P
Barium	1	U	5	U				P
Boron	15	U	75	U				P
Calcium	50	U	250	U				P
Chromium	1	U	5	U				P
Cobalt	1	U	5	U				P
Copper	3	U	15	U				P
Iron	30	U	150	U				P
Magnesium	85	U	425	U				P
Nickel	1.5	U	7.5	U				P
Potassium	50	U	250	U				P
Selenium	5	U	25	U				P
Silicon	25	U	125	U				P
Silver	1	U	5	U				P
Sodium	100	U	500	U				P
Titanium	1	U	5	U				P
Vanadium	1	U	5	U				P
Zinc	3.3	U	16.5	U				P

METALS
-9-
Serial Dilution Sample Summary

SDG NO. 10-1087-1 **Client ID** RE12-10-7298L

Contract: LANL01004

Matrix: LIQUID **Level:** Low

Sample ID: 243493001 **Serial Dilution ID:** 1202004444

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Antimony	1	U	5	U				MS
Cadmium	.11	U	.55	U				MS
Lead	.5	U	2.5	U				MS
Lithium	2	U	10	U				MS
Manganese	1.03	J	5	U	100			MS
Thallium	.3	U	2.54	J				MS
Uranium	.05	U	.25	U				MS

METALS
-9-
Serial Dilution Sample Summary

SDG NO. 10-1087-1 **Client ID** RE03-10-2750L

Contract: LANL01004

Matrix: LIQUID **Level:** Low

Sample ID: 243554001 **Serial Dilution ID:** 1202006471

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Mercury	.066	U	.33	U				AV

METALS
–9–
Serial Dilution Sample Summary

SDG NO. 10–1087–1 **Client ID** RE12–10–7298L

Contract: LANL01004

Matrix: LIQUID **Level:** Low

Sample ID: 243493001 **Serial Dilution ID:** 1202014496

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Beryllium	.1	U	.5	U				MS

METALS
-13-
SAMPLE PREPARATION SUMMARY

SDG No: 10-1087-1 **Method Type:** P

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number	936812						
1202004435	MB for batch 936812	MB	W	04-JAN-10	50mL	50mL	
1202004436	LCS for batch 936812	LCS	W	04-JAN-10	50mL	50mL	
1202004438	RE03-10-2750S	MS	W	04-JAN-10	50mL	50mL	
1202004437	RE03-10-2750D	DUP	W	04-JAN-10	50mL	50mL	
243554001	RE03-10-2750	SAMPLE	W	04-JAN-10	50mL	50mL	
243554002	RE03-10-2749	SAMPLE	W	04-JAN-10	50mL	50mL	
243554003	RE03-10-2764	SAMPLE	W	04-JAN-10	50mL	50mL	
243554004	RE03-10-2762	SAMPLE	W	04-JAN-10	50mL	50mL	

METALS
-13-
SAMPLE PREPARATION SUMMARY

SDG No: 10-1087-1 **Method Type**: MS

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number 936814							
1202004440	MB for batch 936814	MB	W	04-JAN-10	50mL	50mL	
1202004441	LCS for batch 936814	LCS	W	04-JAN-10	50mL	50mL	
1202004443	RE12-10-7298S	MS	W	04-JAN-10	50mL	50mL	
1202004442	RE12-10-7298D	DUP	W	04-JAN-10	50mL	50mL	
243554001	RE03-10-2750	SAMPLE	W	04-JAN-10	50mL	50mL	
243554002	RE03-10-2749	SAMPLE	W	04-JAN-10	50mL	50mL	
243554003	RE03-10-2764	SAMPLE	W	04-JAN-10	50mL	50mL	
243554004	RE03-10-2762	SAMPLE	W	04-JAN-10	50mL	50mL	
Batch Number 941230							
1202014492	MB for batch 941230	MB	W	13-JAN-10	25mL	25mL	
1202014493	LCS for batch 941230	LCS	W	13-JAN-10	25mL	25mL	
1202014495	RE12-10-7298S	MS	W	13-JAN-10	25mL	25mL	
1202014494	RE12-10-7298D	DUP	W	13-JAN-10	25mL	25mL	
243554001	RE03-10-2750	SAMPLE	W	13-JAN-10	25mL	25mL	
243554002	RE03-10-2749	SAMPLE	W	13-JAN-10	25mL	25mL	
243554003	RE03-10-2764	SAMPLE	W	13-JAN-10	25mL	25mL	
243554004	RE03-10-2762	SAMPLE	W	13-JAN-10	25mL	25mL	

METALS
–13–
SAMPLE PREPARATION SUMMARY

SDG No: 10–1087–1 **Method Type:** AV

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number	937643						
1202006469	MB for batch 937643	MB	W	07–JAN–10	20mL	20mL	
1202006473	LCS for batch 937643	LCS	W	07–JAN–10	20mL	20mL	
1202006472	RE03–10–2750S	MS	W	07–JAN–10	20mL	20mL	
1202006470	RE03–10–2750D	DUP	W	07–JAN–10	20mL	20mL	
243554001	RE03–10–2750	SAMPLE	W	07–JAN–10	20mL	20mL	
243554002	RE03–10–2749	SAMPLE	W	07–JAN–10	20mL	20mL	
243554003	RE03–10–2764	SAMPLE	W	07–JAN–10	20mL	20mL	
243554004	RE03–10–2762	SAMPLE	W	07–JAN–10	20mL	20mL	

Metals
-14-
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: ICPMS5
Start Date: 06-JAN-10
End Date: 06-JAN-10

Client Sdg: 10-1087-1
Method MS
Data File: 100105-3

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Li	Mg	Mn	Hg	Ni	K	Se	Si	Ag	Na	Tl	Ti	U	V	Zn
S0.0	1	02:46		X					X																					
S10	1	02:52		X					X																					
S100	1	02:58		X					X																					
ICV01	1	03:04		X					X																					
ICB01	1	03:10		X					X																					
CRDL01	1	03:17		X					X																					
ICSA01	1	03:23		X					X																					
ICSAB01	1	03:29		X					X																					
CCV01	1	03:35		X					X																					
CCB01	1	03:41		X					X																					
LR01	1	03:47		X					X																					
CCV02	1	03:53		X					X																					
CCB02	1	03:59		X					X																					
ZZZZZZ	1	04:05																												
ZZZZZZ	1	04:12																												
ZZZZZZ	1	04:18																												
ZZZZZZ	1	04:24																												
ZZZZZZ	1	04:30																												
ZZZZZZ	1	04:36																												
ZZZZZZ	5	04:42																												
CCV03	1	04:49		X					X																					
CCB03	1	04:55		X					X																					
ZZZZZZ	1	05:01																												
ZZZZZZ	1	05:07																												
ZZZZZZ	1	05:13																												
ZZZZZZ	1	05:19																												
ZZZZZZ	1	05:26																												
ZZZZZZ	5	05:32																												
CCV04	1	05:38		X					X																					
CCB04	1	05:44		X					X																					
ZZZZZZ	1	05:50																												
ZZZZZZ	1	05:57																												
ZZZZZZ	1	06:03																												
CCV05	1	06:09		X					X																					
CCB05	1	06:15		X					X																					
1202004440	1	06:21		X					X																					
1202004441	1	06:27		X					X																					
ZZZZZZ	1	06:33																												
1202004442	1	06:40		X					X																					
1202004443	1	06:46		X					X																					

Metals
-14-
Analysis Run Log

Samp No.	D/F	Run Time																											
1202004444	5	06:52		X					X																				
CCV06	1	06:58		X					X																				
CCB06	1	07:04		X					X																				
243554001	1	07:10		X					X																				
243554002	1	07:16		X					X																				
243554003	1	07:22		X					X																				
243554004	1	07:29		X					X																				
CCV07	1	07:35		X					X																				
CCB07	1	07:41		X					X																				

Metals
–14–
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: ICPMS5
Start Date: 07–JAN–10 **End Date:** 07–JAN–10

Client Sdg: 10–1087–1
Method MS
Data File: 100106–4

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Li	Mg	Mn	Hg	Ni	K	Se	Si	Ag	Na	Tl	Ti	U	V	Zn
S0.0	1	04:38														X		X												
S10	1	04:41														X		X												
S100	1	04:44														X		X												
ICV01	1	04:46														X		X												
ICB01	1	04:49														X		X												
CRDL01	1	04:51														X		X												
ICSA01	1	04:54														X		X												
ICSAB01	1	04:56														X		X												
CCV01	1	04:59														X		X												
CCB01	1	05:02														X		X												
1202004440	1	05:04														X		X												
1202004441	1	05:07														X		X												
ZZZZZZ	1	05:09																												
1202004442	1	05:12														X		X												
1202004443	1	05:14														X		X												
1202004444	5	05:17														X		X												
CCV02	1	05:20														X		X												
CCB02	1	05:22														X		X												
243554001	1	05:25														X		X												
243554002	1	05:27														X		X												
243554003	1	05:30														X		X												
243554004	1	05:33														X		X												
CCV03	1	05:35														X		X												
CCB03	1	05:38														X		X												

Metals
–14–
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: ICPMS5
Start Date: 08–JAN–10 **End Date:** 08–JAN–10

Client Sdg: 10–1087–1
Method MS
Data File: 100108–5

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Li	Mg	Mn	Hg	Ni	K	Se	Si	Ag	Na	Tl	Ti	U	V	Zn
S0.0	1	11:44																								X		X		
S10	1	11:48																								X		X		
S100	1	11:53																								X		X		
ICV01	1	11:58																								X		X		
ICB01	1	12:02																								X		X		
CRDL01	1	12:07																								X		X		
ICSA01	1	12:12																								X		X		
ICSAB01	1	12:16																								X		X		
CCV01	1	12:21																								X		X		
CCB01	1	12:26																								X		X		
1202004440	1	12:31																								X		X		
1202004441	1	12:35																								X		X		
ZZZZZZ	1	12:40																												
1202004442	1	12:45																								X		X		
1202004443	1	12:50																								X		X		
1202004444	5	12:55																								X		X		
CCV02	1	12:59																								X		X		
CCB02	1	13:04																								X		X		
243554001	1	13:09																								X		X		
243554002	1	13:13																								X		X		
243554003	1	13:18																								X		X		
243554004	1	13:23																								X		X		
CCV03	1	13:28																								X		X		
CCB03	1	13:32																								X		X		

Metals
-14-
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: ICPMS5
Start Date: 14-JAN-10 **End Date:** 14-JAN-10

Client Sdg: 10-1087-1
Method MS
Data File: 100114-6

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Li	Mg	Mn	Hg	Ni	K	Se	Si	Ag	Na	Tl	Ti	U	V	Zn
S0.0	1	21:13					X																							
S10	1	21:19					X																							
S100	1	21:25					X																							
ICV01	1	21:31					X																							
ICB01	1	21:38					X																							
CRDL01	1	21:44					X																							
ICSA01	1	21:50					X																							
ICSAB01	1	21:56					X																							
CCV01	1	22:02					X																							
CCB01	1	22:08					X																							
LR01	1	22:14					X																							
CCV02	1	22:20					X																							
CCB02	1	22:26					X																							
1202014492	1	22:33					X																							
1202014493	1	22:39					X																							
ZZZZZZ	1	22:45																												
1202014494	1	22:51					X																							
1202014495	1	22:57					X																							
1202014496	5	23:03					X																							
CCV03	1	23:10					X																							
CCB03	1	23:16					X																							
243554001	1	23:22					X																							
243554002	1	23:28					X																							
243554003	1	23:34					X																							
243554004	1	23:40					X																							
CCV04	1	23:47					X																							
CCB04	1	23:53					X																							

Metals
-14-
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: OPTIMA3
Start Date: 08-JAN-10 **End Date:** 08-JAN-10

Client Sdg: 10-1087-1
Method P
Data File: 010810-1

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Li	Mg	Mn	Hg	Ni	K	Se	Si	Ag	Na	Tl	Ti	U	V	Zn
S0.0	1	11:08	X		X	X		X		X	X	X	X	X			X			X	X	X	X	X	X		X		X	X
S0.1	1	11:15			X	X		X			X	X	X							X	X	X	X	X			X		X	X
S0.5	1	11:21	X		X	X		X		X	X	X	X				X			X	X	X	X	X			X		X	X
SCAL	1	11:28	X		X	X		X		X	X	X	X	X			X			X	X	X	X	X	X		X		X	X
S10	1	11:35	X							X				X			X								X					
ICV01	1	11:40	X		X	X		X		X	X	X	X	X			X			X	X	X	X	X	X		X		X	X
ICB01	1	11:47	X		X	X		X		X	X	X	X	X			X			X	X	X	X	X	X		X		X	X
PQL01	1	11:54	X		X	X		X		X	X	X	X	X			X			X	X	X	X	X	X		X		X	X
ICSA01	1	12:01	X		X	X		X		X	X	X	X	X			X			X	X	X	X	X	X		X		X	X
ICSAB01	1	12:07	X		X	X		X		X	X	X	X	X			X			X	X	X	X	X	X		X		X	X
LR01	1	12:13	X		X	X		X		X	X	X	X	X			X			X	X	X	X	X	X		X		X	X
LR02	1	12:19	X		X	X		X		X	X	X	X	X			X			X	X	X	X	X	X		X		X	X
CCV01	1	12:26	X		X	X		X		X	X	X	X	X			X			X	X	X	X	X	X		X		X	X
CCB01	1	12:33	X		X	X		X		X	X	X	X	X			X			X	X	X	X	X	X		X		X	X
1202004435	1	12:43	X		X	X		X		X	X	X	X	X			X			X	X	X	X	X	X		X		X	X
1202004436	1	12:50	X		X	X		X		X	X	X	X	X			X			X	X	X	X	X	X		X		X	X
ZZZZZZ	1	12:57																												
243554001	1	13:03	X		X	X		X		X	X	X	X	X			X			X	X	X	X	X	X		X		X	X
1202004437	1	13:10	X		X	X		X		X	X	X	X	X			X			X	X	X	X	X	X		X		X	X
1202004438	1	13:17	X		X	X		X		X	X	X	X	X			X			X	X	X	X	X	X		X		X	X
1202004439	5	13:24	X		X	X		X		X	X	X	X	X			X			X	X	X	X	X	X		X		X	X
CCV02	1	13:31	X		X	X		X		X	X	X	X	X			X			X	X	X	X	X	X		X		X	X
CCB02	1	13:37	X		X	X		X		X	X	X	X	X			X			X	X	X	X	X	X		X		X	X
243554002	1	13:44	X		X	X		X		X	X	X	X	X			X			X	X	X	X	X	X		X		X	X
243554003	1	13:51	X		X	X		X		X	X	X	X	X			X			X	X	X	X	X	X		X		X	X
243554004	1	13:58	X		X	X		X		X	X	X	X	X			X			X	X	X	X	X	X		X		X	X
ZZZZZZ	20	14:05																												
ZZZZZZ	20	14:11																												
CCV03	1	14:18	X		X	X		X		X	X	X	X	X			X			X	X	X	X	X	X		X		X	X
CCB03	1	14:25	X		X	X		X		X	X	X	X	X			X			X	X	X	X	X	X		X		X	X

Metals
–14–
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: HG3
Start Date: 08–JAN–10
End Date: 08–JAN–10
Client Sdg: 10–1087–1
Method AV
Data File: 010810W1–7

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Li	Mg	Mn	Hg	Ni	K	Se	Si	Ag	Na	Tl	Ti	U	V	Zn
S0.0	1	09:06																	X											
S0.2	1	09:08																	X											
S0.5	1	09:10																	X											
S2.0	1	09:12																	X											
S5.0	1	09:14																	X											
S10.0	1	09:16																	X											
ICV01	1	09:18																	X											
ICB01	1	09:20																	X											
CRDL01	1	09:22																	X											
CCV01	1	09:23																	X											
CCB01	1	09:25																	X											
ZZZZZZ	1	09:28																												
ZZZZZZ	1	09:30																												
ZZZZZZ	1	09:32																												
ZZZZZZ	1	09:34																												
ZZZZZZ	1	09:36																												
ZZZZZZ	5	09:38																												
ZZZZZZ	1	09:40																												
ZZZZZZ	1	09:42																												
ZZZZZZ	1	09:43																												
ZZZZZZ	1	09:45																												
CCV02	1	09:47																	X											
CCB02	1	09:49																	X											
ZZZZZZ	1	09:51																												
ZZZZZZ	5	09:53																												
ZZZZZZ	1	09:55																												
ZZZZZZ	1	09:57																												
ZZZZZZ	1	09:59																												
ZZZZZZ	1	10:01																												
ZZZZZZ	1	10:03																												
ZZZZZZ	1	10:05																												
ZZZZZZ	5	10:07																												
ZZZZZZ	1	10:08																												
CCV03	1	10:10																	X											
CCB03	1	10:12																	X											
ZZZZZZ	1	10:14																												
ZZZZZZ	1	10:16																												
1202006469	1	10:18																	X											
1202006473	1	10:20																	X											
243554001	1	10:22																	X											

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time																										
1202006470	1	10:24																X										
1202006472	1	10:26																X										
1202006471	5	10:28																X										
243554002	1	10:30																X										
243554003	1	10:32																X										
CCV04	1	10:33																X										
CCB04	1	10:35																X										
243554004	1	10:37																X										
ZZZZZZ	1	10:39																										
ZZZZZZ	1	10:41																										
ZZZZZZ	1	10:43																										
ZZZZZZ	1	10:45																										
ZZZZZZ	1	10:47																										
ZZZZZZ	1	10:49																										
ZZZZZZ	1	10:51																										
ZZZZZZ	1	10:53																										
ZZZZZZ	5	10:55																										
CCV05	1	10:57																X										
CCB05	1	10:59																X										

Metals
-14-
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: ICPMS3
Start Date: 08-JAN-10 **End Date:** 08-JAN-10

Client Sdg: 10-1087-1
Method MS
Data File: 100108-2

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Li	Mg	Mn	Hg	Ni	K	Se	Si	Ag	Na	Tl	Ti	U	V	Zn
S0.0	1	15:20													X															
S10	1	15:22													X															
S100	1	15:25													X															
ICV01	1	15:27													X															
ICB01	1	15:29													X															
CRDL01	1	15:31													X															
ICSA01	1	15:33													X															
ICSAB01	1	15:35													X															
CCV01	1	15:38													X															
CCB01	1	15:40													X															
LR01	1	15:42													X															
CCV02	1	15:44													X															
CCB02	1	15:46													X															
ZZZZZZ	1	15:49																												
ZZZZZZ	1	15:51																												
ZZZZZZ	1	15:53																												
ZZZZZZ	1	15:55																												
ZZZZZZ	1	15:57																												
ZZZZZZ	5	16:00																												
ZZZZZZ	1	16:02																												
ZZZZZZ	1	16:04																												
ZZZZZZ	1	16:06																												
ZZZZZZ	1	16:08																												
CCV03	1	16:11													X															
CCB03	1	16:13													X															
ZZZZZZ	2	16:17																												
ZZZZZZ	2	16:20																												
ZZZZZZ	2	16:22																												
ZZZZZZ	10	16:24																												
ZZZZZZ	2	16:26																												
CCV04	1	16:28													X															
CCB04	1	16:31													X															
1202004440	1	16:34													X															
1202004441	1	16:36													X															
ZZZZZZ	1	16:38																												
1202004442	1	16:40													X															
1202004443	1	16:43													X															
1202004444	5	16:45													X															
CCV05	1	16:47													X															
CCB05	1	16:49													X															

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time																										
243554001	1	16:52												X														
243554002	1	16:54												X														
243554003	1	16:56												X														
243554004	1	16:58												X														
ZZZZZZ	1	17:01																										
CCV06	1	17:04												X														
CCB06	1	17:06												X														

Standards

METALS
–10–
Instrument Detection Limits

SDG NO. 10–1087–1

Contract: LANL01004 **Lab Code: GEL** **MDL Effective Date:** 01–JUL–09

ICP/MS	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
LIQUID	Aluminum		15.0	30
	Antimony		1.0	3
	Arsenic		1.6	5
	Barium		0.6	2
	Beryllium		0.1	.5
	Boron		4.0	15
	Cadmium		0.11	1
	Calcium		65.0	200
	Chromium		2.0	10
	Cobalt		0.1	1
	Copper		0.33	1
	Iron		33.0	100
	Lead		0.5	2
	Lithium		2.0	10
	Magnesium		5.2	15
	Manganese		1.0	5
	Nickel		0.5	2
	Potassium		80.0	300
	Selenium		1.0	5
	Silver		0.2	1
	Sodium		80.0	250
	Thallium		0.3	1
	Titanium		2.0	10
	Uranium		0.05	.2
	Vanadium		3.0	10
	Zinc		3.0	10

METALS
-10-
Instrument Detection Limits

SDG NO. 10-1087-1

Contract: LANL01004 **Lab Code: GEL** **MDL Effective Date:** 01-JUL-09

MERCURY	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
LIQUID	Mercury		0.066	.2

METALS
-10-
Instrument Detection Limits

SDG NO. 10-1087-1

Contract: LANL01004 **Lab Code: GEL** **MDL Effective Date:** 01-JUL-09

ICP	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
LIQUID	Aluminum	396.153	68.0	200
	Antimony	206.836	3.0	10
	Arsenic	188.979	5.0	30
	Barium	233.527	1.0	5
	Beryllium	313.107	1.0	5
	Boron	249.677	15.0	50
	Cadmium	226.502	1.0	5
	Calcium	317.933	50.0	200
	Chromium	267.716	1.0	5
	Cobalt	228.616	1.0	5
	Copper	324.752	3.0	10
	Iron	238.204	30.0	100
	Lead	220.353	3.3	10
	Magnesium	279.077	85.0	300
	Manganese	257.61	2.0	10
	Nickel	231.604	1.5	5
	Potassium	766.49	50.0	150
	Selenium	196.026	5.0	30
	Silicon	251.611	25.0	100
	Silver	328.068	1.0	5
	Sodium	589.592	100	300
	Thallium	190.801	5.0	20
	Titanium	334.94	1.0	5
	Uranium	409.014	10.0	50
	Vanadium	292.402	1.0	5
	Zinc	213.857	3.3	10

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
GEL Job No: 10-1087-1
Contract: LANL01004
Instrument: OPTIMA3
Effective Dates: 01-NOV-09
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Parmname	Wavelength	Aluminum	Antimony	Arsenic	Barium	Beryllium
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.02738	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	-0.44940	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	-0.22121	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	-0.33886	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	-0.13648	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	-0.05571	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.19671	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	-0.02739	0.00000	0.00000	0.00000	0.00000
Tin	189.927	-0.00058	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA3
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-1087-1
Effective Dates: 01-NOV-09

Parmname	Wavelength	Boron	Cadmium	Chromium	Cobalt	Copper
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	24.5549	0.00000	0.00000
Arsenic	188.979	0.52529	0.00000	-0.67113	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	2.54031	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.38952	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	-31.5465	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	0.78023
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.63859	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	160.41
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	5.22870	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.35099	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	1.93161	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.39273	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	1.19810

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA3
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-1087-1
Effective Dates: 01-NOV-09

Parmname	Wavelength	Iron	Lead	Magnesium	Manganese	Molybdenum
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	42.8126
Antimony	206.836	-0.01635	0.00000	0.00000	0.00000	-22.2146
Arsenic	188.979	-0.21271	0.00000	0.00000	0.00000	1.34645
Barium	233.527	-0.03709	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.13266	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.09998	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	-0.01788	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.01425	0.00000	0.00000	0.00000	-2.64232
Copper	324.752	-0.05101	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.09069	0.00000	0.00000	0.00000	-2.44485
Magnesium	279.077	0.85543	0.00000	0.00000	0.00000	-20.2401
Manganese	257.61	-0.09972	0.00000	0.01862	0.00000	0.00000
Molybdenum	202.031	-0.07094	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.80633	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	-0.03176	0.00000	0.01823	12.4291	-3.60863
Selenium	196.026	-3.00009	0.00000	0.00000	0.00000	-3.17982
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	17.4444
Silver	328.068	-0.31825	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	-5.85948	0.00000
Tin	189.927	-0.01337	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.12581	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.15211	0.00000	-0.02256	0.00000	-14.2921
Zinc	213.857	0.09548	0.00000	0.03423	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA3
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-1087-1
Effective Dates: 01-NOV-09

Parmname	Wavelength	Nickel	Phosphorous	Potassium	Selenium	Silicon
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	-0.64279	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	0.44040	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.33191	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	6.38465	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA3
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-1087-1
Effective Dates: 01-NOV-09

Parmname	Wavelength	Silver	Strontium	Sulfur	Thallium	Tin
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	0.00000	-17.4077
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	-13.8713
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	3.10491
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA3
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-1087-1
Effective Dates: 01-NOV-09

Parmname	Wavelength	Titanium	Uranium	Vanadium	Zinc
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	2.73145	0.00000	-2.31857	0.00000
Arsenic	188.979	-8.38419	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	-2.24883	0.00000
Beryllium	313.107	-1.96555	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.32181	-1.76281	0.00000
Cobalt	228.616	2.12623	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.85359	-3.92851	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	-7.67419	0.00000	2.18873	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.44145	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	1.10141	-1.94183	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000

METALS
–12–
Linear Ranges

SDG NO. 10–1087–1

Contract: LANL01004 **Lab Code: GEL**

Instrument ID ICPMS5

Analyte	Integration Time (msec)	LDR	Units	Effective Date
Aluminum	1	50000	ug/L	01–NOV–09
Antimony	1000	250	ug/L	01–NOV–09
Arsenic	1000	1000	ug/L	01–NOV–09
Barium	1000	1000	ug/L	01–NOV–09
Beryllium	1000	1000	ug/L	01–NOV–09
Boron	1000	200	ug/L	01–NOV–09
Cadmium	1000	1000	ug/L	01–NOV–09
Calcium	500	50000	ug/L	01–NOV–09
Chromium	1000	1000	ug/L	01–NOV–09
Cobalt	1000	1000	ug/L	01–NOV–09
Copper	1000	1000	ug/L	01–NOV–09
Iron	500	50000	ug/L	01–NOV–09
Lead	1000	5000	ug/L	01–NOV–09
Lithium	1000	1000	ug/L	01–NOV–09
Magnesium	1	50000	ug/L	01–NOV–09
Manganese	1000	1000	ug/L	01–NOV–09
Nickel	1000	1000	ug/L	01–NOV–09
Potassium	1	50000	ug/L	01–NOV–09
Selenium	1000	500	ug/L	01–NOV–09
Silver	1000	250	ug/L	01–NOV–09
Sodium	1	50000	ug/L	01–NOV–09
Thallium	1000	500	ug/L	01–NOV–09
Titanium	1000	100	ug/L	01–NOV–09
Uranium	1000	5000	ug/L	01–NOV–09
Vanadium	1000	100	ug/L	01–NOV–09
Zinc	1000	2500	ug/L	01–NOV–09

METALS
–12–
Linear Ranges

SDG NO. 10–1087–1

Contract: LANL01004 **Lab Code: GEL**

Instrument ID OPTIMA3

Analyte	Integration Time (sec)	LDR	Units	Effective Date
Aluminum	20	500000	ug/L	01–NOV–09
Antimony	20	10000	ug/L	01–NOV–09
Arsenic	20	10000	ug/L	01–NOV–09
Barium	20	15000	ug/L	01–NOV–09
Beryllium	20	3000	ug/L	01–NOV–09
Boron	20	5000	ug/L	01–NOV–09
Cadmium	20	10000	ug/L	01–NOV–09
Calcium	20	500000	ug/L	01–NOV–09
Chromium	20	25000	ug/L	01–NOV–09
Cobalt	20	10000	ug/L	01–NOV–09
Copper	20	20000	ug/L	01–NOV–09
Iron	20	500000	ug/L	01–NOV–09
Lead	20	25000	ug/L	01–NOV–09
Magnesium	20	500000	ug/L	01–NOV–09
Manganese	20	10000	ug/L	01–NOV–09
Nickel	20	10000	ug/L	01–NOV–09
Potassium	20	300000	ug/L	01–NOV–09
Selenium	20	10000	ug/L	01–NOV–09
Silicon	20	50000	ug/L	01–NOV–09
Silver	20	1000	ug/L	01–NOV–09
Sodium	20	500000	ug/L	01–NOV–09
Thallium	20	10000	ug/L	01–NOV–09
Titanium	20	10000	ug/L	01–NOV–09
Uranium	20	15000	ug/L	01–NOV–09
Vanadium	20	10000	ug/L	01–NOV–09
Zinc	20	15000	ug/L	01–NOV–09

METALS
–12–
Linear Ranges

SDG NO. 10–1087–1

Contract: LANL01004 **Lab Code: GEL**

Instrument ID ICPMS3

Analyte	Integration Time (msec)	LDR	Units	Effective Date
Aluminum	1	50000	ug/L	01–NOV–09
Antimony	1000	250	ug/L	01–NOV–09
Arsenic	1000	1000	ug/L	01–NOV–09
Barium	1000	1000	ug/L	01–NOV–09
Beryllium	1000	1000	ug/L	01–NOV–09
Boron	1000	200	ug/L	01–NOV–09
Cadmium	1000	1000	ug/L	01–NOV–09
Calcium	500	50000	ug/L	01–NOV–09
Chromium	1000	1000	ug/L	01–NOV–09
Cobalt	1000	1000	ug/L	01–NOV–09
Copper	1000	1000	ug/L	01–NOV–09
Iron	500	50000	ug/L	01–NOV–09
Lead	1000	5000	ug/L	01–NOV–09
Lithium	1000	1000	ug/L	01–NOV–09
Magnesium	1	50000	ug/L	01–NOV–09
Manganese	1000	1000	ug/L	01–NOV–09
Nickel	1000	1000	ug/L	01–NOV–09
Potassium	1	50000	ug/L	01–NOV–09
Selenium	1000	500	ug/L	01–NOV–09
Silver	1000	250	ug/L	01–NOV–09
Sodium	1	50000	ug/L	01–NOV–09
Thallium	1000	500	ug/L	01–NOV–09
Titanium	1000	100	ug/L	01–NOV–09
Uranium	1000	5000	ug/L	01–NOV–09
Vanadium	1000	100	ug/L	01–NOV–09
Zinc	1000	2500	ug/L	01–NOV–09

Raw Data

1/8/2010 11:05:08 Hg ReAlign... Actual peak offset (nm): -0.009
Drift (nm): 0.000 Slit adjustment: -2

Analysis Begun

Start Time: 1/8/2010 11:08:19 **Plasma On Time: 1/4/2010 06:33:21**
Logged In Analyst: Optima3 **Technique: ICP Continuous**
Spectrometer Model: Optima 5300 DV, S/N 077C7090601Autosampler Model: S10

Sample Information File: C:\pe\Optima3\Sample Information\010810.sif
Batch ID:
Results Data Set: 010810
Results Library: C:\pe\Optima3\Results\Results.mdb

Method Loaded
Method Name: General Eng.2AX **Method Last Saved: 1/7/2010 12:39:11**
IEC File: 101209.iec **MSF File:**
Method Description:

Analyte	Calibration Equation	Processing	View	Internal Standard	IEC
Ag 328.068	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Al 396.153Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
As 188.979	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
B 249.677	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ba 233.527	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Be 313.107	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ca 317.933Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	No
Cd 226.502	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Co 228.616	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cr 267.716	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cu 324.752	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Fe 238.204 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
K 766.490 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Mg 279.077 IEC	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Mn 257.610	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Mo 202.031	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Na 589.592 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	No
Ni 231.604	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
P 214.914	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Pb 220.353	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
S 181.975 Axial	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sb 206.836	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sc 361.383	Lin Thru 0	Peak Area	Axial	n/a	n/a
Sc Radial	Lin, Calc Int	Peak Area	Radial	n/a	n/a
Se 196.026	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Si 251.611	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sn 189.927	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sr 421.552	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Ti 334.940	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Tl 190.801	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
U 409.014	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
V 292.402	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y 371.029	Lin, Calc Int	Peak Area	Axial	n/a	n/a
Zn 213.857	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y RADIAL	Lin, Calc Int	Peak Area	Radial	n/a	n/a
SiO2	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes

Sequence No.: 1 **Autosampler Location: 8**
Sample ID: S0 **Date Collected: 1/8/2010 11:08:21**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: S0

	Net	Corrected	Calib.	Analysis

Repl#	Analyte	Intensity	Intensity	Conc.	Units	Time
1	Sc Radial	4358.5	4358.5	99.1	%	11:10:13
1	Y RADIAL	4654.9	4654.9	99.34	%	11:10:13
1	Al 396.153Radial†	0.7	0.7	[0.00]	ug/L	11:10:13
1	Ca 317.933Radial†	13.5	13.6	[0.00]	ug/L	11:10:33
1	Fe 238.204 Radial†	9.7	9.7	[0.00]	ug/L	11:10:33
1	K 766.490 Radial†	3082.7	3110.1	[0.00]	ug/L	11:10:13
1	Mg 279.077 IEC†	4.1	4.2	[0.00]	ug/L	11:10:33
1	Na 589.592 Radial†	-1302.3	-1313.9	[0.00]	ug/L	11:10:13
1	Sr 421.552†	-1.1	-1.1	[0.00]	ug/L	11:10:13
1	Sc 361.383	853010.2	853010.2	99.767	%	11:11:30
1	Y 371.029	730210.9	730210.9	99.727	%	11:11:30
1	Ag 328.068†	515.5	516.7	[0.00]	ug/L	11:11:30
1	As 188.979†	-37.5	-37.6	[0.00]	ug/L	11:11:50
1	B 249.677†	-739.1	-740.8	[0.00]	ug/L	11:11:30
1	Ba 233.527†	-13.1	-13.1	[0.00]	ug/L	11:11:50
1	Be 313.107†	-4385.4	-4395.7	[0.00]	ug/L	11:11:30
1	Cd 226.502†	-247.7	-248.3	[0.00]	ug/L	11:11:50
1	Co 228.616†	-105.0	-105.2	[0.00]	ug/L	11:11:50
1	Cr 267.716†	90.5	90.7	[0.00]	ug/L	11:11:30
1	Cu 324.752†	8203.6	8222.7	[0.00]	ug/L	11:11:30
1	Mn 257.610†	624.1	625.6	[0.00]	ug/L	11:11:30
1	Mo 202.031†	21.2	21.2	[0.00]	ug/L	11:11:50
1	Ni 231.604†	122.8	123.1	[0.00]	ug/L	11:11:50
1	P 214.914†	253.9	254.5	[0.00]	ug/L	11:11:50
1	Pb 220.353†	-88.4	-88.6	[0.00]	ug/L	11:11:50
1	S 181.975 Axial†	65.3	65.4	[0.00]	ug/L	11:11:50
1	Sb 206.836†	40.1	40.2	[0.00]	ug/L	11:11:50
1	Se 196.026†	-32.8	-32.8	[0.00]	ug/L	11:11:50
1	Si 251.611†	584.0	585.3	[0.00]	ug/L	11:11:50
1	Sn 189.927†	7.1	7.1	[0.00]	ug/L	11:11:50
1	Ti 334.940†	-1730.8	-1734.9	[0.00]	ug/L	11:11:30
1	Tl 190.801†	-43.9	-44.0	[0.00]	ug/L	11:11:50
1	U 409.014†	-2555.0	-2560.9	[0.00]	ug/L	11:11:30
1	V 292.402†	-1787.4	-1791.5	[0.00]	ug/L	11:11:30
1	Zn 213.857†	830.7	832.6	[0.00]	ug/L	11:11:50
1	SiO2†	606.6	608.0	[0.00]	ug/L	11:12:47
2	Sc Radial	4409.2	4409.2	100	%	11:10:38
2	Y RADIAL	4698.5	4698.5	100.3	%	11:10:38
2	Al 396.153Radial†	9.0	9.0	[0.00]	ug/L	11:10:38
2	Ca 317.933Radial†	20.2	20.2	[0.00]	ug/L	11:10:59
2	Fe 238.204 Radial†	10.7	10.7	[0.00]	ug/L	11:10:59
2	K 766.490 Radial†	3104.0	3095.5	[0.00]	ug/L	11:10:38
2	Mg 279.077 IEC†	5.0	5.0	[0.00]	ug/L	11:10:59
2	Na 589.592 Radial†	-1344.4	-1340.7	[0.00]	ug/L	11:10:38
2	Sr 421.552†	-29.7	-29.6	[0.00]	ug/L	11:10:38
2	Sc 361.383	850519.2	850519.2	99.476	%	11:11:56
2	Y 371.029	727992.4	727992.4	99.424	%	11:11:56
2	Ag 328.068†	420.1	422.3	[0.00]	ug/L	11:11:56
2	As 188.979†	-29.6	-29.7	[0.00]	ug/L	11:12:16
2	B 249.677†	-784.8	-789.0	[0.00]	ug/L	11:11:56
2	Ba 233.527†	-14.1	-14.2	[0.00]	ug/L	11:12:16
2	Be 313.107†	-4375.4	-4398.5	[0.00]	ug/L	11:11:56
2	Cd 226.502†	-254.4	-255.7	[0.00]	ug/L	11:12:16
2	Co 228.616†	-97.8	-98.3	[0.00]	ug/L	11:12:16
2	Cr 267.716†	124.7	125.4	[0.00]	ug/L	11:11:56
2	Cu 324.752†	8223.1	8266.5	[0.00]	ug/L	11:11:56
2	Mn 257.610†	627.3	630.6	[0.00]	ug/L	11:11:56
2	Mo 202.031†	25.3	25.5	[0.00]	ug/L	11:12:16
2	Ni 231.604†	143.0	143.7	[0.00]	ug/L	11:12:16
2	P 214.914†	255.5	256.9	[0.00]	ug/L	11:12:16
2	Pb 220.353†	-88.2	-88.7	[0.00]	ug/L	11:12:16
2	S 181.975 Axial†	67.9	68.3	[0.00]	ug/L	11:12:16
2	Sb 206.836†	34.0	34.2	[0.00]	ug/L	11:12:16
2	Se 196.026†	-35.4	-35.6	[0.00]	ug/L	11:12:16
2	Si 251.611†	582.0	585.1	[0.00]	ug/L	11:12:16
2	Sn 189.927†	4.9	4.9	[0.00]	ug/L	11:12:16
2	Ti 334.940†	-1654.0	-1662.7	[0.00]	ug/L	11:11:56
2	Tl 190.801†	-46.9	-47.2	[0.00]	ug/L	11:12:16
2	U 409.014†	-2778.9	-2793.5	[0.00]	ug/L	11:11:56
2	V 292.402†	-1687.4	-1696.3	[0.00]	ug/L	11:11:56

2	Zn 213.857†	812.0	816.3	[0.00]	ug/L	11:12:16
2	SiO2†	615.6	618.8	[0.00]	ug/L	11:12:52
3	Sc Radial	4423.9	4423.9	101	%	11:11:04
3	Y RADIAL	4704.3	4704.3	100.4	%	11:11:04
3	Al 396.153Radial†	-8.8	-8.7	[0.00]	ug/L	11:11:04
3	Ca 317.933Radial†	7.7	7.6	[0.00]	ug/L	11:11:24
3	Fe 238.204 Radial†	8.1	8.0	[0.00]	ug/L	11:11:24
3	K 766.490 Radial†	3194.4	3175.2	[0.00]	ug/L	11:11:04
3	Mg 279.077 IEC†	3.5	3.5	[0.00]	ug/L	11:11:24
3	Na 589.592 Radial†	-1370.6	-1362.3	[0.00]	ug/L	11:11:04
3	Sr 421.552†	16.9	16.8	[0.00]	ug/L	11:11:04
3	Sc 361.383	861476.1	861476.1	100.76	%	11:12:21
3	Y 371.029	738435.4	738435.4	100.85	%	11:12:21
3	Ag 328.068†	447.6	444.2	[0.00]	ug/L	11:12:21
3	As 188.979†	-53.8	-53.4	[0.00]	ug/L	11:12:41
3	B 249.677†	-830.0	-823.7	[0.00]	ug/L	11:12:21
3	Ba 233.527†	4.9	4.9	[0.00]	ug/L	11:12:41
3	Be 313.107†	-4404.1	-4371.0	[0.00]	ug/L	11:12:21
3	Cd 226.502†	-229.6	-227.9	[0.00]	ug/L	11:12:41
3	Co 228.616†	-97.0	-96.3	[0.00]	ug/L	11:12:41
3	Cr 267.716†	131.7	130.7	[0.00]	ug/L	11:12:21
3	Cu 324.752†	8170.5	8109.1	[0.00]	ug/L	11:12:21
3	Mn 257.610†	646.3	641.5	[0.00]	ug/L	11:12:21
3	Mo 202.031†	29.2	29.0	[0.00]	ug/L	11:12:41
3	Ni 231.604†	114.7	113.9	[0.00]	ug/L	11:12:41
3	P 214.914†	254.6	252.7	[0.00]	ug/L	11:12:41
3	Pb 220.353†	-68.8	-68.3	[0.00]	ug/L	11:12:41
3	S 181.975 Axial†	70.4	69.9	[0.00]	ug/L	11:12:41
3	Sb 206.836†	38.3	38.0	[0.00]	ug/L	11:12:41
3	Se 196.026†	-31.2	-30.9	[0.00]	ug/L	11:12:41
3	Si 251.611†	591.6	587.2	[0.00]	ug/L	11:12:41
3	Sn 189.927†	-1.2	-1.2	[0.00]	ug/L	11:12:41
3	Ti 334.940†	-1763.4	-1750.1	[0.00]	ug/L	11:12:21
3	Tl 190.801†	-38.7	-38.4	[0.00]	ug/L	11:12:41
3	U 409.014†	-2633.9	-2614.1	[0.00]	ug/L	11:12:21
3	V 292.402†	-1771.6	-1758.3	[0.00]	ug/L	11:12:21
3	Zn 213.857†	820.6	814.4	[0.00]	ug/L	11:12:41
3	SiO2†	613.1	608.5	[0.00]	ug/L	11:12:57

Mean Data: S0

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	855001.8	5743.52	0.67%	100.00	%
Sc Radial	4397.2	34.32	0.78%	100	%
Y 371.029	732212.9	5501.82	0.75%	100.00	%
Y RADIAL	4685.9	26.98	0.58%	100.0	%
Ag 328.068†	461.1	49.40	10.71%	[0.00]	ug/L
Al 396.153Radial†	0.3	8.89	>999.9%	[0.00]	ug/L
As 188.979†	-40.3	12.03	29.88%	[0.00]	ug/L
B 249.677†	-784.5	41.64	5.31%	[0.00]	ug/L
Ba 233.527†	-7.5	10.71	143.77%	[0.00]	ug/L
Be 313.107†	-4388.4	15.13	0.34%	[0.00]	ug/L
Ca 317.933Radial†	13.8	6.27	45.45%	[0.00]	ug/L
Cd 226.502†	-244.0	14.39	5.90%	[0.00]	ug/L
Co 228.616†	-99.9	4.68	4.68%	[0.00]	ug/L
Cr 267.716†	115.6	21.71	18.78%	[0.00]	ug/L
Cu 324.752†	8199.4	81.24	0.99%	[0.00]	ug/L
Fe 238.204 Radial†	9.5	1.33	14.01%	[0.00]	ug/L
K 766.490 Radial†	3126.9	42.41	1.36%	[0.00]	ug/L
Mg 279.077 IEC†	4.2	0.79	18.75%	[0.00]	ug/L
Mn 257.610†	632.6	8.11	1.28%	[0.00]	ug/L
Mo 202.031†	25.2	3.86	15.32%	[0.00]	ug/L
Na 589.592 Radial†	-1339.0	24.26	1.81%	[0.00]	ug/L
Ni 231.604†	126.9	15.27	12.03%	[0.00]	ug/L
P 214.914†	254.7	2.11	0.83%	[0.00]	ug/L
Pb 220.353†	-81.8	11.77	14.38%	[0.00]	ug/L
S 181.975 Axial†	67.9	2.27	3.35%	[0.00]	ug/L
Sb 206.836†	37.4	3.03	8.08%	[0.00]	ug/L
Se 196.026†	-33.1	2.36	7.11%	[0.00]	ug/L
Si 251.611†	585.9	1.14	0.19%	[0.00]	ug/L

Sn 189.927†	3.6	4.31	118.95%	[0.00]	ug/L
Sr 421.552†	-4.6	23.39	505.02%	[0.00]	ug/L
Ti 334.940†	-1715.9	46.69	2.72%	[0.00]	ug/L
Tl 190.801†	-43.2	4.46	10.33%	[0.00]	ug/L
U 409.014†	-2656.2	121.88	4.59%	[0.00]	ug/L
V 292.402†	-1748.7	48.32	2.76%	[0.00]	ug/L
Zn 213.857†	821.1	10.02	1.22%	[0.00]	ug/L
SiO2†	611.8	6.09	1.00%	[0.00]	ug/L

Sequence No.: 2
Sample ID: S0.1
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 2
Date Collected: 1/8/2010 11:15:07
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc Radial	4428.6	4428.6	101	%	11:17:04
1	Y RADIAL	4714.6	4714.6	100.6	%	11:17:04
1	K 766.490 Radial†	7781.3	4599.3	[1000]	ug/L	11:16:59
1	Sr 421.552†	13069.0	12981.1	[100]	ug/L	11:17:04
1	Sc 361.383	833997.8	833997.8	97.543	%	11:17:31
1	Y 371.029	725154.0	725154.0	99.036	%	11:17:31
1	Ag 328.068†	23418.3	23547.0	[100]	ug/L	11:17:31
1	As 188.979†	253.0	299.6	[100]	ug/L	11:17:51
1	B 249.677†	3853.1	4734.7	[100]	ug/L	11:17:31
1	Ba 233.527†	13568.5	13917.7	[100]	ug/L	11:17:31
1	Be 313.107†	291629.1	303362.1	[100]	ug/L	11:17:31
1	Cd 226.502†	10085.4	10583.4	[100]	ug/L	11:17:51
1	Co 228.616†	5193.3	5424.0	[100]	ug/L	11:17:51
1	Cr 267.716†	9916.7	10050.9	[100]	ug/L	11:17:31
1	Cu 324.752†	41261.3	34101.0	[100]	ug/L	11:17:31
1	Mn 257.610†	96264.4	98056.3	[100]	ug/L	11:17:31
1	Mo 202.031†	1604.9	1620.1	[100]	ug/L	11:17:51
1	Ni 231.604†	4672.1	4662.8	[100]	ug/L	11:17:51
1	P 214.914†	1260.9	1038.0	[500]	ug/L	11:17:51
1	Pb 220.353†	861.7	965.2	[100]	ug/L	11:17:51
1	S 181.975 Axial†	229.4	167.3	[200]	ug/L	11:17:51
1	Sb 206.836†	384.5	356.7	[100]	ug/L	11:17:51
1	Se 196.026†	164.0	201.2	[100]	ug/L	11:17:51
1	Si 251.611†	17621.1	17479.0	[500]	ug/L	11:17:31
1	Sn 189.927†	667.0	680.1	[100]	ug/L	11:17:51
1	Ti 334.940†	61245.8	64504.1	[100]	ug/L	11:17:31
1	Tl 190.801†	321.7	373.0	[100]	ug/L	11:17:51
1	U 409.014†	558.2	3228.4	[100]	ug/L	11:17:31
1	V 292.402†	13799.8	15896.0	[100]	ug/L	11:17:31
1	Zn 213.857†	12897.0	12400.7	[100]	ug/L	11:17:31
1	SiO2†	17790.4	17626.7	[1069.5]	ug/L	11:18:48
2	Sc Radial	4426.4	4426.4	101	%	11:17:14
2	Y RADIAL	4704.8	4704.8	100.4	%	11:17:14
2	K 766.490 Radial†	7769.2	4591.0	[1000]	ug/L	11:17:09
2	Sr 421.552†	13109.0	13026.9	[100]	ug/L	11:17:14
2	Sc 361.383	842101.5	842101.5	98.491	%	11:17:57
2	Y 371.029	733355.1	733355.1	100.16	%	11:17:57
2	Ag 328.068†	23713.8	23616.0	[100]	ug/L	11:17:57
2	As 188.979†	241.8	285.8	[100]	ug/L	11:18:17
2	B 249.677†	3961.7	4806.9	[100]	ug/L	11:17:57
2	Ba 233.527†	13719.5	13937.2	[100]	ug/L	11:17:57
2	Be 313.107†	295213.3	304124.1	[100]	ug/L	11:17:57
2	Cd 226.502†	10068.1	10466.3	[100]	ug/L	11:18:17
2	Co 228.616†	5184.2	5363.6	[100]	ug/L	11:18:17
2	Cr 267.716†	10047.8	10086.1	[100]	ug/L	11:17:57
2	Cu 324.752†	41881.1	34323.3	[100]	ug/L	11:17:57
2	Mn 257.610†	97314.5	98172.7	[100]	ug/L	11:17:57
2	Mo 202.031†	1611.4	1610.9	[100]	ug/L	11:18:17
2	Ni 231.604†	4666.9	4611.5	[100]	ug/L	11:18:17
2	P 214.914†	1253.8	1018.4	[500]	ug/L	11:18:17
2	Pb 220.353†	870.9	966.1	[100]	ug/L	11:18:17
2	S 181.975 Axial†	240.0	175.8	[200]	ug/L	11:18:17
2	Sb 206.836†	362.9	331.0	[100]	ug/L	11:18:17
2	Se 196.026†	169.9	205.7	[100]	ug/L	11:18:17
2	Si 251.611†	17860.8	17548.6	[500]	ug/L	11:17:57
2	Sn 189.927†	666.0	672.6	[100]	ug/L	11:18:17
2	Ti 334.940†	62126.7	64794.3	[100]	ug/L	11:17:57
2	Tl 190.801†	312.3	360.3	[100]	ug/L	11:18:17
2	U 409.014†	603.7	3269.2	[100]	ug/L	11:17:57

2	V 292.402†	13979.8	15942.7	[100]	ug/L	11:17:57
2	Zn 213.857†	12995.8	12373.7	[100]	ug/L	11:17:57
2	SiO2†	17675.3	17334.3	[1069.5]	ug/L	11:18:53
3	Sc Radial	4334.3	4334.3	98.6	%	11:17:24
3	Y RADIAL	4611.8	4611.8	98.42	%	11:17:24
3	K 766.490 Radial†	7776.9	4762.8	[1000]	ug/L	11:17:19
3	Sr 421.552†	12855.6	13046.7	[100]	ug/L	11:17:24
3	Sc 361.383	838619.1	838619.1	98.084	%	11:18:22
3	Y 371.029	729737.6	729737.6	99.662	%	11:18:22
3	Ag 328.068†	24035.0	24043.4	[100]	ug/L	11:18:22
3	As 188.979†	251.5	296.7	[100]	ug/L	11:18:42
3	B 249.677†	3984.7	4847.0	[100]	ug/L	11:18:22
3	Ba 233.527†	13873.6	14152.0	[100]	ug/L	11:18:22
3	Be 313.107†	298626.8	308848.9	[100]	ug/L	11:18:22
3	Cd 226.502†	10133.8	10575.8	[100]	ug/L	11:18:42
3	Co 228.616†	5200.2	5401.7	[100]	ug/L	11:18:42
3	Cr 267.716†	10186.0	10269.4	[100]	ug/L	11:18:22
3	Cu 324.752†	42404.3	35033.3	[100]	ug/L	11:18:22
3	Mn 257.610†	98333.1	99621.5	[100]	ug/L	11:18:22
3	Mo 202.031†	1617.5	1623.9	[100]	ug/L	11:18:42
3	Ni 231.604†	4665.7	4630.0	[100]	ug/L	11:18:42
3	P 214.914†	1259.7	1029.6	[500]	ug/L	11:18:42
3	Pb 220.353†	861.8	960.5	[100]	ug/L	11:18:42
3	S 181.975 Axial†	243.6	180.4	[200]	ug/L	11:18:42
3	Sb 206.836†	377.7	347.6	[100]	ug/L	11:18:42
3	Se 196.026†	166.1	202.4	[100]	ug/L	11:18:42
3	Si 251.611†	18062.5	17829.5	[500]	ug/L	11:18:22
3	Sn 189.927†	678.5	688.1	[100]	ug/L	11:18:42
3	Ti 334.940†	62781.0	65723.3	[100]	ug/L	11:18:22
3	Tl 190.801†	304.8	353.9	[100]	ug/L	11:18:42
3	U 409.014†	1024.0	3700.2	[100]	ug/L	11:18:22
3	V 292.402†	14186.0	16211.8	[100]	ug/L	11:18:22
3	Zn 213.857†	13121.9	12557.1	[100]	ug/L	11:18:22
3	SiO2†	17706.0	17440.1	[1069.5]	ug/L	11:18:58

Mean Data: S0.1

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	838239.4	4065.19	0.48%	98.039	%
Sc Radial	4396.4	53.82	1.22%	100.0	%
Y 371.029	729415.6	4110.01	0.56%	99.618	%
Y RADIAL	4677.1	56.75	1.21%	99.81	%
Ag 328.068†	23735.5	268.91	1.13%	[100]	ug/L
As 188.979†	294.0	7.28	2.48%	[100]	ug/L
B 249.677†	4796.2	56.92	1.19%	[100]	ug/L
Ba 233.527†	14002.3	130.04	0.93%	[100]	ug/L
Be 313.107†	305445.1	2972.37	0.97%	[100]	ug/L
Cd 226.502†	10541.8	65.50	0.62%	[100]	ug/L
Co 228.616†	5396.4	30.55	0.57%	[100]	ug/L
Cr 267.716†	10135.4	117.31	1.16%	[100]	ug/L
Cu 324.752†	34485.8	486.94	1.41%	[100]	ug/L
K 766.490 Radial†	4651.0	96.89	2.08%	[1000]	ug/L
Mn 257.610†	98616.8	872.04	0.88%	[100]	ug/L
Mo 202.031†	1618.3	6.71	0.41%	[100]	ug/L
Ni 231.604†	4634.8	26.01	0.56%	[100]	ug/L
P 214.914†	1028.6	9.84	0.96%	[500]	ug/L
Pb 220.353†	963.9	3.01	0.31%	[100]	ug/L
S 181.975 Axial†	174.5	6.69	3.83%	[200]	ug/L
Sb 206.836†	345.1	13.04	3.78%	[100]	ug/L
Se 196.026†	203.1	2.31	1.14%	[100]	ug/L
Si 251.611†	17619.0	185.56	1.05%	[500]	ug/L
Sn 189.927†	680.3	7.80	1.15%	[100]	ug/L
Sr 421.552†	13018.2	33.68	0.26%	[100]	ug/L
Ti 334.940†	65007.2	636.88	0.98%	[100]	ug/L
Tl 190.801†	362.4	9.72	2.68%	[100]	ug/L
U 409.014†	3399.3	261.43	7.69%	[100]	ug/L
V 292.402†	16016.8	170.46	1.06%	[100]	ug/L
Zn 213.857†	12443.9	99.01	0.80%	[100]	ug/L
SiO2†	17467.0	148.03	0.85%	[1069.5]	ug/L

Sequence No.: 3
Sample ID: S0.5
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 3
Date Collected: 1/8/2010 11:21:08
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc Radial	4383.4	4383.4	99.7	%	11:23:01
1	Y RADIAL	4647.2	4647.2	99.17	%	11:23:01
1	Al 396.153Radial†	5754.2	5772.0	[5000]	ug/L	11:23:01
1	Ca 317.933Radial†	2934.9	2930.3	[5000]	ug/L	11:23:21
1	K 766.490 Radial†	26732.9	23690.1	[5000]	ug/L	11:23:01
1	Mg 279.077 IEC†	156.6	152.9	[5000]	ug/L	11:23:21
1	Sr 421.552†	65450.4	65661.0	[500]	ug/L	11:23:01
1	Sc 361.383	877350.0	877350.0	102.61	%	11:24:20
1	Y 371.029	742812.1	742812.1	101.45	%	11:24:20
1	Ag 328.068†	116771.5	113336.0	[500]	ug/L	11:24:20
1	As 188.979†	1394.1	1398.8	[500]	ug/L	11:24:40
1	B 249.677†	23593.8	23777.3	[500]	ug/L	11:24:20
1	Ba 233.527†	68659.2	66917.7	[500]	ug/L	11:24:20
1	Be 313.107†	1517375.6	1483112.9	[500]	ug/L	11:24:20
1	Cd 226.502†	53261.4	52148.6	[500]	ug/L	11:24:20
1	Co 228.616†	26191.0	25623.8	[500]	ug/L	11:24:40
1	Cr 267.716†	49957.7	48569.5	[500]	ug/L	11:24:20
1	Cu 324.752†	178799.1	166045.3	[500]	ug/L	11:24:20
1	Mn 257.610†	482342.8	469423.8	[500]	ug/L	11:24:20
1	Mo 202.031†	7902.7	7676.2	[500]	ug/L	11:24:40
1	Ni 231.604†	22644.0	21940.3	[500]	ug/L	11:24:40
1	P 214.914†	5387.0	4995.1	[2500]	ug/L	11:24:40
1	Pb 220.353†	4728.7	4690.1	[500]	ug/L	11:24:40
1	S 181.975 Axial†	945.2	853.2	[1000]	ug/L	11:24:40
1	Sb 206.836†	1668.7	1588.8	[500]	ug/L	11:24:40
1	Se 196.026†	965.6	974.2	[500]	ug/L	11:24:40
1	Si 251.611†	88001.7	85174.2	[2500]	ug/L	11:24:20
1	Sn 189.927†	3318.2	3230.0	[500]	ug/L	11:24:40
1	Ti 334.940†	317487.2	311115.9	[500]	ug/L	11:24:20
1	Tl 190.801†	1769.3	1767.4	[500]	ug/L	11:24:40
1	U 409.014†	13783.5	16088.6	[500]	ug/L	11:24:20
1	V 292.402†	78104.0	77863.2	[500]	ug/L	11:24:20
1	Zn 213.857†	62622.6	60206.4	[500]	ug/L	11:24:20
1	SiO2†	88286.1	85425.5	[5347.5]	ug/L	11:25:40
2	Sc Radial	4468.8	4468.8	102	%	11:23:26
2	Y RADIAL	4755.9	4755.9	101.5	%	11:23:26
2	Al 396.153Radial†	5806.8	5713.4	[5000]	ug/L	11:23:26
2	Ca 317.933Radial†	2923.9	2863.2	[5000]	ug/L	11:23:46
2	K 766.490 Radial†	27260.8	23696.9	[5000]	ug/L	11:23:26
2	Mg 279.077 IEC†	156.3	149.6	[5000]	ug/L	11:23:46
2	Sr 421.552†	66680.3	65616.0	[500]	ug/L	11:23:26
2	Sc 361.383	878926.3	878926.3	102.80	%	11:24:47
2	Y 371.029	743845.7	743845.7	101.59	%	11:24:47
2	Ag 328.068†	116836.3	113194.9	[500]	ug/L	11:24:47
2	As 188.979†	1415.4	1417.1	[500]	ug/L	11:25:07
2	B 249.677†	23721.8	23860.5	[500]	ug/L	11:24:47
2	Ba 233.527†	68907.5	67039.3	[500]	ug/L	11:24:47
2	Be 313.107†	1521747.9	1484714.1	[500]	ug/L	11:24:47
2	Cd 226.502†	53564.8	52350.8	[500]	ug/L	11:24:47
2	Co 228.616†	26330.5	25713.7	[500]	ug/L	11:25:07
2	Cr 267.716†	50139.3	48658.9	[500]	ug/L	11:24:47
2	Cu 324.752†	178897.0	165828.0	[500]	ug/L	11:24:47
2	Mn 257.610†	483699.7	469900.8	[500]	ug/L	11:24:47
2	Mo 202.031†	7965.8	7723.8	[500]	ug/L	11:25:07
2	Ni 231.604†	22787.4	22040.3	[500]	ug/L	11:25:07
2	P 214.914†	5452.9	5049.8	[2500]	ug/L	11:25:07
2	Pb 220.353†	4778.7	4730.5	[500]	ug/L	11:25:07
2	S 181.975 Axial†	942.3	848.8	[1000]	ug/L	11:25:07
2	Sb 206.836†	1685.3	1602.0	[500]	ug/L	11:25:07

2	Se 196.026†	965.6	972.4	[500]	ug/L	11:25:07
2	Si 251.611†	88106.6	85122.4	[2500]	ug/L	11:24:47
2	Sn 189.927†	3348.9	3254.1	[500]	ug/L	11:25:07
2	Ti 334.940†	318095.1	311152.4	[500]	ug/L	11:24:47
2	Tl 190.801†	1782.6	1777.2	[500]	ug/L	11:25:07
2	U 409.014†	13696.3	15979.7	[500]	ug/L	11:24:47
2	V 292.402†	78383.1	77998.2	[500]	ug/L	11:24:47
2	Zn 213.857†	62797.8	60267.3	[500]	ug/L	11:24:47
2	SiO2†	87508.1	84514.3	[5347.5]	ug/L	11:25:45
3	Sc Radial	4409.3	4409.3	100	%	11:23:51
3	Y RADIAL	4666.3	4666.3	99.58	%	11:23:51
3	Al 396.153Radial†	5752.9	5736.8	[5000]	ug/L	11:23:51
3	Ca 317.933Radial†	2907.1	2885.3	[5000]	ug/L	11:24:11
3	K 766.490 Radial†	26822.8	23622.1	[5000]	ug/L	11:23:51
3	Mg 279.077 IEC†	151.7	147.0	[5000]	ug/L	11:24:11
3	Sr 421.552†	65504.5	65329.0	[500]	ug/L	11:23:51
3	Sc 361.383	869075.4	869075.4	101.65	%	11:25:15
3	Y 371.029	735774.2	735774.2	100.49	%	11:25:15
3	Ag 328.068†	115434.4	113104.0	[500]	ug/L	11:25:15
3	As 188.979†	1417.5	1434.8	[500]	ug/L	11:25:35
3	B 249.677†	23396.4	23802.0	[500]	ug/L	11:25:15
3	Ba 233.527†	67844.0	66752.8	[500]	ug/L	11:25:15
3	Be 313.107†	1500930.6	1481013.3	[500]	ug/L	11:25:15
3	Cd 226.502†	52604.1	51996.2	[500]	ug/L	11:25:15
3	Co 228.616†	26464.5	26135.9	[500]	ug/L	11:25:35
3	Cr 267.716†	49478.1	48561.3	[500]	ug/L	11:25:15
3	Cu 324.752†	176896.0	165831.9	[500]	ug/L	11:25:15
3	Mn 257.610†	476608.5	468257.9	[500]	ug/L	11:25:15
3	Mo 202.031†	8020.3	7865.2	[500]	ug/L	11:25:35
3	Ni 231.604†	22899.7	22402.0	[500]	ug/L	11:25:35
3	P 214.914†	5452.5	5109.6	[2500]	ug/L	11:25:35
3	Pb 220.353†	4774.8	4779.4	[500]	ug/L	11:25:35
3	S 181.975 Axial†	953.0	869.7	[1000]	ug/L	11:25:35
3	Sb 206.836†	1695.4	1630.5	[500]	ug/L	11:25:35
3	Se 196.026†	977.3	994.6	[500]	ug/L	11:25:35
3	Si 251.611†	86966.7	84972.5	[2500]	ug/L	11:25:15
3	Sn 189.927†	3356.9	3298.9	[500]	ug/L	11:25:35
3	Ti 334.940†	313988.8	310620.0	[500]	ug/L	11:25:15
3	Tl 190.801†	1790.9	1805.1	[500]	ug/L	11:25:35
3	U 409.014†	13533.9	15971.0	[500]	ug/L	11:25:15
3	V 292.402†	77356.2	77852.3	[500]	ug/L	11:25:15
3	Zn 213.857†	61797.6	59975.7	[500]	ug/L	11:25:15
3	SiO2†	86707.7	84691.7	[5347.5]	ug/L	11:25:51

Mean Data: S0.5

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	875117.2	5291.41	0.60%	102.35	%
Sc Radial	4420.5	43.80	0.99%	101	%
Y 371.029	740810.7	4392.24	0.59%	101.17	%
Y RADIAL	4689.8	58.06	1.24%	100.1	%
Ag 328.068†	113211.6	116.89	0.10%	[500]	ug/L
Al 396.153Radial†	5740.7	29.48	0.51%	[5000]	ug/L
As 188.979†	1416.9	17.97	1.27%	[500]	ug/L
B 249.677†	23813.3	42.75	0.18%	[500]	ug/L
Ba 233.527†	66903.3	143.78	0.21%	[500]	ug/L
Be 313.107†	1482946.8	1855.98	0.13%	[500]	ug/L
Ca 317.933Radial†	2892.9	34.20	1.18%	[5000]	ug/L
Cd 226.502†	52165.2	177.86	0.34%	[500]	ug/L
Co 228.616†	25824.4	273.43	1.06%	[500]	ug/L
Cr 267.716†	48596.6	54.15	0.11%	[500]	ug/L
Cu 324.752†	165901.7	124.34	0.07%	[500]	ug/L
K 766.490 Radial†	23669.7	41.33	0.17%	[5000]	ug/L
Mg 279.077 IEC†	149.8	2.93	1.96%	[5000]	ug/L
Mn 257.610†	469194.2	845.19	0.18%	[500]	ug/L
Mo 202.031†	7755.0	98.29	1.27%	[500]	ug/L
Ni 231.604†	22127.5	242.91	1.10%	[500]	ug/L
P 214.914†	5051.5	57.28	1.13%	[2500]	ug/L
Pb 220.353†	4733.3	44.70	0.94%	[500]	ug/L
S 181.975 Axial†	857.3	11.01	1.28%	[1000]	ug/L

Sb 206.836†	1607.1	21.32	1.33%	[500]	ug/L
Se 196.026†	980.4	12.33	1.26%	[500]	ug/L
Si 251.611†	85089.7	104.76	0.12%	[2500]	ug/L
Sn 189.927†	3261.0	34.94	1.07%	[500]	ug/L
Sr 421.552†	65535.3	180.10	0.27%	[500]	ug/L
Ti 334.940†	310962.8	297.40	0.10%	[500]	ug/L
Tl 190.801†	1783.2	19.53	1.10%	[500]	ug/L
U 409.014†	16013.1	65.56	0.41%	[500]	ug/L
V 292.402†	77904.6	81.26	0.10%	[500]	ug/L
Zn 213.857†	60149.8	153.81	0.26%	[500]	ug/L
SiO2†	84877.2	483.05	0.57%	[5347.5]	ug/L

Sequence No.: 4
Sample ID: SCAL
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 4
Date Collected: 1/8/2010 11:28:01
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: SCAL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc Radial	4320.1	4320.1	98.2	%	11:29:54
1	Y RADIAL	4568.0	4568.0	97.48	%	11:29:54
1	Al 396.153Radial†	11129.6	11327.7	[10000]	ug/L	11:29:54
1	Ca 317.933Radial†	5722.6	5810.8	[10000]	ug/L	11:29:54
1	Fe 238.204 Radial†	1005.7	1014.1	[10000]	ug/L	11:30:14
1	K 766.490 Radial†	49339.4	47092.3	[10000]	ug/L	11:29:54
1	Mg 279.077 IEC†	297.2	298.3	[10000]	ug/L	11:30:14
1	Na 589.592 Radial†	26383.0	28192.5	[10000]	ug/L	11:29:54
1	Sr 421.552†	125639.8	127884.8	[1000]	ug/L	11:29:54
1	Sc 361.383	843449.9	843449.9	98.649	%	11:31:18
1	Y 371.029	716720.4	716720.4	97.884	%	11:31:18
1	Ag 328.068†	230127.6	232818.4	[1000]	ug/L	11:31:18
1	As 188.979†	2773.0	2851.3	[1000]	ug/L	11:31:38
1	B 249.677†	47097.4	48526.9	[1000]	ug/L	11:31:18
1	Ba 233.527†	134106.0	135950.2	[1000]	ug/L	11:31:18
1	Be 313.107†	2966055.4	3011067.1	[1000]	ug/L	11:31:12
1	Cd 226.502†	103666.1	105329.8	[1000]	ug/L	11:31:18
1	Co 228.616†	52385.8	53203.2	[1000]	ug/L	11:31:18
1	Cr 267.716†	97762.8	98986.1	[1000]	ug/L	11:31:18
1	Cu 324.752†	342284.9	338773.4	[1000]	ug/L	11:31:18
1	Mn 257.610†	940923.8	953178.2	[1000]	ug/L	11:31:12
1	Mo 202.031†	15652.8	15842.0	[1000]	ug/L	11:31:38
1	Ni 231.604†	44954.5	45443.3	[1000]	ug/L	11:31:18
1	P 214.914†	10321.1	10207.7	[5000]	ug/L	11:31:38
1	Pb 220.353†	9302.0	9511.3	[1000]	ug/L	11:31:38
1	S 181.975 Axial†	1806.6	1763.5	[2000]	ug/L	11:31:38
1	Sb 206.836†	3312.6	3320.6	[1000]	ug/L	11:31:38
1	Se 196.026†	1909.6	1968.9	[1000]	ug/L	11:31:38
1	Si 251.611†	172162.2	173934.3	[5000]	ug/L	11:31:18
1	Sn 189.927†	6613.7	6700.7	[1000]	ug/L	11:31:38
1	Ti 334.940†	631376.5	641739.8	[1000]	ug/L	11:31:12
1	Tl 190.801†	3529.2	3620.7	[1000]	ug/L	11:31:38
1	U 409.014†	31026.6	34107.8	[1000]	ug/L	11:31:18
1	V 292.402†	155412.8	159290.1	[1000]	ug/L	11:31:18
1	Zn 213.857†	120221.4	121046.8	[1000]	ug/L	11:31:18
1	SiO2†	172856.8	174612.4	[10695]	ug/L	11:32:47
2	Sc Radial	4316.7	4316.7	98.2	%	11:30:19
2	Y RADIAL	4577.0	4577.0	97.68	%	11:30:19
2	Al 396.153Radial†	11180.1	11388.2	[10000]	ug/L	11:30:19
2	Ca 317.933Radial†	5739.8	5833.1	[10000]	ug/L	11:30:19
2	Fe 238.204 Radial†	1004.6	1013.8	[10000]	ug/L	11:30:39
2	K 766.490 Radial†	49385.7	47179.8	[10000]	ug/L	11:30:19
2	Mg 279.077 IEC†	293.8	295.1	[10000]	ug/L	11:30:39
2	Na 589.592 Radial†	26536.0	28369.8	[10000]	ug/L	11:30:19
2	Sr 421.552†	126057.4	128412.8	[1000]	ug/L	11:30:19
2	Sc 361.383	856358.7	856358.7	100.16	%	11:31:49
2	Y 371.029	727387.2	727387.2	99.341	%	11:31:49
2	Ag 328.068†	234266.9	233434.6	[1000]	ug/L	11:31:49
2	As 188.979†	2767.1	2803.0	[1000]	ug/L	11:32:10
2	B 249.677†	48225.7	48933.8	[1000]	ug/L	11:31:49
2	Ba 233.527†	136229.5	136021.1	[1000]	ug/L	11:31:49
2	Be 313.107†	2926049.5	2925801.5	[1000]	ug/L	11:31:44
2	Cd 226.502†	104906.4	104984.1	[1000]	ug/L	11:31:49
2	Co 228.616†	53188.4	53204.1	[1000]	ug/L	11:31:49
2	Cr 267.716†	98920.1	98647.7	[1000]	ug/L	11:31:49
2	Cu 324.752†	350359.8	341605.2	[1000]	ug/L	11:31:49
2	Mn 257.610†	929625.5	927519.9	[1000]	ug/L	11:31:44
2	Mo 202.031†	15635.3	15585.3	[1000]	ug/L	11:32:10
2	Ni 231.604†	45545.2	45346.1	[1000]	ug/L	11:31:49

2	P 214.914†	10355.8	10084.7	[5000]	ug/L	11:32:10
2	Pb 220.353†	9312.3	9379.4	[1000]	ug/L	11:32:10
2	S 181.975 Axial†	1796.5	1725.8	[2000]	ug/L	11:32:10
2	Sb 206.836†	3309.9	3267.2	[1000]	ug/L	11:32:10
2	Se 196.026†	1902.9	1933.0	[1000]	ug/L	11:32:10
2	Si 251.611†	175382.9	174519.2	[5000]	ug/L	11:31:49
2	Sn 189.927†	6588.0	6573.9	[1000]	ug/L	11:32:10
2	Ti 334.940†	623833.3	624560.7	[1000]	ug/L	11:31:44
2	Tl 190.801†	3531.8	3569.4	[1000]	ug/L	11:32:10
2	U 409.014†	31679.2	34285.2	[1000]	ug/L	11:31:49
2	V 292.402†	157836.2	159334.8	[1000]	ug/L	11:31:49
2	Zn 213.857†	122177.9	121163.2	[1000]	ug/L	11:31:49
2	SiO2†	171371.3	170488.0	[10695]	ug/L	11:32:52
3	Sc Radial	4363.3	4363.3	99.2	%	11:30:44
3	Y RADIAL	4637.4	4637.4	98.97	%	11:30:44
3	Al 396.153Radial†	11266.5	11353.7	[10000]	ug/L	11:30:44
3	Ca 317.933Radial†	5806.7	5838.0	[10000]	ug/L	11:30:44
3	Fe 238.204 Radial†	1000.9	999.2	[10000]	ug/L	11:31:04
3	K 766.490 Radial†	49976.3	47237.5	[10000]	ug/L	11:30:44
3	Mg 279.077 IEC†	295.0	293.0	[10000]	ug/L	11:31:04
3	Na 589.592 Radial†	26782.3	28329.2	[10000]	ug/L	11:30:44
3	Sr 421.552†	127282.0	128275.1	[1000]	ug/L	11:30:44
3	Sc 361.383	850035.6	850035.6	99.419	%	11:32:21
3	Y 371.029	722576.6	722576.6	98.684	%	11:32:21
3	Ag 328.068†	232106.3	233001.3	[1000]	ug/L	11:32:21
3	As 188.979†	2779.4	2835.9	[1000]	ug/L	11:32:41
3	B 249.677†	47759.3	48822.8	[1000]	ug/L	11:32:21
3	Ba 233.527†	135015.6	135811.9	[1000]	ug/L	11:32:21
3	Be 313.107†	2964695.2	2986404.5	[1000]	ug/L	11:32:16
3	Cd 226.502†	104407.5	105261.4	[1000]	ug/L	11:32:21
3	Co 228.616†	52675.2	53082.9	[1000]	ug/L	11:32:21
3	Cr 267.716†	98468.8	98928.5	[1000]	ug/L	11:32:21
3	Cu 324.752†	345801.7	339622.6	[1000]	ug/L	11:32:21
3	Mn 257.610†	940820.3	945684.4	[1000]	ug/L	11:32:16
3	Mo 202.031†	15609.2	15675.2	[1000]	ug/L	11:32:41
3	Ni 231.604†	45241.4	45378.8	[1000]	ug/L	11:32:21
3	P 214.914†	10320.0	10125.6	[5000]	ug/L	11:32:41
3	Pb 220.353†	9302.9	9439.1	[1000]	ug/L	11:32:41
3	S 181.975 Axial†	1801.9	1744.5	[2000]	ug/L	11:32:41
3	Sb 206.836†	3318.4	3300.4	[1000]	ug/L	11:32:41
3	Se 196.026†	1903.8	1948.1	[1000]	ug/L	11:32:41
3	Si 251.611†	173590.2	174018.5	[5000]	ug/L	11:32:21
3	Sn 189.927†	6593.8	6628.7	[1000]	ug/L	11:32:41
3	Ti 334.940†	631533.2	636938.7	[1000]	ug/L	11:32:16
3	Tl 190.801†	3523.7	3587.5	[1000]	ug/L	11:32:41
3	U 409.014†	31036.6	33874.1	[1000]	ug/L	11:32:21
3	V 292.402†	156783.1	159447.8	[1000]	ug/L	11:32:21
3	Zn 213.857†	121221.4	121108.6	[1000]	ug/L	11:32:21
3	SiO2†	172748.1	173145.5	[10695]	ug/L	11:32:58

Mean Data: SCAL

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	849948.1	6454.88	0.76%	99.409	%
Sc Radial	4333.4	25.97	0.60%	98.5	%
Y 371.029	722228.1	5341.95	0.74%	98.636	%
Y RADIAL	4594.2	37.73	0.82%	98.04	%
Ag 328.068†	233084.8	316.52	0.14%	[1000]	ug/L
Al 396.153Radial†	11356.5	30.36	0.27%	[10000]	ug/L
As 188.979†	2830.0	24.66	0.87%	[1000]	ug/L
B 249.677†	48761.2	210.34	0.43%	[1000]	ug/L
Ba 233.527†	135927.7	106.42	0.08%	[1000]	ug/L
Be 313.107†	2974424.4	43877.09	1.48%	[1000]	ug/L
Ca 317.933Radial†	5827.3	14.47	0.25%	[10000]	ug/L
Cd 226.502†	105191.8	183.10	0.17%	[1000]	ug/L
Co 228.616†	53163.4	69.74	0.13%	[1000]	ug/L
Cr 267.716†	98854.1	181.04	0.18%	[1000]	ug/L
Cu 324.752†	340000.4	1453.20	0.43%	[1000]	ug/L
Fe 238.204 Radial†	1009.1	8.53	0.84%	[10000]	ug/L
K 766.490 Radial†	47169.8	73.10	0.15%	[10000]	ug/L

Mg 279.077 IEC†	295.5	2.65	0.90%	[10000]	ug/L
Mn 257.610†	942127.5	13193.76	1.40%	[1000]	ug/L
Mo 202.031†	15700.8	130.26	0.83%	[1000]	ug/L
Na 589.592 Radial†	28297.2	92.93	0.33%	[10000]	ug/L
Ni 231.604†	45389.4	49.44	0.11%	[1000]	ug/L
P 214.914†	10139.3	62.66	0.62%	[5000]	ug/L
Pb 220.353†	9443.3	66.06	0.70%	[1000]	ug/L
S 181.975 Axial†	1744.6	18.87	1.08%	[2000]	ug/L
Sb 206.836†	3296.0	26.94	0.82%	[1000]	ug/L
Se 196.026†	1950.0	18.04	0.93%	[1000]	ug/L
Si 251.611†	174157.3	316.17	0.18%	[5000]	ug/L
Sn 189.927†	6634.4	63.56	0.96%	[1000]	ug/L
Sr 421.552†	128190.9	273.93	0.21%	[1000]	ug/L
Ti 334.940†	634413.1	8863.65	1.40%	[1000]	ug/L
Tl 190.801†	3592.5	26.04	0.72%	[1000]	ug/L
U 409.014†	34089.0	206.17	0.60%	[1000]	ug/L
V 292.402†	159357.6	81.29	0.05%	[1000]	ug/L
Zn 213.857†	121106.2	58.23	0.05%	[1000]	ug/L
SiO2†	172748.6	2090.67	1.21%	[10695]	ug/L

Sequence No.: 5
Sample ID: S10
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 5
Date Collected: 1/8/2010 11:35:09
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S10

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc Radial	4302.1	4302.1	97.8	%	11:37:22
1	Y RADIAL	4570.3	4570.3	97.53	%	11:37:22
1	Al 396.153Radial†	56371.4	57616.4	[50000]	ug/L	11:37:02
1	Ca 317.933Radial†	28409.1	29023.0	[50000]	ug/L	11:37:02
1	Fe 238.204 Radial†	1992.1	2026.6	[20000]	ug/L	11:37:22
1	Mg 279.077 IEC†	1433.0	1460.4	[50000]	ug/L	11:37:22
1	Na 589.592 Radial†	55944.5	58519.4	[20000]	ug/L	11:37:02
1	Sc 361.383	843837.0	843837.0	98.694	%	11:38:19
1	Y 371.029	710464.8	710464.8	97.030	%	11:38:19
2	Sc Radial	4278.2	4278.2	97.3	%	11:37:47
2	Y RADIAL	4536.1	4536.1	96.80	%	11:37:47
2	Al 396.153Radial†	56425.9	57994.2	[50000]	ug/L	11:37:27
2	Ca 317.933Radial†	28359.7	29134.3	[50000]	ug/L	11:37:27
2	Fe 238.204 Radial†	1981.0	2026.6	[20000]	ug/L	11:37:47
2	Mg 279.077 IEC†	1421.5	1456.8	[50000]	ug/L	11:37:47
2	Na 589.592 Radial†	55560.3	58443.9	[20000]	ug/L	11:37:27
2	Sc 361.383	853963.3	853963.3	99.879	%	11:38:25
2	Y 371.029	720016.2	720016.2	98.334	%	11:38:25
3	Sc Radial	4328.8	4328.8	98.4	%	11:38:12
3	Y RADIAL	4592.5	4592.5	98.01	%	11:38:12
3	Al 396.153Radial†	56345.4	57235.7	[50000]	ug/L	11:37:52
3	Ca 317.933Radial†	28445.9	28881.7	[50000]	ug/L	11:37:52
3	Fe 238.204 Radial†	1990.8	2012.8	[20000]	ug/L	11:38:12
3	Mg 279.077 IEC†	1431.0	1449.4	[50000]	ug/L	11:38:12
3	Na 589.592 Radial†	55641.6	57860.1	[20000]	ug/L	11:37:52
3	Sc 361.383	851572.5	851572.5	99.599	%	11:38:30
3	Y 371.029	717867.0	717867.0	98.041	%	11:38:30

Mean Data: S10

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	849790.9	5293.02	0.62%	99.391	%
Sc Radial	4303.0	25.27	0.59%	97.9	%
Y 371.029	716116.0	5010.65	0.70%	97.802	%
Y RADIAL	4566.3	28.41	0.62%	97.45	%
Al 396.153Radial†	57615.5	379.28	0.66%	[50000]	ug/L
Ca 317.933Radial†	29013.0	126.60	0.44%	[50000]	ug/L
Fe 238.204 Radial†	2022.0	7.98	0.39%	[20000]	ug/L
Mg 279.077 IEC†	1455.5	5.61	0.39%	[50000]	ug/L
Na 589.592 Radial†	58274.5	360.82	0.62%	[20000]	ug/L

Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 328.068	3	Lin Thru 0	0.0	231.8	0.00000	0.999932	
Al 396.153Radial	3	Lin Thru 0	0.0	1.152	0.00000	0.999996	
As 188.979	3	Lin Thru 0	0.0	2.832	0.00000	0.999994	
B 249.677	3	Lin Thru 0	0.0	48.53	0.00000	0.999956	
Ba 233.527	3	Lin Thru 0	0.0	135.5	0.00000	0.999976	
Be 313.107	3	Lin Thru 0	0.0	2973	0.00000	0.999996	
Ca 317.933Radial	3	Lin Thru 0	0.0	0.5803	0.00000	1.000000	
Cd 226.502	3	Lin Thru 0	0.0	105.0	0.00000	0.999995	
Co 228.616	3	Lin Thru 0	0.0	52.87	0.00000	0.999933	
Cr 267.716	3	Lin Thru 0	0.0	98.54	0.00000	0.999974	
Cu 324.752	3	Lin Thru 0	0.0	338.4	0.00000	0.999952	
Fe 238.204 Radia	2	Lin Thru 0	0.0	0.1011	0.00000	1.000000	
K 766.490 Radial	3	Lin Thru 0	0.0	4.720	0.00000	0.999998	

Mg 279.077 IEC	3	Lin Thru 0	0.0	0.0291	0.00000	0.999992
Mn 257.610	3	Lin Thru 0	0.0	941.7	0.00000	0.999990
Mo 202.031	3	Lin Thru 0	0.0	15.67	0.00000	0.999984
Na 589.592 Radia	2	Lin Thru 0	0.0	2.897	0.00000	0.999933
Ni 231.604	3	Lin Thru 0	0.0	45.17	0.00000	0.999947
P 214.914	3	Lin Thru 0	0.0	2.027	0.00000	0.999998
Pb 220.353	3	Lin Thru 0	0.0	9.449	0.00000	0.999998
S 181.975 Axial	3	Lin Thru 0	0.0	0.8693	0.00000	0.999976
Sb 206.836	3	Lin Thru 0	0.0	3.281	0.00000	0.999940
Se 196.026	3	Lin Thru 0	0.0	1.953	0.00000	0.999991
Si 251.611	3	Lin Thru 0	0.0	34.68	0.00000	0.999957
Sn 189.927	3	Lin Thru 0	0.0	6.613	0.00000	0.999974
Sr 421.552	3	Lin Thru 0	0.0	128.8	0.00000	0.999960
Ti 334.940	3	Lin Thru 0	0.0	632.1	0.00000	0.999966
Tl 190.801	3	Lin Thru 0	0.0	3.588	0.00000	0.999995
U 409.014	3	Lin Thru 0	0.0	33.68	0.00000	0.999702
V 292.402	3	Lin Thru 0	0.0	158.7	0.00000	0.999960
Zn 213.857	3	Lin Thru 0	0.0	121.0	0.00000	0.999993
SiO2	3	Lin Thru 0	0.0	16.10	0.00000	0.999975

Sequence No.: 6
Sample ID: ICV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 9
Date Collected: 1/8/2010 11:40:42
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4391.3	4391.3	99.9	%			11:42:35
1	Y RADIAL	4688.9	4688.9	100.1	%			11:42:35
1	Al 396.153Radial†	5699.8	5707.1	4932.6	ug/L	4932.6	ppb	11:42:35
1	Ca 317.933Radial†	2828.1	2818.1	4855.9	ug/L	4855.9	ppb	11:42:55
1	Fe 238.204 Radial†	505.8	497.0	4933.2	ug/L	4933.2	ppb	11:42:55
1	K 766.490 Radial†	14635.0	11527.7	2437.3	ug/L	2437.3	ppb	11:42:35
1	Mg 279.077 IEC†	154.1	150.1	5159.6	ug/L	5159.6	ppb	11:42:55
1	Na 589.592 Radial†	5635.8	6982.3	2410.3	ug/L	2410.3	ppb	11:42:35
1	Sr 421.552†	67025.1	67119.5	521.16	ug/L	521.16	ppb	11:42:35
1	Sc 361.383	864428.1	864428.1	101.10	%			11:43:52
1	Y 371.029	733086.4	733086.4	100.12	%			11:43:52
1	Ag 328.068†	58741.8	57640.1	251.76	ug/L	251.76	ppb	11:43:52
1	As 188.979†	1314.3	1340.2	477.44	ug/L	477.44	ppb	11:44:12
1	B 249.677†	23712.5	24238.4	497.54	ug/L	497.54	ppb	11:43:52
1	Ba 233.527†	67679.3	66948.8	495.18	ug/L	495.18	ppb	11:43:52
1	Be 313.107†	757088.4	753221.0	254.28	ug/L	254.28	ppb	11:43:52
1	Cd 226.502†	51256.4	50941.5	484.88	ug/L	484.88	ppb	11:43:52
1	Co 228.616†	26415.8	26227.6	496.44	ug/L	496.44	ppb	11:44:12
1	Cr 267.716†	47370.7	46738.5	475.09	ug/L	475.09	ppb	11:43:52
1	Cu 324.752†	176150.3	166030.0	490.87	ug/L	490.87	ppb	11:43:52
1	Mn 257.610†	477728.7	471886.7	501.48	ug/L	501.48	ppb	11:43:52
1	Mo 202.031†	8530.7	8412.5	537.43	ug/L	537.43	ppb	11:44:12
1	Ni 231.604†	22581.9	22208.7	491.33	ug/L	491.33	ppb	11:44:12
1	P 214.914†	5404.2	5090.6	2438.2	ug/L	2438.2	ppb	11:44:12
1	Pb 220.353†	4684.6	4715.4	500.65	ug/L	500.65	ppb	11:44:12
1	S 181.975 Axial†	2267.4	2174.8	2500.7	ug/L	2500.7	ppb	11:44:12
1	Sb 206.836†	1682.1	1626.3	504.96	ug/L	504.96	ppb	11:44:12
1	Se 196.026†	5001.9	4980.4	2568.1	ug/L	2568.1	ppb	11:44:12
1	Si 251.611†	164638.2	162257.0	4667.3	ug/L	4667.3	ppb	11:43:52
1	Sn 189.927†	3551.1	3508.7	531.11	ug/L	531.11	ppb	11:44:12
1	Ti 334.940†	308224.2	306579.0	484.92	ug/L	484.92	ppb	11:43:52
1	Tl 190.801†	1856.9	1879.9	527.11	ug/L	527.11	ppb	11:44:12
1	U 409.014†	13838.1	16343.4	483.73	ug/L	483.73	ppb	11:43:52
1	V 292.402†	77235.4	78141.9	499.78	ug/L	499.78	ppb	11:43:52
1	Zn 213.857†	61457.9	59966.6	491.55	ug/L	491.55	ppb	11:43:52
1	SiO2†	165734.3	163315.2	10119	ug/L	10119	ppb	11:45:10
2	Sc Radial	4482.5	4482.5	102	%			11:43:00
2	Y RADIAL	4722.6	4722.6	100.8	%			11:43:00
2	Al 396.153Radial†	5739.3	5629.6	4865.6	ug/L	4865.6	ppb	11:43:00
2	Ca 317.933Radial†	2821.9	2754.4	4746.2	ug/L	4746.2	ppb	11:43:20
2	Fe 238.204 Radial†	509.0	489.9	4862.5	ug/L	4862.5	ppb	11:43:20
2	K 766.490 Radial†	14792.8	11384.2	2406.8	ug/L	2406.8	ppb	11:43:00
2	Mg 279.077 IEC†	152.6	145.5	5000.9	ug/L	5000.9	ppb	11:43:20
2	Na 589.592 Radial†	5775.5	7004.5	2417.9	ug/L	2417.9	ppb	11:43:00
2	Sr 421.552†	68144.6	66851.6	519.08	ug/L	519.08	ppb	11:43:00
2	Sc 361.383	867528.4	867528.4	101.47	%			11:44:18
2	Y 371.029	736719.0	736719.0	100.62	%			11:44:18
2	Ag 328.068†	58892.6	57581.2	251.49	ug/L	251.49	ppb	11:44:18
2	As 188.979†	1308.6	1329.9	473.81	ug/L	473.81	ppb	11:44:38
2	B 249.677†	23749.1	24190.7	496.58	ug/L	496.58	ppb	11:44:18
2	Ba 233.527†	68037.1	67062.1	496.01	ug/L	496.01	ppb	11:44:18
2	Be 313.107†	761782.6	755171.3	254.93	ug/L	254.93	ppb	11:44:18
2	Cd 226.502†	51610.4	51109.1	486.48	ug/L	486.48	ppb	11:44:18
2	Co 228.616†	26309.2	26029.3	492.68	ug/L	492.68	ppb	11:44:38
2	Cr 267.716†	47665.5	46861.6	476.34	ug/L	476.34	ppb	11:44:18
2	Cu 324.752†	176193.4	165449.9	489.15	ug/L	489.15	ppb	11:44:18
2	Mn 257.610†	480159.5	472593.7	502.22	ug/L	502.22	ppb	11:44:18
2	Mo 202.031†	8496.5	8348.6	533.35	ug/L	533.35	ppb	11:44:38
2	Ni 231.604†	22533.6	22081.3	488.51	ug/L	488.51	ppb	11:44:38

2	P 214.914†	5390.3	5057.8	2422.3 ug/L	2422.3 ppb	11:44:38
2	Pb 220.353†	4656.6	4671.3	495.96 ug/L	495.96 ppb	11:44:38
2	S 181.975 Axial†	2233.8	2133.7	2453.5 ug/L	2453.5 ppb	11:44:38
2	Sb 206.836†	1671.3	1609.8	499.79 ug/L	499.79 ppb	11:44:38
2	Se 196.026†	4992.5	4953.5	2554.0 ug/L	2554.0 ppb	11:44:38
2	Si 251.611†	165031.8	162063.0	4661.8 ug/L	4661.8 ppb	11:44:18
2	Sn 189.927†	3561.5	3506.4	530.76 ug/L	530.76 ppb	11:44:38
2	Ti 334.940†	309196.6	306447.9	484.71 ug/L	484.71 ppb	11:44:18
2	Tl 190.801†	1858.9	1875.2	525.83 ug/L	525.83 ppb	11:44:38
2	U 409.014†	13713.3	16171.5	478.64 ug/L	478.64 ppb	11:44:18
2	V 292.402†	77755.5	78381.5	501.22 ug/L	501.22 ppb	11:44:18
2	Zn 213.857†	61798.2	60084.8	492.55 ug/L	492.55 ppb	11:44:18
2	SiO2†	164962.1	161968.4	10036 ug/L	10036 ppb	11:45:15
3	Sc Radial	4326.0	4326.0	98.4 %		11:43:25
3	Y RADIAL	4651.9	4651.9	99.27 %		11:43:25
3	Al 396.153Radial†	5635.3	5727.7	4951.1 ug/L	4951.1 ppb	11:43:25
3	Ca 317.933Radial†	2860.3	2893.5	4986.0 ug/L	4986.0 ppb	11:43:45
3	Fe 238.204 Radial†	513.6	512.6	5087.1 ug/L	5087.1 ppb	11:43:45
3	K 766.490 Radial†	14606.3	11719.8	2477.9 ug/L	2477.9 ppb	11:43:25
3	Mg 279.077 IEC†	151.9	150.1	5159.4 ug/L	5159.4 ppb	11:43:45
3	Na 589.592 Radial†	5490.3	6919.7	2388.6 ug/L	2388.6 ppb	11:43:25
3	Sr 421.552†	66638.3	67739.7	525.97 ug/L	525.97 ppb	11:43:25
3	Sc 361.383	879094.7	879094.7	102.82 %		11:44:44
3	Y 371.029	746107.5	746107.5	101.90 %		11:44:44
3	Ag 328.068†	59793.9	57694.1	252.04 ug/L	252.04 ppb	11:44:44
3	As 188.979†	1311.8	1316.1	468.97 ug/L	468.97 ppb	11:45:04
3	B 249.677†	24251.1	24371.0	500.29 ug/L	500.29 ppb	11:44:44
3	Ba 233.527†	68925.6	67044.0	495.88 ug/L	495.88 ppb	11:44:44
3	Be 313.107†	771727.9	754966.0	254.86 ug/L	254.86 ppb	11:44:44
3	Cd 226.502†	52173.7	50987.8	485.29 ug/L	485.29 ppb	11:44:44
3	Co 228.616†	26091.8	25476.6	482.19 ug/L	482.19 ppb	11:45:04
3	Cr 267.716†	48199.6	46763.0	475.34 ug/L	475.34 ppb	11:44:44
3	Cu 324.752†	179238.5	166126.8	491.16 ug/L	491.16 ppb	11:44:44
3	Mn 257.610†	486415.1	472451.6	502.09 ug/L	502.09 ppb	11:44:44
3	Mo 202.031†	8447.4	8190.6	523.29 ug/L	523.29 ppb	11:45:04
3	Ni 231.604†	22349.1	21609.7	478.08 ug/L	478.08 ppb	11:45:04
3	P 214.914†	5341.5	4940.4	2363.8 ug/L	2363.8 ppb	11:45:04
3	Pb 220.353†	4651.4	4605.8	489.01 ug/L	489.01 ppb	11:45:04
3	S 181.975 Axial†	2221.4	2092.7	2406.3 ug/L	2406.3 ppb	11:45:04
3	Sb 206.836†	1662.6	1579.6	490.19 ug/L	490.19 ppb	11:45:04
3	Se 196.026†	4927.0	4825.1	2489.0 ug/L	2489.0 ppb	11:45:04
3	Si 251.611†	167366.7	162193.9	4665.7 ug/L	4665.7 ppb	11:44:44
3	Sn 189.927†	3528.7	3428.4	518.98 ug/L	518.98 ppb	11:45:04
3	Ti 334.940†	313869.5	306983.4	485.56 ug/L	485.56 ppb	11:44:44
3	Tl 190.801†	1843.1	1835.8	514.90 ug/L	514.90 ppb	11:45:04
3	U 409.014†	14258.1	16523.5	489.06 ug/L	489.06 ppb	11:44:44
3	V 292.402†	78665.1	78257.9	500.29 ug/L	500.29 ppb	11:44:44
3	Zn 213.857†	62591.7	60055.2	492.35 ug/L	492.35 ppb	11:44:44
3	SiO2†	168068.5	162850.5	10091 ug/L	10091 ppb	11:45:20

Mean Data: ICV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	870350.4	101.80	%	0.904				0.89%
Sc Radial	4399.9	100	%	1.8				1.79%
Y 371.029	738637.6	100.88	%	0.918				0.91%
Y RADIAL	4687.8	100.0	%	0.76				0.75%
Ag 328.068†	57638.5	251.76	ug/L	0.273	251.76	ppb	0.273	0.11%
QC value within limits for Ag 328.068 Recovery = 100.71%								
Al 396.153Radial†	5688.1	4916.4	ug/L	45.02	4916.4	ppb	45.02	0.92%
QC value within limits for Al 396.153Radial Recovery = 98.33%								
As 188.979†	1328.7	473.41	ug/L	4.249	473.41	ppb	4.249	0.90%
QC value within limits for As 188.979 Recovery = 94.68%								
B 249.677†	24266.7	498.14	ug/L	1.926	498.14	ppb	1.926	0.39%
QC value within limits for B 249.677 Recovery = 99.63%								
Ba 233.527†	67018.3	495.69	ug/L	0.451	495.69	ppb	0.451	0.09%
QC value within limits for Ba 233.527 Recovery = 99.14%								
Be 313.107†	754452.8	254.69	ug/L	0.361	254.69	ppb	0.361	0.14%
QC value within limits for Be 313.107 Recovery = 101.88%								
Ca 317.933Radial†	2822.0	4862.7	ug/L	120.02	4862.7	ppb	120.02	2.47%

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   QC value within limits for Ca 317.933Radial  Recovery = 97.25%
Cd 226.502†            51012.8      485.55 ug/L         0.831      485.55 ppb          0.831   0.17%
   QC value within limits for Cd 226.502  Recovery = 97.11%
Co 228.616†            25911.2      490.44 ug/L         7.383      490.44 ppb          7.383   1.51%
   QC value within limits for Co 228.616  Recovery = 98.09%
Cr 267.716†            46787.7      475.59 ug/L         0.662      475.59 ppb          0.662   0.14%
   QC value within limits for Cr 267.716  Recovery = 95.12%
Cu 324.752†           165868.9      490.39 ug/L         1.087      490.39 ppb          1.087   0.22%
   QC value within limits for Cu 324.752  Recovery = 98.08%
Fe 238.204 Radial†       499.8      4961.0 ug/L        114.84      4961.0 ppb         114.84   2.31%
   QC value within limits for Fe 238.204 Radial  Recovery = 99.22%
K 766.490 Radial†      11543.9      2440.7 ug/L         35.66      2440.7 ppb          35.66   1.46%
   QC value within limits for K 766.490 Radial  Recovery = 97.63%
Mg 279.077 IEC†          148.6      5106.6 ug/L         91.56      5106.6 ppb          91.56   1.79%
   QC value within limits for Mg 279.077 IEC  Recovery = 102.13%
Mn 257.610†           472310.7      501.93 ug/L         0.399      501.93 ppb          0.399   0.08%
   QC value within limits for Mn 257.610  Recovery = 100.39%
Mo 202.031†             8317.2      531.36 ug/L         7.279      531.36 ppb          7.279   1.37%
   QC value within limits for Mo 202.031  Recovery = 106.27%
Na 589.592 Radial†      6968.9      2405.6 ug/L         15.19      2405.6 ppb          15.19   0.63%
   QC value within limits for Na 589.592 Radial  Recovery = 96.22%
Ni 231.604†            21966.6      485.98 ug/L         6.981      485.98 ppb          6.981   1.44%
   QC value within limits for Ni 231.604  Recovery = 97.20%
P 214.914†              5029.6      2408.1 ug/L         39.20      2408.1 ppb          39.20   1.63%
   QC value within limits for P 214.914  Recovery = 96.32%
Pb 220.353†             4664.2      495.21 ug/L         5.858      495.21 ppb          5.858   1.18%
   QC value within limits for Pb 220.353  Recovery = 99.04%
S 181.975 Axial†        2133.7      2453.5 ug/L         47.23      2453.5 ppb          47.23   1.92%
   QC value within limits for S 181.975 Axial  Recovery = 98.14%
Sb 206.836†             1605.2      498.31 ug/L         7.495      498.31 ppb          7.495   1.50%
   QC value within limits for Sb 206.836  Recovery = 99.66%
Se 196.026†             4919.7      2537.0 ug/L         42.21      2537.0 ppb          42.21   1.66%
   QC value within limits for Se 196.026  Recovery = 101.48%
Si 251.611†           162171.3      4664.9 ug/L          2.84      4664.9 ppb           2.84   0.06%
   QC value within limits for Si 251.611  Recovery = 93.30%
Sn 189.927†             3481.2      526.95 ug/L         6.905      526.95 ppb          6.905   1.31%
   QC value within limits for Sn 189.927  Recovery = 105.39%
Sr 421.552†            67237.0      522.07 ug/L         3.536      522.07 ppb          3.536   0.68%
   QC value within limits for Sr 421.552  Recovery = 104.41%
Ti 334.940†           306670.1      485.06 ug/L         0.446      485.06 ppb          0.446   0.09%
   QC value within limits for Ti 334.940  Recovery = 97.01%
Tl 190.801†             1863.6      522.62 ug/L         6.709      522.62 ppb          6.709   1.28%
   QC value within limits for Tl 190.801  Recovery = 104.52%
U 409.014†             16346.1      483.81 ug/L         5.214      483.81 ppb          5.214   1.08%
   QC value within limits for U 409.014  Recovery = 96.76%
V 292.402†             78260.4      500.43 ug/L         0.735      500.43 ppb          0.735   0.15%
   QC value within limits for V 292.402  Recovery = 100.09%
Zn 213.857†            60035.5      492.15 ug/L         0.533      492.15 ppb          0.533   0.11%
   QC value within limits for Zn 213.857  Recovery = 98.43%
SiO2†                 162711.4       10082 ug/L          42.5       10082 ppb           42.5   0.42%
   QC value within limits for SiO2  Recovery = 94.27%
All analyte(s) passed QC.
```

Sequence No.: 7
Sample ID: ICB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 10
Date Collected: 1/8/2010 11:47:32
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4455.3	4455.3	101	%			11:49:24
1	Y RADIAL	4716.5	4716.5	100.7	%			11:49:24
1	Al 396.153Radial†	-4.7	-5.0	-4.3771	ug/L	-4.3771	ppb	11:49:24
1	Ca 317.933Radial†	7.6	-6.3	-10.895	ug/L	-10.895	ppb	11:49:44
1	Fe 238.204 Radial†	10.1	0.5	5.1830	ug/L	5.1830	ppb	11:49:44
1	K 766.490 Radial†	3223.1	54.1	11.465	ug/L	11.465	ppb	11:49:24
1	Mg 279.077 IEC†	3.2	-1.0	-35.357	ug/L	-35.357	ppb	11:49:44
1	Na 589.592 Radial†	-1396.6	-39.4	-13.615	ug/L	-13.615	ppb	11:49:24
1	Sr 421.552†	-6.0	-1.3	-0.0100	ug/L	-0.0100	ppb	11:49:24
1	Sc 361.383	839595.4	839595.4	98.198	%			11:50:41
1	Y 371.029	733246.4	733246.4	100.14	%			11:50:41
1	Ag 328.068†	389.8	-64.1	-0.2733	ug/L	-0.2733	ppb	11:50:41
1	As 188.979†	-36.7	2.9	1.0049	ug/L	1.0049	ppb	11:51:01
1	B 249.677†	-486.7	288.9	5.9515	ug/L	5.9515	ppb	11:50:41
1	Ba 233.527†	17.1	24.8	0.1828	ug/L	0.1828	ppb	11:51:01
1	Be 313.107†	-4414.4	-107.1	-0.0364	ug/L	-0.0364	ppb	11:50:41
1	Cd 226.502†	-252.5	-13.1	-0.1255	ug/L	-0.1255	ppb	11:51:01
1	Co 228.616†	-88.8	9.5	0.1808	ug/L	0.1808	ppb	11:51:01
1	Cr 267.716†	111.4	-2.2	-0.0216	ug/L	-0.0216	ppb	11:50:41
1	Cu 324.752†	8106.1	55.4	0.1639	ug/L	0.1639	ppb	11:50:41
1	Mn 257.610†	646.8	26.1	0.0289	ug/L	0.0289	ppb	11:50:41
1	Mo 202.031†	29.6	5.0	0.3167	ug/L	0.3167	ppb	11:51:01
1	Ni 231.604†	133.4	9.0	0.1989	ug/L	0.1989	ppb	11:51:01
1	P 214.914†	257.9	8.0	3.9099	ug/L	3.9099	ppb	11:51:01
1	Pb 220.353†	-93.9	-13.8	-1.4632	ug/L	-1.4632	ppb	11:51:01
1	S 181.975 Axial†	61.7	-5.1	-5.8270	ug/L	-5.8270	ppb	11:51:01
1	Sb 206.836†	42.4	5.7	1.7583	ug/L	1.7583	ppb	11:51:01
1	Se 196.026†	-28.8	3.8	1.9610	ug/L	1.9610	ppb	11:51:01
1	Si 251.611†	624.1	49.7	1.4218	ug/L	1.4218	ppb	11:51:01
1	Sn 189.927†	6.4	2.9	0.4407	ug/L	0.4407	ppb	11:51:01
1	Ti 334.940†	-1800.9	-118.1	-0.1862	ug/L	-0.1862	ppb	11:50:41
1	Tl 190.801†	-56.0	-13.8	-3.8512	ug/L	-3.8512	ppb	11:51:01
1	U 409.014†	-2694.9	-88.2	-2.6195	ug/L	-2.6195	ppb	11:50:41
1	V 292.402†	-1753.5	-37.0	-0.2350	ug/L	-0.2350	ppb	11:50:41
1	Zn 213.857†	819.3	13.2	0.1087	ug/L	0.1087	ppb	11:51:01
1	SiO2†	635.5	35.4	2.1753	ug/L	2.1753	ppb	11:51:58
2	Sc Radial	4434.3	4434.3	101	%			11:49:49
2	Y RADIAL	4689.8	4689.8	100.1	%			11:49:49
2	Al 396.153Radial†	-25.3	-25.4	-22.100	ug/L	-22.100	ppb	11:49:49
2	Ca 317.933Radial†	11.2	-2.7	-4.7237	ug/L	-4.7237	ppb	11:50:10
2	Fe 238.204 Radial†	12.9	3.3	32.909	ug/L	32.909	ppb	11:50:10
2	K 766.490 Radial†	3187.4	33.8	7.1659	ug/L	7.1659	ppb	11:49:49
2	Mg 279.077 IEC†	1.0	-3.3	-112.03	ug/L	-112.03	ppb	11:50:10
2	Na 589.592 Radial†	-1379.3	-28.8	-9.9393	ug/L	-9.9393	ppb	11:49:49
2	Sr 421.552†	27.5	31.9	0.2477	ug/L	0.2477	ppb	11:49:49
2	Sc 361.383	847924.6	847924.6	99.172	%			11:51:07
2	Y 371.029	743075.8	743075.8	101.48	%			11:51:07
2	Ag 328.068†	408.4	-49.3	-0.1972	ug/L	-0.1972	ppb	11:51:07
2	As 188.979†	-32.5	7.5	2.6499	ug/L	2.6499	ppb	11:51:27
2	B 249.677†	-442.2	338.6	6.9730	ug/L	6.9730	ppb	11:51:07
2	Ba 233.527†	9.0	16.6	0.1235	ug/L	0.1235	ppb	11:51:27
2	Be 313.107†	-4320.5	31.8	0.0104	ug/L	0.0104	ppb	11:51:07
2	Cd 226.502†	-247.3	-5.4	-0.0549	ug/L	-0.0549	ppb	11:51:27
2	Co 228.616†	-94.3	4.8	0.0915	ug/L	0.0915	ppb	11:51:27
2	Cr 267.716†	129.9	15.4	0.1586	ug/L	0.1586	ppb	11:51:07
2	Cu 324.752†	8325.4	195.5	0.5794	ug/L	0.5794	ppb	11:51:07
2	Mn 257.610†	646.5	19.3	0.0259	ug/L	0.0259	ppb	11:51:07
2	Mo 202.031†	25.9	0.9	0.0584	ug/L	0.0584	ppb	11:51:27
2	Ni 231.604†	123.7	-2.2	-0.0490	ug/L	-0.0490	ppb	11:51:27

2	P 214.914†	256.2	3.7	1.6824 ug/L	1.6824 ppb	11:51:27
2	Pb 220.353†	-75.9	5.3	0.5582 ug/L	0.5582 ppb	11:51:27
2	S 181.975 Axial†	61.5	-5.9	-6.7581 ug/L	-6.7581 ppb	11:51:27
2	Sb 206.836†	48.1	11.1	3.3698 ug/L	3.3698 ppb	11:51:27
2	Se 196.026†	-22.7	10.2	5.3402 ug/L	5.3402 ppb	11:51:27
2	Si 251.611†	601.8	21.0	0.6043 ug/L	0.6043 ppb	11:51:27
2	Sn 189.927†	-1.2	-4.9	-0.7335 ug/L	-0.7335 ppb	11:51:27
2	Ti 334.940†	-1793.7	-92.8	-0.1454 ug/L	-0.1454 ppb	11:51:07
2	Tl 190.801†	-58.7	-16.0	-4.4516 ug/L	-4.4516 ppb	11:51:27
2	U 409.014†	-2768.5	-135.4	-4.0251 ug/L	-4.0251 ppb	11:51:07
2	V 292.402†	-1698.3	36.2	0.2137 ug/L	0.2137 ppb	11:51:07
2	Zn 213.857†	844.8	30.8	0.2562 ug/L	0.2562 ppb	11:51:27
2	SiO2†	619.7	13.0	0.8079 ug/L	0.8079 ppb	11:52:03
3	Sc Radial	4452.7	4452.7	101 %		11:50:15
3	Y RADIAL	4748.9	4748.9	101.3 %		11:50:15
3	Al 396.153Radial†	3.2	2.8	2.4093 ug/L	2.4093 ppb	11:50:15
3	Ca 317.933Radial†	13.0	-0.9	-1.6008 ug/L	-1.6008 ppb	11:50:35
3	Fe 238.204 Radial†	11.6	2.0	19.576 ug/L	19.576 ppb	11:50:35
3	K 766.490 Radial†	3122.9	-43.0	-9.0909 ug/L	-9.0909 ppb	11:50:15
3	Mg 279.077 IEC†	6.6	2.3	78.526 ug/L	78.526 ppb	11:50:35
3	Na 589.592 Radial†	-1398.1	-41.7	-14.393 ug/L	-14.393 ppb	11:50:15
3	Sr 421.552†	-17.4	-12.6	-0.0978 ug/L	-0.0978 ppb	11:50:15
3	Sc 361.383	847318.4	847318.4	99.101 %		11:51:32
3	Y 371.029	742602.9	742602.9	101.42 %		11:51:32
3	Ag 328.068†	600.6	144.9	0.6322 ug/L	0.6322 ppb	11:51:32
3	As 188.979†	-41.2	-1.3	-0.4677 ug/L	-0.4677 ppb	11:51:52
3	B 249.677†	-472.6	307.6	6.3351 ug/L	6.3351 ppb	11:51:32
3	Ba 233.527†	11.1	18.6	0.1369 ug/L	0.1369 ppb	11:51:52
3	Be 313.107†	-4452.1	-104.1	-0.0352 ug/L	-0.0352 ppb	11:51:32
3	Cd 226.502†	-236.8	5.1	0.0464 ug/L	0.0464 ppb	11:51:52
3	Co 228.616†	-75.2	24.0	0.4569 ug/L	0.4569 ppb	11:51:52
3	Cr 267.716†	96.6	-18.1	-0.1835 ug/L	-0.1835 ppb	11:51:32
3	Cu 324.752†	8297.8	173.6	0.5141 ug/L	0.5141 ppb	11:51:32
3	Mn 257.610†	551.9	-75.6	-0.0798 ug/L	-0.0798 ppb	11:51:32
3	Mo 202.031†	37.1	12.2	0.7828 ug/L	0.7828 ppb	11:51:52
3	Ni 231.604†	142.0	16.4	0.3626 ug/L	0.3626 ppb	11:51:52
3	P 214.914†	245.2	-7.3	-3.6838 ug/L	-3.6838 ppb	11:51:52
3	Pb 220.353†	-91.0	-9.9	-1.0510 ug/L	-1.0510 ppb	11:51:52
3	S 181.975 Axial†	67.7	0.4	0.5166 ug/L	0.5166 ppb	11:51:52
3	Sb 206.836†	42.7	5.6	1.7527 ug/L	1.7527 ppb	11:51:52
3	Se 196.026†	-30.3	2.6	1.3927 ug/L	1.3927 ppb	11:51:52
3	Si 251.611†	609.0	28.6	0.8107 ug/L	0.8107 ppb	11:51:52
3	Sn 189.927†	10.9	7.3	1.1089 ug/L	1.1089 ppb	11:51:52
3	Ti 334.940†	-1748.2	-48.2	-0.0751 ug/L	-0.0751 ppb	11:51:32
3	Tl 190.801†	-46.9	-4.1	-1.1442 ug/L	-1.1442 ppb	11:51:52
3	U 409.014†	-2726.1	-94.6	-2.8115 ug/L	-2.8115 ppb	11:51:32
3	V 292.402†	-1815.5	-83.2	-0.5197 ug/L	-0.5197 ppb	11:51:32
3	Zn 213.857†	833.6	20.0	0.1590 ug/L	0.1590 ppb	11:51:52
3	SiO2†	627.2	21.1	1.2806 ug/L	1.2806 ppb	11:52:08

Mean Data: ICB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	844946.1	98.824	%	0.5431				0.55%
Sc Radial	4447.4	101	%	0.3				0.26%
Y 371.029	739641.7	101.01	%	0.757				0.75%
Y RADIAL	4718.4	100.7	%	0.63				0.63%
Ag 328.068†	10.5	0.0539	ug/L	0.50224	0.0539	ppb	0.50224	931.89%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-9.2	-8.0226	ug/L	12.65479	-8.0226	ppb	12.65479	157.74%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	3.0	1.0624	ug/L	1.55955	1.0624	ppb	1.55955	146.80%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	311.7	6.4199	ug/L	0.51598	6.4199	ppb	0.51598	8.04%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	20.0	0.1477	ug/L	0.03108	0.1477	ppb	0.03108	21.04%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-59.8	-0.0204	ug/L	0.02667	-0.0204	ppb	0.02667	130.93%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-3.3	-5.7398	ug/L	4.72967	-5.7398	ppb	4.72967	82.40%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                -4.5     -0.0447 ug/L       0.08643     -0.0447 ppb        0.08643 193.42%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                12.8      0.2431 ug/L       0.19048      0.2431 ppb        0.19048  78.37%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                -1.6     -0.0155 ug/L       0.17113     -0.0155 ppb        0.17113 >999.9%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               141.5      0.4191 ug/L       0.22343      0.4191 ppb        0.22343  53.31%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          1.9     19.222 ug/L       13.8663     19.222 ppb        13.8663  72.14%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          15.0      3.1799 ug/L      10.84203      3.1799 ppb       10.84203 340.96%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -0.7    -22.954 ug/L       95.8830    -22.954 ppb        95.8830 417.71%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               -10.1     -0.0084 ug/L       0.06192     -0.0084 ppb        0.06192 740.61%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 6.0      0.3860 ug/L       0.36712      0.3860 ppb        0.36712  95.12%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        -36.6    -12.649 ug/L        2.3786    -12.649 ppb         2.3786  18.80%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                 7.7      0.1708 ug/L       0.20720      0.1708 ppb        0.20720 121.28%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                  1.5      0.6362 ug/L       3.90347      0.6362 ppb        3.90347 613.59%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -6.1     -0.6520 ug/L       1.06810     -0.6520 ppb        1.06810 163.82%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -3.5     -4.0228 ug/L       3.95873     -4.0228 ppb        3.95873  98.41%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 7.5      2.2936 ug/L       0.93204      2.2936 ppb        0.93204  40.64%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 5.5      2.8980 ug/L       2.13404      2.8980 ppb        2.13404  73.64%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                33.1      0.9456 ug/L       0.42514      0.9456 ppb        0.42514  44.96%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 1.8      0.2720 ug/L       0.93270      0.2720 ppb        0.93270 342.90%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                 6.0      0.0466 ug/L       0.17954      0.0466 ppb        0.17954 384.96%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               -86.4     -0.1356 ug/L       0.05623     -0.1356 ppb        0.05623  41.48%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               -11.3     -3.1490 ug/L       1.76196     -3.1490 ppb        1.76196  55.95%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -106.1     -3.1520 ug/L       0.76220     -3.1520 ppb        0.76220  24.18%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               -28.0     -0.1803 ug/L       0.36975     -0.1803 ppb        0.36975 205.04%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                21.3      0.1746 ug/L       0.07499      0.1746 ppb        0.07499  42.94%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                      23.2      1.4213 ug/L       0.69448      1.4213 ppb        0.69448  48.86%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 8
Sample ID: PQL
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 11
Date Collected: 1/8/2010 11:54:18
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: PQL

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Units	Sample Conc.	Units	Analysis Time
1	Sc Radial	4506.9	4506.9	102	%			11:56:11
1	Y RADIAL	4755.1	4755.1	101.5	%			11:56:11
1	Al 396.153Radial†	211.5	206.0	178.43	ug/L	178.43	ppb	11:56:11
1	Ca 317.933Radial†	134.1	117.1	201.72	ug/L	201.72	ppb	11:56:31
1	Fe 238.204 Radial†	22.9	12.9	127.41	ug/L	127.41	ppb	11:56:31
1	K 766.490 Radial†	3882.1	660.7	139.75	ug/L	139.75	ppb	11:56:11
1	Mg 279.077 IEC†	12.0	7.4	255.69	ug/L	255.69	ppb	11:56:31
1	Na 589.592 Radial†	-469.8	880.6	303.97	ug/L	303.97	ppb	11:56:11
1	Sr 421.552†	668.4	656.7	5.0978	ug/L	5.0978	ppb	11:56:11
1	Sc 361.383	838530.0	838530.0	98.073	%			11:57:28
1	Y 371.029	731139.2	731139.2	99.853	%			11:57:28
1	Ag 328.068†	1642.1	1213.2	5.2511	ug/L	5.2511	ppb	11:57:28
1	As 188.979†	51.8	93.0	32.875	ug/L	32.875	ppb	11:57:48
1	B 249.677†	1814.8	2634.9	54.265	ug/L	54.265	ppb	11:57:28
1	Ba 233.527†	707.3	728.7	5.3900	ug/L	5.3900	ppb	11:57:48
1	Be 313.107†	10701.7	15300.3	5.1559	ug/L	5.1559	ppb	11:57:28
1	Cd 226.502†	264.5	513.7	4.8819	ug/L	4.8819	ppb	11:57:48
1	Co 228.616†	181.1	284.6	5.3970	ug/L	5.3970	ppb	11:57:48
1	Cr 267.716†	594.8	490.9	4.9761	ug/L	4.9761	ppb	11:57:28
1	Cu 324.752†	11570.4	3598.2	10.639	ug/L	10.639	ppb	11:57:28
1	Mn 257.610†	10584.1	10159.4	10.796	ug/L	10.796	ppb	11:57:28
1	Mo 202.031†	179.9	158.2	10.108	ug/L	10.108	ppb	11:57:48
1	Ni 231.604†	353.2	233.2	5.1590	ug/L	5.1590	ppb	11:57:48
1	P 214.914†	548.1	304.2	148.51	ug/L	148.51	ppb	11:57:48
1	Pb 220.353†	15.5	97.7	10.381	ug/L	10.381	ppb	11:57:48
1	S 181.975 Axial†	147.1	82.1	94.386	ug/L	94.386	ppb	11:57:48
1	Sb 206.836†	67.9	31.8	9.9618	ug/L	9.9618	ppb	11:57:48
1	Se 196.026†	28.4	62.1	32.256	ug/L	32.256	ppb	11:57:48
1	Si 251.611†	4154.6	3650.3	105.01	ug/L	105.01	ppb	11:57:28
1	Sn 189.927†	72.6	70.4	10.664	ug/L	10.664	ppb	11:57:48
1	Ti 334.940†	1504.6	3250.0	5.1295	ug/L	5.1295	ppb	11:57:28
1	Tl 190.801†	21.5	65.1	18.221	ug/L	18.221	ppb	11:57:48
1	U 409.014†	-1016.2	1620.0	48.076	ug/L	48.076	ppb	11:57:28
1	V 292.402†	-981.3	748.1	4.9318	ug/L	4.9318	ppb	11:57:28
1	Zn 213.857†	2083.9	1303.8	10.716	ug/L	10.716	ppb	11:57:48
1	SiO2†	4220.7	3691.8	228.77	ug/L	228.77	ppb	11:58:45
2	Sc Radial	4388.1	4388.1	99.8	%			11:56:36
2	Y RADIAL	4668.5	4668.5	99.63	%			11:56:36
2	Al 396.153Radial†	237.4	237.5	205.81	ug/L	205.81	ppb	11:56:36
2	Ca 317.933Radial†	135.8	122.2	210.63	ug/L	210.63	ppb	11:56:56
2	Fe 238.204 Radial†	24.4	14.9	147.99	ug/L	147.99	ppb	11:56:56
2	K 766.490 Radial†	3906.3	787.5	166.64	ug/L	166.64	ppb	11:56:36
2	Mg 279.077 IEC†	10.4	6.2	212.88	ug/L	212.88	ppb	11:56:56
2	Na 589.592 Radial†	-504.6	833.3	287.64	ug/L	287.64	ppb	11:56:36
2	Sr 421.552†	647.4	653.4	5.0719	ug/L	5.0719	ppb	11:56:36
2	Sc 361.383	829849.6	829849.6	97.058	%			11:57:54
2	Y 371.029	722165.5	722165.5	98.628	%			11:57:54
2	Ag 328.068†	1588.5	1175.6	5.0967	ug/L	5.0967	ppb	11:57:54
2	As 188.979†	57.4	99.4	35.120	ug/L	35.120	ppb	11:58:14
2	B 249.677†	1791.0	2629.8	54.157	ug/L	54.157	ppb	11:57:54
2	Ba 233.527†	686.0	714.3	5.2844	ug/L	5.2844	ppb	11:58:14
2	Be 313.107†	10538.7	15246.5	5.1380	ug/L	5.1380	ppb	11:57:54
2	Cd 226.502†	268.0	520.1	4.9413	ug/L	4.9413	ppb	11:58:14
2	Co 228.616†	170.3	275.3	5.2221	ug/L	5.2221	ppb	11:58:14
2	Cr 267.716†	553.0	454.2	4.6046	ug/L	4.6046	ppb	11:57:54
2	Cu 324.752†	11368.2	3513.4	10.390	ug/L	10.390	ppb	11:57:54
2	Mn 257.610†	10369.5	10051.2	10.684	ug/L	10.684	ppb	11:57:54
2	Mo 202.031†	178.4	158.6	10.139	ug/L	10.139	ppb	11:58:14
2	Ni 231.604†	363.7	247.8	5.4826	ug/L	5.4826	ppb	11:58:14

2	P 214.914†	559.9	322.2	157.42	ug/L	157.42 ppb	11:58:14
2	Pb 220.353†	11.9	94.1	10.011	ug/L	10.011 ppb	11:58:14
2	S 181.975 Axial†	141.0	77.4	88.950	ug/L	88.950 ppb	11:58:14
2	Sb 206.836†	75.6	40.5	12.633	ug/L	12.633 ppb	11:58:14
2	Se 196.026†	21.1	54.9	28.636	ug/L	28.636 ppb	11:58:14
2	Si 251.611†	4115.2	3654.1	105.11	ug/L	105.11 ppb	11:57:54
2	Sn 189.927†	75.1	73.7	11.175	ug/L	11.175 ppb	11:58:14
2	Ti 334.940†	1566.1	3329.5	5.2563	ug/L	5.2563 ppb	11:57:54
2	Tl 190.801†	19.8	63.6	17.799	ug/L	17.799 ppb	11:58:14
2	U 409.014†	-1045.3	1579.2	46.862	ug/L	46.862 ppb	11:57:54
2	V 292.402†	-966.7	752.8	4.9550	ug/L	4.9550 ppb	11:57:54
2	Zn 213.857†	2075.6	1317.5	10.828	ug/L	10.828 ppb	11:58:14
2	SiO2†	4154.8	3668.9	227.33	ug/L	227.33 ppb	11:58:50
3	Sc Radial	4413.3	4413.3	100	%		11:57:02
3	Y RADIAL	4694.5	4694.5	100.2	%		11:57:02
3	Al 396.153Radial†	206.3	205.2	177.74	ug/L	177.74 ppb	11:57:02
3	Ca 317.933Radial†	134.9	120.6	207.75	ug/L	207.75 ppb	11:57:22
3	Fe 238.204 Radial†	20.3	10.8	106.93	ug/L	106.93 ppb	11:57:22
3	K 766.490 Radial†	3834.6	693.7	146.76	ug/L	146.76 ppb	11:57:02
3	Mg 279.077 IEC†	10.2	6.0	205.39	ug/L	205.39 ppb	11:57:22
3	Na 589.592 Radial†	-504.0	836.9	288.88	ug/L	288.88 ppb	11:57:02
3	Sr 421.552†	660.2	662.5	5.1424	ug/L	5.1424 ppb	11:57:02
3	Sc 361.383	831413.4	831413.4	97.241	%		11:58:19
3	Y 371.029	723233.3	723233.3	98.774	%		11:58:19
3	Ag 328.068†	1649.9	1235.7	5.3407	ug/L	5.3407 ppb	11:58:19
3	As 188.979†	51.1	92.8	32.800	ug/L	32.800 ppb	11:58:39
3	B 249.677†	1815.0	2651.0	54.600	ug/L	54.600 ppb	11:58:19
3	Ba 233.527†	707.6	735.1	5.4372	ug/L	5.4372 ppb	11:58:39
3	Be 313.107†	10498.6	15184.8	5.1169	ug/L	5.1169 ppb	11:58:19
3	Cd 226.502†	273.7	525.4	4.9955	ug/L	4.9955 ppb	11:58:39
3	Co 228.616†	155.3	259.6	4.9251	ug/L	4.9251 ppb	11:58:39
3	Cr 267.716†	618.6	520.5	5.2765	ug/L	5.2765 ppb	11:58:19
3	Cu 324.752†	11484.0	3610.4	10.674	ug/L	10.674 ppb	11:58:19
3	Mn 257.610†	10393.4	10055.8	10.685	ug/L	10.685 ppb	11:58:19
3	Mo 202.031†	174.8	154.6	9.8756	ug/L	9.8756 ppb	11:58:39
3	Ni 231.604†	357.9	241.1	5.3345	ug/L	5.3345 ppb	11:58:39
3	P 214.914†	556.0	317.1	154.92	ug/L	154.92 ppb	11:58:39
3	Pb 220.353†	-0.5	81.3	8.6516	ug/L	8.6516 ppb	11:58:39
3	S 181.975 Axial†	150.0	86.4	99.392	ug/L	99.392 ppb	11:58:39
3	Sb 206.836†	71.5	36.1	11.299	ug/L	11.299 ppb	11:58:39
3	Se 196.026†	23.2	57.0	29.584	ug/L	29.584 ppb	11:58:39
3	Si 251.611†	4144.5	3676.3	105.76	ug/L	105.76 ppb	11:58:19
3	Sn 189.927†	80.0	78.6	11.914	ug/L	11.914 ppb	11:58:39
3	Ti 334.940†	1455.0	3212.2	5.0697	ug/L	5.0697 ppb	11:58:19
3	Tl 190.801†	29.0	73.0	20.418	ug/L	20.418 ppb	11:58:39
3	U 409.014†	-995.7	1632.2	48.440	ug/L	48.440 ppb	11:58:19
3	V 292.402†	-968.9	752.4	4.9579	ug/L	4.9579 ppb	11:58:19
3	Zn 213.857†	2070.3	1307.9	10.753	ug/L	10.753 ppb	11:58:39
3	SiO2†	4185.9	3692.8	228.83	ug/L	228.83 ppb	11:58:55

Mean Data: PQL

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	833264.3	97.458	%	0.5411				0.56%
Sc Radial	4436.1	101	%	1.4				1.41%
Y 371.029	725512.7	99.085	%	0.6695				0.68%
Y RADIAL	4706.0	100.4	%	0.95				0.94%
Ag 328.068†	1208.2	5.2295	ug/L	0.12344	5.2295	ppb	0.12344	2.36%
QC value within limits for Ag 328.068 Recovery = 104.59%								
Al 396.153Radial†	216.2	187.33	ug/L	16.011	187.33	ppb	16.011	8.55%
QC value within limits for Al 396.153Radial Recovery = 93.66%								
As 188.979†	95.1	33.598	ug/L	1.3187	33.598	ppb	1.3187	3.92%
QC value within limits for As 188.979 Recovery = 111.99%								
B 249.677†	2638.6	54.341	ug/L	0.2312	54.341	ppb	0.2312	0.43%
QC value within limits for B 249.677 Recovery = 108.68%								
Ba 233.527†	726.0	5.3706	ug/L	0.07825	5.3706	ppb	0.07825	1.46%
QC value within limits for Ba 233.527 Recovery = 107.41%								
Be 313.107†	15243.9	5.1369	ug/L	0.01949	5.1369	ppb	0.01949	0.38%
QC value within limits for Be 313.107 Recovery = 102.74%								
Ca 317.933Radial†	120.0	206.70	ug/L	4.544	206.70	ppb	4.544	2.20%

```
   QC value within limits for Ca 317.933Radial  Recovery = 103.35%
Cd 226.502†              519.7      4.9396 ug/L       0.05680      4.9396 ppb        0.05680   1.15%
   QC value within limits for Cd 226.502  Recovery = 98.79%
Co 228.616†              273.2      5.1814 ug/L       0.23856      5.1814 ppb        0.23856   4.60%
   QC value within limits for Co 228.616  Recovery = 103.63%
Cr 267.716†              488.5      4.9524 ug/L       0.33655      4.9524 ppb        0.33655   6.80%
   QC value within limits for Cr 267.716  Recovery = 99.05%
Cu 324.752†             3574.0      10.568 ug/L        0.1552      10.568 ppb         0.1552   1.47%
   QC value within limits for Cu 324.752  Recovery = 105.68%
Fe 238.204 Radial†        12.9      127.44 ug/L        20.530      127.44 ppb         20.530  16.11%
   QC value within limits for Fe 238.204 Radial  Recovery = 127.44%
K 766.490 Radial†        714.0      151.05 ug/L        13.947      151.05 ppb         13.947   9.23%
   QC value within limits for K 766.490 Radial  Recovery = 100.70%
Mg 279.077 IEC†            6.5      224.65 ug/L        27.139      224.65 ppb         27.139  12.08%
   QC value within limits for Mg 279.077 IEC  Recovery = 74.88%
Mn 257.610†            10088.8      10.722 ug/L        0.0644      10.722 ppb         0.0644   0.60%
   QC value within limits for Mn 257.610  Recovery = 107.22%
Mo 202.031†              157.1      10.041 ug/L        0.1440      10.041 ppb         0.1440   1.43%
   QC value within limits for Mo 202.031  Recovery = 100.41%
Na 589.592 Radial†       850.2      293.50 ug/L         9.092      293.50 ppb          9.092   3.10%
   QC value within limits for Na 589.592 Radial  Recovery = 97.83%
Ni 231.604†              240.7      5.3254 ug/L       0.16196      5.3254 ppb        0.16196   3.04%
   QC value within limits for Ni 231.604  Recovery = 106.51%
P 214.914†               314.5      153.61 ug/L         4.593      153.61 ppb          4.593   2.99%
   QC value within limits for P 214.914  Recovery = 102.41%
Pb 220.353†               91.0      9.6812 ug/L       0.91064      9.6812 ppb        0.91064   9.41%
   QC value within limits for Pb 220.353  Recovery = 96.81%
S 181.975 Axial†          82.0      94.243 ug/L        5.2223      94.243 ppb         5.2223   5.54%
   QC value within limits for S 181.975 Axial  Recovery = 94.24%
Sb 206.836†               36.1      11.298 ug/L        1.3355      11.298 ppb         1.3355  11.82%
   QC value within limits for Sb 206.836  Recovery = 112.98%
Se 196.026†               58.0      30.159 ug/L        1.8769      30.159 ppb         1.8769   6.22%
   QC value within limits for Se 196.026  Recovery = 100.53%
Si 251.611†             3660.2      105.29 ug/L         0.406      105.29 ppb          0.406   0.39%
   QC value within limits for Si 251.611  Recovery = 105.29%
Sn 189.927†               74.3      11.251 ug/L        0.6285      11.251 ppb         0.6285   5.59%
   QC value within limits for Sn 189.927  Recovery = 112.51%
Sr 421.552†              657.5      5.1040 ug/L       0.03566      5.1040 ppb        0.03566   0.70%
   QC value within limits for Sr 421.552  Recovery = 102.08%
Ti 334.940†             3263.9      5.1518 ug/L       0.09532      5.1518 ppb        0.09532   1.85%
   QC value within limits for Ti 334.940  Recovery = 103.04%
Tl 190.801†               67.2      18.813 ug/L        1.4060      18.813 ppb         1.4060   7.47%
   QC value within limits for Tl 190.801  Recovery = 94.06%
U 409.014†              1610.5      47.793 ug/L        0.8266      47.793 ppb         0.8266   1.73%
   QC value within limits for U 409.014  Recovery = 95.59%
V 292.402†               751.1      4.9482 ug/L       0.01433      4.9482 ppb        0.01433   0.29%
   QC value within limits for V 292.402  Recovery = 98.96%
Zn 213.857†             1309.7      10.766 ug/L        0.0570      10.766 ppb         0.0570   0.53%
   QC value within limits for Zn 213.857  Recovery = 107.66%
SiO2†                   3684.5      228.31 ug/L         0.852      228.31 ppb          0.852   0.37%
   QC value within limits for SiO2  Recovery = 107.19%
All analyte(s) passed QC.
```

Sequence No.: 9
Sample ID: ICSA
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 13
Date Collected: 1/8/2010 12:01:06
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSA

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	3965.4	3965.4	90.2	%			12:03:04
1	Y RADIAL	4245.7	4245.7	90.61	%			12:03:04
1	Al 396.153Radial†	533115.1	591159.4	513320	ug/L	513320	ppb	12:02:59
1	Ca 317.933Radial†	251469.0	278834.8	480470	ug/L	480470	ppb	12:02:59
1	Fe 238.204 Radial†	17491.4	19386.4	191830	ug/L	191830	ppb	12:03:04
1	K 766.490 Radial†	2780.7	-43.5	6.1483	ug/L	6.1483	ppb	12:02:59
1	Mg 279.077 IEC†	12984.8	14394.4	493890	ug/L	493890	ppb	12:03:04
1	Na 589.592 Radial†	-1128.3	87.8	30.317	ug/L	30.317	ppb	12:03:04
1	Sr 421.552†	469.3	525.1	-0.3762	ug/L	-0.3762	ppb	12:03:04
1	Sc 361.383	754088.2	754088.2	88.197	%			12:03:31
1	Y 371.029	636453.8	636453.8	86.922	%			12:03:31
1	Ag 328.068†	-10563.5	-12438.2	3.4531	ug/L	3.4531	ppb	12:03:31
1	As 188.979†	-118.4	-93.9	-3.7093	ug/L	-3.7093	ppb	12:03:51
1	B 249.677†	23.6	811.2	-8.7341	ug/L	-8.7341	ppb	12:03:31
1	Ba 233.527†	-632.8	-710.1	-0.3702	ug/L	-0.3702	ppb	12:03:51
1	Be 313.107†	-4170.4	-340.2	-0.1568	ug/L	-0.1568	ppb	12:03:31
1	Cd 226.502†	1311.4	1730.9	-2.6947	ug/L	-2.6947	ppb	12:03:51
1	Co 228.616†	-36.1	58.9	-1.6265	ug/L	-1.6265	ppb	12:03:51
1	Cr 267.716†	-73.8	-199.3	1.4267	ug/L	1.4267	ppb	12:03:51
1	Cu 324.752†	4318.8	-3302.7	0.0261	ug/L	0.0261	ppb	12:03:31
1	Mn 257.610†	-279.8	-949.8	8.9227	ug/L	8.9227	ppb	12:03:31
1	Mo 202.031†	-247.8	-306.2	-1.1580	ug/L	-1.1580	ppb	12:03:51
1	Ni 231.604†	252.9	159.9	3.5380	ug/L	3.5380	ppb	12:03:51
1	P 214.914†	235.3	12.2	25.868	ug/L	25.868	ppb	12:03:51
1	Pb 220.353†	-975.2	-1023.9	-8.9425	ug/L	-8.9425	ppb	12:03:51
1	S 181.975 Axial†	85.2	28.7	-67.980	ug/L	-67.980	ppb	12:03:51
1	Sb 206.836†	86.6	60.8	6.1052	ug/L	6.1052	ppb	12:03:51
1	Se 196.026†	-1097.8	-1211.6	49.631	ug/L	49.631	ppb	12:03:51
1	Si 251.611†	534.8	20.5	1.1515	ug/L	1.1515	ppb	12:03:51
1	Sn 189.927†	-402.9	-460.4	-16.890	ug/L	-16.890	ppb	12:03:51
1	Ti 334.940†	-13539.2	-13635.2	3.4805	ug/L	3.4805	ppb	12:03:31
1	Tl 190.801†	-107.5	-78.7	-8.0768	ug/L	-8.0768	ppb	12:03:51
1	U 409.014†	-1677.3	754.4	-1.7296	ug/L	-1.7296	ppb	12:03:31
1	V 292.402†	535.1	2355.5	-3.4008	ug/L	-3.4008	ppb	12:03:51
1	Zn 213.857†	3504.4	3152.3	-0.8047	ug/L	-0.8047	ppb	12:03:51
1	SiO2†	485.8	-61.0	-2.5711	ug/L	-2.5711	ppb	12:04:48
2	Sc Radial	3936.1	3936.1	89.5	%			12:03:14
2	Y RADIAL	4172.0	4172.0	89.03	%			12:03:14
2	Al 396.153Radial†	536145.9	598944.3	520080	ug/L	520080	ppb	12:03:09
2	Ca 317.933Radial†	253334.6	282993.9	487640	ug/L	487640	ppb	12:03:09
2	Fe 238.204 Radial†	17271.1	19284.5	190820	ug/L	190820	ppb	12:03:14
2	K 766.490 Radial†	2813.4	16.0	18.951	ug/L	18.951	ppb	12:03:09
2	Mg 279.077 IEC†	12798.5	14293.4	490420	ug/L	490420	ppb	12:03:14
2	Na 589.592 Radial†	-1185.8	14.3	4.9464	ug/L	4.9464	ppb	12:03:14
2	Sr 421.552†	474.5	534.7	-0.3678	ug/L	-0.3678	ppb	12:03:14
2	Sc 361.383	749852.4	749852.4	87.702	%			12:03:57
2	Y 371.029	632208.7	632208.7	86.342	%			12:03:57
2	Ag 328.068†	-10566.7	-12509.5	2.7052	ug/L	2.7052	ppb	12:03:57
2	As 188.979†	-101.3	-75.3	2.7231	ug/L	2.7231	ppb	12:04:17
2	B 249.677†	-66.8	708.4	-10.722	ug/L	-10.722	ppb	12:03:57
2	Ba 233.527†	-659.1	-744.1	-0.6465	ug/L	-0.6465	ppb	12:04:17
2	Be 313.107†	-4192.8	-392.4	-0.1739	ug/L	-0.1739	ppb	12:03:57
2	Cd 226.502†	1318.6	1747.5	-2.4354	ug/L	-2.4354	ppb	12:04:17
2	Co 228.616†	-7.0	92.0	-0.9885	ug/L	-0.9885	ppb	12:04:17
2	Cr 267.716†	-78.5	-205.1	1.3503	ug/L	1.3503	ppb	12:04:17
2	Cu 324.752†	4199.1	-3411.5	-0.3469	ug/L	-0.3469	ppb	12:03:57
2	Mn 257.610†	-269.9	-940.3	8.8968	ug/L	8.8968	ppb	12:03:57
2	Mo 202.031†	-249.1	-309.2	-1.4454	ug/L	-1.4454	ppb	12:04:17
2	Ni 231.604†	274.0	185.6	4.1070	ug/L	4.1070	ppb	12:04:17

2	P 214.914†	256.2	37.4	41.482	ug/L	41.482 ppb	12:04:17
2	Pb 220.353†	-1008.7	-1068.3	-12.049	ug/L	-12.049 ppb	12:04:17
2	S 181.975 Axial†	76.2	19.0	-80.434	ug/L	-80.434 ppb	12:04:17
2	Sb 206.836†	57.8	28.4	-3.9637	ug/L	-3.9637 ppb	12:04:17
2	Se 196.026†	-1131.9	-1257.5	24.114	ug/L	24.114 ppb	12:04:17
2	Si 251.611†	527.4	15.5	1.0046	ug/L	1.0046 ppb	12:04:17
2	Sn 189.927†	-398.9	-458.4	-15.851	ug/L	-15.851 ppb	12:04:17
2	Ti 334.940†	-13328.3	-13481.5	4.0983	ug/L	4.0983 ppb	12:03:57
2	Tl 190.801†	-100.3	-71.2	-5.8116	ug/L	-5.8116 ppb	12:04:17
2	U 409.014†	-1719.0	696.1	-3.3333	ug/L	-3.3333 ppb	12:03:57
2	V 292.402†	535.1	2358.9	-3.3105	ug/L	-3.3105 ppb	12:04:17
2	Zn 213.857†	3478.6	3145.3	-0.6949	ug/L	-0.6949 ppb	12:04:17
2	SiO2†	522.4	-16.1	0.2121	ug/L	0.2121 ppb	12:04:53
3	Sc Radial	3916.9	3916.9	89.1	%		12:03:25
3	Y RADIAL	4208.4	4208.4	89.81	%		12:03:25
3	Al 396.153Radial†	538009.2	603984.1	524460	ug/L	524460 ppb	12:03:20
3	Ca 317.933Radial†	253510.7	284584.6	490380	ug/L	490380 ppb	12:03:20
3	Fe 238.204 Radial†	17311.3	19424.7	192200	ug/L	192200 ppb	12:03:25
3	K 766.490 Radial†	2824.4	43.9	25.118	ug/L	25.118 ppb	12:03:20
3	Mg 279.077 IEC†	12868.3	14442.1	495520	ug/L	495520 ppb	12:03:25
3	Na 589.592 Radial†	-1175.3	19.6	6.7561	ug/L	6.7561 ppb	12:03:25
3	Sr 421.552†	418.2	474.1	-0.8638	ug/L	-0.8638 ppb	12:03:25
3	Sc 361.383	748787.9	748787.9	87.577	%		12:04:22
3	Y 371.029	631522.4	631522.4	86.248	%		12:04:22
3	Ag 328.068†	-10499.7	-12450.2	3.3808	ug/L	3.3808 ppb	12:04:22
3	As 188.979†	-99.3	-73.1	3.7050	ug/L	3.7050 ppb	12:04:42
3	B 249.677†	-24.1	756.9	-9.9052	ug/L	-9.9052 ppb	12:04:22
3	Ba 233.527†	-669.8	-757.4	-0.7107	ug/L	-0.7107 ppb	12:04:42
3	Be 313.107†	-4120.9	-317.1	-0.1489	ug/L	-0.1489 ppb	12:04:22
3	Cd 226.502†	1321.8	1753.3	-2.5193	ug/L	-2.5193 ppb	12:04:42
3	Co 228.616†	5.9	106.6	-0.7253	ug/L	-0.7253 ppb	12:04:42
3	Cr 267.716†	-77.4	-203.9	1.3855	ug/L	1.3855 ppb	12:04:42
3	Cu 324.752†	4381.7	-3196.2	0.3600	ug/L	0.3600 ppb	12:04:22
3	Mn 257.610†	-323.9	-1002.4	8.8741	ug/L	8.8741 ppb	12:04:22
3	Mo 202.031†	-218.8	-275.1	0.8649	ug/L	0.8649 ppb	12:04:42
3	Ni 231.604†	250.8	159.5	3.5298	ug/L	3.5298 ppb	12:04:42
3	P 214.914†	242.5	22.2	34.280	ug/L	34.280 ppb	12:04:42
3	Pb 220.353†	-991.4	-1050.2	-9.2609	ug/L	-9.2609 ppb	12:04:42
3	S 181.975 Axial†	77.3	20.4	-79.715	ug/L	-79.715 ppb	12:04:42
3	Sb 206.836†	63.8	35.4	-1.8668	ug/L	-1.8668 ppb	12:04:42
3	Se 196.026†	-1131.4	-1258.8	28.408	ug/L	28.408 ppb	12:04:42
3	Si 251.611†	535.8	26.0	1.2642	ug/L	1.2642 ppb	12:04:42
3	Sn 189.927†	-392.3	-451.5	-14.506	ug/L	-14.506 ppb	12:04:42
3	Ti 334.940†	-13391.0	-13574.6	4.0926	ug/L	4.0926 ppb	12:04:22
3	Tl 190.801†	-101.2	-72.4	-6.0261	ug/L	-6.0261 ppb	12:04:42
3	U 409.014†	-1635.1	789.1	-0.7468	ug/L	-0.7468 ppb	12:04:22
3	V 292.402†	483.2	2300.5	-3.7376	ug/L	-3.7376 ppb	12:04:42
3	Zn 213.857†	3520.3	3198.5	-0.4987	ug/L	-0.4987 ppb	12:04:42
3	SiO2†	533.1	-3.1	0.9292	ug/L	0.9292 ppb	12:04:58

Mean Data: ICSA

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	750909.5	87.825	%	0.3279				0.37%
Sc Radial	3939.5	89.6	%	0.56				0.62%
Y 371.029	633395.0	86.504	%	0.3648				0.42%
Y RADIAL	4208.7	89.82	%	0.787				0.88%
Ag 328.068†	-12466.0	3.1797	ug/L	0.41250	3.1797	ppb	0.41250	12.97%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	598029.3	519290	ug/L	5610.4	519290	ppb	5610.4	1.08%
QC value within limits for Al 396.153Radial Recovery = 103.86%								
As 188.979†	-80.8	0.9063	ug/L	4.02722	0.9063	ppb	4.02722	444.38%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	758.8	-9.7870	ug/L	0.99896	-9.7870	ppb	0.99896	10.21%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-737.2	-0.5758	ug/L	0.18091	-0.5758	ppb	0.18091	31.42%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-349.9	-0.1598	ug/L	0.01279	-0.1598	ppb	0.01279	8.00%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	282137.7	486160	ug/L	5116.0	486160	ppb	5116.0	1.05%

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   QC value within limits for Ca 317.933Radial  Recovery = 97.23%
Cd 226.502†            1743.9     -2.5498 ug/L       0.13231     -2.5498 ppb        0.13231   5.19%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†              85.9     -1.1135 ug/L       0.46340     -1.1135 ppb        0.46340  41.62%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†            -202.8      1.3875 ug/L       0.03824      1.3875 ppb        0.03824   2.76%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†           -3303.4      0.0131 ug/L       0.35361      0.0131 ppb        0.35361 >999.9%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†    19365.2      191620 ug/L         716.8      191620 ppb          716.8   0.37%
   QC value within limits for Fe 238.204 Radial  Recovery = 95.81%
K 766.490 Radial†         5.5      16.739 ug/L        9.6762      16.739 ppb         9.6762  57.81%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†       14376.6      493280 ug/L        2605.8      493280 ppb         2605.8   0.53%
   QC value within limits for Mg 279.077 IEC  Recovery = 98.66%
Mn 257.610†            -964.2      8.8979 ug/L       0.02430      8.8979 ppb        0.02430   0.27%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†            -296.8     -0.5795 ug/L       1.25911     -0.5795 ppb        1.25911 217.27%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       40.6      14.007 ug/L       14.1544      14.007 ppb        14.1544 101.06%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†             168.3      3.7249 ug/L       0.33088      3.7249 ppb        0.33088   8.88%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               23.9      33.876 ug/L        7.8146      33.876 ppb         7.8146  23.07%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†           -1047.5     -10.084 ug/L        1.7090     -10.084 ppb         1.7090  16.95%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         22.7     -76.043 ug/L        6.9921     -76.043 ppb         6.9921   9.19%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              41.5      0.0916 ug/L       5.31245      0.0916 ppb        5.31245 >999.9%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†           -1242.6      34.051 ug/L       13.6625      34.051 ppb        13.6625  40.12%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†              20.6      1.1401 ug/L       0.13018      1.1401 ppb        0.13018  11.42%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†            -456.8     -15.749 ug/L        1.1956     -15.749 ppb         1.1956   7.59%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             511.3     -0.5359 ug/L       0.28394     -0.5359 ppb        0.28394  52.98%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†          -13563.8      3.8904 ug/L       0.35506      3.8904 ppb        0.35506   9.13%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†             -74.1     -6.6382 ug/L       1.25053     -6.6382 ppb        1.25053  18.84%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              746.6     -1.9366 ug/L       1.30559     -1.9366 ppb        1.30559  67.42%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†             2338.3     -3.4830 ug/L       0.22511     -3.4830 ppb        0.22511   6.46%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†            3165.4     -0.6661 ug/L       0.15500     -0.6661 ppb        0.15500  23.27%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                   -26.7     -0.4766 ug/L       1.84899     -0.4766 ppb        1.84899 387.98%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 10
Sample ID: ICSAB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 14
Date Collected: 1/8/2010 12:07:09
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSAB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	3998.6	3998.6	90.9	%			12:09:22
1	Y RADIAL	4269.4	4269.4	91.11	%			12:09:22
1	Al 396.153Radial†	527829.7	580446.5	504000	ug/L	504000	ppb	12:09:02
1	Ca 317.933Radial†	249122.8	273943.0	472040	ug/L	472040	ppb	12:09:02
1	Fe 238.204 Radial†	17641.4	19390.5	191880	ug/L	191880	ppb	12:09:22
1	K 766.490 Radial†	25707.3	25143.0	5335.5	ug/L	5335.5	ppb	12:09:02
1	Mg 279.077 IEC†	12973.6	14262.6	489370	ug/L	489370	ppb	12:09:22
1	Na 589.592 Radial†	13312.3	15978.3	5515.6	ug/L	5515.6	ppb	12:09:02
1	Sr 421.552†	60166.2	66168.6	509.44	ug/L	509.44	ppb	12:09:02
1	Sc 361.383	758969.3	758969.3	88.768	%			12:10:20
1	Y 371.029	638295.1	638295.1	87.173	%			12:10:20
1	Ag 328.068†	44395.2	49551.4	272.54	ug/L	272.54	ppb	12:10:20
1	As 188.979†	1114.0	1295.2	490.50	ug/L	490.50	ppb	12:10:25
1	B 249.677†	21913.1	25470.3	498.22	ug/L	498.22	ppb	12:10:20
1	Ba 233.527†	58525.4	65938.1	492.47	ug/L	492.47	ppb	12:10:20
1	Be 313.107†	635950.9	720806.2	243.37	ug/L	243.37	ppb	12:10:20
1	Cd 226.502†	44591.1	50477.2	461.74	ug/L	461.74	ppb	12:10:25
1	Co 228.616†	21531.0	24355.3	458.18	ug/L	458.18	ppb	12:10:25
1	Cr 267.716†	40990.8	46061.7	471.58	ug/L	471.58	ppb	12:10:25
1	Cu 324.752†	170936.0	184365.1	554.58	ug/L	554.58	ppb	12:10:20
1	Mn 257.610†	406992.0	457856.2	496.20	ug/L	496.20	ppb	12:10:20
1	Mo 202.031†	6563.2	7368.4	488.71	ug/L	488.71	ppb	12:10:25
1	Ni 231.604†	18437.5	20643.5	456.70	ug/L	456.70	ppb	12:10:25
1	P 214.914†	4822.1	5177.6	2489.4	ug/L	2489.4	ppb	12:10:25
1	Pb 220.353†	2952.6	3408.1	458.74	ug/L	458.74	ppb	12:10:25
1	S 181.975 Axial†	2152.5	2357.0	2612.2	ug/L	2612.2	ppb	12:10:25
1	Sb 206.836†	1580.9	1743.5	526.96	ug/L	526.96	ppb	12:10:25
1	Se 196.026†	3286.8	3735.8	2583.4	ug/L	2583.4	ppb	12:10:25
1	Si 251.611†	159916.3	179564.7	5166.9	ug/L	5166.9	ppb	12:10:20
1	Sn 189.927†	2504.6	2817.9	477.94	ug/L	477.94	ppb	12:10:25
1	Ti 334.940†	270370.8	306296.8	508.83	ug/L	508.83	ppb	12:10:20
1	Tl 190.801†	1391.6	1610.9	465.86	ug/L	465.86	ppb	12:10:25
1	U 409.014†	13020.3	17323.9	489.34	ug/L	489.34	ppb	12:10:20
1	V 292.402†	70189.4	80819.2	498.25	ug/L	498.25	ppb	12:10:20
1	Zn 213.857†	55852.6	62098.5	483.06	ug/L	483.06	ppb	12:10:25
1	SiO2†	161828.5	181692.9	11262	ug/L	11262	ppb	12:10:52
2	Sc Radial	3975.3	3975.3	90.4	%			12:09:47
2	Y RADIAL	4243.1	4243.1	90.55	%			12:09:47
2	Al 396.153Radial†	534537.0	591269.9	513400	ug/L	513400	ppb	12:09:27
2	Ca 317.933Radial†	252332.2	279099.7	480930	ug/L	480930	ppb	12:09:27
2	Fe 238.204 Radial†	17612.8	19472.7	192690	ug/L	192690	ppb	12:09:47
2	K 766.490 Radial†	26055.6	25694.2	5452.5	ug/L	5452.5	ppb	12:09:27
2	Mg 279.077 IEC†	12969.4	14341.7	492090	ug/L	492090	ppb	12:09:47
2	Na 589.592 Radial†	13478.9	16248.4	5608.9	ug/L	5608.9	ppb	12:09:27
2	Sr 421.552†	60944.7	67417.7	519.06	ug/L	519.06	ppb	12:09:27
2	Sc 361.383	778762.2	778762.2	91.083	%			12:10:31
2	Y 371.029	653488.1	653488.1	89.248	%			12:10:31
2	Ag 328.068†	45476.3	49467.3	272.31	ug/L	272.31	ppb	12:10:31
2	As 188.979†	1153.1	1306.2	494.54	ug/L	494.54	ppb	12:10:36
2	B 249.677†	22427.8	25408.0	496.85	ug/L	496.85	ppb	12:10:31
2	Ba 233.527†	59925.5	65799.5	491.46	ug/L	491.46	ppb	12:10:31
2	Be 313.107†	651300.4	719450.0	242.92	ug/L	242.92	ppb	12:10:31
2	Cd 226.502†	44864.4	49500.5	452.36	ug/L	452.36	ppb	12:10:36
2	Co 228.616†	21592.4	23806.1	447.76	ug/L	447.76	ppb	12:10:36
2	Cr 267.716†	41084.0	44990.4	460.72	ug/L	460.72	ppb	12:10:36
2	Cu 324.752†	176367.3	185434.0	557.78	ug/L	557.78	ppb	12:10:31
2	Mn 257.610†	417072.4	457270.6	495.61	ug/L	495.61	ppb	12:10:31
2	Mo 202.031†	6602.2	7223.3	479.53	ug/L	479.53	ppb	12:10:36
2	Ni 231.604†	18604.0	20298.4	449.07	ug/L	449.07	ppb	12:10:36

2	P 214.914†	4764.7	4976.5	2391.9 ug/L	2391.9 ppb	12:10:36
2	Pb 220.353†	2984.7	3358.7	455.54 ug/L	455.54 ppb	12:10:36
2	S 181.975 Axial†	2135.2	2276.4	2517.6 ug/L	2517.6 ppb	12:10:36
2	Sb 206.836†	1645.6	1769.2	534.39 ug/L	534.39 ppb	12:10:36
2	Se 196.026†	3328.3	3687.3	2562.5 ug/L	2562.5 ppb	12:10:36
2	Si 251.611†	164126.7	179608.6	5168.4 ug/L	5168.4 ppb	12:10:31
2	Sn 189.927†	2488.1	2728.1	465.29 ug/L	465.29 ppb	12:10:36
2	Ti 334.940†	277520.6	306405.4	509.47 ug/L	509.47 ppb	12:10:31
2	Tl 190.801†	1424.4	1607.1	465.11 ug/L	465.11 ppb	12:10:36
2	U 409.014†	13550.3	17533.0	495.47 ug/L	495.47 ppb	12:10:31
2	V 292.402†	71915.0	80704.1	497.34 ug/L	497.34 ppb	12:10:31
2	Zn 213.857†	55978.5	60637.6	470.89 ug/L	470.89 ppb	12:10:36
2	SiO2†	161323.0	176504.5	10940 ug/L	10940 ppb	12:10:57
3	Sc Radial	4026.6	4026.6	91.6 %		12:10:12
3	Y RADIAL	4317.7	4317.7	92.14 %		12:10:12
3	Al 396.153Radial†	540267.9	589984.0	512280 ug/L	512280 ppb	12:09:52
3	Ca 317.933Radial†	254919.7	278364.0	479660 ug/L	479660 ppb	12:09:52
3	Fe 238.204 Radial†	17770.7	19396.5	191940 ug/L	191940 ppb	12:10:12
3	K 766.490 Radial†	26294.5	25587.3	5429.9 ug/L	5429.9 ppb	12:09:52
3	Mg 279.077 IEC†	13062.4	14260.2	489290 ug/L	489290 ppb	12:10:12
3	Na 589.592 Radial†	13652.6	16247.9	5608.7 ug/L	5608.7 ppb	12:09:52
3	Sr 421.552†	61660.3	67339.1	518.46 ug/L	518.46 ppb	12:09:52
3	Sc 361.383	763849.0	763849.0	89.339 %		12:10:41
3	Y 371.029	640862.9	640862.9	87.524 %		12:10:41
3	Ag 328.068†	44672.9	49542.8	272.41 ug/L	272.41 ppb	12:10:41
3	As 188.979†	1187.2	1369.1	516.62 ug/L	516.62 ppb	12:10:47
3	B 249.677†	22098.2	25519.8	499.22 ug/L	499.22 ppb	12:10:41
3	Ba 233.527†	58988.2	66035.0	493.18 ug/L	493.18 ppb	12:10:41
3	Be 313.107†	640102.8	720877.0	243.40 ug/L	243.40 ppb	12:10:41
3	Cd 226.502†	45242.3	50885.2	465.63 ug/L	465.63 ppb	12:10:47
3	Co 228.616†	21843.2	24549.7	461.86 ug/L	461.86 ppb	12:10:47
3	Cr 267.716†	41570.6	46415.8	475.18 ug/L	475.18 ppb	12:10:47
3	Cu 324.752†	172389.8	184762.3	555.76 ug/L	555.76 ppb	12:10:41
3	Mn 257.610†	410194.7	458512.1	496.91 ug/L	496.91 ppb	12:10:41
3	Mo 202.031†	6624.7	7390.0	490.10 ug/L	490.10 ppb	12:10:47
3	Ni 231.604†	18755.3	20866.5	461.64 ug/L	461.64 ppb	12:10:47
3	P 214.914†	4842.2	5165.4	2485.9 ug/L	2485.9 ppb	12:10:47
3	Pb 220.353†	2970.5	3406.8	460.47 ug/L	460.47 ppb	12:10:47
3	S 181.975 Axial†	2138.8	2326.1	2575.0 ug/L	2575.0 ppb	12:10:47
3	Sb 206.836†	1591.1	1743.6	526.68 ug/L	526.68 ppb	12:10:47
3	Se 196.026†	3372.9	3808.5	2622.1 ug/L	2622.1 ppb	12:10:47
3	Si 251.611†	161017.8	179646.7	5169.3 ug/L	5169.3 ppb	12:10:41
3	Sn 189.927†	2512.2	2808.4	477.29 ug/L	477.29 ppb	12:10:47
3	Ti 334.940†	272732.5	306994.5	510.33 ug/L	510.33 ppb	12:10:41
3	Tl 190.801†	1432.0	1646.1	475.88 ug/L	475.88 ppb	12:10:47
3	U 409.014†	13223.7	17457.9	493.31 ug/L	493.31 ppb	12:10:41
3	V 292.402†	70648.8	80828.3	498.32 ug/L	498.32 ppb	12:10:41
3	Zn 213.857†	56593.8	62526.2	486.56 ug/L	486.56 ppb	12:10:47
3	SiO2†	159936.5	178410.5	11058 ug/L	11058 ppb	12:11:03

Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	767193.5	89.730	%	1.2060				1.34%
Sc Radial	4000.2	91.0	%	0.59				0.64%
Y 371.029	644215.3	87.982	%	1.1107				1.26%
Y RADIAL	4276.7	91.27	%	0.808				0.89%
Ag 328.068†	49520.5	272.42	ug/L	0.115	272.42	ppb	0.115	0.04%
QC value within limits for Ag 328.068 Recovery = 108.97%								
Al 396.153Radial†	587233.5	509890	ug/L	5134.4	509890	ppb	5134.4	1.01%
QC value within limits for Al 396.153Radial Recovery = 101.98%								
As 188.979†	1323.5	500.55	ug/L	14.063	500.55	ppb	14.063	2.81%
QC value within limits for As 188.979 Recovery = 100.11%								
B 249.677†	25466.0	498.10	ug/L	1.188	498.10	ppb	1.188	0.24%
QC value within limits for B 249.677 Recovery = 99.62%								
Ba 233.527†	65924.2	492.37	ug/L	0.864	492.37	ppb	0.864	0.18%
QC value within limits for Ba 233.527 Recovery = 98.47%								
Be 313.107†	720377.7	243.23	ug/L	0.271	243.23	ppb	0.271	0.11%
QC value within limits for Be 313.107 Recovery = 97.29%								
Ca 317.933Radial†	277135.6	477540	ug/L	4806.2	477540	ppb	4806.2	1.01%

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   QC value within limits for Ca 317.933Radial  Recovery = 95.51%
Cd 226.502†            50287.6      459.91 ug/L         6.822      459.91 ppb          6.822   1.48%
   QC value within limits for Cd 226.502  Recovery = 91.98%
Co 228.616†            24237.0      455.94 ug/L         7.312      455.94 ppb          7.312   1.60%
   QC value within limits for Co 228.616  Recovery = 91.19%
Cr 267.716†            45822.6      469.16 ug/L         7.525      469.16 ppb          7.525   1.60%
   QC value within limits for Cr 267.716  Recovery = 93.83%
Cu 324.752†           184853.8      556.04 ug/L         1.619      556.04 ppb          1.619   0.29%
   QC value within limits for Cu 324.752  Recovery = 111.21%
Fe 238.204 Radial†     19419.9      192170 ug/L         452.9      192170 ppb          452.9   0.24%
   QC value within limits for Fe 238.204 Radial  Recovery = 96.09%
K 766.490 Radial†      25474.8      5406.0 ug/L         62.06      5406.0 ppb          62.06   1.15%
   QC value within limits for K 766.490 Radial  Recovery = 108.12%
Mg 279.077 IEC†        14288.2      490250 ug/L        1591.3      490250 ppb         1591.3   0.32%
   QC value within limits for Mg 279.077 IEC  Recovery = 98.05%
Mn 257.610†           457879.6      496.24 ug/L         0.648      496.24 ppb          0.648   0.13%
   QC value within limits for Mn 257.610  Recovery = 99.25%
Mo 202.031†             7327.3      486.11 ug/L         5.743      486.11 ppb          5.743   1.18%
   QC value within limits for Mo 202.031  Recovery = 97.22%
Na 589.592 Radial†     16158.2      5577.7 ug/L         53.77      5577.7 ppb          53.77   0.96%
   QC value within limits for Na 589.592 Radial  Recovery = 111.55%
Ni 231.604†            20602.8      455.80 ug/L         6.332      455.80 ppb          6.332   1.39%
   QC value within limits for Ni 231.604  Recovery = 91.16%
P 214.914†              5106.5      2455.7 ug/L         55.27      2455.7 ppb          55.27   2.25%
   QC value within limits for P 214.914  Recovery = 98.23%
Pb 220.353†             3391.2      458.25 ug/L         2.500      458.25 ppb          2.500   0.55%
   QC value within limits for Pb 220.353  Recovery = 91.65%
S 181.975 Axial†        2319.8      2568.3 ug/L         47.67      2568.3 ppb          47.67   1.86%
   QC value within limits for S 181.975 Axial  Recovery = 102.73%
Sb 206.836†             1752.1      529.34 ug/L         4.373      529.34 ppb          4.373   0.83%
   QC value within limits for Sb 206.836  Recovery = 105.87%
Se 196.026†             3743.9      2589.3 ug/L         30.25      2589.3 ppb          30.25   1.17%
   QC value within limits for Se 196.026  Recovery = 103.57%
Si 251.611†           179606.7      5168.2 ug/L          1.17      5168.2 ppb           1.17   0.02%
   QC value within limits for Si 251.611  Recovery = 103.36%
Sn 189.927†             2784.8      473.51 ug/L         7.123      473.51 ppb          7.123   1.50%
   QC value within limits for Sn 189.927  Recovery = 94.70%
Sr 421.552†            66975.1      515.66 ug/L         5.388      515.66 ppb          5.388   1.04%
   QC value within limits for Sr 421.552  Recovery = 103.13%
Ti 334.940†           306565.5      509.54 ug/L         0.752      509.54 ppb          0.752   0.15%
   QC value within limits for Ti 334.940  Recovery = 101.91%
Tl 190.801†             1621.3      468.95 ug/L         6.015      468.95 ppb          6.015   1.28%
   QC value within limits for Tl 190.801  Recovery = 93.79%
U 409.014†             17438.3      492.71 ug/L         3.108      492.71 ppb          3.108   0.63%
   QC value within limits for U 409.014  Recovery = 98.54%
V 292.402†             80783.9      497.97 ug/L         0.544      497.97 ppb          0.544   0.11%
   QC value within limits for V 292.402  Recovery = 99.59%
Zn 213.857†            61754.1      480.17 ug/L         8.224      480.17 ppb          8.224   1.71%
   QC value within limits for Zn 213.857  Recovery = 96.03%
SiO2†                 178869.3       11087 ug/L         162.9       11087 ppb          162.9   1.47%
   QC value within limits for SiO2  Recovery = 103.66%
All analyte(s) passed QC.
```

Sequence No.: 11
Sample ID: LR1
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 15
Date Collected: 1/8/2010 12:13:13
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	3898.3	3898.3	88.7	%			12:15:11
1	Y RADIAL	4233.2	4233.2	90.34	%			12:15:11
1	Al 396.153Radial†	518499.4	584851.2	507850	ug/L	507850	ppb	12:15:06
1	Ca 317.933Radial†	245332.7	276714.0	476820	ug/L	476820	ppb	12:15:06
1	Fe 238.204 Radial†	41019.3	46259.1	457730	ug/L	457730	ppb	12:15:11
1	K 766.490 Radial†	2783.2	12.5	-209.44	ug/L	-209.44	ppb	12:15:06
1	Mg 279.077 IEC†	12491.9	14086.2	483080	ug/L	483080	ppb	12:15:11
1	Na 589.592 Radial†	1375501.4	1552862.8	536040	ug/L	536040	ppb	12:15:06
1	Sr 421.552†	670.4	760.9	1.4886	ug/L	1.4886	ppb	12:15:11
1	Sc 361.383	750654.0	750654.0	87.796	%			12:15:39
1	Y 371.029	631793.4	631793.4	86.285	%			12:15:39
1	Ag 328.068†	-25270.3	-29244.2	7.4557	ug/L	7.4557	ppb	12:15:39
1	As 188.979†	-218.3	-208.4	-3.0429	ug/L	-3.0429	ppb	12:15:59
1	B 249.677†	1063.0	1995.3	-19.622	ug/L	-19.622	ppb	12:15:39
1	Ba 233.527†	-1817.0	-2062.1	-3.6245	ug/L	-3.6245	ppb	12:15:59
1	Be 313.107†	-11189.5	-8356.6	-2.8523	ug/L	-2.8523	ppb	12:15:39
1	Cd 226.502†	3412.3	4130.6	-6.4274	ug/L	-6.4274	ppb	12:15:59
1	Co 228.616†	192.0	318.6	-0.5650	ug/L	-0.5650	ppb	12:15:59
1	Cr 267.716†	87.0	-16.6	3.3565	ug/L	3.3565	ppb	12:15:59
1	Cu 324.752†	824.0	-7260.9	1.8938	ug/L	1.8938	ppb	12:15:39
1	Mn 257.610†	-26961.5	-31341.9	3.3637	ug/L	3.3637	ppb	12:15:39
1	Mo 202.031†	-523.5	-621.5	4.2050	ug/L	4.2050	ppb	12:15:59
1	Ni 231.604†	305.7	221.3	4.8951	ug/L	4.8951	ppb	12:15:59
1	P 214.914†	667.1	505.2	54.712	ug/L	54.712	ppb	12:15:59
1	Pb 220.353†	-735.7	-756.2	-3.7090	ug/L	-3.7090	ppb	12:15:59
1	S 181.975 Axial†	95.4	40.8	-52.945	ug/L	-52.945	ppb	12:15:59
1	Sb 206.836†	61.2	32.3	1.4064	ug/L	1.4064	ppb	12:15:59
1	Se 196.026†	-2622.6	-2954.0	-25.872	ug/L	-25.872	ppb	12:15:59
1	Si 251.611†	-439.2	-1086.1	-30.407	ug/L	-30.407	ppb	12:15:59
1	Sn 189.927†	-414.3	-475.5	-15.998	ug/L	-15.998	ppb	12:15:59
1	Ti 334.940†	-13308.3	-13442.4	-2.8454	ug/L	-2.8454	ppb	12:15:39
1	Tl 190.801†	-132.5	-107.8	-16.566	ug/L	-16.566	ppb	12:15:59
1	U 409.014†	429661.5	492044.6	14552	ug/L	14552	ppb	12:15:39
1	V 292.402†	1697.9	3682.6	-7.6835	ug/L	-7.6835	ppb	12:15:39
1	Zn 213.857†	6366.1	6429.9	12.879	ug/L	12.879	ppb	12:15:59
1	SiO2†	-616.0	-1313.4	-79.605	ug/L	-79.605	ppb	12:16:56
2	Sc Radial	4007.6	4007.6	91.1	%			12:15:21
2	Y RADIAL	4297.8	4297.8	91.72	%			12:15:21
2	Al 396.153Radial†	517198.3	567476.1	492760	ug/L	492760	ppb	12:15:16
2	Ca 317.933Radial†	244301.2	268036.5	461860	ug/L	461860	ppb	12:15:16
2	Fe 238.204 Radial†	41855.3	45914.7	454320	ug/L	454320	ppb	12:15:21
2	K 766.490 Radial†	2616.8	-255.8	-258.67	ug/L	-258.67	ppb	12:15:16
2	Mg 279.077 IEC†	12762.0	13998.4	480070	ug/L	480070	ppb	12:15:21
2	Na 589.592 Radial†	1365485.8	1499567.2	517640	ug/L	517640	ppb	12:15:16
2	Sr 421.552†	643.6	710.8	1.2388	ug/L	1.2388	ppb	12:15:21
2	Sc 361.383	745078.0	745078.0	87.143	%			12:16:05
2	Y 371.029	626526.5	626526.5	85.566	%			12:16:05
2	Ag 328.068†	-25102.1	-29266.6	6.4623	ug/L	6.4623	ppb	12:16:05
2	As 188.979†	-226.8	-220.0	-7.6526	ug/L	-7.6526	ppb	12:16:25
2	B 249.677†	890.8	1806.7	-23.054	ug/L	-23.054	ppb	12:16:05
2	Ba 233.527†	-1807.5	-2066.7	-3.7442	ug/L	-3.7442	ppb	12:16:25
2	Be 313.107†	-11079.6	-8325.9	-2.8427	ug/L	-2.8427	ppb	12:16:05
2	Cd 226.502†	3409.6	4156.6	-5.8388	ug/L	-5.8388	ppb	12:16:25
2	Co 228.616†	177.6	303.7	-0.7973	ug/L	-0.7973	ppb	12:16:25
2	Cr 267.716†	30.6	-80.5	2.6561	ug/L	2.6561	ppb	12:16:25
2	Cu 324.752†	832.3	-7244.4	1.7687	ug/L	1.7687	ppb	12:16:05
2	Mn 257.610†	-26663.2	-31229.5	3.1994	ug/L	3.1994	ppb	12:16:05
2	Mo 202.031†	-527.4	-630.4	3.3081	ug/L	3.3081	ppb	12:16:25
2	Ni 231.604†	364.7	291.6	6.4513	ug/L	6.4513	ppb	12:16:25

2	P 214.914†	672.8	517.4	58.300 ug/L	58.300 ppb	12:16:25
2	Pb 220.353†	-717.9	-742.0	-5.3202 ug/L	-5.3202 ppb	12:16:25
2	S 181.975 Axial†	128.3	79.4	-5.6242 ug/L	-5.6242 ppb	12:16:25
2	Sb 206.836†	65.9	38.2	3.4689 ug/L	3.4689 ppb	12:16:25
2	Se 196.026†	-2623.9	-2977.9	-50.936 ug/L	-50.936 ppb	12:16:25
2	Si 251.611†	-453.6	-1106.4	-30.943 ug/L	-30.943 ppb	12:16:25
2	Sn 189.927†	-445.2	-514.5	-23.502 ug/L	-23.502 ppb	12:16:25
2	Ti 334.940†	-13434.0	-13700.1	-4.0205 ug/L	-4.0205 ppb	12:16:05
2	Tl 190.801†	-112.8	-86.2	-10.976 ug/L	-10.976 ppb	12:16:25
2	U 409.014†	425644.4	491097.3	14525 ug/L	14525 ppb	12:16:05
2	V 292.402†	1667.0	3661.7	-7.4269 ug/L	-7.4269 ppb	12:16:05
2	Zn 213.857†	6353.1	6469.3	13.475 ug/L	13.475 ppb	12:16:25
2	SiO2†	-472.8	-1154.4	-69.619 ug/L	-69.619 ppb	12:17:01
3	Sc Radial	3962.6	3962.6	90.1 %		12:15:32
3	Y RADIAL	4219.7	4219.7	90.05 %		12:15:32
3	Al 396.153Radial†	522753.7	580081.7	503700 ug/L	503700 ppb	12:15:27
3	Ca 317.933Radial†	246627.5	273660.3	471550 ug/L	471550 ppb	12:15:27
3	Fe 238.204 Radial†	41301.5	45821.4	453400 ug/L	453400 ppb	12:15:32
3	K 766.490 Radial†	2702.3	-128.3	-236.90 ug/L	-236.90 ppb	12:15:27
3	Mg 279.077 IEC†	12566.9	13940.8	478090 ug/L	478090 ppb	12:15:32
3	Na 589.592 Radial†	1383850.0	1536950.2	530550 ug/L	530550 ppb	12:15:27
3	Sr 421.552†	687.2	767.2	1.5871 ug/L	1.5871 ppb	12:15:32
3	Sc 361.383	746303.2	746303.2	87.287 %		12:16:31
3	Y 371.029	628616.9	628616.9	85.852 %		12:16:31
3	Ag 328.068†	-25371.9	-29528.4	4.8458 ug/L	4.8458 ppb	12:16:31
3	As 188.979†	-224.1	-216.5	-6.5750 ug/L	-6.5750 ppb	12:16:51
3	B 249.677†	877.7	1790.1	-23.277 ug/L	-23.277 ppb	12:16:31
3	Ba 233.527†	-1812.0	-2068.4	-3.7811 ug/L	-3.7811 ppb	12:16:51
3	Be 313.107†	-11197.1	-8439.5	-2.8805 ug/L	-2.8805 ppb	12:16:31
3	Cd 226.502†	3407.3	4147.5	-5.8336 ug/L	-5.8336 ppb	12:16:51
3	Co 228.616†	212.7	343.7	-0.0316 ug/L	-0.0316 ppb	12:16:51
3	Cr 267.716†	46.0	-63.0	2.8031 ug/L	2.8031 ppb	12:16:51
3	Cu 324.752†	920.7	-7144.6	2.0165 ug/L	2.0165 ppb	12:16:31
3	Mn 257.610†	-26863.2	-31408.4	2.9543 ug/L	2.9543 ppb	12:16:31
3	Mo 202.031†	-537.6	-641.1	2.5407 ug/L	2.5407 ppb	12:16:51
3	Ni 231.604†	318.4	237.9	5.2614 ug/L	5.2614 ppb	12:16:51
3	P 214.914†	660.5	502.1	55.213 ug/L	55.213 ppb	12:16:51
3	Pb 220.353†	-751.9	-779.6	-6.7634 ug/L	-6.7634 ppb	12:16:51
3	S 181.975 Axial†	94.9	40.9	-52.019 ug/L	-52.019 ppb	12:16:51
3	Sb 206.836†	64.1	36.0	2.5519 ug/L	2.5519 ppb	12:16:51
3	Se 196.026†	-2631.7	-2981.9	-54.145 ug/L	-54.145 ppb	12:16:51
3	Si 251.611†	-443.8	-1094.3	-30.611 ug/L	-30.611 ppb	12:16:51
3	Sn 189.927†	-413.2	-477.0	-16.830 ug/L	-16.830 ppb	12:16:51
3	Ti 334.940†	-13312.5	-13535.6	-3.2734 ug/L	-3.2734 ppb	12:16:31
3	Tl 190.801†	-139.1	-116.2	-19.027 ug/L	-19.027 ppb	12:16:51
3	U 409.014†	427584.0	492517.6	14567 ug/L	14567 ppb	12:16:31
3	V 292.402†	1632.4	3618.9	-7.5291 ug/L	-7.5291 ppb	12:16:31
3	Zn 213.857†	6307.6	6405.2	13.067 ug/L	13.067 ppb	12:16:51
3	SiO2†	-496.5	-1180.6	-71.282 ug/L	-71.282 ppb	12:17:06

Mean Data: LR1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	747345.1	87.409	%	0.3427				0.39%
Sc Radial	3956.2	90.0	%	1.25				1.39%
Y 371.029	628978.9	85.901	%	0.3622				0.42%
Y RADIAL	4250.2	90.70	%	0.891				0.98%
Ag 328.068†	-29346.4	6.2546	ug/L	1.31730	6.2546	ppb	1.31730	21.06%
Al 396.153Radial†	577469.7	501440	ug/L	7795.2	501440	ppb	7795.2	1.55%
QC value within limits for Al 396.153Radial Recovery = 100.29%								
As 188.979†	-215.0	-5.7568	ug/L	2.41130	-5.7568	ppb	2.41130	41.89%
B 249.677†	1864.0	-21.984	ug/L	2.0491	-21.984	ppb	2.0491	9.32%
Ba 233.527†	-2065.7	-3.7166	ug/L	0.08187	-3.7166	ppb	0.08187	2.20%
Be 313.107†	-8374.0	-2.8585	ug/L	0.01961	-2.8585	ppb	0.01961	0.69%
Ca 317.933Radial†	272803.6	470080	ug/L	7584.8	470080	ppb	7584.8	1.61%
QC value within limits for Ca 317.933Radial Recovery = 94.02%								
Cd 226.502†	4144.9	-6.0333	ug/L	0.34132	-6.0333	ppb	0.34132	5.66%
Co 228.616†	322.0	-0.4646	ug/L	0.39258	-0.4646	ppb	0.39258	84.49%
Cr 267.716†	-53.3	2.9386	ug/L	0.36937	2.9386	ppb	0.36937	12.57%
Cu 324.752†	-7216.6	1.8930	ug/L	0.12389	1.8930	ppb	0.12389	6.54%

Fe 238.204 Radial†	45998.4	455150	ug/L	2280.9	455150	ppb	2280.9	0.50%
QC value within limits for Fe 238.204 Radial Recovery = 91.03%								
K 766.490 Radial†	-123.9	-235.00	ug/L	24.671	-235.00	ppb	24.671	10.50%
Mg 279.077 IEC†	14008.5	480410	ug/L	2511.6	480410	ppb	2511.6	0.52%
QC value within limits for Mg 279.077 IEC Recovery = 96.08%								
Mn 257.610†	-31326.6	3.1724	ug/L	0.20605	3.1724	ppb	0.20605	6.49%
Mo 202.031†	-631.0	3.3513	ug/L	0.83301	3.3513	ppb	0.83301	24.86%
Na 589.592 Radial†	1529793.4	528080	ug/L	9444.2	528080	ppb	9444.2	1.79%
QC value within limits for Na 589.592 Radial Recovery = 105.62%								
Ni 231.604†	250.2	5.5359	ug/L	0.81358	5.5359	ppb	0.81358	14.70%
P 214.914†	508.2	56.075	ug/L	1.9433	56.075	ppb	1.9433	3.47%
Pb 220.353†	-759.3	-5.2642	ug/L	1.52799	-5.2642	ppb	1.52799	29.03%
S 181.975 Axial†	53.7	-36.863	ug/L	27.0572	-36.863	ppb	27.0572	73.40%
Sb 206.836†	35.5	2.4757	ug/L	1.03338	2.4757	ppb	1.03338	41.74%
Se 196.026†	-2971.3	-43.651	ug/L	15.4805	-43.651	ppb	15.4805	35.46%
Si 251.611†	-1095.6	-30.654	ug/L	0.2705	-30.654	ppb	0.2705	0.88%
Sn 189.927†	-489.0	-18.777	ug/L	4.1133	-18.777	ppb	4.1133	21.91%
Sr 421.552†	746.3	1.4382	ug/L	0.17954	1.4382	ppb	0.17954	12.48%
Ti 334.940†	-13559.4	-3.3798	ug/L	0.59474	-3.3798	ppb	0.59474	17.60%
Tl 190.801†	-103.4	-15.523	ug/L	4.1257	-15.523	ppb	4.1257	26.58%
U 409.014†	491886.5	14548	ug/L	21.5	14548	ppb	21.5	0.15%
QC value within limits for U 409.014 Recovery = 96.99%								
V 292.402†	3654.4	-7.5465	ug/L	0.12917	-7.5465	ppb	0.12917	1.71%
Zn 213.857†	6434.8	13.140	ug/L	0.3045	13.140	ppb	0.3045	2.32%
SiO2†	-1216.1	-73.502	ug/L	5.3503	-73.502	ppb	5.3503	7.28%

All analyte(s) passed QC.

Sequence No.: 12
Sample ID: LR2
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 16
Date Collected: 1/8/2010 12:19:16
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR2

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4240.4	4240.4	96.4	%			12:21:14
1	Y RADIAL	4522.0	4522.0	96.50	%			12:21:14
1	Al 396.153Radial†	520.3	539.2	56.268	ug/L	56.268	ppb	12:21:14
1	Ca 317.933Radial†	28.6	15.9	27.397	ug/L	27.397	ppb	12:21:34
1	Fe 238.204 Radial†	-17.0	-27.1	24.225	ug/L	24.225	ppb	12:21:34
1	K 766.490 Radial†	1339819.4	1386227.7	293620	ug/L	293620	ppb	12:21:09
1	Mg 279.077 IEC†	-5.3	-9.7	-138.97	ug/L	-138.97	ppb	12:21:34
1	Na 589.592 Radial†	-835.7	472.4	163.08	ug/L	163.08	ppb	12:21:14
1	Sr 421.552†	1227773.8	1273171.2	9886.6	ug/L	9886.6	ppb	12:21:09
1	Sc 361.383	842970.7	842970.7	98.593	%			12:22:51
1	Y 371.029	705906.6	705906.6	96.407	%			12:22:51
1	Ag 328.068†	-7601.2	-8170.8	3.2875	ug/L	3.2875	ppb	12:22:56
1	As 188.979†	27749.2	28185.4	10035	ug/L	10035	ppb	12:22:56
1	B 249.677†	235119.4	239259.6	4906.7	ug/L	4906.7	ppb	12:22:51
1	Ba 233.527†	1870957.5	1897667.8	14023	ug/L	14023	ppb	12:22:51
1	Be 313.107†	8312223.9	8435246.9	2855.9	ug/L	2855.9	ppb	12:22:45
1	Cd 226.502†	989799.6	1004170.3	9567.7	ug/L	9567.7	ppb	12:22:51
1	Co 228.616†	483089.6	490084.3	9271.7	ug/L	9271.7	ppb	12:22:56
1	Cr 267.716†	2302128.3	2334869.4	23711	ug/L	23711	ppb	12:22:51
1	Cu 324.752†	6603592.4	6689641.5	19768	ug/L	19768	ppb	12:22:45
1	Mn 257.610†	8691514.9	8814930.3	9360.3	ug/L	9360.3	ppb	12:22:45
1	Mo 202.031†	148633.2	150729.3	9620.9	ug/L	9620.9	ppb	12:22:56
1	Ni 231.604†	432621.9	438669.5	9705.2	ug/L	9705.2	ppb	12:22:51
1	P 214.914†	35166.2	35413.4	14446	ug/L	14446	ppb	12:22:56
1	Pb 220.353†	224150.2	227431.2	24076	ug/L	24076	ppb	12:22:56
1	S 181.975 Axial†	43787.2	44344.3	51010	ug/L	51010	ppb	12:22:56
1	Sb 206.836†	33197.0	33633.4	10058	ug/L	10058	ppb	12:22:56
1	Se 196.026†	19532.9	19844.8	10192	ug/L	10192	ppb	12:22:56
1	Si 251.611†	1634713.8	1657459.1	47500	ug/L	47500	ppb	12:22:51
1	Sn 189.927†	66924.6	67876.2	10263	ug/L	10263	ppb	12:22:56
1	Ti 334.940†	6012032.1	6099553.5	9642.0	ug/L	9642.0	ppb	12:22:45
1	Tl 190.801†	34371.1	34904.8	9788.2	ug/L	9788.2	ppb	12:22:56
1	U 409.014†	-1699.0	933.0	-18.031	ug/L	-18.031	ppb	12:22:51
1	V 292.402†	1537304.5	1560994.1	9956.3	ug/L	9956.3	ppb	12:22:51
1	Zn 213.857†	1656060.4	1678875.1	13792	ug/L	13792	ppb	12:22:51
1	SiO2†	1638688.2	1661464.3	102560	ug/L	102560	ppb	12:23:44
2	Sc Radial	4220.4	4220.4	96.0	%			12:21:44
2	Y RADIAL	4434.4	4434.4	94.63	%			12:21:44
2	Al 396.153Radial†	487.4	507.5	27.320	ug/L	27.320	ppb	12:21:44
2	Ca 317.933Radial†	21.3	8.4	14.551	ug/L	14.551	ppb	12:22:04
2	Fe 238.204 Radial†	-17.8	-28.0	16.539	ug/L	16.539	ppb	12:22:04
2	K 766.490 Radial†	1350475.4	1403905.1	297370	ug/L	297370	ppb	12:21:39
2	Mg 279.077 IEC†	-6.8	-11.3	-191.32	ug/L	-191.32	ppb	12:22:04
2	Na 589.592 Radial†	-1014.0	282.5	97.512	ug/L	97.512	ppb	12:21:44
2	Sr 421.552†	1233375.1	1285032.3	9978.7	ug/L	9978.7	ppb	12:21:39
2	Sc 361.383	840096.8	840096.8	98.257	%			12:23:11
2	Y 371.029	704049.7	704049.7	96.154	%			12:23:11
2	Ag 328.068†	-7572.8	-8168.2	3.3252	ug/L	3.3252	ppb	12:23:16
2	As 188.979†	27669.3	28200.4	10041	ug/L	10041	ppb	12:23:16
2	B 249.677†	234955.8	239908.9	4920.0	ug/L	4920.0	ppb	12:23:11
2	Ba 233.527†	1863376.0	1896443.4	14014	ug/L	14014	ppb	12:23:11
2	Be 313.107†	8335733.2	8488014.1	2873.8	ug/L	2873.8	ppb	12:23:05
2	Cd 226.502†	985042.0	1002762.6	9554.3	ug/L	9554.3	ppb	12:23:11
2	Co 228.616†	483062.9	491733.4	9302.9	ug/L	9302.9	ppb	12:23:16
2	Cr 267.716†	2294033.1	2334618.2	23708	ug/L	23708	ppb	12:23:11
2	Cu 324.752†	6627046.8	6736424.3	19906	ug/L	19906	ppb	12:23:05
2	Mn 257.610†	8711752.6	8865683.9	9414.2	ug/L	9414.2	ppb	12:23:05
2	Mo 202.031†	148649.0	151261.1	9654.9	ug/L	9654.9	ppb	12:23:16
2	Ni 231.604†	430933.3	438452.0	9700.4	ug/L	9700.4	ppb	12:23:11

2	P 214.914†	35118.1	35486.5	14460	ug/L	14460 ppb	12:23:16
2	Pb 220.353†	223868.6	227922.3	24128	ug/L	24128 ppb	12:23:16
2	S 181.975 Axial†	43764.2	44472.8	51158	ug/L	51158 ppb	12:23:16
2	Sb 206.836†	33203.6	33755.2	10096	ug/L	10096 ppb	12:23:16
2	Se 196.026†	19521.0	19900.4	10221	ug/L	10221 ppb	12:23:16
2	Si 251.611†	1628573.1	1656881.3	47482	ug/L	47482 ppb	12:23:11
2	Sn 189.927†	66789.5	67970.9	10278	ug/L	10278 ppb	12:23:16
2	Ti 334.940†	6031564.2	6140292.0	9706.4	ug/L	9706.4 ppb	12:23:05
2	Tl 190.801†	34383.8	35037.0	9825.7	ug/L	9825.7 ppb	12:23:16
2	U 409.014†	-1609.7	1018.0	-15.501	ug/L	-15.501 ppb	12:23:11
2	V 292.402†	1533309.6	1562262.2	9964.7	ug/L	9964.7 ppb	12:23:11
2	Zn 213.857†	1649675.4	1678122.8	13786	ug/L	13786 ppb	12:23:11
2	SiO2†	1634605.9	1662995.2	102650	ug/L	102650 ppb	12:23:51
3	Sc Radial	4212.8	4212.8	95.8	%		12:22:15
3	Y RADIAL	4480.2	4480.2	95.61	%		12:22:15
3	Al 396.153Radial†	511.4	533.5	56.053	ug/L	56.053 ppb	12:22:15
3	Ca 317.933Radial†	23.4	10.6	18.228	ug/L	18.228 ppb	12:22:35
3	Fe 238.204 Radial†	-18.3	-28.6	6.4520	ug/L	6.4520 ppb	12:22:35
3	K 766.490 Radial†	1335803.2	1391130.6	294660	ug/L	294660 ppb	12:22:10
3	Mg 279.077 IEC†	0.5	-3.7	66.538	ug/L	66.538 ppb	12:22:35
3	Na 589.592 Radial†	-983.6	312.4	107.83	ug/L	107.83 ppb	12:22:15
3	Sr 421.552†	1222534.0	1276036.4	9908.8	ug/L	9908.8 ppb	12:22:10
3	Sc 361.383	838843.7	838843.7	98.110	%		12:23:31
3	Y 371.029	703059.2	703059.2	96.018	%		12:23:31
3	Ag 328.068†	-7510.6	-8116.4	3.4915	ug/L	3.4915 ppb	12:23:36
3	As 188.979†	27142.6	27705.7	9867.3	ug/L	9867.3 ppb	12:23:36
3	B 249.677†	233661.2	238946.6	4900.5	ug/L	4900.5 ppb	12:23:31
3	Ba 233.527†	1858952.1	1894767.4	14002	ug/L	14002 ppb	12:23:31
3	Be 313.107†	8436329.7	8603221.8	2912.8	ug/L	2912.8 ppb	12:23:24
3	Cd 226.502†	981600.9	1000752.8	9535.2	ug/L	9535.2 ppb	12:23:31
3	Co 228.616†	475664.0	484926.4	9173.4	ug/L	9173.4 ppb	12:23:36
3	Cr 267.716†	2287328.3	2331272.1	23674	ug/L	23674 ppb	12:23:31
3	Cu 324.752†	6721433.0	6842704.4	20220	ug/L	20220 ppb	12:23:24
3	Mn 257.610†	8811972.4	8981079.5	9536.7	ug/L	9536.7 ppb	12:23:24
3	Mo 202.031†	146206.6	148997.6	9510.4	ug/L	9510.4 ppb	12:23:36
3	Ni 231.604†	429363.2	437506.8	9679.5	ug/L	9679.5 ppb	12:23:31
3	P 214.914†	34448.7	34857.6	14097	ug/L	14097 ppb	12:23:36
3	Pb 220.353†	220055.0	224375.7	23752	ug/L	23752 ppb	12:23:36
3	S 181.975 Axial†	42887.5	43645.7	50207	ug/L	50207 ppb	12:23:36
3	Sb 206.836†	32589.3	33179.6	9914.9	ug/L	9914.9 ppb	12:23:36
3	Se 196.026†	19118.3	19519.7	10025	ug/L	10025 ppb	12:23:36
3	Si 251.611†	1621018.6	1651657.4	47335	ug/L	47335 ppb	12:23:31
3	Sn 189.927†	65624.1	66884.6	10113	ug/L	10113 ppb	12:23:36
3	Ti 334.940†	6108517.5	6227897.9	9845.0	ug/L	9845.0 ppb	12:23:24
3	Tl 190.801†	33742.8	34435.9	9660.6	ug/L	9660.6 ppb	12:23:36
3	U 409.014†	-1716.0	907.2	-18.724	ug/L	-18.724 ppb	12:23:31
3	V 292.402†	1528720.9	1559916.4	9947.7	ug/L	9947.7 ppb	12:23:31
3	Zn 213.857†	1644094.4	1674942.4	13760	ug/L	13760 ppb	12:23:31
3	SiO2†	1613114.0	1643574.7	101450	ug/L	101450 ppb	12:23:58

Mean Data: LR2

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	840637.1	98.320	%	0.2475				0.25%
Sc Radial	4224.6	96.1	%	0.32				0.34%
Y 371.029	704338.5	96.193	%	0.1974				0.21%
Y RADIAL	4478.8	95.58	%	0.935				0.98%
Ag 328.068†	-8151.8	3.3681	ug/L	0.10851	3.3681	ppb	0.10851	3.22%
Al 396.153Radial†	526.7	46.547	ug/L	16.6513	46.547	ppb	16.6513	35.77%
As 188.979†	28030.5	9980.9	ug/L	98.46	9980.9	ppb	98.46	0.99%
QC value within limits for As 188.979 Recovery = 99.81%								
B 249.677†	239371.7	4909.0	ug/L	9.96	4909.0	ppb	9.96	0.20%
QC value within limits for B 249.677 Recovery = 98.18%								
Ba 233.527†	1896292.9	14013	ug/L	10.8	14013	ppb	10.8	0.08%
QC value within limits for Ba 233.527 Recovery = 93.42%								
Be 313.107†	8508827.6	2880.8	ug/L	29.09	2880.8	ppb	29.09	1.01%
QC value within limits for Be 313.107 Recovery = 96.03%								
Ca 317.933Radial†	11.6	20.059	ug/L	6.6160	20.059	ppb	6.6160	32.98%
Cd 226.502†	1002561.9	9552.4	ug/L	16.36	9552.4	ppb	16.36	0.17%
QC value within limits for Cd 226.502 Recovery = 95.52%								

Co 228.616†	488914.7	9249.3 ug/L	67.55	9249.3 ppb	67.55	0.73%
QC value within limits for Co 228.616 Recovery = 92.49%						
Cr 267.716†	2333586.5	23698 ug/L	20.4	23698 ppb	20.4	0.09%
QC value within limits for Cr 267.716 Recovery = 94.79%						
Cu 324.752†	6756256.7	19965 ug/L	231.8	19965 ppb	231.8	1.16%
QC value within limits for Cu 324.752 Recovery = 99.82%						
Fe 238.204 Radial†	-27.9	15.739 ug/L	8.9136	15.739 ppb	8.9136	56.63%
K 766.490 Radial†	1393754.5	295220 ug/L	1933.7	295220 ppb	1933.7	0.65%
QC value within limits for K 766.490 Radial Recovery = 98.41%						
Mg 279.077 IEC†	-8.2	-87.918 ug/L	136.2999	-87.918 ppb	136.2999	155.03%
Mn 257.610†	8887231.2	9437.1 ug/L	90.41	9437.1 ppb	90.41	0.96%
QC value within limits for Mn 257.610 Recovery = 94.37%						
Mo 202.031†	150329.4	9595.4 ug/L	75.55	9595.4 ppb	75.55	0.79%
QC value within limits for Mo 202.031 Recovery = 95.95%						
Na 589.592 Radial†	355.8	122.80 ug/L	35.256	122.80 ppb	35.256	28.71%
Ni 231.604†	438209.4	9695.0 ug/L	13.64	9695.0 ppb	13.64	0.14%
QC value within limits for Ni 231.604 Recovery = 96.95%						
P 214.914†	35252.5	14334 ug/L	205.6	14334 ppb	205.6	1.43%
QC value within limits for P 214.914 Recovery = 95.56%						
Pb 220.353†	226576.4	23986 ug/L	203.7	23986 ppb	203.7	0.85%
QC value within limits for Pb 220.353 Recovery = 95.94%						
S 181.975 Axial†	44154.3	50792 ug/L	512.0	50792 ppb	512.0	1.01%
QC value within limits for S 181.975 Axial Recovery = 101.58%						
Sb 206.836†	33522.8	10023 ug/L	95.5	10023 ppb	95.5	0.95%
QC value within limits for Sb 206.836 Recovery = 100.23%						
Se 196.026†	19755.0	10146 ug/L	105.6	10146 ppb	105.6	1.04%
QC value within limits for Se 196.026 Recovery = 101.46%						
Si 251.611†	1655332.6	47439 ug/L	90.5	47439 ppb	90.5	0.19%
QC value within limits for Si 251.611 Recovery = 94.88%						
Sn 189.927†	67577.2	10218 ug/L	91.0	10218 ppb	91.0	0.89%
QC value within limits for Sn 189.927 Recovery = 102.18%						
Sr 421.552†	1278080.0	9924.7 ug/L	48.06	9924.7 ppb	48.06	0.48%
QC value within limits for Sr 421.552 Recovery = 99.25%						
Ti 334.940†	6155914.5	9731.1 ug/L	103.77	9731.1 ppb	103.77	1.07%
QC value within limits for Ti 334.940 Recovery = 97.31%						
Tl 190.801†	34792.6	9758.2 ug/L	86.54	9758.2 ppb	86.54	0.89%
QC value within limits for Tl 190.801 Recovery = 97.58%						
U 409.014†	952.7	-17.419 ug/L	1.6966	-17.419 ppb	1.6966	9.74%
V 292.402†	1561057.6	9956.2 ug/L	8.49	9956.2 ppb	8.49	0.09%
QC value within limits for V 292.402 Recovery = 99.56%						
Zn 213.857†	1677313.5	13779 ug/L	17.4	13779 ppb	17.4	0.13%
QC value within limits for Zn 213.857 Recovery = 91.86%						
SiO2†	1656011.4	102220 ug/L	666.9	102220 ppb	666.9	0.65%
QC value within limits for SiO2 Recovery = 95.53%						

All analyte(s) passed QC.

Sequence No.: 13
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 1/8/2010 12:26:07
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4318.8	4318.8	98.2	%			12:28:00
1	Y RADIAL	4585.0	4585.0	97.85	%			12:28:00
1	Al 396.153Radial†	5533.5	5633.5	4870.9	ug/L	4870.9	ppb	12:28:00
1	Ca 317.933Radial†	2818.1	2855.5	4920.3	ug/L	4920.3	ppb	12:28:20
1	Fe 238.204 Radial†	503.3	503.0	4992.1	ug/L	4992.1	ppb	12:28:20
1	K 766.490 Radial†	26823.5	24183.2	5115.3	ug/L	5115.3	ppb	12:28:00
1	Mg 279.077 IEC†	148.8	147.3	5059.7	ug/L	5059.7	ppb	12:28:20
1	Na 589.592 Radial†	26849.6	28675.7	9898.7	ug/L	9898.7	ppb	12:28:00
1	Sr 421.552†	63179.3	64330.2	499.50	ug/L	499.50	ppb	12:28:00
1	Sc 361.383	868766.3	868766.3	101.61	%			12:29:19
1	Y 371.029	734737.2	734737.2	100.34	%			12:29:19
1	Ag 328.068†	113054.7	110802.4	481.11	ug/L	481.11	ppb	12:29:19
1	As 188.979†	1407.2	1425.2	507.51	ug/L	507.51	ppb	12:29:39
1	B 249.677†	24432.9	24830.3	509.77	ug/L	509.77	ppb	12:29:19
1	Ba 233.527†	66728.1	65678.3	485.78	ug/L	485.78	ppb	12:29:19
1	Be 313.107†	1467124.5	1448268.2	488.03	ug/L	488.03	ppb	12:29:19
1	Cd 226.502†	51718.6	51143.2	486.78	ug/L	486.78	ppb	12:29:19
1	Co 228.616†	25663.8	25357.1	479.84	ug/L	479.84	ppb	12:29:39
1	Cr 267.716†	48440.6	47557.5	483.39	ug/L	483.39	ppb	12:29:19
1	Cu 324.752†	173449.0	162501.5	480.44	ug/L	480.44	ppb	12:29:19
1	Mn 257.610†	468068.9	460020.4	488.88	ug/L	488.88	ppb	12:29:19
1	Mo 202.031†	7766.5	7618.2	486.74	ug/L	486.74	ppb	12:29:39
1	Ni 231.604†	22229.7	21750.6	481.20	ug/L	481.20	ppb	12:29:39
1	P 214.914†	5300.6	4961.9	2375.7	ug/L	2375.7	ppb	12:29:39
1	Pb 220.353†	4670.0	4677.9	496.54	ug/L	496.54	ppb	12:29:39
1	S 181.975 Axial†	929.1	846.6	972.85	ug/L	972.85	ppb	12:29:39
1	Sb 206.836†	1656.1	1592.4	492.48	ug/L	492.48	ppb	12:29:39
1	Se 196.026†	945.0	963.1	510.82	ug/L	510.82	ppb	12:29:39
1	Si 251.611†	85721.0	83777.0	2404.2	ug/L	2404.2	ppb	12:29:19
1	Sn 189.927†	3260.7	3205.4	485.26	ug/L	485.26	ppb	12:29:39
1	Ti 334.940†	307952.3	304789.1	482.10	ug/L	482.10	ppb	12:29:19
1	Tl 190.801†	1743.8	1759.3	493.53	ug/L	493.53	ppb	12:29:39
1	U 409.014†	12967.4	15418.1	456.24	ug/L	456.24	ppb	12:29:19
1	V 292.402†	75758.2	76306.7	487.42	ug/L	487.42	ppb	12:29:19
1	Zn 213.857†	60774.0	58990.0	483.55	ug/L	483.55	ppb	12:29:19
1	SiO2†	85358.0	83393.9	5154.9	ug/L	5154.9	ppb	12:30:39
2	Sc Radial	4311.0	4311.0	98.0	%			12:28:25
2	Y RADIAL	4544.5	4544.5	96.98	%			12:28:25
2	Al 396.153Radial†	5470.8	5579.8	4824.3	ug/L	4824.3	ppb	12:28:25
2	Ca 317.933Radial†	2843.4	2886.5	4973.8	ug/L	4973.8	ppb	12:28:45
2	Fe 238.204 Radial†	509.5	510.2	5063.2	ug/L	5063.2	ppb	12:28:45
2	K 766.490 Radial†	26398.0	23798.6	5033.9	ug/L	5033.9	ppb	12:28:25
2	Mg 279.077 IEC†	146.2	144.9	4979.0	ug/L	4979.0	ppb	12:28:45
2	Na 589.592 Radial†	26344.1	28209.5	9737.7	ug/L	9737.7	ppb	12:28:25
2	Sr 421.552†	62299.2	63548.7	493.43	ug/L	493.43	ppb	12:28:25
2	Sc 361.383	871254.0	871254.0	101.90	%			12:29:46
2	Y 371.029	737449.1	737449.1	100.72	%			12:29:46
2	Ag 328.068†	113392.8	110816.5	481.18	ug/L	481.18	ppb	12:29:46
2	As 188.979†	1402.9	1417.0	504.63	ug/L	504.63	ppb	12:30:06
2	B 249.677†	24409.9	24739.1	507.89	ug/L	507.89	ppb	12:29:46
2	Ba 233.527†	66703.8	65467.0	484.22	ug/L	484.22	ppb	12:29:46
2	Be 313.107†	1469468.7	1446445.9	487.41	ug/L	487.41	ppb	12:29:46
2	Cd 226.502†	51855.7	51132.4	486.67	ug/L	486.67	ppb	12:29:46
2	Co 228.616†	25675.5	25296.5	478.69	ug/L	478.69	ppb	12:30:06
2	Cr 267.716†	48605.1	47582.8	483.64	ug/L	483.64	ppb	12:29:46
2	Cu 324.752†	173452.9	162017.9	479.02	ug/L	479.02	ppb	12:29:46
2	Mn 257.610†	468468.6	459097.4	487.91	ug/L	487.91	ppb	12:29:46
2	Mo 202.031†	7778.2	7607.9	486.09	ug/L	486.09	ppb	12:30:06
2	Ni 231.604†	22230.3	21688.7	479.83	ug/L	479.83	ppb	12:30:06

2	P 214.914†	5317.8	4964.0	2376.8 ug/L	2376.8 ppb	12:30:06
2	Pb 220.353†	4640.1	4635.4	492.03 ug/L	492.03 ppb	12:30:06
2	S 181.975 Axial†	931.1	845.9	972.06 ug/L	972.06 ppb	12:30:06
2	Sb 206.836†	1671.6	1603.0	495.64 ug/L	495.64 ppb	12:30:06
2	Se 196.026†	957.4	972.7	515.92 ug/L	515.92 ppb	12:30:06
2	Si 251.611†	85728.6	83543.6	2397.6 ug/L	2397.6 ppb	12:29:46
2	Sn 189.927†	3250.8	3186.5	482.41 ug/L	482.41 ppb	12:30:06
2	Ti 334.940†	308524.0	304484.8	481.62 ug/L	481.62 ppb	12:29:46
2	Tl 190.801†	1730.4	1741.3	488.51 ug/L	488.51 ppb	12:30:06
2	U 409.014†	13209.1	15618.9	462.19 ug/L	462.19 ppb	12:29:46
2	V 292.402†	75840.1	76174.2	486.57 ug/L	486.57 ppb	12:29:46
2	Zn 213.857†	60999.3	59040.3	483.98 ug/L	483.98 ppb	12:29:46
2	SiO2†	85881.1	83667.2	5172.0 ug/L	5172.0 ppb	12:30:44
3	Sc Radial	4239.6	4239.6	96.4 %		12:28:50
3	Y RADIAL	4515.1	4515.1	96.35 %		12:28:50
3	Al 396.153Radial†	5465.4	5668.1	4901.2 ug/L	4901.2 ppb	12:28:50
3	Ca 317.933Radial†	2815.7	2906.5	5008.4 ug/L	5008.4 ppb	12:29:10
3	Fe 238.204 Radial†	504.2	513.5	5096.0 ug/L	5096.0 ppb	12:29:10
3	K 766.490 Radial†	26553.4	24413.3	5164.0 ug/L	5164.0 ppb	12:28:50
3	Mg 279.077 IEC†	146.1	147.4	5062.9 ug/L	5062.9 ppb	12:29:10
3	Na 589.592 Radial†	26165.2	28476.7	9830.0 ug/L	9830.0 ppb	12:28:50
3	Sr 421.552†	62217.3	64534.3	501.08 ug/L	501.08 ppb	12:28:50
3	Sc 361.383	877894.5	877894.5	102.68 %		12:30:14
3	Y 371.029	742978.2	742978.2	101.47 %		12:30:14
3	Ag 328.068†	114432.2	110987.1	481.93 ug/L	481.93 ppb	12:30:14
3	As 188.979†	1394.1	1398.0	497.94 ug/L	497.94 ppb	12:30:34
3	B 249.677†	24630.7	24772.9	508.59 ug/L	508.59 ppb	12:30:14
3	Ba 233.527†	67373.3	65623.8	485.38 ug/L	485.38 ppb	12:30:14
3	Be 313.107†	1484564.2	1450239.8	488.69 ug/L	488.69 ppb	12:30:14
3	Cd 226.502†	52344.5	51223.5	487.54 ug/L	487.54 ppb	12:30:14
3	Co 228.616†	25658.3	25089.1	474.75 ug/L	474.75 ppb	12:30:34
3	Cr 267.716†	48978.2	47585.4	483.67 ug/L	483.67 ppb	12:30:14
3	Cu 324.752†	175180.3	162412.7	480.18 ug/L	480.18 ppb	12:30:14
3	Mn 257.610†	472806.7	459844.8	488.71 ug/L	488.71 ppb	12:30:14
3	Mo 202.031†	7767.2	7539.4	481.72 ug/L	481.72 ppb	12:30:34
3	Ni 231.604†	22238.2	21531.3	476.35 ug/L	476.35 ppb	12:30:34
3	P 214.914†	5304.6	4911.6	2350.8 ug/L	2350.8 ppb	12:30:34
3	Pb 220.353†	4671.4	4631.5	491.62 ug/L	491.62 ppb	12:30:34
3	S 181.975 Axial†	936.9	844.6	970.60 ug/L	970.60 ppb	12:30:34
3	Sb 206.836†	1654.5	1573.9	486.67 ug/L	486.67 ppb	12:30:34
3	Se 196.026†	955.0	963.2	511.17 ug/L	511.17 ppb	12:30:34
3	Si 251.611†	86533.1	83690.7	2401.8 ug/L	2401.8 ppb	12:30:14
3	Sn 189.927†	3275.7	3186.6	482.43 ug/L	482.43 ppb	12:30:34
3	Ti 334.940†	311160.9	304762.6	482.06 ug/L	482.06 ppb	12:30:14
3	Tl 190.801†	1746.9	1744.6	489.44 ug/L	489.44 ppb	12:30:34
3	U 409.014†	13158.2	15471.3	457.80 ug/L	457.80 ppb	12:30:14
3	V 292.402†	76436.0	76191.5	486.61 ug/L	486.61 ppb	12:30:14
3	Zn 213.857†	61481.6	59057.3	484.13 ug/L	484.13 ppb	12:30:14
3	SiO2†	85600.6	82756.6	5115.5 ug/L	5115.5 ppb	12:30:49

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	872638.3	102.06	%	0.552				0.54%
Sc Radial	4289.8	97.6	%	0.99				1.02%
Y 371.029	738388.2	100.84	%	0.574				0.57%
Y RADIAL	4548.2	97.06	%	0.749				0.77%
Ag 328.068†	110868.7	481.41	ug/L	0.457	481.41	ppb	0.457	0.09%
QC value within limits for Ag 328.068 Recovery = 96.28%								
Al 396.153Radial†	5627.2	4865.5	ug/L	38.72	4865.5	ppb	38.72	0.80%
QC value within limits for Al 396.153Radial Recovery = 97.31%								
As 188.979†	1413.4	503.36	ug/L	4.906	503.36	ppb	4.906	0.97%
QC value within limits for As 188.979 Recovery = 100.67%								
B 249.677†	24780.8	508.75	ug/L	0.952	508.75	ppb	0.952	0.19%
QC value within limits for B 249.677 Recovery = 101.75%								
Ba 233.527†	65589.7	485.12	ug/L	0.810	485.12	ppb	0.810	0.17%
QC value within limits for Ba 233.527 Recovery = 97.02%								
Be 313.107†	1448318.0	488.04	ug/L	0.639	488.04	ppb	0.639	0.13%
QC value within limits for Be 313.107 Recovery = 97.61%								
Ca 317.933Radial†	2882.8	4967.5	ug/L	44.35	4967.5	ppb	44.35	0.89%

```
   QC value within limits for Ca 317.933Radial  Recovery = 99.35%
Cd 226.502†            51166.3      487.00 ug/L         0.469      487.00 ppb          0.469   0.10%
   QC value within limits for Cd 226.502  Recovery = 97.40%
Co 228.616†            25247.6      477.76 ug/L         2.666      477.76 ppb          2.666   0.56%
   QC value within limits for Co 228.616  Recovery = 95.55%
Cr 267.716†            47575.3      483.57 ug/L         0.156      483.57 ppb          0.156   0.03%
   QC value within limits for Cr 267.716  Recovery = 96.71%
Cu 324.752†           162310.7      479.88 ug/L         0.760      479.88 ppb          0.760   0.16%
   QC value within limits for Cu 324.752  Recovery = 95.98%
Fe 238.204 Radial†       508.9      5050.4 ug/L         53.15      5050.4 ppb          53.15   1.05%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.01%
K 766.490 Radial†      24131.7      5104.4 ug/L         65.77      5104.4 ppb          65.77   1.29%
   QC value within limits for K 766.490 Radial  Recovery = 102.09%
Mg 279.077 IEC†          146.5      5033.9 ug/L         47.55      5033.9 ppb          47.55   0.94%
   QC value within limits for Mg 279.077 IEC  Recovery = 100.68%
Mn 257.610†           459654.2      488.50 ug/L         0.518      488.50 ppb          0.518   0.11%
   QC value within limits for Mn 257.610  Recovery = 97.70%
Mo 202.031†             7588.5      484.85 ug/L         2.730      484.85 ppb          2.730   0.56%
   QC value within limits for Mo 202.031  Recovery = 96.97%
Na 589.592 Radial†     28453.9      9822.1 ug/L         80.76      9822.1 ppb          80.76   0.82%
   QC value within limits for Na 589.592 Radial  Recovery = 98.22%
Ni 231.604†            21656.9      479.13 ug/L         2.500      479.13 ppb          2.500   0.52%
   QC value within limits for Ni 231.604  Recovery = 95.83%
P 214.914†              4945.8      2367.7 ug/L         14.71      2367.7 ppb          14.71   0.62%
   QC value within limits for P 214.914  Recovery = 94.71%
Pb 220.353†             4648.2      493.40 ug/L         2.731      493.40 ppb          2.731   0.55%
   QC value within limits for Pb 220.353  Recovery = 98.68%
S 181.975 Axial†         845.7      971.84 ug/L         1.142      971.84 ppb          1.142   0.12%
   QC value within limits for S 181.975 Axial  Recovery = 97.18%
Sb 206.836†             1589.8      491.59 ug/L         4.548      491.59 ppb          4.548   0.93%
   QC value within limits for Sb 206.836  Recovery = 98.32%
Se 196.026†              966.3      512.63 ug/L         2.851      512.63 ppb          2.851   0.56%
   QC value within limits for Se 196.026  Recovery = 102.53%
Si 251.611†            83670.4      2401.2 ug/L          3.38      2401.2 ppb           3.38   0.14%
   QC value within limits for Si 251.611  Recovery = 96.05%
Sn 189.927†             3192.9      483.37 ug/L         1.638      483.37 ppb          1.638   0.34%
   QC value within limits for Sn 189.927  Recovery = 96.67%
Sr 421.552†            64137.7      498.00 ug/L         4.040      498.00 ppb          4.040   0.81%
   QC value within limits for Sr 421.552  Recovery = 99.60%
Ti 334.940†           304678.8      481.93 ug/L         0.268      481.93 ppb          0.268   0.06%
   QC value within limits for Ti 334.940  Recovery = 96.39%
Tl 190.801†             1748.4      490.49 ug/L         2.670      490.49 ppb          2.670   0.54%
   QC value within limits for Tl 190.801  Recovery = 98.10%
U 409.014†             15502.8      458.74 ug/L         3.086      458.74 ppb          3.086   0.67%
   QC value within limits for U 409.014  Recovery = 91.75%
V 292.402†             76224.1      486.87 ug/L         0.478      486.87 ppb          0.478   0.10%
   QC value within limits for V 292.402  Recovery = 97.37%
Zn 213.857†            59029.2      483.89 ug/L         0.301      483.89 ppb          0.301   0.06%
   QC value within limits for Zn 213.857  Recovery = 96.78%
SiO2†                  83272.6      5147.4 ug/L         28.97      5147.4 ppb          28.97   0.56%
   QC value within limits for SiO2  Recovery = 96.26%
All analyte(s) passed QC.
```

Sequence No.: 14
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 1/8/2010 12:33:00
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4236.3	4236.3	96.3	%			12:34:52
1	Y RADIAL	4513.7	4513.7	96.33	%			12:34:52
1	Al 396.153Radial†	-23.4	-24.6	-21.380	ug/L	-21.380	ppb	12:34:52
1	Ca 317.933Radial†	14.3	1.0	1.8074	ug/L	1.8074	ppb	12:35:12
1	Fe 238.204 Radial†	7.4	-1.9	-18.324	ug/L	-18.324	ppb	12:35:12
1	K 766.490 Radial†	3584.3	593.6	125.75	ug/L	125.75	ppb	12:34:52
1	Mg 279.077 IEC†	2.8	-1.3	-44.153	ug/L	-44.153	ppb	12:35:12
1	Na 589.592 Radial†	-1249.5	42.0	14.498	ug/L	14.498	ppb	12:34:52
1	Sr 421.552†	-14.4	-10.3	-0.0800	ug/L	-0.0800	ppb	12:34:52
1	Sc 361.383	849893.5	849893.5	99.403	%			12:36:09
1	Y 371.029	727794.7	727794.7	99.397	%			12:36:09
1	Ag 328.068†	447.7	-10.7	-0.0498	ug/L	-0.0498	ppb	12:36:09
1	As 188.979†	-5.2	35.0	12.359	ug/L	12.359	ppb	12:36:29
1	B 249.677†	315.6	1102.0	22.709	ug/L	22.709	ppb	12:36:09
1	Ba 233.527†	26.7	34.3	0.2520	ug/L	0.2520	ppb	12:36:29
1	Be 313.107†	-4224.0	139.0	0.0470	ug/L	0.0470	ppb	12:36:09
1	Cd 226.502†	-197.7	45.1	0.4310	ug/L	0.4310	ppb	12:36:29
1	Co 228.616†	-86.5	12.9	0.2469	ug/L	0.2469	ppb	12:36:29
1	Cr 267.716†	125.1	10.3	0.1046	ug/L	0.1046	ppb	12:36:09
1	Cu 324.752†	8083.6	-67.2	-0.1996	ug/L	-0.1996	ppb	12:36:09
1	Mn 257.610†	621.1	-7.7	-0.0092	ug/L	-0.0092	ppb	12:36:09
1	Mo 202.031†	36.9	11.9	0.7579	ug/L	0.7579	ppb	12:36:29
1	Ni 231.604†	118.3	-7.9	-0.1746	ug/L	-0.1746	ppb	12:36:29
1	P 214.914†	261.0	7.9	3.9230	ug/L	3.9230	ppb	12:36:29
1	Pb 220.353†	-99.9	-18.6	-1.9717	ug/L	-1.9717	ppb	12:36:29
1	S 181.975 Axial†	63.5	-4.0	-4.5914	ug/L	-4.5914	ppb	12:36:29
1	Sb 206.836†	55.1	17.9	5.4916	ug/L	5.4916	ppb	12:36:29
1	Se 196.026†	-38.6	-5.7	-2.9629	ug/L	-2.9629	ppb	12:36:29
1	Si 251.611†	705.7	124.0	3.5203	ug/L	3.5203	ppb	12:36:29
1	Sn 189.927†	7.5	3.9	0.5906	ug/L	0.5906	ppb	12:36:29
1	Ti 334.940†	-1625.7	80.4	0.1287	ug/L	0.1287	ppb	12:36:09
1	Tl 190.801†	-35.4	7.6	2.1200	ug/L	2.1200	ppb	12:36:29
1	U 409.014†	-2751.8	-112.2	-3.3281	ug/L	-3.3281	ppb	12:36:09
1	V 292.402†	-1759.2	-21.1	-0.1267	ug/L	-0.1267	ppb	12:36:09
1	Zn 213.857†	910.0	94.4	0.7843	ug/L	0.7843	ppb	12:36:29
1	SiO2†	716.3	108.8	6.6320	ug/L	6.6320	ppb	12:37:25
2	Sc Radial	4316.1	4316.1	98.2	%			12:35:17
2	Y RADIAL	4584.1	4584.1	97.83	%			12:35:17
2	Al 396.153Radial†	6.3	6.1	5.2379	ug/L	5.2379	ppb	12:35:17
2	Ca 317.933Radial†	21.3	7.9	13.693	ug/L	13.693	ppb	12:35:37
2	Fe 238.204 Radial†	11.4	2.1	20.818	ug/L	20.818	ppb	12:35:37
2	K 766.490 Radial†	3665.3	607.2	128.64	ug/L	128.64	ppb	12:35:17
2	Mg 279.077 IEC†	-0.3	-4.5	-155.11	ug/L	-155.11	ppb	12:35:37
2	Na 589.592 Radial†	-1195.8	120.7	41.681	ug/L	41.681	ppb	12:35:17
2	Sr 421.552†	11.6	16.4	0.1275	ug/L	0.1275	ppb	12:35:17
2	Sc 361.383	853939.0	853939.0	99.876	%			12:36:35
2	Y 371.029	731602.8	731602.8	99.917	%			12:36:35
2	Ag 328.068†	509.6	49.1	0.2215	ug/L	0.2215	ppb	12:36:35
2	As 188.979†	-15.9	24.3	8.5735	ug/L	8.5735	ppb	12:36:55
2	B 249.677†	234.7	1019.5	21.005	ug/L	21.005	ppb	12:36:35
2	Ba 233.527†	24.1	31.6	0.2336	ug/L	0.2336	ppb	12:36:55
2	Be 313.107†	-4309.8	73.2	0.0248	ug/L	0.0248	ppb	12:36:35
2	Cd 226.502†	-234.8	8.8	0.0821	ug/L	0.0821	ppb	12:36:55
2	Co 228.616†	-101.8	-2.0	-0.0355	ug/L	-0.0355	ppb	12:36:55
2	Cr 267.716†	131.8	16.3	0.1669	ug/L	0.1669	ppb	12:36:35
2	Cu 324.752†	8219.3	30.1	0.0900	ug/L	0.0900	ppb	12:36:35
2	Mn 257.610†	621.8	-10.0	-0.0056	ug/L	-0.0056	ppb	12:36:35
2	Mo 202.031†	40.1	15.0	0.9568	ug/L	0.9568	ppb	12:36:55
2	Ni 231.604†	132.7	6.0	0.1324	ug/L	0.1324	ppb	12:36:55

2	P 214.914†	261.8	7.5	3.6772	ug/L	3.6772 ppb	12:36:55
2	Pb 220.353†	-94.1	-12.3	-1.3029	ug/L	-1.3029 ppb	12:36:55
2	S 181.975 Axial†	66.4	-1.4	-1.5659	ug/L	-1.5659 ppb	12:36:55
2	Sb 206.836†	54.5	17.1	5.2487	ug/L	5.2487 ppb	12:36:55
2	Se 196.026†	-31.8	1.3	0.7114	ug/L	0.7114 ppb	12:36:55
2	Si 251.611†	695.0	109.9	3.1093	ug/L	3.1093 ppb	12:36:55
2	Sn 189.927†	7.8	4.2	0.6317	ug/L	0.6317 ppb	12:36:55
2	Ti 334.940†	-1649.3	64.6	0.1042	ug/L	0.1042 ppb	12:36:35
2	Tl 190.801†	-57.9	-14.8	-4.1205	ug/L	-4.1205 ppb	12:36:55
2	U 409.014†	-2761.8	-109.0	-3.2401	ug/L	-3.2401 ppb	12:36:35
2	V 292.402†	-1746.0	0.5	0.0038	ug/L	0.0038 ppb	12:36:35
2	Zn 213.857†	922.0	102.0	0.8467	ug/L	0.8467 ppb	12:36:55
2	SiO2†	746.4	135.5	8.2821	ug/L	8.2821 ppb	12:37:30
3	Sc Radial	4372.8	4372.8	99.4	%		12:35:42
3	Y RADIAL	4637.3	4637.3	98.96	%		12:35:42
3	Al 396.153Radial†	3.4	3.1	2.6310	ug/L	2.6310 ppb	12:35:42
3	Ca 317.933Radial†	14.3	0.5	0.9184	ug/L	0.9184 ppb	12:36:02
3	Fe 238.204 Radial†	9.6	0.2	1.6440	ug/L	1.6440 ppb	12:36:02
3	K 766.490 Radial†	3383.0	274.9	58.249	ug/L	58.249 ppb	12:35:42
3	Mg 279.077 IEC†	0.4	-3.8	-129.46	ug/L	-129.46 ppb	12:36:02
3	Na 589.592 Radial†	-1268.7	63.1	21.798	ug/L	21.798 ppb	12:35:42
3	Sr 421.552†	7.7	12.4	0.0964	ug/L	0.0964 ppb	12:35:42
3	Sc 361.383	850941.2	850941.2	99.525	%		12:37:00
3	Y 371.029	729036.1	729036.1	99.566	%		12:37:00
3	Ag 328.068†	527.6	69.1	0.2986	ug/L	0.2986 ppb	12:37:00
3	As 188.979†	-4.7	35.5	12.527	ug/L	12.527 ppb	12:37:20
3	B 249.677†	261.4	1047.2	21.578	ug/L	21.578 ppb	12:37:00
3	Ba 233.527†	2.2	9.7	0.0702	ug/L	0.0702 ppb	12:37:20
3	Be 313.107†	-4295.1	72.8	0.0243	ug/L	0.0243 ppb	12:37:00
3	Cd 226.502†	-216.5	26.4	0.2516	ug/L	0.2516 ppb	12:37:20
3	Co 228.616†	-90.3	9.2	0.1763	ug/L	0.1763 ppb	12:37:20
3	Cr 267.716†	110.4	-4.7	-0.0478	ug/L	-0.0478 ppb	12:37:00
3	Cu 324.752†	8181.6	21.2	0.0628	ug/L	0.0628 ppb	12:37:00
3	Mn 257.610†	659.2	29.8	0.0342	ug/L	0.0342 ppb	12:37:00
3	Mo 202.031†	35.8	10.8	0.6877	ug/L	0.6877 ppb	12:37:20
3	Ni 231.604†	153.1	26.9	0.5951	ug/L	0.5951 ppb	12:37:20
3	P 214.914†	253.7	0.3	0.1125	ug/L	0.1125 ppb	12:37:20
3	Pb 220.353†	-103.9	-22.5	-2.3843	ug/L	-2.3843 ppb	12:37:20
3	S 181.975 Axial†	72.5	5.0	5.7753	ug/L	5.7753 ppb	12:37:20
3	Sb 206.836†	66.4	29.3	8.9231	ug/L	8.9231 ppb	12:37:20
3	Se 196.026†	-31.2	1.8	0.9110	ug/L	0.9110 ppb	12:37:20
3	Si 251.611†	735.8	153.4	4.3943	ug/L	4.3943 ppb	12:37:20
3	Sn 189.927†	0.4	-3.3	-0.4944	ug/L	-0.4944 ppb	12:37:20
3	Ti 334.940†	-1770.3	-62.9	-0.0984	ug/L	-0.0984 ppb	12:37:00
3	Tl 190.801†	-37.8	5.2	1.4546	ug/L	1.4546 ppb	12:37:20
3	U 409.014†	-2724.0	-80.8	-2.3998	ug/L	-2.3998 ppb	12:37:00
3	V 292.402†	-1816.7	-76.7	-0.4811	ug/L	-0.4811 ppb	12:37:00
3	Zn 213.857†	918.9	102.2	0.8455	ug/L	0.8455 ppb	12:37:20
3	SiO2†	763.4	155.3	9.5797	ug/L	9.5797 ppb	12:37:36

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	851591.2	99.601	%	0.2456				0.25%
Sc Radial	4308.4	98.0	%	1.56				1.59%
Y 371.029	729477.9	99.626	%	0.2652				0.27%
Y RADIAL	4578.4	97.71	%	1.323				1.35%
Ag 328.068†	35.8	0.1568	ug/L	0.18299	0.1568	ppb	0.18299	116.74%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-5.1	-4.5037	ug/L	14.67327	-4.5037	ppb	14.67327	325.81%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	31.6	11.153	ug/L	2.2355	11.153	ppb	2.2355	20.04%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	1056.2	21.764	ug/L	0.8674	21.764	ppb	0.8674	3.99%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	25.2	0.1853	ug/L	0.10005	0.1853	ppb	0.10005	54.00%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	95.0	0.0320	ug/L	0.01297	0.0320	ppb	0.01297	40.47%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	3.2	5.4730	ug/L	7.13285	5.4730	ppb	7.13285	130.33%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                26.8      0.2549 ug/L       0.17444      0.2549 ppb        0.17444  68.44%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                 6.7      0.1292 ug/L       0.14697      0.1292 ppb        0.14697 113.72%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                 7.3      0.0746 ug/L       0.11043      0.0746 ppb        0.11043 148.07%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†                -5.3     -0.0156 ug/L       0.15991     -0.0156 ppb        0.15991 >999.9%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          0.1      1.3795 ug/L      19.57243      1.3795 ppb       19.57243 >999.9%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         491.9      104.21 ug/L        39.832      104.21 ppb         39.832  38.22%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -3.2     -109.57 ug/L        58.089     -109.57 ppb         58.089  53.01%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                 4.1      0.0065 ug/L       0.02411      0.0065 ppb        0.02411 371.95%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                12.5      0.8008 ug/L       0.13959      0.8008 ppb        0.13959  17.43%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†         75.3      25.992 ug/L       14.0687      25.992 ppb        14.0687  54.13%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                 8.3      0.1843 ug/L       0.38747      0.1843 ppb        0.38747 210.25%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                  5.2      2.5709 ug/L       2.13255      2.5709 ppb        2.13255  82.95%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               -17.8     -1.8863 ug/L       0.54572     -1.8863 ppb        0.54572  28.93%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -0.1     -0.1274 ug/L       5.33097     -0.1274 ppb        5.33097 >999.9%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                21.4      6.5545 ug/L       2.05490      6.5545 ppb        2.05490  31.35%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -0.9     -0.4468 ug/L       2.18128     -0.4468 ppb        2.18128 488.17%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†               129.1      3.6746 ug/L       0.65628      3.6746 ppb        0.65628  17.86%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 1.6      0.2426 ug/L       0.63865      0.2426 ppb        0.63865 263.23%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                 6.2      0.0480 ug/L       0.11193      0.0480 ppb        0.11193 233.39%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                27.4      0.0449 ug/L       0.12463      0.0449 ppb        0.12463 277.82%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                -0.7     -0.1820 ug/L       3.42707     -0.1820 ppb        3.42707 >999.9%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -100.7     -2.9893 ug/L       0.51244     -2.9893 ppb        0.51244  17.14%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                -32.4     -0.2013 ug/L       0.25087     -0.2013 ppb        0.25087 124.61%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                99.6      0.8255 ug/L       0.03572      0.8255 ppb        0.03572   4.33%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                     133.2      8.1646 ug/L       1.47735      8.1646 ppb        1.47735  18.09%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

==========

Analysis Begun

Start Time: 1/8/2010 12:43:29 **Plasma On Time: 1/4/2010 06:33:21**
Logged In Analyst: Optima3 **Technique: ICP Continuous**
Spectrometer Model: Optima 5300 DV, S/N 077C7090601Autosampler Model: S10

Sample Information File: C:\pe\Optima3\Sample Information\010810.sif
Batch ID:
Results Data Set: 010810
Results Library: C:\pe\Optima3\Results\Results.mdb

==========

Method Loaded
Method Name: General Eng.2AX **Method Last Saved: 1/8/2010 11:12:58**
IEC File: 101209.iec **MSF File:**
Method Description:

Analyte	Calibration Equation	Processing	View	Internal Standard	IEC
Ag 328.068	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Al 396.153Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
As 188.979	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
B 249.677	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ba 233.527	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Be 313.107	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ca 317.933Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	No
Cd 226.502	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Co 228.616	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cr 267.716	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cu 324.752	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Fe 238.204 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
K 766.490 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Mg 279.077 IEC	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Mn 257.610	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Mo 202.031	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Na 589.592 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	No
Ni 231.604	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
P 214.914	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Pb 220.353	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
S 181.975 Axial	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sb 206.836	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sc 361.383	Lin Thru 0	Peak Area	Axial	n/a	n/a
Sc Radial	Lin, Calc Int	Peak Area	Radial	n/a	n/a
Se 196.026	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Si 251.611	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sn 189.927	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sr 421.552	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Ti 334.940	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Tl 190.801	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
U 409.014	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
V 292.402	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y 371.029	Lin, Calc Int	Peak Area	Axial	n/a	n/a
Zn 213.857	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y RADIAL	Lin, Calc Int	Peak Area	Radial	n/a	n/a
SiO2	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes

==========

Sequence No.: 1 **Autosampler Location: 38**
Sample ID: 1202004435|936813|1 **Date Collected: 1/8/2010 12:43:30**
Analyst: HSC **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: 1202004435|936813|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4390.8	4390.8	99.9	%			12:45:23
1	Y RADIAL	4656.1	4656.1	99.36	%			12:45:23
1	Al 396.153Radial†	3.8	3.5	3.0111	ug/L	3.0111	ppb	12:45:23

1	Ca 317.933Radial†	9.0	-4.8	-8.3031 ug/L	-8.3031 ppb	12:45:43
1	Fe 238.204 Radial†	11.0	1.5	14.964 ug/L	14.964 ppb	12:45:43
1	K 766.490 Radial†	3375.6	253.6	53.711 ug/L	53.711 ppb	12:45:23
1	Mg 279.077 IEC†	4.3	0.1	4.5644 ug/L	4.5644 ppb	12:45:43
1	Na 589.592 Radial†	-1231.7	105.5	36.404 ug/L	36.404 ppb	12:45:23
1	Sr 421.552†	2.2	6.8	0.0531 ug/L	0.0531 ppb	12:45:23
1	Sc 361.383	860619.7	860619.7	100.66 %		12:46:40
1	Y 371.029	737272.1	737272.1	100.69 %		12:46:40
1	Ag 328.068†	496.3	32.0	0.1435 ug/L	0.1435 ppb	12:46:40
1	As 188.979†	-6.0	34.3	12.104 ug/L	12.104 ppb	12:47:00
1	B 249.677†	-70.9	714.0	14.711 ug/L	14.711 ppb	12:46:40
1	Ba 233.527†	11.7	19.0	0.1402 ug/L	0.1402 ppb	12:47:00
1	Be 313.107†	-4334.7	81.9	0.0279 ug/L	0.0279 ppb	12:46:40
1	Cd 226.502†	-230.2	15.2	0.1436 ug/L	0.1436 ppb	12:47:00
1	Co 228.616†	-87.6	12.9	0.2460 ug/L	0.2460 ppb	12:47:00
1	Cr 267.716†	119.8	3.4	0.0346 ug/L	0.0346 ppb	12:46:40
1	Cu 324.752†	8210.4	-42.7	-0.1253 ug/L	-0.1253 ppb	12:46:40
1	Mn 257.610†	701.4	64.3	0.0697 ug/L	0.0697 ppb	12:46:40
1	Mo 202.031†	36.3	10.9	0.6941 ug/L	0.6941 ppb	12:47:00
1	Ni 231.604†	124.3	-3.4	-0.0752 ug/L	-0.0752 ppb	12:47:00
1	P 214.914†	269.5	13.1	6.4802 ug/L	6.4802 ppb	12:47:00
1	Pb 220.353†	-83.3	-1.0	-0.1002 ug/L	-0.1002 ppb	12:47:00
1	S 181.975 Axial†	56.7	-11.6	-13.298 ug/L	-13.298 ppb	12:47:00
1	Sb 206.836†	52.4	14.6	4.5039 ug/L	4.5039 ppb	12:47:00
1	Se 196.026†	-31.6	1.7	0.9314 ug/L	0.9314 ppb	12:47:00
1	Si 251.611†	1027.3	434.7	12.500 ug/L	12.500 ppb	12:47:00
1	Sn 189.927†	15.2	11.5	1.7410 ug/L	1.7410 ppb	12:47:00
1	Ti 334.940†	-1600.0	126.3	0.2002 ug/L	0.2002 ppb	12:46:40
1	Tl 190.801†	-46.3	-2.8	-0.7881 ug/L	-0.7881 ppb	12:47:00
1	U 409.014†	-2731.4	-57.4	-1.7067 ug/L	-1.7067 ppb	12:46:40
1	V 292.402†	-1808.8	-48.3	-0.3003 ug/L	-0.3003 ppb	12:46:40
1	Zn 213.857†	937.8	110.6	0.9136 ug/L	0.9136 ppb	12:47:00
1	SiO2†	1086.8	467.9	28.986 ug/L	28.986 ppb	12:47:56
2	Sc Radial	4417.1	4417.1	100 %		12:45:48
2	Y RADIAL	4690.0	4690.0	100.1 %		12:45:48
2	Al 396.153Radial†	17.6	17.1	14.845 ug/L	14.845 ppb	12:45:48
2	Ca 317.933Radial†	13.5	-0.4	-0.6268 ug/L	-0.6268 ppb	12:46:08
2	Fe 238.204 Radial†	10.4	0.9	8.4641 ug/L	8.4641 ppb	12:46:08
2	K 766.490 Radial†	3258.6	117.0	24.773 ug/L	24.773 ppb	12:45:48
2	Mg 279.077 IEC†	3.8	-0.4	-14.487 ug/L	-14.487 ppb	12:46:08
2	Na 589.592 Radial†	-1273.1	71.6	24.722 ug/L	24.722 ppb	12:45:48
2	Sr 421.552†	26.2	30.7	0.2387 ug/L	0.2387 ppb	12:45:48
2	Sc 361.383	861878.0	861878.0	100.80 %		12:47:05
2	Y 371.029	737771.4	737771.4	100.76 %		12:47:05
2	Ag 328.068†	495.4	30.3	0.1333 ug/L	0.1333 ppb	12:47:05
2	As 188.979†	-15.9	24.5	8.6488 ug/L	8.6488 ppb	12:47:25
2	B 249.677†	-37.7	747.1	15.393 ug/L	15.393 ppb	12:47:05
2	Ba 233.527†	6.4	13.8	0.1034 ug/L	0.1034 ppb	12:47:25
2	Be 313.107†	-4481.8	-57.7	-0.0188 ug/L	-0.0188 ppb	12:47:05
2	Cd 226.502†	-217.6	28.1	0.2668 ug/L	0.2668 ppb	12:47:25
2	Co 228.616†	-87.0	13.6	0.2594 ug/L	0.2594 ppb	12:47:25
2	Cr 267.716†	119.5	2.9	0.0295 ug/L	0.0295 ppb	12:47:05
2	Cu 324.752†	8283.7	18.2	0.0541 ug/L	0.0541 ppb	12:47:05
2	Mn 257.610†	775.6	136.8	0.1464 ug/L	0.1464 ppb	12:47:05
2	Mo 202.031†	38.3	12.8	0.8184 ug/L	0.8184 ppb	12:47:25
2	Ni 231.604†	149.3	21.2	0.4687 ug/L	0.4687 ppb	12:47:25
2	P 214.914†	258.0	1.3	0.6306 ug/L	0.6306 ppb	12:47:25
2	Pb 220.353†	-72.6	9.8	1.0400 ug/L	1.0400 ppb	12:47:25
2	S 181.975 Axial†	69.9	1.4	1.6518 ug/L	1.6518 ppb	12:47:25
2	Sb 206.836†	50.0	12.1	3.7172 ug/L	3.7172 ppb	12:47:25
2	Se 196.026†	-29.3	4.0	2.0901 ug/L	2.0901 ppb	12:47:25
2	Si 251.611†	1046.3	452.1	13.015 ug/L	13.015 ppb	12:47:25
2	Sn 189.927†	4.0	0.4	0.0541 ug/L	0.0541 ppb	12:47:25
2	Ti 334.940†	-1542.6	185.6	0.2921 ug/L	0.2921 ppb	12:47:05
2	Tl 190.801†	-45.7	-2.1	-0.5910 ug/L	-0.5910 ppb	12:47:25
2	U 409.014†	-2569.4	107.3	3.1847 ug/L	3.1847 ppb	12:47:05
2	V 292.402†	-1667.6	94.5	0.6112 ug/L	0.6112 ppb	12:47:05
2	Zn 213.857†	945.4	116.8	0.9621 ug/L	0.9621 ppb	12:47:25
2	SiO2†	1055.0	434.8	26.957 ug/L	26.957 ppb	12:48:01
3	Sc Radial	4455.2	4455.2	101 %		12:46:13
3	Y RADIAL	4732.9	4732.9	101.0 %		12:46:13

3	Al 396.153Radial†	-20.4	-20.4	-17.748	ug/L	-17.748 ppb	12:46:13
3	Ca 317.933Radial†	16.2	2.2	3.8423	ug/L	3.8423 ppb	12:46:33
3	Fe 238.204 Radial†	12.9	3.2	31.885	ug/L	31.885 ppb	12:46:33
3	K 766.490 Radial†	3397.9	226.7	48.032	ug/L	48.032 ppb	12:46:13
3	Mg 279.077 IEC†	0.8	-3.4	-116.23	ug/L	-116.23 ppb	12:46:33
3	Na 589.592 Radial†	-1294.2	61.6	21.271	ug/L	21.271 ppb	12:46:13
3	Sr 421.552†	-9.7	-4.9	-0.0383	ug/L	-0.0383 ppb	12:46:13
3	Sc 361.383	861725.0	861725.0	100.79	%		12:47:31
3	Y 371.029	738696.7	738696.7	100.89	%		12:47:31
3	Ag 328.068†	507.3	42.3	0.1944	ug/L	0.1944 ppb	12:47:31
3	As 188.979†	-6.6	33.7	11.913	ug/L	11.913 ppb	12:47:51
3	B 249.677†	-40.4	744.4	15.336	ug/L	15.336 ppb	12:47:31
3	Ba 233.527†	-1.1	6.4	0.0486	ug/L	0.0486 ppb	12:47:51
3	Be 313.107†	-4441.1	-18.1	-0.0054	ug/L	-0.0054 ppb	12:47:31
3	Cd 226.502†	-235.1	10.7	0.0989	ug/L	0.0989 ppb	12:47:51
3	Co 228.616†	-98.5	2.2	0.0413	ug/L	0.0413 ppb	12:47:51
3	Cr 267.716†	107.7	-8.7	-0.0872	ug/L	-0.0872 ppb	12:47:31
3	Cu 324.752†	8218.2	-45.3	-0.1323	ug/L	-0.1323 ppb	12:47:31
3	Mn 257.610†	702.4	64.4	0.0737	ug/L	0.0737 ppb	12:47:31
3	Mo 202.031†	28.7	3.3	0.2132	ug/L	0.2132 ppb	12:47:51
3	Ni 231.604†	129.8	1.9	0.0418	ug/L	0.0418 ppb	12:47:51
3	P 214.914†	263.9	7.1	3.5271	ug/L	3.5271 ppb	12:47:51
3	Pb 220.353†	-80.9	1.6	0.1599	ug/L	0.1599 ppb	12:47:51
3	S 181.975 Axial†	69.8	1.4	1.5575	ug/L	1.5575 ppb	12:47:51
3	Sb 206.836†	53.8	15.9	4.8852	ug/L	4.8852 ppb	12:47:51
3	Se 196.026†	-40.1	-6.7	-3.3301	ug/L	-3.3301 ppb	12:47:51
3	Si 251.611†	1048.9	454.9	13.094	ug/L	13.094 ppb	12:47:51
3	Sn 189.927†	10.6	6.9	1.0402	ug/L	1.0402 ppb	12:47:51
3	Ti 334.940†	-1489.0	238.5	0.3777	ug/L	0.3777 ppb	12:47:31
3	Tl 190.801†	-46.0	-2.5	-0.6903	ug/L	-0.6903 ppb	12:47:51
3	U 409.014†	-2690.0	-12.8	-0.3836	ug/L	-0.3836 ppb	12:47:31
3	V 292.402†	-1713.1	49.0	0.3033	ug/L	0.3033 ppb	12:47:31
3	Zn 213.857†	961.6	133.0	1.1014	ug/L	1.1014 ppb	12:47:51
3	SiO2†	1113.0	492.6	30.547	ug/L	30.547 ppb	12:48:06

Mean Data: 1202004435|936813|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	861407.6	100.75	%	0.080				0.08%
Sc Radial	4421.0	101	%	0.7				0.73%
Y 371.029	737913.4	100.78	%	0.099				0.10%
Y RADIAL	4693.0	100.2	%	0.82				0.82%
Ag 328.068†	34.9	0.1571	ug/L	0.03274	0.1571	ppb	0.03274	20.84%
Al 396.153Radial†	0.1	0.0359	ug/L	16.49880	0.0359	ppb	16.49880	>999.9%
As 188.979†	30.8	10.889	ug/L	1.9421	10.889	ppb	1.9421	17.84%
B 249.677†	735.2	15.147	ug/L	0.3783	15.147	ppb	0.3783	2.50%
Ba 233.527†	13.1	0.0974	ug/L	0.04609	0.0974	ppb	0.04609	47.30%
Be 313.107†	2.0	0.0013	ug/L	0.02408	0.0013	ppb	0.02408	>999.9%
Ca 317.933Radial†	-1.0	-1.6959	ug/L	6.14289	-1.6959	ppb	6.14289	362.22%
Cd 226.502†	18.0	0.1698	ug/L	0.08698	0.1698	ppb	0.08698	51.23%
Co 228.616†	9.6	0.1822	ug/L	0.12224	0.1822	ppb	0.12224	67.09%
Cr 267.716†	-0.8	-0.0077	ug/L	0.06890	-0.0077	ppb	0.06890	896.58%
Cu 324.752†	-23.3	-0.0678	ug/L	0.10565	-0.0678	ppb	0.10565	155.76%
Fe 238.204 Radial†	1.9	18.438	ug/L	12.0905	18.438	ppb	12.0905	65.57%
K 766.490 Radial†	199.1	42.172	ug/L	15.3333	42.172	ppb	15.3333	36.36%
Mg 279.077 IEC†	-1.2	-42.052	ug/L	64.9461	-42.052	ppb	64.9461	154.44%
Mn 257.610†	88.5	0.0966	ug/L	0.04317	0.0966	ppb	0.04317	44.68%
Mo 202.031†	9.0	0.5752	ug/L	0.31962	0.5752	ppb	0.31962	55.56%
Na 589.592 Radial†	79.6	27.466	ug/L	7.9306	27.466	ppb	7.9306	28.87%
Ni 231.604†	6.6	0.1451	ug/L	0.28625	0.1451	ppb	0.28625	197.28%
P 214.914†	7.2	3.5460	ug/L	2.92484	3.5460	ppb	2.92484	82.48%
Pb 220.353†	3.5	0.3666	ug/L	0.59757	0.3666	ppb	0.59757	163.02%
S 181.975 Axial†	-2.9	-3.3628	ug/L	8.60396	-3.3628	ppb	8.60396	255.86%
Sb 206.836†	14.2	4.3688	ug/L	0.59561	4.3688	ppb	0.59561	13.63%
Se 196.026†	-0.3	-0.1029	ug/L	2.85430	-0.1029	ppb	2.85430	>999.9%
Si 251.611†	447.2	12.870	ug/L	0.3228	12.870	ppb	0.3228	2.51%
Sn 189.927†	6.2	0.9451	ug/L	0.84743	0.9451	ppb	0.84743	89.67%
Sr 421.552†	10.9	0.0845	ug/L	0.14117	0.0845	ppb	0.14117	167.11%
Ti 334.940†	183.4	0.2900	ug/L	0.08878	0.2900	ppb	0.08878	30.62%
Tl 190.801†	-2.5	-0.6898	ug/L	0.09854	-0.6898	ppb	0.09854	14.29%

U 409.014†	12.4	0.3648 ug/L	2.53011	0.3648 ppb	2.53011	693.54%
V 292.402†	31.7	0.2047 ug/L	0.46369	0.2047 ppb	0.46369	226.48%
Zn 213.857†	120.1	0.9924 ug/L	0.09750	0.9924 ppb	0.09750	9.82%
SiO2†	465.1	28.830 ug/L	1.7999	28.830 ppb	1.7999	6.24%

Sequence No.: 2
Sample ID: 1202004436|936813|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 39
Date Collected: 1/8/2010 12:50:17
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202004436|936813|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4441.9	4441.9	101	%			12:52:10
1	Y RADIAL	4699.2	4699.2	100.3	%			12:52:10
1	Al 396.153Radial†	6125.3	6063.3	5243.1	ug/L	5243.1	ppb	12:52:10
1	Ca 317.933Radial†	3020.6	2976.5	5128.8	ug/L	5128.8	ppb	12:52:30
1	Fe 238.204 Radial†	549.5	534.5	5304.3	ug/L	5304.3	ppb	12:52:30
1	K 766.490 Radial†	28668.9	25253.7	5343.7	ug/L	5343.7	ppb	12:52:10
1	Mg 279.077 IEC†	158.8	153.0	5255.8	ug/L	5255.8	ppb	12:52:30
1	Na 589.592 Radial†	14762.6	15953.1	5506.9	ug/L	5506.9	ppb	12:52:10
1	Sr 421.552†	71036.0	70326.2	546.06	ug/L	546.06	ppb	12:52:10
1	Sc 361.383	873900.5	873900.5	102.21	%			12:53:29
1	Y 371.029	738912.7	738912.7	100.92	%			12:53:29
1	Ag 328.068†	121450.1	118362.6	513.91	ug/L	513.91	ppb	12:53:29
1	As 188.979†	1464.3	1472.9	524.71	ug/L	524.71	ppb	12:53:49
1	B 249.677†	25160.3	25400.7	521.42	ug/L	521.42	ppb	12:53:29
1	Ba 233.527†	74430.8	72828.6	538.62	ug/L	538.62	ppb	12:53:29
1	Be 313.107†	1583694.8	1553834.6	523.61	ug/L	523.61	ppb	12:53:29
1	Cd 226.502†	55210.3	54260.3	516.45	ug/L	516.45	ppb	12:53:29
1	Co 228.616†	27167.8	26680.2	504.85	ug/L	504.85	ppb	12:53:49
1	Cr 267.716†	51833.9	50597.4	514.29	ug/L	514.29	ppb	12:53:29
1	Cu 324.752†	187814.6	175553.6	519.03	ug/L	519.03	ppb	12:53:29
1	Mn 257.610†	506348.2	494765.5	525.81	ug/L	525.81	ppb	12:53:29
1	Mo 202.031†	8222.5	8019.5	512.38	ug/L	512.38	ppb	12:53:49
1	Ni 231.604†	23668.8	23030.0	509.51	ug/L	509.51	ppb	12:53:49
1	P 214.914†	1474.1	1187.6	507.65	ug/L	507.65	ppb	12:53:49
1	Pb 220.353†	4959.7	4934.3	523.77	ug/L	523.77	ppb	12:53:49
1	S 181.975 Axial†	4668.0	4499.2	5174.5	ug/L	5174.5	ppb	12:53:49
1	Sb 206.836†	1779.6	1703.7	526.97	ug/L	526.97	ppb	12:53:49
1	Se 196.026†	977.2	989.2	525.26	ug/L	525.26	ppb	12:53:49
1	Si 251.611†	180235.4	175751.8	5055.9	ug/L	5055.9	ppb	12:53:29
1	Sn 189.927†	3591.0	3509.7	531.30	ug/L	531.30	ppb	12:53:49
1	Ti 334.940†	335217.1	329683.7	521.46	ug/L	521.46	ppb	12:53:29
1	Tl 190.801†	1845.9	1849.2	518.89	ug/L	518.89	ppb	12:53:49
1	U 409.014†	15289.9	17615.5	521.38	ug/L	521.38	ppb	12:53:29
1	V 292.402†	82057.5	82031.7	523.90	ug/L	523.90	ppb	12:53:29
1	Zn 213.857†	63747.2	61547.5	504.44	ug/L	504.44	ppb	12:53:29
1	SiO2†	180260.3	175750.2	10891	ug/L	10891	ppb	12:54:50
2	Sc Radial	4396.7	4396.7	100.0	%			12:52:35
2	Y RADIAL	4656.8	4656.8	99.38	%			12:52:35
2	Al 396.153Radial†	6052.5	6052.8	5234.0	ug/L	5234.0	ppb	12:52:35
2	Ca 317.933Radial†	3037.0	3023.6	5210.0	ug/L	5210.0	ppb	12:52:55
2	Fe 238.204 Radial†	552.9	543.4	5393.1	ug/L	5393.1	ppb	12:52:55
2	K 766.490 Radial†	28671.9	25548.1	5406.1	ug/L	5406.1	ppb	12:52:35
2	Mg 279.077 IEC†	155.8	151.6	5208.9	ug/L	5208.9	ppb	12:52:55
2	Na 589.592 Radial†	14644.2	15984.8	5517.8	ug/L	5517.8	ppb	12:52:35
2	Sr 421.552†	70469.1	70481.4	547.26	ug/L	547.26	ppb	12:52:35
2	Sc 361.383	870767.3	870767.3	101.84	%			12:53:56
2	Y 371.029	737309.2	737309.2	100.70	%			12:53:56
2	Ag 328.068†	121061.9	118408.9	514.14	ug/L	514.14	ppb	12:53:56
2	As 188.979†	1455.3	1469.2	523.42	ug/L	523.42	ppb	12:54:17
2	B 249.677†	25057.8	25388.6	521.16	ug/L	521.16	ppb	12:53:56
2	Ba 233.527†	74078.7	72744.9	538.01	ug/L	538.01	ppb	12:53:56
2	Be 313.107†	1577895.1	1553715.3	523.57	ug/L	523.57	ppb	12:53:56
2	Cd 226.502†	55085.8	54332.4	517.13	ug/L	517.13	ppb	12:53:56
2	Co 228.616†	27073.1	26682.9	504.90	ug/L	504.90	ppb	12:54:17
2	Cr 267.716†	51784.6	50731.4	515.65	ug/L	515.65	ppb	12:53:56
2	Cu 324.752†	186854.1	175271.6	518.20	ug/L	518.20	ppb	12:53:56
2	Mn 257.610†	504074.8	494315.9	525.34	ug/L	525.34	ppb	12:53:56
2	Mo 202.031†	8178.3	8005.0	511.47	ug/L	511.47	ppb	12:54:17
2	Ni 231.604†	23557.8	23004.4	508.94	ug/L	508.94	ppb	12:54:17

2	P 214.914†	1469.3	1188.1	507.89 ug/L	507.89 ppb	12:54:17
2	Pb 220.353†	4943.5	4935.8	523.92 ug/L	523.92 ppb	12:54:17
2	S 181.975 Axial†	4648.1	4496.1	5170.9 ug/L	5170.9 ppb	12:54:17
2	Sb 206.836†	1774.8	1705.2	527.31 ug/L	527.31 ppb	12:54:17
2	Se 196.026†	972.1	987.7	524.75 ug/L	524.75 ppb	12:54:17
2	Si 251.611†	179619.0	175781.1	5056.8 ug/L	5056.8 ppb	12:53:56
2	Sn 189.927†	3552.1	3484.2	527.45 ug/L	527.45 ppb	12:54:17
2	Ti 334.940†	333563.1	329239.8	520.76 ug/L	520.76 ppb	12:53:56
2	Tl 190.801†	1838.4	1848.3	518.63 ug/L	518.63 ppb	12:54:17
2	U 409.014†	15203.4	17584.3	520.45 ug/L	520.45 ppb	12:53:56
2	V 292.402†	81757.5	82026.0	523.83 ug/L	523.83 ppb	12:53:56
2	Zn 213.857†	63483.5	61513.1	504.16 ug/L	504.16 ppb	12:53:56
2	SiO2†	179570.9	175708.0	10888 ug/L	10888 ppb	12:54:55
3	Sc Radial	4403.0	4403.0	100 %		12:53:00
3	Y RADIAL	4645.1	4645.1	99.13 %		12:53:00
3	Al 396.153Radial†	6036.0	6027.6	5211.8 ug/L	5211.8 ppb	12:53:00
3	Ca 317.933Radial†	3061.9	3044.0	5245.3 ug/L	5245.3 ppb	12:53:20
3	Fe 238.204 Radial†	557.1	546.9	5427.5 ug/L	5427.5 ppb	12:53:20
3	K 766.490 Radial†	28352.3	25187.6	5329.7 ug/L	5329.7 ppb	12:53:00
3	Mg 279.077 IEC†	159.5	155.0	5327.5 ug/L	5327.5 ppb	12:53:20
3	Na 589.592 Radial†	14499.4	15819.0	5460.6 ug/L	5460.6 ppb	12:53:00
3	Sr 421.552†	70177.7	70088.8	544.21 ug/L	544.21 ppb	12:53:00
3	Sc 361.383	862044.7	862044.7	100.82 %		12:54:24
3	Y 371.029	729927.5	729927.5	99.688 %		12:54:24
3	Ag 328.068†	119625.1	118186.7	513.20 ug/L	513.20 ppb	12:54:24
3	As 188.979†	1477.4	1505.6	536.28 ug/L	536.28 ppb	12:54:44
3	B 249.677†	24658.6	25241.7	518.11 ug/L	518.11 ppb	12:54:24
3	Ba 233.527†	73384.6	72792.5	538.36 ug/L	538.36 ppb	12:54:24
3	Be 313.107†	1560354.1	1551994.4	522.99 ug/L	522.99 ppb	12:54:24
3	Cd 226.502†	54495.1	54293.8	516.76 ug/L	516.76 ppb	12:54:24
3	Co 228.616†	27217.0	27094.6	512.71 ug/L	512.71 ppb	12:54:44
3	Cr 267.716†	51114.9	50581.7	514.13 ug/L	514.13 ppb	12:54:24
3	Cu 324.752†	184721.1	175012.5	517.43 ug/L	517.43 ppb	12:54:24
3	Mn 257.610†	498733.9	494026.7	525.03 ug/L	525.03 ppb	12:54:24
3	Mo 202.031†	8210.1	8117.8	518.67 ug/L	518.67 ppb	12:54:44
3	Ni 231.604†	23710.2	23389.5	517.46 ug/L	517.46 ppb	12:54:44
3	P 214.914†	1479.1	1212.3	520.10 ug/L	520.10 ppb	12:54:44
3	Pb 220.353†	4977.1	5018.3	532.66 ug/L	532.66 ppb	12:54:44
3	S 181.975 Axial†	4698.9	4592.6	5282.0 ug/L	5282.0 ppb	12:54:44
3	Sb 206.836†	1777.3	1725.4	533.87 ug/L	533.87 ppb	12:54:44
3	Se 196.026†	976.4	1001.6	532.00 ug/L	532.00 ppb	12:54:44
3	Si 251.611†	177639.5	175602.3	5051.5 ug/L	5051.5 ppb	12:54:24
3	Sn 189.927†	3595.3	3562.3	539.27 ug/L	539.27 ppb	12:54:44
3	Ti 334.940†	329975.9	328995.9	520.38 ug/L	520.38 ppb	12:54:24
3	Tl 190.801†	1864.7	1892.7	530.95 ug/L	530.95 ppb	12:54:44
3	U 409.014†	14821.7	17356.8	513.69 ug/L	513.69 ppb	12:54:24
3	V 292.402†	81023.3	82110.1	524.45 ug/L	524.45 ppb	12:54:24
3	Zn 213.857†	62737.8	61404.1	503.20 ug/L	503.20 ppb	12:54:24
3	SiO2†	176599.8	174545.2	10815 ug/L	10815 ppb	12:55:00

Mean Data: 1202004436|936813|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	868904.2	101.63	%	0.719				0.71%
Sc Radial	4413.9	100	%	0.6				0.55%
Y 371.029	735383.1	100.43	%	0.654				0.65%
Y RADIAL	4667.1	99.60	%	0.607				0.61%
Ag 328.068†	118319.4	513.75	ug/L	0.490	513.75	ppb	0.490	0.10%
Al 396.153Radial†	6047.9	5229.6	ug/L	16.08	5229.6	ppb	16.08	0.31%
As 188.979†	1482.6	528.14	ug/L	7.082	528.14	ppb	7.082	1.34%
B 249.677†	25343.7	520.23	ug/L	1.842	520.23	ppb	1.842	0.35%
Ba 233.527†	72788.7	538.33	ug/L	0.309	538.33	ppb	0.309	0.06%
Be 313.107†	1553181.4	523.39	ug/L	0.347	523.39	ppb	0.347	0.07%
Ca 317.933Radial†	3014.7	5194.7	ug/L	59.70	5194.7	ppb	59.70	1.15%
Cd 226.502†	54295.5	516.78	ug/L	0.339	516.78	ppb	0.339	0.07%
Co 228.616†	26819.2	507.49	ug/L	4.521	507.49	ppb	4.521	0.89%
Cr 267.716†	50636.8	514.69	ug/L	0.834	514.69	ppb	0.834	0.16%
Cu 324.752†	175279.3	518.22	ug/L	0.796	518.22	ppb	0.796	0.15%
Fe 238.204 Radial†	541.6	5375.0	ug/L	63.57	5375.0	ppb	63.57	1.18%
K 766.490 Radial†	25329.8	5359.8	ug/L	40.65	5359.8	ppb	40.65	0.76%

Mg 279.077 IEC†	153.2	5264.1 ug/L	59.77	5264.1 ppb	59.77	1.14%
Mn 257.610†	494369.4	525.39 ug/L	0.390	525.39 ppb	0.390	0.07%
Mo 202.031†	8047.4	514.17 ug/L	3.922	514.17 ppb	3.922	0.76%
Na 589.592 Radial†	15919.0	5495.1 ug/L	30.37	5495.1 ppb	30.37	0.55%
Ni 231.604†	23141.3	511.97 ug/L	4.764	511.97 ppb	4.764	0.93%
P 214.914†	1196.0	511.88 ug/L	7.122	511.88 ppb	7.122	1.39%
Pb 220.353†	4962.8	526.78 ug/L	5.089	526.78 ppb	5.089	0.97%
S 181.975 Axial†	4529.3	5209.1 ug/L	63.12	5209.1 ppb	63.12	1.21%
Sb 206.836†	1711.4	529.38 ug/L	3.892	529.38 ppb	3.892	0.74%
Se 196.026†	992.8	527.34 ug/L	4.046	527.34 ppb	4.046	0.77%
Si 251.611†	175711.7	5054.7 ug/L	2.84	5054.7 ppb	2.84	0.06%
Sn 189.927†	3518.8	532.67 ug/L	6.028	532.67 ppb	6.028	1.13%
Sr 421.552†	70298.8	545.84 ug/L	1.536	545.84 ppb	1.536	0.28%
Ti 334.940†	329306.5	520.87 ug/L	0.547	520.87 ppb	0.547	0.11%
Tl 190.801†	1863.4	522.82 ug/L	7.041	522.82 ppb	7.041	1.35%
U 409.014†	17518.9	518.51 ug/L	4.199	518.51 ppb	4.199	0.81%
V 292.402†	82055.9	524.06 ug/L	0.340	524.06 ppb	0.340	0.06%
Zn 213.857†	61488.2	503.93 ug/L	0.652	503.93 ppb	0.652	0.13%
SiO2†	175334.4	10865 ug/L	42.6	10865 ppb	42.6	0.39%

Sequence No.: 4
Sample ID: 243554001|936813|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 41
Date Collected: 1/8/2010 13:03:57
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 243554001|936813|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4393.8	4393.8	99.9	%			13:05:49
1	Y RADIAL	4641.3	4641.3	99.05	%			13:05:49
1	Al 396.153Radial†	5.7	5.4	4.6312	ug/L	4.6312	ppb	13:05:49
1	Ca 317.933Radial†	28.4	14.7	25.276	ug/L	25.276	ppb	13:06:09
1	Fe 238.204 Radial†	10.8	1.3	12.629	ug/L	12.629	ppb	13:06:09
1	K 766.490 Radial†	3294.1	169.7	35.943	ug/L	35.943	ppb	13:05:49
1	Mg 279.077 IEC†	5.5	1.3	45.369	ug/L	45.369	ppb	13:06:09
1	Na 589.592 Radial†	-1226.2	111.8	38.582	ug/L	38.582	ppb	13:05:49
1	Sr 421.552†	12.4	17.1	0.1322	ug/L	0.1322	ppb	13:05:49
1	Sc 361.383	864910.0	864910.0	101.16	%			13:07:06
1	Y 371.029	739950.3	739950.3	101.06	%			13:07:06
1	Ag 328.068†	410.8	-54.9	-0.2329	ug/L	-0.2329	ppb	13:07:06
1	As 188.979†	-16.7	23.7	8.3737	ug/L	8.3737	ppb	13:07:26
1	B 249.677†	-139.3	646.8	13.324	ug/L	13.324	ppb	13:07:06
1	Ba 233.527†	6.3	13.7	0.1023	ug/L	0.1023	ppb	13:07:26
1	Be 313.107†	-4406.2	32.7	0.0114	ug/L	0.0114	ppb	13:07:06
1	Cd 226.502†	-251.4	-4.5	-0.0442	ug/L	-0.0442	ppb	13:07:26
1	Co 228.616†	-79.2	21.7	0.4108	ug/L	0.4108	ppb	13:07:26
1	Cr 267.716†	121.0	4.0	0.0414	ug/L	0.0414	ppb	13:07:06
1	Cu 324.752†	8533.7	236.5	0.6995	ug/L	0.6995	ppb	13:07:06
1	Mn 257.610†	843.7	201.5	0.2144	ug/L	0.2144	ppb	13:07:06
1	Mo 202.031†	34.1	8.5	0.5449	ug/L	0.5449	ppb	13:07:26
1	Ni 231.604†	135.2	6.7	0.1488	ug/L	0.1488	ppb	13:07:26
1	P 214.914†	274.4	16.6	8.0823	ug/L	8.0823	ppb	13:07:26
1	Pb 220.353†	-96.7	-13.7	-1.4539	ug/L	-1.4539	ppb	13:07:26
1	S 181.975 Axial†	68.3	-0.3	-0.3902	ug/L	-0.3902	ppb	13:07:26
1	Sb 206.836†	50.6	12.6	3.8578	ug/L	3.8578	ppb	13:07:26
1	Se 196.026†	-27.4	6.1	3.1557	ug/L	3.1557	ppb	13:07:26
1	Si 251.611†	925.2	328.7	9.4567	ug/L	9.4567	ppb	13:07:26
1	Sn 189.927†	8.0	4.3	0.6526	ug/L	0.6526	ppb	13:07:26
1	Ti 334.940†	-1586.8	147.3	0.2335	ug/L	0.2335	ppb	13:07:06
1	Tl 190.801†	-46.3	-2.6	-0.7175	ug/L	-0.7175	ppb	13:07:26
1	U 409.014†	-2617.9	68.3	2.0256	ug/L	2.0256	ppb	13:07:06
1	V 292.402†	-1685.3	82.7	0.5317	ug/L	0.5317	ppb	13:07:06
1	Zn 213.857†	993.7	161.2	1.3287	ug/L	1.3287	ppb	13:07:26
1	SiO2†	933.9	311.4	19.291	ug/L	19.291	ppb	13:08:23
2	Sc Radial	4632.2	4632.2	105	%			13:06:14
2	Y RADIAL	4918.6	4918.6	105.0	%			13:06:14
2	Al 396.153Radial†	-2.0	-2.2	-1.8932	ug/L	-1.8932	ppb	13:06:14
2	Ca 317.933Radial†	25.3	10.2	17.607	ug/L	17.607	ppb	13:06:35
2	Fe 238.204 Radial†	12.5	2.3	23.255	ug/L	23.255	ppb	13:06:35
2	K 766.490 Radial†	3192.2	-96.7	-20.514	ug/L	-20.514	ppb	13:06:14
2	Mg 279.077 IEC†	3.6	-0.8	-28.470	ug/L	-28.470	ppb	13:06:35
2	Na 589.592 Radial†	-1247.8	154.5	53.330	ug/L	53.330	ppb	13:06:14
2	Sr 421.552†	-10.5	-5.4	-0.0418	ug/L	-0.0418	ppb	13:06:14
2	Sc 361.383	857571.8	857571.8	100.30	%			13:07:32
2	Y 371.029	734018.1	734018.1	100.25	%			13:07:32
2	Ag 328.068†	461.4	-1.1	0.0009	ug/L	0.0009	ppb	13:07:32
2	As 188.979†	-20.5	19.8	6.9994	ug/L	6.9994	ppb	13:07:52
2	B 249.677†	-262.5	522.8	10.768	ug/L	10.768	ppb	13:07:32
2	Ba 233.527†	16.0	23.4	0.1747	ug/L	0.1747	ppb	13:07:52
2	Be 313.107†	-4303.3	98.0	0.0337	ug/L	0.0337	ppb	13:07:32
2	Cd 226.502†	-225.2	19.5	0.1835	ug/L	0.1835	ppb	13:07:52
2	Co 228.616†	-81.3	18.9	0.3552	ug/L	0.3552	ppb	13:07:52
2	Cr 267.716†	157.9	41.8	0.4243	ug/L	0.4243	ppb	13:07:32
2	Cu 324.752†	8579.2	354.0	1.0473	ug/L	1.0473	ppb	13:07:32
2	Mn 257.610†	790.4	155.5	0.1680	ug/L	0.1680	ppb	13:07:32
2	Mo 202.031†	21.2	-4.1	-0.2592	ug/L	-0.2592	ppb	13:07:52
2	Ni 231.604†	148.8	21.5	0.4749	ug/L	0.4749	ppb	13:07:52

2	P 214.914†	257.2	1.8	0.7044	ug/L	0.7044 ppb	13:07:52
2	Pb 220.353†	-81.3	0.7	0.0748	ug/L	0.0748 ppb	13:07:52
2	S 181.975 Axial†	66.5	-1.6	-1.8427	ug/L	-1.8427 ppb	13:07:52
2	Sb 206.836†	50.0	12.4	3.7878	ug/L	3.7878 ppb	13:07:52
2	Se 196.026†	-26.1	7.1	3.7196	ug/L	3.7196 ppb	13:07:52
2	Si 251.611†	955.2	366.4	10.577	ug/L	10.577 ppb	13:07:52
2	Sn 189.927†	7.6	4.0	0.6043	ug/L	0.6043 ppb	13:07:52
2	Ti 334.940†	-1480.2	240.1	0.3781	ug/L	0.3781 ppb	13:07:32
2	Tl 190.801†	-56.4	-13.0	-3.6248	ug/L	-3.6248 ppb	13:07:52
2	U 409.014†	-2472.6	191.0	5.6679	ug/L	5.6679 ppb	13:07:32
2	V 292.402†	-1635.1	118.5	0.7493	ug/L	0.7493 ppb	13:07:32
2	Zn 213.857†	992.2	168.2	1.3855	ug/L	1.3855 ppb	13:07:52
2	SiO2†	1006.6	391.8	24.357	ug/L	24.357 ppb	13:08:28
3	Sc Radial	4498.6	4498.6	102	%		13:06:40
3	Y RADIAL	4759.4	4759.4	101.6	%		13:06:40
3	Al 396.153Radial†	-1.5	-1.8	-1.5560	ug/L	-1.5560 ppb	13:06:40
3	Ca 317.933Radial†	21.3	7.0	12.031	ug/L	12.031 ppb	13:07:00
3	Fe 238.204 Radial†	13.3	3.5	34.970	ug/L	34.970 ppb	13:07:00
3	K 766.490 Radial†	3199.1	0.0	-0.0005	ug/L	-0.0005 ppb	13:06:40
3	Mg 279.077 IEC†	3.2	-1.1	-38.883	ug/L	-38.883 ppb	13:07:00
3	Na 589.592 Radial†	-1307.1	61.3	21.163	ug/L	21.163 ppb	13:06:40
3	Sr 421.552†	21.5	25.7	0.1993	ug/L	0.1993 ppb	13:06:40
3	Sc 361.383	864857.0	864857.0	101.15	%		13:07:57
3	Y 371.029	739534.1	739534.1	101.00	%		13:07:57
3	Ag 328.068†	448.2	-18.0	-0.0683	ug/L	-0.0683 ppb	13:07:57
3	As 188.979†	-18.1	22.3	7.8885	ug/L	7.8885 ppb	13:08:17
3	B 249.677†	-190.1	596.6	12.289	ug/L	12.289 ppb	13:07:57
3	Ba 233.527†	28.4	35.5	0.2640	ug/L	0.2640 ppb	13:08:17
3	Be 313.107†	-4276.7	160.4	0.0546	ug/L	0.0546 ppb	13:07:57
3	Cd 226.502†	-244.2	2.6	0.0212	ug/L	0.0212 ppb	13:08:17
3	Co 228.616†	-84.7	16.2	0.3057	ug/L	0.3057 ppb	13:08:17
3	Cr 267.716†	76.8	-39.7	-0.4028	ug/L	-0.4028 ppb	13:07:57
3	Cu 324.752†	8693.0	394.5	1.1676	ug/L	1.1676 ppb	13:07:57
3	Mn 257.610†	774.2	132.8	0.1453	ug/L	0.1453 ppb	13:07:57
3	Mo 202.031†	25.1	-0.4	-0.0245	ug/L	-0.0245 ppb	13:08:17
3	Ni 231.604†	138.9	10.4	0.2306	ug/L	0.2306 ppb	13:08:17
3	P 214.914†	263.3	5.7	2.5757	ug/L	2.5757 ppb	13:08:17
3	Pb 220.353†	-79.7	3.1	0.3225	ug/L	0.3225 ppb	13:08:17
3	S 181.975 Axial†	71.6	2.9	3.3542	ug/L	3.3542 ppb	13:08:17
3	Sb 206.836†	47.2	9.2	2.8080	ug/L	2.8080 ppb	13:08:17
3	Se 196.026†	-36.7	-3.2	-1.5116	ug/L	-1.5116 ppb	13:08:17
3	Si 251.611†	921.6	325.2	9.3808	ug/L	9.3808 ppb	13:08:17
3	Sn 189.927†	1.2	-2.4	-0.3617	ug/L	-0.3617 ppb	13:08:17
3	Ti 334.940†	-1506.0	227.0	0.3582	ug/L	0.3582 ppb	13:07:57
3	Tl 190.801†	-57.9	-14.1	-3.9216	ug/L	-3.9216 ppb	13:08:17
3	U 409.014†	-2547.4	137.9	4.0897	ug/L	4.0897 ppb	13:07:57
3	V 292.402†	-1708.3	59.9	0.3786	ug/L	0.3786 ppb	13:07:57
3	Zn 213.857†	993.9	161.5	1.3314	ug/L	1.3314 ppb	13:08:17
3	SiO2†	957.5	334.8	20.800	ug/L	20.800 ppb	13:08:33

Mean Data: 243554001|936813|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	862446.3	100.87	%	0.494				0.49%
Sc Radial	4508.2	103	%	2.7				2.65%
Y 371.029	737834.2	100.77	%	0.452				0.45%
Y RADIAL	4773.1	101.9	%	2.97				2.92%
Ag 328.068†	-24.7	-0.1001	ug/L	0.12008	-0.1001	ppb	0.12008	119.97%
Al 396.153Radial†	0.5	0.3940	ug/L	3.67342	0.3940	ppb	3.67342	932.31%
As 188.979†	22.0	7.7539	ug/L	0.69698	7.7539	ppb	0.69698	8.99%
B 249.677†	588.7	12.127	ug/L	1.2860	12.127	ppb	1.2860	10.60%
Ba 233.527†	24.2	0.1803	ug/L	0.08098	0.1803	ppb	0.08098	44.91%
Be 313.107†	97.0	0.0333	ug/L	0.02160	0.0333	ppb	0.02160	64.93%
Ca 317.933Radial†	10.6	18.305	ug/L	6.6503	18.305	ppb	6.6503	36.33%
Cd 226.502†	5.8	0.0535	ug/L	0.11723	0.0535	ppb	0.11723	219.25%
Co 228.616†	18.9	0.3573	ug/L	0.05257	0.3573	ppb	0.05257	14.71%
Cr 267.716†	2.1	0.0210	ug/L	0.41393	0.0210	ppb	0.41393	>999.9%
Cu 324.752†	328.4	0.9715	ug/L	0.24312	0.9715	ppb	0.24312	25.03%
Fe 238.204 Radial†	2.4	23.618	ug/L	11.1746	23.618	ppb	11.1746	47.31%
K 766.490 Radial†	24.4	5.1429	ug/L	28.57786	5.1429	ppb	28.57786	555.68%

Mg 279.077 IEC†	-0.2	-7.3278	ug/L	45.93313	-7.3278	ppb	45.93313 626.84%
Mn 257.610†	163.3	0.1759	ug/L	0.03522	0.1759	ppb	0.03522 20.03%
Mo 202.031†	1.3	0.0870	ug/L	0.41349	0.0870	ppb	0.41349 475.03%
Na 589.592 Radial†	109.2	37.692	ug/L	16.1018	37.692	ppb	16.1018 42.72%
Ni 231.604†	12.9	0.2848	ug/L	0.16969	0.2848	ppb	0.16969 59.59%
P 214.914†	8.0	3.7875	ug/L	3.83534	3.7875	ppb	3.83534 101.26%
Pb 220.353†	-3.3	-0.3522	ug/L	0.96212	-0.3522	ppb	0.96212 273.18%
S 181.975 Axial†	0.3	0.3738	ug/L	2.68136	0.3738	ppb	2.68136 717.37%
Sb 206.836†	11.4	3.4845	ug/L	0.58692	3.4845	ppb	0.58692 16.84%
Se 196.026†	3.3	1.7879	ug/L	2.87129	1.7879	ppb	2.87129 160.60%
Si 251.611†	340.1	9.8048	ug/L	0.66976	9.8048	ppb	0.66976 6.83%
Sn 189.927†	2.0	0.2984	ug/L	0.57222	0.2984	ppb	0.57222 191.75%
Sr 421.552†	12.5	0.0966	ug/L	0.12443	0.0966	ppb	0.12443 128.83%
Ti 334.940†	204.8	0.3233	ug/L	0.07841	0.3233	ppb	0.07841 24.25%
Tl 190.801†	-9.9	-2.7546	ug/L	1.77045	-2.7546	ppb	1.77045 64.27%
U 409.014†	132.4	3.9277	ug/L	1.82654	3.9277	ppb	1.82654 46.50%
V 292.402†	87.0	0.5532	ug/L	0.18629	0.5532	ppb	0.18629 33.67%
Zn 213.857†	163.6	1.3485	ug/L	0.03205	1.3485	ppb	0.03205 2.38%
SiO2†	346.0	21.483	ug/L	2.6012	21.483	ppb	2.6012 12.11%

Sequence No.: 5
Sample ID: 1202004437|936813|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 42
Date Collected: 1/8/2010 13:10:43
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202004437|936813|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4243.0	4243.0	96.5	%			13:12:56
1	Y RADIAL	4697.1	4697.1	100.2	%			13:12:36
1	Al 396.153Radial†	20.0	20.4	17.689	ug/L	17.689	ppb	13:12:36
1	Ca 317.933Radial†	19.1	6.0	10.313	ug/L	10.313	ppb	13:12:56
1	Fe 238.204 Radial†	11.6	2.5	24.731	ug/L	24.731	ppb	13:12:56
1	K 766.490 Radial†	3314.4	307.9	65.229	ug/L	65.229	ppb	13:12:36
1	Mg 279.077 IEC†	1.5	-2.6	-89.729	ug/L	-89.729	ppb	13:12:56
1	Na 589.592 Radial†	-1247.3	46.3	15.992	ug/L	15.992	ppb	13:12:36
1	Sr 421.552†	35.5	41.4	0.3218	ug/L	0.3218	ppb	13:12:36
1	Sc 361.383	851105.8	851105.8	99.544	%			13:13:53
1	Y 371.029	727813.4	727813.4	99.399	%			13:13:53
1	Ag 328.068†	407.8	-51.4	-0.2175	ug/L	-0.2175	ppb	13:13:53
1	As 188.979†	-18.1	22.1	7.7897	ug/L	7.7897	ppb	13:14:13
1	B 249.677†	-282.1	501.2	10.324	ug/L	10.324	ppb	13:13:53
1	Ba 233.527†	4.2	11.7	0.0866	ug/L	0.0866	ppb	13:14:13
1	Be 313.107†	-4315.8	52.8	0.0185	ug/L	0.0185	ppb	13:13:53
1	Cd 226.502†	-238.5	4.4	0.0396	ug/L	0.0396	ppb	13:14:13
1	Co 228.616†	-105.9	-6.5	-0.1221	ug/L	-0.1221	ppb	13:14:13
1	Cr 267.716†	99.8	-15.3	-0.1565	ug/L	-0.1565	ppb	13:13:53
1	Cu 324.752†	8195.1	33.2	0.0995	ug/L	0.0995	ppb	13:13:53
1	Mn 257.610†	876.7	248.1	0.2676	ug/L	0.2676	ppb	13:13:53
1	Mo 202.031†	35.3	10.2	0.6545	ug/L	0.6545	ppb	13:14:13
1	Ni 231.604†	149.1	22.8	0.5056	ug/L	0.5056	ppb	13:14:13
1	P 214.914†	267.7	14.3	6.9974	ug/L	6.9974	ppb	13:14:13
1	Pb 220.353†	-102.6	-21.2	-2.2388	ug/L	-2.2388	ppb	13:14:13
1	S 181.975 Axial†	63.6	-4.0	-4.6240	ug/L	-4.6240	ppb	13:14:13
1	Sb 206.836†	54.9	17.7	5.3973	ug/L	5.3973	ppb	13:14:13
1	Se 196.026†	-22.8	10.2	5.3226	ug/L	5.3226	ppb	13:14:13
1	Si 251.611†	924.0	342.4	9.8424	ug/L	9.8424	ppb	13:14:13
1	Sn 189.927†	1.1	-2.5	-0.3810	ug/L	-0.3810	ppb	13:14:13
1	Ti 334.940†	-1470.0	239.1	0.3770	ug/L	0.3770	ppb	13:13:53
1	Tl 190.801†	-50.1	-7.1	-1.9856	ug/L	-1.9856	ppb	13:14:13
1	U 409.014†	-2498.8	146.0	4.3323	ug/L	4.3323	ppb	13:13:53
1	V 292.402†	-1755.0	-14.3	-0.0784	ug/L	-0.0784	ppb	13:13:53
1	Zn 213.857†	945.1	128.3	1.0591	ug/L	1.0591	ppb	13:14:13
1	SiO2†	977.5	370.1	22.922	ug/L	22.922	ppb	13:15:09
2	Sc Radial	4227.4	4227.4	96.1	%			13:13:21
2	Y RADIAL	4615.8	4615.8	98.50	%			13:13:01
2	Al 396.153Radial†	-12.3	-13.1	-11.422	ug/L	-11.422	ppb	13:13:01
2	Ca 317.933Radial†	17.1	4.0	6.8315	ug/L	6.8315	ppb	13:13:21
2	Fe 238.204 Radial†	11.1	2.1	20.461	ug/L	20.461	ppb	13:13:21
2	K 766.490 Radial†	3242.8	246.1	52.140	ug/L	52.140	ppb	13:13:01
2	Mg 279.077 IEC†	4.2	0.2	6.5512	ug/L	6.5512	ppb	13:13:21
2	Na 589.592 Radial†	-1258.9	29.5	10.175	ug/L	10.175	ppb	13:13:01
2	Sr 421.552†	-6.5	-2.2	-0.0168	ug/L	-0.0168	ppb	13:13:01
2	Sc 361.383	855769.6	855769.6	100.09	%			13:14:18
2	Y 371.029	731322.9	731322.9	99.878	%			13:14:18
2	Ag 328.068†	353.3	-108.1	-0.4617	ug/L	-0.4617	ppb	13:14:18
2	As 188.979†	-23.7	16.6	5.8681	ug/L	5.8681	ppb	13:14:38
2	B 249.677†	-210.1	574.6	11.837	ug/L	11.837	ppb	13:14:18
2	Ba 233.527†	5.1	12.6	0.0930	ug/L	0.0930	ppb	13:14:38
2	Be 313.107†	-4365.5	26.8	0.0095	ug/L	0.0095	ppb	13:14:18
2	Cd 226.502†	-234.4	9.8	0.0913	ug/L	0.0913	ppb	13:14:38
2	Co 228.616†	-96.0	4.0	0.0757	ug/L	0.0757	ppb	13:14:38
2	Cr 267.716†	123.2	7.5	0.0758	ug/L	0.0758	ppb	13:14:18
2	Cu 324.752†	8188.4	-18.3	-0.0532	ug/L	-0.0532	ppb	13:14:18
2	Mn 257.610†	882.3	248.9	0.2662	ug/L	0.2662	ppb	13:14:18
2	Mo 202.031†	30.8	5.5	0.3536	ug/L	0.3536	ppb	13:14:38
2	Ni 231.604†	131.8	4.8	0.1058	ug/L	0.1058	ppb	13:14:38

2	P 214.914†	272.7	17.7	8.7547 ug/L	8.7547 ppb	13:14:38
2	Pb 220.353†	-97.4	-15.5	-1.6429 ug/L	-1.6429 ppb	13:14:38
2	S 181.975 Axial†	63.6	-4.3	-4.9592 ug/L	-4.9592 ppb	13:14:38
2	Sb 206.836†	59.3	21.8	6.6865 ug/L	6.6865 ppb	13:14:38
2	Se 196.026†	-32.9	0.2	0.1749 ug/L	0.1749 ppb	13:14:38
2	Si 251.611†	911.2	324.5	9.3303 ug/L	9.3303 ppb	13:14:38
2	Sn 189.927†	12.6	9.0	1.3570 ug/L	1.3570 ppb	13:14:38
2	Ti 334.940†	-1570.6	146.7	0.2313 ug/L	0.2313 ppb	13:14:18
2	Tl 190.801†	-45.0	-1.8	-0.5034 ug/L	-0.5034 ppb	13:14:38
2	U 409.014†	-2580.2	78.3	2.3218 ug/L	2.3218 ppb	13:14:18
2	V 292.402†	-1756.7	-6.4	-0.0338 ug/L	-0.0338 ppb	13:14:18
2	Zn 213.857†	949.0	127.0	1.0480 ug/L	1.0480 ppb	13:14:38
2	SiO2†	978.9	366.3	22.691 ug/L	22.691 ppb	13:15:14
3	Sc Radial	4211.6	4211.6	95.8 %		13:13:46
3	Y RADIAL	4700.5	4700.5	100.3 %		13:13:26
3	Al 396.153Radial†	-19.8	-21.1	-18.295 ug/L	-18.295 ppb	13:13:26
3	Ca 317.933Radial†	16.0	2.9	4.9436 ug/L	4.9436 ppb	13:13:46
3	Fe 238.204 Radial†	11.7	2.7	27.054 ug/L	27.054 ppb	13:13:46
3	K 766.490 Radial†	3223.5	238.6	50.550 ug/L	50.550 ppb	13:13:26
3	Mg 279.077 IEC†	1.2	-3.0	-102.81 ug/L	-102.81 ppb	13:13:46
3	Na 589.592 Radial†	-1268.0	15.1	5.2005 ug/L	5.2005 ppb	13:13:26
3	Sr 421.552†	10.6	15.7	0.1215 ug/L	0.1215 ppb	13:13:26
3	Sc 361.383	855654.3	855654.3	100.08 %		13:14:44
3	Y 371.029	731787.9	731787.9	99.942 %		13:14:44
3	Ag 328.068†	380.1	-81.3	-0.3451 ug/L	-0.3451 ppb	13:14:44
3	As 188.979†	-28.0	12.3	4.3417 ug/L	4.3417 ppb	13:15:04
3	B 249.677†	-243.0	541.7	11.158 ug/L	11.158 ppb	13:14:44
3	Ba 233.527†	6.7	14.2	0.1052 ug/L	0.1052 ppb	13:15:04
3	Be 313.107†	-4451.7	-59.9	-0.0193 ug/L	-0.0193 ppb	13:14:44
3	Cd 226.502†	-240.2	3.9	0.0351 ug/L	0.0351 ppb	13:15:04
3	Co 228.616†	-97.4	2.6	0.0484 ug/L	0.0484 ppb	13:15:04
3	Cr 267.716†	108.6	-7.1	-0.0733 ug/L	-0.0733 ppb	13:14:44
3	Cu 324.752†	8106.0	-99.6	-0.2929 ug/L	-0.2929 ppb	13:14:44
3	Mn 257.610†	811.0	177.8	0.1934 ug/L	0.1934 ppb	13:14:44
3	Mo 202.031†	27.4	2.1	0.1381 ug/L	0.1381 ppb	13:15:04
3	Ni 231.604†	151.9	24.9	0.5518 ug/L	0.5518 ppb	13:15:04
3	P 214.914†	278.2	23.4	11.537 ug/L	11.537 ppb	13:15:04
3	Pb 220.353†	-75.4	6.5	0.6774 ug/L	0.6774 ppb	13:15:04
3	S 181.975 Axial†	64.6	-3.3	-3.7692 ug/L	-3.7692 ppb	13:15:04
3	Sb 206.836†	58.8	21.3	6.4950 ug/L	6.4950 ppb	13:15:04
3	Se 196.026†	-23.1	10.0	5.2158 ug/L	5.2158 ppb	13:15:04
3	Si 251.611†	924.5	338.0	9.7282 ug/L	9.7282 ppb	13:15:04
3	Sn 189.927†	0.9	-2.7	-0.4047 ug/L	-0.4047 ppb	13:15:04
3	Ti 334.940†	-1454.2	262.8	0.4145 ug/L	0.4145 ppb	13:14:44
3	Tl 190.801†	-56.4	-13.2	-3.6794 ug/L	-3.6794 ppb	13:15:04
3	U 409.014†	-2534.3	123.9	3.6749 ug/L	3.6749 ppb	13:14:44
3	V 292.402†	-1760.5	-10.4	-0.0636 ug/L	-0.0636 ppb	13:14:44
3	Zn 213.857†	949.7	127.9	1.0563 ug/L	1.0563 ppb	13:15:04
3	SiO2†	981.6	369.1	22.885 ug/L	22.885 ppb	13:15:19

Mean Data: 1202004437|936813|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	854176.6	99.903	%	0.3111				0.31%
Sc Radial	4227.3	96.1	%	0.36				0.37%
Y 371.029	730308.1	99.740	%	0.2968				0.30%
Y RADIAL	4671.1	99.68	%	1.024				1.03%
Ag 328.068†	-80.2	-0.3415	ug/L	0.12214	-0.3415	ppb	0.12214	35.77%
Al 396.153Radial†	-4.6	-4.0096	ug/L	19.10315	-4.0096	ppb	19.10315	476.43%
As 188.979†	17.0	5.9998	ug/L	1.72776	5.9998	ppb	1.72776	28.80%
B 249.677†	539.1	11.106	ug/L	0.7579	11.106	ppb	0.7579	6.82%
Ba 233.527†	12.8	0.0949	ug/L	0.00943	0.0949	ppb	0.00943	9.93%
Be 313.107†	6.6	0.0029	ug/L	0.01977	0.0029	ppb	0.01977	685.89%
Ca 317.933Radial†	4.3	7.3626	ug/L	2.72365	7.3626	ppb	2.72365	36.99%
Cd 226.502†	6.0	0.0553	ug/L	0.03123	0.0553	ppb	0.03123	56.43%
Co 228.616†	0.0	0.0007	ug/L	0.10718	0.0007	ppb	0.10718	>999.9%
Cr 267.716†	-5.0	-0.0513	ug/L	0.11770	-0.0513	ppb	0.11770	229.41%
Cu 324.752†	-28.2	-0.0822	ug/L	0.19779	-0.0822	ppb	0.19779	240.60%
Fe 238.204 Radial†	2.4	24.082	ug/L	3.3439	24.082	ppb	3.3439	13.89%
K 766.490 Radial†	264.2	55.973	ug/L	8.0553	55.973	ppb	8.0553	14.39%

Mg 279.077 IEC†	-1.8	-61.994	ug/L	59.7212	-61.994	ppb	59.7212 96.33%
Mn 257.610†	224.9	0.2424	ug/L	0.04244	0.2424	ppb	0.04244 17.51%
Mo 202.031†	5.9	0.3821	ug/L	0.25938	0.3821	ppb	0.25938 67.89%
Na 589.592 Radial†	30.3	10.456	ug/L	5.4013	10.456	ppb	5.4013 51.66%
Ni 231.604†	17.5	0.3877	ug/L	0.24522	0.3877	ppb	0.24522 63.24%
P 214.914†	18.4	9.0964	ug/L	2.28903	9.0964	ppb	2.28903 25.16%
Pb 220.353†	-10.1	-1.0681	ug/L	1.54075	-1.0681	ppb	1.54075 144.25%
S 181.975 Axial†	-3.9	-4.4508	ug/L	0.61362	-4.4508	ppb	0.61362 13.79%
Sb 206.836†	20.3	6.1929	ug/L	0.69567	6.1929	ppb	0.69567 11.23%
Se 196.026†	6.8	3.5711	ug/L	2.94169	3.5711	ppb	2.94169 82.38%
Si 251.611†	335.0	9.6336	ug/L	0.26882	9.6336	ppb	0.26882 2.79%
Sn 189.927†	1.3	0.1905	ug/L	1.01033	0.1905	ppb	1.01033 530.49%
Sr 421.552†	18.3	0.1421	ug/L	0.17024	0.1421	ppb	0.17024 119.77%
Ti 334.940†	216.2	0.3410	ug/L	0.09675	0.3410	ppb	0.09675 28.38%
Tl 190.801†	-7.4	-2.0561	ug/L	1.58917	-2.0561	ppb	1.58917 77.29%
U 409.014†	116.1	3.4430	ug/L	1.02513	3.4430	ppb	1.02513 29.77%
V 292.402†	-10.4	-0.0586	ug/L	0.02268	-0.0586	ppb	0.02268 38.69%
Zn 213.857†	127.7	1.0545	ug/L	0.00573	1.0545	ppb	0.00573 0.54%
SiO2†	368.5	22.833	ug/L	0.1243	22.833	ppb	0.1243 0.54%

Sequence No.: 6
Sample ID: 1202004438|936813|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 43
Date Collected: 1/8/2010 13:17:29
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202004438|936813|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4367.3	4367.3	99.3	%			13:19:22
1	Y RADIAL	4639.9	4639.9	99.02	%			13:19:22
1	Al 396.153Radial†	5989.9	6030.5	5214.7	ug/L	5214.7	ppb	13:19:22
1	Ca 317.933Radial†	3001.1	3007.9	5183.0	ug/L	5183.0	ppb	13:19:42
1	Fe 238.204 Radial†	542.2	536.5	5324.0	ug/L	5324.0	ppb	13:19:42
1	K 766.490 Radial†	28232.8	25299.3	5353.4	ug/L	5353.4	ppb	13:19:22
1	Mg 279.077 IEC†	155.0	151.8	5217.3	ug/L	5217.3	ppb	13:19:42
1	Na 589.592 Radial†	13930.1	15364.5	5303.7	ug/L	5303.7	ppb	13:19:22
1	Sr 421.552†	68821.4	69297.4	538.07	ug/L	538.07	ppb	13:19:22
1	Sc 361.383	875383.1	875383.1	102.38	%			13:20:41
1	Y 371.029	739579.3	739579.3	101.01	%			13:20:41
1	Ag 328.068†	121219.3	117935.9	512.07	ug/L	512.07	ppb	13:20:41
1	As 188.979†	1442.3	1448.9	516.27	ug/L	516.27	ppb	13:21:01
1	B 249.677†	24823.1	25029.7	513.78	ug/L	513.78	ppb	13:20:41
1	Ba 233.527†	72981.9	71290.2	527.27	ug/L	527.27	ppb	13:20:41
1	Be 313.107†	1569244.0	1537096.2	517.98	ug/L	517.98	ppb	13:20:41
1	Cd 226.502†	55005.6	53968.9	513.67	ug/L	513.67	ppb	13:20:41
1	Co 228.616†	27092.9	26562.0	502.61	ug/L	502.61	ppb	13:21:01
1	Cr 267.716†	51710.7	50391.1	512.19	ug/L	512.19	ppb	13:20:41
1	Cu 324.752†	187822.9	175250.5	518.13	ug/L	518.13	ppb	13:20:41
1	Mn 257.610†	505514.6	493112.3	524.05	ug/L	524.05	ppb	13:20:41
1	Mo 202.031†	8182.9	7967.2	509.05	ug/L	509.05	ppb	13:21:01
1	Ni 231.604†	23598.3	22922.0	507.12	ug/L	507.12	ppb	13:21:01
1	P 214.914†	1483.6	1194.3	511.03	ug/L	511.03	ppb	13:21:01
1	Pb 220.353†	4942.1	4908.8	521.06	ug/L	521.06	ppb	13:21:01
1	S 181.975 Axial†	4652.5	4476.3	5148.2	ug/L	5148.2	ppb	13:21:01
1	Sb 206.836†	1778.7	1699.8	525.68	ug/L	525.68	ppb	13:21:01
1	Se 196.026†	967.6	978.2	519.69	ug/L	519.69	ppb	13:21:01
1	Si 251.611†	180140.3	175360.3	5044.7	ug/L	5044.7	ppb	13:20:41
1	Sn 189.927†	3560.2	3473.7	525.86	ug/L	525.86	ppb	13:21:01
1	Ti 334.940†	335323.3	329231.9	520.75	ug/L	520.75	ppb	13:20:41
1	Tl 190.801†	1838.4	1838.8	516.00	ug/L	516.00	ppb	13:21:01
1	U 409.014†	15256.2	17557.2	519.66	ug/L	519.66	ppb	13:20:41
1	V 292.402†	81933.0	81774.1	522.22	ug/L	522.22	ppb	13:20:41
1	Zn 213.857†	63434.0	61136.0	501.06	ug/L	501.06	ppb	13:20:41
1	SiO2†	178771.7	173997.6	10782	ug/L	10782	ppb	13:22:01
2	Sc Radial	4378.8	4378.8	99.6	%			13:19:47
2	Y RADIAL	4635.5	4635.5	98.92	%			13:19:47
2	Al 396.153Radial†	6010.9	6035.9	5219.3	ug/L	5219.3	ppb	13:19:47
2	Ca 317.933Radial†	3024.2	3023.1	5209.3	ug/L	5209.3	ppb	13:20:07
2	Fe 238.204 Radial†	546.3	539.1	5350.0	ug/L	5350.0	ppb	13:20:07
2	K 766.490 Radial†	28464.7	25457.5	5387.0	ug/L	5387.0	ppb	13:19:47
2	Mg 279.077 IEC†	151.1	147.5	5069.5	ug/L	5069.5	ppb	13:20:07
2	Na 589.592 Radial†	14066.6	15464.7	5338.3	ug/L	5338.3	ppb	13:19:47
2	Sr 421.552†	69129.5	69425.0	539.06	ug/L	539.06	ppb	13:19:47
2	Sc 361.383	873456.8	873456.8	102.16	%			13:21:08
2	Y 371.029	739292.5	739292.5	100.97	%			13:21:08
2	Ag 328.068†	120295.6	117292.9	509.30	ug/L	509.30	ppb	13:21:08
2	As 188.979†	1451.3	1460.9	520.48	ug/L	520.48	ppb	13:21:28
2	B 249.677†	24695.9	24958.6	512.31	ug/L	512.31	ppb	13:21:08
2	Ba 233.527†	72434.4	70911.4	524.47	ug/L	524.47	ppb	13:21:08
2	Be 313.107†	1559320.8	1530762.8	515.84	ug/L	515.84	ppb	13:21:08
2	Cd 226.502†	54594.6	53685.0	510.97	ug/L	510.97	ppb	13:21:08
2	Co 228.616†	27114.9	26642.0	504.13	ug/L	504.13	ppb	13:21:28
2	Cr 267.716†	51297.1	50097.7	509.21	ug/L	509.21	ppb	13:21:08
2	Cu 324.752†	186668.4	174524.9	515.99	ug/L	515.99	ppb	13:21:08
2	Mn 257.610†	502219.5	490975.8	521.79	ug/L	521.79	ppb	13:21:08
2	Mo 202.031†	8200.4	8002.0	511.27	ug/L	511.27	ppb	13:21:28
2	Ni 231.604†	23594.7	22969.3	508.16	ug/L	508.16	ppb	13:21:28

2	P 214.914†	1468.9	1183.2	505.91 ug/L	505.91 ppb	13:21:28
2	Pb 220.353†	4957.2	4934.3	523.76 ug/L	523.76 ppb	13:21:28
2	S 181.975 Axial†	4665.2	4498.7	5174.0 ug/L	5174.0 ppb	13:21:28
2	Sb 206.836†	1770.1	1695.2	524.46 ug/L	524.46 ppb	13:21:28
2	Se 196.026†	955.8	968.7	514.90 ug/L	514.90 ppb	13:21:28
2	Si 251.611†	178776.6	174413.5	5017.3 ug/L	5017.3 ppb	13:21:08
2	Sn 189.927†	3579.0	3499.8	529.80 ug/L	529.80 ppb	13:21:28
2	Ti 334.940†	333105.4	327783.2	518.46 ug/L	518.46 ppb	13:21:08
2	Tl 190.801†	1847.3	1851.4	519.48 ug/L	519.48 ppb	13:21:28
2	U 409.014†	15097.8	17435.0	516.03 ug/L	516.03 ppb	13:21:08
2	V 292.402†	81357.5	81387.3	519.80 ug/L	519.80 ppb	13:21:08
2	Zn 213.857†	62900.0	60749.9	497.86 ug/L	497.86 ppb	13:21:08
2	SiO2†	177978.2	173605.9	10757 ug/L	10757 ppb	13:22:06
3	Sc Radial	4329.9	4329.9	98.5 %		13:20:12
3	Y RADIAL	4606.2	4606.2	98.30 %		13:20:12
3	Al 396.153Radial†	5931.2	6023.0	5208.2 ug/L	5208.2 ppb	13:20:12
3	Ca 317.933Radial†	3000.8	3033.6	5227.4 ug/L	5227.4 ppb	13:20:32
3	Fe 238.204 Radial†	543.3	542.3	5381.8 ug/L	5381.8 ppb	13:20:32
3	K 766.490 Radial†	28079.1	25388.4	5372.3 ug/L	5372.3 ppb	13:20:12
3	Mg 279.077 IEC†	155.8	154.0	5292.7 ug/L	5292.7 ppb	13:20:32
3	Na 589.592 Radial†	13785.0	15338.2	5294.6 ug/L	5294.6 ppb	13:20:12
3	Sr 421.552†	68161.0	69224.6	537.50 ug/L	537.50 ppb	13:20:12
3	Sc 361.383	866335.8	866335.8	101.33 %		13:21:36
3	Y 371.029	732386.3	732386.3	100.02 %		13:21:36
3	Ag 328.068†	119587.1	117561.5	510.47 ug/L	510.47 ppb	13:21:36
3	As 188.979†	1444.1	1465.4	522.09 ug/L	522.09 ppb	13:21:56
3	B 249.677†	24509.5	24973.3	512.61 ug/L	512.61 ppb	13:21:36
3	Ba 233.527†	72131.4	71195.1	526.56 ug/L	526.56 ppb	13:21:36
3	Be 313.107†	1551561.0	1535650.8	517.49 ug/L	517.49 ppb	13:21:36
3	Cd 226.502†	54412.0	53944.1	513.43 ug/L	513.43 ppb	13:21:36
3	Co 228.616†	26847.0	26595.7	503.25 ug/L	503.25 ppb	13:21:56
3	Cr 267.716†	51162.0	50377.0	512.05 ug/L	512.05 ppb	13:21:36
3	Cu 324.752†	185408.6	174783.5	516.75 ug/L	516.75 ppb	13:21:36
3	Mn 257.610†	499889.5	492717.0	523.64 ug/L	523.64 ppb	13:21:36
3	Mo 202.031†	8113.5	7982.2	510.01 ug/L	510.01 ppb	13:21:56
3	Ni 231.604†	23392.2	22959.3	507.94 ug/L	507.94 ppb	13:21:56
3	P 214.914†	1478.6	1204.6	516.27 ug/L	516.27 ppb	13:21:56
3	Pb 220.353†	4898.3	4916.0	521.82 ug/L	521.82 ppb	13:21:56
3	S 181.975 Axial†	4611.8	4483.6	5156.6 ug/L	5156.6 ppb	13:21:56
3	Sb 206.836†	1748.1	1687.7	522.04 ug/L	522.04 ppb	13:21:56
3	Se 196.026†	945.9	966.7	513.98 ug/L	513.98 ppb	13:21:56
3	Si 251.611†	177954.6	175040.6	5035.5 ug/L	5035.5 ppb	13:21:36
3	Sn 189.927†	3532.2	3482.3	527.17 ug/L	527.17 ppb	13:21:56
3	Ti 334.940†	330879.4	328266.5	519.23 ug/L	519.23 ppb	13:21:36
3	Tl 190.801†	1823.6	1842.9	517.13 ug/L	517.13 ppb	13:21:56
3	U 409.014†	14936.8	17397.6	514.91 ug/L	514.91 ppb	13:21:36
3	V 292.402†	80856.0	81546.9	520.79 ug/L	520.79 ppb	13:21:36
3	Zn 213.857†	62714.6	61073.0	500.53 ug/L	500.53 ppb	13:21:36
3	SiO2†	178523.4	175576.0	10880 ug/L	10880 ppb	13:22:12

Mean Data: 1202004438|936813|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	871725.2	101.96	%	0.557				0.55%
Sc Radial	4358.6	99.1	%	0.58				0.59%
Y 371.029	737086.1	100.67	%	0.556				0.55%
Y RADIAL	4627.2	98.75	%	0.390				0.40%
Ag 328.068†	117596.8	510.61	ug/L	1.392	510.61	ppb	1.392	0.27%
Al 396.153Radial†	6029.8	5214.1	ug/L	5.57	5214.1	ppb	5.57	0.11%
As 188.979†	1458.4	519.61	ug/L	3.005	519.61	ppb	3.005	0.58%
B 249.677†	24987.2	512.90	ug/L	0.778	512.90	ppb	0.778	0.15%
Ba 233.527†	71132.2	526.10	ug/L	1.457	526.10	ppb	1.457	0.28%
Be 313.107†	1534503.3	517.10	ug/L	1.118	517.10	ppb	1.118	0.22%
Ca 317.933Radial†	3021.5	5206.5	ug/L	22.33	5206.5	ppb	22.33	0.43%
Cd 226.502†	53866.0	512.69	ug/L	1.497	512.69	ppb	1.497	0.29%
Co 228.616†	26599.9	503.33	ug/L	0.764	503.33	ppb	0.764	0.15%
Cr 267.716†	50288.6	511.15	ug/L	1.681	511.15	ppb	1.681	0.33%
Cu 324.752†	174853.0	516.96	ug/L	1.086	516.96	ppb	1.086	0.21%
Fe 238.204 Radial†	539.3	5351.9	ug/L	28.95	5351.9	ppb	28.95	0.54%
K 766.490 Radial†	25381.7	5370.9	ug/L	16.82	5370.9	ppb	16.82	0.31%

Mg 279.077 IEC†	151.1	5193.2	ug/L	113.53	5193.2	ppb	113.53	2.19%
Mn 257.610†	492268.4	523.16	ug/L	1.205	523.16	ppb	1.205	0.23%
Mo 202.031†	7983.8	510.11	ug/L	1.114	510.11	ppb	1.114	0.22%
Na 589.592 Radial†	15389.1	5312.2	ug/L	23.05	5312.2	ppb	23.05	0.43%
Ni 231.604†	22950.2	507.74	ug/L	0.551	507.74	ppb	0.551	0.11%
P 214.914†	1194.0	511.07	ug/L	5.178	511.07	ppb	5.178	1.01%
Pb 220.353†	4919.7	522.21	ug/L	1.391	522.21	ppb	1.391	0.27%
S 181.975 Axial†	4486.2	5159.6	ug/L	13.13	5159.6	ppb	13.13	0.25%
Sb 206.836†	1694.3	524.06	ug/L	1.852	524.06	ppb	1.852	0.35%
Se 196.026†	971.2	516.19	ug/L	3.065	516.19	ppb	3.065	0.59%
Si 251.611†	174938.1	5032.5	ug/L	13.92	5032.5	ppb	13.92	0.28%
Sn 189.927†	3485.3	527.61	ug/L	2.007	527.61	ppb	2.007	0.38%
Sr 421.552†	69315.7	538.21	ug/L	0.788	538.21	ppb	0.788	0.15%
Ti 334.940†	328427.2	519.48	ug/L	1.165	519.48	ppb	1.165	0.22%
Tl 190.801†	1844.4	517.54	ug/L	1.774	517.54	ppb	1.774	0.34%
U 409.014†	17463.3	516.86	ug/L	2.481	516.86	ppb	2.481	0.48%
V 292.402†	81569.4	520.94	ug/L	1.215	520.94	ppb	1.215	0.23%
Zn 213.857†	60986.3	499.82	ug/L	1.711	499.82	ppb	1.711	0.34%
SiO2†	174393.2	10806	ug/L	64.8	10806	ppb	64.8	0.60%

Sequence No.: 7
Sample ID: 1202004439|936813|5
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 44
Date Collected: 1/8/2010 13:24:22
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202004439|936813|5

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4306.7	4306.7	97.9	%			13:26:15
1	Y RADIAL	4547.0	4547.0	97.04	%			13:26:15
1	Al 396.153Radial†	-17.0	-17.7	-15.404	ug/L	-15.404	ppb	13:26:15
1	Ca 317.933Radial†	17.9	4.5	7.7959	ug/L	7.7959	ppb	13:26:35
1	Fe 238.204 Radial†	11.6	2.4	23.703	ug/L	23.703	ppb	13:26:35
1	K 766.490 Radial†	3221.8	162.6	34.451	ug/L	34.451	ppb	13:26:15
1	Mg 279.077 IEC†	5.1	1.0	33.020	ug/L	33.020	ppb	13:26:35
1	Na 589.592 Radial†	-1295.1	16.7	5.7538	ug/L	5.7538	ppb	13:26:15
1	Sr 421.552†	-0.9	3.8	0.0291	ug/L	0.0291	ppb	13:26:15
1	Sc 361.383	859874.2	859874.2	100.57	%			13:27:32
1	Y 371.029	734319.6	734319.6	100.29	%			13:27:32
1	Ag 328.068†	464.9	1.1	0.0129	ug/L	0.0129	ppb	13:27:32
1	As 188.979†	-30.5	9.9	3.5101	ug/L	3.5101	ppb	13:27:52
1	B 249.677†	-258.9	527.1	10.858	ug/L	10.858	ppb	13:27:32
1	Ba 233.527†	3.4	10.8	0.0820	ug/L	0.0820	ppb	13:27:52
1	Be 313.107†	-4354.8	58.2	0.0200	ug/L	0.0200	ppb	13:27:32
1	Cd 226.502†	-231.2	14.1	0.1316	ug/L	0.1316	ppb	13:27:52
1	Co 228.616†	-85.9	14.5	0.2754	ug/L	0.2754	ppb	13:27:52
1	Cr 267.716†	87.5	-28.6	-0.2893	ug/L	-0.2893	ppb	13:27:32
1	Cu 324.752†	8294.9	48.5	0.1444	ug/L	0.1444	ppb	13:27:32
1	Mn 257.610†	828.4	191.2	0.2048	ug/L	0.2048	ppb	13:27:32
1	Mo 202.031†	34.9	9.4	0.6054	ug/L	0.6054	ppb	13:27:52
1	Ni 231.604†	120.3	-7.3	-0.1619	ug/L	-0.1619	ppb	13:27:52
1	P 214.914†	279.6	23.3	11.465	ug/L	11.465	ppb	13:27:52
1	Pb 220.353†	-86.5	-4.1	-0.4405	ug/L	-0.4405	ppb	13:27:52
1	S 181.975 Axial†	70.1	1.9	2.1520	ug/L	2.1520	ppb	13:27:52
1	Sb 206.836†	43.4	5.7	1.7807	ug/L	1.7807	ppb	13:27:52
1	Se 196.026†	-32.2	1.1	0.6421	ug/L	0.6421	ppb	13:27:52
1	Si 251.611†	702.6	112.7	3.2269	ug/L	3.2269	ppb	13:27:52
1	Sn 189.927†	6.6	3.0	0.4497	ug/L	0.4497	ppb	13:27:52
1	Ti 334.940†	-1589.2	135.6	0.2139	ug/L	0.2139	ppb	13:27:32
1	Tl 190.801†	-50.7	-7.3	-2.0246	ug/L	-2.0246	ppb	13:27:52
1	U 409.014†	-2580.2	90.6	2.6888	ug/L	2.6888	ppb	13:27:32
1	V 292.402†	-1658.8	99.4	0.6371	ug/L	0.6371	ppb	13:27:32
1	Zn 213.857†	883.2	57.1	0.4702	ug/L	0.4702	ppb	13:27:52
1	SiO2†	742.7	126.7	7.8195	ug/L	7.8195	ppb	13:28:48
2	Sc Radial	4412.6	4412.6	100	%			13:26:40
2	Y RADIAL	4708.4	4708.4	100.5	%			13:26:40
2	Al 396.153Radial†	1.2	0.9	0.7544	ug/L	0.7544	ppb	13:26:40
2	Ca 317.933Radial†	19.0	5.2	8.8997	ug/L	8.8997	ppb	13:27:00
2	Fe 238.204 Radial†	10.0	0.5	4.7533	ug/L	4.7533	ppb	13:27:00
2	K 766.490 Radial†	3289.3	150.9	31.962	ug/L	31.962	ppb	13:26:40
2	Mg 279.077 IEC†	2.0	-2.3	-77.637	ug/L	-77.637	ppb	13:27:00
2	Na 589.592 Radial†	-1259.1	84.3	29.105	ug/L	29.105	ppb	13:26:40
2	Sr 421.552†	-5.3	-0.7	-0.0053	ug/L	-0.0053	ppb	13:26:40
2	Sc 361.383	854498.3	854498.3	99.941	%			13:27:57
2	Y 371.029	730605.6	730605.6	99.780	%			13:27:57
2	Ag 328.068†	437.8	-23.0	-0.0986	ug/L	-0.0986	ppb	13:27:57
2	As 188.979†	-34.4	5.8	2.0398	ug/L	2.0398	ppb	13:28:17
2	B 249.677†	-281.5	502.8	10.361	ug/L	10.361	ppb	13:27:57
2	Ba 233.527†	0.5	7.9	0.0595	ug/L	0.0595	ppb	13:28:17
2	Be 313.107†	-4357.9	27.9	0.0100	ug/L	0.0100	ppb	13:27:57
2	Cd 226.502†	-238.1	5.7	0.0538	ug/L	0.0538	ppb	13:28:17
2	Co 228.616†	-106.0	-6.2	-0.1163	ug/L	-0.1163	ppb	13:28:17
2	Cr 267.716†	101.3	-14.3	-0.1452	ug/L	-0.1452	ppb	13:27:57
2	Cu 324.752†	8273.2	78.7	0.2328	ug/L	0.2328	ppb	13:27:57
2	Mn 257.610†	788.4	156.4	0.1680	ug/L	0.1680	ppb	13:27:57
2	Mo 202.031†	29.9	4.7	0.3024	ug/L	0.3024	ppb	13:28:17
2	Ni 231.604†	132.8	6.0	0.1334	ug/L	0.1334	ppb	13:28:17

2	P 214.914†	267.0	12.5	6.1355	ug/L	6.1355 ppb	13:28:17
2	Pb 220.353†	-85.4	-3.6	-0.3786	ug/L	-0.3786 ppb	13:28:17
2	S 181.975 Axial†	67.6	-0.2	-0.2822	ug/L	-0.2822 ppb	13:28:17
2	Sb 206.836†	44.8	7.3	2.2514	ug/L	2.2514 ppb	13:28:17
2	Se 196.026†	-29.9	3.2	1.6624	ug/L	1.6624 ppb	13:28:17
2	Si 251.611†	711.9	126.5	3.6298	ug/L	3.6298 ppb	13:28:17
2	Sn 189.927†	5.4	1.7	0.2645	ug/L	0.2645 ppb	13:28:17
2	Ti 334.940†	-1530.2	184.8	0.2916	ug/L	0.2916 ppb	13:27:57
2	Tl 190.801†	-58.7	-15.6	-4.3353	ug/L	-4.3353 ppb	13:28:17
2	U 409.014†	-2554.7	100.0	2.9691	ug/L	2.9691 ppb	13:27:57
2	V 292.402†	-1678.2	69.5	0.4456	ug/L	0.4456 ppb	13:27:57
2	Zn 213.857†	884.4	63.8	0.5287	ug/L	0.5287 ppb	13:28:17
2	SiO2†	731.8	120.4	7.4450	ug/L	7.4450 ppb	13:28:53
3	Sc Radial	4374.9	4374.9	99.5	%		13:27:05
3	Y RADIAL	4659.4	4659.4	99.44	%		13:27:05
3	Al 396.153Radial†	2.1	1.8	1.5618	ug/L	1.5618 ppb	13:27:05
3	Ca 317.933Radial†	16.2	2.5	4.2297	ug/L	4.2297 ppb	13:27:25
3	Fe 238.204 Radial†	7.3	-2.1	-20.870	ug/L	-20.870 ppb	13:27:25
3	K 766.490 Radial†	3406.1	296.6	62.827	ug/L	62.827 ppb	13:27:05
3	Mg 279.077 IEC†	6.3	2.1	73.764	ug/L	73.764 ppb	13:27:25
3	Na 589.592 Radial†	-1288.1	44.3	15.299	ug/L	15.299 ppb	13:27:05
3	Sr 421.552†	22.8	27.6	0.2142	ug/L	0.2142 ppb	13:27:05
3	Sc 361.383	861551.6	861551.6	100.77	%		13:28:22
3	Y 371.029	734046.3	734046.3	100.25	%		13:28:22
3	Ag 328.068†	333.9	-129.8	-0.5656	ug/L	-0.5656 ppb	13:28:22
3	As 188.979†	-33.0	7.5	2.6286	ug/L	2.6286 ppb	13:28:43
3	B 249.677†	-283.3	503.3	10.375	ug/L	10.375 ppb	13:28:22
3	Ba 233.527†	-5.9	1.6	0.0122	ug/L	0.0122 ppb	13:28:43
3	Be 313.107†	-4372.7	48.9	0.0167	ug/L	0.0167 ppb	13:28:22
3	Cd 226.502†	-239.5	6.2	0.0615	ug/L	0.0615 ppb	13:28:43
3	Co 228.616†	-98.7	2.0	0.0391	ug/L	0.0391 ppb	13:28:43
3	Cr 267.716†	92.8	-23.6	-0.2389	ug/L	-0.2389 ppb	13:28:22
3	Cu 324.752†	8246.0	-16.1	-0.0486	ug/L	-0.0486 ppb	13:28:22
3	Mn 257.610†	750.2	112.0	0.1155	ug/L	0.1155 ppb	13:28:22
3	Mo 202.031†	32.1	6.6	0.4212	ug/L	0.4212 ppb	13:28:43
3	Ni 231.604†	135.0	7.0	0.1555	ug/L	0.1555 ppb	13:28:43
3	P 214.914†	258.1	1.4	0.7298	ug/L	0.7298 ppb	13:28:43
3	Pb 220.353†	-79.6	2.9	0.3068	ug/L	0.3068 ppb	13:28:43
3	S 181.975 Axial†	54.9	-13.4	-15.427	ug/L	-15.427 ppb	13:28:43
3	Sb 206.836†	48.4	10.6	3.2320	ug/L	3.2320 ppb	13:28:43
3	Se 196.026†	-31.4	2.0	0.9447	ug/L	0.9447 ppb	13:28:43
3	Si 251.611†	712.9	121.6	3.4788	ug/L	3.4788 ppb	13:28:43
3	Sn 189.927†	3.6	-0.1	-0.0131	ug/L	-0.0131 ppb	13:28:43
3	Ti 334.940†	-1656.0	72.5	0.1151	ug/L	0.1151 ppb	13:28:22
3	Tl 190.801†	-57.0	-13.4	-3.7247	ug/L	-3.7247 ppb	13:28:43
3	U 409.014†	-2680.6	-4.1	-0.1176	ug/L	-0.1176 ppb	13:28:22
3	V 292.402†	-1717.6	44.2	0.2890	ug/L	0.2890 ppb	13:28:22
3	Zn 213.857†	895.4	67.5	0.5552	ug/L	0.5552 ppb	13:28:43
3	SiO2†	734.7	117.3	7.2262	ug/L	7.2262 ppb	13:28:58

Mean Data: 1202004439|936813|5

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	858641.4	100.43	%	0.431				0.43%
Sc Radial	4364.7	99.3	%	1.22				1.23%
Y 371.029	732990.5	100.11	%	0.283				0.28%
Y RADIAL	4638.3	98.98	%	1.766				1.78%
Ag 328.068†	-50.5	-0.2171	ug/L	0.30693	-0.2171	ppb	0.30693	141.37%
Al 396.153Radial†	-5.0	-4.3625	ug/L	9.57040	-4.3625	ppb	9.57040	219.38%
As 188.979†	7.7	2.7261	ug/L	0.74000	2.7261	ppb	0.74000	27.14%
B 249.677†	511.1	10.531	ug/L	0.2828	10.531	ppb	0.2828	2.69%
Ba 233.527†	6.8	0.0512	ug/L	0.03564	0.0512	ppb	0.03564	69.56%
Be 313.107†	45.0	0.0155	ug/L	0.00512	0.0155	ppb	0.00512	32.91%
Ca 317.933Radial†	4.0	6.9751	ug/L	2.44079	6.9751	ppb	2.44079	34.99%
Cd 226.502†	8.7	0.0823	ug/L	0.04285	0.0823	ppb	0.04285	52.05%
Co 228.616†	3.5	0.0661	ug/L	0.19728	0.0661	ppb	0.19728	298.62%
Cr 267.716†	-22.1	-0.2245	ug/L	0.07314	-0.2245	ppb	0.07314	32.58%
Cu 324.752†	37.0	0.1095	ug/L	0.14392	0.1095	ppb	0.14392	131.42%
Fe 238.204 Radial†	0.3	2.5286	ug/L	22.36967	2.5286	ppb	22.36967	884.66%
K 766.490 Radial†	203.4	43.080	ug/L	17.1462	43.080	ppb	17.1462	39.80%

Mg 279.077 IEC†	0.3	9.7157 ug/L	78.34453	9.7157 ppb	78.34453	806.37%
Mn 257.610†	153.2	0.1627 ug/L	0.04488	0.1627 ppb	0.04488	27.58%
Mo 202.031†	6.9	0.4430 ug/L	0.15267	0.4430 ppb	0.15267	34.46%
Na 589.592 Radial†	48.4	16.719 ug/L	11.7402	16.719 ppb	11.7402	70.22%
Ni 231.604†	1.9	0.0423 ug/L	0.17719	0.0423 ppb	0.17719	418.62%
P 214.914†	12.4	6.1101 ug/L	5.36766	6.1101 ppb	5.36766	87.85%
Pb 220.353†	-1.6	-0.1707 ug/L	0.41476	-0.1707 ppb	0.41476	242.92%
S 181.975 Axial†	-3.9	-4.5189 ug/L	9.52437	-4.5189 ppb	9.52437	210.77%
Sb 206.836†	7.9	2.4213 ug/L	0.74044	2.4213 ppb	0.74044	30.58%
Se 196.026†	2.1	1.0831 ug/L	0.52399	1.0831 ppb	0.52399	48.38%
Si 251.611†	120.3	3.4452 ug/L	0.20357	3.4452 ppb	0.20357	5.91%
Sn 189.927†	1.5	0.2337 ug/L	0.23293	0.2337 ppb	0.23293	99.67%
Sr 421.552†	10.2	0.0793 ug/L	0.11808	0.0793 ppb	0.11808	148.86%
Ti 334.940†	131.0	0.2069 ug/L	0.08848	0.2069 ppb	0.08848	42.77%
Tl 190.801†	-12.1	-3.3615 ug/L	1.19738	-3.3615 ppb	1.19738	35.62%
U 409.014†	62.2	1.8468 ug/L	1.70695	1.8468 ppb	1.70695	92.43%
V 292.402†	71.0	0.4572 ug/L	0.17436	0.4572 ppb	0.17436	38.13%
Zn 213.857†	62.8	0.5181 ug/L	0.04351	0.5181 ppb	0.04351	8.40%
SiO2†	121.5	7.4969 ug/L	0.30004	7.4969 ppb	0.30004	4.00%

Sequence No.: 8
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 1/8/2010 13:31:08
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4379.5	4379.5	99.6	%			13:33:00
1	Y RADIAL	4638.0	4638.0	98.98	%			13:33:00
1	Al 396.153Radial†	5604.6	5626.8	4864.9	ug/L	4864.9	ppb	13:33:00
1	Ca 317.933Radial†	2829.2	2826.8	4870.9	ug/L	4870.9	ppb	13:33:20
1	Fe 238.204 Radial†	513.1	505.7	5019.2	ug/L	5019.2	ppb	13:33:20
1	K 766.490 Radial†	26798.9	23779.8	5029.8	ug/L	5029.8	ppb	13:33:00
1	Mg 279.077 IEC†	150.5	146.9	5046.6	ug/L	5046.6	ppb	13:33:20
1	Na 589.592 Radial†	27358.1	28807.2	9944.1	ug/L	9944.1	ppb	13:33:00
1	Sr 421.552†	64329.7	64593.3	501.54	ug/L	501.54	ppb	13:33:00
1	Sc 361.383	863976.2	863976.2	101.05	%			13:34:19
1	Y 371.029	728738.2	728738.2	99.525	%			13:34:19
1	Ag 328.068†	113960.6	112315.8	487.64	ug/L	487.64	ppb	13:34:19
1	As 188.979†	1396.2	1422.0	506.43	ug/L	506.43	ppb	13:34:39
1	B 249.677†	23266.8	23809.6	488.71	ug/L	488.71	ppb	13:34:19
1	Ba 233.527†	66919.8	66232.1	489.87	ug/L	489.87	ppb	13:34:19
1	Be 313.107†	1465940.2	1455101.3	490.34	ug/L	490.34	ppb	13:34:19
1	Cd 226.502†	51940.5	51645.0	491.56	ug/L	491.56	ppb	13:34:19
1	Co 228.616†	26129.1	25957.6	491.20	ug/L	491.20	ppb	13:34:39
1	Cr 267.716†	48558.4	47938.4	487.26	ug/L	487.26	ppb	13:34:19
1	Cu 324.752†	173980.0	163973.4	484.79	ug/L	484.79	ppb	13:34:19
1	Mn 257.610†	470923.1	465398.9	494.60	ug/L	494.60	ppb	13:34:19
1	Mo 202.031†	7828.6	7722.1	493.37	ug/L	493.37	ppb	13:34:39
1	Ni 231.604†	22455.0	22094.8	488.81	ug/L	488.81	ppb	13:34:39
1	P 214.914†	5403.8	5093.0	2439.8	ug/L	2439.8	ppb	13:34:39
1	Pb 220.353†	4712.8	4745.6	503.73	ug/L	503.73	ppb	13:34:39
1	S 181.975 Axial†	933.9	856.3	984.07	ug/L	984.07	ppb	13:34:39
1	Sb 206.836†	1679.2	1624.3	502.40	ug/L	502.40	ppb	13:34:39
1	Se 196.026†	965.5	988.6	523.96	ug/L	523.96	ppb	13:34:39
1	Si 251.611†	85892.2	84414.2	2422.5	ug/L	2422.5	ppb	13:34:19
1	Sn 189.927†	3301.0	3263.1	493.98	ug/L	493.98	ppb	13:34:39
1	Ti 334.940†	309707.7	308206.5	487.50	ug/L	487.50	ppb	13:34:19
1	Tl 190.801†	1765.3	1790.1	502.12	ug/L	502.12	ppb	13:34:39
1	U 409.014†	13425.8	15942.5	471.80	ug/L	471.80	ppb	13:34:19
1	V 292.402†	75828.7	76789.7	490.58	ug/L	490.58	ppb	13:34:19
1	Zn 213.857†	61026.1	59571.1	488.30	ug/L	488.30	ppb	13:34:19
1	SiO2†	86722.1	85209.5	5267.4	ug/L	5267.4	ppb	13:35:40
2	Sc Radial	4351.6	4351.6	99.0	%			13:33:25
2	Y RADIAL	4597.5	4597.5	98.11	%			13:33:25
2	Al 396.153Radial†	5592.8	5651.0	4886.0	ug/L	4886.0	ppb	13:33:25
2	Ca 317.933Radial†	2854.7	2870.8	4946.8	ug/L	4946.8	ppb	13:33:45
2	Fe 238.204 Radial†	515.0	510.9	5070.5	ug/L	5070.5	ppb	13:33:45
2	K 766.490 Radial†	26714.4	23867.4	5048.3	ug/L	5048.3	ppb	13:33:25
2	Mg 279.077 IEC†	147.4	144.8	4973.9	ug/L	4973.9	ppb	13:33:45
2	Na 589.592 Radial†	27185.2	28809.0	9944.7	ug/L	9944.7	ppb	13:33:25
2	Sr 421.552†	64191.3	64868.4	503.68	ug/L	503.68	ppb	13:33:25
2	Sc 361.383	862847.6	862847.6	100.92	%			13:34:47
2	Y 371.029	729271.2	729271.2	99.598	%			13:34:47
2	Ag 328.068†	113522.0	112028.7	486.42	ug/L	486.42	ppb	13:34:47
2	As 188.979†	1372.0	1399.8	498.61	ug/L	498.61	ppb	13:35:07
2	B 249.677†	23383.4	23955.3	491.71	ug/L	491.71	ppb	13:34:47
2	Ba 233.527†	66897.7	66296.8	490.35	ug/L	490.35	ppb	13:34:47
2	Be 313.107†	1463271.6	1454354.6	490.08	ug/L	490.08	ppb	13:34:47
2	Cd 226.502†	51859.1	51631.5	491.43	ug/L	491.43	ppb	13:34:47
2	Co 228.616†	25879.0	25743.6	487.15	ug/L	487.15	ppb	13:35:07
2	Cr 267.716†	48564.3	48007.1	487.95	ug/L	487.95	ppb	13:34:47
2	Cu 324.752†	173753.7	163974.3	484.80	ug/L	484.80	ppb	13:34:47
2	Mn 257.610†	469548.4	464646.3	493.81	ug/L	493.81	ppb	13:34:47
2	Mo 202.031†	7766.8	7671.0	490.12	ug/L	490.12	ppb	13:35:07
2	Ni 231.604†	22287.1	21957.5	485.78	ug/L	485.78	ppb	13:35:07

2	P 214.914†	5334.8	5031.6	2409.4 ug/L	2409.4 ppb	13:35:07
2	Pb 220.353†	4653.9	4693.4	498.19 ug/L	498.19 ppb	13:35:07
2	S 181.975 Axial†	932.7	856.4	984.17 ug/L	984.17 ppb	13:35:07
2	Sb 206.836†	1657.1	1604.6	496.27 ug/L	496.27 ppb	13:35:07
2	Se 196.026†	959.6	984.0	521.76 ug/L	521.76 ppb	13:35:07
2	Si 251.611†	85706.4	84341.2	2420.5 ug/L	2420.5 ppb	13:34:47
2	Sn 189.927†	3289.5	3256.0	492.91 ug/L	492.91 ppb	13:35:07
2	Ti 334.940†	308941.3	307848.0	486.93 ug/L	486.93 ppb	13:34:47
2	Tl 190.801†	1752.2	1779.5	499.16 ug/L	499.16 ppb	13:35:07
2	U 409.014†	13311.8	15846.9	468.95 ug/L	468.95 ppb	13:34:47
2	V 292.402†	75732.6	76792.7	490.53 ug/L	490.53 ppb	13:34:47
2	Zn 213.857†	60796.0	59422.1	487.09 ug/L	487.09 ppb	13:34:47
2	SiO2†	86356.1	84959.1	5252.0 ug/L	5252.0 ppb	13:35:45
3	Sc Radial	4412.6	4412.6	100 %		13:33:50
3	Y RADIAL	4662.7	4662.7	99.50 %		13:33:50
3	Al 396.153Radial†	5672.6	5652.5	4887.5 ug/L	4887.5 ppb	13:33:50
3	Ca 317.933Radial†	2842.8	2819.1	4857.7 ug/L	4857.7 ppb	13:34:11
3	Fe 238.204 Radial†	515.4	504.1	5003.1 ug/L	5003.1 ppb	13:34:11
3	K 766.490 Radial†	27063.8	23842.6	5043.1 ug/L	5043.1 ppb	13:33:50
3	Mg 279.077 IEC†	148.6	143.9	4944.2 ug/L	4944.2 ppb	13:34:11
3	Na 589.592 Radial†	27511.7	28754.9	9926.0 ug/L	9926.0 ppb	13:33:50
3	Sr 421.552†	64953.5	64731.8	502.62 ug/L	502.62 ppb	13:33:50
3	Sc 361.383	872611.0	872611.0	102.06 %		13:35:14
3	Y 371.029	736659.8	736659.8	100.61 %		13:35:14
3	Ag 328.068†	114764.9	111987.9	486.22 ug/L	486.22 ppb	13:35:14
3	As 188.979†	1380.3	1392.7	496.08 ug/L	496.08 ppb	13:35:34
3	B 249.677†	23602.8	23911.0	490.83 ug/L	490.83 ppb	13:35:14
3	Ba 233.527†	67449.1	66095.5	488.86 ug/L	488.86 ppb	13:35:14
3	Be 313.107†	1477056.1	1451637.6	489.17 ug/L	489.17 ppb	13:35:14
3	Cd 226.502†	52374.9	51561.9	490.77 ug/L	490.77 ppb	13:35:14
3	Co 228.616†	25829.0	25407.7	480.78 ug/L	480.78 ppb	13:35:34
3	Cr 267.716†	48923.3	47820.4	486.06 ug/L	486.06 ppb	13:35:14
3	Cu 324.752†	175863.9	164115.6	485.21 ug/L	485.21 ppb	13:35:14
3	Mn 257.610†	474022.0	463823.8	492.93 ug/L	492.93 ppb	13:35:14
3	Mo 202.031†	7776.4	7594.2	485.21 ug/L	485.21 ppb	13:35:34
3	Ni 231.604†	22283.5	21706.9	480.23 ug/L	480.23 ppb	13:35:34
3	P 214.914†	5317.9	4955.9	2371.9 ug/L	2371.9 ppb	13:35:34
3	Pb 220.353†	4669.6	4657.3	494.36 ug/L	494.36 ppb	13:35:34
3	S 181.975 Axial†	924.5	838.0	962.95 ug/L	962.95 ppb	13:35:34
3	Sb 206.836†	1652.2	1581.4	488.97 ug/L	488.97 ppb	13:35:34
3	Se 196.026†	945.5	959.6	509.05 ug/L	509.05 ppb	13:35:34
3	Si 251.611†	86693.4	84358.1	2421.1 ug/L	2421.1 ppb	13:35:14
3	Sn 189.927†	3256.6	3187.3	482.51 ug/L	482.51 ppb	13:35:34
3	Ti 334.940†	312453.7	307864.3	486.96 ug/L	486.96 ppb	13:35:14
3	Tl 190.801†	1729.7	1738.0	487.62 ug/L	487.62 ppb	13:35:34
3	U 409.014†	13543.2	15926.1	471.32 ug/L	471.32 ppb	13:35:14
3	V 292.402†	76583.3	76786.6	490.44 ug/L	490.44 ppb	13:35:14
3	Zn 213.857†	61361.1	59301.7	486.13 ug/L	486.13 ppb	13:35:14
3	SiO2†	85718.0	83376.4	5153.9 ug/L	5153.9 ppb	13:35:50

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	866478.3	101.34	%	0.625				0.62%
Sc Radial	4381.2	99.6	%	0.69				0.70%
Y 371.029	731556.4	99.910	%	0.6047				0.61%
Y RADIAL	4632.7	98.87	%	0.702				0.71%
Ag 328.068†	112110.8	486.76	ug/L	0.768	486.76	ppb	0.768	0.16%
QC value within limits for Ag 328.068 Recovery = 97.35%								
Al 396.153Radial†	5643.4	4879.4	ug/L	12.65	4879.4	ppb	12.65	0.26%
QC value within limits for Al 396.153Radial Recovery = 97.59%								
As 188.979†	1404.8	500.38	ug/L	5.397	500.38	ppb	5.397	1.08%
QC value within limits for As 188.979 Recovery = 100.08%								
B 249.677†	23892.0	490.42	ug/L	1.545	490.42	ppb	1.545	0.31%
QC value within limits for B 249.677 Recovery = 98.08%								
Ba 233.527†	66208.1	489.69	ug/L	0.759	489.69	ppb	0.759	0.16%
QC value within limits for Ba 233.527 Recovery = 97.94%								
Be 313.107†	1453697.9	489.86	ug/L	0.613	489.86	ppb	0.613	0.13%
QC value within limits for Be 313.107 Recovery = 97.97%								
Ca 317.933Radial†	2838.9	4891.8	ug/L	48.09	4891.8	ppb	48.09	0.98%

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   QC value within limits for Ca 317.933Radial  Recovery = 97.84%
Cd 226.502†          51612.8      491.25 ug/L        0.425      491.25 ppb        0.425   0.09%
   QC value within limits for Cd 226.502  Recovery = 98.25%
Co 228.616†          25702.9      486.38 ug/L        5.253      486.38 ppb        5.253   1.08%
   QC value within limits for Co 228.616  Recovery = 97.28%
Cr 267.716†          47922.0      487.09 ug/L        0.959      487.09 ppb        0.959   0.20%
   QC value within limits for Cr 267.716  Recovery = 97.42%
Cu 324.752†         164021.1      484.93 ug/L        0.241      484.93 ppb        0.241   0.05%
   QC value within limits for Cu 324.752  Recovery = 96.99%
Fe 238.204 Radial†     506.9      5030.9 ug/L       35.19      5030.9 ppb       35.19   0.70%
   QC value within limits for Fe 238.204 Radial  Recovery = 100.62%
K 766.490 Radial†    23829.9      5040.4 ug/L        9.56      5040.4 ppb        9.56   0.19%
   QC value within limits for K 766.490 Radial  Recovery = 100.81%
Mg 279.077 IEC†        145.2      4988.2 ug/L       52.66      4988.2 ppb       52.66   1.06%
   QC value within limits for Mg 279.077 IEC  Recovery = 99.76%
Mn 257.610†         464623.0      493.78 ug/L        0.837      493.78 ppb        0.837   0.17%
   QC value within limits for Mn 257.610  Recovery = 98.76%
Mo 202.031†           7662.4      489.57 ug/L        4.108      489.57 ppb        4.108   0.84%
   QC value within limits for Mo 202.031  Recovery = 97.91%
Na 589.592 Radial†   28790.3      9938.2 ug/L       10.61      9938.2 ppb       10.61   0.11%
   QC value within limits for Na 589.592 Radial  Recovery = 99.38%
Ni 231.604†          21919.8      484.94 ug/L        4.350      484.94 ppb        4.350   0.90%
   QC value within limits for Ni 231.604  Recovery = 96.99%
P 214.914†            5026.8      2407.0 ug/L       34.00      2407.0 ppb       34.00   1.41%
   QC value within limits for P 214.914  Recovery = 96.28%
Pb 220.353†           4698.8      498.76 ug/L        4.710      498.76 ppb        4.710   0.94%
   QC value within limits for Pb 220.353  Recovery = 99.75%
S 181.975 Axial†       850.2      977.06 ug/L       12.220      977.06 ppb       12.220   1.25%
   QC value within limits for S 181.975 Axial  Recovery = 97.71%
Sb 206.836†           1603.4      495.88 ug/L        6.723      495.88 ppb        6.723   1.36%
   QC value within limits for Sb 206.836  Recovery = 99.18%
Se 196.026†            977.4      518.25 ug/L        8.048      518.25 ppb        8.048   1.55%
   QC value within limits for Se 196.026  Recovery = 103.65%
Si 251.611†          84371.2      2421.3 ug/L        1.05      2421.3 ppb        1.05   0.04%
   QC value within limits for Si 251.611  Recovery = 96.85%
Sn 189.927†           3235.5      489.80 ug/L        6.335      489.80 ppb        6.335   1.29%
   QC value within limits for Sn 189.927  Recovery = 97.96%
Sr 421.552†          64731.1      502.61 ug/L        1.068      502.61 ppb        1.068   0.21%
   QC value within limits for Sr 421.552  Recovery = 100.52%
Ti 334.940†         307972.9      487.13 ug/L        0.319      487.13 ppb        0.319   0.07%
   QC value within limits for Ti 334.940  Recovery = 97.43%
Tl 190.801†           1769.2      496.30 ug/L        7.661      496.30 ppb        7.661   1.54%
   QC value within limits for Tl 190.801  Recovery = 99.26%
U 409.014†           15905.2      470.69 ug/L        1.523      470.69 ppb        1.523   0.32%
   QC value within limits for U 409.014  Recovery = 94.14%
V 292.402†           76789.7      490.52 ug/L        0.070      490.52 ppb        0.070   0.01%
   QC value within limits for V 292.402  Recovery = 98.10%
Zn 213.857†          59431.6      487.17 ug/L        1.086      487.17 ppb        1.086   0.22%
   QC value within limits for Zn 213.857  Recovery = 97.43%
SiO2†                84515.0      5224.4 ug/L       61.55      5224.4 ppb       61.55   1.18%
   QC value within limits for SiO2  Recovery = 97.70%
All analyte(s) passed QC.
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Sequence No.: 9
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 1/8/2010 13:37:59
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4312.4	4312.4	98.1	%			13:39:52
1	Y RADIAL	4599.7	4599.7	98.16	%			13:39:52
1	Al 396.153Radial†	-20.4	-21.2	-18.382	ug/L	-18.382	ppb	13:39:52
1	Ca 317.933Radial†	13.5	-0.1	-0.1326	ug/L	-0.1326	ppb	13:40:12
1	Fe 238.204 Radial†	9.6	0.3	3.2649	ug/L	3.2649	ppb	13:40:12
1	K 766.490 Radial†	3339.9	278.7	59.043	ug/L	59.043	ppb	13:39:52
1	Mg 279.077 IEC†	6.7	2.6	88.037	ug/L	88.037	ppb	13:40:12
1	Na 589.592 Radial†	-1290.2	23.4	8.0867	ug/L	8.0867	ppb	13:39:52
1	Sr 421.552†	2.0	6.7	0.0519	ug/L	0.0519	ppb	13:39:52
1	Sc 361.383	856825.5	856825.5	100.21	%			13:41:09
1	Y 371.029	730877.0	730877.0	99.818	%			13:41:09
1	Ag 328.068†	300.5	-161.2	-0.6968	ug/L	-0.6968	ppb	13:41:09
1	As 188.979†	-32.8	7.5	2.6583	ug/L	2.6583	ppb	13:41:29
1	B 249.677†	-343.3	442.0	9.1073	ug/L	9.1073	ppb	13:41:09
1	Ba 233.527†	7.0	14.4	0.1073	ug/L	0.1073	ppb	13:41:29
1	Be 313.107†	-4482.5	-84.6	-0.0285	ug/L	-0.0285	ppb	13:41:09
1	Cd 226.502†	-227.5	17.0	0.1614	ug/L	0.1614	ppb	13:41:29
1	Co 228.616†	-118.8	-18.6	-0.3520	ug/L	-0.3520	ppb	13:41:29
1	Cr 267.716†	128.5	12.6	0.1274	ug/L	0.1274	ppb	13:41:09
1	Cu 324.752†	8324.2	107.1	0.3166	ug/L	0.3166	ppb	13:41:09
1	Mn 257.610†	607.1	-26.7	-0.0297	ug/L	-0.0297	ppb	13:41:09
1	Mo 202.031†	24.4	-0.9	-0.0543	ug/L	-0.0543	ppb	13:41:29
1	Ni 231.604†	130.7	3.5	0.0778	ug/L	0.0778	ppb	13:41:29
1	P 214.914†	276.6	21.4	10.499	ug/L	10.499	ppb	13:41:29
1	Pb 220.353†	-79.4	2.6	0.2745	ug/L	0.2745	ppb	13:41:29
1	S 181.975 Axial†	67.6	-0.4	-0.4966	ug/L	-0.4966	ppb	13:41:29
1	Sb 206.836†	32.6	-4.9	-1.4790	ug/L	-1.4790	ppb	13:41:29
1	Se 196.026†	-35.4	-2.2	-1.1237	ug/L	-1.1237	ppb	13:41:29
1	Si 251.611†	637.0	49.8	1.4119	ug/L	1.4119	ppb	13:41:29
1	Sn 189.927†	13.3	9.7	1.4623	ug/L	1.4623	ppb	13:41:29
1	Ti 334.940†	-1744.7	-25.1	-0.0417	ug/L	-0.0417	ppb	13:41:09
1	Tl 190.801†	-55.8	-12.5	-3.4951	ug/L	-3.4951	ppb	13:41:29
1	U 409.014†	-2507.7	153.8	4.5664	ug/L	4.5664	ppb	13:41:09
1	V 292.402†	-1695.9	56.4	0.3650	ug/L	0.3650	ppb	13:41:09
1	Zn 213.857†	841.3	18.4	0.1479	ug/L	0.1479	ppb	13:41:29
1	SiO2†	650.9	37.7	2.2925	ug/L	2.2925	ppb	13:42:25
2	Sc Radial	4329.9	4329.9	98.5	%			13:40:17
2	Y RADIAL	4601.3	4601.3	98.19	%			13:40:17
2	Al 396.153Radial†	-15.8	-16.4	-14.260	ug/L	-14.260	ppb	13:40:17
2	Ca 317.933Radial†	11.7	-1.9	-3.3562	ug/L	-3.3562	ppb	13:40:37
2	Fe 238.204 Radial†	9.5	0.1	1.1470	ug/L	1.1470	ppb	13:40:37
2	K 766.490 Radial†	3332.4	257.3	54.512	ug/L	54.512	ppb	13:40:17
2	Mg 279.077 IEC†	1.8	-2.4	-81.400	ug/L	-81.400	ppb	13:40:37
2	Na 589.592 Radial†	-1313.6	4.9	1.7055	ug/L	1.7055	ppb	13:40:17
2	Sr 421.552†	24.2	29.2	0.2267	ug/L	0.2267	ppb	13:40:17
2	Sc 361.383	848976.3	848976.3	99.295	%			13:41:34
2	Y 371.029	724487.3	724487.3	98.945	%			13:41:34
2	Ag 328.068†	499.7	42.2	0.1827	ug/L	0.1827	ppb	13:41:34
2	As 188.979†	-24.2	15.9	5.5987	ug/L	5.5987	ppb	13:41:54
2	B 249.677†	-323.7	458.5	9.4482	ug/L	9.4482	ppb	13:41:34
2	Ba 233.527†	-7.6	-0.2	-0.0015	ug/L	-0.0015	ppb	13:41:54
2	Be 313.107†	-4433.9	-77.0	-0.0258	ug/L	-0.0258	ppb	13:41:34
2	Cd 226.502†	-251.0	-8.8	-0.0842	ug/L	-0.0842	ppb	13:41:54
2	Co 228.616†	-95.6	3.7	0.0697	ug/L	0.0697	ppb	13:41:54
2	Cr 267.716†	133.1	18.5	0.1876	ug/L	0.1876	ppb	13:41:34
2	Cu 324.752†	8294.0	153.5	0.4535	ug/L	0.4535	ppb	13:41:34
2	Mn 257.610†	571.2	-57.3	-0.0592	ug/L	-0.0592	ppb	13:41:34
2	Mo 202.031†	28.6	3.5	0.2259	ug/L	0.2259	ppb	13:41:54
2	Ni 231.604†	110.4	-15.7	-0.3471	ug/L	-0.3471	ppb	13:41:54

2	P 214.914†	273.4	20.6	10.122 ug/L	10.122 ppb	13:41:54
2	Pb 220.353†	-90.1	-8.9	-0.9414 ug/L	-0.9414 ppb	13:41:54
2	S 181.975 Axial†	58.5	-8.9	-10.238 ug/L	-10.238 ppb	13:41:54
2	Sb 206.836†	57.1	20.0	6.1373 ug/L	6.1373 ppb	13:41:54
2	Se 196.026†	-31.3	1.6	0.8072 ug/L	0.8072 ppb	13:41:54
2	Si 251.611†	643.1	61.8	1.7548 ug/L	1.7548 ppb	13:41:54
2	Sn 189.927†	13.7	10.2	1.5430 ug/L	1.5430 ppb	13:41:54
2	Ti 334.940†	-1681.5	22.4	0.0355 ug/L	0.0355 ppb	13:41:34
2	Tl 190.801†	-40.5	2.4	0.6575 ug/L	0.6575 ppb	13:41:54
2	U 409.014†	-2654.5	-17.1	-0.5083 ug/L	-0.5083 ppb	13:41:34
2	V 292.402†	-1746.8	-10.5	-0.0660 ug/L	-0.0660 ppb	13:41:34
2	Zn 213.857†	869.1	54.1	0.4518 ug/L	0.4518 ppb	13:41:54
2	SiO2†	674.9	67.9	4.1596 ug/L	4.1596 ppb	13:42:30
3	Sc Radial	4220.6	4220.6	96.0 %		13:40:42
3	Y RADIAL	4483.5	4483.5	95.68 %		13:40:42
3	Al 396.153Radial†	-1.3	-1.7	-1.5059 ug/L	-1.5059 ppb	13:40:42
3	Ca 317.933Radial†	18.3	5.3	9.0523 ug/L	9.0523 ppb	13:41:02
3	Fe 238.204 Radial†	12.6	3.7	36.558 ug/L	36.558 ppb	13:41:02
3	K 766.490 Radial†	3163.8	169.3	35.865 ug/L	35.865 ppb	13:40:42
3	Mg 279.077 IEC†	3.9	-0.1	-4.0120 ug/L	-4.0120 ppb	13:41:02
3	Na 589.592 Radial†	-1274.3	11.3	3.9080 ug/L	3.9080 ppb	13:40:42
3	Sr 421.552†	-30.6	-27.3	-0.2119 ug/L	-0.2119 ppb	13:40:42
3	Sc 361.383	852816.4	852816.4	99.744 %		13:42:00
3	Y 371.029	727547.8	727547.8	99.363 %		13:42:00
3	Ag 328.068†	471.2	11.3	0.0625 ug/L	0.0625 ppb	13:42:00
3	As 188.979†	-28.2	12.0	4.2192 ug/L	4.2192 ppb	13:42:20
3	B 249.677†	-240.7	543.2	11.189 ug/L	11.189 ppb	13:42:00
3	Ba 233.527†	6.2	13.7	0.1027 ug/L	0.1027 ppb	13:42:20
3	Be 313.107†	-4463.7	-86.7	-0.0295 ug/L	-0.0295 ppb	13:42:00
3	Cd 226.502†	-224.0	19.4	0.1805 ug/L	0.1805 ppb	13:42:20
3	Co 228.616†	-106.2	-6.5	-0.1222 ug/L	-0.1222 ppb	13:42:20
3	Cr 267.716†	107.6	-7.8	-0.0774 ug/L	-0.0774 ppb	13:42:00
3	Cu 324.752†	8179.7	1.2	0.0054 ug/L	0.0054 ppb	13:42:00
3	Mn 257.610†	610.7	-20.3	-0.0179 ug/L	-0.0179 ppb	13:42:00
3	Mo 202.031†	33.0	7.9	0.5086 ug/L	0.5086 ppb	13:42:20
3	Ni 231.604†	111.4	-15.2	-0.3372 ug/L	-0.3372 ppb	13:42:20
3	P 214.914†	257.9	3.9	1.8934 ug/L	1.8934 ppb	13:42:20
3	Pb 220.353†	-75.1	6.6	0.6939 ug/L	0.6939 ppb	13:42:20
3	S 181.975 Axial†	66.0	-1.7	-1.9593 ug/L	-1.9593 ppb	13:42:20
3	Sb 206.836†	42.6	5.3	1.6306 ug/L	1.6306 ppb	13:42:20
3	Se 196.026†	-37.4	-4.4	-2.1448 ug/L	-2.1448 ppb	13:42:20
3	Si 251.611†	620.9	36.6	1.0347 ug/L	1.0347 ppb	13:42:20
3	Sn 189.927†	5.2	1.6	0.2424 ug/L	0.2424 ppb	13:42:20
3	Ti 334.940†	-1801.4	-90.1	-0.1422 ug/L	-0.1422 ppb	13:42:00
3	Tl 190.801†	-40.0	3.1	0.8497 ug/L	0.8497 ppb	13:42:20
3	U 409.014†	-2645.3	4.1	0.1165 ug/L	0.1165 ppb	13:42:00
3	V 292.402†	-1675.4	69.0	0.4371 ug/L	0.4371 ppb	13:42:00
3	Zn 213.857†	846.5	27.5	0.2279 ug/L	0.2279 ppb	13:42:20
3	SiO2†	672.8	62.7	3.8466 ug/L	3.8466 ppb	13:42:35

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	852872.7	99.751	%	0.4591				0.46%
Sc Radial	4287.6	97.5	%	1.34				1.37%
Y 371.029	727637.4	99.375	%	0.4365				0.44%
Y RADIAL	4561.5	97.35	%	1.442				1.48%
Ag 328.068†	-35.9	-0.1505	ug/L	0.47688	-0.1505	ppb	0.47688	316.78%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-13.1	-11.383	ug/L	8.7983	-11.383	ppb	8.7983	77.30%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	11.8	4.1587	ug/L	1.47115	4.1587	ppb	1.47115	35.37%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	481.2	9.9147	ug/L	1.11641	9.9147	ppb	1.11641	11.26%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	9.3	0.0695	ug/L	0.06152	0.0695	ppb	0.06152	88.51%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-82.8	-0.0279	ug/L	0.00189	-0.0279	ppb	0.00189	6.76%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	1.1	1.8545	ug/L	6.43846	1.8545	ppb	6.43846	347.18%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                 9.2      0.0859 ug/L       0.14764      0.0859 ppb        0.14764 171.85%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                -7.2     -0.1349 ug/L       0.21114     -0.1349 ppb        0.21114 156.57%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                 7.8      0.0792 ug/L       0.13892      0.0792 ppb        0.13892 175.40%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†                87.3      0.2585 ug/L       0.22965      0.2585 ppb        0.22965  88.83%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          1.4      13.657 ug/L       19.8613      13.657 ppb        19.8613 145.43%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         235.1      49.807 ug/L       12.2841      49.807 ppb        12.2841  24.66%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             0.0      0.8750 ug/L      84.82427      0.8750 ppb       84.82427 >999.9%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               -34.8     -0.0356 ug/L       0.02131     -0.0356 ppb        0.02131  59.86%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 3.5      0.2267 ug/L       0.28146      0.2267 ppb        0.28146 124.14%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†         13.2      4.5667 ug/L       3.24119      4.5667 ppb        3.24119  70.97%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                -9.1     -0.2021 ug/L       0.24252     -0.2021 ppb        0.24252 119.97%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 15.3      7.5050 ug/L       4.86341      7.5050 ppb        4.86341  64.80%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                 0.1      0.0090 ug/L       0.84939      0.0090 ppb        0.84939 >999.9%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -3.7     -4.2312 ug/L       5.25305     -4.2312 ppb        5.25305 124.15%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 6.8      2.0963 ug/L       3.82944      2.0963 ppb        3.82944 182.68%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -1.7     -0.8205 ug/L       1.49918     -0.8205 ppb        1.49918 182.73%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                49.4      1.4005 ug/L       0.36020      1.4005 ppb        0.36020  25.72%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 7.2      1.0826 ug/L       0.72870      1.0826 ppb        0.72870  67.31%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                 2.9      0.0223 ug/L       0.22080      0.0223 ppb        0.22080 992.15%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               -30.9     -0.0495 ug/L       0.08908     -0.0495 ppb        0.08908 180.04%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                -2.4     -0.6627 ug/L       2.45485     -0.6627 ppb        2.45485 370.46%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 46.9      1.3915 ug/L       2.76723      1.3915 ppb        2.76723 198.86%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 38.3      0.2453 ug/L       0.27206      0.2453 ppb        0.27206 110.89%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                33.3      0.2759 ug/L       0.15754      0.2759 ppb        0.15754  57.10%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                      56.1      3.4329 ug/L       0.99992      3.4329 ppb        0.99992  29.13%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 10
Sample ID: 243554002|936813|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 45
Date Collected: 1/8/2010 13:44:46
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 243554002|936813|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4354.1	4354.1	99.0	%			13:46:39
1	Y RADIAL	4643.6	4643.6	99.10	%			13:46:39
1	Al 396.153Radial†	-18.4	-18.9	-16.423	ug/L	-16.423	ppb	13:46:39
1	Ca 317.933Radial†	18.1	4.4	7.6476	ug/L	7.6476	ppb	13:46:59
1	Fe 238.204 Radial†	12.6	3.2	31.932	ug/L	31.932	ppb	13:46:59
1	K 766.490 Radial†	3169.6	74.0	15.675	ug/L	15.675	ppb	13:46:39
1	Mg 279.077 IEC†	1.8	-2.4	-82.326	ug/L	-82.326	ppb	13:46:59
1	Na 589.592 Radial†	-1315.2	10.8	3.7256	ug/L	3.7256	ppb	13:46:39
1	Sr 421.552†	35.6	40.6	0.3153	ug/L	0.3153	ppb	13:46:39
1	Sc 361.383	854685.1	854685.1	99.963	%			13:47:56
1	Y 371.029	739914.4	739914.4	101.05	%			13:47:56
1	Ag 328.068†	406.8	-54.2	-0.2285	ug/L	-0.2285	ppb	13:47:56
1	As 188.979†	-29.8	10.4	3.6782	ug/L	3.6782	ppb	13:48:16
1	B 249.677†	-354.6	429.8	8.8514	ug/L	8.8514	ppb	13:47:56
1	Ba 233.527†	-9.6	-2.2	-0.0160	ug/L	-0.0160	ppb	13:48:16
1	Be 313.107†	-4489.6	-102.8	-0.0342	ug/L	-0.0342	ppb	13:47:56
1	Cd 226.502†	-239.8	4.1	0.0355	ug/L	0.0355	ppb	13:48:16
1	Co 228.616†	-88.7	11.2	0.2107	ug/L	0.2107	ppb	13:48:16
1	Cr 267.716†	126.7	11.1	0.1113	ug/L	0.1113	ppb	13:47:56
1	Cu 324.752†	8303.3	107.0	0.3178	ug/L	0.3178	ppb	13:47:56
1	Mn 257.610†	828.5	196.2	0.2131	ug/L	0.2131	ppb	13:47:56
1	Mo 202.031†	24.0	-1.2	-0.0734	ug/L	-0.0734	ppb	13:48:16
1	Ni 231.604†	124.8	-2.1	-0.0466	ug/L	-0.0466	ppb	13:48:16
1	P 214.914†	291.6	37.1	18.207	ug/L	18.207	ppb	13:48:16
1	Pb 220.353†	-72.2	9.6	1.0076	ug/L	1.0076	ppb	13:48:16
1	S 181.975 Axial†	65.2	-2.6	-3.0038	ug/L	-3.0038	ppb	13:48:16
1	Sb 206.836†	38.7	1.3	0.3876	ug/L	0.3876	ppb	13:48:16
1	Se 196.026†	-36.2	-3.1	-1.4948	ug/L	-1.4948	ppb	13:48:16
1	Si 251.611†	4025.6	3441.2	99.235	ug/L	99.235	ppb	13:47:56
1	Sn 189.927†	0.7	-2.9	-0.4379	ug/L	-0.4379	ppb	13:48:16
1	Ti 334.940†	-1594.4	120.9	0.1897	ug/L	0.1897	ppb	13:47:56
1	Tl 190.801†	-54.1	-10.9	-3.0440	ug/L	-3.0440	ppb	13:48:16
1	U 409.014†	-2506.2	149.1	4.4219	ug/L	4.4219	ppb	13:47:56
1	V 292.402†	-1814.1	-66.0	-0.4157	ug/L	-0.4157	ppb	13:47:56
1	Zn 213.857†	927.0	106.3	0.8794	ug/L	0.8794	ppb	13:48:16
1	SiO2†	3937.2	3326.8	206.65	ug/L	206.65	ppb	13:49:12
2	Sc Radial	4417.6	4417.6	100	%			13:47:04
2	Y RADIAL	4671.5	4671.5	99.69	%			13:47:04
2	Al 396.153Radial†	-5.3	-5.6	-4.9053	ug/L	-4.9053	ppb	13:47:04
2	Ca 317.933Radial†	20.5	6.6	11.420	ug/L	11.420	ppb	13:47:24
2	Fe 238.204 Radial†	8.9	-0.6	-6.2949	ug/L	-6.2949	ppb	13:47:24
2	K 766.490 Radial†	3235.2	93.4	19.771	ug/L	19.771	ppb	13:47:04
2	Mg 279.077 IEC†	5.3	1.1	36.210	ug/L	36.210	ppb	13:47:24
2	Na 589.592 Radial†	-1253.5	91.3	31.509	ug/L	31.509	ppb	13:47:04
2	Sr 421.552†	40.9	45.4	0.3523	ug/L	0.3523	ppb	13:47:04
2	Sc 361.383	853876.3	853876.3	99.868	%			13:48:22
2	Y 371.029	739736.6	739736.6	101.03	%			13:48:22
2	Ag 328.068†	494.7	34.3	0.1420	ug/L	0.1420	ppb	13:48:22
2	As 188.979†	-38.1	2.1	0.7312	ug/L	0.7312	ppb	13:48:42
2	B 249.677†	-265.8	518.4	10.681	ug/L	10.681	ppb	13:48:22
2	Ba 233.527†	0.8	8.3	0.0611	ug/L	0.0611	ppb	13:48:42
2	Be 313.107†	-4451.6	-69.1	-0.0229	ug/L	-0.0229	ppb	13:48:22
2	Cd 226.502†	-246.0	-2.4	-0.0220	ug/L	-0.0220	ppb	13:48:42
2	Co 228.616†	-79.5	20.3	0.3854	ug/L	0.3854	ppb	13:48:42
2	Cr 267.716†	128.1	12.6	0.1265	ug/L	0.1265	ppb	13:48:22
2	Cu 324.752†	8323.7	135.3	0.3995	ug/L	0.3995	ppb	13:48:22
2	Mn 257.610†	742.8	111.2	0.1168	ug/L	0.1168	ppb	13:48:22
2	Mo 202.031†	29.9	4.7	0.2981	ug/L	0.2981	ppb	13:48:42
2	Ni 231.604†	116.8	-10.0	-0.2213	ug/L	-0.2213	ppb	13:48:42

2	P 214.914†	282.3	28.0	13.745 ug/L	13.745 ppb	13:48:42
2	Pb 220.353†	-104.7	-23.0	-2.4310 ug/L	-2.4310 ppb	13:48:42
2	S 181.975 Axial†	66.8	-0.9	-1.0692 ug/L	-1.0692 ppb	13:48:42
2	Sb 206.836†	54.4	17.0	5.1914 ug/L	5.1914 ppb	13:48:42
2	Se 196.026†	-37.0	-4.0	-2.0527 ug/L	-2.0527 ppb	13:48:42
2	Si 251.611†	4030.2	3449.6	99.465 ug/L	99.465 ppb	13:48:22
2	Sn 189.927†	5.9	2.3	0.3526 ug/L	0.3526 ppb	13:48:42
2	Ti 334.940†	-1610.0	103.8	0.1626 ug/L	0.1626 ppb	13:48:22
2	Tl 190.801†	-48.0	-4.8	-1.3489 ug/L	-1.3489 ppb	13:48:42
2	U 409.014†	-2490.6	162.3	4.8194 ug/L	4.8194 ppb	13:48:22
2	V 292.402†	-1729.3	17.1	0.1233 ug/L	0.1233 ppb	13:48:22
2	Zn 213.857†	911.6	91.7	0.7580 ug/L	0.7580 ppb	13:48:42
2	SiO2†	3972.4	3365.9	209.05 ug/L	209.05 ppb	13:49:17
3	Sc Radial	4435.1	4435.1	101 %		13:47:29
3	Y RADIAL	4713.5	4713.5	100.6 %		13:47:29
3	Al 396.153Radial†	-17.0	-17.1	-14.894 ug/L	-14.894 ppb	13:47:29
3	Ca 317.933Radial†	19.7	5.7	9.8624 ug/L	9.8624 ppb	13:47:49
3	Fe 238.204 Radial†	11.7	2.1	21.184 ug/L	21.184 ppb	13:47:49
3	K 766.490 Radial†	3264.7	109.9	23.259 ug/L	23.259 ppb	13:47:29
3	Mg 279.077 IEC†	2.2	-2.1	-70.743 ug/L	-70.743 ppb	13:47:49
3	Na 589.592 Radial†	-1223.4	126.0	43.492 ug/L	43.492 ppb	13:47:29
3	Sr 421.552†	-9.1	-4.4	-0.0340 ug/L	-0.0340 ppb	13:47:29
3	Sc 361.383	856090.0	856090.0	100.13 %		13:48:47
3	Y 371.029	743063.7	743063.7	101.48 %		13:48:47
3	Ag 328.068†	329.9	-131.6	-0.5579 ug/L	-0.5579 ppb	13:48:47
3	As 188.979†	-41.7	-1.4	-0.5066 ug/L	-0.5066 ppb	13:49:07
3	B 249.677†	-341.1	443.8	9.1415 ug/L	9.1415 ppb	13:48:47
3	Ba 233.527†	18.7	26.1	0.1940 ug/L	0.1940 ppb	13:49:07
3	Be 313.107†	-4442.2	-48.2	-0.0156 ug/L	-0.0156 ppb	13:48:47
3	Cd 226.502†	-237.3	6.9	0.0636 ug/L	0.0636 ppb	13:49:07
3	Co 228.616†	-75.5	24.5	0.4632 ug/L	0.4632 ppb	13:49:07
3	Cr 267.716†	140.2	24.4	0.2497 ug/L	0.2497 ppb	13:48:47
3	Cu 324.752†	8323.3	113.3	0.3359 ug/L	0.3359 ppb	13:48:47
3	Mn 257.610†	755.4	121.9	0.1329 ug/L	0.1329 ppb	13:48:47
3	Mo 202.031†	27.7	2.4	0.1555 ug/L	0.1555 ppb	13:49:07
3	Ni 231.604†	109.6	-17.5	-0.3872 ug/L	-0.3872 ppb	13:49:07
3	P 214.914†	286.0	30.9	15.192 ug/L	15.192 ppb	13:49:07
3	Pb 220.353†	-92.7	-10.7	-1.1384 ug/L	-1.1384 ppb	13:49:07
3	S 181.975 Axial†	61.4	-6.6	-7.5437 ug/L	-7.5437 ppb	13:49:07
3	Sb 206.836†	51.3	13.8	4.2195 ug/L	4.2195 ppb	13:49:07
3	Se 196.026†	-31.0	2.1	1.1503 ug/L	1.1503 ppb	13:49:07
3	Si 251.611†	3979.8	3388.9	97.713 ug/L	97.713 ppb	13:48:47
3	Sn 189.927†	9.8	6.2	0.9360 ug/L	0.9360 ppb	13:49:07
3	Ti 334.940†	-1534.2	183.6	0.2918 ug/L	0.2918 ppb	13:48:47
3	Tl 190.801†	-49.6	-6.3	-1.7603 ug/L	-1.7603 ppb	13:49:07
3	U 409.014†	-2725.1	-65.4	-1.9465 ug/L	-1.9465 ppb	13:48:47
3	V 292.402†	-1695.7	55.1	0.3407 ug/L	0.3407 ppb	13:48:47
3	Zn 213.857†	926.8	104.6	0.8677 ug/L	0.8677 ppb	13:49:07
3	SiO2†	4011.1	3394.2	210.82 ug/L	210.82 ppb	13:49:22

Mean Data: 243554002|936813|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	854883.8	99.986	%	0.1310				0.13%
Sc Radial	4402.3	100	%	1.0				0.97%
Y 371.029	740904.9	101.19	%	0.256				0.25%
Y RADIAL	4676.2	99.79	%	0.752				0.75%
Ag 328.068†	-50.5	-0.2148	ug/L	0.35016	-0.2148	ppb	0.35016	163.02%
Al 396.153Radial†	-13.9	-12.074	ug/L	6.2553	-12.074	ppb	6.2553	51.81%
As 188.979†	3.7	1.3010	ug/L	2.14978	1.3010	ppb	2.14978	165.24%
B 249.677†	464.0	9.5580	ug/L	0.98344	9.5580	ppb	0.98344	10.29%
Ba 233.527†	10.7	0.0797	ug/L	0.10622	0.0797	ppb	0.10622	133.31%
Be 313.107†	-73.4	-0.0243	ug/L	0.00936	-0.0243	ppb	0.00936	38.60%
Ca 317.933Radial†	5.6	9.6432	ug/L	1.89552	9.6432	ppb	1.89552	19.66%
Cd 226.502†	2.9	0.0257	ug/L	0.04362	0.0257	ppb	0.04362	169.55%
Co 228.616†	18.7	0.3531	ug/L	0.12929	0.3531	ppb	0.12929	36.62%
Cr 267.716†	16.1	0.1625	ug/L	0.07593	0.1625	ppb	0.07593	46.73%
Cu 324.752†	118.5	0.3511	ug/L	0.04287	0.3511	ppb	0.04287	12.21%
Fe 238.204 Radial†	1.6	15.607	ug/L	19.7143	15.607	ppb	19.7143	126.32%
K 766.490 Radial†	92.4	19.568	ug/L	3.7959	19.568	ppb	3.7959	19.40%

Mg 279.077 IEC†	-1.1	-38.953	ug/L	65.3504	-38.953	ppb	65.3504 167.77%
Mn 257.610†	143.1	0.1542	ug/L	0.05157	0.1542	ppb	0.05157 33.43%
Mo 202.031†	2.0	0.1268	ug/L	0.18739	0.1268	ppb	0.18739 147.83%
Na 589.592 Radial†	76.0	26.242	ug/L	20.3996	26.242	ppb	20.3996 77.74%
Ni 231.604†	-9.9	-0.2184	ug/L	0.17035	-0.2184	ppb	0.17035 78.00%
P 214.914†	32.0	15.715	ug/L	2.2760	15.715	ppb	2.2760 14.48%
Pb 220.353†	-8.0	-0.8539	ug/L	1.73683	-0.8539	ppb	1.73683 203.39%
S 181.975 Axial†	-3.4	-3.8723	ug/L	3.32349	-3.8723	ppb	3.32349 85.83%
Sb 206.836†	10.7	3.2662	ug/L	2.53982	3.2662	ppb	2.53982 77.76%
Se 196.026†	-1.7	-0.7991	ug/L	1.71108	-0.7991	ppb	1.71108 214.14%
Si 251.611†	3426.6	98.805	ug/L	0.9520	98.805	ppb	0.9520 0.96%
Sn 189.927†	1.9	0.2835	ug/L	0.68954	0.2835	ppb	0.68954 243.20%
Sr 421.552†	27.2	0.2112	ug/L	0.21320	0.2112	ppb	0.21320 100.94%
Ti 334.940†	136.1	0.2147	ug/L	0.06815	0.2147	ppb	0.06815 31.74%
Tl 190.801†	-7.4	-2.0511	ug/L	0.88415	-2.0511	ppb	0.88415 43.11%
U 409.014†	82.0	2.4316	ug/L	3.79673	2.4316	ppb	3.79673 156.14%
V 292.402†	2.1	0.0161	ug/L	0.38942	0.0161	ppb	0.38942 >999.9%
Zn 213.857†	100.8	0.8351	ug/L	0.06695	0.8351	ppb	0.06695 8.02%
SiO2†	3362.3	208.84	ug/L	2.089	208.84	ppb	2.089 1.00%

Sequence No.: 11
Sample ID: 243554003|936813|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 46
Date Collected: 1/8/2010 13:51:33
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 243554003|936813|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4472.3	4472.3	102	%			13:53:26
1	Y RADIAL	4763.7	4763.7	101.7	%			13:53:26
1	Al 396.153Radial†	12.6	12.1	10.462	ug/L	10.462	ppb	13:53:26
1	Ca 317.933Radial†	39.7	25.2	43.446	ug/L	43.446	ppb	13:53:46
1	Fe 238.204 Radial†	24.6	14.7	145.53	ug/L	145.53	ppb	13:53:46
1	K 766.490 Radial†	3342.0	158.9	33.465	ug/L	33.465	ppb	13:53:26
1	Mg 279.077 IEC†	3.4	-0.9	-29.530	ug/L	-29.530	ppb	13:53:46
1	Na 589.592 Radial†	-289.8	1054.0	363.85	ug/L	363.85	ppb	13:53:26
1	Sr 421.552†	5.9	10.4	0.0806	ug/L	0.0806	ppb	13:53:26
1	Sc 361.383	858116.5	858116.5	100.36	%			13:54:43
1	Y 371.029	730849.6	730849.6	99.814	%			13:54:43
1	Ag 328.068†	345.4	-116.9	-0.4573	ug/L	-0.4573	ppb	13:54:43
1	As 188.979†	-29.9	10.4	3.7019	ug/L	3.7019	ppb	13:55:03
1	B 249.677†	-344.5	441.3	9.0728	ug/L	9.0728	ppb	13:54:43
1	Ba 233.527†	34.5	41.8	0.3128	ug/L	0.3128	ppb	13:55:03
1	Be 313.107†	-4417.7	-13.3	-0.0027	ug/L	-0.0027	ppb	13:54:43
1	Cd 226.502†	-256.9	-12.0	-0.1290	ug/L	-0.1290	ppb	13:55:03
1	Co 228.616†	-83.5	16.7	0.3131	ug/L	0.3131	ppb	13:55:03
1	Cr 267.716†	152.0	35.8	0.3660	ug/L	0.3660	ppb	13:54:43
1	Cu 324.752†	8398.5	168.6	0.5055	ug/L	0.5055	ppb	13:54:43
1	Mn 257.610†	4201.1	3553.3	3.7882	ug/L	3.7882	ppb	13:54:43
1	Mo 202.031†	27.2	1.9	0.1362	ug/L	0.1362	ppb	13:55:03
1	Ni 231.604†	137.0	9.6	0.2120	ug/L	0.2120	ppb	13:55:03
1	P 214.914†	281.8	26.1	12.669	ug/L	12.669	ppb	13:55:03
1	Pb 220.353†	-79.1	3.0	0.3099	ug/L	0.3099	ppb	13:55:03
1	S 181.975 Axial†	78.6	10.5	12.027	ug/L	12.027	ppb	13:55:03
1	Sb 206.836†	39.2	1.6	0.4924	ug/L	0.4924	ppb	13:55:03
1	Se 196.026†	-37.6	-4.3	-1.7534	ug/L	-1.7534	ppb	13:55:03
1	Si 251.611†	8660.2	8042.9	231.93	ug/L	231.93	ppb	13:54:43
1	Sn 189.927†	2.0	-1.6	-0.2380	ug/L	-0.2380	ppb	13:55:03
1	Ti 334.940†	-1145.5	574.6	0.9103	ug/L	0.9103	ppb	13:54:43
1	Tl 190.801†	-51.0	-7.6	-2.1005	ug/L	-2.1005	ppb	13:55:03
1	U 409.014†	-2596.0	69.6	2.0489	ug/L	2.0489	ppb	13:54:43
1	V 292.402†	-1715.1	39.8	0.2330	ug/L	0.2330	ppb	13:54:43
1	Zn 213.857†	952.6	128.1	1.0501	ug/L	1.0501	ppb	13:55:03
1	SiO2†	8726.6	8083.1	502.08	ug/L	502.08	ppb	13:55:59
2	Sc Radial	4428.2	4428.2	101	%			13:53:51
2	Y RADIAL	4687.0	4687.0	100.0	%			13:53:51
2	Al 396.153Radial†	37.9	37.3	32.409	ug/L	32.409	ppb	13:53:51
2	Ca 317.933Radial†	34.2	20.2	34.734	ug/L	34.734	ppb	13:54:11
2	Fe 238.204 Radial†	23.2	13.6	134.27	ug/L	134.27	ppb	13:54:11
2	K 766.490 Radial†	3304.7	154.6	32.549	ug/L	32.549	ppb	13:53:51
2	Mg 279.077 IEC†	1.9	-2.4	-81.492	ug/L	-81.492	ppb	13:54:11
2	Na 589.592 Radial†	-239.0	1101.7	380.30	ug/L	380.30	ppb	13:53:51
2	Sr 421.552†	10.1	14.6	0.1132	ug/L	0.1132	ppb	13:53:51
2	Sc 361.383	866755.7	866755.7	101.37	%			13:55:08
2	Y 371.029	739582.2	739582.2	101.01	%			13:55:08
2	Ag 328.068†	444.7	-22.4	-0.0515	ug/L	-0.0515	ppb	13:55:08
2	As 188.979†	-41.8	-1.0	-0.3263	ug/L	-0.3263	ppb	13:55:28
2	B 249.677†	-323.2	465.7	9.5787	ug/L	9.5787	ppb	13:55:08
2	Ba 233.527†	48.3	55.1	0.4108	ug/L	0.4108	ppb	13:55:28
2	Be 313.107†	-4475.2	-26.1	-0.0065	ug/L	-0.0065	ppb	13:55:08
2	Cd 226.502†	-252.5	-5.2	-0.0624	ug/L	-0.0624	ppb	13:55:28
2	Co 228.616†	-90.5	10.7	0.1988	ug/L	0.1988	ppb	13:55:28
2	Cr 267.716†	166.6	48.8	0.4976	ug/L	0.4976	ppb	13:55:08
2	Cu 324.752†	8450.0	136.0	0.4087	ug/L	0.4087	ppb	13:55:08
2	Mn 257.610†	4237.4	3547.4	3.7818	ug/L	3.7818	ppb	13:55:08
2	Mo 202.031†	31.3	5.6	0.3713	ug/L	0.3713	ppb	13:55:28
2	Ni 231.604†	133.6	4.9	0.1088	ug/L	0.1088	ppb	13:55:28

2	P 214.914†	266.6	8.3	3.9396 ug/L	3.9396 ppb	13:55:28
2	Pb 220.353†	-75.0	7.8	0.8254 ug/L	0.8254 ppb	13:55:28
2	S 181.975 Axial†	84.8	15.7	18.102 ug/L	18.102 ppb	13:55:28
2	Sb 206.836†	47.0	8.9	2.7161 ug/L	2.7161 ppb	13:55:28
2	Se 196.026†	-36.5	-2.9	-1.0725 ug/L	-1.0725 ppb	13:55:28
2	Si 251.611†	8728.7	8024.5	231.39 ug/L	231.39 ppb	13:55:08
2	Sn 189.927†	1.2	-2.4	-0.3569 ug/L	-0.3569 ppb	13:55:28
2	Ti 334.940†	-981.4	747.8	1.1840 ug/L	1.1840 ppb	13:55:08
2	Tl 190.801†	-52.5	-8.6	-2.3630 ug/L	-2.3630 ppb	13:55:28
2	U 409.014†	-2629.7	62.2	1.8290 ug/L	1.8290 ppb	13:55:08
2	V 292.402†	-1681.4	90.1	0.5528 ug/L	0.5528 ppb	13:55:08
2	Zn 213.857†	958.5	124.4	1.0228 ug/L	1.0228 ppb	13:55:28
2	SiO2†	8734.1	8003.9	497.16 ug/L	497.16 ppb	13:56:04
3	Sc Radial	4528.3	4528.3	103 %		13:54:16
3	Y RADIAL	4762.1	4762.1	101.6 %		13:54:16
3	Al 396.153Radial†	20.7	19.8	17.132 ug/L	17.132 ppb	13:54:16
3	Ca 317.933Radial†	34.8	20.0	34.437 ug/L	34.437 ppb	13:54:36
3	Fe 238.204 Radial†	25.2	15.0	148.22 ug/L	148.22 ppb	13:54:36
3	K 766.490 Radial†	3301.4	78.9	16.503 ug/L	16.503 ppb	13:54:16
3	Mg 279.077 IEC†	4.3	-0.1	-3.1872 ug/L	-3.1872 ppb	13:54:36
3	Na 589.592 Radial†	-193.6	1150.9	397.29 ug/L	397.29 ppb	13:54:16
3	Sr 421.552†	25.8	29.7	0.2301 ug/L	0.2301 ppb	13:54:16
3	Sc 361.383	868694.1	868694.1	101.60 %		13:55:34
3	Y 371.029	740578.4	740578.4	101.14 %		13:55:34
3	Ag 328.068†	315.0	-151.1	-0.6041 ug/L	-0.6041 ppb	13:55:34
3	As 188.979†	-44.4	-3.4	-1.1883 ug/L	-1.1883 ppb	13:55:54
3	B 249.677†	-313.4	476.0	9.7883 ug/L	9.7883 ppb	13:55:34
3	Ba 233.527†	32.2	39.1	0.2950 ug/L	0.2950 ppb	13:55:54
3	Be 313.107†	-4472.7	-13.8	-0.0029 ug/L	-0.0029 ppb	13:55:34
3	Cd 226.502†	-229.0	18.6	0.1626 ug/L	0.1626 ppb	13:55:54
3	Co 228.616†	-89.0	12.3	0.2302 ug/L	0.2302 ppb	13:55:54
3	Cr 267.716†	138.9	21.1	0.2161 ug/L	0.2161 ppb	13:55:34
3	Cu 324.752†	8400.0	68.2	0.2090 ug/L	0.2090 ppb	13:55:34
3	Mn 257.610†	4216.4	3517.4	3.7498 ug/L	3.7498 ppb	13:55:34
3	Mo 202.031†	36.8	11.0	0.7176 ug/L	0.7176 ppb	13:55:54
3	Ni 231.604†	145.7	16.5	0.3648 ug/L	0.3648 ppb	13:55:54
3	P 214.914†	274.3	15.3	7.3943 ug/L	7.3943 ppb	13:55:54
3	Pb 220.353†	-73.4	9.6	1.0092 ug/L	1.0092 ppb	13:55:54
3	S 181.975 Axial†	82.9	13.7	15.737 ug/L	15.737 ppb	13:55:54
3	Sb 206.836†	51.8	13.5	4.1275 ug/L	4.1275 ppb	13:55:54
3	Se 196.026†	-38.0	-4.2	-1.7081 ug/L	-1.7081 ppb	13:55:54
3	Si 251.611†	8784.0	8059.7	232.41 ug/L	232.41 ppb	13:55:34
3	Sn 189.927†	0.9	-2.8	-0.4108 ug/L	-0.4108 ppb	13:55:54
3	Ti 334.940†	-1187.4	547.2	0.8644 ug/L	0.8644 ppb	13:55:34
3	Tl 190.801†	-53.4	-9.4	-2.5818 ug/L	-2.5818 ppb	13:55:54
3	U 409.014†	-2469.2	225.9	6.6882 ug/L	6.6882 ppb	13:55:34
3	V 292.402†	-1597.4	176.5	1.1121 ug/L	1.1121 ppb	13:55:34
3	Zn 213.857†	955.5	119.3	0.9763 ug/L	0.9763 ppb	13:55:54
3	SiO2†	8735.5	7986.0	496.05 ug/L	496.05 ppb	13:56:09

Mean Data: 243554003|936813|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	864522.1	101.11	%	0.659				0.65%
Sc Radial	4476.3	102	%	1.1				1.12%
Y 371.029	737003.4	100.65	%	0.731				0.73%
Y RADIAL	4737.6	101.1	%	0.94				0.93%
Ag 328.068†	-96.8	-0.3709	ug/L	0.28626	-0.3709	ppb	0.28626	77.17%
Al 396.153Radial†	23.1	20.001	ug/L	11.2509	20.001	ppb	11.2509	56.25%
As 188.979†	2.0	0.7291	ug/L	2.61037	0.7291	ppb	2.61037	358.02%
B 249.677†	461.0	9.4799	ug/L	0.36782	9.4799	ppb	0.36782	3.88%
Ba 233.527†	45.3	0.3395	ug/L	0.06238	0.3395	ppb	0.06238	18.37%
Be 313.107†	-17.7	-0.0040	ug/L	0.00211	-0.0040	ppb	0.00211	52.35%
Ca 317.933Radial†	21.8	37.539	ug/L	5.1178	37.539	ppb	5.1178	13.63%
Cd 226.502†	0.5	-0.0096	ug/L	0.15284	-0.0096	ppb	0.15284	>999.9%
Co 228.616†	13.2	0.2474	ug/L	0.05902	0.2474	ppb	0.05902	23.86%
Cr 267.716†	35.2	0.3599	ug/L	0.14085	0.3599	ppb	0.14085	39.13%
Cu 324.752†	124.2	0.3744	ug/L	0.15121	0.3744	ppb	0.15121	40.39%
Fe 238.204 Radial†	14.4	142.67	ug/L	7.401	142.67	ppb	7.401	5.19%
K 766.490 Radial†	130.8	27.506	ug/L	9.5390	27.506	ppb	9.5390	34.68%

Mg 279.077 IEC†	-1.1	-38.069	ug/L	39.8446	-38.069	ppb	39.8446 104.66%
Mn 257.610†	3539.4	3.7733	ug/L	0.02056	3.7733	ppb	0.02056 0.55%
Mo 202.031†	6.2	0.4084	ug/L	0.29247	0.4084	ppb	0.29247 71.62%
Na 589.592 Radial†	1102.2	380.48	ug/L	16.723	380.48	ppb	16.723 4.40%
Ni 231.604†	10.3	0.2285	ug/L	0.12880	0.2285	ppb	0.12880 56.36%
P 214.914†	16.6	8.0009	ug/L	4.39617	8.0009	ppb	4.39617 54.95%
Pb 220.353†	6.8	0.7148	ug/L	0.36253	0.7148	ppb	0.36253 50.71%
S 181.975 Axial†	13.3	15.289	ug/L	3.0623	15.289	ppb	3.0623 20.03%
Sb 206.836†	8.0	2.4453	ug/L	1.83261	2.4453	ppb	1.83261 74.94%
Se 196.026†	-3.8	-1.5113	ug/L	0.38070	-1.5113	ppb	0.38070 25.19%
Si 251.611†	8042.3	231.91	ug/L	0.507	231.91	ppb	0.507 0.22%
Sn 189.927†	-2.3	-0.3352	ug/L	0.08844	-0.3352	ppb	0.08844 26.38%
Sr 421.552†	18.2	0.1413	ug/L	0.07859	0.1413	ppb	0.07859 55.63%
Ti 334.940†	623.2	0.9862	ug/L	0.17277	0.9862	ppb	0.17277 17.52%
Tl 190.801†	-8.5	-2.3484	ug/L	0.24099	-2.3484	ppb	0.24099 10.26%
U 409.014†	119.2	3.5220	ug/L	2.74421	3.5220	ppb	2.74421 77.92%
V 292.402†	102.2	0.6326	ug/L	0.44494	0.6326	ppb	0.44494 70.33%
Zn 213.857†	123.9	1.0164	ug/L	0.03735	1.0164	ppb	0.03735 3.67%
SiO2†	8024.3	498.43	ug/L	3.215	498.43	ppb	3.215 0.64%

Sequence No.: 12
Sample ID: 243554004|936813|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 47
Date Collected: 1/8/2010 13:58:21
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 243554004|936813|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4468.5	4468.5	102	%			14:00:14
1	Y RADIAL	4750.7	4750.7	101.4	%			14:00:14
1	Al 396.153Radial†	130.7	128.3	111.41	ug/L	111.41	ppb	14:00:14
1	Ca 317.933Radial†	39.2	24.8	42.751	ug/L	42.751	ppb	14:00:34
1	Fe 238.204 Radial†	40.0	29.9	296.06	ug/L	296.06	ppb	14:00:34
1	K 766.490 Radial†	3537.7	354.3	74.871	ug/L	74.871	ppb	14:00:14
1	Mg 279.077 IEC†	4.2	-0.1	-2.4779	ug/L	-2.4779	ppb	14:00:34
1	Na 589.592 Radial†	-544.8	802.8	277.13	ug/L	277.13	ppb	14:00:14
1	Sr 421.552†	29.7	33.9	0.2627	ug/L	0.2627	ppb	14:00:14
1	Sc 361.383	868048.7	868048.7	101.53	%			14:01:31
1	Y 371.029	739022.7	739022.7	100.93	%			14:01:31
1	Ag 328.068†	410.9	-56.4	-0.1471	ug/L	-0.1471	ppb	14:01:31
1	As 188.979†	-37.1	3.7	1.3826	ug/L	1.3826	ppb	14:01:51
1	B 249.677†	-351.4	438.4	8.9934	ug/L	8.9934	ppb	14:01:31
1	Ba 233.527†	101.1	107.0	0.7978	ug/L	0.7978	ppb	14:01:51
1	Be 313.107†	-4433.9	21.1	0.0114	ug/L	0.0114	ppb	14:01:31
1	Cd 226.502†	-260.0	-12.1	-0.1447	ug/L	-0.1447	ppb	14:01:51
1	Co 228.616†	-79.7	21.4	0.3972	ug/L	0.3972	ppb	14:01:51
1	Cr 267.716†	126.7	9.2	0.0982	ug/L	0.0982	ppb	14:01:31
1	Cu 324.752†	8395.7	70.1	0.2221	ug/L	0.2221	ppb	14:01:31
1	Mn 257.610†	8710.9	7947.4	8.4687	ug/L	8.4687	ppb	14:01:31
1	Mo 202.031†	29.3	3.7	0.2629	ug/L	0.2629	ppb	14:01:51
1	Ni 231.604†	133.2	4.3	0.0939	ug/L	0.0939	ppb	14:01:51
1	P 214.914†	289.3	30.3	14.741	ug/L	14.741	ppb	14:01:51
1	Pb 220.353†	-85.0	-1.9	-0.1998	ug/L	-0.1998	ppb	14:01:51
1	S 181.975 Axial†	73.9	4.9	5.5854	ug/L	5.5854	ppb	14:01:51
1	Sb 206.836†	46.7	8.6	2.6354	ug/L	2.6354	ppb	14:01:51
1	Se 196.026†	-39.3	-5.6	-1.9383	ug/L	-1.9383	ppb	14:01:51
1	Si 251.611†	14422.9	13620.2	392.74	ug/L	392.74	ppb	14:01:31
1	Sn 189.927†	10.9	7.1	1.0795	ug/L	1.0795	ppb	14:01:51
1	Ti 334.940†	-328.9	1391.9	2.2025	ug/L	2.2025	ppb	14:01:31
1	Tl 190.801†	-43.4	0.4	0.1843	ug/L	0.1843	ppb	14:01:51
1	U 409.014†	-2550.3	144.3	4.2462	ug/L	4.2462	ppb	14:01:31
1	V 292.402†	-1719.3	55.3	0.3124	ug/L	0.3124	ppb	14:01:31
1	Zn 213.857†	990.1	154.1	1.2577	ug/L	1.2577	ppb	14:01:51
1	SiO2†	14278.2	13451.8	835.54	ug/L	835.54	ppb	14:02:47
2	Sc Radial	4464.3	4464.3	102	%			14:00:39
2	Y RADIAL	4751.6	4751.6	101.4	%			14:00:39
2	Al 396.153Radial†	97.5	95.7	83.130	ug/L	83.130	ppb	14:00:39
2	Ca 317.933Radial†	39.1	24.7	42.516	ug/L	42.516	ppb	14:00:59
2	Fe 238.204 Radial†	36.5	26.5	261.90	ug/L	261.90	ppb	14:00:59
2	K 766.490 Radial†	3595.7	414.8	87.671	ug/L	87.671	ppb	14:00:39
2	Mg 279.077 IEC†	2.5	-1.8	-60.343	ug/L	-60.343	ppb	14:00:59
2	Na 589.592 Radial†	-591.2	756.7	261.20	ug/L	261.20	ppb	14:00:39
2	Sr 421.552†	6.1	10.7	0.0825	ug/L	0.0825	ppb	14:00:39
2	Sc 361.383	869088.6	869088.6	101.65	%			14:01:56
2	Y 371.029	741422.9	741422.9	101.26	%			14:01:56
2	Ag 328.068†	425.9	-42.1	-0.0971	ug/L	-0.0971	ppb	14:01:56
2	As 188.979†	-42.7	-1.8	-0.5825	ug/L	-0.5825	ppb	14:02:16
2	B 249.677†	-394.8	396.1	8.1270	ug/L	8.1270	ppb	14:01:56
2	Ba 233.527†	77.7	83.9	0.6251	ug/L	0.6251	ppb	14:02:16
2	Be 313.107†	-4421.4	38.7	0.0171	ug/L	0.0171	ppb	14:01:56
2	Cd 226.502†	-243.5	4.4	0.0159	ug/L	0.0159	ppb	14:02:16
2	Co 228.616†	-89.2	12.1	0.2213	ug/L	0.2213	ppb	14:02:16
2	Cr 267.716†	146.5	28.5	0.2933	ug/L	0.2933	ppb	14:01:56
2	Cu 324.752†	8268.3	-65.1	-0.1790	ug/L	-0.1790	ppb	14:01:56
2	Mn 257.610†	8672.4	7899.3	8.4153	ug/L	8.4153	ppb	14:01:56
2	Mo 202.031†	23.7	-1.9	-0.0958	ug/L	-0.0958	ppb	14:02:16
2	Ni 231.604†	121.6	-7.3	-0.1619	ug/L	-0.1619	ppb	14:02:16

2	P 214.914†	280.4	21.2	10.273 ug/L	10.273 ppb	14:02:16
2	Pb 220.353†	-89.3	-6.0	-0.6427 ug/L	-0.6427 ppb	14:02:16
2	S 181.975 Axial†	70.5	1.5	1.7019 ug/L	1.7019 ppb	14:02:16
2	Sb 206.836†	47.8	9.6	2.8953 ug/L	2.8953 ppb	14:02:16
2	Se 196.026†	-29.9	3.7	2.7302 ug/L	2.7302 ppb	14:02:16
2	Si 251.611†	14300.1	13482.4	388.78 ug/L	388.78 ppb	14:01:56
2	Sn 189.927†	-2.3	-5.9	-0.8797 ug/L	-0.8797 ppb	14:02:16
2	Ti 334.940†	-402.2	1320.2	2.0896 ug/L	2.0896 ppb	14:01:56
2	Tl 190.801†	-45.5	-1.5	-0.3609 ug/L	-0.3609 ppb	14:02:16
2	U 409.014†	-2608.9	89.6	2.6263 ug/L	2.6263 ppb	14:01:56
2	V 292.402†	-1790.5	-12.7	-0.1205 ug/L	-0.1205 ppb	14:01:56
2	Zn 213.857†	1022.2	184.5	1.5153 ug/L	1.5153 ppb	14:02:16
2	SiO2†	14469.7	13623.4	846.21 ug/L	846.21 ppb	14:02:52
3	Sc Radial	4560.3	4560.3	104 %		14:01:04
3	Y RADIAL	4781.7	4781.7	102.0 %		14:01:04
3	Al 396.153Radial†	114.6	110.1	95.611 ug/L	95.611 ppb	14:01:04
3	Ca 317.933Radial†	36.6	21.5	37.010 ug/L	37.010 ppb	14:01:24
3	Fe 238.204 Radial†	37.4	26.5	262.71 ug/L	262.71 ppb	14:01:24
3	K 766.490 Radial†	3527.5	274.4	57.948 ug/L	57.948 ppb	14:01:04
3	Mg 279.077 IEC†	5.6	1.2	40.416 ug/L	40.416 ppb	14:01:24
3	Na 589.592 Radial†	-644.1	717.9	247.82 ug/L	247.82 ppb	14:01:04
3	Sr 421.552†	44.5	47.5	0.3685 ug/L	0.3685 ppb	14:01:04
3	Sc 361.383	869254.1	869254.1	101.67 %		14:02:22
3	Y 371.029	741748.1	741748.1	101.30 %		14:02:22
3	Ag 328.068†	385.7	-81.7	-0.2694 ug/L	-0.2694 ppb	14:02:22
3	As 188.979†	-30.5	10.3	3.6890 ug/L	3.6890 ppb	14:02:42
3	B 249.677†	-444.9	346.9	7.1137 ug/L	7.1137 ppb	14:02:22
3	Ba 233.527†	82.1	88.2	0.6572 ug/L	0.6572 ppb	14:02:42
3	Be 313.107†	-4405.9	54.7	0.0224 ug/L	0.0224 ppb	14:02:22
3	Cd 226.502†	-252.6	-4.5	-0.0688 ug/L	-0.0688 ppb	14:02:42
3	Co 228.616†	-97.5	4.0	0.0685 ug/L	0.0685 ppb	14:02:42
3	Cr 267.716†	160.5	42.3	0.4322 ug/L	0.4322 ppb	14:02:22
3	Cu 324.752†	8397.7	60.6	0.1924 ug/L	0.1924 ppb	14:02:22
3	Mn 257.610†	8614.8	7841.0	8.3516 ug/L	8.3516 ppb	14:02:22
3	Mo 202.031†	33.1	7.3	0.4907 ug/L	0.4907 ppb	14:02:42
3	Ni 231.604†	127.5	-1.5	-0.0333 ug/L	-0.0333 ppb	14:02:42
3	P 214.914†	282.0	22.6	10.957 ug/L	10.957 ppb	14:02:42
3	Pb 220.353†	-93.6	-10.2	-1.0819 ug/L	-1.0819 ppb	14:02:42
3	S 181.975 Axial†	71.5	2.4	2.7891 ug/L	2.7891 ppb	14:02:42
3	Sb 206.836†	45.1	6.9	2.0968 ug/L	2.0968 ppb	14:02:42
3	Se 196.026†	-35.3	-1.6	0.0044 ug/L	0.0044 ppb	14:02:42
3	Si 251.611†	14326.0	13505.3	389.44 ug/L	389.44 ppb	14:02:22
3	Sn 189.927†	-1.7	-5.3	-0.7902 ug/L	-0.7902 ppb	14:02:42
3	Ti 334.940†	-426.0	1296.8	2.0514 ug/L	2.0514 ppb	14:02:22
3	Tl 190.801†	-50.9	-6.9	-1.8594 ug/L	-1.8594 ppb	14:02:42
3	U 409.014†	-2533.5	164.2	4.8415 ug/L	4.8415 ppb	14:02:22
3	V 292.402†	-1770.6	7.2	0.0197 ug/L	0.0197 ppb	14:02:22
3	Zn 213.857†	980.6	143.4	1.1705 ug/L	1.1705 ppb	14:02:42
3	SiO2†	14391.5	13543.8	841.27 ug/L	841.27 ppb	14:02:57

Mean Data: 243554004|936813|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	868797.1	101.61	%	0.076				0.08%
Sc Radial	4497.7	102	%	1.2				1.21%
Y 371.029	740731.2	101.16	%	0.203				0.20%
Y RADIAL	4761.3	101.6	%	0.38				0.37%
Ag 328.068†	-60.1	-0.1712	ug/L	0.08861	-0.1712	ppb	0.08861	51.76%
Al 396.153Radial†	111.4	96.717	ug/L	14.1716	96.717	ppb	14.1716	14.65%
As 188.979†	4.1	1.4964	ug/L	2.13800	1.4964	ppb	2.13800	142.88%
B 249.677†	393.8	8.0781	ug/L	0.94079	8.0781	ppb	0.94079	11.65%
Ba 233.527†	93.0	0.6934	ug/L	0.09185	0.6934	ppb	0.09185	13.25%
Be 313.107†	38.2	0.0170	ug/L	0.00550	0.0170	ppb	0.00550	32.39%
Ca 317.933Radial†	23.7	40.759	ug/L	3.2487	40.759	ppb	3.2487	7.97%
Cd 226.502†	-4.0	-0.0658	ug/L	0.08038	-0.0658	ppb	0.08038	122.07%
Co 228.616†	12.5	0.2290	ug/L	0.16449	0.2290	ppb	0.16449	71.82%
Cr 267.716†	26.7	0.2746	ug/L	0.16779	0.2746	ppb	0.16779	61.11%
Cu 324.752†	21.8	0.0785	ug/L	0.22350	0.0785	ppb	0.22350	284.75%
Fe 238.204 Radial†	27.6	273.56	ug/L	19.494	273.56	ppb	19.494	7.13%
K 766.490 Radial†	347.8	73.497	ug/L	14.9090	73.497	ppb	14.9090	20.29%

Mg 279.077 IEC†	-0.2	-7.4682	ug/L	50.56417	-7.4682	ppb	50.56417 677.06%
Mn 257.610†	7895.9	8.4118	ug/L	0.05862	8.4118	ppb	0.05862 0.70%
Mo 202.031†	3.0	0.2193	ug/L	0.29569	0.2193	ppb	0.29569 134.86%
Na 589.592 Radial†	759.1	262.05	ug/L	14.674	262.05	ppb	14.674 5.60%
Ni 231.604†	-1.5	-0.0338	ug/L	0.12790	-0.0338	ppb	0.12790 378.84%
P 214.914†	24.7	11.990	ug/L	2.4067	11.990	ppb	2.4067 20.07%
Pb 220.353†	-6.1	-0.6415	ug/L	0.44104	-0.6415	ppb	0.44104 68.76%
S 181.975 Axial†	2.9	3.3588	ug/L	2.00345	3.3588	ppb	2.00345 59.65%
Sb 206.836†	8.4	2.5425	ug/L	0.40724	2.5425	ppb	0.40724 16.02%
Se 196.026†	-1.2	0.2654	ug/L	2.34517	0.2654	ppb	2.34517 883.57%
Si 251.611†	13536.0	390.32	ug/L	2.125	390.32	ppb	2.125 0.54%
Sn 189.927†	-1.4	-0.1968	ug/L	1.10622	-0.1968	ppb	1.10622 562.08%
Sr 421.552†	30.7	0.2379	ug/L	0.14461	0.2379	ppb	0.14461 60.79%
Ti 334.940†	1336.3	2.1145	ug/L	0.07855	2.1145	ppb	0.07855 3.71%
Tl 190.801†	-2.7	-0.6786	ug/L	1.05825	-0.6786	ppb	1.05825 155.94%
U 409.014†	132.7	3.9047	ug/L	1.14644	3.9047	ppb	1.14644 29.36%
V 292.402†	16.6	0.0705	ug/L	0.22085	0.0705	ppb	0.22085 313.08%
Zn 213.857†	160.7	1.3145	ug/L	0.17927	1.3145	ppb	0.17927 13.64%
SiO2†	13539.7	841.01	ug/L	5.342	841.01	ppb	5.342 0.64%

Sequence No.: 15
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 1/8/2010 14:18:43
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4108.5	4108.5	93.4	%			14:20:55
1	Y RADIAL	4634.6	4634.6	98.90	%			14:20:35
1	Al 396.153Radial†	5795.1	6202.0	5364.3	ug/L	5364.3	ppb	14:20:35
1	Ca 317.933Radial†	2849.4	3035.8	5231.1	ug/L	5231.1	ppb	14:20:55
1	Fe 238.204 Radial†	516.8	543.7	5394.9	ug/L	5394.9	ppb	14:20:55
1	K 766.490 Radial†	27425.8	26225.8	5547.5	ug/L	5547.5	ppb	14:20:35
1	Mg 279.077 IEC†	148.3	154.5	5309.0	ug/L	5309.0	ppb	14:20:55
1	Na 589.592 Radial†	28571.1	31917.6	11018	ug/L	11018	ppb	14:20:35
1	Sr 421.552†	66709.0	71400.7	554.40	ug/L	554.40	ppb	14:20:35
1	Sc 361.383	867912.8	867912.8	101.51	%			14:21:54
1	Y 371.029	730534.6	730534.6	99.771	%			14:21:54
1	Ag 328.068†	115011.0	112839.0	490.04	ug/L	490.04	ppb	14:21:54
1	As 188.979†	1387.1	1406.8	501.18	ug/L	501.18	ppb	14:22:14
1	B 249.677†	23479.9	23915.2	490.84	ug/L	490.84	ppb	14:21:54
1	Ba 233.527†	68102.6	67097.0	496.27	ug/L	496.27	ppb	14:21:54
1	Be 313.107†	1483956.2	1466269.3	494.11	ug/L	494.11	ppb	14:21:54
1	Cd 226.502†	52890.9	52348.1	498.22	ug/L	498.22	ppb	14:21:54
1	Co 228.616†	26114.6	25826.0	488.69	ug/L	488.69	ppb	14:22:14
1	Cr 267.716†	49266.5	48418.0	492.14	ug/L	492.14	ppb	14:21:54
1	Cu 324.752†	176848.8	166018.6	490.85	ug/L	490.85	ppb	14:21:54
1	Mn 257.610†	478757.7	471003.1	500.58	ug/L	500.58	ppb	14:21:54
1	Mo 202.031†	7833.4	7691.7	491.47	ug/L	491.47	ppb	14:22:14
1	Ni 231.604†	22479.6	22018.3	487.12	ug/L	487.12	ppb	14:22:14
1	P 214.914†	5383.0	5048.3	2416.5	ug/L	2416.5	ppb	14:22:14
1	Pb 220.353†	4699.4	4711.4	500.17	ug/L	500.17	ppb	14:22:14
1	S 181.975 Axial†	948.5	866.5	995.69	ug/L	995.69	ppb	14:22:14
1	Sb 206.836†	1671.0	1608.7	497.37	ug/L	497.37	ppb	14:22:14
1	Se 196.026†	965.9	984.7	523.19	ug/L	523.19	ppb	14:22:14
1	Si 251.611†	87198.0	85315.0	2448.4	ug/L	2448.4	ppb	14:21:54
1	Sn 189.927†	3284.7	3232.2	489.34	ug/L	489.34	ppb	14:22:14
1	Ti 334.940†	315115.8	312144.0	493.74	ug/L	493.74	ppb	14:21:54
1	Tl 190.801†	1750.9	1768.0	496.06	ug/L	496.06	ppb	14:22:14
1	U 409.014†	13451.7	15907.8	470.71	ug/L	470.71	ppb	14:21:54
1	V 292.402†	77063.7	77666.0	496.01	ug/L	496.01	ppb	14:21:54
1	Zn 213.857†	61731.0	59991.6	491.75	ug/L	491.75	ppb	14:21:54
1	SiO2†	87371.2	85459.7	5282.7	ug/L	5282.7	ppb	14:23:15
2	Sc Radial	4153.2	4153.2	94.5	%			14:21:20
2	Y RADIAL	4555.1	4555.1	97.21	%			14:21:00
2	Al 396.153Radial†	5677.4	6010.6	5198.1	ug/L	5198.1	ppb	14:21:00
2	Ca 317.933Radial†	2871.8	3026.7	5215.4	ug/L	5215.4	ppb	14:21:20
2	Fe 238.204 Radial†	524.9	546.3	5420.7	ug/L	5420.7	ppb	14:21:20
2	K 766.490 Radial†	26920.8	25375.1	5367.4	ug/L	5367.4	ppb	14:21:00
2	Mg 279.077 IEC†	149.5	154.0	5292.6	ug/L	5292.6	ppb	14:21:20
2	Na 589.592 Radial†	28028.0	31013.2	10706	ug/L	10706	ppb	14:21:00
2	Sr 421.552†	65730.8	69596.2	540.39	ug/L	540.39	ppb	14:21:00
2	Sc 361.383	863469.3	863469.3	100.99	%			14:22:22
2	Y 371.029	727694.4	727694.4	99.383	%			14:22:22
2	Ag 328.068†	114711.1	113125.1	491.28	ug/L	491.28	ppb	14:22:22
2	As 188.979†	1376.9	1403.6	500.07	ug/L	500.07	ppb	14:22:42
2	B 249.677†	23548.0	24101.5	494.67	ug/L	494.67	ppb	14:22:22
2	Ba 233.527†	67699.9	67043.5	495.88	ug/L	495.88	ppb	14:22:22
2	Be 313.107†	1479376.1	1469257.2	495.11	ug/L	495.11	ppb	14:22:22
2	Cd 226.502†	52492.1	52221.3	497.01	ug/L	497.01	ppb	14:22:22
2	Co 228.616†	26023.6	25868.3	489.49	ug/L	489.49	ppb	14:22:42
2	Cr 267.716†	48908.5	48313.3	491.08	ug/L	491.08	ppb	14:22:22
2	Cu 324.752†	176134.1	166207.4	491.41	ug/L	491.41	ppb	14:22:22
2	Mn 257.610†	475991.7	470691.4	500.25	ug/L	500.25	ppb	14:22:22
2	Mo 202.031†	7795.2	7693.5	491.59	ug/L	491.59	ppb	14:22:42
2	Ni 231.604†	22373.5	22027.2	487.32	ug/L	487.32	ppb	14:22:42

2	P 214.914†	5362.7	5055.4	2419.9 ug/L	2419.9 ppb	14:22:42
2	Pb 220.353†	4707.9	4743.6	503.54 ug/L	503.54 ppb	14:22:42
2	S 181.975 Axial†	932.1	855.1	982.65 ug/L	982.65 ppb	14:22:42
2	Sb 206.836†	1670.3	1616.5	499.81 ug/L	499.81 ppb	14:22:42
2	Se 196.026†	972.4	996.0	529.05 ug/L	529.05 ppb	14:22:42
2	Si 251.611†	86742.6	85306.1	2448.2 ug/L	2448.2 ppb	14:22:22
2	Sn 189.927†	3275.8	3240.0	490.53 ug/L	490.53 ppb	14:22:42
2	Ti 334.940†	313305.4	311948.9	493.43 ug/L	493.43 ppb	14:22:22
2	Tl 190.801†	1750.6	1776.6	498.43 ug/L	498.43 ppb	14:22:42
2	U 409.014†	13393.3	15918.2	471.02 ug/L	471.02 ppb	14:22:22
2	V 292.402†	76547.9	77545.9	495.25 ug/L	495.25 ppb	14:22:22
2	Zn 213.857†	61659.6	60233.8	493.75 ug/L	493.75 ppb	14:22:22
2	SiO2†	86837.7	85374.4	5277.5 ug/L	5277.5 ppb	14:23:20
3	Sc Radial	4177.5	4177.5	95.0 %		14:21:45
3	Y RADIAL	4537.8	4537.8	96.84 %		14:21:25
3	Al 396.153Radial†	5639.3	5935.6	5132.9 ug/L	5132.9 ppb	14:21:25
3	Ca 317.933Radial†	2824.5	2959.3	5099.2 ug/L	5099.2 ppb	14:21:45
3	Fe 238.204 Radial†	513.8	531.3	5273.0 ug/L	5273.0 ppb	14:21:45
3	K 766.490 Radial†	26795.0	25077.3	5304.3 ug/L	5304.3 ppb	14:21:25
3	Mg 279.077 IEC†	144.8	148.1	5090.3 ug/L	5090.3 ppb	14:21:45
3	Na 589.592 Radial†	27736.7	30534.4	10540 ug/L	10540 ppb	14:21:25
3	Sr 421.552†	65125.7	68555.5	532.31 ug/L	532.31 ppb	14:21:25
3	Sc 361.383	862472.5	862472.5	100.87 %		14:22:49
3	Y 371.029	726246.8	726246.8	99.185 %		14:22:49
3	Ag 328.068†	114405.6	112953.5	490.49 ug/L	490.49 ppb	14:22:49
3	As 188.979†	1398.3	1426.4	508.09 ug/L	508.09 ppb	14:23:09
3	B 249.677†	23373.5	23955.6	491.68 ug/L	491.68 ppb	14:22:49
3	Ba 233.527†	67632.2	67053.8	495.95 ug/L	495.95 ppb	14:22:49
3	Be 313.107†	1474907.7	1466520.5	494.19 ug/L	494.19 ppb	14:22:49
3	Cd 226.502†	52236.1	52027.6	495.18 ug/L	495.18 ppb	14:22:49
3	Co 228.616†	26122.5	25996.1	491.92 ug/L	491.92 ppb	14:23:09
3	Cr 267.716†	48836.9	48298.3	490.92 ug/L	490.92 ppb	14:22:49
3	Cu 324.752†	175868.8	166146.0	491.23 ug/L	491.23 ppb	14:22:49
3	Mn 257.610†	475162.8	470414.5	499.95 ug/L	499.95 ppb	14:22:49
3	Mo 202.031†	7826.0	7733.0	494.10 ug/L	494.10 ppb	14:23:09
3	Ni 231.604†	22440.6	22119.3	489.36 ug/L	489.36 ppb	14:23:09
3	P 214.914†	5390.3	5088.9	2436.6 ug/L	2436.6 ppb	14:23:09
3	Pb 220.353†	4687.5	4728.8	501.98 ug/L	501.98 ppb	14:23:09
3	S 181.975 Axial†	934.2	858.2	986.24 ug/L	986.24 ppb	14:23:09
3	Sb 206.836†	1687.7	1635.6	505.74 ug/L	505.74 ppb	14:23:09
3	Se 196.026†	958.9	983.8	522.32 ug/L	522.32 ppb	14:23:09
3	Si 251.611†	86625.9	85289.7	2447.7 ug/L	2447.7 ppb	14:22:49
3	Sn 189.927†	3292.1	3259.9	493.53 ug/L	493.53 ppb	14:23:09
3	Ti 334.940†	312781.9	311788.5	493.17 ug/L	493.17 ppb	14:22:49
3	Tl 190.801†	1751.3	1779.3	499.16 ug/L	499.16 ppb	14:23:09
3	U 409.014†	13547.5	16086.3	476.03 ug/L	476.03 ppb	14:22:49
3	V 292.402†	76526.0	77611.8	495.73 ug/L	495.73 ppb	14:22:49
3	Zn 213.857†	61456.5	60103.1	492.67 ug/L	492.67 ppb	14:22:49
3	SiO2†	86196.6	84838.2	5244.1 ug/L	5244.1 ppb	14:23:25

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	864618.2	101.12	%	0.339				0.33%
Sc Radial	4146.4	94.3	%	0.80				0.84%
Y 371.029	728158.6	99.446	%	0.2979				0.30%
Y RADIAL	4575.8	97.65	%	1.101				1.13%
Ag 328.068†	112972.5	490.61	ug/L	0.628	490.61	ppb	0.628	0.13%
QC value within limits for Ag 328.068 Recovery = 98.12%								
Al 396.153Radial†	6049.4	5231.8	ug/L	119.34	5231.8	ppb	119.34	2.28%
QC value within limits for Al 396.153Radial Recovery = 104.64%								
As 188.979†	1412.3	503.11	ug/L	4.347	503.11	ppb	4.347	0.86%
QC value within limits for As 188.979 Recovery = 100.62%								
B 249.677†	23990.8	492.40	ug/L	2.016	492.40	ppb	2.016	0.41%
QC value within limits for B 249.677 Recovery = 98.48%								
Ba 233.527†	67064.8	496.03	ug/L	0.211	496.03	ppb	0.211	0.04%
QC value within limits for Ba 233.527 Recovery = 99.21%								
Be 313.107†	1467349.0	494.47	ug/L	0.557	494.47	ppb	0.557	0.11%
QC value within limits for Be 313.107 Recovery = 98.89%								
Ca 317.933Radial†	3007.3	5181.9	ug/L	72.06	5181.9	ppb	72.06	1.39%

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   QC value within limits for Ca 317.933Radial  Recovery = 103.64%
Cd 226.502†            52199.0      496.81 ug/L        1.529      496.81 ppb        1.529   0.31%
   QC value within limits for Cd 226.502  Recovery = 99.36%
Co 228.616†            25896.8      490.03 ug/L        1.681      490.03 ppb        1.681   0.34%
   QC value within limits for Co 228.616  Recovery = 98.01%
Cr 267.716†            48343.2      491.38 ug/L        0.664      491.38 ppb        0.664   0.14%
   QC value within limits for Cr 267.716  Recovery = 98.28%
Cu 324.752†           166124.0      491.16 ug/L        0.284      491.16 ppb        0.284   0.06%
   QC value within limits for Cu 324.752  Recovery = 98.23%
Fe 238.204 Radial†       540.4      5362.9 ug/L       78.86      5362.9 ppb       78.86   1.47%
   QC value within limits for Fe 238.204 Radial  Recovery = 107.26%
K 766.490 Radial†      25559.4      5406.4 ug/L      126.18      5406.4 ppb      126.18   2.33%
   QC value within limits for K 766.490 Radial  Recovery = 108.13%
Mg 279.077 IEC†          152.2      5230.6 ug/L      121.80      5230.6 ppb      121.80   2.33%
   QC value within limits for Mg 279.077 IEC  Recovery = 104.61%
Mn 257.610†           470703.0      500.26 ug/L        0.317      500.26 ppb        0.317   0.06%
   QC value within limits for Mn 257.610  Recovery = 100.05%
Mo 202.031†             7706.1      492.38 ug/L        1.483      492.38 ppb        1.483   0.30%
   QC value within limits for Mo 202.031  Recovery = 98.48%
Na 589.592 Radial†     31155.1       10755 ug/L      242.5        10755 ppb      242.5   2.25%
   QC value within limits for Na 589.592 Radial  Recovery = 107.55%
Ni 231.604†            22054.9      487.93 ug/L        1.238      487.93 ppb        1.238   0.25%
   QC value within limits for Ni 231.604  Recovery = 97.59%
P 214.914†              5064.2      2424.3 ug/L       10.74      2424.3 ppb       10.74   0.44%
   QC value within limits for P 214.914  Recovery = 96.97%
Pb 220.353†             4727.9      501.90 ug/L        1.686      501.90 ppb        1.686   0.34%
   QC value within limits for Pb 220.353  Recovery = 100.38%
S 181.975 Axial†         860.0      988.19 ug/L        6.733      988.19 ppb        6.733   0.68%
   QC value within limits for S 181.975 Axial  Recovery = 98.82%
Sb 206.836†             1620.3      500.98 ug/L        4.305      500.98 ppb        4.305   0.86%
   QC value within limits for Sb 206.836  Recovery = 100.20%
Se 196.026†              988.2      524.85 ug/L        3.664      524.85 ppb        3.664   0.70%
   QC value within limits for Se 196.026  Recovery = 104.97%
Si 251.611†            85303.6      2448.1 ug/L        0.36      2448.1 ppb        0.36   0.01%
   QC value within limits for Si 251.611  Recovery = 97.92%
Sn 189.927†             3244.0      491.13 ug/L        2.155      491.13 ppb        2.155   0.44%
   QC value within limits for Sn 189.927  Recovery = 98.23%
Sr 421.552†            69850.8      542.36 ug/L       11.178      542.36 ppb       11.178   2.06%
   QC value within limits for Sr 421.552  Recovery = 108.47%
Ti 334.940†           311960.5      493.45 ug/L        0.286      493.45 ppb        0.286   0.06%
   QC value within limits for Ti 334.940  Recovery = 98.69%
Tl 190.801†             1774.6      497.88 ug/L        1.621      497.88 ppb        1.621   0.33%
   QC value within limits for Tl 190.801  Recovery = 99.58%
U 409.014†             15970.8      472.59 ug/L        2.986      472.59 ppb        2.986   0.63%
   QC value within limits for U 409.014  Recovery = 94.52%
V 292.402†             77607.9      495.67 ug/L        0.383      495.67 ppb        0.383   0.08%
   QC value within limits for V 292.402  Recovery = 99.13%
Zn 213.857†            60109.5      492.72 ug/L        1.001      492.72 ppb        1.001   0.20%
   QC value within limits for Zn 213.857  Recovery = 98.54%
SiO2†                  85224.1      5268.1 ug/L       20.93      5268.1 ppb       20.93   0.40%
   QC value within limits for SiO2  Recovery = 98.52%
All analyte(s) passed QC.
```

Sequence No.: 16
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 1/8/2010 14:25:34
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4259.6	4259.6	96.9	%			14:27:27
1	Y RADIAL	4520.2	4520.2	96.46	%			14:27:27
1	Al 396.153Radial†	1.1	0.8	0.6395	ug/L	0.6395	ppb	14:27:27
1	Ca 317.933Radial†	20.4	7.3	12.582	ug/L	12.582	ppb	14:27:47
1	Fe 238.204 Radial†	12.1	3.0	29.954	ug/L	29.954	ppb	14:27:47
1	K 766.490 Radial†	3265.0	243.5	51.595	ug/L	51.595	ppb	14:27:27
1	Mg 279.077 IEC†	2.0	-2.2	-74.328	ug/L	-74.328	ppb	14:27:47
1	Na 589.592 Radial†	-1279.8	17.8	6.1393	ug/L	6.1393	ppb	14:27:27
1	Sr 421.552†	17.2	22.4	0.1739	ug/L	0.1739	ppb	14:27:27
1	Sc 361.383	839695.5	839695.5	98.210	%			14:28:44
1	Y 371.029	723764.5	723764.5	98.846	%			14:28:44
1	Ag 328.068†	493.4	41.3	0.1904	ug/L	0.1904	ppb	14:28:44
1	As 188.979†	-31.4	8.2	2.9101	ug/L	2.9101	ppb	14:29:04
1	B 249.677†	-392.3	385.0	7.9299	ug/L	7.9299	ppb	14:28:44
1	Ba 233.527†	11.1	18.7	0.1391	ug/L	0.1391	ppb	14:29:04
1	Be 313.107†	-4308.3	1.5	0.0004	ug/L	0.0004	ppb	14:28:44
1	Cd 226.502†	-236.9	2.7	0.0232	ug/L	0.0232	ppb	14:29:04
1	Co 228.616†	-92.2	6.0	0.1162	ug/L	0.1162	ppb	14:29:04
1	Cr 267.716†	92.4	-21.5	-0.2168	ug/L	-0.2168	ppb	14:28:44
1	Cu 324.752†	8201.0	151.1	0.4480	ug/L	0.4480	ppb	14:28:44
1	Mn 257.610†	662.0	41.5	0.0485	ug/L	0.0485	ppb	14:28:44
1	Mo 202.031†	41.0	16.5	1.0573	ug/L	1.0573	ppb	14:29:04
1	Ni 231.604†	125.3	0.6	0.0140	ug/L	0.0140	ppb	14:29:04
1	P 214.914†	271.6	21.9	10.727	ug/L	10.727	ppb	14:29:04
1	Pb 220.353†	-70.2	10.3	1.0930	ug/L	1.0930	ppb	14:29:04
1	S 181.975 Axial†	57.2	-9.6	-11.049	ug/L	-11.049	ppb	14:29:04
1	Sb 206.836†	47.3	10.7	3.2977	ug/L	3.2977	ppb	14:29:04
1	Se 196.026†	-35.1	-2.7	-1.2627	ug/L	-1.2627	ppb	14:29:04
1	Si 251.611†	631.0	56.6	1.5957	ug/L	1.5957	ppb	14:29:04
1	Sn 189.927†	5.8	2.3	0.3479	ug/L	0.3479	ppb	14:29:04
1	Ti 334.940†	-1710.7	-26.0	-0.0394	ug/L	-0.0394	ppb	14:28:44
1	Tl 190.801†	-47.2	-4.9	-1.3700	ug/L	-1.3700	ppb	14:29:04
1	U 409.014†	-2681.0	-73.6	-2.1899	ug/L	-2.1899	ppb	14:28:44
1	V 292.402†	-1704.0	13.6	0.0907	ug/L	0.0907	ppb	14:28:44
1	Zn 213.857†	836.0	30.1	0.2491	ug/L	0.2491	ppb	14:29:04
1	SiO2†	614.5	13.9	0.7807	ug/L	0.7807	ppb	14:30:00
2	Sc Radial	4407.9	4407.9	100	%			14:27:52
2	Y RADIAL	4671.0	4671.0	99.68	%			14:27:52
2	Al 396.153Radial†	-3.0	-3.3	-2.9178	ug/L	-2.9178	ppb	14:27:52
2	Ca 317.933Radial†	12.3	-1.6	-2.6826	ug/L	-2.6826	ppb	14:28:12
2	Fe 238.204 Radial†	10.1	0.6	5.8420	ug/L	5.8420	ppb	14:28:12
2	K 766.490 Radial†	3251.0	116.1	24.596	ug/L	24.596	ppb	14:27:52
2	Mg 279.077 IEC†	1.0	-3.2	-110.68	ug/L	-110.68	ppb	14:28:12
2	Na 589.592 Radial†	-1258.9	83.1	28.694	ug/L	28.694	ppb	14:27:52
2	Sr 421.552†	23.5	28.1	0.2180	ug/L	0.2180	ppb	14:27:52
2	Sc 361.383	842521.9	842521.9	98.540	%			14:29:09
2	Y 371.029	724920.7	724920.7	99.004	%			14:29:09
2	Ag 328.068†	433.6	-21.0	-0.0866	ug/L	-0.0866	ppb	14:29:09
2	As 188.979†	-31.3	8.5	2.9893	ug/L	2.9893	ppb	14:29:29
2	B 249.677†	-433.9	344.2	7.0923	ug/L	7.0923	ppb	14:29:09
2	Ba 233.527†	3.4	10.9	0.0807	ug/L	0.0807	ppb	14:29:29
2	Be 313.107†	-4426.8	-104.0	-0.0348	ug/L	-0.0348	ppb	14:29:09
2	Cd 226.502†	-245.3	-5.0	-0.0483	ug/L	-0.0483	ppb	14:29:29
2	Co 228.616†	-97.0	1.5	0.0304	ug/L	0.0304	ppb	14:29:29
2	Cr 267.716†	169.5	56.4	0.5736	ug/L	0.5736	ppb	14:29:09
2	Cu 324.752†	8188.2	110.0	0.3254	ug/L	0.3254	ppb	14:29:09
2	Mn 257.610†	664.3	41.6	0.0468	ug/L	0.0468	ppb	14:29:09
2	Mo 202.031†	37.1	12.4	0.7942	ug/L	0.7942	ppb	14:29:29
2	Ni 231.604†	128.4	3.4	0.0751	ug/L	0.0751	ppb	14:29:29

2	P 214.914†	268.3	17.6	8.6375 ug/L	8.6375 ppb	14:29:29
2	Pb 220.353†	-64.4	16.4	1.7409 ug/L	1.7409 ppb	14:29:29
2	S 181.975 Axial†	66.0	-0.9	-1.0672 ug/L	-1.0672 ppb	14:29:29
2	Sb 206.836†	38.9	2.1	0.6212 ug/L	0.6212 ppb	14:29:29
2	Se 196.026†	-28.3	4.4	2.2649 ug/L	2.2649 ppb	14:29:29
2	Si 251.611†	617.6	40.9	1.1588 ug/L	1.1588 ppb	14:29:29
2	Sn 189.927†	-0.8	-4.4	-0.6641 ug/L	-0.6641 ppb	14:29:29
2	Ti 334.940†	-1639.0	52.6	0.0838 ug/L	0.0838 ppb	14:29:09
2	Tl 190.801†	-61.0	-18.8	-5.2288 ug/L	-5.2288 ppb	14:29:29
2	U 409.014†	-2691.9	-75.5	-2.2450 ug/L	-2.2450 ppb	14:29:09
2	V 292.402†	-1715.2	8.1	0.0546 ug/L	0.0546 ppb	14:29:09
2	Zn 213.857†	830.9	22.1	0.1853 ug/L	0.1853 ppb	14:29:29
2	SiO2†	624.1	21.6	1.2973 ug/L	1.2973 ppb	14:30:05
3	Sc Radial	4301.8	4301.8	97.8 %		14:28:17
3	Y RADIAL	4580.5	4580.5	97.75 %		14:28:17
3	Al 396.153Radial†	-18.0	-18.7	-16.239 ug/L	-16.239 ppb	14:28:17
3	Ca 317.933Radial†	9.6	-4.0	-6.9173 ug/L	-6.9173 ppb	14:28:37
3	Fe 238.204 Radial†	9.7	0.5	4.5595 ug/L	4.5595 ppb	14:28:37
3	K 766.490 Radial†	3179.9	123.5	26.170 ug/L	26.170 ppb	14:28:17
3	Mg 279.077 IEC†	1.9	-2.2	-77.129 ug/L	-77.129 ppb	14:28:37
3	Na 589.592 Radial†	-1298.7	11.5	3.9542 ug/L	3.9542 ppb	14:28:17
3	Sr 421.552†	0.7	5.4	0.0418 ug/L	0.0418 ppb	14:28:17
3	Sc 361.383	845896.4	845896.4	98.935 %		14:29:35
3	Y 371.029	730589.1	730589.1	99.778 %		14:29:35
3	Ag 328.068†	482.3	26.4	0.1184 ug/L	0.1184 ppb	14:29:35
3	As 188.979†	-35.6	4.3	1.5102 ug/L	1.5102 ppb	14:29:55
3	B 249.677†	-433.2	346.6	7.1405 ug/L	7.1405 ppb	14:29:35
3	Ba 233.527†	-3.9	3.5	0.0255 ug/L	0.0255 ppb	14:29:55
3	Be 313.107†	-4359.3	-17.9	-0.0059 ug/L	-0.0059 ppb	14:29:35
3	Cd 226.502†	-248.6	-7.4	-0.0707 ug/L	-0.0707 ppb	14:29:55
3	Co 228.616†	-83.2	15.8	0.2985 ug/L	0.2985 ppb	14:29:55
3	Cr 267.716†	108.9	-5.5	-0.0547 ug/L	-0.0547 ppb	14:29:35
3	Cu 324.752†	8159.8	48.2	0.1426 ug/L	0.1426 ppb	14:29:35
3	Mn 257.610†	607.7	-18.3	-0.0175 ug/L	-0.0175 ppb	14:29:35
3	Mo 202.031†	19.4	-5.6	-0.3582 ug/L	-0.3582 ppb	14:29:55
3	Ni 231.604†	118.3	-7.3	-0.1625 ug/L	-0.1625 ppb	14:29:55
3	P 214.914†	272.9	21.2	10.459 ug/L	10.459 ppb	14:29:55
3	Pb 220.353†	-78.0	3.0	0.3078 ug/L	0.3078 ppb	14:29:55
3	S 181.975 Axial†	65.4	-1.7	-1.9923 ug/L	-1.9923 ppb	14:29:55
3	Sb 206.836†	40.8	3.8	1.1842 ug/L	1.1842 ppb	14:29:55
3	Se 196.026†	-31.4	1.4	0.7322 ug/L	0.7322 ppb	14:29:55
3	Si 251.611†	631.9	52.8	1.5131 ug/L	1.5131 ppb	14:29:55
3	Sn 189.927†	18.4	15.0	2.2643 ug/L	2.2643 ppb	14:29:55
3	Ti 334.940†	-1650.3	47.8	0.0769 ug/L	0.0769 ppb	14:29:35
3	Tl 190.801†	-37.4	5.4	1.4919 ug/L	1.4919 ppb	14:29:55
3	U 409.014†	-2755.9	-129.3	-3.8410 ug/L	-3.8410 ppb	14:29:35
3	V 292.402†	-1748.4	-18.5	-0.1317 ug/L	-0.1317 ppb	14:29:35
3	Zn 213.857†	836.7	24.6	0.2065 ug/L	0.2065 ppb	14:29:55
3	SiO2†	620.5	15.3	0.9310 ug/L	0.9310 ppb	14:30:10

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	842704.6	98.562	%	0.3631				0.37%
Sc Radial	4323.1	98.3	%	1.74				1.77%
Y 371.029	726424.8	99.210	%	0.4988				0.50%
Y RADIAL	4590.6	97.97	%	1.620				1.65%
Ag 328.068†	15.6	0.0741	ug/L	0.14371	0.0741	ppb	0.14371	193.97%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-7.1	-6.1724	ug/L	8.89736	-6.1724	ppb	8.89736	144.15%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	7.0	2.4699	ug/L	0.83204	2.4699	ppb	0.83204	33.69%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	358.6	7.3876	ug/L	0.47030	7.3876	ppb	0.47030	6.37%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	11.0	0.0817	ug/L	0.05679	0.0817	ppb	0.05679	69.47%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-40.1	-0.0134	ug/L	0.01880	-0.0134	ppb	0.01880	140.18%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	0.6	0.9941	ug/L	10.25655	0.9941	ppb	10.25655	>999.9%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                -3.2     -0.0319 ug/L       0.04903     -0.0319 ppb        0.04903 153.51%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                 7.8      0.1484 ug/L       0.13690      0.1484 ppb        0.13690  92.26%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                 9.8      0.1007 ug/L       0.41749      0.1007 ppb        0.41749 414.55%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               103.1      0.3053 ug/L       0.15370      0.3053 ppb        0.15370  50.34%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          1.4     13.452 ug/L       14.3056     13.452 ppb        14.3056 106.35%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         161.1     34.120 ug/L       15.1543     34.120 ppb        15.1543  44.41%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -2.5    -87.380 ug/L       20.2292    -87.380 ppb        20.2292  23.15%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                21.6      0.0259 ug/L       0.03763      0.0259 ppb        0.03763 145.14%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 7.8      0.4978 ug/L       0.75286      0.4978 ppb        0.75286 151.25%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†         37.5     12.929 ug/L       13.6966     12.929 ppb        13.6966 105.93%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                -1.1     -0.0245 ug/L       0.12340     -0.0245 ppb        0.12340 504.50%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 20.3      9.9411 ug/L       1.13680      9.9411 ppb        1.13680  11.44%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                 9.9      1.0472 ug/L       0.71765      1.0472 ppb        0.71765  68.53%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -4.1     -4.7029 ug/L       5.51555     -4.7029 ppb        5.51555 117.28%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 5.5      1.7010 ug/L       1.41112      1.7010 ppb        1.41112  82.96%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 1.0      0.5781 ug/L       1.76882      0.5781 ppb        1.76882 305.96%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                50.1      1.4226 ug/L       0.23210      1.4226 ppb        0.23210  16.32%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 4.3      0.6494 ug/L       1.48730      0.6494 ppb        1.48730 229.04%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                18.6      0.1446 ug/L       0.09169      0.1446 ppb        0.09169  63.42%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                24.8      0.0405 ug/L       0.06921      0.0405 ppb        0.06921 171.07%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                -6.1     -1.7023 ug/L       3.37265     -1.7023 ppb        3.37265 198.13%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                -92.8     -2.7586 ug/L       0.93776     -2.7586 ppb        0.93776  33.99%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                  1.1      0.0045 ug/L       0.11934      0.0045 ppb        0.11934 >999.9%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                25.6      0.2136 ug/L       0.03253      0.2136 ppb        0.03253  15.23%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                      16.9      1.0030 ug/L       0.26570      1.0030 ppb        0.26570  26.49%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

ICPMS#3 Daily Performance Report

Sample ID: Sample
Sample Date/Time: Friday, January 08, 2010 14:18:16
Sample Description:
Method File: C:\elandata\Method\daily2.mth
Dataset File: c:\elandata\Dataset\default\Sample.5395
Tuning File: c:\elandata\Tuning\default2.tun
Optimization File: c:\elandata\Optimize\default.dac
Dual Detector Mode: Pulse
Acq. Dead Time(ns): 35
Current Dead Time (ns): 35
Number of Replicates: 5

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Be	9.0	696.8	696.817	27.116	3.9
	Mg	24.0	9116.1	9116.111	367.382	4.0
	Co	58.9	28445.7	28445.703	629.882	2.2
	Rh	102.9	81431.9	81431.876	1275.640	1.6
	In	114.9	127699.0	127699.041	2908.063	2.3
	Pb	208.0	79085.7	79085.743	1167.960	1.5
⌈>	Ba	137.9	109775.9	109775.905	1463.228	1.3
⌊	Ba++	69.0	2264.0	0.021	0.000	1.9
⌈>	Ce	139.9	142718.1	142718.053	1914.210	1.3
⌊	CeO	155.9	3741.1	0.026	0.001	3.2
	Bkgd	220.0	3.7	3.700	0.570	15.4

Current Optimization File Data

Current Value	Description
1.04	Nebulizer Gas Flow
7.50	Lens Voltage
1450.00	ICP RF Power
-1812.00	Analog Stage Voltage
950.00	Pulse Stage Voltage
70.00	Discriminator Threshold
-7.00	AC Rod Offset
60.00	Service DAC 1
0.00	Quadrupole Rod Offset
0.00	Exit Lens
0.90	Makeup Gas Flow [MGAS]
0.90	DRC Mode MGAS

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	21	5.3	423.3
Co	59	21	5.8	14010.2
In	115	21	6.0	64721.3

ICPMS#3 Instrument Tuning Report

File Name: 100108.tun
File Path: C:\elandata\Tuning

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas Peak W
He	3.0	3.1	601	2070	0.624
Be	9.0	9.0	2077	2080	0.672
Mg	24.0	24.0	5700	2130	0.648
Mg	25.0	25.0	5892	2040	0.672
Mg	26.0	25.9	6205	2150	0.733
Co	58.9	59.0	14197	2140	0.697
Rh	102.9	102.9	24902	2180	0.703
In	114.9	114.9	27824	2180	0.729
Ce	139.9	139.9	33915	2220	0.701
Pb	206.0	206.0	49992	2280	0.746
Pb	207.0	207.0	50271	2300	0.752
Pb	208.0	208.0	50474	2310	0.714
U	238.1	238.1	57828	2350	0.699

ICPMS#3 - Summary Report

Sample ID: Blank
Sample Date/Time: Friday, January 08, 2010 15:20:43
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\misc.mth
Dataset File: C:\elandata\Dataset\100108\Blank.001

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Sc	45		ug/L		356662	
	Fe	57		ug/L		2162	
>	Ge	74		ug/L		161981	
	As	75		ug/L		464	
	Se	77		ug/L		2802	
	Se	82		ug/L		-1	
	Kr	83		ug/L		31	
>	Lu	175		ug/L		237318	
	Pb	208		ug/L		159	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Simple Linear	
Fe	57	Simple Linear	
Ge	74	Simple Linear	
As	75	Simple Linear	
Se	77	Simple Linear	
Se	82	Simple Linear	
Kr	83	Simple Linear	
Lu	175	Simple Linear	
Pb	208	Simple Linear	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Sc	45					
	Fe	57					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175					
	Pb	208					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Friday, January 08, 2010 15:22:54
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\misc.mth
Dataset File: C:\elandata\Dataset\100108\Standard 1.002

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Sc	45		ug/L		360004	360003.897
	Fe	57	1000.000	ug/L	1.635	69423	0.187
>	Ge	74		ug/L		165140	165140.023
	As	75	10.000	ug/L	6.113	5194	0.029
	Se	77		ug/L		3129	0.002
	Se	82	10.000	ug/L	8.670	459	0.003
	Kr	83		ug/L		29	-0.000
>	Lu	175		ug/L		242206	242206.425
	Pb	208	10.000	ug/L	0.382	125467	0.517

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Fe	57	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Sc	45					
	Fe	57					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175					
	Pb	208					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Friday, January 08, 2010 15:25:02
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\misc.mth
Dataset File: C:\elandata\Dataset\100108\Standard 2.003

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Sc	45		ug/L		344818	344818.139
|	Fe	57	**9996.790**	ug/L	0.104	626053	1.810
⌈>	Ge	74		ug/L		159338	159337.597
|	As	75	**100.026**	ug/L	0.959	47224	0.294
|	Se	77		ug/L		6041	0.021
|	Se	82	**99.998**	ug/L	1.448	4425	0.028
|	Kr	83		ug/L		34	0.000
⌈>	Lu	175		ug/L		239915	239915.239
|	Pb	208	**99.953**	ug/L	1.513	1184676	4.937

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Fe	57	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈>	Sc	45					
⌊	Fe	57					
⌈>	Ge	74					
|	As	75					
|	Se	77					
|	Se	82					
⌊	Kr	83					
⌈>	Lu	175					
⌊	Pb	208					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Friday, January 08, 2010 15:27:11
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\misc.mth
Dataset File: C:\elandata\Dataset\100108\QC Std 1.004

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Sc	45		ug/L		346940	346939.839
	Fe	57	5025.707	ug/L	0.216	317729	0.910
>	Ge	74		ug/L		159757	159756.664
	As	75	47.757	ug/L	2.955	22851	0.140
	Se	77		ug/L		4181	0.009
	Se	82	50.358	ug/L	1.108	2234	0.014
	Kr	83		ug/L		24	-0.000
>	Lu	175		ug/L		236894	236894.435
	Pb	208	52.587	ug/L	0.377	615535	2.598

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Fe	57	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈>	Sc	45		97.3			
⌊	Fe	57	100.514				
⌈>	Ge	74		98.6			
|	As	75	95.514				
|	Se	77					
|	Se	82	100.715				
⌊	Kr	83					
⌈>	Lu	175		99.8			
⌊	Pb	208	105.175				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Friday, January 08, 2010 15:29:22
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\misc.mth
Dataset File: C:\elandata\Dataset\100108\QC Std 2.005

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Sc	45		ug/L		346164	346164.202
[	Fe	57	**2.591**	ug/L	68.189	2260	0.000
[>	Ge	74		ug/L		159246	159246.226
[	As	75	**-0.184**	ug/L	400.731	374	-0.001
[	Se	77		ug/L		2218	-0.003
[	Se	82	**0.049**	ug/L	508.334	1	0.000
[	Kr	83		ug/L		28	-0.000
[>	Lu	175		ug/L		232111	232111.185
[	Pb	208	**0.031**	ug/L	33.826	512	0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Fe	57	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Sc	45		97.1			
	Fe	57					
>	Ge	74		98.3			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		97.8			
	Pb	208					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Friday, January 08, 2010 15:31:34
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\misc.mth
Dataset File: C:\elandata\Dataset\100108\QC Std 3.006

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Sc	45		ug/L		355504	355504.154
⌊	Fe	57	**111.901**	ug/L	1.856	9358	0.020
⌈>	Ge	74		ug/L		163425	163424.949
|	As	75	**5.526**	ug/L	3.325	3117	0.016
|	Se	77		ug/L		2773	-0.000
|	Se	82	**5.814**	ug/L	8.965	263	0.002
⌊	Kr	83		ug/L		28	-0.000
⌈>	Lu	175		ug/L		242551	242550.535
⌊	Pb	208	**2.234**	ug/L	2.137	26940	0.110

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Fe	57	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈>	Sc	45		99.7			
⌊	Fe	57	111.901				
⌈>	Ge	74		100.9			
|	As	75	110.529				
|	Se	77					
|	Se	82	116.289				
⌊	Kr	83					
⌈>	Lu	175		102.2			
⌊	Pb	208	111.719				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Friday, January 08, 2010 15:33:44
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\misc.mth
Dataset File: C:\elandata\Dataset\100108\QC Std 4.007

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Sc	45		ug/L		282291	282290.847
⌊	Fe	57	**113803.330**	ug/L	2.242	5816217	20.600
⌈>	Ge	74		ug/L		134986	134985.509
|	As	75	**-0.036**	ug/L	1004.541	373	-0.000
|	Se	77		ug/L		2808	0.004
|	Se	82	**-1.215**	ug/L	32.573	-46	-0.000
⌊	Kr	83		ug/L		108	0.001
⌈>	Lu	175		ug/L		196242	196241.763
⌊	Pb	208	**0.201**	ug/L	1.281	2076	0.010

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Fe	57	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈>	Sc	45		79.1			
⌊	Fe	57	113.803				
⌈>	Ge	74		83.3			
|	As	75					
|	Se	77					
|	Se	82					
⌊	Kr	83					
⌈>	Lu	175		82.7			
⌊	Pb	208	100.310				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Sc 45 Int Std for QC	Sc	45	

QC Action

QC Action Line: Continue

ICPMS#3 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Friday, January 08, 2010 15:35:55
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\misc.mth
Dataset File: C:\elandata\Dataset\100108\QC Std 5.008

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Sc	45		ug/L		276229	276228.874
	Fe	57	**114867.543**	ug/L	1.110	5745173	20.793
>	Ge	74		ug/L		132528	132527.541
	As	75	**20.601**	ug/L	5.637	8392	0.060
	Se	77		ug/L		3474	0.009
	Se	82	**20.174**	ug/L	0.821	742	0.006
	Kr	83		ug/L		107	0.001
>	Lu	175		ug/L		194704	194703.958
	Pb	208	**21.476**	ug/L	0.357	206675	1.061

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Fe	57	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈>	Sc	45		77.4			
⌊	Fe	57	114.868				
⌈>	Ge	74		81.8			
|	As	75	103.007				
|	Se	77					
|	Se	82	100.872				
⌊	Kr	83					
⌈>	Lu	175		82.0			
⌊	Pb	208	106.315				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Sc 45 Int Std for QC	Sc	45	

QC Action

QC Action Line: Continue

ICPMS#3 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Friday, January 08, 2010 15:38:06
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\misc.mth
Dataset File: C:\elandata\Dataset\100108\QC Std 6.009

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Sc	45		ug/L		327584	327584.186
	Fe	57	**5198.703**	ug/L	0.584	310228	0.941
>	Ge	74		ug/L		155129	155128.507
	As	75	**49.193**	ug/L	0.694	22839	0.144
	Se	77		ug/L		3986	0.008
	Se	82	**48.461**	ug/L	0.595	2088	0.013
	Kr	83		ug/L		29	-0.000
>	Lu	175		ug/L		226292	226291.722
	Pb	208	**52.221**	ug/L	0.353	583897	2.580

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Fe	57	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈>	Sc	45			91.8		
⌊	Fe	57	103.974				
⌈>	Ge	74			95.8		
|	As	75	98.386				
|	Se	77					
|	Se	82	96.922				
⌊	Kr	83					
⌈>	Lu	175			95.4		
⌊	Pb	208	104.441				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Friday, January 08, 2010 15:40:19
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\misc.mth
Dataset File: C:\elandata\Dataset\100108\QC Std 7.010

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Sc	45		ug/L		330442	330441.528
⌊	Fe	57	**13.686**	ug/L	11.040	2822	0.002
⌈>	Ge	74		ug/L		154873	154873.296
|	As	75	**-0.052**	ug/L	1289.991	418	-0.000
|	Se	77		ug/L		2575	-0.001
|	Se	82	**0.007**	ug/L	2516.808	-0	0.000
⌊	Kr	83		ug/L		32	0.000
⌈>	Lu	175		ug/L		227639	227638.891
⌊	Pb	208	**0.034**	ug/L	14.657	534	0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Fe	57	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Sc	45		92.6			
	Fe	57					
>	Ge	74		95.6			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		95.9			
	Pb	208					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: QC Std 10
Sample Date/Time: Friday, January 08, 2010 15:42:32
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\misc.mth
Dataset File: C:\elandata\Dataset\100108\QC Std 10.011

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Sc	45		ug/L		282106	282105.994
⌊	Fe	57	**56185.945**	ug/L	0.775	2870937	10.170
⌈>	Ge	74		ug/L		137676	137675.879
|	As	75	**928.768**	ug/L	0.739	375571	2.725
|	Se	77		ug/L		17920	0.113
|	Se	82	**496.820**	ug/L	1.562	18994	0.138
⌊	Kr	83		ug/L		62	0.000
⌈>	Lu	175		ug/L		207977	207976.951
⌊	Pb	208	**5268.051**	ug/L	1.774	54106909	260.230

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Fe	57	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈>	Sc	45			79.1		
⌊	Fe	57	112.372				
⌈>	Ge	74			85.0		
|	As	75	92.877				
|	Se	77					
|	Se	82	99.364				
⌊	Kr	83					
⌈>	Lu	175			87.6		
⌊	Pb	208	105.361				

QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
Sc 45 Int Std for QC	Sc	45
QC Std 10	Fe	57LRS is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#3 - Summary Report

Sample ID: QC Std 11
Sample Date/Time: Friday, January 08, 2010 15:44:43
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\misc.mth
Dataset File: C:\elandata\Dataset\100108\QC Std 11.012

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Sc	45		ug/L		319775	319775.200
⌊	Fe	57	**5174.945**	ug/L	0.801	301488	0.937
⌈>	Ge	74		ug/L		152533	152533.323
|	As	75	**50.190**	ug/L	2.264	22896	0.147
|	Se	77		ug/L		3924	0.008
|	Se	82	**50.615**	ug/L	1.161	2144	0.014
⌊	Kr	83		ug/L		27	-0.000
⌈>	Lu	175		ug/L		231118	231117.912
⌊	Pb	208	**53.179**	ug/L	0.850	607227	2.627

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Fe	57	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈>	Sc	45		89.7			
⌊	Fe	57	103.499				
⌈>	Ge	74		94.2			
|	As	75	100.381				
|	Se	77					
|	Se	82	101.230				
⌊	Kr	83					
⌈>	Lu	175		97.4			
⌊	Pb	208	106.358				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: QC Std 12
Sample Date/Time: Friday, January 08, 2010 15:46:56
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\misc.mth
Dataset File: C:\elandata\Dataset\100108\QC Std 12.013

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Sc	45		ug/L		329686	329686.066
⌊	Fe	57	**7.330**	ug/L	11.906	2436	0.001
⌈>	Ge	74		ug/L		154967	154967.227
|	As	75	**0.521**	ug/L	31.622	682	0.002
|	Se	77		ug/L		2320	-0.002
|	Se	82	**0.139**	ug/L	164.692	5	0.000
⌊	Kr	83		ug/L		31	0.000
⌈>	Lu	175		ug/L		228597	228597.127
⌊	Pb	208	**0.157**	ug/L	6.485	1925	0.008

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Fe	57	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Sc	45		92.4			
	Fe	57					
>	Ge	74		95.7			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		96.3			
	Pb	208					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Friday, January 08, 2010 16:11:06
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\misc.mth
Dataset File: C:\elandata\Dataset\100108\QC Std 6.024

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Sc	45		ug/L		323715	323714.528
⌊	Fe	57	**5234.791**	ug/L	0.869	308696	0.948
⌈>	Ge	74		ug/L		154111	154111.029
|	As	75	**49.440**	ug/L	2.840	22796	0.145
|	Se	77		ug/L		4528	0.012
|	Se	82	**50.793**	ug/L	2.690	2173	0.014
⌊	Kr	83		ug/L		32	0.000
⌈>	Lu	175		ug/L		221073	221072.660
⌊	Pb	208	**51.867**	ug/L	0.684	566571	2.562

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Fe	57	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Sc	45		90.8			
	Fe	57	104.696				
>	Ge	74		95.1			
	As	75	98.881				
	Se	77					
	Se	82	101.585				
	Kr	83					
>	Lu	175		93.2			
	Pb	208	103.733				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Friday, January 08, 2010 16:13:19
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\misc.mth
Dataset File: C:\elandata\Dataset\100108\QC Std 7.025

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Sc	45		ug/L		335416	335416.392
⌊	Fe	57	**7.646**	ug/L	30.137	2498	0.001
⌈>	Ge	74		ug/L		155720	155720.107
|	As	75	**0.584**	ug/L	88.753	713	0.002
|	Se	77		ug/L		2794	0.001
|	Se	82	**0.093**	ug/L	128.784	3	0.000
⌊	Kr	83		ug/L		30	0.000
⌈>	Lu	175		ug/L		219843	219843.067
⌊	Pb	208	**0.037**	ug/L	9.911	549	0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Fe	57	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Sc	45		94.0			
	Fe	57					
>	Ge	74		96.1			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		92.6			
	Pb	208					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Friday, January 08, 2010 16:28:55
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\misc.mth
Dataset File: C:\elandata\Dataset\100108\QC Std 6.031

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Sc	45		**ug/L**		315530	315529.651
⌊	Fe	57	**5323.039**	**ug/L**	0.835	305944	0.964
⌈>	Ge	74		**ug/L**		150190	150189.692
|	As	75	**50.629**	**ug/L**	1.559	22739	0.149
|	Se	77		**ug/L**		4397	0.012
|	Se	82	**52.197**	**ug/L**	1.942	2177	0.014
⌊	Kr	83		**ug/L**		29	-0.000
⌈>	Lu	175		**ug/L**		215595	215595.359
⌊	Pb	208	**52.578**	**ug/L**	0.442	560071	2.597

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Fe	57	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈>	Sc	45		88.5			
⌊	Fe	57	106.461				
⌈>	Ge	74		92.7			
|	As	75	101.257				
|	Se	77					
|	Se	82	104.395				
⌊	Kr	83					
⌈>	Lu	175		90.8			
⌊	Pb	208	105.155				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Friday, January 08, 2010 16:31:08
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\misc.mth
Dataset File: C:\elandata\Dataset\100108\QC Std 7.032

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Sc	45		ug/L		329181	329180.992
⌊	Fe	57	**5.907**	ug/L	25.623	2347	0.001
⌈>	Ge	74		ug/L		154211	154211.425
|	As	75	**0.404**	ug/L	288.263	624	0.001
|	Se	77		ug/L		2787	0.001
|	Se	82	**0.202**	ug/L	163.493	8	0.000
⌊	Kr	83		ug/L		29	-0.000
⌈>	Lu	175		ug/L		218123	218122.894
⌊	Pb	208	**0.040**	ug/L	6.836	582	0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Fe	57	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈>	Sc	45		92.3			
⌊	Fe	57					
⌈>	Ge	74		95.2			
|	As	75					
|	Se	77					
|	Se	82					
⌊	Kr	83					
⌈>	Lu	175		91.9			
⌊	Pb	208					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: 1202004440
Sample Date/Time: Friday, January 08, 2010 16:34:05
Sample Type:
Sample Description: LANL 6020 MB
Number of Replicates: 3
Batch ID: 936815|1|prb
Method File: c:\elandata\Method\misc.mth
Dataset File: C:\elandata\Dataset\100108\1202004440.033

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Sc	45		ug/L		332276	332276.230
⌊	Fe	57	14.719	ug/L	5.375	2900	0.003
⌈>	Ge	74		ug/L		161153	161153.220
|	As	75	2.688	ug/L	43.583	1734	0.008
|	Se	77		ug/L		10610	0.049
|	Se	82	0.060	ug/L	229.964	2	0.000
⌊	Kr	83		ug/L		31	-0.000
⌈>	Lu	175		ug/L		221562	221561.561
⌊	Pb	208	0.037	ug/L	5.005	557	0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Fe	57	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Sc	45		93.2			
	Fe	57					
>	Ge	74		99.5			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		93.4			
	Pb	208					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: 1202004441
Sample Date/Time: Friday, January 08, 2010 16:36:19
Sample Type:
Sample Description: LANL 6020 LCS
Number of Replicates: 3
Batch ID: 936815|1|prb
Method File: c:\elandata\Method\misc.mth
Dataset File: C:\elandata\Dataset\100108\1202004441.034

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Sc	45		ug/L		329482	329481.540
⌊	Fe	57	**2499.383**	ug/L	0.384	151062	0.452
⌈>	Ge	74		ug/L		161612	161611.661
|	As	75	**59.926**	ug/L	4.098	28884	0.176
|	Se	77		ug/L		12192	0.058
|	Se	82	**58.123**	ug/L	1.683	2609	0.016
⌊	Kr	83		ug/L		34	0.000
⌈>	Lu	175		ug/L		225263	225262.590
⌊	Pb	208	**59.628**	ug/L	1.972	663419	2.945

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Fe	57	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈>	Sc	45		92.4			
⌊	Fe	57					
⌈>	Ge	74		99.8			
|	As	75					
|	Se	77					
|	Se	82					
⌊	Kr	83					
⌈>	Lu	175		94.9			
⌊	Pb	208					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: 1202004442
Sample Date/Time: Friday, January 08, 2010 16:40:50
Sample Type:
Sample Description: LANL 6020 DUP
Number of Replicates: 3
Batch ID: 936815|1|prb
Method File: c:\elandata\Method\misc.mth
Dataset File: C:\elandata\Dataset\100108\1202004442.036

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Sc	45		ug/L		330232	330232.272
⌊	Fe	57	**33.264**	ug/L	1.264	3991	0.006
⌈>	Ge	74		ug/L		161031	161030.900
|	As	75	**3.735**	ug/L	44.151	2230	0.011
|	Se	77		ug/L		9474	0.042
|	Se	82	**-0.137**	ug/L	114.838	-7	-0.000
⌊	Kr	83		ug/L		37	0.000
⌈>	Lu	175		ug/L		222681	222681.004
⌊	Pb	208	**0.108**	ug/L	2.756	1342	0.005

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Fe	57	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈>	Sc	45		92.6			
⌊	Fe	57					
⌈>	Ge	74		99.4			
|	As	75					
|	Se	77					
|	Se	82					
⌊	Kr	83					
⌈>	Lu	175		93.8			
⌊	Pb	208					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: 1202004443
Sample Date/Time: Friday, January 08, 2010 16:43:07
Sample Type:
Sample Description: LANL 6020 MS
Number of Replicates: 3
Batch ID: 936815|1|prb
Method File: c:\elandata\Method\misc.mth
Dataset File: C:\elandata\Dataset\100108\1202004443.037

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Sc	45		ug/L		326443	326443.245
	Fe	57	2650.189	ug/L	2.484	158539	0.480
>	Ge	74		ug/L		157406	157405.570
	As	75	98.734	ug/L	0.418	46056	0.290
	Se	77		ug/L		10110	0.047
	Se	82	23.704	ug/L	3.814	1035	0.007
	Kr	83		ug/L		36	0.000
>	Lu	175		ug/L		222461	222460.655
	Pb	208	51.525	ug/L	1.216	566374	2.545

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Fe	57	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Sc	45		91.5			
	Fe	57					
>	Ge	74		97.2			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		93.7			
	Pb	208					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: 1202004444
Sample Date/Time: Friday, January 08, 2010 16:45:24
Sample Type:
Sample Description: LANL 6020 SDILT
Number of Replicates: 3
Batch ID: 936815|5|prb
Method File: c:\elandata\Method\misc.mth
Dataset File: C:\elandata\Dataset\100108\1202004444.038

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Sc	45		ug/L		319068	319068.408
⌊	Fe	57	**12.923**	ug/L	25.000	2680	0.002
⌈>	Ge	74		ug/L		152039	152038.915
|	As	75	**1.823**	ug/L	49.807	1243	0.005
|	Se	77		ug/L		4252	0.011
|	Se	82	**0.173**	ug/L	82.272	7	0.000
⌊	Kr	83		ug/L		25	-0.000
⌈>	Lu	175		ug/L		216761	216760.559
⌊	Pb	208	**0.119**	ug/L	21.078	1423	0.006

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Fe	57	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Sc	45		89.5			
	Fe	57					
>	Ge	74		93.9			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		91.3			
	Pb	208					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Friday, January 08, 2010 16:47:39
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\misc.mth
Dataset File: C:\elandata\Dataset\100108\QC Std 6.039

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Sc	45		ug/L		316230	316229.765
⌊	Fe	57	**5219.267**	ug/L	0.334	300675	0.945
⌈>	Ge	74		ug/L		149973	149972.507
|	As	75	**50.241**	ug/L	4.770	22554	0.147
|	Se	77		ug/L		4484	0.013
|	Se	82	**50.978**	ug/L	2.156	2124	0.014
⌊	Kr	83		ug/L		31	0.000
⌈>	Lu	175		ug/L		220517	220516.799
⌊	Pb	208	**51.405**	ug/L	0.780	560063	2.539

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Fe	57	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈>	Sc	45		88.7			
⌊	Fe	57	104.385				
⌈>	Ge	74		92.6			
|	As	75	100.482				
|	Se	77					
|	Se	82	101.957				
⌊	Kr	83					
⌈>	Lu	175		92.9			
⌊	Pb	208	102.811				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Friday, January 08, 2010 16:49:51
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\misc.mth
Dataset File: C:\elandata\Dataset\100108\QC Std 7.040

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Sc	45		ug/L		322647	322647.005
⌊	Fe	57	**7.169**	ug/L	15.172	2374	0.001
⌈>	Ge	74		ug/L		151636	151636.399
|	As	75	**0.077**	ug/L	1079.507	468	0.000
|	Se	77		ug/L		2851	0.002
|	Se	82	**0.031**	ug/L	351.022	1	0.000
⌊	Kr	83		ug/L		30	0.000
⌈>	Lu	175		ug/L		219394	219393.811
⌊	Pb	208	**0.034**	ug/L	4.992	511	0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Fe	57	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Sc	45		90.5			
	Fe	57					
>	Ge	74		93.6			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		92.4			
	Pb	208					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: 243554001
Sample Date/Time: Friday, January 08, 2010 16:52:05
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 936815|1|prb
Method File: c:\elandata\Method\misc.mth
Dataset File: C:\elandata\Dataset\100108\243554001.041

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Sc	45		ug/L		326858	326857.636
⌊	Fe	57	**14.737**	ug/L	5.820	2854	0.003
⌈>	Ge	74		ug/L		159097	159097.346
|	As	75	**3.527**	ug/L	1.984	2102	0.010
|	Se	77		ug/L		10428	0.048
|	Se	82	**0.008**	ug/L	600.531	-0	0.000
⌊	Kr	83		ug/L		30	-0.000
⌈>	Lu	175		ug/L		221190	221190.116
⌊	Pb	208	**0.038**	ug/L	4.742	558	0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Fe	57	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈>	Sc	45		91.6			
⌊	Fe	57					
⌈>	Ge	74		98.2			
|	As	75					
|	Se	77					
|	Se	82					
⌊	Kr	83					
⌈>	Lu	175		93.2			
⌊	Pb	208					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: 243554002
Sample Date/Time: Friday, January 08, 2010 16:54:20
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 936815|1|prb
Method File: c:\elandata\Method\misc.mth
Dataset File: C:\elandata\Dataset\100108\243554002.042

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Sc	45		ug/L		323691	323691.313
⌊	Fe	57	14.133	ug/L	7.726	2790	0.003
⌈>	Ge	74		ug/L		158705	158705.404
|	As	75	3.442	ug/L	14.939	2057	0.010
|	Se	77		ug/L		10758	0.051
|	Se	82	0.243	ug/L	38.767	10	0.000
⌊	Kr	83		ug/L		26	-0.000
⌈>	Lu	175		ug/L		220616	220616.011
⌊	Pb	208	0.036	ug/L	2.135	536	0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Fe	57	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈>	Sc	45		90.8			
⌊	Fe	57					
⌈>	Ge	74		98.0			
|	As	75					
|	Se	77					
|	Se	82					
⌊	Kr	83					
⌈>	Lu	175		93.0			
⌊	Pb	208					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: 243554003
Sample Date/Time: Friday, January 08, 2010 16:56:36
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 936815|1|prb
Method File: c:\elandata\Method\misc.mth
Dataset File: C:\elandata\Dataset\100108\243554003.043

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Sc	45		ug/L		324768	324768.010
⌊	Fe	57	**168.948**	ug/L	3.812	11902	0.031
⌈>	Ge	74		ug/L		158607	158606.978
|	As	75	**3.372**	ug/L	43.987	2025	0.010
|	Se	77		ug/L		11035	0.052
|	Se	82	**0.074**	ug/L	121.033	3	0.000
⌊	Kr	83		ug/L		31	0.000
⌈>	Lu	175		ug/L		223250	223250.167
⌊	Pb	208	**0.076**	ug/L	2.022	988	0.004

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Fe	57	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈>	Sc	45		91.1			
⌊	Fe	57					
⌈>	Ge	74		97.9			
|	As	75					
|	Se	77					
|	Se	82					
⌊	Kr	83					
⌈>	Lu	175		94.1			
⌊	Pb	208					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: 243554004
Sample Date/Time: Friday, January 08, 2010 16:58:51
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 936815|1|prb
Method File: c:\elandata\Method\misc.mth
Dataset File: C:\elandata\Dataset\100108\243554004.044

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Sc	45		ug/L		321794	321794.281
[	Fe	57	**278.872**	ug/L	1.506	18194	0.050
[>	Ge	74		ug/L		158126	158126.262
	As	75	**4.391**	ug/L	24.728	2489	0.013
	Se	77		ug/L		11091	0.053
	Se	82	**0.038**	ug/L	698.097	1	0.000
[	Kr	83		ug/L		31	0.000
[>	Lu	175		ug/L		220981	220980.784
[	Pb	208	**0.109**	ug/L	4.277	1335	0.005

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Fe	57	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈>	Sc	45		90.2			
⌊	Fe	57					
⌈>	Ge	74		97.6			
|	As	75					
|	Se	77					
|	Se	82					
⌊	Kr	83					
⌈>	Lu	175		93.1			
⌊	Pb	208					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Friday, January 08, 2010 17:04:40
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\misc.mth
Dataset File: C:\elandata\Dataset\100108\QC Std 6.046

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Sc	45		ug/L		319522	319522.330
⌊	Fe	57	**5186.239**	ug/L	0.694	301892	0.939
⌈>	Ge	74		ug/L		148499	148498.790
|	As	75	**50.384**	ug/L	2.790	22376	0.148
|	Se	77		ug/L		4698	0.014
|	Se	82	**51.109**	ug/L	1.413	2108	0.014
⌊	Kr	83		ug/L		27	-0.000
⌈>	Lu	175		ug/L		218755	218755.439
⌊	Pb	208	**51.525**	ug/L	1.002	556955	2.545

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Fe	57	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Sc	45			89.6		
	Fe	57	103.725				
>	Ge	74			91.7		
	As	75	100.769				
	Se	77					
	Se	82	102.218				
	Kr	83					
>	Lu	175			92.2		
	Pb	208	103.051				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Friday, January 08, 2010 17:06:52
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\misc.mth
Dataset File: C:\elandata\Dataset\100108\QC Std 7.047

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Sc	45		ug/L		321338	321338.209
	Fe	57	6.225	ug/L	26.916	2310	0.001
>	Ge	74		ug/L		151041	151040.790
	As	75	0.250	ug/L	85.265	544	0.001
	Se	77		ug/L		2965	0.002
	Se	82	0.126	ug/L	50.759	5	0.000
	Kr	83		ug/L		31	0.000
>	Lu	175		ug/L		216162	216161.942
	Pb	208	0.033	ug/L	10.206	501	0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Fe	57	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈>	Sc	45		90.1			
⌊	Fe	57					
⌈>	Ge	74		93.2			
|	As	75					
|	Se	77					
|	Se	82					
⌊	Kr	83					
⌈>	Lu	175		91.1			
⌊	Pb	208					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS #5 Daily Performance Report

Sample ID: Sample
Sample Date/Time: Tuesday, January 05, 2010 16:41:24
Sample Description:
Method File: c:\elandata\Method\Daily2.mth
Dataset File: c:\elandata\Dataset\default2\Sample.1659
Tuning File: c:\elandata\Tuning\default2.tun
Optimization File: c:\elandata\Optimize\default.dac
Dual Detector Mode: Pulse

Acq. Dead Time(ns): 35
Current Dead Time (ns): 35

Number of Replicates: 5

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Be	9.0	6765.8	6765.802	57.609	0.9
	Mg	24.0	68193.4	68193.393	823.453	1.2
	Co	58.9	127553.0	127553.017	1959.053	1.5
	Rh	102.9	238759.7	238759.748	1551.695	0.6
	In	114.9	307167.6	307167.618	2880.675	0.9
	Pb	208.0	331397.4	331397.405	4827.634	1.5
⌈>	Ba	137.9	301953.4	301953.363	1697.252	0.6
⌊	Ba++	69.0	8428.0	0.028	0.000	1.4
⌈>	Ce	139.9	377858.7	377858.702	5191.756	1.4
⌊	CeO	155.9	9907.6	0.026	0.000	0.9
	Bkgd	220.0	17.8	17.800	3.154	17.7

Current Optimization File Data

Current Value	Description
0.82	Nebulizer Gas Flow
8.75	Lens Voltage
1450.00	ICP RF Power
-1687.50	Analog Stage Voltage
1200.00	Pulse Stage Voltage
275.00	Discriminator Threshold
-6.00	AC Rod Offset

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	17	8.5	7374.2
Co	59	17	9.8	123046.6
In	115	17	10.8	306012.5

ICPMS #5 Instrument Tuning Report

File Name: default2.tun
File Path: c:\elandata\Tuning

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Pk. Width
He	3.0	3.0	591	2065	0.593
Be	9.0	9.0	2049	2070	0.640
Mg	24.0	24.0	5689	2070	0.659
Mg	25.0	24.9	5917	2070	0.652
Mg	26.0	25.9	6164	2070	0.667
Co	58.9	58.9	14182	2105	0.638
Rh	102.9	102.9	24881	2165	0.626
In	114.9	114.9	27795	2185	0.624
Ce	139.9	139.9	33867	2200	0.643
Pb	206.0	206.0	49948	2270	0.672
Pb	207.0	207.0	50171	2235	0.691
Pb	208.0	208.0	50439	2260	0.719
U	238.1	238.0	57731	2275	0.731

ICPMS#5 - Summary Report

Sample ID: Blank
Sample Date/Time: Wednesday, January 06, 2010 02:46:33
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100105\Blank.202

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7		ug/L		43	
	Be	9		ug/L		17	
	B	11		ug/L		700	
	Na	23		ug/L		37718	
	Mg	24		ug/L		3334	
	Al	27		ug/L		7002	
	P	31		ug/L		12891	
	K	39		ug/L		936050	
	Ca	43		ug/L		586	
>	Sc	45		ug/L		1127850	
	Ti	47		ug/L		644	
	V	51		ug/L		23574	
	Cr	52		ug/L		-3255	
	Cr	53		ug/L		204543	
	Mn	55		ug/L		1780	
	Fe	57		ug/L		7715	
	Co	59		ug/L		217	
	Ni	60		ug/L		124	
	Cu	63		ug/L		688	
	Cu	65		ug/L		387	
	Zn	66		ug/L		408	
	Zn	67		ug/L		28487	
	Zn	68		ug/L		3232	
>	Ge	74		ug/L		679176	
	As	75		ug/L		1164	
	Se	77		ug/L		10862	
	Se	82		ug/L		-67	
	Kr	83		ug/L		174	
	Sr	88		ug/L		443	
	Y	89		ug/L		90	
	Mo	98		ug/L		171	
	Ag	107		ug/L		71	
	Cd	111		ug/L		34	
	Cd	114		ug/L		49	
>	In	115		ug/L		371759	
	Sn	120		ug/L		538	
	Sb	121		ug/L		900	
	Sb	123		ug/L		780	
	Ba	135		ug/L		46	
	Ba	137		ug/L		73	
	Ho	165		ug/L		30	
>	Lu	175		ug/L		673205	
	Tl	205		ug/L		5660	
	Pb	208		ug/L		584	
	Bi	209		ug/L		99	
	Th	232		ug/L		1150	
	U	238		ug/L		592	

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	0.9999
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	0.9999
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	0.9999
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	0.9998
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9998
U	238Linear Thru Zero	0.9999

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
Li	7					
Be	9					
B	11					
Na	23					
Mg	24					
Al	27					
P	31					
K	39					
Ca	43					
> Sc	45					
Ti	47					
V	51					
Cr	52					
Cr	53					
Mn	55					
Fe	57					
Co	59					
Ni	60					
Cu	63					
Cu	65					
Zn	66					
Zn	67					
Zn	68					
> Ge	74					
As	75					
Se	77					
Se	82					
Kr	83					
Sr	88					
Y	89					
Mo	98					
Ag	107					
Cd	111					
Cd	114					
> In	115					
Sn	120					
Sb	121					
Sb	123					
Ba	135					
Ba	137					
Ho	165					
> Lu	175					
Tl	205					
Pb	208					
Bi	209					
Th	232					
U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Wednesday, January 06, 2010 02:52:40
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100105\Standard 1.203

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	10.000	ug/L	2.453	11607	0.010
	Be	9	10.000	ug/L	4.017	5268	0.005
	B	11	20.000	ug/L	2.629	13033	0.011
	Na	23	1000.000	ug/L	5.021	7291143	6.482
	Mg	24	1000.000	ug/L	9.629	4864184	4.342
	Al	27	1000.000	ug/L	7.587	7276085	6.496
	P	31	1000.000	ug/L	0.989	497609	0.433
	K	39	1000.000	ug/L	6.511	10304989	8.379
	Ca	43	1000.000	ug/L	2.415	21340	0.019
>	Sc	45		ug/L		1119346	1119345.974
	Ti	47	10.000	ug/L	1.855	11691	0.010
	V	51	10.000	ug/L	7.883	149286	0.112
	Cr	52	10.000	ug/L	0.494	97227	0.090
	Cr	53		ug/L		211242	0.007
	Mn	55	10.000	ug/L	0.661	155747	0.138
	Fe	57	1000.000	ug/L	1.410	305927	0.266
	Co	59	10.000	ug/L	2.283	110347	0.098
	Ni	60	10.000	ug/L	1.816	23373	0.021
	Cu	63		ug/L		55739	0.049
	Cu	65	10.000	ug/L	2.126	27505	0.024
	Zn	66	10.000	ug/L	3.129	18334	0.026
	Zn	67		ug/L		31277	0.003
	Zn	68		ug/L		17420	0.021
>	Ge	74		ug/L		689597	689597.055
	As	75	10.000	ug/L	1.263	22053	0.030
	Se	77		ug/L		12242	0.002
	Se	82	10.000	ug/L	0.788	1772	0.003
	Kr	83		ug/L		137	-0.000
	Sr	88	10.000	ug/L	1.647	219082	0.585
	Y	89		ug/L		126	0.000
	Mo	98	10.000	ug/L	3.416	57635	0.154
	Ag	107	10.000	ug/L	2.799	94341	0.252
	Cd	111	10.000	ug/L	3.739	22028	0.059
	Cd	114		ug/L		51819	0.139
>	In	115		ug/L		373726	373725.520
	Sn	120	10.000	ug/L	2.293	94364	0.251
	Sb	121	10.000	ug/L	5.309	73785	0.195
	Sb	123		ug/L		58326	0.154
	Ba	135		ug/L		26134	0.039
	Ba	137	10.000	ug/L	0.347	46094	0.069
	Ho	165		ug/L		25	-0.000
>	Lu	175		ug/L		667901	667901.305
	Tl	205	10.000	ug/L	1.982	370590	0.547
	Pb	208	10.000	ug/L	1.877	556542	0.832
	Bi	209		ug/L		162	0.000
	Th	232	10.000	ug/L	3.984	651395	0.974
	U	238	10.000	ug/L	1.334	690010	1.032

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	1.0000
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
Pb	208Linear Thru Zero	1.0000
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45					
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115					
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175					
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Wednesday, January 06, 2010 02:58:43
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100105\Standard 2.204

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**100.026**	ug/L	3.794	117711	0.106
	Be	9	**100.006**	ug/L	1.895	52378	0.047
	B	11	**199.975**	ug/L	5.501	121313	0.109
	Na	23	**10008.638**	ug/L	8.998	78725425	71.006
	Mg	24	**9997.065**	ug/L	2.729	46761367	42.174
	Al	27	**9997.687**	ug/L	5.154	70385105	63.478
	P	31	**10000.858**	ug/L	2.461	4856463	4.369
	K	39	**9996.394**	ug/L	12.279	90468499	80.841
	Ca	43	**9994.186**	ug/L	1.713	194783	0.175
>	Sc	45		ug/L		1109031	1109030.837
	Ti	47	**99.989**	ug/L	1.438	108915	0.098
	V	51	**99.895**	ug/L	3.642	1150537	1.017
	Cr	52	**99.889**	ug/L	2.905	891203	0.807
	Cr	53		ug/L		273829	0.066
	Mn	55	**99.860**	ug/L	1.296	1338325	1.205
	Fe	57	**9981.218**	ug/L	1.871	2490408	2.239
	Co	59	**99.886**	ug/L	2.769	977936	0.882
	Ni	60	**99.939**	ug/L	1.052	217112	0.196
	Cu	63		ug/L		497236	0.448
	Cu	65	**99.931**	ug/L	2.644	251465	0.226
	Zn	66	**99.950**	ug/L	2.478	167788	0.247
	Zn	67		ug/L		52936	0.036
	Zn	68		ug/L		135207	0.195
>	Ge	74		ug/L		677092	677091.918
	As	75	**99.961**	ug/L	1.971	198364	0.291
	Se	77		ug/L		22431	0.017
	Se	82	**99.954**	ug/L	1.855	17189	0.025
	Kr	83		ug/L		175	0.000
	Sr	88	**99.863**	ug/L	0.333	1852863	5.138
	Y	89		ug/L		277	0.001
	Mo	98	**99.977**	ug/L	1.061	541897	1.503
	Ag	107	**99.916**	ug/L	0.358	838245	2.325
	Cd	111	**99.974**	ug/L	1.948	206785	0.574
	Cd	114		ug/L		479113	1.329
>	In	115		ug/L		360509	360508.790
	Sn	120	**99.918**	ug/L	2.584	836626	2.320
	Sb	121	**99.989**	ug/L	5.476	695847	1.928
	Sb	123		ug/L		557419	1.544
	Ba	135		ug/L		243622	0.369
	Ba	137	**99.936**	ug/L	1.036	426875	0.647
	Ho	165		ug/L		43	0.000
>	Lu	175		ug/L		659610	659610.243
	Tl	205	**99.781**	ug/L	1.466	2956714	4.475
	Pb	208	**99.752**	ug/L	1.087	4389205	6.653
	Bi	209		ug/L		517	0.001
	Th	232	**99.761**	ug/L	4.248	5169984	7.839
	U	238	**99.777**	ug/L	1.819	5553520	8.420

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	0.9999
Cr	52	Linear Thru Zero	0.9999
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Fe	57	Linear Thru Zero	0.9998
Co	59	Linear Thru Zero	0.9999
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	0.9999
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9997
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9997
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45					
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115					
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175					
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Wednesday, January 06, 2010 03:04:47
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100105\QC Std 1.205

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**54.042**	**ug/L**	8.047	63969	0.057
	Be	9	**53.068**	**ug/L**	2.326	27960	0.025
	B	11	**108.188**	**ug/L**	1.647	66350	0.059
	Na	23	**4462.712**	**ug/L**	11.580	35325511	31.661
	Mg	24	**4712.309**	**ug/L**	4.334	22169732	19.880
	Al	27	**5328.692**	**ug/L**	10.894	37720195	33.833
	P	31	**5175.384**	**ug/L**	0.815	2534012	2.261
	K	39	**4957.408**	**ug/L**	3.608	45625888	40.090
	Ca	43	**5217.019**	**ug/L**	0.843	102541	0.091
>	Sc	45		**ug/L**		1115218	1115217.577
	Ti	47	**51.077**	**ug/L**	1.222	56263	0.050
	V	51	**52.986**	**ug/L**	1.838	624818	0.539
	Cr	52	**53.617**	**ug/L**	1.567	479687	0.433
	Cr	53		**ug/L**		221273	0.017
	Mn	55	**55.955**	**ug/L**	2.450	754859	0.675
	Fe	57	**5393.475**	**ug/L**	1.626	1356937	1.210
	Co	59	**52.605**	**ug/L**	1.261	518134	0.464
	Ni	60	**53.028**	**ug/L**	1.818	115908	0.104
	Cu	63		**ug/L**		266647	0.238
	Cu	65	**52.754**	**ug/L**	0.755	133704	0.120
	Zn	66	**54.158**	**ug/L**	2.560	90343	0.134
	Zn	67		**ug/L**		38997	0.016
	Zn	68		**ug/L**		73976	0.105
>	Ge	74		**ug/L**		671361	671360.515
	As	75	**50.762**	**ug/L**	1.613	100435	0.148
	Se	77		**ug/L**		15226	0.007
	Se	82	**52.368**	**ug/L**	1.322	8900	0.013
	Kr	83		**ug/L**		152	-0.000
	Sr	88	**55.782**	**ug/L**	2.858	1057050	2.870
	Y	89		**ug/L**		155	0.000
	Mo	98	**50.818**	**ug/L**	3.700	281330	0.764
	Ag	107	**51.895**	**ug/L**	2.609	444614	1.208
	Cd	111	**51.940**	**ug/L**	1.903	109747	0.298
	Cd	114		**ug/L**		254205	0.690
>	In	115		**ug/L**		368254	368254.106
	Sn	120	**52.944**	**ug/L**	2.104	453034	1.229
	Sb	121	**52.372**	**ug/L**	4.959	372661	1.010
	Sb	123		**ug/L**		297785	0.807
	Ba	135		**ug/L**		129014	0.193
	Ba	137	**51.511**	**ug/L**	1.877	223376	0.334
	Ho	165		**ug/L**		63	0.000
>	Lu	175		**ug/L**		669600	669599.628
	Tl	205	**51.596**	**ug/L**	0.567	1554978	2.314
	Pb	208	**56.701**	**ug/L**	2.720	2532300	3.782
	Bi	209		**ug/L**		575	0.001
	Th	232	**52.849**	**ug/L**	2.028	2781117	4.153
	U	238	**55.051**	**ug/L**	1.285	3110792	4.645

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	0.9999
Cr	52Linear Thru Zero	0.9999
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	0.9999
Fe	57Linear Thru Zero	0.9998
Co	59Linear Thru Zero	0.9999
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	0.9999
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	0.9997
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9997
U	238Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7	108.084				
	Be	9	106.135				
	B	11	108.188				
	Na	23	89.254				
	Mg	24	94.246				
	Al	27	105.519				
	P	31	103.508				
	K	39	99.148				
	Ca	43	104.340				
>	Sc	45		98.9			
	Ti	47	102.154				
	V	51	105.973				
	Cr	52	107.234				
	Cr	53					
	Mn	55	111.910				
	Fe	57	107.870				
	Co	59	105.210				
	Ni	60	106.056				
	Cu	63					
	Cu	65	105.508				
	Zn	66	108.316				
	Zn	67					
	Zn	68					
>	Ge	74		98.8			
	As	75	101.524				
	Se	77					
	Se	82	104.737				
	Kr	83					
	Sr	88	111.565				
	Y	89					
	Mo	98	101.637				
	Ag	107	103.791				
	Cd	111	103.880				
	Cd	114					
>	In	115		99.1			
	Sn	120	105.888				
	Sb	121	104.744				
	Sb	123					
	Ba	135					
	Ba	137	103.021				
	Ho	165					
>	Lu	175		99.5			
	Tl	205	103.193				
	Pb	208	113.401				
	Bi	209					
	Th	232	105.699				
	U	238	110.102				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 1	Na	23	ICV is out of limits (+/- 10%)
QC Std 1	Mn	55	ICV is out of limits (+/- 10%)
QC Std 1	Sr	88	ICV is out of limits (+/- 10%)
QC Std 1	Pb	208	ICV is out of limits (+/- 10%)
QC Std 1	U	238	ICV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Wednesday, January 06, 2010 03:10:53
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100105\QC Std 2.206

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.020**	**ug/L**	32.422	66	0.000
	Be	9	**0.011**	**ug/L**	147.046	23	0.000
	B	11	**2.492**	**ug/L**	22.435	2223	0.001
	Na	23	**1.531**	**ug/L**	58.900	49754	0.011
	Mg	24	**1.840**	**ug/L**	76.662	12006	0.008
	Al	27	**1.216**	**ug/L**	45.179	15676	0.008
	P	31	**1.886**	**ug/L**	82.963	13770	0.001
	K	39	**5.037**	**ug/L**	124.977	978471	0.041
	Ca	43	**-0.396**	**ug/L**	333.990	576	-0.000
>	Sc	45		**ug/L**		1123796	1123796.206
	Ti	47	**0.212**	**ug/L**	138.660	875	0.000
	V	51	**-0.178**	**ug/L**	219.697	21433	-0.002
	Cr	52	**-0.120**	**ug/L**	26.070	-4336	-0.001
	Cr	53		**ug/L**		183856	-0.018
	Mn	55	**-0.002**	**ug/L**	74.193	1744	-0.000
	Fe	57	**-0.294**	**ug/L**	170.151	7613	-0.000
	Co	59	**0.012**	**ug/L**	29.557	335	0.000
	Ni	60	**0.012**	**ug/L**	14.898	150	0.000
	Cu	63		**ug/L**		950	0.000
	Cu	65	**0.003**	**ug/L**	57.252	393	0.000
	Zn	66	**-0.016**	**ug/L**	99.592	390	-0.000
	Zn	67		**ug/L**		26305	-0.004
	Zn	68		**ug/L**		3072	-0.000
>	Ge	74		**ug/L**		694386	694386.032
	As	75	**-0.037**	**ug/L**	343.039	1117	-0.000
	Se	77		**ug/L**		8910	-0.003
	Se	82	**0.083**	**ug/L**	132.419	-54	0.000
	Kr	83		**ug/L**		177	-0.000
	Sr	88	**0.012**	**ug/L**	7.044	663	0.001
	Y	89		**ug/L**		96	0.000
	Mo	98	**0.092**	**ug/L**	16.555	680	0.001
	Ag	107	**0.013**	**ug/L**	32.093	181	0.000
	Cd	111	**0.008**	**ug/L**	39.953	50	0.000
	Cd	114		**ug/L**		96	0.000
>	In	115		**ug/L**		369437	369437.234
	Sn	120	**0.117**	**ug/L**	16.720	1540	0.003
	Sb	121	**0.859**	**ug/L**	16.344	7027	0.017
	Sb	123		**ug/L**		5670	0.013
	Ba	135		**ug/L**		70	0.000
	Ba	137	**0.008**	**ug/L**	31.127	108	0.000
	Ho	165		**ug/L**		29	-0.000
>	Lu	175		**ug/L**		678461	678461.339
	Tl	205	**0.064**	**ug/L**	71.824	7649	0.003
	Pb	208	**0.012**	**ug/L**	12.908	1148	0.001
	Bi	209		**ug/L**		93	-0.000
	Th	232	**0.080**	**ug/L**	20.958	5425	0.006
	U	238	**0.015**	**ug/L**	21.696	1465	0.001

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	0.9999
Cr	52Linear Thru Zero	0.9999
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	0.9999
Fe	57Linear Thru Zero	0.9998
Co	59Linear Thru Zero	0.9999
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	0.9999
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	0.9997
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9997
U	238Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		99.6			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		102.2			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		99.4			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		100.8			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Wednesday, January 06, 2010 03:17:00
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100105\QC Std 3.207

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**10.899**	**ug/L**	6.964	12999	0.012
	Be	9	**0.583**	**ug/L**	3.220	325	0.000
	B	11	**16.982**	**ug/L**	3.534	11059	0.009
	Na	23	**261.687**	**ug/L**	12.148	2120373	1.857
	Mg	24	**20.451**	**ug/L**	20.586	100024	0.086
	Al	27	**39.929**	**ug/L**	3.899	291276	0.254
	P	31	**58.511**	**ug/L**	4.034	41483	0.026
	K	39	**296.760**	**ug/L**	6.126	3622656	2.400
	Ca	43	**224.847**	**ug/L**	0.878	5002	0.004
>	Sc	45		**ug/L**		1121449	1121449.245
	Ti	47	**8.634**	**ug/L**	2.184	10096	0.008
	V	51	**11.522**	**ug/L**	3.315	154959	0.117
	Cr	52	**11.219**	**ug/L**	0.724	98376	0.091
	Cr	53		**ug/L**		202809	-0.001
	Mn	55	**6.213**	**ug/L**	2.185	85862	0.075
	Fe	57	**128.885**	**ug/L**	2.810	40094	0.029
	Co	59	**1.170**	**ug/L**	1.691	11803	0.010
	Ni	60	**2.301**	**ug/L**	2.038	5175	0.005
	Cu	63		**ug/L**		6797	0.005
	Cu	65	**1.187**	**ug/L**	1.178	3401	0.003
	Zn	66	**11.616**	**ug/L**	4.067	19810	0.029
	Zn	67		**ug/L**		30749	0.004
	Zn	68		**ug/L**		17930	0.022
>	Ge	74		**ug/L**		675365	675365.425
	As	75	**5.818**	**ug/L**	2.251	12605	0.017
	Se	77		**ug/L**		10027	-0.001
	Se	82	**5.531**	**ug/L**	4.486	886	0.001
	Kr	83		**ug/L**		147	-0.000
	Sr	88	**12.458**	**ug/L**	3.116	238849	0.641
	Y	89		**ug/L**		98	0.000
	Mo	98	**0.624**	**ug/L**	2.527	3661	0.009
	Ag	107	**1.109**	**ug/L**	5.697	9666	0.026
	Cd	111	**1.086**	**ug/L**	1.520	2351	0.006
	Cd	114		**ug/L**		5374	0.014
>	In	115		**ug/L**		372067	372067.124
	Sn	120	**5.714**	**ug/L**	3.941	49867	0.133
	Sb	121	**3.377**	**ug/L**	7.622	25113	0.065
	Sb	123		**ug/L**		20231	0.052
	Ba	135		**ug/L**		5468	0.008
	Ba	137	**2.182**	**ug/L**	2.669	9574	0.014
	Ho	165		**ug/L**		25	-0.000
>	Lu	175		**ug/L**		672756	672756.308
	Tl	205	**1.201**	**ug/L**	2.259	41897	0.054
	Pb	208	**2.536**	**ug/L**	0.824	114358	0.169
	Bi	209		**ug/L**		122	0.000
	Th	232	**1.347**	**ug/L**	1.598	72357	0.106
	U	238	**0.278**	**ug/L**	3.427	16356	0.023

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	0.9999
Cr	52	Linear Thru Zero	0.9999
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Fe	57	Linear Thru Zero	0.9998
Co	59	Linear Thru Zero	0.9999
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	0.9999
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9997
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9997
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
	Li	7	108.990				
	Be	9	116.641				
	B	11	113.210				
	Na	23	104.675				
	Mg	24	136.340				
	Al	27	133.098				
	P	31	117.023				
	K	39	98.920				
	Ca	43	112.423				
>	Sc	45		99.4			
	Ti	47	86.339				
	V	51	115.218				
	Cr	52	112.189				
	Cr	53					
	Mn	55	124.253				
	Fe	57	128.885				
	Co	59	117.030				
	Ni	60	115.027				
	Cu	63					
	Cu	65	118.684				
	Zn	66	116.163				
	Zn	67					
	Zn	68					
>	Ge	74		99.4			
	As	75	116.362				
	Se	77					
	Se	82	110.624				
	Kr	83					
	Sr	88	124.579				
	Y	89					
	Mo	98	124.837				
	Ag	107	110.903				
	Cd	111	108.566				
	Cd	114					
>	In	115		100.1			
	Sn	120	114.278				
	Sb	121	112.555				
	Sb	123					
	Ba	135					
	Ba	137	109.087				
	Ho	165					
>	Lu	175		99.9			
	Tl	205	120.142				
	Pb	208	126.787				
	Bi	209					
	Th	232	134.726				
	U	238	138.900				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 3	Mg	24	CRDL is out of limits
QC Std 3	Al	27	CRDL is out of limits
QC Std 3	Th	232	CRDL is out of limits
QC Std 3	U	238	CRDL is out of limits

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Wednesday, January 06, 2010 03:23:05
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100105\QC Std 4.208

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.273**	**ug/L**	10.738	335	0.000
	Be	9	**0.087**	**ug/L**	26.445	57	0.000
	B	11	**1.408**	**ug/L**	8.158	1418	0.001
	Na	23	**86556.545**	**ug/L**	6.170	627448369	614.076
	Mg	24	**101037.663**	**ug/L**	1.204	435756322	426.244
	Al	27	**97005.971**	**ug/L**	4.114	629382834	615.918
	P	31	**96838.470**	**ug/L**	3.670	43242866	42.304
	K	39	**S**	**ug/L**	S	S	S
	Ca	43	**90300.016**	**ug/L**	1.752	1618103	1.582
>	Sc	45		**ug/L**		1022436	1022435.679
	Ti	47	**1315.953**	**ug/L**	2.619	1314204	1.285
	V	51	**-0.564**	**ug/L**	14.987	15512	-0.006
	Cr	52	**2.504**	**ug/L**	1.558	17724	0.020
	Cr	53		**ug/L**		146596	-0.038
	Mn	55	**6.286**	**ug/L**	3.074	79153	0.076
	Fe	57	**97365.883**	**ug/L**	2.601	22332284	21.843
	Co	59	**0.388**	**ug/L**	1.543	3695	0.003
	Ni	60	**3.316**	**ug/L**	3.615	6746	0.006
	Cu	63		**ug/L**		10247	0.009
	Cu	65	**3.430**	**ug/L**	1.589	8297	0.008
	Zn	66	**4.322**	**ug/L**	0.757	6962	0.011
	Zn	67		**ug/L**		21685	-0.007
	Zn	68		**ug/L**		3484	0.001
>	Ge	74		**ug/L**		616366	616366.311
	As	75	**-0.282**	**ug/L**	184.590	551	-0.001
	Se	77		**ug/L**		12265	0.004
	Se	82	**-1.084**	**ug/L**	20.340	-231	-0.000
	Kr	83		**ug/L**		472	0.001
	Sr	88	**1.315**	**ug/L**	2.335	22784	0.068
	Y	89		**ug/L**		778	0.002
	Mo	98	**1988.053**	**ug/L**	3.452	9888234	29.882
	Ag	107	**0.111**	**ug/L**	11.517	922	0.003
	Cd	111	**0.537**	**ug/L**	14.512	1050	0.003
	Cd	114		**ug/L**		16124	0.049
>	In	115		**ug/L**		330988	330988.149
	Sn	120	**0.141**	**ug/L**	4.612	1561	0.003
	Sb	121	**0.290**	**ug/L**	12.675	2652	0.006
	Sb	123		**ug/L**		2072	0.004
	Ba	135		**ug/L**		1558	0.003
	Ba	137	**0.676**	**ug/L**	3.250	2697	0.004
	Ho	165		**ug/L**		1526	0.002
>	Lu	175		**ug/L**		600955	600954.555
	Tl	205	**-0.061**	**ug/L**	9.315	3407	-0.003
	Pb	208	**0.194**	**ug/L**	0.479	8307	0.013
	Bi	209		**ug/L**		1626	0.003
	Th	232	**0.068**	**ug/L**	28.353	4227	0.005
	U	238	**-0.002**	**ug/L**	20.285	436	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	0.9999
Cr	52	Linear Thru Zero	0.9999
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Fe	57	Linear Thru Zero	0.9998
Co	59	Linear Thru Zero	0.9999
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	0.9999
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9997
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9997
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23	86.557				
	Mg	24	101.038				
	Al	27	97.006				
	P	31	96.838				
	K	39	S				
	Ca	43	90.300				
>	Sc	45		90.7			
	Ti	47	65.798				
	V	51					
	Cr	52	67.682				
	Cr	53					
	Mn	55	108.372				
	Fe	57	97.366				
	Co	59	155.019				
	Ni	60	122.797				
	Cu	63					
	Cu	65	118.289				
	Zn	66	120.056				
	Zn	67					
	Zn	68					
>	Ge	74		90.8			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88	109.569				
	Y	89					
	Mo	98	99.403				
	Ag	107					
	Cd	111	134.276				
	Cd	114					
>	In	115		89.0			
	Sn	120					
	Sb	121	289.629				
	Sb	123					
	Ba	135					
	Ba	137	100.952				
	Ho	165					
>	Lu	175		89.3			
	Tl	205					
	Pb	208	97.119				
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 4	K	39	ICSA is out of limits
QC Std 4	Ti	47	ICSA is out of limits

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Wednesday, January 06, 2010 03:29:11
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100105\QC Std 5.209

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**29.589**	**ug/L**	5.546	31787	0.031
	Be	9	**24.135**	**ug/L**	3.233	11548	0.011
	B	11	**23.014**	**ug/L**	2.729	13304	0.013
	Na	23	**84062.753**	**ug/L**	2.903	603729811	596.384
	Mg	24	**101904.384**	**ug/L**	4.752	435011121	429.900
	Al	27	**98567.881**	**ug/L**	4.140	633465948	625.835
	P	31	**96711.604**	**ug/L**	0.532	42775994	42.249
	K	39	**90883.535**	**ug/L**	2.824	744896474	734.973
	Ca	43	**89618.799**	**ug/L**	0.805	1590260	1.571
>	Sc	45		**ug/L**		1012177	1012176.827
	Ti	47	**1313.629**	**ug/L**	0.709	1299125	1.283
	V	51	**21.169**	**ug/L**	1.454	239268	0.215
	Cr	52	**23.152**	**ug/L**	0.414	186341	0.187
	Cr	53		**ug/L**		158438	-0.025
	Mn	55	**27.974**	**ug/L**	1.672	343332	0.338
	Fe	57	**99284.149**	**ug/L**	2.009	22549555	22.274
	Co	59	**20.744**	**ug/L**	2.261	185551	0.183
	Ni	60	**22.844**	**ug/L**	0.330	45385	0.045
	Cu	63		**ug/L**		97811	0.096
	Cu	65	**21.973**	**ug/L**	2.483	50740	0.050
	Zn	66	**23.022**	**ug/L**	2.369	35455	0.057
	Zn	67		**ug/L**		25931	0.000
	Zn	68		**ug/L**		26410	0.038
>	Ge	74		**ug/L**		616045	616045.264
	As	75	**20.527**	**ug/L**	0.835	37902	0.060
	Se	77		**ug/L**		14551	0.008
	Se	82	**19.145**	**ug/L**	2.230	2947	0.005
	Kr	83		**ug/L**		464	0.000
	Sr	88	**24.175**	**ug/L**	0.714	407746	1.244
	Y	89		**ug/L**		805	0.002
	Mo	98	**2019.738**	**ug/L**	1.561	9941711	30.359
	Ag	107	**19.888**	**ug/L**	0.734	151612	0.463
	Cd	111	**19.557**	**ug/L**	1.618	36776	0.112
	Cd	114		**ug/L**		98929	0.302
>	In	115		**ug/L**		327481	327480.528
	Sn	120	**21.304**	**ug/L**	0.573	162440	0.495
	Sb	121	**23.386**	**ug/L**	1.462	148490	0.451
	Sb	123		**ug/L**		115492	0.351
	Ba	135		**ug/L**		44112	0.074
	Ba	137	**19.841**	**ug/L**	0.329	77020	0.128
	Ho	165		**ug/L**		1454	0.002
>	Lu	175		**ug/L**		599017	599016.983
	Tl	205	**19.944**	**ug/L**	1.070	540740	0.894
	Pb	208	**21.454**	**ug/L**	1.196	857643	1.431
	Bi	209		**ug/L**		2277	0.004
	Th	232	**22.618**	**ug/L**	0.480	1065591	1.777
	U	238	**22.658**	**ug/L**	0.673	1145871	1.912

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	0.9999
Cr	52	Linear Thru Zero	0.9999
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Fe	57	Linear Thru Zero	0.9998
Co	59	Linear Thru Zero	0.9999
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	0.9999
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9997
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9997
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7	147.946				
	Be	9	120.676				
	B	11	115.072				
	Na	23	84.063				
	Mg	24	101.904				
	Al	27	98.568				
	P	31	96.712				
	K	39	90.884				
	Ca	43	89.619				
>	Sc	45		89.7			
	Ti	47	65.681				
	V	51	105.844				
	Cr	52	97.688				
	Cr	53					
	Mn	55	108.427				
	Fe	57	99.284				
	Co	59	102.441				
	Ni	60	100.634				
	Cu	63					
	Cu	65	95.952				
	Zn	66	97.552				
	Zn	67					
	Zn	68					
>	Ge	74		90.7			
	As	75	102.635				
	Se	77					
	Se	82	95.723				
	Kr	83					
	Sr	88	114.031				
	Y	89					
	Mo	98	100.987				
	Ag	107	99.440				
	Cd	111	95.870				
	Cd	114					
>	In	115		88.1			
	Sn	120	106.522				
	Sb	121	116.346				
	Sb	123					
	Ba	135					
	Ba	137	95.988				
	Ho	165					
>	Lu	175		89.0			
	Tl	205	99.720				
	Pb	208	106.208				
	Bi	209					
	Th	232	113.091				
	U	238	113.292				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 5	Li	7	ICSAB is out of limits
QC Std 5	Be	9	ICSAB is out of limits
QC Std 5	Ti	47	ICSAB is out of limits

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Wednesday, January 06, 2010 03:35:18
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100105\QC Std 6.210

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**60.588**	ug/L	5.072	72441	0.064
	Be	9	**55.372**	ug/L	1.743	29479	0.026
	B	11	**106.768**	ug/L	3.559	66167	0.058
	Na	23	**4263.558**	ug/L	8.263	34147994	30.248
	Mg	24	**4909.750**	ug/L	4.879	23337019	20.713
	Al	27	**5219.088**	ug/L	6.829	37331327	33.137
	P	31	**4853.813**	ug/L	1.567	2402353	2.120
	K	39	**4600.602**	ug/L	13.293	42884418	37.205
	Ca	43	**4950.624**	ug/L	1.815	98360	0.087
>	Sc	45		ug/L		1127059	1127059.326
	Ti	47	**48.070**	ug/L	1.776	53553	0.047
	V	51	**50.421**	ug/L	2.818	601904	0.513
	Cr	52	**50.674**	ug/L	3.759	457840	0.409
	Cr	53		ug/L		203752	-0.001
	Mn	55	**52.004**	ug/L	1.279	709168	0.628
	Fe	57	**5130.771**	ug/L	1.675	1304804	1.151
	Co	59	**50.198**	ug/L	2.396	499611	0.443
	Ni	60	**50.292**	ug/L	3.755	111076	0.098
	Cu	63		ug/L		258259	0.229
	Cu	65	**49.722**	ug/L	1.982	127397	0.113
	Zn	66	**51.152**	ug/L	1.556	87597	0.127
	Zn	67		ug/L		36492	0.011
	Zn	68		ug/L		70718	0.098
>	Ge	74		ug/L		689008	689007.862
	As	75	**47.533**	ug/L	1.563	96623	0.139
	Se	77		ug/L		14261	0.005
	Se	82	**48.092**	ug/L	1.564	8383	0.012
	Kr	83		ug/L		137	-0.000
	Sr	88	**52.129**	ug/L	2.246	994367	2.682
	Y	89		ug/L		154	0.000
	Mo	98	**48.616**	ug/L	0.897	270953	0.731
	Ag	107	**49.207**	ug/L	0.999	424350	1.145
	Cd	111	**48.080**	ug/L	2.360	102248	0.276
	Cd	114		ug/L		240617	0.649
>	In	115		ug/L		370561	370560.753
	Sn	120	**50.072**	ug/L	0.961	431292	1.162
	Sb	121	**50.688**	ug/L	2.660	363169	0.978
	Sb	123		ug/L		287619	0.774
	Ba	135		ug/L		118447	0.174
	Ba	137	**47.585**	ug/L	2.753	210016	0.308
	Ho	165		ug/L		69	0.000
>	Lu	175		ug/L		681576	681575.940
	Tl	205	**47.320**	ug/L	1.981	1451833	2.122
	Pb	208	**51.976**	ug/L	1.185	2363398	3.467
	Bi	209		ug/L		546	0.001
	Th	232	**48.345**	ug/L	2.739	2589659	3.799
	U	238	**50.080**	ug/L	1.112	2880709	4.226

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	0.9999
Cr	52Linear Thru Zero	0.9999
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	0.9999
Fe	57Linear Thru Zero	0.9998
Co	59Linear Thru Zero	0.9999
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	0.9999
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	0.9997
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9997
U	238Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7	121.175				
	Be	9	110.744				
	B	11	106.768				
	Na	23	85.271				
	Mg	24	98.195				
	Al	27	103.348				
	P	31	97.076				
	K	39	92.012				
	Ca	43	99.012				
>	Sc	45		99.9			
	Ti	47	96.140				
	V	51	100.843				
	Cr	52	101.347				
	Cr	53					
	Mn	55	104.008				
	Fe	57	102.615				
	Co	59	100.396				
	Ni	60	100.584				
	Cu	63					
	Cu	65	99.443				
	Zn	66	102.304				
	Zn	67					
	Zn	68					
>	Ge	74		101.4			
	As	75	95.066				
	Se	77					
	Se	82	96.184				
	Kr	83					
	Sr	88	104.259				
	Y	89					
	Mo	98	97.233				
	Ag	107	98.414				
	Cd	111	96.160				
	Cd	114					
>	In	115		99.7			
	Sn	120	100.143				
	Sb	121	101.376				
	Sb	123					
	Ba	135					
	Ba	137	95.169				
	Ho	165					
>	Lu	175		101.2			
	Tl	205	94.641				
	Pb	208	103.952				
	Bi	209					
	Th	232	96.690				
	U	238	100.160				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 6	Li	7	CCV is out of limits (+/- 10%)
QC Std 6	Be	9	CCV is out of limits (+/- 10%)
QC Std 6	Na	23	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Wednesday, January 06, 2010 03:41:25
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100105\QC Std 7.211

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.035**	**ug/L**	17.835	84	0.000
	Be	9	**0.012**	**ug/L**	120.471	23	0.000
	B	11	**1.833**	**ug/L**	27.589	1815	0.001
	Na	23	**4.945**	**ug/L**	16.741	76874	0.035
	Mg	24	**2.899**	**ug/L**	70.149	17012	0.012
	Al	27	**3.803**	**ug/L**	16.186	34041	0.024
	P	31	**1.134**	**ug/L**	136.940	13373	0.000
	K	39	**-2.912**	**ug/L**	36.775	904418	-0.024
	Ca	43	**2.373**	**ug/L**	66.117	629	0.000
>	Sc	45		**ug/L**		1121590	1121589.774
	Ti	47	**0.244**	**ug/L**	55.123	908	0.000
	V	51	**-0.366**	**ug/L**	19.446	19259	-0.004
	Cr	52	**-0.086**	**ug/L**	44.523	-4020	-0.001
	Cr	53		**ug/L**		174228	-0.026
	Mn	55	**-0.008**	**ug/L**	50.660	1661	-0.000
	Fe	57	**1.799**	**ug/L**	41.037	8124	0.000
	Co	59	**0.003**	**ug/L**	92.315	248	0.000
	Ni	60	**0.008**	**ug/L**	53.795	140	0.000
	Cu	63		**ug/L**		1199	0.000
	Cu	65	**0.027**	**ug/L**	40.506	452	0.000
	Zn	66	**-0.005**	**ug/L**	280.449	405	-0.000
	Zn	67		**ug/L**		24456	-0.006
	Zn	68		**ug/L**		2586	-0.001
>	Ge	74		**ug/L**		686716	686715.793
	As	75	**0.028**	**ug/L**	46.546	1234	0.000
	Se	77		**ug/L**		8571	-0.004
	Se	82	**0.247**	**ug/L**	28.595	-25	0.000
	Kr	83		**ug/L**		149	-0.000
	Sr	88	**0.008**	**ug/L**	38.660	606	0.000
	Y	89		**ug/L**		81	-0.000
	Mo	98	**0.230**	**ug/L**	9.101	1473	0.003
	Ag	107	**0.012**	**ug/L**	16.251	176	0.000
	Cd	111	**0.008**	**ug/L**	37.143	52	0.000
	Cd	114		**ug/L**		91	0.000
>	In	115		**ug/L**		376348	376347.956
	Sn	120	**0.093**	**ug/L**	23.484	1358	0.002
	Sb	121	**0.416**	**ug/L**	21.140	3934	0.008
	Sb	123		**ug/L**		3086	0.006
	Ba	135		**ug/L**		66	0.000
	Ba	137	**0.005**	**ug/L**	52.984	93	0.000
	Ho	165		**ug/L**		32	0.000
>	Lu	175		**ug/L**		677946	677945.512
	Tl	205	**0.206**	**ug/L**	31.784	11956	0.009
	Pb	208	**0.011**	**ug/L**	14.672	1095	0.001
	Bi	209		**ug/L**		88	-0.000
	Th	232	**0.088**	**ug/L**	12.667	5859	0.007
	U	238	**0.015**	**ug/L**	8.547	1442	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	0.9999
Cr	52	Linear Thru Zero	0.9999
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Fe	57	Linear Thru Zero	0.9998
Co	59	Linear Thru Zero	0.9999
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	0.9999
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9997
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9997
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		99.4			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		101.1			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		101.2			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		100.7			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 10
Sample Date/Time: Wednesday, January 06, 2010 03:47:31
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100105\QC Std 10.212

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**1257.603**	ug/L	4.416	1397819	1.333
	Be	9	**1185.405**	ug/L	2.301	586440	0.560
	B	11	**0.855**	ug/L	1.440	1138	0.000
	Na	23	**44940.464**	ug/L	3.391	334078408	318.830
	Mg	24	**54256.310**	ug/L	5.159	239768442	228.889
	Al	27	**52699.267**	ug/L	2.537	350564489	334.602
	P	31	**26294.619**	ug/L	1.527	12048172	11.487
	K	39	**51371.407**	ug/L	1.573	436285317	415.439
	Ca	43	**48475.810**	ug/L	0.217	890813	0.850
>	Sc	45		ug/L		1047950	1047949.567
	Ti	47	**50.557**	ug/L	2.072	52342	0.049
	V	51	**1009.027**	ug/L	2.629	10784686	10.272
	Cr	52	**966.961**	ug/L	1.473	8180505	7.809
	Cr	53		ug/L		1130735	0.898
	Mn	55	**994.490**	ug/L	1.444	12579544	12.004
	Fe	57	**51727.142**	ug/L	2.365	12165610	11.605
	Co	59	**906.093**	ug/L	1.714	8382228	8.000
	Ni	60	**861.811**	ug/L	0.470	1768456	1.687
	Cu	63		ug/L		4260089	4.065
	Cu	65	**813.257**	ug/L	1.307	1931523	1.843
	Zn	66	**2410.383**	ug/L	3.440	3783063	5.964
	Zn	67		ug/L		634525	0.958
	Zn	68		ug/L		2863011	4.509
>	Ge	74		ug/L		634513	634513.351
	As	75	**862.247**	ug/L	0.453	1595186	2.512
	Se	77		ug/L		73393	0.100
	Se	82	**488.279**	ug/L	2.149	78935	0.125
	Kr	83		ug/L		270	0.000
	Sr	88	**1033.274**	ug/L	4.384	17844203	53.167
	Y	89		ug/L		855	0.002
	Mo	98	**1052.854**	ug/L	4.099	5312560	15.825
	Ag	107	**229.492**	ug/L	2.521	1793166	5.340
	Cd	111	**883.232**	ug/L	2.744	1701498	5.067
	Cd	114		ug/L		4383540	13.058
>	In	115		ug/L		336017	336017.419
	Sn	120	**1007.141**	ug/L	5.732	7845211	23.381
	Sb	121	**241.925**	ug/L	7.531	1565375	4.666
	Sb	123		ug/L		1267739	3.778
	Ba	135		ug/L		1901408	3.008
	Ba	137	**933.595**	ug/L	1.650	3821305	6.045
	Ho	165		ug/L		557	0.001
>	Lu	175		ug/L		632197	632197.458
	Tl	205	**492.104**	ug/L	2.235	13954523	22.068
	Pb	208	**5034.641**	ug/L	1.764	212274244	335.810
	Bi	209		ug/L		6028	0.009
	Th	232	**2569.089**	ug/L	0.759	127617006	201.869
	U	238	**5440.286**	ug/L	2.489	290191612	459.081

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	0.9999
Cr	52Linear Thru Zero	0.9999
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	0.9999
Fe	57Linear Thru Zero	0.9998
Co	59Linear Thru Zero	0.9999
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	0.9999
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	0.9997
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9997
U	238Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7	125.760				
	Be	9	118.541				
	B	11					
	Na	23	89.881				
	Mg	24	108.513				
	Al	27	105.399				
	P	31	105.178				
	K	39	102.743				
	Ca	43	96.952				
>	Sc	45		92.9			
	Ti	47					
	V	51	100.903				
	Cr	52	96.696				
	Cr	53					
	Mn	55	99.449				
	Fe	57	103.454				
	Co	59	90.609				
	Ni	60	86.181				
	Cu	63					
	Cu	65	81.326				
	Zn	66	96.415				
	Zn	67					
	Zn	68					
>	Ge	74		93.4			
	As	75	86.225				
	Se	77					
	Se	82	97.656				
	Kr	83					
	Sr	88	103.327				
	Y	89					
	Mo	98	105.285				
	Ag	107	91.797				
	Cd	111	88.323				
	Cd	114					
>	In	115		90.4			
	Sn	120	100.714				
	Sb	121	96.770				
	Sb	123					
	Ba	135					
	Ba	137	93.359				
	Ho	165					
>	Lu	175		93.9			
	Tl	205	98.421				
	Pb	208	100.693				
	Bi	209					
	Th	232	102.764				
	U	238	108.806				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 10	Li	7	LRS is out of limits (+/- 10%)
QC Std 10	Be	9	LRS is out of limits (+/- 10%)
QC Std 10	Na	23	LRS is out of limits (+/- 10%)
QC Std 10	Ni	60	LRS is out of limits (+/- 10%)
QC Std 10	Cu	65	LRS is out of limits (+/- 10%)
QC Std 10	As	75	LRS is out of limits (+/- 10%)
QC Std 10	Cd	111	LRS is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 11
Sample Date/Time: Wednesday, January 06, 2010 03:53:35
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100105\QC Std 11.213

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**61.555**	**ug/L**	5.895	76670	0.065
	Be	9	**58.164**	**ug/L**	2.806	32246	0.027
	B	11	**119.819**	**ug/L**	5.188	77208	0.065
	Na	23	**4464.985**	**ug/L**	8.322	37175895	31.677
	Mg	24	**5269.782**	**ug/L**	5.827	26082037	22.231
	Al	27	**5558.918**	**ug/L**	3.521	41414440	35.295
	P	31	**5311.316**	**ug/L**	2.305	2736222	2.320
	K	39	**4888.426**	**ug/L**	3.947	47388262	39.533
	Ca	43	**5076.798**	**ug/L**	1.679	105021	0.089
>	Sc	45		**ug/L**		1173552	1173551.894
	Ti	47	**50.776**	**ug/L**	1.697	58853	0.050
	V	51	**52.478**	**ug/L**	1.630	651334	0.534
	Cr	52	**53.145**	**ug/L**	1.366	500240	0.429
	Cr	53		**ug/L**		214162	0.001
	Mn	55	**54.618**	**ug/L**	0.972	775444	0.659
	Fe	57	**5367.832**	**ug/L**	2.190	1420912	1.204
	Co	59	**52.968**	**ug/L**	2.297	548895	0.468
	Ni	60	**53.474**	**ug/L**	1.241	122984	0.105
	Cu	63		**ug/L**		279443	0.238
	Cu	65	**52.069**	**ug/L**	1.404	138879	0.118
	Zn	66	**52.414**	**ug/L**	0.939	94066	0.130
	Zn	67		**ug/L**		41020	0.015
	Zn	68		**ug/L**		77431	0.102
>	Ge	74		**ug/L**		722030	722030.334
	As	75	**50.324**	**ug/L**	0.495	107114	0.147
	Se	77		**ug/L**		14583	0.004
	Se	82	**51.434**	**ug/L**	2.657	9400	0.013
	Kr	83		**ug/L**		143	-0.000
	Sr	88	**53.392**	**ug/L**	0.537	1080207	2.747
	Y	89		**ug/L**		147	0.000
	Mo	98	**50.402**	**ug/L**	1.584	297903	0.758
	Ag	107	**51.491**	**ug/L**	0.641	470974	1.198
	Cd	111	**50.334**	**ug/L**	2.257	113513	0.289
	Cd	114		**ug/L**		264762	0.673
>	In	115		**ug/L**		393038	393037.889
	Sn	120	**52.866**	**ug/L**	1.082	482893	1.227
	Sb	121	**53.642**	**ug/L**	4.288	407451	1.035
	Sb	123		**ug/L**		323516	0.821
	Ba	135		**ug/L**		130974	0.183
	Ba	137	**49.856**	**ug/L**	4.592	231243	0.323
	Ho	165		**ug/L**		69	0.000
>	Lu	175		**ug/L**		716706	716706.459
	Tl	205	**50.305**	**ug/L**	1.479	1622407	2.256
	Pb	208	**56.013**	**ug/L**	2.757	2677059	3.736
	Bi	209		**ug/L**		601	0.001
	Th	232	**53.919**	**ug/L**	2.059	3036558	4.237
	U	238	**55.789**	**ug/L**	2.512	3373150	4.708

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	0.9999
Cr	52Linear Thru Zero	0.9999
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	0.9999
Fe	57Linear Thru Zero	0.9998
Co	59Linear Thru Zero	0.9999
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	0.9999
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	0.9997
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9997
U	238Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7	123.110				
	Be	9	116.328				
	B	11	119.819				
	Na	23	89.300				
	Mg	24	105.396				
	Al	27	110.078				
	P	31	106.226				
	K	39	97.769				
	Ca	43	101.536				
>	Sc	45		104.1			
	Ti	47	101.552				
	V	51	104.955				
	Cr	52	106.291				
	Cr	53					
	Mn	55	109.237				
	Fe	57	107.357				
	Co	59	105.937				
	Ni	60	106.947				
	Cu	63					
	Cu	65	104.139				
	Zn	66	104.828				
	Zn	67					
	Zn	68					
>	Ge	74		106.3			
	As	75	100.649				
	Se	77					
	Se	82	102.867				
	Kr	83					
	Sr	88	106.784				
	Y	89					
	Mo	98	100.804				
	Ag	107	102.983				
	Cd	111	100.667				
	Cd	114					
>	In	115		105.7			
	Sn	120	105.733				
	Sb	121	107.284				
	Sb	123					
	Ba	135					
	Ba	137	99.712				
	Ho	165					
>	Lu	175		106.5			
	Tl	205	100.611				
	Pb	208	112.025				
	Bi	209					
	Th	232	107.838				
	U	238	111.578				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 11	Li	7	CCV is out of limits (+/- 10%)
QC Std 11	Be	9	CCV is out of limits (+/- 10%)
QC Std 11	B	11	CCV is out of limits (+/- 10%)
QC Std 11	Na	23	CCV is out of limits (+/- 10%)
QC Std 11	Al	27	CCV is out of limits (+/- 10%)
QC Std 11	Pb	208	CCV is out of limits (+/- 10%)
QC Std 11	U	238	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 12
Sample Date/Time: Wednesday, January 06, 2010 03:59:42
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100105\QC Std 12.214

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.111**	ug/L	14.186	185	0.000
	Be	9	**0.043**	ug/L	14.690	42	0.000
	B	11	**1.836**	ug/L	29.403	1936	0.001
	Na	23	**4.910**	ug/L	20.114	81567	0.035
	Mg	24	**3.005**	ug/L	3.595	18679	0.013
	Al	27	**2.364**	ug/L	55.027	25358	0.015
	P	31	**1.951**	ug/L	65.863	14674	0.001
	K	39	**-8.921**	ug/L	6.825	905483	-0.072
	Ca	43	**-0.067**	ug/L	3621.429	619	-0.000
>	Sc	45		ug/L		1194873	1194873.141
	Ti	47	**-0.015**	ug/L	251.625	665	-0.000
	V	51	**-0.588**	ug/L	93.092	17811	-0.006
	Cr	52	**0.034**	ug/L	88.432	-3116	0.000
	Cr	53		ug/L		179443	-0.031
	Mn	55	**0.016**	ug/L	48.938	2119	0.000
	Fe	57	**-0.408**	ug/L	130.332	8064	-0.000
	Co	59	**0.038**	ug/L	28.496	632	0.000
	Ni	60	**0.038**	ug/L	28.658	219	0.000
	Cu	63		ug/L		1243	0.000
	Cu	65	**0.084**	ug/L	7.478	637	0.000
	Zn	66	**0.065**	ug/L	7.594	547	0.000
	Zn	67		ug/L		28035	-0.003
	Zn	68		ug/L		3026	-0.001
>	Ge	74		ug/L		717332	717332.084
	As	75	**-0.078**	ug/L	188.680	1063	-0.000
	Se	77		ug/L		8010	-0.005
	Se	82	**0.303**	ug/L	35.534	-16	0.000
	Kr	83		ug/L		144	-0.000
	Sr	88	**0.036**	ug/L	31.704	1194	0.002
	Y	89		ug/L		86	-0.000
	Mo	98	**0.249**	ug/L	13.333	1656	0.004
	Ag	107	**0.023**	ug/L	15.206	286	0.001
	Cd	111	**0.033**	ug/L	32.127	111	0.000
	Cd	114		ug/L		232	0.000
>	In	115		ug/L		394143	394143.132
	Sn	120	**0.445**	ug/L	13.714	4637	0.010
	Sb	121	**1.190**	ug/L	15.070	9986	0.023
	Sb	123		ug/L		8054	0.018
	Ba	135		ug/L		139	0.000
	Ba	137	**0.033**	ug/L	29.190	231	0.000
	Ho	165		ug/L		29	-0.000
>	Lu	175		ug/L		722685	722685.195
	Tl	205	**0.262**	ug/L	28.069	14537	0.012
	Pb	208	**0.150**	ug/L	20.910	7880	0.010
	Bi	209		ug/L		89	-0.000
	Th	232	**0.210**	ug/L	6.222	13153	0.016
	U	238	**0.173**	ug/L	12.787	11185	0.015

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	0.9999
Cr	52Linear Thru Zero	0.9999
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	0.9999
Fe	57Linear Thru Zero	0.9998
Co	59Linear Thru Zero	0.9999
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	0.9999
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	0.9997
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9997
U	238Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		105.9			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		105.6			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		106.0			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		107.4			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 8
Sample Date/Time: Wednesday, January 06, 2010 04:49:05
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100105\QC Std 8.222

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**58.633**	**ug/L**	7.935	69263	0.062
	Be	9	**56.114**	**ug/L**	4.219	29524	0.026
	B	11	**115.184**	**ug/L**	1.421	70522	0.063
	Na	23	**4552.904**	**ug/L**	8.992	35998378	32.301
	Mg	24	**5153.137**	**ug/L**	1.975	24219035	21.739
	Al	27	**5087.718**	**ug/L**	9.331	35970289	32.303
	P	31	**4999.800**	**ug/L**	2.707	2445527	2.184
	K	39	**4524.454**	**ug/L**	8.368	41709503	36.589
	Ca	43	**4990.888**	**ug/L**	1.347	98009	0.087
>	Sc	45		**ug/L**		1114034	1114034.405
	Ti	47	**49.898**	**ug/L**	2.893	54914	0.049
	V	51	**50.615**	**ug/L**	1.608	597256	0.515
	Cr	52	**51.477**	**ug/L**	0.849	459932	0.416
	Cr	53		**ug/L**		229389	0.025
	Mn	55	**53.219**	**ug/L**	1.739	717307	0.642
	Fe	57	**5175.280**	**ug/L**	0.977	1301098	1.161
	Co	59	**50.785**	**ug/L**	1.112	499738	0.448
	Ni	60	**50.866**	**ug/L**	2.116	111065	0.100
	Cu	63		**ug/L**		253138	0.227
	Cu	65	**49.968**	**ug/L**	1.373	126515	0.113
	Zn	66	**50.982**	**ug/L**	1.798	86554	0.126
	Zn	67		**ug/L**		40938	0.018
	Zn	68		**ug/L**		70926	0.099
>	Ge	74		**ug/L**		683021	683021.190
	As	75	**48.000**	**ug/L**	0.911	96699	0.140
	Se	77		**ug/L**		16777	0.009
	Se	82	**49.344**	**ug/L**	3.131	8526	0.013
	Kr	83		**ug/L**		165	-0.000
	Sr	88	**51.834**	**ug/L**	1.384	1004304	2.667
	Y	89		**ug/L**		159	0.000
	Mo	98	**47.228**	**ug/L**	2.189	267346	0.710
	Ag	107	**49.715**	**ug/L**	1.354	435487	1.157
	Cd	111	**48.323**	**ug/L**	1.426	104389	0.277
	Cd	114		**ug/L**		247141	0.656
>	In	115		**ug/L**		376409	376408.756
	Sn	120	**49.741**	**ug/L**	2.570	435119	1.155
	Sb	121	**50.094**	**ug/L**	4.673	364496	0.966
	Sb	123		**ug/L**		286747	0.760
	Ba	135		**ug/L**		120770	0.175
	Ba	137	**47.366**	**ug/L**	2.246	211472	0.307
	Ho	165		**ug/L**		63	0.000
>	Lu	175		**ug/L**		689481	689480.611
	Tl	205	**48.654**	**ug/L**	1.266	1509848	2.182
	Pb	208	**53.234**	**ug/L**	2.022	2448088	3.551
	Bi	209		**ug/L**		570	0.001
	Th	232	**50.963**	**ug/L**	2.877	2761368	4.004
	U	238	**53.593**	**ug/L**	3.347	3117379	4.522

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	0.9999
Cr	52Linear Thru Zero	0.9999
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	0.9999
Fe	57Linear Thru Zero	0.9998
Co	59Linear Thru Zero	0.9999
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	0.9999
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	0.9997
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9997
U	238Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7	117.266				
	Be	9	112.228				
	B	11	115.184				
	Na	23	91.058				
	Mg	24	103.063				
	Al	27	100.747				
	P	31	99.996				
	K	39	90.489				
	Ca	43	99.818				
>	Sc	45		98.8			
	Ti	47	99.796				
	V	51	101.230				
	Cr	52	102.954				
	Cr	53					
	Mn	55	106.437				
	Fe	57	103.506				
	Co	59	101.571				
	Ni	60	101.732				
	Cu	63					
	Cu	65	99.937				
	Zn	66	101.965				
	Zn	67					
	Zn	68					
>	Ge	74		100.6			
	As	75	95.999				
	Se	77					
	Se	82	98.689				
	Kr	83					
	Sr	88	103.668				
	Y	89					
	Mo	98	94.456				
	Ag	107	99.430				
	Cd	111	96.646				
	Cd	114					
>	In	115		101.3			
	Sn	120	99.481				
	Sb	121	100.188				
	Sb	123					
	Ba	135					
	Ba	137	94.732				
	Ho	165					
>	Lu	175		102.4			
	Tl	205	97.307				
	Pb	208	106.468				
	Bi	209					
	Th	232	101.927				
	U	238	107.187				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 8	Li	7	CCV is out of limits (+/- 10%)
QC Std 8	Be	9	CCV is out of limits (+/- 10%)
QC Std 8	B	11	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 9
Sample Date/Time: Wednesday, January 06, 2010 04:55:14
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100105\QC Std 9.223

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.016**	**ug/L**	49.916	62	0.000
	Be	9	**0.008**	**ug/L**	81.173	21	0.000
	B	11	**1.931**	**ug/L**	26.107	1903	0.001
	Na	23	**1.072**	**ug/L**	47.349	46743	0.008
	Mg	24	**2.212**	**ug/L**	17.491	14007	0.009
	Al	27	**0.955**	**ug/L**	60.691	14007	0.006
	P	31	**3.091**	**ug/L**	12.317	14553	0.001
	K	39	**-7.079**	**ug/L**	13.603	879962	-0.057
	Ca	43	**-3.722**	**ug/L**	26.268	517	-0.000
>	Sc	45		**ug/L**		1138823	1138822.564
	Ti	47	**0.096**	**ug/L**	33.538	757	0.000
	V	51	**-0.515**	**ug/L**	63.817	17811	-0.005
	Cr	52	**0.125**	**ug/L**	31.407	-2134	0.001
	Cr	53		**ug/L**		185072	-0.019
	Mn	55	**-0.003**	**ug/L**	180.679	1755	-0.000
	Fe	57	**-1.104**	**ug/L**	96.899	7507	-0.000
	Co	59	**0.006**	**ug/L**	52.612	275	0.000
	Ni	60	**0.011**	**ug/L**	33.660	150	0.000
	Cu	63		**ug/L**		844	0.000
	Cu	65	**0.004**	**ug/L**	474.645	401	0.000
	Zn	66	**-0.022**	**ug/L**	62.510	377	-0.000
	Zn	67		**ug/L**		27820	-0.002
	Zn	68		**ug/L**		3138	-0.000
>	Ge	74		**ug/L**		691078	691078.382
	As	75	**0.102**	**ug/L**	114.694	1392	0.000
	Se	77		**ug/L**		9911	-0.002
	Se	82	**0.129**	**ug/L**	34.353	-46	0.000
	Kr	83		**ug/L**		158	-0.000
	Sr	88	**0.010**	**ug/L**	46.113	643	0.000
	Y	89		**ug/L**		92	-0.000
	Mo	98	**0.067**	**ug/L**	20.738	558	0.001
	Ag	107	**0.008**	**ug/L**	22.181	141	0.000
	Cd	111	**0.011**	**ug/L**	23.191	59	0.000
	Cd	114		**ug/L**		80	0.000
>	In	115		**ug/L**		380975	380974.644
	Sn	120	**0.075**	**ug/L**	24.876	1209	0.002
	Sb	121	**0.406**	**ug/L**	23.334	3899	0.008
	Sb	123		**ug/L**		3044	0.006
	Ba	135		**ug/L**		73	0.000
	Ba	137	**0.006**	**ug/L**	31.918	104	0.000
	Ho	165		**ug/L**		26	-0.000
>	Lu	175		**ug/L**		702714	702714.120
	Tl	205	**0.409**	**ug/L**	11.903	18793	0.018
	Pb	208	**0.012**	**ug/L**	8.301	1163	0.001
	Bi	209		**ug/L**		78	-0.000
	Th	232	**0.079**	**ug/L**	16.731	5572	0.006
	U	238	**0.018**	**ug/L**	20.350	1664	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	0.9999
Cr	52	Linear Thru Zero	0.9999
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Fe	57	Linear Thru Zero	0.9998
Co	59	Linear Thru Zero	0.9999
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	0.9999
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9997
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9997
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		101.0			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		101.8			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		102.5			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		104.4			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 8
Sample Date/Time: Wednesday, January 06, 2010 05:38:31
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100105\QC Std 8.230

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**58.010**	**ug/L**	5.483	72302	0.062
	Be	9	**55.823**	**ug/L**	2.382	30981	0.026
	B	11	**115.797**	**ug/L**	4.182	74744	0.063
	Na	23	**4174.205**	**ug/L**	7.950	34820861	29.614
	Mg	24	**4817.788**	**ug/L**	9.854	23869722	20.325
	Al	27	**5293.018**	**ug/L**	11.360	39470101	33.607
	P	31	**4949.187**	**ug/L**	2.399	2552882	2.162
	K	39	**4432.813**	**ug/L**	3.626	43080238	35.848
	Ca	43	**4869.614**	**ug/L**	2.253	100858	0.085
>	Sc	45		**ug/L**		1174673	1174672.729
	Ti	47	**49.142**	**ug/L**	1.216	57047	0.048
	V	51	**50.552**	**ug/L**	1.162	629030	0.515
	Cr	52	**51.908**	**ug/L**	0.920	489043	0.419
	Cr	53		**ug/L**		242655	0.025
	Mn	55	**52.331**	**ug/L**	1.881	743836	0.632
	Fe	57	**5060.918**	**ug/L**	0.210	1341749	1.135
	Co	59	**49.787**	**ug/L**	0.864	516555	0.440
	Ni	60	**50.178**	**ug/L**	1.624	115547	0.098
	Cu	63		**ug/L**		265152	0.225
	Cu	65	**49.481**	**ug/L**	0.441	132113	0.112
	Zn	66	**51.509**	**ug/L**	1.496	90475	0.127
	Zn	67		**ug/L**		42394	0.018
	Zn	68		**ug/L**		72861	0.098
>	Ge	74		**ug/L**		706589	706588.550
	As	75	**48.165**	**ug/L**	1.598	100374	0.140
	Se	77		**ug/L**		18602	0.010
	Se	82	**49.594**	**ug/L**	0.265	8867	0.013
	Kr	83		**ug/L**		188	0.000
	Sr	88	**52.775**	**ug/L**	1.351	1041687	2.716
	Y	89		**ug/L**		177	0.000
	Mo	98	**48.626**	**ug/L**	3.293	280323	0.731
	Ag	107	**50.486**	**ug/L**	1.968	450422	1.175
	Cd	111	**49.936**	**ug/L**	2.144	109874	0.286
	Cd	114		**ug/L**		256533	0.669
>	In	115		**ug/L**		383445	383444.935
	Sn	120	**51.027**	**ug/L**	3.521	454593	1.185
	Sb	121	**50.578**	**ug/L**	4.743	374758	0.975
	Sb	123		**ug/L**		300196	0.781
	Ba	135		**ug/L**		123733	0.174
	Ba	137	**47.140**	**ug/L**	2.609	217495	0.305
	Ho	165		**ug/L**		62	0.000
>	Lu	175		**ug/L**		712492	712492.172
	Tl	205	**48.646**	**ug/L**	2.295	1560159	2.181
	Pb	208	**53.615**	**ug/L**	1.198	2548182	3.576
	Bi	209		**ug/L**		611	0.001
	Th	232	**50.942**	**ug/L**	2.247	2852882	4.003
	U	238	**53.533**	**ug/L**	4.862	3218017	4.517

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	0.9999
Cr	52Linear Thru Zero	0.9999
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	0.9999
Fe	57Linear Thru Zero	0.9998
Co	59Linear Thru Zero	0.9999
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	0.9999
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	0.9997
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9997
U	238Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7	116.021				
	Be	9	111.645				
	B	11	115.797				
	Na	23	83.484				
	Mg	24	96.356				
	Al	27	104.812				
	P	31	98.984				
	K	39	88.656				
	Ca	43	97.392				
>	Sc	45		104.2			
	Ti	47	98.283				
	V	51	101.105				
	Cr	52	103.815				
	Cr	53					
	Mn	55	104.663				
	Fe	57	101.218				
	Co	59	99.574				
	Ni	60	100.355				
	Cu	63					
	Cu	65	98.961				
	Zn	66	103.018				
	Zn	67					
	Zn	68					
>	Ge	74		104.0			
	As	75	96.330				
	Se	77					
	Se	82	99.187				
	Kr	83					
	Sr	88	105.550				
	Y	89					
	Mo	98	97.253				
	Ag	107	100.973				
	Cd	111	99.871				
	Cd	114					
>	In	115		103.1			
	Sn	120	102.054				
	Sb	121	101.156				
	Sb	123					
	Ba	135					
	Ba	137	94.281				
	Ho	165					
>	Lu	175		105.8			
	Tl	205	97.292				
	Pb	208	107.229				
	Bi	209					
	Th	232	101.884				
	U	238	107.066				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 8	Li	7	CCV is out of limits (+/- 10%)
QC Std 8	Be	9	CCV is out of limits (+/- 10%)
QC Std 8	B	11	CCV is out of limits (+/- 10%)
QC Std 8	Na	23	CCV is out of limits (+/- 10%)
QC Std 8	K	39	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 9
Sample Date/Time: Wednesday, January 06, 2010 05:44:40
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100105\QC Std 9.231

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.019**	**ug/L**	9.018	68	0.000
	Be	9	**0.014**	**ug/L**	81.362	25	0.000
	B	11	**1.829**	**ug/L**	24.852	1909	0.001
	Na	23	**1.243**	**ug/L**	81.377	49754	0.009
	Mg	24	**1.786**	**ug/L**	44.036	12339	0.008
	Al	27	**1.707**	**ug/L**	51.795	20015	0.011
	P	31	**3.091**	**ug/L**	60.581	15086	0.001
	K	39	**-7.998**	**ug/L**	129.958	901363	-0.065
	Ca	43	**-1.781**	**ug/L**	94.387	577	-0.000
>	Sc	45		**ug/L**		1179747	1179746.835
	Ti	47	**0.016**	**ug/L**	172.655	692	0.000
	V	51	**0.031**	**ug/L**	789.955	25006	0.000
	Cr	52	**0.408**	**ug/L**	6.233	481	0.003
	Cr	53		**ug/L**		199577	-0.012
	Mn	55	**0.009**	**ug/L**	117.223	1982	0.000
	Fe	57	**-0.591**	**ug/L**	195.715	7909	-0.000
	Co	59	**0.006**	**ug/L**	57.300	291	0.000
	Ni	60	**0.008**	**ug/L**	112.825	147	0.000
	Cu	63		**ug/L**		803	0.000
	Cu	65	**0.004**	**ug/L**	322.848	416	0.000
	Zn	66	**-0.015**	**ug/L**	186.073	399	-0.000
	Zn	67		**ug/L**		28499	-0.002
	Zn	68		**ug/L**		3237	-0.000
>	Ge	74		**ug/L**		706392	706391.856
	As	75	**0.246**	**ug/L**	45.518	1719	0.001
	Se	77		**ug/L**		11761	0.001
	Se	82	**0.079**	**ug/L**	92.425	-56	0.000
	Kr	83		**ug/L**		172	-0.000
	Sr	88	**0.012**	**ug/L**	56.479	707	0.001
	Y	89		**ug/L**		103	0.000
	Mo	98	**0.073**	**ug/L**	19.977	602	0.001
	Ag	107	**0.012**	**ug/L**	30.298	183	0.000
	Cd	111	**0.008**	**ug/L**	65.543	54	0.000
	Cd	114		**ug/L**		102	0.000
>	In	115		**ug/L**		387955	387954.923
	Sn	120	**0.083**	**ug/L**	13.742	1308	0.002
	Sb	121	**0.404**	**ug/L**	21.453	3958	0.008
	Sb	123		**ug/L**		3135	0.006
	Ba	135		**ug/L**		69	0.000
	Ba	137	**0.009**	**ug/L**	49.234	118	0.000
	Ho	165		**ug/L**		32	-0.000
>	Lu	175		**ug/L**		719830	719829.552
	Tl	205	**0.422**	**ug/L**	14.386	19674	0.019
	Pb	208	**0.014**	**ug/L**	29.799	1318	0.001
	Bi	209		**ug/L**		85	-0.000
	Th	232	**0.086**	**ug/L**	14.231	6112	0.007
	U	238	**0.019**	**ug/L**	13.266	1808	0.002

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	0.9999
Cr	52Linear Thru Zero	0.9999
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	0.9999
Fe	57Linear Thru Zero	0.9998
Co	59Linear Thru Zero	0.9999
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	0.9999
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	0.9997
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9997
U	238Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		104.6			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		104.0			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		104.4			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		106.9			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 8
Sample Date/Time: Wednesday, January 06, 2010 06:09:23
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100105\QC Std 8.235

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**56.457**	ug/L	3.171	67976	0.060
	Be	9	**55.166**	ug/L	1.696	29571	0.026
	B	11	**108.294**	ug/L	2.248	67556	0.059
	Na	23	**4072.786**	ug/L	5.230	32802261	28.894
	Mg	24	**4946.507**	ug/L	3.378	23683421	20.868
	Al	27	**4887.472**	ug/L	5.290	35192553	31.032
	P	31	**4848.151**	ug/L	0.902	2415908	2.118
	K	39	**4569.128**	ug/L	4.483	42884418	36.950
	Ca	43	**4852.410**	ug/L	0.769	97071	0.085
>	Sc	45		ug/L		1134482	1134481.762
	Ti	47	**48.228**	ug/L	0.704	54078	0.047
	V	51	**50.302**	ug/L	4.652	604329	0.512
	Cr	52	**51.781**	ug/L	4.203	470918	0.418
	Cr	53		ug/L		255851	0.044
	Mn	55	**52.485**	ug/L	1.030	720577	0.634
	Fe	57	**5155.138**	ug/L	1.021	1319862	1.157
	Co	59	**50.269**	ug/L	1.399	503663	0.444
	Ni	60	**50.320**	ug/L	0.701	111892	0.099
	Cu	63		ug/L		256896	0.226
	Cu	65	**49.809**	ug/L	1.725	128416	0.113
	Zn	66	**50.745**	ug/L	1.384	86235	0.126
	Zn	67		ug/L		41246	0.018
	Zn	68		ug/L		70214	0.098
>	Ge	74		ug/L		683685	683684.945
	As	75	**48.535**	ug/L	1.320	97845	0.141
	Se	77		ug/L		20205	0.014
	Se	82	**49.575**	ug/L	2.467	8574	0.013
	Kr	83		ug/L		192	0.000
	Sr	88	**53.221**	ug/L	1.796	1001714	2.738
	Y	89		ug/L		180	0.000
	Mo	98	**49.237**	ug/L	2.612	270730	0.740
	Ag	107	**50.160**	ug/L	3.268	426789	1.167
	Cd	111	**48.906**	ug/L	2.465	102676	0.281
	Cd	114		ug/L		241626	0.661
>	In	115		ug/L		365732	365731.561
	Sn	120	**51.016**	ug/L	3.600	433437	1.184
	Sb	121	**50.888**	ug/L	4.996	359561	0.981
	Sb	123		ug/L		284968	0.777
	Ba	135		ug/L		119260	0.171
	Ba	137	**46.834**	ug/L	2.117	211251	0.303
	Ho	165		ug/L		67	0.000
>	Lu	175		ug/L		696509	696508.639
	Tl	205	**47.777**	ug/L	0.740	1497990	2.142
	Pb	208	**52.311**	ug/L	1.864	2430448	3.489
	Bi	209		ug/L		543	0.001
	Th	232	**49.505**	ug/L	2.495	2709900	3.890
	U	238	**51.262**	ug/L	0.063	3013519	4.326

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	0.9999
Cr	52	Linear Thru Zero	0.9999
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Fe	57	Linear Thru Zero	0.9998
Co	59	Linear Thru Zero	0.9999
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	0.9999
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9997
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9997
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7	112.914				
	Be	9	110.332				
	B	11	108.294				
	Na	23	81.456				
	Mg	24	98.930				
	Al	27	96.782				
	P	31	96.963				
	K	39	91.383				
	Ca	43	97.048				
>	Sc	45		100.6			
	Ti	47	96.457				
	V	51	100.605				
	Cr	52	103.563				
	Cr	53					
	Mn	55	104.970				
	Fe	57	103.103				
	Co	59	100.537				
	Ni	60	100.640				
	Cu	63					
	Cu	65	99.619				
	Zn	66	101.490				
	Zn	67					
	Zn	68					
>	Ge	74		100.7			
	As	75	97.070				
	Se	77					
	Se	82	99.150				
	Kr	83					
	Sr	88	106.442				
	Y	89					
	Mo	98	98.474				
	Ag	107	100.320				
	Cd	111	97.811				
	Cd	114					
>	In	115		98.4			
	Sn	120	102.031				
	Sb	121	101.776				
	Sb	123					
	Ba	135					
	Ba	137	93.668				
	Ho	165					
>	Lu	175		103.5			
	Tl	205	95.554				
	Pb	208	104.623				
	Bi	209					
	Th	232	99.011				
	U	238	102.524				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 8	Li	7	CCV is out of limits (+/- 10%)
QC Std 8	Be	9	CCV is out of limits (+/- 10%)
QC Std 8	Na	23	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 9
Sample Date/Time: Wednesday, January 06, 2010 06:15:32
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100105\QC Std 9.236

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	0.014	ug/L	29.158	60	0.000
	Be	9	0.001	ug/L	793.442	17	0.000
	B	11	1.689	ug/L	24.022	1764	0.001
	Na	23	0.725	ug/L	79.567	44068	0.005
	Mg	24	1.026	ug/L	8.230	8336	0.004
	Al	27	1.092	ug/L	24.723	15008	0.007
	P	31	1.371	ug/L	115.408	13747	0.001
	K	39	-7.890	ug/L	51.870	875734	-0.064
	Ca	43	-3.371	ug/L	57.558	527	-0.000
>	Sc	45		ug/L		1143352	1143351.633
	Ti	47	0.020	ug/L	84.230	675	0.000
	V	51	-0.051	ug/L	1102.292	23309	-0.001
	Cr	52	0.544	ug/L	10.588	1722	0.004
	Cr	53		ug/L		205655	-0.001
	Mn	55	0.006	ug/L	58.725	1884	0.000
	Fe	57	-0.448	ug/L	65.507	7706	-0.000
	Co	59	-0.001	ug/L	273.959	209	-0.000
	Ni	60	0.002	ug/L	322.801	130	0.000
	Cu	63		ug/L		841	0.000
	Cu	65	-0.002	ug/L	282.075	386	-0.000
	Zn	66	-0.010	ug/L	100.497	398	-0.000
	Zn	67		ug/L		27444	-0.002
	Zn	68		ug/L		3164	-0.000
>	Ge	74		ug/L		692312	692312.103
	As	75	0.220	ug/L	27.671	1630	0.001
	Se	77		ug/L		13477	0.003
	Se	82	-0.029	ug/L	226.114	-74	-0.000
	Kr	83		ug/L		189	0.000
	Sr	88	0.006	ug/L	49.367	561	0.000
	Y	89		ug/L		107	0.000
	Mo	98	0.069	ug/L	27.096	563	0.001
	Ag	107	0.007	ug/L	11.280	130	0.000
	Cd	111	0.006	ug/L	25.337	48	0.000
	Cd	114		ug/L		77	0.000
>	In	115		ug/L		375787	375786.831
	Sn	120	0.076	ug/L	26.582	1210	0.002
	Sb	121	0.406	ug/L	26.377	3845	0.008
	Sb	123		ug/L		3088	0.006
	Ba	135		ug/L		57	0.000
	Ba	137	0.006	ug/L	30.686	100	0.000
	Ho	165		ug/L		21	-0.000
>	Lu	175		ug/L		689994	689994.495
	Tl	205	0.224	ug/L	17.893	12732	0.010
	Pb	208	0.010	ug/L	8.903	1038	0.001
	Bi	209		ug/L		77	-0.000
	Th	232	0.083	ug/L	20.527	5694	0.007
	U	238	0.015	ug/L	24.854	1470	0.001

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	0.9999
Cr	52Linear Thru Zero	0.9999
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	0.9999
Fe	57Linear Thru Zero	0.9998
Co	59Linear Thru Zero	0.9999
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	0.9999
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	0.9997
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9997
U	238Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		101.4			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		101.9			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		101.1			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		102.5			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202004440
Sample Date/Time: Wednesday, January 06, 2010 06:21:39
Sample Type:
Sample Description: LANL 6020 MB
Number of Replicates: 3
Batch ID: 936815|1|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100105\1202004440.237

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.087**	ug/L	19.960	143	0.000
	Be	9	**0.001**	ug/L	1931.108	17	0.000
	B	11	**0.811**	ug/L	17.886	1169	0.000
	Na	23	**5.312**	ug/L	24.682	78215	0.038
	Mg	24	**0.662**	ug/L	48.001	6335	0.003
	Al	27	**8.580**	ug/L	15.401	66825	0.054
	P	31	**3.818**	ug/L	36.636	14422	0.002
	K	39	**9.320**	ug/L	9.669	996591	0.075
	Ca	43	**18.110**	ug/L	3.357	921	0.000
>	Sc	45		ug/L		1100890	1100889.686
	Ti	47	**0.389**	ug/L	10.959	1047	0.000
	V	51	**-2.239**	ug/L	106.796	-2187	-0.023
	Cr	52	**1.677**	ug/L	7.781	11723	0.014
	Cr	53		ug/L		525105	0.296
	Mn	55	**0.220**	ug/L	5.010	4664	0.003
	Fe	57	**6.264**	ug/L	10.341	9076	0.001
	Co	59	**-0.005**	ug/L	20.214	161	-0.000
	Ni	60	**0.052**	ug/L	17.611	232	0.000
	Cu	63		ug/L		1153	0.000
	Cu	65	**0.068**	ug/L	12.415	547	0.000
	Zn	66	**0.669**	ug/L	3.304	1493	0.002
	Zn	67		ug/L		127802	0.151
	Zn	68		ug/L		9133	0.009
>	Ge	74		ug/L		661625	661625.411
	As	75	**1.276**	ug/L	37.418	3587	0.004
	Se	77		ug/L		38218	0.042
	Se	82	**0.024**	ug/L	231.363	-61	0.000
	Kr	83		ug/L		186	0.000
	Sr	88	**0.024**	ug/L	8.665	895	0.001
	Y	89		ug/L		136	0.000
	Mo	98	**0.013**	ug/L	31.923	241	0.000
	Ag	107	**0.001**	ug/L	41.940	80	0.000
	Cd	111	**0.005**	ug/L	133.490	43	0.000
	Cd	114		ug/L		38	-0.000
>	In	115		ug/L		365018	365017.622
	Sn	120	**0.113**	ug/L	34.367	1487	0.003
	Sb	121	**0.136**	ug/L	46.450	1842	0.003
	Sb	123		ug/L		1495	0.002
	Ba	135		ug/L		67	0.000
	Ba	137	**0.004**	ug/L	28.549	95	0.000
	Ho	165		ug/L		28	-0.000
>	Lu	175		ug/L		688362	688362.226
	Tl	205	**-0.003**	ug/L	302.091	5698	-0.000
	Pb	208	**0.014**	ug/L	7.997	1261	0.001
	Bi	209		ug/L		102	0.000
	Th	232	**0.050**	ug/L	24.315	3911	0.004
	U	238	**-0.003**	ug/L	12.098	417	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	0.9999
Cr	52	Linear Thru Zero	0.9999
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Fe	57	Linear Thru Zero	0.9998
Co	59	Linear Thru Zero	0.9999
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	0.9999
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9997
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9997
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		97.6			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		97.4			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		98.2			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		102.3			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202004441
Sample Date/Time: Wednesday, January 06, 2010 06:27:46
Sample Type:
Sample Description: LANL 6020 LCS
Number of Replicates: 3
Batch ID: 936815|1|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100105\1202004441.238

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**67.297**	ug/L	5.668	78666	0.071
	Be	9	**64.895**	ug/L	1.622	33778	0.031
	B	11	**132.641**	ug/L	3.076	80216	0.072
	Na	23	**1908.331**	ug/L	4.339	14952889	13.539
	Mg	24	**2141.375**	ug/L	5.345	9955420	9.034
	Al	27	**2066.968**	ug/L	2.359	14467104	13.124
	P	31	**1921.893**	ug/L	2.775	937643	0.840
	K	39	**1911.173**	ug/L	2.723	17945000	15.456
	Ca	43	**2071.561**	ug/L	1.965	40573	0.036
>	Sc	45		ug/L		1101821	1101820.929
	Ti	47	**45.545**	ug/L	1.207	49637	0.044
	V	51	**46.855**	ug/L	5.413	548504	0.477
	Cr	52	**55.093**	ug/L	1.017	487081	0.445
	Cr	53		ug/L		561184	0.328
	Mn	55	**54.746**	ug/L	0.282	729815	0.661
	Fe	57	**2278.010**	ug/L	0.393	570625	0.511
	Co	59	**52.087**	ug/L	0.410	506909	0.460
	Ni	60	**52.858**	ug/L	2.074	114151	0.103
	Cu	63		ug/L		265250	0.240
	Cu	65	**52.880**	ug/L	2.358	132404	0.120
	Zn	66	**52.134**	ug/L	2.441	86503	0.129
	Zn	67		ug/L		139646	0.167
	Zn	68		ug/L		75358	0.108
>	Ge	74		ug/L		667524	667524.192
	As	75	**51.348**	ug/L	1.306	101013	0.150
	Se	77		ug/L		43137	0.049
	Se	82	**51.687**	ug/L	1.278	8733	0.013
	Kr	83		ug/L		213	0.000
	Sr	88	**54.253**	ug/L	3.033	1013719	2.792
	Y	89		ug/L		171	0.000
	Mo	98	**51.565**	ug/L	0.237	281615	0.775
	Ag	107	**52.656**	ug/L	3.633	444774	1.225
	Cd	111	**50.787**	ug/L	0.966	105824	0.291
	Cd	114		ug/L		244325	0.673
>	In	115		ug/L		363115	363115.160
	Sn	120	**53.870**	ug/L	0.692	454597	1.251
	Sb	121	**57.191**	ug/L	1.531	401349	1.103
	Sb	123		ug/L		312769	0.860
	Ba	135		ug/L		119326	0.177
	Ba	137	**48.123**	ug/L	4.723	209819	0.312
	Ho	165		ug/L		69	0.000
>	Lu	175		ug/L		673774	673773.975
	Tl	205	**48.445**	ug/L	3.649	1468203	2.172
	Pb	208	**56.012**	ug/L	5.752	2514522	3.736
	Bi	209		ug/L		1891817	2.810
	Th	232	**51.578**	ug/L	4.943	2728988	4.053
	U	238	**54.529**	ug/L	2.518	3099711	4.601

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	0.9999
Cr	52Linear Thru Zero	0.9999
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	0.9999
Fe	57Linear Thru Zero	0.9998
Co	59Linear Thru Zero	0.9999
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	0.9999
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	0.9997
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9997
U	238Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		97.7			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		98.3			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		97.7			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		100.1			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202004442
Sample Date/Time: Wednesday, January 06, 2010 06:40:00
Sample Type:
Sample Description: LANL 6020 DUP
Number of Replicates: 3
Batch ID: 936815|1|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100105\1202004442.240

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.192**	ug/L	6.460	279	0.000
	Be	9	**-0.002**	ug/L	386.217	16	-0.000
	B	11	**25.791**	ug/L	4.755	16974	0.014
	Na	23	**75.743**	ug/L	6.570	660963	0.537
	Mg	24	**8.387**	ug/L	14.666	44403	0.035
	Al	27	**22.830**	ug/L	14.716	175421	0.145
	P	31	**3.196**	ug/L	44.422	14853	0.001
	K	39	**104.617**	ug/L	13.242	1941910	0.846
	Ca	43	**40.945**	ug/L	9.197	1433	0.001
>	Sc	45		ug/L		1158850	1158849.869
	Ti	47	**0.954**	ug/L	7.580	1740	0.001
	V	51	**-4.056**	ug/L	40.008	-23699	-0.041
	Cr	52	**2.319**	ug/L	9.464	18333	0.019
	Cr	53		ug/L		541413	0.286
	Mn	55	**1.015**	ug/L	3.785	16020	0.012
	Fe	57	**22.916**	ug/L	8.222	13877	0.005
	Co	59	**0.010**	ug/L	3.119	322	0.000
	Ni	60	**0.190**	ug/L	1.175	559	0.000
	Cu	63		ug/L		6433	0.005
	Cu	65	**0.988**	ug/L	4.622	2992	0.002
	Zn	66	**1.098**	ug/L	4.174	2304	0.003
	Zn	67		ug/L		125297	0.138
	Zn	68		ug/L		9904	0.010
>	Ge	74		ug/L		694390	694390.156
	As	75	**1.111**	ug/L	11.116	3438	0.003
	Se	77		ug/L		38989	0.040
	Se	82	**0.008**	ug/L	2347.245	-67	0.000
	Kr	83		ug/L		197	0.000
	Sr	88	**0.186**	ug/L	2.833	3950	0.010
	Y	89		ug/L		542	0.001
	Mo	98	**0.008**	ug/L	18.596	210	0.000
	Ag	107	**0.006**	ug/L	40.815	125	0.000
	Cd	111	**0.002**	ug/L	440.940	38	0.000
	Cd	114		ug/L		55	0.000
>	In	115		ug/L		366038	366037.535
	Sn	120	**0.074**	ug/L	13.959	1161	0.002
	Sb	121	**-0.035**	ug/L	20.182	638	-0.001
	Sb	123		ug/L		535	-0.001
	Ba	135		ug/L		859	0.001
	Ba	137	**0.326**	ug/L	5.183	1538	0.002
	Ho	165		ug/L		61	0.000
>	Lu	175		ug/L		692940	692939.979
	Tl	205	**0.113**	ug/L	7.681	9343	0.005
	Pb	208	**0.093**	ug/L	1.673	4921	0.006
	Bi	209		ug/L		233	0.000
	Th	232	**0.017**	ug/L	4.818	2136	0.001
	U	238	**-0.001**	ug/L	30.560	524	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	0.9999
Cr	52	Linear Thru Zero	0.9999
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Fe	57	Linear Thru Zero	0.9998
Co	59	Linear Thru Zero	0.9999
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	0.9999
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9997
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9997
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		102.7			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		102.2			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		98.5			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		102.9			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202004443
Sample Date/Time: Wednesday, January 06, 2010 06:46:08
Sample Type:
Sample Description: LANL 6020 MS
Number of Replicates: 3
Batch ID: 936815|1|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100105\1202004443.241

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**72.780**	**ug/L**	1.247	88498	0.077
	Be	9	**68.675**	**ug/L**	1.592	37189	0.032
	B	11	**167.705**	**ug/L**	2.831	105329	0.091
	Na	23	**1918.939**	**ug/L**	1.762	15644155	13.614
	Mg	24	**2283.007**	**ug/L**	11.091	11038291	9.631
	Al	27	**2201.900**	**ug/L**	3.577	16034728	13.980
	P	31	**1921.118**	**ug/L**	2.250	975111	0.839
	K	39	**2032.589**	**ug/L**	6.290	19793044	16.438
	Ca	43	**2136.025**	**ug/L**	3.030	43512	0.037
>	Sc	45		**ug/L**		1146402	1146402.225
	Ti	47	**46.839**	**ug/L**	2.005	53092	0.046
	V	51	**56.728**	**ug/L**	2.530	685906	0.577
	Cr	52	**56.780**	**ug/L**	3.010	522340	0.459
	Cr	53		**ug/L**		590220	0.334
	Mn	55	**57.549**	**ug/L**	1.848	798077	0.695
	Fe	57	**2410.911**	**ug/L**	2.195	627820	0.541
	Co	59	**54.639**	**ug/L**	2.442	553171	0.482
	Ni	60	**54.296**	**ug/L**	2.310	121990	0.106
	Cu	63		**ug/L**		290534	0.253
	Cu	65	**55.421**	**ug/L**	1.515	144357	0.126
	Zn	66	**54.559**	**ug/L**	2.057	92704	0.135
	Zn	67		**ug/L**		152207	0.181
	Zn	68		**ug/L**		80612	0.113
>	Ge	74		**ug/L**		683826	683825.713
	As	75	**82.919**	**ug/L**	1.420	166372	0.242
	Se	77		**ug/L**		41150	0.044
	Se	82	**21.479**	**ug/L**	5.248	3677	0.005
	Kr	83		**ug/L**		231	0.000
	Sr	88	**56.332**	**ug/L**	1.817	1069539	2.899
	Y	89		**ug/L**		618	0.001
	Mo	98	**52.327**	**ug/L**	1.614	290273	0.787
	Ag	107	**55.821**	**ug/L**	1.631	479146	1.299
	Cd	111	**11.402**	**ug/L**	1.390	24161	0.065
	Cd	114		**ug/L**		53912	0.146
>	In	115		**ug/L**		368839	368839.341
	Sn	120	**55.347**	**ug/L**	0.495	474450	1.285
	Sb	121	**213.875**	**ug/L**	1.414	1522318	4.125
	Sb	123		**ug/L**		1232007	3.338
	Ba	135		**ug/L**		130349	0.184
	Ba	137	**49.995**	**ug/L**	0.488	229929	0.324
	Ho	165		**ug/L**		454	0.001
>	Lu	175		**ug/L**		710029	710028.646
	Tl	205	**92.881**	**ug/L**	2.525	2963729	4.165
	Pb	208	**46.269**	**ug/L**	2.199	2191272	3.086
	Bi	209		**ug/L**		922	0.001
	Th	232	**53.657**	**ug/L**	1.572	2994231	4.216
	U	238	**55.681**	**ug/L**	0.700	3336612	4.699

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	0.9999
Cr	52	Linear Thru Zero	0.9999
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Fe	57	Linear Thru Zero	0.9998
Co	59	Linear Thru Zero	0.9999
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	0.9999
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9997
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9997
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		101.6			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		100.7			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		99.2			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		105.5			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202004444
Sample Date/Time: Wednesday, January 06, 2010 06:52:15
Sample Type:
Sample Description: LANL 6020 SDILT
Number of Replicates: 3
Batch ID: 936815|5|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100105\1202004444.242

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.031**	**ug/L**	14.638	84	0.000
	Be	9	**0.012**	**ug/L**	84.155	24	0.000
	B	11	**6.487**	**ug/L**	13.056	4893	0.004
	Na	23	**14.936**	**ug/L**	21.456	164288	0.106
	Mg	24	**1.510**	**ug/L**	22.307	11004	0.006
	Al	27	**5.444**	**ug/L**	12.156	48081	0.035
	P	31	**6.072**	**ug/L**	40.799	16601	0.003
	K	39	**23.266**	**ug/L**	3.227	1200401	0.188
	Ca	43	**8.244**	**ug/L**	38.235	783	0.000
>	Sc	45		**ug/L**		1179100	1179100.233
	Ti	47	**0.310**	**ug/L**	39.289	1030	0.000
	V	51	**-0.474**	**ug/L**	45.613	18938	-0.005
	Cr	52	**0.816**	**ug/L**	14.042	4367	0.007
	Cr	53		**ug/L**		298050	0.071
	Mn	55	**0.215**	**ug/L**	1.097	4922	0.003
	Fe	57	**2.779**	**ug/L**	26.910	8800	0.001
	Co	59	**-0.000**	**ug/L**	1150.833	225	-0.000
	Ni	60	**0.044**	**ug/L**	40.580	230	0.000
	Cu	63		**ug/L**		1937	0.001
	Cu	65	**0.168**	**ug/L**	8.438	854	0.000
	Zn	66	**0.853**	**ug/L**	2.649	1918	0.002
	Zn	67		**ug/L**		46002	0.023
	Zn	68		**ug/L**		5769	0.003
>	Ge	74		**ug/L**		707141	707141.318
	As	75	**0.505**	**ug/L**	30.387	2252	0.001
	Se	77		**ug/L**		19642	0.012
	Se	82	**0.052**	**ug/L**	114.043	-61	0.000
	Kr	83		**ug/L**		173	-0.000
	Sr	88	**0.038**	**ug/L**	12.406	1191	0.002
	Y	89		**ug/L**		184	0.000
	Mo	98	**0.026**	**ug/L**	39.422	324	0.000
	Ag	107	**0.002**	**ug/L**	77.746	91	0.000
	Cd	111	**-0.005**	**ug/L**	63.986	22	-0.000
	Cd	114		**ug/L**		43	-0.000
>	In	115		**ug/L**		377966	377965.781
	Sn	120	**0.015**	**ug/L**	22.529	679	0.000
	Sb	121	**0.090**	**ug/L**	46.340	1572	0.002
	Sb	123		**ug/L**		1264	0.001
	Ba	135		**ug/L**		217	0.000
	Ba	137	**0.068**	**ug/L**	8.709	384	0.000
	Ho	165		**ug/L**		35	0.000
>	Lu	175		**ug/L**		697102	697101.883
	Tl	205	**1.431**	**ug/L**	21.193	50620	0.064
	Pb	208	**0.019**	**ug/L**	4.441	1467	0.001
	Bi	209		**ug/L**		128	0.000
	Th	232	**0.029**	**ug/L**	28.753	2769	0.002
	U	238	**-0.001**	**ug/L**	290.921	576	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	0.9999
Cr	52	Linear Thru Zero	0.9999
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Fe	57	Linear Thru Zero	0.9998
Co	59	Linear Thru Zero	0.9999
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	0.9999
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9997
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9997
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		104.5			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		104.1			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		101.7			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		103.5			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 8
Sample Date/Time: Wednesday, January 06, 2010 06:58:22
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100105\QC Std 8.243

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**55.335**	**ug/L**	6.687	67887	0.059
	Be	9	**53.902**	**ug/L**	4.281	29455	0.025
	B	11	**110.879**	**ug/L**	2.781	70534	0.060
	Na	23	**4275.968**	**ug/L**	2.928	35157295	30.336
	Mg	24	**5041.200**	**ug/L**	9.639	24591635	21.267
	Al	27	**5663.173**	**ug/L**	3.600	41608874	35.957
	P	31	**4978.687**	**ug/L**	3.721	2529186	2.175
	K	39	**4604.165**	**ug/L**	8.868	44059334	37.234
	Ca	43	**4914.997**	**ug/L**	0.931	100270	0.086
>	Sc	45		**ug/L**		1157271	1157271.265
	Ti	47	**49.264**	**ug/L**	2.839	56321	0.048
	V	51	**51.186**	**ug/L**	2.360	627047	0.521
	Cr	52	**52.132**	**ug/L**	2.028	483799	0.421
	Cr	53		**ug/L**		239096	0.025
	Mn	55	**53.350**	**ug/L**	3.806	746728	0.644
	Fe	57	**5149.908**	**ug/L**	2.101	1344658	1.155
	Co	59	**50.238**	**ug/L**	3.229	513444	0.444
	Ni	60	**50.171**	**ug/L**	2.246	113789	0.098
	Cu	63		**ug/L**		260532	0.225
	Cu	65	**49.868**	**ug/L**	2.399	131138	0.113
	Zn	66	**51.747**	**ug/L**	2.392	89712	0.128
	Zn	67		**ug/L**		40926	0.017
	Zn	68		**ug/L**		72457	0.099
>	Ge	74		**ug/L**		697527	697526.813
	As	75	**47.978**	**ug/L**	2.925	98700	0.140
	Se	77		**ug/L**		17859	0.010
	Se	82	**50.078**	**ug/L**	1.621	8839	0.013
	Kr	83		**ug/L**		163	-0.000
	Sr	88	**53.531**	**ug/L**	1.039	1037512	2.754
	Y	89		**ug/L**		163	0.000
	Mo	98	**48.867**	**ug/L**	1.942	276713	0.735
	Ag	107	**50.694**	**ug/L**	0.205	444205	1.180
	Cd	111	**49.234**	**ug/L**	3.009	106368	0.282
	Cd	114		**ug/L**		249903	0.664
>	In	115		**ug/L**		376521	376521.250
	Sn	120	**51.846**	**ug/L**	2.176	453672	1.204
	Sb	121	**51.076**	**ug/L**	4.358	371701	0.985
	Sb	123		**ug/L**		293085	0.777
	Ba	135		**ug/L**		124611	0.179
	Ba	137	**48.600**	**ug/L**	2.438	219427	0.315
	Ho	165		**ug/L**		53	0.000
>	Lu	175		**ug/L**		697192	697191.987
	Tl	205	**47.819**	**ug/L**	1.040	1500875	2.144
	Pb	208	**53.178**	**ug/L**	1.843	2473095	3.547
	Bi	209		**ug/L**		578	0.001
	Th	232	**50.380**	**ug/L**	2.875	2760652	3.959
	U	238	**52.973**	**ug/L**	3.857	3115941	4.470

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	0.9999
Cr	52	Linear Thru Zero	0.9999
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Fe	57	Linear Thru Zero	0.9998
Co	59	Linear Thru Zero	0.9999
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	0.9999
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9997
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9997
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7	110.670				
	Be	9	107.803				
	B	11	110.879				
	Na	23	85.519				
	Mg	24	100.824				
	Al	27	112.142				
	P	31	99.574				
	K	39	92.083				
	Ca	43	98.300				
>	Sc	45		102.6			
	Ti	47	98.528				
	V	51	102.371				
	Cr	52	104.264				
	Cr	53					
	Mn	55	106.699				
	Fe	57	102.998				
	Co	59	100.477				
	Ni	60	100.342				
	Cu	63					
	Cu	65	99.736				
	Zn	66	103.493				
	Zn	67					
	Zn	68					
>	Ge	74		102.7			
	As	75	95.956				
	Se	77					
	Se	82	100.155				
	Kr	83					
	Sr	88	107.061				
	Y	89					
	Mo	98	97.733				
	Ag	107	101.387				
	Cd	111	98.467				
	Cd	114					
>	In	115		101.3			
	Sn	120	103.692				
	Sb	121	102.151				
	Sb	123					
	Ba	135					
	Ba	137	97.201				
	Ho	165					
>	Lu	175		103.6			
	Tl	205	95.637				
	Pb	208	106.356				
	Bi	209					
	Th	232	100.760				
	U	238	105.945				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 8	Li	7	CCV is out of limits (+/- 10%)
QC Std 8	B	11	CCV is out of limits (+/- 10%)
QC Std 8	Na	23	CCV is out of limits (+/- 10%)
QC Std 8	Al	27	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 9
Sample Date/Time: Wednesday, January 06, 2010 07:04:30
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100105\QC Std 9.244

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.005**	ug/L	76.445	50	0.000
	Be	9	**0.013**	ug/L	41.543	25	0.000
	B	11	**1.850**	ug/L	32.216	1900	0.001
	Na	23	**1.008**	ug/L	59.397	47412	0.007
	Mg	24	**1.672**	ug/L	62.079	11672	0.007
	Al	27	**0.865**	ug/L	72.793	13674	0.005
	P	31	**2.413**	ug/L	45.653	14579	0.001
	K	39	**-2.269**	ug/L	285.727	947858	-0.018
	Ca	43	**-2.873**	ug/L	43.114	548	-0.000
>	Sc	45		ug/L		1167703	1167702.984
	Ti	47	**0.015**	ug/L	217.745	684	0.000
	V	51	**-0.001**	ug/L	81888.136	24421	-0.000
	Cr	52	**0.430**	ug/L	10.868	685	0.003
	Cr	53		ug/L		198937	-0.011
	Mn	55	**0.005**	ug/L	40.924	1910	0.000
	Fe	57	**-0.849**	ug/L	12.557	7765	-0.000
	Co	59	**0.002**	ug/L	33.598	243	0.000
	Ni	60	**0.003**	ug/L	74.277	134	0.000
	Cu	63		ug/L		805	0.000
	Cu	65	**-0.012**	ug/L	62.000	369	-0.000
	Zn	66	**-0.019**	ug/L	44.561	387	-0.000
	Zn	67		ug/L		27919	-0.002
	Zn	68		ug/L		3263	-0.000
>	Ge	74		ug/L		699434	699433.570
	As	75	**0.179**	ug/L	119.175	1566	0.001
	Se	77		ug/L		11770	0.001
	Se	82	**0.040**	ug/L	313.376	-62	0.000
	Kr	83		ug/L		169	-0.000
	Sr	88	**0.006**	ug/L	14.720	569	0.000
	Y	89		ug/L		109	0.000
	Mo	98	**0.071**	ug/L	28.316	590	0.001
	Ag	107	**0.011**	ug/L	16.933	168	0.000
	Cd	111	**0.010**	ug/L	51.410	57	0.000
	Cd	114		ug/L		84	0.000
>	In	115		ug/L		384281	384281.354
	Sn	120	**0.076**	ug/L	24.816	1235	0.002
	Sb	121	**0.421**	ug/L	23.316	4057	0.008
	Sb	123		ug/L		3336	0.007
	Ba	135		ug/L		64	0.000
	Ba	137	**0.004**	ug/L	7.112	95	0.000
	Ho	165		ug/L		31	-0.000
>	Lu	175		ug/L		716274	716273.529
	Tl	205	**0.656**	ug/L	15.265	27113	0.029
	Pb	208	**0.010**	ug/L	1.726	1100	0.001
	Bi	209		ug/L		77	-0.000
	Th	232	**0.083**	ug/L	16.691	5879	0.006
	U	238	**0.015**	ug/L	20.139	1521	0.001

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	0.9999
Cr	52Linear Thru Zero	0.9999
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	0.9999
Fe	57Linear Thru Zero	0.9998
Co	59Linear Thru Zero	0.9999
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	0.9999
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	0.9997
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9997
U	238Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		103.5			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		103.0			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		103.4			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		106.4			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 243554001
Sample Date/Time: Wednesday, January 06, 2010 07:10:38
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 936815|1|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100105\243554001.245

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.054**	ug/L	18.306	108	0.000
	Be	9	**-0.005**	ug/L	96.873	14	-0.000
	B	11	**0.765**	ug/L	3.412	1178	0.000
	Na	23	**4.537**	ug/L	6.627	74527	0.032
	Mg	24	**0.271**	ug/L	82.576	4667	0.001
	Al	27	**1.427**	ug/L	6.346	17344	0.009
	P	31	**3.524**	ug/L	57.650	14721	0.002
	K	39	**1.348**	ug/L	92.997	955252	0.011
	Ca	43	**14.483**	ug/L	15.069	878	0.000
>	Sc	45		ug/L		1135970	1135969.739
	Ti	47	**0.337**	ug/L	18.293	1023	0.000
	V	51	**-4.545**	ug/L	36.485	-29048	-0.046
	Cr	52	**1.117**	ug/L	12.708	6987	0.009
	Cr	53		ug/L		495557	0.255
	Mn	55	**0.181**	ug/L	11.828	4270	0.002
	Fe	57	**3.021**	ug/L	44.934	8537	0.001
	Co	59	**-0.001**	ug/L	86.008	204	-0.000
	Ni	60	**0.108**	ug/L	9.085	365	0.000
	Cu	63		ug/L		1259	0.000
	Cu	65	**0.072**	ug/L	5.174	575	0.000
	Zn	66	**0.738**	ug/L	3.652	1649	0.002
	Zn	67		ug/L		119760	0.134
	Zn	68		ug/L		8880	0.008
>	Ge	74		ug/L		679559	679559.426
	As	75	**1.389**	ug/L	9.480	3915	0.004
	Se	77		ug/L		33266	0.033
	Se	82	**0.071**	ug/L	120.431	-55	0.000
	Kr	83		ug/L		172	-0.000
	Sr	88	**0.028**	ug/L	4.293	976	0.001
	Y	89		ug/L		123	0.000
	Mo	98	**0.018**	ug/L	13.031	272	0.000
	Ag	107	**0.002**	ug/L	26.301	86	0.000
	Cd	111	**0.007**	ug/L	29.538	49	0.000
	Cd	114		ug/L		33	-0.000
>	In	115		ug/L		373186	373186.024
	Sn	120	**0.111**	ug/L	33.860	1505	0.003
	Sb	121	**0.142**	ug/L	42.172	1925	0.003
	Sb	123		ug/L		1559	0.002
	Ba	135		ug/L		96	0.000
	Ba	137	**0.018**	ug/L	24.771	155	0.000
	Ho	165		ug/L		30	-0.000
>	Lu	175		ug/L		685143	685143.220
	Tl	205	**0.182**	ug/L	6.120	11349	0.008
	Pb	208	**0.015**	ug/L	5.274	1287	0.001
	Bi	209		ug/L		87	-0.000
	Th	232	**0.064**	ug/L	27.296	4612	0.005
	U	238	**0.000**	ug/L	386.656	614	0.000

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	0.9999
Cr	52Linear Thru Zero	0.9999
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	0.9999
Fe	57Linear Thru Zero	0.9998
Co	59Linear Thru Zero	0.9999
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	0.9999
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	0.9997
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9997
U	238Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		100.7			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		100.1			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		100.4			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		101.8			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 243554002
Sample Date/Time: Wednesday, January 06, 2010 07:16:45
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 936815|1|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100105\243554002.246

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.040**	**ug/L**	26.528	92	0.000
	Be	9	**-0.002**	**ug/L**	155.176	16	-0.000
	B	11	**0.519**	**ug/L**	14.172	1039	0.000
	Na	23	**6.044**	**ug/L**	12.453	87938	0.043
	Mg	24	**0.670**	**ug/L**	31.929	6668	0.003
	Al	27	**5.278**	**ug/L**	8.549	45740	0.034
	P	31	**2.679**	**ug/L**	41.660	14502	0.001
	K	39	**-0.462**	**ug/L**	594.902	950969	-0.004
	Ca	43	**25.480**	**ug/L**	12.839	1113	0.000
>	Sc	45		**ug/L**		1151335	1151334.665
	Ti	47	**0.422**	**ug/L**	8.544	1132	0.000
	V	51	**-2.148**	**ug/L**	25.163	-1176	-0.022
	Cr	52	**1.269**	**ug/L**	11.417	8467	0.010
	Cr	53		**ug/L**		511530	0.263
	Mn	55	**0.226**	**ug/L**	3.254	4961	0.003
	Fe	57	**3.281**	**ug/L**	32.162	8720	0.001
	Co	59	**-0.003**	**ug/L**	48.186	191	-0.000
	Ni	60	**0.045**	**ug/L**	9.081	228	0.000
	Cu	63		**ug/L**		1412	0.001
	Cu	65	**0.101**	**ug/L**	13.573	659	0.000
	Zn	66	**0.974**	**ug/L**	5.898	2062	0.002
	Zn	67		**ug/L**		130662	0.149
	Zn	68		**ug/L**		9721	0.009
>	Ge	74		**ug/L**		684642	684641.861
	As	75	**1.285**	**ug/L**	26.891	3734	0.004
	Se	77		**ug/L**		34540	0.034
	Se	82	**0.168**	**ug/L**	52.336	-38	0.000
	Kr	83		**ug/L**		159	-0.000
	Sr	88	**0.069**	**ug/L**	1.134	1782	0.004
	Y	89		**ug/L**		148	0.000
	Mo	98	**0.000**	**ug/L**	587.051	173	0.000
	Ag	107	**0.001**	**ug/L**	117.098	82	0.000
	Cd	111	**-0.006**	**ug/L**	61.293	21	-0.000
	Cd	114		**ug/L**		30	-0.000
>	In	115		**ug/L**		374001	374001.241
	Sn	120	**0.074**	**ug/L**	2.574	1184	0.002
	Sb	121	**-0.008**	**ug/L**	132.647	848	-0.000
	Sb	123		**ug/L**		715	-0.000
	Ba	135		**ug/L**		164	0.000
	Ba	137	**0.052**	**ug/L**	14.628	311	0.000
	Ho	165		**ug/L**		26	-0.000
>	Lu	175		**ug/L**		702179	702178.748
	Tl	205	**0.081**	**ug/L**	1.063	8463	0.004
	Pb	208	**0.023**	**ug/L**	0.443	1694	0.002
	Bi	209		**ug/L**		98	-0.000
	Th	232	**0.017**	**ug/L**	16.666	2117	0.001
	U	238	**-0.006**	**ug/L**	2.694	253	-0.001

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	0.9999
Cr	52Linear Thru Zero	0.9999
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	0.9999
Fe	57Linear Thru Zero	0.9998
Co	59Linear Thru Zero	0.9999
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	0.9999
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	0.9997
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9997
U	238Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		102.1			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		100.8			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		100.6			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		104.3			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 243554003
Sample Date/Time: Wednesday, January 06, 2010 07:22:52
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 936815|1|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100105\243554003.247

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.095**	**ug/L**	4.184	161	0.000
	Be	9	**0.005**	**ug/L**	208.271	20	0.000
	B	11	**0.639**	**ug/L**	6.611	1122	0.000
	Na	23	**328.048**	**ug/L**	10.817	2736150	2.327
	Mg	24	**4.758**	**ug/L**	26.340	26692	0.020
	Al	27	**35.784**	**ug/L**	5.359	270541	0.227
	P	31	**6.064**	**ug/L**	34.401	16322	0.003
	K	39	**17.745**	**ug/L**	4.312	1128551	0.144
	Ca	43	**40.537**	**ug/L**	2.335	1426	0.001
>	Sc	45		**ug/L**		1159377	1159376.881
	Ti	47	**0.906**	**ug/L**	7.497	1688	0.001
	V	51	**-3.389**	**ug/L**	8.996	-15775	-0.034
	Cr	52	**1.569**	**ug/L**	8.701	11337	0.013
	Cr	53		**ug/L**		529608	0.276
	Mn	55	**4.087**	**ug/L**	1.617	59016	0.049
	Fe	57	**149.737**	**ug/L**	0.728	46875	0.034
	Co	59	**0.012**	**ug/L**	8.011	347	0.000
	Ni	60	**0.093**	**ug/L**	1.565	339	0.000
	Cu	63		**ug/L**		2854	0.002
	Cu	65	**0.350**	**ug/L**	1.578	1318	0.001
	Zn	66	**0.910**	**ug/L**	3.751	1991	0.002
	Zn	67		**ug/L**		140142	0.159
	Zn	68		**ug/L**		10172	0.010
>	Ge	74		**ug/L**		697980	697980.112
	As	75	**0.927**	**ug/L**	67.898	3077	0.003
	Se	77		**ug/L**		35320	0.035
	Se	82	**0.029**	**ug/L**	115.081	-64	0.000
	Kr	83		**ug/L**		176	-0.000
	Sr	88	**0.107**	**ug/L**	1.748	2583	0.006
	Y	89		**ug/L**		1313	0.003
	Mo	98	**0.017**	**ug/L**	15.332	276	0.000
	Ag	107	**0.003**	**ug/L**	23.023	101	0.000
	Cd	111	**0.003**	**ug/L**	64.608	42	0.000
	Cd	114		**ug/L**		70	0.000
>	In	115		**ug/L**		384999	384999.302
	Sn	120	**0.069**	**ug/L**	7.997	1175	0.002
	Sb	121	**-0.040**	**ug/L**	6.143	635	-0.001
	Sb	123		**ug/L**		497	-0.001
	Ba	135		**ug/L**		714	0.001
	Ba	137	**0.232**	**ug/L**	2.449	1173	0.002
	Ho	165		**ug/L**		112	0.000
>	Lu	175		**ug/L**		728869	728869.277
	Tl	205	**0.020**	**ug/L**	41.918	6786	0.001
	Pb	208	**0.064**	**ug/L**	1.565	3761	0.004
	Bi	209		**ug/L**		108	0.000
	Th	232	**0.019**	**ug/L**	4.487	2323	0.001
	U	238	**-0.004**	**ug/L**	22.102	424	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	0.9999
Cr	52	Linear Thru Zero	0.9999
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Fe	57	Linear Thru Zero	0.9998
Co	59	Linear Thru Zero	0.9999
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	0.9999
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9997
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9997
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		102.8			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		102.8			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		103.6			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		108.3			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 243554004
Sample Date/Time: Wednesday, January 06, 2010 07:29:00
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 936815|1|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100105\243554004.248

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.188**	**ug/L**	18.571	280	0.000
	Be	9	**0.008**	**ug/L**	136.178	22	0.000
	B	11	**0.372**	**ug/L**	9.265	973	0.000
	Na	23	**190.177**	**ug/L**	4.076	1634963	1.349
	Mg	24	**5.194**	**ug/L**	18.651	29364	0.022
	Al	27	**84.803**	**ug/L**	12.360	643277	0.538
	P	31	**4.761**	**ug/L**	28.746	15967	0.002
	K	39	**39.371**	**ug/L**	12.472	1357244	0.318
	Ca	43	**48.589**	**ug/L**	10.448	1621	0.001
>	Sc	45		**ug/L**		1182148	1182148.227
	Ti	47	**1.341**	**ug/L**	5.495	2222	0.001
	V	51	**-3.303**	**ug/L**	9.568	-15057	-0.034
	Cr	52	**1.294**	**ug/L**	10.181	8936	0.010
	Cr	53		**ug/L**		528967	0.266
	Mn	55	**8.376**	**ug/L**	2.448	121363	0.101
	Fe	57	**235.411**	**ug/L**	2.837	70508	0.053
	Co	59	**0.023**	**ug/L**	16.390	463	0.000
	Ni	60	**0.120**	**ug/L**	9.016	407	0.000
	Cu	63		**ug/L**		3107	0.002
	Cu	65	**0.441**	**ug/L**	14.127	1585	0.001
	Zn	66	**1.086**	**ug/L**	0.699	2273	0.003
	Zn	67		**ug/L**		136490	0.156
	Zn	68		**ug/L**		10191	0.010
>	Ge	74		**ug/L**		691114	691114.370
	As	75	**0.937**	**ug/L**	6.931	3071	0.003
	Se	77		**ug/L**		35364	0.035
	Se	82	**0.075**	**ug/L**	46.162	-55	0.000
	Kr	83		**ug/L**		171	-0.000
	Sr	88	**0.197**	**ug/L**	3.070	4344	0.010
	Y	89		**ug/L**		8447	0.022
	Mo	98	**0.030**	**ug/L**	12.798	349	0.000
	Ag	107	**0.003**	**ug/L**	44.622	102	0.000
	Cd	111	**0.015**	**ug/L**	47.097	67	0.000
	Cd	114		**ug/L**		52	0.000
>	In	115		**ug/L**		382498	382498.189
	Sn	120	**0.072**	**ug/L**	10.822	1194	0.002
	Sb	121	**-0.055**	**ug/L**	7.671	524	-0.001
	Sb	123		**ug/L**		427	-0.001
	Ba	135		**ug/L**		1718	0.002
	Ba	137	**0.607**	**ug/L**	1.938	2925	0.004
	Ho	165		**ug/L**		567	0.001
>	Lu	175		**ug/L**		724241	724241.223
	Tl	205	**0.010**	**ug/L**	62.099	6404	0.000
	Pb	208	**0.095**	**ug/L**	1.116	5236	0.006
	Bi	209		**ug/L**		118	0.000
	Th	232	**0.065**	**ug/L**	2.641	4929	0.005
	U	238	**0.001**	**ug/L**	26.381	699	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	0.9999
Cr	52	Linear Thru Zero	0.9999
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Fe	57	Linear Thru Zero	0.9998
Co	59	Linear Thru Zero	0.9999
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	0.9999
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9997
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9997
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		104.8			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		101.8			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		102.9			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		107.6			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Wednesday, January 06, 2010 07:35:08
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100105\QC Std 6.249

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**52.838**	**ug/L**	4.616	64928	0.056
	Be	9	**52.664**	**ug/L**	2.855	28767	0.025
	B	11	**108.254**	**ug/L**	9.009	68738	0.059
	Na	23	**4062.160**	**ug/L**	10.078	33306911	28.819
	Mg	24	**4822.193**	**ug/L**	11.615	23473833	20.343
	Al	27	**4875.906**	**ug/L**	11.013	35775855	30.958
	P	31	**4873.633**	**ug/L**	7.880	2471827	2.129
	K	39	**4882.811**	**ug/L**	7.592	46604984	39.487
	Ca	43	**4893.485**	**ug/L**	3.446	99739	0.086
>	Sc	45		**ug/L**		1156979	1156978.915
	Ti	47	**48.876**	**ug/L**	0.955	55898	0.048
	V	51	**51.478**	**ug/L**	4.147	630387	0.524
	Cr	52	**51.611**	**ug/L**	3.701	478595	0.417
	Cr	53		**ug/L**		248387	0.033
	Mn	55	**52.344**	**ug/L**	6.092	731748	0.632
	Fe	57	**5051.607**	**ug/L**	5.750	1317297	1.133
	Co	59	**49.264**	**ug/L**	4.098	502956	0.435
	Ni	60	**50.455**	**ug/L**	3.179	114360	0.099
	Cu	63		**ug/L**		265103	0.229
	Cu	65	**49.904**	**ug/L**	3.173	131134	0.113
	Zn	66	**50.925**	**ug/L**	4.397	88360	0.126
	Zn	67		**ug/L**		42976	0.020
	Zn	68		**ug/L**		71467	0.098
>	Ge	74		**ug/L**		698314	698313.507
	As	75	**48.859**	**ug/L**	1.356	100625	0.142
	Se	77		**ug/L**		17689	0.009
	Se	82	**49.331**	**ug/L**	2.891	8714	0.013
	Kr	83		**ug/L**		182	0.000
	Sr	88	**53.394**	**ug/L**	2.949	1026223	2.747
	Y	89		**ug/L**		190	0.000
	Mo	98	**49.653**	**ug/L**	1.482	278935	0.746
	Ag	107	**51.653**	**ug/L**	2.683	448838	1.202
	Cd	111	**49.372**	**ug/L**	4.461	105764	0.283
	Cd	114		**ug/L**		243869	0.653
>	In	115		**ug/L**		373550	373549.647
	Sn	120	**50.827**	**ug/L**	1.017	441298	1.180
	Sb	121	**50.401**	**ug/L**	6.702	363586	0.972
	Sb	123		**ug/L**		288771	0.772
	Ba	135		**ug/L**		121794	0.177
	Ba	137	**48.451**	**ug/L**	1.830	216377	0.314
	Ho	165		**ug/L**		59	0.000
>	Lu	175		**ug/L**		689779	689778.593
	Tl	205	**48.018**	**ug/L**	6.044	1488439	2.153
	Pb	208	**52.328**	**ug/L**	5.853	2403834	3.490
	Bi	209		**ug/L**		550	0.001
	Th	232	**49.773**	**ug/L**	3.476	2696274	3.911
	U	238	**51.500**	**ug/L**	0.671	2997947	4.346

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	0.9999
Cr	52Linear Thru Zero	0.9999
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	0.9999
Fe	57Linear Thru Zero	0.9998
Co	59Linear Thru Zero	0.9999
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	0.9999
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	0.9997
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9997
U	238Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7	105.676				
	Be	9	105.327				
	B	11	108.254				
	Na	23	81.243				
	Mg	24	96.444				
	Al	27	96.553				
	P	31	97.473				
	K	39	97.656				
	Ca	43	97.870				
>	Sc	45		102.6			
	Ti	47	97.751				
	V	51	102.957				
	Cr	52	103.221				
	Cr	53					
	Mn	55	104.688				
	Fe	57	101.032				
	Co	59	98.527				
	Ni	60	100.911				
	Cu	63					
	Cu	65	99.808				
	Zn	66	101.849				
	Zn	67					
	Zn	68					
>	Ge	74		102.8			
	As	75	97.718				
	Se	77					
	Se	82	98.662				
	Kr	83					
	Sr	88	106.789				
	Y	89					
	Mo	98	99.307				
	Ag	107	103.305				
	Cd	111	98.744				
	Cd	114					
>	In	115		100.5			
	Sn	120	101.655				
	Sb	121	100.802				
	Sb	123					
	Ba	135					
	Ba	137	96.901				
	Ho	165					
>	Lu	175		102.5			
	Tl	205	96.036				
	Pb	208	104.656				
	Bi	209					
	Th	232	99.547				
	U	238	103.001				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 6	Na	23	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Wednesday, January 06, 2010 07:41:16
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100105\QC Std 7.250

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.005**	ug/L	100.812	50	0.000
	Be	9	**0.002**	ug/L	365.384	18	0.000
	B	11	**1.479**	ug/L	33.169	1643	0.001
	Na	23	**1.738**	ug/L	41.050	52765	0.012
	Mg	24	**1.079**	ug/L	56.979	8670	0.005
	Al	27	**1.395**	ug/L	80.116	17345	0.009
	P	31	**1.321**	ug/L	137.086	13843	0.001
	K	39	**-0.641**	ug/L	2227.433	951765	-0.005
	Ca	43	**-2.227**	ug/L	102.623	554	-0.000
>	Sc	45		ug/L		1153237	1153237.289
	Ti	47	**-0.010**	ug/L	318.875	647	-0.000
	V	51	**-0.114**	ug/L	65.049	22766	-0.001
	Cr	52	**0.260**	ug/L	8.302	-902	0.002
	Cr	53		ug/L		202617	-0.006
	Mn	55	**0.001**	ug/L	324.629	1839	0.000
	Fe	57	**-0.315**	ug/L	44.136	7807	-0.000
	Co	59	**0.002**	ug/L	102.058	246	0.000
	Ni	60	**0.002**	ug/L	262.313	130	0.000
	Cu	63		ug/L		842	0.000
	Cu	65	**-0.015**	ug/L	69.561	357	-0.000
	Zn	66	**-0.015**	ug/L	115.681	391	-0.000
	Zn	67		ug/L		28261	-0.001
	Zn	68		ug/L		3253	-0.000
>	Ge	74		ug/L		691786	691786.035
	As	75	**-0.024**	ug/L	1106.812	1140	-0.000
	Se	77		ug/L		11346	0.000
	Se	82	**0.100**	ug/L	194.881	-51	0.000
	Kr	83		ug/L		170	-0.000
	Sr	88	**0.007**	ug/L	25.989	582	0.000
	Y	89		ug/L		111	0.000
	Mo	98	**0.063**	ug/L	23.171	527	0.001
	Ag	107	**0.011**	ug/L	26.041	164	0.000
	Cd	111	**0.004**	ug/L	177.256	42	0.000
	Cd	114		ug/L		87	0.000
>	In	115		ug/L		374828	374827.968
	Sn	120	**0.092**	ug/L	22.536	1345	0.002
	Sb	121	**0.424**	ug/L	27.290	3974	0.008
	Sb	123		ug/L		3108	0.006
	Ba	135		ug/L		61	0.000
	Ba	137	**0.004**	ug/L	5.747	91	0.000
	Ho	165		ug/L		28	-0.000
>	Lu	175		ug/L		696210	696210.092
	Tl	205	**0.438**	ug/L	19.241	19527	0.020
	Pb	208	**0.011**	ug/L	12.600	1098	0.001
	Bi	209		ug/L		85	-0.000
	Th	232	**0.073**	ug/L	15.447	5193	0.006
	U	238	**0.015**	ug/L	8.639	1510	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	0.9999
Cr	52	Linear Thru Zero	0.9999
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Fe	57	Linear Thru Zero	0.9998
Co	59	Linear Thru Zero	0.9999
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	0.9999
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9997
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9997
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		102.3			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		101.9			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		100.8			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		103.4			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS #5 Daily Performance Report

Sample ID: Sample
Sample Date/Time: Wednesday, January 06, 2010 12:25:30
Sample Description:
Method File: c:\elandata\Method\Daily2.mth
Dataset File: c:\elandata\Dataset\default2\Sample.1665
Tuning File: c:\elandata\Tuning\default2.tun
Optimization File: c:\elandata\Optimize\default.dac
Dual Detector Mode: Pulse
Acq. Dead Time(ns): 35
Current Dead Time (ns): 35
Number of Replicates: 5

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Be	9.0	6186.7	6186.740	119.384	1.9
	Mg	24.0	76825.2	76825.229	558.927	0.7
	Co	58.9	137010.3	137010.291	688.984	0.5
	Rh	102.9	251351.0	251350.980	3067.286	1.2
	In	114.9	332233.7	332233.719	3053.239	0.9
	Pb	208.0	349629.3	349629.253	2386.978	0.7
⌈>	Ba	137.9	333349.1	333349.123	3921.900	1.2
⌊	Ba++	69.0	9109.0	0.027	0.000	1.1
⌈>	Ce	139.9	406646.6	406646.582	8071.774	2.0
⌊	CeO	155.9	11555.6	0.028	0.000	1.7
	Bkgd	220.0	18.3	18.300	3.054	16.7

Current Optimization File Data

Current Value	Description
0.82	Nebulizer Gas Flow
8.75	Lens Voltage
1450.00	ICP RF Power
-1687.50	Analog Stage Voltage
1200.00	Pulse Stage Voltage
275.00	Discriminator Threshold
-6.00	AC Rod Offset

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	21	8.8	7480.0
Co	59	21	10.0	124851.5
In	115	21	11.0	321793.6

ICPMS #5 Instrument Tuning Report

File Name: default2.tun
File Path: c:\elandata\Tuning

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Pk. Width
He	3.0	3.0	595	2065	0.626
Be	9.0	9.0	2033	2070	0.656
Mg	24.0	24.0	5685	2070	0.672
Mg	25.0	25.0	5937	2070	0.638
Mg	26.0	26.0	6184	2070	0.667
Co	58.9	59.0	14190	2105	0.632
Rh	102.9	102.9	24879	2165	0.621
In	114.9	114.9	27793	2185	0.622
Ce	139.9	139.9	33865	2200	0.638
Pb	206.0	206.0	49936	2270	0.656
Pb	207.0	207.0	50171	2235	0.680
Pb	208.0	208.0	50439	2260	0.720
U	238.1	238.0	57731	2275	0.737

ICPMS#5 - Summary Report

Sample ID: Blank
Sample Date/Time: Thursday, January 07, 2010 04:38:56
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\100106b.mth
Dataset File: c:\elandata\Dataset\100106\Blank.330

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7		ug/L		41	
	Be	9		ug/L		22	
>	Sc	45		ug/L		945591	
	Mn	55		ug/L		1933	
>	Lu	175		ug/L		676669	
	Tl	205		ug/L		5441	
	Pb	208		ug/L		1211	
	U	238		ug/L		1409	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Simple Linear	
Be	9	Simple Linear	
Sc	45	Simple Linear	
Mn	55	Simple Linear	
Lu	175	Linear Thru Zero	
Tl	205	Simple Linear	
Pb	208	Simple Linear	
U	238	Linear Thru Zero	0.9997

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
>	Sc	45					
	Mn	55					
>	Lu	175					
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Thursday, January 07, 2010 04:41:30
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\100106b.mth
Dataset File: c:\elandata\Dataset\100106\Standard 1.331

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	10.000	ug/L	12.692	12291	0.013
	Be	9	10.000	ug/L	7.446	5262	0.006
>	Sc	45		ug/L		920749	920749.273
	Mn	55	10.000	ug/L	3.081	149855	0.161
>	Lu	175		ug/L		676032	676031.870
	Tl	205	10.000	ug/L	6.714	353322	0.515
	Pb	208	10.000	ug/L	1.215	529358	0.781
	U	238	10.000	ug/L	4.437	639889	0.945

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
>	Sc	45					
	Mn	55					
>	Lu	175					
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Thursday, January 07, 2010 04:44:02
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\100106b.mth
Dataset File: c:\elandata\Dataset\100106\Standard 2.332

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**100.081**	**ug/L**	15.041	128566	0.145
	Be	9	**100.037**	**ug/L**	7.361	52501	0.059
>	Sc	45		**ug/L**		887728	887728.345
	Mn	55	**99.888**	**ug/L**	4.522	1281860	1.444
>	Lu	175		**ug/L**		652333	652332.722
	Tl	205	**99.754**	**ug/L**	4.077	2695308	4.123
	Pb	208	**99.787**	**ug/L**	6.366	4187633	6.428
	U	238	**99.814**	**ug/L**	3.796	5186330	7.948

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9997
Pb	208	Linear Thru Zero	0.9998
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
>	Sc	45					
	Mn	55					
>	Lu	175					
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Thursday, January 07, 2010 04:46:34
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\100106b.mth
Dataset File: c:\elandata\Dataset\100106\QC Std 1.333

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**49.387**	**ug/L**	9.572	66127	0.072
	Be	9	**49.727**	**ug/L**	6.617	27180	0.029
>	Sc	45		**ug/L**		923776	923776.307
	Mn	55	**54.313**	**ug/L**	4.264	725817	0.785
>	Lu	175		**ug/L**		659367	659366.832
	Tl	205	**54.239**	**ug/L**	2.788	1484231	2.242
	Pb	208	**58.392**	**ug/L**	5.520	2478349	3.762
	U	238	**53.604**	**ug/L**	3.767	2815358	4.268

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9997
Pb	208	Linear Thru Zero	0.9998
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7	98.773				
	Be	9	99.455				
>	Sc	45		97.7			
	Mn	55	108.626				
>	Lu	175		97.4			
	Tl	205	108.478				
	Pb	208	116.785				
	U	238	107.207				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 1	Pb	208	ICV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Thursday, January 07, 2010 04:49:09
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\100106b.mth
Dataset File: c:\elandata\Dataset\100106\QC Std 2.334

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.015**	**ug/L**	57.106	60	0.000
	Be	9	**0.005**	**ug/L**	194.525	24	0.000
>	Sc	45		**ug/L**		935236	935236.476
	Mn	55	**-0.006**	**ug/L**	79.667	1823	-0.000
>	Lu	175		**ug/L**		664658	664657.725
	Tl	205	**0.479**	**ug/L**	5.972	18492	0.020
	Pb	208	**0.011**	**ug/L**	6.587	1671	0.001
	U	238	**0.020**	**ug/L**	11.247	2442	0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9997
Pb	208	Linear Thru Zero	0.9998
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
>	Sc	45		98.9			
	Mn	55					
>	Lu	175		98.2			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Thursday, January 07, 2010 04:51:44
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\100106b.mth
Dataset File: c:\elandata\Dataset\100106\QC Std 3.335

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**10.629**	**ug/L**	15.457	13868	0.015
	Be	9	**0.475**	**ug/L**	9.551	274	0.000
>	Sc	45		**ug/L**		898484	898484.299
	Mn	55	**6.171**	**ug/L**	5.403	81872	0.089
>	Lu	175		**ug/L**		671866	671865.904
	Tl	205	**1.400**	**ug/L**	5.310	44199	0.058
	Pb	208	**2.509**	**ug/L**	6.588	109551	0.162
	U	238	**0.262**	**ug/L**	3.613	15391	0.021

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9997
Pb	208	Linear Thru Zero	0.9998
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7	106.293				
	Be	9	95.077				
>	Sc	45		95.0			
	Mn	55	123.418				
>	Lu	175		99.3			
	Tl	205	139.962				
	Pb	208	125.473				
	U	238	130.846				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 3	Tl	205	CRDL is out of limits
QC Std 3	U	238	CRDL is out of limits

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Thursday, January 07, 2010 04:54:17
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\100106b.mth
Dataset File: c:\elandata\Dataset\100106\QC Std 4.336

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.152**	**ug/L**	10.119	215	0.000
	Be	9	**0.071**	**ug/L**	21.559	53	0.000
>	Sc	45		**ug/L**		819617	819617.018
	Mn	55	**6.135**	**ug/L**	1.164	74333	0.089
>	Lu	175		**ug/L**		566238	566238.180
	Tl	205	**0.012**	**ug/L**	145.987	4827	0.000
	Pb	208	**0.190**	**ug/L**	3.697	7924	0.012
	U	238	**-0.015**	**ug/L**	7.800	502	-0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9997
Pb	208	Linear Thru Zero	0.9998
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
>	Sc	45			86.7		
	Mn	55	105.773				
>	Lu	175			83.7		
	Tl	205					
	Pb	208	94.758				
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Thursday, January 07, 2010 04:56:51
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\100106b.mth
Dataset File: c:\elandata\Dataset\100106\QC Std 5.337

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**22.700**	**ug/L**	9.127	27298	0.033
	Be	9	**21.475**	**ug/L**	1.187	10556	0.013
>	Sc	45		**ug/L**		828480	828479.746
	Mn	55	**26.726**	**ug/L**	2.123	321497	0.386
>	Lu	175		**ug/L**		569048	569048.086
	Tl	205	**21.268**	**ug/L**	3.344	505104	0.879
	Pb	208	**22.329**	**ug/L**	5.058	818763	1.438
	U	238	**23.770**	**ug/L**	4.026	1077880	1.893

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9997
Pb	208	Linear Thru Zero	0.9998
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7	113.501				
	Be	9	107.373				
>	Sc	45		87.6			
	Mn	55	103.589				
>	Lu	175		84.1			
	Tl	205	106.338				
	Pb	208	110.539				
	U	238	118.852				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Thursday, January 07, 2010 04:59:26
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\100106b.mth
Dataset File: c:\elandata\Dataset\100106\QC Std 6.338

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**52.142**	ug/L	9.382	72565	0.076
	Be	9	**53.095**	ug/L	3.088	30160	0.031
>	Sc	45		ug/L		959434	959434.086
	Mn	55	**52.522**	ug/L	4.379	729993	0.759
>	Lu	175		ug/L		668671	668670.777
	Tl	205	**52.148**	ug/L	5.407	1444729	2.156
	Pb	208	**56.263**	ug/L	6.537	2420268	3.625
	U	238	**51.627**	ug/L	7.713	2750182	4.111

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9997
Pb	208	Linear Thru Zero	0.9998
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7	104.285				
	Be	9	106.190				
>	Sc	45		101.5			
	Mn	55	105.044				
>	Lu	175		98.8			
	Tl	205	104.296				
	Pb	208	112.527				
	U	238	103.254				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 6	Pb	208	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Thursday, January 07, 2010 05:02:01
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\100106b.mth
Dataset File: c:\elandata\Dataset\100106\QC Std 7.339

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.021**	**ug/L**	45.529	68	0.000
	Be	9	**0.006**	**ug/L**	118.132	25	0.000
>	Sc	45		**ug/L**		934775	934775.409
	Mn	55	**-0.014**	**ug/L**	62.031	1726	-0.000
>	Lu	175		**ug/L**		659941	659940.796
	Tl	205	**0.499**	**ug/L**	10.245	18886	0.021
	Pb	208	**0.005**	**ug/L**	45.528	1408	0.000
	U	238	**0.014**	**ug/L**	5.478	2128	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9997
Pb	208	Linear Thru Zero	0.9998
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
>	Sc	45		98.9			
	Mn	55					
>	Lu	175		97.5			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202004440
Sample Date/Time: Thursday, January 07, 2010 05:04:37
Sample Type:
Sample Description: LANL 6020 MB
Number of Replicates: 3
Batch ID: 936815|1|baj
Method File: c:\elandata\Method\100106b.mth
Dataset File: c:\elandata\Dataset\100106\1202004440.340

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.098**	**ug/L**	14.841	168	0.000
	Be	9	**-0.009**	**ug/L**	22.692	16	-0.000
>	Sc	45		**ug/L**		907614	907614.139
	Mn	55	**0.168**	**ug/L**	8.563	4052	0.002
>	Lu	175		**ug/L**		660938	660938.209
	Tl	205	**0.075**	**ug/L**	17.314	7357	0.003
	Pb	208	**0.003**	**ug/L**	68.208	1303	0.000
	U	238	**-0.018**	**ug/L**	4.088	433	-0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9997
Pb	208	Linear Thru Zero	0.9998
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
>	Sc	45		96.0			
	Mn	55					
>	Lu	175		97.7			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202004441
Sample Date/Time: Thursday, January 07, 2010 05:07:11
Sample Type:
Sample Description: LANL 6020 LCS
Number of Replicates: 3
Batch ID: 936815|1|baj
Method File: c:\elandata\Method\100106b.mth
Dataset File: c:\elandata\Dataset\100106\1202004441.341

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**58.886**	**ug/L**	7.920	77031	0.086
	Be	9	**60.436**	**ug/L**	5.840	32244	0.036
>	Sc	45		**ug/L**		901020	901019.922
	Mn	55	**56.884**	**ug/L**	3.842	742334	0.822
>	Lu	175		**ug/L**		645652	645651.561
	Tl	205	**52.409**	**ug/L**	6.258	1401184	2.166
	Pb	208	**60.602**	**ug/L**	5.722	2517604	3.904
	U	238	**56.377**	**ug/L**	5.523	2895217	4.489

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9997
Pb	208	Linear Thru Zero	0.9998
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
>	Sc	45		95.3			
	Mn	55					
>	Lu	175		95.4			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202004442
Sample Date/Time: Thursday, January 07, 2010 05:12:20
Sample Type:
Sample Description: LANL 6020 DUP
Number of Replicates: 3
Batch ID: 936815|1|baj
Method File: c:\elandata\Method\100106b.mth
Dataset File: c:\elandata\Dataset\100106\1202004442.343

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.173**	**ug/L**	21.102	265	0.000
	Be	9	**-0.012**	**ug/L**	104.109	14	-0.000
>	Sc	45		**ug/L**		904838	904837.991
	Mn	55	**1.060**	**ug/L**	4.640	15714	0.015
>	Lu	175		**ug/L**		669064	669063.513
	Tl	205	**0.222**	**ug/L**	13.554	11486	0.009
	Pb	208	**0.085**	**ug/L**	12.823	4857	0.006
	U	238	**-0.017**	**ug/L**	4.586	495	-0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9997
Pb	208	Linear Thru Zero	0.9998
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
>	Sc	45		95.7			
	Mn	55					
>	Lu	175		98.9			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202004443
Sample Date/Time: Thursday, January 07, 2010 05:14:56
Sample Type:
Sample Description: LANL 6020 MS
Number of Replicates: 3
Batch ID: 936815|1|baj
Method File: c:\elandata\Method\100106b.mth
Dataset File: c:\elandata\Dataset\100106\1202004443.344

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**63.177**	**ug/L**	9.425	83824	0.092
	Be	9	**64.925**	**ug/L**	8.087	35121	0.038
>	Sc	45		**ug/L**		913968	913967.724
	Mn	55	**58.443**	**ug/L**	3.495	773973	0.845
>	Lu	175		**ug/L**		648583	648583.329
	Tl	205	**100.347**	**ug/L**	5.515	2693677	4.148
	Pb	208	**51.523**	**ug/L**	6.608	2148865	3.319
	U	238	**58.473**	**ug/L**	3.667	3017266	4.656

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9997
Pb	208	Linear Thru Zero	0.9998
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
>	Sc	45		96.7			
	Mn	55					
>	Lu	175		95.8			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202004444
Sample Date/Time: Thursday, January 07, 2010 05:17:31
Sample Type:
Sample Description: LANL 6020 SDILT
Number of Replicates: 3
Batch ID: 936815|5|ba|
Method File: c:\elandata\Method\100106b.mth
Dataset File: c:\elandata\Dataset\100106\1202004444.345

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.033**	**ug/L**	47.032	84	0.000
	Be	9	**-0.005**	**ug/L**	195.412	18	-0.000
>	Sc	45		**ug/L**		927739	927739.221
	Mn	55	**0.205**	**ug/L**	7.842	4638	0.003
>	Lu	175		**ug/L**		660648	660647.597
	Tl	205	**1.975**	**ug/L**	6.282	59125	0.082
	Pb	208	**0.009**	**ug/L**	15.673	1575	0.001
	U	238	**-0.008**	**ug/L**	12.969	978	-0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9997
Pb	208	Linear Thru Zero	0.9998
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
>	Sc	45		98.1			
	Mn	55					
>	Lu	175		97.6			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 8
Sample Date/Time: Thursday, January 07, 2010 05:20:05
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\100106b.mth
Dataset File: c:\elandata\Dataset\100106\QC Std 8.346

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**47.643**	**ug/L**	13.124	63301	0.069
	Be	9	**49.293**	**ug/L**	8.521	26739	0.029
>	Sc	45		**ug/L**		917017	917016.773
	Mn	55	**53.224**	**ug/L**	2.325	707065	0.769
>	Lu	175		**ug/L**		657167	657167.012
	Tl	205	**51.591**	**ug/L**	3.943	1406662	2.133
	Pb	208	**54.768**	**ug/L**	4.242	2318112	3.528
	U	238	**50.612**	**ug/L**	2.143	2650671	4.030

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9997
Pb	208	Linear Thru Zero	0.9998
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7	95.286				
	Be	9	98.586				
>	Sc	45		97.0			
	Mn	55	106.448				
>	Lu	175		97.1			
	Tl	205	103.181				
	Pb	208	109.537				
	U	238	101.224				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 9
Sample Date/Time: Thursday, January 07, 2010 05:22:41
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\100106b.mth
Dataset File: c:\elandata\Dataset\100106\QC Std 9.347

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.010**	**ug/L**	40.474	53	0.000
	Be	9	**0.009**	**ug/L**	189.294	26	0.000
>	Sc	45		**ug/L**		930283	930282.855
	Mn	55	**-0.007**	**ug/L**	46.196	1806	-0.000
>	Lu	175		**ug/L**		664250	664249.757
	Tl	205	**1.039**	**ug/L**	7.709	33825	0.043
	Pb	208	**0.010**	**ug/L**	11.545	1602	0.001
	U	238	**0.018**	**ug/L**	9.737	2351	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9997
Pb	208	Linear Thru Zero	0.9998
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
>	Sc	45		98.4			
	Mn	55					
>	Lu	175		98.2			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 9	Tl	205	CCB is out of limits (+/- PQL)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: 243554001
Sample Date/Time: Thursday, January 07, 2010 05:25:16
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 936815|1|baj
Method File: c:\elandata\Method\100106b.mth
Dataset File: c:\elandata\Dataset\100106\243554001.348

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.055**	**ug/L**	9.185	111	0.000
	Be	9	**-0.015**	**ug/L**	34.174	13	-0.000
>	Sc	45		**ug/L**		902975	902974.993
	Mn	55	**0.165**	**ug/L**	4.988	3997	0.002
>	Lu	175		**ug/L**		650023	650022.919
	Tl	205	**0.346**	**ug/L**	8.659	14505	0.014
	Pb	208	**0.002**	**ug/L**	28.243	1261	0.000
	U	238	**-0.014**	**ug/L**	7.570	641	-0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9997
Pb	208	Linear Thru Zero	0.9998
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
>	Sc	45		95.5			
	Mn	55					
>	Lu	175		96.1			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 243554002
Sample Date/Time: Thursday, January 07, 2010 05:27:50
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 936815|1|baj
Method File: c:\elandata\Method\100106b.mth
Dataset File: c:\elandata\Dataset\100106\243554002.349

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.051**	**ug/L**	10.328	104	0.000
	Be	9	**-0.007**	**ug/L**	70.304	17	-0.000
>	Sc	45		**ug/L**		891961	891960.968
	Mn	55	**0.217**	**ug/L**	5.712	4618	0.003
>	Lu	175		**ug/L**		640615	640615.124
	Tl	205	**0.192**	**ug/L**	13.321	10225	0.008
	Pb	208	**0.012**	**ug/L**	8.658	1656	0.001
	U	238	**-0.022**	**ug/L**	1.876	218	-0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9997
Pb	208	Linear Thru Zero	0.9998
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
>	Sc	45		94.3			
	Mn	55					
>	Lu	175		94.7			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 243554003
Sample Date/Time: Thursday, January 07, 2010 05:30:25
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 936815|1|baj
Method File: c:\elandata\Method\100106b.mth
Dataset File: c:\elandata\Dataset\100106\243554003.350

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.124**	**ug/L**	19.081	199	0.000
	Be	9	**-0.001**	**ug/L**	608.137	20	-0.000
>	Sc	45		**ug/L**		893296	893296.113
	Mn	55	**4.253**	**ug/L**	4.877	56657	0.061
>	Lu	175		**ug/L**		656667	656666.997
	Tl	205	**0.108**	**ug/L**	9.800	8212	0.004
	Pb	208	**0.059**	**ug/L**	13.574	3655	0.004
	U	238	**-0.018**	**ug/L**	4.216	413	-0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9997
Pb	208	Linear Thru Zero	0.9998
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
>	Sc	45		94.5			
	Mn	55					
>	Lu	175		97.0			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 243554004
Sample Date/Time: Thursday, January 07, 2010 05:33:00
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 936815|1|baj
Method File: c:\elandata\Method\100106b.mth
Dataset File: c:\elandata\Dataset\100106\243554004.351

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.195**	**ug/L**	26.440	292	0.000
	Be	9	**0.003**	**ug/L**	450.749	23	0.000
>	Sc	45		**ug/L**		903648	903648.122
	Mn	55	**8.998**	**ug/L**	4.194	119237	0.130
>	Lu	175		**ug/L**		661308	661308.367
	Tl	205	**0.078**	**ug/L**	20.220	7430	0.003
	Pb	208	**0.095**	**ug/L**	10.033	5198	0.006
	U	238	**-0.013**	**ug/L**	4.205	705	-0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9997
Pb	208	Linear Thru Zero	0.9998
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
>	Sc	45		95.6			
	Mn	55					
>	Lu	175		97.7			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Thursday, January 07, 2010 05:35:35
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\100106b.mth
Dataset File: c:\elandata\Dataset\100106\QC Std 6.352

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**46.101**	**ug/L**	9.218	62979	0.067
	Be	9	**48.465**	**ug/L**	2.073	27026	0.029
>	Sc	45		**ug/L**		941717	941716.942
	Mn	55	**51.607**	**ug/L**	4.188	703523	0.746
>	Lu	175		**ug/L**		661300	661300.071
	Tl	205	**49.991**	**ug/L**	3.175	1370529	2.066
	Pb	208	**55.741**	**ug/L**	7.600	2368995	3.591
	U	238	**51.281**	**ug/L**	1.003	2701943	4.083

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9997
Pb	208	Linear Thru Zero	0.9998
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7	92.202				
	Be	9	96.931				
>	Sc	45		99.6			
	Mn	55	103.214				
>	Lu	175		97.7			
	Tl	205	99.982				
	Pb	208	111.482				
	U	238	102.561				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 6	Pb	208	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Thursday, January 07, 2010 05:38:11
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\100106b.mth
Dataset File: c:\elandata\Dataset\100106\QC Std 7.353

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.003**	**ug/L**	203.807	44	0.000
	Be	9	**-0.001**	**ug/L**	621.166	21	-0.000
>	Sc	45		**ug/L**		932355	932354.633
	Mn	55	**-0.005**	**ug/L**	236.344	1840	-0.000
>	Lu	175		**ug/L**		678406	678405.875
	Tl	205	**0.603**	**ug/L**	19.932	22218	0.025
	Pb	208	**0.007**	**ug/L**	49.644	1528	0.000
	U	238	**0.013**	**ug/L**	7.606	2111	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9997
Pb	208	Linear Thru Zero	0.9998
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
>	Sc	45		98.6			
	Mn	55					
>	Lu	175		100.3			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS #5 Daily Performance Report

Sample ID: Sample
Sample Date/Time: Friday, January 08, 2010 10:59:59
Sample Description:
Method File: c:\elandata\Method\Daily2.mth
Dataset File: c:\elandata\Dataset\default2\Sample.1689
Tuning File: c:\elandata\Tuning\default2.tun
Optimization File: c:\elandata\Optimize\default.dac
Dual Detector Mode: Pulse

Acq. Dead Time(ns): 35
Current Dead Time (ns): 35

Number of Replicates: 5

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Be	9.0	4767.6	4767.596	120.642	2.5
	Mg	24.0	49237.9	49237.914	510.851	1.0
	Co	58.9	103615.2	103615.209	338.035	0.3
	Rh	102.9	196977.6	196977.555	1320.738	0.7
	In	114.9	257255.3	257255.341	1918.410	0.7
	Pb	208.0	242068.0	242068.034	2508.523	1.0
⌈>	Ba	137.9	252609.2	252609.245	2391.730	0.9
⌊	Ba++	69.0	4450.6	0.018	0.000	2.7
⌈>	Ce	139.9	314412.9	314412.927	1289.266	0.4
⌊	CeO	155.9	6624.0	0.021	0.000	1.7
	Bkgd	220.0	25.3	25.300	2.564	10.1

Current Optimization File Data

Current Value	Description
0.85	Nebulizer Gas Flow
8.75	Lens Voltage
1450.00	ICP RF Power
-1718.75	Analog Stage Voltage
1200.00	Pulse Stage Voltage
275.00	Discriminator Threshold
-6.00	AC Rod Offset

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	19	9.5	5638.8
Co	59	19	10.3	104053.9
In	115	19	11.5	254758.5

ICPMS #5 Instrument Tuning Report

File Name: default2.tun
File Path: c:\elandata\Tuning

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Pk. Width
He	3.0	3.0	595	2065	0.639
Be	9.0	9.0	2043	2070	0.662
Mg	24.0	24.0	5695	2070	0.717
Mg	25.0	25.0	5923	2070	0.660
Mg	26.0	26.0	6188	2070	0.678
Co	58.9	59.0	14188	2105	0.646
Rh	102.9	102.9	24878	2165	0.633
In	114.9	114.9	27792	2185	0.632
Ce	139.9	139.9	33864	2200	0.646
Pb	206.0	206.0	49948	2270	0.707
Pb	207.0	207.0	50159	2235	0.687
Pb	208.0	208.0	50451	2260	0.738
U	238.1	238.1	57724	2275	0.748

ICPMS#5 - Summary Report

Sample ID: Blank
Sample Date/Time: Friday, January 08, 2010 11:44:08
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl pb and u.mth
Dataset File: C:\elandata\Dataset\100108\Blank.007

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		607528	
	Tl	205		ug/L		1445	
	Pb	208		ug/L		319	
	U	238		ug/L		162	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	
Pb	208	Linear Thru Zero	
U	238	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175					
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Friday, January 08, 2010 11:48:50
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl pb and u.mth
Dataset File: C:\elandata\Dataset\100108\Standard 1.008

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		604741	604740.618
	Tl	205	10.000	ug/L	1.751	271219	0.446
	Pb	208	10.000	ug/L	2.123	422596	0.698
	U	238	10.000	ug/L	1.762	530846	0.878

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175					
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Friday, January 08, 2010 11:53:29
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl pb and u.mth
Dataset File: C:\elandata\Dataset\100108\Standard 2.009

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		**ug/L**		591178	591178.486
	Tl	205	**99.863**	**ug/L**	1.211	2317884	3.919
	Pb	208	**99.881**	**ug/L**	1.399	3685653	6.235
	U	238	**99.898**	**ug/L**	2.702	4702114	7.956

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175					
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Friday, January 08, 2010 11:58:09
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl pb and u.mth
Dataset File: C:\elandata\Dataset\100108\QC Std 1.010

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		594169	594169.434
	Tl	205	**51.723**	ug/L	0.718	1207372	2.030
	Pb	208	**54.127**	ug/L	0.791	2007845	3.379
	U	238	**52.358**	ug/L	1.189	2477818	4.170

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175		97.8			
	Tl	205	103.446				
	Pb	208	108.255				
	U	238	104.716				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Friday, January 08, 2010 12:02:51
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl pb and u.mth
Dataset File: C:\elandata\Dataset\100108\QC Std 2.011

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		599400	599399.609
	Tl	205	0.038	ug/L	12.252	2315	0.001
	Pb	208	0.001	ug/L	34.855	361	0.000
	U	238	0.002	ug/L	6.371	257	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175		98.7			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Friday, January 08, 2010 12:07:34
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl pb and u.mth
Dataset File: C:\elandata\Dataset\100108\QC Std 3.012

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		**ug/L**		607676	607675.533
	Tl	205	**1.199**	**ug/L**	1.546	30038	0.047
	Pb	208	**2.444**	**ug/L**	1.576	93035	0.153
	U	238	**0.259**	**ug/L**	1.220	12719	0.021

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175		100.0			
	Tl	205	119.893				
	Pb	208	122.223				
	U	238	129.750				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Friday, January 08, 2010 12:12:15
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl pb and u.mth
Dataset File: C:\elandata\Dataset\100108\QC Std 4.013

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		552787	552786.890
	Tl	205	**0.011**	ug/L	25.722	1552	0.000
	Pb	208	**0.204**	ug/L	1.848	7325	0.013
	U	238	**-0.000**	ug/L	12157.702	147	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175		91.0			
	Tl	205					
	Pb	208	101.936				
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Friday, January 08, 2010 12:16:56
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl pb and u.mth
Dataset File: C:\elandata\Dataset\100108\QC Std 5.014

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		543792	543791.507
	Tl	205	21.512	ug/L	1.605	460248	0.844
	Pb	208	22.242	ug/L	2.955	754967	1.388
	U	238	23.275	ug/L	2.460	1007726	1.854

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175		89.5			
	Tl	205	107.558				
	Pb	208	110.111				
	U	238	116.374				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Friday, January 08, 2010 12:21:38
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl pb and u.mth
Dataset File: C:\elandata\Dataset\100108\QC Std 6.015

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		594730	594729.765
	Tl	205	51.332	ug/L	1.921	1199391	2.014
	Pb	208	53.447	ug/L	1.731	1984532	3.336
	U	238	51.389	ug/L	1.351	2434149	4.093

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175		97.9			
	Tl	205	102.663				
	Pb	208	106.894				
	U	238	102.777				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Friday, January 08, 2010 12:26:22
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl pb and u.mth
Dataset File: C:\elandata\Dataset\100108\QC Std 7.016

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Lu	175		ug/L		588893	588892.706
Tl	205	0.040	ug/L	8.932	2321	0.002
Pb	208	0.002	ug/L	48.655	368	0.000
U	238	0.001	ug/L	16.215	221	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
Lu	175		96.9			
Tl	205					
Pb	208					
U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202004440
Sample Date/Time: Friday, January 08, 2010 12:31:06
Sample Type:
Sample Description: LANL 6020 MB
Number of Replicates: 3
Batch ID: 936815|1|baj
Method File: c:\elandata\Method\tl pb and u.mth
Dataset File: C:\elandata\Dataset\100108\1202004440.017

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		**ug/L**		568721	568721.282
	Tl	205	**-0.011**	**ug/L**	9.216	1111	-0.000
	Pb	208	**0.024**	**ug/L**	7.555	1139	0.001
	U	238	**0.001**	**ug/L**	28.325	214	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175		93.6			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202004441
Sample Date/Time: Friday, January 08, 2010 12:35:52
Sample Type:
Sample Description: LANL 6020 LCS
Number of Replicates: 3
Batch ID: 936815|1|baj
Method File: c:\elandata\Method\tl pb and u.mth
Dataset File: C:\elandata\Dataset\100108\1202004441.018

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		564445	564444.617
	Tl	205	55.563	ug/L	4.166	1231476	2.180
	Pb	208	62.135	ug/L	1.952	2189150	3.879
	U	238	59.489	ug/L	1.847	2673785	4.738

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175		92.9			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202004442
Sample Date/Time: Friday, January 08, 2010 12:45:25
Sample Type:
Sample Description: LANL 6020 DUP
Number of Replicates: 3
Batch ID: 936815|1|baj
Method File: c:\elandata\Method\tl pb and u.mth
Dataset File: C:\elandata\Dataset\100108\1202004442.020

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		571164	571164.345
	Tl	205	0.048	ug/L	11.380	2427	0.002
	Pb	208	0.112	ug/L	1.929	4285	0.007
	U	238	0.005	ug/L	8.542	371	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175		94.0			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202004443
Sample Date/Time: Friday, January 08, 2010 12:50:12
Sample Type:
Sample Description: LANL 6020 MS
Number of Replicates: 3
Batch ID: 936815|1|baj
Method File: c:\elandata\Method\tl pb and u.mth
Dataset File: C:\elandata\Dataset\100108\1202004443.021

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		**ug/L**		571694	571693.567
	Tl	205	**109.249**	**ug/L**	4.082	2452028	4.287
	Pb	208	**53.143**	**ug/L**	2.279	1896488	3.317
	U	238	**62.238**	**ug/L**	0.457	2833742	4.957

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175		94.1			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202004444
Sample Date/Time: Friday, January 08, 2010 12:55:00
Sample Type:
Sample Description: LANL 6020 SDILT
Number of Replicates: 3
Batch ID: 936815|5|baj
Method File: c:\elandata\Method\tl pb and u.mth
Dataset File: C:\elandata\Dataset\100108\1202004444.022

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		590288	590287.588
	Tl	205	0.507	ug/L	2.318	13158	0.020
	Pb	208	0.035	ug/L	1.783	1597	0.002
	U	238	0.014	ug/L	6.132	815	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175		97.2			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 8
Sample Date/Time: Friday, January 08, 2010 12:59:45
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl pb and u.mth
Dataset File: C:\elandata\Dataset\100108\QC Std 8.023

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		592727	592726.509
	Tl	205	**51.524**	ug/L	1.968	1199648	2.022
	Pb	208	**53.546**	ug/L	2.826	1980730	3.343
	U	238	**50.730**	ug/L	1.589	2394311	4.040

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175		97.6			
	Tl	205	103.047				
	Pb	208	107.091				
	U	238	101.460				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 9
Sample Date/Time: Friday, January 08, 2010 13:04:28
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl pb and u.mth
Dataset File: C:\elandata\Dataset\100108\QC Std 9.024

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		**ug/L**		584971	584971.156
	Tl	205	**0.148**	**ug/L**	1.711	4779	0.006
	Pb	208	**0.003**	**ug/L**	24.273	407	0.000
	U	238	**0.002**	**ug/L**	27.140	248	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175		96.3			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 243554001
Sample Date/Time: Friday, January 08, 2010 13:09:13
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 936815|1|baj
Method File: c:\elandata\Method\tl pb and u.mth
Dataset File: C:\elandata\Dataset\100108\243554001.025

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		**ug/L**		568753	568753.010
	Tl	205	**0.060**	**ug/L**	10.688	2680	0.002
	Pb	208	**0.030**	**ug/L**	3.196	1367	0.002
	U	238	**0.005**	**ug/L**	3.967	366	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175		93.6			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 243554002
Sample Date/Time: Friday, January 08, 2010 13:13:59
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 936815|1|baj
Method File: c:\elandata\Method\tl pb and u.mth
Dataset File: C:\elandata\Dataset\100108\243554002.026

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		567735	567735.446
	Tl	205	0.031	ug/L	16.850	2044	0.001
	Pb	208	0.034	ug/L	7.333	1486	0.002
	U	238	-0.000	ug/L	111.509	135	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175		93.5			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 243554003
Sample Date/Time: Friday, January 08, 2010 13:18:45
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 936815|1|baj
Method File: c:\elandata\Method\tl pb and u.mth
Dataset File: C:\elandata\Dataset\100108\243554003.027

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		576697	576697.210
	Tl	205	0.017	ug/L	22.027	1761	0.001
	Pb	208	0.079	ug/L	4.751	3159	0.005
	U	238	0.003	ug/L	8.503	304	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175		94.9			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 243554004
Sample Date/Time: Friday, January 08, 2010 13:23:31
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 936815|1|baj
Method File: c:\elandata\Method\tl pb and u.mth
Dataset File: C:\elandata\Dataset\100108\243554004.028

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		580484	580484.329
	Tl	205	0.005	ug/L	30.387	1491	0.000
	Pb	208	0.112	ug/L	1.919	4351	0.007
	U	238	0.008	ug/L	8.408	527	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175		95.5			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Friday, January 08, 2010 13:28:16
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl pb and u.mth
Dataset File: C:\elandata\Dataset\100108\QC Std 6.029

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		590044	590043.581
	Tl	205	**51.158**	ug/L	2.435	1185407	2.008
	Pb	208	**53.184**	ug/L	3.724	1957832	3.320
	U	238	**50.581**	ug/L	3.153	2375643	4.028

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175		97.1			
	Tl	205	102.316				
	Pb	208	106.368				
	U	238	101.162				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Friday, January 08, 2010 13:32:59
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl pb and u.mth
Dataset File: C:\elandata\Dataset\100108\QC Std 7.030

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		598040	598040.333
	Tl	205	0.057	ug/L	8.988	2768	0.002
	Pb	208	0.002	ug/L	22.855	401	0.000
	U	238	0.002	ug/L	26.869	235	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175		98.4			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS #5 Daily Performance Report

Sample ID: Sample
Sample Date/Time: Thursday, January 14, 2010 09:35:31
Sample Description:
Method File: c:\elandata\Method\Daily2.mth
Dataset File: c:\elandata\Dataset\default2\Sample.1704
Tuning File: c:\elandata\Tuning\default2.tun
Optimization File: c:\elandata\Optimize\default.dac
Dual Detector Mode: Pulse

Acq. Dead Time(ns): 35
Current Dead Time (ns): 35

Number of Replicates: 5

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Be	9.0	2731.1	2731.061	99.800	3.7
	Mg	24.0	37746.2	37746.210	571.608	1.5
	Co	58.9	90605.2	90605.223	450.984	0.5
	Rh	102.9	161043.3	161043.306	1599.952	1.0
	In	114.9	211491.0	211491.038	1276.766	0.6
	Pb	208.0	212686.2	212686.233	1822.611	0.9
⌈>	Ba	137.9	211181.2	211181.233	2960.897	1.4
⌊	Ba++	69.0	3538.3	0.017	0.001	3.4
⌈>	Ce	139.9	253488.9	253488.916	3378.609	1.3
⌊	CeO	155.9	5495.8	0.022	0.000	2.0
	Bkgd	220.0	22.6	22.600	2.485	11.0

Current Optimization File Data

Current Value	Description
0.85	Nebulizer Gas Flow
8.75	Lens Voltage
1450.00	ICP RF Power
-1718.75	Analog Stage Voltage
1200.00	Pulse Stage Voltage
275.00	Discriminator Threshold
-6.00	AC Rod Offset

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	19	8.8	4723.4
Co	59	19	9.5	88973.5
In	115	19	11.3	205140.4

ICPMS #5 Instrument Tuning Report

File Name: default2.tun
File Path: c:\elandata\Tuning

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Pk. Width
He	3.0	3.0	593	2050	0.638
Be	9.0	9.0	2058	2070	0.619
Mg	24.0	24.0	5685	2070	0.621
Mg	25.0	25.0	5937	2070	0.600
Mg	26.0	26.0	6182	2070	0.633
Co	58.9	58.9	14190	2105	0.616
Rh	102.9	102.9	24879	2165	0.601
In	114.9	114.9	27793	2185	0.599
Ce	139.9	139.9	33877	2200	0.622
Pb	206.0	206.0	49948	2270	0.693
Pb	207.0	207.0	50159	2235	0.651
Pb	208.0	208.0	50463	2260	0.697
U	238.1	238.1	57728	2275	0.711

ICPMS#5 - Summary Report

Sample ID: Blank
Sample Date/Time: Thursday, January 14, 2010 21:13:39
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100114\Blank.040

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7		ug/L		59	
	Be	9		ug/L		16	
	B	11		ug/L		2855	
	Na	23		ug/L		30032	
	Mg	24		ug/L		4001	
	Al	27		ug/L		7669	
	P	31		ug/L		10004	
	K	39		ug/L		659216	
	Ca	43		ug/L		373	
>	Sc	45		ug/L		550453	
	Ti	47		ug/L		524	
	V	51		ug/L		6014	
	Cr	52		ug/L		-4487	
	Cr	53		ug/L		122447	
	Mn	55		ug/L		1261	
	Fe	57		ug/L		5556	
	Co	59		ug/L		194	
	Ni	60		ug/L		244	
	Cu	63		ug/L		531	
	Cu	65		ug/L		205	
	Zn	66		ug/L		270	
	Zn	67		ug/L		13823	
	Zn	68		ug/L		1527	
>	Ge	74		ug/L		361048	
	As	75		ug/L		-340	
	Se	77		ug/L		6361	
	Se	82		ug/L		-15	
	Kr	83		ug/L		111	
	Sr	88		ug/L		252	
	Y	89		ug/L		54	
	Mo	98		ug/L		133	
	Ag	107		ug/L		72	
	Cd	111		ug/L		26	
	Cd	114		ug/L		58	
>	In	115		ug/L		223880	
	Sn	120		ug/L		308	
	Sb	121		ug/L		642	
	Sb	123		ug/L		532	
	Ba	135		ug/L		49	
	Ba	137		ug/L		64	
	Ho	165		ug/L		20	
>	Lu	175		ug/L		468237	
	Tl	205		ug/L		5963	
	Pb	208		ug/L		772	
	Bi	209		ug/L		210	
	Th	232		ug/L		1876	
	U	238		ug/L		817	

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	0.9999
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9998
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45					
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115					
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175					
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Thursday, January 14, 2010 21:19:46
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100114\Standard 1.041

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	10.000	ug/L	5.488	10396	0.019
	Be	9	10.000	ug/L	4.943	3158	0.006
	B	11	20.000	ug/L	4.196	8995	0.011
	Na	23	1000.000	ug/L	3.529	4327412	7.803
	Mg	24	1000.000	ug/L	7.502	3063584	5.557
	Al	27	1000.000	ug/L	6.388	4364048	7.909
	P	31	1000.000	ug/L	2.935	247791	0.432
	K	39	1000.000	ug/L	1.714	6058747	9.799
	Ca	43	1000.000	ug/L	2.716	12618	0.022
>	Sc	45		ug/L		550918	550918.327
	Ti	47	10.000	ug/L	2.981	6400	0.011
	V	51	10.000	ug/L	3.578	73616	0.123
	Cr	52	10.000	ug/L	3.324	47311	0.094
	Cr	53		ug/L		120710	-0.003
	Mn	55	10.000	ug/L	0.881	88861	0.159
	Fe	57	1000.000	ug/L	1.237	182329	0.321
	Co	59	10.000	ug/L	3.554	66480	0.120
	Ni	60	10.000	ug/L	3.116	14381	0.026
	Cu	63		ug/L		34831	0.062
	Cu	65	10.000	ug/L	0.172	16669	0.030
	Zn	66	10.000	ug/L	1.479	10987	0.029
	Zn	67		ug/L		14505	0.001
	Zn	68		ug/L		8977	0.020
>	Ge	74		ug/L		366210	366209.788
	As	75	10.000	ug/L	4.423	10485	0.030
	Se	77		ug/L		6547	0.000
	Se	82	10.000	ug/L	9.130	998	0.003
	Kr	83		ug/L		114	0.000
	Sr	88	10.000	ug/L	3.018	128716	0.559
	Y	89		ug/L		69	0.000
	Mo	98	10.000	ug/L	1.911	30136	0.131
	Ag	107	10.000	ug/L	2.981	54499	0.237
	Cd	111	10.000	ug/L	2.547	13016	0.057
	Cd	114		ug/L		31532	0.137
>	In	115		ug/L		229656	229656.392
	Sn	120	10.000	ug/L	1.690	58429	0.253
	Sb	121	10.000	ug/L	1.317	47706	0.205
	Sb	123		ug/L		37635	0.161
	Ba	135		ug/L		14881	0.031
	Ba	137	10.000	ug/L	3.314	26666	0.057
	Ho	165		ug/L		19	-0.000
>	Lu	175		ug/L		470979	470978.692
	Tl	205	10.000	ug/L	2.169	234082	0.484
	Pb	208	10.000	ug/L	2.460	350427	0.743
	Bi	209		ug/L		251	0.000
	Th	232	10.000	ug/L	1.230	446888	0.945
	U	238	10.000	ug/L	2.254	469365	0.995

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45					
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115					
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175					
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Thursday, January 14, 2010 21:25:50
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100114\Standard 2.042

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**100.042**	**ug/L**	5.445	103674	0.196
	Be	9	**100.027**	**ug/L**	4.944	31028	0.059
	B	11	**200.249**	**ug/L**	5.994	70129	0.127
	Na	23	**10006.611**	**ug/L**	5.281	44238971	83.604
	Mg	24	**10005.054**	**ug/L**	5.588	30976237	58.554
	Al	27	**10006.558**	**ug/L**	2.066	44830171	84.698
	P	31	**9995.985**	**ug/L**	2.083	2204378	4.148
	K	39	**9999.448**	**ug/L**	6.852	52164196	97.447
	Ca	43	**10000.815**	**ug/L**	2.019	118944	0.224
>	Sc	45		**ug/L**		529263	529263.418
	Ti	47	**100.016**	**ug/L**	2.173	57868	0.108
	V	51	**99.975**	**ug/L**	3.838	638946	1.197
	Cr	52	**99.993**	**ug/L**	3.044	489500	0.934
	Cr	53		**ug/L**		165855	0.091
	Mn	55	**99.963**	**ug/L**	2.185	811780	1.532
	Fe	57	**9990.581**	**ug/L**	4.674	1554617	2.930
	Co	59	**99.971**	**ug/L**	3.797	618391	1.169
	Ni	60	**99.985**	**ug/L**	2.538	134050	0.253
	Cu	63		**ug/L**		320261	0.604
	Cu	65	**99.987**	**ug/L**	2.260	156304	0.295
	Zn	66	**99.974**	**ug/L**	1.725	101612	0.285
	Zn	67		**ug/L**		28288	0.041
	Zn	68		**ug/L**		72630	0.200
>	Ge	74		**ug/L**		355662	355661.794
	As	75	**99.972**	**ug/L**	1.640	101872	0.287
	Se	77		**ug/L**		12912	0.019
	Se	82	**99.974**	**ug/L**	1.996	9566	0.027
	Kr	83		**ug/L**		131	0.000
	Sr	88	**99.953**	**ug/L**	1.340	1170230	5.340
	Y	89		**ug/L**		158	0.000
	Mo	98	**100.029**	**ug/L**	1.927	294867	1.345
	Ag	107	**99.985**	**ug/L**	0.209	511818	2.336
	Cd	111	**100.018**	**ug/L**	2.428	126195	0.576
	Cd	114		**ug/L**		299495	1.367
>	In	115		**ug/L**		219108	219108.055
	Sn	120	**100.003**	**ug/L**	2.801	556384	2.539
	Sb	121	**100.039**	**ug/L**	2.854	467824	2.133
	Sb	123		**ug/L**		368329	1.679
	Ba	135		**ug/L**		146669	0.324
	Ba	137	**100.001**	**ug/L**	0.139	256194	0.565
	Ho	165		**ug/L**		31	0.000
>	Lu	175		**ug/L**		452932	452931.923
	Tl	205	**99.841**	**ug/L**	1.540	1896302	4.174
	Pb	208	**99.908**	**ug/L**	0.483	3077204	6.792
	Bi	209		**ug/L**		464	0.001
	Th	232	**99.853**	**ug/L**	0.496	3726983	8.225
	U	238	**99.874**	**ug/L**	1.438	3999735	8.829

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	0.9999
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45					
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115					
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175					
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Thursday, January 14, 2010 21:31:55
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100114\QC Std 1.043

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**53.077**	ug/L	5.197	54698	0.104
	Be	9	**52.982**	ug/L	3.109	16341	0.031
	B	11	**102.531**	ug/L	2.635	37005	0.065
	Na	23	**4866.037**	ug/L	17.142	21370649	40.655
	Mg	24	**5042.141**	ug/L	7.750	15504075	29.509
	Al	27	**4598.692**	ug/L	6.418	20452654	38.924
	P	31	**5022.867**	ug/L	1.583	1104728	2.085
	K	39	**5231.990**	ug/L	4.268	27417359	50.987
	Ca	43	**5082.778**	ug/L	2.549	60199	0.114
>	Sc	45		ug/L		525421	525420.788
	Ti	47	**49.962**	ug/L	2.566	28960	0.054
	V	51	**51.541**	ug/L	0.734	330021	0.617
	Cr	52	**51.296**	ug/L	0.723	247320	0.479
	Cr	53		ug/L		138672	0.041
	Mn	55	**53.194**	ug/L	0.425	429578	0.815
	Fe	57	**5264.705**	ug/L	1.832	816455	1.544
	Co	59	**51.038**	ug/L	1.374	313709	0.597
	Ni	60	**52.469**	ug/L	1.439	69975	0.133
	Cu	63		ug/L		165466	0.314
	Cu	65	**51.596**	ug/L	1.377	80196	0.152
	Zn	66	**52.937**	ug/L	1.182	53484	0.151
	Zn	67		ug/L		20553	0.020
	Zn	68		ug/L		38753	0.106
>	Ge	74		ug/L		352680	352679.780
	As	75	**49.591**	ug/L	0.976	49945	0.143
	Se	77		ug/L		9352	0.009
	Se	82	**51.010**	ug/L	2.240	4834	0.014
	Kr	83		ug/L		113	0.000
	Sr	88	**53.934**	ug/L	1.332	627282	2.882
	Y	89		ug/L		76	0.000
	Mo	98	**50.152**	ug/L	1.732	146903	0.675
	Ag	107	**50.650**	ug/L	0.494	257544	1.183
	Cd	111	**51.437**	ug/L	2.444	64467	0.296
	Cd	114		ug/L		154568	0.710
>	In	115		ug/L		217630	217629.837
	Sn	120	**51.228**	ug/L	2.827	283218	1.300
	Sb	121	**51.974**	ug/L	3.476	241659	1.108
	Sb	123		ug/L		190673	0.874
	Ba	135		ug/L		74883	0.165
	Ba	137	**51.123**	ug/L	1.527	131233	0.289
	Ho	165		ug/L		48	0.000
>	Lu	175		ug/L		453751	453750.730
	Tl	205	**53.808**	ug/L	1.493	1026420	2.249
	Pb	208	**53.719**	ug/L	0.474	1657896	3.652
	Bi	209		ug/L		509	0.001
	Th	232	**52.126**	ug/L	0.743	1949939	4.293
	U	238	**53.297**	ug/L	1.407	2138601	4.712

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	0.9999
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	1.0000
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9999
Pb	208Linear Thru Zero	1.0000
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9999
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7	106.154				
	Be	9	105.963				
	B	11	102.531				
	Na	23	97.321				
	Mg	24	100.843				
	Al	27	91.063				
	P	31	100.457				
	K	39	104.640				
	Ca	43	101.656				
>	Sc	45		95.5			
	Ti	47	99.925				
	V	51	103.082				
	Cr	52	102.591				
	Cr	53					
	Mn	55	106.388				
	Fe	57	105.294				
	Co	59	102.075				
	Ni	60	104.938				
	Cu	63					
	Cu	65	103.191				
	Zn	66	105.873				
	Zn	67					
	Zn	68					
>	Ge	74		97.7			
	As	75	99.183				
	Se	77					
	Se	82	102.019				
	Kr	83					
	Sr	88	107.867				
	Y	89					
	Mo	98	100.305				
	Ag	107	101.299				
	Cd	111	102.874				
	Cd	114					
>	In	115		97.2			
	Sn	120	102.456				
	Sb	121	103.947				
	Sb	123					
	Ba	135					
	Ba	137	102.245				
	Ho	165					
>	Lu	175		96.9			
	Tl	205	107.615				
	Pb	208	107.438				
	Bi	209					
	Th	232	104.251				
	U	238	106.595				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Thursday, January 14, 2010 21:38:02
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100114\QC Std 2.044

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.014**	**ug/L**	107.046	72	0.000
	Be	9	**0.013**	**ug/L**	125.749	20	0.000
	B	11	**0.353**	**ug/L**	270.693	2912	0.000
	Na	23	**0.086**	**ug/L**	2571.929	29700	0.001
	Mg	24	**0.246**	**ug/L**	401.520	4668	0.001
	Al	27	**1.281**	**ug/L**	12.201	13340	0.011
	P	31	**-2.131**	**ug/L**	190.529	9310	-0.001
	K	39	**-2.227**	**ug/L**	278.994	633071	-0.022
	Ca	43	**-0.007**	**ug/L**	20163.163	365	-0.000
>	Sc	45		**ug/L**		538578	538577.511
	Ti	47	**-0.082**	**ug/L**	33.779	465	-0.000
	V	51	**0.109**	**ug/L**	281.504	6578	0.001
	Cr	52	**0.037**	**ug/L**	102.944	-4205	0.000
	Cr	53		**ug/L**		113271	-0.012
	Mn	55	**-0.003**	**ug/L**	275.542	1211	-0.000
	Fe	57	**-1.039**	**ug/L**	53.444	5273	-0.000
	Co	59	**0.003**	**ug/L**	42.029	209	0.000
	Ni	60	**-0.010**	**ug/L**	73.519	225	-0.000
	Cu	63		**ug/L**		452	-0.000
	Cu	65	**0.010**	**ug/L**	74.881	216	0.000
	Zn	66	**-0.005**	**ug/L**	531.718	258	-0.000
	Zn	67		**ug/L**		12626	-0.002
	Zn	68		**ug/L**		1386	-0.000
>	Ge	74		**ug/L**		352464	352463.831
	As	75	**0.346**	**ug/L**	69.101	19	0.001
	Se	77		**ug/L**		5869	-0.001
	Se	82	**0.030**	**ug/L**	899.992	-12	0.000
	Kr	83		**ug/L**		109	0.000
	Sr	88	**0.003**	**ug/L**	114.126	281	0.000
	Y	89		**ug/L**		48	-0.000
	Mo	98	**0.022**	**ug/L**	44.336	197	0.000
	Ag	107	**0.003**	**ug/L**	43.473	88	0.000
	Cd	111	**-0.003**	**ug/L**	235.534	22	-0.000
	Cd	114		**ug/L**		55	-0.000
>	In	115		**ug/L**		221836	221835.897
	Sn	120	**0.060**	**ug/L**	32.897	641	0.002
	Sb	121	**0.612**	**ug/L**	27.797	3523	0.013
	Sb	123		**ug/L**		2732	0.010
	Ba	135		**ug/L**		48	0.000
	Ba	137	**0.004**	**ug/L**	38.681	72	0.000
	Ho	165		**ug/L**		22	0.000
>	Lu	175		**ug/L**		459042	459042.300
	Tl	205	**0.132**	**ug/L**	51.614	8363	0.006
	Pb	208	**0.002**	**ug/L**	53.866	806	0.000
	Bi	209		**ug/L**		222	0.000
	Th	232	**0.053**	**ug/L**	38.896	3848	0.004
	U	238	**0.006**	**ug/L**	42.248	1060	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	0.9999
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		97.8			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		97.6			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		99.1			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		98.0			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Thursday, January 14, 2010 21:44:09
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100114\QC Std 3.045

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**11.211**	**ug/L**	5.420	11772	0.022
	Be	9	**0.521**	**ug/L**	3.098	179	0.000
	B	11	**13.082**	**ug/L**	5.528	7209	0.008
	Na	23	**275.443**	**ug/L**	5.821	1257478	2.301
	Mg	24	**16.068**	**ug/L**	15.448	54104	0.094
	Al	27	**34.857**	**ug/L**	8.696	164952	0.295
	P	31	**55.597**	**ug/L**	7.604	22005	0.023
	K	39	**322.014**	**ug/L**	12.680	2314452	3.138
	Ca	43	**219.324**	**ug/L**	1.325	2984	0.005
>	Sc	45		**ug/L**		533612	533612.342
	Ti	47	**8.701**	**ug/L**	1.609	5542	0.009
	V	51	**10.865**	**ug/L**	2.480	75254	0.130
	Cr	52	**10.784**	**ug/L**	2.257	49369	0.101
	Cr	53		**ug/L**		120716	0.004
	Mn	55	**5.831**	**ug/L**	1.051	48919	0.089
	Fe	57	**115.952**	**ug/L**	2.434	23532	0.034
	Co	59	**1.102**	**ug/L**	2.945	7062	0.013
	Ni	60	**2.181**	**ug/L**	2.470	3181	0.006
	Cu	63		**ug/L**		4156	0.007
	Cu	65	**1.126**	**ug/L**	0.729	1971	0.003
	Zn	66	**11.167**	**ug/L**	1.177	11508	0.032
	Zn	67		**ug/L**		14405	0.003
	Zn	68		**ug/L**		9142	0.022
>	Ge	74		**ug/L**		353228	353227.757
	As	75	**6.146**	**ug/L**	1.599	5907	0.018
	Se	77		**ug/L**		6284	0.000
	Se	82	**5.324**	**ug/L**	3.740	492	0.001
	Kr	83		**ug/L**		115	0.000
	Sr	88	**11.615**	**ug/L**	0.315	139665	0.621
	Y	89		**ug/L**		55	0.000
	Mo	98	**0.535**	**ug/L**	2.479	1749	0.007
	Ag	107	**1.037**	**ug/L**	0.341	5513	0.024
	Cd	111	**1.099**	**ug/L**	1.675	1447	0.006
	Cd	114		**ug/L**		3321	0.015
>	In	115		**ug/L**		224649	224648.543
	Sn	120	**5.387**	**ug/L**	0.537	31028	0.137
	Sb	121	**3.232**	**ug/L**	1.950	16123	0.069
	Sb	123		**ug/L**		12757	0.054
	Ba	135		**ug/L**		3213	0.007
	Ba	137	**2.115**	**ug/L**	1.446	5546	0.012
	Ho	165		**ug/L**		23	0.000
>	Lu	175		**ug/L**		458454	458454.239
	Tl	205	**1.194**	**ug/L**	1.784	28729	0.050
	Pb	208	**2.394**	**ug/L**	0.662	75367	0.163
	Bi	209		**ug/L**		219	0.000
	Th	232	**1.275**	**ug/L**	2.587	49975	0.105
	U	238	**0.252**	**ug/L**	3.235	11005	0.022

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	0.9999
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	1.0000
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9999
Pb	208Linear Thru Zero	1.0000
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9999
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7	112.107				
	Be	9	104.281				
	B	11	87.215				
	Na	23	110.177				
	Mg	24	107.119				
	Al	27	116.191				
	P	31	111.195				
	K	39	107.338				
	Ca	43	109.662				
>	Sc	45		96.9			
	Ti	47	87.014				
	V	51	108.650				
	Cr	52	107.845				
	Cr	53					
	Mn	55	116.629				
	Fe	57	115.952				
	Co	59	110.194				
	Ni	60	109.059				
	Cu	63					
	Cu	65	112.578				
	Zn	66	111.671				
	Zn	67					
	Zn	68					
>	Ge	74		97.8			
	As	75	122.916				
	Se	77					
	Se	82	106.480				
	Kr	83					
	Sr	88	116.146				
	Y	89					
	Mo	98	106.915				
	Ag	107	103.688				
	Cd	111	109.877				
	Cd	114					
>	In	115		100.3			
	Sn	120	107.741				
	Sb	121	107.722				
	Sb	123					
	Ba	135					
	Ba	137	105.751				
	Ho	165					
>	Lu	175		97.9			
	Tl	205	119.442				
	Pb	208	119.687				
	Bi	209					
	Th	232	127.487				
	U	238	125.920				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Thursday, January 14, 2010 21:50:15
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100114\QC Std 4.046

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.160**	**ug/L**	29.887	218	0.000
	Be	9	**0.077**	**ug/L**	44.206	39	0.000
	B	11	**-2.900**	**ug/L**	11.159	1731	-0.002
	Na	23	**92851.786**	**ug/L**	8.268	402451749	775.769
	Mg	24	**100721.935**	**ug/L**	4.575	305847788	589.472
	Al	27	**90382.891**	**ug/L**	4.502	396889334	765.021
	P	31	**94733.371**	**ug/L**	1.789	20401733	39.316
	K	39	**97394.823**	**ug/L**	2.582	492978359	949.139
	Ca	43	**92915.378**	**ug/L**	1.382	1080314	2.082
>	Sc	45		**ug/L**		518717	518717.220
	Ti	47	**1381.252**	**ug/L**	1.615	777101	1.497
	V	51	**0.400**	**ug/L**	91.363	8142	0.005
	Cr	52	**2.895**	**ug/L**	2.225	9796	0.027
	Cr	53		**ug/L**		92929	-0.043
	Mn	55	**5.918**	**ug/L**	1.760	48229	0.091
	Fe	57	**94773.123**	**ug/L**	0.697	14421291	27.794
	Co	59	**0.291**	**ug/L**	3.215	1950	0.003
	Ni	60	**2.810**	**ug/L**	4.834	3915	0.007
	Cu	63		**ug/L**		6615	0.012
	Cu	65	**2.885**	**ug/L**	3.088	4608	0.009
	Zn	66	**3.796**	**ug/L**	3.766	3924	0.011
	Zn	67		**ug/L**		11462	-0.004
	Zn	68		**ug/L**		1870	0.001
>	Ge	74		**ug/L**		339308	339308.360
	As	75	**0.018**	**ug/L**	1751.563	-299	0.000
	Se	77		**ug/L**		6830	0.003
	Se	82	**-0.940**	**ug/L**	30.644	-100	-0.000
	Kr	83		**ug/L**		274	0.000
	Sr	88	**1.241**	**ug/L**	0.753	14051	0.066
	Y	89		**ug/L**		420	0.002
	Mo	98	**1998.934**	**ug/L**	0.689	5601640	26.886
	Ag	107	**0.062**	**ug/L**	9.754	369	0.001
	Cd	111	**0.397**	**ug/L**	51.964	501	0.002
	Cd	114		**ug/L**		7629	0.036
>	In	115		**ug/L**		208339	208339.159
	Sn	120	**0.095**	**ug/L**	7.357	786	0.002
	Sb	121	**0.107**	**ug/L**	22.176	1071	0.002
	Sb	123		**ug/L**		894	0.002
	Ba	135		**ug/L**		998	0.002
	Ba	137	**0.700**	**ug/L**	4.890	1753	0.004
	Ho	165		**ug/L**		1094	0.003
>	Lu	175		**ug/L**		428036	428036.352
	Tl	205	**-0.091**	**ug/L**	10.183	3823	-0.004
	Pb	208	**0.178**	**ug/L**	0.167	5874	0.012
	Bi	209		**ug/L**		1260	0.002
	Th	232	**0.003**	**ug/L**	259.972	1830	0.000
	U	238	**-0.014**	**ug/L**	3.348	226	-0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	0.9999
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23	92.852				
	Mg	24	100.722				
	Al	27	90.383				
	P	31	94.733				
	K	39	97.395				
	Ca	43	92.915				
>	Sc	45			94.2		
	Ti	47	69.063				
	V	51					
	Cr	52	78.257				
	Cr	53					
	Mn	55	102.032				
	Fe	57	94.773				
	Co	59	116.584				
	Ni	60	104.061				
	Cu	63					
	Cu	65	99.485				
	Zn	66	105.436				
	Zn	67					
	Zn	68					
>	Ge	74			94.0		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88	103.432				
	Y	89					
	Mo	98	99.947				
	Ag	107					
	Cd	111	99.278				
	Cd	114					
>	In	115			93.1		
	Sn	120					
	Sb	121	106.769				
	Sb	123					
	Ba	135					
	Ba	137	104.519				
	Ho	165					
>	Lu	175			91.4		
	Tl	205					
	Pb	208	88.799				
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 4	Ti	47	ICSA is out of limits

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Thursday, January 14, 2010 21:56:21
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100114\QC Std 5.047

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**21.805**	**ug/L**	3.638	21996	0.043
	Be	9	**20.865**	**ug/L**	1.258	6301	0.012
	B	11	**15.053**	**ug/L**	0.557	7586	0.010
	Na	23	**95041.136**	**ug/L**	7.081	407981620	794.060
	Mg	24	**93518.340**	**ug/L**	2.871	281168918	547.313
	Al	27	**92749.094**	**ug/L**	3.122	403293644	785.049
	P	31	**92868.391**	**ug/L**	1.974	19807817	38.542
	K	39	**97339.381**	**ug/L**	4.990	487815350	948.598
	Ca	43	**93243.731**	**ug/L**	0.392	1073855	2.090
>	Sc	45		**ug/L**		513724	513723.906
	Ti	47	**1387.845**	**ug/L**	0.668	773468	1.505
	V	51	**21.065**	**ug/L**	1.626	135191	0.252
	Cr	52	**22.965**	**ug/L**	1.588	105943	0.214
	Cr	53		**ug/L**		101817	-0.024
	Mn	55	**26.554**	**ug/L**	2.045	210260	0.407
	Fe	57	**96876.618**	**ug/L**	2.372	14599799	28.411
	Co	59	**19.840**	**ug/L**	1.720	119344	0.232
	Ni	60	**21.967**	**ug/L**	0.724	28776	0.056
	Cu	63		**ug/L**		64435	0.124
	Cu	65	**21.393**	**ug/L**	1.028	32626	0.063
	Zn	66	**23.031**	**ug/L**	1.067	22366	0.066
	Zn	67		**ug/L**		13956	0.003
	Zn	68		**ug/L**		14815	0.040
>	Ge	74		**ug/L**		336809	336809.030
	As	75	**21.500**	**ug/L**	3.484	20499	0.062
	Se	77		**ug/L**		8362	0.007
	Se	82	**19.765**	**ug/L**	3.717	1779	0.005
	Kr	83		**ug/L**		272	0.001
	Sr	88	**23.864**	**ug/L**	1.383	261172	1.275
	Y	89		**ug/L**		460	0.002
	Mo	98	**2033.868**	**ug/L**	1.115	5598246	27.356
	Ag	107	**19.490**	**ug/L**	1.125	93230	0.455
	Cd	111	**20.098**	**ug/L**	1.753	23707	0.116
	Cd	114		**ug/L**		62622	0.306
>	In	115		**ug/L**		204637	204637.417
	Sn	120	**20.856**	**ug/L**	0.870	108619	0.529
	Sb	121	**21.945**	**ug/L**	1.811	96323	0.468
	Sb	123		**ug/L**		75783	0.368
	Ba	135		**ug/L**		28251	0.066
	Ba	137	**20.658**	**ug/L**	2.754	50337	0.117
	Ho	165		**ug/L**		1126	0.003
>	Lu	175		**ug/L**		430451	430450.696
	Tl	205	**21.010**	**ug/L**	1.180	383590	0.878
	Pb	208	**21.317**	**ug/L**	1.046	624522	1.449
	Bi	209		**ug/L**		1735	0.004
	Th	232	**23.017**	**ug/L**	0.787	817770	1.896
	U	238	**23.212**	**ug/L**	1.782	883934	2.052

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	0.9999
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	1.0000
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9999
Pb	208Linear Thru Zero	1.0000
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9999
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7	109.027				
	Be	9	104.326				
	B	11	75.266				
	Na	23	95.041				
	Mg	24	93.518				
	Al	27	92.749				
	P	31	92.868				
	K	39	97.339				
	Ca	43	93.244				
>	Sc	45		93.3			
	Ti	47	69.392				
	V	51	105.325				
	Cr	52	96.897				
	Cr	53					
	Mn	55	102.923				
	Fe	57	96.877				
	Co	59	97.974				
	Ni	60	96.769				
	Cu	63					
	Cu	65	93.419				
	Zn	66	97.589				
	Zn	67					
	Zn	68					
>	Ge	74		93.3			
	As	75	107.498				
	Se	77					
	Se	82	98.823				
	Kr	83					
	Sr	88	112.566				
	Y	89					
	Mo	98	101.693				
	Ag	107	97.451				
	Cd	111	98.519				
	Cd	114					
>	In	115		91.4			
	Sn	120	104.281				
	Sb	121	109.179				
	Sb	123					
	Ba	135					
	Ba	137	99.943				
	Ho	165					
>	Lu	175		91.9			
	Tl	205	105.052				
	Pb	208	105.529				
	Bi	209					
	Th	232	115.085				
	U	238	116.060				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 5	B	11	ICSAB is out of limits
QC Std 5	Ti	47	ICSAB is out of limits

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Thursday, January 14, 2010 22:02:29
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100114\QC Std 6.048

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**55.418**	ug/L	5.399	57132	0.109
	Be	9	**54.684**	ug/L	2.258	16874	0.032
	B	11	**99.388**	ug/L	0.709	35982	0.063
	Na	23	**4543.950**	ug/L	3.722	19988181	37.964
	Mg	24	**4972.870**	ug/L	3.042	15304622	29.104
	Al	27	**4695.557**	ug/L	8.014	20908516	39.744
	P	31	**4855.473**	ug/L	0.636	1069050	2.015
	K	39	**4985.637**	ug/L	5.920	26171115	48.586
	Ca	43	**4879.572**	ug/L	0.606	57852	0.109
>	Sc	45		ug/L		525774	525774.132
	Ti	47	**48.599**	ug/L	0.516	28202	0.053
	V	51	**49.536**	ug/L	2.632	317622	0.593
	Cr	52	**50.279**	ug/L	1.109	242508	0.469
	Cr	53		ug/L		130795	0.026
	Mn	55	**51.251**	ug/L	1.378	414216	0.786
	Fe	57	**5168.306**	ug/L	2.314	802177	1.516
	Co	59	**49.784**	ug/L	1.517	306227	0.582
	Ni	60	**50.742**	ug/L	0.842	67729	0.128
	Cu	63		ug/L		160652	0.305
	Cu	65	**51.013**	ug/L	1.582	79344	0.151
	Zn	66	**51.666**	ug/L	0.132	52148	0.147
	Zn	67		ug/L		19409	0.017
	Zn	68		ug/L		37318	0.102
>	Ge	74		ug/L		352263	352262.916
	As	75	**49.313**	ug/L	1.267	49608	0.142
	Se	77		ug/L		9071	0.008
	Se	82	**50.067**	ug/L	1.685	4739	0.013
	Kr	83		ug/L		122	0.000
	Sr	88	**51.778**	ug/L	1.543	608439	2.767
	Y	89		ug/L		94	0.000
	Mo	98	**49.245**	ug/L	0.180	145756	0.662
	Ag	107	**48.679**	ug/L	0.993	250062	1.137
	Cd	111	**49.395**	ug/L	0.634	62560	0.284
	Cd	114		ug/L		148830	0.677
>	In	115		ug/L		219858	219857.516
	Sn	120	**49.777**	ug/L	1.441	278094	1.264
	Sb	121	**50.268**	ug/L	1.373	236254	1.072
	Sb	123		ug/L		185761	0.843
	Ba	135		ug/L		72226	0.160
	Ba	137	**49.867**	ug/L	3.068	127065	0.282
	Ho	165		ug/L		42	0.000
>	Lu	175		ug/L		450504	450503.806
	Tl	205	**52.875**	ug/L	2.205	1001351	2.210
	Pb	208	**52.930**	ug/L	1.689	1621631	3.599
	Bi	209		ug/L		504	0.001
	Th	232	**51.292**	ug/L	2.006	1904731	4.225
	U	238	**51.005**	ug/L	1.560	2032081	4.509

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	0.9999
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	1.0000
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9999
Pb	208Linear Thru Zero	1.0000
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9999
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7	110.835				
	Be	9	109.368				
	B	11	99.388				
	Na	23	90.879				
	Mg	24	99.457				
	Al	27	92.981				
	P	31	97.109				
	K	39	99.713				
	Ca	43	97.591				
>	Sc	45		95.5			
	Ti	47	97.197				
	V	51	99.072				
	Cr	52	100.558				
	Cr	53					
	Mn	55	102.503				
	Fe	57	103.366				
	Co	59	99.568				
	Ni	60	101.485				
	Cu	63					
	Cu	65	102.025				
	Zn	66	103.332				
	Zn	67					
	Zn	68					
>	Ge	74		97.6			
	As	75	98.625				
	Se	77					
	Se	82	100.134				
	Kr	83					
	Sr	88	103.556				
	Y	89					
	Mo	98	98.491				
	Ag	107	97.357				
	Cd	111	98.790				
	Cd	114					
>	In	115		98.2			
	Sn	120	99.554				
	Sb	121	100.536				
	Sb	123					
	Ba	135					
	Ba	137	99.735				
	Ho	165					
>	Lu	175		96.2			
	Tl	205	105.750				
	Pb	208	105.860				
	Bi	209					
	Th	232	102.585				
	U	238	102.011				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 6	Li	7	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Thursday, January 14, 2010 22:08:37
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100114\QC Std 7.049

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	0.036	ug/L	20.477	93	0.000
	Be	9	-0.001	ug/L	1741.357	15	-0.000
	B	11	-2.087	ug/L	24.706	2035	-0.001
	Na	23	-0.770	ug/L	129.346	25356	-0.006
	Mg	24	0.917	ug/L	72.372	6668	0.005
	Al	27	1.939	ug/L	52.214	16009	0.016
	P	31	-3.908	ug/L	43.184	8731	-0.002
	K	39	1.469	ug/L	904.109	639084	0.014
	Ca	43	-2.181	ug/L	70.374	331	-0.000
>	Sc	45		ug/L		527373	527372.808
	Ti	47	-0.112	ug/L	52.805	439	-0.000
	V	51	-0.179	ug/L	73.385	4633	-0.002
	Cr	52	0.116	ug/L	30.213	3726	0.001
	Cr	53		ug/L		107206	-0.019
	Mn	55	-0.006	ug/L	23.958	1163	-0.000
	Fe	57	-1.653	ug/L	59.566	5067	-0.000
	Co	59	0.002	ug/L	12.810	197	0.000
	Ni	60	-0.014	ug/L	25.070	215	-0.000
	Cu	63		ug/L		390	-0.000
	Cu	65	0.010	ug/L	87.899	211	0.000
	Zn	66	0.013	ug/L	119.784	274	0.000
	Zn	67		ug/L		11522	-0.005
	Zn	68		ug/L		1217	-0.001
>	Ge	74		ug/L		349596	349596.154
	As	75	0.191	ug/L	30.851	-137	0.001
	Se	77		ug/L		5798	-0.001
	Se	82	-0.014	ug/L	1889.673	-16	-0.000
	Kr	83		ug/L		109	0.000
	Sr	88	0.001	ug/L	55.807	259	0.000
	Y	89		ug/L		47	-0.000
	Mo	98	0.086	ug/L	17.640	389	0.001
	Ag	107	0.004	ug/L	72.181	89	0.000
	Cd	111	0.006	ug/L	97.496	33	0.000
	Cd	114		ug/L		71	0.000
>	In	115		ug/L		221688	221688.436
	Sn	120	0.042	ug/L	15.027	543	0.001
	Sb	121	0.292	ug/L	36.086	2014	0.006
	Sb	123		ug/L		1595	0.005
	Ba	135		ug/L		52	0.000
	Ba	137	0.006	ug/L	70.904	77	0.000
	Ho	165		ug/L		25	0.000
>	Lu	175		ug/L		451240	451239.686
	Tl	205	0.233	ug/L	30.068	10146	0.010
	Pb	208	0.002	ug/L	34.421	811	0.000
	Bi	209		ug/L		214	0.000
	Th	232	0.050	ug/L	34.099	3674	0.004
	U	238	0.006	ug/L	25.330	1016	0.001

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	0.9999
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	1.0000
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9999
Pb	208Linear Thru Zero	1.0000
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9999
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		95.8			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		96.8			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		99.0			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		96.4			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 10
Sample Date/Time: Thursday, January 14, 2010 22:14:44
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100114\QC Std 10.050

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**980.596**	ug/L	8.039	975328	1.921
	Be	9	**997.301**	ug/L	6.636	297010	0.585
	B	11	**-3.654**	ug/L	11.534	1452	-0.002
	Na	23	**45220.396**	ug/L	4.991	192009422	377.812
	Mg	24	**49921.725**	ug/L	1.129	148583817	292.165
	Al	27	**48506.804**	ug/L	10.615	208317979	410.572
	P	31	**24070.542**	ug/L	1.250	5089570	9.990
	K	39	**48532.444**	ug/L	2.824	241059118	472.962
	Ca	43	**48001.055**	ug/L	1.219	547425	1.076
>	Sc	45		ug/L		508684	508684.170
	Ti	47	**37.763**	ug/L	4.253	21299	0.041
	V	51	**920.144**	ug/L	2.572	5607309	11.019
	Cr	52	**916.989**	ug/L	3.616	4346722	8.561
	Cr	53		ug/L		635435	1.028
	Mn	55	**909.852**	ug/L	2.754	7090910	13.946
	Fe	57	**48330.313**	ug/L	4.080	7208996	14.174
	Co	59	**873.137**	ug/L	3.074	5189526	10.209
	Ni	60	**875.707**	ug/L	3.818	1126149	2.215
	Cu	63		ug/L		2714816	5.339
	Cu	65	**849.648**	ug/L	3.726	1274511	2.507
	Zn	66	**2184.855**	ug/L	10.002	2101595	6.229
	Zn	67		ug/L		358247	1.024
	Zn	68		ug/L		1453160	4.306
>	Ge	74		ug/L		337322	337322.436
	As	75	**889.011**	ug/L	2.168	861495	2.556
	Se	77		ug/L		38689	0.097
	Se	82	**487.077**	ug/L	2.099	44252	0.131
	Kr	83		ug/L		180	0.000
	Sr	88	**1009.798**	ug/L	2.260	10639145	53.953
	Y	89		ug/L		405	0.002
	Mo	98	**1049.079**	ug/L	0.608	2782312	14.110
	Ag	107	**234.239**	ug/L	1.514	1078935	5.472
	Cd	111	**921.175**	ug/L	0.789	1045946	5.305
	Cd	114		ug/L		2660479	13.492
>	In	115		ug/L		197176	197175.715
	Sn	120	**1013.546**	ug/L	1.841	5073598	25.729
	Sb	121	**242.717**	ug/L	1.357	1020897	5.175
	Sb	123		ug/L		816628	4.139
	Ba	135		ug/L		1240666	2.888
	Ba	137	**863.226**	ug/L	8.389	2097278	4.881
	Ho	165		ug/L		350	0.001
>	Lu	175		ug/L		429603	429603.240
	Tl	205	**499.785**	ug/L	1.241	8981089	20.894
	Pb	208	**4896.379**	ug/L	0.814	143002651	332.887
	Bi	209		ug/L		3993	0.009
	Th	232	**2588.190**	ug/L	1.245	91584404	213.180
	U	238	**5282.617**	ug/L	2.288	200607288	466.991

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	0.9999
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	1.0000
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9999
Pb	208Linear Thru Zero	1.0000
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9999
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈	Li	7	98.060				
|	Be	9	99.730				
|	B	11					
|	Na	23	90.441				
|	Mg	24	99.843				
|	Al	27	97.014				
|	P	31	96.282				
|	K	39	97.065				
|	Ca	43	96.002				
|>	Sc	45			92.4		
|	Ti	47					
|	V	51	92.014				
|	Cr	52	91.699				
|	Cr	53					
|	Mn	55	90.985				
|	Fe	57	96.661				
|	Co	59	87.314				
|	Ni	60	87.571				
|	Cu	63					
⌊	Cu	65	84.965				
⌈	Zn	66	87.394				
|	Zn	67					
|	Zn	68					
|>	Ge	74			93.4		
|	As	75	88.901				
|	Se	77					
|	Se	82	97.415				
⌊	Kr	83					
⌈	Sr	88	100.980				
|	Y	89					
|	Mo	98	104.908				
|	Ag	107	93.696				
|	Cd	111	92.118				
|	Cd	114					
|>	In	115			88.1		
|	Sn	120	101.355				
|	Sb	121	97.087				
⌊	Sb	123					
⌈	Ba	135					
|	Ba	137	86.323				
|	Ho	165					
|>	Lu	175			91.7		
|	Tl	205	99.957				
|	Pb	208	97.928				
|	Bi	209					
|	Th	232	103.528				
⌊	U	238	105.652				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 10	Co	59	LRS is out of limits (+/- 10%)
QC Std 10	Ni	60	LRS is out of limits (+/- 10%)
QC Std 10	Cu	65	LRS is out of limits (+/- 10%)
QC Std 10	Zn	66	LRS is out of limits (+/- 10%)
QC Std 10	As	75	LRS is out of limits (+/- 10%)
QC Std 10	Ba	137	LRS is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 11
Sample Date/Time: Thursday, January 14, 2010 22:20:49
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100114\QC Std 11.051

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**51.589**	ug/L	6.139	53625	0.101
	Be	9	**51.541**	ug/L	4.128	16041	0.030
	B	11	**94.210**	ug/L	1.917	34544	0.060
	Na	23	**4850.942**	ug/L	8.188	21505055	40.529
	Mg	24	**5151.812**	ug/L	3.413	16001375	30.151
	Al	27	**4723.898**	ug/L	6.030	21214278	39.984
	P	31	**4937.312**	ug/L	3.147	1096026	2.049
	K	39	**5080.487**	ug/L	9.130	26883255	49.511
	Ca	43	**5004.886**	ug/L	3.256	59824	0.112
>	Sc	45		ug/L		530428	530428.187
	Ti	47	**48.571**	ug/L	2.209	28427	0.053
	V	51	**51.153**	ug/L	3.888	330516	0.613
	Cr	52	**51.060**	ug/L	2.501	248432	0.477
	Cr	53		ug/L		136900	0.036
	Mn	55	**52.166**	ug/L	1.803	425210	0.800
	Fe	57	**5278.909**	ug/L	3.288	826168	1.548
	Co	59	**50.734**	ug/L	4.338	314631	0.593
	Ni	60	**52.624**	ug/L	4.109	70813	0.133
	Cu	63		ug/L		167037	0.314
	Cu	65	**51.277**	ug/L	2.199	80437	0.151
	Zn	66	**52.783**	ug/L	2.378	53284	0.150
	Zn	67		ug/L		20335	0.019
	Zn	68		ug/L		39388	0.108
>	Ge	74		ug/L		352423	352423.002
	As	75	**50.104**	ug/L	1.137	50425	0.144
	Se	77		ug/L		9297	0.009
	Se	82	**50.242**	ug/L	0.956	4758	0.014
	Kr	83		ug/L		120	0.000
	Sr	88	**52.993**	ug/L	0.913	625535	2.831
	Y	89		ug/L		80	0.000
	Mo	98	**49.450**	ug/L	2.329	146998	0.665
	Ag	107	**50.064**	ug/L	1.376	258326	1.169
	Cd	111	**50.123**	ug/L	2.235	63760	0.289
	Cd	114		ug/L		152116	0.688
>	In	115		ug/L		220854	220853.767
	Sn	120	**51.783**	ug/L	1.866	290570	1.314
	Sb	121	**52.761**	ug/L	1.628	249046	1.125
	Sb	123		ug/L		195858	0.884
	Ba	135		ug/L		74276	0.164
	Ba	137	**51.121**	ug/L	2.176	131054	0.289
	Ho	165		ug/L		52	0.000
>	Lu	175		ug/L		453278	453278.487
	Tl	205	**53.748**	ug/L	2.344	1023933	2.247
	Pb	208	**53.837**	ug/L	3.090	1659022	3.660
	Bi	209		ug/L		514	0.001
	Th	232	**52.310**	ug/L	2.705	1954118	4.309
	U	238	**53.833**	ug/L	3.141	2156949	4.759

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	0.9999
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7	103.178				
	Be	9	103.082				
	B	11	94.210				
	Na	23	97.019				
	Mg	24	103.036				
	Al	27	93.543				
	P	31	98.746				
	K	39	101.610				
	Ca	43	100.098				
>	Sc	45		96.4			
	Ti	47	97.143				
	V	51	102.305				
	Cr	52	102.120				
	Cr	53					
	Mn	55	104.332				
	Fe	57	105.578				
	Co	59	101.467				
	Ni	60	105.248				
	Cu	63					
	Cu	65	102.555				
	Zn	66	105.567				
	Zn	67					
	Zn	68					
>	Ge	74		97.6			
	As	75	100.207				
	Se	77					
	Se	82	100.483				
	Kr	83					
	Sr	88	105.987				
	Y	89					
	Mo	98	98.899				
	Ag	107	100.129				
	Cd	111	100.247				
	Cd	114					
>	In	115		98.6			
	Sn	120	103.565				
	Sb	121	105.522				
	Sb	123					
	Ba	135					
	Ba	137	102.242				
	Ho	165					
>	Lu	175		96.8			
	Tl	205	107.495				
	Pb	208	107.673				
	Bi	209					
	Th	232	104.620				
	U	238	107.666				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 12
Sample Date/Time: Thursday, January 14, 2010 22:26:56
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100114\QC Std 12.052

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.069**	ug/L	21.121	129	0.000
	Be	9	**0.029**	ug/L	68.081	25	0.000
	B	11	**-2.705**	ug/L	28.898	1854	-0.002
	Na	23	**0.859**	ug/L	211.797	33040	0.007
	Mg	24	**0.143**	ug/L	467.750	4334	0.001
	Al	27	**1.223**	ug/L	71.594	13006	0.010
	P	31	**-2.892**	ug/L	66.787	9088	-0.001
	K	39	**-3.045**	ug/L	58.445	625399	-0.030
	Ca	43	**-0.542**	ug/L	241.275	356	-0.000
>	Sc	45		ug/L		535473	535473.405
	Ti	47	**-0.160**	ug/L	24.622	417	-0.000
	V	51	**0.670**	ug/L	42.471	10155	0.008
	Cr	52	**0.116**	ug/L	28.244	-3787	0.001
	Cr	53		ug/L		111005	-0.015
	Mn	55	**0.008**	ug/L	39.942	1292	0.000
	Fe	57	**-1.405**	ug/L	56.889	5184	-0.000
	Co	59	**0.021**	ug/L	29.792	323	0.000
	Ni	60	**-0.001**	ug/L	773.928	235	-0.000
	Cu	63		ug/L		466	-0.000
	Cu	65	**0.030**	ug/L	33.450	247	0.000
	Zn	66	**0.014**	ug/L	132.315	281	0.000
	Zn	67		ug/L		12314	-0.004
	Zn	68		ug/L		1308	-0.001
>	Ge	74		ug/L		356803	356802.598
	As	75	**0.674**	ug/L	69.402	353	0.002
	Se	77		ug/L		5775	-0.001
	Se	82	**0.115**	ug/L	113.075	-4	0.000
	Kr	83		ug/L		108	-0.000
	Sr	88	**0.007**	ug/L	22.495	331	0.000
	Y	89		ug/L		45	-0.000
	Mo	98	**0.109**	ug/L	14.099	459	0.001
	Ag	107	**0.004**	ug/L	44.351	94	0.000
	Cd	111	**0.011**	ug/L	109.725	40	0.000
	Cd	114		ug/L		71	0.000
>	In	115		ug/L		222528	222527.577
	Sn	120	**0.285**	ug/L	13.316	1914	0.007
	Sb	121	**1.063**	ug/L	21.103	5677	0.023
	Sb	123		ug/L		4355	0.017
	Ba	135		ug/L		63	0.000
	Ba	137	**0.010**	ug/L	23.851	89	0.000
	Ho	165		ug/L		20	0.000
>	Lu	175		ug/L		459694	459694.309
	Tl	205	**0.240**	ug/L	40.238	10459	0.010
	Pb	208	**0.022**	ug/L	19.047	1445	0.001
	Bi	209		ug/L		220	0.000
	Th	232	**0.117**	ug/L	26.183	6277	0.010
	U	238	**0.053**	ug/L	12.709	2963	0.005

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	0.9999
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	1.0000
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9999
Pb	208Linear Thru Zero	1.0000
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9999
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		97.3			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		98.8			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		99.4			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		98.2			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202014492
Sample Date/Time: Thursday, January 14, 2010 22:33:05
Sample Type:
Sample Description: LANL 6020 MB
Number of Replicates: 3
Batch ID: 941231|1|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100114\1202014492.053

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.118**	ug/L	3.808	177	0.000
	Be	9	**0.010**	ug/L	59.937	19	0.000
	B	11	**-4.097**	ug/L	4.853	1351	-0.003
	Na	23	**6.379**	ug/L	50.476	56449	0.053
	Mg	24	**0.503**	ug/L	138.826	5334	0.003
	Al	27	**2.106**	ug/L	48.457	16677	0.018
	P	31	**-16.737**	ug/L	9.856	5887	-0.007
	K	39	**22.506**	ug/L	41.308	742157	0.219
	Ca	43	**17.692**	ug/L	15.532	563	0.000
>	Sc	45		ug/L		524028	524028.439
	Ti	47	**0.123**	ug/L	47.514	569	0.000
	V	51	**-2.128**	ug/L	38.003	-7660	-0.025
	Cr	52	**-1.446**	ug/L	15.978	-11342	-0.014
	Cr	53		ug/L		248501	0.252
	Mn	55	**0.175**	ug/L	8.364	2605	0.003
	Fe	57	**9.143**	ug/L	4.675	6694	0.003
	Co	59	**0.023**	ug/L	9.551	325	0.000
	Ni	60	**0.039**	ug/L	31.219	283	0.000
	Cu	63		ug/L		2716	0.004
	Cu	65	**0.710**	ug/L	2.046	1294	0.002
	Zn	66	**1.819**	ug/L	4.464	2038	0.005
	Zn	67		ug/L		42664	0.086
	Zn	68		ug/L		3988	0.007
>	Ge	74		ug/L		343677	343676.838
	As	75	**-0.179**	ug/L	334.848	-504	-0.001
	Se	77		ug/L		16499	0.030
	Se	82	**-0.083**	ug/L	160.694	-22	-0.000
	Kr	83		ug/L		107	0.000
	Sr	88	**0.036**	ug/L	9.621	644	0.002
	Y	89		ug/L		53	0.000
	Mo	98	**0.033**	ug/L	10.720	218	0.000
	Ag	107	**-0.005**	ug/L	28.376	42	-0.000
	Cd	111	**-0.011**	ug/L	89.591	11	-0.000
	Cd	114		ug/L		37	-0.000
>	In	115		ug/L		210627	210627.152
	Sn	120	**0.497**	ug/L	36.768	2945	0.013
	Sb	121	**0.384**	ug/L	30.941	2326	0.008
	Sb	123		ug/L		1893	0.007
	Ba	135		ug/L		105	0.000
	Ba	137	**0.036**	ug/L	14.491	156	0.000
	Ho	165		ug/L		26	0.000
>	Lu	175		ug/L		462118	462118.083
	Tl	205	**-0.046**	ug/L	31.301	5001	-0.002
	Pb	208	**-0.003**	ug/L	30.247	662	-0.000
	Bi	209		ug/L		214	0.000
	Th	232	**0.016**	ug/L	47.712	2465	0.001
	U	238	**-0.001**	ug/L	126.797	763	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	0.9999
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		95.2			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		95.2			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		94.1			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		98.7			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202014493
Sample Date/Time: Thursday, January 14, 2010 22:39:16
Sample Type:
Sample Description: LANL 6020 LCS
Number of Replicates: 3
Batch ID: 941231|1|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100114\1202014493.054

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**49.980**	ug/L	6.524	51253	0.098
	Be	9	**55.317**	ug/L	2.900	16977	0.032
	B	11	**102.378**	ug/L	2.927	36783	0.065
	Na	23	**1953.091**	ug/L	2.902	8561220	16.318
	Mg	24	**2082.722**	ug/L	9.578	6379807	12.189
	Al	27	**1859.419**	ug/L	8.214	8236099	15.739
	P	31	**2056.199**	ug/L	1.090	455778	0.853
	K	39	**1943.124**	ug/L	3.199	10529089	18.936
	Ca	43	**1994.934**	ug/L	3.150	23736	0.045
>	Sc	45		ug/L		522951	522950.948
	Ti	47	**43.511**	ug/L	2.486	25167	0.047
	V	51	**43.088**	ug/L	2.199	275531	0.516
	Cr	52	**46.632**	ug/L	0.899	223396	0.435
	Cr	53		ug/L		289314	0.331
	Mn	55	**50.629**	ug/L	1.582	407025	0.776
	Fe	57	**2088.943**	ug/L	1.013	325654	0.613
	Co	59	**49.075**	ug/L	1.394	300246	0.574
	Ni	60	**50.333**	ug/L	1.191	66822	0.127
	Cu	63		ug/L		159990	0.305
	Cu	65	**50.113**	ug/L	0.835	77533	0.148
	Zn	66	**52.838**	ug/L	1.554	52557	0.151
	Zn	67		ug/L		56504	0.124
	Zn	68		ug/L		39626	0.110
>	Ge	74		ug/L		347223	347222.938
	As	75	**50.049**	ug/L	2.223	49625	0.144
	Se	77		ug/L		20521	0.041
	Se	82	**53.890**	ug/L	0.987	5029	0.015
	Kr	83		ug/L		128	0.000
	Sr	88	**51.211**	ug/L	2.129	580952	2.736
	Y	89		ug/L		95	0.000
	Mo	98	**47.912**	ug/L	1.410	136893	0.644
	Ag	107	**50.146**	ug/L	1.314	248663	1.171
	Cd	111	**49.690**	ug/L	0.593	60751	0.286
	Cd	114		ug/L		147034	0.693
>	In	115		ug/L		212223	212223.363
	Sn	120	**50.379**	ug/L	1.764	271685	1.279
	Sb	121	**52.831**	ug/L	0.532	239639	1.126
	Sb	123		ug/L		191631	0.901
	Ba	135		ug/L		68997	0.148
	Ba	137	**46.144**	ug/L	4.240	121238	0.261
	Ho	165		ug/L		49	0.000
>	Lu	175		ug/L		464658	464658.343
	Tl	205	**48.593**	ug/L	2.921	949463	2.031
	Pb	208	**51.122**	ug/L	1.962	1615340	3.476
	Bi	209		ug/L		1275709	2.746
	Th	232	**49.052**	ug/L	2.958	1878401	4.040
	U	238	**50.513**	ug/L	5.094	2074222	4.465

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	0.9999
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	1.0000
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9999
Pb	208Linear Thru Zero	1.0000
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9999
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		95.0			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		96.2			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		94.8			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		99.2			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202014494
Sample Date/Time: Thursday, January 14, 2010 22:51:36
Sample Type:
Sample Description: LANL 6020 DUP
Number of Replicates: 3
Batch ID: 941231|1|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100114\1202014494.056

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.161**	ug/L	10.647	218	0.000
	Be	9	**0.010**	ug/L	94.922	18	0.000
	B	11	**16.963**	ug/L	0.749	8271	0.011
	Na	23	**73.821**	ug/L	12.750	347550	0.617
	Mg	24	**7.355**	ug/L	16.286	26024	0.043
	Al	27	**22.334**	ug/L	1.507	105052	0.189
	P	31	**-15.226**	ug/L	10.837	6134	-0.006
	K	39	**117.340**	ug/L	2.125	1211629	1.144
	Ca	43	**45.520**	ug/L	15.279	878	0.001
>	Sc	45		ug/L		517548	517548.180
	Ti	47	**0.652**	ug/L	7.741	859	0.001
	V	51	**-2.525**	ug/L	67.615	-10004	-0.030
	Cr	52	**-0.549**	ug/L	13.358	-6869	-0.005
	Cr	53		ug/L		270519	0.300
	Mn	55	**1.111**	ug/L	0.530	10001	0.017
	Fe	57	**30.284**	ug/L	5.063	9820	0.009
	Co	59	**0.028**	ug/L	6.411	353	0.000
	Ni	60	**0.267**	ug/L	4.932	579	0.001
	Cu	63		ug/L		5383	0.009
	Cu	65	**1.538**	ug/L	1.463	2542	0.005
	Zn	66	**2.269**	ug/L	6.400	2460	0.006
	Zn	67		ug/L		47850	0.102
	Zn	68		ug/L		4422	0.009
>	Ge	74		ug/L		341034	341033.613
	As	75	**-0.625**	ug/L	84.080	-932	-0.002
	Se	77		ug/L		17665	0.034
	Se	82	**-0.096**	ug/L	170.188	-23	-0.000
	Kr	83		ug/L		116	0.000
	Sr	88	**0.192**	ug/L	1.724	2399	0.010
	Y	89		ug/L		298	0.001
	Mo	98	**0.003**	ug/L	12.728	134	0.000
	Ag	107	**-0.000**	ug/L	1330.555	67	-0.000
	Cd	111	**-0.005**	ug/L	93.003	18	-0.000
	Cd	114		ug/L		32	-0.000
>	In	115		ug/L		210889	210888.905
	Sn	120	**0.079**	ug/L	6.423	712	0.002
	Sb	121	**0.000**	ug/L	2862.544	606	0.000
	Sb	123		ug/L		512	0.000
	Ba	135		ug/L		570	0.001
	Ba	137	**0.378**	ug/L	3.091	1040	0.002
	Ho	165		ug/L		40	0.000
>	Lu	175		ug/L		457550	457549.523
	Tl	205	**0.075**	ug/L	7.891	7267	0.003
	Pb	208	**0.069**	ug/L	6.540	2901	0.005
	Bi	209		ug/L		266	0.000
	Th	232	**-0.009**	ug/L	10.520	1499	-0.001
	U	238	**-0.008**	ug/L	4.359	472	-0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	0.9999
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		94.0			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		94.5			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		94.2			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		97.7			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202014495
Sample Date/Time: Thursday, January 14, 2010 22:57:45
Sample Type:
Sample Description: LANL 6020 MS
Number of Replicates: 3
Batch ID: 941231|1|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100114\1202014495.057

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**50.405**	**ug/L**	4.863	51681	0.099
	Be	9	**55.220**	**ug/L**	0.445	16945	0.032
	B	11	**123.892**	**ug/L**	1.309	43937	0.079
	Na	23	**1980.194**	**ug/L**	8.324	8676426	16.544
	Mg	24	**1867.836**	**ug/L**	5.801	5720285	10.931
	Al	27	**1958.058**	**ug/L**	9.894	8675283	16.573
	P	31	**2011.054**	**ug/L**	2.319	445879	0.835
	K	39	**2135.426**	**ug/L**	4.338	11505499	20.810
	Ca	43	**2000.691**	**ug/L**	1.898	23796	0.045
>	Sc	45		**ug/L**		522870	522870.155
	Ti	47	**44.346**	**ug/L**	1.717	25638	0.048
	V	51	**43.000**	**ug/L**	4.777	274945	0.515
	Cr	52	**48.146**	**ug/L**	1.714	230747	0.449
	Cr	53		**ug/L**		296499	0.345
	Mn	55	**50.001**	**ug/L**	0.632	401912	0.766
	Fe	57	**2104.301**	**ug/L**	1.131	327939	0.617
	Co	59	**48.612**	**ug/L**	2.383	297357	0.568
	Ni	60	**49.795**	**ug/L**	1.766	66097	0.126
	Cu	63		**ug/L**		164773	0.314
	Cu	65	**50.941**	**ug/L**	0.211	78799	0.150
	Zn	66	**53.863**	**ug/L**	1.736	52308	0.154
	Zn	67		**ug/L**		55816	0.126
	Zn	68		**ug/L**		39004	0.111
>	Ge	74		**ug/L**		339043	339042.770
	As	75	**78.412**	**ug/L**	0.553	76108	0.225
	Se	77		**ug/L**		19173	0.039
	Se	82	**22.050**	**ug/L**	2.776	2000	0.006
	Kr	83		**ug/L**		130	0.000
	Sr	88	**51.934**	**ug/L**	2.171	576986	2.775
	Y	89		**ug/L**		308	0.001
	Mo	98	**48.649**	**ug/L**	1.003	136134	0.654
	Ag	107	**51.199**	**ug/L**	1.583	248656	1.196
	Cd	111	**10.456**	**ug/L**	0.480	12539	0.060
	Cd	114		**ug/L**		28921	0.139
>	In	115		**ug/L**		207855	207854.806
	Sn	120	**51.409**	**ug/L**	1.229	271538	1.305
	Sb	121	**205.095**	**ug/L**	0.647	909428	4.372
	Sb	123		**ug/L**		730181	3.511
	Ba	135		**ug/L**		69334	0.150
	Ba	137	**46.993**	**ug/L**	2.866	123099	0.266
	Ho	165		**ug/L**		299	0.001
>	Lu	175		**ug/L**		463117	463116.977
	Tl	205	**89.197**	**ug/L**	4.037	1732217	3.729
	Pb	208	**41.906**	**ug/L**	1.413	1320049	2.849
	Bi	209		**ug/L**		657	0.001
	Th	232	**49.897**	**ug/L**	3.015	1904693	4.110
	U	238	**50.871**	**ug/L**	2.491	2082974	4.497

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	0.9999
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	1.0000
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9999
Pb	208Linear Thru Zero	1.0000
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9999
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		95.0			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		93.9			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		92.8			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		98.9			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202014496
Sample Date/Time: Thursday, January 14, 2010 23:03:54
Sample Type:
Sample Description: LANL 6020 SDILT
Number of Replicates: 3
Batch ID: 941231|5|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100114\1202014496.058

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.017**	ug/L	38.047	75	0.000
	Be	9	**0.011**	ug/L	111.268	19	0.000
	B	11	**0.787**	ug/L	90.218	3060	0.001
	Na	23	**12.140**	ug/L	44.163	83926	0.101
	Mg	24	**0.663**	ug/L	208.451	6002	0.004
	Al	27	**3.774**	ug/L	37.256	24689	0.032
	P	31	**-13.326**	ug/L	7.991	6802	-0.006
	K	39	**13.175**	ug/L	28.115	713386	0.128
	Ca	43	**8.435**	ug/L	31.120	466	0.000
>	Sc	45		ug/L		538012	538012.076
	Ti	47	**0.011**	ug/L	612.183	519	0.000
	V	51	**0.172**	ug/L	118.101	6989	0.002
	Cr	52	**-0.122**	ug/L	27.266	-4997	-0.001
	Cr	53		ug/L		158194	0.072
	Mn	55	**0.220**	ug/L	2.602	3048	0.003
	Fe	57	**8.004**	ug/L	15.326	6694	0.002
	Co	59	**0.001**	ug/L	207.647	196	0.000
	Ni	60	**0.036**	ug/L	33.362	287	0.000
	Cu	63		ug/L		1212	0.001
	Cu	65	**0.234**	ug/L	3.945	572	0.001
	Zn	66	**0.570**	ug/L	4.195	839	0.002
	Zn	67		ug/L		18272	0.013
	Zn	68		ug/L		2092	0.002
>	Ge	74		ug/L		354126	354126.333
	As	75	**-0.124**	ug/L	208.225	-462	-0.000
	Se	77		ug/L		8858	0.007
	Se	82	**-0.021**	ug/L	934.191	-17	-0.000
	Kr	83		ug/L		104	-0.000
	Sr	88	**0.031**	ug/L	6.164	617	0.002
	Y	89		ug/L		114	0.000
	Mo	98	**0.011**	ug/L	96.300	163	0.000
	Ag	107	**-0.005**	ug/L	18.535	44	-0.000
	Cd	111	**-0.012**	ug/L	59.658	10	-0.000
	Cd	114		ug/L		34	-0.000
>	In	115		ug/L		219958	219957.626
	Sn	120	**0.007**	ug/L	36.037	339	0.000
	Sb	121	**0.072**	ug/L	46.990	969	0.002
	Sb	123		ug/L		810	0.001
	Ba	135		ug/L		138	0.000
	Ba	137	**0.056**	ug/L	2.583	210	0.000
	Ho	165		ug/L		25	0.000
>	Lu	175		ug/L		464799	464799.249
	Tl	205	**1.632**	ug/L	21.661	37669	0.068
	Pb	208	**0.004**	ug/L	37.270	894	0.000
	Bi	209		ug/L		170	-0.000
	Th	232	**-0.014**	ug/L	54.986	1340	-0.001
	U	238	**-0.012**	ug/L	6.416	319	-0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	0.9999
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45			97.7		
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74			98.1		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115			98.2		
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175			99.3		
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 8
Sample Date/Time: Thursday, January 14, 2010 23:10:02
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100114\QC Std 8.059

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**49.728**	ug/L	3.916	52490	0.097
	Be	9	**50.570**	ug/L	1.763	15976	0.030
	B	11	**91.489**	ug/L	1.240	34130	0.058
	Na	23	**4809.544**	ug/L	13.933	21658663	40.183
	Mg	24	**4912.041**	ug/L	3.880	15477481	28.748
	Al	27	**4565.651**	ug/L	5.012	20808449	38.645
	P	31	**4829.595**	ug/L	0.598	1088602	2.004
	K	39	**4764.605**	ug/L	1.940	25637011	46.432
	Ca	43	**4807.753**	ug/L	1.739	58357	0.108
>	Sc	45		ug/L		538241	538241.113
	Ti	47	**46.663**	ug/L	2.428	27743	0.051
	V	51	**48.751**	ug/L	2.497	320098	0.584
	Cr	52	**49.604**	ug/L	0.649	244862	0.463
	Cr	53		ug/L		146853	0.050
	Mn	55	**50.811**	ug/L	1.427	420408	0.779
	Fe	57	**5053.564**	ug/L	2.205	803115	1.482
	Co	59	**49.045**	ug/L	0.662	308846	0.573
	Ni	60	**50.253**	ug/L	3.051	68667	0.127
	Cu	63		ug/L		161409	0.299
	Cu	65	**49.182**	ug/L	1.081	78323	0.145
	Zn	66	**50.352**	ug/L	1.568	51521	0.144
	Zn	67		ug/L		21147	0.021
	Zn	68		ug/L		37885	0.102
>	Ge	74		ug/L		357063	357063.099
	As	75	**48.699**	ug/L	1.107	49650	0.140
	Se	77		ug/L		9742	0.010
	Se	82	**50.003**	ug/L	2.701	4797	0.013
	Kr	83		ug/L		111	0.000
	Sr	88	**50.719**	ug/L	0.823	600226	2.710
	Y	89		ug/L		108	0.000
	Mo	98	**48.108**	ug/L	2.697	143380	0.647
	Ag	107	**48.477**	ug/L	1.324	250775	1.132
	Cd	111	**48.860**	ug/L	0.736	62320	0.281
	Cd	114		ug/L		149497	0.675
>	In	115		ug/L		221411	221410.936
	Sn	120	**49.400**	ug/L	1.222	277934	1.254
	Sb	121	**49.873**	ug/L	1.914	236046	1.063
	Sb	123		ug/L		184687	0.832
	Ba	135		ug/L		72378	0.159
	Ba	137	**49.894**	ug/L	0.431	128127	0.282
	Ho	165		ug/L		39	0.000
>	Lu	175		ug/L		453893	453893.167
	Tl	205	**51.800**	ug/L	3.132	988584	2.166
	Pb	208	**52.494**	ug/L	1.069	1620619	3.569
	Bi	209		ug/L		452	0.001
	Th	232	**50.575**	ug/L	1.253	1892516	4.166
	U	238	**52.031**	ug/L	1.159	2088614	4.600

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	0.9999
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	1.0000
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9999
Pb	208Linear Thru Zero	1.0000
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9999
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7	99.457				
	Be	9	101.140				
	B	11	91.489				
	Na	23	96.191				
	Mg	24	98.241				
	Al	27	90.409				
	P	31	96.592				
	K	39	95.292				
	Ca	43	96.155				
>	Sc	45		97.8			
	Ti	47	93.326				
	V	51	97.503				
	Cr	52	99.207				
	Cr	53					
	Mn	55	101.621				
	Fe	57	101.071				
	Co	59	98.090				
	Ni	60	100.506				
	Cu	63					
	Cu	65	98.365				
	Zn	66	100.704				
	Zn	67					
	Zn	68					
>	Ge	74		98.9			
	As	75	97.397				
	Se	77					
	Se	82	100.006				
	Kr	83					
	Sr	88	101.438				
	Y	89					
	Mo	98	96.216				
	Ag	107	96.954				
	Cd	111	97.720				
	Cd	114					
>	In	115		98.9			
	Sn	120	98.800				
	Sb	121	99.746				
	Sb	123					
	Ba	135					
	Ba	137	99.788				
	Ho	165					
>	Lu	175		96.9			
	Tl	205	103.600				
	Pb	208	104.989				
	Bi	209					
	Th	232	101.150				
	U	238	104.062				

QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 9
Sample Date/Time: Thursday, January 14, 2010 23:16:10
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100114\QC Std 9.060

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.001**	ug/L	972.394	58	0.000
	Be	9	**0.006**	ug/L	334.984	18	0.000
	B	11	**-3.193**	ug/L	19.120	1673	-0.002
	Na	23	**-0.057**	ug/L	87.419	28695	-0.000
	Mg	24	**-0.377**	ug/L	182.097	2667	-0.002
	Al	27	**0.733**	ug/L	39.929	10671	0.006
	P	31	**-3.531**	ug/L	68.149	8861	-0.001
	K	39	**-6.677**	ug/L	88.099	600719	-0.065
	Ca	43	**-2.678**	ug/L	10.821	327	-0.000
>	Sc	45		ug/L		530570	530569.519
	Ti	47	**-0.091**	ug/L	48.208	453	-0.000
	V	51	**0.001**	ug/L	61087.319	5816	0.000
	Cr	52	**0.038**	ug/L	82.356	-4136	0.000
	Cr	53		ug/L		116126	-0.004
	Mn	55	**-0.002**	ug/L	13.778	1200	-0.000
	Fe	57	**-1.891**	ug/L	42.327	5060	-0.001
	Co	59	**0.007**	ug/L	40.291	230	0.000
	Ni	60	**-0.012**	ug/L	113.256	218	-0.000
	Cu	63		ug/L		390	-0.000
	Cu	65	**-0.002**	ug/L	1274.599	194	-0.000
	Zn	66	**0.015**	ug/L	175.921	276	0.000
	Zn	67		ug/L		12886	-0.001
	Zn	68		ug/L		1294	-0.001
>	Ge	74		ug/L		348937	348937.115
	As	75	**0.253**	ug/L	90.932	-75	0.001
	Se	77		ug/L		6198	0.000
	Se	82	**-0.151**	ug/L	103.293	-29	-0.000
	Kr	83		ug/L		116	0.000
	Sr	88	**0.002**	ug/L	15.522	271	0.000
	Y	89		ug/L		42	-0.000
	Mo	98	**0.028**	ug/L	32.845	215	0.000
	Ag	107	**0.003**	ug/L	50.110	88	0.000
	Cd	111	**0.000**	ug/L	4044.561	25	0.000
	Cd	114		ug/L		67	0.000
>	In	115		ug/L		220057	220056.589
	Sn	120	**0.038**	ug/L	29.567	517	0.001
	Sb	121	**0.310**	ug/L	28.531	2084	0.007
	Sb	123		ug/L		1727	0.005
	Ba	135		ug/L		48	0.000
	Ba	137	**0.003**	ug/L	225.472	69	0.000
	Ho	165		ug/L		19	-0.000
>	Lu	175		ug/L		455602	455602.201
	Tl	205	**0.821**	ug/L	20.051	21424	0.034
	Pb	208	**0.004**	ug/L	19.068	869	0.000
	Bi	209		ug/L		154	-0.000
	Th	232	**0.059**	ug/L	39.242	4034	0.005
	U	238	**0.010**	ug/L	31.054	1182	0.001

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	0.9999
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	1.0000
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9999
Pb	208Linear Thru Zero	1.0000
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9999
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		96.4			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		96.6			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		98.3			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		97.3			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 243554001
Sample Date/Time: Thursday, January 14, 2010 23:22:20
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 941231|1|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100114\243554001.061

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.052**	ug/L	49.642	107	0.000
	Be	9	**0.002**	ug/L	630.225	16	0.000
	B	11	**-4.920**	ug/L	1.408	1052	-0.003
	Na	23	**4.400**	ug/L	58.043	46746	0.037
	Mg	24	**0.655**	ug/L	82.069	5668	0.004
	Al	27	**1.270**	ug/L	70.407	12673	0.011
	P	31	**-14.026**	ug/L	20.760	6320	-0.006
	K	39	**8.312**	ug/L	64.107	654691	0.081
	Ca	43	**23.304**	ug/L	9.210	614	0.001
>	Sc	45		ug/L		511920	511919.962
	Ti	47	**0.186**	ug/L	28.557	591	0.000
	V	51	**-2.003**	ug/L	42.352	-6739	-0.024
	Cr	52	**-1.391**	ug/L	22.005	-10816	-0.013
	Cr	53		ug/L		256094	0.278
	Mn	55	**0.209**	ug/L	7.196	2809	0.003
	Fe	57	**29.435**	ug/L	5.151	9584	0.009
	Co	59	**0.011**	ug/L	11.165	248	0.000
	Ni	60	**0.133**	ug/L	20.006	398	0.000
	Cu	63		ug/L		1819	0.003
	Cu	65	**0.454**	ug/L	6.562	876	0.001
	Zn	66	**2.166**	ug/L	3.009	2332	0.006
	Zn	67		ug/L		44451	0.094
	Zn	68		ug/L		4216	0.008
>	Ge	74		ug/L		336969	336968.518
	As	75	**-0.657**	ug/L	102.398	-953	-0.002
	Se	77		ug/L		17043	0.033
	Se	82	**-0.058**	ug/L	82.393	-20	-0.000
	Kr	83		ug/L		106	0.000
	Sr	88	**0.037**	ug/L	8.361	658	0.002
	Y	89		ug/L		71	0.000
	Mo	98	**-0.002**	ug/L	80.753	119	-0.000
	Ag	107	**-0.003**	ug/L	45.217	55	-0.000
	Cd	111	**0.002**	ug/L	381.678	26	0.000
	Cd	114		ug/L		33	-0.000
>	In	115		ug/L		210605	210604.684
	Sn	120	**0.127**	ug/L	12.500	969	0.003
	Sb	121	**0.037**	ug/L	75.620	772	0.001
	Sb	123		ug/L		638	0.001
	Ba	135		ug/L		146	0.000
	Ba	137	**0.071**	ug/L	6.407	247	0.000
	Ho	165		ug/L		27	0.000
>	Lu	175		ug/L		457908	457908.195
	Tl	205	**0.172**	ug/L	8.709	9117	0.007
	Pb	208	**-0.002**	ug/L	48.475	698	-0.000
	Bi	209		ug/L		278	0.000
	Th	232	**-0.013**	ug/L	32.297	1353	-0.001
	U	238	**-0.015**	ug/L	1.675	173	-0.001

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	0.9999
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	1.0000
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9999
Pb	208Linear Thru Zero	1.0000
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9999
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		93.0			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		93.3			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		94.1			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		97.8			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 243554002
Sample Date/Time: Thursday, January 14, 2010 23:28:30
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 941231|1|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100114\243554002.062

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.032**	ug/L	33.143	87	0.000
	Be	9	**0.007**	ug/L	119.630	17	0.000
	B	11	**-5.297**	ug/L	2.282	929	-0.003
	Na	23	**3.550**	ug/L	48.126	43066	0.030
	Mg	24	**0.541**	ug/L	157.329	5334	0.003
	Al	27	**2.285**	ug/L	83.824	17012	0.019
	P	31	**-13.897**	ug/L	13.046	6345	-0.006
	K	39	**13.858**	ug/L	6.342	681896	0.135
	Ca	43	**26.480**	ug/L	10.279	650	0.001
>	Sc	45		ug/L		511708	511707.707
	Ti	47	**0.237**	ug/L	7.364	619	0.000
	V	51	**-2.983**	ug/L	23.607	-12698	-0.036
	Cr	52	**-1.662**	ug/L	6.676	-12105	-0.016
	Cr	53		ug/L		269010	0.303
	Mn	55	**0.192**	ug/L	7.491	2677	0.003
	Fe	57	**7.461**	ug/L	6.531	6285	0.002
	Co	59	**0.008**	ug/L	41.508	227	0.000
	Ni	60	**0.026**	ug/L	4.701	260	0.000
	Cu	63		ug/L		1427	0.002
	Cu	65	**0.332**	ug/L	8.788	693	0.001
	Zn	66	**1.651**	ug/L	1.731	1851	0.005
	Zn	67		ug/L		48118	0.103
	Zn	68		ug/L		4149	0.008
>	Ge	74		ug/L		339499	339499.495
	As	75	**0.006**	ug/L	2288.031	-314	0.000
	Se	77		ug/L		17266	0.033
	Se	82	**-0.018**	ug/L	933.986	-16	-0.000
	Kr	83		ug/L		114	0.000
	Sr	88	**0.078**	ug/L	4.083	1117	0.004
	Y	89		ug/L		74	0.000
	Mo	98	**-0.018**	ug/L	28.627	74	-0.000
	Ag	107	**-0.005**	ug/L	18.522	41	-0.000
	Cd	111	**-0.004**	ug/L	103.478	19	-0.000
	Cd	114		ug/L		32	-0.000
>	In	115		ug/L		210787	210786.761
	Sn	120	**0.057**	ug/L	5.704	594	0.001
	Sb	121	**-0.042**	ug/L	8.682	415	-0.001
	Sb	123		ug/L		357	-0.001
	Ba	135		ug/L		168	0.000
	Ba	137	**0.081**	ug/L	9.399	271	0.000
	Ho	165		ug/L		19	-0.000
>	Lu	175		ug/L		457949	457949.068
	Tl	205	**0.060**	ug/L	30.475	6976	0.002
	Pb	208	**-0.002**	ug/L	61.389	695	-0.000
	Bi	209		ug/L		175	-0.000
	Th	232	**-0.027**	ug/L	5.977	816	-0.002
	U	238	**-0.017**	ug/L	1.123	126	-0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	0.9999
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		93.0			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		94.0			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		94.2			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		97.8			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 243554003
Sample Date/Time: Thursday, January 14, 2010 23:34:41
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 941231|1|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100114\243554003.063

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.104**	**ug/L**	7.987	160	0.000
	Be	9	**-0.002**	**ug/L**	591.209	15	-0.000
	B	11	**-5.431**	**ug/L**	0.601	889	-0.003
	Na	23	**336.216**	**ug/L**	2.594	1471075	2.809
	Mg	24	**3.538**	**ug/L**	48.028	14341	0.021
	Al	27	**31.896**	**ug/L**	10.384	145743	0.270
	P	31	**-12.160**	**ug/L**	14.017	6740	-0.005
	K	39	**43.898**	**ug/L**	34.565	834821	0.428
	Ca	43	**44.145**	**ug/L**	12.301	855	0.001
>	Sc	45		**ug/L**		513714	513714.377
	Ti	47	**0.796**	**ug/L**	8.139	932	0.001
	V	51	**-3.285**	**ug/L**	30.559	-14667	-0.039
	Cr	52	**-1.466**	**ug/L**	9.197	-11210	-0.014
	Cr	53		**ug/L**		274384	0.312
	Mn	55	**4.155**	**ug/L**	1.877	33885	0.064
	Fe	57	**175.201**	**ug/L**	4.088	31572	0.051
	Co	59	**0.023**	**ug/L**	25.562	320	0.000
	Ni	60	**0.132**	**ug/L**	16.717	399	0.000
	Cu	63		**ug/L**		2316	0.004
	Cu	65	**0.581**	**ug/L**	3.731	1073	0.002
	Zn	66	**1.963**	**ug/L**	4.525	2140	0.006
	Zn	67		**ug/L**		49657	0.109
	Zn	68		**ug/L**		4316	0.009
>	Ge	74		**ug/L**		337480	337479.755
	As	75	**-1.420**	**ug/L**	26.338	-1696	-0.004
	Se	77		**ug/L**		17468	0.034
	Se	82	**-0.095**	**ug/L**	124.991	-23	-0.000
	Kr	83		**ug/L**		109	0.000
	Sr	88	**0.113**	**ug/L**	1.979	1482	0.006
	Y	89		**ug/L**		755	0.003
	Mo	98	**0.008**	**ug/L**	85.945	145	0.000
	Ag	107	**-0.004**	**ug/L**	43.423	49	-0.000
	Cd	111	**0.017**	**ug/L**	27.322	43	0.000
	Cd	114		**ug/L**		82	0.000
>	In	115		**ug/L**		206398	206397.731
	Sn	120	**0.069**	**ug/L**	1.095	648	0.002
	Sb	121	**-0.060**	**ug/L**	8.899	329	-0.001
	Sb	123		**ug/L**		296	-0.001
	Ba	135		**ug/L**		470	0.001
	Ba	137	**0.295**	**ug/L**	2.649	826	0.002
	Ho	165		**ug/L**		82	0.000
>	Lu	175		**ug/L**		457058	457057.564
	Tl	205	**-0.015**	**ug/L**	30.796	5528	-0.001
	Pb	208	**0.042**	**ug/L**	1.749	2063	0.003
	Bi	209		**ug/L**		198	-0.000
	Th	232	**-0.014**	**ug/L**	6.411	1311	-0.001
	U	238	**-0.013**	**ug/L**	1.471	268	-0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	0.9999
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		93.3			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		93.5			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		92.2			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		97.6			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 243554004
Sample Date/Time: Thursday, January 14, 2010 23:40:53
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 941231|1|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100114\243554004.064

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.163**	**ug/L**	11.566	214	0.000
	Be	9	**0.009**	**ug/L**	104.884	18	0.000
	B	11	**-5.660**	**ug/L**	2.832	797	-0.004
	Na	23	**211.540**	**ug/L**	6.389	918376	1.767
	Mg	24	**5.892**	**ug/L**	11.185	21016	0.034
	Al	27	**62.964**	**ug/L**	14.510	275674	0.533
	P	31	**-12.193**	**ug/L**	17.736	6600	-0.005
	K	39	**56.421**	**ug/L**	7.883	879959	0.550
	Ca	43	**47.901**	**ug/L**	3.905	882	0.001
>	Sc	45		**ug/L**		503718	503717.771
	Ti	47	**1.304**	**ug/L**	4.141	1191	0.001
	V	51	**-2.066**	**ug/L**	37.214	-7003	-0.025
	Cr	52	**-1.441**	**ug/L**	5.616	-10887	-0.013
	Cr	53		**ug/L**		266054	0.306
	Mn	55	**8.639**	**ug/L**	2.441	67837	0.132
	Fe	57	**252.422**	**ug/L**	2.756	42361	0.074
	Co	59	**0.034**	**ug/L**	11.950	375	0.000
	Ni	60	**0.147**	**ug/L**	15.383	410	0.000
	Cu	63		**ug/L**		2291	0.004
	Cu	65	**0.612**	**ug/L**	8.863	1097	0.002
	Zn	66	**3.138**	**ug/L**	1.822	3238	0.009
	Zn	67		**ug/L**		47594	0.104
	Zn	68		**ug/L**		5127	0.011
>	Ge	74		**ug/L**		334065	334064.517
	As	75	**-0.100**	**ug/L**	655.688	-406	-0.000
	Se	77		**ug/L**		16977	0.033
	Se	82	**-0.046**	**ug/L**	286.661	-18	-0.000
	Kr	83		**ug/L**		108	0.000
	Sr	88	**0.209**	**ug/L**	4.735	2575	0.011
	Y	89		**ug/L**		4411	0.021
	Mo	98	**0.029**	**ug/L**	22.095	207	0.000
	Ag	107	**-0.002**	**ug/L**	43.514	57	-0.000
	Cd	111	**0.001**	**ug/L**	837.890	25	0.000
	Cd	114		**ug/L**		33	-0.000
>	In	115		**ug/L**		209728	209727.674
	Sn	120	**0.102**	**ug/L**	9.320	833	0.003
	Sb	121	**-0.071**	**ug/L**	2.602	283	-0.002
	Sb	123		**ug/L**		255	-0.001
	Ba	135		**ug/L**		941	0.002
	Ba	137	**0.645**	**ug/L**	5.031	1718	0.004
	Ho	165		**ug/L**		374	0.001
>	Lu	175		**ug/L**		454646	454645.782
	Tl	205	**-0.056**	**ug/L**	8.037	4719	-0.002
	Pb	208	**0.072**	**ug/L**	1.852	2976	0.005
	Bi	209		**ug/L**		221	0.000
	Th	232	**0.037**	**ug/L**	7.178	3210	0.003
	U	238	**-0.007**	**ug/L**	10.164	510	-0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	0.9999
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		91.5			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		92.5			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		93.7			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		97.1			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 8
Sample Date/Time: Thursday, January 14, 2010 23:47:02
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100114\QC Std 8.065

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**51.008**	ug/L	6.522	52418	0.100
	Be	9	**51.204**	ug/L	2.050	15750	0.030
	B	11	**92.381**	ug/L	3.224	33530	0.059
	Na	23	**4664.056**	ug/L	6.116	20449003	38.968
	Mg	24	**4667.935**	ug/L	2.482	14320659	27.319
	Al	27	**4552.761**	ug/L	10.621	20199706	38.536
	P	31	**4897.172**	ug/L	1.077	1074666	2.032
	K	39	**5037.764**	ug/L	8.949	26349150	49.094
	Ca	43	**4947.398**	ug/L	2.508	58467	0.111
>	Sc	45		ug/L		524094	524094.459
	Ti	47	**48.108**	ug/L	0.390	27833	0.052
	V	51	**49.838**	ug/L	1.182	318511	0.597
	Cr	52	**49.510**	ug/L	1.318	237974	0.462
	Cr	53		ug/L		154545	0.072
	Mn	55	**51.039**	ug/L	0.846	411207	0.782
	Fe	57	**5082.138**	ug/L	1.548	786435	1.490
	Co	59	**49.656**	ug/L	1.514	304462	0.581
	Ni	60	**51.264**	ug/L	0.959	68205	0.130
	Cu	63		ug/L		160465	0.305
	Cu	65	**50.005**	ug/L	1.249	77532	0.148
	Zn	66	**51.877**	ug/L	1.722	51298	0.148
	Zn	67		ug/L		22288	0.026
	Zn	68		ug/L		37319	0.104
>	Ge	74		ug/L		345131	345130.693
	As	75	**49.259**	ug/L	0.688	48548	0.142
	Se	77		ug/L		9789	0.011
	Se	82	**50.412**	ug/L	3.315	4674	0.014
	Kr	83		ug/L		125	0.000
	Sr	88	**52.347**	ug/L	2.237	604861	2.797
	Y	89		ug/L		115	0.000
	Mo	98	**48.526**	ug/L	2.227	141224	0.653
	Ag	107	**49.071**	ug/L	0.705	247911	1.146
	Cd	111	**49.643**	ug/L	3.102	61816	0.286
	Cd	114		ug/L		145232	0.672
>	In	115		ug/L		216234	216234.380
	Sn	120	**49.694**	ug/L	3.529	272966	1.261
	Sb	121	**50.053**	ug/L	3.656	231255	1.067
	Sb	123		ug/L		180950	0.835
	Ba	135		ug/L		71284	0.161
	Ba	137	**50.125**	ug/L	0.610	125644	0.283
	Ho	165		ug/L		45	0.000
>	Lu	175		ug/L		443041	443041.201
	Tl	205	**51.413**	ug/L	0.686	957873	2.149
	Pb	208	**53.405**	ug/L	1.154	1609323	3.631
	Bi	209		ug/L		451	0.001
	Th	232	**51.894**	ug/L	1.470	1895415	4.274
	U	238	**52.349**	ug/L	2.085	2051170	4.628

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	0.9999
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	1.0000
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9999
Pb	208Linear Thru Zero	1.0000
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9999
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7	102.016				
	Be	9	102.408				
	B	11	92.381				
	Na	23	93.281				
	Mg	24	93.359				
	Al	27	90.154				
	P	31	97.943				
	K	39	100.755				
	Ca	43	98.948				
>	Sc	45		95.2			
	Ti	47	96.216				
	V	51	99.675				
	Cr	52	99.019				
	Cr	53					
	Mn	55	102.079				
	Fe	57	101.643				
	Co	59	99.311				
	Ni	60	102.529				
	Cu	63					
	Cu	65	100.010				
	Zn	66	103.754				
	Zn	67					
	Zn	68					
>	Ge	74		95.6			
	As	75	98.518				
	Se	77					
	Se	82	100.824				
	Kr	83					
	Sr	88	104.693				
	Y	89					
	Mo	98	97.052				
	Ag	107	98.143				
	Cd	111	99.286				
	Cd	114					
>	In	115		96.6			
	Sn	120	99.389				
	Sb	121	100.106				
	Sb	123					
	Ba	135					
	Ba	137	100.251				
	Ho	165					
>	Lu	175		94.6			
	Tl	205	102.827				
	Pb	208	106.809				
	Bi	209					
	Th	232	103.787				
	U	238	104.698				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 9
Sample Date/Time: Thursday, January 14, 2010 23:53:10
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100114\QC Std 9.066

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	-0.004	ug/L	250.710	52	-0.000
	Be	9	0.009	ug/L	51.112	19	0.000
	B	11	-4.109	ug/L	14.960	1363	-0.003
	Na	23	-0.339	ug/L	601.159	27361	-0.003
	Mg	24	0.577	ug/L	165.793	5668	0.003
	Al	27	0.732	ug/L	16.196	10671	0.006
	P	31	-5.370	ug/L	29.878	8451	-0.002
	K	39	-0.616	ug/L	378.988	631663	-0.006
	Ca	43	-1.881	ug/L	128.809	337	-0.000
>	Sc	45		ug/L		530191	530191.335
	Ti	47	-0.098	ug/L	27.968	449	-0.000
	V	51	0.185	ug/L	59.026	6967	0.002
	Cr	52	-0.036	ug/L	149.627	-4501	-0.000
	Cr	53		ug/L		118313	0.001
	Mn	55	0.000	ug/L	942.876	1217	0.000
	Fe	57	-2.116	ug/L	47.573	5022	-0.001
	Co	59	0.002	ug/L	143.488	201	0.000
	Ni	60	-0.018	ug/L	37.778	211	-0.000
	Cu	63		ug/L		374	-0.000
	Cu	65	-0.017	ug/L	59.162	171	-0.000
	Zn	66	0.001	ug/L	87.995	260	0.000
	Zn	67		ug/L		12886	-0.001
	Zn	68		ug/L		1365	-0.000
>	Ge	74		ug/L		346510	346510.347
	As	75	0.019	ug/L	3501.155	-310	0.000
	Se	77		ug/L		6231	0.000
	Se	82	-0.143	ug/L	85.713	-28	-0.000
	Kr	83		ug/L		118	0.000
	Sr	88	0.003	ug/L	123.324	275	0.000
	Y	89		ug/L		48	-0.000
	Mo	98	0.016	ug/L	44.827	175	0.000
	Ag	107	0.003	ug/L	46.651	85	0.000
	Cd	111	0.003	ug/L	247.206	29	0.000
	Cd	114		ug/L		59	0.000
>	In	115		ug/L		216973	216972.643
	Sn	120	0.035	ug/L	34.906	491	0.001
	Sb	121	0.296	ug/L	29.971	1992	0.006
	Sb	123		ug/L		1564	0.005
	Ba	135		ug/L		44	-0.000
	Ba	137	0.002	ug/L	366.615	66	0.000
	Ho	165		ug/L		24	0.000
>	Lu	175		ug/L		446160	446159.546
	Tl	205	0.478	ug/L	28.312	14594	0.020
	Pb	208	0.005	ug/L	26.649	897	0.000
	Bi	209		ug/L		154	-0.000
	Th	232	0.050	ug/L	44.137	3614	0.004
	U	238	0.008	ug/L	21.841	1078	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	0.9999
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		96.3			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		96.0			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		96.9			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		95.3			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

==========

Analysis Begun

Logged In Analyst: Administrator **Technique: AA FIMS-MHS**
Spectrometer Model: FIMS-100, S/N B050-9550 **Autosampler Model: S10**

Sample Information File: C:\data-AA\Administrator\Sample Information\010810W1.SIF
Batch ID:
Results Data Set: 010810W1
Results Library: C:\data-AA\Administrator\Results\Results.mdb

==========

Method Loaded
Method Name: WATER **Method Last Saved: 12/28/2009 15:47:50**
Method Description: 7470A, 245.2, ILM04 ANALYST JXL

==========

Sequence No.: 1 **Autosampler Location: 1**
Sample ID: Calib Blank **Date Collected: 1/8/2010 09:05:01**
Analyst: **Data Type: Original**

Replicate Data: Calib Blank

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.00]	0.0004	0.0012	0.0004	09:06:03	Yes
2		[0.00]	0.0004	0.0012	0.0004	09:06:38	Yes
Mean:		[0.00]	0.0004				
SD:		0.00	0.0000				
%RSD:		0.00	3.39				

Auto-zero performed.

==========

Sequence No.: 2 **Autosampler Location: 2**
Sample ID: S0.2 **Date Collected: 1/8/2010 09:06:57**
Analyst: **Data Type: Original**

Replicate Data: S0.2

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.2]	0.0020	0.0107	0.0024	09:07:58	Yes
2		[0.2]	0.0019	0.0101	0.0023	09:08:33	Yes
Mean:		[0.2]	0.0019				
SD:		0.0	0.0001				
%RSD:		0.0	4.18				

Standard number 1 applied. [0.2]
Correlation Coef.: 1.000000 Slope: 0.00956 Intercept: 0.00000

==========

Sequence No.: 3 **Autosampler Location: 3**
Sample ID: S0.5 **Date Collected: 1/8/2010 09:08:52**
Analyst: **Data Type: Original**

Replicate Data: S0.5

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.5]	0.0048	0.0241	0.0053	09:09:53	Yes
2		[0.5]	0.0048	0.0235	0.0052	09:10:28	Yes
Mean:		[0.5]	0.0048				
SD:		0.0	0.0000				
%RSD:		0.0	0.75				

Standard number 2 applied. [0.5]
Correlation Coef.: 0.999993 Slope: 0.00964 Intercept: -0.00001

==========

Sequence No.: 4 **Autosampler Location: 4**
Sample ID: S2.0 **Date Collected: 1/8/2010 09:10:47**
Analyst: **Data Type: Original**

Replicate Data: S2.0

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[2.0]	0.0200	0.0952	0.0204	09:11:49	Yes
2		[2.0]	0.0198	0.0946	0.0203	09:12:23	Yes
Mean:		[2.0]	0.0199				
SD:		0.0	0.0001				
%RSD:		0.0	0.46				

Standard number 3 applied. [2.0]
Correlation Coef.: 0.999970 Slope: 0.00997 Intercept: -0.00008

Sequence No.: 5 **Autosampler Location: 5**
Sample ID: S5.0 **Date Collected: 1/8/2010 09:12:43**
Analyst: **Data Type: Original**

Replicate Data: S5.0

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[5.0]	0.0509	0.2400	0.0513	09:13:45	Yes
2		[5.0]	0.0505	0.2386	0.0510	09:14:20	Yes
Mean:		[5.0]	0.0507				
SD:		0.0	0.0002				
%RSD:		0.0	0.45				

Standard number 4 applied. [5.0]
Correlation Coef.: 0.999969 Slope: 0.01016 Intercept: -0.00017

Sequence No.: 6 **Autosampler Location: 6**
Sample ID: S10.0 **Date Collected: 1/8/2010 09:14:40**
Analyst: **Data Type: Original**

Replicate Data: S10.0

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[10.0]	0.0992	0.4709	0.0996	09:15:40	Yes
2		[10.0]	0.0992	0.4684	0.0997	09:16:15	Yes
Mean:		[10.0]	0.0992				
SD:		0.0	0.0001				
%RSD:		0.0	0.06				

Standard number 5 applied. [10.0]
Correlation Coef.: 0.999934 Slope: 0.00996 Intercept: 0.00005

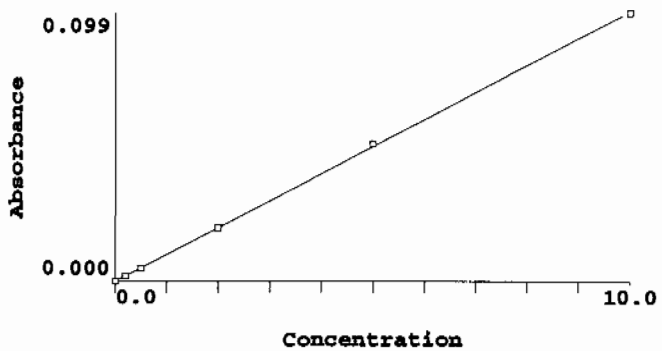

Calibration data for Hg 253.7 **Equation: Linear, Calculated Intercept**

ID	Mean Signal (Abs)	Entered Conc. ug/L	Calculated Conc. ug/L	Standard Deviation	%RSD
Calib Blank	0.0000	0	-0.005	0.00	3.4
S0.2	0.0019	0.2	0.187	0.00	4.2
S0.5	0.0048	0.5	0.479	0.00	0.8
S2.0	0.0199	2.0	1.993	0.00	0.5

S5.0	0.0507	5.0	5.088	0.00	0.5
S10.0	0.0992	10.0	9.959	0.00	0.1

Correlation Coef.: 0.999934 Slope: 0.00996 Intercept: 0.00005

Sequence No.: 7 **Autosampler Location: 9**
Sample ID: ICV **Date Collected: 1/8/2010 09:16:34**
Analyst: **Data Type: Original**

Replicate Data: ICV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.242	5.242	0.0522	0.2467	0.0527	09:17:35	Yes
2	5.230	5.230	0.0521	0.2432	0.0526	09:18:11	Yes
Mean:	5.236	5.236	0.0522				
SD:	0.009	0.009	0.0001				
%RSD:	0.164	0.164	0.16				

QC value within limits for Hg 253.7 Recovery = 104.71%
All analyte(s) passed QC.

Sequence No.: 8 **Autosampler Location: 10**
Sample ID: ICB **Date Collected: 1/8/2010 09:18:30**
Analyst: **Data Type: Original**

Replicate Data: ICB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.005	0.005	0.0001	0.0017	0.0005	09:19:32	Yes
2	0.006	0.006	0.0001	0.0014	0.0005	09:20:06	Yes
Mean:	0.005	0.005	0.0001				
SD:	0.001	0.001	0.0000				
%RSD:	10.31	10.31	5.22				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 9 **Autosampler Location: 11**
Sample ID: CRDL **Date Collected: 1/8/2010 09:20:26**
Analyst: **Data Type: Original**

Replicate Data: CRDL

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.212	0.212	0.0022	0.0115	0.0026	09:21:28	Yes
2	0.205	0.205	0.0021	0.0114	0.0025	09:22:03	Yes
Mean:	0.209	0.209	0.0021				
SD:	0.005	0.005	0.0001				
%RSD:	2.471	2.471	2.41				

QC value within limits for Hg 253.7 Recovery = 104.26%
All analyte(s) passed QC.

Sequence No.: 10 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 1/8/2010 09:22:23**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.214	5.214	0.0520	0.2452	0.0524	09:23:23	Yes
2	5.196	5.196	0.0518	0.2428	0.0522	09:23:59	Yes
Mean:	5.205	5.205	0.0519				
SD:	0.012	0.012	0.0001				
%RSD:	0.234	0.234	0.23				

QC value within limits for Hg 253.7 Recovery = 104.10%
All analyte(s) passed QC.

Sequence No.: 11
Sample ID: CCB
Analyst:

Autosampler Location: 8
Date Collected: 1/8/2010 09:24:18
Data Type: Original

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.004	-0.004	0.0000	0.0015	0.0004	09:25:19	Yes
2	0.001	0.001	0.0001	0.0019	0.0005	09:25:54	Yes
Mean:	-0.001	-0.001	0.0000				
SD:	0.004	0.004	0.0000				
%RSD:	314.5	314.5	91.78				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.
User canceled analysis.

Replicate Data: 243478001|937649|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.008	0.008	0.0001	0.0027	0.0006	09:43:21	Yes
2	0.014	0.014	0.0002	0.0032	0.0006	09:43:56	Yes
Mean:	0.011	0.011	0.0002				
SD:	0.004	0.004	0.0000				
%RSD:	35.60	35.60	24.00				

Sequence No.: 10
Sample ID: 1202006482|937649|1
Analyst: JXL
Autosampler Location: 21
Date Collected: 1/8/2010 09:44:16
Data Type: Original

Replicate Data: 1202006482|937649|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.010	0.010	0.0002	0.0040	0.0006	09:45:17	Yes
2	0.012	0.012	0.0002	0.0049	0.0006	09:45:51	Yes
Mean:	0.011	0.011	0.0002				
SD:	0.001	0.001	0.0000				
%RSD:	12.00	12.00	8.16				

Sequence No.: 11
Sample ID: CCV
Analyst:
Autosampler Location: 7
Date Collected: 1/8/2010 09:46:11
Data Type: Original

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.203	5.203	0.0519	0.2471	0.0523	09:47:12	Yes
2	5.204	5.204	0.0519	0.2453	0.0523	09:47:46	Yes
Mean:	5.204	5.204	0.0519				
SD:	0.000	0.000	0.0000				
%RSD:	0.008	0.008	0.01				

QC value within limits for Hg 253.7 Recovery = 104.07%
All analyte(s) passed QC.

Sequence No.: 12
Sample ID: CCB
Analyst:
Autosampler Location: 8
Date Collected: 1/8/2010 09:48:05
Data Type: Original

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.003	-0.003	0.0000	0.0019	0.0005	09:49:06	Yes
2	-0.006	-0.006	-0.0000	0.0017	0.0004	09:49:41	Yes
Mean:	-0.005	-0.005	0.0000				
SD:	0.002	0.002	0.0000				
%RSD:	42.25	42.25	633.13				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 13
Sample ID: 1202006483|937649|1
Analyst: JXL
Autosampler Location: 22
Date Collected: 1/8/2010 09:50:00
Data Type: Original

Replicate Data: 1202006483|937649|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.048	2.048	0.0204	0.0984	0.0209	09:51:02	Yes
2	2.041	2.041	0.0204	0.0977	0.0208	09:51:37	Yes
Mean:	2.045	2.045	0.0204				

#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.017	0.017	0.0002	0.0051	0.0007	10:00:42	Yes
2	0.011	0.011	0.0002	0.0038	0.0006	10:01:17	Yes
Mean:	0.014	0.014	0.0002				
SD:	0.004	0.004	0.0000				
%RSD:	30.50	30.50	22.27				

==========

Sequence No.: 19 **Autosampler Location: 28**
Sample ID: 1202006476|937647|1 **Date Collected: 1/8/2010 10:01:37**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202006476|937647|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.007	-0.007	-0.0000	0.0018	0.0004	10:02:37	Yes
2	0.001	0.001	0.0001	0.0020	0.0005	10:03:12	Yes
Mean:	-0.003	-0.003	0.0000				
SD:	0.006	0.006	0.0001				
%RSD:	173.3	173.3	293.14				

==========

Sequence No.: 20 **Autosampler Location: 29**
Sample ID: 1202006478|937647|1 **Date Collected: 1/8/2010 10:03:31**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202006478|937647|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.043	2.043	0.0204	0.0986	0.0208	10:04:32	Yes
2	2.033	2.033	0.0203	0.0979	0.0207	10:05:07	Yes
Mean:	2.038	2.038	0.0203				
SD:	0.007	0.007	0.0001				
%RSD:	0.327	0.327	0.33				

==========

Sequence No.: 21 **Autosampler Location: 30**
Sample ID: 1202006477|937647|5 **Date Collected: 1/8/2010 10:05:26**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202006477|937647|5

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.007	-0.007	-0.0000	0.0016	0.0004	10:06:26	Yes
2	0.000	0.000	0.0000	0.0021	0.0005	10:07:01	Yes
Mean:	-0.004	-0.004	0.0000				
SD:	0.005	0.005	0.0000				
%RSD:	128.6	128.6	343.06				

==========

Sequence No.: 22 **Autosampler Location: 31**
Sample ID: 243629001|937647|1 **Date Collected: 1/8/2010 10:07:20**
Analyst: JXL **Data Type: Original**

Replicate Data: 243629001|937647|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.001	-0.001	0.0000	0.0022	0.0005	10:08:21	Yes
2	-0.008	-0.008	-0.0000	0.0018	0.0004	10:08:56	Yes
Mean:	-0.004	-0.004	0.0000				
SD:	0.005	0.005	0.0000				
%RSD:	115.1	115.1	480.08				

==========

Sequence No.: 23 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 1/8/2010 10:09:15**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.267	5.267	0.0525	0.2501	0.0529	10:10:16	Yes
2	5.256	5.256	0.0524	0.2477	0.0528	10:10:51	Yes
Mean:	5.261	5.261	0.0524				
SD:	0.008	0.008	0.0001				
%RSD:	0.148	0.148	0.15				

QC value within limits for Hg 253.7 Recovery = 105.23%
All analyte(s) passed QC.

Sequence No.: 24 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 1/8/2010 10:11:10**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.001	-0.001	0.0000	0.0023	0.0005	10:12:10	Yes
2	-0.004	-0.004	0.0000	0.0022	0.0004	10:12:45	Yes
Mean:	-0.002	-0.002	0.0000				
SD:	0.002	0.002	0.0000				
%RSD:	85.54	85.54	64.33				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 25 **Autosampler Location: 32**
Sample ID: 243631001|937647|1 **Date Collected: 1/8/2010 10:13:04**
Analyst: JXL **Data Type: Original**

Replicate Data: 243631001|937647|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.004	-0.004	0.0000	0.0021	0.0004	10:14:05	Yes
2	-0.007	-0.007	-0.0000	0.0022	0.0004	10:14:40	Yes
Mean:	-0.005	-0.005	0.0000				
SD:	0.002	0.002	0.0000				
%RSD:	38.91	38.91	>999.9%				

Sequence No.: 26 **Autosampler Location: 33**
Sample ID: 243632001|937647|1 **Date Collected: 1/8/2010 10:15:00**
Analyst: JXL **Data Type: Original**

Replicate Data: 243632001|937647|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.003	-0.003	0.0000	0.0023	0.0005	10:16:01	Yes
2	-0.001	-0.001	0.0000	0.0025	0.0005	10:16:35	Yes
Mean:	-0.002	-0.002	0.0000				
SD:	0.001	0.001	0.0000				
%RSD:	67.97	67.97	36.18				

Sequence No.: 27 **Autosampler Location: 34**
Sample ID: 1202006469|937645|1 **Date Collected: 1/8/2010 10:16:55**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202006469|937645|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.002	0.002	0.0001	0.0026	0.0005	10:17:56	Yes
2	0.000	0.000	0.0001	0.0023	0.0005	10:18:31	Yes

Mean:	0.001	0.001	0.0001
SD:	0.001	0.001	0.0000
%RSD:	118.8	118.8	22.70

==========

Sequence No.: 28 **Autosampler Location: 35**
Sample ID: 1202006473|937645|1 **Date Collected: 1/8/2010 10:18:51**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202006473|937645|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.085	2.085	0.0208	0.1010	0.0212	10:19:53	Yes
2	2.092	2.092	0.0209	0.1001	0.0213	10:20:28	Yes
Mean:	2.088	2.088	0.0208				
SD:	0.005	0.005	0.0000				
%RSD:	0.237	0.237	0.24				

==========

Sequence No.: 29 **Autosampler Location: 36**
Sample ID: 243554001|937645|1 **Date Collected: 1/8/2010 10:20:48**
Analyst: JXL **Data Type: Original**

Replicate Data: 243554001|937645|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.004	-0.004	0.0000	0.0022	0.0005	10:21:50	Yes
2	-0.002	-0.002	0.0000	0.0021	0.0005	10:22:25	Yes
Mean:	-0.003	-0.003	0.0000				
SD:	0.001	0.001	0.0000				
%RSD:	54.16	54.16	50.97				

==========

Sequence No.: 30 **Autosampler Location: 37**
Sample ID: 1202006470|937645|1 **Date Collected: 1/8/2010 10:22:45**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202006470|937645|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.006	-0.006	-0.0000	0.0020	0.0004	10:23:46	Yes
2	-0.003	-0.003	0.0000	0.0021	0.0005	10:24:21	Yes
Mean:	-0.004	-0.004	0.0000				
SD:	0.002	0.002	0.0000				
%RSD:	46.26	46.26	171.19				

==========

Sequence No.: 31 **Autosampler Location: 38**
Sample ID: 1202006472|937645|1 **Date Collected: 1/8/2010 10:24:42**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202006472|937645|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.115	2.115	0.0211	0.1003	0.0215	10:25:43	Yes
2	2.095	2.095	0.0209	0.0992	0.0213	10:26:17	Yes
Mean:	2.105	2.105	0.0210				
SD:	0.014	0.014	0.0001				
%RSD:	0.663	0.663	0.66				

==========

Sequence No.: 32 **Autosampler Location: 39**
Sample ID: 1202006471|937645|5 **Date Collected: 1/8/2010 10:26:37**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202006471|937645|5

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.001	-0.001	0.0000	0.0021	0.0005	10:27:38	Yes
2	-0.001	-0.001	0.0000	0.0021	0.0005	10:28:13	Yes
Mean:	-0.001	-0.001	0.0000				
SD:	0.000	0.000	0.0000				
%RSD:	25.49	25.49	7.12				

==========

Sequence No.: 33 **Autosampler Location: 40**
Sample ID: 243554002|937645|1 **Date Collected: 1/8/2010 10:28:33**
Analyst: JXL **Data Type: Original**

Replicate Data: 243554002|937645|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.008	-0.008	-0.0000	0.0013	0.0004	10:29:34	Yes
2	-0.011	-0.011	-0.0001	0.0016	0.0004	10:30:08	Yes
Mean:	-0.010	-0.010	-0.0000				
SD:	0.002	0.002	0.0000				
%RSD:	23.56	23.56	53.42				

==========

Sequence No.: 34 **Autosampler Location: 41**
Sample ID: 243554003|937645|1 **Date Collected: 1/8/2010 10:30:28**
Analyst: JXL **Data Type: Original**

Replicate Data: 243554003|937645|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.009	-0.009	-0.0000	0.0016	0.0004	10:31:29	Yes
2	-0.006	-0.006	-0.0000	0.0018	0.0004	10:32:04	Yes
Mean:	-0.007	-0.007	-0.0000				
SD:	0.002	0.002	0.0000				
%RSD:	29.53	29.53	103.23				

==========

Sequence No.: 35 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 1/8/2010 10:32:23**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.193	5.193	0.0518	0.2507	0.0522	10:33:23	Yes
2	5.171	5.171	0.0515	0.2487	0.0520	10:33:58	Yes
Mean:	5.182	5.182	0.0516				
SD:	0.016	0.016	0.0002				
%RSD:	0.302	0.302	0.30				

QC value within limits for Hg 253.7 Recovery = 103.64%
All analyte(s) passed QC.

==========

Sequence No.: 36 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 1/8/2010 10:34:17**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.009	-0.009	-0.0000	0.0016	0.0004	10:35:18	Yes
2	-0.004	-0.004	0.0000	0.0018	0.0004	10:35:53	Yes
Mean:	-0.007	-0.007	-0.0000				
SD:	0.004	0.004	0.0000				
%RSD:	52.50	52.50	254.21				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 37
Sample ID: 243554004|937645|1
Analyst: JXL
Autosampler Location: 42
Date Collected: 1/8/2010 10:36:12
Data Type: Original

Replicate Data: 243554004|937645|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.006	-0.006	-0.0000	0.0022	0.0004	10:37:13	Yes
2	-0.013	-0.013	-0.0001	0.0016	0.0004	10:37:48	Yes
Mean:	-0.009	-0.009	-0.0000				
SD:	0.005	0.005	0.0001				
%RSD:	57.24	57.24	131.98				

Sequence No.: 38
Sample ID: 243601001|937645|1
Analyst: JXL
Autosampler Location: 43
Date Collected: 1/8/2010 10:38:08
Data Type: Original

Replicate Data: 243601001|937645|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.005	-0.005	0.0000	0.0023	0.0004	10:39:09	Yes
2	-0.007	-0.007	-0.0000	0.0023	0.0004	10:39:43	Yes
Mean:	-0.006	-0.006	-0.0000				
SD:	0.001	0.001	0.0000				
%RSD:	19.37	19.37	145.70				

Sequence No.: 39
Sample ID: 243608001|937645|1
Analyst: JXL
Autosampler Location: 44
Date Collected: 1/8/2010 10:40:03
Data Type: Original

Replicate Data: 243608001|937645|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.024	-0.024	-0.0002	0.0002	0.0002	10:41:05	Yes
2	-0.017	-0.017	-0.0001	0.0011	0.0003	10:41:39	Yes
Mean:	-0.021	-0.021	-0.0002				
SD:	0.005	0.005	0.0000				
%RSD:	22.36	22.36	30.15				

Sequence No.: 40
Sample ID: 243621001|937645|1
Analyst: JXL
Autosampler Location: 45
Date Collected: 1/8/2010 10:41:59
Data Type: Original

Replicate Data: 243621001|937645|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.015	-0.015	-0.0001	0.0015	0.0003	10:43:00	Yes
2	-0.008	-0.008	-0.0000	0.0019	0.0004	10:43:35	Yes
Mean:	-0.011	-0.011	-0.0001				
SD:	0.005	0.005	0.0001				
%RSD:	44.73	44.73	83.49				

Sequence No.: 41
Sample ID: 1202009968|939240|1
Analyst: JXL
Autosampler Location: 46
Date Collected: 1/8/2010 10:43:54
Data Type: Original

Replicate Data: 1202009968|939240|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.001	0.001	0.0001	0.0020	0.0005	10:44:56	Yes

Replicate Data: 1202009972|939240|5

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.000	0.000	0.0001	0.0027	0.0005	10:54:38	Yes
2	-0.005	-0.005	0.0000	0.0021	0.0004	10:55:13	Yes
Mean:	-0.002	-0.002	0.0000				
SD:	0.003	0.003	0.0000				
%RSD:	144.4	144.4	115.10				

==========

Sequence No.: 47 Autosampler Location: 7
Sample ID: CCV Date Collected: 1/8/2010 10:55:32
Analyst: Data Type: Original

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.282	5.282	0.0526	0.2504	0.0531	10:56:33	Yes
2	5.253	5.253	0.0524	0.2488	0.0528	10:57:08	Yes
Mean:	5.268	5.268	0.0525				
SD:	0.020	0.020	0.0002				
%RSD:	0.382	0.382	0.38				

QC value within limits for Hg 253.7 Recovery = 105.35%
All analyte(s) passed QC.

==========

Sequence No.: 48 Autosampler Location: 8
Sample ID: CCB Date Collected: 1/8/2010 10:57:27
Analyst: Data Type: Original

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.010	-0.010	-0.0000	0.0017	0.0004	10:58:28	Yes
2	-0.013	-0.013	-0.0001	0.0012	0.0004	10:59:03	Yes
Mean:	-0.012	-0.012	-0.0001				
SD:	0.002	0.002	0.0000				
%RSD:	19.43	19.43	36.07				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

==========

Sequence No.: 49 Autosampler Location: 52
Sample ID: 1202009963|939237|1 Date Collected: 1/8/2010 10:59:22
Analyst: JXL Data Type: Original

Replicate Data: 1202009963|939237|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.017	-0.017	-0.0001	0.0013	0.0003	11:00:23	Yes
2	-0.015	-0.015	-0.0001	0.0014	0.0003	11:00:58	Yes
Mean:	-0.016	-0.016	-0.0001				
SD:	0.002	0.002	0.0000				
%RSD:	10.76	10.76	16.27				

==========

Sequence No.: 50 Autosampler Location: 53
Sample ID: 1202009964|939237|1 Date Collected: 1/8/2010 11:01:18
Analyst: JXL Data Type: Original

Replicate Data: 1202009964|939237|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.272	2.272	0.0227	0.1074	0.0231	11:02:19	Yes
2	2.272	2.272	0.0227	0.1069	0.0231	11:02:54	Yes
Mean:	2.272	2.272	0.0227				
SD:	0.001	0.001	0.0000				

Miscellaneous

Prep LogBook

Analyst: BXA1 Verified by:_____

Batch: 936812

Lab SOP: GL-MA-E-006 REV# 9

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1202004436	UI091124-01	.25	mL
LCS	1202004436	UI091124-06	.25	mL
MS	1202004438	UI091124-01	.25	mL
MS	1202004438	UI091124-06	.25	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Ph	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1202004435		SW846 3005A	04-JAN-2010 16:14	<2	50 mL	50 mL	1	WATER
LCS	1202004436		SW846 3005A	04-JAN-2010 16:14	<2	50 mL	50 mL	1	WATER
SAMPLE	243493001		SW846 3005A	04-JAN-2010 16:14	<2	50 mL	50 mL	1	WATER
SAMPLE	243554001		SW846 3005A	04-JAN-2010 16:14	<2	50 mL	50 mL	1	WATER
DUP	1202004437	243554001	SW846 3005A	04-JAN-2010 16:14	<2	50 mL	50 mL	1	WATER
MS	1202004438	243554001	SW846 3005A	04-JAN-2010 16:14	<2	50 mL	50 mL	1	WATER
SDILT	1202004439	243554001	SW846 3005A	04-JAN-2010 16:14	<2	50 mL	50 mL	1	WATER
SAMPLE	243554002		SW846 3005A	04-JAN-2010 16:14	<2	50 mL	50 mL	1	WATER
SAMPLE	243554003		SW846 3005A	04-JAN-2010 16:14	<2	50 mL	50 mL	1	WATER
SAMPLE	243554004		SW846 3005A	04-JAN-2010 16:14	<2	50 mL	50 mL	1	WATER

Reagent/Solvent Lot ID	Amount	Description
1244970	2.5 mL	HYDROCHLORIC ACID
1234886	1 mL	Nitric Acid CONC.

Comments:

Prep LogBook

Analyst: BXA1 Verified by:_____

Batch: 936814

Lab SOP: GL-MA-E-006 REV# 9

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1202004441	UI091124-A00	.5	mL
LCS	1202004441	UI091124-B	.5	mL
MS	1202004443	UI090828-A	.5	mL
MS	1202004443	UI090828-B	.5	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Ph	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1202004440		SW846 3005A	04-JAN-2010 16:20	<2	50 mL	50 mL	1	WATER
LCS	1202004441		SW846 3005A	04-JAN-2010 16:20	<2	50 mL	50 mL	1	WATER
SAMPLE	243493001		SW846 3005A	04-JAN-2010 16:20	<2	50 mL	50 mL	1	WATER
DUP	1202004442	243493001	SW846 3005A	04-JAN-2010 16:20	<2	50 mL	50 mL	1	WATER
MS	1202004443	243493001	SW846 3005A	04-JAN-2010 16:20	<2	50 mL	50 mL	1	WATER
SDILT	1202004444	243493001	SW846 3005A	04-JAN-2010 16:20	<2	50 mL	50 mL	1	WATER
SAMPLE	243554001		SW846 3005A	04-JAN-2010 16:20	<2	50 mL	50 mL	1	WATER
SAMPLE	243554002		SW846 3005A	04-JAN-2010 16:20	<2	50 mL	50 mL	1	WATER
SAMPLE	243554003		SW846 3005A	04-JAN-2010 16:20	<2	50 mL	50 mL	1	WATER
SAMPLE	243554004		SW846 3005A	04-JAN-2010 16:20	<2	50 mL	50 mL	1	WATER

Reagent/Solvent Lot ID	Amount	Description
1244970	2.5 mL	HYDROCHLORIC ACID
1234886	1 mL	Nitric Acid CONC.

Comments

Prep LogBook

Analyst: FGA Verified by:_____

Batch: 941230

Lab SOP: GL-MA-E-006 REV# 9

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1202014493	UI1246651-A	.25	mL
LCS	1202014493	UI1246654-B	.25	mL
MS	1202014495	UI090828-A	.25	mL
MS	1202014495	UI090828-B	.25	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Ph	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1202014492		SW846 3005A	13-JAN-2010 12:45	<2	25 mL	25 mL	1	WATER
LCS	1202014493		SW846 3005A	13-JAN-2010 12:45	<2	25 mL	25 mL	1	WATER
SAMPLE	243493001		SW846 3005A	13-JAN-2010 12:45	<2	25 mL	25 mL	1	WATER
DUP	1202014494	243493001	SW846 3005A	13-JAN-2010 12:45	<2	25 mL	25 mL	1	WATER
MS	1202014495	243493001	SW846 3005A	13-JAN-2010 12:45	<2	25 mL	25 mL	1	WATER
SDILT	1202014496	243493001	SW846 3005A	13-JAN-2010 12:45	<2	25 mL	25 mL	1	WATER
SAMPLE	243554001		SW846 3005A	13-JAN-2010 12:45	<2	25 mL	25 mL	1	WATER
SAMPLE	243554002		SW846 3005A	13-JAN-2010 12:45	<2	25 mL	25 mL	1	WATER
SAMPLE	243554003		SW846 3005A	13-JAN-2010 12:45	<2	25 mL	25 mL	1	WATER
SAMPLE	243554004		SW846 3005A	13-JAN-2010 12:45	<2	25 mL	25 mL	1	WATER

Reagent/Solvent Lot ID	Amount	Description
1252838	1.25 mL	HYDROCHLORIC ACID
1252836	.5 mL	Nitric Acid CONC.

Comments

Prep LogBook

Analyst: AXG2 Verified by:_____

Batch: 937643

Lab SOP: GL-MA-E-010 REV# 23

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1202006473	WHG100107-13	.2	mL
MS	1202006472	WHG100107-13	.2	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Ph	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1202006469		SW846 7470A Prep	07-JAN-2010 11:30	<2	20 mL	20 mL	1	WATER
LCS	1202006473		SW846 7470A Prep	07-JAN-2010 11:30	<2	20 mL	20 mL	1	WATER
SAMPLE	243554001		SW846 7470A Prep	07-JAN-2010 11:30	<2	20 mL	20 mL	1	WATER
DUP	1202006470	243554001	SW846 7470A Prep	07-JAN-2010 11:30	<2	20 mL	20 mL	1	WATER
SDILT	1202006471	243554001	SW846 7470A Prep	07-JAN-2010 11:30	<2	20 mL	20 mL	1	WATER
MS	1202006472	243554001	SW846 7470A Prep	07-JAN-2010 11:30	<2	20 mL	20 mL	1	WATER
SAMPLE	243554002		SW846 7470A Prep	07-JAN-2010 11:30	<2	20 mL	20 mL	1	WATER
SAMPLE	243554003		SW846 7470A Prep	07-JAN-2010 11:30	<2	20 mL	20 mL	1	WATER
SAMPLE	243554004		SW846 7470A Prep	07-JAN-2010 11:30	<2	20 mL	20 mL	1	WATER
SAMPLE	243601001		SW846 7470A Prep	07-JAN-2010 11:30	<2	20 mL	20 mL	1	WATER
SAMPLE	243608001		SW846 7470A Prep	07-JAN-2010 11:30	<2	20 mL	20 mL	1	WATER
SAMPLE	243621001		SW846 7470A Prep	07-JAN-2010 11:30	<2	20 mL	20 mL	1	WATER

Reagent/Solvent Lot ID	Amount	Description
1176183	1 mL	Sulfuric Acid, Concentrated
1240182-1	.5 mL	NITRIC ACID
1234385-C	1.5 mL	5% Potassium Persulfate
1244904-C	3 mL	5% KMnO4 solution
1206350-C	1 mL	Hg reducing agent
WHG100107-06	500 uL	Mercury Working 2nd Source 5.0/ICV
WHG100107-01a	20 uL	Mercury Working 1st Source CAL 0.2/CRA
WHG100107-02	50 uL	Mercury Working 1st Source CAL 0.5
WHG100107-05	1 mL	Mercury Working 1st Source CAL 10.0
WHG100107-03	200 uL	Mercury Working 1st Source CAL 2.0
WHG100107-04	500 uL	Mercury Working 1st Source CAL 5.0/CCV

Comments Digestion Start Date: 07-JAN-10 11:30
Digestion End Date: 07-JAN-10 13:30

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
13-JAN-10	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
ICP/MS	SW846 3005/6020	Liquid	LANL
Batch ID:	**Sample Numbers:**		
936815	See Below		

Potentially affected work order(s)(SDG): 243493(10-1037-1),243554(10-1087-1)

Application Issues:

Failed Recovery for MS/PS

Specification and Requirements Exception Description:	DER Disposition:
1. Failed Recovery for MS/PS: QC 1202004443MS	The matrix spike recovery failed outside of the control limits for Li and Pb due to possible matrix interferences and/or non-homogeneity. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported.

Originator's Name:

Elizabeth Janssen 14-JAN-10

Data Validator/Group Leader:

Samantha Jacobs 15-JAN-10

Standard Logbook

Serial ID: UHG1167639-01 **Opened:** 13-AUG-09 **Amount :** 125 mL
Name: MHGSTOCK1 **Received:** 13-AUG-09 **Catalog Number :** PLHG4-2Y
Type: Source Material **Expires:** 13-AUG-10 **Lot Number :** 15-37HG
Employee: Bryan Davis **Solvent :** 10% HNO3
Supplier: Spex
Description: Mercury Source Standard #1 1,000 mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Mercury	1000 mg/L		

Serial ID: UHG1167641-02 **Opened:** 13-AUG-09 **Amount :** 100 mL
Name: MHGSTOCK2 **Received:** 13-AUG-09 **Catalog Number :** AHG1KN-100
Type: Source Material **Expires:** 13-AUG-10 **Lot Number :** 4905530
Employee: Bryan Davis **Solvent :** 3% HNO3
Supplier: Ricca Chemical Company
Description: Mercury Source Standard #2 1,000 mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Mercury	999.7 mg/L		

Serial ID: UI090422-40 **Opened:** 04-MAY-09 **Amount :** 500 mL
Name: TRACE ICP ICSA SOLN A **Received:** 22-APR-09 **Catalog Number :** 160005-01-03
Type: Source Material **Expires:** 04-MAY-10 **Lot Number :** 1013357
Employee: Helen Camello **Solvent :** 5%HNO3
Supplier: o2si
Description: TRACE ICP ICSA SOLN A mg/L+/-0.5%IN5%HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	5000 mg/L	Calcium	5000 mg/L
Iron	2000 mg/L	Magnesium	5000 mg/L

Serial ID: UI090610-03 **Opened:** 10-JUN-09 **Catalog Number :** 060074-06-01
Name: ICPMS Tungsten - 10mg/L S **Received:** 10-JUN-09 **Lot Number :** 1016338
Type: Source Material **Expires:** 10-JUN-10 **Solvent :** 2% HNO3
Employee: Paul Boyd
Supplier: O2SI
Description: ICPMS Tungsten standard SPIKE - 10mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Tungsten	10 mg/L		

Standard Logbook

Serial ID:	UI090701-09	**Opened:**	01-JUL-09	**Amount :**	250 mL
Name:	ICP-MS CRDL Master #1	**Received:**	01-JUL-09	**Catalog Number :**	160044-09-02
Type:	Source Material	**Expires:**	01-JUL-10	**Lot Number :**	1016477
Employee:	Paul Boyd			**Solvent :**	+/- 0.5% IN 2% HNO3
Supplier:	02SI				
Description:	ICPMS CRDL Master Soln #1				
Comments:	None				

Analyte	Concentration	Analyte	Concentration
Aluminum	15 mg/L	Arsenic	5 mg/L
Barium	2 mg/L	Beryllium	.5 mg/L
Boron	15 mg/L	Cadmium	1 mg/L
Calcium	100 mg/L	Chromium	3 mg/L
Cobalt	1 mg/L	Copper	1 mg/L
Iron	25 mg/L	Lead	2 mg/L
Lithium	10 mg/L	Magnesium	15 mg/L
Manganese	5 mg/L	Nickel	2 mg/L
Phosphorous	50 mg/L	Potassium	300 mg/L
Selenium	5 mg/L	Sodium	250 mg/L
Strontium	10 mg/L	Thallium	1 mg/L
Thorium	1 mg/L	Uranium	.2 mg/L
Vanadium	10 mg/L	Zinc	10 mg/L

Serial ID:	UI090701-10	**Opened:**	01-JUL-09	**Amount :**	250 mL
Name:	ICP-MS CRDL Master #2	**Received:**	01-JUL-09	**Catalog Number :**	160044-08-02
Type:	Source Material	**Expires:**	01-JUL-10	**Lot Number :**	1016476
Employee:	Paul Boyd			**Solvent :**	+/- 0.5% IN 2% HNO3
Supplier:	02SI				
Description:	ICPMS CRDL Soln #2				
Comments:	None				

Analyte	Concentration	Analyte	Concentration
Antimony	2 mg/L	Molybdenum	.5 mg/L
Silver	1 mg/L	Tin	2 mg/L
Titanium	10 mg/L	Tungsten	5 mg/L
Zirconium	2 mg/L		

Serial ID:	UI090701-40	**Opened:**	01-JUL-09	**Amount :**	500 mL
Name:	TRACE ICP Stock PQL St	**Received:**	30-JUN-09	**Catalog Number :**	160543-01-03
Type:	Source Material	**Expires:**	01-JUL-10	**Lot Number :**	1016475
Employee:	Helen Camello			**Solvent :**	+/-0.5%in2%HNO3+TrHF
Supplier:	02si				
Description:	TRACE ICP Stock PQL Standard				
Comments:	None				

Analyte	Concentration	Analyte	Concentration

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Aluminum	100 mg/L	Antimony	5 mg/L
Arsenic	15 mg/L	Barium	2.5 mg/L
Beryllium	2.5 mg/L	Boron	25 mg/L
Cadmium	2.5 mg/L	Calcium	100 mg/L
Chromium	2.5 mg/L	Cobalt	2.5 mg/L
Copper	5 mg/L	Iron	50 mg/L
Lead	5 mg/L	Magnesium	150 mg/L
Manganese	5 mg/L	Molybdenum	5 mg/L
Nickel	2.5 mg/L	Phosphorous	75 mg/L
Potassium	75 mg/L	Selenium	15 mg/L
Silicon	50 mg/L	Silver	2.5 mg/L
Sodium	150 mg/L	Strontium	2.5 mg/L
Sulfur	50 mg/L	Thallium	10 mg/L
Tin	5 mg/L	Titanium	2.5 mg/L
Uranium	25 mg/L	Vanadium	2.5 mg/L
Zinc	5 mg/L		

Serial ID: UI090828-42 **Opened:** 16-SEP-09 **Amount :** 500 mL
Name: TRACE ICP Na-1000SOUR **Received:** 27-AUG-09 **Catalog Number :** 060011-02-03
Type: Source Material **Expires:** 16-SEP-10 **Lot Number :** 1017098
Employee: Helen Camello **Solvent :** 1%HNO3
Supplier: 02SI
Description: Sodium 1000 +/- 3 ug/mL in 1% HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Sodium	1000 ug/mL		

Serial ID: UI090828-A **Opened:** 28-AUG-09 **Catalog Number :** 160067-02
Name: ICP-MS DOE Liquid SPIKE **Received:** 27-AUG-09 **Lot Number :** 1017141
Type: Source Material **Expires:** 28-AUG-10
Employee: Francena Armstrong **Verified:** 21-NOV-08
Supplier: O2Si
Description: ICP-MS DOE liquid Spike Solution A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	200 mg/L	Arsenic	8 mg/L
Barium	5 mg/L	Beryllium	5 mg/L
Boron	10 mg/L	Cadmium	1 mg/L
Calcium	200 mg/L	Chromium	5 mg/L
Cobalt	5 mg/L	Copper	5 mg/L
Iron	200 mg/L	Lead	4 mg/L
Lithium	5 mg/L	Magnesium	200 mg/L
Manganese	5 mg/L	Nickel	5 mg/L

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Phosphorus, Total as P	200 mg/L	Potassium	200 mg/L
Selenium	2 mg/L	Silicon	200 mg/L
Sodium	200 mg/L	Strontium	5 mg/L
Thallium	10 mg/L	Thorium	5 mg/L
Total Uranium	5 mg/L	Uranium	5 mg/L
Uranium-235	.0364 mg/L	Uranium-238	4.96 mg/L
Vanadium	5 mg/L	Zinc	5 mg/L

Serial ID: UI090828-B **Opened:** 28-AUG-09 **Catalog Number :** 160067-02
Name: ICP-MS DOE Liquid SPIKE **Received:** 27-AUG-09 **Lot Number :** 1017141
Type: Source Material **Expires:** 28-AUG-10
Employee: Francena Armstrong **Verified:** 21-NOV-08
Supplier: O2Si
Description: ICP-MS DOE Liquid Spike Solution B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	20 mg/L	Molybdenum	5 mg/L
Silver	5 mg/L	Tin	5 mg/L
Titanium	5 mg/L	Zirconium	5 mg/L

Serial ID: UI090925-40 **Opened:** 23-OCT-09 **Amount :** 500 mL
Name: SECOND SOURCE STD -1 **Received:** 25-SEP-09 **Catalog Number :** SGELMX38-500N
Type: Source Material **Expires:** 30-SEP-10 **Lot Number :** 4909129
Employee: Helen Camello **Solvent :** 5%HNO3
Supplier: SPECTRO PURE
Description: SECOND SOURCE STD #1A 5%HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Arsenic	100 mg/L
Barium	100 mg/L	Boron	100 mg/L
Cadmium	100 mg/L	Calcium	1000 mg/L
Chromium	100 mg/L	Cobalt	100 mg/L
Copper	100 mg/L	Iron	1000 mg/L
Lead	100 mg/L	Phosphorous	500 mg/L
Potassium	500 mg/L	Selenium	500 mg/L
Sodium	500 mg/L	Strontium	100 mg/L

Serial ID: UI090925-41 **Opened:** 23-OCT-09 **Amount :** 500 mL
Name: SECOND SOURCE STD -1 **Received:** 25-SEP-09 **Catalog Number :** SGELMX39-500B
Type: Source Material **Expires:** 30-SEP-10 **Lot Number :** 4909130
Employee: Helen Camello **Solvent :** 5%HNO3,TR.HF
Supplier: SPECTRO PURE

Standard Logbook

Description: SECOND SOURCE STD #1B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	100 mg/L	Beryllium	50 mg/L
Magnesium	1000 mg/L	Manganese	100 mg/L
Molybdenum	100 mg/L	Nickel	100 mg/L
Silver	50 mg/L	Sulfur	500 mg/L
Thallium	100 mg/L	Tin	100 mg/L
Titanium	100 mg/L	Uranium	100 mg/L
Vanadium	100 mg/L	Zinc	100 mg/L

Serial ID: UI091015-42 **Opened:** 28-OCT-09 **Amount :** 500 mL
Name: SI 1000mg/L **Received:** 15-OCT-09 **Catalog Number :** 060014-02-03
Type: Source Material **Expires:** 28-OCT-10 **Lot Number :** 1017581
Employee: Helen Camello **Solvent :** 0.3%H2O(NH4)2SiF6
Supplier: o2si
Description: Silicon 1000mg/L+/-0.3%in H2O(NH4)2SiF6
Comments: None

Analyte	Concentration	Analyte	Concentration
Silica	2139 mg/L	Silicon	1000 mg/L

Serial ID: UI091102-40 **Opened:** 16-NOV-09 **Amount :** 500 mL
Name: TRACE CALSTD#1A SOUF **Received:** 02-NOV-09 **Catalog Number :** HP2270-1-500
Type: Source Material **Expires:** 31-OCT-10 **Lot Number :** 0930215
Employee: Helen Camello **Solvent :** HNO3
Supplier: Environmental Express
Description: Trace Calibration Std #1A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	2000 mg/L	Arsenic	200 mg/L
Barium	200 mg/L	Beryllium	200 mg/L
Boron	200 mg/L	Cadmium	200 mg/L
Calcium	2000 mg/L	Chromium	200 mg/L
Cobalt	200 mg/L	Copper	200 mg/L
Iron	2000 mg/L	Lead	200 mg/L
Magnesium	2000 mg/L	Manganese	200 mg/L
Nickel	200 mg/L	Phosphorous	1000 mg/L
Potassium	2000 mg/L	Selenium	200 mg/L
Sodium	2000 mg/L	Strontium	200 mg/L
Thallium	200 mg/L	Uranium	200 mg/L
Vanadium	200 mg/L	Zinc	200 mg/L

Standard Logbook

Serial ID: UI091102-41 **Opened:** 16-NOV-09 **Amount :** 500 mL
Name: TRACE CALSTD#1B SOUF **Received:** 02-NOV-09 **Catalog Number :** HP2270-2-500
Type: Source Material **Expires:** 31-OCT-10 **Lot Number :** 0930216
Employee: Helen Camello **Solvent :** HNO3
Supplier: Environmental Express
Description: Trace Calibration Standard #1B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	200 mg/L	Molybdenum	200 mg/L
Silver	200 mg/L	Sulfur	400 mg/L
Tin	200 mg/L	Titanium	200 mg/L

Serial ID: UI091102-42 **Opened:** 17-NOV-09 **Amount :** 200 mL
Name: SILICON **Received:** 02-NOV-09 **Catalog Number :** HP100050-4F
Type: Source Material **Expires:** 17-NOV-10 **Lot Number :** 0921924
Employee: Helen Camello **Solvent :** H20/tr HF
Supplier: ENVIRNMENTAL EXPRESS
Description: SILICON 1000mg/L H20/tr HF
Comments: None

Analyte	Concentration	Analyte	Concentration
Silica	2139 mg/L	Silicon	1000 mg/L

Serial ID: UI091124-01 **Opened:** 24-NOV-09 **Lot Number :** 1017642
Name: METALSPIKE-1 **Received:** 24-NOV-09
Type: Source Material **Expires:** 24-NOV-10
Employee: Francena Armstrong
Supplier: OS2I
Description: Metals Spike Mix I
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 ug/mL	Arsenic	100 ug/mL
Barium	100 ug/mL	Beryllium	100 ug/mL
Boron	100 ug/mL	Cadmium	100 ug/mL
Calcium	1000 ug/mL	Cobalt	100 ug/mL
Iron	1000 ug/mL	Lead	100 ug/mL
Magnesium	1000 ug/mL	Phosphorous	100 ug/mL
Potassium	1000 ug/mL	Silver	100 ug/mL
Sodium	1000 ug/mL	Strontium	100 ug/mL

Standard Logbook

Serial ID: UI091124-06 **Opened:** 24-NOV-09 **Lot Number :** 1017643
Name: METALSPIKE-2 **Received:** 24-NOV-09
Type: Source Material **Expires:** 24-NOV-10
Employee: Francena Armstrong
Supplier: OS2I
Description: Metals Spike Mix II
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	100 ug/mL	Chromium	100 ug/mL
Copper	100 ug/mL	Manganese	100 ug/mL
Molybdenum	100 ug/mL	Nickel	100 ug/mL
Selenium	100 ug/mL	Silica	2141 ug/mL
Silicon	1000 ug/mL	Sulfur	1000 ug/mL
Thallium	100 ug/mL	Tin	100 ug/mL
Titanium	100 ug/mL	Uranium	100 ug/mL
Vanadium	100 ug/mL	Zinc	100 ug/mL

Serial ID: UI091124-A00 **Opened:** 24-NOV-09 **Catalog Number :** 160067-05
Name: ICP-MS ALL OTHER SPIKE **Received:** 24-NOV-09 **Lot Number :** 1017644
Type: Source Material **Expires:** 24-NOV-10
Employee: Francena Armstrong
Supplier: O2si
Description: ICP-MS SPIKE FOR ALL CLIENTS EXCEPT DOE CLIENTS (Solution A).
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	200 mg/L	Arsenic	5 mg/L
Barium	5 mg/L	Beryllium	5 mg/L
Bismuth	5 mg/L	Boron	10 mg/L
Cadmium	5 mg/L	Calcium	200 mg/L
Cesium	5 mg/L	Chromium	5 mg/L
Cobalt	5 mg/L	Copper	5 mg/L
Iron	200 mg/L	Lead	5 mg/L
Lithium	5 mg/L	Magnesium	200 mg/L
Manganese	5 mg/L	Nickel	5 mg/L
Phosphorous	200 mg/L	Potassium	200 mg/L
Selenium	5 mg/L	Sodium	200 mg/L
Strontium	5 mg/L	Thallium	5 mg/L
Thorium	5 mg/L	Uranium	5 mg/L
Uranium-235	.036 mg/L	Uranium-238	4.964 mg/L
Vanadium	5 mg/L	Zinc	5 mg/L

Standard Logbook

Serial ID: UI091124-B **Opened:** 24-NOV-09 **Catalog Number :** 160067-05
Name: ICP-MS ALL OTHER SPIKE **Received:** 24-NOV-09 **Lot Number :** 1017644
Type: Source Material **Expires:** 24-NOV-10
Employee: Francena Armstrong
Supplier: O2si
Description: MS SPIKE FOR ALL CLIENTS EXCEPT DOE CLIENTS (Solution B).
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	5 mg/L	Molybdenum	5 mg/L
Silver	5 mg/L	Tin	5 mg/L
Titanium	5 mg/L	Zirconium	5 mg/L

Serial ID: UI091212-11 **Opened:** 12-DEC-09 **Amount :** 1000 mL
Name: ICP-MS ICSA Master A **Received:** 12-DEC-09 **Catalog Number :** 160013-01-01L
Type: Source Material **Expires:** 12-DEC-10 **Lot Number :** 1015303
Employee: Paul Boyd **Solvent :** 2% HNO3
Supplier: 02SI
Description: ICP-MS ICSA Master A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Calcium	1000 mg/L
Carbon	2000 mg/L	Chloride	10000 mg/L
Iron	1000 mg/L	Magnesium	1000 mg/L
Molybdenum	20 mg/L	Phosphorous	1000 mg/L
Potassium	1000 mg/L	Sodium	1000 mg/L
Sulfur	1000 mg/L	Titanium	20 mg/L

Serial ID: UI091212-60 **Opened:** 12-DEC-09 **Amount :** .5 mL
Name: ICPMS High Range Standar **Received:** 12-DEC-09 **Catalog Number :** 160212-02-01
Type: Source Material **Expires:** 12-DEC-10 **Lot Number :** 1018064
Employee: Paul Boyd **Solvent :** 2%HNO3 + Tr HF
Supplier: O2SI
Description: Linear Range Standard A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	5000 mg/L	Arsenic	100 mg/L
Barium	250 mg/L	Beryllium	100 mg/L
Cadmium	100 mg/L	Calcium	5000 mg/L
Chromium	100 mg/L	Cobalt	100 mg/L
Copper	100 mg/L	Iron	5000 mg/L
Lead	500 mg/L	Lithium	100 mg/L
Magnesium	5000 mg/L	Manganese	100 mg/L
Nickel	100 mg/L	Phosphorous	2500 mg/L

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Potassium	5000 mg/L	Selenium	50 mg/L
Sodium	5000 mg/L	Strontium	100 mg/L
Thallium	50 mg/L	Thorium	250 mg/L
Uranium	500 mg/L	Vanadium	100 mg/L
Zinc	250 mg/L		

Serial ID: UI091212-61 **Opened:** 12-DEC-09 **Amount :** .5 mL
Name: ICPMS High Range Standa **Received:** 12-DEC-09 **Catalog Number :** 160212-02-01
Type: Source Material **Expires:** 12-DEC-10 **Lot Number :** 1018064
Employee: Paul Boyd **Solvent :** 2%HNO3 + Tr HF
Supplier: O2SI
Description: Linear Range Standard B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	25 mg/L	Molybdenum	100 mg/L
Silver	25 mg/L	Tin	100 mg/L
Tungsten	100 mg/L	Zirconium	50 mg/L

Serial ID: UI091215-48 **Opened:** 04-JAN-10 **Amount :** 1000 mL
Name: Trace ICP ICSA **Received:** 18-DEC-09 **Catalog Number :** 160005-02
Type: Source Material **Expires:** 04-JAN-11 **Lot Number :** 1018219
Employee: Helen Camello **Solvent :** 3% HCl + 1% HNO3
Supplier: o2si
Description: Trace ICP Interferent Check Standard A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 UG/L	Calcium	500000 UG/L
Iron	200000 UG/L	Magnesium	500000 UG/L

Serial ID: UI091217-06 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master A **Received:** 17-DEC-09 **Catalog Number :** 160055-01
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018209
Employee: Paul Boyd **Solvent :** +/- 0.5% in 5% HNO3 100 cm2
Supplier: O2SI
Description: ICPMS ICV/CCV SOLN A - 10ppm
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	2020 mg/L	Calcium	2000 mg/L
Iron	2000 mg/L	Magnesium	2000 mg/L
Phosphorous	2000 mg/L	Potassium	2000 mg/L
Sodium	2000 mg/L		

Standard Logbook

Serial ID:	UI091217-07	**Opened:**	17-DEC-09	**Amount :**	250 mL
Name:	ICP-MS ICV/CCV Master B	**Received:**	17-DEC-09	**Catalog Number :**	160054-02
Type:	Source Material	**Expires:**	17-DEC-10	**Lot Number :**	1018210
Employee:	Paul Boyd			**Solvent :**	+/- 0.5% in 5% HNO3 100 cm2
Supplier:	02SI				
Description:	ICPMS ICV/CCV Soln B - 10ppm				
Comments:	None				

Analyte	Concentration	Analyte	Concentration
Arsenic	20 mg/L	Barium	20 mg/L
Beryllium	20 mg/L	Boron	40 mg/L
Cadmium	20 mg/L	Chromium	20 mg/L
Cobalt	20 mg/L	Copper	20 mg/L
Lead	20 mg/L	Lithium	20 mg/L
Manganese	20 mg/L	Nickel	20 mg/L
Selenium	20 mg/L	Strontium	20 mg/L
Thallium	20 mg/L	Thorium	20 mg/L
Uranium	20 mg/L	Vanadium	20 mg/L
Zinc	20 mg/L		

Serial ID:	UI091217-08	**Opened:**	17-DEC-09	**Amount :**	250 mL
Name:	ICP-MS ICV/CCV Master C	**Received:**	17-DEC-09	**Catalog Number :**	160054-03
Type:	Source Material	**Expires:**	17-DEC-10	**Lot Number :**	1018211
Employee:	Paul Boyd			**Solvent :**	+/- 0.5% in 5% HNO3 100 cm2
Supplier:	02SI				
Description:	ICPMS ICV/CCV Soln C - 10ppm				
Comments:	None				

Analyte	Concentration	Analyte	Concentration
Antimony	20 mg/L	Molybdenum	20 mg/L
Silver	20 mg/L	Tin	20 mg/L
Titanium	20 mg/L	Tungsten	20 mg/L
Zirconium	20 mg/L		

Serial ID:	UI091217-12	**Opened:**	17-DEC-09	**Amount :**	250 mL
Name:	ICP-MS ICSAB Master B	**Received:**	17-DEC-09	**Catalog Number :**	160033-02
Type:	Source Material	**Expires:**	17-DEC-10	**Lot Number :**	1018212
Employee:	Paul Boyd			**Solvent :**	+/- 0.5% in 2% HNO3
Supplier:	02SI				
Description:	ICPMS ICSAB Master B				
Comments:	None				

Analyte	Concentration	Analyte	Concentration
Arsenic	2 mg/L	Barium	2 mg/L
Beryllium	2 mg/L	Boron	2 mg/L
Cadmium	2 mg/L	Chromium	2 mg/L

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Cobalt	2 mg/L	Copper	2 mg/L
Lead	2 mg/L	Lithium	2 mg/L
Manganese	2 mg/L	Nickel	2 mg/L
Selenium	2 mg/L	Strontium	2 mg/L
Thallium	2 mg/L	Thorium	2 mg/L
Uranium	2 mg/L	Vanadium	2 mg/L
Zinc	2 mg/L		

Serial ID: UI091217-13 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICSAB Master C **Received:** 17-DEC-09 **Catalog Number :** 160033-03
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1016926
Employee: Paul Boyd **Solvent :** +/- 0.5% in 2% HNO3
Supplier: 02SI
Description: ICPMS ICSAB Master C
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	2 mg/L	Silver	2 mg/L
Tin	2 mg/L	Tungsten	2 mg/L
Zirconium	2 mg/L		

Serial ID: UI091228-40 **Opened:** 28-DEC-09 **Amount :** 500 mL
Name: ICP HIGH RANGE STD-A **Received:** 21-DEC-09 **Catalog Number :** 160211-05-03
Type: Source Material **Expires:** 28-DEC-10 **Lot Number :** 1018160
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3
Supplier: 02SI
Description: ICP HIGH RANGE STD SOLUTION A
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	10000 ug/L	Arsenic	10000 ug/L
Barium	15000 ug/L	Beryllium	3000 ug/L
Boron	5000 ug/L	Cadmium	10000 ug/L
Chromium	25000 ug/L	Cobalt	10000 ug/L
Copper	20000 ug/L	Lead	25000 ug/L
Manganese	10000 ug/L	Molybdenum	10000 ug/L
Nickel	10000 ug/L	Phosphorous	15000 ug/L
Potassium	300000 ug/L	Selenium	10000 ug/L
Silica	107000 ug/L	Silicon	50000 ug/L
Silver	1000 ug/L	Strontium	10000 ug/L
Sulfur	50000 ug/L	Thallium	10000 ug/L
Tin	10000 ug/L	Titanium	10000 ug/L
Vanadium	10000 ug/L	Zinc	15000 ug/L

Standard Logbook

Serial ID: UI091228-41 **Opened:** 28-DEC-09 **Amount :** 500 mL
Name: ICP HIGH RANGE STD B **Received:** 21-DEC-09 **Catalog Number :** 160211-05-03
Type: Source Material **Expires:** 28-DEC-10 **Lot Number :** 1018160
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3
Supplier: 02SI
Description: ICP HIGH RANGE STD SOLUTION B
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 ug/L	Calcium	500000 ug/L
Iron	500000 ug/L	Magnesium	500000 ug/L
Sodium	500000 ug/L	Uranium	15000 ug/L

Serial ID: UI1246651-A **Opened:** 23-DEC-09 **Catalog Number :** 160067-05
Name: ICP-MS ALL OTHER SPIKE **Received:** 23-DEC-09 **Lot Number :** 1018097
Type: Source Material **Expires:** 23-DEC-10
Employee: Bryan Davis
Supplier: O2si
Description: ICP-MS SPIKE FOR ALL CLIENTS EXCEPT DOE CLIENTS (Solution A).
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	200 mg/L	Arsenic	5 mg/L
Barium	5 mg/L	Beryllium	5 mg/L
Bismuth	5 mg/L	Boron	10 mg/L
Cadmium	5 mg/L	Calcium	200 mg/L
Cesium	5 mg/L	Chromium	5 mg/L
Cobalt	5 mg/L	Copper	5 mg/L
Iron	200 mg/L	Lead	5 mg/L
Lithium	5 mg/L	Magnesium	200 mg/L
Manganese	5 mg/L	Nickel	5 mg/L
Phosphorous	200 mg/L	Potassium	200 mg/L
Selenium	5 mg/L	Sodium	200 mg/L
Strontium	5 mg/L	Thallium	5 mg/L
Thorium	5 mg/L	Uranium	5 mg/L
Uranium-235	.036 mg/L	Uranium-238	4.964 mg/L
Vanadium	5 mg/L	Zinc	5 mg/L

Serial ID: UI1246654-B **Opened:** 23-DEC-09 **Catalog Number :** 160067-05
Name: ICP-MS ALL OTHER SPIKE **Received:** 23-DEC-09 **Lot Number :** 1017644
Type: Source Material **Expires:** 23-DEC-10
Employee: Bryan Davis
Supplier: O2si
Description: MS SPIKE FOR ALL CLIENTS EXCEPT DOE CLIENTS (Solution B).
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	5 mg/L	Molybdenum	5 mg/L
Silver	5 mg/L	Tin	5 mg/L
Titanium	5 mg/L	Zirconium	5 mg/L

Serial ID: UMS090303-01 **Opened:** 03-MAR-09 **Amount :** 250 mL
Name: ICPMSCalSPIKEB **Received:** 03-MAR-09 **Catalog Number :** ZGEL-100-250
Type: Source Material **Expires:** 28-FEB-10 **Lot Number :** 14-81JB
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution B
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	10 mg/L	Barium	10 mg/L
Beryllium	10 mg/L	Boron	20 mg/L
Cadmium	10 mg/L	Chromium	10 mg/L
Cobalt	10 mg/L	Copper	10 mg/L
Lead	10 mg/L	Lithium	10 mg/L
Manganese	10 mg/L	Nickel	10 mg/L
Selenium	10 mg/L	Silver	10 mg/L
Strontium	10 mg/L	Thallium	10 mg/L
Thorium	10 mg/L	Uranium	10 mg/L
Vanadium	10 mg/L	Zinc	10 mg/L

Serial ID: UMS090303-02 **Opened:** 03-MAR-09 **Catalog Number :** ZGEL-102-250
Name: ICPMSCalSPIKEA **Received:** 03-MAR-09 **Lot Number :** 14-83JB
Type: Source Material **Expires:** 28-FEB-10
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Calcium	1000 mg/L
Iron	1000 mg/L	Magnesium	1000 mg/L
Phosphorous	1000 mg/L	Potassium	1000 mg/L
Sodium	1000 mg/L		

Serial ID: UMS090303-03 **Opened:** 03-MAR-09 **Amount :** 250 ml
Name: ICPMSCalSPIKEC **Received:** 03-MAR-09 **Catalog Number :** ZGEL-101-250
Type: Source Material **Expires:** 28-FEB-10 **Lot Number :** 15-199JB
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution C

Standard Logbook

Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	10 mg/L	Molybdenum	10 mg/L
Tin	10 mg/L	Titanium	10 mg/L
Zirconium	10 mg/L		

Serial ID: IHG100107-01 **Opened:** 07-JAN-10 **Instrument Id :** Mercury
Name: MHGINTER1 **Received:** 07-JAN-10 **Pipet Id :** Minou1
Type: Intermediate **Expires:** 08-JAN-10 **Solvent :** 1mL HNO3 + Typel H2O
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Intermediate 1st Source 200 ug/L
Comments: Prepare fresh daily

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167639-01	Mercury	1000 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: IHG100107-02 **Opened:** 07-JAN-10 **Pipet Id :** Minou1
Name: MHGINTER2 **Received:** 07-JAN-10 **Solvent :** 2% HNO3-1240182
Type: Intermediate **Expires:** 08-JAN-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Intermediate 2nd Source 200 ug/L
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167641-02	Mercury	999.7 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: WHG100107-01a **Opened:** 07-JAN-10 **Pipet Id :** Hg1289245
Name: MHGWORKCAL0.2CRA **Received:** 07-JAN-10 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 08-JAN-10
Employee: Jason Loy
Supplier: GEL
Description: Mercury Working 1st Source CAL 0.2/CRA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100107-01	Mercury	200 ug/L	20 uL	20 mL	.2 ug/L

Serial ID: WHG100107-02 **Opened:** 07-JAN-10 **Pipet Id :** Hg1289245
Name: MHGWORKCAL0.5 **Received:** 07-JAN-10 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 08-JAN-10
Employee: Jason Loy
Supplier: GEL

Description: Mercury Working 1st Source CAL 0.5
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100107-01	Mercury	200 ug/L	50 uL	20 mL	.5 ug/L

Serial ID: WHG100107-03 **Opened:** 07-JAN-10 **Pipet Id :** Hg1289245
Name: MHGWORKCAL2.0 **Received:** 07-JAN-10 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 08-JAN-10
Employee: Jason Loy **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL 2.0
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100107-01	Mercury	200 ug/L	200 uL	20 mL	2 ug/L

Serial ID: WHG100107-04 **Opened:** 07-JAN-10 **Pipet Id :** Hg1289245
Name: MHGWORKCAL5.0CCV **Received:** 07-JAN-10 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 08-JAN-10
Employee: Jason Loy **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL 5.0/CCV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100107-01	Mercury	200 ug/L	500 uL	20 mL	5 ug/L

Serial ID: WHG100107-05 **Opened:** 07-JAN-10 **Pipet Id :** Hg1289245
Name: MHGWORKCAL10.0 **Received:** 07-JAN-10 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 08-JAN-10
Employee: Jason Loy **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL 10.0
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100107-01	Mercury	200 ug/L	1 mL	20 mL	10 ug/L

Serial ID: WHG100107-06 **Opened:** 07-JAN-10 **Pipet Id :** Hg1289245
Name: MHGWORK5.0ICV **Received:** 07-JAN-10 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 08-JAN-10
Employee: Jason Loy
Supplier: GEL
Description: Mercury Working 2nd Source 5.0/ICV

Standard Logbook

Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100107-02	Mercury	200 ug/L	500 uL	20 mL	5 ug/L

Serial ID: WHG100107-13 **Opened:** 07-JAN-10 **Pipet Id :** Hg1289245
Name: MHGLIQLCSMSSPIKE **Received:** 07-JAN-10 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 08-JAN-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury working intermediate standard for LCS/MS
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167639-01	Mercury	1000 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: WI100108-42 **Opened:** 08-JAN-10 **Balance Id :** 216
Name: TRACE ICP 0.1 PPM STD. **Received:** 02-NOV-09 **Pipet Id :** 1099667
Type: Working **Expires:** 09-JAN-10 **Solvent :** 3%HCL and 1%HNO3 -1249941
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP 0.1 PPM CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WI100108-44	Aluminum	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100108-44	Antimony	1000 ug/L	10 mL	100 mL	100 ug/L
WI100108-44	Arsenic	1000 ug/L	10 mL	100 mL	100 ug/L
WI100108-44	Barium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100108-44	Beryllium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100108-44	Boron	1000 ug/L	10 mL	100 mL	100 ug/L
WI100108-44	Cadmium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100108-44	Calcium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100108-44	Chromium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100108-44	Cobalt	1000 ug/L	10 mL	100 mL	100 ug/L
WI100108-44	Copper	1000 ug/L	10 mL	100 mL	100 ug/L
WI100108-44	Iron	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100108-44	Lead	1000 ug/L	10 mL	100 mL	100 ug/L
WI100108-44	Magnesium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100108-44	Manganese	1000 ug/L	10 mL	100 mL	100 ug/L
WI100108-44	Molybdenum	1000 ug/L	10 mL	100 mL	100 ug/L
WI100108-44	Nickel	1000 ug/L	10 mL	100 mL	100 ug/L
WI100108-44	Phosphorous	5000 ug/L	10 mL	100 mL	500 ug/L
WI100108-44	Potassium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100108-44	Selenium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100108-44	Silica	10698 ug/L	10 mL	100 mL	1069 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WI100108-44	Silicon	5000 ug/L	10 mL	100 mL	500 ug/L
WI100108-44	Silver	1000 ug/L	10 mL	100 mL	100 ug/L
WI100108-44	Sodium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100108-44	Strontium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100108-44	Sulfur	2000 ug/L	10 mL	100 mL	200 ug/L
WI100108-44	Thallium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100108-44	Tin	1000 ug/L	10 mL	100 mL	100 ug/L
WI100108-44	Titanium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100108-44	Uranium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100108-44	Vanadium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100108-44	Zinc	1000 ug/L	10 mL	100 mL	100 ug/L

Serial ID: WI100108-43 **Opened:** 08-JAN-10 **Balance Id :** 216
Name: TRACE ICP 0.5/CCV STD. **Received:** 02-NOV-09 **Pipet Id :** 1099667
Type: Working **Expires:** 09-JAN-10 **Solvent :** 3%HCL and 1%HNO3 -1249941
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP 0.5/CCV CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090828-42	Sodium	1000 ug/mL	5 mL	1000 mL	5000 UG/L
UI091015-42	Silica	2139 mg/L	2.5 mL	1000 mL	5348.25 UG/L
UI091015-42	Silicon	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI091102-40	Aluminum	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Arsenic	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Barium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Beryllium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Boron	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Cadmium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Calcium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Chromium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Cobalt	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Copper	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Iron	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Lead	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Magnesium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Manganese	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Nickel	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Phosphorous	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI091102-40	Potassium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Selenium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Sodium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Strontium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Thallium	200 mg/L	2.5 mL	1000 mL	500 UG/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091102-40	Uranium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Vanadium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Zinc	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Antimony	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Molybdenum	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Silver	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Sulfur	400 mg/L	2.5 mL	1000 mL	1000 UG/L
UI091102-41	Tin	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Titanium	200 mg/L	2.5 mL	1000 mL	500 UG/L

Serial ID: WI100108-44 **Opened:** 08-JAN-10 **Balance Id :** 216
Name: TRACE ICP SCAL 1.0 **Received:** 02-NOV-09 **Pipet Id :** 1099667
Type: Working **Expires:** 09-JAN-10 **Solvent :** 3%HCL and 1 %HNO3-1249941
Employee: Helen Camello
Supplier: o2si
Description: Trace ICP Calibration Standard 1.0ppm
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091015-42	Silica	2139 mg/L	2.5 mL	500 mL	10698 ug/L
UI091015-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI091102-40	Aluminum	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Arsenic	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Barium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Beryllium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Boron	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Cadmium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Calcium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Chromium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Cobalt	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Copper	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Iron	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Lead	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Magnesium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Manganese	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Nickel	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Phosphorous	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI091102-40	Potassium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Selenium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Sodium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Strontium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Thallium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Uranium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Vanadium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Zinc	200 mg/L	2.5 mL	500 mL	1000 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091102-41	Antimony	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Molybdenum	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Silver	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Sulfur	400 mg/L	2.5 mL	500 mL	2000 ug/L
UI091102-41	Tin	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Titanium	200 mg/L	2.5 mL	500 mL	1000 ug/L

Serial ID: WI100108-45 **Opened:** 08-JAN-10 **Balance Id :** 216
Name: TRACE ICP S-10 STD **Received:** 22-APR-09 **Pipet Id :** 1099667
Type: Working **Expires:** 09-JAN-10 **Solvent :** 3%HCL and 1%HNO3 -1249941
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP S-10 CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090422-40	Aluminum	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Calcium	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Iron	2000 mg/L	5 mL	500 mL	20000 UG/L
UI090422-40	Magnesium	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090828-42	Sodium	1000 ug/mL	10 mL	500 mL	20000 UG/L

Serial ID: WI100108-46 **Opened:** 08-JAN-10 **Balance Id :** 216
Name: ICP TRACE ICV **Received:** 25-SEP-09 **Pipet Id :** 1099667
Type: Working **Expires:** 09-JAN-10 **Solvent :** 3%HCL AND 1%HNO3-1249941
Employee: Helen Camello
Supplier: GEL
Description: Initial Calibration Verification ICP Trace Metals
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090925-40	Aluminum	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Arsenic	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Barium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Boron	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cadmium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Calcium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Chromium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cobalt	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Copper	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Iron	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Lead	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Phosphorous	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Potassium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Selenium	500 mg/L	2.5 mL	500 mL	2500 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090925-40	Sodium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Strontium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Antimony	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Beryllium	50 mg/L	2.5 mL	500 mL	250 ug/L
UI090925-41	Magnesium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-41	Manganese	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Molybdenum	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Nickel	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Silver	50 mg/L	2.5 mL	500 mL	250 ug/L
UI090925-41	Sulfur	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-41	Thallium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Tin	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Titanium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Uranium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Vanadium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Zinc	100 mg/L	2.5 mL	500 mL	500 ug/L
UI091102-42	Silica	2139 mg/L	2.5 mL	500 mL	10695 ug/L
UI091102-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L

Serial ID: WI100108-47 **Opened:** 08-JAN-10 **Balance Id :** 216
Name: PQL Working Standard **Received:** 08-JAN-10 **Pipet Id :** 1099667
Type: Working **Expires:** 09-JAN-10 **Solvent :** 3%HCL &1%HNO3-1249941
Employee: Helen Camello
Supplier: 02si
Description: PQL Working Standard
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-40	Aluminum	100 mg/L	2 mL	1000 mL	200 ug/L
UI090701-40	Antimony	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Arsenic	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Barium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Beryllium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Boron	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Cadmium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Calcium	100 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Chromium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Cobalt	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Copper	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Iron	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Lead	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Magnesium	150 mg/L	2 mL	1000 mL	300 ug/L
UI090701-40	Manganese	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Molybdenum	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Nickel	2.5 mg/L	2 mL	1000 mL	5 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-40	Phosphorous	75 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Potassium	75 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Selenium	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Silicon	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Silver	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sodium	150 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Strontium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sulfur	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Thallium	10 mg/L	2 mL	1000 mL	20 ug/L
UI090701-40	Tin	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Titanium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Uranium	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Vanadium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Zinc	5 mg/L	2 mL	1000 mL	10 ug/L

Serial ID: WMS100104-04B **Opened:** 04-JAN-10 **Amount :** 50 mL
Name: ICPMS Cal Standard 100 **Received:** 04-JAN-10 **Solvent :** 2%HNO3/1%HCl- 1238829
Type: Working **Expires:** 05-JAN-10
Employee: Rose Jenkins
Supplier: GEL
Description: ICPMS Calibration Standard (100 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090610-03	Tungsten	10 mg/L	.5 mL	50 mL	100 ug/L
UMS090303-01	Arsenic	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Barium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Beryllium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Boron	20 mg/L	.5	50 mL	200 ug/l
UMS090303-01	Cadmium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Chromium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Cobalt	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Copper	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Lead	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Lithium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Manganese	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Nickel	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Selenium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Silver	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Strontium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Thallium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Thorium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Uranium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Vanadium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Zinc	10 mg/L	.5	50 mL	100 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UMS090303-02	Aluminum	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Calcium	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Iron	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Magnesium	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Phosphorous	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Potassium	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Sodium	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-03	Antimony	10 mg/L	.5	50 mL	100 ug/l
UMS090303-03	Molybdenum	10 mg/L	.5	50 mL	100 ug/l
UMS090303-03	Tin	10 mg/L	.5	50 mL	100 ug/l
UMS090303-03	Titanium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-03	Zirconium	10 mg/L	.5	50 mL	100 ug/l

Serial ID: WMS100105-04 **Opened:** 05-JAN-10 **Amount :** 50 mL
Name: ICPMS Cal Standard 100 **Received:** 05-JAN-10 **Balance Id :** 4025216
Type: Working **Expires:** 06-JAN-10 **Pipet Id :** 3541598
Employee: Paul Boyd **Solvent :** 2%HNO3/1%HCl-1249336
Supplier: GEL
Description: ICPMS Calibration Standard (100 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090610-03	Tungsten	10 mg/L	.5 mL	50 mL	100 ug/L
UMS090303-01	Arsenic	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Barium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Beryllium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Boron	20 mg/L	.5 mL	50 mL	200 ug/l
UMS090303-01	Cadmium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Chromium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Cobalt	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Copper	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Lead	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Lithium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Manganese	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Nickel	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Selenium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Silver	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Strontium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Thallium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Thorium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Uranium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Vanadium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Zinc	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-02	Aluminum	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Calcium	1000 mg/L	.5 mL	50 mL	10000 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UMS090303-02	Iron	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Magnesium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Phosphorous	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Potassium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Sodium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-03	Antimony	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Molybdenum	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Tin	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Titanium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Zirconium	10 mg/L	.5 mL	50 mL	100 ug/l

Serial ID: WMS100105-04A **Opened:** 05-JAN-10 **Balance Id :** 4025216
Name: ICPMS Cal Standard 10 **Received:** 05-JAN-10 **Pipet Id :** 3541598
Type: Working **Expires:** 06-JAN-10 **Solvent :** 2%HNO3/1%HCl - 1249336
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS Calibration Standard (10 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100104-04B	Aluminum	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100104-04B	Antimony	100 ug/l	5 mL	50 mL	10 ug/l
WMS100104-04B	Arsenic	100 ug/l	5 mL	50 mL	10 ug/l
WMS100104-04B	Barium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100104-04B	Beryllium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100104-04B	Boron	200 ug/l	5 mL	50 mL	20 ug/l
WMS100104-04B	Cadmium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100104-04B	Calcium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100104-04B	Chromium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100104-04B	Cobalt	100 ug/l	5 mL	50 mL	10 ug/l
WMS100104-04B	Copper	100 ug/l	5 mL	50 mL	10 ug/l
WMS100104-04B	Iron	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100104-04B	Lead	100 ug/l	5 mL	50 mL	10 ug/l
WMS100104-04B	Lithium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100104-04B	Magnesium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100104-04B	Manganese	100 ug/l	5 mL	50 mL	10 ug/l
WMS100104-04B	Molybdenum	100 ug/l	5 mL	50 mL	10 ug/l
WMS100104-04B	Nickel	100 ug/l	5 mL	50 mL	10 ug/l
WMS100104-04B	Phosphorous	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100104-04B	Potassium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100104-04B	Selenium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100104-04B	Silver	100 ug/l	5 mL	50 mL	10 ug/l
WMS100104-04B	Sodium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100104-04B	Strontium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100104-04B	Thallium	100 ug/l	5 mL	50 mL	10 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100104-04B	Thorium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100104-04B	Tin	100 ug/l	5 mL	50 mL	10 ug/l
WMS100104-04B	Titanium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100104-04B	Tungsten	100 ug/L	5 mL	50 mL	10 ug/L
WMS100104-04B	Uranium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100104-04B	Vanadium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100104-04B	Zinc	100 ug/l	5 mL	50 mL	10 ug/l
WMS100104-04B	Zirconium	100 ug/l	5 mL	50 mL	10 ug/l

Serial ID: WMS100105-04B **Opened:** 05-JAN-10 **Amount :** 50 mL
Name: ICPMS Cal Standard 100 **Received:** 05-JAN-10 **Balance Id :** 40245216
Type: Working **Expires:** 06-JAN-10 **Pipet Id :** 1758088
Employee: Rose Jenkins **Solvent :** 2%HNO3/1%HCl- 1238829
Supplier: GEL
Description: ICPMS Calibration Standard (100 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090610-03	Tungsten	10 mg/L	.5 mL	50 mL	100 ug/L
UMS090303-01	Arsenic	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Barium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Beryllium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Boron	20 mg/L	.5	50 mL	200 ug/l
UMS090303-01	Cadmium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Chromium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Cobalt	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Copper	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Lead	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Lithium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Manganese	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Nickel	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Selenium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Silver	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Strontium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Thallium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Thorium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Uranium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Vanadium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Zinc	10 mg/L	.5	50 mL	100 ug/l
UMS090303-02	Aluminum	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Calcium	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Iron	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Magnesium	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Phosphorous	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Potassium	1000 mg/L	.5	50 mL	10000 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UMS090303-02	Sodium	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-03	Antimony	10 mg/L	.5	50 mL	100 ug/l
UMS090303-03	Molybdenum	10 mg/L	.5	50 mL	100 ug/l
UMS090303-03	Tin	10 mg/L	.5	50 mL	100 ug/l
UMS090303-03	Titanium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-03	Zirconium	10 mg/L	.5	50 mL	100 ug/l

Serial ID: WMS100105-05 **Opened:** 05-JAN-10 **Balance Id :** 40245216
Name: ICPMS ICV **Received:** 05-JAN-10 **Pipet Id :** 3541598
Type: Working **Expires:** 06-JAN-10 **Solvent :** 2%HNO3/1%HCl - 1249336
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-06	Aluminum	2020 mg/L	.125 mL	50 mL	5050 ug/L
UI091217-06	Calcium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Iron	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Magnesium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Phosphorous	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Potassium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Sodium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-07	Arsenic	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Barium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Beryllium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Boron	40 mg/L	.125 mL	50 mL	100 ug/L
UI091217-07	Cadmium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Chromium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Cobalt	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Copper	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lead	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lithium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Manganese	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Nickel	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Selenium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Strontium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thallium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thorium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Uranium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Vanadium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Zinc	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Antimony	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Molybdenum	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Silver	20 mg/L	.125 mL	50 mL	50 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-08	Tin	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Titanium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tungsten	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Zirconium	20 mg/L	.125 mL	50 mL	50 ug/L

Serial ID: WMS100105-06 **Opened:** 05-JAN-10 **Balance Id :** 40245216
Name: ICPMS CRDL **Received:** 05-JAN-10 **Pipet Id :** 3820544
Type: Working **Expires:** 06-JAN-10 **Solvent :** 2%HNO3/1%HCl - 1249336
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS CRDL
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Aluminum	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Arsenic	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Barium	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Beryllium	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-09	Boron	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Cadmium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Calcium	100 mg/L	.05 mL	50 mL	100 ug/L
UI090701-09	Chromium	3 mg/L	.05 mL	50 mL	3 ug/L
UI090701-09	Cobalt	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Copper	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Iron	25 mg/L	.05 mL	50 mL	25 ug/L
UI090701-09	Lead	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Lithium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Magnesium	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Manganese	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Nickel	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Phosphorous	50 mg/L	.05 mL	50 mL	50 ug/L
UI090701-09	Potassium	300 mg/L	.05 mL	50 mL	300 ug/L
UI090701-09	Selenium	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Sodium	250 mg/L	.05 mL	50 mL	250 ug/L
UI090701-09	Strontium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Thallium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Thorium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Uranium	.2 mg/L	.05 mL	50 mL	.2 ug/L
UI090701-09	Vanadium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Zinc	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Antimony	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-10	Molybdenum	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-10	Silver	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-10	Tin	2 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Titanium	10 mg/L	.05 mL	50 mL	10 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-10	Tungsten	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Zirconium	2 mg/L	.05 mL	50 mL	2 ug/L

Serial ID: WMS100105-07 **Opened:** 05-JAN-10 **Balance Id :** 40245216
Name: ICPMS ICSA **Received:** 05-JAN-10 **Lot Number :** 1010773
Type: Working **Expires:** 06-JAN-10 **Pipet Id :** 3541598
Employee: Paul Boyd **Solvent :** 2%HNO3/1%HCl - 1249336
Supplier: GEL
Description: ICPMS ICSA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI091212-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI091212-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: WMS100105-08 **Opened:** 05-JAN-10 **Balance Id :** 40245216
Name: ICPMS ICSAB **Received:** 05-JAN-10 **Pipet Id :** 1758088
Type: Working **Expires:** 06-JAN-10 **Solvent :** 2%HNO3/1%HCl - 1249336
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS ICSAB
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI091212-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI091212-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L
UI091217-12	Arsenic	2 mg/L	.5 mL	50 mL	20 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-12	Barium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Beryllium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Boron	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Cadmium	2 mg/L	.5 mL	50 mL	20.2 ug/L
UI091217-12	Chromium	2 mg/L	.5 mL	50 mL	22.2 ug/L
UI091217-12	Cobalt	2 mg/L	.5 mL	50 mL	20.4 ug/L
UI091217-12	Copper	2 mg/L	.5 mL	50 mL	23.4 ug/L
UI091217-12	Lead	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Lithium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Manganese	2 mg/L	.5 mL	50 mL	22.7 ug/L
UI091217-12	Nickel	2 mg/L	.5 mL	50 mL	22.4 ug/L
UI091217-12	Selenium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Strontium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thallium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thorium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Uranium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Vanadium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Zinc	2 mg/L	.5 mL	50 mL	27 ug/L
UI091217-13	Antimony	2 mg/L	.5 mL	50 mL	20.5 ug/L
UI091217-13	Silver	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tin	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tungsten	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Zirconium	2 mg/L	.5 mL	50 mL	20 ug/L

Serial ID: WMS100105-70 **Opened:** 05-JAN-10 **Balance Id :** 40245216
Name: ICPMS LINEAR RANGE ST **Received:** 05-JAN-10 **Pipet Id :** 1758088
Type: Working **Expires:** 06-JAN-10 **Solvent :** 2%HNO3/1%HCl - 1249336
Employee: Paul Boyd
Supplier: 02SI
Description: ICPMS LINEAR RANGE STANDARD
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-60	Aluminum	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Arsenic	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Barium	250 mg/L	.5 mL	50 mL	2500 ug/L
UI091212-60	Beryllium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Cadmium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Calcium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Chromium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Cobalt	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Copper	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Iron	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Lead	500 mg/L	.5 mL	50 mL	5000 ug/L
UI091212-60	Lithium	100 mg/L	.5 mL	50 mL	1000 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-60	Magnesium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Manganese	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Nickel	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Phosphorous	2500 mg/L	.5 mL	50 mL	25000 ug/L
UI091212-60	Potassium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Selenium	50 mg/L	.5 mL	50 mL	500 ug/L
UI091212-60	Sodium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Strontium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Thallium	50 mg/L	.5 mL	50 mL	500 ug/L
UI091212-60	Thorium	250 mg/L	.5 mL	50 mL	2500 ug/L
UI091212-60	Uranium	500 mg/L	.5 mL	50 mL	5000 ug/L
UI091212-60	Vanadium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Zinc	250 mg/L	.5 mL	50 mL	2500 ug/L
UI091212-61	Antimony	25 mg/L	.5 mL	50 mL	250 ug/L
UI091212-61	Molybdenum	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-61	Silver	25 mg/L	.5 mL	50 mL	250 ug/L
UI091212-61	Tin	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-61	Tungsten	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-61	Zirconium	50 mg/L	.5 mL	50 mL	500 ug/L

Serial ID: WMS100106-04 **Opened:** 06-JAN-10 **Amount :** 50 mL
Name: ICPMS Cal Standard 100 **Received:** 06-JAN-10 **Balance Id :** 4025216
Type: Working **Expires:** 07-JAN-10 **Pipet Id :** 3541598
Employee: Paul Boyd **Solvent :** 2%HNO3/1%HCl-1249336
Supplier: GEL
Description: ICPMS Calibration Standard (100 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090610-03	Tungsten	10 mg/L	.5 mL	50 mL	100 ug/L
UMS090303-01	Arsenic	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Barium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Beryllium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Boron	20 mg/L	.5 mL	50 mL	200 ug/l
UMS090303-01	Cadmium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Chromium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Cobalt	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Copper	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Lead	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Lithium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Manganese	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Nickel	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Selenium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Silver	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Strontium	10 mg/L	.5 mL	50 mL	100 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UMS090303-01	Thallium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Thorium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Uranium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Vanadium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Zinc	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-02	Aluminum	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Calcium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Iron	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Magnesium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Phosphorous	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Potassium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Sodium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-03	Antimony	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Molybdenum	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Tin	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Titanium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Zirconium	10 mg/L	.5 mL	50 mL	100 ug/l

Serial ID: WMS100106-04A **Opened:** 06-JAN-10 **Balance Id :** 4025216
Name: ICPMS Cal Standard 10 **Received:** 06-JAN-10 **Pipet Id :** 3541598
Type: Working **Expires:** 07-JAN-10 **Solvent :** 2%HNO3/1%HCl - 1249336
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS Calibration Standard (10 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100105-04B	Aluminum	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100105-04B	Antimony	100 ug/l	5 mL	50 mL	10 ug/l
WMS100105-04B	Arsenic	100 ug/l	5 mL	50 mL	10 ug/l
WMS100105-04B	Barium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100105-04B	Beryllium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100105-04B	Boron	200 ug/l	5 mL	50 mL	20 ug/l
WMS100105-04B	Cadmium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100105-04B	Calcium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100105-04B	Chromium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100105-04B	Cobalt	100 ug/l	5 mL	50 mL	10 ug/l
WMS100105-04B	Copper	100 ug/l	5 mL	50 mL	10 ug/l
WMS100105-04B	Iron	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100105-04B	Lead	100 ug/l	5 mL	50 mL	10 ug/l
WMS100105-04B	Lithium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100105-04B	Magnesium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100105-04B	Manganese	100 ug/l	5 mL	50 mL	10 ug/l
WMS100105-04B	Molybdenum	100 ug/l	5 mL	50 mL	10 ug/l
WMS100105-04B	Nickel	100 ug/l	5 mL	50 mL	10 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100105-04B	Phosphorous	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100105-04B	Potassium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100105-04B	Selenium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100105-04B	Silver	100 ug/l	5 mL	50 mL	10 ug/l
WMS100105-04B	Sodium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100105-04B	Strontium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100105-04B	Thallium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100105-04B	Thorium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100105-04B	Tin	100 ug/l	5 mL	50 mL	10 ug/l
WMS100105-04B	Titanium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100105-04B	Tungsten	100 ug/L	5 mL	50 mL	10 ug/L
WMS100105-04B	Uranium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100105-04B	Vanadium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100105-04B	Zinc	100 ug/l	5 mL	50 mL	10 ug/l
WMS100105-04B	Zirconium	100 ug/l	5 mL	50 mL	10 ug/l

Serial ID: WMS100106-05 **Opened:** 06-JAN-10 **Balance Id :** 40245216
Name: ICPMS ICV **Received:** 06-JAN-10 **Pipet Id :** 3541598
Type: Working **Expires:** 07-JAN-10 **Solvent :** 2%HNO3/1%HCl - 1249336
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-06	Aluminum	2020 mg/L	.125 mL	50 mL	5050 ug/L
UI091217-06	Calcium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Iron	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Magnesium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Phosphorous	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Potassium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Sodium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-07	Arsenic	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Barium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Beryllium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Boron	40 mg/L	.125 mL	50 mL	100 ug/L
UI091217-07	Cadmium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Chromium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Cobalt	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Copper	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lead	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lithium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Manganese	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Nickel	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Selenium	20 mg/L	.125 mL	50 mL	50 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-07	Strontium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thallium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thorium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Uranium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Vanadium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Zinc	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Antimony	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Molybdenum	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Silver	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tin	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Titanium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tungsten	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Zirconium	20 mg/L	.125 mL	50 mL	50 ug/L

Serial ID: WMS100106-06 **Opened:** 06-JAN-10 **Balance Id :** 40245216
Name: ICPMS CRDL **Received:** 06-JAN-10 **Pipet Id :** 3820544
Type: Working **Expires:** 07-JAN-10 **Solvent :** 2%HNO3/1%HCl - 1249336
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS CRDL
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Aluminum	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Arsenic	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Barium	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Beryllium	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-09	Boron	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Cadmium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Calcium	100 mg/L	.05 mL	50 mL	100 ug/L
UI090701-09	Chromium	3 mg/L	.05 mL	50 mL	3 ug/L
UI090701-09	Cobalt	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Copper	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Iron	25 mg/L	.05 mL	50 mL	25 ug/L
UI090701-09	Lead	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Lithium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Magnesium	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Manganese	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Nickel	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Phosphorous	50 mg/L	.05 mL	50 mL	50 ug/L
UI090701-09	Potassium	300 mg/L	.05 mL	50 mL	300 ug/L
UI090701-09	Selenium	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Sodium	250 mg/L	.05 mL	50 mL	250 ug/L
UI090701-09	Strontium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Thallium	1 mg/L	.05 mL	50 mL	1 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Thorium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Uranium	.2 mg/L	.05 mL	50 mL	.2 ug/L
UI090701-09	Vanadium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Zinc	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Antimony	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-10	Molybdenum	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-10	Silver	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-10	Tin	2 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Titanium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Tungsten	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Zirconium	2 mg/L	.05 mL	50 mL	2 ug/L

Serial ID: WMS100106-07 **Opened:** 06-JAN-10 **Balance Id :** 40245216
Name: ICPMS ICSA **Received:** 06-JAN-10 **Lot Number :** 1010773
Type: Working **Expires:** 07-JAN-10 **Pipet Id :** 3541598
Employee: Paul Boyd **Solvent :** 2%HNO3/1%HCl - 1249336
Supplier: GEL
Description: ICPMS ICSA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI091212-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI091212-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: WMS100106-08 **Opened:** 06-JAN-10 **Balance Id :** 40245216
Name: ICPMS ICSAB **Received:** 06-JAN-10 **Pipet Id :** 1758088
Type: Working **Expires:** 07-JAN-10 **Solvent :** 2%HNO3/1%HCl - 1249336
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS ICSAB
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI091212-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L
UI091217-12	Arsenic	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Barium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Beryllium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Boron	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Cadmium	2 mg/L	.5 mL	50 mL	20.2 ug/L
UI091217-12	Chromium	2 mg/L	.5 mL	50 mL	22.2 ug/L
UI091217-12	Cobalt	2 mg/L	.5 mL	50 mL	20.4 ug/L
UI091217-12	Copper	2 mg/L	.5 mL	50 mL	23.4 ug/L
UI091217-12	Lead	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Lithium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Manganese	2 mg/L	.5 mL	50 mL	22.7 ug/L
UI091217-12	Nickel	2 mg/L	.5 mL	50 mL	22.4 ug/L
UI091217-12	Selenium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Strontium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thallium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thorium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Uranium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Vanadium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Zinc	2 mg/L	.5 mL	50 mL	27 ug/L
UI091217-13	Antimony	2 mg/L	.5 mL	50 mL	20.5 ug/L
UI091217-13	Silver	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tin	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tungsten	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Zirconium	2 mg/L	.5 mL	50 mL	20 ug/L

Serial ID: WMS100107-04B **Opened:** 07-JAN-10 **Amount :** 50 mL
Name: ICPMS Cal Standard 100 **Received:** 07-JAN-10 **Balance Id :** 40245216
Type: Working **Expires:** 08-JAN-10 **Pipet Id :** 1758088
Employee: Rose Jenkins **Solvent :** 2%HNO3/1%HCl- 1238829
Supplier: GEL
Description: ICPMS Calibration Standard (100 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090610-03	Tungsten	10 mg/L	.5 mL	50 mL	100 ug/L
UMS090303-01	Arsenic	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Barium	10 mg/L	.5	50 mL	100 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UMS090303-01	Beryllium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Boron	20 mg/L	.5	50 mL	200 ug/l
UMS090303-01	Cadmium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Chromium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Cobalt	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Copper	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Lead	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Lithium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Manganese	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Nickel	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Selenium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Silver	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Strontium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Thallium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Thorium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Uranium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Vanadium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Zinc	10 mg/L	.5	50 mL	100 ug/l
UMS090303-02	Aluminum	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Calcium	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Iron	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Magnesium	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Phosphorous	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Potassium	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Sodium	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-03	Antimony	10 mg/L	.5	50 mL	100 ug/l
UMS090303-03	Molybdenum	10 mg/L	.5	50 mL	100 ug/l
UMS090303-03	Tin	10 mg/L	.5	50 mL	100 ug/l
UMS090303-03	Titanium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-03	Zirconium	10 mg/L	.5	50 mL	100 ug/l

Serial ID: WMS100108-04 **Opened:** 08-JAN-10 **Amount :** 50 mL
Name: ICPMS Cal Standard 100 **Received:** 08-JAN-10 **Balance Id :** 4025216
Type: Working **Expires:** 09-JAN-10 **Pipet Id :** 3541598
Employee: Paul Boyd **Solvent :** 2%HNO3/1%HCl-1249336
Supplier: GEL
Description: ICPMS Calibration Standard (100 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090610-03	Tungsten	10 mg/L	.5 mL	50 mL	100 ug/L
UMS090303-01	Arsenic	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Barium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Beryllium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Boron	20 mg/L	.5 mL	50 mL	200 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UMS090303-01	Cadmium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Chromium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Cobalt	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Copper	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Lead	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Lithium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Manganese	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Nickel	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Selenium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Silver	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Strontium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Thallium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Thorium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Uranium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Vanadium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Zinc	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-02	Aluminum	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Calcium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Iron	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Magnesium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Phosphorous	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Potassium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Sodium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-03	Antimony	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Molybdenum	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Tin	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Titanium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Zirconium	10 mg/L	.5 mL	50 mL	100 ug/l

Serial ID: WMS100108-04A **Opened:** 08-JAN-10 **Balance Id :** 4025216
Name: ICPMS Cal Standard 10 **Received:** 08-JAN-10 **Pipet Id :** 3541598
Type: Working **Expires:** 08-JAN-10 **Solvent :** 2%HNO3/1%HCl - 1249336
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS Calibration Standard (10 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100107-04B	Aluminum	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100107-04B	Antimony	100 ug/l	5 mL	50 mL	10 ug/l
WMS100107-04B	Arsenic	100 ug/l	5 mL	50 mL	10 ug/l
WMS100107-04B	Barium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100107-04B	Beryllium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100107-04B	Boron	200 ug/l	5 mL	50 mL	20 ug/l
WMS100107-04B	Cadmium	100 ug/l	5 mL	50 mL	10 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100107-04B	Calcium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100107-04B	Chromium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100107-04B	Cobalt	100 ug/l	5 mL	50 mL	10 ug/l
WMS100107-04B	Copper	100 ug/l	5 mL	50 mL	10 ug/l
WMS100107-04B	Iron	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100107-04B	Lead	100 ug/l	5 mL	50 mL	10 ug/l
WMS100107-04B	Lithium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100107-04B	Magnesium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100107-04B	Manganese	100 ug/l	5 mL	50 mL	10 ug/l
WMS100107-04B	Molybdenum	100 ug/l	5 mL	50 mL	10 ug/l
WMS100107-04B	Nickel	100 ug/l	5 mL	50 mL	10 ug/l
WMS100107-04B	Phosphorous	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100107-04B	Potassium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100107-04B	Selenium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100107-04B	Silver	100 ug/l	5 mL	50 mL	10 ug/l
WMS100107-04B	Sodium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100107-04B	Strontium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100107-04B	Thallium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100107-04B	Thorium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100107-04B	Tin	100 ug/l	5 mL	50 mL	10 ug/l
WMS100107-04B	Titanium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100107-04B	Tungsten	100 ug/L	5 mL	50 mL	10 ug/L
WMS100107-04B	Uranium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100107-04B	Vanadium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100107-04B	Zinc	100 ug/l	5 mL	50 mL	10 ug/l
WMS100107-04B	Zirconium	100 ug/l	5 mL	50 mL	10 ug/l

Serial ID: WMS100108-05 **Opened:** 08-JAN-10 **Balance Id :** 40245216
Name: ICPMS ICV **Received:** 08-JAN-10 **Pipet Id :** 3541598
Type: Working **Expires:** 09-JAN-10 **Solvent :** 2%HNO3/1%HCl - 1249336
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-06	Aluminum	2020 mg/L	.125 mL	50 mL	5050 ug/L
UI091217-06	Calcium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Iron	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Magnesium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Phosphorous	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Potassium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Sodium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-07	Arsenic	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Barium	20 mg/L	.125 mL	50 mL	50 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-07	Beryllium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Boron	40 mg/L	.125 mL	50 mL	100 ug/L
UI091217-07	Cadmium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Chromium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Cobalt	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Copper	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lead	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lithium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Manganese	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Nickel	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Selenium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Strontium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thallium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thorium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Uranium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Vanadium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Zinc	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Antimony	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Molybdenum	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Silver	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tin	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Titanium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tungsten	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Zirconium	20 mg/L	.125 mL	50 mL	50 ug/L

Serial ID: WMS100108-06 **Opened:** 08-JAN-10 **Balance Id :** 40245216
Name: ICPMS CRDL **Received:** 08-JAN-10 **Pipet Id :** 3820544
Type: Working **Expires:** 09-JAN-10 **Solvent :** 2%HNO3/1%HCl - 1249336
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS CRDL
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Aluminum	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Arsenic	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Barium	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Beryllium	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-09	Boron	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Cadmium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Calcium	100 mg/L	.05 mL	50 mL	100 ug/L
UI090701-09	Chromium	3 mg/L	.05 mL	50 mL	3 ug/L
UI090701-09	Cobalt	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Copper	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Iron	25 mg/L	.05 mL	50 mL	25 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Lead	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Lithium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Magnesium	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Manganese	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Nickel	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Phosphorous	50 mg/L	.05 mL	50 mL	50 ug/L
UI090701-09	Potassium	300 mg/L	.05 mL	50 mL	300 ug/L
UI090701-09	Selenium	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Sodium	250 mg/L	.05 mL	50 mL	250 ug/L
UI090701-09	Strontium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Thallium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Thorium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Uranium	.2 mg/L	.05 mL	50 mL	.2 ug/L
UI090701-09	Vanadium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Zinc	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Antimony	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-10	Molybdenum	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-10	Silver	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-10	Tin	2 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Titanium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Tungsten	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Zirconium	2 mg/L	.05 mL	50 mL	2 ug/L

Serial ID: WMS100108-07 **Opened:** 08-JAN-10 **Balance Id :** 40245216
Name: ICPMS ICSA **Received:** 08-JAN-10 **Lot Number :** 1010773
Type: Working **Expires:** 09-JAN-10 **Pipet Id :** 3541598
Employee: Paul Boyd **Solvent :** 2%HNO3/1%HCl - 1249336
Supplier: GEL
Description: ICPMS ICSA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI091212-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI091212-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Standard Logbook

Serial ID: WMS100108-08 **Opened:** 08-JAN-10 **Balance Id :** 40245216
Name: ICPMS ICSAB **Received:** 08-JAN-10 **Pipet Id :** 1758088
Type: Working **Expires:** 09-JAN-10 **Solvent :** 2%HNO3/1%HCl - 1249336
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS ICSAB
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI091212-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI091212-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L
UI091217-12	Arsenic	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Barium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Beryllium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Boron	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Cadmium	2 mg/L	.5 mL	50 mL	20.2 ug/L
UI091217-12	Chromium	2 mg/L	.5 mL	50 mL	22.2 ug/L
UI091217-12	Cobalt	2 mg/L	.5 mL	50 mL	20.4 ug/L
UI091217-12	Copper	2 mg/L	.5 mL	50 mL	23.4 ug/L
UI091217-12	Lead	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Lithium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Manganese	2 mg/L	.5 mL	50 mL	22.7 ug/L
UI091217-12	Nickel	2 mg/L	.5 mL	50 mL	22.4 ug/L
UI091217-12	Selenium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Strontium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thallium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thorium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Uranium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Vanadium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Zinc	2 mg/L	.5 mL	50 mL	27 ug/L
UI091217-13	Antimony	2 mg/L	.5 mL	50 mL	20.5 ug/L
UI091217-13	Silver	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tin	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tungsten	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Zirconium	2 mg/L	.5 mL	50 mL	20 ug/L

Standard Logbook

Serial ID: WMS100108-70 **Opened:** 08-JAN-10 **Balance Id :** 40245216
Name: ICPMS LINEAR RANGE ST **Received:** 08-JAN-10 **Pipet Id :** 1758088
Type: Working **Expires:** 09-JAN-10 **Solvent :** 2%HNO3/1%HCl - 1249336
Employee: Paul Boyd
Supplier: 02SI
Description: ICPMS LINEAR RANGE STANDARD
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-60	Aluminum	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Arsenic	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Barium	250 mg/L	.5 mL	50 mL	2500 ug/L
UI091212-60	Beryllium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Cadmium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Calcium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Chromium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Cobalt	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Copper	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Iron	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Lead	500 mg/L	.5 mL	50 mL	5000 ug/L
UI091212-60	Lithium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Magnesium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Manganese	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Nickel	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Phosphorous	2500 mg/L	.5 mL	50 mL	25000 ug/L
UI091212-60	Potassium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Selenium	50 mg/L	.5 mL	50 mL	500 ug/L
UI091212-60	Sodium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Strontium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Thallium	50 mg/L	.5 mL	50 mL	500 ug/L
UI091212-60	Thorium	250 mg/L	.5 mL	50 mL	2500 ug/L
UI091212-60	Uranium	500 mg/L	.5 mL	50 mL	5000 ug/L
UI091212-60	Vanadium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Zinc	250 mg/L	.5 mL	50 mL	2500 ug/L
UI091212-61	Antimony	25 mg/L	.5 mL	50 mL	250 ug/L
UI091212-61	Molybdenum	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-61	Silver	25 mg/L	.5 mL	50 mL	250 ug/L
UI091212-61	Tin	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-61	Tungsten	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-61	Zirconium	50 mg/L	.5 mL	50 mL	500 ug/L

Serial ID: WMS100114-04 **Opened:** 14-JAN-10 **Amount :** 50 mL
Name: ICPMS Cal Standard 100 **Received:** 14-JAN-10 **Balance Id :** 4025216
Type: Working **Expires:** 15-JAN-10 **Pipet Id :** 3541598
Employee: Paul Boyd **Solvent :** 2%HNO3/1%HCl-1253206
Supplier: GEL

Standard Logbook

Description: ICPMS Calibration Standard (100 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090610-03	Tungsten	10 mg/L	.5 mL	50 mL	100 ug/L
UMS090303-01	Arsenic	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Barium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Beryllium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Boron	20 mg/L	.5 mL	50 mL	200 ug/l
UMS090303-01	Cadmium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Chromium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Cobalt	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Copper	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Lead	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Lithium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Manganese	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Nickel	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Selenium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Silver	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Strontium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Thallium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Thorium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Uranium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Vanadium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Zinc	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-02	Aluminum	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Calcium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Iron	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Magnesium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Phosphorous	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Potassium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Sodium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-03	Antimony	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Molybdenum	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Tin	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Titanium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Zirconium	10 mg/L	.5 mL	50 mL	100 ug/l

Serial ID: WMS100114-04A **Opened:** 14-JAN-10 **Balance Id :** 4025216
Name: ICPMS Cal Standard 10 **Received:** 14-JAN-10 **Pipet Id :** 3541598
Type: Working **Expires:** 15-JAN-10 **Solvent :** 2%HNO3/1%HCl - 1253206
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS Calibration Standard (10 ppb)
Comments: None

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100114-04	Aluminum	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100114-04	Antimony	100 ug/l	5 mL	50 mL	10 ug/l
WMS100114-04	Arsenic	100 ug/l	5 mL	50 mL	10 ug/l
WMS100114-04	Barium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100114-04	Beryllium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100114-04	Boron	200 ug/l	5 mL	50 mL	20 ug/l
WMS100114-04	Cadmium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100114-04	Calcium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100114-04	Chromium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100114-04	Cobalt	100 ug/l	5 mL	50 mL	10 ug/l
WMS100114-04	Copper	100 ug/l	5 mL	50 mL	10 ug/l
WMS100114-04	Iron	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100114-04	Lead	100 ug/l	5 mL	50 mL	10 ug/l
WMS100114-04	Lithium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100114-04	Magnesium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100114-04	Manganese	100 ug/l	5 mL	50 mL	10 ug/l
WMS100114-04	Molybdenum	100 ug/l	5 mL	50 mL	10 ug/l
WMS100114-04	Nickel	100 ug/l	5 mL	50 mL	10 ug/l
WMS100114-04	Phosphorous	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100114-04	Potassium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100114-04	Selenium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100114-04	Silver	100 ug/l	5 mL	50 mL	10 ug/l
WMS100114-04	Sodium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100114-04	Strontium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100114-04	Thallium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100114-04	Thorium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100114-04	Tin	100 ug/l	5 mL	50 mL	10 ug/l
WMS100114-04	Titanium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100114-04	Tungsten	100 ug/L	5 mL	50 mL	10 ug/L
WMS100114-04	Uranium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100114-04	Vanadium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100114-04	Zinc	100 ug/l	5 mL	50 mL	10 ug/l
WMS100114-04	Zirconium	100 ug/l	5 mL	50 mL	10 ug/l

Serial ID: WMS100114-05 **Opened:** 14-JAN-10 **Balance Id :** 40245216
Name: ICPMS ICV **Received:** 14-JAN-10 **Pipet Id :** 3541598
Type: Working **Expires:** 15-JAN-10 **Solvent :** 2%HNO3/1%HCl - 1253206
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-06	Aluminum	2020 mg/L	.125 mL	50 mL	5050 ug/L
UI091217-06	Calcium	2000 mg/L	.125 mL	50 mL	5000 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-06	Iron	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Magnesium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Phosphorous	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Potassium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Sodium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-07	Arsenic	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Barium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Beryllium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Boron	40 mg/L	.125 mL	50 mL	100 ug/L
UI091217-07	Cadmium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Chromium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Cobalt	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Copper	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lead	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lithium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Manganese	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Nickel	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Selenium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Strontium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thallium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thorium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Uranium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Vanadium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Zinc	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Antimony	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Molybdenum	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Silver	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tin	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Titanium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tungsten	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Zirconium	20 mg/L	.125 mL	50 mL	50 ug/L

Serial ID: WMS100114-06 **Opened:** 14-JAN-10 **Balance Id :** 40245216
Name: ICPMS CRDL **Received:** 14-JAN-10 **Pipet Id :** 3820544
Type: Working **Expires:** 15-JAN-10 **Solvent :** 2%HNO3/1%HCl - 1253206
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS CRDL
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Aluminum	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Arsenic	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Barium	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Beryllium	.5 mg/L	.05 mL	50 mL	.5 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Boron	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Cadmium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Calcium	100 mg/L	.05 mL	50 mL	100 ug/L
UI090701-09	Chromium	3 mg/L	.05 mL	50 mL	3 ug/L
UI090701-09	Cobalt	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Copper	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Iron	25 mg/L	.05 mL	50 mL	25 ug/L
UI090701-09	Lead	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Lithium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Magnesium	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Manganese	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Nickel	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Phosphorous	50 mg/L	.05 mL	50 mL	50 ug/L
UI090701-09	Potassium	300 mg/L	.05 mL	50 mL	300 ug/L
UI090701-09	Selenium	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Sodium	250 mg/L	.05 mL	50 mL	250 ug/L
UI090701-09	Strontium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Thallium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Thorium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Uranium	.2 mg/L	.05 mL	50 mL	.2 ug/L
UI090701-09	Vanadium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Zinc	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Antimony	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-10	Molybdenum	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-10	Silver	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-10	Tin	2 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Titanium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Tungsten	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Zirconium	2 mg/L	.05 mL	50 mL	2 ug/L

Serial ID: WMS100114-07 **Opened:** 14-JAN-10 **Balance Id :** 40245216
Name: ICPMS ICSA **Received:** 14-JAN-10 **Lot Number :** 1010773
Type: Working **Expires:** 15-JAN-10 **Pipet Id :** 3541598
Employee: Paul Boyd **Solvent :** 2%HNO3/1%HCl - 1253206
Supplier: GEL
Description: ICPMS ICSA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI091212-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: WMS100114-08 **Opened:** 14-JAN-10 **Balance Id :** 40245216
Name: ICPMS ICSAB **Received:** 14-JAN-10 **Pipet Id :** 1758088
Type: Working **Expires:** 15-JAN-10 **Solvent :** 2%HNO3/1%HCl - 1253206
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS ICSAB
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI091212-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI091212-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L
UI091217-12	Arsenic	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Barium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Beryllium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Boron	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Cadmium	2 mg/L	.5 mL	50 mL	20.2 ug/L
UI091217-12	Chromium	2 mg/L	.5 mL	50 mL	22.2 ug/L
UI091217-12	Cobalt	2 mg/L	.5 mL	50 mL	20.4 ug/L
UI091217-12	Copper	2 mg/L	.5 mL	50 mL	23.4 ug/L
UI091217-12	Lead	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Lithium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Manganese	2 mg/L	.5 mL	50 mL	22.7 ug/L
UI091217-12	Nickel	2 mg/L	.5 mL	50 mL	22.4 ug/L
UI091217-12	Selenium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Strontium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thallium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thorium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Uranium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Vanadium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Zinc	2 mg/L	.5 mL	50 mL	27 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-13	Antimony	2 mg/L	.5 mL	50 mL	20.5 ug/L
UI091217-13	Silver	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tin	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tungsten	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Zirconium	2 mg/L	.5 mL	50 mL	20 ug/L

Serial ID: WMS100114-70 **Opened:** 14-JAN-10 **Balance Id :** 40245216
Name: ICPMS LINEAR RANGE ST **Received:** 14-JAN-10 **Pipet Id :** 1758088
Type: Working **Expires:** 15-JAN-10 **Solvent :** 2%HNO3/1%HCl - 1253206
Employee: Paul Boyd
Supplier: 02SI
Description: ICPMS LINEAR RANGE STANDARD
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-60	Aluminum	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Arsenic	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Barium	250 mg/L	.5 mL	50 mL	2500 ug/L
UI091212-60	Beryllium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Cadmium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Calcium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Chromium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Cobalt	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Copper	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Iron	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Lead	500 mg/L	.5 mL	50 mL	5000 ug/L
UI091212-60	Lithium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Magnesium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Manganese	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Nickel	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Phosphorous	2500 mg/L	.5 mL	50 mL	25000 ug/L
UI091212-60	Potassium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Selenium	50 mg/L	.5 mL	50 mL	500 ug/L
UI091212-60	Sodium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Strontium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Thallium	50 mg/L	.5 mL	50 mL	500 ug/L
UI091212-60	Thorium	250 mg/L	.5 mL	50 mL	2500 ug/L
UI091212-60	Uranium	500 mg/L	.5 mL	50 mL	5000 ug/L
UI091212-60	Vanadium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Zinc	250 mg/L	.5 mL	50 mL	2500 ug/L
UI091212-61	Antimony	25 mg/L	.5 mL	50 mL	250 ug/L
UI091212-61	Molybdenum	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-61	Silver	25 mg/L	.5 mL	50 mL	250 ug/L
UI091212-61	Tin	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-61	Tungsten	100 mg/L	.5 mL	50 mL	1000 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-61	Zirconium	50 mg/L	.5 mL	50 mL	500 ug/L

Serial ID: 1156689-A **Opened:** 20-JUL-09 **Lot Number :** 41226920
Name: B-KMnO4(VWR)-MER **Received:** 20-JUL-09
Type: Reagent/Solvent **Expires:** 20-JUL-10
Employee: Tara Griffin **Verified:** 07-AUG-07
Supplier: VWR
Description: Potassium Permanganate
Comments: None

Serial ID: 1164796-A **Opened:** 06-AUG-09 **Lot Number :** 49149927
Name: B-NH2OH.HCl-MER **Received:** 06-AUG-09
Type: Reagent/Solvent **Expires:** 06-AUG-10
Employee: Tara Griffin
Supplier: Fisher Scientific
Description: Hydroxlyamine Hydrochloride
Comments: None

Serial ID: 1176183 **Opened:** 24-AUG-09 **Lot Number :** H20001
Name: B-H2SO4-MER **Received:** 24-AUG-09
Type: Reagent/Solvent **Expires:** 24-AUG-10
Employee: Tara Griffin
Supplier: Mallinckrodt
Description: Sulfuric Acid, Concentrated
Comments: None

Serial ID: 1206350-C **Opened:** 22-OCT-09 **Balance Id :** BAL-002
Name: B-NaCl.NH2OH.HCl-MER **Received:** 22-OCT-09
Type: Reagent/Solvent **Expires:** 15-JAN-10
Employee: Tara Griffin
Supplier: GEL
Description: Hg reducing agent
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1164796-A	B-NH2OH.HCl-MER	N/A	120 g	1000 mL	N/A

Serial ID: 1215906 **Opened:** 06-NOV-09 **Lot Number :** H44465
Name: B-K2S2O8S-MER **Received:** 06-NOV-09
Type: Reagent/Solvent **Expires:** 06-NOV-10
Employee: Tara Griffin
Supplier: J.T BAKER

Standard Logbook

Description: Potassium Persulfate Concentrate.
Comments: None

Serial ID: 1234385-C **Opened:** 25-NOV-09 **Balance Id :** BAL-002
Name: B-K2S2O8-MER **Received:** 25-NOV-09
Type: Reagent/Solvent **Expires:** 25-MAY-10
Employee: Tara Griffin
Supplier: GEL
Description: 5% Potassium Persulfate
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1215906	B-K2S2O8S-MER	N/A	50 g	1000 mL	N/A

Serial ID: 1234886 **Opened:** 27-NOV-09 **Lot Number :** H20053 L
Name: I-HNO3 **Received:** 27-NOV-09
Type: Reagent/Solvent **Expires:** 27-NOV-10
Employee: Bryan Davis
Supplier: BAKER
Description: Nitric Acid CONC.
Comments: None

Serial ID: 1238345 **Opened:** 04-DEC-09 **Lot Number :** H20053 L
Name: I-HNO3 **Received:** 04-DEC-09
Type: Reagent/Solvent **Expires:** 04-DEC-10
Employee: Francena Armstrong
Supplier: BAKER
Description: Nitric Acid CONC.
Comments: None

Serial ID: 1240182-1 **Opened:** 09-DEC-09 **Instrument Id :** MERCURY
Name: B-HNO3-MER **Received:** 09-DEC-09 **Lot Number :** H34040
Type: Reagent/Solvent **Expires:** 09-DEC-10
Employee: Tara Griffin
Supplier: Mallinckrodt Chemicals
Description: NITRIC ACID
Comments: None

Standard Logbook

Serial ID: 1244904-C **Opened:** 18-DEC-09 **Balance Id :** BAL-002
Name: B-KMnO4-MER **Received:** 18-DEC-09
Type: Reagent/Solvent **Expires:** 18-JUN-10
Employee: Tara Griffin
Supplier: GEL
Description: 5% KMnO4 solution
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1156689-A	B-KMnO4(VWR)-MER	Crystals	50 g	1000 mL	3%

Serial ID: 1244970 **Opened:** 18-DEC-09 **Lot Number :** H41032
Name: I-HCL **Received:** 18-DEC-09 **Preservative_Id :** 5 none
Type: Reagent/Solvent **Expires:** 18-DEC-10
Employee: Francena Armstrong
Supplier: J.T. BAKER
Description: HYDROCHLORIC ACID
Comments: None

Serial ID: 1249336 **Opened:** 04-JAN-10 **Solvent :** Type I Water
Name: B-2%HNO3/1%HCl-ICPMS **Received:** 04-JAN-10
Type: Reagent/Solvent **Expires:** 11-JAN-10
Employee: Paul Boyd
Supplier: GEL
Description: 2%HNO3/1%HCl Solution (Type I Water)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1238345	I-HNO3	69.0-70.0	180 mL	9 l	N/A
1244970	I-HCL	36.5-38.0	90 mL	9 l	N/A

Serial ID: 1249941 **Opened:** 04-JAN-10 **Amount :** 20 L
Name: B-ICP-RINSE SOLN **Received:** 15-DEC-10 **Lot Number :** H04040+G34050
Type: Reagent/Solvent **Expires:** 10-JAN-10 **Solvent :** 3%HCL+1%HNO3
Employee: Helen Camello
Supplier: GEL
Description: 3%HCL+1%HNO3 RINSE SOLN.
Comments: None

Serial ID: 1252836 **Opened:** 08-JAN-10 **Lot Number :** H20053 L
Name: I-HNO3 **Received:** 08-JAN-10
Type: Reagent/Solvent **Expires:** 08-JAN-11
Employee: Francena Armstrong
Supplier: BAKER

Standard Logbook

Description: Nitric Acid CONC.
Comments: None

Serial ID: 1252838 **Opened:** 08-JAN-10 **Lot Number :** H41032
Name: I-HCL **Received:** 08-JAN-10 **Preservative_Id :** 5 none
Type: Reagent/Solvent **Expires:** 08-JAN-11
Employee: Francena Armstrong
Supplier: J.T. BAKER
Description: HYDROCHLORIC ACID
Comments: None

Serial ID: 1253206 **Opened:** 11-JAN-10 **Solvent :** Type I Water
Name: B-2%HNO3/1%HCl-ICPMS **Received:** 11-JAN-10
Type: Reagent/Solvent **Expires:** 18-JAN-10
Employee: Paul Boyd
Supplier: GEL
Description: 2%HNO3/1%HCl Solution (Type I Water)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1238345	I-HNO3	69.0-70.0	180 mL	9 l	N/A
1244970	I-HCL	36.5-38.0	90 mL	9 l	N/A

General Chemistry Analysis

Case Narrative

General Chemistry Narrative
Los Alamos National Laboratory (LANL)
SDG 10-1087

Method/Analysis Information

Product: pH

Analytical Batch: 937042 and 938665 **Method:** SW846 9045C/9045D

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 9045C/9045D:

Sample ID	Client ID
243550001	RE03-09-14233
243550002	RE03-09-14236
243550003	RE03-09-14239
243550004	RE03-09-14240
243550005	RE03-09-14231
243550006	RE03-09-14232
243550007	RE03-09-14235
243550008	RE03-09-14238
243550009	RE03-09-14234
243550010	RE03-09-14241
243550011	RE03-10-2737
243550012	RE03-10-2736
243550013	RE03-10-9873
243550014	RE03-10-9872
243550015	RE03-10-9874
1202005133	243550001(RE03-09-14233) Sample Duplicate (DUP)
1202005134	243550010(RE03-09-14241) Sample Duplicate (DUP)
1202005135	Laboratory Control Sample (LCS)
1202008407	Laboratory Control Sample (LCS)
1202008408	243550014(RE03-10-9872) Sample Duplicate (DUP)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-008 REV# 17.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

The Electrode analysis was performed on a PerpHecT LogR pH/ISE.

The Electrode analysis was performed on a PerpHect pH Meter Orion 370.

Initial Calibration

All initial calibration requirements have been met for this SDG.

Calibration Verification Information (CCV)

All continuing calibration verification standards (CCVs) associated with reported data from this batch were within acceptance limits.

Quality Control (QC) Information

Laboratory Control Sample (LCS) Recovery

The LCS spike recoveries met the acceptance limits.

Quality Control (QC) Designation

The following samples were selected for QC analysis: 243550001 (RE03-09-14233), 243550010 (RE03-09-14241)- Batch 937042 and 243550014 (RE03-10-9872)- Batch 938665.

Duplicate Relative Percent Difference (RPD) Statement

The RPD between the sample and its duplicate met the acceptance limits.

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times

The following samples from this sample group were received by the lab outside of the method specified holding time: 243550001 (RE03-09-14233), 243550002 (RE03-09-14236), 243550003 (RE03-09-14239), 243550004 (RE03-09-14240), 243550005 (RE03-09-14231), 243550006 (RE03-09-14232), 243550007 (RE03-09-14235), 243550008 (RE03-09-14238), 243550009 (RE03-09-14234), 243550010 (RE03-09-14241), 243550011 (RE03-10-2737), 243550012 (RE03-10-2736), 243550013 (RE03-10-9873)- Batch 937042, 243550014 (RE03-10-9872) and 243550015 (RE03-10-9874)- Batch 938665.

Sample Re-analysis

The samples in this SDG did not require re-analysis.

Miscellaneous Information

Data Exception (DER) Documentation

A DER was not required for this SDG.

Additional Comments
Additional comments were not required for this SDG.

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:
Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Method/Analysis Information

Product:	**Cyanide, Total**		
Analytical Batch:	936843, 936845 and 937572	**Method:**	SW846 9012A
Prep Batch :	936841, 936844 and 937571	**Method:**	SW846 9010B Prep

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 9012A:

Sample ID	Client ID
243550001	RE03-09-14233
243550002	RE03-09-14236
243550003	RE03-09-14239
243550004	RE03-09-14240
243550005	RE03-09-14231
243550006	RE03-09-14232
243550007	RE03-09-14235
243550008	RE03-09-14238
243550009	RE03-09-14234
243550010	RE03-09-14241
243550011	RE03-10-2737
243550012	RE03-10-2736
243550013	RE03-10-9873
243550014	RE03-10-9872
243550015	RE03-10-9874
1202004497	Method Blank (MB)
1202004498	243517008(RE12-10-7561) Sample Duplicate (DUP)
1202004499	243517009(RE12-10-7563) Sample Duplicate (DUP)
1202004500	243517008(RE12-10-7561) Matrix Spike (MS)
1202004501	243517009(RE12-10-7563) Matrix Spike (MS)
1202004502	243517008(RE12-10-7561) Matrix Spike Duplicate (MSD)
1202004503	243517009(RE12-10-7563) Matrix Spike Duplicate (MSD)
1202004504	Laboratory Control Sample (LCS)
1202004505	Method Blank (MB)
1202004506	243550005(RE03-09-14231) Sample Duplicate (DUP)
1202004507	243550005(RE03-09-14231) Matrix Spike (MS)
1202004508	243550005(RE03-09-14231) Matrix Spike Duplicate (MSD)
1202004509	Laboratory Control Sample (LCS)
1202006206	243602001(WST16-10-9900) Sample Duplicate (DUP)
1202006207	243602001(WST16-10-9900) Matrix Spike (MS)
1202006208	243602001(WST16-10-9900) Matrix Spike Duplicate (MSD)
1202006256	Method Blank (MB)
1202006257	243628001(RE12-10-7675) Sample Duplicate (DUP)
1202006258	243628002(RE12-10-7663) Sample Duplicate (DUP)
1202006259	243628001(RE12-10-7675) Matrix Spike (MS)
1202006260	243628002(RE12-10-7663) Matrix Spike (MS)
1202006261	243628001(RE12-10-7675) Matrix Spike Duplicate (MSD)
1202006262	243628002(RE12-10-7663) Matrix Spike Duplicate (MSD)
1202006263	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on a "dry weight" basis.

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-095 REV# 12.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

The Flow Injection analysis was performed on a Lachat QuickChem FIA+ 8000 Series.

Initial Calibration

All initial calibration requirements have been met for this SDG.

Continuing Calibration Blanks

All continuing calibration blanks (CCBs) associated with reported data from this batch were within acceptance limits.

Calibration Verification Information (CCV)

All continuing calibration verification standards (CCVs) associated with reported data from this batch were within acceptance limits.

Y Intercept Rule

The absolute value of the intercept is less than 3 times the MDL.

Quality Control (QC) Information

Method Blank (MB) Statement

The MBs analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery

The LCS spike recoveries met the acceptance limits.

Quality Control (QC) Designation

The following samples were selected for QC analysis: 243517008 (RE12-10-7561), 243517009 (RE12-10-7563)- Batch 936843, 243550005 (RE03-09-14231), 243602001 (WST16-10-9900)- Batch 936845, 243628001 (RE12-10-7675) and 243628002 (RE12-10-7663)- Batch 937572.

Matrix Spike (MS)/Post Spike (PS) Recovery Statement

The MS/PS recoveries for this sample set were within the required acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement

The MSD recoveries for this sample set were within the required acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement

The RPDs between the spike and spike duplicate met the acceptance limits.

Duplicate Relative Percent Difference (RPD) Statement

The values for the sample and duplicate are less than the Practical Quantitation Limit (PQL); therefore, the RPD is not applicable. 1202004498 (RE12-10-7561), 1202004499 (RE12-10-7563)- Batch 936843, 1202004506 (RE03-09-14231), 1202006206 (WST16-10-9900), 243550005 (RE03-09-14231)- Batch 936845, 1202006257 (RE12-10-7675) and 1202006258 (RE12-10-7663)- Batch 937572.

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times
All samples in this SDG met the specified holding time.

Sample Preservation/Integrity
All the samples from this sample group met the preservation and integrity requirements of the method.

Sample Dilutions
The following samples in this sample group were diluted due to high concentration: 1202004504 (LCS)- Batch 936843, 1202004509 (LCS)- Batch 936845 and 1202006263 (LCS)- Batch 937572.

Sample Re-analysis
The samples in this SDG did not require re-analysis.

Miscellaneous Information

Data Exception (DER) Documentation
A DER was not required for this SDG.

Additional Comments
Additional comments were not required for this SDG.

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:
Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Method/Analysis Information

Product:	**Ion Chromatography**		
Analytical Batch:	937125 and 939817	**Method:**	EPA 300.0
Prep Batch :	937124 and 939814	**Method:**	EPA 300.0 PREP

Sample Analysis

The following samples were analyzed using the analytical protocol as established in EPA 300.0:

Sample ID	Client ID
243550001	RE03-09-14233
243550002	RE03-09-14236
243550003	RE03-09-14239
243550004	RE03-09-14240
243550005	RE03-09-14231
243550006	RE03-09-14232
243550007	RE03-09-14235
243550008	RE03-09-14238
243550009	RE03-09-14234
243550010	RE03-09-14241
243550011	RE03-10-2737
243550012	RE03-10-2736
243550013	RE03-10-9873
243550014	RE03-10-9872
243550015	RE03-10-9874
1202005290	Method Blank (MB)
1202005291	243550009(RE03-09-14234) Sample Duplicate (DUP)
1202005292	243550011(RE03-10-2737) Sample Duplicate (DUP)
1202005293	243550009(RE03-09-14234) Matrix Spike (MS)
1202005294	243550011(RE03-10-2737) Matrix Spike (MS)
1202005295	243550009(RE03-09-14234) Matrix Spike Duplicate (MSD)
1202005296	243550011(RE03-10-2737) Matrix Spike Duplicate (MSD)
1202005297	Laboratory Control Sample (LCS)
1202011168	Method Blank (MB)
1202011169	243546001(RE16-10-1031) Sample Duplicate (DUP)
1202011170	243546001(RE16-10-1031) Matrix Spike (MS)
1202011171	243546001(RE16-10-1031) Matrix Spike Duplicate (MSD)
1202011172	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on a "dry weight" basis.

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories

LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-086 REV# 17.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

The Ion Chromatography analysis was performed on a Dionex ICS-3000 Ion Chromatograph.

Initial Calibration

All initial calibration requirements have been met for this SDG.

Continuing Calibration Blanks

All continuing calibration blanks (CCBs) associated with reported data from this batch were within acceptance limits.

Calibration Verification Information (CCV)

All continuing calibration verification standards (CCVs) associated with reported data from this batch were within acceptance limits.

Y Intercept Rule

The absolute value of the intercept is less than 3 times the MDL.

Quality Control (QC) Information

Method Blank (MB) Statement

The MBs analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery

The LCS spike recoveries met the acceptance limits.

Quality Control (QC) Designation

The following samples were selected for QC analysis: 243550009 (RE03-09-14234), 243550011 (RE03-10-2737)- Batch 937125 and 243546001 (RE16-10-1031)- Batch 939817.

Matrix Spike (MS)/Post Spike (PS) Recovery Statement

The spike recoveries fall outside of the GEL acceptance limits but within the client specified limits. 1202005293 (RE03-09-14234) and 1202005294 (RE03-10-2737)- Batch 937125. The spike recoveries for Chloride, Nitrate, and Sulfate fall outside of the GEL acceptance limits but within the client specified limits. 1202011170 (RE16-10-1031)- Batch 939817. The spike recovery For Fluoride falls outside of the established acceptance limits due to matrix interference: 1202011170 (RE16-10-1031)- Batch 939817.

Matrix Spike Duplicate (MSD) Recovery Statement

The spike duplicate recovery falls outside of the GEL acceptance limits but within the client specified limits. 1202005295 (RE03-09-14234)- Batch 937125. The spike recoveries for Chloride, Nitrate, and Sulfate fall outside of the GEL acceptance limits but within the client specified limits. 1202011171 (RE16-10-1031)- Batch 939817. The spike duplicate recovery for Fluoride falls outside of the

established acceptance limits due to matrix interference: 1202011171 (RE16-10-1031)- Batch 939817.

MS/MSD Relative Percent Difference (RPD) Statement
The RPDs between the spike and spike duplicate met the acceptance limits.

Duplicate Relative Percent Difference (RPD) Statement
The RPD between the sample and its duplicate met the acceptance limits.

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times
All samples in this SDG met the specified holding time.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-analysis
The samples in this SDG did not require re-analysis.

Miscellaneous Information

Data Exception (DER) Documentation
The following DER was generated for this SDG: 776614 1202005293 (RE03-09-14234), 1202005294 (RE03-10-2737) and 1202005295 (RE03-09-14234)- Batch 937125. The following DER was generated for this SDG: 779641 1202011170 (RE16-10-1031) and 1202011171 (RE16-10-1031)- Batch 939817.

Manual Integrations
Manual integrations were not required for the samples in this SDG.

Additional Comments
Additional comments were not required for this SDG.

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:
Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Tom Lewis, Jr. **Date:** 20Jan10

Sample Data Summary

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis Report
for

LANL010 Los Alamos National Laboratory (72733-001-09)

Client SDG: 10-1087 GEL Work Order: 243550

The Qualifiers in this report are defined as follows:

* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.

** Indicates the analyte is a surrogate compound.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the detection limit.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Valerie Davis.

Reviewed by _____

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: January 13, 2010

Client SDG: 10-1087

Client Sample ID:	RE03-09-14233	Project:	LANL01004
Sample ID:	243550001	Client ID:	LANL010
Matrix:	S		
Collect Date:	22-DEC-09 12:00		
Receive Date:	24-DEC-09		
Collector:	Client		
Moisture:	7.39%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Electrode Analysis										
SW9045C pH Federal "As Received"										
pH at Temp 19.1C	H	7.19	0.010	0.100	SU	1	LXA1 12/28/09	1502	937042	1
Flow Injection Analysis										
SW9012A Cyanide, Total Federal "Dry Weight Corrected"										
Cyanide, Total	U	ND	73.4	270	ug/kg	1	AXC2 01/04/10	1134	936843	2
Ion Chromatography										
EPA 300.0 Nitrate in Soil "Dry Weight Corrected"										
Nitrate-N		1.50	0.293	0.977	mg/kg	1	VH1 12/30/09	0544	937125	3

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 300.0 PREP	EPA 300.0 Total Anions in Soil	VH1	12/28/09	1752	937124
SW846 9010B Prep	SW846 9010B Prep	AXS5	12/31/09	1509	936841

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9045C/9045D	
2	SW846 9012A	
3	EPA 300.0	

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Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: January 13, 2010

Client SDG: 10-1087

Client Sample ID: RE03-09-14236
Sample ID: 243550002
Matrix: S
Collect Date: 22-DEC-09 12:00
Receive Date: 24-DEC-09
Collector: Client
Moisture: 16.2%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Electrode Analysis										
SW9045C pH Federal "As Received"										
pH at Temp 18.9C	H	7.79	0.010	0.100	SU	1	LXA1 12/28/09	1513	937042	1
Flow Injection Analysis										
SW9012A Cyanide, Total Federal "Dry Weight Corrected"										
Cyanide, Total	U	ND	69.9	257	ug/kg	1	AXC2 01/04/10	1135	936843	2
Ion Chromatography										
EPA 300.0 Nitrate in Soil "Dry Weight Corrected"										
Nitrate-N	U	ND	0.347	1.16	mg/kg	1	VH1 12/30/09	0610	937125	3

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 300.0 PREP	EPA 300.0 Total Anions in Soil	VH1	12/28/09	1752	937124
SW846 9010B Prep	SW846 9010B Prep	AXS5	12/31/09	1509	936841

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9045C/9045D	
2	SW846 9012A	
3	EPA 300.0	

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Project: **LANL ER Project**

Report Date: January 13, 2010

Client SDG: 10-1087

Client Sample ID:	RE03-09-14239	Project:	LANL01004
Sample ID:	243550003	Client ID:	LANL010
Matrix:	S		
Collect Date:	22-DEC-09 12:00		
Receive Date:	24-DEC-09		
Collector:	Client		
Moisture:	5.47%		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Electrode Analysis											
SW9045C pH Federal "As Received"											
pH at Temp 18.9C	H	7.71	0.010	0.100	SU	1	LXA1	12/28/09	1515	937042	1
Flow Injection Analysis											
SW9012A Cyanide, Total Federal "Dry Weight Corrected"											
Cyanide, Total	U	ND	65.4	240	ug/kg	1	AXC2	01/04/10	1136	936843	2
Ion Chromatography											
EPA 300.0 Nitrate in Soil "Dry Weight Corrected"											
Nitrate-N	U	ND	0.317	1.06	mg/kg	1	VH1	12/30/09	0636	937125	3

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 300.0 PREP	EPA 300.0 Total Anions in Soil	VH1	12/28/09	1752	937124
SW846 9010B Prep	SW846 9010B Prep	AXS5	12/31/09	1509	936841

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9045C/9045D	
2	SW846 9012A	
3	EPA 300.0	

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Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: January 13, 2010

Client SDG: 10-1087

Client Sample ID:	RE03-09-14240	Project:	LANL01004
Sample ID:	243550004	Client ID:	LANL010
Matrix:	S		
Collect Date:	22-DEC-09 12:00		
Receive Date:	24-DEC-09		
Collector:	Client		
Moisture:	5.42%		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Electrode Analysis											
SW9045C pH Federal "As Received"											
pH at Temp 18.6C	H	7.45	0.010	0.100	SU	1	LXA1	12/28/09	1520	937042	1
Flow Injection Analysis											
SW9012A Cyanide, Total Federal "Dry Weight Corrected"											
Cyanide, Total	U	ND	71.9	264	ug/kg	1	AXC2	01/04/10	1137	936843	2
Ion Chromatography											
EPA 300.0 Nitrate in Soil "Dry Weight Corrected"											
Nitrate-N	U	ND	0.317	1.06	mg/kg	1	VH1	12/30/09	0702	937125	3

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 300.0 PREP	EPA 300.0 Total Anions in Soil	VH1	12/28/09	1752	937124
SW846 9010B Prep	SW846 9010B Prep	AXS5	12/31/09	1509	936841

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9045C/9045D	
2	SW846 9012A	
3	EPA 300.0	

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Project: **LANL ER Project**

Report Date: January 13, 2010

Client SDG: 10-1087

Client Sample ID:	RE03-09-14231	Project:	LANL01004
Sample ID:	243550005	Client ID:	LANL010
Matrix:	S		
Collect Date:	22-DEC-09 12:00		
Receive Date:	24-DEC-09		
Collector:	Client		
Moisture:	7.32%		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Electrode Analysis											
SW9045C pH Federal "As Received"											
pH at Temp 18.5C	H	8.11	0.010	0.100	SU	1	LXA1	12/28/09	1522	937042	1
Flow Injection Analysis											
SW9012A Cyanide, Total Federal "Dry Weight Corrected"											
Cyanide, Total	U	ND	65.5	241	ug/kg	1	AXC2	12/31/09	1044	936845	2
Ion Chromatography											
EPA 300.0 Nitrate in Soil "Dry Weight Corrected"											
Nitrate-N		1.33	0.324	1.08	mg/kg	1	VH1	12/30/09	0728	937125	3

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 300.0 PREP	EPA 300.0 Total Anions in Soil	VH1	12/28/09	1752	937124
SW846 9010B Prep	SW846 9010B Prep	AXS5	12/30/09	1516	936844

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9045C/9045D	
2	SW846 9012A	
3	EPA 300.0	

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Project: **LANL ER Project**

Report Date: January 13, 2010

Client SDG: 10-1087

Client Sample ID:	RE03-09-14232	Project:	LANL01004
Sample ID:	243550006	Client ID:	LANL010
Matrix:	S		
Collect Date:	22-DEC-09 12:00		
Receive Date:	24-DEC-09		
Collector:	Client		
Moisture:	5.77%		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Electrode Analysis											
SW9045C pH Federal "As Received"											
pH at Temp 18.1C	H	7.92	0.010	0.100	SU	1	LXA1	12/28/09	1526	937042	1
Flow Injection Analysis											
SW9012A Cyanide, Total Federal "Dry Weight Corrected"											
Cyanide, Total	U	ND	64.4	237	ug/kg	1	AXC2	12/31/09	1048	936845	2
Ion Chromatography											
EPA 300.0 Nitrate in Soil "Dry Weight Corrected"											
Nitrate-N	U	ND	0.311	1.04	mg/kg	1	VH1	12/30/09	0754	937125	3

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 300.0 PREP	EPA 300.0 Total Anions in Soil	VH1	12/28/09	1752	937124
SW846 9010B Prep	SW846 9010B Prep	AXS5	12/30/09	1516	936844

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9045C/9045D	
2	SW846 9012A	
3	EPA 300.0	

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Project: **LANL ER Project**

Report Date: January 13, 2010

Client SDG: 10-1087

Client Sample ID:	RE03-09-14235	Project:	LANL01004
Sample ID:	243550007	Client ID:	LANL010
Matrix:	S		
Collect Date:	22-DEC-09 12:00		
Receive Date:	24-DEC-09		
Collector:	Client		
Moisture:	22.5%		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Electrode Analysis											
SW9045C pH Federal "As Received"											
pH at Temp 18.1C	H	8.01	0.010	0.100	SU	1	LXA1	12/28/09	1527	937042	1
Flow Injection Analysis											
SW9012A Cyanide, Total Federal "Dry Weight Corrected"											
Cyanide, Total	U	ND	86.0	316	ug/kg	1	AXC2	12/31/09	1049	936845	2
Ion Chromatography											
EPA 300.0 Nitrate in Soil "Dry Weight Corrected"											
Nitrate-N	U	ND	0.387	1.29	mg/kg	1	VH1	12/30/09	0820	937125	3

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 300.0 PREP	EPA 300.0 Total Anions in Soil	VH1	12/28/09	1752	937124
SW846 9010B Prep	SW846 9010B Prep	AXS5	12/30/09	1516	936844

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9045C/9045D	
2	SW846 9012A	
3	EPA 300.0	

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Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: January 13, 2010

Client SDG: 10-1087

Client Sample ID:	RE03-09-14238	Project:	LANL01004
Sample ID:	243550008	Client ID:	LANL010
Matrix:	S		
Collect Date:	22-DEC-09 12:00		
Receive Date:	24-DEC-09		
Collector:	Client		
Moisture:	5.4%		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Electrode Analysis											
SW9045C pH Federal "As Received"											
pH at Temp 17.9C	H	7.66	0.010	0.100	SU	1	LXA1	12/28/09	1530	937042	1
Flow Injection Analysis											
SW9012A Cyanide, Total Federal "Dry Weight Corrected"											
Cyanide, Total	U	ND	64.2	236	ug/kg	1	AXC2	12/31/09	1050	936845	2
Ion Chromatography											
EPA 300.0 Nitrate in Soil "Dry Weight Corrected"											
Nitrate-N	U	ND	0.313	1.04	mg/kg	1	VH1	12/30/09	0846	937125	3

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 300.0 PREP	EPA 300.0 Total Anions in Soil	VH1	12/28/09	1752	937124
SW846 9010B Prep	SW846 9010B Prep	AXS5	12/30/09	1516	936844

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9045C/9045D	
2	SW846 9012A	
3	EPA 300.0	

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Project: **LANL ER Project**

Report Date: January 13, 2010

Client SDG: 10-1087

Client Sample ID: RE03-09-14234
Sample ID: 243550009
Matrix: S
Collect Date: 22-DEC-09 12:00
Receive Date: 24-DEC-09
Collector: Client
Moisture: 7.45%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Electrode Analysis											
SW9045C pH Federal "As Received"											
pH at Temp 17.9C	H	7.48	0.010	0.100	SU	1	LXA1	12/28/09	1533	937042	1
Flow Injection Analysis											
SW9012A Cyanide, Total Federal "Dry Weight Corrected"											
Cyanide, Total	U	ND	73.5	270	ug/kg	1	AXC2	12/31/09	1051	936845	2
Ion Chromatography											
EPA 300.0 Nitrate in Soil "Dry Weight Corrected"											
Nitrate-N	U	ND	0.288	0.960	mg/kg	1	VH1	12/30/09	1005	937125	3

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 300.0 PREP	EPA 300.0 Total Anions in Soil	VH1	12/28/09	1752	937124
SW846 9010B Prep	SW846 9010B Prep	AXS5	12/30/09	1516	936844

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9045C/9045D	
2	SW846 9012A	
3	EPA 300.0	

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Project: **LANL ER Project**

Report Date: January 13, 2010

Client SDG: 10-1087

Client Sample ID:	RE03-09-14241	Project:	LANL01004
Sample ID:	243550010	Client ID:	LANL010
Matrix:	S		
Collect Date:	22-DEC-09 12:00		
Receive Date:	24-DEC-09		
Collector:	Client		
Moisture:	12.7%		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Electrode Analysis											
SW9045C pH Federal "As Received"											
pH at Temp 17.9C	H	7.41	0.010	0.100	SU	1	LXA1	12/28/09	1537	937042	1
Flow Injection Analysis											
SW9012A Cyanide, Total Federal "Dry Weight Corrected"											
Cyanide, Total	U	ND	68.3	251	ug/kg	1	AXC2	12/31/09	1052	936845	2
Ion Chromatography											
EPA 300.0 Nitrate in Soil "Dry Weight Corrected"											
Nitrate-N	U	ND	0.283	0.942	mg/kg	1	VH1	12/30/09	1149	937125	3

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 300.0 PREP	EPA 300.0 Total Anions in Soil	VH1	12/28/09	1752	937124
SW846 9010B Prep	SW846 9010B Prep	AXS5	12/30/09	1516	936844

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9045C/9045D	
2	SW846 9012A	
3	EPA 300.0	

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Project: **LANL ER Project**

Report Date: January 13, 2010

Client SDG: 10-1087

Client Sample ID:	RE03-10-2737	Project:	LANL01004
Sample ID:	243550011	Client ID:	LANL010
Matrix:	S		
Collect Date:	22-DEC-09 12:00		
Receive Date:	24-DEC-09		
Collector:	Client		
Moisture:	10.1%		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Electrode Analysis											
SW9045C pH Federal "As Received"											
pH at Temp 17.7C	H	4.43	0.010	0.100	SU	1	LXA1	12/28/09	1540	937042	1
Flow Injection Analysis											
SW9012A Cyanide, Total Federal "Dry Weight Corrected"											
Cyanide, Total	U	ND	74.2	273	ug/kg	1	AXC2	12/31/09	1056	936845	2
Ion Chromatography											
EPA 300.0 Nitrate in Soil "Dry Weight Corrected"											
Nitrate-N		50.9	0.287	0.957	mg/kg	1	VH1	12/30/09	1215	937125	3

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 300.0 PREP	EPA 300.0 Total Anions in Soil	VH1	12/28/09	1752	937124
SW846 9010B Prep	SW846 9010B Prep	AXS5	12/30/09	1516	936844

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9045C/9045D	
2	SW846 9012A	
3	EPA 300.0	

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: January 13, 2010

Client SDG: 10-1087

Client Sample ID:	RE03-10-2736	Project:	LANL01004
Sample ID:	243550012	Client ID:	LANL010
Matrix:	S		
Collect Date:	22-DEC-09 12:00		
Receive Date:	24-DEC-09		
Collector:	Client		
Moisture:	7.03%		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Electrode Analysis											
SW9045C pH Federal "As Received"											
pH at Temp 17.9C	H	6.15	0.010	0.100	SU	1	LXA1	12/28/09	1542	937042	1
Flow Injection Analysis											
SW9012A Cyanide, Total Federal "Dry Weight Corrected"											
Cyanide, Total	U	ND	69.0	254	ug/kg	1	AXC2	12/31/09	1057	936845	2
Ion Chromatography											
EPA 300.0 Nitrate in Soil "Dry Weight Corrected"											
Nitrate-N		1.43	0.316	1.05	mg/kg	1	VH1	12/30/09	1400	937125	3

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 300.0 PREP	EPA 300.0 Total Anions in Soil	VH1	12/28/09	1752	937124
SW846 9010B Prep	SW846 9010B Prep	AXS5	12/30/09	1516	936844

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9045C/9045D	
2	SW846 9012A	
3	EPA 300.0	

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: January 13, 2010

Client SDG: 10-1087

Client Sample ID:	RE03-10-9873	Project:	LANL01004
Sample ID:	243550013	Client ID:	LANL010
Matrix:	S		
Collect Date:	22-DEC-09 12:00		
Receive Date:	24-DEC-09		
Collector:	Client		
Moisture:	5.29%		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Electrode Analysis											
SW9045C pH Federal "As Received"											
pH at Temp 17.9C	H	7.32	0.010	0.100	SU	1	LXA1	12/28/09	1546	937042	1
Flow Injection Analysis											
SW9012A Cyanide, Total Federal "Dry Weight Corrected"											
Cyanide, Total		336	67.7	249	ug/kg	1	AXC2	12/31/09	1058	936845	2
Ion Chromatography											
EPA 300.0 Nitrate in Soil "Dry Weight Corrected"											
Nitrate-N		50.7	0.312	1.04	mg/kg	1	VH1	12/30/09	1518	937125	3

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 300.0 PREP	EPA 300.0 Total Anions in Soil	VH1	12/28/09	1752	937124
SW846 9010B Prep	SW846 9010B Prep	AXS5	12/30/09	1516	936844

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9045C/9045D	
2	SW846 9012A	
3	EPA 300.0	

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: January 13, 2010

Client SDG: 10-1087

Client Sample ID:	RE03-10-9872	Project:	LANL01004
Sample ID:	243550014	Client ID:	LANL010
Matrix:	S		
Collect Date:	22-DEC-09 12:00		
Receive Date:	24-DEC-09		
Collector:	Client		
Moisture:	11.9%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Electrode Analysis										
SW9045C pH Federal "As Received"										
pH at Temp 19.6C	H	7.03	0.010	0.100	SU	1	LXA1 01/05/10	1341	938665	1
Flow Injection Analysis										
SW9012A Cyanide, Total Federal "Dry Weight Corrected"										
Cyanide, Total	U	ND	68.9	253	ug/kg	1	AXC2 01/05/10	1320	937572	2
Ion Chromatography										
EPA 300.0 Nitrate in Soil "Dry Weight Corrected"										
Nitrate-N		15.6	0.340	1.13	mg/kg	1	MAR1 01/12/10	1738	939817	3

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 300.0 PREP	EPA 300.0 Total Anions in Soil	MAR1	01/11/10	1400	939814
SW846 9010B Prep	SW846 9010B Prep	AXS5	01/05/10	1217	937571

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9045C/9045D	
2	SW846 9012A	
3	EPA 300.0	

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: January 13, 2010

Client SDG: 10-1087

Client Sample ID:	RE03-10-9874	Project:	LANL01004
Sample ID:	243550015	Client ID:	LANL010
Matrix:	S		
Collect Date:	22-DEC-09 12:00		
Receive Date:	24-DEC-09		
Collector:	Client		
Moisture:	6.86%		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Electrode Analysis											
SW9045C pH Federal "As Received"											
pH at Temp 19.6C	H	4.25	0.010	0.100	SU	1	LXA1	01/05/10	1343	938665	1
Flow Injection Analysis											
SW9012A Cyanide, Total Federal "Dry Weight Corrected"											
Cyanide, Total	U	ND	62.9	231	ug/kg	1	AXC2	01/05/10	1321	937572	2
Ion Chromatography											
EPA 300.0 Nitrate in Soil "Dry Weight Corrected"											
Nitrate-N		65.0	0.322	1.07	mg/kg	1	MAR1	01/12/10	1807	939817	3

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 300.0 PREP	EPA 300.0 Total Anions in Soil	MAR1	01/11/10	1400	939814
SW846 9010B Prep	SW846 9010B Prep	AXS5	01/05/10	1217	937571

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9045C/9045D	
2	SW846 9012A	
3	EPA 300.0	

Quality Control Summary

GEL LABORATORIES LLC

2040 Savage Road Charleston, SC 29407 - (843) 556-8171 - www.gel.com

QC Summary

Report Date: January 13, 2010

Los Alamos National Laboratory
PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico

Contact: Ms. Joylene Valdez

Workorder: 243550

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Electrode Analysis										
Batch 937042										
QC1202005133 243550001 DUP										
pH	H	7.19	H	6.95	SU	3.39		(0%-10%)	LXA1	12/28/09 15:13
QC1202005134 243550010 DUP										
pH	H	7.41	H	7.29	SU	1.63		(0%-10%)		12/28/09 15:39
QC1202005135 LCS										
pH	7.00			6.99	SU		99.9	(95%-105%)		12/28/09 15:02
Batch 938665										
QC1202008408 243550014 DUP										
pH	H	7.03	H	7.07	SU	0.567		(0%-10%)	LXA1	01/05/10 13:42
QC1202008407 LCS										
pH	7.00			7.00	SU		100	(95%-105%)		01/05/10 13:40
Flow Injection Analysis										
Batch 936843										
QC1202004498 243517008 DUP										
Cyanide, Total	U	ND	U	ND	ug/kg	N/A			AXC2	01/04/10 11:08
QC1202004499 243517009 DUP										
Cyanide, Total	U	ND	J	96.0	ug/kg	200		(+/-264)		01/04/10 11:12
QC1202004504 LCS										
Cyanide, Total	67900			75500	ug/kg		111	(46%-145%)		01/04/10 11:07
QC1202004497 MB										
Cyanide, Total			U	250	ug/kg					01/04/10 11:02
QC1202004500 243517008 MS										
Cyanide, Total	5340	U	ND	4890	ug/kg		91.7	(50%-130%)		01/04/10 11:09
QC1202004501 243517009 MS										
Cyanide, Total	5590	U	ND	5160	ug/kg		92.2	(50%-130%)		01/04/10 11:13
QC1202004502 243517008 MSD										
Cyanide, Total	5660	U	ND	5230	ug/kg	6.58	92.4	(0%-30%)		01/04/10 11:10
QC1202004503 243517009 MSD										
Cyanide, Total	5480	U	ND	4360	ug/kg	16.9	79.3	(0%-30%)		01/04/10 11:14
Batch 936845										
QC1202004506 243550005 DUP										
Cyanide, Total	U	ND	U	ND	ug/kg	N/A			AXC2	12/31/09 10:45
QC1202006206 243602001 DUP										
Cyanide, Total	U	ND	J	77.1	ug/kg	200		(+/-275)		12/31/09 11:00
QC1202004509 LCS										
Cyanide, Total	67900			82800	ug/kg		122	(46%-145%)		12/31/09 10:39
QC1202004505 MB										
Cyanide, Total			U	250	ug/kg					12/31/09 10:38
QC1202004507 243550005 MS										
Cyanide, Total	5090	U	ND	5450	ug/kg		107	(50%-130%)		12/31/09 10:46
QC1202006207 243602001 MS										
Cyanide, Total	5300	U	ND	5520	ug/kg		104	(50%-130%)		12/31/09 11:00
QC1202004508 243550005 MSD										

QC Summary

Workorder: 243550

Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Flow Injection Analysis											
Batch 936845											
Cyanide, Total	5090	U	ND		5650	ug/kg	3.67	111	(0%-30%)	AXC2	12/31/09 10:47
QC1202006208 243602001 MSD											
Cyanide, Total	5720	U	ND		6010	ug/kg	8.50	105	(0%-30%)		12/31/09 11:01
Batch 937572											
QC1202006257 243628001 DUP											
Cyanide, Total		U	ND	U	ND	ug/kg	N/A			AXC2	01/05/10 13:27
QC1202006258 243628002 DUP											
Cyanide, Total		J	239	J	131	ug/kg	58.2 ^		(+/-309)		01/05/10 13:30
QC1202006263 LCS											
Cyanide, Total	67900				73000	ug/kg		108	(46%-145%)		01/05/10 13:20
QC1202006256 MB											
Cyanide, Total				U	250	ug/kg					01/05/10 13:19
QC1202006259 243628001 MS											
Cyanide, Total	5490	U	ND		5820	ug/kg		106	(50%-130%)		01/05/10 13:28
QC1202006260 243628002 MS											
Cyanide, Total	6170	J	239		6480	ug/kg		101	(50%-130%)		01/05/10 13:31
QC1202006261 243628001 MSD											
Cyanide, Total	5380	U	ND		5710	ug/kg	1.94	106	(0%-30%)		01/05/10 13:28
QC1202006262 243628002 MSD											
Cyanide, Total	6060	J	239		5720	ug/kg	12.5	90.5	(0%-30%)		01/05/10 13:32
Ion Chromatography											
Batch 937125											
QC1202005291 243550009 DUP											
Nitrate-N		U	ND	U	ND	mg/kg	N/A			VH1	12/30/09 10:31
QC1202005292 243550011 DUP											
Nitrate-N			50.9		51.1	mg/kg	0.286		(0%-20%)		12/30/09 12:41
QC1202005297 LCS											
Nitrate-N	50.0				47.5	mg/kg		94.9	(90%-110%)		12/30/09 05:18
QC1202005290 MB											
Nitrate-N				U	1.00	mg/kg					12/30/09 04:52
QC1202005293 243550009 MS											
Nitrate-N	48.6	U	ND		40.4	mg/kg		83.2*	(90%-110%)		12/30/09 10:57
QC1202005294 243550011 MS											
Nitrate-N	48.3		50.9		93.8	mg/kg		88.9*	(90%-110%)		12/30/09 13:07
QC1202005295 243550009 MSD											
Nitrate-N	47.8	U	ND		40.0	mg/kg	1.01	83.7*	(0%-20%)		12/30/09 11:23
QC1202005296 243550011 MSD											
Nitrate-N	47.9		50.9		96.1	mg/kg	2.37	94.4	(0%-20%)		12/30/09 13:33
Batch 939817											
QC1202011169 243546001 DUP											
Nitrate-N		U	ND	U	ND	mg/kg	N/A			MAR1	01/12/10 14:15
QC1202011172 LCS											
Nitrate-N	50.0				47.6	mg/kg		95.3	(90%-110%)		01/12/10 12:49
QC1202011168 MB											
Nitrate-N				U	1.00	mg/kg					01/12/10 12:20
QC1202011170 243546001 MS											
Nitrate-N	63.4	U	ND		53.9	mg/kg		85*	(90%-110%)		01/12/10 14:44
QC1202011171 243546001 MSD											

QC Summary

Workorder: 243550

Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Ion Chromatography												
Batch 939817												
Nitrate-N	63.4	U	ND		52.4	mg/kg	2.84	82.7 *	(0%-20%)		01/12/10	15:13

Notes:
RER is calculated at the 95% confidence level (2-sigma).
The Qualifiers in this report are defined as follows:

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
- E Organics--Concentration of the target analyte exceeds the instrument calibration range
- F Estimated Value
- H Analytical holding time was exceeded
- J Value is estimated
- M M if above MDC and less than LLD
- M Matrix Related Failure
- N Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
- N/A RPD or %Recovery limits do not apply.
- ND Analyte concentration is not detected above the detection limit
- NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- P Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%
- R Sample results are rejected
- U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
- UI Gamma Spectroscopy--Uncertain identification
- X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- Y QC Samples were not spiked with this compound
- Z Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
- ^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
- d 5-day BOD--The 2:1 depletion requirement was not met for this sample
- h Preparation or preservation holding time was exceeded

QC Summary

Workorder: 243550

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more.
^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.
* Indicates that a Quality Control parameter was not within specifications.
For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

Instrument QC Data Summary

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Report Run On: 13-JAN-2010 11:43

GEL Laboratories LLC

Contract: LANL01004

SDG #: 10-1087

Flow Injection Analysis

Method: SW846 9012A Concentration Units:ug/L

Instrument: Lachat QuickChem FIA+ 8000 Series

Parmname: Cyanide, Total

Sample Type	Run Date	Data File	Result	Nominal	Recovery	Limits	Within Limits
ICV	**31-DEC-2009 10:01:18**	**OM_12-31-2009_09-50-50**	**150**	**150**	**100**	**(90%-110%)**	**Yes**
CCV	31-DEC-2009 10:28:01	OM_12-31-2009_09-50-50	106	100	106	(90%-110%)	Yes
CCV	31-DEC-2009 10:40:23	OM_12-31-2009_09-50-50	106	100	106	(90%-110%)	Yes
CCV	31-DEC-2009 10:52:55	OM_12-31-2009_09-50-50	106	100	106	(90%-110%)	Yes
CCV	31-DEC-2009 11:05:24	OM_12-31-2009_09-50-50	106	100	106	(90%-110%)	Yes
ICV	**04-JAN-2010 10:36:47**	**OM_1-4-2010_10-26-17**	**137**	**150**	**91**	**(90%-110%)**	**Yes**
CCV	04-JAN-2010 10:51:04	OM_1-4-2010_10-26-17	109	100	109	(90%-110%)	Yes
CCV	04-JAN-2010 11:03:30	OM_1-4-2010_10-26-17	103	100	103	(90%-110%)	Yes
CCV	04-JAN-2010 11:15:55	OM_1-4-2010_10-26-17	103	100	103	(90%-110%)	Yes
CCV	04-JAN-2010 11:28:25	OM_1-4-2010_10-26-17	103	100	103	(90%-110%)	Yes
CCV	04-JAN-2010 11:38:11	OM_1-4-2010_10-26-17	104	100	104	(90%-110%)	Yes
ICV	**05-JAN-2010 10:04:33**	**OM_1-5-2010_09-54-02**	**139**	**150**	**93**	**(90%-110%)**	**Yes**
CCV	05-JAN-2010 13:10:09	OM_1-5-2010_12-29-33	106	100	106	(90%-110%)	Yes
CCV	05-JAN-2010 13:22:39	OM_1-5-2010_12-29-33	104	100	104	(90%-110%)	Yes
CCV	05-JAN-2010 13:35:07	OM_1-5-2010_12-29-33	106	100	106	(90%-110%)	Yes

Sample Type	Run Date	Data File	Result	Limits	Within Limits
ICB	**31-DEC-2009 10:03:08**	**OM_12-31-2009_09-50-50**	**-1.31**	**5**	**Yes**
CCB	31-DEC-2009 10:29:51	OM_12-31-2009_09-50-50	-1.39	5	Yes
CCB	31-DEC-2009 10:42:13	OM_12-31-2009_09-50-50	-1.45	5	Yes
CCB	31-DEC-2009 10:54:45	OM_12-31-2009_09-50-50	-2.16	5	Yes
CCB	31-DEC-2009 11:07:15	OM_12-31-2009_09-50-50	-1.35	5	Yes
ICB	**04-JAN-2010 10:38:37**	**OM_1-4-2010_10-26-17**	**-3.1**	**5**	**Yes**
CCB	04-JAN-2010 10:52:55	OM_1-4-2010_10-26-17	-2.04	5	Yes
CCB	04-JAN-2010 11:05:20	OM_1-4-2010_10-26-17	-2.7	5	Yes
CCB	04-JAN-2010 11:17:45	OM_1-4-2010_10-26-17	-1.79	5	Yes
CCB	04-JAN-2010 11:30:15	OM_1-4-2010_10-26-17	-2.53	5	Yes
CCB	04-JAN-2010 11:40:02	OM_1-4-2010_10-26-17	-2.65	5	Yes
ICB	**05-JAN-2010 10:06:23**	**OM_1-5-2010_09-54-02**	**-1.15**	**5**	**Yes**
CCB	05-JAN-2010 13:12:00	OM_1-5-2010_12-29-33	-0.936	5	Yes
CCB	05-JAN-2010 13:24:29	OM_1-5-2010_12-29-33	-1.26	5	Yes
CCB	05-JAN-2010 13:36:58	OM_1-5-2010_12-29-33	-1.75	5	Yes

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Report Run On: 13-JAN-2010 11:43

GEL Laboratories LLC

Contract: LANL01004

SDG #: 10-1087

Ion Chromatography

Method: EPA 300.0 Concentration Units:mg/L

Instrument: Dionex ICS-3000 Ion Chromatograph

Parmname: Nitrate-N

Sample Type	Run Date	Data File	Result	Nominal	Recovery	Limits	Within Limits
ICV	**30-DEC-2009 00:31:00**	**091229**	**4.7695**	**5**	**95**	**(90%-110%)**	**Yes**
CCV	30-DEC-2009 03:59:00	091229	4.7785	5	96	(90%-110%)	Yes
CCV	30-DEC-2009 09:13:00	091229	7.4807	7.5	100	(90%-110%)	Yes
CCV	30-DEC-2009 14:26:00	091229	4.8153	5	96	(90%-110%)	Yes
CCV	30-DEC-2009 15:44:00	091229	7.6293	7.5	102	(90%-110%)	Yes
ICV	**12-JAN-2010 11:22:00**	**100112**	**4.7913**	**5**	**96**	**(90%-110%)**	**Yes**
CCV	12-JAN-2010 16:40:00	100112	7.1762	7.5	96	(90%-110%)	Yes
CCV	12-JAN-2010 18:36:00	100112	4.7667	5	95	(90%-110%)	Yes

Sample Type	Run Date	Data File	Result	Limits	Within Limits
ICB	**30-DEC-2009 00:57:00**	**091229**	**0**	**0.1**	**Yes**
CCB	30-DEC-2009 04:26:00	091229	0	0.1	Yes
CCB	30-DEC-2009 09:39:00	091229	0	0.1	Yes
CCB	30-DEC-2009 14:52:00	091229	0	0.1	Yes
CCB	30-DEC-2009 16:10:00	091229	0	0.1	Yes
ICB	**12-JAN-2010 11:51:00**	**100112**	**0**	**0.1**	**Yes**
CCB	12-JAN-2010 17:09:00	100112	0	0.1	Yes
CCB	12-JAN-2010 19:05:00	100112	0	0.1	Yes

Cyanide, Total

Prep LogBook

Analyst: AXS5 Verified by:_____

Batch: 936841

Lab SOP: GL-GC-E-067 REV# 13

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1202004504	URF1200957-01	.25	g
MS	1202004500	URF1184831-02	.025	mL
MS	1202004501	URF1184831-02	.025	mL
MSD	1202004502	URF1184831-02	.025	mL
MSD	1202004503	URF1184831-02	.025	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Ph	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1202004497		SW846 9010B Prep	31-DEC-2009 15:09	>12	0.5 g	25 mL	50	SOIL
LCS	1202004504		SW846 9010B Prep	31-DEC-2009 15:09	>12	0.25 g	25 mL	100	SOIL
SAMPLE	243517008		SW846 9010B Prep	31-DEC-2009 15:09	>12	0.52 g	25 mL	48.07692	SOIL
DUP	1202004498	243517008	SW846 9010B Prep	31-DEC-2009 15:09	>12	0.57 g	25 mL	43.85965	SOIL
MS	1202004500	243517008	SW846 9010B Prep	31-DEC-2009 15:09	>12	0.53 g	25 mL	47.16981	SOIL
MSD	1202004502	243517008	SW846 9010B Prep	31-DEC-2009 15:09	>12	0.5 g	25 mL	50	SOIL
SAMPLE	243517009		SW846 9010B Prep	31-DEC-2009 15:09	>12	0.51 g	25 mL	49.01961	SOIL
DUP	1202004499	243517009	SW846 9010B Prep	31-DEC-2009 15:09	>12	0.54 g	25 mL	46.2963	SOIL
MS	1202004501	243517009	SW846 9010B Prep	31-DEC-2009 15:09	>12	0.51 g	25 mL	49.01961	SOIL
MSD	1202004503	243517009	SW846 9010B Prep	31-DEC-2009 15:09	>12	0.52 g	25 mL	48.07692	SOIL
SAMPLE	243521001		SW846 9010B Prep	31-DEC-2009 15:09	>12	0.54 g	25 mL	46.2963	SOIL
SAMPLE	243521002		SW846 9010B Prep	31-DEC-2009 15:09	>12	0.52 g	25 mL	48.07692	SOIL
SAMPLE	243521003		SW846 9010B Prep	31-DEC-2009 15:09	>12	0.55 g	25 mL	45.45455	SOIL
SAMPLE	243521004		SW846 9010B Prep	31-DEC-2009 15:09	>12	0.56 g	25 mL	44.64286	SOIL
SAMPLE	243521005		SW846 9010B Prep	31-DEC-2009 15:09	>12	0.52 g	25 mL	48.07692	SOIL
SAMPLE	243521006		SW846 9010B Prep	31-DEC-2009 15:09	>12	0.57 g	25 mL	43.85965	SOIL
SAMPLE	243521007		SW846 9010B Prep	31-DEC-2009 15:09	>12	0.53 g	25 mL	47.16981	SOIL
SAMPLE	243521008		SW846 9010B Prep	31-DEC-2009 15:09	>12	0.57 g	25 mL	43.85965	SOIL
SAMPLE	243521009		SW846 9010B Prep	31-DEC-2009 15:09	>12	0.5 g	25 mL	50	SOIL
SAMPLE	243521010		SW846 9010B Prep	31-DEC-2009 15:09	>12	0.52 g	25 mL	48.07692	SOIL
SAMPLE	243521011		SW846 9010B Prep	31-DEC-2009 15:09	>12	0.5 g	25 mL	50	SOIL
SAMPLE	243547002		SW846 9010B Prep	31-DEC-2009 15:09	>12	0.51 g	25 mL	49.01961	SOIL
SAMPLE	243547003		SW846 9010B Prep	31-DEC-2009 15:09	>12	0.53 g	25 mL	47.16981	SOIL
SAMPLE	243549002		SW846 9010B Prep	31-DEC-2009 15:09	>12	0.56 g	25 mL	44.64286	SOIL
SAMPLE	243550001		SW846 9010B Prep	31-DEC-2009 15:09	>12	0.5 g	25 mL	50	SOIL
SAMPLE	243550002		SW846 9010B Prep	31-DEC-2009 15:09	>12	0.58 g	25 mL	43.10345	SOIL
SAMPLE	243550003		SW846 9010B Prep	31-DEC-2009 15:09	>12	0.55 g	25 mL	45.45455	SOIL
SAMPLE	243550004		SW846 9010B Prep	31-DEC-2009 15:09	>12	0.5 g	25 mL	50	SOIL

Prep LogBook

Reagent/Solvent Lot ID	Amount	Description
091211-C	25 mL	0.25N Sodium Hydroxide Solution
WCN091231-07	.0375 mL	150 ppb CN Distilled ICV Standard
1176724-C	1.25 mL	0.8N H3NO3S
1238146-C	2.5 mL	50% H2SO4 CN Prep
1176778-C	1 mL	51% MgCl2 Soln
1238142-C	1.25 mL	Bismuth Nitrate Solution

Comments:

Prep LogBook

Analyst: AXS5 Verified by:_____

Batch: 937571

Lab SOP: GL-GC-E-067 REV# 13

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1202006263	URF1200957-01	.25	g
MS	1202006259	URF1184831-02	.025	mL
MS	1202006260	URF1184831-02	.025	mL
MSD	1202006261	URF1184831-02	.025	mL
MSD	1202006262	URF1184831-02	.025	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Ph	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1202006256		SW846 9010B Prep	05-JAN-2010 12:17	>12	0.5 g	25 mL	50	SOIL
LCS	1202006263		SW846 9010B Prep	05-JAN-2010 12:17	>12	0.25 g	25 mL	100	SOIL
SAMPLE	243550014		SW846 9010B Prep	05-JAN-2010 12:17	>12	0.56 g	25 mL	44.64286	SOIL
SAMPLE	243550015		SW846 9010B Prep	05-JAN-2010 12:17	>12	0.58 g	25 mL	43.10345	SOIL
SAMPLE	243628001		SW846 9010B Prep	05-JAN-2010 12:17	>12	0.5 g	25 mL	50	SOIL
DUP	1202006257	243628001	SW846 9010B Prep	05-JAN-2010 12:17	>12	0.55 g	25 mL	45.45455	SOIL
MS	1202006259	243628001	SW846 9010B Prep	05-JAN-2010 12:17	>12	0.51 g	25 mL	49.01961	SOIL
MSD	1202006261	243628001	SW846 9010B Prep	05-JAN-2010 12:17	>12	0.52 g	25 mL	48.07692	SOIL
SAMPLE	243628002		SW846 9010B Prep	05-JAN-2010 12:17	>12	0.56 g	25 mL	44.64286	SOIL
DUP	1202006258	243628002	SW846 9010B Prep	05-JAN-2010 12:17	>12	0.54 g	25 mL	46.2963	SOIL
MS	1202006260	243628002	SW846 9010B Prep	05-JAN-2010 12:17	>12	0.54 g	25 mL	46.2963	SOIL
MSD	1202006262	243628002	SW846 9010B Prep	05-JAN-2010 12:17	>12	0.55 g	25 mL	45.45455	SOIL
SAMPLE	243628003		SW846 9010B Prep	05-JAN-2010 12:17	>12	0.58 g	25 mL	43.10345	SOIL
SAMPLE	243628004		SW846 9010B Prep	05-JAN-2010 12:17	>12	0.52 g	25 mL	48.07692	SOIL
SAMPLE	243628005		SW846 9010B Prep	05-JAN-2010 12:17	>12	0.55 g	25 mL	45.45455	SOIL
SAMPLE	243628006		SW846 9010B Prep	05-JAN-2010 12:17	>12	0.5 g	25 mL	50	SOIL
SAMPLE	243628007		SW846 9010B Prep	05-JAN-2010 12:17	>12	0.54 g	25 mL	46.2963	SOIL
SAMPLE	243628008		SW846 9010B Prep	05-JAN-2010 12:17	>12	0.51 g	25 mL	49.01961	SOIL
SAMPLE	243628009		SW846 9010B Prep	05-JAN-2010 12:17	>12	0.58 g	25 mL	43.10345	SOIL
SAMPLE	243628010		SW846 9010B Prep	05-JAN-2010 12:17	>12	0.5 g	25 mL	50	SOIL
SAMPLE	243628011		SW846 9010B Prep	05-JAN-2010 12:17	>12	0.54 g	25 mL	46.2963	SOIL
SAMPLE	243675001		SW846 9010C Distillation	05-JAN-2010 12:17	>12	0.54 g	25 mL	46.2963	SOLID
SAMPLE	243687001		SW846 9010C Distillation	05-JAN-2010 12:17	>12	0.549 g	25 mL	45.53734	SOLID
SAMPLE	243708001		SW846 9010B Prep	05-JAN-2010 12:17	>12	0.567 g	25 mL	44.09171	MISC SOLID

Reagent/Solvent Lot ID	Amount	Description
091211-C	25 mL	0.25N Sodium Hydroxide Solution
WCN100105-07	.0375 mL	150 ppb CN Distilled ICV Standard
1176724-C	1.25 mL	0.8N H3NO3S

Comments:

Prep LogBook

1238146-C	2.5 mL	50% H2SO4 CN Prep
1176778-C	1 mL	51% MgCl2 Soln
1238142-C	1.25 mL	Bismuth Nitrate Solution

Prep LogBook

Analyst: AXS5 Verified by:_____

Batch: 936844

Lab SOP: GL-GC-E-067 REV# 13

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1202004509	URF1200957-01	.25	g
MS	1202004507	URF1184831-02	.025	mL
MS	1202006207	URF1184831-02	.025	mL
MSD	1202004508	URF1184831-02	.025	mL
MSD	1202006208	URF1184831-02	.025	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Ph	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1202004505		SW846 9010B Prep	30-DEC-2009 15:16	>12	0.5 g	25 mL	50	SOIL
LCS	1202004509		SW846 9010B Prep	30-DEC-2009 15:16	>12	0.25 g	25 mL	100	SOIL
SAMPLE	243358001		SW846 9010C Distillation	30-DEC-2009 15:16	>12	0.5 g	25 mL	50	OIL
SAMPLE	243550005		SW846 9010B Prep	30-DEC-2009 15:16	>12	0.56 g	25 mL	44.64286	SOIL
DUP	1202004506	243550005	SW846 9010B Prep	30-DEC-2009 15:16	>12	0.5 g	25 mL	50	SOIL
MS	1202004507	243550005	SW846 9010B Prep	30-DEC-2009 15:16	>12	0.53 g	25 mL	47.16981	SOIL
MSD	1202004508	243550005	SW846 9010B Prep	30-DEC-2009 15:16	>12	0.53 g	25 mL	47.16981	SOIL
SAMPLE	243550006		SW846 9010B Prep	30-DEC-2009 15:16	>12	0.56 g	25 mL	44.64286	SOIL
SAMPLE	243550007		SW846 9010B Prep	30-DEC-2009 15:16	>12	0.51 g	25 mL	49.01961	SOIL
SAMPLE	243550008		SW846 9010B Prep	30-DEC-2009 15:16	>12	0.56 g	25 mL	44.64286	SOIL
SAMPLE	243550009		SW846 9010B Prep	30-DEC-2009 15:16	>12	0.5 g	25 mL	50	SOIL
SAMPLE	243550010		SW846 9010B Prep	30-DEC-2009 15:16	>12	0.57 g	25 mL	43.85965	SOIL
SAMPLE	243550011		SW846 9010B Prep	30-DEC-2009 15:16	>12	0.51 g	25 mL	49.01961	SOIL
SAMPLE	243550012		SW846 9010B Prep	30-DEC-2009 15:16	>12	0.53 g	25 mL	47.16981	SOIL
SAMPLE	243550013		SW846 9010B Prep	30-DEC-2009 15:16	>12	0.53 g	25 mL	47.16981	SOIL
SAMPLE	243602001		SW846 9010B Prep	30-DEC-2009 15:16	>12	0.58 g	25 mL	43.10345	SOIL
DUP	1202006206	243602001	SW846 9010B Prep	30-DEC-2009 15:16	>12	0.53 g	25 mL	47.16981	SOIL
MS	1202006207	243602001	SW846 9010B Prep	30-DEC-2009 15:16	>12	0.55 g	25 mL	45.45455	SOIL
MSD	1202006208	243602001	SW846 9010B Prep	30-DEC-2009 15:16	>12	0.51 g	25 mL	49.01961	SOIL
SAMPLE	243602002		SW846 9010B Prep	30-DEC-2009 15:16	>12	0.54 g	25 mL	46.2963	SOIL
SAMPLE	243602003		SW846 9010B Prep	30-DEC-2009 15:16	>12	0.54 g	25 mL	46.2963	SOIL
SAMPLE	243602004		SW846 9010B Prep	30-DEC-2009 15:16	>12	0.58 g	25 mL	43.10345	SOIL
SAMPLE	243602005		SW846 9010B Prep	30-DEC-2009 15:16	>12	0.57 g	25 mL	43.85965	SOIL
SAMPLE	243611001		SW846 9010B Prep	30-DEC-2009 15:16	>12	0.56 g	25 mL	44.64286	SOIL
SAMPLE	243611002		SW846 9010B Prep	30-DEC-2009 15:16	>12	0.57 g	25 mL	43.85965	SOIL
SAMPLE	243611003		SW846 9010B Prep	30-DEC-2009 15:16	>12	0.54 g	25 mL	46.2963	SOIL

Reagent/Solvent Lot ID Amount Description

Prep LogBook

			Comments
091211-C	25 mL	0.25N Sodium Hydroxide Solution	
WCN091230-07	.0375 mL	150 ppb CN Distilled ICV Standard	
1176724-C	1.25 mL	0.8N H3NO3S	
1238146-C	2.5 mL	50% H2SO4 CN Prep	
1176778-C	1 mL	51% MgCl2 Soln	
1238142-C	1.25 mL	Bismuth Nitrate Solution	

This is runlog Lachat1

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
200 ppb		1	axc2	12/31/2009 9:54:09	OM_12-31-2009_09-50-50
150 ppb		1	axc2	12/31/2009 9:55:01	OM_12-31-2009_09-50-50
100 ppb		1	axc2	12/31/2009 9:55:53	OM_12-31-2009_09-50-50
50 ppb		1	axc2	12/31/2009 9:56:46	OM_12-31-2009_09-50-50
10 ppb		1	axc2	12/31/2009 9:57:39	OM_12-31-2009_09-50-50
CRDL 5.0 ppb		1	axc2	12/31/2009 9:58:33	OM_12-31-2009_09-50-50
ICAL-00		1	axc2	12/31/2009 9:59:28	OM_12-31-2009_09-50-50
ICV		1	axc2	12/31/2009 10:01:18	OM_12-31-2009_09-50-50
ICB		1	axc2	12/31/2009 10:03:08	OM_12-31-2009_09-50-50
CRDL		1	axc2	12/31/2009 10:04:58	OM_12-31-2009_09-50-50
1202003577	936400	1	axc2	12/31/2009 10:06:47	OM_12-31-2009_09-50-50
1202003581	936400	25	axc2	12/31/2009 10:07:41	OM_12-31-2009_09-50-50
243385008	936400	1	axc2	12/31/2009 10:08:34	OM_12-31-2009_09-50-50
1202003578	936400	1	axc2	12/31/2009 10:09:27	OM_12-31-2009_09-50-50
1202003579	936400	1	axc2	12/31/2009 10:10:20	OM_12-31-2009_09-50-50
1202003580	936400	1	axc2	12/31/2009 10:11:13	OM_12-31-2009_09-50-50
243385009	936400	1	axc2	12/31/2009 10:12:05	OM_12-31-2009_09-50-50
243385010	936400	1	axc2	12/31/2009 10:12:58	OM_12-31-2009_09-50-50
243385011	936400	1	axc2	12/31/2009 10:13:51	OM_12-31-2009_09-50-50
243457001	936400	1	axc2	12/31/2009 10:14:43	OM_12-31-2009_09-50-50
CCV		1	axc2	12/31/2009 10:15:36	OM_12-31-2009_09-50-50
CCB		1	axc2	12/31/2009 10:17:26	OM_12-31-2009_09-50-50
243457002	936400	1	axc2	12/31/2009 10:19:14	OM_12-31-2009_09-50-50
243457003	936400	1	axc2	12/31/2009 10:20:06	OM_12-31-2009_09-50-50
243457004	936400	1	axc2	12/31/2009 10:20:58	OM_12-31-2009_09-50-50
243472001	936400	1	axc2	12/31/2009 10:21:50	OM_12-31-2009_09-50-50
243472002	936400	1	axc2	12/31/2009 10:22:41	OM_12-31-2009_09-50-50
243472003	936400	1	axc2	12/31/2009 10:23:35	OM_12-31-2009_09-50-50
243492001	936400	1	axc2	12/31/2009 10:24:29	OM_12-31-2009_09-50-50
243492002	936400	1	axc2	12/31/2009 10:25:22	OM_12-31-2009_09-50-50
243492003	936400	1	axc2	12/31/2009 10:26:15	OM_12-31-2009_09-50-50
243492004	936400	1	axc2	12/31/2009 10:27:09	OM_12-31-2009_09-50-50
CCV		1	axc2	12/31/2009 10:28:01	OM_12-31-2009_09-50-50
CCB		1	axc2	12/31/2009 10:29:51	OM_12-31-2009_09-50-50
243492005	936400	1	axc2	12/31/2009 10:31:40	OM_12-31-2009_09-50-50
243492006	936400	1	axc2	12/31/2009 10:32:33	OM_12-31-2009_09-50-50
243492007	936400	1	axc2	12/31/2009 10:33:26	OM_12-31-2009_09-50-50
243505001	936400	1	axc2	12/31/2009 10:34:18	OM_12-31-2009_09-50-50
1202004486	936400	1	axc2	12/31/2009 10:35:11	OM_12-31-2009_09-50-50
1202004487	936400	1	axc2	12/31/2009 10:36:03	OM_12-31-2009_09-50-50
1202004488	936400	1	axc2	12/31/2009 10:36:55	OM_12-31-2009_09-50-50
243505002	936400	1	axc2	12/31/2009 10:37:48	OM_12-31-2009_09-50-50
1202004505	936845	1	axc2	12/31/2009 10:38:39	OM_12-31-2009_09-50-50
1202004509	936845	25	axc2	12/31/2009 10:39:31	OM_12-31-2009_09-50-50
CCV		1	axc2	12/31/2009 10:40:23	OM_12-31-2009_09-50-50
CCB		1	axc2	12/31/2009 10:42:13	OM_12-31-2009_09-50-50
243358001	936845	1	axc2	12/31/2009 10:44:04	OM_12-31-2009_09-50-50
243550005	936845	1	axc2	12/31/2009 10:44:58	OM_12-31-2009_09-50-50
1202004506	936845	1	axc2	12/31/2009 10:45:52	OM_12-31-2009_09-50-50
1202004507	936845	1	axc2	12/31/2009 10:46:44	OM_12-31-2009_09-50-50
1202004508	936845	1	axc2	12/31/2009 10:47:38	OM_12-31-2009_09-50-50
243550006	936845	1	axc2	12/31/2009 10:48:31	OM_12-31-2009_09-50-50
243550007	936845	1	axc2	12/31/2009 10:49:24	OM_12-31-2009_09-50-50
243550008	936845	1	axc2	12/31/2009 10:50:17	OM_12-31-2009_09-50-50
243550009	936845	1	axc2	12/31/2009 10:51:10	OM_12-31-2009_09-50-50
243550010	936845	1	axc2	12/31/2009 10:52:02	OM_12-31-2009_09-50-50
CCV		1	axc2	12/31/2009 10:52:55	OM_12-31-2009_09-50-50
CCB		1	axc2	12/31/2009 10:54:45	OM_12-31-2009_09-50-50

243550011	936845	1	axc2	12/31/2009	10:56:33	OM_12-31-2009_09-50-50
243550012	936845	1	axc2	12/31/2009	10:57:27	OM_12-31-2009_09-50-50
243550013	936845	1	axc2	12/31/2009	10:58:18	OM_12-31-2009_09-50-50
243602001	936845	1	axc2	12/31/2009	10:59:11	OM_12-31-2009_09-50-50
1202006206	936845	1	axc2	12/31/2009	11:00:03	OM_12-31-2009_09-50-50
1202006207	936845	1	axc2	12/31/2009	11:00:56	OM_12-31-2009_09-50-50
1202006208	936845	1	axc2	12/31/2009	11:01:51	OM_12-31-2009_09-50-50
243602002	936845	1	axc2	12/31/2009	11:02:44	OM_12-31-2009_09-50-50
243602003	936845	1	axc2	12/31/2009	11:03:37	OM_12-31-2009_09-50-50
243602004	936845	1	axc2	12/31/2009	11:04:31	OM_12-31-2009_09-50-50
CCV		1	axc2	12/31/2009	11:05:24	OM_12-31-2009_09-50-50
CCB		1	axc2	12/31/2009	11:07:15	OM_12-31-2009_09-50-50
243602005	936845	1	axc2	12/31/2009	11:09:04	OM_12-31-2009_09-50-50
243611001	936845	1	axc2	12/31/2009	11:09:58	OM_12-31-2009_09-50-50
243611002	936845	1	axc2	12/31/2009	11:10:50	OM_12-31-2009_09-50-50
243611003	936845	1	axc2	12/31/2009	11:11:43	OM_12-31-2009_09-50-50
CCV		1	axc2	12/31/2009	11:12:35	OM_12-31-2009_09-50-50
CCB		1	axc2	12/31/2009	11:14:26	OM_12-31-2009_09-50-50
CCB		1	axc2	12/31/2009	11:14:26	OM_12-31-2009_09-50-50
CCB		1	axc2	12/31/2009	11:14:26	OM_12-31-2009_09-50-50
CCB		1	axc2	12/31/2009	11:14:26	OM_12-31-2009_09-50-50
CCB		1	axc2	12/31/2009	11:14:26	OM_12-31-2009_09-50-50
CCB		1	axc2	12/31/2009	11:14:26	OM_12-31-2009_09-50-50
CCB		1	axc2	12/31/2009	11:14:26	OM_12-31-2009_09-50-50
CCB		1	axc2	12/31/2009	11:14:26	OM_12-31-2009_09-50-50
CCB		1	axc2	12/31/2009	11:14:26	OM_12-31-2009_09-50-50
CCB		1	axc2	12/31/2009	11:14:26	OM_12-31-2009_09-50-50
CCB		1	axc2	12/31/2009	11:14:26	OM_12-31-2009_09-50-50

Author: axc2 Date : 12/31/2009

Original Run Filename: OM_12-31-2009_09-50-50.OMN created 12/31/2009 09:50:50
Original Run Author's Signature: [axc2]
Current Run Filename: OM_12-31-2009_09-50-50.OMN last modified 12/31/2009 11:15:32
Current Run Author's Signature: [axc2]
Description: GL-GC-E-095 EPA 335.1, 335.3, 335.4, 9012A, CLP335.2-M
Liquid LCS nominal 50 ug/L

Sample	Rep.	Cup No.	Channel 1 TCYANIDE Conc. (ug/L)	Area (Vs)	Detection Time	ADF	MDF	Description
WCN091231-01	1	S1	200	7.27	12/31/2009@09:54:09			200 ppb
WCN091231-02	1	S2	150	5.46	12/31/2009@09:55:01			150 ppb
WCN091231-03	1	S3	100	3.56	12/31/2009@09:55:53			100 ppb
WCN091231-04	1	S4	50.0	1.96	12/31/2009@09:56:46			50 ppb
WCN091231-05	1	S5	10.0	0.454	12/31/2009@09:57:39			10 ppb
WCN091231-06	1	S6	5.00	0.263	12/31/2009@09:58:33			CRDL 5.0 ppb
WCN091231-08	1	S7	0.00	0.0241	12/31/2009@09:59:28			0.0 ppb
DQM Test: Minimum Correlation Coefficient								
		Result:	0.99975 > 0.99500					
		Message	Pass					
		Action	Continue					
WCN091231-07	1	S8	150	5.44	12/31/2009@10:01:18			ICV
		Known Conc:	150					
DQM Test: > + Percent Relative Difference								
		Result:	-0.2 < 10.0					
		Message	ICV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	-0.2 < 10.0					
		Message	ICV Passed					
		Action	Continue					
		Calibration:	Table/Fig. 1					
WCN091231-08	1	S7	-1.31	0.0268	12/31/2009@10:03:08			ICB/CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.31 < 5.01					
		Message	ICB/CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.31 > -5.01					
		Message	ICB/CCB Passed					
		Action	Continue					
WCN091231-06	1	S6	5.65	0.276	12/31/2009@10:04:58			CRDL
		Known Conc:	5.00					
DQM Test: > + Concentration Limit								
		Result:	5.65 < 7.50					
		Message	CRDL Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	5.65 > 2.50					
		Message	Pass					
		Action	None					
1202003577|936400|MB	1	1	-2.06	-1.84e-4	12/31/2009@10:06:47			
1202003581||LCS	1	2	25.3	0.980	12/31/2009@10:07:41		25.00	
243385008	1	3	-0.828	0.0442	12/31/2009@10:08:34			
1202003578||DUP	1	4	-0.559	0.0538	12/31/2009@10:09:27			
1202003579||MS	1	5	100	3.68	12/31/2009@10:10:20			
1202003580||MSD	1	6	93.2	3.42	12/31/2009@10:11:13			
243385009	1	7	1.70	0.135	12/31/2009@10:12:05			
243385010	1	8	-0.0222	0.0731	12/31/2009@10:12:58			
243385011	1	9	1.56	0.130	12/31/2009@10:13:51			
243457001	1	10	0.0568	0.0759	12/31/2009@10:14:43			
WCN091231-03	1	S3	105	3.84	12/31/2009@10:15:36			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	5.0 < 10.0					

		Message	CCV Passed					
		Action	Continue					
		DQM Test: < - Percent Relative Difference						
		Result:	5.0 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN091231-08	1	S7	-1.68	0.0135	12/31/2009@10:17:26			CCB
		Known Conc:	0.00					
		DQM Test: > + Concentration Limit						
		Result:	-1.68 < 5.00					
		Message	CCB Passed					
		Action	Continue					
		DQM Test: < - Concentration Limit						
		Result:	-1.68 > -5.00					
		Message	CCB Passed					
		Action	Continue					
243457002	1	11	-2.06	-1.40e-4	12/31/2009@10:19:14			
243457003	1	12	-0.480	0.0566	12/31/2009@10:20:06			
243457004	1	13	-0.817	0.0445	12/31/2009@10:20:58			
243472001	1	14	-1.24	0.0295	12/31/2009@10:21:50			
243472002	1	15	-1.53	0.0189	12/31/2009@10:22:41			
243472003	1	16	-0.958	0.0395	12/31/2009@10:23:35			
243492001	1	17	-0.475	0.0568	12/31/2009@10:24:29			
243492002	1	18	-2.06	-1.97e-4	12/31/2009@10:25:22			
243492003	1	19	-0.650	0.0505	12/31/2009@10:26:15			
243492004	1	20	0.203	0.0811	12/31/2009@10:27:09			
WCN091231-03	1	S3	106	3.86	12/31/2009@10:28:01			CCV
		Known Conc:	100					
		DQM Test: > + Percent Relative Difference						
		Result:	5.6 < 10.0					
		Message	CCV Passed					
		Action	Continue					
		DQM Test: < - Percent Relative Difference						
		Result:	5.6 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN091231-08	1	S7	-1.39	0.0240	12/31/2009@10:29:51			CCB
		Known Conc:	0.00					
		DQM Test: > + Concentration Limit						
		Result:	-1.39 < 5.00					
		Message	CCB Passed					
		Action	Continue					
		DQM Test: < - Concentration Limit						
		Result:	-1.39 > -5.00					
		Message	CCB Passed					
		Action	Continue					
243492005	1	21	-0.535	0.0547	12/31/2009@10:31:40			
243492006	1	22	-0.999	0.0380	12/31/2009@10:32:33			
243492007	1	23	0.130	0.0785	12/31/2009@10:33:26			
243505001	1	24	0.927	0.107	12/31/2009@10:34:18			
1202004486||DUP	1	25	0.725	0.0998	12/31/2009@10:35:11			
1202004487||MS	1	26	110	4.01	12/31/2009@10:36:03			
1202004488||MSD	1	27	107	3.91	12/31/2009@10:36:55			
243505002	1	28	-0.444	0.0579	12/31/2009@10:37:48			
1202004505|936845|MB	1	29	-1.09	0.0347	12/31/2009@10:38:39			
1202004509||LCS	1	30	33.1	1.26	12/31/2009@10:39:31		25.00	
WCN091231-03	1	S3	106	3.88	12/31/2009@10:40:23			CCV
		Known Conc:	100					
		DQM Test: > + Percent Relative Difference						
		Result:	6.1 < 10.0					
		Message	CCV Passed					
		Action	Continue					
		DQM Test: < - Percent Relative Difference						
		Result:	6.1 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN091231-08	1	S7	-1.45	0.0217	12/31/2009@10:42:13			CCB
		Known Conc:	0.00					

DQM Test: > + Concentration Limit								
Result:			-1.45 < 5.00					
Message			CCB Passed					
Action			Continue					
DQM Test: < - Concentration Limit								
Result:			-1.45 > -5.00					
Message			CCB Passed					
Action			Continue					
243358001	1	31	14.1	0.579	12/31/2009@10:44:04			
243550005	1	32	-1.04	0.0364	12/31/2009@10:44:58			
1202004506||DUP	1	33	-2.16	-0.00355	12/31/2009@10:45:52			
1202004507||MS	1	34	107	3.91	12/31/2009@10:46:44			
1202004508||MSD	1	35	111	4.04	12/31/2009@10:47:38			
243550006	1	36	-1.12	0.0337	12/31/2009@10:48:31			
243550007	1	37	-2.06	-1.33e-4	12/31/2009@10:49:24			
243550008	1	38	-2.06	-1.26e-4	12/31/2009@10:50:17			
243550009	1	39	-0.957	0.0395	12/31/2009@10:51:10			
243550010	1	40	-0.882	0.0422	12/31/2009@10:52:02			
WCN091231-03	1	S3	106	3.86	12/31/2009@10:52:55			CCV
	Known Conc:		100					
DQM Test: > + Percent Relative Difference								
Result:			5.7 < 10.0					
Message			CCV Passed					
Action			Continue					
DQM Test: < - Percent Relative Difference								
Result:			5.7 < 10.0					
Message			CCV Passed					
Action			Continue					
WCN091231-08	1	S7	-2.16	-0.00350	12/31/2009@10:54:45			CCB
	Known Conc:		0.00					
DQM Test: > + Concentration Limit								
Result:			-2.16 < 5.00					
Message			CCB Passed					
Action			Continue					
DQM Test: < - Concentration Limit								
Result:			-2.16 > -5.00					
Message			CCB Passed					
Action			Continue					
243550011	1	41	0.158	0.0795	12/31/2009@10:56:33			
243550012	1	42	-1.24	0.0294	12/31/2009@10:57:27			
243550013	1	43	6.74	0.316	12/31/2009@10:58:18			
243602001	1	44	-0.152	0.0684	12/31/2009@10:59:11			
1202006206||DUP	1	45	1.40	0.124	12/31/2009@11:00:03			
1202006207||MS	1	46	104	3.80	12/31/2009@11:00:56			
1202006208||MSD	1	47	105	3.84	12/31/2009@11:01:51			
243602002	1	48	0.279	0.0839	12/31/2009@11:02:44			
243602003	1	49	-1.02	0.0371	12/31/2009@11:03:37			
243602004	1	50	-0.548	0.0542	12/31/2009@11:04:31			
WCN091231-03	1	S3	106	3.88	12/31/2009@11:05:24			CCV
	Known Conc:		100					
DQM Test: > + Percent Relative Difference								
Result:			6.0 < 10.0					
Message			CCV Passed					
Action			Continue					
DQM Test: < - Percent Relative Difference								
Result:			6.0 < 10.0					
Message			CCV Passed					
Action			Continue					
WCN091231-08	1	S7	-1.35	0.0255	12/31/2009@11:07:15			CCB
	Known Conc:		0.00					
DQM Test: > + Concentration Limit								
Result:			-1.35 < 5.00					
Message			CCB Passed					
Action			Continue					
DQM Test: < - Concentration Limit								
Result:			-1.35 > -5.00					
Message			CCB Passed					
Action			Continue					

243602005	1	51	-1.28	0.0280	12/31/2009@11:09:04			
243611001	1	52	4.33	0.229	12/31/2009@11:09:58			
243611002	1	53	2.36	0.158	12/31/2009@11:10:50			
243611003	1	54	1.05	0.112	12/31/2009@11:11:43			
WCN091231-03	1	S3	106	3.87	12/31/2009@11:12:35			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	6.0 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	6.0 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN091231-08	1	S7	-1.37	0.0246	12/31/2009@11:14:26			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.37 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.37 > -5.00					
		Message	CCB Passed					
		Action	Continue					

Analyte Properties Table for OM_12-31-2009_09-50-50.OMN

Property	Channel 1
	TCYANIDE
Concentration Units	ug/L
Callibration Fit Type	First Order
Clear Calibration	True
Force Through Zero	False
Calibration Weighting	None
Auto Dilution Trigger	True
% of High Standard	100
Quik Chem Method	10-204-00-1-A
Chemistry	Direct/Bipolar
Calibration by Height	False
Inject to Peak Start	22
Peak Base Width	39

Author: axc2 Date : 12/31/2009

Channel 1: Current View

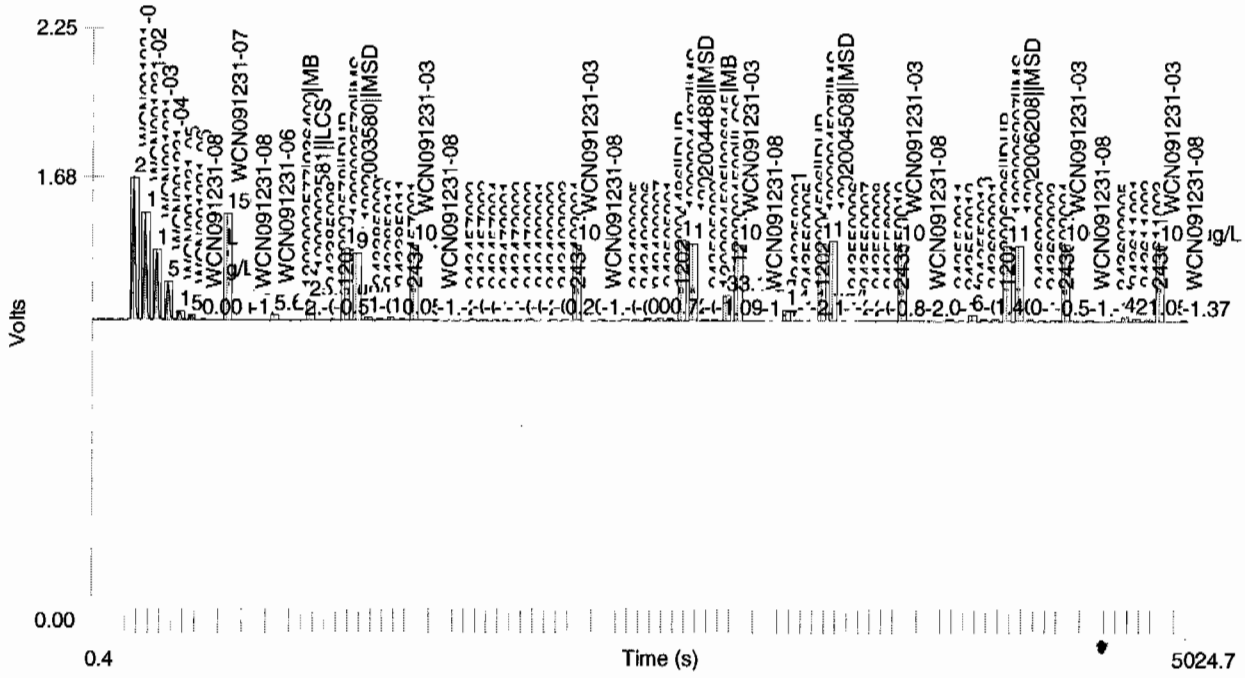

Table 1: TCYANIDE

	Conc. (ug/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	200	1	7.27	0.534	-0.3	12/31/2009	09:55:12
2	150	1	5.46	0.402	-0.1	12/31/2009	09:56:04
3	100	1	3.56	0.263	2.8	12/31/2009	09:56:56
4	50.0	1	1.96	0.143	-5.2	12/31/2009	09:57:49
5	10.0	1	0.454	0.0322	-4.7	12/31/2009	09:58:42
6	5.00	1	0.263	0.0177	-3.4	12/31/2009	09:59:36
7	0.00	1	0.0241	0.00158		12/31/2009	10:00:30

Figure 1: TCYANIDE

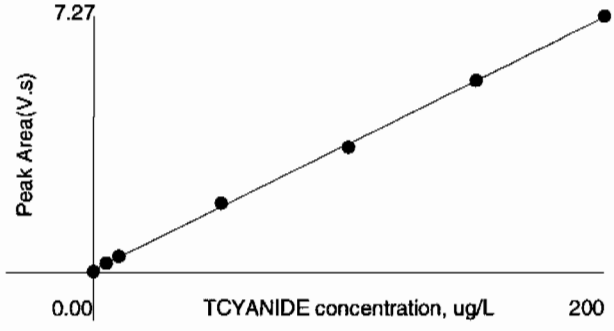

Area = 0.0358 * Conc + 0.0751
Conc = 27.9 * Area - 2.06
Correlation Coefficient (r) = 0.99975

No Weighting

This is runlog Lachat1

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
200 ppb		1	axc2	1/4/2010 10:29:37	OM_1-4-2010_10-26-17
150 ppb		1	axc2	1/4/2010 10:30:29	OM_1-4-2010_10-26-17
100 ppb		1	axc2	1/4/2010 10:31:22	OM_1-4-2010_10-26-17
50 ppb		1	axc2	1/4/2010 10:32:15	OM_1-4-2010_10-26-17
10 ppb		1	axc2	1/4/2010 10:33:08	OM_1-4-2010_10-26-17
CRDL 5.0 ppb		1	axc2	1/4/2010 10:34:02	OM_1-4-2010_10-26-17
ICAL-00		1	axc2	1/4/2010 10:34:56	OM_1-4-2010_10-26-17
ICV		1	axc2	1/4/2010 10:36:47	OM_1-4-2010_10-26-17
ICB		1	axc2	1/4/2010 10:38:37	OM_1-4-2010_10-26-17
CRDL		1	axc2	1/4/2010 10:40:27	OM_1-4-2010_10-26-17
1202005554	937245	1	axc2	1/4/2010 10:42:17	OM_1-4-2010_10-26-17
1202005558*	937245	1	axc2	1/4/2010 10:43:10	OM_1-4-2010_10-26-17
243585002	937245	1	axc2	1/4/2010 10:44:03	OM_1-4-2010_10-26-17
243608001	937245	1	axc2	1/4/2010 10:44:56	OM_1-4-2010_10-26-17
1202005555	937245	1	axc2	1/4/2010 10:45:49	OM_1-4-2010_10-26-17
1202005556	937245	1	axc2	1/4/2010 10:46:42	OM_1-4-2010_10-26-17
1202005557	937245	1	axc2	1/4/2010 10:47:34	OM_1-4-2010_10-26-17
243627001	937245	1	axc2	1/4/2010 10:48:27	OM_1-4-2010_10-26-17
243629001	937245	1	axc2	1/4/2010 10:49:19	OM_1-4-2010_10-26-17
243631001	937245	1	axc2	1/4/2010 10:50:12	OM_1-4-2010_10-26-17
CCV		1	axc2	1/4/2010 10:51:04	OM_1-4-2010_10-26-17
CCB		1	axc2	1/4/2010 10:52:55	OM_1-4-2010_10-26-17
1202005558	937245	1	axc2	1/4/2010 10:54:44	OM_1-4-2010_10-26-17
243632001	937245	1	axc2	1/4/2010 10:55:36	OM_1-4-2010_10-26-17
243633001	937245	1	axc2	1/4/2010 10:56:28	OM_1-4-2010_10-26-17
243633002	937245	1	axc2	1/4/2010 10:57:20	OM_1-4-2010_10-26-17
243633006	937245	1	axc2	1/4/2010 10:58:12	OM_1-4-2010_10-26-17
1202006217	937245	1	axc2	1/4/2010 10:59:04	OM_1-4-2010_10-26-17
1202006218	937245	1	axc2	1/4/2010 10:59:57	OM_1-4-2010_10-26-17
1202006219	937245	1	axc2	1/4/2010 11:00:51	OM_1-4-2010_10-26-17
243633009	937245	1	axc2	1/4/2010 11:01:44	OM_1-4-2010_10-26-17
1202004497	936843	1	axc2	1/4/2010 11:02:37	OM_1-4-2010_10-26-17
CCV		1	axc2	1/4/2010 11:03:30	OM_1-4-2010_10-26-17
CCB		1	axc2	1/4/2010 11:05:20	OM_1-4-2010_10-26-17
1202004504	936843	25	axc2	1/4/2010 11:07:10	OM_1-4-2010_10-26-17
243517008	936843	1	axc2	1/4/2010 11:08:03	OM_1-4-2010_10-26-17
1202004498	936843	1	axc2	1/4/2010 11:08:56	OM_1-4-2010_10-26-17
1202004500	936843	1	axc2	1/4/2010 11:09:48	OM_1-4-2010_10-26-17
1202004502	936843	1	axc2	1/4/2010 11:10:41	OM_1-4-2010_10-26-17
243517009	936843	1	axc2	1/4/2010 11:11:34	OM_1-4-2010_10-26-17
1202004499	936843	1	axc2	1/4/2010 11:12:26	OM_1-4-2010_10-26-17
1202004501	936843	1	axc2	1/4/2010 11:13:18	OM_1-4-2010_10-26-17
1202004503	936843	1	axc2	1/4/2010 11:14:10	OM_1-4-2010_10-26-17
243521001	936843	1	axc2	1/4/2010 11:15:02	OM_1-4-2010_10-26-17
CCV		1	axc2	1/4/2010 11:15:55	OM_1-4-2010_10-26-17
CCB		1	axc2	1/4/2010 11:17:45	OM_1-4-2010_10-26-17
243521002	936843	1	axc2	1/4/2010 11:19:33	OM_1-4-2010_10-26-17
243521003	936843	1	axc2	1/4/2010 11:20:27	OM_1-4-2010_10-26-17
243521004	936843	1	axc2	1/4/2010 11:21:21	OM_1-4-2010_10-26-17
243521005	936843	1	axc2	1/4/2010 11:22:14	OM_1-4-2010_10-26-17
243521006	936843	1	axc2	1/4/2010 11:23:08	OM_1-4-2010_10-26-17
243521007	936843	1	axc2	1/4/2010 11:24:01	OM_1-4-2010_10-26-17
243521008	936843	1	axc2	1/4/2010 11:24:54	OM_1-4-2010_10-26-17
243521009	936843	1	axc2	1/4/2010 11:25:47	OM_1-4-2010_10-26-17
243521010	936843	1	axc2	1/4/2010 11:26:40	OM_1-4-2010_10-26-17
243521011	936843	1	axc2	1/4/2010 11:27:33	OM_1-4-2010_10-26-17
CCV		1	axc2	1/4/2010 11:28:25	OM_1-4-2010_10-26-17
CCB		1	axc2	1/4/2010 11:30:15	OM_1-4-2010_10-26-17

243547002	936843	1	axc2	1/4/2010	11:32:04	OM_1-4-2010_10-26-17
243547003	936843	1	axc2	1/4/2010	11:32:56	OM_1-4-2010_10-26-17
243549002	936843	1	axc2	1/4/2010	11:33:49	OM_1-4-2010_10-26-17
243550001	936843	1	axc2	1/4/2010	11:34:41	OM_1-4-2010_10-26-17
243550002	936843	1	axc2	1/4/2010	11:35:33	OM_1-4-2010_10-26-17
243550003	936843	1	axc2	1/4/2010	11:36:25	OM_1-4-2010_10-26-17
243550004	936843	1	axc2	1/4/2010	11:37:19	OM_1-4-2010_10-26-17
CCV		1	axc2	1/4/2010	11:38:11	OM_1-4-2010_10-26-17
CCB		1	axc2	1/4/2010	11:40:02	OM_1-4-2010_10-26-17

Author: axc2

Date : 1/4/2010

Original Run Filename: OM_1-4-2010_10-26-17.OMN created 1/4/2010 10:26:17
Original Run Author's Signature: [axc2]
Current Run Filename: OM_1-4-2010_10-26-17.OMN last modified 1/4/2010 11:41:07
Current Run Author's Signature: [axc2]
Description: GL-GC-E-095 EPA 335.1, 335.3, 335.4, 9012A, CLP335.2-M
Liquid LCS nominal 50 ug/L

Sample	Rep.	Cup No.	Channel 1 TCYANIDE Conc. (ug/L)	Area (Vs)	Detection Time	ADF	MDF	Description
WCN100104-01	1	S1	200	7.63	1/4/2010@10:29:37			200 ppb
WCN100104-02	1	S2	150	5.81	1/4/2010@10:30:29			150 ppb
WCN100104-03	1	S3	100	3.99	1/4/2010@10:31:22			100 ppb
WCN100104-04	1	S4	50.0	2.09	1/4/2010@10:32:15			50 ppb
WCN100104-05	1	S5	10.0	0.463	1/4/2010@10:33:08			10 ppb
WCN100104-06	1	S6	5.00	0.277	1/4/2010@10:34:02			CRDL 5.0 ppb
WCN100104-08	1	S7	0.00	0.0108	1/4/2010@10:34:56			0.0 ppb
DQM Test: Minimum Correlation Coefficient								
		Result:	0.99973 > 0.99500					
		Message	Pass					
		Action	Continue					
WCN100104-07	1	S8	137	5.30	1/4/2010@10:36:47			ICV
		Known Conc:	150					
DQM Test: > + Percent Relative Difference								
		Result:	-8.9 < 10.0					
		Message	ICV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	-8.9 < 10.0					
		Message	ICV Passed					
		Action	Continue					
		Calibration:	Table/Fig. 1					
WCN100104-08	1	S7	-3.10	-0.0205	1/4/2010@10:38:37			ICB/CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-3.10 < 5.01					
		Message	ICB/CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-3.10 > -5.01					
		Message	ICB/CCB Passed					
		Action	Continue					
WCN100104-06	1	S6	5.20	0.295	1/4/2010@10:40:27			CRDL
		Known Conc:	5.00					
DQM Test: > + Concentration Limit								
		Result:	5.20 < 7.50					
		Message	CRDL Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	5.20 > 2.50					
		Message	Pass					
		Action	None					
1202005554|937245|MB	1	1	-1.46	0.0418	1/4/2010@10:42:17			
1202005558||LCS	1	2	44.5	1.79	1/4/2010@10:43:10			
243585002	1	3	-0.484	0.0790	1/4/2010@10:44:03			
243608001	1	4	-2.24	0.0123	1/4/2010@10:44:56			
1202005555||DUP	1	5	-1.58	0.0374	1/4/2010@10:45:49			
1202005556||MS	1	6	94.9	3.71	1/4/2010@10:46:42			
1202005557||MSD	1	7	100	3.91	1/4/2010@10:47:34			
243627001	1	8	-1.51	0.0399	1/4/2010@10:48:27			
243629001	1	9	-1.99	0.0217	1/4/2010@10:49:19			
243631001	1	10	-2.35	0.00803	1/4/2010@10:50:12			
WCN100104-03	1	S3	109	4.23	1/4/2010@10:51:04			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	8.6 < 10.0					

		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	8.6 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100104-08	1	S7	-2.04	0.0199	1/4/2010@10:52:55			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-2.04 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-2.04 > -5.00					
		Message	CCB Passed					
		Action	Continue					
1202005558|LCS	1	2	45.4	1.83	1/4/2010@10:54:44			
243632001	1	11	-1.49	0.0405	1/4/2010@10:55:36			
243633001	1	12	-1.66	0.0344	1/4/2010@10:56:28			
243633002	1	13	-1.45	0.0422	1/4/2010@10:57:20			
243633006	1	14	-2.75	-0.00712	1/4/2010@10:58:12			
1202006217||DUP	1	15	-1.99	0.0215	1/4/2010@10:59:04			
1202006218||MS	1	16	96.0	3.75	1/4/2010@10:59:57			
1202006219||MSD	1	17	100	3.91	1/4/2010@11:00:51			
243633009	1	18	-1.26	0.0496	1/4/2010@11:01:44			
1202004497|936843|MB	1	19	-1.90	0.0251	1/4/2010@11:02:37			
WCN100104-03	1	S3	103	4.01	1/4/2010@11:03:30			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	2.9 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	2.9 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100104-08	1	S7	-2.70	-0.00550	1/4/2010@11:05:20			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-2.70 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-2.70 > -5.00					
		Message	CCB Passed					
		Action	Continue					
1202004504||LCS	1	20	30.2	1.25	1/4/2010@11:07:10		25.00	
243517008	1	21	-0.543	0.0767	1/4/2010@11:08:03			
1202004498||DUP	1	22	0.103	0.101	1/4/2010@11:08:56			
1202004500||MS	1	23	91.7	3.59	1/4/2010@11:09:48			
1202004502||MSD	1	24	92.4	3.61	1/4/2010@11:10:41			
243517009	1	25	0.220	0.106	1/4/2010@11:11:34			
1202004499||DUP	1	26	1.82	0.166	1/4/2010@11:12:26			
1202004501||MS	1	27	92.4	3.61	1/4/2010@11:13:18			
1202004503||MSD	1	28	79.5	3.12	1/4/2010@11:14:10			
243521001	1	29	-0.679	0.0715	1/4/2010@11:15:02			
WCN100104-03	1	S3	103	4.02	1/4/2010@11:15:55			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	3.0 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	3.0 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100104-08	1	S7	-1.79	0.0294	1/4/2010@11:17:45			CCB
		Known Conc:	0.00					

DQM Test: > + Concentration Limit								
		Result:	-1.79 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.79 > -5.00					
		Message	CCB Passed					
		Action	Continue					
243521002	1	30	-1.46	0.0420	1/4/2010@11:19:33			
243521003	1	31	-0.362	0.0836	1/4/2010@11:20:27			
243521004	1	32	1.22	0.144	1/4/2010@11:21:21			
243521005	1	33	-0.936	0.0618	1/4/2010@11:22:14			
243521006	1	34	3.33	0.224	1/4/2010@11:23:08			
243521007	1	35	-1.34	0.0463	1/4/2010@11:24:01			
243521008	1	36	-0.707	0.0705	1/4/2010@11:24:54			
243521009	1	37	-1.63	0.0352	1/4/2010@11:25:47			
243521010	1	38	0.857	0.130	1/4/2010@11:26:40			
243521011	1	39	-1.68	0.0334	1/4/2010@11:27:33			
WCN100104-03	1	S3	103	4.01	1/4/2010@11:28:25			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	2.7 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	2.7 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100104-08	1	S7	-2.53	9.28e-4	1/4/2010@11:30:15			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-2.53 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-2.53 > -5.00					
		Message	CCB Passed					
		Action	Continue					
243547002	1	40	-1.86	0.0265	1/4/2010@11:32:04			
243547003	1	41	-1.82	0.0282	1/4/2010@11:32:56			
243549002	1	42	1.59	0.158	1/4/2010@11:33:49			
243550001	1	43	-1.68	0.0335	1/4/2010@11:34:41			
243550002	1	44	-1.41	0.0438	1/4/2010@11:35:33			
243550003	1	45	-1.87	0.0261	1/4/2010@11:36:25			
243550004	1	46	-1.49	0.0406	1/4/2010@11:37:19			
WCN100104-03	1	S3	104	4.04	1/4/2010@11:38:11			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	3.5 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	3.5 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100104-08	1	S7	-2.65	-0.00342	1/4/2010@11:40:02			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-2.65 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-2.65 > -5.00					
		Message	CCB Passed					
		Action	Continue					

Analyte Properties Table for OM_1-4-2010_10-26-17.OMN

Author: axc2

Date : 1/4/2010

Property	Channel 1
	TCYANIDE
Concentration Units	ug/L
Callibration Fit Type	First Order
Clear Calibration	True
Force Through Zero	False
Calibration Weighting	None
Auto Dilution Trigger	True
% of High Standard	100
Quik Chem Method	10-204-00-1-A
Chemistry	Direct/Bipolar
Calibration by Height	False
Inject to Peak Start	22
Peak Base Width	39

Channel 1: Current View

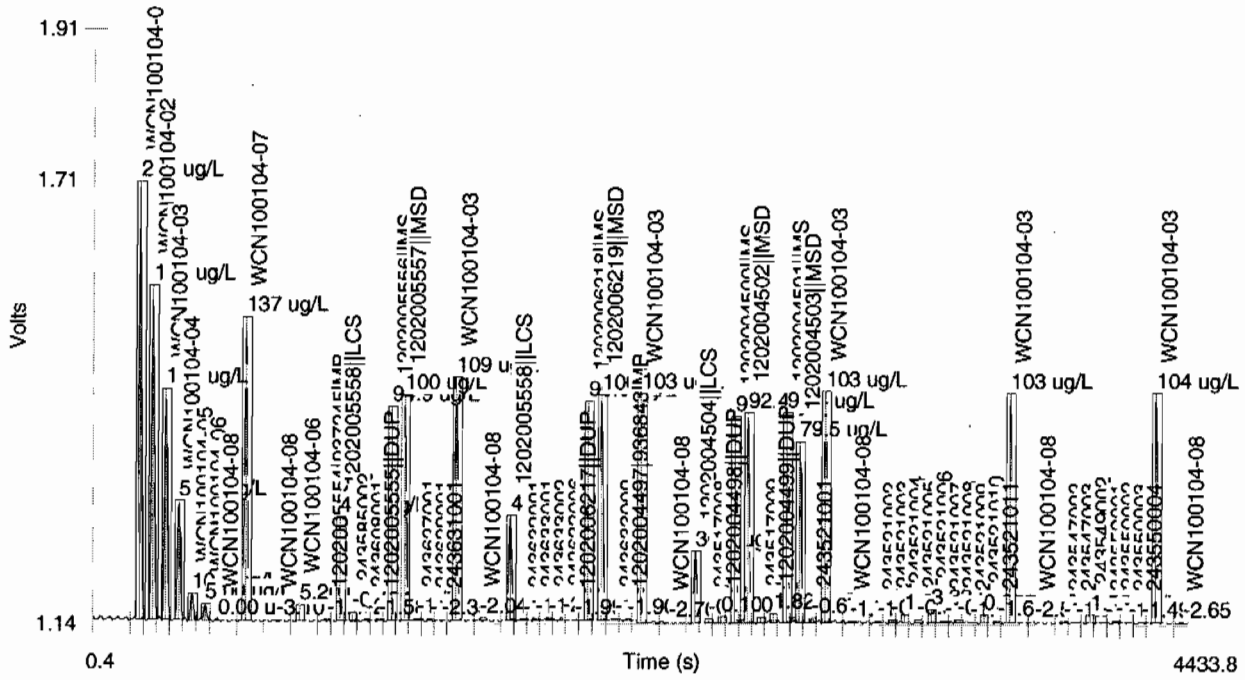

Table 1: TCYANIDE

	Conc. (ug/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	200	1	7.63	0.565	0.9	1/4/2010	10:30:40
2	150	1	5.81	0.432	-0.2	1/4/2010	10:31:33
3	100	1	3.99	0.297	-2.2	1/4/2010	10:32:25
4	50.0	1	2.09	0.153	-4.6	1/4/2010	10:33:18
5	10.0	1	0.463	0.0341	3.3	1/4/2010	10:34:11
6	5.00	1	0.277	0.0211	4.2	1/4/2010	10:35:05
7	0.00	1	0.0108	7.90e-4		1/4/2010	10:35:59

Author: axc2 Date : 1/4/2010

Figure 1: TCYANIDE

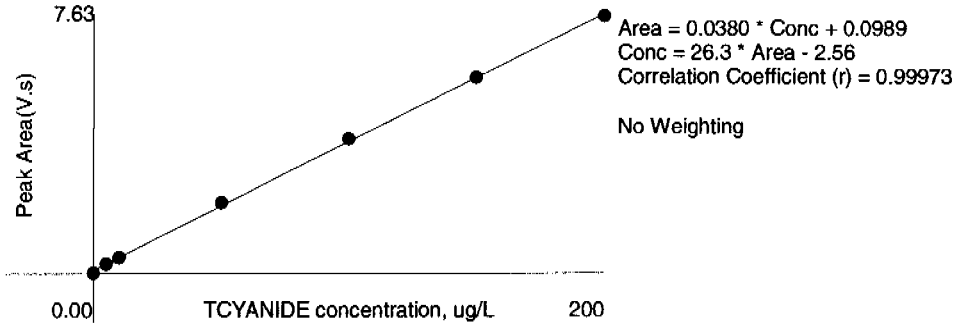

This is runlog Lachat1

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
200 ppb		1	axc2	1/5/2010 9:57:24	OM_1-5-2010_09-54-02
150 ppb		1	axc2	1/5/2010 9:58:16	OM_1-5-2010_09-54-02
100 ppb		1	axc2	1/5/2010 9:59:08	OM_1-5-2010_09-54-02
50 ppb		1	axc2	1/5/2010 10:00:01	OM_1-5-2010_09-54-02
10 ppb		1	axc2	1/5/2010 10:00:55	OM_1-5-2010_09-54-02
CRDL 5.0 ppb		1	axc2	1/5/2010 10:01:48	OM_1-5-2010_09-54-02
ICAL-00		1	axc2	1/5/2010 10:02:43	OM_1-5-2010_09-54-02
ICV		1	axc2	1/5/2010 10:04:33	OM_1-5-2010_09-54-02
ICB		1	axc2	1/5/2010 10:06:23	OM_1-5-2010_09-54-02
CRDL		1	axc2	1/5/2010 10:08:13	OM_1-5-2010_09-54-02
1202007819	938324	1	axc2	1/5/2010 10:10:02	OM_1-5-2010_09-54-02
1202007820	938324	25	axc2	1/5/2010 10:10:56	OM_1-5-2010_09-54-02
1202007821	938324	25	axc2	1/5/2010 10:11:49	OM_1-5-2010_09-54-02
243711001	938324	1	axc2	1/5/2010 10:12:42	OM_1-5-2010_09-54-02
243711002	938324	1	axc2	1/5/2010 10:13:35	OM_1-5-2010_09-54-02
243711003	938324	1	axc2	1/5/2010 10:14:28	OM_1-5-2010_09-54-02
243711004	938324	1	axc2	1/5/2010 10:15:21	OM_1-5-2010_09-54-02
243711005	938324	1	axc2	1/5/2010 10:16:13	OM_1-5-2010_09-54-02
243711006	938324	1	axc2	1/5/2010 10:17:06	OM_1-5-2010_09-54-02
243711007	938324	1	axc2	1/5/2010 10:17:58	OM_1-5-2010_09-54-02
CCV		1	axc2	1/5/2010 10:18:50	OM_1-5-2010_09-54-02
CCB		1	axc2	1/5/2010 10:20:40	OM_1-5-2010_09-54-02
243711008	938324	1	axc2	1/5/2010 10:22:29	OM_1-5-2010_09-54-02
243711009	938324	1	axc2	1/5/2010 10:23:21	OM_1-5-2010_09-54-02
243711010	938324	1	axc2	1/5/2010 10:24:13	OM_1-5-2010_09-54-02
243712001	938324	1	axc2	1/5/2010 10:25:05	OM_1-5-2010_09-54-02
243712002	938324	1	axc2	1/5/2010 10:25:56	OM_1-5-2010_09-54-02
243714001	938324	1	axc2	1/5/2010 10:26:50	OM_1-5-2010_09-54-02
243714002	938324	1	axc2	1/5/2010 10:27:44	OM_1-5-2010_09-54-02
243714003	938324	1	axc2	1/5/2010 10:28:37	OM_1-5-2010_09-54-02
1202007018	937905	1	axc2	1/5/2010 10:29:31	OM_1-5-2010_09-54-02
1202007020	937905	250	axc2	1/5/2010 10:30:24	OM_1-5-2010_09-54-02
CCV		1	axc2	1/5/2010 10:31:16	OM_1-5-2010_09-54-02
CCB		1	axc2	1/5/2010 10:33:06	OM_1-5-2010_09-54-02
243679001	937905	1	axc2	1/5/2010 10:34:55	OM_1-5-2010_09-54-02
1202007019	937905	1	axc2	1/5/2010 10:35:48	OM_1-5-2010_09-54-02
243680001	937905	1	axc2	1/5/2010 10:36:41	OM_1-5-2010_09-54-02
243681001	937905	1	axc2	1/5/2010 10:37:33	OM_1-5-2010_09-54-02
243723001	937905	1	axc2	1/5/2010 10:38:25	OM_1-5-2010_09-54-02
CCV		1	axc2	1/5/2010 10:39:18	OM_1-5-2010_09-54-02
CCB		1	axc2	1/5/2010 10:41:09	OM_1-5-2010_09-54-02

Author: axc2

Date : 1/5/2010

Original Run Filename: OM_1-5-2010_09-54-02.OMN created 1/5/2010 09:54:02
Original Run Author's Signature: [axc2]
Current Run Filename: OM_1-5-2010_09-54-02.OMN last modified 1/5/2010 10:42:13
Current Run Author's Signature: [axc2]
Description: GL-GC-E-095 EPA 335.1, 335.3, 335.4, 9012A, CLP335.2-M
Liquid LCS nominal 50 ug/L

Sample	Rep.	Cup No.	Channel 1 TCYANIDE Conc. (ug/L)	Area (Vs)	Detection Time	ADF	MDF	Description
WCN100105-01	1	S1	200	7.38	1/5/2010@09:57:24			200 ppb
WCN100105-02	1	S2	150	5.60	1/5/2010@09:58:16			150 ppb
WCN100105-03	1	S3	100	3.59	1/5/2010@09:59:08			100 ppb
WCN100105-04	1	S4	50.0	1.96	1/5/2010@10:00:01			50 ppb
WCN100105-05	1	S5	10.0	0.446	1/5/2010@10:00:55			10 ppb
WCN100105-06	1	S6	5.00	0.284	1/5/2010@10:01:48			CRDL 5.0 ppb
WCN100105-08	1	S7	0.00	0.0165	1/5/2010@10:02:43			0.0 ppb
DQM Test: Minimum Correlation Coefficient								
		Result:	0.99970 > 0.99500					
		Message	Pass					
		Action	Continue					
WCN100105-07	1	S8	139	5.13	1/5/2010@10:04:33			ICV
		Known Conc:	150					
DQM Test: > + Percent Relative Difference								
		Result:	-7.5 < 10.0					
		Message	ICV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	-7.5 < 10.0					
		Message	ICV Passed					
		Action	Continue					
		Calibration:	Table/Fig. 1					
WCN100105-08	1	S7	-1.15	0.0224	1/5/2010@10:06:23			ICB/CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.15 < 5.01					
		Message	ICB/CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.15 > -5.01					
		Message	ICB/CCB Passed					
		Action	Continue					
WCN100105-06	1	S6	5.54	0.267	1/5/2010@10:08:13			CRDL
		Known Conc:	5.00					
DQM Test: > + Concentration Limit								
		Result:	5.54 < 7.50					
		Message	CRDL Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	5.54 > 2.50					
		Message	Pass					
		Action	None					
1202007819|938324|MB	1	1	-1.35	0.0149	1/5/2010@10:10:02			
1202007820||LCS	1	2	31.2	1.21	1/5/2010@10:10:56		25.00	
1202007821||LCSD	1	3	35.5	1.36	1/5/2010@10:11:49		25.00	
243711001	1	4	8.52	0.376	1/5/2010@10:12:42			
243711002	1	5	0.350	0.0772	1/5/2010@10:13:35			
243711003	1	6	10.3	0.440	1/5/2010@10:14:28			
243711004	1	7	12.6	0.524	1/5/2010@10:15:21			
243711005	1	8	11.3	0.476	1/5/2010@10:16:13			
243711006	1	9	13.0	0.539	1/5/2010@10:17:06			
243711007	1	10	7.86	0.352	1/5/2010@10:17:58			
WCN100105-03	1	S3	104	3.85	1/5/2010@10:18:50			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	3.7 < 10.0					

		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	3.7 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100105-08	1	S7	-0.915	0.0310	1/5/2010@10:20:40			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-0.915 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-0.915 > -5.00					
		Message	CCB Passed					
		Action	Continue					
243711008	1	11	7.10	0.324	1/5/2010@10:22:29			
243711009	1	12	8.34	0.369	1/5/2010@10:23:21			
243711010	1	13	11.6	0.488	1/5/2010@10:24:13			
243712001	1	14	13.1	0.542	1/5/2010@10:25:05			
243712002	1	15	1.36	0.114	1/5/2010@10:25:56			
243714001	1	16	13.7	0.567	1/5/2010@10:26:50			
243714002	1	17	12.7	0.529	1/5/2010@10:27:44			
243714003	1	18	11.8	0.496	1/5/2010@10:28:37			
1202007018|937905|MB	1	19	-0.688	0.0393	1/5/2010@10:29:31			
1202007020||LCS	1	20	96.2	3.58	1/5/2010@10:30:24		250.00	
WCN100105-03	1	S3	105	3.89	1/5/2010@10:31:16			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	4.7 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	4.7 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100105-08	1	S7	-1.74	8.27e-4	1/5/2010@10:33:06			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.74 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.74 > -5.00					
		Message	CCB Passed					
		Action	Continue					
243679001	1	21	-1.27	0.0180	1/5/2010@10:34:55			
1202007019||DUP	1	22	-1.57	0.00689	1/5/2010@10:35:48			
243680001	1	23	-1.55	0.00793	1/5/2010@10:36:41			
243681001	1	24	0.766	0.0924	1/5/2010@10:37:33			
243723001	1	25	-0.360	0.0513	1/5/2010@10:38:25			
WCN100105-03	1	S3	106	3.94	1/5/2010@10:39:18			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	6.1 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	6.1 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100105-08	1	S7	-1.77	-2.03e-4	1/5/2010@10:41:09			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.77 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								

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Result:	-1.77 > -5.00					
Message	CCB Passed					
Action	Continue					

Analyte Properties Table for OM_1-5-2010_09-54-02.OMN

Property	Channel 1
	TCYANIDE
Concentration Units	ug/L
Callibration Fit Type	First Order
Clear Calibration	True
Force Through Zero	False
Calibration Weighting	None
Auto Dilution Trigger	True
% of High Standard	100
Quik Chem Method	10-204-00-1-A
Chemistry	Direct/Bipolar
Calibration by Height	False
Inject to Peak Start	22
Peak Base Width	39

Channel 1: Current View

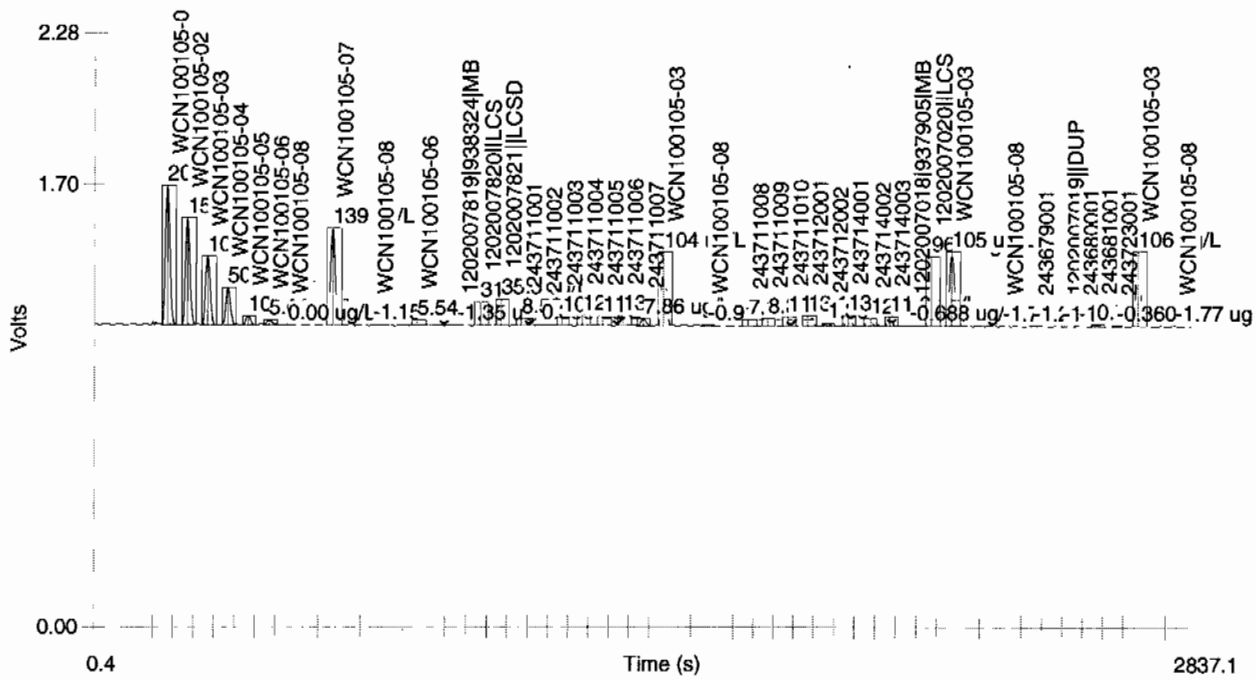

Author: axc2 Date : 1/5/2010

Table 1: TCYANIDE

	Conc. (ug/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	200	1	7.38	0.540	-0.1	1/5/2010	09:58:27
2	150	1	5.60	0.412	-1.0	1/5/2010	09:59:19
3	100	1	3.59	0.264	3.6	1/5/2010	10:00:11
4	50.0	1	1.96	0.144	-3.7	1/5/2010	10:01:04
5	10.0	1	0.446	0.0322	-3.4	1/5/2010	10:01:58
6	5.00	1	0.284	0.0191	-14.4	1/5/2010	10:02:51
7	0.00	1	0.0165	0.00115		1/5/2010	10:03:46

Figure 1: TCYANIDE

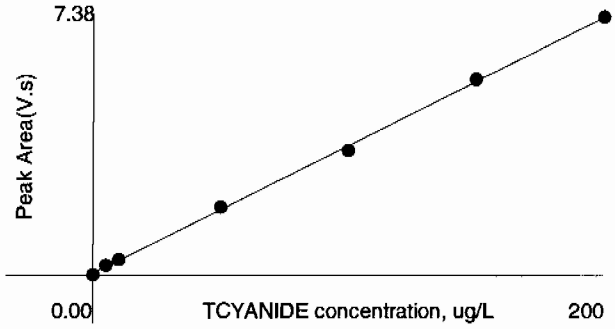

Area = 0.0365 * Conc + 0.0660
Conc = 27.4 * Area - 1.76
Correlation Coefficient (r) = 0.99970

No Weighting

This is runlog Lachat1

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
CCV		1	axc2	1/5/2010 12:32:54	OM_1-5-2010_12-29-33
CCB		1	axc2	1/5/2010 12:34:44	OM_1-5-2010_12-29-33
1202006248	937569	1	axc2	1/5/2010 12:36:34	OM_1-5-2010_12-29-33
1202006249	937569	25	axc2	1/5/2010 12:37:27	OM_1-5-2010_12-29-33
243623001	937569	1	axc2	1/5/2010 12:38:20	OM_1-5-2010_12-29-33
1202006250	937569	1	axc2	1/5/2010 12:39:14	OM_1-5-2010_12-29-33
1202006251	937569	1	axc2	1/5/2010 12:40:06	OM_1-5-2010_12-29-33
1202006255	937569	1	axc2	1/5/2010 12:40:59	OM_1-5-2010_12-29-33
243623002	937569	1	axc2	1/5/2010 12:41:52	OM_1-5-2010_12-29-33
1202006252	937569	1	axc2	1/5/2010 12:42:45	OM_1-5-2010_12-29-33
1202006253*	937569	1	axc2	1/5/2010 12:43:37	OM_1-5-2010_12-29-33
1202006254	937569	1	axc2	1/5/2010 12:44:29	OM_1-5-2010_12-29-33
CCV		1	axc2	1/5/2010 12:45:22	OM_1-5-2010_12-29-33
CCB		1	axc2	1/5/2010 12:47:11	OM_1-5-2010_12-29-33
1202006253	937569	1	axc2	1/5/2010 12:49:00	OM_1-5-2010_12-29-33
243623003	937569	1	axc2	1/5/2010 12:49:52	OM_1-5-2010_12-29-33
243623004	937569	1	axc2	1/5/2010 12:50:44	OM_1-5-2010_12-29-33
243623005	937569	1	axc2	1/5/2010 12:51:36	OM_1-5-2010_12-29-33
243623006	937569	1	axc2	1/5/2010 12:52:28	OM_1-5-2010_12-29-33
243623007	937569	1	axc2	1/5/2010 12:53:19	OM_1-5-2010_12-29-33
243623008	937569	1	axc2	1/5/2010 12:54:13	OM_1-5-2010_12-29-33
243623009	937569	1	axc2	1/5/2010 12:55:06	OM_1-5-2010_12-29-33
243626001	937569	1	axc2	1/5/2010 12:56:00	OM_1-5-2010_12-29-33
243626002	937569	1	axc2	1/5/2010 12:56:53	OM_1-5-2010_12-29-33
CCV		1	axc2	1/5/2010 12:57:45	OM_1-5-2010_12-29-33
CCB		1	axc2	1/5/2010 12:59:36	OM_1-5-2010_12-29-33
243626003	937569	1	axc2	1/5/2010 13:01:25	OM_1-5-2010_12-29-33
243626004	937569	1	axc2	1/5/2010 13:02:18	OM_1-5-2010_12-29-33
243626005	937569	1	axc2	1/5/2010 13:03:11	OM_1-5-2010_12-29-33
243626006	937569	1	axc2	1/5/2010 13:04:04	OM_1-5-2010_12-29-33
243626007	937569	1	axc2	1/5/2010 13:04:56	OM_1-5-2010_12-29-33
243626008	937569	1	axc2	1/5/2010 13:05:48	OM_1-5-2010_12-29-33
243626009	937569	1	axc2	1/5/2010 13:06:41	OM_1-5-2010_12-29-33
243626010	937569	1	axc2	1/5/2010 13:07:33	OM_1-5-2010_12-29-33
243626011	937569	1	axc2	1/5/2010 13:08:25	OM_1-5-2010_12-29-33
1202007538*	938216	1	axc2	1/5/2010 13:09:17	OM_1-5-2010_12-29-33
CCV		1	axc2	1/5/2010 13:10:09	OM_1-5-2010_12-29-33
CCB		1	axc2	1/5/2010 13:12:00	OM_1-5-2010_12-29-33
1202007545	938216	1	axc2	1/5/2010 13:13:48	OM_1-5-2010_12-29-33
243724003	938216	1	axc2	1/5/2010 13:14:42	OM_1-5-2010_12-29-33
1202007540	938216	1	axc2	1/5/2010 13:15:35	OM_1-5-2010_12-29-33
1202007542	938216	1	axc2	1/5/2010 13:16:29	OM_1-5-2010_12-29-33
1202007544	938216	1	axc2	1/5/2010 13:17:22	OM_1-5-2010_12-29-33
1202007538	938216	1	axc2	1/5/2010 13:18:14	OM_1-5-2010_12-29-33
1202006256	937572	1	axc2	1/5/2010 13:19:08	OM_1-5-2010_12-29-33
1202006263	937572	25	axc2	1/5/2010 13:20:01	OM_1-5-2010_12-29-33
243550014	937572	1	axc2	1/5/2010 13:20:54	OM_1-5-2010_12-29-33
243550015	937572	1	axc2	1/5/2010 13:21:47	OM_1-5-2010_12-29-33
CCV		1	axc2	1/5/2010 13:22:39	OM_1-5-2010_12-29-33
CCB		1	axc2	1/5/2010 13:24:29	OM_1-5-2010_12-29-33
243628001	937572	1	axc2	1/5/2010 13:26:19	OM_1-5-2010_12-29-33
1202006257	937572	1	axc2	1/5/2010 13:27:11	OM_1-5-2010_12-29-33
1202006259	937572	1	axc2	1/5/2010 13:28:04	OM_1-5-2010_12-29-33
1202006261	937572	1	axc2	1/5/2010 13:28:56	OM_1-5-2010_12-29-33
243628002	937572	1	axc2	1/5/2010 13:29:48	OM_1-5-2010_12-29-33
1202006258	937572	1	axc2	1/5/2010 13:30:40	OM_1-5-2010_12-29-33
1202006260	937572	1	axc2	1/5/2010 13:31:32	OM_1-5-2010_12-29-33
1202006262	937572	1	axc2	1/5/2010 13:32:27	OM_1-5-2010_12-29-33

243628003	937572	1	axc2	1/5/2010	13:33:21	OM_1-5-2010_12-29-33
243628004	937572	1	axc2	1/5/2010	13:34:14	OM_1-5-2010_12-29-33
CCV		1	axc2	1/5/2010	13:35:07	OM_1-5-2010_12-29-33
CCB		1	axc2	1/5/2010	13:36:58	OM_1-5-2010_12-29-33
243628005	937572	1	axc2	1/5/2010	13:38:47	OM_1-5-2010_12-29-33
243628006	937572	1	axc2	1/5/2010	13:39:40	OM_1-5-2010_12-29-33
243628007	937572	1	axc2	1/5/2010	13:40:34	OM_1-5-2010_12-29-33
243628008	937572	1	axc2	1/5/2010	13:41:27	OM_1-5-2010_12-29-33
243628009	937572	1	axc2	1/5/2010	13:42:20	OM_1-5-2010_12-29-33
243628010	937572	1	axc2	1/5/2010	13:43:13	OM_1-5-2010_12-29-33
243628011	937572	1	axc2	1/5/2010	13:44:06	OM_1-5-2010_12-29-33
243675001	937572	1	axc2	1/5/2010	13:44:58	OM_1-5-2010_12-29-33
243687001	937572	1	axc2	1/5/2010	13:45:50	OM_1-5-2010_12-29-33
243708001	937572	1	axc2	1/5/2010	13:46:43	OM_1-5-2010_12-29-33
CCV		1	axc2	1/5/2010	13:47:35	OM_1-5-2010_12-29-33
CCB		1	axc2	1/5/2010	13:49:25	OM_1-5-2010_12-29-33

Author: axc2 Date : 1/5/2010

Original Run Filename: OM_1-5-2010_12-29-33.OMN created 1/5/2010 12:29:33
Original Run Author's Signature: [axc2]
Current Run Filename: OM_1-5-2010_12-29-33.OMN last modified 1/5/2010 13:50:31
Current Run Author's Signature: [axc2]
Description: GL-GC-E-095 EPA 335.1, 335.3, 335.4, 9012A, CLP335.2-M
Liquid LCS nominal 50 ug/L

Sample	Rep.	Cup No.	Channel 1 TCYANIDE Conc. (ug/L)	Area (Vs)	Detection Time	ADF	MDF	Description
WCN100105-03	1	S3	99.9	3.72	1/5/2010@12:32:54			CCV
		Known Conc:	100					
			DQM Test: > + Percent Relative Difference					
		Result:	-0.1 < 10.0					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Percent Relative Difference					
		Result:	-0.1 < 10.0					
		Message	CCV Passed					
		Action	Continue					
		Calibration:	Table/Fig. 1					
WCN100105-08	1	S7	-1.58	0.00675	1/5/2010@12:34:44			CCB
		Known Conc:	0.00					
			DQM Test: > + Concentration Limit					
		Result:	-1.58 < 5.00					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	-1.58 > -5.00					
		Message	CCB Passed					
		Action	Continue					
1202006248|937569|MB	1	1	-1.68	0.00288	1/5/2010@12:36:34			
1202006249||LCS	1	2	28.9	1.12	1/5/2010@12:37:27		25.00	
243623001	1	3	0.0538	0.0664	1/5/2010@12:38:20			
1202006250||DUP	1	4	0.436	0.0804	1/5/2010@12:39:14			
1202006251||MS	1	5	93.9	3.50	1/5/2010@12:40:06			
1202006255||MSD	1	6	77.9	2.91	1/5/2010@12:40:59			
243623002	1	7	0.0244	0.0653	1/5/2010@12:41:52			
1202006252||DUP	1	8	0.124	0.0690	1/5/2010@12:42:45			
1202006253||MS	1	9	35.6	1.36	1/5/2010@12:43:37			
1202006254||MSD	1	10	70.6	2.64	1/5/2010@12:44:29			
WCN100105-03	1	S3	104	3.87	1/5/2010@12:45:22			CCV
		Known Conc:	100					
			DQM Test: > + Percent Relative Difference					
		Result:	4.1 < 10.0					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Percent Relative Difference					
		Result:	4.1 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100105-08	1	S7	-0.951	0.0297	1/5/2010@12:47:11			CCB
		Known Conc:	0.00					
			DQM Test: > + Concentration Limit					
		Result:	-0.951 < 5.00					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	-0.951 > -5.00					
		Message	CCB Passed					
		Action	Continue					
1202006253||MS	1	9	71.2	2.67	1/5/2010@12:49:00			
243623003	1	11	0.853	0.0956	1/5/2010@12:49:52			
243623004	1	12	0.353	0.0773	1/5/2010@12:50:44			
243623005	1	13	-0.724	0.0379	1/5/2010@12:51:36			
243623006	1	14	0.685	0.0895	1/5/2010@12:52:28			

243623007	1	15	0.141	0.0696	1/5/2010@12:53:19			
243623008	1	16	-0.318	0.0528	1/5/2010@12:54:13			
243623009	1	17	-1.07	0.0254	1/5/2010@12:55:06			
243626001	1	18	0.662	0.0886	1/5/2010@12:56:00			
243626002	1	19	0.367	0.0778	1/5/2010@12:56:53			
WCN100105-03	1	S3	106	3.93	1/5/2010@12:57:45			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	5.7 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	5.7 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100105-08	1	S7	-1.20	0.0205	1/5/2010@12:59:36			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.20 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.20 > -5.00					
		Message	CCB Passed					
		Action	Continue					
243626003	1	20	0.240	0.0732	1/5/2010@13:01:25			
243626004	1	21	0.579	0.0856	1/5/2010@13:02:18			
243626005	1	22	1.08	0.104	1/5/2010@13:03:11			
243626006	1	23	1.01	0.101	1/5/2010@13:04:04			
243626007	1	24	0.996	0.101	1/5/2010@13:04:56			
243626008	1	25	0.305	0.0756	1/5/2010@13:05:48			
243626009	1	26	1.80	0.130	1/5/2010@13:06:41			
243626010	1	27	0.541	0.0842	1/5/2010@13:07:33			
243626011	1	28	0.0326	0.0656	1/5/2010@13:08:25			
1202007538|938216|MB	1	29	37.2	1.43	1/5/2010@13:09:17			
WCN100105-03	1	S3	106	3.95	1/5/2010@13:10:09			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	6.4 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	6.4 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100105-08	1	S7	-0.936	0.0302	1/5/2010@13:12:00			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-0.936 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-0.936 > -5.00					
		Message	CCB Passed					
		Action	Continue					
1202007545||LCS	1	30	54.3	2.05	1/5/2010@13:13:48			
243724003	1	31	-0.655	0.0405	1/5/2010@13:14:42			
1202007540||DUP	1	32	-1.43	0.0120	1/5/2010@13:15:35			
1202007542||MS	1	33	109	4.03	1/5/2010@13:16:29			
1202007544||MSD	1	34	113	4.21	1/5/2010@13:17:22			
1202007538|938216|MB	1	29	-1.01	0.0274	1/5/2010@13:18:14			
1202006256|937572|MB	1	35	-1.53	0.00850	1/5/2010@13:19:08			
1202006263||LCS	1	36	29.2	1.13	1/5/2010@13:20:01		25.00	
243550014	1	37	-0.709	0.0385	1/5/2010@13:20:54			
243550015	1	38	0.231	0.0729	1/5/2010@13:21:47			
WCN100105-03	1	S3	104	3.87	1/5/2010@13:22:39			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								

		Result:	4.1 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	4.1 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100105-08	1	S7	-1.26	0.0183	1/5/2010@13:24:29			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.26 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.26 > -5.00					
		Message	CCB Passed					
		Action	Continue					
243628001	1	39	-0.401	0.0498	1/5/2010@13:26:19			
1202006257|DUP	1	40	-0.598	0.0426	1/5/2010@13:27:11			
1202006259|MS	1	41	106	3.95	1/5/2010@13:28:04			
1202006261|MSD	1	42	106	3.92	1/5/2010@13:28:56			
243628002	1	43	4.02	0.211	1/5/2010@13:29:48			
1202006258|DUP	1	44	2.13	0.142	1/5/2010@13:30:40			
1202006260|MS	1	45	105	3.89	1/5/2010@13:31:32			
1202006262|MSD	1	46	94.4	3.51	1/5/2010@13:32:27			
243628003	1	47	0.854	0.0956	1/5/2010@13:33:21			
243628004	1	48	-0.356	0.0514	1/5/2010@13:34:14			
WCN100105-03	1	S3	106	3.94	1/5/2010@13:35:07			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	6.0 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	6.0 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100105-08	1	S7	-1.75	2.92e-4	1/5/2010@13:36:58			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.75 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.75 > -5.00					
		Message	CCB Passed					
		Action	Continue					
243628005	1	49	0.894	0.0971	1/5/2010@13:38:47			
243628006	1	50	-0.0214	0.0636	1/5/2010@13:39:40			
243628007	1	51	2.04	0.139	1/5/2010@13:40:34			
243628008	1	52	0.0864	0.0676	1/5/2010@13:41:27			
243628009	1	53	0.258	0.0738	1/5/2010@13:42:20			
243628010	1	54	0.506	0.0829	1/5/2010@13:43:13			
243628011	1	55	0.430	0.0801	1/5/2010@13:44:06			
243675001	1	56	0.885	0.0968	1/5/2010@13:44:58			
243687001	1	57	-0.113	0.0603	1/5/2010@13:45:50			
243708001	1	58	-1.36	0.0147	1/5/2010@13:46:43			
WCN100105-03	1	S3	107	3.96	1/5/2010@13:47:35			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	6.5 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	6.5 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100105-08	1	S7	-1.32	0.0161	1/5/2010@13:49:25			CCB

Author: axc2 Date : 1/5/2010

Known Conc:	0.00					
DQM Test: > + Concentration Limit						
Result:	-1.32 < 5.00					
Message	CCB Passed					
Action	Continue					
DQM Test: < - Concentration Limit						
Result:	-1.32 > -5.00					
Message	CCB Passed					
Action	Continue					

Analyte Properties Table for OM_1-5-2010_12-29-33.OMN

Property	Channel 1
	TCYANIDE
Concentration Units	ug/L
Callibration Fit Type	First Order
Clear Calibration	True
Force Through Zero	False
Calibration Weighting	None
Auto Dilution Trigger	True
% of High Standard	100
Quik Chem Method	10-204-00-1-A
Chemistry	Direct/Bipolar
Calibration by Height	False
Inject to Peak Start	22
Peak Base Width	39

Channel 1: Current View

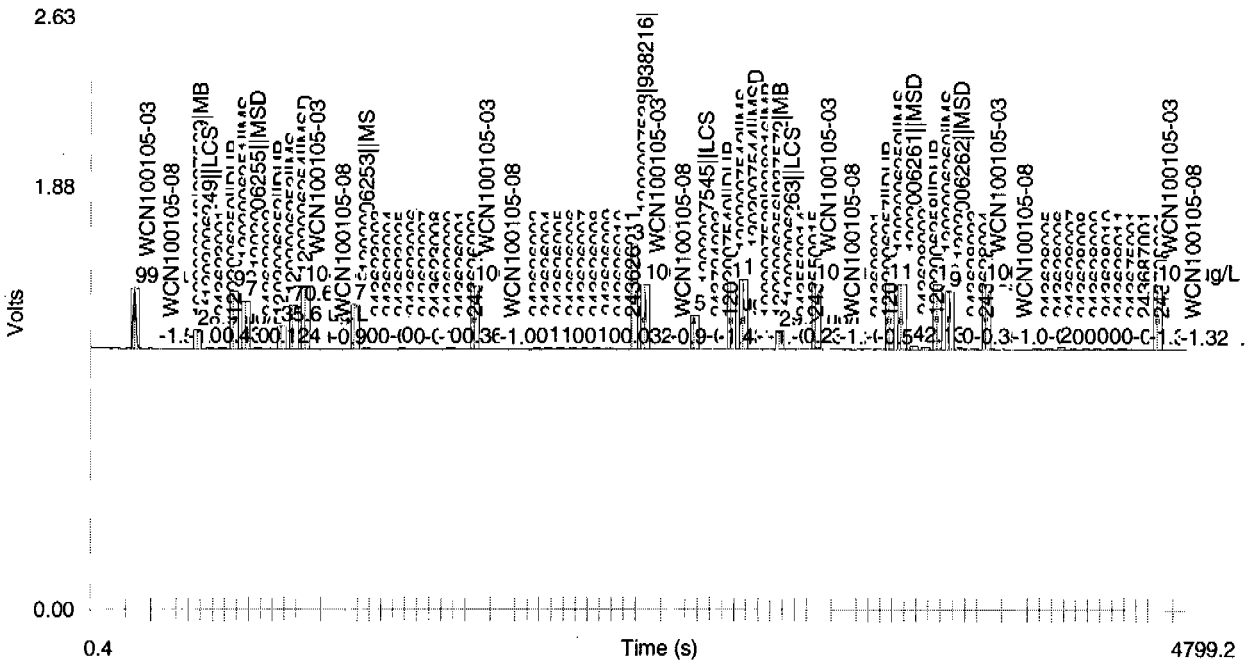

Author: axc2 Date : 1/5/2010

Table 1: TCYANIDE

	Conc. (ug/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	200	1	7.38	0.540	-0.1	1/5/2010	09:58:27
2	150	1	5.60	0.412	-1.0	1/5/2010	09:59:19
3	100	1	3.59	0.264	3.6	1/5/2010	10:00:11
4	50.0	1	1.96	0.144	-3.7	1/5/2010	10:01:04
5	10.0	1	0.446	0.0322	-3.4	1/5/2010	10:01:58
6	5.00	1	0.284	0.0191	-14.4	1/5/2010	10:02:51
7	0.00	1	0.0165	0.00115		1/5/2010	10:03:46

Figure 1: TCYANIDE

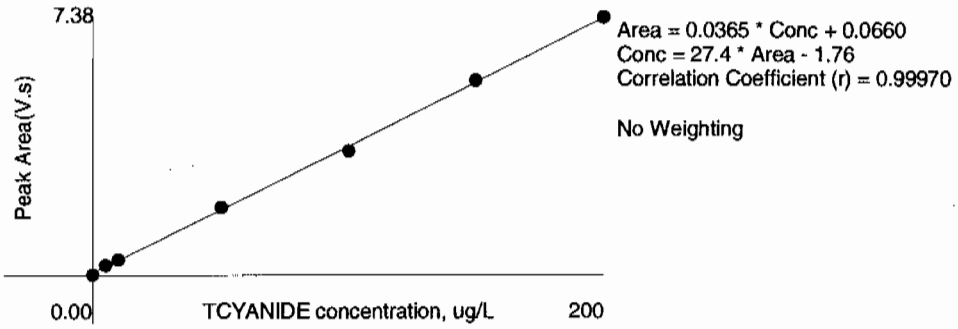

Ion Chromatography

Prep LogBook

Analyst: VH1 Verified by:_____

Batch: 937124

Lab SOP: GL-GC-E-086 REV# 17

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1202005297	UIC091223SPK-1	.8	mL
MS	1202005293	UIC091223SPK-1	.8	mL
MS	1202005294	UIC091223SPK-1	.8	mL
MSD	1202005295	UIC091223SPK-1	.8	mL
MSD	1202005296	UIC091223SPK-1	.8	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1202005290		EPA 300.0 PREP	28-DEC-2009 17:52	4 g	40 mL	10	SOIL
LCS	1202005297		EPA 300.0 PREP	28-DEC-2009 17:52	4 g	40 mL	10	SOIL
SAMPLE	243550001		EPA 300.0 PREP	28-DEC-2009 17:52	4.42 g	40 mL	9.04977	SOIL
SAMPLE	243550002		EPA 300.0 PREP	28-DEC-2009 17:52	4.13 g	40 mL	9.68523	SOIL
SAMPLE	243550003		EPA 300.0 PREP	28-DEC-2009 17:52	4.01 g	40 mL	9.97506	SOIL
SAMPLE	243550004		EPA 300.0 PREP	28-DEC-2009 17:52	4 g	40 mL	10	SOIL
SAMPLE	243550005		EPA 300.0 PREP	28-DEC-2009 17:52	4 g	40 mL	10	SOIL
SAMPLE	243550006		EPA 300.0 PREP	28-DEC-2009 17:52	4.1 g	40 mL	9.7561	SOIL
SAMPLE	243550007		EPA 300.0 PREP	28-DEC-2009 17:52	4 g	40 mL	10	SOIL
SAMPLE	243550008		EPA 300.0 PREP	28-DEC-2009 17:52	4.05 g	40 mL	9.87654	SOIL
SAMPLE	243550009		EPA 300.0 PREP	28-DEC-2009 17:52	4.5 g	40 mL	8.88889	SOIL
DUP	1202005291	243550009	EPA 300.0 PREP	28-DEC-2009 17:52	4.49 g	40 mL	8.90869	SOIL
MS	1202005293	243550009	EPA 300.0 PREP	28-DEC-2009 17:52	4.45 g	40 mL	8.98876	SOIL
MSD	1202005295	243550009	EPA 300.0 PREP	28-DEC-2009 17:52	4.52 g	40 mL	8.84956	SOIL
SAMPLE	243550010		EPA 300.0 PREP	28-DEC-2009 17:52	4.86 g	40 mL	8.23045	SOIL
SAMPLE	243550011		EPA 300.0 PREP	28-DEC-2009 17:52	4.65 g	40 mL	8.60215	SOIL
DUP	1202005292	243550011	EPA 300.0 PREP	28-DEC-2009 17:52	4.63 g	40 mL	8.63931	SOIL
MS	1202005294	243550011	EPA 300.0 PREP	28-DEC-2009 17:52	4.61 g	40 mL	8.67679	SOIL
MSD	1202005296	243550011	EPA 300.0 PREP	28-DEC-2009 17:52	4.65 g	40 mL	8.60215	SOIL
SAMPLE	243550012		EPA 300.0 PREP	28-DEC-2009 17:52	4.08 g	40 mL	9.80392	SOIL
SAMPLE	243550013		EPA 300.0 PREP	28-DEC-2009 17:52	4.06 g	40 mL	9.85222	SOIL

Comments

Prep LogBook

Analyst: MAR1 Verified by:_____

Batch: 939814

Lab SOP: GL-GC-E-086 REV# 17

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1202011172	UIC091223SPK-1	.8	mL
MS	1202011170	UIC091223SPK-1	.8	mL
MSD	1202011171	UIC091223SPK-1	.8	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1202011168		EPA 300.0 PREP	11-JAN-2010 14:00	4 g	40 mL	10	SOIL
LCS	1202011172		EPA 300.0 PREP	11-JAN-2010 14:00	4 g	40 mL	10	SOIL
SAMPLE	243543001		EPA 300.0 PREP	11-JAN-2010 14:00	4 g	40 mL	10	SOIL
SAMPLE	243546001		EPA 300.0 PREP	11-JAN-2010 14:00	4 g	40 mL	10	SOIL
DUP	1202011169	243546001	EPA 300.0 PREP	11-JAN-2010 14:00	4 g	40 mL	10	SOIL
MS	1202011170	243546001	EPA 300.0 PREP	11-JAN-2010 14:00	4 g	40 mL	10	SOIL
MSD	1202011171	243546001	EPA 300.0 PREP	11-JAN-2010 14:00	4 g	40 mL	10	SOIL
SAMPLE	243546002		EPA 300.0 PREP	11-JAN-2010 14:00	4 g	40 mL	10	SOIL
SAMPLE	243546003		EPA 300.0 PREP	11-JAN-2010 14:00	4 g	40 mL	10	SOIL
SAMPLE	243550014		EPA 300.0 PREP	11-JAN-2010 14:00	4 g	40 mL	10	SOIL
SAMPLE	243550015		EPA 300.0 PREP	11-JAN-2010 14:00	4 g	40 mL	10	SOIL

Comments:

This is runlog for Sequence 100105.seq for IC5

Sample ID	Run Time	Batch	Dilution	Dataset	Analyst
ICAL-07	12/04/09 17:49		1	100105	VH1
ICAL-06	12/04/09 18:15		1	100105	VH1
ICAL-05	12/04/09 18:41		1	100105	VH1
ICAL-04	12/04/09 19:07		1	100105	VH1
ICAL-03	12/04/09 19:34		1	100105	VH1
ICAL-02	12/04/09 20:00		1	100105	VH1
ICAL-01	12/04/09 20:26		1	100105	VH1

4 AUTOCAL7

Sample Name:	AUTOCAL7	*Injection Volume:*	50.0
Vial Number:	53	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	120409an	*Sample Amount:*	1.0000
Recording Time:	12/4/2009 17:49	Analyst:	VH1
Run Time (min):	26.00	Column:	AS23-002588;GLGCE086;300;9056

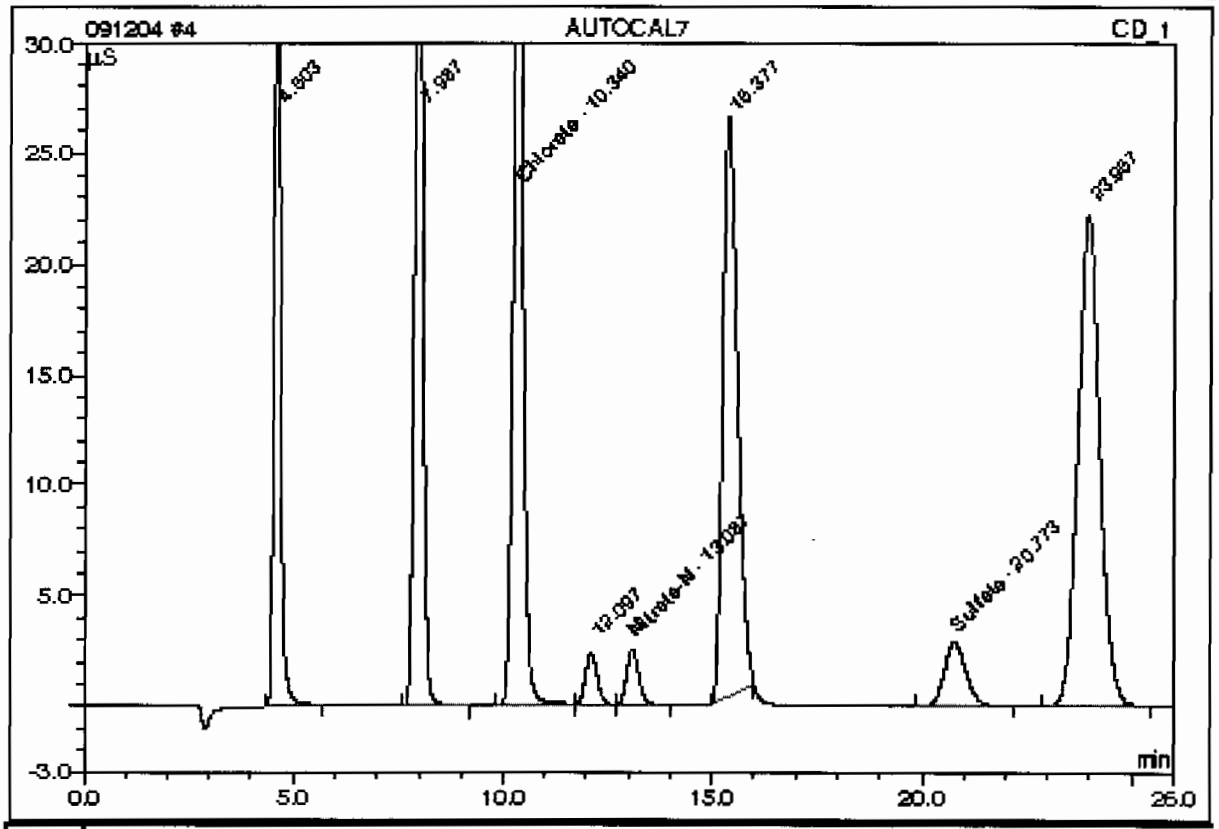

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	10.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	20.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	10.0000	n.a.	n.a.	n.a.	n.a.
3	10.34	Chlorate	5.0000	5.0000		10.04178	18.48
n.a.	n.a.	Bromide	5.0000	n.a.	n.a.	n.a.	n.a.
5	13.09	Nitrate-N	10.0000	10.0000		0.85988	1.58
n.a.	n.a.	O-Phosphate-P	5.0000	n.a.	n.a.	n.a.	n.a.
7	20.77	Sulfate	40.0000	40.0000		1.71920	3.16
Total:				55.0000	0.000	12.621	23.22

4 AUTOCAL7

Sample Name:	AUTOCAL7	*Injection Volume:*	50.0
Vial Number:	53	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	120409an	*Sample Amount:*	1.0000
Recording Time:	12/4/2009 17:49	Analyst:	VH1
Run Time (min):	26.00	Column:	AS23-002588;GLGCE086;300;9056

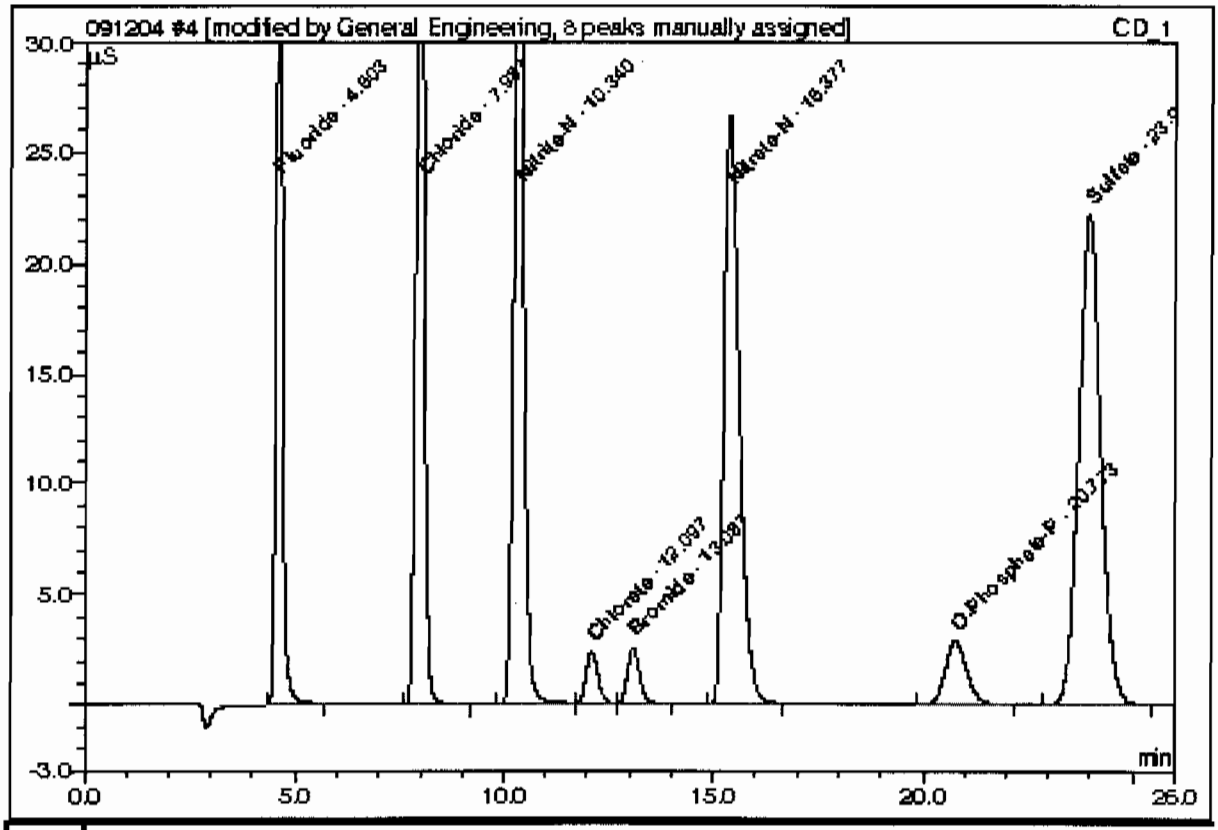

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.60	Fluoride	10.0000	10.0775		6.86020	12.49
2	7.99	Chloride	20.0000	20.4028		9.96643	18.14
3	10.34	Nitrite-N	10.0000	10.0965		10.04178	18.28
4	12.10	Chlorate	5.0000	5.0660		0.79061	1.44
5	13.09	Bromide	5.0000	5.0440		0.85988	1.56
6	15.38	Nitrate-N	10.0000	10.1668		11.30060	20.57
7	20.77	O-Phosphate-P	5.0000	5.0563		1.71920	3.13
8	23.97	Sulfate	40.0000	40.5844		13.40847	24.40
Total:				106.4944	0.000	54.947	100.00

4 AUTOCAL7

Sample Name:	AUTOCAL7	*Injection Volume:*	50.0
Vial Number:	53	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	120409an	*Sample Amount:*	1.0000
Recording Time:	12/4/2009 17:49	Analyst:	VH1
Run Time (min):	26.00	Column:	AS23-002588;GLGCE086;300;9056

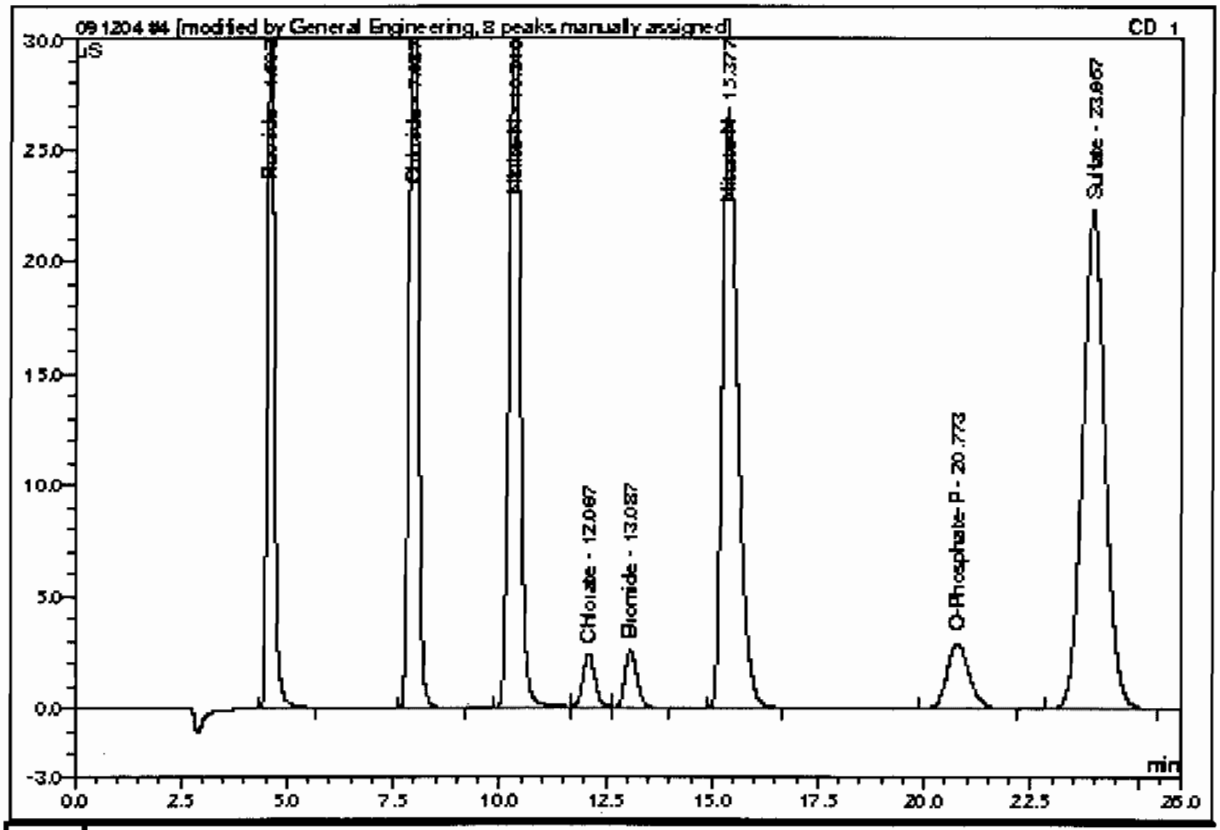

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.60	Fluoride	10.0000	10.0000		6.86020	12.49
2	7.99	Chloride	20.0000	20.0000		9.96643	18.14
3	10.34	Nitrite-N	10.0000	10.0000		10.04178	18.28
4	12.10	Chlorate	5.0000	-1.2236		0.79061	1.44
5	13.09	Bromide	5.0000	5.0000		0.85988	1.56
6	15.38	Nitrate-N	10.0000	10.0000		11.30060	20.57
7	20.77	O-Phosphate-P	5.0000	5.0000		1.71920	3.13
8	23.97	Sulfate	40.0000	40.0000		13.40847	24.40
Total:				98.7764	0.000	54.947	100.00

4 AUTOCAL7

Sample Name:	AUTOCAL7	*Injection Volume:*	50.0
Vial Number:	53	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	120409an	*Sample Amount:*	1.0000
Recording Time:	12/4/2009 17:49	Analyst:	VH1
Run Time (min):	26.00	Column:	AS23-002588;GLGCE086;300;9056

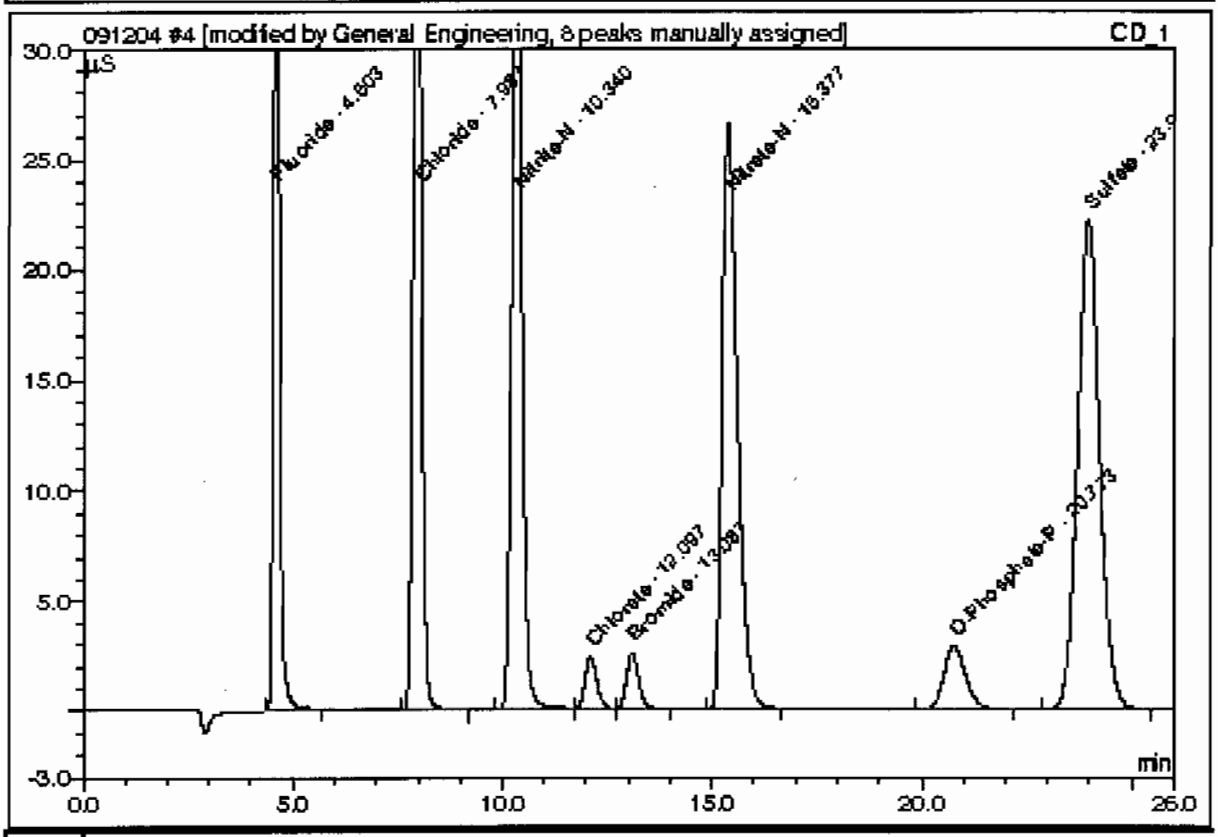

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.60	Fluoride	10.0000	10.0775		6.86020	12.49
2	7.99	Chloride	20.0000	20.4028		9.96643	18.14
3	10.34	Nitrite-N	10.0000	10.0965		10.04178	18.28
4	12.10	Chlorate	5.0000	5.0660		0.79061	1.44
5	13.09	Bromide	5.0000	5.0440		0.85988	1.56
6	15.38	Nitrate-N	10.0000	10.1668		11.30060	20.57
7	20.77	O-Phosphate-P	5.0000	5.0563		1.71920	3.13
8	23.97	Sulfate	40.0000	40.5844		13.40847	24.40
Total:				106.4944	0.000	54.947	100.00

5 AUTOCAL6

Sample Name:	AUTOCAL6	*Injection Volume:*	50.0
Vial Number:	54	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	120409an	*Sample Amount:*	1.0000
Recording Time:	12/4/2009 18:15	Analyst:	VH1
Run Time (min):	26.00	Column:	AS23-002588;GLGCE086;300;9056

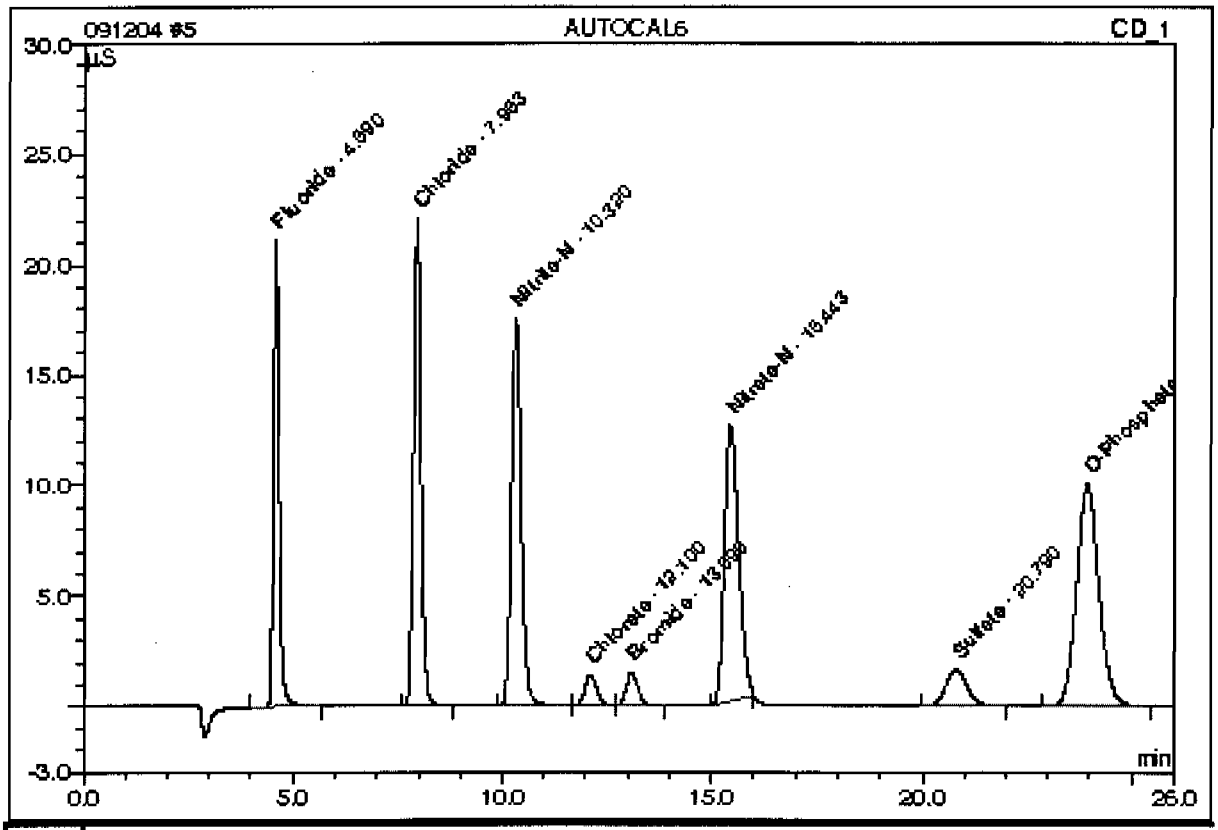

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.59	Fluoride	5.0000	4.8612		3.28723	12.87
2	7.96	Chloride	10.0000	9.3238		4.47774	17.53
3	10.32	Nitrite-N	5.0000	4.8233		4.75475	18.62
4	12.10	Chlorate	3.0000	2.9480		0.46190	1.81
5	13.09	Bromide	3.0000	2.9624		0.50611	1.98
6	15.44	Nitrate-N	5.0000	4.5398		4.87029	19.07
7	20.79	Sulfate	20.0000	8.6531		0.99882	3.91
8	23.94	O-Phosphate-P	3.0000	10.0660		6.17944	24.20
Total:				48.1776	0.000	25.536	100.00

5 AUTOCAL6

Sample Name:	AUTOCAL6	*Injection Volume:*	50.0
Vial Number:	54	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	120409an	*Sample Amount:*	1.0000
Recording Time:	12/4/2009 18:15	Analyst:	VH1
Run Time (min):	26.00	Column:	AS23-002588;GLGCE086;300;9056

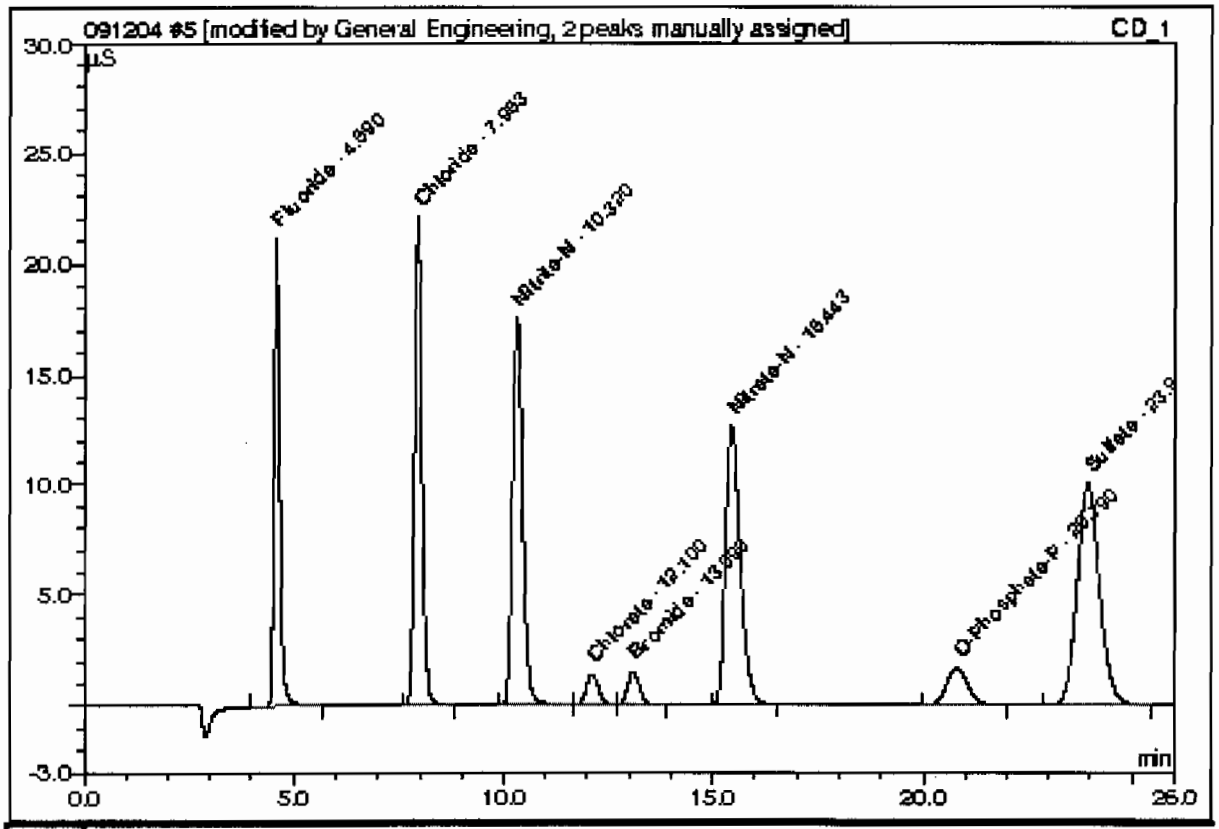

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.59	Fluoride	5.0000	4.8471		3.28723	12.74
2	7.96	Chloride	10.0000	9.2049		4.47774	17.35
3	10.32	Nitrite-N	5.0000	4.8180		4.75475	18.43
4	12.10	Chlorate	3.0000	2.9823		0.46190	1.79
5	13.09	Bromide	3.0000	2.9858		0.50611	1.96
6	15.44	Nitrate-N	5.0000	4.6775		5.13598	19.91
7	20.79	O-Phosphate-P	3.0000	2.9694		0.99882	3.87
8	23.94	Sulfate	20.0000	18.8564		6.17944	23.95
Total:				51.3412	0.000	25.802	100.00

5 AUTOCAL6

Sample Name:	AUTOCAL6	*Injection Volume:*	50.0
Vial Number:	54	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	120409an	*Sample Amount:*	1.0000
Recording Time:	12/4/2009 18:15	Analyst:	VH1
Run Time (min):	26.00	Column:	AS23-002588;GLGCE086;300;9056

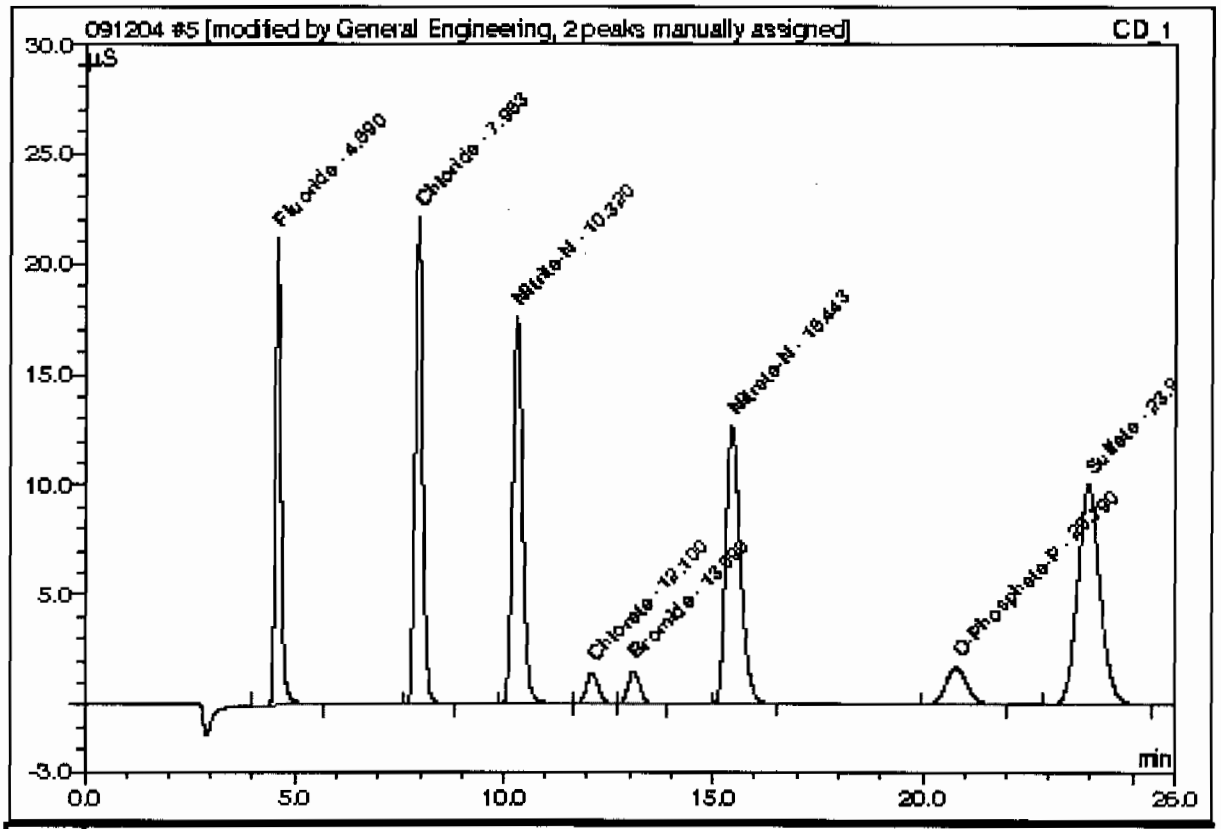

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.59	Fluoride	5.0000	4.8471		3.28723	12.74
2	7.98	Chloride	10.0000	9.2049		4.47774	17.35
3	10.32	Nitrite-N	5.0000	4.8180		4.75475	18.43
4	12.10	Chlorate	3.0000	2.9823		0.46190	1.79
5	13.09	Bromide	3.0000	2.9858		0.50611	1.96
6	15.44	Nitrate-N	5.0000	4.6775		5.13598	19.91
7	20.79	O-Phosphate-P	3.0000	2.9694		0.99882	3.87
8	23.94	Sulfate	20.0000	18.8564		6.17944	23.95
Total:				51.3412	0.000	25.802	100.00

6 AUTOCAL5

Sample Name:	AUTOCAL5	*Injection Volume:*	50.0
Vial Number:	55	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	120409an	*Sample Amount:*	1.0000
Recording Time:	12/4/2009 18:41	Analyst:	VH1
Run Time (min):	26.00	Column:	AS23-002588;GLGCE086;300;9056

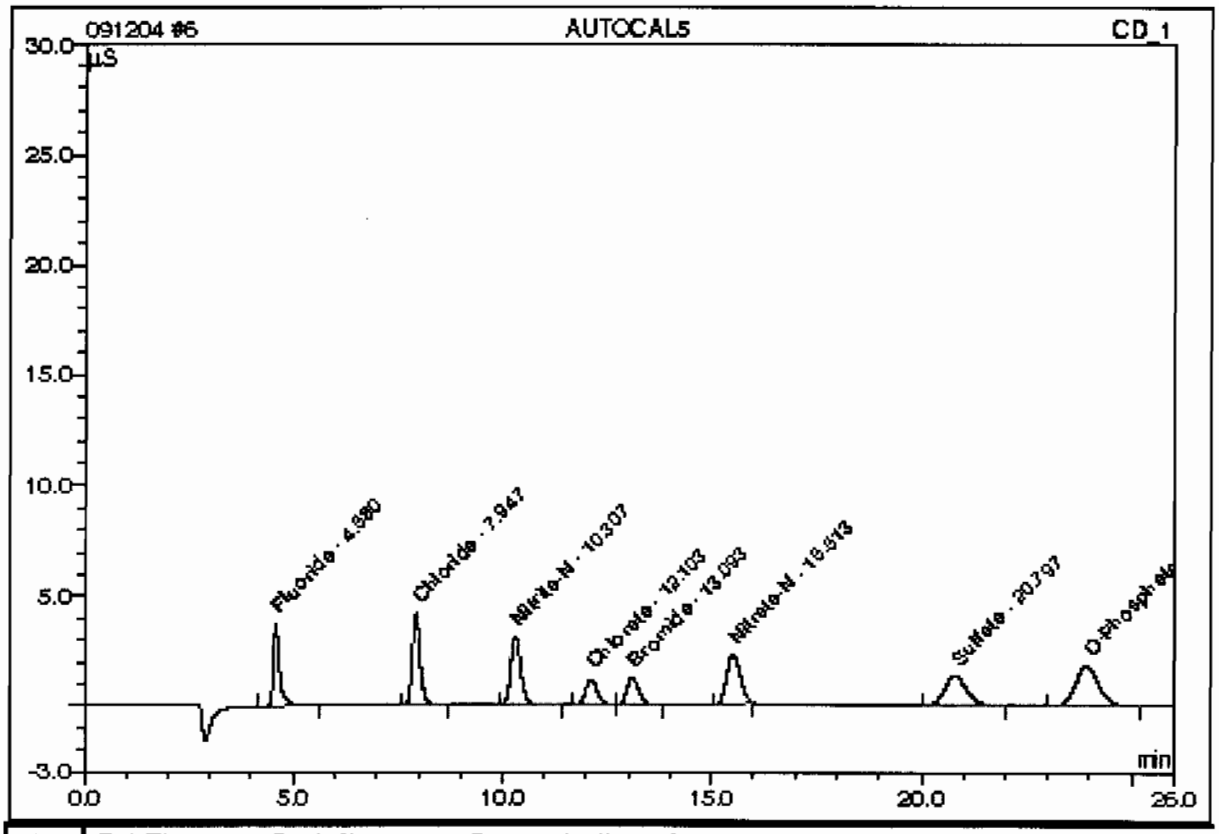

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.58	Fluoride	1.0000	1.0104		0.65024	10.75
2	7.95	Chloride	2.0000	2.0706		0.88618	14.66
3	10.31	Nitrite-N	1.0000	0.9709		0.86711	14.34
4	12.10	Chlorate	2.5000	2.3966		0.36939	6.11
5	13.09	Bromide	2.5000	2.4349		0.41178	6.81
6	15.51	Nitrate-N	1.0000	0.9546		0.87343	14.45
7	20.80	Sulfate	4.0000	3.3775		0.81659	13.51
8	23.93	O-Phosphate-P	2.5000	3.2109		1.17144	19.37
Total:				16.4266	0.000	6.046	100.00

6 AUTOCAL5

Sample Name:	AUTOCAL5	*Injection Volume:*	50.0
Vial Number:	55	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	120409an	*Sample Amount:*	1.0000
Recording Time:	12/4/2009 18:41	Analyst:	VH1
Run Time (min):	26.00	Column:	AS23-002588;GLGCE086;300;9056

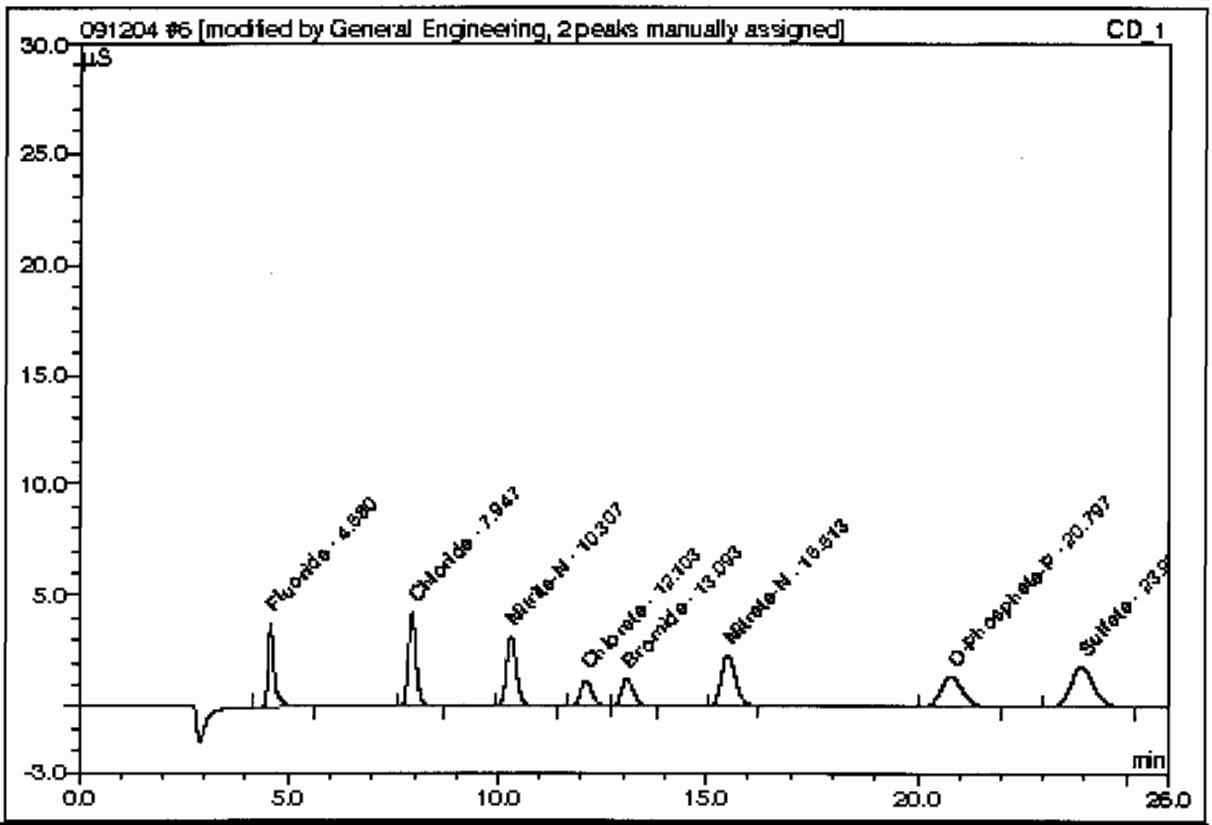

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.58	Fluoride	1.0000	0.9868		0.65024	10.66
2	7.95	Chloride	2.0000	1.8775		0.88618	14.53
3	10.31	Nitrite-N	1.0000	0.9366		0.86711	14.22
4	12.10	Chlorate	2.5000	2.3958		0.36939	6.06
5	13.09	Bromide	2.5000	2.4369		0.41178	6.75
6	15.51	Nitrate-N	1.0000	0.9290		0.92628	15.19
7	20.80	O-Phosphate-P	2.5000	2.4415		0.81659	13.39
8	23.93	Sulfate	4.0000	3.8040		1.17144	19.21
Total:				15.8080	0.000	6.099	100.00

6 AUTOCAL5

Sample Name:	AUTOCAL5	*Injection Volume:*	50.0
Vial Number:	55	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	120409an	*Sample Amount:*	1.0000
Recording Time:	12/4/2009 18:41	Analyst:	VH1
Run Time (min):	26.00	Column:	AS23-002588;GLGCE086;300;9056

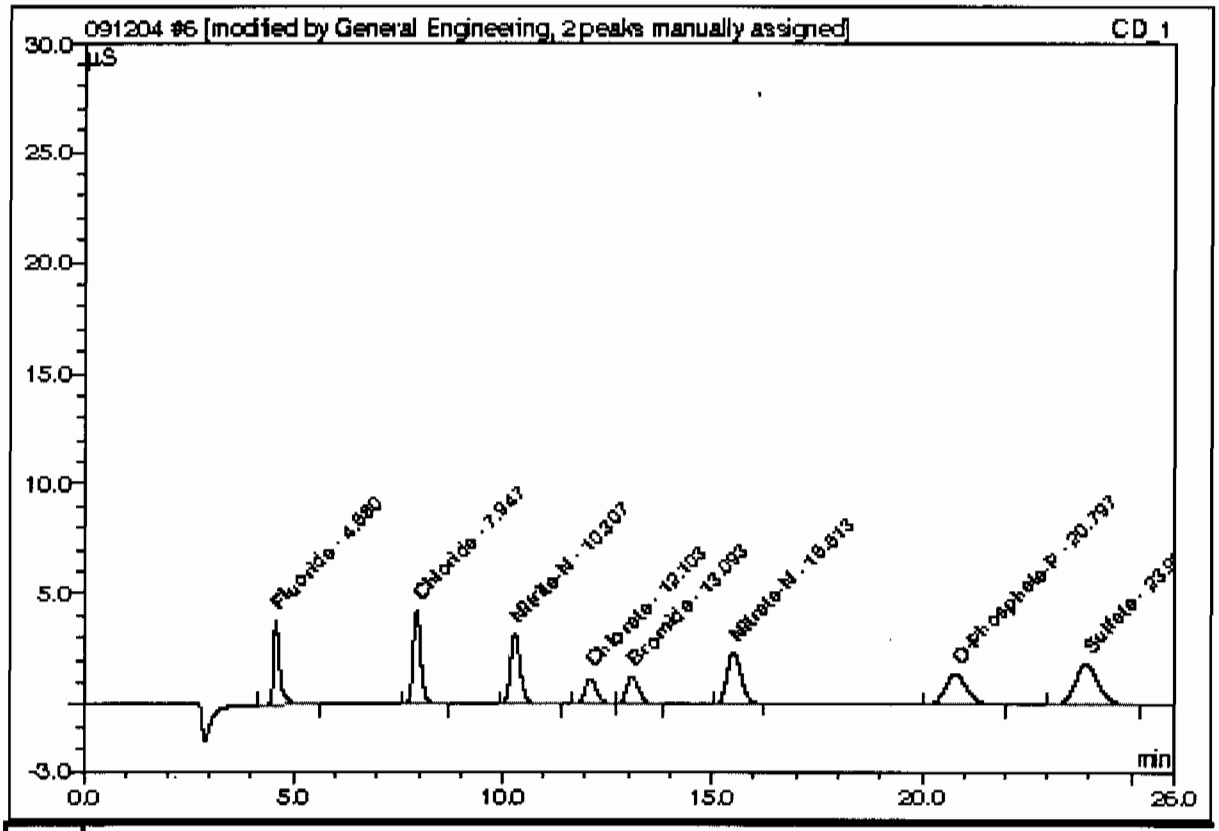

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.58	Fluoride	1.0000	0.9868		0.65024	10.66
2	7.95	Chloride	2.0000	1.8775		0.88618	14.53
3	10.31	Nitrite-N	1.0000	0.9366		0.86711	14.22
4	12.10	Chlorate	2.5000	2.3958		0.36939	6.06
5	13.09	Bromide	2.5000	2.4369		0.41178	6.75
6	15.51	Nitrate-N	1.0000	0.9290		0.92628	15.19
7	20.80	O-Phosphate-P	2.5000	2.4415		0.81659	13.39
8	23.93	Sulfate	4.0000	3.8040		1.17144	19.21
Total:				15.8080	0.000	6.099	100.00

7 AUTOCAL4

Sample Name:	AUTOCAL4	*Injection Volume:*	50.0
Vial Number:	55	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	120409an	*Sample Amount:*	1.0000
Recording Time:	12/4/2009 19:07	Analyst:	VH1
Run Time (min):	26.00	Column:	AS23-002588;GLGCE086;300;9056

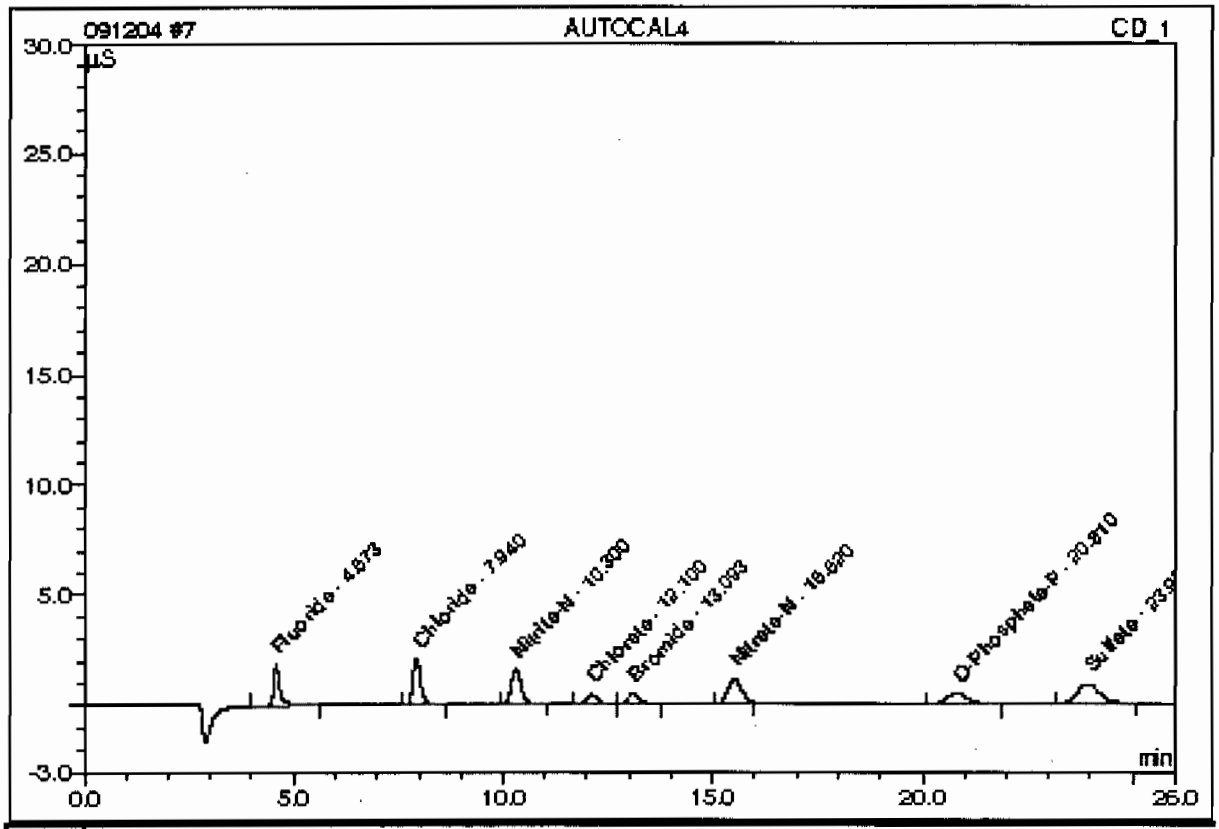

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.57	Fluoride	0.5000	0.5116		0.32563	11.63
2	7.94	Chloride	1.0000	0.9842		0.44832	16.01
3	10.30	Nitrite-N	0.5000	0.4927		0.42244	15.08
4	12.10	Chlorate	1.0000	0.9770		0.14557	5.20
5	13.09	Bromide	1.0000	0.9768		0.16083	5.74
6	15.52	Nitrate-N	0.5000	0.4871		0.43005	15.36
7	20.81	O-Phosphate-P	1.0000	0.9627		0.30614	10.93
8	23.93	Sulfate	2.0000	1.9710		0.56158	20.05
Total:				7.3629	0.000	2.801	100.00

8 AUTOCAL3

Sample Name:	AUTOCAL3	*Injection Volume:*	50.0
Vial Number:	55	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	120409an	*Sample Amount:*	1.0000
Recording Time:	12/4/2009 19:34	Analyst:	VH1
Run Time (min):	26.00	Column:	AS23-002588;GLGCE086;300;9056

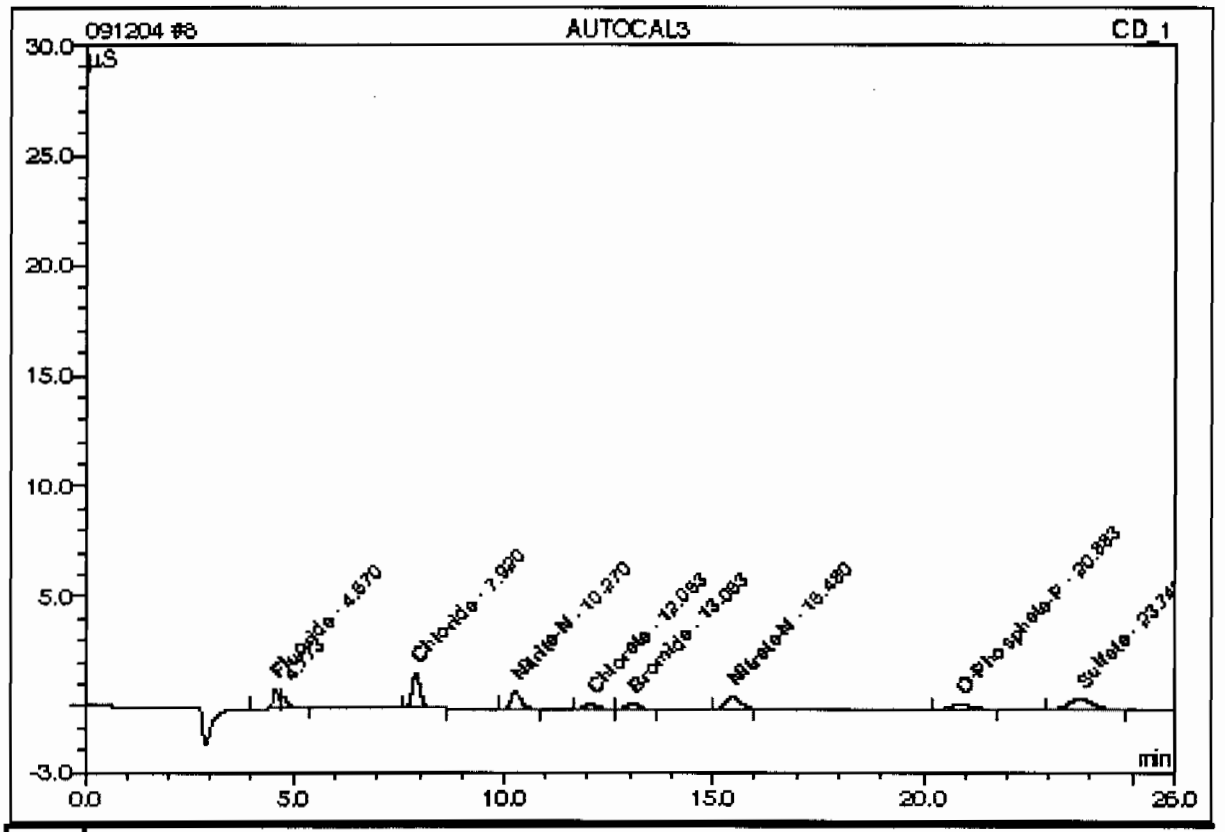

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.57	Fluoride	0.2500	0.2303		0.13351	8.29
3	7.92	Chloride	0.5000	0.7629		0.33988	21.10
4	10.27	Nitrite-N	0.2500	0.2772		0.20664	12.83
5	12.06	Chlorate	0.5000	0.5055		0.07119	4.42
6	13.05	Bromide	0.5000	0.5012		0.07908	4.91
7	15.48	Nitrate-N	0.2500	0.3025		0.22271	13.82
8	20.88	O-Phosphate-P	0.5000	0.4831		0.14059	8.73
9	23.74	Sulfate	1.0000	1.2327		0.31595	19.61
Total:				4.2954	0.000	1.510	93.69

6 AUTOCAL2

Sample Name:	AUTOCAL2	*Injection Volume:*	50.0
Vial Number:	54	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	120409an	*Sample Amount:*	1.0000
Recording Time:	12/4/2009 20:00	Analyst:	VH1
Run Time (min):	26.00	Column:	AS23-002588;GLGCE086;300;9056

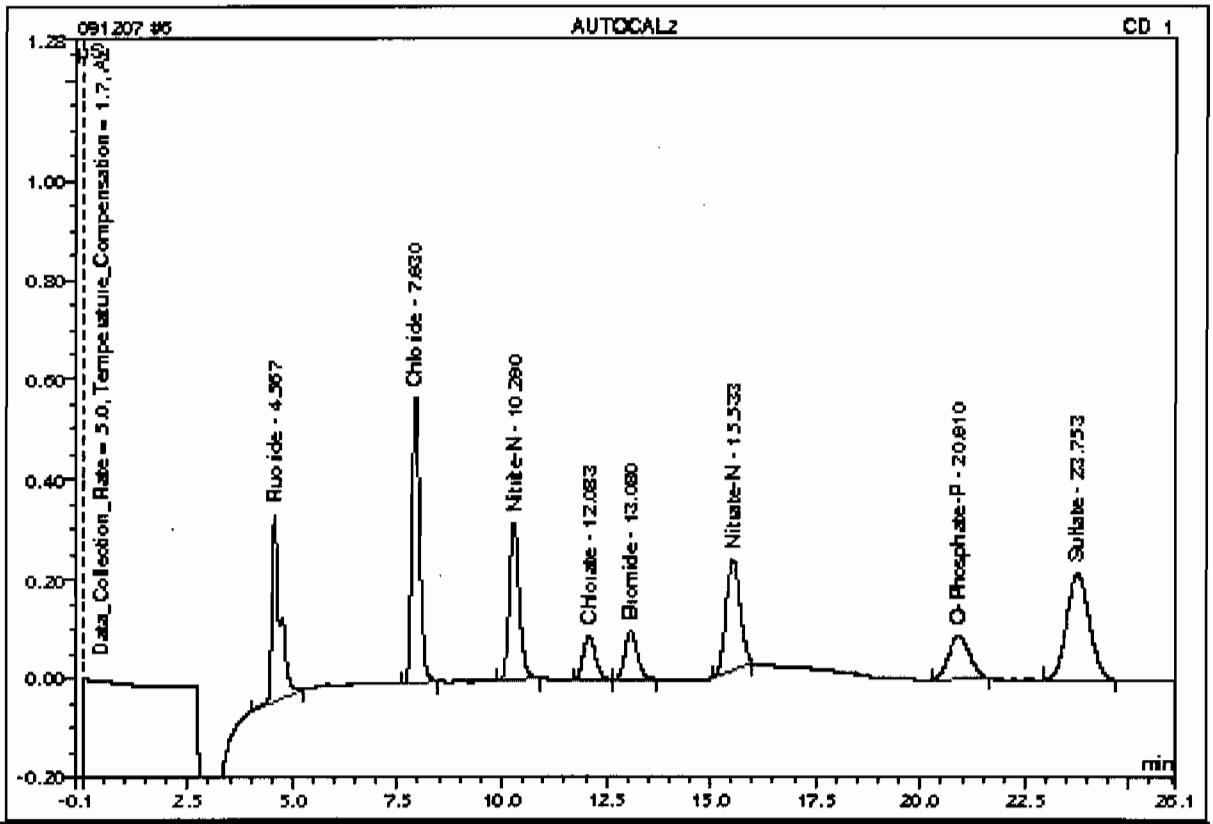

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.57	Fluoride	0.1000	0.1625		0.08716	13.74
2	7.93	Chloride	0.2000	0.3376		0.12373	19.51
3	10.29	Nitrite-N	0.1000	0.1582		0.08742	13.78
4	12.08	Chlorate	0.2000	0.2334		0.02904	4.58
5	13.08	Bromide	0.2000	0.2316		0.03378	5.33
6	15.53	Nitrate-N	0.1000	0.1789		0.08655	13.65
7	20.91	O-Phosphate-P	0.2000	0.2207		0.05114	8.06
8	23.75	Sulfate	0.4000	0.6856		0.13538	21.35
Total:				2.2084	0.000	0.634	100.00

9 AUTOCAL2

Sample Name:	AUTOCAL2	*Injection Volume:*	50.0
Vial Number:	54	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	120409an	*Sample Amount:*	1.0000
Recording Time:	12/4/2009 20:00	Analyst:	VH1
Run Time (min):	11.91	Column:	AS23-002588;GLGCE086;300;9056

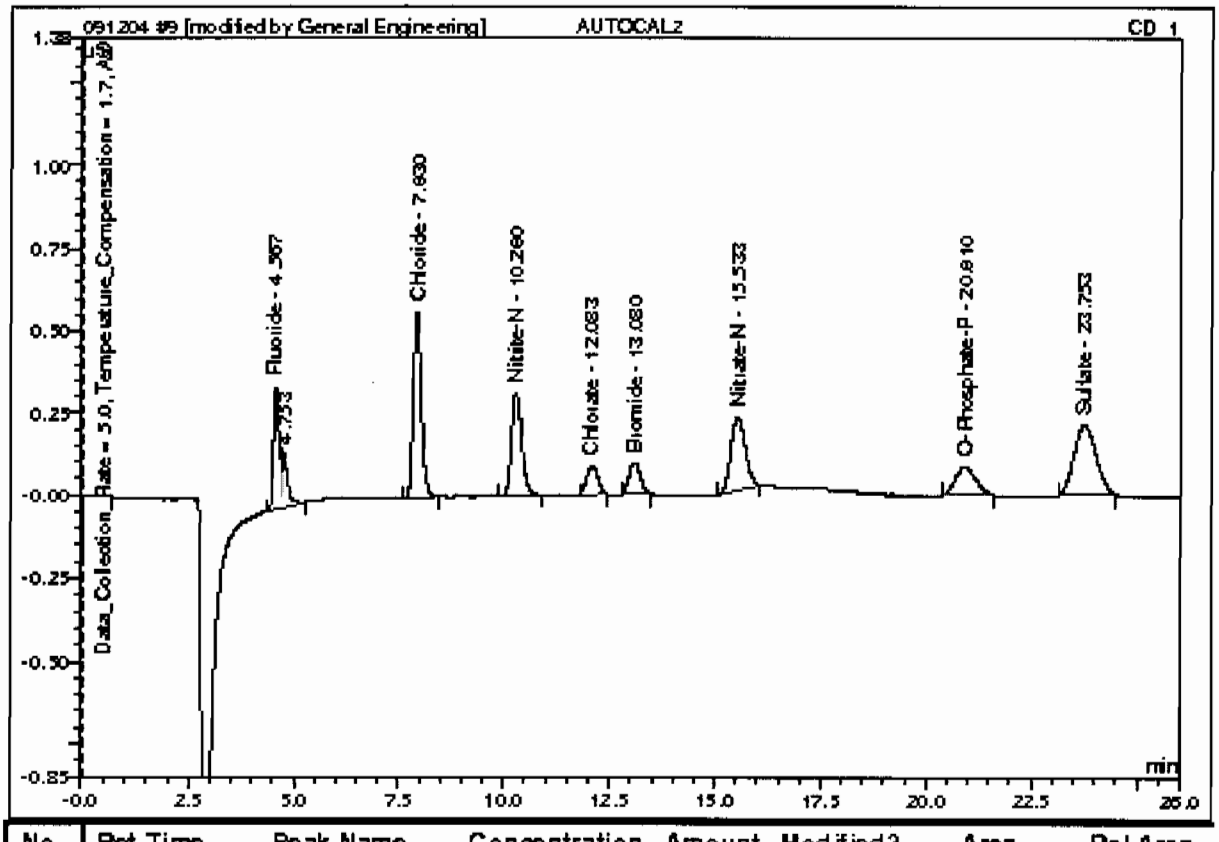

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.57	Fluoride	0.1000	0.1178	`	0.05666	9.21
3	7.93	Chloride	0.2000	0.3219		0.12373	20.11
4	10.29	Nitrite-N	0.1000	0.1582		0.08742	14.21
5	12.08	Chlorate	0.2000	0.2193	`	0.02606	4.24
6	13.08	Bromide	0.2000	0.2142	`	0.02977	4.84
7	15.53	Nitrate-N	0.1000	0.1829	`	0.08841	14.37
8	20.91	O-Phosphate-P	0.2000	0.2113	`	0.04679	7.60
9	23.75	Sulfate	0.4000	0.6686	`	0.12826	20.85
Total:				2.0943	0.000	0.587	95.42

9 AUTOCAL2

Sample Name:	AUTOCAL2	*Injection Volume:*	50.0
Vial Number:	54	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	120409an	*Sample Amount:*	1.0000
Recording Time:	12/4/2009 20:00	Analyst:	VH1
Run Time (min):	11.91	Column:	AS23-002588;GLGCE086;300;9056

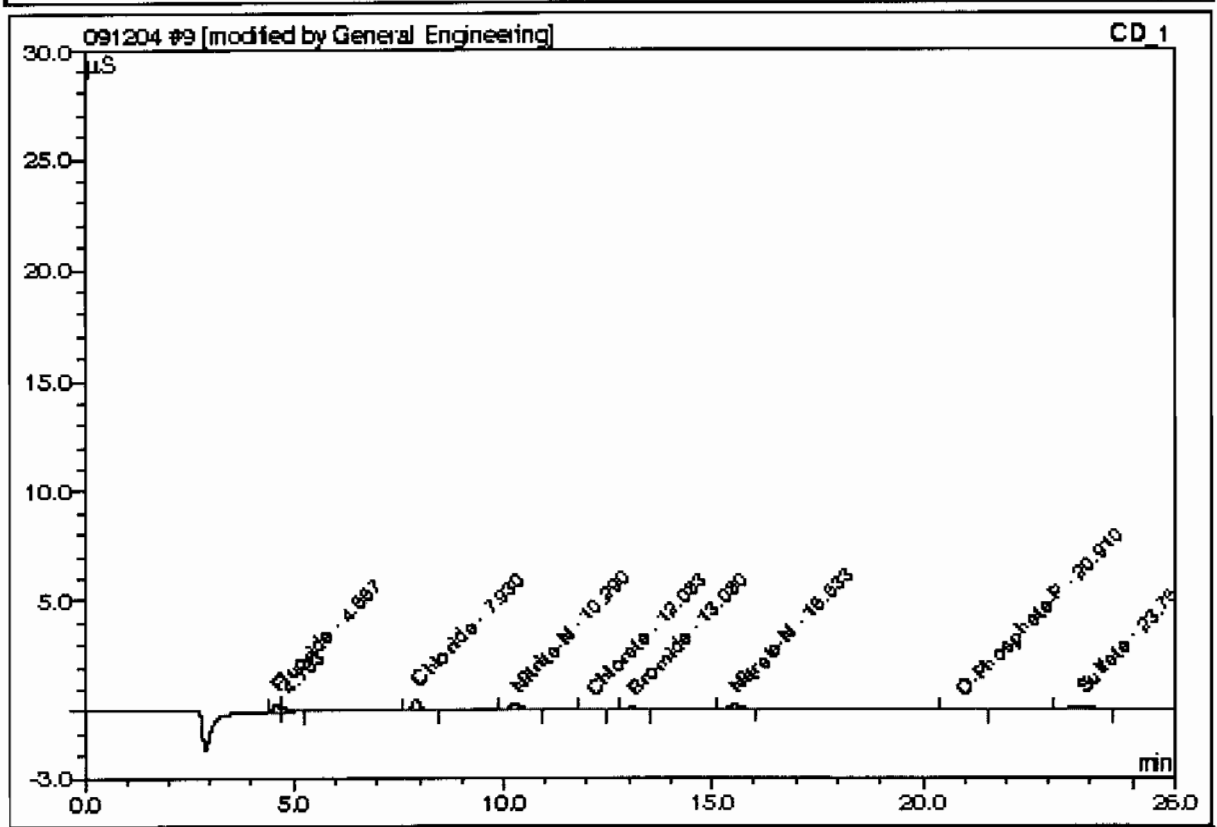

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.57	Fluoride	0.1000	0.1178	*	0.05666	9.21
3	7.93	Chloride	0.2000	0.3219		0.12373	20.11
4	10.29	Nitrite-N	0.1000	0.1582		0.08742	14.21
5	12.08	Chlorate	0.2000	0.2193	*	0.02606	4.24
6	13.08	Bromide	0.2000	0.2142	*	0.02977	4.84
7	15.53	Nitrate-N	0.1000	0.1829	*	0.08841	14.37
8	20.91	O-Phosphate-P	0.2000	0.2113	*	0.04679	7.60
9	23.75	Sulfate	0.4000	0.6686	*	0.12826	20.85
Total:				2.0943	0.000	0.587	95.42

9 AUTOCAL2

Sample Name:	AUTOCAL2	*Injection Volume:*	50.0
Vial Number:	54	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	120409an	*Sample Amount:*	1.0000
Recording Time:	12/4/2009 20:00	Analyst:	VH1
Run Time (min):	11.91	Column:	AS23-002588;GLGCE086;300;9056

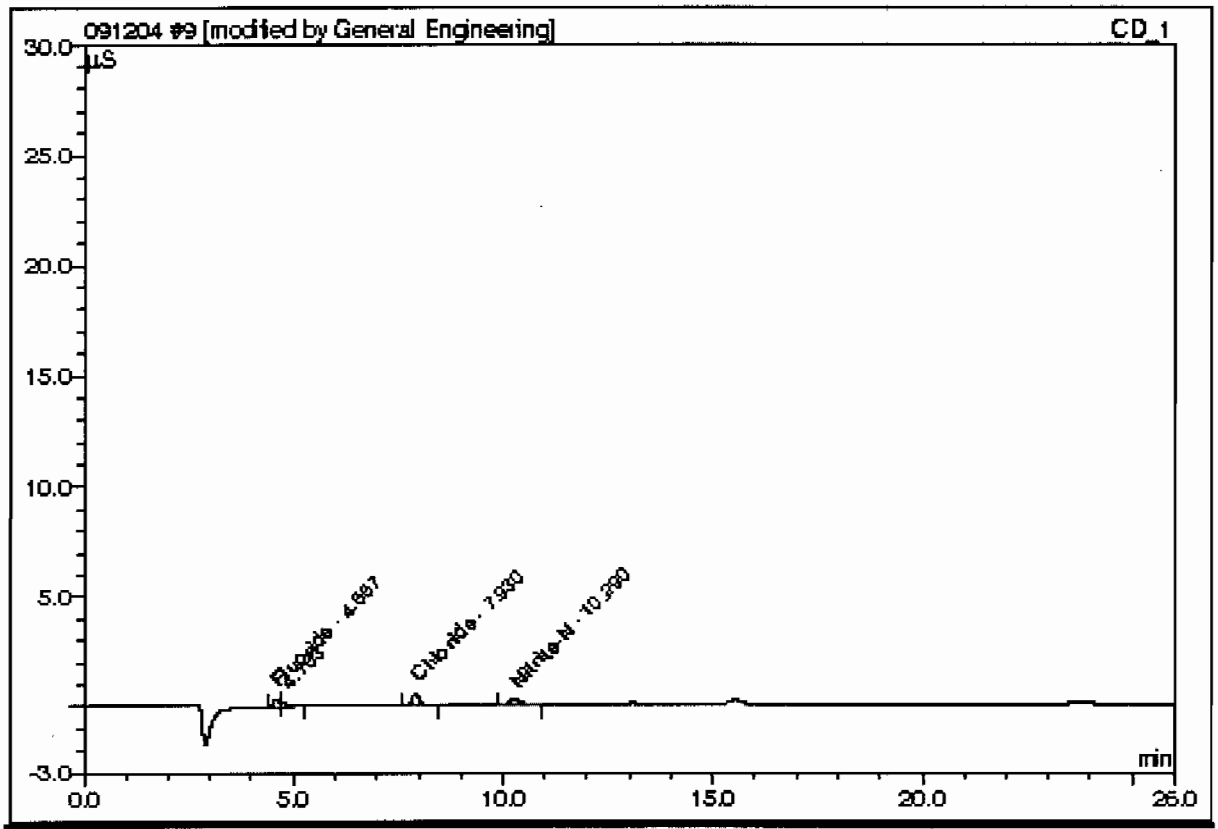

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.57	Fluoride	0.1000	0.1269	*	0.05666	19.14
3	7.93	Chloride	0.2000	0.3376		0.12373	41.80
4	10.29	Nitrite-N	0.1000	0.1582		0.08742	29.53
n.a.	n.a.	Chlorate	0.2000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	0.2000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	0.1000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	0.2000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	0.4000	n.a.	n.a.	n.a.	n.a.
Total:				0.6228	0.000	0.268	90.47

9 AUTOCAL2

Sample Name:	AUTOCAL2	*Injection Volume:*	50.0
Vial Number:	54	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	120409an	*Sample Amount:*	1.0000
Recording Time:	12/4/2009 20:00	Analyst:	VH1
Run Time (min):	11.91	Column:	AS23-002588;GLGCE086;300;9056

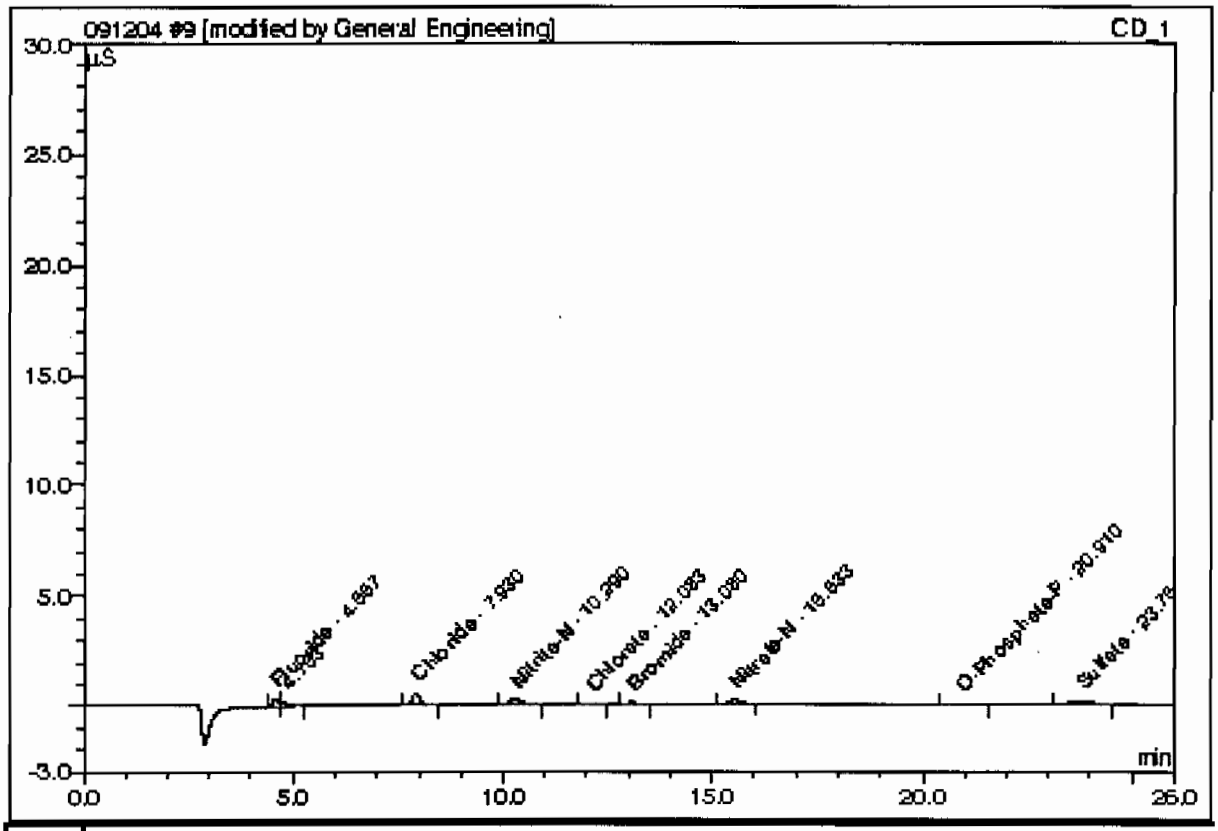

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.57	Fluoride	0.1000	0.1178	*	0.05666	9.21
3	7.93	Chloride	0.2000	0.3219		0.12373	20.11
4	10.29	Nitrite-N	0.1000	0.1582		0.08742	14.21
5	12.08	Chlorate	0.2000	0.2193	*	0.02606	4.24
6	13.08	Bromide	0.2000	0.2142	*	0.02977	4.84
7	15.53	Nitrate-N	0.1000	0.1829	*	0.08841	14.37
8	20.91	O-Phosphate-P	0.2000	0.2113	*	0.04679	7.60
9	23.75	Sulfate	0.4000	0.6686	*	0.12826	20.85
Total:				2.0943	0.000	0.587	95.42

10 AUTOCAL1

Sample Name:	AUTOCAL1	*Injection Volume:*	50.0
Vial Number:	54	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	120409an	*Sample Amount:*	1.0000
Recording Time:	12/4/2009 20:26	*Analyst:*	VH1
Run Time (min):	16.92	Column:	AS23-002398; GL GC B086;300;9056

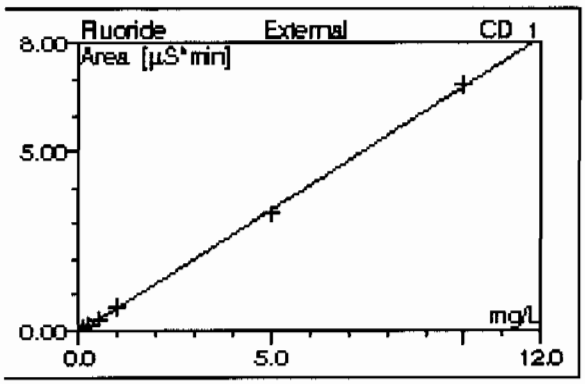

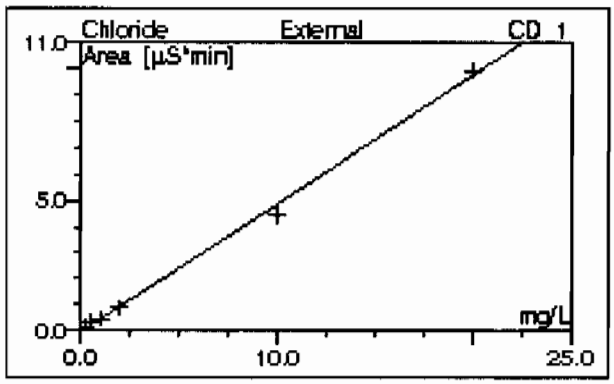

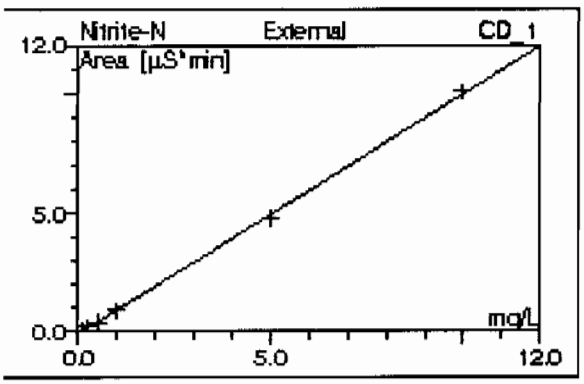

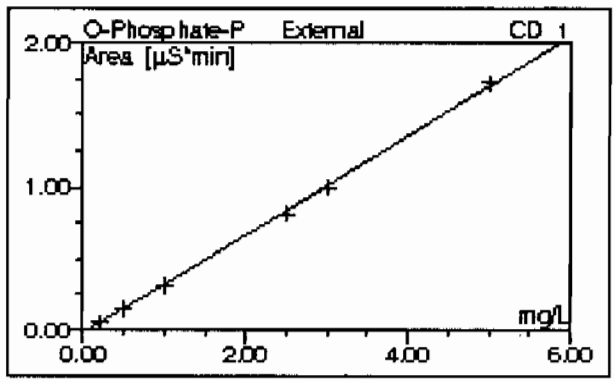

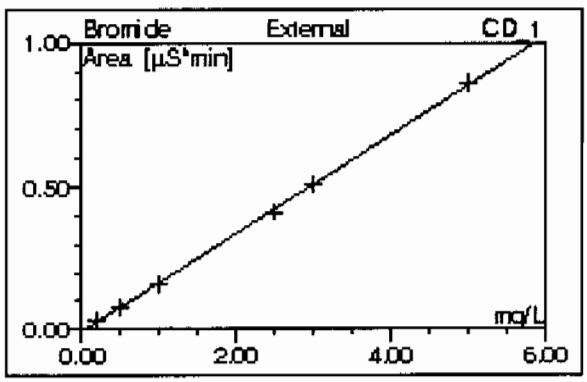

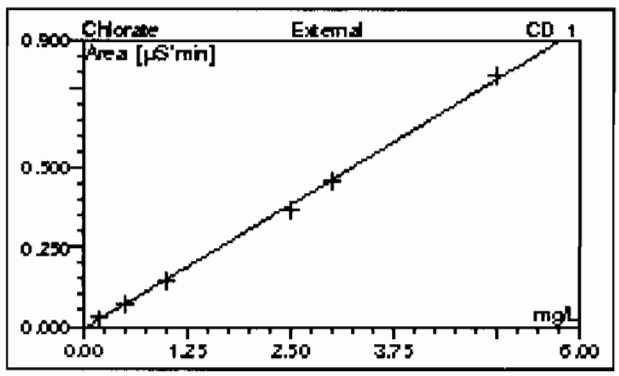

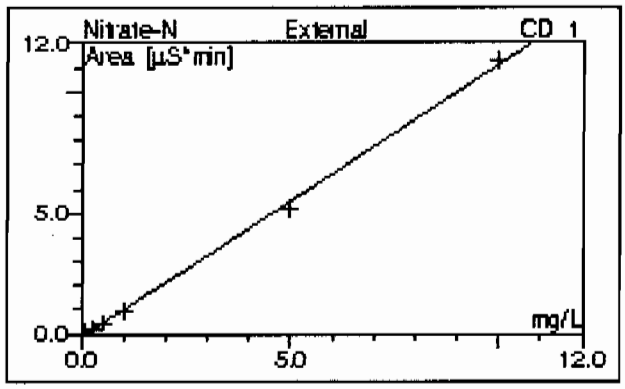

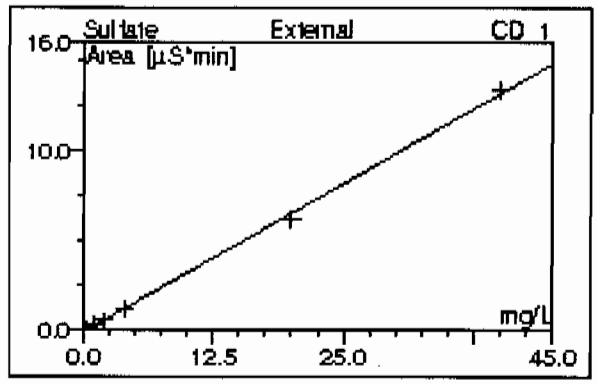

No. CD_1	Ret.Time CD_1 min	Peak Name CD_1	Cal.Type CD_1	Coeff.Det. CD_1 %	Offset CD_1	Slope CD_1	Curve CD_1
1	4.57	Fluoride	0LOff	99.9624	-0.0238	0.6831	0.0000
2	7.92	Chloride	0LOff	99.7390	-0.0341	0.4902	0.0000
n.a.	n.a.	Nitrite-N	0LOff	99.9363	-0.0710	1.0016	0.0000
n.a.	n.a.	Chlorate	0LOff	99.9030	-0.0085	0.1577	0.0000
n.a.	n.a.	Bromide	0LOff	99.9594	-0.0071	0.1719	0.0000
n.a.	n.a.	Nitrate-N	0LOff	99.8161	-0.1170	1.1230	0.0000
n.a.	n.a.	O-Phosphate-P	0LOff	99.9452	-0.0262	0.3452	0.0000
n.a.	n.a.	Sulfate	0LOff	99.8573	-0.0942	0.3327	0.0000
Average:				99.8898	-0.0477	0.5382	0.0000

10 AUTOCAL1

Sample Name:	AUTOCAL1	*Injection Volume:*	50.0
Vial Number:	54	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	120409an	*Sample Amount:*	1.0000
Recording Time:	12/4/2009 20:26	Analyst:	VH1
Run Time (min):	16.92	Column:	AS23-002588;GLGCE086;300;9056

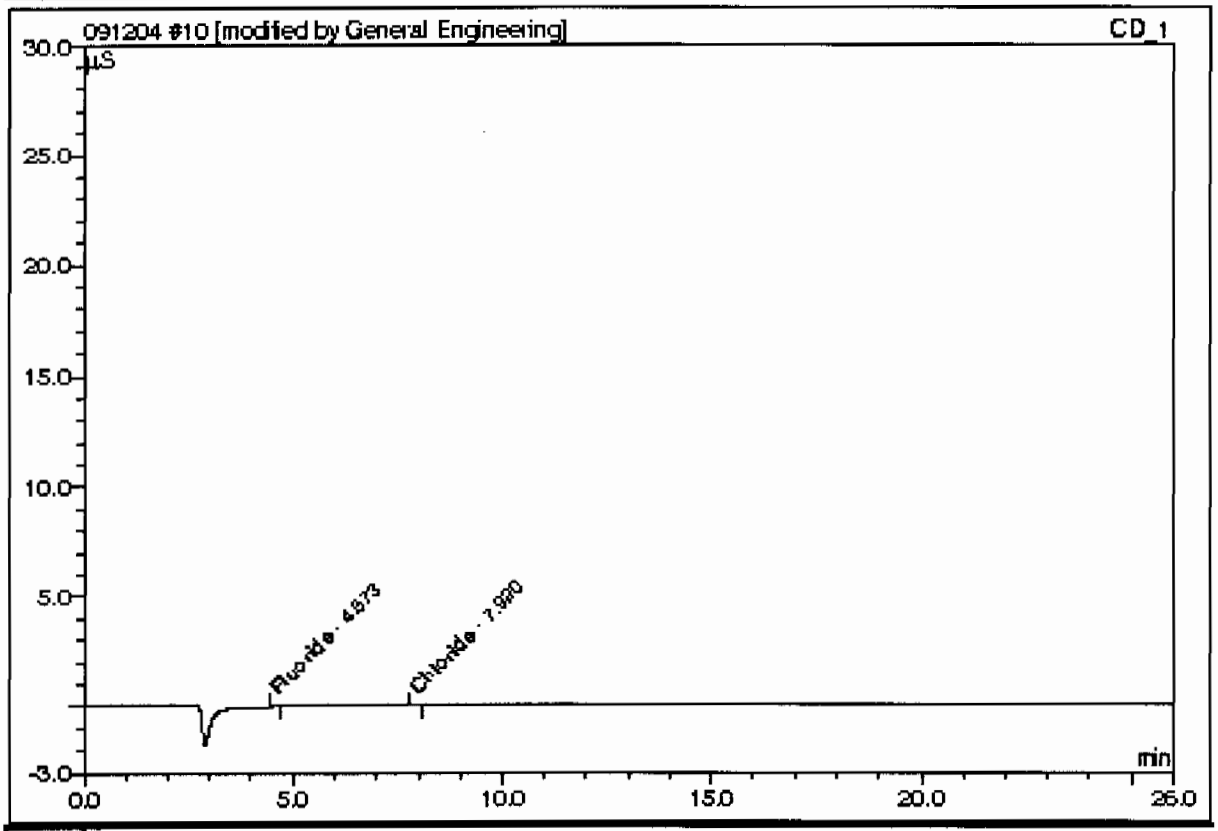

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.57	Fluoride	0.0000	0.0440	*	0.00619	65.14
2	7.92	Chloride	0.0000	0.0763	*	0.00331	34.86
n.a.	n.a.	Nitrite-N	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	0.0000	n.a.	n.a.	n.a.	n.a.
Total:				0.1202	0.000	0.010	100.00

10 AUTOCAL1

Sample Name:	AUTOCAL1	*Injection Volume:*	50.0
Vial Number:	54	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	120409an	*Sample Amount:*	1.0000
Recording Time:	12/4/2009 20:26	Analyst:	VH1
Run Time (min):	16.92	Column:	AS23-002588;GLGCE086;300;9056

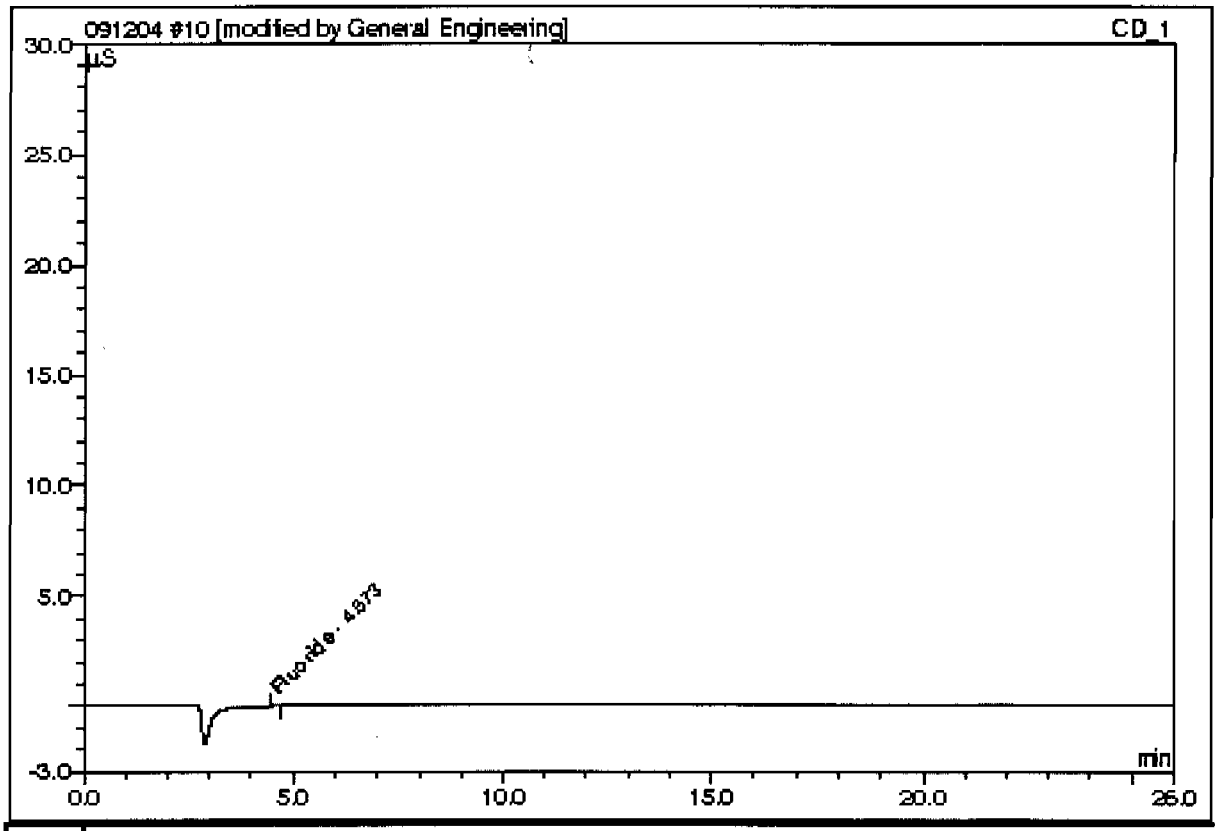

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.57	Fluoride	0.0000	0.0440	*	0.00619	100.00
n.a.	n.a.	Chloride	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	0.0000	n.a.	n.a.	n.a.	n.a.
Total:				0.0440	0.000	0.006	100.00

10 AUTOCAL1

Sample Name:	AUTOCAL1	*Injection Volume:*	50.0
Vial Number:	54	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	120409an	*Sample Amount:*	1.0000
Recording Time:	12/4/2009 20:26	Analyst:	VH1
Run Time (min):	16.92	Column:	AS23-002588;GLGCE086;300;9056

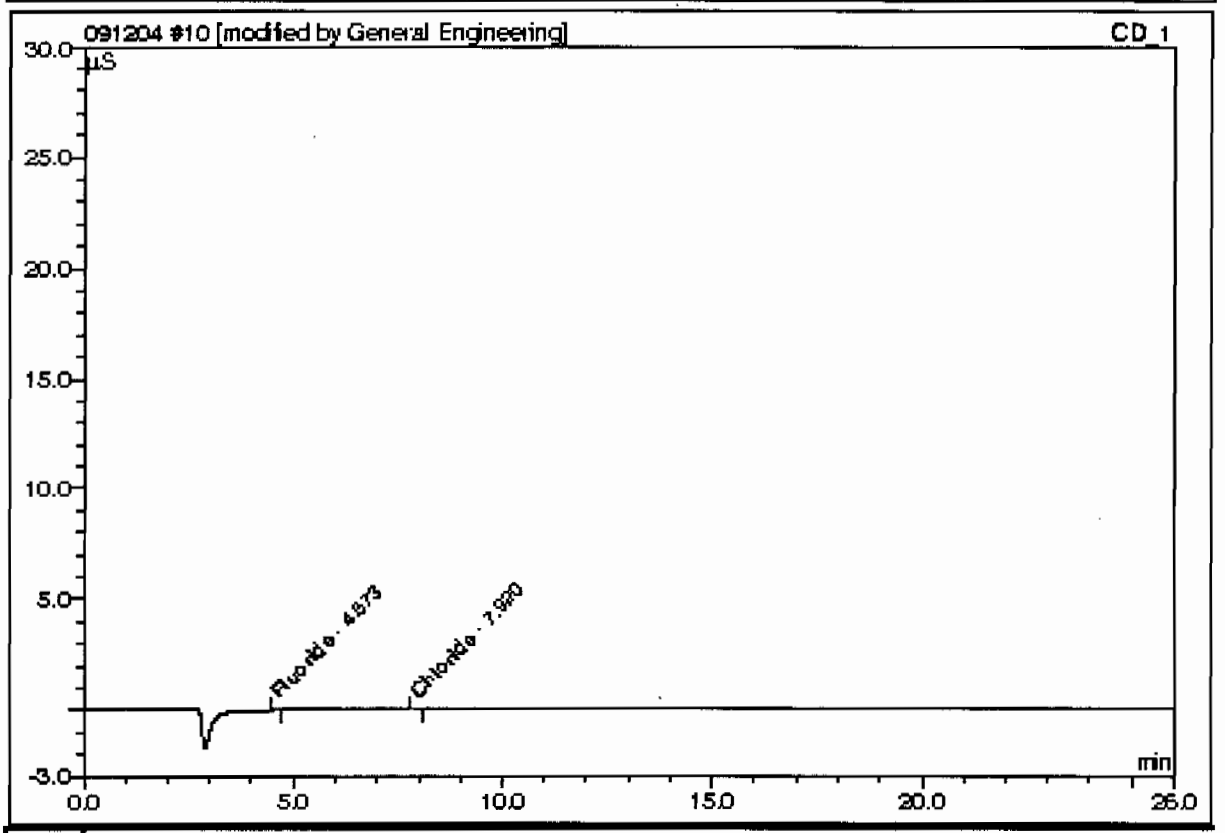

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.57	Fluoride	0.0000	0.0440	*	0.00619	65.14
2	7.92	Chloride	0.0000	0.0763	*	0.00331	34.86
n.a.	n.a.	Nitrite-N	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	0.0000	n.a.	n.a.	n.a.	n.a.
Total:				0.1202	0.000	0.010	100.00

This is runlog for Sequence 091204.seq for IC5

Sample ID	Run Time	Batch	Dilution	Dataset	Analyst
BLK	12/04/09 16:31		1	091204	VH1
BLK	12/04/09 16:57		1	091204	VH1
BLK	12/04/09 17:23		1	091204	VH1
ICAL-07	12/04/09 17:49		1	091204	VH1
ICAL-06	12/04/09 18:15		1	091204	VH1
ICAL-05	12/04/09 18:41		1	091204	VH1
ICAL-04	12/04/09 19:07		1	091204	VH1
ICAL-03	12/04/09 19:34		1	091204	VH1
ICAL-02	12/04/09 20:00		1	091204	VH1
ICAL-01	12/04/09 20:26		1	091204	VH1
ICV	12/04/09 20:52		1	091204	VH1
ICB	12/04/09 21:18		1	091204	VH1
1201987564	12/04/09 21:44	929381	1	091204	VH1
1201987567	12/04/09 22:10	929381	1	091204	VH1
242097001	12/04/09 22:36	929381	1	091204	VH1
242097002	12/04/09 23:02	929381	1	091204	VH1
1201987565	12/04/09 23:28	929381	1	091204	VH1
1201987566	12/04/09 23:54	929381	1	091204	VH1

11 WIC091204-02ICV

Sample Name:	WIC091204-02ICV	*Injection Volume:*	50.0
Vial Number:	46	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	120409an	*Sample Amount:*	1.0000
Recording Time:	12/4/2009 20:52	Analyst:	VH1
Run Time (min):	26.00	Column:	AS23-002588;GLGCE086;300;9056

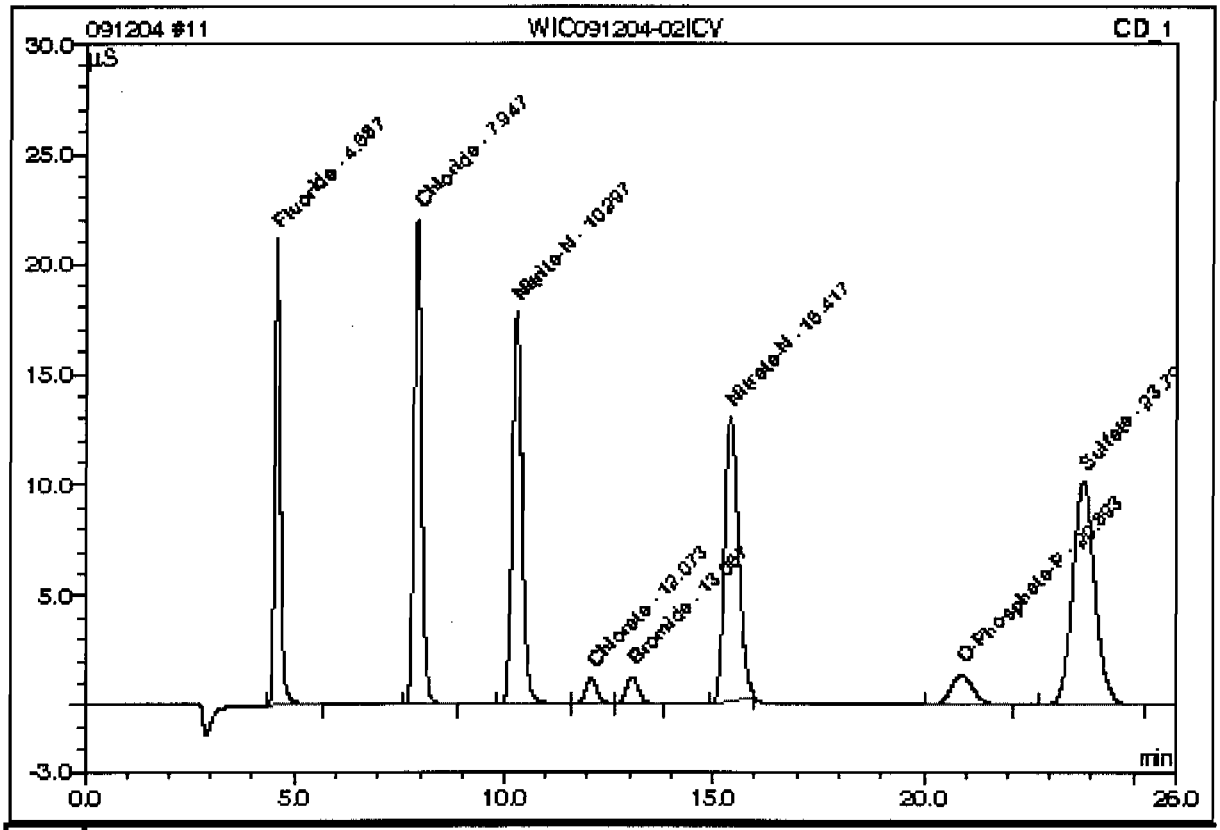

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.59	Fluoride	n.a.	4.9043		3.32633	12.99
2	7.95	Chloride	n.a.	9.2547		4.50217	17.58
3	10.30	Nitrite-N	n.a.	4.8882		4.82510	18.84
4	12.07	Chlorate	n.a.	2.5539		0.39433	1.54
5	13.06	Bromide	n.a.	2.5442		0.43021	1.68
6	15.42	Nitrate-N	n.a.	4.5957		5.04412	19.70
7	20.89	O-Phosphate-P	n.a.	2.4911		0.83373	3.26
8	23.79	Sulfate	n.a.	19.0819		6.25447	24.42
Total:				50.3140	0.000	25.610	100.00

11 WIC091204-02ICV

Sample Name:	WIC091204-02ICV	*Injection Volume:*	50.0
Vial Number:	46	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	120409an	*Sample Amount:*	1.0000
Recording Time:	12/4/2009 20:52	Analyst:	VH1
Run Time (min):	26.00	Column:	AS23-002588;GLGCE086;300;9056

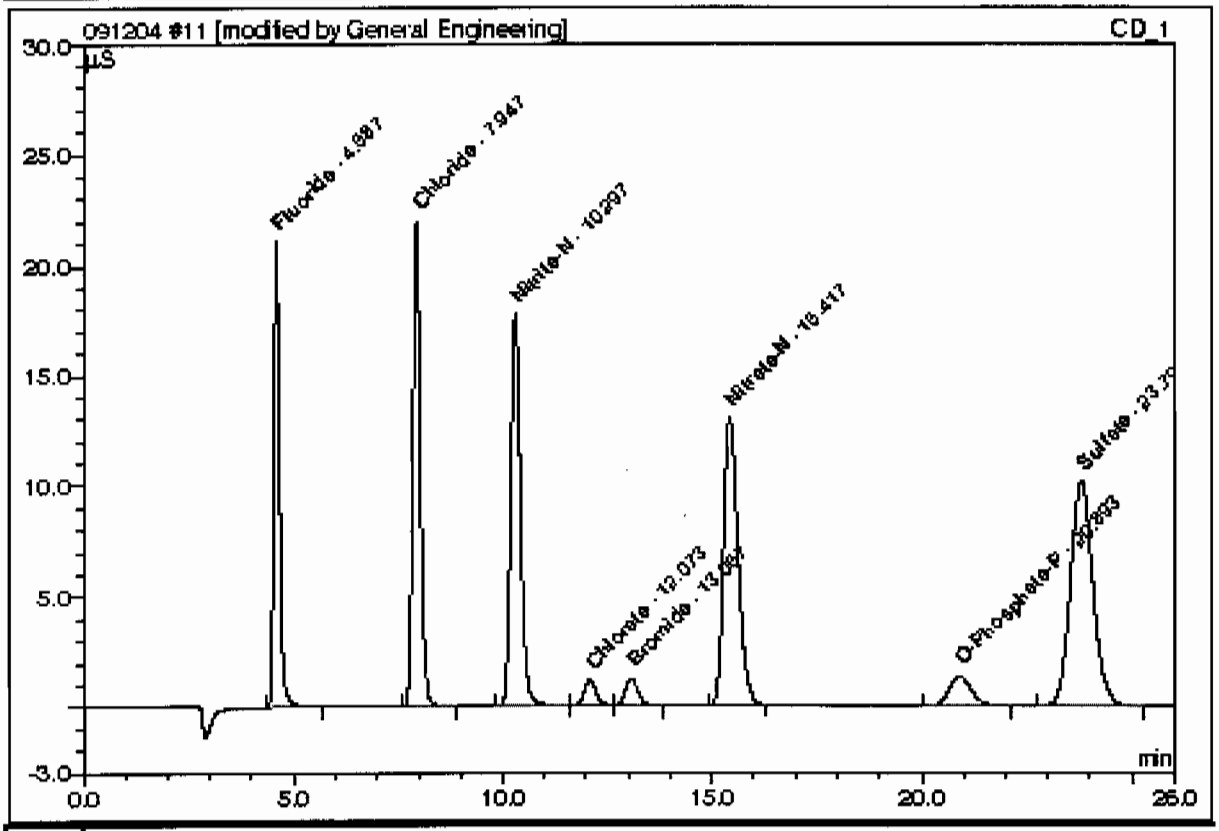

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.59	Fluoride	n.a.	4.9043		3.32633	12.90
2	7.95	Chloride	n.a.	9.2547		4.50217	17.47
3	10.30	Nitrite-N	n.a.	4.8882		4.82510	18.72
4	12.07	Chlorate	n.a.	2.5539		0.39433	1.53
5	13.06	Bromide	n.a.	2.5442		0.43021	1.67
6	15.42	Nitrate-N	n.a.	4.7447		5.21143	20.22
7	20.89	O-Phosphate-P	n.a.	2.4911		0.83373	3.23
8	23.79	Sulfate	n.a.	19.0819		6.25447	24.26
Total:				50.4630	0.000	25.778	100.00

11 WIC091204-02ICV

Sample Name:	WIC091204-02ICV	*Injection Volume:*	50.0
Vial Number:	46	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	120409an	*Sample Amount:*	1.0000
Recording Time:	12/4/2009 20:52	Analyst:	VH1
Run Time (min):	26.00	Column:	AS23-002588;GLGCE086;300;9056

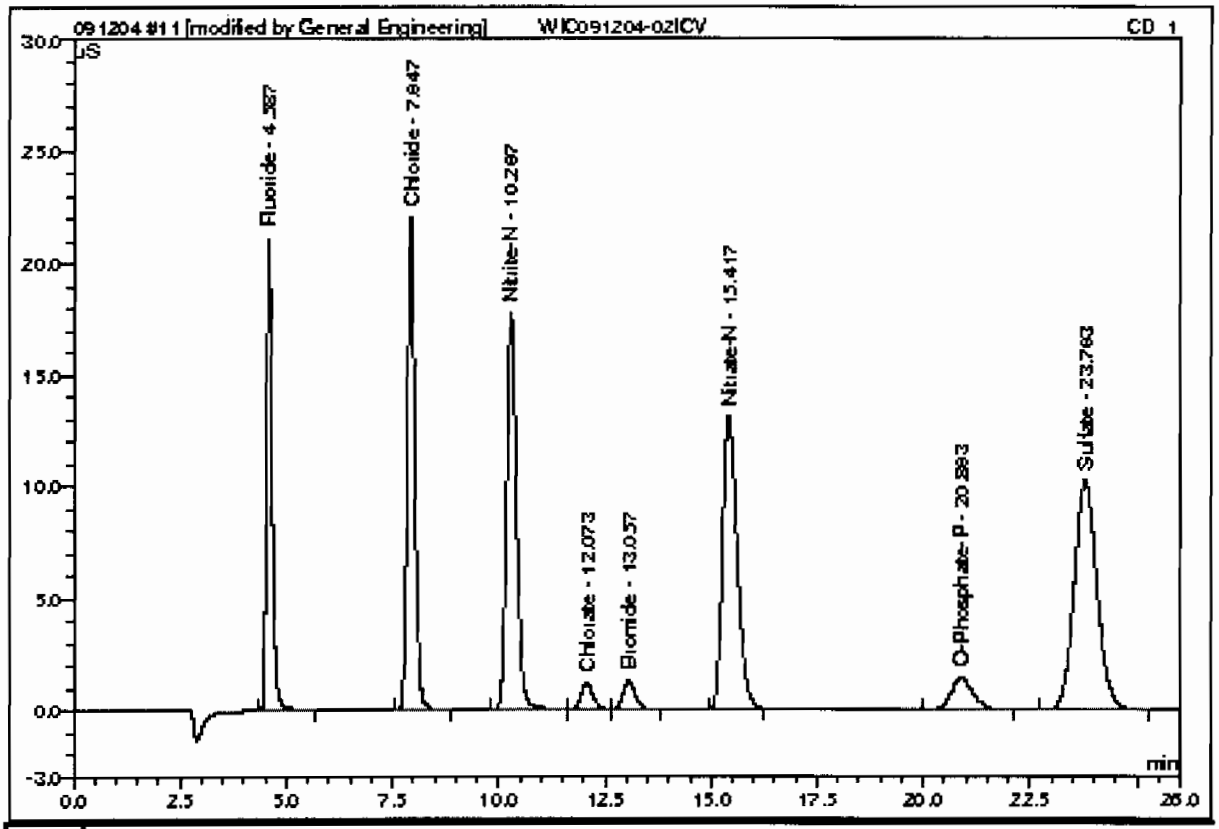

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.59	Fluoride	n.a.	4.9043		3.32633	12.90
2	7.95	Chloride	n.a.	9.2547		4.50217	17.47
3	10.30	Nitrite-N	n.a.	4.8882		4.82510	18.72
4	12.07	Chlorate	n.a.	2.5539		0.39433	1.53
5	13.06	Bromide	n.a.	2.5442		0.43021	1.67
6	15.42	Nitrate-N	n.a.	4.7447		5.21143	20.22
7	20.89	O-Phosphate-P	n.a.	2.4911		0.83373	3.23
8	23.79	Sulfate	n.a.	19.0819		6.25447	24.26
Total:				50.4630	0.000	25.778	100.00

12 ICB

Sample Name:	ICB	*Injection Volume:*	50.0
Vial Number:	46	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	120409an	*Sample Amount:*	1.0000
Recording Time:	12/4/2009 21:18	Analyst:	VH1
Run Time (min):	26.00	Column:	AS23-002588;GLGCE086;300;9056

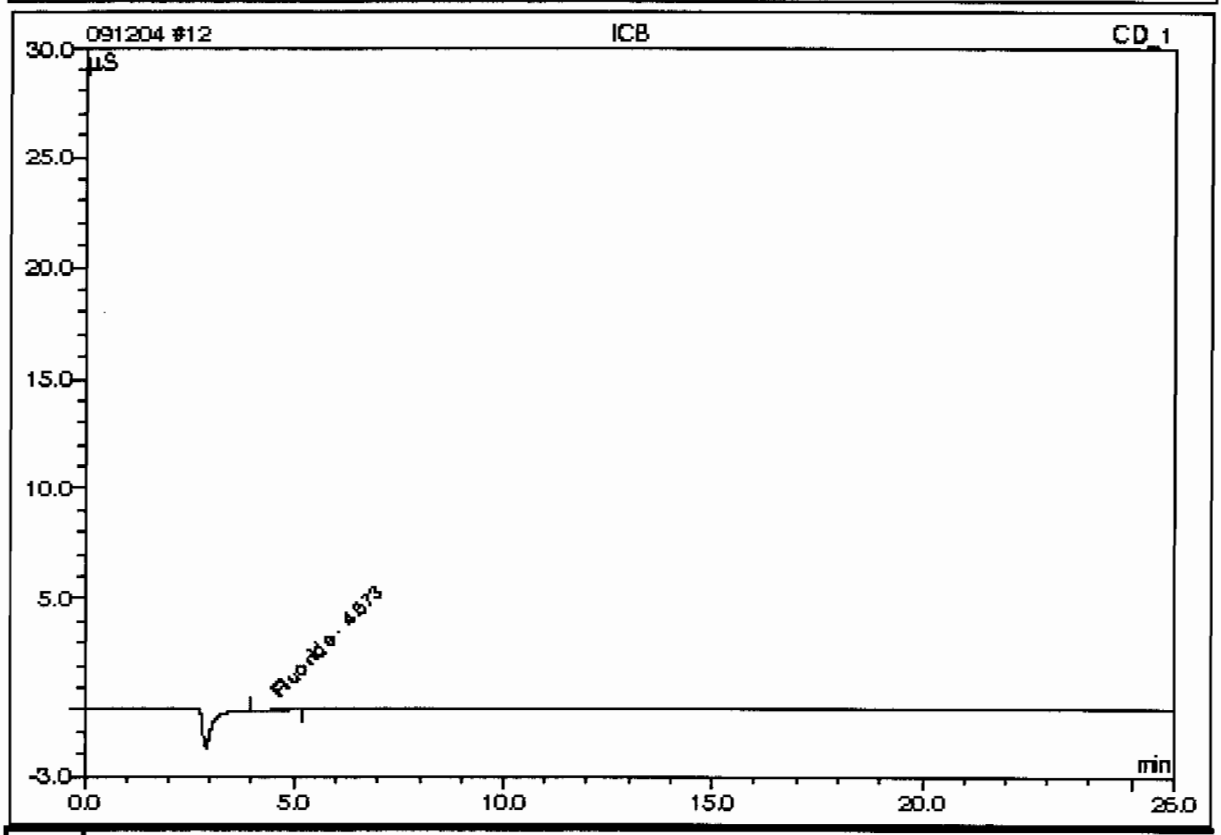

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.57	Fluoride	n.a.	0.0579		0.01570	100.00
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.
Total:				0.0579	0.000	0.016	100.00

12 ICB

Sample Name:	ICB	*Injection Volume:*	50.0
Vial Number:	46	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	120409an	*Sample Amount:*	1.0000
Recording Time:	12/4/2009 21:18	Analyst:	VH1
Run Time (min):	26.00	Column:	AS23-002588;GLGCE086;300;9056

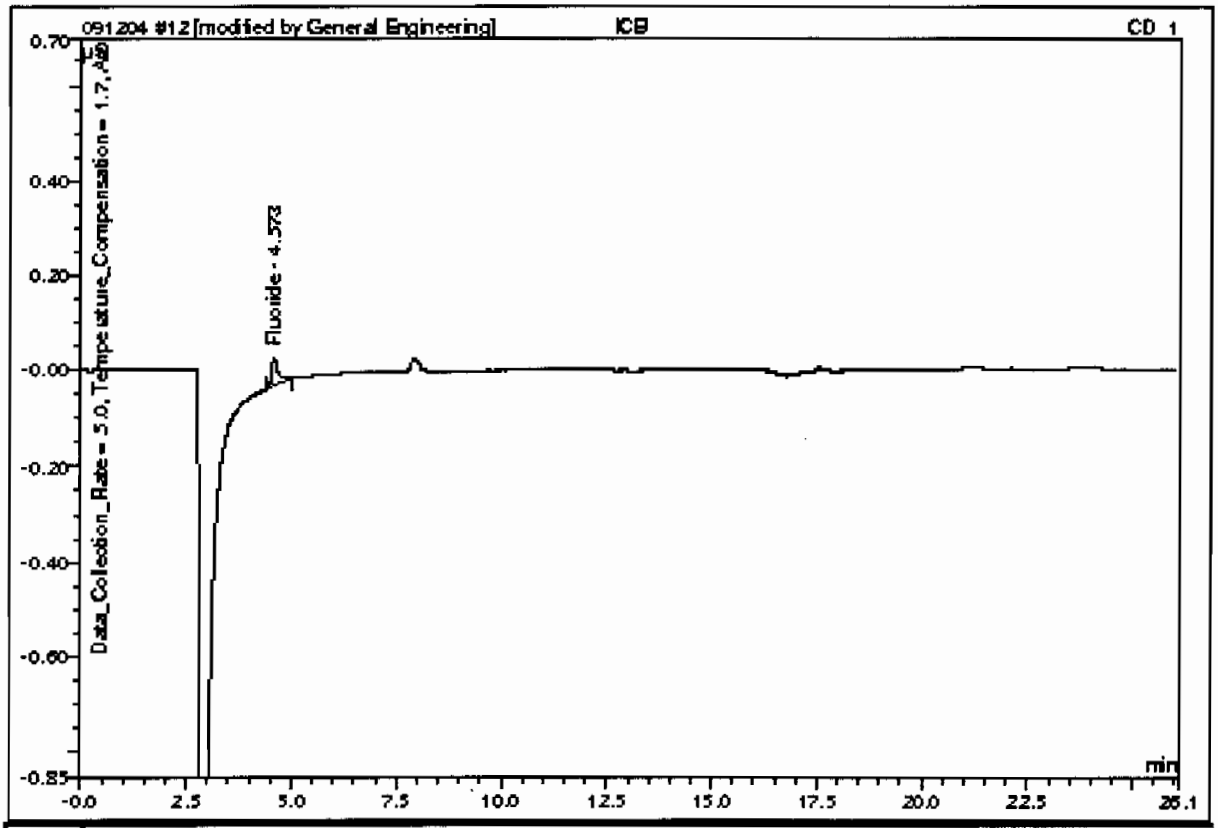

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.57	Fluoride	n.a.	0.0501		0.01039	100.00
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.
Total:				0.0501	0.000	0.010	100.00

This is runlog for Sequence 091229.seq for IC5

Sample ID	Run Time	Batch	Dilution	Dataset	Analyst
BLK	12/30/09 00:05		1	091229	VH1
ICV	12/30/09 00:31		1	091229	VH1
ICB	12/30/09 00:57		1	091229	VH1
1202005932	12/30/09 01:23	937423	1	091229	VH1
1202005935	12/30/09 01:49	937423	1	091229	VH1
243635001	12/30/09 02:15	937423	1	091229	VH1
1202005933	12/30/09 02:41	937423	1	091229	VH1
1202005934	12/30/09 03:07	937423	1	091229	VH1
243635002	12/30/09 03:33	937423	1	091229	VH1
CCV	12/30/09 03:59		1	091229	VH1
CCB	12/30/09 04:26		1	091229	VH1
1202005290	12/30/09 04:52	937125	1	091229	VH1
1202005297	12/30/09 05:18	937125	1	091229	VH1
243550001	12/30/09 05:44	937125	1	091229	VH1
243550002	12/30/09 06:10	937125	1	091229	VH1
243550003	12/30/09 06:36	937125	1	091229	VH1
243550004	12/30/09 07:02	937125	1	091229	VH1
243550005	12/30/09 07:28	937125	1	091229	VH1
243550006	12/30/09 07:54	937125	1	091229	VH1
243550007	12/30/09 08:20	937125	1	091229	VH1
243550008	12/30/09 08:46	937125	1	091229	VH1
CVH	12/30/09 09:13		1	091229	VH1
CCB	12/30/09 09:39		1	091229	VH1
243550009	12/30/09 10:05	937125	1	091229	VH1
1202005291	12/30/09 10:31	937125	1	091229	VH1
1202005293	12/30/09 10:57	937125	1	091229	VH1
1202005295	12/30/09 11:23	937125	1	091229	VH1
243550010	12/30/09 11:49	937125	1	091229	VH1

243550011	12/30/09	12:15	937125	1	091229	VH1
1202005292	12/30/09	12:41	937125	1	091229	VH1
1202005294	12/30/09	13:07	937125	1	091229	VH1
1202005296	12/30/09	13:33	937125	1	091229	VH1
243550012	12/30/09	14:00	937125	1	091229	VH1
CCV	12/30/09	14:26		1	091229	VH1
CCB	12/30/09	14:52		1	091229	VH1
243550013	12/30/09	15:18	937125	1	091229	VH1
CVH	12/30/09	15:44		1	091229	VH1
CCB	12/30/09	16:10		1	091229	VH1

33 WIC091229-02ICV

Sample Name:	WIC091229-02ICV	*Injection Volume:*	50.0
Vial Number:	89	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	120409an	*Sample Amount:*	1.0000
Recording Time:	12/30/2009 0:31	Analyst:	VH1
Run Time (min):	26.00	Column:	AS23-002588;GLGCE086;300;9056

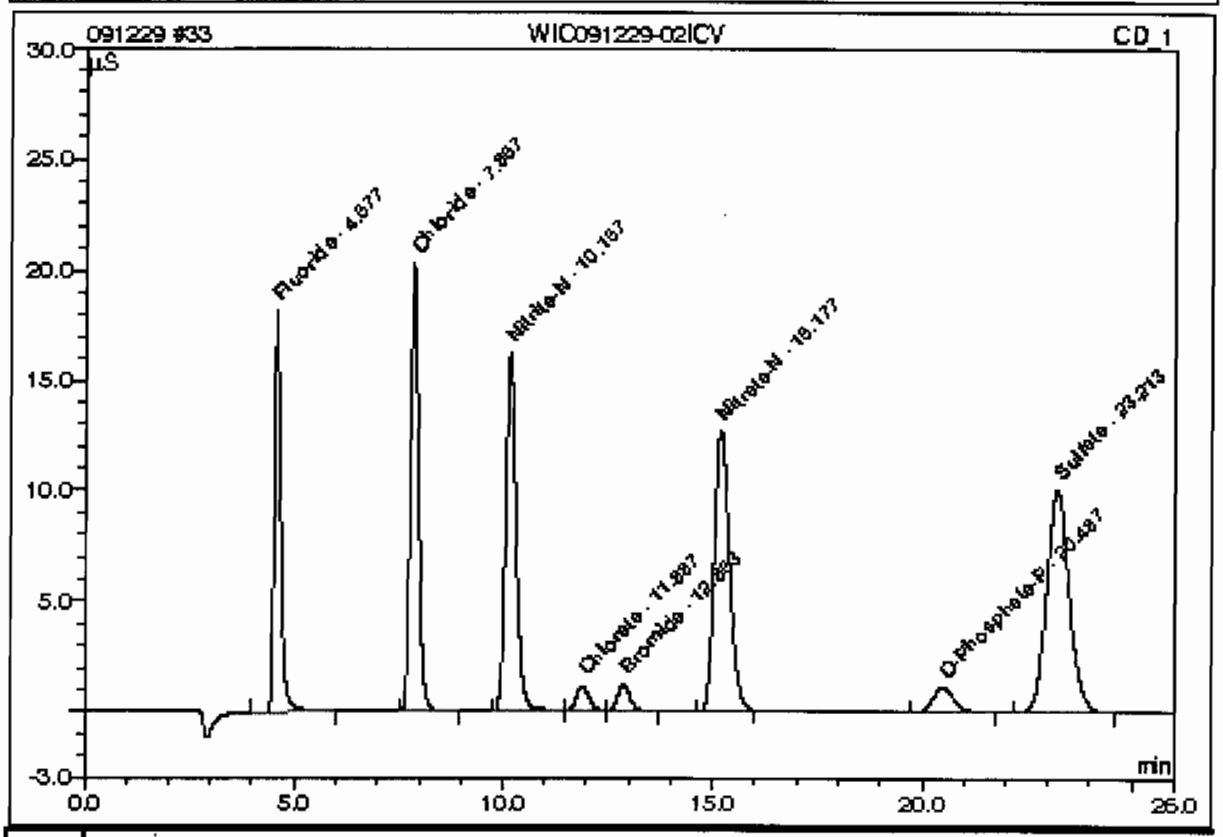

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.58	Fluoride	n.a.	4.8581		3.29476	12.89
2	7.87	Chloride	n.a.	9.2262		4.48818	17.56
3	10.17	Nitrite-N	n.a.	4.8127		4.74951	18.59
4	11.89	Chlorate	n.a.	2.6095		0.40310	1.58
5	12.86	Bromide	n.a.	2.6043		0.44056	1.72
6	15.18	Nitrate-N	n.a.	4.7695		5.23926	20.50
7	20.49	O-Phosphate-P	n.a.	1.9874		0.65985	2.58
8	23.21	Sulfate	n.a.	19.1495		6.27696	24.57
Total:				50.0172	0.000	25.552	100.00

34 ICB

Sample Name:	ICB	*Injection Volume:*	50.0
Vial Number:	90	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	120409an	*Sample Amount:*	1.0000
Recording Time:	12/30/2009 0:57	Analyst:	VH1
Run Time (min):	26.00	Column:	AS23-002588;GLGCE086;300;9056

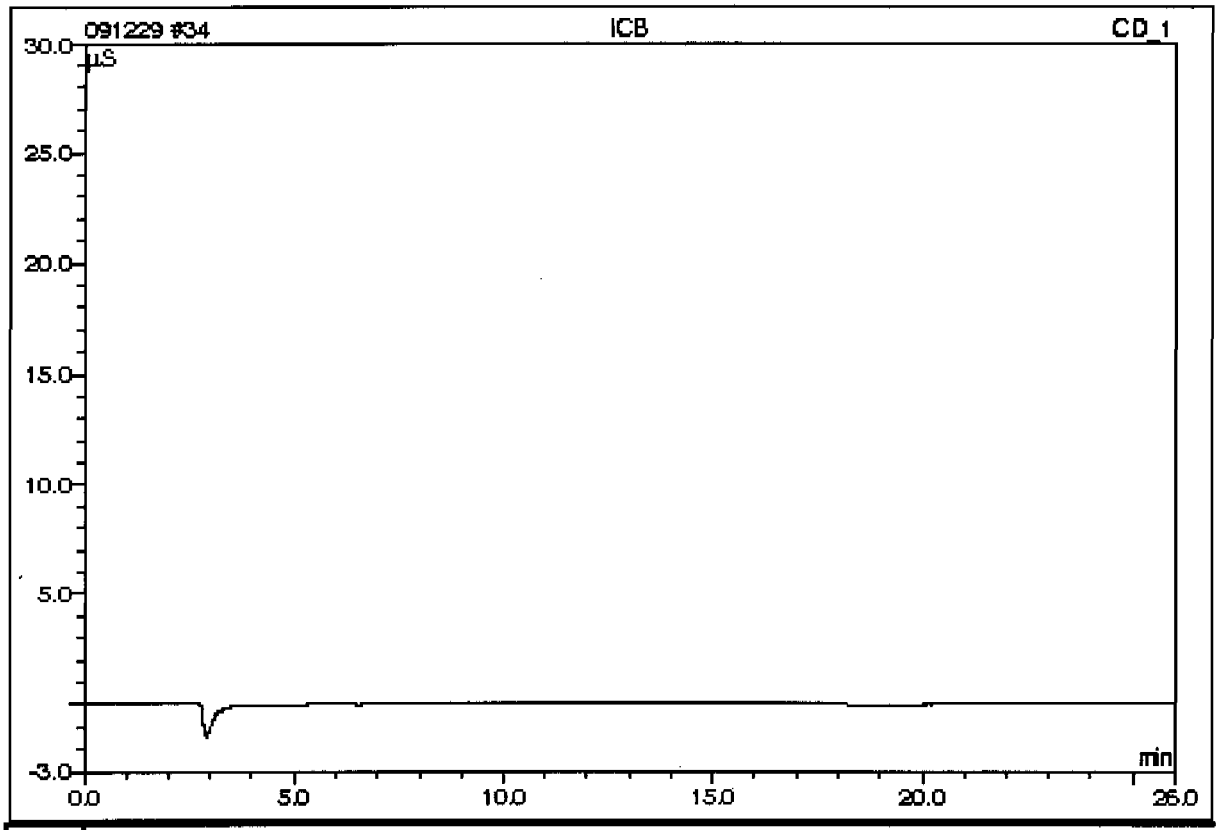

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.
Total:				0.0000	0.000	0.000	0.00

41 WIC091229-02CCV

Sample Name:	WIC091229-02CCV	*Injection Volume:*	50.0
Vial Number:	89	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	120409an	*Sample Amount:*	1.0000
Recording Time:	12/30/2009 3:59	Analyst:	VH1
Run Time (min):	26.00	Column:	AS23-002588;GLGCE086;300;9056

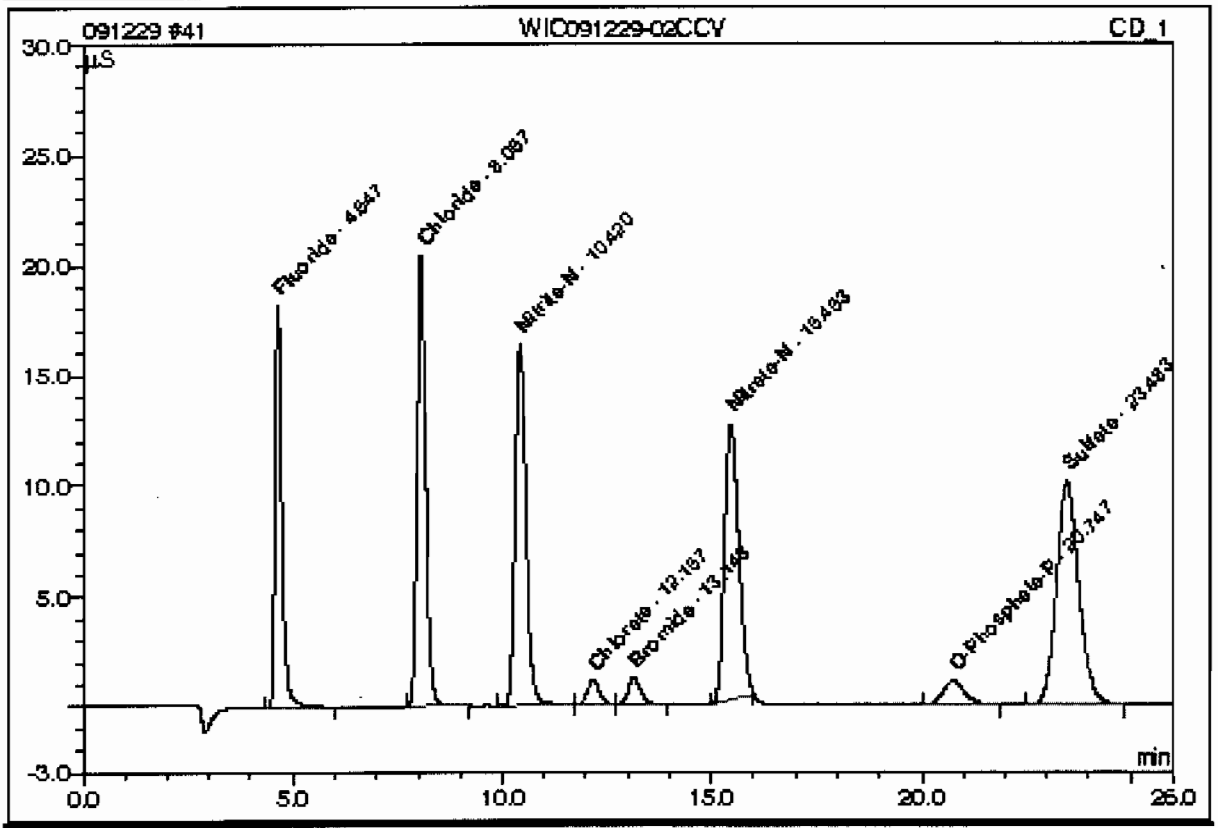

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.65	Fluoride	n.a.	5.1263		3.47797	13.54
2	8.07	Chloride	n.a.	9.5101		4.62733	18.02
3	10.42	Nitrite-N	n.a.	4.9053		4.84220	18.85
4	12.16	Chlorate	n.a.	2.5855		0.39932	1.55
5	13.14	Bromide	n.a.	2.5448		0.43032	1.68
6	15.45	Nitrate-N	n.a.	4.5305		4.97089	19.35
7	20.75	O-Phosphate-P	n.a.	1.9616		0.65096	2.53
8	23.48	Sulfate	n.a.	19.1766		6.28600	24.47
Total:				50.3408	0.000	25.685	100.00

41 WIC091229-02CCV

Sample Name:	WIC091229-02CCV	*Injection Volume:*	50.0
Vial Number:	89	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	120409an	*Sample Amount:*	1.0000
Recording Time:	12/30/2009 3:59	Analyst:	VH1
Run Time (min):	26.00	Column:	AS23-002588;GLGCE086;300;9056

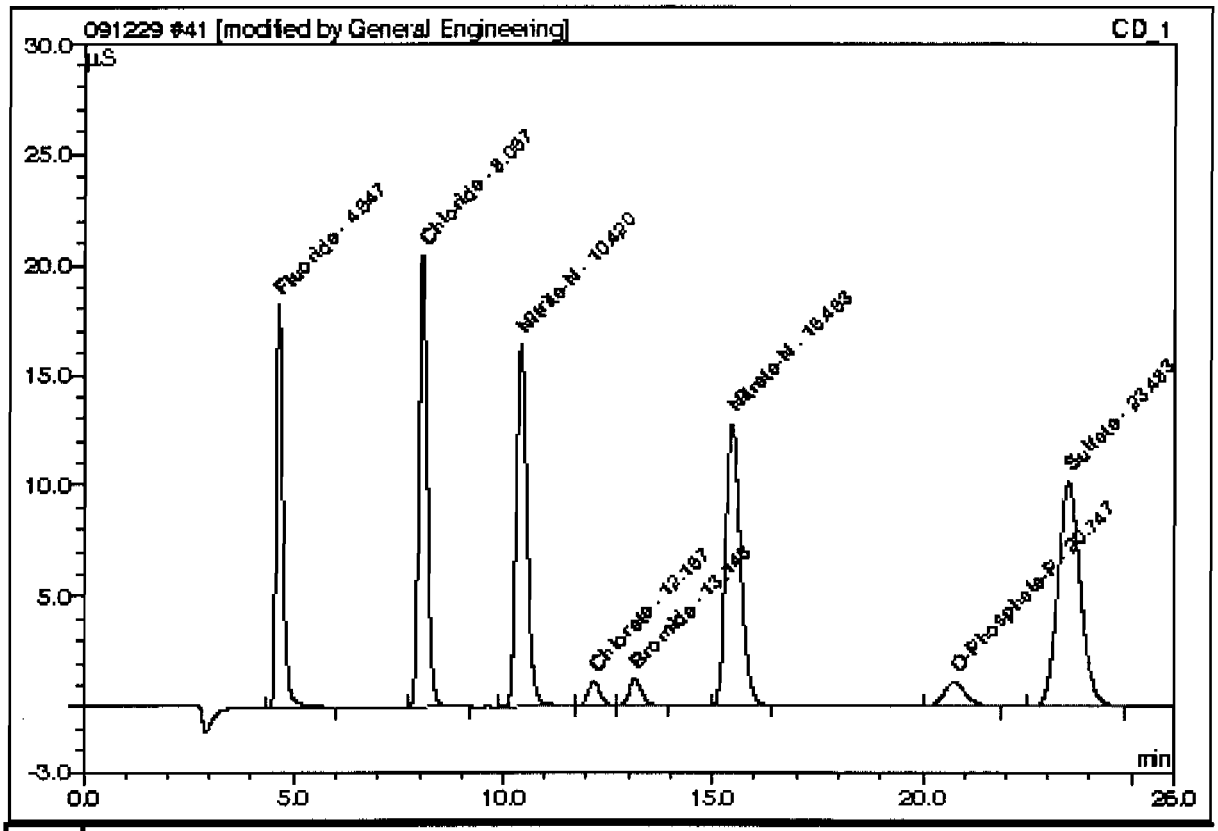

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.65	Fluoride	n.a.	5.1263		3.47797	13.40
2	8.07	Chloride	n.a.	9.5101		4.62733	17.82
3	10.42	Nitrite-N	n.a.	4.9053		4.84220	18.65
4	12.16	Chlorate	n.a.	2.5855		0.39932	1.54
5	13.14	Bromide	n.a.	2.5448		0.43032	1.66
6	15.45	Nitrate-N	n.a.	4.7785		5.24935	20.22
7	20.75	O-Phosphate-P	n.a.	1.9616		0.65096	2.51
8	23.48	Sulfate	n.a.	19.1766		6.28600	24.21
Total:				50.5887	0.000	25.963	100.00

42 CCB

Sample Name:	CCB	*Injection Volume:*	50.0
Vial Number:	90	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	120409an	*Sample Amount:*	1.0000
Recording Time:	12/30/2009 4:26	Analyst:	VH1
Run Time (min):	26.00	Column:	AS23-002588;GLGCE086;300;9056

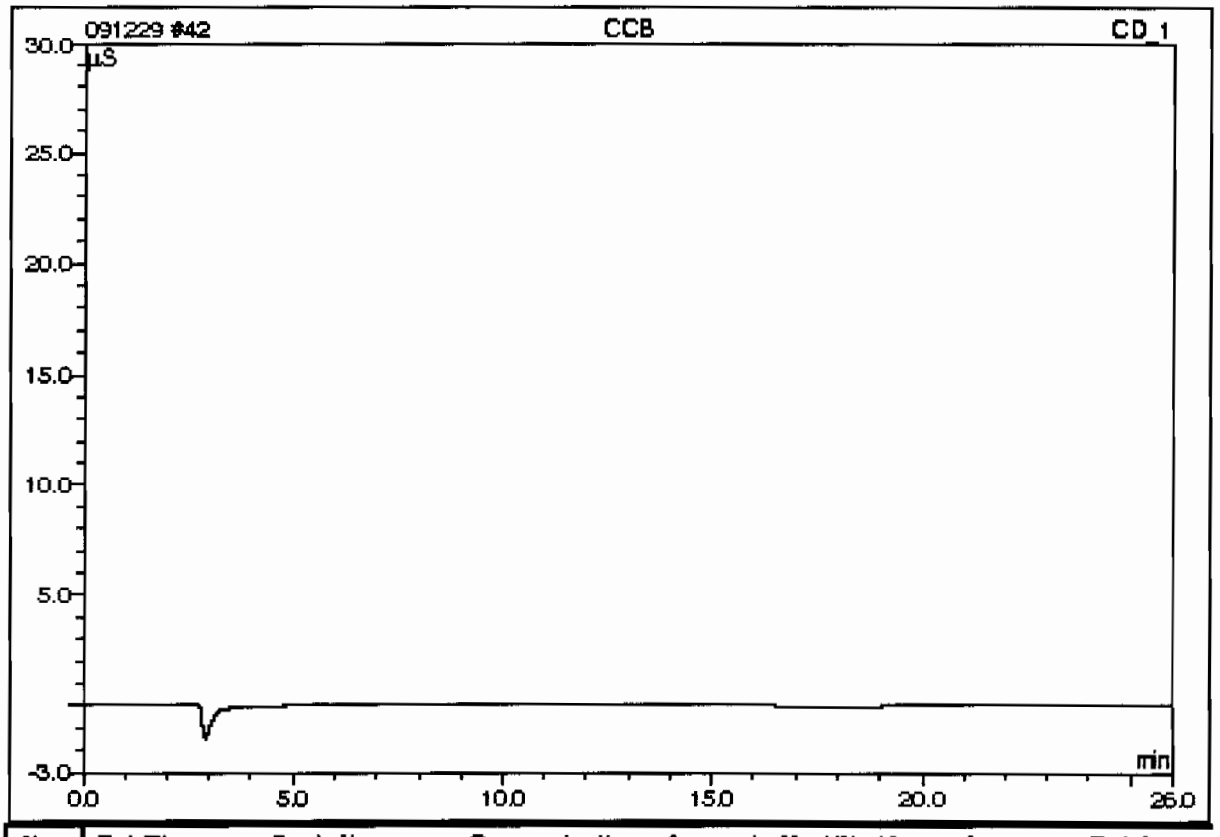

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.
Total:				0.0000	0.000	0.000	0.00

43 1202005290/937125/1/1/MB

Sample Name:	1202005290/937125/1/1/MB	*Injection Volume:*	50.0
Vial Number:	91	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	120409an	*Sample Amount:*	1.0000
Recording Time:	12/30/2009 4:52	Analyst:	VH1
Run Time (min):	26.00	Column:	AS23-002588;GLGCE086;300;9056

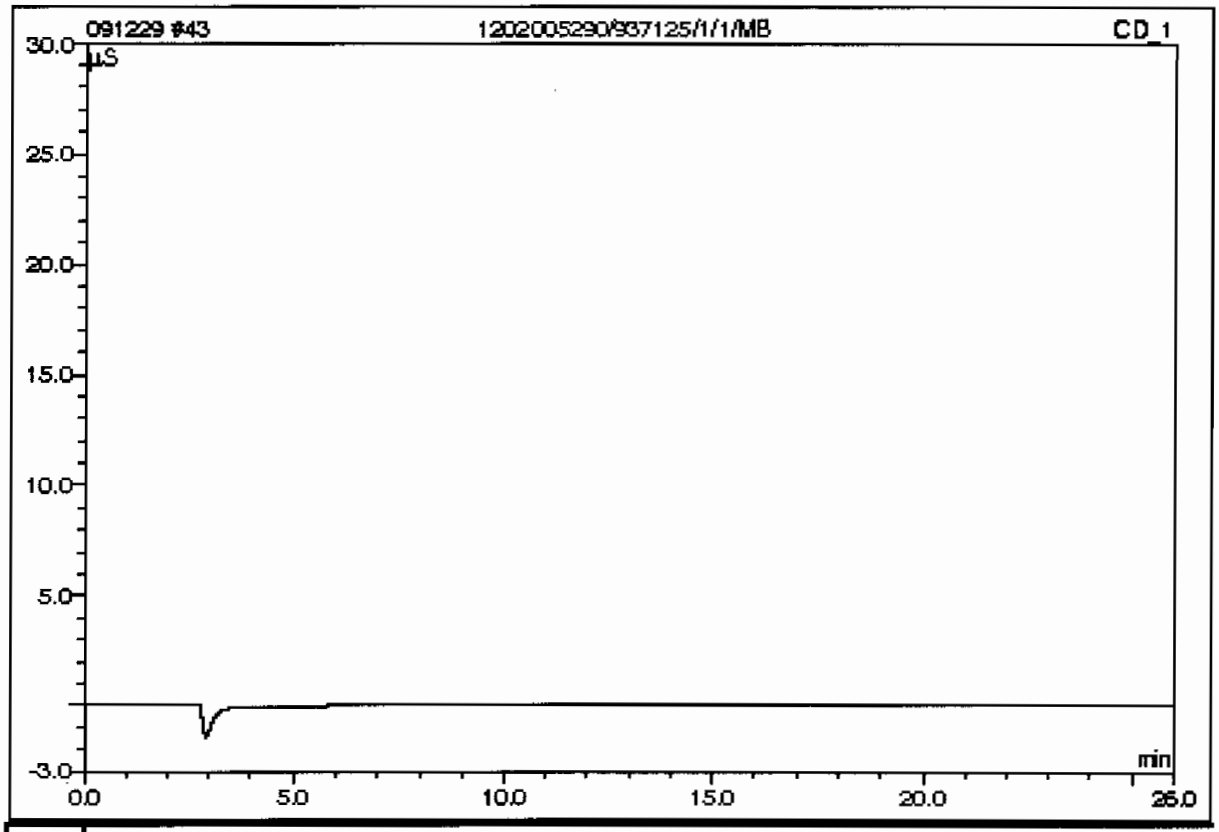

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.
Total:				0.0000	0.000	0.000	0.00

44 1202005297/937125/1/1/LCS

Sample Name:	1202005297/937125/1/1/LCS	*Injection Volume:*	50.0
Vial Number:	92	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	120409an	*Sample Amount:*	1.0000
Recording Time:	12/30/2009 5:18	Analyst:	VH1
Run Time (min):	26.00	Column:	AS23-002588;GLGCE086;300;9056

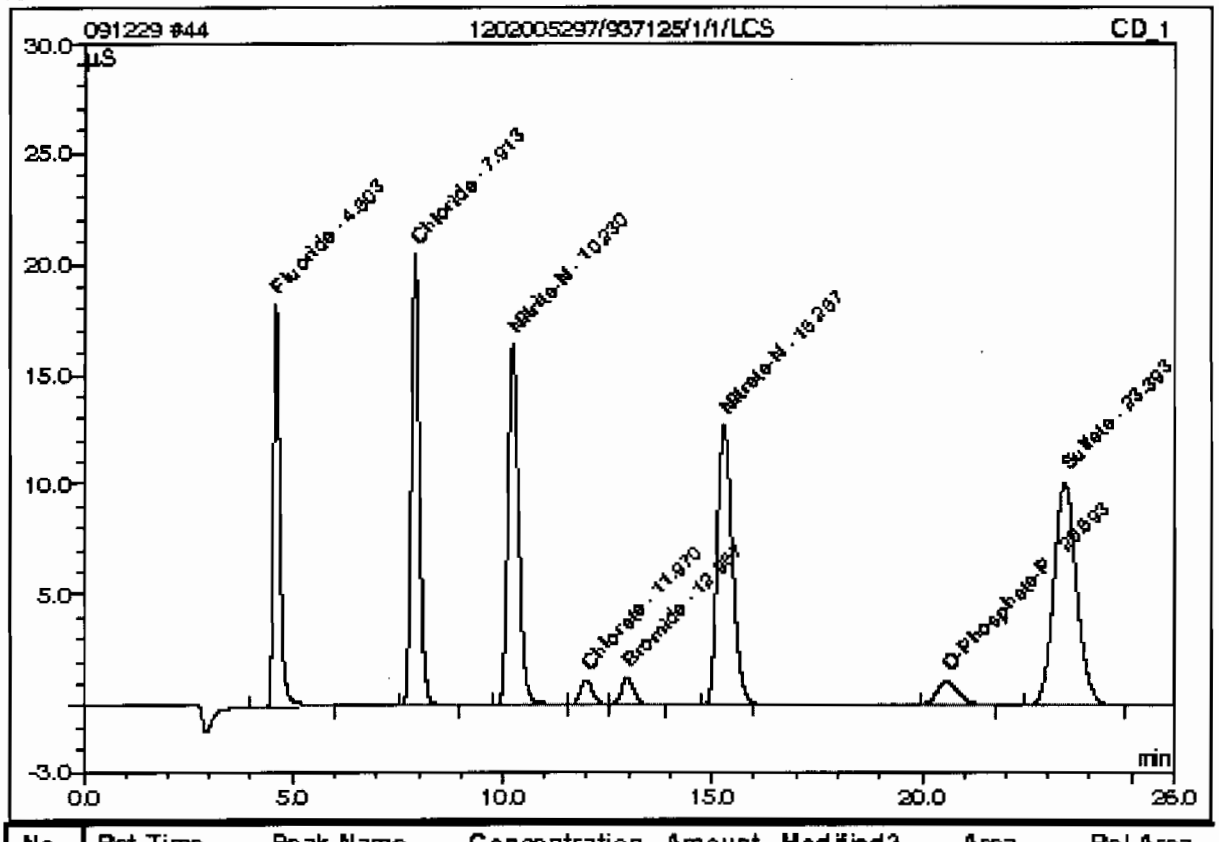

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.60	Fluoride	n.a.	4.9072		3.32828	12.91
2	7.91	Chloride	n.a.	9.2638		4.50661	17.48
3	10.23	Nitrite-N	n.a.	4.9110		4.84794	18.81
4	11.97	Chlorate	n.a.	2.6069		0.40268	1.56
5	12.96	Bromide	n.a.	2.5694		0.43456	1.69
6	15.27	Nitrate-N	n.a.	4.7462		5.21315	20.22
7	20.59	O-Phosphate-P	n.a.	2.0277		0.67376	2.61
8	23.39	Sulfate	n.a.	19.4294		6.37011	24.71
Total:				50.4616	0.000	25.777	100.00

45 243550001/937125/1/1/

Sample Name:	243550001/937125/1/1/	*Injection Volume:*	50.0
Vial Number:	92	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	120409an	*Sample Amount:*	1.0000
Recording Time:	12/30/2009 5:44	Analyst:	VH1
Run Time (min):	26.00	Column:	AS23-002588;GLGCE086;300;9056

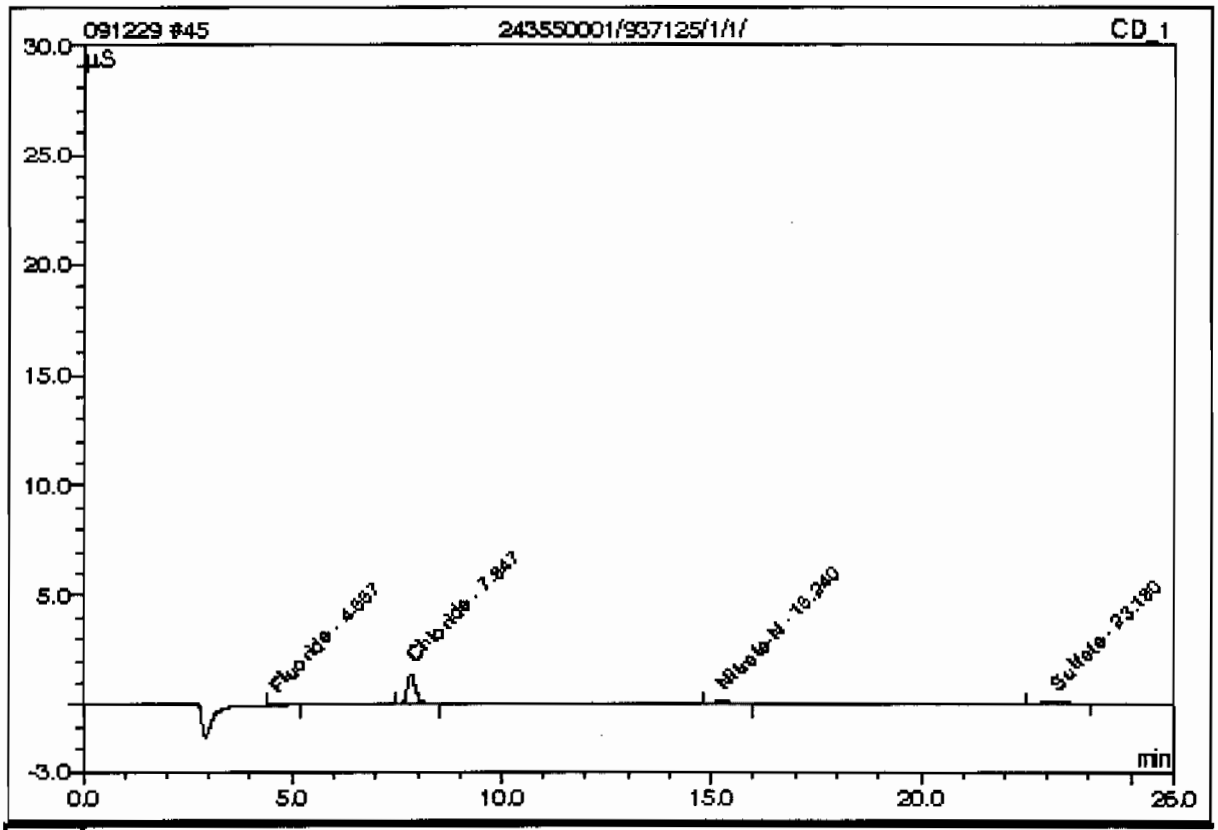

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.57	Fluoride	n.a.	0.0574		0.01538	3.02
2	7.85	Chloride	n.a.	0.7313		0.32436	63.74
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
3	15.24	Nitrate-N	n.a.	0.1535		0.05545	10.90
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
4	23.18	Sulfate	n.a.	0.6247		0.11366	22.34
Total:				1.5669	0.000	0.509	100.00

46 243550002/937125/1/1/

Sample Name:	243550002/937125/1/1/	*Injection Volume:*	50.0
Vial Number:	92	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	120409an	*Sample Amount:*	1.0000
Recording Time:	12/30/2009 6:10	Analyst:	VH1
Run Time (min):	26.00	Column:	AS23-002588;GLGCE086;300;9056

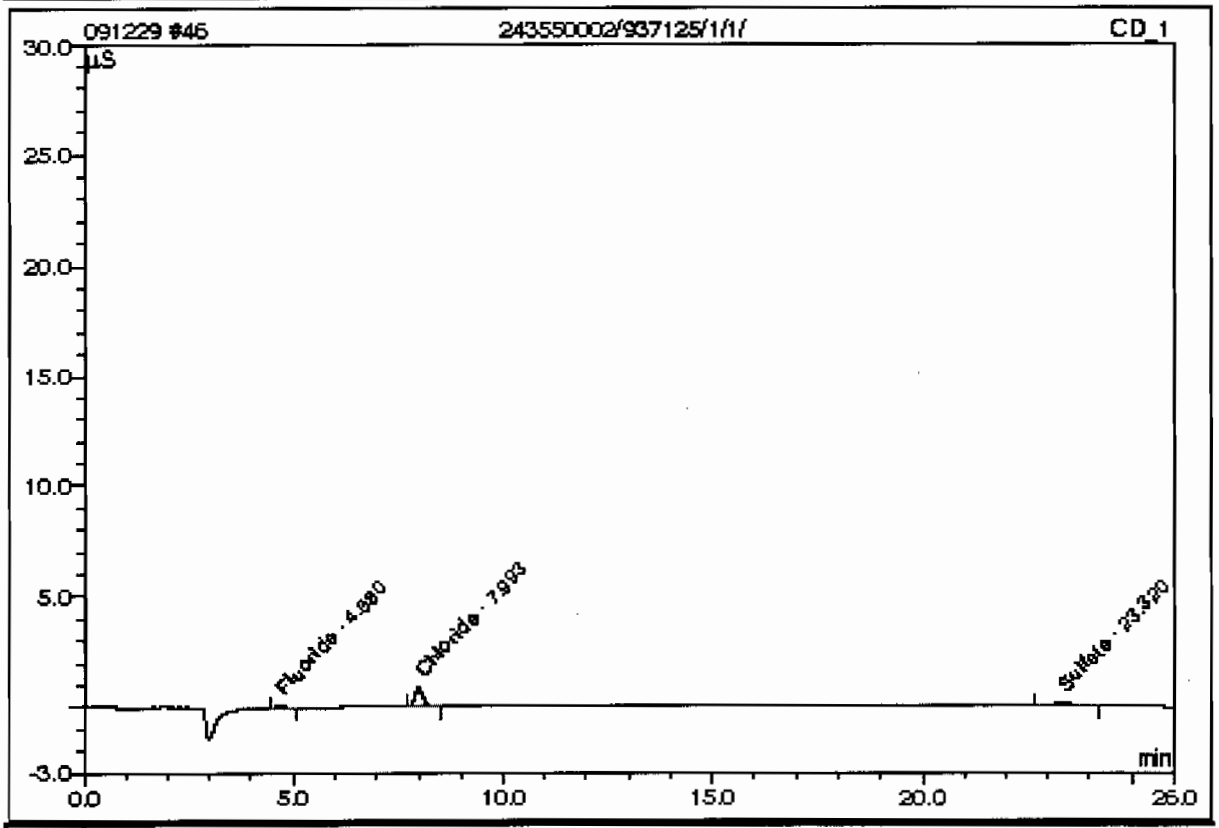

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.68	Fluoride	n.a.	0.0640		0.01988	7.00
2	7.99	Chloride	n.a.	0.4607		0.19172	67.53
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
3	23.32	Sulfate	n.a.	0.5004		0.07232	25.47
Total:				1.0251	0.000	0.284	100.00

47 243550003/937125/1/1/

Sample Name:	243550003/937125/1/1/	*Injection Volume:*	50.0
Vial Number:	92	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	120409an	*Sample Amount:*	1.0000
Recording Time:	12/30/2009 6:36	Analyst:	VH1
Run Time (min):	26.00	Column:	AS23-002588;GLGCE086;300;9056

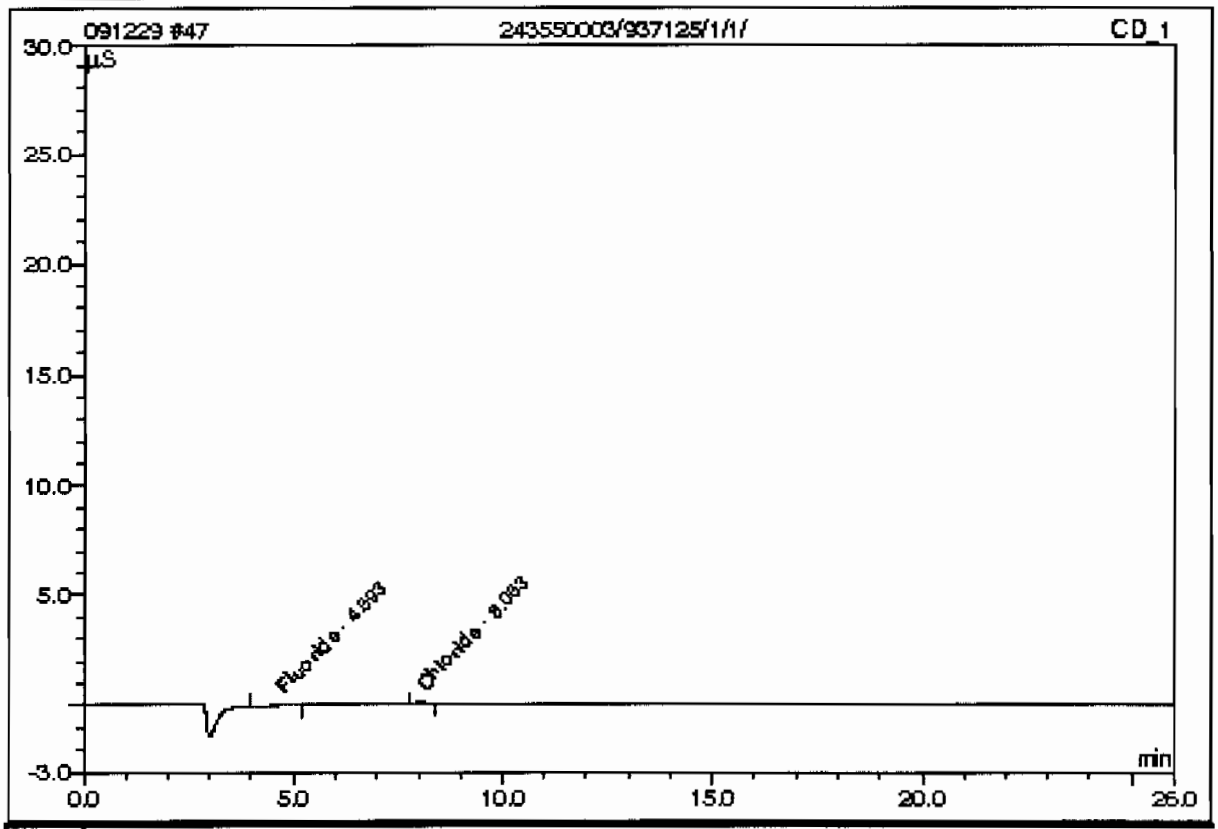

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.69	Fluoride	n.a.	0.0620		0.01854	40.61
2	8.05	Chloride	n.a.	0.1248		0.02711	59.39
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.
Total:				0.1869	0.000	0.046	100.00

48 243550004/937125/1/1/

Sample Name:	243550004/937125/1/1/	*Injection Volume:*	50.0
Vial Number:	92	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	120409an	*Sample Amount:*	1.0000
Recording Time:	12/30/2009 7:02	Analyst:	VH1
Run Time (min):	26.00	Column:	AS23-002588;GLGCE086;300;9056

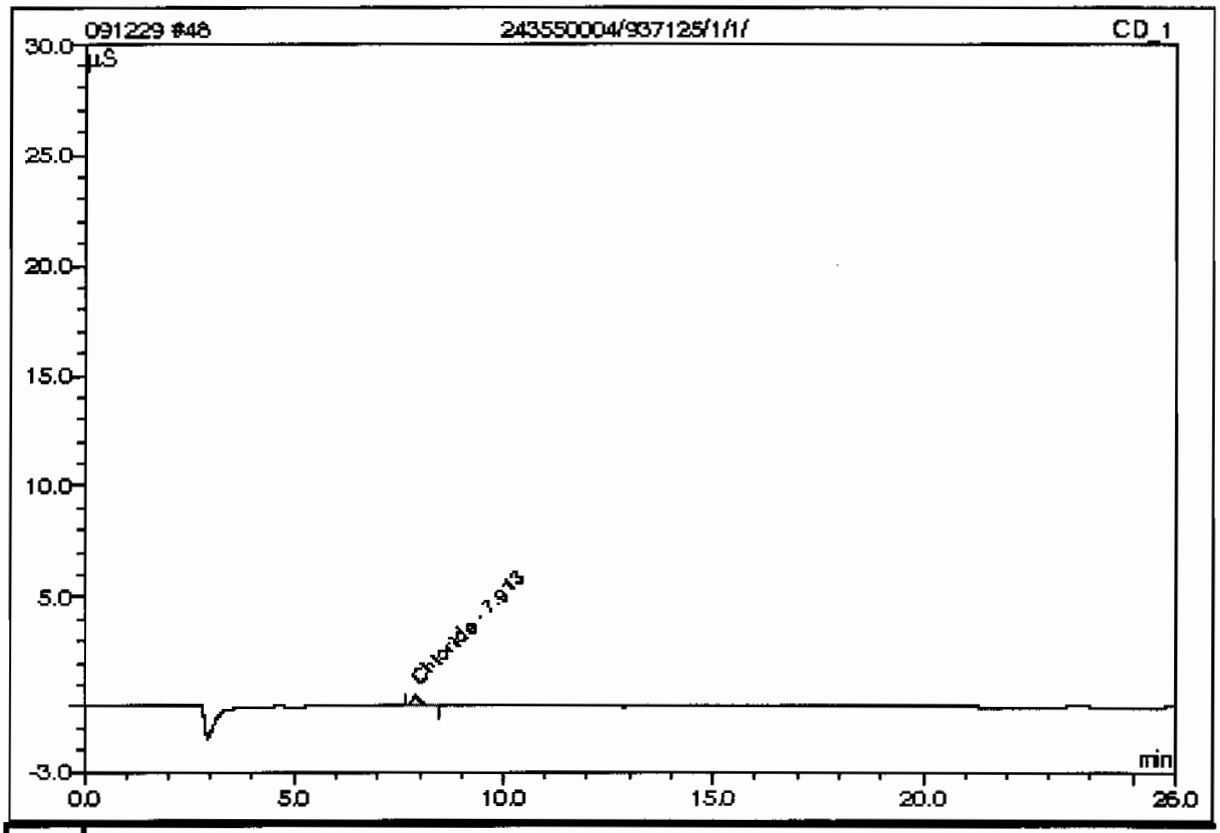

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
1	7.91	Chloride	n.a.	0.2846		0.10543	100.00
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.
Total:				0.2846	0.000	0.105	100.00

49 243550005/937125/1/1/

Sample Name:	243550005/937125/1/1/	*Injection Volume:*	50.0
Vial Number:	92	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	120409an	*Sample Amount:*	1.0000
Recording Time:	12/30/2009 7:28	Analyst:	VH1
Run Time (min):	26.00	Column:	AS23-002588;GLGCE086;300;9056

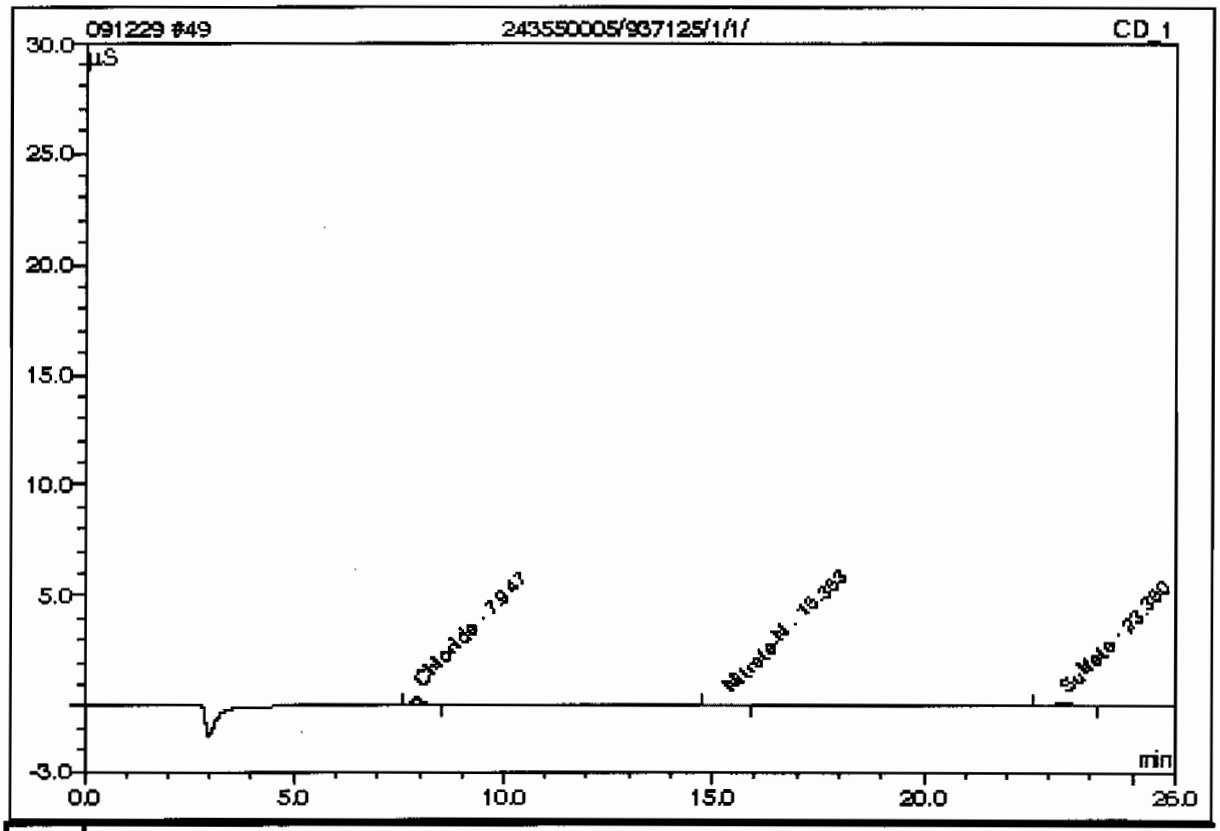

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
1	7.95	Chloride	n.a.	0.2184		0.07296	46.95
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
2	15.36	Nitrate-N	n.a.	0.1228		0.02096	13.49
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
3	23.36	Sulfate	n.a.	0.4679		0.06149	39.57
Total:				0.8091	0.000	0.155	100.00

50 243550006/937125/1/1/

Sample Name:	243550006/937125/1/1/	*Injection Volume:*	50.0
Vial Number:	92	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	120409an	*Sample Amount:*	1.0000
Recording Time:	12/30/2009 7:54	Analyst:	VH1
Run Time (min):	26.00	Column:	AS23-002588;GLGCE086;300;9056

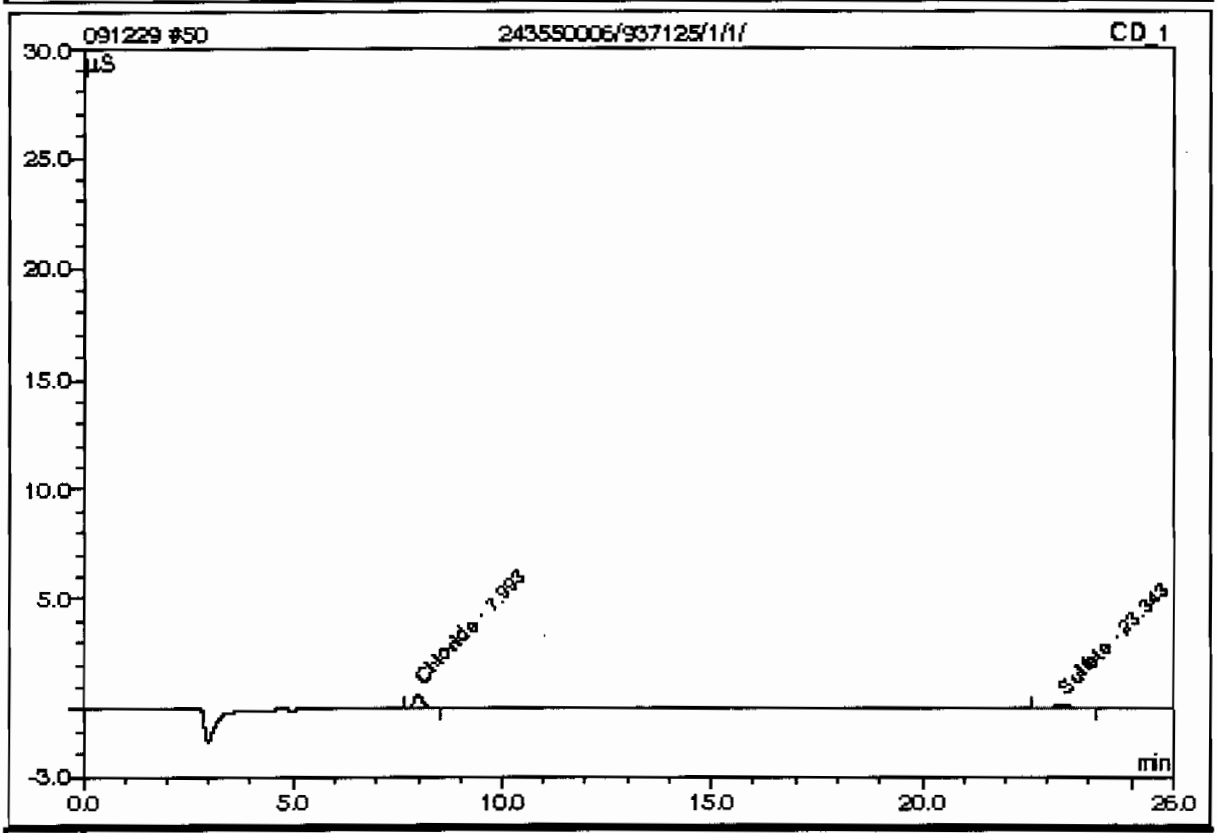

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
1	7.99	Chloride	n.a.	0.3550		0.13994	68.65
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
2	23.34	Sulfate	n.a.	0.4752		0.06392	31.35
Total:				0.8302	0.000	0.204	100.00

51 243550007/937125/1/1/

Sample Name:	243550007/937125/1/1/	*Injection Volume:*	50.0
Vial Number:	92	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	120409an	*Sample Amount:*	1.0000
Recording Time:	12/30/2009 8:20	Analyst:	VH1
Run Time (min):	26.00	Column:	AS23-002588;GLGCE086;300;9056

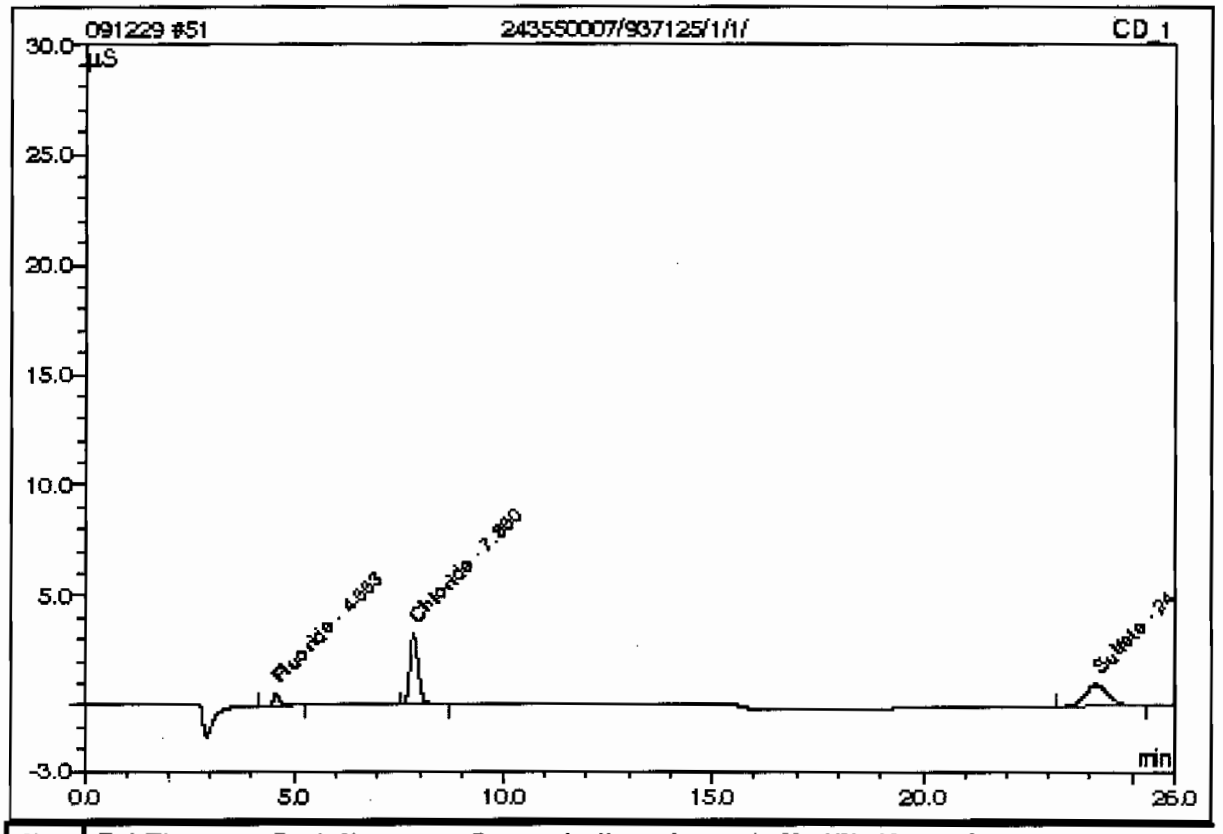

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.56	Fluoride	n.a.	0.1903		0.10616	7.09
2	7.85	Chloride	n.a.	1.5988		0.74957	50.05
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
3	24.14	Sulfate	n.a.	2.2121		0.64180	42.86
Total:				4.0012	0.000	1.498	100.00

52 243550008/937125/1/1/

Sample Name:	243550008/937125/1/1/	*Injection Volume:*	50.0
Vial Number:	92	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	120409an	*Sample Amount:*	1.0000
Recording Time:	12/30/2009 8:46	Analyst:	VH1
Run Time (min):	26.00	Column:	AS23-002588;GLGCE086;300;9056

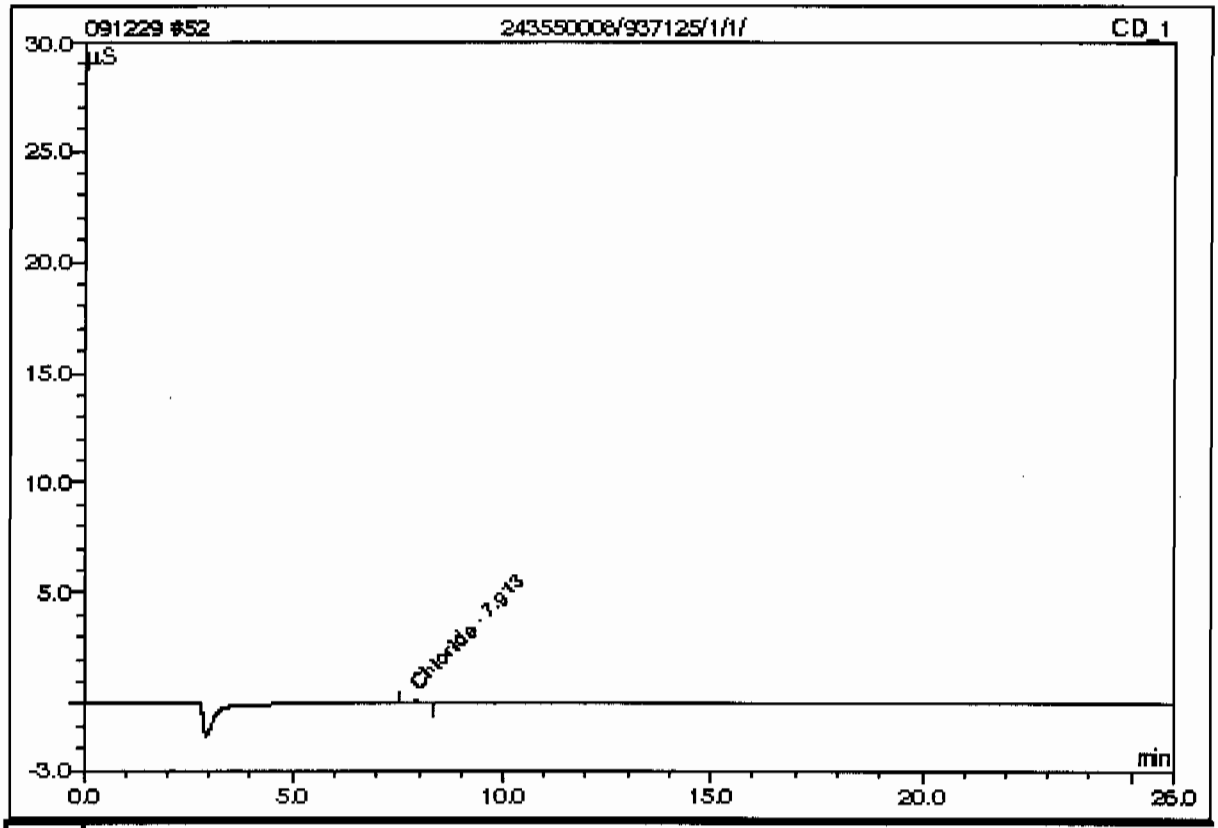

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
1	7.91	Chloride	n.a.	0.1136		0.02160	100.00
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.
Total:				0.1136	0.000	0.022	100.00

53 WIC091229-02CVH

Sample Name:	WIC091229-02CVH	*Injection Volume:*	50.0
Vial Number:	89	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	120409an	*Sample Amount:*	1.0000
Recording Time:	12/30/2009 9:13	Analyst:	VH1
Run Time (min):	26.00	Column:	AS23-002588;GLGCE086;300;9056

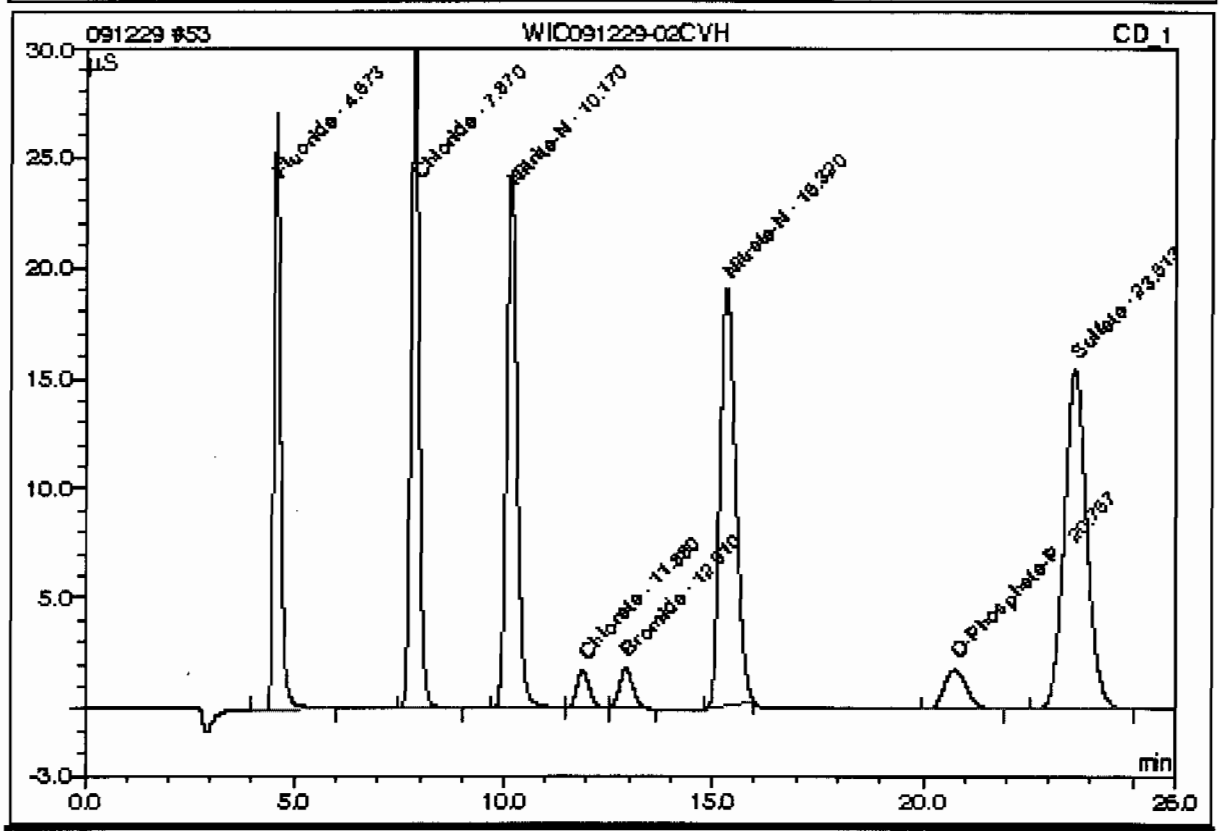

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.57	Fluoride	n.a.	7.2285		4.91400	12.61
2	7.87	Chloride	n.a.	14.1072		6.88063	17.66
3	10.17	Nitrite-N	n.a.	7.1727		7.11334	18.25
4	11.88	Chlorate	n.a.	3.8940		0.60574	1.55
5	12.91	Bromide	n.a.	3.9286		0.66817	1.71
6	15.32	Nitrate-N	n.a.	7.3034		8.08488	20.75
7	20.76	O-Phosphate-P	n.a.	3.2743		1.10407	2.83
8	23.61	Sulfate	n.a.	29.1333		9.59863	24.63
Total:				76.0421	0.000	38.969	100.00

53 WIC091229-02CVH

Sample Name:	WIC091229-02CVH	*Injection Volume:*	50.0
Vial Number:	89	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	120409an	*Sample Amount:*	1.0000
Recording Time:	12/30/2009 9:13	Analyst:	VH1
Run Time (min):	26.00	Column:	AS23-002588;GLGCE086;300;9056

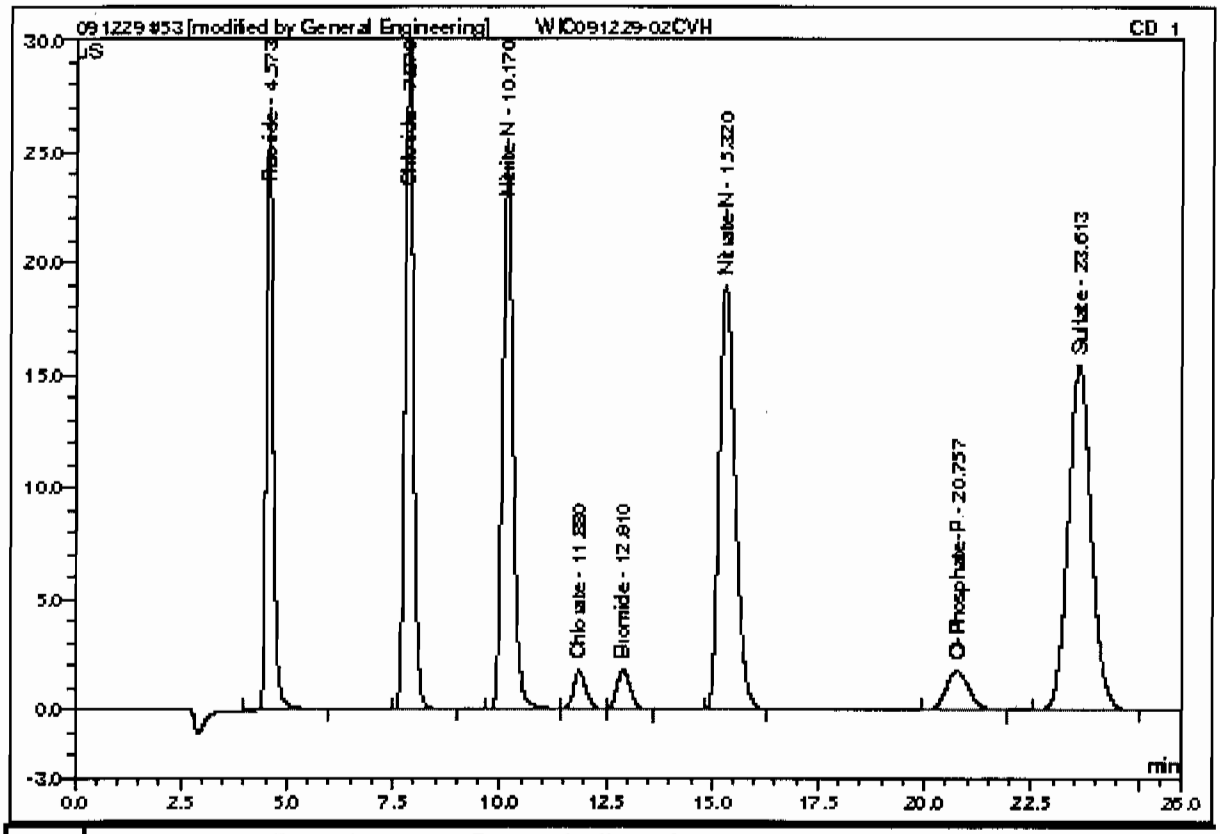

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.57	Fluoride	n.a.	7.2285		4.91400	12.55
2	7.87	Chloride	n.a.	14.1072		6.88063	17.57
3	10.17	Nitrite-N	n.a.	7.1727		7.11334	18.16
4	11.88	Chlorate	n.a.	3.8940		0.60574	1.55
5	12.91	Bromide	n.a.	3.9286		0.66817	1.71
6	15.32	Nitrate-N	n.a.	7.4807		8.28397	21.15
7	20.76	O-Phosphate-P	n.a.	3.2743		1.10407	2.82
8	23.61	Sulfate	n.a.	29.1333		9.59863	24.51
Total:				76.2194	0.000	39.169	100.00

54 CCB

Sample Name:	CCB	*Injection Volume:*	50.0
Vial Number:	90	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	120409an	*Sample Amount:*	1.0000
Recording Time:	12/30/2009 9:39	Analyst:	VH1
Run Time (min):	26.00	Column:	AS23-002588;GLGCE086;300;9056

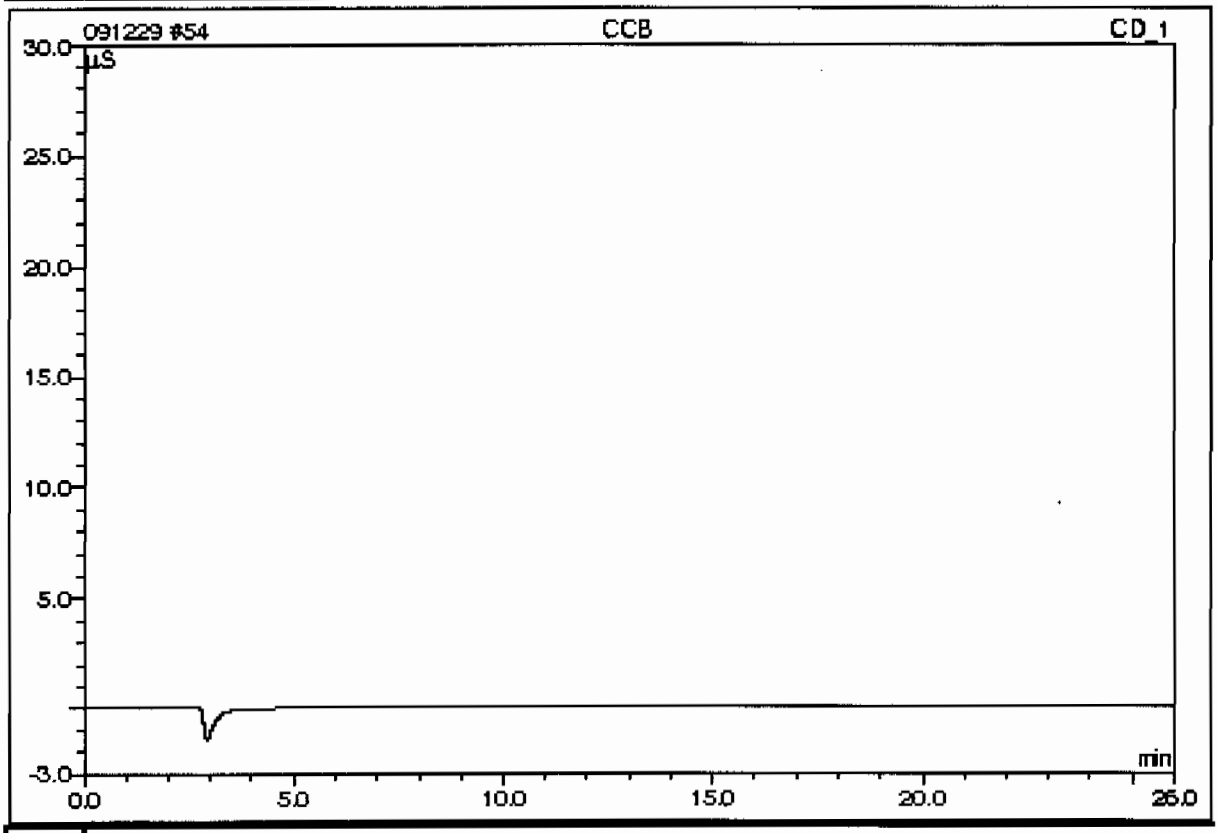

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.
Total:				0.0000	0.000	0.000	0.00

55 243550009/937125/1/1/

Sample Name:	243550009/937125/1/1/	*Injection Volume:*	50.0
Vial Number:	92	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	120409an	*Sample Amount:*	1.0000
Recording Time:	12/30/2009 10:05	Analyst:	VH1
Run Time (min):	26.00	Column:	AS23-002588;GLGCE086;300;9056

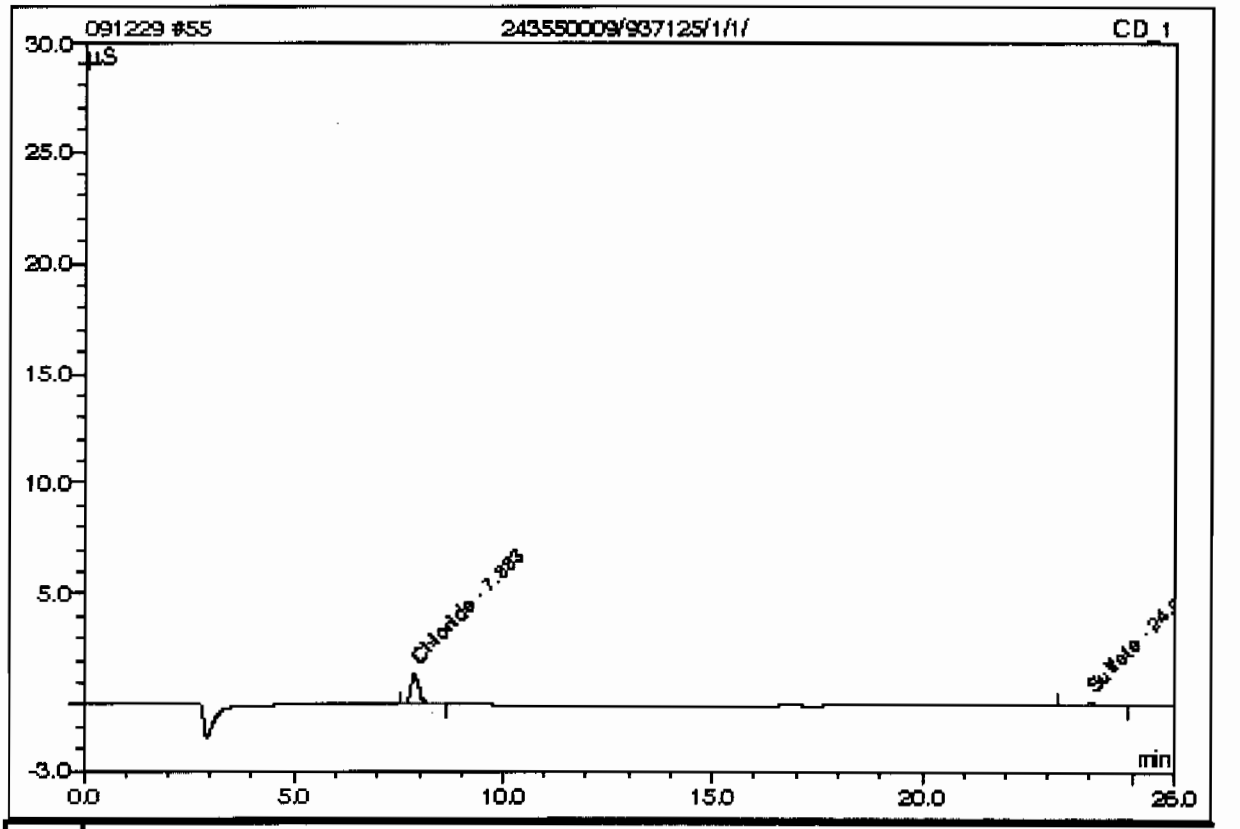

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
1	7.88	Chloride	n.a.	0.6943		0.30622	84.08
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
2	24.00	Sulfate	n.a.	0.4573		0.05798	15.92
Total:				1.1516	0.000	0.364	100.00

56 1202005291/937125/1/1/DUP

Sample Name:	1202005291/937125/1/1/DUP	*Injection Volume:*	50.0
Vial Number:	93	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	120409an	*Sample Amount:*	1.0000
Recording Time:	12/30/2009 10:31	Analyst:	VH1
Run Time (min):	26.00	Column:	AS23-002588;GLGCE086;300;9056

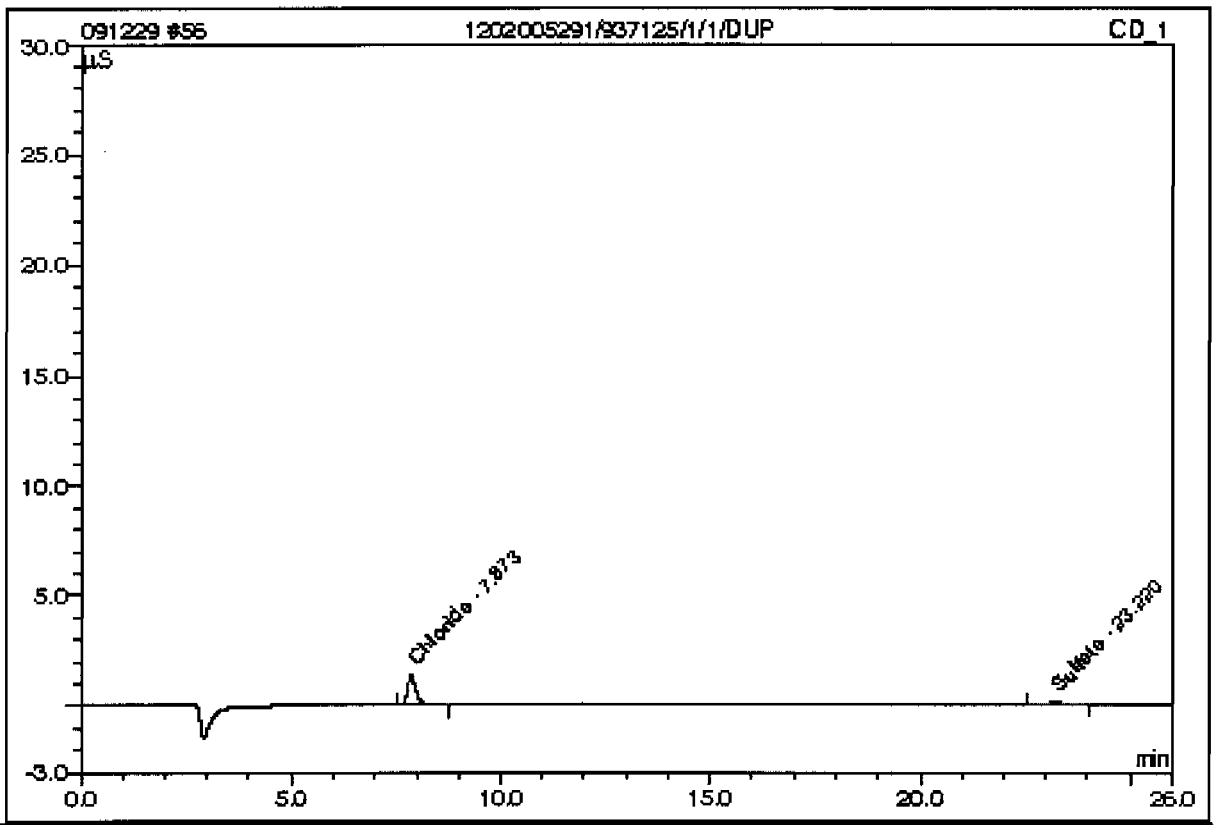

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
1	7.87	Chloride	n.a.	0.7090		0.31344	83.86
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
2	23.22	Sulfate	n.a.	0.4644		0.06034	16.14
Total:				1.1734	0.000	0.374	100.00

57 1202005293/937125/1/1/MS

Sample Name:	1202005293/937125/1/1/MS	*Injection Volume:*	50.0
Vial Number:	93	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	120409an	*Sample Amount:*	1.0000
Recording Time:	12/30/2009 10:57	Analyst:	VH1
Run Time (min):	26.00	Column:	AS23-002588;GLGCE086;300;9056

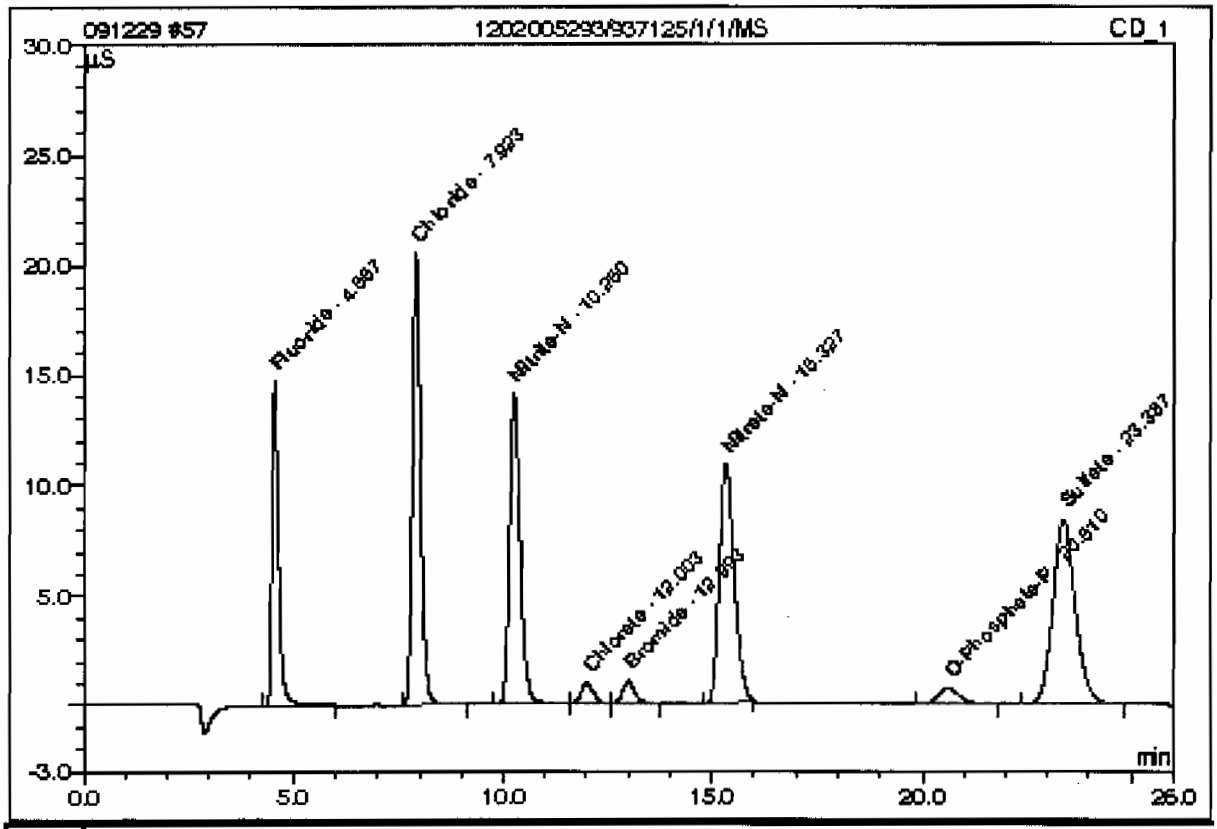

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.57	Fluoride	n.a.	3.9697		2.68788	11.99
2	7.92	Chloride	n.a.	9.5478		4.64583	20.72
3	10.26	Nitrite-N	n.a.	4.2366		4.17248	18.61
4	12.00	Chlorate	n.a.	2.2251		0.34246	1.53
5	12.99	Bromide	n.a.	2.2328		0.37670	1.68
6	15.33	Nitrate-N	n.a.	4.0728		4.45689	19.88
7	20.61	O-Phosphate-P	n.a.	1.3585		0.44278	1.97
8	23.39	Sulfate	n.a.	16.2056		5.29752	23.63
Total:				43.8490	0.000	22.423	100.00

57 1202005293/937125/1/1/MS

Sample Name:	1202005293/937125/1/1/MS	*Injection Volume:*	50.0
Vial Number:	93	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	120409an	*Sample Amount:*	1.0000
Recording Time:	12/30/2009 10:57	Analyst:	VH1
Run Time (min):	26.00	Column:	AS23-002588;GLGCE086;300;9056

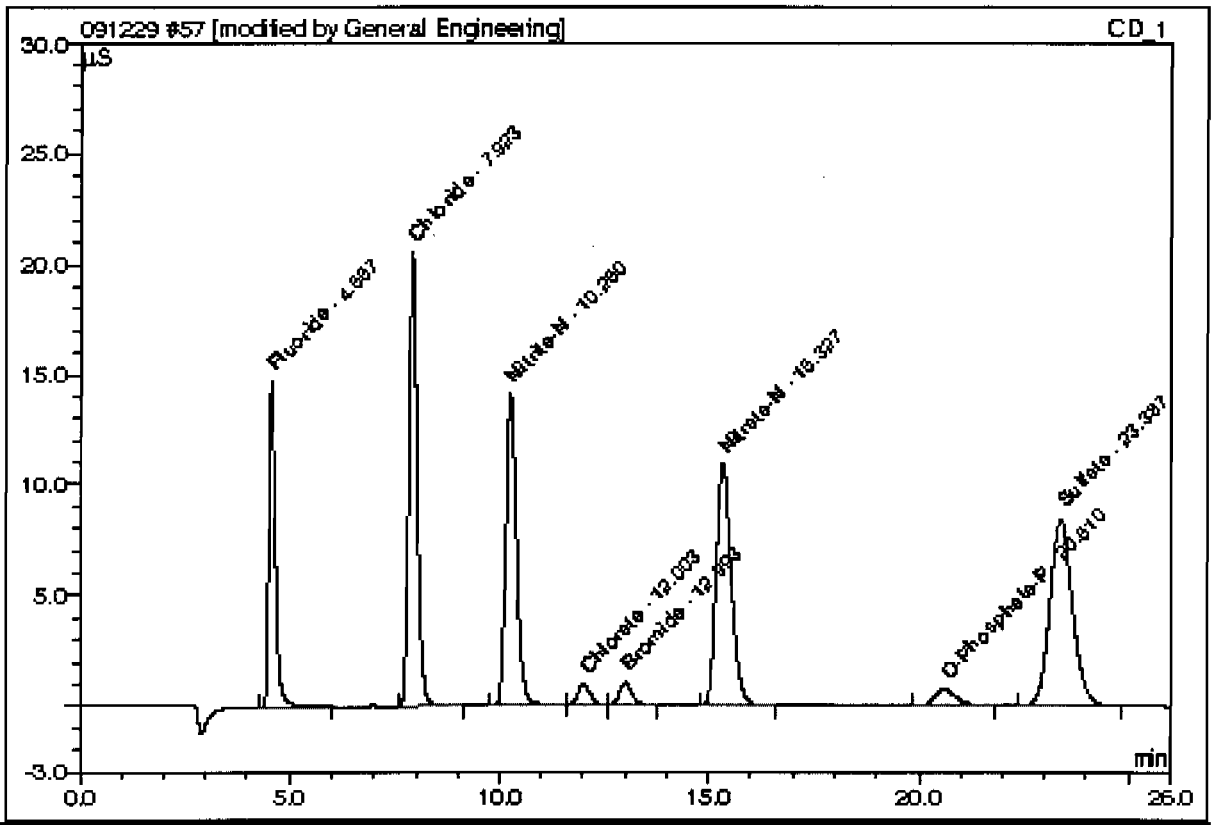

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.57	Fluoride	n.a.	3.9697		2.68788	11.94
2	7.92	Chloride	n.a.	9.5478		4.64583	20.63
3	10.26	Nitrite-N	n.a.	4.2366		4.17248	18.53
4	12.00	Chlorate	n.a.	2.2251		0.34246	1.52
5	12.99	Bromide	n.a.	2.2328		0.37670	1.67
6	15.33	Nitrate-N	n.a.	4.1597		4.55441	20.22
7	20.61	O-Phosphate-P	n.a.	1.3585		0.44278	1.97
8	23.39	Sulfate	n.a.	16.2056		5.29752	23.52
Total:				43.9358	0.000	22.520	100.00

58 1202005295/937125/1/1/MSD

Sample Name:	1202005295/937125/1/1/MSD	*Injection Volume:*	50.0
Vial Number:	93	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	120409an	*Sample Amount:*	1.0000
Recording Time:	12/30/2009 11:23	Analyst:	VH1
Run Time (min):	26.00	Column:	AS23-002588;GLGCE086;300;9056

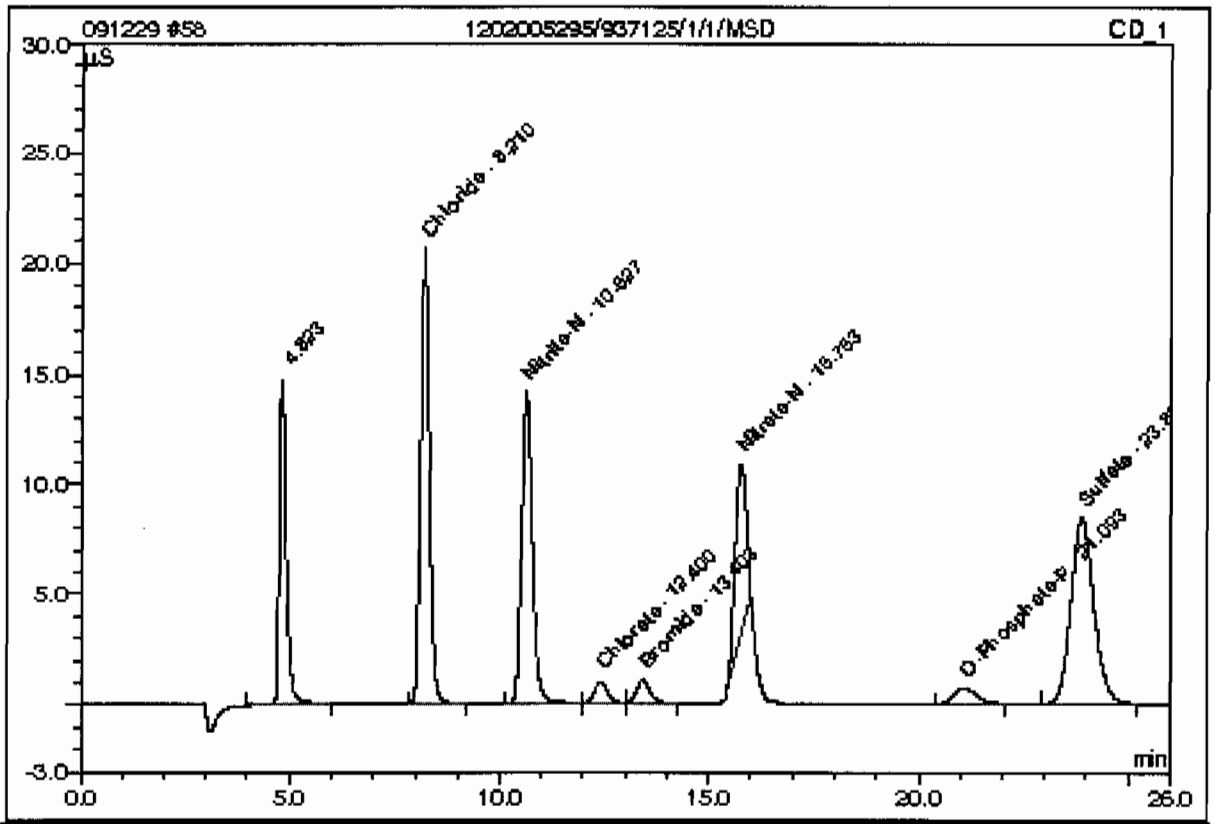

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
2	8.21	Chloride	n.a.	9.8767		4.80701	23.30
3	10.63	Nitrite-N	n.a.	4.3247		4.26065	20.65
4	12.40	Chlorate	n.a.	2.2840		0.35176	1.70
5	13.40	Bromide	n.a.	2.2853		0.38572	1.87
6	15.76	Nitrate-N	n.a.	2.2194		2.37550	11.51
7	21.09	O-Phosphate-P	n.a.	1.3165		0.42828	2.08
8	23.89	Sulfate	n.a.	16.1889		5.29196	25.65
Total:				38.4955	0.000	17.901	86.76

58 1202005295/937125/1/1/MSD

Sample Name:	1202005295/937125/1/1/MSD	*Injection Volume:*	50.0
Vial Number:	93	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	120409an	*Sample Amount:*	1.0000
Recording Time:	12/30/2009 11:23	Analyst:	VH1
Run Time (min):	26.00	Column:	AS23-002588;GLGCE086;300;9056

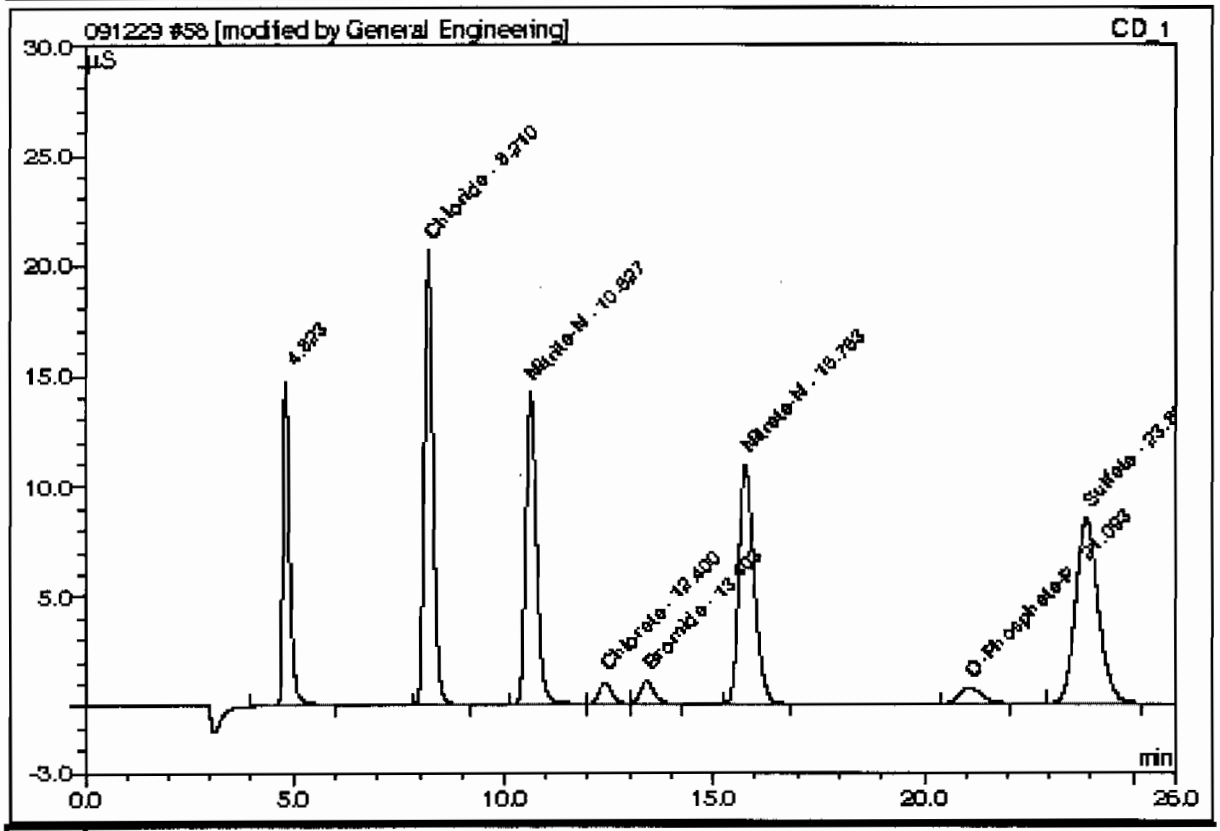

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
2	8.21	Chloride	n.a.	9.8767		4.80701	21.05
3	10.63	Nitrite-N	n.a.	4.3247		4.26065	18.66
4	12.40	Chlorate	n.a.	2.2840		0.35176	1.54
5	13.40	Bromide	n.a.	2.2853		0.38572	1.69
6	15.76	Nitrate-N	n.a.	4.1827		4.58032	20.06
7	21.09	O-Phosphate-P	n.a.	1.3165		0.42828	1.88
8	23.89	Sulfate	n.a.	16.1889		5.29196	23.17
Total:				40.4588	0.000	20.106	88.04

59 243550010/937125/1/1/

Sample Name:	243550010/937125/1/1/	*Injection Volume:*	50.0
Vial Number:	93	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	120409an	*Sample Amount:*	1.0000
Recording Time:	12/30/2009 11:49	Analyst:	VH1
Run Time (min):	26.00	Column:	AS23-002588;GLGCE086;300;9056

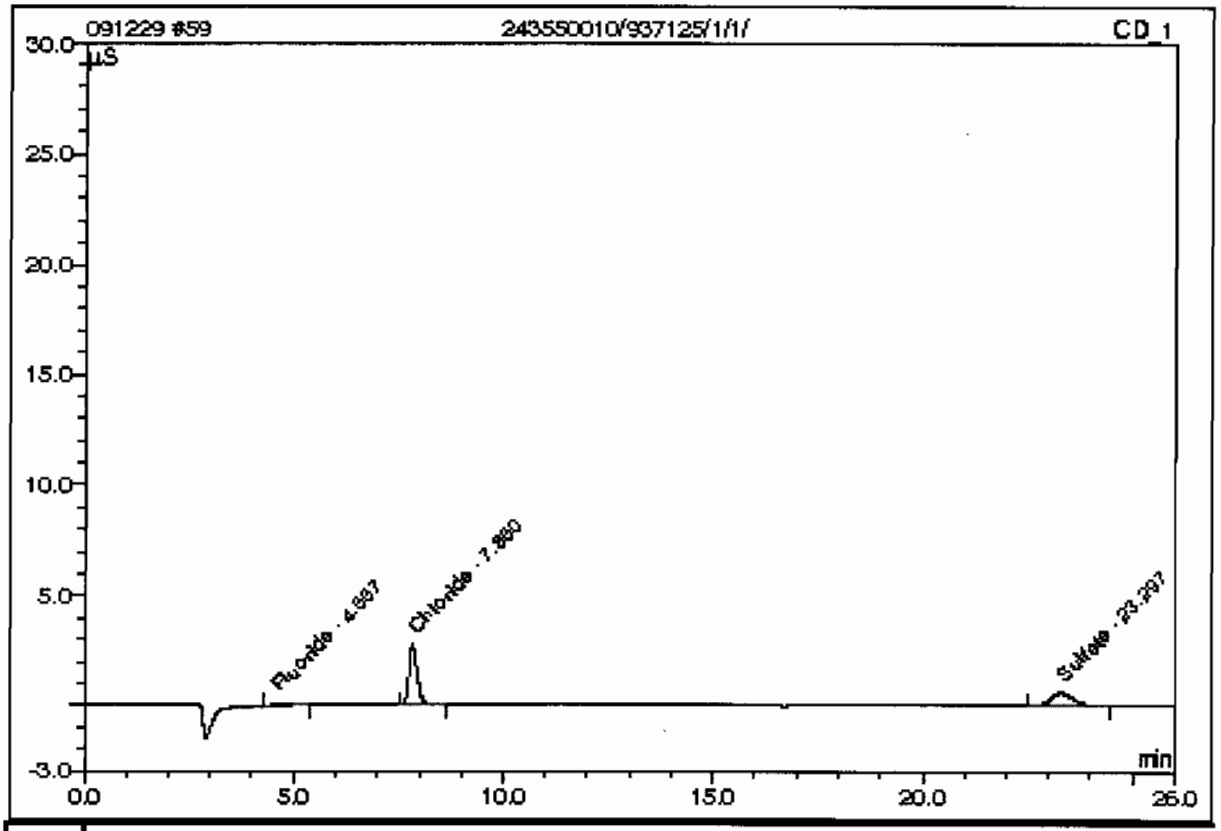

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.57	Fluoride	n.a.	0.0711		0.02471	2.35
2	7.85	Chloride	n.a.	1.3729		0.63888	60.83
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
3	23.30	Sulfate	n.a.	1.4451		0.38662	36.81
Total:				2.8891	0.000	1.050	100.00

60 243550011/937125/1/1/

Sample Name:	243550011/937125/1/1/	*Injection Volume:*	50.0
Vial Number:	93	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	120409an	*Sample Amount:*	1.0000
Recording Time:	12/30/2009 12:15	Analyst:	VH1
Run Time (min):	26.00	Column:	AS23-002588;GLGCE086;300;9056

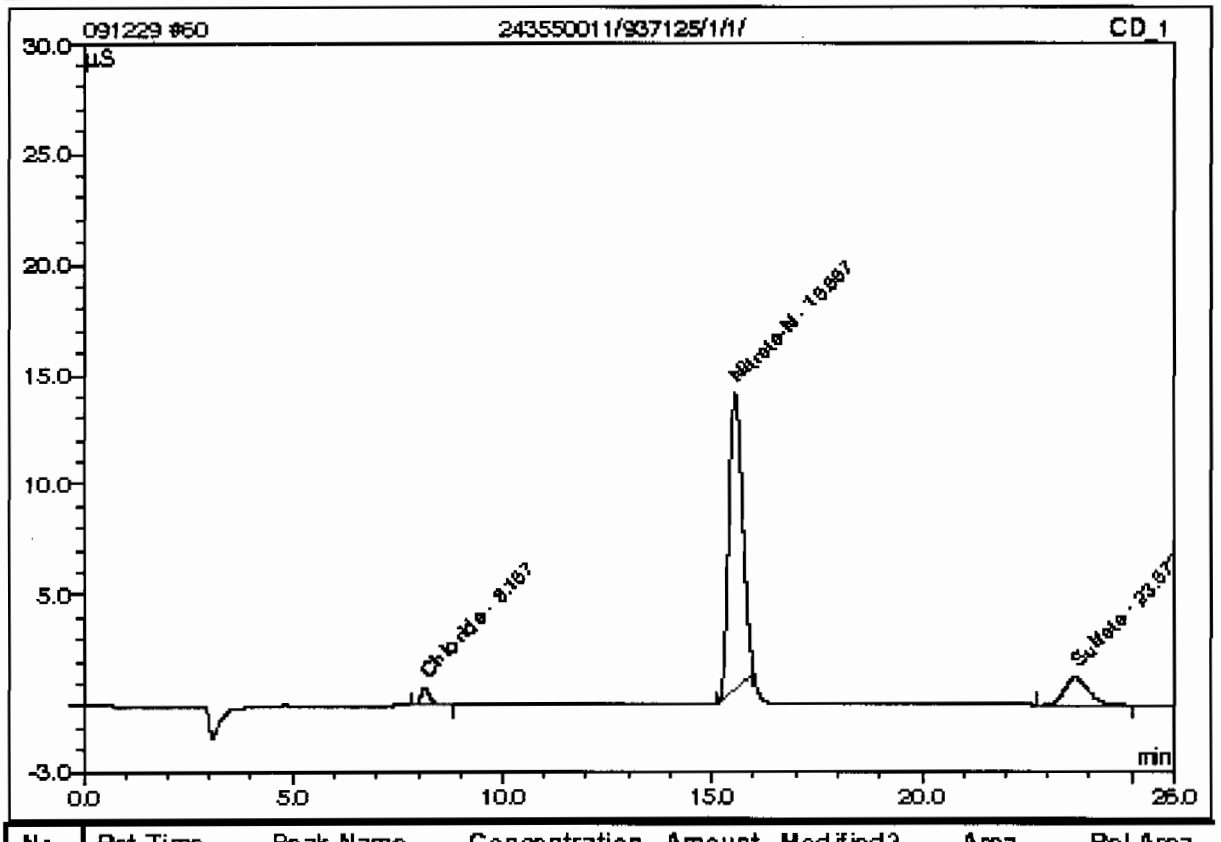

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
1	8.16	Chloride	n.a.	0.4567		0.18977	3.10
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
2	15.56	Nitrate-N	n.a.	4.6399		5.09372	83.22
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
3	23.67	Sulfate	n.a.	2.7993		0.83718	13.68
Total:				7.8959	0.000	6.121	100.00

60 243550011/937125/1/1/

Sample Name:	243550011/937125/1/1/	*Injection Volume:*	50.0
Vial Number:	93	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	120409an	*Sample Amount:*	1.0000
Recording Time:	12/30/2009 12:15	Analyst:	VH1
Run Time (min):	26.00	Column:	AS23-002588;GLGCE086;300;9056

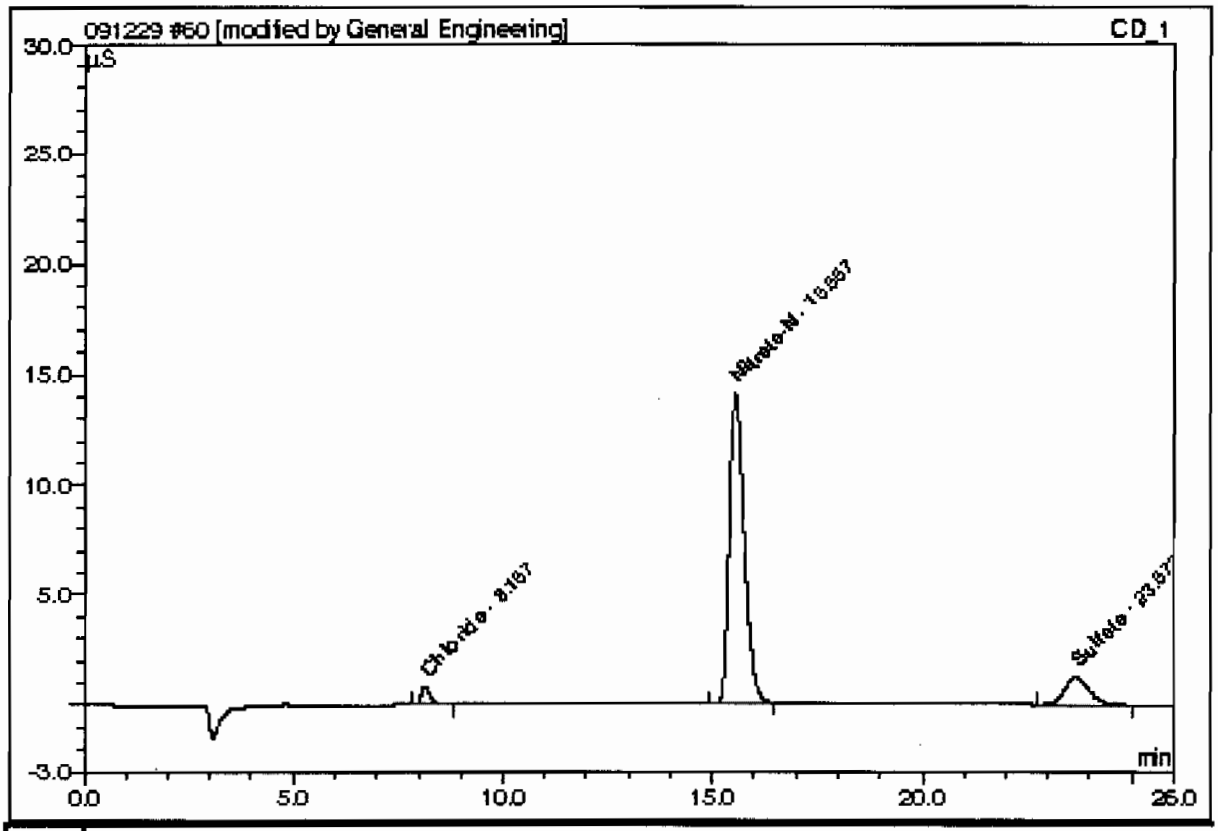

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
1	8.16	Chloride	n.a.	0.4567		0.18977	2.76
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
2	15.56	Nitrate-N	n.a.	5.3190		5.85640	85.08
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
3	23.67	Sulfate	n.a.	2.7993		0.83718	12.16
Total:				8.5750	0.000	6.883	100.00

61 1202005292/937125/1/1/DUP

Sample Name:	1202005292/937125/1/1/DUP	*Injection Volume:*	50.0
Vial Number:	93	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	120409an	*Sample Amount:*	1.0000
Recording Time:	12/30/2009 12:41	Analyst:	VH1
Run Time (min):	24.92	Column:	AS23-002588;GLGCE086;300;9056

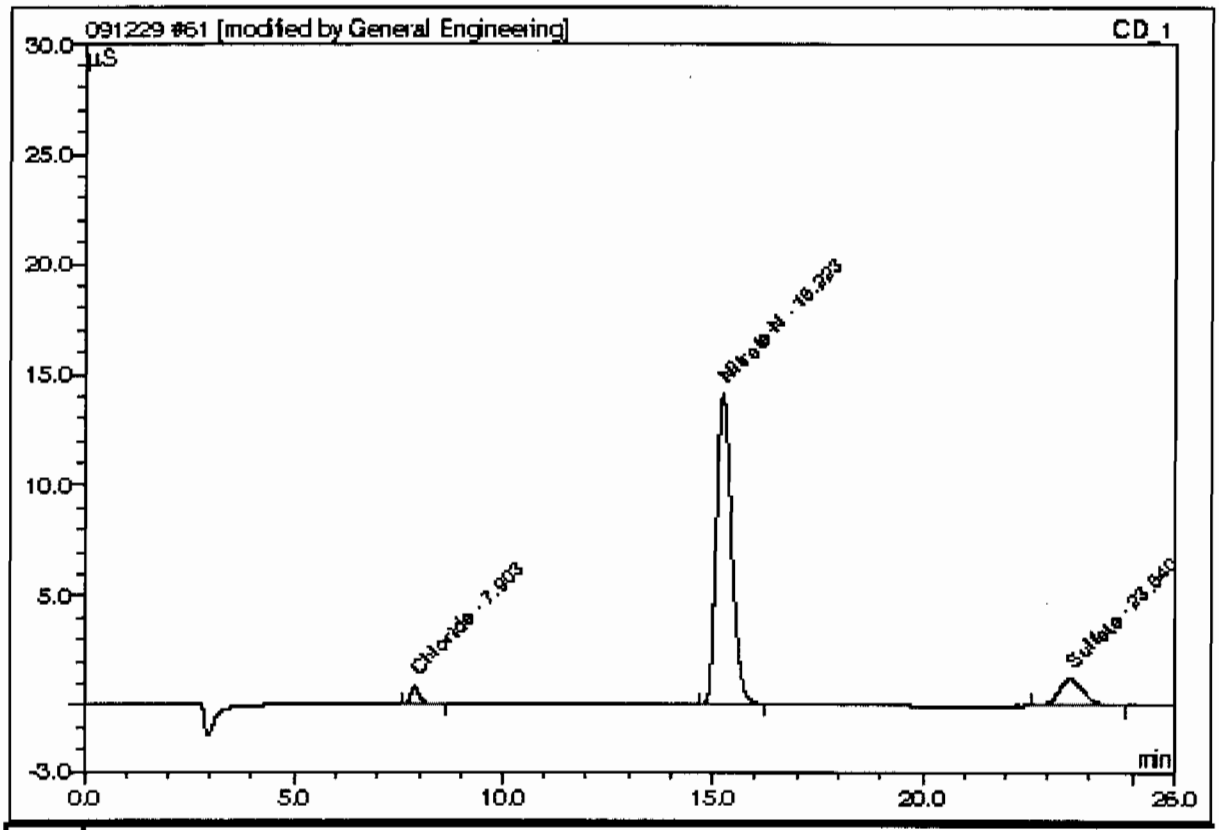

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
1	7.90	Chloride	n.a.	0.4541		0.18850	2.75
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
2	15.22	Nitrate-N	n.a.	5.3113		5.84769	85.25
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
3	23.54	Sulfate	n.a.	2.7566		0.82297	12.00
Total:				8.5220	0.000	6.859	100.00

62 1202005294/937125/1/1/MS

Sample Name:	1202005294/937125/1/1/MS	*Injection Volume:*	50.0
Vial Number:	93	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	120409an	*Sample Amount:*	1.0000
Recording Time:	12/30/2009 13:07	Analyst:	VH1
Run Time (min):	26.00	Column:	AS23-002588;GLGCE086;300;9056

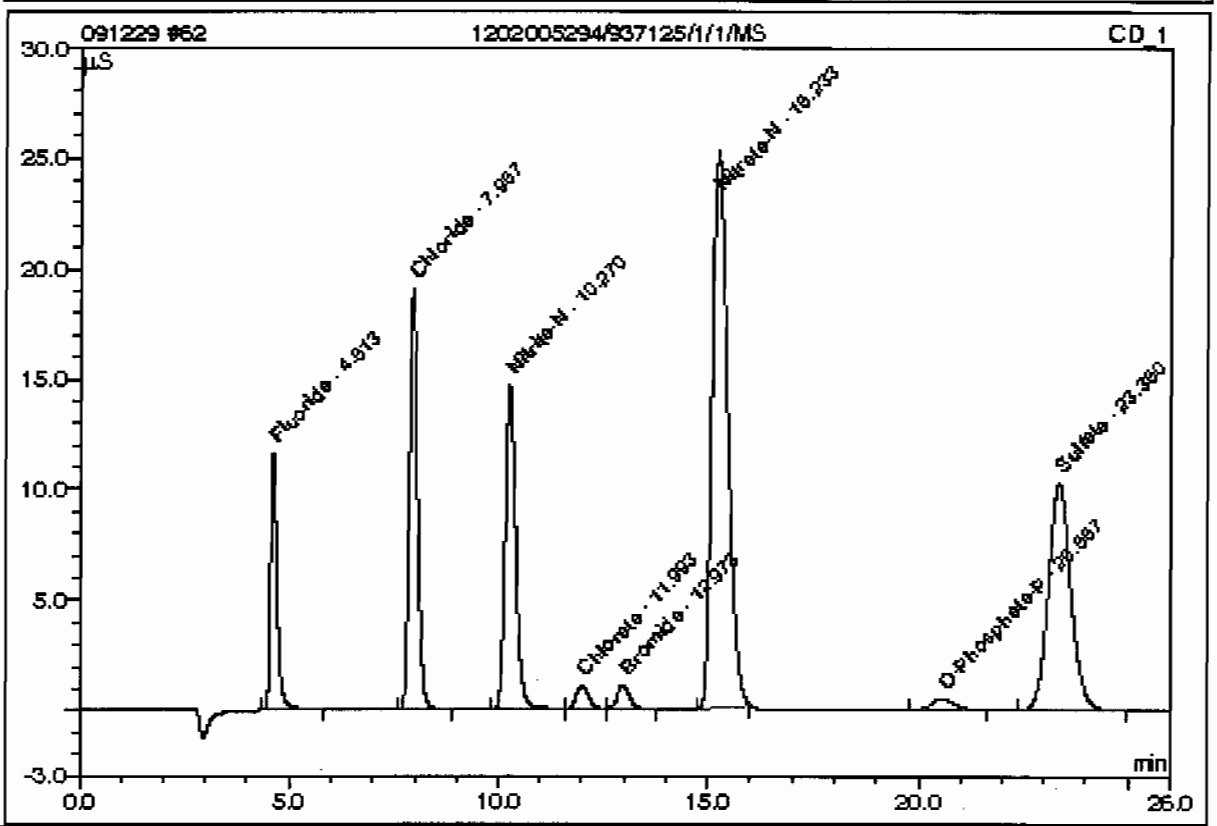

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.61	Fluoride	n.a.	3.1642		2.13762	7.41
2	7.96	Chloride	n.a.	8.7753		4.26719	14.80
3	10.27	Nitrite-N	n.a.	4.3586		4.29465	14.90
4	11.99	Chlorate	n.a.	2.3490		0.36201	1.26
5	12.97	Bromide	n.a.	2.3088		0.38976	1.35
6	15.23	Nitrate-N	n.a.	9.6079		10.67293	37.02
7	20.56	O-Phosphate-P	n.a.	0.9396		0.29817	1.03
8	23.35	Sulfate	n.a.	19.5414		6.40736	22.22
Total:				51.0448	0.000	28.830	100.00

62 1202005294/937125/1/1/MS

Sample Name:	1202005294/937125/1/1/MS	*Injection Volume:*	50.0
Vial Number:	93	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	120409an	*Sample Amount:*	1.0000
Recording Time:	12/30/2009 13:07	Analyst:	VH1
Run Time (min):	26.00	Column:	AS23-002588;GLGCE086;300;9056

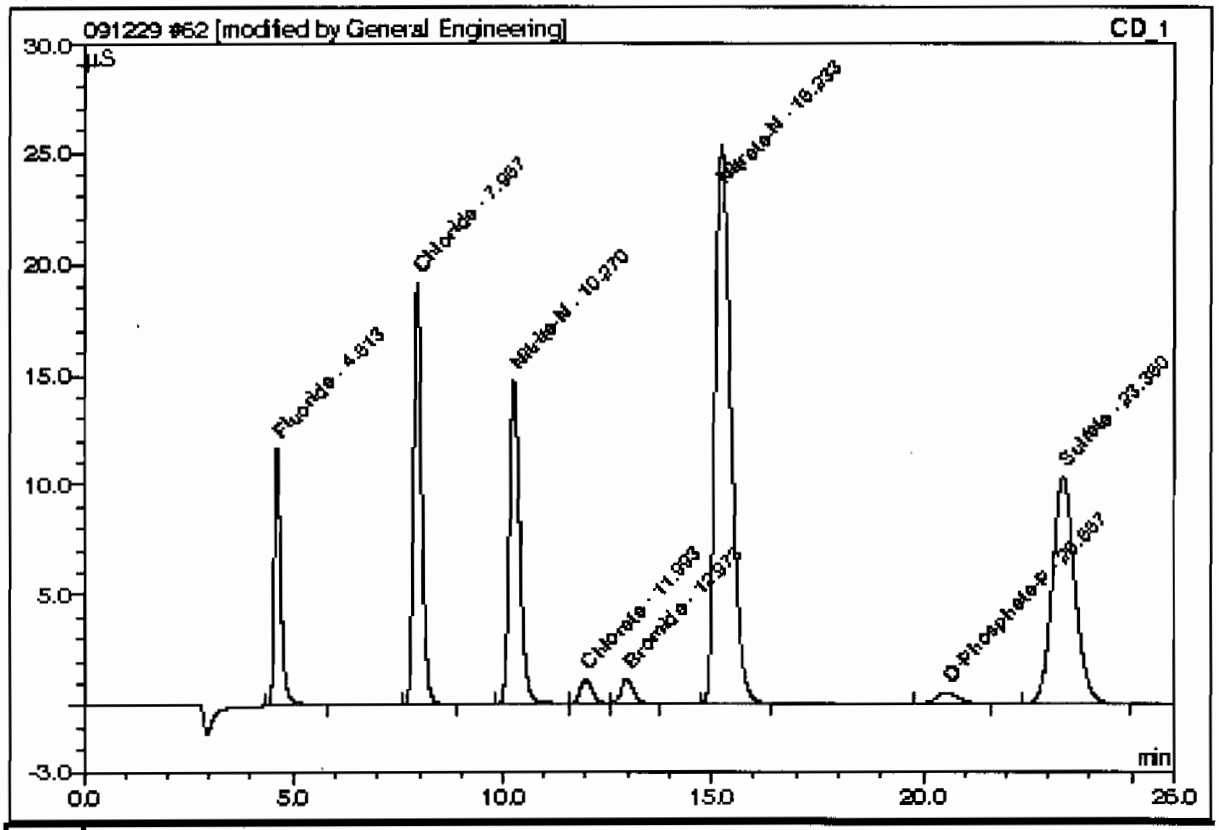

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.61	Fluoride	n.a.	3.1642		2.13762	7.38
2	7.96	Chloride	n.a.	8.7753		4.26719	14.74
3	10.27	Nitrite-N	n.a.	4.3586		4.29465	14.83
4	11.99	Chlorate	n.a.	2.3490		0.36201	1.25
5	12.97	Bromide	n.a.	2.3088		0.38976	1.35
6	15.23	Nitrate-N	n.a.	9.7186		10.79719	37.29
7	20.56	O-Phosphate-P	n.a.	0.9396		0.29817	1.03
8	23.35	Sulfate	n.a.	19.5414		6.40736	22.13
Total:				51.1554	0.000	28.954	100.00

63 1202005296/937125/1/1/MSD

Sample Name:	1202005296/937125/1/1/MSD	*Injection Volume:*	50.0
Vial Number:	93	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	120409an	*Sample Amount:*	1.0000
Recording Time:	12/30/2009 13:33	Analyst:	VH1
Run Time (min):	26.00	Column:	AS23-002588;GLGCE086;300;9056

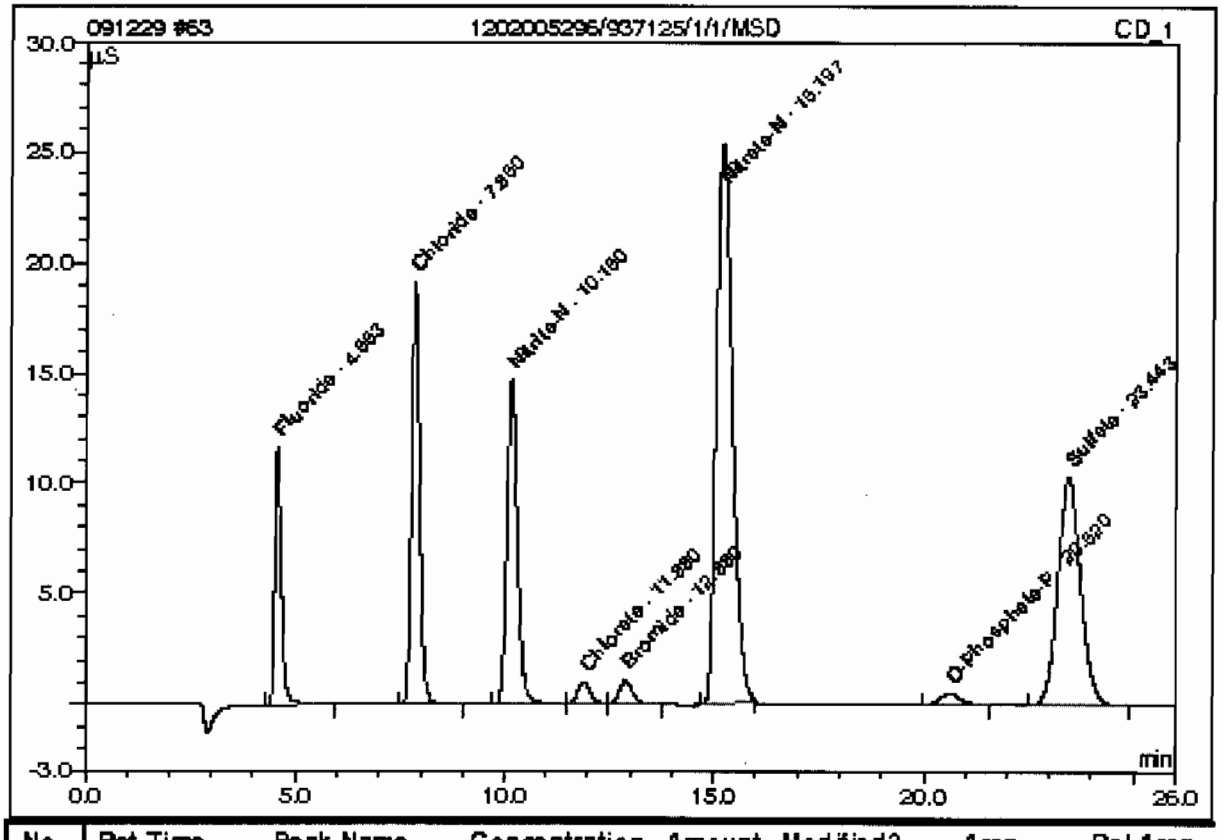

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.56	Fluoride	n.a.	3.1865		2.15291	7.36
2	7.86	Chloride	n.a.	8.7141		4.23717	14.49
3	10.16	Nitrite-N	n.a.	4.3495		4.28549	14.66
4	11.88	Chlorate	n.a.	2.3391		0.36045	1.23
5	12.88	Bromide	n.a.	2.3232		0.39224	1.34
6	15.20	Nitrate-N	n.a.	9.9365		11.04189	37.76
7	20.62	O-Phosphate-P	n.a.	0.9593		0.30497	1.04
8	23.44	Sulfate	n.a.	19.7104		6.46360	22.11
Total:				51.5186	0.000	29.239	100.00

63 1202005296/937125/1/1/MSD

Sample Name:	1202005296/937125/1/1/MSD	*Injection Volume:*	50.0
Vial Number:	93	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	120409an	*Sample Amount:*	1.0000
Recording Time:	12/30/2009 13:33	Analyst:	VH1
Run Time (min):	26.00	Column:	AS23-002588;GLGCE086;300;9056

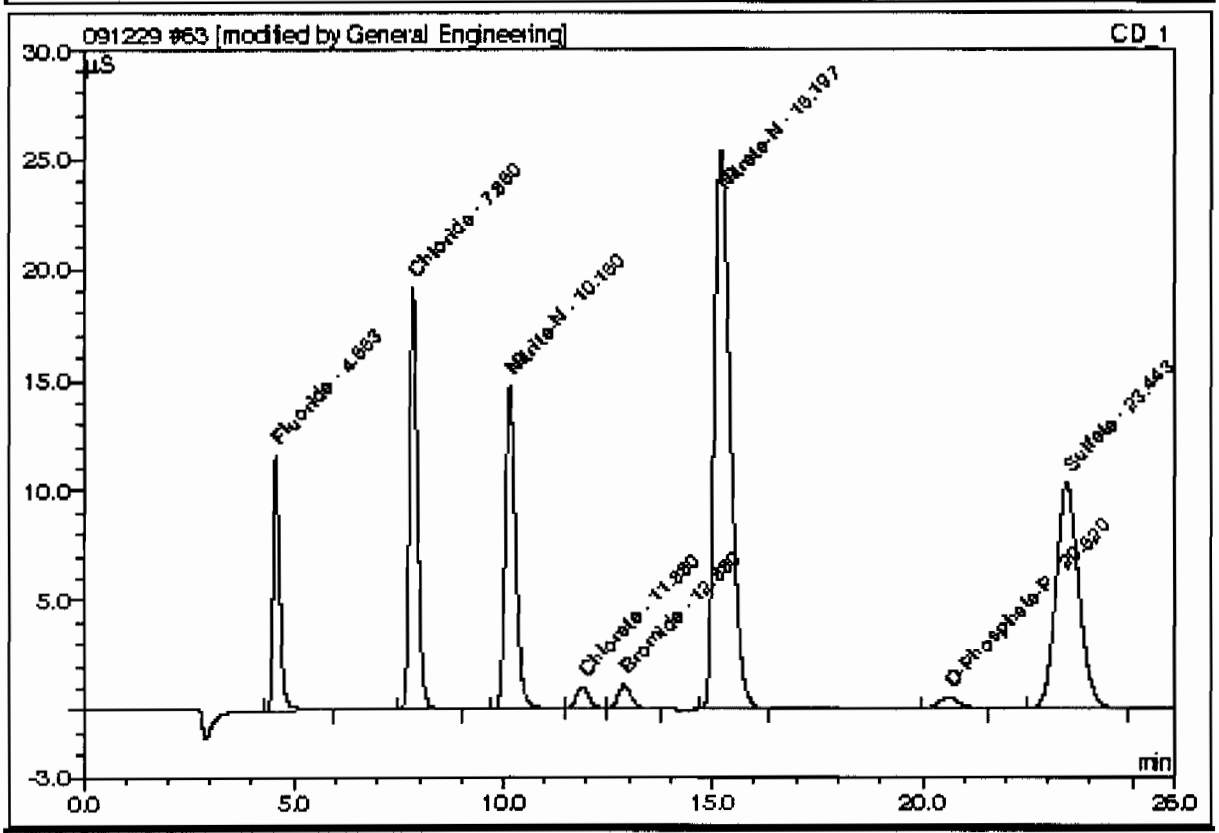

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.56	Fluoride	n.a.	3.1865		2.15291	7.33
2	7.86	Chloride	n.a.	8.7141		4.23717	14.44
3	10.16	Nitrite-N	n.a.	4.3495		4.28549	14.60
4	11.88	Chlorate	n.a.	2.3391		0.36045	1.23
5	12.88	Bromide	n.a.	2.3232		0.39224	1.34
6	15.20	Nitrate-N	n.a.	10.0380		11.15594	38.01
7	20.62	O-Phosphate-P	n.a.	0.9593		0.30497	1.04
8	23.44	Sulfate	n.a.	19.7104		6.46360	22.02
Total:				51.6202	0.000	29.353	100.00

64 243550012/937125/1/1/

Sample Name:	243550012/937125/1/1/	*Injection Volume:*	50.0
Vial Number:	94	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	120409an	*Sample Amount:*	1.0000
Recording Time:	12/30/2009 14:00	Analyst:	VH1
Run Time (min):	26.00	Column:	AS23-002588;GLGCE086;300;9056

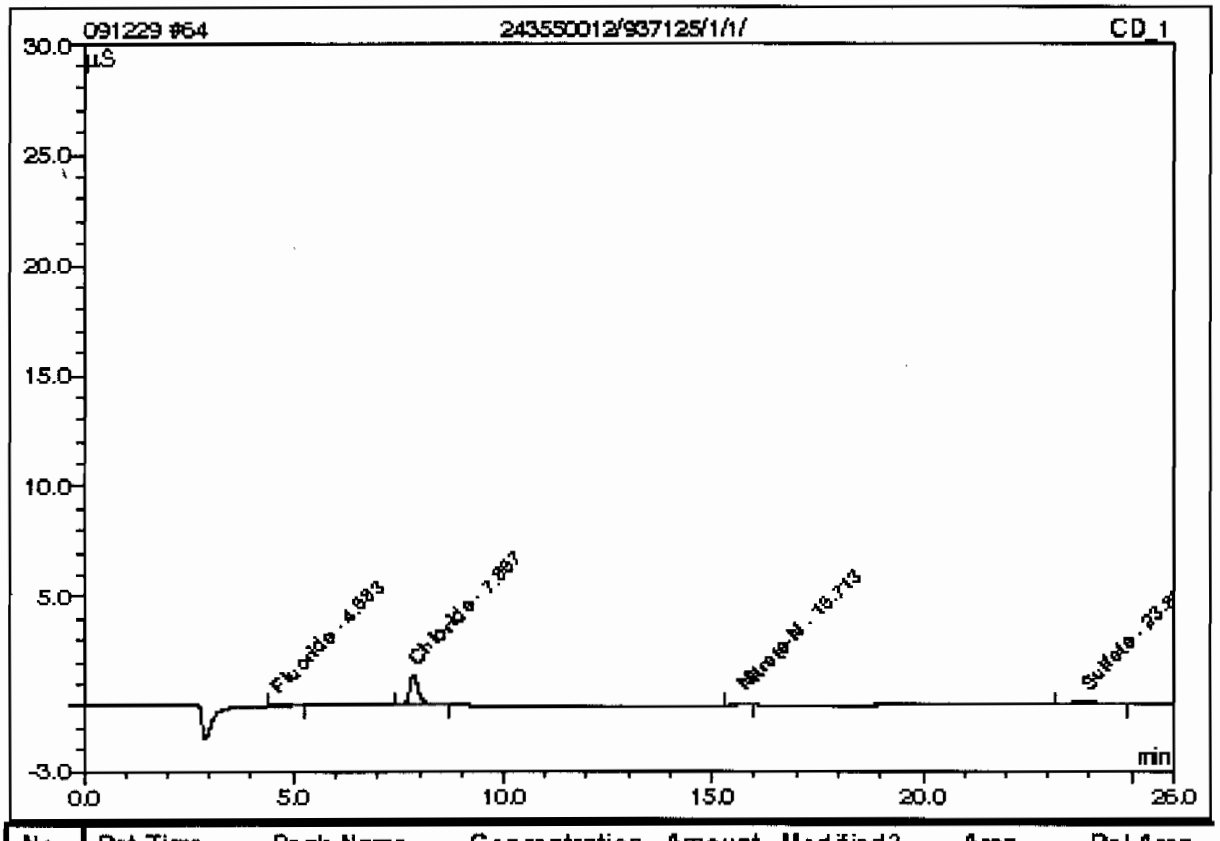

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.58	Fluoride	n.a.	0.0699		0.02393	4.79
2	7.86	Chloride	n.a.	0.7272		0.32236	64.49
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
3	15.71	Nitrate-N	n.a.	0.1355		0.03518	7.04
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
4	23.88	Sulfate	n.a.	0.6390		0.11841	23.69
Total:				1.5715	0.000	0.500	100.00

65 WIC091229-02CCV

Sample Name:	WIC091229-02CCV	*Injection Volume:*	50.0
Vial Number:	89	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	120409an	*Sample Amount:*	1.0000
Recording Time:	12/30/2009 14:26	Analyst:	VH1
Run Time (min):	26.00	Column:	AS23-002588;GLGCE086;300;9056

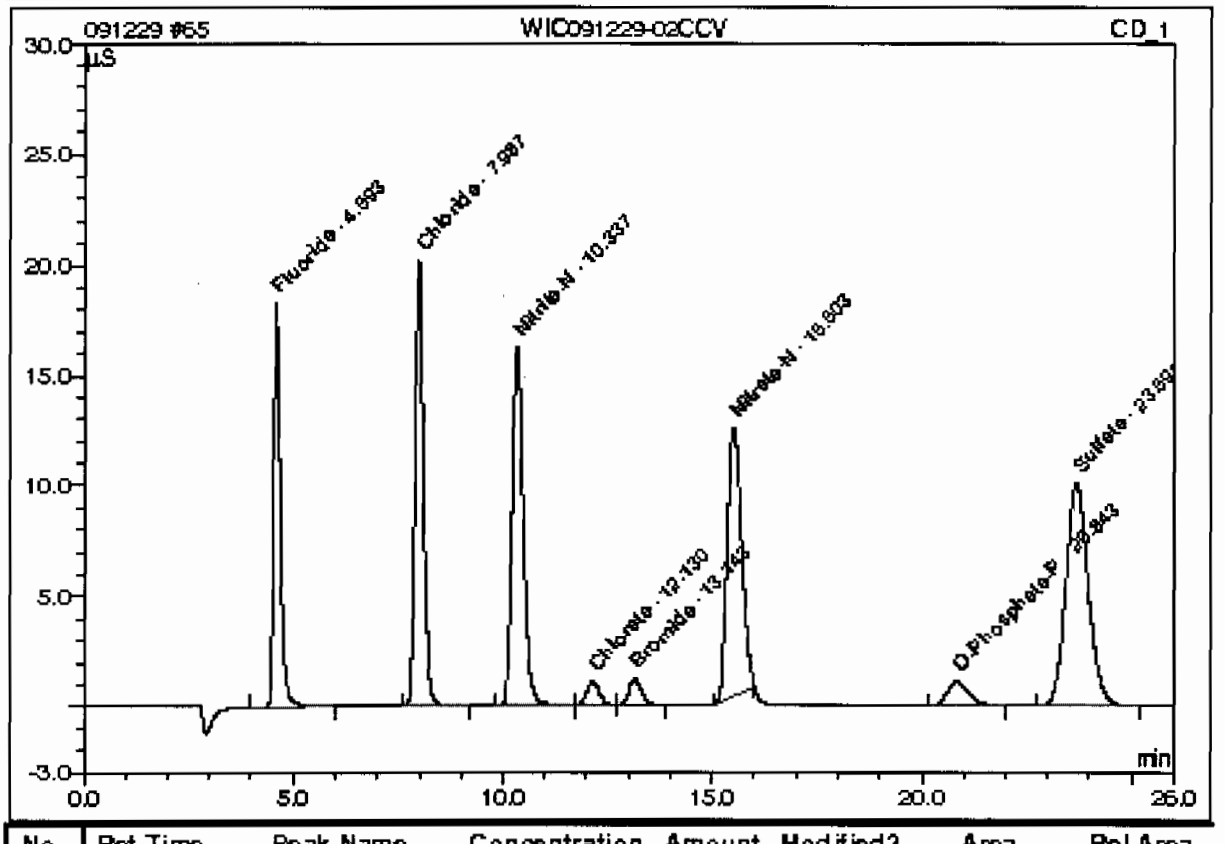

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.59	Fluoride	n.a.	4.9888		3.38402	13.25
2	7.99	Chloride	n.a.	9.3930		4.56996	17.89
3	10.34	Nitrite-N	n.a.	5.0330		4.97011	19.45
4	12.13	Chlorate	n.a.	2.5396		0.39207	1.53
5	13.14	Bromide	n.a.	2.5605		0.43302	1.70
6	15.50	Nitrate-N	n.a.	4.4034		4.82817	18.90
7	20.84	O-Phosphate-P	n.a.	1.9825		0.65818	2.58
8	23.69	Sulfate	n.a.	19.2525		6.31125	24.70
Total:				50.1533	0.000	25.547	100.00

65 WIC091229-02CCV

Sample Name:	WIC091229-02CCV	*Injection Volume:*	50.0
Vial Number:	89	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	120409an	*Sample Amount:*	1.0000
Recording Time:	12/30/2009 14:26	Analyst:	VH1
Run Time (min):	26.00	Column:	AS23-002588;GLGCE086;300;9056

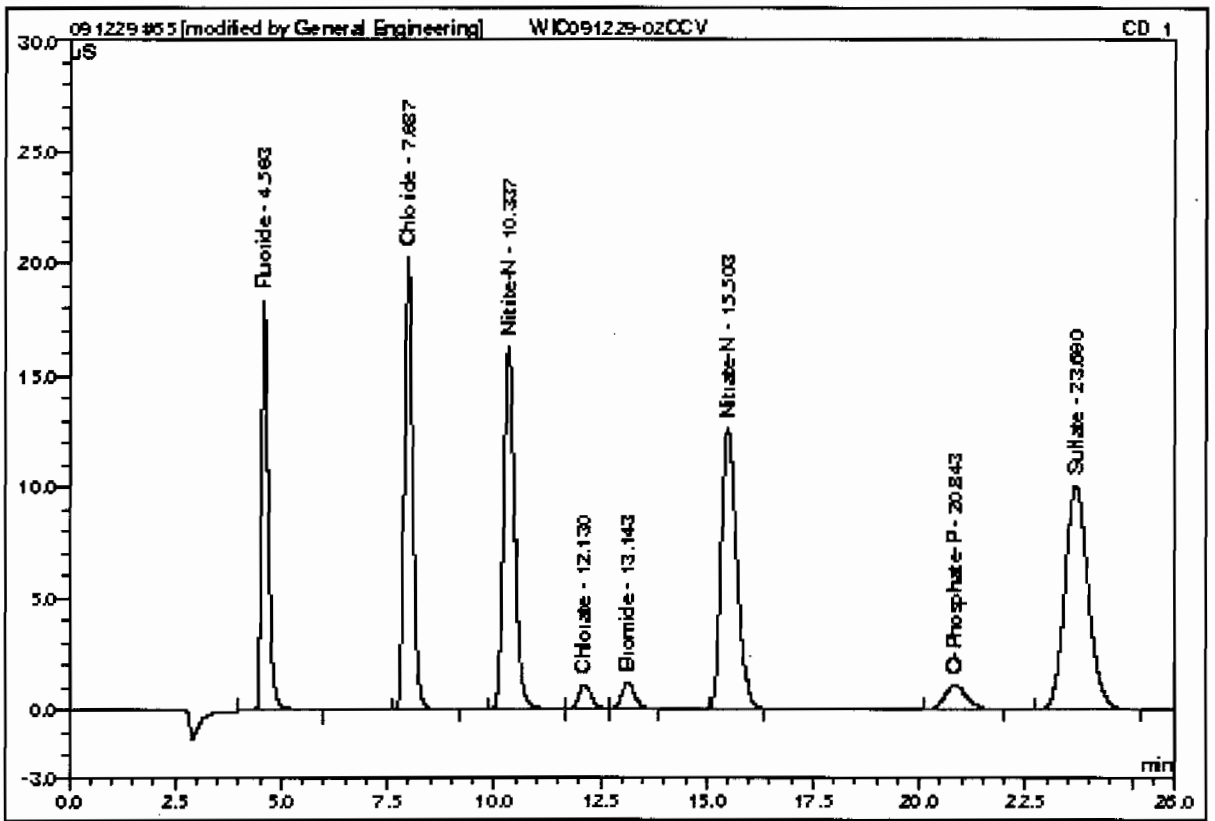

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.59	Fluoride	n.a.	4.9888		3.38402	13.01
2	7.99	Chloride	n.a.	9.3930		4.56996	17.57
3	10.34	Nitrite-N	n.a.	5.0330		4.97011	19.11
4	12.13	Chlorate	n.a.	2.5396		0.39207	1.51
5	13.14	Bromide	n.a.	2.5605		0.43302	1.66
6	15.50	Nitrate-N	n.a.	4.8153		5.29065	20.34
7	20.84	O-Phosphate-P	n.a.	1.9825		0.65818	2.53
8	23.69	Sulfate	n.a.	19.2525		6.31125	24.27
Total:				50.5652	0.000	26.009	100.00

66 CCB

Sample Name:	CCB	*Injection Volume:*	50.0
Vial Number:	90	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	120409an	*Sample Amount:*	1.0000
Recording Time:	12/30/2009 14:52	Analyst:	VH1
Run Time (min):	26.00	Column:	AS23-002588;GLGCE086;300;9056

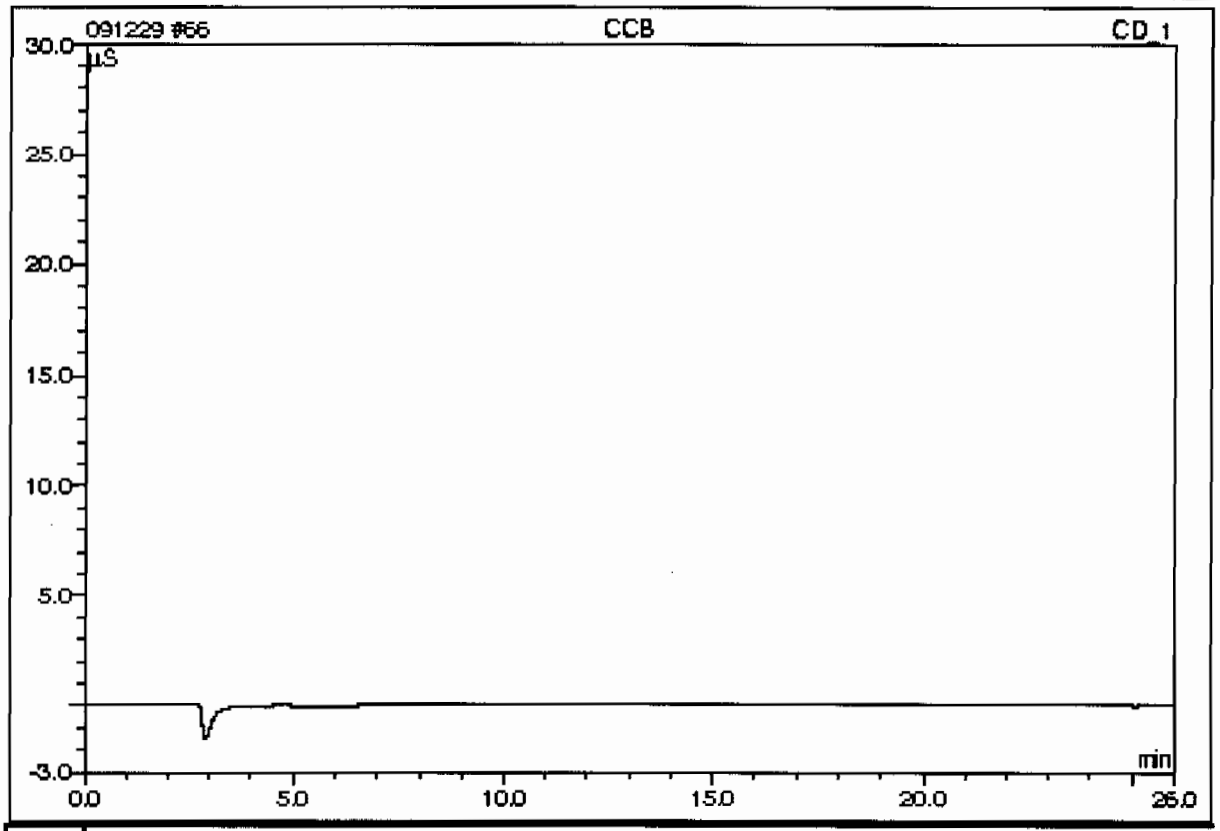

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.
Total:				0.0000	0.000	0.000	0.00

67 243550013/937125/1/1/

Sample Name:	243550013/937125/1/1/	*Injection Volume:*	50.0
Vial Number:	92	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	120409an	*Sample Amount:*	1.0000
Recording Time:	12/30/2009 15:18	Analyst:	VH1
Run Time (min):	26.00	Column:	AS23-002588;GLGCE086;300;9056

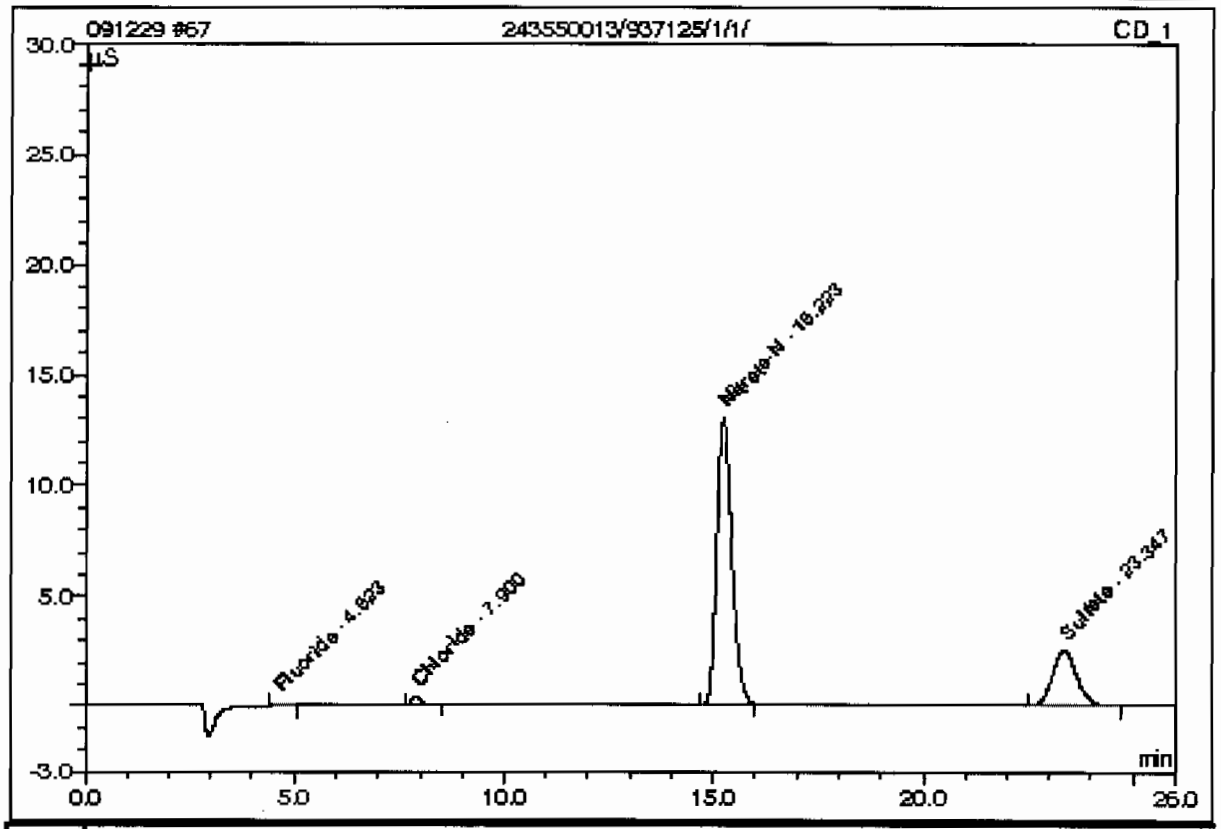

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.62	Fluoride	n.a.	0.0685		0.02293	0.32
2	7.90	Chloride	n.a.	0.2525		0.08971	1.25
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
3	15.22	Nitrate-N	n.a.	4.8760		5.35884	74.39
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
4	23.35	Sulfate	n.a.	5.4891		1.73209	24.04
Total:				10.6861	0.000	7.204	100.00

68 WIC091229-02CVH

Sample Name:	WIC091229-02CVH	*Injection Volume:*	50.0
Vial Number:	89	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	120409an	*Sample Amount:*	1.0000
Recording Time:	12/30/2009 15:44	Analyst:	VH1
Run Time (min):	26.00	Column:	AS23-002588;GLGCE086;300;9056

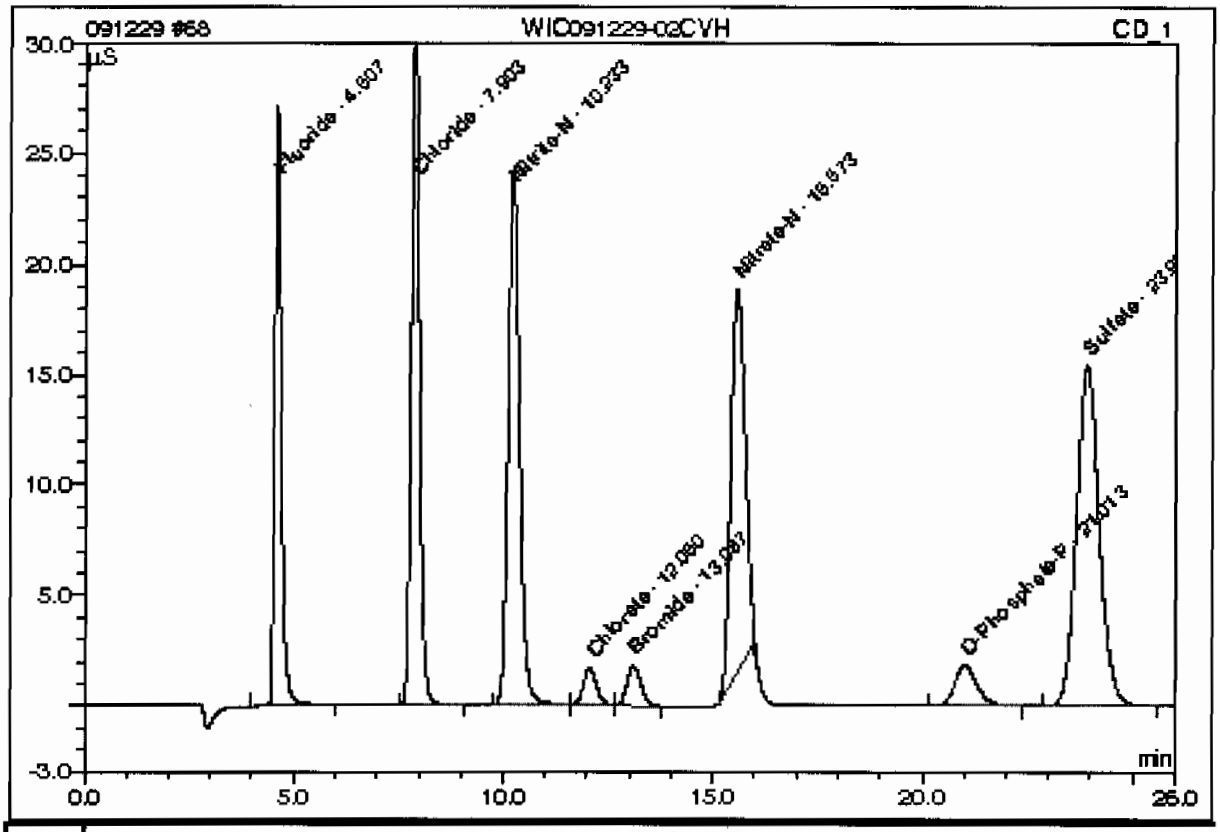

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.61	Fluoride	n.a.	7.2182		4.90699	12.83
2	7.90	Chloride	n.a.	14.0945		6.87440	17.98
3	10.23	Nitrite-N	n.a.	7.6425		7.58382	19.83
4	12.05	Chlorate	n.a.	3.8937		0.60569	1.58
5	13.09	Bromide	n.a.	4.1198		0.70103	1.83
6	15.57	Nitrate-N	n.a.	6.2018		6.84780	17.91
7	21.01	O-Phosphate-P	n.a.	3.2926		1.11039	2.90
8	23.92	Sulfate	n.a.	29.1521		9.60489	25.12
Total:				75.6153	0.000	38.235	100.00

68 WIC091229-02CVH

Sample Name:	WIC091229-02CVH	*Injection Volume:*	50.0
Vial Number:	89	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	120409an	*Sample Amount:*	1.0000
Recording Time:	12/30/2009 15:44	Analyst:	VH1
Run Time (min):	26.00	Column:	AS23-002588;GLGCE086;300;9056

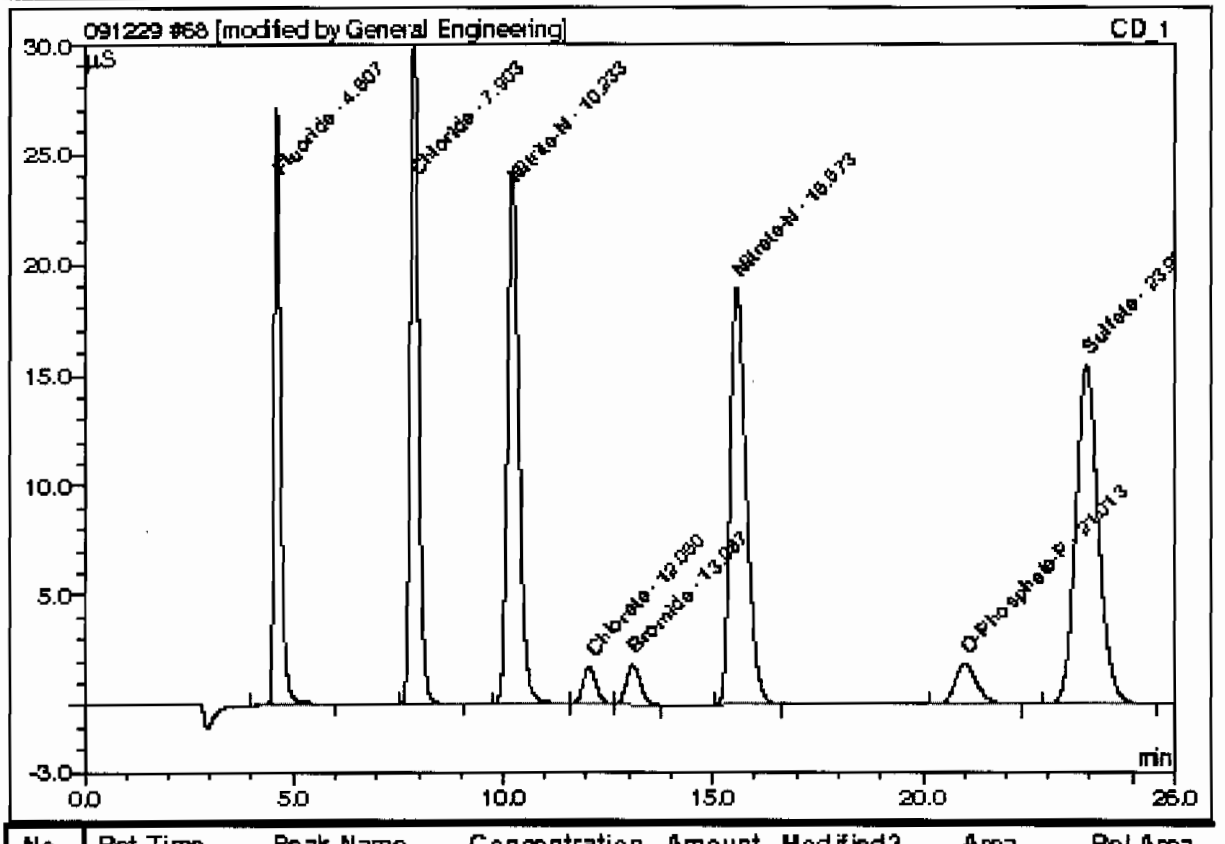

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.61	Fluoride	n.a.	7.2182		4.90699	12.32
2	7.90	Chloride	n.a.	14.0945		6.87440	17.26
3	10.23	Nitrite-N	n.a.	7.6425		7.58382	19.04
4	12.05	Chlorate	n.a.	3.8937		0.60569	1.52
5	13.09	Bromide	n.a.	4.1198		0.70103	1.76
6	15.57	Nitrate-N	n.a.	7.6293		8.45094	21.21
7	21.01	O-Phosphate-P	n.a.	3.2926		1.11039	2.79
8	23.92	Sulfate	n.a.	29.1521		9.60489	24.11
Total:				77.0429	0.000	39.838	100.00

69 CCB

Sample Name:	CCB	*Injection Volume:*	50.0
Vial Number:	90	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	120409an	*Sample Amount:*	1.0000
Recording Time:	12/30/2009 16:10	Analyst:	VH1
Run Time (min):	26.00	Column:	AS23-002588;GLGCE086;300;9056

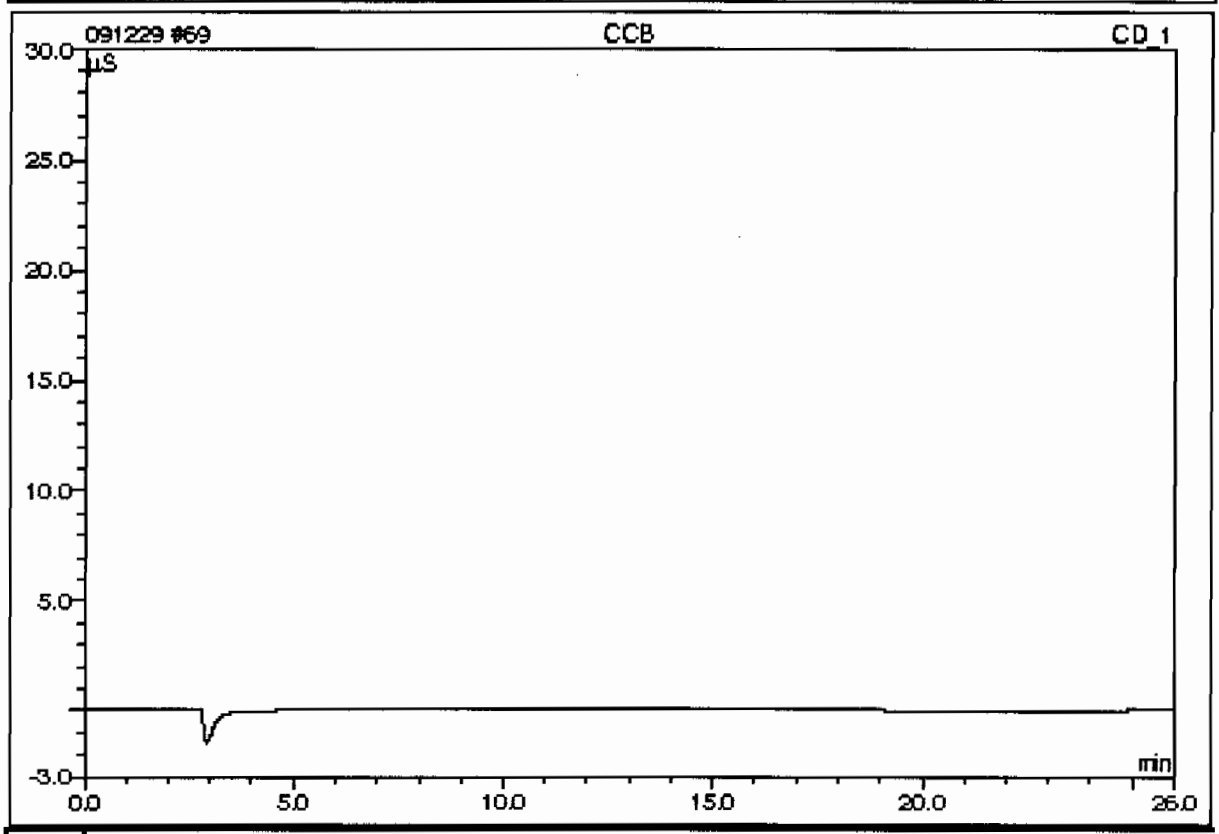

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.
Total:				0.0000	0.000	0.000	0.00

This is runlog for Sequence 100112.seq for IC6

Sample ID	Run Time	Batch	Dilution	Dataset	Analyst
ICAL-07	01/08/10 09:52		1	100112	MAR1
ICAL-06	01/08/10 10:20		1	100112	MAR1
ICAL-05	01/08/10 10:49		1	100112	MAR1
ICAL-04	01/08/10 11:18		1	100112	MAR1
ICAL-03	01/08/10 11:47		1	100112	MAR1
ICAL-02	01/08/10 12:16		1	100112	MAR1
ICAL-01	01/08/10 12:45		1	100112	MAR1

2 AUTOCAL7

Sample Name:	AUTOCAL7	*Injection Volume:*	1.0
Vial Number:	2	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100108an	*Sample Amount:*	1.0000
Recording Time:	1/8/2010 9:52	Analyst:	MAR1
Run Time (min):	26.00	Column:	AS23-001528; GLGCB086;300;9056

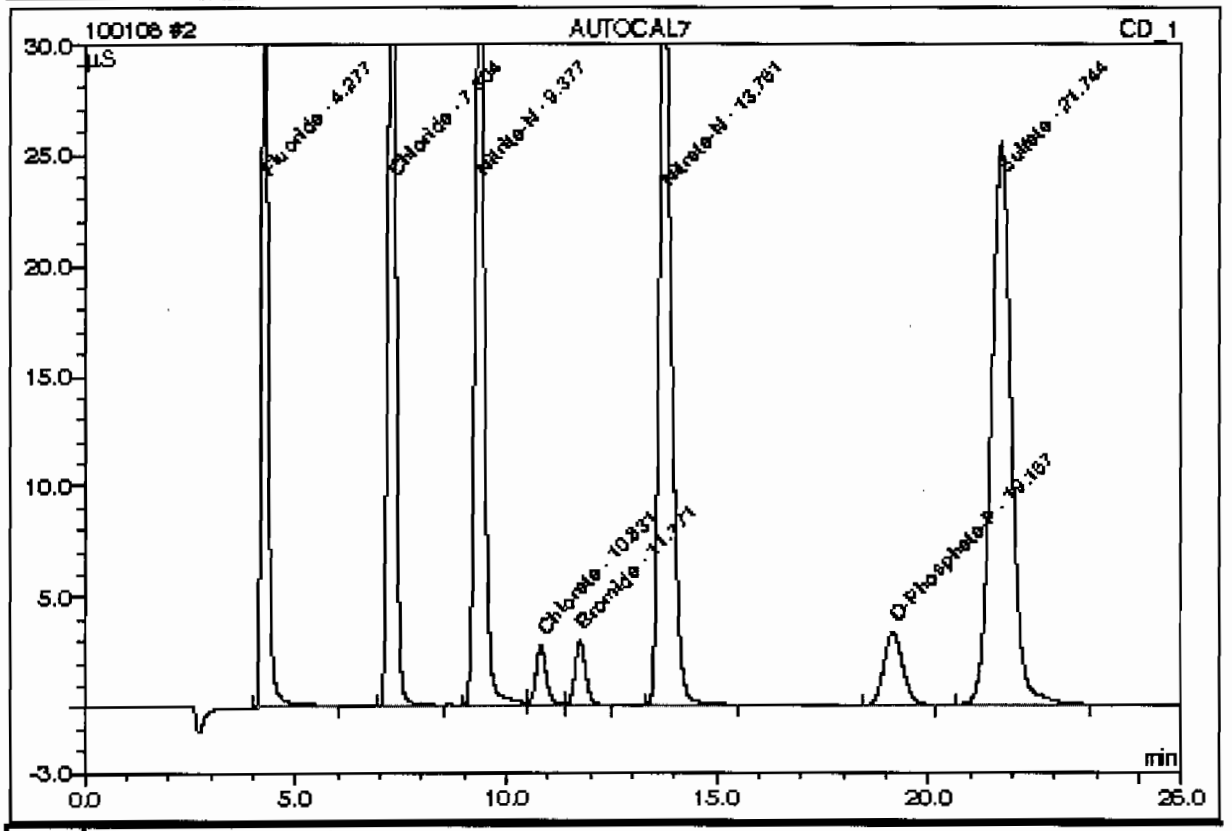

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.28	Fluoride	10.0000	10.0082		6.70344	12.19
2	7.30	Chloride	20.0000	20.0238		9.68791	17.62
3	9.38	Nitrite-N	10.0000	10.0092		9.77483	17.78
4	10.83	Chlorate	5.0000	5.0744		0.80488	1.46
5	11.77	Bromide	5.0000	5.0256		0.85133	1.55
6	13.76	Nitrate-N	10.0000	10.0140		11.38263	20.70
7	19.16	O-Phosphate-P	5.0000	5.0182		1.74323	3.17
8	21.74	Sulfate	40.0000	40.0586		14.03587	25.53
Total:				105.2320	0.000	54.984	100.00

3 AUTOCAL6

Sample Name:	AUTOCAL6	*Injection Volume:*	1.0
Vial Number:	3	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100108an	*Sample Amount:*	1.0000
Recording Time:	1/8/2010 10:20	Analyst:	MAR1
Run Time (min):	26.00	Column:	AS23-001528; GLGCE086;300;9056

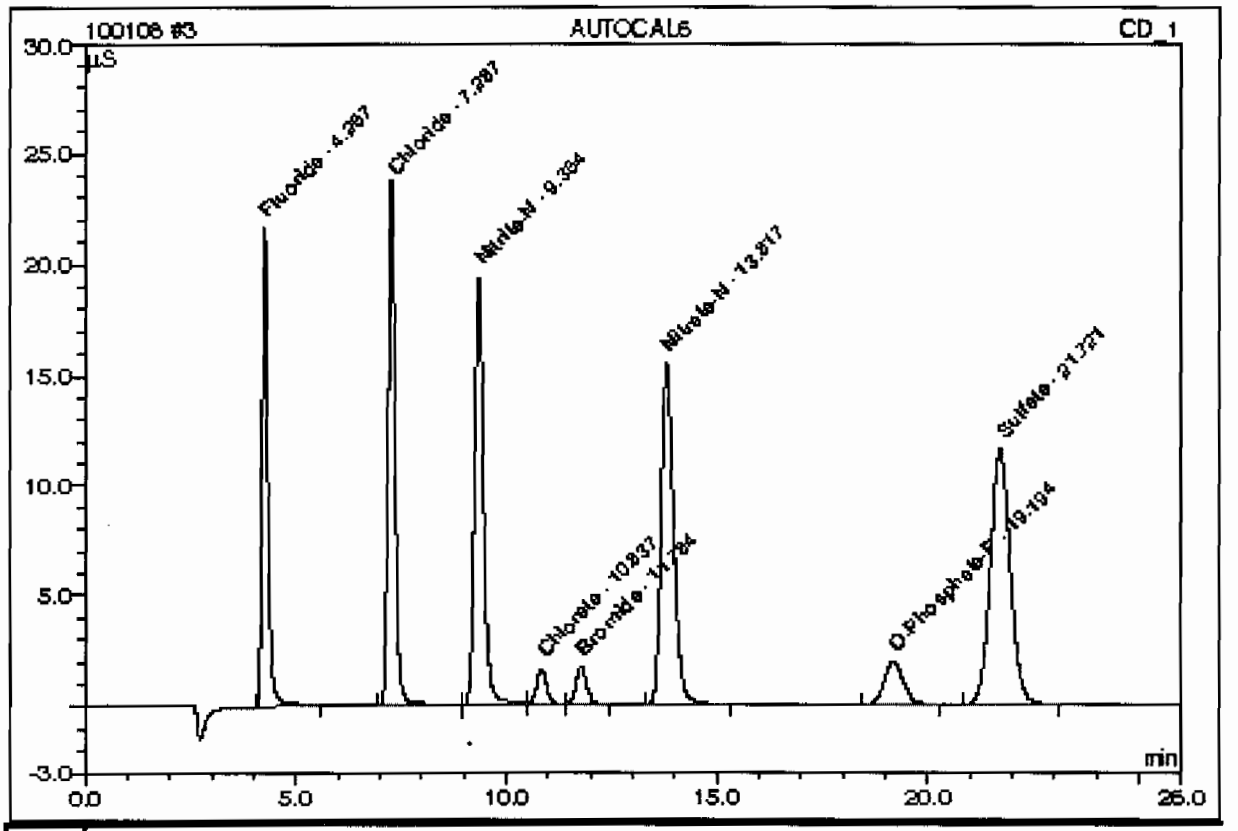

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.27	Fluoride	5.0000	5.0117		3.35379	12.66
2	7.29	Chloride	10.0000	9.5449		4.55085	17.18
3	9.36	Nitrite-N	5.0000	4.9825		4.84531	18.29
4	10.84	Chlorate	3.0000	3.0092		0.48008	1.81
5	11.78	Bromide	3.0000	2.9943		0.50584	1.91
6	13.82	Nitrate-N	5.0000	4.7983		5.36461	20.25
7	19.19	O-Phosphate-P	3.0000	2.9989		1.04338	3.94
8	21.72	Sulfate	20.0000	18.6140		6.35262	23.98
Total:				51.9538	0.000	26.496	100.00

4 AUTOCAL5

Sample Name:	AUTOCAL5	*Injection Volume:*	1.0
Vial Number:	4	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100108an	*Sample Amount:*	1.0000
Recording Time:	1/8/2010 10:49	Analyst:	MAR1
Run Time (min):	26.00	Column:	AS23-001528; GLGCE086;300;9056

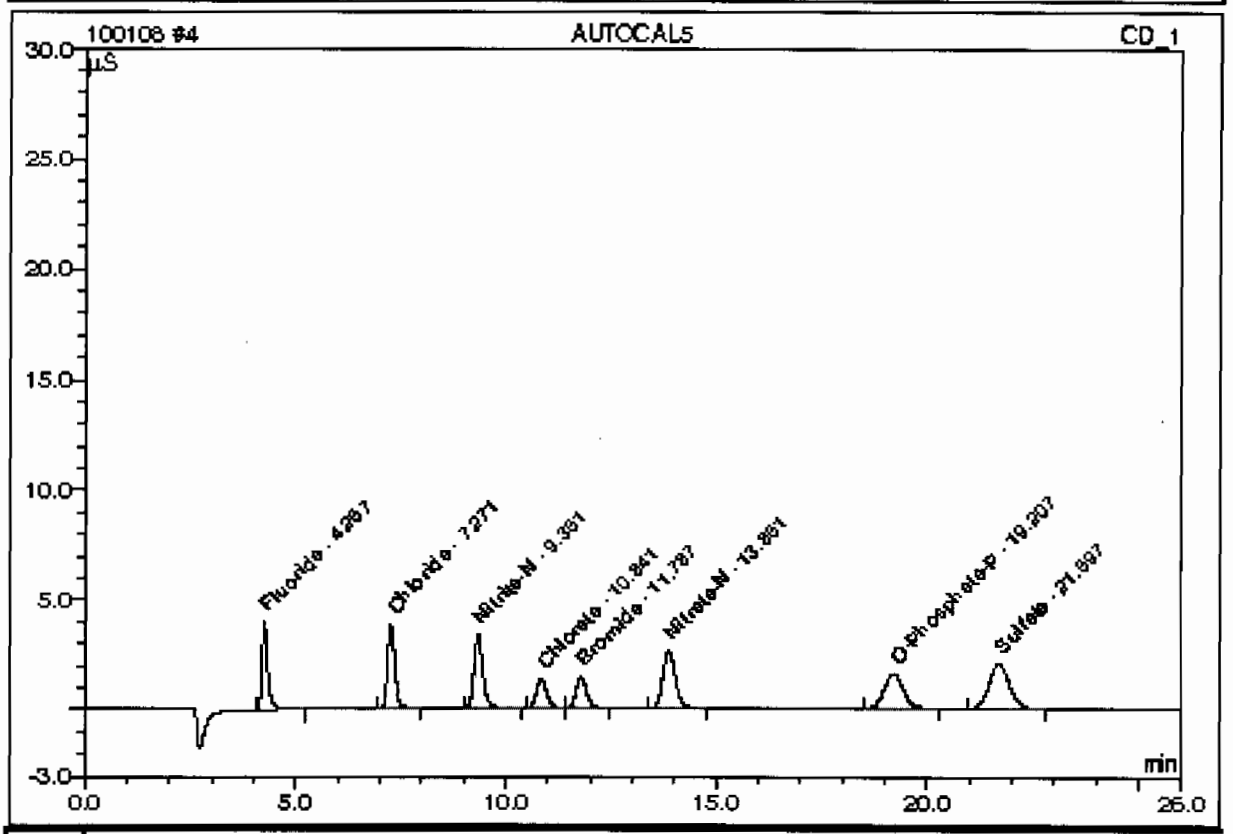

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.26	Fluoride	1.0000	0.9586		0.62344	10.50
2	7.27	Chloride	2.0000	1.7656		0.76784	12.93
3	9.35	Nitrite-N	1.0000	0.9167		0.85120	14.34
4	10.84	Chlorate	2.5000	2.3429		0.36878	6.21
5	11.79	Bromide	2.5000	2.4486		0.41232	6.95
6	13.86	Nitrate-N	1.0000	0.8979		0.92017	15.50
7	19.21	O-Phosphate-P	2.5000	2.4697		0.85709	14.44
8	21.70	Sulfate	4.0000	3.6828		1.13541	19.13
Total:				15.4827	0.000	5.936	100.00

5 AUTOCAL4

Sample Name:	AUTOCAL4	*Injection Volume:*	1.0
Vial Number:	5	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100108an	*Sample Amount:*	1.0000
Recording Time:	1/8/2010 11:18	Analyst:	MAR1
Run Time (min):	26.00	Column:	AS23-001528; GLGCB086;300;9056

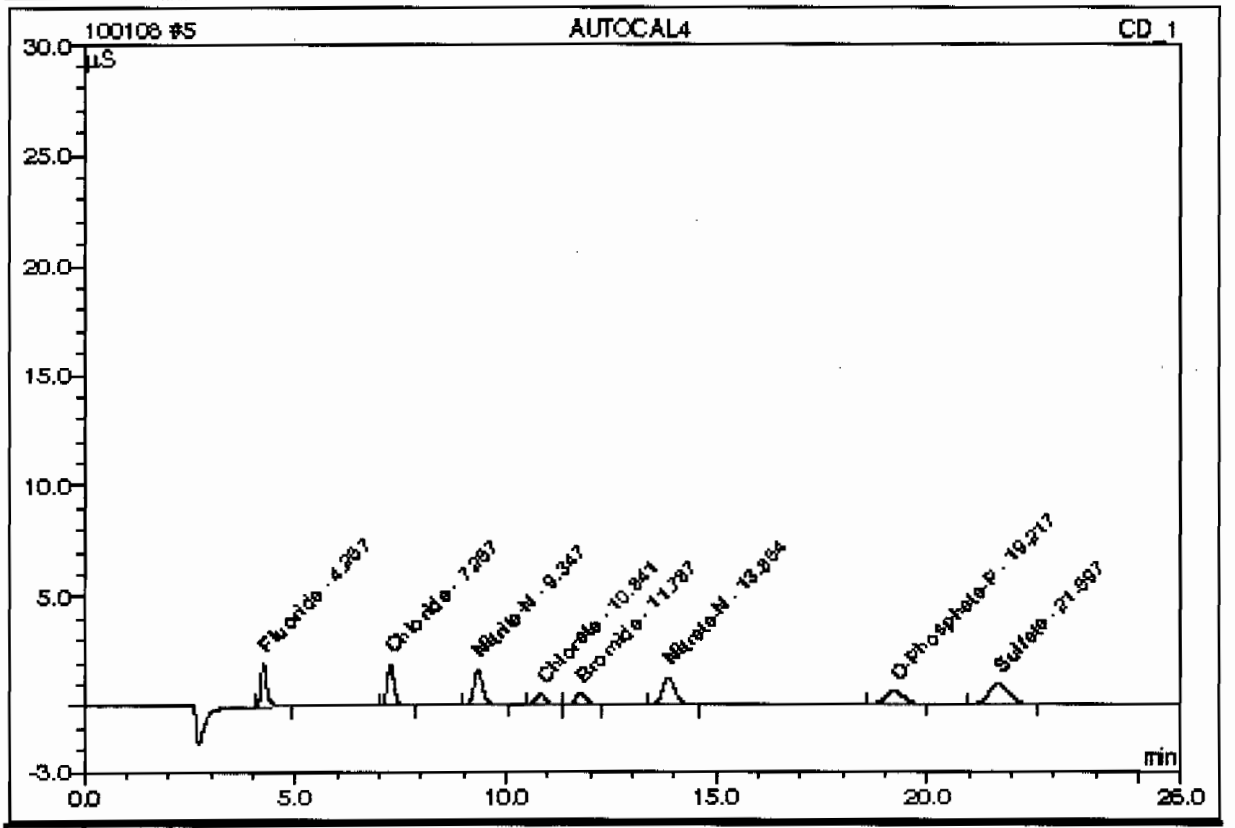

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.26	Fluoride	0.5000	0.4909		0.31012	11.52
2	7.27	Chloride	1.0000	0.9727		0.36892	13.70
3	9.35	Nitrite-N	0.5000	0.4717		0.40550	15.06
4	10.84	Chlorate	1.0000	0.9319		0.13934	5.17
5	11.79	Bromide	1.0000	0.9430		0.15388	5.71
6	13.86	Nitrate-N	0.5000	0.4918		0.44441	16.50
7	19.22	O-Phosphate-P	1.0000	0.9482		0.32228	11.97
8	21.70	Sulfate	2.0000	2.0460		0.54826	20.36
Total:				7.2962	0.000	2.693	100.00

6 AUTOCAL3

Sample Name:	AUTOCAL3	*Injection Volume:*	1.0
Vial Number:	6	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100108an	*Sample Amount:*	1.0000
Recording Time:	1/8/2010 11:47	Analyst:	MAR1
Run Time (min):	26.00	Column:	AS23-001528; GLGCB086;300;9056

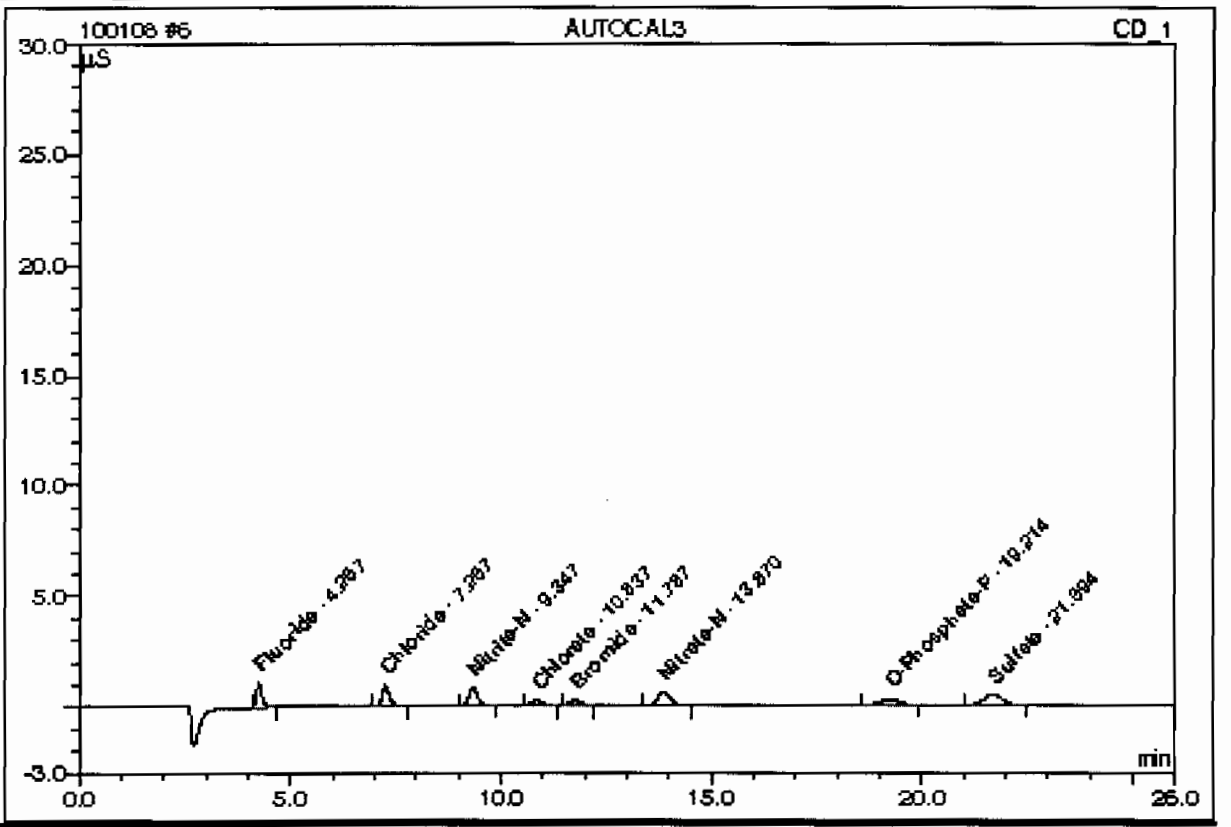

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.26	Fluoride	0.2500	0.2727		0.16615	12.11
2	7.27	Chloride	0.5000	0.6245		0.18839	13.74
3	9.35	Nitrite-N	0.2500	0.2716		0.20311	14.81
4	10.84	Chlorate	0.5000	0.5200		0.07109	5.18
5	11.79	Bromide	0.5000	0.5063		0.07787	5.68
6	13.87	Nitrate-N	0.2500	0.3064		0.22351	16.30
7	19.21	O-Phosphate-P	0.5000	0.5081		0.16604	12.11
8	21.89	Sulfate	1.0000	1.2976		0.27536	20.08
Total:				4.3070	0.000	1.372	100.00

7 AUTOCAL2

Sample Name:	AUTOCAL2	*Injection Volume:*	1.0
Vial Number:	7	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100108an	*Sample Amount:*	1.0000
Recording Time:	1/8/2010 12:16	Analyst:	MAR1
Run Time (min):	26.00	Column:	AS23-001528; GLGCB086;300;9056

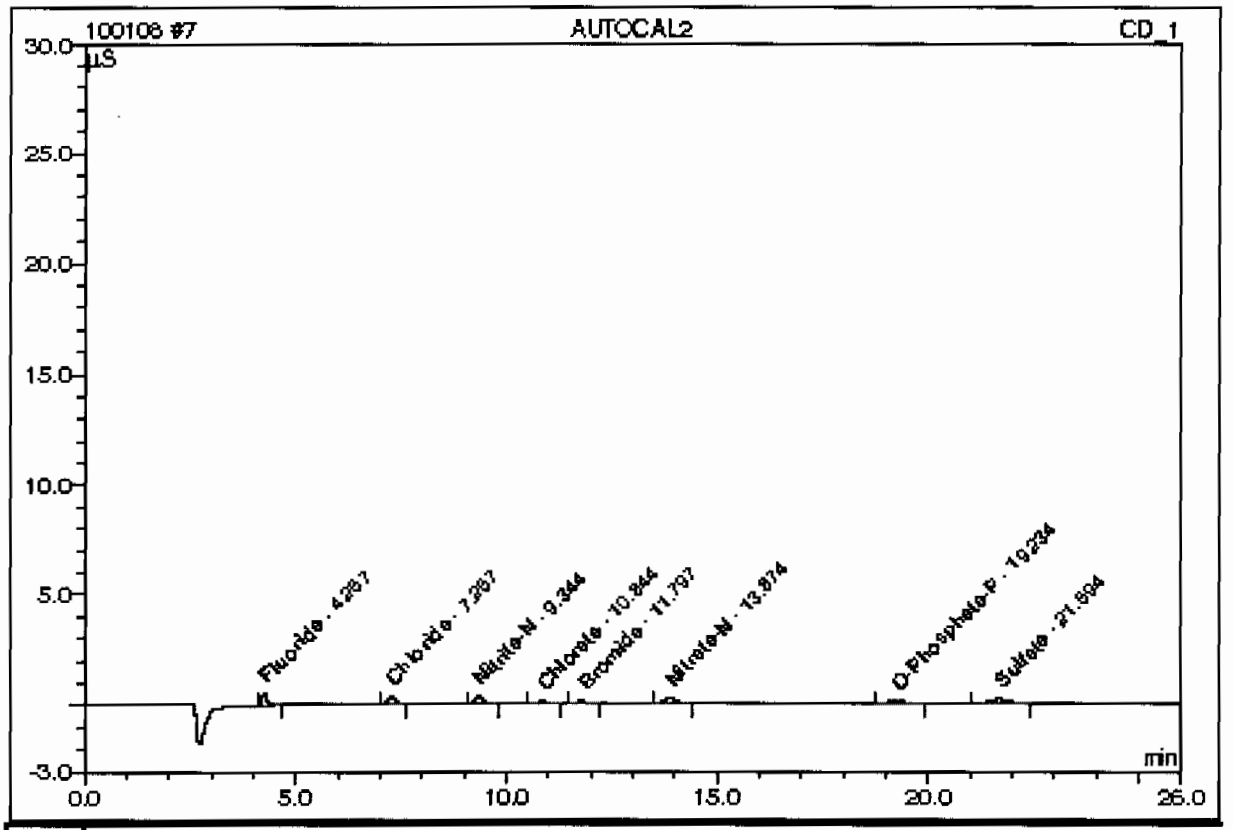

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.26	Fluoride	0.1000	0.1407		0.08444	14.36
2	7.27	Chloride	0.2000	0.3606		0.08019	13.64
3	9.34	Nitrite-N	0.1000	0.1398		0.08353	14.21
4	10.84	Chlorate	0.2000	0.2452		0.02913	4.95
5	11.80	Bromide	0.2000	0.2257		0.03138	5.34
6	13.87	Nitrate-N	0.1000	0.1732		0.09298	15.81
7	19.23	O-Phosphate-P	0.2000	0.2129		0.06423	10.92
8	21.69	Sulfate	0.4000	0.7662		0.12213	20.77
Total:				2.2642	0.000	0.588	100.00

8 AUTOCAL1

Sample Name:	AUTOCAL1	*Injection Volume:*	1.0
Vial Number:	8	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100108an	*Sample Amount:*	1.0000
Recording Time:	1/8/2010 12:45	Analyst:	MAR1
Run Time (min):	26.00	Column:	AS23-001528; GLGCE086;300;9056

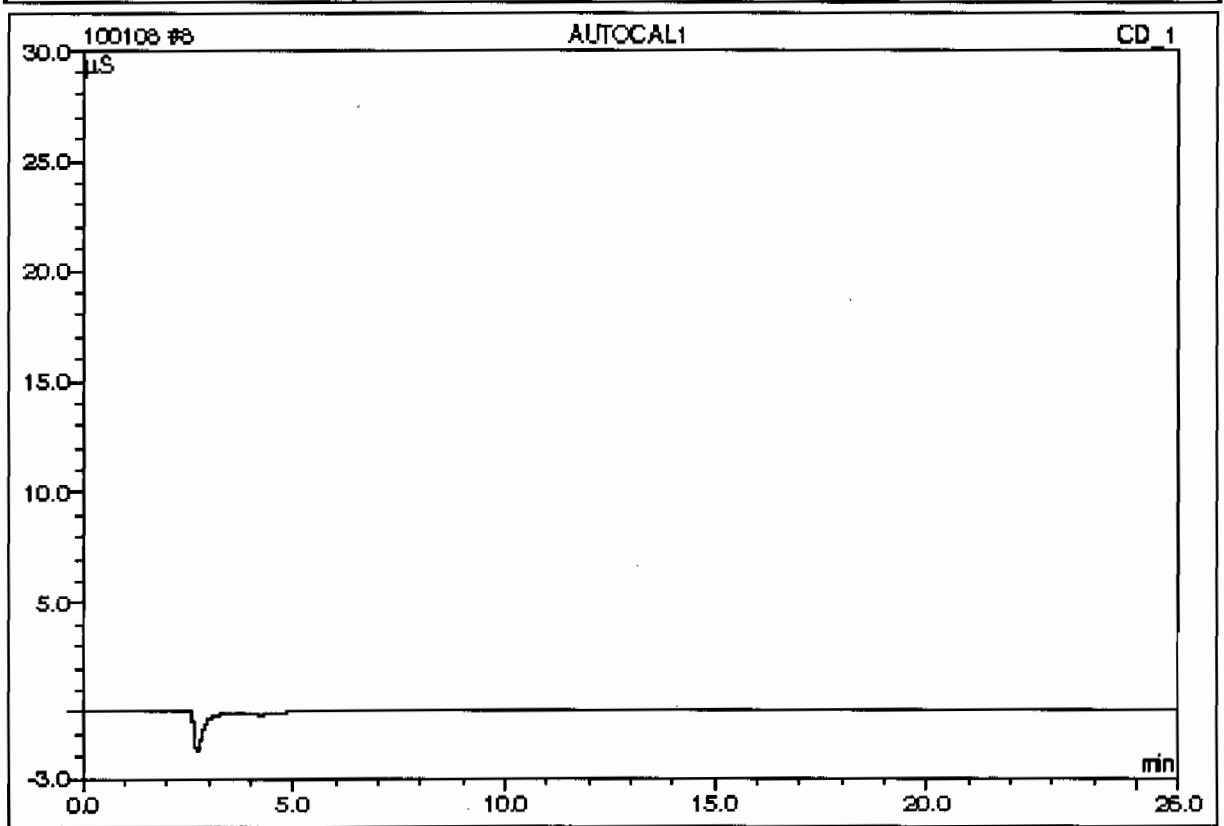

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	0.0000	n.a.	n.a.	n.a.	n.a.
Total:				0.0000	0.000	0.000	0.00

8 AUTOCAL1

Sample Name:	AUTOCAL1	*Injection Volume:*	1.0
Vial Number:	8	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100108an	*Sample Amount:*	1.0000
Recording Time:	1/8/2010 12:45	Analyst:	MAR1
Run Time (min):	26.00	Column:	AS23-002712; GL GC B086;300;9056

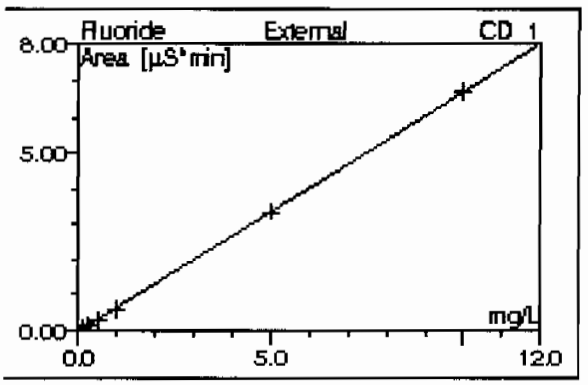

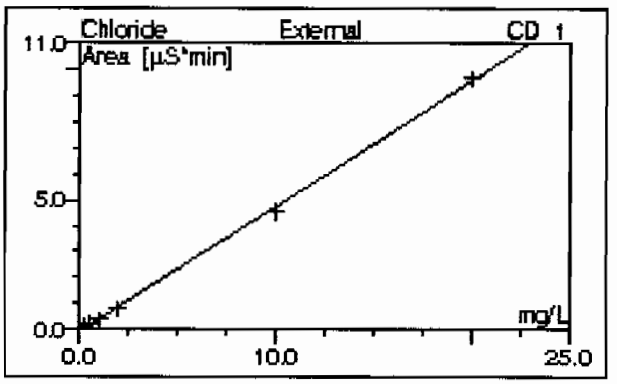

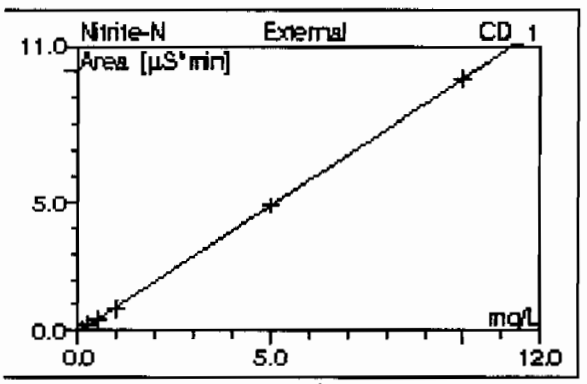

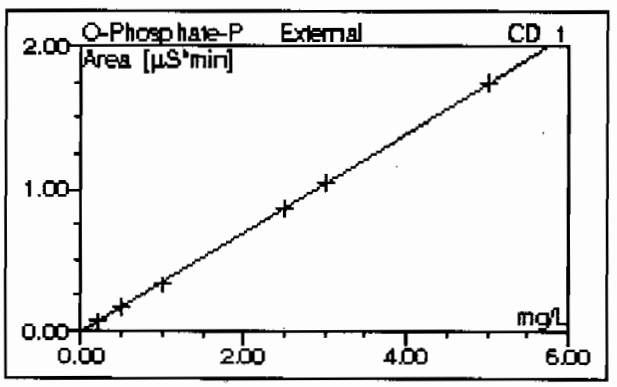

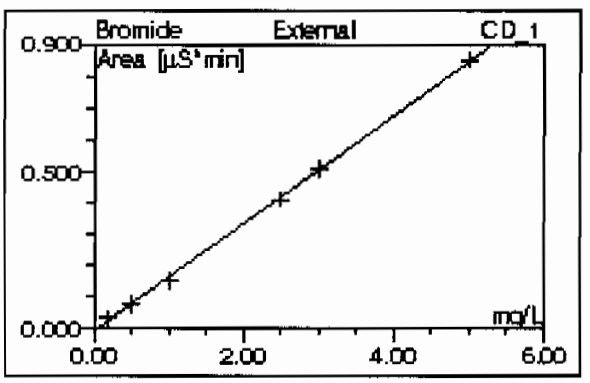

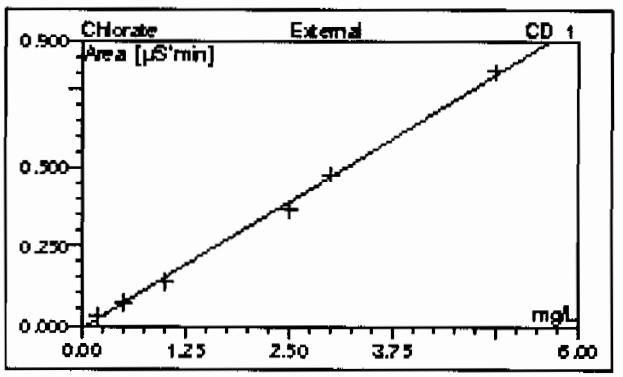

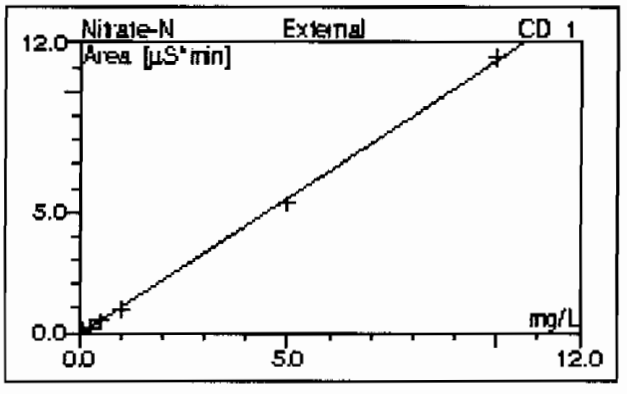

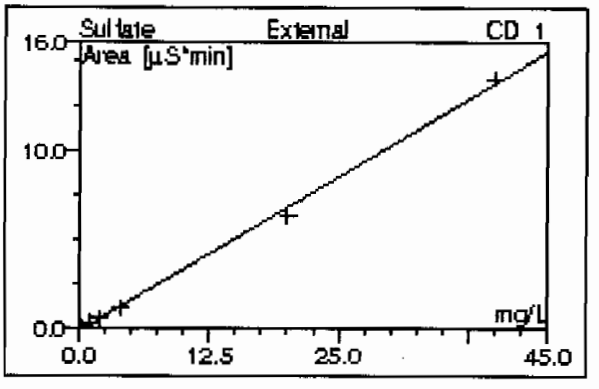

No. CD_1	Ret.Time CD_1 min	Peak Name CD_1	Cal.Type CD_1	Coeff.Det. CD_1 %	Offset CD_1	Slope CD_1	Curve CD_1
n.a.	n.a.	Fluoride	0LOff	99.9929	-0.0100	0.6713	0.0000
n.a.	n.a.	Chloride	0LOff	99.9091	-0.0943	0.4838	0.0000
n.a.	n.a.	Nitrite-N	0LOff	99.9885	-0.0537	0.9816	0.0000
n.a.	n.a.	Chlorate	0LOff	99.7996	-0.0104	0.1611	0.0000
n.a.	n.a.	Bromide	0LOff	99.9611	-0.0071	0.1707	0.0000
n.a.	n.a.	Nitrate-N	0LOff	99.9199	-0.1039	1.1368	0.0000
n.a.	n.a.	O-Phosphate-P	0LOff	99.9801	-0.0103	0.3498	0.0000
n.a.	n.a.	Sulfate	0LOff	99.7963	-0.1448	0.3484	0.0000
Average:				99.9184	-0.0543	0.5379	0.0000

This is runlog for Sequence 100108.seq for IC6

Sample ID	Run Time	Batch	Dilution	Dataset	Analyst
BLK	01/08/10 09:23		1	100108	MAR1
ICAL-07	01/08/10 09:52		1	100108	MAR1
ICAL-06	01/08/10 10:20		1	100108	MAR1
ICAL-05	01/08/10 10:49		1	100108	MAR1
ICAL-04	01/08/10 11:18		1	100108	MAR1
ICAL-03	01/08/10 11:47		1	100108	MAR1
ICAL-02	01/08/10 12:16		1	100108	MAR1
ICAL-01	01/08/10 12:45		1	100108	MAR1
ICV	01/08/10 13:14		1	100108	MAR1
ICB	01/08/10 13:43		1	100108	MAR1
BLK-NEW-RED	01/08/10 14:12		1	100108	GXM3
1202003401	01/08/10 14:41	936312	1	100108	MAR1
1202003408	01/08/10 15:10	936312	1	100108	MAR1
243393002	01/08/10 15:38	936312	1	100108	MAR1
1202003402	01/08/10 16:07	936312	1	100108	MAR1
1202003404	01/08/10 16:36	936312	1	100108	MAR1
1202003406	01/08/10 17:05	936312	1	100108	MAR1
243397001	01/08/10 17:34	936312	1	100108	MAR1
243397002	01/08/10 18:03	936312	1	100108	MAR1
243397003	01/08/10 18:32	936312	1	100108	MAR1
CVH	01/08/10 19:01		1	100108	MAR1
CCB	01/08/10 19:30		1	100108	MAR1
243397004	01/08/10 19:59	936312	1	100108	MAR1
243397005	01/08/10 20:28	936312	1	100108	MAR1
243407001	01/08/10 20:57	936312	1	100108	MAR1
243407002	01/08/10 21:25	936312	1	100108	MAR1
243407003	01/08/10 21:54	936312	1	100108	MAR1
243407004	01/08/10 22:23	936312	1	100108	MAR1

243407005	01/08/10 22:52 936312 1	100108	MAR1
243407006	01/08/10 23:21 936312 1	100108	MAR1
243407007	01/08/10 23:50 936312 1	100108	MAR1

9 WIC100108-02ICV

Sample Name:	WIC100108-02ICV	*Injection Volume:*	1.0
Vial Number:	9	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100108an	*Sample Amount:*	1.0000
Recording Time:	1/8/2010 13:14	Analyst:	MAR1
Run Time (min):	26.00	Column:	AS23-001528; GLGCE086;300;9056

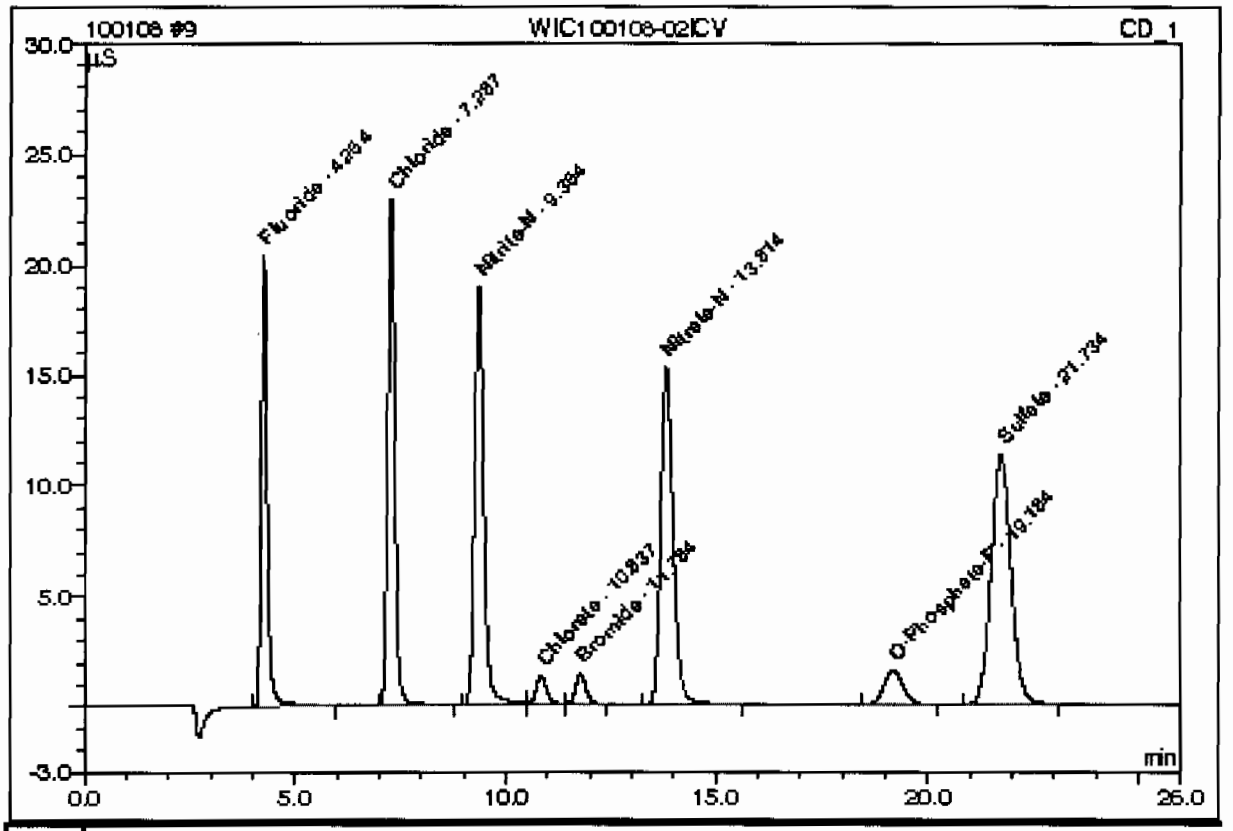

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.26	Fluoride	n.a.	4.7920		3.20684	12.54
2	7.29	Chloride	n.a.	9.3111		4.41041	17.25
3	9.36	Nitrite-N	n.a.	4.9059		4.76169	18.62
4	10.84	Chlorate	n.a.	2.5608		0.40228	1.57
5	11.78	Bromide	n.a.	2.4785		0.41596	1.63
6	13.81	Nitrate-N	n.a.	4.7489		5.29485	20.71
7	19.18	O-Phosphate-P	n.a.	2.4949		0.86256	3.37
8	21.73	Sulfate	n.a.	18.2494		6.21360	24.30
Total:				49.5414	0.000	25.568	100.00

10 ICB

Sample Name:	ICB	*Injection Volume:*	1.0
Vial Number:	10	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100108an	*Sample Amount:*	1.0000
Recording Time:	1/8/2010 13:43	Analyst:	MAR1
Run Time (min):	26.00	Column:	AS23-001528; GLGCB086;300;9056

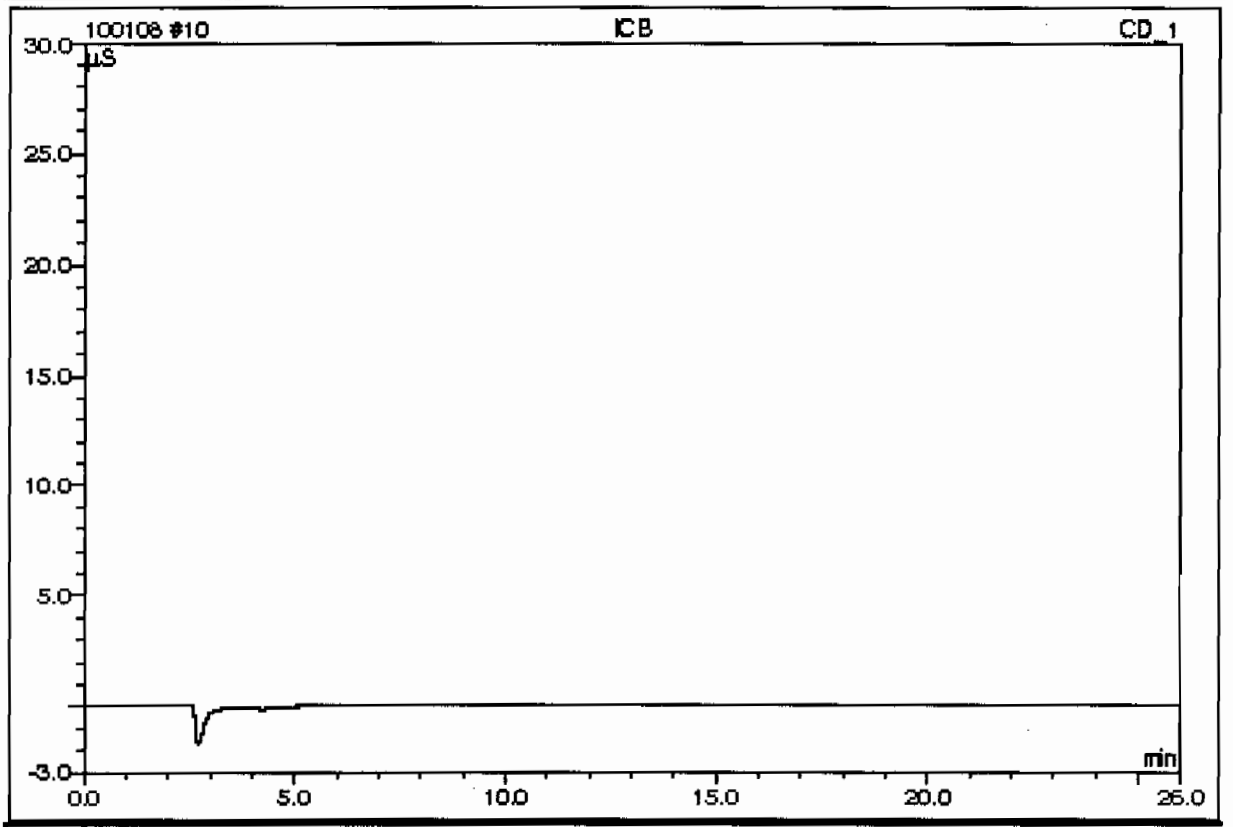

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.
Total:				0.0000	0.000	0.000	0.00

This is runlog for Sequence 100112.seq for IC6

Sample ID	Run Time	Batch	Dilution	Dataset	Analyst
BLK	01/12/10 08:58		1	100112	MAR1
I	01/12/10 09:26		1	100112	MAR1
H	01/12/10 09:55		1	100112	MAR1
L	01/12/10 10:24		1	100112	MAR1
BLK	01/12/10 10:53		1	100112	MAR1
ICV	01/12/10 11:22		1	100112	MAR1
ICB	01/12/10 11:51		1	100112	MAR1
1202011168	01/12/10 12:20	939817	1	100112	MAR1
1202011172	01/12/10 12:49	939817	1	100112	MAR1
243543001	01/12/10 13:18	939817	1	100112	MAR1
243546001	01/12/10 13:47	939817	1	100112	MAR1
1202011169	01/12/10 14:15	939817	1	100112	MAR1
1202011170	01/12/10 14:44	939817	1	100112	MAR1
1202011171	01/12/10 15:13	939817	1	100112	MAR1
243546002	01/12/10 15:42	939817	1	100112	MAR1
243546003	01/12/10 16:11	939817	1	100112	MAR1
CVH	01/12/10 16:40		1	100112	MAR1
CCB	01/12/10 17:09		1	100112	MAR1
243550014	01/12/10 17:38	939817	1	100112	MAR1
243550015	01/12/10 18:07	939817	1	100112	MAR1
CCV	01/12/10 18:36		1	100112	MAR1
CCB	01/12/10 19:05		1	100112	MAR1

13 WIC100112-02ICV

Sample Name:	WIC100112-02ICV	*Injection Volume:*	1.0
Vial Number:	6	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100108an	*Sample Amount:*	1.0000
Recording Time:	1/12/2010 11:22	Analyst:	MAR1
Run Time (min):	26.00	Column:	AS23-001528; GLGCB086;300;9056

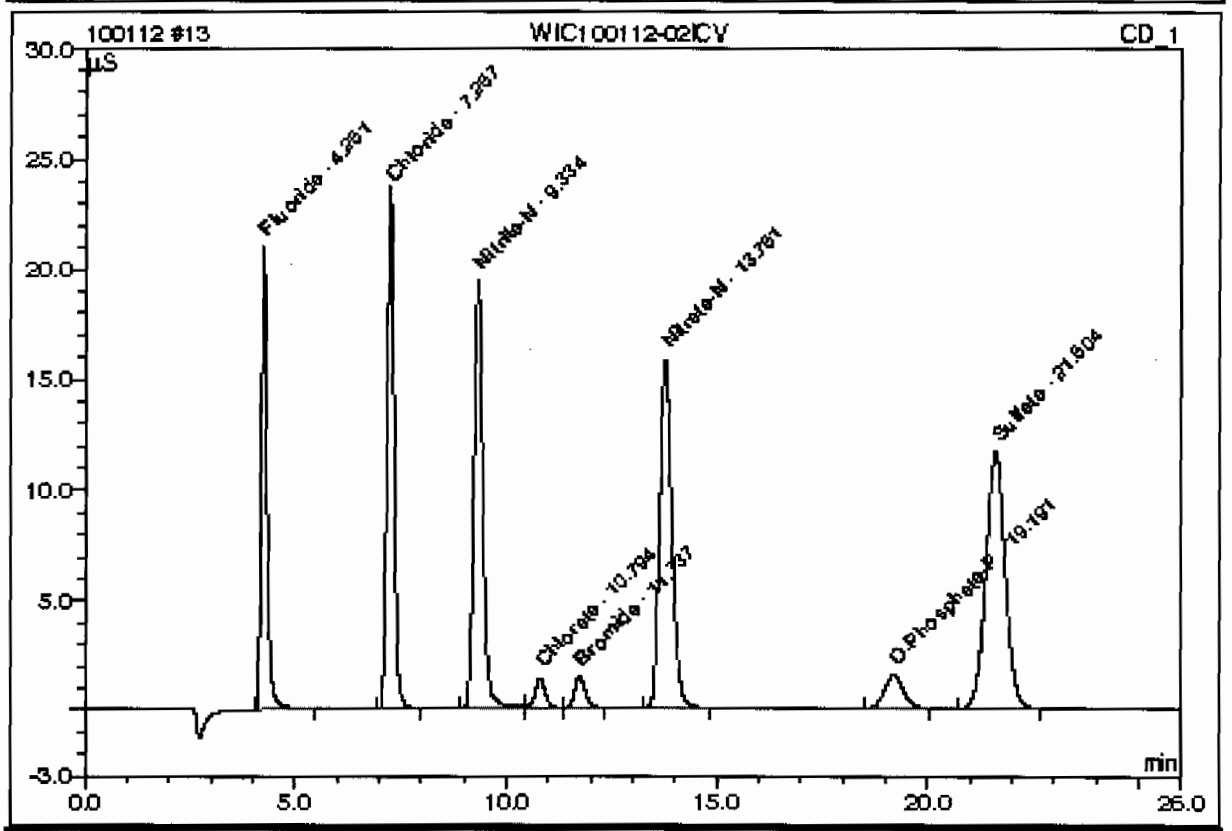

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.26	Fluoride	n.a.	4.8686		3.25830	12.62
2	7.27	Chloride	n.a.	9.4219		4.46401	17.29
3	9.33	Nitrite-N	n.a.	4.9851		4.83948	18.75
4	10.79	Chlorate	n.a.	2.5624		0.40254	1.56
5	11.74	Bromide	n.a.	2.4887		0.41770	1.62
6	13.76	Nitrate-N	n.a.	4.7913		5.34305	20.70
7	19.19	O-Phosphate-P	n.a.	2.3660		0.81746	3.17
8	21.60	Sulfate	n.a.	18.4081		6.26892	24.29
Total:				49.8922	0.000	25.811	100.00

14 ICB

Sample Name:	ICB	*Injection Volume:*	1.0
Vial Number:	7	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100108an	*Sample Amount:*	1.0000
Recording Time:	1/12/2010 11:51	Analyst:	MAR1
Run Time (min):	26.00	Column:	AS23-001528; GL GCB086;300;9056

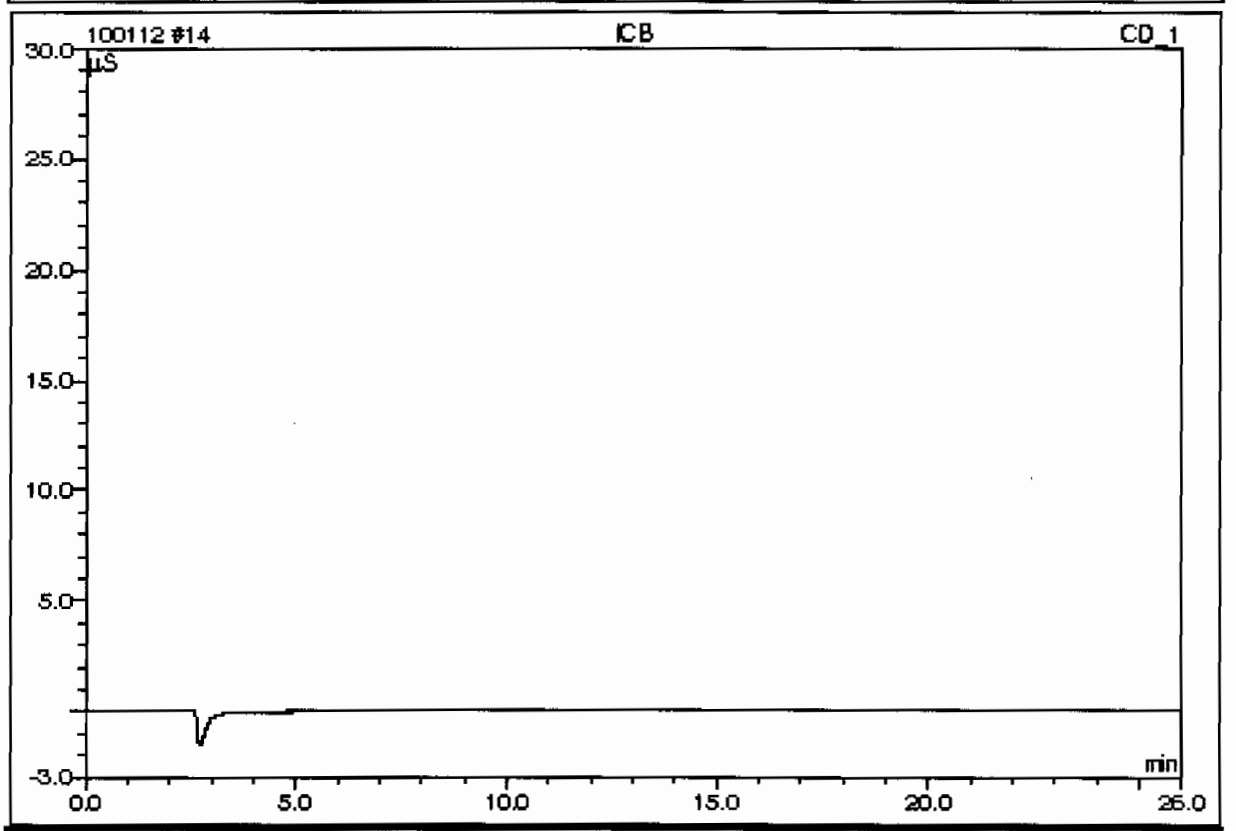

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.
Total:				0.0000	0.000	0.000	0.00

15 1202011168/939817/1/1/MB

Sample Name:	1202011168/939817/1/1/MB	*Injection Volume:*	1.0
Vial Number:	8	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100108an	*Sample Amount:*	1.0000
Recording Time:	1/12/2010 12:20	Analyst:	MAR1
Run Time (min):	26.00	Column:	AS23-001528; GLGCB086;300;9056

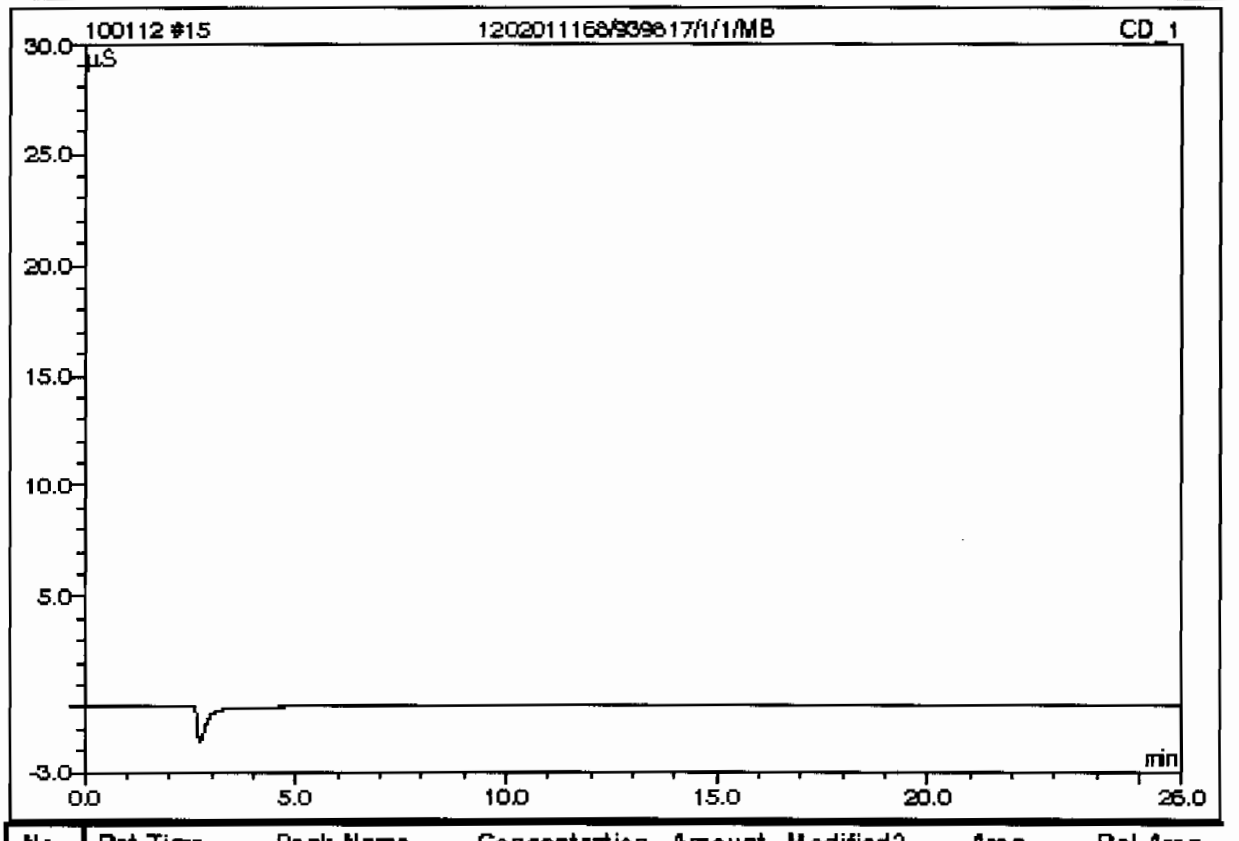

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.
Total:				0.0000	0.000	0.000	0.00

16 1202011172/939817/1/1/LCS

Sample Name:	1202011172/939817/1/1/LCS	*Injection Volume:*	1.0
Vial Number:	9	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100108an	*Sample Amount:*	1.0000
Recording Time:	1/12/2010 12:49	Analyst:	MAR1
Run Time (min):	26.00	Column:	AS23-001528; GL GCB086;300;9056

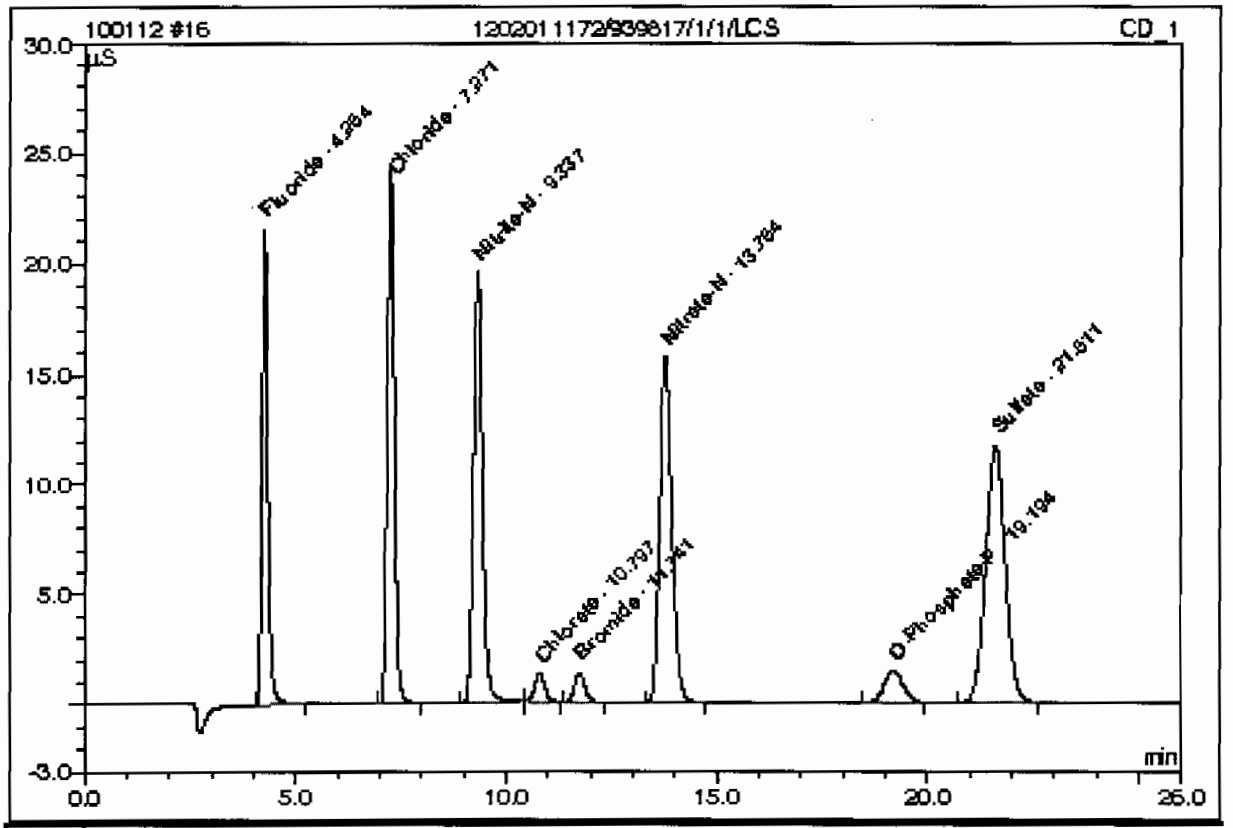

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.26	Fluoride	n.a.	4.8812		3.26673	12.74
2	7.27	Chloride	n.a.	9.5285		4.51562	17.61
3	9.34	Nitrite-N	n.a.	4.9096		4.76533	18.58
4	10.80	Chlorate	n.a.	2.2757		0.35633	1.39
5	11.74	Bromide	n.a.	2.3416		0.39259	1.53
6	13.76	Nitrate-N	n.a.	4.7645		5.31258	20.72
7	19.19	O-Phosphate-P	n.a.	2.2290		0.76952	3.00
8	21.61	Sulfate	n.a.	18.3917		6.26318	24.43
Total:				49.3217	0.000	25.642	100.00

18 243546001/939817/1/1/

Sample Name:	243546001/939817/1/1/	*Injection Volume:*	1.0
Vial Number:	11	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100108an	*Sample Amount:*	1.0000
Recording Time:	1/12/2010 13:47	Analyst:	MAR1
Run Time (min):	26.00	Column:	AS23-001528; GLGCE086;300;9056

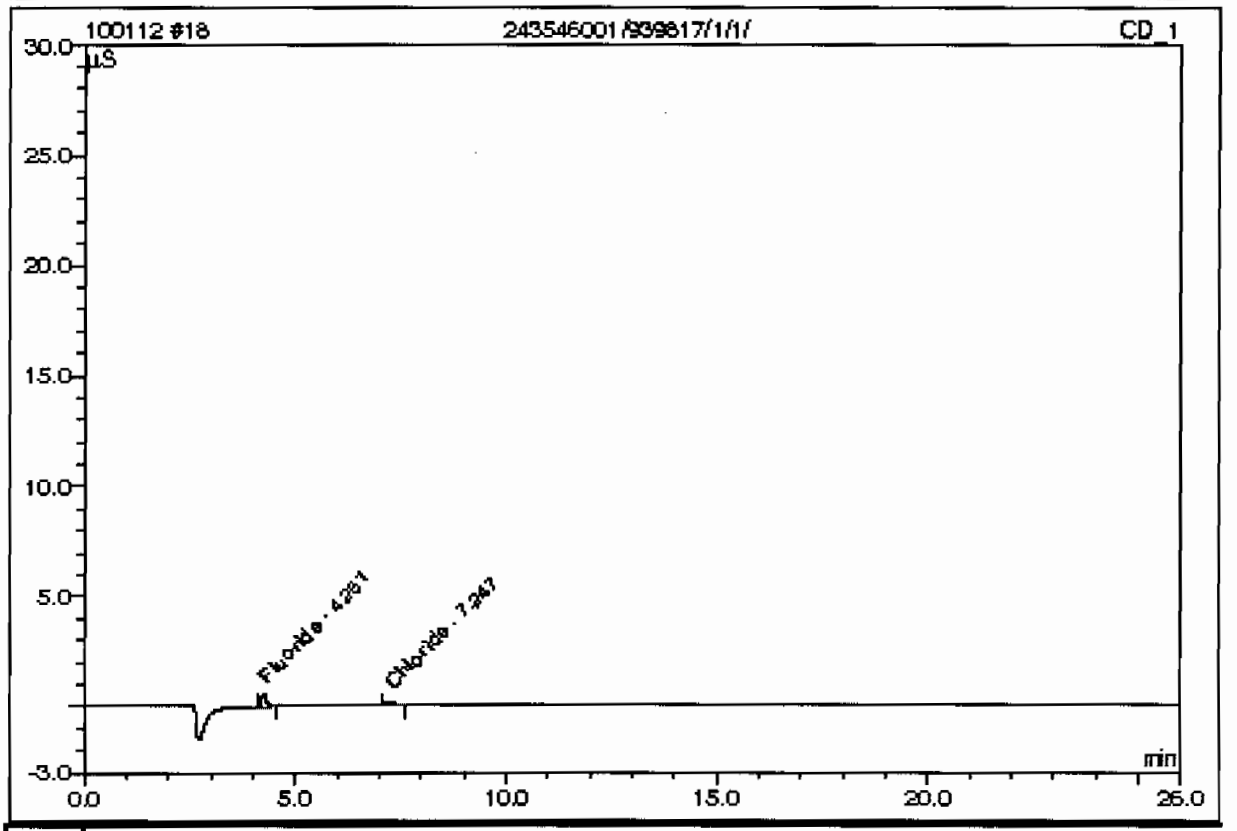

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.25	Fluoride	n.a.	0.1421		0.08537	67.79
2	7.25	Chloride	n.a.	0.2787		0.04055	32.21
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.
Total:				0.4208	0.000	0.126	100.00

19 1202011169/939817/1/1/DUP

Sample Name:	1202011169/939817/1/1/DUP	*Injection Volume:*	1.0
Vial Number:	12	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100108an	*Sample Amount:*	1.0000
Recording Time:	1/12/2010 14:15	Analyst:	MAR1
Run Time (min):	26.00	Column:	AS23-001528; GL GCE086;300;9056

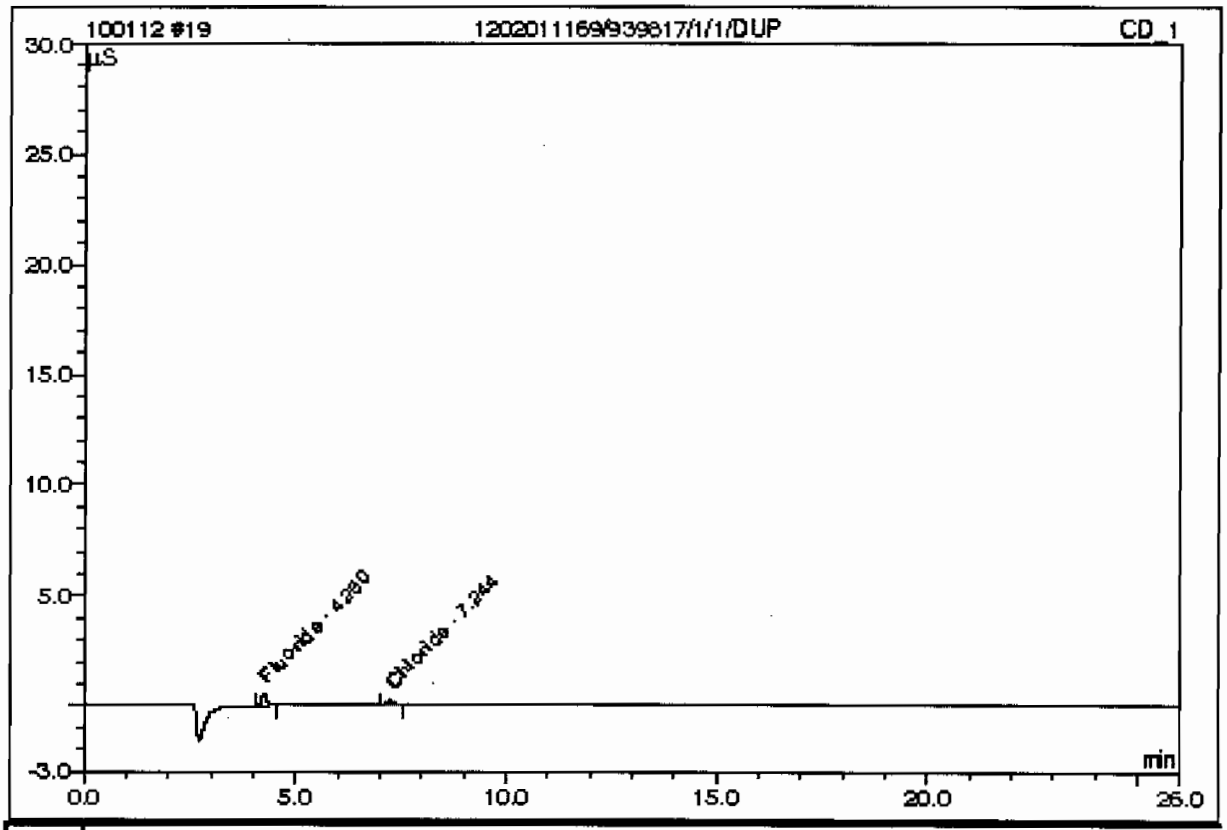

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.25	Fluoride	n.a.	0.1409		0.08457	65.46
2	7.24	Chloride	n.a.	0.2871		0.04462	34.54
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.
Total:				0.4280	0.000	0.129	100.00

20 1202011170/939817/1/1/MS

Sample Name:	1202011170/939817/1/1/MS	*Injection Volume:*	1.0
Vial Number:	13	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100108an	*Sample Amount:*	1.0000
Recording Time:	1/12/2010 14:44	Analyst:	MAR1
Run Time (min):	26.00	Column:	AS23-001528; GL GCE086;300;9056

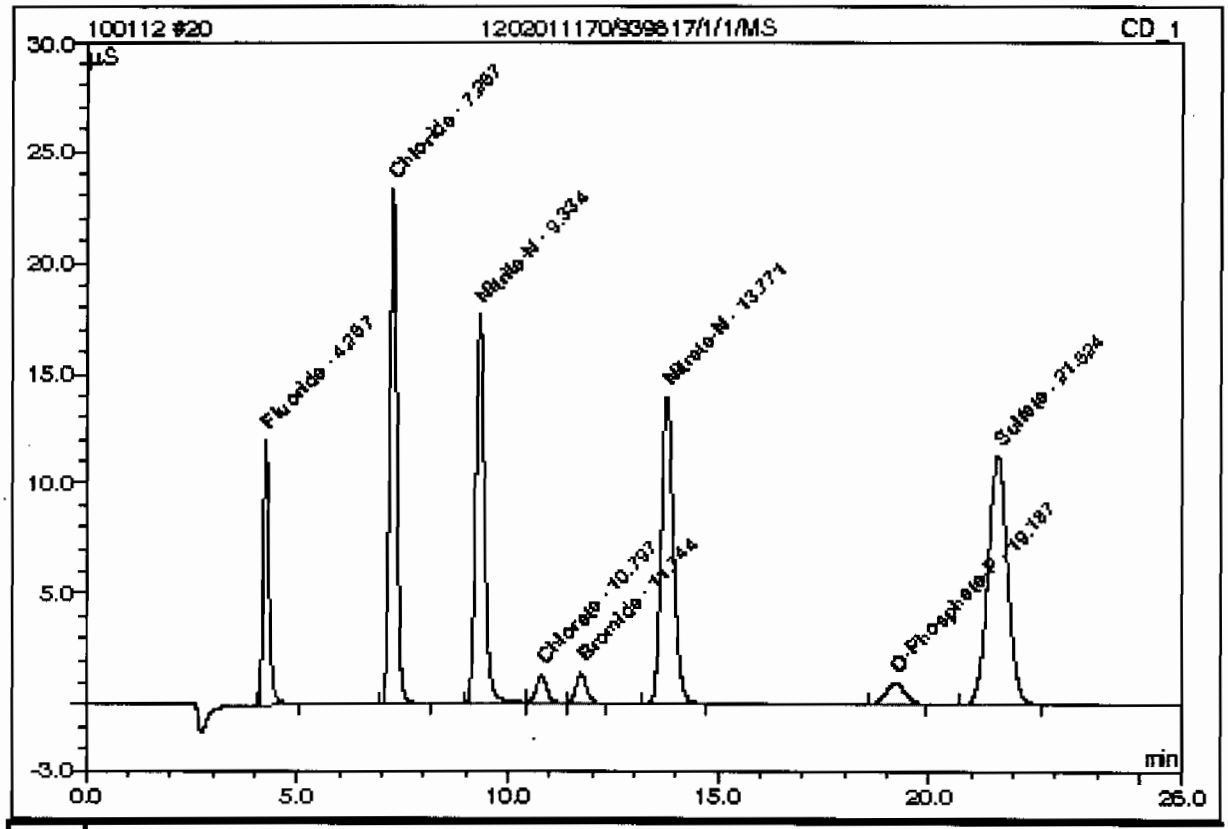

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.26	Fluoride	n.a.	2.7471		1.83413	8.09
2	7.27	Chloride	n.a.	9.2354		4.37382	19.30
3	9.33	Nitrite-N	n.a.	4.5060		4.36920	19.28
4	10.80	Chlorate	n.a.	2.4854		0.39013	1.72
5	11.74	Bromide	n.a.	2.4345		0.40844	1.80
6	13.77	Nitrate-N	n.a.	4.2524		4.73032	20.87
7	19.19	O-Phosphate-P	n.a.	1.5149		0.51971	2.29
8	21.62	Sulfate	n.a.	17.7428		6.03710	26.64
Total:				44.9185	0.000	22.663	100.00

21 1202011171/939817/1/1/MSD

Sample Name:	1202011171/939817/1/1/MSD	*Injection Volume:*	1.0
Vial Number:	14	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100108an	*Sample Amount:*	1.0000
Recording Time:	1/12/2010 15:13	*Analyst:*	MAR1
Run Time (min):	26.00	*Column:*	AS23-001528; GL GCE086;300;9056

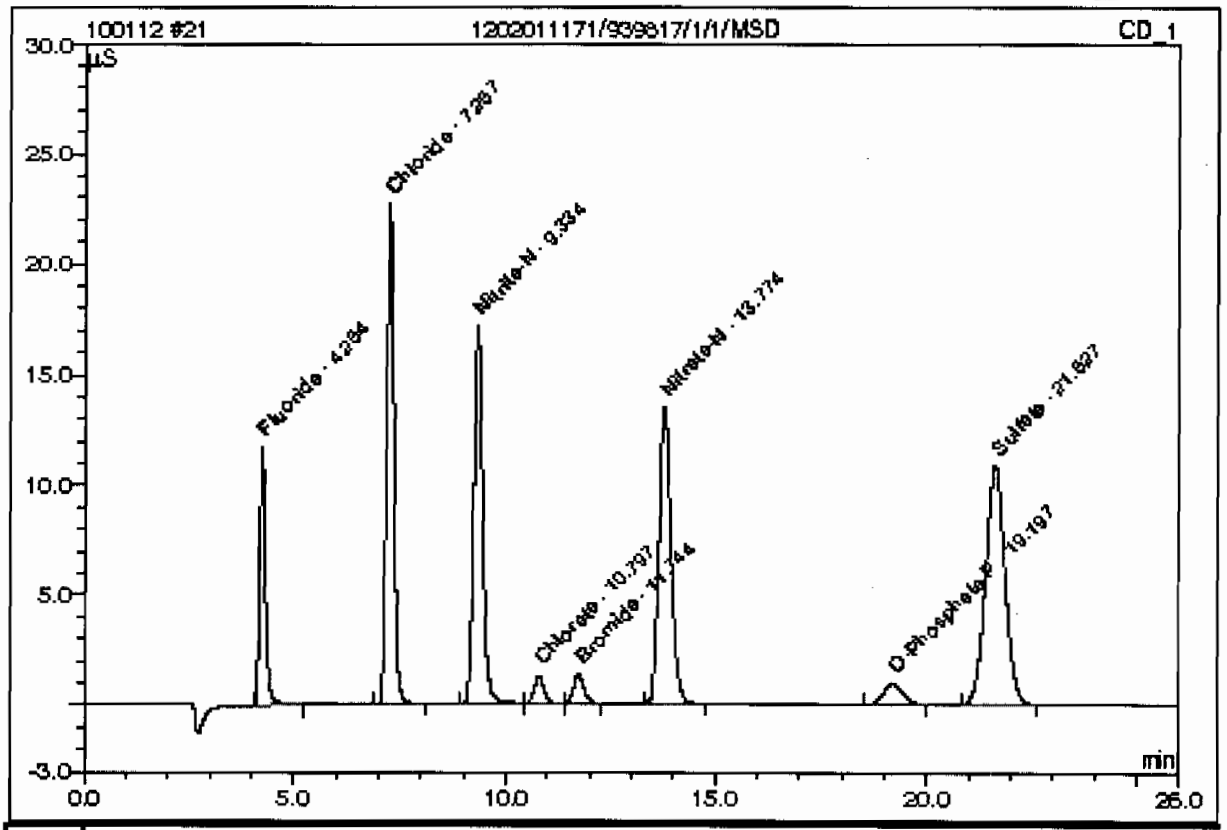

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.25	Fluoride	n.a.	2.6832		1.79123	8.16
2	7.27	Chloride	n.a.	8.9419		4.23178	19.27
3	9.33	Nitrite-N	n.a.	4.3763		4.24190	19.32
4	10.80	Chlorate	n.a.	2.3596		0.36986	1.68
5	11.74	Bromide	n.a.	2.3230		0.38942	1.77
6	13.77	Nitrate-N	n.a.	4.1335		4.59514	20.93
7	19.20	O-Phosphate-P	n.a.	1.4897		0.51091	2.33
8	21.63	Sulfate	n.a.	17.1386		5.82660	26.54
Total:				43.4458	0.000	21.957	100.00

24 WIC100112-02CVH

Sample Name:	WIC100112-02CVH	*Injection Volume:*	1.0
Vial Number:	17	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100108an	*Sample Amount:*	1.0000
Recording Time:	1/12/2010 16:40	Analyst:	MAR1
Run Time (min):	26.00	Column:	AS23-001528; GL GCB086;300;9056

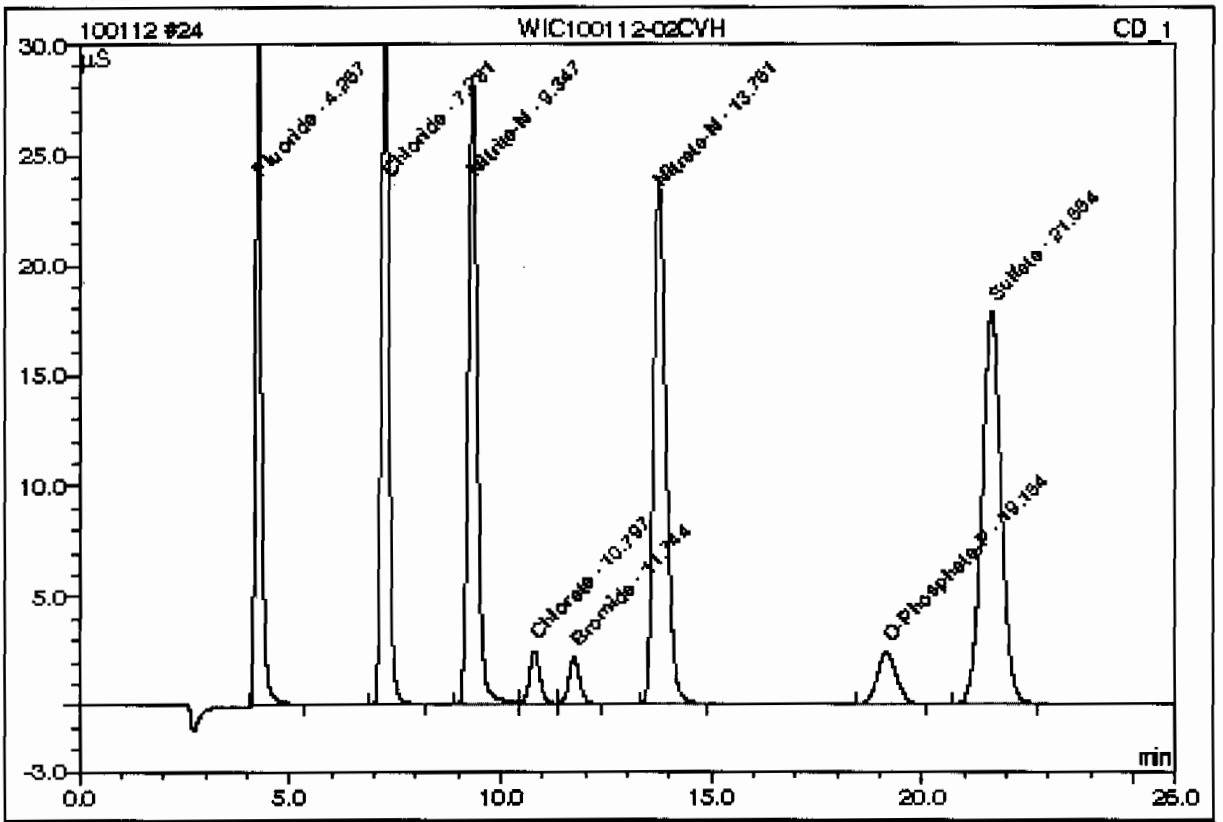

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.27	Fluoride	n.a.	7.2293		4.84304	12.43
2	7.28	Chloride	n.a.	14.4166		6.88045	17.65
3	9.35	Nitrite-N	n.a.	7.3319		7.14303	18.33
4	10.80	Chlorate	n.a.	4.5690		0.72590	1.86
5	11.74	Bromide	n.a.	3.7887		0.63961	1.64
6	13.75	Nitrate-N	n.a.	7.1762		8.05419	20.67
7	19.16	O-Phosphate-P	n.a.	3.5929		1.24669	3.20
8	21.65	Sulfate	n.a.	27.5121		9.44093	24.22
Total:				75.6168	0.000	38.974	100.00

25 CCB

Sample Name:	CCB	*Injection Volume:*	1.0
Vial Number:	18	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100108an	*Sample Amount:*	1.0000
Recording Time:	1/12/2010 17:09	Analyst:	MAR1
Run Time (min):	26.00	Column:	AS23-001528; GLGCB086;300;9056

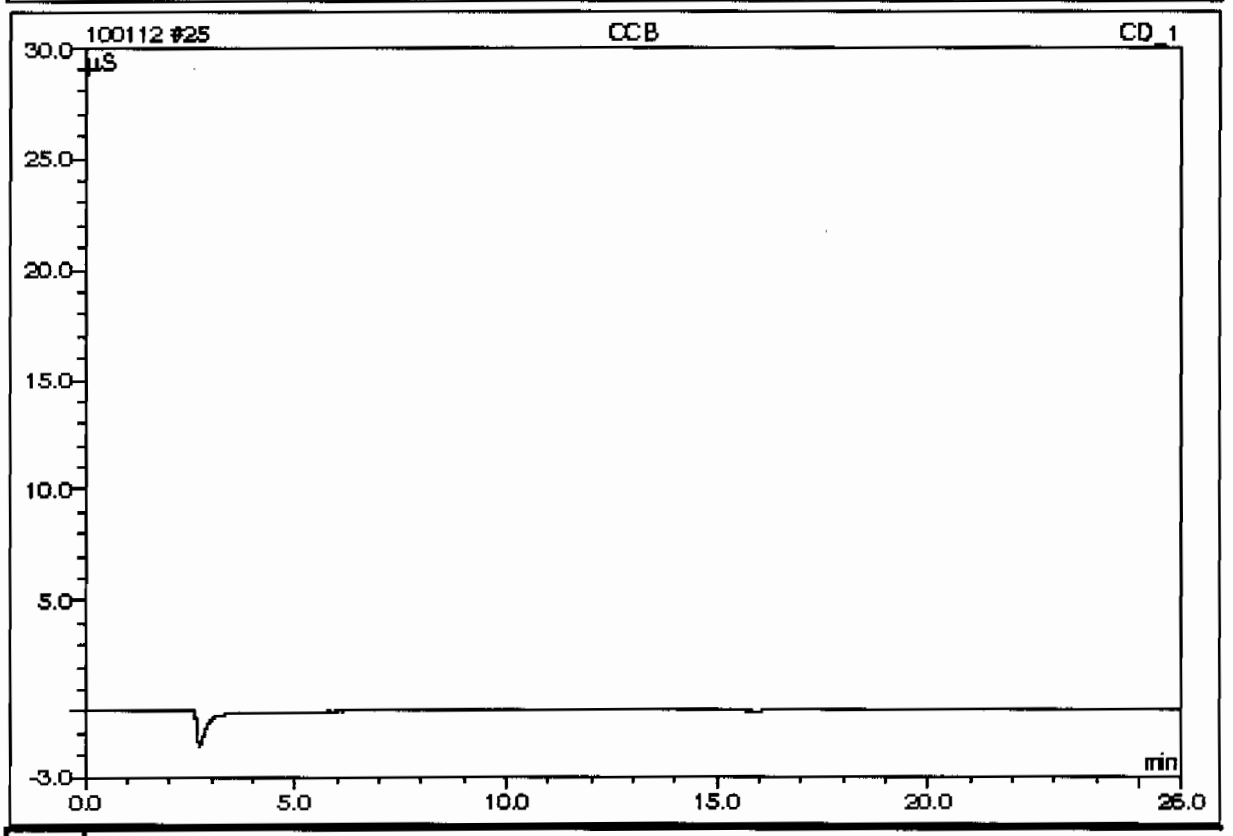

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.
Total:				0.0000	0.000	0.000	0.00

26 243550014/939817/1/1/

Sample Name:	243550014/939817/1/1/	*Injection Volume:*	1.0
Vial Number:	19	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100108an	*Sample Amount:*	1.0000
Recording Time:	1/12/2010 17:38	Analyst:	MAR1
Run Time (min):	26.00	Column:	AS23-001528; GLGCB086;300;9056

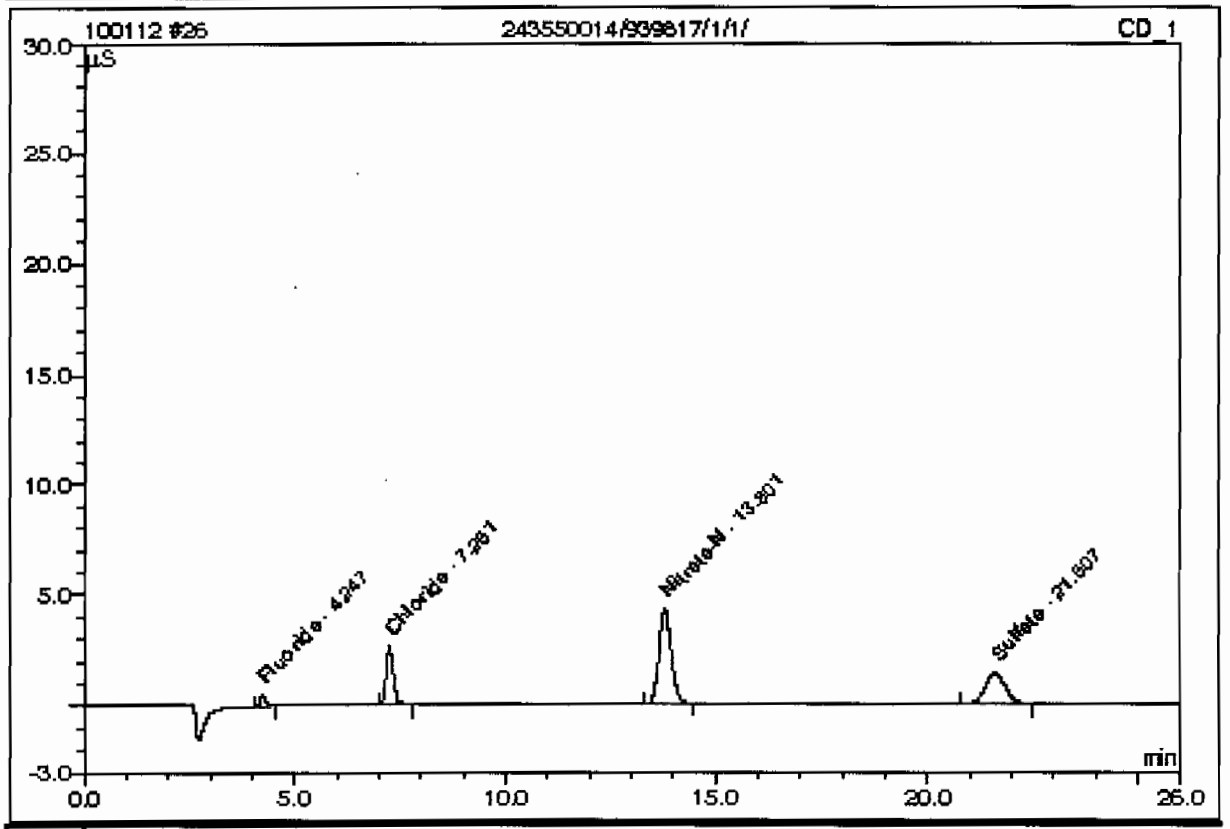

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.25	Fluoride	n.a.	0.1393		0.08351	2.92
2	7.25	Chloride	n.a.	1.2548		0.51278	17.94
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
3	13.80	Nitrate-N	n.a.	1.3732		1.45718	50.98
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
4	21.61	Sulfate	n.a.	2.7250		0.80461	28.15
Total:				5.4922	0.000	2.858	100.00

27 243550015/939817/1/1/

Sample Name:	243550015/939817/1/1/	*Injection Volume:*	1.0
Vial Number:	20	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100108an	*Sample Amount:*	1.0000
Recording Time:	1/12/2010 18:07	Analyst:	MAR1
Run Time (min):	26.00	Column:	AS23-001528; GL GCB086;300;9056

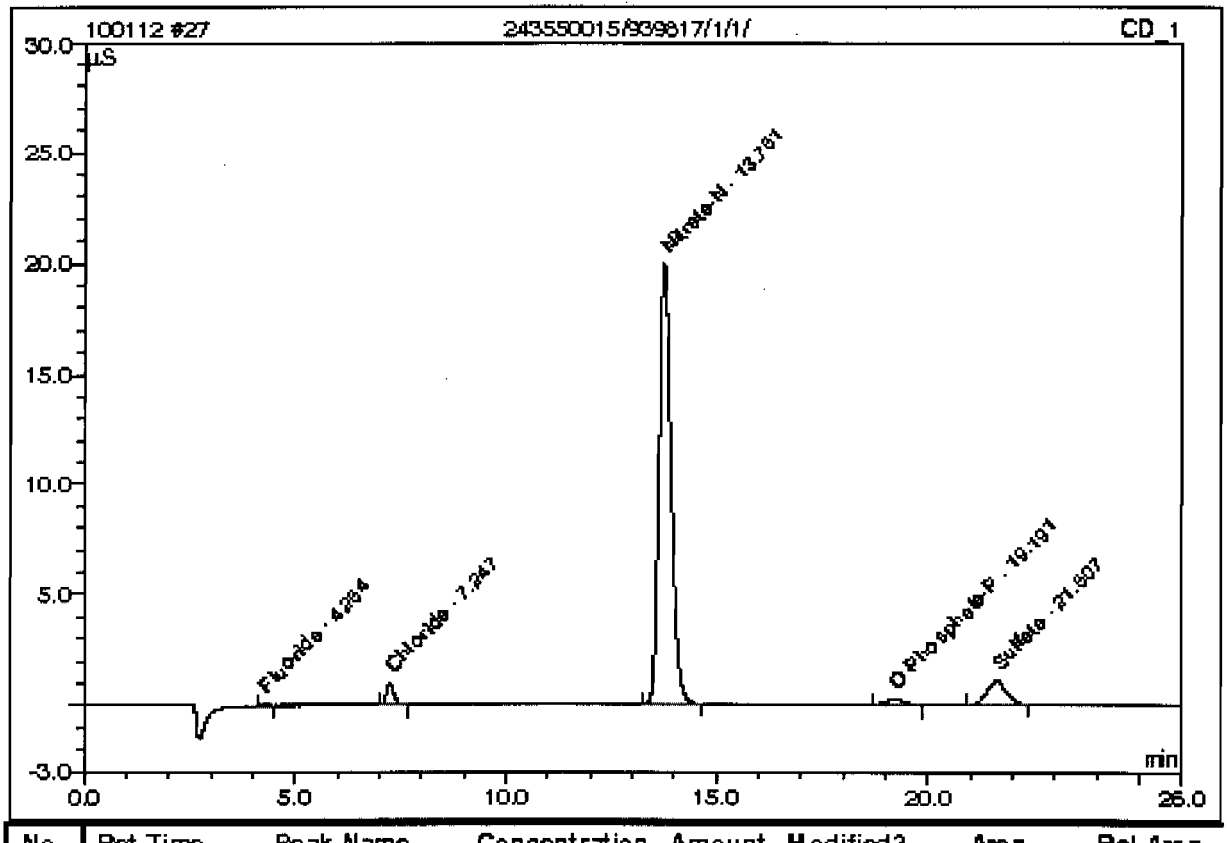

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.25	Fluoride	n.a.	0.0373		0.01502	0.19
2	7.25	Chloride	n.a.	0.5998		0.19589	2.53
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
3	13.76	Nitrate-N	n.a.	6.0507		6.77479	87.61
4	19.19	O-Phosphate-P	n.a.	0.4444		0.14521	1.88
5	21.61	Sulfate	n.a.	2.1423		0.60159	7.78
Total:				9.2745	0.000	7.733	100.00

28 WIC100112-02CCV

Sample Name:	WIC100112-02CCV	*Injection Volume:*	1.0
Vial Number:	21	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100108an	*Sample Amount:*	1.0000
Recording Time:	1/12/2010 18:36	Analyst:	MAR1
Run Time (min):	26.00	Column:	AS23-001528; GL GCE086;300;9056

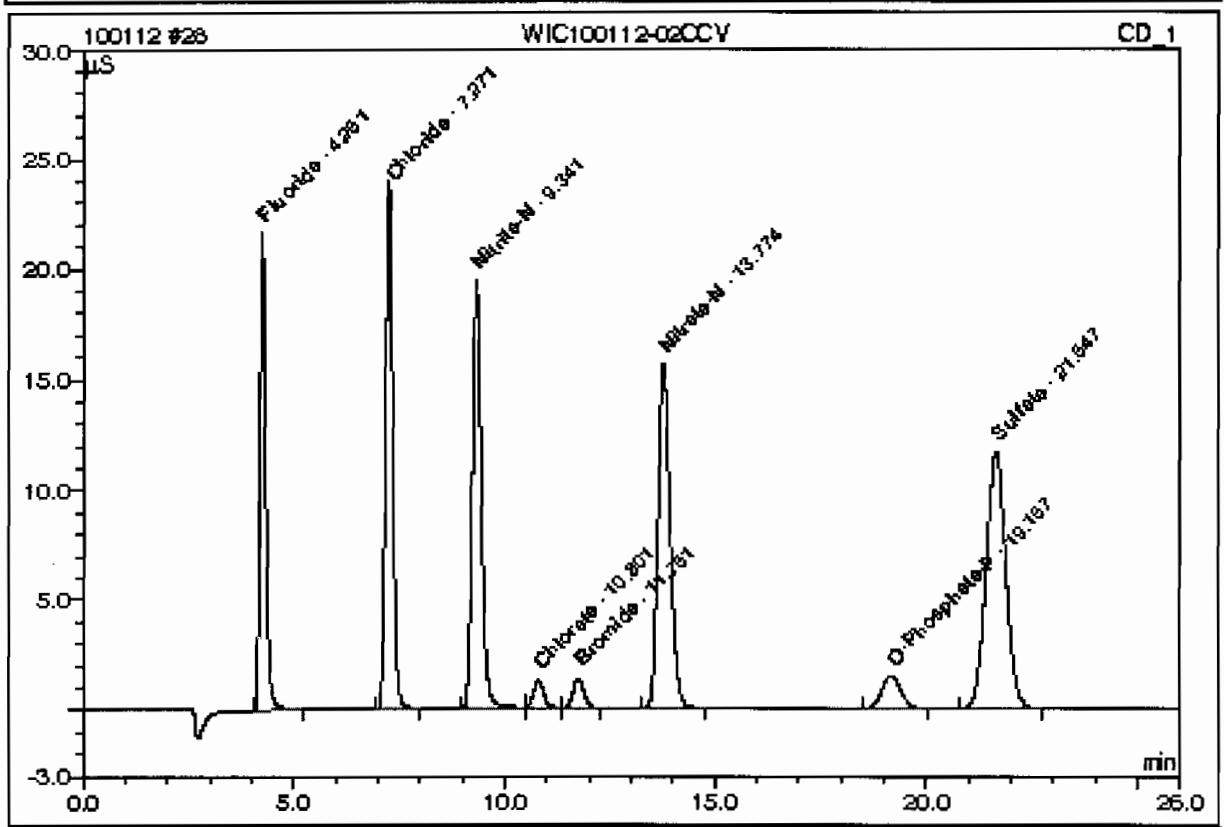

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.26	Fluoride	n.a.	4.9024		3.28097	12.74
2	7.27	Chloride	n.a.	9.5135		4.50835	17.51
3	9.34	Nitrite-N	n.a.	4.9457		4.80077	18.65
4	10.80	Chlorate	n.a.	2.4431		0.38332	1.49
5	11.75	Bromide	n.a.	2.3799		0.39912	1.55
6	13.77	Nitrate-N	n.a.	4.7667		5.31501	20.64
7	19.17	O-Phosphate-P	n.a.	2.2532		0.77801	3.02
8	21.65	Sulfate	n.a.	18.4417		6.28062	24.39
Total:				49.6462	0.000	25.746	100.00

29 CCB

Sample Name:	CCB	*Injection Volume:*	1.0
Vial Number:	22	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100108an	*Sample Amount:*	1.0000
Recording Time:	1/12/2010 19:05	Analyst:	MAR1
Run Time (min):	26.00	Column:	AS23-001528; GL GC E086;300;9056

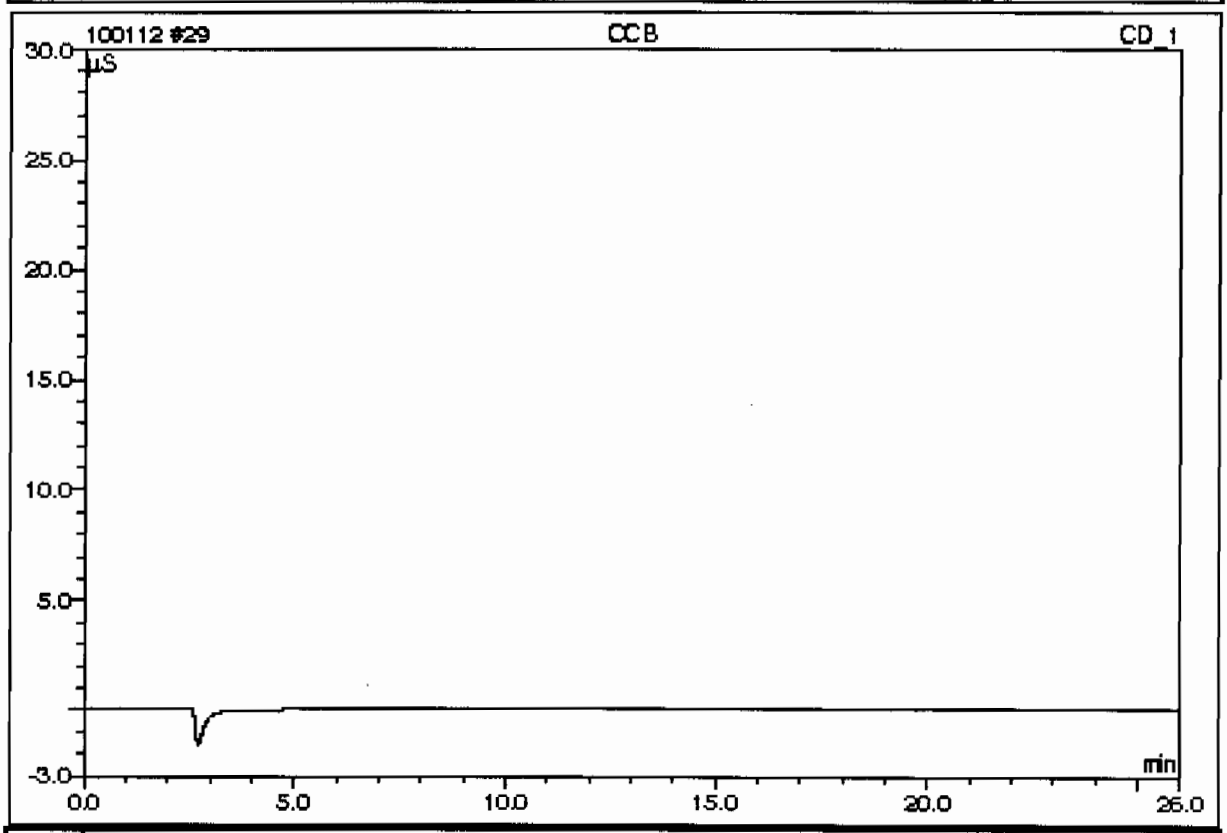

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.
Total:				0.0000	0.000	0.000	0.00

pH

pH / Corrosivity LogBook

Analyst: LXA1
Batch: 937042
Lab SOP: GL-GC-E-008 REV# 17
Description: pH
Method: SW846 9045C/9045D

Type	Sample Id	Serial Number	Description
CCV	240	IMM091029-PH	PH 7 BUFFER FOR PH
LCS	1202005135	IMM091221-01	LCS BUFFER SOLUTION

Sample id	Parent Sample Id	Matrix	Start Time	Stop Time	Run Date	Parmname	Initial Wt(g)	Final Vol(mL)	Ph	Temp	Nc(mg/L)	Recovery(%)	Rpd(%)
1202005135 LCS		Soil	2:00	2:05	28-DEC-09 15:02	pH	20	20	6.99	20.0'C	7	99.857	
1202005135 LCS		Soil	2:00	2:05	28-DEC-09 15:02	pH 2	20	20	6.98	20.0'C	7	99.714	
243550001		Soil	2:00	2:05	28-DEC-09 15:02	pH	20	20	7.19	19.1'C			
243550001		Soil	2:00	2:05	28-DEC-09 15:02	pH 2	20	20	7.19	19.1'C			
1202005133 DUP	243550001	Soil	2:00	2:05	28-DEC-09 15:13	pH	20	20	6.95	19.0'C			3.395
1202005133 DUP	243550001	Soil	2:00	2:05	28-DEC-09 15:13	pH 2	20	20	6.92	19.0'C			3.827
243550002		Soil	2:00	2:05	28-DEC-09 15:13	pH	20	20	7.79	18.9'C			
243550002		Soil	2:00	2:05	28-DEC-09 15:13	pH 2	20	20	7.79	18.9'C			
243550003		Soil	2:00	2:05	28-DEC-09 15:15	pH	20	20	7.71	18.9'C			
243550003		Soil	2:00	2:05	28-DEC-09 15:15	pH 2	20	20	7.72	19.0'C			
CCV			2:00	2:05	28-DEC-09 15:17	pH	20	20	7.01	18.6'C	7	100.143	
CCV			2:00	2:05	28-DEC-09 15:17	pH 2	20	20	7.01	18.6'C	7	100.143	
243550004		Soil	2:00	2:05	28-DEC-09 15:20	pH	20	20	7.45	18.6'C			
243550004		Soil	2:00	2:05	28-DEC-09 15:20	pH 2	20	20	7.44	18.6'C			
243550005		Soil	2:00	2:05	28-DEC-09 15:22	pH	20	20	8.11	18.5'C			
243550005		Soil	2:00	2:05	28-DEC-09 15:22	pH 2	20	20	8.07	18.5'C			
243550006		Soil	2:00	2:05	28-DEC-09 15:26	pH	20	20	7.92	18.1'C			
243550006		Soil	2:00	2:05	28-DEC-09 15:26	pH 2	20	20	7.92	18.1'C			
243550007		Soil	2:00	2:05	28-DEC-09 15:27	pH	20	20	8.01	18.1'C			
243550007		Soil	2:00	2:05	28-DEC-09 15:27	pH 2	20	20	8.02	18.1'C			
243550008		Soil	2:00	2:05	28-DEC-09 15:30	pH	20	20	7.66	17.9'C			
243550008		Soil	2:00	2:05	28-DEC-09 15:30	pH 2	20	20	7.63	17.9'C			
CCV			2:00	2:05	28-DEC-09 15:31	pH	20	20	7.02	17.9'C	7	100.286	
CCV			2:00	2:05	28-DEC-09 15:31	pH 2	20	20	7.02	17.9'C	7	100.286	
243550009		Soil	2:00	2:05	28-DEC-09 15:33	pH	20	20	7.48	17.9'C			
243550009		Soil	2:00	2:05	28-DEC-09 15:33	pH 2	20	20	7.45	18.0'C			
243550010		Soil	2:00	2:05	28-DEC-09 15:37	pH	20	20	7.41	17.9'C			
243550010		Soil	2:00	2:05	28-DEC-09 15:37	pH 2	20	20	7.4	17.9'C			

pH / Corrosivity LogBook

Analyst: LXA1
Batch: 937042
Lab SOP: GL-GC-E-008 REV# 17
Description: pH
Method: SW846 9045C/9045D

Type	Sample Id	Serial Number	Description
CCV	240	IMM091029-PH	PH 7 BUFFER FOR PH
LCS	1202005135	IMM091221-01	LCS BUFFER SOLUTION

Sample id	Parent Sample Id	Matrix	Start Time	Stop Time	Run Date	Parmname	Initial Wt(g)	Final Vol(mL)	Ph	Temp	Nc(mg/L)	Recovery(%)	Rpd(%)
1202005134 DUP	243550010	Soil	2:00	2:05	28-DEC-09 15:39	pH	20	20	7.29	17.8'C			1.633
1202005134 DUP	243550010	Soil	2:00	2:05	28-DEC-09 15:39	pH 2	20	20	7.29	17.8'C			1.498
243550011		Soil	2:00	2:05	28-DEC-09 15:40	pH	20	20	4.43	17.7'C			
243550011		Soil	2:00	2:05	28-DEC-09 15:40	pH 2	20	20	4.43	17.9'C			
243550012		Soil	2:00	2:05	28-DEC-09 15:42	pH	20	20	6.15	17.9'C			
243550012		Soil	2:00	2:05	28-DEC-09 15:42	pH 2	20	20	6.16	17.9'C			
CCV			2:00	2:05	28-DEC-09 15:44	pH	20	20	7.02	17.8'C	7	100.286	
CCV			2:00	2:05	28-DEC-09 15:44	pH 2	20	20	7.02	17.8'C	7	100.286	
243550013		Soil	2:00	2:05	28-DEC-09 15:46	pH	20	20	7.32	17.9'C			
243550013		Soil	2:00	2:05	28-DEC-09 15:46	pH 2	20	20	7.32	18.0'C			
CCV			2:00	2:05	28-DEC-09 15:47	pH	20	20	7.02	17.8'C	7	100.286	
CCV			2:00	2:05	28-DEC-09 15:47	pH 2	20	20	7.02	17.8'C	7	100.286	

Calibration Information:
Run Date: 28-DEC-09 09:46
Instrument: PHX370
Analyst: LXA1

	Standard	Observed	Theoretical		C	%Recovery
09:46	IMM091228-PH1	4.01	4	SU	22	100.25
09:46	IMM091228-PH-	7.01	7	SU	22	100.14
09:46	UPH091228-a	10.01	10	SU	22	100.1
09:46	UPH091228-02c-	2.09	2	SU	22	104.5
09:46	091228-a	12.08	12	SU	22	100.67
09:46	IMM091228-01a	6.98	7	SU	22	99.714

Comments:

pH / Corrosivity LogBook

Analyst: LXA1
Batch: 938665
Lab SOP: GL-GC-E-008 REV# 17
Description: pH
Method: SW846 9045C/9045D

Type	Sample Id	Serial Number	Description
CCV	240	IMM091029-PH	PH 7 BUFFER FOR PH
LCS	1202008407	IMM091221-01	LCS BUFFER SOLUTION

Sample id	Parent Sample Id	Matrix	Start Time	Stop Time	Run Date	Parmname	Initial Wt(g)	Final Vol(mL)	Ph	Temp	Nc(mg/L)	Recovery(%)	Rpd(%)
1202008407 LCS		Soil	10:00	10:05	05-JAN-10 13:40	pH	20	20	7	19.3'C	7	100	
1202008407 LCS		Soil	10:00	10:05	05-JAN-10 13:40	pH 2	20	20	7	19.3'C	7	100	
243719001		Solid	10:00	10:05	05-JAN-10 13:44	pH	5	20	4.31	21.0'C			
243719001		Solid	10:00	10:05	05-JAN-10 13:44	pH 2	5	20	4.32	21.1'C			
243550014		Soil	10:00	10:05	05-JAN-10 13:41	pH	20	20	7.03	19.6'C			
243550014		Soil	10:00	10:05	05-JAN-10 13:41	pH 2	20	20	7.03	19.6'C			
1202008408 DUP	243550014	Soil	10:00	10:05	05-JAN-10 13:42	pH	20	20	7.07	19.6'C			.567
1202008408 DUP	243550014	Soil	10:00	10:05	05-JAN-10 13:42	pH 2	20	20	7.06	19.6'C			.426
243550015		Soil	10:00	10:05	05-JAN-10 13:43	pH	20	20	4.25	19.6'C			
243550015		Soil	10:00	10:05	05-JAN-10 13:43	pH 2	20	20	4.25	19.6'C			
CCV			10:00	10:05	05-JAN-10 13:45	pH	20	20	6.99	17.9'C	7	99.857	
CCV			10:00	10:05	05-JAN-10 13:45	pH 2	20	20	6.99	17.9'C	7	99.857	
243723001		Solid	10:00	10:05	05-JAN-10 13:46	pH	5	20	11.81	20.0'C			
243723001		Solid	10:00	10:05	05-JAN-10 13:46	pH 2	5	20	11.82	20.0'C			
CCV			10:00	10:05	05-JAN-10 13:47	pH	20	20	6.97	17.9'C	7	99.571	
CCV			10:00	10:05	05-JAN-10 13:47	pH 2	20	20	6.97	17.9'C	7	99.571	

Calibration Information:
Run Date: 05-JAN-10 09:58
Instrument: PHX742
Analyst: LXA1

	Standard	Observed	Theoretical		C	%Recovery
09:58	IMM100105-PH1	4.01	4	SU	20.3	100.25
09:58	IMM100105-PH-	7.01	7	SU	20.3	100.14
09:58	UPH100105-a	10.03	10	SU	20.3	100.3
09:58	UPH100105-02c-	2.08	2	SU	20.3	104
09:58	100105-a	12.05	12	SU	20.3	100.42
09:58	IMM100105-01a	6.99	7	SU	20.3	99.857

Comments:

GEL Laboratories LLC

Page#_____

Miscellaneous

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
04-JAN-10	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
IC	EPA 300.0	Solid	LANL
Batch ID:	**Sample Numbers:**		
937125	See Below		

Potentially affected work order(s)(SDG): 243550(10-1087)

Application Issues:

Failed Recovery for MS/PS

Failed Recovery for MSD/PSD

Specification and Requirements Exception Description:	DER Disposition:
1. Failed Recovery for MS/MSD: QC 1202005293MS, QC 1202005295MSD, QC 1202005294MS	1. The MS and MSD recoveries fall outside of the GEL acceptance limits but within the client specified limits.

Originator's Name:

Virginia Wininger 04-JAN-10

Data Validator/Group Leader:

Julia Hamilton 05-JAN-10

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
13-JAN-10	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
IC	EPA 300.0	Solid	LANL
Batch ID:	**Sample Numbers:**		
939817	See Below		

Potentially affected work order(s)(SDG): 243543(10-1081),243546(10-1083),243550(10-1087)

Application Issues:

Failed Recovery for MS/PS

Failed Recovery for MSD/PSD

Specification and Requirements Exception Description:	DER Disposition:
1. Failed Recovery for MS/MSD: QC 1202011170MS, QC 1202011171MSD	1. The MS recovery for Fluoride falls outside of the established acceptance limits. The MSD verifies the recovery failure with a passing RPD; therefore, the failure is attributed to matrix interference. The MS and MSD recoveries for Chloride, Nitrate, and Sulfate fall outside of the GEL acceptance limits but within the client specified limits.

Originator's Name:

Mary Sherwood 13-JAN-10

Data Validator/Group Leader:

Julia Hamilton 13-JAN-10

General Chemistry Analysis

Case Narrative

General Chemistry Narrative
Los Alamos National Laboratory (LANL)
SDG 10-1087-1

Method/Analysis Information

Product:	**Cyanide, Total**		
Analytical Batch:	936398	**Method:**	SW846 9012A
Prep Batch :	936396	**Method:**	SW846 9010B Prep

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 9012A:

Sample ID	Client ID
243554001	RE03-10-2750
243554002	RE03-10-2749
243554003	RE03-10-2764
243554004	RE03-10-2762
1202003566	Method Blank (MB)
1202003567	243396001(RE16-10-2848) Sample Duplicate (DUP)
1202003568	243400002(CAPA-10-6823) Sample Duplicate (DUP)
1202003570	243396001(RE16-10-2848) Matrix Spike (MS)
1202003571	243400002(CAPA-10-6823) Matrix Spike (MS)
1202003573	243396001(RE16-10-2848) Matrix Spike Duplicate (MSD)
1202003574	243400002(CAPA-10-6823) Matrix Spike Duplicate (MSD)
1202003576	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-095 REV# 12.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

The Flow Injection analysis was performed on a Lachat QuickChem FIA+ 8000 Series.

Initial Calibration

All initial calibration requirements have been met for this SDG.

Continuing Calibration Blanks
All continuing calibration blanks (CCBs) associated with reported data from this batch were within acceptance limits.

Calibration Verification Information (CCV)
All continuing calibration verification standards (CCVs) associated with reported data from this batch were within acceptance limits.

Y Intercept Rule
The absolute value of the intercept is less than 3 times the MDL.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recovery met the acceptance limits.

Quality Control (QC) Designation
The following samples were selected for QC analysis: 243396001 (RE16-10-2848) and 243400002 (CAPA-10-6823).

Matrix Spike (MS)/Post Spike (PS) Recovery Statement
The MS/PS recoveries for this sample set were within the required acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recoveries for this sample set were within the required acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPDs between the spike and spike duplicate met the acceptance limits.

Duplicate Relative Percent Difference (RPD) Statement
The values for the sample and duplicate are less than the Practical Quantitation Limit (PQL); therefore, the RPD is not applicable. 1202003567 (RE16-10-2848).

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times
All samples in this SDG met the specified holding time.

Sample Preservation/Integrity
All the samples from this sample group met the preservation and integrity requirements of the method.

Sample Dilutions

The samples in this SDG did not require dilutions.

Sample Re-analysis
The samples in this SDG did not require re-analysis.

Miscellaneous Information

Nonconformance (NCR) Documentation
An NCR was not required for this SDG.

Additional Comments
Additional comments were not required for this SDG.

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:
Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Method/Analysis Information

Product: **Nitrate Nitrite by Cadmium Reduction**

Analytical Batch: 936385 **Method:** EPA 353.2

Sample Analysis

The following samples were analyzed using the analytical protocol as established in EPA 353.2:

Sample ID	Client ID
243554001	RE03-10-2750
243554002	RE03-10-2749
243554003	RE03-10-2764
243554004	RE03-10-2762
1202003538	Method Blank (MB)
1202003539	243405001(RE16-10-2996) Sample Duplicate (DUP)
1202003540	243400001(CAPA-10-6821) Sample Duplicate (DUP)
1202003541	243405001(RE16-10-2996) Post Spike (PS)
1202003542	243400001(CAPA-10-6821) Post Spike (PS)
1202003543	Laboratory Control Sample (LCS)
1202004532	243475001(50FWC-09-2843) Sample Duplicate (DUP)
1202004533	243475001(50FWC-09-2843) Post Spike (PS)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-128 REV# 5.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

The Nutrient analysis was performed on a Lachat QuickChem FIA+ 8500 Series.

Continuing Calibration Blanks

All continuing calibration blanks (CCBs) associated with reported data from this batch were within acceptance limits.

Y Intercept Rule

The absolute value of the intercept is less than 3 times the MDL.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recovery met the acceptance limits.

Quality Control (QC) Designation
The following samples were selected for QC analysis: 243400001 (CAPA-10-6821), 243405001 (RE16-10-2996) and 243475001 (50FWC-09-2843).

Matrix Spike (MS)/Post Spike (PS) Recovery Statement
The MS/PS recoveries for this sample set were within the required acceptance limits.

Duplicate Relative Percent Difference (RPD) Statement
The RPD between the sample and its duplicate met the acceptance limits.

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times
All samples in this SDG met the specified holding time.

Sample Preservation/Integrity
All the samples from this sample group met the preservation and integrity requirements of the method.

Sample Dilutions
The following samples in this sample group were diluted due to high concentration: 1202004532 (50FWC-09-2843) and 1202004533 (50FWC-09-2843). The following samples in this sample group were diluted due to matrix interference: 1202003539 (RE16-10-2996), 1202003540 (CAPA-10-6821), 1202003541 (RE16-10-2996), 1202003542 (CAPA-10-6821), 243554001 (RE03-10-2750), 243554002 (RE03-10-2749), 243554003 (RE03-10-2764) and 243554004 (RE03-10-2762).

Sample Re-analysis
The samples in this SDG did not require re-analysis.

Miscellaneous Information

Nonconformance (NCR) Documentation
An NCR was not required for this SDG.

Additional Comments
Additional comments were not required for this SDG.

Electronic Packaging Comment

This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Tom Lewis, Jr. **Date:** 20Jan10

Sample Data Summary

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis Report
for

LANL010 Los Alamos National Laboratory (72733-001-09)

Client SDG: 10-1087-1 GEL Work Order: 243554

The Qualifiers in this report are defined as follows:

* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.

** Indicates the analyte is a surrogate compound.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the detection limit.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Valerie Davis.

Reviewed by Tom Lewis, Jr.

GEL LABORATORIES LLC
2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: January 5, 2010

Client SDG: 10-1087-1

Client Sample ID:	RE03-10-2750	Project:	LANL01004
Sample ID:	243554001	Client ID:	LANL010
Matrix:	W		
Collect Date:	22-DEC-09 12:00		
Receive Date:	24-DEC-09		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "As Received"										
Cyanide, Total	U	ND	1.66	5.00	ug/L	1	AXC2 12/30/09	1042	936398	1
Nutrient Analysis										
EPA 353.2 Nitrogen, Nitrate/Nitrite "As Received"										
Nitrogen, Nitrate/Nitrite	U	ND	0.050	0.250	mg/L	5	AXH3 12/28/09	1101	936385	2

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	12/29/09	1423	936396

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	
2	EPA 353.2	

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: January 5, 2010

Client SDG: 10-1087-1

Client Sample ID: RE03-10-2749
Sample ID: 243554002
Matrix: W
Collect Date: 22-DEC-09 12:00
Receive Date: 24-DEC-09
Collector: Client

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "As Received"										
Cyanide, Total	U	ND	1.66	5.00	ug/L	1	AXC2 12/30/09	1043	936398	1
Nutrient Analysis										
EPA 353.2 Nitrogen, Nitrate/Nitrite "As Received"										
Nitrogen, Nitrate/Nitrite	U	ND	0.050	0.250	mg/L	5	AXH3 12/28/09	1102	936385	2

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	12/29/09	1423	936396

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	
2	EPA 353.2	

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: January 5, 2010

Client SDG: 10-1087-1

Client Sample ID: RE03-10-2764
Sample ID: 243554003
Matrix: W
Collect Date: 22-DEC-09 12:00
Receive Date: 24-DEC-09
Collector: Client

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Flow Injection Analysis											
SW9012A Cyanide, Total "As Received"											
Cyanide, Total	U	ND	1.66	5.00	ug/L	1	AXC2	12/30/09	1044	936398	1
Nutrient Analysis											
EPA 353.2 Nitrogen, Nitrate/Nitrite "As Received"											
Nitrogen, Nitrate/Nitrite	U	ND	0.050	0.250	mg/L	5	AXH3	12/28/09	1103	936385	2

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	12/29/09	1423	936396

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	
2	EPA 353.2	

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: January 5, 2010

Client SDG: 10-1087-1

Client Sample ID:	RE03-10-2762	Project:	LANL01004
Sample ID:	243554004	Client ID:	LANL010
Matrix:	W		
Collect Date:	22-DEC-09 12:00		
Receive Date:	24-DEC-09		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Flow Injection Analysis											
SW9012A Cyanide, Total "As Received"											
Cyanide, Total	U	ND	1.66	5.00	ug/L	1	AXC2	12/30/09	1045	936398	1
Nutrient Analysis											
EPA 353.2 Nitrogen, Nitrate/Nitrite "As Received"											
Nitrogen, Nitrate/Nitrite	U	ND	0.050	0.250	mg/L	5	AXH3	12/28/09	1104	936385	2

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	12/29/09	1423	936396

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	
2	EPA 353.2	

Quality Control Summary

GEL LABORATORIES LLC

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QC Summary

Report Date: January 5, 2010
Page 1 of 2

Los Alamos National Laboratory
PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico

Contact: Ms. Joylene Valdez

Workorder: 243554

Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Flow Injection Analysis											
Batch 936398											
QC1202003567 243396001 DUP											
Cyanide, Total		U	ND	U	ND	ug/L	N/A			AXC2	12/30/09 10:16
QC1202003568 243400002 DUP											
Cyanide, Total		U	ND	U	ND	ug/L	N/A				12/30/09 10:19
QC1202003576 LCS											
Cyanide, Total	50.0				49.9	ug/L		99.8	(90%-110%)		12/30/09 10:13
QC1202003566 MB											
Cyanide, Total				U	5.00	ug/L					12/30/09 10:12
QC1202003570 243396001 MS											
Cyanide, Total	100	U	ND		104	ug/L		104	(60%-127%)		12/30/09 10:17
QC1202003571 243400002 MS											
Cyanide, Total	100	U	ND		105	ug/L		105	(60%-127%)		12/30/09 10:20
QC1202003573 243396001 MSD											
Cyanide, Total	100	U	ND		103	ug/L	0.966	103	(0%-20%)		12/30/09 10:17
QC1202003574 243400002 MSD											
Cyanide, Total	100	U	ND		107	ug/L	1.89	107	(0%-20%)		12/30/09 10:25
Nutrient Analysis											
Batch 936385											
QC1202003539 243405001 DUP											
Nitrogen, Nitrate/Nitrite		U	ND	U	ND	mg/L	N/A			AXH3	12/28/09 10:34
QC1202003540 243400001 DUP											
Nitrogen, Nitrate/Nitrite			0.710		0.760	mg/L	6.80 ^		(+/-0.250)		12/28/09 10:29
QC1202004532 243475001 DUP											
Nitrogen, Nitrate/Nitrite			3.85		3.85	mg/L	0.00 ^		(+/-1.25)		12/28/09 10:46
QC1202003543 LCS											
Nitrogen, Nitrate/Nitrite	1.00				0.968	mg/L		96.8	(90%-110%)		12/28/09 10:26
QC1202003538 MB											
Nitrogen, Nitrate/Nitrite				U	0.050	mg/L					12/28/09 10:25
QC1202003541 243405001 PS											
Nitrogen, Nitrate/Nitrite	1.00	U	ND		1.04	mg/L		103	(90%-110%)		12/28/09 10:36
QC1202003542 243400001 PS											
Nitrogen, Nitrate/Nitrite	1.00		0.142		1.21	mg/L		107	(90%-110%)		12/28/09 10:31
QC1202004533 243475001 PS											
Nitrogen, Nitrate/Nitrite	1.00		0.154		1.16	mg/L		101	(90%-110%)		12/28/09 10:47

Notes:
RER is calculated at the 95% confidence level (2-sigma).
The Qualifiers in this report are defined as follows:

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product

QC Summary

Workorder: 243554

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time

B	For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
C	Analyte has been confirmed by GC/MS analysis
D	Results are reported from a diluted aliquot of the sample
E	Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
E	Organics--Concentration of the target analyte exceeds the instrument calibration range
F	Estimated Value
H	Analytical holding time was exceeded
J	Value is estimated
M	Matrix Related Failure
N	Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A	RPD or %Recovery limits do not apply.
ND	Analyte concentration is not detected above the detection limit
NJ	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
P	Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%
R	Sample results are rejected
U	Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
Z	Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d	5-day BOD--The 2:1 depletion requirement was not met for this sample
h	Preparation or preservation holding time was exceeded

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more.
^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.
* Indicates that a Quality Control parameter was not within specifications.
For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

Instrument QC Data Summary

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Report Run On: 05-JAN-2010 17:36

GEL Laboratories LLC

Contract: **LANL01004**

SDG #: **10-1087-1**

Flow Injection Analysis

Method: SW846 9012A Concentration Units:ug/L

Instrument: Lachat QuickChem FIA+ 8000 Series

Parmname: Cyanide, Total

Sample Type	Run Date	Data File	Result	Nominal	Recovery	Limits	Within Limits
ICV	**30-DEC-2009 10:07:08**	**OM_12-30-2009_09-56-39**	**149**	**150**	**99**	**(90%-110%)**	**Yes**
CCV	30-DEC-2009 10:21:26	OM_12-30-2009_09-56-39	104	100	104	(90%-110%)	Yes
CCV	30-DEC-2009 10:33:51	OM_12-30-2009_09-56-39	104	100	104	(90%-110%)	Yes
CCV	30-DEC-2009 10:46:16	OM_12-30-2009_09-56-39	105	100	105	(90%-110%)	Yes

Sample Type	Run Date	Data File	Result	Limits	Within Limits
ICB	**30-DEC-2009 10:08:58**	**OM_12-30-2009_09-56-39**	**-2.07**	**5**	**Yes**
CCB	30-DEC-2009 10:23:16	OM_12-30-2009_09-56-39	-1.51	5	Yes
CCB	30-DEC-2009 10:35:41	OM_12-30-2009_09-56-39	-2.04	5	Yes
CCB	30-DEC-2009 10:48:05	OM_12-30-2009_09-56-39	-2.04	5	Yes

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Report Run On: 05-JAN-2010 17:36

GEL Laboratories LLC
Contract: LANL01004
SDG #: 10-1087-1

Nutrient Analysis
Method: EPA 353.2 Concentration Units:mg/L
Instrument: Lachat Quickchem FIA+ 8500 Series

Parmname: Nitrogen, Nitrate/Nitrite

Sample Type	Run Date	Data File	Result	Nominal	Recovery	Limits	Within Limits
ICV	**28-DEC-2009 10:15:46**	**OM_12-28-2009_10-05-28**	**0.96**	**1**	**96**	**(90%-110%)**	**Yes**
CCV	28-DEC-2009 10:37:14	OM_12-28-2009_10-05-28	0.978	1	98	(90%-110%)	Yes
CCV	28-DEC-2009 10:53:59	OM_12-28-2009_10-05-28	0.993	1	99	(90%-110%)	Yes
CCV	28-DEC-2009 11:07:04	OM_12-28-2009_10-05-28	0.968	1	97	(90%-110%)	Yes

Sample Type	Run Date	Data File	Result	Limits	Within Limits
ICB	**28-DEC-2009 10:18:08**	**OM_12-28-2009_10-05-28**	**-0.00298**	**0.05**	**Yes**
CCB	28-DEC-2009 10:39:36	OM_12-28-2009_10-05-28	-0.00176	0.05	Yes
CCB	28-DEC-2009 10:56:21	OM_12-28-2009_10-05-28	0.00022	0.05	Yes
CCB	28-DEC-2009 11:09:26	OM_12-28-2009_10-05-28	0.00068	0.05	Yes

Cyanide, Total

Prep LogBook

Analyst: AXS5 Verified by:_____

Batch: 936396

Lab SOP: GL-GC-E-067 REV# 13

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1202003576	URF1184831-02	.0125	mL
MS	1202003570	URF1184831-02	.025	mL
MS	1202003571	URF1184831-02	.025	mL
MS	1202003572	URF1184831-02	.025	mL
MSD	1202003573	URF1184831-02	.025	mL
MSD	1202003574	URF1184831-02	.025	mL
MSD	1202003575	URF1184831-02	.025	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Ph	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1202003566		SW846 9010B Prep	29-DEC-2009 14:23	>12	25 mL	25 mL	1	WATER
LCS	1202003576		SW846 9010B Prep	29-DEC-2009 14:23	>12	25 mL	25 mL	1	WATER
SAMPLE	243386001		SW846 9010B Prep	29-DEC-2009 14:23	>12	25 mL	25 mL	1	WATER
SAMPLE	243396001		SW846 9010B Prep	29-DEC-2009 14:23	>12	25 mL	25 mL	1	WATER
DUP	1202003567	243396001	SW846 9010B Prep	29-DEC-2009 14:23	>12	25 mL	25 mL	1	WATER
MS	1202003570	243396001	SW846 9010B Prep	29-DEC-2009 14:23	>12	25 mL	25 mL	1	WATER
MSD	1202003573	243396001	SW846 9010B Prep	29-DEC-2009 14:23	>12	25 mL	25 mL	1	WATER
SAMPLE	243400002		EPA 335.4	29-DEC-2009 14:23	>12	25 mL	25 mL	1	GROUND WATER
DUP	1202003568	243400002	EPA 335.4	29-DEC-2009 14:23	>12	25 mL	25 mL	1	GROUND WATER
MS	1202003571	243400002	EPA 335.4	29-DEC-2009 14:23	>12	25 mL	25 mL	1	GROUND WATER
MSD	1202003574	243400002	EPA 335.4	29-DEC-2009 14:23	>12	25 mL	25 mL	1	GROUND WATER
SAMPLE	243400003		EPA 335.4	29-DEC-2009 14:23	>12	25 mL	25 mL	1	GROUND WATER
SAMPLE	243443003		SW846 9010B Prep	29-DEC-2009 14:23	>12	25 mL	25 mL	1	WASTE WATER
DUP	1202003569	243443003	SW846 9010B Prep	29-DEC-2009 14:23	>12	25 mL	25 mL	1	WASTE WATER
MS	1202003572	243443003	SW846 9010B Prep	29-DEC-2009 14:23	>12	25 mL	25 mL	1	WASTE WATER
MSD	1202003575	243443003	SW846 9010B Prep	29-DEC-2009 14:23	>12	25 mL	25 mL	1	WASTE WATER
SAMPLE	243443014		SW846 9010B Prep	29-DEC-2009 14:23	>12	25 mL	25 mL	1	WASTE WATER
SAMPLE	243443025		SW846 9010B Prep	29-DEC-2009 14:23	>12	25 mL	25 mL	1	WASTE WATER
SAMPLE	243459001		EPA 335.4	29-DEC-2009 14:23	>12	25 mL	25 mL	1	WATER
SAMPLE	243459002		EPA 335.4	29-DEC-2009 14:23	>12	25 mL	25 mL	1	WATER
SAMPLE	243461001		EPA 335.4	29-DEC-2009 14:23	>12	25 mL	25 mL	1	GROUND WATER
SAMPLE	243466001		EPA 335.4	29-DEC-2009 14:23	>12	25 mL	25 mL	1	WATER
SAMPLE	243466002		EPA 335.4	29-DEC-2009 14:23	>12	25 mL	25 mL	1	WATER
SAMPLE	243469007		EPA 335.4	29-DEC-2009 14:23	>12	25 mL	25 mL	1	WATER
SAMPLE	243493001		SW846 9010B Prep	29-DEC-2009 14:23	>12	25 mL	25 mL	1	WATER
SAMPLE	243506001		SW846 9010B Prep	29-DEC-2009 14:23	>12	25 mL	25 mL	1	WATER

Prep LogBook

Analyst: AXS5 Verified by:_____

Batch: 936396

Lab SOP: GL-GC-E-067 REV# 13

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1202003576	URF1184831-02	.0125	mL
MS	1202003570	URF1184831-02	.025	mL
MS	1202003571	URF1184831-02	.025	mL
MS	1202003572	URF1184831-02	.025	mL
MSD	1202003573	URF1184831-02	.025	mL
MSD	1202003574	URF1184831-02	.025	mL
MSD	1202003575	URF1184831-02	.025	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Ph	Initial Wt.	Final Volume	Prep Factor	Matrix
SAMPLE	243554001		SW846 9010B Prep	29-DEC-2009 14:23	>12	25 mL	25 mL	1	WATER
SAMPLE	243554002		SW846 9010B Prep	29-DEC-2009 14:23	>12	25 mL	25 mL	1	WATER
SAMPLE	243554003		SW846 9010B Prep	29-DEC-2009 14:23	>12	25 mL	25 mL	1	WATER
SAMPLE	243554004		SW846 9010B Prep	29-DEC-2009 14:23	>12	25 mL	25 mL	1	WATER

Reagent/Solvent Lot ID	Amount	Description
091211-C	25 mL	0.25N Sodium Hydroxide Solution
WCN091229-07	.0375 mL	150 ppb CN Distilled ICV Standard
1176724-C	1.25 mL	0.8N H3NO3S
1238146-C	2.5 mL	50% H2SO4 CN Prep
1176778-C	1 mL	51% MgCl2 Soln
1238142-C	1.25 mL	Bismuth Nitrate Solution

Comments:

This is runlog Lachat1

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
200 ppb		1	axc2	12/30/2009 9:59:59	OM_12-30-2009_09-56-39
150 ppb		1	axc2	12/30/2009 10:00:51	OM_12-30-2009_09-56-39
100 ppb		1	axc2	12/30/2009 10:01:44	OM_12-30-2009_09-56-39
50 ppb		1	axc2	12/30/2009 10:02:37	OM_12-30-2009_09-56-39
10 ppb		1	axc2	12/30/2009 10:03:30	OM_12-30-2009_09-56-39
CRDL 5.0 ppb		1	axc2	12/30/2009 10:04:23	OM_12-30-2009_09-56-39
ICAL-00		1	axc2	12/30/2009 10:05:17	OM_12-30-2009_09-56-39
ICV		1	axc2	12/30/2009 10:07:08	OM_12-30-2009_09-56-39
ICB		1	axc2	12/30/2009 10:08:58	OM_12-30-2009_09-56-39
CRDL		1	axc2	12/30/2009 10:10:49	OM_12-30-2009_09-56-39
1202003566	936398	1	axc2	12/30/2009 10:12:38	OM_12-30-2009_09-56-39
1202003576	936398	1	axc2	12/30/2009 10:13:31	OM_12-30-2009_09-56-39
243386001	936398	1	axc2	12/30/2009 10:14:24	OM_12-30-2009_09-56-39
243396001	936398	1	axc2	12/30/2009 10:15:18	OM_12-30-2009_09-56-39
1202003567	936398	1	axc2	12/30/2009 10:16:11	OM_12-30-2009_09-56-39
1202003570	936398	1	axc2	12/30/2009 10:17:03	OM_12-30-2009_09-56-39
1202003573	936398	1	axc2	12/30/2009 10:17:56	OM_12-30-2009_09-56-39
243400002	936398	1	axc2	12/30/2009 10:18:48	OM_12-30-2009_09-56-39
1202003568	936398	1	axc2	12/30/2009 10:19:41	OM_12-30-2009_09-56-39
1202003571	936398	1	axc2	12/30/2009 10:20:33	OM_12-30-2009_09-56-39
CCV		1	axc2	12/30/2009 10:21:26	OM_12-30-2009_09-56-39
CCB		1	axc2	12/30/2009 10:23:16	OM_12-30-2009_09-56-39
1202003574	936398	1	axc2	12/30/2009 10:25:04	OM_12-30-2009_09-56-39
243400003	936398	1	axc2	12/30/2009 10:25:56	OM_12-30-2009_09-56-39
243443003	936398	1	axc2	12/30/2009 10:26:48	OM_12-30-2009_09-56-39
1202003569	936398	1	axc2	12/30/2009 10:27:40	OM_12-30-2009_09-56-39
1202003572	936398	1	axc2	12/30/2009 10:28:31	OM_12-30-2009_09-56-39
1202003575	936398	1	axc2	12/30/2009 10:29:24	OM_12-30-2009_09-56-39
243443014	936398	1	axc2	12/30/2009 10:30:19	OM_12-30-2009_09-56-39
243443025	936398	1	axc2	12/30/2009 10:31:12	OM_12-30-2009_09-56-39
243459001	936398	1	axc2	12/30/2009 10:32:05	OM_12-30-2009_09-56-39
243459002	936398	1	axc2	12/30/2009 10:32:58	OM_12-30-2009_09-56-39
CCV		1	axc2	12/30/2009 10:33:51	OM_12-30-2009_09-56-39
CCB		1	axc2	12/30/2009 10:35:41	OM_12-30-2009_09-56-39
243461001	936398	1	axc2	12/30/2009 10:37:31	OM_12-30-2009_09-56-39
243466001	936398	1	axc2	12/30/2009 10:38:24	OM_12-30-2009_09-56-39
243466002	936398	1	axc2	12/30/2009 10:39:17	OM_12-30-2009_09-56-39
243469007	936398	1	axc2	12/30/2009 10:40:10	OM_12-30-2009_09-56-39
243493001	936398	1	axc2	12/30/2009 10:41:03	OM_12-30-2009_09-56-39
243506001	936398	1	axc2	12/30/2009 10:41:55	OM_12-30-2009_09-56-39
243554001	936398	1	axc2	12/30/2009 10:42:47	OM_12-30-2009_09-56-39
243554002	936398	1	axc2	12/30/2009 10:43:39	OM_12-30-2009_09-56-39
243554003	936398	1	axc2	12/30/2009 10:44:30	OM_12-30-2009_09-56-39
243554004	936398	1	axc2	12/30/2009 10:45:23	OM_12-30-2009_09-56-39
CCV		1	axc2	12/30/2009 10:46:16	OM_12-30-2009_09-56-39
CCB		1	axc2	12/30/2009 10:48:05	OM_12-30-2009_09-56-39

Author: axc2 Date : 12/30/2009

Original Run Filename: OM_12-30-2009_09-56-39.OMN created 12/30/2009 09:56:39
Original Run Author's Signature: [axc2]
Current Run Filename: OM_12-30-2009_09-56-39.OMN last modified 12/30/2009 10:49:10
Current Run Author's Signature: [axc2]
Description: GL-GC-E-095 EPA 335.1, 335.3, 335.4, 9012A, CLP335.2-M
Liquid LCS nominal 50 ug/L

Sample	Rep.	Cup No.	Channel 1 TCYANIDE Conc. (ug/L)	Area (Vs)	Detection Time	ADF	MDF	Description
WCN091230-01	1	S1	200	7.43	12/30/2009@09:59:59			200 ppb
WCN091230-02	1	S2	150	5.62	12/30/2009@10:00:51			150 ppb
WCN091230-03	1	S3	100	3.68	12/30/2009@10:01:44			100 ppb
WCN091230-04	1	S4	50.0	2.05	12/30/2009@10:02:37			50 ppb
WCN091230-05	1	S5	10.0	0.476	12/30/2009@10:03:30			10 ppb
WCN091230-06	1	S6	5.00	0.292	12/30/2009@10:04:23			CRDL 5.0 ppb
WCN091230-08	1	S7	0.00	0.0301	12/30/2009@10:05:17			0.0 ppb
DQM Test: Minimum Correlation Coefficient								
		Result:	0.99974 > 0.99500					
		Message	Pass					
		Action	Continue					
WCN091230-07	1	S8	149	5.57	12/30/2009@10:07:08			ICV
		Known Conc:	150					
DQM Test: > + Percent Relative Difference								
		Result:	-0.6 < 10.0					
		Message	ICV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	-0.6 < 10.0					
		Message	ICV Passed					
		Action	Continue					
		Calibration:	Table/Fig. 1					
WCN091230-08	1	S7	-2.07	0.0199	12/30/2009@10:08:58			ICB/CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-2.07 < 5.01					
		Message	ICB/CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-2.07 > -5.01					
		Message	ICB/CCB Passed					
		Action	Continue					
WCN091230-06	1	S6	5.28	0.290	12/30/2009@10:10:49			CRDL
		Known Conc:	5.00					
DQM Test: > + Concentration Limit								
		Result:	5.28 < 7.50					
		Message	CRDL Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	5.28 > 2.50					
		Message	Pass					
		Action	None					
1202003566|936398|MB	1	1	-2.01	0.0223	12/30/2009@10:12:38			
1202003576||LCS	1	2	49.9	1.93	12/30/2009@10:13:31			
243386001	1	3	-1.49	0.0413	12/30/2009@10:14:24			
243396001	1	4	-1.66	0.0352	12/30/2009@10:15:18			
1202003567||DUP	1	5	-2.07	0.0202	12/30/2009@10:16:11			
1202003570||MS	1	6	104	3.92	12/30/2009@10:17:03			
1202003573||MSD	1	7	103	3.89	12/30/2009@10:17:56			
243400002	1	8	-1.93	0.0251	12/30/2009@10:18:48			
1202003568||DUP	1	9	-1.78	0.0307	12/30/2009@10:19:41			
1202003571||MS	1	10	105	3.95	12/30/2009@10:20:33			
WCN091230-03	1	S3	104	3.91	12/30/2009@10:21:26			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	4.0 < 10.0					

		Message	CCV Passed					
		Action	Continue					
		DQM Test: < - Percent Relative Difference						
		Result:	4.0 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN091230-08	1	S7	-1.51	0.0405	12/30/2009@10:23:16			CCB
		Known Conc:	0.00					
		DQM Test: > + Concentration Limit						
		Result:	-1.51 < 5.00					
		Message	CCB Passed					
		Action	Continue					
		DQM Test: < - Concentration Limit						
		Result:	-1.51 > -5.00					
		Message	CCB Passed					
		Action	Continue					
1202003574|MSD	1	11	107	4.03	12/30/2009@10:25:04			
243400003	1	12	-1.77	0.0311	12/30/2009@10:25:56			
243443003	1	13	-1.58	0.0380	12/30/2009@10:26:48			
1202003569|DUP	1	14	-1.62	0.0366	12/30/2009@10:27:40			
1202003572|MS	1	15	106	4.00	12/30/2009@10:28:31			
1202003575|MSD	1	16	100	3.77	12/30/2009@10:29:24			
243443014	1	17	-0.592	0.0743	12/30/2009@10:30:19			
243443025	1	18	-1.33	0.0471	12/30/2009@10:31:12			
243459001	1	19	-1.92	0.0256	12/30/2009@10:32:05			
243459002	1	20	-1.95	0.0243	12/30/2009@10:32:58			
WCN091230-03	1	S3	104	3.92	12/30/2009@10:33:51			CCV
		Known Conc:	100					
		DQM Test: > + Percent Relative Difference						
		Result:	4.3 < 10.0					
		Message	CCV Passed					
		Action	Continue					
		DQM Test: < - Percent Relative Difference						
		Result:	4.3 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN091230-08	1	S7	-2.04	0.0211	12/30/2009@10:35:41			CCB
		Known Conc:	0.00					
		DQM Test: > + Concentration Limit						
		Result:	-2.04 < 5.00					
		Message	CCB Passed					
		Action	Continue					
		DQM Test: < - Concentration Limit						
		Result:	-2.04 > -5.00					
		Message	CCB Passed					
		Action	Continue					
243461001	1	21	-1.77	0.0312	12/30/2009@10:37:31			
243466001	1	22	0.116	0.100	12/30/2009@10:38:24			
243466002	1	23	1.14	0.138	12/30/2009@10:39:17			
243469007	1	24	-2.42	0.00705	12/30/2009@10:40:10			
243493001	1	25	-2.82	-0.00760	12/30/2009@10:41:03			
243506001	1	26	-1.91	0.0261	12/30/2009@10:41:55			
243554001	1	27	-2.61	3.12e-4	12/30/2009@10:42:47			
243554002	1	28	-2.42	0.00720	12/30/2009@10:43:39			
243554003	1	29	-1.78	0.0307	12/30/2009@10:44:30			
243554004	1	30	-2.05	0.0207	12/30/2009@10:45:23			
WCN091230-03	1	S3	105	3.94	12/30/2009@10:46:16			CCV
		Known Conc:	100					
		DQM Test: > + Percent Relative Difference						
		Result:	4.7 < 10.0					
		Message	CCV Passed					
		Action	Continue					
		DQM Test: < - Percent Relative Difference						
		Result:	4.7 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN091230-08	1	S7	-2.04	0.0213	12/30/2009@10:48:05			CCB
		Known Conc:	0.00					

Author: axc2

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DQM Test: > + Concentration Limit						
Result:	-2.04 < 5.00					
Message	CCB Passed					
Action	Continue					
DQM Test: < - Concentration Limit						
Result:	-2.04 > -5.00					
Message	CCB Passed					
Action	Continue					

Analyte Properties Table for OM_12-30-2009_09-56-39.OMN

Property	Channel 1
	TCYANIDE
Concentration Units	ug/L
Callibration Fit Type	First Order
Clear Calibration	True
Force Through Zero	False
Calibration Weighting	None
Auto Dilution Trigger	True
% of High Standard	100
Quik Chem Method	10-204-00-1-A
Chemistry	Direct/Bipolar
Calibration by Height	False
Inject to Peak Start	22
Peak Base Width	39

Channel 1: Current View

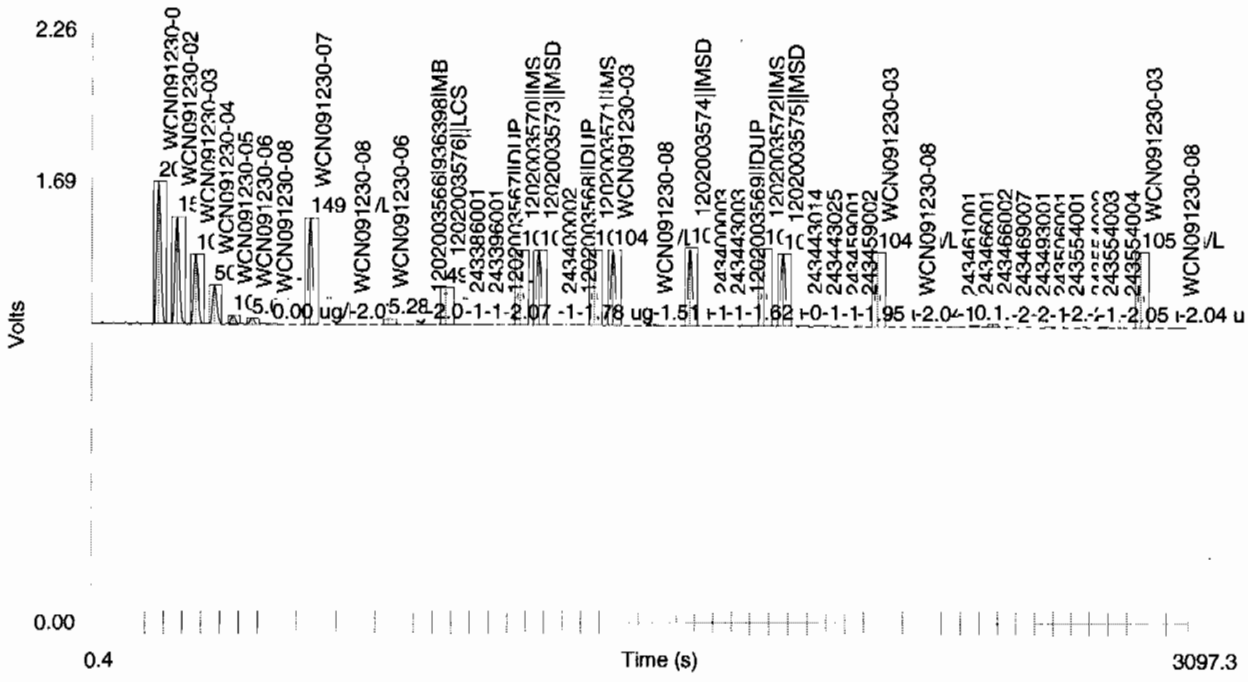

Author: axc2

Date : 12/30/2009

Table 1: TCYANIDE

	Conc. (ug/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	200	1	7.43	0.547	0.0	12/30/2009	10:01:02
2	150	1	5.62	0.411	-0.4	12/30/2009	10:01:54
3	100	1	3.68	0.269	2.4	12/30/2009	10:02:46
4	50.0	1	2.05	0.150	-5.9	12/30/2009	10:03:39
5	10.0	1	0.476	0.0340	-2.4	12/30/2009	10:04:33
6	5.00	1	0.292	0.0197	-3.8	12/30/2009	10:05:26
7	0.00	1	0.0301	0.00127		12/30/2009	10:06:21

Figure 1: TCYANIDE

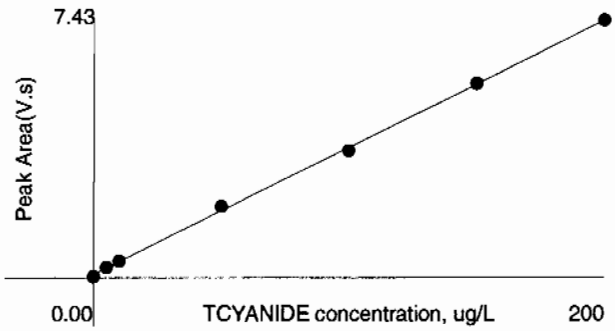

Area = 0.0367 * Conc + 0.0975
Conc = 27.2 * Area - 2.62
Correlation Coefficient (r) = 0.99974

No Weighting

Nitrate Nitrite by Cadmium Reduction

This is runlog lachat3

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
1.5 PPM		1	axh3	12/28/2009 10:07:18	OM_12-28-2009_10-05-28
1.0 PPM		1	axh3	12/28/2009 10:08:30	OM_12-28-2009_10-05-28
0.5 ppm		1	axh3	12/28/2009 10:09:43	OM_12-28-2009_10-05-28
0.1 ppm		1	axh3	12/28/2009 10:10:56	OM_12-28-2009_10-05-28
0.05 ppm		1	axh3	12/28/2009 10:12:10	OM_12-28-2009_10-05-28
ICAL-00		1	axh3	12/28/2009 10:13:23	OM_12-28-2009_10-05-28
1.0 ppm ICV		1	axh3	12/28/2009 10:15:46	OM_12-28-2009_10-05-28
ICB		1	axh3	12/28/2009 10:18:08	OM_12-28-2009_10-05-28
Nitrate 1.0 ppm		1	axh3	12/28/2009 10:20:27	OM_12-28-2009_10-05-28
Nitrite 1.0 ppm		1	axh3	12/28/2009 10:22:47	OM_12-28-2009_10-05-28
1202003538	936385	1	axh3	12/28/2009 10:25:08	OM_12-28-2009_10-05-28
1202003543	936385	1	axh3	12/28/2009 10:26:21	OM_12-28-2009_10-05-28
243396001	936385	5	axh3	12/28/2009 10:27:34	OM_12-28-2009_10-05-28
243400001	936385	5	axh3	12/28/2009 10:28:47	OM_12-28-2009_10-05-28
1202003540	936385	5	axh3	12/28/2009 10:29:59	OM_12-28-2009_10-05-28
1202003542	936385	5	axh3	12/28/2009 10:31:12	OM_12-28-2009_10-05-28
243400004	936385	5	axh3	12/28/2009 10:32:25	OM_12-28-2009_10-05-28
243405001	936385	5	axh3	12/28/2009 10:33:38	OM_12-28-2009_10-05-28
1202003539	936385	5	axh3	12/28/2009 10:34:50	OM_12-28-2009_10-05-28
1202003541	936385	5	axh3	12/28/2009 10:36:02	OM_12-28-2009_10-05-28
1.0 ppm CCV		1	axh3	12/28/2009 10:37:14	OM_12-28-2009_10-05-28
CCB		1	axh3	12/28/2009 10:39:36	OM_12-28-2009_10-05-28
243459001	936385	5	axh3	12/28/2009 10:41:56	OM_12-28-2009_10-05-28
243461002	936385	5	axh3	12/28/2009 10:43:07	OM_12-28-2009_10-05-28
243466001	936385	5	axh3	12/28/2009 10:44:20	OM_12-28-2009_10-05-28
243475001*	936385	25	axh3	12/28/2009 10:45:31	OM_12-28-2009_10-05-28
1202004532	936385	25	axh3	12/28/2009 10:46:43	OM_12-28-2009_10-05-28
1202004533	936385	25	axh3	12/28/2009 10:47:56	OM_12-28-2009_10-05-28
243475001	936385	25	axh3	12/28/2009 10:49:07	OM_12-28-2009_10-05-28
243506001	936385	5	axh3	12/28/2009 10:50:21	OM_12-28-2009_10-05-28
243513001	936385	5	axh3	12/28/2009 10:51:34	OM_12-28-2009_10-05-28
243513002	936385	5	axh3	12/28/2009 10:52:46	OM_12-28-2009_10-05-28
1.0 ppm CCV		1	axh3	12/28/2009 10:53:59	OM_12-28-2009_10-05-28
CCB		1	axh3	12/28/2009 10:56:21	OM_12-28-2009_10-05-28
243539001	936385	5	axh3	12/28/2009 10:58:41	OM_12-28-2009_10-05-28
243539002	936385	5	axh3	12/28/2009 10:59:54	OM_12-28-2009_10-05-28
243554001	936385	5	axh3	12/28/2009 11:01:07	OM_12-28-2009_10-05-28
243554002	936385	5	axh3	12/28/2009 11:02:19	OM_12-28-2009_10-05-28
243554003	936385	5	axh3	12/28/2009 11:03:31	OM_12-28-2009_10-05-28
243554004	936385	5	axh3	12/28/2009 11:04:43	OM_12-28-2009_10-05-28
1.0 ppm CCV		1	axh3	12/28/2009 11:07:04	OM_12-28-2009_10-05-28
CCB		1	axh3	12/28/2009 11:09:26	OM_12-28-2009_10-05-28

Author: lachat

Date : 12/28/2009

Original Run Filename: OM_12-28-2009_10-05-28.OMN created 12/28/2009 10:05:28
Original Run Author's Signature: [lachat]
Current Run Filename: OM_12-28-2009_10-05-28.OMN last modified 12/28/2009 11:10:47
Current Run Author's Signature: [lachat]
Description: EPA 353.2
Cadmium Colum 9056CAJ
LCS nominal 1.0 mg/L

Sample	Rep.	Cup No.	Channel 1 NO3 + NO2 Conc. (mg/L)	Area (Vs)	Detection Time	ADF	MDF	Description
WTR091228-26	1	S9	1.50	18.5	12/28/2009@10:07:18			1.5 PPM
WTR091228-25	1	S10	1.00	12.3	12/28/2009@10:08:30			1.0 PPM
WTR091228-24	1	S11	0.500	6.12	12/28/2009@10:09:43			0.5 ppm
WTR091228-23	1	S12	0.100	1.24	12/28/2009@10:10:56			0.1 ppm
WTR091228-21	1	S13	0.0500	0.652	12/28/2009@10:12:10			0.05 ppm
0.0ppm	1	S15	0.00	-0.00206	12/28/2009@10:13:23			0.0 ppm
DQM Test: Minimum Correlation Coefficient								
		Result:	0.99999 > 0.99500					
		Message	Calibration Passed					
		Action	Continue					
WTR091228-27 ICV	1	S16	0.960	11.8	12/28/2009@10:15:46			1.0 ppm ICV
		Known Conc:	1.00					
DQM Test: > + Concentration Limit								
		Result:	0.960 < 1.10					
		Message	ICV Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	0.960 > 0.894					
		Message	ICV Passed					
		Action	Continue					
		Calibration:	Table/Fig. 1					
ICB	1	S15	-0.00298	-0.0321	12/28/2009@10:18:08			ICB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-0.00298 < 0.0500					
		Message	ICB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-0.00298 > -0.0500					
		Message	ICB Passed					
		Action	Continue					
WTR091228-22	1	S1	0.922	11.3	12/28/2009@10:20:27			Nitrate 1.0 ppm
		Known Conc:	1.00					
DQM Test: > + Concentration Limit								
		Result:	0.922 < 1.10					
		Message	Nitrate Standard Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	0.922 > 0.894					
		Message	Nitrate Standard Passed					
		Action	Continue					
WTR091228-28	1	S2	0.927	11.4	12/28/2009@10:22:47			Nitrite 1.0 ppm
		Known Conc:	1.00					
DQM Test: > + Concentration Limit								
		Result:	0.927 < 1.10					
		Message	Nitrite Standard Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	0.927 > 0.894					
		Message	Nitrite Standard Passed					
		Action	Continue					
1202003538|936385|MB	1	1	0.00575	0.0752	12/28/2009@10:25:08			
1202003543||LCS	1	2	0.968	11.9	12/28/2009@10:26:21			
243396001	1	3	0.0111	0.141	12/28/2009@10:27:34		5.00	
243400001	1	4	0.142	1.75	12/28/2009@10:28:47		5.00	
1202003540||DUP	1	5	0.152	1.87	12/28/2009@10:29:59		5.00	

1202003542||PS	1	6	1.21	14.9	12/28/2009@10:31:12		5.00	
243400004	1	7	0.121	1.49	12/28/2009@10:32:25		5.00	
243405001	1	8	0.00636	0.0827	12/28/2009@10:33:38		5.00	
1202003539||DUP	1	9	0.00738	0.0952	12/28/2009@10:34:50		5.00	
1202003541||PS	1	10	1.04	12.8	12/28/2009@10:36:02		5.00	
WTR091228-25 CCV	1	S10	0.978	12.0	12/28/2009@10:37:14			1.0 ppm CCV
		Known Conc:	1.00					
DQM Test: > + Concentration Limit								
		Result:	0.978 < 1.10					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	0.978 > 0.894					
		Message	CCV Passed					
		Action	Continue					
CCB	1	S15	-0.00176	-0.0172	12/28/2009@10:39:36			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-0.00176 < 0.0500					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-0.00176 > -0.0500					
		Message	CCB Passed					
		Action	Continue					
243459001	1	11	0.0225	0.281	12/28/2009@10:41:56		5.00	
243461002	1	12	0.0977	1.21	12/28/2009@10:43:07		5.00	
243466001	1	13	0.220	2.71	12/28/2009@10:44:20		5.00	
243475001	1	14	0.233	2.87	12/28/2009@10:45:31		25.00	
1202004532||DUP	1	15	0.154	1.89	12/28/2009@10:46:43		25.00	
1202004533||PS	1	16	1.16	14.2	12/28/2009@10:47:56		25.00	
243475001	1	14	0.154	1.90	12/28/2009@10:49:07		25.00	
243506001	1	17	0.00449	0.0596	12/28/2009@10:50:21		5.00	
243513001	1	18	0.00417	0.0558	12/28/2009@10:51:34		5.00	
243513002	1	19	0.00583	0.0761	12/28/2009@10:52:46		5.00	
WTR091228-25 CCV	1	S10	0.993	12.2	12/28/2009@10:53:59			1.0 ppm CCV
		Known Conc:	1.00					
DQM Test: > + Concentration Limit								
		Result:	0.993 < 1.10					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	0.993 > 0.894					
		Message	CCV Passed					
		Action	Continue					
CCB	1	S15	2.18e-4	0.00716	12/28/2009@10:56:21			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	2.18e-4 < 0.0500					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	2.18e-4 > -0.0500					
		Message	CCB Passed					
		Action	Continue					
243539001	1	20	0.00549	0.0720	12/28/2009@10:58:41		5.00	
243539002	1	21	0.00589	0.0769	12/28/2009@10:59:54		5.00	
243554001	1	22	0.00359	0.0486	12/28/2009@11:01:07		5.00	
243554002	1	23	0.00408	0.0546	12/28/2009@11:02:19		5.00	
243554003	1	24	0.00602	0.0785	12/28/2009@11:03:31		5.00	
243554004	1	25	0.00478	0.0633	12/28/2009@11:04:43		5.00	
WTR091228-25 CCV	1	S10	0.968	11.9	12/28/2009@11:07:04			1.0 ppm CCV
		Known Conc:	1.00					
DQM Test: > + Concentration Limit								
		Result:	0.968 < 1.10					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								

Author: lachat

Date : 12/28/2009

		Result:	0.968 > 0.894					
		Message	CCV Passed					
		Action	Continue					
CCB	1	S15	6.80e-4	0.0128	12/28/2009@11:09:26			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	6.80e-4 < 0.0500					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	6.80e-4 > -0.0500					
		Message	CCB Passed					
		Action	Continue					

Channel 1 (NO3 + NO2) : Current View

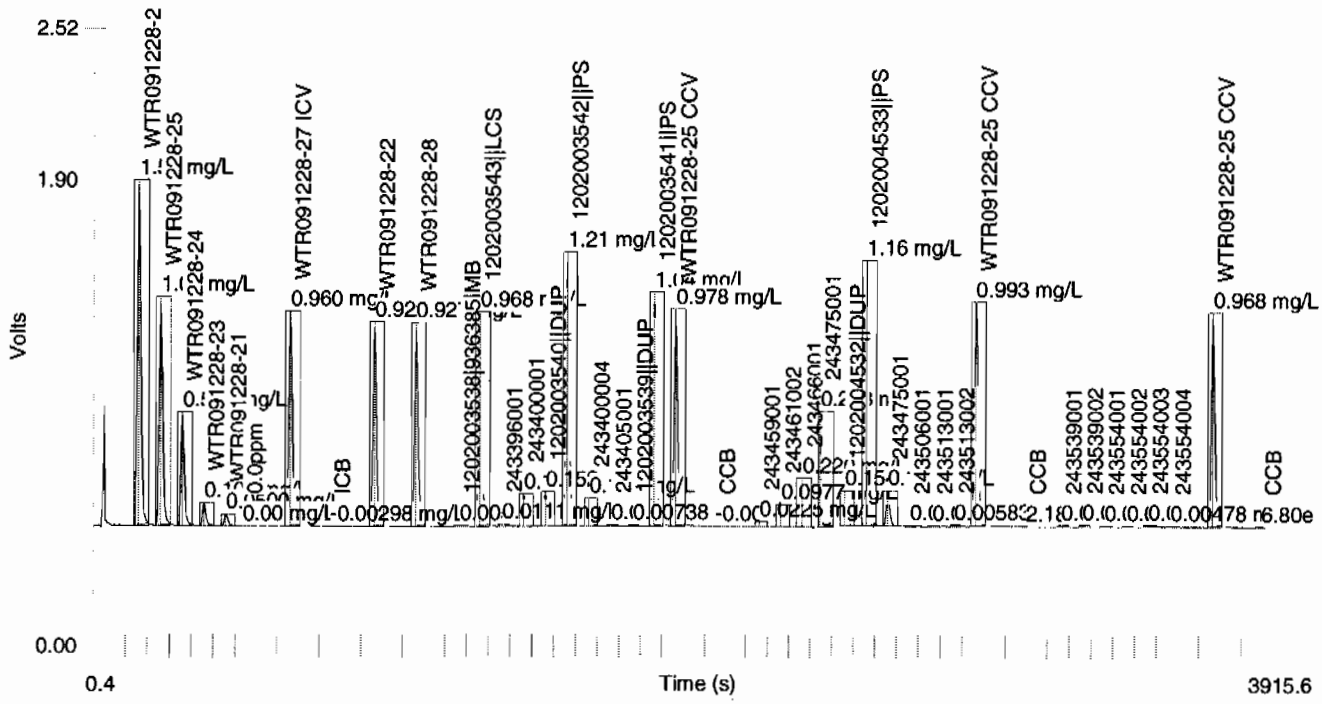

Table 1: NO3 + NO2

	Conc. (mg/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	1.50	1	18.5	1.41	-0.1	12/28/2009	10:08:38
2	1.00	1	12.3	0.937	0.1	12/28/2009	10:09:50
3	0.500	1	6.12	0.463	0.5	12/28/2009	10:11:03
4	0.100	1	1.24	0.0936	-0.3	12/28/2009	10:12:16
5	0.0500	1	0.652	0.0485	-5.3	12/28/2009	10:13:29
6	0.00	1	-0.00206	-0.00167		12/28/2009	10:14:43

Author: lachat

Date : 12/28/2009

Figure 1: NO3 + NO2

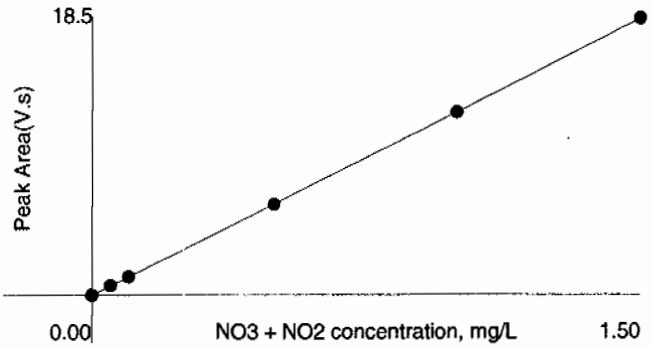

Area = 12.3 * Conc + 0.00454
Conc = 0.0813 * Area - 3.64e-4
Correlation Coefficient (r) = 0.99999

No Weighting

Monday, December 28, 2009

REQUEST NUMBER: 10-1086

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

These Samples are on:

LANL Request Number:10-1086

Per Agreement Number:126310011

Project Cost Code: MR2A054196D0

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 12/23/2009

TURNAROUND/REPORT DUE: 1/22/2010

TURNAROUND REQ'D: 30 Days

RAD SCREENING: Not Required

LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:

Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8082	1	RE03-09-14231	S	12/22/2009	
		1	RE03-09-14232	S	12/22/2009	
		1	RE03-09-14233	S	12/22/2009	
		1	RE03-09-14234	S	12/22/2009	
		1	RE03-09-14235	S	12/22/2009	
		1	RE03-09-14236	S	12/22/2009	
		1	RE03-09-14238	S	12/22/2009	
		1	RE03-09-14239	S	12/22/2009	
		1	RE03-09-14240	S	12/22/2009	

Monday, December 28, 2009

REQUEST NUMBER: 10-1086

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8082	1	RE03-09-14241	S	12/22/2009	
		1	RE03-10-2736	S	12/22/2009	
		1	RE03-10-2737	S	12/22/2009	
		1	RE03-10-9872	S	12/22/2009	
		1	RE03-10-9873	S	12/22/2009	
		1	RE03-10-9874	S	12/22/2009	
	SW-846:8260B	1	RE03-09-14231	S	12/22/2009	
		1	RE03-09-14232	S	12/22/2009	
		1	RE03-09-14233	S	12/22/2009	
		1	RE03-09-14234	S	12/22/2009	
		1	RE03-09-14235	S	12/22/2009	
		1	RE03-09-14236	S	12/22/2009	
		1	RE03-09-14238	S	12/22/2009	
		1	RE03-09-14239	S	12/22/2009	
		1	RE03-09-14240	S	12/22/2009	
		1	RE03-09-14241	S	12/22/2009	
		1	RE03-10-2736	S	12/22/2009	
		1	RE03-10-2737	S	12/22/2009	
		1	RE03-10-9872	S	12/22/2009	
		1	RE03-10-9873	S	12/22/2009	
		1	RE03-10-9874	S	12/22/2009	
		1	RE03-10-9878	S	12/22/2009	
		1	RE03-10-9886	S	12/22/2009	
	SW-846:8270C	1	RE03-09-14231	S	12/22/2009	
		1	RE03-09-14232	S	12/22/2009	
		1	RE03-09-14233	S	12/22/2009	
		1	RE03-09-14234	S	12/22/2009	
		1	RE03-09-14235	S	12/22/2009	

Monday, December 28, 2009

REQUEST NUMBER: 10-1086

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8270C	1	RE03-09-14236	S	12/22/2009	
		1	RE03-09-14238	S	12/22/2009	
		1	RE03-09-14239	S	12/22/2009	
		1	RE03-09-14240	S	12/22/2009	
		1	RE03-09-14241	S	12/22/2009	
		1	RE03-10-2736	S	12/22/2009	
		1	RE03-10-2737	S	12/22/2009	
		1	RE03-10-9872	S	12/22/2009	
		1	RE03-10-9873	S	12/22/2009	
		1	RE03-10-9874	S	12/22/2009	

Final Page of REQUEST NUMBER 10-1086

Monday, December 28, 2009

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1086C

REQUEST NUMBER: 10-1086

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 1/22/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS:

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE03-09-14233	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-09-14233	1	AMBER GLASS	8270C+8082	Ice	S
RE03-09-14236	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-09-14236	1	AMBER GLASS	8270C+8082	Ice	S
RE03-09-14239	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-09-14239	1	AMBER GLASS	8270C+8082	Ice	S
RE03-09-14240	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-09-14240	1	AMBER GLASS	8270C+8082	Ice	S
RE03-09-14231	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-09-14231	1	AMBER GLASS	8270C+8082	Ice	S
RE03-09-14232	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-09-14232	1	AMBER GLASS	8270C+8082	Ice	S
RE03-09-14235	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-09-14235	1	AMBER GLASS	8270C+8082	Ice	S
RE03-09-14238	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-09-14238	1	AMBER GLASS	8270C+8082	Ice	S
RE03-09-14234	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-09-14234	1	AMBER GLASS	8270C+8082	Ice	S
RE03-09-14241	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-09-14241	1	AMBER GLASS	8270C+8082	Ice	S
RE03-10-2737	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-10-2737	1	AMBER GLASS	8270C+8082	Ice	S
RE03-10-2736	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-10-2736	1	AMBER GLASS	8270C+8082	Ice	S
RE03-10-9878	1	SEPTUM AMBER GLASS	8260B Trip Blank	Ice	S
RE03-10-9872	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-10-9872	1	AMBER GLASS	8270C+8082	Ice	S
RE03-10-9873	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-10-9873	1	AMBER GLASS	8270C+8082	Ice	S
RE03-10-9874	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-10-9874	1	AMBER GLASS	8270C+8082	Ice	S
RE03-10-9886	1	SEPTUM AMBER GLASS	8260B Trip Blank	Ice	S

Relinquished By:		Date	Time	Received By:		Date	Time
[illegible]		12/23/09	2100				
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

Received for DISPOSAL By:		Date	Time	Remarks:
Printed Name	Signature			

10-1086

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2276 **EVENT NAME:** Soil Sampling at TA-60

SAMPLE ID: RE03-09-14231 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12/22/09	MEDIA:	NA	Qbt-3
TIME COLLECTED (HH:MM)		0830	SUB-MEDIA:	OTHER	NA
PRS ID:	60-006(a)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	03-608410		FIELD QC TYPE:	NA	
LOCATION TYPE:	BH		FIELD PREP:	NA	
TOP DEPTH:	0	JLJ 5' 18	SAMPLE USAGE:	INV	
BOTTOM DEPTH:	0	12-22-09 6' 19	SCREEN/PORT DESC:		NA
FIELD MATRIX:	SR JLJ 12-22-09		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: ——— COMPOSITE TIME INTERVAL: ——— WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: ——— BOREHOLE DIRECTION: ———

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+8082	250 ML AMBER GLASS	Ice	Y	
1		AM-241+ISOPU+ISOU	500 ML POLY	None	Y	
1		H3	500 ML POLY	Ice	Y	
1		METALS-GEL	125 ML POLY	Ice	Y	
1		Perchlorate+CN+N03+pH	500 ML POLY	Ice	Y	

SAMPLE DESC: Qbt 3 tuff, sl. moist, weathered, reddish-gray 5YR5/2

SAMPLE COMMENTS: Samples to be collected from former location of tank.

LOCATION DESC: 6(a)-2

FIELD SCREENING/MEASUREMENT RESULTS: PID = 0 ppm
Background: α = 78 dpm
β = 1356 dpm
Samples < MDA

COLLECTED BY (PRINT) J. Joys, S. Stands **REVIEWED BY (PRINT)** J. Jack

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) [signature]	12-22-09	(Printed Name)	12-22-09
(Signature)	1715	(Signature) [signature]	1715
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2276 **EVENT NAME:** Soil Sampling at TA-60

SAMPLE ID: RE03-09-14232 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12-22-09	MEDIA:	NA	Qbt-3
TIME COLLECTED (HH:MM)		0840	SUB-MEDIA:	OTHER	OK
PRS ID:	60-006(a)	OK	SAMPLE TECH CODE:	HA	
LOCATION ID:	03-608410		FIELD QC TYPE:	NA	
LOCATION TYPE:	BH		FIELD PREP:	NA	
TOP DEPTH:	0	22 ~~12-10-09 9'~~	SAMPLE USAGE:	INV	
BOTTOM DEPTH:	0	23 ~~12-10-09 10'~~	SCREEN/PORT DESC:		NA
FIELD MATRIX:	S		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+8082	250 ML AMBER GLASS	Ice	Y	
1		AM-241+ISOPU+ISOU	500 ML POLY	None	Y	
1		H3	500 ML POLY	Ice	Y	
1		METALS-GEL	125 ML POLY	Ice	Y	
1		Perchlorate+CN+N03+pH	500 ML POLY	Ice	Y	

SAMPLE DESC: Qbt3, tuff, sl. moist, sl. weathered, reddish-gray 5YR 5/3

SAMPLE COMMENTS: Samples to be collected from former location of tank.

LOCATION DESC: 6(a)-2

FIELD SCREENING/MEASUREMENT RESULTS: PID = 0.3 ppm All < MDA

α 78 dpm
β 1356 dpm

COLLECTED BY (PRINT) M. Therald, J. Toya **REVIEWED BY (PRINT)** J. Jack

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) J. Jack	~~12-22-09~~	(Printed Name)	12-22-09
(Signature)	1715	(Signature)	1715
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2276 **EVENT NAME:** Soil Sampling at TA-60

SAMPLE ID: RE03-09-14233 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12-22-09	MEDIA:	NA	QBt-3
TIME COLLECTED (HH:MM)		1855	SUB-MEDIA:	OTHER	OK
PRS ID:	60-006(a)	OK	SAMPLE TECH CODE:	HA	
LOCATION ID:	03-608410		FIELD QC TYPE:	NA	
LOCATION TYPE:	BH		FIELD PREP:	NA	
TOP DEPTH:	0	JLS 12-22-09	SAMPLE USAGE:	INV	
BOTTOM DEPTH:	0	12-22-09 JLS	SCREEN/PORT DESC:		NA
FIELD MATRIX:	SR	JLS 12-22-09	EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C ~~+8082~~ 12-10-09	250 ML AMBER GLASS	Ice	Y	
1		AM-241+ISOPU+ISOU	500 ML POLY	None	Y	
1		H3	500 ML POLY	Ice	Y	
1		METALS-GEL	125 ML POLY	Ice	Y	
1		Perchlorate+CN+N03+pH	500 ML POLY	Ice	Y	

SAMPLE DESC: QBt-3, tuff, sl. moist, unweathered, reddish-gray 5YR 5/2

SAMPLE COMMENTS: Samples to be collected from former location of tank.

LOCATION DESC: 60(a)-2

FIELD SCREENING/MEASUREMENT RESULTS: PID = 0.3 ppm All < MDA

α = 78 dpm
β = 1356 dpm

COLLECTED BY (PRINT) J. Toys, M. Sherlo **REVIEWED BY (PRINT)** J. Jul

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) J. Jul	12-22-09	(Printed Name)	12-22-09
(Signature)	1715	(Signature)	1715
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2276 **EVENT NAME:** Soil Sampling at TA-60

SAMPLE ID: RE03-09-14234 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12/22/09	MEDIA:	NA	Qbt-3
TIME COLLECTED (HH:MM)		1020	SUB-MEDIA:	OTHER	NA
PRS ID:	60-006(a)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	03-608411	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	BH	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	↓	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0 JZJ 12-22-09	JZJ ~~5'~~ 18 ft 12-22-09 19 ft	SCREEN/PORT DESC:		NA
FIELD MATRIX:	SR Qbt-3		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C ~~+8082~~ 12-10-09	250 ML AMBER GLASS	Ice	Y	
1		AM-241+ISOPU+ISOU	500 ML POLY	None	Y	
1		H3	500 ML POLY	Ice	Y	
1		METALS-GEL	125 ML POLY	Ice	Y	
1		Perchlorate+CN+N03+pH	500 ML POLY	Ice	Y	

SAMPLE DESC: tuff, Qbt-3, sl. moist, weathered, reddish gray 5YR 5/3

SAMPLE COMMENTS: Samples to be collected from former location of tank.

LOCATION DESC: 6(a)-3

FIELD SCREENING/MEASUREMENT RESULTS: PID = 0.0 ppm Samples & MDA
Background: α = 78 dpm
Screening β = 1356 dpm

COLLECTED BY (PRINT) J. Toys M. Sheridan **REVIEWED BY (PRINT)** J. Jack

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) J. Jack (Signature)	1715	(Printed Name) (Signature)	12-22-09 1715
RELINQUISHED BY (Printed Name)	**Date/Time**	**RECEIVED BY** (Printed Name)	**Date/Time**

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2276 **EVENT NAME:** Soil Sampling at TA-60

SAMPLE ID: RE03-09-14235 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12/22/09	MEDIA:	NA	Qbt-3
TIME COLLECTED (HH:MM)		1030	SUB-MEDIA:	OTHER	NA
PRS ID:	60-006(a)	ok	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	03-608411		FIELD QC TYPE:	NA	
LOCATION TYPE:	BH		FIELD PREP:	NA	
TOP DEPTH:	0	9 22 ft	SAMPLE USAGE:	INV	
BOTTOM DEPTH:	0	10 23 ft	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	~~S~~R JLJ 12-22-09		EXCAVATED: YES / NO / NA		

DLJ 12-22-09

COMPOSITE TYPE: _____ **COMPOSITE TIME INTERVAL:** _____ **WATER FLOWING:** YES / NO / NA

BOREHOLE: YES / NO / NA **BOREHOLE DECLINATION:** _____ **BOREHOLE DIRECTION:** _____

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C ~~+8082~~ JLJ 12-10-09	250 ML AMBER GLASS	Ice	Y	
1		AM-241+ISOPU+ISOU	500 ML POLY	None	Y	
1		H3	500 ML POLY	Ice	Y	
1		METALS-GEL	125 ML POLY	Ice	Y	
1		Perchlorate+CN+N03+pH	500 ML POLY	Ice	Y	

SAMPLE DESC: tuff, Qbt-3, sl. moist, very weathered, reddish-gray 5YR5/2

SAMPLE COMMENTS: Samples to be collected from former location of tank.

LOCATION DESC: 6(a)-3

FIELD SCREENING/MEASUREMENT RESULTS: PID = 0 ppm
Background α = 78 dpm
Screening β = 1356 dpm
Samples < MDA

COLLECTED BY (PRINT) J. Toya **REVIEWED BY (PRINT)** J. Jordan

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) J. Toya (Signature)	12-22-09 1715	(Printed Name) (Signature)	12-22-09 1715
RELINQUISHED BY (Printed Name)	**Date/Time**	**RECEIVED BY** (Printed Name)	**Date/Time**

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2276 **EVENT NAME:** Soil Sampling at TA-60

SAMPLE ID: RE03-09-14236 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12/22/09	MEDIA:	NA	Qbt-3
TIME COLLECTED (HH:MM)		1040	SUB-MEDIA:	OTHER	NA
PRS ID:	60-006(a)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	03-608411		FIELD QC TYPE:	NA	
LOCATION TYPE:	BH		FIELD PREP:	NA	
TOP DEPTH:	0	~~14~~ 27 ft	SAMPLE USAGE:	INV	
BOTTOM DEPTH:	0	~~15~~ 28 ft	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	SL		EXCAVATED: YES / NO / NA		

JLJ 12-22-09

COMPOSITE TYPE: ——— COMPOSITE TIME INTERVAL: ——— WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: ——— BOREHOLE DIRECTION: ———

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+~~8082~~ 12-10-09	250 ML AMBER GLASS	Ice	Y	
1		AM-241+ISOPU+ISOU	500 ML POLY	None	Y	
1		H3	500 ML POLY	Ice	Y	
1		METALS-GEL	125 ML POLY	Ice	Y	
1		Perchlorate+CN+N03+pH	500 ML POLY	Ice	Y	

SAMPLE DESC: Qbt-3, tuff, sl. moist, very weathered, reddish-gray ~~5 YR~~ 5YR 5/2 JLJ 12-22-09

SAMPLE COMMENTS: Samples to be collected from former location of tank.

LOCATION DESC: 6(a)-3

FIELD SCREENING/MEASUREMENT RESULTS: PID = 0 ppm
Background: α = 78 dpm
Screening β = 1356 dpm

Samples < MDA

COLLECTED BY (PRINT) M. Shanks, J. Toya **REVIEWED BY (PRINT)** J. Jul

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) J. Jul	12-22-09	(Printed Name)	12-22-09
(Signature)	1715	(Signature)	1715
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2276 **EVENT NAME:** Soil Sampling at TA-60

SAMPLE ID: RE03-09-14238 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12/22/09	MEDIA:	NA	Qbt3
TIME COLLECTED (HH:MM)		1205	SUB-MEDIA:	OTHER	
PRS ID:	60-006(a)	ok	SAMPLE TECH CODE:	HA	
LOCATION ID:	03-608412		FIELD QC TYPE:	NA	
LOCATION TYPE:	BH		FIELD PREP:	NA	
TOP DEPTH:	0	~~5~~ ~~2~~ 10'	SAMPLE USAGE:	INV	
BOTTOM DEPTH:	0	JRJ 12-12-09 ~~6~~ ~~3~~ 11'	SCREEN/PORT DESC:		NA
FIELD MATRIX:	~~S~~ R	JRJ 12-22-09	EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: ~~WATER FLOWING: YES / NO / NA~~

BOREHOLE: YES / NO / NA ~~BOREHOLE DECLINATION:~~ ~~BOREHOLE DIRECTION:~~

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+8082	250 ML AMBER GLASS	Ice	Y	
1		AM-241+ISOPU+ISOU	500 ML POLY	None	Y	
1		H3	500 ML POLY	Ice	Y	
1		METALS-GEL	125 ML POLY	Ice	Y	
1		Perchlorate+CN+N03+pH	500 ML POLY	Ice	Y	

SAMPLE DESC: tuff, Qbt3, sl. moist, sl. weathered, reddish-gray 5YR5/3

SAMPLE COMMENTS: Samples to be collected from seepage pit.

LOCATION DESC: 60(a)-4, moved 4 ft north, ~~outside~~ downgradient of seepage pit JRJ 12-22-09

FIELD SCREENING/MEASUREMENT RESULTS: PID = 0.5 ppm All < MDA
α = 78 dpm
β = 1356 dpm

COLLECTED BY (PRINT) J. Fox, M. Shields **REVIEWED BY (PRINT)** J. J[illegible]

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) [illegible]	12-22-09	(Printed Name)	12-22-09
(Signature)	1715	(Signature)	1715
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2276 **EVENT NAME:** Soil Sampling at TA-60

SAMPLE ID: RE03-09-14239 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12/22/09	MEDIA:	NA	Qbt3
TIME COLLECTED (HH:MM)		1215	SUB-MEDIA:	OTHER	
PRS ID:	60-006(a)	OK	SAMPLE TECH CODE:	HA	
LOCATION ID:	03-608412		FIELD QC TYPE:	NA	
LOCATION TYPE:	BH		FIELD PREP:	NA	
TOP DEPTH:	0	JWJ 12-22-09 ~~9'~~ ~~B~~ 14'	SAMPLE USAGE:	INV	
BOTTOM DEPTH:	0	~~B~~ ~~B~~ 15'	SCREEN/PORT DESC:		NA
FIELD MATRIX:	~~S~~ R	JWJ 12-22-09	EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: ~~WATER FLOWING: YES / NO / NA~~

BOREHOLE: YES / NO / NA ~~BOREHOLE DECLINATION:~~ ~~BOREHOLE DIRECTION:~~

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+8082	250 ML AMBER GLASS	Ice	Y	
1		AM-241+ISOPU+ISOU	500 ML POLY	None	Y	
1		H3	500 ML POLY	Ice	Y	
1		METALS-GEL	125 ML POLY	Ice	Y	
1		Perchlorate+CN+N03+pH	500 ML POLY	Ice	Y	

SAMPLE DESC: tuff, Qbt 3, sl. moist, sl. weathered, reddish-gray 5YR 5/2

SAMPLE COMMENTS: Samples to be collected from seepage pit.

LOCATION DESC: 6es-4 moved 4 ft north, down gradient of seepage pit

FIELD SCREENING/MEASUREMENT RESULTS: PID = 0.5 ppm All cmDA
α = 78 dpm
β = 1356 dpm

COLLECTED BY (PRINT) M. Sheedo, J. Toya **REVIEWED BY (PRINT)** J. Jun

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) J. Jun	12-22-09	(Printed Name)	12-22-09
(Signature)	1715	(Signature)	1715
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2276 **EVENT NAME:** Soil Sampling at TA-60

SAMPLE ID: RE03-09-14240 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12/22/09	MEDIA:	NA	Qbt-3
TIME COLLECTED (HH:MM)		1220	SUB-MEDIA:	OTHER	soil
PRS ID:	60-006(a)	OK	SAMPLE TECH CODE:	HA	
LOCATION ID:	03-608412		FIELD QC TYPE:	NA	
LOCATION TYPE:	BH		FIELD PREP:	NA	
TOP DEPTH:	0	JWT 12-22-09 18'	SAMPLE USAGE:	INV	
BOTTOM DEPTH:	0	19'	SCREEN/PORT DESC:		NA
FIELD MATRIX:	SR JWT 12-22-09		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA ~~COMPOSITE TIME INTERVAL: ____ WATER FLOWING: YES / NO / NA~~

BOREHOLE: YES / NO / NA ~~BOREHOLE DECLINATION: ____ BOREHOLE DIRECTION: ____~~

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C ~~+8082~~ 12-10-09	250 ML AMBER GLASS	Ice	Y	
1		AM-241+ISOPU+ISOU	500 ML POLY	None	Y	
1		H3	500 ML POLY	Ice	Y	
1		METALS-GEL	125 ML POLY	Ice	Y	
1		Perchlorate+CN+N03+pH	500 ML POLY	Ice	Y	

SAMPLE DESC: tuff, Qbt3, sl. moist, unweathered reddish-gray 5YR 5/2

SAMPLE COMMENTS: Samples to be collected from seepage pit.

LOCATION DESC: 6a-4 moved 4 ft north, down gradient of seepage pit

FIELD SCREENING/MEASUREMENT RESULTS: PID = 0.0 ppm All < MDA
α = 78 dpm
β = 1356 dpm

COLLECTED BY (PRINT) J. Toya, M. Shando **REVIEWED BY (PRINT)** J. Jule

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) J. Jule	12-22-09	(Printed Name)	12-22-09
(Signature)	1715	(Signature)	1715
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2276 **EVENT NAME:** Soil Sampling at TA-60

SAMPLE ID: RE03-09-14241 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12/22/09	MEDIA:	NA	Qbt3 OK
TIME COLLECTED (HH:MM)		1230	SUB-MEDIA:	OTHER	
PRS ID:	60-006(a)	OK	SAMPLE TECH CODE:	HA	
LOCATION ID:	03-608412		FIELD QC TYPE:	NA	
LOCATION TYPE:	BH		FIELD PREP:	NA	
TOP DEPTH:	0	JRT 12-22-09 ~~14~~ 23'	SAMPLE USAGE:	INV	
BOTTOM DEPTH:	0	~~15~~ 24'	SCREEN/PORT DESC:		NA
FIELD MATRIX:	~~SR~~ JRT 12-22-09		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: OK COMPOSITE TIME INTERVAL: WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: BOREHOLE DIRECTION:

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C~~+8082~~ 12-22-09	250 ML AMBER GLASS	Ice	Y	
1		AM-241+ISOPU+ISOU	500 ML POLY	None	Y	
1		H3	500 ML POLY	Ice	Y	
1		METALS-GEL	125 ML POLY	Ice	Y	
1		Perchlorate+CN+N03+pH	500 ML POLY	Ice	Y	

SAMPLE DESC: tuff, Qbt3, sl. moist, unweathered, reddish-gray ~~5YR~~ 5YR 5/2 JRT 12-22-09

SAMPLE COMMENTS: Samples to be collected from seepage pit.

moved 4 ft north, downgradient of seepage pit

LOCATION DESC:

6(a)-4

FIELD SCREENING/MEASUREMENT RESULTS:

Field Screening background PID = 0.0 ppm α = 78 dpm β = 1356 dpm All < MDA

COLLECTED BY (PRINT) M. Shendo **REVIEWED BY (PRINT)** J. Jack

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name)	12-22-09	(Printed Name)	12-22-09
(Signature)	1715	(Signature)	1715
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2276 **EVENT NAME:** Soil Sampling at TA-60

SAMPLE ID: RE03-10-2736 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12/22/09	MEDIA:	ALLH	QbT-3
TIME COLLECTED (HH:MM)		0855	SUB-MEDIA:	SOIL	ok
PRS ID:	60-006(a)	ok	SAMPLE TECH CODE:	HA	
LOCATION ID:	UNK	03-608410	FIELD QC TYPE:	FD	
LOCATION TYPE:	GENERIC	ok	FIELD PREP:	NA	
TOP DEPTH:	0	27 ft	SAMPLE USAGE:	QC	
BOTTOM DEPTH:	0	28 ft	SCREEN/PORT DESC:		NA
FIELD MATRIX:	~~S~~ R JLT 12-22-09		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: ——— COMPOSITE TIME INTERVAL: ——— WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: ——— BOREHOLE DIRECTION: ———

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+8082	250 ML AMBER GLASS	Ice	Y	
1		AM-241+ISOPU+ISOU	500 ML POLY	None	Y	
1		H3	500 ML POLY	Ice	Y	
1		METALS-GEL	125 ML POLY	Ice	Y	
1		Perchlorate+CN+N03+pH	500 ML POLY	Ice	Y	

SAMPLE DESC: QC Sample of RE03-09-14233

SAMPLE COMMENTS:

LOCATION DESC: 6(a) – 2

FIELD SCREENING/MEASUREMENT RESULTS: PID = 0.3 ppm All LMDA
α = 78 dpm
β = 1356 dpm

COLLECTED BY (PRINT) J. Toya, M. Shando **REVIEWED BY (PRINT)** J. Jack

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) J. Jack	12-22-09	(Printed Name)	12-22-09
(Signature)	1715	(Signature)	1715
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2276 **EVENT NAME:** Soil Sampling at TA-60

SAMPLE ID: RE03-10-2737 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12/22/09	MEDIA:	ALLH JJJ 12-22-09	O/C QbH3
TIME COLLECTED (HH:MM)		1445	SUB-MEDIA:	~~SOIL~~ R 50:1	
PRS ID:	60-006(a)	ok	SAMPLE TECH CODE:	HA	
LOCATION ID:	UNK 03-60841/2	o/c	FIELD QC TYPE:	FD	
LOCATION TYPE:	GENERIC	ok	FIELD PREP:	NA	
TOP DEPTH:	0	60'	SAMPLE USAGE:	QC	
BOTTOM DEPTH:	0	61'	SCREEN/PORT DESC:		NA
FIELD MATRIX:	~~S~~ R JJJ 12-22-09		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: ——— COMPOSITE TIME INTERVAL: ——— WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: ——— BOREHOLE DIRECTION: ———

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+8082	250 ML AMBER GLASS	Ice	Y	
1		AM-241+ISOPU+ISOU	500 ML POLY	None	Y	
1		H3	500 ML POLY	Ice	Y	
1		METALS-GEL	125 ML POLY	Ice	Y	
1		Perchlorate+CN+N03+pH	500 ML POLY	Ice	Y	

SAMPLE DESC: QC Sample of RE03-10-9874

SAMPLE COMMENTS:

Field duplicate of RE03-10-9874

LOCATION DESC:

FIELD SCREENING/MEASUREMENT RESULTS:

Field screening background

PID = 0.1 ppm
α = 78 dpm
β = 1356 dpm

All < MDA

COLLECTED BY (PRINT) M. Schendo **REVIEWED BY (PRINT)** J. J

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name)	12-22-09	(Printed Name)	12-22-09
(Signature)	1715	(Signature) JJJ	12-22-09 1715
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2276 **EVENT NAME:** Soil Sampling at TA-60

SAMPLE ID: RE03-10-2749 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12-22-09	MEDIA:	NA	OK
TIME COLLECTED (HH:MM)		0855	SUB-MEDIA:	OTHER	
PRS ID:	60-006(a)	OK	SAMPLE TECH CODE:	DC	
LOCATION ID:	UNK	03-608410	FIELD QC TYPE:	FB	
LOCATION TYPE:	GENERIC	OK	FIELD PREP:	UF	
TOP DEPTH:	0	27 ft	SAMPLE USAGE:	QC	
BOTTOM DEPTH:	0	28 Ft	SCREEN/PORT DESC:		NA
FIELD MATRIX:	W		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: _____ WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: _____ BOREHOLE DIRECTION: _____

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		METALS-GEL	1 LITER POLY	Nitric Acid	Y	
1		TCN	500 ML POLY	Sodium Hydroxide	Y	
1		NO3NO2	250 ML POLY	Sulfuric Acid (Hydrogen Sulfate)	Y	
1		SW-846:6850	250 ML POLY	Ice	Y	

SAMPLE DESC: QC Sample of RE03-09-14233

SAMPLE COMMENTS:

LOCATION DESC: 6a-2

FIELD SCREENING/MEASUREMENT RESULTS: PID = 0ppm
α = 78 dpm
β = 1356 dpm
All < MDA

COLLECTED BY (PRINT) M. Sherrod **REVIEWED BY (PRINT)** J. Jordan

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) [signature]	12-22-09	(Printed Name)	12-22-09
(Signature)	1715	(Signature) [signature]	1715
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2276 **EVENT NAME:** Soil Sampling at TA-60

SAMPLE ID: RE03-10-2750 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12-22-09	MEDIA:	NA	OK
TIME COLLECTED (HH:MM)		1445	SUB-MEDIA:	OTHER	
PRS ID:	60-006(a)	OK	SAMPLE TECH CODE:	DC	
LOCATION ID:	UNK 03-60341d		FIELD QC TYPE:	FB	
LOCATION TYPE:	GENERIC		FIELD PREP:	UF	
TOP DEPTH:	0	60 Ft	SAMPLE USAGE:	QC	
BOTTOM DEPTH:	0	61 Ft	SCREEN/PORT DESC:		NA
FIELD MATRIX:	W		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: _____ WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: _____ BOREHOLE DIRECTION: _____

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		METALS-GEL	1 LITER POLY	Nitric Acid	Y	
1		TCN	500 ML POLY	Sodium Hydroxide	Y	
1		NO3NO2	250 ML POLY	Sulfuric Acid (Hydrogen Sulfate)	Y	
1		SW-846:6850	250 ML POLY	Ice	Y	

SAMPLE DESC: QC Sample of RE03-10-9874

SAMPLE COMMENTS:

LOCATION DESC: 6a-4

FIELD SCREENING/MEASUREMENT RESULTS: PID = 0.1 ppm AIKMDIA
α = 78 dpm
β = 1356 dpm

COLLECTED BY (PRINT) J. Toya, M. Sheedy **REVIEWED BY (PRINT)** J. T[illegible]

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) (Signature)	12-22-09 1715	(Printed Name) (Signature)	12-22-09 1715
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name) (Signature)		(Printed Name) (Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2276 **EVENT NAME:** Soil Sampling at TA-60

SAMPLE ID: RE03-10-2762 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12-22-09	MEDIA:	NA	ok
TIME COLLECTED (HH:MM)		0910	SUB-MEDIA:	OTHER	
PRS ID:	60-006(a)	ok	SAMPLE TECH CODE:	DC	
LOCATION ID:	UNK	03-608410	FIELD QC TYPE:	FR	
LOCATION TYPE:	GENERIC	ok	FIELD PREP:	UF	
TOP DEPTH:	0	27 ft	SAMPLE USAGE:	QC	
BOTTOM DEPTH:	0	28 ft	SCREEN/PORT DESC:		NA
FIELD MATRIX:	W		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: _____ WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: _____ BOREHOLE DIRECTION: _____

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		METALS-GEL	1 LITER POLY	Nitric Acid	Y	
1		TCN	500 ML POLY	Sodium Hydroxide	Y	
1		NO3NO2	250 ML POLY	Sulfuric Acid (Hydrogen Sulfate)	Y	
1		SW-846:6850	250 ML POLY	Ice	Y	

SAMPLE DESC: QC Sample of RE03-09-14233

SAMPLE COMMENTS:

LOCATION DESC: 6a-2

FIELD SCREENING/MEASUREMENT RESULTS: PID = 0 ppm All < MDA
α = 78 dpm
β = 1356 dpm

COLLECTED BY (PRINT) M. Shendo **REVIEWED BY (PRINT)** J. Jul

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) J. Jul (Signature)	12-22-09 1715	(Printed Name) (Signature)	12-22-09 1715
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name) (Signature)		(Printed Name) (Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2276 **EVENT NAME:** Soil Sampling at TA-60

SAMPLE ID: RE03-10-2764 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12-22-09	MEDIA:	NA	OK
TIME COLLECTED (HH:MM)		1500	SUB-MEDIA:	OTHER	
PRS ID:	60-006(a)	OK	SAMPLE TECH CODE:	DC	
LOCATION ID:	UNK	03-608412	FIELD QC TYPE:	FR	
LOCATION TYPE:	GENERIC	OK	FIELD PREP:	UF	
TOP DEPTH:	0	60 ft	SAMPLE USAGE:	QC	
BOTTOM DEPTH:	0	61 ft	SCREEN/PORT DESC:		NA
FIELD MATRIX:	W		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: _____ WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA ~~BOREHOLE DECLINATION:~~ _____ BOREHOLE DIRECTION: _____

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		METALS-GEL	1 LITER POLY	Nitric Acid	Y	
1		TCN	500 ML POLY	Sodium Hydroxide	Y	
1		NO3NO2	250 ML POLY	Sulfuric Acid (Hydrogen Sulfate)	Y	
1		SW-846:6850	250 ML POLY	Ice	Y	

SAMPLE DESC: QC Sample of RE03-10-9874

SAMPLE COMMENTS:

LOCATION DESC: 6 a-4

FIELD SCREENING/MEASUREMENT RESULTS: PID = 0.1 ppm All < MDA
α = 78 dpm
β = 1356 dpm

COLLECTED BY (PRINT) M. Shendo / J. Toya **REVIEWED BY (PRINT)** J. Jordan

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) [signature]	12-22-09	(Printed Name) [signature]	12-22-09
(Signature)	1715	(Signature)	1715
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2276 **EVENT NAME:** Soil Sampling at TA-60

SAMPLE ID: RE03-10-9872 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12/22/09	MEDIA:	NA	Qbt-3
TIME COLLECTED (HH:MM)		1255	SUB-MEDIA:	OTHER	OK
PRS ID:	~~TA-60~~ JRJ 12-22-09	60-00665 OK	SAMPLE TECH CODE:	HA	
LOCATION ID:	03-608412		FIELD QC TYPE:	NA	
LOCATION TYPE:	BH		FIELD PREP:	NA	
TOP DEPTH:	0	35'	SAMPLE USAGE:	INV	
BOTTOM DEPTH:	0	36'	SCREEN/PORT DESC:		NA
FIELD MATRIX:	~~S~~R JRJ 12-22-09		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: _____ COMPOSITE TIME INTERVAL: _____ WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: _____ BOREHOLE DIRECTION: _____

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+8082	250 ML AMBER GLASS	Ice	Y	
1		AM-241+ISOPU+ISOU	500 ML POLY	None	Y	
1		H3	500 ML POLY	Ice	Y	
1		METALS-GEL	125 ML POLY	Ice	Y	
1		Perchlorate+CN+N03+pH	500 ML POLY	Ice	Y	

SAMPLE DESC: tuff, Qbt3, sl. moist, unweathered, reddish-gray 5YR 5/2

SAMPLE COMMENTS: hole moved 4 ft north, down gradient of seepage pit

LOCATION DESC: 6(a)-4

FIELD SCREENING/MEASUREMENT RESULTS:

Field Screening Background PID = 0.5 ppm α = 78 dpm β = 1356 dpm All < MDA

COLLECTED BY (PRINT) M. Shendo **REVIEWED BY (PRINT)** J. Jordan

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) [signature] (Signature)	12-22-09 1715	(Printed Name) (Signature)	12-22-09 1715
RELINQUISHED BY (Printed Name)	**Date/Time**	**RECEIVED BY** (Printed Name)	**Date/Time**

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2276 **EVENT NAME:** Soil Sampling at TA-60

SAMPLE ID: RE03-10-9874 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12/22/09	MEDIA:	NA	Qbt3 OK
TIME COLLECTED (HH:MM)		1445	SUB-MEDIA:	OTHER	
PRS ID:	~~TA-60~~ JJ 12-22-09	60-006(g) OK	SAMPLE TECH CODE:	HA	
LOCATION ID:	03-608412		FIELD QC TYPE:	NA	
LOCATION TYPE:	BH		FIELD PREP:	NA	
TOP DEPTH:	0	60'	SAMPLE USAGE:	INV	
BOTTOM DEPTH:	0	61' 60 JT 12/22/09	SCREEN/PORT DESC:		NA
FIELD MATRIX:	~~S~~ R JJ 12-22-09		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — **COMPOSITE TIME INTERVAL:** — **WATER FLOWING:** YES / NO / NA

BOREHOLE: YES / NO / NA **BOREHOLE DECLINATION:** — **BOREHOLE DIRECTION:** —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+8082	250 ML AMBER GLASS	Ice	Y	
1		AM-241+ISOPU+ISOU	500 ML POLY	None	Y	
1		H3	500 ML POLY	Ice	Y	
1		METALS-GEL	125 ML POLY	Ice	Y	
1		Perchlorate+CN+N03+pH	500 ML POLY	Ice	Y	

SAMPLE DESC: Tuff Qbt3, sl. moist, unweathered, reddish-gray 5YR 5/2

SAMPLE COMMENTS:

LOCATION DESC: b(a)-4

FIELD SCREENING/MEASUREMENT RESULTS: Field Screening background PID = 0.1 ppm α = 73 dpm β = 1356 dpm All < MDA

COLLECTED BY (PRINT) M. Shendo **REVIEWED BY (PRINT)** J. J[illegible]

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) [illegible] (Signature)	12-22-09 1715	(Printed Name) (Signature)	12-22-09 1715
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2276 **EVENT NAME:** Soil Sampling at TA-60

SAMPLE ID: RE03-10-9873 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):	12-22-09	12/22/09	MEDIA:	NA	Qbt-3
TIME COLLECTED (HH:MM)	JW 12-22-09	JW ~~1305~~ 1430	SUB-MEDIA:	OTHER	OK
PRS ID:	~~TA-60~~	60-006(a) ok	SAMPLE TECH CODE:	HA	
LOCATION ID:	03-608412		FIELD QC TYPE:	NA	
LOCATION TYPE:	BH		FIELD PREP:	NA	
TOP DEPTH:	0	48' 55 ft	SAMPLE USAGE:	INV	
BOTTOM DEPTH:	0	46' 56 ft	SCREEN/PORT DESC:		NA
FIELD MATRIX:	~~S~~ R JW 12-22-09		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: _____ WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: _____ BOREHOLE DIRECTION: _____

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+8082	250 ML AMBER GLASS	Ice	Y	
1		AM-241+ISOPU+ISOU	500 ML POLY	None	Y	
1		H3	500 ML POLY	Ice	Y	
1		METALS-GEL	125 ML POLY	Ice	Y	
1		Perchlorate+CN+N03+pH	500 ML POLY	Ice	Y	

SAMPLE DESC: tuff Qbt-3 + gravel from bottom of seepage pit

SAMPLE COMMENTS: moved 4 ft north, down gradient of seepage pit

LOCATION DESC: 6(a)-4

FIELD SCREENING/MEASUREMENT RESULTS: field screening background PID = 0.5 ppm α = 78 dpm β = 1356 dpm All LMDA

COLLECTED BY (PRINT) M. Shrestha **REVIEWED BY (PRINT)** J. Jack

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) James Joshua (Signature)	12-22-09 1715	(Printed Name) (Signature)	12-22-09 1715
RELINQUISHED BY (Printed Name)	**Date/Time**	**RECEIVED BY** (Printed Name)	**Date/Time**

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2276 **EVENT NAME:** Soil Sampling at TA-60

SAMPLE ID: RE03-10-9878 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12-22-09	MEDIA:	NA	All H
TIME COLLECTED (HH:MM)		0830	SUB-MEDIA:	OTHER	ok
PRS ID:	TA-60 60-006(a)	ok	SAMPLE TECH CODE:	DC	
LOCATION ID:	03-~~608412~~ 603410		FIELD QC TYPE:	FTB	
LOCATION TYPE:	BH		FIELD PREP:	NA	
TOP DEPTH:	0	18 Ft	SAMPLE USAGE:	QC	
BOTTOM DEPTH:	0	19 Ft	SCREEN/PORT DESC:		NA
FIELD MATRIX:	JDS 12-22-09 ~~AR~~ S		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA ~~COMPOSITE TIME INTERVAL:~~ ~~WATER FLOWING: YES / NO / NA~~

BOREHOLE: YES / NO / NA ~~BOREHOLE DECLINATION:~~ ~~BOREHOLE DIRECTION:~~

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
~~2~~ 1	JDS 12-22-09	8260B Trip Blank	40 ML SEPTUM AMBER GLASS	Ice	Y	

SAMPLE DESC: QC Sample of RE03-09-14231

SAMPLE COMMENTS:

LOCATION DESC: 6(a) - 2

FIELD SCREENING/MEASUREMENT RESULTS: NA

COLLECTED BY (PRINT) M. Shenda **REVIEWED BY (PRINT)** J. Jack

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) J. Jack (Signature)	12-22-09 1715	(Printed Name) (Signature)	12-22-09 1715
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name) (Signature)		(Printed Name) (Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2276 **EVENT NAME:** Soil Sampling at TA-60

SAMPLE ID: RE03-10-9886 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12-22-09	MEDIA:	NA	AH
TIME COLLECTED (HH:MM)		1255	SUB-MEDIA:	OTHER	OK
PRS ID:	60-006(a) ~~TA-60~~	OK	SAMPLE TECH CODE:	DC	
LOCATION ID:	03-60-608412 ~~02-610980~~ JLS 12-22-09	OK	FIELD QC TYPE:	FTB	
LOCATION TYPE:	BH	OK	FIELD PREP:	NA	
TOP DEPTH:	0	35 ft	SAMPLE USAGE:	QC	
BOTTOM DEPTH:	0	36 ft	SCREEN/PORT DESC:		NA
FIELD MATRIX:	S		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: ~~WATER FLOWING: YES / NO / NA~~

BOREHOLE: YES / NO / NA ~~BOREHOLE DECLINATION:~~ ~~BOREHOLE DIRECTION:~~

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	2 JLT 12-22-09	8260B Trip Blank	40 ML SEPTUM AMBER GLASS	Ice	Y	

SAMPLE DESC: QC Sample of RE03-10-9872

SAMPLE COMMENTS:

LOCATION DESC: 6 9-4

FIELD SCREENING/MEASUREMENT RESULTS: NA

COLLECTED BY (PRINT) M. Sherrod **REVIEWED BY (PRINT)** J. Jul

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) J. Jul	12-22-09 1715	(Printed Name)	12-22-09 1715
(Signature)		(Signature)	
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

DATA VALIDATION COVER SHEET

5114-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-1086 VALIDATION DATE: 03/25/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Ellen McEntee ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☒ OTHER (DESCRIBE): VOCs

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☒	☐	☐	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☒	☐	☐	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. In the FTB, sample RE03-10-9886 which was associated with samples RE03-09-14238 - 14241, -10-2737, and -10-9872 – 9874, acetone was detected. The associated results for samples -10-2737 and -10-9874 were detects ≤10X the blank concentration and, thus, were qualified U,V4d. All other associated results were NDs and, thus, were not qualified.
2. The CCV %Ds associated with samples -09-14232 and -09-14238 were >20% for acetone, iodomethane, methylene chloride, 2-butanone, bromoform, and 1,2-dibromo-3-chloropropane. The CCV %Ds associated with all samples except -09-14232 and -09-14238 were >20% for trichlorofluoromethane and 1,2-dibromo-3-chloropropane. The associated sample results were NDs and, thus, were qualified UJ,V7c.
3. The MS/MSD RPDs for eleven analytes were above the laboratory acceptance limit. Since MS/MSD analyses are not required, no sample results were qualified.

Reviewed by: Mary Donivan Level: I Date: 03/26/10

VALIDATOR'S SIGNATURE: Ille Mehter DATE: 03/25/10

Form 5114-1, Revision 0.0	LOS ALAMOS Environmental Restoration Project

VOLATILE ORGANIC COMPOUND (VOC) ANALYTICAL DATA VALIDATION CHECKLIST

5114-2

Volatile Organic Compound (VOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, V9	J-, V9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, V9a	J-, V9a
☐	☐	☒	3. The instrument performance sample did not pass method acceptance criteria.	R, V16	R, V16
☐	☐	☒	4. Samples were analyzed outside specific method tune time criteria.	N/A	J, V16b
☐	☐	☒	5. The required instrument performance sample information is missing. Contact the SMO or external laboratory for information.	R, V16c	R, V16c
☐	☒	☐	6. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ or R, V7	J, V7
☐	☒	☐	7. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, V7a	J, V7a
☐	☒	☐	8. The affected analytes were analyzed with an RRF of <0.05 in the initial calibration and/or CCV.	R, V7b	J, V7b
☒	☐	☐	9. The Initial Calibration Verification (ICV) and/or Continuing Calibration Verification (CCV) were recovered outside the method-specific limits.	UJ, V7c	J, V7c
☐	☒	☐	10. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, V7d	J, V7d
☐	☒	☐	11. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, V7f	R, V7f

VOLATILE ORGANIC COMPOUND (VOC) ANALYTICAL DATA VALIDATION CHECKLIST

5114-2

Volatile Organic Compound (VOC) Analytical Data Validation Checklist

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Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	12. The sample result is ≤5X (10X for common organic laboratory contaminants) the concentration of the related analyte in the method blank.	U, V4	N/A
☐	☒	☐	13. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X (10X for common laboratory contaminants).	N/A	J, V4a
☒	☐	☐	14. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, and/or equipment blank.	U, V4d	N/A
☐	☒	☐	15. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V4e	R, V4e
☐	☒	☐	16. The IS retention time has shifted by more than 30 seconds.	UJ, V0	J, V0
☐	☐	☒	17. Analyte is positively confirmed but outside the IS retention time window; however, spectral matches must be provided.	N/A	J, V0a
☐	☒	☐	18. Required IS retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V0b	R, V0b
☐	☐	☒	19. The quantitating IS are count is <10% of the expected value, which indicates increased potential for false negative results and other possible problems with sample quantitation. Follow method-specific windows.	R, V1a	J, V1a
☐	☐	☒	20. The IS area count for the quantitating IS is <50% but >10% for organics window relation to the previous continuing calibration. Follow the method-specific windows.	UJ, V1b	J, V1b

VOLATILE ORGANIC COMPOUND (VOC) ANALYTICAL DATA VALIDATION CHECKLIST

5114-2

Volatile Organic Compound (VOC) Analytical Data Validation Checklist

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Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	21. The IS area count for the quantitating IS is >200% of the area count for the previous organic continuing calibration. Follow the method-specific windows.	UJ, V1c	J, V1c
☐	☐	☒	22. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V1d	R, V1d
☐	☒	☐	23. The surrogate is <10%R. Follow the external laboratory limits located within the associated data package.	R, V3	J-, V3
☐	☒	☐	24. The surrogate is < the Lower Acceptance Limit (LAL) but ≥10%R. Follow the external laboratory limits located within the associated data package.	UJ, V3a	J-, V3a
☐	☒	☐	25. The surrogate %R is > the Upper Acceptance Limit (UAL) Follow the external laboratory limits located within the associated data package.	N/A	J+, V3b
☐	☒	☐	26. At least one surrogate is > the UAL and one surrogate is < the LAL. Follow the external laboratory limits located within the associated data package.	UJ, V3c	J, V3c
☐	☒	☐	27. Required surrogate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V3d	R, V3d
☐	☒	☐	28. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, V12	J-, V12
☐	☒	☐	29. The LCS percent recovery was < the LAL but > 10%. Follow the external laboratory limits located within the associated data package.	UV, V12a	J-, V12a
☐	☒	☐	30. The LCS percent recover was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, V12b

VOLATILE ORGANIC COMPOUND (VOC) ANALYTICAL DATA VALIDATION CHECKLIST

5114-2

Volatile Organic Compound (VOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	31. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V12c	R, V12c
☐	☒	☐	32. The affected analyte is considered not detected because mass spectrum did not meet specifications.	N/A	U, V8
☐	☒	☐	33. The mass spectrum column documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V8a	R, V8a
☐	☒	☐	34. Duplicate, dilution, or reanalysis.	UJ, V88	J, V88
☐	☐	☒	35. The affected analytes have elevated detection limits and may not meet project DQOs because the sample was diluted without any target analytees identified due to matrix interference. Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.	UJ, R, V15	R, V15
☒	☐	☐	36. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB, NQ, NQ
☐	☒	☐	37. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.	UJ, R, V19	J, R, V19

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1086	Date Collected:	12/22/2009 12:00	Matrix:	S
Lab Sample ID:	243552005	Date Received:	12/24/2009 09:30	%Moisture:	7.3
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14231	Method:	SW846 8260B	SOP Ref:	GL-OA-E-038
Batch ID:	937990	Inst:	VOA1.I	Dilution:	1
Run Date:	12/31/2009 15:10	Analyst:	RXM4	Purge Vol:	5 mL
Prep Date:	12/31/2009 11:55	Aliquot:	5 g	Final Volume:	5 mL
Data File:	1t411.d	Column:	RTX-Volatiles	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
75-71-8	Dichlorodifluoromethane	U	1.08	ug/kg	0.367	1.08	
74-87-3	Chloromethane	U	1.08	ug/kg	0.324	1.08	
75-01-4	Vinyl chloride	U	1.08	ug/kg	0.324	1.08	
74-83-9	Bromomethane	U	1.08	ug/kg	0.324	1.08	
75-00-3	Chloroethane	U	1.08	ug/kg	0.324	1.08	
75-69-4	Trichlorofluoromethane	U	1.08	ug/kg	0.324	1.08	UJ,V7c
67-64-1	Acetone	J	2.10	ug/kg	1.79	5.39	
75-35-4	1,1-Dichloroethylene	U	1.08	ug/kg	0.324	1.08	
74-88-4	Iodomethane	U	5.39	ug/kg	1.73	5.39	
75-09-2	Methylene chloride	U	5.39	ug/kg	2.16	5.39	
75-15-0	Carbon disulfide	U	5.39	ug/kg	1.35	5.39	
156-60-5	trans-1,2-Dichloroethylene	U	1.08	ug/kg	0.324	1.08	
75-34-3	1,1-Dichloroethane	U	1.08	ug/kg	0.324	1.08	
78-93-3	2-Butanone	U	5.39	ug/kg	1.62	5.39	
156-59-2	cis-1,2-Dichloroethylene	U	1.08	ug/kg	0.324	1.08	
594-20-7	2,2-Dichloropropane	U	1.08	ug/kg	0.324	1.08	
67-66-3	Chloroform	U	1.08	ug/kg	0.324	1.08	
74-97-5	Bromochloromethane	U	1.08	ug/kg	0.356	1.08	
71-55-6	1,1,1-Trichloroethane	U	1.08	ug/kg	0.324	1.08	
563-58-6	1,1-Dichloropropene	U	1.08	ug/kg	0.324	1.08	
56-23-5	Carbon tetrachloride	U	1.08	ug/kg	0.324	1.08	
107-06-2	1,2-Dichloroethane	U	1.08	ug/kg	0.324	1.08	
71-43-2	Benzene	U	1.08	ug/kg	0.324	1.08	
79-01-6	Trichloroethylene	U	1.08	ug/kg	0.356	1.08	
78-87-5	1,2-Dichloropropane	U	1.08	ug/kg	0.324	1.08	
75-27-4	Bromodichloromethane	U	1.08	ug/kg	0.324	1.08	
74-95-3	Dibromomethane	U	1.08	ug/kg	0.324	1.08	
108-10-1	4-Methyl-2-pentanone	U	5.39	ug/kg	1.35	5.39	
10061-01-5	cis-1,3-Dichloropropylene	U	1.08	ug/kg	0.324	1.08	
108-88-3	Toluene	U	1.08	ug/kg	0.324	1.08	
10061-02-6	trans-1,3-Dichloropropylene	U	1.08	ug/kg	0.324	1.08	
79-00-5	1,1,2-Trichloroethane	U	1.08	ug/kg	0.324	1.08	
591-78-6	2-Hexanone	U	5.39	ug/kg	1.62	5.39	
142-28-9	1,3-Dichloropropane	U	1.08	ug/kg	0.324	1.08	
127-18-4	Tetrachloroethylene	U	1.08	ug/kg	0.324	1.08	
124-48-1	Dibromochloromethane	U	1.08	ug/kg	0.324	1.08	
106-93-4	1,2-Dibromoethane	U	1.08	ug/kg	0.324	1.08	
108-90-7	Chlorobenzene	U	1.08	ug/kg	0.324	1.08	

EJM
03/25/10

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1086	Date Collected:	12/22/2009 12:00	Matrix:	S
Lab Sample ID:	243552005	Date Received:	12/24/2009 09:30	%Moisture:	7.3
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14231	Method:	SW846 8260B	SOP Ref:	GL-OA-E-038
Batch ID:	937990	Inst:	VOA1.I	Dilution:	1
Run Date:	12/31/2009 15:10	Analyst:	RXM4	Purge Vol:	5 mL
Prep Date:	12/31/2009 11:55	Aliquot:	5 g	Final Volume:	5 mL
Data File:	1t411.d	Column:	RTX-Volatiles	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
100-41-4	Ethylbenzene	U	1.08	ug/kg	0.324	1.08	
179601-23-1	m,p-Xylenes	U	2.16	ug/kg	0.324	2.16	
95-47-6	o-Xylene	U	1.08	ug/kg	0.324	1.08	
100-42-5	Styrene	U	1.08	ug/kg	0.324	1.08	
75-25-2	Bromoform	U	1.08	ug/kg	0.324	1.08	
79-34-5	1,1,2,2-Tetrachloroethane	U	1.08	ug/kg	0.324	1.08	
96-18-4	1,2,3-Trichloropropane	U	1.08	ug/kg	0.324	1.08	
108-86-1	Bromobenzene	U	1.08	ug/kg	0.324	1.08	
103-65-1	n-Propylbenzene	U	1.08	ug/kg	0.324	1.08	
95-49-8	2-Chlorotoluene	U	1.08	ug/kg	0.324	1.08	
98-82-8	Isopropylbenzene	U	1.08	ug/kg	0.324	1.08	
108-67-8	1,3,5-Trimethylbenzene	U	1.08	ug/kg	0.324	1.08	
106-43-4	4-Chlorotoluene	U	1.08	ug/kg	0.324	1.08	
98-06-6	tert-Butylbenzene	U	1.08	ug/kg	0.324	1.08	
95-63-6	1,2,4-Trimethylbenzene	U	1.08	ug/kg	0.324	1.08	
135-98-8	sec-Butylbenzene	U	1.08	ug/kg	0.324	1.08	
99-87-6	4-Isopropyltoluene	U	1.08	ug/kg	0.324	1.08	
541-73-1	1,3-Dichlorobenzene	U	1.08	ug/kg	0.324	1.08	
106-46-7	1,4-Dichlorobenzene	U	1.08	ug/kg	0.324	1.08	
104-51-8	n-Butylbenzene	U	1.08	ug/kg	0.324	1.08	
96-12-8	1,2-Dibromo-3-chloropropane	U	1.08	ug/kg	0.324	1.08	UJ,V7c
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.39	ug/kg	1.73	5.39	
630-20-6	1,1,1,2-Tetrachloroethane	U	1.08	ug/kg	0.324	1.08	
95-50-1	1,2-Dichlorobenzene	U	1.08	ug/kg	0.324	1.08	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Siloxane	18.06	13.6	ug/kg		J

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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1086**	**Date Collected:**	**12/22/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243552006**	**Date Received:**	**12/24/2009 09:30**	**%Moisture:**	**5.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14232**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937990**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**01/04/2010 12:59**	**Analyst:**	**RXM4**	**Purge Vol:**	**5 mL**
Prep Date:	**01/04/2010 10:12**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1u109.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
75-71-8	Dichlorodifluoromethane	U	1.06	ug/kg	0.361	1.06	
74-87-3	Chloromethane	U	1.06	ug/kg	0.318	1.06	
75-01-4	Vinyl chloride	U	1.06	ug/kg	0.318	1.06	
74-83-9	Bromomethane	U	1.06	ug/kg	0.318	1.06	
75-00-3	Chloroethane	U	1.06	ug/kg	0.318	1.06	
75-69-4	Trichlorofluoromethane	U	1.06	ug/kg	0.318	1.06	
67-64-1	Acetone	U	5.31	ug/kg	1.76	5.31	UJ,V7c
75-35-4	1,1-Dichloroethylene	U	1.06	ug/kg	0.318	1.06	
74-88-4	Iodomethane	U	5.31	ug/kg	1.70	5.31	UJ,V7c
75-09-2	Methylene chloride	U	5.31	ug/kg	2.12	5.31	UJ,V7c
75-15-0	Carbon disulfide	U	5.31	ug/kg	1.33	5.31	
156-60-5	trans-1,2-Dichloroethylene	U	1.06	ug/kg	0.318	1.06	
75-34-3	1,1-Dichloroethane	U	1.06	ug/kg	0.318	1.06	
78-93-3	2-Butanone	U	5.31	ug/kg	1.59	5.31	UJ,V7c
156-59-2	cis-1,2-Dichloroethylene	U	1.06	ug/kg	0.318	1.06	
594-20-7	2,2-Dichloropropane	U	1.06	ug/kg	0.318	1.06	
67-66-3	Chloroform	U	1.06	ug/kg	0.318	1.06	
74-97-5	Bromochloromethane	U	1.06	ug/kg	0.350	1.06	
71-55-6	1,1,1-Trichloroethane	U	1.06	ug/kg	0.318	1.06	
563-58-6	1,1-Dichloropropene	U	1.06	ug/kg	0.318	1.06	
56-23-5	Carbon tetrachloride	U	1.06	ug/kg	0.318	1.06	
107-06-2	1,2-Dichloroethane	U	1.06	ug/kg	0.318	1.06	
71-43-2	Benzene	U	1.06	ug/kg	0.318	1.06	
79-01-6	Trichloroethylene	U	1.06	ug/kg	0.350	1.06	
78-87-5	1,2-Dichloropropane	U	1.06	ug/kg	0.318	1.06	
75-27-4	Bromodichloromethane	U	1.06	ug/kg	0.318	1.06	
74-95-3	Dibromomethane	U	1.06	ug/kg	0.318	1.06	
108-10-1	4-Methyl-2-pentanone	U	5.31	ug/kg	1.33	5.31	
10061-01-5	cis-1,3-Dichloropropylene	U	1.06	ug/kg	0.318	1.06	
108-88-3	Toluene	U	1.06	ug/kg	0.318	1.06	
10061-02-6	trans-1,3-Dichloropropylene	U	1.06	ug/kg	0.318	1.06	
79-00-5	1,1,2-Trichloroethane	U	1.06	ug/kg	0.318	1.06	
591-78-6	2-Hexanone	U	5.31	ug/kg	1.59	5.31	
142-28-9	1,3-Dichloropropane	U	1.06	ug/kg	0.318	1.06	
127-18-4	Tetrachloroethylene	U	1.06	ug/kg	0.318	1.06	
124-48-1	Dibromochloromethane	U	1.06	ug/kg	0.318	1.06	
106-93-4	1,2-Dibromoethane	U	1.06	ug/kg	0.318	1.06	
108-90-7	Chlorobenzene	U	1.06	ug/kg	0.318	1.06	

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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1086**	**Date Collected:**	**12/22/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243552006**	**Date Received:**	**12/24/2009 09:30**	**%Moisture:**	**5.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14232**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937990**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**01/04/2010 12:59**	**Analyst:**	**RXM4**	**Purge Vol:**	**5 mL**
Prep Date:	**01/04/2010 10:12**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1u109.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
100-41-4	Ethylbenzene	U	1.06	ug/kg	0.318	1.06	
179601-23-1	m,p-Xylenes	U	2.12	ug/kg	0.318	2.12	
95-47-6	o-Xylene	U	1.06	ug/kg	0.318	1.06	
100-42-5	Styrene	U	1.06	ug/kg	0.318	1.06	
75-25-2	Bromoform	U	1.06	ug/kg	0.318	1.06	UJ,V7c
79-34-5	1,1,2,2-Tetrachloroethane	U	1.06	ug/kg	0.318	1.06	
96-18-4	1,2,3-Trichloropropane	U	1.06	ug/kg	0.318	1.06	
108-86-1	Bromobenzene	U	1.06	ug/kg	0.318	1.06	
103-65-1	n-Propylbenzene	U	1.06	ug/kg	0.318	1.06	
95-49-8	2-Chlorotoluene	U	1.06	ug/kg	0.318	1.06	
98-82-8	Isopropylbenzene	U	1.06	ug/kg	0.318	1.06	
108-67-8	1,3,5-Trimethylbenzene	U	1.06	ug/kg	0.318	1.06	
106-43-4	4-Chlorotoluene	U	1.06	ug/kg	0.318	1.06	
98-06-6	tert-Butylbenzene	U	1.06	ug/kg	0.318	1.06	
95-63-6	1,2,4-Trimethylbenzene	U	1.06	ug/kg	0.318	1.06	
135-98-8	sec-Butylbenzene	U	1.06	ug/kg	0.318	1.06	
99-87-6	4-Isopropyltoluene	U	1.06	ug/kg	0.318	1.06	
541-73-1	1,3-Dichlorobenzene	U	1.06	ug/kg	0.318	1.06	
106-46-7	1,4-Dichlorobenzene	U	1.06	ug/kg	0.318	1.06	
104-51-8	n-Butylbenzene	U	1.06	ug/kg	0.318	1.06	
96-12-8	1,2-Dibromo-3-chloropropane	U	1.06	ug/kg	0.318	1.06	UJ,V7c
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.31	ug/kg	1.70	5.31	
630-20-6	1,1,1,2-Tetrachloroethane	U	1.06	ug/kg	0.318	1.06	
95-50-1	1,2-Dichlorobenzene	U	1.06	ug/kg	0.318	1.06	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated Units	Fit	Qual
	No Tentatively Identified Compounds Found		ug/kg		

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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1086**	**Date Collected:**	**12/22/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243552001**	**Date Received:**	**12/24/2009 09:30**	**%Moisture:**	**7.4**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14233**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937990**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**12/31/2009 13:09**	**Analyst:**	**RXM4**	**Purge Vol:**	**5 mL**
Prep Date:	**12/31/2009 11:51**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1t407.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
75-71-8	Dichlorodifluoromethane	U	1.08	ug/kg	0.367	1.08	
74-87-3	Chloromethane	U	1.08	ug/kg	0.324	1.08	
75-01-4	Vinyl chloride	U	1.08	ug/kg	0.324	1.08	
74-83-9	Bromomethane	U	1.08	ug/kg	0.324	1.08	
75-00-3	Chloroethane	U	1.08	ug/kg	0.324	1.08	
75-69-4	Trichlorofluoromethane	U	1.08	ug/kg	0.324	1.08	UJ,V7c
67-64-1	Acetone	U	5.40	ug/kg	1.79	5.40	
75-35-4	1,1-Dichloroethylene	U	1.08	ug/kg	0.324	1.08	
74-88-4	Iodomethane	U	5.40	ug/kg	1.73	5.40	
75-09-2	Methylene chloride	U	5.40	ug/kg	2.16	5.40	
75-15-0	Carbon disulfide	U	5.40	ug/kg	1.35	5.40	
156-60-5	trans-1,2-Dichloroethylene	U	1.08	ug/kg	0.324	1.08	
75-34-3	1,1-Dichloroethane	U	1.08	ug/kg	0.324	1.08	
78-93-3	2-Butanone	U	5.40	ug/kg	1.62	5.40	
156-59-2	cis-1,2-Dichloroethylene	U	1.08	ug/kg	0.324	1.08	
594-20-7	2,2-Dichloropropane	U	1.08	ug/kg	0.324	1.08	
67-66-3	Chloroform	U	1.08	ug/kg	0.324	1.08	
74-97-5	Bromochloromethane	U	1.08	ug/kg	0.356	1.08	
71-55-6	1,1,1-Trichloroethane	U	1.08	ug/kg	0.324	1.08	
563-58-6	1,1-Dichloropropene	U	1.08	ug/kg	0.324	1.08	
56-23-5	Carbon tetrachloride	U	1.08	ug/kg	0.324	1.08	
107-06-2	1,2-Dichloroethane	U	1.08	ug/kg	0.324	1.08	
71-43-2	Benzene	U	1.08	ug/kg	0.324	1.08	
79-01-6	Trichloroethylene	U	1.08	ug/kg	0.356	1.08	
78-87-5	1,2-Dichloropropane	U	1.08	ug/kg	0.324	1.08	
75-27-4	Bromodichloromethane	U	1.08	ug/kg	0.324	1.08	
74-95-3	Dibromomethane	U	1.08	ug/kg	0.324	1.08	
108-10-1	4-Methyl-2-pentanone	U	5.40	ug/kg	1.35	5.40	
10061-01-5	cis-1,3-Dichloropropylene	U	1.08	ug/kg	0.324	1.08	
108-88-3	Toluene	U	1.08	ug/kg	0.324	1.08	
10061-02-6	trans-1,3-Dichloropropylene	U	1.08	ug/kg	0.324	1.08	
79-00-5	1,1,2-Trichloroethane	U	1.08	ug/kg	0.324	1.08	
591-78-6	2-Hexanone	U	5.40	ug/kg	1.62	5.40	
142-28-9	1,3-Dichloropropane	U	1.08	ug/kg	0.324	1.08	
127-18-4	Tetrachloroethylene	U	1.08	ug/kg	0.324	1.08	
124-48-1	Dibromochloromethane	U	1.08	ug/kg	0.324	1.08	
106-93-4	1,2-Dibromoethane	U	1.08	ug/kg	0.324	1.08	
108-90-7	Chlorobenzene	U	1.08	ug/kg	0.324	1.08	

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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1086**	**Date Collected:**	**12/22/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243552001**	**Date Received:**	**12/24/2009 09:30**	**%Moisture:**	**7.4**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14233**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937990**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**12/31/2009 13:09**	**Analyst:**	**RXM4**	**Purge Vol:**	**5 mL**
Prep Date:	**12/31/2009 11:51**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1t407.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
100-41-4	Ethylbenzene	U	1.08	ug/kg	0.324	1.08	
179601-23-1	m,p-Xylenes	U	2.16	ug/kg	0.324	2.16	
95-47-6	o-Xylene	U	1.08	ug/kg	0.324	1.08	
100-42-5	Styrene	J	0.764	ug/kg	0.324	1.08	
75-25-2	Bromoform	U	1.08	ug/kg	0.324	1.08	
79-34-5	1,1,2,2-Tetrachloroethane	U	1.08	ug/kg	0.324	1.08	
96-18-4	1,2,3-Trichloropropane	U	1.08	ug/kg	0.324	1.08	
108-86-1	Bromobenzene	U	1.08	ug/kg	0.324	1.08	
103-65-1	n-Propylbenzene	U	1.08	ug/kg	0.324	1.08	
95-49-8	2-Chlorotoluene	U	1.08	ug/kg	0.324	1.08	
98-82-8	Isopropylbenzene	U	1.08	ug/kg	0.324	1.08	
108-67-8	1,3,5-Trimethylbenzene	U	1.08	ug/kg	0.324	1.08	
106-43-4	4-Chlorotoluene	U	1.08	ug/kg	0.324	1.08	
98-06-6	tert-Butylbenzene	U	1.08	ug/kg	0.324	1.08	
95-63-6	1,2,4-Trimethylbenzene	U	1.08	ug/kg	0.324	1.08	
135-98-8	sec-Butylbenzene	U	1.08	ug/kg	0.324	1.08	
99-87-6	4-Isopropyltoluene	U	1.08	ug/kg	0.324	1.08	
541-73-1	1,3-Dichlorobenzene	U	1.08	ug/kg	0.324	1.08	
106-46-7	1,4-Dichlorobenzene	U	1.08	ug/kg	0.324	1.08	
104-51-8	n-Butylbenzene	U	1.08	ug/kg	0.324	1.08	
96-12-8	1,2-Dibromo-3-chloropropane	U	1.08	ug/kg	0.324	1.08	UJ,V7c
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.40	ug/kg	1.73	5.40	
630-20-6	1,1,1,2-Tetrachloroethane	U	1.08	ug/kg	0.324	1.08	
95-50-1	1,2-Dichlorobenzene	U	1.08	ug/kg	0.324	1.08	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Siloxane	18.06	17.4	ug/kg		J

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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1086**	**Date Collected:**	**12/22/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243552009**	**Date Received:**	**12/24/2009 09:30**	**%Moisture:**	**7.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14234**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937990**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**12/31/2009 17:11**	**Analyst:**	**RXM4**	**Purge Vol:**	**5 mL**
Prep Date:	**12/31/2009 11:59**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1t415.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
75-71-8	Dichlorodifluoromethane	U	1.08	ug/kg	0.367	1.08	
74-87-3	Chloromethane	U	1.08	ug/kg	0.324	1.08	
75-01-4	Vinyl chloride	U	1.08	ug/kg	0.324	1.08	
74-83-9	Bromomethane	U	1.08	ug/kg	0.324	1.08	
75-00-3	Chloroethane	U	1.08	ug/kg	0.324	1.08	
75-69-4	Trichlorofluoromethane	U	1.08	ug/kg	0.324	1.08	UJ,V7c
67-64-1	Acetone	J	1.98	ug/kg	1.79	5.40	
75-35-4	1,1-Dichloroethylene	U	1.08	ug/kg	0.324	1.08	
74-88-4	Iodomethane	U	5.40	ug/kg	1.73	5.40	
75-09-2	Methylene chloride	U	5.40	ug/kg	2.16	5.40	
75-15-0	Carbon disulfide	U	5.40	ug/kg	1.35	5.40	
156-60-5	trans-1,2-Dichloroethylene	U	1.08	ug/kg	0.324	1.08	
75-34-3	1,1-Dichloroethane	U	1.08	ug/kg	0.324	1.08	
78-93-3	2-Butanone	U	5.40	ug/kg	1.62	5.40	
156-59-2	cis-1,2-Dichloroethylene	U	1.08	ug/kg	0.324	1.08	
594-20-7	2,2-Dichloropropane	U	1.08	ug/kg	0.324	1.08	
67-66-3	Chloroform	U	1.08	ug/kg	0.324	1.08	
74-97-5	Bromochloromethane	U	1.08	ug/kg	0.357	1.08	
71-55-6	1,1,1-Trichloroethane	U	1.08	ug/kg	0.324	1.08	
563-58-6	1,1-Dichloropropene	U	1.08	ug/kg	0.324	1.08	
56-23-5	Carbon tetrachloride	U	1.08	ug/kg	0.324	1.08	
107-06-2	1,2-Dichloroethane	U	1.08	ug/kg	0.324	1.08	
71-43-2	Benzene	U	1.08	ug/kg	0.324	1.08	
79-01-6	Trichloroethylene	U	1.08	ug/kg	0.357	1.08	
78-87-5	1,2-Dichloropropane	U	1.08	ug/kg	0.324	1.08	
75-27-4	Bromodichloromethane	U	1.08	ug/kg	0.324	1.08	
74-95-3	Dibromomethane	U	1.08	ug/kg	0.324	1.08	
108-10-1	4-Methyl-2-pentanone	U	5.40	ug/kg	1.35	5.40	
10061-01-5	cis-1,3-Dichloropropylene	U	1.08	ug/kg	0.324	1.08	
108-88-3	Toluene	U	1.08	ug/kg	0.324	1.08	
10061-02-6	trans-1,3-Dichloropropylene	U	1.08	ug/kg	0.324	1.08	
79-00-5	1,1,2-Trichloroethane	U	1.08	ug/kg	0.324	1.08	
591-78-6	2-Hexanone	U	5.40	ug/kg	1.62	5.40	
142-28-9	1,3-Dichloropropane	U	1.08	ug/kg	0.324	1.08	
127-18-4	Tetrachloroethylene	U	1.08	ug/kg	0.324	1.08	
124-48-1	Dibromochloromethane	U	1.08	ug/kg	0.324	1.08	
106-93-4	1,2-Dibromoethane	U	1.08	ug/kg	0.324	1.08	
108-90-7	Chlorobenzene	U	1.08	ug/kg	0.324	1.08	

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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1086**	**Date Collected:**	**12/22/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243552009**	**Date Received:**	**12/24/2009 09:30**	**%Moisture:**	**7.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14234**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937990**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**12/31/2009 17:11**	**Analyst:**	**RXM4**	**Purge Vol:**	**5 mL**
Prep Date:	**12/31/2009 11:59**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**lt415.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
100-41-4	Ethylbenzene	U	1.08	ug/kg	0.324	1.08	
179601-23-1	m,p-Xylenes	U	2.16	ug/kg	0.324	2.16	
95-47-6	o-Xylene	U	1.08	ug/kg	0.324	1.08	
100-42-5	Styrene	U	1.08	ug/kg	0.324	1.08	
75-25-2	Bromoform	U	1.08	ug/kg	0.324	1.08	
79-34-5	1,1,2,2-Tetrachloroethane	U	1.08	ug/kg	0.324	1.08	
96-18-4	1,2,3-Trichloropropane	U	1.08	ug/kg	0.324	1.08	
108-86-1	Bromobenzene	U	1.08	ug/kg	0.324	1.08	
103-65-1	n-Propylbenzene	U	1.08	ug/kg	0.324	1.08	
95-49-8	2-Chlorotoluene	U	1.08	ug/kg	0.324	1.08	
98-82-8	Isopropylbenzene	U	1.08	ug/kg	0.324	1.08	
108-67-8	1,3,5-Trimethylbenzene	U	1.08	ug/kg	0.324	1.08	
106-43-4	4-Chlorotoluene	U	1.08	ug/kg	0.324	1.08	
98-06-6	tert-Butylbenzene	U	1.08	ug/kg	0.324	1.08	
95-63-6	1,2,4-Trimethylbenzene	U	1.08	ug/kg	0.324	1.08	
135-98-8	sec-Butylbenzene	U	1.08	ug/kg	0.324	1.08	
99-87-6	4-Isopropyltoluene	U	1.08	ug/kg	0.324	1.08	
541-73-1	1,3-Dichlorobenzene	U	1.08	ug/kg	0.324	1.08	
106-46-7	1,4-Dichlorobenzene	U	1.08	ug/kg	0.324	1.08	
104-51-8	n-Butylbenzene	U	1.08	ug/kg	0.324	1.08	
96-12-8	1,2-Dibromo-3-chloropropane	U	1.08	ug/kg	0.324	1.08	UJ,V7c
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.40	ug/kg	1.73	5.40	
630-20-6	1,1,1,2-Tetrachloroethane	U	1.08	ug/kg	0.324	1.08	
95-50-1	1,2-Dichlorobenzene	U	1.08	ug/kg	0.324	1.08	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Siloxane	18.06	7.3	ug/kg		J

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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1086	**Date Collected:**	12/22/2009 12:00	**Matrix:**	S
Lab Sample ID:	243552007	**Date Received:**	12/24/2009 09:30	**%Moisture:**	22.5
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14235	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	937990	**Inst:**	VOA1.I	**Dilution:**	1
Run Date:	12/31/2009 16:11	**Analyst:**	RXM4	**Purge Vol:**	5 mL
Prep Date:	12/31/2009 11:57	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	1t413.d	**Column:**	RTX-Volatiles	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
75-71-8	Dichlorodifluoromethane	U	1.29	ug/kg	0.439	1.29	
74-87-3	Chloromethane	U	1.29	ug/kg	0.387	1.29	
75-01-4	Vinyl chloride	U	1.29	ug/kg	0.387	1.29	
74-83-9	Bromomethane	U	1.29	ug/kg	0.387	1.29	
75-00-3	Chloroethane	U	1.29	ug/kg	0.387	1.29	
75-69-4	Trichlorofluoromethane	U	1.29	ug/kg	0.387	1.29	UJ,V7c
67-64-1	Acetone	U	6.45	ug/kg	2.14	6.45	
75-35-4	1,1-Dichloroethylene	U	1.29	ug/kg	0.387	1.29	
74-88-4	Iodomethane	U	6.45	ug/kg	2.06	6.45	
75-09-2	Methylene chloride	U	6.45	ug/kg	2.58	6.45	
75-15-0	Carbon disulfide	U	6.45	ug/kg	1.61	6.45	
156-60-5	trans-1,2-Dichloroethylene	U	1.29	ug/kg	0.387	1.29	
75-34-3	1,1-Dichloroethane	U	1.29	ug/kg	0.387	1.29	
78-93-3	2-Butanone	U	6.45	ug/kg	1.93	6.45	
156-59-2	cis-1,2-Dichloroethylene	U	1.29	ug/kg	0.387	1.29	
594-20-7	2,2-Dichloropropane	U	1.29	ug/kg	0.387	1.29	
67-66-3	Chloroform	U	1.29	ug/kg	0.387	1.29	
74-97-5	Bromochloromethane	U	1.29	ug/kg	0.426	1.29	
71-55-6	1,1,1-Trichloroethane	U	1.29	ug/kg	0.387	1.29	
563-58-6	1,1-Dichloropropene	U	1.29	ug/kg	0.387	1.29	
56-23-5	Carbon tetrachloride	U	1.29	ug/kg	0.387	1.29	
107-06-2	1,2-Dichloroethane	U	1.29	ug/kg	0.387	1.29	
71-43-2	Benzene	U	1.29	ug/kg	0.387	1.29	
79-01-6	Trichloroethylene	U	1.29	ug/kg	0.426	1.29	
78-87-5	1,2-Dichloropropane	U	1.29	ug/kg	0.387	1.29	
75-27-4	Bromodichloromethane	U	1.29	ug/kg	0.387	1.29	
74-95-3	Dibromomethane	U	1.29	ug/kg	0.387	1.29	
108-10-1	4-Methyl-2-pentanone	U	6.45	ug/kg	1.61	6.45	
10061-01-5	cis-1,3-Dichloropropylene	U	1.29	ug/kg	0.387	1.29	
108-88-3	Toluene	U	1.29	ug/kg	0.387	1.29	
10061-02-6	trans-1,3-Dichloropropylene	U	1.29	ug/kg	0.387	1.29	
79-00-5	1,1,2-Trichloroethane	U	1.29	ug/kg	0.387	1.29	
591-78-6	2-Hexanone	U	6.45	ug/kg	1.93	6.45	
142-28-9	1,3-Dichloropropane	U	1.29	ug/kg	0.387	1.29	
127-18-4	Tetrachloroethylene	U	1.29	ug/kg	0.387	1.29	
124-48-1	Dibromochloromethane	U	1.29	ug/kg	0.387	1.29	
106-93-4	1,2-Dibromoethane	U	1.29	ug/kg	0.387	1.29	
108-90-7	Chlorobenzene	U	1.29	ug/kg	0.387	1.29	

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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1086**	**Date Collected:**	**12/22/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243552007**	**Date Received:**	**12/24/2009 09:30**	**%Moisture:**	**22.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14235**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937990**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**12/31/2009 16:11**	**Analyst:**	**RXM4**	**Purge Vol:**	**5 mL**
Prep Date:	**12/31/2009 11:57**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1t413.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
100-41-4	Ethylbenzene	U	1.29	ug/kg	0.387	1.29	
179601-23-1	m,p-Xylenes	U	2.58	ug/kg	0.387	2.58	
95-47-6	o-Xylene	U	1.29	ug/kg	0.387	1.29	
100-42-5	Styrene	U	1.29	ug/kg	0.387	1.29	
75-25-2	Bromoform	U	1.29	ug/kg	0.387	1.29	
79-34-5	1,1,2,2-Tetrachloroethane	U	1.29	ug/kg	0.387	1.29	
96-18-4	1,2,3-Trichloropropane	U	1.29	ug/kg	0.387	1.29	
108-86-1	Bromobenzene	U	1.29	ug/kg	0.387	1.29	
103-65-1	n-Propylbenzene	U	1.29	ug/kg	0.387	1.29	
95-49-8	2-Chlorotoluene	U	1.29	ug/kg	0.387	1.29	
98-82-8	Isopropylbenzene	U	1.29	ug/kg	0.387	1.29	
108-67-8	1,3,5-Trimethylbenzene	U	1.29	ug/kg	0.387	1.29	
106-43-4	4-Chlorotoluene	U	1.29	ug/kg	0.387	1.29	
98-06-6	tert-Butylbenzene	U	1.29	ug/kg	0.387	1.29	
95-63-6	1,2,4-Trimethylbenzene	U	1.29	ug/kg	0.387	1.29	
135-98-8	sec-Butylbenzene	U	1.29	ug/kg	0.387	1.29	
99-87-6	4-Isopropyltoluene	U	1.29	ug/kg	0.387	1.29	
541-73-1	1,3-Dichlorobenzene	U	1.29	ug/kg	0.387	1.29	
106-46-7	1,4-Dichlorobenzene	U	1.29	ug/kg	0.387	1.29	
104-51-8	n-Butylbenzene	U	1.29	ug/kg	0.387	1.29	
96-12-8	1,2-Dibromo-3-chloropropane	U	1.29	ug/kg	0.387	1.29	UJ,V7c
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	6.45	ug/kg	2.06	6.45	
630-20-6	1,1,1,2-Tetrachloroethane	U	1.29	ug/kg	0.387	1.29	
95-50-1	1,2-Dichlorobenzene	U	1.29	ug/kg	0.387	1.29	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Siloxane	18.06	15	ug/kg		J

EJM
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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1086**	**Date Collected:**	**12/22/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243552002**	**Date Received:**	**12/24/2009 09:30**	**%Moisture:**	**16.2**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14236**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937990**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**12/31/2009 13:39**	**Analyst:**	**RXM4**	**Purge Vol:**	**5 mL**
Prep Date:	**12/31/2009 11:52**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1t408.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
75-71-8	Dichlorodifluoromethane	U	1.19	ug/kg	0.406	1.19	
74-87-3	Chloromethane	U	1.19	ug/kg	0.358	1.19	
75-01-4	Vinyl chloride	U	1.19	ug/kg	0.358	1.19	
74-83-9	Bromomethane	U	1.19	ug/kg	0.358	1.19	
75-00-3	Chloroethane	U	1.19	ug/kg	0.358	1.19	
75-69-4	Trichlorofluoromethane	U	1.19	ug/kg	0.358	1.19	UJ,V7c
67-64-1	Acetone	U	5.96	ug/kg	1.98	5.96	
75-35-4	1,1-Dichloroethylene	U	1.19	ug/kg	0.358	1.19	
74-88-4	Iodomethane	U	5.96	ug/kg	1.91	5.96	
75-09-2	Methylene chloride	U	5.96	ug/kg	2.39	5.96	
75-15-0	Carbon disulfide	U	5.96	ug/kg	1.49	5.96	
156-60-5	trans-1,2-Dichloroethylene	U	1.19	ug/kg	0.358	1.19	
75-34-3	1,1-Dichloroethane	U	1.19	ug/kg	0.358	1.19	
78-93-3	2-Butanone	U	5.96	ug/kg	1.79	5.96	
156-59-2	cis-1,2-Dichloroethylene	U	1.19	ug/kg	0.358	1.19	
594-20-7	2,2-Dichloropropane	U	1.19	ug/kg	0.358	1.19	
67-66-3	Chloroform	U	1.19	ug/kg	0.358	1.19	
74-97-5	Bromochloromethane	U	1.19	ug/kg	0.394	1.19	
71-55-6	1,1,1-Trichloroethane	U	1.19	ug/kg	0.358	1.19	
563-58-6	1,1-Dichloropropene	U	1.19	ug/kg	0.358	1.19	
56-23-5	Carbon tetrachloride	U	1.19	ug/kg	0.358	1.19	
107-06-2	1,2-Dichloroethane	U	1.19	ug/kg	0.358	1.19	
71-43-2	Benzene	U	1.19	ug/kg	0.358	1.19	
79-01-6	Trichloroethylene	U	1.19	ug/kg	0.394	1.19	
78-87-5	1,2-Dichloropropane	U	1.19	ug/kg	0.358	1.19	
75-27-4	Bromodichloromethane	U	1.19	ug/kg	0.358	1.19	
74-95-3	Dibromomethane	U	1.19	ug/kg	0.358	1.19	
108-10-1	4-Methyl-2-pentanone	U	5.96	ug/kg	1.49	5.96	
10061-01-5	cis-1,3-Dichloropropylene	U	1.19	ug/kg	0.358	1.19	
108-88-3	Toluene	U	1.19	ug/kg	0.358	1.19	
10061-02-6	trans-1,3-Dichloropropylene	U	1.19	ug/kg	0.358	1.19	
79-00-5	1,1,2-Trichloroethane	U	1.19	ug/kg	0.358	1.19	
591-78-6	2-Hexanone	U	5.96	ug/kg	1.79	5.96	
142-28-9	1,3-Dichloropropane	U	1.19	ug/kg	0.358	1.19	
127-18-4	Tetrachloroethylene	U	1.19	ug/kg	0.358	1.19	
124-48-1	Dibromochloromethane	U	1.19	ug/kg	0.358	1.19	
106-93-4	1,2-Dibromoethane	U	1.19	ug/kg	0.358	1.19	
108-90-7	Chlorobenzene	U	1.19	ug/kg	0.358	1.19	

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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1086**	**Date Collected:**	**12/22/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243552002**	**Date Received:**	**12/24/2009 09:30**	**%Moisture:**	**16.2**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14236**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937990**	**Inst:**	**VOA1.1**	**Dilution:**	**1**
Run Date:	**12/31/2009 13:39**	**Analyst:**	**RXM4**	**Purge Vol:**	**5 mL**
Prep Date:	**12/31/2009 11:52**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1t408.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
100-41-4	Ethylbenzene	U	1.19	ug/kg	0.358	1.19	
179601-23-1	m,p-Xylenes	U	2.39	ug/kg	0.358	2.39	
95-47-6	o-Xylene	U	1.19	ug/kg	0.358	1.19	
100-42-5	Styrene	U	1.19	ug/kg	0.358	1.19	
75-25-2	Bromoform	U	1.19	ug/kg	0.358	1.19	
79-34-5	1,1,2,2-Tetrachloroethane	U	1.19	ug/kg	0.358	1.19	
96-18-4	1,2,3-Trichloropropane	U	1.19	ug/kg	0.358	1.19	
108-86-1	Bromobenzene	U	1.19	ug/kg	0.358	1.19	
103-65-1	n-Propylbenzene	U	1.19	ug/kg	0.358	1.19	
95-49-8	2-Chlorotoluene	U	1.19	ug/kg	0.358	1.19	
98-82-8	Isopropylbenzene	U	1.19	ug/kg	0.358	1.19	
108-67-8	1,3,5-Trimethylbenzene	U	1.19	ug/kg	0.358	1.19	
106-43-4	4-Chlorotoluene	U	1.19	ug/kg	0.358	1.19	
98-06-6	tert-Butylbenzene	U	1.19	ug/kg	0.358	1.19	
95-63-6	1,2,4-Trimethylbenzene	U	1.19	ug/kg	0.358	1.19	
135-98-8	sec-Butylbenzene	U	1.19	ug/kg	0.358	1.19	
99-87-6	4-Isopropyltoluene	U	1.19	ug/kg	0.358	1.19	
541-73-1	1,3-Dichlorobenzene	U	1.19	ug/kg	0.358	1.19	
106-46-7	1,4-Dichlorobenzene	U	1.19	ug/kg	0.358	1.19	
104-51-8	n-Butylbenzene	U	1.19	ug/kg	0.358	1.19	
96-12-8	1,2-Dibromo-3-chloropropane	U	1.19	ug/kg	0.358	1.19	UJ,V7c
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.96	ug/kg	1.91	5.96	
630-20-6	1,1,1,2-Tetrachloroethane	U	1.19	ug/kg	0.358	1.19	
95-50-1	1,2-Dichlorobenzene	U	1.19	ug/kg	0.358	1.19	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Siloxane	18.06	13.5	ug/kg		J

EJM
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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1086**	**Date Collected:**	**12/22/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243552008**	**Date Received:**	**12/24/2009 09:30**	**%Moisture:**	**5.4**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14238**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937990**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**01/04/2010 15:35**	**Analyst:**	**RXM4**	**Purge Vol:**	**5 mL**
Prep Date:	**01/04/2010 14:12**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1u114.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
75-71-8	Dichlorodifluoromethane	U	1.06	ug/kg	0.359	1.06	
74-87-3	Chloromethane	U	1.06	ug/kg	0.317	1.06	
75-01-4	Vinyl chloride	U	1.06	ug/kg	0.317	1.06	
74-83-9	Bromomethane	U	1.06	ug/kg	0.317	1.06	
75-00-3	Chloroethane	U	1.06	ug/kg	0.317	1.06	
75-69-4	Trichlorofluoromethane	U	1.06	ug/kg	0.317	1.06	
67-64-1	Acetone	U	5.29	ug/kg	1.75	5.29	UJ,V7c
75-35-4	1,1-Dichloroethylene	U	1.06	ug/kg	0.317	1.06	
74-88-4	Iodomethane	U	5.29	ug/kg	1.69	5.29	UJ,V7c
75-09-2	Methylene chloride	U	5.29	ug/kg	2.11	5.29	UJ,V7c
75-15-0	Carbon disulfide	U	5.29	ug/kg	1.32	5.29	
156-60-5	trans-1,2-Dichloroethylene	U	1.06	ug/kg	0.317	1.06	
75-34-3	1,1-Dichloroethane	U	1.06	ug/kg	0.317	1.06	
78-93-3	2-Butanone	U	5.29	ug/kg	1.59	5.29	UJ,V7c
156-59-2	cis-1,2-Dichloroethylene	U	1.06	ug/kg	0.317	1.06	
594-20-7	2,2-Dichloropropane	U	1.06	ug/kg	0.317	1.06	
67-66-3	Chloroform	U	1.06	ug/kg	0.317	1.06	
74-97-5	Bromochloromethane	U	1.06	ug/kg	0.349	1.06	
71-55-6	1,1,1-Trichloroethane	U	1.06	ug/kg	0.317	1.06	
563-58-6	1,1-Dichloropropene	U	1.06	ug/kg	0.317	1.06	
56-23-5	Carbon tetrachloride	U	1.06	ug/kg	0.317	1.06	
107-06-2	1,2-Dichloroethane	U	1.06	ug/kg	0.317	1.06	
71-43-2	Benzene	U	1.06	ug/kg	0.317	1.06	
79-01-6	Trichloroethylene	U	1.06	ug/kg	0.349	1.06	
78-87-5	1,2-Dichloropropane	U	1.06	ug/kg	0.317	1.06	
75-27-4	Bromodichloromethane	U	1.06	ug/kg	0.317	1.06	
74-95-3	Dibromomethane	U	1.06	ug/kg	0.317	1.06	
108-10-1	4-Methyl-2-pentanone	U	5.29	ug/kg	1.32	5.29	
10061-01-5	cis-1,3-Dichloropropylene	U	1.06	ug/kg	0.317	1.06	
108-88-3	Toluene	U	1.06	ug/kg	0.317	1.06	
10061-02-6	trans-1,3-Dichloropropylene	U	1.06	ug/kg	0.317	1.06	
79-00-5	1,1,2-Trichloroethane	U	1.06	ug/kg	0.317	1.06	
591-78-6	2-Hexanone	U	5.29	ug/kg	1.59	5.29	
142-28-9	1,3-Dichloropropane	U	1.06	ug/kg	0.317	1.06	
127-18-4	Tetrachloroethylene	U	1.06	ug/kg	0.317	1.06	
124-48-1	Dibromochloromethane	U	1.06	ug/kg	0.317	1.06	
106-93-4	1,2-Dibromoethane	U	1.06	ug/kg	0.317	1.06	
108-90-7	Chlorobenzene	U	1.06	ug/kg	0.317	1.06	

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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1086**	**Date Collected:**	**12/22/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243552008**	**Date Received:**	**12/24/2009 09:30**	**%Moisture:**	**5.4**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14238**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937990**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**01/04/2010 15:35**	**Analyst:**	**RXM4**	**Purge Vol:**	**5 mL**
Prep Date:	**01/04/2010 14:12**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1u114.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
100-41-4	Ethylbenzene	U	1.06	ug/kg	0.317	1.06	
179601-23-1	m,p-Xylenes	U	2.11	ug/kg	0.317	2.11	
95-47-6	o-Xylene	U	1.06	ug/kg	0.317	1.06	
100-42-5	Styrene	U	1.06	ug/kg	0.317	1.06	
75-25-2	Bromoform	U	1.06	ug/kg	0.317	1.06	UJ,V7c
79-34-5	1,1,2,2-Tetrachloroethane	U	1.06	ug/kg	0.317	1.06	
96-18-4	1,2,3-Trichloropropane	U	1.06	ug/kg	0.317	1.06	
108-86-1	Bromobenzene	U	1.06	ug/kg	0.317	1.06	
103-65-1	n-Propylbenzene	U	1.06	ug/kg	0.317	1.06	
95-49-8	2-Chlorotoluene	U	1.06	ug/kg	0.317	1.06	
98-82-8	Isopropylbenzene	U	1.06	ug/kg	0.317	1.06	
108-67-8	1,3,5-Trimethylbenzene	U	1.06	ug/kg	0.317	1.06	
106-43-4	4-Chlorotoluene	U	1.06	ug/kg	0.317	1.06	
98-06-6	tert-Butylbenzene	U	1.06	ug/kg	0.317	1.06	
95-63-6	1,2,4-Trimethylbenzene	U	1.06	ug/kg	0.317	1.06	
135-98-8	sec-Butylbenzene	U	1.06	ug/kg	0.317	1.06	
99-87-6	4-Isopropyltoluene	U	1.06	ug/kg	0.317	1.06	
541-73-1	1,3-Dichlorobenzene	U	1.06	ug/kg	0.317	1.06	
106-46-7	1,4-Dichlorobenzene	U	1.06	ug/kg	0.317	1.06	
104-51-8	n-Butylbenzene	U	1.06	ug/kg	0.317	1.06	
96-12-8	1,2-Dibromo-3-chloropropane	U	1.06	ug/kg	0.317	1.06	UJ,V7c
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.29	ug/kg	1.69	5.29	
630-20-6	1,1,1,2-Tetrachloroethane	U	1.06	ug/kg	0.317	1.06	
95-50-1	1,2-Dichlorobenzene	U	1.06	ug/kg	0.317	1.06	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Siloxane	18.06	24.6	ug/kg		J
1073-06-9	Benzene, 1-bromo-3-fluoro-	18.38	41.1	ug/kg	95	NJ

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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1086**	**Date Collected:**	**12/22/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243552003**	**Date Received:**	**12/24/2009 09:30**	**%Moisture:**	**5.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14239**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937990**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**12/31/2009 14:10**	**Analyst:**	**RXM4**	**Purge Vol:**	**5 mL**
Prep Date:	**12/31/2009 11:53**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1t409.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
75-71-8	Dichlorodifluoromethane	U	1.06	ug/kg	0.360	1.06	
74-87-3	Chloromethane	U	1.06	ug/kg	0.317	1.06	
75-01-4	Vinyl chloride	U	1.06	ug/kg	0.317	1.06	
74-83-9	Bromomethane	U	1.06	ug/kg	0.317	1.06	
75-00-3	Chloroethane	U	1.06	ug/kg	0.317	1.06	
75-69-4	Trichlorofluoromethane	U	1.06	ug/kg	0.317	1.06	UJ,V7c
67-64-1	Acetone	U	5.29	ug/kg	1.76	5.29	
75-35-4	1,1-Dichloroethylene	U	1.06	ug/kg	0.317	1.06	
74-88-4	Iodomethane	U	5.29	ug/kg	1.69	5.29	
75-09-2	Methylene chloride	U	5.29	ug/kg	2.12	5.29	
75-15-0	Carbon disulfide	U	5.29	ug/kg	1.32	5.29	
156-60-5	trans-1,2-Dichloroethylene	U	1.06	ug/kg	0.317	1.06	
75-34-3	1,1-Dichloroethane	U	1.06	ug/kg	0.317	1.06	
78-93-3	2-Butanone	U	5.29	ug/kg	1.59	5.29	
156-59-2	cis-1,2-Dichloroethylene	U	1.06	ug/kg	0.317	1.06	
594-20-7	2,2-Dichloropropane	U	1.06	ug/kg	0.317	1.06	
67-66-3	Chloroform	U	1.06	ug/kg	0.317	1.06	
74-97-5	Bromochloromethane	U	1.06	ug/kg	0.349	1.06	
71-55-6	1,1,1-Trichloroethane	U	1.06	ug/kg	0.317	1.06	
563-58-6	1,1-Dichloropropene	U	1.06	ug/kg	0.317	1.06	
56-23-5	Carbon tetrachloride	U	1.06	ug/kg	0.317	1.06	
107-06-2	1,2-Dichloroethane	U	1.06	ug/kg	0.317	1.06	
71-43-2	Benzene	U	1.06	ug/kg	0.317	1.06	
79-01-6	Trichloroethylene	U	1.06	ug/kg	0.349	1.06	
78-87-5	1,2-Dichloropropane	U	1.06	ug/kg	0.317	1.06	
75-27-4	Bromodichloromethane	U	1.06	ug/kg	0.317	1.06	
74-95-3	Dibromomethane	U	1.06	ug/kg	0.317	1.06	
108-10-1	4-Methyl-2-pentanone	U	5.29	ug/kg	1.32	5.29	
10061-01-5	cis-1,3-Dichloropropylene	U	1.06	ug/kg	0.317	1.06	
108-88-3	Toluene	U	1.06	ug/kg	0.317	1.06	
10061-02-6	trans-1,3-Dichloropropylene	U	1.06	ug/kg	0.317	1.06	
79-00-5	1,1,2-Trichloroethane	U	1.06	ug/kg	0.317	1.06	
591-78-6	2-Hexanone	U	5.29	ug/kg	1.59	5.29	
142-28-9	1,3-Dichloropropane	U	1.06	ug/kg	0.317	1.06	
127-18-4	Tetrachloroethylene	U	1.06	ug/kg	0.317	1.06	
124-48-1	Dibromochloromethane	U	1.06	ug/kg	0.317	1.06	
106-93-4	1,2-Dibromoethane	U	1.06	ug/kg	0.317	1.06	
108-90-7	Chlorobenzene	U	1.06	ug/kg	0.317	1.06	

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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1086**	**Date Collected:**	**12/22/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243552003**	**Date Received:**	**12/24/2009 09:30**	**%Moisture:**	**5.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14239**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937990**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**12/31/2009 14:10**	**Analyst:**	**RXM4**	**Purge Vol:**	**5 mL**
Prep Date:	**12/31/2009 11:53**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1t409.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
100-41-4	Ethylbenzene	U	1.06	ug/kg	0.317	1.06	
179601-23-1	m,p-Xylenes	U	2.12	ug/kg	0.317	2.12	
95-47-6	o-Xylene	U	1.06	ug/kg	0.317	1.06	
100-42-5	Styrene	U	1.06	ug/kg	0.317	1.06	
75-25-2	Bromoform	U	1.06	ug/kg	0.317	1.06	
79-34-5	1,1,2,2-Tetrachloroethane	U	1.06	ug/kg	0.317	1.06	
96-18-4	1,2,3-Trichloropropane	U	1.06	ug/kg	0.317	1.06	
108-86-1	Bromobenzene	U	1.06	ug/kg	0.317	1.06	
103-65-1	n-Propylbenzene	U	1.06	ug/kg	0.317	1.06	
95-49-8	2-Chlorotoluene	U	1.06	ug/kg	0.317	1.06	
98-82-8	Isopropylbenzene	U	1.06	ug/kg	0.317	1.06	
108-67-8	1,3,5-Trimethylbenzene	U	1.06	ug/kg	0.317	1.06	
106-43-4	4-Chlorotoluene	U	1.06	ug/kg	0.317	1.06	
98-06-6	tert-Butylbenzene	U	1.06	ug/kg	0.317	1.06	
95-63-6	1,2,4-Trimethylbenzene	U	1.06	ug/kg	0.317	1.06	
135-98-8	sec-Butylbenzene	U	1.06	ug/kg	0.317	1.06	
99-87-6	4-Isopropyltoluene	U	1.06	ug/kg	0.317	1.06	
541-73-1	1,3-Dichlorobenzene	U	1.06	ug/kg	0.317	1.06	
106-46-7	1,4-Dichlorobenzene	U	1.06	ug/kg	0.317	1.06	
104-51-8	n-Butylbenzene	U	1.06	ug/kg	0.317	1.06	
96-12-8	1,2-Dibromo-3-chloropropane	U	1.06	ug/kg	0.317	1.06	UJ,V7c
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.29	ug/kg	1.69	5.29	
630-20-6	1,1,1,2-Tetrachloroethane	U	1.06	ug/kg	0.317	1.06	
95-50-1	1,2-Dichlorobenzene	U	1.06	ug/kg	0.317	1.06	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
66-25-1	Hexanal	16.39	15.7	ug/kg	90	NJ
	Unknown Siloxane	18.06	32.5	ug/kg		J

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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1086**	**Date Collected:**	**12/22/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243552004**	**Date Received:**	**12/24/2009 09:30**	**%Moisture:**	**5.4**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14240**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937990**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**12/31/2009 14:40**	**Analyst:**	**RXM4**	**Purge Vol:**	**5 mL**
Prep Date:	**12/31/2009 11:54**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1t410.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
75-71-8	Dichlorodifluoromethane	U	1.06	ug/kg	0.359	1.06	
74-87-3	Chloromethane	U	1.06	ug/kg	0.317	1.06	
75-01-4	Vinyl chloride	U	1.06	ug/kg	0.317	1.06	
74-83-9	Bromomethane	U	1.06	ug/kg	0.317	1.06	
75-00-3	Chloroethane	U	1.06	ug/kg	0.317	1.06	
75-69-4	Trichlorofluoromethane	U	1.06	ug/kg	0.317	1.06	UJ,V7c
67-64-1	Acetone	U	5.29	ug/kg	1.76	5.29	
75-35-4	1,1-Dichloroethylene	U	1.06	ug/kg	0.317	1.06	
74-88-4	Iodomethane	U	5.29	ug/kg	1.69	5.29	
75-09-2	Methylene chloride	U	5.29	ug/kg	2.11	5.29	
75-15-0	Carbon disulfide	U	5.29	ug/kg	1.32	5.29	
156-60-5	trans-1,2-Dichloroethylene	U	1.06	ug/kg	0.317	1.06	
75-34-3	1,1-Dichloroethane	U	1.06	ug/kg	0.317	1.06	
78-93-3	2-Butanone	U	5.29	ug/kg	1.59	5.29	
156-59-2	cis-1,2-Dichloroethylene	U	1.06	ug/kg	0.317	1.06	
594-20-7	2,2-Dichloropropane	U	1.06	ug/kg	0.317	1.06	
67-66-3	Chloroform	U	1.06	ug/kg	0.317	1.06	
74-97-5	Bromochloromethane	U	1.06	ug/kg	0.349	1.06	
71-55-6	1,1,1-Trichloroethane	U	1.06	ug/kg	0.317	1.06	
563-58-6	1,1-Dichloropropene	U	1.06	ug/kg	0.317	1.06	
56-23-5	Carbon tetrachloride	U	1.06	ug/kg	0.317	1.06	
107-06-2	1,2-Dichloroethane	U	1.06	ug/kg	0.317	1.06	
71-43-2	Benzene	U	1.06	ug/kg	0.317	1.06	
79-01-6	Trichloroethylene	U	1.06	ug/kg	0.349	1.06	
78-87-5	1,2-Dichloropropane	U	1.06	ug/kg	0.317	1.06	
75-27-4	Bromodichloromethane	U	1.06	ug/kg	0.317	1.06	
74-95-3	Dibromomethane	U	1.06	ug/kg	0.317	1.06	
108-10-1	4-Methyl-2-pentanone	U	5.29	ug/kg	1.32	5.29	
10061-01-5	cis-1,3-Dichloropropylene	U	1.06	ug/kg	0.317	1.06	
108-88-3	Toluene	U	1.06	ug/kg	0.317	1.06	
10061-02-6	trans-1,3-Dichloropropylene	U	1.06	ug/kg	0.317	1.06	
79-00-5	1,1,2-Trichloroethane	U	1.06	ug/kg	0.317	1.06	
591-78-6	2-Hexanone	U	5.29	ug/kg	1.59	5.29	
142-28-9	1,3-Dichloropropane	U	1.06	ug/kg	0.317	1.06	
127-18-4	Tetrachloroethylene	U	1.06	ug/kg	0.317	1.06	
124-48-1	Dibromochloromethane	U	1.06	ug/kg	0.317	1.06	
106-93-4	1,2-Dibromoethane	U	1.06	ug/kg	0.317	1.06	
108-90-7	Chlorobenzene	U	1.06	ug/kg	0.317	1.06	

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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1086**	**Date Collected:**	**12/22/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243552004**	**Date Received:**	**12/24/2009 09:30**	**%Moisture:**	**5.4**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14240**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937990**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**12/31/2009 14:40**	**Analyst:**	**RXM4**	**Purge Vol:**	**5 mL**
Prep Date:	**12/31/2009 11:54**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1t410.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
100-41-4	Ethylbenzene	U	1.06	ug/kg	0.317	1.06	
179601-23-1	m,p-Xylenes	U	2.11	ug/kg	0.317	2.11	
95-47-6	o-Xylene	U	1.06	ug/kg	0.317	1.06	
100-42-5	Styrene	U	1.06	ug/kg	0.317	1.06	
75-25-2	Bromoform	U	1.06	ug/kg	0.317	1.06	
79-34-5	1,1,2,2-Tetrachloroethane	U	1.06	ug/kg	0.317	1.06	
96-18-4	1,2,3-Trichloropropane	U	1.06	ug/kg	0.317	1.06	
108-86-1	Bromobenzene	U	1.06	ug/kg	0.317	1.06	
103-65-1	n-Propylbenzene	U	1.06	ug/kg	0.317	1.06	
95-49-8	2-Chlorotoluene	U	1.06	ug/kg	0.317	1.06	
98-82-8	Isopropylbenzene	U	1.06	ug/kg	0.317	1.06	
108-67-8	1,3,5-Trimethylbenzene	U	1.06	ug/kg	0.317	1.06	
106-43-4	4-Chlorotoluene	U	1.06	ug/kg	0.317	1.06	
98-06-6	tert-Butylbenzene	U	1.06	ug/kg	0.317	1.06	
95-63-6	1,2,4-Trimethylbenzene	U	1.06	ug/kg	0.317	1.06	
135-98-8	sec-Butylbenzene	U	1.06	ug/kg	0.317	1.06	
99-87-6	4-Isopropyltoluene	U	1.06	ug/kg	0.317	1.06	
541-73-1	1,3-Dichlorobenzene	U	1.06	ug/kg	0.317	1.06	
106-46-7	1,4-Dichlorobenzene	U	1.06	ug/kg	0.317	1.06	
104-51-8	n-Butylbenzene	U	1.06	ug/kg	0.317	1.06	
96-12-8	1,2-Dibromo-3-chloropropane	U	1.06	ug/kg	0.317	1.06	UJ,V7c
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.29	ug/kg	1.69	5.29	
630-20-6	1,1,1,2-Tetrachloroethane	U	1.06	ug/kg	0.317	1.06	
95-50-1	1,2-Dichlorobenzene	U	1.06	ug/kg	0.317	1.06	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Flt	Qual
	Unknown Siloxane	18.06	17.7	ug/kg		J

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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1086**	**Date Collected:**	**12/22/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243552010**	**Date Received:**	**12/24/2009 09:30**	**%Moisture:**	**12.7**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14241**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937990**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**12/31/2009 17:41**	**Analyst:**	**RXM4**	**Purge Vol:**	**5 mL**
Prep Date:	**12/31/2009 12:00**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1t416.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
75-71-8	Dichlorodifluoromethane	U	1.14	ug/kg	0.389	1.14	
74-87-3	Chloromethane	U	1.14	ug/kg	0.343	1.14	
75-01-4	Vinyl chloride	U	1.14	ug/kg	0.343	1.14	
74-83-9	Bromomethane	U	1.14	ug/kg	0.343	1.14	
75-00-3	Chloroethane	U	1.14	ug/kg	0.343	1.14	
75-69-4	Trichlorofluoromethane	U	1.14	ug/kg	0.343	1.14	UJ,V7c
67-64-1	Acetone	U	5.72	ug/kg	1.90	5.72	
75-35-4	1,1-Dichloroethylene	U	1.14	ug/kg	0.343	1.14	
74-88-4	Iodomethane	U	5.72	ug/kg	1.83	5.72	
75-09-2	Methylene chloride	U	5.72	ug/kg	2.29	5.72	
75-15-0	Carbon disulfide	U	5.72	ug/kg	1.43	5.72	
156-60-5	trans-1,2-Dichloroethylene	U	1.14	ug/kg	0.343	1.14	
75-34-3	1,1-Dichloroethane	U	1.14	ug/kg	0.343	1.14	
78-93-3	2-Butanone	U	5.72	ug/kg	1.72	5.72	
156-59-2	cis-1,2-Dichloroethylene	U	1.14	ug/kg	0.343	1.14	
594-20-7	2,2-Dichloropropane	U	1.14	ug/kg	0.343	1.14	
67-66-3	Chloroform	U	1.14	ug/kg	0.343	1.14	
74-97-5	Bromochloromethane	U	1.14	ug/kg	0.378	1.14	
71-55-6	1,1,1-Trichloroethane	U	1.14	ug/kg	0.343	1.14	
563-58-6	1,1-Dichloropropene	U	1.14	ug/kg	0.343	1.14	
56-23-5	Carbon tetrachloride	U	1.14	ug/kg	0.343	1.14	
107-06-2	1,2-Dichloroethane	U	1.14	ug/kg	0.343	1.14	
71-43-2	Benzene	U	1.14	ug/kg	0.343	1.14	
79-01-6	Trichloroethylene	U	1.14	ug/kg	0.378	1.14	
78-87-5	1,2-Dichloropropane	U	1.14	ug/kg	0.343	1.14	
75-27-4	Bromodichloromethane	U	1.14	ug/kg	0.343	1.14	
74-95-3	Dibromomethane	U	1.14	ug/kg	0.343	1.14	
108-10-1	4-Methyl-2-pentanone	U	5.72	ug/kg	1.43	5.72	
10061-01-5	cis-1,3-Dichloropropylene	U	1.14	ug/kg	0.343	1.14	
108-88-3	Toluene	U	1.14	ug/kg	0.343	1.14	
10061-02-6	trans-1,3-Dichloropropylene	U	1.14	ug/kg	0.343	1.14	
79-00-5	1,1,2-Trichloroethane	U	1.14	ug/kg	0.343	1.14	
591-78-6	2-Hexanone	U	5.72	ug/kg	1.72	5.72	
142-28-9	1,3-Dichloropropane	U	1.14	ug/kg	0.343	1.14	
127-18-4	Tetrachloroethylene	U	1.14	ug/kg	0.343	1.14	
124-48-1	Dibromochloromethane	U	1.14	ug/kg	0.343	1.14	
106-93-4	1,2-Dibromoethane	U	1.14	ug/kg	0.343	1.14	
108-90-7	Chlorobenzene	U	1.14	ug/kg	0.343	1.14	

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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1086	Date Collected:	12/22/2009 12:00	Matrix:	S
Lab Sample ID:	243552010	Date Received:	12/24/2009 09:30	%Moisture:	12.7
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14241	Method:	SW846 8260B	SOP Ref:	GL-OA-E-038
Batch ID:	937990	Inst:	VOA1.I	Dilution:	1
Run Date:	12/31/2009 17:41	Analyst:	RXM4	Purge Vol:	5 mL
Prep Date:	12/31/2009 12:00	Aliquot:	5 g	Final Volume:	5 mL
Data File:	lt416.d	Column:	RTX-Volatiles	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
100-41-4	Ethylbenzene	U	1.14	ug/kg	0.343	1.14	
179601-23-1	m,p-Xylenes	U	2.29	ug/kg	0.343	2.29	
95-47-6	o-Xylene	U	1.14	ug/kg	0.343	1.14	
100-42-5	Styrene	U	1.14	ug/kg	0.343	1.14	
75-25-2	Bromoform	U	1.14	ug/kg	0.343	1.14	
79-34-5	1,1,2,2-Tetrachloroethane	U	1.14	ug/kg	0.343	1.14	
96-18-4	1,2,3-Trichloropropane	U	1.14	ug/kg	0.343	1.14	
108-86-1	Bromobenzene	U	1.14	ug/kg	0.343	1.14	
103-65-1	n-Propylbenzene	U	1.14	ug/kg	0.343	1.14	
95-49-8	2-Chlorotoluene	U	1.14	ug/kg	0.343	1.14	
98-82-8	Isopropylbenzene	U	1.14	ug/kg	0.343	1.14	
108-67-8	1,3,5-Trimethylbenzene	U	1.14	ug/kg	0.343	1.14	
106-43-4	4-Chlorotoluene	U	1.14	ug/kg	0.343	1.14	
98-06-6	tert-Butylbenzene	U	1.14	ug/kg	0.343	1.14	
95-63-6	1,2,4-Trimethylbenzene	U	1.14	ug/kg	0.343	1.14	
135-98-8	sec-Butylbenzene	U	1.14	ug/kg	0.343	1.14	
99-87-6	4-Isopropyltoluene	U	1.14	ug/kg	0.343	1.14	
541-73-1	1,3-Dichlorobenzene	U	1.14	ug/kg	0.343	1.14	
106-46-7	1,4-Dichlorobenzene	U	1.14	ug/kg	0.343	1.14	
104-51-8	n-Butylbenzene	U	1.14	ug/kg	0.343	1.14	
96-12-8	1,2-Dibromo-3-chloropropane	U	1.14	ug/kg	0.343	1.14	UJ,V7c
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.72	ug/kg	1.83	5.72	
630-20-6	1,1,1,2-Tetrachloroethane	U	1.14	ug/kg	0.343	1.14	
95-50-1	1,2-Dichlorobenzene	U	1.14	ug/kg	0.343	1.14	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Flt	Qual
	Unknown Siloxane	18.06	14	ug/kg		J

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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1086	Date Collected:	12/22/2009 12:00	Matrix:	S
Lab Sample ID:	243552012	Date Received:	12/24/2009 09:30	%Moisture:	7
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-10-2736	Method:	SW846 8260B	SOP Ref:	GL-OA-E-038
Batch ID:	937990	Inst:	VOA1.1	Dilution:	1
Run Date:	12/31/2009 18:42	Analyst:	RXM4	Purge Vol:	5 mL
Prep Date:	12/31/2009 12:02	Aliquot:	5 g	Final Volume:	5 mL
Data File:	1t418.d	Column:	RTX-Volatiles	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
75-71-8	Dichlorodifluoromethane	U	1.08	ug/kg	0.366	1.08	
74-87-3	Chloromethane	U	1.08	ug/kg	0.323	1.08	
75-01-4	Vinyl chloride	U	1.08	ug/kg	0.323	1.08	
74-83-9	Bromomethane	U	1.08	ug/kg	0.323	1.08	
75-00-3	Chloroethane	U	1.08	ug/kg	0.323	1.08	
75-69-4	Trichlorofluoromethane	U	1.08	ug/kg	0.323	1.08	UJ,V7c
67-64-1	Acetone	U	5.38	ug/kg	1.79	5.38	
75-35-4	1,1-Dichloroethylene	U	1.08	ug/kg	0.323	1.08	
74-88-4	Iodomethane	U	5.38	ug/kg	1.72	5.38	
75-09-2	Methylene chloride	U	5.38	ug/kg	2.15	5.38	
75-15-0	Carbon disulfide	U	5.38	ug/kg	1.34	5.38	
156-60-5	trans-1,2-Dichloroethylene	U	1.08	ug/kg	0.323	1.08	
75-34-3	1,1-Dichloroethane	U	1.08	ug/kg	0.323	1.08	
78-93-3	2-Butanone	U	5.38	ug/kg	1.61	5.38	
156-59-2	cis-1,2-Dichloroethylene	U	1.08	ug/kg	0.323	1.08	
594-20-7	2,2-Dichloropropane	U	1.08	ug/kg	0.323	1.08	
67-66-3	Chloroform	U	1.08	ug/kg	0.323	1.08	
74-97-5	Bromochloromethane	U	1.08	ug/kg	0.355	1.08	
71-55-6	1,1,1-Trichloroethane	U	1.08	ug/kg	0.323	1.08	
563-58-6	1,1-Dichloropropene	U	1.08	ug/kg	0.323	1.08	
56-23-5	Carbon tetrachloride	U	1.08	ug/kg	0.323	1.08	
107-06-2	1,2-Dichloroethane	U	1.08	ug/kg	0.323	1.08	
71-43-2	Benzene	U	1.08	ug/kg	0.323	1.08	
79-01-6	Trichloroethylene	U	1.08	ug/kg	0.355	1.08	
78-87-5	1,2-Dichloropropane	U	1.08	ug/kg	0.323	1.08	
75-27-4	Bromodichloromethane	U	1.08	ug/kg	0.323	1.08	
74-95-3	Dibromomethane	U	1.08	ug/kg	0.323	1.08	
108-10-1	4-Methyl-2-pentanone	U	5.38	ug/kg	1.34	5.38	
10061-01-5	cis-1,3-Dichloropropylene	U	1.08	ug/kg	0.323	1.08	
108-88-3	Toluene	U	1.08	ug/kg	0.323	1.08	
10061-02-6	trans-1,3-Dichloropropylene	U	1.08	ug/kg	0.323	1.08	
79-00-5	1,1,2-Trichloroethane	U	1.08	ug/kg	0.323	1.08	
591-78-6	2-Hexanone	U	5.38	ug/kg	1.61	5.38	
142-28-9	1,3-Dichloropropane	U	1.08	ug/kg	0.323	1.08	
127-18-4	Tetrachloroethylene	U	1.08	ug/kg	0.323	1.08	
124-48-1	Dibromochloromethane	U	1.08	ug/kg	0.323	1.08	
106-93-4	1,2-Dibromoethane	U	1.08	ug/kg	0.323	1.08	
108-90-7	Chlorobenzene	U	1.08	ug/kg	0.323	1.08	

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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1086**	**Date Collected:**	**12/22/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243552012**	**Date Received:**	**12/24/2009 09:30**	**%Moisture:**	**7**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-10-2736**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937990**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**12/31/2009 18:42**	**Analyst:**	**RXM4**	**Purge Vol:**	**5 mL**
Prep Date:	**12/31/2009 12:02**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1t418.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
100-41-4	Ethylbenzene	U	1.08	ug/kg	0.323	1.08	
179601-23-1	m,p-Xylenes	U	2.15	ug/kg	0.323	2.15	
95-47-6	o-Xylene	U	1.08	ug/kg	0.323	1.08	
100-42-5	Styrene	U	1.08	ug/kg	0.323	1.08	
75-25-2	Bromoform	U	1.08	ug/kg	0.323	1.08	
79-34-5	1,1,2,2-Tetrachloroethane	U	1.08	ug/kg	0.323	1.08	
96-18-4	1,2,3-Trichloropropane	U	1.08	ug/kg	0.323	1.08	
108-86-1	Bromobenzene	U	1.08	ug/kg	0.323	1.08	
103-65-1	n-Propylbenzene	U	1.08	ug/kg	0.323	1.08	
95-49-8	2-Chlorotoluene	U	1.08	ug/kg	0.323	1.08	
98-82-8	Isopropylbenzene	U	1.08	ug/kg	0.323	1.08	
108-67-8	1,3,5-Trimethylbenzene	U	1.08	ug/kg	0.323	1.08	
106-43-4	4-Chlorotoluene	U	1.08	ug/kg	0.323	1.08	
98-06-6	tert-Butylbenzene	U	1.08	ug/kg	0.323	1.08	
95-63-6	1,2,4-Trimethylbenzene	U	1.08	ug/kg	0.323	1.08	
135-98-8	sec-Butylbenzene	U	1.08	ug/kg	0.323	1.08	
99-87-6	4-Isopropyltoluene	U	1.08	ug/kg	0.323	1.08	
541-73-1	1,3-Dichlorobenzene	U	1.08	ug/kg	0.323	1.08	
106-46-7	1,4-Dichlorobenzene	U	1.08	ug/kg	0.323	1.08	
104-51-8	n-Butylbenzene	U	1.08	ug/kg	0.323	1.08	
96-12-8	1,2-Dibromo-3-chloropropane	U	1.08	ug/kg	0.323	1.08	UJ,V7c
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.38	ug/kg	1.72	5.38	
630-20-6	1,1,1,2-Tetrachloroethane	U	1.08	ug/kg	0.323	1.08	
95-50-1	1,2-Dichlorobenzene	U	1.08	ug/kg	0.323	1.08	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Hydrocarbon	18.06	16.2	ug/kg		J

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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1086**	**Date Collected:**	**12/22/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243552011**	**Date Received:**	**12/24/2009 09:30**	**%Moisture:**	**10.1**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-10-2737**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937990**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**12/31/2009 18:11**	**Analyst:**	**RXM4**	**Purge Vol:**	**5 mL**
Prep Date:	**12/31/2009 12:01**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**lt417.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
75-71-8	Dichlorodifluoromethane	U	1.11	ug/kg	0.378	1.11	
74-87-3	Chloromethane	U	1.11	ug/kg	0.334	1.11	
75-01-4	Vinyl chloride	U	1.11	ug/kg	0.334	1.11	
74-83-9	Bromomethane	U	1.11	ug/kg	0.334	1.11	
75-00-3	Chloroethane	U	1.11	ug/kg	0.334	1.11	
75-69-4	Trichlorofluoromethane	U	1.11	ug/kg	0.334	1.11	UJ,V7c
67-64-1	Acetone	J	2.97	ug/kg	1.85	5.56	U,V4d
75-35-4	1,1-Dichloroethylene	U	1.11	ug/kg	0.334	1.11	
74-88-4	Iodomethane	U	5.56	ug/kg	1.78	5.56	
75-09-2	Methylene chloride	U	5.56	ug/kg	2.23	5.56	
75-15-0	Carbon disulfide	U	5.56	ug/kg	1.39	5.56	
156-60-5	trans-1,2-Dichloroethylene	U	1.11	ug/kg	0.334	1.11	
75-34-3	1,1-Dichloroethane	U	1.11	ug/kg	0.334	1.11	
78-93-3	2-Butanone	U	5.56	ug/kg	1.67	5.56	
156-59-2	cis-1,2-Dichloroethylene	U	1.11	ug/kg	0.334	1.11	
594-20-7	2,2-Dichloropropane	U	1.11	ug/kg	0.334	1.11	
67-66-3	Chloroform	U	1.11	ug/kg	0.334	1.11	
74-97-5	Bromochloromethane	U	1.11	ug/kg	0.367	1.11	
71-55-6	1,1,1-Trichloroethane	U	1.11	ug/kg	0.334	1.11	
563-58-6	1,1-Dichloropropene	U	1.11	ug/kg	0.334	1.11	
56-23-5	Carbon tetrachloride	U	1.11	ug/kg	0.334	1.11	
107-06-2	1,2-Dichloroethane	U	1.11	ug/kg	0.334	1.11	
71-43-2	Benzene	U	1.11	ug/kg	0.334	1.11	
79-01-6	Trichloroethylene	U	1.11	ug/kg	0.367	1.11	
78-87-5	1,2-Dichloropropane	U	1.11	ug/kg	0.334	1.11	
75-27-4	Bromodichloromethane	U	1.11	ug/kg	0.334	1.11	
74-95-3	Dibromomethane	U	1.11	ug/kg	0.334	1.11	
108-10-1	4-Methyl-2-pentanone	U	5.56	ug/kg	1.39	5.56	
10061-01-5	cis-1,3-Dichloropropylene	U	1.11	ug/kg	0.334	1.11	
108-88-3	Toluene	U	1.11	ug/kg	0.334	1.11	
10061-02-6	trans-1,3-Dichloropropylene	U	1.11	ug/kg	0.334	1.11	
79-00-5	1,1,2-Trichloroethane	U	1.11	ug/kg	0.334	1.11	
591-78-6	2-Hexanone	U	5.56	ug/kg	1.67	5.56	
142-28-9	1,3-Dichloropropane	U	1.11	ug/kg	0.334	1.11	
127-18-4	Tetrachloroethylene	U	1.11	ug/kg	0.334	1.11	
124-48-1	Dibromochloromethane	U	1.11	ug/kg	0.334	1.11	
106-93-4	1,2-Dibromoethane	U	1.11	ug/kg	0.334	1.11	
108-90-7	Chlorobenzene	U	1.11	ug/kg	0.334	1.11	

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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1086	Date Collected:	12/22/2009 12:00	Matrix:	S
Lab Sample ID:	243552011	Date Received:	12/24/2009 09:30	%Moisture:	10.1
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-10-2737	Method:	SW846 8260B	SOP Ref:	GL-OA-E-038
Batch ID:	937990	Inst:	VOA1.I	Dilution:	1
Run Date:	12/31/2009 18:11	Analyst:	RXM4	Purge Vol:	5 mL
Prep Date:	12/31/2009 12:01	Aliquot:	5 g	Final Volume:	5 mL
Data File:	1t417.d	Column:	RTX-Volatiles	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
100-41-4	Ethylbenzene	U	1.11	ug/kg	0.334	1.11	
179601-23-1	m,p-Xylenes	U	2.23	ug/kg	0.334	2.23	
95-47-6	o-Xylene	U	1.11	ug/kg	0.334	1.11	
100-42-5	Styrene	U	1.11	ug/kg	0.334	1.11	
75-25-2	Bromoform	U	1.11	ug/kg	0.334	1.11	
79-34-5	1,1,2,2-Tetrachloroethane	U	1.11	ug/kg	0.334	1.11	
96-18-4	1,2,3-Trichloropropane	U	1.11	ug/kg	0.334	1.11	
108-86-1	Bromobenzene	U	1.11	ug/kg	0.334	1.11	
103-65-1	n-Propylbenzene	U	1.11	ug/kg	0.334	1.11	
95-49-8	2-Chlorotoluene	U	1.11	ug/kg	0.334	1.11	
98-82-8	Isopropylbenzene	U	1.11	ug/kg	0.334	1.11	
108-67-8	1,3,5-Trimethylbenzene	U	1.11	ug/kg	0.334	1.11	
106-43-4	4-Chlorotoluene	U	1.11	ug/kg	0.334	1.11	
98-06-6	tert-Butylbenzene	U	1.11	ug/kg	0.334	1.11	
95-63-6	1,2,4-Trimethylbenzene	U	1.11	ug/kg	0.334	1.11	
135-98-8	sec-Butylbenzene	U	1.11	ug/kg	0.334	1.11	
99-87-6	4-Isopropyltoluene	U	1.11	ug/kg	0.334	1.11	
541-73-1	1,3-Dichlorobenzene	U	1.11	ug/kg	0.334	1.11	
106-46-7	1,4-Dichlorobenzene	U	1.11	ug/kg	0.334	1.11	
104-51-8	n-Butylbenzene	U	1.11	ug/kg	0.334	1.11	
96-12-8	1,2-Dibromo-3-chloropropane	U	1.11	ug/kg	0.334	1.11	UJ,V7c
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.56	ug/kg	1.78	5.56	
630-20-6	1,1,1,2-Tetrachloroethane	U	1.11	ug/kg	0.334	1.11	
95-50-1	1,2-Dichlorobenzene	U	1.11	ug/kg	0.334	1.11	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Hydrocarbon	14.46	11.8	ug/kg		J
66-25-1	Hexanal	16.39	136	ug/kg	90	NJ
	Unknown Hydrocarbon	18.06	12.2	ug/kg		J
124-13-0	Octanal	19.29	6.41	ug/kg	91	NJ

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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1086**	**Date Collected:**	**12/22/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243552016**	**Date Received:**	**12/24/2009 09:30**	**%Moisture:**	**11.9**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-10-9872**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937990**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**12/31/2009 20:44**	**Analyst:**	**RXM4**	**Purge Vol:**	**5 mL**
Prep Date:	**12/31/2009 12:06**	**Allquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1t422.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
75-71-8	Dichlorodifluoromethane	U	1.13	ug/kg	0.386	1.13	
74-87-3	Chloromethane	U	1.13	ug/kg	0.340	1.13	
75-01-4	Vinyl chloride	U	1.13	ug/kg	0.340	1.13	
74-83-9	Bromomethane	U	1.13	ug/kg	0.340	1.13	
75-00-3	Chloroethane	U	1.13	ug/kg	0.340	1.13	
75-69-4	Trichlorofluoromethane	U	1.13	ug/kg	0.340	1.13	UJ,V7c
67-64-1	Acetone	U	5.67	ug/kg	1.88	5.67	
75-35-4	1,1-Dichloroethylene	U	1.13	ug/kg	0.340	1.13	
74-88-4	Iodomethane	U	5.67	ug/kg	1.82	5.67	
75-09-2	Methylene chloride	U	5.67	ug/kg	2.27	5.67	
75-15-0	Carbon disulfide	U	5.67	ug/kg	1.42	5.67	
156-60-5	trans-1,2-Dichloroethylene	U	1.13	ug/kg	0.340	1.13	
75-34-3	1,1-Dichloroethane	U	1.13	ug/kg	0.340	1.13	
78-93-3	2-Butanone	U	5.67	ug/kg	1.70	5.67	
156-59-2	cis-1,2-Dichloroethylene	U	1.13	ug/kg	0.340	1.13	
594-20-7	2,2-Dichloropropane	U	1.13	ug/kg	0.340	1.13	
67-66-3	Chloroform	U	1.13	ug/kg	0.340	1.13	
74-97-5	Bromochloromethane	U	1.13	ug/kg	0.374	1.13	
71-55-6	1,1,1-Trichloroethane	U	1.13	ug/kg	0.340	1.13	
563-58-6	1,1-Dichloropropene	U	1.13	ug/kg	0.340	1.13	
56-23-5	Carbon tetrachloride	U	1.13	ug/kg	0.340	1.13	
107-06-2	1,2-Dichloroethane	U	1.13	ug/kg	0.340	1.13	
71-43-2	Benzene	U	1.13	ug/kg	0.340	1.13	
79-01-6	Trichloroethylene	U	1.13	ug/kg	0.374	1.13	
78-87-5	1,2-Dichloropropane	U	1.13	ug/kg	0.340	1.13	
75-27-4	Bromodichloromethane	U	1.13	ug/kg	0.340	1.13	
74-95-3	Dibromomethane	U	1.13	ug/kg	0.340	1.13	
108-10-1	4-Methyl-2-pentanone	U	5.67	ug/kg	1.42	5.67	
10061-01-5	cis-1,3-Dichloropropylene	U	1.13	ug/kg	0.340	1.13	
108-88-3	Toluene	U	1.13	ug/kg	0.340	1.13	
10061-02-6	trans-1,3-Dichloropropylene	U	1.13	ug/kg	0.340	1.13	
79-00-5	1,1,2-Trichloroethane	U	1.13	ug/kg	0.340	1.13	
591-78-6	2-Hexanone	U	5.67	ug/kg	1.70	5.67	
142-28-9	1,3-Dichloropropane	U	1.13	ug/kg	0.340	1.13	
127-18-4	Tetrachloroethylene	U	1.13	ug/kg	0.340	1.13	
124-48-1	Dibromochloromethane	U	1.13	ug/kg	0.340	1.13	
106-93-4	1,2-Dibromoethane	U	1.13	ug/kg	0.340	1.13	
108-90-7	Chlorobenzene	U	1.13	ug/kg	0.340	1.13	

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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1086**	**Date Collected:**	**12/22/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243552016**	**Date Received:**	**12/24/2009 09:30**	**%Moisture:**	**11.9**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-10-9872**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937990**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**12/31/2009 20:44**	**Analyst:**	**RXM4**	**Purge Vol:**	**5 mL**
Prep Date:	**12/31/2009 12:06**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1t422.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
100-41-4	Ethylbenzene	U	1.13	ug/kg	0.340	1.13	
179601-23-1	m,p-Xylenes	U	2.27	ug/kg	0.340	2.27	
95-47-6	o-Xylene	U	1.13	ug/kg	0.340	1.13	
100-42-5	Styrene	U	1.13	ug/kg	0.340	1.13	
75-25-2	Bromoform	U	1.13	ug/kg	0.340	1.13	
79-34-5	1,1,2,2-Tetrachloroethane	U	1.13	ug/kg	0.340	1.13	
96-18-4	1,2,3-Trichloropropane	U	1.13	ug/kg	0.340	1.13	
108-86-1	Bromobenzene	U	1.13	ug/kg	0.340	1.13	
103-65-1	n-Propylbenzene	U	1.13	ug/kg	0.340	1.13	
95-49-8	2-Chlorotoluene	U	1.13	ug/kg	0.340	1.13	
98-82-8	Isopropylbenzene	U	1.13	ug/kg	0.340	1.13	
108-67-8	1,3,5-Trimethylbenzene	U	1.13	ug/kg	0.340	1.13	
106-43-4	4-Chlorotoluene	U	1.13	ug/kg	0.340	1.13	
98-06-6	tert-Butylbenzene	U	1.13	ug/kg	0.340	1.13	
95-63-6	1,2,4-Trimethylbenzene	U	1.13	ug/kg	0.340	1.13	
135-98-8	sec-Butylbenzene	U	1.13	ug/kg	0.340	1.13	
99-87-6	4-Isopropyltoluene	U	1.13	ug/kg	0.340	1.13	
541-73-1	1,3-Dichlorobenzene	U	1.13	ug/kg	0.340	1.13	
106-46-7	1,4-Dichlorobenzene	U	1.13	ug/kg	0.340	1.13	
104-51-8	n-Butylbenzene	U	1.13	ug/kg	0.340	1.13	
96-12-8	1,2-Dibromo-3-chloropropane	U	1.13	ug/kg	0.340	1.13	UJ,V7c
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.67	ug/kg	1.82	5.67	
630-20-6	1,1,1,2-Tetrachloroethane	U	1.13	ug/kg	0.340	1.13	
95-50-1	1,2-Dichlorobenzene	U	1.13	ug/kg	0.340	1.13	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Siloxane	18.06	34.3	ug/kg		J

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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1086**	**Date Collected:**	**12/22/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243552014**	**Date Received:**	**12/24/2009 09:30**	**%Moisture:**	**5.3**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-10-9873**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937990**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**12/31/2009 19:43**	**Analyst:**	**RXM4**	**Purge Vol:**	**5 mL**
Prep Date:	**12/31/2009 12:04**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**lt420.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
75-71-8	Dichlorodifluoromethane	U	1.06	ug/kg	0.359	1.06	
74-87-3	Chloromethane	U	1.06	ug/kg	0.317	1.06	
75-01-4	Vinyl chloride	U	1.06	ug/kg	0.317	1.06	
74-83-9	Bromomethane	U	1.06	ug/kg	0.317	1.06	
75-00-3	Chloroethane	U	1.06	ug/kg	0.317	1.06	
75-69-4	Trichlorofluoromethane	U	1.06	ug/kg	0.317	1.06	UJ,V7c
67-64-1	Acetone	U	5.28	ug/kg	1.75	5.28	
75-35-4	1,1-Dichloroethylene	U	1.06	ug/kg	0.317	1.06	
74-88-4	Iodomethane	U	5.28	ug/kg	1.69	5.28	
75-09-2	Methylene chloride	U	5.28	ug/kg	2.11	5.28	
75-15-0	Carbon disulfide	U	5.28	ug/kg	1.32	5.28	
156-60-5	trans-1,2-Dichloroethylene	U	1.06	ug/kg	0.317	1.06	
75-34-3	1,1-Dichloroethane	U	1.06	ug/kg	0.317	1.06	
78-93-3	2-Butanone	U	5.28	ug/kg	1.58	5.28	
156-59-2	cis-1,2-Dichloroethylene	U	1.06	ug/kg	0.317	1.06	
594-20-7	2,2-Dichloropropane	U	1.06	ug/kg	0.317	1.06	
67-66-3	Chloroform	U	1.06	ug/kg	0.317	1.06	
74-97-5	Bromochloromethane	U	1.06	ug/kg	0.348	1.06	
71-55-6	1,1,1-Trichloroethane	U	1.06	ug/kg	0.317	1.06	
563-58-6	1,1-Dichloropropene	U	1.06	ug/kg	0.317	1.06	
56-23-5	Carbon tetrachloride	U	1.06	ug/kg	0.317	1.06	
107-06-2	1,2-Dichloroethane	U	1.06	ug/kg	0.317	1.06	
71-43-2	Benzene	U	1.06	ug/kg	0.317	1.06	
79-01-6	Trichloroethylene	U	1.06	ug/kg	0.348	1.06	
78-87-5	1,2-Dichloropropane	U	1.06	ug/kg	0.317	1.06	
75-27-4	Bromodichloromethane	U	1.06	ug/kg	0.317	1.06	
74-95-3	Dibromomethane	U	1.06	ug/kg	0.317	1.06	
108-10-1	4-Methyl-2-pentanone	U	5.28	ug/kg	1.32	5.28	
10061-01-5	cis-1,3-Dichloropropylene	U	1.06	ug/kg	0.317	1.06	
108-88-3	Toluene	U	1.06	ug/kg	0.317	1.06	
10061-02-6	trans-1,3-Dichloropropylene	U	1.06	ug/kg	0.317	1.06	
79-00-5	1,1,2-Trichloroethane	U	1.06	ug/kg	0.317	1.06	
591-78-6	2-Hexanone	U	5.28	ug/kg	1.58	5.28	
142-28-9	1,3-Dichloropropane	U	1.06	ug/kg	0.317	1.06	
127-18-4	Tetrachloroethylene	U	1.06	ug/kg	0.317	1.06	
124-48-1	Dibromochloromethane	U	1.06	ug/kg	0.317	1.06	
106-93-4	1,2-Dibromoethane	U	1.06	ug/kg	0.317	1.06	
108-90-7	Chlorobenzene	U	1.06	ug/kg	0.317	1.06	

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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1086**	**Date Collected:**	**12/22/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243552014**	**Date Received:**	**12/24/2009 09:30**	**%Moisture:**	**5.3**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-10-9873**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937990**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**12/31/2009 19:43**	**Analyst:**	**RXM4**	**Purge Vol:**	**5 mL**
Prep Date:	**12/31/2009 12:04**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1t420.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
100-41-4	Ethylbenzene	U	1.06	ug/kg	0.317	1.06	
179601-23-1	m,p-Xylenes	U	2.11	ug/kg	0.317	2.11	
95-47-6	o-Xylene	U	1.06	ug/kg	0.317	1.06	
100-42-5	Styrene	U	1.06	ug/kg	0.317	1.06	
75-25-2	Bromoform	U	1.06	ug/kg	0.317	1.06	
79-34-5	1,1,2,2-Tetrachloroethane	U	1.06	ug/kg	0.317	1.06	
96-18-4	1,2,3-Trichloropropane	U	1.06	ug/kg	0.317	1.06	
108-86-1	Bromobenzene	U	1.06	ug/kg	0.317	1.06	
103-65-1	n-Propylbenzene	U	1.06	ug/kg	0.317	1.06	
95-49-8	2-Chlorotoluene	U	1.06	ug/kg	0.317	1.06	
98-82-8	Isopropylbenzene	U	1.06	ug/kg	0.317	1.06	
108-67-8	1,3,5-Trimethylbenzene	U	1.06	ug/kg	0.317	1.06	
106-43-4	4-Chlorotoluene	U	1.06	ug/kg	0.317	1.06	
98-06-6	tert-Butylbenzene	U	1.06	ug/kg	0.317	1.06	
95-63-6	1,2,4-Trimethylbenzene	U	1.06	ug/kg	0.317	1.06	
135-98-8	sec-Butylbenzene	U	1.06	ug/kg	0.317	1.06	
99-87-6	4-Isopropyltoluene	U	1.06	ug/kg	0.317	1.06	
541-73-1	1,3-Dichlorobenzene	U	1.06	ug/kg	0.317	1.06	
106-46-7	1,4-Dichlorobenzene	U	1.06	ug/kg	0.317	1.06	
104-51-8	n-Butylbenzene	U	1.06	ug/kg	0.317	1.06	
96-12-8	1,2-Dibromo-3-chloropropane	U	1.06	ug/kg	0.317	1.06	UJ,V7c
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.28	ug/kg	1.69	5.28	
630-20-6	1,1,1,2-Tetrachloroethane	U	1.06	ug/kg	0.317	1.06	
95-50-1	1,2-Dichlorobenzene	U	1.06	ug/kg	0.317	1.06	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated Units	Flt	Qual
	No Tentatively Identified Compounds Found		ug/kg		

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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1086	Date Collected:	12/22/2009 12:00	Matrix:	S
Lab Sample ID:	243552017	Date Received:	12/24/2009 09:30	%Moisture:	6.9
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-10-9874	Method:	SW846 8260B	SOP Ref:	GL-OA-E-038
Batch ID:	937990	Inst:	VOA1.I	Dilution:	1
Run Date:	12/31/2009 21:14	Analyst:	RXM4	Purge Vol:	5 mL
Prep Date:	12/31/2009 12:07	Aliquot:	5 g	Final Volume:	5 mL
Data File:	1t423.d	Column:	RTX-Volatiles	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
75-71-8	Dichlorodifluoromethane	U	1.07	ug/kg	0.365	1.07	
74-87-3	Chloromethane	U	1.07	ug/kg	0.322	1.07	
75-01-4	Vinyl chloride	U	1.07	ug/kg	0.322	1.07	
74-83-9	Bromomethane	U	1.07	ug/kg	0.322	1.07	
75-00-3	Chloroethane	U	1.07	ug/kg	0.322	1.07	
75-69-4	Trichlorofluoromethane	U	1.07	ug/kg	0.322	1.07	UJ,V7c
67-64-1	Acetone	J	3.12	ug/kg	1.78	5.37	U,V4d
75-35-4	1,1-Dichloroethylene	U	1.07	ug/kg	0.322	1.07	
74-88-4	Iodomethane	U	5.37	ug/kg	1.72	5.37	
75-09-2	Methylene chloride	U	5.37	ug/kg	2.15	5.37	
75-15-0	Carbon disulfide	U	5.37	ug/kg	1.34	5.37	
156-60-5	trans-1,2-Dichloroethylene	U	1.07	ug/kg	0.322	1.07	
75-34-3	1,1-Dichloroethane	U	1.07	ug/kg	0.322	1.07	
78-93-3	2-Butanone	U	5.37	ug/kg	1.61	5.37	
156-59-2	cis-1,2-Dichloroethylene	U	1.07	ug/kg	0.322	1.07	
594-20-7	2,2-Dichloropropane	U	1.07	ug/kg	0.322	1.07	
67-66-3	Chloroform	U	1.07	ug/kg	0.322	1.07	
74-97-5	Bromochloromethane	U	1.07	ug/kg	0.354	1.07	
71-55-6	1,1,1-Trichloroethane	U	1.07	ug/kg	0.322	1.07	
563-58-6	1,1-Dichloropropene	U	1.07	ug/kg	0.322	1.07	
56-23-5	Carbon tetrachloride	U	1.07	ug/kg	0.322	1.07	
107-06-2	1,2-Dichlorocthane	U	1.07	ug/kg	0.322	1.07	
71-43-2	Benzene	U	1.07	ug/kg	0.322	1.07	
79-01-6	Trichloroethylene	U	1.07	ug/kg	0.354	1.07	
78-87-5	1,2-Dichloropropane	U	1.07	ug/kg	0.322	1.07	
75-27-4	Bromodichloromethane	U	1.07	ug/kg	0.322	1.07	
74-95-3	Dibromomethane	U	1.07	ug/kg	0.322	1.07	
108-10-1	4-Methyl-2-pentanone	U	5.37	ug/kg	1.34	5.37	
10061-01-5	cis-1,3-Dichloropropylene	U	1.07	ug/kg	0.322	1.07	
108-88-3	Toluene	U	1.07	ug/kg	0.322	1.07	
10061-02-6	trans-1,3-Dichloropropylene	U	1.07	ug/kg	0.322	1.07	
79-00-5	1,1,2-Trichloroethane	U	1.07	ug/kg	0.322	1.07	
591-78-6	2-Hexanone	U	5.37	ug/kg	1.61	5.37	
142-28-9	1,3-Dichloropropane	U	1.07	ug/kg	0.322	1.07	
127-18-4	Tetrachloroethylene	U	1.07	ug/kg	0.322	1.07	
124-48-1	Dibromochloromethane	U	1.07	ug/kg	0.322	1.07	
106-93-4	1,2-Dibromoethane	U	1.07	ug/kg	0.322	1.07	
108-90-7	Chlorobenzene	U	1.07	ug/kg	0.322	1.07	

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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1086	**Date Collected:**	12/22/2009 12:00	**Matrix:**	S
Lab Sample ID:	243552017	**Date Received:**	12/24/2009 09:30	**%Moisture:**	6.9
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-10-9874	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	937990	**Inst:**	VOA1.I	**Dilution:**	1
Run Date:	12/31/2009 21:14	**Analyst:**	RXM4	**Purge Vol:**	5 mL
Prep Date:	12/31/2009 12:07	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	1t423.d	**Column:**	RTX-Volatiles	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
100-41-4	Ethylbenzene	U	1.07	ug/kg	0.322	1.07	
179601-23-1	m,p-Xylenes	U	2.15	ug/kg	0.322	2.15	
95-47-6	o-Xylene	U	1.07	ug/kg	0.322	1.07	
100-42-5	Styrene	U	1.07	ug/kg	0.322	1.07	
75-25-2	Bromoform	U	1.07	ug/kg	0.322	1.07	
79-34-5	1,1,2,2-Tetrachloroethane	U	1.07	ug/kg	0.322	1.07	
96-18-4	1,2,3-Trichloropropane	U	1.07	ug/kg	0.322	1.07	
108-86-1	Bromobenzene	U	1.07	ug/kg	0.322	1.07	
103-65-1	n-Propylbenzene	U	1.07	ug/kg	0.322	1.07	
95-49-8	2-Chlorotoluene	U	1.07	ug/kg	0.322	1.07	
98-82-8	Isopropylbenzene	U	1.07	ug/kg	0.322	1.07	
108-67-8	1,3,5-Trimethylbenzene	U	1.07	ug/kg	0.322	1.07	
106-43-4	4-Chlorotoluene	U	1.07	ug/kg	0.322	1.07	
98-06-6	tert-Butylbenzene	U	1.07	ug/kg	0.322	1.07	
95-63-6	1,2,4-Trimethylbenzene	U	1.07	ug/kg	0.322	1.07	
135-98-8	sec-Butylbenzene	U	1.07	ug/kg	0.322	1.07	
99-87-6	4-Isopropyltoluene	U	1.07	ug/kg	0.322	1.07	
541-73-1	1,3-Dichlorobenzene	U	1.07	ug/kg	0.322	1.07	
106-46-7	1,4-Dichlorobenzene	U	1.07	ug/kg	0.322	1.07	
104-51-8	n-Butylbenzene	U	1.07	ug/kg	0.322	1.07	
96-12-8	1,2-Dibromo-3-chloropropane	U	1.07	ug/kg	0.322	1.07	UJ,V7c
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.37	ug/kg	1.72	5.37	
630-20-6	1,1,1,2-Tetrachloroethane	U	1.07	ug/kg	0.322	1.07	
95-50-1	1,2-Dichlorobenzene	U	1.07	ug/kg	0.322	1.07	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Hydrocarbon	14.46	9.43	ug/kg		J
66-25-1	Hexanal	16.39	96.4	ug/kg	90	NJ
	Unknown Hydrocarbon	18.06	13.8	ug/kg		J

EJM
03/25/10

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1086**	**Date Collected:**	**12/22/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243552013**	**Date Received:**	**12/24/2009 09:30**		
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-10-9878**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937990**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**12/31/2009 19:13**	**Analyst:**	**RXM4**	**Purge Vol:**	**5 mL**
Prep Date:	**12/31/2009 12:03**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1t419.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
75-71-8	Dichlorodifluoromethane	U	1.00	ug/kg	0.340	1.00	
74-87-3	Chloromethane	U	1.00	ug/kg	0.300	1.00	
75-01-4	Vinyl chloride	U	1.00	ug/kg	0.300	1.00	
74-83-9	Bromomethane	U	1.00	ug/kg	0.300	1.00	
75-00-3	Chloroethane	U	1.00	ug/kg	0.300	1.00	
75-69-4	Trichlorofluoromethane	U	1.00	ug/kg	0.300	1.00	UJ,V7c
67-64-1	Acetone	U	5.00	ug/kg	1.66	5.00	
75-35-4	1,1-Dichloroethylene	U	1.00	ug/kg	0.300	1.00	
74-88-4	Iodomethane	U	5.00	ug/kg	1.60	5.00	
75-09-2	Methylene chloride	U	5.00	ug/kg	2.00	5.00	
75-15-0	Carbon disulfide	U	5.00	ug/kg	1.25	5.00	
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00	
75-34-3	1,1-Dichloroethane	U	1.00	ug/kg	0.300	1.00	
78-93-3	2-Butanone	U	5.00	ug/kg	1.50	5.00	
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00	
594-20-7	2,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00	
67-66-3	Chloroform	U	1.00	ug/kg	0.300	1.00	
74-97-5	Bromochloromethane	U	1.00	ug/kg	0.330	1.00	
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/kg	0.300	1.00	
563-58-6	1,1-Dichloropropene	U	1.00	ug/kg	0.300	1.00	
56-23-5	Carbon tetrachloride	U	1.00	ug/kg	0.300	1.00	
107-06-2	1,2-Dichloroethane	U	1.00	ug/kg	0.300	1.00	
71-43-2	Benzene	U	1.00	ug/kg	0.300	1.00	
79-01-6	Trichloroethylene	U	1.00	ug/kg	0.330	1.00	
78-87-5	1,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00	
75-27-4	Bromodichloromethane	U	1.00	ug/kg	0.300	1.00	
74-95-3	Dibromomethane	U	1.00	ug/kg	0.300	1.00	
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/kg	1.25	5.00	
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00	
108-88-3	Toluene	U	1.00	ug/kg	0.300	1.00	
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00	
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/kg	0.300	1.00	
591-78-6	2-Hexanone	U	5.00	ug/kg	1.50	5.00	
142-28-9	1,3-Dichloropropane	U	1.00	ug/kg	0.300	1.00	
127-18-4	Tetrachloroethylene	U	1.00	ug/kg	0.300	1.00	
124-48-1	Dibromochloromethane	U	1.00	ug/kg	0.300	1.00	
106-93-4	1,2-Dibromoethane	U	1.00	ug/kg	0.300	1.00	
108-90-7	Chlorobenzene	U	1.00	ug/kg	0.300	1.00	

EJM
03/25/10

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1086**	**Date Collected:**	**12/22/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243552013**	**Date Received:**	**12/24/2009 09:30**		
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-10-9878**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937990**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**12/31/2009 19:13**	**Analyst:**	**RXM4**	**Purge Vol:**	**5 mL**
Prep Date:	**12/31/2009 12:03**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1t419.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
100-41-4	Ethylbenzene	U	1.00	ug/kg	0.300	1.00	
179601-23-1	m,p-Xylenes	U	2.00	ug/kg	0.300	2.00	
95-47-6	o-Xylene	U	1.00	ug/kg	0.300	1.00	
100-42-5	Styrene	U	1.00	ug/kg	0.300	1.00	
75-25-2	Bromoform	U	1.00	ug/kg	0.300	1.00	
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00	
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/kg	0.300	1.00	
108-86-1	Bromobenzene	U	1.00	ug/kg	0.300	1.00	
103-65-1	n-Propylbenzene	U	1.00	ug/kg	0.300	1.00	
95-49-8	2-Chlorotoluene	U	1.00	ug/kg	0.300	1.00	
98-82-8	Isopropylbenzene	U	1.00	ug/kg	0.300	1.00	
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00	
106-43-4	4-Chlorotoluene	U	1.00	ug/kg	0.300	1.00	
98-06-6	tert-Butylbenzene	U	1.00	ug/kg	0.300	1.00	
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00	
135-98-8	sec-Butylbenzene	U	1.00	ug/kg	0.300	1.00	
99-87-6	4-Isopropyltoluene	U	1.00	ug/kg	0.300	1.00	
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00	
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00	
104-51-8	n-Butylbenzene	U	1.00	ug/kg	0.300	1.00	
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/kg	0.300	1.00	UJ,V7c
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.00	ug/kg	1.60	5.00	
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00	
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	No Tentatively Identified Compounds Found			ug/kg		

EJM
03/25/10

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1086	**Date Collected:**	12/22/2009 12:00	**Matrix:**	S
Lab Sample ID:	243552015	**Date Received:**	12/24/2009 09:30		
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-10-9886	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	937990	**Inst:**	VOA1.I	**Dilution:**	1
Run Date:	12/31/2009 20:14	**Analyst:**	RXM4	**Purge Vol:**	5 mL
Prep Date:	12/31/2009 12:05	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	1t421.d	**Column:**	RTX-Volatiles	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
75-71-8	Dichlorodifluoromethane	U	1.00	ug/kg	0.340	1.00	
74-87-3	Chloromethane	U	1.00	ug/kg	0.300	1.00	
75-01-4	Vinyl chloride	U	1.00	ug/kg	0.300	1.00	
74-83-9	Bromomethane	U	1.00	ug/kg	0.300	1.00	
75-00-3	Chloroethane	U	1.00	ug/kg	0.300	1.00	
75-69-4	Trichlorofluoromethane	U	1.00	ug/kg	0.300	1.00	UJ,V7c
67-64-1	Acetone	J	1.83	ug/kg	1.66	5.00	
75-35-4	1,1-Dichloroethylene	U	1.00	ug/kg	0.300	1.00	
74-88-4	Iodomethane	U	5.00	ug/kg	1.60	5.00	
75-09-2	Methylene chloride	U	5.00	ug/kg	2.00	5.00	
75-15-0	Carbon disulfide	U	5.00	ug/kg	1.25	5.00	
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00	
75-34-3	1,1-Dichloroethane	U	1.00	ug/kg	0.300	1.00	
78-93-3	2-Butanone	U	5.00	ug/kg	1.50	5.00	
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00	
594-20-7	2,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00	
67-66-3	Chloroform	U	1.00	ug/kg	0.300	1.00	
74-97-5	Bromochloromethane	U	1.00	ug/kg	0.330	1.00	
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/kg	0.300	1.00	
563-58-6	1,1-Dichloropropene	U	1.00	ug/kg	0.300	1.00	
56-23-5	Carbon tetrachloride	U	1.00	ug/kg	0.300	1.00	
107-06-2	1,2-Dichloroethane	U	1.00	ug/kg	0.300	1.00	
71-43-2	Benzene	U	1.00	ug/kg	0.300	1.00	
79-01-6	Trichloroethylene	U	1.00	ug/kg	0.330	1.00	
78-87-5	1,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00	
75-27-4	Bromodichloromethane	U	1.00	ug/kg	0.300	1.00	
74-95-3	Dibromomethane	U	1.00	ug/kg	0.300	1.00	
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/kg	1.25	5.00	
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00	
108-88-3	Toluene	U	1.00	ug/kg	0.300	1.00	
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00	
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/kg	0.300	1.00	
591-78-6	2-Hexanone	U	5.00	ug/kg	1.50	5.00	
142-28-9	1,3-Dichloropropane	U	1.00	ug/kg	0.300	1.00	
127-18-4	Tetrachloroethylene	U	1.00	ug/kg	0.300	1.00	
124-48-1	Dibromochloromethane	U	1.00	ug/kg	0.300	1.00	
106-93-4	1,2-Dibromoethane	U	1.00	ug/kg	0.300	1.00	
108-90-7	Chlorobenzene	U	1.00	ug/kg	0.300	1.00	

EJM
03/25/10

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1086**	**Date Collected:**	**12/22/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243552015**	**Date Received:**	**12/24/2009 09:30**		
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-10-9886**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937990**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**12/31/2009 20:14**	**Analyst:**	**RXM4**	**Purge Vol:**	**5 mL**
Prep Date:	**12/31/2009 12:05**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**lt421.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
100-41-4	Ethylbenzene	U	1.00	ug/kg	0.300	1.00	
179601-23-1	m,p-Xylenes	U	2.00	ug/kg	0.300	2.00	
95-47-6	o-Xylene	U	1.00	ug/kg	0.300	1.00	
100-42-5	Styrene	U	1.00	ug/kg	0.300	1.00	
75-25-2	Bromoform	U	1.00	ug/kg	0.300	1.00	
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00	
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/kg	0.300	1.00	
108-86-1	Bromobenzene	U	1.00	ug/kg	0.300	1.00	
103-65-1	n-Propylbenzene	U	1.00	ug/kg	0.300	1.00	
95-49-8	2-Chlorotoluene	U	1.00	ug/kg	0.300	1.00	
98-82-8	Isopropylbenzene	U	1.00	ug/kg	0.300	1.00	
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00	
106-43-4	4-Chlorotoluene	U	1.00	ug/kg	0.300	1.00	
98-06-6	tert-Butylbenzene	U	1.00	ug/kg	0.300	1.00	
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00	
135-98-8	sec-Butylbenzene	U	1.00	ug/kg	0.300	1.00	
99-87-6	4-Isopropyltoluene	U	1.00	ug/kg	0.300	1.00	
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00	
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00	
104-51-8	n-Butylbenzene	U	1.00	ug/kg	0.300	1.00	
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/kg	0.300	1.00	UJ,V7c
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.00	ug/kg	1.60	5.00	
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00	
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	No Tentatively Identified Compounds Found			ug/kg		

EJM
03/25/10

DATA VALIDATION COVER SHEET

5115-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY

Section I.

REQUEST NUMBER: 10-1086 VALIDATION DATE: 03/25/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Ellen McEntee ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☒ OTHER (DESCRIBE): SVOCs

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☒	☐	☐	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☒	☐	☐	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. The ICV/CCV %Ds associated with samples RE03-10-9872 and -10-9874 were >20% for pyridine, 3-nitroaniline, 2,4-dinitrophenol, and 4-nitroaniline. The ICV/CCV %Ds associated with all samples except -10-9872 and -10-9874 were >20% for hexachlorocyclopentadiene; 4-bromophenylphenylether, indeno(1,2,3-cd)pyrene, pyridine, 4-chloroaniline, 3-nitroaniline, 4-nitroaniline, bis(2-ethylhexyl)phthalate, benzo(g,h,i)perylene, and 3,3'-dichlorobenzidine. The associated sample results were NDs and, thus, were qualified UJ,SV7c.
2. The LCS %R associated with samples -10-9872 and 10-9874 was > the laboratory UAL for di-n-octylphthalate. The associated sample results were NDs and, thus, were not qualified.
3. The MS and MSD %Rs for two analytes were outside the laboratory acceptance limits. The MS/MSD RPDs for six analytes were above the laboratory acceptance limit. Since MS/MSD analyses are not required, no sample results were qualified.

Reviewed by: Mary Donivan Level: 1 Date: 03/26/10

VALIDATOR'S SIGNATURE: Ellen McEntee DATE: 03/25/10

SEMIVOLATILE ORGANIC COMPOUND (SVOC) ANALYTICAL DATA VALIDATION CHECKLIST

5115-2

Semivolatile Organic Compound (SVOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, SV9	J-, SV9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, SV9a	J-, SV9a
☐	☒	☐	3. The affected analytes are regarded as rejected because the analytical holding time was exceeded.	R, SV9b	R, SV9b
☐	☐	☒	4. The instrument performance sample did not pass method acceptance criteria.	R, SV16	R, SV16
☐	☐	☒	5. Samples were analyzed outside specific method tune time criteria.	N/A	J, SV16b
☐	☐	☒	6. The required instrument performance sample information is missing. Contact the SMO or external laboratory for information.	R, SV16c	R, SV16c
☐	☒	☐	7. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, SV7	J, SV7
☐	☒	☐	8. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, SV7a	J, SV7a
☐	☒	☐	9. The affected analytes were analyzed with an RRF of <0.05 in the initial calibration and/or Continuing Calibration Verification (CCV).	R, SV7b	J, SV7b
☒	☐	☐	10. The Initial Calibration Verification (ICV) and/or CCV were recovered outside the method-specific limits.	UJ, SV7c	J, SV7c
☐	☒	☐	11. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, SV7d	J, SV7d

SEMIVOLATILE ORGANIC COMPOUND (SVOC) ANALYTICAL DATA VALIDATION CHECKLIST

5115-2

Semivolatile Organic Compound (SVOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	12. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, SV7f	R, SV7f
☐	☒	☐	13. The sample result is ≤5X (10X for common organic laboratory contaminates) the concentration of the related analyte in the method blank.	U, SV4	J, V4a
☐	☒	☐	14. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was greater than 5X (10X for common laboratory contaminates).	N/A	J, SV4a
☐	☐	☒	15. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	UJ, SV4d	N/A
☐	☒	☐	16. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV4e	R, SV4e
☐	☒	☐	17. The IS retention time has shifted by more than 30 seconds.	UJ, SV0	J, SV0
☐	☐	☒	18. Analyte is positively confirmed but outside the IS retention time window; however, spectral matches must be provided.	N/A	J, SV0a
☐	☒	☐	19. Required IS retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV0b	R, SV0b
☐	☐	☒	20. The quantitating IS area count is <10% of the expected value, which indicates increased potential for false negative results and other possible problems with sample quantitation. Follow method-specific windows.	R, SV1a	J, SV1a

SEMIVOLATILE ORGANIC COMPOUND (SVOC) ANALYTICAL DATA VALIDATION CHECKLIST

5115-2 Semivolatile Organic Compound (SVOC) Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	21. The IS area count for the quantitating IS is <50% but >10% for organics window relation to the previous continuing calibration. Follow method-specific windows.	UJ, SV1b	J, SV1b
☐	☐	☒	22. The IS area count for the quantitating IS is >200% of the area count for the previous continuing calibration. Follow method-specific windows.	UJ, SV1c	J, SV1c
☐	☐	☒	23. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV1d	R, SV1d
☐	☒	☐	24. The surrogate is <10%R. Follow the external laboratory limits located within the associated data package.	R, SV3	J-, SV3
☐	☒	☐	25. The surrogate is < the Lower Acceptance Level (LAL) but ≥10%R. Follow the external laboratory limits located within the associated data package.	UJ, SV3a	J-, SV3a
☐	☒	☐	26. The surrogate %R value is > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, SV3b
☐	☒	☐	27. At least one surrogate is > the Upper Acceptance Limit (UAL) and one surrogate is < the LAL. Follow the external laboratory limits located within the associated data package.	UJ, SV3c	J, SV3c
☐	☒	☐	28. Required surrogate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV3d	R, SV3d
☐	☒	☐	29. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, SV12	J-, SV12

SEMIVOLATILE ORGANIC COMPOUND (SVOC) ANALYTICAL DATA VALIDATION CHECKLIST

5115-2

Semivolatile Organic Compound (SVOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	30. The LCS percent recovery was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, SV12a	J-, SV12a
☒	☐	☐	31. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, SV12b
☐	☒	☐	32. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV12c	R, SV12c
☐	☐	☒	33. The affected analyte is considered not detected because mass spectrum did not meet specifications.	N/A	U, SV8
☐	☐	☒	34. The mass spectrum column documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV8a	R, SV8a
☐	☒	☐	35. Duplicate, dilution, or reanalysis.	UJ, SV88	J, SV88
☐	☐	☒	36. The affected analytes have elevated detection limits and may not meet project DQOs because the sample was diluted without any target analytees identified due to matrix interference. Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.	UJ, R, SV15	R, SV15
☒	☐	☐	37. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB, NQ, NQ
☐	☒	☐	38. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.	UJ, R, SV19	J, R, SV19

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1086**	**Date Collected:**	**12/22/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243552005**	**Date Received:**	**12/24/2009 09:30**	**%Moisture:**	**7.3**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14231**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**937151**	**Inst:**	**MSD3.I**	**Dilution:**	**1**
Run Date:	**01/04/2010 22:51**	**Analyst:**	**JLD1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/29/2009 10:16**	**Aliquot:**	**30.01 g**	**Final Volume:**	**1 mL**
Data File:	**s3a0428.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
62-75-9	N-Methyl-N-nitrosomethylamine	U	360	ug/kg	71.9	360	
108-95-2	Phenol	U	360	ug/kg	71.9	360	
95-57-8	2-Chlorophenol	U	360	ug/kg	71.9	360	
106-46-7	1,4-Dichlorobenzene	U	360	ug/kg	71.9	360	
621-64-7	N-Nitrosodipropylamine	U	360	ug/kg	71.9	360	
59-50-7	4-Chloro-3-methylphenol	U	360	ug/kg	71.9	360	
83-32-9	Acenaphthene	U	36.0	ug/kg	11.9	36.0	
121-14-2	2,4-Dinitrotoluene	U	360	ug/kg	36.0	360	
100-02-7	4-Nitrophenol	U	360	ug/kg	119	360	
87-86-5	Pentachlorophenol	U	360	ug/kg	89.9	360	
129-00-0	Pyrene	U	36.0	ug/kg	10.8	36.0	
110-86-1	Pyridine	U	360	ug/kg	71.9	360	UJ,SV7c
62-53-3	Aniline	U	360	ug/kg	108	360	
111-44-4	bis(2-Chloroethyl) ether	U	360	ug/kg	71.9	360	
541-73-1	1,3-Dichlorobenzene	U	360	ug/kg	71.9	360	
100-51-6	Benzyl alcohol	U	360	ug/kg	108	360	
95-50-1	1,2-Dichlorobenzene	U	360	ug/kg	71.9	360	
108-60-1	bis(2-Chloroisopropyl)ether	U	360	ug/kg	71.9	360	
95-48-7	o-Cresol	U	360	ug/kg	71.9	360	
65794-96-9	m,p-Cresols	U	360	ug/kg	108	360	
67-72-1	Hexachloroethane	U	360	ug/kg	71.9	360	
98-95-3	Nitrobenzene	U	360	ug/kg	71.9	360	
78-59-1	Isophorone	U	360	ug/kg	71.9	360	
88-75-5	2-Nitrophenol	U	360	ug/kg	71.9	360	
105-67-9	2,4-Dimethylphenol	U	360	ug/kg	126	360	
111-91-1	bis(2-Chloroethoxy)methane	U	360	ug/kg	71.9	360	
120-83-2	2,4-Dichlorophenol	U	360	ug/kg	71.9	360	
65-85-0	Benzoic acid	U	719	ug/kg	180	719	
91-20-3	Naphthalene	U	36.0	ug/kg	10.8	36.0	
106-47-8	4-Chloroaniline	U	360	ug/kg	71.9	360	UJ,SV7c
87-68-3	Hexachlorobutadiene	U	360	ug/kg	71.9	360	
91-57-6	2-Methylnaphthalene	U	36.0	ug/kg	7.19	36.0	
77-47-4	Hexachlorocyclopentadiene	U	360	ug/kg	71.9	360	UJ,SV7c
88-06-2	2,4,6-Trichlorophenol	U	360	ug/kg	71.9	360	
95-95-4	2,4,5-Trichlorophenol	U	360	ug/kg	71.9	360	
91-58-7	2-Chloronaphthalene	U	36.0	ug/kg	11.9	36.0	
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	360	ug/kg	71.9	360	
99-09-2	3-Nitroaniline	U	360	ug/kg	71.9	360	UJ,SV7c

EJM
03/25/10

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1086	Date Collected:	12/22/2009 12:00	Matrix:	S
Lab Sample ID:	243552005	Date Received:	12/24/2009 09:30	%Moisture:	7.3
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14231	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	937151	Inst:	MSD3.I	Dilution:	1
Run Date:	01/04/2010 22:51	Analyst:	JLD1	Inj. Vol:	.5 uL
Prep Date:	12/29/2009 10:16	Aliquot:	30.01 g	Final Volume:	1 mL
Data File:	s3a0428.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
	m-Nitroaniline						
131-11-3	Dimethylphthalate	U	360	ug/kg	71.9	360	
606-20-2	2,6-Dinitrotoluene	U	360	ug/kg	36.0	360	
208-96-8	Acenaphthylene	U	36.0	ug/kg	10.8	36.0	
51-28-5	2,4-Dinitrophenol	U	719	ug/kg	137	719	
132-64-9	Dibenzofuran	U	360	ug/kg	71.9	360	
84-66-2	Diethylphthalate	U	360	ug/kg	71.9	360	
86-73-7	Fluorene	U	36.0	ug/kg	10.8	36.0	
7005-72-3	4-Chlorophenylphenylether	U	360	ug/kg	71.9	360	
534-52-1	2-Methyl-4,6-dinitrophenol	U	360	ug/kg	71.9	360	
100-01-6	4-Nitroaniline	U	360	ug/kg	108	360	UJ,SV7c
	p-Nitroaniline						
122-39-4	Diphenylamine	U	360	ug/kg	71.9	360	
122-66-7	Azobenzene	U	360	ug/kg	71.9	360	
	1,2-Diphenylhydrazine						
101-55-3	4-Bromophenylphenylether	U	360	ug/kg	71.9	360	UJ,SV7c
118-74-1	Hexachlorobenzene	U	360	ug/kg	71.9	360	
85-01-8	Phenanthrene	U	36.0	ug/kg	10.8	36.0	
120-12-7	Anthracene	U	36.0	ug/kg	7.19	36.0	
84-74-2	Di-n-butylphthalate	U	360	ug/kg	71.9	360	
206-44-0	Fluoranthene	U	36.0	ug/kg	10.8	36.0	
85-68-7	Butylbenzylphthalate	U	360	ug/kg	71.9	360	
56-55-3	Benzo(a)anthracene	U	36.0	ug/kg	10.8	36.0	
91-94-1	3,3'-Dichlorobenzidine	U	360	ug/kg	108	360	UJ,SV7c
218-01-9	Chrysene	U	36.0	ug/kg	10.8	36.0	
117-81-7	bis(2-Ethylhexyl)phthalate	U	360	ug/kg	71.9	360	UJ,SV7c
117-84-0	Di-n-octylphthalate	U	360	ug/kg	71.9	360	
205-99-2	Benzo(b)fluoranthene	U	36.0	ug/kg	10.8	36.0	
207-08-9	Benzo(k)fluoranthene	U	36.0	ug/kg	10.8	36.0	
50-32-8	Benzo(a)pyrene	U	36.0	ug/kg	10.8	36.0	
193-39-5	Indeno(1,2,3-cd)pyrene	U	36.0	ug/kg	10.8	36.0	UJ,SV7c
53-70-3	Dibenzo(a,h)anthracene	U	36.0	ug/kg	10.8	36.0	
191-24-2	Benzo(ghi)perylene	U	36.0	ug/kg	10.8	36.0	UJ,SV7c
120-82-1	1,2,4-Trichlorobenzene	U	360	ug/kg	71.9	360	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.85	520	ug/kg		JA

EJM
03/25/10

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1086	Date Collected:	12/22/2009 12:00	Matrix:	S
Lab Sample ID:	243552006	Date Received:	12/24/2009 09:30	%Moisture:	5.8
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14232	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	937151	Inst:	MSD3.I	Dilution:	1
Run Date:	01/04/2010 23:15	Analyst:	JLD1	Inj. Vol:	.5 uL
Prep Date:	12/29/2009 10:16	Aliquot:	30.02 g	Final Volume:	1 mL
Data File:	s3a0429.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
62-75-9	N-Methyl-N-nitrosomethylamine	U	354	ug/kg	70.7	354	
108-95-2	Phenol	U	354	ug/kg	70.7	354	
95-57-8	2-Chlorophenol	U	354	ug/kg	70.7	354	
106-46-7	1,4-Dichlorobenzene	U	354	ug/kg	70.7	354	
621-64-7	N-Nitrosodipropylamine	U	354	ug/kg	70.7	354	
59-50-7	4-Chloro-3-methylphenol	U	354	ug/kg	70.7	354	
83-32-9	Acenaphthene	U	35.4	ug/kg	11.7	35.4	
121-14-2	2,4-Dinitrotoluene	U	354	ug/kg	35.4	354	
100-02-7	4-Nitrophenol	U	354	ug/kg	117	354	
87-86-5	Pentachlorophenol	U	354	ug/kg	88.4	354	
129-00-0	Pyrene	U	35.4	ug/kg	10.6	35.4	
110-86-1	Pyridine	U	354	ug/kg	70.7	354	UJ,SV7c
62-53-3	Aniline	U	354	ug/kg	106	354	
111-44-4	bis(2-Chloroethyl) ether	U	354	ug/kg	70.7	354	
541-73-1	1,3-Dichlorobenzene	U	354	ug/kg	70.7	354	
100-51-6	Benzyl alcohol	U	354	ug/kg	106	354	
95-50-1	1,2-Dichlorobenzene	U	354	ug/kg	70.7	354	
108-60-1	bis(2-Chloroisopropyl)ether	U	354	ug/kg	70.7	354	
95-48-7	o-Cresol	U	354	ug/kg	70.7	354	
65794-96-9	m,p-Cresols	U	354	ug/kg	106	354	
67-72-1	Hexachloroethane	U	354	ug/kg	70.7	354	
98-95-3	Nitrobenzene	U	354	ug/kg	70.7	354	
78-59-1	Isophorone	U	354	ug/kg	70.7	354	
88-75-5	2-Nitrophenol	U	354	ug/kg	70.7	354	
105-67-9	2,4-Dimethylphenol	U	354	ug/kg	124	354	
111-91-1	bis(2-Chloroethoxy)methane	U	354	ug/kg	70.7	354	
120-83-2	2,4-Dichlorophenol	U	354	ug/kg	70.7	354	
65-85-0	Benzoic acid	U	707	ug/kg	177	707	
91-20-3	Naphthalene	U	35.4	ug/kg	10.6	35.4	
106-47-8	4-Chloroaniline	U	354	ug/kg	70.7	354	UJ,SV7c
87-68-3	Hexachlorobutadiene	U	354	ug/kg	70.7	354	
91-57-6	2-Methylnaphthalene	U	35.4	ug/kg	7.07	35.4	
77-47-4	Hexachlorocyclopentadiene	U	354	ug/kg	70.7	354	UJ,SV7c
88-06-2	2,4,6-Trichlorophenol	U	354	ug/kg	70.7	354	
95-95-4	2,4,5-Trichlorophenol	U	354	ug/kg	70.7	354	
91-58-7	2-Chloronaphthalene	U	35.4	ug/kg	11.7	35.4	
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	354	ug/kg	70.7	354	
99-09-2	3-Nitroaniline	U	354	ug/kg	70.7	354	UJ,SV7c

EJM
03/25/10

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1086	Date Collected:	12/22/2009 12:00	Matrix:	S
Lab Sample ID:	243552006	Date Received:	12/24/2009 09:30	%Moisture:	5.8
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14232	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	937151	Inst:	MSD3.I	Dilution:	1
Run Date:	01/04/2010 23:15	Analyst:	JLD1	Inj. Vol:	.5 uL
Prep Date:	12/29/2009 10:16	Aliquot:	30.02 g	Final Volume:	1 mL
Data File:	s3a0429.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
	m-Nitroaniline						
131-11-3	Dimethylphthalate	U	354	ug/kg	70.7	354	
606-20-2	2,6-Dinitrotoluene	U	354	ug/kg	35.4	354	
208-96-8	Acenaphthylene	U	35.4	ug/kg	10.6	35.4	
51-28-5	2,4-Dinitrophenol	U	707	ug/kg	134	707	
132-64-9	Dibenzofuran	U	354	ug/kg	70.7	354	
84-66-2	Diethylphthalate	U	354	ug/kg	70.7	354	
86-73-7	Fluorene	U	35.4	ug/kg	10.6	35.4	
7005-72-3	4-Chlorophenylphenylether	U	354	ug/kg	70.7	354	
534-52-1	2-Methyl-4,6-dinitrophenol	U	354	ug/kg	70.7	354	
100-01-6	4-Nitroaniline	U	354	ug/kg	106	354	UJ,SV7c
	p-Nitroaniline						
122-39-4	Diphenylamine	U	354	ug/kg	70.7	354	
122-66-7	Azobenzene	U	354	ug/kg	70.7	354	
	1,2-Diphenylhydrazine						
101-55-3	4-Bromophenylphenylether	U	354	ug/kg	70.7	354	UJ,SV7c
118-74-1	Hexachlorobenzene	U	354	ug/kg	70.7	354	
85-01-8	Phenanthrene	U	35.4	ug/kg	10.6	35.4	
120-12-7	Anthracene	U	35.4	ug/kg	7.07	35.4	
84-74-2	Di-n-butylphthalate	U	354	ug/kg	70.7	354	
206-44-0	Fluoranthene	U	35.4	ug/kg	10.6	35.4	
85-68-7	Butylbenzylphthalate	U	354	ug/kg	70.7	354	
56-55-3	Benzo(a)anthracene	U	35.4	ug/kg	10.6	35.4	
91-94-1	3,3'-Dichlorobenzidine	U	354	ug/kg	106	354	UJ,SV7c
218-01-9	Chrysene	U	35.4	ug/kg	10.6	35.4	
117-81-7	bis(2-Ethylhexyl)phthalate	U	354	ug/kg	70.7	354	UJ,SV7c
117-84-0	Di-n-octylphthalate	U	354	ug/kg	70.7	354	
205-99-2	Benzo(b)fluoranthene	U	35.4	ug/kg	10.6	35.4	
207-08-9	Benzo(k)fluoranthene	U	35.4	ug/kg	10.6	35.4	
50-32-8	Benzo(a)pyrene	U	35.4	ug/kg	10.6	35.4	
193-39-5	Indeno(1,2,3-cd)pyrene	U	35.4	ug/kg	10.6	35.4	UJ,SV7c
53-70-3	Dibenzo(a,h)anthracene	U	35.4	ug/kg	10.6	35.4	
191-24-2	Benzo(ghi)perylene	U	35.4	ug/kg	10.6	35.4	UJ,SV7c
120-82-1	1,2,4-Trichlorobenzene	U	354	ug/kg	70.7	354	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	1.84	150	ug/kg		J
	Unknown Aldol Condensate	2.85	546	ug/kg		JA

EJM
03/25/10

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1086	Date Collected:	12/22/2009 12:00	Matrix:	S
Lab Sample ID:	243552001	Date Received:	12/24/2009 09:30	%Moisture:	7.4
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14233	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	937151	Inst:	MSD3.I	Dilution:	1
Run Date:	01/04/2010 20:24	Analyst:	JLD1	Inj. Vol:	.5 uL
Prep Date:	12/29/2009 10:16	Aliquot:	30.09 g	Final Volume:	1 mL
Data File:	s3a0422.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
62-75-9	N-Methyl-N-nitrosomethylamine	U	359	ug/kg	71.8	359	
108-95-2	Phenol	U	359	ug/kg	71.8	359	
95-57-8	2-Chlorophenol	U	359	ug/kg	71.8	359	
106-46-7	1,4-Dichlorobenzene	U	359	ug/kg	71.8	359	
621-64-7	N-Nitrosodipropylamine	U	359	ug/kg	71.8	359	
59-50-7	4-Chloro-3-methylphenol	U	359	ug/kg	71.8	359	
83-32-9	Acenaphthene	U	35.9	ug/kg	11.8	35.9	
121-14-2	2,4-Dinitrotoluene	U	359	ug/kg	35.9	359	
100-02-7	4-Nitrophenol	U	359	ug/kg	118	359	
87-86-5	Pentachlorophenol	U	359	ug/kg	89.7	359	
129-00-0	Pyrene	U	35.9	ug/kg	10.8	35.9	
110-86-1	Pyridine	U	359	ug/kg	71.8	359	UJ,SV7c
62-53-3	Aniline	U	359	ug/kg	108	359	
111-44-4	bis(2-Chloroethyl) ether	U	359	ug/kg	71.8	359	
541-73-1	1,3-Dichlorobenzene	U	359	ug/kg	71.8	359	
100-51-6	Benzyl alcohol	U	359	ug/kg	108	359	
95-50-1	1,2-Dichlorobenzene	U	359	ug/kg	71.8	359	
108-60-1	bis(2-Chloroisopropyl)ether	U	359	ug/kg	71.8	359	
95-48-7	o-Cresol	U	359	ug/kg	71.8	359	
65794-96-9	m,p-Cresols	U	359	ug/kg	108	359	
67-72-1	Hexachloroethane	U	359	ug/kg	71.8	359	
98-95-3	Nitrobenzene	U	359	ug/kg	71.8	359	
78-59-1	Isophorone	U	359	ug/kg	71.8	359	
88-75-5	2-Nitrophenol	U	359	ug/kg	71.8	359	
105-67-9	2,4-Dimethylphenol	U	359	ug/kg	126	359	
111-91-1	bis(2-Chloroethoxy)methane	U	359	ug/kg	71.8	359	
120-83-2	2,4-Dichlorophenol	U	359	ug/kg	71.8	359	
65-85-0	Benzoic acid	U	718	ug/kg	179	718	
91-20-3	Naphthalene	U	35.9	ug/kg	10.8	35.9	
106-47-8	4-Chloroaniline	U	359	ug/kg	71.8	359	UJ,SV7c
87-68-3	Hexachlorobutadiene	U	359	ug/kg	71.8	359	
91-57-6	2-Methylnaphthalene	U	35.9	ug/kg	7.18	35.9	
77-47-4	Hexachlorocyclopentadiene	U	359	ug/kg	71.8	359	UJ,SV7c
88-06-2	2,4,6-Trichlorophenol	U	359	ug/kg	71.8	359	
95-95-4	2,4,5-Trichlorophenol	U	359	ug/kg	71.8	359	
91-58-7	2-Chloronaphthalene	U	35.9	ug/kg	11.8	35.9	
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	359	ug/kg	71.8	359	
99-09-2	3-Nitroaniline	U	359	ug/kg	71.8	359	UJ,SV7c

EJM
03/25/10

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1086**	**Date Collected:**	**12/22/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243552001**	**Date Received:**	**12/24/2009 09:30**	**%Moisture:**	**7.4**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14233**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**937151**	**Inst:**	**MSD3.I**	**Dilution:**	**1**
Run Date:	**01/04/2010 20:24**	**Analyst:**	**JLD1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/29/2009 10:16**	**Aliquot:**	**30.09 g**	**Final Volume:**	**1 mL**
Data File:	**s3a0422.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
	m-Nitroaniline						
131-11-3	Dimethylphthalate	U	359	ug/kg	71.8	359	
606-20-2	2,6-Dinitrotoluene	U	359	ug/kg	35.9	359	
208-96-8	Acenaphthylene	U	35.9	ug/kg	10.8	35.9	
51-28-5	2,4-Dinitrophenol	U	718	ug/kg	136	718	
132-64-9	Dibenzofuran	U	359	ug/kg	71.8	359	
84-66-2	Diethylphthalate	U	359	ug/kg	71.8	359	
86-73-7	Fluorene	U	35.9	ug/kg	10.8	35.9	
7005-72-3	4-Chlorophenylphenylether	U	359	ug/kg	71.8	359	
534-52-1	2-Methyl-4,6-dinitrophenol	U	359	ug/kg	71.8	359	
100-01-6	4-Nitroaniline	U	359	ug/kg	108	359	UJ,SV7c
	p-Nitroaniline						
122-39-4	Diphenylamine	U	359	ug/kg	71.8	359	
122-66-7	Azobenzene	U	359	ug/kg	71.8	359	
	1,2-Diphenylhydrazine						
101-55-3	4-Bromophenylphenylether	U	359	ug/kg	71.8	359	UJ,SV7c
118-74-1	Hexachlorobenzene	U	359	ug/kg	71.8	359	
85-01-8	Phenanthrene	U	35.9	ug/kg	10.8	35.9	
120-12-7	Anthracene	U	35.9	ug/kg	7.18	35.9	
84-74-2	Di-n-butylphthalate	U	359	ug/kg	71.8	359	
206-44-0	Fluoranthene	U	35.9	ug/kg	10.8	35.9	
85-68-7	Butylbenzylphthalate	U	359	ug/kg	71.8	359	
56-55-3	Benzo(a)anthracene	U	35.9	ug/kg	10.8	35.9	
91-94-1	3,3'-Dichlorobenzidine	U	359	ug/kg	108	359	UJ,SV7c
218-01-9	Chrysene	U	35.9	ug/kg	10.8	35.9	
117-81-7	bis(2-Ethylhexyl)phthalate	U	359	ug/kg	71.8	359	UJ,SV7c
117-84-0	Di-n-octylphthalate	U	359	ug/kg	71.8	359	
205-99-2	Benzo(b)fluoranthene	U	35.9	ug/kg	10.8	35.9	
207-08-9	Benzo(k)fluoranthene	U	35.9	ug/kg	10.8	35.9	
50-32-8	Benzo(a)pyrene	U	35.9	ug/kg	10.8	35.9	
193-39-5	Indeno(1,2,3-cd)pyrene	U	35.9	ug/kg	10.8	35.9	UJ,SV7c
53-70-3	Dibenzo(a,h)anthracene	U	35.9	ug/kg	10.8	35.9	
191-24-2	Benzo(ghi)perylene	U	35.9	ug/kg	10.8	35.9	UJ,SV7c
120-82-1	1,2,4-Trichlorobenzene	U	359	ug/kg	71.8	359	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Flt	Qual
	Unknown Aldol Condensate	2.85	422	ug/kg		JA
301-02-0	9-Octadecenamide, (Z)-	12.78	227	ug/kg	86	NJ

EJM
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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1086	Date Collected:	12/22/2009 12:00	Matrix:	S
Lab Sample ID:	243552009	Date Received:	12/24/2009 09:30	%Moisture:	7.5
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14234	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	937151	Inst:	MSD3.I	Dilution:	1
Run Date:	01/05/2010 00:29	Analyst:	JLD1	Inj. Vol:	.5 uL
Prep Date:	12/29/2009 10:16	Aliquot:	30.09 g	Final Volume:	1 mL
Data File:	s3a0432.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
62-75-9	N-Methyl-N-nitrosomethylamine	U	359	ug/kg	71.8	359	
108-95-2	Phenol	U	359	ug/kg	71.8	359	
95-57-8	2-Chlorophenol	U	359	ug/kg	71.8	359	
106-46-7	1,4-Dichlorobenzene	U	359	ug/kg	71.8	359	
621-64-7	N-Nitrosodipropylamine	U	359	ug/kg	71.8	359	
59-50-7	4-Chloro-3-methylphenol	U	359	ug/kg	71.8	359	
83-32-9	Acenaphthene	U	35.9	ug/kg	11.9	35.9	
121-14-2	2,4-Dinitrotoluene	U	359	ug/kg	35.9	359	
100-02-7	4-Nitrophenol	U	359	ug/kg	119	359	
87-86-5	Pentachlorophenol	U	359	ug/kg	89.8	359	
129-00-0	Pyrene	U	35.9	ug/kg	10.8	35.9	
110-86-1	Pyridine	U	359	ug/kg	71.8	359	UJ,SV7c
62-53-3	Aniline	U	359	ug/kg	108	359	
111-44-4	bis(2-Chloroethyl) ether	U	359	ug/kg	71.8	359	
541-73-1	1,3-Dichlorobenzene	U	359	ug/kg	71.8	359	
100-51-6	Benzyl alcohol	U	359	ug/kg	108	359	
95-50-1	1,2-Dichlorobenzene	U	359	ug/kg	71.8	359	
108-60-1	bis(2-Chloroisopropyl)ether	U	359	ug/kg	71.8	359	
95-48-7	o-Cresol	U	359	ug/kg	71.8	359	
65794-96-9	m,p-Cresols	U	359	ug/kg	108	359	
67-72-1	Hexachloroethane	U	359	ug/kg	71.8	359	
98-95-3	Nitrobenzene	U	359	ug/kg	71.8	359	
78-59-1	Isophorone	U	359	ug/kg	71.8	359	
88-75-5	2-Nitrophenol	U	359	ug/kg	71.8	359	
105-67-9	2,4-Dimethylphenol	U	359	ug/kg	126	359	
111-91-1	bis(2-Chloroethoxy)methane	U	359	ug/kg	71.8	359	
120-83-2	2,4-Dichlorophenol	U	359	ug/kg	71.8	359	
65-85-0	Benzoic acid	U	718	ug/kg	180	718	
91-20-3	Naphthalene	U	35.9	ug/kg	10.8	35.9	
106-47-8	4-Chloroaniline	U	359	ug/kg	71.8	359	UJ,SV7c
87-68-3	Hexachlorobutadiene	U	359	ug/kg	71.8	359	
91-57-6	2-Methylnaphthalene	U	35.9	ug/kg	7.18	35.9	
77-47-4	Hexachlorocyclopentadiene	U	359	ug/kg	71.8	359	UJ,SV7c
88-06-2	2,4,6-Trichlorophenol	U	359	ug/kg	71.8	359	
95-95-4	2,4,5-Trichlorophenol	U	359	ug/kg	71.8	359	
91-58-7	2-Chloronaphthalene	U	35.9	ug/kg	11.9	35.9	
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	359	ug/kg	71.8	359	
99-09-2	3-Nitroaniline	U	359	ug/kg	71.8	359	UJ,SV7c

EJM
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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1086**	**Date Collected:**	**12/22/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243552009**	**Date Received:**	**12/24/2009 09:30**	**%Moisture:**	**7.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14234**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**937151**	**Inst:**	**MSD3.I**	**Dilution:**	**1**
Run Date:	**01/05/2010 00:29**	**Analyst:**	**JLD1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/29/2009 10:16**	**Aliquot:**	**30.09 g**	**Final Volume:**	**1 mL**
Data File:	**s3a0432.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
	m-Nitroaniline						
131-11-3	Dimethylphthalate	U	359	ug/kg	71.8	359	
606-20-2	2,6-Dinitrotoluene	U	359	ug/kg	35.9	359	
208-96-8	Acenaphthylene	U	35.9	ug/kg	10.8	35.9	
51-28-5	2,4-Dinitrophenol	U	718	ug/kg	136	718	
132-64-9	Dibenzofuran	U	359	ug/kg	71.8	359	
84-66-2	Diethylphthalate	U	359	ug/kg	71.8	359	
86-73-7	Fluorene	U	35.9	ug/kg	10.8	35.9	
7005-72-3	4-Chlorophenylphenylether	U	359	ug/kg	71.8	359	
534-52-1	2-Methyl-4,6-dinitrophenol	U	359	ug/kg	71.8	359	
100-01-6	4-Nitroaniline	U	359	ug/kg	108	359	UJ,SV7c
	p-Nitroaniline						
122-39-4	Diphenylamine	U	359	ug/kg	71.8	359	
122-66-7	Azobenzene	U	359	ug/kg	71.8	359	
	1,2-Diphenylhydrazine						
101-55-3	4-Bromophenylphenylether	U	359	ug/kg	71.8	359	UJ,SV7c
118-74-1	Hexachlorobenzene	U	359	ug/kg	71.8	359	
85-01-8	Phenanthrene	U	35.9	ug/kg	10.8	35.9	
120-12-7	Anthracene	U	35.9	ug/kg	7.18	35.9	
84-74-2	Di-n-butylphthalate	U	359	ug/kg	71.8	359	
206-44-0	Fluoranthene	U	35.9	ug/kg	10.8	35.9	
85-68-7	Butylbenzylphthalate	U	359	ug/kg	71.8	359	
56-55-3	Benzo(a)anthracene	U	35.9	ug/kg	10.8	35.9	
91-94-1	3,3'-Dichlorobenzidine	U	359	ug/kg	108	359	UJ,SV7c
218-01-9	Chrysene	U	35.9	ug/kg	10.8	35.9	
117-81-7	bis(2-Ethylhexyl)phthalate	U	359	ug/kg	71.8	359	UJ,SV7c
117-84-0	Di-n-octylphthalate	U	359	ug/kg	71.8	359	
205-99-2	Benzo(b)fluoranthene	U	35.9	ug/kg	10.8	35.9	
207-08-9	Benzo(k)fluoranthene	U	35.9	ug/kg	10.8	35.9	
50-32-8	Benzo(a)pyrene	U	35.9	ug/kg	10.8	35.9	
193-39-5	Indeno(1,2,3-cd)pyrene	U	35.9	ug/kg	10.8	35.9	UJ,SV7c
53-70-3	Dibenzo(a,h)anthracene	U	35.9	ug/kg	10.8	35.9	
191-24-2	Benzo(ghi)perylene	U	35.9	ug/kg	10.8	35.9	UJ,SV7c
120-82-1	1,2,4-Trichlorobenzene	U	359	ug/kg	71.8	359	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.85	356	ug/kg		JA
	Unknown	12.78	166	ug/kg		J

EJM
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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1086	Date Collected:	12/22/2009 12:00	Matrix:	S
Lab Sample ID:	243552007	Date Received:	12/24/2009 09:30	%Moisture:	22.5
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14235	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	937151	Inst:	MSD3.I	Dilution:	1
Run Date:	01/04/2010 23:40	Analyst:	JLD1	Inj. Vol:	.5 uL
Prep Date:	12/29/2009 10:16	Aliquot:	30 g	Final Volume:	1 mL
Data File:	s3a0430.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
62-75-9	N-Methyl-N-nitrosomethylamine	U	430	ug/kg	86.0	430	
108-95-2	Phenol	U	430	ug/kg	86.0	430	
95-57-8	2-Chlorophenol	U	430	ug/kg	86.0	430	
106-46-7	1,4-Dichlorobenzene	U	430	ug/kg	86.0	430	
621-64-7	N-Nitrosodipropylamine	U	430	ug/kg	86.0	430	
59-50-7	4-Chloro-3-methylphenol	U	430	ug/kg	86.0	430	
83-32-9	Acenaphthene	U	43.0	ug/kg	14.2	43.0	
121-14-2	2,4-Dinitrotoluene	U	430	ug/kg	43.0	430	
100-02-7	4-Nitrophenol	U	430	ug/kg	142	430	
87-86-5	Pentachlorophenol	U	430	ug/kg	107	430	
129-00-0	Pyrene	U	43.0	ug/kg	12.9	43.0	
110-86-1	Pyridine	U	430	ug/kg	86.0	430	UJ,SV7c
62-53-3	Aniline	U	430	ug/kg	129	430	
111-44-4	bis(2-Chloroethyl) ether	U	430	ug/kg	86.0	430	
541-73-1	1,3-Dichlorobenzene	U	430	ug/kg	86.0	430	
100-51-6	Benzyl alcohol	U	430	ug/kg	129	430	
95-50-1	1,2-Dichlorobenzene	U	430	ug/kg	86.0	430	
108-60-1	bis(2-Chloroisopropyl)ether	U	430	ug/kg	86.0	430	
95-48-7	o-Cresol	U	430	ug/kg	86.0	430	
65794-96-9	m,p-Cresols	U	430	ug/kg	129	430	
67-72-1	Hexachloroethane	U	430	ug/kg	86.0	430	
98-95-3	Nitrobenzene	U	430	ug/kg	86.0	430	
78-59-1	Isophorone	U	430	ug/kg	86.0	430	
88-75-5	2-Nitrophenol	U	430	ug/kg	86.0	430	
105-67-9	2,4-Dimethylphenol	U	430	ug/kg	150	430	
111-91-1	bis(2-Chloroethoxy)methane	U	430	ug/kg	86.0	430	
120-83-2	2,4-Dichlorophenol	U	430	ug/kg	86.0	430	
65-85-0	Benzoic acid	U	860	ug/kg	215	860	
91-20-3	Naphthalene	U	43.0	ug/kg	12.9	43.0	
106-47-8	4-Chloroaniline	U	430	ug/kg	86.0	430	UJ,SV7c
87-68-3	Hexachlorobutadiene	U	430	ug/kg	86.0	430	
91-57-6	2-Methylnaphthalene	U	43.0	ug/kg	8.60	43.0	
77-47-4	Hexachlorocyclopentadiene	U	430	ug/kg	86.0	430	UJ,SV7c
88-06-2	2,4,6-Trichlorophenol	U	430	ug/kg	86.0	430	
95-95-4	2,4,5-Trichlorophenol	U	430	ug/kg	86.0	430	
91-58-7	2-Chloronaphthalene	U	43.0	ug/kg	14.2	43.0	
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	430	ug/kg	86.0	430	
99-09-2	3-Nitroaniline	U	430	ug/kg	86.0	430	UJ,SV7c

EJM
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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1086	Date Collected:	12/22/2009 12:00	Matrix:	S
Lab Sample ID:	243552007	Date Received:	12/24/2009 09:30	%Moisture:	22.5
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14235	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	937151	Inst:	MSD3.I	Dilution:	1
Run Date:	01/04/2010 23:40	Analyst:	JLD1	Inj. Vol:	.5 uL
Prep Date:	12/29/2009 10:16	Aliquot:	30 g	Final Volume:	1 mL
Data File:	s3a0430.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
	m-Nitroaniline						
131-11-3	Dimethylphthalate	U	430	ug/kg	86.0	430	
606-20-2	2,6-Dinitrotoluene	U	430	ug/kg	43.0	430	
208-96-8	Acenaphthylene	U	43.0	ug/kg	12.9	43.0	
51-28-5	2,4-Dinitrophenol	U	860	ug/kg	163	860	
132-64-9	Dibenzofuran	U	430	ug/kg	86.0	430	
84-66-2	Diethylphthalate	U	430	ug/kg	86.0	430	
86-73-7	Fluorene	U	43.0	ug/kg	12.9	43.0	
7005-72-3	4-Chlorophenylphenylether	U	430	ug/kg	86.0	430	
534-52-1	2-Methyl-4,6-dinitrophenol	U	430	ug/kg	86.0	430	
100-01-6	4-Nitroaniline	U	430	ug/kg	129	430	UJ,SV7c
	p-Nitroaniline						
122-39-4	Diphenylamine	U	430	ug/kg	86.0	430	
122-66-7	Azobenzene	U	430	ug/kg	86.0	430	
	1,2-Diphenylhydrazine						
101-55-3	4-Bromophenylphenylether	U	430	ug/kg	86.0	430	UJ,SV7c
118-74-1	Hexachlorobenzene	U	430	ug/kg	86.0	430	
85-01-8	Phenanthrene	U	43.0	ug/kg	12.9	43.0	
120-12-7	Anthracene	U	43.0	ug/kg	8.60	43.0	
84-74-2	Di-n-butylphthalate	U	430	ug/kg	86.0	430	
206-44-0	Fluoranthene	U	43.0	ug/kg	12.9	43.0	
85-68-7	Butylbenzylphthalate	U	430	ug/kg	86.0	430	
56-55-3	Benzo(a)anthracene	U	43.0	ug/kg	12.9	43.0	
91-94-1	3,3'-Dichlorobenzidine	U	430	ug/kg	129	430	UJ,SV7c
218-01-9	Chrysene	U	43.0	ug/kg	12.9	43.0	
117-81-7	bis(2-Ethylhexyl)phthalate	U	430	ug/kg	86.0	430	UJ,SV7c
117-84-0	Di-n-octylphthalate	U	430	ug/kg	86.0	430	
205-99-2	Benzo(b)fluoranthene	U	43.0	ug/kg	12.9	43.0	
207-08-9	Benzo(k)fluoranthene	U	43.0	ug/kg	12.9	43.0	
50-32-8	Benzo(a)pyrene	U	43.0	ug/kg	12.9	43.0	
193-39-5	Indeno(1,2,3-cd)pyrene	U	43.0	ug/kg	12.9	43.0	UJ,SV7c
53-70-3	Dibenzo(a,h)anthracene	U	43.0	ug/kg	12.9	43.0	
191-24-2	Benzo(ghi)perylene	U	43.0	ug/kg	12.9	43.0	UJ,SV7c
120-82-1	1,2,4-Trichlorobenzene	U	430	ug/kg	86.0	430	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.85	603	ug/kg		JA

EJM
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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1086	Date Collected:	12/22/2009 12:00	Matrix:	S
Lab Sample ID:	243552002	Date Received:	12/24/2009 09:30	%Moisture:	16.2
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14236	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	937151	Inst:	MSD3.I	Dilution:	1
Run Date:	01/04/2010 21:37	Analyst:	JLD1	Inj. Vol:	.5 uL
Prep Date:	12/29/2009 10:16	Aliquot:	30 g	Final Volume:	1 mL
Data File:	s3a0425.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
62-75-9	N-Methyl-N-nitrosomethylamine	U	398	ug/kg	79.5	398	
108-95-2	Phenol	U	398	ug/kg	79.5	398	
95-57-8	2-Chlorophenol	U	398	ug/kg	79.5	398	
106-46-7	1,4-Dichlorobenzene	U	398	ug/kg	79.5	398	
621-64-7	N-Nitrosodipropylamine	U	398	ug/kg	79.5	398	
59-50-7	4-Chloro-3-methylphenol	U	398	ug/kg	79.5	398	
83-32-9	Acenaphthene	U	39.8	ug/kg	13.1	39.8	
121-14-2	2,4-Dinitrotoluene	U	398	ug/kg	39.8	398	
100-02-7	4-Nitrophenol	U	398	ug/kg	131	398	
87-86-5	Pentachlorophenol	U	398	ug/kg	99.4	398	
129-00-0	Pyrene	U	39.8	ug/kg	11.9	39.8	
110-86-1	Pyridine	U	398	ug/kg	79.5	398	UJ,SV7c
62-53-3	Aniline	U	398	ug/kg	119	398	
111-44-4	bis(2-Chloroethyl) ether	U	398	ug/kg	79.5	398	
541-73-1	1,3-Dichlorobenzene	U	398	ug/kg	79.5	398	
100-51-6	Benzyl alcohol	U	398	ug/kg	119	398	
95-50-1	1,2-Dichlorobenzene	U	398	ug/kg	79.5	398	
108-60-1	bis(2-Chloroisopropyl)ether	U	398	ug/kg	79.5	398	
95-48-7	o-Cresol	U	398	ug/kg	79.5	398	
65794-96-9	m,p-Cresols	U	398	ug/kg	119	398	
67-72-1	Hexachloroethane	U	398	ug/kg	79.5	398	
98-95-3	Nitrobenzene	U	398	ug/kg	79.5	398	
78-59-1	Isophorone	U	398	ug/kg	79.5	398	
88-75-5	2-Nitrophenol	U	398	ug/kg	79.5	398	
105-67-9	2,4-Dimethylphenol	U	398	ug/kg	139	398	
111-91-1	bis(2-Chloroethoxy)methane	U	398	ug/kg	79.5	398	
120-83-2	2,4-Dichlorophenol	U	398	ug/kg	79.5	398	
65-85-0	Benzoic acid	U	795	ug/kg	199	795	
91-20-3	Naphthalene	U	39.8	ug/kg	11.9	39.8	
106-47-8	4-Chloroaniline	U	398	ug/kg	79.5	398	UJ,SV7c
87-68-3	Hexachlorobutadiene	U	398	ug/kg	79.5	398	
91-57-6	2-Methylnaphthalene	U	39.8	ug/kg	7.95	39.8	
77-47-4	Hexachlorocyclopentadiene	U	398	ug/kg	79.5	398	UJ,SV7c
88-06-2	2,4,6-Trichlorophenol	U	398	ug/kg	79.5	398	
95-95-4	2,4,5-Trichlorophenol	U	398	ug/kg	79.5	398	
91-58-7	2-Chloronaphthalene	U	39.8	ug/kg	13.1	39.8	
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	398	ug/kg	79.5	398	
99-09-2	3-Nitroaniline	U	398	ug/kg	79.5	398	UJ,SV7c

EJM
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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1086**	**Date Collected:**	**12/22/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243552002**	**Date Received:**	**12/24/2009 09:30**	**%Moisture:**	**16.2**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14236**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**937151**	**Inst:**	**MSD3.I**	**Dilution:**	**1**
Run Date:	**01/04/2010 21:37**	**Analyst:**	**JLD1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/29/2009 10:16**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**s3a0425.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
	m-Nitroaniline						
131-11-3	Dimethylphthalate	U	398	ug/kg	79.5	398	
606-20-2	2,6-Dinitrotoluene	U	398	ug/kg	39.8	398	
208-96-8	Acenaphthylene	U	39.8	ug/kg	11.9	39.8	
51-28-5	2,4-Dinitrophenol	U	795	ug/kg	151	795	
132-64-9	Dibenzofuran	U	398	ug/kg	79.5	398	
84-66-2	Diethylphthalate	U	398	ug/kg	79.5	398	
86-73-7	Fluorene	U	39.8	ug/kg	11.9	39.8	
7005-72-3	4-Chlorophenylphenylether	U	398	ug/kg	79.5	398	
534-52-1	2-Methyl-4,6-dinitrophenol	U	398	ug/kg	79.5	398	
100-01-6	4-Nitroaniline	U	398	ug/kg	119	398	UJ,SV7c
	p-Nitroaniline						
122-39-4	Diphenylamine	U	398	ug/kg	79.5	398	
122-66-7	Azobenzene	U	398	ug/kg	79.5	398	
	1,2-Diphenylhydrazine						
101-55-3	4-Bromophenylphenylether	U	398	ug/kg	79.5	398	UJ,SV7c
118-74-1	Hexachlorobenzene	U	398	ug/kg	79.5	398	
85-01-8	Phenanthrene	U	39.8	ug/kg	11.9	39.8	
120-12-7	Anthracene	U	39.8	ug/kg	7.95	39.8	
84-74-2	Di-n-butylphthalate	U	398	ug/kg	79.5	398	
206-44-0	Fluoranthene	U	39.8	ug/kg	11.9	39.8	
85-68-7	Butylbenzylphthalate	U	398	ug/kg	79.5	398	
56-55-3	Benzo(a)anthracene	U	39.8	ug/kg	11.9	39.8	
91-94-1	3,3'-Dichlorobenzidine	U	398	ug/kg	119	398	UJ,SV7c
218-01-9	Chrysene	U	39.8	ug/kg	11.9	39.8	
117-81-7	bis(2-Ethylhexyl)phthalate	U	398	ug/kg	79.5	398	UJ,SV7c
117-84-0	Di-n-octylphthalate	U	398	ug/kg	79.5	398	
205-99-2	Benzo(b)fluoranthene	U	39.8	ug/kg	11.9	39.8	
207-08-9	Benzo(k)fluoranthene	U	39.8	ug/kg	11.9	39.8	
50-32-8	Benzo(a)pyrene	U	39.8	ug/kg	11.9	39.8	
193-39-5	Indeno(1,2,3-cd)pyrene	U	39.8	ug/kg	11.9	39.8	UJ,SV7c
53-70-3	Dibenzo(a,h)anthracene	U	39.8	ug/kg	11.9	39.8	
191-24-2	Benzo(ghi)perylene	U	39.8	ug/kg	11.9	39.8	UJ,SV7c
120-82-1	1,2,4-Trichlorobenzene	U	398	ug/kg	79.5	398	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Flt	Qual
	Unknown Aldol Condensate	2.85	522	ug/kg		JA
112-84-5	13-Docosenamide, (Z)-	12.78	267	ug/kg	90	NJ

EJM
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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1086**	**Date Collected:**	**12/22/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243552008**	**Date Received:**	**12/24/2009 09:30**	**%Moisture:**	**5.4**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14238**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**937151**	**Inst:**	**MSD3.I**	**Dilution:**	**1**
Run Date:	**01/05/2010 00:04**	**Analyst:**	**JLD1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/29/2009 10:16**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**s3a0431.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
62-75-9	N-Methyl-N-nitrosomethylamine	U	352	ug/kg	70.5	352	
108-95-2	Phenol	U	352	ug/kg	70.5	352	
95-57-8	2-Chlorophenol	U	352	ug/kg	70.5	352	
106-46-7	1,4-Dichlorobenzene	U	352	ug/kg	70.5	352	
621-64-7	N-Nitrosodipropylamine	U	352	ug/kg	70.5	352	
59-50-7	4-Chloro-3-methylphenol	U	352	ug/kg	70.5	352	
83-32-9	Acenaphthene	U	35.2	ug/kg	11.6	35.2	
121-14-2	2,4-Dinitrotoluene	U	352	ug/kg	35.2	352	
100-02-7	4-Nitrophenol	U	352	ug/kg	116	352	
87-86-5	Pentachlorophenol	U	352	ug/kg	88.1	352	
129-00-0	Pyrene	U	35.2	ug/kg	10.6	35.2	
110-86-1	Pyridine	U	352	ug/kg	70.5	352	UJ,SV7c
62-53-3	Aniline	U	352	ug/kg	106	352	
111-44-4	bis(2-Chloroethyl) ether	U	352	ug/kg	70.5	352	
541-73-1	1,3-Dichlorobenzene	U	352	ug/kg	70.5	352	
100-51-6	Benzyl alcohol	U	352	ug/kg	106	352	
95-50-1	1,2-Dichlorobenzene	U	352	ug/kg	70.5	352	
108-60-1	bis(2-Chloroisopropyl)ether	U	352	ug/kg	70.5	352	
95-48-7	o-Cresol	U	352	ug/kg	70.5	352	
65794-96-9	m,p-Cresols	U	352	ug/kg	106	352	
67-72-1	Hexachloroethane	U	352	ug/kg	70.5	352	
98-95-3	Nitrobenzene	U	352	ug/kg	70.5	352	
78-59-1	Isophorone	U	352	ug/kg	70.5	352	
88-75-5	2-Nitrophenol	U	352	ug/kg	70.5	352	
105-67-9	2,4-Dimethylphenol	U	352	ug/kg	123	352	
111-91-1	bis(2-Chloroethoxy)methane	U	352	ug/kg	70.5	352	
120-83-2	2,4-Dichlorophenol	U	352	ug/kg	70.5	352	
65-85-0	Benzoic acid	U	705	ug/kg	176	705	
91-20-3	Naphthalene	U	35.2	ug/kg	10.6	35.2	
106-47-8	4-Chloroaniline	U	352	ug/kg	70.5	352	UJ,SV7c
87-68-3	Hexachlorobutadiene	U	352	ug/kg	70.5	352	
91-57-6	2-Methylnaphthalene	U	35.2	ug/kg	7.05	35.2	
77-47-4	Hexachlorocyclopentadiene	U	352	ug/kg	70.5	352	UJ,SV7c
88-06-2	2,4,6-Trichlorophenol	U	352	ug/kg	70.5	352	
95-95-4	2,4,5-Trichlorophenol	U	352	ug/kg	70.5	352	
91-58-7	2-Chloronaphthalene	U	35.2	ug/kg	11.6	35.2	
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	352	ug/kg	70.5	352	
99-09-2	3-Nitroaniline	U	352	ug/kg	70.5	352	UJ,SV7c

EJM
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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1086**	**Date Collected:**	**12/22/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243552008**	**Date Received:**	**12/24/2009 09:30**	**%Moisture:**	**5.4**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14238**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**937151**	**Inst:**	**MSD3.I**	**Dilution:**	**1**
Run Date:	**01/05/2010 00:04**	**Analyst:**	**JLD1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/29/2009 10:16**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**s3a0431.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
	m-Nitroaniline						
131-11-3	Dimethylphthalate	U	352	ug/kg	70.5	352	
606-20-2	2,6-Dinitrotoluene	U	352	ug/kg	35.2	352	
208-96-8	Acenaphthylene	U	35.2	ug/kg	10.6	35.2	
51-28-5	2,4-Dinitrophenol	U	705	ug/kg	134	705	
132-64-9	Dibenzofuran	U	352	ug/kg	70.5	352	
84-66-2	Diethylphthalate	U	352	ug/kg	70.5	352	
86-73-7	Fluorene	U	35.2	ug/kg	10.6	35.2	
7005-72-3	4-Chlorophenylphenylether	U	352	ug/kg	70.5	352	
534-52-1	2-Methyl-4,6-dinitrophenol	U	352	ug/kg	70.5	352	
100-01-6	4-Nitroaniline	U	352	ug/kg	106	352	UJ,SV7c
	p-Nitroaniline						
122-39-4	Diphenylamine	U	352	ug/kg	70.5	352	
122-66-7	Azobenzene	U	352	ug/kg	70.5	352	
	1,2-Diphenylhydrazine						
101-55-3	4-Bromophenylphenylether	U	352	ug/kg	70.5	352	UJ,SV7c
118-74-1	Hexachlorobenzene	U	352	ug/kg	70.5	352	
85-01-8	Phenanthrene	U	35.2	ug/kg	10.6	35.2	
120-12-7	Anthracene	U	35.2	ug/kg	7.05	35.2	
84-74-2	Di-n-butylphthalate	U	352	ug/kg	70.5	352	
206-44-0	Fluoranthene	U	35.2	ug/kg	10.6	35.2	
85-68-7	Butylbenzylphthalate	U	352	ug/kg	70.5	352	
56-55-3	Benzo(a)anthracene	U	35.2	ug/kg	10.6	35.2	
91-94-1	3,3'-Dichlorobenzidine	U	352	ug/kg	106	352	UJ,SV7c
218-01-9	Chrysene	U	35.2	ug/kg	10.6	35.2	
117-81-7	bis(2-Ethylhexyl)phthalate	U	352	ug/kg	70.5	352	UJ,SV7c
117-84-0	Di-n-octylphthalate	U	352	ug/kg	70.5	352	
205-99-2	Benzo(b)fluoranthene	U	35.2	ug/kg	10.6	35.2	
207-08-9	Benzo(k)fluoranthene	U	35.2	ug/kg	10.6	35.2	
50-32-8	Benzo(a)pyrene	U	35.2	ug/kg	10.6	35.2	
193-39-5	Indeno(1,2,3-cd)pyrene	U	35.2	ug/kg	10.6	35.2	UJ,SV7c
53-70-3	Dibenzo(a,h)anthracene	U	35.2	ug/kg	10.6	35.2	
191-24-2	Benzo(ghi)perylene	U	35.2	ug/kg	10.6	35.2	UJ,SV7c
120-82-1	1,2,4-Trichlorobenzene	U	352	ug/kg	70.5	352	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.85	504	ug/kg		JA

EJM
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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1086	Date Collected:	12/22/2009 12:00	Matrix:	S
Lab Sample ID:	243552003	Date Received:	12/24/2009 09:30	%Moisture:	5.5
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14239	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	937151	Inst:	MSD3.I	Dilution:	1
Run Date:	01/04/2010 22:02	Analyst:	JLD1	Inj. Vol:	.5 uL
Prep Date:	12/29/2009 10:16	Aliquot:	30.05 g	Final Volume:	1 mL
Data File:	s3a0426.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
62-75-9	N-Methyl-N-nitrosomethylamine	U	352	ug/kg	70.4	352	
108-95-2	Phenol	U	352	ug/kg	70.4	352	
95-57-8	2-Chlorophenol	U	352	ug/kg	70.4	352	
106-46-7	1,4-Dichlorobenzene	U	352	ug/kg	70.4	352	
621-64-7	N-Nitrosodipropylamine	U	352	ug/kg	70.4	352	
59-50-7	4-Chloro-3-methylphenol	U	352	ug/kg	70.4	352	
83-32-9	Acenaphthene	U	35.2	ug/kg	11.6	35.2	
121-14-2	2,4-Dinitrotoluene	U	352	ug/kg	35.2	352	
100-02-7	4-Nitrophenol	U	352	ug/kg	116	352	
87-86-5	Pentachlorophenol	U	352	ug/kg	88.0	352	
129-00-0	Pyrene	U	35.2	ug/kg	10.6	35.2	
110-86-1	Pyridine	U	352	ug/kg	70.4	352	UJ,SV7c
62-53-3	Aniline	U	352	ug/kg	106	352	
111-44-4	bis(2-Chloroethyl) ether	U	352	ug/kg	70.4	352	
541-73-1	1,3-Dichlorobenzene	U	352	ug/kg	70.4	352	
100-51-6	Benzyl alcohol	U	352	ug/kg	106	352	
95-50-1	1,2-Dichlorobenzene	U	352	ug/kg	70.4	352	
108-60-1	bis(2-Chloroisopropyl)ether	U	352	ug/kg	70.4	352	
95-48-7	o-Cresol	U	352	ug/kg	70.4	352	
65794-96-9	m,p-Cresols	U	352	ug/kg	106	352	
67-72-1	Hexachloroethane	U	352	ug/kg	70.4	352	
98-95-3	Nitrobenzene	U	352	ug/kg	70.4	352	
78-59-1	Isophorone	U	352	ug/kg	70.4	352	
88-75-5	2-Nitrophenol	U	352	ug/kg	70.4	352	
105-67-9	2,4-Dimethylphenol	U	352	ug/kg	123	352	
111-91-1	bis(2-Chloroethoxy)methane	U	352	ug/kg	70.4	352	
120-83-2	2,4-Dichlorophenol	U	352	ug/kg	70.4	352	
65-85-0	Benzoic acid	U	704	ug/kg	176	704	
91-20-3	Naphthalene	U	35.2	ug/kg	10.6	35.2	
106-47-8	4-Chloroaniline	U	352	ug/kg	70.4	352	UJ,SV7c
87-68-3	Hexachlorobutadiene	U	352	ug/kg	70.4	352	
91-57-6	2-Methylnaphthalene	U	35.2	ug/kg	7.04	35.2	
77-47-4	Hexachlorocyclopentadiene	U	352	ug/kg	70.4	352	UJ,SV7c
88-06-2	2,4,6-Trichlorophenol	U	352	ug/kg	70.4	352	
95-95-4	2,4,5-Trichlorophenol	U	352	ug/kg	70.4	352	
91-58-7	2-Chloronaphthalene	U	35.2	ug/kg	11.6	35.2	
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	352	ug/kg	70.4	352	
99-09-2	3-Nitroaniline	U	352	ug/kg	70.4	352	UJ,SV7c

EJM
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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1086	Date Collected:	12/22/2009 12:00	Matrix:	S
Lab Sample ID:	243552003	Date Received:	12/24/2009 09:30	%Moisture:	5.5
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14239	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	937151	Inst:	MSD3.I	Dilution:	1
Run Date:	01/04/2010 22:02	Analyst:	JLD1	Inj. Vol:	.5 uL
Prep Date:	12/29/2009 10:16	Aliquot:	30.05 g	Final Volume:	1 mL
Data File:	s3a0426.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
	m-Nitroaniline						
131-11-3	Dimethylphthalate	U	352	ug/kg	70.4	352	
606-20-2	2,6-Dinitrotoluene	U	352	ug/kg	35.2	352	
208-96-8	Acenaphthylene	U	35.2	ug/kg	10.6	35.2	
51-28-5	2,4-Dinitrophenol	U	704	ug/kg	134	704	
132-64-9	Dibenzofuran	U	352	ug/kg	70.4	352	
84-66-2	Diethylphthalate	U	352	ug/kg	70.4	352	
86-73-7	Fluorene	U	35.2	ug/kg	10.6	35.2	
7005-72-3	4-Chlorophenylphenylether	U	352	ug/kg	70.4	352	
534-52-1	2-Methyl-4,6-dinitrophenol	U	352	ug/kg	70.4	352	
100-01-6	4-Nitroaniline	U	352	ug/kg	106	352	UJ,SV7c
	p-Nitroaniline						
122-39-4	Diphenylamine	U	352	ug/kg	70.4	352	
122-66-7	Azobenzene	U	352	ug/kg	70.4	352	
	1,2-Diphenylhydrazine						
101-55-3	4-Bromophenylphenylether	U	352	ug/kg	70.4	352	UJ,SV7c
118-74-1	Hexachlorobenzene	U	352	ug/kg	70.4	352	
85-01-8	Phenanthrene	U	35.2	ug/kg	10.6	35.2	
120-12-7	Anthracene	U	35.2	ug/kg	7.04	35.2	
84-74-2	Di-n-butylphthalate	U	352	ug/kg	70.4	352	
206-44-0	Fluoranthene	U	35.2	ug/kg	10.6	35.2	
85-68-7	Butylbenzylphthalate	U	352	ug/kg	70.4	352	
56-55-3	Benzo(a)anthracene	U	35.2	ug/kg	10.6	35.2	
91-94-1	3,3'-Dichlorobenzidine	U	352	ug/kg	106	352	UJ,SV7c
218-01-9	Chrysene	U	35.2	ug/kg	10.6	35.2	
117-81-7	bis(2-Ethylhexyl)phthalate	U	352	ug/kg	70.4	352	UJ,SV7c
117-84-0	Di-n-octylphthalate	U	352	ug/kg	70.4	352	
205-99-2	Benzo(b)fluoranthene	U	35.2	ug/kg	10.6	35.2	
207-08-9	Benzo(k)fluoranthene	U	35.2	ug/kg	10.6	35.2	
50-32-8	Benzo(a)pyrene	U	35.2	ug/kg	10.6	35.2	
193-39-5	Indeno(1,2,3-cd)pyrene	U	35.2	ug/kg	10.6	35.2	UJ,SV7c
53-70-3	Dibenzo(a,h)anthracene	U	35.2	ug/kg	10.6	35.2	
191-24-2	Benzo(ghi)perylene	U	35.2	ug/kg	10.6	35.2	UJ,SV7c
120-82-1	1,2,4-Trichlorobenzene	U	352	ug/kg	70.4	352	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Flt	Qual
	Unknown Aldol Condensate	2.85	501	ug/kg		JA
301-02-0	9-Octadecenamide, (Z)-	12.78	226	ug/kg	86	NJ

EJM
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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1086	Date Collected:	12/22/2009 12:00	Matrix:	S
Lab Sample ID:	243552004	Date Received:	12/24/2009 09:30	%Moisture:	5.4
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14240	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	937151	Inst:	MSD3.I	Dilution:	1
Run Date:	01/04/2010 22:27	Analyst:	JLD1	Inj. Vol:	.5 uL
Prep Date:	12/29/2009 10:16	Aliquot:	30.03 g	Final Volume:	1 mL
Data File:	s3a0427.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
62-75-9	N-Methyl-N-nitrosomethylamine	U	352	ug/kg	70.4	352	
108-95-2	Phenol	U	352	ug/kg	70.4	352	
95-57-8	2-Chlorophenol	U	352	ug/kg	70.4	352	
106-46-7	1,4-Dichlorobenzene	U	352	ug/kg	70.4	352	
621-64-7	N-Nitrosodipropylamine	U	352	ug/kg	70.4	352	
59-50-7	4-Chloro-3-methylphenol	U	352	ug/kg	70.4	352	
83-32-9	Acenaphthene	U	35.2	ug/kg	11.6	35.2	
121-14-2	2,4-Dinitrotoluene	U	352	ug/kg	35.2	352	
100-02-7	4-Nitrophenol	U	352	ug/kg	116	352	
87-86-5	Pentachlorophenol	U	352	ug/kg	88.0	352	
129-00-0	Pyrene	U	35.2	ug/kg	10.6	35.2	
110-86-1	Pyridine	U	352	ug/kg	70.4	352	UJ,SV7c
62-53-3	Aniline	U	352	ug/kg	106	352	
111-44-4	bis(2-Chloroethyl) ether	U	352	ug/kg	70.4	352	
541-73-1	1,3-Dichlorobenzene	U	352	ug/kg	70.4	352	
100-51-6	Benzyl alcohol	U	352	ug/kg	106	352	
95-50-1	1,2-Dichlorobenzene	U	352	ug/kg	70.4	352	
108-60-1	bis(2-Chloroisopropyl)ether	U	352	ug/kg	70.4	352	
95-48-7	o-Cresol	U	352	ug/kg	70.4	352	
65794-96-9	m,p-Cresols	U	352	ug/kg	106	352	
67-72-1	Hexachloroethane	U	352	ug/kg	70.4	352	
98-95-3	Nitrobenzene	U	352	ug/kg	70.4	352	
78-59-1	Isophorone	U	352	ug/kg	70.4	352	
88-75-5	2-Nitrophenol	U	352	ug/kg	70.4	352	
105-67-9	2,4-Dimethylphenol	U	352	ug/kg	123	352	
111-91-1	bis(2-Chloroethoxy)methane	U	352	ug/kg	70.4	352	
120-83-2	2,4-Dichlorophenol	U	352	ug/kg	70.4	352	
65-85-0	Benzoic acid	U	704	ug/kg	176	704	
91-20-3	Naphthalene	U	35.2	ug/kg	10.6	35.2	
106-47-8	4-Chloroaniline	U	352	ug/kg	70.4	352	UJ,SV7c
87-68-3	Hexachlorobutadiene	U	352	ug/kg	70.4	352	
91-57-6	2-Methylnaphthalene	U	35.2	ug/kg	7.04	35.2	
77-47-4	Hexachlorocyclopentadiene	U	352	ug/kg	70.4	352	UJ,SV7c
88-06-2	2,4,6-Trichlorophenol	U	352	ug/kg	70.4	352	
95-95-4	2,4,5-Trichlorophenol	U	352	ug/kg	70.4	352	
91-58-7	2-Chloronaphthalene	U	35.2	ug/kg	11.6	35.2	
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	352	ug/kg	70.4	352	
99-09-2	3-Nitroaniline	U	352	ug/kg	70.4	352	UJ,SV7c

EJM
03/25/10

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1086	Date Collected:	12/22/2009 12:00	Matrix:	S
Lab Sample ID:	243552004	Date Received:	12/24/2009 09:30	%Moisture:	5.4
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14240	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	937151	Inst:	MSD3.I	Dilution:	1
Run Date:	01/04/2010 22:27	Analyst:	JLD1	Inj. Vol:	.5 uL
Prep Date:	12/29/2009 10:16	Aliquot:	30.03 g	Final Volume:	1 mL
Data File:	s3a0427.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
	m-Nitroaniline						
131-11-3	Dimethylphthalate	U	352	ug/kg	70.4	352	
606-20-2	2,6-Dinitrotoluene	U	352	ug/kg	35.2	352	
208-96-8	Acenaphthylene	U	35.2	ug/kg	10.6	35.2	
51-28-5	2,4-Dinitrophenol	U	704	ug/kg	134	704	
132-64-9	Dibenzofuran	U	352	ug/kg	70.4	352	
84-66-2	Diethylphthalate	U	352	ug/kg	70.4	352	
86-73-7	Fluorene	U	35.2	ug/kg	10.6	35.2	
7005-72-3	4-Chlorophenylphenylether	U	352	ug/kg	70.4	352	
534-52-1	2-Methyl-4,6-dinitrophenol	U	352	ug/kg	70.4	352	
100-01-6	4-Nitroaniline	U	352	ug/kg	106	352	UJ,SV7c
	p-Nitroaniline						
122-39-4	Diphenylamine	U	352	ug/kg	70.4	352	
122-66-7	Azobenzene	U	352	ug/kg	70.4	352	
	1,2-Diphenylhydrazine						
101-55-3	4-Bromophenylphenylether	U	352	ug/kg	70.4	352	UJ,SV7c
118-74-1	Hexachlorobenzene	U	352	ug/kg	70.4	352	
85-01-8	Phenanthrene	U	35.2	ug/kg	10.6	35.2	
120-12-7	Anthracene	U	35.2	ug/kg	7.04	35.2	
84-74-2	Di-n-butylphthalate	U	352	ug/kg	70.4	352	
206-44-0	Fluoranthene	U	35.2	ug/kg	10.6	35.2	
85-68-7	Butylbenzylphthalate	U	352	ug/kg	70.4	352	
56-55-3	Benzo(a)anthracene	U	35.2	ug/kg	10.6	35.2	
91-94-1	3,3'-Dichlorobenzidine	U	352	ug/kg	106	352	UJ,SV7c
218-01-9	Chrysene	U	35.2	ug/kg	10.6	35.2	
117-81-7	bis(2-Ethylhexyl)phthalate	U	352	ug/kg	70.4	352	UJ,SV7c
117-84-0	Di-n-octylphthalate	U	352	ug/kg	70.4	352	
205-99-2	Benzo(b)fluoranthene	U	35.2	ug/kg	10.6	35.2	
207-08-9	Benzo(k)fluoranthene	U	35.2	ug/kg	10.6	35.2	
50-32-8	Benzo(a)pyrene	U	35.2	ug/kg	10.6	35.2	
193-39-5	Indeno(1,2,3-cd)pyrene	U	35.2	ug/kg	10.6	35.2	UJ,SV7c
53-70-3	Dibenzo(a,h)anthracene	U	35.2	ug/kg	10.6	35.2	
191-24-2	Benzo(ghi)perylene	U	35.2	ug/kg	10.6	35.2	UJ,SV7c
120-82-1	1,2,4-Trichlorobenzene	U	352	ug/kg	70.4	352	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.85	447	ug/kg		JA
301-02-0	9-Octadecenamide, (Z)-	12.78	183	ug/kg	94	NJ

EJM
03/25/10

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1086	Date Collected:	12/22/2009 12:00	Matrix:	S
Lab Sample ID:	243552010	Date Received:	12/24/2009 09:30	%Moisture:	12.7
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14241	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	937151	Inst:	MSD3.I	Dilution:	1
Run Date:	01/05/2010 00:54	Analyst:	JLD1	Inj. Vol:	.5 uL
Prep Date:	12/29/2009 10:16	Aliquot:	30.08 g	Final Volume:	1 mL
Data File:	s3a0433.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
62-75-9	N-Methyl-N-nitrosomethylamine	U	381	ug/kg	76.1	381	
108-95-2	Phenol	U	381	ug/kg	76.1	381	
95-57-8	2-Chlorophenol	U	381	ug/kg	76.1	381	
106-46-7	1,4-Dichlorobenzene	U	381	ug/kg	76.1	381	
621-64-7	N-Nitrosodipropylamine	U	381	ug/kg	76.1	381	
59-50-7	4-Chloro-3-methylphenol	U	381	ug/kg	76.1	381	
83-32-9	Acenaphthene	U	38.1	ug/kg	12.6	38.1	
121-14-2	2,4-Dinitrotoluene	U	381	ug/kg	38.1	381	
100-02-7	4-Nitrophenol	U	381	ug/kg	126	381	
87-86-5	Pentachlorophenol	U	381	ug/kg	95.2	381	
129-00-0	Pyrene	U	38.1	ug/kg	11.4	38.1	
110-86-1	Pyridine	U	381	ug/kg	76.1	381	UJ,SV7c
62-53-3	Aniline	U	381	ug/kg	114	381	
111-44-4	bis(2-Chloroethyl) ether	U	381	ug/kg	76.1	381	
541-73-1	1,3-Dichlorobenzene	U	381	ug/kg	76.1	381	
100-51-6	Benzyl alcohol	U	381	ug/kg	114	381	
95-50-1	1,2-Dichlorobenzene	U	381	ug/kg	76.1	381	
108-60-1	bis(2-Chloroisopropyl)ether	U	381	ug/kg	76.1	381	
95-48-7	o-Cresol	U	381	ug/kg	76.1	381	
65794-96-9	m,p-Cresols	U	381	ug/kg	114	381	
67-72-1	Hexachloroethane	U	381	ug/kg	76.1	381	
98-95-3	Nitrobenzene	U	381	ug/kg	76.1	381	
78-59-1	Isophorone	U	381	ug/kg	76.1	381	
88-75-5	2-Nitrophenol	U	381	ug/kg	76.1	381	
105-67-9	2,4-Dimethylphenol	U	381	ug/kg	133	381	
111-91-1	bis(2-Chloroethoxy)methane	U	381	ug/kg	76.1	381	
120-83-2	2,4-Dichlorophenol	U	381	ug/kg	76.1	381	
65-85-0	Benzoic acid	U	761	ug/kg	190	761	
91-20-3	Naphthalene	U	38.1	ug/kg	11.4	38.1	
106-47-8	4-Chloroaniline	U	381	ug/kg	76.1	381	UJ,SV7c
87-68-3	Hexachlorobutadiene	U	381	ug/kg	76.1	381	
91-57-6	2-Methylnaphthalene	U	38.1	ug/kg	7.61	38.1	
77-47-4	Hexachlorocyclopentadiene	U	381	ug/kg	76.1	381	UJ,SV7c
88-06-2	2,4,6-Trichlorophenol	U	381	ug/kg	76.1	381	
95-95-4	2,4,5-Trichlorophenol	U	381	ug/kg	76.1	381	
91-58-7	2-Chloronaphthalene	U	38.1	ug/kg	12.6	38.1	
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	381	ug/kg	76.1	381	
99-09-2	3-Nitroaniline	U	381	ug/kg	76.1	381	UJ,SV7c

EJM
03/25/10

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1086	Date Collected:	12/22/2009 12:00	Matrix:	S
Lab Sample ID:	243552010	Date Received:	12/24/2009 09:30	%Moisture:	12.7
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14241	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	937151	Inst:	MSD3.I	Dilution:	1
Run Date:	01/05/2010 00:54	Analyst:	JLD1	Inj. Vol:	.5 uL
Prep Date:	12/29/2009 10:16	Aliquot:	30.08 g	Final Volume:	1 mL
Data File:	s3a0433.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
	m-Nitroaniline						
131-11-3	Dimethylphthalate	U	381	ug/kg	76.1	381	
606-20-2	2,6-Dinitrotoluene	U	381	ug/kg	38.1	381	
208-96-8	Acenaphthylene	U	38.1	ug/kg	11.4	38.1	
51-28-5	2,4-Dinitrophenol	U	761	ug/kg	145	761	
132-64-9	Dibenzofuran	U	381	ug/kg	76.1	381	
84-66-2	Diethylphthalate	U	381	ug/kg	76.1	381	
86-73-7	Fluorene	U	38.1	ug/kg	11.4	38.1	
7005-72-3	4-Chlorophenylphenylether	U	381	ug/kg	76.1	381	
534-52-1	2-Methyl-4,6-dinitrophenol	U	381	ug/kg	76.1	381	
100-01-6	4-Nitroaniline	U	381	ug/kg	114	381	UJ,SV7c
	p-Nitroaniline						
122-39-4	Diphenylamine	U	381	ug/kg	76.1	381	
122-66-7	Azobenzene	U	381	ug/kg	76.1	381	
	1,2-Diphenylhydrazine						
101-55-3	4-Bromophenylphenylether	U	381	ug/kg	76.1	381	UJ,SV7c
118-74-1	Hexachlorobenzene	U	381	ug/kg	76.1	381	
85-01-8	Phenanthrene	U	38.1	ug/kg	11.4	38.1	
120-12-7	Anthracene	U	38.1	ug/kg	7.61	38.1	
84-74-2	Di-n-butylphthalate	U	381	ug/kg	76.1	381	
206-44-0	Fluoranthene	U	38.1	ug/kg	11.4	38.1	
85-68-7	Butylbenzylphthalate	U	381	ug/kg	76.1	381	
56-55-3	Benzo(a)anthracene	U	38.1	ug/kg	11.4	38.1	
91-94-1	3,3'-Dichlorobenzidine	U	381	ug/kg	114	381	UJ,SV7c
218-01-9	Chrysene	U	38.1	ug/kg	11.4	38.1	
117-81-7	bis(2-Ethylhexyl)phthalate	U	381	ug/kg	76.1	381	UJ,SV7c
117-84-0	Di-n-octylphthalate	U	381	ug/kg	76.1	381	
205-99-2	Benzo(b)fluoranthene	U	38.1	ug/kg	11.4	38.1	
207-08-9	Benzo(k)fluoranthene	U	38.1	ug/kg	11.4	38.1	
50-32-8	Benzo(a)pyrene	U	38.1	ug/kg	11.4	38.1	
193-39-5	Indeno(1,2,3-cd)pyrene	U	38.1	ug/kg	11.4	38.1	UJ,SV7c
53-70-3	Dibenzo(a,h)anthracene	U	38.1	ug/kg	11.4	38.1	
191-24-2	Benzo(ghi)perylene	U	38.1	ug/kg	11.4	38.1	UJ,SV7c
120-82-1	1,2,4-Trichlorobenzene	U	381	ug/kg	76.1	381	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.85	485	ug/kg		JA
301-02-0	9-Octadecenamide, (Z)-	11.13	190	ug/kg	91	NJ

EJM
03/25/10

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1086**	**Date Collected:**	**12/22/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243552010**	**Date Received:**	**12/24/2009 09:30**	**%Moisture:**	**12.7**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14241**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**937151**	**Inst:**	**MSD3.I**	**Dilution:**	**1**
Run Date:	**01/05/2010 00:54**	**Analyst:**	**JLD1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/29/2009 10:16**	**Aliquot:**	**30.08 g**	**Final Volume:**	**1 mL**
Data File:	**s3a0433.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
112-84-5	13-Docosenamide, (Z)-	12.78	563	ug/kg	93	NJ

EJM
03/25/10

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1086	Date Collected:	12/22/2009 12:00	Matrix:	S
Lab Sample ID:	243552012	Date Received:	12/24/2009 09:30	%Moisture:	7
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-10-2736	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	937151	Inst:	MSD3.I	Dilution:	1
Run Date:	01/05/2010 01:42	Analyst:	JLD1	Inj. Vol:	.5 uL
Prep Date:	12/29/2009 10:16	Aliquot:	30.04 g	Final Volume:	1 mL
Data File:	s3a0435.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
62-75-9	N-Methyl-N-nitrosomethylamine	U	358	ug/kg	71.6	358	
108-95-2	Phenol	U	358	ug/kg	71.6	358	
95-57-8	2-Chlorophenol	U	358	ug/kg	71.6	358	
106-46-7	1,4-Dichlorobenzene	U	358	ug/kg	71.6	358	
621-64-7	N-Nitrosodipropylamine	U	358	ug/kg	71.6	358	
59-50-7	4-Chloro-3-methylphenol	U	358	ug/kg	71.6	358	
83-32-9	Acenaphthene	U	35.8	ug/kg	11.8	35.8	
121-14-2	2,4-Dinitrotoluene	U	358	ug/kg	35.8	358	
100-02-7	4-Nitrophenol	U	358	ug/kg	118	358	
87-86-5	Pentachlorophenol	U	358	ug/kg	89.5	358	
129-00-0	Pyrene	U	35.8	ug/kg	10.7	35.8	
110-86-1	Pyridine	U	358	ug/kg	71.6	358	UJ,SV7c
62-53-3	Aniline	U	358	ug/kg	107	358	
111-44-4	bis(2-Chloroethyl) ether	U	358	ug/kg	71.6	358	
541-73-1	1,3-Dichlorobenzene	U	358	ug/kg	71.6	358	
100-51-6	Benzyl alcohol	U	358	ug/kg	107	358	
95-50-1	1,2-Dichlorobenzene	U	358	ug/kg	71.6	358	
108-60-1	bis(2-Chloroisopropyl)ether	U	358	ug/kg	71.6	358	
95-48-7	o-Cresol	U	358	ug/kg	71.6	358	
65794-96-9	m,p-Cresols	U	358	ug/kg	107	358	
67-72-1	Hexachloroethane	U	358	ug/kg	71.6	358	
98-95-3	Nitrobenzene	U	358	ug/kg	71.6	358	
78-59-1	Isophorone	U	358	ug/kg	71.6	358	
88-75-5	2-Nitrophenol	U	358	ug/kg	71.6	358	
105-67-9	2,4-Dimethylphenol	U	358	ug/kg	125	358	
111-91-1	bis(2-Chloroethoxy)methane	U	358	ug/kg	71.6	358	
120-83-2	2,4-Dichlorophenol	U	358	ug/kg	71.6	358	
65-85-0	Benzoic acid	U	716	ug/kg	179	716	
91-20-3	Naphthalene	U	35.8	ug/kg	10.7	35.8	
106-47-8	4-Chloroaniline	U	358	ug/kg	71.6	358	UJ,SV7c
87-68-3	Hexachlorobutadiene	U	358	ug/kg	71.6	358	
91-57-6	2-Methylnaphthalene	U	35.8	ug/kg	7.16	35.8	
77-47-4	Hexachlorocyclopentadiene	U	358	ug/kg	71.6	358	UJ,SV7c
88-06-2	2,4,6-Trichlorophenol	U	358	ug/kg	71.6	358	
95-95-4	2,4,5-Trichlorophenol	U	358	ug/kg	71.6	358	
91-58-7	2-Chloronaphthalene	U	35.8	ug/kg	11.8	35.8	
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	358	ug/kg	71.6	358	
99-09-2	3-Nitroaniline	U	358	ug/kg	71.6	358	UJ,SV7c

EJM
03/25/10

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1086	Date Collected:	12/22/2009 12:00	Matrix:	S
Lab Sample ID:	243552012	Date Received:	12/24/2009 09:30	%Moisture:	7
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-10-2736	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	937151	Inst:	MSD3.I	Dilution:	1
Run Date:	01/05/2010 01:42	Analyst:	JLD1	Inj. Vol:	.5 uL
Prep Date:	12/29/2009 10:16	Aliquot:	30.04 g	Final Volume:	1 mL
Data File:	s3a0435.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
	m-Nitroaniline						
131-11-3	Dimethylphthalate	U	358	ug/kg	71.6	358	
606-20-2	2,6-Dinitrotoluene	U	358	ug/kg	35.8	358	
208-96-8	Acenaphthylene	U	35.8	ug/kg	10.7	35.8	
51-28-5	2,4-Dinitrophenol	U	716	ug/kg	136	716	
132-64-9	Dibenzofuran	U	358	ug/kg	71.6	358	
84-66-2	Diethylphthalate	U	358	ug/kg	71.6	358	
86-73-7	Fluorene	U	35.8	ug/kg	10.7	35.8	
7005-72-3	4-Chlorophenylphenylether	U	358	ug/kg	71.6	358	
534-52-1	2-Methyl-4,6-dinitrophenol	U	358	ug/kg	71.6	358	
100-01-6	4-Nitroaniline	U	358	ug/kg	107	358	UJ,SV7c
	p-Nitroaniline						
122-39-4	Diphenylamine	U	358	ug/kg	71.6	358	
122-66-7	Azobenzene	U	358	ug/kg	71.6	358	
	1,2-Diphenylhydrazine						
101-55-3	4-Bromophenylphenylether	U	358	ug/kg	71.6	358	UJ,SV7c
118-74-1	Hexachlorobenzene	U	358	ug/kg	71.6	358	
85-01-8	Phenanthrene	U	35.8	ug/kg	10.7	35.8	
120-12-7	Anthracene	U	35.8	ug/kg	7.16	35.8	
84-74-2	Di-n-butylphthalate	U	358	ug/kg	71.6	358	
206-44-0	Fluoranthene	U	35.8	ug/kg	10.7	35.8	
85-68-7	Butylbenzylphthalate	U	358	ug/kg	71.6	358	
56-55-3	Benzo(a)anthracene	U	35.8	ug/kg	10.7	35.8	
91-94-1	3,3'-Dichlorobenzidine	U	358	ug/kg	107	358	UJ,SV7c
218-01-9	Chrysene	U	35.8	ug/kg	10.7	35.8	
117-81-7	bis(2-Ethylhexyl)phthalate	U	358	ug/kg	71.6	358	UJ,SV7c
117-84-0	Di-n-octylphthalate	U	358	ug/kg	71.6	358	
205-99-2	Benzo(b)fluoranthene	U	35.8	ug/kg	10.7	35.8	
207-08-9	Benzo(k)fluoranthene	U	35.8	ug/kg	10.7	35.8	
50-32-8	Benzo(a)pyrene	U	35.8	ug/kg	10.7	35.8	
193-39-5	Indeno(1,2,3-cd)pyrene	U	35.8	ug/kg	10.7	35.8	UJ,SV7c
53-70-3	Dibenzo(a,h)anthracene	U	35.8	ug/kg	10.7	35.8	
191-24-2	Benzo(ghi)perylene	U	35.8	ug/kg	10.7	35.8	UJ,SV7c
120-82-1	1,2,4-Trichlorobenzene	U	358	ug/kg	71.6	358	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.85	417	ug/kg		JA
301-02-0	9-Octadecenamide, (Z)-	11.12	197	ug/kg	98	NJ

EJM
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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1086**	**Date Collected:**	**12/22/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243552012**	**Date Received:**	**12/24/2009 09:30**	**%Moisture:**	**7**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-10-2736**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**937151**	**Inst:**	**MSD3.I**	**Dilution:**	**1**
Run Date:	**01/05/2010 01:42**	**Analyst:**	**JLD1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/29/2009 10:16**	**Aliquot:**	**30.04 g**	**Final Volume:**	**1 mL**
Data File:	**s3a0435.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	12.78	535	ug/kg		J

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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1086	Date Collected:	12/22/2009 12:00	Matrix:	S
Lab Sample ID:	243552011	Date Received:	12/24/2009 09:30	%Moisture:	10.1
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-10-2737	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	937151	Inst:	MSD3.I	Dilution:	1
Run Date:	01/05/2010 01:18	Analyst:	JLD1	Inj. Vol:	.5 uL
Prep Date:	12/29/2009 10:16	Aliquot:	30.03 g	Final Volume:	1 mL
Data File:	s3a0434.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
62-75-9	N-Methyl-N-nitrosomethylamine	U	371	ug/kg	74.1	371	
108-95-2	Phenol	U	371	ug/kg	74.1	371	
95-57-8	2-Chlorophenol	U	371	ug/kg	74.1	371	
106-46-7	1,4-Dichlorobenzene	U	371	ug/kg	74.1	371	
621-64-7	N-Nitrosodipropylamine	U	371	ug/kg	74.1	371	
59-50-7	4-Chloro-3-methylphenol	U	371	ug/kg	74.1	371	
83-32-9	Acenaphthene	U	37.1	ug/kg	12.2	37.1	
121-14-2	2,4-Dinitrotoluene	U	371	ug/kg	37.1	371	
100-02-7	4-Nitrophenol	U	371	ug/kg	122	371	
87-86-5	Pentachlorophenol	U	371	ug/kg	92.6	371	
129-00-0	Pyrene	U	37.1	ug/kg	11.1	37.1	
110-86-1	Pyridine	U	371	ug/kg	74.1	371	UJ,SV7c
62-53-3	Aniline	U	371	ug/kg	111	371	
111-44-4	bis(2-Chloroethyl) ether	U	371	ug/kg	74.1	371	
541-73-1	1,3-Dichlorobenzene	U	371	ug/kg	74.1	371	
100-51-6	Benzyl alcohol	U	371	ug/kg	111	371	
95-50-1	1,2-Dichlorobenzene	U	371	ug/kg	74.1	371	
108-60-1	bis(2-Chloroisopropyl)ether	U	371	ug/kg	74.1	371	
95-48-7	o-Cresol	U	371	ug/kg	74.1	371	
65794-96-9	m,p-Cresols	U	371	ug/kg	111	371	
67-72-1	Hexachloroethane	U	371	ug/kg	74.1	371	
98-95-3	Nitrobenzene	U	371	ug/kg	74.1	371	
78-59-1	Isophorone	U	371	ug/kg	74.1	371	
88-75-5	2-Nitrophenol	U	371	ug/kg	74.1	371	
105-67-9	2,4-Dimethylphenol	U	371	ug/kg	130	371	
111-91-1	bis(2-Chloroethoxy)methane	U	371	ug/kg	74.1	371	
120-83-2	2,4-Dichlorophenol	U	371	ug/kg	74.1	371	
65-85-0	Benzoic acid	U	741	ug/kg	185	741	
91-20-3	Naphthalene	U	37.1	ug/kg	11.1	37.1	
106-47-8	4-Chloroaniline	U	371	ug/kg	74.1	371	UJ,SV7c
87-68-3	Hexachlorobutadiene	U	371	ug/kg	74.1	371	
91-57-6	2-Methylnaphthalene	U	37.1	ug/kg	7.41	37.1	
77-47-4	Hexachlorocyclopentadiene	U	371	ug/kg	74.1	371	UJ,SV7c
88-06-2	2,4,6-Trichlorophenol	U	371	ug/kg	74.1	371	
95-95-4	2,4,5-Trichlorophenol	U	371	ug/kg	74.1	371	
91-58-7	2-Chloronaphthalene	U	37.1	ug/kg	12.2	37.1	
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	371	ug/kg	74.1	371	
99-09-2	3-Nitroaniline	U	371	ug/kg	74.1	371	UJ,SV7c

EJM
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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1086	Date Collected:	12/22/2009 12:00	Matrix:	S
Lab Sample ID:	243552011	Date Received:	12/24/2009 09:30	%Moisture:	10.1
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-10-2737	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	937151	Inst:	MSD3.I	Dilution:	1
Run Date:	01/05/2010 01:18	Analyst:	JLD1	Inj. Vol:	.5 uL
Prep Date:	12/29/2009 10:16	Aliquot:	30.03 g	Final Volume:	1 mL
Data File:	s3a0434.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
	m-Nitroaniline						
131-11-3	Dimethylphthalate	U	371	ug/kg	74.1	371	
606-20-2	2,6-Dinitrotoluene	U	371	ug/kg	37.1	371	
208-96-8	Acenaphthylene	U	37.1	ug/kg	11.1	37.1	
51-28-5	2,4-Dinitrophenol	U	741	ug/kg	141	741	
132-64-9	Dibenzofuran	U	371	ug/kg	74.1	371	
84-66-2	Diethylphthalate	U	371	ug/kg	74.1	371	
86-73-7	Fluorene	U	37.1	ug/kg	11.1	37.1	
7005-72-3	4-Chlorophenylphenylether	U	371	ug/kg	74.1	371	
534-52-1	2-Methyl-4,6-dinitrophenol	U	371	ug/kg	74.1	371	
100-01-6	4-Nitroaniline	U	371	ug/kg	111	371	UJ,SV7c
	p-Nitroaniline						
122-39-4	Diphenylamine	U	371	ug/kg	74.1	371	
122-66-7	Azobenzene	U	371	ug/kg	74.1	371	
	1,2-Diphenylhydrazine						
101-55-3	4-Bromophenylphenylether	U	371	ug/kg	74.1	371	UJ,SV7c
118-74-1	Hexachlorobenzene	U	371	ug/kg	74.1	371	
85-01-8	Phenanthrene	U	37.1	ug/kg	11.1	37.1	
120-12-7	Anthracene	U	37.1	ug/kg	7.41	37.1	
84-74-2	Di-n-butylphthalate	U	371	ug/kg	74.1	371	
206-44-0	Fluoranthene	U	37.1	ug/kg	11.1	37.1	
85-68-7	Butylbenzylphthalate	U	371	ug/kg	74.1	371	
56-55-3	Benzo(a)anthracene	U	37.1	ug/kg	11.1	37.1	
91-94-1	3,3'-Dichlorobenzidine	U	371	ug/kg	111	371	UJ,SV7c
218-01-9	Chrysene	U	37.1	ug/kg	11.1	37.1	
117-81-7	bis(2-Ethylhexyl)phthalate	U	371	ug/kg	74.1	371	UJ,SV7c
117-84-0	Di-n-octylphthalate	U	371	ug/kg	74.1	371	
205-99-2	Benzo(b)fluoranthene	U	37.1	ug/kg	11.1	37.1	
207-08-9	Benzo(k)fluoranthene	U	37.1	ug/kg	11.1	37.1	
50-32-8	Benzo(a)pyrene	U	37.1	ug/kg	11.1	37.1	
193-39-5	Indeno(1,2,3-cd)pyrene	U	37.1	ug/kg	11.1	37.1	UJ,SV7c
53-70-3	Dibenzo(a,h)anthracene	U	37.1	ug/kg	11.1	37.1	
191-24-2	Benzo(ghi)perylene	U	37.1	ug/kg	11.1	37.1	UJ,SV7c
120-82-1	1,2,4-Trichlorobenzene	U	371	ug/kg	74.1	371	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.85	365	ug/kg		JA
301-02-0	9-Octadecenamide, (Z)-	11.13	198	ug/kg	95	NJ

EJM
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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1086**	**Date Collected:**	**12/22/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243552011**	**Date Received:**	**12/24/2009 09:30**	**%Moisture:**	**10.1**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-10-2737**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**937151**	**Inst:**	**MSD3.I**	**Dilution:**	**1**
Run Date:	**01/05/2010 01:18**	**Analyst:**	**JLD1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/29/2009 10:16**	**Aliquot:**	**30.03 g**	**Final Volume:**	**1 mL**
Data File:	**s3a0434.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
112-84-5	13-Docosenamide, (Z)-	12.78	537	ug/kg	95	NJ

EJM
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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1086	Date Collected:	12/22/2009 12:00	Matrix:	S
Lab Sample ID:	243552016	Date Received:	12/24/2009 09:30	%Moisture:	11.9
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-10-9872	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	937367	Inst:	MSD1.I	Dilution:	1
Run Date:	12/30/2009 17:23	Analyst:	AMY	Inj. Vol:	.5 uL
Prep Date:	12/29/2009 17:48	Aliquot:	30.03 g	Final Volume:	1 mL
Data File:	s1l3019.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
62-75-9	N-Methyl-N-nitrosomethylamine	U	378	ug/kg	75.6	378	
108-95-2	Phenol	U	378	ug/kg	75.6	378	
95-57-8	2-Chlorophenol	U	378	ug/kg	75.6	378	
106-46-7	1,4-Dichlorobenzene	U	378	ug/kg	75.6	378	
621-64-7	N-Nitrosodipropylamine	U	378	ug/kg	75.6	378	
59-50-7	4-Chloro-3-methylphenol	U	378	ug/kg	75.6	378	
83-32-9	Acenaphthene	U	37.8	ug/kg	12.5	37.8	
121-14-2	2,4-Dinitrotoluene	U	378	ug/kg	37.8	378	
100-02-7	4-Nitrophenol	U	378	ug/kg	125	378	
87-86-5	Pentachlorophenol	U	378	ug/kg	94.5	378	
129-00-0	Pyrene	U	37.8	ug/kg	11.3	37.8	
110-86-1	Pyridine	U	378	ug/kg	75.6	378	UJ,SV7c
62-53-3	Aniline	U	378	ug/kg	113	378	
111-44-4	bis(2-Chloroethyl) ether	U	378	ug/kg	75.6	378	
541-73-1	1,3-Dichlorobenzene	U	378	ug/kg	75.6	378	
100-51-6	Benzyl alcohol	U	378	ug/kg	113	378	
95-50-1	1,2-Dichlorobenzene	U	378	ug/kg	75.6	378	
108-60-1	bis(2-Chloroisopropyl)ether	U	378	ug/kg	75.6	378	
95-48-7	o-Cresol	U	378	ug/kg	75.6	378	
65794-96-9	m,p-Cresols	U	378	ug/kg	113	378	
67-72-1	Hexachloroethane	U	378	ug/kg	75.6	378	
98-95-3	Nitrobenzene	U	378	ug/kg	75.6	378	
78-59-1	Isophorone	U	378	ug/kg	75.6	378	
88-75-5	2-Nitrophenol	U	378	ug/kg	75.6	378	
105-67-9	2,4-Dimethylphenol	U	378	ug/kg	132	378	
111-91-1	bis(2-Chloroethoxy)methane	U	378	ug/kg	75.6	378	
120-83-2	2,4-Dichlorophenol	U	378	ug/kg	75.6	378	
65-85-0	Benzoic acid	U	756	ug/kg	189	756	
91-20-3	Naphthalene	U	37.8	ug/kg	11.3	37.8	
106-47-8	4-Chloroaniline	U	378	ug/kg	75.6	378	
87-68-3	Hexachlorobutadiene	U	378	ug/kg	75.6	378	
91-57-6	2-Methylnaphthalene	U	37.8	ug/kg	7.56	37.8	
77-47-4	Hexachlorocyclopentadiene	U	378	ug/kg	75.6	378	
88-06-2	2,4,6-Trichlorophenol	U	378	ug/kg	75.6	378	
95-95-4	2,4,5-Trichlorophenol	U	378	ug/kg	75.6	378	
91-58-7	2-Chloronaphthalene	U	37.8	ug/kg	12.5	37.8	
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	378	ug/kg	75.6	378	
99-09-2	3-Nitroaniline	U	378	ug/kg	75.6	378	UJ,SV7c

EJM
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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1086	**Date Collected:**	12/22/2009 12:00	**Matrix:**	S
Lab Sample ID:	243552016	**Date Received:**	12/24/2009 09:30	**%Moisture:**	11.9
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-10-9872	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	937367	**Inst:**	MSD1.I	**Dilution:**	1
Run Date:	12/30/2009 17:23	**Analyst:**	AMY	**Inj. Vol:**	.5 uL
Prep Date:	12/29/2009 17:48	**Aliquot:**	30.03 g	**Final Volume:**	1 mL
Data File:	s113019.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
	m-Nitroaniline						
131-11-3	Dimethylphthalate	U	378	ug/kg	75.6	378	
606-20-2	2,6-Dinitrotoluene	U	378	ug/kg	37.8	378	
208-96-8	Acenaphthylene	U	37.8	ug/kg	11.3	37.8	
51-28-5	2,4-Dinitrophenol	U	756	ug/kg	144	756	UJ,SV7c
132-64-9	Dibenzofuran	U	378	ug/kg	75.6	378	
84-66-2	Diethylphthalate	U	378	ug/kg	75.6	378	
86-73-7	Fluorene	U	37.8	ug/kg	11.3	37.8	
7005-72-3	4-Chlorophenylphenylether	U	378	ug/kg	75.6	378	
534-52-1	2-Methyl-4,6-dinitrophenol	U	378	ug/kg	75.6	378	
100-01-6	4-Nitroaniline	U	378	ug/kg	113	378	UJ,SV7c
	p-Nitroaniline						
122-39-4	Diphenylamine	U	378	ug/kg	75.6	378	
122-66-7	Azobenzene	U	378	ug/kg	75.6	378	
	1,2-Diphenylhydrazine						
101-55-3	4-Bromophenylphenylether	U	378	ug/kg	75.6	378	
118-74-1	Hexachlorobenzene	U	378	ug/kg	75.6	378	
85-01-8	Phenanthrene	U	37.8	ug/kg	11.3	37.8	
120-12-7	Anthracene	U	37.8	ug/kg	7.56	37.8	
84-74-2	Di-n-butylphthalate	U	378	ug/kg	75.6	378	
206-44-0	Fluoranthene	U	37.8	ug/kg	11.3	37.8	
85-68-7	Butylbenzylphthalate	U	378	ug/kg	75.6	378	
56-55-3	Benzo(a)anthracene	U	37.8	ug/kg	11.3	37.8	
91-94-1	3,3'-Dichlorobenzidine	U	378	ug/kg	113	378	
218-01-9	Chrysene	U	37.8	ug/kg	11.3	37.8	
117-81-7	bis(2-Ethylhexyl)phthalate	U	378	ug/kg	75.6	378	
117-84-0	Di-n-octylphthalate	U	378	ug/kg	75.6	378	
205-99-2	Benzo(b)fluoranthene	U	37.8	ug/kg	11.3	37.8	
207-08-9	Benzo(k)fluoranthene	U	37.8	ug/kg	11.3	37.8	
50-32-8	Benzo(a)pyrene	U	37.8	ug/kg	11.3	37.8	
193-39-5	Indeno(1,2,3-cd)pyrene	U	37.8	ug/kg	11.3	37.8	
53-70-3	Dibenzo(a,h)anthracene	U	37.8	ug/kg	11.3	37.8	
191-24-2	Benzo(ghi)perylene	U	37.8	ug/kg	11.3	37.8	
120-82-1	1,2,4-Trichlorobenzene	U	378	ug/kg	75.6	378	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	1.72	204	ug/kg		J
	Unknown	1.94	3320	ug/kg		J

EJM
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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1086	Date Collected:	12/22/2009 12:00	Matrix:	S
Lab Sample ID:	243552016	Date Received:	12/24/2009 09:30	%Moisture:	11.9
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-10-9872	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	937367	Inst:	MSD1.I	Dilution:	1
Run Date:	12/30/2009 17:23	Analyst:	AMY	Inj. Vol:	.5 uL
Prep Date:	12/29/2009 17:48	Aliquot:	30.03 g	Final Volume:	1 mL
Data File:	s1l3019.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.81	519	ug/kg		JA
	Unknown	8.03	164	ug/kg		J

EJM
03/25/10

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1086	Date Collected:	12/22/2009 12:00	Matrix:	S
Lab Sample ID:	243552014	Date Received:	12/24/2009 09:30	%Moisture:	5.3
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-10-9873	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	937151	Inst:	MSD3.I	Dilution:	1
Run Date:	01/05/2010 02:07	Analyst:	JLD1	Inj. Vol:	.5 uL
Prep Date:	12/29/2009 10:16	Aliquot:	30 g	Final Volume:	1 mL
Data File:	s3a0436.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
62-75-9	N-Methyl-N-nitrosomethylamine	U	352	ug/kg	70.4	352	
108-95-2	Phenol	U	352	ug/kg	70.4	352	
95-57-8	2-Chlorophenol	U	352	ug/kg	70.4	352	
106-46-7	1,4-Dichlorobenzene	U	352	ug/kg	70.4	352	
621-64-7	N-Nitrosodipropylamine	U	352	ug/kg	70.4	352	
59-50-7	4-Chloro-3-methylphenol	U	352	ug/kg	70.4	352	
83-32-9	Acenaphthene	U	35.2	ug/kg	11.6	35.2	
121-14-2	2,4-Dinitrotoluene	U	352	ug/kg	35.2	352	
100-02-7	4-Nitrophenol	U	352	ug/kg	116	352	
87-86-5	Pentachlorophenol	U	352	ug/kg	88.0	352	
129-00-0	Pyrene	U	35.2	ug/kg	10.6	35.2	
110-86-1	Pyridine	U	352	ug/kg	70.4	352	UJ,SV7c
62-53-3	Aniline	U	352	ug/kg	106	352	
111-44-4	bis(2-Chloroethyl) ether	U	352	ug/kg	70.4	352	
541-73-1	1,3-Dichlorobenzene	U	352	ug/kg	70.4	352	
100-51-6	Benzyl alcohol	U	352	ug/kg	106	352	
95-50-1	1,2-Dichlorobenzene	U	352	ug/kg	70.4	352	
108-60-1	bis(2-Chloroisopropyl)ether	U	352	ug/kg	70.4	352	
95-48-7	o-Cresol	U	352	ug/kg	70.4	352	
65794-96-9	m,p-Cresols	U	352	ug/kg	106	352	
67-72-1	Hexachloroethane	U	352	ug/kg	70.4	352	
98-95-3	Nitrobenzene	U	352	ug/kg	70.4	352	
78-59-1	Isophorone	U	352	ug/kg	70.4	352	
88-75-5	2-Nitrophenol	U	352	ug/kg	70.4	352	
105-67-9	2,4-Dimethylphenol	U	352	ug/kg	123	352	
111-91-1	bis(2-Chloroethoxy)methane	U	352	ug/kg	70.4	352	
120-83-2	2,4-Dichlorophenol	U	352	ug/kg	70.4	352	
65-85-0	Benzoic acid	U	704	ug/kg	176	704	
91-20-3	Naphthalene	U	35.2	ug/kg	10.6	35.2	
106-47-8	4-Chloroaniline	U	352	ug/kg	70.4	352	UJ,SV7c
87-68-3	Hexachlorobutadiene	U	352	ug/kg	70.4	352	
91-57-6	2-Methylnaphthalene	U	35.2	ug/kg	7.04	35.2	
77-47-4	Hexachlorocyclopentadiene	U	352	ug/kg	70.4	352	UJ,SV7c
88-06-2	2,4,6-Trichlorophenol	U	352	ug/kg	70.4	352	
95-95-4	2,4,5-Trichlorophenol	U	352	ug/kg	70.4	352	
91-58-7	2-Chloronaphthalene	U	35.2	ug/kg	11.6	35.2	
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	352	ug/kg	70.4	352	
99-09-2	3-Nitroaniline	U	352	ug/kg	70.4	352	UJ,SV7c

EJM
03/25/10

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1086	Date Collected:	12/22/2009 12:00	Matrix:	S
Lab Sample ID:	243552014	Date Received:	12/24/2009 09:30	%Moisture:	5.3
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-10-9873	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	937151	Inst:	MSD3.I	Dilution:	1
Run Date:	01/05/2010 02:07	Analyst:	JLD1	Inj. Vol:	.5 uL
Prep Date:	12/29/2009 10:16	Aliquot:	30 g	Final Volume:	1 mL
Data File:	s3a0436.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
	m-Nitroaniline						
131-11-3	Dimethylphthalate	U	352	ug/kg	70.4	352	
606-20-2	2,6-Dinitrotoluene	U	352	ug/kg	35.2	352	
208-96-8	Acenaphthylene	U	35.2	ug/kg	10.6	35.2	
51-28-5	2,4-Dinitrophenol	U	704	ug/kg	134	704	
132-64-9	Dibenzofuran	U	352	ug/kg	70.4	352	
84-66-2	Diethylphthalate	U	352	ug/kg	70.4	352	
86-73-7	Fluorene	U	35.2	ug/kg	10.6	35.2	
7005-72-3	4-Chlorophenylphenylether	U	352	ug/kg	70.4	352	
534-52-1	2-Methyl-4,6-dinitrophenol	U	352	ug/kg	70.4	352	
100-01-6	4-Nitroaniline	U	352	ug/kg	106	352	UJ,SV7c
	p-Nitroaniline						
122-39-4	Diphenylamine	U	352	ug/kg	70.4	352	
122-66-7	Azobenzene	U	352	ug/kg	70.4	352	
	1,2-Diphenylhydrazine						
101-55-3	4-Bromophenylphenylether	U	352	ug/kg	70.4	352	UJ,SV7c
118-74-1	Hexachlorobenzene	U	352	ug/kg	70.4	352	
85-01-8	Phenanthrene	U	35.2	ug/kg	10.6	35.2	
120-12-7	Anthracene	U	35.2	ug/kg	7.04	35.2	
84-74-2	Di-n-butylphthalate	U	352	ug/kg	70.4	352	
206-44-0	Fluoranthene	U	35.2	ug/kg	10.6	35.2	
85-68-7	Butylbenzylphthalate	U	352	ug/kg	70.4	352	
56-55-3	Benzo(a)anthracene	U	35.2	ug/kg	10.6	35.2	
91-94-1	3,3'-Dichlorobenzidine	U	352	ug/kg	106	352	UJ,SV7c
218-01-9	Chrysene	U	35.2	ug/kg	10.6	35.2	
117-81-7	bis(2-Ethylhexyl)phthalate	U	352	ug/kg	70.4	352	UJ,SV7c
117-84-0	Di-n-octylphthalate	U	352	ug/kg	70.4	352	
205-99-2	Benzo(b)fluoranthene	U	35.2	ug/kg	10.6	35.2	
207-08-9	Benzo(k)fluoranthene	U	35.2	ug/kg	10.6	35.2	
50-32-8	Benzo(a)pyrene	U	35.2	ug/kg	10.6	35.2	
193-39-5	Indeno(1,2,3-cd)pyrene	U	35.2	ug/kg	10.6	35.2	UJ,SV7c
53-70-3	Dibenzo(a,h)anthracene	U	35.2	ug/kg	10.6	35.2	
191-24-2	Benzo(ghi)perylene	U	35.2	ug/kg	10.6	35.2	UJ,SV7c
120-82-1	1,2,4-Trichlorobenzene	U	352	ug/kg	70.4	352	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.85	360	ug/kg		JA
301-02-0	9-Octadecenamide, (Z)-	11.13	195	ug/kg	97	NJ

EJM
03/25/10

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1086**	**Date Collected:**	**12/22/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243552014**	**Date Received:**	**12/24/2009 09:30**	**%Moisture:**	**5.3**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-10-9873**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**937151**	**Inst:**	**MSD3.I**	**Dilution:**	**1**
Run Date:	**01/05/2010 02:07**	**Analyst:**	**JLD1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/29/2009 10:16**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**s3a0436.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
112-84-5	13-Docosenamide, (Z)-	12.78	504	ug/kg	81	NJ
	Unknown	15.57	177	ug/kg		J

EJM
03/25/10

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1086	Date Collected:	12/22/2009 12:00	Matrix:	S
Lab Sample ID:	243552017	Date Received:	12/24/2009 09:30	%Moisture:	6.9
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-10-9874	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	937367	Inst:	MSD1.I	Dilution:	1
Run Date:	12/30/2009 18:36	Analyst:	AMY	Inj. Vol:	.5 uL
Prep Date:	12/29/2009 17:48	Aliquot:	30.01 g	Final Volume:	1 mL
Data File:	s113022.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
62-75-9	N-Methyl-N-nitrosomethylamine	U	358	ug/kg	71.5	358	
108-95-2	Phenol	U	358	ug/kg	71.5	358	
95-57-8	2-Chlorophenol	U	358	ug/kg	71.5	358	
106-46-7	1,4-Dichlorobenzene	U	358	ug/kg	71.5	358	
621-64-7	N-Nitrosodipropylamine	U	358	ug/kg	71.5	358	
59-50-7	4-Chloro-3-methylphenol	U	358	ug/kg	71.5	358	
83-32-9	Acenaphthene	U	35.8	ug/kg	11.8	35.8	
121-14-2	2,4-Dinitrotoluene	U	358	ug/kg	35.8	358	
100-02-7	4-Nitrophenol	U	358	ug/kg	118	358	
87-86-5	Pentachlorophenol	U	358	ug/kg	89.4	358	
129-00-0	Pyrene	U	35.8	ug/kg	10.7	35.8	
110-86-1	Pyridine	U	358	ug/kg	71.5	358	UJ,SV7c
62-53-3	Aniline	U	358	ug/kg	107	358	
111-44-4	bis(2-Chloroethyl) ether	U	358	ug/kg	71.5	358	
541-73-1	1,3-Dichlorobenzene	U	358	ug/kg	71.5	358	
100-51-6	Benzyl alcohol	U	358	ug/kg	107	358	
95-50-1	1,2-Dichlorobenzene	U	358	ug/kg	71.5	358	
108-60-1	bis(2-Chloroisopropyl)ether	U	358	ug/kg	71.5	358	
95-48-7	o-Cresol	U	358	ug/kg	71.5	358	
65794-96-9	m,p-Cresols	U	358	ug/kg	107	358	
67-72-1	Hexachloroethane	U	358	ug/kg	71.5	358	
98-95-3	Nitrobenzene	U	358	ug/kg	71.5	358	
78-59-1	Isophorone	U	358	ug/kg	71.5	358	
88-75-5	2-Nitrophenol	U	358	ug/kg	71.5	358	
105-67-9	2,4-Dimethylphenol	U	358	ug/kg	125	358	
111-91-1	bis(2-Chloroethoxy)methane	U	358	ug/kg	71.5	358	
120-83-2	2,4-Dichlorophenol	U	358	ug/kg	71.5	358	
65-85-0	Benzoic acid	U	715	ug/kg	179	715	
91-20-3	Naphthalene	U	35.8	ug/kg	10.7	35.8	
106-47-8	4-Chloroaniline	U	358	ug/kg	71.5	358	
87-68-3	Hexachlorobutadiene	U	358	ug/kg	71.5	358	
91-57-6	2-Methylnaphthalene	U	35.8	ug/kg	7.15	35.8	
77-47-4	Hexachlorocyclopentadiene	U	358	ug/kg	71.5	358	
88-06-2	2,4,6-Trichlorophenol	U	358	ug/kg	71.5	358	
95-95-4	2,4,5-Trichlorophenol	U	358	ug/kg	71.5	358	
91-58-7	2-Chloronaphthalene	U	35.8	ug/kg	11.8	35.8	
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	358	ug/kg	71.5	358	
99-09-2	3-Nitroaniline	U	358	ug/kg	71.5	358	UJ,SV7c

EJM
03/25/10

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1086	Date Collected:	12/22/2009 12:00	Matrix:	S
Lab Sample ID:	243552017	Date Received:	12/24/2009 09:30	%Moisture:	6.9
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-10-9874	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	937367	Inst:	MSD1.I	Dilution:	1
Run Date:	12/30/2009 18:36	Analyst:	AMY	Inj. Vol:	.5 uL
Prep Date:	12/29/2009 17:48	Aliquot:	30.01 g	Final Volume:	1 mL
Data File:	s113022.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
	m-Nitroaniline						
131-11-3	Dimethylphthalate	U	358	ug/kg	71.5	358	
606-20-2	2,6-Dinitrotoluene	U	358	ug/kg	35.8	358	
208-96-8	Acenaphthylene	U	35.8	ug/kg	10.7	35.8	
51-28-5	2,4-Dinitrophenol	U	715	ug/kg	136	715	UJ,SV7c
132-64-9	Dibenzofuran	U	358	ug/kg	71.5	358	
84-66-2	Diethylphthalate	U	358	ug/kg	71.5	358	
86-73-7	Fluorene	U	35.8	ug/kg	10.7	35.8	
7005-72-3	4-Chlorophenylphenylether	U	358	ug/kg	71.5	358	
534-52-1	2-Methyl-4,6-dinitrophenol	U	358	ug/kg	71.5	358	
100-01-6	4-Nitroaniline	U	358	ug/kg	107	358	UJ,SV7c
	p-Nitroaniline						
122-39-4	Diphenylamine	U	358	ug/kg	71.5	358	
122-66-7	Azobenzene	U	358	ug/kg	71.5	358	
	1,2-Diphenylhydrazine						
101-55-3	4-Bromophenylphenylether	U	358	ug/kg	71.5	358	
118-74-1	Hexachlorobenzene	U	358	ug/kg	71.5	358	
85-01-8	Phenanthrene	U	35.8	ug/kg	10.7	35.8	
120-12-7	Anthracene	U	35.8	ug/kg	7.15	35.8	
84-74-2	Di-n-butylphthalate	U	358	ug/kg	71.5	358	
206-44-0	Fluoranthene	U	35.8	ug/kg	10.7	35.8	
85-68-7	Butylbenzylphthalate	U	358	ug/kg	71.5	358	
56-55-3	Benzo(a)anthracene	U	35.8	ug/kg	10.7	35.8	
91-94-1	3,3'-Dichlorobenzidine	U	358	ug/kg	107	358	
218-01-9	Chrysene	U	35.8	ug/kg	10.7	35.8	
117-81-7	bis(2-Ethylhexyl)phthalate	U	358	ug/kg	71.5	358	
117-84-0	Di-n-octylphthalate	U	358	ug/kg	71.5	358	
205-99-2	Benzo(b)fluoranthene	U	35.8	ug/kg	10.7	35.8	
207-08-9	Benzo(k)fluoranthene	U	35.8	ug/kg	10.7	35.8	
50-32-8	Benzo(a)pyrene	U	35.8	ug/kg	10.7	35.8	
193-39-5	Indeno(1,2,3-cd)pyrene	U	35.8	ug/kg	10.7	35.8	
53-70-3	Dibenzo(a,h)anthracene	U	35.8	ug/kg	10.7	35.8	
191-24-2	Benzo(ghi)perylene	U	35.8	ug/kg	10.7	35.8	
120-82-1	1,2,4-Trichlorobenzene	U	358	ug/kg	71.5	358	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Flt	Qual
	Unknown	1.67	275	ug/kg		J
	Unknown	1.91	185	ug/kg		J

EJM
03/25/10

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1086	**Date Collected:**	12/22/2009 12:00	**Matrix:**	S
Lab Sample ID:	243552017	**Date Received:**	12/24/2009 09:30	**%Moisture:**	6.9
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-10-9874	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	937367	**Inst:**	MSD1.I	**Dilution:**	1
Run Date:	12/30/2009 18:36	**Analyst:**	AMY	**Inj. Vol:**	.5 uL
Prep Date:	12/29/2009 17:48	**Aliquot:**	30.01 g	**Final Volume:**	1 mL
Data File:	s1l3022.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.8	500	ug/kg		JA

EJM
03/25/10

DATA VALIDATION COVER SHEET

5116-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-1086 VALIDATION DATE: 03/25/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Ellen McEntee ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☒ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE): PCBs

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

None.

Reviewed by: Mary Donivan Level: I Date: 03/26/10

VALIDATOR'S SIGNATURE: Ellen McEntee DATE: 03/25/10

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2

Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, P9	J-, P9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, P9	J-, P9a
☐	☒	☐	3. The affected analytes are regarded as rejected because the analytical holding time was exceeded.	R, P9b	R, P9b
☐	☒	☐	4. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, P7	J, P7
☐	☒	☐	5. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, P7a	J, P7a
☐	☒	☐	6. The Initial Calibration Verification (ICV) and/or Continuing Calibration Verification (CCV) were recovered outside the method-specific limits.	UJ, P7c	J, P7c
☐	☒	☐	7. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, P7d	J, P7d
☐	☒	☐	8. The multicomponent standard was not analyzed within 72 hours of the initial analysis.	R, P7e	J, P7e
☐	☒	☐	9. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, P7f	R, P7f
☐	☐	☒	10. The breakdown criteria have been exceeded. This can cause low bias in reported results. If compound is detected, qualify J-. If compound is not present, but breakdown products are present, qualify R. If no compounds or breakdown products are present, qualify UJ (4,4' DDT and Endrin).	UJ, R, P13	J-, P13

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2

Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	11. The breakdown criteria have been exceeded. This can cause high bias in the reported results and potential false positive results for the breakdown products Endrin ketone, Endrin aldehyde, DDD, and DDE.	UJ, P13a	J+, P13a
☐	☐	☒	12. The breakdown documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P13b	R, P13b
☐	☒	☐	13. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, P4	N/A
☐	☒	☐	14. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was greater than 5X.	N/A	J, P4a
☐	☐	☒	15. The sample result is ≤5X the concentration of the related analyte in the instrument blank and continuing calibration blank.	UJ, P4b	N/A
☐	☐	☒	16. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	UJ, P4d	N/A
☐	☒	☐	17. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P4e	R, P4e
☐	☒	☐	18. The analyte RT shifted by more than 0.05 minutes from the mid-level standard of the initial calibration.	R, P0	J, P0
☐	☒	☐	19. Required retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P0b	R, P0b
☐	☒	☐	20. The surrogate is <10%R. Follow the external laboratory limits located within the associated data package.	R, P3	J-, P3

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2

Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	21. The surrogate is < the Lower Acceptance Level (LAL) but ≥10%R. Follow the external laboratory limits located within the associated data package.	UJ, P3a	J-, P3a
☐	☒	☐	22. The surrogate %R value is > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, P3b
☐	☒	☐	23. At least one surrogate is > the Upper Acceptance Limit (UAL) and one surrogate is < the LAL. Follow the external laboratory limits located within the associated data package.	UJ, P3c	J, P3c
☐	☒	☐	24. Required surrogate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P3d	R, P3d
☐	☒	☐	25. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, P12	J-, P12
☐	☒	☐	26. The LCS percent recovery was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, P12a	J-, P12a
☐	☒	☐	27. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, P12b
☐	☒	☐	28. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P12c	R, P12c
☐	☒	☐	29. The analyte was not confirmed on a second dissimilar column.	N/A	R, P8
☐	☒	☐	30. The second dissimilar column documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P8a	R, P8a
☐	☒	☐	31. Duplicate, Dilution, or reanalysis.	UJ, P88	J, P88

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2 Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	32. The affected analytes have elevated detection limits and may not meet project DQOs because the sample was diluted without any target analytees identified due to matrix interference. Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.	UJ, R, P15	R, P15
☒	☐	☐	33. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB, NQ, NQ
☐	☒	☐	34. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.	UJ, R, P19	J, R, P19

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10–1086	**Date Collected:**	12/22/2009 12:00	**Matrix:**	S
Lab Sample ID:	243552005	**Date Received:**	12/24/2009 09:30	**%Moisture:**	7.3
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03–09–14231	**Method:**	SW846 8082	**SOP Ref:**	GL–OA–E–040
Batch ID:	937178	**Inst:**	ECD1AJ	**Dilution:**	1
Run Date:	12/30/2009 14:20	**Analyst:**	JAOC	**Inj. Vol:**	1 uL
Prep Date:	12/29/2009 09:29	**Aliquot:**	30.02 g	**Final Volume:**	1 mL
Data File:	039f3901.d	**Column:**	1 CLP1	**Level:**	LOW
	039b3901.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	3.59	ug/kg	1.20	3.59	1
11104–28–2	Aroclor–1221	U	3.59	ug/kg	1.20	3.59	1
11141–16–5	Aroclor–1232	U	3.59	ug/kg	1.20	3.59	1
53469–21–9	Aroclor–1242	U	3.59	ug/kg	1.20	3.59	1
12672–29–6	Aroclor–1248	U	3.59	ug/kg	1.20	3.59	1
11097–69–1	Aroclor–1254	U	3.59	ug/kg	1.20	3.59	1
11096–82–5	Aroclor–1260	U	3.59	ug/kg	1.20	3.59	1

EJM
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PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10-1086**	**Date Collected:**	**12/22/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243552006**	**Date Received:**	**12/24/2009 09:30**	**%Moisture:**	**5.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14232**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**937178**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**12/30/2009 14:51**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**12/29/2009 09:29**	**Aliquot:**	**30.09 g**	**Final Volume:**	**1 mL**
Data File:	**042f4201.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	042b4201.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.53	ug/kg	1.17	3.53	1
11104-28-2	Aroclor-1221	U	3.53	ug/kg	1.17	3.53	1
11141-16-5	Aroclor-1232	U	3.53	ug/kg	1.17	3.53	1
53469-21-9	Aroclor-1242	U	3.53	ug/kg	1.17	3.53	1
12672-29-6	Aroclor-1248	U	3.53	ug/kg	1.17	3.53	1
11097-69-1	Aroclor-1254	U	3.53	ug/kg	1.17	3.53	1
11096-82-5	Aroclor-1260	U	3.53	ug/kg	1.17	3.53	1

EJM
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PCB
Certificate of Analysis
Sample Summary

SDG Number:	10-1086	**Date Collected:**	12/22/2009 12:00	**Matrix:**	S
Lab Sample ID:	243552001	**Date Received:**	12/24/2009 09:30	**%Moisture:**	7.4
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14233	**Method:**	SW846 8082	**SOP Ref:**	GL-OA-E-040
Batch ID:	937178	**Inst:**	ECD1A.I	**Dilution:**	1
Run Date:	12/30/2009 13:16	**Analyst:**	JAOC	**Inj. Vol:**	1 uL
Prep Date:	12/29/2009 09:29	**Aliquot:**	30.05 g	**Final Volume:**	1 mL
Data File:	033f3301.d	**Column:**	1 CLP1	**Level:**	LOW
	033b3301.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.59	ug/kg	1.20	3.59	1
11104-28-2	Aroclor-1221	U	3.59	ug/kg	1.20	3.59	1
11141-16-5	Aroclor-1232	U	3.59	ug/kg	1.20	3.59	1
53469-21-9	Aroclor-1242		35.6	ug/kg	1.20	3.59	1
12672-29-6	Aroclor-1248	U	3.59	ug/kg	1.20	3.59	1
11097-69-1	Aroclor-1254		17.6	ug/kg	1.20	3.59	2
11096-82-5	Aroclor-1260		4.40	ug/kg	1.20	3.59	1

EJM
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PCB
Certificate of Analysis
Sample Summary

SDG Number:	10-1086	**Date Collected:**	12/22/2009 12:00	**Matrix:**	S
Lab Sample ID:	243552009	**Date Received:**	12/24/2009 09:30	**%Moisture:**	7.5
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14234	**Method:**	SW846 8082	**SOP Ref:**	GL-OA-E-040
Batch ID:	937178	**Inst:**	ECD1A.I	**Dilution:**	1
Run Date:	12/30/2009 15:23	**Analyst:**	JAOC	**Inj. Vol:**	1 uL
Prep Date:	12/29/2009 09:29	**Aliquot:**	30.05 g	**Final Volume:**	1 mL
Data File:	045f4501.d	**Column:**	1 CLP1	**Level:**	LOW
	045b4501.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.60	ug/kg	1.20	3.60	1
11104-28-2	Aroclor-1221	U	3.60	ug/kg	1.20	3.60	1
11141-16-5	Aroclor-1232	U	3.60	ug/kg	1.20	3.60	1
53469-21-9	Aroclor-1242	U	3.60	ug/kg	1.20	3.60	1
12672-29-6	Aroclor-1248	U	3.60	ug/kg	1.20	3.60	1
11097-69-1	Aroclor-1254	U	3.60	ug/kg	1.20	3.60	1
11096-82-5	Aroclor-1260	U	3.60	ug/kg	1.20	3.60	1

EJM
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PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–1086**	**Date Collected:**	**12/22/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243552007**	**Date Received:**	**12/24/2009 09:30**	**%Moisture:**	**22.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03–09–14235**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**937178**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**12/30/2009 15:02**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**12/29/2009 09:29**	**Aliquot:**	**30.03 g**	**Final Volume:**	**1 mL**
Data File:	**043f4301.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	043b4301.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	4.30	ug/kg	1.43	4.30	1
11104–28–2	Aroclor–1221	U	4.30	ug/kg	1.43	4.30	1
11141–16–5	Aroclor–1232	U	4.30	ug/kg	1.43	4.30	1
53469–21–9	Aroclor–1242	U	4.30	ug/kg	1.43	4.30	1
12672–29–6	Aroclor–1248	U	4.30	ug/kg	1.43	4.30	1
11097–69–1	Aroclor–1254	U	4.30	ug/kg	1.43	4.30	1
11096–82–5	Aroclor–1260	U	4.30	ug/kg	1.43	4.30	1

EJM
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PCB
Certificate of Analysis
Sample Summary

SDG Number:	10-1086	**Date Collected:**	12/22/2009 12:00	**Matrix:**	S
Lab Sample ID:	243552002	**Date Received:**	12/24/2009 09:30	**%Moisture:**	16.2
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14236	**Method:**	SW846 8082	**SOP Ref:**	GL-OA-E-040
Batch ID:	937178	**Inst:**	ECD1A.I	**Dilution:**	1
Run Date:	12/30/2009 13:27	**Analyst:**	JAOC	**Inj. Vol:**	1 uL
Prep Date:	12/29/2009 09:29	**Aliquot:**	30 g	**Final Volume:**	1 mL
Data File:	034f3401.d	**Column:**	1 CLP1	**Level:**	LOW
	034b3401.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.98	ug/kg	1.32	3.98	1
11104-28-2	Aroclor-1221	U	3.98	ug/kg	1.32	3.98	1
11141-16-5	Aroclor-1232	U	3.98	ug/kg	1.32	3.98	1
53469-21-9	Aroclor-1242	U	3.98	ug/kg	1.32	3.98	1
12672-29-6	Aroclor-1248	U	3.98	ug/kg	1.32	3.98	1
11097-69-1	Aroclor-1254	U	3.98	ug/kg	1.32	3.98	1
11096-82-5	Aroclor-1260	U	3.98	ug/kg	1.32	3.98	1

EJM
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PCB
Certificate of Analysis
Sample Summary

SDG Number:	10–1086	**Date Collected:**	12/22/2009 12:00	**Matrix:**	S
Lab Sample ID:	243552008	**Date Received:**	12/24/2009 09:30	**%Moisture:**	5.4
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03–09–14238	**Method:**	SW846 8082	**SOP Ref:**	GL–OA–E–040
Batch ID:	937178	**Inst:**	ECD1A.I	**Dilution:**	1
Run Date:	12/30/2009 15:12	**Analyst:**	JAOC	**Inj. Vol:**	1 uL
Prep Date:	12/29/2009 09:29	**Aliquot:**	30.01 g	**Final Volume:**	1 mL
Data File:	044f4401.d	**Column:**	1 CLP1	**Level:**	LOW
	044b4401.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	3.52	ug/kg	1.17	3.52	1
11104–28–2	Aroclor–1221	U	3.52	ug/kg	1.17	3.52	1
11141–16–5	Aroclor–1232	U	3.52	ug/kg	1.17	3.52	1
53469–21–9	Aroclor–1242	U	3.52	ug/kg	1.17	3.52	1
12672–29–6	Aroclor–1248	U	3.52	ug/kg	1.17	3.52	1
11097–69–1	Aroclor–1254	U	3.52	ug/kg	1.17	3.52	1
11096–82–5	Aroclor–1260	U	3.52	ug/kg	1.17	3.52	1

EJM
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PCB
Certificate of Analysis
Sample Summary

SDG Number:	10-1086	**Date Collected:**	12/22/2009 12:00	**Matrix:**	S
Lab Sample ID:	243552003	**Date Received:**	12/24/2009 09:30	**%Moisture:**	5.5
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14239	**Method:**	SW846 8082	**SOP Ref:**	GL-OA-E-040
Batch ID:	937178	**Inst:**	ECD1A.I	**Dilution:**	1
Run Date:	12/30/2009 13:37	**Analyst:**	JAOC	**Inj. Vol:**	1 uL
Prep Date:	12/29/2009 09:29	**Aliquot:**	30.01 g	**Final Volume:**	1 mL
Data File:	035f3501.d	**Column:**	1 CLP1	**Level:**	LOW
	035b3501.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.52	ug/kg	1.17	3.52	1
11104-28-2	Aroclor-1221	U	3.52	ug/kg	1.17	3.52	1
11141-16-5	Aroclor-1232	U	3.52	ug/kg	1.17	3.52	1
53469-21-9	Aroclor-1242	U	3.52	ug/kg	1.17	3.52	1
12672-29-6	Aroclor-1248	U	3.52	ug/kg	1.17	3.52	1
11097-69-1	Aroclor-1254	U	3.52	ug/kg	1.17	3.52	1
11096-82-5	Aroclor-1260	U	3.52	ug/kg	1.17	3.52	1

EJM
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PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–1086**	**Date Collected:**	**12/22/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243552004**	**Date Received:**	**12/24/2009 09:30**	**%Moisture:**	**5.4**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03–09–14240**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**937178**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**12/30/2009 14:09**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**12/29/2009 09:29**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**038f3801.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	038b3801.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	3.52	ug/kg	1.17	3.52	1
11104–28–2	Aroclor–1221	U	3.52	ug/kg	1.17	3.52	1
11141–16–5	Aroclor–1232	U	3.52	ug/kg	1.17	3.52	1
53469–21–9	Aroclor–1242	U	3.52	ug/kg	1.17	3.52	1
12672–29–6	Aroclor–1248	U	3.52	ug/kg	1.17	3.52	1
11097–69–1	Aroclor–1254	U	3.52	ug/kg	1.17	3.52	1
11096–82–5	Aroclor–1260	U	3.52	ug/kg	1.17	3.52	1

EJM
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PCB
Certificate of Analysis
Sample Summary

SDG Number:	10–1086	**Date Collected:**	12/22/2009 12:00	**Matrix:**	S
Lab Sample ID:	243552010	**Date Received:**	12/24/2009 09:30	**%Moisture:**	12.7
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03–09–14241	**Method:**	SW846 8082	**SOP Ref:**	GL–OA–E–040
Batch ID:	937178	**Inst:**	ECD1A.I	**Dilution:**	1
Run Date:	12/30/2009 15:33	**Analyst:**	JAOC	**Inj. Vol:**	1 uL
Prep Date:	12/29/2009 09:29	**Aliquot:**	30.03 g	**Final Volume:**	1 mL
Data File:	046f4601.d	**Column:**	1 CLP1	**Level:**	LOW
	046b4601.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	3.81	ug/kg	1.27	3.81	1
11104–28–2	Aroclor–1221	U	3.81	ug/kg	1.27	3.81	1
11141–16–5	Aroclor–1232	U	3.81	ug/kg	1.27	3.81	1
53469–21–9	Aroclor–1242	U	3.81	ug/kg	1.27	3.81	1
12672–29–6	Aroclor–1248	U	3.81	ug/kg	1.27	3.81	1
11097–69–1	Aroclor–1254	U	3.81	ug/kg	1.27	3.81	1
11096–82–5	Aroclor–1260	U	3.81	ug/kg	1.27	3.81	1

EJM
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PCB
Certificate of Analysis
Sample Summary

SDG Number:	10-1086	**Date Collected:**	12/22/2009 12:00	**Matrix:**	S
Lab Sample ID:	243552012	**Date Received:**	12/24/2009 09:30	**%Moisture:**	7
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-10-2736	**Method:**	SW846 8082	**SOP Ref:**	GL-OA-E-040
Batch ID:	937178	**Inst:**	ECD1A.I	**Dilution:**	1
Run Date:	12/30/2009 15:54	**Analyst:**	JAOC	**Inj. Vol:**	1 uL
Prep Date:	12/29/2009 09:29	**Aliquot:**	30.09 g	**Final Volume:**	1 mL
Data File:	048f4801.d	**Column:**	1 CLP1	**Level:**	LOW
	048b4801.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.57	ug/kg	1.19	3.57	1
11104-28-2	Aroclor-1221	U	3.57	ug/kg	1.19	3.57	1
11141-16-5	Aroclor-1232	U	3.57	ug/kg	1.19	3.57	1
53469-21-9	Aroclor-1242	U	3.57	ug/kg	1.19	3.57	1
12672-29-6	Aroclor-1248	U	3.57	ug/kg	1.19	3.57	1
11097-69-1	Aroclor-1254	U	3.57	ug/kg	1.19	3.57	1
11096-82-5	Aroclor-1260	U	3.57	ug/kg	1.19	3.57	1

EJM
03/25/10

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–1086**	**Date Collected:**	**12/22/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243552011**	**Date Received:**	**12/24/2009 09:30**	**%Moisture:**	**10.1**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03–10–2737**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**937178**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**12/30/2009 15:44**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**12/29/2009 09:29**	**Aliquot:**	**30.06 g**	**Final Volume:**	**1 mL**
Data File:	**047f4701.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	047b4701.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	3.70	ug/kg	1.23	3.70	1
11104–28–2	Aroclor–1221	U	3.70	ug/kg	1.23	3.70	1
11141–16–5	Aroclor–1232	U	3.70	ug/kg	1.23	3.70	1
53469–21–9	Aroclor–1242		99.4	ug/kg	1.23	3.70	2
12672–29–6	Aroclor–1248	U	3.70	ug/kg	1.23	3.70	1
11097–69–1	Aroclor–1254		102	ug/kg	1.23	3.70	1
11096–82–5	Aroclor–1260		25.4	ug/kg	1.23	3.70	1

EJM
03/25/10

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10-1086	**Date Collected:**	12/22/2009 12:00	**Matrix:**	S
Lab Sample ID:	243552016	**Date Received:**	12/24/2009 09:30	**%Moisture:**	11.9
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-10-9872	**Method:**	SW846 8082	**SOP Ref:**	GL-OA-E-040
Batch ID:	937369	**Inst:**	ECD2A.I	**Dilution:**	1
Run Date:	12/30/2009 15:40	**Analyst:**	JAOC	**Inj. Vol:**	1 uL
Prep Date:	12/29/2009 17:37	**Aliquot:**	30.04 g	**Final Volume:**	1 mL
Data File:	043f4301.d	**Column:**	1 CLP1	**Level:**	LOW
	043b4301.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.78	ug/kg	1.26	3.78	1
11104-28-2	Aroclor-1221	U	3.78	ug/kg	1.26	3.78	1
11141-16-5	Aroclor-1232	U	3.78	ug/kg	1.26	3.78	1
53469-21-9	Aroclor-1242	U	3.78	ug/kg	1.26	3.78	1
12672-29-6	Aroclor-1248	U	3.78	ug/kg	1.26	3.78	1
11097-69-1	Aroclor-1254	U	3.78	ug/kg	1.26	3.78	1
11096-82-5	Aroclor-1260	U	3.78	ug/kg	1.26	3.78	1

EJM
03/25/10

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10-1086	**Date Collected:**	12/22/2009 12:00	**Matrix:**	S
Lab Sample ID:	243552014	**Date Received:**	12/24/2009 09:30	**%Moisture:**	5.3
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-10-9873	**Method:**	SW846 8082	**SOP Ref:**	GL-OA-E-040
Batch ID:	937178	**Inst:**	ECD1A.I	**Dilution:**	1
Run Date:	12/30/2009 16:05	**Analyst:**	JAOC	**Inj. Vol:**	1 uL
Prep Date:	12/29/2009 09:29	**Aliquot:**	30.03 g	**Final Volume:**	1 mL
Data File:	049f4901.d	**Column:**	1 CLP1	**Level:**	LOW
	049b4901.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.52	ug/kg	1.17	3.52	1
11104-28-2	Aroclor-1221	U	3.52	ug/kg	1.17	3.52	1
11141-16-5	Aroclor-1232	U	3.52	ug/kg	1.17	3.52	1
53469-21-9	Aroclor-1242	U	3.52	ug/kg	1.17	3.52	1
12672-29-6	Aroclor-1248	U	3.52	ug/kg	1.17	3.52	1
11097-69-1	Aroclor-1254	U	3.52	ug/kg	1.17	3.52	1
11096-82-5	Aroclor-1260	U	3.52	ug/kg	1.17	3.52	1

EJM
03/25/10

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10–1086	**Date Collected:**	12/22/2009 12:00	**Matrix:**	S
Lab Sample ID:	243552017	**Date Received:**	12/24/2009 09:30	**%Moisture:**	6.9
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03–10–9874	**Method:**	SW846 8082	**SOP Ref:**	GL–OA–E–040
Batch ID:	937369	**Inst:**	ECD2A.I	**Dilution:**	1
Run Date:	12/30/2009 15:51	**Analyst:**	JAOC	**Inj. Vol:**	1 uL
Prep Date:	12/29/2009 17:37	**Aliquot:**	30.06 g	**Final Volume:**	1 mL
Data File:	044f4401.d	**Column:**	1 CLP1	**Level:**	LOW
	044b4401.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	3.57	ug/kg	1.19	3.57	1
11104–28–2	Aroclor–1221	U	3.57	ug/kg	1.19	3.57	1
11141–16–5	Aroclor–1232	U	3.57	ug/kg	1.19	3.57	1
53469–21–9	Aroclor–1242	U	3.57	ug/kg	1.19	3.57	1
12672–29–6	Aroclor–1248	U	3.57	ug/kg	1.19	3.57	1
11097–69–1	Aroclor–1254	U	3.57	ug/kg	1.19	3.57	1
11096–82–5	Aroclor–1260	U	3.57	ug/kg	1.19	3.57	1

EJM
03/25/10

Monday, December 28, 2009

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1086C

REQUEST NUMBER: 10-1086

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Valerie Davis

TURNAROUND/REPORT DUE: 1/22/2010

TURNAROUND REQ'D: 30

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

LAB REQUEST COMMENTS: 243552%

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE03-09-14233	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-09-14233	1	AMBER GLASS	8270C+8082	Ice	S
RE03-09-14236	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-09-14236	1	AMBER GLASS	8270C+8082	Ice	S
RE03-09-14239	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-09-14239	1	AMBER GLASS	8270C+8082	Ice	S
RE03-09-14240	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-09-14240	1	AMBER GLASS	8270C+8082	Ice	S
RE03-09-14231	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-09-14231	1	AMBER GLASS	8270C+8082	Ice	S
RE03-09-14232	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-09-14232	1	AMBER GLASS	8270C+8082	Ice	S
RE03-09-14235	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-09-14235	1	AMBER GLASS	8270C+8082	Ice	S
RE03-09-14238	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-09-14238	1	AMBER GLASS	8270C+8082	Ice	S
RE03-09-14234	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-09-14234	1	AMBER GLASS	8270C+8082	Ice	S
RE03-09-14241	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-09-14241	1	AMBER GLASS	8270C+8082	Ice	S
RE03-10-2737	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-10-2737	1	AMBER GLASS	8270C+8082	Ice	S
RE03-10-2736	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-10-2736	1	AMBER GLASS	8270C+8082	Ice	S
RE03-10-9878	1	SEPTUM AMBER GLASS	8260B Trip Blank	Ice	S
RE03-10-9872	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-10-9872	1	AMBER GLASS	8270C+8082	Ice	S
RE03-10-9873	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-10-9873	1	AMBER GLASS	8270C+8082	Ice	S
RE03-10-9874	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-10-9874	1	AMBER GLASS	8270C+8082	Ice	S
RE03-10-9886	1	SEPTUM AMBER GLASS	8260B Trip Blank	Ice	S

Relinquished By:		Date	Time	Received By:		Date	Time
[illegible]		12/23/09	2100	Greg Tyler	[illegible]	12/30/09	0930
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

Received for DISPOSAL By:		Date	Time	Remarks:
Printed Name	Signature			

10-1086

Monday, December 28, 2009

REQUEST NUMBER: 10-1086

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis
General Engineering Laboratories, Inc., Charleston, SC.
2040 Savage Rd
Charleston, SC 29407

These Samples are on:
LANL Request Number: 10-1086
Per Agreement Number: 126310011
Project Cost Code: MR2A054196D0

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 12/23/2009
TURNAROUND/REPORT DUE: 1/22/2010
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Not Required
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8082	1	RE03-09-14231	S	12/22/2009	
		1	RE03-09-14232	S	12/22/2009	
		1	RE03-09-14233	S	12/22/2009	
		1	RE03-09-14234	S	12/22/2009	
		1	RE03-09-14235	S	12/22/2009	
		1	RE03-09-14236	S	12/22/2009	
		1	RE03-09-14238	S	12/22/2009	
		1	RE03-09-14239	S	12/22/2009	
		1	RE03-09-14240	S	12/22/2009	

Monday, December 28, 2009

REQUEST NUMBER: 10-1086

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8082	1	RE03-09-14241	S	12/22/2009	
		1	RE03-10-2736	S	12/22/2009	
		1	RE03-10-2737	S	12/22/2009	
		1	RE03-10-9872	S	12/22/2009	
		1	RE03-10-9873	S	12/22/2009	
		1	RE03-10-9874	S	12/22/2009	
	SW-846:8260B	1	RE03-09-14231	S	12/22/2009	
		1	RE03-09-14232	S	12/22/2009	
		1	RE03-09-14233	S	12/22/2009	
		1	RE03-09-14234	S	12/22/2009	
		1	RE03-09-14235	S	12/22/2009	
		1	RE03-09-14236	S	12/22/2009	
		1	RE03-09-14238	S	12/22/2009	
		1	RE03-09-14239	S	12/22/2009	
		1	RE03-09-14240	S	12/22/2009	
		1	RE03-09-14241	S	12/22/2009	
		1	RE03-10-2736	S	12/22/2009	
		1	RE03-10-2737	S	12/22/2009	
		1	RE03-10-9872	S	12/22/2009	
		1	RE03-10-9873	S	12/22/2009	
		1	RE03-10-9874	S	12/22/2009	
		1	RE03-10-9878	S	12/22/2009	
		1	RE03-10-9886	S	12/22/2009	
	SW-846:8270C	1	RE03-09-14231	S	12/22/2009	
		1	RE03-09-14232	S	12/22/2009	
		1	RE03-09-14233	S	12/22/2009	
		1	RE03-09-14234	S	12/22/2009	
		1	RE03-09-14235	S	12/22/2009	

Monday, December 28, 2009

REQUEST NUMBER: 10-1086

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8270C	1	RE03-09-14236	S	12/22/2009	
		1	RE03-09-14238	S	12/22/2009	
		1	RE03-09-14239	S	12/22/2009	
		1	RE03-09-14240	S	12/22/2009	
		1	RE03-09-14241	S	12/22/2009	
		1	RE03-10-2736	S	12/22/2009	
		1	RE03-10-2737	S	12/22/2009	
		1	RE03-10-9872	S	12/22/2009	
		1	RE03-10-9873	S	12/22/2009	
		1	RE03-10-9874	S	12/22/2009	

Final Page of REQUEST NUMBER 10-1086

GEL Laboratories LLC

a member of The GEL Group INC

PO Box 30712 Charleston, SC 29417
2040 Savage Road Charleston, SC 29407

P 843.556.8171 F 843.766.1178

www.gel.com

January 05, 2010

Ms. Joylene Valdez
Los Alamos National Laboratory
PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545

Re: LANL ER Project
Work Order: 243552
SDG: 10-1086

Dear Ms. Valdez:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the following analytical results for the sample(s) we received on December 24, 2009, and analyzed for GC Semivolatile PCB, GC/MS Semivolatile and GC/MS Volatile. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 4485.

Sincerely,

for

Valerie Davis
Project Manager

Purchase Order: 72733-001-09
Chain of Custody: 10-1086
Enclosures

problem solved

Los Alamos National Laboratory (72733-001-09)
LANL ER Project
Work Order #: 243552
SDG: 10-1086

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Quality Control Data.....1050
Miscellaneous Data.....1109

Case Narrative

Case Narrative for
Los Alamos National Laboratory (72733-001-09)
LANL ER Project
Workorder #: 243552
SDG # : 10-1086

January 05, 2010

Laboratory Identification:

GEL Laboratories LLC
2040 Savage Road
Charleston, South Carolina 29407
(843) 556-8171

Summary

Sample receipt The samples arrived at GEL Laboratories LLC, Charleston, South Carolina on December 24, 2009 for analysis. The samples were prepared/analyzed within the required holding time. Shipping container temperatures were checked, documented, and within specifications. The samples were screened according to GEL Standard Operating Procedure. The lab received containers for samples RE03-10-9872 and 9874 not listed on the chain of custody. Los Alamos was notified and we were instructed to add samples. A revised COC was later received. All sample containers arrived without any visible signs of tampering or breakage. Containers were checked for pH, where appropriate, and matched the preservative as documented on the accompanying chain of custody. Shipping container temperature was within specification (0 - 6C).

Sample Identification The laboratory received the following samples:

Laboratory ID	Client ID
243552001	RE03-09-14233
243552002	RE03-09-14236
243552003	RE03-09-14239
243552004	RE03-09-14240
243552005	RE03-09-14231
243552006	RE03-09-14232
243552007	RE03-09-14235
243552008	RE03-09-14238
243552009	RE03-09-14234
243552010	RE03-09-14241
243552011	RE03-10-2737
243552012	RE03-10-2736
243552013	RE03-10-9878
243552014	RE03-10-9873
243552015	RE03-10-9886
243552016	RE03-10-9872
243552017	RE03-10-9874

Case Narrative

Sample analyses were conducted using methodology as outlined in GEL Laboratories, LLC (GEL) Standard Operating Procedures. Any technical or administrative problems during analysis, data review, and reduction are contained in the analytical case narratives in the enclosed data package.

Data Package The enclosed data package contains the following sections: Case Narrative, Chain of Custody, Cooler Receipt Checklist, Data Package Qualifier Definitions and data from the following fractions: GC Semivolatile PCB, GC/MS Semivolatile and GC/MS Volatile.

I certify that this data report is in compliance with the terms and conditions of the subcontract and task order, both technically and for completeness, for other than the conditions detailed in the attached case narrative.

for

Valerie Davis

Project Manager

GEL Laboratories LLC PO Box 30712 Charleston, SC 29417 2040 Savage Road Charleston, SC 29407 P 843.556.8171 F 843.766.1178 www.gel.com

List of current GEL Certifications as of 05 January 2010

State	Certification
Arizona	AZ0668
Arkansas	88–0651
CLIA	42D0904046
California – NELAP	01151CA
Colorado	GEL
Connecticut	PH–0169
Dept. of Navy	NFESC 413
EPA Region 5	WG–15J
Florida – NELAP	E87156
Georgia	E87156 (FL/NELAP)
Georgia DW	967
Hawaii	N/A
ISO 17025	2567.01
Idaho	SC00012
Illinois – NELAP	200029
Indiana	C–SC–01
Kansas – NELAP	E–10332
Kentucky	90129
Louisiana – NELAP	03046
Maryland	270
Massachusetts	M–SC012
Nevada	SC00012
New Jersey – NELAP	SC002
New Mexico	FL NELAP E87156
New York – NELAP	11501
North Carolina	233
North Carolina DW	45709
Oklahoma	9904
Pennsylvania – NELAP	68–00485
South Carolina	10120001/10120002
Tennessee	TN 02934
Texas – NELAP	T104704235–07B–TX
U.S. Dept. of Agriculture	S–52597
Utah – NELAP	GEL
Vermont	VT87156
Virginia	00151
Washington	C1641

Chain of Custody and Supporting Documentation

Monday, December 28, 2009

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1086C

REQUEST NUMBER: 10-1086

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 1/22/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS: 243552%

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE03-09-14233	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-09-14233	1	AMBER GLASS	8270C+8082	Ice	S
RE03-09-14236	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-09-14236	1	AMBER GLASS	8270C+8082	Ice	S
RE03-09-14239	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-09-14239	1	AMBER GLASS	8270C+8082	Ice	S
RE03-09-14240	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-09-14240	1	AMBER GLASS	8270C+8082	Ice	S
RE03-09-14231	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-09-14231	1	AMBER GLASS	8270C+8082	Ice	S
RE03-09-14232	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-09-14232	1	AMBER GLASS	8270C+8082	Ice	S
RE03-09-14235	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-09-14235	1	AMBER GLASS	8270C+8082	Ice	S
RE03-09-14238	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-09-14238	1	AMBER GLASS	8270C+8082	Ice	S
RE03-09-14234	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-09-14234	1	AMBER GLASS	8270C+8082	Ice	S
RE03-09-14241	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-09-14241	1	AMBER GLASS	8270C+8082	Ice	S
RE03-10-2737	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-10-2737	1	AMBER GLASS	8270C+8082	Ice	S
RE03-10-2736	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-10-2736	1	AMBER GLASS	8270C+8082	Ice	S
RE03-10-9878	1	SEPTUM AMBER GLASS	8260B Trip Blank	Ice	S
RE03-10-9872	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-10-9872	1	AMBER GLASS	8270C+8082	Ice	S
RE03-10-9873	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-10-9873	1	AMBER GLASS	8270C+8082	Ice	S
RE03-10-9874	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE03-10-9874	1	AMBER GLASS	8270C+8082	Ice	S
RE03-10-9886	1	SEPTUM AMBER GLASS	8260B Trip Blank	Ice	S

Relinquished By:		Date	Time	Received By:		Date	Time
		12/23/09	2100	Greg Tyler		12/30/09	0930
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

Received for DISPOSAL By:		Date	Time	Remarks:
Printed Name	Signature			

10-1086

Monday, December 28, 2009

REQUEST NUMBER: 10-1086

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis
General Engineering Laboratories, Inc., Charleston, SC.
2040 Savage Rd
Charleston, SC 29407

These Samples are on:
LANL Request Number:10-1086
Per Agreement Number:126310011
Project Cost Code: MR2A054196D0

Please analyse the enclosed samples
according to the schedule indicated:

SHIP DATE: 12/23/2009
TURNAROUND/REPORT DUE: 1/22/2010
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Not Required
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8082	1	RE03-09-14231	S	12/22/2009	
		1	RE03-09-14232	S	12/22/2009	
		1	RE03-09-14233	S	12/22/2009	
		1	RE03-09-14234	S	12/22/2009	
		1	RE03-09-14235	S	12/22/2009	
		1	RE03-09-14236	S	12/22/2009	
		1	RE03-09-14238	S	12/22/2009	
		1	RE03-09-14239	S	12/22/2009	
		1	RE03-09-14240	S	12/22/2009	

Monday, December 28, 2009

REQUEST NUMBER: 10-1086

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8082	1	RE03-09-14241	S	12/22/2009	
		1	RE03-10-2736	S	12/22/2009	
		1	RE03-10-2737	S	12/22/2009	
		1	RE03-10-9872	S	12/22/2009	
		1	RE03-10-9873	S	12/22/2009	
		1	RE03-10-9874	S	12/22/2009	
	SW-846:8260B	1	RE03-09-14231	S	12/22/2009	
		1	RE03-09-14232	S	12/22/2009	
		1	RE03-09-14233	S	12/22/2009	
		1	RE03-09-14234	S	12/22/2009	
		1	RE03-09-14235	S	12/22/2009	
		1	RE03-09-14236	S	12/22/2009	
		1	RE03-09-14238	S	12/22/2009	
		1	RE03-09-14239	S	12/22/2009	
		1	RE03-09-14240	S	12/22/2009	
		1	RE03-09-14241	S	12/22/2009	
		1	RE03-10-2736	S	12/22/2009	
		1	RE03-10-2737	S	12/22/2009	
		1	RE03-10-9872	S	12/22/2009	
		1	RE03-10-9873	S	12/22/2009	
		1	RE03-10-9874	S	12/22/2009	
		1	RE03-10-9878	S	12/22/2009	
		1	RE03-10-9886	S	12/22/2009	
	SW-846:8270C	1	RE03-09-14231	S	12/22/2009	
		1	RE03-09-14232	S	12/22/2009	
		1	RE03-09-14233	S	12/22/2009	
		1	RE03-09-14234	S	12/22/2009	
		1	RE03-09-14235	S	12/22/2009	

Monday, December 28, 2009

REQUEST NUMBER: 10-1086

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8270C	1	RE03-09-14236	S	12/22/2009	
		1	RE03-09-14238	S	12/22/2009	
		1	RE03-09-14239	S	12/22/2009	
		1	RE03-09-14240	S	12/22/2009	
		1	RE03-09-14241	S	12/22/2009	
		1	RE03-10-2736	S	12/22/2009	
		1	RE03-10-2737	S	12/22/2009	
		1	RE03-10-9872	S	12/22/2009	
		1	RE03-10-9873	S	12/22/2009	
		1	RE03-10-9874	S	12/22/2009	

Final Page of REQUEST NUMBER 10-1086

GEL Laboratories LLC

SAMPLE RECEIPT & REVIEW FORM

Client: LANL	**SDG/ARCOC/Work Order: 10-1086**
Received By: Greg Tyler	**Date Received: 12/24/09**

Suspected Hazard Information	**Yes**	**No**	*If Counts > x2 area background on samples not marked "radioactive", contact the Radiation Safety Group of further investigation.
COC/Samples marked as radioactive?		X	Maximum Counts Observed*: **60cpm**
Classified Radioactive II by RSO?		X	
COC/Samples marked containing PCBs?		X	
Shipped as a DOT Hazardous?		X	Hazard Class Shipped: UN#:
Samples identified as Foreign Soil?		X	

	Sample Receipt Criteria	**Yes**	**NA**	**No**	**Comments/Qualifiers (Required for Non-Conforming Items)**
1	Shipping containers received intact and sealed?	X			Circle Applicable: seals broken damaged container leaking container other (describe)
2	Samples requiring cold preservation within 0 ≤ 6 deg. C?	X			Preservation Method: ice bags **blue ice** dry ice **none** other 3-5C 14,15C
3	Chain of custody documents included with shipment?	X			
4	Sample containers intact and sealed?	X			Circle Applicable: seals broken damaged container leaking container other (describe)
5	Samples requiring chemical preservation at proper pH?		X		Sample ID's, containers affected and observed pH: If Preservation added, Lot#:
6	VOA vials free of headspace (defined as < 6mm bubble)?		X		Sample ID's and containers affected:
7	Are Encore containers present?			X	(If yes, immediately deliver to Volatiles laboratory)
8	Samples received within holding time?	X			Id's and tests affected:
9	Sample ID's on COC match ID's on bottles?	X			Sample ID's and containers affected:
10	Date & time on COC match date & time on bottles?		X		Sample ID's affected: **No time on Chain of Custody.**
11	Number of containers received match number indicated on COC?	X			Sample ID's affected: RE03-10-9872, 9874 rec'd containers not listed on COC
12	COC form is properly signed in relinquished/received sections?	X			

Comments:

Fed Ex Tracking Numbers

7209 7849 3755 3C	**7209 7849 3803 5C**
7209 7849 3788 4C	**7209 7849 3825 14C**
7209 7849 3799 4C	**7209 7849 3744 14C**
7209 7849 3858 4C	**7209 7849 3733 15C**
7209 7849 3836 5C	**7209 7849 3766 15C**
7209 7849 3777 5C	
7209 7849 3722 5C	
7209 7849 3847 5C	

PM (or PMA) review: Initials JAR Date 12-24-09

Issues from 12/24/09

Possible incorrect ID?

ID on containers: RE16-10-1103 (not found on COC)

8260B (125 ML amber wide-mouth)
METALS-GEL (125 ML Poly)
Anions + CL04 (125 ML poly)
8270C+NMED (500ML Amber)
AM241+GS+ISOPU+ISOU (100ML poly)

ID on COC: RE16-10-1003 (no containers found for these analyses.)

8260B
METALS-GEL
Anions + CL04
8270C+NMED
AM241+GS+ISOPU+ISOU

OOUR COC SAYS 1103 SO I THINK WE ARE GOOD HERE

Other issues…

Missing Containers

Soils

WST03-10-2201	8260B 40ML (received 1 instead of 2 as indicated on COC.)
WST21-10-9930	8260B 40ML (received 1 instead of 2 as indicated on COC.)
WST21-10-9928	8260B 40ML (received 1 instead of 2 as indicated on COC.)
RE16-10-2867	8260B 40 ML (received 1 instead of 2 as indicated on COC.)
RE-10-7559	AM241+GS+ISOPU+ISOU
	Met+U+CL04+CN
	NMED Explosives list
RE-10-7560	AM241+GS+ISOPU+ISOU
	Met+U+CL04+CN
	NMED Explosives list

Cancel 7559 and 7560

Waters

RE03-10-6972	METALS-GEL
	TCN
RE03-10-~~7560~~ 6974	METALS-GEL
	TCN

We'll see if these show up if not in tomorrows delivery then cancel

Containers Received that were not listed on COC(s)

RE03-10-9872	Perchlorate+CN+NO3+pH (500ML poly) H3 AM241+ISOPU+ISOU (500ML poly) 8270C+8082 (250ML amber) 8260B (125ML amber) METALS-GEL (125ML poly)
RE03-10-9874	Perchlorate+CN+NO3+pH (500ML poly) H3 AM241+ISOPU+ISOU (500ML poly) 8270C+8082 (250ML amber) 8260B (125ML amber) METALS-GEL (125ML poly)

These were added to 10-1086/1087 and 1088 will received revised requestes tommorrow

WSTR47-10-7140	TPH DRO (250ML amber)
WSTR47-10-7141	TPH DRO (250ML amber)

Missing bottles from 10-1000

GIN ID: SAFA (505)665-9968
'LENE VALDEZ
; ALAMOS NATL LAB
0 BLDG 1237 DPU 03

; ALAMOS, NM 87545
:TED STATES US

SHIP DATE: 23DEC09
ACTWGT: 65.0 LB MAN
CAD: 0014176/CA 52434

BILL SENDER

ALERIE DAVIS
ENERAL ENGINEERING LAB
040 SAVAGE RD

HARLESTON SC 29407
43)556-8171
EF: 6B01AMR3A0352VA00

3c

FedEx Express

2 of 2
S# 7209 7849 3755
trk# 7209 7849 3744 0201

THU - 24DEC A1
PRIORITY OVERNIGHT

29407
SC-US
CHS

X CHSA

ORIGIN ID: SAFA (505)665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 123 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 23DEC09
ACTWGT: 51.0 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843)556-8171
REF: 6B01AMR2A054196D0

4c

FedEx Express

3 of 3
MPS# 0263 7209 7849 3788
Mstr# 7209 7849 3766 0201

THU - 24DEC A1
PRIORITY OVERNIGHT

29407
SC-US
CHS

XX CHSA

Part # 156148-434 NRI V3 09-09

RIGIN ID: SAFA (505)665-9968
OYLENE VALDEZ
OS ALAMOS NATL LAB
00 BLDG 1237 DPU 03

OS ALAMOS, NM 87545
NITED STATES US

SHIP DATE: 23DEC09
ACTWGT: 51.0 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

ALERIE DAVIS
ENERAL ENGINEERING LAB
040 SAVAGE RD

HARLESTON SC 29407
843)556-8171
EF: 6B01AMR2A05419D0

4c

FedEx Express

1 of 2
RK# 201 7209 7849 3799
MASTER NN

THU - 24DEC A1
PRIORITY OVERNIGHT

29407
SC-US

XX CHSA

ORIGIN ID: SAFA (505)665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 28DEC09
ACTWGT: 45.0 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843)556-8171
REF: 6B01AMR3A0352VA00

4c

FedEx Express

2 of 2
MPS# 0263 7209 7849 3858
Mstr# 7209 7849 3847 0201

THU - 24DEC A1
PRIORITY OVERNIGHT

29407
SC-US

XX CHSA

IGIN ID: SAFA (505)665-9968
YLENE VALDEZ
S ALAMOS NATL LAB
00 BLDG 1237 DPU 03

S ALAMOS, NM 87545
ITED STATES US

SHIP DATE: 23DEC09
ACTWGT: 57.0 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

ALERIE DAVIS
ENERAL ENGINEERING LAB
040 SAVAGE RD

HARLESTON SC 29407
43)556-8171
EF: 6B01AMR3A0352VA00

5c

FedEx Express

3 of 3
S# 7209 7849 3836
trk# 7209 7849 3814 0201

THU - 24DEC A1
PRIORITY OVERNIGHT

29407
SC-US
CHS

XX CHSA

IGIN ID: SAFA (505)665-9968
YLENE VALDEZ
S ALAMOS NATL LAB
00 BLDG 1237 DPU 03

S ALAMOS, NM 87545
ITED STATES US

SHIP DATE: 23DEC09
ACTWGT: 62.0 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

ALERIE DAVIS
ENERAL ENGINEERING LAB
040 SAVAGE RD

HARLESTON SC 29407
43)556-8171
EF: 6B01AMR3A0325VA00

5c

FedEx Express

1 of 2
7209 7849 3722
MASTER ##

THU - 24DEC A1
PRIORITY OVERNIGHT

29407
SC-US
CHS

X CHSA

ORIGIN ID: SAFA (505)665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 23DEC09
ACTWGT: 55.0 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843)556-8171
REF: 6B01AMR2A054196D0

5c

FedEx Express

2 of 3
MPS# 0263 7209 7849 3777
Mstr# 7209 7849 3766 0201

THU - 24DEC A1
PRIORITY OVERNIGHT

29407
SC-US
CHS

XX CHSA

Part # 156... NGT V3 09-09

ORIGIN ID: SAFA (505)665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 23DEC09
ACTWGT: 54.0 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843)556-8171
REF: 6B01AMR3A0352VA00

5c

FedEx Express

1 of 2
TRK# 0201 7209 7849 3847
MASTER

THU - 24DEC A1
PRIORITY OVERNIGHT

29407
SC-US
CHS

XX CHSA

ORIGIN ID: SAFA (505)665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 23DEC09
ACTWGT: 62.0 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843)556-8171
REF: 6B01AMR2A0541DO

5C

FedEx Express

2 of 2
MPS# 7209 7849 3803
Mstr# 7209 7849 3799

THU - 24DEC A1
PRIORITY OVERNIGHT

29407
SC-US
CHS

XX CHSA

ORIGIN ID: SAFA (505)665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 23DEC09
ACTWGT: 62.0 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843)556-8171
REF: 6B01AMR3A0352VA00

14C
no ice

FedEx Express

2 of 3
MPS# 7209 7849 3825
Mstr# 7209 7849 3814

THU - 24DEC A1
PRIORITY OVERNIGHT

29407
SC-US
CHS

XX CHSA

Part # 156148-434 WAIT V3 09/09

ORIGIN ID: SAFA (505)665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

ACTWGT: 65.0 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843)556-8171
REF: 6B01AMR3A0352VA00

14C
no ice

FedEx Express

1 of 2
TRK# 7209 7849 3744
MASTER

THU - 24DEC A1
PRIORITY OVERNIGHT

29407
SC-US
CHS

XX CHSA

ORIGIN ID: SAFA (505)665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 23DEC09
ACTWGT: 64.0 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843)556-8171
REF: 6B01AMR3A0325VA00

15C
no ice

FedEx Express

2 of 2
MPS# 7209 7849 3733
Mstr# 7209 7849 3722

THU - 24DEC A1
PRIORITY OVERNIGHT

29407
SC-US
CHS

XX CHSA

ORIGIN ID: SAFA (505)665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 23DEC09
ACTWGT: 39.0 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843)556-8171
REF: 6B01AMR2A054196D0

15c
no ice

FedEx Express

1 of 3

TRK# 0201 7209 7849 3766

THU - 24DEC A1
PRIORITY OVERNIGHT

MASTER

XX CHSA

29407
SC-US
CHS

Part # 156148-434 NRIT V3 09-09

Data Review Qualifier Flag Definition Sheet

Data Review Qualifier Definitions

Qualifier	Explanation
*	A quality control analyte recovery is outside of specified acceptance criteria
**	Analyte is a surrogate compound
<	Result is less than value reported
>	Result is greater than value reported
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL
A	The TIC is a suspected aldol-condensation product
B	Target analyte was detected in the associated blank
B	Metals-Either presence of analyte detected in the associated blank, or MDL/IDL < sample value < PQL
BD	Results are either below the MDC or tracer recovery is low
C	Analyte has been confirmed by GC/MS analysis
D	Results are reported from a diluted aliquot of the sample
d	5-day BOD-The 2:1 depletion requirement was not met for this sample
E	Organics-Concentration of the target analyte exceeds the instrument calibration range
E	Metals-%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
H	Analytical holding time was exceeded
h	Preparation or preservation holding time was exceeded
J	Value is estimated
N	Metals-The Matrix spike sample recovery is not within specified control limits
N	Organics-Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A	Spike recovery limits do not apply. Sample concentration exceeds spike concentration by 4X or more
ND	Analyte concentration is not detected above the reporting limit
UI	Gamma Spectroscopy-Uncertain identification
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
Z	Paint Filter Test-Particulates passed through the filter, however no free liquids were observed.

GC/MS Volatile Analysis

GC/MS Volatile Organics
Los Alamos National Laboratory (LANL)
SDG 10-1086

Method/Analysis Information

Procedure:	Volatile Organic Compounds (VOC) by Gas Chromatograph/Mass Spectrometer
Analytical Method:	SW846 8260B
Prep Method:	SW846 5030
Analytical Batch Number:	937990
Prep Batch Number:	937989

Sample Analysis

The following client and quality control samples were analyzed to complete this SDG using the methods referenced in the Analysis Information section:

Sample ID	Client ID
243552001	RE03-09-14233
243552002	RE03-09-14236
243552003	RE03-09-14239
243552004	RE03-09-14240
243552005	RE03-09-14231
243552006	RE03-09-14232
243552007	RE03-09-14235
243552008	RE03-09-14238
243552009	RE03-09-14234
243552010	RE03-09-14241
243552011	RE03-10-2737
243552012	RE03-10-2736
243552013	RE03-10-9878
243552014	RE03-10-9873
243552015	RE03-10-9886
243552016	RE03-10-9872
243552017	RE03-10-9874
1202007169	Method Blank (MB)
1202007173	Laboratory Control Sample (LCS)
1202007174	Laboratory Control Sample (LCS)
1202007170	Method Blank (MB)
1202007175	Laboratory Control Sample (LCS)
1202007176	Laboratory Control Sample (LCS)
1202007171	243552001(RE03-09-14233) Post Spike (PS)
1202007172	243552001(RE03-09-14233) Post Spike Duplicate (PSD)

NOTE: For volatile organic analyses the matrix spike designations may be indicated as "PS" or "PSD". The "PS" designation (post spike) indicates that the matrix was fortified prior to analysis but after applying any prep factors, such as a dilution. The laboratory considers the MS/MSD and PS/PSD designations interchangeable.

Samples 243552 001, 002, 003, 004, 005, 006, 007, 008, 009, 010, 011, 012, 014, 016 and 017 in this SDG were analyzed on an "dry weight" basis. Samples 243552 013 and 015 in this SDG were analyzed on a "as received" basis.

Preparation/Analytical Method Verification

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-038 REV# 13.

Raw data reports are processed and reviewed by the analyst using the Target software package. False positives have been removed from the Target quantitation reports per standard operating procedures (SOP) section 19.1.2.

Calibration Information

Please note that the 'Cal Date' indicated on each quantitation report reflects the date and time of the most recent calibrated analyte(s) in the Target processing method. Since the laboratory may calibrate with multiple solutions on different days using the same processing method, the Target software will update the 'Cal Date' to the last calibration file, date and time. The correct dates and times for all calibration files are located on the Calibration History report in the Standard Data section in the data package.

The surrogate compounds were calibrated using a minimum five-point calibration curve. The surrogates were added by the auto sampler at a concentration of 50 ug/L. GEL Laboratories LLC will not have surrogate recoveries reported for Dibromofluoromethane. This is due to increased regulations for this analyte and an industry shortage.

Due to software limitations, the Calibration Summary Form 6 may not indicate all the calibration files comprising the initial calibration. A complete list of the initial calibration data files are shown in the Calibration History report located in the Standard Data section of the data package.

The linear equation used in Target and indicated on the initial calibration summary form is not a conventional linear equation (slope intercept formula) and does not match the equation found in SW-846 method 8000B. The x and y axes are inversed in Target, so that the instrument response is treated as the independent variable (x) and the concentration ratio is treated as the dependent variable (y). The equation used in Target to calculate sample results is adjusted to account for the linear equation inversion and reciprocal slope. The adjusted calculation has been independently verified to produce valid results.

Initial Calibration

All initial calibration requirements have been met for this sample delivery groups (SDG). A second source initial calibration verification (ICV) was included in the standard section directly behind the initial calibration.

Continuing Calibration Verification Requirements

All associated calibration verification standard(s) (ICV or CCV) met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement

The MBs analyzed with this SDG met the acceptance criteria.

Surrogate Recoveries

Surrogate recoveries in all client and quality control samples were within the acceptance limits.

Laboratory Control Sample (LCS) Recovery

The LCS recoveries were not all within the acceptance limits. The unacceptable recoveries were less than 5% of the requested analyte list. This satisfies the client criteria. The results are reported. See DER 779655.

QC Sample Designation

Sample 243552001 (RE03-09-14233) was designated for spike analysis in this SDG.

Matrix Spike (PS) Recovery Statement

The spike recoveries for this SDG were within the required acceptance limits.

Matrix Spike Duplicate (PSD) Recovery Statement

The spike duplicate recoveries for this SDG were within the required acceptance limits.

Relative Percent Difference (RPD) Statement
The RPD between the matrix spike pair were not all within the acceptance limits. See DER 779655.

Internal Standard (ISTD) Acceptance
The internal standard responses in all client and quality control samples met the required acceptance criteria.

Technical Information

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection or sample receipt. Those holding times expressed in hours are calculated in the ALPHALIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Sample Preservation and Integrity
All samples met the sample preservation and integrity requirements.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-extraction/Re-analysis
Re-analyses were required for samples in this SDG due to unacceptable recoveries in the initial analysis.

Miscellaneous Information

Electronic Package Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. An electronic signature page inserted after the case narrative of each electronic package will indicate the analyst, reviewer, and report specialist names associated with the generation of the data and package. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Data Exception (DER) Documentation
DER # 779655 was generated for this SDG.

Manual Integrations
Data files associated with the initial calibration, continuing calibration check, and samples did not require manual integrations.

TIC Comment
Tentatively identified compounds (TIC) were required for this SDG.

Additional Comments
Additional comments were not required for this SDG.

Residual Chlorine
Residual Chlorine was not detected in any of the samples in this SDG.

System Configuration

The Volatile-GC/MS analysis was performed on the following instrument configuration:

Instrument ID	Instrument	System Configuration	Column ID	Column Description	P & T Trap
VOA1.I	Gas Chromatograph/Mass Spectrometer	HP6890/HP5973	RTX-624	Restek, 60m x 0.25mm x 1.4um	Trap 10

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis Report
for

LANL010 Los Alamos National Laboratory (72733-001-09)

Client SDG: 10-1086 GEL Work Order: 243552

The Qualifiers in this report are defined as follows:

* A quality control analyte recovery is outside of specified acceptance criteria

** Analyte is a surrogate compound

J Value is estimated

U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

Review/Validation

GEL requires all analytical data to be verified by a qualified data reviewer. In addition, all CLP-like deliverables receive a third level review of the fractional data package.

The following data validator verified the information presented in this case narrative:

Signature: Erin Haubert **Name: Erin Haubert**

Date: 20 JAN 2010 **Title: Data Validator**

Roadmap for LANL 10-1086 VOA

This roadmap was analyzed by ron01469 on 01-13-2010, 08:45.
This roadmap was analyzed by sar00518 on 01-18-2010, 17:58.
This roadmap was reviewed by sar00518 on 01-18-2010, 18:15.

Sample

exclude	manual	datafile	smpid	clientid	injdate	injtime	sublist	dilution	batchid	comment
☐	N	/chem/VOA1.i/123109v1/1t407.d	243552001	RE03-09-14233	31-DEC-2009	13:09	10-1086.sub	1	937990	
☐	N	/chem/VOA1.i/123109v1/1t408.d	243552002	RE03-09-14236	31-DEC-2009	13:39	10-1086.sub	1	937990	
☐	N	/chem/VOA1.i/123109v1/1t409.d	243552003	RE03-09-14239	31-DEC-2009	14:10	10-1086.sub	1	937990	
☐	N	/chem/VOA1.i/123109v1/1t410.d	243552004	RE03-09-14240	31-DEC-2009	14:40	10-1086.sub	1	937990	
☐	N	/chem/VOA1.i/123109v1/1t411.d	243552005	RE03-09-14231	31-DEC-2009	15:10	10-1086.sub	1	937990	
☐	N	/chem/VOA1.i/123109v1/1t413.d	243552007	RE03-09-14235	31-DEC-2009	16:11	10-1086.sub	1	937990	
☐	N	/chem/VOA1.i/123109v1/1t415.d	243552009	RE03-09-14234	31-DEC-2009	17:11	10-1086.sub	1	937990	
☐	N	/chem/VOA1.i/123109v1/1t416.d	243552010	RE03-09-14241	31-DEC-2009	17:41	10-1086.sub	1	937990	
☐	N	/chem/VOA1.i/123109v1/1t417.d	243552011	RE03-10-2737	31-DEC-2009	18:11	10-1086.sub	1	937990	
☐	N	/chem/VOA1.i/123109v1/1t418.d	243552012	RE03-10-2736	31-DEC-2009	18:42	10-1086.sub	1	937990	
☐	N	/chem/VOA1.i/123109v1/1t419.d	243552013	RE03-10-9878	31-DEC-2009	19:13	10-1086.sub	1	937990	
☐	N	/chem/VOA1.i/123109v1/1t420.d	243552014	RE03-10-9873	31-DEC-2009	19:43	10-1086.sub	1	937990	
☐	N	/chem/VOA1.i/123109v1/1t421.d	243552015	RE03-10-9886	31-DEC-2009	20:14	10-1086.sub	1	937990	
☐	N	/chem/VOA1.i/123109v1/1t422.d	243552016	RE03-10-9872	31-DEC-2009	20:44	10-1086.sub	1	937990	
☐	N	/chem/VOA1.i/123109v1/1t423.d	243552017	RE03-10-9874	31-DEC-2009	21:14	10-1086.sub	1	937990	
☐	N	/chem/VOA1.i/010410v1/1u109.d	243552006	RE03-09-14232	04-JAN-2010	12:59	10-1086.sub	1	937990	
☐	N	/chem/VOA1.i/010410v1/1u114.d	243552008	RE03-09-14238	04-JAN-2010	15:35	10-1086.sub	1	937990	

QC Sample

exclude	manual	datafile	smpid	clientid	sampletype	injdate	injtime	sublist	dilution	batchid	comment
☐	N	/chem/VOA1.i/123109v1/1t403LA.d	1202007173	LCS	lcs	31-DEC-2009	10:52	all.sub	1	937990	
☐	N	/chem/VOA1.i/123109v1/1t404sLA.d	1202007174	LCS	lcs	31-DEC-2009	11:39	all.sub	1	937990	
☐	N	/chem/VOA1.i/123109v1/1t406BA.d	1202007169	BLANK	mb	31-DEC-2009	12:39	all.sub	1	937990	
☐	N	/chem/VOA1.i/010410v1/1u104LB.d	1202007175	LCS	lcs	04-JAN-2010	09:33	all.sub	1	937990	
☐	N	/chem/VOA1.i/010410v1/1u105sLB.d	1202007176	LCS	lcs	04-JAN-2010	10:03	all.sub	1	937990	
☐	N	/chem/VOA1.i/010410v1/1u107BB.d	1202007170	BLANK	mb	04-JAN-2010	11:04	all.sub	1	937990	
☐	N	/chem/VOA1.i/010410v1/1u115.d	1202007171	RE03-09-14233MS	ms	04-JAN-2010	16:11	10-1086.sub	1	937990	
☐	N	/chem/VOA1.i/010410v1/1u116.d	1202007172	RE03-09-14233MSD	msd	04-JAN-2010	16:42	all.sub	1	937990	

Sample Data Summary

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1086	**Date Collected:**	12/22/2009 12:00	**Matrix:**	S
Lab Sample ID:	243552005	**Date Received:**	12/24/2009 09:30	**%Moisture:**	7.3
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14231	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	937990	**Inst:**	VOA1.I	**Dilution:**	1
Run Date:	12/31/2009 15:10	**Analyst:**	RXM4	**Purge Vol:**	5 mL
Prep Date:	12/31/2009 11:55	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	1t411.d	**Column:**	RTX-Volatiles	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.08	ug/kg	0.367	1.08
74-87-3	Chloromethane	U	1.08	ug/kg	0.324	1.08
75-01-4	Vinyl chloride	U	1.08	ug/kg	0.324	1.08
74-83-9	Bromomethane	U	1.08	ug/kg	0.324	1.08
75-00-3	Chloroethane	U	1.08	ug/kg	0.324	1.08
75-69-4	Trichlorofluoromethane	U	1.08	ug/kg	0.324	1.08
67-64-1	Acetone	J	2.10	ug/kg	1.79	5.39
75-35-4	1,1-Dichloroethylene	U	1.08	ug/kg	0.324	1.08
74-88-4	Iodomethane	U	5.39	ug/kg	1.73	5.39
75-09-2	Methylene chloride	U	5.39	ug/kg	2.16	5.39
75-15-0	Carbon disulfide	U	5.39	ug/kg	1.35	5.39
156-60-5	trans-1,2-Dichloroethylene	U	1.08	ug/kg	0.324	1.08
75-34-3	1,1-Dichloroethane	U	1.08	ug/kg	0.324	1.08
78-93-3	2-Butanone	U	5.39	ug/kg	1.62	5.39
156-59-2	cis-1,2-Dichloroethylene	U	1.08	ug/kg	0.324	1.08
594-20-7	2,2-Dichloropropane	U	1.08	ug/kg	0.324	1.08
67-66-3	Chloroform	U	1.08	ug/kg	0.324	1.08
74-97-5	Bromochloromethane	U	1.08	ug/kg	0.356	1.08
71-55-6	1,1,1-Trichloroethane	U	1.08	ug/kg	0.324	1.08
563-58-6	1,1-Dichloropropene	U	1.08	ug/kg	0.324	1.08
56-23-5	Carbon tetrachloride	U	1.08	ug/kg	0.324	1.08
107-06-2	1,2-Dichloroethane	U	1.08	ug/kg	0.324	1.08
71-43-2	Benzene	U	1.08	ug/kg	0.324	1.08
79-01-6	Trichloroethylene	U	1.08	ug/kg	0.356	1.08
78-87-5	1,2-Dichloropropane	U	1.08	ug/kg	0.324	1.08
75-27-4	Bromodichloromethane	U	1.08	ug/kg	0.324	1.08
74-95-3	Dibromomethane	U	1.08	ug/kg	0.324	1.08
108-10-1	4-Methyl-2-pentanone	U	5.39	ug/kg	1.35	5.39
10061-01-5	cis-1,3-Dichloropropylene	U	1.08	ug/kg	0.324	1.08
108-88-3	Toluene	U	1.08	ug/kg	0.324	1.08
10061-02-6	trans-1,3-Dichloropropylene	U	1.08	ug/kg	0.324	1.08
79-00-5	1,1,2-Trichloroethane	U	1.08	ug/kg	0.324	1.08
591-78-6	2-Hexanone	U	5.39	ug/kg	1.62	5.39
142-28-9	1,3-Dichloropropane	U	1.08	ug/kg	0.324	1.08
127-18-4	Tetrachloroethylene	U	1.08	ug/kg	0.324	1.08
124-48-1	Dibromochloromethane	U	1.08	ug/kg	0.324	1.08
106-93-4	1,2-Dibromoethane	U	1.08	ug/kg	0.324	1.08
108-90-7	Chlorobenzene	U	1.08	ug/kg	0.324	1.08

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1086**	**Date Collected:**	**12/22/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243552005**	**Date Received:**	**12/24/2009 09:30**	**%Moisture:**	**7.3**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14231**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937990**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**12/31/2009 15:10**	**Analyst:**	**RXM4**	**Purge Vol:**	**5 mL**
Prep Date:	**12/31/2009 11:55**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1t411.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.08	ug/kg	0.324	1.08
179601-23-1	m,p-Xylenes	U	2.16	ug/kg	0.324	2.16
95-47-6	o-Xylene	U	1.08	ug/kg	0.324	1.08
100-42-5	Styrene	U	1.08	ug/kg	0.324	1.08
75-25-2	Bromoform	U	1.08	ug/kg	0.324	1.08
79-34-5	1,1,2,2-Tetrachloroethane	U	1.08	ug/kg	0.324	1.08
96-18-4	1,2,3-Trichloropropane	U	1.08	ug/kg	0.324	1.08
108-86-1	Bromobenzene	U	1.08	ug/kg	0.324	1.08
103-65-1	n-Propylbenzene	U	1.08	ug/kg	0.324	1.08
95-49-8	2-Chlorotoluene	U	1.08	ug/kg	0.324	1.08
98-82-8	Isopropylbenzene	U	1.08	ug/kg	0.324	1.08
108-67-8	1,3,5-Trimethylbenzene	U	1.08	ug/kg	0.324	1.08
106-43-4	4-Chlorotoluene	U	1.08	ug/kg	0.324	1.08
98-06-6	tert-Butylbenzene	U	1.08	ug/kg	0.324	1.08
95-63-6	1,2,4-Trimethylbenzene	U	1.08	ug/kg	0.324	1.08
135-98-8	sec-Butylbenzene	U	1.08	ug/kg	0.324	1.08
99-87-6	4-Isopropyltoluene	U	1.08	ug/kg	0.324	1.08
541-73-1	1,3-Dichlorobenzene	U	1.08	ug/kg	0.324	1.08
106-46-7	1,4-Dichlorobenzene	U	1.08	ug/kg	0.324	1.08
104-51-8	n-Butylbenzene	U	1.08	ug/kg	0.324	1.08
96-12-8	1,2-Dibromo-3-chloropropane	U	1.08	ug/kg	0.324	1.08
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.39	ug/kg	1.73	5.39
630-20-6	1,1,1,2-Tetrachloroethane	U	1.08	ug/kg	0.324	1.08
95-50-1	1,2-Dichlorobenzene	U	1.08	ug/kg	0.324	1.08

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Siloxane	18.06	13.6	ug/kg		J

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1086	**Date Collected:**	12/22/2009 12:00	**Matrix:**	S
Lab Sample ID:	243552006	**Date Received:**	12/24/2009 09:30	**%Moisture:**	5.8
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14232	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	937990	**Inst:**	VOA1.I	**Dilution:**	1
Run Date:	01/04/2010 12:59	**Analyst:**	RXM4	**Purge Vol:**	5 mL
Prep Date:	01/04/2010 10:12	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	1u109.d	**Column:**	RTX-Volatiles	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.06	ug/kg	0.361	1.06
74-87-3	Chloromethane	U	1.06	ug/kg	0.318	1.06
75-01-4	Vinyl chloride	U	1.06	ug/kg	0.318	1.06
74-83-9	Bromomethane	U	1.06	ug/kg	0.318	1.06
75-00-3	Chloroethane	U	1.06	ug/kg	0.318	1.06
75-69-4	Trichlorofluoromethane	U	1.06	ug/kg	0.318	1.06
67-64-1	Acetone	U	5.31	ug/kg	1.76	5.31
75-35-4	1,1-Dichloroethylene	U	1.06	ug/kg	0.318	1.06
74-88-4	Iodomethane	U	5.31	ug/kg	1.70	5.31
75-09-2	Methylene chloride	U	5.31	ug/kg	2.12	5.31
75-15-0	Carbon disulfide	U	5.31	ug/kg	1.33	5.31
156-60-5	trans-1,2-Dichloroethylene	U	1.06	ug/kg	0.318	1.06
75-34-3	1,1-Dichloroethane	U	1.06	ug/kg	0.318	1.06
78-93-3	2-Butanone	U	5.31	ug/kg	1.59	5.31
156-59-2	cis-1,2-Dichloroethylene	U	1.06	ug/kg	0.318	1.06
594-20-7	2,2-Dichloropropane	U	1.06	ug/kg	0.318	1.06
67-66-3	Chloroform	U	1.06	ug/kg	0.318	1.06
74-97-5	Bromochloromethane	U	1.06	ug/kg	0.350	1.06
71-55-6	1,1,1-Trichloroethane	U	1.06	ug/kg	0.318	1.06
563-58-6	1,1-Dichloropropene	U	1.06	ug/kg	0.318	1.06
56-23-5	Carbon tetrachloride	U	1.06	ug/kg	0.318	1.06
107-06-2	1,2-Dichloroethane	U	1.06	ug/kg	0.318	1.06
71-43-2	Benzene	U	1.06	ug/kg	0.318	1.06
79-01-6	Trichloroethylene	U	1.06	ug/kg	0.350	1.06
78-87-5	1,2-Dichloropropane	U	1.06	ug/kg	0.318	1.06
75-27-4	Bromodichloromethane	U	1.06	ug/kg	0.318	1.06
74-95-3	Dibromomethane	U	1.06	ug/kg	0.318	1.06
108-10-1	4-Methyl-2-pentanone	U	5.31	ug/kg	1.33	5.31
10061-01-5	cis-1,3-Dichloropropylene	U	1.06	ug/kg	0.318	1.06
108-88-3	Toluene	U	1.06	ug/kg	0.318	1.06
10061-02-6	trans-1,3-Dichloropropylene	U	1.06	ug/kg	0.318	1.06
79-00-5	1,1,2-Trichloroethane	U	1.06	ug/kg	0.318	1.06
591-78-6	2-Hexanone	U	5.31	ug/kg	1.59	5.31
142-28-9	1,3-Dichloropropane	U	1.06	ug/kg	0.318	1.06
127-18-4	Tetrachloroethylene	U	1.06	ug/kg	0.318	1.06
124-48-1	Dibromochloromethane	U	1.06	ug/kg	0.318	1.06
106-93-4	1,2-Dibromoethane	U	1.06	ug/kg	0.318	1.06
108-90-7	Chlorobenzene	U	1.06	ug/kg	0.318	1.06

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1086**	**Date Collected:**	**12/22/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243552006**	**Date Received:**	**12/24/2009 09:30**	**%Moisture:**	**5.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14232**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937990**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**01/04/2010 12:59**	**Analyst:**	**RXM4**	**Purge Vol:**	**5 mL**
Prep Date:	**01/04/2010 10:12**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1u109.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.06	ug/kg	0.318	1.06
179601-23-1	m,p-Xylenes	U	2.12	ug/kg	0.318	2.12
95-47-6	o-Xylene	U	1.06	ug/kg	0.318	1.06
100-42-5	Styrene	U	1.06	ug/kg	0.318	1.06
75-25-2	Bromoform	U	1.06	ug/kg	0.318	1.06
79-34-5	1,1,2,2-Tetrachloroethane	U	1.06	ug/kg	0.318	1.06
96-18-4	1,2,3-Trichloropropane	U	1.06	ug/kg	0.318	1.06
108-86-1	Bromobenzene	U	1.06	ug/kg	0.318	1.06
103-65-1	n-Propylbenzene	U	1.06	ug/kg	0.318	1.06
95-49-8	2-Chlorotoluene	U	1.06	ug/kg	0.318	1.06
98-82-8	Isopropylbenzene	U	1.06	ug/kg	0.318	1.06
108-67-8	1,3,5-Trimethylbenzene	U	1.06	ug/kg	0.318	1.06
106-43-4	4-Chlorotoluene	U	1.06	ug/kg	0.318	1.06
98-06-6	tert-Butylbenzene	U	1.06	ug/kg	0.318	1.06
95-63-6	1,2,4-Trimethylbenzene	U	1.06	ug/kg	0.318	1.06
135-98-8	sec-Butylbenzene	U	1.06	ug/kg	0.318	1.06
99-87-6	4-Isopropyltoluene	U	1.06	ug/kg	0.318	1.06
541-73-1	1,3-Dichlorobenzene	U	1.06	ug/kg	0.318	1.06
106-46-7	1,4-Dichlorobenzene	U	1.06	ug/kg	0.318	1.06
104-51-8	n-Butylbenzene	U	1.06	ug/kg	0.318	1.06
96-12-8	1,2-Dibromo-3-chloropropane	U	1.06	ug/kg	0.318	1.06
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.31	ug/kg	1.70	5.31
630-20-6	1,1,1,2-Tetrachloroethane	U	1.06	ug/kg	0.318	1.06
95-50-1	1,2-Dichlorobenzene	U	1.06	ug/kg	0.318	1.06

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated Units	Fit	Qual
	No Tentatively Identified Compounds Found		ug/kg		

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1086	**Date Collected:**	12/22/2009 12:00	**Matrix:**	S
Lab Sample ID:	243552001	**Date Received:**	12/24/2009 09:30	**%Moisture:**	7.4
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14233	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	937990	**Inst:**	VOA1.I	**Dilution:**	1
Run Date:	12/31/2009 13:09	**Analyst:**	RXM4	**Purge Vol:**	5 mL
Prep Date:	12/31/2009 11:51	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	1t407.d	**Column:**	RTX-Volatiles	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.08	ug/kg	0.367	1.08
74-87-3	Chloromethane	U	1.08	ug/kg	0.324	1.08
75-01-4	Vinyl chloride	U	1.08	ug/kg	0.324	1.08
74-83-9	Bromomethane	U	1.08	ug/kg	0.324	1.08
75-00-3	Chloroethane	U	1.08	ug/kg	0.324	1.08
75-69-4	Trichlorofluoromethane	U	1.08	ug/kg	0.324	1.08
67-64-1	Acetone	U	5.40	ug/kg	1.79	5.40
75-35-4	1,1-Dichloroethylene	U	1.08	ug/kg	0.324	1.08
74-88-4	Iodomethane	U	5.40	ug/kg	1.73	5.40
75-09-2	Methylene chloride	U	5.40	ug/kg	2.16	5.40
75-15-0	Carbon disulfide	U	5.40	ug/kg	1.35	5.40
156-60-5	trans-1,2-Dichloroethylene	U	1.08	ug/kg	0.324	1.08
75-34-3	1,1-Dichloroethane	U	1.08	ug/kg	0.324	1.08
78-93-3	2-Butanone	U	5.40	ug/kg	1.62	5.40
156-59-2	cis-1,2-Dichloroethylene	U	1.08	ug/kg	0.324	1.08
594-20-7	2,2-Dichloropropane	U	1.08	ug/kg	0.324	1.08
67-66-3	Chloroform	U	1.08	ug/kg	0.324	1.08
74-97-5	Bromochloromethane	U	1.08	ug/kg	0.356	1.08
71-55-6	1,1,1-Trichloroethane	U	1.08	ug/kg	0.324	1.08
563-58-6	1,1-Dichloropropene	U	1.08	ug/kg	0.324	1.08
56-23-5	Carbon tetrachloride	U	1.08	ug/kg	0.324	1.08
107-06-2	1,2-Dichloroethane	U	1.08	ug/kg	0.324	1.08
71-43-2	Benzene	U	1.08	ug/kg	0.324	1.08
79-01-6	Trichloroethylene	U	1.08	ug/kg	0.356	1.08
78-87-5	1,2-Dichloropropane	U	1.08	ug/kg	0.324	1.08
75-27-4	Bromodichloromethane	U	1.08	ug/kg	0.324	1.08
74-95-3	Dibromomethane	U	1.08	ug/kg	0.324	1.08
108-10-1	4-Methyl-2-pentanone	U	5.40	ug/kg	1.35	5.40
10061-01-5	cis-1,3-Dichloropropylene	U	1.08	ug/kg	0.324	1.08
108-88-3	Toluene	U	1.08	ug/kg	0.324	1.08
10061-02-6	trans-1,3-Dichloropropylene	U	1.08	ug/kg	0.324	1.08
79-00-5	1,1,2-Trichloroethane	U	1.08	ug/kg	0.324	1.08
591-78-6	2-Hexanone	U	5.40	ug/kg	1.62	5.40
142-28-9	1,3-Dichloropropane	U	1.08	ug/kg	0.324	1.08
127-18-4	Tetrachloroethylene	U	1.08	ug/kg	0.324	1.08
124-48-1	Dibromochloromethane	U	1.08	ug/kg	0.324	1.08
106-93-4	1,2-Dibromoethane	U	1.08	ug/kg	0.324	1.08
108-90-7	Chlorobenzene	U	1.08	ug/kg	0.324	1.08

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1086**	**Date Collected:**	**12/22/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243552001**	**Date Received:**	**12/24/2009 09:30**	**%Moisture:**	**7.4**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14233**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937990**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**12/31/2009 13:09**	**Analyst:**	**RXM4**	**Purge Vol:**	**5 mL**
Prep Date:	**12/31/2009 11:51**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1t407.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.08	ug/kg	0.324	1.08
179601-23-1	m,p-Xylenes	U	2.16	ug/kg	0.324	2.16
95-47-6	o-Xylene	U	1.08	ug/kg	0.324	1.08
100-42-5	Styrene	J	0.764	ug/kg	0.324	1.08
75-25-2	Bromoform	U	1.08	ug/kg	0.324	1.08
79-34-5	1,1,2,2-Tetrachloroethane	U	1.08	ug/kg	0.324	1.08
96-18-4	1,2,3-Trichloropropane	U	1.08	ug/kg	0.324	1.08
108-86-1	Bromobenzene	U	1.08	ug/kg	0.324	1.08
103-65-1	n-Propylbenzene	U	1.08	ug/kg	0.324	1.08
95-49-8	2-Chlorotoluene	U	1.08	ug/kg	0.324	1.08
98-82-8	Isopropylbenzene	U	1.08	ug/kg	0.324	1.08
108-67-8	1,3,5-Trimethylbenzene	U	1.08	ug/kg	0.324	1.08
106-43-4	4-Chlorotoluene	U	1.08	ug/kg	0.324	1.08
98-06-6	tert-Butylbenzene	U	1.08	ug/kg	0.324	1.08
95-63-6	1,2,4-Trimethylbenzene	U	1.08	ug/kg	0.324	1.08
135-98-8	sec-Butylbenzene	U	1.08	ug/kg	0.324	1.08
99-87-6	4-Isopropyltoluene	U	1.08	ug/kg	0.324	1.08
541-73-1	1,3-Dichlorobenzene	U	1.08	ug/kg	0.324	1.08
106-46-7	1,4-Dichlorobenzene	U	1.08	ug/kg	0.324	1.08
104-51-8	n-Butylbenzene	U	1.08	ug/kg	0.324	1.08
96-12-8	1,2-Dibromo-3-chloropropane	U	1.08	ug/kg	0.324	1.08
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.40	ug/kg	1.73	5.40
630-20-6	1,1,1,2-Tetrachloroethane	U	1.08	ug/kg	0.324	1.08
95-50-1	1,2-Dichlorobenzene	U	1.08	ug/kg	0.324	1.08

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Siloxane	18.06	17.4	ug/kg		J

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1086**	**Date Collected:**	**12/22/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243552009**	**Date Received:**	**12/24/2009 09:30**	**%Moisture:**	**7.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14234**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937990**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**12/31/2009 17:11**	**Analyst:**	**RXM4**	**Purge Vol:**	**5 mL**
Prep Date:	**12/31/2009 11:59**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1t415.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.08	ug/kg	0.367	1.08
74-87-3	Chloromethane	U	1.08	ug/kg	0.324	1.08
75-01-4	Vinyl chloride	U	1.08	ug/kg	0.324	1.08
74-83-9	Bromomethane	U	1.08	ug/kg	0.324	1.08
75-00-3	Chloroethane	U	1.08	ug/kg	0.324	1.08
75-69-4	Trichlorofluoromethane	U	1.08	ug/kg	0.324	1.08
67-64-1	Acetone	J	1.98	ug/kg	1.79	5.40
75-35-4	1,1-Dichloroethylene	U	1.08	ug/kg	0.324	1.08
74-88-4	Iodomethane	U	5.40	ug/kg	1.73	5.40
75-09-2	Methylene chloride	U	5.40	ug/kg	2.16	5.40
75-15-0	Carbon disulfide	U	5.40	ug/kg	1.35	5.40
156-60-5	trans-1,2-Dichloroethylene	U	1.08	ug/kg	0.324	1.08
75-34-3	1,1-Dichloroethane	U	1.08	ug/kg	0.324	1.08
78-93-3	2-Butanone	U	5.40	ug/kg	1.62	5.40
156-59-2	cis-1,2-Dichloroethylene	U	1.08	ug/kg	0.324	1.08
594-20-7	2,2-Dichloropropane	U	1.08	ug/kg	0.324	1.08
67-66-3	Chloroform	U	1.08	ug/kg	0.324	1.08
74-97-5	Bromochloromethane	U	1.08	ug/kg	0.357	1.08
71-55-6	1,1,1-Trichloroethane	U	1.08	ug/kg	0.324	1.08
563-58-6	1,1-Dichloropropene	U	1.08	ug/kg	0.324	1.08
56-23-5	Carbon tetrachloride	U	1.08	ug/kg	0.324	1.08
107-06-2	1,2-Dichloroethane	U	1.08	ug/kg	0.324	1.08
71-43-2	Benzene	U	1.08	ug/kg	0.324	1.08
79-01-6	Trichloroethylene	U	1.08	ug/kg	0.357	1.08
78-87-5	1,2-Dichloropropane	U	1.08	ug/kg	0.324	1.08
75-27-4	Bromodichloromethane	U	1.08	ug/kg	0.324	1.08
74-95-3	Dibromomethane	U	1.08	ug/kg	0.324	1.08
108-10-1	4-Methyl-2-pentanone	U	5.40	ug/kg	1.35	5.40
10061-01-5	cis-1,3-Dichloropropylene	U	1.08	ug/kg	0.324	1.08
108-88-3	Toluene	U	1.08	ug/kg	0.324	1.08
10061-02-6	trans-1,3-Dichloropropylene	U	1.08	ug/kg	0.324	1.08
79-00-5	1,1,2-Trichloroethane	U	1.08	ug/kg	0.324	1.08
591-78-6	2-Hexanone	U	5.40	ug/kg	1.62	5.40
142-28-9	1,3-Dichloropropane	U	1.08	ug/kg	0.324	1.08
127-18-4	Tetrachloroethylene	U	1.08	ug/kg	0.324	1.08
124-48-1	Dibromochloromethane	U	1.08	ug/kg	0.324	1.08
106-93-4	1,2-Dibromoethane	U	1.08	ug/kg	0.324	1.08
108-90-7	Chlorobenzene	U	1.08	ug/kg	0.324	1.08

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1086**	**Date Collected:**	**12/22/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243552009**	**Date Received:**	**12/24/2009 09:30**	**%Moisture:**	**7.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14234**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937990**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**12/31/2009 17:11**	**Analyst:**	**RXM4**	**Purge Vol:**	**5 mL**
Prep Date:	**12/31/2009 11:59**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1t415.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.08	ug/kg	0.324	1.08
179601-23-1	m,p-Xylenes	U	2.16	ug/kg	0.324	2.16
95-47-6	o-Xylene	U	1.08	ug/kg	0.324	1.08
100-42-5	Styrene	U	1.08	ug/kg	0.324	1.08
75-25-2	Bromoform	U	1.08	ug/kg	0.324	1.08
79-34-5	1,1,2,2-Tetrachloroethane	U	1.08	ug/kg	0.324	1.08
96-18-4	1,2,3-Trichloropropane	U	1.08	ug/kg	0.324	1.08
108-86-1	Bromobenzene	U	1.08	ug/kg	0.324	1.08
103-65-1	n-Propylbenzene	U	1.08	ug/kg	0.324	1.08
95-49-8	2-Chlorotoluene	U	1.08	ug/kg	0.324	1.08
98-82-8	Isopropylbenzene	U	1.08	ug/kg	0.324	1.08
108-67-8	1,3,5-Trimethylbenzene	U	1.08	ug/kg	0.324	1.08
106-43-4	4-Chlorotoluene	U	1.08	ug/kg	0.324	1.08
98-06-6	tert-Butylbenzene	U	1.08	ug/kg	0.324	1.08
95-63-6	1,2,4-Trimethylbenzene	U	1.08	ug/kg	0.324	1.08
135-98-8	sec-Butylbenzene	U	1.08	ug/kg	0.324	1.08
99-87-6	4-Isopropyltoluene	U	1.08	ug/kg	0.324	1.08
541-73-1	1,3-Dichlorobenzene	U	1.08	ug/kg	0.324	1.08
106-46-7	1,4-Dichlorobenzene	U	1.08	ug/kg	0.324	1.08
104-51-8	n-Butylbenzene	U	1.08	ug/kg	0.324	1.08
96-12-8	1,2-Dibromo-3-chloropropane	U	1.08	ug/kg	0.324	1.08
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.40	ug/kg	1.73	5.40
630-20-6	1,1,1,2-Tetrachloroethane	U	1.08	ug/kg	0.324	1.08
95-50-1	1,2-Dichlorobenzene	U	1.08	ug/kg	0.324	1.08

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Siloxane	18.06	7.3	ug/kg		J

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1086**	**Date Collected:**	**12/22/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243552007**	**Date Received:**	**12/24/2009 09:30**	**%Moisture:**	**22.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14235**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937990**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**12/31/2009 16:11**	**Analyst:**	**RXM4**	**Purge Vol:**	**5 mL**
Prep Date:	**12/31/2009 11:57**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1t413.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.29	ug/kg	0.439	1.29
74-87-3	Chloromethane	U	1.29	ug/kg	0.387	1.29
75-01-4	Vinyl chloride	U	1.29	ug/kg	0.387	1.29
74-83-9	Bromomethane	U	1.29	ug/kg	0.387	1.29
75-00-3	Chloroethane	U	1.29	ug/kg	0.387	1.29
75-69-4	Trichlorofluoromethane	U	1.29	ug/kg	0.387	1.29
67-64-1	Acetone	U	6.45	ug/kg	2.14	6.45
75-35-4	1,1-Dichloroethylene	U	1.29	ug/kg	0.387	1.29
74-88-4	Iodomethane	U	6.45	ug/kg	2.06	6.45
75-09-2	Methylene chloride	U	6.45	ug/kg	2.58	6.45
75-15-0	Carbon disulfide	U	6.45	ug/kg	1.61	6.45
156-60-5	trans-1,2-Dichloroethylene	U	1.29	ug/kg	0.387	1.29
75-34-3	1,1-Dichloroethane	U	1.29	ug/kg	0.387	1.29
78-93-3	2-Butanone	U	6.45	ug/kg	1.93	6.45
156-59-2	cis-1,2-Dichloroethylene	U	1.29	ug/kg	0.387	1.29
594-20-7	2,2-Dichloropropane	U	1.29	ug/kg	0.387	1.29
67-66-3	Chloroform	U	1.29	ug/kg	0.387	1.29
74-97-5	Bromochloromethane	U	1.29	ug/kg	0.426	1.29
71-55-6	1,1,1-Trichloroethane	U	1.29	ug/kg	0.387	1.29
563-58-6	1,1-Dichloropropene	U	1.29	ug/kg	0.387	1.29
56-23-5	Carbon tetrachloride	U	1.29	ug/kg	0.387	1.29
107-06-2	1,2-Dichloroethane	U	1.29	ug/kg	0.387	1.29
71-43-2	Benzene	U	1.29	ug/kg	0.387	1.29
79-01-6	Trichloroethylene	U	1.29	ug/kg	0.426	1.29
78-87-5	1,2-Dichloropropane	U	1.29	ug/kg	0.387	1.29
75-27-4	Bromodichloromethane	U	1.29	ug/kg	0.387	1.29
74-95-3	Dibromomethane	U	1.29	ug/kg	0.387	1.29
108-10-1	4-Methyl-2-pentanone	U	6.45	ug/kg	1.61	6.45
10061-01-5	cis-1,3-Dichloropropylene	U	1.29	ug/kg	0.387	1.29
108-88-3	Toluene	U	1.29	ug/kg	0.387	1.29
10061-02-6	trans-1,3-Dichloropropylene	U	1.29	ug/kg	0.387	1.29
79-00-5	1,1,2-Trichloroethane	U	1.29	ug/kg	0.387	1.29
591-78-6	2-Hexanone	U	6.45	ug/kg	1.93	6.45
142-28-9	1,3-Dichloropropane	U	1.29	ug/kg	0.387	1.29
127-18-4	Tetrachloroethylene	U	1.29	ug/kg	0.387	1.29
124-48-1	Dibromochloromethane	U	1.29	ug/kg	0.387	1.29
106-93-4	1,2-Dibromoethane	U	1.29	ug/kg	0.387	1.29
108-90-7	Chlorobenzene	U	1.29	ug/kg	0.387	1.29

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1086**	**Date Collected:**	**12/22/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243552007**	**Date Received:**	**12/24/2009 09:30**	**%Moisture:**	**22.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14235**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937990**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**12/31/2009 16:11**	**Analyst:**	**RXM4**	**Purge Vol:**	**5 mL**
Prep Date:	**12/31/2009 11:57**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1t413.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.29	ug/kg	0.387	1.29
179601-23-1	m,p-Xylenes	U	2.58	ug/kg	0.387	2.58
95-47-6	o-Xylene	U	1.29	ug/kg	0.387	1.29
100-42-5	Styrene	U	1.29	ug/kg	0.387	1.29
75-25-2	Bromoform	U	1.29	ug/kg	0.387	1.29
79-34-5	1,1,2,2-Tetrachloroethane	U	1.29	ug/kg	0.387	1.29
96-18-4	1,2,3-Trichloropropane	U	1.29	ug/kg	0.387	1.29
108-86-1	Bromobenzene	U	1.29	ug/kg	0.387	1.29
103-65-1	n-Propylbenzene	U	1.29	ug/kg	0.387	1.29
95-49-8	2-Chlorotoluene	U	1.29	ug/kg	0.387	1.29
98-82-8	Isopropylbenzene	U	1.29	ug/kg	0.387	1.29
108-67-8	1,3,5-Trimethylbenzene	U	1.29	ug/kg	0.387	1.29
106-43-4	4-Chlorotoluene	U	1.29	ug/kg	0.387	1.29
98-06-6	tert-Butylbenzene	U	1.29	ug/kg	0.387	1.29
95-63-6	1,2,4-Trimethylbenzene	U	1.29	ug/kg	0.387	1.29
135-98-8	sec-Butylbenzene	U	1.29	ug/kg	0.387	1.29
99-87-6	4-Isopropyltoluene	U	1.29	ug/kg	0.387	1.29
541-73-1	1,3-Dichlorobenzene	U	1.29	ug/kg	0.387	1.29
106-46-7	1,4-Dichlorobenzene	U	1.29	ug/kg	0.387	1.29
104-51-8	n-Butylbenzene	U	1.29	ug/kg	0.387	1.29
96-12-8	1,2-Dibromo-3-chloropropane	U	1.29	ug/kg	0.387	1.29
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	6.45	ug/kg	2.06	6.45
630-20-6	1,1,1,2-Tetrachloroethane	U	1.29	ug/kg	0.387	1.29
95-50-1	1,2-Dichlorobenzene	U	1.29	ug/kg	0.387	1.29

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Siloxane	18.06	15	ug/kg		J

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1086	**Date Collected:**	12/22/2009 12:00	**Matrix:**	S
Lab Sample ID:	243552002	**Date Received:**	12/24/2009 09:30	**%Moisture:**	16.2
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14236	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	937990	**Inst:**	VOA1.I	**Dilution:**	1
Run Date:	12/31/2009 13:39	**Analyst:**	RXM4	**Purge Vol:**	5 mL
Prep Date:	12/31/2009 11:52	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	1t408.d	**Column:**	RTX-Volatiles	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.19	ug/kg	0.406	1.19
74-87-3	Chloromethane	U	1.19	ug/kg	0.358	1.19
75-01-4	Vinyl chloride	U	1.19	ug/kg	0.358	1.19
74-83-9	Bromomethane	U	1.19	ug/kg	0.358	1.19
75-00-3	Chloroethane	U	1.19	ug/kg	0.358	1.19
75-69-4	Trichlorofluoromethane	U	1.19	ug/kg	0.358	1.19
67-64-1	Acetone	U	5.96	ug/kg	1.98	5.96
75-35-4	1,1-Dichloroethylene	U	1.19	ug/kg	0.358	1.19
74-88-4	Iodomethane	U	5.96	ug/kg	1.91	5.96
75-09-2	Methylene chloride	U	5.96	ug/kg	2.39	5.96
75-15-0	Carbon disulfide	U	5.96	ug/kg	1.49	5.96
156-60-5	trans-1,2-Dichloroethylene	U	1.19	ug/kg	0.358	1.19
75-34-3	1,1-Dichloroethane	U	1.19	ug/kg	0.358	1.19
78-93-3	2-Butanone	U	5.96	ug/kg	1.79	5.96
156-59-2	cis-1,2-Dichloroethylene	U	1.19	ug/kg	0.358	1.19
594-20-7	2,2-Dichloropropane	U	1.19	ug/kg	0.358	1.19
67-66-3	Chloroform	U	1.19	ug/kg	0.358	1.19
74-97-5	Bromochloromethane	U	1.19	ug/kg	0.394	1.19
71-55-6	1,1,1-Trichloroethane	U	1.19	ug/kg	0.358	1.19
563-58-6	1,1-Dichloropropene	U	1.19	ug/kg	0.358	1.19
56-23-5	Carbon tetrachloride	U	1.19	ug/kg	0.358	1.19
107-06-2	1,2-Dichloroethane	U	1.19	ug/kg	0.358	1.19
71-43-2	Benzene	U	1.19	ug/kg	0.358	1.19
79-01-6	Trichloroethylene	U	1.19	ug/kg	0.394	1.19
78-87-5	1,2-Dichloropropane	U	1.19	ug/kg	0.358	1.19
75-27-4	Bromodichloromethane	U	1.19	ug/kg	0.358	1.19
74-95-3	Dibromomethane	U	1.19	ug/kg	0.358	1.19
108-10-1	4-Methyl-2-pentanone	U	5.96	ug/kg	1.49	5.96
10061-01-5	cis-1,3-Dichloropropylene	U	1.19	ug/kg	0.358	1.19
108-88-3	Toluene	U	1.19	ug/kg	0.358	1.19
10061-02-6	trans-1,3-Dichloropropylene	U	1.19	ug/kg	0.358	1.19
79-00-5	1,1,2-Trichloroethane	U	1.19	ug/kg	0.358	1.19
591-78-6	2-Hexanone	U	5.96	ug/kg	1.79	5.96
142-28-9	1,3-Dichloropropane	U	1.19	ug/kg	0.358	1.19
127-18-4	Tetrachloroethylene	U	1.19	ug/kg	0.358	1.19
124-48-1	Dibromochloromethane	U	1.19	ug/kg	0.358	1.19
106-93-4	1,2-Dibromoethane	U	1.19	ug/kg	0.358	1.19
108-90-7	Chlorobenzene	U	1.19	ug/kg	0.358	1.19

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1086**	**Date Collected:**	**12/22/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243552002**	**Date Received:**	**12/24/2009 09:30**	**%Moisture:**	**16.2**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14236**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937990**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**12/31/2009 13:39**	**Analyst:**	**RXM4**	**Purge Vol:**	**5 mL**
Prep Date:	**12/31/2009 11:52**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1t408.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.19	ug/kg	0.358	1.19
179601-23-1	m,p-Xylenes	U	2.39	ug/kg	0.358	2.39
95-47-6	o-Xylene	U	1.19	ug/kg	0.358	1.19
100-42-5	Styrene	U	1.19	ug/kg	0.358	1.19
75-25-2	Bromoform	U	1.19	ug/kg	0.358	1.19
79-34-5	1,1,2,2-Tetrachloroethane	U	1.19	ug/kg	0.358	1.19
96-18-4	1,2,3-Trichloropropane	U	1.19	ug/kg	0.358	1.19
108-86-1	Bromobenzene	U	1.19	ug/kg	0.358	1.19
103-65-1	n-Propylbenzene	U	1.19	ug/kg	0.358	1.19
95-49-8	2-Chlorotoluene	U	1.19	ug/kg	0.358	1.19
98-82-8	Isopropylbenzene	U	1.19	ug/kg	0.358	1.19
108-67-8	1,3,5-Trimethylbenzene	U	1.19	ug/kg	0.358	1.19
106-43-4	4-Chlorotoluene	U	1.19	ug/kg	0.358	1.19
98-06-6	tert-Butylbenzene	U	1.19	ug/kg	0.358	1.19
95-63-6	1,2,4-Trimethylbenzene	U	1.19	ug/kg	0.358	1.19
135-98-8	sec-Butylbenzene	U	1.19	ug/kg	0.358	1.19
99-87-6	4-Isopropyltoluene	U	1.19	ug/kg	0.358	1.19
541-73-1	1,3-Dichlorobenzene	U	1.19	ug/kg	0.358	1.19
106-46-7	1,4-Dichlorobenzene	U	1.19	ug/kg	0.358	1.19
104-51-8	n-Butylbenzene	U	1.19	ug/kg	0.358	1.19
96-12-8	1,2-Dibromo-3-chloropropane	U	1.19	ug/kg	0.358	1.19
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.96	ug/kg	1.91	5.96
630-20-6	1,1,1,2-Tetrachloroethane	U	1.19	ug/kg	0.358	1.19
95-50-1	1,2-Dichlorobenzene	U	1.19	ug/kg	0.358	1.19

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Siloxane	18.06	13.5	ug/kg		J

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1086**	**Date Collected:**	**12/22/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243552008**	**Date Received:**	**12/24/2009 09:30**	**%Moisture:**	**5.4**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14238**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937990**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**01/04/2010 15:35**	**Analyst:**	**RXM4**	**Purge Vol:**	**5 mL**
Prep Date:	**01/04/2010 14:12**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1u114.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.06	ug/kg	0.359	1.06
74-87-3	Chloromethane	U	1.06	ug/kg	0.317	1.06
75-01-4	Vinyl chloride	U	1.06	ug/kg	0.317	1.06
74-83-9	Bromomethane	U	1.06	ug/kg	0.317	1.06
75-00-3	Chloroethane	U	1.06	ug/kg	0.317	1.06
75-69-4	Trichlorofluoromethane	U	1.06	ug/kg	0.317	1.06
67-64-1	Acetone	U	5.29	ug/kg	1.75	5.29
75-35-4	1,1-Dichloroethylene	U	1.06	ug/kg	0.317	1.06
74-88-4	Iodomethane	U	5.29	ug/kg	1.69	5.29
75-09-2	Methylene chloride	U	5.29	ug/kg	2.11	5.29
75-15-0	Carbon disulfide	U	5.29	ug/kg	1.32	5.29
156-60-5	trans-1,2-Dichloroethylene	U	1.06	ug/kg	0.317	1.06
75-34-3	1,1-Dichloroethane	U	1.06	ug/kg	0.317	1.06
78-93-3	2-Butanone	U	5.29	ug/kg	1.59	5.29
156-59-2	cis-1,2-Dichloroethylene	U	1.06	ug/kg	0.317	1.06
594-20-7	2,2-Dichloropropane	U	1.06	ug/kg	0.317	1.06
67-66-3	Chloroform	U	1.06	ug/kg	0.317	1.06
74-97-5	Bromochloromethane	U	1.06	ug/kg	0.349	1.06
71-55-6	1,1,1-Trichloroethane	U	1.06	ug/kg	0.317	1.06
563-58-6	1,1-Dichloropropene	U	1.06	ug/kg	0.317	1.06
56-23-5	Carbon tetrachloride	U	1.06	ug/kg	0.317	1.06
107-06-2	1,2-Dichloroethane	U	1.06	ug/kg	0.317	1.06
71-43-2	Benzene	U	1.06	ug/kg	0.317	1.06
79-01-6	Trichloroethylene	U	1.06	ug/kg	0.349	1.06
78-87-5	1,2-Dichloropropane	U	1.06	ug/kg	0.317	1.06
75-27-4	Bromodichloromethane	U	1.06	ug/kg	0.317	1.06
74-95-3	Dibromomethane	U	1.06	ug/kg	0.317	1.06
108-10-1	4-Methyl-2-pentanone	U	5.29	ug/kg	1.32	5.29
10061-01-5	cis-1,3-Dichloropropylene	U	1.06	ug/kg	0.317	1.06
108-88-3	Toluene	U	1.06	ug/kg	0.317	1.06
10061-02-6	trans-1,3-Dichloropropylene	U	1.06	ug/kg	0.317	1.06
79-00-5	1,1,2-Trichloroethane	U	1.06	ug/kg	0.317	1.06
591-78-6	2-Hexanone	U	5.29	ug/kg	1.59	5.29
142-28-9	1,3-Dichloropropane	U	1.06	ug/kg	0.317	1.06
127-18-4	Tetrachloroethylene	U	1.06	ug/kg	0.317	1.06
124-48-1	Dibromochloromethane	U	1.06	ug/kg	0.317	1.06
106-93-4	1,2-Dibromoethane	U	1.06	ug/kg	0.317	1.06
108-90-7	Chlorobenzene	U	1.06	ug/kg	0.317	1.06

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1086**	**Date Collected:**	**12/22/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243552008**	**Date Received:**	**12/24/2009 09:30**	**%Moisture:**	**5.4**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14238**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937990**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**01/04/2010 15:35**	**Analyst:**	**RXM4**	**Purge Vol:**	**5 mL**
Prep Date:	**01/04/2010 14:12**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1u114.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.06	ug/kg	0.317	1.06
179601-23-1	m,p-Xylenes	U	2.11	ug/kg	0.317	2.11
95-47-6	o-Xylene	U	1.06	ug/kg	0.317	1.06
100-42-5	Styrene	U	1.06	ug/kg	0.317	1.06
75-25-2	Bromoform	U	1.06	ug/kg	0.317	1.06
79-34-5	1,1,2,2-Tetrachloroethane	U	1.06	ug/kg	0.317	1.06
96-18-4	1,2,3-Trichloropropane	U	1.06	ug/kg	0.317	1.06
108-86-1	Bromobenzene	U	1.06	ug/kg	0.317	1.06
103-65-1	n-Propylbenzene	U	1.06	ug/kg	0.317	1.06
95-49-8	2-Chlorotoluene	U	1.06	ug/kg	0.317	1.06
98-82-8	Isopropylbenzene	U	1.06	ug/kg	0.317	1.06
108-67-8	1,3,5-Trimethylbenzene	U	1.06	ug/kg	0.317	1.06
106-43-4	4-Chlorotoluene	U	1.06	ug/kg	0.317	1.06
98-06-6	tert-Butylbenzene	U	1.06	ug/kg	0.317	1.06
95-63-6	1,2,4-Trimethylbenzene	U	1.06	ug/kg	0.317	1.06
135-98-8	sec-Butylbenzene	U	1.06	ug/kg	0.317	1.06
99-87-6	4-Isopropyltoluene	U	1.06	ug/kg	0.317	1.06
541-73-1	1,3-Dichlorobenzene	U	1.06	ug/kg	0.317	1.06
106-46-7	1,4-Dichlorobenzene	U	1.06	ug/kg	0.317	1.06
104-51-8	n-Butylbenzene	U	1.06	ug/kg	0.317	1.06
96-12-8	1,2-Dibromo-3-chloropropane	U	1.06	ug/kg	0.317	1.06
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.29	ug/kg	1.69	5.29
630-20-6	1,1,1,2-Tetrachloroethane	U	1.06	ug/kg	0.317	1.06
95-50-1	1,2-Dichlorobenzene	U	1.06	ug/kg	0.317	1.06

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Siloxane	18.06	24.6	ug/kg		J
1073-06-9	Benzene, 1-bromo-3-fluoro-	18.38	41.1	ug/kg	95	NJ

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1086**	**Date Collected:**	**12/22/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243552003**	**Date Received:**	**12/24/2009 09:30**	**%Moisture:**	**5.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14239**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937990**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**12/31/2009 14:10**	**Analyst:**	**RXM4**	**Purge Vol:**	**5 mL**
Prep Date:	**12/31/2009 11:53**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1t409.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.06	ug/kg	0.360	1.06
74-87-3	Chloromethane	U	1.06	ug/kg	0.317	1.06
75-01-4	Vinyl chloride	U	1.06	ug/kg	0.317	1.06
74-83-9	Bromomethane	U	1.06	ug/kg	0.317	1.06
75-00-3	Chloroethane	U	1.06	ug/kg	0.317	1.06
75-69-4	Trichlorofluoromethane	U	1.06	ug/kg	0.317	1.06
67-64-1	Acetone	U	5.29	ug/kg	1.76	5.29
75-35-4	1,1-Dichloroethylene	U	1.06	ug/kg	0.317	1.06
74-88-4	Iodomethane	U	5.29	ug/kg	1.69	5.29
75-09-2	Methylene chloride	U	5.29	ug/kg	2.12	5.29
75-15-0	Carbon disulfide	U	5.29	ug/kg	1.32	5.29
156-60-5	trans-1,2-Dichloroethylene	U	1.06	ug/kg	0.317	1.06
75-34-3	1,1-Dichloroethane	U	1.06	ug/kg	0.317	1.06
78-93-3	2-Butanone	U	5.29	ug/kg	1.59	5.29
156-59-2	cis-1,2-Dichloroethylene	U	1.06	ug/kg	0.317	1.06
594-20-7	2,2-Dichloropropane	U	1.06	ug/kg	0.317	1.06
67-66-3	Chloroform	U	1.06	ug/kg	0.317	1.06
74-97-5	Bromochloromethane	U	1.06	ug/kg	0.349	1.06
71-55-6	1,1,1-Trichloroethane	U	1.06	ug/kg	0.317	1.06
563-58-6	1,1-Dichloropropene	U	1.06	ug/kg	0.317	1.06
56-23-5	Carbon tetrachloride	U	1.06	ug/kg	0.317	1.06
107-06-2	1,2-Dichloroethane	U	1.06	ug/kg	0.317	1.06
71-43-2	Benzene	U	1.06	ug/kg	0.317	1.06
79-01-6	Trichloroethylene	U	1.06	ug/kg	0.349	1.06
78-87-5	1,2-Dichloropropane	U	1.06	ug/kg	0.317	1.06
75-27-4	Bromodichloromethane	U	1.06	ug/kg	0.317	1.06
74-95-3	Dibromomethane	U	1.06	ug/kg	0.317	1.06
108-10-1	4-Methyl-2-pentanone	U	5.29	ug/kg	1.32	5.29
10061-01-5	cis-1,3-Dichloropropylene	U	1.06	ug/kg	0.317	1.06
108-88-3	Toluene	U	1.06	ug/kg	0.317	1.06
10061-02-6	trans-1,3-Dichloropropylene	U	1.06	ug/kg	0.317	1.06
79-00-5	1,1,2-Trichloroethane	U	1.06	ug/kg	0.317	1.06
591-78-6	2-Hexanone	U	5.29	ug/kg	1.59	5.29
142-28-9	1,3-Dichloropropane	U	1.06	ug/kg	0.317	1.06
127-18-4	Tetrachloroethylene	U	1.06	ug/kg	0.317	1.06
124-48-1	Dibromochloromethane	U	1.06	ug/kg	0.317	1.06
106-93-4	1,2-Dibromoethane	U	1.06	ug/kg	0.317	1.06
108-90-7	Chlorobenzene	U	1.06	ug/kg	0.317	1.06

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1086	**Date Collected:**	12/22/2009 12:00	**Matrix:**	S
Lab Sample ID:	243552003	**Date Received:**	12/24/2009 09:30	**%Moisture:**	5.5
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14239	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	937990	**Inst:**	VOA1.I	**Dilution:**	1
Run Date:	12/31/2009 14:10	**Analyst:**	RXM4	**Purge Vol:**	5 mL
Prep Date:	12/31/2009 11:53	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	1t409.d	**Column:**	RTX-Volatiles	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.06	ug/kg	0.317	1.06
179601-23-1	m,p-Xylenes	U	2.12	ug/kg	0.317	2.12
95-47-6	o-Xylene	U	1.06	ug/kg	0.317	1.06
100-42-5	Styrene	U	1.06	ug/kg	0.317	1.06
75-25-2	Bromoform	U	1.06	ug/kg	0.317	1.06
79-34-5	1,1,2,2-Tetrachloroethane	U	1.06	ug/kg	0.317	1.06
96-18-4	1,2,3-Trichloropropane	U	1.06	ug/kg	0.317	1.06
108-86-1	Bromobenzene	U	1.06	ug/kg	0.317	1.06
103-65-1	n-Propylbenzene	U	1.06	ug/kg	0.317	1.06
95-49-8	2-Chlorotoluene	U	1.06	ug/kg	0.317	1.06
98-82-8	Isopropylbenzene	U	1.06	ug/kg	0.317	1.06
108-67-8	1,3,5-Trimethylbenzene	U	1.06	ug/kg	0.317	1.06
106-43-4	4-Chlorotoluene	U	1.06	ug/kg	0.317	1.06
98-06-6	tert-Butylbenzene	U	1.06	ug/kg	0.317	1.06
95-63-6	1,2,4-Trimethylbenzene	U	1.06	ug/kg	0.317	1.06
135-98-8	sec-Butylbenzene	U	1.06	ug/kg	0.317	1.06
99-87-6	4-Isopropyltoluene	U	1.06	ug/kg	0.317	1.06
541-73-1	1,3-Dichlorobenzene	U	1.06	ug/kg	0.317	1.06
106-46-7	1,4-Dichlorobenzene	U	1.06	ug/kg	0.317	1.06
104-51-8	n-Butylbenzene	U	1.06	ug/kg	0.317	1.06
96-12-8	1,2-Dibromo-3-chloropropane	U	1.06	ug/kg	0.317	1.06
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.29	ug/kg	1.69	5.29
630-20-6	1,1,1,2-Tetrachloroethane	U	1.06	ug/kg	0.317	1.06
95-50-1	1,2-Dichlorobenzene	U	1.06	ug/kg	0.317	1.06

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
66-25-1	Hexanal	16.39	15.7	ug/kg	90	NJ
	Unknown Siloxane	18.06	32.5	ug/kg		J

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1086**	**Date Collected:**	**12/22/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243552004**	**Date Received:**	**12/24/2009 09:30**	**%Moisture:**	**5.4**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14240**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937990**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**12/31/2009 14:40**	**Analyst:**	**RXM4**	**Purge Vol:**	**5 mL**
Prep Date:	**12/31/2009 11:54**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1t410.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.06	ug/kg	0.359	1.06
74-87-3	Chloromethane	U	1.06	ug/kg	0.317	1.06
75-01-4	Vinyl chloride	U	1.06	ug/kg	0.317	1.06
74-83-9	Bromomethane	U	1.06	ug/kg	0.317	1.06
75-00-3	Chloroethane	U	1.06	ug/kg	0.317	1.06
75-69-4	Trichlorofluoromethane	U	1.06	ug/kg	0.317	1.06
67-64-1	Acetone	U	5.29	ug/kg	1.76	5.29
75-35-4	1,1-Dichloroethylene	U	1.06	ug/kg	0.317	1.06
74-88-4	Iodomethane	U	5.29	ug/kg	1.69	5.29
75-09-2	Methylene chloride	U	5.29	ug/kg	2.11	5.29
75-15-0	Carbon disulfide	U	5.29	ug/kg	1.32	5.29
156-60-5	trans-1,2-Dichloroethylene	U	1.06	ug/kg	0.317	1.06
75-34-3	1,1-Dichloroethane	U	1.06	ug/kg	0.317	1.06
78-93-3	2-Butanone	U	5.29	ug/kg	1.59	5.29
156-59-2	cis-1,2-Dichloroethylene	U	1.06	ug/kg	0.317	1.06
594-20-7	2,2-Dichloropropane	U	1.06	ug/kg	0.317	1.06
67-66-3	Chloroform	U	1.06	ug/kg	0.317	1.06
74-97-5	Bromochloromethane	U	1.06	ug/kg	0.349	1.06
71-55-6	1,1,1-Trichloroethane	U	1.06	ug/kg	0.317	1.06
563-58-6	1,1-Dichloropropene	U	1.06	ug/kg	0.317	1.06
56-23-5	Carbon tetrachloride	U	1.06	ug/kg	0.317	1.06
107-06-2	1,2-Dichloroethane	U	1.06	ug/kg	0.317	1.06
71-43-2	Benzene	U	1.06	ug/kg	0.317	1.06
79-01-6	Trichloroethylene	U	1.06	ug/kg	0.349	1.06
78-87-5	1,2-Dichloropropane	U	1.06	ug/kg	0.317	1.06
75-27-4	Bromodichloromethane	U	1.06	ug/kg	0.317	1.06
74-95-3	Dibromomethane	U	1.06	ug/kg	0.317	1.06
108-10-1	4-Methyl-2-pentanone	U	5.29	ug/kg	1.32	5.29
10061-01-5	cis-1,3-Dichloropropylene	U	1.06	ug/kg	0.317	1.06
108-88-3	Toluene	U	1.06	ug/kg	0.317	1.06
10061-02-6	trans-1,3-Dichloropropylene	U	1.06	ug/kg	0.317	1.06
79-00-5	1,1,2-Trichloroethane	U	1.06	ug/kg	0.317	1.06
591-78-6	2-Hexanone	U	5.29	ug/kg	1.59	5.29
142-28-9	1,3-Dichloropropane	U	1.06	ug/kg	0.317	1.06
127-18-4	Tetrachloroethylene	U	1.06	ug/kg	0.317	1.06
124-48-1	Dibromochloromethane	U	1.06	ug/kg	0.317	1.06
106-93-4	1,2-Dibromoethane	U	1.06	ug/kg	0.317	1.06
108-90-7	Chlorobenzene	U	1.06	ug/kg	0.317	1.06

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1086**	**Date Collected:**	**12/22/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243552004**	**Date Received:**	**12/24/2009 09:30**	**%Moisture:**	**5.4**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14240**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937990**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**12/31/2009 14:40**	**Analyst:**	**RXM4**	**Purge Vol:**	**5 mL**
Prep Date:	**12/31/2009 11:54**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1t410.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.06	ug/kg	0.317	1.06
179601-23-1	m,p-Xylenes	U	2.11	ug/kg	0.317	2.11
95-47-6	o-Xylene	U	1.06	ug/kg	0.317	1.06
100-42-5	Styrene	U	1.06	ug/kg	0.317	1.06
75-25-2	Bromoform	U	1.06	ug/kg	0.317	1.06
79-34-5	1,1,2,2-Tetrachloroethane	U	1.06	ug/kg	0.317	1.06
96-18-4	1,2,3-Trichloropropane	U	1.06	ug/kg	0.317	1.06
108-86-1	Bromobenzene	U	1.06	ug/kg	0.317	1.06
103-65-1	n-Propylbenzene	U	1.06	ug/kg	0.317	1.06
95-49-8	2-Chlorotoluene	U	1.06	ug/kg	0.317	1.06
98-82-8	Isopropylbenzene	U	1.06	ug/kg	0.317	1.06
108-67-8	1,3,5-Trimethylbenzene	U	1.06	ug/kg	0.317	1.06
106-43-4	4-Chlorotoluene	U	1.06	ug/kg	0.317	1.06
98-06-6	tert-Butylbenzene	U	1.06	ug/kg	0.317	1.06
95-63-6	1,2,4-Trimethylbenzene	U	1.06	ug/kg	0.317	1.06
135-98-8	sec-Butylbenzene	U	1.06	ug/kg	0.317	1.06
99-87-6	4-Isopropyltoluene	U	1.06	ug/kg	0.317	1.06
541-73-1	1,3-Dichlorobenzene	U	1.06	ug/kg	0.317	1.06
106-46-7	1,4-Dichlorobenzene	U	1.06	ug/kg	0.317	1.06
104-51-8	n-Butylbenzene	U	1.06	ug/kg	0.317	1.06
96-12-8	1,2-Dibromo-3-chloropropane	U	1.06	ug/kg	0.317	1.06
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.29	ug/kg	1.69	5.29
630-20-6	1,1,1,2-Tetrachloroethane	U	1.06	ug/kg	0.317	1.06
95-50-1	1,2-Dichlorobenzene	U	1.06	ug/kg	0.317	1.06

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Siloxane	18.06	17.7	ug/kg		J

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1086**	**Date Collected:**	**12/22/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243552010**	**Date Received:**	**12/24/2009 09:30**	**%Moisture:**	**12.7**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14241**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937990**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**12/31/2009 17:41**	**Analyst:**	**RXM4**	**Purge Vol:**	**5 mL**
Prep Date:	**12/31/2009 12:00**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1t416.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.14	ug/kg	0.389	1.14
74-87-3	Chloromethane	U	1.14	ug/kg	0.343	1.14
75-01-4	Vinyl chloride	U	1.14	ug/kg	0.343	1.14
74-83-9	Bromomethane	U	1.14	ug/kg	0.343	1.14
75-00-3	Chloroethane	U	1.14	ug/kg	0.343	1.14
75-69-4	Trichlorofluoromethane	U	1.14	ug/kg	0.343	1.14
67-64-1	Acetone	U	5.72	ug/kg	1.90	5.72
75-35-4	1,1-Dichloroethylene	U	1.14	ug/kg	0.343	1.14
74-88-4	Iodomethane	U	5.72	ug/kg	1.83	5.72
75-09-2	Methylene chloride	U	5.72	ug/kg	2.29	5.72
75-15-0	Carbon disulfide	U	5.72	ug/kg	1.43	5.72
156-60-5	trans-1,2-Dichloroethylene	U	1.14	ug/kg	0.343	1.14
75-34-3	1,1-Dichloroethane	U	1.14	ug/kg	0.343	1.14
78-93-3	2-Butanone	U	5.72	ug/kg	1.72	5.72
156-59-2	cis-1,2-Dichloroethylene	U	1.14	ug/kg	0.343	1.14
594-20-7	2,2-Dichloropropane	U	1.14	ug/kg	0.343	1.14
67-66-3	Chloroform	U	1.14	ug/kg	0.343	1.14
74-97-5	Bromochloromethane	U	1.14	ug/kg	0.378	1.14
71-55-6	1,1,1-Trichloroethane	U	1.14	ug/kg	0.343	1.14
563-58-6	1,1-Dichloropropene	U	1.14	ug/kg	0.343	1.14
56-23-5	Carbon tetrachloride	U	1.14	ug/kg	0.343	1.14
107-06-2	1,2-Dichloroethane	U	1.14	ug/kg	0.343	1.14
71-43-2	Benzene	U	1.14	ug/kg	0.343	1.14
79-01-6	Trichloroethylene	U	1.14	ug/kg	0.378	1.14
78-87-5	1,2-Dichloropropane	U	1.14	ug/kg	0.343	1.14
75-27-4	Bromodichloromethane	U	1.14	ug/kg	0.343	1.14
74-95-3	Dibromomethane	U	1.14	ug/kg	0.343	1.14
108-10-1	4-Methyl-2-pentanone	U	5.72	ug/kg	1.43	5.72
10061-01-5	cis-1,3-Dichloropropylene	U	1.14	ug/kg	0.343	1.14
108-88-3	Toluene	U	1.14	ug/kg	0.343	1.14
10061-02-6	trans-1,3-Dichloropropylene	U	1.14	ug/kg	0.343	1.14
79-00-5	1,1,2-Trichloroethane	U	1.14	ug/kg	0.343	1.14
591-78-6	2-Hexanone	U	5.72	ug/kg	1.72	5.72
142-28-9	1,3-Dichloropropane	U	1.14	ug/kg	0.343	1.14
127-18-4	Tetrachloroethylene	U	1.14	ug/kg	0.343	1.14
124-48-1	Dibromochloromethane	U	1.14	ug/kg	0.343	1.14
106-93-4	1,2-Dibromoethane	U	1.14	ug/kg	0.343	1.14
108-90-7	Chlorobenzene	U	1.14	ug/kg	0.343	1.14

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1086**	**Date Collected:**	**12/22/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243552010**	**Date Received:**	**12/24/2009 09:30**	**%Moisture:**	**12.7**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14241**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937990**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**12/31/2009 17:41**	**Analyst:**	**RXM4**	**Purge Vol:**	**5 mL**
Prep Date:	**12/31/2009 12:00**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1t416.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.14	ug/kg	0.343	1.14
179601-23-1	m,p-Xylenes	U	2.29	ug/kg	0.343	2.29
95-47-6	o-Xylene	U	1.14	ug/kg	0.343	1.14
100-42-5	Styrene	U	1.14	ug/kg	0.343	1.14
75-25-2	Bromoform	U	1.14	ug/kg	0.343	1.14
79-34-5	1,1,2,2-Tetrachloroethane	U	1.14	ug/kg	0.343	1.14
96-18-4	1,2,3-Trichloropropane	U	1.14	ug/kg	0.343	1.14
108-86-1	Bromobenzene	U	1.14	ug/kg	0.343	1.14
103-65-1	n-Propylbenzene	U	1.14	ug/kg	0.343	1.14
95-49-8	2-Chlorotoluene	U	1.14	ug/kg	0.343	1.14
98-82-8	Isopropylbenzene	U	1.14	ug/kg	0.343	1.14
108-67-8	1,3,5-Trimethylbenzene	U	1.14	ug/kg	0.343	1.14
106-43-4	4-Chlorotoluene	U	1.14	ug/kg	0.343	1.14
98-06-6	tert-Butylbenzene	U	1.14	ug/kg	0.343	1.14
95-63-6	1,2,4-Trimethylbenzene	U	1.14	ug/kg	0.343	1.14
135-98-8	sec-Butylbenzene	U	1.14	ug/kg	0.343	1.14
99-87-6	4-Isopropyltoluene	U	1.14	ug/kg	0.343	1.14
541-73-1	1,3-Dichlorobenzene	U	1.14	ug/kg	0.343	1.14
106-46-7	1,4-Dichlorobenzene	U	1.14	ug/kg	0.343	1.14
104-51-8	n-Butylbenzene	U	1.14	ug/kg	0.343	1.14
96-12-8	1,2-Dibromo-3-chloropropane	U	1.14	ug/kg	0.343	1.14
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.72	ug/kg	1.83	5.72
630-20-6	1,1,1,2-Tetrachloroethane	U	1.14	ug/kg	0.343	1.14
95-50-1	1,2-Dichlorobenzene	U	1.14	ug/kg	0.343	1.14

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Siloxane	18.06	14	ug/kg		J

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1086**	**Date Collected:**	**12/22/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243552012**	**Date Received:**	**12/24/2009 09:30**	**%Moisture:**	**7**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-10-2736**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937990**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**12/31/2009 18:42**	**Analyst:**	**RXM4**	**Purge Vol:**	**5 mL**
Prep Date:	**12/31/2009 12:02**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1t418.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.08	ug/kg	0.366	1.08
74-87-3	Chloromethane	U	1.08	ug/kg	0.323	1.08
75-01-4	Vinyl chloride	U	1.08	ug/kg	0.323	1.08
74-83-9	Bromomethane	U	1.08	ug/kg	0.323	1.08
75-00-3	Chloroethane	U	1.08	ug/kg	0.323	1.08
75-69-4	Trichlorofluoromethane	U	1.08	ug/kg	0.323	1.08
67-64-1	Acetone	U	5.38	ug/kg	1.79	5.38
75-35-4	1,1-Dichloroethylene	U	1.08	ug/kg	0.323	1.08
74-88-4	Iodomethane	U	5.38	ug/kg	1.72	5.38
75-09-2	Methylene chloride	U	5.38	ug/kg	2.15	5.38
75-15-0	Carbon disulfide	U	5.38	ug/kg	1.34	5.38
156-60-5	trans-1,2-Dichloroethylene	U	1.08	ug/kg	0.323	1.08
75-34-3	1,1-Dichloroethane	U	1.08	ug/kg	0.323	1.08
78-93-3	2-Butanone	U	5.38	ug/kg	1.61	5.38
156-59-2	cis-1,2-Dichloroethylene	U	1.08	ug/kg	0.323	1.08
594-20-7	2,2-Dichloropropane	U	1.08	ug/kg	0.323	1.08
67-66-3	Chloroform	U	1.08	ug/kg	0.323	1.08
74-97-5	Bromochloromethane	U	1.08	ug/kg	0.355	1.08
71-55-6	1,1,1-Trichloroethane	U	1.08	ug/kg	0.323	1.08
563-58-6	1,1-Dichloropropene	U	1.08	ug/kg	0.323	1.08
56-23-5	Carbon tetrachloride	U	1.08	ug/kg	0.323	1.08
107-06-2	1,2-Dichloroethane	U	1.08	ug/kg	0.323	1.08
71-43-2	Benzene	U	1.08	ug/kg	0.323	1.08
79-01-6	Trichloroethylene	U	1.08	ug/kg	0.355	1.08
78-87-5	1,2-Dichloropropane	U	1.08	ug/kg	0.323	1.08
75-27-4	Bromodichloromethane	U	1.08	ug/kg	0.323	1.08
74-95-3	Dibromomethane	U	1.08	ug/kg	0.323	1.08
108-10-1	4-Methyl-2-pentanone	U	5.38	ug/kg	1.34	5.38
10061-01-5	cis-1,3-Dichloropropylene	U	1.08	ug/kg	0.323	1.08
108-88-3	Toluene	U	1.08	ug/kg	0.323	1.08
10061-02-6	trans-1,3-Dichloropropylene	U	1.08	ug/kg	0.323	1.08
79-00-5	1,1,2-Trichloroethane	U	1.08	ug/kg	0.323	1.08
591-78-6	2-Hexanone	U	5.38	ug/kg	1.61	5.38
142-28-9	1,3-Dichloropropane	U	1.08	ug/kg	0.323	1.08
127-18-4	Tetrachloroethylene	U	1.08	ug/kg	0.323	1.08
124-48-1	Dibromochloromethane	U	1.08	ug/kg	0.323	1.08
106-93-4	1,2-Dibromoethane	U	1.08	ug/kg	0.323	1.08
108-90-7	Chlorobenzene	U	1.08	ug/kg	0.323	1.08

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1086**	**Date Collected:**	**12/22/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243552012**	**Date Received:**	**12/24/2009 09:30**	**%Moisture:**	**7**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-10-2736**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937990**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**12/31/2009 18:42**	**Analyst:**	**RXM4**	**Purge Vol:**	**5 mL**
Prep Date:	**12/31/2009 12:02**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1t418.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.08	ug/kg	0.323	1.08
179601-23-1	m,p-Xylenes	U	2.15	ug/kg	0.323	2.15
95-47-6	o-Xylene	U	1.08	ug/kg	0.323	1.08
100-42-5	Styrene	U	1.08	ug/kg	0.323	1.08
75-25-2	Bromoform	U	1.08	ug/kg	0.323	1.08
79-34-5	1,1,2,2-Tetrachloroethane	U	1.08	ug/kg	0.323	1.08
96-18-4	1,2,3-Trichloropropane	U	1.08	ug/kg	0.323	1.08
108-86-1	Bromobenzene	U	1.08	ug/kg	0.323	1.08
103-65-1	n-Propylbenzene	U	1.08	ug/kg	0.323	1.08
95-49-8	2-Chlorotoluene	U	1.08	ug/kg	0.323	1.08
98-82-8	Isopropylbenzene	U	1.08	ug/kg	0.323	1.08
108-67-8	1,3,5-Trimethylbenzene	U	1.08	ug/kg	0.323	1.08
106-43-4	4-Chlorotoluene	U	1.08	ug/kg	0.323	1.08
98-06-6	tert-Butylbenzene	U	1.08	ug/kg	0.323	1.08
95-63-6	1,2,4-Trimethylbenzene	U	1.08	ug/kg	0.323	1.08
135-98-8	sec-Butylbenzene	U	1.08	ug/kg	0.323	1.08
99-87-6	4-Isopropyltoluene	U	1.08	ug/kg	0.323	1.08
541-73-1	1,3-Dichlorobenzene	U	1.08	ug/kg	0.323	1.08
106-46-7	1,4-Dichlorobenzene	U	1.08	ug/kg	0.323	1.08
104-51-8	n-Butylbenzene	U	1.08	ug/kg	0.323	1.08
96-12-8	1,2-Dibromo-3-chloropropane	U	1.08	ug/kg	0.323	1.08
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.38	ug/kg	1.72	5.38
630-20-6	1,1,1,2-Tetrachloroethane	U	1.08	ug/kg	0.323	1.08
95-50-1	1,2-Dichlorobenzene	U	1.08	ug/kg	0.323	1.08

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Hydrocarbon	18.06	16.2	ug/kg		J

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1086	**Date Collected:**	12/22/2009 12:00	**Matrix:**	S
Lab Sample ID:	243552011	**Date Received:**	12/24/2009 09:30	**%Moisture:**	10.1
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-10-2737	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	937990	**Inst:**	VOA1.I	**Dilution:**	1
Run Date:	12/31/2009 18:11	**Analyst:**	RXM4	**Purge Vol:**	5 mL
Prep Date:	12/31/2009 12:01	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	1t417.d	**Column:**	RTX-Volatiles	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.11	ug/kg	0.378	1.11
74-87-3	Chloromethane	U	1.11	ug/kg	0.334	1.11
75-01-4	Vinyl chloride	U	1.11	ug/kg	0.334	1.11
74-83-9	Bromomethane	U	1.11	ug/kg	0.334	1.11
75-00-3	Chloroethane	U	1.11	ug/kg	0.334	1.11
75-69-4	Trichlorofluoromethane	U	1.11	ug/kg	0.334	1.11
67-64-1	Acetone	J	2.97	ug/kg	1.85	5.56
75-35-4	1,1-Dichloroethylene	U	1.11	ug/kg	0.334	1.11
74-88-4	Iodomethane	U	5.56	ug/kg	1.78	5.56
75-09-2	Methylene chloride	U	5.56	ug/kg	2.23	5.56
75-15-0	Carbon disulfide	U	5.56	ug/kg	1.39	5.56
156-60-5	trans-1,2-Dichloroethylene	U	1.11	ug/kg	0.334	1.11
75-34-3	1,1-Dichloroethane	U	1.11	ug/kg	0.334	1.11
78-93-3	2-Butanone	U	5.56	ug/kg	1.67	5.56
156-59-2	cis-1,2-Dichloroethylene	U	1.11	ug/kg	0.334	1.11
594-20-7	2,2-Dichloropropane	U	1.11	ug/kg	0.334	1.11
67-66-3	Chloroform	U	1.11	ug/kg	0.334	1.11
74-97-5	Bromochloromethane	U	1.11	ug/kg	0.367	1.11
71-55-6	1,1,1-Trichloroethane	U	1.11	ug/kg	0.334	1.11
563-58-6	1,1-Dichloropropene	U	1.11	ug/kg	0.334	1.11
56-23-5	Carbon tetrachloride	U	1.11	ug/kg	0.334	1.11
107-06-2	1,2-Dichloroethane	U	1.11	ug/kg	0.334	1.11
71-43-2	Benzene	U	1.11	ug/kg	0.334	1.11
79-01-6	Trichloroethylene	U	1.11	ug/kg	0.367	1.11
78-87-5	1,2-Dichloropropane	U	1.11	ug/kg	0.334	1.11
75-27-4	Bromodichloromethane	U	1.11	ug/kg	0.334	1.11
74-95-3	Dibromomethane	U	1.11	ug/kg	0.334	1.11
108-10-1	4-Methyl-2-pentanone	U	5.56	ug/kg	1.39	5.56
10061-01-5	cis-1,3-Dichloropropylene	U	1.11	ug/kg	0.334	1.11
108-88-3	Toluene	U	1.11	ug/kg	0.334	1.11
10061-02-6	trans-1,3-Dichloropropylene	U	1.11	ug/kg	0.334	1.11
79-00-5	1,1,2-Trichloroethane	U	1.11	ug/kg	0.334	1.11
591-78-6	2-Hexanone	U	5.56	ug/kg	1.67	5.56
142-28-9	1,3-Dichloropropane	U	1.11	ug/kg	0.334	1.11
127-18-4	Tetrachloroethylene	U	1.11	ug/kg	0.334	1.11
124-48-1	Dibromochloromethane	U	1.11	ug/kg	0.334	1.11
106-93-4	1,2-Dibromoethane	U	1.11	ug/kg	0.334	1.11
108-90-7	Chlorobenzene	U	1.11	ug/kg	0.334	1.11

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1086**	**Date Collected:**	**12/22/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243552011**	**Date Received:**	**12/24/2009 09:30**	**%Moisture:**	**10.1**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-10-2737**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937990**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**12/31/2009 18:11**	**Analyst:**	**RXM4**	**Purge Vol:**	**5 mL**
Prep Date:	**12/31/2009 12:01**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1t417.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.11	ug/kg	0.334	1.11
179601-23-1	m,p-Xylenes	U	2.23	ug/kg	0.334	2.23
95-47-6	o-Xylene	U	1.11	ug/kg	0.334	1.11
100-42-5	Styrene	U	1.11	ug/kg	0.334	1.11
75-25-2	Bromoform	U	1.11	ug/kg	0.334	1.11
79-34-5	1,1,2,2-Tetrachloroethane	U	1.11	ug/kg	0.334	1.11
96-18-4	1,2,3-Trichloropropane	U	1.11	ug/kg	0.334	1.11
108-86-1	Bromobenzene	U	1.11	ug/kg	0.334	1.11
103-65-1	n-Propylbenzene	U	1.11	ug/kg	0.334	1.11
95-49-8	2-Chlorotoluene	U	1.11	ug/kg	0.334	1.11
98-82-8	Isopropylbenzene	U	1.11	ug/kg	0.334	1.11
108-67-8	1,3,5-Trimethylbenzene	U	1.11	ug/kg	0.334	1.11
106-43-4	4-Chlorotoluene	U	1.11	ug/kg	0.334	1.11
98-06-6	tert-Butylbenzene	U	1.11	ug/kg	0.334	1.11
95-63-6	1,2,4-Trimethylbenzene	U	1.11	ug/kg	0.334	1.11
135-98-8	sec-Butylbenzene	U	1.11	ug/kg	0.334	1.11
99-87-6	4-Isopropyltoluene	U	1.11	ug/kg	0.334	1.11
541-73-1	1,3-Dichlorobenzene	U	1.11	ug/kg	0.334	1.11
106-46-7	1,4-Dichlorobenzene	U	1.11	ug/kg	0.334	1.11
104-51-8	n-Butylbenzene	U	1.11	ug/kg	0.334	1.11
96-12-8	1,2-Dibromo-3-chloropropane	U	1.11	ug/kg	0.334	1.11
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.56	ug/kg	1.78	5.56
630-20-6	1,1,1,2-Tetrachloroethane	U	1.11	ug/kg	0.334	1.11
95-50-1	1,2-Dichlorobenzene	U	1.11	ug/kg	0.334	1.11

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Hydrocarbon	14.46	11.8	ug/kg		J
66-25-1	Hexanal	16.39	136	ug/kg	90	NJ
	Unknown Hydrocarbon	18.06	12.2	ug/kg		J
124-13-0	Octanal	19.29	6.41	ug/kg	91	NJ

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1086**	**Date Collected:**	**12/22/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243552016**	**Date Received:**	**12/24/2009 09:30**	**%Moisture:**	**11.9**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-10-9872**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937990**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**12/31/2009 20:44**	**Analyst:**	**RXM4**	**Purge Vol:**	**5 mL**
Prep Date:	**12/31/2009 12:06**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1t422.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.13	ug/kg	0.386	1.13
74-87-3	Chloromethane	U	1.13	ug/kg	0.340	1.13
75-01-4	Vinyl chloride	U	1.13	ug/kg	0.340	1.13
74-83-9	Bromomethane	U	1.13	ug/kg	0.340	1.13
75-00-3	Chloroethane	U	1.13	ug/kg	0.340	1.13
75-69-4	Trichlorofluoromethane	U	1.13	ug/kg	0.340	1.13
67-64-1	Acetone	U	5.67	ug/kg	1.88	5.67
75-35-4	1,1-Dichloroethylene	U	1.13	ug/kg	0.340	1.13
74-88-4	Iodomethane	U	5.67	ug/kg	1.82	5.67
75-09-2	Methylene chloride	U	5.67	ug/kg	2.27	5.67
75-15-0	Carbon disulfide	U	5.67	ug/kg	1.42	5.67
156-60-5	trans-1,2-Dichloroethylene	U	1.13	ug/kg	0.340	1.13
75-34-3	1,1-Dichloroethane	U	1.13	ug/kg	0.340	1.13
78-93-3	2-Butanone	U	5.67	ug/kg	1.70	5.67
156-59-2	cis-1,2-Dichloroethylene	U	1.13	ug/kg	0.340	1.13
594-20-7	2,2-Dichloropropane	U	1.13	ug/kg	0.340	1.13
67-66-3	Chloroform	U	1.13	ug/kg	0.340	1.13
74-97-5	Bromochloromethane	U	1.13	ug/kg	0.374	1.13
71-55-6	1,1,1-Trichloroethane	U	1.13	ug/kg	0.340	1.13
563-58-6	1,1-Dichloropropene	U	1.13	ug/kg	0.340	1.13
56-23-5	Carbon tetrachloride	U	1.13	ug/kg	0.340	1.13
107-06-2	1,2-Dichloroethane	U	1.13	ug/kg	0.340	1.13
71-43-2	Benzene	U	1.13	ug/kg	0.340	1.13
79-01-6	Trichloroethylene	U	1.13	ug/kg	0.374	1.13
78-87-5	1,2-Dichloropropane	U	1.13	ug/kg	0.340	1.13
75-27-4	Bromodichloromethane	U	1.13	ug/kg	0.340	1.13
74-95-3	Dibromomethane	U	1.13	ug/kg	0.340	1.13
108-10-1	4-Methyl-2-pentanone	U	5.67	ug/kg	1.42	5.67
10061-01-5	cis-1,3-Dichloropropylene	U	1.13	ug/kg	0.340	1.13
108-88-3	Toluene	U	1.13	ug/kg	0.340	1.13
10061-02-6	trans-1,3-Dichloropropylene	U	1.13	ug/kg	0.340	1.13
79-00-5	1,1,2-Trichloroethane	U	1.13	ug/kg	0.340	1.13
591-78-6	2-Hexanone	U	5.67	ug/kg	1.70	5.67
142-28-9	1,3-Dichloropropane	U	1.13	ug/kg	0.340	1.13
127-18-4	Tetrachloroethylene	U	1.13	ug/kg	0.340	1.13
124-48-1	Dibromochloromethane	U	1.13	ug/kg	0.340	1.13
106-93-4	1,2-Dibromoethane	U	1.13	ug/kg	0.340	1.13
108-90-7	Chlorobenzene	U	1.13	ug/kg	0.340	1.13

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1086**	**Date Collected:**	**12/22/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243552016**	**Date Received:**	**12/24/2009 09:30**	**%Moisture:**	**11.9**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-10-9872**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937990**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**12/31/2009 20:44**	**Analyst:**	**RXM4**	**Purge Vol:**	**5 mL**
Prep Date:	**12/31/2009 12:06**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1t422.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.13	ug/kg	0.340	1.13
179601-23-1	m,p-Xylenes	U	2.27	ug/kg	0.340	2.27
95-47-6	o-Xylene	U	1.13	ug/kg	0.340	1.13
100-42-5	Styrene	U	1.13	ug/kg	0.340	1.13
75-25-2	Bromoform	U	1.13	ug/kg	0.340	1.13
79-34-5	1,1,2,2-Tetrachloroethane	U	1.13	ug/kg	0.340	1.13
96-18-4	1,2,3-Trichloropropane	U	1.13	ug/kg	0.340	1.13
108-86-1	Bromobenzene	U	1.13	ug/kg	0.340	1.13
103-65-1	n-Propylbenzene	U	1.13	ug/kg	0.340	1.13
95-49-8	2-Chlorotoluene	U	1.13	ug/kg	0.340	1.13
98-82-8	Isopropylbenzene	U	1.13	ug/kg	0.340	1.13
108-67-8	1,3,5-Trimethylbenzene	U	1.13	ug/kg	0.340	1.13
106-43-4	4-Chlorotoluene	U	1.13	ug/kg	0.340	1.13
98-06-6	tert-Butylbenzene	U	1.13	ug/kg	0.340	1.13
95-63-6	1,2,4-Trimethylbenzene	U	1.13	ug/kg	0.340	1.13
135-98-8	sec-Butylbenzene	U	1.13	ug/kg	0.340	1.13
99-87-6	4-Isopropyltoluene	U	1.13	ug/kg	0.340	1.13
541-73-1	1,3-Dichlorobenzene	U	1.13	ug/kg	0.340	1.13
106-46-7	1,4-Dichlorobenzene	U	1.13	ug/kg	0.340	1.13
104-51-8	n-Butylbenzene	U	1.13	ug/kg	0.340	1.13
96-12-8	1,2-Dibromo-3-chloropropane	U	1.13	ug/kg	0.340	1.13
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.67	ug/kg	1.82	5.67
630-20-6	1,1,1,2-Tetrachloroethane	U	1.13	ug/kg	0.340	1.13
95-50-1	1,2-Dichlorobenzene	U	1.13	ug/kg	0.340	1.13

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Siloxane	18.06	34.3	ug/kg		J

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1086**	**Date Collected:**	**12/22/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243552014**	**Date Received:**	**12/24/2009 09:30**	**%Moisture:**	**5.3**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-10-9873**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937990**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**12/31/2009 19:43**	**Analyst:**	**RXM4**	**Purge Vol:**	**5 mL**
Prep Date:	**12/31/2009 12:04**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1t420.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.06	ug/kg	0.359	1.06
74-87-3	Chloromethane	U	1.06	ug/kg	0.317	1.06
75-01-4	Vinyl chloride	U	1.06	ug/kg	0.317	1.06
74-83-9	Bromomethane	U	1.06	ug/kg	0.317	1.06
75-00-3	Chloroethane	U	1.06	ug/kg	0.317	1.06
75-69-4	Trichlorofluoromethane	U	1.06	ug/kg	0.317	1.06
67-64-1	Acetone	U	5.28	ug/kg	1.75	5.28
75-35-4	1,1-Dichloroethylene	U	1.06	ug/kg	0.317	1.06
74-88-4	Iodomethane	U	5.28	ug/kg	1.69	5.28
75-09-2	Methylene chloride	U	5.28	ug/kg	2.11	5.28
75-15-0	Carbon disulfide	U	5.28	ug/kg	1.32	5.28
156-60-5	trans-1,2-Dichloroethylene	U	1.06	ug/kg	0.317	1.06
75-34-3	1,1-Dichloroethane	U	1.06	ug/kg	0.317	1.06
78-93-3	2-Butanone	U	5.28	ug/kg	1.58	5.28
156-59-2	cis-1,2-Dichloroethylene	U	1.06	ug/kg	0.317	1.06
594-20-7	2,2-Dichloropropane	U	1.06	ug/kg	0.317	1.06
67-66-3	Chloroform	U	1.06	ug/kg	0.317	1.06
74-97-5	Bromochloromethane	U	1.06	ug/kg	0.348	1.06
71-55-6	1,1,1-Trichloroethane	U	1.06	ug/kg	0.317	1.06
563-58-6	1,1-Dichloropropene	U	1.06	ug/kg	0.317	1.06
56-23-5	Carbon tetrachloride	U	1.06	ug/kg	0.317	1.06
107-06-2	1,2-Dichloroethane	U	1.06	ug/kg	0.317	1.06
71-43-2	Benzene	U	1.06	ug/kg	0.317	1.06
79-01-6	Trichloroethylene	U	1.06	ug/kg	0.348	1.06
78-87-5	1,2-Dichloropropane	U	1.06	ug/kg	0.317	1.06
75-27-4	Bromodichloromethane	U	1.06	ug/kg	0.317	1.06
74-95-3	Dibromomethane	U	1.06	ug/kg	0.317	1.06
108-10-1	4-Methyl-2-pentanone	U	5.28	ug/kg	1.32	5.28
10061-01-5	cis-1,3-Dichloropropylene	U	1.06	ug/kg	0.317	1.06
108-88-3	Toluene	U	1.06	ug/kg	0.317	1.06
10061-02-6	trans-1,3-Dichloropropylene	U	1.06	ug/kg	0.317	1.06
79-00-5	1,1,2-Trichloroethane	U	1.06	ug/kg	0.317	1.06
591-78-6	2-Hexanone	U	5.28	ug/kg	1.58	5.28
142-28-9	1,3-Dichloropropane	U	1.06	ug/kg	0.317	1.06
127-18-4	Tetrachloroethylene	U	1.06	ug/kg	0.317	1.06
124-48-1	Dibromochloromethane	U	1.06	ug/kg	0.317	1.06
106-93-4	1,2-Dibromoethane	U	1.06	ug/kg	0.317	1.06
108-90-7	Chlorobenzene	U	1.06	ug/kg	0.317	1.06

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1086**	**Date Collected:**	**12/22/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243552014**	**Date Received:**	**12/24/2009 09:30**	**%Moisture:**	**5.3**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-10-9873**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937990**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**12/31/2009 19:43**	**Analyst:**	**RXM4**	**Purge Vol:**	**5 mL**
Prep Date:	**12/31/2009 12:04**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1t420.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.06	ug/kg	0.317	1.06
179601-23-1	m,p-Xylenes	U	2.11	ug/kg	0.317	2.11
95-47-6	o-Xylene	U	1.06	ug/kg	0.317	1.06
100-42-5	Styrene	U	1.06	ug/kg	0.317	1.06
75-25-2	Bromoform	U	1.06	ug/kg	0.317	1.06
79-34-5	1,1,2,2-Tetrachloroethane	U	1.06	ug/kg	0.317	1.06
96-18-4	1,2,3-Trichloropropane	U	1.06	ug/kg	0.317	1.06
108-86-1	Bromobenzene	U	1.06	ug/kg	0.317	1.06
103-65-1	n-Propylbenzene	U	1.06	ug/kg	0.317	1.06
95-49-8	2-Chlorotoluene	U	1.06	ug/kg	0.317	1.06
98-82-8	Isopropylbenzene	U	1.06	ug/kg	0.317	1.06
108-67-8	1,3,5-Trimethylbenzene	U	1.06	ug/kg	0.317	1.06
106-43-4	4-Chlorotoluene	U	1.06	ug/kg	0.317	1.06
98-06-6	tert-Butylbenzene	U	1.06	ug/kg	0.317	1.06
95-63-6	1,2,4-Trimethylbenzene	U	1.06	ug/kg	0.317	1.06
135-98-8	sec-Butylbenzene	U	1.06	ug/kg	0.317	1.06
99-87-6	4-Isopropyltoluene	U	1.06	ug/kg	0.317	1.06
541-73-1	1,3-Dichlorobenzene	U	1.06	ug/kg	0.317	1.06
106-46-7	1,4-Dichlorobenzene	U	1.06	ug/kg	0.317	1.06
104-51-8	n-Butylbenzene	U	1.06	ug/kg	0.317	1.06
96-12-8	1,2-Dibromo-3-chloropropane	U	1.06	ug/kg	0.317	1.06
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.28	ug/kg	1.69	5.28
630-20-6	1,1,1,2-Tetrachloroethane	U	1.06	ug/kg	0.317	1.06
95-50-1	1,2-Dichlorobenzene	U	1.06	ug/kg	0.317	1.06

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated Units	Fit	Qual
	No Tentatively Identified Compounds Found		ug/kg		

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1086**	**Date Collected:**	**12/22/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243552017**	**Date Received:**	**12/24/2009 09:30**	**%Moisture:**	**6.9**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-10-9874**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937990**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**12/31/2009 21:14**	**Analyst:**	**RXM4**	**Purge Vol:**	**5 mL**
Prep Date:	**12/31/2009 12:07**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**lt423.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.07	ug/kg	0.365	1.07
74-87-3	Chloromethane	U	1.07	ug/kg	0.322	1.07
75-01-4	Vinyl chloride	U	1.07	ug/kg	0.322	1.07
74-83-9	Bromomethane	U	1.07	ug/kg	0.322	1.07
75-00-3	Chloroethane	U	1.07	ug/kg	0.322	1.07
75-69-4	Trichlorofluoromethane	U	1.07	ug/kg	0.322	1.07
67-64-1	Acetone	J	3.12	ug/kg	1.78	5.37
75-35-4	1,1-Dichloroethylene	U	1.07	ug/kg	0.322	1.07
74-88-4	Iodomethane	U	5.37	ug/kg	1.72	5.37
75-09-2	Methylene chloride	U	5.37	ug/kg	2.15	5.37
75-15-0	Carbon disulfide	U	5.37	ug/kg	1.34	5.37
156-60-5	trans-1,2-Dichloroethylene	U	1.07	ug/kg	0.322	1.07
75-34-3	1,1-Dichloroethane	U	1.07	ug/kg	0.322	1.07
78-93-3	2-Butanone	U	5.37	ug/kg	1.61	5.37
156-59-2	cis-1,2-Dichloroethylene	U	1.07	ug/kg	0.322	1.07
594-20-7	2,2-Dichloropropane	U	1.07	ug/kg	0.322	1.07
67-66-3	Chloroform	U	1.07	ug/kg	0.322	1.07
74-97-5	Bromochloromethane	U	1.07	ug/kg	0.354	1.07
71-55-6	1,1,1-Trichloroethane	U	1.07	ug/kg	0.322	1.07
563-58-6	1,1-Dichloropropene	U	1.07	ug/kg	0.322	1.07
56-23-5	Carbon tetrachloride	U	1.07	ug/kg	0.322	1.07
107-06-2	1,2-Dichloroethane	U	1.07	ug/kg	0.322	1.07
71-43-2	Benzene	U	1.07	ug/kg	0.322	1.07
79-01-6	Trichloroethylene	U	1.07	ug/kg	0.354	1.07
78-87-5	1,2-Dichloropropane	U	1.07	ug/kg	0.322	1.07
75-27-4	Bromodichloromethane	U	1.07	ug/kg	0.322	1.07
74-95-3	Dibromomethane	U	1.07	ug/kg	0.322	1.07
108-10-1	4-Methyl-2-pentanone	U	5.37	ug/kg	1.34	5.37
10061-01-5	cis-1,3-Dichloropropylene	U	1.07	ug/kg	0.322	1.07
108-88-3	Toluene	U	1.07	ug/kg	0.322	1.07
10061-02-6	trans-1,3-Dichloropropylene	U	1.07	ug/kg	0.322	1.07
79-00-5	1,1,2-Trichloroethane	U	1.07	ug/kg	0.322	1.07
591-78-6	2-Hexanone	U	5.37	ug/kg	1.61	5.37
142-28-9	1,3-Dichloropropane	U	1.07	ug/kg	0.322	1.07
127-18-4	Tetrachloroethylene	U	1.07	ug/kg	0.322	1.07
124-48-1	Dibromochloromethane	U	1.07	ug/kg	0.322	1.07
106-93-4	1,2-Dibromoethane	U	1.07	ug/kg	0.322	1.07
108-90-7	Chlorobenzene	U	1.07	ug/kg	0.322	1.07

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1086**	**Date Collected:**	**12/22/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243552017**	**Date Received:**	**12/24/2009 09:30**	**%Moisture:**	**6.9**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-10-9874**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937990**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**12/31/2009 21:14**	**Analyst:**	**RXM4**	**Purge Vol:**	**5 mL**
Prep Date:	**12/31/2009 12:07**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1t423.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.07	ug/kg	0.322	1.07
179601-23-1	m,p-Xylenes	U	2.15	ug/kg	0.322	2.15
95-47-6	o-Xylene	U	1.07	ug/kg	0.322	1.07
100-42-5	Styrene	U	1.07	ug/kg	0.322	1.07
75-25-2	Bromoform	U	1.07	ug/kg	0.322	1.07
79-34-5	1,1,2,2-Tetrachlorocthane	U	1.07	ug/kg	0.322	1.07
96-18-4	1,2,3-Trichloropropane	U	1.07	ug/kg	0.322	1.07
108-86-1	Bromobenzene	U	1.07	ug/kg	0.322	1.07
103-65-1	n-Propylbenzene	U	1.07	ug/kg	0.322	1.07
95-49-8	2-Chlorotoluene	U	1.07	ug/kg	0.322	1.07
98-82-8	Isopropylbenzene	U	1.07	ug/kg	0.322	1.07
108-67-8	1,3,5-Trimethylbenzene	U	1.07	ug/kg	0.322	1.07
106-43-4	4-Chlorotoluene	U	1.07	ug/kg	0.322	1.07
98-06-6	tert-Butylbenzene	U	1.07	ug/kg	0.322	1.07
95-63-6	1,2,4-Trimethylbenzene	U	1.07	ug/kg	0.322	1.07
135-98-8	sec-Butylbenzene	U	1.07	ug/kg	0.322	1.07
99-87-6	4-Isopropyltoluene	U	1.07	ug/kg	0.322	1.07
541-73-1	1,3-Dichlorobenzene	U	1.07	ug/kg	0.322	1.07
106-46-7	1,4-Dichlorobenzene	U	1.07	ug/kg	0.322	1.07
104-51-8	n-Butylbenzene	U	1.07	ug/kg	0.322	1.07
96-12-8	1,2-Dibromo-3-chloropropane	U	1.07	ug/kg	0.322	1.07
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.37	ug/kg	1.72	5.37
630-20-6	1,1,1,2-Tetrachloroethane	U	1.07	ug/kg	0.322	1.07
95-50-1	1,2-Dichlorobenzene	U	1.07	ug/kg	0.322	1.07

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Hydrocarbon	14.46	9.43	ug/kg		J
66-25-1	Hexanal	16.39	96.4	ug/kg	90	NJ
	Unknown Hydrocarbon	18.06	13.8	ug/kg		J

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1086**	**Date Collected:**	**12/22/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243552013**	**Date Received:**	**12/24/2009 09:30**		
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-10-9878**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937990**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**12/31/2009 19:13**	**Analyst:**	**RXM4**	**Purge Vol:**	**5 mL**
Prep Date:	**12/31/2009 12:03**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1t419.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/kg	0.340	1.00
74-87-3	Chloromethane	U	1.00	ug/kg	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/kg	0.300	1.00
74-83-9	Bromomethane	U	1.00	ug/kg	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/kg	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/kg	0.300	1.00
67-64-1	Acetone	U	5.00	ug/kg	1.66	5.00
75-35-4	1,1-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/kg	1.60	5.00
75-09-2	Methylene chloride	U	5.00	ug/kg	2.00	5.00
75-15-0	Carbon disulfide	U	5.00	ug/kg	1.25	5.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/kg	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/kg	1.50	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/kg	0.300	1.00
74-97-5	Bromochloromethane	U	1.00	ug/kg	0.330	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/kg	0.300	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/kg	0.300	1.00
56-23-5	Carbon tetrachloride	U	1.00	ug/kg	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/kg	0.300	1.00
71-43-2	Benzene	U	1.00	ug/kg	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/kg	0.330	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/kg	0.300	1.00
74-95-3	Dibromomethane	U	1.00	ug/kg	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/kg	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
108-88-3	Toluene	U	1.00	ug/kg	0.300	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/kg	0.300	1.00
591-78-6	2-Hexanone	U	5.00	ug/kg	1.50	5.00
142-28-9	1,3-Dichloropropane	U	1.00	ug/kg	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/kg	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/kg	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/kg	0.300	1.00
108-90-7	Chlorobenzene	U	1.00	ug/kg	0.300	1.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1086**	**Date Collected:**	**12/22/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243552013**	**Date Received:**	**12/24/2009 09:30**		
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-10-9878**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937990**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**12/31/2009 19:13**	**Analyst:**	**RXM4**	**Purge Vol:**	**5 mL**
Prep Date:	**12/31/2009 12:03**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1t419.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.00	ug/kg	0.300	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/kg	0.300	2.00
95-47-6	o-Xylene	U	1.00	ug/kg	0.300	1.00
100-42-5	Styrene	U	1.00	ug/kg	0.300	1.00
75-25-2	Bromoform	U	1.00	ug/kg	0.300	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/kg	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/kg	0.300	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/kg	0.300	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/kg	0.300	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/kg	0.300	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/kg	0.300	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/kg	0.300	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/kg	0.300	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/kg	0.300	1.00
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.00	ug/kg	1.60	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated Units	Fit	Qual
	No Tentatively Identified Compounds Found		ug/kg		

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1086**	**Date Collected:**	**12/22/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243552015**	**Date Received:**	**12/24/2009 09:30**		
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-10-9886**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937990**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**12/31/2009 20:14**	**Analyst:**	**RXM4**	**Purge Vol:**	**5 mL**
Prep Date:	**12/31/2009 12:05**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1t421.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/kg	0.340	1.00
74-87-3	Chloromethane	U	1.00	ug/kg	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/kg	0.300	1.00
74-83-9	Bromomethane	U	1.00	ug/kg	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/kg	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/kg	0.300	1.00
67-64-1	Acetone	J	1.83	ug/kg	1.66	5.00
75-35-4	1,1-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/kg	1.60	5.00
75-09-2	Methylene chloride	U	5.00	ug/kg	2.00	5.00
75-15-0	Carbon disulfide	U	5.00	ug/kg	1.25	5.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/kg	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/kg	1.50	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/kg	0.300	1.00
74-97-5	Bromochloromethane	U	1.00	ug/kg	0.330	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/kg	0.300	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/kg	0.300	1.00
56-23-5	Carbon tetrachloride	U	1.00	ug/kg	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/kg	0.300	1.00
71-43-2	Benzene	U	1.00	ug/kg	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/kg	0.330	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/kg	0.300	1.00
74-95-3	Dibromomethane	U	1.00	ug/kg	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/kg	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
108-88-3	Toluene	U	1.00	ug/kg	0.300	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/kg	0.300	1.00
591-78-6	2-Hexanone	U	5.00	ug/kg	1.50	5.00
142-28-9	1,3-Dichloropropane	U	1.00	ug/kg	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/kg	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/kg	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/kg	0.300	1.00
108-90-7	Chlorobenzene	U	1.00	ug/kg	0.300	1.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1086**	**Date Collected:**	**12/22/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243552015**	**Date Received:**	**12/24/2009 09:30**		
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-10-9886**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937990**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**12/31/2009 20:14**	**Analyst:**	**RXM4**	**Purge Vol:**	**5 mL**
Prep Date:	**12/31/2009 12:05**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1t421.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.00	ug/kg	0.300	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/kg	0.300	2.00
95-47-6	o-Xylene	U	1.00	ug/kg	0.300	1.00
100-42-5	Styrene	U	1.00	ug/kg	0.300	1.00
75-25-2	Bromoform	U	1.00	ug/kg	0.300	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/kg	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/kg	0.300	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/kg	0.300	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/kg	0.300	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/kg	0.300	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/kg	0.300	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/kg	0.300	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/kg	0.300	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/kg	0.300	1.00
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.00	ug/kg	1.60	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	No Tentatively Identified Compounds Found			ug/kg		

QC Summary

Volatile

Surrogate Recovery Report

SDG Number: 10-1086

Matrix Type: SOLID

CAP Column (1) : RTX-Volatiles

Sample ID	Client ID	DCED4 %REC	TOL %REC	BFB %REC
1202007173	LCS for batch 937989	114	86	83
1202007174	LCS for batch 937989	99	84	85
1202007169	MB for batch 937989	105	92	92
243552001	RE03-09-14233	109	91	95
243552002	RE03-09-14236	110	93	96
243552003	RE03-09-14239	112	93	98
243552004	RE03-09-14240	109	93	99
243552005	RE03-09-14231	115	94	97
243552007	RE03-09-14235	120	96	114
243552009	RE03-09-14234	113	92	101
243552010	RE03-09-14241	124	105	104
243552011	RE03-10-2737	131	107	116
243552012	RE03-10-2736	122	99	100
243552013	RE03-10-9878	127	110	112
243552014	RE03-10-9873	122	106	113
243552015	RE03-10-9886	123	104	104
243552016	RE03-10-9872	125	107	108
243552017	RE03-10-9874	123	95	99
1202007175	LCS for batch 937989	117	85	88
1202007176	LCS for batch 937989	104	82	90
1202007170	MB for batch 937989	100	83	88
243552006	RE03-09-14232	101	82	94
243552008	RE03-09-14238	115	82	102
1202007171	RE03-09-14233PS	129	93	94

DCED4 = 1,2-Dichloroethane-d4 (68%-131%)
TOL = Toluene-d8 (75%-129%)
BFB = Bromofluorobenzene (68%-133%)

* Recovery outside Acceptance Limits
# Column to be used to flag recovery values
D Sample Diluted

Volatile

Surrogate Recovery Report

SDG Number: 10-1086

Matrix Type: SOLID

CAP Column (1) : RTX-Volatiles

Sample ID	Client ID	DCED4 %REC	TOL %REC	BFB %REC
1202007172	RE03-09-14233PSD	104	89	87

Surrogate		Acceptance Limits
DCED4	= 1,2-Dichloroethane-d4	(68%-131%)
TOL	= Toluene-d8	(75%-129%)
BFB	= Bromofluorobenzene	(68%-133%)

* Recovery outside Acceptance Limits

\# Column to be used to flag recovery values

D Sample Diluted

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1086
Client ID: RE03-09-14233PS
Lab Sample ID: 1202007171
Instrument: VOA1.I
Analyst: RXM4
Purge Vol: 5 mL

Sample Type: Post Spike
Matrix: S
%Moisture: 7.4
Analysis Date: 01/04/2010 16:11
Prep Batch ID: 937989
Batch ID: 937990
Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
75-71-8	PS	Dichlorodifluoromethane	50.0	0.00	U	57.8	116	25-149
74-87-3	PS	Chloromethane	50.0	0.00	U	56.5	113	39-140
75-01-4	PS	Vinyl chloride	50.0	0.00	U	52.8	106	47-129
74-83-9	PS	Bromomethane	50.0	0.00	U	50.0	100	31-135
75-00-3	PS	Chloroethane	50.0	0.00	U	52.5	105	53-128
75-69-4	PS	Trichlorofluoromethane	50.0	0.00	U	65.1	130	51-151
67-64-1	PS	Acetone	250	0.00	U	214	85	21-153
75-35-4	PS	1,1-Dichloroethylene	50.0	0.00	U	52.3	105	61-125
74-88-4	PS	Iodomethane	250	0.00	U	222	89	53-142
75-09-2	PS	Methylene chloride	50.0	0.00	U	43.2	86	59-136
75-15-0	PS	Carbon disulfide	250	0.00	U	264	106	46-129
156-60-5	PS	trans-1,2-Dichloroethylene	50.0	0.00	U	47.4	95	56-126
75-34-3	PS	1,1-Dichloroethane	50.0	0.00	U	48.6	97	62-125
78-93-3	PS	2-Butanone	250	0.00	U	220	88	26-152
156-59-2	PS	cis-1,2-Dichloroethylene	50.0	0.00	U	46.4	93	60-130
594-20-7	PS	2,2-Dichloropropane	50.0	0.00	U	59.1	118	55-135
67-66-3	PS	Chloroform	50.0	0.00	U	48.7	97	60-127
74-97-5	PS	Bromochloromethane	50.0	0.00	U	45.0	90	61-131
71-55-6	PS	1,1,1-Trichloroethane	50.0	0.00	U	57.0	114	59-131
563-58-6	PS	1,1-Dichloropropene	50.0	0.00	U	52.9	106	57-128
56-23-5	PS	Carbon tetrachloride	50.0	0.00	U	58.1	116	58-136
107-06-2	PS	1,2-Dichloroethane	50.0	0.00	U	51.2	102	58-126

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1086
Client ID: RE03-09-14233PS
Lab Sample ID: 1202007171
Instrument: VOA1.I
Analyst: RXM4
Purge Vol: 5 mL

Sample Type: Post Spike
Matrix: S
%Moisture: 7.4
Analysis Date: 01/04/2010 16:11
Prep Batch ID 937989
Batch ID: 937990
Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
71-43-2	PS	Benzene	50.0	0.00	U	47.7	95	56-123
79-01-6	PS	Trichloroethylene	50.0	0.00	U	49.2	98	51-137
78-87-5	PS	1,2-Dichloropropane	50.0	0.00	U	49.1	98	60-126
75-27-4	PS	Bromodichloromethane	50.0	0.00	U	51.7	103	55-138
74-95-3	PS	Dibromomethane	50.0	0.00	U	48.6	97	60-132
108-10-1	PS	4-Methyl-2-pentanone	250	0.00	U	249	100	58-136
10061-01-5	PS	cis-1,3-Dichloropropylene	50.0	0.00	U	51.9	104	54-133
108-88-3	PS	Toluene	50.0	0.00	U	42.2	84	52-128
10061-02-6	PS	trans-1,3-Dichloropropylene	50.0	0.00	U	50.5	101	53-137
79-00-5	PS	1,1,2-Trichloroethane	50.0	0.00	U	45.8	92	59-130
591-78-6	PS	2-Hexanone	250	0.00	U	228	91	31-148
142-28-9	PS	1,3-Dichloropropane	50.0	0.00	U	45.3	91	57-127
127-18-4	PS	Tetrachloroethylene	50.0	0.00	U	45.9	92	51-128
124-48-1	PS	Dibromochloromethane	50.0	0.00	U	47.4	95	59-139
106-93-4	PS	1,2-Dibromoethane	50.0	0.00	U	46.0	92	57-133
108-90-7	PS	Chlorobenzene	50.0	0.00	U	43.8	88	53-122
100-41-4	PS	Ethylbenzene	50.0	0.00	U	45.7	91	51-125
179601-23-1	PS	m,p-Xylenes	100	0.00	U	91.3	91	50-126
95-47-6	PS	o-Xylene	50.0	0.00	U	44.8	90	52-127
100-42-5	PS	Styrene	50.0	0.708	J	43.8	86	49-135
75-25-2	PS	Bromoform	50.0	0.00	U	40.6	81	57-149
79-34-5	PS	1,1,2,2-Tetrachloroethane	50.0	0.00	U	47.1	94	63-127

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1086
Client ID: RE03-09-14233PS
Lab Sample ID: 1202007171
Instrument: VOA1.I
Analyst: RXM4
Purge Vol: 5 mL

Sample Type: Post Spike
Matrix: S
%Moisture: 7.4
Analysis Date: 01/04/2010 16:11
Prep Batch ID: 937989
Batch ID: 937990
Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
96-18-4	PS	1,2,3-Trichloropropane	50.0	0.00	U	46.5	93	57-149
108-86-1	PS	Bromobenzene	50.0	0.00	U	40.9	82	49-131
103-65-1	PS	n-Propylbenzene	50.0	0.00	U	45.0	90	40-136
95-49-8	PS	2-Chlorotoluene	50.0	0.00	U	43.4	87	44-135
98-82-8	PS	Isopropylbenzene	50.0	0.00	U	46.1	92	44-140
108-67-8	PS	1,3,5-Trimethylbenzene	50.0	0.00	U	42.6	85	42-140
106-43-4	PS	4-Chlorotoluene	50.0	0.00	U	43.0	86	44-132
98-06-6	PS	tert-Butylbenzene	50.0	0.00	U	41.3	83	42-142
95-63-6	PS	1,2,4-Trimethylbenzene	50.0	0.00	U	43.2	86	43-137
135-98-8	PS	sec-Butylbenzene	50.0	0.00	U	43.9	88	39-139
99-87-6	PS	4-Isopropyltoluene	50.0	0.00	U	44.4	89	38-145
541-73-1	PS	1,3-Dichlorobenzene	50.0	0.00	U	41.9	84	43-129
106-46-7	PS	1,4-Dichlorobenzene	50.0	0.00	U	42.5	85	44-125
104-51-8	PS	n-Butylbenzene	50.0	0.00	U	46.6	93	36-141
96-12-8	PS	1,2-Dibromo-3-chloropropane	50.0	0.00	U	47.4	95	47-151
630-20-6	PS	1,1,1,2-Tetrachloroethane	50.0	0.00	U	47.0	94	59-131
95-50-1	PS	1,2-Dichlorobenzene	50.0	0.00	U	43.0	86	43-129

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1086
Client ID: RE03-09-14233PSD
Lab Sample ID: 1202007172
Instrument: VOA1.I
Analyst: RXM4
Purge Vol: 5 mL

Sample Type: Post Spike Duplicate
Matrix: S
%Moisture: 7.4
Analysis Date: 01/04/2010 16:42
Dilution: 1
Prep Batch ID: 937989
Batch ID: 937990

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
75-71-8	PSD	Dichlorodifluoromethane	50.0	0.00	U	39.9	80	25-149	37 *	0-25
74-87-3	PSD	Chloromethane	50.0	0.00	U	42.8	86	39-140	28 *	0-25
75-01-4	PSD	Vinyl chloride	50.0	0.00	U	40.2	80	47-129	27 *	0-25
74-83-9	PSD	Bromomethane	50.0	0.00	U	40.2	80	31-135	22	0-25
75-00-3	PSD	Chloroethane	50.0	0.00	U	40.8	82	53-128	25	0-25
75-69-4	PSD	Trichlorofluoromethane	50.0	0.00	U	48.4	97	51-151	30 *	0-25
67-64-1	PSD	Acetone	250	0.00	U	171	68	21-153	22	0-25
75-35-4	PSD	1,1-Dichloroethylene	50.0	0.00	U	41.3	83	61-125	23	0-25
74-88-4	PSD	Iodomethane	250	0.00	U	192	77	53-142	14	0-25
75-09-2	PSD	Methylene chloride	50.0	0.00	U	34.0	68	59-136	24	0-25
75-15-0	PSD	Carbon disulfide	250	0.00	U	217	87	46-129	19	0-25
156-60-5	PSD	trans-1,2-Dichloroethylene	50.0	0.00	U	38.5	77	56-126	21	0-25
75-34-3	PSD	1,1-Dichloroethane	50.0	0.00	U	38.4	77	62-125	23	0-25
78-93-3	PSD	2-Butanone	250	0.00	U	171	68	26-152	25	0-25
156-59-2	PSD	cis-1,2-Dichloroethylene	50.0	0.00	U	36.7	73	60-130	23	0-25
594-20-7	PSD	2,2-Dichloropropane	50.0	0.00	U	44.0	88	55-135	29 *	0-25
67-66-3	PSD	Chloroform	50.0	0.00	U	38.9	78	60-127	22	0-25
74-97-5	PSD	Bromochloromethane	50.0	0.00	U	38.9	78	61-131	15	0-25
71-55-6	PSD	1,1,1-Trichloroethane	50.0	0.00	U	43.7	87	59-131	27 *	0-25
563-58-6	PSD	1,1-Dichloropropene	50.0	0.00	U	41.7	83	57-128	24	0-25
56-23-5	PSD	Carbon tetrachloride	50.0	0.00	U	45.8	92	58-136	24	0-25
107-06-2	PSD	1,2-Dichloroethane	50.0	0.00	U	40.2	80	58-126	24	0-25

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1086
Client ID: RE03-09-14233PSD
Lab Sample ID: 1202007172
Instrument: VOA1.I
Analyst: RXM4
Purge Vol: 5 mL

Sample Type: Post Spike Duplicate
Matrix: S
%Moisture: 7.4
Analysis Date: 01/04/2010 16:42
Dilution: 1
Prep Batch ID: 937989
Batch ID: 937990

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
71-43-2	PSD	Benzene	50.0	0.00	U	38.2	76	56-123	22	0-25
79-01-6	PSD	Trichloroethylene	50.0	0.00	U	39.6	79	51-137	22	0-25
78-87-5	PSD	1,2-Dichloropropane	50.0	0.00	U	39.3	79	60-126	22	0-25
75-27-4	PSD	Bromodichloromethane	50.0	0.00	U	39.5	79	55-138	27 *	0-25
74-95-3	PSD	Dibromomethane	50.0	0.00	U	38.8	78	60-132	22	0-25
108-10-1	PSD	4-Methyl-2-pentanone	250	0.00	U	195	78	58-136	24	0-25
10061-01-5	PSD	cis-1,3-Dichloropropylene	50.0	0.00	U	40.8	82	54-133	24	0-25
108-88-3	PSD	Toluene	50.0	0.00	U	36.3	73	52-128	15	0-25
10061-02-6	PSD	trans-1,3-Dichloropropylene	50.0	0.00	U	40.9	82	53-137	21	0-25
79-00-5	PSD	1,1,2-Trichloroethane	50.0	0.00	U	36.7	73	59-130	22	0-25
591-78-6	PSD	2-Hexanone	250	0.00	U	175	70	31-148	27 *	0-25
142-28-9	PSD	1,3-Dichloropropane	50.0	0.00	U	34.6	69	57-127	27 *	0-25
127-18-4	PSD	Tetrachloroethylene	50.0	0.00	U	37.4	75	51-128	20	0-25
124-48-1	PSD	Dibromochloromethane	50.0	0.00	U	39.2	78	59-139	19	0-25
106-93-4	PSD	1,2-Dibromoethane	50.0	0.00	U	39.5	79	57-133	15	0-25
108-90-7	PSD	Chlorobenzene	50.0	0.00	U	35.8	72	53-122	20	0-25
100-41-4	PSD	Ethylbenzene	50.0	0.00	U	36.8	74	51-125	22	0-25
179601-23-1	PSD	m,p-Xylenes	100	0.00	U	74.4	74	50-126	20	0-25
95-47-6	PSD	o-Xylene	50.0	0.00	U	37.0	74	52-127	19	0-25
100-42-5	PSD	Styrene	50.0	0.708	J	37.3	73	49-135	16	0-25
75-25-2	PSD	Bromoform	50.0	0.00	U	32.1	64	57-149	23	0-25
79-34-5	PSD	1,1,2,2-Tetrachloroethane	50.0	0.00	U	38.9	78	63-127	19	0-25

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1086
Client ID: RE03-09-14233PSD
Lab Sample ID: 1202007172
Instrument: VOA1.I
Analyst: RXM4
Purge Vol: 5 mL

Sample Type: Post Spike Duplicate
Matrix: S
%Moisture: 7.4
Analysis Date: 01/04/2010 16:42
Dilution: 1
Prep Batch ID: 937989
Batch ID: 937990

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
96-18-4	PSD	1,2,3-Trichloropropane	50.0	0.00	U	38.0	76	57-149	20	0-25
108-86-1	PSD	Bromobenzene	50.0	0.00	U	35.3	71	49-131	15	0-25
103-65-1	PSD	n-Propylbenzene	50.0	0.00	U	35.7	71	40-136	23	0-25
95-49-8	PSD	2-Chlorotoluene	50.0	0.00	U	34.6	69	44-135	23	0-25
98-82-8	PSD	Isopropylbenzene	50.0	0.00	U	36.9	74	44-140	22	0-25
108-67-8	PSD	1,3,5-Trimethylbenzene	50.0	0.00	U	35.8	72	42-140	17	0-25
106-43-4	PSD	4-Chlorotoluene	50.0	0.00	U	35.5	71	44-132	19	0-25
98-06-6	PSD	tert-Butylbenzene	50.0	0.00	U	33.5	67	42-142	21	0-25
95-63-6	PSD	1,2,4-Trimethylbenzene	50.0	0.00	U	34.1	68	43-137	23	0-25
135-98-8	PSD	sec-Butylbenzene	50.0	0.00	U	35.8	72	39-139	21	0-25
99-87-6	PSD	4-Isopropyltoluene	50.0	0.00	U	33.6	67	38-145	28 *	0-25
541-73-1	PSD	1,3-Dichlorobenzene	50.0	0.00	U	36.0	72	43-129	15	0-25
106-46-7	PSD	1,4-Dichlorobenzene	50.0	0.00	U	33.7	67	44-125	23	0-25
104-51-8	PSD	n-Butylbenzene	50.0	0.00	U	35.8	72	36-141	26 *	0-25
96-12-8	PSD	1,2-Dibromo-3-chloropropane	50.0	0.00	U	37.8	76	47-151	23	0-25
630-20-6	PSD	1,1,1,2-Tetrachloroethane	50.0	0.00	U	38.7	77	59-131	19	0-25
95-50-1	PSD	1,2-Dichlorobenzene	50.0	0.00	U	36.0	72	43-129	18	0-25

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1086
Client ID: LCS for batch 937989
Lab Sample ID: 1202007173
Instrument: VOA1.I
Analyst: RXM4
Purge Vol: 5 mL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 12/31/2009 10:52
Dilution: 1
Prep Batch ID: 937989
Batch ID: 937990

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
75-71-8	LCS	Dichlorodifluoromethane	50.0	0.0	54.9	110	33-155
74-87-3	LCS	Chloromethane	50.0	0.0	50.7	101	53-132
75-01-4	LCS	Vinyl chloride	50.0	0.0	48.6	97	61-128
74-83-9	LCS	Bromomethane	50.0	0.0	46.1	92	63-126
75-00-3	LCS	Chloroethane	50.0	0.0	48.5	97	67-124
75-69-4	LCS	Trichlorofluoromethane	50.0	0.0	61.0	122	67-151
67-64-1	LCS	Acetone	250	0.0	208	83	29-160
75-35-4	LCS	1,1-Dichloroethylene	50.0	0.0	47.2	94	70-125
74-88-4	LCS	Iodomethane	250	0.0	215	86	74-131
75-09-2	LCS	Methylene chloride	50.0	0.0	42.3	85	72-127
75-15-0	LCS	Carbon disulfide	250	0.0	255	102	64-127
156-60-5	LCS	trans-1,2-Dichloroethylene	50.0	0.0	47.1	94	71-122
75-34-3	LCS	1,1-Dichloroethane	50.0	0.0	47.2	94	75-120
78-93-3	LCS	2-Butanone	250	0.0	221	88	35-162
156-59-2	LCS	cis-1,2-Dichloroethylene	50.0	0.0	46.6	93	76-122
594-20-7	LCS	2,2-Dichloropropane	50.0	0.0	55.6	111	74-135
67-66-3	LCS	Chloroform	50.0	0.0	47.4	95	77-120
74-97-5	LCS	Bromochloromethane	50.0	0.0	47.5	95	76-122
71-55-6	LCS	1,1,1-Trichloroethane	50.0	0.0	54.0	108	75-128
563-58-6	LCS	1,1-Dichloropropene	50.0	0.0	52.1	104	77-125
56-23-5	LCS	Carbon tetrachloride	50.0	0.0	56.3	113	77-134
107-06-2	LCS	1,2-Dichloroethane	50.0	0.0	49.0	98	72-120

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1086 **Sample Type:** Laboratory Control Sample

Client ID: LCS for batch 937989 **Matrix:** SOIL

Lab Sample ID: 1202007173

Instrument: VOA1.I **Analysis Date:** 12/31/2009 10:52 **Dilution:** 1

Analyst: RXM4 **Prep Batch ID** 937989

Purge Vol: 5 mL **Batch ID:** 937990

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
71-43-2	LCS	Benzene	50.0	0.0	46.9	94	72-120
79-01-6	LCS	Trichloroethylene	50.0	0.0	48.1	96	78-121
78-87-5	LCS	1,2-Dichloropropane	50.0	0.0	46.4	93	74-120
75-27-4	LCS	Bromodichloromethane	50.0	0.0	48.9	98	79-125
74-95-3	LCS	Dibromomethane	50.0	0.0	46.3	93	78-122
108-10-1	LCS	4-Methyl-2-pentanone	250	0.0	236	94	71-134
10061-01-5	LCS	cis-1,3-Dichloropropylene	50.0	0.0	49.8	100	80-125
108-88-3	LCS	Toluene	50.0	0.0	43.4	87	65-124
10061-02-6	LCS	trans-1,3-Dichloropropylene	50.0	0.0	48.4	97	71-134
79-00-5	LCS	1,1,2-Trichloroethane	50.0	0.0	44.4	89	76-120
591-78-6	LCS	2-Hexanone	250	0.0	220	88	42-159
142-28-9	LCS	1,3-Dichloropropane	50.0	0.0	43.2	86	72-120
127-18-4	LCS	Tetrachloroethylene	50.0	0.0	46.4	93	74-123
124-48-1	LCS	Dibromochloromethane	50.0	0.0	48.2	96	83-128
106-93-4	LCS	1,2-Dibromoethane	50.0	0.0	45.6	91	79-121
108-90-7	LCS	Chlorobenzene	50.0	0.0	44.4	89	75-120
100-41-4	LCS	Ethylbenzene	50.0	0.0	45.2	90	74-120
179601-23-1	LCS	m,p-Xylenes	100	0.0	90.8	91	74-120
95-47-6	LCS	o-Xylene	50.0	0.0	44.8	90	74-120
100-42-5	LCS	Styrene	50.0	0.0	45.0	90	76-125
75-25-2	LCS	Bromoform	50.0	0.0	39.9	80	77-138
79-34-5	LCS	1,1,2,2-Tetrachloroethane	50.0	0.0	43.7	87	72-122

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1086
Client ID: LCS for batch 937989
Lab Sample ID: 1202007173
Instrument: VOA1.I
Analyst: RXM4
Purge Vol: 5 mL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 12/31/2009 10:52
Dilution: 1
Prep Batch ID: 937989
Batch ID: 937990

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
96-18-4	LCS	1,2,3-Trichloropropane	50.0	0.0	43.0	86	75-135
108-86-1	LCS	Bromobenzene	50.0	0.0	41.7	83	73-120
103-65-1	LCS	n-Propylbenzene	50.0	0.0	42.9	86	68-121
95-49-8	LCS	2-Chlorotoluene	50.0	0.0	42.3	85	69-120
98-82-8	LCS	Isopropylbenzene	50.0	0.0	43.5	87	66-127
108-67-8	LCS	1,3,5-Trimethylbenzene	50.0	0.0	43.3	87	67-126
106-43-4	LCS	4-Chlorotoluene	50.0	0.0	42.4	85	72-120
98-06-6	LCS	tert-Butylbenzene	50.0	0.0	42.1	84	72-124
95-63-6	LCS	1,2,4-Trimethylbenzene	50.0	0.0	41.9	84	72-122
135-98-8	LCS	sec-Butylbenzene	50.0	0.0	42.5	85	71-124
99-87-6	LCS	4-Isopropyltoluene	50.0	0.0	43.3	87	72-130
541-73-1	LCS	1,3-Dichlorobenzene	50.0	0.0	41.7	83	73-120
106-46-7	LCS	1,4-Dichlorobenzene	50.0	0.0	41.7	83	73-120
104-51-8	LCS	n-Butylbenzene	50.0	0.0	43.1	86	72-128
96-12-8	LCS	1,2-Dibromo-3-chloropropane	50.0	0.0	39.7	79	68-145
630-20-6	LCS	1,1,1,2-Tetrachloroethane	50.0	0.0	47.3	95	78-121
95-50-1	LCS	1,2-Dichlorobenzene	50.0	0.0	40.7	81	74-120

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: **10-1086**
Client ID: **LCS for batch 937989**
Lab Sample ID: **1202007174**
Instrument: **VOA1.I**
Analyst: **RXM4**
Purge Vol: **5 mL**

Sample Type: **Laboratory Control Sample**
Matrix: **SOIL**
Analysis Date: **12/31/2009 11:39**
Dilution: 1
Prep Batch ID **937989**
Batch ID: **937990**

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
76-13-1	LCS	1,1,2-Trichloro-1,2,2-Trifluor *Trichlorotrifluoroethane*	250	0.0	296	118	52-139

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1086
Client ID: LCS for batch 937989
Lab Sample ID: 1202007175
Instrument: VOA1.I
Analyst: RXM4
Purge Vol: 5 mL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 01/04/2010 09:33
Dilution: 1
Prep Batch ID: 937989
Batch ID: 937990

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
75-71-8	LCS	Dichlorodifluoromethane	50.0	0.0	50.2	100	33-155
74-87-3	LCS	Chloromethane	50.0	0.0	48.0	96	53-132
75-01-4	LCS	Vinyl chloride	50.0	0.0	46.3	93	61-128
74-83-9	LCS	Bromomethane	50.0	0.0	42.1	84	63-126
75-00-3	LCS	Chloroethane	50.0	0.0	46.4	93	67-124
75-69-4	LCS	Trichlorofluoromethane	50.0	0.0	56.4	113	67-151
67-64-1	LCS	Acetone	250	0.0	191	77	29-160
75-35-4	LCS	1,1-Dichloroethylene	50.0	0.0	48.1	96	70-125
74-88-4	LCS	Iodomethane	250	0.0	191	76	74-131
75-09-2	LCS	Methylene chloride	50.0	0.0	39.2	78	72-127
75-15-0	LCS	Carbon disulfide	250	0.0	236	94	64-127
156-60-5	LCS	trans-1,2-Dichloroethylene	50.0	0.0	44.6	89	71-122
75-34-3	LCS	1,1-Dichloroethane	50.0	0.0	46.1	92	75-120
78-93-3	LCS	2-Butanone	250	0.0	198	79	35-162
156-59-2	LCS	cis-1,2-Dichloroethylene	50.0	0.0	43.8	88	76-122
594-20-7	LCS	2,2-Dichloropropane	50.0	0.0	57.9	116	74-135
67-66-3	LCS	Chloroform	50.0	0.0	47.5	95	77-120
74-97-5	LCS	Bromochloromethane	50.0	0.0	41.1	82	76-122
71-55-6	LCS	1,1,1-Trichloroethane	50.0	0.0	54.0	108	75-128
563-58-6	LCS	1,1-Dichloropropene	50.0	0.0	53.6	107	77-125
56-23-5	LCS	Carbon tetrachloride	50.0	0.0	55.2	110	77-134
107-06-2	LCS	1,2-Dichloroethane	50.0	0.0	49.8	100	72-120

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1086
Client ID: LCS for batch 937989
Lab Sample ID: 1202007175
Instrument: VOA1.I
Analyst: RXM4
Purge Vol: 5 mL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 01/04/2010 09:33
Dilution: 1
Prep Batch ID: 937989
Batch ID: 937990

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
71-43-2	LCS	Benzene	50.0	0.0	46.1	92	72-120
79-01-6	LCS	Trichloroethylene	50.0	0.0	48.0	96	78-121
78-87-5	LCS	1,2-Dichloropropane	50.0	0.0	46.7	93	74-120
75-27-4	LCS	Bromodichloromethane	50.0	0.0	51.3	103	79-125
74-95-3	LCS	Dibromomethane	50.0	0.0	45.0	90	78-122
108-10-1	LCS	4-Methyl-2-pentanone	250	0.0	230	92	71-134
10061-01-5	LCS	cis-1,3-Dichloropropylene	50.0	0.0	51.0	102	80-125
108-88-3	LCS	Toluene	50.0	0.0	43.1	86	65-124
10061-02-6	LCS	trans-1,3-Dichloropropylene	50.0	0.0	50.3	101	71-134
79-00-5	LCS	1,1,2-Trichloroethane	50.0	0.0	43.8	88	76-120
591-78-6	LCS	2-Hexanone	250	0.0	206	83	42-159
142-28-9	LCS	1,3-Dichloropropane	50.0	0.0	43.5	87	72-120
127-18-4	LCS	Tetrachloroethylene	50.0	0.0	44.5	89	74-123
124-48-1	LCS	Dibromochloromethane	50.0	0.0	46.3	93	83-128
106-93-4	LCS	1,2-Dibromoethane	50.0	0.0	43.3	87	79-121
108-90-7	LCS	Chlorobenzene	50.0	0.0	43.9	88	75-120
100-41-4	LCS	Ethylbenzene	50.0	0.0	46.7	93	74-120
179601-23-1	LCS	m,p-Xylenes	100	0.0	91.7	92	74-120
95-47-6	LCS	o-Xylene	50.0	0.0	45.1	90	74-120
100-42-5	LCS	Styrene	50.0	0.0	45.5	91	76-125
75-25-2	LCS	Bromoform	50.0	0.0	39.4	79	77-138
79-34-5	LCS	1,1,2,2-Tetrachloroethane	50.0	0.0	43.9	88	72-122

Volatile

Quality Control Summary

Spike Recovery Report

SDG Number: 10-1086 **Sample Type:** Laboratory Control Sample

Client ID: LCS for batch 937989 **Matrix:** SOIL

Lab Sample ID: 1202007175

Instrument: VOA1.I **Analysis Date:** 01/04/2010 09:33 **Dilution:** 1

Analyst: RXM4 **Prep Batch ID** 937989

Purge Vol: 5 mL **Batch ID:** 937990

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
96-18-4	LCS	1,2,3-Trichloropropane	50.0	0.0	43.8	88	75-135
108-86-1	LCS	Bromobenzene	50.0	0.0	41.7	83	73-120
103-65-1	LCS	n-Propylbenzene	50.0	0.0	47.5	95	68-121
95-49-8	LCS	2-Chlorotoluene	50.0	0.0	46.4	93	69-120
98-82-8	LCS	Isopropylbenzene	50.0	0.0	47.2	94	66-127
108-67-8	LCS	1,3,5-Trimethylbenzene	50.0	0.0	46.1	92	67-126
106-43-4	LCS	4-Chlorotoluene	50.0	0.0	46.2	92	72-120
98-06-6	LCS	tert-Butylbenzene	50.0	0.0	45.2	90	72-124
95-63-6	LCS	1,2,4-Trimethylbenzene	50.0	0.0	46.2	92	72-122
135-98-8	LCS	sec-Butylbenzene	50.0	0.0	46.0	92	71-124
99-87-6	LCS	4-Isopropyltoluene	50.0	0.0	45.7	91	72-130
541-73-1	LCS	1,3-Dichlorobenzene	50.0	0.0	42.8	86	73-120
106-46-7	LCS	1,4-Dichlorobenzene	50.0	0.0	43.1	86	73-120
104-51-8	LCS	n-Butylbenzene	50.0	0.0	48.4	97	72-128
96-12-8	LCS	1,2-Dibromo-3-chloropropane	50.0	0.0	34.0	68	68-145
630-20-6	LCS	1,1,1,2-Tetrachloroethane	50.0	0.0	46.9	94	78-121
95-50-1	LCS	1,2-Dichlorobenzene	50.0	0.0	42.7	85	74-120

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: **10-1086**
Sample Type: **Laboratory Control Sample**
Client ID: **LCS for batch 937989**
Matrix: **SOIL**
Lab Sample ID: **1202007176**
Instrument: **VOA1.I**
Analysis Date: **01/04/2010 10:03**
Dilution: 1
Analyst: **RXM4**
Prep Batch ID **937989**
Purge Vol: **5 mL**
Batch ID: **937990**

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
76-13-1	LCS	1,1,2-Trichloro-1,2,2-Trifluor *Trichlorotrifluoroethane*	250	0.0	231	92	52-139

Method Blank Summary

SDG Number:	10-1086	Client:	LANL010	Matrix:	SOIL
Client ID:	MB for batch 937989	Instrument ID:	VOA1.I	Data File:	1t406BA.d
Lab Sample ID:	1202007169	Prep Date:	12/31/2009 07:00	Analyzed:	12/31/09 12:39
Column:	RTX-Volatiles	Heated Purge:	Yes		

This method blank applies to the following samples and quality control samples:

	Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01	LCS for batch 937989	1202007173	1t403LA.d	12/31/09	1052
02	LCS for batch 937989	1202007174	1t404sLA.d	12/31/09	1139
03	RE03-09-14233	243552001	1t407.d	12/31/09	1309
04	RE03-09-14236	243552002	1t408.d	12/31/09	1339
05	RE03-09-14239	243552003	1t409.d	12/31/09	1410
06	RE03-09-14240	243552004	1t410.d	12/31/09	1440
07	RE03-09-14231	243552005	1t411.d	12/31/09	1510
08	RE03-09-14235	243552007	1t413.d	12/31/09	1611
09	RE03-09-14234	243552009	1t415.d	12/31/09	1711
10	RE03-09-14241	243552010	1t416.d	12/31/09	1741
11	RE03-10-2737	243552011	1t417.d	12/31/09	1811
12	RE03-10-2736	243552012	1t418.d	12/31/09	1842
13	RE03-10-9878	243552013	1t419.d	12/31/09	1913
14	RE03-10-9873	243552014	1t420.d	12/31/09	1943
15	RE03-10-9886	243552015	1t421.d	12/31/09	2014
16	RE03-10-9872	243552016	1t422.d	12/31/09	2044
17	RE03-10-9874	243552017	1t423.d	12/31/09	2114

Method Blank Summary

SDG Number:	10-1086	Client:	LANL010	Matrix:	SOIL
Client ID:	MB for batch 937989	Instrument ID:	VOA1.I	Data File:	1u107BB.d
Lab Sample ID:	1202007170	Prep Date:	01/04/2010 07:00	Analyzed:	01/04/10 11:04
Column:	RTX-Volatiles	Heated Purge:	Yes		

This method blank applies to the following samples and quality control samples:

Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01 LCS for batch 937989	1202007175	1u104LB.d	01/04/10	0933
02 LCS for batch 937989	1202007176	1u105sLB.d	01/04/10	1003
03 RE03-09-14232	243552006	1u109.d	01/04/10	1259
04 RE03-09-14238	243552008	1u114.d	01/04/10	1535
05 RE03-09-14233PS	1202007171	1u115.d	01/04/10	1611
06 RE03-09-14233PSD	1202007172	1u116.d	01/04/10	1642

Instrument Performance Check

BFB

Lab Name GEL Laboratories LLC **Client SDG:** 10-1086

Instrument ID: VOA1.I **Injection Date/Time:** 04-JAN-10 08:32

Column Description: RTX-Volatiles **Lab File ID** /010410v1/1u103.d

m/e	Ion Abundance Criteria	% Relative Abundance
95	Base Peak, 100% Relative Abundance	100
50	15.0 - 40.0% of mass 95	22.9
75	30.0 - 60.0% of mass 95	56.9
96	5.0 - 9.0% of mass 95	6.8
173	Less than 2.0% of mass 174	0.9
174	50.0 - 100.0% of mass 95	70.2
175	5.0 -9.0% of mass 174	7.1
176	95.0 - 101.0% of mass 174	96.1
177	5.0 - 9.0% of mass 176	6.9

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
VSTD050	W1VM100104-01	/010410v1/1u104CCV.d	04-JAN-10 09:33
LCS	1202007175	/010410v1/1u104LB.d	04-JAN-10 09:33
VSTD250S	W1VM0100104-02	/010410v1/1u105.d	04-JAN-10 10:03
LCS	1202007176	/010410v1/1u105sLB.d	04-JAN-10 10:03
BLANK	1202007170	/010410v1/1u107BB.d	04-JAN-10 11:04
RE03-09-14232	243552006	/010410v1/1u109.d	04-JAN-10 12:59
RE03-09-14238	243552008	/010410v1/1u114.d	04-JAN-10 15:35
RE03-09-14233MS	1202007171	/010410v1/1u115.d	04-JAN-10 16:11
RE03-09-14233MSD	1202007172	/010410v1/1u116.d	04-JAN-10 16:42

Instrument Performance Check

BFB

Lab Name GEL Laboratories LLC **Client SDG:** 10-1086

Instrument ID: VOA1.I **Injection Date/Time:** 17-DEC-09 12:56

Column Description: RTX-Volatiles **Lab File ID** /121709v1/1r408.d

m/e	Ion Abundance Criteria	% Relative Abundance
95	Base Peak, 100% Relative Abundance	100
50	15.0 - 40.0% of mass 95	19.2
75	30.0 - 60.0% of mass 95	51.4
96	5.0 - 9.0% of mass 95	6.9
173	Less than 2.0% of mass 174	0.8
174	50.0 - 100.0% of mass 95	74.1
175	5.0 -9.0% of mass 174	7.6
176	95.0 - 101.0% of mass 174	95.5
177	5.0 - 9.0% of mass 176	6.5

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
VSTD0005	W1VM091217-04	/121709v1/1r409.d	17-DEC-09 13:26
VSTD001	W1VM091217-06	/121709v1/1r411.d	17-DEC-09 14:26
VSTD002	W1VM091217-08	/121709v1/1r413.d	17-DEC-09 15:27
VSTD005	W1VM091217-09	/121709v1/1r414.d	17-DEC-09 15:57
VSTD010	W1VM091217-10	/121709v1/1r415.d	17-DEC-09 16:26
VSTD020	W1VM091217-11	/121709v1/1r416.d	17-DEC-09 16:56
VSTD050	W1VM091217-12	/121709v1/1r417.d	17-DEC-09 17:26
VSTD100	W1VM091217-13	/121709v1/1r418.d	17-DEC-09 17:56
VSTD005S	W1VM091217-14	/121709v1/1r420.d	17-DEC-09 18:56
VSTD010S	W1VM091217-15	/121709v1/1r421.d	17-DEC-09 19:26
VSTD025S	W1VM091217-16	/121709v1/1r422.d	17-DEC-09 19:56
VSTD050S	W1VM091217-17	/121709v1/1r423.d	17-DEC-09 20:27
VSTD100S	W1VM091217-18	/121709v1/1r424.d	17-DEC-09 20:57
VSTD250S	W1VM091217-19	/121709v1/1r425.d	17-DEC-09 21:27
VSTD500S	W1VM091217-20	/121709v1/1r426.d	17-DEC-09 21:57
ICV	W1VM091217-18	/121709v1/1r428.d	17-DEC-09 22:57
SHORT ICV	W1VM091217-20	/121709v1/1r430.d	17-DEC-09 23:58

Instrument Performance Check

BFB

Lab Name GEL Laboratories LLC **Client SDG:** 10-1086

Instrument ID: VOA1.I **Injection Date/Time:** 31-DEC-09 10:22

Column Description: RTX-Volatiles **Lab File ID** /123109v1/1t402.d

m/e	Ion Abundance Criteria	% Relative Abundance
95	Base Peak, 100% Relative Abundance	100
50	15.0 - 40.0% of mass 95	21.4
75	30.0 - 60.0% of mass 95	54.2
96	5.0 - 9.0% of mass 95	6.4
173	Less than 2.0% of mass 174	0.8
174	50.0 - 100.0% of mass 95	73.9
175	5.0 -9.0% of mass 174	7.4
176	95.0 - 101.0% of mass 174	96.3
177	5.0 - 9.0% of mass 176	6.5

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
VSTD050	W1VM091231-01	/123109v1/1t403.d	31-DEC-09 10:52
LCS	1202007173	/123109v1/1t403LA.d	31-DEC-09 10:52
VSTD250S	W1VM091231-02	/123109v1/1t404.d	31-DEC-09 11:39
LCS	1202007174	/123109v1/1t404sLA.d	31-DEC-09 11:39
BLANK	1202007169	/123109v1/1t406BA.d	31-DEC-09 12:39
RE03-09-14233	243552001	/123109v1/1t407.d	31-DEC-09 13:09
RE03-09-14236	243552002	/123109v1/1t408.d	31-DEC-09 13:39
RE03-09-14239	243552003	/123109v1/1t409.d	31-DEC-09 14:10
RE03-09-14240	243552004	/123109v1/1t410.d	31-DEC-09 14:40
RE03-09-14231	243552005	/123109v1/1t411.d	31-DEC-09 15:10
RE03-09-14235	243552007	/123109v1/1t413.d	31-DEC-09 16:11
RE03-09-14234	243552009	/123109v1/1t415.d	31-DEC-09 17:11
RE03-09-14241	243552010	/123109v1/1t416.d	31-DEC-09 17:41
RE03-10-2737	243552011	/123109v1/1t417.d	31-DEC-09 18:11
RE03-10-2736	243552012	/123109v1/1t418.d	31-DEC-09 18:42
RE03-10-9878	243552013	/123109v1/1t419.d	31-DEC-09 19:13
RE03-10-9873	243552014	/123109v1/1t420.d	31-DEC-09 19:43
RE03-10-9886	243552015	/123109v1/1t421.d	31-DEC-09 20:14
RE03-10-9872	243552016	/123109v1/1t422.d	31-DEC-09 20:44

Internal Standard
Area and RT Summary

Lab Name : GEL Laboratories LLC

Instrument: VOA1.I

GC Column: RTX-Volatiles

Client SDG: 10-1086

STD Analysis Time: 04-JAN-10 09:33

Data File: 1u104CCV.d

	Fluorobenzene			Chlorobenzene-d5			1,4-Dichlorobenzene-d4		
	Area	#	RT #	Area	#	RT #	Area	#	RT #
12 Hour STD	832120		13.7	624419		17.2	339031		19.6
Upper Limit	1664240		14.2	1248838		17.7	678062		20.1
Lower Limit	416060		13.2	312210		16.7	169516		19.1
Sample ID									
BLK02LCS	832120		13.7	624419		17.2	339031		19.6
BLK02SLCS	975154		13.7	767379		17.2	426886		19.6
BLK02	1004046		13.7	778152		17.2	391921		19.6
RE03-09-14232	1070043		13.7	793786		17.2	371267		19.6
RE03-09-14238	928505		13.7	764388		17.2	377486		19.6
RE03-09-14233MS	872754		13.7	664255		17.2	372825		19.6
RE03-09-14233MSD	1110851		13.7	824899		17.2	467656		19.6

Area Upper Limit = +100% of internal standard area
Area Lower Limit = - 50% of internal standard area

RT Upper Limit = + 0.50 minutes of internal standard RT
RT Lower Limit = - 0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Value outside of QC Limits

Internal Standard
Area and RT Summary

Lab Name : GEL Laboratories LLC

Instrument: VOA1.I

GC Column: RTX-Volatiles

Client SDG: 10-1086

STD Analysis Time: 31-DEC-09 10:52

Data File: 1t403.d

	Fluorobenzene				Chlorobenzene-d5				1,4-Dichlorobenzene-d4			
	Area	#	RT	#	Area	#	RT	#	Area	#	RT	#
12 Hour STD	1034353		13.7		773569		17.2		441797		19.6	
Upper Limit	2068706		14.2		1547138		17.7		883594		20.1	
Lower Limit	517177		13.2		386785		16.7		220899		19.1	
Sample ID												
BLK01LCS	1034353		13.7		773569		17.2		441797		19.6	
BLK01SLCS	1093588		13.7		842458		17.2		470547		19.6	
BLK01	944755		13.7		683361		17.2		382665		19.6	
RE03-09-14233	964668		13.7		707472		17.2		381064		19.6	
RE03-09-14236	894016		13.7		664735		17.2		353132		19.6	
RE03-09-14239	907150		13.7		680096		17.2		380001		19.6	
RE03-09-14240	920516		13.7		675879		17.2		367347		19.6	
RE03-09-14231	829194		13.7		627065		17.2		355643		19.6	
RE03-09-14235	608951		13.7		450422		17.2		221009		19.6	
RE03-09-14234	866184		13.7		655417		17.2		341742		19.6	
RE03-09-14241	788456		13.7		566164		17.2		333440		19.6	
RE03-10-2737	780010		13.7		564832		17.2		311089		19.6	
RE03-10-2736	772746		13.7		600535		17.2		320011		19.6	
RE03-10-9878	752008		13.7		521934		17.2		295841		19.6	
RE03-10-9873	755716		13.7		548178		17.2		271344		19.6	
RE03-10-9886	802909		13.7		590203		17.2		323980		19.6	
RE03-10-9872	758422		13.7		553757		17.2		317726		19.6	
RE03-10-9874	869285		13.7		648589		17.2		366397		19.6	

Area Upper Limit = +100% of internal standard area
Area Lower Limit = - 50% of internal standard area

RT Upper Limit = + 0.50 minutes of internal standard RT
RT Lower Limit = - 0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Value outside of QC Limits

Sample Data

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1086**	**Date Collected:**	**12/22/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243552005**	**Date Received:**	**12/24/2009 09:30**	**%Moisture:**	**7.3**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14231**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937990**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**12/31/2009 15:10**	**Analyst:**	**RXM4**	**Purge Vol:**	**5 mL**
Prep Date:	**12/31/2009 11:55**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1t411.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.08	ug/kg	0.367	1.08
74-87-3	Chloromethane	U	1.08	ug/kg	0.324	1.08
75-01-4	Vinyl chloride	U	1.08	ug/kg	0.324	1.08
74-83-9	Bromomethane	U	1.08	ug/kg	0.324	1.08
75-00-3	Chloroethane	U	1.08	ug/kg	0.324	1.08
75-69-4	Trichlorofluoromethane	U	1.08	ug/kg	0.324	1.08
67-64-1	Acetone	J	2.10	ug/kg	1.79	5.39
75-35-4	1,1-Dichloroethylene	U	1.08	ug/kg	0.324	1.08
74-88-4	Iodomethane	U	5.39	ug/kg	1.73	5.39
75-09-2	Methylene chloride	U	5.39	ug/kg	2.16	5.39
75-15-0	Carbon disulfide	U	5.39	ug/kg	1.35	5.39
156-60-5	trans-1,2-Dichloroethylene	U	1.08	ug/kg	0.324	1.08
75-34-3	1,1-Dichloroethane	U	1.08	ug/kg	0.324	1.08
78-93-3	2-Butanone	U	5.39	ug/kg	1.62	5.39
156-59-2	cis-1,2-Dichloroethylene	U	1.08	ug/kg	0.324	1.08
594-20-7	2,2-Dichloropropane	U	1.08	ug/kg	0.324	1.08
67-66-3	Chloroform	U	1.08	ug/kg	0.324	1.08
74-97-5	Bromochloromethane	U	1.08	ug/kg	0.356	1.08
71-55-6	1,1,1-Trichloroethane	U	1.08	ug/kg	0.324	1.08
563-58-6	1,1-Dichloropropene	U	1.08	ug/kg	0.324	1.08
56-23-5	Carbon tetrachloride	U	1.08	ug/kg	0.324	1.08
107-06-2	1,2-Dichloroethane	U	1.08	ug/kg	0.324	1.08
71-43-2	Benzene	U	1.08	ug/kg	0.324	1.08
79-01-6	Trichloroethylene	U	1.08	ug/kg	0.356	1.08
78-87-5	1,2-Dichloropropane	U	1.08	ug/kg	0.324	1.08
75-27-4	Bromodichloromethane	U	1.08	ug/kg	0.324	1.08
74-95-3	Dibromomethane	U	1.08	ug/kg	0.324	1.08
108-10-1	4-Methyl-2-pentanone	U	5.39	ug/kg	1.35	5.39
10061-01-5	cis-1,3-Dichloropropylene	U	1.08	ug/kg	0.324	1.08
108-88-3	Toluene	U	1.08	ug/kg	0.324	1.08
10061-02-6	trans-1,3-Dichloropropylene	U	1.08	ug/kg	0.324	1.08
79-00-5	1,1,2-Trichloroethane	U	1.08	ug/kg	0.324	1.08
591-78-6	2-Hexanone	U	5.39	ug/kg	1.62	5.39
142-28-9	1,3-Dichloropropane	U	1.08	ug/kg	0.324	1.08
127-18-4	Tetrachloroethylene	U	1.08	ug/kg	0.324	1.08
124-48-1	Dibromochloromethane	U	1.08	ug/kg	0.324	1.08
106-93-4	1,2-Dibromoethane	U	1.08	ug/kg	0.324	1.08
108-90-7	Chlorobenzene	U	1.08	ug/kg	0.324	1.08

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1086**	**Date Collected:**	**12/22/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243552005**	**Date Received:**	**12/24/2009 09:30**	**%Moisture:**	**7.3**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14231**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937990**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**12/31/2009 15:10**	**Analyst:**	**RXM4**	**Purge Vol:**	**5 mL**
Prep Date:	**12/31/2009 11:55**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1t411.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.08	ug/kg	0.324	1.08
179601-23-1	m,p-Xylenes	U	2.16	ug/kg	0.324	2.16
95-47-6	o-Xylene	U	1.08	ug/kg	0.324	1.08
100-42-5	Styrene	U	1.08	ug/kg	0.324	1.08
75-25-2	Bromoform	U	1.08	ug/kg	0.324	1.08
79-34-5	1,1,2,2-Tetrachloroethane	U	1.08	ug/kg	0.324	1.08
96-18-4	1,2,3-Trichloropropane	U	1.08	ug/kg	0.324	1.08
108-86-1	Bromobenzene	U	1.08	ug/kg	0.324	1.08
103-65-1	n-Propylbenzene	U	1.08	ug/kg	0.324	1.08
95-49-8	2-Chlorotoluene	U	1.08	ug/kg	0.324	1.08
98-82-8	Isopropylbenzene	U	1.08	ug/kg	0.324	1.08
108-67-8	1,3,5-Trimethylbenzene	U	1.08	ug/kg	0.324	1.08
106-43-4	4-Chlorotoluene	U	1.08	ug/kg	0.324	1.08
98-06-6	tert-Butylbenzene	U	1.08	ug/kg	0.324	1.08
95-63-6	1,2,4-Trimethylbenzene	U	1.08	ug/kg	0.324	1.08
135-98-8	sec-Butylbenzene	U	1.08	ug/kg	0.324	1.08
99-87-6	4-Isopropyltoluene	U	1.08	ug/kg	0.324	1.08
541-73-1	1,3-Dichlorobenzene	U	1.08	ug/kg	0.324	1.08
106-46-7	1,4-Dichlorobenzene	U	1.08	ug/kg	0.324	1.08
104-51-8	n-Butylbenzene	U	1.08	ug/kg	0.324	1.08
96-12-8	1,2-Dibromo-3-chloropropane	U	1.08	ug/kg	0.324	1.08
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.39	ug/kg	1.73	5.39
630-20-6	1,1,1,2-Tetrachloroethane	U	1.08	ug/kg	0.324	1.08
95-50-1	1,2-Dichlorobenzene	U	1.08	ug/kg	0.324	1.08

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Siloxane	18.06	13.6	ug/kg		J

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/123109v1/1t411.d
Lab Smp Id: 243552005 Client Smp ID: RE03-09-14231
Inj Date : 31-DEC-2009 15:10
Operator : RXM4 Inst ID: VOA1.i
Smp Info : |243552005|937990|1|VOAF|1|
Misc Info : LANL 5G N/A
Comment :
Method : /chem/VOA1.i/123109v1/VOA1-8260ox-121709.m
Meth Date : 18-Jan-2010 17:56 jeb Quant Type: ISTD
Cal Date : 17-DEC-2009 21:27 Cal File: 1r425.d
Als bottle: 11
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-1086.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	7.32150	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
* 52 Fluorobenzene	96	13.682	13.682	(1.000)	829194	50.0000	
* 76 Chlorobenzene-d5	117	17.153	17.157	(1.000)	627065	50.0000	
* 102 1,4-Dichlorobenzene-d4	152	19.606	19.606	(1.000)	355643	50.0000	
$ 48 1,2-Dichloroethane-d4	65	13.337	13.336	(0.975)	569693	57.5016	62.0
$ 65 Toluene-d8	98	15.514	15.514	(0.904)	1648061	47.1780	50.9
$ 87 Bromofluorobenzene	95	18.386	18.386	(0.938)	690000	48.4763	52.3
16 Acetone	43	9.258	9.254	(0.677)	9763	1.94626	2.1(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

ION RATIO REPORT

VOA REPORT

Data file: 1t411.d
Report Date: 01/04/2010 07:14
Lab. ID: 243552005 SampleType: SAMPLE
Injection Date: 31-DEC-2009 15:10
Operator: RXM4 Instrument: VOA1.i
Sample Info: |243552005|973990|1|VOAF|1|
Miscellaneous Info: LANL 5G N/A
Comment:
Method used: /chem/VOA1.i/123109v1/VOA1-8260ox-121709.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-1086
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
16 Acetone			CAS#: 67-64-1			
43	9718	9.26	9.25	80-120	100	( )
58	1832	9.26	9.25	1- 61	19	( )
51 1,2-Dichloroethane			CAS#: 107-06-2			
62	14795	13.68	13.44	80-120	100	(T)
64	2281	13.67	13.44	2- 62	15	(T)
64 4-Methyl-2-pentanone			CAS#: 108-10-1			
58	15850	15.51	15.35	80-120	100	(T)
43	8956	15.51	15.35	223-283	57	(QT)
100	1060952	15.51	15.36	0- 60	6693	(QT)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/123109v1/1t411.d
Lab Smp Id: 243552005 Client Smp ID: RE03-09-14231
Inj Date : 31-DEC-2009 15:10
Operator : RXM4 Inst ID: VOA1.i
Smp Info : |243552005|937990|1|VOAF|1|
Misc Info : LANL 5G N/A
Comment :
Method : /chem/VOA1.i/123109v1/VOA1-8260ox-121709.m
Meth Date : 18-Jan-2010 17:56 jeb Quant Type: ISTD
Cal Date : 17-DEC-2009 21:27 Cal File: 1r425.d
Als bottle: 11
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-1086.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	7.32150	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 76 Chlorobenzene-d5	17.153	2090467	50.000

	CONCENTRATIONS				QUANT		
RT	AREA	ON-COL(ug/l)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown Siloxane					CAS #:		
18.064	525088	12.5591076	13.6	0		0	76

Data File: /chem/VOA1.i/123109v1/1t411.d
Date : 31-DEC-2009 15:10
Client ID: RE03-09-14231
Sample Info: |2435520051937990|1|VOAF|1|

Column phase: RTX-Volatiles

Instrument: VOA1.i

Operator: RXM4
Column diameter: 0.25

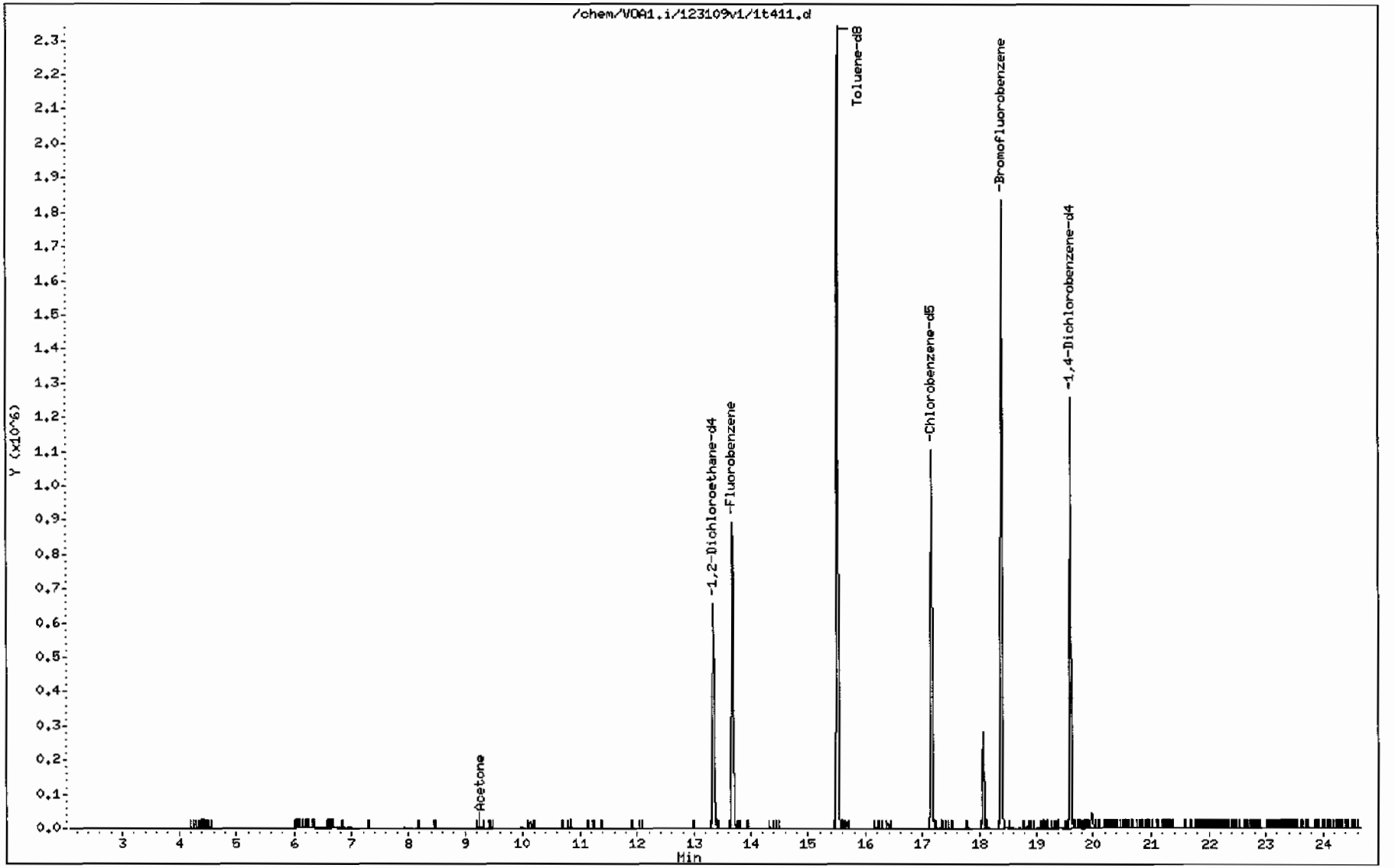

Data File: /chem/VOA1.i/123109v1/1t411.d

Date : 31-DEC-2009 15:10

Client ID: RE03-09-14231

Instrument: VOA1.i

Sample Info: |2435520051937990|1|VOAF|1|

Operator: RXM4

Column phase: RTX-Volatiles

Column diameter: 0.25

16 Acetone

Concentration: 2.1 ug/Kg

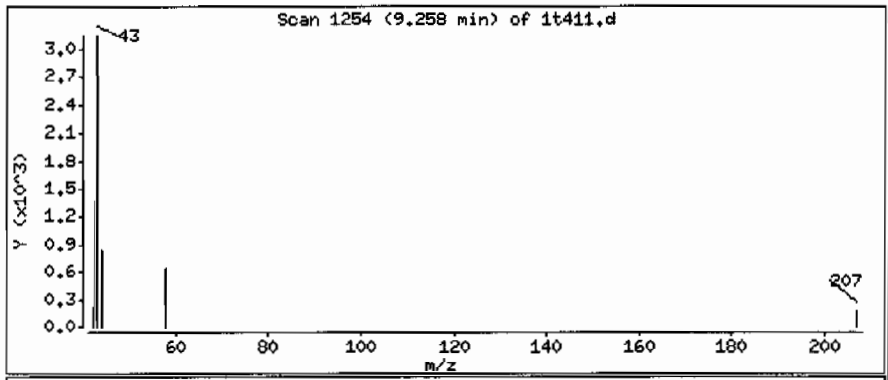

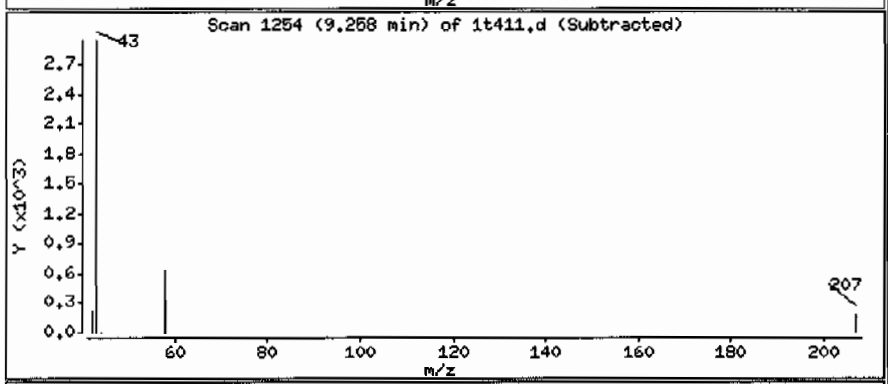

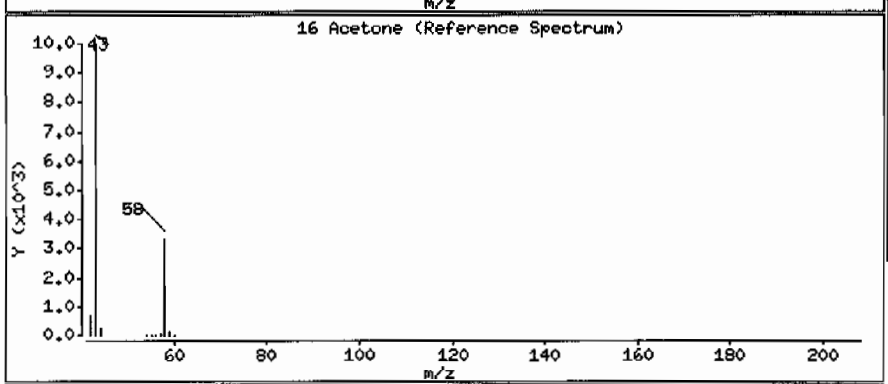

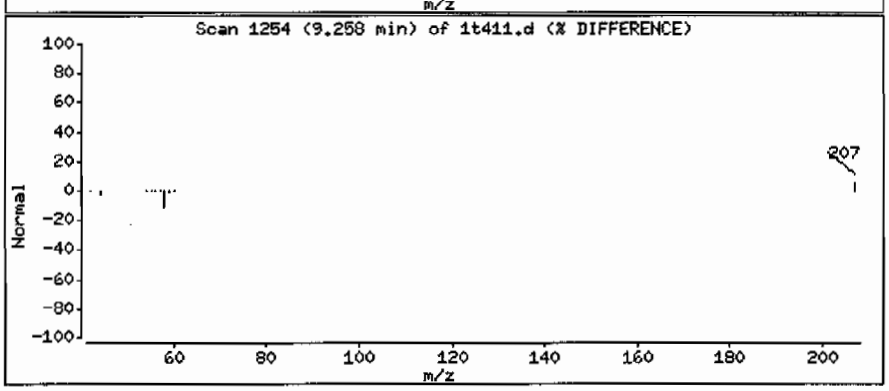

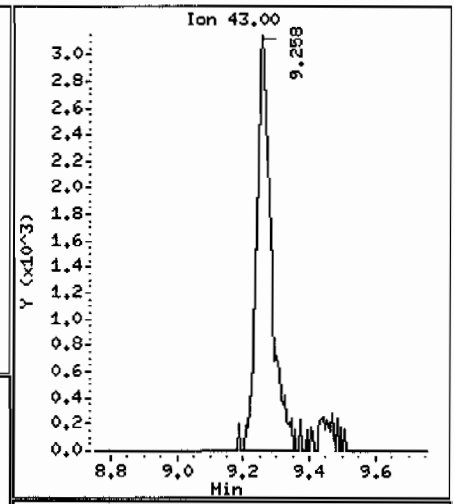

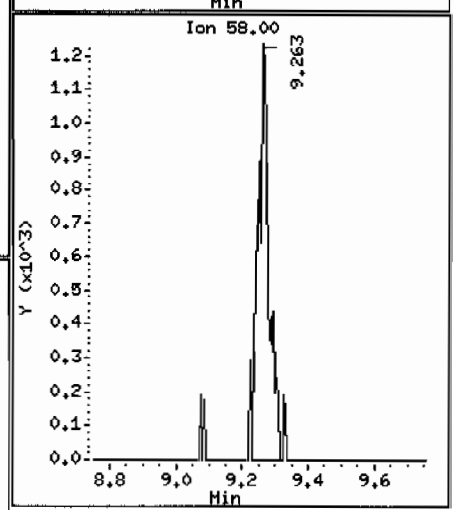

Data File: /chem/VOA1.i/123109v1/1t411.d

Date : 31-DEC-2009 15:10

Client ID: RE03-09-14231

Instrument: VOA1.i

Sample Info: |2436520051937990|1|VOAF|1|

Operator: RXM4

Column phase: RTX-Volatiles

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Siloxane						
Trisiloxane, 1,1,3,3,5,5-hexamethyl-	1189-93-1	NIST05.L	63149	35	C6H20O2Si3	208
Trisiloxane, 1,1,3,3,5,5-hexamethyl-	1189-93-1	NIST05.L	63148	35	C6H20O2Si3	208
Adamantane-1-carboxylic acid, 3-bromo-,	27983-08-0	NIST05.L	106462	35	C12H17BrO2	272

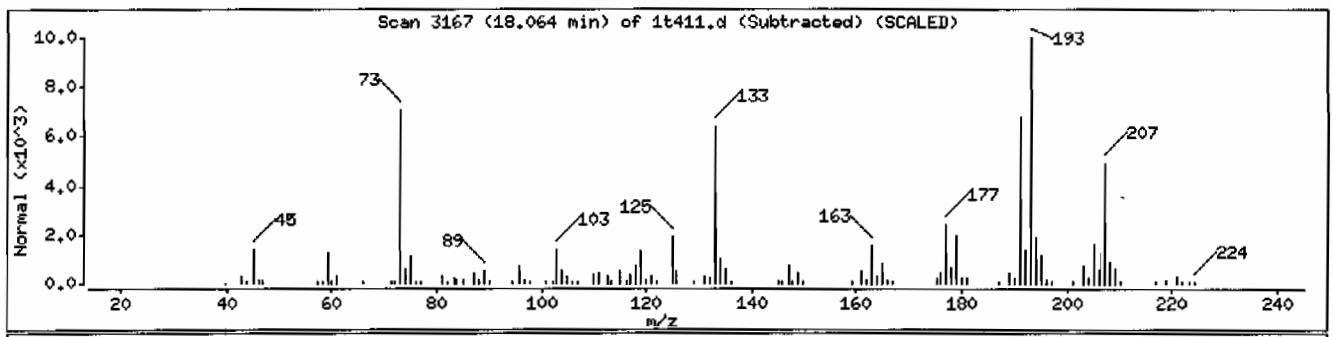

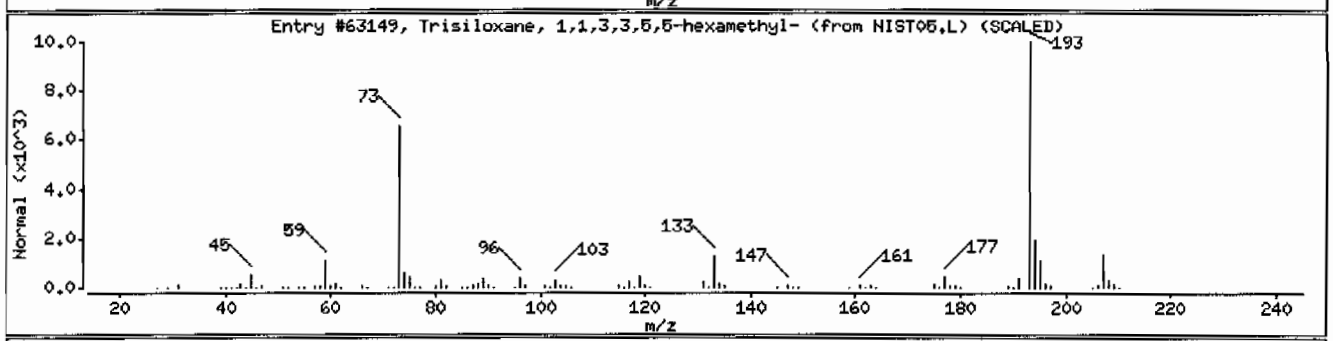

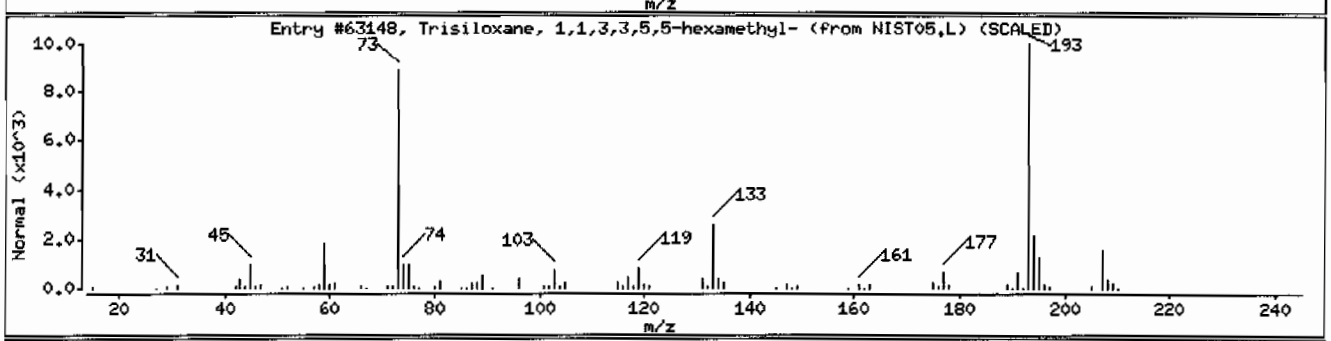

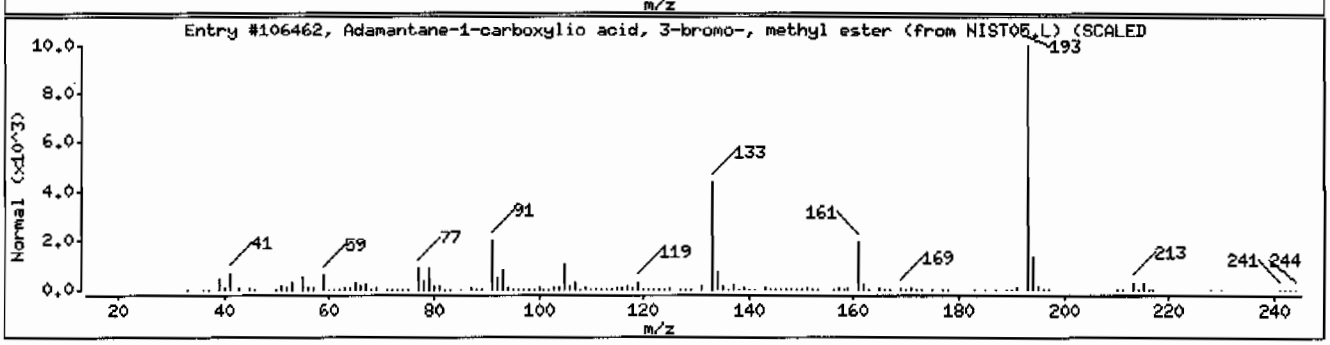

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1086**	**Date Collected:**	**12/22/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243552006**	**Date Received:**	**12/24/2009 09:30**	**%Moisture:**	**5.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14232**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937990**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**01/04/2010 12:59**	**Analyst:**	**RXM4**	**Purge Vol:**	**5 mL**
Prep Date:	**01/04/2010 10:12**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1u109.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.06	ug/kg	0.361	1.06
74-87-3	Chloromethane	U	1.06	ug/kg	0.318	1.06
75-01-4	Vinyl chloride	U	1.06	ug/kg	0.318	1.06
74-83-9	Bromomethane	U	1.06	ug/kg	0.318	1.06
75-00-3	Chloroethane	U	1.06	ug/kg	0.318	1.06
75-69-4	Trichlorofluoromethane	U	1.06	ug/kg	0.318	1.06
67-64-1	Acetone	U	5.31	ug/kg	1.76	5.31
75-35-4	1,1-Dichloroethylene	U	1.06	ug/kg	0.318	1.06
74-88-4	Iodomethane	U	5.31	ug/kg	1.70	5.31
75-09-2	Methylene chloride	U	5.31	ug/kg	2.12	5.31
75-15-0	Carbon disulfide	U	5.31	ug/kg	1.33	5.31
156-60-5	trans-1,2-Dichloroethylene	U	1.06	ug/kg	0.318	1.06
75-34-3	1,1-Dichloroethane	U	1.06	ug/kg	0.318	1.06
78-93-3	2-Butanone	U	5.31	ug/kg	1.59	5.31
156-59-2	cis-1,2-Dichloroethylene	U	1.06	ug/kg	0.318	1.06
594-20-7	2,2-Dichloropropane	U	1.06	ug/kg	0.318	1.06
67-66-3	Chloroform	U	1.06	ug/kg	0.318	1.06
74-97-5	Bromochloromethane	U	1.06	ug/kg	0.350	1.06
71-55-6	1,1,1-Trichloroethane	U	1.06	ug/kg	0.318	1.06
563-58-6	1,1-Dichloropropene	U	1.06	ug/kg	0.318	1.06
56-23-5	Carbon tetrachloride	U	1.06	ug/kg	0.318	1.06
107-06-2	1,2-Dichloroethane	U	1.06	ug/kg	0.318	1.06
71-43-2	Benzene	U	1.06	ug/kg	0.318	1.06
79-01-6	Trichloroethylene	U	1.06	ug/kg	0.350	1.06
78-87-5	1,2-Dichloropropane	U	1.06	ug/kg	0.318	1.06
75-27-4	Bromodichloromethane	U	1.06	ug/kg	0.318	1.06
74-95-3	Dibromomethane	U	1.06	ug/kg	0.318	1.06
108-10-1	4-Methyl-2-pentanone	U	5.31	ug/kg	1.33	5.31
10061-01-5	cis-1,3-Dichloropropylene	U	1.06	ug/kg	0.318	1.06
108-88-3	Toluene	U	1.06	ug/kg	0.318	1.06
10061-02-6	trans-1,3-Dichloropropylene	U	1.06	ug/kg	0.318	1.06
79-00-5	1,1,2-Trichloroethane	U	1.06	ug/kg	0.318	1.06
591-78-6	2-Hexanone	U	5.31	ug/kg	1.59	5.31
142-28-9	1,3-Dichloropropane	U	1.06	ug/kg	0.318	1.06
127-18-4	Tetrachloroethylene	U	1.06	ug/kg	0.318	1.06
124-48-1	Dibromochloromethane	U	1.06	ug/kg	0.318	1.06
106-93-4	1,2-Dibromoethane	U	1.06	ug/kg	0.318	1.06
108-90-7	Chlorobenzene	U	1.06	ug/kg	0.318	1.06

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1086**	**Date Collected:**	**12/22/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243552006**	**Date Received:**	**12/24/2009 09:30**	**%Moisture:**	**5.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14232**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937990**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**01/04/2010 12:59**	**Analyst:**	**RXM4**	**Purge Vol:**	**5 mL**
Prep Date:	**01/04/2010 10:12**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1u109.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.06	ug/kg	0.318	1.06
179601-23-1	m,p-Xylenes	U	2.12	ug/kg	0.318	2.12
95-47-6	o-Xylene	U	1.06	ug/kg	0.318	1.06
100-42-5	Styrene	U	1.06	ug/kg	0.318	1.06
75-25-2	Bromoform	U	1.06	ug/kg	0.318	1.06
79-34-5	1,1,2,2-Tetrachloroethane	U	1.06	ug/kg	0.318	1.06
96-18-4	1,2,3-Trichloropropane	U	1.06	ug/kg	0.318	1.06
108-86-1	Bromobenzene	U	1.06	ug/kg	0.318	1.06
103-65-1	n-Propylbenzene	U	1.06	ug/kg	0.318	1.06
95-49-8	2-Chlorotoluene	U	1.06	ug/kg	0.318	1.06
98-82-8	Isopropylbenzene	U	1.06	ug/kg	0.318	1.06
108-67-8	1,3,5-Trimethylbenzene	U	1.06	ug/kg	0.318	1.06
106-43-4	4-Chlorotoluene	U	1.06	ug/kg	0.318	1.06
98-06-6	tert-Butylbenzene	U	1.06	ug/kg	0.318	1.06
95-63-6	1,2,4-Trimethylbenzene	U	1.06	ug/kg	0.318	1.06
135-98-8	sec-Butylbenzene	U	1.06	ug/kg	0.318	1.06
99-87-6	4-Isopropyltoluene	U	1.06	ug/kg	0.318	1.06
541-73-1	1,3-Dichlorobenzene	U	1.06	ug/kg	0.318	1.06
106-46-7	1,4-Dichlorobenzene	U	1.06	ug/kg	0.318	1.06
104-51-8	n-Butylbenzene	U	1.06	ug/kg	0.318	1.06
96-12-8	1,2-Dibromo-3-chloropropane	U	1.06	ug/kg	0.318	1.06
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.31	ug/kg	1.70	5.31
630-20-6	1,1,1,2-Tetrachloroethane	U	1.06	ug/kg	0.318	1.06
95-50-1	1,2-Dichlorobenzene	U	1.06	ug/kg	0.318	1.06

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated Units	Fit	Qual
	No Tentatively Identified Compounds Found		ug/kg		

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/010410v1/1u109.d
Lab Smp Id: 243552006 Client Smp ID: RE03-09-14232
Inj Date : 04-JAN-2010 12:59
Operator : RXM4 Inst ID: VOA1.i
Smp Info : |243552006|937990|1|VOAF|1|
Misc Info : LANL 5G N/A
Comment :
Method : /chem/VOA1.i/010410v1/VOA1-8260ox-121709.m
Meth Date : 18-Jan-2010 17:56 jeb Quant Type: ISTD
Cal Date : 17-DEC-2009 21:27 Cal File: lr425.d
Als bottle: 9
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-1086.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	5.76950	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
* 52 Fluorobenzene	96	13.663	13.682	(1.000)	1070043	50.0000	
* 76 Chlorobenzene-d5	117	17.148	17.152	(1.000)	793786	50.0000	
* 102 1,4-Dichlorobenzene-d4	152	19.606	19.606	(1.000)	371267	50.0000	
$ 48 1,2-Dichloroethane-d4	65	13.323	13.336	(0.975)	645492	50.4876	53.6
$ 65 Toluene-d8	98	15.505	15.509	(0.904)	1808547	40.8983	43.4
$ 87 Bromofluorobenzene	95	18.381	18.381	(0.938)	696262	46.8577	49.7

ION RATIO REPORT

VOA REPORT

Data file: 1u109.d
Report Date: 01/04/2010 13:20
Lab. ID: 243552006 SampleType: SAMPLE
Injection Date: 04-JAN-2010 12:59
Operator: RXM4 Instrument: VOA1.i
Sample Info: |243552006|973990|1|VOAF|1|
Miscellaneous Info: LANL 5G N/A
Comment:
Method used: /chem/VOA1.i/010410v1/VOA1-8260ox-121709.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-1086
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
51	1,2-Dichloroethane			CAS#: 107-06-2		
62	18669	13.66	13.43	80-120	100	(T)
64	2824	13.66	13.43	2- 62	15	(T)
64	4-Methyl-2-pentanone			CAS#: 108-10-1		
58	17778	15.50	15.35	80-120	100	(T)
43	9750	15.50	15.35	220-280	55	(QT)
100	1154599	15.50	15.35	0- 58	6494	(QT)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/010410v1/1u109.d
Lab Smp Id: 243552006 Client Smp ID: RE03-09-14232
Inj Date : 04-JAN-2010 12:59
Operator : RXM4 Inst ID: VOA1.i
Smp Info : |243552006|937990|1|VOAF|1|
Misc Info : LANL 5G N/A
Comment :
Method : /chem/VOA1.i/010410v1/VOA1-8260ox-121709.m
Meth Date : 18-Jan-2010 17:56 jeb Quant Type: ISTD
Cal Date : 17-DEC-2009 21:27 Cal File: 1r425.d
Als bottle: 9
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-1086.sub
Target Version: 3.50
Processing Host: prdsvr07

- NO TENTATIVELY IDENTIFIED COMPOUNDS -

Data File: /chem/VOA1.i/010410v1/1u109.d
Date : 04-JAN-2010 12:59
Client ID: RE03-09-14232
Sample Info: |2435520061937990|1|VOAF|1|

Column phase: RTX-Volatiles

Instrument: VOA1.i

Operator: RXM4
Column diameter: 0.25

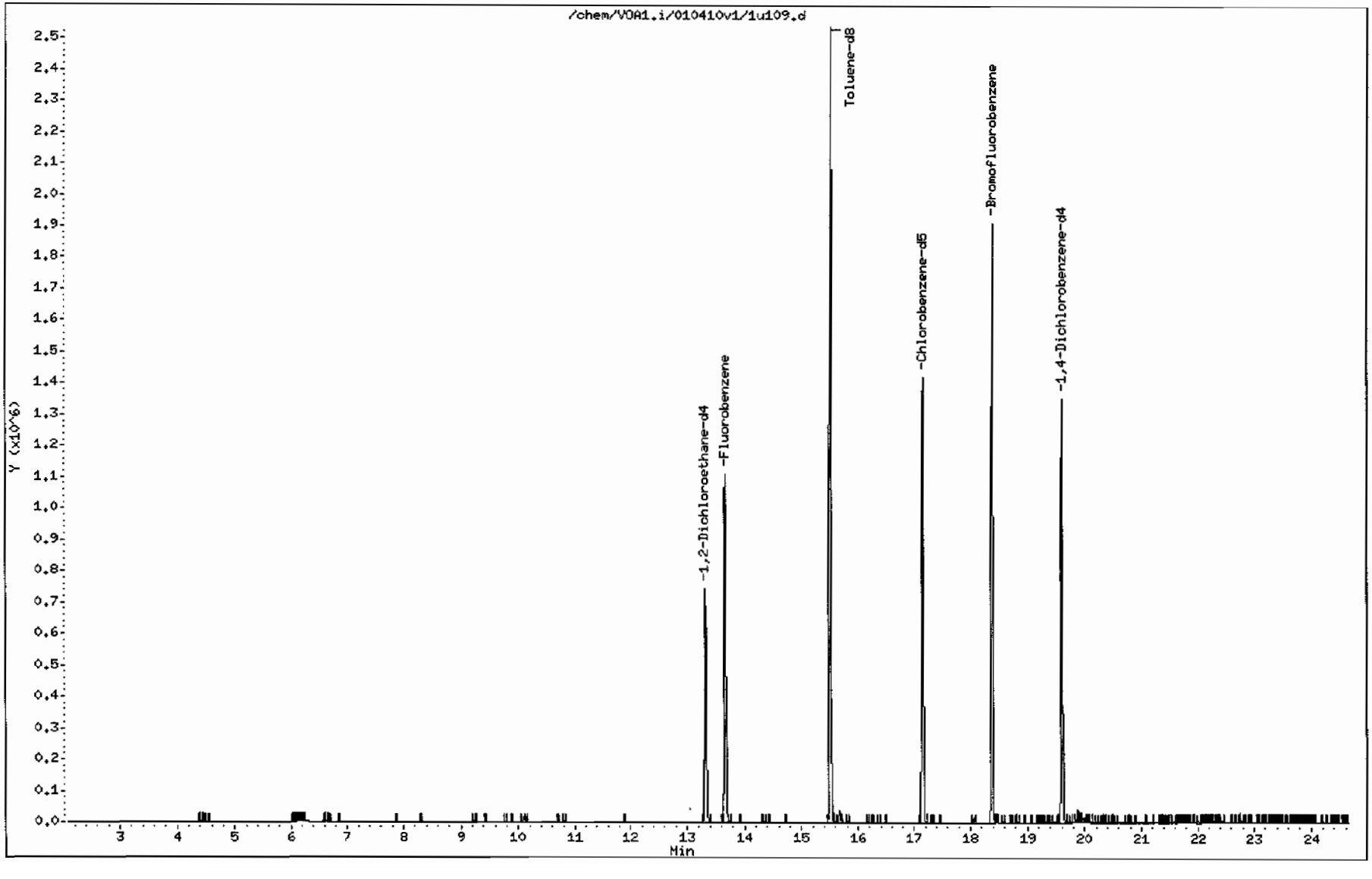

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1086**	**Date Collected:**	**12/22/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243552001**	**Date Received:**	**12/24/2009 09:30**	**%Moisture:**	**7.4**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14233**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937990**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**12/31/2009 13:09**	**Analyst:**	**RXM4**	**Purge Vol:**	**5 mL**
Prep Date:	**12/31/2009 11:51**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1t407.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.08	ug/kg	0.367	1.08
74-87-3	Chloromethane	U	1.08	ug/kg	0.324	1.08
75-01-4	Vinyl chloride	U	1.08	ug/kg	0.324	1.08
74-83-9	Bromomethane	U	1.08	ug/kg	0.324	1.08
75-00-3	Chloroethane	U	1.08	ug/kg	0.324	1.08
75-69-4	Trichlorofluoromethane	U	1.08	ug/kg	0.324	1.08
67-64-1	Acetone	U	5.40	ug/kg	1.79	5.40
75-35-4	1,1-Dichloroethylene	U	1.08	ug/kg	0.324	1.08
74-88-4	Iodomethane	U	5.40	ug/kg	1.73	5.40
75-09-2	Methylene chloride	U	5.40	ug/kg	2.16	5.40
75-15-0	Carbon disulfide	U	5.40	ug/kg	1.35	5.40
156-60-5	trans-1,2-Dichloroethylene	U	1.08	ug/kg	0.324	1.08
75-34-3	1,1-Dichloroethane	U	1.08	ug/kg	0.324	1.08
78-93-3	2-Butanone	U	5.40	ug/kg	1.62	5.40
156-59-2	cis-1,2-Dichloroethylene	U	1.08	ug/kg	0.324	1.08
594-20-7	2,2-Dichloropropane	U	1.08	ug/kg	0.324	1.08
67-66-3	Chloroform	U	1.08	ug/kg	0.324	1.08
74-97-5	Bromochloromethane	U	1.08	ug/kg	0.356	1.08
71-55-6	1,1,1-Trichloroethane	U	1.08	ug/kg	0.324	1.08
563-58-6	1,1-Dichloropropene	U	1.08	ug/kg	0.324	1.08
56-23-5	Carbon tetrachloride	U	1.08	ug/kg	0.324	1.08
107-06-2	1,2-Dichloroethane	U	1.08	ug/kg	0.324	1.08
71-43-2	Benzene	U	1.08	ug/kg	0.324	1.08
79-01-6	Trichloroethylene	U	1.08	ug/kg	0.356	1.08
78-87-5	1,2-Dichloropropane	U	1.08	ug/kg	0.324	1.08
75-27-4	Bromodichloromethane	U	1.08	ug/kg	0.324	1.08
74-95-3	Dibromomethane	U	1.08	ug/kg	0.324	1.08
108-10-1	4-Methyl-2-pentanone	U	5.40	ug/kg	1.35	5.40
10061-01-5	cis-1,3-Dichloropropylene	U	1.08	ug/kg	0.324	1.08
108-88-3	Toluene	U	1.08	ug/kg	0.324	1.08
10061-02-6	trans-1,3-Dichloropropylene	U	1.08	ug/kg	0.324	1.08
79-00-5	1,1,2-Trichloroethane	U	1.08	ug/kg	0.324	1.08
591-78-6	2-Hexanone	U	5.40	ug/kg	1.62	5.40
142-28-9	1,3-Dichloropropane	U	1.08	ug/kg	0.324	1.08
127-18-4	Tetrachloroethylene	U	1.08	ug/kg	0.324	1.08
124-48-1	Dibromochloromethane	U	1.08	ug/kg	0.324	1.08
106-93-4	1,2-Dibromoethane	U	1.08	ug/kg	0.324	1.08
108-90-7	Chlorobenzene	U	1.08	ug/kg	0.324	1.08

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1086**	**Date Collected:**	**12/22/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243552001**	**Date Received:**	**12/24/2009 09:30**	**%Moisture:**	**7.4**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14233**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937990**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**12/31/2009 13:09**	**Analyst:**	**RXM4**	**Purge Vol:**	**5 mL**
Prep Date:	**12/31/2009 11:51**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1t407.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.08	ug/kg	0.324	1.08
179601-23-1	m,p-Xylenes	U	2.16	ug/kg	0.324	2.16
95-47-6	o-Xylene	U	1.08	ug/kg	0.324	1.08
100-42-5	Styrene	J	0.764	ug/kg	0.324	1.08
75-25-2	Bromoform	U	1.08	ug/kg	0.324	1.08
79-34-5	1,1,2,2-Tetrachloroethane	U	1.08	ug/kg	0.324	1.08
96-18-4	1,2,3-Trichloropropane	U	1.08	ug/kg	0.324	1.08
108-86-1	Bromobenzene	U	1.08	ug/kg	0.324	1.08
103-65-1	n-Propylbenzene	U	1.08	ug/kg	0.324	1.08
95-49-8	2-Chlorotoluene	U	1.08	ug/kg	0.324	1.08
98-82-8	Isopropylbenzene	U	1.08	ug/kg	0.324	1.08
108-67-8	1,3,5-Trimethylbenzene	U	1.08	ug/kg	0.324	1.08
106-43-4	4-Chlorotoluene	U	1.08	ug/kg	0.324	1.08
98-06-6	tert-Butylbenzene	U	1.08	ug/kg	0.324	1.08
95-63-6	1,2,4-Trimethylbenzene	U	1.08	ug/kg	0.324	1.08
135-98-8	sec-Butylbenzene	U	1.08	ug/kg	0.324	1.08
99-87-6	4-Isopropyltoluene	U	1.08	ug/kg	0.324	1.08
541-73-1	1,3-Dichlorobenzene	U	1.08	ug/kg	0.324	1.08
106-46-7	1,4-Dichlorobenzene	U	1.08	ug/kg	0.324	1.08
104-51-8	n-Butylbenzene	U	1.08	ug/kg	0.324	1.08
96-12-8	1,2-Dibromo-3-chloropropane	U	1.08	ug/kg	0.324	1.08
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.40	ug/kg	1.73	5.40
630-20-6	1,1,1,2-Tetrachloroethane	U	1.08	ug/kg	0.324	1.08
95-50-1	1,2-Dichlorobenzene	U	1.08	ug/kg	0.324	1.08

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Siloxane	18.06	17.4	ug/kg		J

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VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/123109v1/1t407.d
Lab Smp Id: 243552001 Client Smp ID: RE03-09-14233
Inj Date : 31-DEC-2009 13:09
Operator : RXM4 Inst ID: VOA1.i
Smp Info : |243552001|937990|1|VOAF|1|
Misc Info : LANL 5G N/A
Comment :
Method : /chem/VOA1.i/123109v1/VOA1-8260ox-121709.m
Meth Date : 18-Jan-2010 17:56 jeb Quant Type: ISTD
Cal Date : 17-DEC-2009 21:27 Cal File: 1r425.d
Als bottle: 7
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-1086.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	7.39220	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
* 52 Fluorobenzene	96	13.682	13.682	(1.000)	964668	50.0000	
* 76 Chlorobenzene-d5	117	17.157	17.157	(1.000)	707472	50.0000	
* 102 1,4-Dichlorobenzene-d4	152	19.606	19.606	(1.000)	381064	50.0000	
$ 48 1,2-Dichloroethane-d4	65	13.336	13.336	(0.975)	628692	54.5451	58.9
$ 65 Toluene-d8	98	15.514	15.514	(0.904)	1794863	45.5409	49.2
$ 87 Bromofluorobenzene	95	18.386	18.386	(0.938)	723297	47.4257	51.2
82 Styrene	104	17.801	17.797	(1.038)	16652	0.70761	0.76(aH)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

QC Flag Legend

H - Operator selected an alternate compound hit.

ION RATIO REPORT

VOA REPORT

Data file: 1t407.d
Report Date: 12/31/2009 14:10
Lab. ID: 243552001 SampleType: SAMPLE
Injection Date: 31-DEC-2009 13:09
Operator: RXM4 Instrument: VOA1.i
Sample Info: |243552001|973990|1|VOAF|1|
Miscellaneous Info: LANL 5G N/A
Comment:
Method used: /chem/VOA1.i/123109v1/VOA1-8260ox-121709.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-1086
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
51 1,2-Dichloroethane			CAS#: 107-06-2			
62	16290	13.68	13.44	80-120	100	(T)
64	2745	13.68	13.44	2- 62	17	(T)
64 4-Methyl-2-pentanone			CAS#: 108-10-1			
58	18286	15.51	15.35	80-120	100	(T)
43	9416	15.51	15.35	223-283	51	(QT)
100	1151883	15.51	15.36	0- 60	6299	(QT)
82 Styrene			CAS#: 100-42-5			
104	16652	17.80	17.80	80-120	100	( )
78	8025	17.80	17.80	28- 88	48	( )

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/123109v1/1t407.d
Lab Smp Id: 243552001 Client Smp ID: RE03-09-14233
Inj Date : 31-DEC-2009 13:09
Operator : RXM4 Inst ID: VOA1.i
Smp Info : |243552001|937990|1|VOAF|1|
Misc Info : LANL 5G N/A
Comment :
Method : /chem/VOA1.i/123109v1/VOA1-8260ox-121709.m
Meth Date : 18-Jan-2010 17:56 jeb Quant Type: ISTD
Cal Date : 17-DEC-2009 21:27 Cal File: 1r425.d
Als bottle: 7
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-1086.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	7.39220	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 76 Chlorobenzene-d5	17.157	2355034	50.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ug/l)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown Siloxane				CAS #:			
18.064	757696	16.0867247	17.4	0		0	76

Data File: /chem/VOA1.i/123109v1/1t407.d
Date : 31-DEC-2009 13:09
Client ID: RE03-09-14233
Sample Info: |2435520011937990|1|VOAF|1|

Column phase: RTX-Volatiles

Instrument: VOA1.i

Operator: RXM4
Column diameter: 0.25

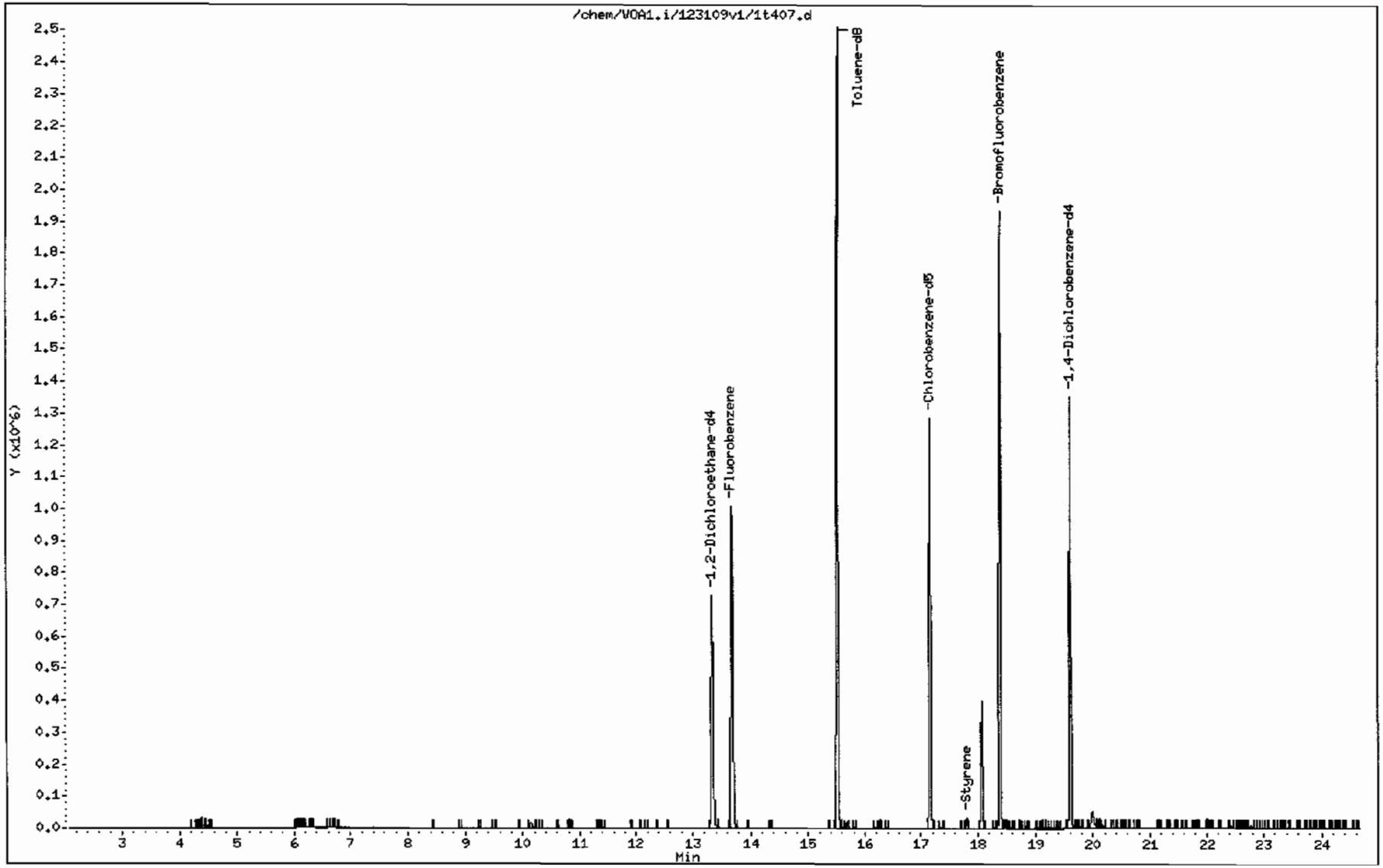

Data File: /chem/VOA1.i/123109v1/1t407.d

Date : 31-DEC-2009 13:09

Client ID: RE03-09-14233

Instrument: VOA1.i

Sample Info: |243552001|937990|1|VOAF|1|

Operator: RXM4

Column phase: RTX-Volatiles

Column diameter: 0.25

82 Styrene

Concentration: 0.76 ug/Kg

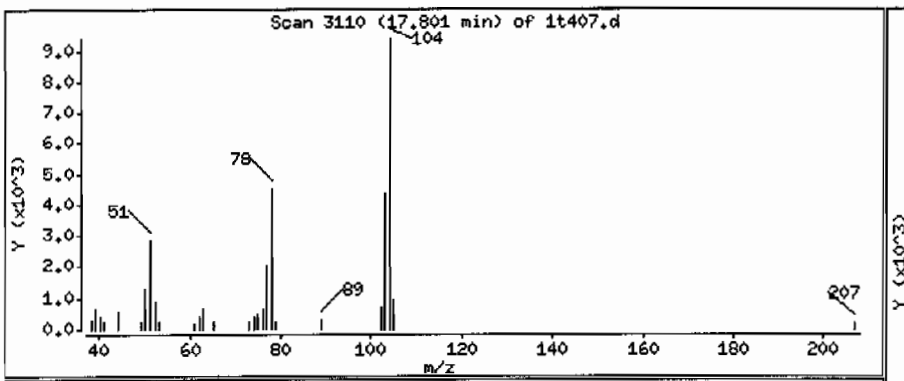

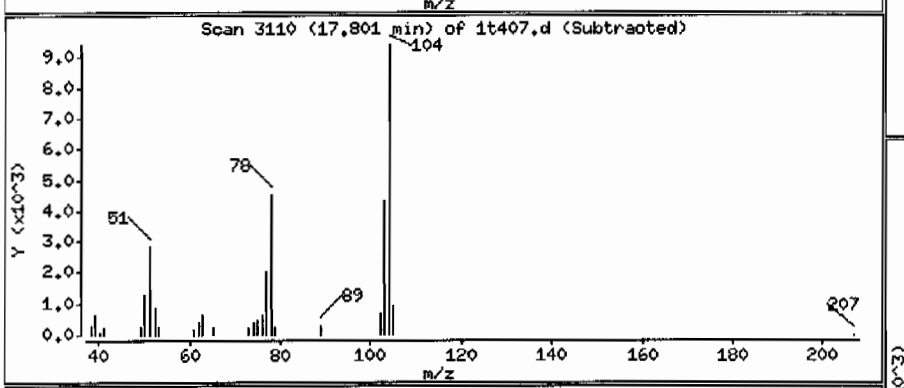

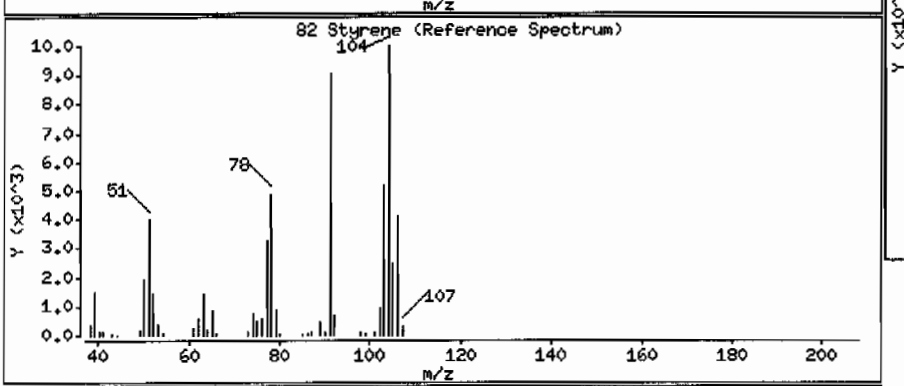

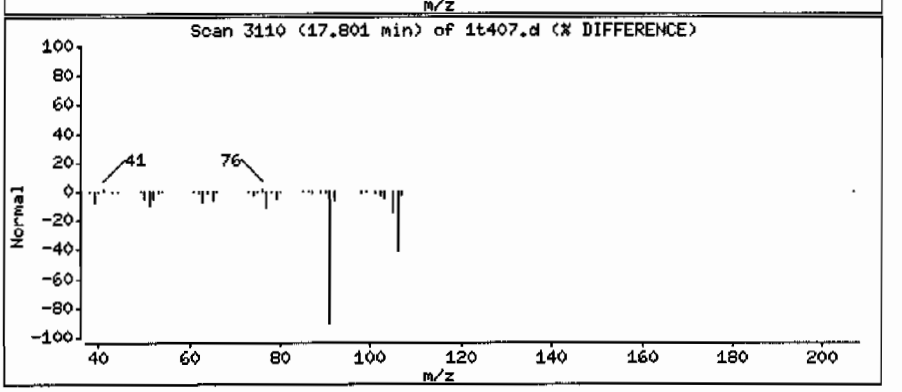

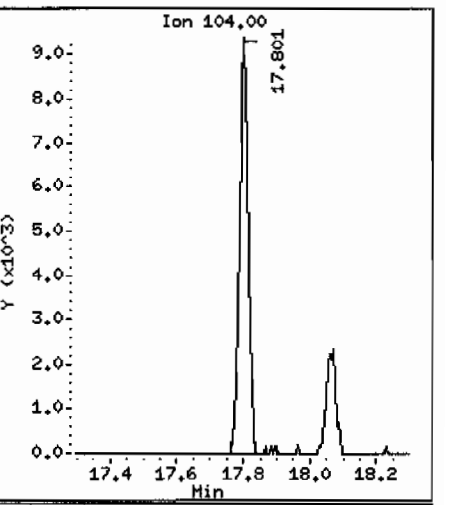

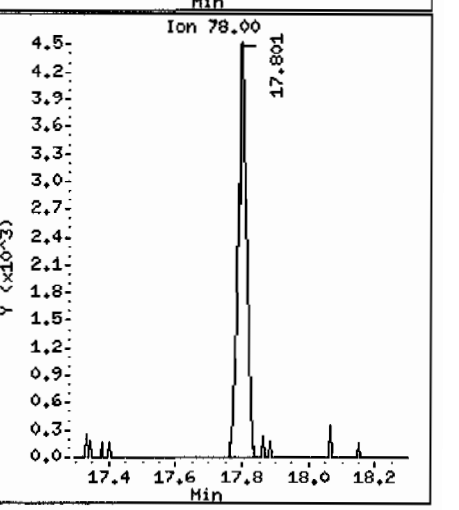

Data File: /chem/VOA1.i/123109v1/1t407.d

Date : 31-DEC-2009 13:09

Client ID: RE03-09-14233

Instrument: VOA1.i

Sample Info: 1243552001|937990|1|VOAF|1|

Operator: RXM4

Column phase: RTX-Volatiles

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Siloxane						
Cyclotrisiloxane, hexamethyl-	541-05-9	NIST05.L	73123	27	C6H18O3Si3	222
2-Phenylindolizine	25379-20-8	NIST05.L	52067	25	C14H11N	193
Anthracene, 9,10-dihydro-9,10-dimethyl-	22566-43-4	NIST05.L	63100	25	C16H16	208

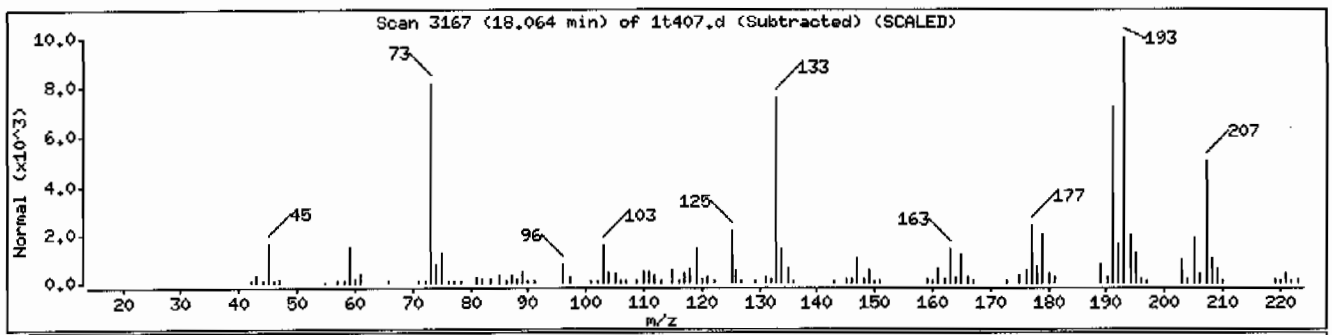

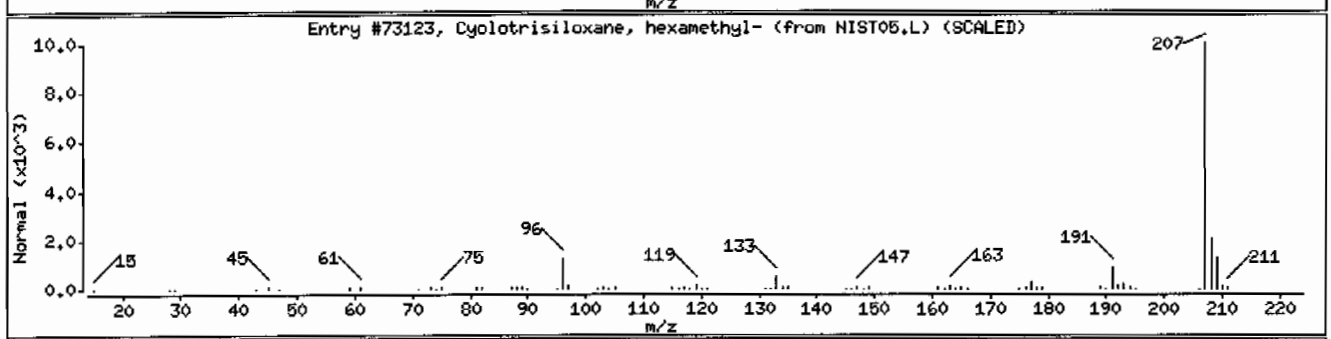

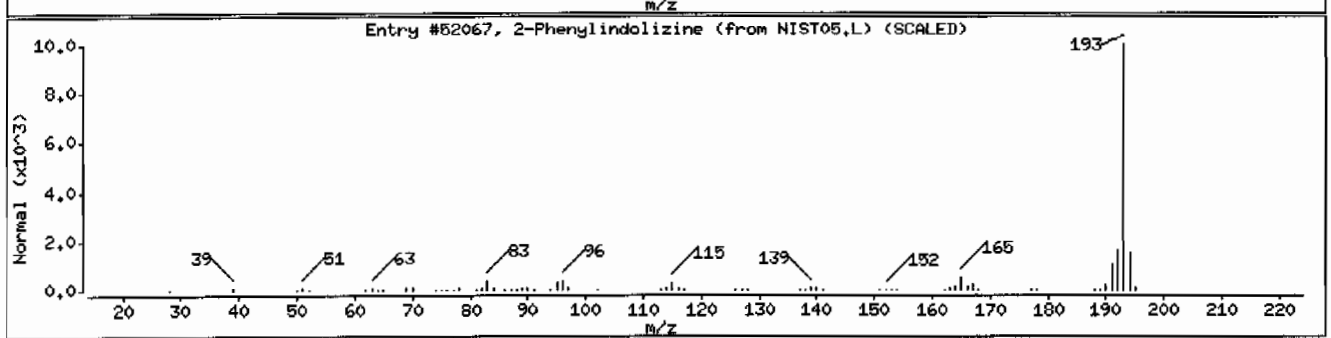

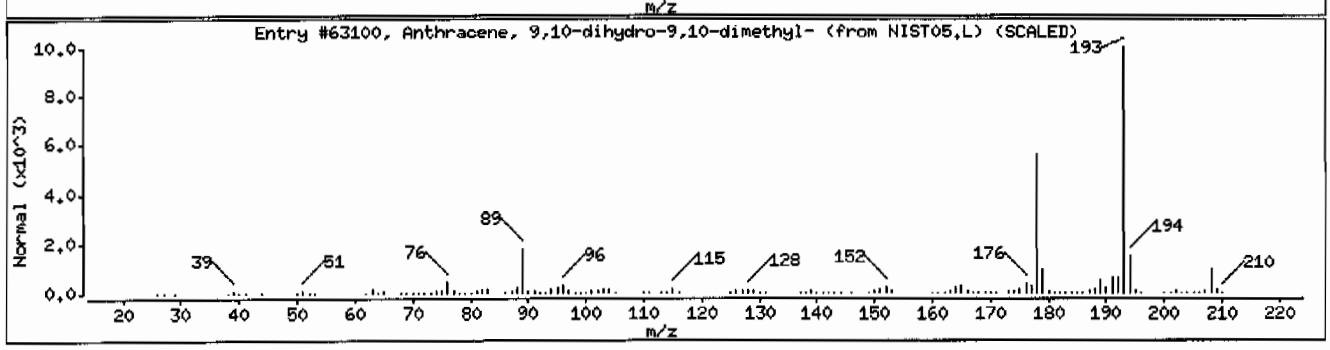

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1086**	**Date Collected:**	**12/22/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243552009**	**Date Received:**	**12/24/2009 09:30**	**%Moisture:**	**7.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14234**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937990**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**12/31/2009 17:11**	**Analyst:**	**RXM4**	**Purge Vol:**	**5 mL**
Prep Date:	**12/31/2009 11:59**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1t415.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.08	ug/kg	0.367	1.08
74-87-3	Chloromethane	U	1.08	ug/kg	0.324	1.08
75-01-4	Vinyl chloride	U	1.08	ug/kg	0.324	1.08
74-83-9	Bromomethane	U	1.08	ug/kg	0.324	1.08
75-00-3	Chloroethane	U	1.08	ug/kg	0.324	1.08
75-69-4	Trichlorofluoromethane	U	1.08	ug/kg	0.324	1.08
67-64-1	Acetone	J	1.98	ug/kg	1.79	5.40
75-35-4	1,1-Dichloroethylene	U	1.08	ug/kg	0.324	1.08
74-88-4	Iodomethane	U	5.40	ug/kg	1.73	5.40
75-09-2	Methylene chloride	U	5.40	ug/kg	2.16	5.40
75-15-0	Carbon disulfide	U	5.40	ug/kg	1.35	5.40
156-60-5	trans-1,2-Dichloroethylene	U	1.08	ug/kg	0.324	1.08
75-34-3	1,1-Dichloroethane	U	1.08	ug/kg	0.324	1.08
78-93-3	2-Butanone	U	5.40	ug/kg	1.62	5.40
156-59-2	cis-1,2-Dichloroethylene	U	1.08	ug/kg	0.324	1.08
594-20-7	2,2-Dichloropropane	U	1.08	ug/kg	0.324	1.08
67-66-3	Chloroform	U	1.08	ug/kg	0.324	1.08
74-97-5	Bromochloromethane	U	1.08	ug/kg	0.357	1.08
71-55-6	1,1,1-Trichloroethane	U	1.08	ug/kg	0.324	1.08
563-58-6	1,1-Dichloropropene	U	1.08	ug/kg	0.324	1.08
56-23-5	Carbon tetrachloride	U	1.08	ug/kg	0.324	1.08
107-06-2	1,2-Dichloroethane	U	1.08	ug/kg	0.324	1.08
71-43-2	Benzene	U	1.08	ug/kg	0.324	1.08
79-01-6	Trichloroethylene	U	1.08	ug/kg	0.357	1.08
78-87-5	1,2-Dichloropropane	U	1.08	ug/kg	0.324	1.08
75-27-4	Bromodichloromethane	U	1.08	ug/kg	0.324	1.08
74-95-3	Dibromomethane	U	1.08	ug/kg	0.324	1.08
108-10-1	4-Methyl-2-pentanone	U	5.40	ug/kg	1.35	5.40
10061-01-5	cis-1,3-Dichloropropylene	U	1.08	ug/kg	0.324	1.08
108-88-3	Toluene	U	1.08	ug/kg	0.324	1.08
10061-02-6	trans-1,3-Dichloropropylene	U	1.08	ug/kg	0.324	1.08
79-00-5	1,1,2-Trichloroethane	U	1.08	ug/kg	0.324	1.08
591-78-6	2-Hexanone	U	5.40	ug/kg	1.62	5.40
142-28-9	1,3-Dichloropropane	U	1.08	ug/kg	0.324	1.08
127-18-4	Tetrachloroethylene	U	1.08	ug/kg	0.324	1.08
124-48-1	Dibromochloromethane	U	1.08	ug/kg	0.324	1.08
106-93-4	1,2-Dibromoethane	U	1.08	ug/kg	0.324	1.08
108-90-7	Chlorobenzene	U	1.08	ug/kg	0.324	1.08

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1086**	**Date Collected:**	**12/22/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243552009**	**Date Received:**	**12/24/2009 09:30**	**%Moisture:**	**7.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14234**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937990**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**12/31/2009 17:11**	**Analyst:**	**RXM4**	**Purge Vol:**	**5 mL**
Prep Date:	**12/31/2009 11:59**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1t415.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.08	ug/kg	0.324	1.08
179601-23-1	m,p-Xylenes	U	2.16	ug/kg	0.324	2.16
95-47-6	o-Xylene	U	1.08	ug/kg	0.324	1.08
100-42-5	Styrene	U	1.08	ug/kg	0.324	1.08
75-25-2	Bromoform	U	1.08	ug/kg	0.324	1.08
79-34-5	1,1,2,2-Tetrachloroethane	U	1.08	ug/kg	0.324	1.08
96-18-4	1,2,3-Trichloropropane	U	1.08	ug/kg	0.324	1.08
108-86-1	Bromobenzene	U	1.08	ug/kg	0.324	1.08
103-65-1	n-Propylbenzene	U	1.08	ug/kg	0.324	1.08
95-49-8	2-Chlorotoluene	U	1.08	ug/kg	0.324	1.08
98-82-8	Isopropylbenzene	U	1.08	ug/kg	0.324	1.08
108-67-8	1,3,5-Trimethylbenzene	U	1.08	ug/kg	0.324	1.08
106-43-4	4-Chlorotoluene	U	1.08	ug/kg	0.324	1.08
98-06-6	tert-Butylbenzene	U	1.08	ug/kg	0.324	1.08
95-63-6	1,2,4-Trimethylbenzene	U	1.08	ug/kg	0.324	1.08
135-98-8	sec-Butylbenzene	U	1.08	ug/kg	0.324	1.08
99-87-6	4-Isopropyltoluene	U	1.08	ug/kg	0.324	1.08
541-73-1	1,3-Dichlorobenzene	U	1.08	ug/kg	0.324	1.08
106-46-7	1,4-Dichlorobenzene	U	1.08	ug/kg	0.324	1.08
104-51-8	n-Butylbenzene	U	1.08	ug/kg	0.324	1.08
96-12-8	1,2-Dibromo-3-chloropropane	U	1.08	ug/kg	0.324	1.08
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.40	ug/kg	1.73	5.40
630-20-6	1,1,1,2-Tetrachloroethane	U	1.08	ug/kg	0.324	1.08
95-50-1	1,2-Dichlorobenzene	U	1.08	ug/kg	0.324	1.08

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Siloxane	18.06	7.3	ug/kg		J

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/123109v1/1t415.d
Lab Smp Id: 243552009 Client Smp ID: RE03-09-14234
Inj Date : 31-DEC-2009 17:11
Operator : RXM4 Inst ID: VOA1.i
Smp Info : |243552009|937990|1|VOAF|1|
Misc Info : LANL 5G N/A
Comment :
Method : /chem/VOA1.i/123109v1/VOA1-8260ox-121709.m
Meth Date : 18-Jan-2010 17:56 jeb Quant Type: ISTD
Cal Date : 17-DEC-2009 21:27 Cal File: 1r425.d
Als bottle: 15
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-1086.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	7.45230	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
* 52 Fluorobenzene	96	13.682	13.682	(1.000)	866184	50.0000	
* 76 Chlorobenzene-d5	117	17.157	17.157	(1.000)	655417	50.0000	
* 102 1,4-Dichlorobenzene-d4	152	19.606	19.606	(1.000)	341742	50.0000	
$ 48 1,2-Dichloroethane-d4	65	13.337	13.336	(0.975)	586962	56.7146	61.3
$ 65 Toluene-d8	98	15.514	15.514	(0.904)	1672466	45.8056	49.5
$ 87 Bromofluorobenzene	95	18.386	18.386	(0.938)	690666	50.4969	54.6
16 Acetone	43	9.258	9.254	(0.677)	9618	1.83547	2.0(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

ION RATIO REPORT

VOA REPORT

Data file: 1t415.d
Report Date: 01/04/2010 07:14
Lab. ID: 243552009 SampleType: SAMPLE
Injection Date: 31-DEC-2009 17:11
Operator: RXM4 Instrument: VOA1.i
Sample Info: |243552009|973990|1|VOAF|1|
Miscellaneous Info: LANL 5G N/A
Comment:
Method used: /chem/VOA1.i/123109v1/VOA1-8260ox-121709.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-1086
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
16 Acetone			CAS#: 67-64-1			
43	9618	9.26	9.25	80-120	100	( )
58	2354	9.26	9.25	1- 61	24	( )
51 1,2-Dichloroethane			CAS#: 107-06-2			
62	14634	13.68	13.44	80-120	100	(T)
64	2728	13.68	13.44	2- 62	19	(T)
64 4-Methyl-2-pentanone			CAS#: 108-10-1			
58	17108	15.52	15.35	80-120	100	(T)
43	8976	15.51	15.35	223-283	52	(QT)
100	1072968	15.51	15.36	0- 60	6272	(QT)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/123109v1/1t415.d
Lab Smp Id: 243552009 Client Smp ID: RE03-09-14234
Inj Date : 31-DEC-2009 17:11
Operator : RXM4 Inst ID: VOA1.i
Smp Info : |243552009|937990|1|VOAF|1|
Misc Info : LANL 5G N/A
Comment :
Method : /chem/VOA1.i/123109v1/VOA1-8260ox-121709.m
Meth Date : 18-Jan-2010 17:56 jeb Quant Type: ISTD
Cal Date : 17-DEC-2009 21:27 Cal File: 1r425.d
Als bottle: 15
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-1086.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	7.45230	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 76 Chlorobenzene-d5	17.157	2149770	50.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ug/l)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown Siloxane					CAS #:		
18.064	290632	6.75959359	7.3	0		0	76

Data File: /chem/VOA1.i/123109v1/1t415.d
Date : 31-DEC-2009 17:11
Client ID: RE03-09-14234
Sample Info: |2435520091937990|1|VOAF|1|

Column phase: RTX-Volatiles

Instrument: VOA1.i

Operator: RXM4
Column diameter: 0.25

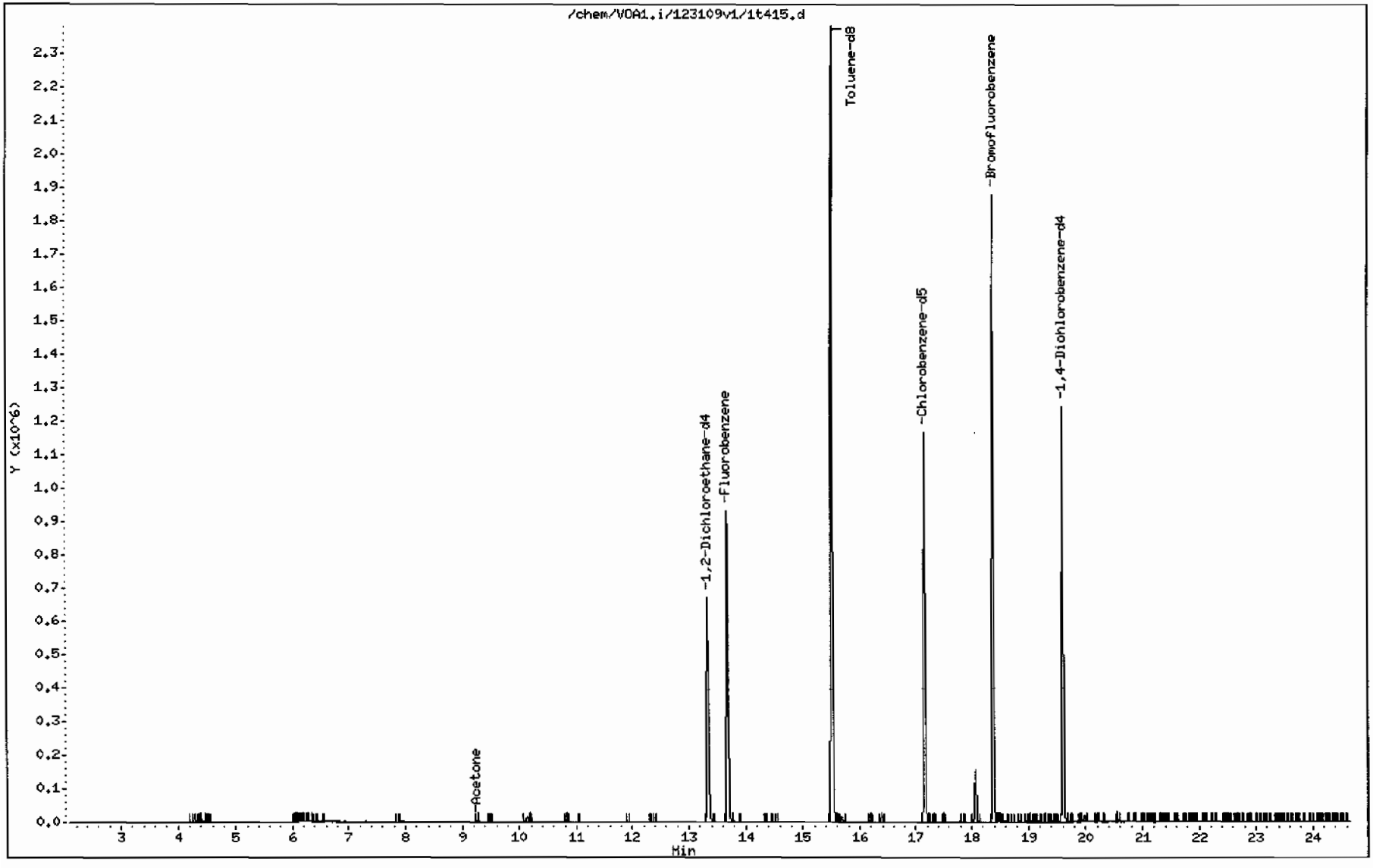

Data File: /chem/VOA1.i/123109v1/1t415.d

Date : 31-DEC-2009 17:11

Client ID: RE03-09-14234

Instrument: VOA1.i

Sample Info: |2435520091937990|1|VOAF|1|

Operator: RXM4

Column phase: RTX-Volatiles

Column diameter: 0.25

16 Acetone

Concentration: 2.0 ug/Kg

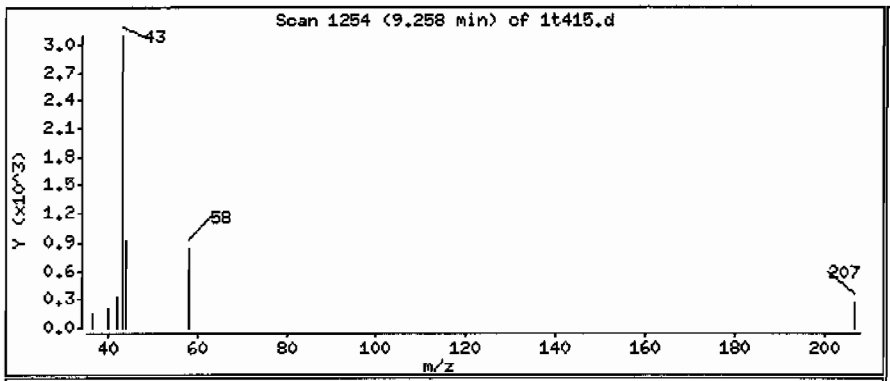

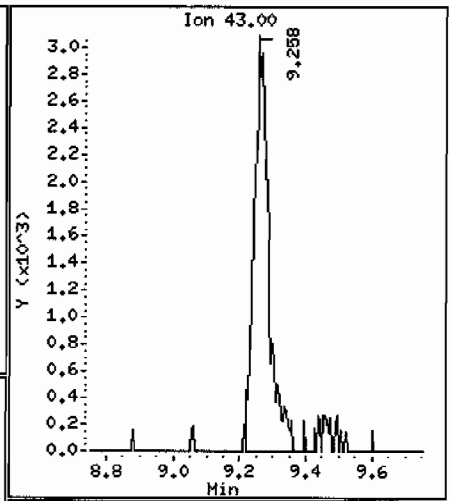

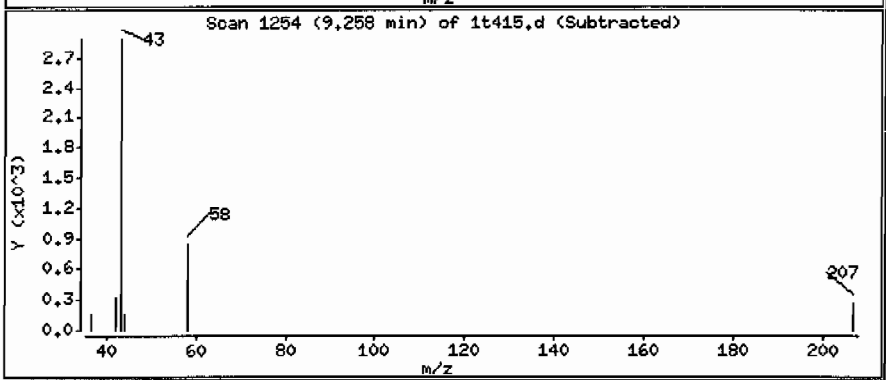

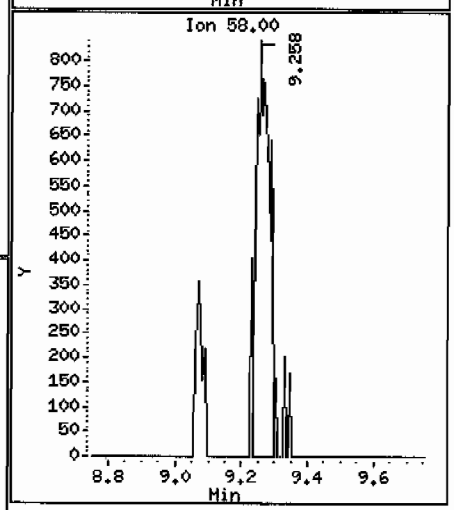

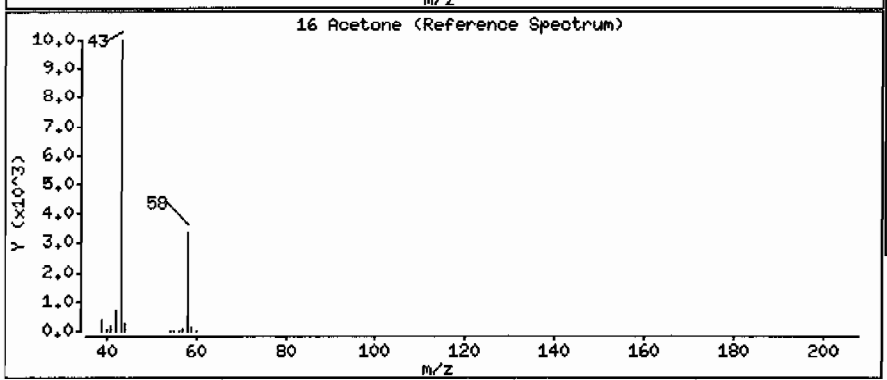

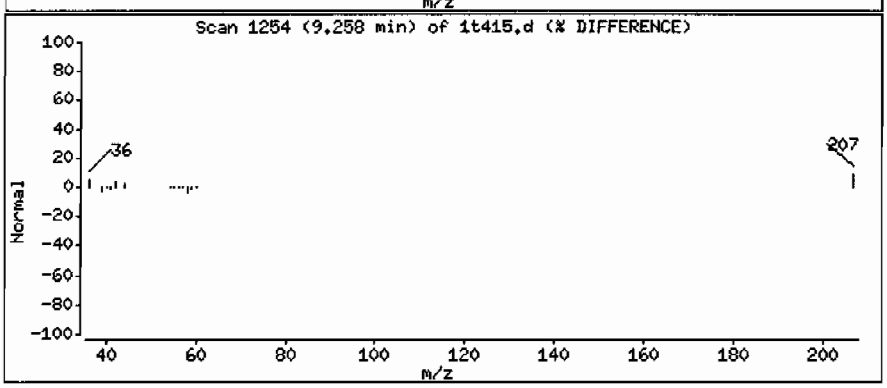

Data File: /chem/VOA1.i/123109v1/1t415.d

Date : 31-DEC-2009 17:11

Client ID: RE03-09-14234

Instrument: VOA1.i

Sample Info: |2436520091937990|1|VOAF|1|

Operator: RXM4

Column phase: RTX-Volatiles

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Siloxane						
Trisiloxane, 1,1,3,3,5,5-hexamethyl-	1189-93-1	NIST05.L	63149	38	C6H20O2Si3	208
Adamantane-1-carboxylic acid, 3-bromo-,	27983-08-0	NIST05.L	106462	35	C12H17BrO2	272
Anthracene, 9,10-dihydro-9,10-dimethyl-	22566-43-4	NIST05.L	63100	30	C16H16	208

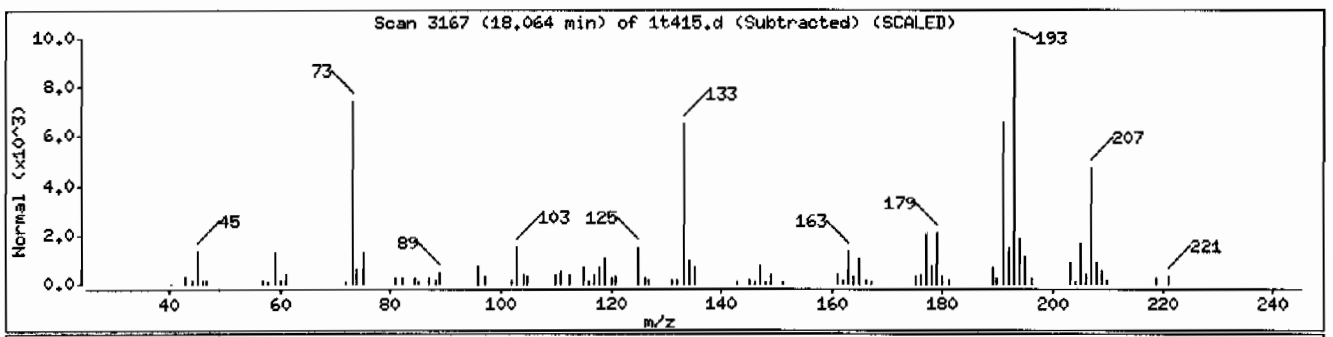

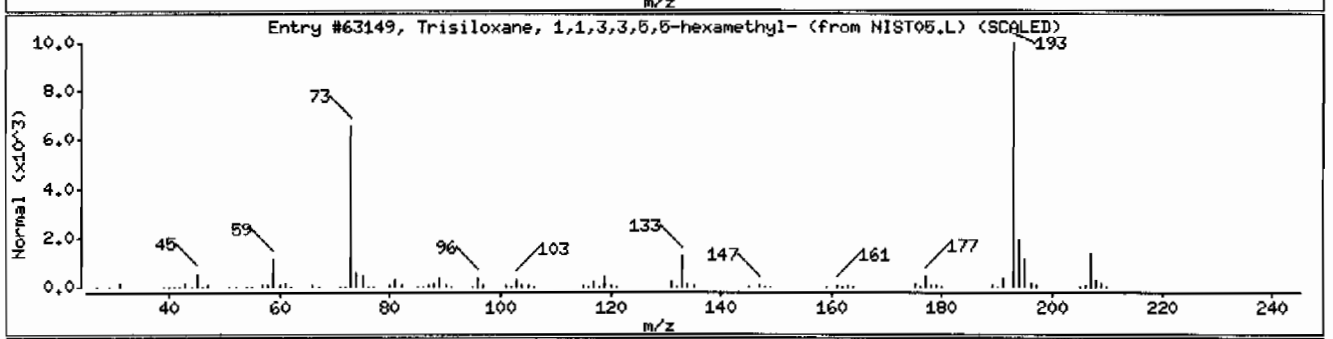

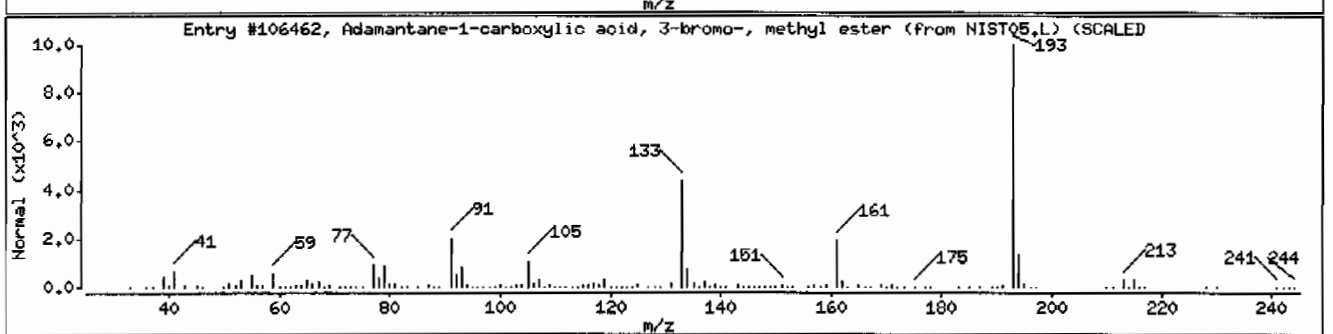

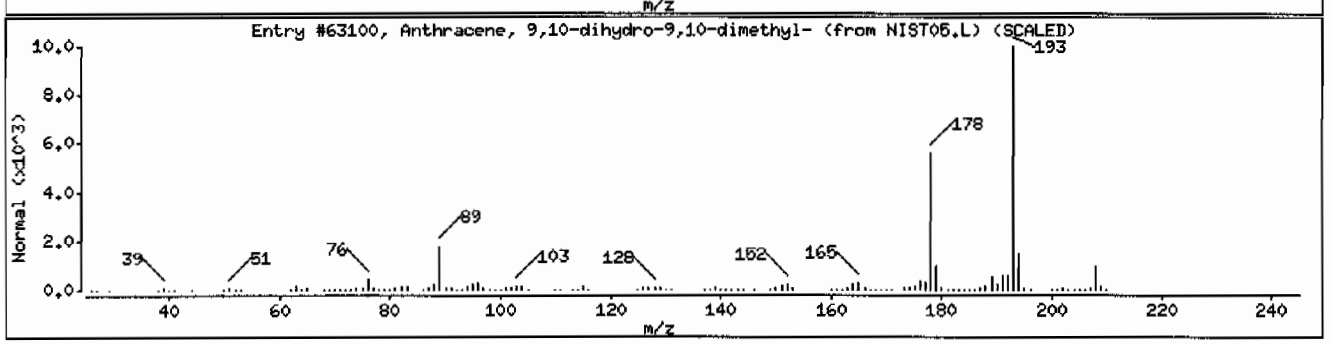

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1086**	**Date Collected:**	**12/22/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243552007**	**Date Received:**	**12/24/2009 09:30**	**%Moisture:**	**22.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14235**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937990**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**12/31/2009 16:11**	**Analyst:**	**RXM4**	**Purge Vol:**	**5 mL**
Prep Date:	**12/31/2009 11:57**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1t413.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.29	ug/kg	0.439	1.29
74-87-3	Chloromethane	U	1.29	ug/kg	0.387	1.29
75-01-4	Vinyl chloride	U	1.29	ug/kg	0.387	1.29
74-83-9	Bromomethane	U	1.29	ug/kg	0.387	1.29
75-00-3	Chloroethane	U	1.29	ug/kg	0.387	1.29
75-69-4	Trichlorofluoromethane	U	1.29	ug/kg	0.387	1.29
67-64-1	Acetone	U	6.45	ug/kg	2.14	6.45
75-35-4	1,1-Dichloroethylene	U	1.29	ug/kg	0.387	1.29
74-88-4	Iodomethane	U	6.45	ug/kg	2.06	6.45
75-09-2	Methylene chloride	U	6.45	ug/kg	2.58	6.45
75-15-0	Carbon disulfide	U	6.45	ug/kg	1.61	6.45
156-60-5	trans-1,2-Dichloroethylene	U	1.29	ug/kg	0.387	1.29
75-34-3	1,1-Dichloroethane	U	1.29	ug/kg	0.387	1.29
78-93-3	2-Butanone	U	6.45	ug/kg	1.93	6.45
156-59-2	cis-1,2-Dichloroethylene	U	1.29	ug/kg	0.387	1.29
594-20-7	2,2-Dichloropropane	U	1.29	ug/kg	0.387	1.29
67-66-3	Chloroform	U	1.29	ug/kg	0.387	1.29
74-97-5	Bromochloromethane	U	1.29	ug/kg	0.426	1.29
71-55-6	1,1,1-Trichloroethane	U	1.29	ug/kg	0.387	1.29
563-58-6	1,1-Dichloropropene	U	1.29	ug/kg	0.387	1.29
56-23-5	Carbon tetrachloride	U	1.29	ug/kg	0.387	1.29
107-06-2	1,2-Dichloroethane	U	1.29	ug/kg	0.387	1.29
71-43-2	Benzene	U	1.29	ug/kg	0.387	1.29
79-01-6	Trichloroethylene	U	1.29	ug/kg	0.426	1.29
78-87-5	1,2-Dichloropropane	U	1.29	ug/kg	0.387	1.29
75-27-4	Bromodichloromethane	U	1.29	ug/kg	0.387	1.29
74-95-3	Dibromomethane	U	1.29	ug/kg	0.387	1.29
108-10-1	4-Methyl-2-pentanone	U	6.45	ug/kg	1.61	6.45
10061-01-5	cis-1,3-Dichloropropylene	U	1.29	ug/kg	0.387	1.29
108-88-3	Toluene	U	1.29	ug/kg	0.387	1.29
10061-02-6	trans-1,3-Dichloropropylene	U	1.29	ug/kg	0.387	1.29
79-00-5	1,1,2-Trichloroethane	U	1.29	ug/kg	0.387	1.29
591-78-6	2-Hexanone	U	6.45	ug/kg	1.93	6.45
142-28-9	1,3-Dichloropropane	U	1.29	ug/kg	0.387	1.29
127-18-4	Tetrachloroethylene	U	1.29	ug/kg	0.387	1.29
124-48-1	Dibromochloromethane	U	1.29	ug/kg	0.387	1.29
106-93-4	1,2-Dibromoethane	U	1.29	ug/kg	0.387	1.29
108-90-7	Chlorobenzene	U	1.29	ug/kg	0.387	1.29

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1086**	**Date Collected:**	**12/22/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243552007**	**Date Received:**	**12/24/2009 09:30**	**%Moisture:**	**22.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14235**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937990**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**12/31/2009 16:11**	**Analyst:**	**RXM4**	**Purge Vol:**	**5 mL**
Prep Date:	**12/31/2009 11:57**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1t413.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.29	ug/kg	0.387	1.29
179601-23-1	m,p-Xylenes	U	2.58	ug/kg	0.387	2.58
95-47-6	o-Xylene	U	1.29	ug/kg	0.387	1.29
100-42-5	Styrene	U	1.29	ug/kg	0.387	1.29
75-25-2	Bromoform	U	1.29	ug/kg	0.387	1.29
79-34-5	1,1,2,2-Tetrachloroethane	U	1.29	ug/kg	0.387	1.29
96-18-4	1,2,3-Trichloropropane	U	1.29	ug/kg	0.387	1.29
108-86-1	Bromobenzene	U	1.29	ug/kg	0.387	1.29
103-65-1	n-Propylbenzene	U	1.29	ug/kg	0.387	1.29
95-49-8	2-Chlorotoluene	U	1.29	ug/kg	0.387	1.29
98-82-8	Isopropylbenzene	U	1.29	ug/kg	0.387	1.29
108-67-8	1,3,5-Trimethylbenzene	U	1.29	ug/kg	0.387	1.29
106-43-4	4-Chlorotoluene	U	1.29	ug/kg	0.387	1.29
98-06-6	tert-Butylbenzene	U	1.29	ug/kg	0.387	1.29
95-63-6	1,2,4-Trimethylbenzene	U	1.29	ug/kg	0.387	1.29
135-98-8	sec-Butylbenzene	U	1.29	ug/kg	0.387	1.29
99-87-6	4-Isopropyltoluene	U	1.29	ug/kg	0.387	1.29
541-73-1	1,3-Dichlorobenzene	U	1.29	ug/kg	0.387	1.29
106-46-7	1,4-Dichlorobenzene	U	1.29	ug/kg	0.387	1.29
104-51-8	n-Butylbenzene	U	1.29	ug/kg	0.387	1.29
96-12-8	1,2-Dibromo-3-chloropropane	U	1.29	ug/kg	0.387	1.29
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	6.45	ug/kg	2.06	6.45
630-20-6	1,1,1,2-Tetrachloroethane	U	1.29	ug/kg	0.387	1.29
95-50-1	1,2-Dichlorobenzene	U	1.29	ug/kg	0.387	1.29

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Siloxane	18.06	15	ug/kg		J

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/123109v1/1t413.d
Lab Smp Id: 243552007 Client Smp ID: RE03-09-14235
Inj Date : 31-DEC-2009 16:11
Operator : RXM4 Inst ID: VOA1.i
Smp Info : |243552007|937990|1|VOAF|1|
Misc Info : LANL 5G N/A
Comment :
Method : /chem/VOA1.i/123109v1/VOA1-8260ox-121709.m
Meth Date : 18-Jan-2010 17:56 jeb Quant Type: ISTD
Cal Date : 17-DEC-2009 21:27 Cal File: 1r425.d
Als bottle: 13
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-1086.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	22.47550	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
* 52 Fluorobenzene	96	13.682	13.682	(1.000)	608951	50.0000	
* 76 Chlorobenzene-d5	117	17.157	17.157	(1.000)	450422	50.0000	
* 102 1,4-Dichlorobenzene-d4	152	19.606	19.606	(1.000)	221009	50.0000	
$ 48 1,2-Dichloroethane-d4	65	13.337	13.336	(0.975)	437092	60.0739	77.5
$ 65 Toluene-d8	98	15.514	15.514	(0.904)	1198576	47.7667	61.6
$ 87 Bromofluorobenzene	95	18.386	18.386	(0.938)	503337	56.9041	73.4

ION RATIO REPORT

VOA REPORT

Data file: 1t413.d
Report Date: 01/04/2010 07:14
Lab. ID: 243552007 SampleType: SAMPLE
Injection Date: 31-DEC-2009 16:11
Operator: RXM4 Instrument: VOA1.i
Sample Info: |243552007|973990|1|VOAF|1|
Miscellaneous Info: LANL 5G N/A
Comment:
Method used: /chem/VOA1.i/123109v1/VOA1-8260ox-121709.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-1086
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
51 1,2-Dichloroethane				CAS#: 107-06-2		
62	10092	13.68	13.44	80-120	100	(T)
64	1870	13.68	13.44	2- 62	19	(T)
64 4-Methyl-2-pentanone				CAS#: 108-10-1		
58	12094	15.51	15.35	80-120	100	(T)
43	6686	15.51	15.35	223-283	55	(QT)
100	762170	15.51	15.36	0- 60	6302	(QT)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/123109v1/1t413.d
Lab Smp Id: 243552007 Client Smp ID: RE03-09-14235
Inj Date : 31-DEC-2009 16:11
Operator : RXM4 Inst ID: VOA1.i
Smp Info : |243552007|937990|1|VOAF|1|
Misc Info : LANL 5G N/A
Comment :
Method : /chem/VOA1.i/123109v1/VOA1-8260ox-121709.m
Meth Date : 18-Jan-2010 17:56 jeb Quant Type: ISTD
Cal Date : 17-DEC-2009 21:27 Cal File: 1r425.d
Als bottle: 13
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-1086.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	22.47550	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 76 Chlorobenzene-d5	17.157	1495681	50.000

	CONCENTRATIONS				QUANT		
RT	AREA	ON-COL(ug/l)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown Siloxane				CAS #:			
18.064	348900	11.6635667	15.0	0		0	76

Data File: /chem/VOA1.i/123109v1/1t413.d
Date : 31-DEC-2009 16:11
Client ID: RE03-09-14235
Sample Info: |2435520071937990|1|VOAF|1|

Column phase: RTX-Volatiles

Instrument: VOA1.i

Operator: RXM4
Column diameter: 0.25

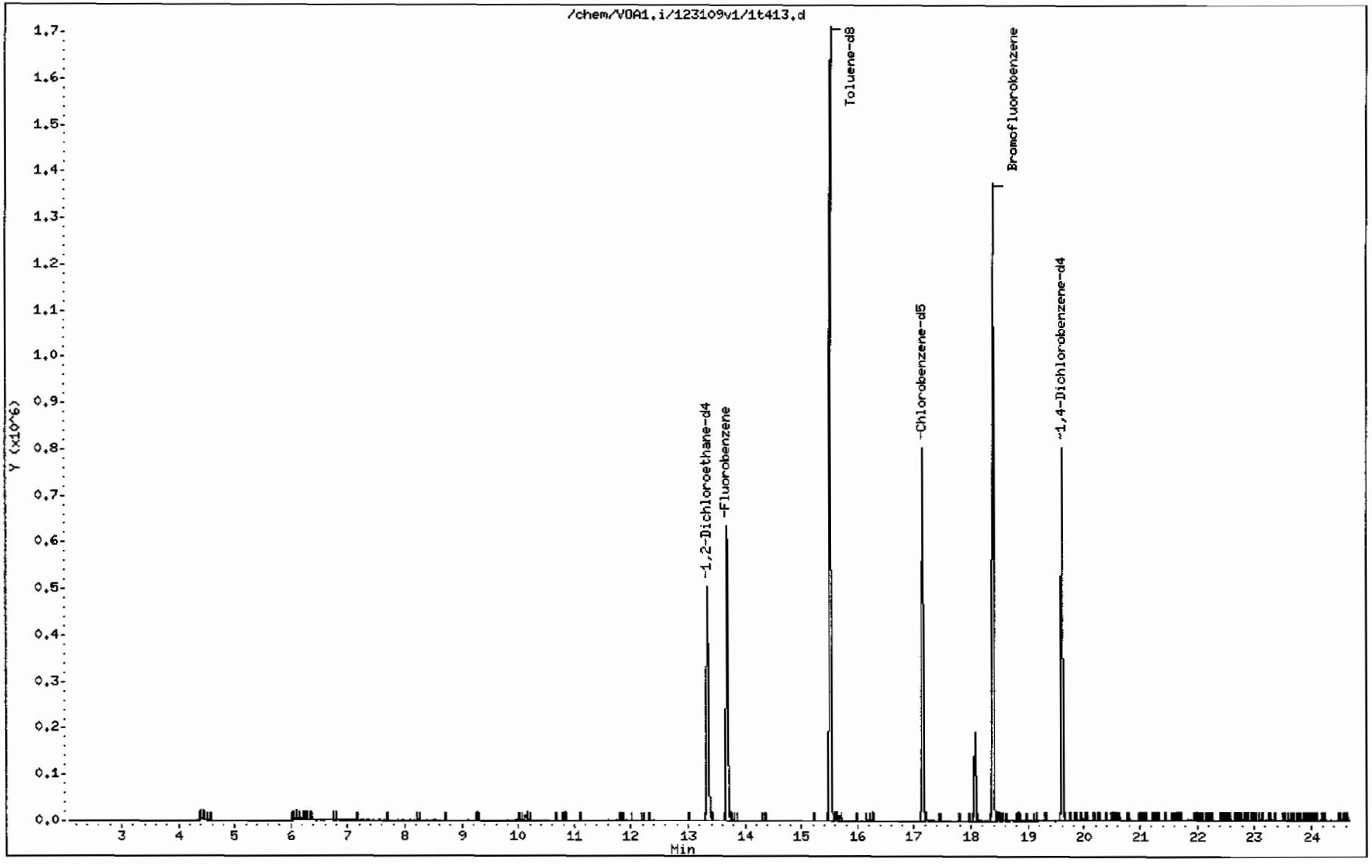

Data File: /chem/VOA1.i/123109v1/1t413.d

Date : 31-DEC-2009 16:11

Client ID: RE03-09-14235

Instrument: VOA1.i

Sample Info: |2436620071937990|1|VOAF|1|

Operator: RXH4

Column phase: RTX-Volatiles

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Siloxane						
Trisiloxane, 1,1,3,3,5,5-hexamethyl-	1189-93-1	NIST05.L	63148	38	C6H20O2Si3	208
Trisiloxane, 1,1,3,3,5,5-hexamethyl-	1189-93-1	NIST05.L	63149	35	C6H20O2Si3	208
6-Methylphenanthridine	3955-65-5	NIST05.L	52077	25	C14H11N	193

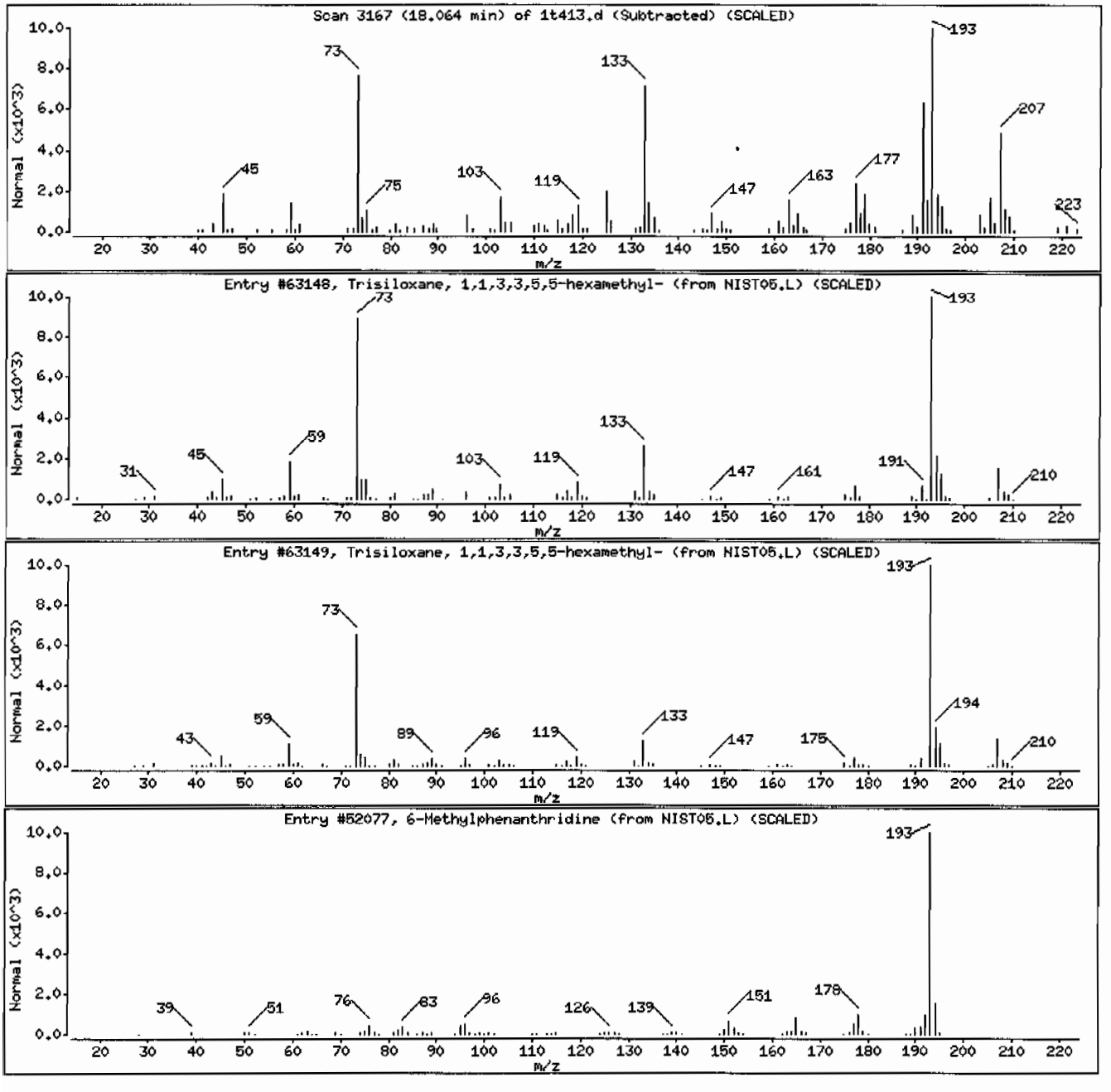

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1086**	**Date Collected:**	**12/22/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243552002**	**Date Received:**	**12/24/2009 09:30**	**%Moisture:**	**16.2**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14236**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937990**	**Inst:**	**VOA1J**	**Dilution:**	**1**
Run Date:	**12/31/2009 13:39**	**Analyst:**	**RXM4**	**Purge Vol:**	**5 mL**
Prep Date:	**12/31/2009 11:52**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1t408.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.19	ug/kg	0.406	1.19
74-87-3	Chloromethane	U	1.19	ug/kg	0.358	1.19
75-01-4	Vinyl chloride	U	1.19	ug/kg	0.358	1.19
74-83-9	Bromomethane	U	1.19	ug/kg	0.358	1.19
75-00-3	Chloroethane	U	1.19	ug/kg	0.358	1.19
75-69-4	Trichlorofluoromethane	U	1.19	ug/kg	0.358	1.19
67-64-1	Acetone	U	5.96	ug/kg	1.98	5.96
75-35-4	1,1-Dichloroethylene	U	1.19	ug/kg	0.358	1.19
74-88-4	Iodomethane	U	5.96	ug/kg	1.91	5.96
75-09-2	Methylene chloride	U	5.96	ug/kg	2.39	5.96
75-15-0	Carbon disulfide	U	5.96	ug/kg	1.49	5.96
156-60-5	trans-1,2-Dichloroethylene	U	1.19	ug/kg	0.358	1.19
75-34-3	1,1-Dichloroethane	U	1.19	ug/kg	0.358	1.19
78-93-3	2-Butanone	U	5.96	ug/kg	1.79	5.96
156-59-2	cis-1,2-Dichloroethylene	U	1.19	ug/kg	0.358	1.19
594-20-7	2,2-Dichloropropane	U	1.19	ug/kg	0.358	1.19
67-66-3	Chloroform	U	1.19	ug/kg	0.358	1.19
74-97-5	Bromochloromethane	U	1.19	ug/kg	0.394	1.19
71-55-6	1,1,1-Trichloroethane	U	1.19	ug/kg	0.358	1.19
563-58-6	1,1-Dichloropropene	U	1.19	ug/kg	0.358	1.19
56-23-5	Carbon tetrachloride	U	1.19	ug/kg	0.358	1.19
107-06-2	1,2-Dichloroethane	U	1.19	ug/kg	0.358	1.19
71-43-2	Benzene	U	1.19	ug/kg	0.358	1.19
79-01-6	Trichloroethylene	U	1.19	ug/kg	0.394	1.19
78-87-5	1,2-Dichloropropane	U	1.19	ug/kg	0.358	1.19
75-27-4	Bromodichloromethane	U	1.19	ug/kg	0.358	1.19
74-95-3	Dibromomethane	U	1.19	ug/kg	0.358	1.19
108-10-1	4-Methyl-2-pentanone	U	5.96	ug/kg	1.49	5.96
10061-01-5	cis-1,3-Dichloropropylene	U	1.19	ug/kg	0.358	1.19
108-88-3	Toluene	U	1.19	ug/kg	0.358	1.19
10061-02-6	trans-1,3-Dichloropropylene	U	1.19	ug/kg	0.358	1.19
79-00-5	1,1,2-Trichloroethane	U	1.19	ug/kg	0.358	1.19
591-78-6	2-Hexanone	U	5.96	ug/kg	1.79	5.96
142-28-9	1,3-Dichloropropane	U	1.19	ug/kg	0.358	1.19
127-18-4	Tetrachloroethylene	U	1.19	ug/kg	0.358	1.19
124-48-1	Dibromochloromethane	U	1.19	ug/kg	0.358	1.19
106-93-4	1,2-Dibromoethane	U	1.19	ug/kg	0.358	1.19
108-90-7	Chlorobenzene	U	1.19	ug/kg	0.358	1.19

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1086**	**Date Collected:**	**12/22/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243552002**	**Date Received:**	**12/24/2009 09:30**	**%Moisture:**	**16.2**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14236**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937990**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**12/31/2009 13:39**	**Analyst:**	**RXM4**	**Purge Vol:**	**5 mL**
Prep Date:	**12/31/2009 11:52**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1t408.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.19	ug/kg	0.358	1.19
179601-23-1	m,p-Xylenes	U	2.39	ug/kg	0.358	2.39
95-47-6	o-Xylene	U	1.19	ug/kg	0.358	1.19
100-42-5	Styrene	U	1.19	ug/kg	0.358	1.19
75-25-2	Bromoform	U	1.19	ug/kg	0.358	1.19
79-34-5	1,1,2,2-Tetrachloroethane	U	1.19	ug/kg	0.358	1.19
96-18-4	1,2,3-Trichloropropane	U	1.19	ug/kg	0.358	1.19
108-86-1	Bromobenzene	U	1.19	ug/kg	0.358	1.19
103-65-1	n-Propylbenzene	U	1.19	ug/kg	0.358	1.19
95-49-8	2-Chlorotoluene	U	1.19	ug/kg	0.358	1.19
98-82-8	Isopropylbenzene	U	1.19	ug/kg	0.358	1.19
108-67-8	1,3,5-Trimethylbenzene	U	1.19	ug/kg	0.358	1.19
106-43-4	4-Chlorotoluene	U	1.19	ug/kg	0.358	1.19
98-06-6	tert-Butylbenzene	U	1.19	ug/kg	0.358	1.19
95-63-6	1,2,4-Trimethylbenzene	U	1.19	ug/kg	0.358	1.19
135-98-8	sec-Butylbenzene	U	1.19	ug/kg	0.358	1.19
99-87-6	4-Isopropyltoluene	U	1.19	ug/kg	0.358	1.19
541-73-1	1,3-Dichlorobenzene	U	1.19	ug/kg	0.358	1.19
106-46-7	1,4-Dichlorobenzene	U	1.19	ug/kg	0.358	1.19
104-51-8	n-Butylbenzene	U	1.19	ug/kg	0.358	1.19
96-12-8	1,2-Dibromo-3-chloropropane	U	1.19	ug/kg	0.358	1.19
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.96	ug/kg	1.91	5.96
630-20-6	1,1,1,2-Tetrachloroethane	U	1.19	ug/kg	0.358	1.19
95-50-1	1,2-Dichlorobenzene	U	1.19	ug/kg	0.358	1.19

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Siloxane	18.06	13.5	ug/kg		J

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/123109v1/1t408.d
Lab Smp Id: 243552002 Client Smp ID: RE03-09-14236
Inj Date : 31-DEC-2009 13:39
Operator : RXM4 Inst ID: VOA1.i
Smp Info : |243552002|937990|1|VOAF|1|
Misc Info : LANL 5G N/A
Comment :
Method : /chem/VOA1.i/123109v1/VOA1-8260ox-121709.m
Meth Date : 18-Jan-2010 17:56 jeb Quant Type: ISTD
Cal Date : 17-DEC-2009 21:27 Cal File: 1r425.d
Als bottle: 8
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-1086.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	16.16260	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
* 52 Fluorobenzene	96	13.682	13.682	(1.000)	894016	50.0000	
* 76 Chlorobenzene-d5	117	17.157	17.157	(1.000)	664735	50.0000	
* 102 1,4-Dichlorobenzene-d4	152	19.606	19.606	(1.000)	353132	50.0000	
$ 48 1,2-Dichloroethane-d4	65	13.336	13.336	(0.975)	589734	55.2085	65.8
$ 65 Toluene-d8	98	15.514	15.514	(0.904)	1727421	46.6476	55.6
$ 87 Bromofluorobenzene	95	18.381	18.386	(0.938)	681503	48.2198	57.5

ION RATIO REPORT

VOA REPORT

Data file: lt408.d
Report Date: 12/31/2009 14:10
Lab. ID: 243552002 SampleType: SAMPLE
Injection Date: 31-DEC-2009 13:39
Operator: RXM4 Instrument: VOA1.i
Sample Info: |243552002|973990|1|VOAF|1|
Miscellaneous Info: LANL 5G N/A
Comment:
Method used: /chem/VOA1.i/123109v1/VOA1-8260ox-121709.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-1086
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
51	1,2-Dichloroethane			CAS#: 107-06-2		
62	14831	13.68	13.44	80-120	100	(T)
64	2370	13.67	13.44	2- 62	16	(T)
64	4-Methyl-2-pentanone			CAS#: 108-10-1		
58	16773	15.51	15.35	80-120	100	(T)
43	9006	15.51	15.35	223-283	54	(QT)
100	1105414	15.51	15.36	0- 60	6590	(QT)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/123109v1/1t408.d
Lab Smp Id: 243552002 Client Smp ID: RE03-09-14236
Inj Date : 31-DEC-2009 13:39
Operator : RXM4 Inst ID: VOA1.i
Smp Info : |243552002|937990|1|VOAF|1|
Misc Info : LANL 5G N/A
Comment :
Method : /chem/VOA1.i/123109v1/VOA1-8260ox-121709.m
Meth Date : 18-Jan-2010 17:56 jeb Quant Type: ISTD
Cal Date : 17-DEC-2009 21:27 Cal File: 1r425.d
Als bottle: 8
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-1086.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	16.16260	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 76 Chlorobenzene-d5	17.157	2213014	50.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ug/l)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown Siloxane				CAS #:			
18.064	501211	11.3241799	13.5	0		0	76

Data File: /chem/VOA1.i/123109v1/1t408.d
Date : 31-DEC-2009 13:39
Client ID: RE03-09-14236
Sample Info: |2435520021937990|1|VOAF|1|

Column phase: RTX-Volatiles

Instrument: VOA1.i

Operator: RXM4
Column diameter: 0.25

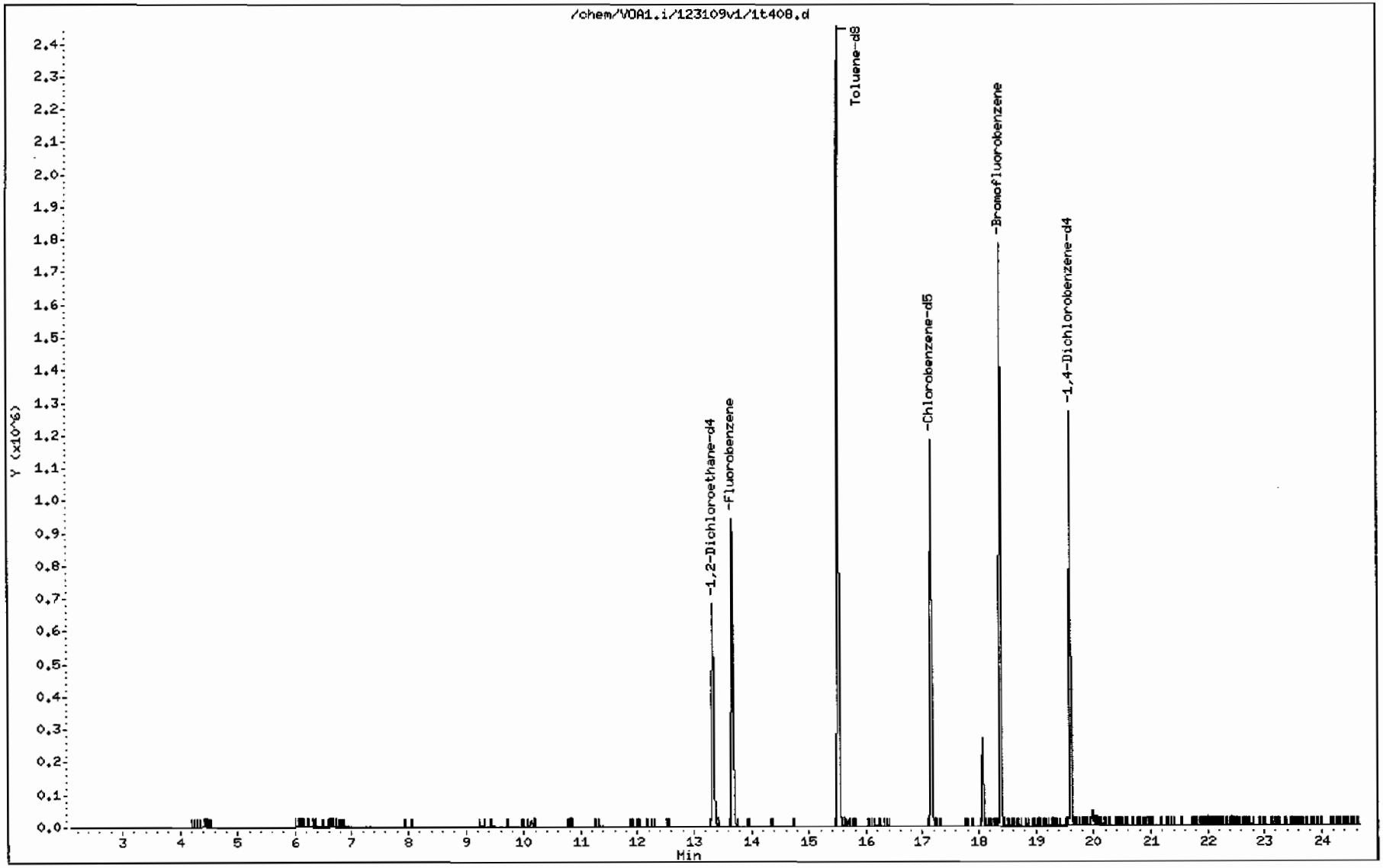

Data File: /chem/VOA1.i/123109v1/1t408.d

Date : 31-DEC-2009 13:39

Client ID: RE03-09-14236

Instrument: VOA1.i

Sample Info: |2435520021937990|1|VOAF|1|

Operator: RXM4

Column phase: RTX-Volatiles

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Siloxane						
Trisiloxane, 1,1,3,3,5,5-hexamethyl-	1189-93-1	NIST05.L	63149	38	C6H20O2Si3	208
Anthracene, 9,10-dihydro-9,10-dimethyl-	22566-43-4	NIST05.L	63100	30	C16H16	208
Propiophenone, 3'-(trimethylsiloxy)-	33342-88-0	NIST05.L	72505	27	C12H18O2Si	222

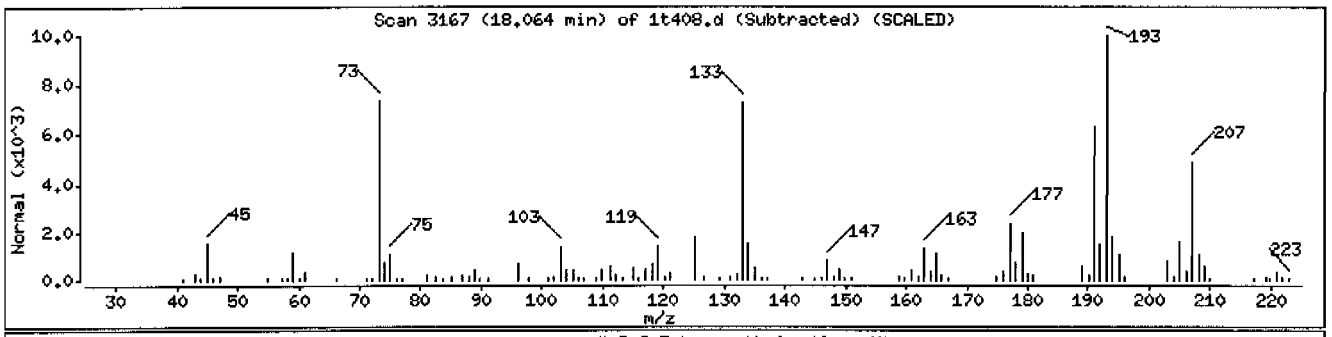

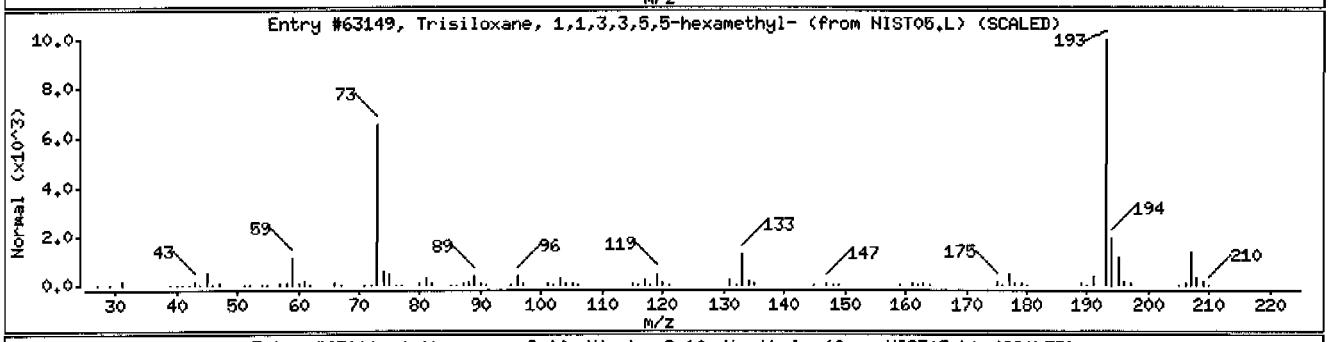

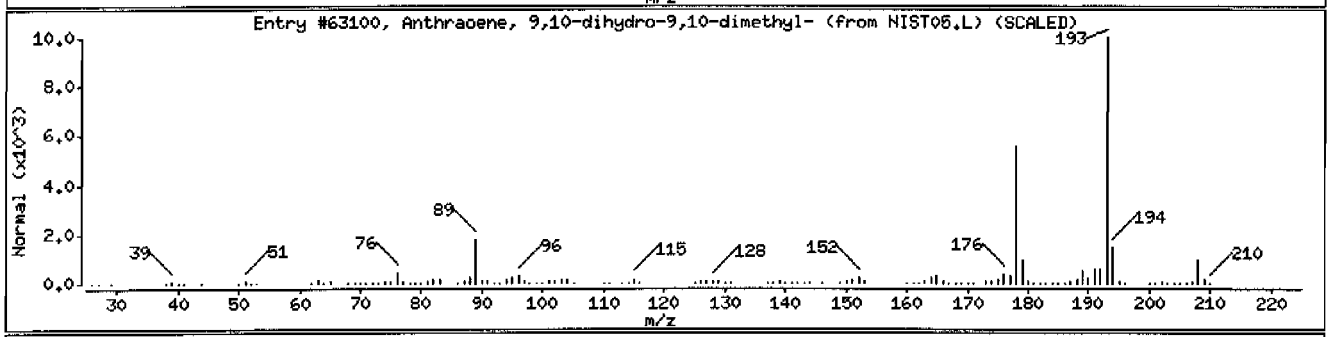

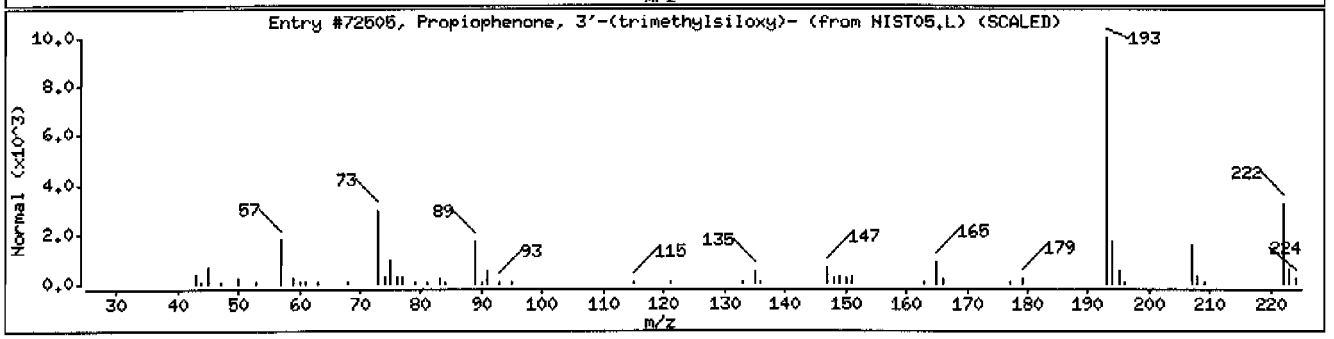

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1086**	**Date Collected:**	**12/22/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243552008**	**Date Received:**	**12/24/2009 09:30**	**%Moisture:**	**5.4**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14238**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937990**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**01/04/2010 15:35**	**Analyst:**	**RXM4**	**Purge Vol:**	**5 mL**
Prep Date:	**01/04/2010 14:12**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1u114.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.06	ug/kg	0.359	1.06
74-87-3	Chloromethane	U	1.06	ug/kg	0.317	1.06
75-01-4	Vinyl chloride	U	1.06	ug/kg	0.317	1.06
74-83-9	Bromomethane	U	1.06	ug/kg	0.317	1.06
75-00-3	Chloroethane	U	1.06	ug/kg	0.317	1.06
75-69-4	Trichlorofluoromethane	U	1.06	ug/kg	0.317	1.06
67-64-1	Acetone	U	5.29	ug/kg	1.75	5.29
75-35-4	1,1-Dichloroethylene	U	1.06	ug/kg	0.317	1.06
74-88-4	Iodomethane	U	5.29	ug/kg	1.69	5.29
75-09-2	Methylene chloride	U	5.29	ug/kg	2.11	5.29
75-15-0	Carbon disulfide	U	5.29	ug/kg	1.32	5.29
156-60-5	trans-1,2-Dichloroethylene	U	1.06	ug/kg	0.317	1.06
75-34-3	1,1-Dichloroethane	U	1.06	ug/kg	0.317	1.06
78-93-3	2-Butanone	U	5.29	ug/kg	1.59	5.29
156-59-2	cis-1,2-Dichloroethylene	U	1.06	ug/kg	0.317	1.06
594-20-7	2,2-Dichloropropane	U	1.06	ug/kg	0.317	1.06
67-66-3	Chloroform	U	1.06	ug/kg	0.317	1.06
74-97-5	Bromochloromethane	U	1.06	ug/kg	0.349	1.06
71-55-6	1,1,1-Trichloroethane	U	1.06	ug/kg	0.317	1.06
563-58-6	1,1-Dichloropropene	U	1.06	ug/kg	0.317	1.06
56-23-5	Carbon tetrachloride	U	1.06	ug/kg	0.317	1.06
107-06-2	1,2-Dichloroethane	U	1.06	ug/kg	0.317	1.06
71-43-2	Benzene	U	1.06	ug/kg	0.317	1.06
79-01-6	Trichloroethylene	U	1.06	ug/kg	0.349	1.06
78-87-5	1,2-Dichloropropane	U	1.06	ug/kg	0.317	1.06
75-27-4	Bromodichloromethane	U	1.06	ug/kg	0.317	1.06
74-95-3	Dibromomethane	U	1.06	ug/kg	0.317	1.06
108-10-1	4-Methyl-2-pentanone	U	5.29	ug/kg	1.32	5.29
10061-01-5	cis-1,3-Dichloropropylene	U	1.06	ug/kg	0.317	1.06
108-88-3	Toluene	U	1.06	ug/kg	0.317	1.06
10061-02-6	trans-1,3-Dichloropropylene	U	1.06	ug/kg	0.317	1.06
79-00-5	1,1,2-Trichloroethane	U	1.06	ug/kg	0.317	1.06
591-78-6	2-Hexanone	U	5.29	ug/kg	1.59	5.29
142-28-9	1,3-Dichloropropane	U	1.06	ug/kg	0.317	1.06
127-18-4	Tetrachloroethylene	U	1.06	ug/kg	0.317	1.06
124-48-1	Dibromochloromethane	U	1.06	ug/kg	0.317	1.06
106-93-4	1,2-Dibromoethane	U	1.06	ug/kg	0.317	1.06
108-90-7	Chlorobenzene	U	1.06	ug/kg	0.317	1.06

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1086**	**Date Collected:**	**12/22/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243552008**	**Date Received:**	**12/24/2009 09:30**	**%Moisture:**	**5.4**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14238**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937990**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**01/04/2010 15:35**	**Analyst:**	**RXM4**	**Purge Vol:**	**5 mL**
Prep Date:	**01/04/2010 14:12**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1u114.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.06	ug/kg	0.317	1.06
179601-23-1	m,p-Xylenes	U	2.11	ug/kg	0.317	2.11
95-47-6	o-Xylene	U	1.06	ug/kg	0.317	1.06
100-42-5	Styrene	U	1.06	ug/kg	0.317	1.06
75-25-2	Bromoform	U	1.06	ug/kg	0.317	1.06
79-34-5	1,1,2,2-Tetrachloroethane	U	1.06	ug/kg	0.317	1.06
96-18-4	1,2,3-Trichloropropane	U	1.06	ug/kg	0.317	1.06
108-86-1	Bromobenzene	U	1.06	ug/kg	0.317	1.06
103-65-1	n-Propylbenzene	U	1.06	ug/kg	0.317	1.06
95-49-8	2-Chlorotoluene	U	1.06	ug/kg	0.317	1.06
98-82-8	Isopropylbenzene	U	1.06	ug/kg	0.317	1.06
108-67-8	1,3,5-Trimethylbenzene	U	1.06	ug/kg	0.317	1.06
106-43-4	4-Chlorotoluene	U	1.06	ug/kg	0.317	1.06
98-06-6	tert-Butylbenzene	U	1.06	ug/kg	0.317	1.06
95-63-6	1,2,4-Trimethylbenzene	U	1.06	ug/kg	0.317	1.06
135-98-8	sec-Butylbenzene	U	1.06	ug/kg	0.317	1.06
99-87-6	4-Isopropyltoluene	U	1.06	ug/kg	0.317	1.06
541-73-1	1,3-Dichlorobenzene	U	1.06	ug/kg	0.317	1.06
106-46-7	1,4-Dichlorobenzene	U	1.06	ug/kg	0.317	1.06
104-51-8	n-Butylbenzene	U	1.06	ug/kg	0.317	1.06
96-12-8	1,2-Dibromo-3-chloropropane	U	1.06	ug/kg	0.317	1.06
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.29	ug/kg	1.69	5.29
630-20-6	1,1,1,2-Tetrachloroethane	U	1.06	ug/kg	0.317	1.06
95-50-1	1,2-Dichlorobenzene	U	1.06	ug/kg	0.317	1.06

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Siloxane	18.06	24.6	ug/kg		J
1073-06-9	Benzene, 1-bromo-3-fluoro-	18.38	41.1	ug/kg	95	NJ

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/010410v1/1u114.d
Lab Smp Id: 243552008 Client Smp ID: RE03-09-14238
Inj Date : 04-JAN-2010 15:35
Operator : RXM4 Inst ID: VOA1.i
Smp Info : |243552008|937990|1|VOAF|1|
Misc Info : LANL 5G N/A
Comment :
Method : /chem/VOA1.i/010410v1/VOA1-8260ox-121709.m
Meth Date : 18-Jan-2010 17:56 jeb Quant Type: ISTD
Cal Date : 17-DEC-2009 21:27 Cal File: 1r425.d
Als bottle: 14
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-1086.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	5.39950	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
* 52 Fluorobenzene	96	13.682	13.682	(1.000)	928505	50.0000	
* 76 Chlorobenzene-d5	117	17.152	17.152	(1.000)	764388	50.0000	
* 102 1,4-Dichlorobenzene-d4	152	19.606	19.606	(1.000)	377486	50.0000	
$ 48 1,2-Dichloroethane-d4	65	13.332	13.336	(0.974)	636514	57.3745	60.6
$ 65 Toluene-d8	98	15.509	15.509	(0.904)	1741563	40.8982	43.2
$ 87 Bromofluorobenzene	95	18.386	18.381	(0.938)	770012	50.9673	53.9

ION RATIO REPORT

VOA REPORT

Data file: 1u114.d
Report Date: 01/04/2010 15:53
Lab. ID: 243552008 SampleType: SAMPLE
Injection Date: 04-JAN-2010 15:35
Operator: RXM4 Instrument: VOA1.i
Sample Info: |243552008|973990|1|VOAF|1|
Miscellaneous Info: LANL 5G N/A
Comment:
Method used: /chem/VOA1.i/010410v1/VOA1-8260ox-121709.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-1086
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
51 1,2-Dichloroethane				CAS#: 107-06-2		
62	15916	13.68	13.43	80-120	100	(T)
64	2630	13.68	13.44	2- 62	17	(T)
64 4-Methyl-2-pentanone				CAS#: 108-10-1		
58	17679	15.51	15.35	80-120	100	(T)
43	9723	15.51	15.35	220-280	55	(QT)
100	1137893	15.51	15.35	0- 58	6436	(QT)
108 1,2-Dibromo-3-chloropropane				CAS#: 96-12-8		
157	265	20.98	21.00	80-120	100	( )
155	212	21.00	21.00	48-108	80	( )
75	925	20.99	21.00	91-151	348	(Q)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/010410v1/1u114.d
Lab Smp Id: 243552008 Client Smp ID: RE03-09-14238
Inj Date : 04-JAN-2010 15:35
Operator : RXM4 Inst ID: VOA1.i
Smp Info : |243552008|937990|1|VOAF|1|
Misc Info : LANL 5G N/A
Comment :
Method : /chem/VOA1.i/010410v1/VOA1-8260ox-121709.m
Meth Date : 18-Jan-2010 17:56 jeb Quant Type: ISTD
Cal Date : 17-DEC-2009 21:27 Cal File: 1r425.d
Als bottle: 14
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-1086.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	5.39950	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 76 Chlorobenzene-d5	17.152	2482746	50.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ug/l)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown Siloxane				CAS #:			
18.059	1155543	23.2714602	24.6	0		0	76
Benzene, 1-bromo-3-fluoro-				CAS #: 1073-06-9			
18.377	1928726	38.8426012	41.0	95	NIST05.L	39151	76

Data File: /chem/VOA1.i/010410v1/1u114.d
Date : 04-JAN-2010 15:35
Client ID: RE03-09-14238
Sample Info: |2435520081937990|1|VOAF|1|

Column phase: RTX-Volatiles

Instrument: VOA1.i

Operator: RXM4
Column diameter: 0.25

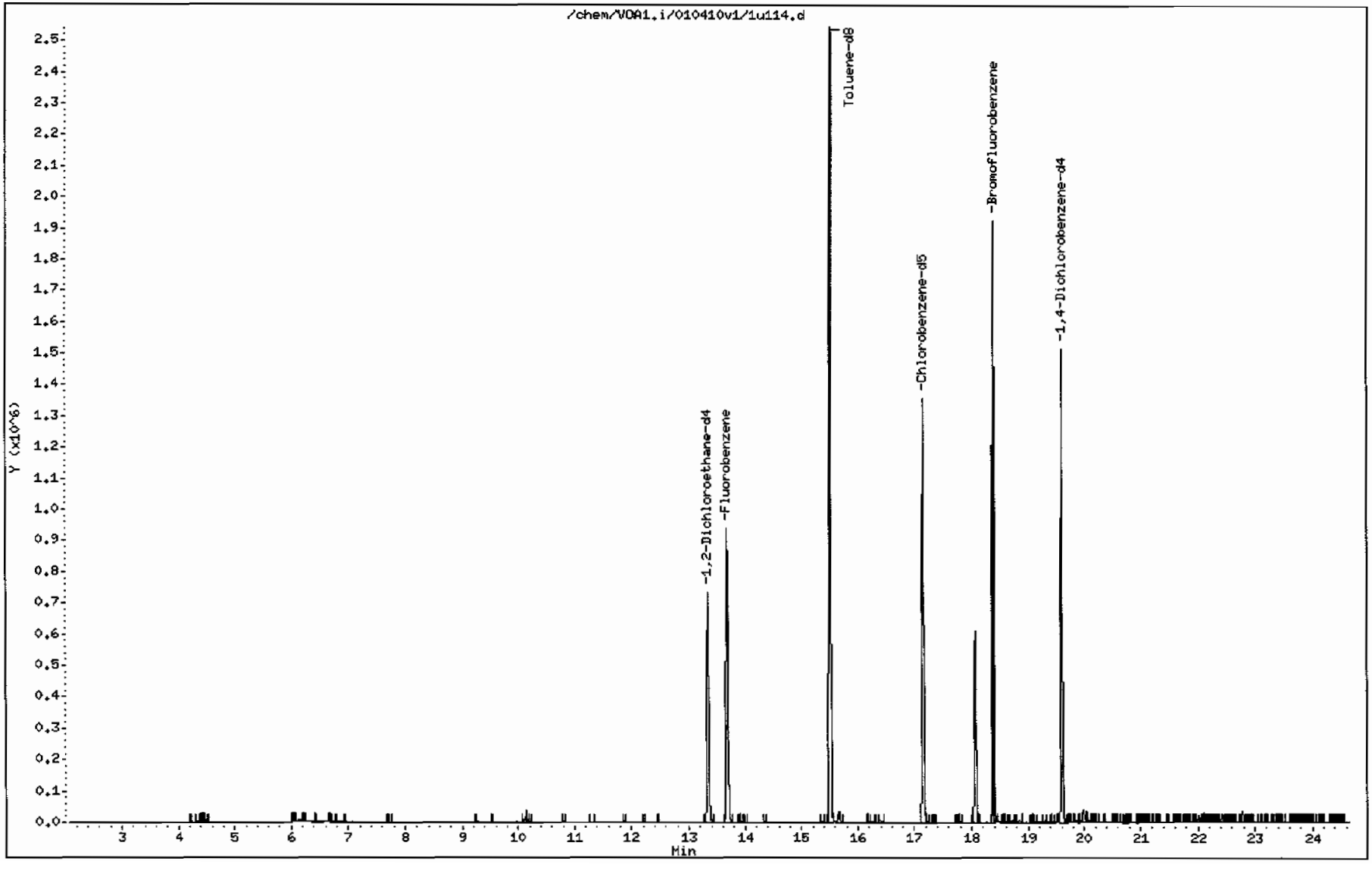

Data File: /chem/VOA1.i/010410v1/1u114.d

Date : 04-JAN-2010 15:35

Client ID: RE03-09-14238

Instrument: VOA1.i

Sample Info: |2435520081937990|1|VOAF|1|

Operator: RXM4

Column phase: RTX-Volatiles

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Siloxane						
Cyclotrisiloxane, hexamethyl-	541-05-9	NIST05.L	73123	27	C6H18O3Si3	222
Anthracene, 9,10-dihydro-9,10-dimethyl-	22566-43-4	NIST05.L	63100	25	C16H16	208
Trisiloxane, 1,1,3,3,5,5-hexamethyl-	1189-93-1	NIST05.L	63149	22	C6H20O2Si3	208

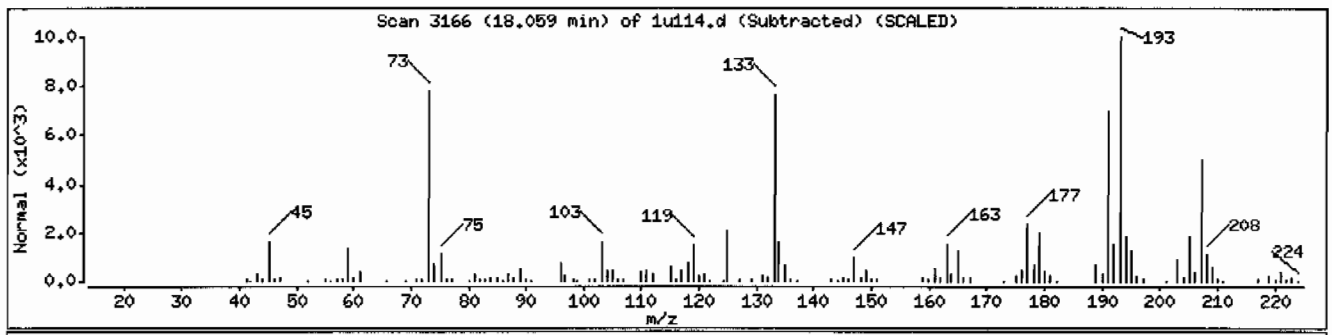

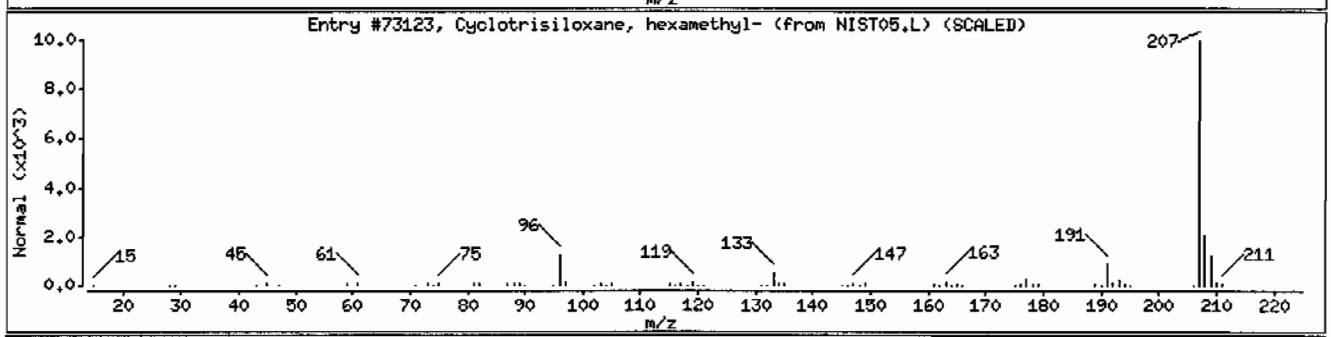

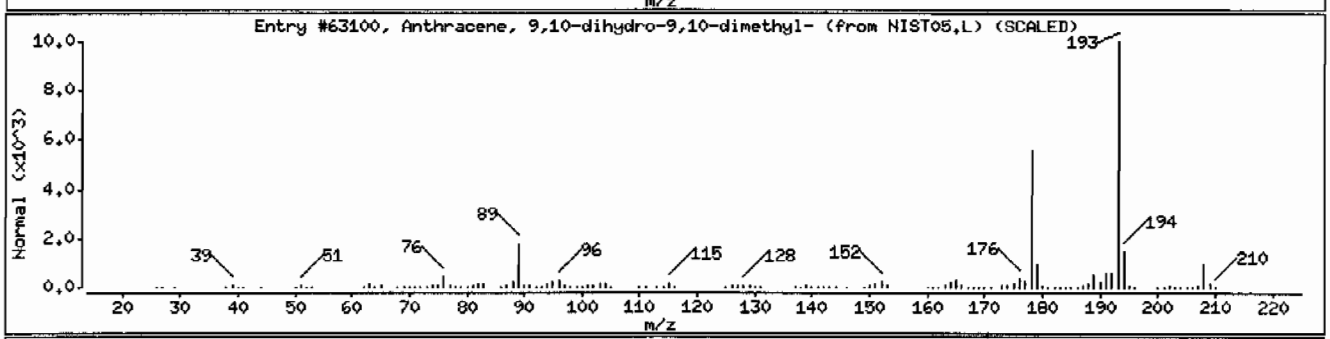

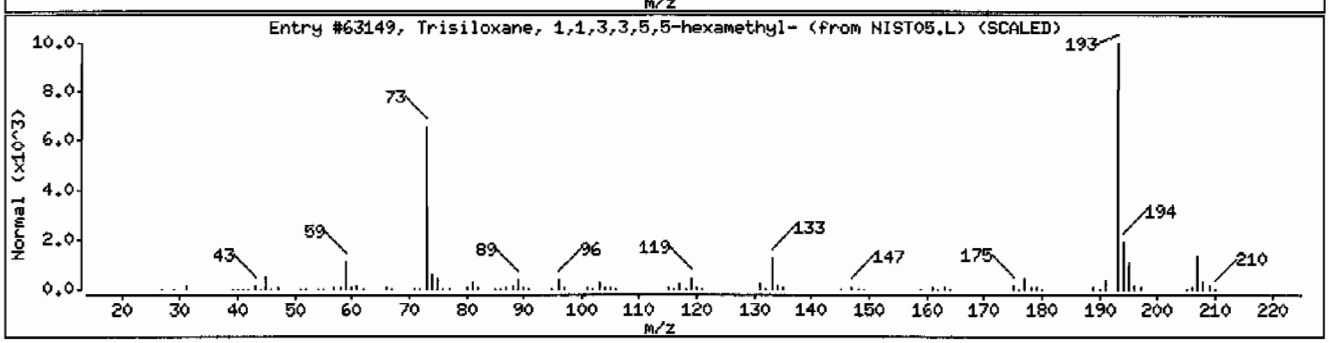

Data File: /chem/VOA1.i/010410v1/1u114.d

Date : 04-JAN-2010 15:35

Client ID: RE03-09-14238

Instrument: VOA1.i

Sample Info: |243552008|937990|1|VOAF|1|

Operator: RXM4

Column phase: RTX-Volatiles

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Benzene, 1-bromo-3-fluoro-	1073-06-9	NIST05.L	39151	95	C6H4BrF	174
Benzene, 1-bromo-2-fluoro-	1072-85-1	NIST05.L	39153	94	C6H4BrF	174
p-Bromofluorobenzene	460-00-4	NIST05.L	39148	94	C6H4BrF	174

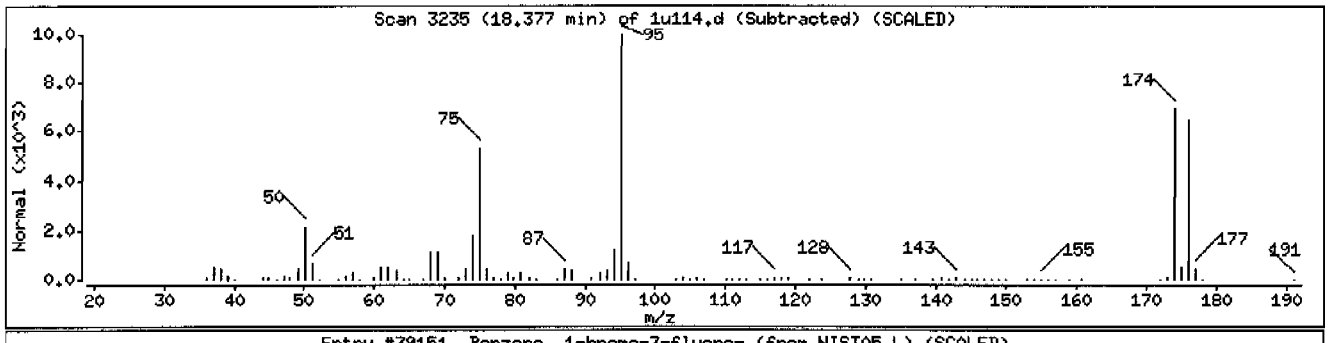

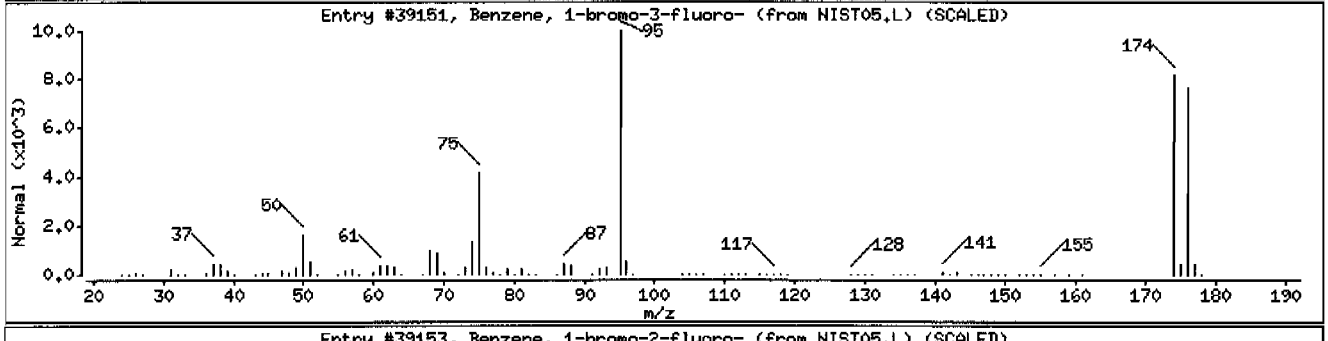

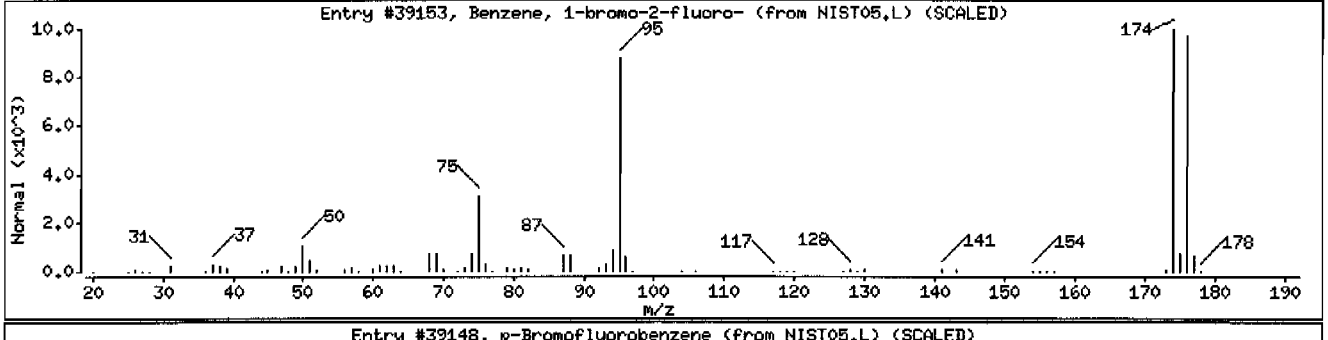

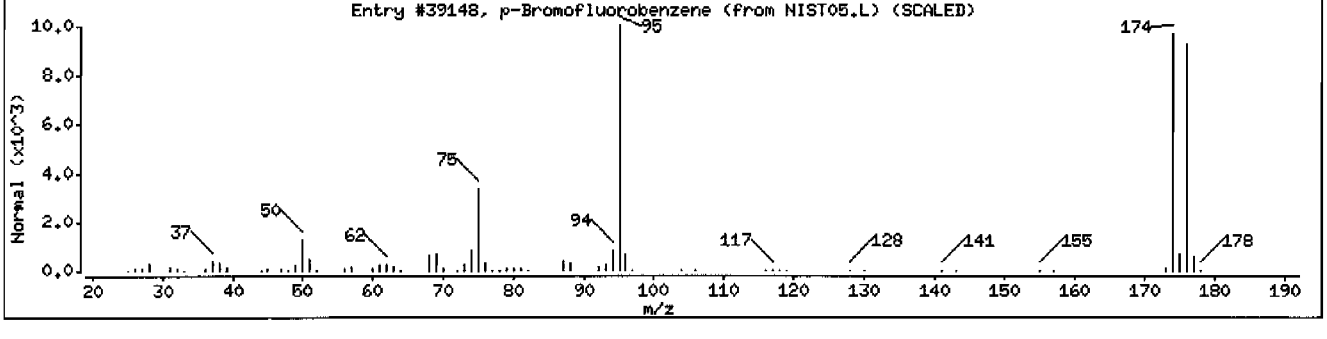

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1086**	**Date Collected:**	**12/22/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243552003**	**Date Received:**	**12/24/2009 09:30**	**%Moisture:**	**5.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14239**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937990**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**12/31/2009 14:10**	**Analyst:**	**RXM4**	**Purge Vol:**	**5 mL**
Prep Date:	**12/31/2009 11:53**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1t409.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.06	ug/kg	0.360	1.06
74-87-3	Chloromethane	U	1.06	ug/kg	0.317	1.06
75-01-4	Vinyl chloride	U	1.06	ug/kg	0.317	1.06
74-83-9	Bromomethane	U	1.06	ug/kg	0.317	1.06
75-00-3	Chloroethane	U	1.06	ug/kg	0.317	1.06
75-69-4	Trichlorofluoromethane	U	1.06	ug/kg	0.317	1.06
67-64-1	Acetone	U	5.29	ug/kg	1.76	5.29
75-35-4	1,1-Dichloroethylene	U	1.06	ug/kg	0.317	1.06
74-88-4	Iodomethane	U	5.29	ug/kg	1.69	5.29
75-09-2	Methylene chloride	U	5.29	ug/kg	2.12	5.29
75-15-0	Carbon disulfide	U	5.29	ug/kg	1.32	5.29
156-60-5	trans-1,2-Dichloroethylene	U	1.06	ug/kg	0.317	1.06
75-34-3	1,1-Dichloroethane	U	1.06	ug/kg	0.317	1.06
78-93-3	2-Butanone	U	5.29	ug/kg	1.59	5.29
156-59-2	cis-1,2-Dichloroethylene	U	1.06	ug/kg	0.317	1.06
594-20-7	2,2-Dichloropropane	U	1.06	ug/kg	0.317	1.06
67-66-3	Chloroform	U	1.06	ug/kg	0.317	1.06
74-97-5	Bromochloromethane	U	1.06	ug/kg	0.349	1.06
71-55-6	1,1,1-Trichloroethane	U	1.06	ug/kg	0.317	1.06
563-58-6	1,1-Dichloropropene	U	1.06	ug/kg	0.317	1.06
56-23-5	Carbon tetrachloride	U	1.06	ug/kg	0.317	1.06
107-06-2	1,2-Dichloroethane	U	1.06	ug/kg	0.317	1.06
71-43-2	Benzene	U	1.06	ug/kg	0.317	1.06
79-01-6	Trichloroethylene	U	1.06	ug/kg	0.349	1.06
78-87-5	1,2-Dichloropropane	U	1.06	ug/kg	0.317	1.06
75-27-4	Bromodichloromethane	U	1.06	ug/kg	0.317	1.06
74-95-3	Dibromomethane	U	1.06	ug/kg	0.317	1.06
108-10-1	4-Methyl-2-pentanone	U	5.29	ug/kg	1.32	5.29
10061-01-5	cis-1,3-Dichloropropylene	U	1.06	ug/kg	0.317	1.06
108-88-3	Toluene	U	1.06	ug/kg	0.317	1.06
10061-02-6	trans-1,3-Dichloropropylene	U	1.06	ug/kg	0.317	1.06
79-00-5	1,1,2-Trichloroethane	U	1.06	ug/kg	0.317	1.06
591-78-6	2-Hexanone	U	5.29	ug/kg	1.59	5.29
142-28-9	1,3-Dichloropropane	U	1.06	ug/kg	0.317	1.06
127-18-4	Tetrachloroethylene	U	1.06	ug/kg	0.317	1.06
124-48-1	Dibromochloromethane	U	1.06	ug/kg	0.317	1.06
106-93-4	1,2-Dibromoethane	U	1.06	ug/kg	0.317	1.06
108-90-7	Chlorobenzene	U	1.06	ug/kg	0.317	1.06

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1086**	**Date Collected:**	**12/22/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243552003**	**Date Received:**	**12/24/2009 09:30**	**%Moisture:**	**5.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14239**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937990**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**12/31/2009 14:10**	**Analyst:**	**RXM4**	**Purge Vol:**	**5 mL**
Prep Date:	**12/31/2009 11:53**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1t409.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.06	ug/kg	0.317	1.06
179601-23-1	m,p-Xylenes	U	2.12	ug/kg	0.317	2.12
95-47-6	o-Xylene	U	1.06	ug/kg	0.317	1.06
100-42-5	Styrene	U	1.06	ug/kg	0.317	1.06
75-25-2	Bromoform	U	1.06	ug/kg	0.317	1.06
79-34-5	1,1,2,2-Tetrachloroethane	U	1.06	ug/kg	0.317	1.06
96-18-4	1,2,3-Trichloropropane	U	1.06	ug/kg	0.317	1.06
108-86-1	Bromobenzene	U	1.06	ug/kg	0.317	1.06
103-65-1	n-Propylbenzene	U	1.06	ug/kg	0.317	1.06
95-49-8	2-Chlorotoluene	U	1.06	ug/kg	0.317	1.06
98-82-8	Isopropylbenzene	U	1.06	ug/kg	0.317	1.06
108-67-8	1,3,5-Trimethylbenzene	U	1.06	ug/kg	0.317	1.06
106-43-4	4-Chlorotoluene	U	1.06	ug/kg	0.317	1.06
98-06-6	tert-Butylbenzene	U	1.06	ug/kg	0.317	1.06
95-63-6	1,2,4-Trimethylbenzene	U	1.06	ug/kg	0.317	1.06
135-98-8	sec-Butylbenzene	U	1.06	ug/kg	0.317	1.06
99-87-6	4-Isopropyltoluene	U	1.06	ug/kg	0.317	1.06
541-73-1	1,3-Dichlorobenzene	U	1.06	ug/kg	0.317	1.06
106-46-7	1,4-Dichlorobenzene	U	1.06	ug/kg	0.317	1.06
104-51-8	n-Butylbenzene	U	1.06	ug/kg	0.317	1.06
96-12-8	1,2-Dibromo-3-chloropropane	U	1.06	ug/kg	0.317	1.06
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.29	ug/kg	1.69	5.29
630-20-6	1,1,1,2-Tetrachloroethane	U	1.06	ug/kg	0.317	1.06
95-50-1	1,2-Dichlorobenzene	U	1.06	ug/kg	0.317	1.06

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
66-25-1	Hexanal	16.39	15.7	ug/kg	90	NJ
	Unknown Siloxane	18.06	32.5	ug/kg		J

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/123109v1/1t409.d
Lab Smp Id: 243552003 Client Smp ID: RE03-09-14239
Inj Date : 31-DEC-2009 14:10
Operator : RXM4 Inst ID: VOA1.i
Smp Info : |243552003|937990|1|VOAF|1|
Misc Info : LANL 5G N/A
Comment :
Method : /chem/VOA1.i/123109v1/VOA1-8260ox-121709.m
Meth Date : 18-Jan-2010 17:56 jeb Quant Type: ISTD
Cal Date : 17-DEC-2009 21:27 Cal File: 1r425.d
Als bottle: 9
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-1086.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	5.46650	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
* 52 Fluorobenzene	96	13.682	13.682	(1.000)	907150	50.0000	
* 76 Chlorobenzene-d5	117	17.157	17.157	(1.000)	680096	50.0000	
* 102 1,4-Dichlorobenzene-d4	152	19.606	19.606	(1.000)	380001	50.0000	
$ 48 1,2-Dichloroethane-d4	65	13.337	13.336	(0.975)	607352	56.0347	59.3
$ 65 Toluene-d8	98	15.514	15.514	(0.904)	1765918	46.6100	49.3
$ 87 Bromofluorobenzene	95	18.382	18.386	(0.938)	741856	48.7786	51.6

ION RATIO REPORT

VOA REPORT

Data file: 1t409.d
Report Date: 12/31/2009 14:35
Lab. ID: 243552003 SampleType: SAMPLE
Injection Date: 31-DEC-2009 14:10
Operator: RXM4 Instrument: VOA1.i
Sample Info: |243552003|973990|1|VOAF|1|
Miscellaneous Info: LANL 5G N/A
Comment:
Method used: /chem/VOA1.i/123109v1/VOA1-8260ox-121709.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-1086
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
51 1,2-Dichloroethane			CAS#: 107-06-2			
62	15185	13.69	13.44	80-120	100	(T)
64	2719	13.68	13.44	2- 62	18	(T)
64 4-Methyl-2-pentanone			CAS#: 108-10-1			
58	17726	15.51	15.35	80-120	100	(T)
43	9458	15.51	15.35	223-283	53	(QT)
100	1144747	15.51	15.36	0- 60	6458	(QT)
69 1,1,2-Trichloroethane			CAS#: 79-00-5			
83	1966	16.38	16.10	80-120	100	(T)
97	258	15.68	16.10	84-144	13	(QT)
85	424	16.39	16.10	34- 94	22	(QT)
71 2-Hexanone			CAS#: 591-78-6			
43	66815	16.39	16.26	80-120	100	(T)
58	11141	16.39	16.26	25- 85	17	(QT)
82 Styrene			CAS#: 100-42-5			
104	7999	18.06	17.80	80-120	100	(T)
78	342	17.81	17.80	28- 88	4	(Q)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/123109v1/1t409.d
Lab Smp Id: 243552003 Client Smp ID: RE03-09-14239
Inj Date : 31-DEC-2009 14:10
Operator : RXM4 Inst ID: VOA1.i
Smp Info : |243552003|937990|1|VOAF|1|
Misc Info : LANL 5G N/A
Comment :
Method : /chem/VOA1.i/123109v1/VOA1-8260ox-121709.m
Meth Date : 18-Jan-2010 17:56 jeb Quant Type: ISTD
Cal Date : 17-DEC-2009 21:27 Cal File: 1r425.d
Als bottle: 9
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-1086.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	5.46650	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 76 Chlorobenzene-d5	17.157	2253944	50.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ug/l)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Hexanal				CAS #: 66-25-1			
16.388	668139	14.8215488	15.7	90	NIST05.L	3688	76
Unknown Siloxane				CAS #:			
18.064	1383729	30.6957182	32.5	0		0	76

Data File: /chem/VOA1.i/123109v1/1t409.d
Date : 31-DEC-2009 14:10
Client ID: RE03-09-14239
Sample Info: |2435520031937990|1|VOAF|1|

Column phase: RTX-Volatiles

Instrument: VOA1.i

Operator: RXM4
Column diameter: 0.25

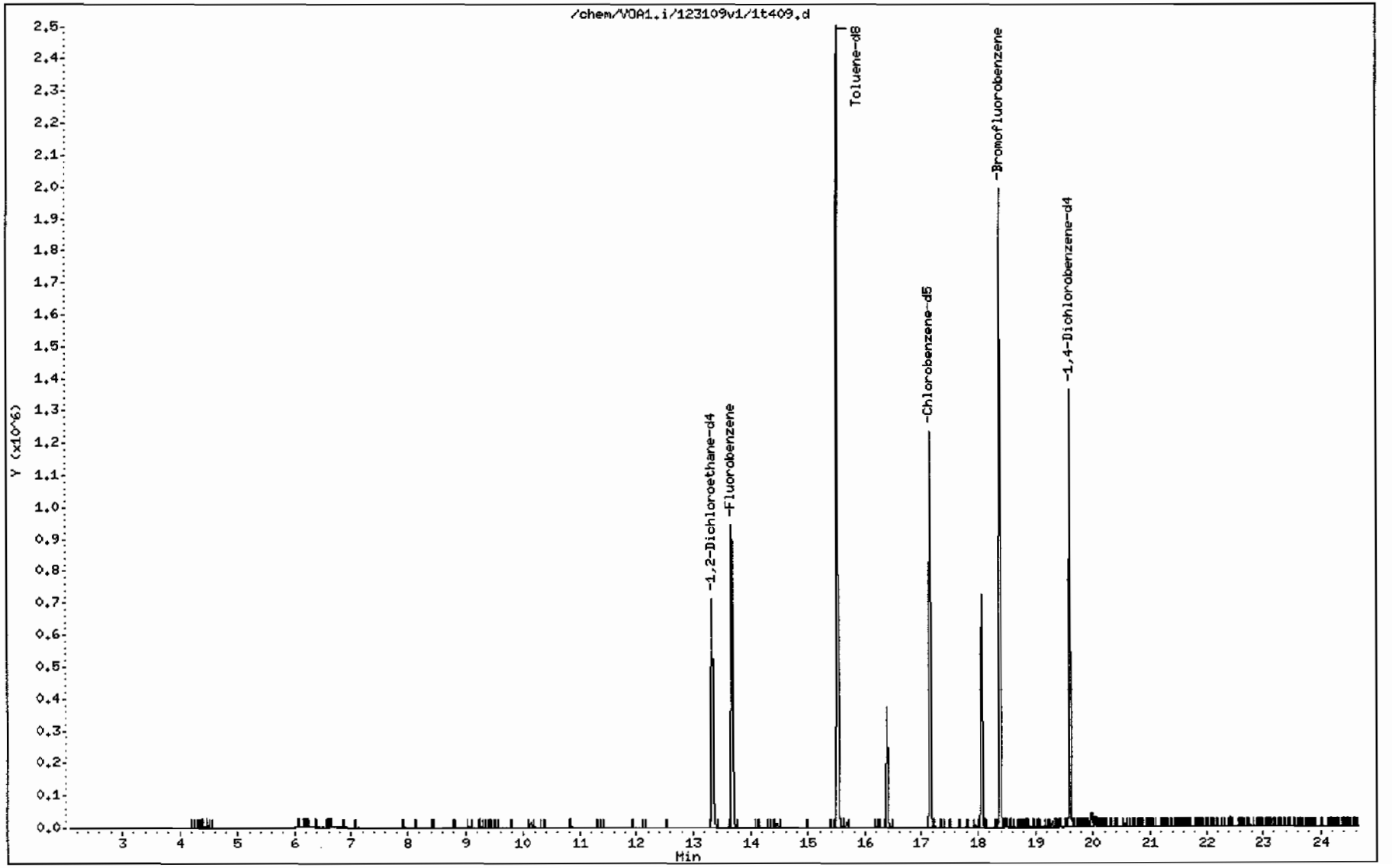

Data File: /chem/VOA1.i/123109v1/1t409.d

Date : 31-DEC-2009 14:10

Client ID: RE03-09-14239

Instrument: VOA1.i

Sample Info: |2435520031937990|1|VOAF|1|

Operator: RXM4

Column phase: RTX-Volatiles

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Hexanal	66-25-1	NIST05.L	3688	90	C6H12O	100
Hexanal	66-25-1	NIST05.L	3689	86	C6H12O	100
Hexanal	66-25-1	NIST05.L	3684	80	C6H12O	100

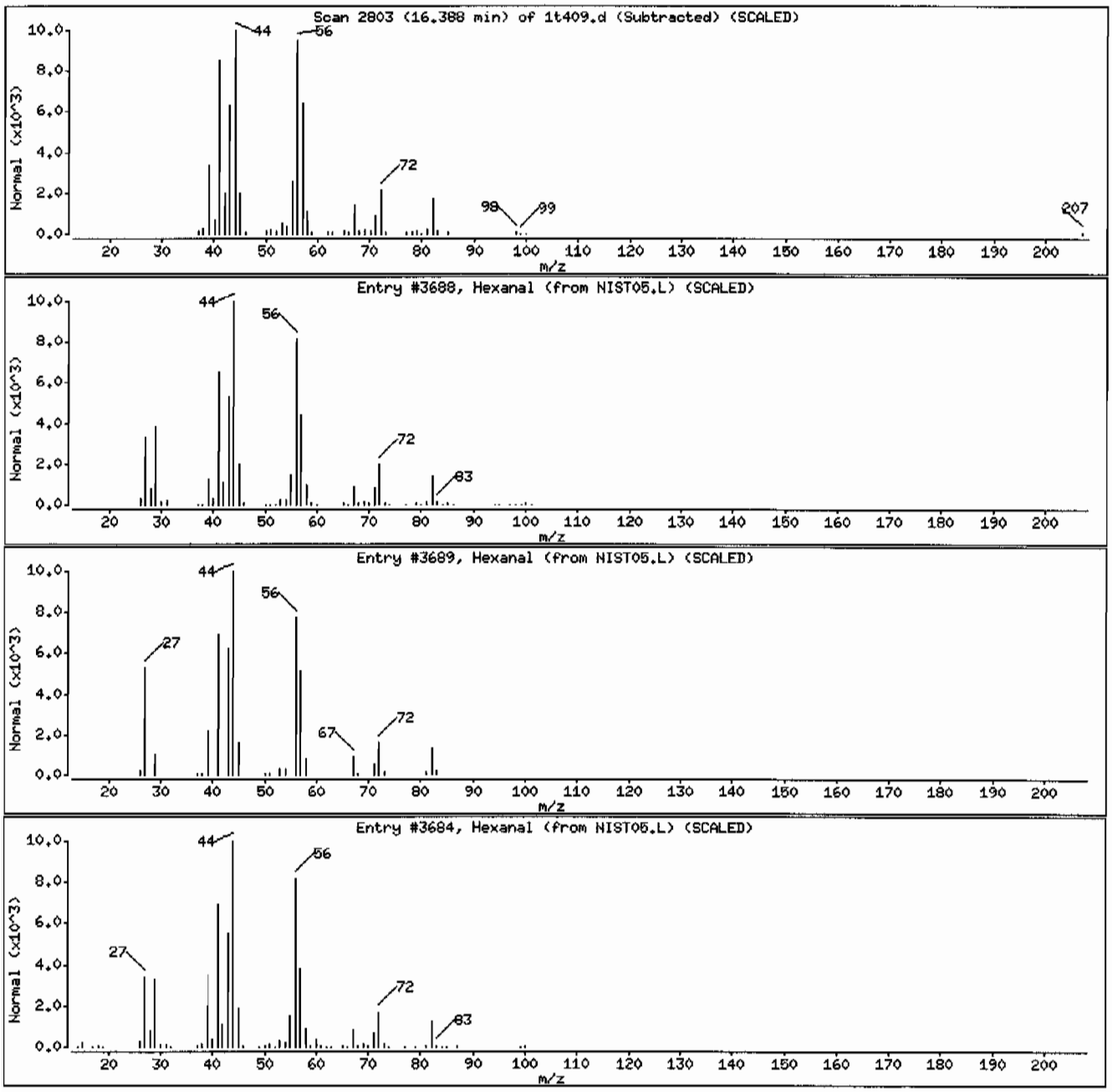

Data File: /chem/VOA1.i/123109v1/1t409.d

Date : 31-DEC-2009 14:10

Client ID: RE03-09-14239

Instrument: VOA1.i

Sample Info: |2435520031937990|1|VOAF|1|

Operator: RXM4

Column phase: RTX-Volatiles

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Siloxane						
Trisiloxane, 1,1,3,3,5,5-hexamethyl-	1189-93-1	NIST05.L	63148	35	C6H20O2Si3	208
Anthracene, 9,10-dihydro-9,10-dimethyl-	22566-43-4	NIST05.L	63100	30	C16H16	208
Trisiloxane, 1,1,3,3,5,5-hexamethyl-	1189-93-1	NIST05.L	63149	27	C6H20O2Si3	208

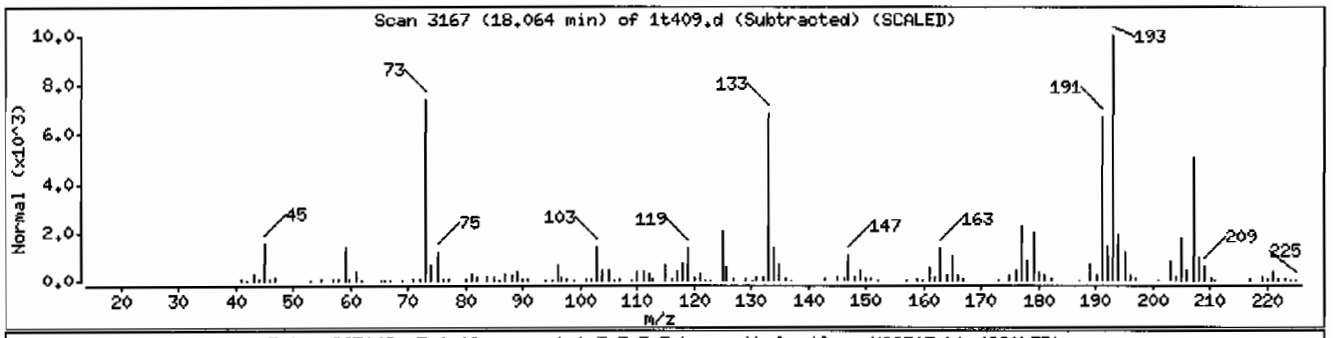

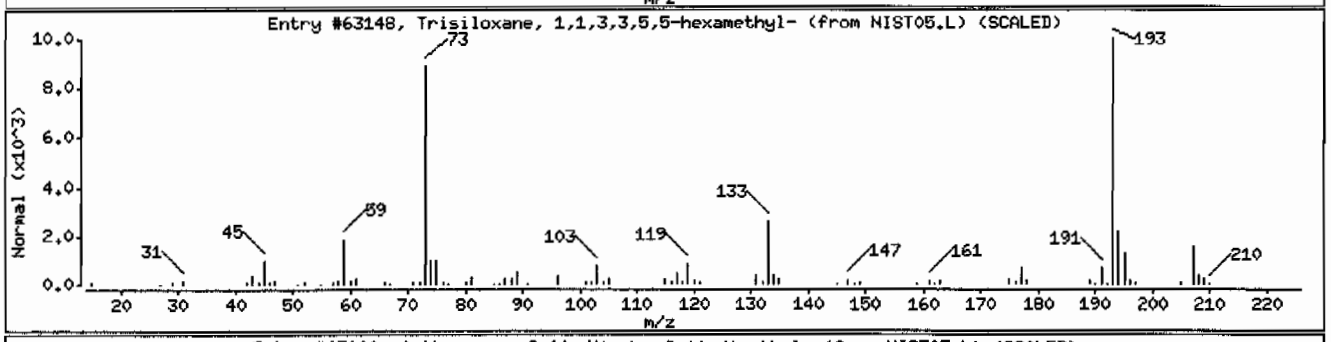

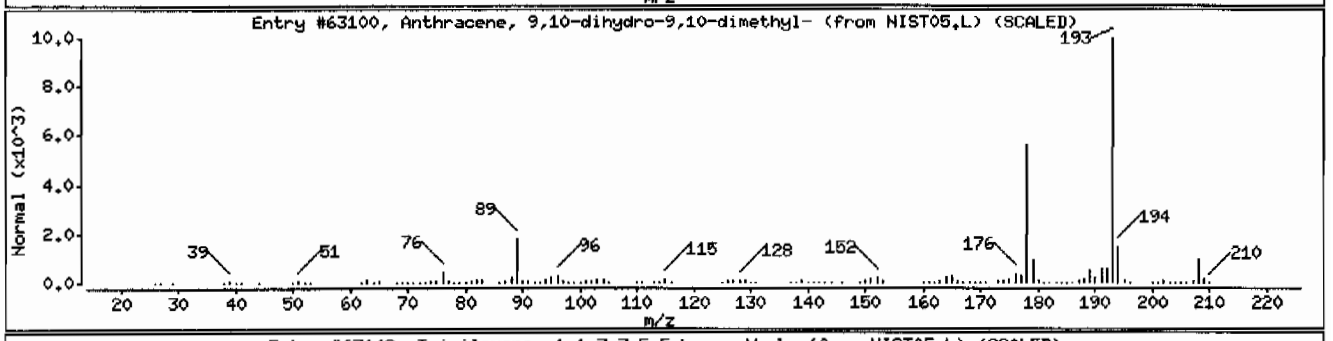

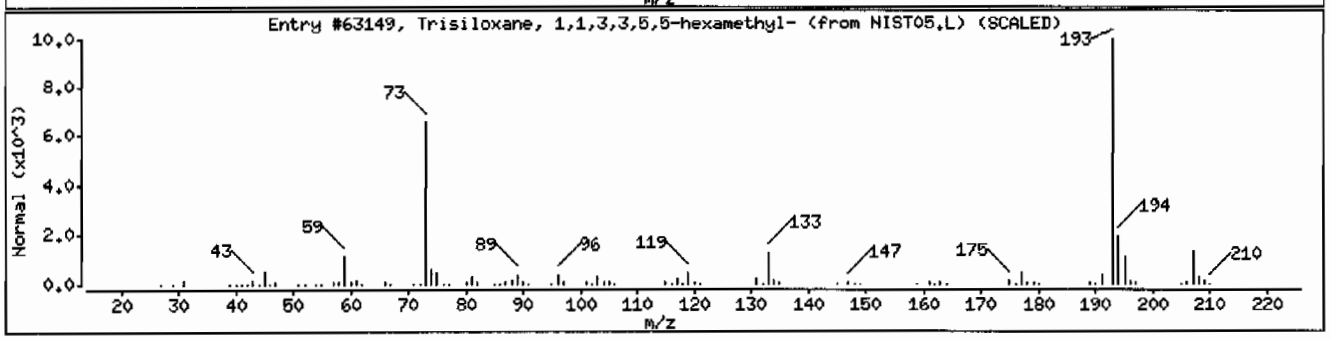

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1086	Date Collected:	12/22/2009 12:00	Matrix:	S
Lab Sample ID:	243552004	Date Received:	12/24/2009 09:30	%Moisture:	5.4
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14240	Method:	SW846 8260B	SOP Ref:	GL-OA-E-038
Batch ID:	937990	Inst:	VOA1.I	Dilution:	1
Run Date:	12/31/2009 14:40	Analyst:	RXM4	Purge Vol:	5 mL
Prep Date:	12/31/2009 11:54	Aliquot:	5 g	Final Volume:	5 mL
Data File:	1t410.d	Column:	RTX-Volatiles	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.06	ug/kg	0.359	1.06
74-87-3	Chloromethane	U	1.06	ug/kg	0.317	1.06
75-01-4	Vinyl chloride	U	1.06	ug/kg	0.317	1.06
74-83-9	Bromomethane	U	1.06	ug/kg	0.317	1.06
75-00-3	Chloroethane	U	1.06	ug/kg	0.317	1.06
75-69-4	Trichlorofluoromethane	U	1.06	ug/kg	0.317	1.06
67-64-1	Acetone	U	5.29	ug/kg	1.76	5.29
75-35-4	1,1-Dichloroethylene	U	1.06	ug/kg	0.317	1.06
74-88-4	Iodomethane	U	5.29	ug/kg	1.69	5.29
75-09-2	Methylene chloride	U	5.29	ug/kg	2.11	5.29
75-15-0	Carbon disulfide	U	5.29	ug/kg	1.32	5.29
156-60-5	trans-1,2-Dichloroethylene	U	1.06	ug/kg	0.317	1.06
75-34-3	1,1-Dichloroethane	U	1.06	ug/kg	0.317	1.06
78-93-3	2-Butanone	U	5.29	ug/kg	1.59	5.29
156-59-2	cis-1,2-Dichloroethylene	U	1.06	ug/kg	0.317	1.06
594-20-7	2,2-Dichloropropane	U	1.06	ug/kg	0.317	1.06
67-66-3	Chloroform	U	1.06	ug/kg	0.317	1.06
74-97-5	Bromochloromethane	U	1.06	ug/kg	0.349	1.06
71-55-6	1,1,1-Trichloroethane	U	1.06	ug/kg	0.317	1.06
563-58-6	1,1-Dichloropropene	U	1.06	ug/kg	0.317	1.06
56-23-5	Carbon tetrachloride	U	1.06	ug/kg	0.317	1.06
107-06-2	1,2-Dichloroethane	U	1.06	ug/kg	0.317	1.06
71-43-2	Benzene	U	1.06	ug/kg	0.317	1.06
79-01-6	Trichloroethylene	U	1.06	ug/kg	0.349	1.06
78-87-5	1,2-Dichloropropane	U	1.06	ug/kg	0.317	1.06
75-27-4	Bromodichloromethane	U	1.06	ug/kg	0.317	1.06
74-95-3	Dibromomethane	U	1.06	ug/kg	0.317	1.06
108-10-1	4-Methyl-2-pentanone	U	5.29	ug/kg	1.32	5.29
10061-01-5	cis-1,3-Dichloropropylene	U	1.06	ug/kg	0.317	1.06
108-88-3	Toluene	U	1.06	ug/kg	0.317	1.06
10061-02-6	trans-1,3-Dichloropropylene	U	1.06	ug/kg	0.317	1.06
79-00-5	1,1,2-Trichloroethane	U	1.06	ug/kg	0.317	1.06
591-78-6	2-Hexanone	U	5.29	ug/kg	1.59	5.29
142-28-9	1,3-Dichloropropane	U	1.06	ug/kg	0.317	1.06
127-18-4	Tetrachloroethylene	U	1.06	ug/kg	0.317	1.06
124-48-1	Dibromochloromethane	U	1.06	ug/kg	0.317	1.06
106-93-4	1,2-Dibromoethane	U	1.06	ug/kg	0.317	1.06
108-90-7	Chlorobenzene	U	1.06	ug/kg	0.317	1.06

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1086	**Date Collected:**	12/22/2009 12:00	**Matrix:**	S
Lab Sample ID:	243552004	**Date Received:**	12/24/2009 09:30	**%Moisture:**	5.4
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14240	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	937990	**Inst:**	VOA1.I	**Dilution:**	1
Run Date:	12/31/2009 14:40	**Analyst:**	RXM4	**Purge Vol:**	5 mL
Prep Date:	12/31/2009 11:54	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	1t410.d	**Column:**	RTX-Volatiles	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.06	ug/kg	0.317	1.06
179601-23-1	m,p-Xylenes	U	2.11	ug/kg	0.317	2.11
95-47-6	o-Xylene	U	1.06	ug/kg	0.317	1.06
100-42-5	Styrene	U	1.06	ug/kg	0.317	1.06
75-25-2	Bromoform	U	1.06	ug/kg	0.317	1.06
79-34-5	1,1,2,2-Tetrachloroethane	U	1.06	ug/kg	0.317	1.06
96-18-4	1,2,3-Trichloropropane	U	1.06	ug/kg	0.317	1.06
108-86-1	Bromobenzene	U	1.06	ug/kg	0.317	1.06
103-65-1	n-Propylbenzene	U	1.06	ug/kg	0.317	1.06
95-49-8	2-Chlorotoluene	U	1.06	ug/kg	0.317	1.06
98-82-8	Isopropylbenzene	U	1.06	ug/kg	0.317	1.06
108-67-8	1,3,5-Trimethylbenzene	U	1.06	ug/kg	0.317	1.06
106-43-4	4-Chlorotoluene	U	1.06	ug/kg	0.317	1.06
98-06-6	tert-Butylbenzene	U	1.06	ug/kg	0.317	1.06
95-63-6	1,2,4-Trimethylbenzene	U	1.06	ug/kg	0.317	1.06
135-98-8	sec-Butylbenzene	U	1.06	ug/kg	0.317	1.06
99-87-6	4-Isopropyltoluene	U	1.06	ug/kg	0.317	1.06
541-73-1	1,3-Dichlorobenzene	U	1.06	ug/kg	0.317	1.06
106-46-7	1,4-Dichlorobenzene	U	1.06	ug/kg	0.317	1.06
104-51-8	n-Butylbenzene	U	1.06	ug/kg	0.317	1.06
96-12-8	1,2-Dibromo-3-chloropropane	U	1.06	ug/kg	0.317	1.06
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.29	ug/kg	1.69	5.29
630-20-6	1,1,1,2-Tetrachloroethane	U	1.06	ug/kg	0.317	1.06
95-50-1	1,2-Dichlorobenzene	U	1.06	ug/kg	0.317	1.06

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Siloxane	18.06	17.7	ug/kg		J

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VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/123109v1/1t410.d
Lab Smp Id: 243552004 Client Smp ID: RE03-09-14240
Inj Date : 31-DEC-2009 14:40
Operator : RXM4 Inst ID: VOA1.i
Smp Info : |243552004|937990|1|VOAF|1|
Misc Info : LANL 5G N/A
Comment :
Method : /chem/VOA1.i/123109v1/VOA1-8260ox-121709.m
Meth Date : 18-Jan-2010 17:56 jeb Quant Type: ISTD
Cal Date : 17-DEC-2009 21:27 Cal File: 1r425.d
Als bottle: 10
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-1086.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	5.41730	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
* 52 Fluorobenzene	96	13.682	13.682	(1.000)	920516	50.0000	
* 76 Chlorobenzene-d5	117	17.157	17.157	(1.000)	675879	50.0000	
* 102 1,4-Dichlorobenzene-d4	152	19.606	19.606	(1.000)	367347	50.0000	
$ 48 1,2-Dichloroethane-d4	65	13.336	13.336	(0.975)	600066	54.5586	57.7
$ 65 Toluene-d8	98	15.514	15.514	(0.904)	1748507	46.4384	49.1
$ 87 Bromofluorobenzene	95	18.386	18.386	(0.938)	726916	49.4427	52.3

ION RATIO REPORT

VOA REPORT

Data file: 1t410.d
Report Date: 12/31/2009 15:00
Lab. ID: 243552004 SampleType: SAMPLE
Injection Date: 31-DEC-2009 14:40
Operator: RXM4 Instrument: VOA1.i
Sample Info: |243552004|973990|1|VOAF|1|
Miscellaneous Info: LANL 5G N/A
Comment:
Method used: /chem/VOA1.i/123109v1/VOA1-8260ox-121709.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-1086
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
51 1,2-Dichloroethane				CAS#: 107-06-2		
62	14934	13.68	13.44	80-120	100	(T)
64	2621	13.68	13.44	2- 62	18	(T)
64 4-Methyl-2-pentanone				CAS#: 108-10-1		
58	16955	15.52	15.35	80-120	100	(T)
43	9289	15.51	15.35	223-283	55	(QT)
100	1125855	15.51	15.36	0- 60	6640	(QT)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/123109v1/1t410.d
Lab Smp Id: 243552004 Client Smp ID: RE03-09-14240
Inj Date : 31-DEC-2009 14:40
Operator : RXM4 Inst ID: VOA1.i
Smp Info : |243552004|937990|1|VOAF|1|
Misc Info : LANL 5G N/A
Comment :
Method : /chem/VOA1.i/123109v1/VOA1-8260ox-121709.m
Meth Date : 18-Jan-2010 17:56 jeb Quant Type: ISTD
Cal Date : 17-DEC-2009 21:27 Cal File: 1r425.d
Als bottle: 10
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-1086.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	5.41730	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 76 Chlorobenzene-d5	17.157	2215693	50.000

	CONCENTRATIONS				QUANT		
RT	AREA	ON-COL(ug/l)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown Siloxane					CAS #:		
18.064	740308	16.7060062	17.7	0		0	76

Data File: /chem/VOA1.i/123109v1/1t410.d
Date : 31-DEC-2009 14:40
Client ID: RE03-09-14240
Sample Info: |2435520041937990|1|VOAF|1|

Column phase: RTX-Volatiles

Instrument: VOA1.i

Operator: RXM4
Column diameter: 0.25

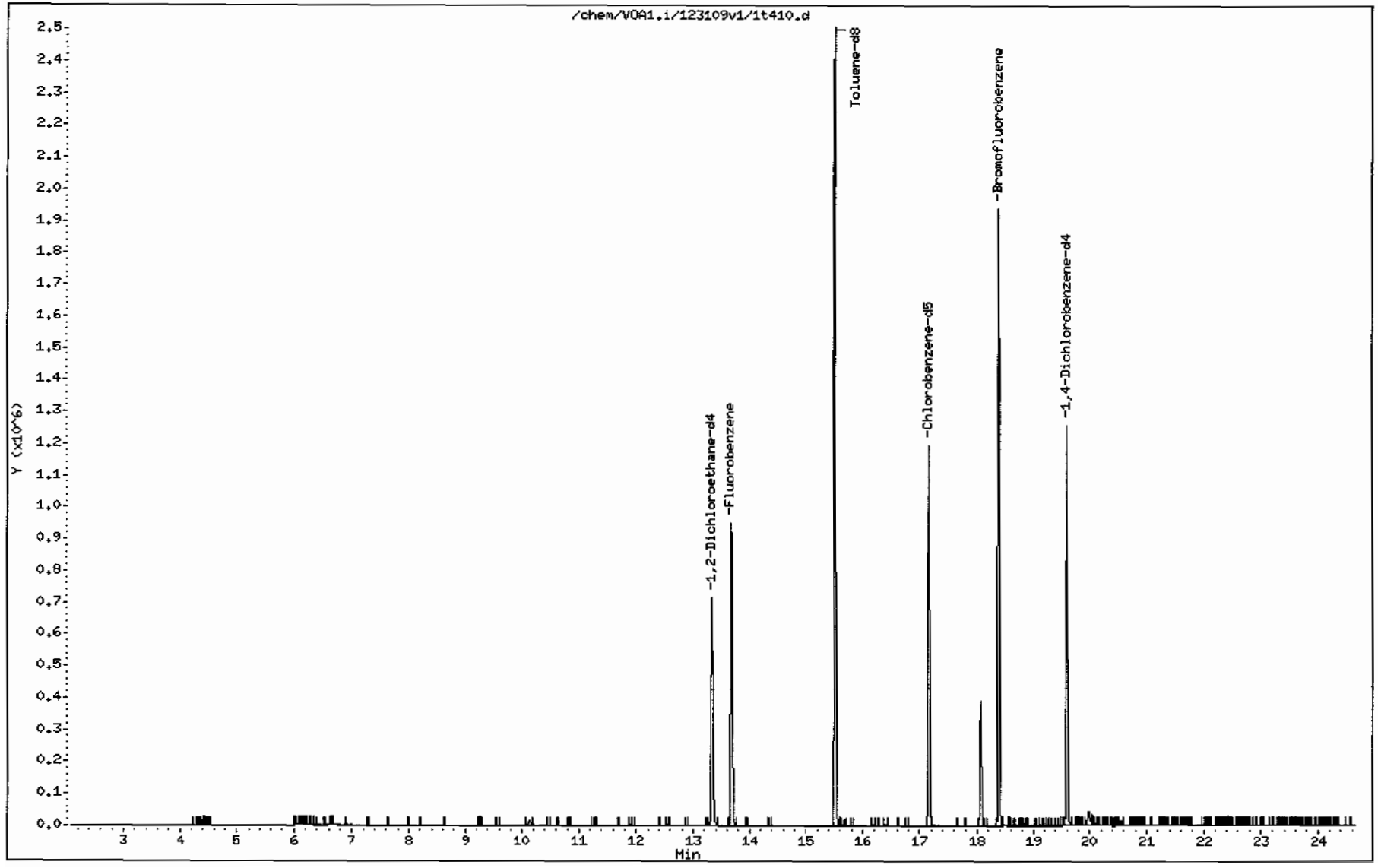

Data File: /chem/VOA1.i/123109v1/1t410.d

Date : 31-DEC-2009 14:40

Client ID: RE03-09-14240

Instrument: VOA1.i

Sample Info: |2435520041937990|1|VOAF|1|

Operator: RXM4

Column phase: RTX-Volatiles

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Siloxane						
Trisiloxane, 1,1,3,3,5,5-hexamethyl-	1189-93-1	NIST05.L	63149	27	C6H20O2Si3	208
Anthracene, 9,10-dihydro-9,10-dimethyl-	22566-43-4	NIST05.L	63100	25	C16H16	208
6-Methylphenanthridine	3955-65-5	NIST05.L	52077	22	C14H11N	193

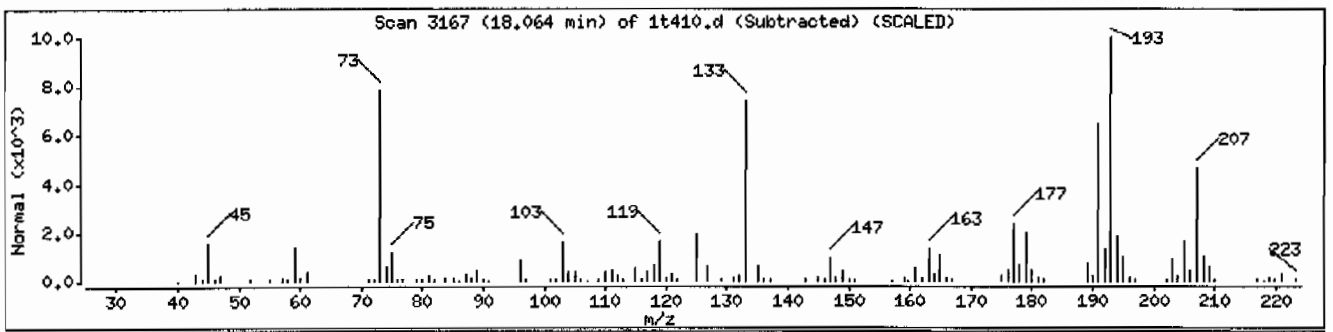

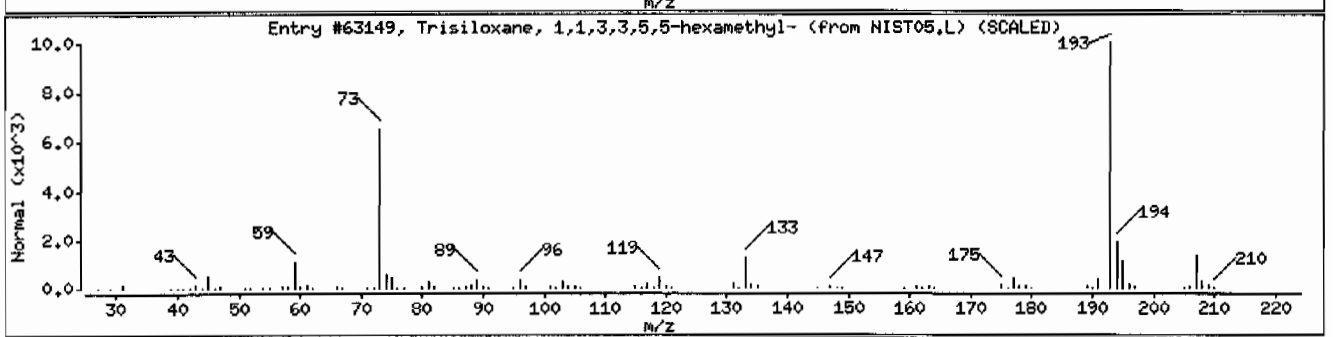

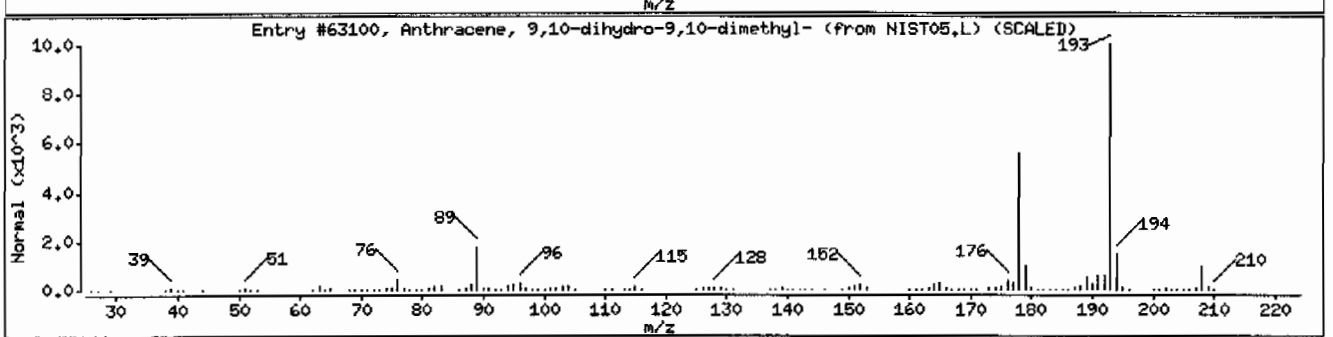

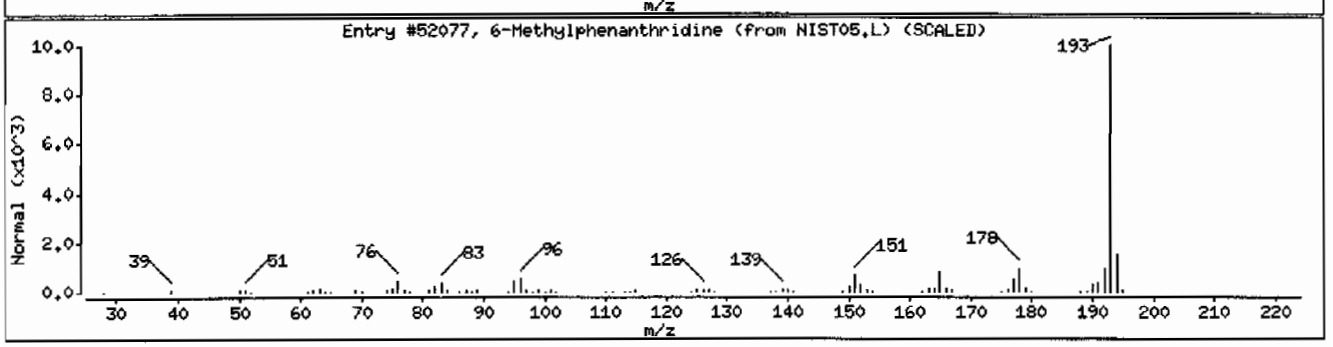

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1086**	**Date Collected:**	**12/22/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243552010**	**Date Received:**	**12/24/2009 09:30**	**%Moisture:**	**12.7**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14241**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937990**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**12/31/2009 17:41**	**Analyst:**	**RXM4**	**Purge Vol:**	**5 mL**
Prep Date:	**12/31/2009 12:00**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1t416.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.14	ug/kg	0.389	1.14
74-87-3	Chloromethane	U	1.14	ug/kg	0.343	1.14
75-01-4	Vinyl chloride	U	1.14	ug/kg	0.343	1.14
74-83-9	Bromomethane	U	1.14	ug/kg	0.343	1.14
75-00-3	Chloroethane	U	1.14	ug/kg	0.343	1.14
75-69-4	Trichlorofluoromethane	U	1.14	ug/kg	0.343	1.14
67-64-1	Acetone	U	5.72	ug/kg	1.90	5.72
75-35-4	1,1-Dichloroethylene	U	1.14	ug/kg	0.343	1.14
74-88-4	Iodomethane	U	5.72	ug/kg	1.83	5.72
75-09-2	Methylene chloride	U	5.72	ug/kg	2.29	5.72
75-15-0	Carbon disulfide	U	5.72	ug/kg	1.43	5.72
156-60-5	trans-1,2-Dichloroethylene	U	1.14	ug/kg	0.343	1.14
75-34-3	1,1-Dichloroethane	U	1.14	ug/kg	0.343	1.14
78-93-3	2-Butanone	U	5.72	ug/kg	1.72	5.72
156-59-2	cis-1,2-Dichloroethylene	U	1.14	ug/kg	0.343	1.14
594-20-7	2,2-Dichloropropane	U	1.14	ug/kg	0.343	1.14
67-66-3	Chloroform	U	1.14	ug/kg	0.343	1.14
74-97-5	Bromochloromethane	U	1.14	ug/kg	0.378	1.14
71-55-6	1,1,1-Trichloroethane	U	1.14	ug/kg	0.343	1.14
563-58-6	1,1-Dichloropropene	U	1.14	ug/kg	0.343	1.14
56-23-5	Carbon tetrachloride	U	1.14	ug/kg	0.343	1.14
107-06-2	1,2-Dichloroethane	U	1.14	ug/kg	0.343	1.14
71-43-2	Benzene	U	1.14	ug/kg	0.343	1.14
79-01-6	Trichloroethylene	U	1.14	ug/kg	0.378	1.14
78-87-5	1,2-Dichloropropane	U	1.14	ug/kg	0.343	1.14
75-27-4	Bromodichloromethane	U	1.14	ug/kg	0.343	1.14
74-95-3	Dibromomethane	U	1.14	ug/kg	0.343	1.14
108-10-1	4-Methyl-2-pentanone	U	5.72	ug/kg	1.43	5.72
10061-01-5	cis-1,3-Dichloropropylene	U	1.14	ug/kg	0.343	1.14
108-88-3	Toluene	U	1.14	ug/kg	0.343	1.14
10061-02-6	trans-1,3-Dichloropropylene	U	1.14	ug/kg	0.343	1.14
79-00-5	1,1,2-Trichloroethane	U	1.14	ug/kg	0.343	1.14
591-78-6	2-Hexanone	U	5.72	ug/kg	1.72	5.72
142-28-9	1,3-Dichloropropane	U	1.14	ug/kg	0.343	1.14
127-18-4	Tetrachloroethylene	U	1.14	ug/kg	0.343	1.14
124-48-1	Dibromochloromethane	U	1.14	ug/kg	0.343	1.14
106-93-4	1,2-Dibromoethane	U	1.14	ug/kg	0.343	1.14
108-90-7	Chlorobenzene	U	1.14	ug/kg	0.343	1.14

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1086**	**Date Collected:**	**12/22/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243552010**	**Date Received:**	**12/24/2009 09:30**	**%Moisture:**	**12.7**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14241**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937990**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**12/31/2009 17:41**	**Analyst:**	**RXM4**	**Purge Vol:**	**5 mL**
Prep Date:	**12/31/2009 12:00**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1t416.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.14	ug/kg	0.343	1.14
179601-23-1	m,p-Xylenes	U	2.29	ug/kg	0.343	2.29
95-47-6	o-Xylene	U	1.14	ug/kg	0.343	1.14
100-42-5	Styrene	U	1.14	ug/kg	0.343	1.14
75-25-2	Bromoform	U	1.14	ug/kg	0.343	1.14
79-34-5	1,1,2,2-Tetrachloroethane	U	1.14	ug/kg	0.343	1.14
96-18-4	1,2,3-Trichloropropane	U	1.14	ug/kg	0.343	1.14
108-86-1	Bromobenzene	U	1.14	ug/kg	0.343	1.14
103-65-1	n-Propylbenzene	U	1.14	ug/kg	0.343	1.14
95-49-8	2-Chlorotoluene	U	1.14	ug/kg	0.343	1.14
98-82-8	Isopropylbenzene	U	1.14	ug/kg	0.343	1.14
108-67-8	1,3,5-Trimethylbenzene	U	1.14	ug/kg	0.343	1.14
106-43-4	4-Chlorotoluene	U	1.14	ug/kg	0.343	1.14
98-06-6	tert-Butylbenzene	U	1.14	ug/kg	0.343	1.14
95-63-6	1,2,4-Trimethylbenzene	U	1.14	ug/kg	0.343	1.14
135-98-8	sec-Butylbenzene	U	1.14	ug/kg	0.343	1.14
99-87-6	4-Isopropyltoluene	U	1.14	ug/kg	0.343	1.14
541-73-1	1,3-Dichlorobenzene	U	1.14	ug/kg	0.343	1.14
106-46-7	1,4-Dichlorobenzene	U	1.14	ug/kg	0.343	1.14
104-51-8	n-Butylbenzene	U	1.14	ug/kg	0.343	1.14
96-12-8	1,2-Dibromo-3-chloropropane	U	1.14	ug/kg	0.343	1.14
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.72	ug/kg	1.83	5.72
630-20-6	1,1,1,2-Tetrachloroethane	U	1.14	ug/kg	0.343	1.14
95-50-1	1,2-Dichlorobenzene	U	1.14	ug/kg	0.343	1.14

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Siloxane	18.06	14	ug/kg		J

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/123109v1/1t416.d
Lab Smp Id: 243552010 Client Smp ID: RE03-09-14241
Inj Date : 31-DEC-2009 17:41
Operator : RXM4 Inst ID: VOA1.i
Smp Info : |243552010|937990|1|VOAF|1|
Misc Info : LANL 5G N/A
Comment :
Method : /chem/VOA1.i/123109v1/VOA1-8260ox-121709.m
Meth Date : 18-Jan-2010 17:56 jeb Quant Type: ISTD
Cal Date : 17-DEC-2009 21:27 Cal File: 1r425.d
Als bottle: 16
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-1086.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	12.66320	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
* 52 Fluorobenzene	96	13.682	13.682	(1.000)	788456	50.0000	
* 76 Chlorobenzene-d5	117	17.157	17.157	(1.000)	566164	50.0000	
* 102 1,4-Dichlorobenzene-d4	152	19.606	19.606	(1.000)	333440	50.0000	
$ 48 1,2-Dichloroethane-d4	65	13.341	13.336	(0.975)	583978	61.9890	71.0
$ 65 Toluene-d8	98	15.514	15.514	(0.904)	1659774	52.6242	60.2
$ 87 Bromofluorobenzene	95	18.386	18.386	(0.938)	696162	52.1660	59.7

ION RATIO REPORT

VOA REPORT

Data file: lt416.d
Report Date: 01/04/2010 07:15
Lab. ID: 243552010 SampleType: SAMPLE
Injection Date: 31-DEC-2009 17:41
Operator: RXM4 Instrument: VOA1.i
Sample Info: |243552010|973990|1|VOAF|1|
Miscellaneous Info: LANL 5G N/A
Comment:
Method used: /chem/VOA1.i/123109v1/VOA1-8260ox-121709.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-1086
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
51	1,2-Dichloroethane			CAS#: 107-06-2		
62	13240	13.68	13.44	80-120	100	(T)
64	2188	13.68	13.44	2- 62	17	(T)
64	4-Methyl-2-pentanone			CAS#: 108-10-1		
58	16723	15.51	15.35	80-120	100	(T)
43	8549	15.51	15.35	223-283	51	(QT)
100	1061771	15.52	15.36	0- 60	6349	(QT)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/123109v1/1t416.d
Lab Smp Id: 243552010 Client Smp ID: RE03-09-14241
Inj Date : 31-DEC-2009 17:41
Operator : RXM4 Inst ID: VOA1.i
Smp Info : |243552010|937990|1|VOAF|1|
Misc Info : LANL 5G N/A
Comment :
Method : /chem/VOA1.i/123109v1/VOA1-8260ox-121709.m
Meth Date : 18-Jan-2010 17:56 jeb Quant Type: ISTD
Cal Date : 17-DEC-2009 21:27 Cal File: 1r425.d
Als bottle: 16
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-1086.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	12.66320	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 76 Chlorobenzene-d5	17.157	1880864	50.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ug/l)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown Siloxane					CAS #:		
18.064	460753	12.2484341	14.0	0		0	76

Data File: /chem/VOA1.i/123109v1/1t416.d
Date : 31-DEC-2009 17:41
Client ID: RE03-09-14241
Sample Info: |2435520101937990|1|VOAF|1|

Column phase: RTX-Volatiles

Instrument: VOA1.i

Operator: RXM4
Column diameter: 0.25

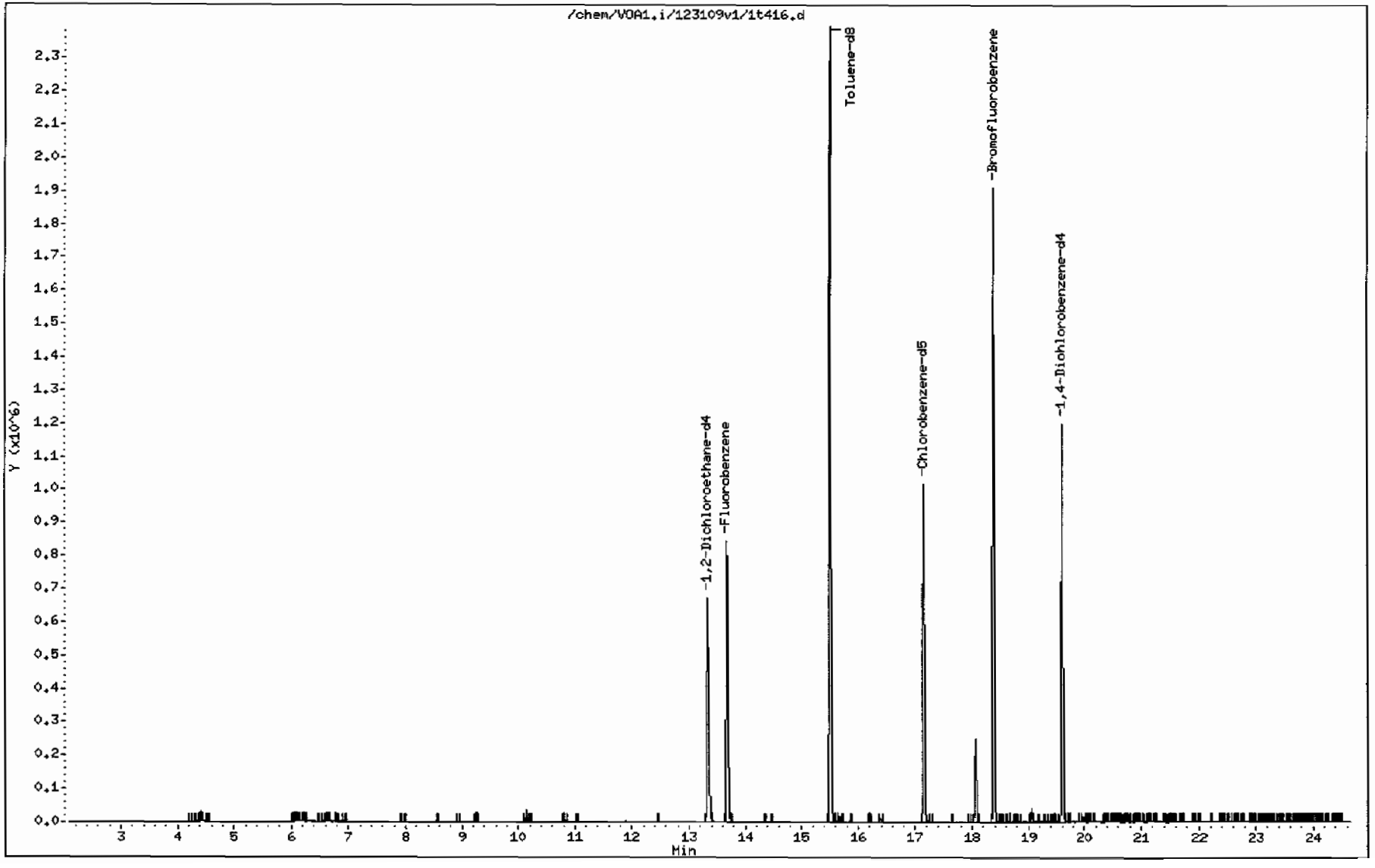

Data File: /chem/VOA1.i/123109v1/1t416.d

Date : 31-DEC-2009 17:41

Client ID: RE03-09-14241

Instrument: VOA1.i

Sample Info: |2435520101937990|1|VOAF|1|

Operator: RXM4

Column phase: RTX-Volatiles

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Siloxane						
Trisiloxane, 1,1,3,3,5,5-hexamethyl-	1189-93-1	NIST05.L	63149	27	C6H20O2Si3	208
Anthracene, 9,10-dihydro-9,10-dimethyl-	22566-43-4	NIST05.L	63100	25	C16H16	208
Propiophenone, 3'-(trimethylsiloxy)-	33342-88-0	NIST05.L	72505	22	C12H18O2Si	222

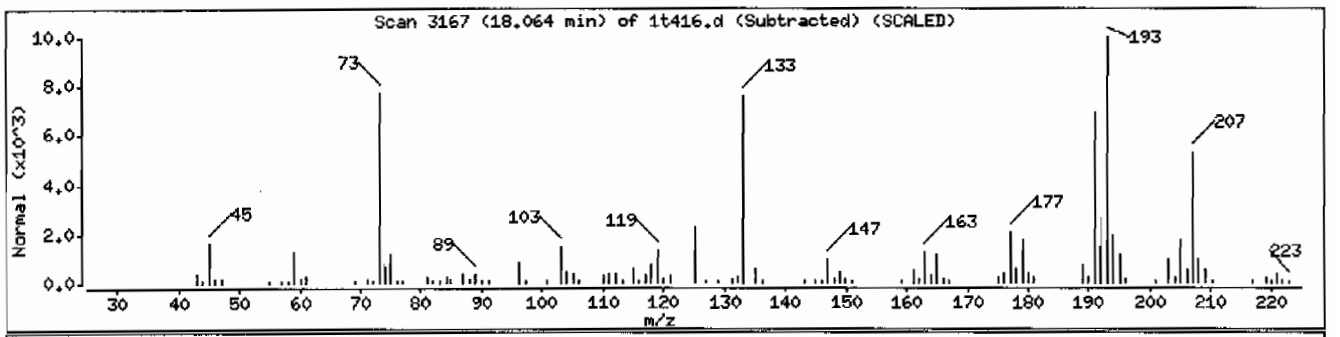

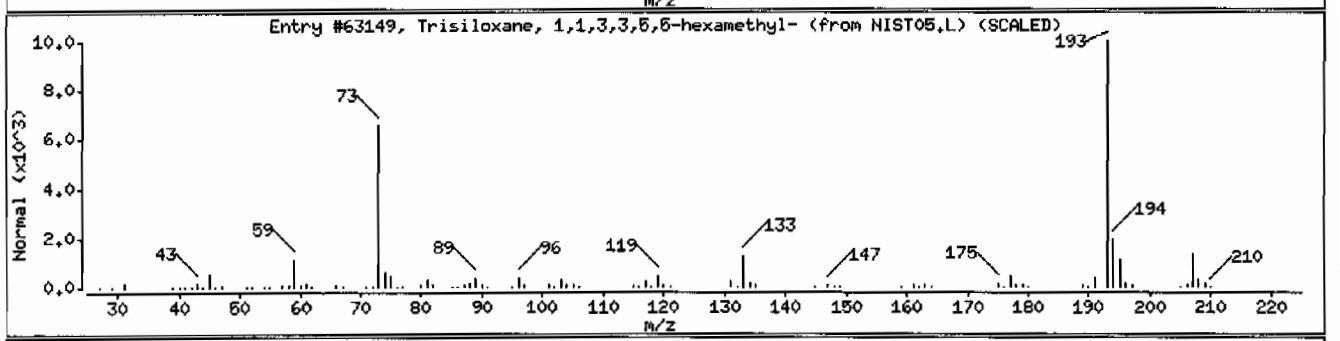

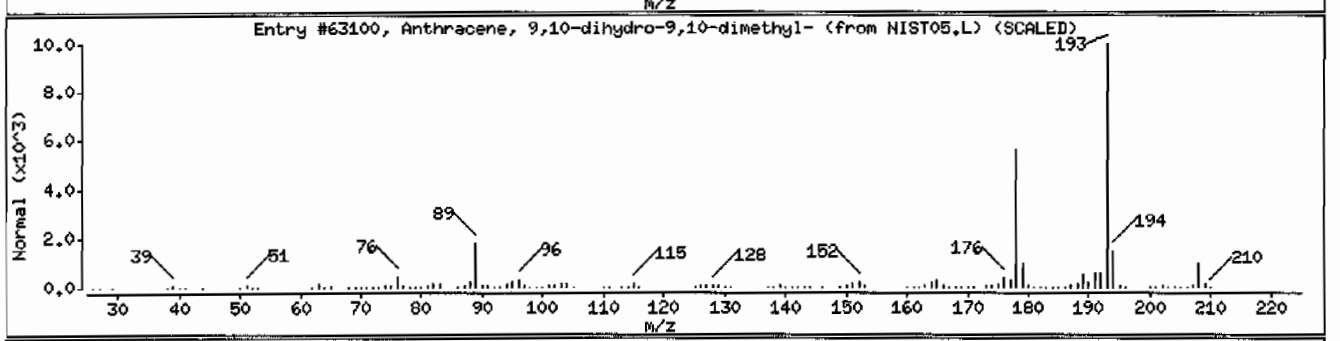

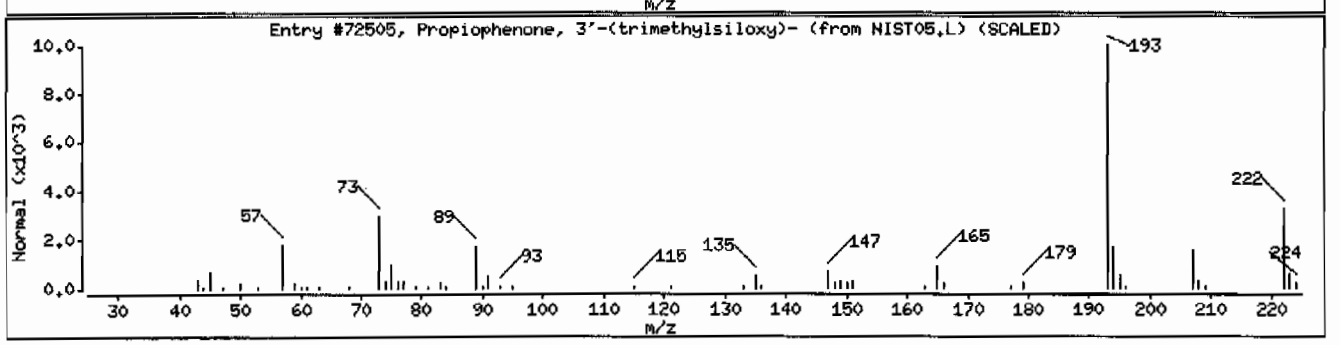

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1086	Date Collected:	12/22/2009 12:00	Matrix:	S
Lab Sample ID:	243552012	Date Received:	12/24/2009 09:30	%Moisture:	7
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-10-2736	Method:	SW846 8260B	SOP Ref:	GL-OA-E-038
Batch ID:	937990	Inst:	VOA1.I	Dilution:	1
Run Date:	12/31/2009 18:42	Analyst:	RXM4	Purge Vol:	5 mL
Prep Date:	12/31/2009 12:02	Aliquot:	5 g	Final Volume:	5 mL
Data File:	1t418.d	Column:	RTX-Volatiles	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.08	ug/kg	0.366	1.08
74-87-3	Chloromethane	U	1.08	ug/kg	0.323	1.08
75-01-4	Vinyl chloride	U	1.08	ug/kg	0.323	1.08
74-83-9	Bromomethane	U	1.08	ug/kg	0.323	1.08
75-00-3	Chloroethane	U	1.08	ug/kg	0.323	1.08
75-69-4	Trichlorofluoromethane	U	1.08	ug/kg	0.323	1.08
67-64-1	Acetone	U	5.38	ug/kg	1.79	5.38
75-35-4	1,1-Dichloroethylene	U	1.08	ug/kg	0.323	1.08
74-88-4	Iodomethane	U	5.38	ug/kg	1.72	5.38
75-09-2	Methylene chloride	U	5.38	ug/kg	2.15	5.38
75-15-0	Carbon disulfide	U	5.38	ug/kg	1.34	5.38
156-60-5	trans-1,2-Dichloroethylene	U	1.08	ug/kg	0.323	1.08
75-34-3	1,1-Dichloroethane	U	1.08	ug/kg	0.323	1.08
78-93-3	2-Butanone	U	5.38	ug/kg	1.61	5.38
156-59-2	cis-1,2-Dichloroethylene	U	1.08	ug/kg	0.323	1.08
594-20-7	2,2-Dichloropropane	U	1.08	ug/kg	0.323	1.08
67-66-3	Chloroform	U	1.08	ug/kg	0.323	1.08
74-97-5	Bromochloromethane	U	1.08	ug/kg	0.355	1.08
71-55-6	1,1,1-Trichloroethane	U	1.08	ug/kg	0.323	1.08
563-58-6	1,1-Dichloropropene	U	1.08	ug/kg	0.323	1.08
56-23-5	Carbon tetrachloride	U	1.08	ug/kg	0.323	1.08
107-06-2	1,2-Dichloroethane	U	1.08	ug/kg	0.323	1.08
71-43-2	Benzene	U	1.08	ug/kg	0.323	1.08
79-01-6	Trichloroethylene	U	1.08	ug/kg	0.355	1.08
78-87-5	1,2-Dichloropropane	U	1.08	ug/kg	0.323	1.08
75-27-4	Bromodichloromethane	U	1.08	ug/kg	0.323	1.08
74-95-3	Dibromomethane	U	1.08	ug/kg	0.323	1.08
108-10-1	4-Methyl-2-pentanone	U	5.38	ug/kg	1.34	5.38
10061-01-5	cis-1,3-Dichloropropylene	U	1.08	ug/kg	0.323	1.08
108-88-3	Toluene	U	1.08	ug/kg	0.323	1.08
10061-02-6	trans-1,3-Dichloropropylene	U	1.08	ug/kg	0.323	1.08
79-00-5	1,1,2-Trichloroethane	U	1.08	ug/kg	0.323	1.08
591-78-6	2-Hexanone	U	5.38	ug/kg	1.61	5.38
142-28-9	1,3-Dichloropropane	U	1.08	ug/kg	0.323	1.08
127-18-4	Tetrachloroethylene	U	1.08	ug/kg	0.323	1.08
124-48-1	Dibromochloromethane	U	1.08	ug/kg	0.323	1.08
106-93-4	1,2-Dibromoethane	U	1.08	ug/kg	0.323	1.08
108-90-7	Chlorobenzene	U	1.08	ug/kg	0.323	1.08

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1086**	**Date Collected:**	**12/22/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243552012**	**Date Received:**	**12/24/2009 09:30**	**%Moisture:**	**7**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-10-2736**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937990**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**12/31/2009 18:42**	**Analyst:**	**RXM4**	**Purge Vol:**	**5 mL**
Prep Date:	**12/31/2009 12:02**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1t418.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.08	ug/kg	0.323	1.08
179601-23-1	m,p-Xylenes	U	2.15	ug/kg	0.323	2.15
95-47-6	o-Xylene	U	1.08	ug/kg	0.323	1.08
100-42-5	Styrene	U	1.08	ug/kg	0.323	1.08
75-25-2	Bromoform	U	1.08	ug/kg	0.323	1.08
79-34-5	1,1,2,2-Tetrachloroethane	U	1.08	ug/kg	0.323	1.08
96-18-4	1,2,3-Trichloropropane	U	1.08	ug/kg	0.323	1.08
108-86-1	Bromobenzene	U	1.08	ug/kg	0.323	1.08
103-65-1	n-Propylbenzene	U	1.08	ug/kg	0.323	1.08
95-49-8	2-Chlorotoluene	U	1.08	ug/kg	0.323	1.08
98-82-8	Isopropylbenzene	U	1.08	ug/kg	0.323	1.08
108-67-8	1,3,5-Trimethylbenzene	U	1.08	ug/kg	0.323	1.08
106-43-4	4-Chlorotoluene	U	1.08	ug/kg	0.323	1.08
98-06-6	tert-Butylbenzene	U	1.08	ug/kg	0.323	1.08
95-63-6	1,2,4-Trimethylbenzene	U	1.08	ug/kg	0.323	1.08
135-98-8	sec-Butylbenzene	U	1.08	ug/kg	0.323	1.08
99-87-6	4-Isopropyltoluene	U	1.08	ug/kg	0.323	1.08
541-73-1	1,3-Dichlorobenzene	U	1.08	ug/kg	0.323	1.08
106-46-7	1,4-Dichlorobenzene	U	1.08	ug/kg	0.323	1.08
104-51-8	n-Butylbenzene	U	1.08	ug/kg	0.323	1.08
96-12-8	1,2-Dibromo-3-chloropropane	U	1.08	ug/kg	0.323	1.08
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.38	ug/kg	1.72	5.38
630-20-6	1,1,1,2-Tetrachloroethane	U	1.08	ug/kg	0.323	1.08
95-50-1	1,2-Dichlorobenzene	U	1.08	ug/kg	0.323	1.08

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Hydrocarbon	18.06	16.2	ug/kg		J

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/123109v1/1t418.d
Lab Smp Id: 243552012 Client Smp ID: RE03-10-2736
Inj Date : 31-DEC-2009 18:42
Operator : RXM4 Inst ID: VOA1.i
Smp Info : |243552012|937990|1|VOAF|1|
Misc Info : LANL 5G N/A
Comment :
Method : /chem/VOA1.i/123109v1/VOA1-8260ox-121709.m
Meth Date : 18-Jan-2010 17:56 jeb Quant Type: ISTD
Cal Date : 17-DEC-2009 21:27 Cal File: 1r425.d
Als bottle: 18
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-1086.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	7.02740	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
* 52 Fluorobenzene	96	13.682	13.682	(1.000)	772746	50.0000	
* 76 Chlorobenzene-d5	117	17.157	17.157	(1.000)	600535	50.0000	
* 102 1,4-Dichlorobenzene-d4	152	19.606	19.606	(1.000)	320011	50.0000	
$ 48 1,2-Dichloroethane-d4	65	13.332	13.336	(0.974)	562299	60.9012	65.5
$ 65 Toluene-d8	98	15.514	15.514	(0.904)	1660426	49.6318	53.4
$ 87 Bromofluorobenzene	95	18.386	18.386	(0.938)	642377	50.1556	53.9

ION RATIO REPORT

VOA REPORT

Data file: 1t418.d
Report Date: 01/04/2010 07:15
Lab. ID: 243552012 SampleType: SAMPLE
Injection Date: 31-DEC-2009 18:42
Operator: RXM4 Instrument: VOA1.i
Sample Info: |243552012|973990|1|VOAF|1|
Miscellaneous Info: LANL 5G N/A
Comment:
Method used: /chem/VOA1.i/123109v1/VOA1-8260ox-121709.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-1086
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
51	1,2-Dichloroethane			CAS#: 107-06-2		
62	13206	13.68	13.44	80-120	100	(T)
64	2183	13.68	13.44	2- 62	17	(T)
64	4-Methyl-2-pentanone			CAS#: 108-10-1		
58	16355	15.51	15.35	80-120	100	(T)
43	8685	15.51	15.35	223-283	53	(QT)
100	1065799	15.51	15.36	0- 60	6516	(QT)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/123109v1/1t418.d
Lab Smp Id: 243552012 Client Smp ID: RE03-10-2736
Inj Date : 31-DEC-2009 18:42
Operator : RXM4 Inst ID: VOA1.i
Smp Info : |243552012|937990|1|VOAF|1|
Misc Info : LANL 5G N/A
Comment :
Method : /chem/VOA1.i/123109v1/VOA1-8260ox-121709.m
Meth Date : 18-Jan-2010 17:56 jeb Quant Type: ISTD
Cal Date : 17-DEC-2009 21:27 Cal File: 1r425.d
Als bottle: 18
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-1086.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	7.02740	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 76 Chlorobenzene-d5	17.157	1999501	50.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ug/l)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown Hydrocarbon					CAS #:		
18.064	602235	15.0596192	16.2	0		0	76

Data File: /chem/VOA1.i/123109v1/1t418.d
Date : 31-DEC-2009 18:42
Client ID: RE03-10-2736
Sample Info: |2435520121937990|1|VOAF|1|

Column phase: RTX-Volatiles

Instrument: VOA1.i

Operator: RXM4
Column diameter: 0.25

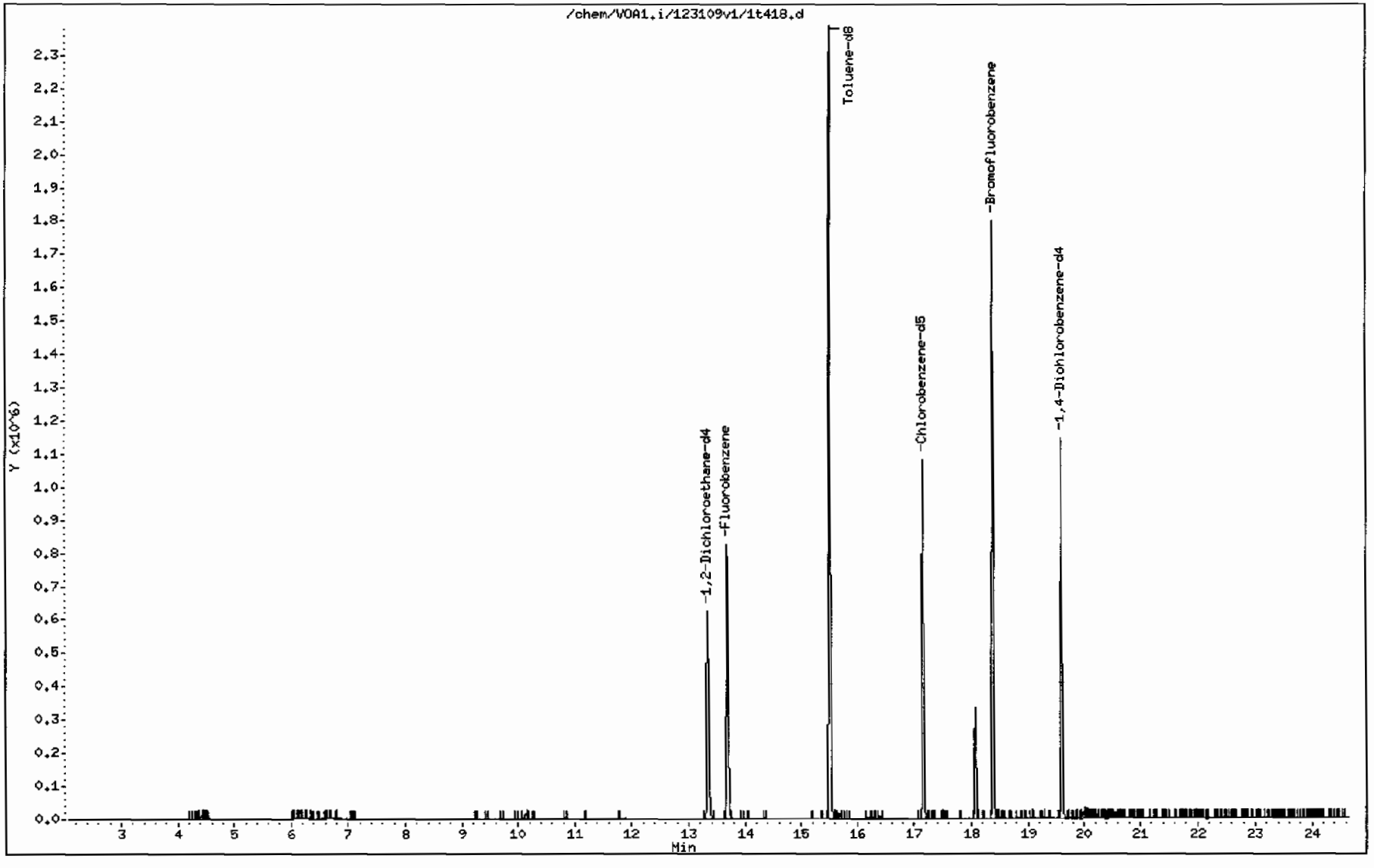

Data File: /chem/VOA1.i/123109v1/1t418.d

Date : 31-DEC-2009 18:42

Client ID: RE03-10-2736

Instrument: VOA1.i

Sample Info: |2435520121937990|1|VOAF|1|

Operator: RXM4

Column phase: RTX-Volatiles

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Hydrocarbon						
Trisiloxane, 1,1,3,3,5,5-hexamethyl-	1189-93-1	NIST05.L	63148	43	C6H20O2Si3	208
Trisiloxane, 1,1,3,3,5,5-hexamethyl-	1189-93-1	NIST05.L	63149	38	C6H20O2Si3	208
Anthracene, 9,10-dihydro-9,10-dimethyl-	22566-43-4	NIST05.L	63100	30	C16H16	208

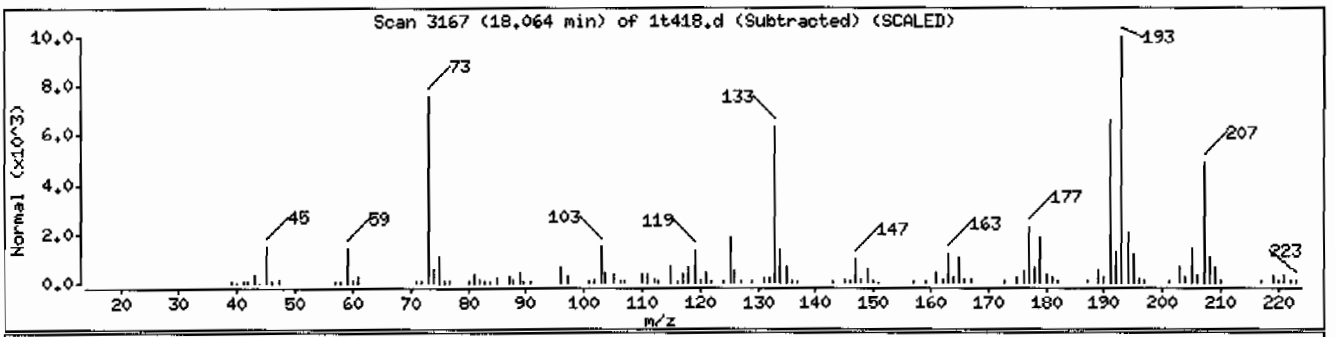

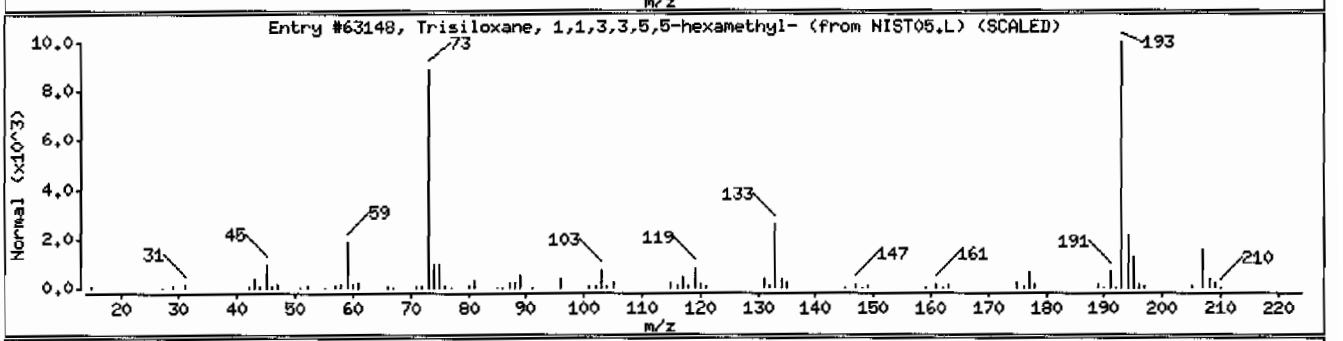

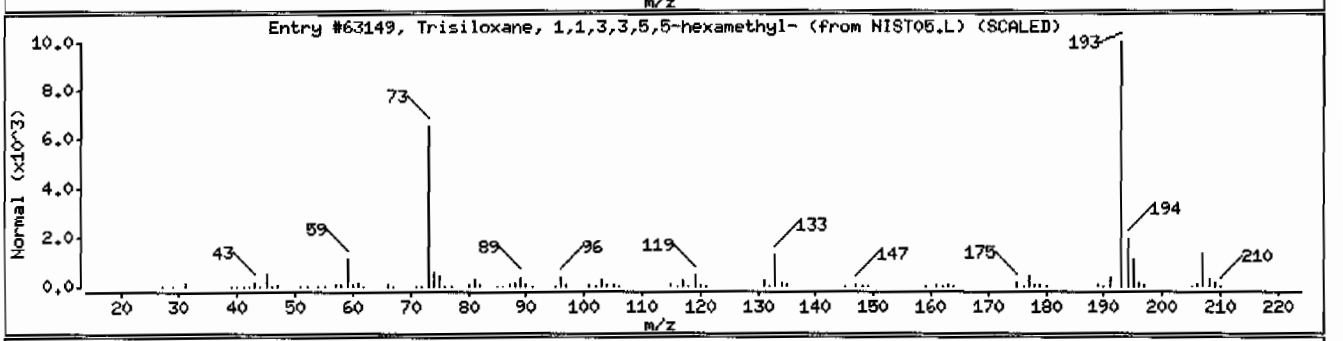

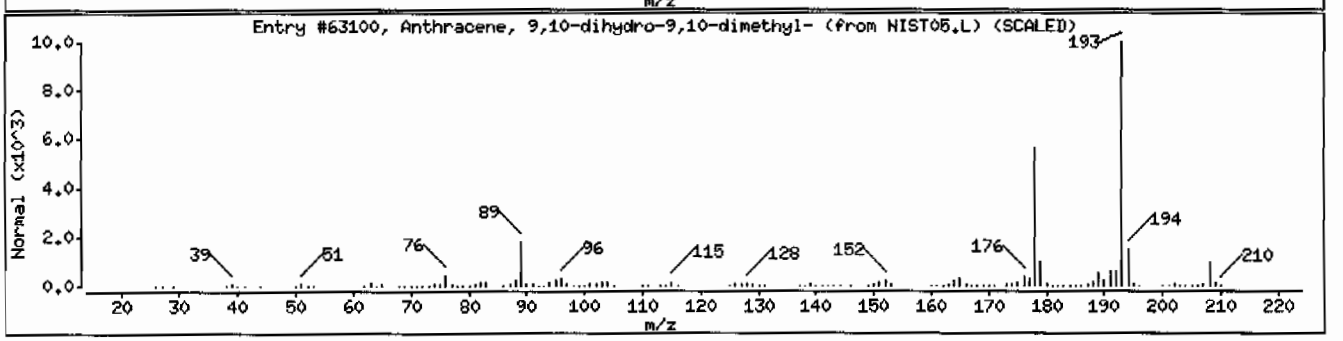

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1086**	**Date Collected:**	**12/22/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243552011**	**Date Received:**	**12/24/2009 09:30**	**%Moisture:**	**10.1**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-10-2737**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937990**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**12/31/2009 18:11**	**Analyst:**	**RXM4**	**Purge Vol:**	**5 mL**
Prep Date:	**12/31/2009 12:01**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1t417.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.11	ug/kg	0.378	1.11
74-87-3	Chloromethane	U	1.11	ug/kg	0.334	1.11
75-01-4	Vinyl chloride	U	1.11	ug/kg	0.334	1.11
74-83-9	Bromomethane	U	1.11	ug/kg	0.334	1.11
75-00-3	Chloroethane	U	1.11	ug/kg	0.334	1.11
75-69-4	Trichlorofluoromethane	U	1.11	ug/kg	0.334	1.11
67-64-1	Acetone	J	2.97	ug/kg	1.85	5.56
75-35-4	1,1-Dichloroethylene	U	1.11	ug/kg	0.334	1.11
74-88-4	Iodomethane	U	5.56	ug/kg	1.78	5.56
75-09-2	Methylene chloride	U	5.56	ug/kg	2.23	5.56
75-15-0	Carbon disulfide	U	5.56	ug/kg	1.39	5.56
156-60-5	trans-1,2-Dichloroethylene	U	1.11	ug/kg	0.334	1.11
75-34-3	1,1-Dichloroethane	U	1.11	ug/kg	0.334	1.11
78-93-3	2-Butanone	U	5.56	ug/kg	1.67	5.56
156-59-2	cis-1,2-Dichloroethylene	U	1.11	ug/kg	0.334	1.11
594-20-7	2,2-Dichloropropane	U	1.11	ug/kg	0.334	1.11
67-66-3	Chloroform	U	1.11	ug/kg	0.334	1.11
74-97-5	Bromochloromethane	U	1.11	ug/kg	0.367	1.11
71-55-6	1,1,1-Trichloroethane	U	1.11	ug/kg	0.334	1.11
563-58-6	1,1-Dichloropropene	U	1.11	ug/kg	0.334	1.11
56-23-5	Carbon tetrachloride	U	1.11	ug/kg	0.334	1.11
107-06-2	1,2-Dichloroethane	U	1.11	ug/kg	0.334	1.11
71-43-2	Benzene	U	1.11	ug/kg	0.334	1.11
79-01-6	Trichloroethylene	U	1.11	ug/kg	0.367	1.11
78-87-5	1,2-Dichloropropane	U	1.11	ug/kg	0.334	1.11
75-27-4	Bromodichloromethane	U	1.11	ug/kg	0.334	1.11
74-95-3	Dibromomethane	U	1.11	ug/kg	0.334	1.11
108-10-1	4-Methyl-2-pentanone	U	5.56	ug/kg	1.39	5.56
10061-01-5	cis-1,3-Dichloropropylene	U	1.11	ug/kg	0.334	1.11
108-88-3	Toluene	U	1.11	ug/kg	0.334	1.11
10061-02-6	trans-1,3-Dichloropropylene	U	1.11	ug/kg	0.334	1.11
79-00-5	1,1,2-Trichloroethane	U	1.11	ug/kg	0.334	1.11
591-78-6	2-Hexanone	U	5.56	ug/kg	1.67	5.56
142-28-9	1,3-Dichloropropane	U	1.11	ug/kg	0.334	1.11
127-18-4	Tetrachloroethylene	U	1.11	ug/kg	0.334	1.11
124-48-1	Dibromochloromethane	U	1.11	ug/kg	0.334	1.11
106-93-4	1,2-Dibromoethane	U	1.11	ug/kg	0.334	1.11
108-90-7	Chlorobenzene	U	1.11	ug/kg	0.334	1.11

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1086**	**Date Collected:**	**12/22/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243552011**	**Date Received:**	**12/24/2009 09:30**	**%Moisture:**	**10.1**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-10-2737**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937990**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**12/31/2009 18:11**	**Analyst:**	**RXM4**	**Purge Vol:**	**5 mL**
Prep Date:	**12/31/2009 12:01**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1t417.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.11	ug/kg	0.334	1.11
179601-23-1	m,p-Xylenes	U	2.23	ug/kg	0.334	2.23
95-47-6	o-Xylene	U	1.11	ug/kg	0.334	1.11
100-42-5	Styrene	U	1.11	ug/kg	0.334	1.11
75-25-2	Bromoform	U	1.11	ug/kg	0.334	1.11
79-34-5	1,1,2,2-Tetrachloroethane	U	1.11	ug/kg	0.334	1.11
96-18-4	1,2,3-Trichloropropane	U	1.11	ug/kg	0.334	1.11
108-86-1	Bromobenzene	U	1.11	ug/kg	0.334	1.11
103-65-1	n-Propylbenzene	U	1.11	ug/kg	0.334	1.11
95-49-8	2-Chlorotoluene	U	1.11	ug/kg	0.334	1.11
98-82-8	Isopropylbenzene	U	1.11	ug/kg	0.334	1.11
108-67-8	1,3,5-Trimethylbenzene	U	1.11	ug/kg	0.334	1.11
106-43-4	4-Chlorotoluene	U	1.11	ug/kg	0.334	1.11
98-06-6	tert-Butylbenzene	U	1.11	ug/kg	0.334	1.11
95-63-6	1,2,4-Trimethylbenzene	U	1.11	ug/kg	0.334	1.11
135-98-8	sec-Butylbenzene	U	1.11	ug/kg	0.334	1.11
99-87-6	4-Isopropyltoluene	U	1.11	ug/kg	0.334	1.11
541-73-1	1,3-Dichlorobenzene	U	1.11	ug/kg	0.334	1.11
106-46-7	1,4-Dichlorobenzene	U	1.11	ug/kg	0.334	1.11
104-51-8	n-Butylbenzene	U	1.11	ug/kg	0.334	1.11
96-12-8	1,2-Dibromo-3-chloropropane	U	1.11	ug/kg	0.334	1.11
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.56	ug/kg	1.78	5.56
630-20-6	1,1,1,2-Tetrachloroethane	U	1.11	ug/kg	0.334	1.11
95-50-1	1,2-Dichlorobenzene	U	1.11	ug/kg	0.334	1.11

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Hydrocarbon	14.46	11.8	ug/kg		J
66-25-1	Hexanal	16.39	136	ug/kg	90	NJ
	Unknown Hydrocarbon	18.06	12.2	ug/kg		J
124-13-0	Octanal	19.29	6.41	ug/kg	91	NJ

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/123109v1/1t417.d
Lab Smp Id: 243552011 Client Smp ID: RE03-10-2737
Inj Date : 31-DEC-2009 18:11
Operator : RXM4 Inst ID: VOA1.i
Smp Info : |243552011|937990|1|VOAF|1|
Misc Info : LANL 5G N/A
Comment :
Method : /chem/VOA1.i/123109v1/VOA1-8260ox-121709.m
Meth Date : 18-Jan-2010 17:56 jeb Quant Type: ISTD
Cal Date : 17-DEC-2009 21:27 Cal File: 1r425.d
Als bottle: 17
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-1086.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	10.13370	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
* 52 Fluorobenzene	96	13.682	13.682	(1.000)	780010	50.0000	
* 76 Chlorobenzene-d5	117	17.152	17.157	(1.000)	564832	50.0000	
* 102 1,4-Dichlorobenzene-d4	152	19.606	19.606	(1.000)	311089	50.0000	
$ 48 1,2-Dichloroethane-d4	65	13.337	13.336	(0.975)	608307	65.2707	72.6
$ 65 Toluene-d8	98	15.514	15.514	(0.904)	1687246	53.6214	59.7
$ 87 Bromofluorobenzene	95	18.386	18.386	(0.938)	719803	57.8127	64.3
16 Acetone	43	9.263	9.254	(0.677)	12605	2.67126	3.0(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

ION RATIO REPORT

VOA REPORT

Data file: 1t417.d
Report Date: 01/04/2010 07:15
Lab. ID: 243552011 SampleType: SAMPLE
Injection Date: 31-DEC-2009 18:11
Operator: RXM4 Instrument: VOA1.i
Sample Info: |243552011|973990|1|VOAF|1|
Miscellaneous Info: LANL 5G N/A
Comment:
Method used: /chem/VOA1.i/123109v1/VOA1-8260ox-121709.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-1086
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
16 Acetone			CAS#: 67-64-1			
43	12605	9.26	9.25	80-120	100	( )
58	4191	9.25	9.25	1- 61	33	( )
51 1,2-Dichloroethane			CAS#: 107-06-2			
62	13582	13.68	13.44	80-120	100	(T)
64	2599	13.68	13.44	2- 62	19	(T)
64 4-Methyl-2-pentanone			CAS#: 108-10-1			
58	16972	15.51	15.35	80-120	100	(T)
43	10804	15.51	15.35	223-283	64	(QT)
100	1071118	15.51	15.36	0- 60	6311	(QT)
69 1,1,2-Trichloroethane			CAS#: 79-00-5			
83	11344	16.39	16.10	80-120	100	(T)
97	300	16.38	16.10	84-144	3	(QT)
85	2730	16.39	16.10	34- 94	24	(QT)
71 2-Hexanone			CAS#: 591-78-6			
43	484968	16.39	16.26	80-120	100	(T)
58	77302	16.39	16.26	25- 85	16	(QT)
88 1,1,2,2-Tetrachloroethane			CAS#: 79-34-5			
83	2448	18.97	18.50	80-120	100	(T)
85	652	18.06	18.50	35- 95	27	(QT)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/123109v1/1t417.d
Lab Smp Id: 243552011 Client Smp ID: RE03-10-2737
Inj Date : 31-DEC-2009 18:11
Operator : RXM4 Inst ID: VOA1.i
Smp Info : |243552011|937990|1|VOAF|1|
Misc Info : LANL 5G N/A
Comment :
Method : /chem/VOA1.i/123109v1/VOA1-8260ox-121709.m
Meth Date : 18-Jan-2010 17:56 jeb Quant Type: ISTD
Cal Date : 17-DEC-2009 21:27 Cal File: 1r425.d
Als bottle: 17
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-1086.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	10.13370	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 52 Fluorobenzene	13.682	1762115	50.000
* 76 Chlorobenzene-d5	17.152	1900620	50.000
* 102 1,4-Dichlorobenzene-d4	19.606	2023601	50.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ug/l)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ug/l)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
====	====	==========	==========	====	=======	========	======
Unknown Hydrocarbon				CAS #:			
14.455	374028	10.6130441	11.8	0		0	52
Hexanal				CAS #: 66-25-1			
16.388	4652956	122.406233	136	90	NIST05.L	3688	76
Unknown Hydrocarbon				CAS #:			
18.064	417415	10.9810210	12.2	0		0	76
Octanal				CAS #: 124-13-0			
19.293	233274	5.76382878	6.4	91	NIST05.L	12031	102

Data File: /chem/VOA1.i/123109v1/1t417.d
Date : 31-DEC-2009 18:11
Client ID: RE03-10-2737
Sample Info: |243552011|937990|1|VOAF|1|

Column phase: RTX-Volatiles

Instrument: VOA1.i

Operator: RXM4
Column diameter: 0.25

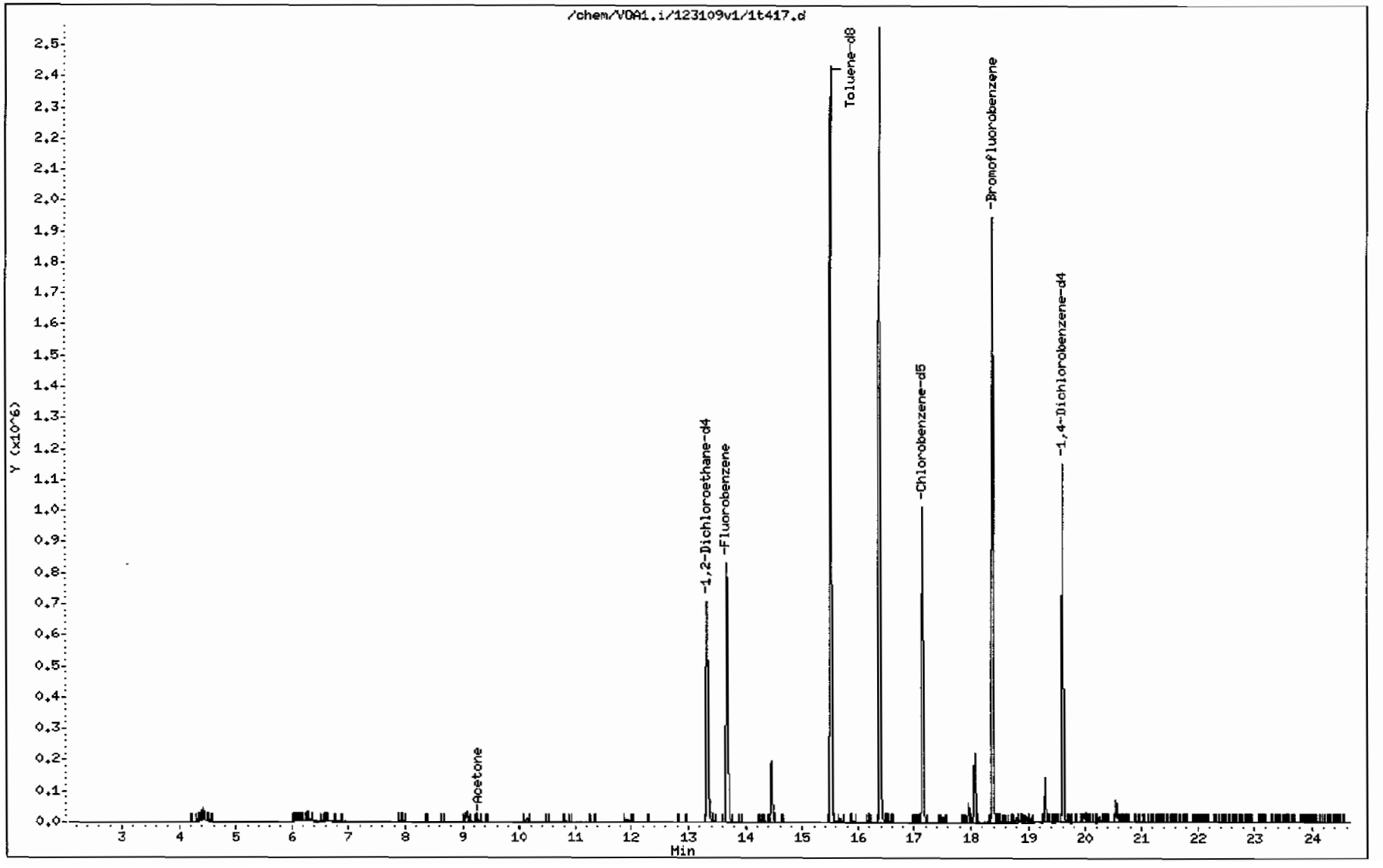

Data File: /chem/VOA1.i/123109v1/1t417.d

Date : 31-DEC-2009 18:11

Client ID: RE03-10-2737

Instrument: VOA1.i

Sample Info: |2435520111937990111VOAF111

Operator: RXM4

Column phase: RTX-Volatiles

Column diameter: 0.25

16 Acetone

Concentration: 3.0 ug/Kg

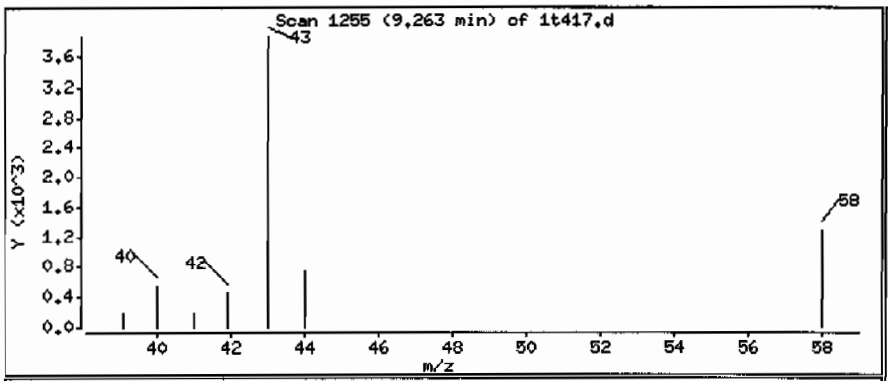

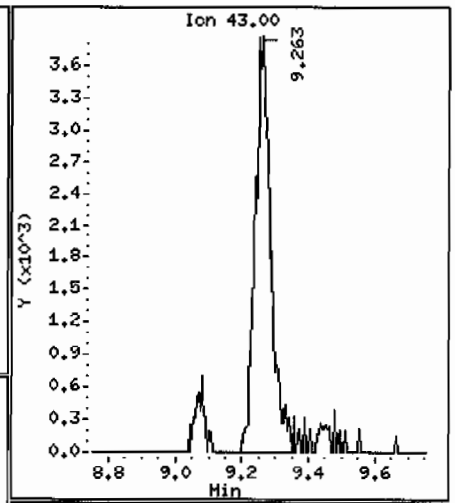

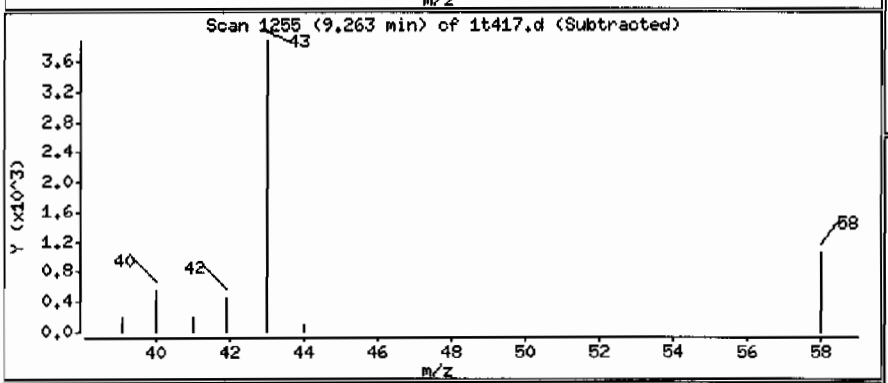

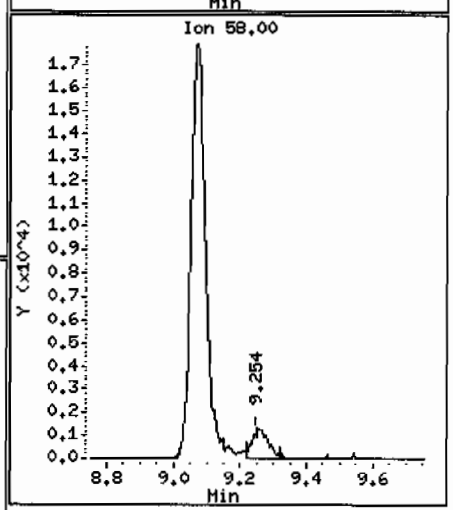

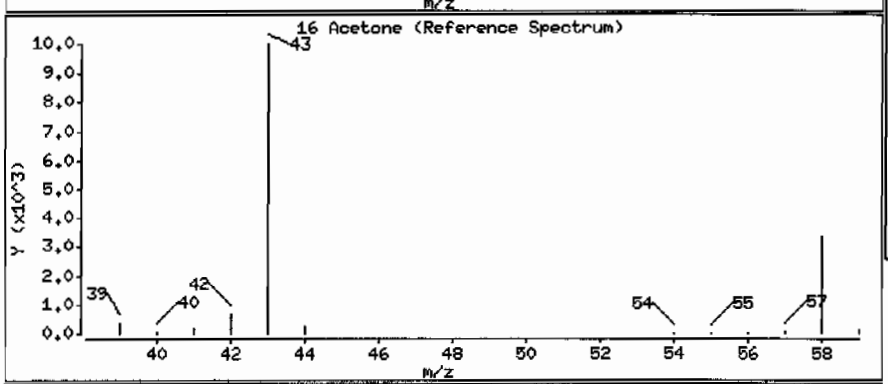

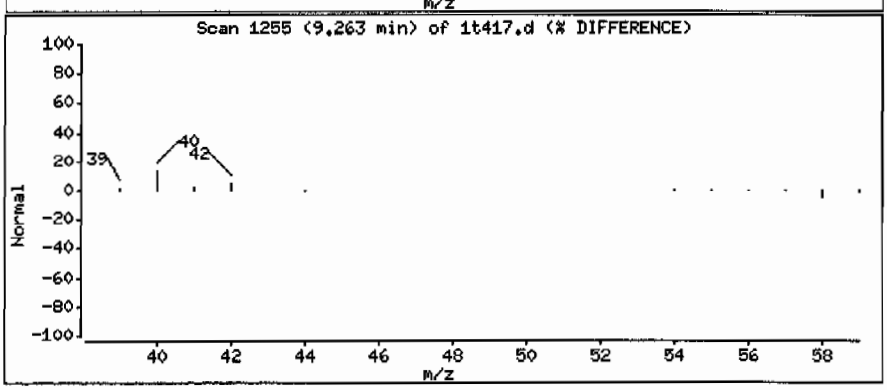

Data File: /chem/VOA1.i/123109v1/1t417.d

Date : 31-DEC-2009 18:11

Client ID: RE03-10-2737

Instrument: VOA1.i

Sample Info: |2435520111|9379901|VOAF|1|

Operator: RXM4

Column phase: RTX-Volatiles

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Hydrocarbon						
Pentanal	110-62-3	NIST05.L	1677	72	C5H10O	86
Butanal, 3-methyl-	590-86-3	NIST05.L	1713	64	C5H10O	86
Pentanal	110-62-3	NIST05.L	1678	58	C5H10O	86

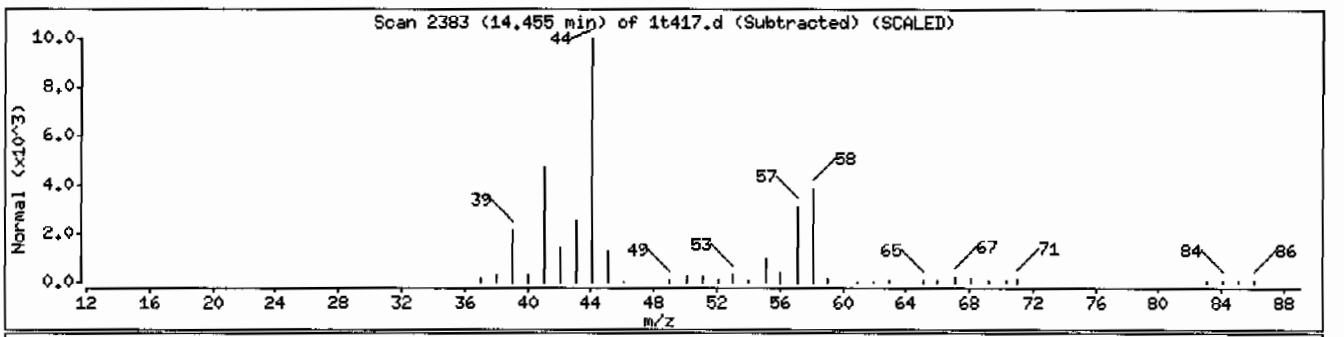

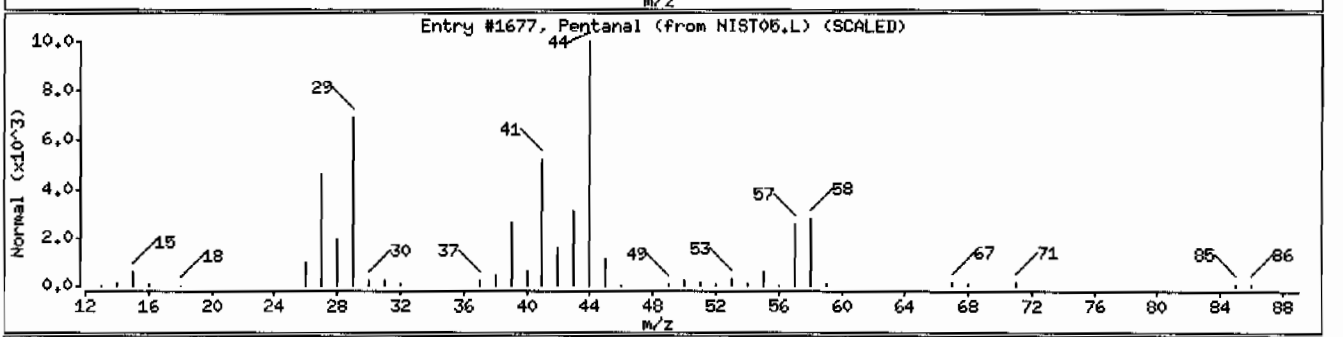

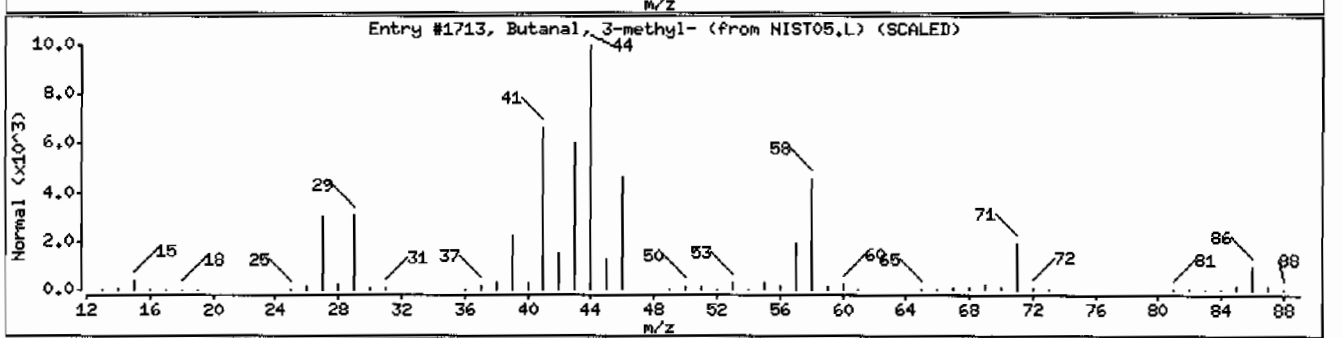

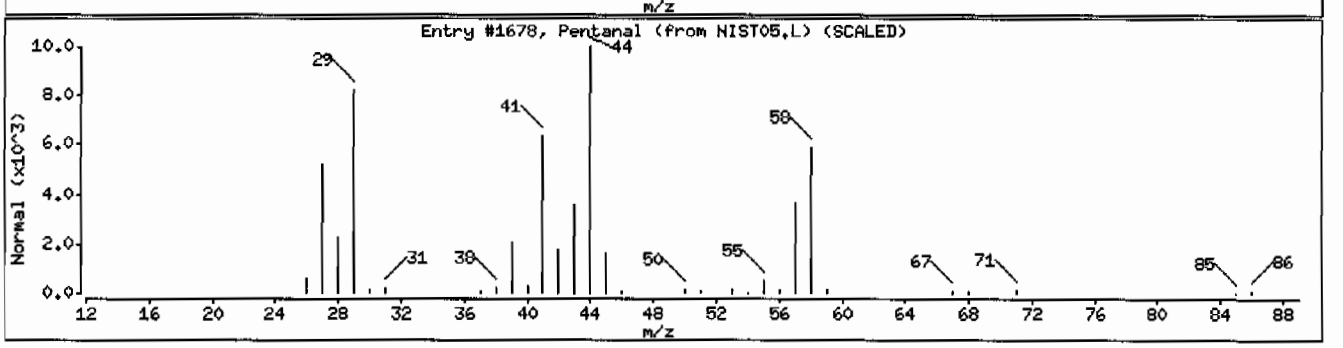

Data File: /chem/VOA1.i/123109v1/1t417.d

Date : 31-DEC-2009 18:11

Client ID: RE03-10-2737

Instrument: VOA1.i

Sample Info: |2435520111937990111VOAF|1|

Operator: RXM4

Column phase: RTX-Volatiles

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Hexanal	66-25-1	NIST05.L	3688	90	C6H120	100
Hexanal	66-25-1	NIST05.L	3690	90	C6H120	100
Hexanal	66-25-1	NIST05.L	3689	83	C6H120	100

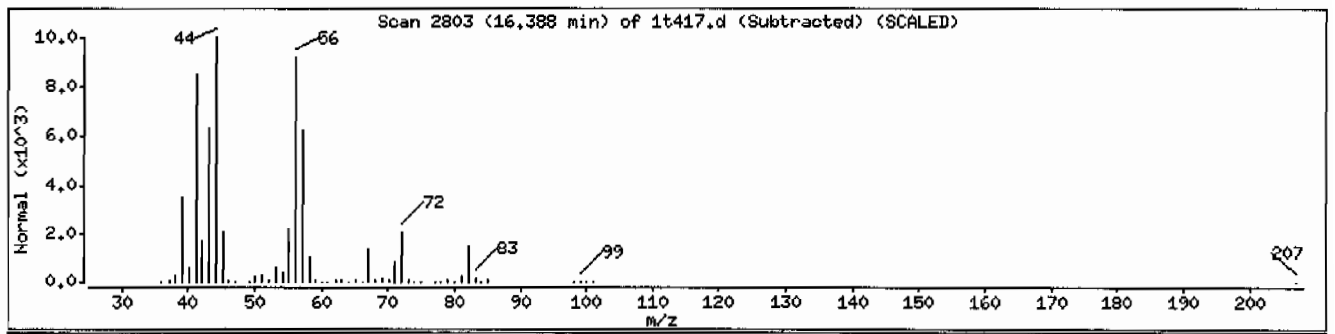

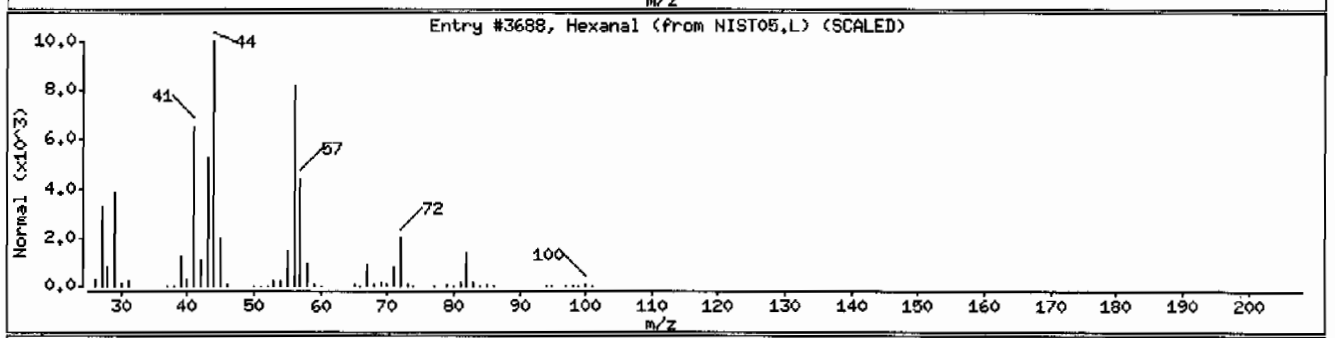

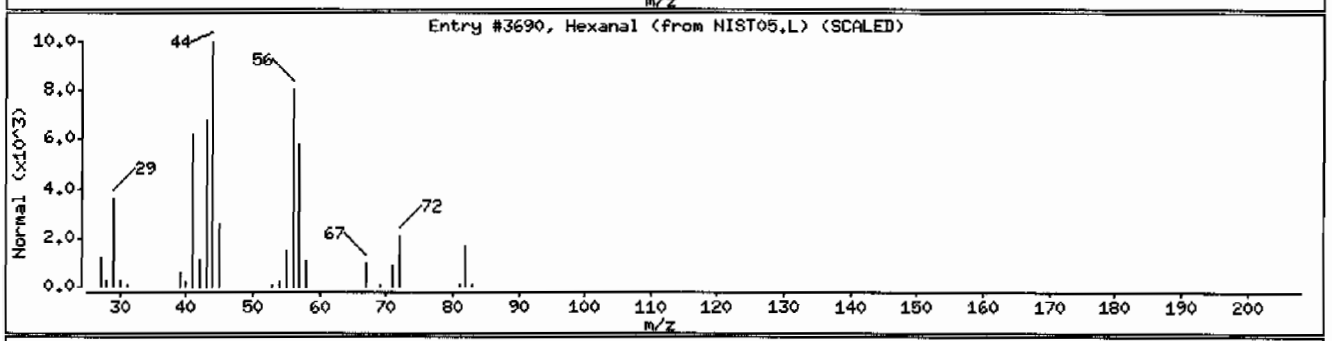

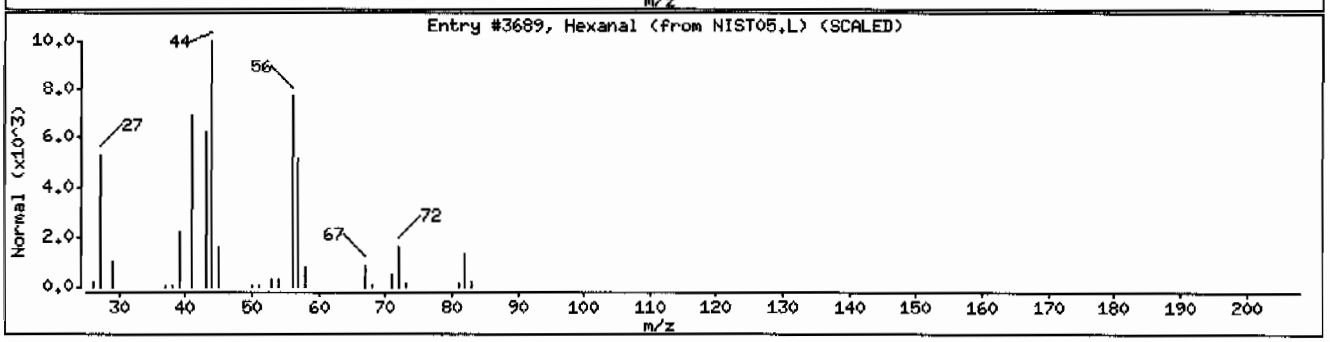

Data File: /chem/VOA1.i/123109v1/1t417.d

Date : 31-DEC-2009 18:11

Client ID: RE03-10-2737

Instrument: VOA1.i

Sample Info: |2435520111937990|1|VOAF|1|

Operator: RXM4

Column phase: RTX-Volatiles

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Hydrocarbon						
Anthracene, 9,10-dihydro-9,10-dimethyl-	22566-43-4	NIST05.L	63100	38	C16H16	208
Trisiloxane, 1,1,3,3,5,5-hexamethyl-	1189-93-1	NIST05.L	63148	35	C6H20O2Si3	208
Trisiloxane, 1,1,3,3,5,5-hexamethyl-	1189-93-1	NIST05.L	63149	27	C6H20O2Si3	208

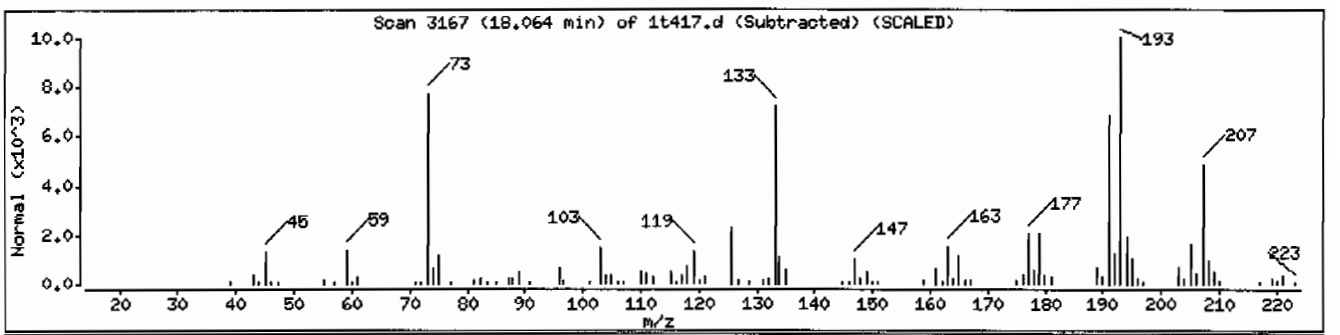

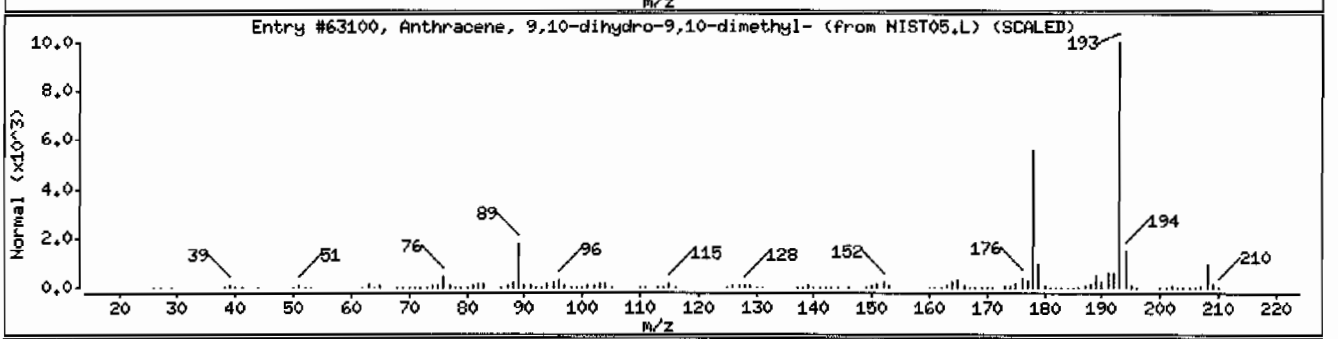

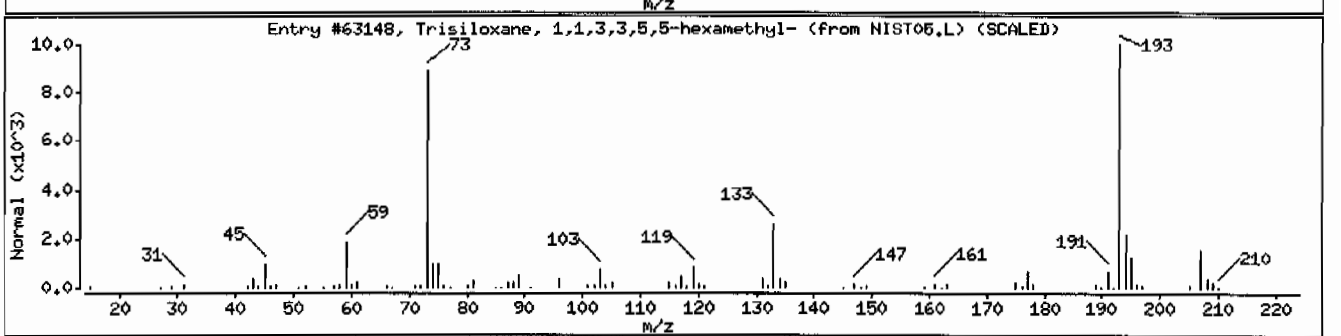

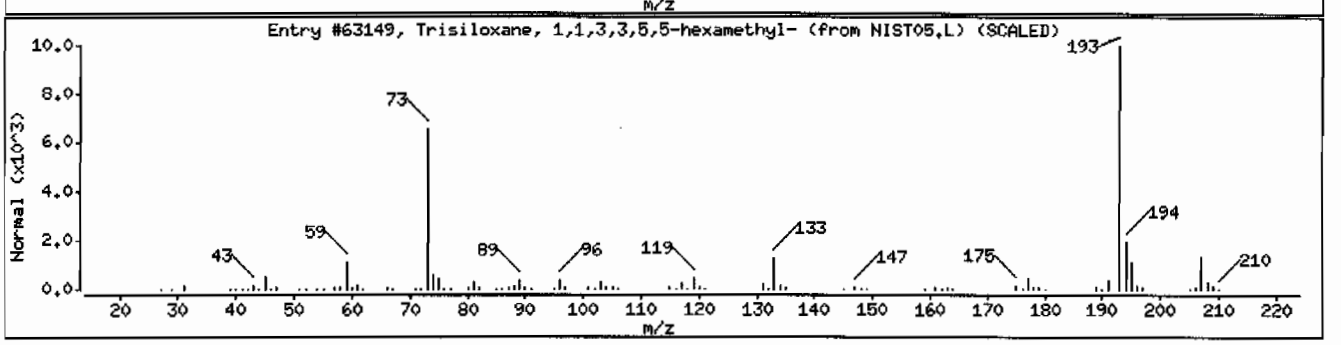

Data File: /chem/VOA1.i/123109v1/1t417.d

Date : 31-DEC-2009 18:11

Client ID: RE03-10-2737

Instrument: VOA1.i

Sample Info: |2435520111937990|1|VOAF|1|

Operator: RXM4

Column phase: RTX-Volatiles

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Octanal	124-13-0	NIST05.L	12031	91	C8H16O	128
Octanal	124-13-0	NIST05.L	12028	86	C8H16O	128
Octanal	124-13-0	NIST05.L	12030	53	C8H16O	128

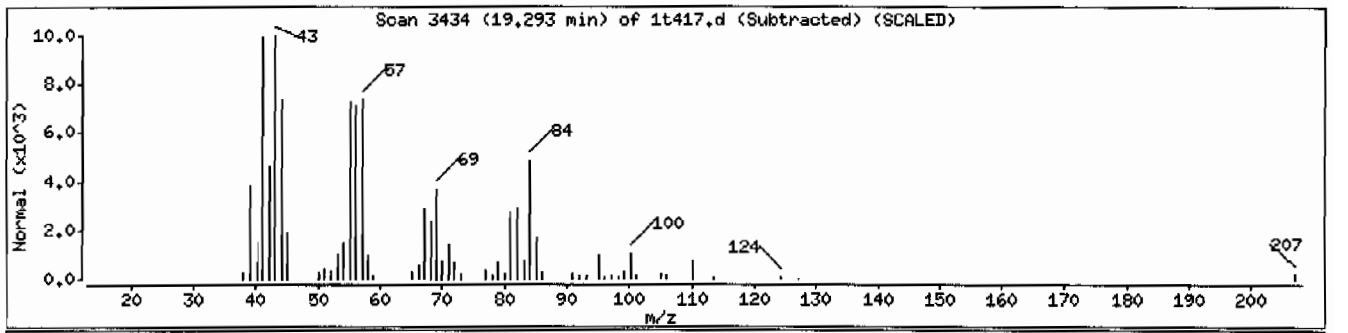

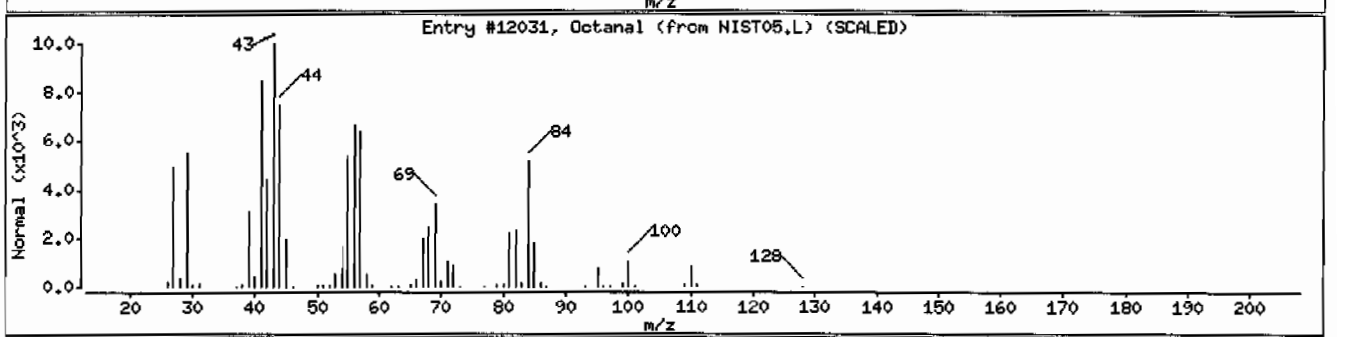

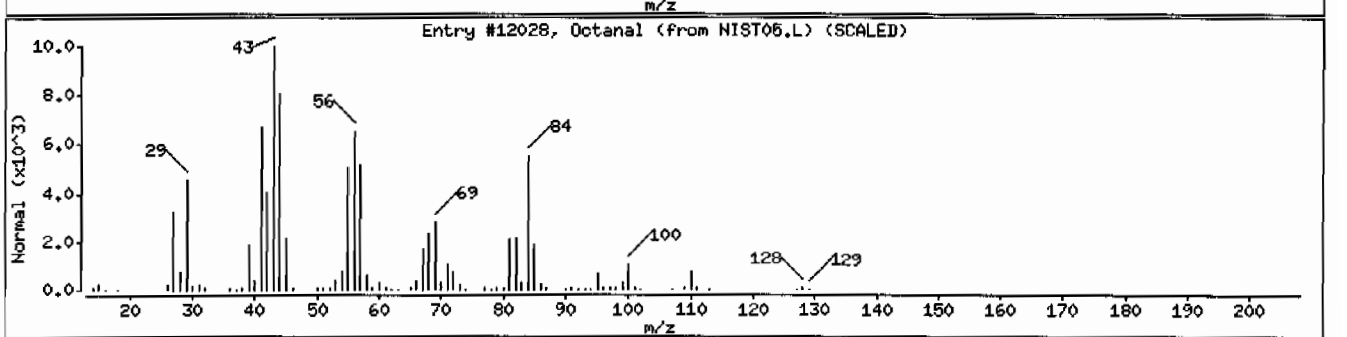

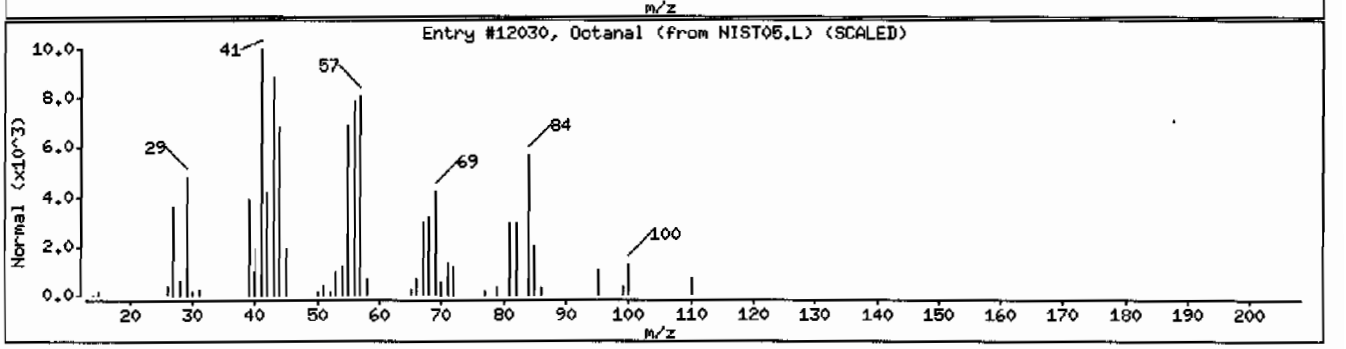

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1086**	**Date Collected:**	**12/22/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243552016**	**Date Received:**	**12/24/2009 09:30**	**%Moisture:**	**11.9**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-10-9872**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937990**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**12/31/2009 20:44**	**Analyst:**	**RXM4**	**Purge Vol:**	**5 mL**
Prep Date:	**12/31/2009 12:06**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1t422.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.13	ug/kg	0.386	1.13
74-87-3	Chloromethane	U	1.13	ug/kg	0.340	1.13
75-01-4	Vinyl chloride	U	1.13	ug/kg	0.340	1.13
74-83-9	Bromomethane	U	1.13	ug/kg	0.340	1.13
75-00-3	Chloroethane	U	1.13	ug/kg	0.340	1.13
75-69-4	Trichlorofluoromethane	U	1.13	ug/kg	0.340	1.13
67-64-1	Acetone	U	5.67	ug/kg	1.88	5.67
75-35-4	1,1-Dichloroethylene	U	1.13	ug/kg	0.340	1.13
74-88-4	Iodomethane	U	5.67	ug/kg	1.82	5.67
75-09-2	Methylene chloride	U	5.67	ug/kg	2.27	5.67
75-15-0	Carbon disulfide	U	5.67	ug/kg	1.42	5.67
156-60-5	trans-1,2-Dichloroethylene	U	1.13	ug/kg	0.340	1.13
75-34-3	1,1-Dichloroethane	U	1.13	ug/kg	0.340	1.13
78-93-3	2-Butanone	U	5.67	ug/kg	1.70	5.67
156-59-2	cis-1,2-Dichloroethylene	U	1.13	ug/kg	0.340	1.13
594-20-7	2,2-Dichloropropane	U	1.13	ug/kg	0.340	1.13
67-66-3	Chloroform	U	1.13	ug/kg	0.340	1.13
74-97-5	Bromochloromethane	U	1.13	ug/kg	0.374	1.13
71-55-6	1,1,1-Trichloroethane	U	1.13	ug/kg	0.340	1.13
563-58-6	1,1-Dichloropropene	U	1.13	ug/kg	0.340	1.13
56-23-5	Carbon tetrachloride	U	1.13	ug/kg	0.340	1.13
107-06-2	1,2-Dichloroethane	U	1.13	ug/kg	0.340	1.13
71-43-2	Benzene	U	1.13	ug/kg	0.340	1.13
79-01-6	Trichloroethylene	U	1.13	ug/kg	0.374	1.13
78-87-5	1,2-Dichloropropane	U	1.13	ug/kg	0.340	1.13
75-27-4	Bromodichloromethane	U	1.13	ug/kg	0.340	1.13
74-95-3	Dibromomethane	U	1.13	ug/kg	0.340	1.13
108-10-1	4-Methyl-2-pentanone	U	5.67	ug/kg	1.42	5.67
10061-01-5	cis-1,3-Dichloropropylene	U	1.13	ug/kg	0.340	1.13
108-88-3	Toluene	U	1.13	ug/kg	0.340	1.13
10061-02-6	trans-1,3-Dichloropropylene	U	1.13	ug/kg	0.340	1.13
79-00-5	1,1,2-Trichloroethane	U	1.13	ug/kg	0.340	1.13
591-78-6	2-Hexanone	U	5.67	ug/kg	1.70	5.67
142-28-9	1,3-Dichloropropane	U	1.13	ug/kg	0.340	1.13
127-18-4	Tetrachloroethylene	U	1.13	ug/kg	0.340	1.13
124-48-1	Dibromochloromethane	U	1.13	ug/kg	0.340	1.13
106-93-4	1,2-Dibromoethane	U	1.13	ug/kg	0.340	1.13
108-90-7	Chlorobenzene	U	1.13	ug/kg	0.340	1.13

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1086**	**Date Collected:**	**12/22/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243552016**	**Date Received:**	**12/24/2009 09:30**	**%Moisture:**	**11.9**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-10-9872**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937990**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**12/31/2009 20:44**	**Analyst:**	**RXM4**	**Purge Vol:**	**5 mL**
Prep Date:	**12/31/2009 12:06**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1t422.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.13	ug/kg	0.340	1.13
179601-23-1	m,p-Xylenes	U	2.27	ug/kg	0.340	2.27
95-47-6	o-Xylene	U	1.13	ug/kg	0.340	1.13
100-42-5	Styrene	U	1.13	ug/kg	0.340	1.13
75-25-2	Bromoform	U	1.13	ug/kg	0.340	1.13
79-34-5	1,1,2,2-Tetrachloroethane	U	1.13	ug/kg	0.340	1.13
96-18-4	1,2,3-Trichloropropane	U	1.13	ug/kg	0.340	1.13
108-86-1	Bromobenzene	U	1.13	ug/kg	0.340	1.13
103-65-1	n-Propylbenzene	U	1.13	ug/kg	0.340	1.13
95-49-8	2-Chlorotoluene	U	1.13	ug/kg	0.340	1.13
98-82-8	Isopropylbenzene	U	1.13	ug/kg	0.340	1.13
108-67-8	1,3,5-Trimethylbenzene	U	1.13	ug/kg	0.340	1.13
106-43-4	4-Chlorotoluene	U	1.13	ug/kg	0.340	1.13
98-06-6	tert-Butylbenzene	U	1.13	ug/kg	0.340	1.13
95-63-6	1,2,4-Trimethylbenzene	U	1.13	ug/kg	0.340	1.13
135-98-8	sec-Butylbenzene	U	1.13	ug/kg	0.340	1.13
99-87-6	4-Isopropyltoluene	U	1.13	ug/kg	0.340	1.13
541-73-1	1,3-Dichlorobenzene	U	1.13	ug/kg	0.340	1.13
106-46-7	1,4-Dichlorobenzene	U	1.13	ug/kg	0.340	1.13
104-51-8	n-Butylbenzene	U	1.13	ug/kg	0.340	1.13
96-12-8	1,2-Dibromo-3-chloropropane	U	1.13	ug/kg	0.340	1.13
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.67	ug/kg	1.82	5.67
630-20-6	1,1,1,2-Tetrachloroethane	U	1.13	ug/kg	0.340	1.13
95-50-1	1,2-Dichlorobenzene	U	1.13	ug/kg	0.340	1.13

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Siloxane	18.06	34.3	ug/kg		J

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/123109v1/1t422.d
Lab Smp Id: 243552016 Client Smp ID: RE03-10-9872
Inj Date : 31-DEC-2009 20:44
Operator : RXM4 Inst ID: VOA1.i
Smp Info : |243552016|937990|1|VOAF|1|
Misc Info : LANL 5G N/A
Comment :
Method : /chem/VOA1.i/123109v1/VOA1-8260ox-121709.m
Meth Date : 18-Jan-2010 17:56 jeb Quant Type: ISTD
Cal Date : 17-DEC-2009 21:27 Cal File: 1r425.d
Als bottle: 22
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-1086.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	11.88000	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
* 52 Fluorobenzene	96	13.682	13.682	(1.000)	758422	50.0000	
* 76 Chlorobenzene-d5	117	17.157	17.157	(1.000)	553757	50.0000	
* 102 1,4-Dichlorobenzene-d4	152	19.606	19.606	(1.000)	317726	50.0000	
$ 48 1,2-Dichloroethane-d4	65	13.336	13.336	(0.975)	568578	62.7443	71.2
$ 65 Toluene-d8	98	15.514	15.514	(0.904)	1643595	53.2788	60.5
$ 87 Bromofluorobenzene	95	18.386	18.386	(0.938)	684016	53.7908	61.0

ION RATIO REPORT

VOA REPORT

Data file: 1t422.d
Report Date: 01/04/2010 07:15
Lab. ID: 243552016 SampleType: SAMPLE
Injection Date: 31-DEC-2009 20:44
Operator: RXM4 Instrument: VOA1.i
Sample Info: |243552016|973990|1|VOAF|1|
Miscellaneous Info: LANL 5G N/A
Comment:
Method used: /chem/VOA1.i/123109v1/VOA1-8260ox-121709.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-1086
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
51 1,2-Dichloroethane			CAS#: 107-06-2			
62	13613	13.68	13.44	80-120	100	(T)
64	2115	13.68	13.44	2- 62	16	(T)
64 4-Methyl-2-pentanone			CAS#: 108-10-1			
58	16068	15.51	15.35	80-120	100	(T)
43	9254	15.51	15.35	223-283	58	(QT)
100	1039523	15.51	15.36	0- 60	6469	(QT)
82 Styrene			CAS#: 100-42-5			
104	6471	18.06	17.80	80-120	100	(T)
78	137	18.10	17.80	28- 88	2	(QT)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/123109v1/1t422.d
Lab Smp Id: 243552016 Client Smp ID: RE03-10-9872
Inj Date : 31-DEC-2009 20:44
Operator : RXM4 Inst ID: VOA1.i
Smp Info : |243552016|937990|1|VOAF|1|
Misc Info : LANL 5G N/A
Comment :
Method : /chem/VOA1.i/123109v1/VOA1-8260ox-121709.m
Meth Date : 18-Jan-2010 17:56 jeb Quant Type: ISTD
Cal Date : 17-DEC-2009 21:27 Cal File: 1r425.d
Als bottle: 22
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-1086.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	11.88000	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 76 Chlorobenzene-d5	17.157	1855703	50.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ug/l)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown Siloxane				CAS #:			
18.064	1120143	30.1811005	34.2	0		0	76

Data File: /chem/VOA1.i/123109v1/1t422.d
Date : 31-DEC-2009 20:44
Client ID: RE03-10-9872
Sample Info: |2435520161937990|1|VOAF|1|

Column phase: RTX-Volatiles

Instrument: VOA1.i

Operator: RXM4
Column diameter: 0.25

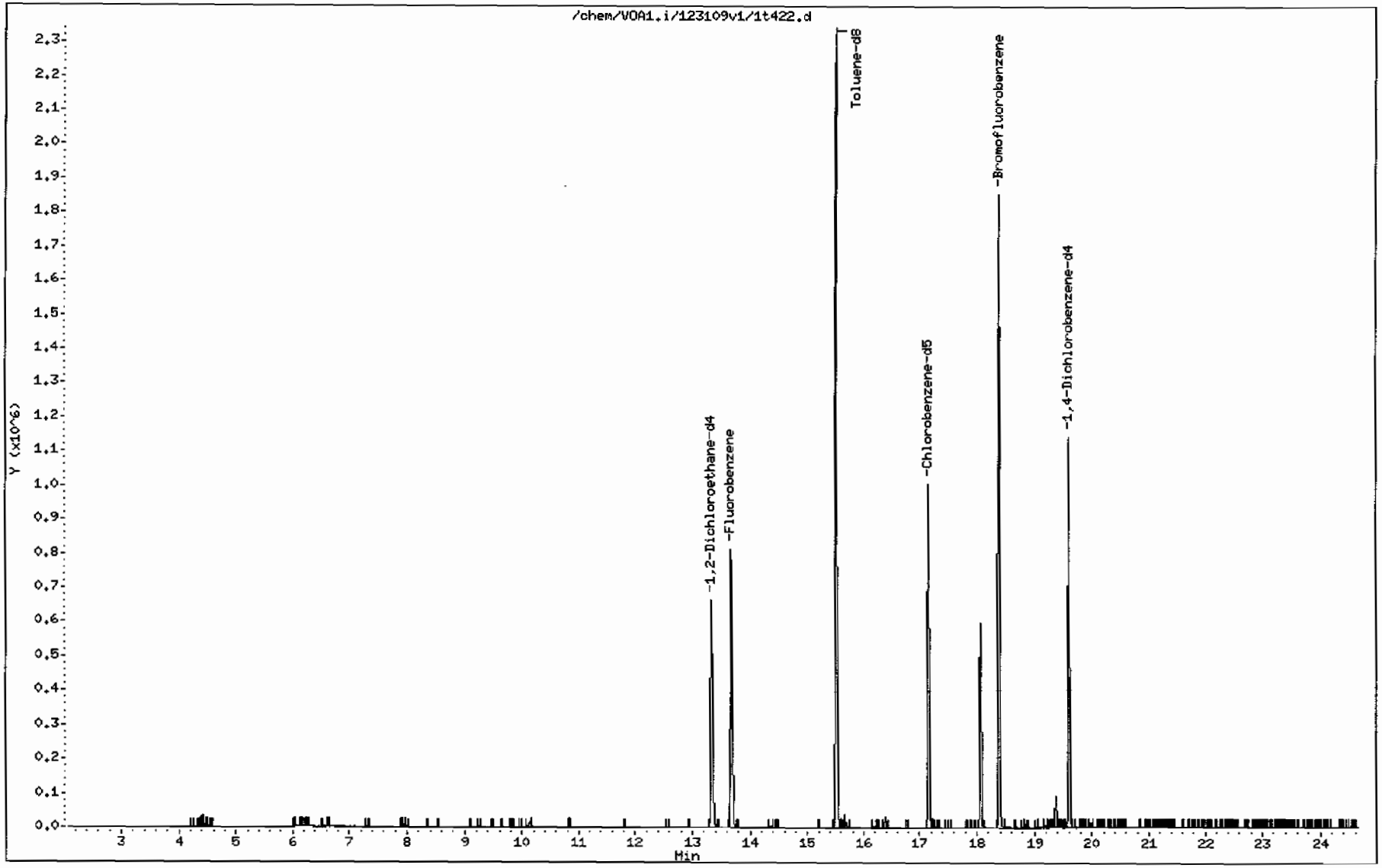

Data File: /chem/VOA1.i/123109v1/1t422.d

Date : 31-DEC-2009 20:44

Client ID: RE03-10-9872

Instrument: VOA1.i

Sample Info: |2435520161937990|1|VOAF|1|

Operator: RXM4

Column phase: RTX-Volatiles

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Siloxane						
Silane, (2-ethyl-3,3-dimethyl-4-methylen	95798-13-3	NIST05.L	62897	38	C13H24Si	208
Trisiloxane, 1,1,3,3,5,5-hexamethyl-	1189-93-1	NIST05.L	63149	35	C6H20O2Si3	208
Anthracene, 9,10-dihydro-9,10-dimethyl-	22566-43-4	NIST05.L	63100	30	C16H16	208

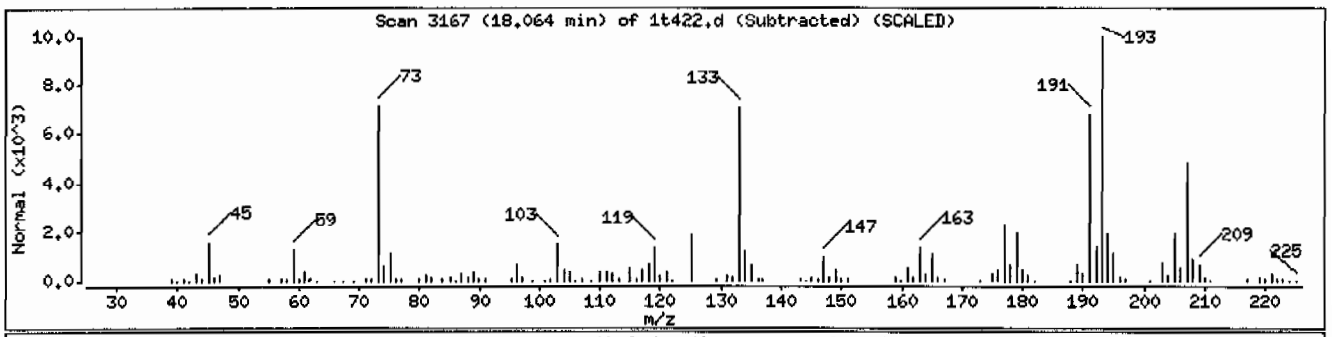

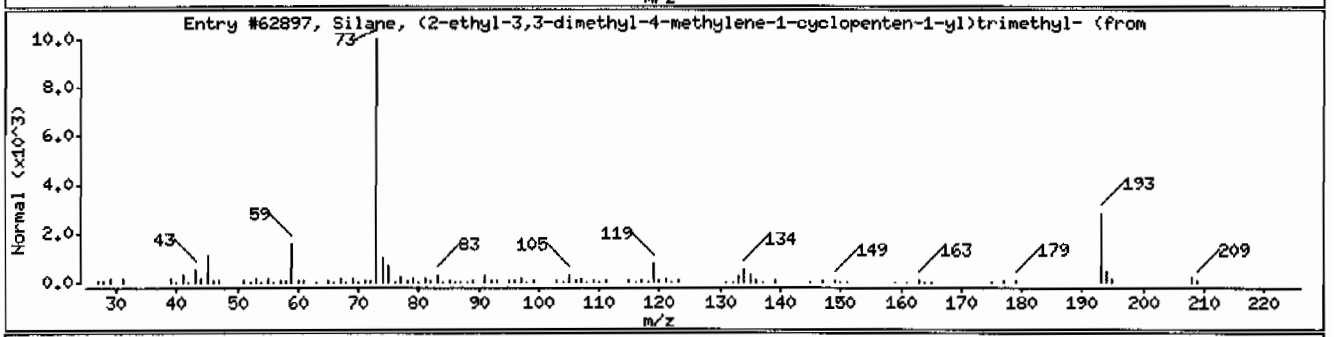

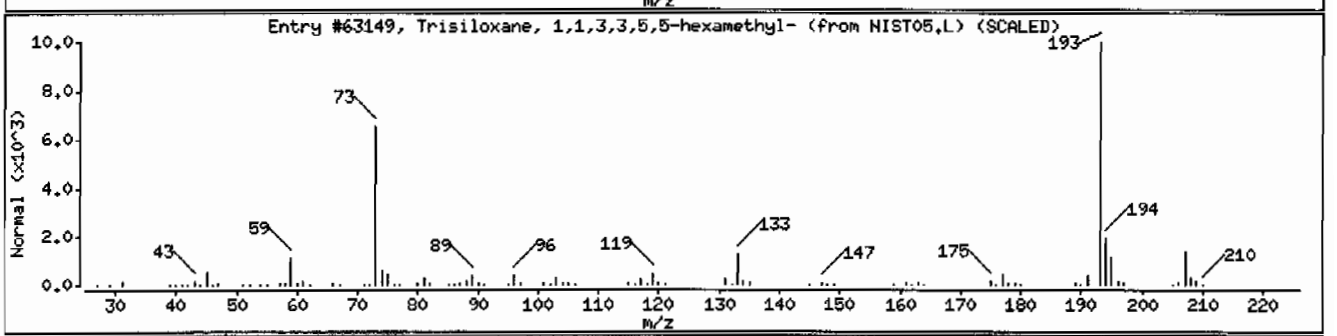

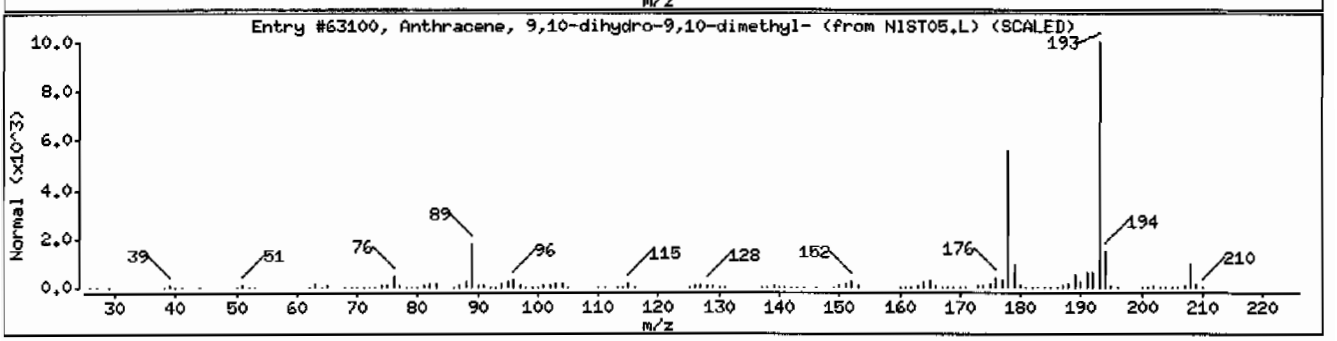

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1086**	**Date Collected:**	**12/22/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243552014**	**Date Received:**	**12/24/2009 09:30**	**%Moisture:**	**5.3**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-10-9873**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937990**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**12/31/2009 19:43**	**Analyst:**	**RXM4**	**Purge Vol:**	**5 mL**
Prep Date:	**12/31/2009 12:04**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1t420.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.06	ug/kg	0.359	1.06
74-87-3	Chloromethane	U	1.06	ug/kg	0.317	1.06
75-01-4	Vinyl chloride	U	1.06	ug/kg	0.317	1.06
74-83-9	Bromomethane	U	1.06	ug/kg	0.317	1.06
75-00-3	Chloroethane	U	1.06	ug/kg	0.317	1.06
75-69-4	Trichlorofluoromethane	U	1.06	ug/kg	0.317	1.06
67-64-1	Acetone	U	5.28	ug/kg	1.75	5.28
75-35-4	1,1-Dichloroethylene	U	1.06	ug/kg	0.317	1.06
74-88-4	Iodomethane	U	5.28	ug/kg	1.69	5.28
75-09-2	Methylene chloride	U	5.28	ug/kg	2.11	5.28
75-15-0	Carbon disulfide	U	5.28	ug/kg	1.32	5.28
156-60-5	trans-1,2-Dichloroethylene	U	1.06	ug/kg	0.317	1.06
75-34-3	1,1-Dichloroethane	U	1.06	ug/kg	0.317	1.06
78-93-3	2-Butanone	U	5.28	ug/kg	1.58	5.28
156-59-2	cis-1,2-Dichloroethylene	U	1.06	ug/kg	0.317	1.06
594-20-7	2,2-Dichloropropane	U	1.06	ug/kg	0.317	1.06
67-66-3	Chloroform	U	1.06	ug/kg	0.317	1.06
74-97-5	Bromochloromethane	U	1.06	ug/kg	0.348	1.06
71-55-6	1,1,1-Trichloroethane	U	1.06	ug/kg	0.317	1.06
563-58-6	1,1-Dichloropropene	U	1.06	ug/kg	0.317	1.06
56-23-5	Carbon tetrachloride	U	1.06	ug/kg	0.317	1.06
107-06-2	1,2-Dichloroethane	U	1.06	ug/kg	0.317	1.06
71-43-2	Benzene	U	1.06	ug/kg	0.317	1.06
79-01-6	Trichloroethylene	U	1.06	ug/kg	0.348	1.06
78-87-5	1,2-Dichloropropane	U	1.06	ug/kg	0.317	1.06
75-27-4	Bromodichloromethane	U	1.06	ug/kg	0.317	1.06
74-95-3	Dibromomethane	U	1.06	ug/kg	0.317	1.06
108-10-1	4-Methyl-2-pentanone	U	5.28	ug/kg	1.32	5.28
10061-01-5	cis-1,3-Dichloropropylene	U	1.06	ug/kg	0.317	1.06
108-88-3	Toluene	U	1.06	ug/kg	0.317	1.06
10061-02-6	trans-1,3-Dichloropropylene	U	1.06	ug/kg	0.317	1.06
79-00-5	1,1,2-Trichloroethane	U	1.06	ug/kg	0.317	1.06
591-78-6	2-Hexanone	U	5.28	ug/kg	1.58	5.28
142-28-9	1,3-Dichloropropane	U	1.06	ug/kg	0.317	1.06
127-18-4	Tetrachloroethylene	U	1.06	ug/kg	0.317	1.06
124-48-1	Dibromochloromethane	U	1.06	ug/kg	0.317	1.06
106-93-4	1,2-Dibromoethane	U	1.06	ug/kg	0.317	1.06
108-90-7	Chlorobenzene	U	1.06	ug/kg	0.317	1.06

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1086**	**Date Collected:**	**12/22/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243552014**	**Date Received:**	**12/24/2009 09:30**	**%Moisture:**	**5.3**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-10-9873**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937990**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**12/31/2009 19:43**	**Analyst:**	**RXM4**	**Purge Vol:**	**5 mL**
Prep Date:	**12/31/2009 12:04**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**lt420.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.06	ug/kg	0.317	1.06
179601-23-1	m,p-Xylenes	U	2.11	ug/kg	0.317	2.11
95-47-6	o-Xylene	U	1.06	ug/kg	0.317	1.06
100-42-5	Styrene	U	1.06	ug/kg	0.317	1.06
75-25-2	Bromoform	U	1.06	ug/kg	0.317	1.06
79-34-5	1,1,2,2-Tetrachloroethane	U	1.06	ug/kg	0.317	1.06
96-18-4	1,2,3-Trichloropropane	U	1.06	ug/kg	0.317	1.06
108-86-1	Bromobenzene	U	1.06	ug/kg	0.317	1.06
103-65-1	n-Propylbenzene	U	1.06	ug/kg	0.317	1.06
95-49-8	2-Chlorotoluene	U	1.06	ug/kg	0.317	1.06
98-82-8	Isopropylbenzene	U	1.06	ug/kg	0.317	1.06
108-67-8	1,3,5-Trimethylbenzene	U	1.06	ug/kg	0.317	1.06
106-43-4	4-Chlorotoluene	U	1.06	ug/kg	0.317	1.06
98-06-6	tert-Butylbenzene	U	1.06	ug/kg	0.317	1.06
95-63-6	1,2,4-Trimethylbenzene	U	1.06	ug/kg	0.317	1.06
135-98-8	sec-Butylbenzene	U	1.06	ug/kg	0.317	1.06
99-87-6	4-Isopropyltoluene	U	1.06	ug/kg	0.317	1.06
541-73-1	1,3-Dichlorobenzene	U	1.06	ug/kg	0.317	1.06
106-46-7	1,4-Dichlorobenzene	U	1.06	ug/kg	0.317	1.06
104-51-8	n-Butylbenzene	U	1.06	ug/kg	0.317	1.06
96-12-8	1,2-Dibromo-3-chloropropane	U	1.06	ug/kg	0.317	1.06
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.28	ug/kg	1.69	5.28
630-20-6	1,1,1,2-Tetrachloroethane	U	1.06	ug/kg	0.317	1.06
95-50-1	1,2-Dichlorobenzene	U	1.06	ug/kg	0.317	1.06

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	No Tentatively Identified Compounds Found			ug/kg		

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/123109v1/1t420.d
Lab Smp Id: 243552014 Client Smp ID: RE03-10-9873
Inj Date : 31-DEC-2009 19:43
Operator : RXM4 Inst ID: VOA1.i
Smp Info : |243552014|937990|1|VOAF|1|
Misc Info : LANL 5G N/A
Comment :
Method : /chem/VOA1.i/123109v1/VOA1-8260ox-121709.m
Meth Date : 18-Jan-2010 17:56 jeb Quant Type: ISTD
Cal Date : 17-DEC-2009 21:27 Cal File: 1r425.d
Als bottle: 20
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-1086.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	5.28680	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
* 52 Fluorobenzene	96	13.682	13.682	(1.000)	755716	50.0000	
* 76 Chlorobenzene-d5	117	17.152	17.157	(1.000)	548178	50.0000	
* 102 1,4-Dichlorobenzene-d4	152	19.606	19.606	(1.000)	271344	50.0000	
$ 48 1,2-Dichloroethane-d4	65	13.336	13.336	(0.975)	550638	60.9822	64.4
$ 65 Toluene-d8	98	15.514	15.514	(0.904)	1623796	53.1727	56.1
$ 87 Bromofluorobenzene	95	18.386	18.386	(0.938)	614740	56.6064	59.8

ION RATIO REPORT

VOA REPORT

Data file: 1t420.d
Report Date: 01/04/2010 07:15
Lab. ID: 243552014 SampleType: SAMPLE
Injection Date: 31-DEC-2009 19:43
Operator: RXM4 Instrument: VOA1.i
Sample Info: |243552014|973990|1|VOAF|1|
Miscellaneous Info: LANL 5G N/A
Comment:
Method used: /chem/VOA1.i/123109v1/VOA1-8260ox-121709.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-1086
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
51	1,2-Dichloroethane			CAS#: 107-06-2		
62	13330	13.68	13.44	80-120	100	(T)
64	1854	13.68	13.44	2- 62	14	(T)
64	4-Methyl-2-pentanone			CAS#: 108-10-1		
58	16509	15.51	15.35	80-120	100	(T)
43	8918	15.51	15.35	223-283	54	(QT)
100	1035736	15.51	15.36	0- 60	6274	(QT)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/123109v1/1t420.d
Lab Smp Id: 243552014 Client Smp ID: RE03-10-9873
Inj Date : 31-DEC-2009 19:43
Operator : RXM4 Inst ID: VOA1.i
Smp Info : |243552014|937990|1|VOAF|1|
Misc Info : LANL 5G N/A
Comment :
Method : /chem/VOA1.i/123109v1/VOA1-8260ox-121709.m
Meth Date : 18-Jan-2010 17:56 jeb Quant Type: ISTD
Cal Date : 17-DEC-2009 21:27 Cal File: 1r425.d
Als bottle: 20
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-1086.sub
Target Version: 3.50
Processing Host: prdsvr07

- NO TENTATIVELY IDENTIFIED COMPOUNDS -

Data File: /chem/VOA1.i/123109v1/1t420.d
Date : 31-DEC-2009 19:43
Client ID: RE03-10-9873
Sample Info: |243552014|937990|1|VOAF|1|

Column phase: RTX-Volatiles

Instrument: VOA1.i

Operator: RXM4
Column diameter: 0.25

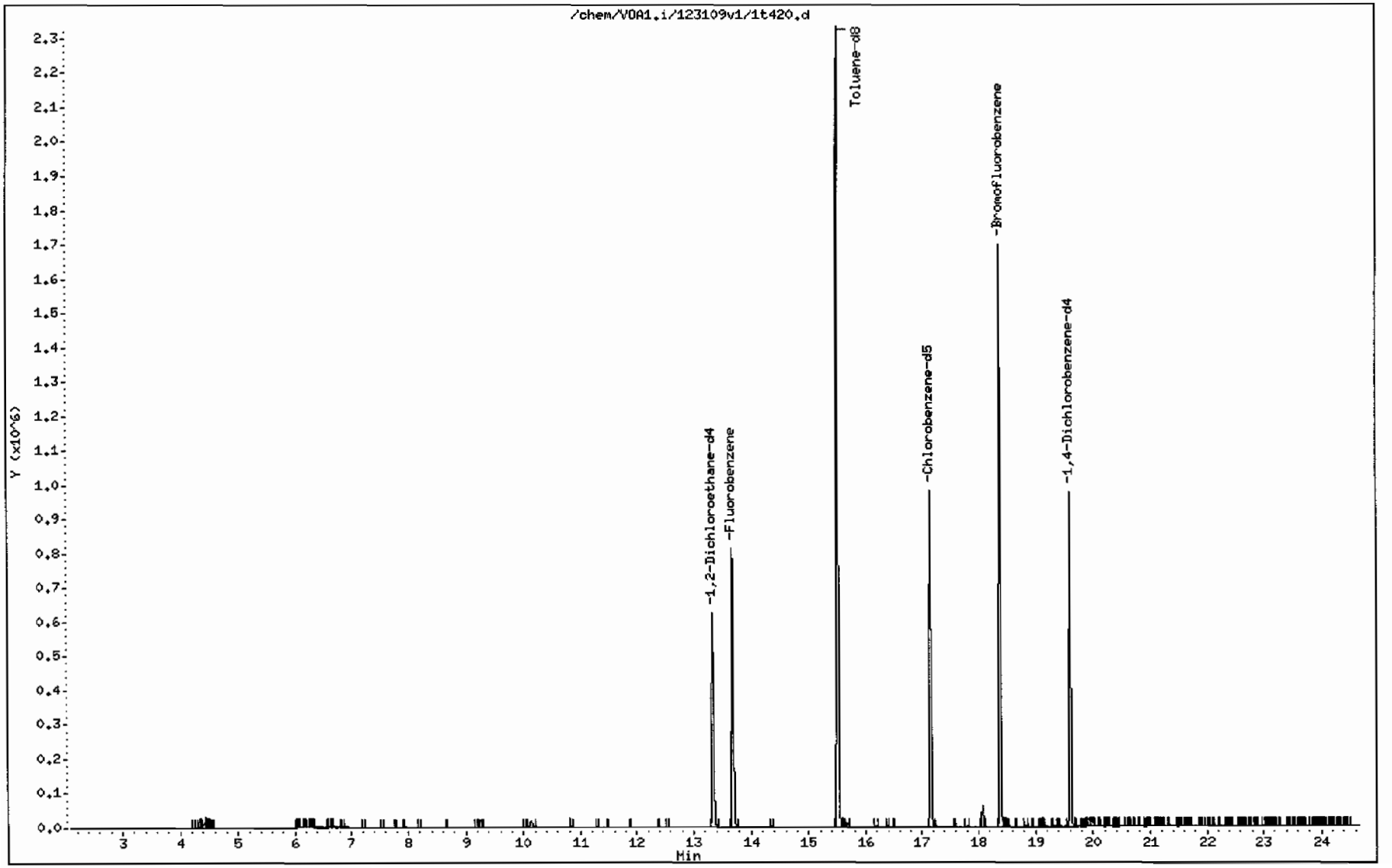

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1086**	**Date Collected:**	**12/22/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243552017**	**Date Received:**	**12/24/2009 09:30**	**%Moisture:**	**6.9**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-10-9874**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937990**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**12/31/2009 21:14**	**Analyst:**	**RXM4**	**Purge Vol:**	**5 mL**
Prep Date:	**12/31/2009 12:07**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1t423.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.07	ug/kg	0.365	1.07
74-87-3	Chloromethane	U	1.07	ug/kg	0.322	1.07
75-01-4	Vinyl chloride	U	1.07	ug/kg	0.322	1.07
74-83-9	Bromomethane	U	1.07	ug/kg	0.322	1.07
75-00-3	Chloroethane	U	1.07	ug/kg	0.322	1.07
75-69-4	Trichlorofluoromethane	U	1.07	ug/kg	0.322	1.07
67-64-1	Acetone	J	3.12	ug/kg	1.78	5.37
75-35-4	1,1-Dichloroethylene	U	1.07	ug/kg	0.322	1.07
74-88-4	Iodomethane	U	5.37	ug/kg	1.72	5.37
75-09-2	Methylene chloride	U	5.37	ug/kg	2.15	5.37
75-15-0	Carbon disulfide	U	5.37	ug/kg	1.34	5.37
156-60-5	trans-1,2-Dichloroethylene	U	1.07	ug/kg	0.322	1.07
75-34-3	1,1-Dichloroethane	U	1.07	ug/kg	0.322	1.07
78-93-3	2-Butanone	U	5.37	ug/kg	1.61	5.37
156-59-2	cis-1,2-Dichloroethylene	U	1.07	ug/kg	0.322	1.07
594-20-7	2,2-Dichloropropane	U	1.07	ug/kg	0.322	1.07
67-66-3	Chloroform	U	1.07	ug/kg	0.322	1.07
74-97-5	Bromochloromethane	U	1.07	ug/kg	0.354	1.07
71-55-6	1,1,1-Trichloroethane	U	1.07	ug/kg	0.322	1.07
563-58-6	1,1-Dichloropropene	U	1.07	ug/kg	0.322	1.07
56-23-5	Carbon tetrachloride	U	1.07	ug/kg	0.322	1.07
107-06-2	1,2-Dichloroethane	U	1.07	ug/kg	0.322	1.07
71-43-2	Benzene	U	1.07	ug/kg	0.322	1.07
79-01-6	Trichloroethylene	U	1.07	ug/kg	0.354	1.07
78-87-5	1,2-Dichloropropane	U	1.07	ug/kg	0.322	1.07
75-27-4	Bromodichloromethane	U	1.07	ug/kg	0.322	1.07
74-95-3	Dibromomethane	U	1.07	ug/kg	0.322	1.07
108-10-1	4-Methyl-2-pentanone	U	5.37	ug/kg	1.34	5.37
10061-01-5	cis-1,3-Dichloropropylene	U	1.07	ug/kg	0.322	1.07
108-88-3	Toluene	U	1.07	ug/kg	0.322	1.07
10061-02-6	trans-1,3-Dichloropropylene	U	1.07	ug/kg	0.322	1.07
79-00-5	1,1,2-Trichloroethane	U	1.07	ug/kg	0.322	1.07
591-78-6	2-Hexanone	U	5.37	ug/kg	1.61	5.37
142-28-9	1,3-Dichloropropane	U	1.07	ug/kg	0.322	1.07
127-18-4	Tetrachloroethylene	U	1.07	ug/kg	0.322	1.07
124-48-1	Dibromochloromethane	U	1.07	ug/kg	0.322	1.07
106-93-4	1,2-Dibromoethane	U	1.07	ug/kg	0.322	1.07
108-90-7	Chlorobenzene	U	1.07	ug/kg	0.322	1.07

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1086**	**Date Collected:**	**12/22/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243552017**	**Date Received:**	**12/24/2009 09:30**	**%Moisture:**	**6.9**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-10-9874**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937990**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**12/31/2009 21:14**	**Analyst:**	**RXM4**	**Purge Vol:**	**5 mL**
Prep Date:	**12/31/2009 12:07**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1t423.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.07	ug/kg	0.322	1.07
179601-23-1	m,p-Xylenes	U	2.15	ug/kg	0.322	2.15
95-47-6	o-Xylene	U	1.07	ug/kg	0.322	1.07
100-42-5	Styrene	U	1.07	ug/kg	0.322	1.07
75-25-2	Bromoform	U	1.07	ug/kg	0.322	1.07
79-34-5	1,1,2,2-Tetrachloroethane	U	1.07	ug/kg	0.322	1.07
96-18-4	1,2,3-Trichloropropane	U	1.07	ug/kg	0.322	1.07
108-86-1	Bromobenzene	U	1.07	ug/kg	0.322	1.07
103-65-1	n-Propylbenzene	U	1.07	ug/kg	0.322	1.07
95-49-8	2-Chlorotoluene	U	1.07	ug/kg	0.322	1.07
98-82-8	Isopropylbenzene	U	1.07	ug/kg	0.322	1.07
108-67-8	1,3,5-Trimethylbenzene	U	1.07	ug/kg	0.322	1.07
106-43-4	4-Chlorotoluene	U	1.07	ug/kg	0.322	1.07
98-06-6	tert-Butylbenzene	U	1.07	ug/kg	0.322	1.07
95-63-6	1,2,4-Trimethylbenzene	U	1.07	ug/kg	0.322	1.07
135-98-8	sec-Butylbenzene	U	1.07	ug/kg	0.322	1.07
99-87-6	4-Isopropyltoluene	U	1.07	ug/kg	0.322	1.07
541-73-1	1,3-Dichlorobenzene	U	1.07	ug/kg	0.322	1.07
106-46-7	1,4-Dichlorobenzene	U	1.07	ug/kg	0.322	1.07
104-51-8	n-Butylbenzene	U	1.07	ug/kg	0.322	1.07
96-12-8	1,2-Dibromo-3-chloropropane	U	1.07	ug/kg	0.322	1.07
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.37	ug/kg	1.72	5.37
630-20-6	1,1,1,2-Tetrachloroethane	U	1.07	ug/kg	0.322	1.07
95-50-1	1,2-Dichlorobenzene	U	1.07	ug/kg	0.322	1.07

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Hydrocarbon	14.46	9.43	ug/kg		J
66-25-1	Hexanal	16.39	96.4	ug/kg	90	NJ
	Unknown Hydrocarbon	18.06	13.8	ug/kg		J

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/123109v1/1t423.d
Lab Smp Id: 243552017 Client Smp ID: RE03-10-9874
Inj Date : 31-DEC-2009 21:14
Operator : RXM4 Inst ID: VOA1.i
Smp Info : |243552017|937990|1|VOAF|1|
Misc Info : LANL 5G N/A
Comment :
Method : /chem/VOA1.i/123109v1/VOA1-8260ox-121709.m
Meth Date : 18-Jan-2010 17:56 jeb Quant Type: ISTD
Cal Date : 17-DEC-2009 21:27 Cal File: 1r425.d
Als bottle: 23
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-1086.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	6.86000	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
* 52 Fluorobenzene	96	13.682	13.682	(1.000)	869285	50.0000	
* 76 Chlorobenzene-d5	117	17.157	17.157	(1.000)	648589	50.0000	
* 102 1,4-Dichlorobenzene-d4	152	19.601	19.606	(1.000)	366397	50.0000	
$ 48 1,2-Dichloroethane-d4	65	13.337	13.336	(0.975)	636255	61.2582	65.8
$ 65 Toluene-d8	98	15.514	15.514	(0.904)	1723284	47.6943	51.2
$ 87 Bromofluorobenzene	95	18.382	18.386	(0.938)	726757	49.5601	53.2
16 Acetone	43	9.258	9.254	(0.677)	15304	2.91015	3.1(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

ION RATIO REPORT

VOA REPORT

Data file: 1t423.d
Report Date: 01/04/2010 07:16
Lab. ID: 243552017 SampleType: SAMPLE
Injection Date: 31-DEC-2009 21:14
Operator: RXM4 Instrument: VOA1.i
Sample Info: |243552017|973990|1|VOAF|1|
Miscellaneous Info: LANL 5G N/A
Comment:
Method used: /chem/VOA1.i/123109v1/VOA1-8260ox-121709.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-1086
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
16 Acetone			CAS#: 67-64-1			
43	15304	9.26	9.25	80-120	100	( )
58	3841	9.26	9.25	1- 61	25	( )
51 1,2-Dichloroethane			CAS#: 107-06-2			
62	14855	13.68	13.44	80-120	100	(T)
64	2650	13.68	13.44	2- 62	18	(T)
64 4-Methyl-2-pentanone			CAS#: 108-10-1			
58	17039	15.51	15.35	80-120	100	(T)
43	10357	15.51	15.35	223-283	61	(QT)
100	1098926	15.51	15.36	0- 60	6449	(QT)
69 1,1,2-Trichloroethane			CAS#: 79-00-5			
83	9307	16.38	16.10	80-120	100	(T)
97	409	16.38	16.10	84-144	4	(QT)
85	2230	16.39	16.10	34- 94	24	(QT)
71 2-Hexanone			CAS#: 591-78-6			
43	403220	16.39	16.26	80-120	100	(T)
58	64660	16.39	16.26	25- 85	16	(QT)
88 1,1,2,2-Tetrachloroethane			CAS#: 79-34-5			
83	2754	18.97	18.50	80-120	100	(T)
85	1020	18.06	18.50	35- 95	37	(T)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/123109v1/1t423.d
Lab Smp Id: 243552017 Client Smp ID: RE03-10-9874
Inj Date : 31-DEC-2009 21:14
Operator : RXM4 Inst ID: VOA1.i
Smp Info : |243552017|937990|1|VOAF|1|
Misc Info : LANL 5G N/A
Comment :
Method : /chem/VOA1.i/123109v1/VOA1-8260ox-121709.m
Meth Date : 18-Jan-2010 17:56 jeb Quant Type: ISTD
Cal Date : 17-DEC-2009 21:27 Cal File: 1r425.d
Als bottle: 23
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-1086.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	6.86000	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 52 Fluorobenzene	13.682	1961727	50.000
* 76 Chlorobenzene-d5	17.157	2160372	50.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL (ug/l)	FINAL (ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown Hydrocarbon					CAS #:		
14.455	344576	8.78247169	9.4	0		0	52

RT	AREA	CONCENTRATIONS ON-COL(ug/l)	FINAL(ug/Kg)	QUAL	QUANT LIBRARY	LIB ENTRY	CPND #
Hexanal				CAS #: 66-25-1			
16.388	3878362	89.7614053	96.4	90	NIST05.L	3689	76
Unknown Hydrocarbon				CAS #:			
18.064	553611	12.8128584	13.8	0		0	76

Data File: /chem/VOA1.i/123109v1/1t423.d
Date : 31-DEC-2009 21:14
Client ID: RE03-10-9874
Sample Info: |2435520171937990|1|VOAF|1|

Column phase: RTX-Volatiles

Instrument: VOA1.i

Operator: RXM4
Column diameter: 0.25

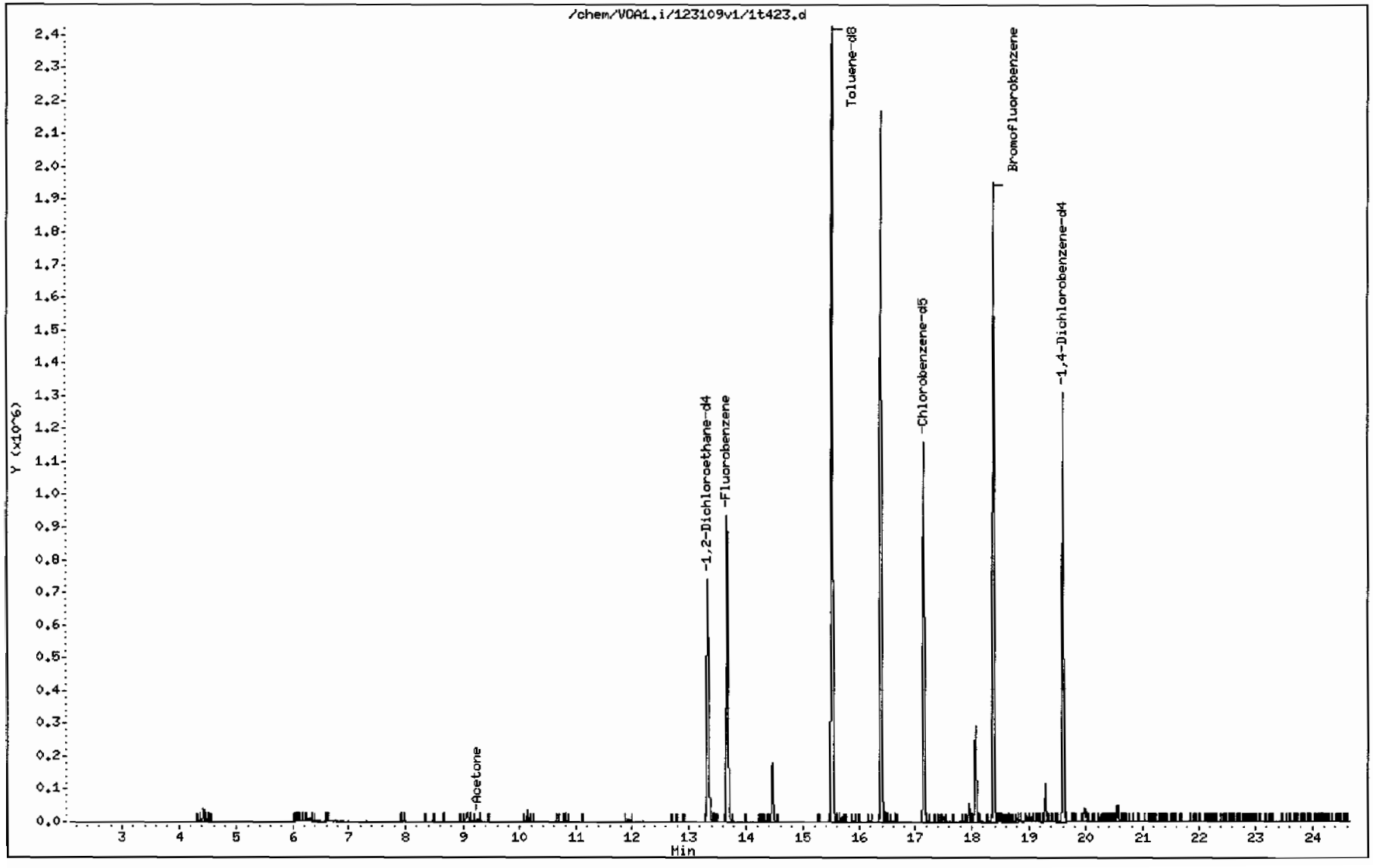

Data File: /chem/VOA1.i/123109v1/1t423.d

Date : 31-DEC-2009 21:14

Client ID: RE03-10-9874

Instrument: VOA1.i

Sample Info: |2435520171937990|1|VOAF|1|

Operator: RXM4

Column phase: RTX-Volatiles

Column diameter: 0.25

16 Acetone

Concentration: 3.1 ug/Kg

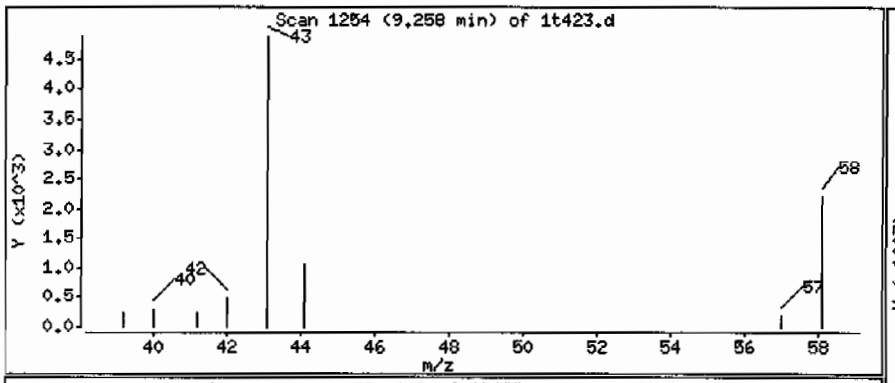

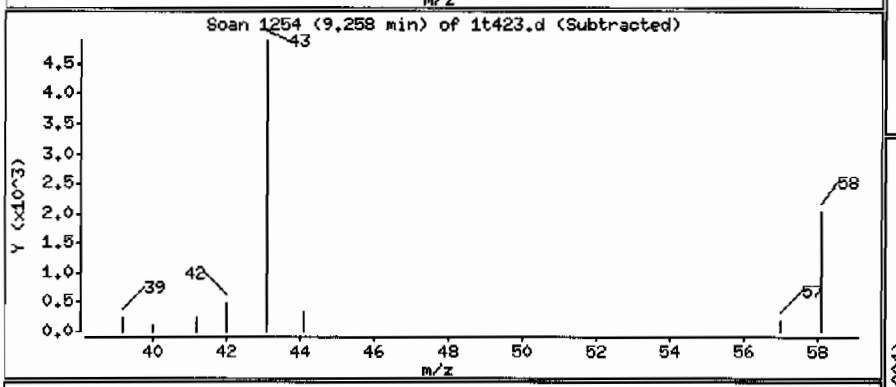

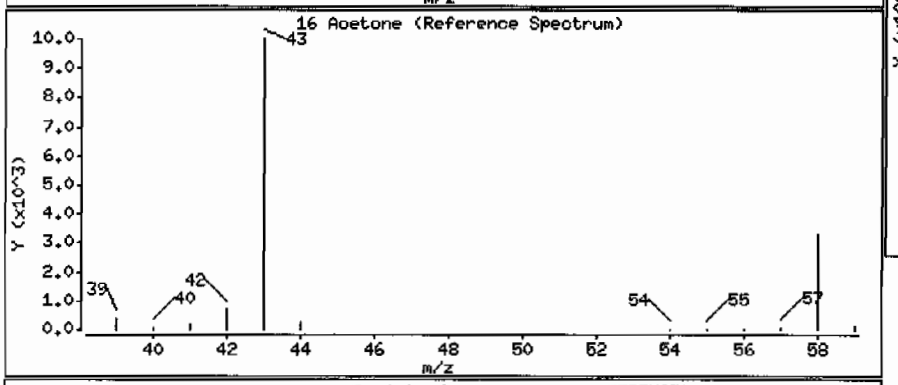

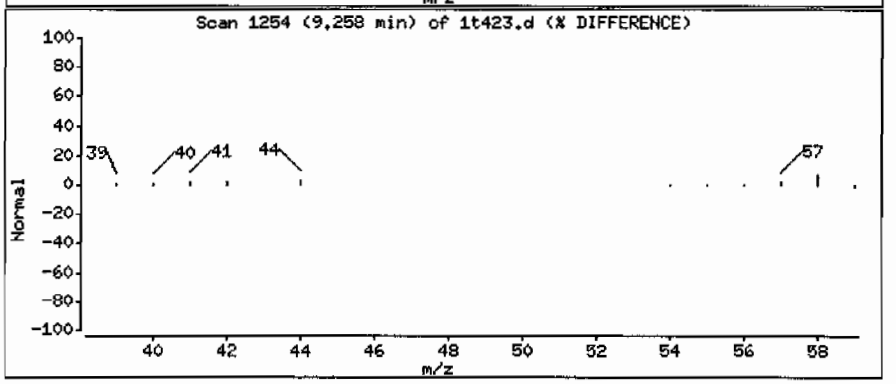

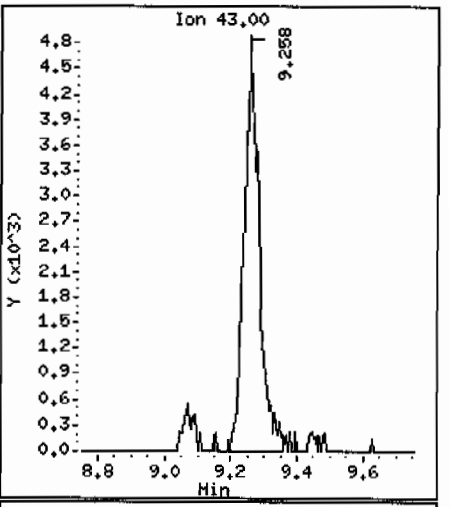

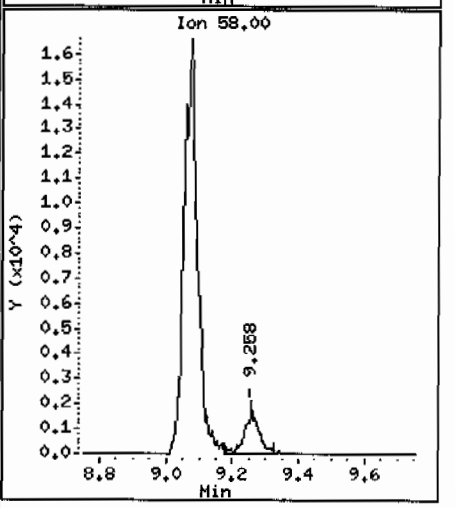

Data File: /chem/VOA1.i/123109v1/1t423.d

Date : 31-DEC-2009 21:14

Client ID: RE03-10-9874

Instrument: VOA1.i

Sample Info: |2435520171937990|1|VOAF|1|

Operator: RXM4

Column phase: RTX-Volatiles

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Hydrocarbon						
Pentanal	110-62-3	NIST05.L	1676	78	C5H10O	86
Pentanal	110-62-3	NIST05.L	1678	52	C5H10O	86
Pentanal	110-62-3	NIST05.L	1677	47	C5H10O	86

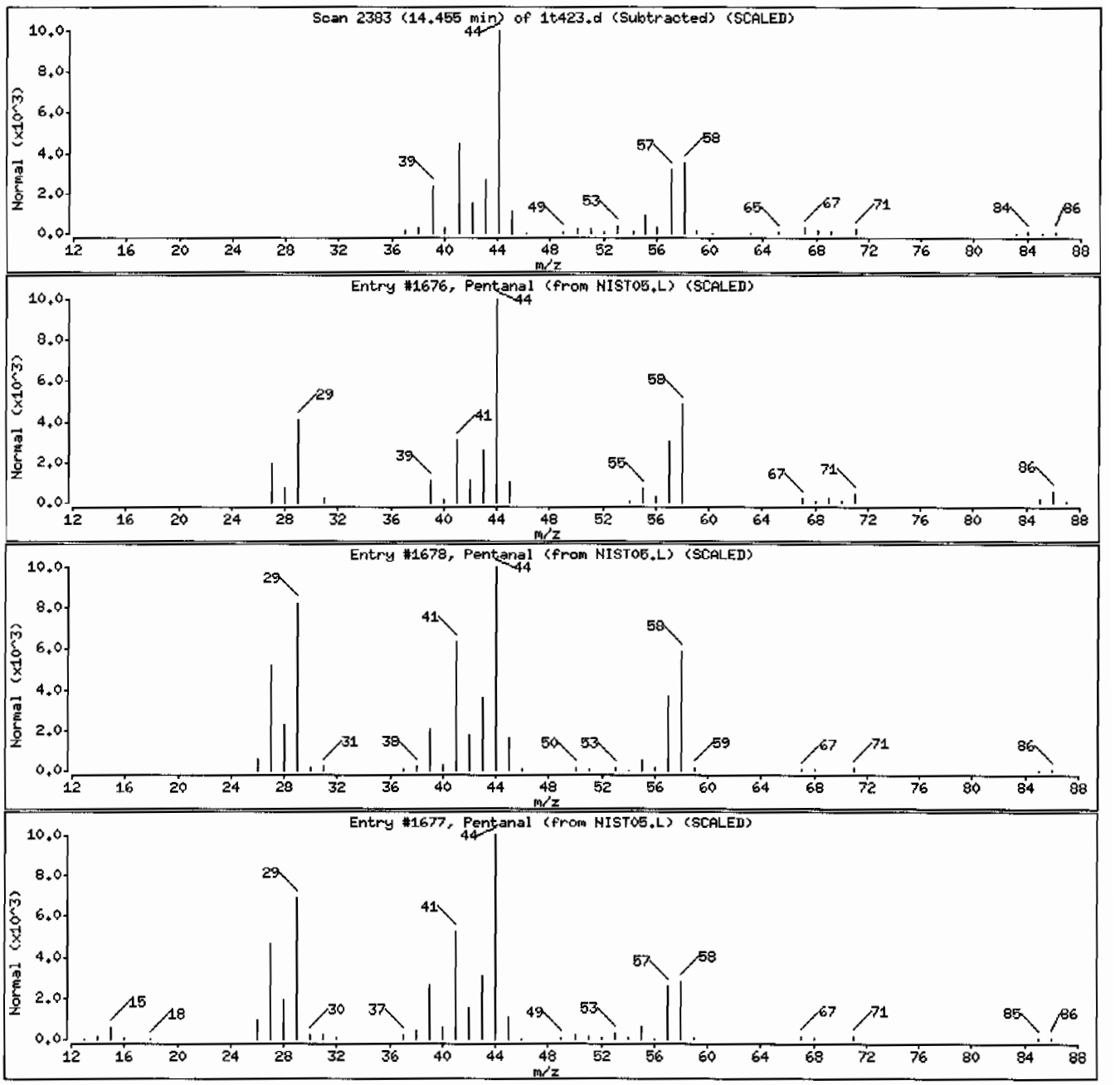

Data File: /chem/VOA1.i/123109v1/1t423.d

Date : 31-DEC-2009 21:14

Client ID: RE03-10-9874

Instrument: VOA1.i

Sample Info: 1243552017193799011|VOAF1|1

Operator: RXM4

Column phase: RTX-Volatiles

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Hexanal	66-25-1	NIST05.L	3689	90	C6H12O	100
Hexanal	66-25-1	NIST05.L	3690	90	C6H12O	100
Hexanal	66-25-1	NIST05.L	3688	90	C6H12O	100

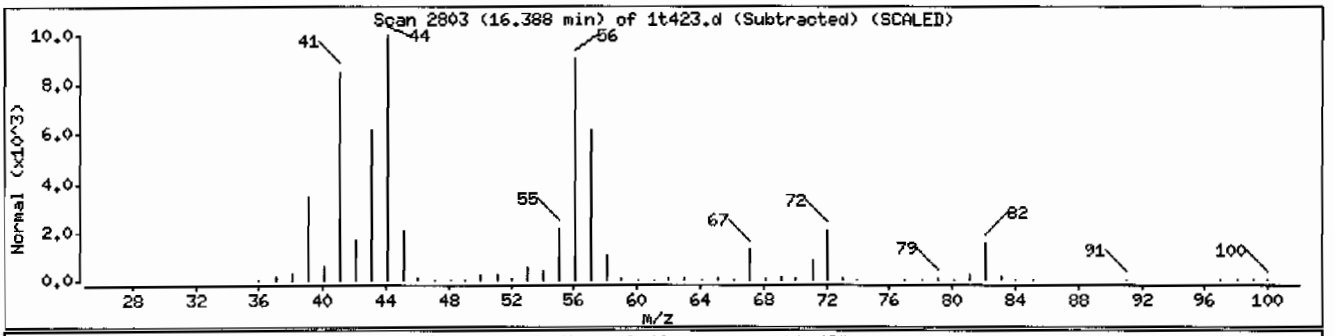

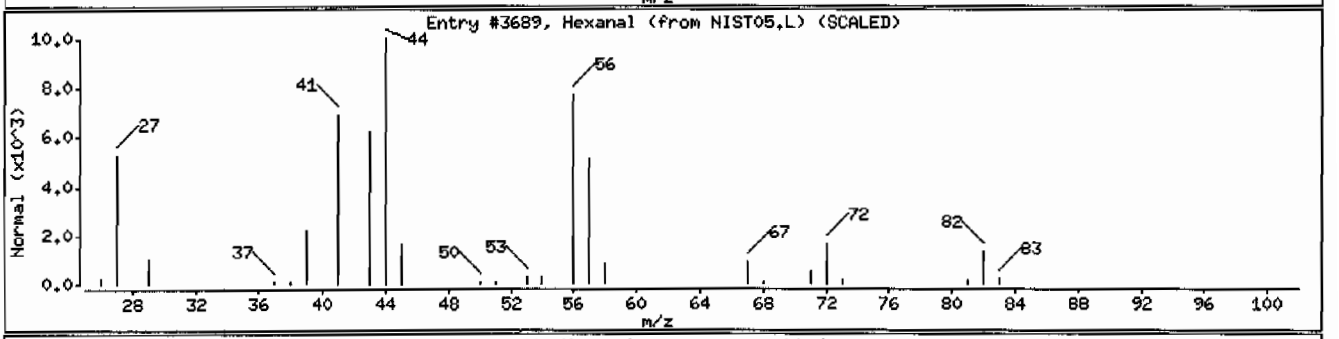

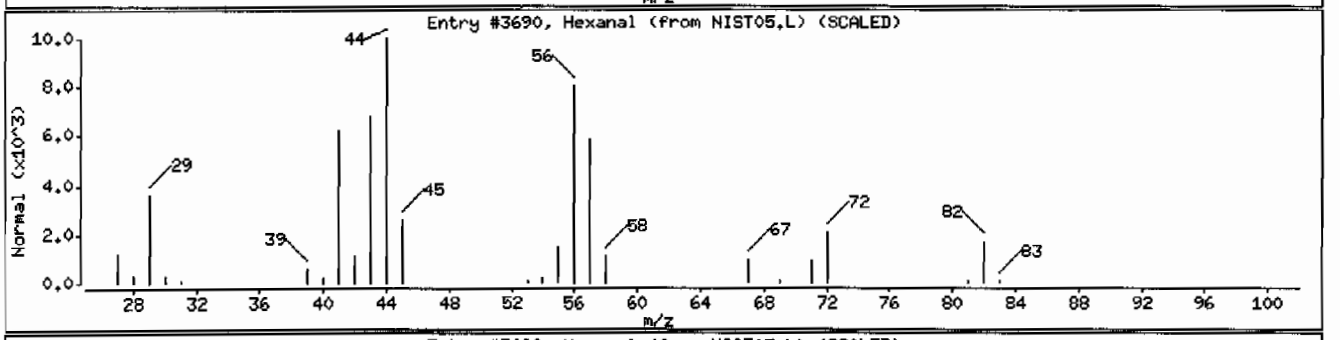

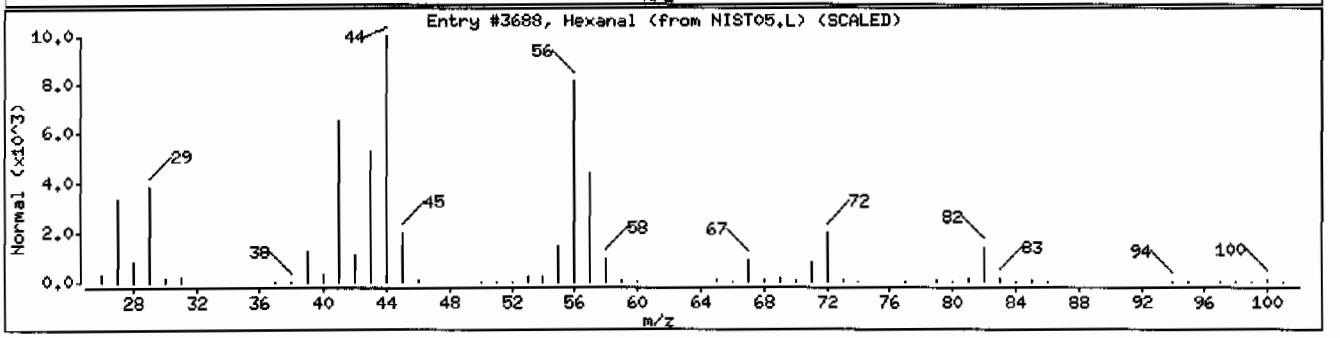

Data File: /chem/VOA1.i/123109v1/1t423.d

Date : 31-DEC-2009 21:14

Client ID: RE03-10-9874

Instrument: VOA1.i

Sample Info: |2435520171937990|1|VOAF|1|

Operator: RXM4

Column phase: RTX-Volatiles

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Hydrocarbon						
Anthracene, 9,10-dihydro-9,10-dimethyl-	22566-43-4	NIST05.L	63100	25	C16H16	208
1-Anthracenamine	610-49-1	NIST05.L	52055	22	C14H11N	193
2-Phenylindolizine	25379-20-8	NIST05.L	52067	22	C14H11N	193

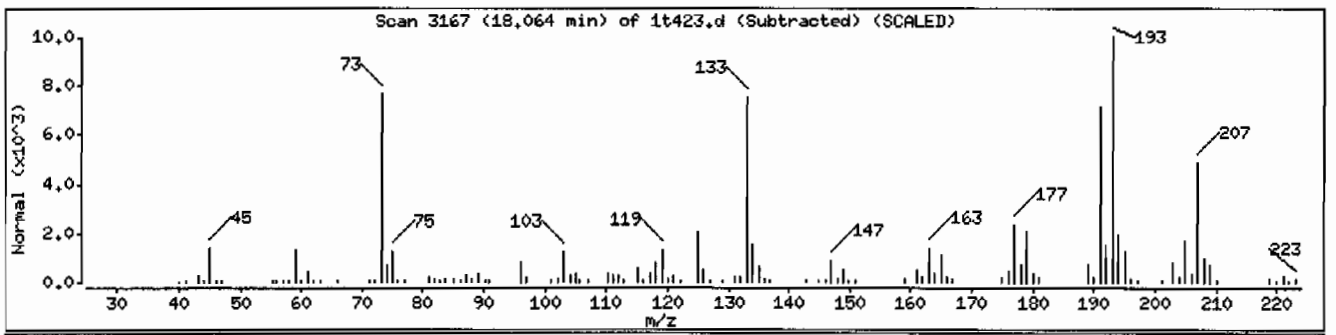

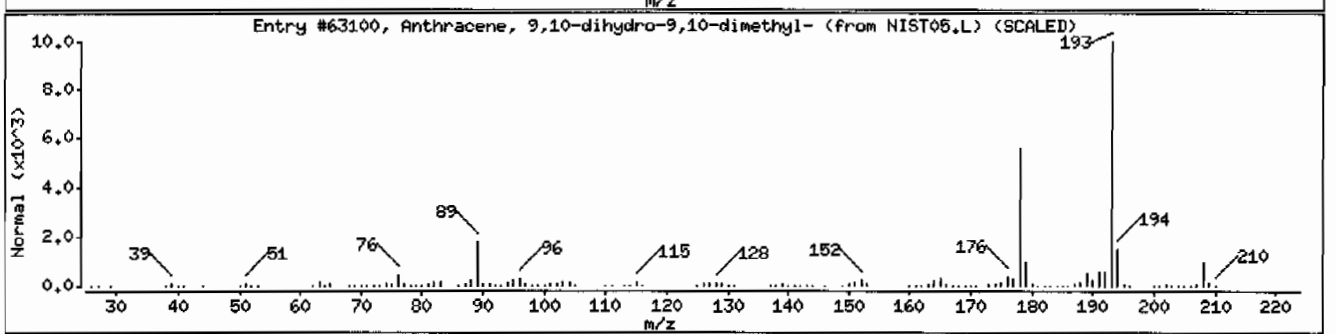

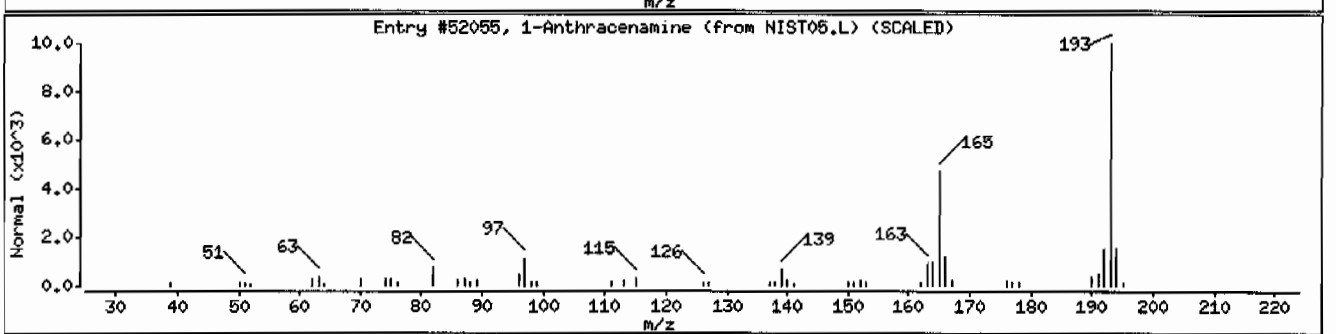

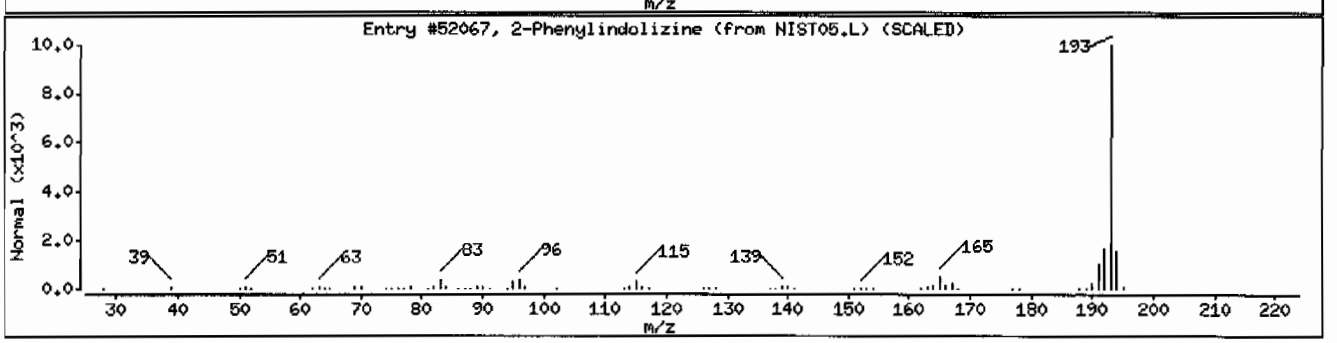

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1086**	**Date Collected:**	**12/22/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243552013**	**Date Received:**	**12/24/2009 09:30**		
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-10-9878**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937990**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**12/31/2009 19:13**	**Analyst:**	**RXM4**	**Purge Vol:**	**5 mL**
Prep Date:	**12/31/2009 12:03**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1t419.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/kg	0.340	1.00
74-87-3	Chloromethane	U	1.00	ug/kg	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/kg	0.300	1.00
74-83-9	Bromomethane	U	1.00	ug/kg	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/kg	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/kg	0.300	1.00
67-64-1	Acetone	U	5.00	ug/kg	1.66	5.00
75-35-4	1,1-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/kg	1.60	5.00
75-09-2	Methylene chloride	U	5.00	ug/kg	2.00	5.00
75-15-0	Carbon disulfide	U	5.00	ug/kg	1.25	5.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/kg	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/kg	1.50	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/kg	0.300	1.00
74-97-5	Bromochloromethane	U	1.00	ug/kg	0.330	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/kg	0.300	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/kg	0.300	1.00
56-23-5	Carbon tetrachloride	U	1.00	ug/kg	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/kg	0.300	1.00
71-43-2	Benzene	U	1.00	ug/kg	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/kg	0.330	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/kg	0.300	1.00
74-95-3	Dibromomethane	U	1.00	ug/kg	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/kg	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
108-88-3	Toluene	U	1.00	ug/kg	0.300	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/kg	0.300	1.00
591-78-6	2-Hexanone	U	5.00	ug/kg	1.50	5.00
142-28-9	1,3-Dichloropropane	U	1.00	ug/kg	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/kg	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/kg	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/kg	0.300	1.00
108-90-7	Chlorobenzene	U	1.00	ug/kg	0.300	1.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1086**	**Date Collected:**	**12/22/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243552013**	**Date Received:**	**12/24/2009 09:30**		
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-10-9878**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937990**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**12/31/2009 19:13**	**Analyst:**	**RXM4**	**Purge Vol:**	**5 mL**
Prep Date:	**12/31/2009 12:03**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1t419.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.00	ug/kg	0.300	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/kg	0.300	2.00
95-47-6	o-Xylene	U	1.00	ug/kg	0.300	1.00
100-42-5	Styrene	U	1.00	ug/kg	0.300	1.00
75-25-2	Bromoform	U	1.00	ug/kg	0.300	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/kg	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/kg	0.300	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/kg	0.300	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/kg	0.300	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/kg	0.300	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/kg	0.300	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/kg	0.300	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/kg	0.300	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/kg	0.300	1.00
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.00	ug/kg	1.60	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated Units	Fit	Qual
	No Tentatively Identified Compounds Found		ug/kg		

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/123109v1/1t419.d
Lab Smp Id: 243552013 Client Smp ID: RE03-10-9878
Inj Date : 31-DEC-2009 19:13
Operator : RXM4 Inst ID: VOA1.i
Smp Info : |243552013|937990|1|VOAF|1|
Misc Info : LANL 5G N/A FB
Comment :
Method : /chem/VOA1.i/123109v1/VOA1-8260ox-121709.m
Meth Date : 18-Jan-2010 17:56 jeb Quant Type: ISTD
Cal Date : 17-DEC-2009 21:27 Cal File: 1r425.d
Als bottle: 19
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-1086.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	0.00000	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
* 52 Fluorobenzene	96	13.682	13.682	(1.000)	752008	50.0000	
* 76 Chlorobenzene-d5	117	17.157	17.157	(1.000)	521934	50.0000	
* 102 1,4-Dichlorobenzene-d4	152	19.610	19.606	(1.000)	295841	50.0000	
$ 48 1,2-Dichloroethane-d4	65	13.336	13.336	(0.975)	570404	63.4827	63.5
$ 65 Toluene-d8	98	15.514	15.514	(0.904)	1592672	54.7760	54.8
$ 87 Bromofluorobenzene	95	18.386	18.386	(0.938)	665112	56.1734	56.2

ION RATIO REPORT

VOA REPORT

Data file: 1t419.d
Report Date: 01/04/2010 07:15
Lab. ID: 243552013 SampleType: SAMPLE
Injection Date: 31-DEC-2009 19:13
Operator: RXM4 Instrument: VOA1.i
Sample Info: |243552013|973990|1|VOAF|1|
Miscellaneous Info: LANL 5G N/A FB
Comment:
Method used: /chem/VOA1.i/123109v1/VOA1-8260ox-121709.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-1086
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
51 1,2-Dichloroethane			CAS#: 107-06-2			
62	13168	13.68	13.44	80-120	100	(T)
64	1947	13.68	13.44	2- 62	15	(T)
64 4-Methyl-2-pentanone			CAS#: 108-10-1			
58	15993	15.51	15.35	80-120	100	(T)
43	8944	15.51	15.35	223-283	56	(QT)
100	1003472	15.51	15.36	0- 60	6274	(QT)
83 Bromoform			CAS#: 75-25-2			
173	3805	18.39	18.10	80-120	100	(T)
171	147	18.38	18.10	22- 82	4	(QT)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/123109v1/1t419.d
Lab Smp Id: 243552013 Client Smp ID: RE03-10-9878
Inj Date : 31-DEC-2009 19:13
Operator : RXM4 Inst ID: VOA1.i
Smp Info : |243552013|937990|1|VOAF|1|
Misc Info : LANL 5G N/A FB
Comment :
Method : /chem/VOA1.i/123109v1/VOA1-8260ox-121709.m
Meth Date : 18-Jan-2010 17:56 jeb Quant Type: ISTD
Cal Date : 17-DEC-2009 21:27 Cal File: 1r425.d
Als bottle: 19
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-1086.sub
Target Version: 3.50
Processing Host: prdsvr07

- NO TENTATIVELY IDENTIFIED COMPOUNDS -

Data File: /chem/VOA1.i/123109v1/1t419.d
Date : 31-DEC-2009 19:13
Client ID: RE03-10-9878
Sample Info: |2435520131937990|1|VOAF|1|

Column phase: RTX-Volatiles

Instrument: VOA1.i

Operator: RXM4
Column diameter: 0.25

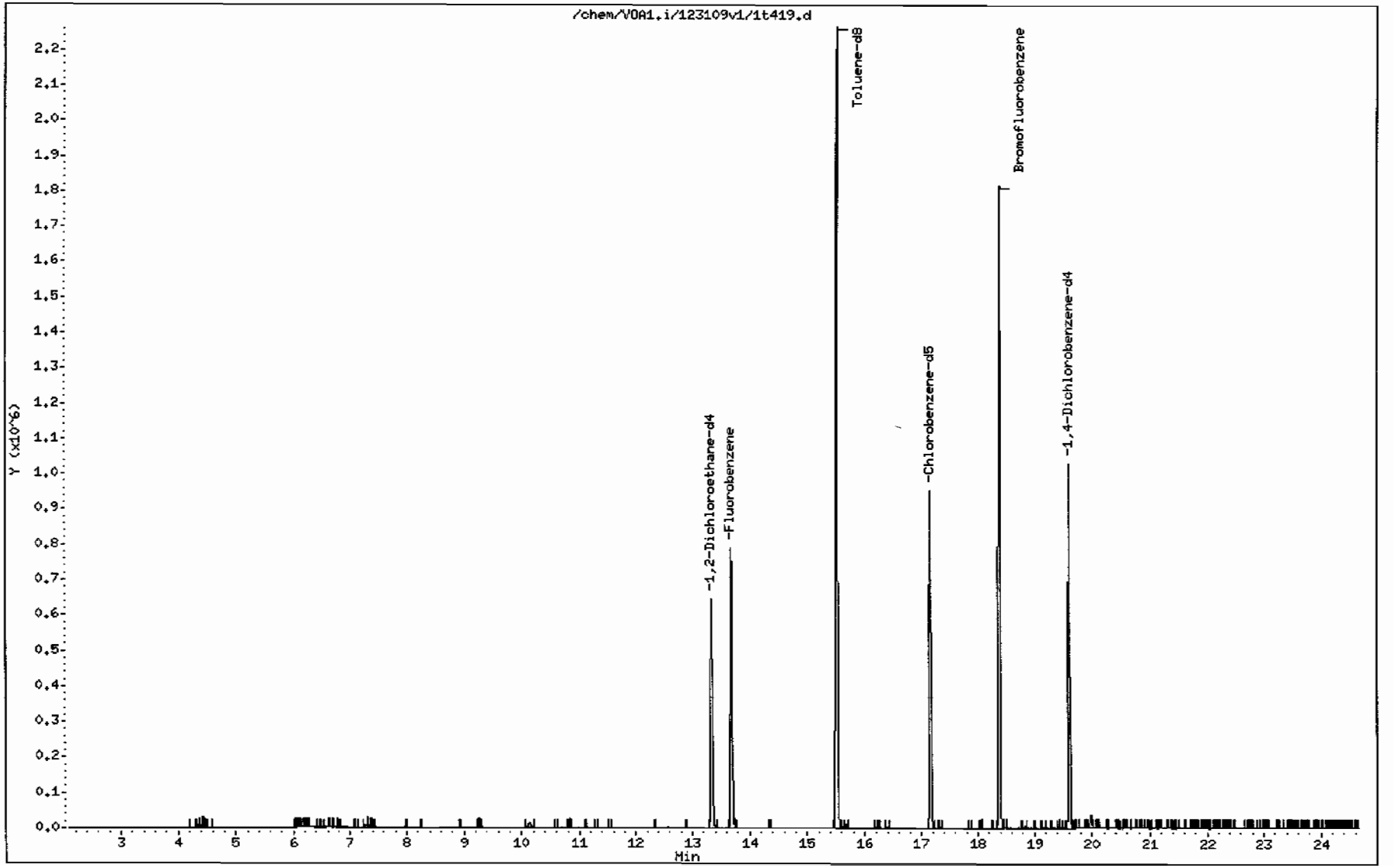

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1086**	**Date Collected:**	**12/22/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243552015**	**Date Received:**	**12/24/2009 09:30**		
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-10-9886**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937990**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**12/31/2009 20:14**	**Analyst:**	**RXM4**	**Purge Vol:**	**5 mL**
Prep Date:	**12/31/2009 12:05**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1t421.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/kg	0.340	1.00
74-87-3	Chloromethane	U	1.00	ug/kg	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/kg	0.300	1.00
74-83-9	Bromomethane	U	1.00	ug/kg	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/kg	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/kg	0.300	1.00
67-64-1	Acetone	J	1.83	ug/kg	1.66	5.00
75-35-4	1,1-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/kg	1.60	5.00
75-09-2	Methylene chloride	U	5.00	ug/kg	2.00	5.00
75-15-0	Carbon disulfide	U	5.00	ug/kg	1.25	5.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/kg	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/kg	1.50	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/kg	0.300	1.00
74-97-5	Bromochloromethane	U	1.00	ug/kg	0.330	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/kg	0.300	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/kg	0.300	1.00
56-23-5	Carbon tetrachloride	U	1.00	ug/kg	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/kg	0.300	1.00
71-43-2	Benzene	U	1.00	ug/kg	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/kg	0.330	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/kg	0.300	1.00
74-95-3	Dibromomethane	U	1.00	ug/kg	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/kg	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
108-88-3	Toluene	U	1.00	ug/kg	0.300	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/kg	0.300	1.00
591-78-6	2-Hexanone	U	5.00	ug/kg	1.50	5.00
142-28-9	1,3-Dichloropropane	U	1.00	ug/kg	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/kg	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/kg	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/kg	0.300	1.00
108-90-7	Chlorobenzene	U	1.00	ug/kg	0.300	1.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1086**	**Date Collected:**	**12/22/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243552015**	**Date Received:**	**12/24/2009 09:30**		
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-10-9886**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937990**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**12/31/2009 20:14**	**Analyst:**	**RXM4**	**Purge Vol:**	**5 mL**
Prep Date:	**12/31/2009 12:05**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1t421.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.00	ug/kg	0.300	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/kg	0.300	2.00
95-47-6	o-Xylene	U	1.00	ug/kg	0.300	1.00
100-42-5	Styrene	U	1.00	ug/kg	0.300	1.00
75-25-2	Bromoform	U	1.00	ug/kg	0.300	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/kg	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/kg	0.300	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/kg	0.300	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/kg	0.300	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/kg	0.300	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/kg	0.300	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/kg	0.300	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/kg	0.300	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/kg	0.300	1.00
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.00	ug/kg	1.60	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated Units	Fit	Qual
	No Tentatively Identified Compounds Found		ug/kg		

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/123109v1/1t421.d
Lab Smp Id: 243552015 Client Smp ID: RE03-10-9886
Inj Date : 31-DEC-2009 20:14
Operator : RXM4 Inst ID: VOA1.i
Smp Info : |243552015|937990|1|VOAF|1|
Misc Info : LANL 5G N/A FB
Comment :
Method : /chem/VOA1.i/123109v1/VOA1-8260ox-121709.m
Meth Date : 18-Jan-2010 17:56 jeb Quant Type: ISTD
Cal Date : 17-DEC-2009 21:27 Cal File: 1r425.d
Als bottle: 21
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-1086.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	0.00000	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
* 52 Fluorobenzene	96	13.682	13.682	(1.000)	802909	50.0000	
* 76 Chlorobenzene-d5	117	17.157	17.157	(1.000)	590203	50.0000	
* 102 1,4-Dichlorobenzene-d4	152	19.610	19.606	(1.000)	323980	50.0000	
$ 48 1,2-Dichloroethane-d4	65	13.336	13.336	(0.975)	590636	61.5671	61.6
$ 65 Toluene-d8	98	15.514	15.514	(0.904)	1701636	51.7541	51.8
$ 87 Bromofluorobenzene	95	18.386	18.386	(0.938)	676110	52.1427	52.1
16 Acetone	43	9.254	9.254	(0.676)	8873	1.82674	1.8(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

ION RATIO REPORT

VOA REPORT

Data file: 1t421.d
Report Date: 01/04/2010 07:15
Lab. ID: 243552015 SampleType: SAMPLE
Injection Date: 31-DEC-2009 20:14
Operator: RXM4 Instrument: VOA1.i
Sample Info: |243552015|973990|1|VOAF|1|
Miscellaneous Info: LANL 5G N/A FB
Comment:
Method used: /chem/VOA1.i/123109v1/VOA1-8260ox-121709.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-1086
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
16 Acetone		CAS#: 67-64-1				
43	8873	9.25	9.25	80-120	100	( )
58	2127	9.26	9.25	1- 61	24	( )
51 1,2-Dichloroethane			CAS#: 107-06-2			
62	13707	13.68	13.44	80-120	100	(T)
64	2359	13.68	13.44	2- 62	17	(T)
64 4-Methyl-2-pentanone			CAS#: 108-10-1			
58	16560	15.51	15.35	80-120	100	(T)
43	9615	15.51	15.35	223-283	58	(QT)
100	1089281	15.51	15.36	0- 60	6577	(QT)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/123109v1/1t421.d
Lab Smp Id: 243552015 Client Smp ID: RE03-10-9886
Inj Date : 31-DEC-2009 20:14
Operator : RXM4 Inst ID: VOA1.i
Smp Info : |243552015|937990|1|VOAF|1|
Misc Info : LANL 5G N/A FB
Comment :
Method : /chem/VOA1.i/123109v1/VOA1-8260ox-121709.m
Meth Date : 18-Jan-2010 17:56 jeb Quant Type: ISTD
Cal Date : 17-DEC-2009 21:27 Cal File: 1r425.d
Als bottle: 21
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-1086.sub
Target Version: 3.50
Processing Host: prdsvr07

- NO TENTATIVELY IDENTIFIED COMPOUNDS -

Data File: /chem/VOA1.i/123109v1/1t421.d
Date : 31-DEC-2009 20:14
Client ID: RE03-10-9886
Sample Info: |2435520151937990|1|VOAF|1|

Column phase: RTX-Volatiles

Instrument: VOA1.i

Operator: RXM4
Column diameter: 0.25

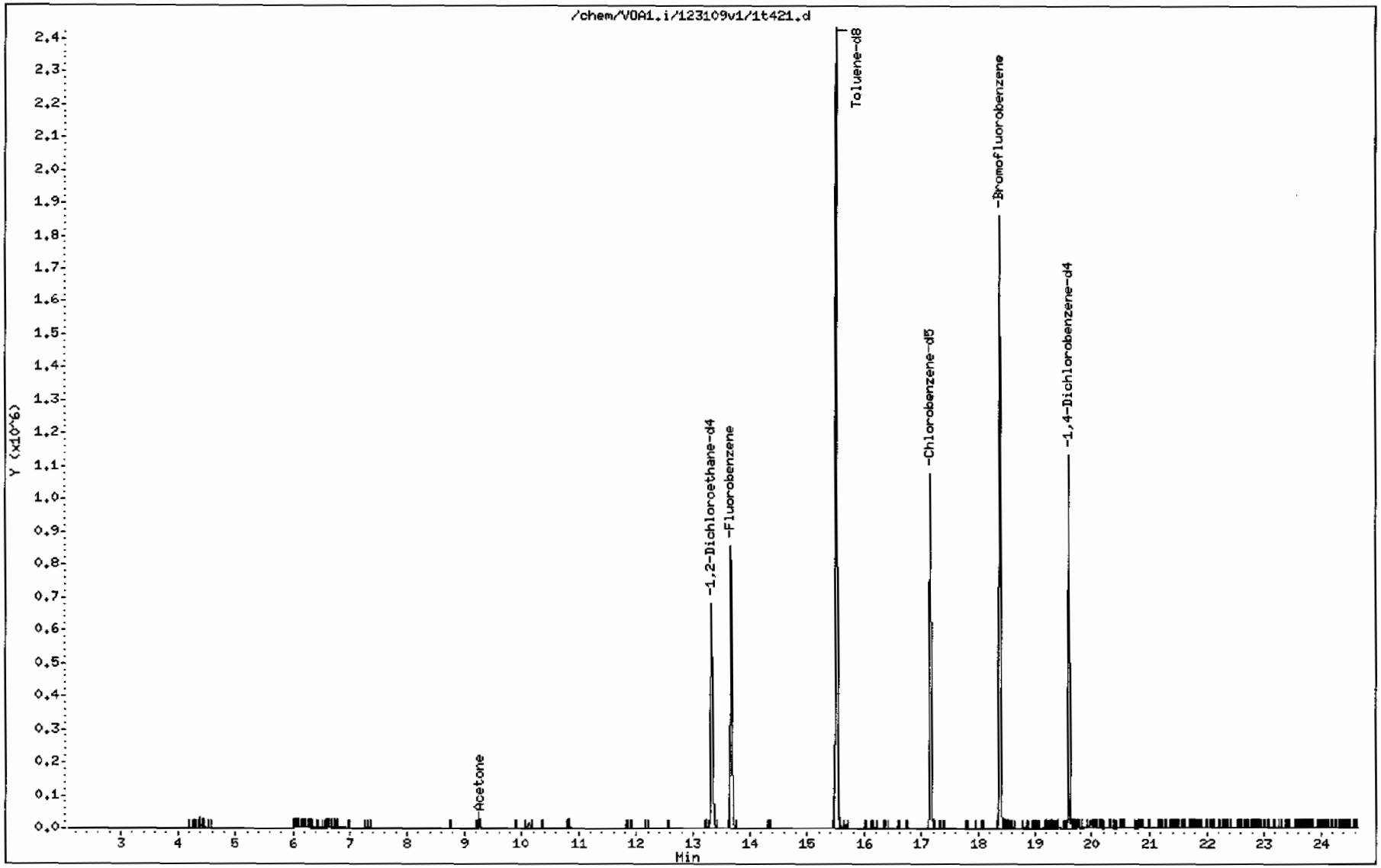

Data File: /chem/VOA1.i/123109v1/1t421.d

Date : 31-DEC-2009 20:14

Client ID: RE03-10-9886

Instrument: VOA1.i

Sample Info: |2435520151937990111VOAF111

Operator: RXM4

Column phase: RTX-Volatiles

Column diameter: 0.25

16 Acetone

Concentration: 1.8 ug/Kg

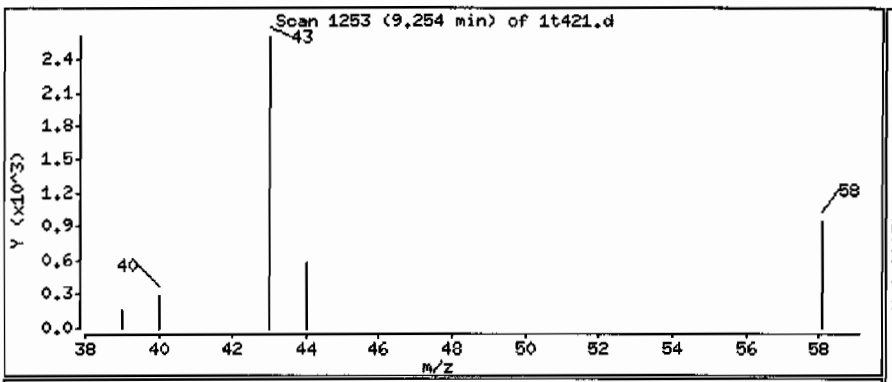

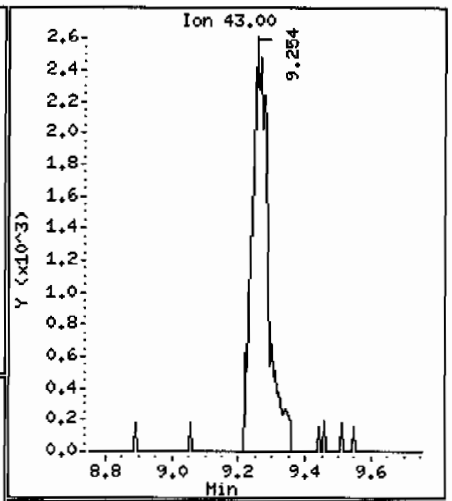

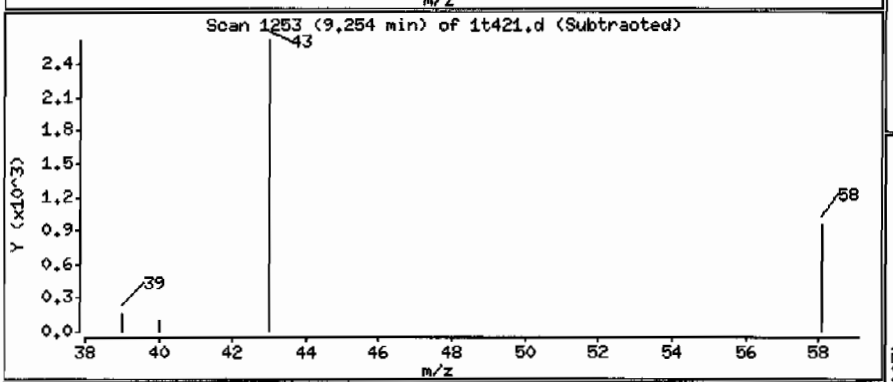

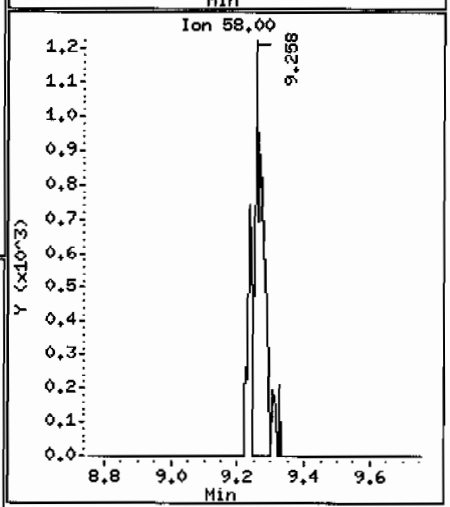

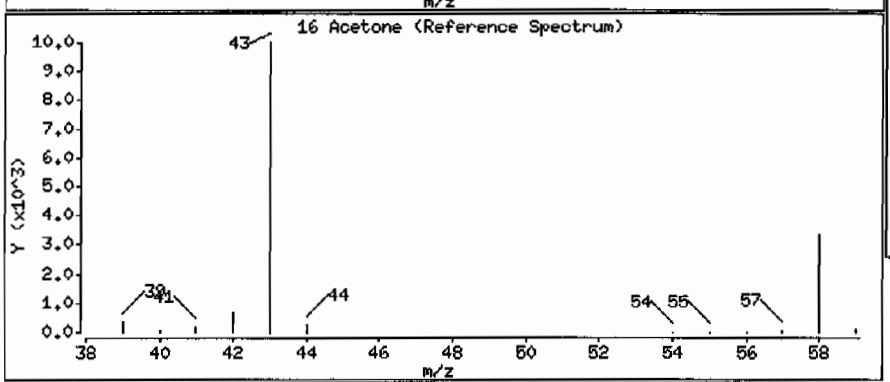

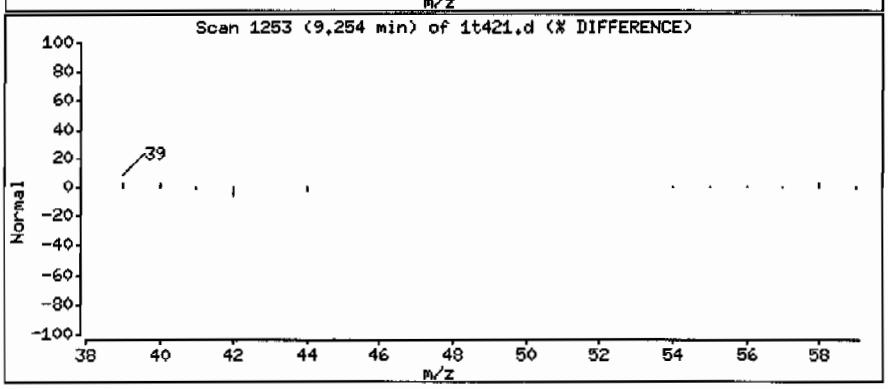

Standard Data

EPA 524.2/Low level SW846 8260B and Regular level 8260B and EPA 624
Calibration Standard Concentration Levels

	Level 1	Level 1a	Level 2	Level 3	Level 4 #	Level 5	Level 6	Level 7 !	Level 7a
Fluorobenzene (IS)									
1,2-Dichloroethane-d4(surr)		0.5	1	2	5	10	20	50	100
Dichlorodifluoromethane		0.5	1	2	5	10	20	50	100
Chloromethane		0.5	1	2	5	10	20	50	100
Vinyl chloride		0.5	1	2	5	10	20	50	100
Bromomethane		0.5	1	2	5	10	20	50	100
Chloroethane		0.5	1	2	5	10	20	50	100
Trichlorofluoromethane		0.5	1	2	5	10	20	50	100
1,1-Dichloroethene		0.5	1	2	5	10	20	50	100
Acetone	1	2.5	5	10	25	50	100	250	500
Iodomethane	1	2.5	5	10	25	50	100	250	500
Carbon disulfide	1	2.5	5	10	25	50	100	250	500
Methylene chloride		0.5	1	2	5	10	20	50	100
trans-1,2-Dichloroethene		0.5	1	2	5	10	20	50	100
1,1-Dichloroethane		0.5	1	2	5	10	20	50	100
Ethyl ether		0.5	1	2	5	10	20	50	100
Vinyl acetate	1	2.5	5	10	25	50	100	250	500
cis-1,2-Dichloroethene		0.5	1	2	5	10	20	50	100
1,2-Dichloroethene (total)		1	2	4	10	20	40	100	200
Cyclohexene		0.5	1	2	5	10	20	50	100
2-Chloroethylvinyl ether			5	10	25	50	100	250	500
2,2-Dichloropropane		0.5	1	2	5	10	20	50	100
2-Butanone	1	2.5	5	10	25	50	100	250	500
Bromochloromethane		0.5	1	2	5	10	20	50	100
Chloroform		0.5	1	2	5	10	20	50	100
1,1,1-Trichloroethane		0.5	1	2	5	10	20	50	100
1,1-Dichloropropene		0.5	1	2	5	10	20	50	100
Carbon tetrachloride		0.5	1	2	5	10	20	50	100
Benzene		0.5	1	2	5	10	20	50	100
1,2-Dichloroethane		0.5	1	2	5	10	20	50	100
Trichloroethene		0.5	1	2	5	10	20	50	100
1,2-Dichloropropane		0.5	1	2	5	10	20	50	100
Dibromomethane		0.5	1	2	5	10	20	50	100
Bromodichloromethane		0.5	1	2	5	10	20	50	100
cis-1,3-Dichloropropene		0.5	1	2	5	10	20	50	100
tert-Butylmethylether		0.5	1	2	5	10	20	50	100
Ethyl Ether			1	2	5	10	20	50	100
Acetonitrile			25	50	125	250	500	1250	2500
Methyl acetate			5	10	25	50	100	250	500
Cyclohexane			1	2	5	10	20	50	100
Methylcyclohexane			1	2	5	10	20	50	100
n-Butyl alcohol			50	100	250	500	1000	2500	5000
2-Nitropropane			5	10	25	50	100	250	500
Ethyl acetate			5	10	25	50	100	250	500
Acrolein			5	10	25	50	100	250	500
Trichlorotrifluoroethane			5	10	25	50	100	250	500
Allyl chloride			5	10	25	50	100	250	500
Acrylonitrile			5	10	25	50	100	250	500
1,4-Dioxane			50	100	250	500	1000	2500	5000
Isobutyl alcohol			50	100	250	500	1000	2500	5000
Methacrylonitrile			5	10	25	50	100	250	500
Propionitrile			5	10	25	50	100	250	500
Methyl methacrylate			5	10	25	50	100	250	500
Chlorotrifluoroethylene			5	10	25	50	100	250	500
2-Chloro-1,1,1-trifluoroethane			5	10	25	50	100	250	500

tert-Butyl alcohol			50	100	250	500	1000	2500	5000
Isopropyl ether			1	2	5	10	20	50	100
Ethyl tert-butyl ether			1	2	5	10	20	50	100
Isopropyl alcohol			50	100	250	500	1000	2500	5000
Methyl tert-amyl ether			1	2	5	10	20	50	100
1-Chlorohexane			1	2	5	10	20	50	100
2-Chloro-1,3-butadiene(chloroprene)			1	2	5	10	20	50	100
Chlorobenzene-d5 (IS)									
Toluene-d8 (surr)		0.5	1	2	5	10	20	50	100
4-Methyl-2-pentanone	1	2.5	5	10	25	50	100	250	500
Toluene		0.5	1	2	5	10	20	50	100
trans-1,3-Dichloropropene		0.5	1	2	5	10	20	50	100
1,1,2-Trichloroethane		0.5	1	2	5	10	20	50	100
Tetrachloroethene		0.5	1	2	5	10	20	50	100
1,3-Dichloropropane		0.5	1	2	5	10	20	50	100
2-Hexanone	1	2.5	5	10	25	50	20	250	500
Dibromochloromethane		0.5	1	2	5	10	20	50	100
1,2-Dibromoethane		0.5	1	2	5	10	20	50	100
Chlorobenzene		0.5	1	2	5	10	20	50	100
1,1,1,2-Tetrachloroethane		0.5	1	2	5	10	20	50	100
Ethylbenzene		0.5	1	2	5	10	20	50	100
m,p-Xylene		1	2	4	10	20	20	100	200
o-Xylene		0.5	1	2	5	10	20	50	100
Xylenes (total)		1.5	3	6	15	30	60	150	300
Stryene		0.5	1	2	5	10	20	50	100
Cyclohexanone			50	100	250	500	1000	2500	5000
Ethyl methacrylate			5	10	25	50	100	250	500
1,4-Dichlorobenzene-d4 (IS)									
Bromofluorobenzene (surr)		0.5	1	2	5	10	20	50	100
Bromoform		0.5	1	2	5	10	20	50	100
Isopropylbenzene		0.5	1	2	5	10	20	50	100
1,1,2,2-Tetrachloroethane		0.5	1	2	5	10	20	50	100
Bromobenzene		0.5	1	2	5	10	20	50	100
1,2,3-Trichloropropane		0.5	1	2	5	10	20	50	100
n-Propylbenzene		0.5	1	2	5	10	20	50	100
2-Chlorotoluene		0.5	1	2	5	10	20	50	100
1,3,5-Trimethylbenzene		0.5	1	2	5	10	20	50	100
4-Chlorotoluene		0.5	1	2	5	10	20	50	100
1,2,4-Trimethylbenzene		0.5	1	2	5	10	20	50	100
sec-Butylbenzene		0.5	1	2	5	10	20	50	100
1,3-Dichlorobenzene		0.5	1	2	5	10	20	50	100
tert-Butylbenzene		0.5	1	2	5	10	20	50	100
Isopropyltoluene		0.5	1	2	5	10	20	50	100
1,4-Dichlorobenzene		0.5	1	2	5	10	20	50	100
n-Butylbenzene		0.5	1	2	5	10	20	50	100
1,2-Dichlorobenzene		0.5	1	2	5	10	20	50	100
1,2-Dibromo-3-chloropropa		0.5	1	2	5	10	20	50	100
1,2,4-Trichlorobenzene		0.5	1	2	5	10	20	50	100
Hexachlorobutadiene		0.5	1	2	5	10	20	50	100
Naphthalene		0.5	1	2	5	10	20	50	100
1,2,3-Trichlorobenzene		0.5	1	2	5	10	20	50	100
cis-1,4-Dichloro-2-butene			5	10	25	50	100	250	500
trans-1,4-Dichloro-2-butene			5	10	25	50	100	250	500
Tetrahydrofuran			5	10	25	50	100	250	500
Pentachloroethane			5	10	25	50	100	250	500
Benzyl chloride			5	10	25	50	100	250	500
bis(2-Chloro-isopropyl)ether			5	10	25	50	100	250	500

Report Date: 04-Jan-2010 09:55

Calibration History

Method : /chem/VOA1.i/010410v1/VOA1-8260ox-121709.m
Start Cal Date: 17-DEC-2009 13:26
End Cal Date : 17-DEC-2009 21:57

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 1.00000		
17-DEC-2009 18:56	CALsubS+SS	/chem/VOA1.i/121709v1/1r420.d
17-DEC-2009 14:26	CALsubL+	/chem/VOA1.i/121709v1/1r411.d
Cal Level: 2 , Cal Amount: 2.00000		
17-DEC-2009 19:26	CALsubS+SS	/chem/VOA1.i/121709v1/1r421.d
17-DEC-2009 15:27	CALsubL+	/chem/VOA1.i/121709v1/1r413.d
Cal Level: 3 , Cal Amount: 5.00000		
17-DEC-2009 19:56	CALsubS+SS	/chem/VOA1.i/121709v1/1r422.d
17-DEC-2009 15:57	CALsubL+	/chem/VOA1.i/121709v1/1r414.d
Cal Level: 4 , Cal Amount: 10.00000		
17-DEC-2009 20:27	CALsubS+SS	/chem/VOA1.i/121709v1/1r423.d
17-DEC-2009 16:26	CALsubL+	/chem/VOA1.i/121709v1/1r415.d
Cal Level: 5 , Cal Amount: 20.00000		
17-DEC-2009 20:57	CALsubS+SS	/chem/VOA1.i/121709v1/1r424.d
17-DEC-2009 16:56	CALsubL+	/chem/VOA1.i/121709v1/1r416.d
Cal Level: 6 , Cal Amount: 50.00000		
17-DEC-2009 21:27	CALsubS+SS	/chem/VOA1.i/121709v1/1r425.d
17-DEC-2009 17:26	CALsubL+	/chem/VOA1.i/121709v1/1r417.d
Cal Level: 7 , Cal Amount: 100.00000		
17-DEC-2009 21:57	CALsubS+SS	/chem/VOA1.i/121709v1/1r426.d
17-DEC-2009 17:56	CALsubL+	/chem/VOA1.i/121709v1/1r418.d
Cal Level: 8 , Cal Amount: 200.00000		
17-DEC-2009 13:26	BENZENE+	/chem/VOA1.i/121709v1/1r409.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 6

Ccal Level: 6 , Ccal Amount: 50.0		
04-JAN-2010 09:33	CALsubL+	/chem/VOA1.i/010410v1/1u104CCV.d
Ccal Level: 6 , Ccal Amount: 50.0		
04-JAN-2010 09:33	CALsubL+	/chem/VOA1.i/010410v1/1u104.d

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INITIAL CALIBRATION DATA

Start Cal Date : 17-DEC-2009 13:26
End Cal Date : 17-DEC-2009 21:57
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/VOA1.i/010410v1/VOA1-8260ox-121709.m
Cal Date : 04-Jan-2010 09:55 ron01469

Calibration File Names:
Level 1: /chem/VOA1.i/121709v1/1r420.d
Level 2: /chem/VOA1.i/121709v1/1r421.d
Level 3: /chem/VOA1.i/121709v1/1r422.d
Level 4: /chem/VOA1.i/121709v1/1r423.d
Level 5: /chem/VOA1.i/121709v1/1r424.d
Level 6: /chem/VOA1.i/121709v1/1r425.d
Level 7: /chem/VOA1.i/121709v1/1r426.d
Level 8: /chem/VOA1.i/121709v1/1r409.d

Compound	1 Level 1	2 Level 2	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	200 Level 8									
M 1 Xylenes (total)	0.94993	0.96986	1.04684	0.90933	1.06190	1.03526					
	1.06685	+++-+					AVRG		1.00571		6.17560
M 2 1,2-Dichloroethylene (total)	0.39459	0.39809	0.41845	0.36222	0.42047	0.42125					
	0.43750	+++++					AVRG		0.40751		6.07931
M 3 1,3-Dichloropropylene	0.79149	0.76022	0.87890	0.81655	0.94687	0.96481					
	1.03716	+++++					AVRG		0.88514		11.52032
4 Chlorotrifluoroethylene	17314	61906	95503	209513	408505	655803					
	880678	+++++					LINR	0.03423	0.22684		0.99712
5 Dichlorodifluoromethane	4634	11507	35600	44395	86248	277079					
	567930	+++++					LINR	0.00522	0.28418		0.99905

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Integrator : HP RTE
Method file : /chem/VOA1.i/010410v1/VOA1-8260ox-121709.m
Cal Date : 04-Jan-2010 09:55 ron01469

Compound	1 Level 1 / 100 Level 7	2 Level 2 / 200 Level 8	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
6 Chlorometh ane	0.48851	0.54050	0.55024	0.44982	0.52271	0.54415					
	0.54196	+++++					AVRG		0.51970		7.16680
7 Vinyl chloride	0.47524	0.47673	0.45732	0.35896	0.42278	0.41726					
	0.41654	+++++					AVRG		0.43212		9.62913
8 2-Chloro-1,1,1-trifluoroethan	+++++	127797	215500	434110	811927	1347525					
	1771053	+++++					LINR	0.01494	0.45635		0.99554
9 Bromomethane	0.28304	0.29746	0.29450	0.24489	0.29091	0.28413					
	0.27975	+++++					AVRG		0.28210		6.24594
10 Chloroethane	0.29181	0.30650	0.30544	0.26230	0.31984	0.31793					
	0.30933	+++++					AVRG		0.30188		6.53884
11 Trichlorofluoromethane	0.41202	0.43953	0.45287	0.39013	0.45602	0.49371					
	0.48982	+++++					AVRG		0.44773		8.47603
12 Ethyl Ether	0.38139	0.40440	0.35425	0.33145	0.38356	0.37554					
	0.38665	+++++					AVRG		0.37389		6.39758
13 Acrolein	0.06484	0.07110	0.06960	0.07066	0.06970	0.07601					
	0.07601	+++++					AVRG		0.07113		5.49913
14 Trichlorotrifluoroethane	0.31728	0.28283	0.30430	0.31273	0.26693	0.29034					
	0.30209	+++++					AVRG		0.29664		5.97728

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Method file : /chem/VOA1.i/010410v1/VOA1-8260ox-121709.m
Cal Date : 04-Jan-2010 09:55 ron01469

Compound	1 Level 1	2 Level 2	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	200 Level 8									
15 1,1-Dichloroethylene	0.65853	0.69826	0.73125	0.60544	0.70006	0.73825					
	0.76533	+++++					AVRG		0.69959		7.69120
16 Acetone	0.33125	0.28405	0.28838	0.28737	0.31028	0.30716					
	0.30886	+++++					AVRG		0.30248		5.59393
17 Isopropyl Alcohol	+++++	64668	116421	230606	462328	1308642					
	2563752	+++++					LINR	1.83876	0.02704		0.99372
18 Iodomethane	0.54837	0.54749	0.58063	0.50333	0.57106	0.56342					
	0.56625	+++++					AVRG		0.55436		4.58680
19 Carbon disulfide	1.04837	1.13754	1.19034	1.00430	1.16007	1.18939					
	1.23769	+++++					AVRG		1.13824		7.32547
20 Allyl chloride	7872	16357	54830	122945	239242	782349					
	1746543	+++++					LINR	0.29193	0.18284		0.99540
21 Methyl acetate	0.30480	0.26240	0.29161	0.27818	0.30010	0.29235					
	0.29241	+++++					AVRG		0.28883		4.95133
22 Acetonitrile	0.05118	0.04733	0.04993	0.04960	0.05166	0.04925					
	0.04992	+++++					AVRG		0.04984		2.81886
23 Methylene chloride	+++++	26319	53903	88749	140147	424848					
	921999	+++++					LINR	-0.00189	0.45451		0.99942

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Method file : /chem/VOA1.i/010410v1/VOA1-8260ox-121709.m
Cal Date : 04-Jan-2010 09:55 ron01469

Compound	1 Level 1 100 Level 7	2 Level 2 200 Level 8	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
24 tert-Butyl Alcohol	36962	107148	188587	384290	775596	2176446					
	4204060	+++++					LINR	1.31682	0.04416		0.99435
25 tert-Butyl methyl ether	1.06428	1.09533	1.10199	1.08828	1.14951	1.13923					
	1.21507	+++++					AVRG		1.12196		4.50007
26 trans-1,2-Dichloroethylene	0.37150	0.37356	0.40077	0.34641	0.39809	0.40670					
	0.41945	+++++					AVRG		0.38807		6.49662
27 Acrylonitrile	0.13879	0.14421	0.14079	0.14300	0.13986	0.14918					
	0.14607	+++++					AVRG		0.14313		2.57275
28 Isopropyl ether	+++++	86054	143189	299636	589102	1525953					
	3114768	+++++					LINR	0.00936	1.61143		0.99953
29 Vinyl acetate	0.65280	0.62757	0.65723	0.69621	0.76396	0.72816					
	0.70592	+++++					AVRG		0.69026		6.89010
30 1,1-Dichloroethane	0.77767	0.75144	0.79985	0.69776	0.80088	0.80133					
	0.82728	+++++					AVRG		0.77946		5.51872
31 2-Chloro-1,3-butadiene	0.53856	0.49255	0.57665	0.63047	0.56687	0.66611					
	0.71558	+++++					AVRG		0.59811		12.87774
32 Ethyl tert-butyl ether	+++++	75681	125441	264555	516269	1389733					
	2866711	+++++					LINR	0.01815	1.48731		0.99916

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Cal Date : 04-Jan-2010 09:55 ron01469

Compound	1 Level 1 100 Level 7	2 Level 2 200 Level 8	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
33 2,2-Dichloropropane	0.44340	0.43999	0.44785	0.39838	0.48384	0.48070					
	0.48654	+++++					AVRG		0.45439		7.01812
34 Ethyl acetate	0.39622	0.37301	0.34819	0.35996	0.34694	0.36845					
	0.35650	+++++					AVRG		0.36418		4.69288
35 2-Butanone	0.32498	0.29983	0.31772	0.32315	0.35854	0.37774					
	0.36734	+++++					AVRG		0.33847		8.62893
36 cis-1,2-Dichloroethylene	0.41768	0.42262	0.43613	0.37802	0.44285	0.43580					
	0.45555	+++++					AVRG		0.42695		5.84109
37 Propionitrile	0.05471	0.05478	0.05443	0.05651	0.05444	0.05843					
	0.05690	+++++					AVRG		0.05574		2.79347
38 Tetrahydrofuran	0.33776	0.31409	0.31712	0.32320	0.30804	0.32423					
	0.30668	+++++					AVRG		0.31873		3.37891
39 Bromochloromethane	0.16937	0.18243	0.18561	0.17346	0.18913	0.18835					
	0.19783	+++++					AVRG		0.18374		5.28734
40 Methacrylonitrile	0.28749	0.28017	0.27957	0.29144	0.27868	0.29282					
	0.28296	+++++					AVRG		0.28473		2.05414
41 Chloroform	0.73934	0.75629	0.78313	0.67523	0.77565	0.78273					
	0.80194	+++++					AVRG		0.75919		5.55679

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Compound	1 Level 1 100 Level 7	2 Level 2 200 Level 8	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
42 Cyclohexane	0.71265	0.69334	0.75433	0.63572	0.76413	0.79603					
	0.79977	+++++					AVRG		0.73657		8.07340
43 1,1,1-Trichloroethane	0.48350	0.49398	0.51618	0.44034	0.54030	0.53477					
	0.53794	+++++					AVRG		0.50671		7.24509
44 Carbon tetrachloride	0.46456	0.47955	0.50223	0.44108	0.53314	0.54219					
	0.54465	+++++					AVRG		0.50106		8.15357
45 1,1-Dichloropropene	0.52226	0.53493	0.57439	0.47763	0.58059	0.59363					
	0.60749	+++++					AVRG		0.55584		8.28840
46 Isobutyl alcohol	0.01217	0.01218	0.01260	0.01292	0.01020	0.01420					
	0.01342	+++++					AVRG		0.01253		10.00060
47 Benzene	1.63393	1.59398	1.70750	1.44978	1.70316	1.69875					
	1.73137	1.46121					AVRG		1.62246		6.91797
49 Methyl tert-amyl ether	+++++	62439	104740	221271	432966	1170797					
	2409070	+++++					LINR	0.01872	1.25082		0.99919
50 Cyclohexene	0.54435	0.53848	0.59015	0.49810	0.59826	0.60785					
	0.61552	+++++					AVRG		0.57039		7.68513
51 1,2-Dichloroethane	0.60710	0.60440	0.60894	0.55428	0.61814	0.59887					
	0.61173	+++++					AVRG		0.60049		3.53687

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Compound	1 Level 1 100 Level 7	2 Level 2 200 Level 8	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
53 n-Butyl alcohol	17909	31598	93677	213836	355810	1166468					
	2504807	+++++					LINR	4.05023	0.01261		0.99621
54 Trichloroethylene	0.40162	0.40745	0.43496	0.36932	0.42004	0.43163					
	0.44230	+++++					AVRG		0.41533		6.03314
55 Methylcyclohexane	0.62627	0.65054	0.68846	0.59693	0.71382	0.73247					
	0.74367	+++++					AVRG		0.67888		8.21648
56 Methyl methacrylate	0.22886	0.23546	0.23690	0.25298	0.24564	0.26211					
	0.25565	+++++					AVRG		0.24537		4.95406
57 1,2-Dichloropropane	0.42618	0.42979	0.45262	0.40054	0.46037	0.46437					
	0.48246	+++++					AVRG		0.44519		6.24292
58 1,4-Dioxane	0.00358	0.00330	0.00348	0.00358	0.00336	0.00371					
	0.00357	+++++					AVRG		0.00351		4.06886
59 Dibromomethane	0.26029	0.24224	0.24588	0.23433	0.25880	0.25261					
	0.26232	+++++					AVRG		0.25092		4.17553
60 Bromodichloromethane	0.50926	0.51863	0.55953	0.51519	0.58920	0.60255					
	0.62066	+++++					AVRG		0.55929		8.20445
61 2-Chloroethylvinyl ether	3320	6654	16837	44891	72737	+++++					
	+++++	+++++					LINR	0.08117	0.04822		0.99689

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Compound	1 Level 1 100 Level 7	2 Level 2 200 Level 8	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
62 2-Nitropropane	7070	14240	41325	90077	194039	547484					
	1089774	+++++					LINR	0.12959	0.11432		0.99946
63 cis-1,3-Dichloropropylene	0.58612	0.56484	0.64871	0.59482	0.69712	0.72465					
	0.75586	+++++					AVRG		0.65316		11.40730
64 4-Methyl-2-pentanone	0.21479	0.20124	0.23607	0.23812	0.26615	0.28741					
	0.26603	+++++					AVRG		0.24426		12.55055
66 Toluene	1.46521	1.42863	1.49665	1.27740	1.49413	1.48160					
	1.53694	+++++					AVRG		1.45437		5.82263
67 Ethyl methacrylate	0.62982	0.65076	0.67701	0.72386	0.70269	0.72791					
	0.69966	+++++					AVRG		0.68739		5.35198
68 trans-1,3-Dichloropropylene	0.76770	0.71716	0.82801	0.78620	0.90451	0.92116					
	0.99882	+++++					AVRG		0.84622		11.72425
69 1,1,2-Trichloroethane	0.38168	0.40632	0.41313	0.40400	0.43605	0.42541					
	0.44735	+++++					AVRG		0.41628		5.27765
70 Tetrachloroethylene	0.47569	0.43289	0.45867	0.37578	0.45285	0.44838					
	0.45872	+++++					AVRG		0.44328		7.31413
71 2-Hexanone	0.56340	0.54183	0.59354	0.60315	0.68692	0.72227					
	0.65208	+++++					AVRG		0.62331		10.59946

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Compound	1 Level 1	2 Level 2	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	200 Level 8									
72 1,3-Dichloropropane	0.88365	0.83969	0.89719	0.82861	0.92961	0.88191					
	0.92565	+++++					AVRG		0.88376		4.38844
73 Dibromochloromethane	0.45877	0.47737	0.51711	0.48955	0.55570	0.55863					
	0.60098	+++++					AVRG		0.52259		9.81324
74 1,2-Dibromoethane	0.45115	0.44054	0.45840	0.43614	0.49979	0.48669					
	0.51336	+++++					AVRG		0.46944		6.47781
75 1-Chlorohexane	+++++	0.63060	0.44690	0.47806	0.44136	0.48274					
	0.48848	+++++					AVRG		0.49469		14.02193
77 Chlorobenzene	1.47658	1.48489	1.58303	1.39069	1.59300	1.52504					
	1.58393	+++++					AVRG		1.51959		4.89898
78 Ethylbenzene	2.73939	2.65894	2.87432	2.49270	2.95069	2.86045					
	2.93464	+++++					AVRG		2.78730		5.98351
79 1,1,1,2-Tetrachloroethane	0.46710	0.47705	0.50032	0.46956	0.54220	0.53154					
	0.56441	+++++					AVRG		0.50746		7.66210
80 m,p-Xylenes	0.96338	0.99443	1.06188	0.91699	1.06459	1.03480					
	1.06400	+++++					AVRG		1.01429		5.71201
81 o-Xylene	0.92296	0.92068	1.01675	0.89402	1.05652	1.03617					
	1.07254	+++++					AVRG		0.98852		7.45466

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Compound	1 Level 1 100 Level 7	2 Level 2 200 Level 8	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
82 Styrene	1.46715	1.50616	1.68975	1.53152	1.79110	1.79165					
	1.86481	+++++					AVRG		1.66316		9.65291
83 Bromoform	4145	7916	21098	44307	78595	249234					
	535740	+++++					LINR	0.02681	0.72529		0.99945
84 Isopropylbenzene	4.68173	4.56078	4.98694	4.23435	5.31092	5.26026					
	5.48304	+++++					AVRG		4.93115		9.23818
85 cis-1,4-Dichloro-2-butene	0.34725	0.34844	0.37013	0.38870	0.38152	0.41058					
	0.40570	+++++					AVRG		0.37890		6.66885
86 Cyclohexanone	0.06763	0.06943	0.06963	0.07265	0.07578	0.08184					
	0.08839	+++++					AVRG		0.07505		10.12446
88 1,1,2,2-Tetrachloroethane	1.22461	1.05159	1.10817	1.13584	1.24257	1.24947					
	1.30412	+++++					AVRG		1.18805		7.62827
89 n-Propylbenzene	5.91393	5.84477	6.21942	5.20861	6.52547	6.56652					
	6.67002	+++++					AVRG		6.13553		8.47769
90 trans-1,4-Dichloro-2-butene	0.31943	0.33408	0.34483	0.36424	0.35879	0.38701					
	0.38138	+++++					AVRG		0.35568		6.90918
91 Bromobenzene	1.21267	1.14263	1.17695	1.03606	1.22066	1.19524					
	1.25396	+++++					AVRG		1.17688		6.05621

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 17-DEC-2009 13:26
End Cal Date : 17-DEC-2009 21:57
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/VOA1.i/010410v1/VOA1-8260ox-121709.m
Cal Date : 04-Jan-2010 09:55 ron01469

Compound	1 Level 1 100 Level 7	2 Level 2 200 Level 8	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
92 1,2,3-Trichloropropane	0.29455	0.30883	0.31100	0.28319	0.31857	0.31270					
	0.32356	+++++					AVRG		0.30749		4.56166
93 1,3,5-Trimethylbenzene	3.92739	4.01597	4.40384	3.75330	4.56192	4.61175					
	4.71321	+++++					AVRG		4.28391		8.85755
94 2-Chlorotoluene	4.18989	4.13985	4.38991	3.70327	4.45640	4.42540					
	4.59915	+++++					AVRG		4.27198		6.93168
95 4-Chlorotoluene	3.74203	3.75004	3.94133	3.30902	4.02416	4.08453					
	4.23945	+++++					AVRG		3.87008		7.87167
96 tert-Butylbenzene	3.19861	3.62558	3.54064	3.03120	3.64733	3.76217					
	3.79753	+++++					AVRG		3.51472		8.25818
97 1,2,4-Trimethylbenzene	4.14843	4.08556	4.56169	3.88972	4.69789	4.73207					
	4.85492	+++++					AVRG		4.42433		8.50977
98 Pentachloroethane	0.37983	0.43833	0.41420	0.49680	0.33943	0.45190					
	0.42032	+++++					AVRG		0.42012		12.05499
99 sec-Butylbenzene	5.25649	5.29490	5.79412	4.90035	5.96681	6.06611					
	6.14338	+++++					AVRG		5.63174		8.51046
100 4-Isopropyltoluene	3.88557	3.91207	4.39734	3.76386	4.59180	4.64160					
	4.70377	+++++					AVRG		4.27086		9.45359

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 17-DEC-2009 13:26
End Cal Date : 17-DEC-2009 21:57
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/VOA1.i/010410v1/VOA1-8260ox-121709.m
Cal Date : 04-Jan-2010 09:55 ron01469

Compound	1 Level 1 100 Level 7	2 Level 2 200 Level 8	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
101 1,3-Dichlorobenzene	2.26506	2.22860	2.34003	2.03460	2.38750	2.32771					
	2.42644	+++++					AVRG		2.28713		5.68983
103 1,4-Dichlorobenzene	2.37087	2.32322	2.31533	2.06880	2.41564	2.35216					
	2.47272	+++++					AVRG		2.33125		5.49157
104 Benzyl chloride	1.65395	1.74973	1.88958	2.06407	2.04500	2.19972					
	2.09266	+++++					AVRG		1.95639		10.13450
105 n-Butylbenzene	4.15554	4.15464	4.58993	3.92961	4.86897	4.90702					
	5.03734	+++++					AVRG		4.52044		9.72255
106 1,2-Dichlorobenzene	2.14225	2.09966	2.15610	1.96170	2.27666	2.24067					
	2.33585	+++++					AVRG		2.17327		5.73173
107 bis(2-Chloroisopropyl)ether	0.35444	0.44472	0.43116	0.46324	0.47339	0.53988					
	0.49699	+++++					AVRG		0.45769		12.64882
108 1,2-Dibromo-3-chloropropane	1016	1990	5799	13390	22261	73669					
	168000	+++++					LINR	0.04224	0.22710		0.99776
109 1,2,4-Trichlorobenzene	1.26932	1.11504	1.11692	1.07128	1.28838	1.22946					
	1.47355	+++++					AVRG		1.22342		11.32435
110 Hexachlorobutadiene	0.77567	0.75620	0.80958	0.72497	0.86849	0.86453					
	0.92769	+++++					AVRG		0.81816		8.79706

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 17-DEC-2009 13:26
End Cal Date : 17-DEC-2009 21:57
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/VOA1.i/010410v1/VOA1-8260ox-121709.m
Cal Date : 04-Jan-2010 09:55 ron01469

Compound	1 Level 1 100 Level 7	2 Level 2 200 Level 8	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
111 Naphthalene	18385	27302	69676	156979	280194	848437					
	2078041	+++++					LINR	0.04766	2.79235		0.99432
112 1,2,3-Trichlorobenzene	1.03792	0.79225	0.80520	0.83009	1.04491	0.85728					
	1.03151	+++++					AVRG		0.91417		12.88301
$ 48 1,2-Dichloroethane-d4	0.55185	0.60209	0.58068	0.60294	0.59083	0.66971					
	0.58381	+++++					AVRG		0.59741		6.05981
$ 65 Toluene-d8	2.45092	2.87365	2.77552	2.90697	2.85289	2.80136					
	2.83664	+++++					AVRG		2.78542		5.52258
$ 87 Bromofluorobenzene	1.76335	2.01859	2.01923	2.10724	1.99625	2.04053					
	2.06272	+++++					AVRG		2.00113		5.54218

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 17-DEC-2009 13:26
End Cal Date : 17-DEC-2009 21:57
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/VOA1.i/010410v1/VOA1-8260ox-121709.m
Cal Date : 04-Jan-2010 09:55 ron01469

Curve	Formula	Units
Averaged	Amt = Rsp/ml	Response
Linear	Amt = b + Rsp/ml	Response

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA1.i Injection Date: 17-DEC-2009 22:57
Lab File ID: 1r428.d Init. Cal. Date(s): 17-DEC-2009 17-DEC-2009
Analysis Type: WATER Init. Cal. Times: 13:26 21:57
Lab Sample ID: W1VM091217-18 Quant Type: ISTD
Method: /chem/VOA1.i/121709v1/VOA1-8260ox-121709.m

	COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
M	1 Xylenes (total)	1.00571	1.08274	1.08274	0.050	7.65971	30.00000	Averaged	
M	2 1,2-Dichloroethylene (total	0.40751	0.42827	0.42827	0.050	5.09444	30.00000	Averaged	
M	3 1,3-Dichloropropylene	0.88514	1.01603	1.01603	0.050	14.78691	30.00000	Averaged	
	5 Dichlorodifluoromethane	44.17390	50.00000	0.24958	0.050	-11.65221	30.00000	Linear	
	6 Chloromethane	0.51970	0.48595	0.48595	0.100	-6.49415	30.00000	Averaged	spcc
	7 Vinyl chloride	0.43212	0.40394	0.40394	0.050	-6.51979	20.00000	Averaged	ccc
	9 Bromomethane	0.28210	0.28119	0.28119	0.050	-0.32083	30.00000	Averaged	
	10 Chloroethane	0.30188	0.30482	0.30482	0.050	0.97392	30.00000	Averaged	
	11 Trichlorofluoromethane	0.44773	0.47946	0.47946	0.050	7.08587	30.00000	Averaged	
	12 Ethyl Ether	0.37389	0.38351	0.38351	0.010	2.57247	30.00000	Averaged	
	16 Acetone	0.30248	0.28929	0.28929	0.000	-4.36166	40.00000	Averaged	
	22 Acetonitrile	0.04984	0.05445	0.05445	0.010	9.26527	30.00000	Averaged	
	15 1,1-Dichloroethylene	0.69959	0.69867	0.69867	0.050	-0.13124	20.00000	Averaged	ccc
	21 Methyl acetate	0.28883	0.31596	0.31596	0.010	9.39216	40.00000	Averaged	
	18 Iodomethane	0.55436	0.55775	0.55775	0.050	0.61108	30.00000	Averaged	
	23 Methylene chloride	49.74003	50.00000	0.45301	0.000	-0.51994	30.00000	Linear	
	19 Carbon disulfide	1.13824	1.18438	1.18438	0.050	4.05313	30.00000	Averaged	
	25 tert-Butyl methyl ether	1.12196	1.20960	1.20960	0.050	7.81191	30.00000	Averaged	
	26 trans-1,2-Dichloroethylene	0.38807	0.40463	0.40463	0.050	4.26889	30.00000	Averaged	
	29 Vinyl acetate	0.69026	0.78885	0.78885	0.010	14.28310	40.00000	Averaged	
	30 1,1-Dichloroethane	0.77946	0.80732	0.80732	0.100	3.57386	30.00000	Averaged	spcc
	35 2-Butanone	0.33847	0.33028	0.33028	0.030	-2.41926	40.00000	Averaged	
	36 cis-1,2-Dichloroethylene	0.42695	0.45191	0.45191	0.050	5.84534	30.00000	Averaged	
	33 2,2-Dichloropropane	0.45439	0.47156	0.47156	0.050	3.78034	30.00000	Averaged	
	41 Chloroform	0.75919	0.80022	0.80022	0.010	5.40526	20.00000	Averaged	ccc
	39 Bromochloromethane	0.18374	0.20003	0.20003	0.010	8.86726	30.00000	Averaged	
	43 1,1,1-Trichloroethane	0.50671	0.53061	0.53061	0.010	4.71555	30.00000	Averaged	
	42 Cyclohexane	0.73657	0.77955	0.77955	0.010	5.83609	30.00000	Averaged	
	45 1,1-Dichloropropene	0.55584	0.60113	0.60113	0.010	8.14672	30.00000	Averaged	
	53 n-Butyl alcohol	5603	5000	0.01362	0.001	12.05240	40.00000	Linear	
	44 Carbon tetrachloride	0.50106	0.53826	0.53826	0.010	7.42421	30.00000	Averaged	
$	48 1,2-Dichloroethane-d4	0.59741	0.65263	0.65263	0.010	9.24242	30.00000	Averaged	
	51 1,2-Dichloroethane	0.60049	0.62546	0.62546	0.010	4.15714	30.00000	Averaged	
	47 Benzene	1.62246	1.71937	1.71937	0.010	5.97318	30.00000	Averaged	
	50 Cyclohexene	0.57039	0.58842	0.58842	0.010	3.16148	30.00000	Averaged	

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA1.i
Lab File ID: 1r428.d
Analysis Type: WATER
Lab Sample ID: W1VM091217-18
Method: /chem/VOA1.i/121709v1/VOA1-8260ox-121709.m

Injection Date: 17-DEC-2009 22:57
Init. Cal. Date(s): 17-DEC-2009 17-DEC-2009
Init. Cal. Times: 13:26 21:57
Quant Type: ISTD

	COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
	54 Trichloroethylene	0.41533	0.44171	0.44171	0.010	6.35017	30.00000	Averaged	
	57 1,2-Dichloropropane	0.44519	0.48303	0.48303	0.010	8.49895	20.00000	Averaged	ccc
	55 Methylcyclohexane	0.67888	0.73751	0.73751	0.010	8.63596	30.00000	Averaged	
	60 Bromodichloromethane	0.55929	0.62904	0.62904	0.010	12.47140	30.00000	Averaged	
	59 Dibromomethane	0.25092	0.26506	0.26506	0.010	5.63271	30.00000	Averaged	
	61 2-Chloroethylvinyl ether	455	250	0.08699	0.000	82.02379	30.00000	Linear	<-
	64 4-Methyl-2-pentanone	0.24426	0.26174	0.26174	0.010	7.15811	40.00000	Averaged	
	63 cis-1,3-Dichloropropylene	0.65316	0.74796	0.74796	0.010	14.51395	30.00000	Averaged	
$	65 Toluene-d8	2.78542	3.07353	3.07353	0.010	10.34355	30.00000	Averaged	
	66 Toluene	1.45437	1.53247	1.53247	0.010	5.37034	20.00000	Averaged	ccc
	68 trans-1,3-Dichloropropylene	0.84622	0.98007	0.98007	0.010	15.81730	30.00000	Averaged	
	69 1,1,2-Trichloroethane	0.41628	0.45507	0.45507	0.010	9.31814	30.00000	Averaged	
	71 2-Hexanone	0.62331	0.60444	0.60444	0.010	-3.02719	40.00000	Averaged	
	72 1,3-Dichloropropane	0.88376	0.94928	0.94928	0.010	7.41405	30.00000	Averaged	
	70 Tetrachloroethylene	0.44328	0.46018	0.46018	0.010	3.81270	30.00000	Averaged	
	73 Dibromochloromethane	0.52259	0.59588	0.59588	0.010	14.02580	30.00000	Averaged	
	74 1,2-Dibromoethane	0.46944	0.52465	0.52465	0.010	11.76021	30.00000	Averaged	
	77 Chlorobenzene	1.51959	1.61504	1.61504	0.300	6.28123	30.00000	Averaged	spcc
	79 1,1,1,2-Tetrachloroethane	0.50746	0.56614	0.56614	0.010	11.56535	30.00000	Averaged	
	78 Ethylbenzene	2.78730	2.96337	2.96337	0.010	6.31659	20.00000	Averaged	ccc
	80 m,p-Xylenes	1.01429	1.07930	1.07930	0.010	6.40871	30.00000	Averaged	
	81 o-Xylene	0.98852	1.08964	1.08964	0.010	10.22890	30.00000	Averaged	
	82 Styrene	1.66316	1.86998	1.86998	0.010	12.43542	30.00000	Averaged	
	83 Bromoform	50.23179	50.00000	0.70922	0.100	0.46358	30.00000	Linear	spcc
	84 Isopropylbenzene	4.93115	5.28643	5.28643	0.010	7.20479	30.00000	Averaged	
	88 1,1,2,2-Tetrachloroethane	1.18805	1.29626	1.29626	0.300	9.10775	30.00000	Averaged	spcc
$	87 Bromofluorobenzene	2.00113	2.08223	2.08223	0.010	4.05263	30.00000	Averaged	
	92 1,2,3-Trichloropropane	0.30749	0.32497	0.32497	0.010	5.68755	30.00000	Averaged	
	91 Bromobenzene	1.17688	1.24576	1.24576	0.010	5.85268	30.00000	Averaged	
	89 n-Propylbenzene	6.13553	6.49581	6.49581	0.010	5.87193	30.00000	Averaged	
	94 2-Chlorotoluene	4.27198	4.49512	4.49512	0.010	5.22330	30.00000	Averaged	
	93 1,3,5-Trimethylbenzene	4.28391	4.58482	4.58482	0.010	7.02413	30.00000	Averaged	
	95 4-Chlorotoluene	3.87008	4.15567	4.15567	0.010	7.37932	30.00000	Averaged	
	96 tert-Butylbenzene	3.51472	3.65977	3.65977	0.010	4.12685	30.00000	Averaged	
	97 1,2,4-Trimethylbenzene	4.42433	4.67781	4.67781	0.010	5.72929	30.00000	Averaged	
	99 sec-Butylbenzene	5.63174	5.96950	5.96950	0.010	5.99744	30.00000	Averaged	

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA1.i
Lab File ID: 1r428.d
Analysis Type: WATER
Lab Sample ID: W1VM091217-18
Method: /chem/VOA1.i/121709v1/VOA1-8260ox-121709.m

Injection Date: 17-DEC-2009 22:57
Init. Cal. Date(s): 17-DEC-2009 17-DEC-2009
Init. Cal. Times: 13:26 21:57
Quant Type: ISTD

COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
100 4-Isopropyltoluene	4.27086	4.57059	4.57059	0.010	7.01819	30.00000	Averaged
101 1,3-Dichlorobenzene	2.28713	2.37127	2.37127	0.010	3.67889	30.00000	Averaged
103 1,4-Dichlorobenzene	2.33125	2.42033	2.42033	0.010	3.82106	30.00000	Averaged
105 n-Butylbenzene	4.52044	4.87577	4.87577	0.010	7.86066	30.00000	Averaged
106 1,2-Dichlorobenzene	2.17327	2.25477	2.25477	0.010	3.74986	30.00000	Averaged
108 1,2-Dibromo-3-chloropropane	47.43781	50.00000	0.20587	0.010	-5.12437	30.00000	Linear
109 1,2,4-Trichlorobenzene	1.22342	1.19337	1.19337	0.010	-2.45661	30.00000	Averaged
110 Hexachlorobutadiene	0.81816	0.83470	0.83470	0.010	2.02097	30.00000	Averaged
111 Naphthalene	38.09339	50.00000	1.99432	0.010	-23.81322	30.00000	Linear
112 1,2,3-Trichlorobenzene	0.91417	0.74663	0.74663	0.010	-18.32692	30.00000	Averaged

Average %D / Drift Results.

Calculated Average %D/Drift = 7.89459
Maximun Average %D/Drift = 20.00000
* Passed Average %D/Drift Test.

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/121709v1/1r428.d
Lab Smp Id: W1VM091217-18 Client Smp ID: ICV
Inj Date : 17-DEC-2009 22:57
Operator : RXM4 Inst ID: VOA1.i
Smp Info : |W1VM091217-18|ICV|1|VOAF|1|
Misc Info : GEL 5ML N/A UVM091129-01D/IVM091214-01
Comment :
Method : /chem/VOA1.i/121709v1/VOA1-8260ox-121709.m
Meth Date : 21-Dec-2009 09:53 eh1 Quant Type: ISTD
Cal Date : 17-DEC-2009 21:27 Cal File: 1r425.d
Als bottle: 22 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: CALsubL+.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (Uf/Vo) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	sample purged

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
M 1 Xylenes (total)	106				2057420	150.000	162
M 2 1,2-Dichloroethylene (total)	96				763050	100.000	105
M 3 1,3-Dichloropropylene	75				1287095	100.000	115
5 Dichlorodifluoromethane	85	5.012	5.012	(0.366)	222340	50.0000	44.2
6 Chloromethane	50	5.557	5.557	(0.406)	432908	50.0000	46.8
7 Vinyl chloride	62	5.937	5.937	(0.434)	359853	50.0000	46.7
9 Bromomethane	96	6.952	6.952	(0.508)	250500	50.0000	49.8
10 Chloroethane	64	7.219	7.219	(0.528)	271547	50.0000	50.5
11 Trichlorofluoromethane	101	7.845	7.845	(0.573)	427124	50.0000	53.5
12 Ethyl Ether	59	8.480	8.480	(0.620)	341650	50.0000	51.3
16 Acetone	43	9.253	9.253	(0.676)	1288556	250.000	239
22 Acetonitrile	41	9.976	9.976	(0.729)	1212770	1250.00	1360
15 1,1-Dichloroethylene	61	9.097	9.097	(0.665)	622411	50.0000	49.9
21 Methyl acetate	43	9.838	9.838	(0.719)	1407371	250.000	273
18 Iodomethane	142	9.474	9.474	(0.692)	2484361	250.000	252

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
23 Methylene chloride	84	10.137	10.137	(0.741)	403566	50.0000	49.7
19 Carbon disulfide	76	9.580	9.580	(0.700)	5275512	250.000	260
25 tert-Butyl methyl ether	73	10.441	10.441	(0.763)	1077575	50.0000	53.9
26 trans-1,2-Dichloroethylene	96	10.552	10.552	(0.771)	360469	50.0000	52.1
29 Vinyl acetate	43	11.297	11.297	(0.826)	3513753	250.000	286
30 1,1-Dichloroethane	63	11.325	11.325	(0.828)	719197	50.0000	51.8
35 2-Butanone	43	12.186	12.186	(0.891)	1471158	250.000	244
36 cis-1,2-Dichloroethylene	96	12.204	12.204	(0.892)	402581	50.0000	52.9
33 2,2-Dichloropropane	77	12.163	12.163	(0.889)	420092	50.0000	51.9
41 Chloroform	83	12.614	12.614	(0.922)	712878	50.0000	52.7
39 Bromochloromethane	128	12.558	12.558	(0.918)	178199	50.0000	54.4
43 1,1,1-Trichloroethane	97	12.844	12.844	(0.939)	472693	50.0000	52.4
42 Cyclohexane	56	12.839	12.839	(0.938)	694465	50.0000	52.9
45 1,1-Dichloropropene	75	13.051	13.051	(0.954)	535515	50.0000	54.1
53 n-Butyl alcohol	56	13.930	13.930	(1.018)	1213639	5000.00	5600
44 Carbon tetrachloride	117	13.023	13.023	(0.952)	479509	50.0000	53.7
$ 48 1,2-Dichloroethane-d4	65	13.341	13.341	(0.975)	581394	50.0000	54.6
51 1,2-Dichloroethane	62	13.438	13.438	(0.982)	557188	50.0000	52.1
47 Benzene	78	13.332	13.332	(0.974)	1531701	50.0000	53.0
50 Cyclohexene	54	13.396	13.396	(0.979)	524195	50.0000	51.6
* 52 Fluorobenzene	96	13.682	13.682	(1.000)	890850	50.0000	
54 Trichloroethylene	95	14.114	14.114	(1.032)	393495	50.0000	53.2
57 1,2-Dichloropropane	63	14.460	14.460	(1.057)	430304	50.0000	54.2
55 Methylcyclohexane	83	14.280	14.280	(1.044)	657008	50.0000	54.3
60 Bromodichloromethane	83	14.750	14.750	(1.078)	560380	50.0000	56.2
59 Dibromomethane	93	14.621	14.621	(1.069)	236126	50.0000	52.8
61 2-Chloroethylvinyl ether	63	15.030	15.030	(1.099)	387483	250.000	455
64 4-Methyl-2-pentanone	58	15.357	15.357	(0.895)	828937	250.000	268
63 cis-1,3-Dichloropropylene	75	15.256	15.256	(1.115)	666320	50.0000	57.2
$ 65 Toluene-d8	98	15.518	15.518	(0.904)	1946766	50.0000	55.2
66 Toluene	92	15.596	15.596	(0.909)	970662	50.0000	52.7
68 trans-1,3-Dichloropropylene	75	15.877	15.877	(0.925)	620775	50.0000	57.9
69 1,1,2-Trichloroethane	83	16.103	16.103	(0.939)	288237	50.0000	54.6
71 2-Hexanone	43	16.264	16.264	(0.948)	1914262	250.000	242
72 1,3-Dichloropropane	76	16.305	16.305	(0.950)	601272	50.0000	53.7
70 Tetrachloroethylene	164	16.190	16.190	(0.944)	291478	50.0000	51.9
73 Dibromochloromethane	129	16.545	16.545	(0.964)	377431	50.0000	57.0
74 1,2-Dibromoethane	107	16.724	16.724	(0.975)	332309	50.0000	55.9
* 76 Chlorobenzene-d5	117	17.157	17.157	(1.000)	633397	50.0000	
77 Chlorobenzene	112	17.189	17.189	(1.002)	1022964	50.0000	53.1
79 1,1,1,2-Tetrachloroethane	131	17.258	17.258	(1.006)	358594	50.0000	55.8
78 Ethylbenzene	91	17.217	17.217	(1.003)	1876987	50.0000	53.2
80 m,p-Xylenes	106	17.336	17.336	(1.010)	1367248	100.000	106
81 o-Xylene	106	17.783	17.783	(1.036)	690172	50.0000	55.1
82 Styrene	104	17.801	17.801	(1.038)	1184442	50.0000	56.2
83 Bromoform	173	18.105	18.105	(0.923)	245870	50.0000	50.2
84 Isopropylbenzene	105	18.128	18.128	(0.924)	1832693	50.0000	53.6

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
88 1,1,2,2-Tetrachloroethane	83	18.506	18.506	(0.944)	449385	50.0000	54.6
$ 87 Bromofluorobenzene	95	18.386	18.386	(0.938)	721865	50.0000	52.0
92 1,2,3-Trichloropropane	110	18.607	18.607	(0.949)	112662	50.0000	52.8
91 Bromobenzene	156	18.588	18.588	(0.948)	431879	50.0000	52.9
89 n-Propylbenzene	91	18.556	18.556	(0.946)	2251960	50.0000	52.9
94 2-Chlorotoluene	91	18.740	18.740	(0.956)	1558364	50.0000	52.6
93 1,3,5-Trimethylbenzene	105	18.717	18.717	(0.954)	1589461	50.0000	53.5
95 4-Chlorotoluene	91	18.851	18.851	(0.961)	1440682	50.0000	53.7
96 tert-Butylbenzene	119	19.076	19.076	(0.973)	1268765	50.0000	52.1
97 1,2,4-Trimethylbenzene	105	19.132	19.132	(0.976)	1621698	50.0000	52.9
99 sec-Butylbenzene	105	19.302	19.302	(0.984)	2069499	50.0000	53.0
100 4-Isopropyltoluene	119	19.422	19.422	(0.990)	1584529	50.0000	53.5
101 1,3-Dichlorobenzene	146	19.541	19.541	(0.996)	822071	50.0000	51.8
* 102 1,4-Dichlorobenzene-d4	152	19.610	19.610	(1.000)	346679	50.0000	
103 1,4-Dichlorobenzene	146	19.638	19.638	(1.001)	839077	50.0000	51.9
105 n-Butylbenzene	91	19.868	19.868	(1.013)	1690328	50.0000	53.9
106 1,2-Dichlorobenzene	146	20.080	20.080	(1.024)	781680	50.0000	51.9
108 1,2-Dibromo-3-chloropropane	157	21.000	21.000	(1.071)	71370	50.0000	47.4
109 1,2,4-Trichlorobenzene	180	22.022	22.022	(1.123)	413715	50.0000	48.8
110 Hexachlorobutadiene	225	22.105	22.105	(1.127)	289372	50.0000	51.0
111 Naphthalene	128	22.437	22.437	(1.144)	691390	50.0000	38.1
112 1,2,3-Trichlorobenzene	180	22.791	22.791	(1.162)	258840	50.0000	40.8

Data File: /chem/VOA1.i/121709v1/1r428.d
Date : 17-DEC-2009 22:57
Client ID: ICV
Sample Info: |WI|VH091217-18||CV|1|VOAF|1|
Purge Volume: 5.0
Column phase: RTX-Volatiles

Instrument: VOA1.i
Operator: RXH4
Column diameter: 0.25

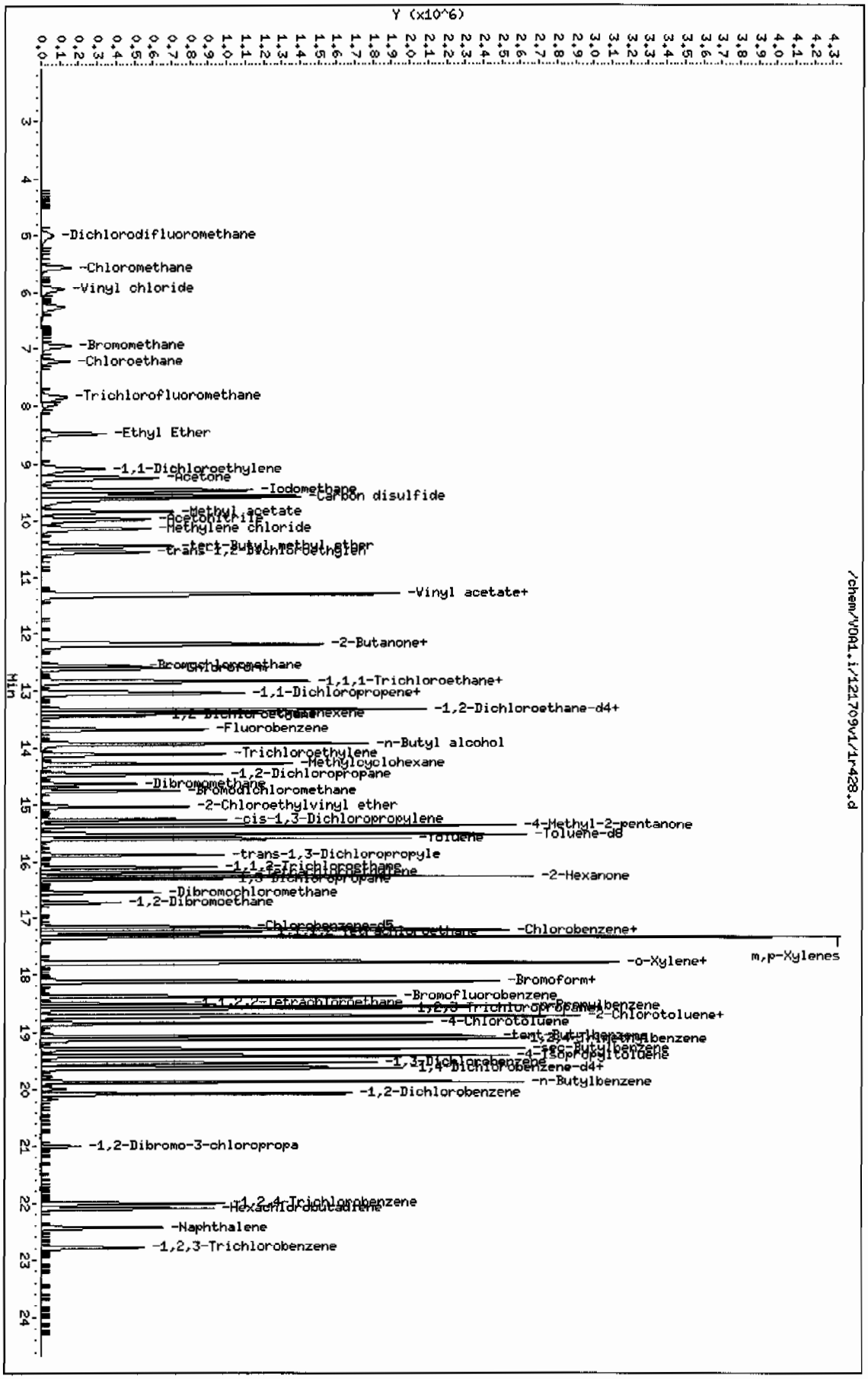

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Data File: /chem/VOA1.i/121709v1/1r430.d
Report Date: 18-Dec-2009 09:22

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA1.i
Lab File ID: 1r430.d
Analysis Type: WATER
Lab Sample ID: W1VM091217-20
Method: /chem/VOA1.i/121709v1/VOA1-8260ox-121709.m

Injection Date: 17-DEC-2009 23:58
Init. Cal. Date(s): 17-DEC-2009 17-DEC-2009
Init. Cal. Times: 13:26 21:57
Quant Type: ISTD

COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
4 Chlorotrifluoroethylene	137	150	0.20454	0.010	-8.69028	30.00000	Linear
8 2-Chloro-1,1,1-trifluoroeth	156	150	0.47282	0.010	4.10632	30.00000	Linear
13 Acrolein	0.07113	0.08417	0.08417	0.001	18.33635	30.00000	Averaged
14 Trichlorotrifluoroethane	0.29664	0.35238	0.35238	0.030	18.78925	30.00000	Averaged
17 Isopropyl Alcohol	2723	2500	0.02846	0.000	8.93625	40.00000	Linear
20 Allyl chloride	266	250	0.18352	0.010	6.20960	30.00000	Linear
24 tert-Butyl Alcohol	2701	2500	0.04655	0.010	8.04183	40.00000	Linear
27 Acrylonitrile	0.14313	0.16467	0.16467	0.010	15.04894	30.00000	Averaged
28 Isopropyl ether	51.22072	50.00000	1.63570	0.010	2.44144	30.00000	Linear
31 2-Chloro-1,3-butadiene	0.59811	0.73987	0.73987	0.010	23.70038	30.00000	Averaged
32 Ethyl tert-butyl ether	50.60234	50.00000	1.47823	0.010	1.20467	30.00000	Linear
37 Propionitrile	0.05574	0.06140	0.06140	0.010	10.14507	30.00000	Averaged
34 Ethyl acetate	0.36418	0.38260	0.38260	0.010	5.05761	40.00000	Averaged
40 Methacrylonitrile	0.28473	0.31562	0.31562	0.010	10.84664	30.00000	Averaged
38 Tetrahydrofuran	0.31873	0.37618	0.37618	0.010	18.02448	30.00000	Averaged
46 Isobutyl alcohol	0.01253	0.01403	0.01403	0.001	12.00188	40.00000	Averaged
49 Methyl tert-amyl ether	50.82410	50.00000	1.24801	0.010	1.64821	30.00000	Linear
56 Methyl methacrylate	0.24537	0.28333	0.28333	0.010	15.47002	30.00000	Averaged
67 Ethyl methacrylate	0.68739	0.79692	0.79692	0.010	15.93469	30.00000	Averaged
75 1-Chlorohexane	0.49469	0.48337	0.48337	0.000	-2.28757	30.00000	Averaged
58 1,4-Dioxane	0.00351	0.00409	0.00409	0.001	16.51266	40.00000	Averaged
62 2-Nitropropane	268	250	0.11981	0.000	7.39385	30.00000	Linear
85 cis-1,4-Dichloro-2-butene	0.37890	0.46792	0.46792	0.010	23.49365	30.00000	Averaged
86 Cyclohexanone	0.07283	0.04492	0.04492	0.010	-38.32462	40.00000	Averaged
90 trans-1,4-Dichloro-2-butene	0.35568	0.44422	0.44422	0.010	24.89510	30.00000	Averaged
98 Pentachloroethane	0.42012	0.51504	0.51504	0.010	22.59531	30.00000	Averaged
104 Benzyl chloride	1.95639	2.22255	2.22255	0.010	13.60510	30.00000	Averaged
107 bis(2-Chloroisopropyl)ether	0.45769	0.57767	0.57767	0.010	26.21523	30.00000	Averaged
$ 48 1,2-Dichloroethane-d4	0.60584	0.61775	0.61775	0.010	1.96606	30.00000	Averaged
$ 65 Toluene-d8	2.85543	3.05423	3.05423	0.010	6.96200	30.00000	Averaged
$ 87 Bromofluorobenzene	2.05512	2.23181	2.23181	0.010	8.59736	30.00000	Averaged

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA1.i Injection Date: 17-DEC-2009 23:58
Lab File ID: 1r430.d Init. Cal. Date(s): 17-DEC-2009 17-DEC-2009
Analysis Type: WATER Init. Cal. Times: 13:26 21:57
Lab Sample ID: W1VM091217-20 Quant Type: ISTD
Method: /chem/VOA1.i/121709v1/VOA1-8260ox-121709.m

Average %D / Drift Results.	
Calculated Average %D/Drift =	12.82201
Maximun Average %D/Drift =	20.00000
* Passed Average %D/Drift Test.	

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VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/121709v1/1r430.d
Lab Smp Id: W1VM091217-20 Client Smp ID: SHORT ICV
Inj Date : 17-DEC-2009 23:58
Operator : RXM4 Inst ID: VOA1.i
Smp Info : |W1VM091217-20|SHORT ICV|1|VOAF|1|
Misc Info : GEL 5ML N/A UVM091118-08C/UVM091105-02E
Comment :
Method : /chem/VOA1.i/121709v1/VOA1-8260ox-121709.m
Meth Date : 18-Dec-2009 09:22 ron01469 Quant Type: ISTD
Cal Date : 17-DEC-2009 21:57 Cal File: 1r426.d
Als bottle: 24 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: CALsubS+SS.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (Uf/Vo) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	sample purged

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
4 Chlorotrifluoroethylene	116	4.897	4.897	(0.358)	583804	150.000	137
8 2-Chloro-1,1,1-trifluoroethane	118	6.312	6.312	(0.461)	1349548	150.000	156
13 Acrolein	56	8.954	8.954	(0.654)	400431	250.000	296
14 Trichlorotrifluoroethane	101	8.996	8.996	(0.658)	1676309	250.000	297
17 Isopropyl Alcohol	45	9.447	9.447	(0.690)	1353921	2500.00	2720
20 Allyl chloride	76	9.852	9.852	(0.720)	873041	250.000	266
24 tert-Butyl Alcohol	59	10.197	10.197	(0.745)	2214363	2500.00	2700
27 Acrylonitrile	53	10.671	10.671	(0.780)	783344	250.000	288
28 Isopropyl ether	45	11.196	11.196	(0.818)	1556246	50.0000	51.2
31 2-Chloro-1,3-butadiene	53	11.394	11.394	(0.833)	703930	50.0000	61.8
32 Ethyl tert-butyl ether	59	11.758	11.758	(0.859)	1406424	50.0000	50.6
37 Propionitrile	54	12.402	12.402	(0.906)	292076	250.000	275
34 Ethyl acetate	43	12.163	12.163	(0.889)	1820085	250.000	263
40 Methacrylonitrile	41	12.563	12.563	(0.918)	1501432	250.000	277
38 Tetrahydrofuran	42	12.540	12.540	(0.639)	640867	250.000	295

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
46 Isobutyl alcohol	41	13.111	13.111	(0.958)	667397	2500.00	2800
49 Methyl tert-amyl ether	73	13.346	13.346	(0.975)	1187396	50.0000	50.8
56 Methyl methacrylate	69	14.437	14.437	(1.055)	1347834	250.000	289
67 Ethyl methacrylate	69	15.808	15.808	(0.921)	2614016	250.000	290
75 1-Chlorohexane	55	17.028	17.028	(1.245)	459894	50.0000	48.8
58 1,4-Dioxane	88	14.543	14.543	(1.063)	194645	2500.00	2910
62 2-Nitropropane	43	15.077	15.077	(1.102)	569946	250.000	268
85 cis-1,4-Dichloro-2-butene	53	18.276	18.276	(0.932)	797153	250.000	309
86 Cyclohexanone	55	18.386	18.386	(1.072)	736654	1250.00	771
90 trans-1,4-Dichloro-2-butene	53	18.566	18.566	(0.947)	756783	250.000	312
98 Pentachloroethane	167	19.196	19.196	(0.979)	877430	250.000	306(A)
104 Benzyl chloride	91	19.772	19.772	(1.008)	3786361	250.000	284
107 bis(2-Chloroisopropyl)ether	45	20.163	20.163	(1.028)	984129	250.000	316
* 52 Fluorobenzene	96	13.682	13.682	(1.000)	951428	50.0000	
* 76 Chlorobenzene-d5	117	17.157	17.157	(1.000)	656029	50.0000	
* 102 1,4-Dichlorobenzene-d4	152	19.611	19.611	(1.000)	340721	50.0000	
$ 48 1,2-Dichloroethane-d4	65	13.341	13.341	(0.975)	587745	50.0000	51.0
$ 65 Toluene-d8	98	15.518	15.518	(0.904)	2003665	50.0000	53.5
$ 87 Bromofluorobenzene	95	18.386	18.386	(0.938)	760425	50.0000	54.3

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.

Data File: /chem/VOA1.i/121709v1/1r430.d
Date : 17-DEC-2009 23:58
Client ID: SHORT ICV
Sample Info: IWIWW091217-201SHORT ICV111VOAF111
Purge Volume: 5.0
Column phase: RTX-Volatiles

Instrument: VOA1.i
Operator: RXM4
Column diameter: 0.25

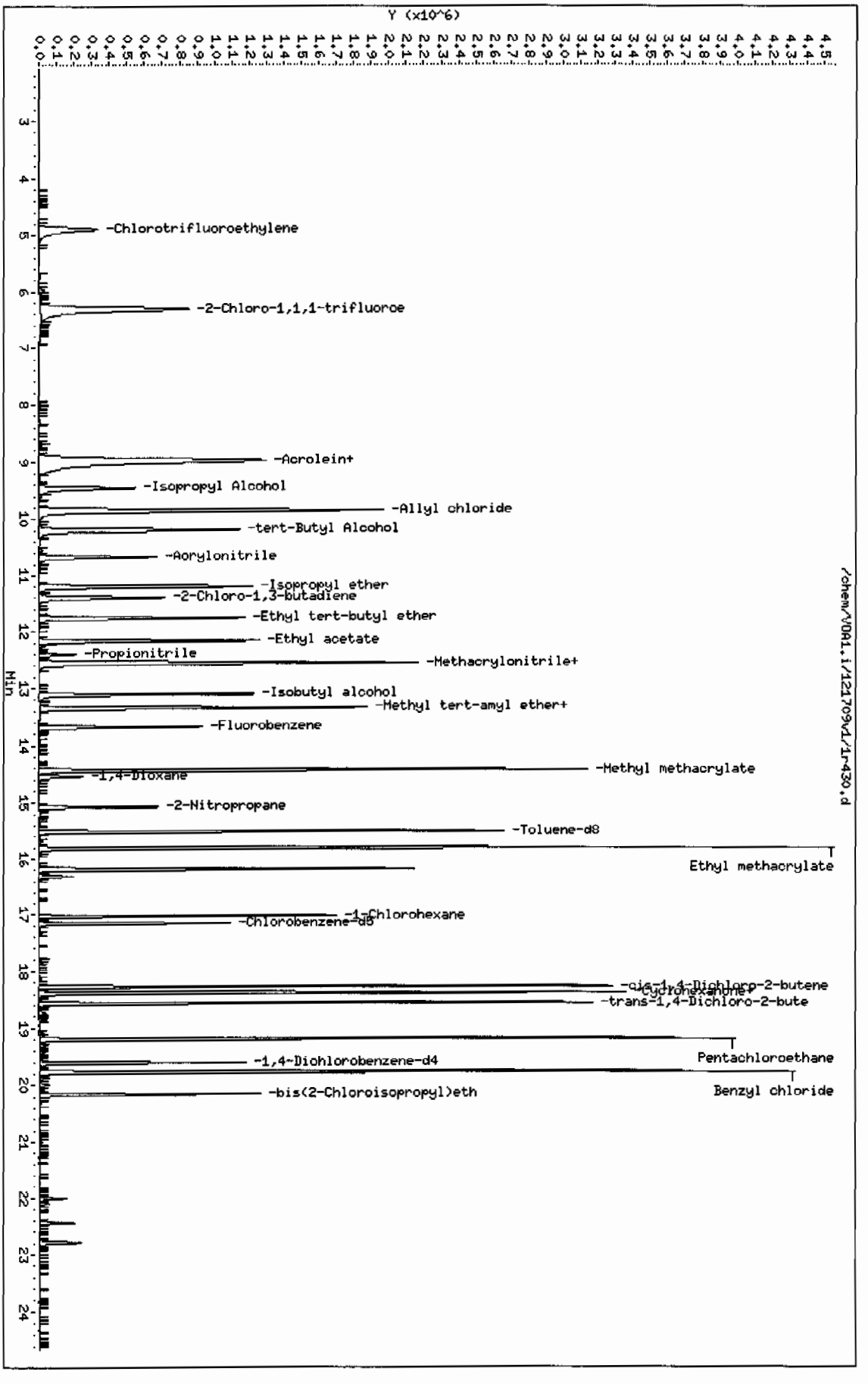

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Data File: /chem/VOA1.i/010410v1/1u104CCV.d
Report Date: 18-Jan-2010 17:35

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA1.i Injection Date: 04-JAN-2010 09:33
Lab File ID: 1u104CCV.d Init. Cal. Date(s): 17-DEC-2009 17-DEC-2009
Analysis Type: SOIL Init. Cal. Times: 13:26 21:57
Lab Sample ID: W1VM100104-01 Quant Type: ISTD
Method: /chem/VOA1.i/010410v1/VOA1-8260ox-121709.m

	COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
M	1 Xylenes (total)	1.00571	0.91723	0.91723	0.050	-8.79741	30.00000	Averaged	
M	2 1,2-Dichloroethylene (total	0.40751	0.35991	0.35991	0.050	-11.68057	30.00000	Averaged	
M	3 1,3-Dichloropropylene	0.88514	0.86913	0.86913	0.050	-1.80869	30.00000	Averaged	
	5 Dichlorodifluoromethane	50.20531	50.00000	0.28386	0.050	0.41063	30.00000	Linear	
	6 Chloromethane	0.51970	0.49890	0.49890	0.100	-4.00259	30.00000	Averaged	spcc
	7 Vinyl chloride	0.43212	0.40045	0.40045	0.050	-7.32808	20.00000	Averaged	ccc
	9 Bromomethane	0.28210	0.23725	0.23725	0.050	-15.89925	30.00000	Averaged	
	10 Chloroethane	0.30188	0.28016	0.28016	0.050	-7.19534	30.00000	Averaged	
	11 Trichlorofluoromethane	0.44773	0.50542	0.50542	0.050	12.88524	30.00000	Averaged	
	12 Ethyl Ether	0.37389	0.31510	0.31510	0.010	-15.72366	30.00000	Averaged	
	16 Acetone	0.30248	0.23159	0.23159	0.000	-23.43740	40.00000	Averaged	
	22 Acetonitrile	0.04984	0.04354	0.04354	0.010	-12.64447	30.00000	Averaged	
	15 1,1-Dichloroethylene	0.69959	0.67368	0.67368	0.050	-3.70340	20.00000	Averaged	ccc
	21 Methyl acetate	0.28883	0.26375	0.26375	0.010	-8.68557	40.00000	Averaged	
	18 Iodomethane	0.55436	0.42400	0.42400	0.050	-23.51624	30.00000	Averaged	
	23 Methylene chloride	39.22689	50.00000	0.35744	0.000	-21.54621	30.00000	Linear	
	19 Carbon disulfide	1.13824	1.07426	1.07426	0.050	-5.62116	30.00000	Averaged	
	25 tert-Butyl methyl ether	1.12196	0.97763	0.97763	0.050	-12.86402	30.00000	Averaged	
	26 trans-1,2-Dichloroethylene	0.38807	0.34610	0.34610	0.050	-10.81591	30.00000	Averaged	
	29 Vinyl acetate	0.69026	0.78219	0.78219	0.010	13.31733	40.00000	Averaged	
	30 1,1-Dichloroethane	0.77946	0.71856	0.71856	0.100	-7.81297	30.00000	Averaged	spcc
	35 2-Butanone	0.33847	0.26837	0.26837	0.030	-20.71144	40.00000	Averaged	
	36 cis-1,2-Dichloroethylene	0.42695	0.37373	0.37373	0.050	-12.46605	30.00000	Averaged	
	33 2,2-Dichloropropane	0.45439	0.52638	0.52638	0.050	15.84368	30.00000	Averaged	
	41 Chloroform	0.75919	0.72118	0.72118	0.010	-5.00623	20.00000	Averaged	ccc
	39 Bromochloromethane	0.18374	0.15117	0.15117	0.010	-17.72449	30.00000	Averaged	
	43 1,1,1-Trichloroethane	0.50671	0.54750	0.54750	0.010	8.04883	30.00000	Averaged	
	42 Cyclohexane	0.73657	0.77545	0.77545	0.010	5.27894	30.00000	Averaged	
	45 1,1-Dichloropropene	0.55584	0.59546	0.59546	0.010	7.12695	30.00000	Averaged	
	53 n-Butyl alcohol	4128	5000	0.00990	0.001	-17.44564	40.00000	Linear	
	44 Carbon tetrachloride	0.50106	0.55326	0.55326	0.010	10.41864	30.00000	Averaged	
$	48 1,2-Dichloroethane-d4	0.59741	0.70152	0.70152	0.010	17.42655	30.00000	Averaged	
	51 1,2-Dichloroethane	0.60049	0.59770	0.59770	0.010	-0.46458	30.00000	Averaged	
	47 Benzene	1.62246	1.49614	1.49614	0.010	-7.78589	30.00000	Averaged	
	50 Cyclohexene	0.57039	0.59325	0.59325	0.010	4.00760	30.00000	Averaged	

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA1.i Injection Date: 04-JAN-2010 09:33
Lab File ID: 1u104CCV.d Init. Cal. Date(s): 17-DEC-2009 17-DEC-2009
Analysis Type: SOIL Init. Cal. Times: 13:26 21:57
Lab Sample ID: W1VM100104-01 Quant Type: ISTD
Method: /chem/VOA1.i/010410v1/VOA1-8260ox-121709.m

	COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
	54 Trichloroethylene	0.41533	0.39834	0.39834	0.010	-4.09190	30.00000	Averaged	
	57 1,2-Dichloropropane	0.44519	0.41596	0.41596	0.010	-6.56534	20.00000	Averaged	ccc
	55 Methylcyclohexane	0.67888	0.67211	0.67211	0.010	-0.99766	30.00000	Averaged	
	60 Bromodichloromethane	0.55929	0.57427	0.57427	0.010	2.67897	30.00000	Averaged	
	59 Dibromomethane	0.25092	0.22602	0.22602	0.010	-9.92355	30.00000	Averaged	
	61 2-Chloroethylvinyl ether	322	250	0.06138	0.000	28.91074	30.00000	Linear	
	64 4-Methyl-2-pentanone	0.24426	0.22492	0.22492	0.010	-7.91721	40.00000	Averaged	
	63 cis-1,3-Dichloropropylene	0.65316	0.66568	0.66568	0.010	1.91739	30.00000	Averaged	
$	65 Toluene-d8	2.78542	2.37951	2.37951	0.010	-14.57276	30.00000	Averaged	
	66 Toluene	1.45437	1.25423	1.25423	0.010	-13.76093	20.00000	Averaged	ccc
	68 trans-1,3-Dichloropropylene	0.84622	0.85115	0.85115	0.010	0.58239	30.00000	Averaged	
	69 1,1,2-Trichloroethane	0.41628	0.36462	0.36462	0.010	-12.40974	30.00000	Averaged	
	71 2-Hexanone	0.62331	0.51470	0.51470	0.010	-17.42426	40.00000	Averaged	
	72 1,3-Dichloropropane	0.88376	0.76891	0.76891	0.010	-12.99498	30.00000	Averaged	
	70 Tetrachloroethylene	0.44328	0.39487	0.39487	0.010	-10.92086	30.00000	Averaged	
	73 Dibromochloromethane	0.52259	0.48382	0.48382	0.010	-7.41776	30.00000	Averaged	
	74 1,2-Dibromoethane	0.46944	0.40625	0.40625	0.010	-13.46055	30.00000	Averaged	
	77 Chlorobenzene	1.51959	1.33339	1.33339	0.300	-12.25337	30.00000	Averaged	spcc
	79 1,1,1,2-Tetrachloroethane	0.50746	0.47603	0.47603	0.010	-6.19181	30.00000	Averaged	
	78 Ethylbenzene	2.78730	2.60458	2.60458	0.010	-6.55562	20.00000	Averaged	ccc
	80 m,p-Xylenes	1.01429	0.93038	0.93038	0.010	-8.27327	30.00000	Averaged	
	81 o-Xylene	0.98852	0.89094	0.89094	0.010	-9.87138	30.00000	Averaged	
	82 Styrene	1.66316	1.51244	1.51244	0.010	-9.06223	30.00000	Averaged	
	83 Bromoform	39.37483	50.00000	0.55173	0.100	-21.25033	30.00000	Linear	spcc
	84 Isopropylbenzene	4.93115	4.65293	4.65293	0.010	-5.64196	30.00000	Averaged	
	88 1,1,2,2-Tetrachloroethane	1.18805	1.04336	1.04336	0.300	-12.17927	30.00000	Averaged	spcc
$	87 Bromofluorobenzene	2.00113	1.76041	1.76041	0.010	-12.02916	30.00000	Averaged	
	92 1,2,3-Trichloropropane	0.30749	0.26953	0.26953	0.010	-12.34319	30.00000	Averaged	
	91 Bromobenzene	1.17688	0.98115	0.98115	0.010	-16.63118	30.00000	Averaged	
	89 n-Propylbenzene	6.13553	5.82322	5.82322	0.010	-5.09029	30.00000	Averaged	
	94 2-Chlorotoluene	4.27198	3.96182	3.96182	0.010	-7.26031	30.00000	Averaged	
	93 1,3,5-Trimethylbenzene	4.28391	3.94591	3.94591	0.010	-7.88997	30.00000	Averaged	
	95 4-Chlorotoluene	3.87008	3.57512	3.57512	0.010	-7.62159	30.00000	Averaged	
	96 tert-Butylbenzene	3.51472	3.17985	3.17985	0.010	-9.52766	30.00000	Averaged	
	97 1,2,4-Trimethylbenzene	4.42433	4.09201	4.09201	0.010	-7.51107	30.00000	Averaged	
	99 sec-Butylbenzene	5.63174	5.18659	5.18659	0.010	-7.90424	30.00000	Averaged	

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA1.i Injection Date: 04-JAN-2010 09:33
Lab File ID: 1u104CCV.d Init. Cal. Date(s): 17-DEC-2009 17-DEC-2009
Analysis Type: SOIL Init. Cal. Times: 13:26 21:57
Lab Sample ID: W1VM100104-01 Quant Type: ISTD
Method: /chem/VOA1.i/010410v1/VOA1-8260ox-121709.m

COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
100 4-Isopropyltoluene	4.27086	3.89973	3.89973	0.010	-8.68965	30.00000	Averaged
101 1,3-Dichlorobenzene	2.28713	1.95612	1.95612	0.010	-14.47276	30.00000	Averaged
103 1,4-Dichlorobenzene	2.33125	2.00841	2.00841	0.010	-13.84839	30.00000	Averaged
105 n-Butylbenzene	4.52044	4.37280	4.37280	0.010	-3.26590	30.00000	Averaged
106 1,2-Dichlorobenzene	2.17327	1.85724	1.85724	0.010	-14.54159	30.00000	Averaged
108 1,2-Dibromo-3-chloropropane	33.96163	50.00000	0.14466	0.010	-32.07674	30.00000	Linear <-
109 1,2,4-Trichlorobenzene	1.22342	0.90864	0.90864	0.010	-25.72935	30.00000	Averaged
110 Hexachlorobutadiene	0.81816	0.65098	0.65098	0.010	-20.43404	30.00000	Averaged
111 Naphthalene	27.49264	50.00000	1.40230	0.010	-45.01473	30.00000	Linear <-
112 1,2,3-Trichlorobenzene	0.91417	0.54546	0.54546	0.010	-40.33276	30.00000	Averaged <-

Average %D / Drift Results.

Calculated Average %D/Drift = 11.72213
Maximun Average %D/Drift = 20.00000
* Passed Average %D/Drift Test.

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VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/010410v1/1u104CCV.d
Lab Smp Id: W1VM100104-01 Client Smp ID: VSTD050
Inj Date : 04-JAN-2010 09:33
Operator : RXM4 Inst ID: VOA1.i
Smp Info : |W1VM100104-01|CCV/LCS|1|VOAF|1|
Misc Info : GEL 5G N/A UVM091214-01C/IVM091228-01
Comment :
Method : /chem/VOA1.i/010410v1/VOA1-8260ox-121709.m
Meth Date : 18-Jan-2010 17:35 jeb Quant Type: ISTD
Cal Date : 17-DEC-2009 21:27 Cal File: 1r425.d
Als bottle: 4 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: CALsubL+.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	0.00000	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
M 1 Xylenes (total)	106				1718213	150.000	137
M 2 1,2-Dichloroethylene (total)	96				598978	100.000	88.4
M 3 1,3-Dichloropropylene	75				1085404	100.000	101
5 Dichlorodifluoromethane	85	5.019	5.019	(0.367)	236207	50.0000	50.2
6 Chloromethane	50	5.564	5.564	(0.407)	415143	50.0000	48.0
7 Vinyl chloride	62	5.937	5.937	(0.434)	333223	50.0000	46.3
9 Bromomethane	96	6.966	6.966	(0.509)	197417	50.0000	42.0
10 Chloroethane	64	7.228	7.228	(0.528)	233124	50.0000	46.4
11 Trichlorofluoromethane	101	7.841	7.841	(0.573)	420572	50.0000	56.4
12 Ethyl Ether	59	8.476	8.476	(0.620)	262203	50.0000	42.1
16 Acetone	43	9.249	9.249	(0.676)	963539	250.000	191
22 Acetonitrile	41	9.967	9.967	(0.729)	905666	1250.00	1090

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
15 1,1-Dichloroethylene	61	9.093	9.093	(0.665)	560583	50.0000	48.1
21 Methyl acetate	43	9.829	9.829	(0.719)	1097345	250.000	228
18 Iodomethane	142	9.470	9.470	(0.692)	1764085	250.000	191
23 Methylene chloride	84	10.142	10.142	(0.742)	297437	50.0000	39.2
19 Carbon disulfide	76	9.576	9.576	(0.700)	4469567	250.000	236
25 tert-Butyl methyl ether	73	10.437	10.437	(0.763)	813504	50.0000	43.6
26 trans-1,2-Dichloroethylene	96	10.547	10.547	(0.771)	287993	50.0000	44.6
29 Vinyl acetate	43	11.288	11.288	(0.825)	3254370	250.000	283
30 1,1-Dichloroethane	63	11.320	11.320	(0.828)	597928	50.0000	46.1
35 2-Butanone	43	12.177	12.177	(0.890)	1116573	250.000	198
36 cis-1,2-Dichloroethylene	96	12.200	12.200	(0.892)	310985	50.0000	43.8
33 2,2-Dichloropropane	77	12.154	12.154	(0.889)	438009	50.0000	57.9
41 Chloroform	83	12.609	12.609	(0.922)	600108	50.0000	47.5
39 Bromochloromethane	128	12.554	12.554	(0.918)	125794	50.0000	41.1
43 1,1,1-Trichloroethane	97	12.839	12.839	(0.939)	455585	50.0000	54.0
42 Cyclohexane	56	12.835	12.835	(0.938)	645267	50.0000	52.6
45 1,1-Dichloropropene	75	13.047	13.047	(0.954)	495494	50.0000	53.6
53 n-Butyl alcohol	56	13.926	13.926	(1.018)	824007	5000.00	4130
44 Carbon tetrachloride	117	13.019	13.019	(0.952)	460382	50.0000	55.2
$ 48 1,2-Dichloroethane-d4	65	13.332	13.332	(0.975)	583750	50.0000	58.7
51 1,2-Dichloroethane	62	13.433	13.433	(0.982)	497361	50.0000	49.8
47 Benzene	78	13.327	13.327	(0.974)	1244964	50.0000	46.1
50 Cyclohexene	54	13.392	13.392	(0.979)	493653	50.0000	52.0
* 52 Fluorobenzene	96	13.677	13.677	(1.000)	832120	50.0000	
54 Trichloroethylene	95	14.114	14.114	(1.032)	331465	50.0000	48.0
57 1,2-Dichloropropane	63	14.455	14.455	(1.057)	346130	50.0000	46.7
55 Methylcyclohexane	83	14.276	14.276	(1.044)	559273	50.0000	49.5
60 Bromodichloromethane	83	14.745	14.745	(1.078)	477863	50.0000	51.3
59 Dibromomethane	93	14.621	14.621	(1.069)	188078	50.0000	45.0
61 2-Chloroethylvinyl ether	63	15.026	15.026	(1.099)	255377	250.000	322
64 4-Methyl-2-pentanone	58	15.353	15.353	(0.895)	702223	250.000	230
63 cis-1,3-Dichloropropylene	75	15.251	15.251	(1.115)	553929	50.0000	51.0
$ 65 Toluene-d8	98	15.514	15.514	(0.904)	1485810	50.0000	42.7
66 Toluene	92	15.592	15.592	(0.909)	783166	50.0000	43.1
68 trans-1,3-Dichloropropylene	75	15.873	15.873	(0.925)	531475	50.0000	50.3
69 1,1,2-Trichloroethane	83	16.098	16.098	(0.938)	227674	50.0000	43.8
71 2-Hexanone	43	16.264	16.264	(0.948)	1606956	250.000	206
72 1,3-Dichloropropane	76	16.301	16.301	(0.950)	480125	50.0000	43.5
70 Tetrachloroethylene	164	16.181	16.181	(0.943)	246565	50.0000	44.5
73 Dibromochloromethane	129	16.540	16.540	(0.964)	302108	50.0000	46.3
74 1,2-Dibromoethane	107	16.724	16.724	(0.975)	253670	50.0000	43.3
* 76 Chlorobenzene-d5	117	17.157	17.157	(1.000)	624419	50.0000	
77 Chlorobenzene	112	17.189	17.189	(1.002)	832596	50.0000	43.9
79 1,1,1,2-Tetrachloroethane	131	17.254	17.254	(1.006)	297245	50.0000	46.9
78 Ethylbenzene	91	17.212	17.212	(1.003)	1626348	50.0000	46.7
80 m,p-Xylenes	106	17.332	17.332	(1.010)	1161893	100.000	91.7
81 o-Xylene	106	17.778	17.778	(1.036)	556320	50.0000	45.1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
82 Styrene	104	17.797	17.797	(1.037)	944398	50.0000	45.5
83 Bromoform	173	18.101	18.101	(0.923)	187052	50.0000	39.4
84 Isopropylbenzene	105	18.124	18.124	(0.924)	1577489	50.0000	47.2
88 1,1,2,2-Tetrachloroethane	83	18.501	18.501	(0.944)	353730	50.0000	43.9
$ 87 Bromofluorobenzene	95	18.386	18.386	(0.938)	596834	50.0000	44.0
92 1,2,3-Trichloropropane	110	18.602	18.602	(0.949)	91380	50.0000	43.8
91 Bromobenzene	156	18.589	18.589	(0.948)	332641	50.0000	41.7
89 n-Propylbenzene	91	18.556	18.556	(0.946)	1974251	50.0000	47.4
94 2-Chlorotoluene	91	18.736	18.736	(0.956)	1343181	50.0000	46.4
93 1,3,5-Trimethylbenzene	105	18.713	18.713	(0.954)	1337787	50.0000	46.0
95 4-Chlorotoluene	91	18.851	18.851	(0.961)	1212076	50.0000	46.2
96 tert-Butylbenzene	119	19.072	19.072	(0.973)	1078068	50.0000	45.2
97 1,2,4-Trimethylbenzene	105	19.132	19.132	(0.976)	1387319	50.0000	46.2
99 sec-Butylbenzene	105	19.297	19.297	(0.984)	1758415	50.0000	46.0
100 4-Isopropyltoluene	119	19.417	19.417	(0.990)	1322131	50.0000	45.6
101 1,3-Dichlorobenzene	146	19.537	19.537	(0.996)	663186	50.0000	42.8
* 102 1,4-Dichlorobenzene-d4	152	19.606	19.606	(1.000)	339031	50.0000	
103 1,4-Dichlorobenzene	146	19.634	19.634	(1.001)	680913	50.0000	43.1
105 n-Butylbenzene	91	19.864	19.864	(1.013)	1482516	50.0000	48.4
106 1,2-Dichlorobenzene	146	20.071	20.071	(1.024)	629663	50.0000	42.7
108 1,2-Dibromo-3-chloropropane	157	20.996	20.996	(1.071)	49044	50.0000	34.0
109 1,2,4-Trichlorobenzene	180	22.018	22.018	(1.123)	308058	50.0000	37.1
110 Hexachlorobutadiene	225	22.101	22.101	(1.127)	220702	50.0000	39.8
111 Naphthalene	128	22.432	22.432	(1.144)	475424	50.0000	27.5
112 1,2,3-Trichlorobenzene	180	22.777	22.777	(1.162)	184927	50.0000	29.8

Data File: /chem/VOA1.i/010410v1/1u104CCV.d
Date : 04-JAN-2010 09:33
Client ID: VSTD050
Sample Info: IWLVM100104-01|CCV/LCS|1|VOAF1|

Column phase: RTX-Volatiles

Instrument: VOA1.i
Operator: RXM4
Column diameter: 0.25

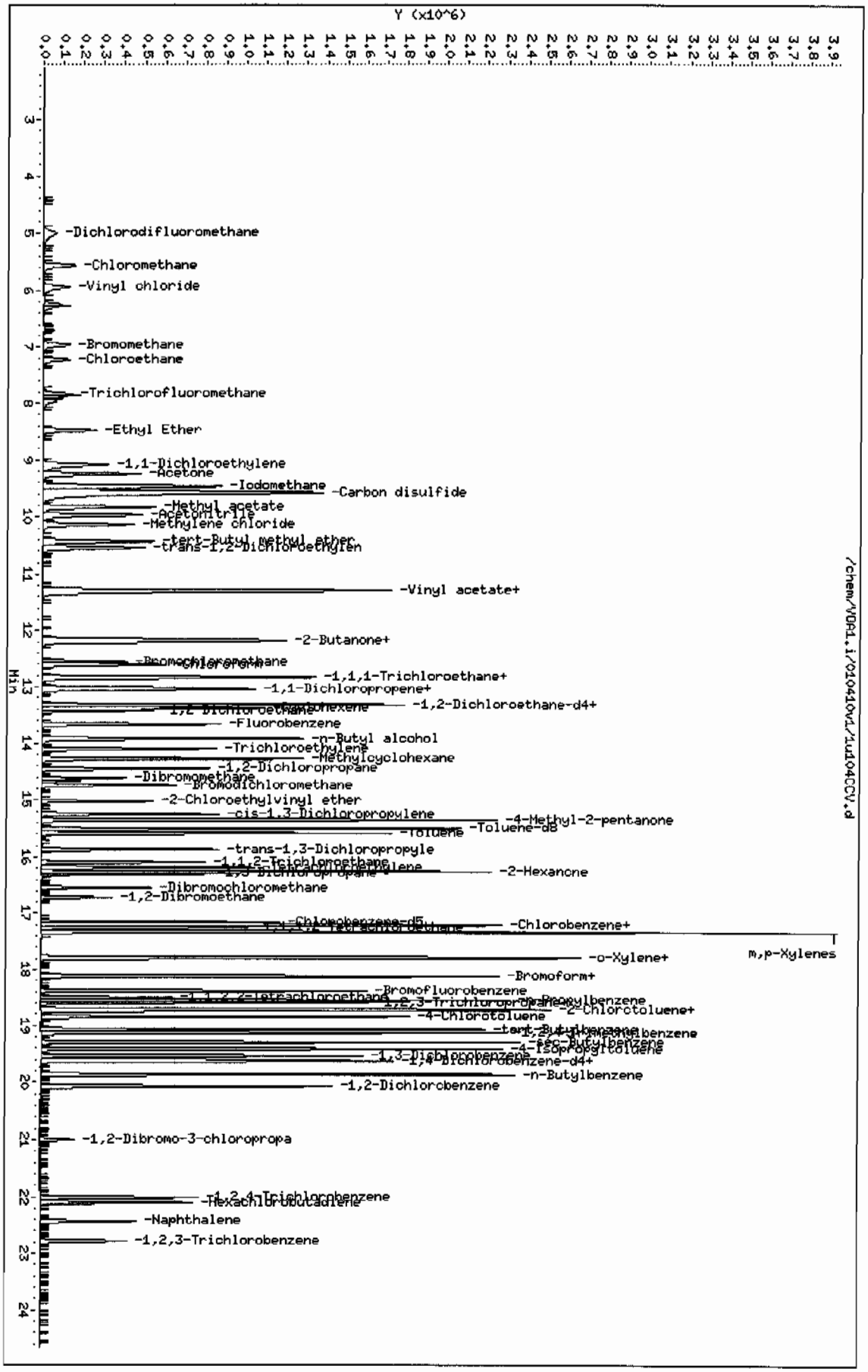

Page 1

Data File: /chem/VOA1.i/010410v1/1u105.d
Report Date: 18-Jan-2010 17:56

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA1.i Injection Date: 04-JAN-2010 10:03
Lab File ID: 1u105.d Init. Cal. Date(s): 17-DEC-2009 17-DEC-2009
Analysis Type: SOIL Init. Cal. Times: 13:26 21:57
Lab Sample ID: W1VM0100104-02 Quant Type: ISTD
Method: /chem/VOA1.i/010410v1/VOA1-8260ox-121709.m

COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
4 Chlorotrifluoroethylene	131	150	0.19581	0.010	-12.53571	30.00000	Linear
8 2-Chloro-1,1,1-trifluoroeth	132	150	0.39976	0.010	-11.90253	30.00000	Linear
13 Acrolein	0.07113	0.07317	0.07317	0.001	2.87184	30.00000	Averaged
14 Trichlorotrifluoroethane	0.29664	0.27414	0.27414	0.030	-7.58513	30.00000	Averaged
17 Isopropyl Alcohol	2523	2500	0.02629	0.000	0.90777	40.00000	Linear
20 Allyl chloride	203	250	0.13767	0.010	-18.86695	30.00000	Linear
24 tert-Butyl Alcohol	2484	2500	0.04272	0.010	-0.63178	40.00000	Linear
27 Acrylonitrile	0.14313	0.13625	0.13625	0.010	-4.80812	30.00000	Averaged
28 Isopropyl ether	44.64812	50.00000	1.42387	0.010	-10.70376	30.00000	Linear
31 2-Chloro-1,3-butadiene	0.59811	0.57128	0.57128	0.010	-4.48618	30.00000	Averaged
32 Ethyl tert-butyl ether	44.01829	50.00000	1.28237	0.010	-11.96342	30.00000	Linear
37 Propionitrile	0.05574	0.05275	0.05275	0.010	-5.37681	30.00000	Averaged
34 Ethyl acetate	0.36418	0.34173	0.34173	0.010	-6.16365	40.00000	Averaged
40 Methacrylonitrile	0.28473	0.27569	0.27569	0.010	-3.17737	30.00000	Averaged
38 Tetrahydrofuran	0.31873	0.26875	0.26875	0.010	-15.68227	30.00000	Averaged
46 Isobutyl alcohol	0.01253	0.01295	0.01295	0.001	3.38994	40.00000	Averaged
49 Methyl tert-amyl ether	43.42406	50.00000	1.06289	0.010	-13.15187	30.00000	Linear
56 Methyl methacrylate	0.24537	0.22920	0.22920	0.010	-6.58992	30.00000	Averaged
67 Ethyl methacrylate	0.68739	0.57110	0.57110	0.010	-16.91774	30.00000	Averaged
75 1-Chlorohexane	0.49469	0.47050	0.47050	0.000	-4.89032	30.00000	Averaged
58 1,4-Dioxane	0.00351	0.00328	0.00328	0.001	-6.53767	40.00000	Averaged
62 2-Nitropropane	261	250	0.11645	0.000	4.45746	30.00000	Linear
85 cis-1,4-Dichloro-2-butene	0.37890	0.40461	0.40461	0.010	6.78494	30.00000	Averaged
86 Cyclohexanone	0.07505	0.02649	0.02649	0.010	-64.70510	40.00000	Averaged <-
90 trans-1,4-Dichloro-2-butene	0.35568	0.38460	0.38460	0.010	8.13074	30.00000	Averaged
98 Pentachloroethane	0.42012	0.53996	0.53996	0.010	28.52722	30.00000	Averaged
104 Benzyl chloride	1.95639	2.07924	2.07924	0.010	6.27968	30.00000	Averaged
107 bis(2-Chloroisopropyl)ether	0.45769	0.46563	0.46563	0.010	1.73425	30.00000	Averaged
$ 48 1,2-Dichloroethane-d4	0.59741	0.62199	0.62199	0.010	4.11442	30.00000	Averaged
$ 65 Toluene-d8	2.78542	2.27450	2.27450	0.010	-18.34256	30.00000	Averaged
$ 87 Bromofluorobenzene	2.00113	1.79633	1.79633	0.010	-10.23425	30.00000	Averaged

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA1.i Injection Date: 04-JAN-2010 10:03
Lab File ID: 1u105.d Init. Cal. Date(s): 17-DEC-2009 17-DEC-2009
Analysis Type: SOIL Init. Cal. Times: 13:26 21:57
Lab Sample ID: W1VM0100104-02 Quant Type: ISTD
Method: /chem/VOA1.i/010410v1/VOA1-8260ox-121709.m

Average %D / Drift Results.	
Calculated Average %D/Drift =	10.40166
Maximun Average %D/Drift =	20.00000
* Passed Average %D/Drift Test.	

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VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/010410v1/1u105.d
Lab Smp Id: W1VM0100104-02 Client Smp ID: VSTD250S
Inj Date : 04-JAN-2010 10:03
Operator : RXM4 Inst ID: VOA1.i
Smp Info : |W1VM0100104-02|SHORT|1|VOAF|1|
Misc Info : GEL 5G N/A UVM091118-08C/
Comment :
Method : /chem/VOA1.i/010410v1/VOA1-8260ox-121709.m
Meth Date : 18-Jan-2010 17:56 jeb Quant Type: ISTD
Cal Date : 17-DEC-2009 21:27 Cal File: 1r425.d
Als bottle: 5 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: CALsubS+SS.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	0.00000	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
4 Chlorotrifluoroethylene	116	4.904	4.904	(0.358)	572845	150.000	131
8 2-Chloro-1,1,1-trifluoroethane	118	6.298	6.298	(0.460)	1169480	150.000	132
13 Acrolein	56	8.950	8.950	(0.654)	356783	250.000	257
14 Trichlorotrifluoroethane	101	8.977	8.977	(0.656)	1336645	250.000	231
17 Isopropyl Alcohol	45	9.442	9.442	(0.690)	1281841	2500.00	2520
20 Allyl chloride	76	9.852	9.852	(0.720)	671254	250.000	203
24 tert-Butyl Alcohol	59	10.193	10.193	(0.745)	2082829	2500.00	2480
27 Acrylonitrile	53	10.667	10.667	(0.780)	664305	250.000	238
28 Isopropyl ether	45	11.191	11.191	(0.818)	1388492	50.0000	44.6
31 2-Chloro-1,3-butadiene	53	11.389	11.389	(0.832)	557086	50.0000	47.8
32 Ethyl tert-butyl ether	59	11.753	11.753	(0.859)	1250513	50.0000	44.0
37 Propionitrile	54	12.402	12.402	(0.906)	257174	250.000	236

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
34 Ethyl acetate	43	12.158	12.158	(0.889)	1666221	250.000	234
40 Methacrylonitrile	41	12.554	12.554	(0.918)	1344180	250.000	242
38 Tetrahydrofuran	42	12.535	12.535	(0.639)	573624	250.000	211
46 Isobutyl alcohol	41	13.106	13.106	(0.958)	631444	2500.00	2580
49 Methyl tert-amyl ether	73	13.346	13.346	(0.975)	1036484	50.0000	43.4
56 Methyl methacrylate	69	14.432	14.432	(1.055)	1117528	250.000	234
67 Ethyl methacrylate	69	15.804	15.804	(0.921)	2191238	250.000	208
75 1-Chlorohexane	55	17.023	17.023	(1.244)	458807	50.0000	47.6
58 1,4-Dioxane	88	14.542	14.542	(1.063)	160031	2500.00	2340
62 2-Nitropropane	43	15.072	15.072	(1.102)	567792	250.000	261
85 cis-1,4-Dichloro-2-butene	53	18.271	18.271	(0.932)	863614	250.000	267
86 Cyclohexanone	55	18.381	18.381	(1.072)	508174	1250.00	441
90 trans-1,4-Dichloro-2-butene	53	18.565	18.565	(0.947)	820895	250.000	270
98 Pentachloroethane	167	19.191	19.191	(0.979)	1152514	250.000	321(A)
104 Benzyl chloride	91	19.767	19.767	(1.008)	4437995	250.000	266
107 bis(2-Chloroisopropyl)ether	45	20.158	20.158	(1.028)	993848	250.000	254
* 52 Fluorobenzene	96	13.682	13.682	(1.000)	975154	50.0000	
* 76 Chlorobenzene-d5	117	17.152	17.152	(1.000)	767379	50.0000	
* 102 1,4-Dichlorobenzene-d4	152	19.606	19.606	(1.000)	426886	50.0000	
$ 48 1,2-Dichloroethane-d4	65	13.336	13.336	(0.975)	606539	50.0000	52.0
$ 65 Toluene-d8	98	15.509	15.509	(0.904)	1745406	50.0000	40.8
$ 87 Bromofluorobenzene	95	18.381	18.381	(0.938)	766828	50.0000	44.9

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.

Data File: /chem/VOA1.i/010410v1/1u105.d
Date : 04-JAN-2010 10:03
Client ID: VSID2505
Sample Info: IWIWH0100104-021SHORT!1!VOAF!1!
Column phase: RTX-Volatiles

Instrument: VOA1.i
Operator: RXM4
Column diameter: 0.25

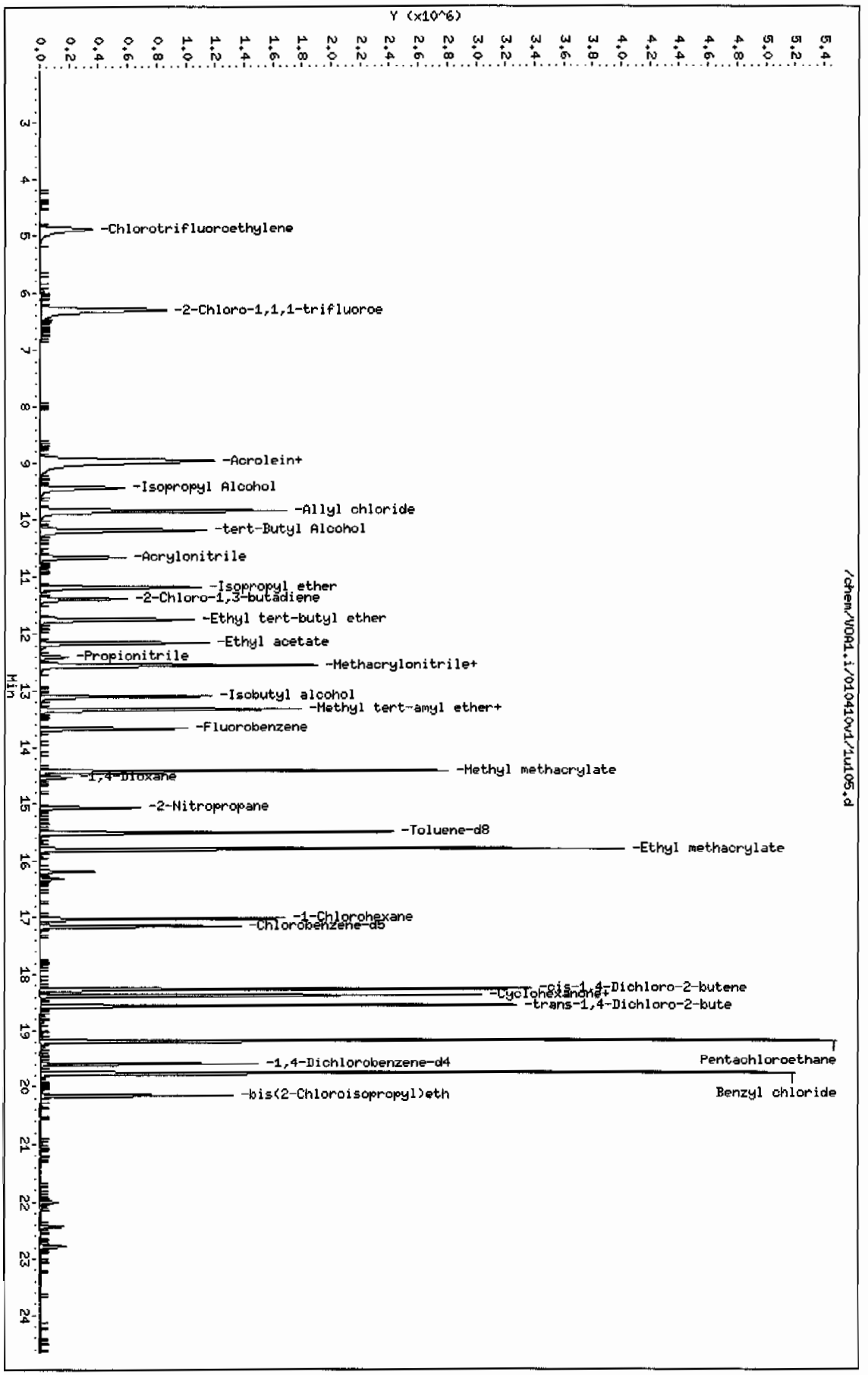

Page 1

Data File: /chem/VOA1.i/123109v1/1t403.d
Report Date: 18-Jan-2010 17:57

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA1.i Injection Date: 31-DEC-2009 10:52
Lab File ID: 1t403.d Init. Cal. Date(s): 17-DEC-2009 17-DEC-2009
Analysis Type: SOIL Init. Cal. Times: 13:26 21:57
Lab Sample ID: W1VM091231-01 Quant Type: ISTD
Method: /chem/VOA1.i/123109v1/VOA1-8260ox-121709.m

	COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
M	1 Xylenes (total)	1.00571	0.90945	0.90945	0.050	-9.57124	30.00000	Averaged	
M	2 1,2-Dichloroethylene (total	0.40751	0.38169	0.38169	0.050	-6.33499	30.00000	Averaged	
M	3 1,3-Dichloropropylene	0.88514	0.84467	0.84467	0.050	-4.57237	30.00000	Averaged	
	5 Dichlorodifluoromethane	54.85691	50.00000	0.31030	0.050	9.71383	30.00000	Linear	
	6 Chloromethane	0.51970	0.52668	0.52668	0.100	1.34337	30.00000	Averaged	spcc
	7 Vinyl chloride	0.43212	0.41998	0.41998	0.050	-2.80785	20.00000	Averaged	ccc
	9 Bromomethane	0.28210	0.26029	0.26029	0.050	-7.72891	30.00000	Averaged	
	10 Chloroethane	0.30188	0.29279	0.29279	0.050	-3.01082	30.00000	Averaged	
	11 Trichlorofluoromethane	0.44773	0.54652	0.54652	0.050	22.06336	30.00000	Averaged	
	12 Ethyl Ether	0.37389	0.32750	0.32750	0.010	-12.40799	30.00000	Averaged	
	16 Acetone	0.30248	0.25180	0.25180	0.000	-16.75504	40.00000	Averaged	
	22 Acetonitrile	0.04984	0.04748	0.04748	0.010	-4.72061	30.00000	Averaged	
	15 1,1-Dichloroethylene	0.69959	0.65978	0.65978	0.050	-5.69082	20.00000	Averaged	ccc
	21 Methyl acetate	0.28883	0.28978	0.28978	0.010	0.32898	40.00000	Averaged	
	18 Iodomethane	0.55436	0.47764	0.47764	0.050	-13.83906	30.00000	Averaged	
	23 Methylene chloride	42.31869	50.00000	0.38555	0.000	-15.36261	30.00000	Linear	
	19 Carbon disulfide	1.13824	1.16126	1.16126	0.050	2.02232	30.00000	Averaged	
	25 tert-Butyl methyl ether	1.12196	1.01233	1.01233	0.050	-9.77127	30.00000	Averaged	
	26 trans-1,2-Dichloroethylene	0.38807	0.36563	0.36563	0.050	-5.78301	30.00000	Averaged	
	29 Vinyl acetate	0.69026	0.83884	0.83884	0.010	21.52504	40.00000	Averaged	
	30 1,1-Dichloroethane	0.77946	0.73592	0.73592	0.100	-5.58627	30.00000	Averaged	spcc
	35 2-Butanone	0.33847	0.29926	0.29926	0.030	-11.58351	40.00000	Averaged	
	36 cis-1,2-Dichloroethylene	0.42695	0.39776	0.39776	0.050	-6.83623	30.00000	Averaged	
	33 2,2-Dichloropropane	0.45439	0.50519	0.50519	0.050	11.17983	30.00000	Averaged	
	41 Chloroform	0.75919	0.72022	0.72022	0.010	-5.13323	20.00000	Averaged	ccc
	39 Bromochloromethane	0.18374	0.17461	0.17461	0.010	-4.96911	30.00000	Averaged	
	43 1,1,1-Trichloroethane	0.50671	0.54717	0.54717	0.010	7.98465	30.00000	Averaged	
	42 Cyclohexane	0.73657	0.77126	0.77126	0.010	4.71067	30.00000	Averaged	
	45 1,1-Dichloropropene	0.55584	0.57923	0.57923	0.010	4.20758	30.00000	Averaged	
	53 n-Butyl alcohol	5291	5000	0.01284	0.001	5.81743	40.00000	Linear	
	44 Carbon tetrachloride	0.50106	0.56394	0.56394	0.010	12.54836	30.00000	Averaged	
$	48 1,2-Dichloroethane-d4	0.59741	0.62267	0.62267	0.010	4.22716	30.00000	Averaged	
	51 1,2-Dichloroethane	0.60049	0.58799	0.58799	0.010	-2.08268	30.00000	Averaged	
	47 Benzene	1.62246	1.52067	1.52067	0.010	-6.27372	30.00000	Averaged	
	50 Cyclohexene	0.57039	0.57893	0.57893	0.010	1.49682	30.00000	Averaged	

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA1.i Injection Date: 31-DEC-2009 10:52
Lab File ID: 1t403.d Init. Cal. Date(s): 17-DEC-2009 17-DEC-2009
Analysis Type: SOIL Init. Cal. Times: 13:26 21:57
Lab Sample ID: W1VM091231-01 Quant Type: ISTD
Method: /chem/VOA1.i/123109v1/VOA1-8260ox-121709.m

	COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
	54 Trichloroethylene	0.41533	0.39957	0.39957	0.010	-3.79467	30.00000	Averaged	
	57 1,2-Dichloropropane	0.44519	0.41340	0.41340	0.010	-7.13999	20.00000	Averaged	ccc
	55 Methylcyclohexane	0.67888	0.69142	0.69142	0.010	1.84795	30.00000	Averaged	
	60 Bromodichloromethane	0.55929	0.54750	0.54750	0.010	-2.10782	30.00000	Averaged	
	59 Dibromomethane	0.25092	0.23211	0.23211	0.010	-7.49939	30.00000	Averaged	
	61 2-Chloroethylvinyl ether	530	250	0.10151	0.000	112	30.00000	Linear	<-
	64 4-Methyl-2-pentanone	0.24426	0.23045	0.23045	0.010	-5.65456	40.00000	Averaged	
	63 cis-1,3-Dichloropropylene	0.65316	0.65042	0.65042	0.010	-0.41895	30.00000	Averaged	
$	65 Toluene-d8	2.78542	2.39964	2.39964	0.010	-13.85009	30.00000	Averaged	
	66 Toluene	1.45437	1.26315	1.26315	0.010	-13.14785	20.00000	Averaged	ccc
	68 trans-1,3-Dichloropropylene	0.84622	0.81964	0.81964	0.010	-3.14092	30.00000	Averaged	
	69 1,1,2-Trichloroethane	0.41628	0.36965	0.36965	0.010	-11.20101	30.00000	Averaged	
	71 2-Hexanone	0.62331	0.54926	0.54926	0.010	-11.88107	40.00000	Averaged	
	72 1,3-Dichloropropane	0.88376	0.76367	0.76367	0.010	-13.58851	30.00000	Averaged	
	70 Tetrachloroethylene	0.44328	0.41155	0.41155	0.010	-7.15747	30.00000	Averaged	
	73 Dibromochloromethane	0.52259	0.50338	0.50338	0.010	-3.67463	30.00000	Averaged	
	74 1,2-Dibromoethane	0.46944	0.42780	0.42780	0.010	-8.86902	30.00000	Averaged	
	77 Chlorobenzene	1.51959	1.34910	1.34910	0.300	-11.21983	30.00000	Averaged	spcc
	79 1,1,1,2-Tetrachloroethane	0.50746	0.48046	0.48046	0.010	-5.32022	30.00000	Averaged	
	78 Ethylbenzene	2.78730	2.52234	2.52234	0.010	-9.50617	20.00000	Averaged	ccc
	80 m,p-Xylenes	1.01429	0.92115	0.92115	0.010	-9.18326	30.00000	Averaged	
	81 o-Xylene	0.98852	0.88605	0.88605	0.010	-10.36580	30.00000	Averaged	
	82 Styrene	1.66316	1.49780	1.49780	0.010	-9.94246	30.00000	Averaged	
	83 Bromoform	39.92290	50.00000	0.55968	0.100	-20.15419	30.00000	Linear	spcc
	84 Isopropylbenzene	4.93115	4.29293	4.29293	0.010	-12.94251	30.00000	Averaged	
	88 1,1,2,2-Tetrachloroethane	1.18805	1.03840	1.03840	0.300	-12.59661	30.00000	Averaged	spcc
$	87 Bromofluorobenzene	2.00113	1.66760	1.66760	0.010	-16.66718	30.00000	Averaged	
	92 1,2,3-Trichloropropane	0.30749	0.26419	0.26419	0.010	-14.08178	30.00000	Averaged	
	91 Bromobenzene	1.17688	0.98071	0.98071	0.010	-16.66870	30.00000	Averaged	
	89 n-Propylbenzene	6.13553	5.26937	5.26937	0.010	-14.11723	30.00000	Averaged	
	94 2-Chlorotoluene	4.27198	3.61715	3.61715	0.010	-15.32844	30.00000	Averaged	
	93 1,3,5-Trimethylbenzene	4.28391	3.70632	3.70632	0.010	-13.48284	30.00000	Averaged	
	95 4-Chlorotoluene	3.87008	3.27882	3.27882	0.010	-15.27760	30.00000	Averaged	
	96 tert-Butylbenzene	3.51472	2.96256	2.96256	0.010	-15.70984	30.00000	Averaged	
	97 1,2,4-Trimethylbenzene	4.42433	3.70368	3.70368	0.010	-16.28826	30.00000	Averaged	
	99 sec-Butylbenzene	5.63174	4.78471	4.78471	0.010	-15.04025	30.00000	Averaged	

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA1.i
Lab File ID: 1t403.d
Analysis Type: SOIL
Lab Sample ID: W1VM091231-01
Method: /chem/VOA1.i/123109v1/VOA1-8260ox-121709.m

Injection Date: 31-DEC-2009 10:52
Init. Cal. Date(s): 17-DEC-2009 17-DEC-2009
Init. Cal. Times: 13:26 21:57
Quant Type: ISTD

COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
100 4-Isopropyltoluene	4.27086	3.69939	3.69939	0.010	-13.38070	30.00000	Averaged
101 1,3-Dichlorobenzene	2.28713	1.90743	1.90743	0.010	-16.60190	30.00000	Averaged
103 1,4-Dichlorobenzene	2.33125	1.94505	1.94505	0.010	-16.56624	30.00000	Averaged
105 n-Butylbenzene	4.52044	3.89859	3.89859	0.010	-13.75641	30.00000	Averaged
106 1,2-Dichlorobenzene	2.17327	1.76911	1.76911	0.010	-18.59686	30.00000	Averaged
108 1,2-Dibromo-3-chloropropane	39.70706	50.00000	0.17075	0.010	-20.58587	30.00000	Linear
109 1,2,4-Trichlorobenzene	1.22342	1.00938	1.00938	0.010	-17.49491	30.00000	Averaged
110 Hexachlorobutadiene	0.81816	0.62157	0.62157	0.010	-24.02819	30.00000	Averaged
111 Naphthalene	34.78168	50.00000	1.80937	0.010	-30.43664	30.00000	Linear <-
112 1,2,3-Trichlorobenzene	0.91417	0.69453	0.69453	0.010	-24.02588	30.00000	Averaged

Average %D / Drift Results.

Calculated Average %D/Drift = 11.68476
Maximun Average %D/Drift = 20.00000
* Passed Average %D/Drift Test.

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/123109v1/1t403.d
Lab Smp Id: W1VM091231-01 Client Smp ID: VSTD050
Inj Date : 31-DEC-2009 10:52
Operator : RXM4 Inst ID: VOA1.i
Smp Info : |W1VM091231-01|CCV/LCS|1|VOAF|1|
Misc Info : GEL 5G N/A UVM091214-01C/IVM091228-01
Comment :
Method : /chem/VOA1.i/123109v1/VOA1-8260ox-121709.m
Meth Date : 18-Jan-2010 17:56 jeb Quant Type: ISTD
Cal Date : 17-DEC-2009 21:27 Cal File: 1r425.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: CALsubL+.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	0.00000	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
M 1 Xylenes (total)	106				2110568	150.000	136
M 2 1,2-Dichloroethylene (total)	96				789614	100.000	93.7
M 3 1,3-Dichloropropylene	75				1306819	100.000	98.2
5 Dichlorodifluoromethane	85	5.005	5.005	(0.366)	320959	50.0000	54.8
6 Chloromethane	50	5.564	5.564	(0.407)	544774	50.0000	50.7
7 Vinyl chloride	62	5.930	5.930	(0.433)	434411	50.0000	48.6
9 Bromomethane	96	6.957	6.957	(0.508)	269236	50.0000	46.1
10 Chloroethane	64	7.219	7.219	(0.528)	302847	50.0000	48.5
11 Trichlorofluoromethane	101	7.840	7.840	(0.573)	565290	50.0000	61.0
12 Ethyl Ether	59	8.476	8.476	(0.619)	338750	50.0000	43.8
16 Acetone	43	9.254	9.254	(0.676)	1302247	250.000	208
22 Acetonitrile	41	9.972	9.972	(0.729)	1227890	1250.00	1190

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
15 1,1-Dichloroethylene	61	9.097	9.097	(0.665)	682442	50.0000	47.2
21 Methyl acetate	43	9.834	9.834	(0.719)	1498694	250.000	251
18 Iodomethane	142	9.470	9.470	(0.692)	2470265	250.000	215
23 Methylene chloride	84	10.142	10.142	(0.741)	398795	50.0000	42.3
19 Carbon disulfide	76	9.576	9.576	(0.700)	6005772	250.000	255
25 tert-Butyl methyl ether	73	10.441	10.441	(0.763)	1047104	50.0000	45.1
26 trans-1,2-Dichloroethylene	96	10.547	10.547	(0.771)	378187	50.0000	47.1
29 Vinyl acetate	43	11.293	11.293	(0.825)	4338296	250.000	304
30 1,1-Dichloroethane	63	11.320	11.320	(0.827)	761197	50.0000	47.2
35 2-Butanone	43	12.181	12.181	(0.890)	1547721	250.000	221
36 cis-1,2-Dichloroethylene	96	12.204	12.204	(0.892)	411427	50.0000	46.6
33 2,2-Dichloropropane	77	12.158	12.158	(0.889)	522540	50.0000	55.6
41 Chloroform	83	12.614	12.614	(0.922)	744957	50.0000	47.4
39 Bromochloromethane	128	12.559	12.559	(0.918)	180608	50.0000	47.5
43 1,1,1-Trichloroethane	97	12.839	12.839	(0.938)	565971	50.0000	54.0
42 Cyclohexane	56	12.835	12.835	(0.938)	797759	50.0000	52.4
45 1,1-Dichloropropene	75	13.046	13.046	(0.954)	599131	50.0000	52.1
53 n-Butyl alcohol	56	13.926	13.926	(1.018)	1327789	5000.00	5290
44 Carbon tetrachloride	117	13.023	13.023	(0.952)	583308	50.0000	56.3
$ 48 1,2-Dichloroethane-d4	65	13.336	13.336	(0.975)	644057	50.0000	52.1
51 1,2-Dichloroethane	62	13.438	13.438	(0.982)	608186	50.0000	49.0
47 Benzene	78	13.332	13.332	(0.974)	1572909	50.0000	46.9
50 Cyclohexene	54	13.392	13.392	(0.979)	598814	50.0000	50.7
* 52 Fluorobenzene	96	13.682	13.682	(1.000)	1034353	50.0000	
54 Trichloroethylene	95	14.110	14.110	(1.031)	413299	50.0000	48.1
57 1,2-Dichloropropane	63	14.455	14.455	(1.057)	427605	50.0000	46.4
55 Methylcyclohexane	83	14.280	14.280	(1.044)	715177	50.0000	50.9
60 Bromodichloromethane	83	14.750	14.750	(1.078)	566308	50.0000	48.9
59 Dibromomethane	93	14.621	14.621	(1.069)	240079	50.0000	46.2
61 2-Chloroethylvinyl ether	63	15.030	15.030	(1.099)	524993	250.000	530(A)
64 4-Methyl-2-pentanone	58	15.353	15.353	(0.895)	891334	250.000	236
63 cis-1,3-Dichloropropylene	75	15.251	15.251	(1.115)	672768	50.0000	49.8
$ 65 Toluene-d8	98	15.514	15.514	(0.904)	1856285	50.0000	43.1
66 Toluene	92	15.592	15.592	(0.909)	977132	50.0000	43.4
68 trans-1,3-Dichloropropylene	75	15.873	15.873	(0.925)	634051	50.0000	48.4
69 1,1,2-Trichloroethane	83	16.098	16.098	(0.938)	285949	50.0000	44.4
71 2-Hexanone	43	16.264	16.264	(0.948)	2124436	250.000	220
72 1,3-Dichloropropane	76	16.305	16.305	(0.950)	590751	50.0000	43.2
70 Tetrachloroethylene	164	16.186	16.186	(0.943)	318365	50.0000	46.4
73 Dibromochloromethane	129	16.545	16.545	(0.964)	389402	50.0000	48.2
74 1,2-Dibromoethane	107	16.724	16.724	(0.975)	330936	50.0000	45.6
* 76 Chlorobenzene-d5	117	17.157	17.157	(1.000)	773569	50.0000	
77 Chlorobenzene	112	17.189	17.189	(1.002)	1043621	50.0000	44.4
79 1,1,1,2-Tetrachloroethane	131	17.254	17.254	(1.006)	371667	50.0000	47.3
78 Ethylbenzene	91	17.217	17.217	(1.003)	1951202	50.0000	45.2
80 m,p-Xylenes	106	17.332	17.332	(1.010)	1425145	100.000	90.8
81 o-Xylene	106	17.778	17.778	(1.036)	685423	50.0000	44.8

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
82 Styrene	104	17.797	17.797	(1.037)	1158654	50.0000	45.0
83 Bromoform	173	18.101	18.101	(0.923)	247263	50.0000	39.9
84 Isopropylbenzene	105	18.124	18.124	(0.924)	1896605	50.0000	43.5
88 1,1,2,2-Tetrachloroethane	83	18.501	18.501	(0.944)	458761	50.0000	43.7
$ 87 Bromofluorobenzene	95	18.386	18.386	(0.938)	736740	50.0000	41.7
92 1,2,3-Trichloropropane	110	18.602	18.602	(0.949)	116717	50.0000	43.0
91 Bromobenzene	156	18.588	18.588	(0.948)	433275	50.0000	41.7
89 n-Propylbenzene	91	18.556	18.556	(0.946)	2327990	50.0000	42.9
94 2-Chlorotoluene	91	18.736	18.736	(0.956)	1598048	50.0000	42.3
93 1,3,5-Trimethylbenzene	105	18.713	18.713	(0.954)	1637441	50.0000	43.2
95 4-Chlorotoluene	91	18.851	18.851	(0.961)	1448575	50.0000	42.4
96 tert-Butylbenzene	119	19.072	19.072	(0.973)	1308852	50.0000	42.1
97 1,2,4-Trimethylbenzene	105	19.132	19.132	(0.976)	1636275	50.0000	41.8
99 sec-Butylbenzene	105	19.297	19.297	(0.984)	2113870	50.0000	42.5
100 4-Isopropyltoluene	119	19.417	19.417	(0.990)	1634378	50.0000	43.3
101 1,3-Dichlorobenzene	146	19.537	19.537	(0.996)	842695	50.0000	41.7
* 102 1,4-Dichlorobenzene-d4	152	19.606	19.606	(1.000)	441797	50.0000	
103 1,4-Dichlorobenzene	146	19.633	19.633	(1.001)	859317	50.0000	41.7
105 n-Butylbenzene	91	19.864	19.864	(1.013)	1722384	50.0000	43.1
106 1,2-Dichlorobenzene	146	20.071	20.071	(1.024)	781588	50.0000	40.7
108 1,2-Dibromo-3-chloropropane	157	20.996	20.996	(1.071)	75439	50.0000	39.7
109 1,2,4-Trichlorobenzene	180	22.018	22.018	(1.123)	445943	50.0000	41.2
110 Hexachlorobutadiene	225	22.101	22.101	(1.127)	274609	50.0000	38.0
111 Naphthalene	128	22.432	22.432	(1.144)	799376	50.0000	34.8
112 1,2,3-Trichlorobenzene	180	22.782	22.782	(1.162)	306841	50.0000	38.0

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.

Data File: /chem/VOA1.i/123109v1/1t403.d
Date : 31-DEC-2009 10:52
Client ID: VSTD050
Sample Info: IW1VH091231-01ICCV/LCS11VOAF11
Column phase: RTX-Volatiles

Instrument: VOA1.i
Operator: RXH4
Column diameter: 0.25

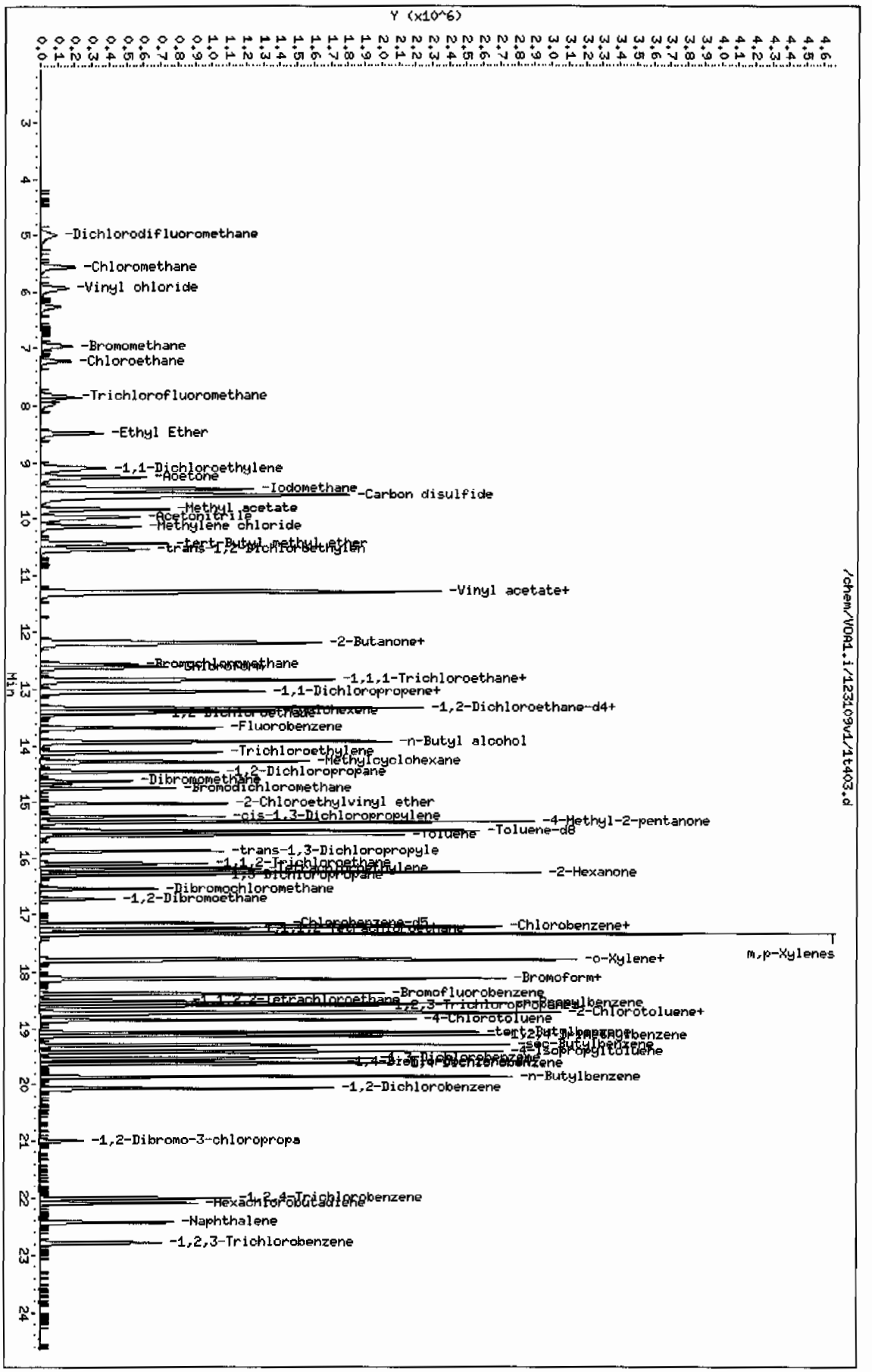

/chem/VOA1.i/123109v1/1t403.d

Data File: /chem/VOA1.i/123109v1/1t404.d
Report Date: 18-Jan-2010 17:55

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA1.i
Lab File ID: 1t404.d
Analysis Type: SOIL
Lab Sample ID: W1VM091231-02
Method: /chem/VOA1.i/123109v1/VOA1-8260ox-121709.m

Injection Date: 31-DEC-2009 11:39
Init. Cal. Date(s): 17-DEC-2009 17-DEC-2009
Init. Cal. Times: 13:26 21:57
Quant Type: ISTD

	COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
	4 Chlorotrifluoroethylene	134	150	0.20071	0.010	-10.37849	30.00000	Linear	
	8 2-Chloro-1,1,1-trifluoroeth	128	150	0.38711	0.010	-14.67497	30.00000	Linear	
	13 Acrolein	0.07113	0.07892	0.07892	0.001	10.95425	30.00000	Averaged	
	14 Trichlorotrifluoroethane	0.29664	0.35104	0.35104	0.030	18.33926	30.00000	Averaged	
	17 Isopropyl Alcohol	2711	2500	0.02833	0.000	8.45402	40.00000	Linear	
	20 Allyl chloride	244	250	0.16769	0.010	-2.44911	30.00000	Linear	
	24 tert-Butyl Alcohol	2591	2500	0.04461	0.010	3.64157	40.00000	Linear	
	27 Acrylonitrile	0.14313	0.14932	0.14932	0.010	4.32883	30.00000	Averaged	
	28 Isopropyl ether	44.34511	50.00000	1.41410	0.010	-11.30978	30.00000	Linear	
	31 2-Chloro-1,3-butadiene	0.59811	0.67107	0.67107	0.010	12.19872	30.00000	Averaged	
	32 Ethyl tert-butyl ether	43.24203	50.00000	1.25928	0.010	-13.51594	30.00000	Linear	
	37 Propionitrile	0.05574	0.05435	0.05435	0.010	-2.49462	30.00000	Averaged	
	34 Ethyl acetate	0.36418	0.35776	0.35776	0.010	-1.76372	40.00000	Averaged	
	40 Methacrylonitrile	0.28473	0.29056	0.29056	0.010	2.04719	30.00000	Averaged	
	38 Tetrahydrofuran	0.31873	0.28300	0.28300	0.010	-11.21151	30.00000	Averaged	
	46 Isobutyl alcohol	0.01253	0.01385	0.01385	0.001	10.58034	40.00000	Averaged	
	49 Methyl tert-amyl ether	41.89167	50.00000	1.02456	0.010	-16.21666	30.00000	Linear	
	56 Methyl methacrylate	0.24537	0.24112	0.24112	0.010	-1.73221	30.00000	Averaged	
	67 Ethyl methacrylate	0.68739	0.61029	0.61029	0.010	-11.21618	30.00000	Averaged	
	75 1-Chlorohexane	0.49469	0.43179	0.43179	0.000	-12.71453	30.00000	Averaged	
	58 1,4-Dioxane	0.00351	0.00338	0.00338	0.001	-3.81871	40.00000	Averaged	
	62 2-Nitropropane	279	250	0.12482	0.000	11.77782	30.00000	Linear	
	85 cis-1,4-Dichloro-2-butene	0.37890	0.40583	0.40583	0.010	7.10659	30.00000	Averaged	
	86 Cyclohexanone	0.07505	0.02752	0.02752	0.010	-63.32756	40.00000	Averaged	<-
	90 trans-1,4-Dichloro-2-butene	0.35568	0.38987	0.38987	0.010	9.61333	30.00000	Averaged	
	98 Pentachloroethane	0.42012	0.54522	0.54522	0.010	29.77925	30.00000	Averaged	
	104 Benzyl chloride	1.95639	2.09888	2.09888	0.010	7.28375	30.00000	Averaged	
	107 bis(2-Chloroisopropyl)ether	0.45769	0.49712	0.49712	0.010	8.61620	30.00000	Averaged	
$	48 1,2-Dichloroethane-d4	0.59741	0.59168	0.59168	0.010	-0.95981	30.00000	Averaged	
$	65 Toluene-d8	2.78542	2.33495	2.33495	0.010	-16.17246	30.00000	Averaged	
$	87 Bromofluorobenzene	2.00113	1.70597	1.70597	0.010	-14.74991	30.00000	Averaged	

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA1.i Injection Date: 31-DEC-2009 11:39
Lab File ID: 1t404.d Init. Cal. Date(s): 17-DEC-2009 17-DEC-2009
Analysis Type: SOIL Init. Cal. Times: 13:26 21:57
Lab Sample ID: W1VM091231-02 Quant Type: ISTD
Method: /chem/VOA1.i/123109v1/VOA1-8260ox-121709.m

Average %D / Drift Results.	
Calculated Average %D/Drift =	11.40088
Maximun Average %D/Drift =	20.00000
* Passed Average %D/Drift Test.	

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/123109v1/1t404.d
Lab Smp Id: W1VM091231-02 Client Smp ID: VSTD250S
Inj Date : 31-DEC-2009 11:39
Operator : RXM4 Inst ID: VOA1.i
Smp Info : |W1VM091231-02|SHORT|1|VOAF|1|
Misc Info : GEL 5G N/A UVM091118-08C/
Comment :
Method : /chem/VOA1.i/123109v1/VOA1-8260ox-121709.m
Meth Date : 18-Jan-2010 17:55 jeb Quant Type: ISTD
Cal Date : 17-DEC-2009 21:27 Cal File: 1r425.d
Als bottle: 4 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: CALsubS+SS.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	0.00000	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
4 Chlorotrifluoroethylene	116	4.890	4.890	(0.358)	658472	150.000	134
8 2-Chloro-1,1,1-trifluoroethane	118	6.303	6.303	(0.461)	1270007	150.000	128
13 Acrolein	56	8.936	8.936	(0.654)	431551	250.000	277
14 Trichlorotrifluoroethane	101	8.973	8.973	(0.656)	1919480	250.000	296
17 Isopropyl Alcohol	45	9.433	9.433	(0.690)	1549092	2500.00	2710
20 Allyl chloride	76	9.838	9.838	(0.720)	916921	250.000	244
24 tert-Butyl Alcohol	59	10.183	10.183	(0.745)	2438978	2500.00	2590
27 Acrylonitrile	53	10.653	10.653	(0.779)	816493	250.000	261
28 Isopropyl ether	45	11.178	11.178	(0.818)	1546447	50.0000	44.3
31 2-Chloro-1,3-butadiene	53	11.376	11.376	(0.832)	733879	50.0000	56.1
32 Ethyl tert-butyl ether	59	11.739	11.739	(0.859)	1377138	50.0000	43.2
37 Propionitrile	54	12.388	12.388	(0.906)	297193	250.000	244

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
34 Ethyl acetate	43	12.144	12.144	(0.888)	1956203	250.000	246
40 Methacrylonitrile	41	12.545	12.545	(0.918)	1588774	250.000	255
38 Tetrahydrofuran	42	12.522	12.522	(0.639)	665819	250.000	222
46 Isobutyl alcohol	41	13.097	13.097	(0.958)	757382	2500.00	2760
49 Methyl tert-amyl ether	73	13.332	13.332	(0.975)	1120444	50.0000	41.9
56 Methyl methacrylate	69	14.427	14.427	(1.055)	1318428	250.000	246
67 Ethyl methacrylate	69	15.804	15.804	(0.921)	2570712	250.000	222
75 1-Chlorohexane	55	17.019	17.019	(1.245)	472202	50.0000	43.6
58 1,4-Dioxane	88	14.533	14.533	(1.063)	184688	2500.00	2400
62 2-Nitropropane	43	15.067	15.067	(1.102)	682510	250.000	279
85 cis-1,4-Dichloro-2-butene	53	18.266	18.266	(0.932)	954810	250.000	268
86 Cyclohexanone	55	18.377	18.377	(1.071)	579667	1250.00	458
90 trans-1,4-Dichloro-2-butene	53	18.561	18.561	(0.947)	917261	250.000	274
98 Pentachloroethane	167	19.192	19.192	(0.979)	1282766	250.000	324(A)
104 Benzyl chloride	91	19.767	19.767	(1.008)	4938120	250.000	268
107 bis(2-Chloroisopropyl)ether	45	20.158	20.158	(1.028)	1169603	250.000	272
* 52 Fluorobenzene	96	13.672	13.672	(1.000)	1093588	50.0000	
* 76 Chlorobenzene-d5	117	17.152	17.152	(1.000)	842458	50.0000	
* 102 1,4-Dichlorobenzene-d4	152	19.601	19.601	(1.000)	470547	50.0000	
$ 48 1,2-Dichloroethane-d4	65	13.327	13.327	(0.975)	647053	50.0000	49.5
$ 65 Toluene-d8	98	15.509	15.509	(0.904)	1967097	50.0000	41.9
$ 87 Bromofluorobenzene	95	18.381	18.381	(0.938)	802737	50.0000	42.6

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.

Data File: /chem/VOA1.i/123109v1/1t404.d
Date : 31-DEC-2009 11:39
Client ID: VSTD250S
Sample Info: IW1VH091231-02|SHORT|1|VOAF|1|
Column phase: RTX-Volatiles

Instrument: VOA1.i
Operator: RXH4
Column diameter: 0.25

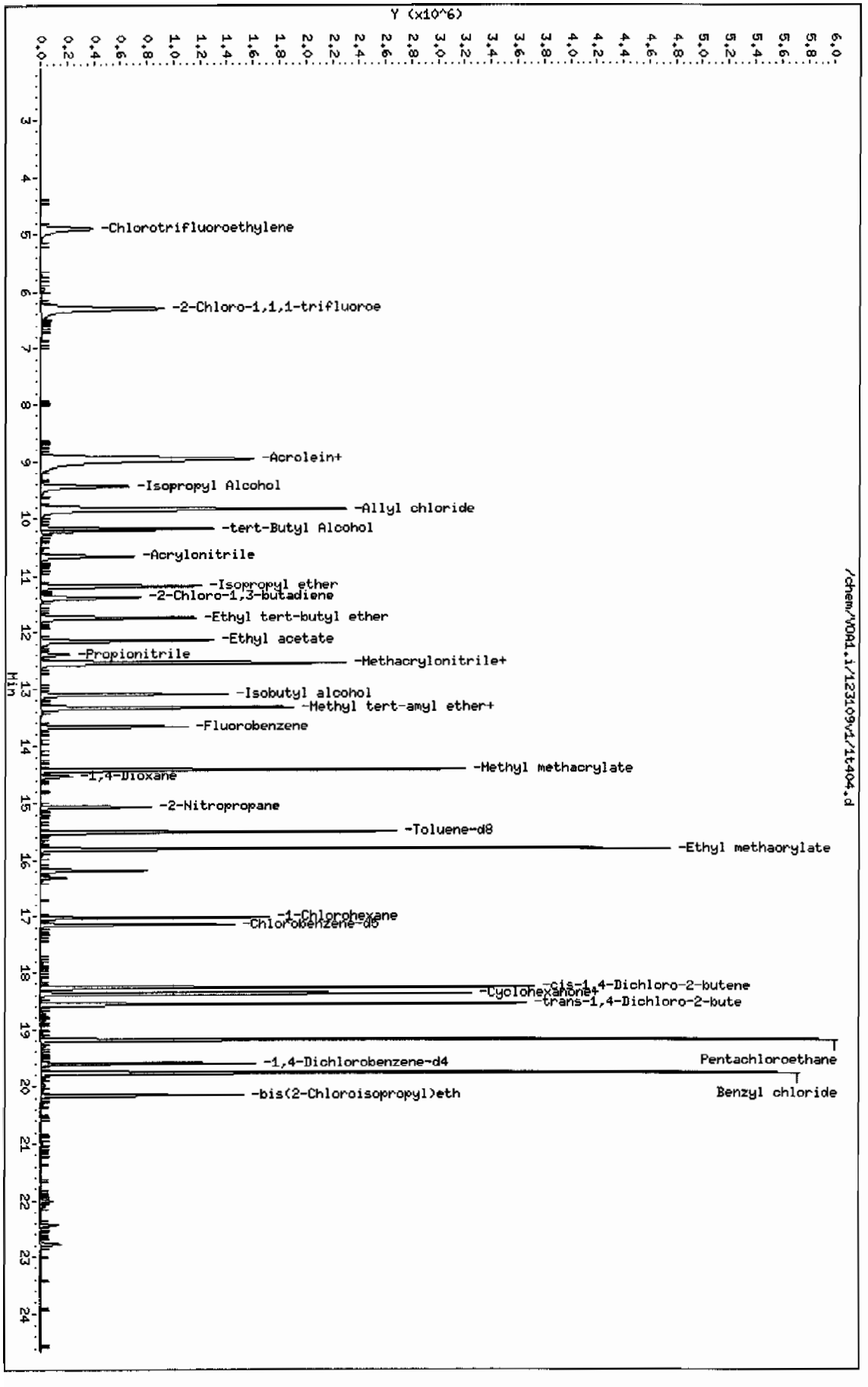

Page 1

QC Data

Data File: /chem/VOA1.i/121709v1/1r408.d

Page 1

Date : 17-DEC-2009 12:56

Client ID: BFB01

Instrument: VOA1.i

Sample Info: |UVM091117-02|BFB|1|VOAF|1|

Operator: RXM4

Column phase: RTX-Volatiles

Column diameter: 0.25

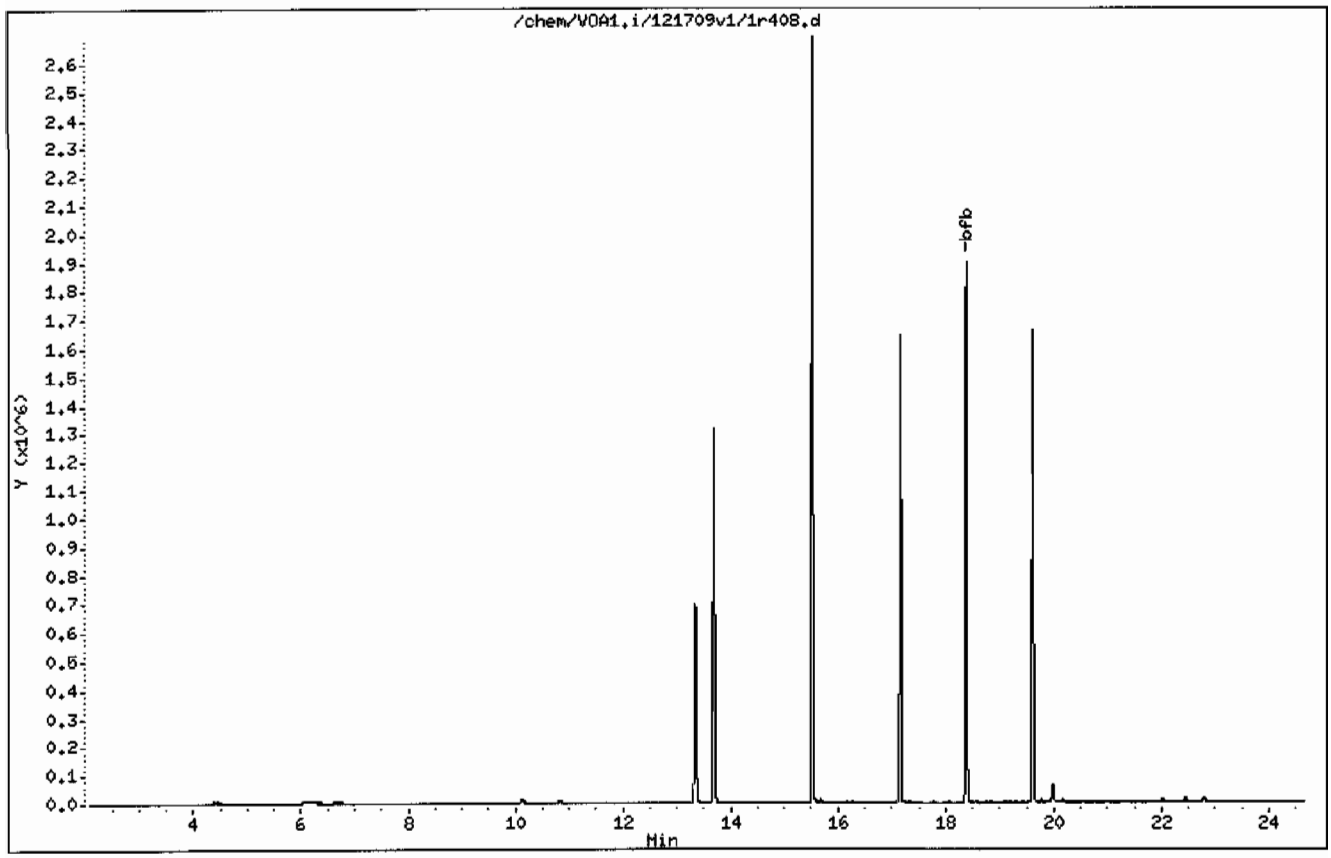

Data File: /chem/VOA1.i/121709v1/1r408.d

Date : 17-DEC-2009 12:56

Client ID: BFB01

Instrument: VOA1.i

Sample Info: |UVM091117-02|BFB|1|VOAF|1|

Operator: RXM4

Column phase: RTX-Volatiles

Column diameter: 0.25

1 bfb

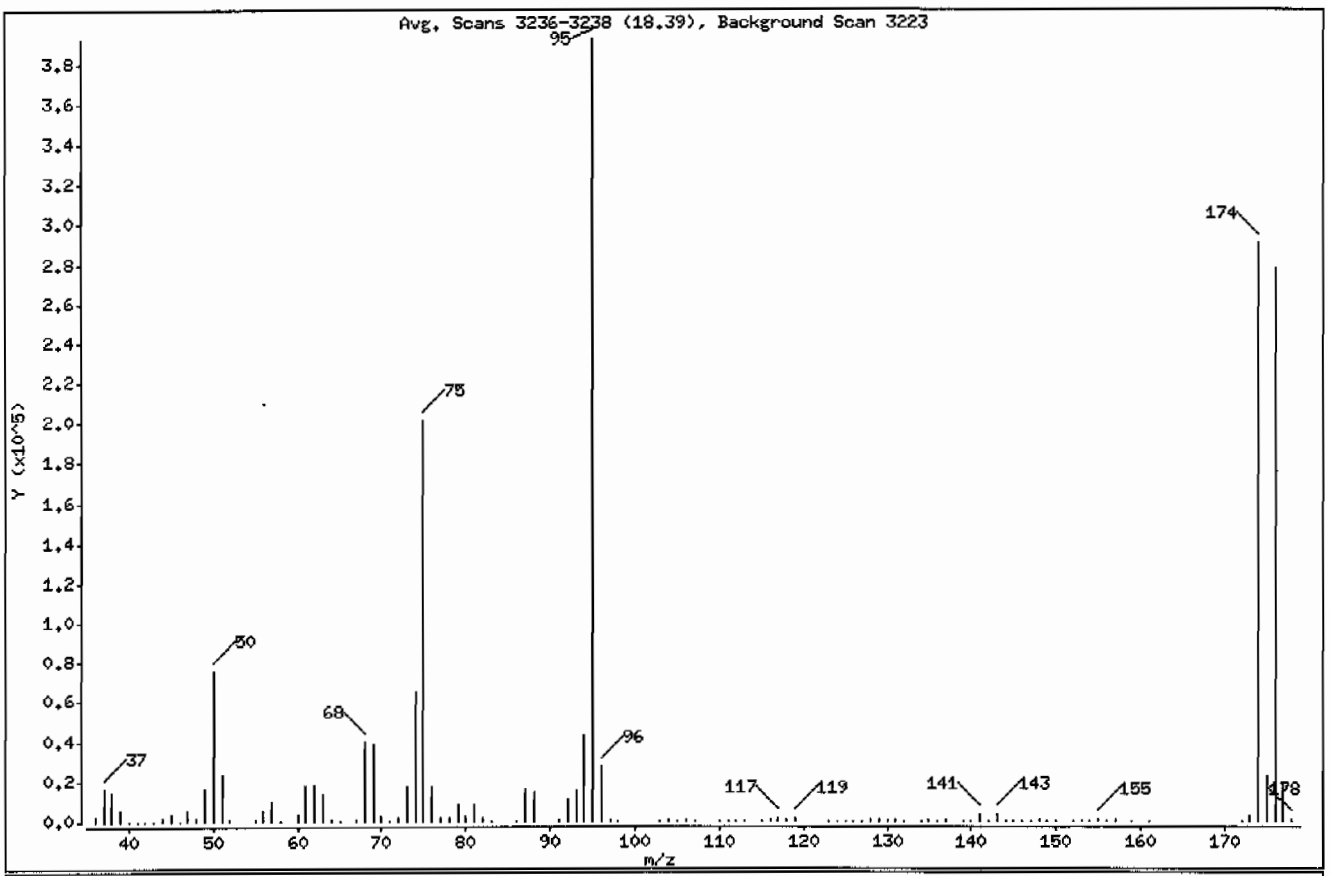

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	19.22
75	30.00 - 60.00% of mass 95	51.37
96	5.00 - 9.00% of mass 95	6.90
173	Less than 2.00% of mass 174	0.61 (0.83)
174	50.00 - 100.00% of mass 95	74.08
175	5.00 - 9.00% of mass 174	5.65 (7.63)
176	95.00 - 101.00% of mass 174	70.75 (95.51)
177	5.00 - 9.00% of mass 176	4.62 (6.54)

Data File: /chem/VOA1.i/121709v1/1r408.d

Date : 17-DEC-2009 12:56

Client ID: BFB01

Instrument: VOA1.i

Sample Info: |UVM091117-02|BFB|1|VOAF|1|

Operator: RXM4

Column phase: RTX-Volatiles

Column diameter: 0.25

Data File: 1r408.d
Spectrum: Avg. Scans 3236-3238 (18.39), Background Scan 3223
Location of Maximum: 95.00
Number of points: 110

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	2874	68.00	39568	104.00	1329	140.00	263
37.00	16337	69.00	39040	105.00	411	141.00	3454
38.00	14622	70.00	2858	106.00	1316	142.00	441
39.00	5793	71.00	56	107.00	383	143.00	3213
40.00	268	72.00	2112	110.00	180	144.00	185
41.00	187	73.00	16760	111.00	260	145.00	364
42.00	431	74.00	65024	112.00	137	146.00	417
43.00	265	75.00	201536	113.00	208	147.00	241
44.00	1554	76.00	16848	115.00	318	148.00	868
45.00	3164	77.00	2254	116.00	1330	149.00	204
46.00	99	78.00	1672	117.00	2101	150.00	433
47.00	5349	79.00	8263	118.00	1270	152.00	111
48.00	1967	80.00	2473	119.00	1528	153.00	239
49.00	15962	81.00	8380	123.00	56	154.00	145
50.00	75392	82.00	1795	124.00	230	155.00	932
51.00	23576	83.00	239	125.00	72	156.00	174
52.00	1041	86.00	388	126.00	88	157.00	675
55.00	1234	87.00	16023	127.00	82	159.00	408
56.00	5169	88.00	14205	128.00	1243	161.00	448
57.00	9746	91.00	1126	129.00	651	172.00	388
58.00	352	92.00	10615	130.00	1286	173.00	2409
60.00	3488	93.00	15217	131.00	506	174.00	290624
61.00	17304	94.00	43696	132.00	52	175.00	22168
62.00	17712	95.00	392320	134.00	67	176.00	277568
63.00	13232	96.00	27088	135.00	559	177.00	18144
64.00	1214	97.00	893	136.00	123	178.00	473
65.00	111	98.00	234	137.00	596		
67.00	839	103.00	180	139.00	117		

Data File: /ohem/VOA1.i/123109v1/1t402.d

Page 1

Date : 31-DEC-2009 10:22

Client ID: BFB01

Instrument: VOA1.i

Sample Info: |UVM091117-02|BFB|1|VOAF|1|

Operator: RXM4

Column phase: RTX-Volatiles

Column diameter: 0.25

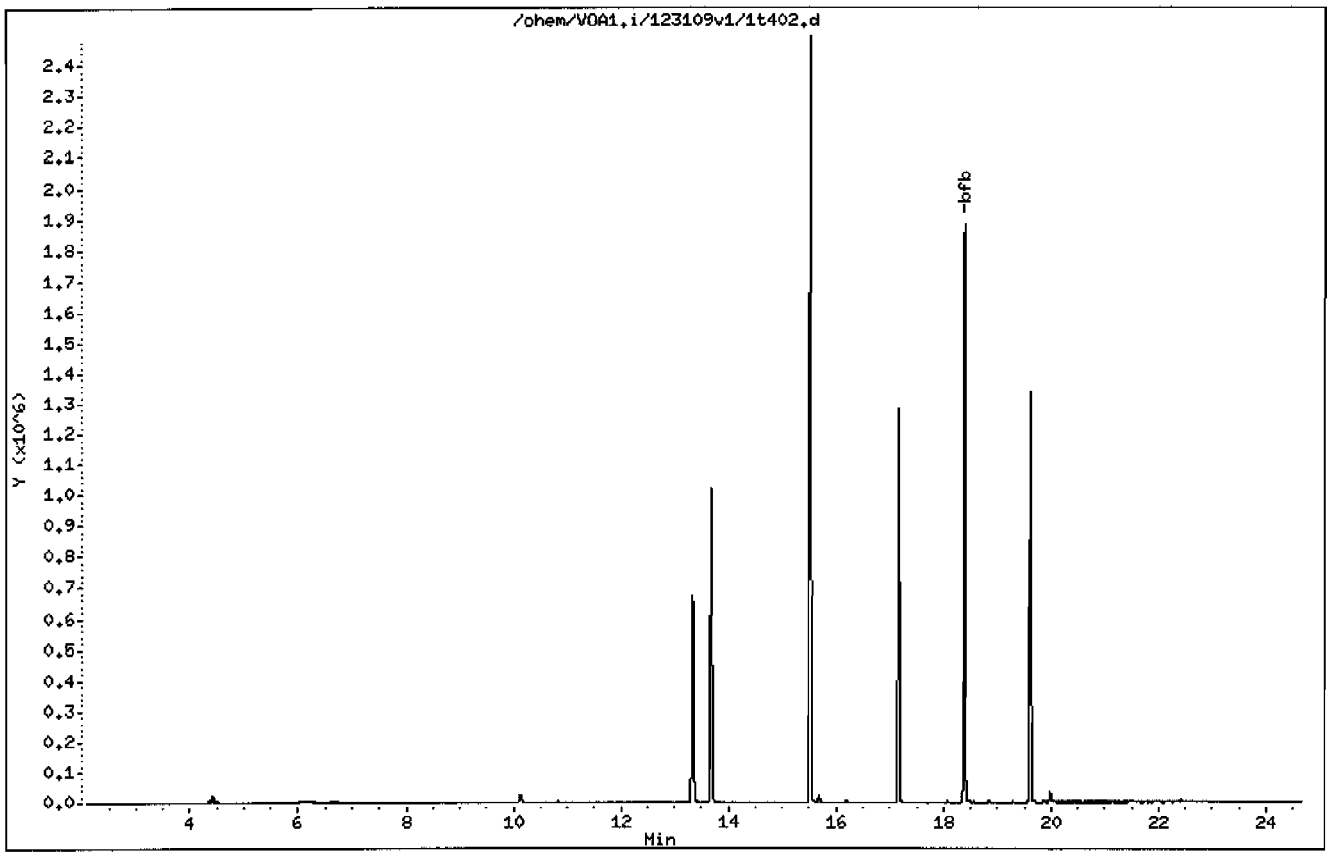

Data File: /chem/VOA1.i/123109v1/1t402.d

Date : 31-DEC-2009 10:22

Client ID: BFB01

Instrument: VOA1.i

Sample Info: |UVM091117-02|BFB|1|VOAF|1|

Operator: RXM4

Column phase: RTX-Volatiles

Column diameter: 0.25

1 bfb

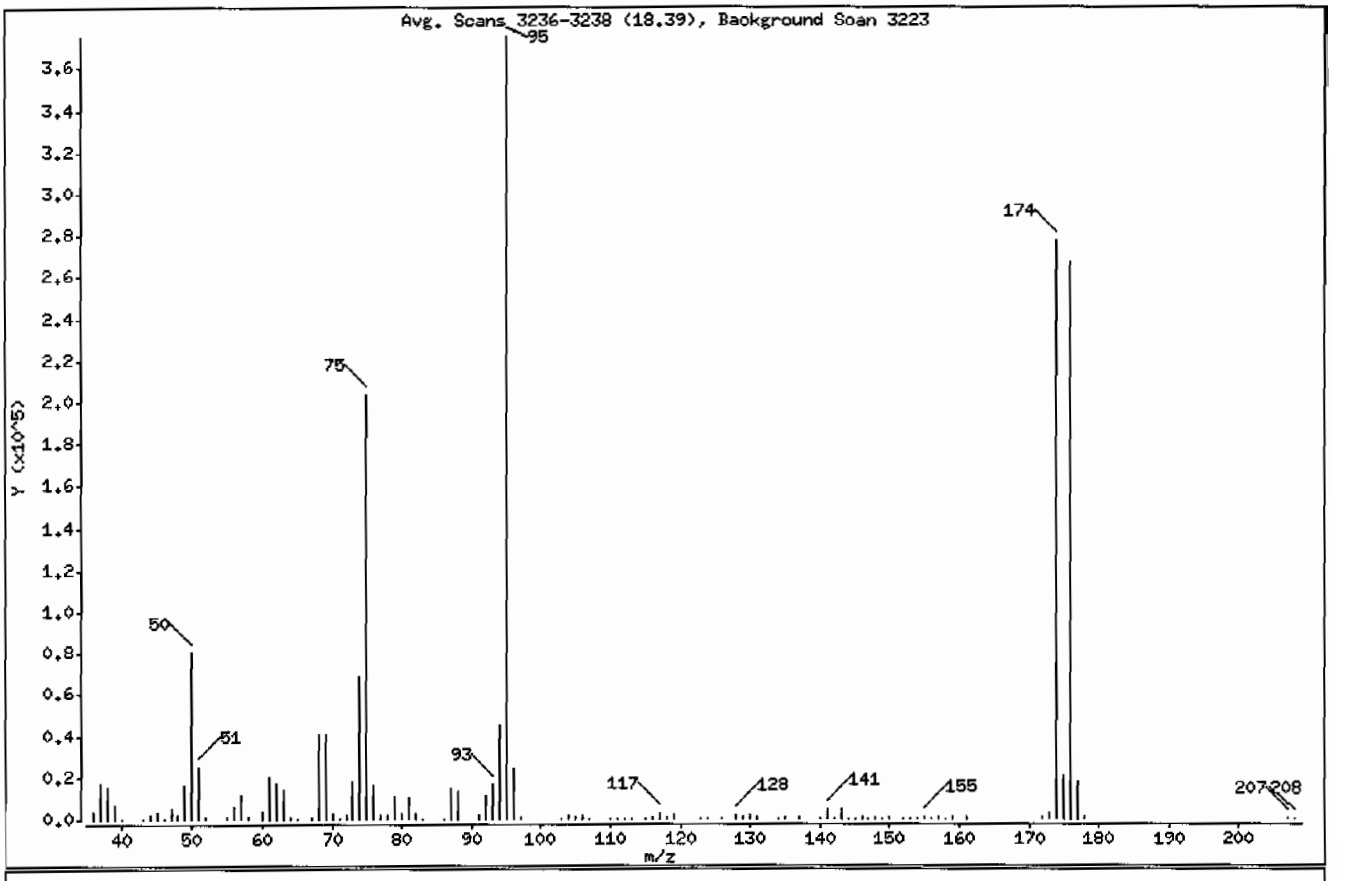

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	21.39
75	30.00 - 60.00% of mass 95	54.15
96	5.00 - 9.00% of mass 95	6.44
173	Less than 2.00% of mass 174	0.61 (0.82)
174	50.00 - 100.00% of mass 95	73.93
175	5.00 - 9.00% of mass 174	5.48 (7.41)
176	95.00 - 101.00% of mass 174	71.18 (96.28)
177	5.00 - 9.00% of mass 176	4.64 (6.52)

Data File: /chem/VOA1.i/123109v1/1t402.d

Date : 31-DEC-2009 10:22

Client ID: BFB01

Instrument: VOA1.i

Sample Info: |UVH091117-02|BFB|1|VOAF|1|

Operator: RXM4

Column phase: RTX-Volatiles

Column diameter: 0.25

Data File: 1t402.d
Spectrum: Avg. Scans 3236-3238 (18.39), Background Scan 3223
Location of Maximum: 95.00
Number of points: 105

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	3224	69.00	40472	105.00	449	145.00	394
37.00	17512	70.00	2828	106.00	1641	146.00	515
38.00	15936	71.00	54	107.00	389	147.00	236
39.00	6800	72.00	1987	110.00	217	148.00	724
40.00	259	73.00	18008	111.00	416	149.00	258
43.00	160	74.00	68392	112.00	197	150.00	481
44.00	1882	75.00	203072	113.00	250	152.00	188
45.00	3361	76.00	16688	115.00	320	153.00	280
46.00	220	77.00	2051	116.00	1287	154.00	222
47.00	5208	78.00	1346	117.00	2488	155.00	820
48.00	2135	79.00	9934	118.00	1289	156.00	136
49.00	16608	80.00	2772	119.00	1928	157.00	676
50.00	80216	81.00	10066	123.00	51	158.00	241
51.00	24712	82.00	2179	124.00	174	159.00	462
52.00	1082	83.00	211	126.00	88	161.00	505
55.00	1018	86.00	260	128.00	1323	172.00	494
56.00	5986	87.00	14991	129.00	663	173.00	2272
57.00	10852	88.00	13339	130.00	1299	174.00	277312
58.00	569	91.00	1334	131.00	564	175.00	20536
60.00	3747	92.00	11194	134.00	66	176.00	266944
61.00	19552	93.00	15971	135.00	689	177.00	17400
62.00	17640	94.00	44552	137.00	598	178.00	528
63.00	13982	95.00	375040	140.00	279	207.00	131
64.00	1219	96.00	24136	141.00	3971	208.00	74
65.00	269	97.00	735	142.00	411		
67.00	991	103.00	56	143.00	3967		
68.00	40264	104.00	1546	144.00	245		

Data File: /chem/VOA1.i/010410v1/1u103.d

Page 1

Date : 04-JAN-2010 08:32

Client ID: BFB01

Instrument: VOA1.i

Sample Info: |UVM091117-02|BFB|1|VOAF|1|

Operator: RXM4

Column phase: RTX-Volatiles

Column diameter: 0.25

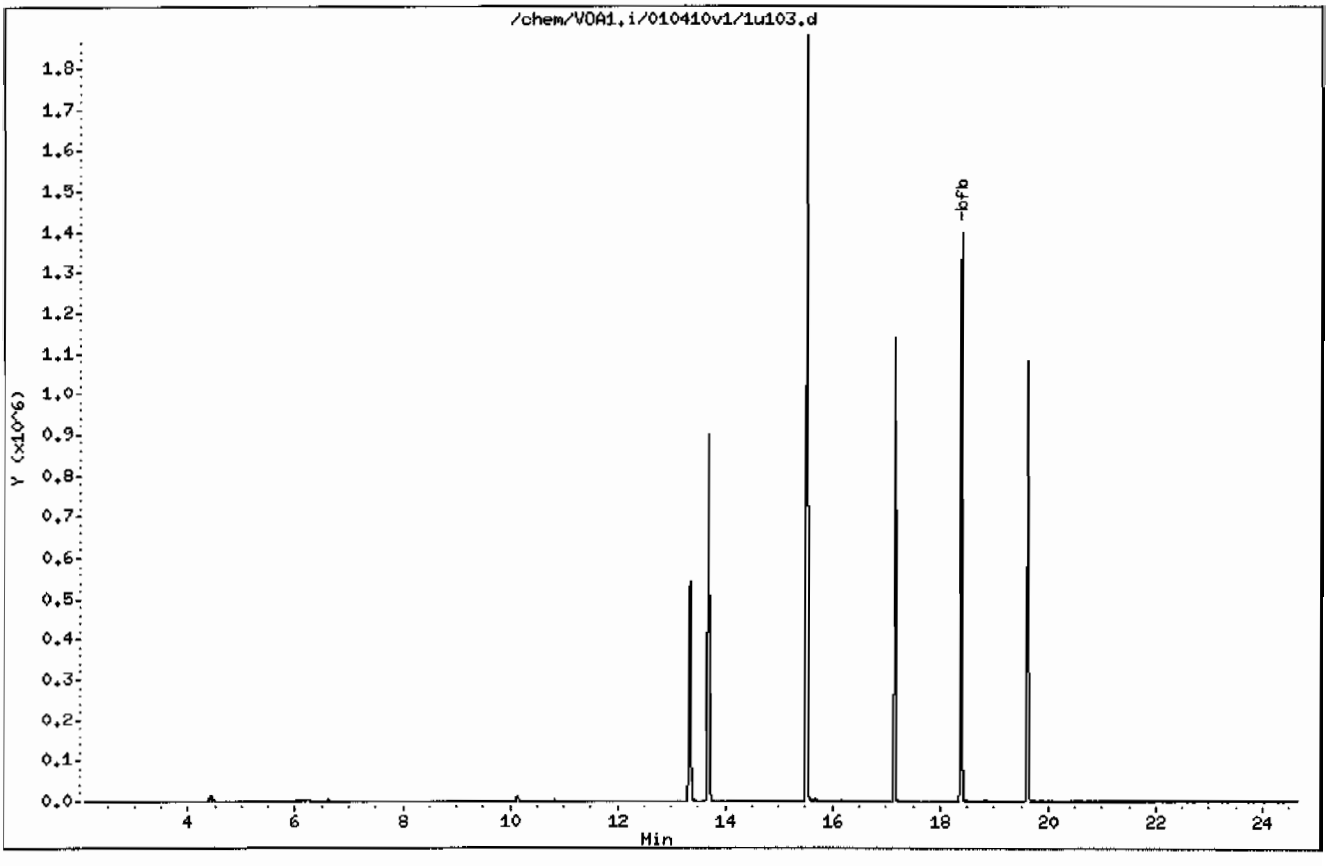

Data File: /chem/VOA1.i/010410v1/1u103.d

Date : 04-JAN-2010 08:32

Client ID: BFB01

Instrument: VOA1.i

Sample Info: |UVM091117-02|BFB|1|VOAF|1|

Operator: RXM4

Column phase: RTX-Volatiles

Column diameter: 0.25

1 bfb

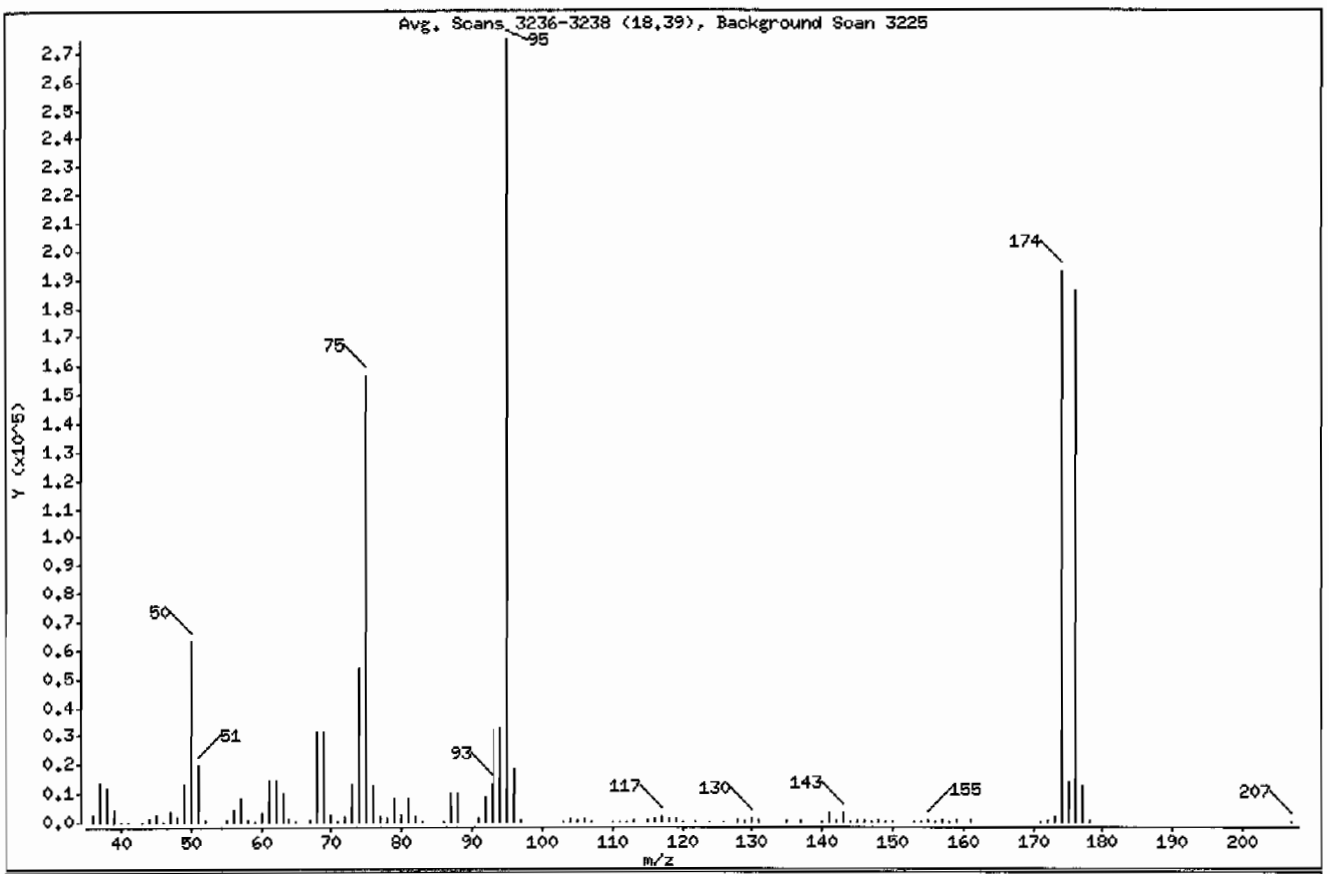

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	22.89
75	30.00 - 60.00% of mass 95	56.91
96	5.00 - 9.00% of mass 95	6.76
173	Less than 2.00% of mass 174	0.60 (0.86)
174	50.00 - 100.00% of mass 95	70.21
175	5.00 - 9.00% of mass 174	4.96 (7.06)
176	95.00 - 101.00% of mass 174	67.50 (96.14)
177	5.00 - 9.00% of mass 176	4.64 (6.87)

Data File: /chem/VOA1.i/010410v1/1u103.d

Date : 04-JAN-2010 08:32

Client ID: BFB01

Instrument: VOA1.i

Sample Info: |UVH091117-02|BFB|1|VOAF|1|

Operator: RXM4

Column phase: RTX-Volatiles

Column diameter: 0.25

Data File: 1u103.d
Spectrum: Avg. Scans 3236-3238 (18.39), Background Scan 3225
Location of Maximum: 95.00
Number of points: 106

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	2479	67.00	684	103.00	169	143.00	3404
37.00	13988	68.00	31520	104.00	1213	144.00	241
38.00	12260	69.00	31688	105.00	442	145.00	329
39.00	4726	70.00	2318	106.00	1233	146.00	389
40.00	101	71.00	64	107.00	255	147.00	120
41.00	54	72.00	1686	110.00	139	148.00	642
43.00	67	73.00	13022	111.00	286	149.00	185
44.00	1549	74.00	53360	112.00	239	150.00	276
45.00	2670	75.00	156096	113.00	347	153.00	172
46.00	181	76.00	12819	115.00	337	154.00	135
47.00	3769	77.00	1619	116.00	1009	155.00	517
48.00	1815	78.00	1132	117.00	1623	156.00	62
49.00	13206	79.00	7938	118.00	1043	157.00	402
50.00	62776	80.00	2382	119.00	1502	158.00	71
51.00	19848	81.00	8195	120.00	70	159.00	344
52.00	687	82.00	1605	122.00	50	161.00	352
55.00	732	83.00	227	124.00	213	171.00	78
56.00	4551	86.00	275	126.00	68	172.00	373
57.00	8376	87.00	10297	128.00	917	173.00	1654
58.00	415	88.00	9971	129.00	522	174.00	192576
59.00	64	91.00	1073	130.00	1122	175.00	13600
60.00	2921	92.00	8842	131.00	425	176.00	185152
61.00	14778	93.00	13011	135.00	580	177.00	12717
62.00	14717	94.00	32944	137.00	434	178.00	409
63.00	10384	95.00	274304	140.00	138	207.00	141
64.00	1166	96.00	18552	141.00	3101		
65.00	223	97.00	548	142.00	481		

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1086**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202007170**				
Client Sample:	**QC for batch 937989**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 937989**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937990**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**01/04/2010 11:04**	**Analyst:**	**RXM4**	**Purge Vol:**	**5 mL**
Prep Date:	**01/04/2010 07:00**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1u107BB.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/kg	0.340	1.00
74-87-3	Chloromethane	U	1.00	ug/kg	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/kg	0.300	1.00
74-83-9	Bromomethane	U	1.00	ug/kg	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/kg	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/kg	0.300	1.00
67-64-1	Acetone	U	5.00	ug/kg	1.66	5.00
75-35-4	1,1-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/kg	1.60	5.00
75-09-2	Methylene chloride	U	5.00	ug/kg	2.00	5.00
75-15-0	Carbon disulfide	U	5.00	ug/kg	1.25	5.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/kg	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/kg	1.50	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/kg	0.300	1.00
74-97-5	Bromochloromethane	U	1.00	ug/kg	0.330	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/kg	0.300	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/kg	0.300	1.00
56-23-5	Carbon tetrachloride	U	1.00	ug/kg	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/kg	0.300	1.00
71-43-2	Benzene	U	1.00	ug/kg	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/kg	0.330	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/kg	0.300	1.00
74-95-3	Dibromomethane	U	1.00	ug/kg	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/kg	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
108-88-3	Toluene	U	1.00	ug/kg	0.300	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/kg	0.300	1.00
591-78-6	2-Hexanone	U	5.00	ug/kg	1.50	5.00
142-28-9	1,3-Dichloropropane	U	1.00	ug/kg	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/kg	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/kg	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/kg	0.300	1.00
108-90-7	Chlorobenzene	U	1.00	ug/kg	0.300	1.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1086**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202007170**				
Client Sample:	**QC for batch 937989**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 937989**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937990**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**01/04/2010 11:04**	**Analyst:**	**RXM4**	**Purge Vol:**	**5 mL**
Prep Date:	**01/04/2010 07:00**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1u107BB.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.00	ug/kg	0.300	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/kg	0.300	2.00
95-47-6	o-Xylene	U	1.00	ug/kg	0.300	1.00
100-42-5	Styrene	U	1.00	ug/kg	0.300	1.00
75-25-2	Bromoform	U	1.00	ug/kg	0.300	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/kg	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/kg	0.300	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/kg	0.300	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/kg	0.300	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/kg	0.300	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/kg	0.300	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/kg	0.300	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/kg	0.300	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/kg	0.300	1.00
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.00	ug/kg	1.60	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	No Tentatively Identified Compounds Found			ug/kg		

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/010410v1/1u107BB.d
Lab Smp Id: 1202007170 Client Smp ID: BLANK
Inj Date : 04-JAN-2010 11:04
Operator : RXM4 Inst ID: VOA1.i
Smp Info : |1202007170|937990|1|VOAF|1|
Misc Info : GEL 5G N/A
Comment :
Method : /chem/VOA1.i/010410v1/VOA1-8260ox-121709.m
Meth Date : 18-Jan-2010 17:56 jeb Quant Type: ISTD
Cal Date : 17-DEC-2009 21:27 Cal File: 1r425.d
Als bottle: 7 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	0.00000	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
$ 48 1,2-Dichloroethane-d4	65	13.336	13.336	(0.975)	597639	49.8174	49.8
* 52 Fluorobenzene	96	13.677	13.682	(1.000)	1004046	50.0000	
$ 65 Toluene-d8	98	15.509	15.509	(0.904)	1792410	41.3478	41.3
* 76 Chlorobenzene-d5	117	17.152	17.152	(1.000)	778152	50.0000	
$ 87 Bromofluorobenzene	95	18.386	18.381	(0.938)	688579	43.8985	43.9
* 102 1,4-Dichlorobenzene-d4	152	19.606	19.606	(1.000)	391921	50.0000	
107 bis(2-Chloroisopropyl)ether	45	20.163	20.158	(1.028)	6772	1.88763	1.9(a)
109 1,2,4-Trichlorobenzene	180	22.018	22.018	(1.123)	4090	0.42650	0.43(a)
111 Naphthalene	128	22.432	22.432	(1.144)	11573	2.91169	2.9
112 1,2,3-Trichlorobenzene	180	22.786	22.777	(1.162)	6519	0.90976	0.91(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/010410v1/1u107BB.d
Lab Smp Id: 1202007170 Client Smp ID: BLANK
Inj Date : 04-JAN-2010 11:04
Operator : RXM4 Inst ID: VOA1.i
Smp Info : |1202007170|937990|1|VOAF|1|
Misc Info : GEL 5G N/A
Comment :
Method : /chem/VOA1.i/010410v1/VOA1-8260ox-121709.m
Meth Date : 18-Jan-2010 17:56 jeb Quant Type: ISTD
Cal Date : 17-DEC-2009 21:27 Cal File: 1r425.d
Als bottle: 7 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50
Processing Host: prdsvr07

- NO TENTATIVELY IDENTIFIED COMPOUNDS -

Data File: /chem/VOA1.i/010410v1/1u107BB.d
Date : 04-JAN-2010 11:04
Client ID: BLANK
Sample Info: |1202007170|937990|1|VOAF|1|

Column phase: RTX-Volatiles

Instrument: VOA1.i

Operator: RXM4
Column diameter: 0.25

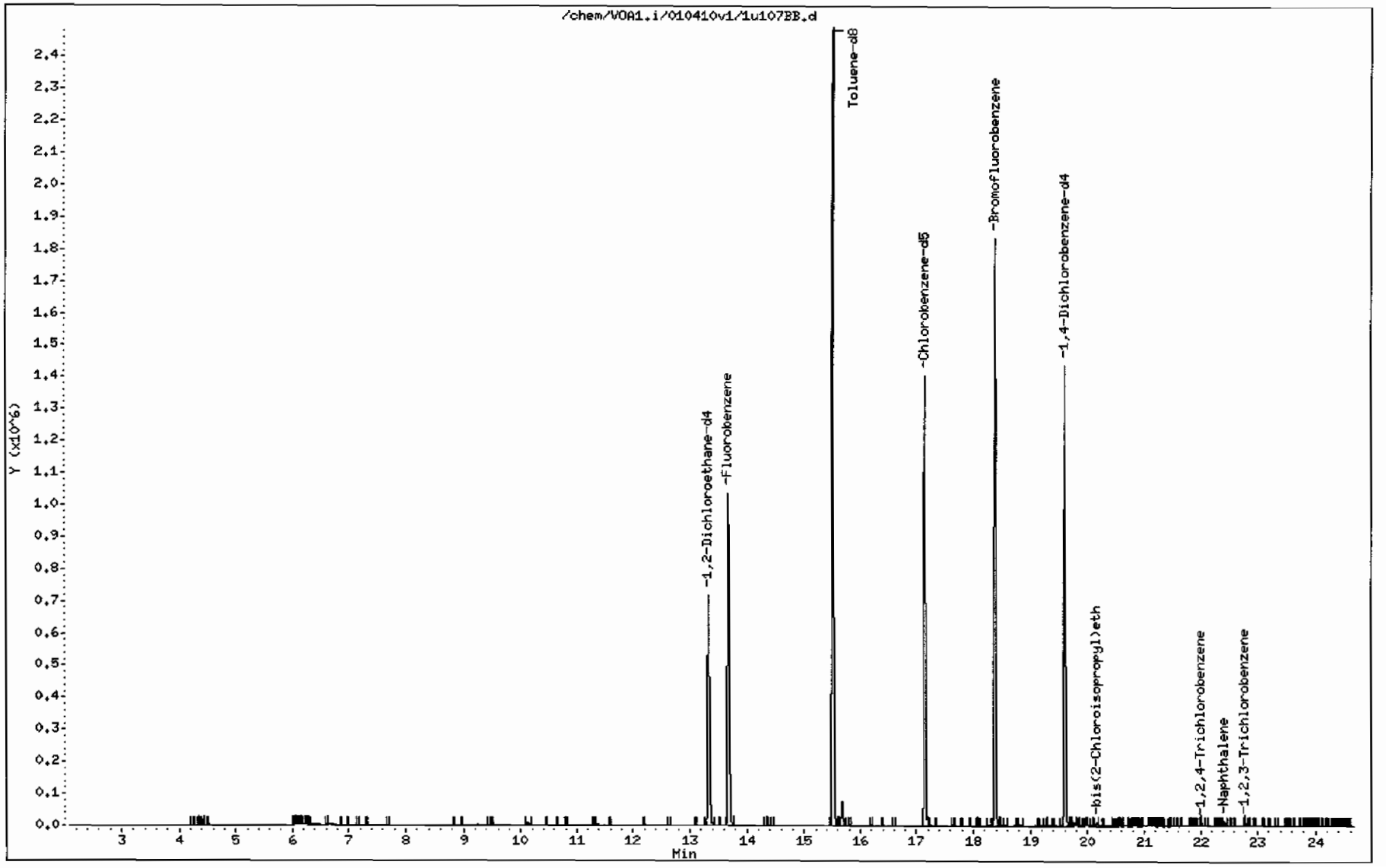

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Date : 04-JAN-2010 11:04

Client ID: BLANK

Instrument: VOA1.i

Sample Info: |1202007170|937990|1|VOAF|1|

Operator: RXM4

Column phase: RTX-Volatiles

Column diameter: 0.25

107 bis(2-Chloroisopropyl)ether

Concentration: 1.9 ug/Kg

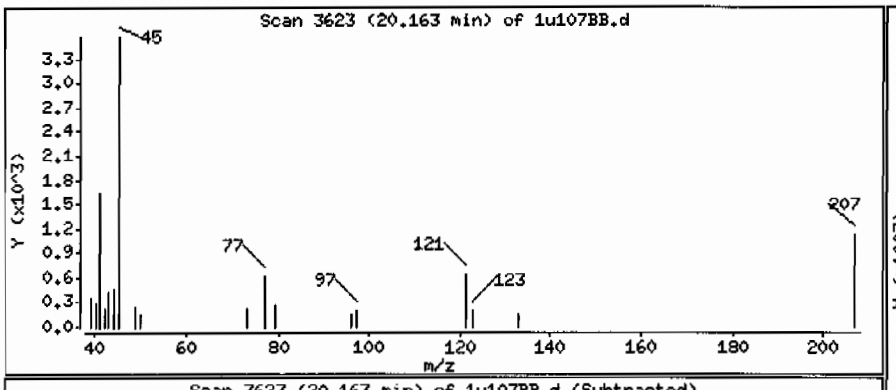

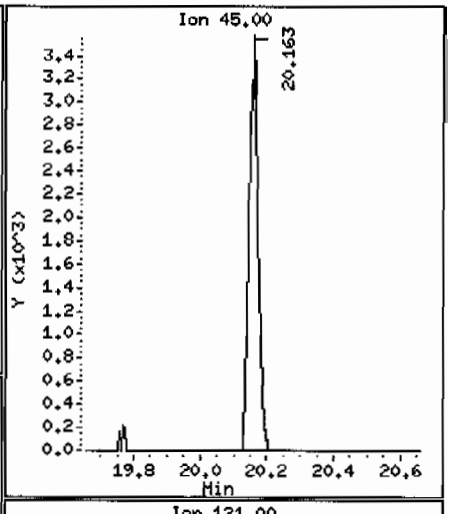

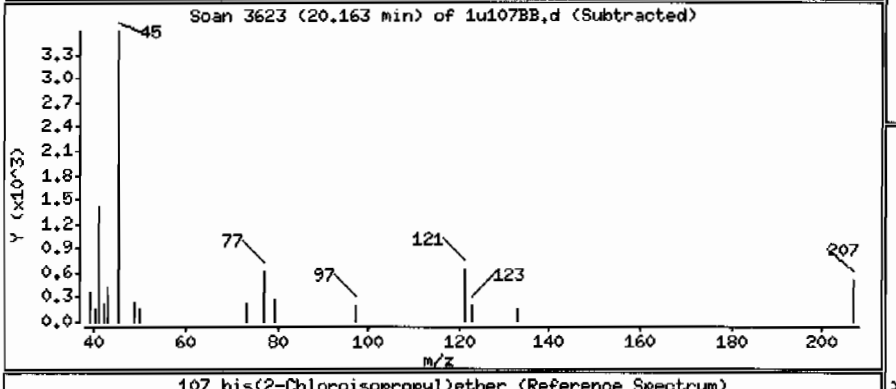

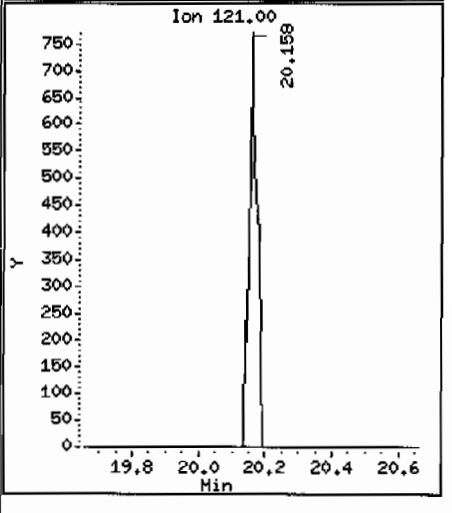

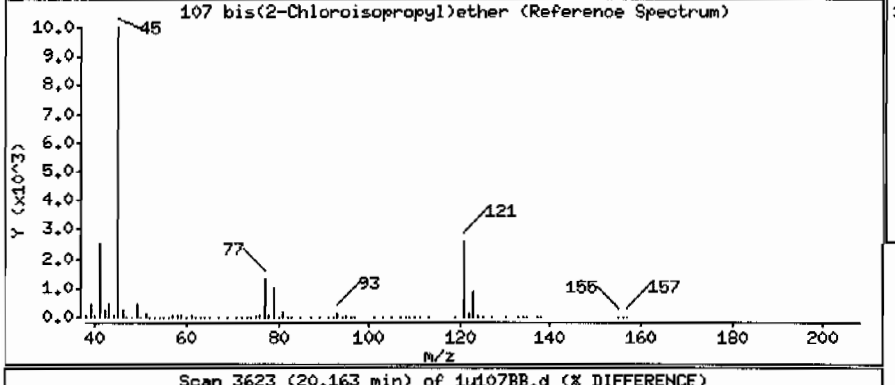

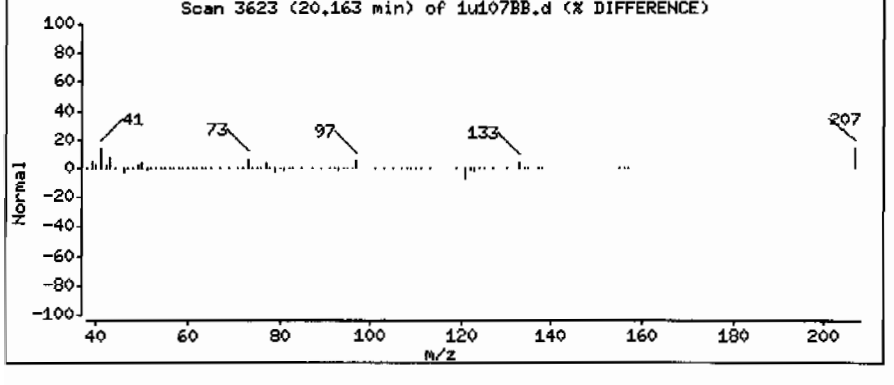

Data File: /chem/VOA1.i/010410v1/1u107BB.d

Date : 04-JAN-2010 11:04

Client ID: BLANK

Instrument: VOA1.i

Sample Info: |1202007170|937990|1|VOAF|1|

Operator: RXM4

Column phase: RTX-Volatiles

Column diameter: 0.25

109 1,2,4-Trichlorobenzene

Concentration: 0.43 ug/Kg

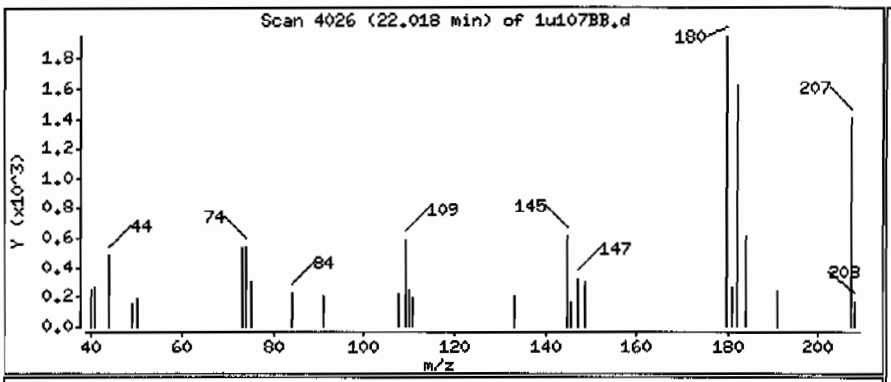

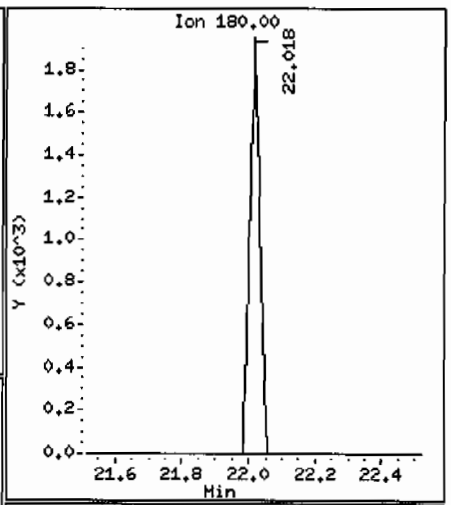

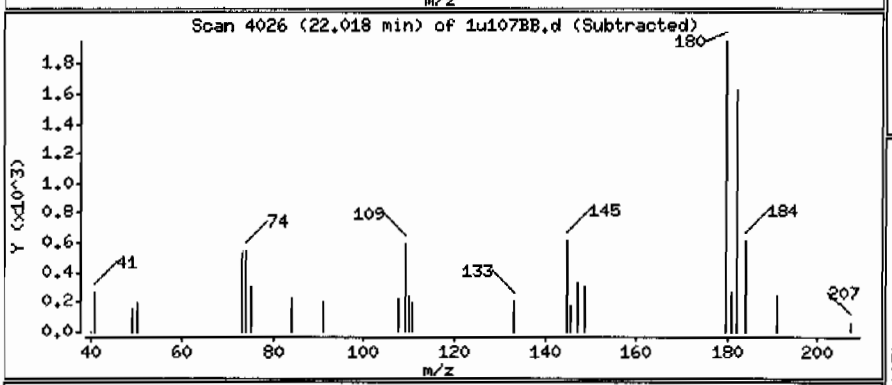

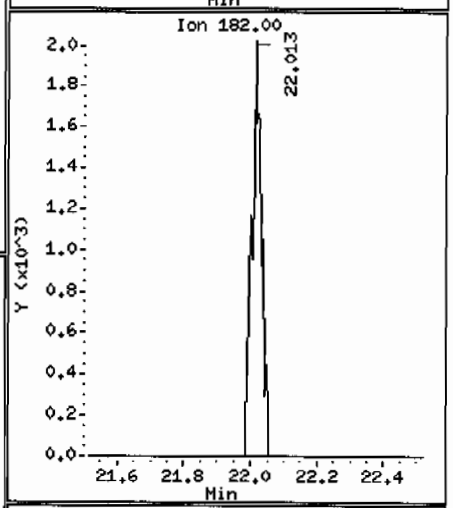

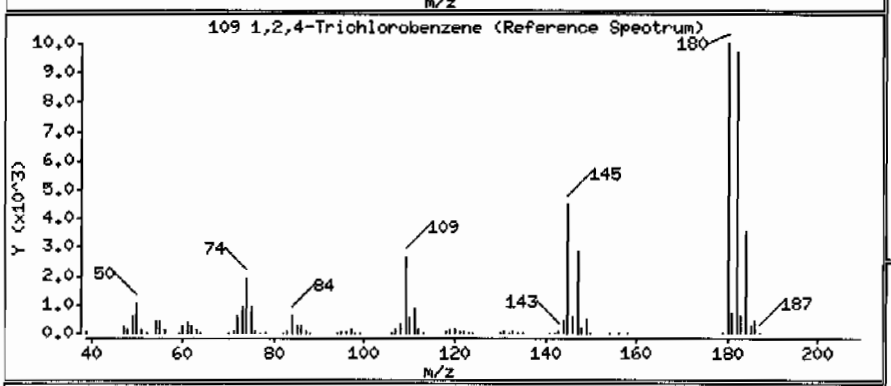

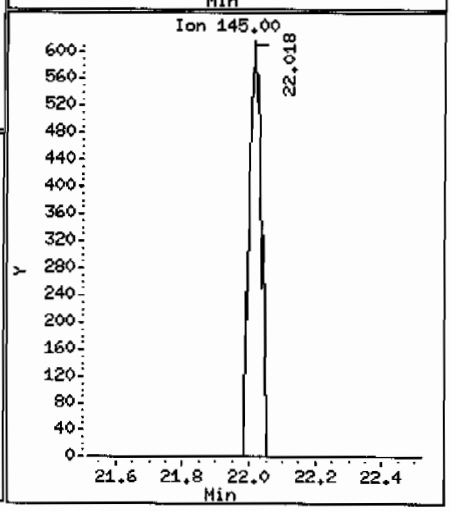

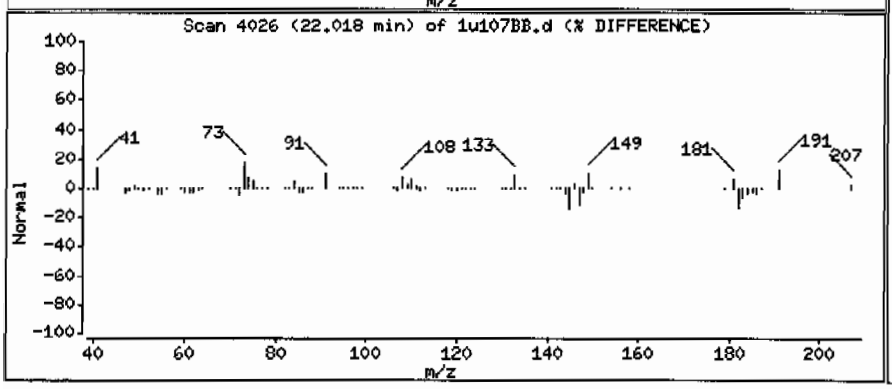

Data File: /chem/VOA1.i/010410v1/1u107BB.d

Date : 04-JAN-2010 11:04

Client ID: BLANK

Instrument: VOA1.i

Sample Info: |1202007170|937990|1|VOAF|1|

Operator: RXM4

Column phase: RTX-Volatiles

Column diameter: 0.25

111 Naphthalene

Concentration: 2.9 ug/Kg

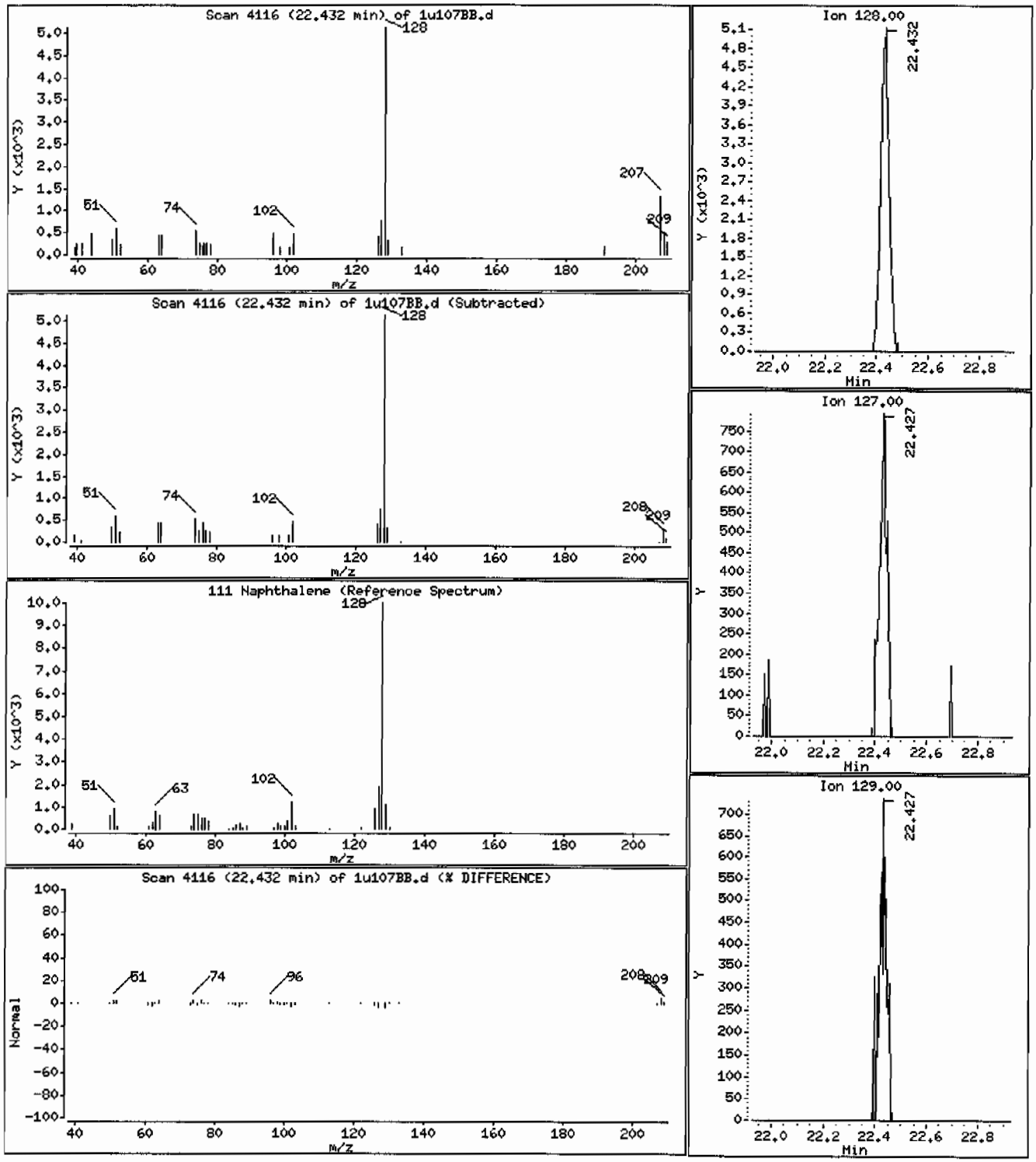

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Date : 04-JAN-2010 11:04

Client ID: BLANK

Instrument: VOA1.i

Sample Info: |1202007170193799011|VOAF|1|

Operator: RXM4

Column phase: RTX-Volatiles

Column diameter: 0.25

112 1,2,3-Trichlorobenzene

Concentration: 0.91 ug/Kg

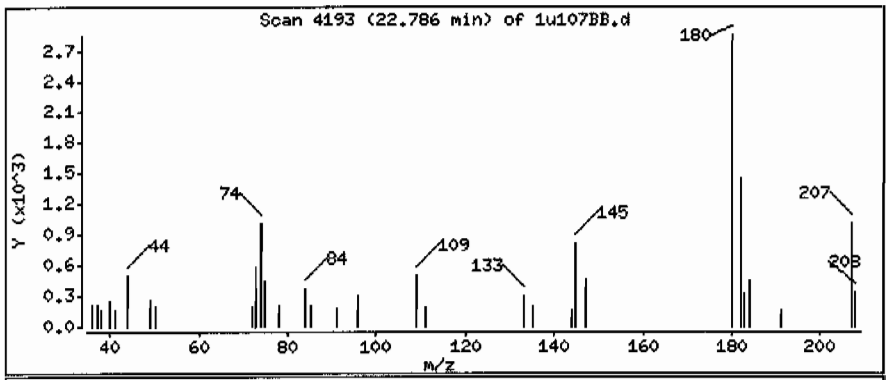

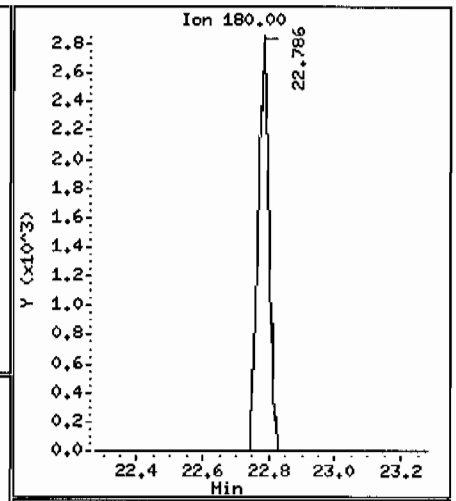

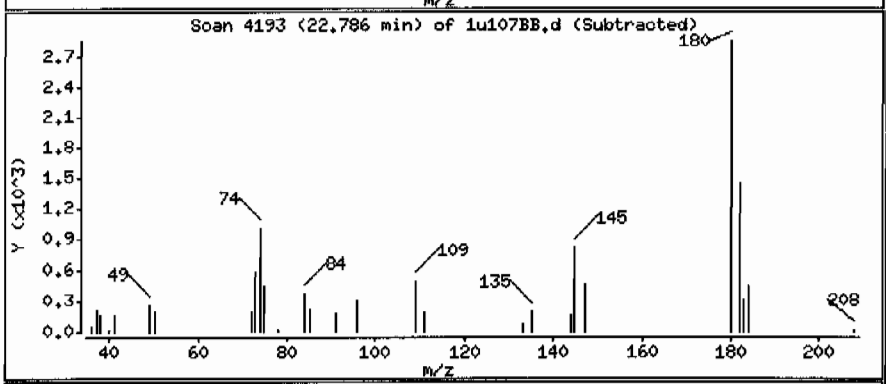

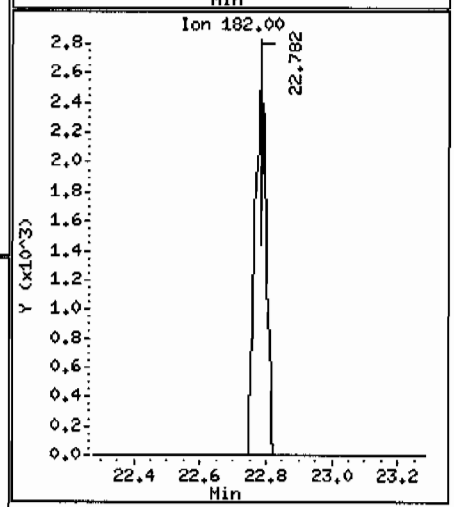

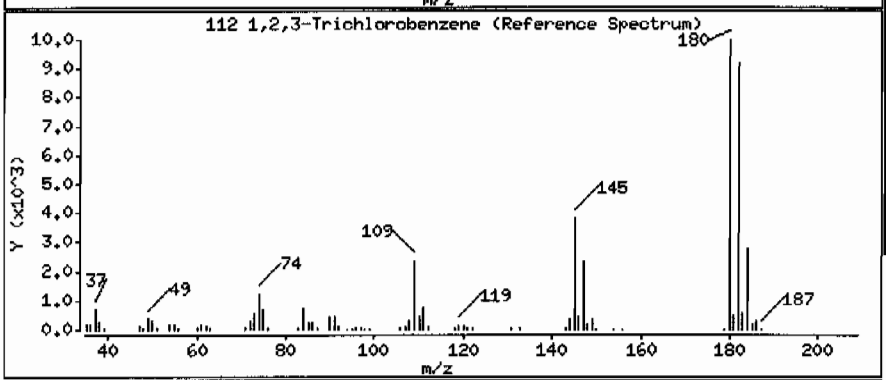

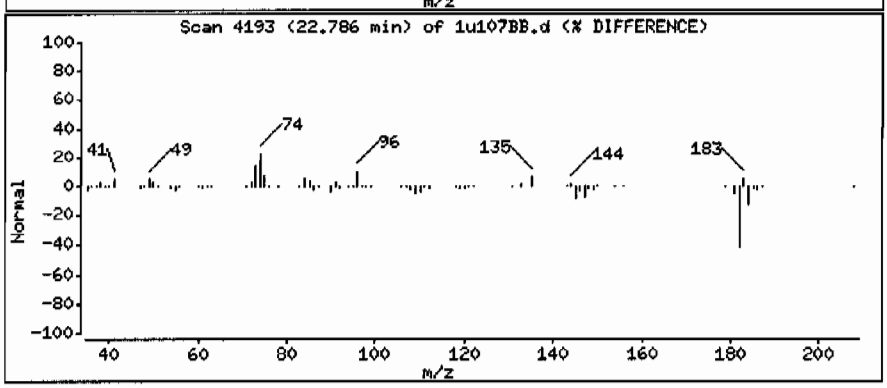

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1086**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202007169**				
Client Sample:	**QC for batch 937989**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 937989**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937990**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**12/31/2009 12:39**	**Analyst:**	**RXM4**	**Purge Vol:**	**5 mL**
Prep Date:	**12/31/2009 07:00**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1t406BA.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/kg	0.340	1.00
74-87-3	Chloromethane	U	1.00	ug/kg	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/kg	0.300	1.00
74-83-9	Bromomethane	U	1.00	ug/kg	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/kg	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/kg	0.300	1.00
67-64-1	Acetone	U	5.00	ug/kg	1.66	5.00
75-35-4	1,1-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/kg	1.60	5.00
75-09-2	Methylene chloride	U	5.00	ug/kg	2.00	5.00
75-15-0	Carbon disulfide	U	5.00	ug/kg	1.25	5.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/kg	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/kg	1.50	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/kg	0.300	1.00
74-97-5	Bromochloromethane	U	1.00	ug/kg	0.330	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/kg	0.300	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/kg	0.300	1.00
56-23-5	Carbon tetrachloride	U	1.00	ug/kg	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/kg	0.300	1.00
71-43-2	Benzene	U	1.00	ug/kg	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/kg	0.330	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/kg	0.300	1.00
74-95-3	Dibromomethane	U	1.00	ug/kg	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/kg	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
108-88-3	Toluene	U	1.00	ug/kg	0.300	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/kg	0.300	1.00
591-78-6	2-Hexanone	U	5.00	ug/kg	1.50	5.00
142-28-9	1,3-Dichloropropane	U	1.00	ug/kg	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/kg	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/kg	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/kg	0.300	1.00
108-90-7	Chlorobenzene	U	1.00	ug/kg	0.300	1.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1086**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202007169**				
Client Sample:	**QC for batch 937989**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 937989**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937990**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**12/31/2009 12:39**	**Analyst:**	**RXM4**	**Purge Vol:**	**5 mL**
Prep Date:	**12/31/2009 07:00**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1t406BA.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.00	ug/kg	0.300	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/kg	0.300	2.00
95-47-6	o-Xylene	U	1.00	ug/kg	0.300	1.00
100-42-5	Styrene	U	1.00	ug/kg	0.300	1.00
75-25-2	Bromoform	U	1.00	ug/kg	0.300	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/kg	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/kg	0.300	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/kg	0.300	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/kg	0.300	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/kg	0.300	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/kg	0.300	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/kg	0.300	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/kg	0.300	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/kg	0.300	1.00
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.00	ug/kg	1.60	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	No Tentatively Identified Compounds Found			ug/kg		

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/123109v1/1t406BA.d
Lab Smp Id: 1202007169 Client Smp ID: BLANK
Inj Date : 31-DEC-2009 12:39
Operator : RXM4 Inst ID: VOA1.i
Smp Info : |1202007169|937990|1|VOAF|1|
Misc Info : GEL 5G N/A
Comment :
Method : /chem/VOA1.i/123109v1/VOA1-8260ox-121709.m
Meth Date : 18-Jan-2010 17:56 jeb Quant Type: ISTD
Cal Date : 17-DEC-2009 21:27 Cal File: 1r425.d
Als bottle: 6 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	0.00000	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
$ 48 1,2-Dichloroethane-d4	65	13.336	13.336	(0.975)	589900	52.2582	52.2
* 52 Fluorobenzene	96	13.682	13.682	(1.000)	944755	50.0000	
$ 65 Toluene-d8	98	15.514	15.514	(0.904)	1756676	46.1446	46.1
* 76 Chlorobenzene-d5	117	17.157	17.157	(1.000)	683361	50.0000	
$ 87 Bromofluorobenzene	95	18.386	18.386	(0.938)	705196	46.0453	46.0
* 102 1,4-Dichlorobenzene-d4	152	19.606	19.606	(1.000)	382665	50.0000	
107 bis(2-Chloroisopropyl)ether	45	20.154	20.158	(1.028)	7019	2.00381	2.0(a)
109 1,2,4-Trichlorobenzene	180	22.022	22.018	(1.123)	3198	0.34155	0.34(a)
111 Naphthalene	128	22.423	22.432	(1.144)	9613	2.83276	2.8
112 1,2,3-Trichlorobenzene	180	22.782	22.782	(1.162)	5263	0.75225	0.75(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/123109v1/1t406BA.d
Lab Smp Id: 1202007169 Client Smp ID: BLANK
Inj Date : 31-DEC-2009 12:39
Operator : RXM4 Inst ID: VOA1.i
Smp Info : |1202007169|937990|1|VOAF|1|
Misc Info : GEL 5G N/A
Comment :
Method : /chem/VOA1.i/123109v1/VOA1-8260ox-121709.m
Meth Date : 18-Jan-2010 17:56 jeb Quant Type: ISTD
Cal Date : 17-DEC-2009 21:27 Cal File: 1r425.d
Als bottle: 6 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50
Processing Host: prdsvr07

- NO TENTATIVELY IDENTIFIED COMPOUNDS -

Data File: /chem/VOA1.i/123109v1/1t406BA.d
Date : 31-DEC-2009 12:39
Client ID: BLANK
Sample Info: |12020071691937990|1|VOAF|1|

Column phase: RTX-Volatiles

Instrument: VOA1.i

Operator: RXM4
Column diameter: 0.25

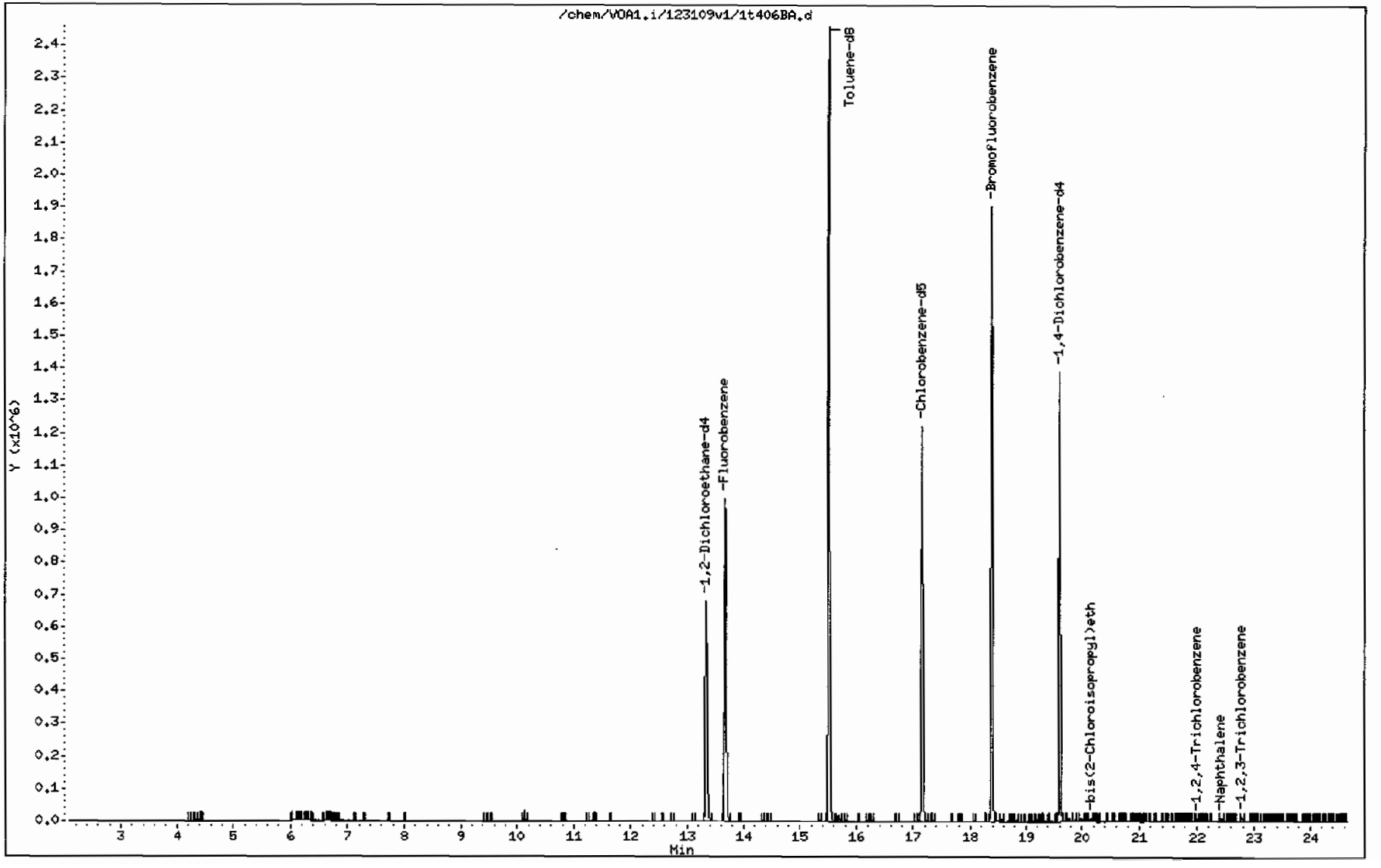

Data File: /chem/VOA1.i/123109v1/1t406BA.d

Date : 31-DEC-2009 12:39

Client ID: BLANK

Instrument: VOA1.i

Sample Info: |1202007169|937990|1|VOAF|1|

Operator: RXM4

Column phase: RTX-Volatiles

Column diameter: 0.25

107 bis(2-Chloroisopropyl)ether

Concentration: 2.0 ug/Kg

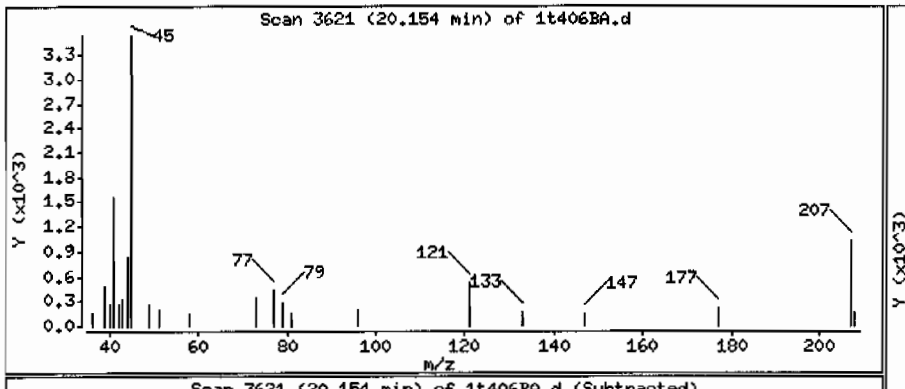

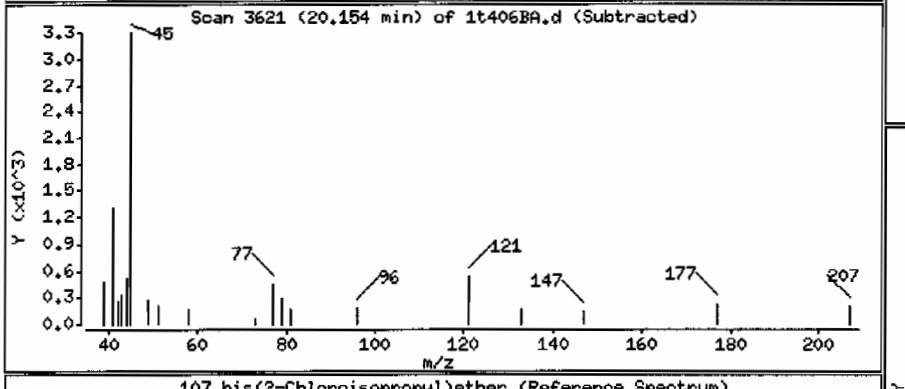

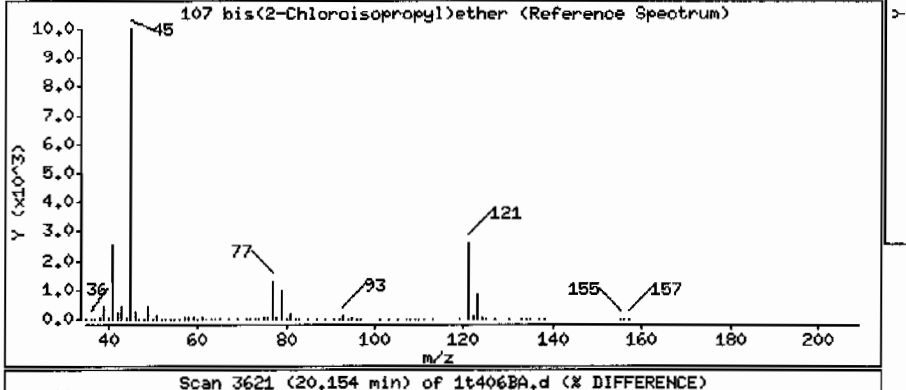

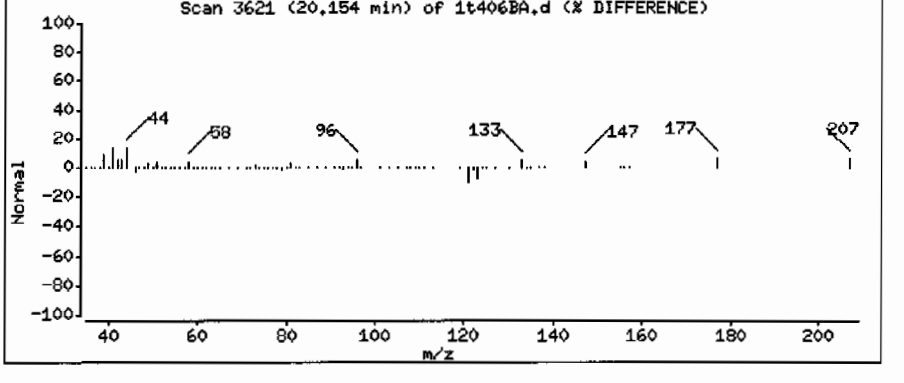

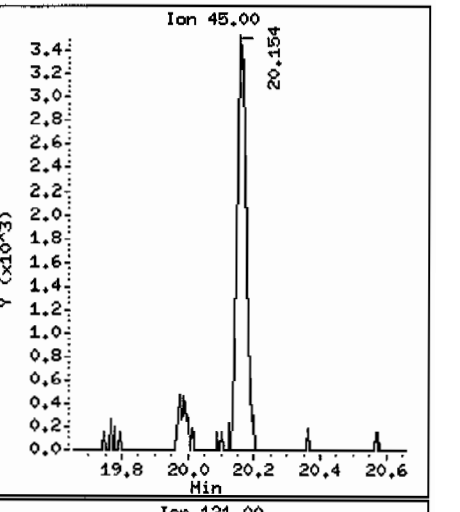

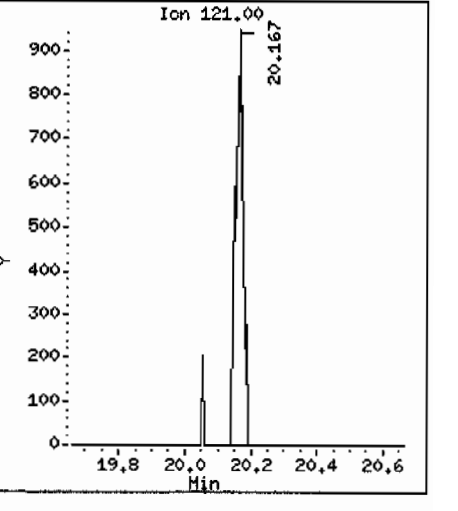

Data File: /chem/VOA1.i/123109v1/1t406BA.d

Date : 31-DEC-2009 12:39

Client ID: BLANK

Instrument: VOA1.i

Sample Info: |1202007169|937990|1|VOAF|1|

Operator: RXM4

Column phase: RTX-Volatiles

Column diameter: 0.25

109 1,2,4-Trichlorobenzene

Concentration: 0.34 ug/Kg

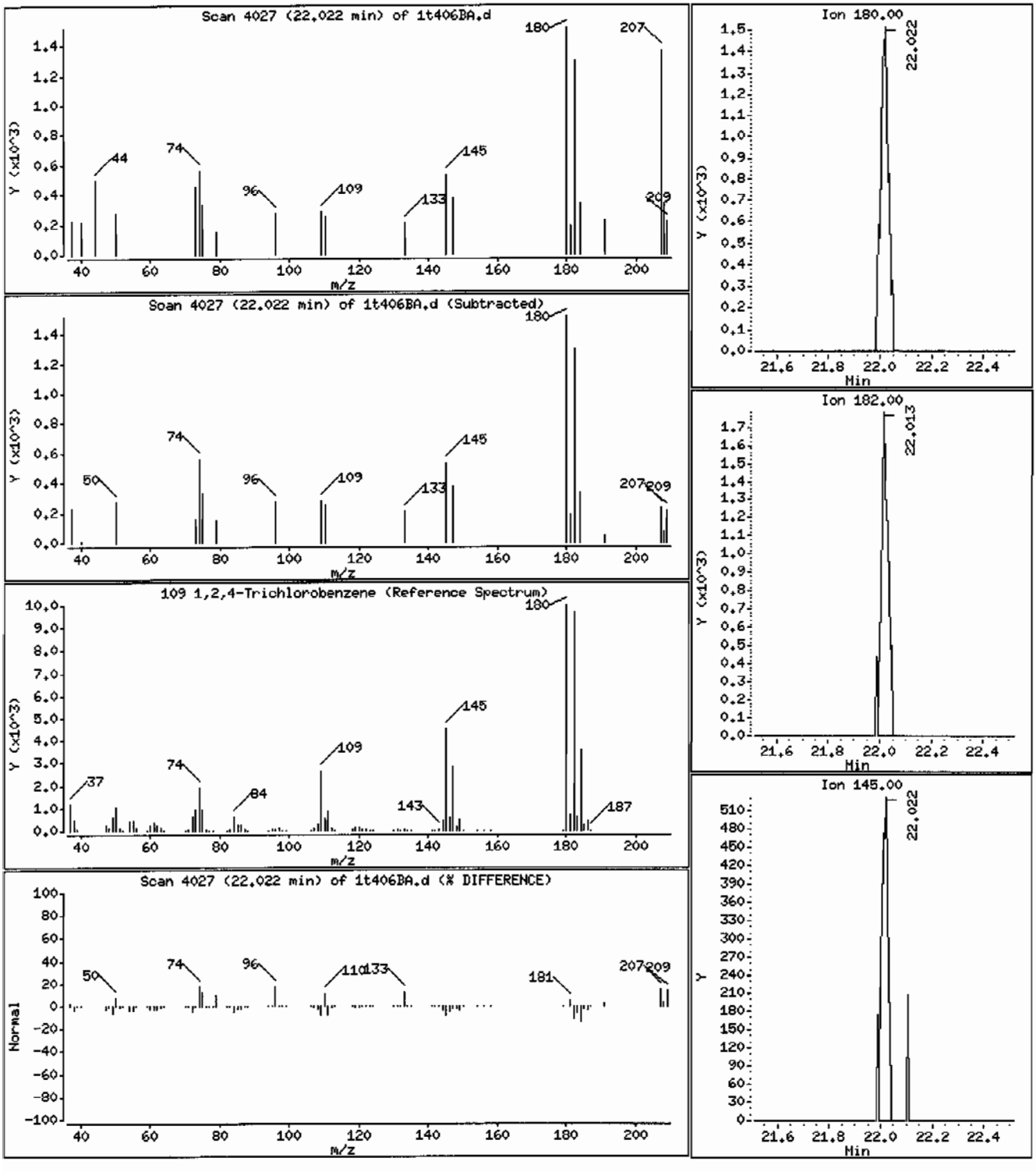

Data File: /chem/VOA1.i/123109v1/1t406BA.d

Date : 31-DEC-2009 12:39

Client ID: BLANK

Instrument: VOA1.i

Sample Info: |1202007169|937990|1|VOAF|1|

Operator: RXM4

Column phase: RTX-Volatiles

Column diameter: 0.25

111 Naphthalene

Concentration: 2.8 ug/Kg

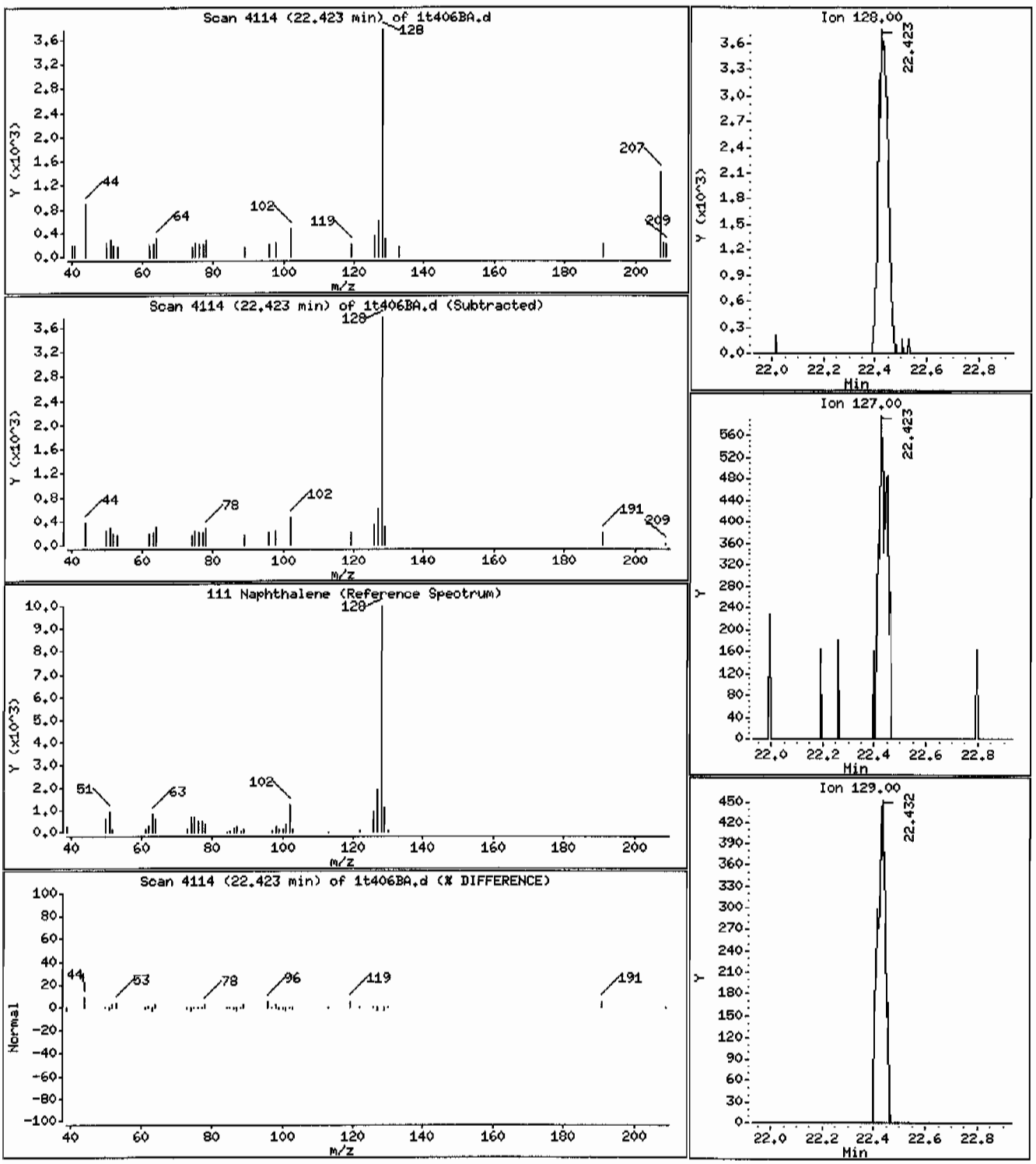

Data File: /chem/VOA1.i/123109v1/1t406BA.d

Date : 31-DEC-2009 12:39

Client ID: BLANK

Instrument: VOA1.i

Sample Info: |1202007169|937990|1|VOAF|1|

Operator: RXM4

Column phase: RTX-Volatiles

Column diameter: 0.25

112 1,2,3-Trichlorobenzene

Concentration: 0.75 ug/Kg

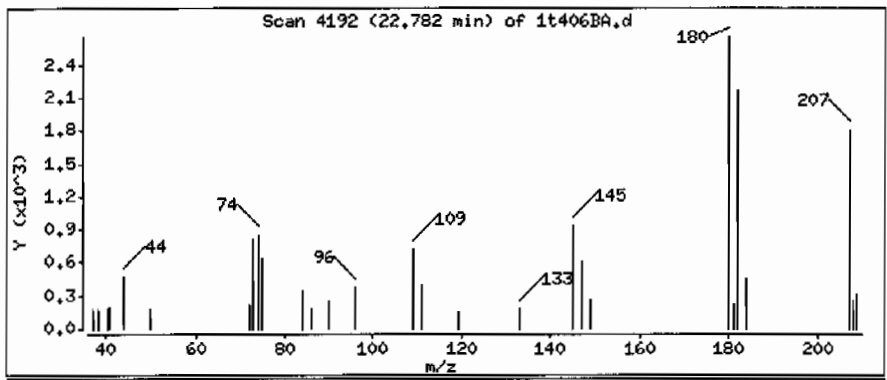

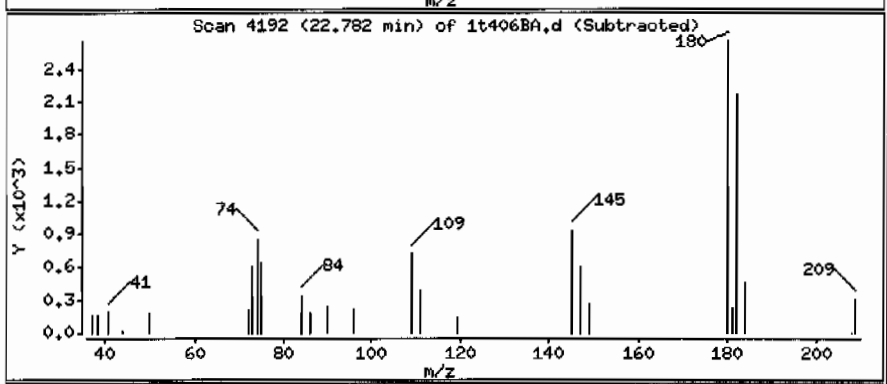

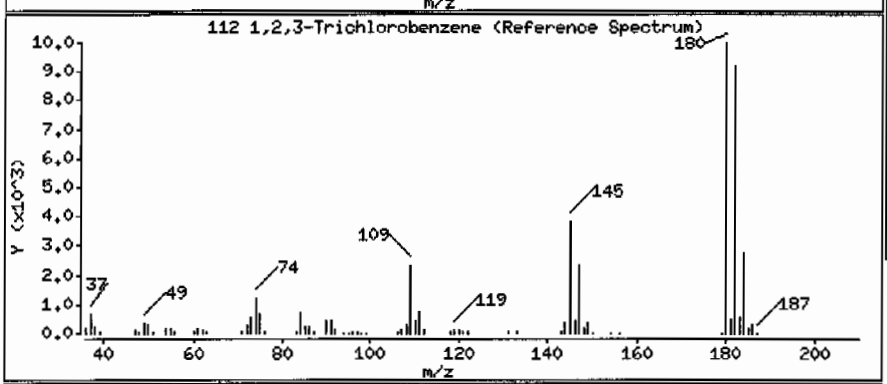

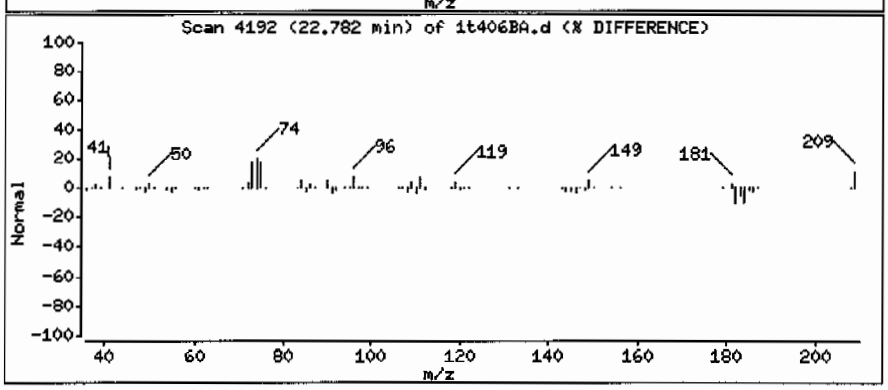

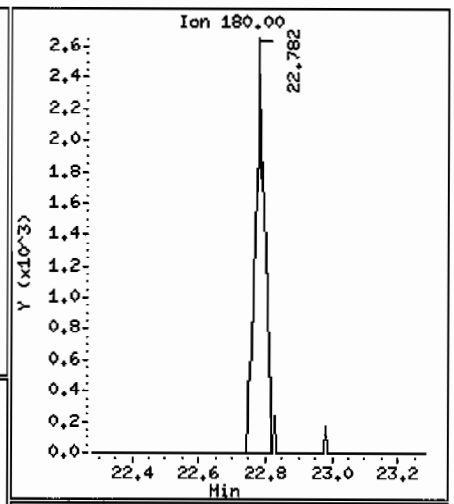

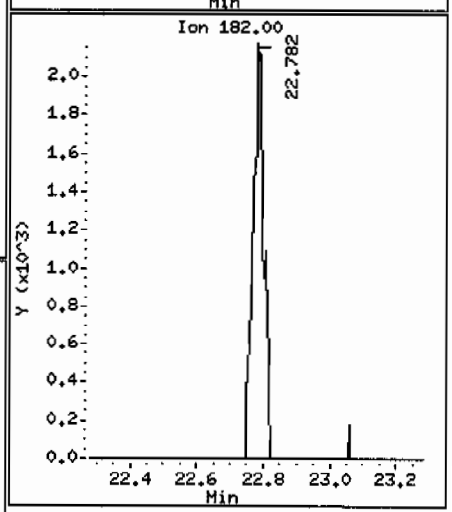

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1086**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202007175**				
Client Sample:	**QC for batch 937989**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 937989**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937990**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**01/04/2010 09:33**	**Analyst:**	**RXM4**	**Purge Vol:**	**5 mL**
Prep Date:	**01/04/2010 07:01**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1u104LB.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane		50.2	ug/kg	0.340	1.00
74-87-3	Chloromethane		48.0	ug/kg	0.300	1.00
75-01-4	Vinyl chloride		46.3	ug/kg	0.300	1.00
74-83-9	Bromomethane		42.1	ug/kg	0.300	1.00
75-00-3	Chloroethane		46.4	ug/kg	0.300	1.00
75-69-4	Trichlorofluoromethane		56.4	ug/kg	0.300	1.00
67-64-1	Acetone		191	ug/kg	1.66	5.00
75-35-4	1,1-Dichloroethylene		48.1	ug/kg	0.300	1.00
74-88-4	Iodomethane		191	ug/kg	1.60	5.00
75-09-2	Methylene chloride		39.2	ug/kg	2.00	5.00
75-15-0	Carbon disulfide		236	ug/kg	1.25	5.00
156-60-5	trans-1,2-Dichloroethylene		44.6	ug/kg	0.300	1.00
75-34-3	1,1-Dichloroethane		46.1	ug/kg	0.300	1.00
78-93-3	2-Butanone		198	ug/kg	1.50	5.00
156-59-2	cis-1,2-Dichloroethylene		43.8	ug/kg	0.300	1.00
594-20-7	2,2-Dichloropropane		57.9	ug/kg	0.300	1.00
67-66-3	Chloroform		47.5	ug/kg	0.300	1.00
74-97-5	Bromochloromethane		41.1	ug/kg	0.330	1.00
71-55-6	1,1,1-Trichloroethane		54.0	ug/kg	0.300	1.00
563-58-6	1,1-Dichloropropene		53.6	ug/kg	0.300	1.00
56-23-5	Carbon tetrachloride		55.2	ug/kg	0.300	1.00
107-06-2	1,2-Dichloroethane		49.8	ug/kg	0.300	1.00
71-43-2	Benzene		46.1	ug/kg	0.300	1.00
79-01-6	Trichloroethylene		48.0	ug/kg	0.330	1.00
78-87-5	1,2-Dichloropropane		46.7	ug/kg	0.300	1.00
75-27-4	Bromodichloromethane		51.3	ug/kg	0.300	1.00
74-95-3	Dibromomethane		45.0	ug/kg	0.300	1.00
108-10-1	4-Methyl-2-pentanone		230	ug/kg	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene		51.0	ug/kg	0.300	1.00
108-88-3	Toluene		43.1	ug/kg	0.300	1.00
10061-02-6	trans-1,3-Dichloropropylene		50.3	ug/kg	0.300	1.00
79-00-5	1,1,2-Trichloroethane		43.8	ug/kg	0.300	1.00
591-78-6	2-Hexanone		206	ug/kg	1.50	5.00
142-28-9	1,3-Dichloropropane		43.5	ug/kg	0.300	1.00
127-18-4	Tetrachloroethylene		44.5	ug/kg	0.300	1.00
124-48-1	Dibromochloromethane		46.3	ug/kg	0.300	1.00
106-93-4	1,2-Dibromoethane		43.3	ug/kg	0.300	1.00
108-90-7	Chlorobenzene		43.9	ug/kg	0.300	1.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1086**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202007175**				
Client Sample:	**QC for batch 937989**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 937989**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937990**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**01/04/2010 09:33**	**Analyst:**	**RXM4**	**Purge Vol:**	**5 mL**
Prep Date:	**01/04/2010 07:01**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1u104LB.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene		46.7	ug/kg	0.300	1.00
179601-23-1	m,p-Xylenes		91.7	ug/kg	0.300	2.00
95-47-6	o-Xylene		45.1	ug/kg	0.300	1.00
100-42-5	Styrene		45.5	ug/kg	0.300	1.00
75-25-2	Bromoform		39.4	ug/kg	0.300	1.00
79-34-5	1,1,2,2-Tetrachloroethane		43.9	ug/kg	0.300	1.00
96-18-4	1,2,3-Trichloropropane		43.8	ug/kg	0.300	1.00
108-86-1	Bromobenzene		41.7	ug/kg	0.300	1.00
103-65-1	n-Propylbenzene		47.5	ug/kg	0.300	1.00
95-49-8	2-Chlorotoluene		46.4	ug/kg	0.300	1.00
98-82-8	Isopropylbenzene		47.2	ug/kg	0.300	1.00
108-67-8	1,3,5-Trimethylbenzene		46.1	ug/kg	0.300	1.00
106-43-4	4-Chlorotoluene		46.2	ug/kg	0.300	1.00
98-06-6	tert-Butylbenzene		45.2	ug/kg	0.300	1.00
95-63-6	1,2,4-Trimethylbenzene		46.2	ug/kg	0.300	1.00
135-98-8	sec-Butylbenzene		46.0	ug/kg	0.300	1.00
99-87-6	4-Isopropyltoluene		45.7	ug/kg	0.300	1.00
541-73-1	1,3-Dichlorobenzene		42.8	ug/kg	0.300	1.00
106-46-7	1,4-Dichlorobenzene		43.1	ug/kg	0.300	1.00
104-51-8	n-Butylbenzene		48.4	ug/kg	0.300	1.00
96-12-8	1,2-Dibromo-3-chloropropane		34.0	ug/kg	0.300	1.00
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.00	ug/kg	1.60	5.00
630-20-6	1,1,1,2-Tetrachloroethane		46.9	ug/kg	0.300	1.00
95-50-1	1,2-Dichlorobenzene		42.7	ug/kg	0.300	1.00

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/010410v1/1u104LB.d
Lab Smp Id: 1202007175 Client Smp ID: LCS
Inj Date : 04-JAN-2010 09:33
Operator : RXM4 Inst ID: VOA1.i
Smp Info : |1202007175|937990|1|VOAF|1|
Misc Info : GEL 5G N/A UVM091214-01D/IVM091230-01
Comment :
Method : /chem/VOA1.i/010410v1/VOA1-8260ox-121709.m
Meth Date : 18-Jan-2010 17:56 jeb Quant Type: ISTD
Cal Date : 17-DEC-2009 21:27 Cal File: 1r425.d
Als bottle: 4 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	0.00000	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
M 1 Xylenes (total)	106				1718213	136.791	137
M 2 1,2-Dichloroethylene (total)	96				598978	88.3590	88.4
M 3 1,3-Dichloropropylene	75				1085404	101.250	101
5 Dichlorodifluoromethane	85	5.019	5.019	(0.367)	236207	50.2053	50.2
6 Chloromethane	50	5.564	5.564	(0.407)	415143	47.9987	48.0
7 Vinyl chloride	62	5.937	5.937	(0.434)	333223	46.3360	46.3
9 Bromomethane	96	6.966	6.966	(0.509)	197417	42.0504	42.0
10 Chloroethane	64	7.228	7.228	(0.528)	233124	46.4023	46.4
11 Trichlorofluoromethane	101	7.841	7.841	(0.573)	420572	56.4426	56.4
12 Ethyl Ether	59	8.476	8.476	(0.620)	262203	42.1382	42.1
15 1,1-Dichloroethylene	61	9.093	9.093	(0.665)	560583	48.1483	48.1
16 Acetone	43	9.249	9.249	(0.676)	963539	191.407	191

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
	18 Iodomethane	142	9.470	9.470	(0.692)	1764085	191.209	191
	19 Carbon disulfide	76	9.576	9.576	(0.700)	4469567	235.947	236
	21 Methyl acetate	43	9.829	9.829	(0.719)	1097345	228.286	228
	22 Acetonitrile	41	9.967	9.967	(0.729)	905666	1091.94	1090
	23 Methylene chloride	84	10.142	10.142	(0.742)	297437	39.2269	39.2
	25 tert-Butyl methyl ether	73	10.437	10.437	(0.763)	813504	43.5680	43.6
	26 trans-1,2-Dichloroethylene	96	10.547	10.547	(0.771)	287993	44.5920	44.6
	29 Vinyl acetate	43	11.288	11.288	(0.825)	3254370	283.293	283
	30 1,1-Dichloroethane	63	11.320	11.320	(0.828)	597928	46.0935	46.1
	33 2,2-Dichloropropane	77	12.154	12.154	(0.889)	438009	57.9218	57.9
	35 2-Butanone	43	12.177	12.177	(0.890)	1116573	198.221	198
	36 cis-1,2-Dichloroethylene	96	12.200	12.200	(0.892)	310985	43.7670	43.8
	39 Bromochloromethane	128	12.554	12.554	(0.918)	125794	41.1378	41.1
	41 Chloroform	83	12.609	12.609	(0.922)	600108	47.4969	47.5
	42 Cyclohexane	56	12.835	12.835	(0.938)	645267	52.6395	52.6
	43 1,1,1-Trichloroethane	97	12.839	12.839	(0.939)	455585	54.0244	54.0
	44 Carbon tetrachloride	117	13.019	13.019	(0.952)	460382	55.2093	55.2
	45 1,1-Dichloropropene	75	13.047	13.047	(0.954)	495494	53.5635	53.6
	47 Benzene	78	13.327	13.327	(0.974)	1244964	46.1071	46.1
$	48 1,2-Dichloroethane-d4	65	13.332	13.336	(0.975)	583750	58.7133	58.7
	50 Cyclohexene	54	13.392	13.392	(0.979)	493653	52.0038	52.0
	51 1,2-Dichloroethane	62	13.433	13.433	(0.982)	497361	49.7677	49.8
*	52 Fluorobenzene	96	13.677	13.682	(1.000)	832120	50.0000	
	53 n-Butyl alcohol	56	13.926	13.926	(1.018)	824007	4127.72	4130
	54 Trichloroethylene	95	14.114	14.114	(1.032)	331465	47.9540	48.0
	55 Methylcyclohexane	83	14.276	14.276	(1.044)	559273	49.5012	49.5
	57 1,2-Dichloropropane	63	14.455	14.455	(1.057)	346130	46.7173	46.7
	59 Dibromomethane	93	14.621	14.621	(1.069)	188078	45.0382	45.0
	60 Bromodichloromethane	83	14.745	14.745	(1.078)	477863	51.3395	51.3
	61 2-Chloroethylvinyl ether	63	15.026	15.026	(1.099)	255377	322.277	322(A)
	63 cis-1,3-Dichloropropylene	75	15.251	15.251	(1.115)	553929	50.9587	51.0
	64 4-Methyl-2-pentanone	58	15.353	15.353	(0.895)	702223	230.207	230
$	65 Toluene-d8	98	15.514	15.509	(0.904)	1485810	42.7136	42.7
	66 Toluene	92	15.592	15.592	(0.909)	783166	43.1195	43.1
	68 trans-1,3-Dichloropropylene	75	15.873	15.873	(0.925)	531475	50.2912	50.3
	69 1,1,2-Trichloroethane	83	16.098	16.098	(0.938)	227674	43.7951	43.8
	70 Tetrachloroethylene	164	16.181	16.181	(0.943)	246565	44.5396	44.5
	71 2-Hexanone	43	16.264	16.264	(0.948)	1606956	206.439	206
	72 1,3-Dichloropropane	76	16.301	16.301	(0.950)	480125	43.5025	43.5
	73 Dibromochloromethane	129	16.540	16.540	(0.964)	302108	46.2911	46.3
	74 1,2-Dibromoethane	107	16.724	16.724	(0.975)	253670	43.2697	43.3
*	76 Chlorobenzene-d5	117	17.157	17.152	(1.000)	624419	50.0000	
	77 Chlorobenzene	112	17.189	17.189	(1.002)	832596	43.8733	43.9
	78 Ethylbenzene	91	17.212	17.212	(1.003)	1626348	46.7222	46.7
	79 1,1,1,2-Tetrachloroethane	131	17.254	17.254	(1.006)	297245	46.9041	46.9
	80 m,p-Xylenes	106	17.332	17.332	(1.010)	1161893	91.7267	91.7
	81 o-Xylene	106	17.778	17.778	(1.036)	556320	45.0643	45.1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
82 Styrene	104	17.797	17.797	(1.037)	944398	45.4689	45.5
83 Bromoform	173	18.101	18.101	(0.923)	187052	39.3748	39.4
84 Isopropylbenzene	105	18.124	18.124	(0.924)	1577489	47.1790	47.2
$ 87 Bromofluorobenzene	95	18.386	18.381	(0.938)	596834	43.9854	44.0
88 1,1,2,2-Tetrachloroethane	83	18.501	18.501	(0.944)	353730	43.9104	43.9
89 n-Propylbenzene	91	18.556	18.556	(0.946)	1974251	47.4549	47.4
91 Bromobenzene	156	18.589	18.589	(0.948)	332641	41.6844	41.7
92 1,2,3-Trichloropropane	110	18.602	18.602	(0.949)	91380	43.8284	43.8
93 1,3,5-Trimethylbenzene	105	18.713	18.713	(0.954)	1337787	46.0550	46.0
94 2-Chlorotoluene	91	18.736	18.736	(0.956)	1343181	46.3698	46.4
95 4-Chlorotoluene	91	18.851	18.851	(0.961)	1212076	46.1892	46.2
96 tert-Butylbenzene	119	19.072	19.072	(0.973)	1078068	45.2362	45.2
97 1,2,4-Trimethylbenzene	105	19.132	19.132	(0.976)	1387319	46.2445	46.2
99 sec-Butylbenzene	105	19.297	19.297	(0.984)	1758415	46.0479	46.0
100 4-Isopropyltoluene	119	19.417	19.417	(0.990)	1322131	45.6552	45.6
101 1,3-Dichlorobenzene	146	19.537	19.537	(0.996)	663186	42.7636	42.8
* 102 1,4-Dichlorobenzene-d4	152	19.606	19.606	(1.000)	339031	50.0000	
103 1,4-Dichlorobenzene	146	19.634	19.634	(1.001)	680913	43.0758	43.1
105 n-Butylbenzene	91	19.864	19.864	(1.013)	1482516	48.3670	48.4
106 1,2-Dichlorobenzene	146	20.071	20.071	(1.024)	629663	42.7292	42.7
108 1,2-Dibromo-3-chloropropane	157	20.996	20.996	(1.071)	49044	33.9616	34.0(R)
109 1,2,4-Trichlorobenzene	180	22.018	22.018	(1.123)	308058	37.1353	37.1
110 Hexachlorobutadiene	225	22.101	22.101	(1.127)	220702	39.7830	39.8
111 Naphthalene	128	22.432	22.432	(1.144)	475424	27.4926	27.5(R)
112 1,2,3-Trichlorobenzene	180	22.777	22.777	(1.162)	184927	29.8336	29.8(R)

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
R - Spike/Surrogate failed recovery limits.

Data File: /chem/VOA1.i/010410v1/1u104LB.d
Date : 04-JAN-2010 09:33
Client ID: LCS
Sample Info: 1120200717519379901|VOAF1|

Column phase: RTX-Volatiles

Instrument: VOA1.i
Operator: RXH4
Column diameter: 0.25

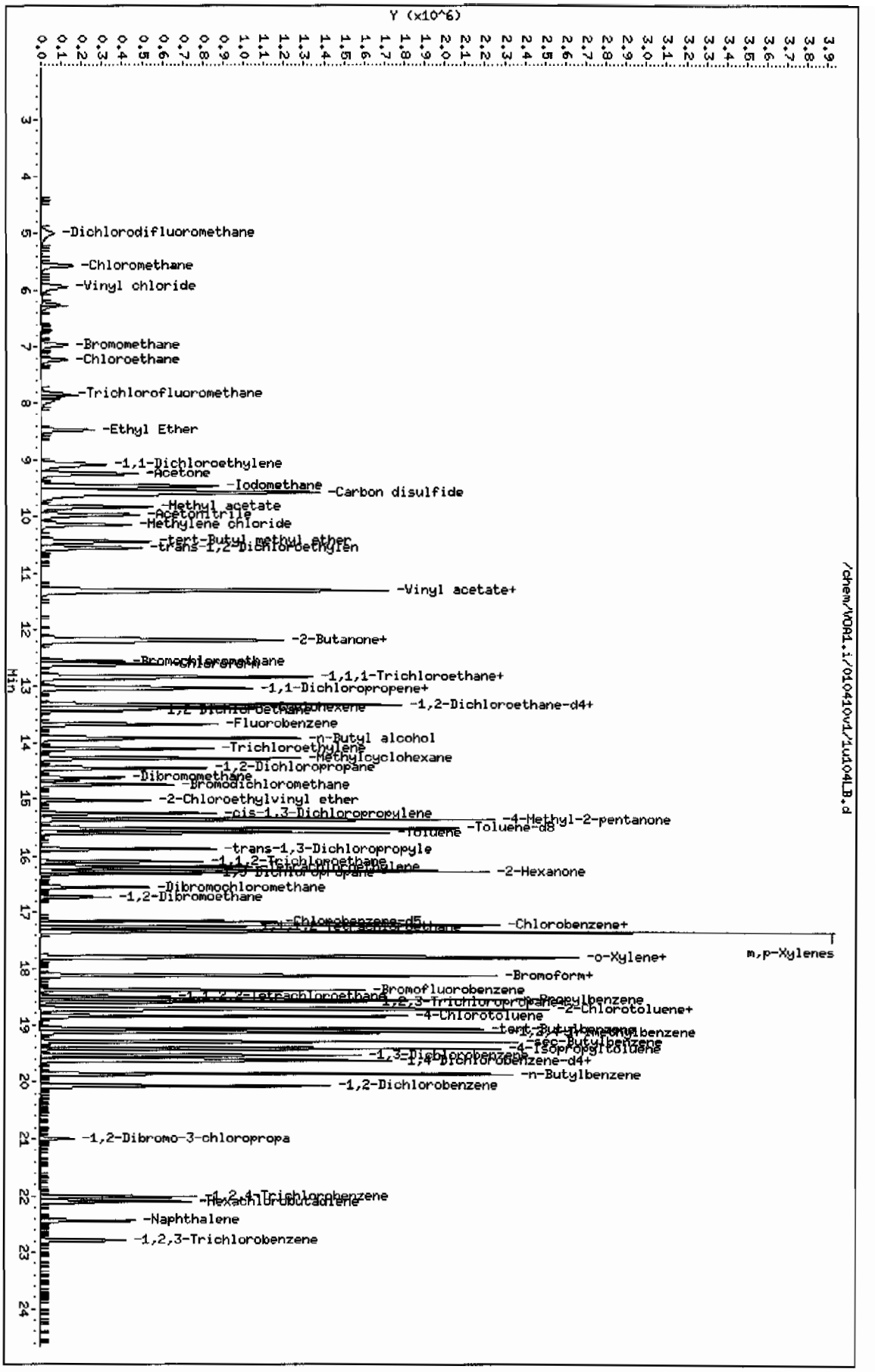

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1086**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202007176**				
Client Sample:	**QC for batch 937989**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 937989**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937990**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**01/04/2010 10:03**	**Analyst:**	**RXM4**	**Purge Vol:**	**5 mL**
Prep Date:	**01/04/2010 07:02**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1u105sLB.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/kg	0.340	1.00
74-87-3	Chloromethane	U	1.00	ug/kg	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/kg	0.300	1.00
74-83-9	Bromomethane	U	1.00	ug/kg	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/kg	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/kg	0.300	1.00
67-64-1	Acetone	U	5.00	ug/kg	1.66	5.00
75-35-4	1,1-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/kg	1.60	5.00
75-09-2	Methylene chloride	U	5.00	ug/kg	2.00	5.00
75-15-0	Carbon disulfide	U	5.00	ug/kg	1.25	5.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/kg	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/kg	1.50	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/kg	0.300	1.00
74-97-5	Bromochloromethane	U	1.00	ug/kg	0.330	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/kg	0.300	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/kg	0.300	1.00
56-23-5	Carbon tetrachloride	U	1.00	ug/kg	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/kg	0.300	1.00
71-43-2	Benzene	U	1.00	ug/kg	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/kg	0.330	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/kg	0.300	1.00
74-95-3	Dibromomethane	U	1.00	ug/kg	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/kg	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
108-88-3	Toluene	U	1.00	ug/kg	0.300	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/kg	0.300	1.00
591-78-6	2-Hexanone	U	5.00	ug/kg	1.50	5.00
142-28-9	1,3-Dichloropropane	U	1.00	ug/kg	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/kg	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/kg	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/kg	0.300	1.00
108-90-7	Chlorobenzene	U	1.00	ug/kg	0.300	1.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1086**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202007176**				
Client Sample:	**QC for batch 937989**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 937989**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937990**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**01/04/2010 10:03**	**Analyst:**	**RXM4**	**Purge Vol:**	**5 mL**
Prep Date:	**01/04/2010 07:02**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1u105sLB.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.00	ug/kg	0.300	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/kg	0.300	2.00
95-47-6	o-Xylene	U	1.00	ug/kg	0.300	1.00
100-42-5	Styrene	U	1.00	ug/kg	0.300	1.00
75-25-2	Bromoform	U	1.00	ug/kg	0.300	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/kg	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/kg	0.300	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/kg	0.300	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/kg	0.300	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/kg	0.300	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/kg	0.300	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/kg	0.300	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/kg	0.300	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/kg	0.300	1.00
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*		231	ug/kg	1.60	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00

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VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/010410v1/1u105sLB.d
Lab Smp Id: 1202007176 Client Smp ID: LCS
Inj Date : 04-JAN-2010 10:03
Operator : RXM4 Inst ID: VOA1.i
Smp Info : |1202007176|937990|1|VOAF|1|
Misc Info : GEL 5G N/A UVM091216-08A/UVM091209-08B
Comment :
Method : /chem/VOA1.i/010410v1/VOA1-8260ox-121709.m
Meth Date : 18-Jan-2010 17:56 jeb Quant Type: ISTD
Cal Date : 17-DEC-2009 21:27 Cal File: 1r425.d
Als bottle: 5 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	0.00000	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
4 Chlorotrifluoroethylene	116	4.904	4.904	(0.358)	572845	131.196	131
8 2-Chloro-1,1,1-trifluoroethane	118	6.298	6.298	(0.460)	1169480	132.146	132
13 Acrolein	56	8.950	8.950	(0.654)	356783	257.180	257
14 Trichlorotrifluoroethane	101	8.977	8.977	(0.656)	1336645	231.037	231
17 Isopropyl Alcohol	45	9.442	9.442	(0.690)	1281841	2522.69	2520
20 Allyl chloride	76	9.852	9.852	(0.720)	671254	202.833	203
24 tert-Butyl Alcohol	59	10.193	10.193	(0.745)	2082829	2484.21	2480
27 Acrylonitrile	53	10.667	10.667	(0.780)	664305	237.980	238
28 Isopropyl ether	45	11.191	11.191	(0.818)	1388492	44.6481	44.6
31 2-Chloro-1,3-butadiene	53	11.389	11.389	(0.832)	557086	47.7569	47.8
32 Ethyl tert-butyl ether	59	11.753	11.753	(0.859)	1250513	44.0183	44.0
34 Ethyl acetate	43	12.158	12.158	(0.889)	1666221	234.591	234

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
37 Propionitrile	54	12.402	12.402	(0.906)	257174	236.558	236
38 Tetrahydrofuran	42	12.535	12.535	(0.639)	573624	210.794	211
40 Methacrylonitrile	41	12.554	12.554	(0.918)	1344180	242.057	242
46 Isobutyl alcohol	41	13.106	13.106	(0.958)	631444	2584.75	2580
$ 48 1,2-Dichloroethane-d4	65	13.336	13.336	(0.975)	606539	52.0572	52.0
49 Methyl tert-amyl ether	73	13.346	13.346	(0.975)	1036484	43.4241	43.4
* 52 Fluorobenzene	96	13.682	13.682	(1.000)	975154	50.0000	
56 Methyl methacrylate	69	14.432	14.432	(1.055)	1117528	233.525	234
58 1,4-Dioxane	88	14.542	14.542	(1.063)	160031	2336.56	2340
62 2-Nitropropane	43	15.072	15.072	(1.102)	567792	261.144	261
$ 65 Toluene-d8	98	15.509	15.509	(0.904)	1745406	40.8287	40.8
67 Ethyl methacrylate	69	15.804	15.804	(0.921)	2191238	207.706	208
75 1-Chlorohexane	55	17.023	17.023	(1.244)	458807	47.5548	47.6
* 76 Chlorobenzene-d5	117	17.152	17.152	(1.000)	767379	50.0000	
85 cis-1,4-Dichloro-2-butene	53	18.271	18.271	(0.932)	863614	266.962	267
86 Cyclohexanone	55	18.381	18.381	(1.072)	508174	441.186	441
$ 87 Bromofluorobenzene	95	18.381	18.381	(0.938)	766828	44.8829	44.9
90 trans-1,4-Dichloro-2-butene	53	18.565	18.565	(0.947)	820895	270.327	270
98 Pentachloroethane	167	19.191	19.191	(0.979)	1152514	321.318	321(A)
* 102 1,4-Dichlorobenzene-d4	152	19.606	19.606	(1.000)	426886	50.0000	
104 Benzyl chloride	91	19.767	19.767	(1.008)	4437995	265.699	266
107 bis(2-Chloroisopropyl)ether	45	20.158	20.158	(1.028)	993848	254.336	254

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.

Data File: /chem/VOA1.i/010410v1/1u105sLB.d
Date : 04-JAN-2010 10:03
Client ID: LCS
Sample Info: 1120200717619379901|1|VOAF|1|
Column phase: RTX-Volatiles

Instrument: VOA1.i
Operator: RXM4
Column diameter: 0.25

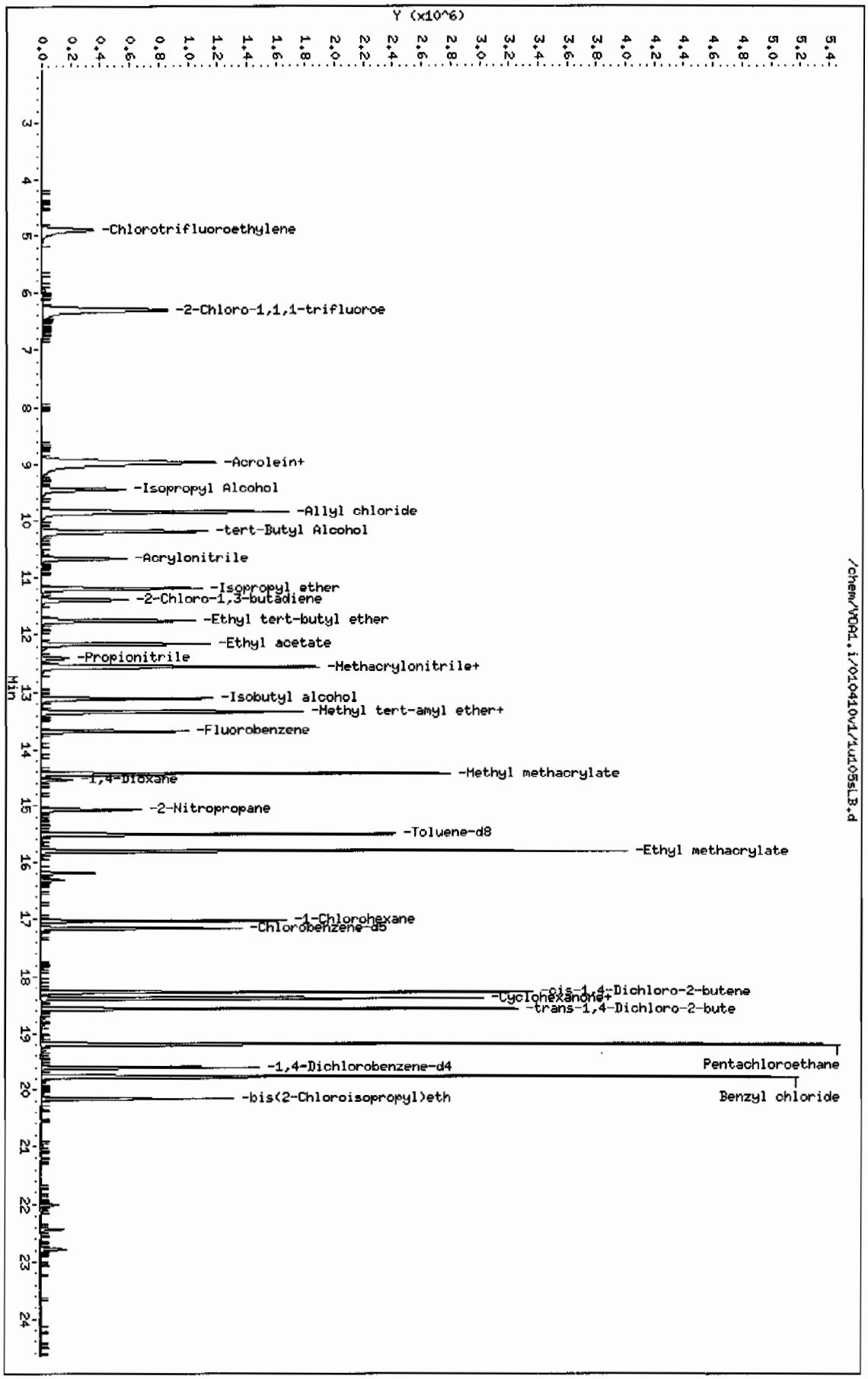

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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1086**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202007173**				
Client Sample:	**QC for batch 937989**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 937989**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937990**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**12/31/2009 10:52**	**Analyst:**	**RXM4**	**Purge Vol:**	**5 mL**
Prep Date:	**12/31/2009 07:01**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1t403LA.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane		54.9	ug/kg	0.340	1.00
74-87-3	Chloromethane		50.7	ug/kg	0.300	1.00
75-01-4	Vinyl chloride		48.6	ug/kg	0.300	1.00
74-83-9	Bromomethane		46.1	ug/kg	0.300	1.00
75-00-3	Chloroethane		48.5	ug/kg	0.300	1.00
75-69-4	Trichlorofluoromethane		61.0	ug/kg	0.300	1.00
67-64-1	Acetone		208	ug/kg	1.66	5.00
75-35-4	1,1-Dichloroethylene		47.2	ug/kg	0.300	1.00
74-88-4	Iodomethane		215	ug/kg	1.60	5.00
75-09-2	Methylene chloride		42.3	ug/kg	2.00	5.00
75-15-0	Carbon disulfide		255	ug/kg	1.25	5.00
156-60-5	trans-1,2-Dichloroethylene		47.1	ug/kg	0.300	1.00
75-34-3	1,1-Dichloroethane		47.2	ug/kg	0.300	1.00
78-93-3	2-Butanone		221	ug/kg	1.50	5.00
156-59-2	cis-1,2-Dichloroethylene		46.6	ug/kg	0.300	1.00
594-20-7	2,2-Dichloropropane		55.6	ug/kg	0.300	1.00
67-66-3	Chloroform		47.4	ug/kg	0.300	1.00
74-97-5	Bromochloromethane		47.5	ug/kg	0.330	1.00
71-55-6	1,1,1-Trichloroethane		54.0	ug/kg	0.300	1.00
563-58-6	1,1-Dichloropropene		52.1	ug/kg	0.300	1.00
56-23-5	Carbon tetrachloride		56.3	ug/kg	0.300	1.00
107-06-2	1,2-Dichloroethane		49.0	ug/kg	0.300	1.00
71-43-2	Benzene		46.9	ug/kg	0.300	1.00
79-01-6	Trichloroethylene		48.1	ug/kg	0.330	1.00
78-87-5	1,2-Dichloropropane		46.4	ug/kg	0.300	1.00
75-27-4	Bromodichloromethane		48.9	ug/kg	0.300	1.00
74-95-3	Dibromomethane		46.3	ug/kg	0.300	1.00
108-10-1	4-Methyl-2-pentanone		236	ug/kg	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene		49.8	ug/kg	0.300	1.00
108-88-3	Toluene		43.4	ug/kg	0.300	1.00
10061-02-6	trans-1,3-Dichloropropylene		48.4	ug/kg	0.300	1.00
79-00-5	1,1,2-Trichloroethane		44.4	ug/kg	0.300	1.00
591-78-6	2-Hexanone		220	ug/kg	1.50	5.00
142-28-9	1,3-Dichloropropane		43.2	ug/kg	0.300	1.00
127-18-4	Tetrachloroethylene		46.4	ug/kg	0.300	1.00
124-48-1	Dibromochloromethane		48.2	ug/kg	0.300	1.00
106-93-4	1,2-Dibromoethane		45.6	ug/kg	0.300	1.00
108-90-7	Chlorobenzene		44.4	ug/kg	0.300	1.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1086**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202007173**				
Client Sample:	**QC for batch 937989**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 937989**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937990**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**12/31/2009 10:52**	**Analyst:**	**RXM4**	**Purge Vol:**	**5 mL**
Prep Date:	**12/31/2009 07:01**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1t403LA.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene		45.2	ug/kg	0.300	1.00
179601-23-1	m,p-Xylenes		90.8	ug/kg	0.300	2.00
95-47-6	o-Xylene		44.8	ug/kg	0.300	1.00
100-42-5	Styrene		45.0	ug/kg	0.300	1.00
75-25-2	Bromoform		39.9	ug/kg	0.300	1.00
79-34-5	1,1,2,2-Tetrachloroethane		43.7	ug/kg	0.300	1.00
96-18-4	1,2,3-Trichloropropane		43.0	ug/kg	0.300	1.00
108-86-1	Bromobenzene		41.7	ug/kg	0.300	1.00
103-65-1	n-Propylbenzene		42.9	ug/kg	0.300	1.00
95-49-8	2-Chlorotoluene		42.3	ug/kg	0.300	1.00
98-82-8	Isopropylbenzene		43.5	ug/kg	0.300	1.00
108-67-8	1,3,5-Trimethylbenzene		43.3	ug/kg	0.300	1.00
106-43-4	4-Chlorotoluene		42.4	ug/kg	0.300	1.00
98-06-6	tert-Butylbenzene		42.1	ug/kg	0.300	1.00
95-63-6	1,2,4-Trimethylbenzene		41.9	ug/kg	0.300	1.00
135-98-8	sec-Butylbenzene		42.5	ug/kg	0.300	1.00
99-87-6	4-Isopropyltoluene		43.3	ug/kg	0.300	1.00
541-73-1	1,3-Dichlorobenzene		41.7	ug/kg	0.300	1.00
106-46-7	1,4-Dichlorobenzene		41.7	ug/kg	0.300	1.00
104-51-8	n-Butylbenzene		43.1	ug/kg	0.300	1.00
96-12-8	1,2-Dibromo-3-chloropropane		39.7	ug/kg	0.300	1.00
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.00	ug/kg	1.60	5.00
630-20-6	1,1,1,2-Tetrachloroethane		47.3	ug/kg	0.300	1.00
95-50-1	1,2-Dichlorobenzene		40.7	ug/kg	0.300	1.00

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VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/123109v1/1t403LA.d
Lab Smp Id: 1202007173 Client Smp ID: LCS
Inj Date : 31-DEC-2009 10:52
Operator : RXM4 Inst ID: VOA1.i
Smp Info : |1202007173|937990|1|VOAF|1|
Misc Info : GEL 5G N/A UVM091214-01D/IVM091230-01
Comment :
Method : /chem/VOA1.i/123109v1/VOA1-8260ox-121709.m
Meth Date : 18-Jan-2010 17:56 jeb Quant Type: ISTD
Cal Date : 17-DEC-2009 21:27 Cal File: 1r425.d
Als bottle: 3 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	0.00000	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
M 1 Xylenes (total)	106				2110568	135.634	136
M 2 1,2-Dichloroethylene (total)	96				789614	93.6904	93.7
M 3 1,3-Dichloropropylene	75				1306819	98.2201	98.2
5 Dichlorodifluoromethane	85	5.005	5.005	(0.366)	320959	54.8569	54.8
6 Chloromethane	50	5.564	5.564	(0.407)	544774	50.6717	50.7
7 Vinyl chloride	62	5.930	5.930	(0.433)	434411	48.5961	48.6
9 Bromomethane	96	6.957	6.957	(0.508)	269236	46.1355	46.1
10 Chloroethane	64	7.219	7.219	(0.528)	302847	48.4946	48.5
11 Trichlorofluoromethane	101	7.840	7.840	(0.573)	565248	61.0271	61.0
12 Ethyl Ether	59	8.476	8.476	(0.619)	338750	43.7960	43.8
15 1,1-Dichloroethylene	61	9.097	9.097	(0.665)	682442	47.1546	47.2
16 Acetone	43	9.254	9.254	(0.676)	1302247	208.112	208

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
	18 Iodomethane	142	9.470	9.470	(0.692)	2470265	215.402	215
	19 Carbon disulfide	76	9.576	9.576	(0.700)	6005772	255.056	255
	21 Methyl acetate	43	9.834	9.834	(0.719)	1505586	251.976	252
	22 Acetonitrile	41	9.972	9.972	(0.729)	1227380	1190.50	1190
	23 Methylene chloride	84	10.142	10.142	(0.741)	398795	42.3187	42.3
	25 tert-Butyl methyl ether	73	10.441	10.441	(0.763)	1047104	45.1144	45.1
	26 trans-1,2-Dichloroethylene	96	10.547	10.547	(0.771)	378187	47.1085	47.1
	29 Vinyl acetate	43	11.293	11.293	(0.825)	4341207	304.016	304
	30 1,1-Dichloroethane	63	11.320	11.320	(0.827)	761197	47.2069	47.2
	33 2,2-Dichloropropane	77	12.158	12.158	(0.889)	522477	55.5832	55.6
	35 2-Butanone	43	12.181	12.181	(0.890)	1547721	221.041	221
	36 cis-1,2-Dichloroethylene	96	12.204	12.204	(0.892)	411427	46.5819	46.6
	39 Bromochloromethane	128	12.559	12.559	(0.918)	180608	47.5154	47.5
	41 Chloroform	83	12.614	12.614	(0.922)	744957	47.4334	47.4
	42 Cyclohexane	56	12.835	12.835	(0.938)	797759	52.3553	52.4
	43 1,1,1-Trichloroethane	97	12.839	12.839	(0.938)	565971	53.9923	54.0
	44 Carbon tetrachloride	117	13.023	13.023	(0.952)	583308	56.2742	56.3
	45 1,1-Dichloropropene	75	13.046	13.046	(0.954)	599131	52.1038	52.1
	47 Benzene	78	13.332	13.332	(0.974)	1572909	46.8631	46.9
$	48 1,2-Dichloroethane-d4	65	13.336	13.336	(0.975)	704031	56.9663	57.0
	50 Cyclohexene	54	13.392	13.392	(0.979)	598814	50.7484	50.7
	51 1,2-Dichloroethane	62	13.438	13.438	(0.982)	608186	48.9587	49.0
*	52 Fluorobenzene	96	13.682	13.682	(1.000)	1034353	50.0000	
	53 n-Butyl alcohol	56	13.926	13.926	(1.018)	1327789	5290.87	5290
	54 Trichloroethylene	95	14.110	14.110	(1.031)	413299	48.1027	48.1
	55 Methylcyclohexane	83	14.280	14.280	(1.044)	715177	50.9240	50.9
	57 1,2-Dichloropropane	63	14.455	14.455	(1.057)	427605	46.4300	46.4
	59 Dibromomethane	93	14.621	14.621	(1.069)	240079	46.2503	46.2
	60 Bromodichloromethane	83	14.750	14.750	(1.078)	566308	48.9461	48.9
	61 2-Chloroethylvinyl ether	63	15.030	15.030	(1.099)	524993	530.335	530(AR)
	63 cis-1,3-Dichloropropylene	75	15.251	15.251	(1.115)	672768	49.7905	49.8
	64 4-Methyl-2-pentanone	58	15.353	15.353	(0.895)	891334	235.864	236
$	65 Toluene-d8	98	15.514	15.514	(0.904)	1856285	43.0750	43.1
	66 Toluene	92	15.592	15.592	(0.909)	977132	43.4261	43.4
	68 trans-1,3-Dichloropropylene	75	15.873	15.873	(0.925)	634051	48.4295	48.4
	69 1,1,2-Trichloroethane	83	16.098	16.098	(0.938)	285949	44.3995	44.4
	70 Tetrachloroethylene	164	16.186	16.186	(0.943)	318365	46.4213	46.4
	71 2-Hexanone	43	16.264	16.264	(0.948)	2124436	220.297	220
	72 1,3-Dichloropropane	76	16.305	16.305	(0.950)	590751	43.2057	43.2
	73 Dibromochloromethane	129	16.545	16.545	(0.964)	389402	48.1627	48.2
	74 1,2-Dibromoethane	107	16.724	16.724	(0.975)	330936	45.5655	45.6
*	76 Chlorobenzene-d5	117	17.157	17.157	(1.000)	773569	50.0000	
	77 Chlorobenzene	112	17.189	17.189	(1.002)	1043621	44.3901	44.4
	78 Ethylbenzene	91	17.217	17.217	(1.003)	1951202	45.2469	45.2
	79 1,1,1,2-Tetrachloroethane	131	17.254	17.254	(1.006)	371667	47.3399	47.3
	80 m,p-Xylenes	106	17.332	17.332	(1.010)	1425145	90.8167	90.8
	81 o-Xylene	106	17.778	17.778	(1.036)	685423	44.8171	44.8

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
82 Styrene	104	17.797	17.797	(1.037)	1158654	45.0288	45.0
83 Bromoform	173	18.101	18.101	(0.923)	247263	39.9229	39.9
84 Isopropylbenzene	105	18.124	18.124	(0.924)	1896605	43.5287	43.5
$ 87 Bromofluorobenzene	95	18.386	18.386	(0.938)	736740	41.6664	41.7
88 1,1,2,2-Tetrachloroethane	83	18.501	18.501	(0.944)	458761	43.7017	43.7
89 n-Propylbenzene	91	18.556	18.556	(0.946)	2327990	42.9414	42.9
91 Bromobenzene	156	18.588	18.588	(0.948)	433275	41.6656	41.7
92 1,2,3-Trichloropropane	110	18.602	18.602	(0.949)	116717	42.9591	43.0
93 1,3,5-Trimethylbenzene	105	18.713	18.713	(0.954)	1637441	43.2586	43.2
94 2-Chlorotoluene	91	18.736	18.736	(0.956)	1598044	42.3357	42.3
95 4-Chlorotoluene	91	18.851	18.851	(0.961)	1448575	42.3612	42.4
96 tert-Butylbenzene	119	19.072	19.072	(0.973)	1308852	42.1451	42.1
97 1,2,4-Trimethylbenzene	105	19.132	19.132	(0.976)	1636275	41.8559	41.8
99 sec-Butylbenzene	105	19.297	19.297	(0.984)	2113870	42.4799	42.5
100 4-Isopropyltoluene	119	19.417	19.417	(0.990)	1634378	43.3097	43.3
101 1,3-Dichlorobenzene	146	19.537	19.537	(0.996)	842695	41.6991	41.7
* 102 1,4-Dichlorobenzene-d4	152	19.606	19.606	(1.000)	441797	50.0000	
103 1,4-Dichlorobenzene	146	19.633	19.633	(1.001)	859317	41.7169	41.7
105 n-Butylbenzene	91	19.864	19.864	(1.013)	1722384	43.1218	43.1
106 1,2-Dichlorobenzene	146	20.071	20.071	(1.024)	781588	40.7016	40.7
108 1,2-Dibromo-3-chloropropane	157	20.996	20.996	(1.071)	75439	39.7071	39.7
109 1,2,4-Trichlorobenzene	180	22.018	22.018	(1.123)	445943	41.2525	41.2
110 Hexachlorobutadiene	225	22.101	22.101	(1.127)	274609	37.9859	38.0
111 Naphthalene	128	22.432	22.432	(1.144)	799787	34.7983	34.8
112 1,2,3-Trichlorobenzene	180	22.782	22.782	(1.162)	306841	37.9871	38.0

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
R - Spike/Surrogate failed recovery limits.

Data File: /chem/VOA1.i/123109v1/1t403LA.d
Date : 31-DEC-2009 10:52
Client ID: LCS
Sample Info: 1120200717319379901|1|VOAF1|1
Column phase: RTX-Volatiles

Instrument: VOA1.i
Operator: RXH4
Column diameter: 0.25

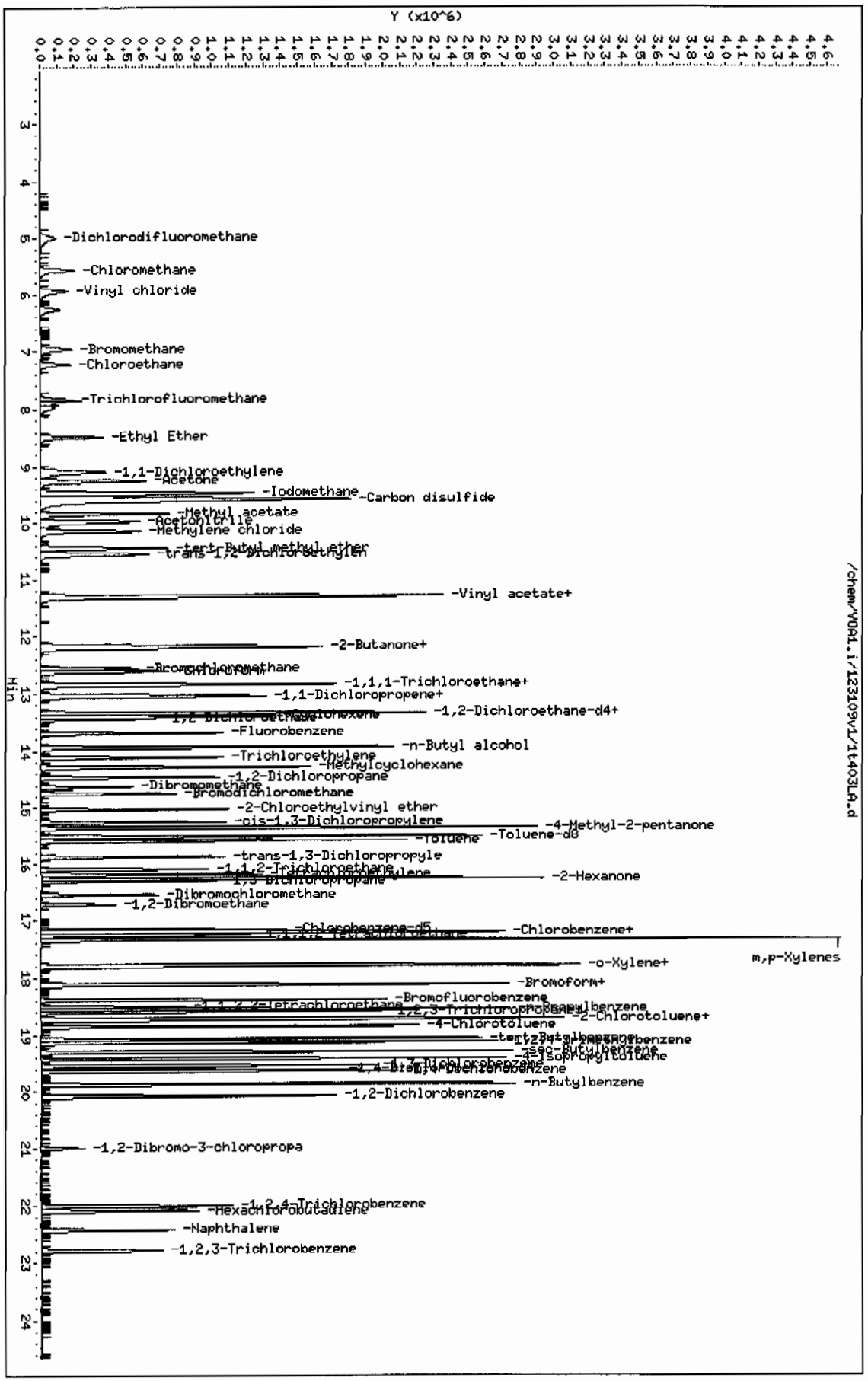

/chem/VOA1.i/123109v1/1t403LA.d

Page 1

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1086**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202007174**				
Client Sample:	**QC for batch 937989**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 937989**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937990**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**12/31/2009 11:39**	**Analyst:**	**RXM4**	**Purge Vol:**	**5 mL**
Prep Date:	**12/31/2009 07:02**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1t404sLA.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/kg	0.340	1.00
74-87-3	Chloromethane	U	1.00	ug/kg	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/kg	0.300	1.00
74-83-9	Bromomethane	U	1.00	ug/kg	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/kg	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/kg	0.300	1.00
67-64-1	Acetone	U	5.00	ug/kg	1.66	5.00
75-35-4	1,1-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/kg	1.60	5.00
75-09-2	Methylene chloride	U	5.00	ug/kg	2.00	5.00
75-15-0	Carbon disulfide	U	5.00	ug/kg	1.25	5.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/kg	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/kg	1.50	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/kg	0.300	1.00
74-97-5	Bromochloromethane	U	1.00	ug/kg	0.330	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/kg	0.300	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/kg	0.300	1.00
56-23-5	Carbon tetrachloride	U	1.00	ug/kg	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/kg	0.300	1.00
71-43-2	Benzene	U	1.00	ug/kg	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/kg	0.330	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/kg	0.300	1.00
74-95-3	Dibromomethane	U	1.00	ug/kg	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/kg	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
108-88-3	Toluene	U	1.00	ug/kg	0.300	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/kg	0.300	1.00
591-78-6	2-Hexanone	U	5.00	ug/kg	1.50	5.00
142-28-9	1,3-Dichloropropane	U	1.00	ug/kg	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/kg	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/kg	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/kg	0.300	1.00
108-90-7	Chlorobenzene	U	1.00	ug/kg	0.300	1.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1086**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202007174**				
Client Sample:	**QC for batch 937989**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 937989**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937990**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**12/31/2009 11:39**	**Analyst:**	**RXM4**	**Purge Vol:**	**5 mL**
Prep Date:	**12/31/2009 07:02**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1t404sLA.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.00	ug/kg	0.300	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/kg	0.300	2.00
95-47-6	o-Xylene	U	1.00	ug/kg	0.300	1.00
100-42-5	Styrene	U	1.00	ug/kg	0.300	1.00
75-25-2	Bromoform	U	1.00	ug/kg	0.300	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/kg	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/kg	0.300	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/kg	0.300	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/kg	0.300	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/kg	0.300	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/kg	0.300	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/kg	0.300	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/kg	0.300	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/kg	0.300	1.00
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*		296	ug/kg	1.60	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/123109v1/1t404sLA.d
Lab Smp Id: 1202007174 Client Smp ID: LCS
Inj Date : 31-DEC-2009 11:39
Operator : RXM4 Inst ID: VOA1.i
Smp Info : |1202007174|937990|1|VOAF|1|
Misc Info : GEL 5G N/A UVM091216-08A/UVM091209-08B
Comment :
Method : /chem/VOA1.i/123109v1/VOA1-8260ox-121709.m
Meth Date : 18-Jan-2010 17:56 jeb Quant Type: ISTD
Cal Date : 17-DEC-2009 21:27 Cal File: 1r425.d
Als bottle: 4 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	0.00000	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
4 Chlorotrifluoroethylene	116	4.890	4.890	(0.358)	658472	134.432	134
8 2-Chloro-1,1,1-trifluoroethane	118	6.303	6.303	(0.461)	1270007	127.988	128
13 Acrolein	56	8.936	8.936	(0.654)	431551	277.386	277
14 Trichlorotrifluoroethane	101	8.973	8.973	(0.656)	1919480	295.848	296
17 Isopropyl Alcohol	45	9.433	9.433	(0.690)	1549092	2711.35	2710
20 Allyl chloride	76	9.838	9.838	(0.720)	916921	243.877	244
24 tert-Butyl Alcohol	59	10.183	10.183	(0.745)	2438978	2591.04	2590
27 Acrylonitrile	53	10.653	10.653	(0.779)	816493	260.822	261
28 Isopropyl ether	45	11.178	11.178	(0.818)	1546447	44.3451	44.3
31 2-Chloro-1,3-butadiene	53	11.376	11.376	(0.832)	733879	56.0994	56.1
32 Ethyl tert-butyl ether	59	11.739	11.739	(0.859)	1377138	43.2420	43.2
34 Ethyl acetate	43	12.144	12.144	(0.888)	1956203	245.591	246

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
37 Propionitrile	54	12.388	12.388	(0.906)	297193	243.763	244
38 Tetrahydrofuran	42	12.522	12.522	(0.639)	665819	221.971	222
40 Methacrylonitrile	41	12.545	12.545	(0.918)	1588774	255.118	255
46 Isobutyl alcohol	41	13.097	13.097	(0.958)	757382	2764.51	2760
$ 48 1,2-Dichloroethane-d4	65	13.327	13.336	(0.975)	647053	49.5201	49.5
49 Methyl tert-amyl ether	73	13.332	13.332	(0.975)	1120444	41.8917	41.9
* 52 Fluorobenzene	96	13.672	13.682	(1.000)	1093588	50.0000	
56 Methyl methacrylate	69	14.427	14.427	(1.055)	1318428	245.669	246
58 1,4-Dioxane	88	14.533	14.533	(1.063)	184688	2404.53	2400
62 2-Nitropropane	43	15.067	15.067	(1.102)	682510	279.445	279
$ 65 Toluene-d8	98	15.509	15.514	(0.904)	1967097	41.9138	41.9
67 Ethyl methacrylate	69	15.804	15.804	(0.921)	2570712	221.960	222
75 1-Chlorohexane	55	17.019	17.019	(1.245)	472202	43.6427	43.6
* 76 Chlorobenzene-d5	117	17.152	17.157	(1.000)	842458	50.0000	
85 cis-1,4-Dichloro-2-butene	53	18.266	18.266	(0.932)	954810	267.766	268
86 Cyclohexanone	55	18.377	18.377	(1.071)	579667	458.405	458
$ 87 Bromofluorobenzene	95	18.381	18.386	(0.938)	802737	42.6250	42.6
90 trans-1,4-Dichloro-2-butene	53	18.561	18.561	(0.947)	917261	274.033	274
98 Pentachloroethane	167	19.192	19.192	(0.979)	1282766	324.448	324(A)
* 102 1,4-Dichlorobenzene-d4	152	19.601	19.606	(1.000)	470547	50.0000	
104 Benzyl chloride	91	19.767	19.767	(1.008)	4938120	268.209	268
107 bis(2-Chloroisopropyl)ether	45	20.158	20.158	(1.028)	1169603	271.540	272

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.

Data File: /chem/VOA1.i/123109v1/1t404sLA.d
Date : 31-DEC-2009 11:39
Client ID: LCS
Sample Info: |1202007174|937990|1|VOAF|1|

Column phase: RTX-Volatiles

Instrument: VOA1.i

Operator: RXM4
Column diameter: 0.25

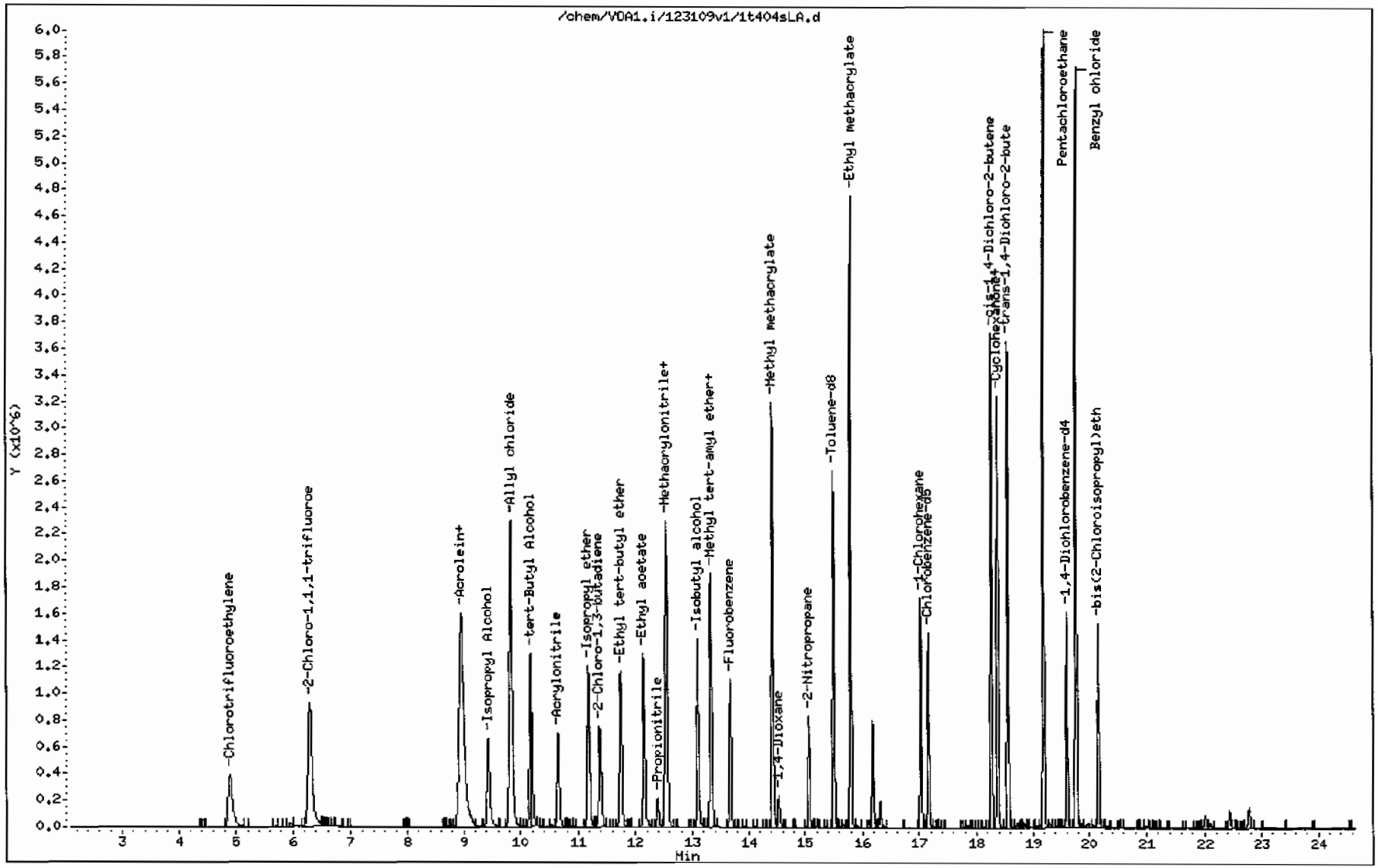

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1086**	**Date Collected:**	**12/22/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**1202007171**	**Date Received:**	**12/24/2009 09:30**	**%Moisture:**	**7.4**
Client Sample:	**QC for batch 937989**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**RE03-09-14233PS**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937990**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**01/04/2010 16:11**	**Analyst:**	**RXM4**	**Purge Vol:**	**5 mL**
Prep Date:	**01/04/2010 15:00**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1u115.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane		62.4	ug/kg	0.367	1.08
74-87-3	Chloromethane		61.0	ug/kg	0.324	1.08
75-01-4	Vinyl chloride		57.0	ug/kg	0.324	1.08
74-83-9	Bromomethane		54.0	ug/kg	0.324	1.08
75-00-3	Chloroethane		56.7	ug/kg	0.324	1.08
75-69-4	Trichlorofluoromethane		70.3	ug/kg	0.324	1.08
67-64-1	Acetone		231	ug/kg	1.79	5.40
75-35-4	1,1-Dichloroethylene		56.5	ug/kg	0.324	1.08
74-88-4	Iodomethane		239	ug/kg	1.73	5.40
75-09-2	Methylene chloride		46.7	ug/kg	2.16	5.40
75-15-0	Carbon disulfide		285	ug/kg	1.35	5.40
156-60-5	trans-1,2-Dichloroethylene		51.2	ug/kg	0.324	1.08
75-34-3	1,1-Dichloroethane		52.4	ug/kg	0.324	1.08
78-93-3	2-Butanone		238	ug/kg	1.62	5.40
156-59-2	cis-1,2-Dichloroethylene		50.2	ug/kg	0.324	1.08
594-20-7	2,2-Dichloropropane		63.8	ug/kg	0.324	1.08
67-66-3	Chloroform		52.6	ug/kg	0.324	1.08
74-97-5	Bromochloromethane		48.6	ug/kg	0.356	1.08
71-55-6	1,1,1-Trichloroethane		61.6	ug/kg	0.324	1.08
563-58-6	1,1-Dichloropropene		57.1	ug/kg	0.324	1.08
56-23-5	Carbon tetrachloride		62.7	ug/kg	0.324	1.08
107-06-2	1,2-Dichloroethane		55.3	ug/kg	0.324	1.08
71-43-2	Benzene		51.5	ug/kg	0.324	1.08
79-01-6	Trichloroethylene		53.2	ug/kg	0.356	1.08
78-87-5	1,2-Dichloropropane		53.0	ug/kg	0.324	1.08
75-27-4	Bromodichloromethane		55.8	ug/kg	0.324	1.08
74-95-3	Dibromomethane		52.5	ug/kg	0.324	1.08
108-10-1	4-Methyl-2-pentanone		269	ug/kg	1.35	5.40
10061-01-5	cis-1,3-Dichloropropylene		56.1	ug/kg	0.324	1.08
108-88-3	Toluene		45.5	ug/kg	0.324	1.08
10061-02-6	trans-1,3-Dichloropropylene		54.5	ug/kg	0.324	1.08
79-00-5	1,1,2-Trichloroethane		49.4	ug/kg	0.324	1.08
591-78-6	2-Hexanone		246	ug/kg	1.62	5.40
142-28-9	1,3-Dichloropropane		48.9	ug/kg	0.324	1.08
127-18-4	Tetrachloroethylene		49.6	ug/kg	0.324	1.08
124-48-1	Dibromochloromethane		51.1	ug/kg	0.324	1.08
106-93-4	1,2-Dibromoethane		49.7	ug/kg	0.324	1.08
108-90-7	Chlorobenzene		47.3	ug/kg	0.324	1.08

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1086**	**Date Collected:**	**12/22/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**1202007171**	**Date Received:**	**12/24/2009 09:30**	**%Moisture:**	**7.4**
Client Sample:	**QC for batch 937989**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**RE03-09-14233PS**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937990**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**01/04/2010 16:11**	**Analyst:**	**RXM4**	**Purge Vol:**	**5 mL**
Prep Date:	**01/04/2010 15:00**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1u115.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene		49.3	ug/kg	0.324	1.08
179601-23-1	m,p-Xylenes		98.6	ug/kg	0.324	2.16
95-47-6	o-Xylene		48.4	ug/kg	0.324	1.08
100-42-5	Styrene		47.3	ug/kg	0.324	1.08
75-25-2	Bromoform		43.8	ug/kg	0.324	1.08
79-34-5	1,1,2,2-Tetrachloroethane		50.8	ug/kg	0.324	1.08
96-18-4	1,2,3-Trichloropropane		50.2	ug/kg	0.324	1.08
108-86-1	Bromobenzene		44.2	ug/kg	0.324	1.08
103-65-1	n-Propylbenzene		48.6	ug/kg	0.324	1.08
95-49-8	2-Chlorotoluene		46.9	ug/kg	0.324	1.08
98-82-8	Isopropylbenzene		49.8	ug/kg	0.324	1.08
108-67-8	1,3,5-Trimethylbenzene		46.0	ug/kg	0.324	1.08
106-43-4	4-Chlorotoluene		46.5	ug/kg	0.324	1.08
98-06-6	tert-Butylbenzene		44.6	ug/kg	0.324	1.08
95-63-6	1,2,4-Trimethylbenzene		46.6	ug/kg	0.324	1.08
135-98-8	sec-Butylbenzene		47.4	ug/kg	0.324	1.08
99-87-6	4-Isopropyltoluene		47.9	ug/kg	0.324	1.08
541-73-1	1,3-Dichlorobenzene		45.3	ug/kg	0.324	1.08
106-46-7	1,4-Dichlorobenzene		45.9	ug/kg	0.324	1.08
104-51-8	n-Butylbenzene		50.3	ug/kg	0.324	1.08
96-12-8	1,2-Dibromo-3-chloropropane		51.2	ug/kg	0.324	1.08
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.40	ug/kg	1.73	5.40
630-20-6	1,1,1,2-Tetrachloroethane		50.8	ug/kg	0.324	1.08
95-50-1	1,2-Dichlorobenzene		46.4	ug/kg	0.324	1.08

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VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/010410v1/1u115.d
Lab Smp Id: 1202007171 Client Smp ID: RE03-09-14233MS
Inj Date : 04-JAN-2010 16:11
Operator : RXM4 Inst ID: VOA1.i
Smp Info : |1202007171|937990|1|VOAF|1|
Misc Info : LANL 5G N/A MS 243552001
Comment :
Method : /chem/VOA1.i/010410v1/VOA1-8260ox-121709.m
Meth Date : 18-Jan-2010 17:56 jeb Quant Type: ISTD
Cal Date : 17-DEC-2009 21:27 Cal File: 1r425.d
Als bottle: 15 QC Sample: MS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-1086.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	7.39220	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
* 52 Fluorobenzene	96	13.668	13.682	(1.000)	872754	50.0000	
* 76 Chlorobenzene-d5	117	17.152	17.152	(1.000)	664255	50.0000	
* 102 1,4-Dichlorobenzene-d4	152	19.601	19.606	(1.000)	372825	50.0000	
$ 48 1,2-Dichloroethane-d4	65	13.327	13.336	(0.975)	674374	64.6702	69.8
$ 65 Toluene-d8	98	15.505	15.509	(0.904)	1728174	46.7016	50.4
$ 87 Bromofluorobenzene	95	18.381	18.381	(0.938)	702216	47.0609	50.8
5 Dichlorodifluoromethane	85	4.990	5.019	(0.365)	285509	57.8192	62.4
6 Chloromethane	50	5.542	5.564	(0.406)	512275	56.4715	61.0
7 Vinyl chloride	62	5.922	5.937	(0.433)	398270	52.8026	57.0
9 Bromomethane	96	6.943	6.966	(0.508)	246156	49.9908	54.0
10 Chloroethane	64	7.205	7.228	(0.527)	276782	52.5273	56.7
11 Trichlorofluoromethane	101	7.822	7.841	(0.572)	508918	65.1192	70.3

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
16 Acetone	43	9.235	9.249	(0.676)	1127631	213.574	231
15 1,1-Dichloroethylene	61	9.074	9.093	(0.664)	638860	52.3168	56.5
103 1,4-Dichlorobenzene	146	19.629	19.634	(1.001)	739360	42.5336	45.9
18 Iodomethane	142	9.456	9.470	(0.692)	2146020	221.778	239
23 Methylene chloride	84	10.124	10.142	(0.741)	343861	43.2477	46.7
19 Carbon disulfide	76	9.562	9.576	(0.700)	5241930	263.836	285
26 trans-1,2-Dichloroethylene	96	10.533	10.547	(0.771)	320968	47.3840	51.2
30 1,1-Dichloroethane	63	11.302	11.320	(0.827)	660575	48.5520	52.4
35 2-Butanone	43	12.167	12.177	(0.890)	1302588	220.478	238
36 cis-1,2-Dichloroethylene	96	12.186	12.200	(0.892)	346145	46.4472	50.2
101 1,3-Dichlorobenzene	146	19.532	19.537	(0.996)	714883	41.9188	45.3
33 2,2-Dichloropropane	77	12.149	12.154	(0.889)	468368	59.0528	63.8
41 Chloroform	83	12.595	12.609	(0.922)	645025	48.6750	52.6
106 1,2-Dichlorobenzene	146	20.071	20.071	(1.024)	696807	42.9995	46.4
39 Bromochloromethane	128	12.545	12.554	(0.918)	144402	45.0244	48.6
43 1,1,1-Trichloroethane	97	12.835	12.839	(0.939)	504344	57.0219	61.6
45 1,1-Dichloropropene	75	13.033	13.047	(0.954)	513310	52.9059	57.1
44 Carbon tetrachloride	117	13.010	13.019	(0.952)	507710	58.0502	62.7
51 1,2-Dichloroethane	62	13.429	13.433	(0.982)	536783	51.2117	55.3
47 Benzene	78	13.323	13.327	(0.975)	1351276	47.7143	51.5
54 Trichloroethylene	95	14.105	14.114	(1.032)	356855	49.2236	53.2
57 1,2-Dichloropropane	63	14.446	14.455	(1.057)	381510	49.0952	53.0
60 Bromodichloromethane	83	14.740	14.745	(1.078)	504607	51.6887	55.8
59 Dibromomethane	93	14.612	14.621	(1.069)	212910	48.6109	52.5
64 4-Methyl-2-pentanone	58	15.348	15.353	(0.895)	808568	249.173	269
63 cis-1,3-Dichloropropylene	75	15.242	15.251	(1.115)	592162	51.9396	56.1
66 Toluene	92	15.583	15.592	(0.908)	814510	42.1559	45.5
68 trans-1,3-Dichloropropylene	75	15.868	15.873	(0.925)	567791	50.5055	54.5
69 1,1,2-Trichloroethane	83	16.094	16.098	(0.938)	253161	45.7773	49.4
71 2-Hexanone	43	16.259	16.264	(0.948)	1887976	227.995	246
72 1,3-Dichloropropane	76	16.296	16.301	(0.950)	531691	45.2856	48.9
70 Tetrachloroethylene	164	16.181	16.181	(0.943)	270325	45.9031	49.6
73 Dibromochloromethane	129	16.540	16.540	(0.964)	328767	47.3549	51.1
74 1,2-Dibromoethane	107	16.720	16.724	(0.975)	286777	45.9833	49.6
77 Chlorobenzene	112	17.185	17.189	(1.002)	883795	43.7783	47.3
79 1,1,1,2-Tetrachloroethane	131	17.249	17.254	(1.006)	316998	47.0212	50.8
78 Ethylbenzene	91	17.212	17.212	(1.003)	1692235	45.6995	49.3
80 m,p-Xylenes	106	17.327	17.332	(1.010)	1230573	91.3226	98.6
81 o-Xylene	106	17.774	17.778	(1.036)	588209	44.7900	48.4
82 Styrene	104	17.792	17.797	(1.037)	967357	43.7812	47.3
83 Bromoform	173	18.096	18.101	(0.923)	212316	40.5987	43.8
88 1,1,2,2-Tetrachloroethane	83	18.501	18.501	(0.944)	417054	47.0784	50.8
92 1,2,3-Trichloropropane	110	18.598	18.602	(0.949)	106532	46.4643	50.2(Q)
91 Bromobenzene	156	18.584	18.589	(0.948)	359029	40.9130	44.2
89 n-Propylbenzene	91	18.552	18.556	(0.946)	2060414	45.0368	48.6
94 2-Chlorotoluene	91	18.736	18.736	(0.956)	1383957	43.4468	46.9
84 Isopropylbenzene	105	18.119	18.124	(0.924)	1694151	46.0754	49.8

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
93 1,3,5-Trimethylbenzene	105	18.713	18.713	(0.955)	1361254	42.6151	46.0
95 4-Chlorotoluene	91	18.846	18.851	(0.961)	1241866	43.0348	46.5
96 tert-Butylbenzene	119	19.067	19.072	(0.973)	1083383	41.3386	44.6
97 1,2,4-Trimethylbenzene	105	19.127	19.132	(0.976)	1425042	43.1962	46.6
99 sec-Butylbenzene	105	19.293	19.297	(0.984)	1844861	43.9325	47.4
100 4-Isopropyltoluene	119	19.413	19.417	(0.990)	1412925	44.3679	47.9
105 n-Butylbenzene	91	19.859	19.864	(1.013)	1570974	46.6073	50.3
108 1,2-Dibromo-3-chloropropane	157	20.991	20.996	(1.071)	76747	47.4345	51.2

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: /chem/VOA1.i/010410v1/1u115.d
Date : 04-JAN-2010 16:11
Client ID: RE03-09-14223WS
Sample Info: 1120200717119379901111VOAF111
Column phase: RTX-Volatiles

Instrument: VOA1.i
Operator: RXH4
Column diameter: 0.25

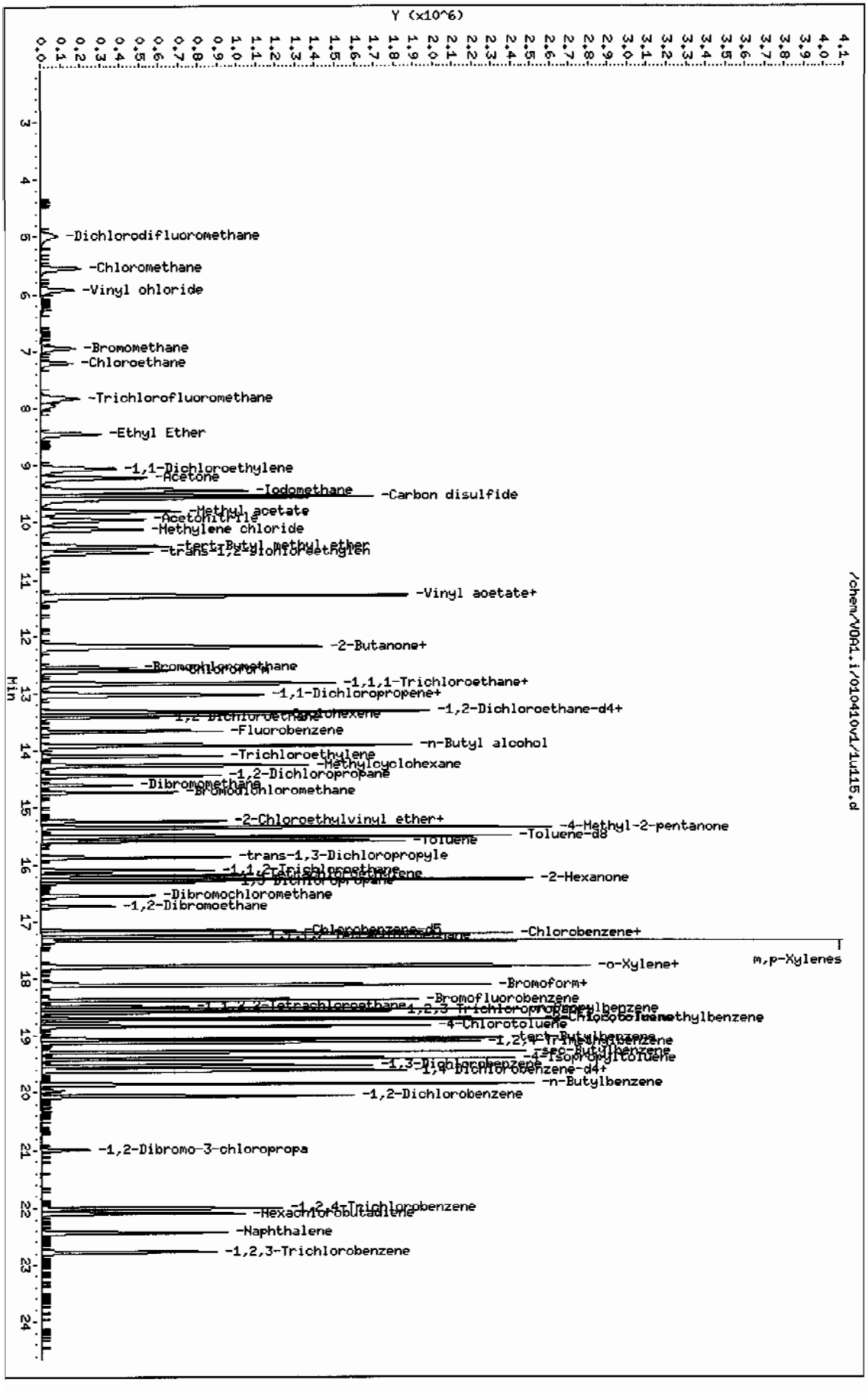

Page 1

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1086**	**Date Collected:**	**12/22/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**1202007172**	**Date Received:**	**12/24/2009 09:30**	**%Moisture:**	**7.4**
Client Sample:	**QC for batch 937989**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**RE03-09-14233PSD**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937990**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**01/04/2010 16:42**	**Analyst:**	**RXM4**	**Purge Vol:**	**5 mL**
Prep Date:	**01/04/2010 15:01**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1u116.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane		43.1	ug/kg	0.367	1.08
74-87-3	Chloromethane		46.2	ug/kg	0.324	1.08
75-01-4	Vinyl chloride		43.4	ug/kg	0.324	1.08
74-83-9	Bromomethane		43.4	ug/kg	0.324	1.08
75-00-3	Chloroethane		44.0	ug/kg	0.324	1.08
75-69-4	Trichlorofluoromethane		52.2	ug/kg	0.324	1.08
67-64-1	Acetone		185	ug/kg	1.79	5.40
75-35-4	1,1-Dichloroethylene		44.6	ug/kg	0.324	1.08
74-88-4	Iodomethane		208	ug/kg	1.73	5.40
75-09-2	Methylene chloride		36.7	ug/kg	2.16	5.40
75-15-0	Carbon disulfide		235	ug/kg	1.35	5.40
156-60-5	trans-1,2-Dichloroethylene		41.6	ug/kg	0.324	1.08
75-34-3	1,1-Dichloroethane		41.5	ug/kg	0.324	1.08
78-93-3	2-Butanone		185	ug/kg	1.62	5.40
156-59-2	cis-1,2-Dichloroethylene		39.6	ug/kg	0.324	1.08
594-20-7	2,2-Dichloropropane		47.5	ug/kg	0.324	1.08
67-66-3	Chloroform		42.0	ug/kg	0.324	1.08
74-97-5	Bromochloromethane		42.0	ug/kg	0.356	1.08
71-55-6	1,1,1-Trichloroethane		47.1	ug/kg	0.324	1.08
563-58-6	1,1-Dichloropropene		45.1	ug/kg	0.324	1.08
56-23-5	Carbon tetrachloride		49.4	ug/kg	0.324	1.08
107-06-2	1,2-Dichloroethane		43.4	ug/kg	0.324	1.08
71-43-2	Benzene		41.3	ug/kg	0.324	1.08
79-01-6	Trichloroethylene		42.7	ug/kg	0.356	1.08
78-87-5	1,2-Dichloropropane		42.4	ug/kg	0.324	1.08
75-27-4	Bromodichloromethane		42.7	ug/kg	0.324	1.08
74-95-3	Dibromomethane		41.9	ug/kg	0.324	1.08
108-10-1	4-Methyl-2-pentanone		211	ug/kg	1.35	5.40
10061-01-5	cis-1,3-Dichloropropylene		44.0	ug/kg	0.324	1.08
108-88-3	Toluene		39.2	ug/kg	0.324	1.08
10061-02-6	trans-1,3-Dichloropropylene		44.2	ug/kg	0.324	1.08
79-00-5	1,1,2-Trichloroethane		39.6	ug/kg	0.324	1.08
591-78-6	2-Hexanone		189	ug/kg	1.62	5.40
142-28-9	1,3-Dichloropropane		37.3	ug/kg	0.324	1.08
127-18-4	Tetrachloroethylene		40.4	ug/kg	0.324	1.08
124-48-1	Dibromochloromethane		42.3	ug/kg	0.324	1.08
106-93-4	1,2-Dibromoethane		42.7	ug/kg	0.324	1.08
108-90-7	Chlorobenzene		38.7	ug/kg	0.324	1.08

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1086**	**Date Collected:**	**12/22/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**1202007172**	**Date Received:**	**12/24/2009 09:30**	**%Moisture:**	**7.4**
Client Sample:	**QC for batch 937989**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**RE03-09-14233PSD**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937990**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**01/04/2010 16:42**	**Analyst:**	**RXM4**	**Purge Vol:**	**5 mL**
Prep Date:	**01/04/2010 15:01**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1u116.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene		39.7	ug/kg	0.324	1.08
179601-23-1	m,p-Xylenes		80.3	ug/kg	0.324	2.16
95-47-6	o-Xylene		39.9	ug/kg	0.324	1.08
100-42-5	Styrene		40.3	ug/kg	0.324	1.08
75-25-2	Bromoform		34.7	ug/kg	0.324	1.08
79-34-5	1,1,2,2-Tetrachloroethane		42.0	ug/kg	0.324	1.08
96-18-4	1,2,3-Trichloropropane		41.0	ug/kg	0.324	1.08
108-86-1	Bromobenzene		38.1	ug/kg	0.324	1.08
103-65-1	n-Propylbenzene		38.5	ug/kg	0.324	1.08
95-49-8	2-Chlorotoluene		37.3	ug/kg	0.324	1.08
98-82-8	Isopropylbenzene		39.9	ug/kg	0.324	1.08
108-67-8	1,3,5-Trimethylbenzene		38.7	ug/kg	0.324	1.08
106-43-4	4-Chlorotoluene		38.4	ug/kg	0.324	1.08
98-06-6	tert-Butylbenzene		36.2	ug/kg	0.324	1.08
95-63-6	1,2,4-Trimethylbenzene		36.9	ug/kg	0.324	1.08
135-98-8	sec-Butylbenzene		38.6	ug/kg	0.324	1.08
99-87-6	4-Isopropyltoluene		36.3	ug/kg	0.324	1.08
541-73-1	1,3-Dichlorobenzene		38.9	ug/kg	0.324	1.08
106-46-7	1,4-Dichlorobenzene		36.4	ug/kg	0.324	1.08
104-51-8	n-Butylbenzene		38.7	ug/kg	0.324	1.08
96-12-8	1,2-Dibromo-3-chloropropane		40.9	ug/kg	0.324	1.08
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.40	ug/kg	1.73	5.40
630-20-6	1,1,1,2-Tetrachloroethane		41.8	ug/kg	0.324	1.08
95-50-1	1,2-Dichlorobenzene		38.9	ug/kg	0.324	1.08

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/010410v1/1u116.d
Lab Smp Id: 1202007172 Client Smp ID: RE03-09-14233MSD
Inj Date : 04-JAN-2010 16:42
Operator : RXM4 Inst ID: VOA1.i
Smp Info : |1202007172|937990|1|VOAF|1|
Misc Info : LANL 5G N/A MS 243552001
Comment :
Method : /chem/VOA1.i/010410v1/VOA1-8260ox-121709.m
Meth Date : 18-Jan-2010 17:56 jeb Quant Type: ISTD
Cal Date : 17-DEC-2009 21:27 Cal File: 1r425.d
Als bottle: 16 QC Sample: MSD
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	7.39220	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
M 1 Xylenes (total)	106				1847577	111.349	120
M 2 1,2-Dichloroethylene (total)	96				680341	75.2312	81.2
M 3 1,3-Dichloropropylene	75				1162720	81.6771	88.2
5 Dichlorodifluoromethane	85	4.990	5.019	(0.365)	250507	39.9384	43.1
6 Chloromethane	50	5.550	5.564	(0.406)	494244	42.8059	46.2
7 Vinyl chloride	62	5.922	5.937	(0.433)	385965	40.2033	43.4
9 Bromomethane	96	6.947	6.966	(0.508)	251773	40.1721	43.4
10 Chloroethane	64	7.214	7.228	(0.527)	273536	40.7847	44.0
11 Trichlorofluoromethane	101	7.836	7.841	(0.573)	481036	48.3587	52.2
12 Ethyl Ether	59	8.471	8.476	(0.619)	306293	36.8727	39.8
15 1,1-Dichloroethylene	61	9.079	9.093	(0.664)	642512	41.3383	44.6
16 Acetone	43	9.244	9.249	(0.676)	1150799	171.245	185

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
18 Iodomethane	142	9.461	9.470	(0.692)	2366775	192.166	208
19 Carbon disulfide	76	9.571	9.576	(0.700)	5499915	217.488	235
21 Methyl acetate	43	9.829	9.829	(0.719)	1606713	250.383	270
22 Acetonitrile	41	9.972	9.967	(0.729)	1193671	1078.07	1160
23 Methylene chloride	84	10.133	10.142	(0.741)	344584	34.0294	36.7
25 tert-Butyl methyl ether	73	10.432	10.437	(0.763)	929478	37.2887	40.3
26 trans-1,2-Dichloroethylene	96	10.538	10.547	(0.770)	332053	38.5135	41.6
29 Vinyl acetate	43	11.288	11.288	(0.825)	2965979	193.405	209
30 1,1-Dichloroethane	63	11.316	11.320	(0.827)	664782	38.3884	41.4
33 2,2-Dichloropropane	77	12.158	12.154	(0.889)	444075	43.9892	47.5
35 2-Butanone	43	12.181	12.177	(0.891)	1285454	170.943	184
36 cis-1,2-Dichloroethylene	96	12.195	12.200	(0.892)	348288	36.7177	39.6
39 Bromochloromethane	128	12.554	12.554	(0.918)	158632	38.8599	42.0(Q)
41 Chloroform	83	12.605	12.609	(0.922)	655597	38.8690	42.0
42 Cyclohexane	56	12.835	12.835	(0.938)	694334	42.4298	45.8
43 1,1,1-Trichloroethane	97	12.839	12.839	(0.939)	491551	43.6636	47.1
44 Carbon tetrachloride	117	13.019	13.019	(0.952)	509432	45.7626	49.4
45 1,1-Dichloropropene	75	13.042	13.047	(0.954)	515475	41.7415	45.1
47 Benzene	78	13.327	13.327	(0.974)	1377020	38.2016	41.2
$ 48 1,2-Dichloroethane-d4	65	13.332	13.336	(0.975)	691483	52.0980	56.2
50 Cyclohexene	54	13.387	13.392	(0.979)	524865	41.4182	44.7
51 1,2-Dichloroethane	62	13.433	13.433	(0.982)	536605	40.2217	43.4
* 52 Fluorobenzene	96	13.677	13.682	(1.000)	1110851	50.0000	
53 n-Butyl alcohol	56	14.275	13.926	(1.044)	184640	861.363	930(QR)
54 Trichloroethylene	95	14.110	14.114	(1.032)	365094	39.5660	42.7
55 Methylcyclohexane	83	14.275	14.276	(1.044)	619730	41.0889	44.4
57 1,2-Dichloropropane	63	14.455	14.455	(1.057)	388575	39.2865	42.4
59 Dibromomethane	93	14.621	14.621	(1.069)	216382	38.8145	41.9
60 Bromodichloromethane	83	14.745	14.745	(1.078)	491178	39.5291	42.7
63 cis-1,3-Dichloropropylene	75	15.251	15.251	(1.115)	591416	40.7556	44.0
64 4-Methyl-2-pentanone	58	15.353	15.353	(0.895)	786036	195.057	211
$ 65 Toluene-d8	98	15.514	15.509	(0.904)	2037350	44.3347	47.9
66 Toluene	92	15.587	15.592	(0.909)	870272	36.2703	39.2
68 trans-1,3-Dichloropropylene	75	15.873	15.873	(0.925)	571304	40.9215	44.2
69 1,1,2-Trichloroethane	83	16.098	16.098	(0.939)	251951	36.6863	39.6
70 Tetrachloroethylene	164	16.181	16.181	(0.943)	273763	37.4339	40.4
71 2-Hexanone	43	16.259	16.264	(0.948)	1795465	174.599	188
72 1,3-Dichloropropane	76	16.301	16.301	(0.950)	504306	34.5883	37.3
73 Dibromochloromethane	129	16.545	16.540	(0.965)	337605	39.1579	42.3
74 1,2-Dibromoethane	107	16.720	16.724	(0.975)	306296	39.5486	42.7
* 76 Chlorobenzene-d5	117	17.152	17.152	(1.000)	824899	50.0000	
77 Chlorobenzene	112	17.185	17.189	(1.002)	898073	35.8223	38.7
78 Ethylbenzene	91	17.212	17.212	(1.003)	1690286	36.7574	39.7
79 1,1,1,2-Tetrachloroethane	131	17.249	17.254	(1.006)	324343	38.7415	41.8
80 m,p-Xylenes	106	17.327	17.332	(1.010)	1244905	74.3946	80.3
81 o-Xylene	106	17.774	17.778	(1.036)	602672	36.9542	39.9
82 Styrene	104	17.801	17.797	(1.038)	1023563	37.3035	40.3

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
83 Bromoform	173	18.386	18.101	(0.938)	5156	2.10030	2.3(QR)
84 Isopropylbenzene	105	18.124	18.124	(0.924)	1702689	36.9174	39.9
$ 87 Bromofluorobenzene	95	18.386	18.381	(0.938)	814897	43.5382	47.0
88 1,1,2,2-Tetrachloroethane	83	18.501	18.501	(0.944)	432496	38.9216	42.0
89 n-Propylbenzene	91	18.552	18.556	(0.946)	2048486	35.6964	38.5
91 Bromobenzene	156	18.584	18.589	(0.948)	388634	35.3062	38.1
92 1,2,3-Trichloropropane	110	18.598	18.602	(0.949)	109196	37.9686	41.0(Q)
93 1,3,5-Trimethylbenzene	105	18.713	18.713	(0.954)	1434742	35.8077	38.7
94 2-Chlorotoluene	91	18.736	18.736	(0.956)	1380749	34.5564	37.3
95 4-Chlorotoluene	91	18.846	18.851	(0.961)	1285932	35.5256	38.4
96 tert-Butylbenzene	119	19.072	19.072	(0.973)	1102586	33.5402	36.2
97 1,2,4-Trimethylbenzene	105	19.132	19.132	(0.976)	1412973	34.1452	36.9
99 sec-Butylbenzene	105	19.293	19.297	(0.984)	1883802	35.7632	38.6
100 4-Isopropyltoluene	119	19.417	19.417	(0.990)	1343021	33.6210	36.3
101 1,3-Dichlorobenzene	146	19.537	19.537	(0.996)	771025	36.0430	38.9
* 102 1,4-Dichlorobenzene-d4	152	19.606	19.606	(1.000)	467656	50.0000	
103 1,4-Dichlorobenzene	146	19.633	19.634	(1.001)	734082	33.6666	36.4
105 n-Butylbenzene	91	19.864	19.864	(1.013)	1514671	35.8246	38.7
106 1,2-Dichlorobenzene	146	20.071	20.071	(1.024)	731638	35.9936	38.9
108 1,2-Dibromo-3-chloropropane	157	20.996	20.996	(1.071)	75887	37.8392	40.8
109 1,2,4-Trichlorobenzene	180	22.013	22.018	(1.123)	479813	41.9314	45.3
110 Hexachlorobutadiene	225	22.101	22.101	(1.127)	274731	35.9014	38.8
111 Naphthalene	128	22.427	22.432	(1.144)	976905	39.7876	43.0
112 1,2,3-Trichlorobenzene	180	22.777	22.777	(1.162)	396171	46.3342	50.0

QC Flag Legend

Q - Qualifier signal failed the ratio test.
R - Spike/Surrogate failed recovery limits.

Data File: /chem/VOA1.i/010410v1/1u116.d
Date : 04-JAN-2010 16:42
Client ID: RE03-09-14233MSD
Sample Info: 1120207172193799011|VOAF|1|
Column phase: RTX-Volatiles

Instrument: VOA1.i
Operator: RXM4
Column diameter: 0.25

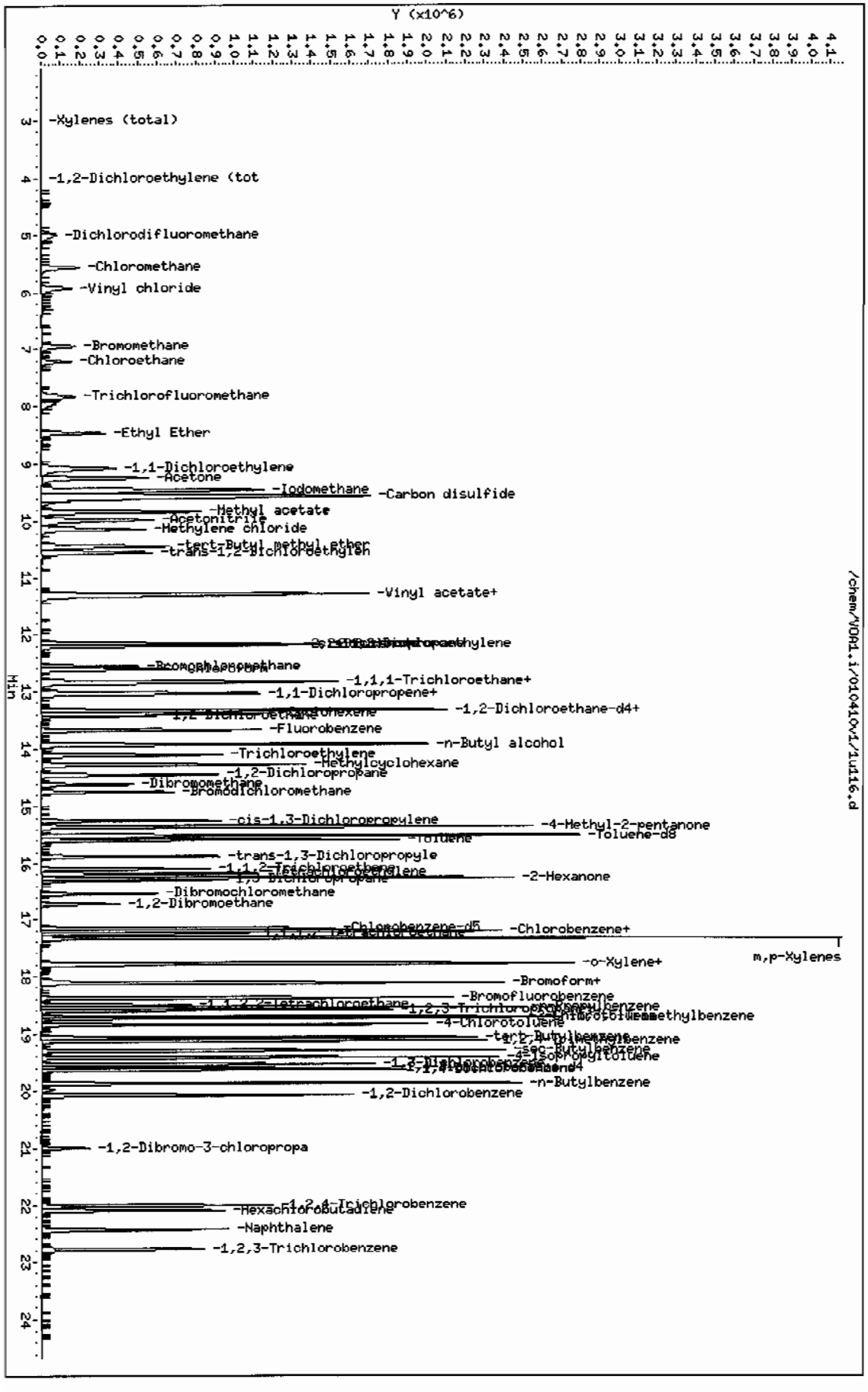

Page 1

Miscellaneous Data

Prep Logbook

Volatile Organic Compounds (VOC) by Gas Chromatograph/Mass Spectrometer

Batch ID: **937989** Verified by: _____

Analyst: Ronda Eagle
Method: SW846 5030
Lab SOP: GL-OA-E-038 REV# 13
Instrument: Sartorius Balance B-001

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units

Sample ID	Run Date	Matrix	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check 1
1202007170 MB	04-JAN-2010 07:00:00	Soil	5	5	1	
1202007175 LCS	04-JAN-2010 07:01:00	Soil	5	5	1	
1202007176 LCS	04-JAN-2010 07:02:00	Soil	5	5	1	
243552006	04-JAN-2010 10:12:00	Soil	5	5	1	
243552008	04-JAN-2010 14:12:00	Soil	5	5	1	
1202007171 PS (243552001)	04-JAN-2010 15:00:00	Soil	5	5	1	
1202007172 PSD (243552001)	04-JAN-2010 15:01:00	Soil	5	5	1	
1202007169 MB	31-DEC-2009 07:00:00	Soil	5	5	1	
1202007173 LCS	31-DEC-2009 07:01:00	Soil	5	5	1	
1202007174 LCS	31-DEC-2009 07:02:00	Soil	5	5	1	
243552001	31-DEC-2009 11:51:00	Soil	5	5	1	
243552002	31-DEC-2009 11:52:00	Soil	5	5	1	
243552003	31-DEC-2009 11:53:00	Soil	5	5	1	
243552004	31-DEC-2009 11:54:00	Soil	5	5	1	
243552005	31-DEC-2009 11:55:00	Soil	5	5	1	
243552007	31-DEC-2009 11:57:00	Soil	5	5	1	
243552009	31-DEC-2009 11:59:00	Soil	5	5	1	
243552010	31-DEC-2009 12:00:00	Soil	5	5	1	
243552011	31-DEC-2009 12:01:00	Soil	5	5	1	
243552012	31-DEC-2009 12:02:00	Soil	5	5	1	
243552013	31-DEC-2009 12:03:00	Soil	5	5	1	
243552014	31-DEC-2009 12:04:00	Soil	5	5	1	
243552015	31-DEC-2009 12:05:00	Soil	5	5	1	
243552016	31-DEC-2009 12:06:00	Soil	5	5	1	
243552017	31-DEC-2009 12:07:00	Soil	5	5	1	

Reagent/Solvent Lot ID	Description	Amount

Comments:

GEL Laboratories, LLC
Revision:11/22/04

ORGANIC RUN LOG - INSTRUMENT ID#VOA1

Date: 12/17/2009 Method 8260B/624 Operator: RJE

REVIEWED BY: _____
DATE: _____

HARDWARE CONFIGURATION & METHOD CONDITIONS SUMMARY No# 2

Daily Instrument Readings:
Multiplier Voltage: 1306

CALIBRATION & CC INFORMATION:

Initial Calibration Date: 12/17/2009

(See pg. 293 for ICAL Std. Sci. Ids)

NaHSO4 lot # N/A

Cl test lot # 84515

Sequence Number: 121709v1

Daily Standard Solution ID#		Volume Added for Purge (ul) Smpl	CCV	LCS	BFB
ICV	W1VM091217-18		5+5		
IS	UVM091203-01	1	1	1	
SS	UVM091117-02	1	1	1	
	N/A			5+5	
BFB	UVM091117-02				1
SHORT	W1VM091217-20		5+5	5+5	

Purge Amount	
5	Water Purge Vol:ML
5	Soil Purge Wt.:G
	Mid level ext. MeOH Vol:
N/A	ul
N/A	Methanol Lot #
X	Heated Purge

Analysis Date Time	Data File	Lab Sample ID	Client	Batch #	Wt.(g) or Vol(ml/ul)	Dil. Factor	pH	AS Slot #	Matrix w or s	Analyst	Cl test (Y/N)	Acceptable O/X	Comments
12/17/2009 7:38	1R401.D	UVM090821-02	GEL	BFB	5ML	1	N/A	1	W	RXM4	N/A	X	See 1R408
12/17/2009 8:08	1R402.D	W1VM091217-01	GEL	CCV/LCS	5G	1	N/A	2	S	RXM4	N/A	X	UVM091129-01D/IVM091214-01
12/17/2009 9:24	1R403.D	W1VM091217-02	GEL	CCV/LCS	5G	1	N/A	3	S	RXM4	N/A	X	UVM091129-01E/IVM091214-01
12/17/2009 9:54	1R404.D	W1VM091217-03	GEL	LCS	5G	1	N/A	4	S	RXM4	N/A	X	UVM091129-01E/IVM091214-01
12/17/2009 10:24	1R405.D	W1VM091217-04	GEL	SHORT	5G	1	N/A	5	S	RXM4	N/A	X	UVM091118-01C/UVM091105-02E
12/17/2009 10:54	1R406.D	12019---	GEL	BLANK	5G	1	N/A	6	S	RXM4	N/A	X	
12/17/2009 12:25	1R407.D	12019---	GEL	BLANK	5ML	1	N/A	1	W	RXM4	N/A	X	
12/17/2009 12:56	1R408.D	UVM091117-02	GEL	BFB	5ML	1	N/A	2	W	RXM4	N/A	O	
12/17/2009 13:26	1R409.D	W1VM091217-04	GEL	VSTD0005	5ML	1	N/A	3	W	RXM4	N/A	O	UVM090911-01D/UVM091130-01B
12/17/2009 13:56	1R410.D	W1VM091217-05	GEL	VSTD0005	5ML	1	N/A	4	W	RXM4	N/A	X	UVM090911-01D/UVM091130-01B: not needed
12/17/2009 14:26	1R411.D	W1VM091217-06	GEL	VSTD001	5ML	1	N/A	5	W	RXM4	N/A	O	UVM090911-02D/UVM091130-02B
12/17/2009 14:57	1R412.D	W1VM091217-07	GEL	VSTD001	5ML	1	N/A	6	W	RXM4	N/A	X	UVM090911-02D/UVM091130-02B: not needed
12/17/2009 15:27	1R413.D	W1VM091217-08	GEL	VSTD002	5ML	1	N/A	7	W	RXM4	N/A	O	UVM090911-03D/UVM091130-03B
12/17/2009 15:57	1R414.D	W1VM091217-09	GEL	VSTD005	5ML	1	N/A	8	W	RXM4	N/A	O	UVM090911-04D/UVM091130-04B
12/17/2009 16:26	1R415.D	W1VM091217-10	GEL	VSTD010	5ML	1	N/A	9	W	RXM4	N/A	O	UVM090911-05D/UVM091130-05B
12/17/2009 16:56	1R416.D	W1VM091217-11	GEL	VSTD020	5ML	1	N/A	10	W	RXM4	N/A	O	UVM090911-06D/UVM091130-06B
12/17/2009 17:26	1R417.D	W1VM091217-12	GEL	VSTD050	5ML	1	N/A	11	W	RXM4	N/A	O	UVM090911-07D/UVM091130-07B
12/17/2009 17:56	1R418.D	W1VM091217-13	GEL	VSTD100	5ML	1	N/A	12	W	RXM4	N/A	O	UVM090911-08D/UVM091130-08B
12/17/2009 18:26	1R419.D	12019---	GEL	BLANK	5ML	1	N/A	13	W	RXM4	N/A	X	instrument rinse
12/17/2009 18:56	1R420.D	W1VM091217-14	GEL	VSTD005S	5ML	1	N/A	14	W	RXM4	N/A	O	UVM091118-01/UVM091110-01D
12/17/2009 19:26	1R421.D	W1VM091217-15	GEL	VSTD010S	5ML	1	N/A	15	W	RXM4	N/A	O	UVM091118-02/UVM091110-02D
12/17/2009 19:56	1R422.D	W1VM091217-16	GEL	VSTD025S	5ML	1	N/A	16	W	RXM4	N/A	O	UVM091118-03/UVM091110-03D
12/17/2009 20:27	1R423.D	W1VM091217-17	GEL	VSTD050S	5ML	1	N/A	17	W	RXM4	N/A	O	UVM091118-04/UVM091110-04D
12/17/2009 20:57	1R424.D	W1VM091217-18	GEL	VSTD100S	5ML	1	N/A	18	W	RXM4	N/A	O	UVM091118-05/UVM091110-05D
12/17/2009 21:27	1R425.D	W1VM091217-19	GEL	VSTD250S	5ML	1	N/A	19	W	RXM4	N/A	O	UVM091118-06/UVM091110-06D
12/17/2009 21:57	1R426.D	W1VM091217-20	GEL	VSTD500S	5ML	1	N/A	20	W	RXM4	N/A	O	UVM091118-07/UVM091110-07D
12/17/2009 22:27	1R427.D	12019---	GEL	BLANK	5ML	1	N/A	21	W	RXM4	N/A	X	instrument rinse
12/17/2009 22:57	1R428.D	W1VM091217-18	GEL	ICV	5ML	1	N/A	22	W	RXM4	N/A	O	UVM091129-01D/IVM091214-01
12/17/2009 23:27	1R429.D	W1VM091217-19	GEL	ICV	5ML	1	N/A	23	W	RXM4	N/A	X	UVM091129-01E/IVM091214-01
12/17/2009 23:58	1R430.D	W1VM091217-20	GEL	SHORT ICV	5ML	1		24	W	RXM4	N/A	O	UVM091118-01C/UVM091105-02E

GEL Laboratories, LLC
Revision:11/22/04

ORGANIC RUN LOG - INSTRUMENT ID#VOA1

Date: 12/31/2009 Method 8260B/624 Operator: RJE

REVIEWED BY: _____
DATE: _____

HARDWARE CONFIGURATION & METHOD CONDITIONS SUMMARY No# 2

Daily Instrument Readings:
Multiplier Voltage: 1306

CALIBRATION & CC INFORMATION:

Initial Calibration Date: 12/17/2009

(See pg. 283 for ICAL Std. Sci. Ids)

NaHSO4 lot # N/A

Cl test lot # N/A

Sequence Number: 123109v1

Daily Standard Solution ID#		Volume Added for Purge (ul) Blk/ Smpl	CCV	MS/ LCS	BFB
CCV	W1VM091231-01		5+5		
IS	UVM091203-01	1	1	1	
SS	UVM091117-02	1	1	1	
LCS/MS	W1VM091231-01			5+5	
BFB	UVM091117-02				1
SHORT	W1VM091231-02		5+5	5+5	

Purge Amount	
5	Water Purge Vol:ML
5	Soil Purge Wt.:G
N/A	Mid level ext. MeOH Vol: ul
N/A	Methanol Lot #
X	Heated Purge

Analysis Date Time	Data File	Lab Sample ID	Client	Batch #	Wt.(g) or Vol(ml/ul)	Dil. Factor	pH	AS Slot #	Matrix w or s	Analyst	Cl test (Y/N)	Acceptable O/X	Comments
12/31/2009 9:52	1T401.D	12019--	GEL	BLANK	5ML	1	N/A	1	w	RXM4	N/A	X	Rinse
12/31/2009 10:22	1T402.D	UVM091117-02	GEL	BFB	5ML	1	N/A	2	w	RXM4	N/A	O	
12/31/2009 10:52	1T403.D	W1VM091231-01	GEL	CCV/LCS	5G	1	N/A	3	S	RXM4	N/A	O	UVM091214-01D/IVM091230-01
12/31/2009 11:39	1T404.D	W1VM091231-02	GEL	SHORT	5G	1	N/A	4	S	RXM4	N/A	O	UVM091216-08A/UVM091209-08B
12/31/2009 12:09	1T405.D	12020--	GEL	BLANK	5G	1	N/A	5	S	RXM4	N/A	X	See 1T405
12/31/2009 12:39	1T406.D	12020--	GEL	BLANK	5G	1	N/A	6	S	RXM4	N/A	O	
12/31/2009 13:09	1T407.D	243552001	LANL	973990	5G	1	N/A	7	S	RXM4	N/A	O	
12/31/2009 13:39	1T408.D	243552002	LANL	973990	5G	1	N/A	8	S	RXM4	N/A	O	
12/31/2009 14:10	1T409.D	243552003	LANL	973990	5G	1	N/A	9	S	RXM4	N/A	O	
12/31/2009 14:40	1T410.D	243552004	LANL	973990	5G	1	N/A	10	S	RXM4	N/A	O	
12/31/2009 15:10	1T411.D	243552005	LANL	973990	5G	1	N/A	11	S	RXM4	N/A	O	
12/31/2009 15:40	1T412.D	243552006	LANL	973990	5G	1	N/A	12	S	RXM4	N/A	X	See RA 01/04/10
12/31/2009 16:11	1T413.D	243552007	LANL	973990	5G	1	N/A	13	S	RXM4	N/A	O	
12/31/2009 16:41	1T414.D	243552008	LANL	973990	5G	1	N/A	14	S	RXM4	N/A	X	See RA 01/04/10
12/31/2009 17:11	1T415.D	243552009	LANL	973990	5G	1	N/A	15	S	RXM4	N/A	O	
12/31/2009 17:41	1T416.D	243552010	LANL	973990	5G	1	N/A	16	S	RXM4	N/A	O	
12/31/2009 18:11	1T417.D	243552011	LANL	973990	5G	1	N/A	17	S	RXM4	N/A	O	
12/31/2009 18:42	1T418.D	243552012	LANL	973990	5G	1	N/A	18	S	RXM4	N/A	O	
12/31/2009 19:13	1T419.D	243552013	LANL	973990	5G	1	N/A	19	S	RXM4	N/A	O	FB
12/31/2009 19:43	1T420.D	243552014	LANL	973990	5G	1	N/A	20	S	RXM4	N/A	O	
12/31/2009 20:14	1T421.D	243552015	LANL	973990	5G	1	N/A	21	S	RXM4	N/A	O	FB
12/31/2009 20:44	1T422.D	243552016	LANL	973990	5G	1	N/A	22	S	RXM4	N/A	O	
12/31/2009 21:14	1T423.D	243552017	LANL	973990	5G	1	N/A	23	S	RXM4	N/A	O	
12/31/2009 21:45	1T424.D	1202007171	LANL	973990	5G	1	N/A	24	S	RXM4	N/A	X	MS 243552001
12/31/2009 22:15	1T425.D	1202007172	LANL	973990	5G	1	N/A	25	S	RXM4	N/A	X	MSD 243552001
12/31/2009 22:45	1T426.D	12019--	GEL	BLANK	5ML	1	N/A	26	W	RXM4	N/A	X	Rinse

GEL Laboratories, LLC
Revision:11/22/04

ORGANIC RUN LOG - INSTRUMENT ID#VOA1

Date: 1/4/2010 Method 8260B/624 Operator: RJE

REVIEWED BY: _____
DATE: _____

HARDWARE CONFIGURATION & METHOD CONDITIONS SUMMARY No# 2

Daily Instrument Readings:
Multiplier Voltage: 1306

CALIBRATION & CC INFORMATION:

Initial Calibration Date: 12/17/2009

(See pg. 283 for ICAL Std. Sci. Ids)

NaHSO4 lot # N/A

Cl test lot # N/A

Sequence Number: 010410v1

Daily Standard Solution ID#		Volume Added for Purge (ul) Blk/ Smpl	CCV	MS/ LCS	BFB
CCV	W1VM100104-01		5+5		
IS	UVM091203-01	1	1	1	
SS	UVM091117-02	1	1	1	
LCS/MS	W1VM100104-01			5+5	
BFB	UVM091117-02				1
SHORT	W1VM0100104-02		5+5	5+5	

Purge Amount	
5	Water Purge Vol:ML
5	Soil Purge Wt.:G
	Mid level ext. MeOH Vol:
N/A	ul
N/A	Methanol Lot #
X	Heated Purge

Analysis Date Time	Data File	Lab Sample ID	Client	Batch #	Wt.(g) or Vol(ml/ul)	Dil. Factor	pH	AS Slot #	Matrix w or s	Analyst	Cl test (Y/N)	Acceptable O/X	Comments
4 Jan 2010 07:33	1U101.D	12019--	GEL	BLANK	5ML	1	N/A	1	w	RXM4	N/A	X	Rinse
4 Jan 2010 08:03	1U102.D	12019--	GEL	BLANK	5ML	1	N/A	2	w	RXM4	N/A	X	Rinse
4 Jan 2010 08:32	1U103.D	UVM091117-02	GEL	BFB	5ML	1	N/A	3	W	RXM4	N/A	O	UVM091214-01D/IVM091230-01
4 Jan 2010 09:33	1U104.D	W1VM100104-01	GEL	CCV/LCS	5G	1	N/A	4	S	RXM4	N/A	O	UVM091216-08A/UVM091209-08B
4 Jan 2010 10:03	1U105.D	W1VM0100104-02	GEL	SHORT	5G	1	N/A	5	S	RXM4	N/A	O	
4 Jan 2010 10:34	1U106.D	12020--	GEL	BLANK	5G	1	N/A	6	S	RXM4	N/A	X	See 1U107
4 Jan 2010 11:04	1U107.D	12020--	GEL	BLANK	5G	1	N/A	7	S	RXM4	N/A	O	
4 Jan 2010 11:44	1U108.D	243023013	LANL	935929	5G	1	N/A	8	S	RXM4	N/A	O	RA
4 Jan 2010 12:59	1U109.D	243552006	LANL	973990	5G	1	N/A	9	S	RXM4	N/A	O	
4 Jan 2010 13:30	1U110.D	243552008	LANL	973990	5G	1	N/A	10	S	RXM4	N/A	X	IS/SS failure/ bad purge. See 1U114
4 Jan 2010 14:01	1U111.D	1202007171	LANL	973990	5G	1	N/A	11	S	RXM4	N/A	X	MS 243552001; high ss rec. See 1U115
4 Jan 2010 14:33	1U112.D	1202007172	LANL	973990	5G	1	N/A	12	S	RXM4	N/A	X	MSD 243552001
4 Jan 2010 15:04	1U113.D	12019--	GEL	BLANK	5ML	1	N/A	13	W	RXM4	N/A	X	Rinse
4 Jan 2010 15:35	1U114.D	243552008	LANL	973990	5G	1	N/A	14	S	RXM4	N/A	O	
4 Jan 2010 16:11	1U115.D	1202007171	LANL	973990	5G	1	N/A	15	S	RXM4	N/A	O	MS 243552001
4 Jan 2010 16:42	1U116.D	1202007172	LANL	973990	5G	1	N/A	16	S	RXM4	N/A	O	MSD 243552001

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
13-JAN-10	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
VOA GC/MS	SW846 8260B	Solid	LANL
Batch ID:	**Sample Numbers:**		
937990	See Below		

Potentially affected work order(s)(SDG): 243552(10-1086)

Application Issues:

Failed Recovery for LCS/LCSD

Failed RPD for MS/MSD, or PS/PSD

Specification and Requirements Exception Description:	DER Disposition:
1. The MS and MSD recovered outside of the relative percent difference acceptance limits for several analytes.	1. Narrate and report data. As the MS and MSD displayed similar recoveries, the failures are attributed to sample matrix interference.
2. The LCS (1202007175) recovered outside of spiking acceptance limits for 1,2-Dibromo-3-chloropropane 67.92% (68.30%-144.50%).	2. Narrate and report data. The total number of unacceptable spike recoveries is within the client required 5% of the total requested analytes.

Originator's Name:

Ronda Eagle 13-JAN-10

Data Validator/Group Leader:

Erin Haubert 20-JAN-10

GC/MS Semivolatile Analysis

Semi-Volatile Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-1086

Method/Analysis Information

Procedure:	**Analysis of Semivolatile Organic Compounds by Gas Chromatography/Mass Spectrometry**
Analytical Method:	SW846 8270C
Prep Method:	SW846 3550B
Analytical Batch Number:	937151
Prep Batch Number:	937150

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 8270C:

Sample ID	Client ID
243552001	RE03-09-14233
243552002	RE03-09-14236
243552003	RE03-09-14239
243552004	RE03-09-14240
243552005	RE03-09-14231
243552006	RE03-09-14232
243552007	RE03-09-14235
243552008	RE03-09-14238
243552009	RE03-09-14234
243552010	RE03-09-14241
243552011	RE03-10-2737
243552012	RE03-10-2736
243552014	RE03-10-9873
1202005357	Method Blank (MB)
1202005358	Laboratory Control Sample (LCS)
1202005359	243552001(RE03-09-14233) Matrix Spike (MS)
1202005360	243552001(RE03-09-14233) Matrix Spike Duplicate (MSD)

The samples in this batch were analyzed on a "dry weight" basis.

Preparation/Analytical Method Verification

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-009 REV# 23.

Raw data reports are processed and reviewed by the analyst using the Target software package. False positives have been removed from the Target quantitation reports per standard operating procedures (SOP) section 18.2.

Calibration Information

Please note that the 'Cal Date' indicated on each quantitation report reflects the date and time of the most recent calibrated analyte(s) in the Target processing method. Since the laboratory may calibrate with multiple solutions on different days using the same processing method, the Target software will update the 'Cal Date' to the last calibration file, date and time. The correct dates and times for all calibration files are located on the Calibration History report in the Standard Data section in the data package.

Due to software limitations, the Calibration Summary Form 6 may not indicate all the calibration files comprising the initial calibration. A complete list of the initial calibration data files are shown in the Calibration History report located in the Standard Data section of the data package. Please note that the second level of the initial calibration (5 mg/L) is only used for n-Nitrosodipropylamine. The various calibration mixes may not be calibrated using all of the calibration levels. In addition, not all of the mixes are calibrated using the same levels.

Diphenylamine has now superseded N-Nitroso-diphenylamine as a CCC on Quantitation Reports, Initial Calibration Reports, Calibration Check Standard Reports, etc. Previous versions of EPA Method 8270 (prior to 8270C) listed N-Nitroso-diphenylamine as a CCC. However, as stated in EPA Method 8270C, Revision 3, December, 1996, Section 1.4.5, "N-Nitroso-diphenylamine decomposes in the gas chromatographic inlet and cannot be separated from Diphenylamine." Studies of these two compounds at GEL, both independent of each other and together, show that they not only co-elute, but also have similar mass spectra. N-Nitroso-diphenylamine and Diphenylamine will be reported as Diphenylamine on all reports and forms.

The linear equation used in Target and indicated on the initial calibration summary form is not a conventional linear equation (slope intercept formula) and does not match the equation found in SW-846 method 8000B. The x and y axes are inversed in Target, so that the instrument response is treated as the independent variable (x) and the concentration ratio is treated as the dependent variable (y). The equation used in Target to calculate sample results is adjusted to account for the linear equation inversion and reciprocal slope. The adjusted calculation has been independently verified to produce valid results.

Initial Calibration

All initial calibration requirements have been met for this sample delivery group (SDG). A second source initial calibration verification (ICV) was included in the standard section directly behind the initial calibration.

CCV Requirements

All associated calibration verification standard(s) (ICV or CCV) met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement

The MB analyzed with this SDG met the acceptance criteria.

Surrogate Recoveries

All the surrogate recoveries were within the established acceptance criteria for this SDG.

Laboratory Control Sample (LCS) Recovery

The LCS spike recoveries met the acceptance limits.

QC Sample Designation

Sample 243552001 (RE03-09-14233) was selected for analysis as the matrix spike and matrix spike duplicate.

Matrix Spike (MS) Recovery Statement

The MS recoveries were within the established acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD(1202005360) spike recovery for 3,3'-Dichlorobenzidine was 31% (limits: 35%-106%). Because the MS displayed a similar low (but passing) recovery for that analyte, the failure was attributed to sample matrix interference and the data were reported.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD(s) between the MS and MSD met the acceptance limits.

Internal Standard (ISTD) Acceptance
The internal standard responses were within the required acceptance criteria for all samples and QC.

Technical Information

Holding Time Specifications
All samples in this batch met the specified holding time. GEL assigns holding times based on the associated methodology that assigns the date and time from sample collection or sample receipt. Those holding times expressed in hours are calculated in the ALPHALIMS system. Those holding times expressed as days expire at midnight on the day of expiration.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

Sample Dilutions
The samples in this batch did not require dilutions.

Sample Re-extraction/Re-analysis
Re-extractions or re-analyses were not required in this batch except for confirmations and/or dilutions.

Miscellaneous Information

Nonconformance (NCR) Documentation
The following NCR was generated for this SDG: 777498. It is located in the Miscellaneous Section of the data report.

Manual Integrations
Some initial calibration standards, continuing calibration standards, and/or samples may require manual integrations due to software limitations. Please see the raw data in the Miscellaneous Section.

Additional Comments
Additional comments were not required for this batch.

Electronic Package Comment
The following package was generated using an electronic data processing program referred to as "virtual packaging". In an effort to increase quality and efficiency, the laboratory is developing systems to eventually generate all data packages electronically. The following change from "traditional" packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. An electronic signature page inserted after the case narrative of each electronic package will indicate the analyst, reviewer, and report specialist names associated with the generation of the data and package. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

System Configuration

The samples reported in this batch were analyzed on one or more of the following instrument systems. Instrument systems are referenced in the raw data and individual form headers by the Instrument ID designations listed below:

Instrument ID	Instrument	System Configuration	Column ID	Column Description
MSD3.I	HP Mass Spectrometer	HP7890A/HP5975C	DB-5MS	25m x 0.2mm, 0.33um (5% Phenylmethylpolysiloxane)

Method/Analysis Information

Procedure:	**Analysis of Semivolatile Organic Compounds by Gas Chromatography/Mass Spectrometry**
Analytical Method:	SW846 8270C
Prep Method:	SW846 3550B
Analytical Batch Number:	937367
Prep Batch Number:	937366

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 8270C:

Sample ID	Client ID
243552016	RE03-10-9872
243552017	RE03-10-9874
1202005808	Method Blank (MB)
1202005809	Laboratory Control Sample (LCS)
1202005810	243552016(RE03-10-9872) Matrix Spike (MS)
1202005811	243552016(RE03-10-9872) Matrix Spike Duplicate (MSD)

The samples in this batch were analyzed on a "dry weight" basis.

Preparation/Analytical Method Verification

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-009 REV# 23.

Raw data reports are processed and reviewed by the analyst using the Target software package. False positives have been removed from the Target quantitation reports per standard operating procedures (SOP) section 18.2.

Calibration Information

Please note that the 'Cal Date' indicated on each quantitation report reflects the date and time of the most recent calibrated analyte(s) in the Target processing method. Since the laboratory may calibrate with multiple solutions on different days using the same processing method, the Target software will update the 'Cal Date' to the last calibration file, date and time. The correct dates and times for all calibration files are located on the Calibration History report in the Standard Data section in the data package.

Due to software limitations, the Calibration Summary Form 6 may not indicate all the calibration files comprising the initial calibration. A complete list of the initial calibration data files are shown in the Calibration History report located in the Standard Data section of the data package. Please note that the second level of the initial calibration (5 mg/L) is only used for n-Nitrosodipropylamine. The various calibration mixes may not be calibrated using all of the calibration levels. In addition, not all of the mixes are calibrated using the same levels.

Diphenylamine has now superseded N-Nitroso-diphenylamine as a CCC on Quantitation Reports, Initial Calibration Reports, Calibration Check Standard Reports, etc. Previous versions of EPA Method 8270 (prior to 8270C) listed N-Nitroso-diphenylamine as a CCC. However, as stated in EPA Method 8270C, Revision 3, December, 1996, Section 1.4.5, "N-Nitroso-diphenylamine decomposes in the gas chromatographic inlet and cannot be separated from Diphenylamine." Studies of these two compounds at GEL, both independent of each other and together, show that they not only co-elute, but also have similar mass spectra. N-Nitroso-diphenylamine and Diphenylamine will be reported as Diphenylamine on all reports and forms.

The linear equation used in Target and indicated on the initial calibration summary form is not a conventional linear equation (slope intercept formula) and does not match the equation found in SW-846 method 8000B. The x and y axes are inversed in Target, so that the instrument response is treated as the independent variable (x) and the concentration ratio is treated as the dependent variable (y). The equation used in Target to calculate sample results is adjusted to account for the linear equation inversion and reciprocal slope. The adjusted calculation has been independently verified to produce valid results.

Initial Calibration
All initial calibration requirements have been met for this batch. A second source initial calibration verification (ICV) was included in the standard section directly behind the initial calibration.

CCV Requirements
All associated calibration verification standard(s) (ICV or CCV) met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this batch met the acceptance criteria.

Surrogate Recoveries
All the surrogate recoveries were within the established acceptance criteria for this SDG.

Laboratory Control Sample (LCS) Recovery
The LCS(1202005809) recovered recovered Di-n-octylphthalate at 137%. The limits are 39%-123%. The LCS failure represented less than 5% of the total requested spike analyte list. That satisfied the acceptance criteria for the client and the data results have been reported.

QC Sample Designation
Sample 243552016 (RE03-10-9872) was selected for analysis as the matrix spike and matrix spike duplicate.

Matrix Spike (MS) Recovery Statement
The MS(1202005810) recovered Pyridine at 6%. The limits are 30%-95%. The failure confirmed in the MSD and was attributed to matrix interference.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD(1202005811) recovered Pyridine at 10% (limits are 30%-95%) and 2,4-Dinitrophenol at 19% (limits are 25%-104%). Since the MS displayed similar recovery to the MSD for Pyridine, the failure was attributed to matrix interference and the data results have been reported. The MS passed for 2,4-

Dinitrophenol. There were multiple MS/MSD RPD value failures (see the MS/MSD RPD statement below). Therefore, the failure was attributed to an inconsistent sample matrix (matrix interference) associated with the soil samples.

MS/MSD Relative Percent Difference (RPD) Statement
Multiple MS(1202005810)/MSD(1202005811) RPD failures were outside of the established acceptance limits. Please see the QC Summary Report for specific failures. Since the failed RPD analytes were individually within the acceptance limits for the MS and MSD (with the exception of Pyridine and 2,4-Dinitrophenol, see Dispositions 2 & 3 above), the failures were attributed to an inconsistent sample matrix (matrix interference) associated with the soil samples.

Internal Standard (ISTD) Acceptance
The internal standard responses were within the required acceptance criteria for all samples and QC.

Technical Information

Holding Time Specifications
All samples in this batch met the specified holding time. GEL assigns holding times based on the associated methodology that assigns the date and time from sample collection or sample receipt. Those holding times expressed in hours are calculated in the ALPHALIMS system. Those holding times expressed as days expire at midnight on the day of expiration.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

Sample Dilutions
The samples in this batch did not require dilutions.

Sample Re-extraction/Re-analysis
Re-extractions or re-analyses were not required in this batch except for confirmations and/or dilutions.

Miscellaneous Information
Nonconformance (NCR) Documentation
The following NCR was generated for this batch: 777422. It is located in the Miscellaneous Section of the data report.

Manual Integrations
Some initial calibration standards, continuing calibration standards, and/or samples may require manual integrations due to software limitations. Please see the raw data in the Miscellaneous Section.

Additional Comments
Additional comments were not required for this batch.

Electronic Package Comment
The following package was generated using an electronic data processing program referred to as "virtual packaging". In an effort to increase quality and efficiency, the laboratory is developing systems to eventually generate all data packages electronically. The following change from "traditional" packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. An electronic signature page inserted after the case narrative of each electronic package will indicate the analyst, reviewer, and report specialist names associated with the generation of the data and package. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

System Configuration

The samples reported in this batch were analyzed on one or more of the following instrument systems. Instrument systems are referenced in the raw data and individual form headers by the Instrument ID designations listed below:

Instrument ID	Instrument	System Configuration	Column ID	Column Description
MSD1.I	HP 5973 Mass Spectrometer	HP6890/HP5973	ZB-5ms	25m x 0.2mm, 0.33um (5% Polysilarylene-95% Polydimethylsiloxane)

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

Reviewer: _____ **Date:** 1-19-10

Roadmap for LANL 10-1086 SVOA

This roadmap was analyzed by amy01291 on 01-06-2010, 14:40.
This roadmap was reviewed by jen00986 on 01-06-2010, 15:27.
This roadmap was reviewed by dan01134 on 01-11-2010, 13:22.

Sample

exclude	manual	datafile	smpid	injdate	injtime	sublist	clientid	dilution	batchid	comment
☐	N	/chem/MSD1.i/s123009.b/s113019.d	243552016	30-DEC-2009	17:23	10-1086.sub	RE03-10-9872	1	937367	REPORT
☐	N	/chem/MSD1.i/s123009.b/s113022.d	243552017	30-DEC-2009	18:36	10-1086.sub	RE03-10-9874	1	937367	REPORT
☐	N	/chem/MSD3.i/s010410a.b/s3a0422.d	243552001	04-JAN-2010	20:24	10-1086.sub	RE03-09-14233	1	937151	USE
☐	N	/chem/MSD3.i/s010410a.b/s3a0425.d	243552002	04-JAN-2010	21:37	10-1086.sub	RE03-09-14236	1	937151	USE
☐	N	/chem/MSD3.i/s010410a.b/s3a0426.d	243552003	04-JAN-2010	22:02	10-1086.sub	RE03-09-14239	1	937151	USE
☐	N	/chem/MSD3.i/s010410a.b/s3a0427.d	243552004	04-JAN-2010	22:27	10-1086.sub	RE03-09-14240	1	937151	USE
☐	N	/chem/MSD3.i/s010410a.b/s3a0428.d	243552005	04-JAN-2010	22:51	10-1086.sub	RE03-09-14231	1	937151	USE
☐	N	/chem/MSD3.i/s010410a.b/s3a0429.d	243552006	04-JAN-2010	23:15	10-1086.sub	RE03-09-14232	1	937151	USE
☐	N	/chem/MSD3.i/s010410a.b/s3a0430.d	243552007	04-JAN-2010	23:40	10-1086.sub	RE03-09-14235	1	937151	USE
☐	N	/chem/MSD3.i/s010410a.b/s3a0431.d	243552008	05-JAN-2010	00:04	10-1086.sub	RE03-09-14238	1	937151	USE
☐	N	/chem/MSD3.i/s010410a.b/s3a0432.d	243552009	05-JAN-2010	00:29	10-1086.sub	RE03-09-14234	1	937151	USE
☐	N	/chem/MSD3.i/s010410a.b/s3a0433.d	243552010	05-JAN-2010	00:54	10-1086.sub	RE03-09-14241	1	937151	USE
☐	N	/chem/MSD3.i/s010410a.b/s3a0434.d	243552011	05-JAN-2010	01:18	10-1086.sub	RE03-10-2737	1	937151	USE
☐	N	/chem/MSD3.i/s010410a.b/s3a0435.d	243552012	05-JAN-2010	01:42	10-1086.sub	RE03-10-2736	1	937151	USE
☐	N	/chem/MSD3.i/s010410a.b/s3a0436.d	243552014	05-JAN-2010	02:07	10-1086.sub	RE03-10-9873	1	937151	USE

QC Sample

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	batchid	comment
☐	N	/chem/MSD1.i/s123009.b/s113017.d	1202005808	mb	30-DEC-2009	16:34	10-1086.sub	SBLK02	1	937367	REPORT
☐	N	/chem/MSD1.i/s123009.b/s113018.d	1202005809	lcs	30-DEC-2009	16:59	10-1086.sub	SBLK02LCS	1	937367	REPORT-c53 low, c94 high
☐	N	/chem/MSD1.i/s123009.b/s113020.d	1202005810	ms	30-DEC-2009	17:47	10-1086.sub	RE03-10-9872MS	1	937367	REPORT-c2 low, confirmed by MSD

☐	N	/chem/MSD1.i/s123009.b/s113021.d	1202005811	msd	30-DEC-2009	18:12	10-1086.sub	RE03-10-9872MSD	1	937367	REPORT-c2 low, confirmed by MS. c48 low, matrix.
☐	N	/chem/MSD3.i/s010410a.b/s3a0413-3.d	1202005357	mb	04-JAN-2010	16:44	10-1086.sub	SB1,K01	1	937151	USE
☐	N	/chem/MSD3.i/s010410a.b/s3a0414-3.d	1202005358	lcs	04-JAN-2010	17:08	10-1086.sub	SB1,K01,CS	1	937151	USE
☐	N	/chem/MSD3.i/s010410a.b/s3a0423.d	1202005359	ms	04-JAN-2010	20:49	10-1086.sub	RE03-09-14233MS	1	937151	USE
☐	N	/chem/MSD3.i/s010410a.b/s3a0424.d	1202005360	msd	04-JAN-2010	21:13	10-1086.sub	RE03-09-14233MSD	1	937151	USE

Sample Data Summary

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1086**	**Date Collected:**	**12/22/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243552005**	**Date Received:**	**12/24/2009 09:30**	**%Moisture:**	**7.3**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14231**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**937151**	**Inst:**	**MSD3.1**	**Dilution:**	**1**
Run Date:	**01/04/2010 22:51**	**Analyst:**	**JLD1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/29/2009 10:16**	**Aliquot:**	**30.01 g**	**Final Volume:**	**1 mL**
Data File:	**s3a0428.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	360	ug/kg	71.9	360
108-95-2	Phenol	U	360	ug/kg	71.9	360
95-57-8	2-Chlorophenol	U	360	ug/kg	71.9	360
106-46-7	1,4-Dichlorobenzene	U	360	ug/kg	71.9	360
621-64-7	N-Nitrosodipropylamine	U	360	ug/kg	71.9	360
59-50-7	4-Chloro-3-methylphenol	U	360	ug/kg	71.9	360
83-32-9	Acenaphthene	U	36.0	ug/kg	11.9	36.0
121-14-2	2,4-Dinitrotoluene	U	360	ug/kg	36.0	360
100-02-7	4-Nitrophenol	U	360	ug/kg	119	360
87-86-5	Pentachlorophenol	U	360	ug/kg	89.9	360
129-00-0	Pyrene	U	36.0	ug/kg	10.8	36.0
110-86-1	Pyridine	U	360	ug/kg	71.9	360
62-53-3	Aniline	U	360	ug/kg	108	360
111-44-4	bis(2-Chloroethyl) ether	U	360	ug/kg	71.9	360
541-73-1	1,3-Dichlorobenzene	U	360	ug/kg	71.9	360
100-51-6	Benzyl alcohol	U	360	ug/kg	108	360
95-50-1	1,2-Dichlorobenzene	U	360	ug/kg	71.9	360
108-60-1	bis(2-Chloroisopropyl)ether	U	360	ug/kg	71.9	360
95-48-7	o-Cresol	U	360	ug/kg	71.9	360
65794-96-9	m,p-Cresols	U	360	ug/kg	108	360
67-72-1	Hexachloroethane	U	360	ug/kg	71.9	360
98-95-3	Nitrobenzene	U	360	ug/kg	71.9	360
78-59-1	Isophorone	U	360	ug/kg	71.9	360
88-75-5	2-Nitrophenol	U	360	ug/kg	71.9	360
105-67-9	2,4-Dimethylphenol	U	360	ug/kg	126	360
111-91-1	bis(2-Chloroethoxy)methane	U	360	ug/kg	71.9	360
120-83-2	2,4-Dichlorophenol	U	360	ug/kg	71.9	360
65-85-0	Benzoic acid	U	719	ug/kg	180	719
91-20-3	Naphthalene	U	36.0	ug/kg	10.8	36.0
106-47-8	4-Chloroaniline	U	360	ug/kg	71.9	360
87-68-3	Hexachlorobutadiene	U	360	ug/kg	71.9	360
91-57-6	2-Methylnaphthalene	U	36.0	ug/kg	7.19	36.0
77-47-4	Hexachlorocyclopentadiene	U	360	ug/kg	71.9	360
88-06-2	2,4,6-Trichlorophenol	U	360	ug/kg	71.9	360
95-95-4	2,4,5-Trichlorophenol	U	360	ug/kg	71.9	360
91-58-7	2-Chloronaphthalene	U	36.0	ug/kg	11.9	36.0
88-74-4	2-Nitroaniline	U	360	ug/kg	71.9	360
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	360	ug/kg	71.9	360

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1086**	**Date Collected:**	**12/22/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243552005**	**Date Received:**	**12/24/2009 09:30**	**%Moisture:**	**7.3**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14231**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**937151**	**Inst:**	**MSD3.I**	**Dilution:**	**1**
Run Date:	**01/04/2010 22:51**	**Analyst:**	**JLD1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/29/2009 10:16**	**Aliquot:**	**30.01 g**	**Final Volume:**	**1 mL**
Data File:	**s3a0428.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	360	ug/kg	71.9	360
606-20-2	2,6-Dinitrotoluene	U	360	ug/kg	36.0	360
208-96-8	Acenaphthylene	U	36.0	ug/kg	10.8	36.0
51-28-5	2,4-Dinitrophenol	U	719	ug/kg	137	719
132-64-9	Dibenzofuran	U	360	ug/kg	71.9	360
84-66-2	Diethylphthalate	U	360	ug/kg	71.9	360
86-73-7	Fluorene	U	36.0	ug/kg	10.8	36.0
7005-72-3	4-Chlorophenylphenylether	U	360	ug/kg	71.9	360
534-52-1	2-Methyl-4,6-dinitrophenol	U	360	ug/kg	71.9	360
100-01-6	4-Nitroaniline	U	360	ug/kg	108	360
	p-Nitroaniline					
122-39-4	Diphenylamine	U	360	ug/kg	71.9	360
122-66-7	Azobenzene	U	360	ug/kg	71.9	360
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	360	ug/kg	71.9	360
118-74-1	Hexachlorobenzene	U	360	ug/kg	71.9	360
85-01-8	Phenanthrene	U	36.0	ug/kg	10.8	36.0
120-12-7	Anthracene	U	36.0	ug/kg	7.19	36.0
84-74-2	Di-n-butylphthalate	U	360	ug/kg	71.9	360
206-44-0	Fluoranthene	U	36.0	ug/kg	10.8	36.0
85-68-7	Butylbenzylphthalate	U	360	ug/kg	71.9	360
56-55-3	Benzo(a)anthracene	U	36.0	ug/kg	10.8	36.0
91-94-1	3,3'-Dichlorobenzidine	U	360	ug/kg	108	360
218-01-9	Chrysene	U	36.0	ug/kg	10.8	36.0
117-81-7	bis(2-Ethylhexyl)phthalate	U	360	ug/kg	71.9	360
117-84-0	Di-n-octylphthalate	U	360	ug/kg	71.9	360
205-99-2	Benzo(b)fluoranthene	U	36.0	ug/kg	10.8	36.0
207-08-9	Benzo(k)fluoranthene	U	36.0	ug/kg	10.8	36.0
50-32-8	Benzo(a)pyrene	U	36.0	ug/kg	10.8	36.0
193-39-5	Indeno(1,2,3-cd)pyrene	U	36.0	ug/kg	10.8	36.0
53-70-3	Dibenzo(a,h)anthracene	U	36.0	ug/kg	10.8	36.0
191-24-2	Benzo(ghi)perylene	U	36.0	ug/kg	10.8	36.0
120-82-1	1,2,4-Trichlorobenzene	U	360	ug/kg	71.9	360

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.85	520	ug/kg		JA

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1086**	**Date Collected:**	**12/22/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243552006**	**Date Received:**	**12/24/2009 09:30**	**%Moisture:**	**5.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14232**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**937151**	**Inst:**	**MSD3.I**	**Dilution:**	**1**
Run Date:	**01/04/2010 23:15**	**Analyst:**	**JLD1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/29/2009 10:16**	**Aliquot:**	**30.02 g**	**Final Volume:**	**1 mL**
Data File:	**s3a0429.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	354	ug/kg	70.7	354
108-95-2	Phenol	U	354	ug/kg	70.7	354
95-57-8	2-Chlorophenol	U	354	ug/kg	70.7	354
106-46-7	1,4-Dichlorobenzene	U	354	ug/kg	70.7	354
621-64-7	N-Nitrosodipropylamine	U	354	ug/kg	70.7	354
59-50-7	4-Chloro-3-methylphenol	U	354	ug/kg	70.7	354
83-32-9	Acenaphthene	U	35.4	ug/kg	11.7	35.4
121-14-2	2,4-Dinitrotoluene	U	354	ug/kg	35.4	354
100-02-7	4-Nitrophenol	U	354	ug/kg	117	354
87-86-5	Pentachlorophenol	U	354	ug/kg	88.4	354
129-00-0	Pyrene	U	35.4	ug/kg	10.6	35.4
110-86-1	Pyridine	U	354	ug/kg	70.7	354
62-53-3	Aniline	U	354	ug/kg	106	354
111-44-4	bis(2-Chloroethyl) ether	U	354	ug/kg	70.7	354
541-73-1	1,3-Dichlorobenzene	U	354	ug/kg	70.7	354
100-51-6	Benzyl alcohol	U	354	ug/kg	106	354
95-50-1	1,2-Dichlorobenzene	U	354	ug/kg	70.7	354
108-60-1	bis(2-Chloroisopropyl)ether	U	354	ug/kg	70.7	354
95-48-7	o-Cresol	U	354	ug/kg	70.7	354
65794-96-9	m,p-Cresols	U	354	ug/kg	106	354
67-72-1	Hexachloroethane	U	354	ug/kg	70.7	354
98-95-3	Nitrobenzene	U	354	ug/kg	70.7	354
78-59-1	Isophorone	U	354	ug/kg	70.7	354
88-75-5	2-Nitrophenol	U	354	ug/kg	70.7	354
105-67-9	2,4-Dimethylphenol	U	354	ug/kg	124	354
111-91-1	bis(2-Chloroethoxy)methane	U	354	ug/kg	70.7	354
120-83-2	2,4-Dichlorophenol	U	354	ug/kg	70.7	354
65-85-0	Benzoic acid	U	707	ug/kg	177	707
91-20-3	Naphthalene	U	35.4	ug/kg	10.6	35.4
106-47-8	4-Chloroaniline	U	354	ug/kg	70.7	354
87-68-3	Hexachlorobutadiene	U	354	ug/kg	70.7	354
91-57-6	2-Methylnaphthalene	U	35.4	ug/kg	7.07	35.4
77-47-4	Hexachlorocyclopentadiene	U	354	ug/kg	70.7	354
88-06-2	2,4,6-Trichlorophenol	U	354	ug/kg	70.7	354
95-95-4	2,4,5-Trichlorophenol	U	354	ug/kg	70.7	354
91-58-7	2-Chloronaphthalene	U	35.4	ug/kg	11.7	35.4
88-74-4	2-Nitroaniline	U	354	ug/kg	70.7	354
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	354	ug/kg	70.7	354

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1086**	**Date Collected:**	**12/22/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243552006**	**Date Received:**	**12/24/2009 09:30**	**%Moisture:**	**5.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14232**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**937151**	**Inst:**	**MSD3.I**	**Dilution:**	**1**
Run Date:	**01/04/2010 23:15**	**Analyst:**	**JLD1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/29/2009 10:16**	**Aliquot:**	**30.02 g**	**Final Volume:**	**1 mL**
Data File:	**s3a0429.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	354	ug/kg	70.7	354
606-20-2	2,6-Dinitrotoluene	U	354	ug/kg	35.4	354
208-96-8	Acenaphthylene	U	35.4	ug/kg	10.6	35.4
51-28-5	2,4-Dinitrophenol	U	707	ug/kg	134	707
132-64-9	Dibenzofuran	U	354	ug/kg	70.7	354
84-66-2	Diethylphthalate	U	354	ug/kg	70.7	354
86-73-7	Fluorene	U	35.4	ug/kg	10.6	35.4
7005-72-3	4-Chlorophenylphenylether	U	354	ug/kg	70.7	354
534-52-1	2-Methyl-4,6-dinitrophenol	U	354	ug/kg	70.7	354
100-01-6	4-Nitroaniline	U	354	ug/kg	106	354
	p-Nitroaniline					
122-39-4	Diphenylamine	U	354	ug/kg	70.7	354
122-66-7	Azobenzene	U	354	ug/kg	70.7	354
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	354	ug/kg	70.7	354
118-74-1	Hexachlorobenzene	U	354	ug/kg	70.7	354
85-01-8	Phenanthrene	U	35.4	ug/kg	10.6	35.4
120-12-7	Anthracene	U	35.4	ug/kg	7.07	35.4
84-74-2	Di-n-butylphthalate	U	354	ug/kg	70.7	354
206-44-0	Fluoranthene	U	35.4	ug/kg	10.6	35.4
85-68-7	Butylbenzylphthalate	U	354	ug/kg	70.7	354
56-55-3	Benzo(a)anthracene	U	35.4	ug/kg	10.6	35.4
91-94-1	3,3'-Dichlorobenzidine	U	354	ug/kg	106	354
218-01-9	Chrysene	U	35.4	ug/kg	10.6	35.4
117-81-7	bis(2-Ethylhexyl)phthalate	U	354	ug/kg	70.7	354
117-84-0	Di-n-octylphthalate	U	354	ug/kg	70.7	354
205-99-2	Benzo(b)fluoranthene	U	35.4	ug/kg	10.6	35.4
207-08-9	Benzo(k)fluoranthene	U	35.4	ug/kg	10.6	35.4
50-32-8	Benzo(a)pyrene	U	35.4	ug/kg	10.6	35.4
193-39-5	Indeno(1,2,3-cd)pyrene	U	35.4	ug/kg	10.6	35.4
53-70-3	Dibenzo(a,h)anthracene	U	35.4	ug/kg	10.6	35.4
191-24-2	Benzo(ghi)perylene	U	35.4	ug/kg	10.6	35.4
120-82-1	1,2,4-Trichlorobenzene	U	354	ug/kg	70.7	354

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	1.84	150	ug/kg		J
	Unknown Aldol Condensate	2.85	546	ug/kg		JA

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1086**	**Date Collected:**	**12/22/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243552001**	**Date Received:**	**12/24/2009 09:30**	**%Moisture:**	**7.4**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14233**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**937151**	**Inst:**	**MSD3.I**	**Dilution:**	**1**
Run Date:	**01/04/2010 20:24**	**Analyst:**	**JLD1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/29/2009 10:16**	**Aliquot:**	**30.09 g**	**Final Volume:**	**1 mL**
Data File:	**s3a0422.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	359	ug/kg	71.8	359
108-95-2	Phenol	U	359	ug/kg	71.8	359
95-57-8	2-Chlorophenol	U	359	ug/kg	71.8	359
106-46-7	1,4-Dichlorobenzene	U	359	ug/kg	71.8	359
621-64-7	N-Nitrosodipropylamine	U	359	ug/kg	71.8	359
59-50-7	4-Chloro-3-methylphenol	U	359	ug/kg	71.8	359
83-32-9	Acenaphthene	U	35.9	ug/kg	11.8	35.9
121-14-2	2,4-Dinitrotoluene	U	359	ug/kg	35.9	359
100-02-7	4-Nitrophenol	U	359	ug/kg	118	359
87-86-5	Pentachlorophenol	U	359	ug/kg	89.7	359
129-00-0	Pyrene	U	35.9	ug/kg	10.8	35.9
110-86-1	Pyridine	U	359	ug/kg	71.8	359
62-53-3	Aniline	U	359	ug/kg	108	359
111-44-4	bis(2-Chloroethyl) ether	U	359	ug/kg	71.8	359
541-73-1	1,3-Dichlorobenzene	U	359	ug/kg	71.8	359
100-51-6	Benzyl alcohol	U	359	ug/kg	108	359
95-50-1	1,2-Dichlorobenzene	U	359	ug/kg	71.8	359
108-60-1	bis(2-Chloroisopropyl)ether	U	359	ug/kg	71.8	359
95-48-7	o-Cresol	U	359	ug/kg	71.8	359
65794-96-9	m,p-Cresols	U	359	ug/kg	108	359
67-72-1	Hexachloroethane	U	359	ug/kg	71.8	359
98-95-3	Nitrobenzene	U	359	ug/kg	71.8	359
78-59-1	Isophorone	U	359	ug/kg	71.8	359
88-75-5	2-Nitrophenol	U	359	ug/kg	71.8	359
105-67-9	2,4-Dimethylphenol	U	359	ug/kg	126	359
111-91-1	bis(2-Chloroethoxy)methane	U	359	ug/kg	71.8	359
120-83-2	2,4-Dichlorophenol	U	359	ug/kg	71.8	359
65-85-0	Benzoic acid	U	718	ug/kg	179	718
91-20-3	Naphthalene	U	35.9	ug/kg	10.8	35.9
106-47-8	4-Chloroaniline	U	359	ug/kg	71.8	359
87-68-3	Hexachlorobutadiene	U	359	ug/kg	71.8	359
91-57-6	2-Methylnaphthalene	U	35.9	ug/kg	7.18	35.9
77-47-4	Hexachlorocyclopentadiene	U	359	ug/kg	71.8	359
88-06-2	2,4,6-Trichlorophenol	U	359	ug/kg	71.8	359
95-95-4	2,4,5-Trichlorophenol	U	359	ug/kg	71.8	359
91-58-7	2-Chloronaphthalene	U	35.9	ug/kg	11.8	35.9
88-74-4	2-Nitroaniline	U	359	ug/kg	71.8	359
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	359	ug/kg	71.8	359

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1086**	**Date Collected:**	**12/22/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243552001**	**Date Received:**	**12/24/2009 09:30**	**%Moisture:**	**7.4**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14233**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**937151**	**Inst:**	**MSD3.I**	**Dilution:**	**1**
Run Date:	**01/04/2010 20:24**	**Analyst:**	**JLD1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/29/2009 10:16**	**Aliquot:**	**30.09 g**	**Final Volume:**	**1 mL**
Data File:	**s3a0422.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	359	ug/kg	71.8	359
606-20-2	2,6-Dinitrotoluene	U	359	ug/kg	35.9	359
208-96-8	Acenaphthylene	U	35.9	ug/kg	10.8	35.9
51-28-5	2,4-Dinitrophenol	U	718	ug/kg	136	718
132-64-9	Dibenzofuran	U	359	ug/kg	71.8	359
84-66-2	Diethylphthalate	U	359	ug/kg	71.8	359
86-73-7	Fluorene	U	35.9	ug/kg	10.8	35.9
7005-72-3	4-Chlorophenylphenylether	U	359	ug/kg	71.8	359
534-52-1	2-Methyl-4,6-dinitrophenol	U	359	ug/kg	71.8	359
100-01-6	4-Nitroaniline	U	359	ug/kg	108	359
	p-Nitroaniline					
122-39-4	Diphenylamine	U	359	ug/kg	71.8	359
122-66-7	Azobenzene	U	359	ug/kg	71.8	359
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	359	ug/kg	71.8	359
118-74-1	Hexachlorobenzene	U	359	ug/kg	71.8	359
85-01-8	Phenanthrene	U	35.9	ug/kg	10.8	35.9
120-12-7	Anthracene	U	35.9	ug/kg	7.18	35.9
84-74-2	Di-n-butylphthalate	U	359	ug/kg	71.8	359
206-44-0	Fluoranthene	U	35.9	ug/kg	10.8	35.9
85-68-7	Butylbenzylphthalate	U	359	ug/kg	71.8	359
56-55-3	Benzo(a)anthracene	U	35.9	ug/kg	10.8	35.9
91-94-1	3,3'-Dichlorobenzidine	U	359	ug/kg	108	359
218-01-9	Chrysene	U	35.9	ug/kg	10.8	35.9
117-81-7	bis(2-Ethylhexyl)phthalate	U	359	ug/kg	71.8	359
117-84-0	Di-n-octylphthalate	U	359	ug/kg	71.8	359
205-99-2	Benzo(b)fluoranthene	U	35.9	ug/kg	10.8	35.9
207-08-9	Benzo(k)fluoranthene	U	35.9	ug/kg	10.8	35.9
50-32-8	Benzo(a)pyrene	U	35.9	ug/kg	10.8	35.9
193-39-5	Indeno(1,2,3-cd)pyrene	U	35.9	ug/kg	10.8	35.9
53-70-3	Dibenzo(a,h)anthracene	U	35.9	ug/kg	10.8	35.9
191-24-2	Benzo(ghi)perylene	U	35.9	ug/kg	10.8	35.9
120-82-1	1,2,4-Trichlorobenzene	U	359	ug/kg	71.8	359

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.85	422	ug/kg		JA
301-02-0	9-Octadecenamide, (Z)-	12.78	227	ug/kg	86	NJ

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1086**	**Date Collected:**	**12/22/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243552009**	**Date Received:**	**12/24/2009 09:30**	**%Moisture:**	**7.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14234**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**937151**	**Inst:**	**MSD3.I**	**Dilution:**	**1**
Run Date:	**01/05/2010 00:29**	**Analyst:**	**JLD1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/29/2009 10:16**	**Aliquot:**	**30.09 g**	**Final Volume:**	**1 mL**
Data File:	**s3a0432.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	359	ug/kg	71.8	359
108-95-2	Phenol	U	359	ug/kg	71.8	359
95-57-8	2-Chlorophenol	U	359	ug/kg	71.8	359
106-46-7	1,4-Dichlorobenzene	U	359	ug/kg	71.8	359
621-64-7	N-Nitrosodipropylamine	U	359	ug/kg	71.8	359
59-50-7	4-Chloro-3-methylphenol	U	359	ug/kg	71.8	359
83-32-9	Acenaphthene	U	35.9	ug/kg	11.9	35.9
121-14-2	2,4-Dinitrotoluene	U	359	ug/kg	35.9	359
100-02-7	4-Nitrophenol	U	359	ug/kg	119	359
87-86-5	Pentachlorophenol	U	359	ug/kg	89.8	359
129-00-0	Pyrene	U	35.9	ug/kg	10.8	35.9
110-86-1	Pyridine	U	359	ug/kg	71.8	359
62-53-3	Aniline	U	359	ug/kg	108	359
111-44-4	bis(2-Chloroethyl) ether	U	359	ug/kg	71.8	359
541-73-1	1,3-Dichlorobenzene	U	359	ug/kg	71.8	359
100-51-6	Benzyl alcohol	U	359	ug/kg	108	359
95-50-1	1,2-Dichlorobenzene	U	359	ug/kg	71.8	359
108-60-1	bis(2-Chloroisopropyl)ether	U	359	ug/kg	71.8	359
95-48-7	o-Cresol	U	359	ug/kg	71.8	359
65794-96-9	m,p-Cresols	U	359	ug/kg	108	359
67-72-1	Hexachloroethane	U	359	ug/kg	71.8	359
98-95-3	Nitrobenzene	U	359	ug/kg	71.8	359
78-59-1	Isophorone	U	359	ug/kg	71.8	359
88-75-5	2-Nitrophenol	U	359	ug/kg	71.8	359
105-67-9	2,4-Dimethylphenol	U	359	ug/kg	126	359
111-91-1	bis(2-Chloroethoxy)methane	U	359	ug/kg	71.8	359
120-83-2	2,4-Dichlorophenol	U	359	ug/kg	71.8	359
65-85-0	Benzoic acid	U	718	ug/kg	180	718
91-20-3	Naphthalene	U	35.9	ug/kg	10.8	35.9
106-47-8	4-Chloroaniline	U	359	ug/kg	71.8	359
87-68-3	Hexachlorobutadiene	U	359	ug/kg	71.8	359
91-57-6	2-Methylnaphthalene	U	35.9	ug/kg	7.18	35.9
77-47-4	Hexachlorocyclopentadiene	U	359	ug/kg	71.8	359
88-06-2	2,4,6-Trichlorophenol	U	359	ug/kg	71.8	359
95-95-4	2,4,5-Trichlorophenol	U	359	ug/kg	71.8	359
91-58-7	2-Chloronaphthalene	U	35.9	ug/kg	11.9	35.9
88-74-4	2-Nitroaniline	U	359	ug/kg	71.8	359
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	359	ug/kg	71.8	359

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1086**	**Date Collected:**	**12/22/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243552009**	**Date Received:**	**12/24/2009 09:30**	**%Moisture:**	**7.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14234**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**937151**	**Inst:**	**MSD3.I**	**Dilution:**	**1**
Run Date:	**01/05/2010 00:29**	**Analyst:**	**JLD1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/29/2009 10:16**	**Aliquot:**	**30.09 g**	**Final Volume:**	**1 mL**
Data File:	**s3a0432.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	359	ug/kg	71.8	359
606-20-2	2,6-Dinitrotoluene	U	359	ug/kg	35.9	359
208-96-8	Acenaphthylene	U	35.9	ug/kg	10.8	35.9
51-28-5	2,4-Dinitrophenol	U	718	ug/kg	136	718
132-64-9	Dibenzofuran	U	359	ug/kg	71.8	359
84-66-2	Diethylphthalate	U	359	ug/kg	71.8	359
86-73-7	Fluorene	U	35.9	ug/kg	10.8	35.9
7005-72-3	4-Chlorophenylphenylether	U	359	ug/kg	71.8	359
534-52-1	2-Methyl-4,6-dinitrophenol	U	359	ug/kg	71.8	359
100-01-6	4-Nitroaniline	U	359	ug/kg	108	359
	p-Nitroaniline					
122-39-4	Diphenylamine	U	359	ug/kg	71.8	359
122-66-7	Azobenzene	U	359	ug/kg	71.8	359
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	359	ug/kg	71.8	359
118-74-1	Hexachlorobenzene	U	359	ug/kg	71.8	359
85-01-8	Phenanthrene	U	35.9	ug/kg	10.8	35.9
120-12-7	Anthracene	U	35.9	ug/kg	7.18	35.9
84-74-2	Di-n-butylphthalate	U	359	ug/kg	71.8	359
206-44-0	Fluoranthene	U	35.9	ug/kg	10.8	35.9
85-68-7	Butylbenzylphthalate	U	359	ug/kg	71.8	359
56-55-3	Benzo(a)anthracene	U	35.9	ug/kg	10.8	35.9
91-94-1	3,3'-Dichlorobenzidine	U	359	ug/kg	108	359
218-01-9	Chrysene	U	35.9	ug/kg	10.8	35.9
117-81-7	bis(2-Ethylhexyl)phthalate	U	359	ug/kg	71.8	359
117-84-0	Di-n-octylphthalate	U	359	ug/kg	71.8	359
205-99-2	Benzo(b)fluoranthene	U	35.9	ug/kg	10.8	35.9
207-08-9	Benzo(k)fluoranthene	U	35.9	ug/kg	10.8	35.9
50-32-8	Benzo(a)pyrene	U	35.9	ug/kg	10.8	35.9
193-39-5	Indeno(1,2,3-cd)pyrene	U	35.9	ug/kg	10.8	35.9
53-70-3	Dibenzo(a,h)anthracene	U	35.9	ug/kg	10.8	35.9
191-24-2	Benzo(ghi)perylene	U	35.9	ug/kg	10.8	35.9
120-82-1	1,2,4-Trichlorobenzene	U	359	ug/kg	71.8	359

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.85	356	ug/kg		JA
	Unknown	12.78	166	ug/kg		J

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1086**	**Date Collected:**	**12/22/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243552007**	**Date Received:**	**12/24/2009 09:30**	**%Moisture:**	**22.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14235**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**937151**	**Inst:**	**MSD3.I**	**Dilution:**	**1**
Run Date:	**01/04/2010 23:40**	**Analyst:**	**JLD1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/29/2009 10:16**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**s3a0430.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	430	ug/kg	86.0	430
108-95-2	Phenol	U	430	ug/kg	86.0	430
95-57-8	2-Chlorophenol	U	430	ug/kg	86.0	430
106-46-7	1,4-Dichlorobenzene	U	430	ug/kg	86.0	430
621-64-7	N-Nitrosodipropylamine	U	430	ug/kg	86.0	430
59-50-7	4-Chloro-3-methylphenol	U	430	ug/kg	86.0	430
83-32-9	Acenaphthene	U	43.0	ug/kg	14.2	43.0
121-14-2	2,4-Dinitrotoluene	U	430	ug/kg	43.0	430
100-02-7	4-Nitrophenol	U	430	ug/kg	142	430
87-86-5	Pentachlorophenol	U	430	ug/kg	107	430
129-00-0	Pyrene	U	43.0	ug/kg	12.9	43.0
110-86-1	Pyridine	U	430	ug/kg	86.0	430
62-53-3	Aniline	U	430	ug/kg	129	430
111-44-4	bis(2-Chloroethyl) ether	U	430	ug/kg	86.0	430
541-73-1	1,3-Dichlorobenzene	U	430	ug/kg	86.0	430
100-51-6	Benzyl alcohol	U	430	ug/kg	129	430
95-50-1	1,2-Dichlorobenzene	U	430	ug/kg	86.0	430
108-60-1	bis(2-Chloroisopropyl)ether	U	430	ug/kg	86.0	430
95-48-7	o-Cresol	U	430	ug/kg	86.0	430
65794-96-9	m,p-Cresols	U	430	ug/kg	129	430
67-72-1	Hexachloroethane	U	430	ug/kg	86.0	430
98-95-3	Nitrobenzene	U	430	ug/kg	86.0	430
78-59-1	Isophorone	U	430	ug/kg	86.0	430
88-75-5	2-Nitrophenol	U	430	ug/kg	86.0	430
105-67-9	2,4-Dimethylphenol	U	430	ug/kg	150	430
111-91-1	bis(2-Chloroethoxy)methane	U	430	ug/kg	86.0	430
120-83-2	2,4-Dichlorophenol	U	430	ug/kg	86.0	430
65-85-0	Benzoic acid	U	860	ug/kg	215	860
91-20-3	Naphthalene	U	43.0	ug/kg	12.9	43.0
106-47-8	4-Chloroaniline	U	430	ug/kg	86.0	430
87-68-3	Hexachlorobutadiene	U	430	ug/kg	86.0	430
91-57-6	2-Methylnaphthalene	U	43.0	ug/kg	8.60	43.0
77-47-4	Hexachlorocyclopentadiene	U	430	ug/kg	86.0	430
88-06-2	2,4,6-Trichlorophenol	U	430	ug/kg	86.0	430
95-95-4	2,4,5-Trichlorophenol	U	430	ug/kg	86.0	430
91-58-7	2-Chloronaphthalene	U	43.0	ug/kg	14.2	43.0
88-74-4	2-Nitroaniline	U	430	ug/kg	86.0	430
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	430	ug/kg	86.0	430

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1086**	**Date Collected:**	**12/22/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243552007**	**Date Received:**	**12/24/2009 09:30**	**%Moisture:**	**22.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14235**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**937151**	**Inst:**	**MSD3.I**	**Dilution:**	**1**
Run Date:	**01/04/2010 23:40**	**Analyst:**	**JLD1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/29/2009 10:16**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**s3a0430.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	430	ug/kg	86.0	430
606-20-2	2,6-Dinitrotoluene	U	430	ug/kg	43.0	430
208-96-8	Acenaphthylene	U	43.0	ug/kg	12.9	43.0
51-28-5	2,4-Dinitrophenol	U	860	ug/kg	163	860
132-64-9	Dibenzofuran	U	430	ug/kg	86.0	430
84-66-2	Diethylphthalate	U	430	ug/kg	86.0	430
86-73-7	Fluorene	U	43.0	ug/kg	12.9	43.0
7005-72-3	4-Chlorophenylphenylether	U	430	ug/kg	86.0	430
534-52-1	2-Methyl-4,6-dinitrophenol	U	430	ug/kg	86.0	430
100-01-6	4-Nitroaniline	U	430	ug/kg	129	430
	p-Nitroaniline					
122-39-4	Diphenylamine	U	430	ug/kg	86.0	430
122-66-7	Azobenzene	U	430	ug/kg	86.0	430
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	430	ug/kg	86.0	430
118-74-1	Hexachlorobenzene	U	430	ug/kg	86.0	430
85-01-8	Phenanthrene	U	43.0	ug/kg	12.9	43.0
120-12-7	Anthracene	U	43.0	ug/kg	8.60	43.0
84-74-2	Di-n-butylphthalate	U	430	ug/kg	86.0	430
206-44-0	Fluoranthene	U	43.0	ug/kg	12.9	43.0
85-68-7	Butylbenzylphthalate	U	430	ug/kg	86.0	430
56-55-3	Benzo(a)anthracene	U	43.0	ug/kg	12.9	43.0
91-94-1	3,3'-Dichlorobenzidine	U	430	ug/kg	129	430
218-01-9	Chrysene	U	43.0	ug/kg	12.9	43.0
117-81-7	bis(2-Ethylhexyl)phthalate	U	430	ug/kg	86.0	430
117-84-0	Di-n-octylphthalate	U	430	ug/kg	86.0	430
205-99-2	Benzo(b)fluoranthene	U	43.0	ug/kg	12.9	43.0
207-08-9	Benzo(k)fluoranthene	U	43.0	ug/kg	12.9	43.0
50-32-8	Benzo(a)pyrene	U	43.0	ug/kg	12.9	43.0
193-39-5	Indeno(1,2,3-cd)pyrene	U	43.0	ug/kg	12.9	43.0
53-70-3	Dibenzo(a,h)anthracene	U	43.0	ug/kg	12.9	43.0
191-24-2	Benzo(ghi)perylene	U	43.0	ug/kg	12.9	43.0
120-82-1	1,2,4-Trichlorobenzene	U	430	ug/kg	86.0	430

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.85	603	ug/kg		JA

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1086**	**Date Collected:**	**12/22/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243552002**	**Date Received:**	**12/24/2009 09:30**	**%Moisture:**	**16.2**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14236**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**937151**	**Inst:**	**MSD3.I**	**Dilution:**	**1**
Run Date:	**01/04/2010 21:37**	**Analyst:**	**JLD1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/29/2009 10:16**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**s3a0425.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	398	ug/kg	79.5	398
108-95-2	Phenol	U	398	ug/kg	79.5	398
95-57-8	2-Chlorophenol	U	398	ug/kg	79.5	398
106-46-7	1,4-Dichlorobenzene	U	398	ug/kg	79.5	398
621-64-7	N-Nitrosodipropylamine	U	398	ug/kg	79.5	398
59-50-7	4-Chloro-3-methylphenol	U	398	ug/kg	79.5	398
83-32-9	Acenaphthene	U	39.8	ug/kg	13.1	39.8
121-14-2	2,4-Dinitrotoluene	U	398	ug/kg	39.8	398
100-02-7	4-Nitrophenol	U	398	ug/kg	131	398
87-86-5	Pentachlorophenol	U	398	ug/kg	99.4	398
129-00-0	Pyrene	U	39.8	ug/kg	11.9	39.8
110-86-1	Pyridine	U	398	ug/kg	79.5	398
62-53-3	Aniline	U	398	ug/kg	119	398
111-44-4	bis(2-Chloroethyl) ether	U	398	ug/kg	79.5	398
541-73-1	1,3-Dichlorobenzene	U	398	ug/kg	79.5	398
100-51-6	Benzyl alcohol	U	398	ug/kg	119	398
95-50-1	1,2-Dichlorobenzene	U	398	ug/kg	79.5	398
108-60-1	bis(2-Chloroisopropyl)ether	U	398	ug/kg	79.5	398
95-48-7	o-Cresol	U	398	ug/kg	79.5	398
65794-96-9	m,p-Cresols	U	398	ug/kg	119	398
67-72-1	Hexachloroethane	U	398	ug/kg	79.5	398
98-95-3	Nitrobenzene	U	398	ug/kg	79.5	398
78-59-1	Isophorone	U	398	ug/kg	79.5	398
88-75-5	2-Nitrophenol	U	398	ug/kg	79.5	398
105-67-9	2,4-Dimethylphenol	U	398	ug/kg	139	398
111-91-1	bis(2-Chloroethoxy)methane	U	398	ug/kg	79.5	398
120-83-2	2,4-Dichlorophenol	U	398	ug/kg	79.5	398
65-85-0	Benzoic acid	U	795	ug/kg	199	795
91-20-3	Naphthalene	U	39.8	ug/kg	11.9	39.8
106-47-8	4-Chloroaniline	U	398	ug/kg	79.5	398
87-68-3	Hexachlorobutadiene	U	398	ug/kg	79.5	398
91-57-6	2-Methylnaphthalene	U	39.8	ug/kg	7.95	39.8
77-47-4	Hexachlorocyclopentadiene	U	398	ug/kg	79.5	398
88-06-2	2,4,6-Trichlorophenol	U	398	ug/kg	79.5	398
95-95-4	2,4,5-Trichlorophenol	U	398	ug/kg	79.5	398
91-58-7	2-Chloronaphthalene	U	39.8	ug/kg	13.1	39.8
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	398	ug/kg	79.5	398
99-09-2	3-Nitroaniline	U	398	ug/kg	79.5	398

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1086**	**Date Collected:**	**12/22/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243552002**	**Date Received:**	**12/24/2009 09:30**	**%Moisture:**	**16.2**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14236**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**937151**	**Inst:**	**MSD3.I**	**Dilution:**	**1**
Run Date:	**01/04/2010 21:37**	**Analyst:**	**JLD1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/29/2009 10:16**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**s3a0425.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	398	ug/kg	79.5	398
606-20-2	2,6-Dinitrotoluene	U	398	ug/kg	39.8	398
208-96-8	Acenaphthylene	U	39.8	ug/kg	11.9	39.8
51-28-5	2,4-Dinitrophenol	U	795	ug/kg	151	795
132-64-9	Dibenzofuran	U	398	ug/kg	79.5	398
84-66-2	Diethylphthalate	U	398	ug/kg	79.5	398
86-73-7	Fluorene	U	39.8	ug/kg	11.9	39.8
7005-72-3	4-Chlorophenylphenylether	U	398	ug/kg	79.5	398
534-52-1	2-Methyl-4,6-dinitrophenol	U	398	ug/kg	79.5	398
100-01-6	4-Nitroaniline	U	398	ug/kg	119	398
	p-Nitroaniline					
122-39-4	Diphenylamine	U	398	ug/kg	79.5	398
122-66-7	Azobenzene	U	398	ug/kg	79.5	398
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	398	ug/kg	79.5	398
118-74-1	Hexachlorobenzene	U	398	ug/kg	79.5	398
85-01-8	Phenanthrene	U	39.8	ug/kg	11.9	39.8
120-12-7	Anthracene	U	39.8	ug/kg	7.95	39.8
84-74-2	Di-n-butylphthalate	U	398	ug/kg	79.5	398
206-44-0	Fluoranthene	U	39.8	ug/kg	11.9	39.8
85-68-7	Butylbenzylphthalate	U	398	ug/kg	79.5	398
56-55-3	Benzo(a)anthracene	U	39.8	ug/kg	11.9	39.8
91-94-1	3,3'-Dichlorobenzidine	U	398	ug/kg	119	398
218-01-9	Chrysene	U	39.8	ug/kg	11.9	39.8
117-81-7	bis(2-Ethylhexyl)phthalate	U	398	ug/kg	79.5	398
117-84-0	Di-n-octylphthalate	U	398	ug/kg	79.5	398
205-99-2	Benzo(b)fluoranthene	U	39.8	ug/kg	11.9	39.8
207-08-9	Benzo(k)fluoranthene	U	39.8	ug/kg	11.9	39.8
50-32-8	Benzo(a)pyrene	U	39.8	ug/kg	11.9	39.8
193-39-5	Indeno(1,2,3-cd)pyrene	U	39.8	ug/kg	11.9	39.8
53-70-3	Dibenzo(a,h)anthracene	U	39.8	ug/kg	11.9	39.8
191-24-2	Benzo(ghi)perylene	U	39.8	ug/kg	11.9	39.8
120-82-1	1,2,4-Trichlorobenzene	U	398	ug/kg	79.5	398

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.85	522	ug/kg		JA
112-84-5	13-Docosenamide, (Z)-	12.78	267	ug/kg	90	NJ

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1086**	**Date Collected:**	**12/22/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243552008**	**Date Received:**	**12/24/2009 09:30**	**%Moisture:**	**5.4**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14238**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**937151**	**Inst:**	**MSD3.I**	**Dilution:**	**1**
Run Date:	**01/05/2010 00:04**	**Analyst:**	**JLD1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/29/2009 10:16**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**s3a0431.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	352	ug/kg	70.5	352
108-95-2	Phenol	U	352	ug/kg	70.5	352
95-57-8	2-Chlorophenol	U	352	ug/kg	70.5	352
106-46-7	1,4-Dichlorobenzene	U	352	ug/kg	70.5	352
621-64-7	N-Nitrosodipropylamine	U	352	ug/kg	70.5	352
59-50-7	4-Chloro-3-methylphenol	U	352	ug/kg	70.5	352
83-32-9	Acenaphthene	U	35.2	ug/kg	11.6	35.2
121-14-2	2,4-Dinitrotoluene	U	352	ug/kg	35.2	352
100-02-7	4-Nitrophenol	U	352	ug/kg	116	352
87-86-5	Pentachlorophenol	U	352	ug/kg	88.1	352
129-00-0	Pyrene	U	35.2	ug/kg	10.6	35.2
110-86-1	Pyridine	U	352	ug/kg	70.5	352
62-53-3	Aniline	U	352	ug/kg	106	352
111-44-4	bis(2-Chloroethyl) ether	U	352	ug/kg	70.5	352
541-73-1	1,3-Dichlorobenzene	U	352	ug/kg	70.5	352
100-51-6	Benzyl alcohol	U	352	ug/kg	106	352
95-50-1	1,2-Dichlorobenzene	U	352	ug/kg	70.5	352
108-60-1	bis(2-Chloroisopropyl)ether	U	352	ug/kg	70.5	352
95-48-7	o-Cresol	U	352	ug/kg	70.5	352
65794-96-9	m,p-Cresols	U	352	ug/kg	106	352
67-72-1	Hexachloroethane	U	352	ug/kg	70.5	352
98-95-3	Nitrobenzene	U	352	ug/kg	70.5	352
78-59-1	Isophorone	U	352	ug/kg	70.5	352
88-75-5	2-Nitrophenol	U	352	ug/kg	70.5	352
105-67-9	2,4-Dimethylphenol	U	352	ug/kg	123	352
111-91-1	bis(2-Chloroethoxy)methane	U	352	ug/kg	70.5	352
120-83-2	2,4-Dichlorophenol	U	352	ug/kg	70.5	352
65-85-0	Benzoic acid	U	705	ug/kg	176	705
91-20-3	Naphthalene	U	35.2	ug/kg	10.6	35.2
106-47-8	4-Chloroaniline	U	352	ug/kg	70.5	352
87-68-3	Hexachlorobutadiene	U	352	ug/kg	70.5	352
91-57-6	2-Methylnaphthalene	U	35.2	ug/kg	7.05	35.2
77-47-4	Hexachlorocyclopentadiene	U	352	ug/kg	70.5	352
88-06-2	2,4,6-Trichlorophenol	U	352	ug/kg	70.5	352
95-95-4	2,4,5-Trichlorophenol	U	352	ug/kg	70.5	352
91-58-7	2-Chloronaphthalene	U	35.2	ug/kg	11.6	35.2
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	352	ug/kg	70.5	352
99-09-2	3-Nitroaniline	U	352	ug/kg	70.5	352

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1086**	**Date Collected:**	**12/22/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243552008**	**Date Received:**	**12/24/2009 09:30**	**%Moisture:**	**5.4**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14238**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**937151**	**Inst:**	**MSD3.I**	**Dilution:**	**1**
Run Date:	**01/05/2010 00:04**	**Analyst:**	**JLD1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/29/2009 10:16**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**s3a0431.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	352	ug/kg	70.5	352
606-20-2	2,6-Dinitrotoluene	U	352	ug/kg	35.2	352
208-96-8	Acenaphthylene	U	35.2	ug/kg	10.6	35.2
51-28-5	2,4-Dinitrophenol	U	705	ug/kg	134	705
132-64-9	Dibenzofuran	U	352	ug/kg	70.5	352
84-66-2	Diethylphthalate	U	352	ug/kg	70.5	352
86-73-7	Fluorene	U	35.2	ug/kg	10.6	35.2
7005-72-3	4-Chlorophenylphenylether	U	352	ug/kg	70.5	352
534-52-1	2-Methyl-4,6-dinitrophenol	U	352	ug/kg	70.5	352
100-01-6	4-Nitroaniline	U	352	ug/kg	106	352
	p-Nitroaniline					
122-39-4	Diphenylamine	U	352	ug/kg	70.5	352
122-66-7	Azobenzene	U	352	ug/kg	70.5	352
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	352	ug/kg	70.5	352
118-74-1	Hexachlorobenzene	U	352	ug/kg	70.5	352
85-01-8	Phenanthrene	U	35.2	ug/kg	10.6	35.2
120-12-7	Anthracene	U	35.2	ug/kg	7.05	35.2
84-74-2	Di-n-butylphthalate	U	352	ug/kg	70.5	352
206-44-0	Fluoranthene	U	35.2	ug/kg	10.6	35.2
85-68-7	Butylbenzylphthalate	U	352	ug/kg	70.5	352
56-55-3	Benzo(a)anthracene	U	35.2	ug/kg	10.6	35.2
91-94-1	3,3'-Dichlorobenzidine	U	352	ug/kg	106	352
218-01-9	Chrysene	U	35.2	ug/kg	10.6	35.2
117-81-7	bis(2-Ethylhexyl)phthalate	U	352	ug/kg	70.5	352
117-84-0	Di-n-octylphthalate	U	352	ug/kg	70.5	352
205-99-2	Benzo(b)fluoranthene	U	35.2	ug/kg	10.6	35.2
207-08-9	Benzo(k)fluoranthene	U	35.2	ug/kg	10.6	35.2
50-32-8	Benzo(a)pyrene	U	35.2	ug/kg	10.6	35.2
193-39-5	Indeno(1,2,3-cd)pyrene	U	35.2	ug/kg	10.6	35.2
53-70-3	Dibenzo(a,h)anthracene	U	35.2	ug/kg	10.6	35.2
191-24-2	Benzo(ghi)perylene	U	35.2	ug/kg	10.6	35.2
120-82-1	1,2,4-Trichlorobenzene	U	352	ug/kg	70.5	352

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.85	504	ug/kg		JA

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1086**	**Date Collected:**	**12/22/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243552003**	**Date Received:**	**12/24/2009 09:30**	**%Moisture:**	**5.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14239**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**937151**	**Inst:**	**MSD3.I**	**Dilution:**	**1**
Run Date:	**01/04/2010 22:02**	**Analyst:**	**JLD1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/29/2009 10:16**	**Aliquot:**	**30.05 g**	**Final Volume:**	**1 mL**
Data File:	**s3a0426.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	352	ug/kg	70.4	352
108-95-2	Phenol	U	352	ug/kg	70.4	352
95-57-8	2-Chlorophenol	U	352	ug/kg	70.4	352
106-46-7	1,4-Dichlorobenzene	U	352	ug/kg	70.4	352
621-64-7	N-Nitrosodipropylamine	U	352	ug/kg	70.4	352
59-50-7	4-Chloro-3-methylphenol	U	352	ug/kg	70.4	352
83-32-9	Acenaphthene	U	35.2	ug/kg	11.6	35.2
121-14-2	2,4-Dinitrotoluene	U	352	ug/kg	35.2	352
100-02-7	4-Nitrophenol	U	352	ug/kg	116	352
87-86-5	Pentachlorophenol	U	352	ug/kg	88.0	352
129-00-0	Pyrene	U	35.2	ug/kg	10.6	35.2
110-86-1	Pyridine	U	352	ug/kg	70.4	352
62-53-3	Aniline	U	352	ug/kg	106	352
111-44-4	bis(2-Chloroethyl) ether	U	352	ug/kg	70.4	352
541-73-1	1,3-Dichlorobenzene	U	352	ug/kg	70.4	352
100-51-6	Benzyl alcohol	U	352	ug/kg	106	352
95-50-1	1,2-Dichlorobenzene	U	352	ug/kg	70.4	352
108-60-1	bis(2-Chloroisopropyl)ether	U	352	ug/kg	70.4	352
95-48-7	o-Cresol	U	352	ug/kg	70.4	352
65794-96-9	m,p-Cresols	U	352	ug/kg	106	352
67-72-1	Hexachloroethane	U	352	ug/kg	70.4	352
98-95-3	Nitrobenzene	U	352	ug/kg	70.4	352
78-59-1	Isophorone	U	352	ug/kg	70.4	352
88-75-5	2-Nitrophenol	U	352	ug/kg	70.4	352
105-67-9	2,4-Dimethylphenol	U	352	ug/kg	123	352
111-91-1	bis(2-Chloroethoxy)methane	U	352	ug/kg	70.4	352
120-83-2	2,4-Dichlorophenol	U	352	ug/kg	70.4	352
65-85-0	Benzoic acid	U	704	ug/kg	176	704
91-20-3	Naphthalene	U	35.2	ug/kg	10.6	35.2
106-47-8	4-Chloroaniline	U	352	ug/kg	70.4	352
87-68-3	Hexachlorobutadiene	U	352	ug/kg	70.4	352
91-57-6	2-Methylnaphthalene	U	35.2	ug/kg	7.04	35.2
77-47-4	Hexachlorocyclopentadiene	U	352	ug/kg	70.4	352
88-06-2	2,4,6-Trichlorophenol	U	352	ug/kg	70.4	352
95-95-4	2,4,5-Trichlorophenol	U	352	ug/kg	70.4	352
91-58-7	2-Chloronaphthalene	U	35.2	ug/kg	11.6	35.2
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	352	ug/kg	70.4	352
99-09-2	3-Nitroaniline	U	352	ug/kg	70.4	352

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1086**	**Date Collected:**	**12/22/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243552003**	**Date Received:**	**12/24/2009 09:30**	**%Moisture:**	**5.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14239**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**937151**	**Inst:**	**MSD3.I**	**Dilution:**	**1**
Run Date:	**01/04/2010 22:02**	**Analyst:**	**JLD1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/29/2009 10:16**	**Aliquot:**	**30.05 g**	**Final Volume:**	**1 mL**
Data File:	**s3a0426.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	352	ug/kg	70.4	352
606-20-2	2,6-Dinitrotoluene	U	352	ug/kg	35.2	352
208-96-8	Acenaphthylene	U	35.2	ug/kg	10.6	35.2
51-28-5	2,4-Dinitrophenol	U	704	ug/kg	134	704
132-64-9	Dibenzofuran	U	352	ug/kg	70.4	352
84-66-2	Diethylphthalate	U	352	ug/kg	70.4	352
86-73-7	Fluorene	U	35.2	ug/kg	10.6	35.2
7005-72-3	4-Chlorophenylphenylether	U	352	ug/kg	70.4	352
534-52-1	2-Methyl-4,6-dinitrophenol	U	352	ug/kg	70.4	352
100-01-6	4-Nitroaniline	U	352	ug/kg	106	352
	p-Nitroaniline					
122-39-4	Diphenylamine	U	352	ug/kg	70.4	352
122-66-7	Azobenzene	U	352	ug/kg	70.4	352
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	352	ug/kg	70.4	352
118-74-1	Hexachlorobenzene	U	352	ug/kg	70.4	352
85-01-8	Phenanthrene	U	35.2	ug/kg	10.6	35.2
120-12-7	Anthracene	U	35.2	ug/kg	7.04	35.2
84-74-2	Di-n-butylphthalate	U	352	ug/kg	70.4	352
206-44-0	Fluoranthene	U	35.2	ug/kg	10.6	35.2
85-68-7	Butylbenzylphthalate	U	352	ug/kg	70.4	352
56-55-3	Benzo(a)anthracene	U	35.2	ug/kg	10.6	35.2
91-94-1	3,3'-Dichlorobenzidine	U	352	ug/kg	106	352
218-01-9	Chrysene	U	35.2	ug/kg	10.6	35.2
117-81-7	bis(2-Ethylhexyl)phthalate	U	352	ug/kg	70.4	352
117-84-0	Di-n-octylphthalate	U	352	ug/kg	70.4	352
205-99-2	Benzo(b)fluoranthene	U	35.2	ug/kg	10.6	35.2
207-08-9	Benzo(k)fluoranthene	U	35.2	ug/kg	10.6	35.2
50-32-8	Benzo(a)pyrene	U	35.2	ug/kg	10.6	35.2
193-39-5	Indeno(1,2,3-cd)pyrene	U	35.2	ug/kg	10.6	35.2
53-70-3	Dibenzo(a,h)anthracene	U	35.2	ug/kg	10.6	35.2
191-24-2	Benzo(ghi)perylene	U	35.2	ug/kg	10.6	35.2
120-82-1	1,2,4-Trichlorobenzene	U	352	ug/kg	70.4	352

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.85	501	ug/kg		JA
301-02-0	9-Octadecenamide, (Z)-	12.78	226	ug/kg	86	NJ

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1086**	**Date Collected:**	**12/22/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243552004**	**Date Received:**	**12/24/2009 09:30**	**%Moisture:**	**5.4**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14240**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**937151**	**Inst:**	**MSD3.1**	**Dilution:**	**1**
Run Date:	**01/04/2010 22:27**	**Analyst:**	**JLD1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/29/2009 10:16**	**Aliquot:**	**30.03 g**	**Final Volume:**	**1 mL**
Data File:	**s3a0427.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	352	ug/kg	70.4	352
108-95-2	Phenol	U	352	ug/kg	70.4	352
95-57-8	2-Chlorophenol	U	352	ug/kg	70.4	352
106-46-7	1,4-Dichlorobenzene	U	352	ug/kg	70.4	352
621-64-7	N-Nitrosodipropylamine	U	352	ug/kg	70.4	352
59-50-7	4-Chloro-3-methylphenol	U	352	ug/kg	70.4	352
83-32-9	Acenaphthene	U	35.2	ug/kg	11.6	35.2
121-14-2	2,4-Dinitrotoluene	U	352	ug/kg	35.2	352
100-02-7	4-Nitrophenol	U	352	ug/kg	116	352
87-86-5	Pentachlorophenol	U	352	ug/kg	88.0	352
129-00-0	Pyrene	U	35.2	ug/kg	10.6	35.2
110-86-1	Pyridine	U	352	ug/kg	70.4	352
62-53-3	Aniline	U	352	ug/kg	106	352
111-44-4	bis(2-Chloroethyl) ether	U	352	ug/kg	70.4	352
541-73-1	1,3-Dichlorobenzene	U	352	ug/kg	70.4	352
100-51-6	Benzyl alcohol	U	352	ug/kg	106	352
95-50-1	1,2-Dichlorobenzene	U	352	ug/kg	70.4	352
108-60-1	bis(2-Chloroisopropyl)ether	U	352	ug/kg	70.4	352
95-48-7	o-Cresol	U	352	ug/kg	70.4	352
65794-96-9	m,p-Cresols	U	352	ug/kg	106	352
67-72-1	Hexachloroethane	U	352	ug/kg	70.4	352
98-95-3	Nitrobenzene	U	352	ug/kg	70.4	352
78-59-1	Isophorone	U	352	ug/kg	70.4	352
88-75-5	2-Nitrophenol	U	352	ug/kg	70.4	352
105-67-9	2,4-Dimethylphenol	U	352	ug/kg	123	352
111-91-1	bis(2-Chloroethoxy)methane	U	352	ug/kg	70.4	352
120-83-2	2,4-Dichlorophenol	U	352	ug/kg	70.4	352
65-85-0	Benzoic acid	U	704	ug/kg	176	704
91-20-3	Naphthalene	U	35.2	ug/kg	10.6	35.2
106-47-8	4-Chloroaniline	U	352	ug/kg	70.4	352
87-68-3	Hexachlorobutadiene	U	352	ug/kg	70.4	352
91-57-6	2-Methylnaphthalene	U	35.2	ug/kg	7.04	35.2
77-47-4	Hexachlorocyclopentadiene	U	352	ug/kg	70.4	352
88-06-2	2,4,6-Trichlorophenol	U	352	ug/kg	70.4	352
95-95-4	2,4,5-Trichlorophenol	U	352	ug/kg	70.4	352
91-58-7	2-Chloronaphthalene	U	35.2	ug/kg	11.6	35.2
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	352	ug/kg	70.4	352
99-09-2	3-Nitroaniline	U	352	ug/kg	70.4	352

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1086**	**Date Collected:**	**12/22/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243552004**	**Date Received:**	**12/24/2009 09:30**	**%Moisture:**	**5.4**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14240**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**937151**	**Inst:**	**MSD3.I**	**Dilution:**	**1**
Run Date:	**01/04/2010 22:27**	**Analyst:**	**JLD1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/29/2009 10:16**	**Aliquot:**	**30.03 g**	**Final Volume:**	**1 mL**
Data File:	**s3a0427.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	352	ug/kg	70.4	352
606-20-2	2,6-Dinitrotoluene	U	352	ug/kg	35.2	352
208-96-8	Acenaphthylene	U	35.2	ug/kg	10.6	35.2
51-28-5	2,4-Dinitrophenol	U	704	ug/kg	134	704
132-64-9	Dibenzofuran	U	352	ug/kg	70.4	352
84-66-2	Diethylphthalate	U	352	ug/kg	70.4	352
86-73-7	Fluorene	U	35.2	ug/kg	10.6	35.2
7005-72-3	4-Chlorophenylphenylether	U	352	ug/kg	70.4	352
534-52-1	2-Methyl-4,6-dinitrophenol	U	352	ug/kg	70.4	352
100-01-6	4-Nitroaniline	U	352	ug/kg	106	352
	p-Nitroaniline					
122-39-4	Diphenylamine	U	352	ug/kg	70.4	352
122-66-7	Azobenzene	U	352	ug/kg	70.4	352
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	352	ug/kg	70.4	352
118-74-1	Hexachlorobenzene	U	352	ug/kg	70.4	352
85-01-8	Phenanthrene	U	35.2	ug/kg	10.6	35.2
120-12-7	Anthracene	U	35.2	ug/kg	7.04	35.2
84-74-2	Di-n-butylphthalate	U	352	ug/kg	70.4	352
206-44-0	Fluoranthene	U	35.2	ug/kg	10.6	35.2
85-68-7	Butylbenzylphthalate	U	352	ug/kg	70.4	352
56-55-3	Benzo(a)anthracene	U	35.2	ug/kg	10.6	35.2
91-94-1	3,3'-Dichlorobenzidine	U	352	ug/kg	106	352
218-01-9	Chrysene	U	35.2	ug/kg	10.6	35.2
117-81-7	bis(2-Ethylhexyl)phthalate	U	352	ug/kg	70.4	352
117-84-0	Di-n-octylphthalate	U	352	ug/kg	70.4	352
205-99-2	Benzo(b)fluoranthene	U	35.2	ug/kg	10.6	35.2
207-08-9	Benzo(k)fluoranthene	U	35.2	ug/kg	10.6	35.2
50-32-8	Benzo(a)pyrene	U	35.2	ug/kg	10.6	35.2
193-39-5	Indeno(1,2,3-cd)pyrene	U	35.2	ug/kg	10.6	35.2
53-70-3	Dibenzo(a,h)anthracene	U	35.2	ug/kg	10.6	35.2
191-24-2	Benzo(ghi)perylene	U	35.2	ug/kg	10.6	35.2
120-82-1	1,2,4-Trichlorobenzene	U	352	ug/kg	70.4	352

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.85	447	ug/kg		JA
301-02-0	9-Octadecenamide, (Z)-	12.78	183	ug/kg	94	NJ

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1086	Date Collected:	12/22/2009 12:00	Matrix:	S
Lab Sample ID:	243552010	Date Received:	12/24/2009 09:30	%Moisture:	12.7
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14241	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	937151	Inst:	MSD3.I	Dilution:	1
Run Date:	01/05/2010 00:54	Analyst:	JLD1	Inj. Vol:	.5 uL
Prep Date:	12/29/2009 10:16	Aliquot:	30.08 g	Final Volume:	1 mL
Data File:	s3a0433.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	381	ug/kg	76.1	381
108-95-2	Phenol	U	381	ug/kg	76.1	381
95-57-8	2-Chlorophenol	U	381	ug/kg	76.1	381
106-46-7	1,4-Dichlorobenzene	U	381	ug/kg	76.1	381
621-64-7	N-Nitrosodipropylamine	U	381	ug/kg	76.1	381
59-50-7	4-Chloro-3-methylphenol	U	381	ug/kg	76.1	381
83-32-9	Acenaphthene	U	38.1	ug/kg	12.6	38.1
121-14-2	2,4-Dinitrotoluene	U	381	ug/kg	38.1	381
100-02-7	4-Nitrophenol	U	381	ug/kg	126	381
87-86-5	Pentachlorophenol	U	381	ug/kg	95.2	381
129-00-0	Pyrene	U	38.1	ug/kg	11.4	38.1
110-86-1	Pyridine	U	381	ug/kg	76.1	381
62-53-3	Aniline	U	381	ug/kg	114	381
111-44-4	bis(2-Chloroethyl) ether	U	381	ug/kg	76.1	381
541-73-1	1,3-Dichlorobenzene	U	381	ug/kg	76.1	381
100-51-6	Benzyl alcohol	U	381	ug/kg	114	381
95-50-1	1,2-Dichlorobenzene	U	381	ug/kg	76.1	381
108-60-1	bis(2-Chloroisopropyl)ether	U	381	ug/kg	76.1	381
95-48-7	o-Cresol	U	381	ug/kg	76.1	381
65794-96-9	m,p-Cresols	U	381	ug/kg	114	381
67-72-1	Hexachloroethane	U	381	ug/kg	76.1	381
98-95-3	Nitrobenzene	U	381	ug/kg	76.1	381
78-59-1	Isophorone	U	381	ug/kg	76.1	381
88-75-5	2-Nitrophenol	U	381	ug/kg	76.1	381
105-67-9	2,4-Dimethylphenol	U	381	ug/kg	133	381
111-91-1	bis(2-Chloroethoxy)methane	U	381	ug/kg	76.1	381
120-83-2	2,4-Dichlorophenol	U	381	ug/kg	76.1	381
65-85-0	Benzoic acid	U	761	ug/kg	190	761
91-20-3	Naphthalene	U	38.1	ug/kg	11.4	38.1
106-47-8	4-Chloroaniline	U	381	ug/kg	76.1	381
87-68-3	Hexachlorobutadiene	U	381	ug/kg	76.1	381
91-57-6	2-Methylnaphthalene	U	38.1	ug/kg	7.61	38.1
77-47-4	Hexachlorocyclopentadiene	U	381	ug/kg	76.1	381
88-06-2	2,4,6-Trichlorophenol	U	381	ug/kg	76.1	381
95-95-4	2,4,5-Trichlorophenol	U	381	ug/kg	76.1	381
91-58-7	2-Chloronaphthalene	U	38.1	ug/kg	12.6	38.1
88-74-4	2-Nitroaniline	U	381	ug/kg	76.1	381
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	381	ug/kg	76.1	381

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1086	Date Collected:	12/22/2009 12:00	Matrix:	S
Lab Sample ID:	243552010	Date Received:	12/24/2009 09:30	%Moisture:	12.7
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14241	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	937151	Inst:	MSD3.I	Dilution:	1
Run Date:	01/05/2010 00:54	Analyst:	JLD1	Inj. Vol:	.5 uL
Prep Date:	12/29/2009 10:16	Aliquot:	30.08 g	Final Volume:	1 mL
Data File:	s3a0433.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	381	ug/kg	76.1	381
606-20-2	2,6-Dinitrotoluene	U	381	ug/kg	38.1	381
208-96-8	Acenaphthylene	U	38.1	ug/kg	11.4	38.1
51-28-5	2,4-Dinitrophenol	U	761	ug/kg	145	761
132-64-9	Dibenzofuran	U	381	ug/kg	76.1	381
84-66-2	Diethylphthalate	U	381	ug/kg	76.1	381
86-73-7	Fluorene	U	38.1	ug/kg	11.4	38.1
7005-72-3	4-Chlorophenylphenylether	U	381	ug/kg	76.1	381
534-52-1	2-Methyl-4,6-dinitrophenol	U	381	ug/kg	76.1	381
100-01-6	4-Nitroaniline	U	381	ug/kg	114	381
	p-Nitroaniline					
122-39-4	Diphenylamine	U	381	ug/kg	76.1	381
122-66-7	Azobenzene	U	381	ug/kg	76.1	381
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	381	ug/kg	76.1	381
118-74-1	Hexachlorobenzene	U	381	ug/kg	76.1	381
85-01-8	Phenanthrene	U	38.1	ug/kg	11.4	38.1
120-12-7	Anthracene	U	38.1	ug/kg	7.61	38.1
84-74-2	Di-n-butylphthalate	U	381	ug/kg	76.1	381
206-44-0	Fluoranthene	U	38.1	ug/kg	11.4	38.1
85-68-7	Butylbenzylphthalate	U	381	ug/kg	76.1	381
56-55-3	Benzo(a)anthracene	U	38.1	ug/kg	11.4	38.1
91-94-1	3,3'-Dichlorobenzidine	U	381	ug/kg	114	381
218-01-9	Chrysene	U	38.1	ug/kg	11.4	38.1
117-81-7	bis(2-Ethylhexyl)phthalate	U	381	ug/kg	76.1	381
117-84-0	Di-n-octylphthalate	U	381	ug/kg	76.1	381
205-99-2	Benzo(b)fluoranthene	U	38.1	ug/kg	11.4	38.1
207-08-9	Benzo(k)fluoranthene	U	38.1	ug/kg	11.4	38.1
50-32-8	Benzo(a)pyrene	U	38.1	ug/kg	11.4	38.1
193-39-5	Indeno(1,2,3-cd)pyrene	U	38.1	ug/kg	11.4	38.1
53-70-3	Dibenzo(a,h)anthracene	U	38.1	ug/kg	11.4	38.1
191-24-2	Benzo(ghi)perylene	U	38.1	ug/kg	11.4	38.1
120-82-1	1,2,4-Trichlorobenzene	U	381	ug/kg	76.1	381

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.85	485	ug/kg		JA
301-02-0	9-Octadecenamide, (Z)-	11.13	190	ug/kg	91	NJ

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1086	**Date Collected:**	12/22/2009 12:00	**Matrix:**	S
Lab Sample ID:	243552010	**Date Received:**	12/24/2009 09:30	**%Moisture:**	12.7
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14241	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	937151	**Inst:**	MSD3.I	**Dilution:**	1
Run Date:	01/05/2010 00:54	**Analyst:**	JLD1	**Inj. Vol:**	.5 uL
Prep Date:	12/29/2009 10:16	**Aliquot:**	30.08 g	**Final Volume:**	1 mL
Data File:	s3a0433.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
112-84-5	13-Docosenamide, (Z)-	12.78	563	ug/kg	93	NJ

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1086**	**Date Collected:**	**12/22/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243552012**	**Date Received:**	**12/24/2009 09:30**	**%Moisture:**	**7**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-10-2736**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**937151**	**Inst:**	**MSD3.I**	**Dilution:**	**1**
Run Date:	**01/05/2010 01:42**	**Analyst:**	**JLD1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/29/2009 10:16**	**Aliquot:**	**30.04 g**	**Final Volume:**	**1 mL**
Data File:	**s3a0435.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	358	ug/kg	71.6	358
108-95-2	Phenol	U	358	ug/kg	71.6	358
95-57-8	2-Chlorophenol	U	358	ug/kg	71.6	358
106-46-7	1,4-Dichlorobenzene	U	358	ug/kg	71.6	358
621-64-7	N-Nitrosodipropylamine	U	358	ug/kg	71.6	358
59-50-7	4-Chloro-3-methylphenol	U	358	ug/kg	71.6	358
83-32-9	Acenaphthene	U	35.8	ug/kg	11.8	35.8
121-14-2	2,4-Dinitrotoluene	U	358	ug/kg	35.8	358
100-02-7	4-Nitrophenol	U	358	ug/kg	118	358
87-86-5	Pentachlorophenol	U	358	ug/kg	89.5	358
129-00-0	Pyrene	U	35.8	ug/kg	10.7	35.8
110-86-1	Pyridine	U	358	ug/kg	71.6	358
62-53-3	Aniline	U	358	ug/kg	107	358
111-44-4	bis(2-Chloroethyl) ether	U	358	ug/kg	71.6	358
541-73-1	1,3-Dichlorobenzene	U	358	ug/kg	71.6	358
100-51-6	Benzyl alcohol	U	358	ug/kg	107	358
95-50-1	1,2-Dichlorobenzene	U	358	ug/kg	71.6	358
108-60-1	bis(2-Chloroisopropyl)ether	U	358	ug/kg	71.6	358
95-48-7	o-Cresol	U	358	ug/kg	71.6	358
65794-96-9	m,p-Cresols	U	358	ug/kg	107	358
67-72-1	Hexachloroethane	U	358	ug/kg	71.6	358
98-95-3	Nitrobenzene	U	358	ug/kg	71.6	358
78-59-1	Isophorone	U	358	ug/kg	71.6	358
88-75-5	2-Nitrophenol	U	358	ug/kg	71.6	358
105-67-9	2,4-Dimethylphenol	U	358	ug/kg	125	358
111-91-1	bis(2-Chloroethoxy)methane	U	358	ug/kg	71.6	358
120-83-2	2,4-Dichlorophenol	U	358	ug/kg	71.6	358
65-85-0	Benzoic acid	U	716	ug/kg	179	716
91-20-3	Naphthalene	U	35.8	ug/kg	10.7	35.8
106-47-8	4-Chloroaniline	U	358	ug/kg	71.6	358
87-68-3	Hexachlorobutadiene	U	358	ug/kg	71.6	358
91-57-6	2-Methylnaphthalene	U	35.8	ug/kg	7.16	35.8
77-47-4	Hexachlorocyclopentadiene	U	358	ug/kg	71.6	358
88-06-2	2,4,6-Trichlorophenol	U	358	ug/kg	71.6	358
95-95-4	2,4,5-Trichlorophenol	U	358	ug/kg	71.6	358
91-58-7	2-Chloronaphthalene	U	35.8	ug/kg	11.8	35.8
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	358	ug/kg	71.6	358
99-09-2	3-Nitroaniline	U	358	ug/kg	71.6	358

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1086**	**Date Collected:**	**12/22/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243552012**	**Date Received:**	**12/24/2009 09:30**	**%Moisture:**	**7**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-10-2736**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**937151**	**Inst:**	**MSD3.1**	**Dilution:**	**1**
Run Date:	**01/05/2010 01:42**	**Analyst:**	**JLD1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/29/2009 10:16**	**Aliquot:**	**30.04 g**	**Final Volume:**	**1 mL**
Data File:	**s3a0435.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	358	ug/kg	71.6	358
606-20-2	2,6-Dinitrotoluene	U	358	ug/kg	35.8	358
208-96-8	Acenaphthylene	U	35.8	ug/kg	10.7	35.8
51-28-5	2,4-Dinitrophenol	U	716	ug/kg	136	716
132-64-9	Dibenzofuran	U	358	ug/kg	71.6	358
84-66-2	Diethylphthalate	U	358	ug/kg	71.6	358
86-73-7	Fluorene	U	35.8	ug/kg	10.7	35.8
7005-72-3	4-Chlorophenylphenylether	U	358	ug/kg	71.6	358
534-52-1	2-Methyl-4,6-dinitrophenol	U	358	ug/kg	71.6	358
100-01-6	4-Nitroaniline	U	358	ug/kg	107	358
	p-Nitroaniline					
122-39-4	Diphenylamine	U	358	ug/kg	71.6	358
122-66-7	Azobenzene	U	358	ug/kg	71.6	358
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	358	ug/kg	71.6	358
118-74-1	Hexachlorobenzene	U	358	ug/kg	71.6	358
85-01-8	Phenanthrene	U	35.8	ug/kg	10.7	35.8
120-12-7	Anthracene	U	35.8	ug/kg	7.16	35.8
84-74-2	Di-n-butylphthalate	U	358	ug/kg	71.6	358
206-44-0	Fluoranthene	U	35.8	ug/kg	10.7	35.8
85-68-7	Butylbenzylphthalate	U	358	ug/kg	71.6	358
56-55-3	Benzo(a)anthracene	U	35.8	ug/kg	10.7	35.8
91-94-1	3,3'-Dichlorobenzidine	U	358	ug/kg	107	358
218-01-9	Chrysene	U	35.8	ug/kg	10.7	35.8
117-81-7	bis(2-Ethylhexyl)phthalate	U	358	ug/kg	71.6	358
117-84-0	Di-n-octylphthalate	U	358	ug/kg	71.6	358
205-99-2	Benzo(b)fluoranthene	U	35.8	ug/kg	10.7	35.8
207-08-9	Benzo(k)fluoranthene	U	35.8	ug/kg	10.7	35.8
50-32-8	Benzo(a)pyrene	U	35.8	ug/kg	10.7	35.8
193-39-5	Indeno(1,2,3-cd)pyrene	U	35.8	ug/kg	10.7	35.8
53-70-3	Dibenzo(a,h)anthracene	U	35.8	ug/kg	10.7	35.8
191-24-2	Benzo(ghi)perylene	U	35.8	ug/kg	10.7	35.8
120-82-1	1,2,4-Trichlorobenzene	U	358	ug/kg	71.6	358

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.85	417	ug/kg		JA
301-02-0	9-Octadecenamide, (Z)-	11.12	197	ug/kg	98	NJ

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1086**	**Date Collected:**	**12/22/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243552012**	**Date Received:**	**12/24/2009 09:30**	**%Moisture:**	**7**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-10-2736**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**937151**	**Inst:**	**MSD3.I**	**Dilution:**	**1**
Run Date:	**01/05/2010 01:42**	**Analyst:**	**JLD1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/29/2009 10:16**	**Aliquot:**	**30.04 g**	**Final Volume:**	**1 mL**
Data File:	**s3a0435.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	12.78	535	ug/kg		J

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1086	Date Collected:	12/22/2009 12:00	Matrix:	S
Lab Sample ID:	243552011	Date Received:	12/24/2009 09:30	%Moisture:	10.1
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-10-2737	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	937151	Inst:	MSD3.I	Dilution:	1
Run Date:	01/05/2010 01:18	Analyst:	JLD1	Inj. Vol:	.5 uL
Prep Date:	12/29/2009 10:16	Aliquot:	30.03 g	Final Volume:	1 mL
Data File:	s3a0434.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	371	ug/kg	74.1	371
108-95-2	Phenol	U	371	ug/kg	74.1	371
95-57-8	2-Chlorophenol	U	371	ug/kg	74.1	371
106-46-7	1,4-Dichlorobenzene	U	371	ug/kg	74.1	371
621-64-7	N-Nitrosodipropylamine	U	371	ug/kg	74.1	371
59-50-7	4-Chloro-3-methylphenol	U	371	ug/kg	74.1	371
83-32-9	Acenaphthene	U	37.1	ug/kg	12.2	37.1
121-14-2	2,4-Dinitrotoluene	U	371	ug/kg	37.1	371
100-02-7	4-Nitrophenol	U	371	ug/kg	122	371
87-86-5	Pentachlorophenol	U	371	ug/kg	92.6	371
129-00-0	Pyrene	U	37.1	ug/kg	11.1	37.1
110-86-1	Pyridine	U	371	ug/kg	74.1	371
62-53-3	Aniline	U	371	ug/kg	111	371
111-44-4	bis(2-Chloroethyl) ether	U	371	ug/kg	74.1	371
541-73-1	1,3-Dichlorobenzene	U	371	ug/kg	74.1	371
100-51-6	Benzyl alcohol	U	371	ug/kg	111	371
95-50-1	1,2-Dichlorobenzene	U	371	ug/kg	74.1	371
108-60-1	bis(2-Chloroisopropyl)ether	U	371	ug/kg	74.1	371
95-48-7	o-Cresol	U	371	ug/kg	74.1	371
65794-96-9	m,p-Cresols	U	371	ug/kg	111	371
67-72-1	Hexachloroethane	U	371	ug/kg	74.1	371
98-95-3	Nitrobenzene	U	371	ug/kg	74.1	371
78-59-1	Isophorone	U	371	ug/kg	74.1	371
88-75-5	2-Nitrophenol	U	371	ug/kg	74.1	371
105-67-9	2,4-Dimethylphenol	U	371	ug/kg	130	371
111-91-1	bis(2-Chloroethoxy)methane	U	371	ug/kg	74.1	371
120-83-2	2,4-Dichlorophenol	U	371	ug/kg	74.1	371
65-85-0	Benzoic acid	U	741	ug/kg	185	741
91-20-3	Naphthalene	U	37.1	ug/kg	11.1	37.1
106-47-8	4-Chloroaniline	U	371	ug/kg	74.1	371
87-68-3	Hexachlorobutadiene	U	371	ug/kg	74.1	371
91-57-6	2-Methylnaphthalene	U	37.1	ug/kg	7.41	37.1
77-47-4	Hexachlorocyclopentadiene	U	371	ug/kg	74.1	371
88-06-2	2,4,6-Trichlorophenol	U	371	ug/kg	74.1	371
95-95-4	2,4,5-Trichlorophenol	U	371	ug/kg	74.1	371
91-58-7	2-Chloronaphthalene	U	37.1	ug/kg	12.2	37.1
88-74-4	2-Nitroaniline	U	371	ug/kg	74.1	371
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	371	ug/kg	74.1	371

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1086**	**Date Collected:**	**12/22/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243552011**	**Date Received:**	**12/24/2009 09:30**	**%Moisture:**	**10.1**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-10-2737**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**937151**	**Inst:**	**MSD3.I**	**Dilution:**	**1**
Run Date:	**01/05/2010 01:18**	**Analyst:**	**JLD1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/29/2009 10:16**	**Aliquot:**	**30.03 g**	**Final Volume:**	**1 mL**
Data File:	**s3a0434.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	371	ug/kg	74.1	371
606-20-2	2,6-Dinitrotoluene	U	371	ug/kg	37.1	371
208-96-8	Acenaphthylene	U	37.1	ug/kg	11.1	37.1
51-28-5	2,4-Dinitrophenol	U	741	ug/kg	141	741
132-64-9	Dibenzofuran	U	371	ug/kg	74.1	371
84-66-2	Diethylphthalate	U	371	ug/kg	74.1	371
86-73-7	Fluorene	U	37.1	ug/kg	11.1	37.1
7005-72-3	4-Chlorophenylphenylether	U	371	ug/kg	74.1	371
534-52-1	2-Methyl-4,6-dinitrophenol	U	371	ug/kg	74.1	371
100-01-6	4-Nitroaniline	U	371	ug/kg	111	371
	p-Nitroaniline					
122-39-4	Diphenylamine	U	371	ug/kg	74.1	371
122-66-7	Azobenzene	U	371	ug/kg	74.1	371
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	371	ug/kg	74.1	371
118-74-1	Hexachlorobenzene	U	371	ug/kg	74.1	371
85-01-8	Phenanthrene	U	37.1	ug/kg	11.1	37.1
120-12-7	Anthracene	U	37.1	ug/kg	7.41	37.1
84-74-2	Di-n-butylphthalate	U	371	ug/kg	74.1	371
206-44-0	Fluoranthene	U	37.1	ug/kg	11.1	37.1
85-68-7	Butylbenzylphthalate	U	371	ug/kg	74.1	371
56-55-3	Benzo(a)anthracene	U	37.1	ug/kg	11.1	37.1
91-94-1	3,3'-Dichlorobenzidine	U	371	ug/kg	111	371
218-01-9	Chrysene	U	37.1	ug/kg	11.1	37.1
117-81-7	bis(2-Ethylhexyl)phthalate	U	371	ug/kg	74.1	371
117-84-0	Di-n-octylphthalate	U	371	ug/kg	74.1	371
205-99-2	Benzo(b)fluoranthene	U	37.1	ug/kg	11.1	37.1
207-08-9	Benzo(k)fluoranthene	U	37.1	ug/kg	11.1	37.1
50-32-8	Benzo(a)pyrene	U	37.1	ug/kg	11.1	37.1
193-39-5	Indeno(1,2,3-cd)pyrene	U	37.1	ug/kg	11.1	37.1
53-70-3	Dibenzo(a,h)anthracene	U	37.1	ug/kg	11.1	37.1
191-24-2	Benzo(ghi)perylene	U	37.1	ug/kg	11.1	37.1
120-82-1	1,2,4-Trichlorobenzene	U	371	ug/kg	74.1	371

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.85	365	ug/kg		JA
301-02-0	9-Octadecenamide, (Z)-	11.13	198	ug/kg	95	NJ

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1086**	**Date Collected:**	**12/22/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243552011**	**Date Received:**	**12/24/2009 09:30**	**%Moisture:**	**10.1**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-10-2737**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**937151**	**Inst:**	**MSD3.I**	**Dilution:**	**1**
Run Date:	**01/05/2010 01:18**	**Analyst:**	**JLD1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/29/2009 10:16**	**Aliquot:**	**30.03 g**	**Final Volume:**	**1 mL**
Data File:	**s3a0434.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
112-84-5	13-Docosenamide, (Z)-	12.78	537	ug/kg	95	NJ

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1086**	**Date Collected:**	**12/22/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243552016**	**Date Received:**	**12/24/2009 09:30**	**%Moisture:**	**11.9**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-10-9872**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**937367**	**Inst:**	**MSD1.I**	**Dilution:**	**1**
Run Date:	**12/30/2009 17:23**	**Analyst:**	**AMY**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/29/2009 17:48**	**Aliquot:**	**30.03 g**	**Final Volume:**	**1 mL**
Data File:	**s113019.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	378	ug/kg	75.6	378
108-95-2	Phenol	U	378	ug/kg	75.6	378
95-57-8	2-Chlorophenol	U	378	ug/kg	75.6	378
106-46-7	1,4-Dichlorobenzene	U	378	ug/kg	75.6	378
621-64-7	N-Nitrosodipropylamine	U	378	ug/kg	75.6	378
59-50-7	4-Chloro-3-methylphenol	U	378	ug/kg	75.6	378
83-32-9	Acenaphthene	U	37.8	ug/kg	12.5	37.8
121-14-2	2,4-Dinitrotoluene	U	378	ug/kg	37.8	378
100-02-7	4-Nitrophenol	U	378	ug/kg	125	378
87-86-5	Pentachlorophenol	U	378	ug/kg	94.5	378
129-00-0	Pyrene	U	37.8	ug/kg	11.3	37.8
110-86-1	Pyridine	U	378	ug/kg	75.6	378
62-53-3	Aniline	U	378	ug/kg	113	378
111-44-4	bis(2-Chloroethyl) ether	U	378	ug/kg	75.6	378
541-73-1	1,3-Dichlorobenzene	U	378	ug/kg	75.6	378
100-51-6	Benzyl alcohol	U	378	ug/kg	113	378
95-50-1	1,2-Dichlorobenzene	U	378	ug/kg	75.6	378
108-60-1	bis(2-Chloroisopropyl)ether	U	378	ug/kg	75.6	378
95-48-7	o-Cresol	U	378	ug/kg	75.6	378
65794-96-9	m,p-Cresols	U	378	ug/kg	113	378
67-72-1	Hexachloroethane	U	378	ug/kg	75.6	378
98-95-3	Nitrobenzene	U	378	ug/kg	75.6	378
78-59-1	Isophorone	U	378	ug/kg	75.6	378
88-75-5	2-Nitrophenol	U	378	ug/kg	75.6	378
105-67-9	2,4-Dimethylphenol	U	378	ug/kg	132	378
111-91-1	bis(2-Chloroethoxy)methane	U	378	ug/kg	75.6	378
120-83-2	2,4-Dichlorophenol	U	378	ug/kg	75.6	378
65-85-0	Benzoic acid	U	756	ug/kg	189	756
91-20-3	Naphthalene	U	37.8	ug/kg	11.3	37.8
106-47-8	4-Chloroaniline	U	378	ug/kg	75.6	378
87-68-3	Hexachlorobutadiene	U	378	ug/kg	75.6	378
91-57-6	2-Methylnaphthalene	U	37.8	ug/kg	7.56	37.8
77-47-4	Hexachlorocyclopentadiene	U	378	ug/kg	75.6	378
88-06-2	2,4,6-Trichlorophenol	U	378	ug/kg	75.6	378
95-95-4	2,4,5-Trichlorophenol	U	378	ug/kg	75.6	378
91-58-7	2-Chloronaphthalene	U	37.8	ug/kg	12.5	37.8
88-74-4	2-Nitroaniline	U	378	ug/kg	75.6	378
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	378	ug/kg	75.6	378

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1086**	**Date Collected:**	**12/22/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243552016**	**Date Received:**	**12/24/2009 09:30**	**%Moisture:**	**11.9**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-10-9872**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**937367**	**Inst:**	**MSD1.I**	**Dilution:**	**1**
Run Date:	**12/30/2009 17:23**	**Analyst:**	**AMY**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/29/2009 17:48**	**Aliquot:**	**30.03 g**	**Final Volume:**	**1 mL**
Data File:	**s1l3019.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	378	ug/kg	75.6	378
606-20-2	2,6-Dinitrotoluene	U	378	ug/kg	37.8	378
208-96-8	Acenaphthylene	U	37.8	ug/kg	11.3	37.8
51-28-5	2,4-Dinitrophenol	U	756	ug/kg	144	756
132-64-9	Dibenzofuran	U	378	ug/kg	75.6	378
84-66-2	Diethylphthalate	U	378	ug/kg	75.6	378
86-73-7	Fluorene	U	37.8	ug/kg	11.3	37.8
7005-72-3	4-Chlorophenylphenylether	U	378	ug/kg	75.6	378
534-52-1	2-Methyl-4,6-dinitrophenol	U	378	ug/kg	75.6	378
100-01-6	4-Nitroaniline	U	378	ug/kg	113	378
	p-Nitroaniline					
122-39-4	Diphenylamine	U	378	ug/kg	75.6	378
122-66-7	Azobenzene	U	378	ug/kg	75.6	378
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	378	ug/kg	75.6	378
118-74-1	Hexachlorobenzene	U	378	ug/kg	75.6	378
85-01-8	Phenanthrene	U	37.8	ug/kg	11.3	37.8
120-12-7	Anthracene	U	37.8	ug/kg	7.56	37.8
84-74-2	Di-n-butylphthalate	U	378	ug/kg	75.6	378
206-44-0	Fluoranthene	U	37.8	ug/kg	11.3	37.8
85-68-7	Butylbenzylphthalate	U	378	ug/kg	75.6	378
56-55-3	Benzo(a)anthracene	U	37.8	ug/kg	11.3	37.8
91-94-1	3,3'-Dichlorobenzidine	U	378	ug/kg	113	378
218-01-9	Chrysene	U	37.8	ug/kg	11.3	37.8
117-81-7	bis(2-Ethylhexyl)phthalate	U	378	ug/kg	75.6	378
117-84-0	Di-n-octylphthalate	U	378	ug/kg	75.6	378
205-99-2	Benzo(b)fluoranthene	U	37.8	ug/kg	11.3	37.8
207-08-9	Benzo(k)fluoranthene	U	37.8	ug/kg	11.3	37.8
50-32-8	Benzo(a)pyrene	U	37.8	ug/kg	11.3	37.8
193-39-5	Indeno(1,2,3-cd)pyrene	U	37.8	ug/kg	11.3	37.8
53-70-3	Dibenzo(a,h)anthracene	U	37.8	ug/kg	11.3	37.8
191-24-2	Benzo(ghi)perylene	U	37.8	ug/kg	11.3	37.8
120-82-1	1,2,4-Trichlorobenzene	U	378	ug/kg	75.6	378

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	1.72	204	ug/kg		J
	Unknown	1.94	3320	ug/kg		J

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1086**	**Date Collected:**	**12/22/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243552016**	**Date Received:**	**12/24/2009 09:30**	**%Moisture:**	**11.9**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-10-9872**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**937367**	**Inst:**	**MSD1.I**	**Dilution:**	**1**
Run Date:	**12/30/2009 17:23**	**Analyst:**	**AMY**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/29/2009 17:48**	**Aliquot:**	**30.03 g**	**Final Volume:**	**1 mL**
Data File:	**s113019.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.81	519	ug/kg		JA
	Unknown	8.03	164	ug/kg		J

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1086	**Date Collected:**	12/22/2009 12:00	**Matrix:**	S
Lab Sample ID:	243552014	**Date Received:**	12/24/2009 09:30	**%Moisture:**	5.3
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-10-9873	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	937151	**Inst:**	MSD3.I	**Dilution:**	1
Run Date:	01/05/2010 02:07	**Analyst:**	JLD1	**Inj. Vol:**	.5 uL
Prep Date:	12/29/2009 10:16	**Aliquot:**	30 g	**Final Volume:**	1 mL
Data File:	s3a0436.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	352	ug/kg	70.4	352
108-95-2	Phenol	U	352	ug/kg	70.4	352
95-57-8	2-Chlorophenol	U	352	ug/kg	70.4	352
106-46-7	1,4-Dichlorobenzene	U	352	ug/kg	70.4	352
621-64-7	N-Nitrosodipropylamine	U	352	ug/kg	70.4	352
59-50-7	4-Chloro-3-methylphenol	U	352	ug/kg	70.4	352
83-32-9	Acenaphthene	U	35.2	ug/kg	11.6	35.2
121-14-2	2,4-Dinitrotoluene	U	352	ug/kg	35.2	352
100-02-7	4-Nitrophenol	U	352	ug/kg	116	352
87-86-5	Pentachlorophenol	U	352	ug/kg	88.0	352
129-00-0	Pyrene	U	35.2	ug/kg	10.6	35.2
110-86-1	Pyridine	U	352	ug/kg	70.4	352
62-53-3	Aniline	U	352	ug/kg	106	352
111-44-4	bis(2-Chloroethyl) ether	U	352	ug/kg	70.4	352
541-73-1	1,3-Dichlorobenzene	U	352	ug/kg	70.4	352
100-51-6	Benzyl alcohol	U	352	ug/kg	106	352
95-50-1	1,2-Dichlorobenzene	U	352	ug/kg	70.4	352
108-60-1	bis(2-Chloroisopropyl)ether	U	352	ug/kg	70.4	352
95-48-7	o-Cresol	U	352	ug/kg	70.4	352
65794-96-9	m,p-Cresols	U	352	ug/kg	106	352
67-72-1	Hexachloroethane	U	352	ug/kg	70.4	352
98-95-3	Nitrobenzene	U	352	ug/kg	70.4	352
78-59-1	Isophorone	U	352	ug/kg	70.4	352
88-75-5	2-Nitrophenol	U	352	ug/kg	70.4	352
105-67-9	2,4-Dimethylphenol	U	352	ug/kg	123	352
111-91-1	bis(2-Chloroethoxy)methane	U	352	ug/kg	70.4	352
120-83-2	2,4-Dichlorophenol	U	352	ug/kg	70.4	352
65-85-0	Benzoic acid	U	704	ug/kg	176	704
91-20-3	Naphthalene	U	35.2	ug/kg	10.6	35.2
106-47-8	4-Chloroaniline	U	352	ug/kg	70.4	352
87-68-3	Hexachlorobutadiene	U	352	ug/kg	70.4	352
91-57-6	2-Methylnaphthalene	U	35.2	ug/kg	7.04	35.2
77-47-4	Hexachlorocyclopentadiene	U	352	ug/kg	70.4	352
88-06-2	2,4,6-Trichlorophenol	U	352	ug/kg	70.4	352
95-95-4	2,4,5-Trichlorophenol	U	352	ug/kg	70.4	352
91-58-7	2-Chloronaphthalene	U	35.2	ug/kg	11.6	35.2
88-74-4	2-Nitroaniline	U	352	ug/kg	70.4	352
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	352	ug/kg	70.4	352

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1086**	**Date Collected:**	**12/22/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243552014**	**Date Received:**	**12/24/2009 09:30**	**%Moisture:**	**5.3**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-10-9873**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**937151**	**Inst:**	**MSD3.I**	**Dilution:**	**1**
Run Date:	**01/05/2010 02:07**	**Analyst:**	**JLD1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/29/2009 10:16**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**s3a0436.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	352	ug/kg	70.4	352
606-20-2	2,6-Dinitrotoluene	U	352	ug/kg	35.2	352
208-96-8	Acenaphthylene	U	35.2	ug/kg	10.6	35.2
51-28-5	2,4-Dinitrophenol	U	704	ug/kg	134	704
132-64-9	Dibenzofuran	U	352	ug/kg	70.4	352
84-66-2	Diethylphthalate	U	352	ug/kg	70.4	352
86-73-7	Fluorene	U	35.2	ug/kg	10.6	35.2
7005-72-3	4-Chlorophenylphenylether	U	352	ug/kg	70.4	352
534-52-1	2-Methyl-4,6-dinitrophenol	U	352	ug/kg	70.4	352
100-01-6	4-Nitroaniline	U	352	ug/kg	106	352
	p-Nitroaniline					
122-39-4	Diphenylamine	U	352	ug/kg	70.4	352
122-66-7	Azobenzene	U	352	ug/kg	70.4	352
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	352	ug/kg	70.4	352
118-74-1	Hexachlorobenzene	U	352	ug/kg	70.4	352
85-01-8	Phenanthrene	U	35.2	ug/kg	10.6	35.2
120-12-7	Anthracene	U	35.2	ug/kg	7.04	35.2
84-74-2	Di-n-butylphthalate	U	352	ug/kg	70.4	352
206-44-0	Fluoranthene	U	35.2	ug/kg	10.6	35.2
85-68-7	Butylbenzylphthalate	U	352	ug/kg	70.4	352
56-55-3	Benzo(a)anthracene	U	35.2	ug/kg	10.6	35.2
91-94-1	3,3'-Dichlorobenzidine	U	352	ug/kg	106	352
218-01-9	Chrysene	U	35.2	ug/kg	10.6	35.2
117-81-7	bis(2-Ethylhexyl)phthalate	U	352	ug/kg	70.4	352
117-84-0	Di-n-octylphthalate	U	352	ug/kg	70.4	352
205-99-2	Benzo(b)fluoranthene	U	35.2	ug/kg	10.6	35.2
207-08-9	Benzo(k)fluoranthene	U	35.2	ug/kg	10.6	35.2
50-32-8	Benzo(a)pyrene	U	35.2	ug/kg	10.6	35.2
193-39-5	Indeno(1,2,3-cd)pyrene	U	35.2	ug/kg	10.6	35.2
53-70-3	Dibenzo(a,h)anthracene	U	35.2	ug/kg	10.6	35.2
191-24-2	Benzo(ghi)perylene	U	35.2	ug/kg	10.6	35.2
120-82-1	1,2,4-Trichlorobenzene	U	352	ug/kg	70.4	352

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.85	360	ug/kg		JA
301-02-0	9-Octadecenamide, (Z)-	11.13	195	ug/kg	97	NJ

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1086**	**Date Collected:**	**12/22/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243552014**	**Date Received:**	**12/24/2009 09:30**	**%Moisture:**	**5.3**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-10-9873**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**937151**	**Inst:**	**MSD3.I**	**Dilution:**	**1**
Run Date:	**01/05/2010 02:07**	**Analyst:**	**JLD1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/29/2009 10:16**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**s3a0436.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
112-84-5	13-Docosenamide, (Z)-	12.78	504	ug/kg	81	NJ
	Unknown	15.57	177	ug/kg		J

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1086	**Date Collected:**	12/22/2009 12:00	**Matrix:**	S
Lab Sample ID:	243552017	**Date Received:**	12/24/2009 09:30	**%Moisture:**	6.9
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-10-9874	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	937367	**Inst:**	MSD1.I	**Dilution:**	1
Run Date:	12/30/2009 18:36	**Analyst:**	AMY	**Inj. Vol:**	.5 uL
Prep Date:	12/29/2009 17:48	**Aliquot:**	30.01 g	**Final Volume:**	1 mL
Data File:	s113022.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	358	ug/kg	71.5	358
108-95-2	Phenol	U	358	ug/kg	71.5	358
95-57-8	2-Chlorophenol	U	358	ug/kg	71.5	358
106-46-7	1,4-Dichlorobenzene	U	358	ug/kg	71.5	358
621-64-7	N-Nitrosodipropylamine	U	358	ug/kg	71.5	358
59-50-7	4-Chloro-3-methylphenol	U	358	ug/kg	71.5	358
83-32-9	Acenaphthene	U	35.8	ug/kg	11.8	35.8
121-14-2	2,4-Dinitrotoluene	U	358	ug/kg	35.8	358
100-02-7	4-Nitrophenol	U	358	ug/kg	118	358
87-86-5	Pentachlorophenol	U	358	ug/kg	89.4	358
129-00-0	Pyrene	U	35.8	ug/kg	10.7	35.8
110-86-1	Pyridine	U	358	ug/kg	71.5	358
62-53-3	Aniline	U	358	ug/kg	107	358
111-44-4	bis(2-Chloroethyl) ether	U	358	ug/kg	71.5	358
541-73-1	1,3-Dichlorobenzene	U	358	ug/kg	71.5	358
100-51-6	Benzyl alcohol	U	358	ug/kg	107	358
95-50-1	1,2-Dichlorobenzene	U	358	ug/kg	71.5	358
108-60-1	bis(2-Chloroisopropyl)ether	U	358	ug/kg	71.5	358
95-48-7	o-Cresol	U	358	ug/kg	71.5	358
65794-96-9	m,p-Cresols	U	358	ug/kg	107	358
67-72-1	Hexachloroethane	U	358	ug/kg	71.5	358
98-95-3	Nitrobenzene	U	358	ug/kg	71.5	358
78-59-1	Isophorone	U	358	ug/kg	71.5	358
88-75-5	2-Nitrophenol	U	358	ug/kg	71.5	358
105-67-9	2,4-Dimethylphenol	U	358	ug/kg	125	358
111-91-1	bis(2-Chloroethoxy)methane	U	358	ug/kg	71.5	358
120-83-2	2,4-Dichlorophenol	U	358	ug/kg	71.5	358
65-85-0	Benzoic acid	U	715	ug/kg	179	715
91-20-3	Naphthalene	U	35.8	ug/kg	10.7	35.8
106-47-8	4-Chloroaniline	U	358	ug/kg	71.5	358
87-68-3	Hexachlorobutadiene	U	358	ug/kg	71.5	358
91-57-6	2-Methylnaphthalene	U	35.8	ug/kg	7.15	35.8
77-47-4	Hexachlorocyclopentadiene	U	358	ug/kg	71.5	358
88-06-2	2,4,6-Trichlorophenol	U	358	ug/kg	71.5	358
95-95-4	2,4,5-Trichlorophenol	U	358	ug/kg	71.5	358
91-58-7	2-Chloronaphthalene	U	35.8	ug/kg	11.8	35.8
88-74-4	2-Nitroaniline	U	358	ug/kg	71.5	358
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	358	ug/kg	71.5	358

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1086**	**Date Collected:**	**12/22/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243552017**	**Date Received:**	**12/24/2009 09:30**	**%Moisture:**	**6.9**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-10-9874**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**937367**	**Inst:**	**MSD1.I**	**Dilution:**	**1**
Run Date:	**12/30/2009 18:36**	**Analyst:**	**AMY**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/29/2009 17:48**	**Aliquot:**	**30.01 g**	**Final Volume:**	**1 mL**
Data File:	**s113022.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	358	ug/kg	71.5	358
606-20-2	2,6-Dinitrotoluene	U	358	ug/kg	35.8	358
208-96-8	Acenaphthylene	U	35.8	ug/kg	10.7	35.8
51-28-5	2,4-Dinitrophenol	U	715	ug/kg	136	715
132-64-9	Dibenzofuran	U	358	ug/kg	71.5	358
84-66-2	Diethylphthalate	U	358	ug/kg	71.5	358
86-73-7	Fluorene	U	35.8	ug/kg	10.7	35.8
7005-72-3	4-Chlorophenylphenylether	U	358	ug/kg	71.5	358
534-52-1	2-Methyl-4,6-dinitrophenol	U	358	ug/kg	71.5	358
100-01-6	4-Nitroaniline	U	358	ug/kg	107	358
	p-Nitroaniline					
122-39-4	Diphenylamine	U	358	ug/kg	71.5	358
122-66-7	Azobenzene	U	358	ug/kg	71.5	358
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	358	ug/kg	71.5	358
118-74-1	Hexachlorobenzene	U	358	ug/kg	71.5	358
85-01-8	Phenanthrene	U	35.8	ug/kg	10.7	35.8
120-12-7	Anthracene	U	35.8	ug/kg	7.15	35.8
84-74-2	Di-n-butylphthalate	U	358	ug/kg	71.5	358
206-44-0	Fluoranthene	U	35.8	ug/kg	10.7	35.8
85-68-7	Butylbenzylphthalate	U	358	ug/kg	71.5	358
56-55-3	Benzo(a)anthracene	U	35.8	ug/kg	10.7	35.8
91-94-1	3,3'-Dichlorobenzidine	U	358	ug/kg	107	358
218-01-9	Chrysene	U	35.8	ug/kg	10.7	35.8
117-81-7	bis(2-Ethylhexyl)phthalate	U	358	ug/kg	71.5	358
117-84-0	Di-n-octylphthalate	U	358	ug/kg	71.5	358
205-99-2	Benzo(b)fluoranthene	U	35.8	ug/kg	10.7	35.8
207-08-9	Benzo(k)fluoranthene	U	35.8	ug/kg	10.7	35.8
50-32-8	Benzo(a)pyrene	U	35.8	ug/kg	10.7	35.8
193-39-5	Indeno(1,2,3-cd)pyrene	U	35.8	ug/kg	10.7	35.8
53-70-3	Dibenzo(a,h)anthracene	U	35.8	ug/kg	10.7	35.8
191-24-2	Benzo(ghi)perylene	U	35.8	ug/kg	10.7	35.8
120-82-1	1,2,4-Trichlorobenzene	U	358	ug/kg	71.5	358

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	1.67	275	ug/kg		J
	Unknown	1.91	185	ug/kg		J

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1086	**Date Collected:**	12/22/2009 12:00	**Matrix:**	S
Lab Sample ID:	243552017	**Date Received:**	12/24/2009 09:30	**%Moisture:**	6.9
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-10-9874	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	937367	**Inst:**	MSD1.I	**Dilution:**	1
Run Date:	12/30/2009 18:36	**Analyst:**	AMY	**Inj. Vol:**	.5 uL
Prep Date:	12/29/2009 17:48	**Aliquot:**	30.01 g	**Final Volume:**	1 mL
Data File:	s113022.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.8	500	ug/kg		JA

QC Summary

Semi-Volatile

Surrogate Recovery Report

SDG Number: 10-1086

Matrix Type: SOLID

CAP Column (1) : J&W DB-5MS

Sample ID	Client ID	2FP %REC	PHL %REC	NBZ %REC	FBP %REC	TBP %REC	TPH %REC
1202005808	MB for batch 937366	75	78	90	92	99	97
1202005809	LCS for batch 937366	77	76	86	88	99	110
243552016	RE03-10-9872	58	60	69	76	91	93
1202005810	RE03-10-9872MS	65	67	72	80	94	87
1202005811	RE03-10-9872MSD	65	67	72	80	92	97
243552017	RE03-10-9874	74	74	83	83	63	93
1202005357	MB for batch 937150	67	72	61	71	98	106
1202005358	LCS for batch 937150	76	74	80	79	93	78
243552001	RE03-09-14233	65	62	60	56	80	86
1202005359	RE03-09-14233MS	64	62	67	67	82	74
1202005360	RE03-09-14233MSD	66	63	69	66	76	69
243552002	RE03-09-14236	61	60	59	51	73	78
243552003	RE03-09-14239	62	60	60	58	75	84
243552004	RE03-09-14240	67	64	67	63	82	88
243552005	RE03-09-14231	62	62	68	63	76	96
243552006	RE03-09-14232	74	68	74	69	86	91
243552007	RE03-09-14235	64	58	64	55	74	77
243552008	RE03-09-14238	72	66	74	72	83	93
243552009	RE03-09-14234	61	58	61	59	73	81
243552010	RE03-09-14241	64	58	67	62	74	79
243552011	RE03-10-2737	60	57	58	52	73	75
243552012	RE03-10-2736	63	58	64	57	68	77
243552014	RE03-10-9873	54	50	55	52	68	70

Surrogate		Acceptance Limits
2FP	= 2-Fluorophenol	(35%-96%)
PHL	= Phenol-d5	(36%-96%)
NBZ	= Nitrobenzene-d5	(34%-104%)
FBP	= 2-Fluorobiphenyl	(36%-100%)
TBP	= 2,4,6-Tribromophenol	(37%-106%)
TPH	= p-Terphenyl-d14	(40%-124%)

* Recovery outside Acceptance Limits

\# Column to be used to flag recovery values

D Sample Diluted

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1086
Client ID: LCS for batch 937150
Lab Sample ID: 1202005358
Instrument: MSD3.I
Analyst: JLD1
Inj. Vol: .5 uL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 01/04/2010 17:08
Dilution: 1
Prep Batch ID: 937150
Batch ID: 937151

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
62-75-9	LCS	N-Methyl-N-nitrosomethylam	1670	0.0	975	59	31-95
108-95-2	LCS	Phenol	1670	0.0	1230	74	37-104
95-57-8	LCS	2-Chlorophenol	1670	0.0	1280	77	40-105
106-46-7	LCS	1,4-Dichlorobenzene	1670	0.0	912	55	34-103
621-64-7	LCS	N-Nitrosodipropylamine	1670	0.0	1250	75	36-110
59-50-7	LCS	4-Chloro-3-methylphenol	1670	0.0	1390	84	46-114
83-32-9	LCS	Acenaphthene	1670	0.0	1170	70	40-105
121-14-2	LCS	2,4-Dinitrotoluene	1670	0.0	1260	76	49-107
100-02-7	LCS	4-Nitrophenol	1670	0.0	984	59	33-110
87-86-5	LCS	Pentachlorophenol	1670	0.0	1270	76	38-116
129-00-0	LCS	Pyrene	1670	0.0	1150	69	43-108
110-86-1	LCS	Pyridine	1670	0.0	806	48	13-129
62-53-3	LCS	Aniline	1670	0.0	1040	62	30-121
111-44-4	LCS	bis(2-Chloroethyl) ether	1670	0.0	907	54	37-106
541-73-1	LCS	1,3-Dichlorobenzene	1670	0.0	866	52	33-103
100-51-6	LCS	Benzyl alcohol	1670	0.0	1510	91	31-100
95-50-1	LCS	1,2-Dichlorobenzene	1670	0.0	938	56	34-108
108-60-1	LCS	bis(2-Chloroisopropyl)ether	1670	0.0	943	57	34-120
95-48-7	LCS	o-Cresol	1670	0.0	1210	72	39-111
65794-96-9	LCS	m,p-Cresols	1670	0.0	1520	91	43-118
67-72-1	LCS	Hexachloroethane	1670	0.0	994	60	34-105
98-95-3	LCS	Nitrobenzene	1670	0.0	1120	67	37-110

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1086
Client ID: LCS for batch 937150
Lab Sample ID: 1202005358
Instrument: MSD3.I
Analyst: JLD1
Inj. Vol: .5 uL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 01/04/2010 17:08
Dilution: 1
Prep Batch ID: 937150
Batch ID: 937151

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
78-59-1	LCS	Isophorone	1670	0.0	1340	80	41-108
88-75-5	LCS	2-Nitrophenol	1670	0.0	1200	72	35-112
105-67-9	LCS	2,4-Dimethylphenol	1670	0.0	1260	75	35-114
111-91-1	LCS	bis(2-Chloroethoxy)methane	1670	0.0	1010	61	40-109
120-83-2	LCS	2,4-Dichlorophenol	1670	0.0	1230	74	45-109
65-85-0	LCS	Benzoic acid	3330	0.0	2760	83	27-137
91-20-3	LCS	Naphthalene	1670	0.0	1210	73	35-105
106-47-8	LCS	4-Chloroaniline	1670	0.0	902	54	30-122
87-68-3	LCS	Hexachlorobutadiene	1670	0.0	1030	62	37-111
91-57-6	LCS	2-Methylnaphthalene	1670	0.0	1190	72	40-106
77-47-4	LCS	Hexachlorocyclopentadiene	1670	0.0	1890	113	24-135
88-06-2	LCS	2,4,6-Trichlorophenol	1670	0.0	1400	84	46-107
95-95-4	LCS	2,4,5-Trichlorophenol	1670	0.0	1280	77	44-110
91-58-7	LCS	2-Chloronaphthalene	1670	0.0	1110	67	44-104
88-74-4	LCS	2-Nitroaniline *o-Nitroaniline*	1670	0.0	1170	70	44-113
99-09-2	LCS	3-Nitroaniline *m-Nitroaniline*	1670	0.0	1190	71	48-113
131-11-3	LCS	Dimethylphthalate	1670	0.0	1300	78	47-104
606-20-2	LCS	2,6-Dinitrotoluene	1670	0.0	1150	69	47-103
208-96-8	LCS	Acenaphthylene	1670	0.0	1210	73	43-104
51-28-5	LCS	2,4-Dinitrophenol	1670	0.0	1400	84	32-114
132-64-9	LCS	Dibenzofuran	1670	0.0	1490	90	47-112
84-66-2	LCS	Diethylphthalate	1670	0.0	1400	84	50-108

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1086 **Sample Type:** Laboratory Control Sample

Client ID: LCS for batch 937150 **Matrix:** SOIL

Lab Sample ID: 1202005358

Instrument: MSD3.I **Analysis Date:** 01/04/2010 17:08 **Dilution:** 1

Analyst: JLD1 **Prep Batch ID:** 937150

Inj. Vol: .5 uL **Batch ID:** 937151

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
86-73-7	LCS	Fluorene	1670	0.0	1250	75	49-102
7005-72-3	LCS	4-Chlorophenylphenylether	1670	0.0	1360	82	50-109
534-52-1	LCS	2-Methyl-4,6-dinitrophenol	1670	0.0	1250	75	35-114
100-01-6	LCS	4-Nitroaniline *p-Nitroaniline*	1670	0.0	1210	73	44-139
122-39-4	LCS	Diphenylamine	1670	0.0	1280	77	46-111
122-66-7	LCS	Azobenzene *1,2-Diphenylhydrazine*	1670	0.0	1200	72	40-119
101-55-3	LCS	4-Bromophenylphenylether	1670	0.0	1340	80	45-112
118-74-1	LCS	Hexachlorobenzene	1670	0.0	1240	74	44-115
85-01-8	LCS	Phenanthrene	1670	0.0	1170	70	45-107
120-12-7	LCS	Anthracene	1670	0.0	1150	69	46-106
84-74-2	LCS	Di-n-butylphthalate	1670	0.0	1450	87	52-115
206-44-0	LCS	Fluoranthene	1670	0.0	1200	72	50-115
85-68-7	LCS	Butylbenzylphthalate	1670	0.0	1350	81	49-115
56-55-3	LCS	Benzo(a)anthracene	1670	0.0	1210	73	48-105
91-94-1	LCS	3,3'-Dichlorobenzidine	1670	0.0	1020	61	45-98
218-01-9	LCS	Chrysene	1670	0.0	1150	69	48-105
117-81-7	LCS	bis(2-Ethylhexyl)phthalate	1670	0.0	1590	95	50-117
117-84-0	LCS	Di-n-octylphthalate	1670	0.0	1340	80	39-123
205-99-2	LCS	Benzo(b)fluoranthene	1670	0.0	1170	70	46-111
207-08-9	LCS	Benzo(k)fluoranthene	1670	0.0	1190	71	46-114
50-32-8	LCS	Benzo(a)pyrene	1670	0.0	1280	77	49-112
193-39-5	LCS	Indeno(1,2,3-cd)pyrene	1670	0.0	1590	96	45-128

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1086
Client ID: LCS for batch 937150
Lab Sample ID: 1202005358
Instrument: MSD3.I
Analyst: JLD1
Inj. Vol: .5 uL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 01/04/2010 17:08
Dilution: 1
Prep Batch ID: 937150
Batch ID: 937151

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
53-70-3	LCS	Dibenzo(a,h)anthracene	1670	0.0	1600	96	44-131
191-24-2	LCS	Benzo(ghi)perylene	1670	0.0	1580	95	42-128
120-82-1	LCS	1,2,4-Trichlorobenzene	1670	0.0	1100	66	36-109

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1086
Client ID: RE03-09-14233MS
Lab Sample ID: 1202005359
Instrument: MSD3.I
Analyst: JLD1
Inj. Vol: .5 uL

Sample Type: Matrix Spike
Matrix: S
%Moisture: 7.4
Analysis Date: 01/04/2010 20:49
Prep Batch ID 937150
Batch ID: 937151
Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
62-75-9	MS	N-Methyl-N-nitrosomethylam	1790	0.00	U	1040	58	32-90
108-95-2	MS	Phenol	1790	0.00	U	1170	65	32-105
95-57-8	MS	2-Chlorophenol	1790	0.00	U	1140	64	33-106
106-46-7	MS	1,4-Dichlorobenzene	1790	0.00	U	839	47	33-95
621-64-7	MS	N-Nitrosodipropylamine	1790	0.00	U	1120	62	31-109
59-50-7	MS	4-Chloro-3-methylphenol	1790	0.00	U	1300	72	38-119
83-32-9	MS	Acenaphthene	1790	0.00	U	1100	61	39-100
121-14-2	MS	2,4-Dinitrotoluene	1790	0.00	U	1200	67	42-107
100-02-7	MS	4-Nitrophenol	1790	0.00	U	613	34	24-120
87-86-5	MS	Pentachlorophenol	1790	0.00	U	982	55	26-121
129-00-0	MS	Pyrene	1790	0.00	U	1160	65	34-120
110-86-1	MS	Pyridine	1790	0.00	U	752	42	30-95
62-53-3	MS	Aniline	1790	0.00	U	1020	57	34-111
111-44-4	MS	bis(2-Chloroethyl) ether	1790	0.00	U	873	49	34-101
541-73-1	MS	1,3-Dichlorobenzene	1790	0.00	U	800	45	31-97
100-51-6	MS	Benzyl alcohol	1790	0.00	U	1340	75	17-120
95-50-1	MS	1,2-Dichlorobenzene	1790	0.00	U	870	48	32-102
108-60-1	MS	bis(2-Chloroisopropyl)ether	1790	0.00	U	850	47	32-113
95-48-7	MS	o-Cresol	1790	0.00	U	1070	60	31-119
65794-96-9	MS	m,p-Cresols	1790	0.00	U	1340	75	35-125
67-72-1	MS	Hexachloroethane	1790	0.00	U	836	47	30-100
98-95-3	MS	Nitrobenzene	1790	0.00	U	1040	58	33-108

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1086
Client ID: RE03-09-14233MS
Lab Sample ID: 1202005359
Instrument: MSD3.I
Analyst: JLD1
Inj. Vol: .5 uL

Sample Type: Matrix Spike
Matrix: S
%Moisture: 7.4
Analysis Date: 01/04/2010 20:49
Prep Batch ID: 937150
Batch ID: 937151
Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
78-59-1	MS	Isophorone	1790	0.00	U	1220	68	34-110
88-75-5	MS	2-Nitrophenol	1790	0.00	U	1110	62	32-108
105-67-9	MS	2,4-Dimethylphenol	1790	0.00	U	1060	59	32-115
111-91-1	MS	bis(2-Chloroethoxy)methane	1790	0.00	U	923	51	35-108
120-83-2	MS	2,4-Dichlorophenol	1790	0.00	U	1100	62	38-110
65-85-0	MS	Benzoic acid	3590	0.00	U	1510	42	18-134
91-20-3	MS	Naphthalene	1790	0.00	U	1080	60	31-105
106-47-8	MS	4-Chloroaniline	1790	0.00	U	993	55	29-123
87-68-3	MS	Hexachlorobutadiene	1790	0.00	U	844	47	31-109
91-57-6	MS	2-Methylnaphthalene	1790	0.00	U	1060	59	32-110
77-47-4	MS	Hexachlorocyclopentadiene	1790	0.00	U	1310	73	21-122
88-06-2	MS	2,4,6-Trichlorophenol	1790	0.00	U	1290	72	37-108
95-95-4	MS	2,4,5-Trichlorophenol	1790	0.00	U	1210	68	37-116
91-58-7	MS	2-Chloronaphthalene	1790	0.00	U	1030	57	37-103
88-74-4	MS	2-Nitroaniline *o-Nitroaniline*	1790	0.00	U	1170	65	36-115
99-09-2	MS	3-Nitroaniline *m-Nitroaniline*	1790	0.00	U	1210	67	39-117
131-11-3	MS	Dimethylphthalate	1790	0.00	U	1240	69	41-105
606-20-2	MS	2,6-Dinitrotoluene	1790	0.00	U	1100	61	41-103
208-96-8	MS	Acenaphthylene	1790	0.00	U	1140	64	41-103
51-28-5	MS	2,4-Dinitrophenol	1790	0.00	U	1190	66	25-104
132-64-9	MS	Dibenzofuran	1790	0.00	U	1430	80	40-114
84-66-2	MS	Diethylphthalate	1790	0.00	U	1310	73	43-110

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1086
Client ID: RE03-09-14233MS
Lab Sample ID: 1202005359
Instrument: MSD3.I
Analyst: JLD1
Inj. Vol: .5 uL

Sample Type: Matrix Spike
Matrix: S
%Moisture: 7.4
Analysis Date: 01/04/2010 20:49
Prep Batch ID: 937150
Batch ID: 937151
Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
86-73-7	MS	Fluorene	1790	0.00	U	1190	66	48-99
7005-72-3	MS	4-Chlorophenylphenylether	1790	0.00	U	1290	72	42-111
534-52-1	MS	2-Methyl-4,6-dinitrophenol	1790	0.00	U	1050	59	19-118
100-01-6	MS	4-Nitroaniline *p-Nitroaniline*	1790	0.00	U	1040	58	35-139
122-39-4	MS	Diphenylamine	1790	0.00	U	1150	64	41-112
122-66-7	MS	Azobenzene *1,2-Diphenylhydrazine*	1790	0.00	U	1160	65	37-118
101-55-3	MS	4-Bromophenylphenylether	1790	0.00	U	1270	71	39-112
118-74-1	MS	Hexachlorobenzene	1790	0.00	U	1160	65	38-113
85-01-8	MS	Phenanthrene	1790	0.00	U	1120	62	38-110
120-12-7	MS	Anthracene	1790	0.00	U	1110	62	38-112
84-74-2	MS	Di-n-butylphthalate	1790	0.00	U	1330	74	42-119
206-44-0	MS	Fluoranthene	1790	0.00	U	1130	63	38-119
85-68-7	MS	Butylbenzylphthalate	1790	0.00	U	1350	75	39-126
56-55-3	MS	Benzo(a)anthracene	1790	0.00	U	1170	65	39-110
91-94-1	MS	3,3'-Dichlorobenzidine	1790	0.00	U	658	37	35-106
218-01-9	MS	Chrysene	1790	0.00	U	1120	62	39-109
117-81-7	MS	bis(2-Ethylhexyl)phthalate	1790	0.00	U	1540	86	40-125
117-84-0	MS	Di-n-octylphthalate	1790	0.00	U	1600	89	30-147
205-99-2	MS	Benzo(b)fluoranthene	1790	0.00	U	1210	67	38-117
207-08-9	MS	Benzo(k)fluoranthene	1790	0.00	U	1300	72	39-120
50-32-8	MS	Benzo(a)pyrene	1790	0.00	U	1260	70	40-115
193-39-5	MS	Indeno(1,2,3-cd)pyrene	1790	0.00	U	1070	60	32-120

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1086
Client ID: RE03-09-14233MS
Lab Sample ID: 1202005359
Instrument: MSD3.I
Analyst: JLD1
Inj. Vol: .5 uL

Sample Type: Matrix Spike
Matrix: S
%Moisture: 7.4
Analysis Date: 01/04/2010 20:49
Prep Batch ID 937150
Batch ID: 937151
Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
53-70-3	MS	Dibenzo(a,h)anthracene	1790	0.00	U	1100	61	32-124
191-24-2	MS	Benzo(ghi)perylene	1790	0.00	U	936	52	28-119
120-82-1	MS	1,2,4-Trichlorobenzene	1790	0.00	U	970	54	31-105

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1086
Client ID: RE03-09-14233MSD
Lab Sample ID: 1202005360
Instrument: MSD3.I
Analyst: JLD1
Inj. Vol: .5 uL

Sample Type: Matrix Spike Duplicate
Matrix: S
%Moisture: 7.4
Analysis Date: 01/04/2010 21:13
Dilution: 1
Prep Batch ID: 937150
Batch ID: 937151

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
62-75-9	MSD N-Methyl-N-nitrosomethylam	1800	0.00	U	1030	57	32-90	1	0-30
108-95-2	MSD Phenol	1800	0.00	U	1160	64	32-105	2	0-30
95-57-8	MSD 2-Chlorophenol	1800	0.00	U	1100	61	33-106	4	0-30
106-46-7	MSD 1,4-Dichlorobenzene	1800	0.00	U	830	46	33-95	1	0-30
621-64-7	MSD N-Nitrosodipropylamine	1800	0.00	U	1100	61	31-109	2	0-30
59-50-7	MSD 4-Chloro-3-methylphenol	1800	0.00	U	1210	67	38-119	7	0-30
83-32-9	MSD Acenaphthene	1800	0.00	U	998	55	39-100	10	0-30
121-14-2	MSD 2,4-Dinitrotoluene	1800	0.00	U	1080	60	42-107	10	0-30
100-02-7	MSD 4-Nitrophenol	1800	0.00	U	460	26	24-120	29	0-30
87-86-5	MSD Pentachlorophenol	1800	0.00	U	861	48	26-121	13	0-30
129-00-0	MSD Pyrene	1800	0.00	U	1050	59	34-120	10	0-30
110-86-1	MSD Pyridine	1800	0.00	U	706	39	30-95	6	0-30
62-53-3	MSD Aniline	1800	0.00	U	895	50	34-111	13	0-30
111-44-4	MSD bis(2-Chloroethyl) ether	1800	0.00	U	854	47	34-101	2	0-30
541-73-1	MSD 1,3-Dichlorobenzene	1800	0.00	U	800	44	31-97	0	0-30
100-51-6	MSD Benzyl alcohol	1800	0.00	U	1300	72	17-120	3	0-30
95-50-1	MSD 1,2-Dichlorobenzene	1800	0.00	U	850	47	32-102	2	0-30
108-60-1	MSD bis(2-Chloroisopropyl)ether	1800	0.00	U	840	47	32-113	1	0-30
95-48-7	MSD o-Cresol	1800	0.00	U	1050	58	31-119	2	0-30
65794-96-9	MSD m,p-Cresols	1800	0.00	U	1290	72	35-125	4	0-30
67-72-1	MSD Hexachloroethane	1800	0.00	U	828	46	30-100	1	0-30
98-95-3	MSD Nitrobenzene	1800	0.00	U	1010	56	33-108	3	0-30

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1086
Client ID: RE03-09-14233MSD
Lab Sample ID: 1202005360
Instrument: MSD3.I
Analyst: JLD1
Inj. Vol: .5 uL

Sample Type: Matrix Spike Duplicate
Matrix: S
%Moisture: 7.4
Analysis Date: 01/04/2010 21:13
Dilution: 1
Prep Batch ID: 937150
Batch ID: 937151

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
78-59-1	MSD	Isophorone	1800	0.00	U	1200	67	34-110	2	0-30
88-75-5	MSD	2-Nitrophenol	1800	0.00	U	1080	60	32-108	2	0-30
105-67-9	MSD	2,4-Dimethylphenol	1800	0.00	U	991	55	32-115	7	0-30
111-91-1	MSD	bis(2-Chloroethoxy)methane	1800	0.00	U	905	50	35-108	2	0-30
120-83-2	MSD	2,4-Dichlorophenol	1800	0.00	U	1050	58	38-110	5	0-30
65-85-0	MSD	Benzoic acid	3600	0.00	U	1400	39	18-134	8	0-30
91-20-3	MSD	Naphthalene	1800	0.00	U	1050	58	31-105	3	0-30
106-47-8	MSD	4-Chloroaniline	1800	0.00	U	958	53	29-123	4	0-30
87-68-3	MSD	Hexachlorobutadiene	1800	0.00	U	857	48	31-109	2	0-30
91-57-6	MSD	2-Methylnaphthalene	1800	0.00	U	1030	57	32-110	3	0-30
77-47-4	MSD	Hexachlorocyclopentadiene	1800	0.00	U	1060	59	21-122	21	0-30
88-06-2	MSD	2,4,6-Trichlorophenol	1800	0.00	U	1160	65	37-108	10	0-30
95-95-4	MSD	2,4,5-Trichlorophenol	1800	0.00	U	1110	62	37-116	9	0-30
91-58-7	MSD	2-Chloronaphthalene	1800	0.00	U	946	53	37-103	9	0-30
88-74-4	MSD	2-Nitroaniline *o-Nitroaniline*	1800	0.00	U	1070	60	36-115	9	0-30
99-09-2	MSD	3-Nitroaniline *m-Nitroaniline*	1800	0.00	U	1070	60	39-117	12	0-30
131-11-3	MSD	Dimethylphthalate	1800	0.00	U	1120	62	41-105	10	0-30
606-20-2	MSD	2,6-Dinitrotoluene	1800	0.00	U	991	55	41-103	11	0-30
208-96-8	MSD	Acenaphthylene	1800	0.00	U	1040	58	41-103	9	0-30
51-28-5	MSD	2,4-Dinitrophenol	1800	0.00	U	1030	57	25-104	15	0-30
132-64-9	MSD	Dibenzofuran	1800	0.00	U	1300	72	40-114	10	0-30
84-66-2	MSD	Diethylphthalate	1800	0.00	U	1190	66	43-110	9	0-30

Semi-Volatile
Quality Control Summary
Spike Recovery Report

SDG Number: 10-1086
Client ID: RE03-09-14233MSD
Lab Sample ID: 1202005360
Instrument: MSD3.I
Analyst: JLD1
Inj. Vol: .5 uL

Sample Type: Matrix Spike Duplicate
Matrix: S
%Moisture: 7.4
Analysis Date: 01/04/2010 21:13
Dilution: 1
Prep Batch ID: 937150
Batch ID: 937151

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
86-73-7	MSD	Fluorene	1800	0.00	U	1070	60	48-99	11	0-30
7005-72-3	MSD	4-Chlorophenylphenylether	1800	0.00	U	1160	64	42-111	10	0-30
534-52-1	MSD	2-Methyl-4,6-dinitrophenol	1800	0.00	U	922	51	19-118	13	0-30
100-01-6	MSD	4-Nitroaniline *p-Nitroaniline*	1800	0.00	U	922	51	35-139	12	0-30
122-39-4	MSD	Diphenylamine	1800	0.00	U	1010	56	41-112	13	0-30
122-66-7	MSD	Azobenzene *1,2-Diphenylhydrazine*	1800	0.00	U	1040	58	37-118	11	0-30
101-55-3	MSD	4-Bromophenylphenylether	1800	0.00	U	1150	64	39-112	10	0-30
118-74-1	MSD	Hexachlorobenzene	1800	0.00	U	1070	60	38-113	8	0-30
85-01-8	MSD	Phenanthrene	1800	0.00	U	1000	56	38-110	11	0-30
120-12-7	MSD	Anthracene	1800	0.00	U	1010	56	38-112	10	0-30
84-74-2	MSD	Di-n-butylphthalate	1800	0.00	U	1190	66	42-119	11	0-30
206-44-0	MSD	Fluoranthene	1800	0.00	U	1000	56	38-119	12	0-30
85-68-7	MSD	Butylbenzylphthalate	1800	0.00	U	1220	68	39-126	10	0-30
56-55-3	MSD	Benzo(a)anthracene	1800	0.00	U	1030	57	39-110	13	0-30
91-94-1	MSD	3,3'-Dichlorobenzidine	1800	0.00	U	563	31 *	35-106	16	0-30
218-01-9	MSD	Chrysene	1800	0.00	U	991	55	39-109	12	0-30
117-81-7	MSD	bis(2-Ethylhexyl)phthalate	1800	0.00	U	1400	78	40-125	9	0-30
117-84-0	MSD	Di-n-octylphthalate	1800	0.00	U	1510	84	30-147	6	0-30
205-99-2	MSD	Benzo(b)fluoranthene	1800	0.00	U	1070	60	38-117	12	0-30
207-08-9	MSD	Benzo(k)fluoranthene	1800	0.00	U	1160	65	39-120	11	0-30
50-32-8	MSD	Benzo(a)pyrene	1800	0.00	U	1120	62	40-115	12	0-30
193-39-5	MSD	Indeno(1,2,3-cd)pyrene	1800	0.00	U	965	54	32-120	11	0-30

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1086
Client ID: RE03-09-14233MSD
Lab Sample ID: 1202005360
Instrument: MSD3.I
Analyst: JLD1
Inj. Vol: .5 uL

Sample Type: Matrix Spike Duplicate
Matrix: S
%Moisture: 7.4
Analysis Date: 01/04/2010 21:13
Dilution: 1
Prep Batch ID: 937150
Batch ID: 937151

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
53-70-3	MSD	Dibenzo(a,h)anthracene	1800	0.00	U	1000	56	32-124	9	0-30
191-24-2	MSD	Benzo(ghi)perylene	1800	0.00	U	859	48	28-119	9	0-30
120-82-1	MSD	1,2,4-Trichlorobenzene	1800	0.00	U	939	52	31-105	3	0-30

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1086
Client ID: LCS for batch 937366
Lab Sample ID: 1202005809
Instrument: MSD1.I
Analyst: AMY
Inj. Vol: .5 uL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 12/30/2009 16:59
Dilution: 1
Prep Batch ID: 937366
Batch ID: 937367

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
62-75-9	LCS	N-Methyl-N-nitrosomethylam	1670	0.0	1290	78	31-95
108-95-2	LCS	Phenol	1670	0.0	1310	79	37-104
95-57-8	LCS	2-Chlorophenol	1670	0.0	1370	82	40-105
106-46-7	LCS	1,4-Dichlorobenzene	1670	0.0	1240	74	34-103
621-64-7	LCS	N-Nitrosodipropylamine	1670	0.0	1290	78	36-110
59-50-7	LCS	4-Chloro-3-methylphenol	1670	0.0	1520	91	46-114
83-32-9	LCS	Acenaphthene	1670	0.0	1350	81	40-105
121-14-2	LCS	2,4-Dinitrotoluene	1670	0.0	1240	74	49-107
100-02-7	LCS	4-Nitrophenol	1670	0.0	546	33	33-110
87-86-5	LCS	Pentachlorophenol	1670	0.0	1490	89	38-116
129-00-0	LCS	Pyrene	1670	0.0	1650	99	43-108
110-86-1	LCS	Pyridine	1670	0.0	1050	63	13-129
62-53-3	LCS	Aniline	1670	0.0	1280	77	30-121
111-44-4	LCS	bis(2-Chloroethyl) ether	1670	0.0	1300	78	37-106
541-73-1	LCS	1,3-Dichlorobenzene	1670	0.0	1230	74	33-103
100-51-6	LCS	Benzyl alcohol	1670	0.0	1390	84	31-100
95-50-1	LCS	1,2-Dichlorobenzene	1670	0.0	1300	78	34-108
108-60-1	LCS	bis(2-Chloroisopropyl)ether	1670	0.0	1220	73	34-120
95-48-7	LCS	o-Cresol	1670	0.0	1450	87	39-111
65794-96-9	LCS	m,p-Cresols	1670	0.0	1460	87	43-118
67-72-1	LCS	Hexachloroethane	1670	0.0	1240	74	34-105
98-95-3	LCS	Nitrobenzene	1670	0.0	1470	88	37-110

Semi-Volatile
Quality Control Summary
Spike Recovery Report

SDG Number: 10-1086
Client ID: LCS for batch 937366
Lab Sample ID: 1202005809
Instrument: MSD1.I
Analyst: AMY
Inj. Vol: .5 uL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 12/30/2009 16:59
Dilution: 1
Prep Batch ID: 937366
Batch ID: 937367

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
78-59-1	LCS	Isophorone	1670	0.0	1560	93	41-108
88-75-5	LCS	2-Nitrophenol	1670	0.0	1380	83	35-112
105-67-9	LCS	2,4-Dimethylphenol	1670	0.0	1450	87	35-114
111-91-1	LCS	bis(2-Chloroethoxy)methane	1670	0.0	1360	82	40-109
120-83-2	LCS	2,4-Dichlorophenol	1670	0.0	1430	86	45-109
65-85-0	LCS	Benzoic acid	3330	0.0	2650	80	27-137
91-20-3	LCS	Naphthalene	1670	0.0	1300	78	35-105
106-47-8	LCS	4-Chloroaniline	1670	0.0	1250	75	30-122
87-68-3	LCS	Hexachlorobutadiene	1670	0.0	1580	95	37-111
91-57-6	LCS	2-Methylnaphthalene	1670	0.0	1400	84	40-106
77-47-4	LCS	Hexachlorocyclopentadiene	1670	0.0	1310	79	24-135
88-06-2	LCS	2,4,6-Trichlorophenol	1670	0.0	1490	89	46-107
95-95-4	LCS	2,4,5-Trichlorophenol	1670	0.0	1670	100	44-110
91-58-7	LCS	2-Chloronaphthalene	1670	0.0	1340	80	44-104
88-74-4	LCS	2-Nitroaniline *o-Nitroaniline*	1670	0.0	1340	81	44-113
99-09-2	LCS	3-Nitroaniline *m-Nitroaniline*	1670	0.0	1230	74	48-113
131-11-3	LCS	Dimethylphthalate	1670	0.0	1380	83	47-104
606-20-2	LCS	2,6-Dinitrotoluene	1670	0.0	1280	77	47-103
208-96-8	LCS	Acenaphthylene	1670	0.0	1380	83	43-104
51-28-5	LCS	2,4-Dinitrophenol	1670	0.0	932	56	32-114
132-64-9	LCS	Dibenzofuran	1670	0.0	1610	97	47-112
84-66-2	LCS	Diethylphthalate	1670	0.0	1510	90	50-108

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1086
Client ID: LCS for batch 937366
Lab Sample ID: 1202005809
Instrument: MSD1.I
Analyst: AMY
Inj. Vol: .5 uL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 12/30/2009 16:59
Dilution: 1
Prep Batch ID: 937366
Batch ID: 937367

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
86-73-7	LCS	Fluorene	1670	0.0	1370	82	49-102
7005-72-3	LCS	4-Chlorophenylphenylether	1670	0.0	1540	92	50-109
534-52-1	LCS	2-Methyl-4,6-dinitrophenol	1670	0.0	967	58	35-114
100-01-6	LCS	4-Nitroaniline *p-Nitroaniline*	1670	0.0	1220	73	44-139
122-39-4	LCS	Diphenylamine	1670	0.0	1440	87	46-111
122-66-7	LCS	Azobenzene *1,2-Diphenylhydrazine*	1670	0.0	1400	84	40-119
101-55-3	LCS	4-Bromophenylphenylether	1670	0.0	1760	106	45-112
118-74-1	LCS	Hexachlorobenzene	1670	0.0	1580	95	44-115
85-01-8	LCS	Phenanthrene	1670	0.0	1390	83	45-107
120-12-7	LCS	Anthracene	1670	0.0	1360	82	46-106
84-74-2	LCS	Di-n-butylphthalate	1670	0.0	1600	96	52-115
206-44-0	LCS	Fluoranthene	1670	0.0	1480	89	50-115
85-68-7	LCS	Butylbenzylphthalate	1670	0.0	1800	108	49-115
56-55-3	LCS	Benzo(a)anthracene	1670	0.0	1430	86	48-105
91-94-1	LCS	3,3'-Dichlorobenzidine	1670	0.0	1560	94	45-98
218-01-9	LCS	Chrysene	1670	0.0	1430	86	48-105
117-81-7	LCS	bis(2-Ethylhexyl)phthalate	1670	0.0	1700	102	50-117
117-84-0	LCS	Di-n-octylphthalate	1670	0.0	2280	137 *	39-123
205-99-2	LCS	Benzo(b)fluoranthene	1670	0.0	1610	96	46-111
207-08-9	LCS	Benzo(k)fluoranthene	1670	0.0	1670	100	46-114
50-32-8	LCS	Benzo(a)pyrene	1670	0.0	1540	92	49-112
193-39-5	LCS	Indeno(1,2,3-cd)pyrene	1670	0.0	1060	64	45-128

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1086 **Sample Type:** Laboratory Control Sample

Client ID: LCS for batch 937366 **Matrix:** SOIL

Lab Sample ID: 1202005809

Instrument: MSD1.I **Analysis Date:** 12/30/2009 16:59 **Dilution:** 1

Analyst: AMY **Prep Batch ID** 937366

Inj. Vol: .5 uL **Batch ID:** 937367

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
53-70-3	LCS	Dibenzo(a,h)anthracene	1670	0.0	1100	66	44-131
191-24-2	LCS	Benzo(ghi)perylene	1670	0.0	963	58	42-128
120-82-1	LCS	1,2,4-Trichlorobenzene	1670	0.0	1470	88	36-109

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1086
Client ID: RE03-10-9872MS
Lab Sample ID: 1202005810
Instrument: MSD1.I
Analyst: AMY
Inj. Vol: .5 uL

Sample Type: Matrix Spike
Matrix: S
%Moisture: 11.9
Analysis Date: 12/30/2009 17:47
Prep Batch ID: 937366
Batch ID: 937367
Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
62-75-9	MS	N-Methyl-N-nitrosomethylam	1890	0.00	U	1240	65	32-90
108-95-2	MS	Phenol	1890	0.00	U	1340	71	32-105
95-57-8	MS	2-Chlorophenol	1890	0.00	U	1330	71	33-106
106-46-7	MS	1,4-Dichlorobenzene	1890	0.00	U	1110	59	33-95
621-64-7	MS	N-Nitrosodipropylamine	1890	0.00	U	1290	69	31-109
59-50-7	MS	4-Chloro-3-methylphenol	1890	0.00	U	1590	84	38-119
83-32-9	MS	Acenaphthene	1890	0.00	U	1440	76	39-100
121-14-2	MS	2,4-Dinitrotoluene	1890	0.00	U	1330	71	42-107
100-02-7	MS	4-Nitrophenol	1890	0.00	U	560	30	24-120
87-86-5	MS	Pentachlorophenol	1890	0.00	U	1390	73	26-121
129-00-0	MS	Pyrene	1890	0.00	U	1510	80	34-120
110-86-1	MS	Pyridine	1890	0.00	U	120	6 *	30-95
62-53-3	MS	Aniline	1890	0.00	U	976	52	34-111
111-44-4	MS	bis(2-Chloroethyl) ether	1890	0.00	U	1210	64	34-101
541-73-1	MS	1,3-Dichlorobenzene	1890	0.00	U	1110	59	31-97
100-51-6	MS	Benzyl alcohol	1890	0.00	U	1150	61	17-120
95-50-1	MS	1,2-Dichlorobenzene	1890	0.00	U	1190	63	32-102
108-60-1	MS	bis(2-Chloroisopropyl)ether	1890	0.00	U	1180	63	32-113
95-48-7	MS	o-Cresol	1890	0.00	U	1530	81	31-119
65794-96-9	MS	m,p-Cresols	1890	0.00	U	1540	81	35-125
67-72-1	MS	Hexachloroethane	1890	0.00	U	1100	58	30-100
98-95-3	MS	Nitrobenzene	1890	0.00	U	1390	74	33-108

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number:	10-1086	Sample Type:	Matrix Spike
Client ID:	RE03-10-9872MS	Matrix:	S
Lab Sample ID:	1202005810	%Moisture:	11.9
Instrument:	MSD1.I	Analysis Date:	12/30/2009 17:47
Analyst:	AMY	Prep Batch ID:	937366
Inj. Vol:	.5 uL	Batch ID:	937367

Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
78-59-1	MS	Isophorone	1890	0.00	U	1530	81	34-110
88-75-5	MS	2-Nitrophenol	1890	0.00	U	1300	69	32-108
105-67-9	MS	2,4-Dimethylphenol	1890	0.00	U	1470	78	32-115
111-91-1	MS	bis(2-Chloroethoxy)methane	1890	0.00	U	1340	71	35-108
120-83-2	MS	2,4-Dichlorophenol	1890	0.00	U	1450	77	38-110
65-85-0	MS	Benzoic acid	3780	0.00	U	2790	74	18-134
91-20-3	MS	Naphthalene	1890	0.00	U	1250	66	31-105
106-47-8	MS	4-Chloroaniline	1890	0.00	U	1150	61	29-123
87-68-3	MS	Hexachlorobutadiene	1890	0.00	U	1460	77	31-109
91-57-6	MS	2-Methylnaphthalene	1890	0.00	U	1400	74	32-110
77-47-4	MS	Hexachlorocyclopentadiene	1890	0.00	U	1250	66	21-122
88-06-2	MS	2,4,6-Trichlorophenol	1890	0.00	U	1540	82	37-108
95-95-4	MS	2,4,5-Trichlorophenol	1890	0.00	U	1760	93	37-116
91-58-7	MS	2-Chloronaphthalene	1890	0.00	U	1380	73	37-103
88-74-4	MS	2-Nitroaniline *o-Nitroaniline*	1890	0.00	U	1420	75	36-115
99-09-2	MS	3-Nitroaniline *m-Nitroaniline*	1890	0.00	U	1230	65	39-117
131-11-3	MS	Dimethylphthalate	1890	0.00	U	1480	79	41-105
606-20-2	MS	2,6-Dinitrotoluene	1890	0.00	U	1350	72	41-103
208-96-8	MS	Acenaphthylene	1890	0.00	U	1460	77	41-103
51-28-5	MS	2,4-Dinitrophenol	1890	0.00	U	849	45	25-104
132-64-9	MS	Dibenzofuran	1890	0.00	U	1730	91	40-114
84-66-2	MS	Diethylphthalate	1890	0.00	U	1600	85	43-110

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1086
Client ID: RE03-10-9872MS
Lab Sample ID: 1202005810
Instrument: MSD1.I
Analyst: AMY
Inj. Vol: .5 uL

Sample Type: Matrix Spike
Matrix: S
%Moisture: 11.9
Analysis Date: 12/30/2009 17:47
Prep Batch ID: 937366
Batch ID: 937367
Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
86-73-7	MS	Fluorene	1890	0.00	U	1470	78	48-99
7005-72-3	MS	4-Chlorophenylphenylether	1890	0.00	U	1620	86	42-111
534-52-1	MS	2-Methyl-4,6-dinitrophenol	1890	0.00	U	935	50	19-118
100-01-6	MS	4-Nitroaniline *p-Nitroaniline*	1890	0.00	U	1110	59	35-139
122-39-4	MS	Diphenylamine	1890	0.00	U	1470	78	41-112
122-66-7	MS	Azobenzene *1,2-Diphenylhydrazine*	1890	0.00	U	1470	78	37-118
101-55-3	MS	4-Bromophenylphenylether	1890	0.00	U	1830	97	39-112
118-74-1	MS	Hexachlorobenzene	1890	0.00	U	1670	89	38-113
85-01-8	MS	Phenanthrene	1890	0.00	U	1370	73	38-110
120-12-7	MS	Anthracene	1890	0.00	U	1400	74	38-112
84-74-2	MS	Di-n-butylphthalate	1890	0.00	U	1620	86	42-119
206-44-0	MS	Fluoranthene	1890	0.00	U	1520	80	38-119
85-68-7	MS	Butylbenzylphthalate	1890	0.00	U	1660	88	39-126
56-55-3	MS	Benzo(a)anthracene	1890	0.00	U	1460	77	39-110
91-94-1	MS	3,3'-Dichlorobenzidine	1890	0.00	U	1500	79	35-106
218-01-9	MS	Chrysene	1890	0.00	U	1480	78	39-109
117-81-7	MS	bis(2-Ethylhexyl)phthalate	1890	0.00	U	1620	86	40-125
117-84-0	MS	Di-n-octylphthalate	1890	0.00	U	1880	100	30-147
205-99-2	MS	Benzo(b)fluoranthene	1890	0.00	U	1520	81	38-117
207-08-9	MS	Benzo(k)fluoranthene	1890	0.00	U	1670	88	39-120
50-32-8	MS	Benzo(a)pyrene	1890	0.00	U	1550	82	40-115
193-39-5	MS	Indeno(1,2,3-cd)pyrene	1890	0.00	U	1200	64	32-120

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1086
Client ID: RE03-10-9872MS
Lab Sample ID: 1202005810
Instrument: MSD1.I
Analyst: AMY
Inj. Vol: .5 uL

Sample Type: Matrix Spike
Matrix: S
%Moisture: 11.9
Analysis Date: 12/30/2009 17:47
Prep Batch ID: 937366
Batch ID: 937367
Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
53-70-3	MS	Dibenzo(a,h)anthracene	1890	0.00	U	1230	65	32-124
191-24-2	MS	Benzo(ghi)perylene	1890	0.00	U	1110	59	28-119
120-82-1	MS	1,2,4-Trichlorobenzene	1890	0.00	U	1380	73	31-105

Semi-Volatile
Quality Control Summary
Spike Recovery Report

SDG Number: 10-1086
Client ID: RE03-10-9872MSD
Lab Sample ID: 1202005811
Instrument: MSD1.I
Analyst: AMY
Inj. Vol: .5 uL

Sample Type: Matrix Spike Duplicate
Matrix: S
%Moisture: 11.9
Analysis Date: 12/30/2009 18:12
Dilution: 1
Prep Batch ID 937366
Batch ID: 937367

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
62-75-9	MSD	N-Methyl-N-nitrosomethylam	1890	0.00	U	1280	68	32-90	3	0-30
108-95-2	MSD	Phenol	1890	0.00	U	1330	70	32-105	1	0-30
95-57-8	MSD	2-Chlorophenol	1890	0.00	U	1310	69	33-106	2	0-30
106-46-7	MSD	1,4-Dichlorobenzene	1890	0.00	U	1150	61	33-95	4	0-30
621-64-7	MSD	N-Nitrosodipropylamine	1890	0.00	U	1280	68	31-109	1	0-30
59-50-7	MSD	4-Chloro-3-methylphenol	1890	0.00	U	1560	83	38-119	2	0-30
83-32-9	MSD	Acenaphthene	1890	0.00	U	1410	75	39-100	2	0-30
121-14-2	MSD	2,4-Dinitrotoluene	1890	0.00	U	1350	72	42-107	1	0-30
100-02-7	MSD	4-Nitrophenol	1890	0.00	U	925	49	24-120	49 *	0-30
87-86-5	MSD	Pentachlorophenol	1890	0.00	U	1000	53	26-121	32 *	0-30
129-00-0	MSD	Pyrene	1890	0.00	U	1680	89	34-120	11	0-30
110-86-1	MSD	Pyridine	1890	0.00	U	191	10 *	30-95	45 *	0-30
62-53-3	MSD	Aniline	1890	0.00	U	1070	57	34-111	9	0-30
111-44-4	MSD	bis(2-Chloroethyl) ether	1890	0.00	U	1220	64	34-101	1	0-30
541-73-1	MSD	1,3-Dichlorobenzene	1890	0.00	U	1110	59	31-97	0	0-30
100-51-6	MSD	Benzyl alcohol	1890	0.00	U	1180	63	17-120	3	0-30
95-50-1	MSD	1,2-Dichlorobenzene	1890	0.00	U	1210	64	32-102	2	0-30
108-60-1	MSD	bis(2-Chloroisopropyl)ether	1890	0.00	U	1200	64	32-113	2	0-30
95-48-7	MSD	o-Cresol	1890	0.00	U	1490	79	31-119	3	0-30
65794-96-9	MSD	m,p-Cresols	1890	0.00	U	1540	82	35-125	0	0-30
67-72-1	MSD	Hexachloroethane	1890	0.00	U	1100	58	30-100	0	0-30
98-95-3	MSD	Nitrobenzene	1890	0.00	U	1380	73	33-108	1	0-30

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1086
Client ID: RE03-10-9872MSD
Lab Sample ID: 1202005811
Instrument: MSD1.I
Analyst: AMY
Inj. Vol: .5 uL

Sample Type: Matrix Spike Duplicate
Matrix: S
%Moisture: 11.9
Analysis Date: 12/30/2009 18:12
Prep Batch ID: 937366
Batch ID: 937367
Dilution: 1

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
78-59-1	MSD Isophorone	1890	0.00	U	1510	80	34-110	2	0-30
88-75-5	MSD 2-Nitrophenol	1890	0.00	U	1240	66	32-108	5	0-30
105-67-9	MSD 2,4-Dimethylphenol	1890	0.00	U	1450	77	32-115	1	0-30
111-91-1	MSD bis(2-Chloroethoxy)methane	1890	0.00	U	1320	70	35-108	1	0-30
120-83-2	MSD 2,4-Dichlorophenol	1890	0.00	U	1410	75	38-110	3	0-30
65-85-0	MSD Benzoic acid	3780	0.00	U	1670	44	18-134	51 *	0-30
91-20-3	MSD Naphthalene	1890	0.00	U	1250	66	31-105	0	0-30
106-47-8	MSD 4-Chloroaniline	1890	0.00	U	1250	66	29-123	9	0-30
87-68-3	MSD Hexachlorobutadiene	1890	0.00	U	1450	77	31-109	0	0-30
91-57-6	MSD 2-Methylnaphthalene	1890	0.00	U	1380	73	32-110	2	0-30
77-47-4	MSD Hexachlorocyclopentadiene	1890	0.00	U	1000	53	21-122	22	0-30
88-06-2	MSD 2,4,6-Trichlorophenol	1890	0.00	U	1480	78	37-108	4	0-30
95-95-4	MSD 2,4,5-Trichlorophenol	1890	0.00	U	1750	93	37-116	1	0-30
91-58-7	MSD 2-Chloronaphthalene	1890	0.00	U	1370	72	37-103	1	0-30
88-74-4	MSD 2-Nitroaniline *o-Nitroaniline*	1890	0.00	U	1430	76	36-115	1	0-30
99-09-2	MSD 3-Nitroaniline *m-Nitroaniline*	1890	0.00	U	1270	67	39-117	3	0-30
131-11-3	MSD Dimethylphthalate	1890	0.00	U	1510	80	41-105	2	0-30
606-20-2	MSD 2,6-Dinitrotoluene	1890	0.00	U	1360	72	41-103	1	0-30
208-96-8	MSD Acenaphthylene	1890	0.00	U	1460	77	41-103	1	0-30
51-28-5	MSD 2,4-Dinitrophenol	1890	0.00	U	358	19 *	25-104	81 *	0-30
132-64-9	MSD Dibenzofuran	1890	0.00	U	1720	91	40-114	1	0-30
84-66-2	MSD Diethylphthalate	1890	0.00	U	1660	88	43-110	4	0-30

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1086
Client ID: RE03-10-9872MSD
Lab Sample ID: 1202005811
Instrument: MSD1.I
Analyst: AMY
Inj. Vol: .5 uL

Sample Type: Matrix Spike Duplicate
Matrix: S
%Moisture: 11.9
Analysis Date: 12/30/2009 18:12
Dilution: 1
Prep Batch ID: 937366
Batch ID: 937367

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
86-73-7	MSD	Fluorene	1890	0.00	U	1470	78	48-99	0	0-30
7005-72-3	MSD	4-Chlorophenylphenylether	1890	0.00	U	1620	86	42-111	0	0-30
534-52-1	MSD	2-Methyl-4,6-dinitrophenol	1890	0.00	U	575	30	19-118	48 *	0-30
100-01-6	MSD	4-Nitroaniline *p-Nitroaniline*	1890	0.00	U	1070	57	35-139	4	0-30
122-39-4	MSD	Diphenylamine	1890	0.00	U	1540	81	41-112	5	0-30
122-66-7	MSD	Azobenzene *1,2-Diphenylhydrazine*	1890	0.00	U	1470	78	37-118	0	0-30
101-55-3	MSD	4-Bromophenylphenylether	1890	0.00	U	1870	99	39-112	2	0-30
118-74-1	MSD	Hexachlorobenzene	1890	0.00	U	1760	93	38-113	5	0-30
85-01-8	MSD	Phenanthrene	1890	0.00	U	1500	79	38-110	9	0-30
120-12-7	MSD	Anthracene	1890	0.00	U	1450	77	38-112	4	0-30
84-74-2	MSD	Di-n-butylphthalate	1890	0.00	U	1800	95	42-119	11	0-30
206-44-0	MSD	Fluoranthene	1890	0.00	U	1600	85	38-119	5	0-30
85-68-7	MSD	Butylbenzylphthalate	1890	0.00	U	1880	100	39-126	13	0-30
56-55-3	MSD	Benzo(a)anthracene	1890	0.00	U	1550	82	39-110	6	0-30
91-94-1	MSD	3,3'-Dichlorobenzidine	1890	0.00	U	1650	88	35-106	10	0-30
218-01-9	MSD	Chrysene	1890	0.00	U	1620	86	39-109	9	0-30
117-81-7	MSD	bis(2-Ethylhexyl)phthalate	1890	0.00	U	1820	96	40-125	11	0-30
117-84-0	MSD	Di-n-octylphthalate	1890	0.00	U	2230	118	30-147	17	0-30
205-99-2	MSD	Benzo(b)fluoranthene	1890	0.00	U	1640	87	38-117	7	0-30
207-08-9	MSD	Benzo(k)fluoranthene	1890	0.00	U	1880	99	39-120	12	0-30
50-32-8	MSD	Benzo(a)pyrene	1890	0.00	U	1670	89	40-115	7	0-30
193-39-5	MSD	Indeno(1,2,3-cd)pyrene	1890	0.00	U	1290	68	32-120	7	0-30

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1086
Client ID: RE03-10-9872MSD
Lab Sample ID: 1202005811
Instrument: MSD1.I
Analyst: AMY
Inj. Vol: .5 uL

Sample Type: Matrix Spike Duplicate
Matrix: S
%Moisture: 11.9
Analysis Date: 12/30/2009 18:12
Prep Batch ID: 937366
Batch ID: 937367
Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
53-70-3	MSD	Dibenzo(a,h)anthracene	1890	0.00	U	1310	70	32-124	6	0-30
191-24-2	MSD	Benzo(ghi)perylene	1890	0.00	U	1200	63	28-119	8	0-30
120-82-1	MSD	1,2,4-Trichlorobenzene	1890	0.00	U	1380	73	31-105	1	0-30

Method Blank Summary

SDG Number:	10-1086	Client:	LANL010	Matrix:	SOIL
Client ID:	MB for batch 937150	Instrument ID:	MSD3.I	Data File:	s3a0413-1.d
Lab Sample ID:	1202005357	Prep Date:	12/29/2009 10:16	Analyzed:	01/04/10 16:44
Column:	J&W DB-5MS	Level:	LOW		

This method blank applies to the following samples and quality control samples:

	Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01	LCS for batch 937150	1202005358	s3a0414-1.d	01/04/10	1708
02	RE03-09-14233	243552001	s3a0422.d	01/04/10	2024
03	RE03-09-14233MS	1202005359	s3a0423.d	01/04/10	2049
04	RE03-09-14233MSD	1202005360	s3a0424.d	01/04/10	2113
05	RE03-09-14236	243552002	s3a0425.d	01/04/10	2137
06	RE03-09-14239	243552003	s3a0426.d	01/04/10	2202
07	RE03-09-14240	243552004	s3a0427.d	01/04/10	2227
08	RE03-09-14231	243552005	s3a0428.d	01/04/10	2251
09	RE03-09-14232	243552006	s3a0429.d	01/04/10	2315
10	RE03-09-14235	243552007	s3a0430.d	01/04/10	2340
11	RE03-09-14238	243552008	s3a0431.d	01/05/10	0004
12	RE03-09-14234	243552009	s3a0432.d	01/05/10	0029
13	RE03-09-14241	243552010	s3a0433.d	01/05/10	0054
14	RE03-10-2737	243552011	s3a0434.d	01/05/10	0118
15	RE03-10-2736	243552012	s3a0435.d	01/05/10	0142
16	RE03-10-9873	243552014	s3a0436.d	01/05/10	0207

Method Blank Summary

SDG Number:	10-1086	Client:	LANL010	Matrix:	SOIL
Client ID:	MB for batch 937366	Instrument ID:	MSD1.I	Data File:	s1l3017.d
Lab Sample ID:	1202005808	Prep Date:	12/29/2009 17:48	Analyzed:	12/30/09 16:34
Column:	J&W DB-5MS	Level:	LOW		

This method blank applies to the following samples and quality control samples:

Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01 LCS for batch 937366	1202005809	s1l3018.d	12/30/09	1659
02 RE03-10-9872	243552016	s1l3019.d	12/30/09	1723
03 RE03-10-9872MS	1202005810	s1l3020.d	12/30/09	1747
04 RE03-10-9872MSD	1202005811	s1l3021.d	12/30/09	1812
05 RE03-10-9874	243552017	s1l3022.d	12/30/09	1836

Instrument Performance Check

DFTPP

Lab Name GEL Laboratories LLC **Client SDG:** 10-1086

Instrument ID: MSD1.I **Injection Date/Time:** 14-NOV-09 17:38

Column Description: J&W DB-5MS **Lab File ID** /chem/MSD1.i/s111409.b/s1k1201.d

m/e	Ion Abundance Criteria	% Relative Abundance
198	Base Peak, 100% Relative Abundance	100
51	30 - 60% of mass 198	41.3
68	Less than 2% of mass 69	1.8
69	Mass 69 Relative Abundance	36.7
70	Less than 2% of mass 69	0.6
127	40 - 60% of mass 198	48.3
197	0 - 1% of mass 198	0.7
199	5 - 9% of mass 198	6.6
275	10 - 30% of mass 198	23.3
365	Greater than 1% of mass 198	2.2
441	Present, but less than mass 443	74.2
442	Greater than 40% of mass 198	77.4
443	17 - 23% of mass 442	19.2

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
MEGA001	WBN091111-16	/chem/MSD1.i/s111409.b/s1k120	14-NOV-09 18:22
MEGA010	WBN091111-15	/chem/MSD1.i/s111409.b/s1k120	14-NOV-09 18:51
MEGA020	WBN091111-14	/chem/MSD1.i/s111409.b/s1k120	14-NOV-09 19:21
MEGA040	WBN091111-13.1	/chem/MSD1.i/s111409.b/s1k120	14-NOV-09 19:50
MEGA050	WBN091111-12	/chem/MSD1.i/s111409.b/s1k120	14-NOV-09 20:19
MEGA080	WBN091111-11	/chem/MSD1.i/s111409.b/s1k120	14-NOV-09 20:47
MEGA100	WBN091111-10	/chem/MSD1.i/s111409.b/s1k120	14-NOV-09 21:16
MEGA120	WBN091111-09	/chem/MSD1.i/s111409.b/s1k121	14-NOV-09 21:45

Instrument Performance Check

DFTPP

Lab Name GEL Laboratories LLC **Client SDG:** 10-1086

Instrument ID: MSD1.I **Injection Date/Time:** 15-NOV-09 14:50

Column Description: J&W DB-5MS **Lab File ID** /chem/MSD1.i/s111409.b/s1k1213.d

m/e	Ion Abundance Criteria	% Relative Abundance
198	Base Peak, 100% Relative Abundance	100
51	30 - 60% of mass 198	45.1
68	Less than 2% of mass 69	1.8
69	Mass 69 Relative Abundance	39.1
70	Less than 2% of mass 69	0.5
127	40 - 60% of mass 198	50.2
197	0 - 1% of mass 198	0.9
199	5 - 9% of mass 198	6.6
275	10 - 30% of mass 198	22.4
365	Greater than 1% of mass 198	2.3
441	Present, but less than mass 443	72.7
442	Greater than 40% of mass 198	70.7
443	17 - 23% of mass 442	19.3

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
AP010	WBN091111-01	/chem/MSD1.i/s111409.b/s1k121	15-NOV-09 15:28
AP020	WBN091111-02	/chem/MSD1.i/s111409.b/s1k121	15-NOV-09 15:51
AP040	WBN091111-03.1	/chem/MSD1.i/s111409.b/s1k121	15-NOV-09 16:14
AP050	WBN091111-04	/chem/MSD1.i/s111409.b/s1k121	15-NOV-09 16:38
AP080	WBN091111-05	/chem/MSD1.i/s111409.b/s1k121	15-NOV-09 17:01
AP100	WBN091111-06	/chem/MSD1.i/s111409.b/s1k122	15-NOV-09 17:24
AP120	WBN091111-07	/chem/MSD1.i/s111409.b/s1k122	15-NOV-09 17:47
APICV	WBN091111-08.1	/chem/MSD1.i/s111409.b/s1k123	15-NOV-09 23:17

Instrument Performance Check

DFTPP

Lab Name GEL Laboratories LLC **Client SDG:** 10-1086

Instrument ID: MSD1.I **Injection Date/Time:** 17-NOV-09 15:48

Column Description: J&W DB-5MS **Lab File ID** /chem/MSD1.i/s111409.b/s1k1259.d

m/e	Ion Abundance Criteria	% Relative Abundance
198	Base Peak, 100% Relative Abundance	100
51	30 - 60% of mass 198	44.2
68	Less than 2% of mass 69	1.8
69	Mass 69 Relative Abundance	38.5
70	Less than 2% of mass 69	0.6
127	40 - 60% of mass 198	49.6
197	0 - 1% of mass 198	0.7
199	5 - 9% of mass 198	6.7
275	10 - 30% of mass 198	23.8
365	Greater than 1% of mass 198	2.4
441	Present, but less than mass 443	72.4
442	Greater than 40% of mass 198	78.9
443	17 - 23% of mass 442	19.2

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
MEGAICV	WBN091027-09.3	/chem/MSD1.i/s111409.b/s1k126	17-NOV-09 16:27

Instrument Performance Check

DFTPP

Lab Name GEL Laboratories LLC **Client SDG:** 10-1086

Instrument ID: MSD1.1 **Injection Date/Time:** 30-DEC-09 10:24

Column Description: J&W DB-5MS **Lab File ID** /chem/MSD1.i/s123009.b/s113002.d

m/e	Ion Abundance Criteria	% Relative Abundance
198	Base Peak, 100% Relative Abundance	100
51	30 - 60% of mass 198	41.7
68	Less than 2% of mass 69	1.5
69	Mass 69 Relative Abundance	37.9
70	Less than 2% of mass 69	0.5
127	40 - 60% of mass 198	47.3
197	0 - 1% of mass 198	0.7
199	5 - 9% of mass 198	6.6
275	10 - 30% of mass 198	23.4
365	Greater than 1% of mass 198	2.2
441	Present, but less than mass 443	75.7
442	Greater than 40% of mass 198	62.7
443	17 - 23% of mass 442	18.9

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
MEGACVS	WBN091111-17.2	/chem/MSD1.i/s123009.b/s113003	30-DEC-09 10:40
APCVS	WBN091201-03.5	/chem/MSD1.i/s123009.b/s113004	30-DEC-09 11:22
SBLK02	1202005808	/chem/MSD1.i/s123009.b/s113017	30-DEC-09 16:34
SBLK02LCS	1202005809	/chem/MSD1.i/s123009.b/s113018	30-DEC-09 16:59
RE03-10-9872	243552016	/chem/MSD1.i/s123009.b/s113019	30-DEC-09 17:23
RE03-10-9872MS	1202005810	/chem/MSD1.i/s123009.b/s113020	30-DEC-09 17:47
RE03-10-9872MSD	1202005811	/chem/MSD1.i/s123009.b/s113021	30-DEC-09 18:12
RE03-10-9874	243552017	/chem/MSD1.i/s123009.b/s113022	30-DEC-09 18:36

Instrument Performance Check

DFTPP

Lab Name GEL Laboratories LLC **Client SDG:** 10-1086

Instrument ID: MSD3.I **Injection Date/Time:** 04-JAN-10 15:08

Column Description: J&W DB-5MS **Lab File ID** /chem/MSD3.i/s010410a.b/s3a0409.d

m/e	Ion Abundance Criteria	% Relative Abundance
198	Base Peak, 100% Relative Abundance	100
51	30 - 60% of mass 198	46.8
68	Less than 2% of mass 69	0
69	Mass 69 Relative Abundance	52.4
70	Less than 2% of mass 69	0.6
127	40 - 60% of mass 198	54.8
197	0 - 1% of mass 198	0
199	5 - 9% of mass 198	7
275	10 - 30% of mass 198	25.1
365	Greater than 1% of mass 198	3.1
441	Present, but less than mass 443	79
442	Greater than 40% of mass 198	71.8
443	17 - 23% of mass 442	19.9

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
MEGACVS	WBN091201-17.3	/chem/MSD3.i/s010410a.b/s3a04	04-JAN-10 15:20
APCVS	WBN100103-08.2	/chem/MSD3.i/s010410a.b/s3a04	04-JAN-10 15:49
SBLK01	1202005357	/chem/MSD3.i/s010410a.b/s3a04	04-JAN-10 16:44
SBLK01LCS	1202005358	/chem/MSD3.i/s010410a.b/s3a04	04-JAN-10 17:08
RE03-09-14233	243552001	/chem/MSD3.i/s010410a.b/s3a04	04-JAN-10 20:24
RE03-09-14233MS	1202005359	/chem/MSD3.i/s010410a.b/s3a04	04-JAN-10 20:49
RE03-09-14233MSD	1202005360	/chem/MSD3.i/s010410a.b/s3a04	04-JAN-10 21:13
RE03-09-14236	243552002	/chem/MSD3.i/s010410a.b/s3a04	04-JAN-10 21:37
RE03-09-14239	243552003	/chem/MSD3.i/s010410a.b/s3a04	04-JAN-10 22:02
RE03-09-14240	243552004	/chem/MSD3.i/s010410a.b/s3a04	04-JAN-10 22:27
RE03-09-14231	243552005	/chem/MSD3.i/s010410a.b/s3a04	04-JAN-10 22:51
RE03-09-14232	243552006	/chem/MSD3.i/s010410a.b/s3a04	04-JAN-10 23:15
RE03-09-14235	243552007	/chem/MSD3.i/s010410a.b/s3a04	04-JAN-10 23:40
RE03-09-14238	243552008	/chem/MSD3.i/s010410a.b/s3a04	05-JAN-10 00:04
RE03-09-14234	243552009	/chem/MSD3.i/s010410a.b/s3a04	05-JAN-10 00:29
RE03-09-14241	243552010	/chem/MSD3.i/s010410a.b/s3a04	05-JAN-10 00:54

Instrument Performance Check

DFTPP

Lab Name GEL Laboratories LLC **Client SDG:** 10-1086

Instrument ID: MSD3.I **Injection Date/Time:** 04-JAN-10 15:08

Column Description: J&W DB-5MS **Lab File ID** /chem/MSD3.i/s010410a.b/s3a0409.d

m/e	Ion Abundance Criteria	% Relative Abundance
198	Base Peak, 100% Relative Abundance	100
51	30 - 60% of mass 198	46.8
68	Less than 2% of mass 69	0
69	Mass 69 Relative Abundance	52.4
70	Less than 2% of mass 69	0.6
127	40 - 60% of mass 198	54.8
197	0 - 1% of mass 198	0
199	5 - 9% of mass 198	7
275	10 - 30% of mass 198	25.1
365	Greater than 1% of mass 198	3.1
441	Present, but less than mass 443	79
442	Greater than 40% of mass 198	71.8
443	17 - 23% of mass 442	19.9

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
RE03-10-2737	243552011	/chem/MSD3.i/s010410a.b/s3a04	05-JAN-10 01:18
RE03-10-2736	243552012	/chem/MSD3.i/s010410a.b/s3a04	05-JAN-10 01:42
RE03-10-9873	243552014	/chem/MSD3.i/s010410a.b/s3a04	05-JAN-10 02:07

Instrument Performance Check

DFTPP

Lab Name GEL Laboratories LLC **Client SDG:** 10-1086

Instrument ID: MSD3.I **Injection Date/Time:** 06-DEC-09 09:33

Column Description: J&W DB-5MS **Lab File ID** /chem/MSD3.i/s120609.b/s3l0601.d

m/e	Ion Abundance Criteria	% Relative Abundance
198	Base Peak, 100% Relative Abundance	100
51	30 - 60% of mass 198	39.6
68	Less than 2% of mass 69	1.6
69	Mass 69 Relative Abundance	46.8
70	Less than 2% of mass 69	0.5
127	40 - 60% of mass 198	51.7
197	0 - 1% of mass 198	0
199	5 - 9% of mass 198	6.9
275	10 - 30% of mass 198	23.2
365	Greater than 1% of mass 198	2.6
441	Present, but less than mass 443	71.8
442	Greater than 40% of mass 198	72.1
443	17 - 23% of mass 442	20.6

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
MEGAICAL001	WBN091201-16	/chem/MSD3.i/s120609.b/s3l0603	06-DEC-09 10:12
MEGAICAL010	WBN091201-15	/chem/MSD3.i/s120609.b/s3l0604	06-DEC-09 10:41
MEGAICAL020	WBN091201-14	/chem/MSD3.i/s120609.b/s3l0605	06-DEC-09 11:10
MEGAICAL040	WBN091201-13.1	/chem/MSD3.i/s120609.b/s3l0606	06-DEC-09 11:39
MEGAICAL050	WBN091201-12	/chem/MSD3.i/s120609.b/s3l0607	06-DEC-09 12:08
MEGAICAL080	WBN091201-11	/chem/MSD3.i/s120609.b/s3l0608	06-DEC-09 12:37
MEGAICAL100	WBN091201-10	/chem/MSD3.i/s120609.b/s3l0609	06-DEC-09 13:06
MEGAICAL120	WBN091201-09	/chem/MSD3.i/s120609.b/s3l0610	06-DEC-09 13:35
MEGAICV	WBN091106-05.2	/chem/MSD3.i/s120609.b/s3l0612	06-DEC-09 14:32

Instrument Performance Check

DFTPP

Lab Name GEL Laboratories LLC **Client SDG:** 10-1086

Instrument ID: MSD3.I **Injection Date/Time:** 08-DEC-09 09:03

Column Description: J&W DB-5MS **Lab File ID** /chem/MSD3.i/s120809.b/s310801.d

m/e	Ion Abundance Criteria	% Relative Abundance
198	Base Peak, 100% Relative Abundance	100
51	30 - 60% of mass 198	37.9
68	Less than 2% of mass 69	1.6
69	Mass 69 Relative Abundance	44.6
70	Less than 2% of mass 69	0.5
127	40 - 60% of mass 198	49.7
197	0 - 1% of mass 198	0
199	5 - 9% of mass 198	6.7
275	10 - 30% of mass 198	23.7
365	Greater than 1% of mass 198	2.8
441	Present, but less than mass 443	72.7
442	Greater than 40% of mass 198	78
443	17 - 23% of mass 442	20.8

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
AP010	WBN091201-01	/chem/MSD3.i/s120809.b/s310803	08-DEC-09 09:42
AP020	WBN091201-02	/chem/MSD3.i/s120809.b/s310804	08-DEC-09 10:09
AP040	WBN091201-03.1	/chem/MSD3.i/s120809.b/s310805	08-DEC-09 10:37
AP050	WBN091201-04	/chem/MSD3.i/s120809.b/s310806	08-DEC-09 11:04
AP080	WBN091201-05	/chem/MSD3.i/s120809.b/s310807	08-DEC-09 11:31
AP100	WBN091201-06	/chem/MSD3.i/s120809.b/s310808	08-DEC-09 11:58
AP120	WBN091201-07	/chem/MSD3.i/s120809.b/s310809	08-DEC-09 12:26
APICV	WBN091201-08.1	/chem/MSD3.i/s120809.b/s310810	08-DEC-09 12:53

Internal Standard
Area and RT Summary

Lab Name : GEL Laboratories LLC

Client SDG: 10-1086

Instrument: MSD1.I

STD Analysis Time: 30-DEC-09 10:40

GC Column: J&W DB-5MS

Data File: s113003.d

	1,4-Dichlorobenzene-d4			Naphthalene-d8			Acenaphthene-d10			Phenanthrene-d10			Chrysene-d12			Perylene-d12		
	Area	#	RT #	Area	#	RT #	Area	#	RT #	Area	#	RT #	Area	#	RT #	Area	#	RT #
12 Hour STD	687374		3.76	2750224		4.62	1443314		5.87	2352888		6.86	1958666		8.49	1612518		9.83
Upper Limit	1374748		4.26	5500448		5.12	2886628		6.37	4705776		7.36	3917332		8.99	3225036		10.3
Lower Limit	343687		3.26	1375112		4.12	721657		5.37	1176444		6.36	979333		7.99	806259		9.33
Sample ID																		
BLK01	759334		3.76	3049292		4.62	1633968		5.87	2813501		6.86	2332616		8.48	1764543		9.83
BLK01LCS	784093		3.76	3060077		4.63	1682739		5.87	2792477		6.86	2115950		8.49	1383179		9.83
RE03-10-9872	777493		3.76	3063929		4.62	1614752		5.87	2741436		6.86	2284561		8.48	1600836		9.83
RE03-10-9872MS	717939		3.76	2880419		4.63	1561664		5.87	2683577		6.86	2301621		8.49	1774671		9.83
RE03-10-9872MSD	603111		3.76	2407761		4.63	1295956		5.87	2214810		6.86	1827722		8.48	1313789		9.83
RE03-10-9874	638684		3.76	2553640		4.62	1463564		5.87	2458845		6.86	2099122		8.48	1594791		9.83

Area Upper Limit = +100% of internal standard area
Area Lower Limit = - 50% of internal standard area

RT Upper Limit = + 0.50 minutes of internal standard RT
RT Lower Limit = - 0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Value outside of QC Limits

Internal Standard
Area and RT Summary

Lab Name : GEL Laboratories LLC

Instrument: MSD3.I

GC Column: J&W DB-5MS

Client SDG: 10-1086

STD Analysis Time: 04-JAN-10 15:20

Data File: s3a0410.d

	1,4-Dichlorobenzene-d4			Naphthalene-d8			Acenaphthene-d10			Phenanthrene-d10			Chrysene-d12			Perylene-d12		
	Area	#	RT #	Area	#	RT #	Area	#	RT #	Area	#	RT #	Area	#	RT #	Area	#	RT #
12 Hour STD	125043		4.2	479154		5.45	259696		7.3	428025		8.89	372680		11.7	285873		13.7
Upper Limit	250086		4.7	958308		5.95	519392		7.8	856050		9.39	745360		12.2	571746		14.2
Lower Limit	62522		3.7	239577		4.95	129848		6.8	214013		8.39	186340		11.2	142937		13.2
Sample ID																		
BLK02	123401		4.2	465340		5.45	252936		7.29	419180		8.89	306107		11.7	241697		13.7
BLK02LCS	127521		4.2	484652		5.45	267372		7.3	454926		8.89	420614		11.7	342432		13.7
RE03-09-14233	151448		4.2	546789		5.45	306096		7.3	517364		8.89	390179		11.7	280144		13.7
RE03-09-14233MS	147547		4.2	560463		5.45	301541		7.3	514516		8.89	433659		11.8	282165		13.7
RE03-09-14233MSD	142914		4.2	543886		5.45	305242		7.3	521451		8.89	433227		11.7	269714		13.7
RE03-09-14236	147254		4.2	540699		5.45	304190		7.3	505399		8.89	397732		11.7	275658		13.7
RE03-09-14239	144180		4.2	534347		5.45	302002		7.3	505866		8.89	384536		11.7	266723		13.7
RE03-09-14240	141019		4.2	515612		5.45	291366		7.29	492781		8.89	394617		11.7	285364		13.7
RE03-09-14231	141109		4.2	518318		5.45	291516		7.3	494168		8.89	350794		11.7	219210		13.7
RE03-09-14232	135337		4.2	499911		5.45	282186		7.3	483728		8.89	374354		11.7	262551		13.7
RE03-09-14235	146865		4.2	536778		5.45	305645		7.29	517377		8.89	425618		11.7	315084		13.7
RE03-09-14238	140497		4.2	513697		5.45	292801		7.3	486196		8.89	370980		11.7	252584		13.7
RE03-09-14234	128787		4.2	469111		5.45	263273		7.29	442615		8.89	353636		11.7	245867		13.7
RE03-09-14241	123905		4.2	455464		5.45	257097		7.29	444858		8.89	371243		11.7	260151		13.7
RE03-10-2737	141180		4.2	523050		5.45	294303		7.29	499123		8.89	400604		11.7	288066		13.7
RE03-10-2736	156432		4.2	569043		5.45	321001		7.3	543910		8.89	438976		11.7	308610		13.7
RE03-10-9873	145454		4.2	526161		5.45	299621		7.29	511368		8.89	398140		11.7	260039		13.7

Area Upper Limit = +100% of internal standard area
Area Lower Limit = - 50% of internal standard area

RT Upper Limit = + 0.50 minutes of internal standard RT
RT Lower Limit = - 0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Value outside of QC Limits

Sample Data

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1086	Date Collected:	12/22/2009 12:00	Matrix:	S
Lab Sample ID:	243552005	Date Received:	12/24/2009 09:30	%Moisture:	7.3
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14231	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	937151	Inst:	MSD3.I	Dilution:	1
Run Date:	01/04/2010 22:51	Analyst:	JLD1	Inj. Vol:	.5 uL
Prep Date:	12/29/2009 10:16	Aliquot:	30.01 g	Final Volume:	1 mL
Data File:	s3a0428.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	360	ug/kg	71.9	360
108-95-2	Phenol	U	360	ug/kg	71.9	360
95-57-8	2-Chlorophenol	U	360	ug/kg	71.9	360
106-46-7	1,4-Dichlorobenzene	U	360	ug/kg	71.9	360
621-64-7	N-Nitrosodipropylamine	U	360	ug/kg	71.9	360
59-50-7	4-Chloro-3-methylphenol	U	360	ug/kg	71.9	360
83-32-9	Acenaphthene	U	36.0	ug/kg	11.9	36.0
121-14-2	2,4-Dinitrotoluene	U	360	ug/kg	36.0	360
100-02-7	4-Nitrophenol	U	360	ug/kg	119	360
87-86-5	Pentachlorophenol	U	360	ug/kg	89.9	360
129-00-0	Pyrene	U	36.0	ug/kg	10.8	36.0
110-86-1	Pyridine	U	360	ug/kg	71.9	360
62-53-3	Aniline	U	360	ug/kg	108	360
111-44-4	bis(2-Chloroethyl) ether	U	360	ug/kg	71.9	360
541-73-1	1,3-Dichlorobenzene	U	360	ug/kg	71.9	360
100-51-6	Benzyl alcohol	U	360	ug/kg	108	360
95-50-1	1,2-Dichlorobenzene	U	360	ug/kg	71.9	360
108-60-1	bis(2-Chloroisopropyl)ether	U	360	ug/kg	71.9	360
95-48-7	o-Cresol	U	360	ug/kg	71.9	360
65794-96-9	m,p-Cresols	U	360	ug/kg	108	360
67-72-1	Hexachloroethane	U	360	ug/kg	71.9	360
98-95-3	Nitrobenzene	U	360	ug/kg	71.9	360
78-59-1	Isophorone	U	360	ug/kg	71.9	360
88-75-5	2-Nitrophenol	U	360	ug/kg	71.9	360
105-67-9	2,4-Dimethylphenol	U	360	ug/kg	126	360
111-91-1	bis(2-Chloroethoxy)methane	U	360	ug/kg	71.9	360
120-83-2	2,4-Dichlorophenol	U	360	ug/kg	71.9	360
65-85-0	Benzoic acid	U	719	ug/kg	180	719
91-20-3	Naphthalene	U	36.0	ug/kg	10.8	36.0
106-47-8	4-Chloroaniline	U	360	ug/kg	71.9	360
87-68-3	Hexachlorobutadiene	U	360	ug/kg	71.9	360
91-57-6	2-Methylnaphthalene	U	36.0	ug/kg	7.19	36.0
77-47-4	Hexachlorocyclopentadiene	U	360	ug/kg	71.9	360
88-06-2	2,4,6-Trichlorophenol	U	360	ug/kg	71.9	360
95-95-4	2,4,5-Trichlorophenol	U	360	ug/kg	71.9	360
91-58-7	2-Chloronaphthalene	U	36.0	ug/kg	11.9	36.0
88-74-4	2-Nitroaniline	U	360	ug/kg	71.9	360
	o-Nitroaniline					
99-09-2	3-Nitroaniline	U	360	ug/kg	71.9	360

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1086**	**Date Collected:**	**12/22/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243552005**	**Date Received:**	**12/24/2009 09:30**	**%Moisture:**	**7.3**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14231**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**937151**	**Inst:**	**MSD3.I**	**Dilution:**	**1**
Run Date:	**01/04/2010 22:51**	**Analyst:**	**JLD1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/29/2009 10:16**	**Aliquot:**	**30.01 g**	**Final Volume:**	**1 mL**
Data File:	**s3a0428.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	360	ug/kg	71.9	360
606-20-2	2,6-Dinitrotoluene	U	360	ug/kg	36.0	360
208-96-8	Acenaphthylene	U	36.0	ug/kg	10.8	36.0
51-28-5	2,4-Dinitrophenol	U	719	ug/kg	137	719
132-64-9	Dibenzofuran	U	360	ug/kg	71.9	360
84-66-2	Diethylphthalate	U	360	ug/kg	71.9	360
86-73-7	Fluorene	U	36.0	ug/kg	10.8	36.0
7005-72-3	4-Chlorophenylphenylether	U	360	ug/kg	71.9	360
534-52-1	2-Methyl-4,6-dinitrophenol	U	360	ug/kg	71.9	360
100-01-6	4-Nitroaniline	U	360	ug/kg	108	360
	p-Nitroaniline					
122-39-4	Diphenylamine	U	360	ug/kg	71.9	360
122-66-7	Azobenzene	U	360	ug/kg	71.9	360
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	360	ug/kg	71.9	360
118-74-1	Hexachlorobenzene	U	360	ug/kg	71.9	360
85-01-8	Phenanthrene	U	36.0	ug/kg	10.8	36.0
120-12-7	Anthracene	U	36.0	ug/kg	7.19	36.0
84-74-2	Di-n-butylphthalate	U	360	ug/kg	71.9	360
206-44-0	Fluoranthene	U	36.0	ug/kg	10.8	36.0
85-68-7	Butylbenzylphthalate	U	360	ug/kg	71.9	360
56-55-3	Benzo(a)anthracene	U	36.0	ug/kg	10.8	36.0
91-94-1	3,3'-Dichlorobenzidine	U	360	ug/kg	108	360
218-01-9	Chrysene	U	36.0	ug/kg	10.8	36.0
117-81-7	bis(2-Ethylhexyl)phthalate	U	360	ug/kg	71.9	360
117-84-0	Di-n-octylphthalate	U	360	ug/kg	71.9	360
205-99-2	Benzo(b)fluoranthene	U	36.0	ug/kg	10.8	36.0
207-08-9	Benzo(k)fluoranthene	U	36.0	ug/kg	10.8	36.0
50-32-8	Benzo(a)pyrene	U	36.0	ug/kg	10.8	36.0
193-39-5	Indeno(1,2,3-cd)pyrene	U	36.0	ug/kg	10.8	36.0
53-70-3	Dibenzo(a,h)anthracene	U	36.0	ug/kg	10.8	36.0
191-24-2	Benzo(ghi)perylene	U	36.0	ug/kg	10.8	36.0
120-82-1	1,2,4-Trichlorobenzene	U	360	ug/kg	71.9	360

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.85	520	ug/kg		JA

GEL Laboratories LLC

Data file : /chem/MSD3.i/s010410a.b/s3a0428.d
Lab Smp Id: 243552005 Client Smp ID: RE03-09-14231
Inj Date : 04-JAN-2010 22:51
Operator : JLD1 Inst ID: MSD3.i
Smp Info : |243552005|937151|1|SVMF|1|LANL
Misc Info : |MSD8270_S|WBN091223-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD3.i/s010410a.b/MSD3-8270R-AQA-120809.m
Meth Date : 04-Jan-2010 16:42 jen00986 Quant Type: ISTD
Cal Date : 07-DEC-2009 19:48 Cal File: s310717.d
Als bottle: 20
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-1086.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.01000	weight of sample
M	7.32150	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	4.201	4.203	(1.000)	141109	40.0000	
* 29 Naphthalene-d8	136	5.449	5.453	(1.000)	518318	40.0000	
* 46 Acenaphthene-d10	164	7.295	7.298	(1.000)	291516	40.0000	
* 67 Phenanthrene-d10	188	8.889	8.888	(1.000)	494168	40.0000	
* 91 Chrysene-d12	240	11.740	11.745	(1.000)	350794	40.0000	
* 98 Perylene-d12	264	13.684	13.686	(1.000)	219210	40.0000	
$ 3 2-Fluorophenol	112	3.105	3.093	(0.739)	229482	62.1747	2240
$ 5 Phenol-d5	99	3.870	3.869	(0.921)	290689	61.8184	2220
$ 20 Nitrobenzene-d5	82	4.731	4.737	(0.868)	129557	34.2002	1230
$ 39 2-Fluorobiphenyl	172	6.574	6.576	(0.901)	215567	31.5478	1130
$ 60 2,4,6-Tribromophenol	329	8.142	8.143	(1.116)	60896	76.0699	2740
$ 81 p-Terphenyl-d14	244	10.597	10.595	(0.903)	271800	48.2421	1730

ION RATIO REPORT

SV REPORT

Data file: s3a0428.d
Report Date: 01/05/2010 09:44
Lab. ID: 243552005 SampleType: SAMPLE
Injection Date: 04-JAN-2010 22:51
Operator: JLD1 Instrument: MSD3.i
Sample Info: |243552005|937151|1|SVMF|1|LANL
Miscellaneous Info: |MSD8270_S|WBN091223-01|
Comment:
Method used: /chem/MSD3.i/s010410a.b/MSD3-8270R-AQA-120809.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-1086
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
17 N-Nitrosodipropylamine				CAS#: 621-64-7		
70	18841	4.73	4.58	80-120	100	(T)
42	10198	4.73	4.58	31- 91	54	(T)
44 2,6-Dinitrotoluene				CAS#: 606-20-2		
165	37667	7.30	7.09	80-120	100	(T)
63	248	7.29	7.09	49-109	1	(QT)
50 2,4-Dinitrotoluene				CAS#: 121-14-2		
165	37667	7.30	7.52	80-120	100	(T)
89	756	7.30	7.52	69-129	2	(QT)
63	248	7.29	7.52	56-116	1	(QT)
55 2-Methyl-4,6-dinitrophenol				CAS#: 534-52-1		
198	216	8.14	7.95	80-120	100	(T)
105	559	8.14	7.95	21- 81	258	(QT)
51	421	8.14	7.95	38- 98	194	(QT)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

Data file : /chem/MSD3.i/s010410a.b/s3a0428.d
Lab Smp Id: 243552005 Client Smp ID: RE03-09-14231
Inj Date : 04-JAN-2010 22:51
Operator : JLD1 Inst ID: MSD3.i
Smp Info : |243552005|937151|1|SVMF|1|LANL
Misc Info : |MSD8270_S|WBN091223-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD3.i/s010410a.b/MSD3-8270R-AQA-120809.m
Meth Date : 04-Jan-2010 16:42 jen00986 Quant Type: ISTD
Cal Date : 07-DEC-2009 19:48 Cal File: s310717.d
Als bottle: 20
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-1086.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.01000	weight of sample
M	7.32150	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	4.201	926260	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown Aldol Condensate					CAS #:		
2.853	334853	14.4604383	520	0		0	10

Data File: /chem/MSD3.i/s010410a.b/s3a0428.d
Date : 04-JAN-2010 22:51
Client ID: RE03-09-14231
Sample Info: |243552005|937151|1|SVMF|1|LANL
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Page 1

Instrument: MSD3.i

Operator: JLD1
Column diameter: 0.20

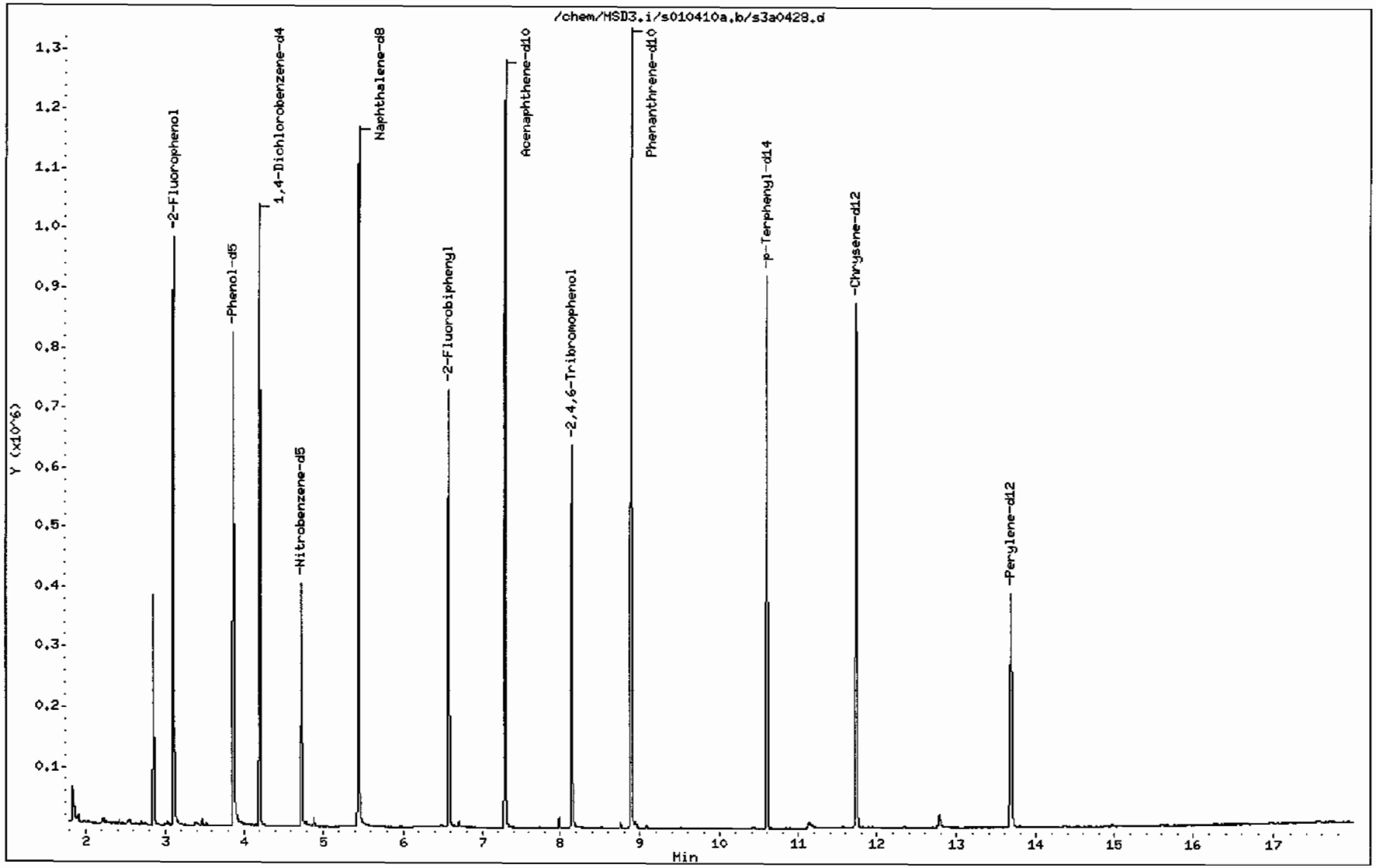

Data File: /chem/MSD3.i/s010410a.b/s3a0428.d

Date : 04-JAN-2010 22:51

Client ID: RE03-09-14231

Instrument: MSD3.i

Sample Info: |243552005|937151|1|SVMF|1|LANL

Volume Injected (uL): 0.5

Operator: JLD1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7945	50	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	40	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	40	C6H12O2	116

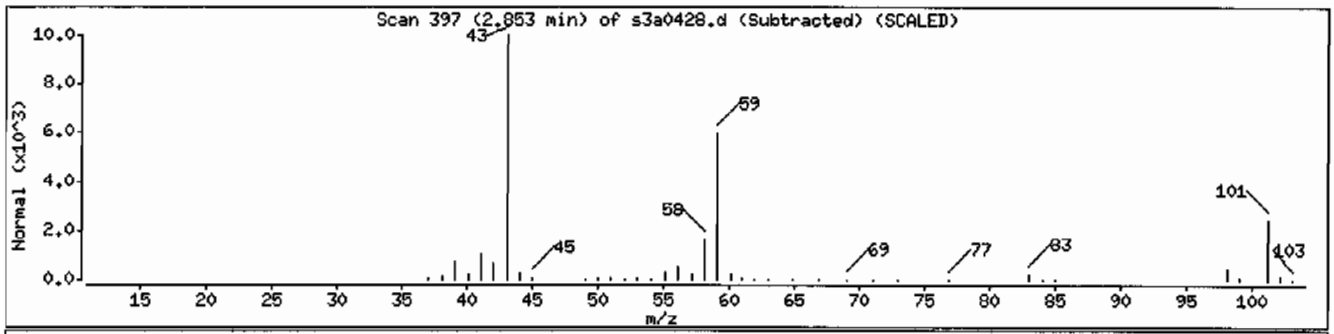

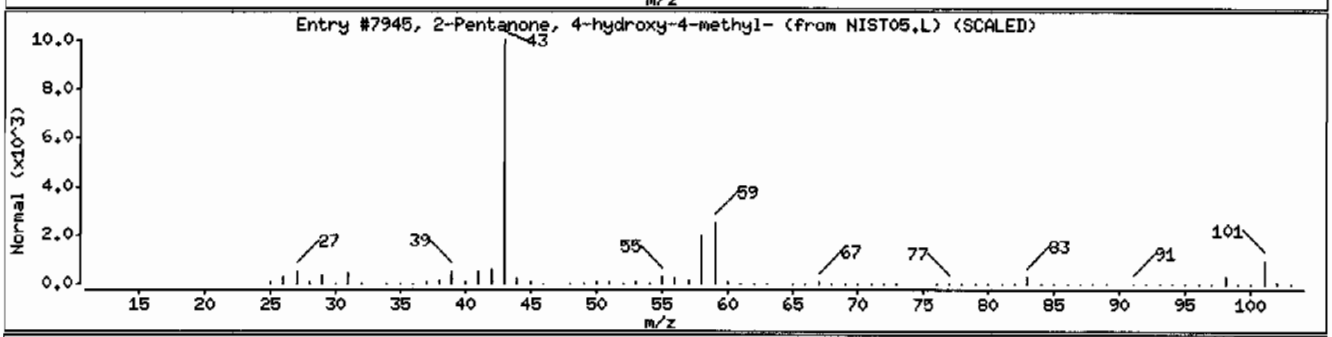

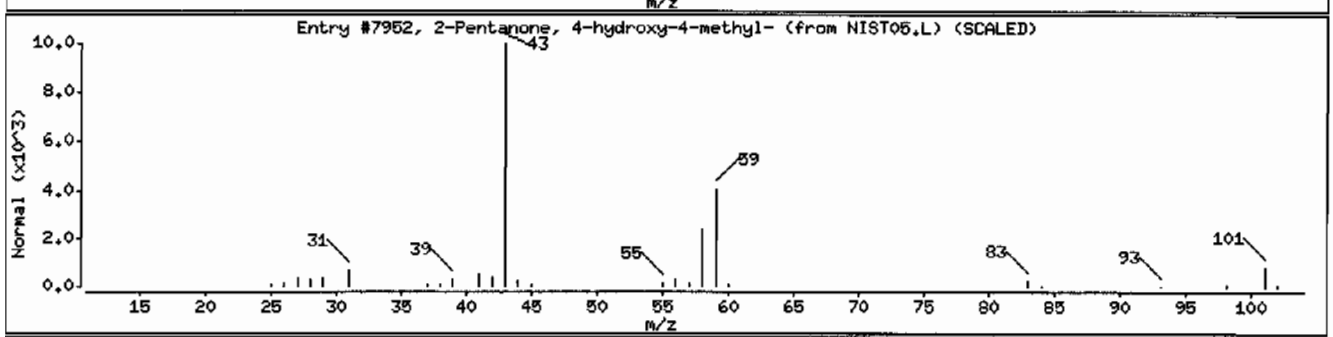

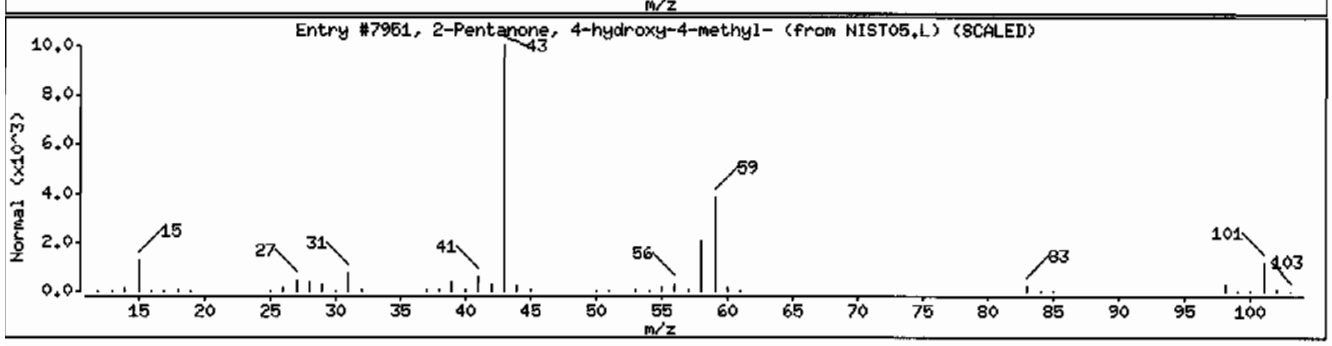

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1086**	**Date Collected:**	**12/22/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243552006**	**Date Received:**	**12/24/2009 09:30**	**%Moisture:**	**5.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14232**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**937151**	**Inst:**	**MSD3.I**	**Dilution:**	**1**
Run Date:	**01/04/2010 23:15**	**Analyst:**	**JLD1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/29/2009 10:16**	**Aliquot:**	**30.02 g**	**Final Volume:**	**1 mL**
Data File:	**s3a0429.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	354	ug/kg	70.7	354
108-95-2	Phenol	U	354	ug/kg	70.7	354
95-57-8	2-Chlorophenol	U	354	ug/kg	70.7	354
106-46-7	1,4-Dichlorobenzene	U	354	ug/kg	70.7	354
621-64-7	N-Nitrosodipropylamine	U	354	ug/kg	70.7	354
59-50-7	4-Chloro-3-methylphenol	U	354	ug/kg	70.7	354
83-32-9	Acenaphthene	U	35.4	ug/kg	11.7	35.4
121-14-2	2,4-Dinitrotoluene	U	354	ug/kg	35.4	354
100-02-7	4-Nitrophenol	U	354	ug/kg	117	354
87-86-5	Pentachlorophenol	U	354	ug/kg	88.4	354
129-00-0	Pyrene	U	35.4	ug/kg	10.6	35.4
110-86-1	Pyridine	U	354	ug/kg	70.7	354
62-53-3	Aniline	U	354	ug/kg	106	354
111-44-4	bis(2-Chloroethyl) ether	U	354	ug/kg	70.7	354
541-73-1	1,3-Dichlorobenzene	U	354	ug/kg	70.7	354
100-51-6	Benzyl alcohol	U	354	ug/kg	106	354
95-50-1	1,2-Dichlorobenzene	U	354	ug/kg	70.7	354
108-60-1	bis(2-Chloroisopropyl)ether	U	354	ug/kg	70.7	354
95-48-7	o-Cresol	U	354	ug/kg	70.7	354
65794-96-9	m,p-Cresols	U	354	ug/kg	106	354
67-72-1	Hexachloroethane	U	354	ug/kg	70.7	354
98-95-3	Nitrobenzene	U	354	ug/kg	70.7	354
78-59-1	Isophorone	U	354	ug/kg	70.7	354
88-75-5	2-Nitrophenol	U	354	ug/kg	70.7	354
105-67-9	2,4-Dimethylphenol	U	354	ug/kg	124	354
111-91-1	bis(2-Chloroethoxy)methane	U	354	ug/kg	70.7	354
120-83-2	2,4-Dichlorophenol	U	354	ug/kg	70.7	354
65-85-0	Benzoic acid	U	707	ug/kg	177	707
91-20-3	Naphthalene	U	35.4	ug/kg	10.6	35.4
106-47-8	4-Chloroaniline	U	354	ug/kg	70.7	354
87-68-3	Hexachlorobutadiene	U	354	ug/kg	70.7	354
91-57-6	2-Methylnaphthalene	U	35.4	ug/kg	7.07	35.4
77-47-4	Hexachlorocyclopentadiene	U	354	ug/kg	70.7	354
88-06-2	2,4,6-Trichlorophenol	U	354	ug/kg	70.7	354
95-95-4	2,4,5-Trichlorophenol	U	354	ug/kg	70.7	354
91-58-7	2-Chloronaphthalene	U	35.4	ug/kg	11.7	35.4
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	354	ug/kg	70.7	354
99-09-2	3-Nitroaniline	U	354	ug/kg	70.7	354

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1086	Date Collected:	12/22/2009 12:00	Matrix:	S
Lab Sample ID:	243552006	Date Received:	12/24/2009 09:30	%Moisture:	5.8
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14232	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	937151	Inst:	MSD3.I	Dilution:	1
Run Date:	01/04/2010 23:15	Analyst:	JLD1	Inj. Vol:	.5 uL
Prep Date:	12/29/2009 10:16	Aliquot:	30.02 g	Final Volume:	1 mL
Data File:	s3a0429.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	354	ug/kg	70.7	354
606-20-2	2,6-Dinitrotoluene	U	354	ug/kg	35.4	354
208-96-8	Acenaphthylene	U	35.4	ug/kg	10.6	35.4
51-28-5	2,4-Dinitrophenol	U	707	ug/kg	134	707
132-64-9	Dibenzofuran	U	354	ug/kg	70.7	354
84-66-2	Diethylphthalate	U	354	ug/kg	70.7	354
86-73-7	Fluorene	U	35.4	ug/kg	10.6	35.4
7005-72-3	4-Chlorophenylphenylether	U	354	ug/kg	70.7	354
534-52-1	2-Methyl-4,6-dinitrophenol	U	354	ug/kg	70.7	354
100-01-6	4-Nitroaniline	U	354	ug/kg	106	354
	p-Nitroaniline					
122-39-4	Diphenylamine	U	354	ug/kg	70.7	354
122-66-7	Azobenzene	U	354	ug/kg	70.7	354
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	354	ug/kg	70.7	354
118-74-1	Hexachlorobenzene	U	354	ug/kg	70.7	354
85-01-8	Phenanthrene	U	35.4	ug/kg	10.6	35.4
120-12-7	Anthracene	U	35.4	ug/kg	7.07	35.4
84-74-2	Di-n-butylphthalate	U	354	ug/kg	70.7	354
206-44-0	Fluoranthene	U	35.4	ug/kg	10.6	35.4
85-68-7	Butylbenzylphthalate	U	354	ug/kg	70.7	354
56-55-3	Benzo(a)anthracene	U	35.4	ug/kg	10.6	35.4
91-94-1	3,3'-Dichlorobenzidine	U	354	ug/kg	106	354
218-01-9	Chrysene	U	35.4	ug/kg	10.6	35.4
117-81-7	bis(2-Ethylhexyl)phthalate	U	354	ug/kg	70.7	354
117-84-0	Di-n-octylphthalate	U	354	ug/kg	70.7	354
205-99-2	Benzo(b)fluoranthene	U	35.4	ug/kg	10.6	35.4
207-08-9	Benzo(k)fluoranthene	U	35.4	ug/kg	10.6	35.4
50-32-8	Benzo(a)pyrene	U	35.4	ug/kg	10.6	35.4
193-39-5	Indeno(1,2,3-cd)pyrene	U	35.4	ug/kg	10.6	35.4
53-70-3	Dibenzo(a,h)anthracene	U	35.4	ug/kg	10.6	35.4
191-24-2	Benzo(ghi)perylene	U	35.4	ug/kg	10.6	35.4
120-82-1	1,2,4-Trichlorobenzene	U	354	ug/kg	70.7	354

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	1.84	150	ug/kg		J
	Unknown Aldol Condensate	2.85	546	ug/kg		JA

GEL Laboratories LLC

Data file : /chem/MSD3.i/s010410a.b/s3a0429.d
Lab Smp Id: 243552006 Client Smp ID: RE03-09-14232
Inj Date : 04-JAN-2010 23:15
Operator : JLD1 Inst ID: MSD3.i
Smp Info : |243552006|937151|1|SVMF|1|LANL
Misc Info : |MSD8270_S|WBN091223-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD3.i/s010410a.b/MSD3-8270R-AQA-120809.m
Meth Date : 04-Jan-2010 16:42 jen00986 Quant Type: ISTD
Cal Date : 07-DEC-2009 19:48 Cal File: s310717.d
Als bottle: 21
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-1086.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.02000	weight of sample
M	5.76950	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	4.201	4.203	(1.000)	135337	40.0000	
* 29 Naphthalene-d8	136	5.449	5.453	(1.000)	499911	40.0000	
* 46 Acenaphthene-d10	164	7.295	7.298	(1.000)	282186	40.0000	
* 67 Phenanthrene-d10	188	8.889	8.888	(1.000)	483728	40.0000	
* 91 Chrysene-d12	240	11.740	11.745	(I.000)	374354	40.0000	
* 98 Perylene-d12	264	13.687	13.686	(1.000)	262551	40.0000	
$ 3 2-Fluorophenol	112	3.108	3.093	(0.740)	263102	74.3237	2630
$ 5 Phenol-d5	99	3.873	3.869	(0.922)	305806	67.8068	2400
$ 20 Nitrobenzene-d5	82	4.731	4.737	(0.868)	134298	36.7571	1300
$ 39 2-Fluorobiphenyl	172	6.574	6.576	(0.901)	226669	34.2693	1210
$ 60 2,4,6-Tribromophenol	329	8.142	8.143	(1.116)	66709	86.0866	3040
$ 81 p-Terphenyl-d14	244	10.597	10.595	(0.903)	274740	45.6949	1620

ION RATIO REPORT

SV REPORT

Data file: s3a0429.d
Report Date: 01/05/2010 09:44
Lab. ID: 243552006 SampleType: SAMPLE
Injection Date: 04-JAN-2010 23:15
Operator: JLD1 Instrument: MSD3.i
Sample Info: |243552006|937151|1|SVMF|1|LANL
Miscellaneous Info: |MSD8270_S|WBN091223-01|
Comment:
Method used: /chem/MSD3.i/s010410a.b/MSD3-8270R-AQA-120809.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-1086
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
17 N-Nitrosodipropylamine				CAS#: 621-64-7		
70	19763	4.73	4.58	80-120	100	(T)
42	9961	4.73	4.58	31- 91	50	(T)
27 Benzoic acid				CAS#: 65-85-0		
105	566	5.45	5.24	80-120	100	(T)
122	107	5.45	5.24	42-102	19	(QT)
77	2189	5.45	5.24	50-110	387	(QT)
44 2,6-Dinitrotoluene				CAS#: 606-20-2		
165	36865	7.30	7.09	80-120	100	(T)
63	277	7.30	7.09	49-109	1	(QT)
50 2,4-Dinitrotoluene				CAS#: 121-14-2		
165	36865	7.30	7.52	80-120	100	(T)
89	760	7.30	7.52	69-129	2	(QT)
63	277	7.30	7.52	56-116	1	(QT)
55 2-Methyl-4,6-dinitrophenol				CAS#: 534-52-1		
198	247	8.14	7.95	80-120	100	(T)
105	625	8.14	7.95	21- 81	253	(QT)
51	426	8.14	7.95	38- 98	172	(QT)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

Data file : /chem/MSD3.i/s010410a.b/s3a0429.d
Lab Smp Id: 243552006 Client Smp ID: RE03-09-14232
Inj Date : 04-JAN-2010 23:15
Operator : JLD1 Inst ID: MSD3.i
Smp Info : |243552006|937151|1|SVMF|1|LANL
Misc Info : |MSD8270_S|WBN091223-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD3.i/s010410a.b/MSD3-8270R-AQA-120809.m
Meth Date : 04-Jan-2010 16:42 jen00986 Quant Type: ISTD
Cal Date : 07-DEC-2009 19:48 Cal File: s310717.d
Als bottle: 21
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-1086.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.02000	weight of sample
M	5.76950	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	4.201	901084	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown				CAS #:			
1.839	95500	4.23935360	150	0		0	10
Unknown Aldol Condensate				CAS #:			
2.853	347724	15.4357901	546	0		0	10

Data File: /chem/MSD3.i/s010410a.b/s3a0429.d
Date : 04-JAN-2010 23:15
Client ID: RE03-09-14232
Sample Info: |2435520061937151|1|SVMF|1|LANL
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Page 1

Instrument: MSD3.i

Operator: JLD1
Column diameter: 0.20

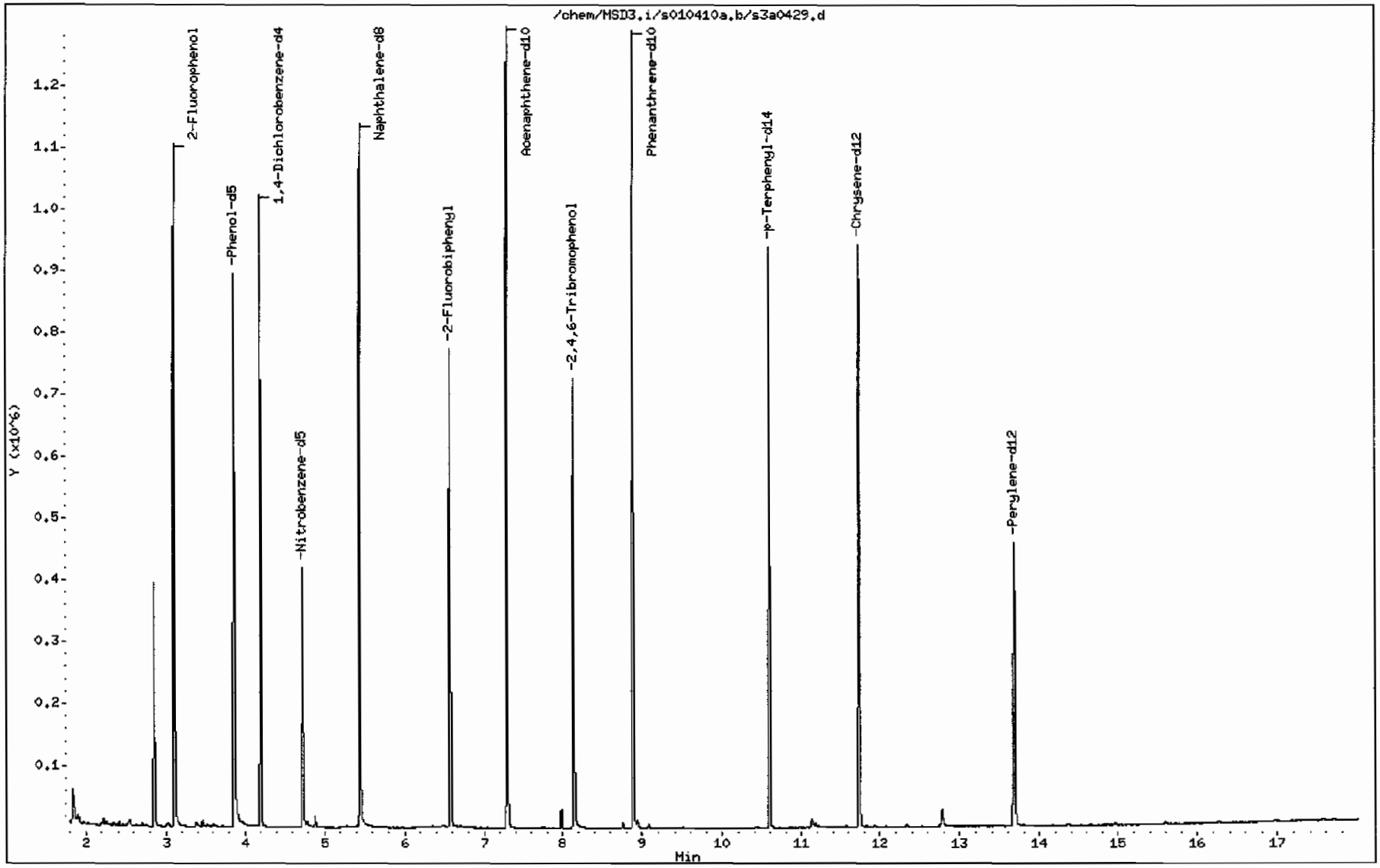

Data File: /chem/MSD3.i/s010410a.b/s3a0429.d

Date : 04-JAN-2010 23:15

Client ID: RE03-09-14232

Instrument: MSD3.i

Sample Info: |2435520061937151|1|SVMF|1|LANL

Volume Injected (uL): 0.5

Operator: JLD1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
2-Propanone, 1-chloro-	78-95-5	NIST05.L	2355	76	C3H5ClO	92
2-Propanone, 1-chloro-	78-95-5	NIST05.L	2356	59	C3H5ClO	92
2-Propanone, 1-chloro-	78-95-5	NIST05.L	2352	50	C3H5ClO	92

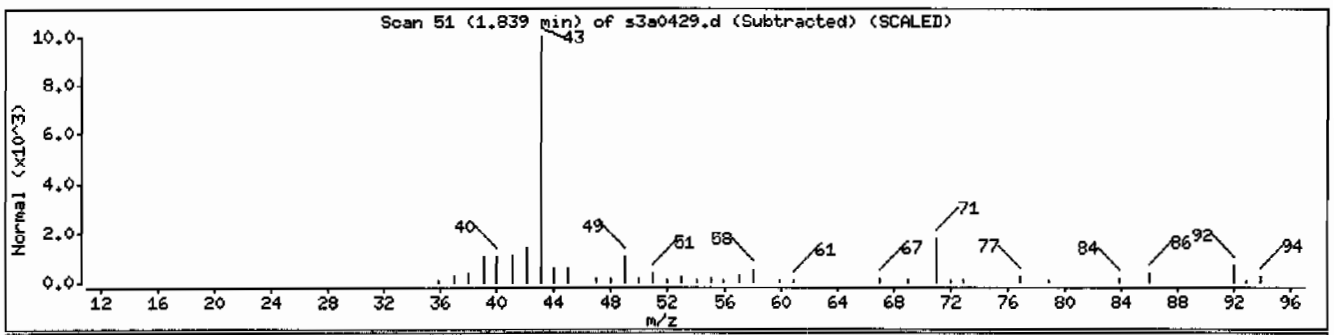

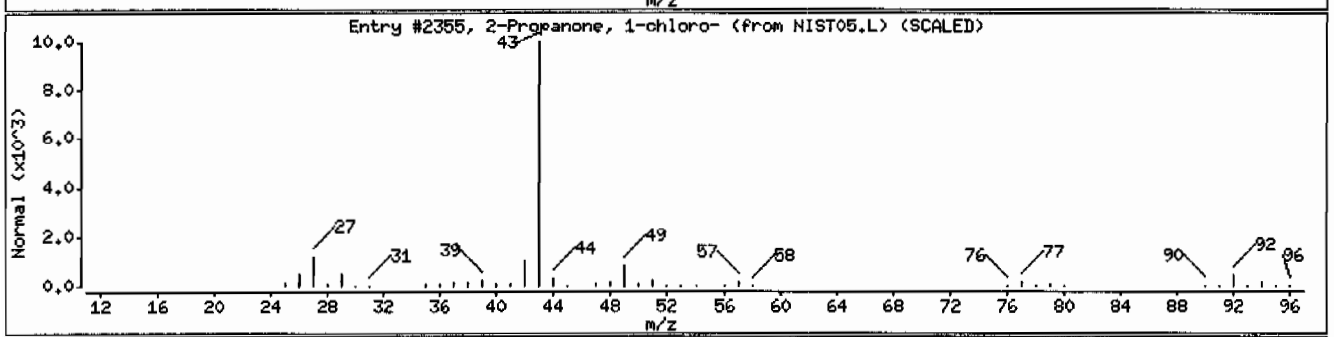

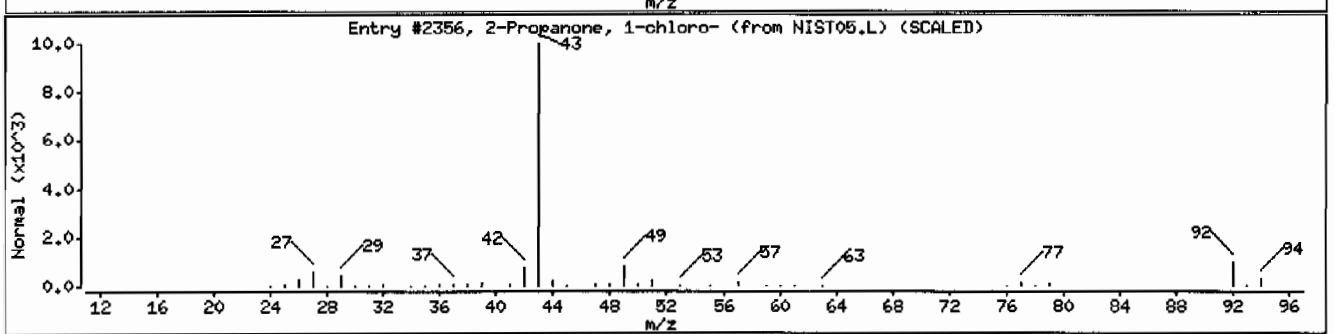

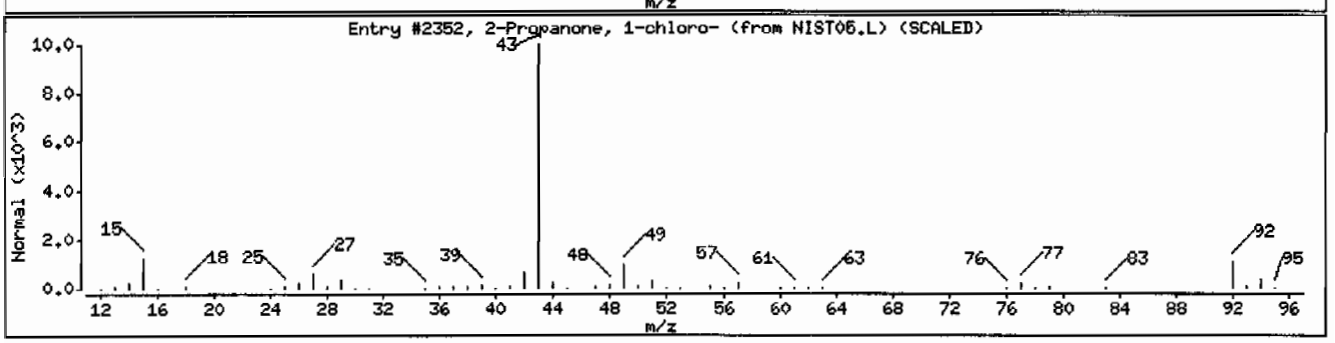

Data File: /chem/MSD3.i/s010410a.b/s3a0429.d

Date : 04-JAN-2010 23:15

Client ID: RE03-09-14232

Instrument: MSD3.i

Sample Info: |2435520061937151|1|SVMF|1|LANL

Volume Injected (uL): 0.5

Operator: JLD1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	56	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7945	50	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	28	C6H12O2	116

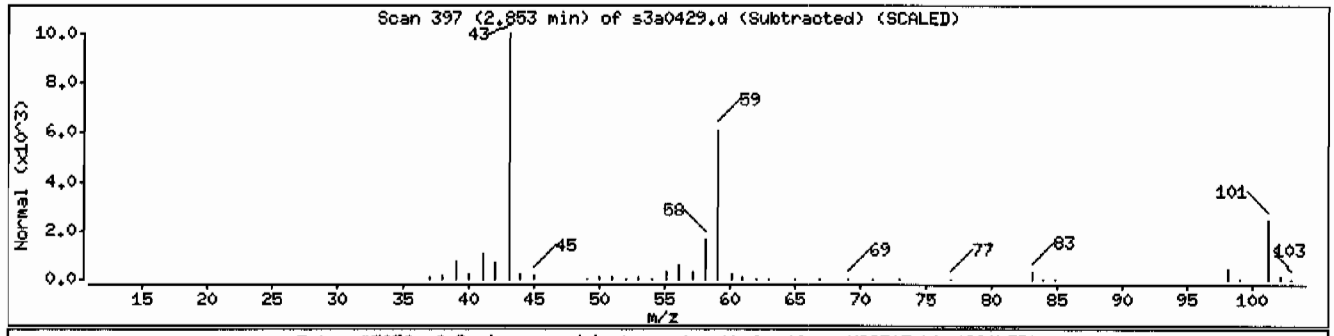

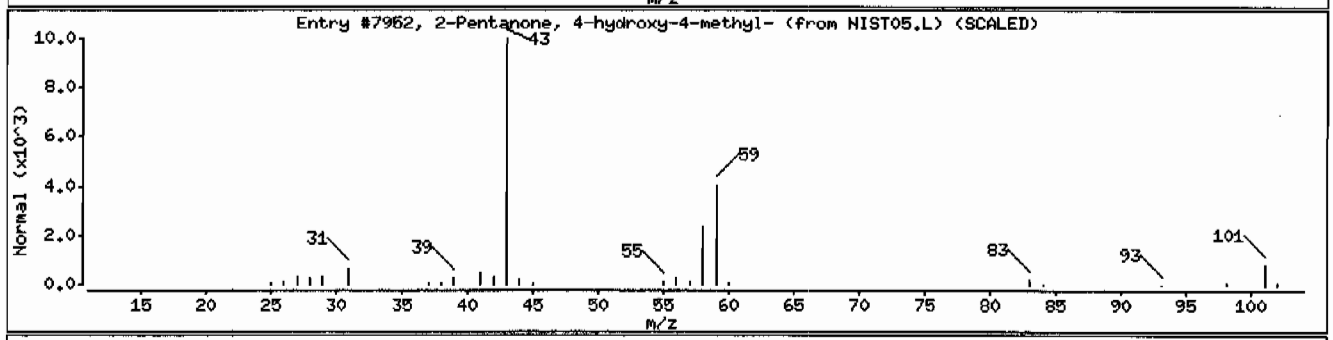

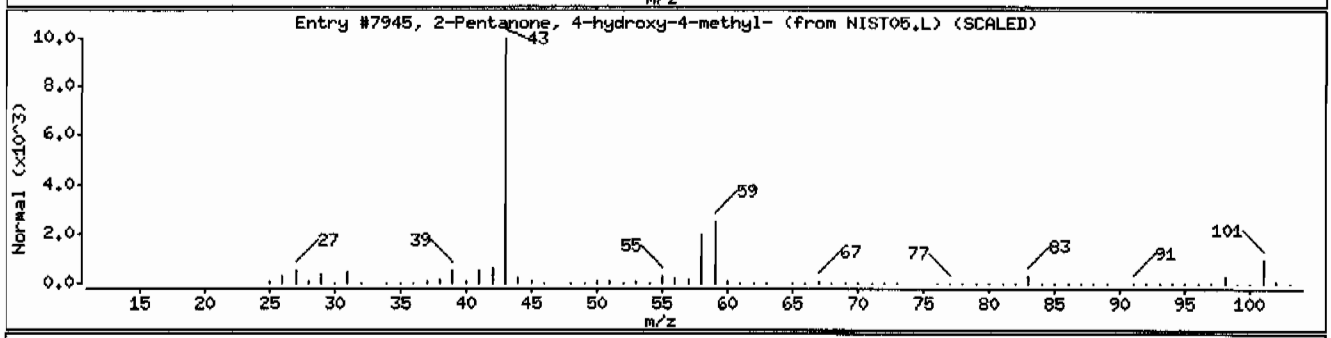

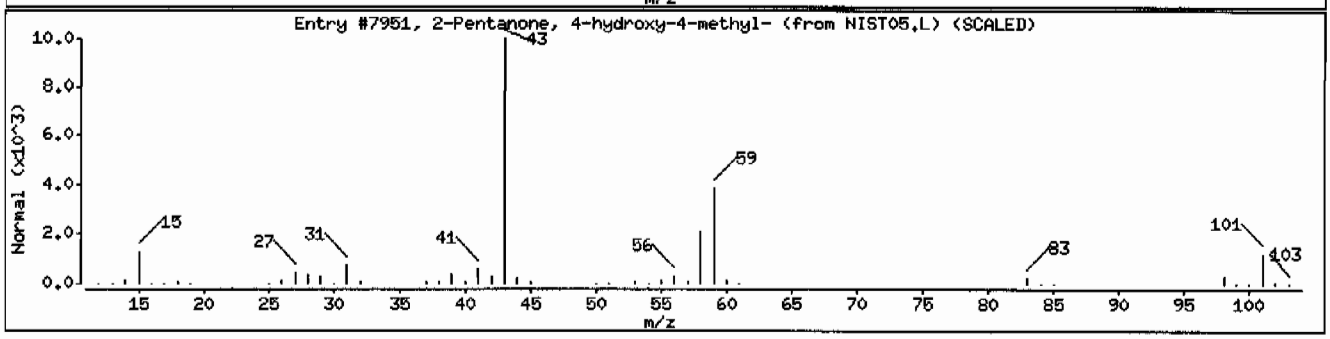

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1086	Date Collected:	12/22/2009 12:00	Matrix:	S
Lab Sample ID:	243552001	Date Received:	12/24/2009 09:30	%Moisture:	7.4
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14233	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	937151	Inst:	MSD3.I	Dilution:	1
Run Date:	01/04/2010 20:24	Analyst:	JLD1	Inj. Vol:	.5 uL
Prep Date:	12/29/2009 10:16	Aliquot:	30.09 g	Final Volume:	1 mL
Data File:	s3a0422.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	359	ug/kg	71.8	359
108-95-2	Phenol	U	359	ug/kg	71.8	359
95-57-8	2-Chlorophenol	U	359	ug/kg	71.8	359
106-46-7	1,4-Dichlorobenzene	U	359	ug/kg	71.8	359
621-64-7	N-Nitrosodipropylamine	U	359	ug/kg	71.8	359
59-50-7	4-Chloro-3-methylphenol	U	359	ug/kg	71.8	359
83-32-9	Acenaphthene	U	35.9	ug/kg	11.8	35.9
121-14-2	2,4-Dinitrotoluene	U	359	ug/kg	35.9	359
100-02-7	4-Nitrophenol	U	359	ug/kg	118	359
87-86-5	Pentachlorophenol	U	359	ug/kg	89.7	359
129-00-0	Pyrene	U	35.9	ug/kg	10.8	35.9
110-86-1	Pyridine	U	359	ug/kg	71.8	359
62-53-3	Aniline	U	359	ug/kg	108	359
111-44-4	bis(2-Chloroethyl) ether	U	359	ug/kg	71.8	359
541-73-1	1,3-Dichlorobenzene	U	359	ug/kg	71.8	359
100-51-6	Benzyl alcohol	U	359	ug/kg	108	359
95-50-1	1,2-Dichlorobenzene	U	359	ug/kg	71.8	359
108-60-1	bis(2-Chloroisopropyl)ether	U	359	ug/kg	71.8	359
95-48-7	o-Cresol	U	359	ug/kg	71.8	359
65794-96-9	m,p-Cresols	U	359	ug/kg	108	359
67-72-1	Hexachloroethane	U	359	ug/kg	71.8	359
98-95-3	Nitrobenzene	U	359	ug/kg	71.8	359
78-59-1	Isophorone	U	359	ug/kg	71.8	359
88-75-5	2-Nitrophenol	U	359	ug/kg	71.8	359
105-67-9	2,4-Dimethylphenol	U	359	ug/kg	126	359
111-91-1	bis(2-Chloroethoxy)methane	U	359	ug/kg	71.8	359
120-83-2	2,4-Dichlorophenol	U	359	ug/kg	71.8	359
65-85-0	Benzoic acid	U	718	ug/kg	179	718
91-20-3	Naphthalene	U	35.9	ug/kg	10.8	35.9
106-47-8	4-Chloroaniline	U	359	ug/kg	71.8	359
87-68-3	Hexachlorobutadiene	U	359	ug/kg	71.8	359
91-57-6	2-Methylnaphthalene	U	35.9	ug/kg	7.18	35.9
77-47-4	Hexachlorocyclopentadiene	U	359	ug/kg	71.8	359
88-06-2	2,4,6-Trichlorophenol	U	359	ug/kg	71.8	359
95-95-4	2,4,5-Trichlorophenol	U	359	ug/kg	71.8	359
91-58-7	2-Chloronaphthalene	U	35.9	ug/kg	11.8	35.9
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	359	ug/kg	71.8	359
99-09-2	3-Nitroaniline	U	359	ug/kg	71.8	359

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1086	Date Collected:	12/22/2009 12:00	Matrix:	S
Lab Sample ID:	243552001	Date Received:	12/24/2009 09:30	%Moisture:	7.4
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14233	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	937151	Inst:	MSD3.I	Dilution:	1
Run Date:	01/04/2010 20:24	Analyst:	JLD1	Inj. Vol:	.5 uL
Prep Date:	12/29/2009 10:16	Aliquot:	30.09 g	Final Volume:	1 mL
Data File:	s3a0422.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	359	ug/kg	71.8	359
606-20-2	2,6-Dinitrotoluene	U	359	ug/kg	35.9	359
208-96-8	Acenaphthylene	U	35.9	ug/kg	10.8	35.9
51-28-5	2,4-Dinitrophenol	U	718	ug/kg	136	718
132-64-9	Dibenzofuran	U	359	ug/kg	71.8	359
84-66-2	Diethylphthalate	U	359	ug/kg	71.8	359
86-73-7	Fluorene	U	35.9	ug/kg	10.8	35.9
7005-72-3	4-Chlorophenylphenylether	U	359	ug/kg	71.8	359
534-52-1	2-Methyl-4,6-dinitrophenol	U	359	ug/kg	71.8	359
100-01-6	4-Nitroaniline	U	359	ug/kg	108	359
	p-Nitroaniline					
122-39-4	Diphenylamine	U	359	ug/kg	71.8	359
122-66-7	Azobenzene	U	359	ug/kg	71.8	359
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	359	ug/kg	71.8	359
118-74-1	Hexachlorobenzene	U	359	ug/kg	71.8	359
85-01-8	Phenanthrene	U	35.9	ug/kg	10.8	35.9
120-12-7	Anthracene	U	35.9	ug/kg	7.18	35.9
84-74-2	Di-n-butylphthalate	U	359	ug/kg	71.8	359
206-44-0	Fluoranthene	U	35.9	ug/kg	10.8	35.9
85-68-7	Butylbenzylphthalate	U	359	ug/kg	71.8	359
56-55-3	Benzo(a)anthracene	U	35.9	ug/kg	10.8	35.9
91-94-1	3,3'-Dichlorobenzidine	U	359	ug/kg	108	359
218-01-9	Chrysene	U	35.9	ug/kg	10.8	35.9
117-81-7	bis(2-Ethylhexyl)phthalate	U	359	ug/kg	71.8	359
117-84-0	Di-n-octylphthalate	U	359	ug/kg	71.8	359
205-99-2	Benzo(b)fluoranthene	U	35.9	ug/kg	10.8	35.9
207-08-9	Benzo(k)fluoranthene	U	35.9	ug/kg	10.8	35.9
50-32-8	Benzo(a)pyrene	U	35.9	ug/kg	10.8	35.9
193-39-5	Indeno(1,2,3-cd)pyrene	U	35.9	ug/kg	10.8	35.9
53-70-3	Dibenzo(a,h)anthracene	U	35.9	ug/kg	10.8	35.9
191-24-2	Benzo(ghi)perylene	U	35.9	ug/kg	10.8	35.9
120-82-1	1,2,4-Trichlorobenzene	U	359	ug/kg	71.8	359

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.85	422	ug/kg		JA
301-02-0	9-Octadecenamide, (Z)-	12.78	227	ug/kg	86	NJ

GEL Laboratories LLC

Data file : /chem/MSD3.i/s010410a.b/s3a0422.d
Lab Smp Id: 243552001 Client Smp ID: RE03-09-14233
Inj Date : 04-JAN-2010 20:24
Operator : JLD1 Inst ID: MSD3.i
Smp Info : |243552001|937151|1|SVMF|1|LANL
Misc Info : |MSD8270_S|WBN091223-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD3.i/s010410a.b/MSD3-8270R-AQA-120809.m
Meth Date : 04-Jan-2010 16:42 jen00986 Quant Type: ISTD
Cal Date : 07-DEC-2009 19:48 Cal File: s310717.d
Als bottle: 14
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-1086.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.09000	weight of sample
M	7.39220	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	4.201	4.203	(1.000)	151448	40.0000	
* 29 Naphthalene-d8	136	5.452	5.453	(1.000)	546789	40.0000	
* 46 Acenaphthene-d10	164	7.298	7.298	(1.000)	306096	40.0000	
* 67 Phenanthrene-d10	188	8.889	8.888	(1.000)	517364	40.0000	
* 91 Chrysene-d12	240	11.741	11.745	(1.000)	390179	40.0000	
* 98 Perylene-d12	264	13.686	13.686	(1.000)	280144	40.0000	
$ 3 2-Fluorophenol	112	3.105	3.093	(0.739)	256859	64.8412	2330
$ 5 Phenol-d5	99	3.873	3.869	(0.922)	314692	62.3543	2240
$ 20 Nitrobenzene-d5	82	4.734	4.737	(0.868)	119971	30.0207	1080
$ 39 2-Fluorobiphenyl	172	6.577	6.576	(0.901)	199777	27.8443	999
$ 60 2,4,6-Tribromophenol	329	8.142	8.143	(1.116)	67033	79.7476	2860
$ 81 p-Terphenyl-d14	244	10.597	10.595	(0.903)	269657	43.0305	1540

ION RATIO REPORT

SV REPORT

Data file: s3a0422.d
Report Date: 01/05/2010 09:22
Lab. ID: 243552001 SampleType: SAMPLE
Injection Date: 04-JAN-2010 20:24
Operator: JLD1 Instrument: MSD3.i
Sample Info: |243552001|937151|1|SVMF|1|LANL
Miscellaneous Info: |MSD8270_S|WBN091223-01|
Comment:
Method used: /chem/MSD3.i/s010410a.b/MSD3-8270R-AQA-120809.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-1086
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
17 N-Nitrosodipropylamine				CAS#: 621-64-7		
70	17919	4.73	4.58	80-120	100	(T)
42	9351	4.73	4.58	31- 91	52	(T)
44 2,6-Dinitrotoluene				CAS#: 606-20-2		
165	40024	7.29	7.09	80-120	100	(T)
63	717	7.29	7.09	49-109	2	(QT)
50 2,4-Dinitrotoluene				CAS#: 121-14-2		
165	40024	7.29	7.52	80-120	100	(T)
89	713	7.30	7.52	69-129	2	(QT)
63	717	7.29	7.52	56-116	2	(QT)
55 2-Methyl-4,6-dinitrophenol				CAS#: 534-52-1		
198	180	8.14	7.95	80-120	100	(T)
105	656	8.14	7.95	21- 81	365	(QT)
51	484	8.14	7.95	38- 98	269	(QT)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

Data file : /chem/MSD3.i/s010410a.b/s3a0422.d
Lab Smp Id: 243552001 Client Smp ID: RE03-09-14233
Inj Date : 04-JAN-2010 20:24
Operator : JLD1 Inst ID: MSD3.i
Smp Info : |243552001|937151|1|SVMF|1|LANL
Misc Info : |MSD8270_S|WBN091223-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD3.i/s010410a.b/MSD3-8270R-AQA-120809.m
Meth Date : 04-Jan-2010 16:42 jen00986 Quant Type: ISTD
Cal Date : 07-DEC-2009 19:48 Cal File: s310717.d
Als bottle: 14
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-1086.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.09000	weight of sample
M	7.39220	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	4.201	981950	40.000
* 98 Perylene-d12	13.686	807211	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown Aldol Condensate					CAS #:		
2.853	288419	11.7488149	422	0		0	10

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
====	====	==========	==========	====	=======	=========	======
9-Octadecenamide, (Z)-					CAS #: 301-02-0		
12.776	127783	6.33207829	227	86	NIST05.L	112655	98

Data File: /chem/MSD3.i/s010410a.b/s3a0422.d
Date : 04-JAN-2010 20:24
Client ID: RE03-09-14233
Sample Info: |2435520011937151|1|SVMF|1|LANL
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD3.i
Operator: JLD1
Column diameter: 0.20

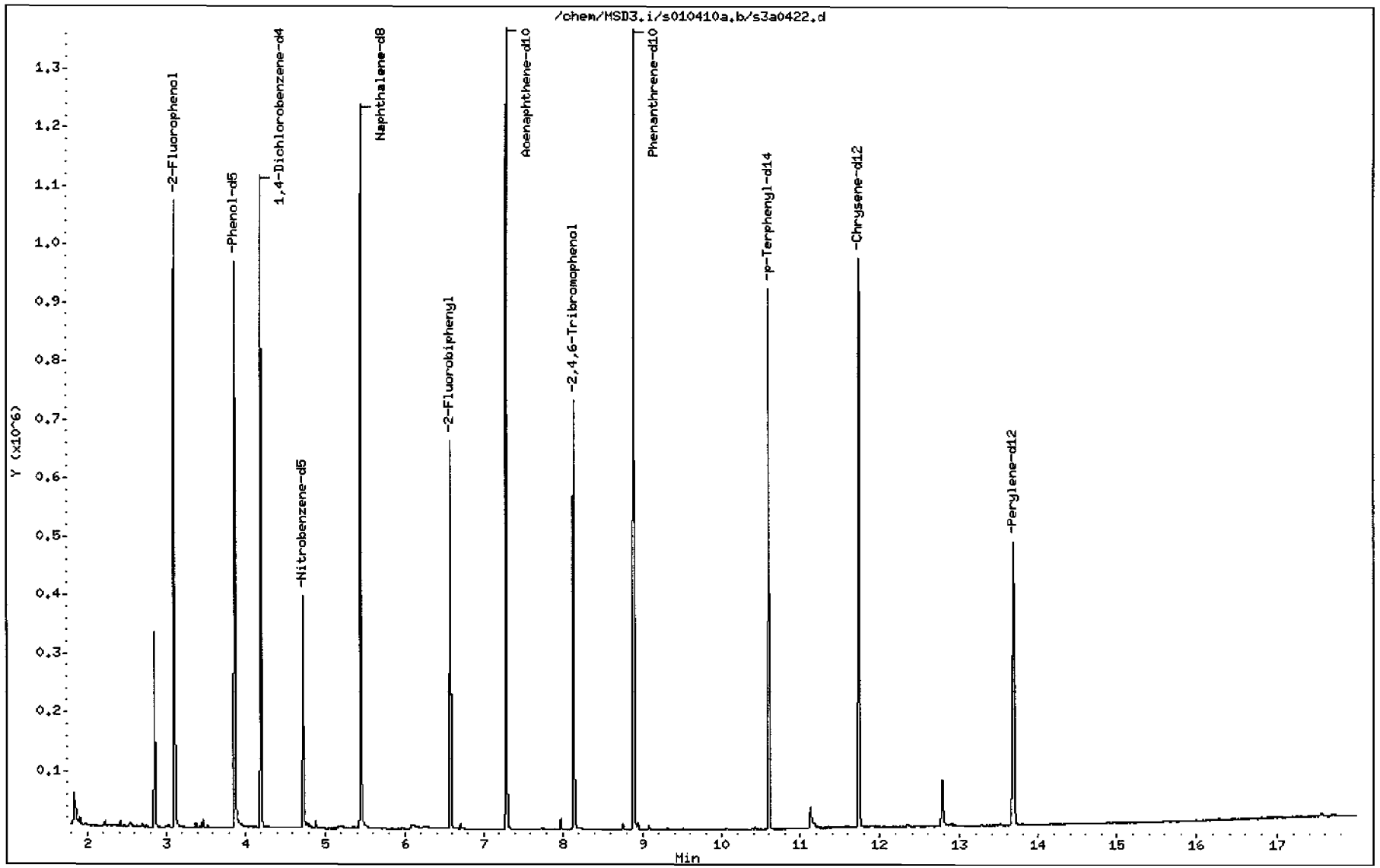

Data File: /chem/MSD3.i/s010410a.b/s3a0422.d

Date : 04-JAN-2010 20:24

Client ID: RE03-09-14233

Instrument: MSD3.i

Sample Info: 1243552001|937151|1|SVHF|1|LANL

Volume Injected (uL): 0.5

Operator: JLD1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7945	50	C6H12O2	116
2,3-Butanedione, monooxime	57-71-6	NIST05.L	3949	35	C4H7NO2	101
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	28	C6H12O2	116

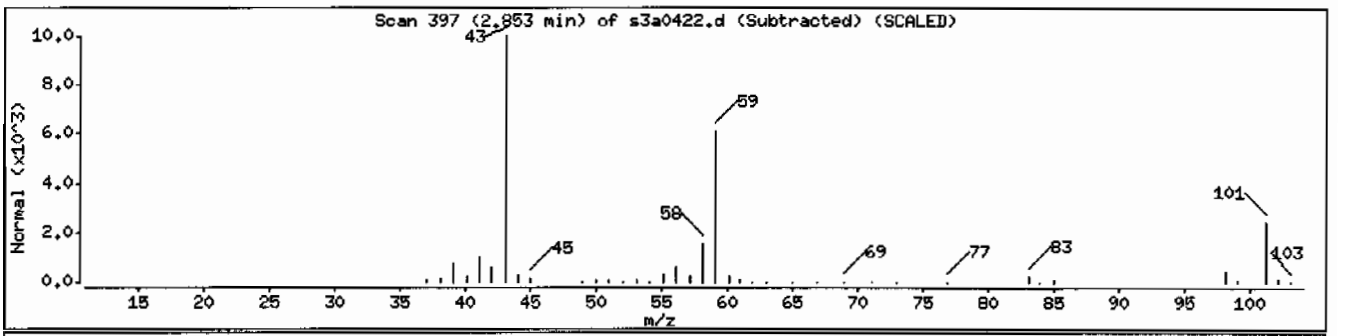

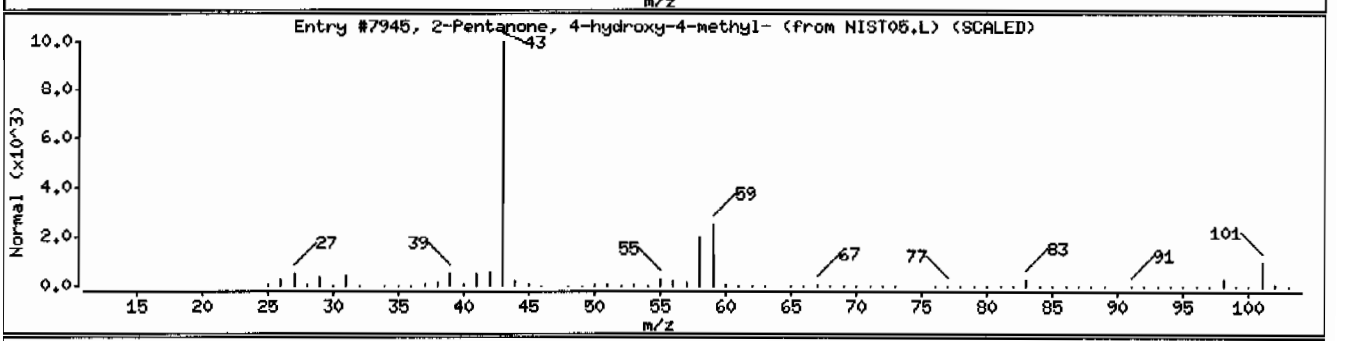

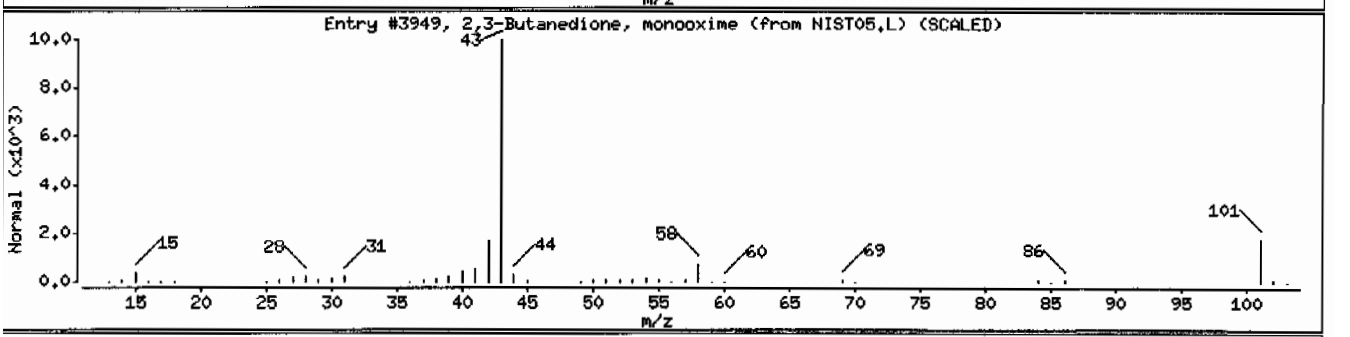

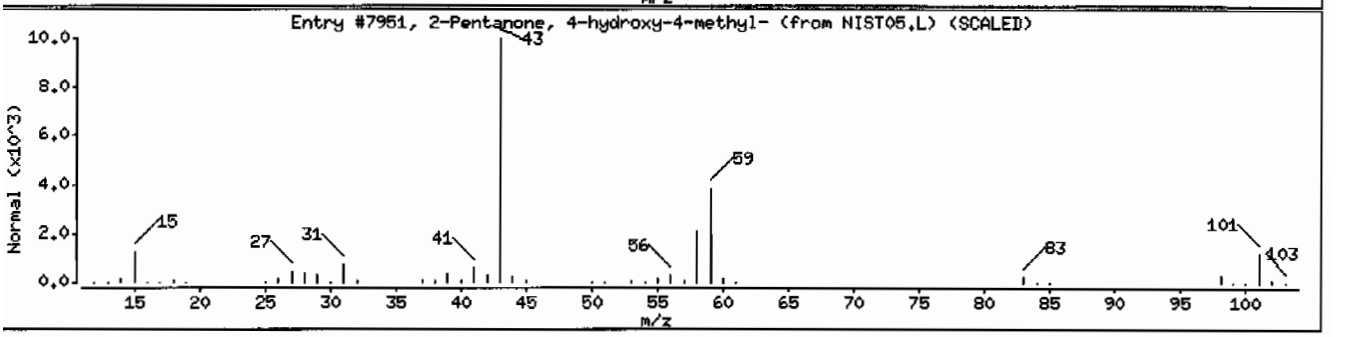

Data File: /chem/MSD3.i/s010410a.b/s3a0422.d

Date : 04-JAN-2010 20:24

Client ID: RE03-09-14233

Instrument: MSD3.i

Sample Info: |2435520001|937151|1|SVMF|1|LANL

Volume Injected (uL): 0.5

Operator: JLD1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
9-Octadecenamide, (Z)-	301-02-0	NIST05.L	112655	86	C18H35NO	281
13-Docosenamide, (Z)-	112-84-5	NIST05.L	146307	81	C22H43NO	337
13-Docosenamide, (Z)-	112-84-5	NIST05.L	146306	76	C22H43NO	337

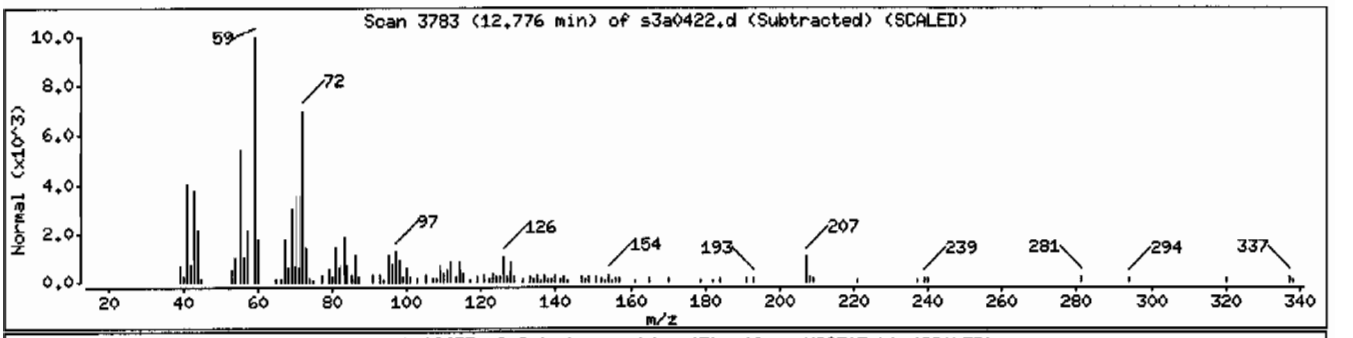

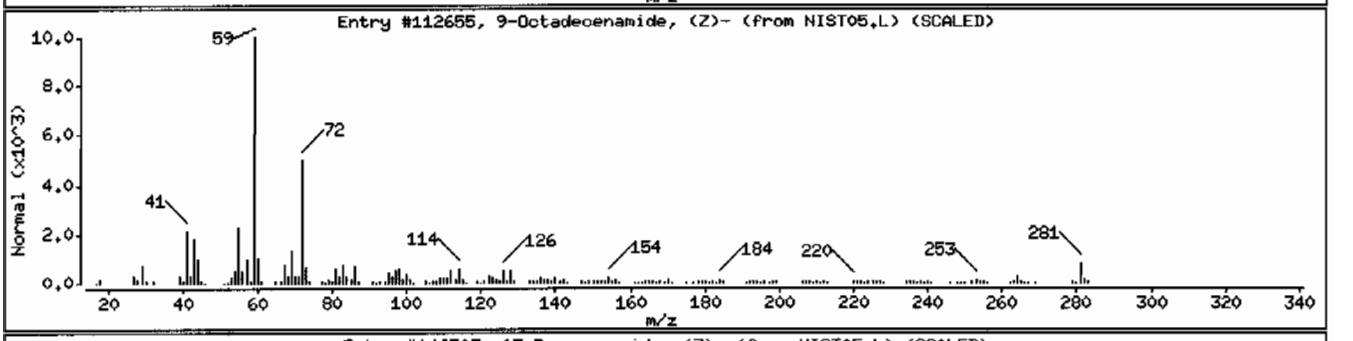

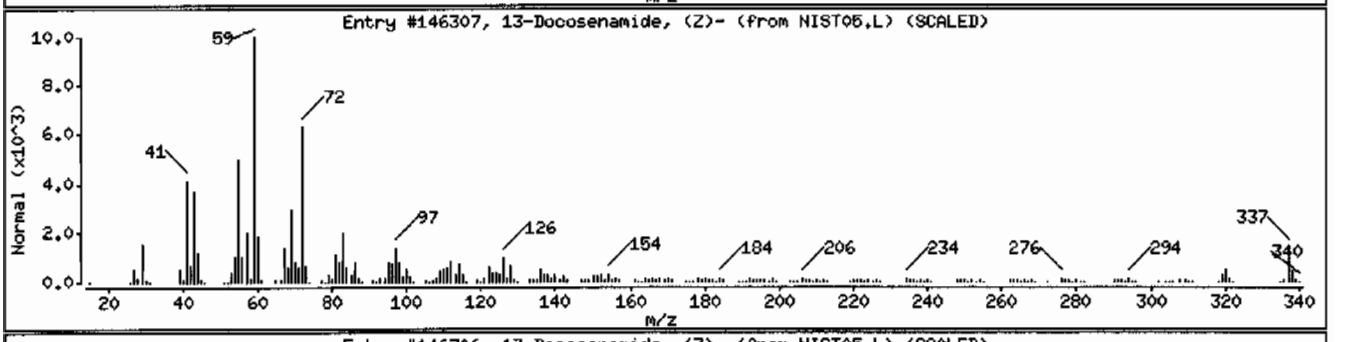

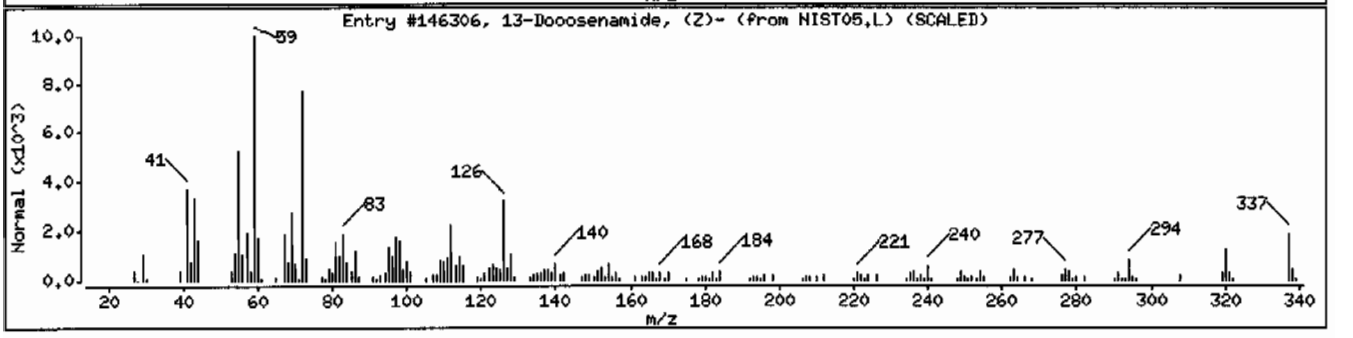

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1086	**Date Collected:**	12/22/2009 12:00	**Matrix:**	S
Lab Sample ID:	243552009	**Date Received:**	12/24/2009 09:30	**%Moisture:**	7.5
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14234	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	937151	**Inst:**	MSD3.I	**Dilution:**	1
Run Date:	01/05/2010 00:29	**Analyst:**	JLD1	**Inj. Vol:**	.5 uL
Prep Date:	12/29/2009 10:16	**Aliquot:**	30.09 g	**Final Volume:**	1 mL
Data File:	s3a0432.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	359	ug/kg	71.8	359
108-95-2	Phenol	U	359	ug/kg	71.8	359
95-57-8	2-Chlorophenol	U	359	ug/kg	71.8	359
106-46-7	1,4-Dichlorobenzene	U	359	ug/kg	71.8	359
621-64-7	N-Nitrosodipropylamine	U	359	ug/kg	71.8	359
59-50-7	4-Chloro-3-methylphenol	U	359	ug/kg	71.8	359
83-32-9	Acenaphthene	U	35.9	ug/kg	11.9	35.9
121-14-2	2,4-Dinitrotoluene	U	359	ug/kg	35.9	359
100-02-7	4-Nitrophenol	U	359	ug/kg	119	359
87-86-5	Pentachlorophenol	U	359	ug/kg	89.8	359
129-00-0	Pyrene	U	35.9	ug/kg	10.8	35.9
110-86-1	Pyridine	U	359	ug/kg	71.8	359
62-53-3	Aniline	U	359	ug/kg	108	359
111-44-4	bis(2-Chloroethyl) ether	U	359	ug/kg	71.8	359
541-73-1	1,3-Dichlorobenzene	U	359	ug/kg	71.8	359
100-51-6	Benzyl alcohol	U	359	ug/kg	108	359
95-50-1	1,2-Dichlorobenzene	U	359	ug/kg	71.8	359
108-60-1	bis(2-Chloroisopropyl)ether	U	359	ug/kg	71.8	359
95-48-7	o-Cresol	U	359	ug/kg	71.8	359
65794-96-9	m,p-Cresols	U	359	ug/kg	108	359
67-72-1	Hexachloroethane	U	359	ug/kg	71.8	359
98-95-3	Nitrobenzene	U	359	ug/kg	71.8	359
78-59-1	Isophorone	U	359	ug/kg	71.8	359
88-75-5	2-Nitrophenol	U	359	ug/kg	71.8	359
105-67-9	2,4-Dimethylphenol	U	359	ug/kg	126	359
111-91-1	bis(2-Chloroethoxy)methane	U	359	ug/kg	71.8	359
120-83-2	2,4-Dichlorophenol	U	359	ug/kg	71.8	359
65-85-0	Benzoic acid	U	718	ug/kg	180	718
91-20-3	Naphthalene	U	35.9	ug/kg	10.8	35.9
106-47-8	4-Chloroaniline	U	359	ug/kg	71.8	359
87-68-3	Hexachlorobutadiene	U	359	ug/kg	71.8	359
91-57-6	2-Methylnaphthalene	U	35.9	ug/kg	7.18	35.9
77-47-4	Hexachlorocyclopentadiene	U	359	ug/kg	71.8	359
88-06-2	2,4,6-Trichlorophenol	U	359	ug/kg	71.8	359
95-95-4	2,4,5-Trichlorophenol	U	359	ug/kg	71.8	359
91-58-7	2-Chloronaphthalene	U	35.9	ug/kg	11.9	35.9
88-74-4	2-Nitroaniline	U	359	ug/kg	71.8	359
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	359	ug/kg	71.8	359

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1086	Date Collected:	12/22/2009 12:00	Matrix:	S
Lab Sample ID:	243552009	Date Received:	12/24/2009 09:30	%Moisture:	7.5
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14234	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	937151	Inst:	MSD3.I	Dilution:	1
Run Date:	01/05/2010 00:29	Analyst:	JLD1	Inj. Vol:	.5 uL
Prep Date:	12/29/2009 10:16	Aliquot:	30.09 g	Final Volume:	1 mL
Data File:	s3a0432.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	359	ug/kg	71.8	359
606-20-2	2,6-Dinitrotoluene	U	359	ug/kg	35.9	359
208-96-8	Acenaphthylene	U	35.9	ug/kg	10.8	35.9
51-28-5	2,4-Dinitrophenol	U	718	ug/kg	136	718
132-64-9	Dibenzofuran	U	359	ug/kg	71.8	359
84-66-2	Diethylphthalate	U	359	ug/kg	71.8	359
86-73-7	Fluorene	U	35.9	ug/kg	10.8	35.9
7005-72-3	4-Chlorophenylphenylether	U	359	ug/kg	71.8	359
534-52-1	2-Methyl-4,6-dinitrophenol	U	359	ug/kg	71.8	359
100-01-6	4-Nitroaniline	U	359	ug/kg	108	359
	p-Nitroaniline					
122-39-4	Diphenylamine	U	359	ug/kg	71.8	359
122-66-7	Azobenzene	U	359	ug/kg	71.8	359
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	359	ug/kg	71.8	359
118-74-1	Hexachlorobenzene	U	359	ug/kg	71.8	359
85-01-8	Phenanthrene	U	35.9	ug/kg	10.8	35.9
120-12-7	Anthracene	U	35.9	ug/kg	7.18	35.9
84-74-2	Di-n-butylphthalate	U	359	ug/kg	71.8	359
206-44-0	Fluoranthene	U	35.9	ug/kg	10.8	35.9
85-68-7	Butylbenzylphthalate	U	359	ug/kg	71.8	359
56-55-3	Benzo(a)anthracene	U	35.9	ug/kg	10.8	35.9
91-94-1	3,3'-Dichlorobenzidine	U	359	ug/kg	108	359
218-01-9	Chrysene	U	35.9	ug/kg	10.8	35.9
117-81-7	bis(2-Ethylhexyl)phthalate	U	359	ug/kg	71.8	359
117-84-0	Di-n-octylphthalate	U	359	ug/kg	71.8	359
205-99-2	Benzo(b)fluoranthene	U	35.9	ug/kg	10.8	35.9
207-08-9	Benzo(k)fluoranthene	U	35.9	ug/kg	10.8	35.9
50-32-8	Benzo(a)pyrene	U	35.9	ug/kg	10.8	35.9
193-39-5	Indeno(1,2,3-cd)pyrene	U	35.9	ug/kg	10.8	35.9
53-70-3	Dibenzo(a,h)anthracene	U	35.9	ug/kg	10.8	35.9
191-24-2	Benzo(ghi)perylene	U	35.9	ug/kg	10.8	35.9
120-82-1	1,2,4-Trichlorobenzene	U	359	ug/kg	71.8	359

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.85	356	ug/kg		JA
	Unknown	12.78	166	ug/kg		J

GEL Laboratories LLC

Data file : /chem/MSD3.i/s010410a.b/s3a0432.d
Lab Smp Id: 243552009 Client Smp ID: RE03-09-14234
Inj Date : 05-JAN-2010 00:29
Operator : JLD1 Inst ID: MSD3.i
Smp Info : |243552009|937151|1|SVMF|1|LANL
Misc Info : |MSD8270_S|WBN091223-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD3.i/s010410a.b/MSD3-8270R-AQA-120809.m
Meth Date : 04-Jan-2010 16:42 jen00986 Quant Type: ISTD
Cal Date : 07-DEC-2009 19:48 Cal File: s310717.d
Als bottle: 24
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-1086.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.09000	weight of sample
M	7.45230	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	4.200	4.203	(1.000)	128787	40.0000	
* 29 Naphthalene-d8	136	5.449	5.453	(1.000)	469111	40.0000	
* 46 Acenaphthene-d10	164	7.294	7.298	(1.000)	263273	40.0000	
* 67 Phenanthrene-d10	188	8.888	8.888	(1.000)	442615	40.0000	
* 91 Chrysene-d12	240	11.739	11.745	(1.000)	353636	40.0000	
* 98 Perylene-d12	264	13.685	13.686	(1.000)	245867	40.0000	
$ 3 2-Fluorophenol	112	3.104	3.093	(0.739)	205953	61.1387	2200
$ 5 Phenol-d5	99	3.869	3.869	(0.921)	247382	57.6421	2070
$ 20 Nitrobenzene-d5	82	4.734	4.737	(0.869)	104843	30.5793	1100
$ 39 2-Fluorobiphenyl	172	6.574	6.576	(0.901)	182036	29.4985	1060
$ 60 2,4,6-Tribromophenol	329	8.141	8.143	(1.116)	52986	73.2894	2630
$ 81 p-Terphenyl-d14	244	10.596	10.595	(0.903)	228790	40.2818	1450

ION RATIO REPORT

SV REPORT

Data file: s3a0432.d
Report Date: 01/05/2010 09:45
Lab. ID: 243552009 SampleType: SAMPLE
Injection Date: 05-JAN-2010 00:29
Operator: JLD1 Instrument: MSD3.i
Sample Info: |243552009|937151|1|SVMF|1|LANL
Miscellaneous Info: |MSD8270_S|WBN091223-01|
Comment:
Method used: /chem/MSD3.i/s010410a.b/MSD3-8270R-AQA-120809.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-1086
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
17 N-Nitrosodipropylamine				CAS#: 621-64-7		
70	15347	4.73	4.58	80-120	100	(T)
42	7846	4.73	4.58	31- 91	51	(T)
44 2,6-Dinitrotoluene				CAS#: 606-20-2		
165	33637	7.29	7.09	80-120	100	(T)
63	600	7.29	7.09	49-109	2	(QT)
50 2,4-Dinitrotoluene				CAS#: 121-14-2		
165	33637	7.29	7.52	80-120	100	(T)
89	627	7.29	7.52	69-129	2	(QT)
63	600	7.29	7.52	56-116	2	(QT)
55 2-Methyl-4,6-dinitrophenol				CAS#: 534-52-1		
198	120	8.14	7.95	80-120	100	(T)
105	525	8.14	7.95	21- 81	438	(QT)
51	375	8.14	7.95	38- 98	312	(QT)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

Data file : /chem/MSD3.i/s010410a.b/s3a0432.d
Lab Smp Id: 243552009 Client Smp ID: RE03-09-14234
Inj Date : 05-JAN-2010 00:29
Operator : JLD1 Inst ID: MSD3.i
Smp Info : |243552009|937151|1|SVMF|1|LANL
Misc Info : |MSD8270_S|WBN091223-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD3.i/s010410a.b/MSD3-8270R-AQA-120809.m
Meth Date : 04-Jan-2010 16:42 jen00986 Quant Type: ISTD
Cal Date : 07-DEC-2009 19:48 Cal File: s310717.d
Als bottle: 24
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-1086.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.09000	weight of sample
M	7.45230	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	4.200	855039	40.000
* 98 Perylene-d12	13.685	699056	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown Aldol Condensate					CAS #:		
2.850	211729	9.90501225	356	0		0	10

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
====	====	==========	==========	====	========	=========	======
Unknown				CAS #:			
12.777	80999	4.63478787	166	0		0	98

Data File: /chem/MSD3.i/s010410a.b/s3a0432.d
Date : 05-JAN-2010 00:29
Client ID: RE03-09-14234
Sample Info: |2435520091937151|1|SVMFI1|LANL
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Page 1

Instrument: MSD3.i

Operator: JLD1
Column diameter: 0.20

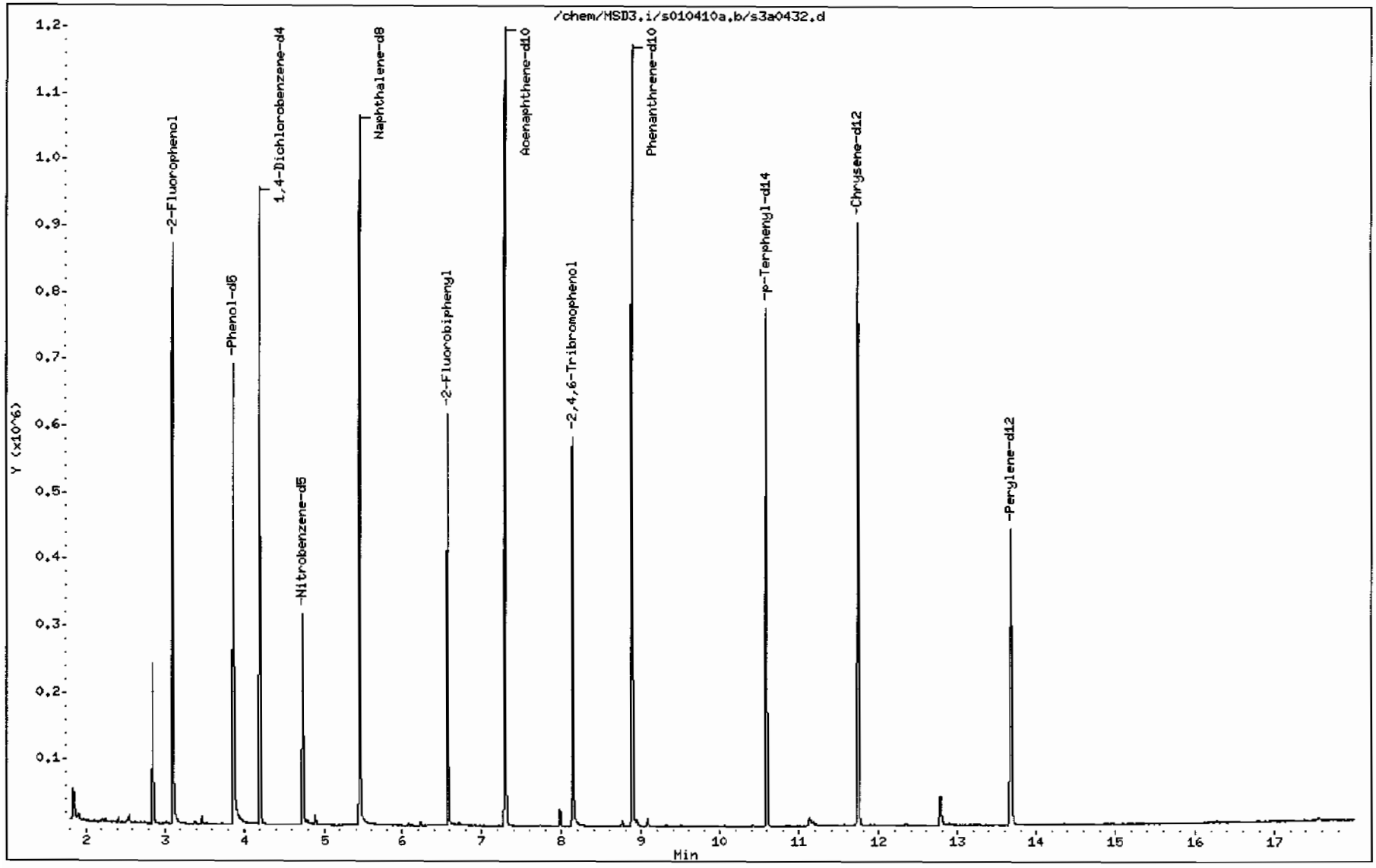

Data File: /chem/MSD3.i/s010410a.b/s3a0432.d

Date : 05-JAN-2010 00:29

Client ID: RE03-09-14234

Instrument: MSD3.i

Sample Info: 1243552009193715111SVMFI1ILANL

Volume Injected (uL): 0.5

Operator: JLD1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7945	50	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	40	C6H12O2	116
2,3-Butanedione, monooxime	57-71-6	NIST05.L	3949	35	C4H7NO2	101

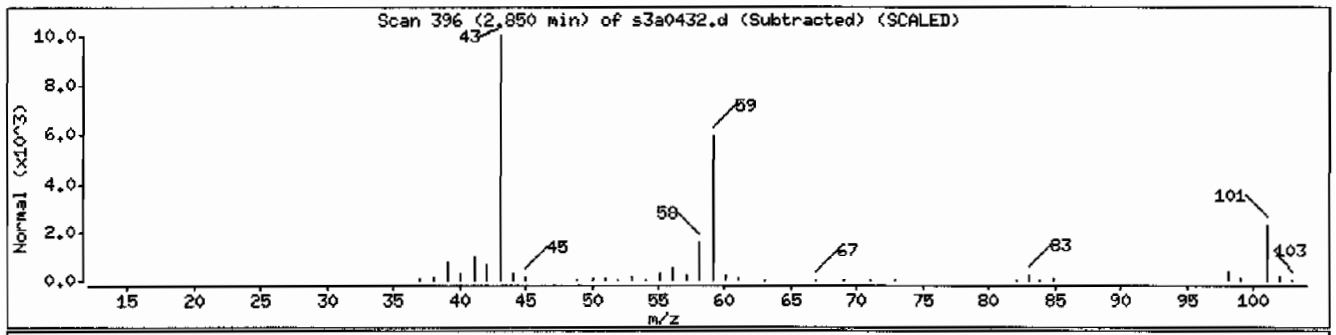

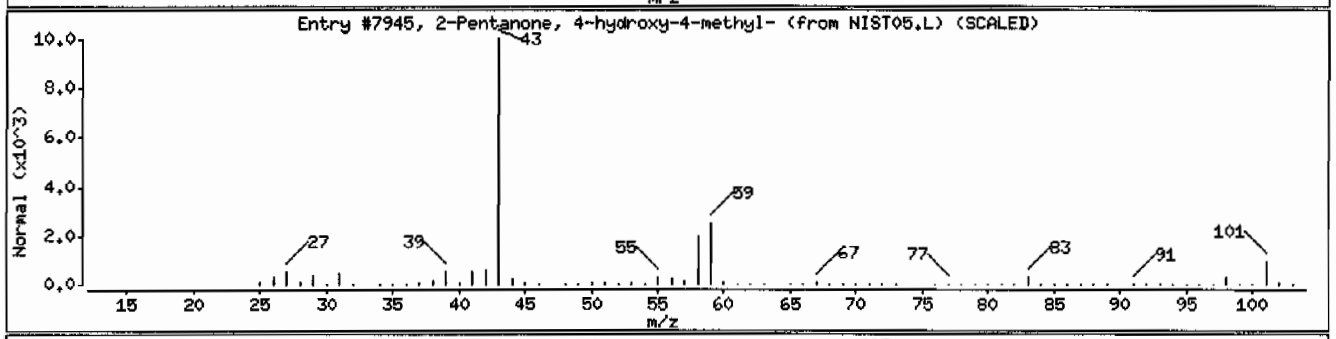

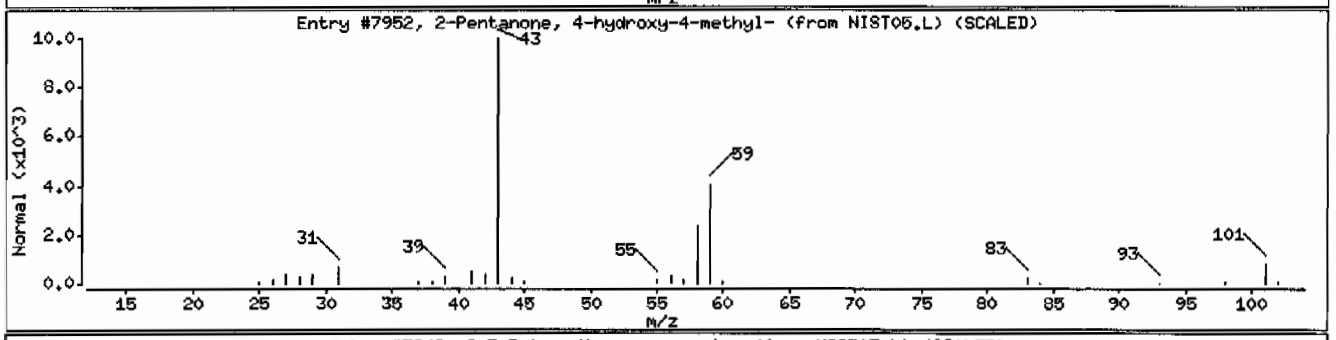

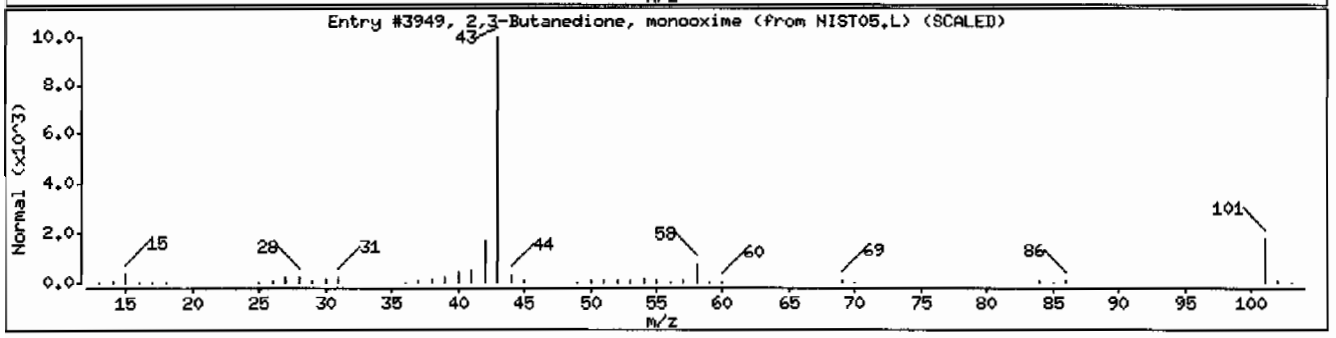

Data File: /chem/MSD3.i/s010410a.b/s3a0432.d

Date : 05-JAN-2010 00:29

Client ID: RE03-09-14234

Instrument: MSD3.i

Sample Info: 1243552009193715111ISVMF11LANL

Volume Injected (uL): 0.5

Operator: JLD1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
9-Octadecenamide, (Z)-	301-02-0	NIST05.L	112655	59	C18H35NO	281
Hexadecanamide	629-54-9	NIST05.L	95460	53	C16H33NO	255
7-Nonenamide	90949-53-4	NIST05.L	26953	53	C9H17NO	155

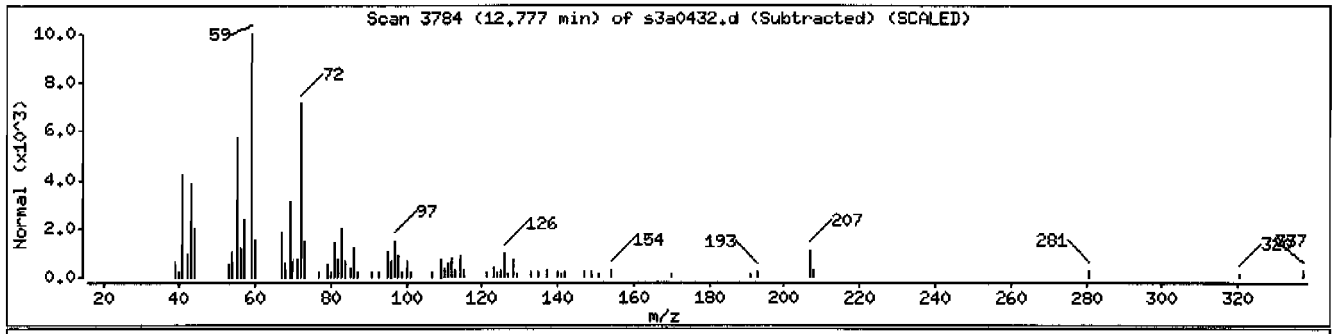

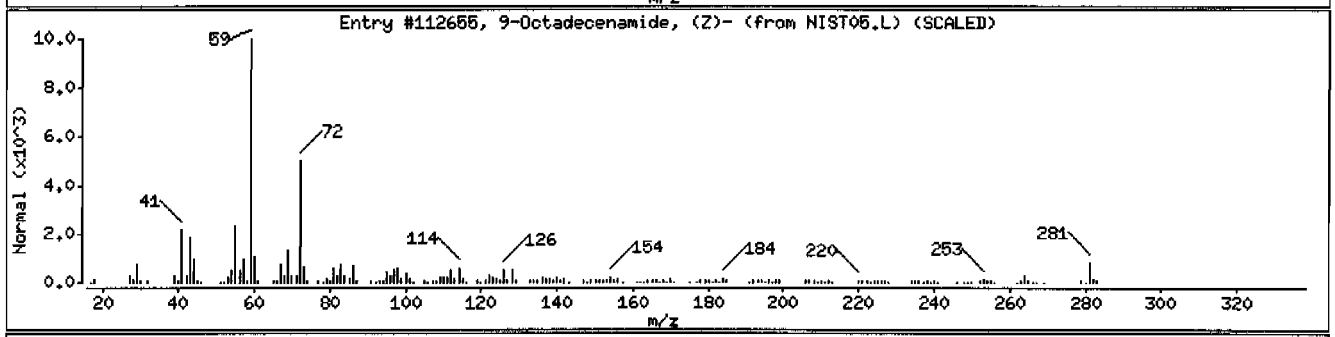

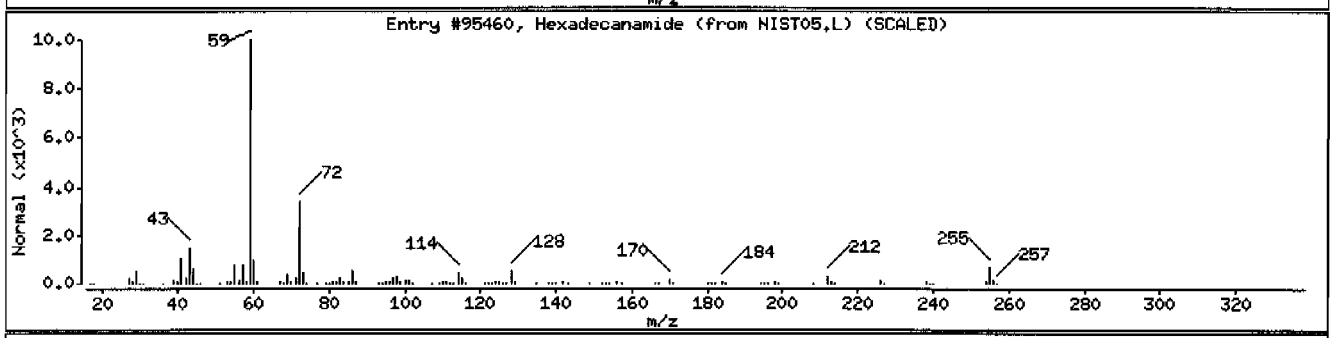

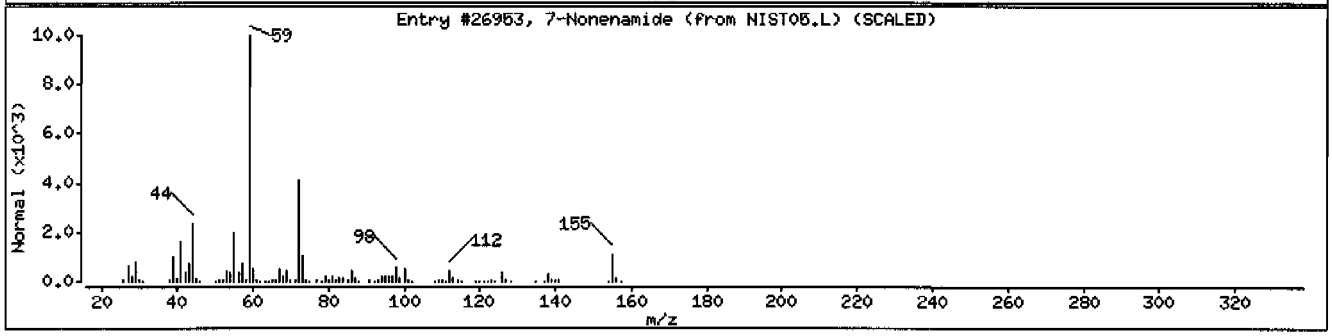

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1086**	**Date Collected:**	**12/22/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243552007**	**Date Received:**	**12/24/2009 09:30**	**%Moisture:**	**22.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14235**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**937151**	**Inst:**	**MSD3.I**	**Dilution:**	**1**
Run Date:	**01/04/2010 23:40**	**Analyst:**	**JLD1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/29/2009 10:16**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**s3a0430.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	430	ug/kg	86.0	430
108-95-2	Phenol	U	430	ug/kg	86.0	430
95-57-8	2-Chlorophenol	U	430	ug/kg	86.0	430
106-46-7	1,4-Dichlorobenzene	U	430	ug/kg	86.0	430
621-64-7	N-Nitrosodipropylamine	U	430	ug/kg	86.0	430
59-50-7	4-Chloro-3-methylphenol	U	430	ug/kg	86.0	430
83-32-9	Acenaphthene	U	43.0	ug/kg	14.2	43.0
121-14-2	2,4-Dinitrotoluene	U	430	ug/kg	43.0	430
100-02-7	4-Nitrophenol	U	430	ug/kg	142	430
87-86-5	Pentachlorophenol	U	430	ug/kg	107	430
129-00-0	Pyrene	U	43.0	ug/kg	12.9	43.0
110-86-1	Pyridine	U	430	ug/kg	86.0	430
62-53-3	Aniline	U	430	ug/kg	129	430
111-44-4	bis(2-Chloroethyl) ether	U	430	ug/kg	86.0	430
541-73-1	1,3-Dichlorobenzene	U	430	ug/kg	86.0	430
100-51-6	Benzyl alcohol	U	430	ug/kg	129	430
95-50-1	1,2-Dichlorobenzene	U	430	ug/kg	86.0	430
108-60-1	bis(2-Chloroisopropyl)ether	U	430	ug/kg	86.0	430
95-48-7	o-Cresol	U	430	ug/kg	86.0	430
65794-96-9	m,p-Cresols	U	430	ug/kg	129	430
67-72-1	Hexachloroethane	U	430	ug/kg	86.0	430
98-95-3	Nitrobenzene	U	430	ug/kg	86.0	430
78-59-1	Isophorone	U	430	ug/kg	86.0	430
88-75-5	2-Nitrophenol	U	430	ug/kg	86.0	430
105-67-9	2,4-Dimethylphenol	U	430	ug/kg	150	430
111-91-1	bis(2-Chloroethoxy)methane	U	430	ug/kg	86.0	430
120-83-2	2,4-Dichlorophenol	U	430	ug/kg	86.0	430
65-85-0	Benzoic acid	U	860	ug/kg	215	860
91-20-3	Naphthalene	U	43.0	ug/kg	12.9	43.0
106-47-8	4-Chloroaniline	U	430	ug/kg	86.0	430
87-68-3	Hexachlorobutadiene	U	430	ug/kg	86.0	430
91-57-6	2-Methylnaphthalene	U	43.0	ug/kg	8.60	43.0
77-47-4	Hexachlorocyclopentadiene	U	430	ug/kg	86.0	430
88-06-2	2,4,6-Trichlorophenol	U	430	ug/kg	86.0	430
95-95-4	2,4,5-Trichlorophenol	U	430	ug/kg	86.0	430
91-58-7	2-Chloronaphthalene	U	43.0	ug/kg	14.2	43.0
88-74-4	2-Nitroaniline	U	430	ug/kg	86.0	430
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	430	ug/kg	86.0	430

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1086**	**Date Collected:**	**12/22/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243552007**	**Date Received:**	**12/24/2009 09:30**	**%Moisture:**	**22.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14235**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**937151**	**Inst:**	**MSD3.I**	**Dilution:**	**1**
Run Date:	**01/04/2010 23:40**	**Analyst:**	**JLD1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/29/2009 10:16**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**s3a0430.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	430	ug/kg	86.0	430
606-20-2	2,6-Dinitrotoluene	U	430	ug/kg	43.0	430
208-96-8	Acenaphthylene	U	43.0	ug/kg	12.9	43.0
51-28-5	2,4-Dinitrophenol	U	860	ug/kg	163	860
132-64-9	Dibenzofuran	U	430	ug/kg	86.0	430
84-66-2	Diethylphthalate	U	430	ug/kg	86.0	430
86-73-7	Fluorene	U	43.0	ug/kg	12.9	43.0
7005-72-3	4-Chlorophenylphenylether	U	430	ug/kg	86.0	430
534-52-1	2-Methyl-4,6-dinitrophenol	U	430	ug/kg	86.0	430
100-01-6	4-Nitroaniline	U	430	ug/kg	129	430
	p-Nitroaniline					
122-39-4	Diphenylamine	U	430	ug/kg	86.0	430
122-66-7	Azobenzene	U	430	ug/kg	86.0	430
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	430	ug/kg	86.0	430
118-74-1	Hexachlorobenzene	U	430	ug/kg	86.0	430
85-01-8	Phenanthrene	U	43.0	ug/kg	12.9	43.0
120-12-7	Anthracene	U	43.0	ug/kg	8.60	43.0
84-74-2	Di-n-butylphthalate	U	430	ug/kg	86.0	430
206-44-0	Fluoranthene	U	43.0	ug/kg	12.9	43.0
85-68-7	Butylbenzylphthalate	U	430	ug/kg	86.0	430
56-55-3	Benzo(a)anthracene	U	43.0	ug/kg	12.9	43.0
91-94-1	3,3'-Dichlorobenzidine	U	430	ug/kg	129	430
218-01-9	Chrysene	U	43.0	ug/kg	12.9	43.0
117-81-7	bis(2-Ethylhexyl)phthalate	U	430	ug/kg	86.0	430
117-84-0	Di-n-octylphthalate	U	430	ug/kg	86.0	430
205-99-2	Benzo(b)fluoranthene	U	43.0	ug/kg	12.9	43.0
207-08-9	Benzo(k)fluoranthene	U	43.0	ug/kg	12.9	43.0
50-32-8	Benzo(a)pyrene	U	43.0	ug/kg	12.9	43.0
193-39-5	Indeno(1,2,3-cd)pyrene	U	43.0	ug/kg	12.9	43.0
53-70-3	Dibenzo(a,h)anthracene	U	43.0	ug/kg	12.9	43.0
191-24-2	Benzo(ghi)perylene	U	43.0	ug/kg	12.9	43.0
120-82-1	1,2,4-Trichlorobenzene	U	430	ug/kg	86.0	430

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.85	603	ug/kg		JA

GEL Laboratories LLC

Data file : /chem/MSD3.i/s010410a.b/s3a0430.d
Lab Smp Id: 243552007 Client Smp ID: RE03-09-14235
Inj Date : 04-JAN-2010 23:40
Operator : JLD1 Inst ID: MSD3.i
Smp Info : |243552007|937151|1|SVMF|1|LANL
Misc Info : |MSD8270_S|WBN091223-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD3.i/s010410a.b/MSD3-8270R-AQA-120809.m
Meth Date : 04-Jan-2010 16:42 jen00986 Quant Type: ISTD
Cal Date : 07-DEC-2009 19:48 Cal File: s310717.d
Als bottle: 22
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-1086.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	22.47550	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	4.201	4.203	(1.000)	146865	40.0000	
* 29 Naphthalene-d8	136	5.449	5.453	(1.000)	536778	40.0000	
* 46 Acenaphthene-d10	164	7.295	7.298	(1.000)	305645	40.0000	
* 67 Phenanthrene-d10	188	8.889	8.888	(1.000)	517377	40.0000	
* 91 Chrysene-d12	240	11.740	11.745	(1.000)	425618	40.0000	
* 98 Perylene-d12	264	13.687	13.686	(1.000)	315084	40.0000	
$ 3 2-Fluorophenol	112	3.105	3.093	(0.739)	244638	63.6833	2740
$ 5 Phenol-d5	99	3.873	3.869	(0.922)	281931	57.6061	2480
$ 20 Nitrobenzene-d5	82	4.731	4.737	(0.868)	125623	32.0212	1380
$ 39 2-Fluorobiphenyl	172	6.574	6.576	(0.901)	197788	27.6078	1190
$ 60 2,4,6-Tribromophenol	329	8.142	8.143	(1.116)	62113	74.0034	3180
$ 81 p-Terphenyl-d14	244	10.597	10.595	(0.903)	262053	38.3352	1650

ION RATIO REPORT

SV REPORT

Data file: s3a0430.d
Report Date: 01/05/2010 09:44
Lab. ID: 243552007 SampleType: SAMPLE
Injection Date: 04-JAN-2010 23:40
Operator: JLD1 Instrument: MSD3.i
Sample Info: |243552007|937151|1|SVMF|1|LANL
Miscellaneous Info: |MSD8270_S|WBN091223-01|
Comment:
Method used: /chem/MSD3.i/s010410a.b/MSD3-8270R-AQA-120809.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-1086
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
17 N-Nitrosodipropylamine				CAS#: 621-64-7		
70	18870	4.73	4.58	80-120	100	(T)
42	10066	4.73	4.58	31- 91	53	(T)
44 2,6-Dinitrotoluene				CAS#: 606-20-2		
165	39397	7.29	7.09	80-120	100	(T)
63	659	7.29	7.09	49-109	2	(QT)
50 2,4-Dinitrotoluene				CAS#: 121-14-2		
165	39397	7.29	7.52	80-120	100	(T)
89	793	7.30	7.52	69-129	2	(QT)
63	659	7.29	7.52	56-116	2	(QT)
55 2-Methyl-4,6-dinitrophenol				CAS#: 534-52-1		
198	210	8.14	7.95	80-120	100	(T)
105	531	8.14	7.95	21- 81	253	(QT)
51	459	8.14	7.95	38- 98	218	(QT)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

Data file : /chem/MSD3.i/s010410a.b/s3a0430.d
Lab Smp Id: 243552007 Client Smp ID: RE03-09-14235
Inj Date : 04-JAN-2010 23:40
Operator : JLD1 Inst ID: MSD3.i
Smp Info : |243552007|937151|1|SVMF|1|LANL
Misc Info : |MSD8270_S|WBN091223-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD3.i/s010410a.b/MSD3-8270R-AQA-120809.m
Meth Date : 04-Jan-2010 16:42 jen00986 Quant Type: ISTD
Cal Date : 07-DEC-2009 19:48 Cal File: s310717.d
Als bottle: 22
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-1086.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	22.47550	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	4.201	967575	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown Aldol Condensate				CAS #:			
2.853	339175	14.0216665	603	0		0	10

Data File: /chem/MSD3.i/s010410a.b/s3a0430.d
Date : 04-JAN-2010 23:40
Client ID: RE03-09-14235
Sample Info: |2435520071937151|1|SVMF|1|LANL
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD3.i
Operator: JLD1
Column diameter: 0.20

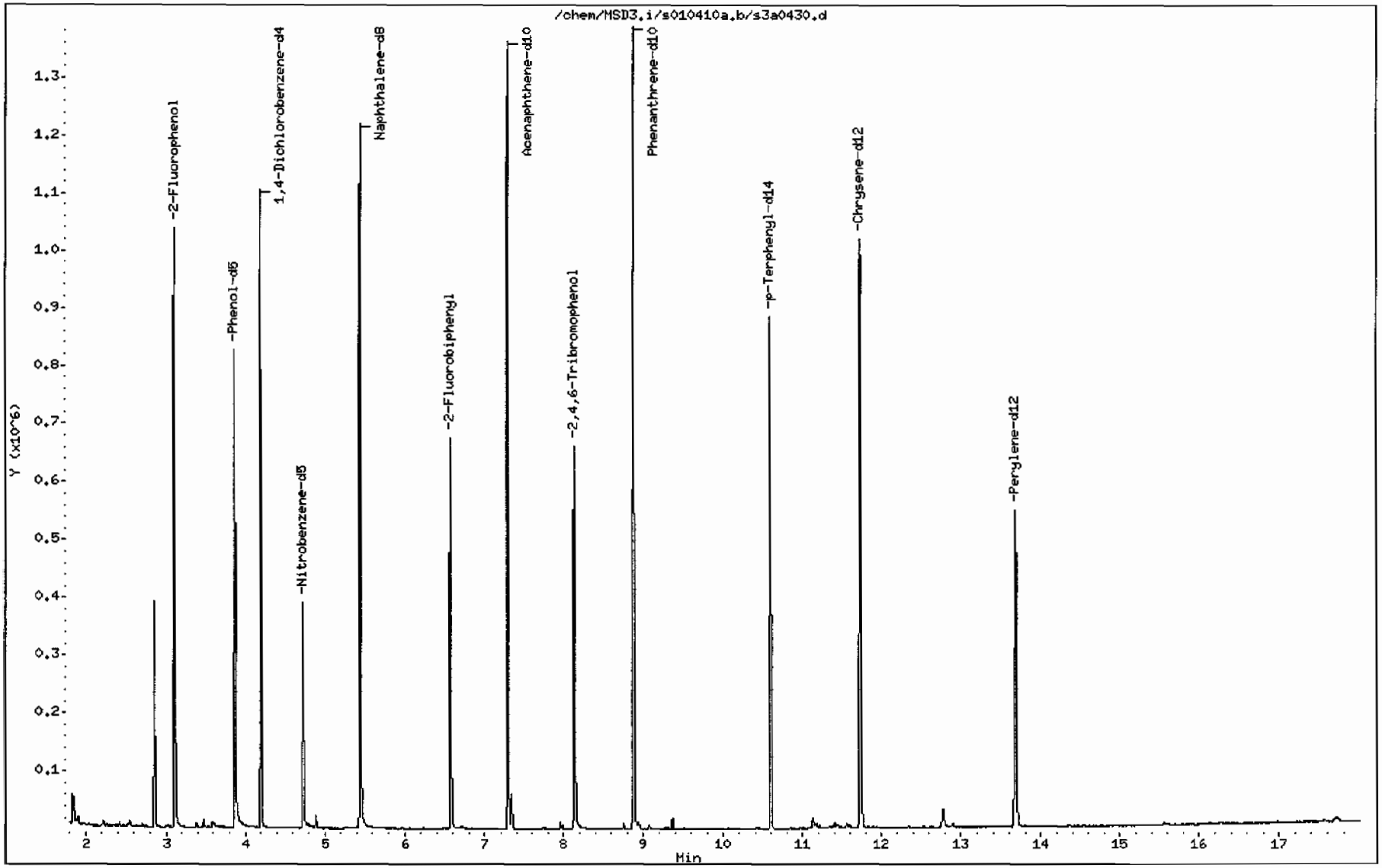

Data File: /chem/MSD3.i/s010410a.b/s3a0430.d

Date : 04-JAN-2010 23:40

Client ID: RE03-09-14235

Instrument: MSD3.i

Sample Info: |2435520071937151|1|SVHF|1|LANL

Volume Injected (uL): 0.5

Operator: JLD1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7945	50	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	40	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	28	C6H12O2	116

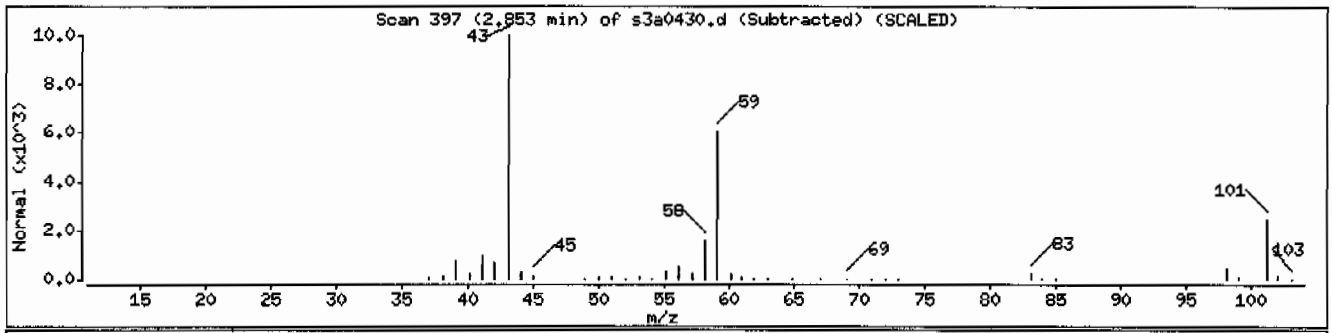

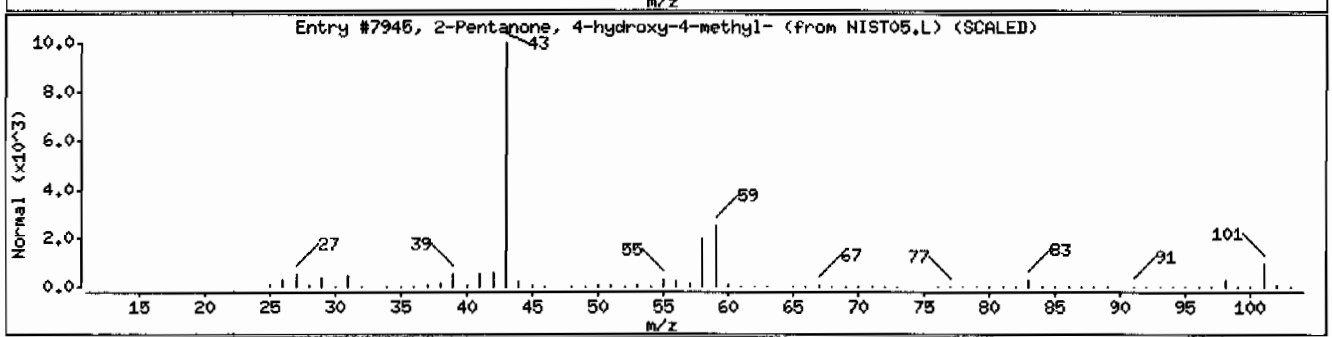

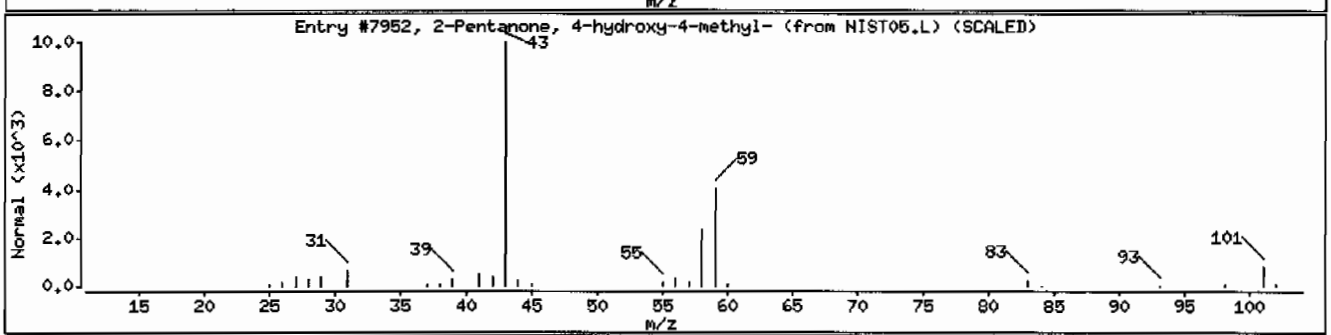

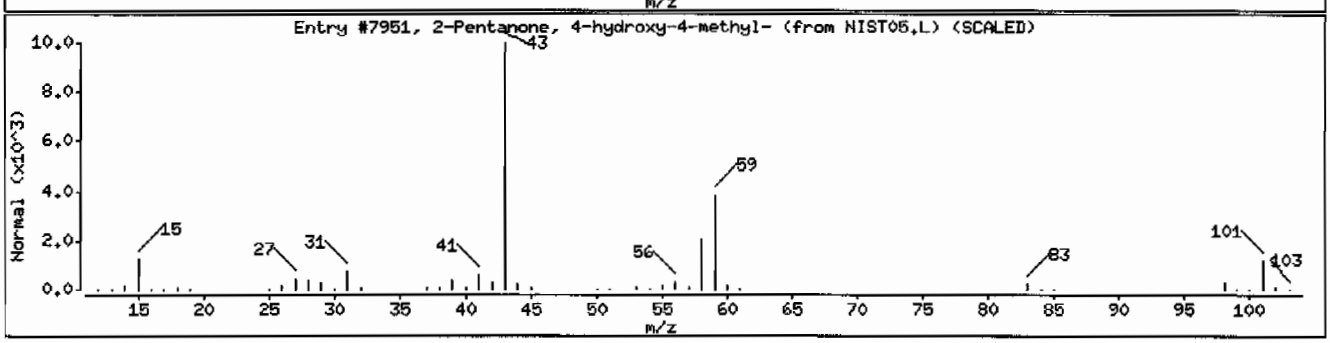

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1086	Date Collected:	12/22/2009 12:00	Matrix:	S
Lab Sample ID:	243552002	Date Received:	12/24/2009 09:30	%Moisture:	16.2
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14236	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	937151	Inst:	MSD3.I	Dilution:	1
Run Date:	01/04/2010 21:37	Analyst:	JLD1	Inj. Vol:	.5 uL
Prep Date:	12/29/2009 10:16	Aliquot:	30 g	Final Volume:	1 mL
Data File:	s3a0425.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	398	ug/kg	79.5	398
108-95-2	Phenol	U	398	ug/kg	79.5	398
95-57-8	2-Chlorophenol	U	398	ug/kg	79.5	398
106-46-7	1,4-Dichlorobenzene	U	398	ug/kg	79.5	398
621-64-7	N-Nitrosodipropylamine	U	398	ug/kg	79.5	398
59-50-7	4-Chloro-3-methylphenol	U	398	ug/kg	79.5	398
83-32-9	Acenaphthene	U	39.8	ug/kg	13.1	39.8
121-14-2	2,4-Dinitrotoluene	U	398	ug/kg	39.8	398
100-02-7	4-Nitrophenol	U	398	ug/kg	131	398
87-86-5	Pentachlorophenol	U	398	ug/kg	99.4	398
129-00-0	Pyrene	U	39.8	ug/kg	11.9	39.8
110-86-1	Pyridine	U	398	ug/kg	79.5	398
62-53-3	Aniline	U	398	ug/kg	119	398
111-44-4	bis(2-Chloroethyl) ether	U	398	ug/kg	79.5	398
541-73-1	1,3-Dichlorobenzene	U	398	ug/kg	79.5	398
100-51-6	Benzyl alcohol	U	398	ug/kg	119	398
95-50-1	1,2-Dichlorobenzene	U	398	ug/kg	79.5	398
108-60-1	bis(2-Chloroisopropyl)ether	U	398	ug/kg	79.5	398
95-48-7	o-Cresol	U	398	ug/kg	79.5	398
65794-96-9	m,p-Cresols	U	398	ug/kg	119	398
67-72-1	Hexachloroethane	U	398	ug/kg	79.5	398
98-95-3	Nitrobenzene	U	398	ug/kg	79.5	398
78-59-1	Isophorone	U	398	ug/kg	79.5	398
88-75-5	2-Nitrophenol	U	398	ug/kg	79.5	398
105-67-9	2,4-Dimethylphenol	U	398	ug/kg	139	398
111-91-1	bis(2-Chloroethoxy)methane	U	398	ug/kg	79.5	398
120-83-2	2,4-Dichlorophenol	U	398	ug/kg	79.5	398
65-85-0	Benzoic acid	U	795	ug/kg	199	795
91-20-3	Naphthalene	U	39.8	ug/kg	11.9	39.8
106-47-8	4-Chloroaniline	U	398	ug/kg	79.5	398
87-68-3	Hexachlorobutadiene	U	398	ug/kg	79.5	398
91-57-6	2-Methylnaphthalene	U	39.8	ug/kg	7.95	39.8
77-47-4	Hexachlorocyclopentadiene	U	398	ug/kg	79.5	398
88-06-2	2,4,6-Trichlorophenol	U	398	ug/kg	79.5	398
95-95-4	2,4,5-Trichlorophenol	U	398	ug/kg	79.5	398
91-58-7	2-Chloronaphthalene	U	39.8	ug/kg	13.1	39.8
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	398	ug/kg	79.5	398
99-09-2	3-Nitroaniline	U	398	ug/kg	79.5	398

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1086	Date Collected:	12/22/2009 12:00	Matrix:	S
Lab Sample ID:	243552002	Date Received:	12/24/2009 09:30	%Moisture:	16.2
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14236	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	937151	Inst:	MSD3.I	Dilution:	1
Run Date:	01/04/2010 21:37	Analyst:	JLD1	Inj. Vol:	.5 uL
Prep Date:	12/29/2009 10:16	Aliquot:	30 g	Final Volume:	1 mL
Data File:	s3a0425.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	398	ug/kg	79.5	398
606-20-2	2,6-Dinitrotoluene	U	398	ug/kg	39.8	398
208-96-8	Acenaphthylene	U	39.8	ug/kg	11.9	39.8
51-28-5	2,4-Dinitrophenol	U	795	ug/kg	151	795
132-64-9	Dibenzofuran	U	398	ug/kg	79.5	398
84-66-2	Diethylphthalate	U	398	ug/kg	79.5	398
86-73-7	Fluorene	U	39.8	ug/kg	11.9	39.8
7005-72-3	4-Chlorophenylphenylether	U	398	ug/kg	79.5	398
534-52-1	2-Methyl-4,6-dinitrophenol	U	398	ug/kg	79.5	398
100-01-6	4-Nitroaniline	U	398	ug/kg	119	398
	p-Nitroaniline					
122-39-4	Diphenylamine	U	398	ug/kg	79.5	398
122-66-7	Azobenzene	U	398	ug/kg	79.5	398
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	398	ug/kg	79.5	398
118-74-1	Hexachlorobenzene	U	398	ug/kg	79.5	398
85-01-8	Phenanthrene	U	39.8	ug/kg	11.9	39.8
120-12-7	Anthracene	U	39.8	ug/kg	7.95	39.8
84-74-2	Di-n-butylphthalate	U	398	ug/kg	79.5	398
206-44-0	Fluoranthene	U	39.8	ug/kg	11.9	39.8
85-68-7	Butylbenzylphthalate	U	398	ug/kg	79.5	398
56-55-3	Benzo(a)anthracene	U	39.8	ug/kg	11.9	39.8
91-94-1	3,3'-Dichlorobenzidine	U	398	ug/kg	119	398
218-01-9	Chrysene	U	39.8	ug/kg	11.9	39.8
117-81-7	bis(2-Ethylhexyl)phthalate	U	398	ug/kg	79.5	398
117-84-0	Di-n-octylphthalate	U	398	ug/kg	79.5	398
205-99-2	Benzo(b)fluoranthene	U	39.8	ug/kg	11.9	39.8
207-08-9	Benzo(k)fluoranthene	U	39.8	ug/kg	11.9	39.8
50-32-8	Benzo(a)pyrene	U	39.8	ug/kg	11.9	39.8
193-39-5	Indeno(1,2,3-cd)pyrene	U	39.8	ug/kg	11.9	39.8
53-70-3	Dibenzo(a,h)anthracene	U	39.8	ug/kg	11.9	39.8
191-24-2	Benzo(ghi)perylene	U	39.8	ug/kg	11.9	39.8
120-82-1	1,2,4-Trichlorobenzene	U	398	ug/kg	79.5	398

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.85	522	ug/kg		JA
112-84-5	13-Docosenamide, (Z)-	12.78	267	ug/kg	90	NJ

GEL Laboratories LLC

Data file : /chem/MSD3.i/s010410a.b/s3a0425.d
Lab Smp Id: 243552002 Client Smp ID: RE03-09-14236
Inj Date : 04-JAN-2010 21:37
Operator : JLD1 Inst ID: MSD3.i
Smp Info : |243552002|937151|1|SVMF|1|LANL
Misc Info : |MSD8270_S|WBN091223-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD3.i/s010410a.b/MSD3-8270R-AQA-120809.m
Meth Date : 04-Jan-2010 16:42 jen00986 Quant Type: ISTD
Cal Date : 07-DEC-2009 19:48 Cal File: s310717.d
Als bottle: 17
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-1086.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	16.16260	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	4.201	4.203	(1.000)	147254	40.0000	
* 29 Naphthalene-d8	136	5.449	5.453	(1.000)	540699	40.0000	
* 46 Acenaphthene-d10	164	7.295	7.298	(1.000)	304190	40.0000	
* 67 Phenanthrene-d10	188	8.889	8.888	(1.000)	505399	40.0000	
* 91 Chrysene-d12	240	11.741	11.745	(1.000)	397732	40.0000	
* 98 Perylene-d12	264	13.686	13.686	(1.000)	275658	40.0000	
$ 3 2-Fluorophenol	112	3.105	3.093	(0.739)	233250	60.5584	2410
$ 5 Phenol-d5	99	3.873	3.869	(0.922)	292486	59.6049	2370
$ 20 Nitrobenzene-d5	82	4.731	4.737	(0.868)	117032	29.6151	1180
$ 39 2-Fluorobiphenyl	172	6.574	6.576	(0.901)	182850	25.6448	1020
$ 60 2,4,6-Tribromophenol	329	8.142	8.143	(1.116)	61150	73.2046	2910
$ 81 p-Terphenyl-d14	244	10.597	10.595	(0.903)	250395	39.1980	1560

ION RATIO REPORT

SV REPORT

Data file: s3a0425.d
Report Date: 01/05/2010 09:23
Lab. ID: 243552002 SampleType: SAMPLE
Injection Date: 04-JAN-2010 21:37
Operator: JLD1 Instrument: MSD3.i
Sample Info: |243552002|937151|1|SVMF|1|LANL
Miscellaneous Info: |MSD8270_S|WBN091223-01|
Comment:
Method used: /chem/MSD3.i/s010410a.b/MSD3-8270R-AQA-120809.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-1086
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
17 N-Nitrosodipropylamine				CAS#: 621-64-7		
70	16857	4.73	4.58	80-120	100	(T)
42	8717	4.73	4.58	31- 91	52	(T)
27 Benzoic acid				CAS#: 65-85-0		
105	634	5.45	5.24	80-120	100	(T)
122	131	5.45	5.24	42-102	21	(QT)
77	2320	5.45	5.24	50-110	366	(QT)
44 2,6-Dinitrotoluene				CAS#: 606-20-2		
165	39573	7.30	7.09	80-120	100	(T)
63	667	7.30	7.09	49-109	2	(QT)
50 2,4-Dinitrotoluene				CAS#: 121-14-2		
165	39573	7.30	7.52	80-120	100	(T)
89	723	7.30	7.52	69-129	2	(QT)
63	667	7.30	7.52	56-116	2	(QT)
55 2-Methyl-4,6-dinitrophenol				CAS#: 534-52-1		
198	221	8.14	7.95	80-120	100	(T)
105	702	8.14	7.95	21- 81	318	(QT)
51	527	8.14	7.95	38- 98	239	(QT)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

Data file : /chem/MSD3.i/s010410a.b/s3a0425.d
Lab Smp Id: 243552002 Client Smp ID: RE03-09-14236
Inj Date : 04-JAN-2010 21:37
Operator : JLD1 Inst ID: MSD3.i
Smp Info : |243552002|937151|1|SVMF|1|LANL
Misc Info : |MSD8270_S|WBN091223-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD3.i/s010410a.b/MSD3-8270R-AQA-120809.m
Meth Date : 04-Jan-2010 16:42 jen00986 Quant Type: ISTD
Cal Date : 07-DEC-2009 19:48 Cal File: s310717.d
Als bottle: 17
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-1086.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	16.16260	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	4.201	968675	40.000
* 98 Perylene-d12	13.686	787926	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown Aldol Condensate					CAS #:		
2.853	318232	13.1409074	522	0		0	10

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
====	====	==========	==========	====	=======	=========	======
13-Docosenamide, (Z)-				CAS #: 112-84-5			
12.779	132335	6.71812428	267	90	NIST05.L	146308	98

Data File: /chem/MSD3.i/s010410a.b/s3a0425.d
Date : 04-JAN-2010 21:37
Client ID: REQ3-09-14236
Sample Info: 1243552002|937151|1|SVMF1|1|LANL
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD3.i
Operator: JLD1
Column diameter: 0.20

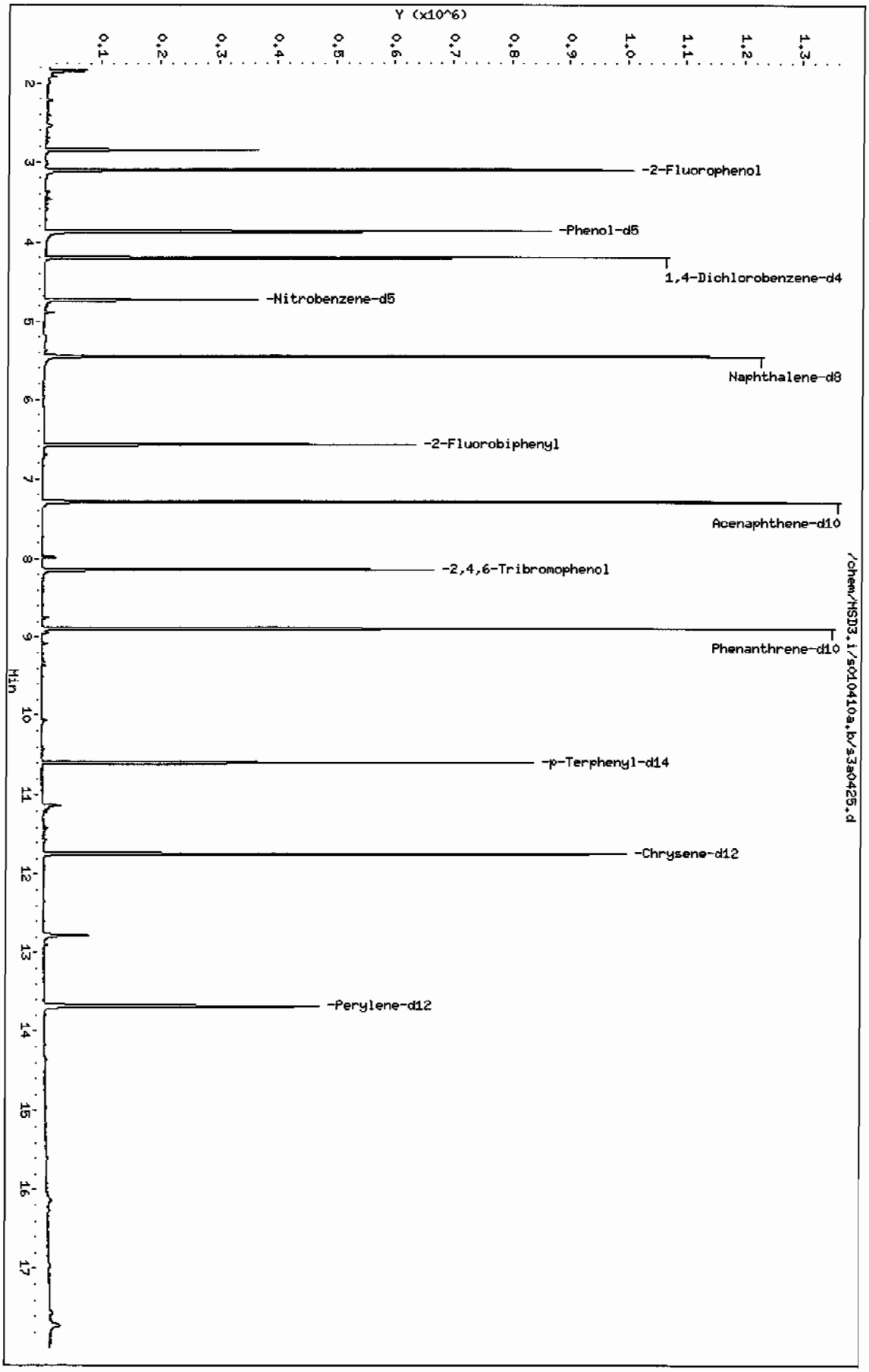

Page 1

Data File: /chem/MSD3.i/s010410a.b/s3a0425.d

Date : 04-JAN-2010 21:37

Client ID: RE03-09-14236

Instrument: MSD3.i

Sample Info: |2435520021937151|1|SVMF|1|LANL

Volume Injected (uL): 0.5

Operator: JLD1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7945	64	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	40	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	28	C6H12O2	116

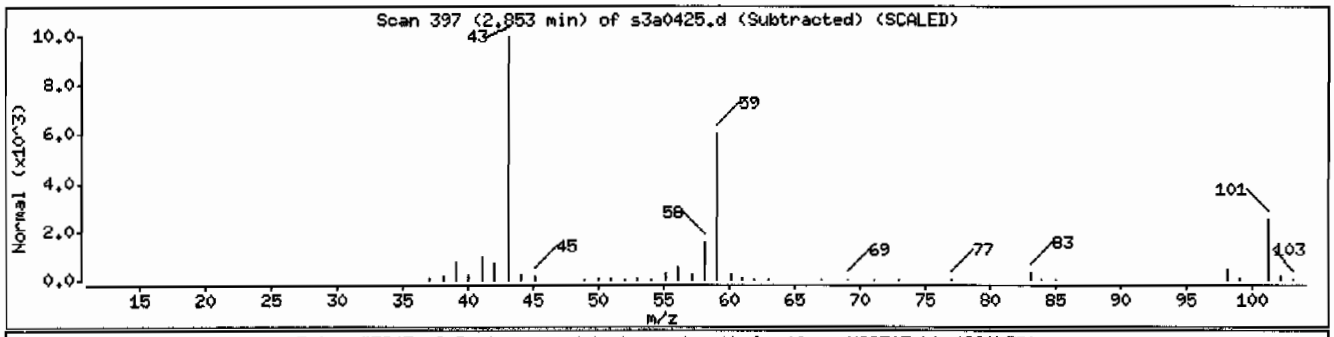

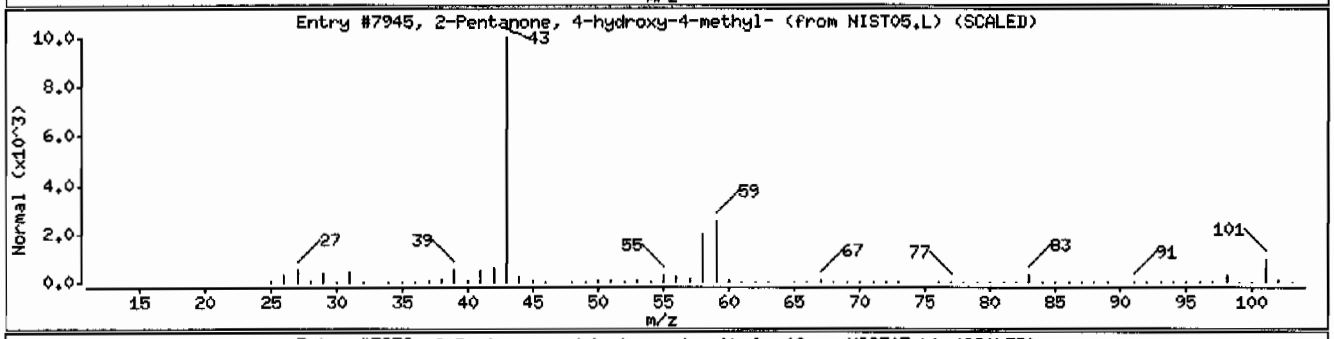

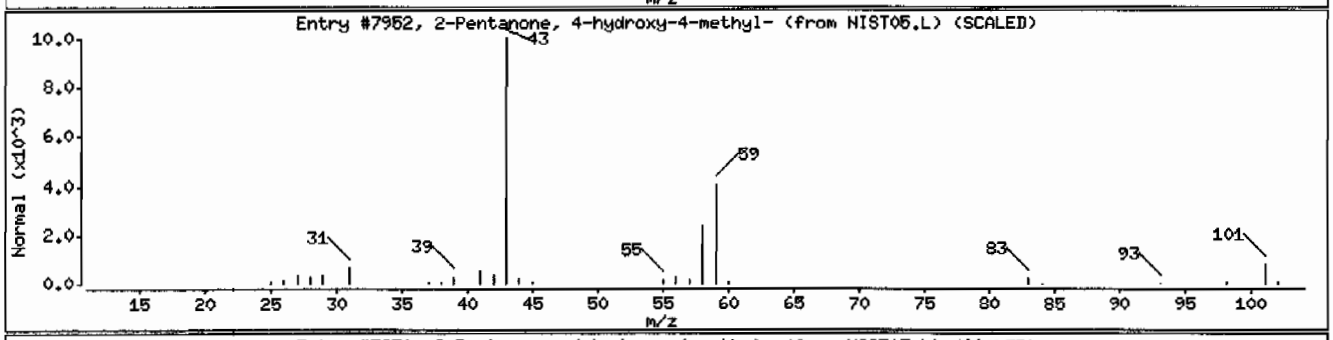

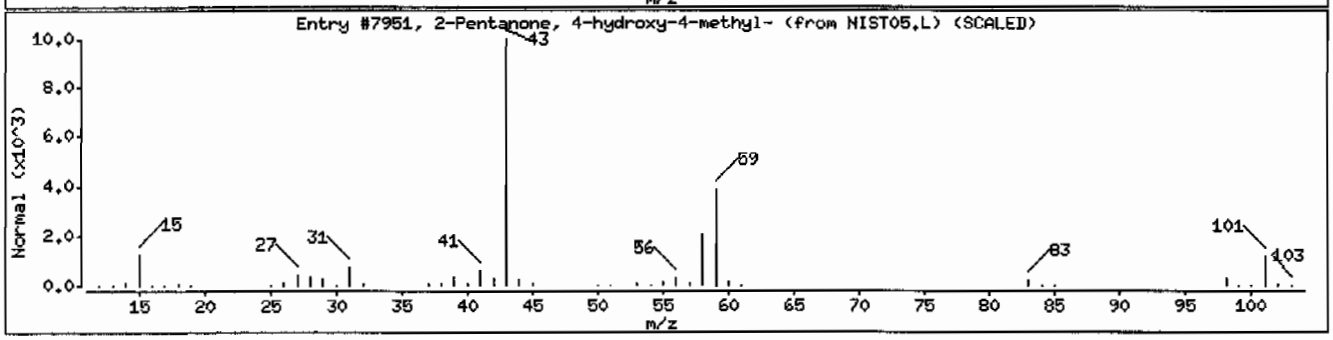

Data File: /chem/MSD3.i/s010410a.b/s3a0425.d

Date : 04-JAN-2010 21:37

Client ID: RE03-09-14236 Instrument: MSD3.i

Sample Info: |2435520021937151|1|SVMF|1|LANL

Volume Injected (uL): 0.5 Operator: JLD1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
13-Docosenamide, (Z)-	112-84-5	NIST05.L	146308	90	C22H43NO	337
9-Octadecenamide, (Z)-	301-02-0	NIST05.L	112655	80	C18H35NO	281
Octadecanamide	124-26-5	NIST05.L	114053	47	C18H37NO	283

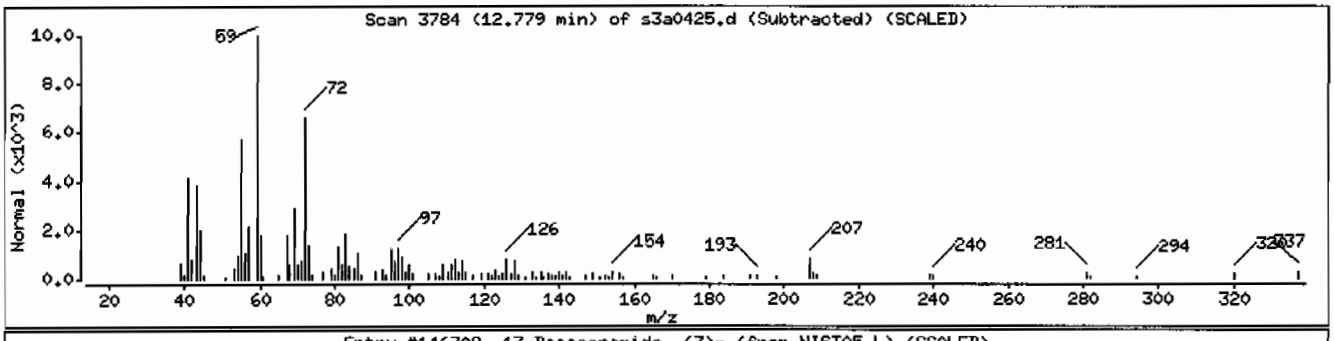

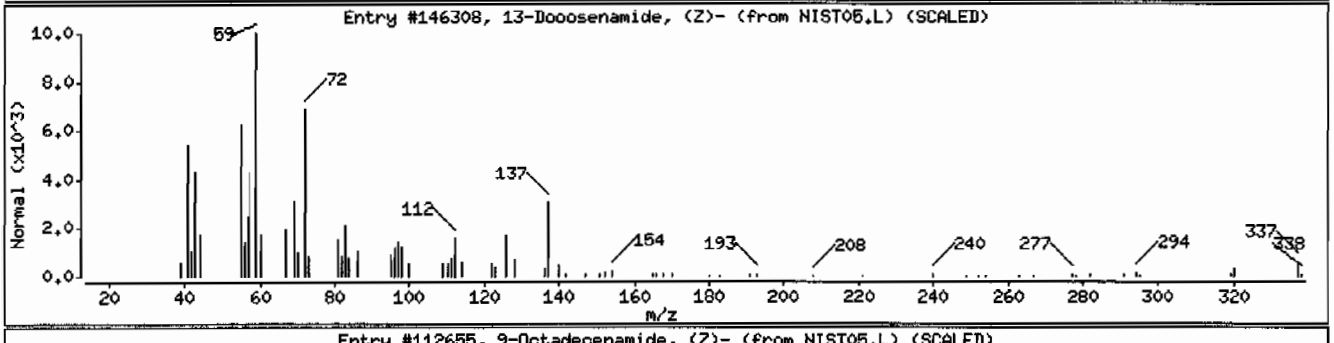

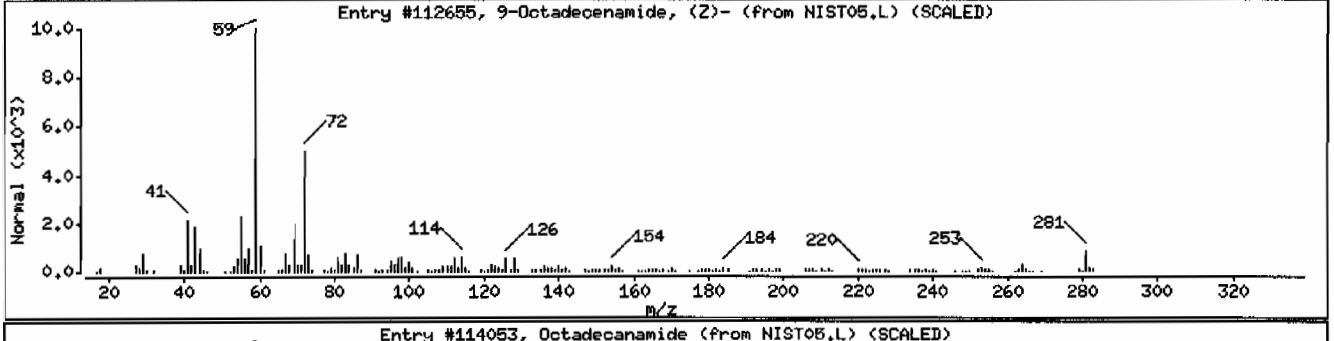

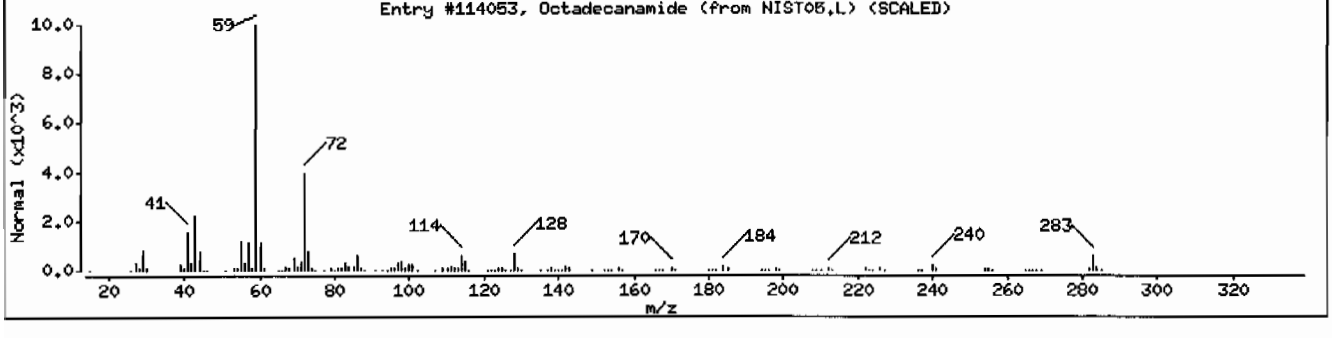

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1086**	**Date Collected:**	**12/22/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243552008**	**Date Received:**	**12/24/2009 09:30**	**%Moisture:**	**5.4**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14238**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**937151**	**Inst:**	**MSD3.I**	**Dilution:**	**1**
Run Date:	**01/05/2010 00:04**	**Analyst:**	**JLD1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/29/2009 10:16**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**s3a0431.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	352	ug/kg	70.5	352
108-95-2	Phenol	U	352	ug/kg	70.5	352
95-57-8	2-Chlorophenol	U	352	ug/kg	70.5	352
106-46-7	1,4-Dichlorobenzene	U	352	ug/kg	70.5	352
621-64-7	N-Nitrosodipropylamine	U	352	ug/kg	70.5	352
59-50-7	4-Chloro-3-methylphenol	U	352	ug/kg	70.5	352
83-32-9	Acenaphthene	U	35.2	ug/kg	11.6	35.2
121-14-2	2,4-Dinitrotoluene	U	352	ug/kg	35.2	352
100-02-7	4-Nitrophenol	U	352	ug/kg	116	352
87-86-5	Pentachlorophenol	U	352	ug/kg	88.1	352
129-00-0	Pyrene	U	35.2	ug/kg	10.6	35.2
110-86-1	Pyridine	U	352	ug/kg	70.5	352
62-53-3	Aniline	U	352	ug/kg	106	352
111-44-4	bis(2-Chloroethyl) ether	U	352	ug/kg	70.5	352
541-73-1	1,3-Dichlorobenzene	U	352	ug/kg	70.5	352
100-51-6	Benzyl alcohol	U	352	ug/kg	106	352
95-50-1	1,2-Dichlorobenzene	U	352	ug/kg	70.5	352
108-60-1	bis(2-Chloroisopropyl)ether	U	352	ug/kg	70.5	352
95-48-7	o-Cresol	U	352	ug/kg	70.5	352
65794-96-9	m,p-Cresols	U	352	ug/kg	106	352
67-72-1	Hexachloroethane	U	352	ug/kg	70.5	352
98-95-3	Nitrobenzene	U	352	ug/kg	70.5	352
78-59-1	Isophorone	U	352	ug/kg	70.5	352
88-75-5	2-Nitrophenol	U	352	ug/kg	70.5	352
105-67-9	2,4-Dimethylphenol	U	352	ug/kg	123	352
111-91-1	bis(2-Chloroethoxy)methane	U	352	ug/kg	70.5	352
120-83-2	2,4-Dichlorophenol	U	352	ug/kg	70.5	352
65-85-0	Benzoic acid	U	705	ug/kg	176	705
91-20-3	Naphthalene	U	35.2	ug/kg	10.6	35.2
106-47-8	4-Chloroaniline	U	352	ug/kg	70.5	352
87-68-3	Hexachlorobutadiene	U	352	ug/kg	70.5	352
91-57-6	2-Methylnaphthalene	U	35.2	ug/kg	7.05	35.2
77-47-4	Hexachlorocyclopentadiene	U	352	ug/kg	70.5	352
88-06-2	2,4,6-Trichlorophenol	U	352	ug/kg	70.5	352
95-95-4	2,4,5-Trichlorophenol	U	352	ug/kg	70.5	352
91-58-7	2-Chloronaphthalene	U	35.2	ug/kg	11.6	35.2
88-74-4	2-Nitroaniline	U	352	ug/kg	70.5	352
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	352	ug/kg	70.5	352

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1086**	**Date Collected:**	**12/22/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243552008**	**Date Received:**	**12/24/2009 09:30**	**%Moisture:**	**5.4**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14238**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**937151**	**Inst:**	**MSD3.I**	**Dilution:**	**1**
Run Date:	**01/05/2010 00:04**	**Analyst:**	**JLD1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/29/2009 10:16**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**s3a0431.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	352	ug/kg	70.5	352
606-20-2	2,6-Dinitrotoluene	U	352	ug/kg	35.2	352
208-96-8	Acenaphthylene	U	35.2	ug/kg	10.6	35.2
51-28-5	2,4-Dinitrophenol	U	705	ug/kg	134	705
132-64-9	Dibenzofuran	U	352	ug/kg	70.5	352
84-66-2	Diethylphthalate	U	352	ug/kg	70.5	352
86-73-7	Fluorene	U	35.2	ug/kg	10.6	35.2
7005-72-3	4-Chlorophenylphenylether	U	352	ug/kg	70.5	352
534-52-1	2-Methyl-4,6-dinitrophenol	U	352	ug/kg	70.5	352
100-01-6	4-Nitroaniline	U	352	ug/kg	106	352
	p-Nitroaniline					
122-39-4	Diphenylamine	U	352	ug/kg	70.5	352
122-66-7	Azobenzene	U	352	ug/kg	70.5	352
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	352	ug/kg	70.5	352
118-74-1	Hexachlorobenzene	U	352	ug/kg	70.5	352
85-01-8	Phenanthrene	U	35.2	ug/kg	10.6	35.2
120-12-7	Anthracene	U	35.2	ug/kg	7.05	35.2
84-74-2	Di-n-butylphthalate	U	352	ug/kg	70.5	352
206-44-0	Fluoranthene	U	35.2	ug/kg	10.6	35.2
85-68-7	Butylbenzylphthalate	U	352	ug/kg	70.5	352
56-55-3	Benzo(a)anthracene	U	35.2	ug/kg	10.6	35.2
91-94-1	3,3'-Dichlorobenzidine	U	352	ug/kg	106	352
218-01-9	Chrysene	U	35.2	ug/kg	10.6	35.2
117-81-7	bis(2-Ethylhexyl)phthalate	U	352	ug/kg	70.5	352
117-84-0	Di-n-octylphthalate	U	352	ug/kg	70.5	352
205-99-2	Benzo(b)fluoranthene	U	35.2	ug/kg	10.6	35.2
207-08-9	Benzo(k)fluoranthene	U	35.2	ug/kg	10.6	35.2
50-32-8	Benzo(a)pyrene	U	35.2	ug/kg	10.6	35.2
193-39-5	Indeno(1,2,3-cd)pyrene	U	35.2	ug/kg	10.6	35.2
53-70-3	Dibenzo(a,h)anthracene	U	35.2	ug/kg	10.6	35.2
191-24-2	Benzo(ghi)perylene	U	35.2	ug/kg	10.6	35.2
120-82-1	1,2,4-Trichlorobenzene	U	352	ug/kg	70.5	352

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.85	504	ug/kg		JA

GEL Laboratories LLC

Data file : /chem/MSD3.i/s010410a.b/s3a0431.d
Lab Smp Id: 243552008 Client Smp ID: RE03-09-14238
Inj Date : 05-JAN-2010 00:04
Operator : JLD1 Inst ID: MSD3.i
Smp Info : |243552008|937151|1|SVMF|1|LANL
Misc Info : |MSD8270_S|WBN091223-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD3.i/s010410a.b/MSD3-8270R-AQA-120809.m
Meth Date : 04-Jan-2010 16:42 jen00986 Quant Type: ISTD
Cal Date : 07-DEC-2009 19:48 Cal File: s310717.d
Als bottle: 23
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-1086.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	5.39950	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	4.201	4.203	(1.000)	140497	40.0000	
* 29 Naphthalene-d8	136	5.449	5.453	(1.000)	513697	40.0000	
* 46 Acenaphthene-d10	164	7.295	7.298	(1.000)	292801	40.0000	
* 67 Phenanthrene-d10	188	8.889	8.888	(1.000)	486196	40.0000	
* 91 Chrysene-d12	240	11.740	11.745	(1.000)	370980	40.0000	
* 98 Perylene-d12	264	13.684	13.686	(1.000)	252584	40.0000	
$ 3 2-Fluorophenol	112	3.105	3.093	(0.739)	265952	72.3696	2550
$ 5 Phenol-d5	99	3.872	3.869	(0.922)	309498	66.1051	2330
$ 20 Nitrobenzene-d5	82	4.734	4.737	(0.869)	138777	36.9636	1300
$ 39 2-Fluorobiphenyl	172	6.574	6.576	(0.901)	245844	35.8208	1260
$ 60 2,4,6-Tribromophenol	329	8.142	8.143	(1.116)	66468	82.6660	2910
$ 81 p-Terphenyl-d14	244	10.597	10.595	(0.903)	278334	46.7137	1640

ION RATIO REPORT

SV REPORT

Data file: s3a0431.d
Report Date: 01/05/2010 09:44
Lab. ID: 243552008 SampleType: SAMPLE
Injection Date: 05-JAN-2010 00:04
Operator: JLD1 Instrument: MSD3.i
Sample Info: |243552008|937151|1|SVMF|1|LANL
Miscellaneous Info: |MSD8270_S|WBN091223-01|
Comment:
Method used: /chem/MSD3.i/s010410a.b/MSD3-8270R-AQA-120809.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-1086
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
17 N-Nitrosodipropylamine				CAS#: 621-64-7		
70	20829	4.73	4.58	80-120	100	(T)
42	10925	4.73	4.58	31- 91	52	(T)
44 2,6-Dinitrotoluene				CAS#: 606-20-2		
165	37482	7.29	7.09	80-120	100	(T)
63	625	7.29	7.09	49-109	2	(QT)
50 2,4-Dinitrotoluene				CAS#: 121-14-2		
165	37482	7.29	7.52	80-120	100	(T)
89	750	7.29	7.52	69-129	2	(QT)
63	625	7.29	7.52	56-116	2	(QT)
55 2-Methyl-4,6-dinitrophenol				CAS#: 534-52-1		
198	245	8.14	7.95	80-120	100	(T)
105	547	8.14	7.95	21- 81	223	(QT)
51	453	8.14	7.95	38- 98	185	(QT)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

Data file : /chem/MSD3.i/s010410a.b/s3a0431.d
Lab Smp Id: 243552008 Client Smp ID: RE03-09-14238
Inj Date : 05-JAN-2010 00:04
Operator : JLD1 Inst ID: MSD3.i
Smp Info : |243552008|937151|1|SVMF|1|LANL
Misc Info : |MSD8270_S|WBN091223-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD3.i/s010410a.b/MSD3-8270R-AQA-120809.m
Meth Date : 04-Jan-2010 16:42 jen00986 Quant Type: ISTD
Cal Date : 07-DEC-2009 19:48 Cal File: s310717.d
Als bottle: 23
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-1086.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	5.39950	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	4.201	928293	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown Aldol Condensate					CAS #:		
2.853	332183	14.3137061	504	0		0	10

Data File: /chem/MSD3.i/s010410a.b/s3a0431.d
Date : 05-JAN-2010 00:04
Client ID: RE03-09-14238
Sample Info: |2435520081937151|1|SVMFI1|LANL
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD3.i

Operator: JLD1
Column diameter: 0.20

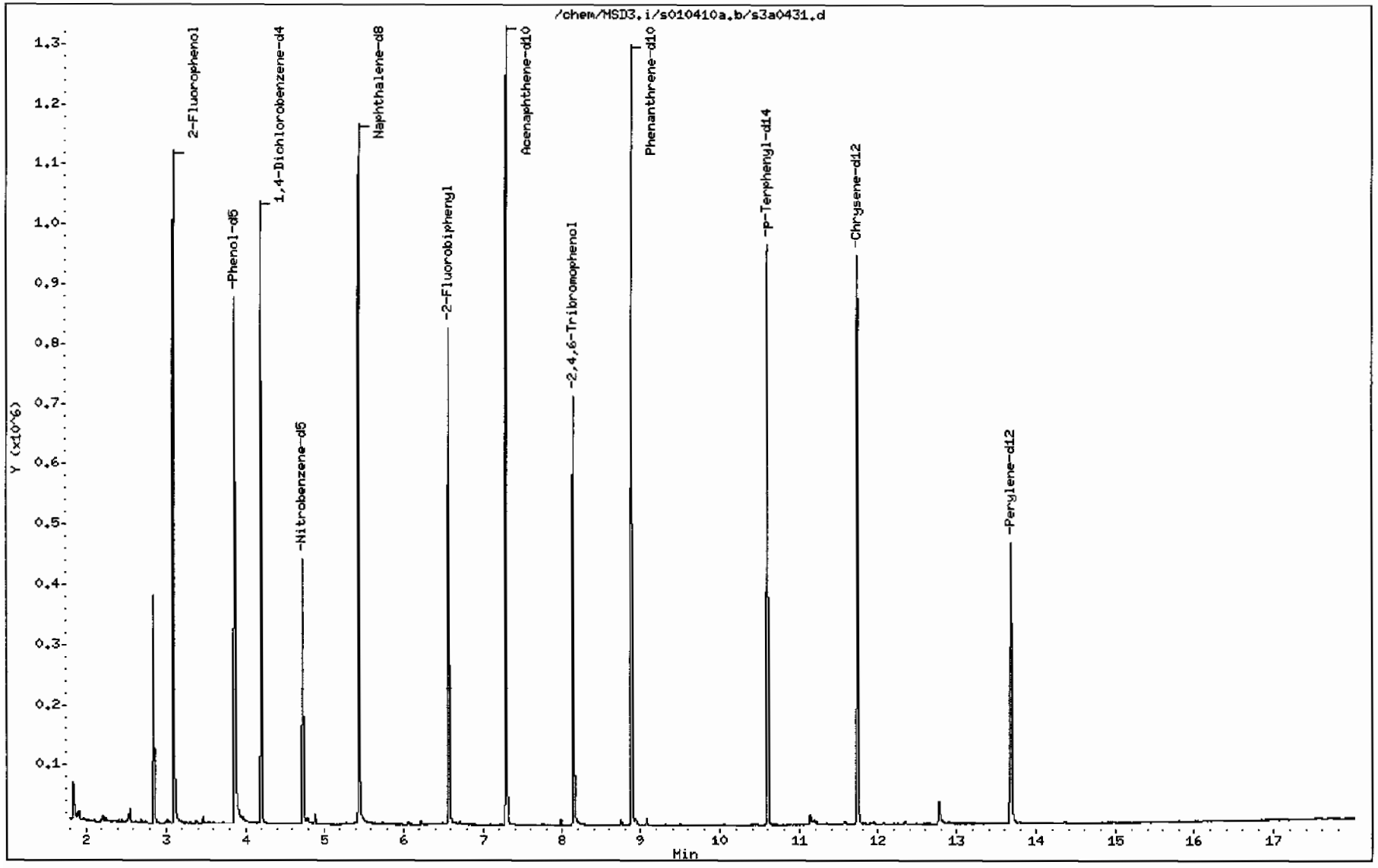

Data File: /chem/MSD3.i/s010410a.b/s3a0431.d

Date : 05-JAN-2010 00:04

Client ID: RE03-09-14238

Instrument: MSD3.i

Sample Info: 1243552008|937151|1|SVMF|1|LANL

Volume Injected (uL): 0.5

Operator: JLD1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	56	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7945	50	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	50	C6H12O2	116

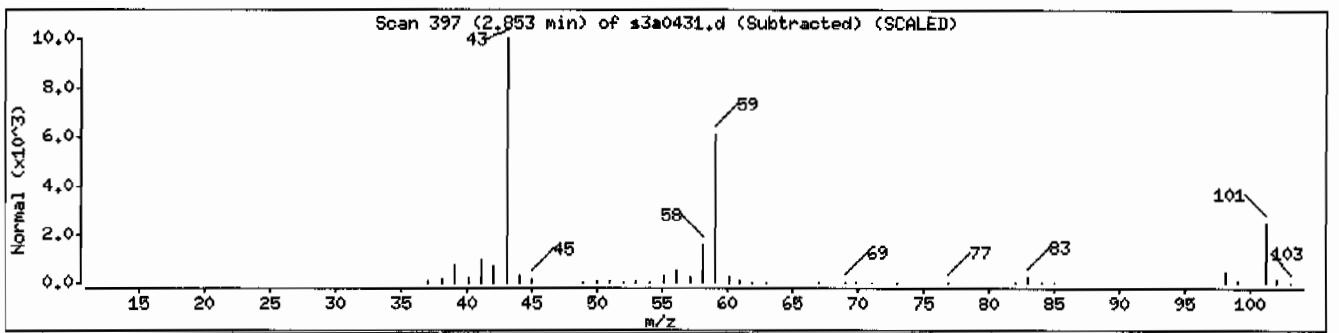

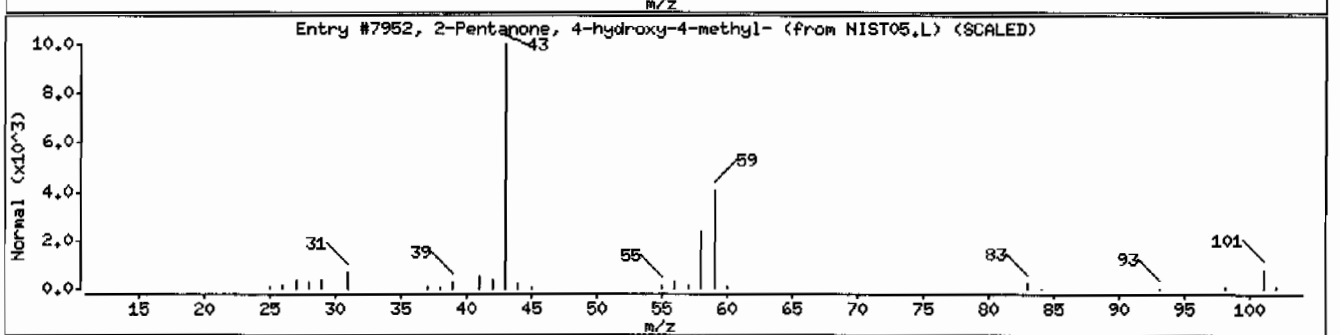

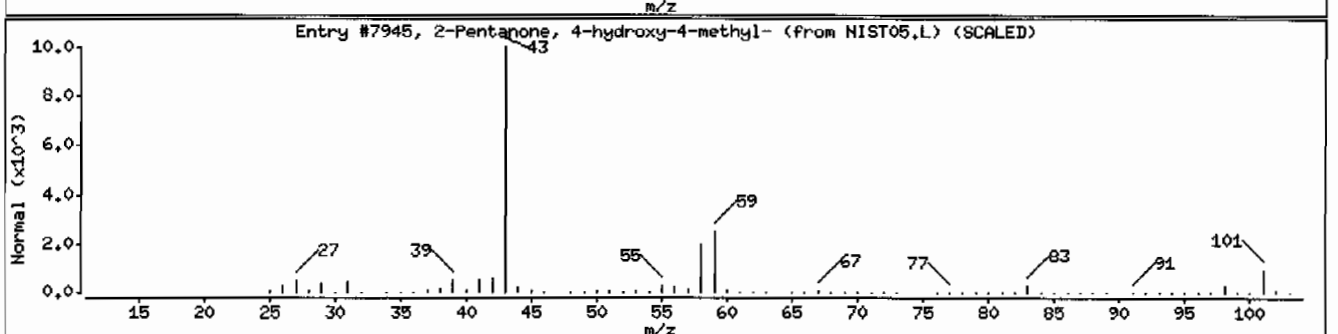

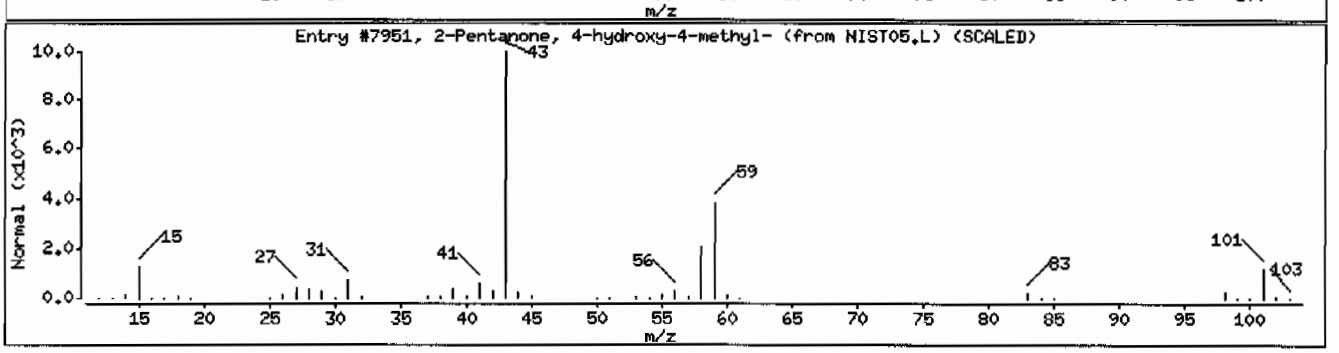

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1086	Date Collected:	12/22/2009 12:00	Matrix:	S
Lab Sample ID:	243552003	Date Received:	12/24/2009 09:30	%Moisture:	5.5
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14239	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	937151	Inst:	MSD3.I	Dilution:	1
Run Date:	01/04/2010 22:02	Analyst:	JLD1	Inj. Vol:	.5 uL
Prep Date:	12/29/2009 10:16	Aliquot:	30.05 g	Final Volume:	1 mL
Data File:	s3a0426.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	352	ug/kg	70.4	352
108-95-2	Phenol	U	352	ug/kg	70.4	352
95-57-8	2-Chlorophenol	U	352	ug/kg	70.4	352
106-46-7	1,4-Dichlorobenzene	U	352	ug/kg	70.4	352
621-64-7	N-Nitrosodipropylamine	U	352	ug/kg	70.4	352
59-50-7	4-Chloro-3-methylphenol	U	352	ug/kg	70.4	352
83-32-9	Acenaphthene	U	35.2	ug/kg	11.6	35.2
121-14-2	2,4-Dinitrotoluene	U	352	ug/kg	35.2	352
100-02-7	4-Nitrophenol	U	352	ug/kg	116	352
87-86-5	Pentachlorophenol	U	352	ug/kg	88.0	352
129-00-0	Pyrene	U	35.2	ug/kg	10.6	35.2
110-86-1	Pyridine	U	352	ug/kg	70.4	352
62-53-3	Aniline	U	352	ug/kg	106	352
111-44-4	bis(2-Chloroethyl) ether	U	352	ug/kg	70.4	352
541-73-1	1,3-Dichlorobenzene	U	352	ug/kg	70.4	352
100-51-6	Benzyl alcohol	U	352	ug/kg	106	352
95-50-1	1,2-Dichlorobenzene	U	352	ug/kg	70.4	352
108-60-1	bis(2-Chloroisopropyl)ether	U	352	ug/kg	70.4	352
95-48-7	o-Cresol	U	352	ug/kg	70.4	352
65794-96-9	m,p-Cresols	U	352	ug/kg	106	352
67-72-1	Hexachloroethane	U	352	ug/kg	70.4	352
98-95-3	Nitrobenzene	U	352	ug/kg	70.4	352
78-59-1	Isophorone	U	352	ug/kg	70.4	352
88-75-5	2-Nitrophenol	U	352	ug/kg	70.4	352
105-67-9	2,4-Dimethylphenol	U	352	ug/kg	123	352
111-91-1	bis(2-Chloroethoxy)methane	U	352	ug/kg	70.4	352
120-83-2	2,4-Dichlorophenol	U	352	ug/kg	70.4	352
65-85-0	Benzoic acid	U	704	ug/kg	176	704
91-20-3	Naphthalene	U	35.2	ug/kg	10.6	35.2
106-47-8	4-Chloroaniline	U	352	ug/kg	70.4	352
87-68-3	Hexachlorobutadiene	U	352	ug/kg	70.4	352
91-57-6	2-Methylnaphthalene	U	35.2	ug/kg	7.04	35.2
77-47-4	Hexachlorocyclopentadiene	U	352	ug/kg	70.4	352
88-06-2	2,4,6-Trichlorophenol	U	352	ug/kg	70.4	352
95-95-4	2,4,5-Trichlorophenol	U	352	ug/kg	70.4	352
91-58-7	2-Chloronaphthalene	U	35.2	ug/kg	11.6	35.2
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	352	ug/kg	70.4	352
99-09-2	3-Nitroaniline	U	352	ug/kg	70.4	352

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1086	Date Collected:	12/22/2009 12:00	Matrix:	S
Lab Sample ID:	243552003	Date Received:	12/24/2009 09:30	%Moisture:	5.5
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14239	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	937151	Inst:	MSD3.I	Dilution:	1
Run Date:	01/04/2010 22:02	Analyst:	JLD1	Inj. Vol:	.5 uL
Prep Date:	12/29/2009 10:16	Aliquot:	30.05 g	Final Volume:	1 mL
Data File:	s3a0426.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	352	ug/kg	70.4	352
606-20-2	2,6-Dinitrotoluene	U	352	ug/kg	35.2	352
208-96-8	Acenaphthylene	U	35.2	ug/kg	10.6	35.2
51-28-5	2,4-Dinitrophenol	U	704	ug/kg	134	704
132-64-9	Dibenzofuran	U	352	ug/kg	70.4	352
84-66-2	Diethylphthalate	U	352	ug/kg	70.4	352
86-73-7	Fluorene	U	35.2	ug/kg	10.6	35.2
7005-72-3	4-Chlorophenylphenylether	U	352	ug/kg	70.4	352
534-52-1	2-Methyl-4,6-dinitrophenol	U	352	ug/kg	70.4	352
100-01-6	4-Nitroaniline	U	352	ug/kg	106	352
	p-Nitroaniline					
122-39-4	Diphenylamine	U	352	ug/kg	70.4	352
122-66-7	Azobenzene	U	352	ug/kg	70.4	352
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	352	ug/kg	70.4	352
118-74-1	Hexachlorobenzene	U	352	ug/kg	70.4	352
85-01-8	Phenanthrene	U	35.2	ug/kg	10.6	35.2
120-12-7	Anthracene	U	35.2	ug/kg	7.04	35.2
84-74-2	Di-n-butylphthalate	U	352	ug/kg	70.4	352
206-44-0	Fluoranthene	U	35.2	ug/kg	10.6	35.2
85-68-7	Butylbenzylphthalate	U	352	ug/kg	70.4	352
56-55-3	Benzo(a)anthracene	U	35.2	ug/kg	10.6	35.2
91-94-1	3,3'-Dichlorobenzidine	U	352	ug/kg	106	352
218-01-9	Chrysene	U	35.2	ug/kg	10.6	35.2
117-81-7	bis(2-Ethylhexyl)phthalate	U	352	ug/kg	70.4	352
117-84-0	Di-n-octylphthalate	U	352	ug/kg	70.4	352
205-99-2	Benzo(b)fluoranthene	U	35.2	ug/kg	10.6	35.2
207-08-9	Benzo(k)fluoranthene	U	35.2	ug/kg	10.6	35.2
50-32-8	Benzo(a)pyrene	U	35.2	ug/kg	10.6	35.2
193-39-5	Indeno(1,2,3-cd)pyrene	U	35.2	ug/kg	10.6	35.2
53-70-3	Dibenzo(a,h)anthracene	U	35.2	ug/kg	10.6	35.2
191-24-2	Benzo(ghi)perylene	U	35.2	ug/kg	10.6	35.2
120-82-1	1,2,4-Trichlorobenzene	U	352	ug/kg	70.4	352

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.85	501	ug/kg		JA
301-02-0	9-Octadecenamide, (Z)-	12.78	226	ug/kg	86	NJ

GEL Laboratories LLC

Data file : /chem/MSD3.i/s010410a.b/s3a0426.d
Lab Smp Id: 243552003 Client Smp ID: RE03-09-14239
Inj Date : 04-JAN-2010 22:02
Operator : JLD1 Inst ID: MSD3.i
Smp Info : |243552003|937151|1|SVMF|1|LANL
Misc Info : |MSD8270_S|WBN091223-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD3.i/s010410a.b/MSD3-8270R-AQA-120809.m
Meth Date : 04-Jan-2010 16:42 jen00986 Quant Type: ISTD
Cal Date : 07-DEC-2009 19:48 Cal File: s310717.d
Als bottle: 18
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-1086.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.05000	weight of sample
M	5.46650	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	4.201	4.203	(1.000)	144180	40.0000	
* 29 Naphthalene-d8	136	5.449	5.453	(1.000)	534347	40.0000	
* 46 Acenaphthene-d10	164	7.295	7.298	(1.000)	302002	40.0000	
* 67 Phenanthrene-d10	188	8.889	8.888	(1.000)	505866	40.0000	
* 91 Chrysene-d12	240	11.740	11.745	(1.000)	384536	40.0000	
* 98 Perylene-d12	264	13.685	13.686	(1.000)	266723	40.0000	
$ 3 2-Fluorophenol	112	3.108	3.093	(0.740)	232917	61.7613	2170
$ 5 Phenol-d5	99	3.873	3.869	(0.922)	287690	59.8775	2110
$ 20 Nitrobenzene-d5	82	4.734	4.737	(0.869)	117774	30.1571	1060
$ 39 2-Fluorobiphenyl	172	6.574	6.576	(0.901)	206256	29.1370	1020
$ 60 2,4,6-Tribromophenol	329	8.142	8.143	(1.116)	62019	74.7828	2630
$ 81 p-Terphenyl-d14	244	10.597	10.595	(0.903)	258191	41.8054	1470

ION RATIO REPORT

SV REPORT

Data file: s3a0426.d
Report Date: 01/05/2010 09:43
Lab. ID: 243552003 SampleType: SAMPLE
Injection Date: 04-JAN-2010 22:02
Operator: JLD1 Instrument: MSD3.i
Sample Info: |243552003|937151|1|SVMF|1|LANL
Miscellaneous Info: |MSD8270_S|WBN091223-01|
Comment:
Method used: /chem/MSD3.i/s010410a.b/MSD3-8270R-AQA-120809.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-1086
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
17 N-Nitrosodipropylamine				CAS#: 621-64-7		
70	17550	4.73	4.58	80-120	100	(T)
42	9102	4.73	4.58	31- 91	52	(T)
27 Benzoic acid				CAS#: 65-85-0		
105	658	5.45	5.24	80-120	100	(T)
122	114	5.45	5.24	42-102	17	(QT)
77	2232	5.45	5.24	50-110	339	(QT)
44 2,6-Dinitrotoluene				CAS#: 606-20-2		
165	39211	7.30	7.09	80-120	100	(T)
63	561	7.30	7.09	49-109	1	(QT)
50 2,4-Dinitrotoluene				CAS#: 121-14-2		
165	39211	7.30	7.52	80-120	100	(T)
89	683	7.30	7.52	69-129	2	(QT)
63	561	7.30	7.52	56-116	1	(QT)
55 2-Methyl-4,6-dinitrophenol				CAS#: 534-52-1		
198	214	8.14	7.95	80-120	100	(T)
105	567	8.14	7.95	21- 81	265	(QT)
51	483	8.14	7.95	38- 98	225	(QT)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

Data file : /chem/MSD3.i/s010410a.b/s3a0426.d
Lab Smp Id: 243552003 Client Smp ID: RE03-09-14239
Inj Date : 04-JAN-2010 22:02
Operator : JLD1 Inst ID: MSD3.i
Smp Info : |243552003|937151|1|SVMF|1|LANL
Misc Info : |MSD8270_S|WBN091223-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD3.i/s010410a.b/MSD3-8270R-AQA-120809.m
Meth Date : 04-Jan-2010 16:42 jen00986 Quant Type: ISTD
Cal Date : 07-DEC-2009 19:48 Cal File: s310717.d
Als bottle: 18
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-1086.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.05000	weight of sample
M	5.46650	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	4.201	954624	40.000
* 98 Perylene-d12	13.685	769256	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown Aldol Condensate					CAS #:		
2.853	339467	14.2240988	501	0		0	10

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
====	====	==========	==========	====	=======	=========	======
9-Octadecenamide, (Z)-				CAS #: 301-02-0			
12.776	123472	6.42035205	226	86	NIST05.L	112655	98

Data File: /chem/MSD3.i/s010410a.b/s3a0426.d
Date : 04-JAN-2010 22:02
Client ID: RE03-09-14239
Sample Info: |2435520031937151|1|SVMF|1|LANL
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD3.i

Operator: JLD1
Column diameter: 0.20

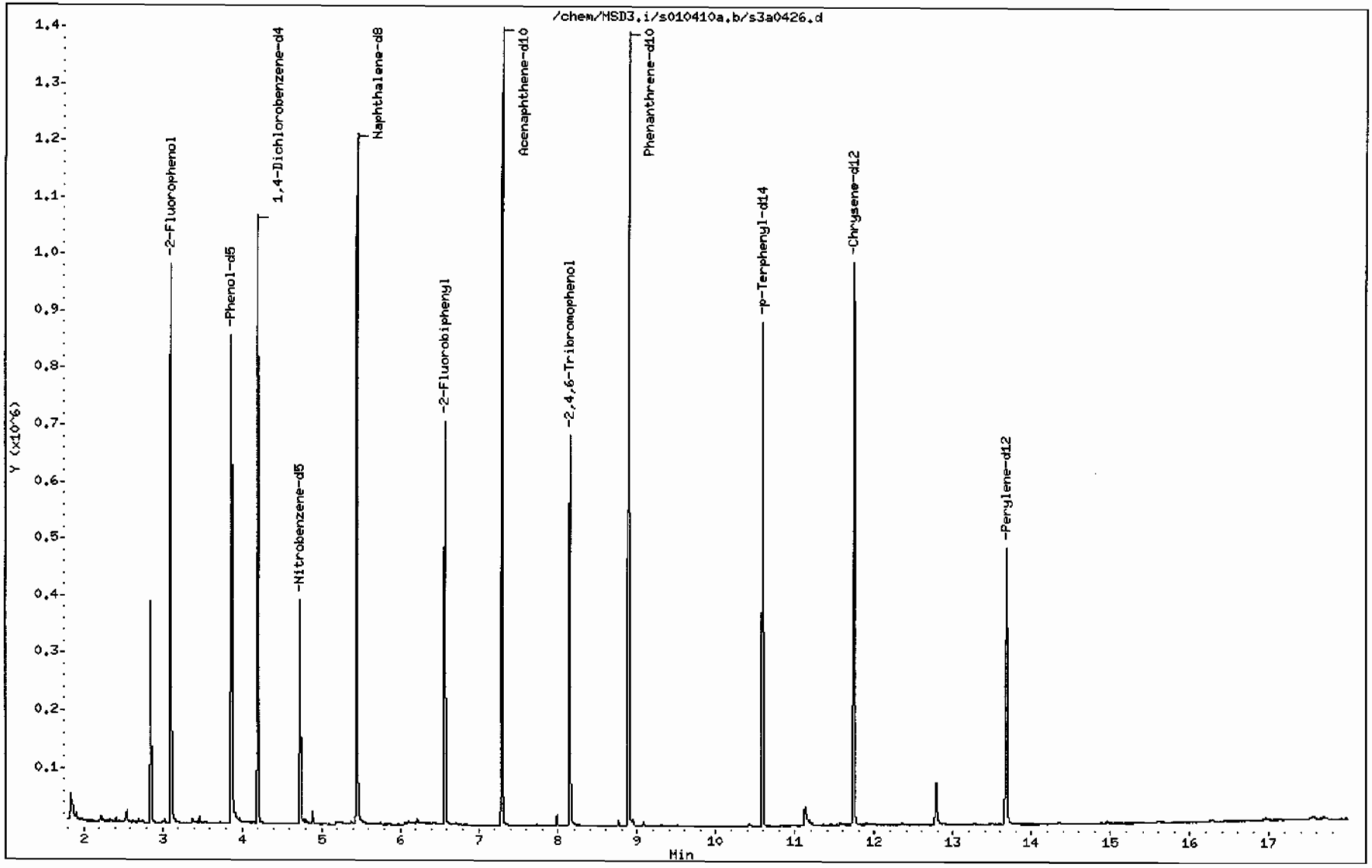

Data File: /chem/MSD3.i/s010410a.b/s3a0426.d

Date : 04-JAN-2010 22:02

Client ID: RE03-09-14239

Instrument: MSD3.i

Sample Info: |2435520031937151|1|SVHF|1|LANL

Volume Injected (uL): 0.5

Operator: JLD1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7945	64	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	56	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	28	C6H12O2	116

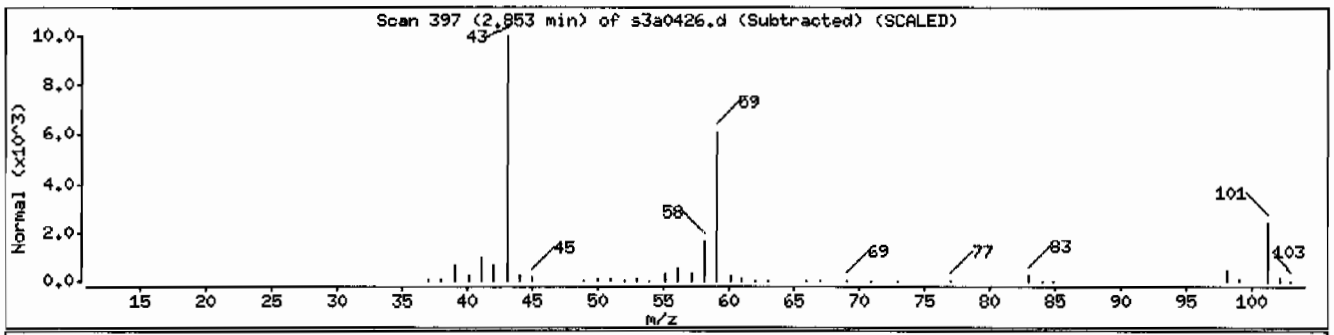

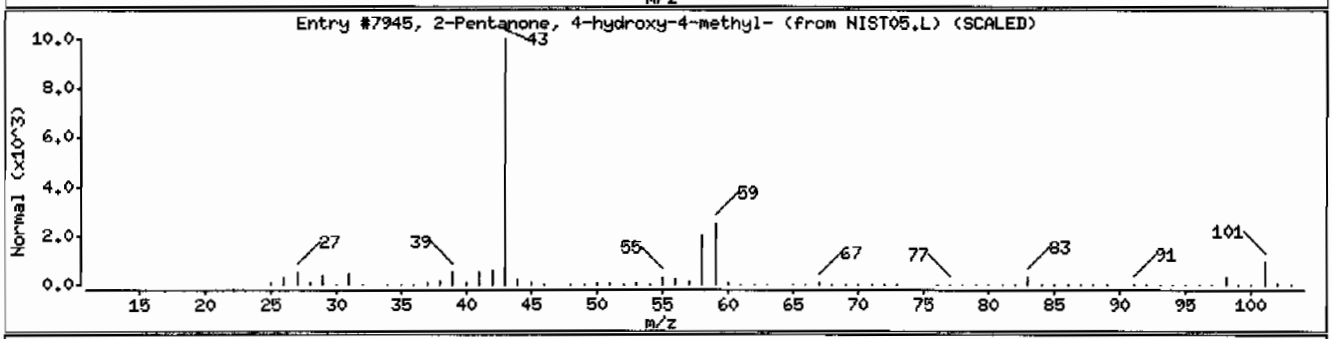

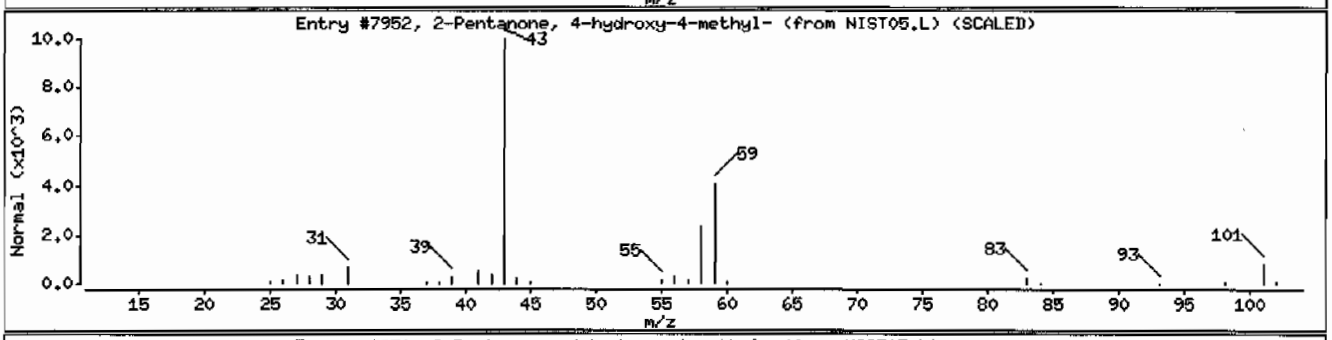

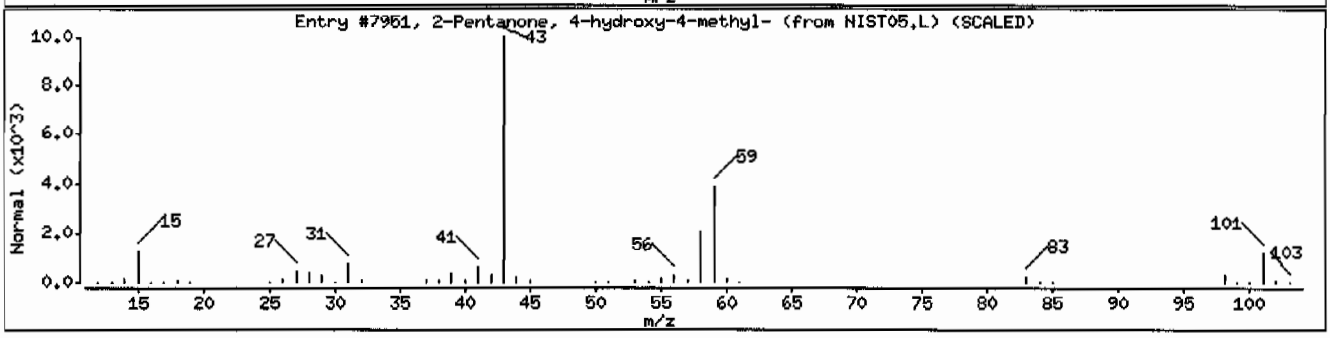

Data File: /chem/MSD3.i/s010410a.b/s3a0426.d

Date : 04-JAN-2010 22:02

Client ID: RE03-09-14239 Instrument: MSD3.i

Sample Info: 1243552003|937151|1|SVMF|1|LANL

Volume Injected (uL): 0.5 Operator: JLD1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
9-Octadecenamide, (Z)-	301-02-0	NIST05.L	112655	86	C18H35NO	281
13-Docosenamide, (Z)-	112-84-5	NIST05.L	146308	64	C22H43NO	337
9-Octadecenamide, (Z)-	301-02-0	NIST05.L	112657	64	C18H35NO	281

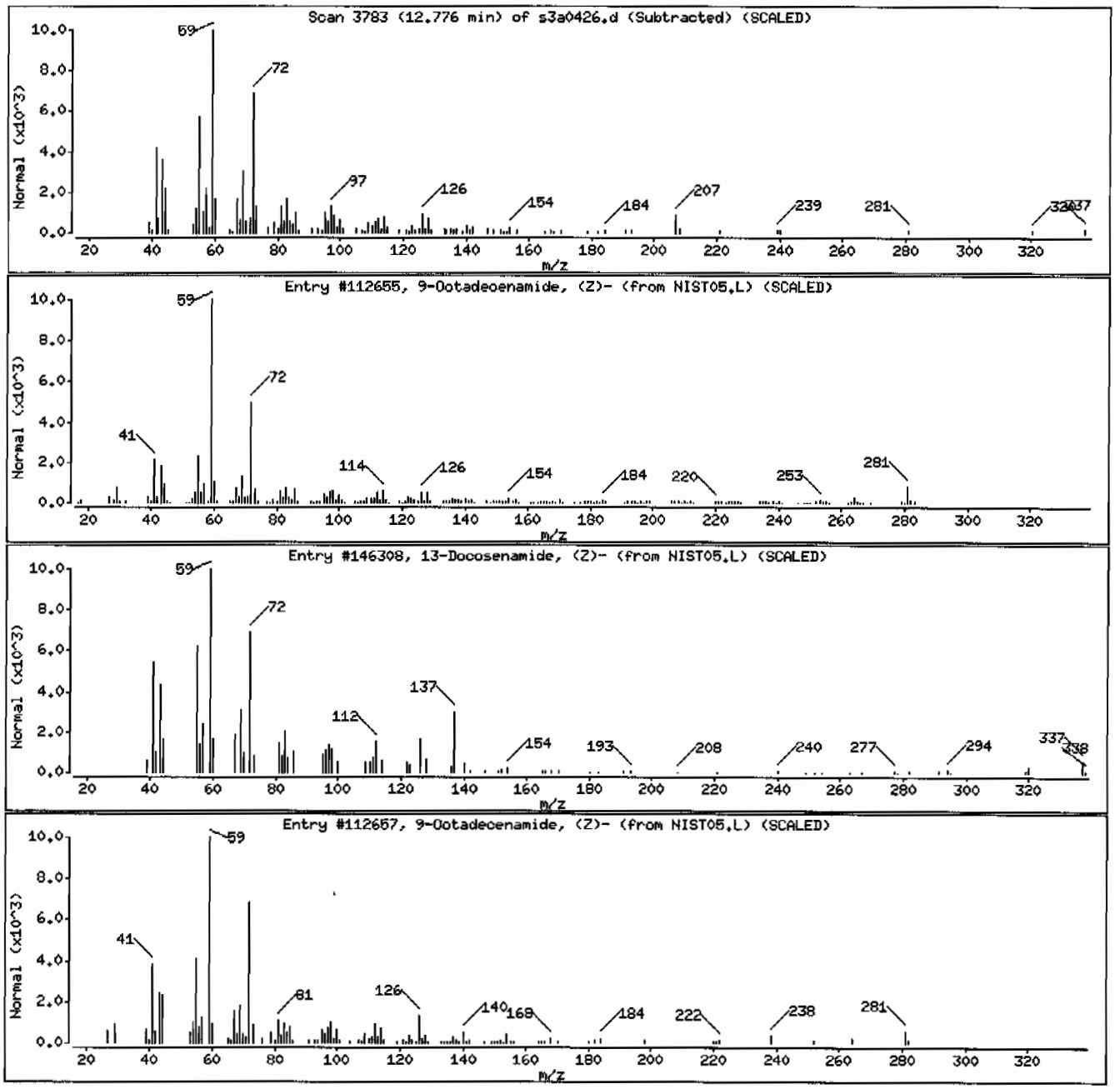

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1086	Date Collected:	12/22/2009 12:00	Matrix:	S
Lab Sample ID:	243552004	Date Received:	12/24/2009 09:30	%Moisture:	5.4
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14240	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	937151	Inst:	MSD3.I	Dilution:	1
Run Date:	01/04/2010 22:27	Analyst:	JLD1	Inj. Vol:	.5 uL
Prep Date:	12/29/2009 10:16	Aliquot:	30.03 g	Final Volume:	1 mL
Data File:	s3a0427.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	352	ug/kg	70.4	352
108-95-2	Phenol	U	352	ug/kg	70.4	352
95-57-8	2-Chlorophenol	U	352	ug/kg	70.4	352
106-46-7	1,4-Dichlorobenzene	U	352	ug/kg	70.4	352
621-64-7	N-Nitrosodipropylamine	U	352	ug/kg	70.4	352
59-50-7	4-Chloro-3-methylphenol	U	352	ug/kg	70.4	352
83-32-9	Acenaphthene	U	35.2	ug/kg	11.6	35.2
121-14-2	2,4-Dinitrotoluene	U	352	ug/kg	35.2	352
100-02-7	4-Nitrophenol	U	352	ug/kg	116	352
87-86-5	Pentachlorophenol	U	352	ug/kg	88.0	352
129-00-0	Pyrene	U	35.2	ug/kg	10.6	35.2
110-86-1	Pyridine	U	352	ug/kg	70.4	352
62-53-3	Aniline	U	352	ug/kg	106	352
111-44-4	bis(2-Chloroethyl) ether	U	352	ug/kg	70.4	352
541-73-1	1,3-Dichlorobenzene	U	352	ug/kg	70.4	352
100-51-6	Benzyl alcohol	U	352	ug/kg	106	352
95-50-1	1,2-Dichlorobenzene	U	352	ug/kg	70.4	352
108-60-1	bis(2-Chloroisopropyl)ether	U	352	ug/kg	70.4	352
95-48-7	o-Cresol	U	352	ug/kg	70.4	352
65794-96-9	m,p-Cresols	U	352	ug/kg	106	352
67-72-1	Hexachloroethane	U	352	ug/kg	70.4	352
98-95-3	Nitrobenzene	U	352	ug/kg	70.4	352
78-59-1	Isophorone	U	352	ug/kg	70.4	352
88-75-5	2-Nitrophenol	U	352	ug/kg	70.4	352
105-67-9	2,4-Dimethylphenol	U	352	ug/kg	123	352
111-91-1	bis(2-Chloroethoxy)methane	U	352	ug/kg	70.4	352
120-83-2	2,4-Dichlorophenol	U	352	ug/kg	70.4	352
65-85-0	Benzoic acid	U	704	ug/kg	176	704
91-20-3	Naphthalene	U	35.2	ug/kg	10.6	35.2
106-47-8	4-Chloroaniline	U	352	ug/kg	70.4	352
87-68-3	Hexachlorobutadiene	U	352	ug/kg	70.4	352
91-57-6	2-Methylnaphthalene	U	35.2	ug/kg	7.04	35.2
77-47-4	Hexachlorocyclopentadiene	U	352	ug/kg	70.4	352
88-06-2	2,4,6-Trichlorophenol	U	352	ug/kg	70.4	352
95-95-4	2,4,5-Trichlorophenol	U	352	ug/kg	70.4	352
91-58-7	2-Chloronaphthalene	U	35.2	ug/kg	11.6	35.2
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	352	ug/kg	70.4	352
99-09-2	3-Nitroaniline	U	352	ug/kg	70.4	352

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1086	Date Collected:	12/22/2009 12:00	Matrix:	S
Lab Sample ID:	243552004	Date Received:	12/24/2009 09:30	%Moisture:	5.4
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14240	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	937151	Inst:	MSD3.I	Dilution:	1
Run Date:	01/04/2010 22:27	Analyst:	JLD1	Inj. Vol:	.5 uL
Prep Date:	12/29/2009 10:16	Aliquot:	30.03 g	Final Volume:	1 mL
Data File:	s3a0427.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	352	ug/kg	70.4	352
606-20-2	2,6-Dinitrotoluene	U	352	ug/kg	35.2	352
208-96-8	Acenaphthylene	U	35.2	ug/kg	10.6	35.2
51-28-5	2,4-Dinitrophenol	U	704	ug/kg	134	704
132-64-9	Dibenzofuran	U	352	ug/kg	70.4	352
84-66-2	Diethylphthalate	U	352	ug/kg	70.4	352
86-73-7	Fluorene	U	35.2	ug/kg	10.6	35.2
7005-72-3	4-Chlorophenylphenylether	U	352	ug/kg	70.4	352
534-52-1	2-Methyl-4,6-dinitrophenol	U	352	ug/kg	70.4	352
100-01-6	4-Nitroaniline	U	352	ug/kg	106	352
	p-Nitroaniline					
122-39-4	Diphenylamine	U	352	ug/kg	70.4	352
122-66-7	Azobenzene	U	352	ug/kg	70.4	352
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	352	ug/kg	70.4	352
118-74-1	Hexachlorobenzene	U	352	ug/kg	70.4	352
85-01-8	Phenanthrene	U	35.2	ug/kg	10.6	35.2
120-12-7	Anthracene	U	35.2	ug/kg	7.04	35.2
84-74-2	Di-n-butylphthalate	U	352	ug/kg	70.4	352
206-44-0	Fluoranthene	U	35.2	ug/kg	10.6	35.2
85-68-7	Butylbenzylphthalate	U	352	ug/kg	70.4	352
56-55-3	Benzo(a)anthracene	U	35.2	ug/kg	10.6	35.2
91-94-1	3,3'-Dichlorobenzidine	U	352	ug/kg	106	352
218-01-9	Chrysene	U	35.2	ug/kg	10.6	35.2
117-81-7	bis(2-Ethylhexyl)phthalate	U	352	ug/kg	70.4	352
117-84-0	Di-n-octylphthalate	U	352	ug/kg	70.4	352
205-99-2	Benzo(b)fluoranthene	U	35.2	ug/kg	10.6	35.2
207-08-9	Benzo(k)fluoranthene	U	35.2	ug/kg	10.6	35.2
50-32-8	Benzo(a)pyrene	U	35.2	ug/kg	10.6	35.2
193-39-5	Indeno(1,2,3-cd)pyrene	U	35.2	ug/kg	10.6	35.2
53-70-3	Dibenzo(a,h)anthracene	U	35.2	ug/kg	10.6	35.2
191-24-2	Benzo(ghi)perylene	U	35.2	ug/kg	10.6	35.2
120-82-1	1,2,4-Trichlorobenzene	U	352	ug/kg	70.4	352

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.85	447	ug/kg		JA
301-02-0	9-Octadecenamide, (Z)-	12.78	183	ug/kg	94	NJ

GEL Laboratories LLC

Data file : /chem/MSD3.i/s010410a.b/s3a0427.d
Lab Smp Id: 243552004 Client Smp ID: RE03-09-14240
Inj Date : 04-JAN-2010 22:27
Operator : JLD1 Inst ID: MSD3.i
Smp Info : |243552004|937151|1|SVMF|1|LANL
Misc Info : |MSD8270_S|WBN091223-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD3.i/s010410a.b/MSD3-8270R-AQA-120809.m
Meth Date : 04-Jan-2010 16:42 jen00986 Quant Type: ISTD
Cal Date : 07-DEC-2009 19:48 Cal File: s310717.d
Als bottle: 19
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-1086.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.03000	weight of sample
M	5.41730	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	4.201	4.203	(1.000)	141019	40.0000	
* 29 Naphthalene-d8	136	5.449	5.453	(1.000)	515612	40.0000	
* 46 Acenaphthene-d10	164	7.295	7.298	(1.000)	291366	40.0000	
* 67 Phenanthrene-d10	188	8.889	8.888	(1.000)	492781	40.0000	
* 91 Chrysene-d12	240	11.740	11.745	(1.000)	394617	40.0000	
* 98 Perylene-d12	264	13.687	13.686	(1.000)	285364	40.0000	
$ 3 2-Fluorophenol	112	3.105	3.093	(0.739)	247587	67.1228	2360
$ 5 Phenol-d5	99	3.872	3.869	(0.922)	302498	64.3708	2270
$ 20 Nitrobenzene-d5	82	4.734	4.737	(0.869)	126963	33.6913	1190
$ 39 2-Fluorobiphenyl	172	6.574	6.576	(0.901)	215459	31.5482	1110
$ 60 2,4,6-Tribromophenol	329	8.141	8.143	(1.116)	65819	82.2620	2900
$ 81 p-Terphenyl-d14	244	10.597	10.595	(0.903)	278849	43.9969	1550

ION RATIO REPORT

SV REPORT

Data file: s3a0427.d
Report Date: 01/05/2010 09:43
Lab. ID: 243552004 SampleType: SAMPLE
Injection Date: 04-JAN-2010 22:27
Operator: JLD1 Instrument: MSD3.i
Sample Info: |243552004|937151|1|SVMF|1|LANL
Miscellaneous Info: |MSD8270_S|WBN091223-01|
Comment:
Method used: /chem/MSD3.i/s010410a.b/MSD3-8270R-AQA-120809.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-1086
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
17 N-Nitrosodipropylamine				CAS#: 621-64-7		
70	18152	4.73	4.58	80-120	100	(T)
42	9209	4.73	4.58	31- 91	51	(T)
27 Benzoic acid				CAS#: 65-85-0		
105	582	5.45	5.24	80-120	100	(T)
122	107	5.45	5.24	42-102	18	(QT)
77	2284	5.45	5.24	50-110	392	(QT)
44 2,6-Dinitrotoluene				CAS#: 606-20-2		
165	37424	7.29	7.09	80-120	100	(T)
63	429	7.29	7.09	49-109	1	(QT)
50 2,4-Dinitrotoluene				CAS#: 121-14-2		
165	37424	7.29	7.52	80-120	100	(T)
89	654	7.30	7.52	69-129	2	(QT)
63	429	7.29	7.52	56-116	1	(QT)
55 2-Methyl-4,6-dinitrophenol				CAS#: 534-52-1		
198	180	8.14	7.95	80-120	100	(T)
105	594	8.14	7.95	21- 81	330	(QT)
51	448	8.14	7.95	38- 98	249	(QT)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

Data file : /chem/MSD3.i/s010410a.b/s3a0427.d
Lab Smp Id: 243552004 Client Smp ID: RE03-09-14240
Inj Date : 04-JAN-2010 22:27
Operator : JLD1 Inst ID: MSD3.i
Smp Info : |243552004|937151|1|SVMF|1|LANL
Misc Info : |MSD8270_S|WBN091223-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD3.i/s010410a.b/MSD3-8270R-AQA-120809.m
Meth Date : 04-Jan-2010 16:42 jen00986 Quant Type: ISTD
Cal Date : 07-DEC-2009 19:48 Cal File: s310717.d
Als bottle: 19
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-1086.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.03000	weight of sample
M	5.41730	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	4.201	923038	40.000
* 98 Perylene-d12	13.687	817976	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown Aldol Condensate				CAS #:			
2.853	293297	12.7100568	447	0		0	10

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
====	====	==========	==========	====	=======	=========	======
9-Octadecenamide, (Z)-					CAS #: 301-02-0		
12.778	106212	5.19388917	183	94	NIST05.L	112656	98

Data File: /chem/MSD3.i/s010410a.b/s3a0427.d
Date : 04-JAN-2010 22:27
Client ID: RE03-09-14240
Sample Info: |2435520041937151|1|SVMF|1|LANL
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Page 1

Instrument: MSD3.i

Operator: JLD1
Column diameter: 0.20

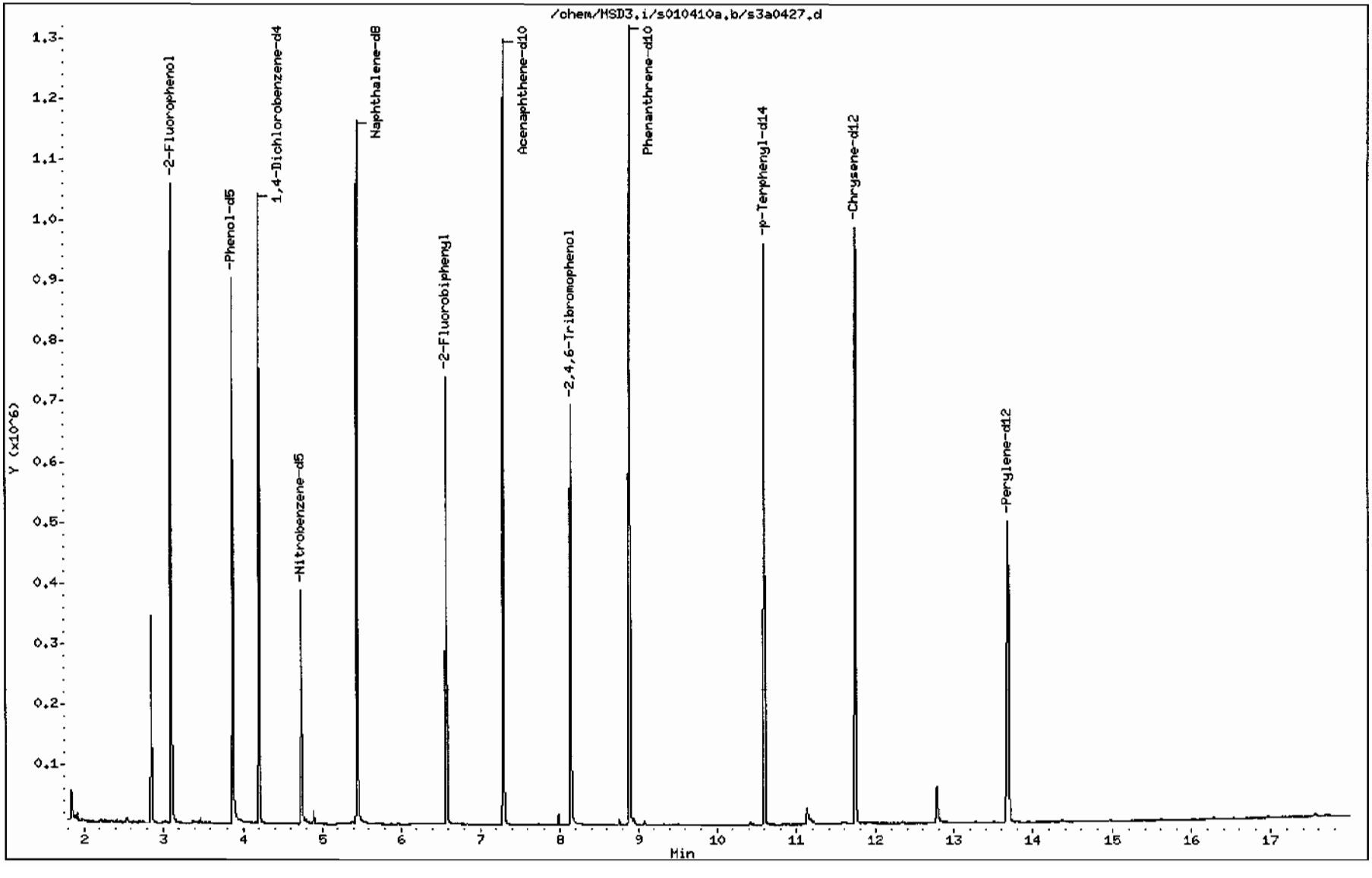

Data File: /chem/MSD3.i/s010410a.b/s3a0427.d

Date : 04-JAN-2010 22:27

Client ID: RE03-09-14240

Instrument: MSD3.i

Sample Info: 1243552004193715111SVMF11LANL

Volume Injected (uL): 0.5

Operator: JLD1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	50	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7945	50	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	40	C6H12O2	116

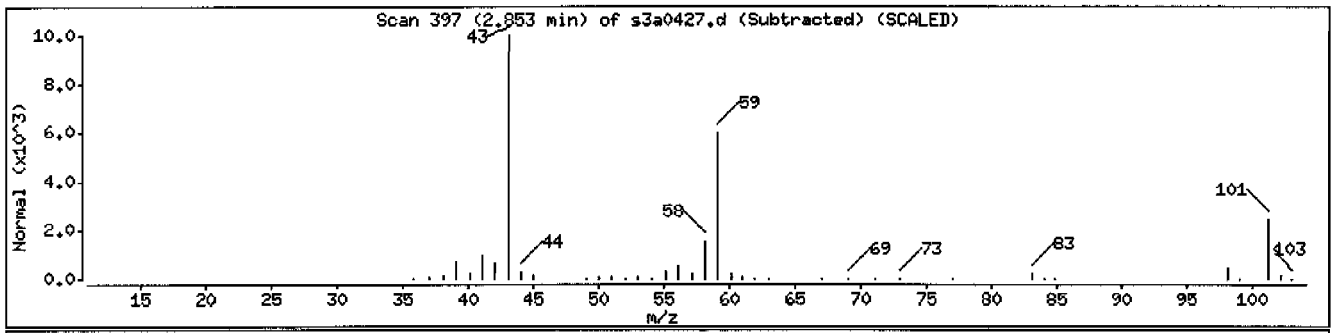

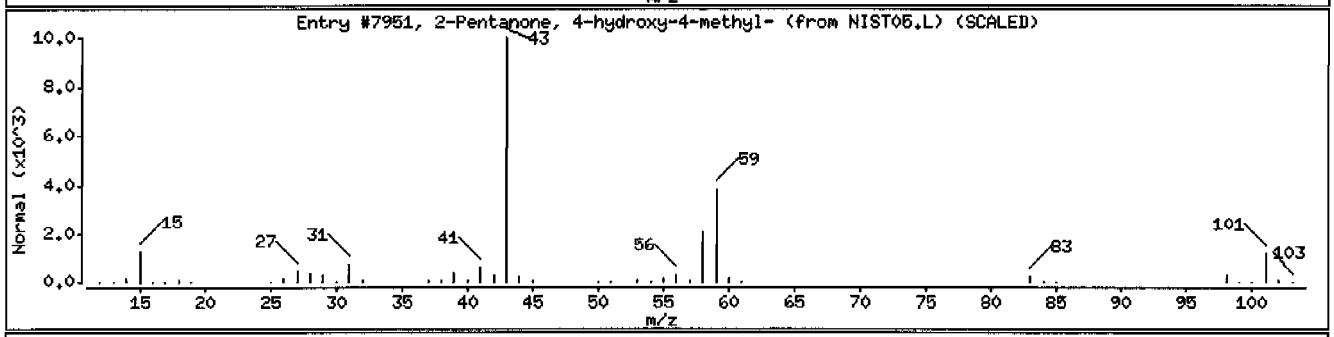

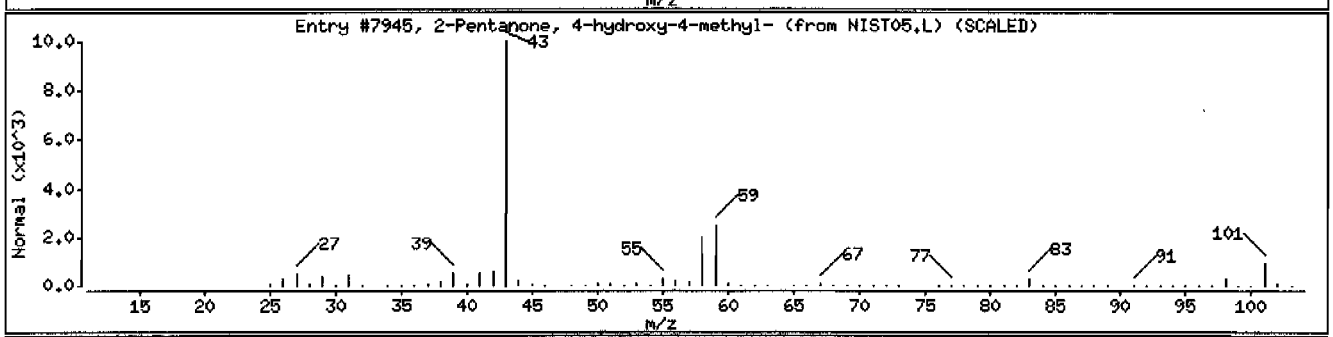

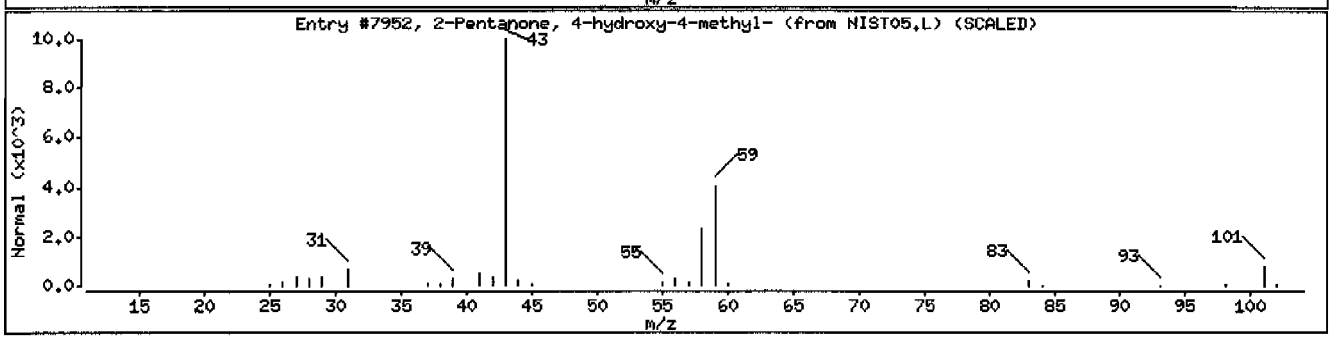

Data File: /chem/MSD3.i/s010410a.b/s3a0427.d

Date : 04-JAN-2010 22:27

Client ID: RE03-09-14240

Instrument: MSD3.i

Sample Info: 1243552004|937151|1|SVMF|1|LANL

Volume Injected (uL): 0.5

Operator: JLD1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
9-Octadecenamide, (Z)-	301-02-0	NIST05.L	112656	94	C18H35NO	281
13-Docosenamide, (Z)-	112-84-5	NIST05.L	146308	91	C22H43NO	337
9-Octadecenamide, (Z)-	301-02-0	NIST05.L	112655	91	C18H35NO	281

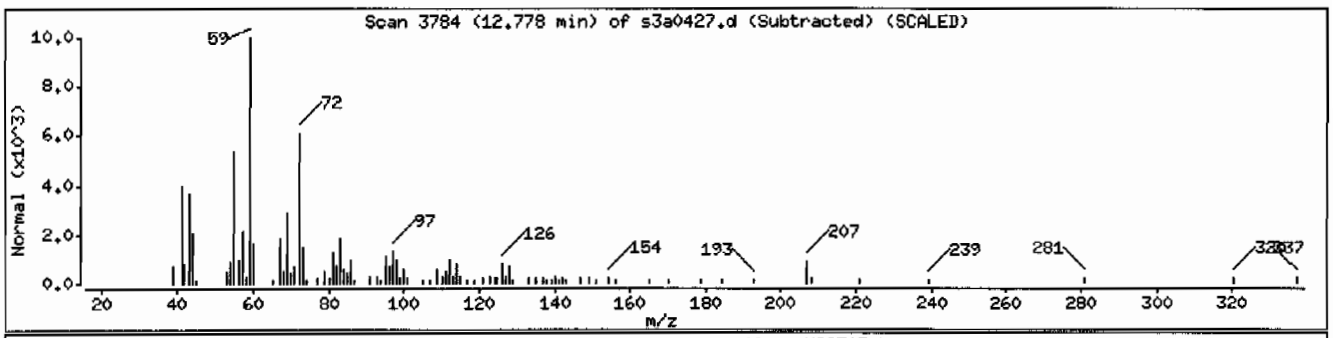

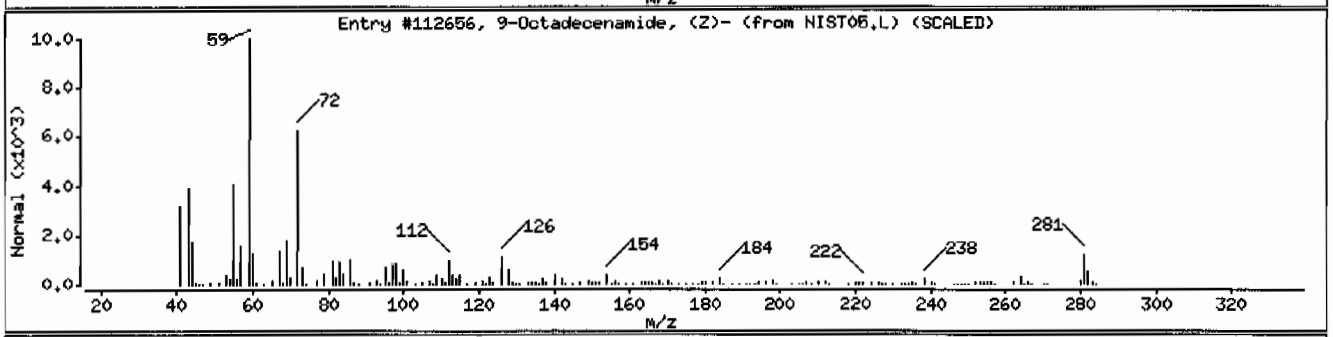

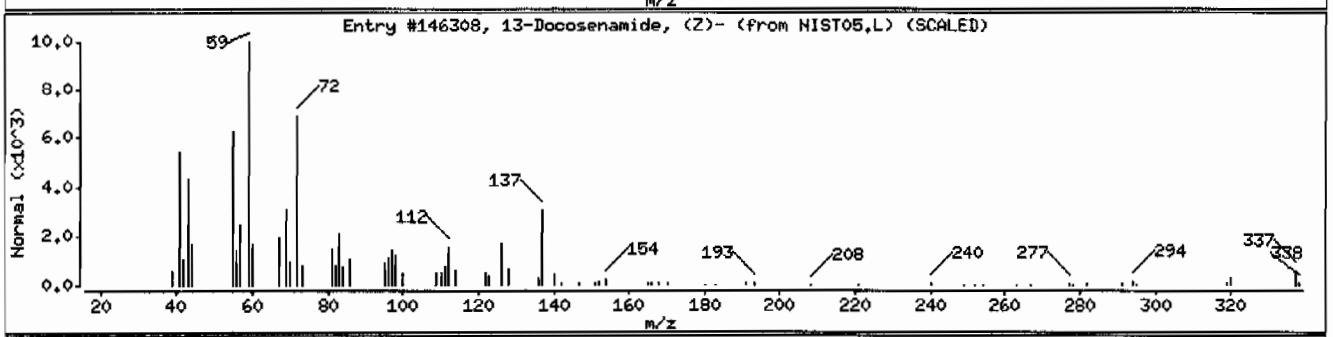

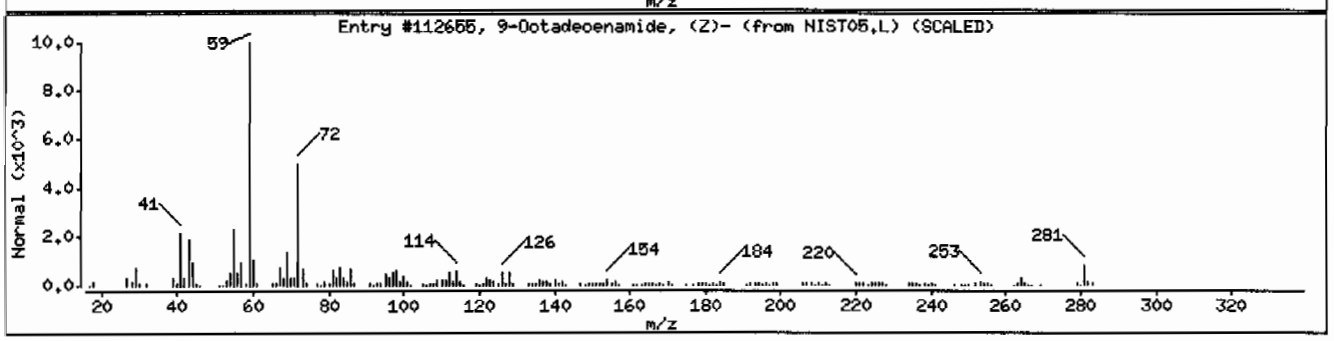

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1086**	**Date Collected:**	**12/22/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243552010**	**Date Received:**	**12/24/2009 09:30**	**%Moisture:**	**12.7**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14241**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**937151**	**Inst:**	**MSD3.I**	**Dilution:**	**1**
Run Date:	**01/05/2010 00:54**	**Analyst:**	**JLD1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/29/2009 10:16**	**Aliquot:**	**30.08 g**	**Final Volume:**	**1 mL**
Data File:	**s3a0433.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	381	ug/kg	76.1	381
108-95-2	Phenol	U	381	ug/kg	76.1	381
95-57-8	2-Chlorophenol	U	381	ug/kg	76.1	381
106-46-7	1,4-Dichlorobenzene	U	381	ug/kg	76.1	381
621-64-7	N-Nitrosodipropylamine	U	381	ug/kg	76.1	381
59-50-7	4-Chloro-3-methylphenol	U	381	ug/kg	76.1	381
83-32-9	Acenaphthene	U	38.1	ug/kg	12.6	38.1
121-14-2	2,4-Dinitrotoluene	U	381	ug/kg	38.1	381
100-02-7	4-Nitrophenol	U	381	ug/kg	126	381
87-86-5	Pentachlorophenol	U	381	ug/kg	95.2	381
129-00-0	Pyrene	U	38.1	ug/kg	11.4	38.1
110-86-1	Pyridine	U	381	ug/kg	76.1	381
62-53-3	Aniline	U	381	ug/kg	114	381
111-44-4	bis(2-Chloroethyl) ether	U	381	ug/kg	76.1	381
541-73-1	1,3-Dichlorobenzene	U	381	ug/kg	76.1	381
100-51-6	Benzyl alcohol	U	381	ug/kg	114	381
95-50-1	1,2-Dichlorobenzene	U	381	ug/kg	76.1	381
108-60-1	bis(2-Chloroisopropyl)ether	U	381	ug/kg	76.1	381
95-48-7	o-Cresol	U	381	ug/kg	76.1	381
65794-96-9	m,p-Cresols	U	381	ug/kg	114	381
67-72-1	Hexachloroethane	U	381	ug/kg	76.1	381
98-95-3	Nitrobenzene	U	381	ug/kg	76.1	381
78-59-1	Isophorone	U	381	ug/kg	76.1	381
88-75-5	2-Nitrophenol	U	381	ug/kg	76.1	381
105-67-9	2,4-Dimethylphenol	U	381	ug/kg	133	381
111-91-1	bis(2-Chloroethoxy)methane	U	381	ug/kg	76.1	381
120-83-2	2,4-Dichlorophenol	U	381	ug/kg	76.1	381
65-85-0	Benzoic acid	U	761	ug/kg	190	761
91-20-3	Naphthalene	U	38.1	ug/kg	11.4	38.1
106-47-8	4-Chloroaniline	U	381	ug/kg	76.1	381
87-68-3	Hexachlorobutadiene	U	381	ug/kg	76.1	381
91-57-6	2-Methylnaphthalene	U	38.1	ug/kg	7.61	38.1
77-47-4	Hexachlorocyclopentadiene	U	381	ug/kg	76.1	381
88-06-2	2,4,6-Trichlorophenol	U	381	ug/kg	76.1	381
95-95-4	2,4,5-Trichlorophenol	U	381	ug/kg	76.1	381
91-58-7	2-Chloronaphthalene	U	38.1	ug/kg	12.6	38.1
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	381	ug/kg	76.1	381
99-09-2	3-Nitroaniline	U	381	ug/kg	76.1	381

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1086	Date Collected:	12/22/2009 12:00	Matrix:	S
Lab Sample ID:	243552010	Date Received:	12/24/2009 09:30	%Moisture:	12.7
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-09-14241	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	937151	Inst:	MSD3.I	Dilution:	1
Run Date:	01/05/2010 00:54	Analyst:	JLD1	Inj. Vol:	.5 uL
Prep Date:	12/29/2009 10:16	Aliquot:	30.08 g	Final Volume:	1 mL
Data File:	s3a0433.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	381	ug/kg	76.1	381
606-20-2	2,6-Dinitrotoluene	U	381	ug/kg	38.1	381
208-96-8	Acenaphthylene	U	38.1	ug/kg	11.4	38.1
51-28-5	2,4-Dinitrophenol	U	761	ug/kg	145	761
132-64-9	Dibenzofuran	U	381	ug/kg	76.1	381
84-66-2	Diethylphthalate	U	381	ug/kg	76.1	381
86-73-7	Fluorene	U	38.1	ug/kg	11.4	38.1
7005-72-3	4-Chlorophenylphenylether	U	381	ug/kg	76.1	381
534-52-1	2-Methyl-4,6-dinitrophenol	U	381	ug/kg	76.1	381
100-01-6	4-Nitroaniline	U	381	ug/kg	114	381
	p-Nitroaniline					
122-39-4	Diphenylamine	U	381	ug/kg	76.1	381
122-66-7	Azobenzene	U	381	ug/kg	76.1	381
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	381	ug/kg	76.1	381
118-74-1	Hexachlorobenzene	U	381	ug/kg	76.1	381
85-01-8	Phenanthrene	U	38.1	ug/kg	11.4	38.1
120-12-7	Anthracene	U	38.1	ug/kg	7.61	38.1
84-74-2	Di-n-butylphthalate	U	381	ug/kg	76.1	381
206-44-0	Fluoranthene	U	38.1	ug/kg	11.4	38.1
85-68-7	Butylbenzylphthalate	U	381	ug/kg	76.1	381
56-55-3	Benzo(a)anthracene	U	38.1	ug/kg	11.4	38.1
91-94-1	3,3'-Dichlorobenzidine	U	381	ug/kg	114	381
218-01-9	Chrysene	U	38.1	ug/kg	11.4	38.1
117-81-7	bis(2-Ethylhexyl)phthalate	U	381	ug/kg	76.1	381
117-84-0	Di-n-octylphthalate	U	381	ug/kg	76.1	381
205-99-2	Benzo(b)fluoranthene	U	38.1	ug/kg	11.4	38.1
207-08-9	Benzo(k)fluoranthene	U	38.1	ug/kg	11.4	38.1
50-32-8	Benzo(a)pyrene	U	38.1	ug/kg	11.4	38.1
193-39-5	Indeno(1,2,3-cd)pyrene	U	38.1	ug/kg	11.4	38.1
53-70-3	Dibenzo(a,h)anthracene	U	38.1	ug/kg	11.4	38.1
191-24-2	Benzo(ghi)perylene	U	38.1	ug/kg	11.4	38.1
120-82-1	1,2,4-Trichlorobenzene	U	381	ug/kg	76.1	381

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.85	485	ug/kg		JA
301-02-0	9-Octadecenamide, (Z)-	11.13	190	ug/kg	91	NJ

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1086	**Date Collected:**	12/22/2009 12:00	**Matrix:**	S
Lab Sample ID:	243552010	**Date Received:**	12/24/2009 09:30	**%Moisture:**	12.7
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14241	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	937151	**Inst:**	MSD3.I	**Dilution:**	1
Run Date:	01/05/2010 00:54	**Analyst:**	JLD1	**Inj. Vol:**	.5 uL
Prep Date:	12/29/2009 10:16	**Aliquot:**	30.08 g	**Final Volume:**	1 mL
Data File:	s3a0433.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
112-84-5	13-Docosenamide, (Z)-	12.78	563	ug/kg	93	NJ

GEL Laboratories LLC

Data file : /chem/MSD3.i/s010410a.b/s3a0433.d
Lab Smp Id: 243552010 Client Smp ID: RE03-09-14241
Inj Date : 05-JAN-2010 00:54
Operator : JLD1 Inst ID: MSD3.i
Smp Info : |243552010|937151|1|SVMF|1|LANL
Misc Info : |MSD8270_S|WBN091223-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD3.i/s010410a.b/MSD3-8270R-AQA-120809.m
Meth Date : 04-Jan-2010 16:42 jen00986 Quant Type: ISTD
Cal Date : 07-DEC-2009 19:48 Cal File: s310717.d
Als bottle: 25
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-1086.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.08000	weight of sample
M	12.66320	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	4.200	4.203	(1.000)	123905	40.0000	
* 29 Naphthalene-d8	136	5.449	5.453	(1.000)	455464	40.0000	
* 46 Acenaphthene-d10	164	7.294	7.298	(1.000)	257097	40.0000	
* 67 Phenanthrene-d10	188	8.888	8.888	(1.000)	444858	40.0000	
* 91 Chrysene-d12	240	11.739	11.745	(1.000)	371243	40.0000	
* 98 Perylene-d12	264	13.686	13.686	(1.000)	260151	40.0000	
$ 3 2-Fluorophenol	112	3.104	3.093	(0.739)	207807	64.1197	2440
$ 5 Phenol-d5	99	3.869	3.869	(0.921)	239118	57.9118	2200
$ 20 Nitrobenzene-d5	82	4.731	4.737	(0.868)	111892	33.6131	1280
$ 39 2-Fluorobiphenyl	172	6.574	6.576	(0.901)	187517	31.1166	1180
$ 60 2,4,6-Tribromophenol	329	8.141	8.143	(1.116)	52443	74.2809	2830
$ 81 p-Terphenyl-d14	244	10.596	10.595	(0.903)	235813	39.5492	1500

ION RATIO REPORT

SV REPORT

Data file: s3a0433.d
Report Date: 01/05/2010 09:45
Lab. ID: 243552010 SampleType: SAMPLE
Injection Date: 05-JAN-2010 00:54
Operator: JLD1 Instrument: MSD3.i
Sample Info: |243552010|937151|1|SVMF|1|LANL
Miscellaneous Info: |MSD8270_S|WBN091223-01|
Comment:
Method used: /chem/MSD3.i/s010410a.b/MSD3-8270R-AQA-120809.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-1086
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
17 N-Nitrosodipropylamine				CAS#: 621-64-7		
70	16126	4.73	4.58	80-120	100	(T)
42	8574	4.73	4.58	31- 91	53	(T)
44 2,6-Dinitrotoluene				CAS#: 606-20-2		
165	33551	7.29	7.09	80-120	100	(T)
63	315	7.29	7.09	49-109	1	(QT)
50 2,4-Dinitrotoluene				CAS#: 121-14-2		
165	33551	7.29	7.52	80-120	100	(T)
89	647	7.29	7.52	69-129	2	(QT)
63	315	7.29	7.52	56-116	1	(QT)
55 2-Methyl-4,6-dinitrophenol				CAS#: 534-52-1		
198	159	8.14	7.95	80-120	100	(T)
105	495	8.14	7.95	21- 81	310	(QT)
51	384	8.14	7.95	38- 98	240	(QT)

Q qualifier indicates ion failed ratio requirement

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Data file : /chem/MSD3.i/s010410a.b/s3a0433.d
Lab Smp Id: 243552010 Client Smp ID: RE03-09-14241
Inj Date : 05-JAN-2010 00:54
Operator : JLD1 Inst ID: MSD3.i
Smp Info : |243552010|937151|1|SVMF|1|LANL
Misc Info : |MSD8270_S|WBN091223-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD3.i/s010410a.b/MSD3-8270R-AQA-120809.m
Meth Date : 04-Jan-2010 16:42 jen00986 Quant Type: ISTD
Cal Date : 07-DEC-2009 19:48 Cal File: s310717.d
Als bottle: 25
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-1086.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.08000	weight of sample
M	12.66320	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	4.200	824171	40.000
* 91 Chrysene-d12	11.739	1053528	40.000
* 98 Perylene-d12	13.686	742616	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #

RT	AREA	CONCENTRATIONS ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	QUANT LIBRARY	LIB ENTRY	CPND #
Unknown Aldol Condensate				CAS #:			
2.852	262305	12.7305821	484	0		0	10
9-Octadecenamide, (Z)-				CAS #: 301-02-0			
11.127	131504	4.99289929	190	91	NIST05.L	112657	91
13-Docosenamide, (Z)-				CAS #: 112-84-5			
12.777	274648	14.7935512	563	93	NIST05.L	146307	98

Data File: /chem/MSD3.i/s010410a.b/s3a0433.d
Date : 05-JAN-2010 00:54
Client ID: RE03-09-14241
Sample Info: |243552010|937151|1|SVMF|1|LANL
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD3.i
Operator: JLD1
Column diameter: 0.20

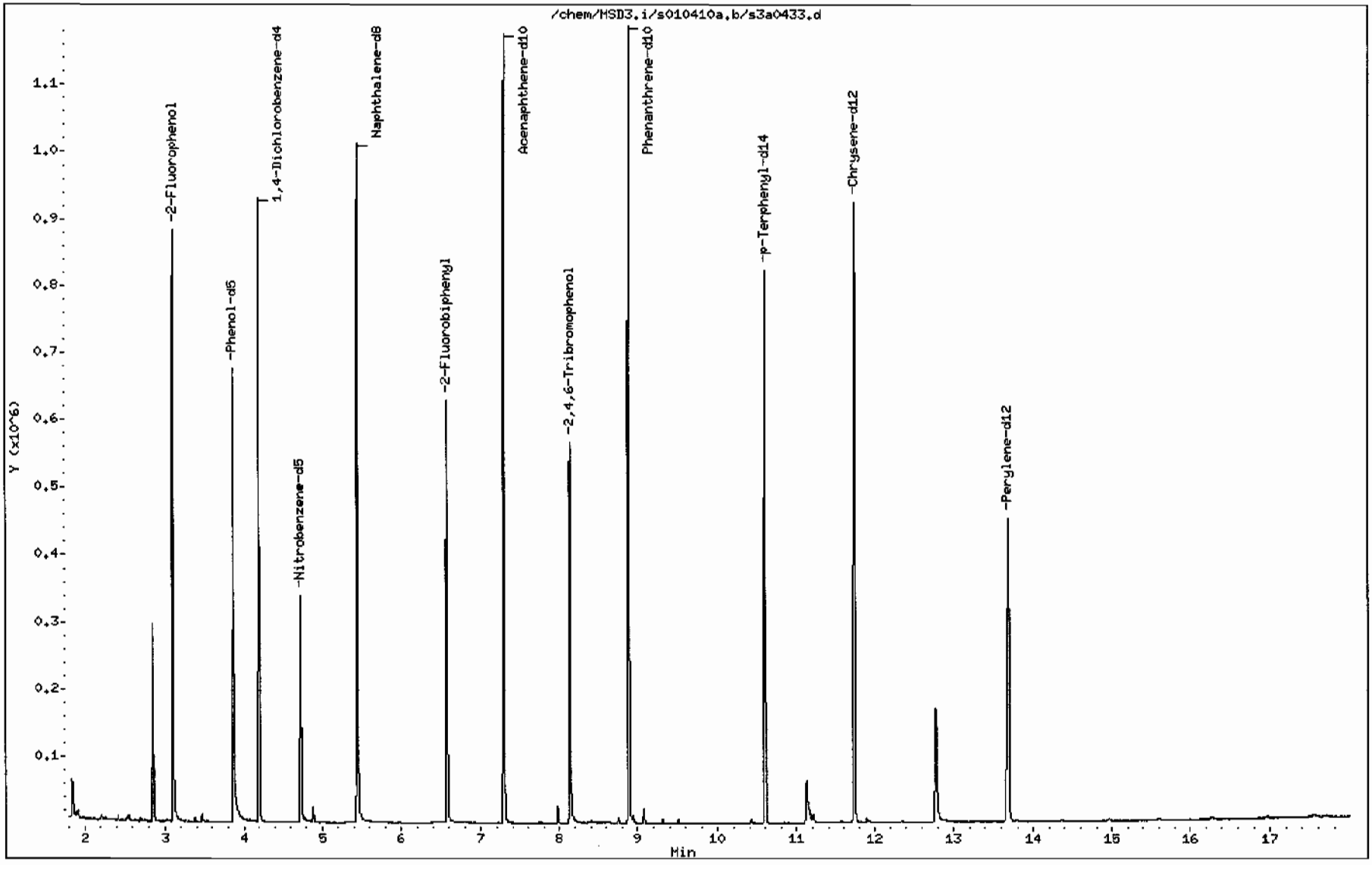

Data File: /chem/MSD3.i/s010410a.b/s3a0433.d

Page 1

Date : 05-JAN-2010 00:54

Client ID: RE03-09-14241

Instrument: MSD3.i

Sample Info: |2435520101937151|1|SVHF|1|LANL

Volume Injected (uL): 0.5

Operator: JLD1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7945	50	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	40	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	28	C6H12O2	116

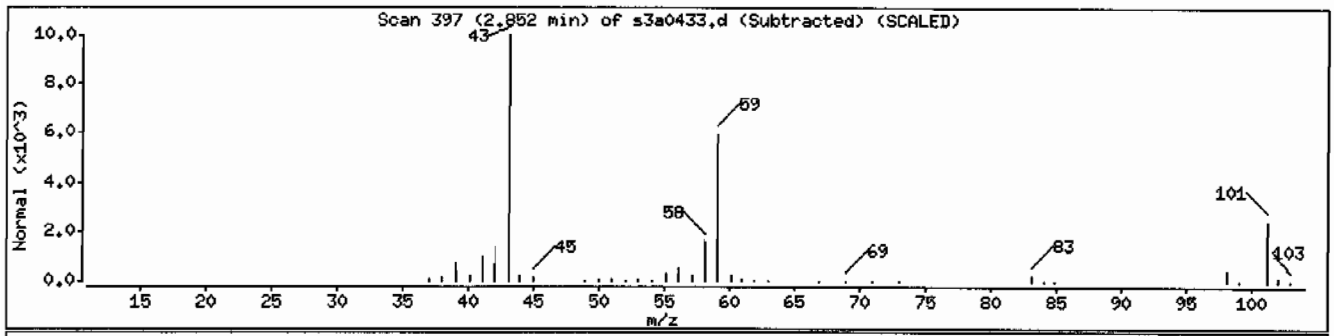

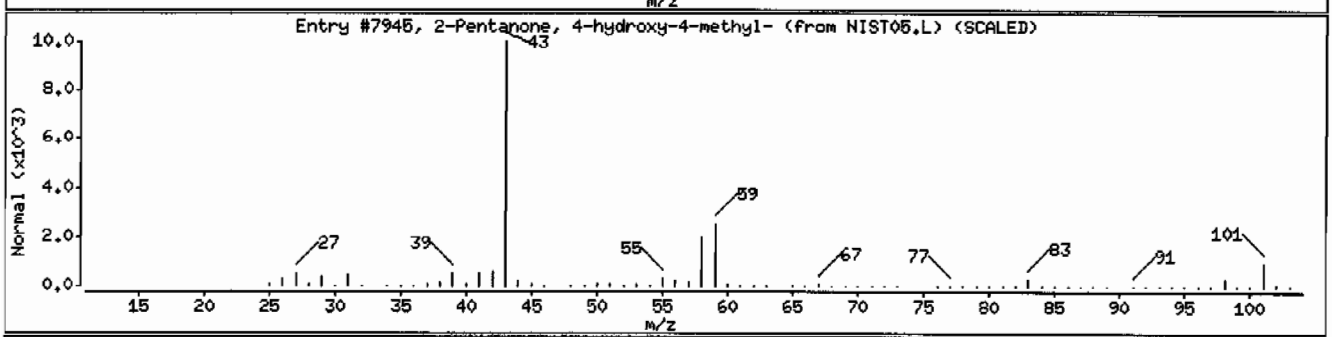

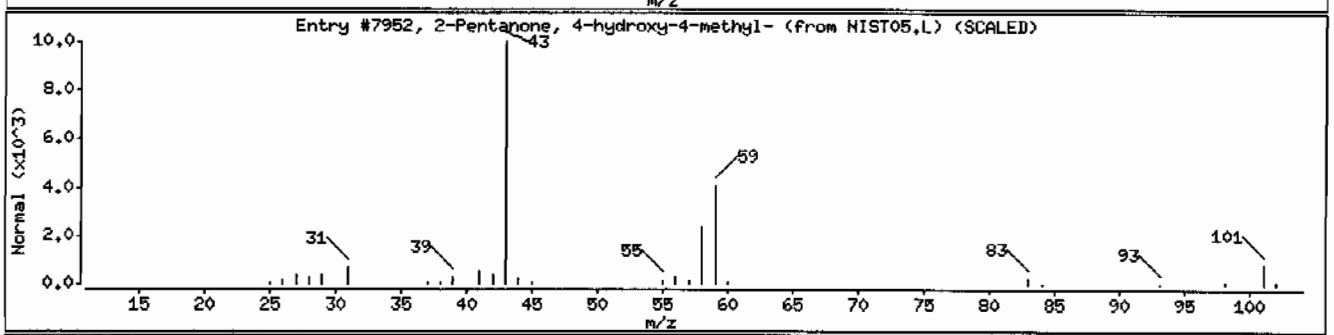

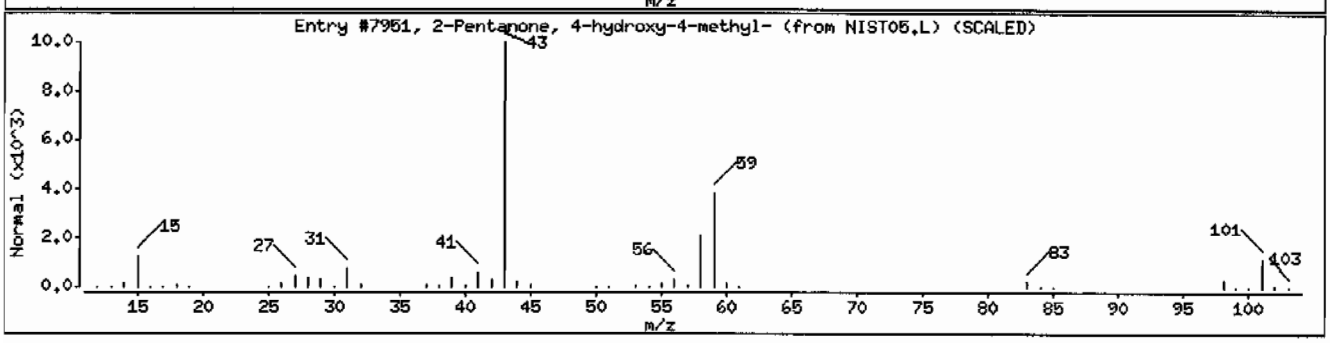

Data File: /chem/MSD3.i/s010410a.b/s3a0433.d

Date : 05-JAN-2010 00:54

Client ID: RE03-09-14241

Instrument: MSD3.i

Sample Info: 1243552010193715111SVMF11LANL

Volume Injected (uL): 0.5

Operator: JLD1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
9-Octadecenamide, (Z)-	301-02-0	NIST05.L	112657	91	C18H35NO	281
9-Octadecenamide, (Z)-	301-02-0	NIST05.L	112655	87	C18H35NO	281
7-Nonenamide	90949-53-4	NIST05.L	26953	64	C9H17NO	155

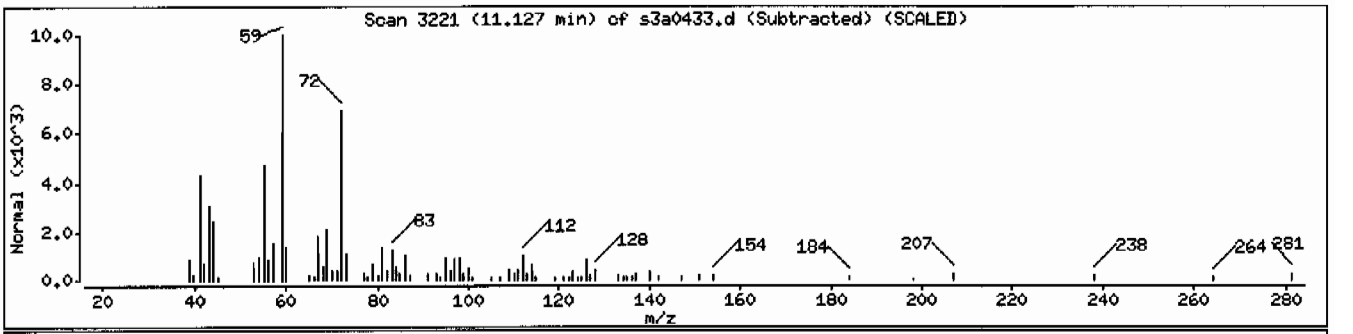

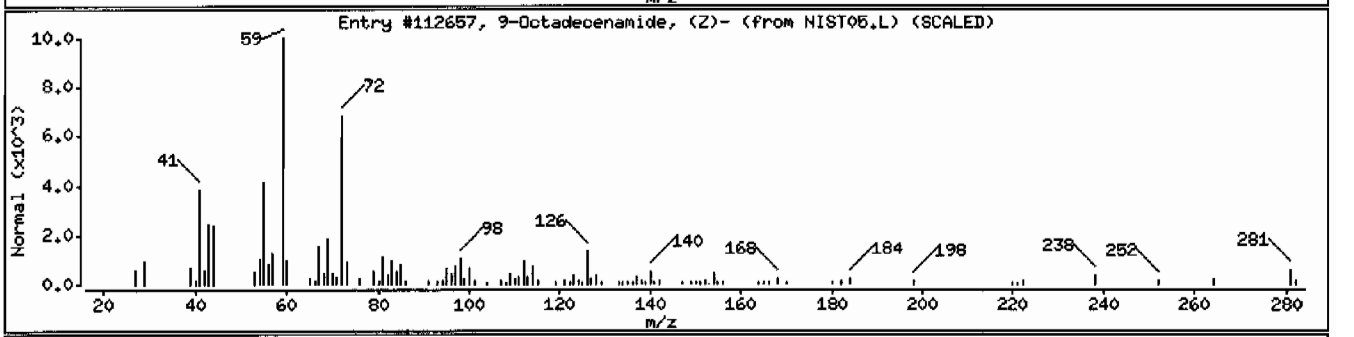

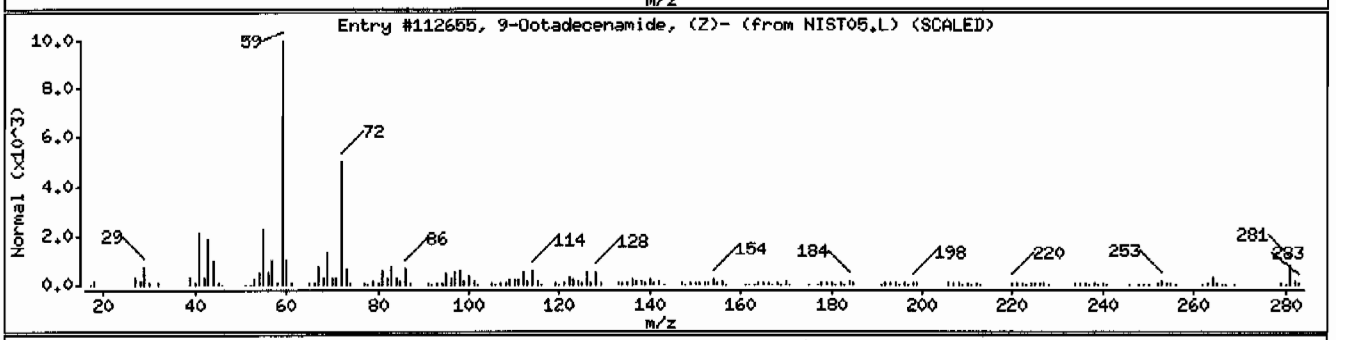

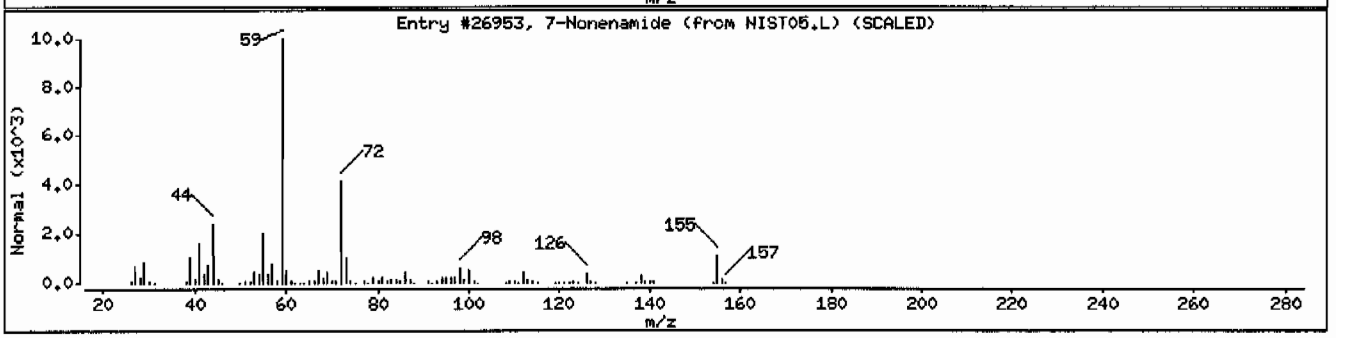

Data File: /chem/MSD3.i/s010410a.b/s3a0433.d

Date : 05-JAN-2010 00:54

Client ID: RE03-09-14241

Instrument: MSD3.i

Sample Info: 1243552010|937151|1|SVHF|1|LANL

Volume Injected (uL): 0.5

Operator: JLD1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
13-Docosenamide, (Z)-	112-84-5	NIST05.L	146307	93	C22H43NO	337
13-Docosenamide, (Z)-	112-84-5	NIST05.L	146308	89	C22H43NO	337
Octanamide	629-01-6	NIST05.L	19579	59	C8H17NO	143

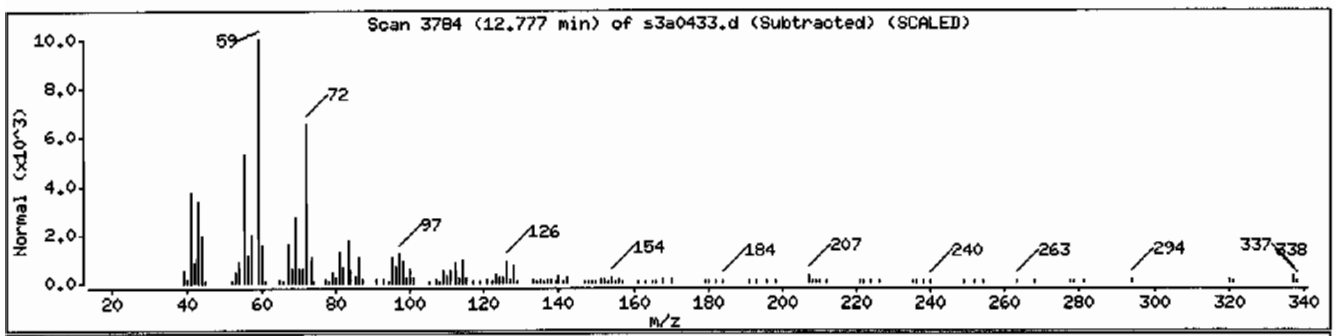

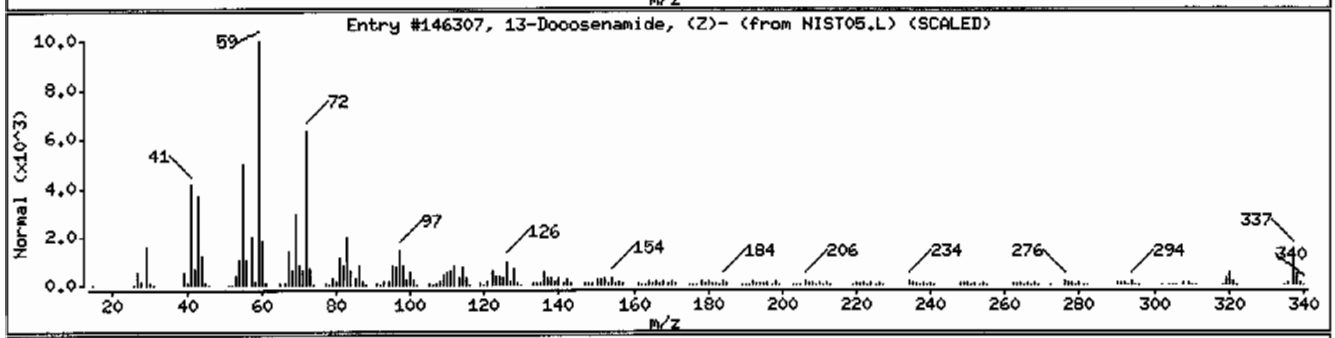

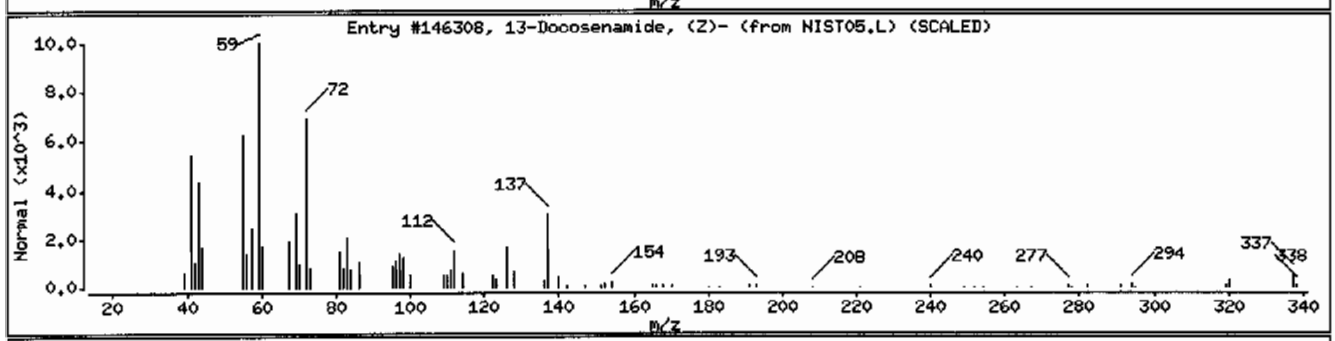

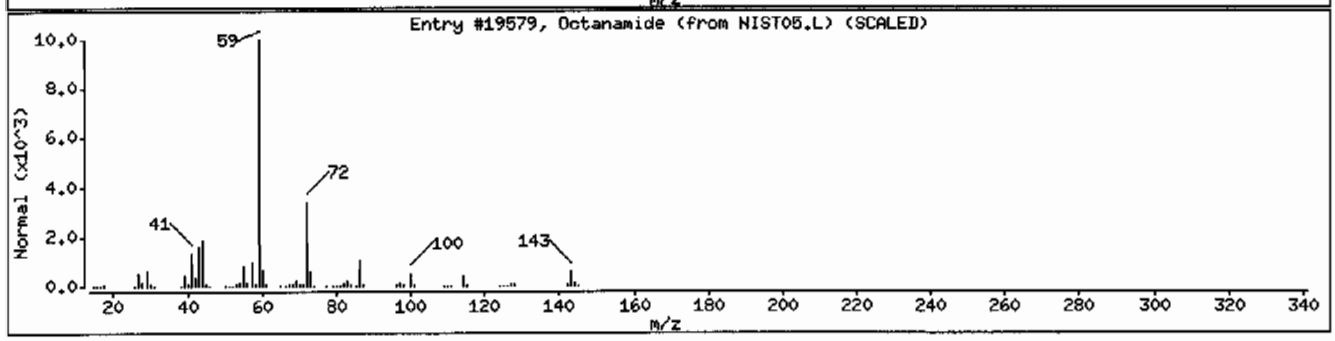

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1086	Date Collected:	12/22/2009 12:00	Matrix:	S
Lab Sample ID:	243552012	Date Received:	12/24/2009 09:30	%Moisture:	7
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-10-2736	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	937151	Inst:	MSD3.I	Dilution:	1
Run Date:	01/05/2010 01:42	Analyst:	JLD1	Inj. Vol:	.5 uL
Prep Date:	12/29/2009 10:16	Aliquot:	30.04 g	Final Volume:	1 mL
Data File:	s3a0435.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	358	ug/kg	71.6	358
108-95-2	Phenol	U	358	ug/kg	71.6	358
95-57-8	2-Chlorophenol	U	358	ug/kg	71.6	358
106-46-7	1,4-Dichlorobenzene	U	358	ug/kg	71.6	358
621-64-7	N-Nitrosodipropylamine	U	358	ug/kg	71.6	358
59-50-7	4-Chloro-3-methylphenol	U	358	ug/kg	71.6	358
83-32-9	Acenaphthene	U	35.8	ug/kg	11.8	35.8
121-14-2	2,4-Dinitrotoluene	U	358	ug/kg	35.8	358
100-02-7	4-Nitrophenol	U	358	ug/kg	118	358
87-86-5	Pentachlorophenol	U	358	ug/kg	89.5	358
129-00-0	Pyrene	U	35.8	ug/kg	10.7	35.8
110-86-1	Pyridine	U	358	ug/kg	71.6	358
62-53-3	Aniline	U	358	ug/kg	107	358
111-44-4	bis(2-Chloroethyl) ether	U	358	ug/kg	71.6	358
541-73-1	1,3-Dichlorobenzene	U	358	ug/kg	71.6	358
100-51-6	Benzyl alcohol	U	358	ug/kg	107	358
95-50-1	1,2-Dichlorobenzene	U	358	ug/kg	71.6	358
108-60-1	bis(2-Chloroisopropyl)ether	U	358	ug/kg	71.6	358
95-48-7	o-Cresol	U	358	ug/kg	71.6	358
65794-96-9	m,p-Cresols	U	358	ug/kg	107	358
67-72-1	Hexachloroethane	U	358	ug/kg	71.6	358
98-95-3	Nitrobenzene	U	358	ug/kg	71.6	358
78-59-1	Isophorone	U	358	ug/kg	71.6	358
88-75-5	2-Nitrophenol	U	358	ug/kg	71.6	358
105-67-9	2,4-Dimethylphenol	U	358	ug/kg	125	358
111-91-1	bis(2-Chloroethoxy)methane	U	358	ug/kg	71.6	358
120-83-2	2,4-Dichlorophenol	U	358	ug/kg	71.6	358
65-85-0	Benzoic acid	U	716	ug/kg	179	716
91-20-3	Naphthalene	U	35.8	ug/kg	10.7	35.8
106-47-8	4-Chloroaniline	U	358	ug/kg	71.6	358
87-68-3	Hexachlorobutadiene	U	358	ug/kg	71.6	358
91-57-6	2-Methylnaphthalene	U	35.8	ug/kg	7.16	35.8
77-47-4	Hexachlorocyclopentadiene	U	358	ug/kg	71.6	358
88-06-2	2,4,6-Trichlorophenol	U	358	ug/kg	71.6	358
95-95-4	2,4,5-Trichlorophenol	U	358	ug/kg	71.6	358
91-58-7	2-Chloronaphthalene	U	35.8	ug/kg	11.8	35.8
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	358	ug/kg	71.6	358
99-09-2	3-Nitroaniline	U	358	ug/kg	71.6	358

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1086	Date Collected:	12/22/2009 12:00	Matrix:	S
Lab Sample ID:	243552012	Date Received:	12/24/2009 09:30	%Moisture:	7
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-10-2736	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	937151	Inst:	MSD3.1	Dilution:	1
Run Date:	01/05/2010 01:42	Analyst:	JLD1	Inj. Vol:	.5 uL
Prep Date:	12/29/2009 10:16	Aliquot:	30.04 g	Final Volume:	1 mL
Data File:	s3a0435.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	358	ug/kg	71.6	358
606-20-2	2,6-Dinitrotoluene	U	358	ug/kg	35.8	358
208-96-8	Acenaphthylene	U	35.8	ug/kg	10.7	35.8
51-28-5	2,4-Dinitrophenol	U	716	ug/kg	136	716
132-64-9	Dibenzofuran	U	358	ug/kg	71.6	358
84-66-2	Diethylphthalate	U	358	ug/kg	71.6	358
86-73-7	Fluorene	U	35.8	ug/kg	10.7	35.8
7005-72-3	4-Chlorophenylphenylether	U	358	ug/kg	71.6	358
534-52-1	2-Methyl-4,6-dinitrophenol	U	358	ug/kg	71.6	358
100-01-6	4-Nitroaniline	U	358	ug/kg	107	358
	p-Nitroaniline					
122-39-4	Diphenylamine	U	358	ug/kg	71.6	358
122-66-7	Azobenzene	U	358	ug/kg	71.6	358
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	358	ug/kg	71.6	358
118-74-1	Hexachlorobenzene	U	358	ug/kg	71.6	358
85-01-8	Phenanthrene	U	35.8	ug/kg	10.7	35.8
120-12-7	Anthracene	U	35.8	ug/kg	7.16	35.8
84-74-2	Di-n-butylphthalate	U	358	ug/kg	71.6	358
206-44-0	Fluoranthene	U	35.8	ug/kg	10.7	35.8
85-68-7	Butylbenzylphthalate	U	358	ug/kg	71.6	358
56-55-3	Benzo(a)anthracene	U	35.8	ug/kg	10.7	35.8
91-94-1	3,3'-Dichlorobenzidine	U	358	ug/kg	107	358
218-01-9	Chrysene	U	35.8	ug/kg	10.7	35.8
117-81-7	bis(2-Ethylhexyl)phthalate	U	358	ug/kg	71.6	358
117-84-0	Di-n-octylphthalate	U	358	ug/kg	71.6	358
205-99-2	Benzo(b)fluoranthene	U	35.8	ug/kg	10.7	35.8
207-08-9	Benzo(k)fluoranthene	U	35.8	ug/kg	10.7	35.8
50-32-8	Benzo(a)pyrene	U	35.8	ug/kg	10.7	35.8
193-39-5	Indeno(1,2,3-cd)pyrene	U	35.8	ug/kg	10.7	35.8
53-70-3	Dibenzo(a,h)anthracene	U	35.8	ug/kg	10.7	35.8
191-24-2	Benzo(ghi)perylene	U	35.8	ug/kg	10.7	35.8
120-82-1	1,2,4-Trichlorobenzene	U	358	ug/kg	71.6	358

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.85	417	ug/kg		JA
301-02-0	9-Octadecenamide, (Z)-	11.12	197	ug/kg	98	NJ

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1086	Date Collected:	12/22/2009 12:00	Matrix:	S
Lab Sample ID:	243552012	Date Received:	12/24/2009 09:30	%Moisture:	7
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-10-2736	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	937151	Inst:	MSD3.I	Dilution:	1
Run Date:	01/05/2010 01:42	Analyst:	JLD1	Inj. Vol:	.5 uL
Prep Date:	12/29/2009 10:16	Aliquot:	30.04 g	Final Volume:	1 mL
Data File:	s3a0435.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	12.78	535	ug/kg		J

GEL Laboratories LLC

Data file : /chem/MSD3.i/s010410a.b/s3a0435.d
Lab Smp Id: 243552012 Client Smp ID: RE03-10-2736
Inj Date : 05-JAN-2010 01:42
Operator : JLD1 Inst ID: MSD3.i
Smp Info : |243552012|937151|1|SVMF|1|LANL
Misc Info : |MSD8270_S|WBN091223-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD3.i/s010410a.b/MSD3-8270R-AQA-120809.m
Meth Date : 04-Jan-2010 16:42 jen00986 Quant Type: ISTD
Cal Date : 07-DEC-2009 19:48 Cal File: s310717.d
Als bottle: 27
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-1086.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.04000	weight of sample
M	7.02740	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	4.201	4.203	(1.000)	156432	40.0000	
* 29 Naphthalene-d8	136	5.449	5.453	(1.000)	569043	40.0000	
* 46 Acenaphthene-d10	164	7.295	7.298	(1.000)	321001	40.0000	
* 67 Phenanthrene-d10	188	8.889	8.888	(1.000)	543910	40.0000	
* 91 Chrysene-d12	240	11.740	11.745	(1.000)	438976	40.0000	
* 98 Perylene-d12	264	13.687	13.686	(1.000)	308610	40.0000	
$ 3 2-Fluorophenol	112	3.105	3.093	(0.739)	257344	62.8939	2250
$ 5 Phenol-d5	99	3.870	3.869	(0.921)	302275	57.9857	2080
$ 20 Nitrobenzene-d5	82	4.731	4.737	(0.868)	132640	31.8928	1140
$ 39 2-Fluorobiphenyl	172	6.574	6.576	(0.901)	214366	28.4904	1020
$ 60 2,4,6-Tribromophenol	329	8.142	8.143	(1.116)	60338	68.4496	2450
$ 81 p-Terphenyl-d14	244	10.597	10.595	(0.903)	272423	38.6395	1380

ION RATIO REPORT

SV REPORT

Data file: s3a0435.d
Report Date: 01/05/2010 09:45
Lab. ID: 243552012 SampleType: SAMPLE
Injection Date: 05-JAN-2010 01:42
Operator: JLD1 Instrument: MSD3.i
Sample Info: |243552012|937151|1|SVMF|1|LANL
Miscellaneous Info: |MSD8270_S|WBN091223-01|
Comment:
Method used: /chem/MSD3.i/s010410a.b/MSD3-8270R-AQA-120809.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-1086
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
4 Aniline		CAS#: 62-53-3				
66	17051	3.87	3.91	80-120	100	( )
93	200	3.72	3.91	202-262	1	(QT)
17 N-Nitrosodipropylamine				CAS#: 621-64-7		
70	19196	4.73	4.58	80-120	100	(T)
42	10183	4.73	4.58	31- 91	53	(T)
44 2,6-Dinitrotoluene				CAS#: 606-20-2		
165	41672	7.30	7.09	80-120	100	(T)
63	743	7.30	7.09	49-109	2	(QT)
50 2,4-Dinitrotoluene				CAS#: 121-14-2		
165	41672	7.30	7.52	80-120	100	(T)
89	830	7.30	7.52	69-129	2	(QT)
63	743	7.30	7.52	56-116	2	(QT)
55 2-Methyl-4,6-dinitrophenol				CAS#: 534-52-1		
198	218	8.14	7.95	80-120	100	(T)
105	579	8.14	7.95	21- 81	265	(QT)
51	503	8.14	7.95	38- 98	230	(QT)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

Data file : /chem/MSD3.i/s010410a.b/s3a0435.d
Lab Smp Id: 243552012 Client Smp ID: RE03-10-2736
Inj Date : 05-JAN-2010 01:42
Operator : JLD1 Inst ID: MSD3.i
Smp Info : |243552012|937151|1|SVMF|1|LANL
Misc Info : |MSD8270_S|WBN091223-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD3.i/s010410a.b/MSD3-8270R-AQA-120809.m
Meth Date : 04-Jan-2010 16:42 jen00986 Quant Type: ISTD
Cal Date : 07-DEC-2009 19:48 Cal File: s310717.d
Als bottle: 27
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-1086.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.04000	weight of sample
M	7.02740	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	4.201	1032442	40.000
* 91 Chrysene-d12	11.740	1235886	40.000
* 98 Perylene-d12	13.687	876200	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #

RT	AREA	CONCENTRATIONS ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	QUANT LIBRARY	LIB ENTRY	CPND #
Unknown Aldol Condensate				CAS #:			
2.850	300397	11.6383168	417	0		0	10
9-Octadecenamide, (Z)-				CAS #: 301-02-0			
11.124	169872	5.49798755	197	98	NIST05.L	112657	91
Unknown				CAS #:			
12.778	327580	14.9545886	535	0		0	98

Data File: /chem/MSD3.i/s010410a.b/s3a0435.d
Date : 05-JAN-2010 01:42
Client ID: RE03-10-2736
Sample Info: |2435520121937151|1|SVMFI1|LANL
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD3.i

Operator: JLD1
Column diameter: 0.20

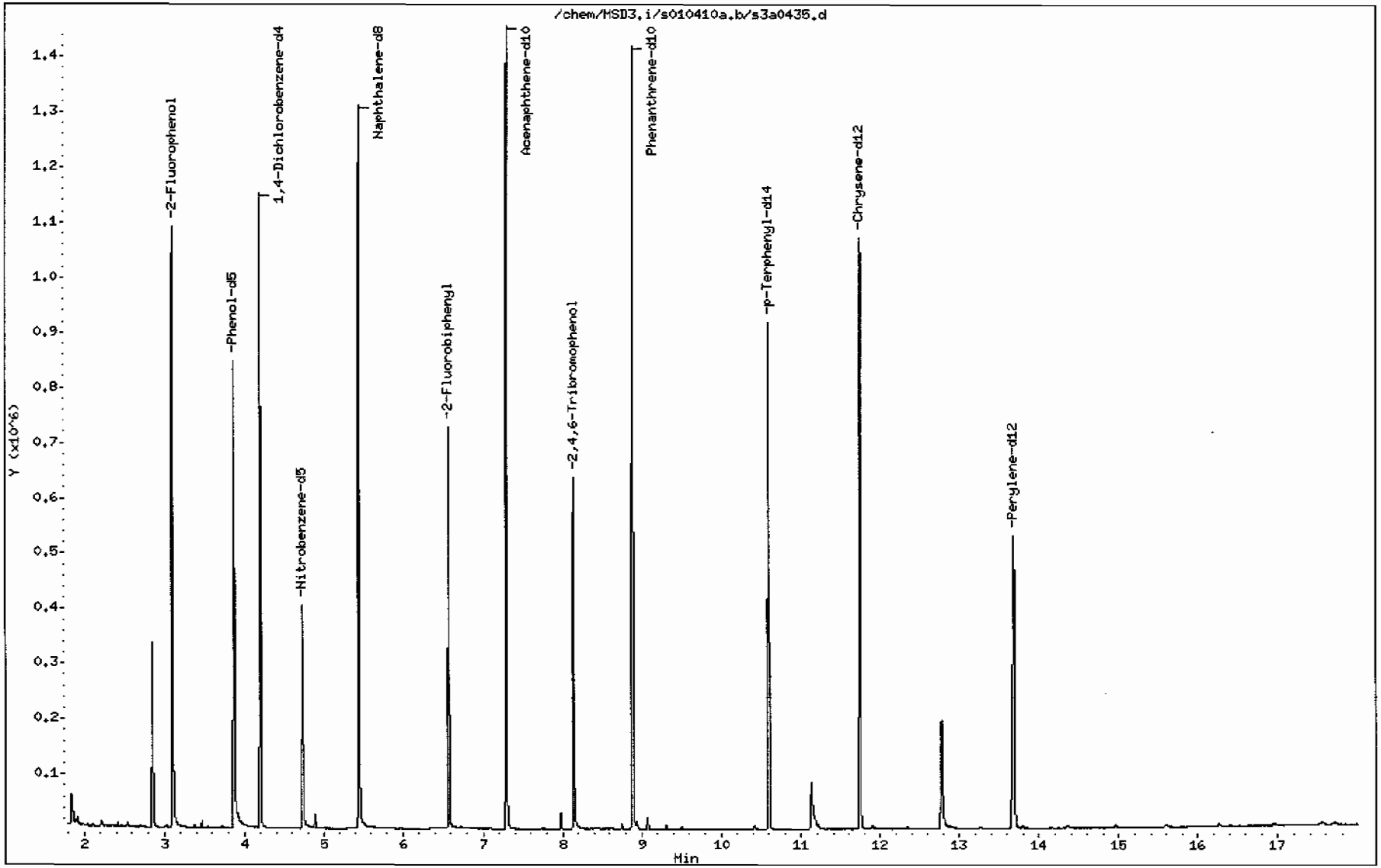

Data File: /chem/MSD3.i/s010410a.b/s3a0435.d

Date : 05-JAN-2010 01:42

Client ID: RE03-10-2736

Instrument: MSD3.i

Sample Info: |2436520121937151|1|SVMF|1|LANL

Volume Injected (uL): 0.5

Operator: JLD1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7945	50	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	40	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	28	C6H12O2	116

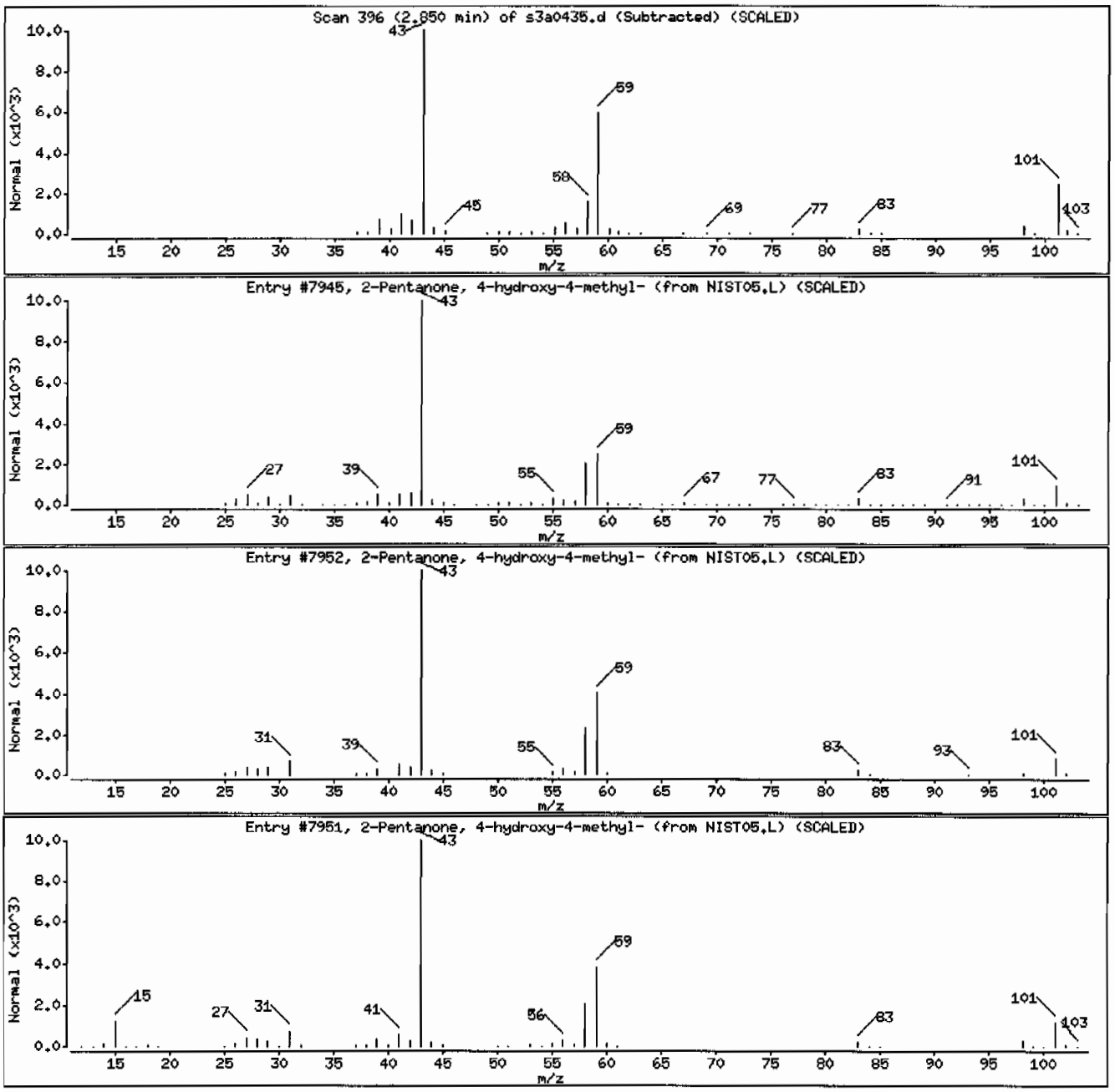

Data File: /chem/MSD3.i/s010410a.b/s3a0435.d

Date : 05-JAN-2010 01:42

Client ID: RE03-10-2736

Instrument: MSD3.i

Sample Info: 1243552012193715111SVMFI1ILANL

Volume Injected (uL): 0.5

Operator: JLD1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
9-Octadecenamide, (Z)-	301-02-0	NIST05.L	112657	98	C18H35NO	281
9-Octadecenamide, (Z)-	301-02-0	NIST05.L	112655	87	C18H35NO	281
7-Nonenamide	90949-53-4	NIST05.L	26953	78	C9H17NO	155

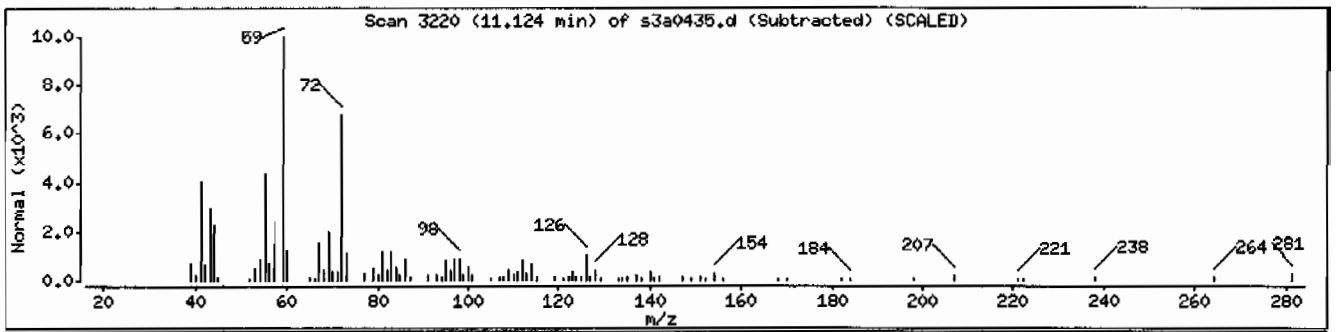

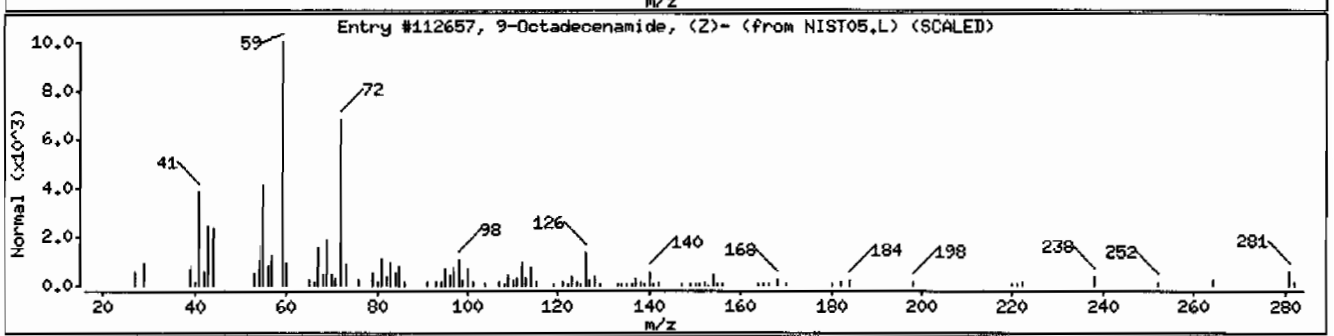

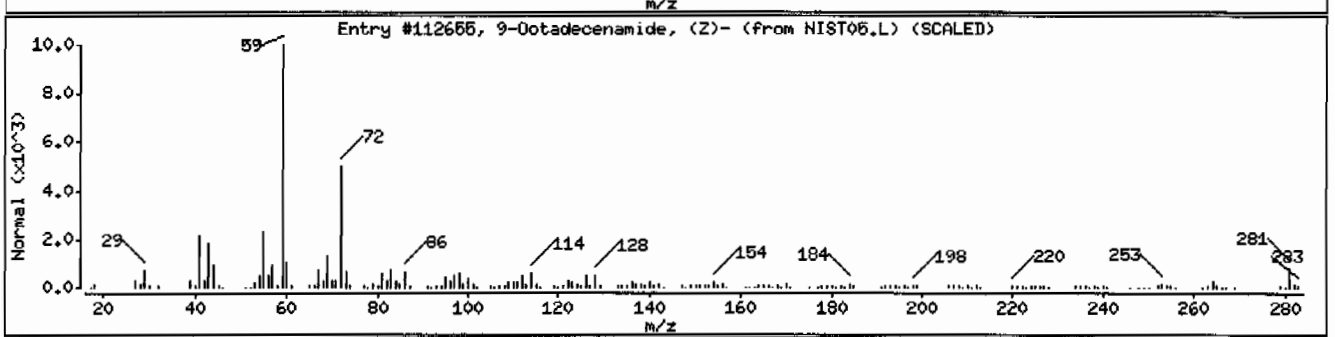

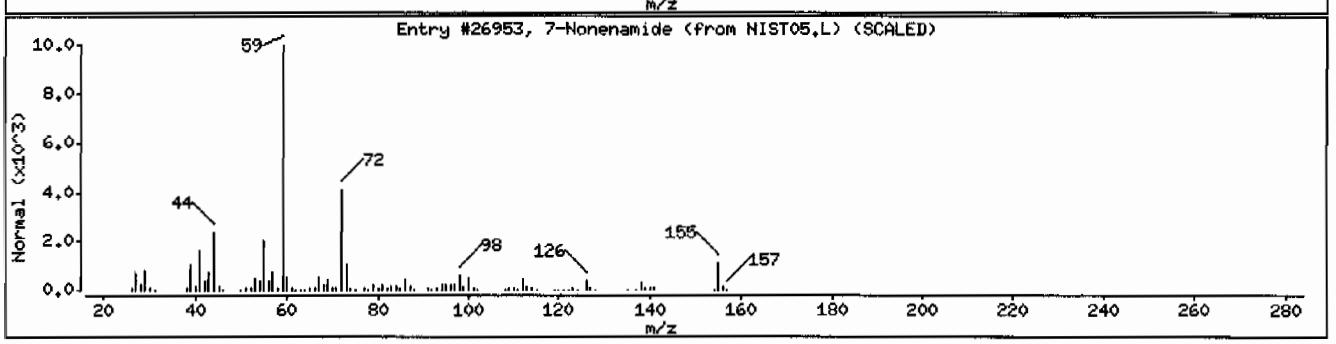

Data File: /chem/MSD3.i/s010410a.b/s3a0435.d

Date : 05-JAN-2010 01:42

Client ID: RE03-10-2736

Instrument: MSD3.i

Sample Info: |2435520121937151|1|SVHF|1|LANL

Volume Injected (uL): 0.5

Operator: JLD1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
9-Octadecenamide, (Z)-	301-02-0	NIST05.L	112655	83	C18H35NO	281
13-Docosenamide, (Z)-	112-84-5	NIST05.L	146308	70	C22H43NO	337
13-Docosenamide, (Z)-	112-84-5	NIST05.L	146307	55	C22H43NO	337

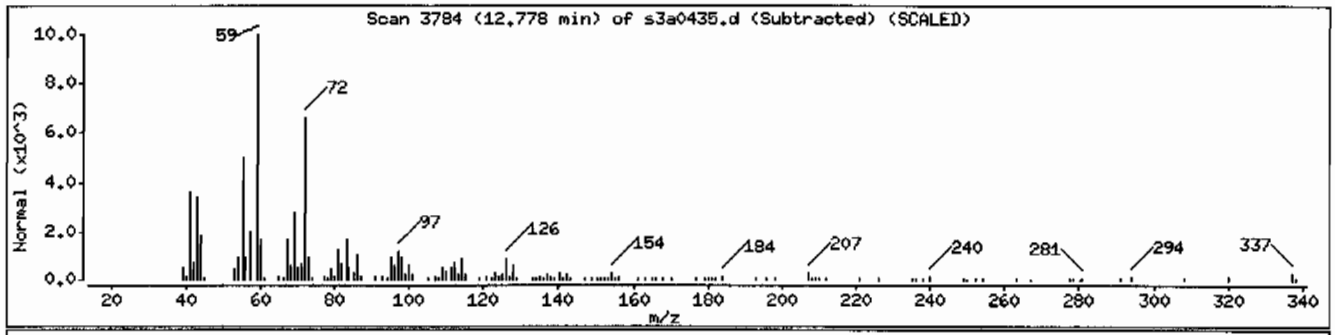

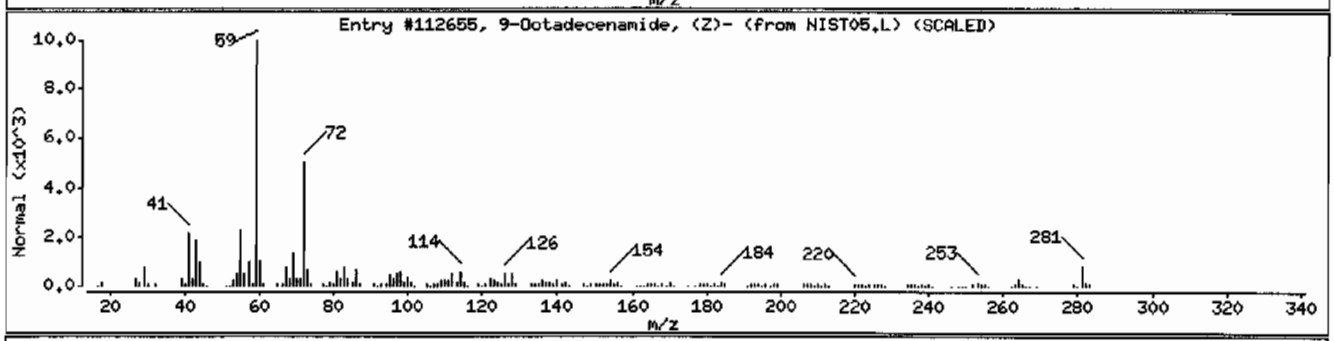

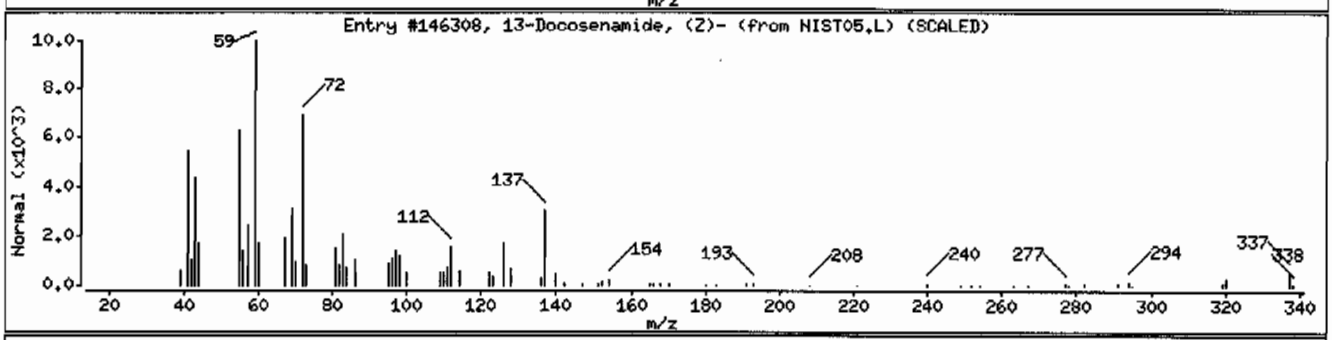

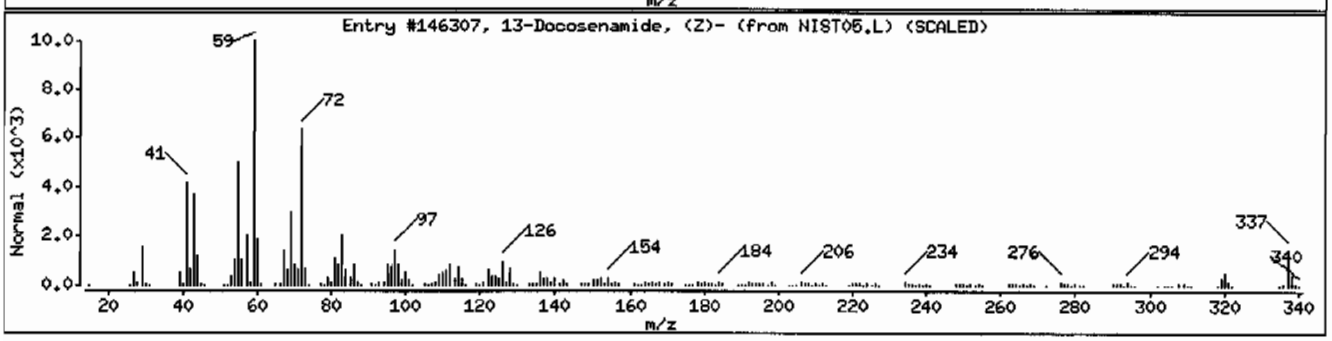

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1086	Date Collected:	12/22/2009 12:00	Matrix:	S
Lab Sample ID:	243552011	Date Received:	12/24/2009 09:30	%Moisture:	10.1
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-10-2737	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	937151	Inst:	MSD3.I	Dilution:	1
Run Date:	01/05/2010 01:18	Analyst:	JLD1	Inj. Vol:	.5 uL
Prep Date:	12/29/2009 10:16	Aliquot:	30.03 g	Final Volume:	1 mL
Data File:	s3a0434.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	371	ug/kg	74.1	371
108-95-2	Phenol	U	371	ug/kg	74.1	371
95-57-8	2-Chlorophenol	U	371	ug/kg	74.1	371
106-46-7	1,4-Dichlorobenzene	U	371	ug/kg	74.1	371
621-64-7	N-Nitrosodipropylamine	U	371	ug/kg	74.1	371
59-50-7	4-Chloro-3-methylphenol	U	371	ug/kg	74.1	371
83-32-9	Acenaphthene	U	37.1	ug/kg	12.2	37.1
121-14-2	2,4-Dinitrotoluene	U	371	ug/kg	37.1	371
100-02-7	4-Nitrophenol	U	371	ug/kg	122	371
87-86-5	Pentachlorophenol	U	371	ug/kg	92.6	371
129-00-0	Pyrene	U	37.1	ug/kg	11.1	37.1
110-86-1	Pyridine	U	371	ug/kg	74.1	371
62-53-3	Aniline	U	371	ug/kg	111	371
111-44-4	bis(2-Chloroethyl) ether	U	371	ug/kg	74.1	371
541-73-1	1,3-Dichlorobenzene	U	371	ug/kg	74.1	371
100-51-6	Benzyl alcohol	U	371	ug/kg	111	371
95-50-1	1,2-Dichlorobenzene	U	371	ug/kg	74.1	371
108-60-1	bis(2-Chloroisopropyl)ether	U	371	ug/kg	74.1	371
95-48-7	o-Cresol	U	371	ug/kg	74.1	371
65794-96-9	m,p-Cresols	U	371	ug/kg	111	371
67-72-1	Hexachloroethane	U	371	ug/kg	74.1	371
98-95-3	Nitrobenzene	U	371	ug/kg	74.1	371
78-59-1	Isophorone	U	371	ug/kg	74.1	371
88-75-5	2-Nitrophenol	U	371	ug/kg	74.1	371
105-67-9	2,4-Dimethylphenol	U	371	ug/kg	130	371
111-91-1	bis(2-Chloroethoxy)methane	U	371	ug/kg	74.1	371
120-83-2	2,4-Dichlorophenol	U	371	ug/kg	74.1	371
65-85-0	Benzoic acid	U	741	ug/kg	185	741
91-20-3	Naphthalene	U	37.1	ug/kg	11.1	37.1
106-47-8	4-Chloroaniline	U	371	ug/kg	74.1	371
87-68-3	Hexachlorobutadiene	U	371	ug/kg	74.1	371
91-57-6	2-Methylnaphthalene	U	37.1	ug/kg	7.41	37.1
77-47-4	Hexachlorocyclopentadiene	U	371	ug/kg	74.1	371
88-06-2	2,4,6-Trichlorophenol	U	371	ug/kg	74.1	371
95-95-4	2,4,5-Trichlorophenol	U	371	ug/kg	74.1	371
91-58-7	2-Chloronaphthalene	U	37.1	ug/kg	12.2	37.1
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	371	ug/kg	74.1	371
99-09-2	3-Nitroaniline	U	371	ug/kg	74.1	371

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1086	Date Collected:	12/22/2009 12:00	Matrix:	S
Lab Sample ID:	243552011	Date Received:	12/24/2009 09:30	%Moisture:	10.1
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-10-2737	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	937151	Inst:	MSD3.I	Dilution:	1
Run Date:	01/05/2010 01:18	Analyst:	JLD1	Inj. Vol:	.5 uL
Prep Date:	12/29/2009 10:16	Aliquot:	30.03 g	Final Volume:	1 mL
Data File:	s3a0434.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	371	ug/kg	74.1	371
606-20-2	2,6-Dinitrotoluene	U	371	ug/kg	37.1	371
208-96-8	Acenaphthylene	U	37.1	ug/kg	11.1	37.1
51-28-5	2,4-Dinitrophenol	U	741	ug/kg	141	741
132-64-9	Dibenzofuran	U	371	ug/kg	74.1	371
84-66-2	Diethylphthalate	U	371	ug/kg	74.1	371
86-73-7	Fluorene	U	37.1	ug/kg	11.1	37.1
7005-72-3	4-Chlorophenylphenylether	U	371	ug/kg	74.1	371
534-52-1	2-Methyl-4,6-dinitrophenol	U	371	ug/kg	74.1	371
100-01-6	4-Nitroaniline	U	371	ug/kg	111	371
	p-Nitroaniline					
122-39-4	Diphenylamine	U	371	ug/kg	74.1	371
122-66-7	Azobenzene	U	371	ug/kg	74.1	371
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	371	ug/kg	74.1	371
118-74-1	Hexachlorobenzene	U	371	ug/kg	74.1	371
85-01-8	Phenanthrene	U	37.1	ug/kg	11.1	37.1
120-12-7	Anthracene	U	37.1	ug/kg	7.41	37.1
84-74-2	Di-n-butylphthalate	U	371	ug/kg	74.1	371
206-44-0	Fluoranthene	U	37.1	ug/kg	11.1	37.1
85-68-7	Butylbenzylphthalate	U	371	ug/kg	74.1	371
56-55-3	Benzo(a)anthracene	U	37.1	ug/kg	11.1	37.1
91-94-1	3,3'-Dichlorobenzidine	U	371	ug/kg	111	371
218-01-9	Chrysene	U	37.1	ug/kg	11.1	37.1
117-81-7	bis(2-Ethylhexyl)phthalate	U	371	ug/kg	74.1	371
117-84-0	Di-n-octylphthalate	U	371	ug/kg	74.1	371
205-99-2	Benzo(b)fluoranthene	U	37.1	ug/kg	11.1	37.1
207-08-9	Benzo(k)fluoranthene	U	37.1	ug/kg	11.1	37.1
50-32-8	Benzo(a)pyrene	U	37.1	ug/kg	11.1	37.1
193-39-5	Indeno(1,2,3-cd)pyrene	U	37.1	ug/kg	11.1	37.1
53-70-3	Dibenzo(a,h)anthracene	U	37.1	ug/kg	11.1	37.1
191-24-2	Benzo(ghi)perylene	U	37.1	ug/kg	11.1	37.1
120-82-1	1,2,4-Trichlorobenzene	U	371	ug/kg	74.1	371

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.85	365	ug/kg		JA
301-02-0	9-Octadecenamide, (Z)-	11.13	198	ug/kg	95	NJ

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1086	Date Collected:	12/22/2009 12:00	Matrix:	S
Lab Sample ID:	243552011	Date Received:	12/24/2009 09:30	%Moisture:	10.1
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-10-2737	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	937151	Inst:	MSD3.I	Dilution:	1
Run Date:	01/05/2010 01:18	Analyst:	JLD1	Inj. Vol:	.5 uL
Prep Date:	12/29/2009 10:16	Aliquot:	30.03 g	Final Volume:	1 mL
Data File:	s3a0434.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
112-84-5	13-Docosenamide, (Z)-	12.78	537	ug/kg	95	NJ

GEL Laboratories LLC

Data file : /chem/MSD3.i/s010410a.b/s3a0434.d
Lab Smp Id: 243552011 Client Smp ID: RE03-10-2737
Inj Date : 05-JAN-2010 01:18
Operator : JLD1 Inst ID: MSD3.i
Smp Info : |243552011|937151|1|SVMF|1|LANL
Misc Info : |MSD8270_S|WBN091223-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD3.i/s010410a.b/MSD3-8270R-AQA-120809.m
Meth Date : 04-Jan-2010 16:42 jen00986 Quant Type: ISTD
Cal Date : 07-DEC-2009 19:48 Cal File: s310717.d
Als bottle: 26
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-1086.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.03000	weight of sample
M	10.13370	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	4.201	4.203	(1.000)	141180	40.0000	
* 29 Naphthalene-d8	136	5.449	5.453	(1.000)	523050	40.0000	
* 46 Acenaphthene-d10	164	7.295	7.298	(1.000)	294303	40.0000	
* 67 Phenanthrene-d10	188	8.886	8.888	(1.000)	499123	40.0000	
* 91 Chrysene-d12	240	11.741	11.745	(1.000)	400604	40.0000	
* 98 Perylene-d12	264	13.686	13.686	(1.000)	288066	40.0000	
$ 3 2-Fluorophenol	112	3.105	3.093	(0.739)	222017	60.1219	2230
$ 5 Phenol-d5	99	3.869	3.869	(0.921)	267997	56.9640	2110
$ 20 Nitrobenzene-d5	82	4.731	4.737	(0.868)	111120	29.0678	1080
$ 39 2-Fluorobiphenyl	172	6.574	6.576	(0.901)	178874	25.9299	961
$ 60 2,4,6-Tribromophenol	329	8.141	8.143	(1.116)	58780	72.7313	2700
$ 81 p-Terphenyl-d14	244	10.594	10.595	(0.902)	239927	37.2900	1380

ION RATIO REPORT

SV REPORT

Data file: s3a0434.d
Report Date: 01/05/2010 09:45
Lab. ID: 243552011 SampleType: SAMPLE
Injection Date: 05-JAN-2010 01:18
Operator: JLD1 Instrument: MSD3.i
Sample Info: |243552011|937151|1|SVMF|1|LANL
Miscellaneous Info: |MSD8270_S|WBN091223-01|
Comment:
Method used: /chem/MSD3.i/s010410a.b/MSD3-8270R-AQA-120809.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-1086
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
17 N-Nitrosodipropylamine				CAS#: 621-64-7		
70	16141	4.73	4.58	80-120	100	(T)
42	9033	4.73	4.58	31- 91	56	(T)
44 2,6-Dinitrotoluene				CAS#: 606-20-2		
165	38246	7.29	7.09	80-120	100	(T)
63	622	7.29	7.09	49-109	2	(QT)
50 2,4-Dinitrotoluene				CAS#: 121-14-2		
165	38246	7.29	7.52	80-120	100	(T)
89	760	7.29	7.52	69-129	2	(QT)
63	622	7.29	7.52	56-116	2	(QT)
55 2-Methyl-4,6-dinitrophenol				CAS#: 534-52-1		
198	191	8.14	7.95	80-120	100	(T)
105	537	8.14	7.95	21- 81	280	(QT)
51	414	8.14	7.95	38- 98	216	(QT)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

Data file : /chem/MSD3.i/s010410a.b/s3a0434.d
Lab Smp Id: 243552011 Client Smp ID: RE03-10-2737
Inj Date : 05-JAN-2010 01:18
Operator : JLD1 Inst ID: MSD3.i
Smp Info : |243552011|937151|1|SVMF|1|LANL
Misc Info : |MSD8270_S|WBN091223-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD3.i/s010410a.b/MSD3-8270R-AQA-120809.m
Meth Date : 04-Jan-2010 16:42 jen00986 Quant Type: ISTD
Cal Date : 07-DEC-2009 19:48 Cal File: s310717.d
Als bottle: 26
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-1086.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.03000	weight of sample
M	10.13370	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	4.201	946869	40.000
* 91 Chrysene-d12	11.741	1147065	40.000
* 98 Perylene-d12	13.686	830919	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #

RT	AREA	CONCENTRATIONS ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	QUANT LIBRARY	LIB ENTRY	CPND #
Unknown Aldol Condensate				CAS #:			
2.853	233316	9.85630794	365	0		0	10
9-Octadecenamide, (Z)-				CAS #: 301-02-0			
11.125	153261	5.34446791	198	95	NIST05.L	112657	91
13-Docosenamide, (Z)-				CAS #: 112-84-5			
12.777	300940	14.4870849	537	95	NIST05.L	146307	98

Data File: /chem/MSD3.i/s010410a.b/s3a0434.d
Date : 05-JAN-2010 01:18
Client ID: RE03-10-2737
Sample Info: |243552011|937151|1|SVMF|1|LANL
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Page 1

Instrument: MSD3.i

Operator: JLD1
Column diameter: 0.20

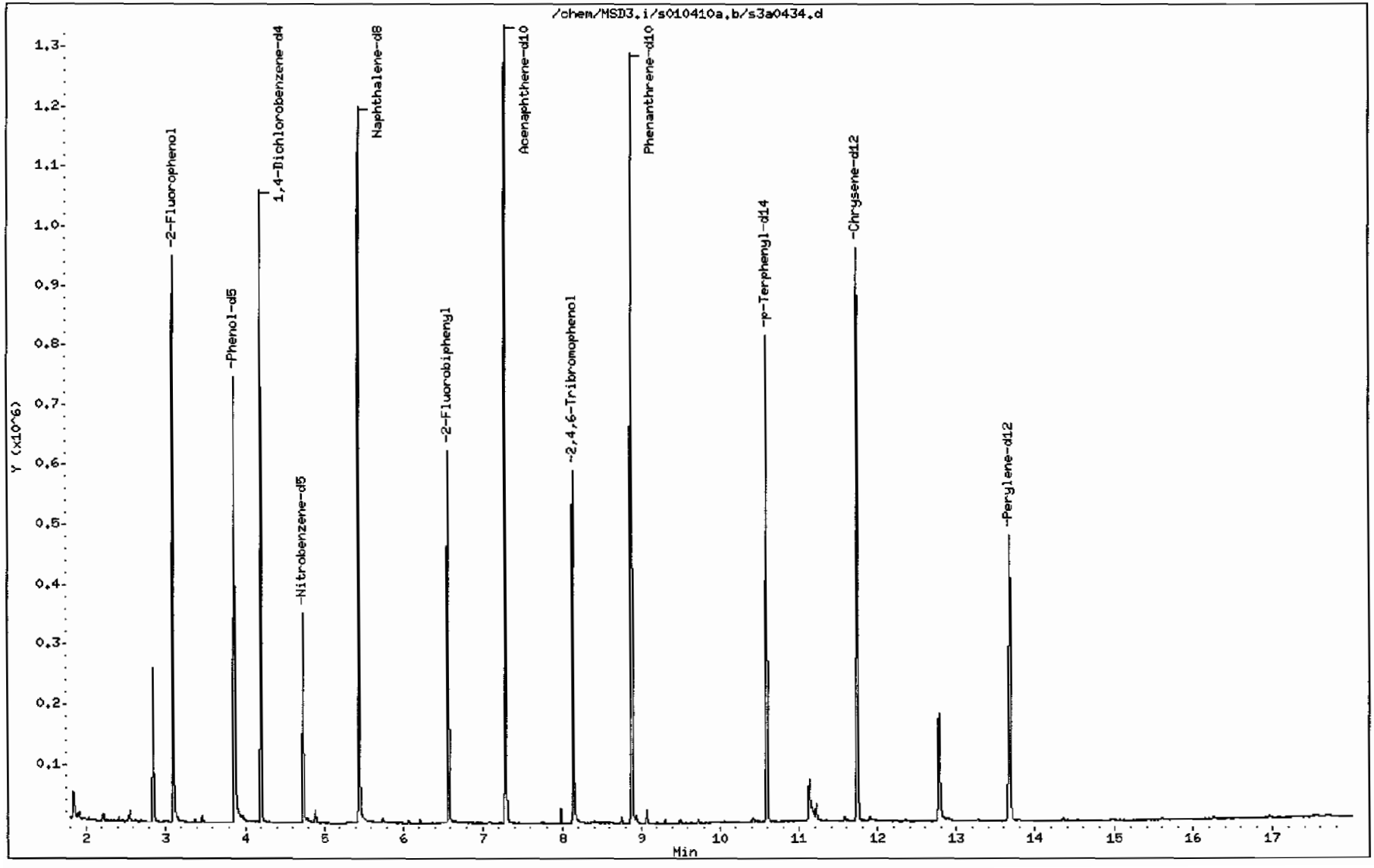

Data File: /chem/MSD3.i/s010410a.b/s3a0434.d

Date : 05-JAN-2010 01:18

Client ID: RE03-10-2737

Instrument: MSD3.i

Sample Info: 1243552011|937151|1|SVHF|1|LANL

Volume Injected (uL): 0.5

Operator: JLD1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	40	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	40	C6H12O2	116
2,3-Butanedione, monooxime	57-71-6	NIST05.L	3944	25	C4H7NO2	101

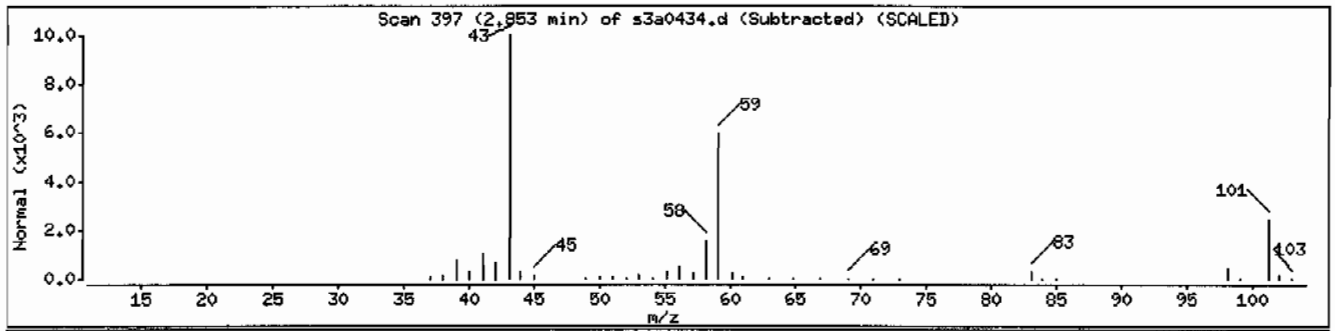

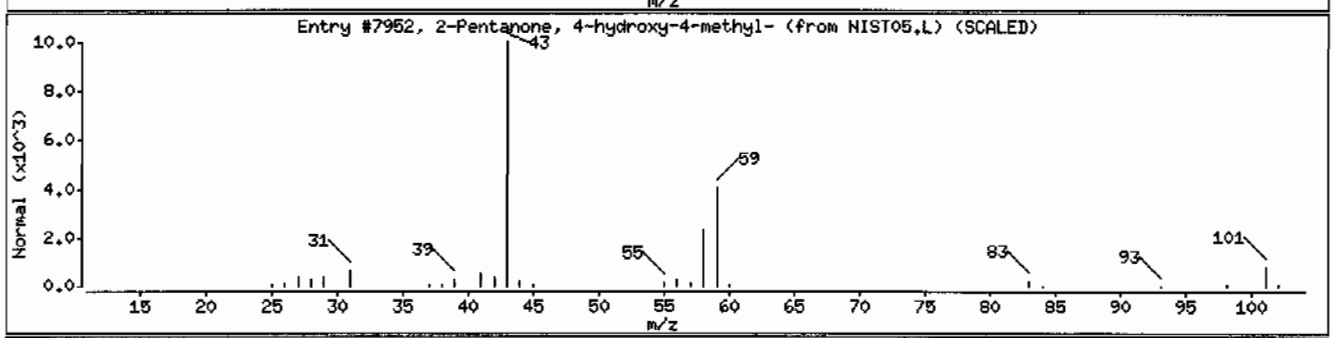

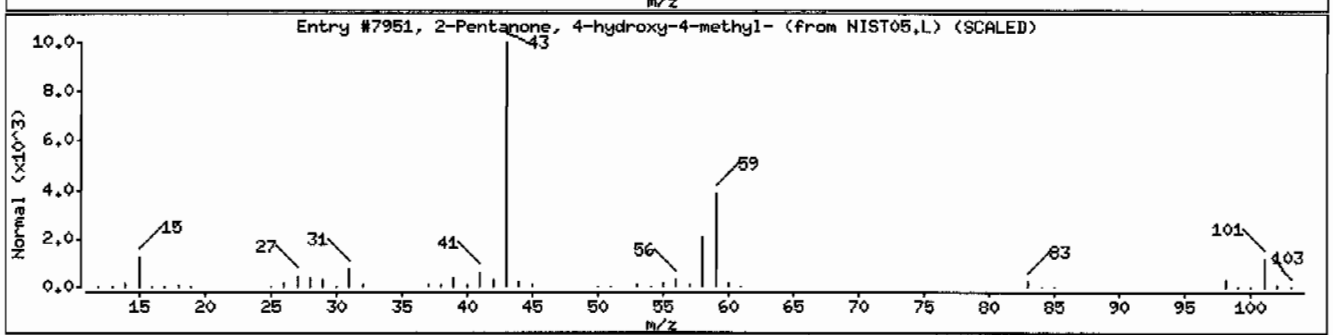

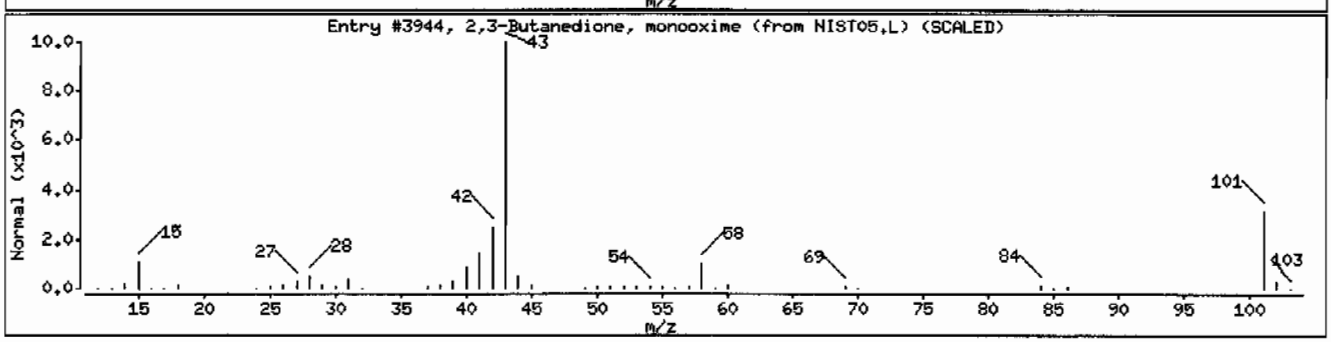

Data File: /chem/MSD3.i/s010410a.b/s3a0434.d

Date : 05-JAN-2010 01:18

Client ID: RE03-10-2737

Instrument: MSD3.i

Sample Info: 1243552011193715111SVMF11LANL

Volume Injected (uL): 0.5

Operator: JLD1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
9-Octadecenamide, (Z)-	301-02-0	NIST05.L	112657	95	C18H35NO	281
9-Octadecenamide, (Z)-	301-02-0	NIST05.L	112655	81	C18H35NO	281
Pentanamide, 4-methyl-	1119-29-5	NIST05.L	7606	53	C6H13NO	115

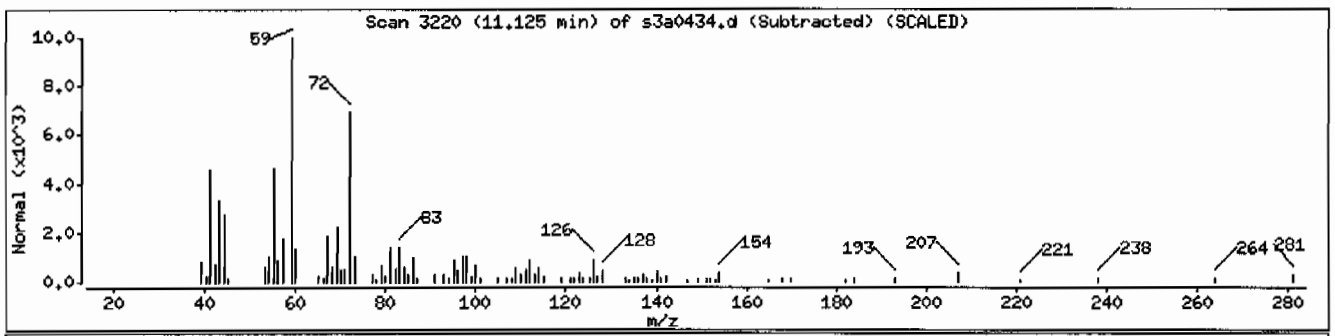

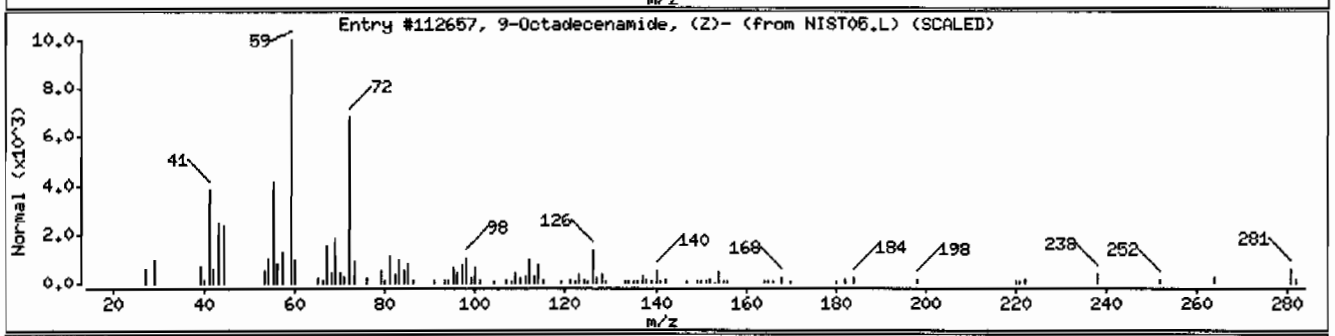

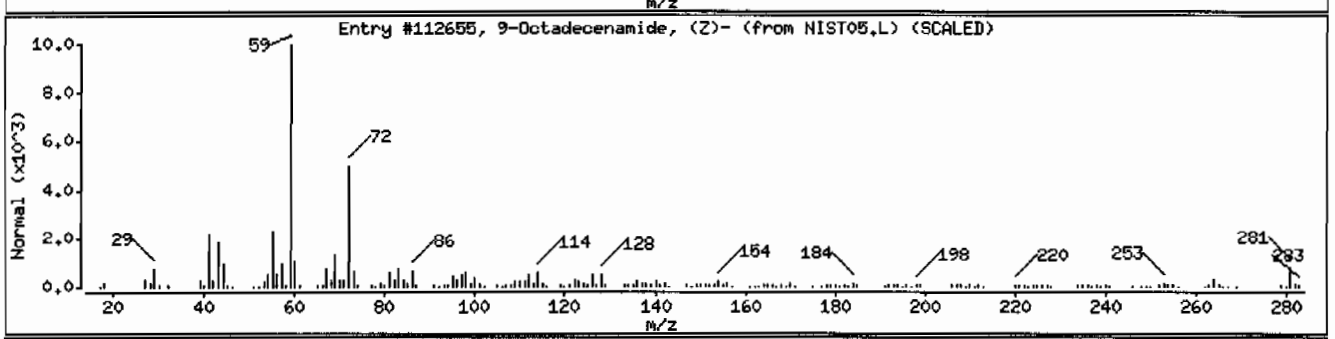

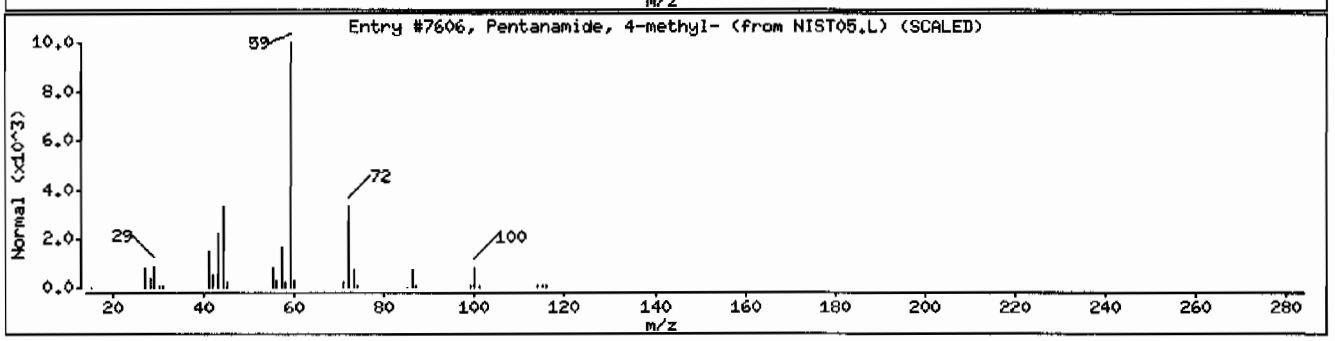

Data File: /chem/MSD3.i/s010410a.b/s3a0434.d

Date : 05-JAN-2010 01:18

Client ID: RE03-10-2737

Instrument: MSD3.i

Sample Info: |2435520111937151|1|SVHF|1|LANL

Volume Injected (uL): 0.5

Operator: JLD1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
13-Docosenamide, (Z)-	112-84-5	NIST05.L	146307	95	C22H43NO	337
13-Docosenamide, (Z)-	112-84-5	NIST05.L	146308	90	C22H43NO	337
13-Docosenamide, (Z)-	112-84-5	NIST05.L	146306	76	C22H43NO	337

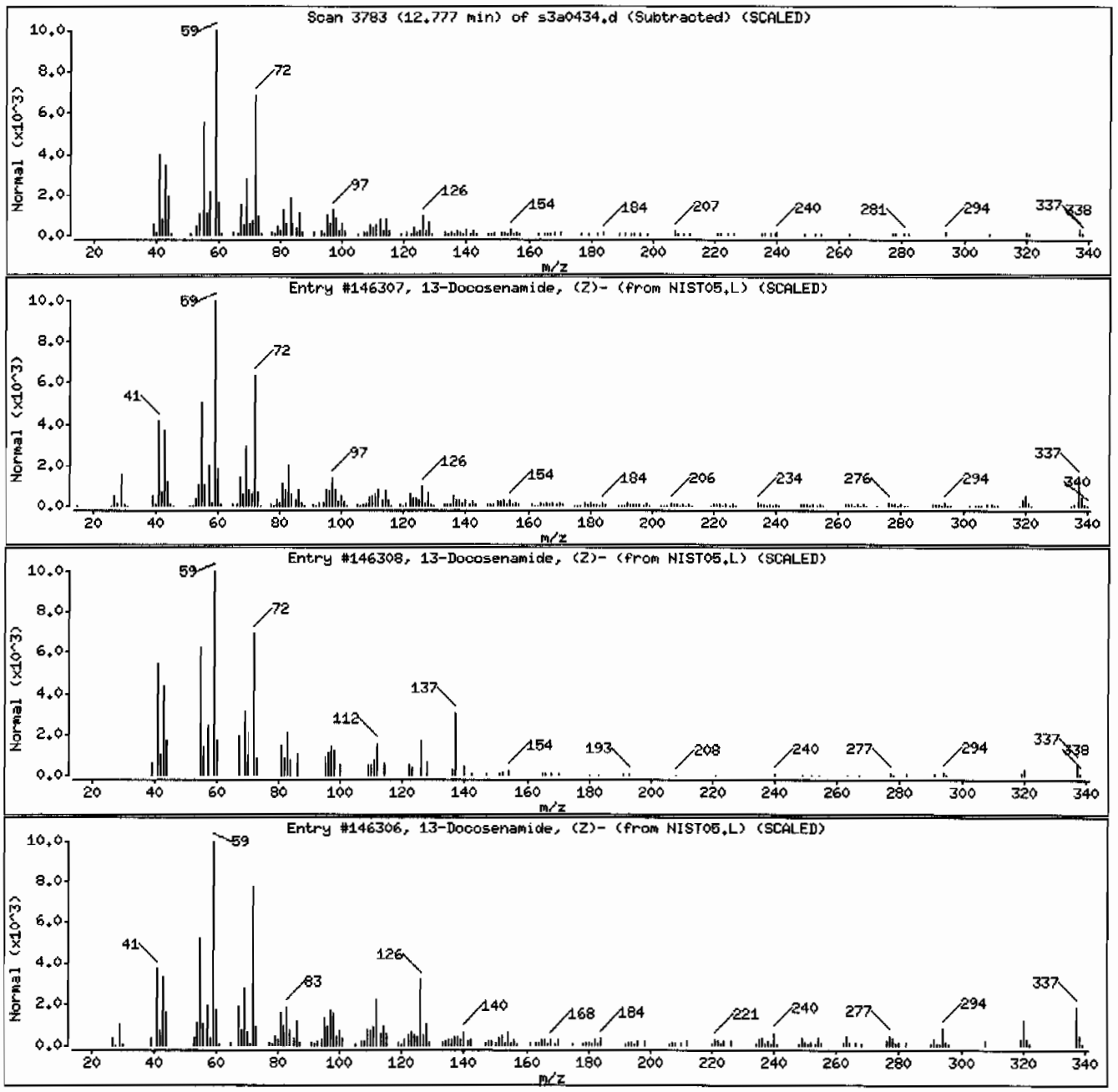

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1086	**Date Collected:**	12/22/2009 12:00	**Matrix:**	S
Lab Sample ID:	243552016	**Date Received:**	12/24/2009 09:30	**%Moisture:**	11.9
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-10-9872	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	937367	**Inst:**	MSD1.I	**Dilution:**	1
Run Date:	12/30/2009 17:23	**Analyst:**	AMY	**Inj. Vol:**	.5 uL
Prep Date:	12/29/2009 17:48	**Aliquot:**	30.03 g	**Final Volume:**	1 mL
Data File:	s113019.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	378	ug/kg	75.6	378
108-95-2	Phenol	U	378	ug/kg	75.6	378
95-57-8	2-Chlorophenol	U	378	ug/kg	75.6	378
106-46-7	1,4-Dichlorobenzene	U	378	ug/kg	75.6	378
621-64-7	N-Nitrosodipropylamine	U	378	ug/kg	75.6	378
59-50-7	4-Chloro-3-methylphenol	U	378	ug/kg	75.6	378
83-32-9	Acenaphthene	U	37.8	ug/kg	12.5	37.8
121-14-2	2,4-Dinitrotoluene	U	378	ug/kg	37.8	378
100-02-7	4-Nitrophenol	U	378	ug/kg	125	378
87-86-5	Pentachlorophenol	U	378	ug/kg	94.5	378
129-00-0	Pyrene	U	37.8	ug/kg	11.3	37.8
110-86-1	Pyridine	U	378	ug/kg	75.6	378
62-53-3	Aniline	U	378	ug/kg	113	378
111-44-4	bis(2-Chloroethyl) ether	U	378	ug/kg	75.6	378
541-73-1	1,3-Dichlorobenzene	U	378	ug/kg	75.6	378
100-51-6	Benzyl alcohol	U	378	ug/kg	113	378
95-50-1	1,2-Dichlorobenzene	U	378	ug/kg	75.6	378
108-60-1	bis(2-Chloroisopropyl)ether	U	378	ug/kg	75.6	378
95-48-7	o-Cresol	U	378	ug/kg	75.6	378
65794-96-9	m,p-Cresols	U	378	ug/kg	113	378
67-72-1	Hexachloroethane	U	378	ug/kg	75.6	378
98-95-3	Nitrobenzene	U	378	ug/kg	75.6	378
78-59-1	Isophorone	U	378	ug/kg	75.6	378
88-75-5	2-Nitrophenol	U	378	ug/kg	75.6	378
105-67-9	2,4-Dimethylphenol	U	378	ug/kg	132	378
111-91-1	bis(2-Chloroethoxy)methane	U	378	ug/kg	75.6	378
120-83-2	2,4-Dichlorophenol	U	378	ug/kg	75.6	378
65-85-0	Benzoic acid	U	756	ug/kg	189	756
91-20-3	Naphthalene	U	37.8	ug/kg	11.3	37.8
106-47-8	4-Chloroaniline	U	378	ug/kg	75.6	378
87-68-3	Hexachlorobutadiene	U	378	ug/kg	75.6	378
91-57-6	2-Methylnaphthalene	U	37.8	ug/kg	7.56	37.8
77-47-4	Hexachlorocyclopentadiene	U	378	ug/kg	75.6	378
88-06-2	2,4,6-Trichlorophenol	U	378	ug/kg	75.6	378
95-95-4	2,4,5-Trichlorophenol	U	378	ug/kg	75.6	378
91-58-7	2-Chloronaphthalene	U	37.8	ug/kg	12.5	37.8
88-74-4	2-Nitroaniline	U	378	ug/kg	75.6	378
	o-Nitroaniline					
99-09-2	3-Nitroaniline	U	378	ug/kg	75.6	378

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1086	Date Collected:	12/22/2009 12:00	Matrix:	S
Lab Sample ID:	243552016	Date Received:	12/24/2009 09:30	%Moisture:	11.9
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-10-9872	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	937367	Inst:	MSD1.I	Dilution:	1
Run Date:	12/30/2009 17:23	Analyst:	AMY	Inj. Vol:	.5 uL
Prep Date:	12/29/2009 17:48	Aliquot:	30.03 g	Final Volume:	1 mL
Data File:	s1l3019.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	378	ug/kg	75.6	378
606-20-2	2,6-Dinitrotoluene	U	378	ug/kg	37.8	378
208-96-8	Acenaphthylene	U	37.8	ug/kg	11.3	37.8
51-28-5	2,4-Dinitrophenol	U	756	ug/kg	144	756
132-64-9	Dibenzofuran	U	378	ug/kg	75.6	378
84-66-2	Diethylphthalate	U	378	ug/kg	75.6	378
86-73-7	Fluorene	U	37.8	ug/kg	11.3	37.8
7005-72-3	4-Chlorophenylphenylether	U	378	ug/kg	75.6	378
534-52-1	2-Methyl-4,6-dinitrophenol	U	378	ug/kg	75.6	378
100-01-6	4-Nitroaniline	U	378	ug/kg	113	378
	p-Nitroaniline					
122-39-4	Diphenylamine	U	378	ug/kg	75.6	378
122-66-7	Azobenzene	U	378	ug/kg	75.6	378
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	378	ug/kg	75.6	378
118-74-1	Hexachlorobenzene	U	378	ug/kg	75.6	378
85-01-8	Phenanthrene	U	37.8	ug/kg	11.3	37.8
120-12-7	Anthracene	U	37.8	ug/kg	7.56	37.8
84-74-2	Di-n-butylphthalate	U	378	ug/kg	75.6	378
206-44-0	Fluoranthene	U	37.8	ug/kg	11.3	37.8
85-68-7	Butylbenzylphthalate	U	378	ug/kg	75.6	378
56-55-3	Benzo(a)anthracene	U	37.8	ug/kg	11.3	37.8
91-94-1	3,3'-Dichlorobenzidine	U	378	ug/kg	113	378
218-01-9	Chrysene	U	37.8	ug/kg	11.3	37.8
117-81-7	bis(2-Ethylhexyl)phthalate	U	378	ug/kg	75.6	378
117-84-0	Di-n-octylphthalate	U	378	ug/kg	75.6	378
205-99-2	Benzo(b)fluoranthene	U	37.8	ug/kg	11.3	37.8
207-08-9	Benzo(k)fluoranthene	U	37.8	ug/kg	11.3	37.8
50-32-8	Benzo(a)pyrene	U	37.8	ug/kg	11.3	37.8
193-39-5	Indeno(1,2,3-cd)pyrene	U	37.8	ug/kg	11.3	37.8
53-70-3	Dibenzo(a,h)anthracene	U	37.8	ug/kg	11.3	37.8
191-24-2	Benzo(ghi)perylene	U	37.8	ug/kg	11.3	37.8
120-82-1	1,2,4-Trichlorobenzene	U	378	ug/kg	75.6	378

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	1.72	204	ug/kg		J
	Unknown	1.94	3320	ug/kg		J

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1086**	**Date Collected:**	**12/22/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243552016**	**Date Received:**	**12/24/2009 09:30**	**%Moisture:**	**11.9**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-10-9872**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**937367**	**Inst:**	**MSD1.I**	**Dilution:**	**1**
Run Date:	**12/30/2009 17:23**	**Analyst:**	**AMY**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/29/2009 17:48**	**Aliquot:**	**30.03 g**	**Final Volume:**	**1 mL**
Data File:	**s113019.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.81	519	ug/kg		JA
	Unknown	8.03	164	ug/kg		J

GEL Laboratories LLC

Data file : /chem/MSD1.i/s123009.b/s113019.d
Lab Smp Id: 243552016 Client Smp ID: RE03-10-9872
Inj Date : 30-DEC-2009 17:23
Operator : AMY Inst ID: MSD1.i
Smp Info : |243552016|937367|1|SVM|1|LANL
Misc Info : |MSD8270_S|WBN091223-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD1.i/s123009.b/MSD1-M8270AQA-111409.m
Meth Date : 06-Jan-2010 14:43 amy01291 Quant Type: ISTD
Cal Date : 17-NOV-2009 17:42 Cal File: s1k1264.d
Als bottle: 18
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-1086.sub
Target Version: 3.50
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.03000	weight of sample
M	11.88000	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.763	3.816	(1.000)	777493	40.0000	
* 29 Naphthalene-d8	136	4.622	4.675	(1.000)	3063929	40.0000	
* 46 Acenaphthene-d10	164	5.869	5.922	(1.000)	1614752	40.0000	
* 67 Phenanthrene-d10	188	6.863	6.904	(1.000)	2741436	40.0000	
* 91 Chrysene-d12	240	8.481	8.533	(1.000)	2284561	40.0000	
* 98 Perylene-d12	264	9.833	9.910	(1.000)	1600836	40.0000	
$ 3 2-Fluorophenol	112	2.975	3.016	(0.791)	1173783	57.7996	2180
$ 5 Phenol-d5	99	3.499	3.546	(0.930)	1490486	60.3871	2280
$ 20 Nitrobenzene-d5	82	4.128	4.181	(0.893)	697537	34.5459	1300
$ 39 2-Fluorobiphenyl	172	5.363	5.416	(0.914)	1463254	37.8363	1430
$ 60 2,4,6-Tribromophenol	329	6.410	6.457	(1.092)	411870	91.3447	3450
$ 81 p-Terphenyl-d14	244	7.775	7.816	(0.917)	1665305	46.4385	1750

ION RATIO REPORT

SV REPORT

Data file: s113019.d
Report Date: 12/31/2009 09:51
Lab. ID: 243552016 SampleType: SAMPLE
Injection Date: 30-DEC-2009 17:23
Operator: AMY Instrument: MSD1.i
Sample Info: |243552016|937367|1|SVM|1|LANL
Miscellaneous Info: |MSD8270_S|WBN091223-01|
Comment:
Method used: /chem/MSD1.i/s123009.b/MSD1-M8270AQA-111409.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-1086
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
1 N-Methyl-N-nitrosomethylamine				CAS#: 62-75-9		
74	27432	2.06	2.28	80-120	100	(T)
42	8784	2.07	2.28	62-122	32	(QT)
43	76442	2.07	2.28	10- 70	279	(QT)
4 Aniline			CAS#: 62-53-3			
66	72084	3.50	3.56	80-120	100	( )
93	599	3.50	3.56	239-299	1	(Q)
17 N-Nitrosodipropylamine				CAS#: 621-64-7		
70	91936	4.12	4.01	80-120	100	(T)
42	54897	4.12	4.00	43-103	60	(T)
43 Dimethylphthalate				CAS#: 131-11-3		
163	289243	5.87	5.65	80-120	100	(T)
164	1614752	5.87	5.65	0- 40	558	(QT)
44 2,6-Dinitrotoluene				CAS#: 606-20-2		
165	208382	5.87	5.70	80-120	100	(T)
63	2929	5.87	5.70	47-107	1	(QT)
50 2,4-Dinitrotoluene				CAS#: 121-14-2		
165	208382	5.87	5.99	80-120	100	(T)
89	2234	5.87	5.99	41-101	1	(QT)
63	2929	5.87	5.99	18- 78	1	(QT)

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
53 Fluorene			CAS#: 86-73-7			
166	25508	6.41	6.25	80-120	100	(T)
165	25033	6.41	6.25	61-121	98	(T)
167	8989	6.41	6.25	0- 43	35	(T)
61 4-Bromophenylphenylether			CAS#: 101-55-3			
248	25006	6.41	6.55	80-120	100	(T)
141	161188	6.41	6.55	44-104	645	(QT)
250	50736	6.41	6.55	68-128	203	(QT)
95 Benzo(b)fluoranthene			CAS#: 205-99-2			
252	712	9.40	9.40	80-120	100	( )
253	241	9.35	9.40	0- 52	34	( )
125	314	9.39	9.40	0- 42	44	(Q)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

Data file : /chem/MSD1.i/s123009.b/s113019.d
Lab Smp Id: 243552016 Client Smp ID: RE03-10-9872
Inj Date : 30-DEC-2009 17:23
Operator : AMY Inst ID: MSD1.i
Smp Info : |243552016|937367|1|SVM|1|LANL
Misc Info : |MSD8270_S|WBN091223-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD1.i/s123009.b/MSD1-M8270AQA-111409.m
Meth Date : 06-Jan-2010 14:43 amy01291 Quant Type: ISTD
Cal Date : 17-NOV-2009 17:42 Cal File: s1kl264.d
Als bottle: 18
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-1086.sub
Target Version: 3.50
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.03000	weight of sample
M	11.88000	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	3.763	4673364	40.000
* 91 Chrysene-d12	8.481	5917553	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown					CAS #:		
1.716	629979	5.39208093	204	0		0	10

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown				CAS #:			
1.940	10263512	87.8468799	3320	0		0	10
Unknown Aldol Condensate				CAS #:			
2.810	1605415	13.7409806	519	0		0	10
Unknown				CAS #:			
8.034	642128	4.34049406	164	0		0	91

Data File: /chem/MSD1.i/s123009.b/s113019.d
Date : 30-DEC-2009 17:23
Client ID: RE03-10-9872
Sample Info: |2435520161937367!1|SVM|1|LANL
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD1.i

Operator: AMY
Column diameter: 0.20

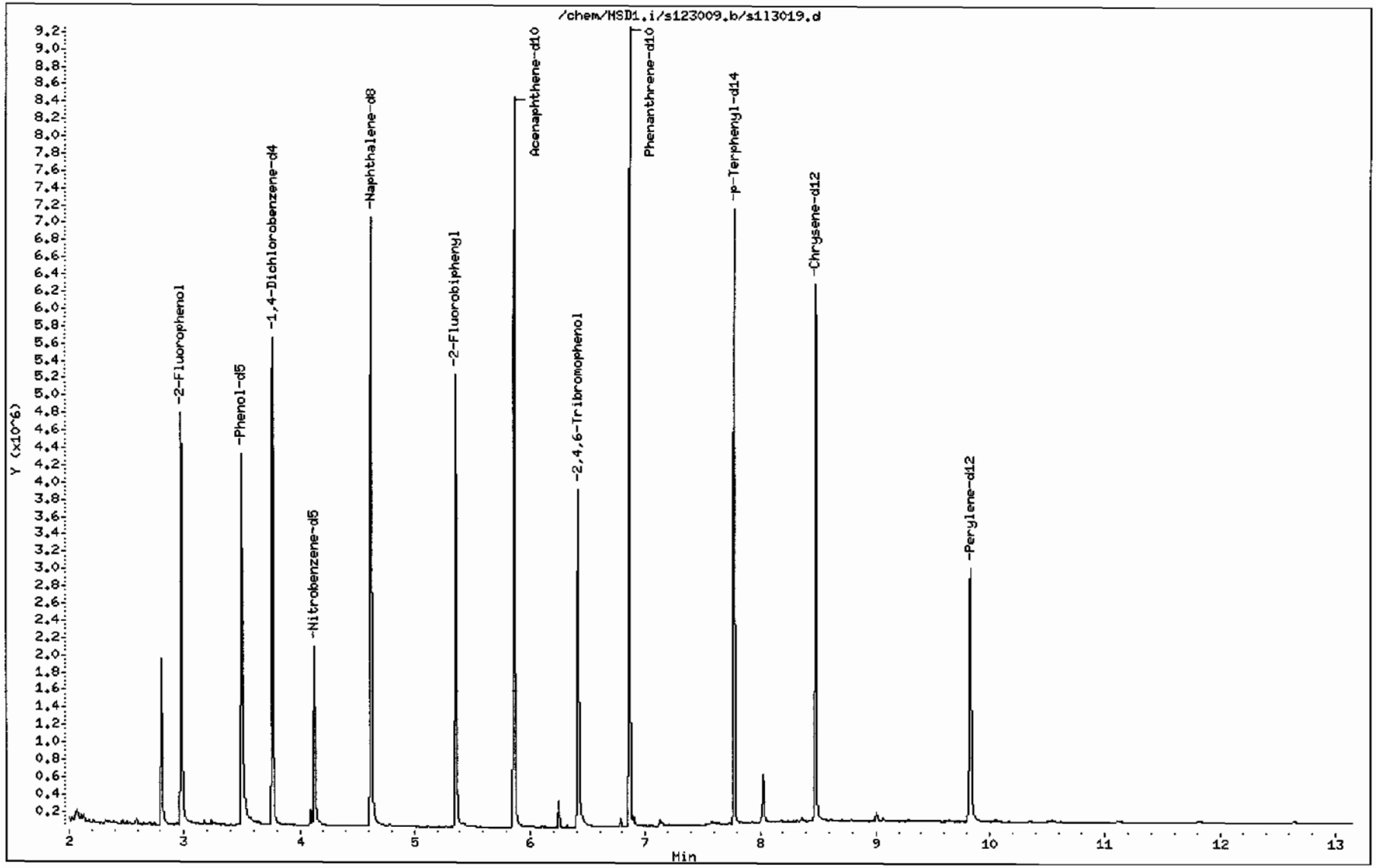

Data File: /chem/MSD1.i/s123009.b/s113019.d

Page 1

Date : 30-DEC-2009 17:23

Client ID: RE03-10-9872

Instrument: MSD1.i

Sample Info: |243552016|937367|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
5,9-Dodecadien-2-one, 6,10-dimethyl-, (E	1000132-10-9	NIST05.L	62957	64	C14H240	208
Propanal, 2-methyl-	78-84-2	NIST05.L	672	47	C4H80	72
Propanal, 2-methyl-	78-84-2	NIST05.L	671	38	C4H80	72

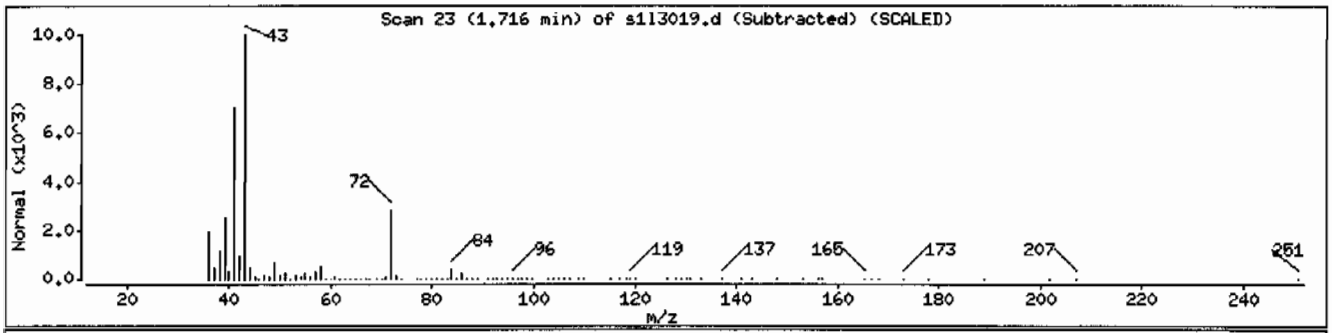

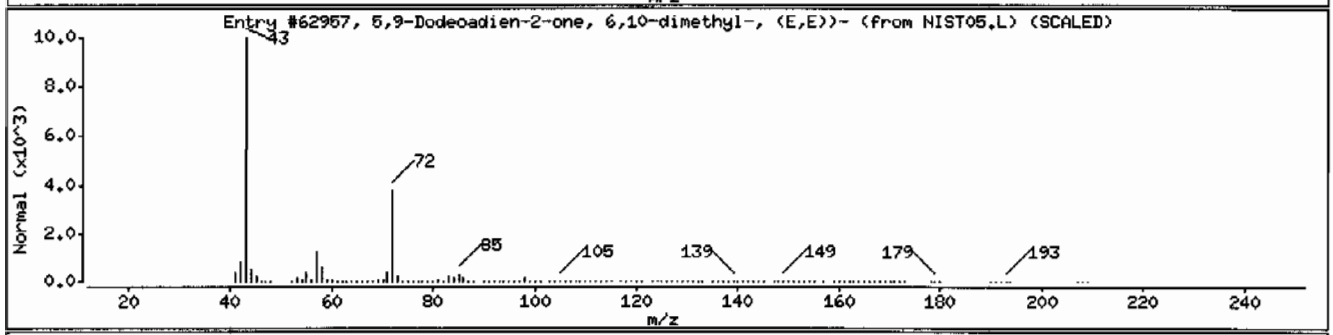

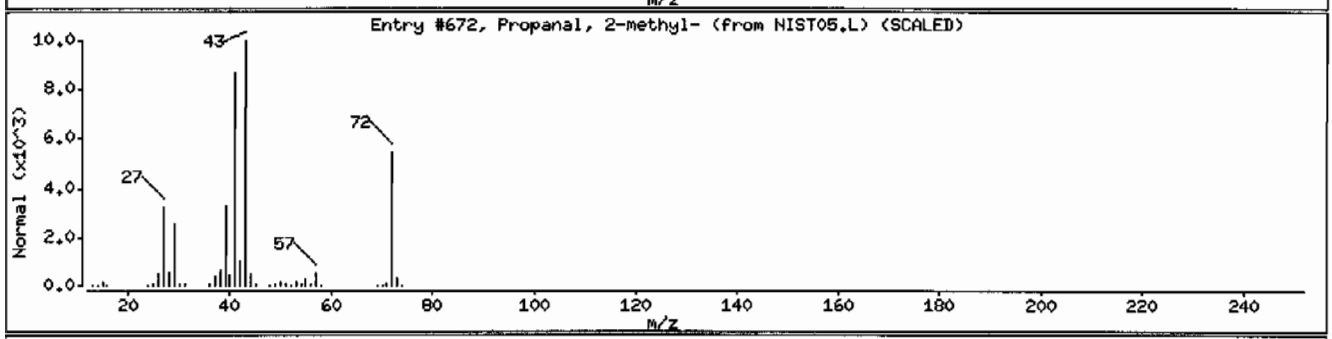

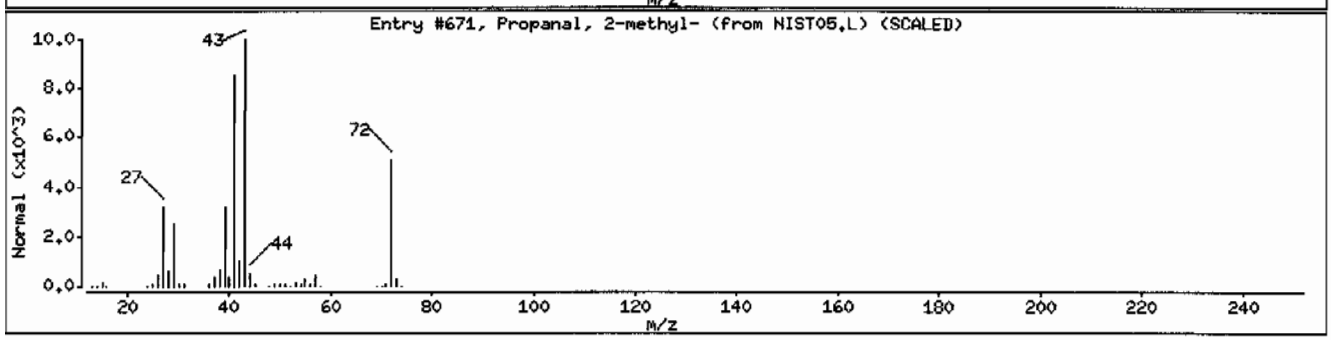

Data File: /chem/MSD1.i/s123009.b/s113019.d

Date : 30-DEC-2009 17:23

Client ID: RE03-10-9872

Instrument: MSD1.i

Sample Info: |2435520161937367|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Propane, 2,2-dimethoxy-	77-76-9	NIST05.L	4663	72	C5H12O2	104
Propane, 2,2-dimethoxy-	77-76-9	NIST05.L	4662	50	C5H12O2	104
Acetamide, N-methyl-	79-16-3	NIST05.L	723	9	C3H7NO	73

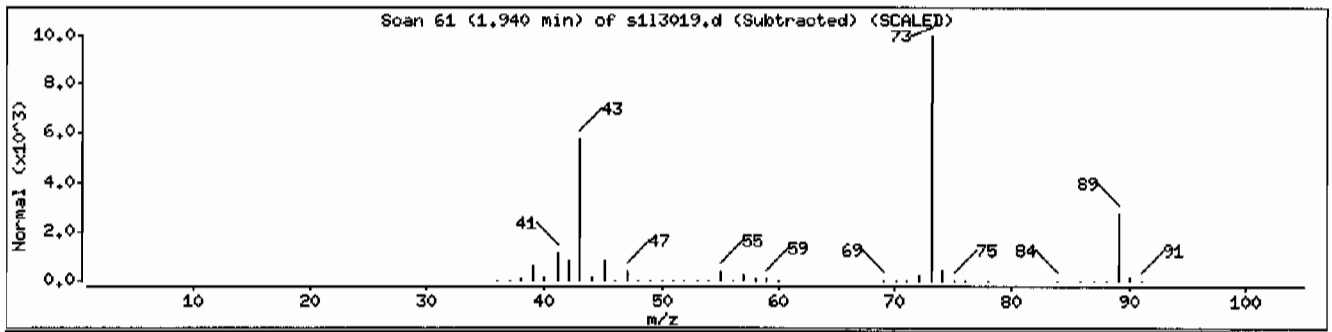

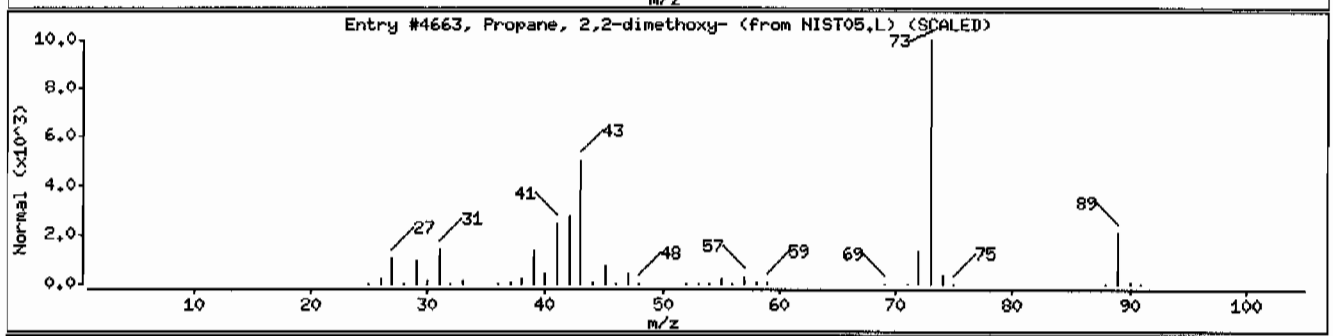

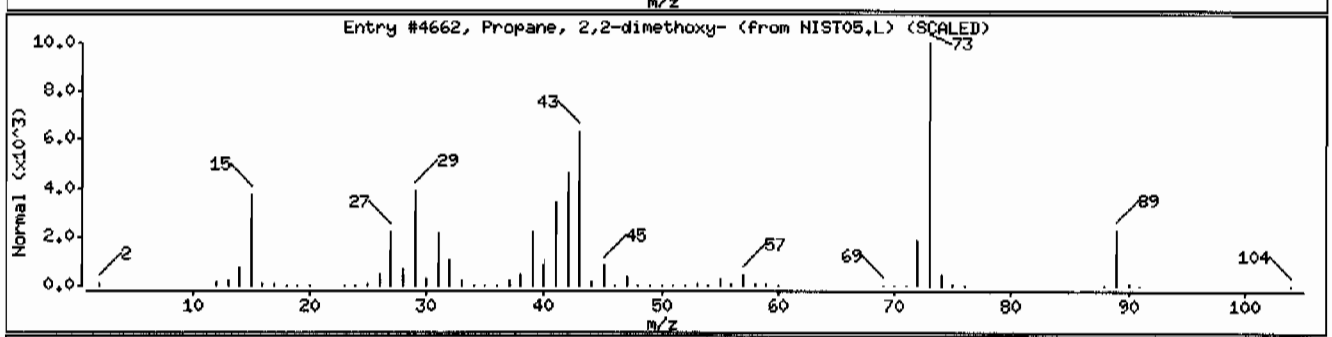

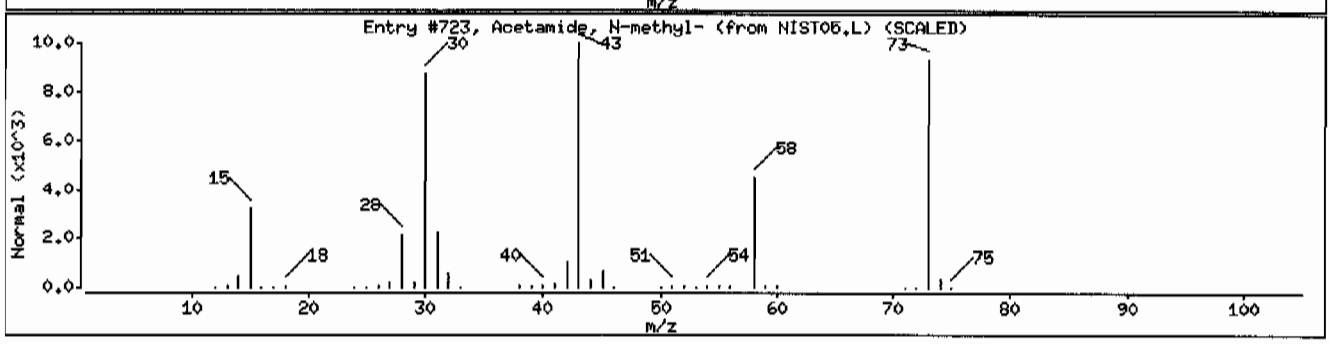

Data File: /chem/MSD1.i/s123009.b/s113019.d

Date : 30-DEC-2009 17:23

Client ID: RE03-10-9872

Instrument: MSD1.i

Sample Info: 1243552016|937367|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	59	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	38	C6H12O2	116
2,3-Butanedione, monooxime	57-71-6	NIST05.L	3949	27	C4H7NO2	101

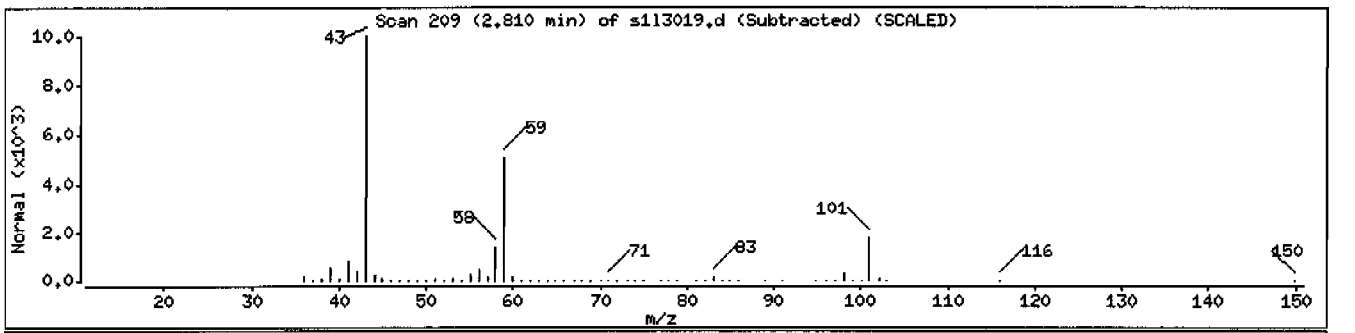

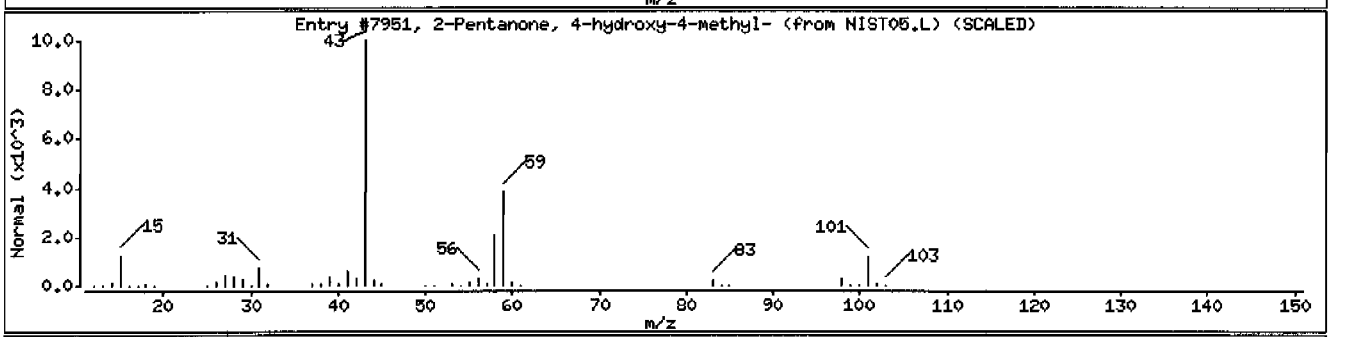

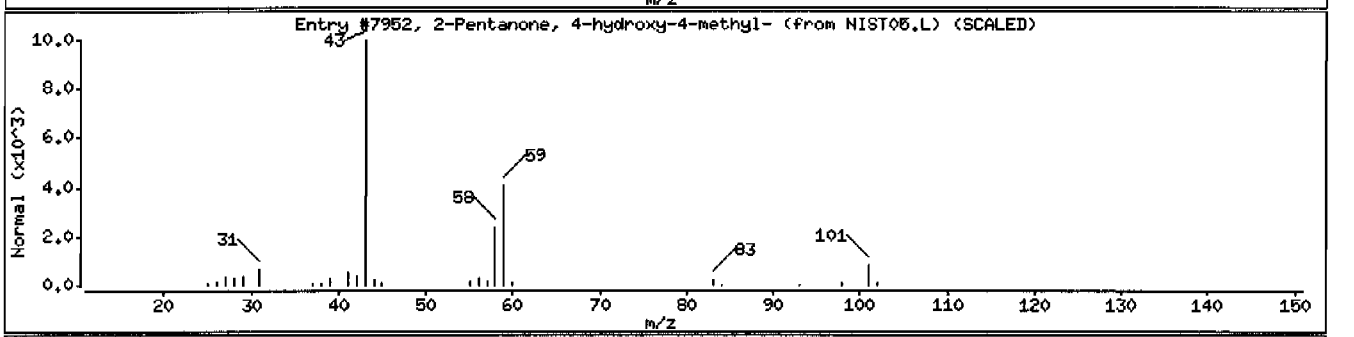

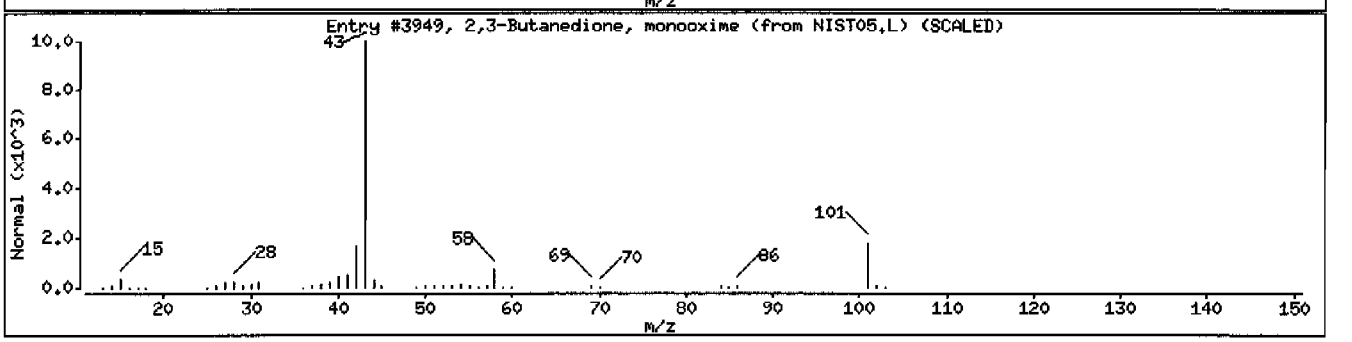

Data File: /chem/MSD1.i/s123009.b/s113019.d

Date : 30-DEC-2009 17:23

Client ID: RE03-10-9872

Instrument: MSD1.i

Sample Info: 1243552016|937367|1|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Ethanol, 2-butoxy-, phosphate (3:1)	78-51-3	NIST05.L	170616	58	C18H3907P	398
Ethanol, 2-butoxy-, phosphate (3:1)	78-51-3	NIST05.L	170613	47	C18H3907P	398
2,5-Hexanediol	2935-44-6	NIST05.L	8541	43	C6H1402	118

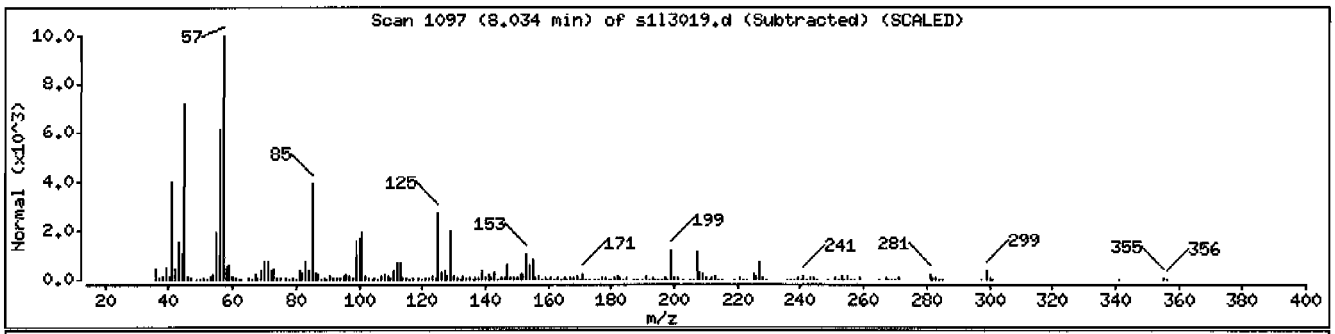

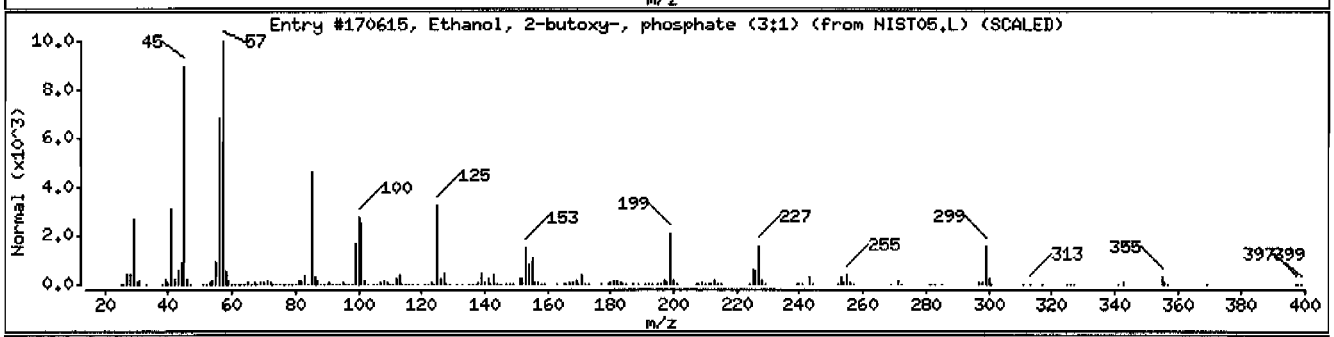

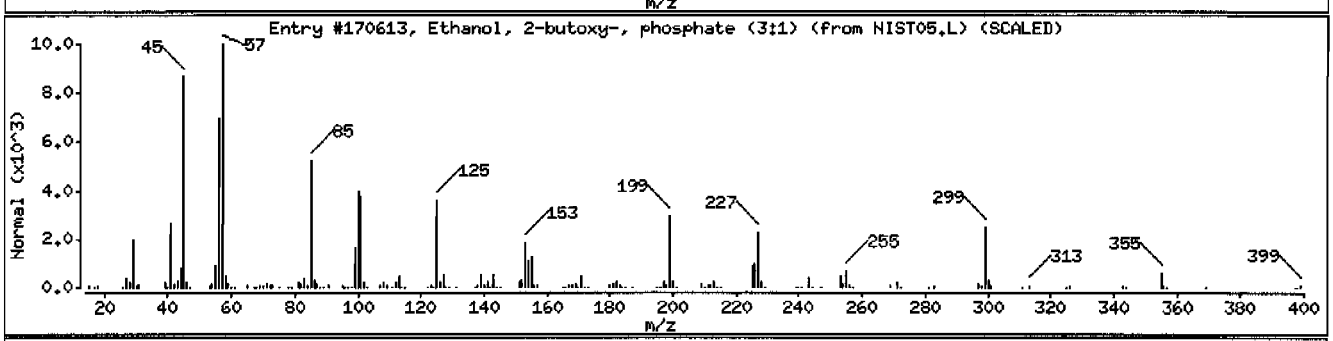

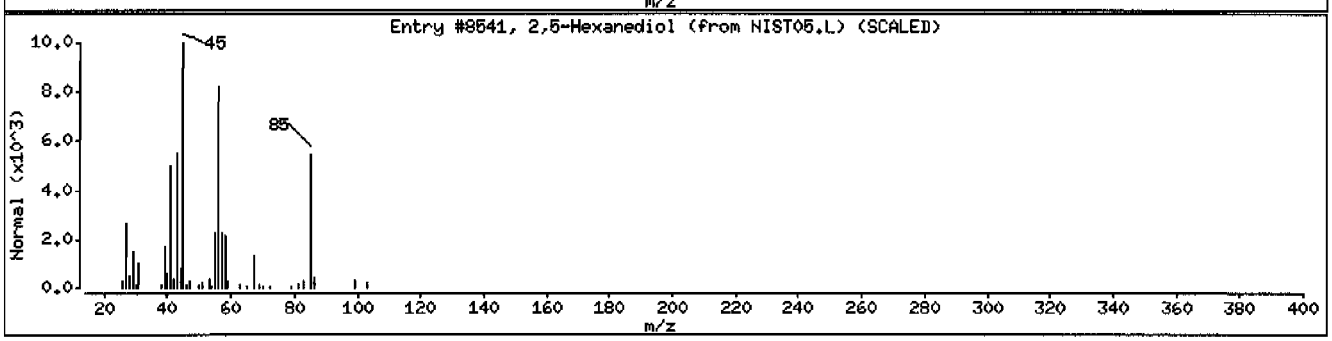

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1086	Date Collected:	12/22/2009 12:00	Matrix:	S
Lab Sample ID:	243552014	Date Received:	12/24/2009 09:30	%Moisture:	5.3
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-10-9873	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	937151	Inst:	MSD3.I	Dilution:	1
Run Date:	01/05/2010 02:07	Analyst:	JLD1	Inj. Vol:	.5 uL
Prep Date:	12/29/2009 10:16	Aliquot:	30 g	Final Volume:	1 mL
Data File:	s3a0436.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	352	ug/kg	70.4	352
108-95-2	Phenol	U	352	ug/kg	70.4	352
95-57-8	2-Chlorophenol	U	352	ug/kg	70.4	352
106-46-7	1,4-Dichlorobenzene	U	352	ug/kg	70.4	352
621-64-7	N-Nitrosodipropylamine	U	352	ug/kg	70.4	352
59-50-7	4-Chloro-3-methylphenol	U	352	ug/kg	70.4	352
83-32-9	Acenaphthene	U	35.2	ug/kg	11.6	35.2
121-14-2	2,4-Dinitrotoluene	U	352	ug/kg	35.2	352
100-02-7	4-Nitrophenol	U	352	ug/kg	116	352
87-86-5	Pentachlorophenol	U	352	ug/kg	88.0	352
129-00-0	Pyrene	U	35.2	ug/kg	10.6	35.2
110-86-1	Pyridine	U	352	ug/kg	70.4	352
62-53-3	Aniline	U	352	ug/kg	106	352
111-44-4	bis(2-Chloroethyl) ether	U	352	ug/kg	70.4	352
541-73-1	1,3-Dichlorobenzene	U	352	ug/kg	70.4	352
100-51-6	Benzyl alcohol	U	352	ug/kg	106	352
95-50-1	1,2-Dichlorobenzene	U	352	ug/kg	70.4	352
108-60-1	bis(2-Chloroisopropyl)ether	U	352	ug/kg	70.4	352
95-48-7	o-Cresol	U	352	ug/kg	70.4	352
65794-96-9	m,p-Cresols	U	352	ug/kg	106	352
67-72-1	Hexachloroethane	U	352	ug/kg	70.4	352
98-95-3	Nitrobenzene	U	352	ug/kg	70.4	352
78-59-1	Isophorone	U	352	ug/kg	70.4	352
88-75-5	2-Nitrophenol	U	352	ug/kg	70.4	352
105-67-9	2,4-Dimethylphenol	U	352	ug/kg	123	352
111-91-1	bis(2-Chloroethoxy)methane	U	352	ug/kg	70.4	352
120-83-2	2,4-Dichlorophenol	U	352	ug/kg	70.4	352
65-85-0	Benzoic acid	U	704	ug/kg	176	704
91-20-3	Naphthalene	U	35.2	ug/kg	10.6	35.2
106-47-8	4-Chloroaniline	U	352	ug/kg	70.4	352
87-68-3	Hexachlorobutadiene	U	352	ug/kg	70.4	352
91-57-6	2-Methylnaphthalene	U	35.2	ug/kg	7.04	35.2
77-47-4	Hexachlorocyclopentadiene	U	352	ug/kg	70.4	352
88-06-2	2,4,6-Trichlorophenol	U	352	ug/kg	70.4	352
95-95-4	2,4,5-Trichlorophenol	U	352	ug/kg	70.4	352
91-58-7	2-Chloronaphthalene	U	35.2	ug/kg	11.6	35.2
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	352	ug/kg	70.4	352
99-09-2	3-Nitroaniline	U	352	ug/kg	70.4	352

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1086**	**Date Collected:**	**12/22/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243552014**	**Date Received:**	**12/24/2009 09:30**	**%Moisture:**	**5.3**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-10-9873**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**937151**	**Inst:**	**MSD3.I**	**Dilution:**	**1**
Run Date:	**01/05/2010 02:07**	**Analyst:**	**JLD1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/29/2009 10:16**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**s3a0436.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	352	ug/kg	70.4	352
606-20-2	2,6-Dinitrotoluene	U	352	ug/kg	35.2	352
208-96-8	Acenaphthylene	U	35.2	ug/kg	10.6	35.2
51-28-5	2,4-Dinitrophenol	U	704	ug/kg	134	704
132-64-9	Dibenzofuran	U	352	ug/kg	70.4	352
84-66-2	Diethylphthalate	U	352	ug/kg	70.4	352
86-73-7	Fluorene	U	35.2	ug/kg	10.6	35.2
7005-72-3	4-Chlorophenylphenylether	U	352	ug/kg	70.4	352
534-52-1	2-Methyl-4,6-dinitrophenol	U	352	ug/kg	70.4	352
100-01-6	4-Nitroaniline	U	352	ug/kg	106	352
	p-Nitroaniline					
122-39-4	Diphenylamine	U	352	ug/kg	70.4	352
122-66-7	Azobenzene	U	352	ug/kg	70.4	352
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	352	ug/kg	70.4	352
118-74-1	Hexachlorobenzene	U	352	ug/kg	70.4	352
85-01-8	Phenanthrene	U	35.2	ug/kg	10.6	35.2
120-12-7	Anthracene	U	35.2	ug/kg	7.04	35.2
84-74-2	Di-n-butylphthalate	U	352	ug/kg	70.4	352
206-44-0	Fluoranthene	U	35.2	ug/kg	10.6	35.2
85-68-7	Butylbenzylphthalate	U	352	ug/kg	70.4	352
56-55-3	Benzo(a)anthracene	U	35.2	ug/kg	10.6	35.2
91-94-1	3,3'-Dichlorobenzidine	U	352	ug/kg	106	352
218-01-9	Chrysene	U	35.2	ug/kg	10.6	35.2
117-81-7	bis(2-Ethylhexyl)phthalate	U	352	ug/kg	70.4	352
117-84-0	Di-n-octylphthalate	U	352	ug/kg	70.4	352
205-99-2	Benzo(b)fluoranthene	U	35.2	ug/kg	10.6	35.2
207-08-9	Benzo(k)fluoranthene	U	35.2	ug/kg	10.6	35.2
50-32-8	Benzo(a)pyrene	U	35.2	ug/kg	10.6	35.2
193-39-5	Indeno(1,2,3-cd)pyrene	U	35.2	ug/kg	10.6	35.2
53-70-3	Dibenzo(a,h)anthracene	U	35.2	ug/kg	10.6	35.2
191-24-2	Benzo(ghi)perylene	U	35.2	ug/kg	10.6	35.2
120-82-1	1,2,4-Trichlorobenzene	U	352	ug/kg	70.4	352

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.85	360	ug/kg		JA
301-02-0	9-Octadecenamide, (Z)-	11.13	195	ug/kg	97	NJ

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1086**	**Date Collected:**	**12/22/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243552014**	**Date Received:**	**12/24/2009 09:30**	**%Moisture:**	**5.3**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-10-9873**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**937151**	**Inst:**	**MSD3.I**	**Dilution:**	**1**
Run Date:	**01/05/2010 02:07**	**Analyst:**	**JLD1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/29/2009 10:16**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**s3a0436.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
112-84-5	13-Docosenamide, (Z)-	12.78	504	ug/kg	81	NJ
	Unknown	15.57	177	ug/kg		J

GEL Laboratories LLC

Data file : /chem/MSD3.i/s010410a.b/s3a0436.d
Lab Smp Id: 243552014 Client Smp ID: RE03-10-9873
Inj Date : 05-JAN-2010 02:07
Operator : JLD1 Inst ID: MSD3.i
Smp Info : |243552014|937151|1|SVMF|1|LANL
Misc Info : |MSD8270_S|WBN091223-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD3.i/s010410a.b/MSD3-8270R-AQA-120809.m
Meth Date : 04-Jan-2010 16:42 jen00986 Quant Type: ISTD
Cal Date : 07-DEC-2009 19:48 Cal File: s310717.d
Als bottle: 28
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-1086.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	5.28680	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	4.200	4.203	(1.000)	145454	40.0000	
* 29 Naphthalene-d8	136	5.449	5.453	(1.000)	526161	40.0000	
* 46 Acenaphthene-d10	164	7.295	7.298	(1.000)	299621	40.0000	
* 67 Phenanthrene-d10	188	8.886	8.888	(1.000)	511368	40.0000	
* 91 Chrysene-d12	240	11.738	11.745	(1.000)	398140	40.0000	
* 98 Perylene-d12	264	13.686	13.686	(1.000)	260039	40.0000	
$ 3 2-Fluorophenol	112	3.105	3.093	(0.739)	206951	54.3954	1910
$ 5 Phenol-d5	99	3.869	3.869	(0.921)	243709	50.2794	1770
$ 20 Nitrobenzene-d5	82	4.731	4.737	(0.868)	104965	27.2954	961
$ 39 2-Fluorobiphenyl	172	6.574	6.576	(0.901)	183485	26.1263	919
$ 60 2,4,6-Tribromophenol	329	8.142	8.143	(1.116)	56117	68.2038	2400
$ 81 p-Terphenyl-d14	244	10.596	10.595	(0.903)	223206	34.9059	1230

ION RATIO REPORT

SV REPORT

Data file: s3a0436.d
Report Date: 01/05/2010 09:46
Lab. ID: 243552014 SampleType: SAMPLE
Injection Date: 05-JAN-2010 02:07
Operator: JLD1 Instrument: MSD3.i
Sample Info: |243552014|937151|1|SVMF|1|LANL
Miscellaneous Info: |MSD8270_S|WBN091223-01|
Comment:
Method used: /chem/MSD3.i/s010410a.b/MSD3-8270R-AQA-120809.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-1086
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
4 Aniline		CAS#: 62-53-3				
66	14136	3.87	3.91	80-120	100	( )
93	168	3.87	3.91	202-262	1	(Q)
17 N-Nitrosodipropylamine				CAS#: 621-64-7		
70	15105	4.73	4.58	80-120	100	(T)
42	7799	4.73	4.58	31- 91	52	(T)
27 Benzoic acid			CAS#: 65-85-0			
105	583	5.45	5.24	80-120	100	(T)
122	148	5.45	5.24	42-102	25	(QT)
77	2355	5.45	5.24	50-110	404	(QT)
44 2,6-Dinitrotoluene				CAS#: 606-20-2		
165	38831	7.29	7.09	80-120	100	(T)
63	678	7.29	7.09	49-109	2	(QT)
50 2,4-Dinitrotoluene				CAS#: 121-14-2		
165	38831	7.29	7.52	80-120	100	(T)
89	816	7.29	7.52	69-129	2	(QT)
63	678	7.29	7.52	56-116	2	(QT)
55 2-Methyl-4,6-dinitrophenol				CAS#: 534-52-1		
198	178	8.14	7.95	80-120	100	(T)
105	524	8.14	7.95	21- 81	294	(QT)
51	490	8.14	7.95	38- 98	275	(QT)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

Data file : /chem/MSD3.i/s010410a.b/s3a0436.d
Lab Smp Id: 243552014 Client Smp ID: RE03-10-9873
Inj Date : 05-JAN-2010 02:07
Operator : JLD1 Inst ID: MSD3.i
Smp Info : |243552014|937151|1|SVMF|1|LANL
Misc Info : |MSD8270_S|WBN091223-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD3.i/s010410a.b/MSD3-8270R-AQA-120809.m
Meth Date : 04-Jan-2010 16:42 jen00986 Quant Type: ISTD
Cal Date : 07-DEC-2009 19:48 Cal File: s310717.d
Als bottle: 28
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-1086.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	5.28680	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	4.200	957804	40.000
* 91 Chrysene-d12	11.738	1146955	40.000
* 98 Perylene-d12	13.686	751560	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #

RT	AREA	CONCENTRATIONS ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	QUANT LIBRARY	LIB ENTRY	CPND #
Unknown Aldol Condensate				CAS #:			
2.852	245117	10.2366163	360	0		0	10
9-Octadecenamide, (Z)-				CAS #: 301-02-0			
11.127	159180	5.55140713	195	97	NIST05.L	112657	91
13-Docosenamide, (Z)-				CAS #: 112-84-5			
12.776	268924	14.3128554	504	81	NIST05.L	146307	98
Unknown				CAS #:			
15.565	94691	5.03972238	177	0		0	98

Data File: /chem/MSD3.i/s010410a.b/s3a0436.d
Date : 05-JAN-2010 02:07
Client ID: RE03-10-9873
Sample Info: |243552014|937151|1|SVHF|1|LANL
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Page 1

Instrument: MSD3.i

Operator: JLD1
Column diameter: 0.20

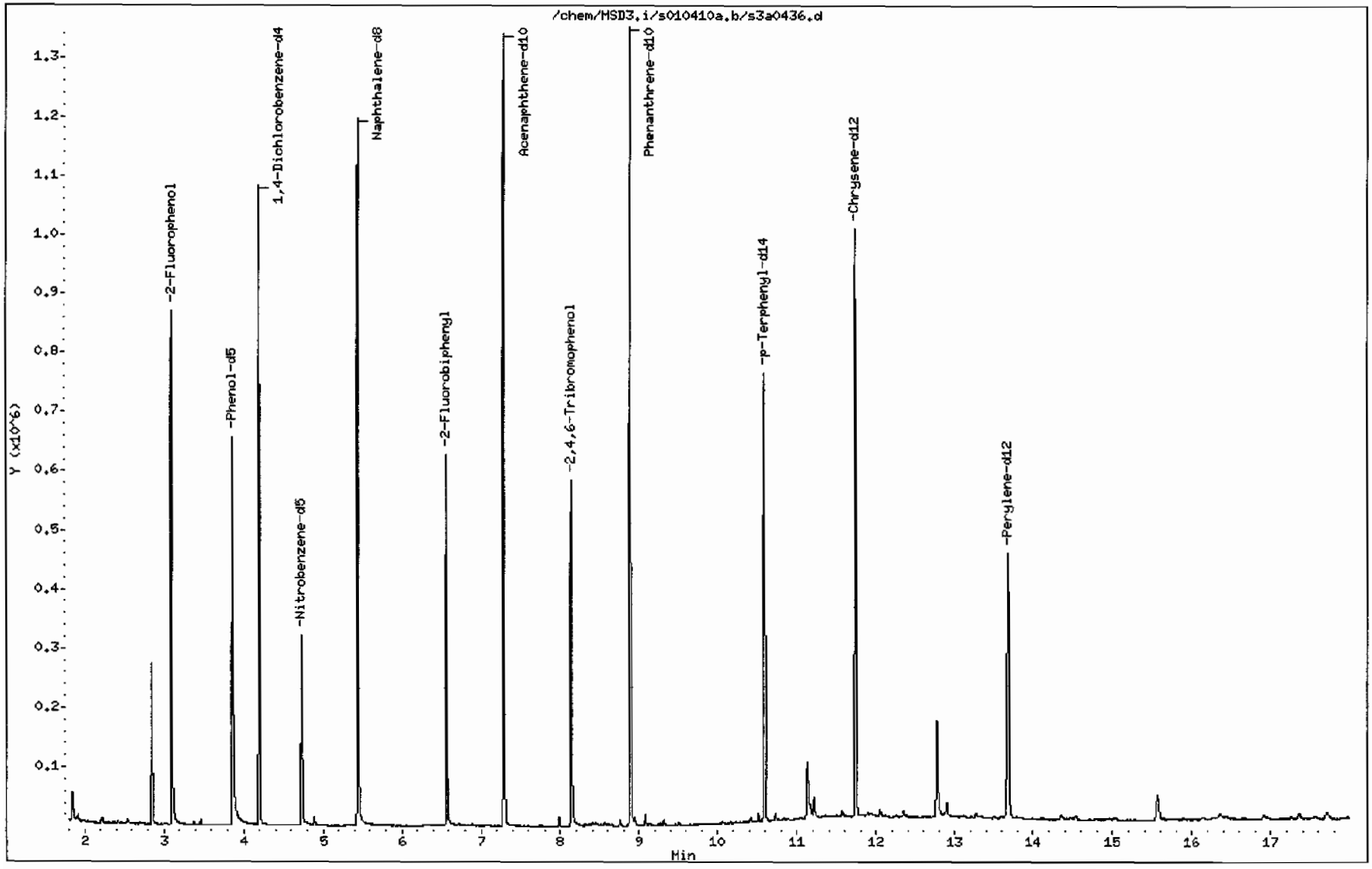

Data File: /chem/MSD3.i/s010410a.b/s3a0436.d

Date : 05-JAN-2010 02:07

Client ID: RE03-10-9873

Instrument: MSD3.i

Sample Info: 1243552014193715111SVMF11LANL

Volume Injected (uL): 0.5

Operator: JLD1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	56	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7945	50	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	50	C6H12O2	116

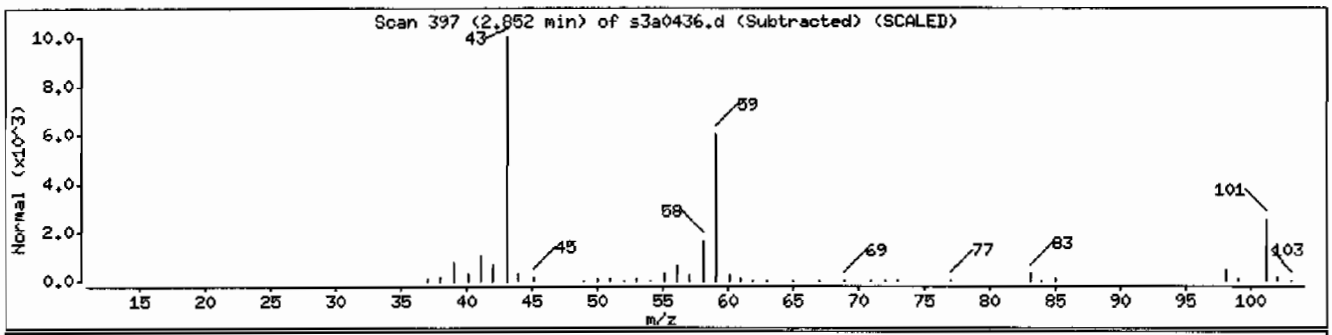

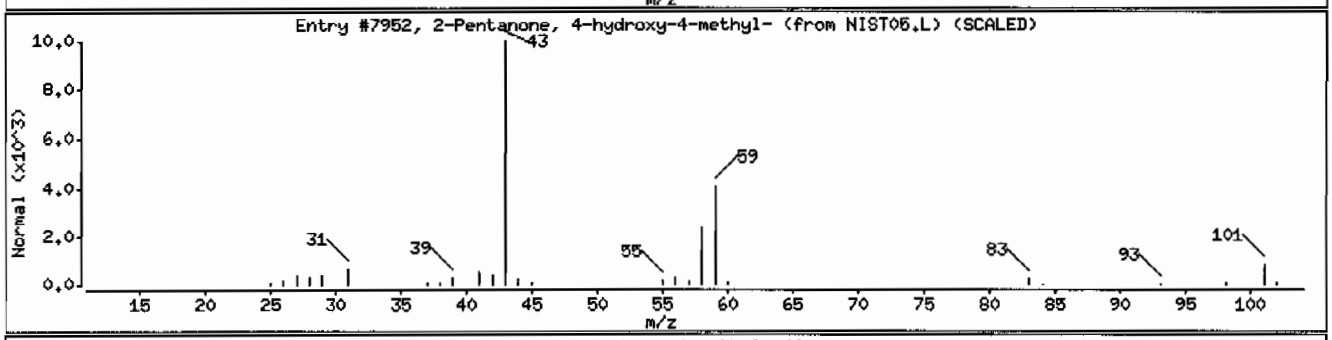

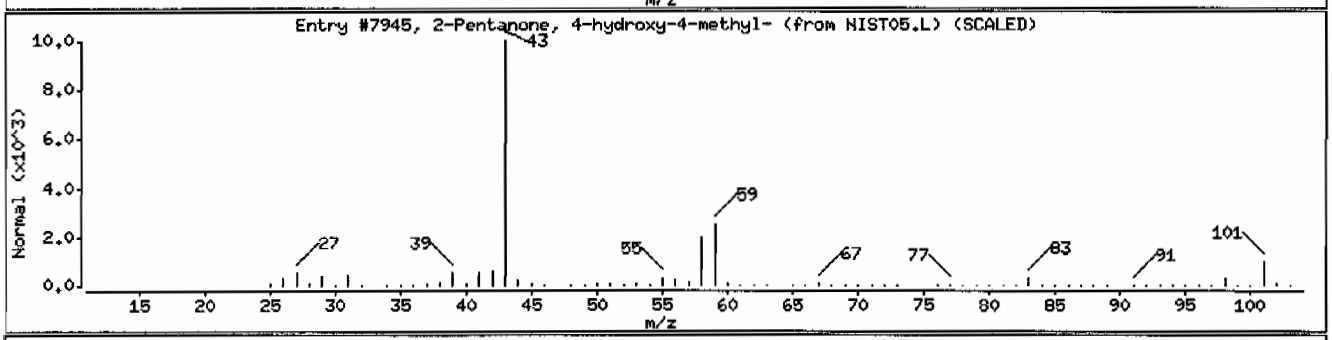

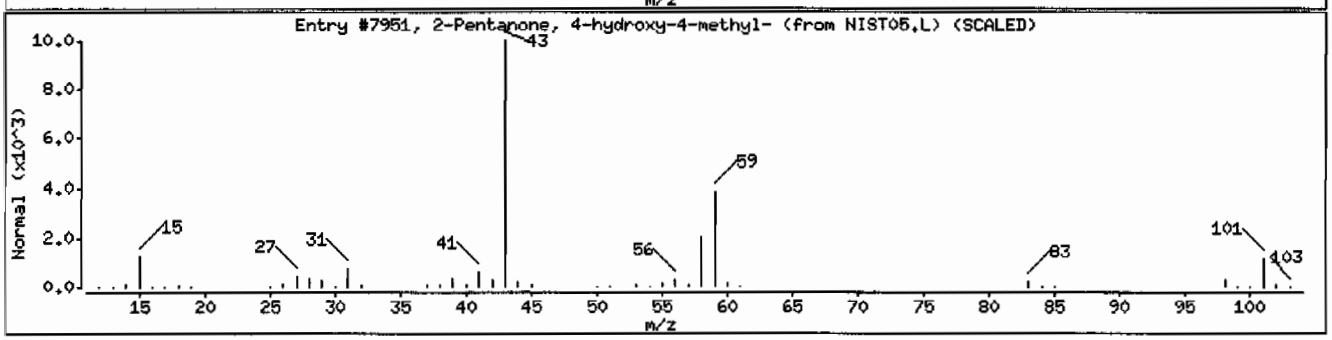

Data File: /chem/MSD3.i/s010410a.b/s3a0436.d

Date : 05-JAN-2010 02:07

Client ID: RE03-10-9873

Instrument: MSD3.i

Sample Info: 1243552014|937151|1|SVMF|1|LANL

Volume Injected (uL): 0.5

Operator: JLD1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
9-Octadecenamide, (Z)-	301-02-0	NIST05.L	112657	97	C18H35NO	281
9-Octadecenamide, (Z)-	301-02-0	NIST05.L	112656	95	C18H35NO	281
9-Octadecenamide, (Z)-	301-02-0	NIST05.L	112655	90	C18H35NO	281

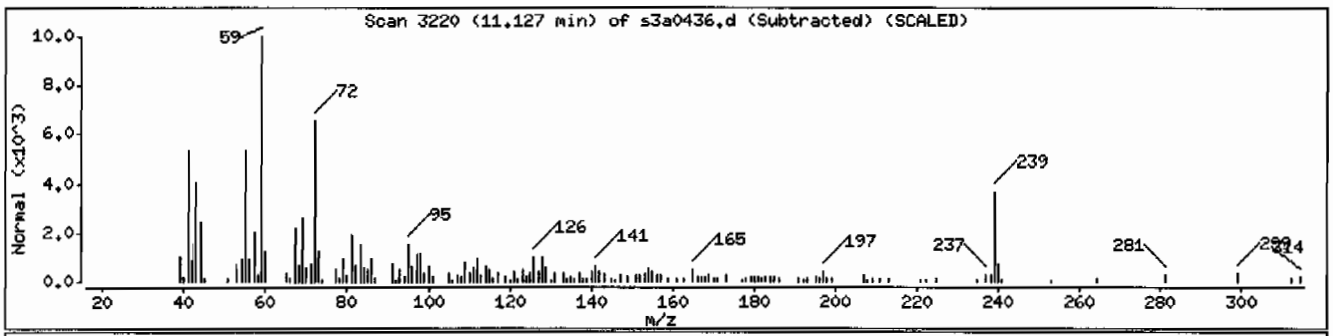

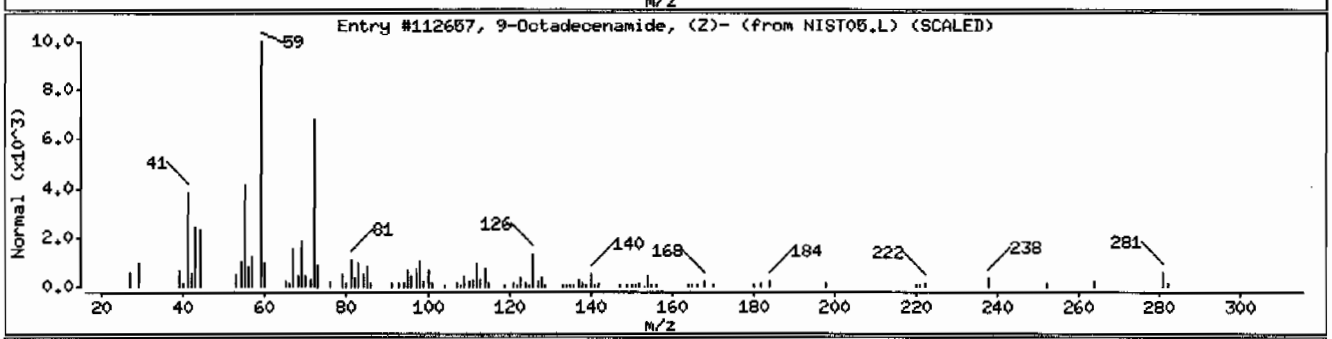

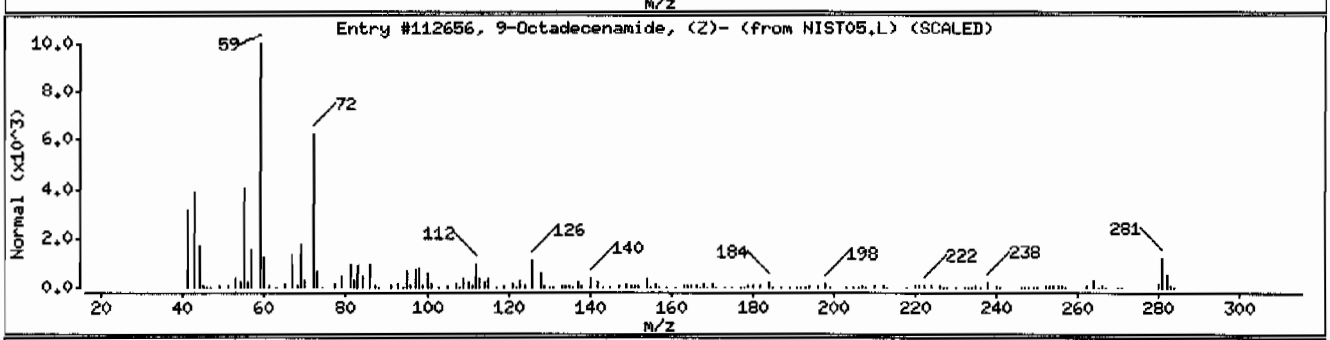

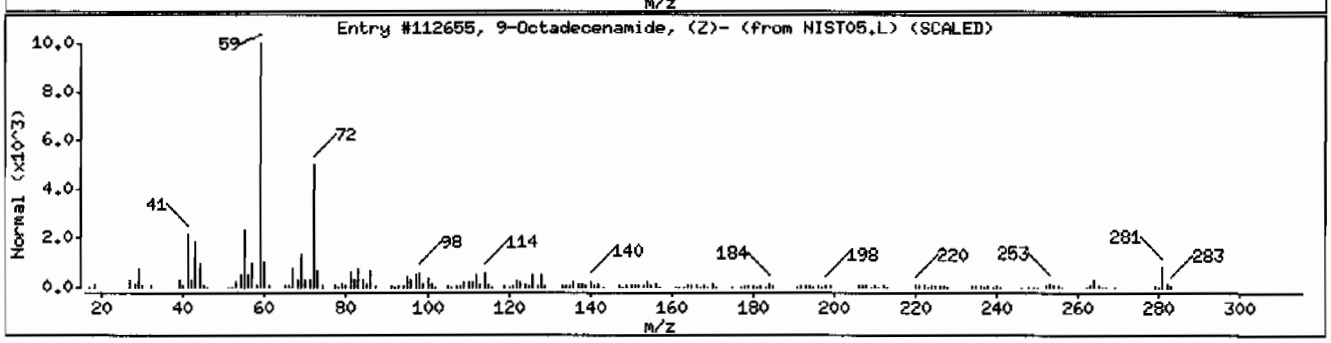

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Date : 05-JAN-2010 02:07

Client ID: RE03-10-9873

Instrument: MSD3.i

Sample Info: |2435520141937151|1|SVMF|1|LANL

Volume Injected (uL): 0.5

Operator: JLD1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
13-Docosenamide, (Z)-	112-84-5	NIST05.L	146307	81	C22H43NO	337
9-Octadecenamide, (Z)-	301-02-0	NIST05.L	112655	80	C18H35NO	281
13-Docosenamide, (Z)-	112-84-5	NIST05.L	146306	76	C22H43NO	337

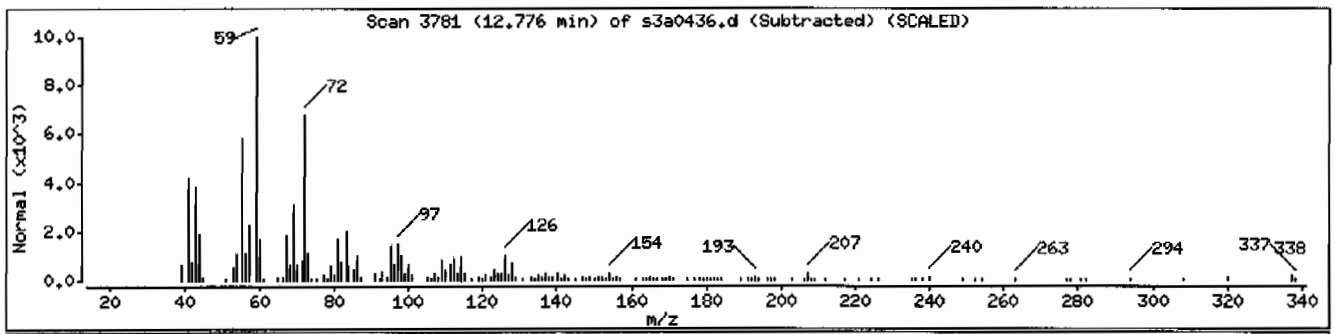

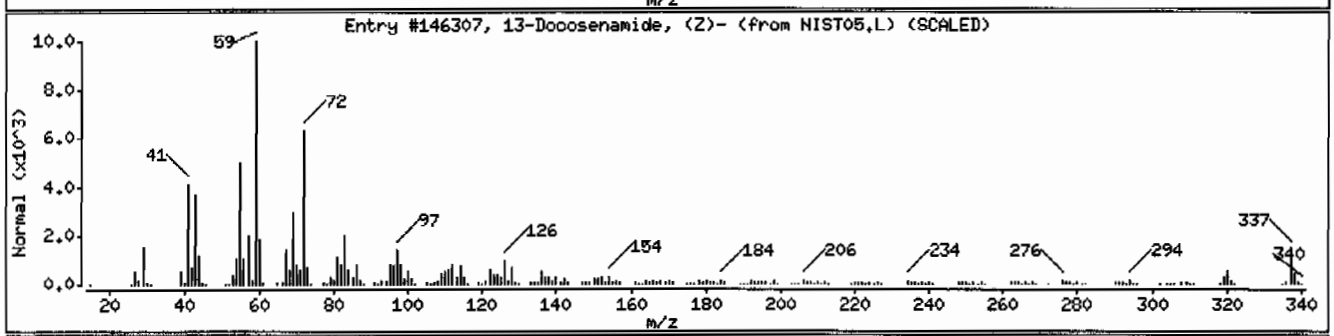

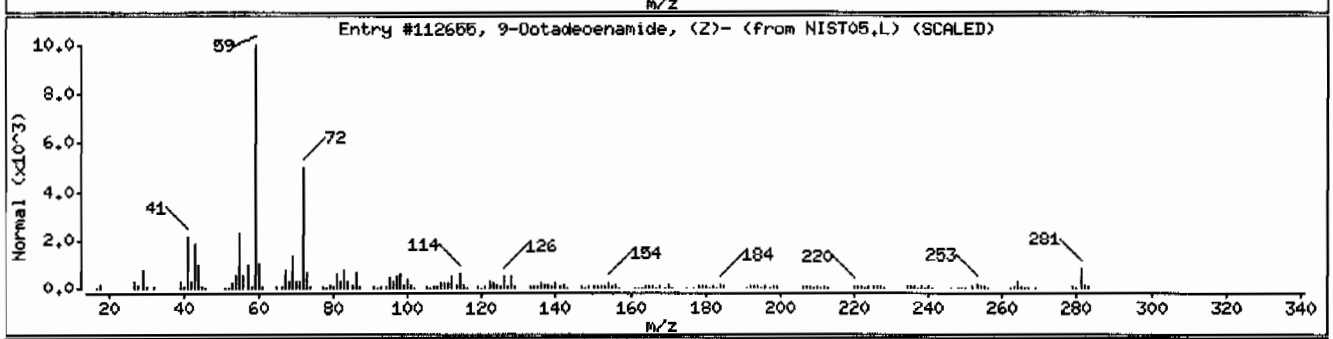

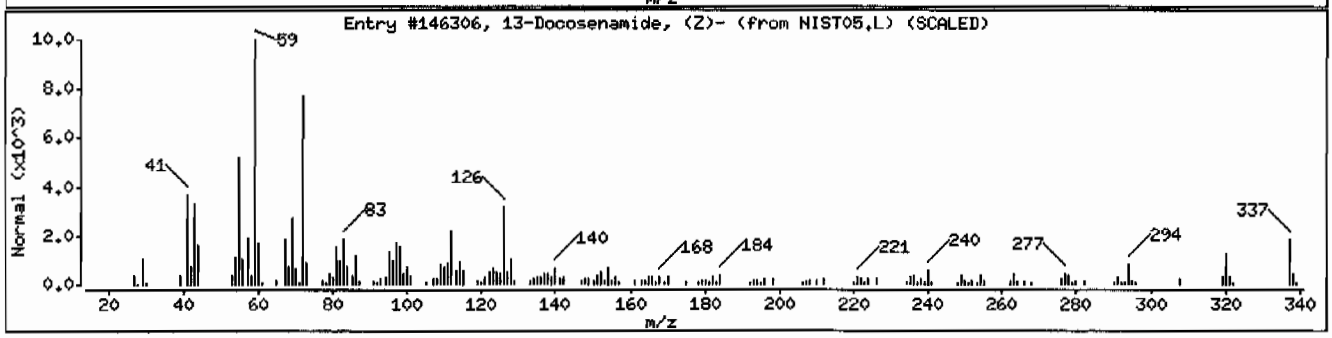

Data File: /chem/MSD3.i/s010410a.b/s3a0436.d

Date : 05-JAN-2010 02:07

Client ID: RE03-10-9873

Instrument: MSD3.i

Sample Info: 1243552014|937151|1|SVMF|1|LANL

Volume Injected (uL): 0.5

Operator: JLD1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Cyclohexane, 1,1,2-trimethyl-3,5-bis(1-m	62337-97-7	NIST05.L	61564	43	C15H26	206
1,5,9-Decatriene, 2,3,5,8-tetramethyl-	230646-72-7	NIST05.L	51367	41	C14H24	192
1,6,10,14,18,22-Tetracosahexaen-3-ol, 2,	54159-46-5	NIST05.L	176609	38	C30H500	426

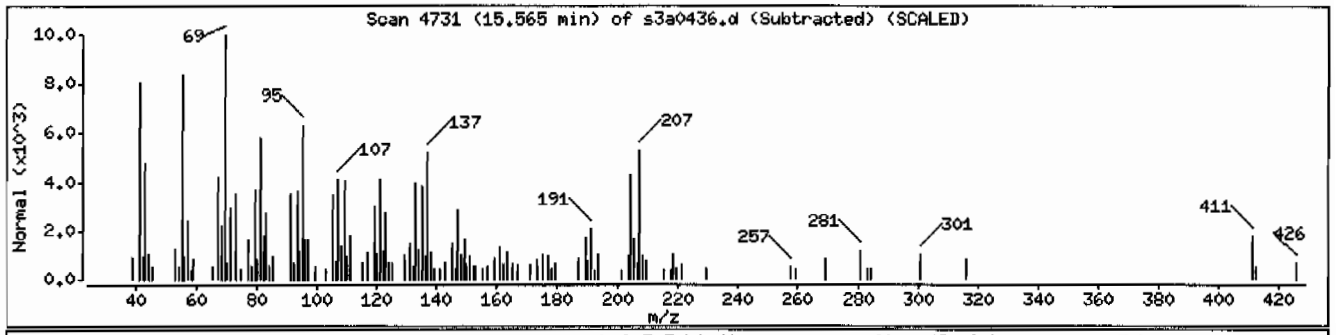

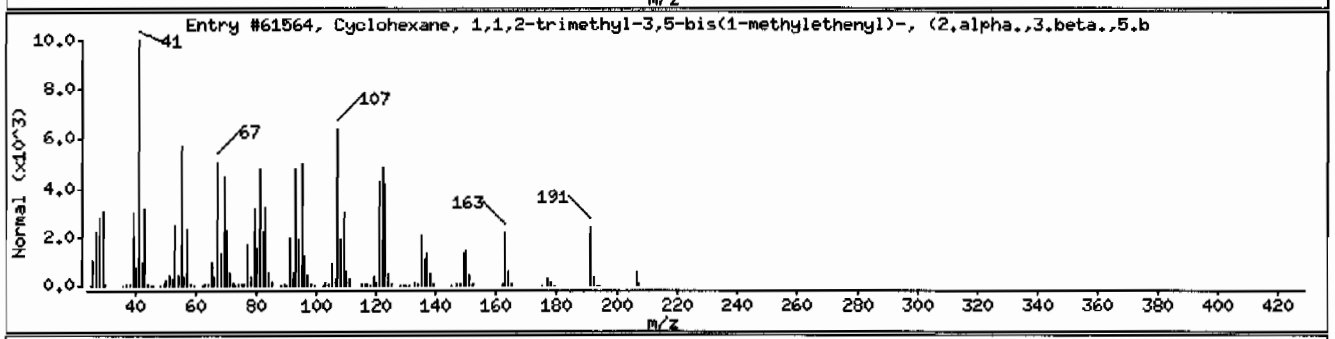

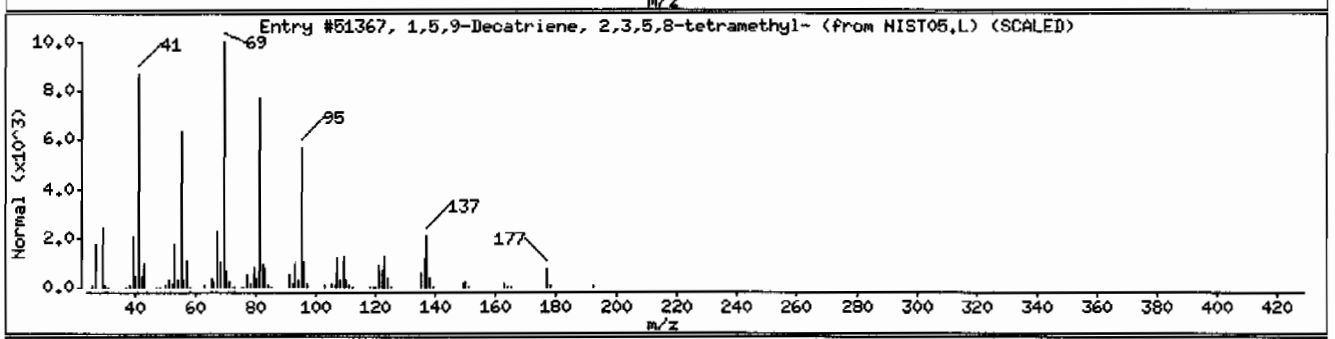

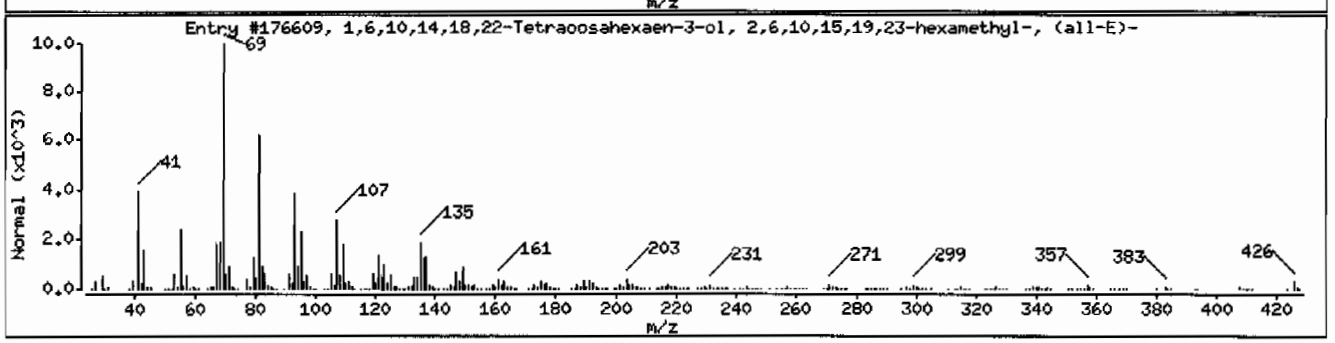

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1086	Date Collected:	12/22/2009 12:00	Matrix:	S
Lab Sample ID:	243552017	Date Received:	12/24/2009 09:30	%Moisture:	6.9
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-10-9874	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	937367	Inst:	MSD1.I	Dilution:	1
Run Date:	12/30/2009 18:36	Analyst:	AMY	Inj. Vol:	.5 uL
Prep Date:	12/29/2009 17:48	Aliquot:	30.01 g	Final Volume:	1 mL
Data File:	s113022.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	358	ug/kg	71.5	358
108-95-2	Phenol	U	358	ug/kg	71.5	358
95-57-8	2-Chlorophenol	U	358	ug/kg	71.5	358
106-46-7	1,4-Dichlorobenzene	U	358	ug/kg	71.5	358
621-64-7	N-Nitrosodipropylamine	U	358	ug/kg	71.5	358
59-50-7	4-Chloro-3-methylphenol	U	358	ug/kg	71.5	358
83-32-9	Acenaphthene	U	35.8	ug/kg	11.8	35.8
121-14-2	2,4-Dinitrotoluene	U	358	ug/kg	35.8	358
100-02-7	4-Nitrophenol	U	358	ug/kg	118	358
87-86-5	Pentachlorophenol	U	358	ug/kg	89.4	358
129-00-0	Pyrene	U	35.8	ug/kg	10.7	35.8
110-86-1	Pyridine	U	358	ug/kg	71.5	358
62-53-3	Aniline	U	358	ug/kg	107	358
111-44-4	bis(2-Chloroethyl) ether	U	358	ug/kg	71.5	358
541-73-1	1,3-Dichlorobenzene	U	358	ug/kg	71.5	358
100-51-6	Benzyl alcohol	U	358	ug/kg	107	358
95-50-1	1,2-Dichlorobenzene	U	358	ug/kg	71.5	358
108-60-1	bis(2-Chloroisopropyl)ether	U	358	ug/kg	71.5	358
95-48-7	o-Cresol	U	358	ug/kg	71.5	358
65794-96-9	m,p-Cresols	U	358	ug/kg	107	358
67-72-1	Hexachloroethane	U	358	ug/kg	71.5	358
98-95-3	Nitrobenzene	U	358	ug/kg	71.5	358
78-59-1	Isophorone	U	358	ug/kg	71.5	358
88-75-5	2-Nitrophenol	U	358	ug/kg	71.5	358
105-67-9	2,4-Dimethylphenol	U	358	ug/kg	125	358
111-91-1	bis(2-Chloroethoxy)methane	U	358	ug/kg	71.5	358
120-83-2	2,4-Dichlorophenol	U	358	ug/kg	71.5	358
65-85-0	Benzoic acid	U	715	ug/kg	179	715
91-20-3	Naphthalene	U	35.8	ug/kg	10.7	35.8
106-47-8	4-Chloroaniline	U	358	ug/kg	71.5	358
87-68-3	Hexachlorobutadiene	U	358	ug/kg	71.5	358
91-57-6	2-Methylnaphthalene	U	35.8	ug/kg	7.15	35.8
77-47-4	Hexachlorocyclopentadiene	U	358	ug/kg	71.5	358
88-06-2	2,4,6-Trichlorophenol	U	358	ug/kg	71.5	358
95-95-4	2,4,5-Trichlorophenol	U	358	ug/kg	71.5	358
91-58-7	2-Chloronaphthalene	U	35.8	ug/kg	11.8	35.8
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	358	ug/kg	71.5	358
99-09-2	3-Nitroaniline	U	358	ug/kg	71.5	358

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1086	Date Collected:	12/22/2009 12:00	Matrix:	S
Lab Sample ID:	243552017	Date Received:	12/24/2009 09:30	%Moisture:	6.9
		Client:	LANL010	Project:	LANL01004
Client ID:	RE03-10-9874	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	937367	Inst:	MSD1.I	Dilution:	1
Run Date:	12/30/2009 18:36	Analyst:	AMY	Inj. Vol:	.5 uL
Prep Date:	12/29/2009 17:48	Aliquot:	30.01 g	Final Volume:	1 mL
Data File:	s113022.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	358	ug/kg	71.5	358
606-20-2	2,6-Dinitrotoluene	U	358	ug/kg	35.8	358
208-96-8	Acenaphthylene	U	35.8	ug/kg	10.7	35.8
51-28-5	2,4-Dinitrophenol	U	715	ug/kg	136	715
132-64-9	Dibenzofuran	U	358	ug/kg	71.5	358
84-66-2	Diethylphthalate	U	358	ug/kg	71.5	358
86-73-7	Fluorene	U	35.8	ug/kg	10.7	35.8
7005-72-3	4-Chlorophenylphenylether	U	358	ug/kg	71.5	358
534-52-1	2-Methyl-4,6-dinitrophenol	U	358	ug/kg	71.5	358
100-01-6	4-Nitroaniline	U	358	ug/kg	107	358
	p-Nitroaniline					
122-39-4	Diphenylamine	U	358	ug/kg	71.5	358
122-66-7	Azobenzene	U	358	ug/kg	71.5	358
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	358	ug/kg	71.5	358
118-74-1	Hexachlorobenzene	U	358	ug/kg	71.5	358
85-01-8	Phenanthrene	U	35.8	ug/kg	10.7	35.8
120-12-7	Anthracene	U	35.8	ug/kg	7.15	35.8
84-74-2	Di-n-butylphthalate	U	358	ug/kg	71.5	358
206-44-0	Fluoranthene	U	35.8	ug/kg	10.7	35.8
85-68-7	Butylbenzylphthalate	U	358	ug/kg	71.5	358
56-55-3	Benzo(a)anthracene	U	35.8	ug/kg	10.7	35.8
91-94-1	3,3'-Dichlorobenzidine	U	358	ug/kg	107	358
218-01-9	Chrysene	U	35.8	ug/kg	10.7	35.8
117-81-7	bis(2-Ethylhexyl)phthalate	U	358	ug/kg	71.5	358
117-84-0	Di-n-octylphthalate	U	358	ug/kg	71.5	358
205-99-2	Benzo(b)fluoranthene	U	35.8	ug/kg	10.7	35.8
207-08-9	Benzo(k)fluoranthene	U	35.8	ug/kg	10.7	35.8
50-32-8	Benzo(a)pyrene	U	35.8	ug/kg	10.7	35.8
193-39-5	Indeno(1,2,3-cd)pyrene	U	35.8	ug/kg	10.7	35.8
53-70-3	Dibenzo(a,h)anthracene	U	35.8	ug/kg	10.7	35.8
191-24-2	Benzo(ghi)perylene	U	35.8	ug/kg	10.7	35.8
120-82-1	1,2,4-Trichlorobenzene	U	358	ug/kg	71.5	358

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	1.67	275	ug/kg		J
	Unknown	1.91	185	ug/kg		J

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1086	**Date Collected:**	12/22/2009 12:00	**Matrix:**	S
Lab Sample ID:	243552017	**Date Received:**	12/24/2009 09:30	**%Moisture:**	6.9
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-10-9874	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	937367	**Inst:**	MSD1.I	**Dilution:**	1
Run Date:	12/30/2009 18:36	**Analyst:**	AMY	**Inj. Vol:**	.5 uL
Prep Date:	12/29/2009 17:48	**Aliquot:**	30.01 g	**Final Volume:**	1 mL
Data File:	s113022.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.8	500	ug/kg		JA

GEL Laboratories LLC

Data file : /chem/MSD1.i/s123009.b/s113022.d
Lab Smp Id: 243552017 Client Smp ID: RE03-10-9874
Inj Date : 30-DEC-2009 18:36
Operator : AMY Inst ID: MSD1.i
Smp Info : |243552017|937367|1|SVM|1|LANL
Misc Info : |MSD8270_S|WBN091223-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD1.i/s123009.b/MSD1-M8270AQA-111409.m
Meth Date : 06-Jan-2010 14:43 amy01291 Quant Type: ISTD
Cal Date : 17-NOV-2009 17:42 Cal File: s1k1264.d
Als bottle: 21
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-1086.sub
Target Version: 3.50
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.01000	weight of sample
M	6.86000	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.763	3.816	(1.000)	638684	40.0000	
* 29 Naphthalene-d8	136	4.622	4.675	(1.000)	2553640	40.0000	
* 46 Acenaphthene-d10	164	5.869	5.922	(1.000)	1463564	40.0000	
* 67 Phenanthrene-d10	188	6.863	6.904	(1.000)	2458845	40.0000	
* 91 Chrysene-d12	240	8.481	8.533	(1.000)	2099122	40.0000	
* 98 Perylene-d12	264	9.834	9.910	(1.000)	1594791	40.0000	
$ 3 2-Fluorophenol	112	2.975	3.016	(0.791)	1230649	73.7703	2640
$ 5 Phenol-d5	99	3.499	3.546	(0.930)	1503798	74.1679	2650
$ 20 Nitrobenzene-d5	82	4.128	4.181	(0.893)	702230	41.7281	1490
$ 39 2-Fluorobiphenyl	172	5.363	5.416	(0.914)	1462791	41.7317	1490
$ 60 2,4,6-Tribromophenol	329	6.410	6.457	(1.092)	255848	62.6036	2240
$ 81 p-Terphenyl-d14	244	7.775	7.816	(0.917)	1538659	46.6974	1670

ION RATIO REPORT

SV REPORT

Data file: s113022.d
Report Date: 12/31/2009 09:52
Lab. ID: 243552017 SampleType: SAMPLE
Injection Date: 30-DEC-2009 18:36
Operator: AMY Instrument: MSD1.i
Sample Info: |243552017|937367|1|SVM|1|LANL
Miscellaneous Info: |MSD8270_S|WBN091223-01|
Comment:
Method used: /chem/MSD1.i/s123009.b/MSD1-M8270AQA-111409.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-1086
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
4 Aniline		CAS#: 62-53-3				
66	69873	3.50	3.56	80-120	100	( )
93	278	3.51	3.56	239-299	0	(Q)
17 N-Nitrosodipropylamine				CAS#: 621-64-7		
70	93485	4.13	4.01	80-120	100	(T)
42	57369	4.13	4.00	43-103	61	(T)
43 Dimethylphthalate				CAS#: 131-11-3		
163	257032	5.87	5.65	80-120	100	(T)
164	1463564	5.87	5.65	0- 40	569	(QT)
44 2,6-Dinitrotoluene				CAS#: 606-20-2		
165	184416	5.87	5.70	80-120	100	(T)
63	2258	5.86	5.70	47-107	1	(QT)
50 2,4-Dinitrotoluene				CAS#: 121-14-2		
165	184416	5.87	5.99	80-120	100	(T)
89	2254	5.87	5.99	41-101	1	(QT)
63	2258	5.86	5.99	18- 78	1	(QT)
53 Fluorene				CAS#: 86-73-7		
166	14982	6.41	6.25	80-120	100	(T)
165	14877	6.41	6.25	61-121	99	(T)
167	5388	6.41	6.25	0- 43	36	(T)

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
95 Benzo(b)fluoranthene				CAS#: 205-99-2		
252	830	9.40	9.40	80-120	100	( )
253	289	9.47	9.40	0- 52	35	(T)
125	274	9.46	9.40	0- 42	33	( )

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

Data file : /chem/MSD1.i/s123009.b/s113022.d
Lab Smp Id: 243552017 Client Smp ID: RE03-10-9874
Inj Date : 30-DEC-2009 18:36
Operator : AMY Inst ID: MSD1.i
Smp Info : |243552017|937367|1|SVM|1|LANL
Misc Info : |MSD8270_S|WBN091223-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD1.i/s123009.b/MSD1-M8270AQA-111409.m
Meth Date : 06-Jan-2010 14:43 amy01291 Quant Type: ISTD
Cal Date : 17-NOV-2009 17:42 Cal File: s1k1264.d
Als bottle: 21
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-1086.sub
Target Version: 3.50
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.01000	weight of sample
M	6.86000	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	3.763	3803039	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown				CAS #:			
1.669	730731	7.68575794	275	0		0	10
Unknown				CAS #:			
1.911	490504	5.15907721	184	0		0	10

RT	AREA	CONCENTRATIONS ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	QUANT LIBRARY	LIB ENTRY	CPND #
Unknown Aldol Condensate					CAS #:		
2.805	1329467	13.9832072	500	0		0	10

Data File: /chem/MSD1.i/s123009.b/s113022.d
Date : 30-DEC-2009 18:36
Client ID: RE03-10-9874
Sample Info: |2435520171937367|1|SVM|1|LANL
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Page 1

Instrument: MSD1.i

Operator: AMY
Column diameter: 0.20

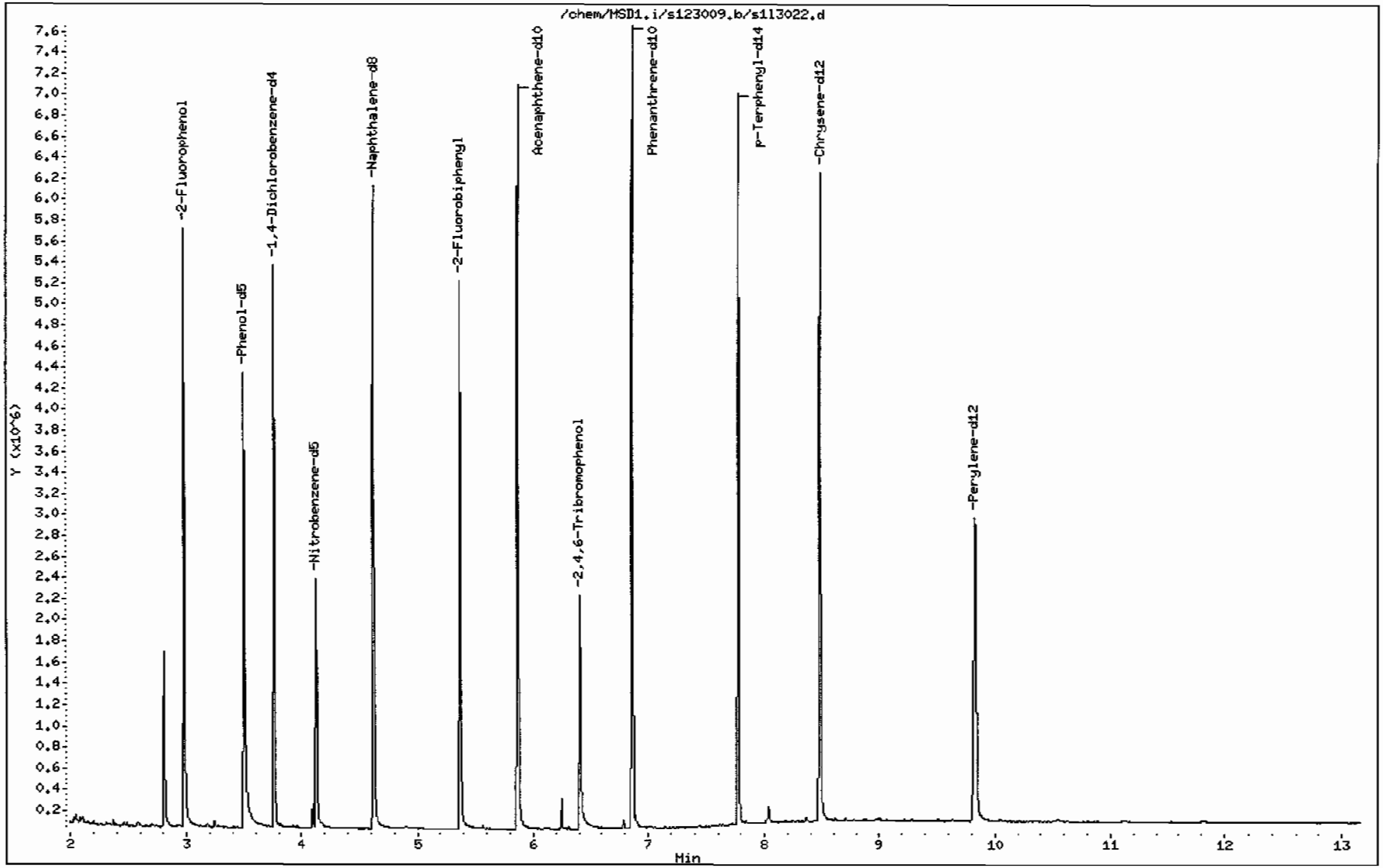

Data File: /chem/MSD1.i/s123009.b/s113022.d

Date : 30-DEC-2009 18:36

Client ID: RE03-10-9874

Instrument: MSD1.i

Sample Info: 1243552017|937367|1|SVHI1|LANL

Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
4-Penten-2-one	13891-87-7	NIST05.L	1372	9	C5H8O	84
Propanal, 2-methyl-	78-84-2	NIST05.L	669	9	C4H8O	72
Propane, 2-(methylthio)-	1551-21-9	NIST05.L	2286	9	C4H10S	90

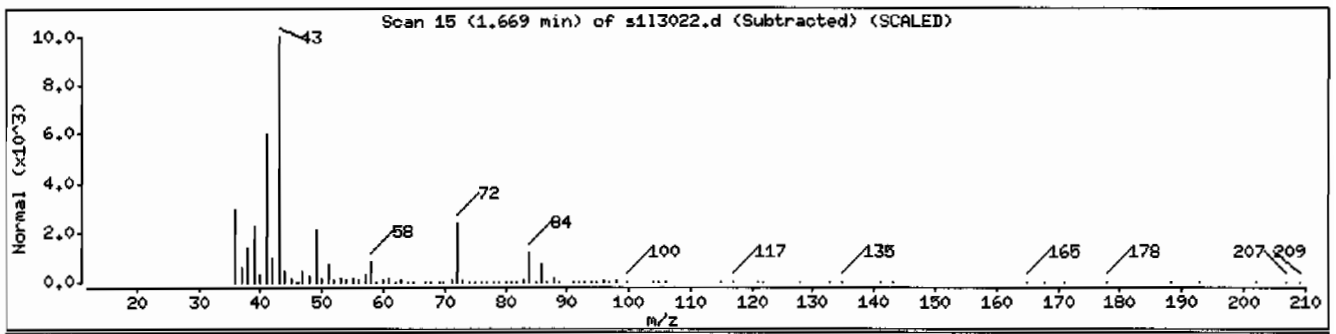

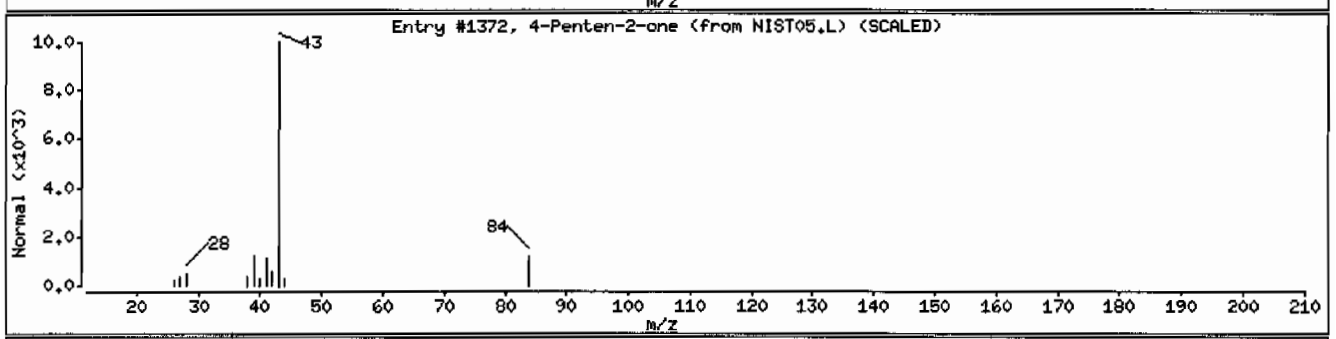

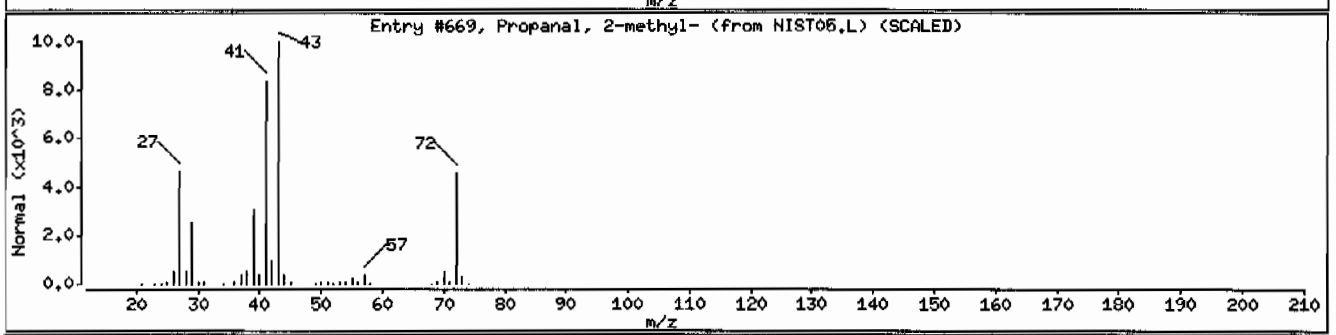

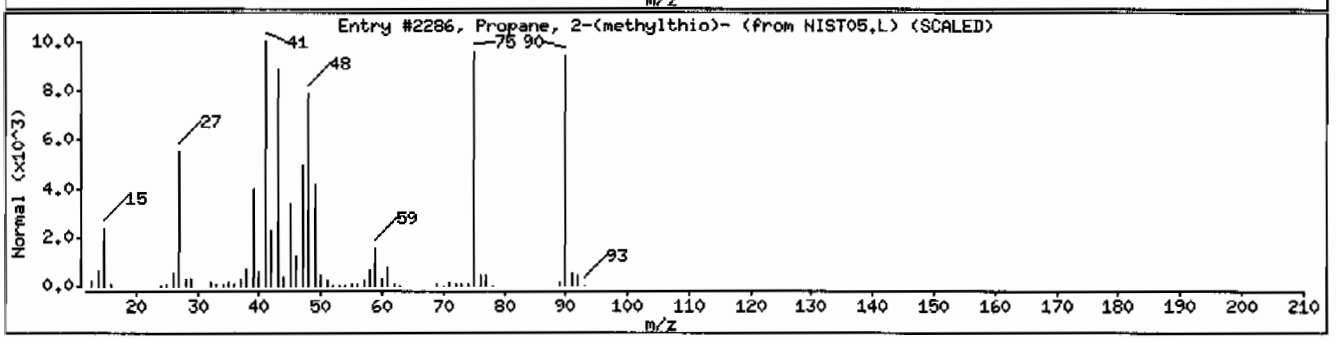

Data File: /chem/MSD1.i/s123009.b/s113022.d

Date : 30-DEC-2009 18:36

Client ID: RE03-10-9874

Instrument: MSD1.i

Sample Info: 1243552017|937367|1|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Propane, 2,2-dimethoxy-	77-76-9	NIST05.L	4663	47	C5H12O2	104
Propane, 2,2-dimethoxy-	77-76-9	NIST05.L	4662	38	C5H12O2	104
Propane, 2,2-dimethoxy-	77-76-9	NIST05.L	4658	28	C5H12O2	104

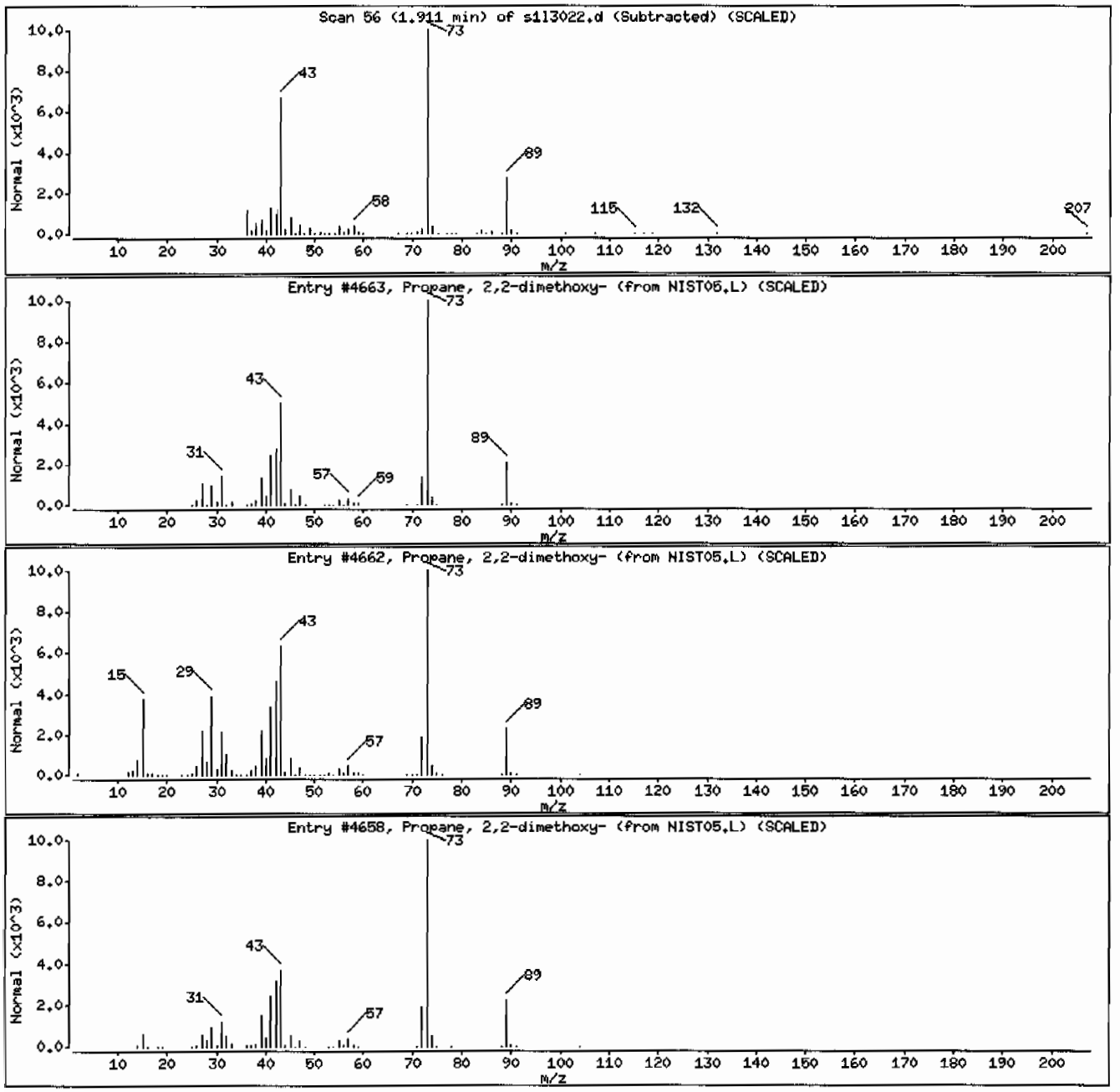

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Date : 30-DEC-2009 18:36

Client ID: RE03-10-9874

Instrument: MSD1.i

Sample Info: |2435520171937367|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	56	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	50	C6H12O2	116
2,3-Butanedione, monooxime	57-71-6	NIST05.L	3949	27	C4H7NO2	101

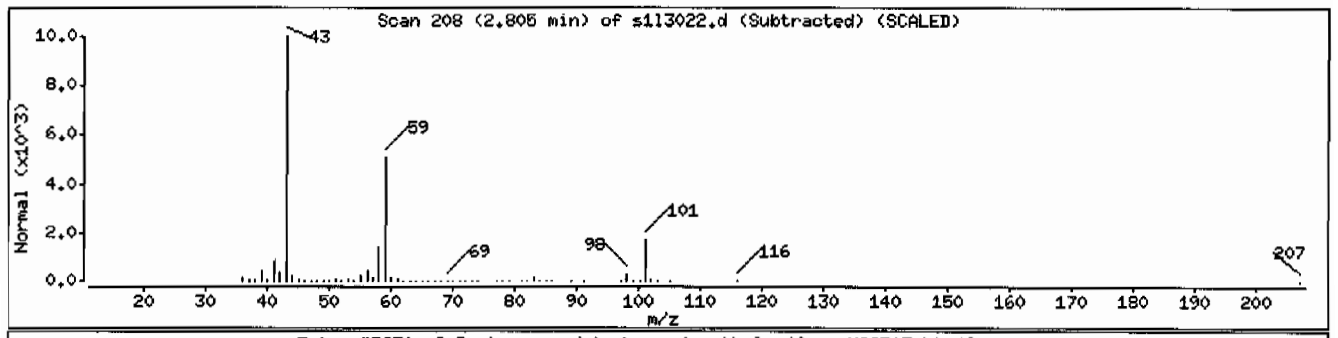

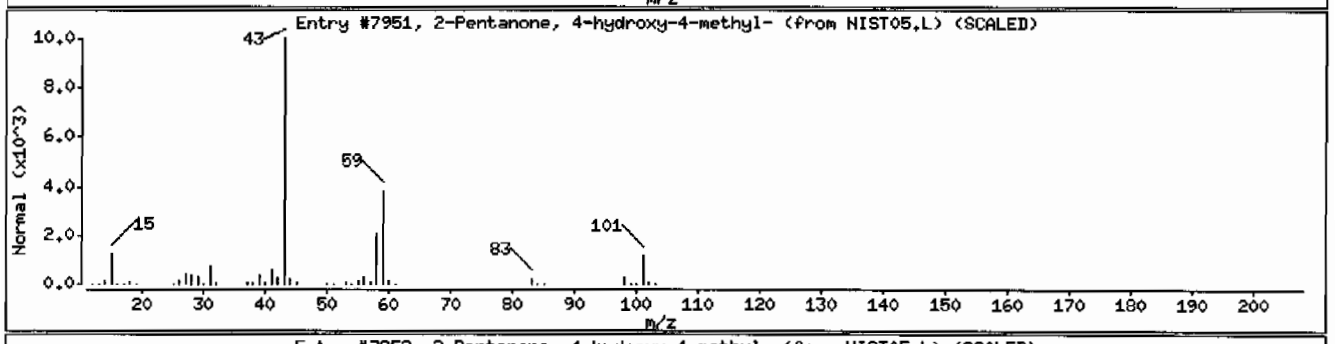

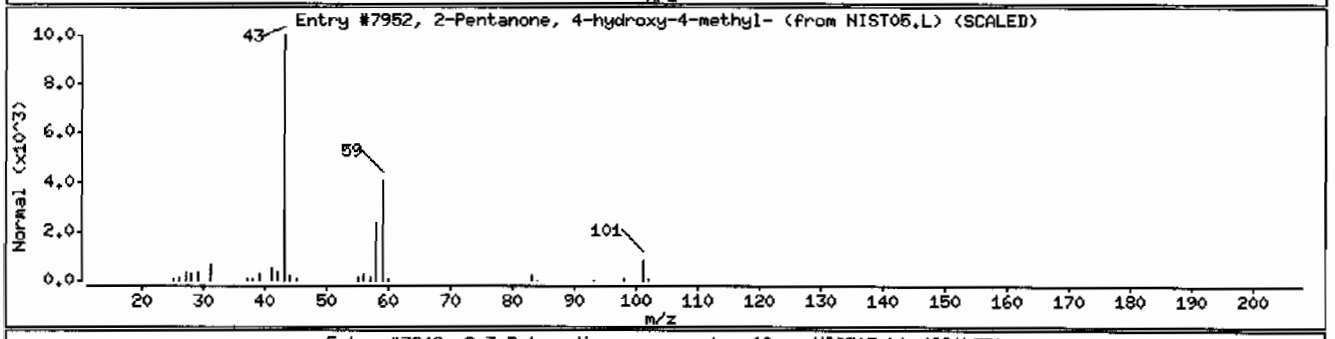

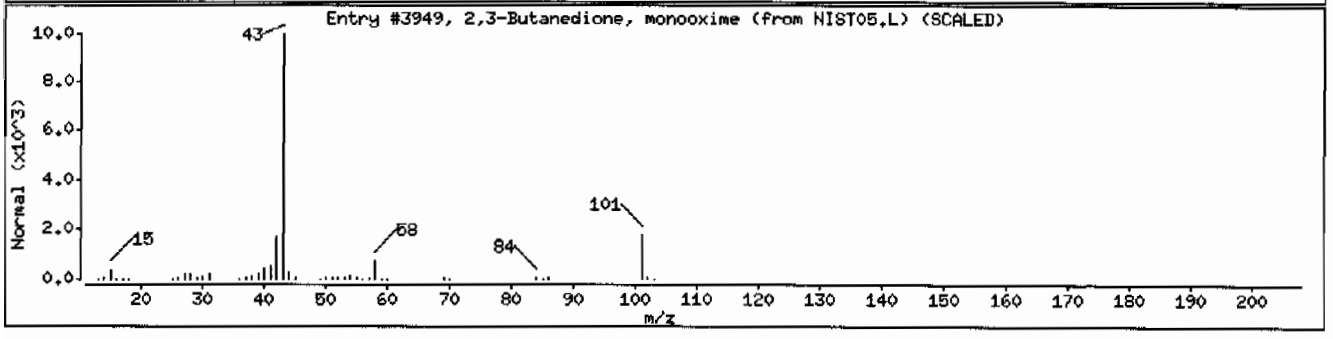

Standard Data

SW846 8270C//8270D/EPA 625								
Calibration Standard Concentration Levels*								
	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
1,4-Dichlorobenzene-d4 (INTERNAL STANDARD)								
Naphthalene-d8 (INTERNAL STANDARD)								
Acenaphthene-d10 (INTERNAL STANDARD)								
Phenanthrene-d10 (INTERNAL STANDARD)								
Chrysene-d12 (INTERNAL STANDARD)								
Perylene-d12 (INTERNAL STANDARD)								
2-Fluorophenol (SURROGATE)		10	20	40	50	80	100	120
Phenol-d5 (SURROGATE)		10	20	40	50	80	100	120
2-Chlorophenol-d4 (CLP SURROGATE)		10	20	40	50	80	100	120
1,2-Dichlorobenzene-d4 (CLP SURROGATE)		10	20	40	50	80	100	120
Nitrobenzene-d5 (SURROGATE)		10	20	40	50	80	100	120
2-Fluorobiphenyl (SURROGATE)		10	20	40	50	80	100	120
2,4,6-Tribromophenol (SURROGATE)		10	20	40	50	80	100	120
p-Terphenyl-d14 (SURROGATE)		10	20	40	50	80	100	120
N-Nitrosodimethylamine		10	20	40	50	80	100	120
Pyridine		10	20	40	50	80	100	120
Aniline		10	20	40	50	80	100	120
Benzaldehyde		10	20	40	50	80	100	120
Phenol		10	20	40	50	80	100	120
bis(2-Chloroethyl)ether	1	10	20	40	50	80	100	120
2-Chlorophenol		10	20	40	50	80	100	120
n-Decane		10	20	40	50	80	100	120
1,3-Dichlorobenzene		10	20	40	50	80	100	120
1,4-Dichlorobenzene		10	20	40	50	80	100	120
Benzyl Alcohol		10	20	40	50	80	100	120
1,2-Dichlorobenzene		10	20	40	50	80	100	120
bis(2-Chloroisopropyl)ether		10	20	40	50	80	100	120
o-Cresol (2-Methylphenol)		10	20	40	50	80	100	120
Acetophenone		10	20	40	50	80	100	120
N-Nitrosodipropylamine	1	10	20	40	50	80	100	120
m,p-Cresols (3-Methylphenol & 4-Methylphenol)		10	20	40	50	80	100	120
Hexachloroethane		10	20	40	50	80	100	120
Nitrobenzene		10	20	40	50	80	100	120
Isophorone		10	20	40	50	80	100	120
2-Nitrophenol		10	20	40	50	80	100	120
2,4-Dimethylphenol		10	20	40	50	80	100	120
bis(2-Chloroethoxy)methane		10	20	40	50	80	100	120
2,4-Dichlorophenol		10	20	40	50	80	100	120
Benzoic Acid			20	40	50	80	100	120
1,2,4-Trichlorobenzene		10	20	40	50	80	100	120
Naphthalene	1	10	20	40	50	80	100	120
alpha-Terpineol		10	20	40	50	80	100	120
4-Chloroaniline		10	20	40	50	80	100	120
Caprolactam		10	20	40	50	80	100	120

SW846 8270C//8270D/EPA 625								
Calibration Standard Concentration Levels*								
	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Hexachlorobutadiene		10	20	40	50	80	100	120
4-Chloro-3-methylphenol		10	20	40	50	80	100	120

2-Methylnaphthalene	1	10	20	40	50	80	100	120
1-Methylnaphthalene	1	10	20	40	50	80	100	120
Hexachlorocyclopentadiene		10	20	40	50	80	100	120
1,1'-Biphenyl		10	20	40	50	80	100	120
2,3-Dichloroaniline		10	20	40	50	80	100	120
2,4,6-Trichlorophenol		10	20	40	50	80	100	120
2,4,5-Trichlorophenol		10	20	40	50	80	100	120
2-Chloronaphthalene	1	10	20	40	50	80	100	120
o-Nitroaniline		10	20	40	50	80	100	120
m-Nitroaniline		10	20	40	50	80	100	120
Dimethylphthalate	1	10	20	40	50	80	100	120
2,6-Dinitrotoluene		10	20	40	50	80	100	120
Acenaphthylene	1	10	20	40	50	80	100	120
Acenaphthene	1	10	20	40	50	80	100	120
2,4-Dinitrophenol			20	40	50	80	100	120
Dibenzofuran		10	20	40	50	80	100	120
2,4-Dinitrotoluene		10	20	40	50	80	100	120
Diethylphthalate	1	10	20	40	50	80	100	120
4-Nitrophenol		10	20	40	50	80	100	120
Fluorene	1	10	20	40	50	80	100	120
4-Chlorophenyl phenyl ether		10	20	40	50	80	100	120
2-Methyl-4,6-dinitrophenol		10	20	40	50	80	100	120
p-Nitroaniline		10	20	40	50	80	100	120
Diphenylamine		10	20	40	50	80	100	120
1,2-Diphenylhydrazine		10	20	40	50	80	100	120
Tributylphosphate		10	20	40	50	80	100	120
4-Bromophenyl phenyether		10	20	40	50	80	100	120
Hexachlorobenzene		10	20	40	50	80	100	120
Atrazine		10	20	40	50	80	100	120
Pentachlorophenol		10	20	40	50	80	100	120
n-Octadecane		10	20	40	50	80	100	120
Phenanthrene	1	10	20	40	50	80	100	120
Anthracene	1	10	20	40	50	80	100	120
Di-n-butylphthalate	1	10	20	40	50	80	100	120
Fluoranthene	1	10	20	40	50	80	100	120
Benzidine		10	20	40	50	80	100	120
Pyrene	1	10	20	40	50	80	100	120
Butylbenzylphthalate	1	10	20	40	50	80	100	120
Benzo(a)anthracene	1	10	20	40	50	80	100	120
3,3'-Dichlorobenzidene		10	20	40	50	80	100	120
Chrysene	1	10	20	40	50	80	100	120
bis (2-Ethylhexyl) phthalate	1	10	20	40	50	80	100	120
Di-n-octylphthalate	1	10	20	40	50	80	100	120

SW846 8270C//8270D/EPA 625								
Calibration Standard Concentration Levels*								
	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Benzo(b)fluoranthene	1	10	20	40	50	80	100	120
Benzo(k)fluoranthene	1	10	20	40	50	80	100	120
Benzo(a)pyrene	1	10	20	40	50	80	100	120
Indeno-(1,2,3-cd)pyrene	1	10	20	40	50	80	100	120
Dibenzo(a,h)anthracene	1	10	20	40	50	80	100	120
Benzo(ghi)perylene	1	10	20	40	50	80	100	120
Carbazole	1	10	20	40	50	80	100	120

APPENDIX IX

1,4-Dioxane		10	20	40	50	80	100	120
Methyl methacrylate		10	20	40	50	80	100	120
Ethyl methacrylate		10	20	40	50	80	100	120
2-Picoline		10	20	40	50	80	100	120
N-Nitrosomethylethylamine		10	20	40	50	80	100	120
Methyl methanesulfonate		10	20	40	50	80	100	120
N-Nitrosodiethylamine		10	20	40	50	80	100	120
Ethyl methanesulfonate		10	20	40	50	80	100	120
Pentachloroethane		10	20	40	50	80	100	120
N-Nitrosopyrrolidine		10	20	40	50	80	100	120
N-Nitrosomorpholine		10	20	40	50	80	100	120
o-Toluidine		10	20	40	50	80	100	120
N-Nitrosopiperidine		10	20	40	50	80	100	120
a,a-Dimethhylphenethylamine		10	20	40	50	80	100	120
Triethylphosphorothioate		10	20	40	50	80	100	120
2,6-Dichlorophenol		10	20	40	50	80	100	120
Hexachloropropene		10	20	40	50	80	100	120
p-Phenylenediamine		10	20	40	50	80	100	120
N-Nitrosodi-n-butylamine		10	20	40	50	80	100	120
Safrole		10	20	40	50	80	100	120
1,2,4,5-Tetrachlorobenzene		10	20	40	50	80	100	120
Isosafrole		10	20	40	50	80	100	120
1,4-Naphthoquinone		10	20	40	50	80	100	120
m-Dinitrobenzene		10	20	40	50	80	100	120
Pentachlorobenzene		10	20	40	50	80	100	120
1-Naphthylamine		10	20	40	50	80	100	120
2-Naphthylamine		10	20	40	50	80	100	120
2,3,4,6-Tetrachlorophenol		10	20	40	50	80	100	120
5-Nitro-o-toluidine		10	20	40	50	80	100	120
Thionazin		10	20	40	50	80	100	120
Sulfotepp		10	20	40	50	80	100	120
Phorate		10	20	40	50	80	100	120
1,3,5-Trinitrobenzene		10	20	40	50	80	100	120
Phenacetin		10	20	40	50	80	100	120
Diallate (cis and trans)		10	20	40	50	80	100	120

SW846 8270C//8270D/EPA 625

Calibration Standard Concentration Levels*

	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Dimethoate		10	20	40	50	80	100	120
4-Aminobiphenyl		10	20	40	50	80	100	120
Pentachloronitrobenzene		10	20	40	50	80	100	120
Pronamide		10	20	40	50	80	100	120
Dinoseb		10	20	40	50	80	100	120
Disulfoton		10	20	40	50	80	100	120
Methyl parathion		10	20	40	50	80	100	120
4-Nitroquinoline oxide		10	20	40	50	80	100	120
Methapyrilene		10	20	40	50	80	100	120
Isodrin		10	20	40	50	80	100	120
Aramite		10	20	40	50	80	100	120
Kepone		10	20	40	50	80	100	120
p-(Dimethylamino)azobenzene		10	20	40	50	80	100	120

Chlorobenzilate		10	20	40	50	80	100	120
3,3'-Dimethylbenzidine		10	20	40	50	80	100	120
Famphur		10	20	40	50	80	100	120
2-Acetylaminofluorene		10	20	40	50	80	100	120
7,12-Dimethylbenz(a)anthracene		10	20	40	50	80	100	120
3-Methylcholanthrene		10	20	40	50	80	100	120
Hexachlorophene		500	1000	1250	1500	1750	2000	
p-Benzoquinone		10	20	40	50	80	100	120
Parathion		10	20	40	50	80	100	120
Methoxychlor		10	20	40	50	80	100	120
2-Ethoxyethanol		50	75	100	125	150	200	250
cis-Diallate		1.5	3	6	7.5	12	15	18
trans-Diallate		8.5	17	34	42	68	85	102
Dibenzo(a,e)pyrene		50	75	100	125	150	200	250
Phthalic anhydride		50	75	100	125	150	200	250
1,4-Dinitrobenzene		50	75	100	125	150	200	250
(2,3-Dibromopropyl)phosphate		50	75	100	125	150	200	250
Methylenebis(2-chloroaniline)		50	75	100	125	150	200	250
p-Toluidine		10	20	40	50	80	100	120
m-Toluidine		10	20	40	50	80	10	120

SW846 8270C//8270D/EPA 625								
Calibration Standard Concentration Levels*								
	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
bis(Chloromethyl)ether		10	20	40	50	80	100	120
Thiophenol		10	20	40	50	80	100	120
4-Chlorothiophenol		10	20	40	50	80	100	120
4-Chlorothio anisole		10	20	40	50	80	100	120
Phthalic acid		10	20	40	50	80	100	120
Hydroxymethyl phthalamide		10	20	40	50	80	100	120
Diphenyl sulfide		10	20	40	50	80	100	120
Diphenyl disulfide		10	20	40	50	80	100	120
Phenyl sulfone		10	20	40	50	80	100	120
Octachlorostyrene		10	20	40	50	80	100	120
2,2'-Dichlorobenzil		10	20	40	50	80	100	120
bis(p-Chlorophenyl)disulfide		10	20	40	50	80	100	120
bis(p-Chlorophenyl)sulfone		10	20	40	50	80	10	120

All values are mg/L without the prep factor.
# Indicates the calibration verification concentration level used
* Usual calibration levels using SCAN methodology
Level 1 may be included at request of client
(06/08)

Report Date: 30-Dec-2009 11:52

Calibration History

Method : /chem/MSD1.i/s123009.b/MSD1-M8270AQA-111409.m
Start Cal Date: 14-NOV-2009 18:22
End Cal Date : 17-NOV-2009 19:15

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 1.00000		
14-NOV-2009 18:22	MEGAIICARE	/chem/MSD1.i/s111409.b/s1k1203.d
Cal Level: 2 , Cal Amount: 10.00000		
17-NOV-2009 16:56	nev	/chem/MSD1.i/s111409.b/s1k1262.d
15-NOV-2009 20:55	hex	/chem/MSD1.i/s111409.b/s1k1229.d
15-NOV-2009 18:11	pest	/chem/MSD1.i/s111409.b/s1k1222.d
15-NOV-2009 15:28	ap12	/chem/MSD1.i/s111409.b/s1k1215.d
14-NOV-2009 18:51	MEGAIICARE	/chem/MSD1.i/s111409.b/s1k1204.d
Cal Level: 3 , Cal Amount: 20.00000		
17-NOV-2009 17:19	nev	/chem/MSD1.i/s111409.b/s1k1263.d
15-NOV-2009 21:18	hex	/chem/MSD1.i/s111409.b/s1k1230.d
15-NOV-2009 18:35	pest	/chem/MSD1.i/s111409.b/s1k1223.d
15-NOV-2009 15:51	ap12	/chem/MSD1.i/s111409.b/s1k1216.d
14-NOV-2009 19:21	MEGAIICARE	/chem/MSD1.i/s111409.b/s1k1205.d
Cal Level: 4 , Cal Amount: 40.00000		
17-NOV-2009 17:42	nev	/chem/MSD1.i/s111409.b/s1k1264.d
15-NOV-2009 21:42	hex	/chem/MSD1.i/s111409.b/s1k1231.d
15-NOV-2009 18:58	pest	/chem/MSD1.i/s111409.b/s1k1224.d
15-NOV-2009 16:14	ap12	/chem/MSD1.i/s111409.b/s1k1217.d
14-NOV-2009 19:50	MEGAIICARE	/chem/MSD1.i/s111409.b/s1k1206.d
Cal Level: 5 , Cal Amount: 50.00000		
17-NOV-2009 18:05	nev	/chem/MSD1.i/s111409.b/s1k1265.d
15-NOV-2009 22:06	hex	/chem/MSD1.i/s111409.b/s1k1232.d
15-NOV-2009 19:21	pest	/chem/MSD1.i/s111409.b/s1k1225.d
15-NOV-2009 16:38	ap12	/chem/MSD1.i/s111409.b/s1k1218.d
14-NOV-2009 20:19	MEGAIICARE	/chem/MSD1.i/s111409.b/s1k1207.d
Cal Level: 6 , Cal Amount: 80.00000		
17-NOV-2009 18:28	nev	/chem/MSD1.i/s111409.b/s1k1266.d
15-NOV-2009 22:30	hex	/chem/MSD1.i/s111409.b/s1k1233.d
15-NOV-2009 19:45	pest	/chem/MSD1.i/s111409.b/s1k1226.d
15-NOV-2009 17:01	ap12	/chem/MSD1.i/s111409.b/s1k1219.d
14-NOV-2009 20:47	MEGAIICARE	/chem/MSD1.i/s111409.b/s1k1208.d
Cal Level: 7 , Cal Amount: 100.00000		

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|17-NOV-2009 18:52 |nev              |/chem/MSD1.i/s111409.b/s1k1267.d        |
|15-NOV-2009 22:53 |hex              |/chem/MSD1.i/s111409.b/s1k1234.d        |
|15-NOV-2009 20:09 |pest             |/chem/MSD1.i/s111409.b/s1k1227.d        |
|15-NOV-2009 17:24 |ap12             |/chem/MSD1.i/s111409.b/s1k1220.d        |
|14-NOV-2009 21:16 |MEGAIICARE       |/chem/MSD1.i/s111409.b/s1k1209.d        |
+------------------+-----------------+----------------------------------------+

+------------------+-----------------+----------------------------------------+
| Cal Level: 8 , Cal Amount: 120.00000                                        |
+==============================================================================+
|17-NOV-2009 19:15 |nev              |/chem/MSD1.i/s111409.b/s1k1268.d        |
|15-NOV-2009 20:31 |pest             |/chem/MSD1.i/s111409.b/s1k1228.d        |
|15-NOV-2009 17:47 |ap12             |/chem/MSD1.i/s111409.b/s1k1221.d        |
|14-NOV-2009 21:45 |MEGAIICARE       |/chem/MSD1.i/s111409.b/s1k1210.d        |
+------------------+-----------------+----------------------------------------+
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Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

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+------------------+-----------------+----------------------------------------+
| Ccal Level: 4 , Ccal Amount: 40.0                                           |
+==============================================================================+
|30-DEC-2009 10:40 |MEGAIICARE       |/chem/MSD1.i/s123009.b/s113003.d        |
+------------------+-----------------+----------------------------------------+
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GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 14-NOV-2009 18:22
End Cal Date : 17-NOV-2009 19:15
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD1.i/s123009.b/MSD1-M8270AQA-111409.m
Cal Date : 30-Dec-2009 11:08 amy01291

Calibration File Names:
Level 1: /chem/MSD1.i/s111409.b/s1k1203.d
Level 2: /chem/MSD1.i/s111409.b/s1k1262.d
Level 3: /chem/MSD1.i/s111409.b/s1k1263.d
Level 4: /chem/MSD1.i/s111409.b/s1k1264.d
Level 5: /chem/MSD1.i/s111409.b/s1k1265.d
Level 6: /chem/MSD1.i/s111409.b/s1k1266.d
Level 7: /chem/MSD1.i/s111409.b/s1k1267.d
Level 8: /chem/MSD1.i/s111409.b/s1k1268.d

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
1 N-Methyl-N-nitrosomethylamine	+++++	0.54039	0.59425	0.56483	0.56773	0.57115					
	0.58358	0.54985					AVRG		0.56740		3.25055
2 Pyridine	+++++	0.93895	1.06231	1.03607	0.88870	0.86312					
	1.01434	0.86615					AVRG		0.95281		8.83991
4 Aniline	+++++	0.52437	0.56877	0.55954	0.56752	0.56439					
	0.57920	0.54312					AVRG		0.55813		3.31324
209 Benzaldehyde	+++++	0.85863	0.89515	0.82459	0.84178	+++++					
	0.78498	0.73887					AVRG		0.82400		6.72378
6 Phenol	+++++	1.30044	1.37922	1.37450	1.34330	1.33206					
	1.36293	1.27353					AVRG		1.33800		2.93989

GEL Laboratories LLC

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Cal Date : 30-Dec-2009 11:08 amy01291

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
7 bis(2-Chloroethyl) ether	0.97066	0.92013	0.97374	0.95071	0.94120	0.92474					
	0.92138	0.84393					AVRG		0.93081		4.39644
8 2-Chlorophenol	+++++	1.10018	1.18374	1.15316	1.14675	1.13425					
	1.15576	1.08633					AVRG		1.13717		2.96542
203 n-Decane	+++++	1.60577	1.68138	1.52755	1.45137	1.35767					
	1.27260	1.12485					AVRG		1.43160		13.59167
9 1,3-Dichlorobenzene	+++++	1.34153	1.44138	1.36782	1.35778	1.32788					
	1.29449	1.20929					AVRG		1.33431		5.33878
11 1,4-Dichlorobenzene	+++++	1.33212	1.41388	1.35420	1.32607	1.29299					
	1.26993	1.16675					AVRG		1.30799		5.91221
12 Benzyl alcohol	+++++	0.65002	0.69243	0.70051	0.67929	0.68651					
	0.73179	0.69932					AVRG		0.69141		3.57264
13 1,2-Dichlorobenzene	+++++	1.29605	1.34639	1.26381	1.21944	1.15866					
	1.13607	1.03545					AVRG		1.20798		8.78247
14 bis(2-Chloroisopropyl)ether	+++++	2.32509	2.42028	2.31148	2.26329	2.15456					
	2.11135	1.93355					AVRG		2.21709		7.35350
15 o-Cresol	+++++	0.90774	0.91911	0.87727	0.85502	0.81471					
	0.80779	0.74384					AVRG		0.84650		7.32849

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Cal Date : 30-Dec-2009 11:08 amy01291

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
16 Acetophenone	+++++	1.16435	1.20208	1.12556	1.15316	+++++					
	1.08411	1.04352					AVRG		1.12880		5.09017
17 N-Nitrosodipropylamine	0.81293	0.75653	0.80116	0.77693	0.78822	0.71050					
	0.77452	0.67823					AVRG		0.76238		6.05014
18 m,p-Cresols	+++++	1.13181	1.16963	1.17353	1.13669	1.14618					
	1.18516	1.11948					AVRG		1.15179		2.12873
19 Hexachloroethane	+++++	0.47556	0.50281	0.48245	0.48088	0.46955					
	0.46206	0.42193					AVRG		0.47075		5.31168
21 Nitrobenzene	+++++	0.28437	0.30442	0.28298	0.28351	0.27052					
	0.25822	0.23858					AVRG		0.27466		7.74785
22 Isophorone	+++++	0.49709	0.51707	0.49540	0.49196	0.47802					
	0.46730	0.41658					AVRG		0.48049		6.70733
23 2-Nitrophenol	+++++	0.14839	0.15989	0.15609	0.15578	0.14421					
	0.13558	0.12065					AVRG		0.14580		9.49803
24 2,4-Dimethylphenol	+++++	0.25377	0.24260	0.23030	0.24361	0.23323					
	0.21824	0.21248					AVRG		0.23346		6.25831
25 bis(2-Chloroethoxy)methane	+++++	0.32659	0.33857	0.32017	0.31630	0.30271					
	0.29085	0.27012					AVRG		0.30933		7.51487

GEL Laboratories LLC

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Cal Date : 30-Dec-2009 11:08 amy01291

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
26 2,4-Dichlorophenol	+++++	0.21991	0.23451	0.22671	0.22578	0.22138					
	0.21025	0.19507					AVRG		0.21909		5.89795
27 Benzoic acid	+++++	+++++	0.12652	0.15647	0.17043	0.17939					
	0.17420	0.15820					AVRG		0.16087		11.85426
28 1,2,4-Trichlorobenzene	+++++	0.25324	0.26639	0.25283	0.25336	0.23817					
	0.22476	0.20597					AVRG		0.24210		8.56147
30 Naphthalene	1.00192	0.89427	0.93446	0.86563	0.83102	0.76369					
	0.73215	0.65539					AVRG		0.83482		13.59329
204 alpha-Terpineol	+++++	0.21791	0.22387	0.20802	0.18690	0.18694					
	0.18377	0.16707					AVRG		0.19635		10.50339
31 4-Chloroaniline	+++++	0.39677	0.40757	0.39487	0.39324	0.37614					
	0.36195	0.33806					AVRG		0.38123		6.35973
189 Caprolactam	+++++	0.06846	0.07656	0.07363	0.07653	+++++					
	0.06782	0.06711					AVRG		0.07169		6.15581
32 Hexachlorobutadiene	+++++	0.13511	0.14100	0.13045	0.12864	0.12021					
	0.11205	0.10277					AVRG		0.12432		10.80535
33 4-Chloro-3-methylphenol	+++++	0.21530	0.22699	0.22627	0.22610	0.21202					
	0.21204	0.17967					AVRG		0.21406		7.75567

GEL Laboratories LLC

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
34 2-Methylnaphthalene	0.63189	0.59091	0.61031	0.56805	0.55492	0.51261					
	0.47801	0.44368					AVRG		0.54880		11.97650
35 1-Methylnaphthalene	0.57039	0.52594	0.54774	0.50754	0.49716	0.46294					
	0.43668	0.39804					AVRG		0.49330		11.71827
36 Hexachlorocyclopentadiene	+++++	0.10604	0.13033	0.13014	0.13942	0.12687					
	0.11688	0.10523					AVRG		0.12213		10.70285
208 1,1'-Biphenyl	+++++	1.17951	1.24377	1.14549	1.13585	+++++					
	1.04839	0.97002					AVRG		1.12050		8.68804
205 2,3-Dichloroaniline	+++++	0.46645	0.48933	0.47427	0.46997	0.44649					
	0.43405	0.39749					AVRG		0.45401		6.79831
37 2,4,6-Trichlorophenol	+++++	0.26977	0.29094	0.27785	0.27904	0.25743					
	0.25024	0.23713					AVRG		0.26606		7.03474
38 2,4,5-Trichlorophenol	+++++	0.26905	0.31036	0.32159	0.23043	0.31171					
	0.26900	0.26816					AVRG		0.28290		11.57703
40 2-Chloronaphthalene	1.06866	1.01017	1.06218	1.02382	1.00740	0.95458					
	0.92971	0.84336					AVRG		0.98748		7.61587
42 o-Nitroaniline	+++++	0.29397	0.31274	0.31408	0.31185	0.30784					
	0.31350	0.28932					AVRG		0.30619		3.33957

GEL Laboratories LLC

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Method file : /chem/MSD1.i/s123009.b/MSD1-M8270AQA-111409.m
Cal Date : 30-Dec-2009 11:08 amy01291

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
41 m-Nitroaniline	+++++	0.27156	0.28234	0.28082	0.27143	0.25979					
	0.28219	0.24573					AVRG		0.27055		5.03620
43 Dimethylphthalate	+++++	1.09522	1.14427	1.12702	1.11254	1.08188					
	1.07235	0.99634					AVRG		1.08995		4.43176
44 2,6-Dinitrotoluene	+++++	0.26660	0.28518	0.28098	0.27933	0.27123					
	0.26992	0.24768					AVRG		0.27156		4.59036
45 Acenaphthylene	1.62784	1.60004	1.67564	1.59865	1.57380	1.47905					
	1.44269	1.32968					AVRG		1.54092		7.42836
47 Acenaphthene	1.00456	0.99034	1.02942	0.97302	0.94853	0.86787					
	0.82882	0.73816					AVRG		0.92259		10.97291
48 2,4-Dinitrophenol	+++++	+++++	0.08843	0.11349	0.11534	0.11082					
	0.11305	0.10198					AVRG		0.10718		9.63049
49 Dibenzofuran	+++++	1.40383	1.45777	1.40759	1.36431	1.30285					
	1.24923	1.15395					AVRG		1.33422		7.92638
50 2,4-Dinitrotoluene	+++++	0.34056	0.36497	0.37079	0.37131	0.36633					
	0.36565	0.33990					AVRG		0.35993		3.80091
51 Diethylphthalate	+++++	1.04278	1.09197	1.06193	1.04018	0.99480					
	0.99307	0.88837					AVRG		1.01616		6.53371

GEL Laboratories LLC

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Cal Date : 30-Dec-2009 11:08 amy01291

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
52 4-Nitrophenol	+++++	0.13809	0.17287	0.18777	0.19477	0.20369					
	0.21665	0.20716					AVRG		0.18871		14.01343
53 Fluorene	1.22796	1.15355	1.19493	1.10753	1.06188	0.99894					
	0.97721	0.88428					AVRG		1.07578		10.93658
54 4-Chlorophenylphenylether	+++++	0.47537	0.49720	0.47503	0.46785	0.44264					
	0.43218	0.38915					AVRG		0.45420		7.92169
55 2-Methyl-4,6-dinitrophenol	+++++	0.08375	0.09608	0.10582	0.10320	0.10771					
	0.10908	0.10272					AVRG		0.10120		8.67983
56 p-Nitroaniline	+++++	0.24392	0.26348	0.26430	0.28144	0.26774					
	0.27465	0.25651					AVRG		0.26458		4.60021
133 Diphenylamine	+++++	0.55588	0.57977	0.55886	0.54789	0.52659					
	0.50269	0.46310					AVRG		0.53354		7.43632
58 1,2-Diphenylhydrazine	+++++	0.69850	0.71486	0.68099	0.66427	0.63670					
	0.61324	0.54832					AVRG		0.65098		8.77582
59 Tributylphosphate	+++++	1.22698	1.16066	1.10479	1.12684	1.06119					
	1.01440	0.96114					AVRG		1.09371		8.21068
61 4-Bromophenylphenylether	+++++	0.13960	0.14381	0.14105	0.13893	0.13903					
	0.13474	0.12486					AVRG		0.13743		4.49074

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Start Cal Date : 14-NOV-2009 18:22
End Cal Date : 17-NOV-2009 19:15
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Integrator : HP RTE
Method file : /chem/MSD1.i/s123009.b/MSD1-M8270AQA-111409.m
Cal Date : 30-Dec-2009 11:08 amy01291

Compound	1 Level 1 100 Level 7	10 Level 2 120 Level 8	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
63 Hexachlorobenzene	+++++	0.18056	0.18610	0.17775	0.16888	0.16686					
	0.15868	0.14199					AVRG		0.16869		8.86819
207 Atrazine	+++++	0.04275	0.04402	0.04191	0.04036	+++++					
	0.03698	0.03447					AVRG		0.04008		9.14364
65 Pentachlorophenol	+++++	0.08713	0.10123	0.10564	0.10198	0.10716					
	0.10688	0.09814					AVRG		0.10117		6.93558
206 n-Octadecane	+++++	0.49445	0.50531	0.45683	0.42873	0.36788					
	0.34975	+++++					AVRG		0.43383		14.85243
68 Phenanthrene	1.08140	0.97577	0.96718	0.91676	0.90684	0.85016					
	0.82329	0.75087					AVRG		0.90903		11.26824
69 Anthracene	1.05572	0.98071	1.00934	0.97561	0.92329	0.88140					
	0.83261	0.73707					AVRG		0.92447		11.24280
72 Di-n-butylphthalate	+++++	1.06714	1.12314	1.06117	1.02135	0.94081					
	0.88726	0.80148					AVRG		0.98605		11.57265
76 Fluoranthene	0.94603	0.94387	0.96313	0.92832	0.88364	0.83514					
	0.79976	0.71979					AVRG		0.87746		9.80038
77 Benzidine	+++++	0.28582	0.36970	0.35152	0.36897	+++++					
	0.43187	0.36504					AVRG		0.36215		12.90005

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	100 Level 7	120 Level 8									
79 Pyrene	1.12921	1.08043	1.13184	1.09423	1.03887	1.05677					
	1.02924	0.94284					AVRG		1.06293		5.79953
85 Butylbenzylphthalate	++++	0.53253	0.56219	0.50335	0.46569	0.43331					
	0.40529	++++					AVRG		0.48372		12.38419
89 Benzo(a)anthracene	1.00602	0.91134	0.98073	0.96992	0.98002	0.96903					
	0.95763	0.89850					AVRG		0.95915		3.79585
90 3,3'-Dichlorobenzidine	+++++	0.24634	0.28908	0.28847	0.28710	++++					
	0.28231	0.25909					AVRG		0.27540		6.60230
92 Chrysene	0.98731	0.93210	0.94599	0.88032	0.86729	0.85456					
	0.87955	0.82465					AVRG		0.89647		6.00506
93 bis(2-Ethylhexyl)phthalate	0.57061	0.72394	0.78180	0.75934	0.74451	0.72196					
	0.68855	0.63132					AVRG		0.70275		10.02985
94 Di-n-octylphthalate	+++++	1.17035	1.39716	1.40560	1.36840	1.34274					
	1.30766	1.16752					AVRG		1.30849		7.70640
95 Benzo(b)fluoranthene	21625	340509	730849	1739197	2305837	3304287					
	3978698	5127789					LINR	0.06661	1.08695		0.99870
96 Benzo(k)fluoranthene	1.03711	1.06722	1.12263	1.01575	1.02623	1.00211					
	0.97020	0.78256					AVRG		1.00298		9.96839

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	100 Level 7	120 Level 8									
97 Benzo(a)pyrene	20918	319721	688146	1504125	2094282	2912657					
	3398226	3934490					LINR	-0.00385	0.87033		0.99612
99 Indeno(1,2,3-cd)pyrene	21578	336515	700258	1580353	2201480	3025334					
	3523403	4020592					LINR	-0.01092	0.89653		0.99431
100 Dibenzo(a,h)anthracene	16162	268427	581631	1325626	1846286	2532762					
	2946699	3397425					LINR	-0.00445	0.75511		0.99519
101 Benzo(ghi)perylene	0.56462	0.70452	0.77602	0.81299	0.83023	0.80394					
	0.79303	0.72783					AVRG		0.75165		11.54879
102 1,4-Dioxane	+++++	0.32550	0.33716	0.30934	0.31455	+++++					
	0.30805	0.28861					AVRG		0.31387		5.27573
103 Methyl methacrylate	+++++	0.17774	0.19107	0.17805	0.17495	+++++					
	0.17326	0.16336					AVRG		0.17640		5.08144
104 Ethyl methacrylate	+++++	0.73346	0.76622	0.70794	0.70643	+++++					
	0.69714	0.66675					AVRG		0.71299		4.73943
105 2-Picoline	+++++	1.18802	1.23130	1.15065	1.15312	+++++					
	1.12223	1.07774					AVRG		1.15384		4.58113
106 N-Nitrosomethylethylamine	+++++	0.42951	0.48460	0.44623	0.45222	+++++					
	0.46395	0.44906					AVRG		0.45426		4.08577

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	100 Level 7	120 Level 8									
107 Methyl methanesulfonate	+++++	0.43204	0.45674	0.42468	0.43227	+++++					
	0.41648	0.39202					AVRG		0.42570		5.00242
108 N-Nitrosodiethylamine	+++++	0.47915	0.50719	0.47065	0.48068	+++++					
	0.47830	0.46128					AVRG		0.47954		3.20356
109 Ethyl Methanesulfonate	+++++	0.59343	0.63202	0.58286	0.59990	+++++					
	0.59568	0.57362					AVRG		0.59625		3.34808
110 Pentachloroethane	+++++	0.30094	0.30775	0.28811	0.28717	+++++					
	0.28774	0.27522					AVRG		0.29115		3.95122
111 N-Nitrosopyrrolidine	+++++	0.47773	0.52978	0.49561	0.51566	+++++					
	0.41369	0.41806					AVRG		0.47509		10.34926
113 N-Nitrosomorpholine	+++++	0.63587	0.69755	0.63481	0.65791	+++++					
	0.54487	0.53392					AVRG		0.61749		10.47980
114 o-Toluidine	+++++	1.64551	1.76888	1.61850	1.65178	+++++					
	1.65679	1.57817					AVRG		1.65327		3.85302
115 N-Nitrosopiperidine	+++++	0.12931	0.13922	0.12850	0.13280	+++++					
	0.13244	0.12709					AVRG		0.13156		3.32124
116 a,a-Dimethylphenethylamine	+++++	0.70597	0.78545	0.76293	0.79408	+++++					
	0.79335	0.76628					AVRG		0.76801		4.32000

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
117 Triethylphosphorothioate	+++++	0.12812	0.12428	0.12751	0.12901	0.12488					
	0.12021	0.11633					AVRG		0.12433		3.70966
118 2,6-Dichlorophenol	+++++	0.18796	0.20530	0.19528	0.20193	+++++					
	0.20014	0.19147					AVRG		0.19701		3.35416
119 Hexachloropropene	+++++	0.07891	0.09539	0.09133	0.09091	+++++					
	0.09225	0.08492					AVRG		0.08895		6.72708
120 p-Phenylenediamine	+++++	0.17417	0.23091	0.21919	0.22009	+++++					
	0.19257	0.17231					AVRG		0.20154		12.55674
121 N-Nitrosodi-n-butylamine	+++++	0.16926	0.19309	0.16843	0.17454	+++++					
	0.16640	0.15862					AVRG		0.17172		6.79719
122 Safrole	+++++	0.18021	0.18852	0.17847	0.18253	+++++					
	0.17443	0.16766					AVRG		0.17864		3.98501
123 1,2,4,5-Tetrachlorobenzene	+++++	0.38048	0.40351	0.37295	0.37017	+++++					
	0.35065	0.32500					AVRG		0.36713		7.29953
124 Isosafrole	+++++	0.32136	0.34935	0.32718	0.32927	+++++					
	0.32898	0.30952					AVRG		0.32761		3.96520
125 1,4-Naphthoquinone	+++++	0.37346	0.38046	0.31457	0.30180	+++++					
	0.18844	0.22186					AVRG		0.29676		26.34996 <-

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	100 Level 7	120 Level 8									
126 m-Dinitrobenzene	+++++	0.17349	0.18721	0.19120	0.19440	0.19057					
	0.19238	0.17644					AVRG		0.18653		4.41251
127 Pentachlorobenzene	+++++	0.32992	0.34557	0.31675	0.31835	+++++					
	0.29677	0.27972					AVRG		0.31451		7.45207
128 1-Naphthylamine	+++++	0.82636	0.98891	0.93384	0.93443	+++++					
	0.87178	0.80990					AVRG		0.89420		7.80762
129 2-Naphthylamine	+++++	0.96588	1.05556	1.00159	1.00599	+++++					
	0.94403	0.87535					AVRG		0.97473		6.34557
130 2,3,4,6-Tetrachlorophenol	+++++	0.20567	0.22518	0.22987	0.20102	0.22712					
	0.21818	0.20523					AVRG		0.21604		5.51582
131 5-Nitro-o-toluidine	+++++	0.25535	0.29363	0.28574	0.29496	+++++					
	0.29982	0.28219					AVRG		0.28528		5.60973
132 Thionazin	+++++	0.16358	0.16364	0.16630	0.16880	0.16339					
	0.15554	0.14821					AVRG		0.16135		4.38820
134 Sulfotepp	+++++	0.08562	0.08304	0.08303	0.08467	0.07953					
	0.07427	0.07214					AVRG		0.08033		6.54838
135 Phorate	+++++	0.36567	0.35586	0.35721	0.36683	0.34385					
	0.32742	0.31541					AVRG		0.34747		5.65187

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
136 1,3,5-Trinitrobenzene	+++++	0.10196	0.12348	0.12395	0.12006	+++++					
	0.11894	0.10898					AVRG		0.11623		7.60291
137 Phenacetin	+++++	0.22684	0.26317	0.26291	0.26441	+++++					
	0.26599	0.25918					AVRG		0.25708		5.83046
138 Diallate	+++++	0.24760	0.24927	0.23322	0.23010	+++++					
	0.21802	0.20853					AVRG		0.23112		6.94549
139 Dimethoate	+++++	0.21461	0.21994	0.23007	0.23724	0.23858					
	0.23513	0.22967					AVRG		0.22932		3.92960
140 4-Aminobiphenyl	+++++	0.53696	0.55369	0.57677	0.59426	+++++					
	0.49840	0.45674					AVRG		0.53614		9.53476
141 Pentachloronitrobenzene	+++++	0.05720	0.06067	0.05490	0.05533	+++++					
	0.04673	0.04463					AVRG		0.05324		11.71339
142 Pronamide	+++++	0.24822	0.26125	0.24154	0.23765	+++++					
	0.17973	+++++					AVRG		0.23368		13.46482
143 Dinoseb	+++++	0.10297	0.12216	0.13126	0.12950	0.13024					
	0.13017	0.12500					AVRG		0.12447		8.06727
144 Disulfoton	+++++	0.32280	0.31415	0.31231	0.32231	0.30214					
	0.27306	0.26345					AVRG		0.30146		7.92046

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	100 Level 7	120 Level 8									
145 Methyl parathion	+++++	0.18413	0.18908	0.19611	0.20206	0.20472					
	0.19613	0.19053					AVRG		0.19468		3.74715
146 4-Nitroquinoline-1-oxide	+++++	0.00831	0.00998	0.00800	0.01074	+++++					
	0.01133	0.01046					AVRG		0.00980		13.77700
147 Methapyrilene	+++++	0.36466	0.38869	0.39386	0.38311	+++++					
	0.36077	0.31821					AVRG		0.36822		7.55340
148 Isodrin	+++++	0.09085	0.09372	0.08925	0.08743	+++++					
	0.07960	0.07570					AVRG		0.08609		8.09255
149 Aramite	+++++	0.04141	0.04570	0.04371	0.04272	+++++					
	0.04204	0.03972					AVRG		0.04255		4.79399
150 Kepone	+++++	0.06055	0.06732	0.06349	0.06380	+++++					
	0.06458	0.05876					AVRG		0.06308		4.80408
151 p-(Dimethylamino)azobenzene	+++++	0.28782	0.31583	0.29702	0.29097	+++++					
	0.26535	0.24656					AVRG		0.28392		8.62091
152 Chlorobenzilate	+++++	0.21991	0.23787	0.22800	0.23044	+++++					
	0.20814	0.19524					AVRG		0.21994		7.17760
153 3,3'-Dimethylbenzidine	+++++	0.45675	0.51768	0.48413	0.48879	+++++					
	0.49372	0.43564					AVRG		0.47945		6.05117

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	100 Level 7	120 Level 8										
154 Famphur	+++++	0.29819	0.30032	0.31780	0.33430	0.32440						
	0.30595	0.30061					AVRG		0.31165		4.49495	
155 2-Acetylaminofluorene	+++++	0.23107	0.30345	0.31881	0.32045	+++++						
	0.34822	0.32608					AVRG		0.30801		13.11206	
157 7,12Dimethylbenz(a)anthracene	+++++	0.41118	0.44192	0.42666	0.43253	+++++						
	0.40970	0.40537					AVRG		0.42123		3.47443	
158 3-Methylcholanthrene	+++++	0.29680	0.36865	0.37932	0.38459	+++++						
	0.39125	0.38204					AVRG		0.36711		9.59696	
26 Phthalic anhydride	+++++	30283	90214	245905	320454	497228						
	555160	687649					LINR	0.08413	0.10332		0.99692	
173 Carbazole	0.90246	0.82255	0.80875	0.81414	0.83946	0.78812						
	0.78058	0.70109					AVRG		0.80714		7.06036	
174 Hexachlorophene	+++++	0.03640	0.04820	0.05180	0.05353	0.05136						
	0.04905	+++++					AVRG		0.04839		12.77621	
179 Dibenzo(a,e)pyrene	+++++	117900	312429	817402	1225621	1557621						
	1812574	+++++					LINR	0.07449	0.50549		0.99368	
185 (2,3-Dibromopropyl)phosphate	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-

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	100 Level 7	120 Level 8									
184 p-Benzoquinone	+++++	2462	14132	46568	48315	83536					
	96111	113764					LINR	0.17192	0.08067		0.99223
191 Parathion	+++++	0.06169	0.06089	0.06449	0.06621	0.06308					
	0.06173	0.06112					AVRG		0.06274		3.14637
192 Methoxychlor	+++++	0.32535	0.36631	0.33959	0.33867	0.27894					
	0.25594	+++++					AVRG		0.31747		13.10686
210 m-Toluidine	+++++	0.77272	0.88703	0.90355	0.94226	1.01524					
	0.94351	+++++					AVRG		0.91072		8.87324
211 p-Toluidine	+++++	0.69169	0.70617	0.72166	0.71562	0.68688					
	+++++	+++++					AVRG		0.70440		2.12367
212 Cis Diallate	+++++	0.23437	0.24880	0.23465	0.23944	+++++					
	0.24434	0.23833					AVRG		0.23999		2.35508
213 Trans Diallate	+++++	0.29129	0.29326	0.27438	0.27070	+++++					
	0.25649	0.24533					AVRG		0.27191		6.94549
214 1,4-Dinitrobenzene	+++++	0.16000	0.17119	0.17754	0.17866	0.17639					
	0.17966	0.16860					AVRG		0.17315		4.08379
215 2-Ethoxyethanol	+++++	0.57555	0.62918	0.65385	0.56961	0.58718					
	0.62071	0.58595					AVRG		0.60315		5.24047

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 14-NOV-2009 18:22
End Cal Date : 17-NOV-2009 19:15
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD1.i/s123009.b/MSD1-M8270AQA-111409.m
Cal Date : 30-Dec-2009 11:08 amy01291

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
216 Methylenebis(2-chloroaniline)	+++++	0.11447	0.12909	0.13171	0.13536	0.13420					
	0.13376	0.12587					AVRG		0.12921		5.63660
229 2,2'-Dichlorobenzil	+++++	0.67948	0.77608	0.71487	+++++	0.73565					
	+++++	0.63422					AVRG		0.70806		7.63914
230 4-Chlorothioanisole	+++++	0.23155	0.23520	0.23685	+++++	0.23140					
	+++++	0.22159					AVRG		0.23132		2.56050
231 4-Chlorothiophenol	+++++	0.15409	0.17482	0.19368	+++++	0.19893					
	+++++	0.19703					AVRG		0.18371		10.41669
232 bis(p-Chlorophenyl)sulfone	+++++	0.39430	0.43698	0.38579	+++++	0.39600					
	+++++	0.34721					AVRG		0.39206		8.15529
233 bis(p-Chlorophenyl)disulfide	+++++	0.10045	0.11150	0.11707	+++++	0.12020					
	+++++	0.10635					AVRG		0.11111		7.18003
234 Diphenyl disulfide	+++++	0.17804	0.18209	0.18631	+++++	0.17491					
	+++++	0.16341					AVRG		0.17695		4.91531
235 Diphenyl sulfide	+++++	0.71955	0.73103	0.70874	+++++	0.65333					
	+++++	0.61709					AVRG		0.68595		7.09988
236 Phenyl sulfone	+++++	0.43275	0.44078	0.42799	+++++	0.41905					
	+++++	0.39177					AVRG		0.42247		4.46830

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 14-NOV-2009 18:22
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Method file : /chem/MSD1.i/s123009.b/MSD1-M8270AQA-111409.m
Cal Date : 30-Dec-2009 11:08 amy01291

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
237 Hydroxymethyl phthalimide	+++++	0.12384	0.15720	0.10384	+++++	0.13032					
	+++++	0.12669					AVRG		0.12838		14.88299
238 Phthalic acid	+++++	24604	70600	163991	+++++	411903					
	+++++	634014					LINR	0.25540	0.11087		0.99102
239 Thiophenol	+++++	0.94048	1.03561	1.08365	+++++	1.12900					
	+++++	1.09332					AVRG		1.05641		6.89893
240 bis(Chloromethyl)ether	+++++	0.78790	0.79417	0.76917	+++++	0.75455					
	+++++	0.73576					AVRG		0.76831		3.12263
241 Octachlorostyrene	+++++	0.06103	0.06315	0.05827	+++++	0.05420					
	+++++	0.04861					AVRG		0.05705		10.14342
M 225 Trichlorophenols	+++++	0.26941	0.30065	0.29972	0.25473	0.28457					
	0.25962	0.25265					AVRG		0.27448		7.49129
M 226 Tetrachlorophenols	+++++	0.20567	0.22518	0.22987	0.20102	0.22712					
	0.21818	0.20523					AVRG		0.21604		5.51582
M 227 Benzo(b,k)fluoranthene	0.78278	0.93887	1.02131	1.01324	1.00976	1.01479					
	1.00963	0.93381					AVRG		0.96552		8.47131
M 228 TTO Sum Semivolatiles	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+00		0.000e+00 <-

GEL Laboratories LLC

INITIAL CALIBRATION DATA

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Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD1.i/s123009.b/MSD1-M8270AQA-111409.m
Cal Date : 30-Dec-2009 11:08 amy01291

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	100 Level 7	120 Level 8										
$ 3 2-Fluorophenol	+++++	0.97776	1.06271	1.06423	1.06306	1.07281						
	1.07136	1.00157					AVRG		1.04478		3.68308	
$ 5 Phenol-d5	+++++	1.21974	1.33050	1.28249	1.27680	1.26954						
	1.29216	1.21764					AVRG		1.26984		3.15351	
$ 187 2-Chlorophenol-d4	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
$ 188 1,2-Dichlorobenzene-d4	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
$ 20 Nitrobenzene-d5	+++++	0.27426	0.28571	0.27066	0.27231	0.25884						
	0.24945	0.23400					AVRG		0.26360		6.62019	
$ 39 2-Fluorobiphenyl	+++++	0.99823	1.04801	1.00239	0.98618	0.93991						
	0.91199	0.81928					AVRG		0.95800		7.87748	
$ 60 2,4,6-Tribromophenol	+++++	0.10924	0.11530	0.11503	0.10898	0.11186						
	0.11271	0.10874					AVRG		0.11169		2.51418	
$ 81 p-Terphenyl-d14	+++++	0.64452	0.67675	0.65301	0.63863	0.61256						
	0.60853	0.56112					AVRG		0.62787		5.98666	

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Integrator : HP RTE
Method file : /chem/MSD1.i/s123009.b/MSD1-M8270AQA-111409.m
Cal Date : 30-Dec-2009 11:08 amy01291

Curve	Formula	Units
Averaged	Amt = Rsp/ml	Response
Linear	Amt = b + Rsp/ml	Response

Report Date: 04-Jan-2010 15:53

Calibration History

Method : /chem/MSD3.i/s010410a.b/MSD3-8270R-AQA-120809.m
Start Cal Date: 06-DEC-2009 10:12
End Cal Date : 08-DEC-2009 12:26

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 1.00000		
06-DEC-2009 10:12	MEGAII	/chem/MSD3.i/s120609.b/s310603.d
Cal Level: 2 , Cal Amount: 10.00000		
07-DEC-2009 18:53	NEV	/chem/MSD3.i/s120709.b/s310715.d
07-DEC-2009 02:36	HEX	/chem/MSD3.i/s120609.b/s310629.d
06-DEC-2009 23:25	PEST	/chem/MSD3.i/s120609.b/s310622.d
08-DEC-2009 09:42	AP12	/chem/MSD3.i/s120809.b/s310803.d
06-DEC-2009 10:41	MEGAII	/chem/MSD3.i/s120609.b/s310604.d
Cal Level: 3 , Cal Amount: 20.00000		
07-DEC-2009 19:21	NEV	/chem/MSD3.i/s120709.b/s310716.d
07-DEC-2009 03:03	HEX	/chem/MSD3.i/s120609.b/s310630.d
06-DEC-2009 23:53	PEST	/chem/MSD3.i/s120609.b/s310623.d
08-DEC-2009 10:09	AP12	/chem/MSD3.i/s120809.b/s310804.d
06-DEC-2009 11:10	MEGAII	/chem/MSD3.i/s120609.b/s310605.d
Cal Level: 4 , Cal Amount: 40.00000		
07-DEC-2009 19:48	NEV	/chem/MSD3.i/s120709.b/s310717.d
07-DEC-2009 03:30	HEX	/chem/MSD3.i/s120609.b/s310631.d
07-DEC-2009 00:20	PEST	/chem/MSD3.i/s120609.b/s310624.d
08-DEC-2009 10:37	AP12	/chem/MSD3.i/s120809.b/s310805.d
06-DEC-2009 11:39	MEGAII	/chem/MSD3.i/s120609.b/s310606.d
Cal Level: 5 , Cal Amount: 50.00000		
07-DEC-2009 20:15	NEV	/chem/MSD3.i/s120709.b/s310718.d
07-DEC-2009 03:57	HEX	/chem/MSD3.i/s120609.b/s310632.d
07-DEC-2009 00:47	PEST	/chem/MSD3.i/s120609.b/s310625.d
08-DEC-2009 11:04	AP12	/chem/MSD3.i/s120809.b/s310806.d
06-DEC-2009 12:08	MEGAII	/chem/MSD3.i/s120609.b/s310607.d
Cal Level: 6 , Cal Amount: 80.00000		
07-DEC-2009 20:43	NEV	/chem/MSD3.i/s120709.b/s310719.d
07-DEC-2009 04:24	HEX	/chem/MSD3.i/s120609.b/s310633.d
07-DEC-2009 01:14	PEST	/chem/MSD3.i/s120609.b/s310626.d
08-DEC-2009 11:31	AP12	/chem/MSD3.i/s120809.b/s310807.d
06-DEC-2009 12:37	MEGAII	/chem/MSD3.i/s120609.b/s310608.d
Cal Level: 7 , Cal Amount: 100.00000		

07-DEC-2009 21:10	NEV	/chem/MSD3.i/s120709.b/s310720.d
07-DEC-2009 04:52	HEX	/chem/MSD3.i/s120609.b/s310634.d
07-DEC-2009 01:42	PEST	/chem/MSD3.i/s120609.b/s310627.d
08-DEC-2009 11:58	AP12	/chem/MSD3.i/s120809.b/s310808.d
06-DEC-2009 13:06	MEGAII	/chem/MSD3.i/s120609.b/s310609.d

Cal Level: 8 , Cal Amount: 120.00000

07-DEC-2009 21:37	NEV	/chem/MSD3.i/s120709.b/s310721.d
07-DEC-2009 02:09	PEST	/chem/MSD3.i/s120609.b/s310628.d
08-DEC-2009 12:26	AP12	/chem/MSD3.i/s120809.b/s310809.d
06-DEC-2009 13:35	MEGAII	/chem/MSD3.i/s120609.b/s310610.d

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 06-DEC-2009 10:12
End Cal Date : 08-DEC-2009 12:26
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD3.i/s010410a.b/MSD3-8270R-AQA-120809.m
Cal Date : 04-Jan-2010 15:41 jen00986

Calibration File Names:
Level 1: /chem/MSD3.i/s120609.b/s310603.d
Level 2: /chem/MSD3.i/s120709.b/s310715.d
Level 3: /chem/MSD3.i/s120709.b/s310716.d
Level 4: /chem/MSD3.i/s120709.b/s310717.d
Level 5: /chem/MSD3.i/s120709.b/s310718.d
Level 6: /chem/MSD3.i/s120709.b/s310719.d
Level 7: /chem/MSD3.i/s120709.b/s310720.d
Level 8: /chem/MSD3.i/s120709.b/s310721.d

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
1 N-Methyl-N-nitrosomethylamine	+++++	0.67943	0.74446	0.67067	0.68393	0.65729					
	0.63769	0.63366					AVRG		0.67245		5.53526
2 Pyridine	+++++	1.08752	1.22168	1.09411	1.11313	1.06272					
	1.01889	1.04243					AVRG		1.09150		6.02473
4 Aniline	+++++	0.54481	0.60225	0.53489	0.56504	0.55250					
	0.55388	0.55218					AVRG		0.55794		3.87001
209 Benzaldehyde	+++++	1.02071	1.05204	0.99760	0.95884	0.93374					
	0.91627	0.87080					AVRG		0.96429		6.55888
6 Phenol	+++++	1.36018	1.49856	1.37161	1.40855	1.36816					
	1.35072	1.36214					AVRG		1.38856		3.73513

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Quant Method : ISTD
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Integrator : HP RTE
Method file : /chem/MSD3.i/s010410a.b/MSD3-8270R-AQA-120809.m
Cal Date : 04-Jan-2010 15:41 jen00986

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
7 bis(2-Chloroethyl) ether	4570	33228	75848	139734	174233	270102					
	336673	416426					LINR	-0.05098	0.82800		0.99934
8 2-Chlorophenol	+++++	1.06804	1.15967	1.05927	1.09176	1.05094					
	1.03133	1.03717					AVRG		1.07117		4.09784
203 n-Decane	+++++	1.26754	1.29419	1.09628	1.07334	0.95760					
	0.88318	+++++					AVRG		1.09536		14.92672
9 1,3-Dichlorobenzene	+++++	1.25893	1.36035	1.21900	1.24996	1.20774					
	1.17912	1.18576					AVRG		1.23726		5.00619
11 1,4-Dichlorobenzene	+++++	1.27305	1.36970	1.23422	1.26367	1.22968					
	1.19729	1.20110					AVRG		1.25267		4.70317
12 Benzyl alcohol	+++++	0.60530	0.71519	0.68049	0.70727	0.69235					
	0.68912	0.69045					AVRG		0.68288		5.29640
13 1,2-Dichlorobenzene	+++++	1.20730	1.29078	1.17369	1.20025	1.16469					
	1.13691	1.14538					AVRG		1.18843		4.38042
14 bis(2-Chloroisopropyl)ether	+++++	1.83611	1.91223	1.68921	1.71358	1.59874					
	1.52180	1.47742					AVRG		1.67844		9.48796
15 o-Cresol	+++++	0.90194	0.97040	0.87970	0.88721	0.87092					
	0.85992	0.86767					AVRG		0.89111		4.21876

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Cal Date : 04-Jan-2010 15:41 jen00986

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
16 Acetophenone	+++++	1.37378	1.40083	1.34491	1.31278	1.30638					
	1.31077	1.27196					AVRG		1.33163		3.32043
17 N-Nitrosodipropylamine	1.02808	0.84067	0.92144	0.82493	0.85947	0.83197					
	0.81546	0.82510					AVRG		0.86839		8.37826
18 m,p-Cresols	+++++	1.06214	1.16857	1.06639	1.10282	1.08174					
	1.06464	1.03101					AVRG		1.08247		4.03823
19 Hexachloroethane	+++++	0.46749	0.50498	0.47459	0.47798	0.46740					
	0.45744	0.45287					AVRG		0.47182		3.61877
21 Nitrobenzene	+++++	0.35630	0.36606	0.32304	0.34982	0.33326					
	0.32569	0.32366					AVRG		0.33969		5.16331
22 Isophorone	+++++	0.55832	0.58884	0.52216	0.56704	0.54306					
	0.53951	0.50734					AVRG		0.54661		5.03280
23 2-Nitrophenol	+++++	0.15227	0.14307	0.13034	0.14431	0.14096					
	0.14422	0.14523					AVRG		0.14291		4.59203
24 2,4-Dimethylphenol	+++++	0.25596	0.27128	0.24222	0.26226	0.25009					
	0.25253	0.25349					AVRG		0.25541		3.62148
25 bis(2-Chloroethoxy)methane	+++++	0.39619	0.41012	0.35978	0.38748	0.36749					
	0.36363	0.36713					AVRG		0.37883		5.07142

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
26 2,4-Dichlorophenol	+++++	0.21194	0.22833	0.20908	0.22866	0.22067					
	0.22177	0.22381					AVRG		0.22061		3.43312
27 Benzoic acid	+++++	+++++	18928	55245	82612	163279					
	230526	301096					LINR	0.45335	0.18283		0.99292
28 1,2,4-Trichlorobenzene	+++++	0.26275	0.27079	0.23986	0.25845	0.24528					
	0.24522	0.24361					AVRG		0.25228		4.62981
30 Naphthalene	16169	115777	268135	496715	630869	955382					
	1186768	1469295					WLINR	-0.01295	0.80532		0.99757
204 alpha-Terpineol	+++++	0.21457	0.22479	0.19537	0.20806	0.19109					
	0.18517	0.18299					AVRG		0.20029		7.89726
31 4-Chloroaniline	+++++	0.21986	0.23798	0.26693	0.28046	0.27805					
	0.30019	0.28838					AVRG		0.26741		10.71392
189 Caprolactam	+++++	0.08696	0.09438	0.08713	0.09439	0.09659					
	0.09138	0.09132					AVRG		0.09173		4.02914
32 Hexachlorobutadiene	+++++	0.15996	0.16625	0.14801	0.15875	0.15027					
	0.15027	0.14963					AVRG		0.15474		4.47073
33 4-Chloro-3-methylphenol	+++++	0.22183	0.25638	0.23320	0.25267	0.24283					
	0.24408	0.24637					AVRG		0.24248		4.84281

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
34 2-Methylnaphthalene	0.76526	0.56802	0.59085	0.52053	0.56147	0.53008					
	0.52618	0.52957					AVRG		0.57399		14.13925
35 1-Methylnaphthalene	0.67031	0.50808	0.52804	0.46484	0.50114	0.47703					
	0.47173	0.47551					AVRG		0.51209		13.17285
36 Hexachlorocyclopentadiene	+++++	0.08323	0.10853	0.11547	0.11629	0.12066					
	0.13967	0.11865					AVRG		0.11464		14.70842
208 1,1'-Biphenyl	+++++	1.26421	1.27174	1.22180	1.19959	1.20426					
	1.18145	1.17598					AVRG		1.21700		3.12176
205 2,3-Dichloroaniline	+++++	0.44734	0.48253	0.44572	0.45855	0.44168					
	0.43858	0.43829					AVRG		0.45038		3.50190
37 2,4,6-Trichlorophenol	+++++	0.25111	0.28591	0.26936	0.27725	0.27019					
	0.26815	0.26469					AVRG		0.26952		3.98735
38 2,4,5-Trichlorophenol	+++++	0.25727	0.30355	0.28556	0.30808	0.30395					
	0.30867	0.31187					AVRG		0.29699		6.56429
40 2-Chloronaphthalene	1.31721	0.99057	1.03775	0.93234	0.95481	0.90793					
	0.89665	0.89340					AVRG		0.99133		14.19802
42 o-Nitroaniline	+++++	0.32222	0.35527	0.33252	0.33758	0.32622					
	0.32561	0.32781					AVRG		0.33246		3.38307

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Cal Date : 04-Jan-2010 15:41 jen00986

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
41 m-Nitroaniline	+++++	8998	20627	69767	92503	151360					
	195653	245193					LINR	0.16127	0.24605		0.99832
43 Dimethylphthalate	+++++	1.06546	1.13464	1.02321	1.04996	1.00027					
	0.99067	1.00551					AVRG		1.03853		4.84197
44 2,6-Dinitrotoluene	+++++	0.25693	0.28224	0.25773	0.26520	0.25587					
	0.25241	0.25655					AVRG		0.26099		3.88296
45 Acenaphthylene	1.95808	1.52016	1.62601	1.45179	1.48653	1.41128					
	1.39965	1.40305					AVRG		1.53207		12.27930
47 Acenaphthene	1.26814	0.92364	0.99186	0.89754	0.92376	0.87713					
	0.86122	0.86222					AVRG		0.95069		14.22336
48 2,4-Dinitrophenol	+++++	-++++	9531	25751	34616	67000					
	100458	124978					LINR	0.40363	0.13555		0.99006
49 Dibenzofuran	+++++	1.36845	1.44295	1.29685	1.32436	1.25126					
	1.23153	1.22744					AVRG		1.30612		6.07614
50 2,4-Dinitrotoluene	+++++	0.31836	0.36307	0.33598	0.34123	0.32861					
	0.32696	0.32767					AVRG		0.33455		4.33599
51 Diethylphthalate	+++++	1.06349	1.13795	1.02459	1.05132	0.99678					
	0.96898	0.97892					AVRG		1.03172		5.68951

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End Cal Date : 08-DEC-2009 12:26
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD3.i/s010410a.b/MSD3-8270R-AQA-120809.m
Cal Date : 04-Jan-2010 15:41 jen00986

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	ml	m2	%RSD or R^2
	100 Level 7	120 Level 8									
52 4-Nitrophenol	+++++	7109	22586	49176	61666	105195					
	146314	174964					LINR	0.13564	0.17470		0.99658
53 Fluorene	1.49556	1.11508	1.20308	1.08436	1.10021	1.04439					
	1.02768	1.01942					AVRG		1.13622		13.79124
54 4-Chlorophenylphenylether	+++++	0.50843	0.54216	0.48887	0.49926	0.47308					
	0.46366	0.46369					AVRG		0.49131		5.76111
55 2-Methyl-4,6-dinitrophenol	+++++	5577	20662	48253	62460	109150					
	151521	181628					LINR	0.17358	0.11171		0.99725
56 p-Nitroaniline	+++++	10479	23488	51535	72065	130730					
	188690	224423					LINR	0.22131	0.23039		0.99022
133 Diphenylamine	+++++	0.53712	0.54351	0.49810	0.51956	0.50623					
	0.50761	0.50884					AVRG		0.51728		3.29337
58 1,2-Diphenylhydrazine	+++++	0.79395	0.85739	0.77414	0.79443	0.73987					
	0.72082	0.71637					AVRG		0.77099		6.48952
59 Tributylphosphate	+++++	1.34754	1.40434	1.36844	1.34363	1.28089					
	1.28992	1.26412					AVRG		1.32841		3.86756
61 4-Bromophenylphenylether	+++++	0.14542	0.15923	0.14682	0.15277	0.14749					
	0.14638	0.14826					AVRG		0.14948		3.28199

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	100 Level 7	120 Level 8									
63 Hexachlorobenzene	+++++	0.17367	0.18968	0.17483	0.18358	0.17666					
	0.17653	0.17800					AVRG		0.17899		3.17123
207 Atrazine	+++++	0.04547	0.04789	0.04541	0.04379	0.04233					
	0.04166	0.03974					AVRG		0.04375		6.28656
65 Pentachlorophenol	+++++	5125	20120	47371	62276	108116					
	147939	190753					LINR	0.20373	0.11468		0.99761
206 n-Octadecane	+++++	0.49528	0.52742	0.45971	0.47133	0.42486					
	0.40259	0.39001					AVRG		0.45303		11.03990
68 Phenanthrene	1.28804	0.92662	1.00321	0.90696	0.91702	0.86826					
	0.86689	0.86023					AVRG		0.95465		14.92256
69 Anthracene	1.22432	0.94868	1.02723	0.93474	0.95117	0.89937					
	0.89891	0.88541					AVRG		0.97123		11.49124
72 Di-n-butylphthalate	+++++	1.01024	1.12625	1.03541	1.07328	1.00092					
	0.97512	0.96044					AVRG		1.02595		5.64681
76 Fluoranthene	1.13506	0.91582	1.01772	0.92132	0.92811	0.87998					
	0.89411	0.86792					AVRG		0.94500		9.45361
77 Benzidine	+++++	13242	28067	121292	145292	229608					
	+++++	+++++					LINR	0.23308	0.33868		0.99360

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	100 Level 7	120 Level 8									
79 Pyrene	1.32796	1.10937	1.17546	1.07481	1.10786	1.08578					
	1.02162	1.04531					AVRG		1.11852		8.61766
85 Butylbenzylphthalate	+++++	0.48784	0.55867	0.52303	0.55554	0.53440					
	0.50034	0.51500					AVRG		0.52498		5.06830
89 Benzo(a)anthracene	1.27924	0.93976	0.99698	0.91211	0.93307	0.88441					
	0.88126	0.87764					AVRG		0.96306		13.89402
90 3,3'-Dichlorobenzidine	+++++	0.22599	0.25141	0.30097	0.28293	0.27489					
	0.29870	0.28934					AVRG		0.27489		9.92155
92 Chrysene	1.17240	0.86747	0.93266	0.84872	0.86424	0.83169					
	0.82423	0.81317					AVRG		0.89432		13.22520
93 bis(2-Ethylhexyl)phthalate	0.64156	0.70968	0.78820	0.71666	0.76491	0.70530					
	0.64105	0.62866					AVRG		0.69950		8.43497
94 Di-n-octylphthalate	+++++	1.30330	1.58098	1.48483	1.58864	1.49324					
	1.40369	1.48498					AVRG		1.47710		6.72530
95 Benzo(b)fluoranthene	1.14287	0.99761	1.08613	0.99866	1.06304	1.00973					
	1.05381	1.10097					AVRG		1.05660		4.97815
96 Benzo(k)fluoranthene	1.21762	0.97826	1.08557	0.98710	0.97424	0.95201					
	0.90253	0.89505					AVRG		0.99905		10.61976

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	100 Level 7	120 Level 8									
97 Benzo(a)pyrene	0.89631	0.80728	0.92629	0.85263	0.88988	0.85471					
	0.86398	0.86242					AVRG		0.86919		4.08253
99 Indeno(1,2,3-cd)pyrene	0.88470	0.67257	0.79574	0.73311	0.79072	0.73301					
	0.79815	0.70975					AVRG		0.76472		8.65543
100 Dibenzo(a,h)anthracene	0.77717	0.56282	0.65665	0.60884	0.66191	0.61909					
	0.67856	0.60613					AVRG		0.64640		9.99962
101 Benzo(ghi)perylene	0.82823	0.59201	0.66562	0.60292	0.65494	0.59680					
	0.64570	0.56162					AVRG		0.64348		12.85995
102 1,4-Dioxane	+++++	0.40773	0.40019	0.37522	0.38135	0.37922					
	0.35134	0.34853					AVRG		0.37765		5.89649
103 Methyl methacrylate	+++++	0.23020	0.22560	0.21852	0.21824	0.21052					
	0.19800	0.19960					AVRG		0.21438		5.74380
104 Ethyl methacrylate	+++++	0.87914	0.89122	0.84372	0.83343	0.83525					
	0.81038	0.79106					AVRG		0.84060		4.20722
105 2-Picoline	+++++	1.44338	1.43161	1.36083	1.33756	1.35081					
	1.31406	1.28591					AVRG		1.36059		4.27148
106 N-Nitrosomethylethylamine	+++++	0.56064	0.56927	0.54338	0.53547	0.54388					
	0.54172	0.53704					AVRG		0.54734		2.31584

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	100 Level 7	120 Level 8									
107 Methyl methanesulfonate	+++++	0.61824	0.61677	0.58583	0.57116	0.55903					
	0.55322	0.53955					AVRG		0.57769		5.32696
108 N-Nitrosodiethylamine	+++++	0.56922	0.58319	0.56262	0.55136	0.55913					
	0.56022	0.55186					AVRG		0.56251		1.95725
109 Ethyl Methanesulfonate	+++++	0.76770	0.77890	0.74736	0.72988	0.73521					
	0.72903	0.71628					AVRG		0.74348		3.03674
110 Pentachloroethane	+++++	0.31913	0.32392	0.31369	0.30674	0.31070					
	0.30692	0.30182					AVRG		0.31184		2.46493
111 N-Nitrosopyrrolidine	+++++	0.57409	0.60173	0.59457	0.58397	0.58513					
	0.53679	0.52882					AVRG		0.57216		4.95238
113 N-Nitrosomorpholine	+++++	0.72127	0.73483	0.70050	0.67638	0.66110					
	0.65461	0.62793					AVRG		0.68237		5.61742
114 o-Toluidine	+++++	1.85975	1.90667	1.81811	1.79337	1.79504					
	1.79339	1.75730					AVRG		1.81766		2.75332
115 N-Nitrosopiperidine	+++++	0.15150	0.15914	0.15436	0.15132	0.15496					
	0.15463	0.15261					AVRG		0.15407		1.74096
116 a,a-Dimethylphenethylamine	+++++	0.67729	0.77169	0.81345	0.80122	0.85594					
	0.86913	0.86098					AVRG		0.80710		8.35998

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	100 Level 7	120 Level 8										
117 Triethylphosphorothioate	+++++	0.13951	0.14249	0.14044	0.13647	0.13489						
	0.13602	0.13657					AVRG		0.13806		2.01303	
118 2,6-Dichlorophenol	+++++	0.21873	0.22853	0.22163	0.21640	0.22058						
	0.21985	0.21964					AVRG		0.22077		1.71840	
119 Hexachloropropene	+++++	0.10297	0.10669	0.11052	0.11353	0.11186						
	0.10484	0.11311					AVRG		0.10907		3.87058	
120 p-Phenylenediamine	+++++	0.13359	0.22355	0.29709	0.28378	0.24514						
	0.24211	0.22968					AVRG		0.23642		22.39280	<-
121 N-Nitrosodi-n-butylamine	+++++	0.27093	0.28578	0.23871	0.22611	0.22352						
	0.22392	0.21998					AVRG		0.24128		10.92114	
122 Safrole	+++++	0.20129	0.20683	0.19976	0.19759	0.19945						
	0.19971	0.19690					AVRG		0.20022		1.62805	
123 1,2,4,5-Tetrachlorobenzene	+++++	0.45276	0.45501	0.43265	0.43285	0.44088						
	0.43460	0.43377					AVRG		0.44036		2.19640	
124 Isosafrole	+++++	0.35063	0.35431	0.35388	0.34377	0.34758						
	0.34564	0.34446					AVRG		0.34861		1.25494	
125 1,4-Naphthoquinone	+++++	0.32196	0.35500	0.34168	0.30941	0.25892						
	0.24523	+++++					AVRG		0.30537		14.53302	

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	100 Level 7	120 Level 8									
126 m-Dinitrobenzene	+++++	0.16619	0.19197	0.18014	0.18390	0.18168					
	0.18356	0.18414					AVRG		0.18165		4.28018
127 Pentachlorobenzene	+++++	0.38359	0.39609	0.38672	0.37943	0.38393					
	0.38746	0.38462					AVRG		0.38598		1.33678
128 1-Naphthylamine	+++++	0.84495	0.88668	0.95833	0.93759	0.92482					
	0.92248	0.91625					AVRG		0.91301		4.05463
129 2-Naphthylamine	+++++	0.94397	0.99498	1.03743	1.00039	0.98529					
	0.99816	0.99350					AVRG		0.99339		2.76342
130 2,3,4,6-Tetrachlorophenol	+++++	0.17529	0.21735	0.21325	0.21981	0.22006					
	0.22600	0.23248					AVRG		0.21489		8.62469
131 5-Nitro-o-toluidine	+++++	0.25795	0.27853	0.30785	0.30393	0.29937					
	0.30291	0.30462					AVRG		0.29359		6.29534
132 Thionazin	+++++	0.17533	0.18440	0.18613	0.17835	0.17567					
	0.17701	0.17723					AVRG		0.17916		2.41147
134 Sulfotepp	+++++	0.09154	0.10186	0.09720	0.09862	0.09958					
	0.10232	0.10729					AVRG		0.09977		4.89510
135 Phorate	+++++	0.42827	0.45270	0.42158	0.41902	0.40069					
	0.40088	0.40448					AVRG		0.41823		4.47171

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	100 Level 7	120 Level 8									
136 1,3,5-Trinitrobenzene	+++++	0.12808	0.14692	0.16140	0.15102	0.13713					
	0.13583	0.12793					AVRG		0.14119		8.82180
137 Phenacetin	+++++	0.28642	0.30265	0.31883	0.31254	0.31358					
	0.32085	0.30246					AVRG		0.30819		3.88162
138 Diallate	+++++	0.30357	0.31931	0.29343	0.28535	0.29176					
	0.28790	0.27896					AVRG		0.29433		4.54773
139 Dimethoate	+++++	0.24879	0.25927	0.27775	0.26541	0.27158					
	0.27714	0.27670					AVRG		0.26809		4.08331
140 4-Aminobiphenyl	+++++	0.56974	0.56896	0.64069	0.65401	0.65794					
	0.65894	0.65393					AVRG		0.62917		6.56451
141 Pentachloronitrobenzene	+++++	0.07041	0.07621	0.07268	0.06990	0.07044					
	0.07038	0.06798					AVRG		0.07114		3.68329
142 Pronamide	+++++	0.28048	0.29529	0.28499	0.27501	0.28206					
	0.28587	0.27432					AVRG		0.28257		2.53690
143 Dinoseb	+++++	6717	26500	61800	81713	140328					
	191602	233762					LINR	0.16987	0.14277		0.99849
144 Disulfoton	+++++	0.41599	0.42335	0.38021	0.37998	0.35395					
	0.35526	0.35307					AVRG		0.38026		7.73460

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	100 Level 7	120 Level 8									
145 Methyl parathion	+++++	0.18007	0.19118	0.21428	0.20350	0.20818					
	0.21450	0.21468					AVRG		0.20377		6.59663
146 4-Nitroquinoline-1-oxide	+++++	0.02768	0.02926	0.02995	0.02654	0.02089					
	+++++	+++++					AVRG		0.02686		13.38493
147 Methapyrilene	+++++	0.43444	0.45260	0.45013	0.41798	0.38294					
	0.38330	0.35283					AVRG		0.41060		9.32538
148 Isodrin	+++++	0.11136	0.11509	0.11025	0.10831	0.11005					
	0.11176	0.10678					AVRG		0.11051		2.40356
149 Aramite	+++++	0.04841	0.05128	0.05360	0.05153	0.05052					
	0.05208	0.04904					AVRG		0.05092		3.49550
150 Kepone	+++++	0.07495	0.08066	0.07982	0.07514	0.07350					
	0.07917	0.07499					AVRG		0.07689		3.74818
151 p-(Dimethylamino)azobenzene	+++++	0.30929	0.33217	0.31520	0.31538	0.34418					
	0.32573	0.33035					AVRG		0.32461		3.73682
152 Chlorobenzilate	+++++	0.29428	0.31337	0.28335	0.28702	0.32621					
	0.30774	0.31100					AVRG		0.30328		5.12591
153 3,3'-Dimethylbenzidine	+++++	0.39844	0.41907	0.46528	0.45328	0.47396					
	0.50847	0.50603					AVRG		0.46065		8.94976

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	100 Level 7	120 Level 8									
154 Famphur	+++++	0.31533	0.34031	0.34201	0.34625	0.34103					
	0.34999	0.34772					AVRG		0.34038		3.41584
155 2-Acetylaminofluorene	+++++	0.25716	0.29468	0.35530	0.33142	0.30953					
	0.34644	0.32764					AVRG		0.31745		10.59557
157 7,12Dimethylbenz(a)anthracene	+++++	0.48655	0.51522	0.48554	0.49693	0.54817					
	0.53260	0.54297					AVRG		0.51543		5.13016
158 3-Methylcholanthrene	+++++	0.38837	0.41062	0.42686	0.41545	0.41685					
	0.42734	0.41943					AVRG		0.41499		3.17973
26 Phthalic anhydride	+++++	0.07747	0.09334	0.10503	0.11483	0.11628					
	0.11560	0.10680					AVRG		0.10419		13.73404
173 Carbazole	12686	90960	171626	321015	419223	755937					
	1022764	1238500					LINR	0.06293	0.72248		0.99446
174 Hexachlorophene	+++++	198140	586522	834117	1079894	1373196					
	1600315	+++++					LINR	7.85464	0.07932		0.99930
179 Dibenzo(a,e)pyrene	+++++	0.24543	0.29302	0.27951	0.33517	0.28803					
	0.33713	0.27082					AVRG		0.29273		11.40448
185 (2,3-Dibromopropyl)phosphate	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+00		0.000e+00 <-

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 06-DEC-2009 10:12
End Cal Date : 08-DEC-2009 12:26
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD3.i/s010410a.b/MSD3-8270R-AQA-120809.m
Cal Date : 04-Jan-2010 15:41 jen00986

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	ml	m2	%RSD or R^2
	100 Level 7	120 Level 8									
184 p-Benzoquinone	+++++	840	2826	7498	11158	18965					
	+++++	+++++					LINR	0.21133	0.06632		0.99481
191 Parathion	+++++	0.05805	0.06665	0.07157	0.06987	0.07239					
	0.07544	0.07721					AVRG		0.07017		9.07800
192 Methoxychlor	+++++	0.45358	0.54818	0.49465	0.52243	0.45536					
	0.44261	0.40919					AVRG		0.47514		10.24430
210 m-Toluidine	+++++	0.68301	0.72278	0.65734	0.78083	1.03755					
	0.75006	0.75849					AVRG		0.77001		16.31713 <-
211 p-Toluidine	+++++	0.51708	0.51422	0.52724	0.54280	0.41445					
	+++++	+++++					AVRG		0.50316		10.10363
212 Cis Diallate	+++++	0.28865	0.30993	0.28793	0.28289	0.29619					
	0.29544	0.29054					AVRG		0.29308		2.97325
213 Trans Diallate	+++++	0.35714	0.37566	0.34521	0.33571	0.34324					
	0.33871	0.32819					AVRG		0.34627		4.54773
214 1,4-Dinitrobenzene	+++++	0.17934	0.21095	0.20092	0.20595	0.20371					
	0.20582	0.20972					AVRG		0.20234		5.28723
215 2-Ethoxyethanol	+++++	0.60944	0.68466	0.61918	0.63214	0.59407					
	0.57967	0.55253					AVRG		0.61024		6.89616

GEL Laboratories LLC

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End Cal Date : 08-DEC-2009 12:26
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD3.i/s010410a.b/MSD3-8270R-AQA-120809.m
Cal Date : 04-Jan-2010 15:41 jen00986

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
216 Methylenebis(2-chloroaniline)	+++++	7663	22316	48353	64662	107290					
	157471	174027					LINR	0.13078	0.12648		0.99649
229 2,2'-Dichlorobenzil	+++++	0.57758	0.61602	0.66013	0.63336	0.65134					
	0.67904	0.61600					AVRG		0.63335		5.33125
230 4-Chlorothioanisole	+++++	0.21545	0.23158	0.24562	0.24193	0.24382					
	0.24202	0.24141					AVRG		0.23741		4.49231
231 4-Chlorothiophenol	+++++	13605	41055	91578	112321	212015					
	265258	288747					LINR	0.13864	0.19590		0.99917
232 bis(p-Chlorophenyl)sulfone	+++++	0.35314	0.36096	0.37562	0.35589	0.35991					
	0.36847	0.34174					AVRG		0.35939		3.02997
233 bis(p-Chlorophenyl)disulfide	+++++	0.11077	0.11922	0.13126	0.13549	0.13230					
	0.14002	0.12903					AVRG		0.12830		7.82061
234 Diphenyl disulfide	+++++	0.21112	0.21681	0.23039	0.22379	0.22126					
	0.22468	0.22037					AVRG		0.22120		2.76817
235 Diphenyl sulfide	+++++	0.68112	0.68689	0.72164	0.69798	0.69886					
	0.68822	0.68516					AVRG		0.69427		1.97762
236 Phenyl sulfone	+++++	0.42223	0.42275	0.44408	0.42843	0.42374					
	0.41928	0.41658					AVRG		0.42530		2.13170

GEL Laboratories LLC

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Quant Method : ISTD
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Method file : /chem/MSD3.i/s010410a.b/MSD3-8270R-AQA-120809.m
Cal Date : 04-Jan-2010 15:41 jen00986

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	100 Level 7	120 Level 8										
237 Hydroxymethyl phthalimide	+++++	0.11067	0.11966	0.12210	0.11502	0.11423						
	0.11721	0.11574					AVRG		0.11637		3.21002	
238 Phthalic acid	+++++	5632	17570	45083	58670	118255						
	145548	176180					LINR	0.26415	0.11963		0.99275	
239 Thiophenol	+++++	0.68891	0.92477	1.00888	0.98947	1.04366						
	1.04124	1.03055					AVRG		0.96107		13.19970	
240 bis(Chloromethyl)ether	+++++	0.97322	0.96235	0.98507	0.95565	0.91448						
	0.90183	0.89061					AVRG		0.94046		3.98475	
241 Octachlorostyrene	+++++	0.06062	0.06084	0.06627	0.06427	0.06433						
	0.06570	0.06504					AVRG		0.06387		3.53490	
M 225 Trichlorophenols	+++++	0.25419	0.29473	0.27746	0.29266	0.28707						
	0.28841	0.28828					AVRG		0.28326		4.91915	<-
M 226 Tetrachlorophenols	+++++	0.17529	0.21735	0.21325	0.21981	0.22006						
	0.22600	0.23248					AVRG		0.21489		8.62469	
M 227 Benzo(b,k)fluoranthene	1.18031	0.98794	1.08585	0.99288	1.01864	0.98087						
	0.97817	0.99801					AVRG		1.02783		6.88676	
M 228 TTO Sum Semivolatiles	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-

GEL Laboratories LLC

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Target Version : 3.50
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Method file : /chem/MSD3.i/s010410a.b/MSD3-8270R-AQA-120809.m
Cal Date : 04-Jan-2010 15:41 jen00986

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	100 Level 7	120 Level 8										
$ 3 2-Fluorophenol	+++++	1.03069	1.13140	1.03553	1.05950	1.03309						
	1.01449	1.01911					AVRG		1.04626		3.84330	
$ 5 Phenol-d5	+++++	1.28227	1.42211	1.31250	1.36390	1.32493						
	1.30870	1.31628					AVRG		1.33296		3.46833	
$ 187 2-Chlorophenol-d4	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
$ 188 1,2-Dichlorobenzene-d4	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
$ 20 Nitrobenzene-d5	+++++	0.29639	0.31372	0.27919	0.30117	0.28569						
	0.28537	0.28488					AVRG		0.29235		4.12615	
$ 39 2-Fluorobiphenyl	+++++	0.96516	1.02647	0.92859	0.95106	0.90514						
	0.89226	0.89442					AVRG		0.93759		5.13265	
$ 60 2,4,6-Tribromophenol	+++++	0.08353	0.10758	0.10732	0.11276	0.11526						
	0.11914	0.12330					AVRG		0.10984		11.80767	
$ 81 p-Terphenyl-d14	+++++	0.64573	0.68682	0.63570	0.65257	0.64379						
	0.60582	0.62663					AVRG		0.64244		3.87670	

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 06-DEC-2009 10:12
End Cal Date : 08-DEC-2009 12:26
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD3.i/s010410a.b/MSD3-8270R-AQA-120809.m
Cal Date : 04-Jan-2010 15:41 jen00986

Curve	Formula	Units
Averaged	Amt = Rsp/ml	Response
Linear	Amt = b + Rsp/ml	Response
Wt Linear	Amt = b + Rsp/ml	Response

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD1.i Injection Date: 15-NOV-2009 23:17
Lab File ID: s1k1235.d Init. Cal. Date(s): 14-NOV-2009 15-NOV-2009
Analysis Type: Init. Cal. Times: 18:22 22:53
Lab Sample ID: WBN091111-08.1 Quant Type: ISTD
Method: /chem/MSD1.i/s111409.b/MSD1-M8270AQA-111409.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
209 Benzaldehyde	0.82400	0.71239	0.71239	0.000	-13.54468	60.00000	Averaged
16 Acetophenone	1.12880	1.15012	1.15012	0.000	1.88924	60.00000	Averaged
189 Caprolactam	0.07169	0.08295	0.08295	0.000	15.71078	60.00000	Averaged
208 1,1'-Biphenyl	1.12050	1.24126	1.24126	0.000	10.77724	60.00000	Averaged
207 Atrazine	0.04008	0.04737	0.04737	0.000	18.18184	60.00000	Averaged
77 Benzidine	0.36215	0.33951	0.33951	0.000	-6.25196	60.00000	Averaged
90 3,3'-Dichlorobenzidine	0.27540	0.29917	0.29917	0.000	8.63115	60.00000	Averaged
102 1,4-Dioxane	0.31387	0.37981	0.37981	0.000	21.00923	60.00000	Averaged
103 Methyl methacrylate	0.17640	0.20821	0.20821	0.000	18.03005	60.00000	Averaged
104 Ethyl methacrylate	0.71299	0.86659	0.86659	0.000	21.54329	60.00000	Averaged
105 2-Picoline	1.15384	1.13306	1.13306	0.000	-1.80140	60.00000	Averaged
106 N-Nitrosomethylethylamine	0.45426	0.46463	0.46463	0.000	2.28123	60.00000	Averaged
107 Methyl methanesulfonate	0.42570	0.48978	0.48978	0.000	15.05276	60.00000	Averaged
108 N-Nitrosodiethylamine	0.47954	0.49102	0.49102	0.000	2.39384	60.00000	Averaged
109 Ethyl Methanesulfonate	0.59625	0.74183	0.74183	0.000	24.41607	60.00000	Averaged
110 Pentachloroethane	0.29115	0.40985	0.40985	0.000	40.76840	60.00000	Averaged
111 N-Nitrosopyrrolidine	0.47509	0.50932	0.50932	0.000	7.20593	60.00000	Averaged
113 N-Nitrosomorpholine	0.61749	0.67896	0.67896	0.000	9.95518	60.00000	Averaged
114 o-Toluidine	1.65327	1.64031	1.64031	0.000	-0.78415	60.00000	Averaged
115 N-Nitrosopiperidine	0.13156	0.13273	0.13273	0.000	0.88789	60.00000	Averaged
116 a,a-Dimethylphenethylamine	0.76801	0.79273	0.79273	0.000	3.21891	60.00000	Averaged
118 2,6-Dichlorophenol	0.19701	0.21797	0.21797	0.000	10.63653	60.00000	Averaged
119 Hexachloropropene	0.08895	0.13367	0.13367	0.000	50.27176	60.00000	Averaged
120 p-Phenylenediamine	0.20154	0.18980	0.18980	0.000	-5.82557	60.00000	Averaged
121 N-Nitrosodi-n-butylamine	0.17172	0.17829	0.17829	0.000	3.82057	60.00000	Averaged
122 Safrole	0.17864	0.21665	0.21665	0.000	21.27785	60.00000	Averaged
123 1,2,4,5-Tetrachlorobenzene	0.36713	0.42376	0.42376	0.000	15.42574	60.00000	Averaged
124 Isosafrole	0.32761	0.46202	0.46202	0.000	41.02664	60.00000	Averaged
125 1,4-Naphthoquinone	0.29676	0.32067	0.32067	0.000	8.05637	60.00000	Averaged
127 Pentachlorobenzene	0.31451	0.35074	0.35074	0.000	11.51805	60.00000	Averaged
128 1-Naphthylamine	0.89420	0.98926	0.98926	0.000	10.62991	60.00000	Averaged
129 2-Naphthylamine	0.97473	1.09077	1.09077	0.000	11.90459	60.00000	Averaged
131 5-Nitro-o-toluidine	0.28528	0.30775	0.30775	0.000	7.87638	60.00000	Averaged
136 1,3,5-Trinitrobenzene	0.11623	0.15168	0.15168	0.000	30.50015	60.00000	Averaged
137 Phenacetin	0.25708	0.29576	0.29576	0.000	15.04579	60.00000	Averaged
138 Diallate	0.23112	0.23284	0.23284	0.000	0.74457	60.00000	Averaged

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD1.i Injection Date: 15-NOV-2009 23:17
Lab File ID: s1k1235.d Init. Cal. Date(s): 14-NOV-2009 15-NOV-2009
Analysis Type: Init. Cal. Times: 18:22 22:53
Lab Sample ID: WBN091111-08.1 Quant Type: ISTD
Method: /chem/MSD1.i/s111409.b/MSD1-M8270AQA-111409.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
212 Cis Diallate	0.23999	0.31739	0.31739	0.000	32.25095	60.00000	Averaged
213 Trans Diallate	0.27191	0.27393	0.27393	0.000	0.74457	60.00000	Averaged
140 4-Aminobiphenyl	0.53614	0.62569	0.62569	0.000	16.70322	60.00000	Averaged
141 Pentachloronitrobenzene	0.05324	0.06215	0.06215	0.000	16.73283	60.00000	Averaged
142 Pronamide	0.23368	0.26726	0.26726	0.000	14.37225	60.00000	Averaged
146 4-Nitroquinoline-1-oxide	0.00980	0.00923	0.00923	0.000	-5.86960	60.00000	Averaged
147 Methapyrilene	0.36822	0.29090	0.29090	0.000	-20.99905	60.00000	Averaged
148 Isodrin	0.08609	0.08812	0.08812	0.000	2.35297	60.00000	Averaged
149 Aramite	0.04255	0.04327	0.04327	0.000	1.67534	60.00000	Averaged
150 Kepone	0.06308	0.07178	0.07178	0.000	13.77677	60.00000	Averaged
151 p-(Dimethylamino)azobenzene	0.28392	0.29411	0.29411	0.000	3.58893	60.00000	Averaged
152 Chlorobenzilate	0.21994	0.24578	0.24578	0.000	11.75217	60.00000	Averaged
153 3,3'-Dimethylbenzidine	0.47945	0.47257	0.47257	0.000	-1.43591	60.00000	Averaged
155 2-Acetylaminofluorene	0.30801	0.33042	0.33042	0.000	7.27461	60.00000	Averaged
157 7,12Dimethylbenz(a)anthrace	0.42123	0.42978	0.42978	0.000	2.03140	60.00000	Averaged
158 3-Methylcholanthrene	0.36711	0.40048	0.40048	0.000	9.08958	60.00000	Averaged

GEL Laboratories LLC

Data file : /chem/MSD1.i/s111409.b/s1k1235.d
Lab Smp Id: WBN091111-08.1 Client Smp ID: APICV
Inj Date : 15-NOV-2009 23:17
Operator : amy Inst ID: MSD1.i
Smp Info : |WBN091111-08.1|40 PPM|1|SVMF|1|APICV
Misc Info : |MSD8270|WBN091106-10|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD1.i/s111409.b/MSD1-M8270AQA-111409.m
Meth Date : 17-Nov-2009 10:44 nat00999 Quant Type: ISTD
Cal Date : 15-NOV-2009 21:42 Cal File: s1k1231.d
Als bottle: 23 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ap12.sub
Target Version: 3.50

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	3.957	3.940	(1.000)	601939	40.0000	
* 29 Naphthalene-d8	136	4.828	4.810	(1.000)	2374945	40.0000	
* 46 Acenaphthene-d10	164	6.075	6.057	(1.000)	1270499	40.0000	
* 67 Phenanthrene-d10	188	7.057	7.040	(1.000)	2114263	40.0000	
* 91 Chrysene-d12	240	8.739	8.722	(1.000)	1927170	40.0000	
* 98 Perylene-d12	264	10.251	10.222	(1.000)	1696025	40.0000	(H)
209 Benzaldehyde	77	3.681	3.681	(0.930)	428816	40.0000	34.6
16 Acetophenone	105	4.210	4.210	(1.064)	692304	40.0000	40.8
189 Caprolactam	113	5.104	5.122	(1.057)	197001	40.0000	46.3
208 1,1'-Biphenyl	154	5.646	5.651	(0.929)	1577025	40.0000	44.3
207 Atrazine	173	6.822	6.834	(0.967)	100151	40.0000	47.3
77 Benzidine	184	7.828	7.834	(0.896)	654298	40.0000	37.5
90 3,3'-Dichlorobenzidine	252	8.663	8.669	(0.991)	576557	40.0000	43.4
102 1,4-Dioxane	88	2.281	2.287	(0.576)	228622	40.0000	48.4
103 Methyl methacrylate	100	2.275	2.275	(0.575)	125330	40.0000	47.2
104 Ethyl methacrylate	69	2.652	2.652	(0.670)	521635	40.0000	48.6
105 2-Picoline	93	2.846	2.846	(0.719)	682032	40.0000	39.3
106 N-Nitrosomethylethylamine	88	2.887	2.893	(0.729)	279676	40.0000	40.9
107 Methyl methanesulfonate	80	3.046	3.052	(0.770)	294820	40.0000	46.0
108 N-Nitrosodiethylamine	102	3.281	3.287	(0.829)	295564	40.0000	41.0
109 Ethyl Methanesulfonate	79	3.440	3.446	(0.869)	446538	40.0000	49.8
110 Pentachloroethane	167	3.781	3.781	(0.955)	246707	40.0000	56.3
111 N-Nitrosopyrrolidine	100	4.199	4.216	(1.061)	306582	40.0000	42.9
113 N-Nitrosomorpholine	56	4.216	4.228	(1.065)	408692	40.0000	44.0
114 o-Toluidine	106	4.234	4.246	(1.070)	987365	40.0000	39.7
115 N-Nitrosopiperidine	114	4.434	4.446	(0.918)	315224	40.0000	40.4
116 a,a-Dimethylphenethylamine	58	4.681	4.681	(0.970)	1882697	40.0000	41.3

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
118 2,6-Dichlorophenol	162	4.869	4.875	(1.009)	517655	40.0000	44.2
119 Hexachloropropene	213	4.899	4.898	(1.015)	317465	40.0000	60.1
120 p-Phenylenediamine	108	5.104	5.116	(1.057)	450756	40.0000	37.7
121 N-Nitrosodi-n-butylamine	84	5.069	5.075	(1.050)	423419	40.0000	41.5(T)
122 Safrole	162	5.234	5.240	(1.084)	514526	40.0000	48.5
123 1,2,4,5-Tetrachlorobenzene	216	5.440	5.446	(0.895)	538386	40.0000	46.2
124 Isosafrole	162	5.604	5.610	(0.923)	586994	40.0000	56.4
125 1,4-Naphthoquinone	158	5.793	5.793	(0.954)	407413	40.0000	43.2
127 Pentachlorobenzene	250	6.181	6.187	(1.017)	445615	40.0000	44.6
128 1-Naphthylamine	143	6.263	6.269	(1.031)	1256848	40.0000	44.2
129 2-Naphthylamine	143	6.316	6.322	(1.040)	1385825	40.0000	44.8
131 5-Nitro-o-toluidine	152	6.434	6.445	(1.059)	390998	40.0000	43.2
136 1,3,5-Trinitrobenzene	75	6.645	6.651	(0.942)	320686	40.0000	52.2
137 Phenacetin	108	6.687	6.698	(0.947)	625324	40.0000	46.0
138 Diallate	86	6.669	6.675	(0.945)	492291	40.0000	40.3
212 Cis Diallate	86	6.734	6.734	(0.954)	100656	6.00000	7.9
213 Trans Diallate	86	6.669	6.675	(0.945)	492291	34.0000	34.2
140 4-Aminobiphenyl	169	6.910	6.916	(0.979)	1322873	40.0000	46.7
141 Pentachloronitrobenzene	237	6.934	6.940	(0.982)	131405	40.0000	46.7
142 Pronamide	173	6.922	6.928	(0.981)	565063	40.0000	45.7
146 4-Nitroquinoline-1-oxide	101	7.516	7.522	(1.065)	19512	40.0000	37.6
147 Methapyrilene	58	7.534	7.539	(1.067)	615031	40.0000	31.6
148 Isodrin	193	7.692	7.692	(1.090)	186303	40.0000	40.9
149 Aramite	185	7.916	7.916	(1.122)	91474	40.0000	40.7
150 Kepone	272	8.351	8.363	(1.183)	151752	40.0000	45.5
151 p-(Dimethylamino)azobenzene	120	8.045	8.051	(0.921)	566806	40.0000	41.4
152 Chlorobenzilate	251	8.057	8.063	(0.922)	473667	40.0000	44.7
153 3,3'-Dimethylbenzidine	212	8.257	8.263	(0.945)	910722	40.0000	39.4
155 2-Acetylaminofluorene	181	8.445	8.457	(0.966)	636774	40.0000	42.9
157 7,12Dimethylbenz(a)anthracene	256	9.733	9.745	(0.945)	728922	40.0000	40.8
158 3-Methylcholanthrene	268	10.622	10.639	(1.031)	679223	40.0000	43.6

QC Flag Legend

T - Target compound detected outside RT window.
H - Operator selected an alternate compound hit.

Data File: /chem/MSD1.i/s111409.b/s1k1235.d
Date : 15-NOV-2009 23:17
Client ID: APICV
Sample Info: IWBN091111-08.1140 PPM11SVMF11APICV
Column phase: J&W DB-5MS

Instrument: MSD1.i
Operator: amy
Column diameter: 0.20

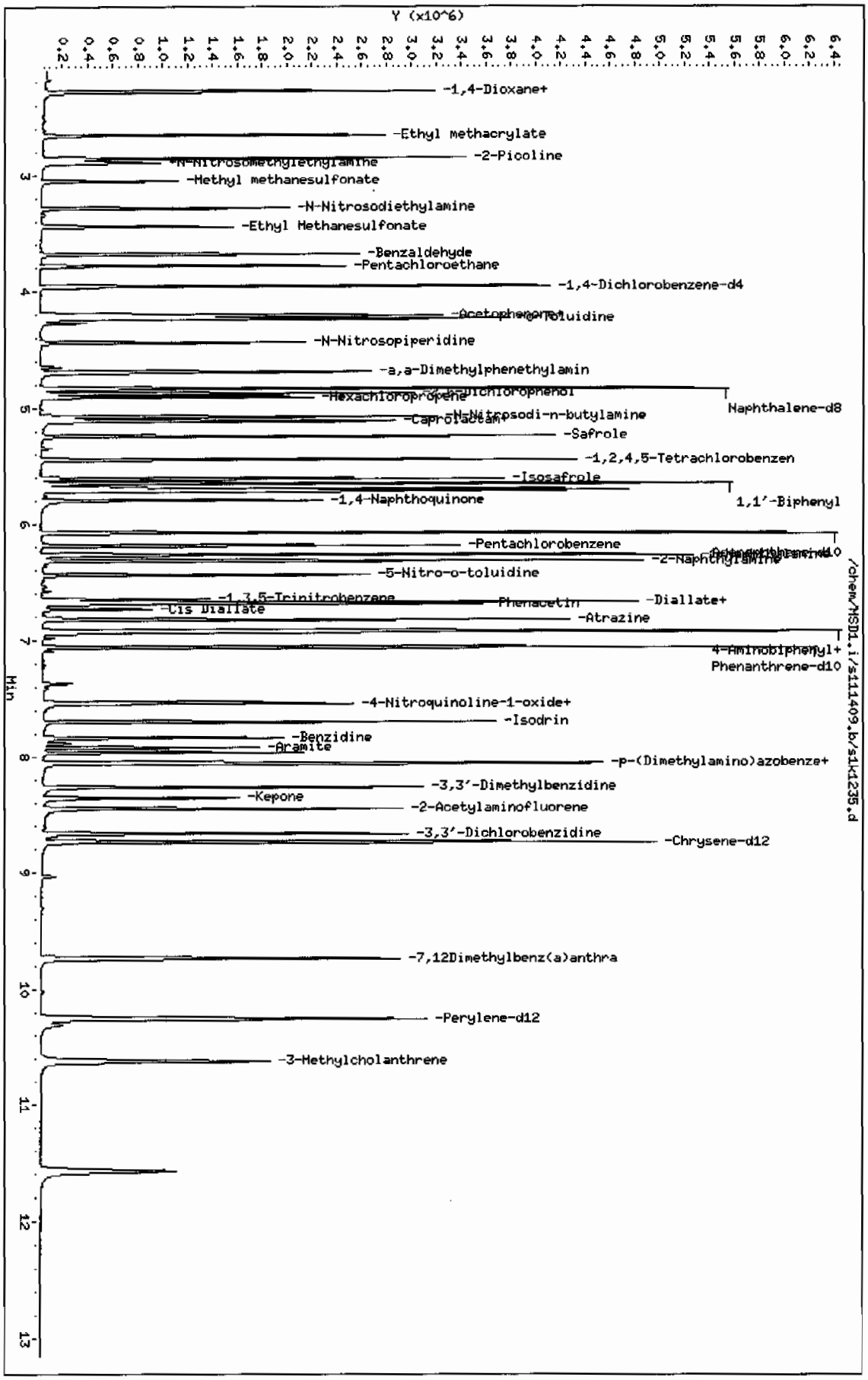

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD1.i Injection Date: 17-NOV-2009 16:27
Lab File ID: s1k1261.d Init. Cal. Date(s): 14-NOV-2009 17-NOV-2009
Analysis Type: Init. Cal. Times: 18:22 12:38
Lab Sample ID: WBN091027-09.3 Quant Type: ISTD
Method: /chem/MSD1.i/s111409.b/MSD1-M8270AQA-111409.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
$ 3 2-Fluorophenol	1.04478	0.92701	0.92701	0.000	-11.27306	60.00000	Averaged	
$ 5 Phenol-d5	1.26984	1.11829	1.11829	0.000	-11.93416	60.00000	Averaged	
$ 20 Nitrobenzene-d5	0.26360	0.25882	0.25882	0.000	-1.81289	60.00000	Averaged	
$ 39 2-Fluorobiphenyl	0.95800	0.95545	0.95545	0.000	-0.26619	60.00000	Averaged	
$ 60 2,4,6-Tribromophenol	0.11169	0.11397	0.11397	0.000	2.04032	60.00000	Averaged	
$ 81 p-Terphenyl-d14	0.62787	0.61091	0.61091	0.000	-2.70233	60.00000	Averaged	
1 N-Methyl-N-nitrosomethylami	0.56740	0.52259	0.52259	0.000	-7.89719	60.00000	Averaged	
2 Pyridine	0.95281	0.72054	0.72054	0.000	-24.37721	60.00000	Averaged	
4 Aniline	0.55813	0.46069	0.46069	0.000	-17.45935	60.00000	Averaged	
6 Phenol	1.33800	1.13102	1.13102	0.001	-15.46941	20.00000	Averaged	ccc
7 bis(2-Chloroethyl) ether	0.93081	0.78725	0.78725	0.000	-15.42323	60.00000	Averaged	
8 2-Chlorophenol	1.13717	0.96631	0.96631	0.000	-15.02517	60.00000	Averaged	
203 n-Decane	1.43160	1.33489	1.33489	0.000	-6.75532	60.00000	Averaged	
9 1,3-Dichlorobenzene	1.33431	1.14485	1.14485	0.000	-14.19930	60.00000	Averaged	
11 1,4-Dichlorobenzene	1.30799	1.12905	1.12905	0.001	-13.68038	20.00000	Averaged	ccc
13 1,2-Dichlorobenzene	1.20798	1.02631	1.02631	0.000	-15.03923	60.00000	Averaged	
14 bis(2-Chloroisopropyl)ether	2.21709	1.93928	1.93928	0.000	-12.53006	60.00000	Averaged	
12 Benzyl alcohol	0.69141	0.59629	0.59629	0.000	-13.75808	60.00000	Averaged	
15 o-Cresol	0.84650	0.72216	0.72216	0.000	-14.68816	60.00000	Averaged	
18 m,p-Cresols	1.15179	1.00178	1.00178	0.000	-13.02332	60.00000	Averaged	
17 N-Nitrosodipropylamine	0.76238	0.61385	0.61385	0.050	-19.48192	60.00000	Averaged	spcc
19 Hexachloroethane	0.47075	0.38923	0.38923	0.000	-17.31682	60.00000	Averaged	
21 Nitrobenzene	0.27466	0.23975	0.23975	0.000	-12.70858	60.00000	Averaged	
22 Isophorone	0.48049	0.42824	0.42824	0.000	-10.87384	60.00000	Averaged	
23 2-Nitrophenol	0.14580	0.12443	0.12443	0.001	-14.65471	20.00000	Averaged	ccc
24 2,4-Dimethylphenol	0.23346	0.23407	0.23407	0.000	0.25935	60.00000	Averaged	
25 bis(2-Chloroethoxy)methane	0.30933	0.25445	0.25445	0.000	-17.74126	60.00000	Averaged	
26 2,4-Dichlorophenol	0.21909	0.18847	0.18847	0.001	-13.97781	20.00000	Averaged	ccc
27 Benzoic acid	0.16087	0.16553	0.16553	0.000	2.89975	60.00000	Averaged	
28 1,2,4-Trichlorobenzene	0.24210	0.21218	0.21218	0.000	-12.36169	60.00000	Averaged	
30 Naphthalene	0.83482	0.76679	0.76679	0.000	-8.14910	60.00000	Averaged	
204 alpha-Terpineol	0.19635	0.19249	0.19249	0.000	-1.96852	60.00000	Averaged	
31 4-Chloroaniline	0.38123	0.34324	0.34324	0.000	-9.96471	60.00000	Averaged	
32 Hexachlorobutadiene	0.12432	0.10582	0.10582	0.001	-14.87841	20.00000	Averaged	ccc
33 4-Chloro-3-methylphenol	0.21406	0.17276	0.17276	0.001	-19.29025	20.00000	Averaged	ccc
34 2-Methylnaphthalene	0.54880	0.51972	0.51972	0.000	-5.29812	60.00000	Averaged	

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD1.i Injection Date: 17-NOV-2009 16:27
Lab File ID: s1k1261.d Init. Cal. Date(s): 14-NOV-2009 17-NOV-2009
Analysis Type: Init. Cal. Times: 18:22 12:38
Lab Sample ID: WBN091027-09.3 Quant Type: ISTD
Method: /chem/MSD1.i/s111409.b/MSD1-M8270AQA-111409.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
35 1-Methylnaphthalene	0.49330	0.47920	0.47920	0.000	-2.85884	60.00000	Averaged	
36 Hexachlorocyclopentadiene	0.12213	0.12462	0.12462	0.050	2.03810	60.00000	Averaged	spcc
205 2,3-Dichloroaniline	0.45401	0.44519	0.44519	0.000	-1.94238	60.00000	Averaged	
37 2,4,6-Trichlorophenol	0.26606	0.24935	0.24935	0.001	-6.28041	20.00000	Averaged	ccc
38 2,4,5-Trichlorophenol	0.28290	0.25595	0.25595	0.000	-9.52679	60.00000	Averaged	
40 2-Chloronaphthalene	0.98748	0.82050	0.82050	0.000	-16.91018	60.00000	Averaged	
42 o-Nitroaniline	0.30619	0.24946	0.24946	0.000	-18.52571	60.00000	Averaged	
41 m-Nitroaniline	0.27055	0.22438	0.22438	0.000	-17.06469	60.00000	Averaged	
43 Dimethylphthalate	1.08995	0.95932	0.95932	0.000	-11.98438	60.00000	Averaged	
44 2,6-Dinitrotoluene	0.27156	0.22271	0.22271	0.000	-17.99006	60.00000	Averaged	
50 2,4-Dinitrotoluene	0.35993	0.29440	0.29440	0.000	-18.20706	60.00000	Averaged	
45 Acenaphthylene	1.54092	1.46812	1.46812	0.000	-4.72441	60.00000	Averaged	
47 Acenaphthene	0.92259	0.85781	0.85781	0.001	-7.02192	20.00000	Averaged	ccc
48 2,4-Dinitrophenol	0.10718	0.09229	0.09229	0.050	-13.89853	60.00000	Averaged	spcc
49 Dibenzofuran	1.33422	1.12564	1.12564	0.000	-15.63294	60.00000	Averaged	
51 Diethylphthalate	1.01616	0.93320	0.93320	0.000	-8.16403	60.00000	Averaged	
52 4-Nitrophenol	0.18871	0.18660	0.18660	0.050	-1.12202	60.00000	Averaged	spcc
53 Fluorene	1.07578	0.99783	0.99783	0.000	-7.24582	60.00000	Averaged	
54 4-Chlorophenylphenylether	0.45420	0.42578	0.42578	0.000	-6.25867	60.00000	Averaged	
55 2-Methyl-4,6-dinitrophenol	0.10120	0.09844	0.09844	0.000	-2.71965	60.00000	Averaged	
56 p-Nitroaniline	0.26458	0.21819	0.21819	0.000	-17.53206	60.00000	Averaged	
133 Diphenylamine	0.53354	0.46493	0.46493	0.001	-12.85961	20.00000	Averaged	ccc
58 1,2-Diphenylhydrazine	0.65098	0.55777	0.55777	0.000	-14.31896	60.00000	Averaged	
61 4-Bromophenylphenylether	0.13743	0.14126	0.14126	0.000	2.79050	60.00000	Averaged	
63 Hexachlorobenzene	0.16869	0.14433	0.14433	0.000	-14.43782	60.00000	Averaged	
65 Pentachlorophenol	0.10117	0.09042	0.09042	0.001	-10.61921	20.00000	Averaged	ccc
206 n-Octadecane	0.43383	0.42570	0.42570	0.000	-1.87309	60.00000	Averaged	
68 Phenanthrene	0.90903	0.83581	0.83581	0.000	-8.05558	60.00000	Averaged	
69 Anthracene	0.92447	0.85110	0.85110	0.000	-7.93592	60.00000	Averaged	
72 Di-n-butylphthalate	0.98605	0.95396	0.95396	0.000	-3.25457	60.00000	Averaged	
76 Fluoranthene	0.87746	0.81704	0.81704	0.001	-6.88555	20.00000	Averaged	ccc
79 Pyrene	1.06293	0.98267	0.98267	0.000	-7.55079	60.00000	Averaged	
85 Butylbenzylphthalate	0.48372	0.46739	0.46739	0.000	-3.37649	60.00000	Averaged	
89 Benzo(a)anthracene	0.95915	0.87571	0.87571	0.000	-8.69930	60.00000	Averaged	
92 Chrysene	0.89647	0.82199	0.82199	0.000	-8.30767	60.00000	Averaged	
93 bis(2-Ethylhexyl)phthalate	0.70275	0.65271	0.65271	0.000	-7.12169	60.00000	Averaged	

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD1.i
Lab File ID: s1k1261.d
Analysis Type:
Lab Sample ID: WBN091027-09.3 Quant Type: ISTD
Method: /chem/MSD1.i/s111409.b/MSD1-M8270AQA-111409.m

Injection Date: 17-NOV-2009 16:27
Init. Cal. Date(s): 14-NOV-2009 17-NOV-2009
Init. Cal. Times: 18:22 12:38

	COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
	94 Di-n-octylphthalate	1.30849	1.19375	1.19375	0.001	-8.76858	20.00000	Averaged	ccc
	95 Benzo(b)fluoranthene	34.69168	40.00000	0.87030	0.000	-13.27080	60.00000	Linear	
	96 Benzo(k)fluoranthene	1.00298	0.95633	0.95633	0.000	-4.65112	60.00000	Averaged	
	97 Benzo(a)pyrene	37.92700	40.00000	0.82858	0.001	-5.18249	20.00000	Linear	ccc
	99 Indeno(1,2,3-cd)pyrene	35.83759	40.00000	0.81303	0.000	-10.40601	60.00000	Linear	
	100 Dibenzo(a,h)anthracene	35.09981	40.00000	0.66597	0.000	-12.25048	60.00000	Linear	
	101 Benzo(ghi)perylene	0.75165	0.69836	0.69836	0.000	-7.08991	60.00000	Averaged	
	126 m-Dinitrobenzene	0.18653	0.15696	0.15696	0.000	-15.84920	60.00000	Averaged	
	130 2,3,4,6-Tetrachlorophenol	0.21604	0.19708	0.19708	0.000	-8.77777	60.00000	Averaged	
	143 Dinoseb	0.12447	0.10965	0.10965	0.000	-11.90708	60.00000	Averaged	
	173 Carbazole	0.80714	0.69773	0.69773	0.000	-13.55506	60.00000	Averaged	
	184 p-Benzoquinone	40.49777	40.00000	0.06781	0.000	1.24442	60.00000	Linear	
	192 Methoxychlor	0.31747	0.36177	0.36177	0.000	13.95477	60.00000	Averaged	
	211 p-Toluidine	0.70440	0.95402	0.95402	0.000	35.43664	60.00000	Averaged	
	210 m-Toluidine	0.91072	0.95200	0.95200	0.000	4.53333	60.00000	Averaged	
	26 Phthalic anhydride	42.71723	40.00000	0.10164	0.000	6.79306	60.00000	Linear	
	179 Dibenzo(a,e)pyrene	24.88814	40.00000	0.27687	0.000	-37.77964	60.00000	Linear	
	214 1,4-Dinitrobenzene	0.17315	0.14504	0.14504	0.000	-16.23762	60.00000	Averaged	
	215 2-Ethoxyethanol	0.60315	0.59707	0.59707	0.000	-1.00765	60.00000	Averaged	
	216 Methylenebis(2-chloroanilin	0.12921	0.12373	0.12373	0.000	-4.23543	60.00000	Averaged	
M	225 Trichlorophenols	0.27448	0.25265	0.25265	0.000	-7.95340	60.00000	Averaged	
M	226 Tetrachlorophenols	0.21604	0.19708	0.19708	0.000	-8.77777	60.00000	Averaged	
M	227 Benzo(b,k)fluoranthene	0.96552	0.91331	0.91331	0.000	-5.40733	60.00000	Averaged	

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Data file : /chem/MSD1.i/s111409.b/s1k1261.d
Lab Smp Id: WBN091027-09.3 Client Smp ID: MEGAICV
Inj Date : 17-NOV-2009 16:27
Operator : amy Inst ID: MSD1.i
Smp Info : |WBN091027-09.3|40 PPM|1|SVMF|1|MEGAICV
Misc Info : |MSD8270|WBN091106-10|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD1.i/s111409.b/MSD1-M8270AQA-111409.m
Meth Date : 17-Nov-2009 16:47 11o00884 Quant Type: ISTD
Cal Date : 17-NOV-2009 12:38 Cal File: s1k1256.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: MEGAIICARE.sub
Target Version: 3.50
Processing Host: kilroy

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)	
* 10 1,4-Dichlorobenzene-d4	152	3.928	3.928	(1.000)	530038	40.0000		
* 29 Naphthalene-d8	136	4.793	4.793	(1.000)	2205306	40.0000		
* 46 Acenaphthene-d10	164	6.040	6.040	(1.000)	1135267	40.0000		
* 67 Phenanthrene-d10	188	7.022	7.022	(1.000)	1874551	40.0000		(H)
* 91 Chrysene-d12	240	8.704	8.704	(1.000)	1621760	40.0000		
* 98 Perylene-d12	264	10.198	10.198	(1.000)	1481649	40.0000		
$ 3 2-Fluorophenol	112	3.104	3.104	(0.790)	491348	40.0000	35.5	
$ 5 Phenol-d5	99	3.640	3.640	(0.927)	592737	40.0000	35.2	
$ 20 Nitrobenzene-d5	82	4.287	4.287	(0.894)	570788	40.0000	39.3	
$ 39 2-Fluorobiphenyl	172	5.534	5.534	(0.916)	1084689	40.0000	39.9	
$ 60 2,4,6-Tribromophenol	329	6.575	6.575	(1.089)	129390	40.0000	40.8	
$ 81 p-Terphenyl-d14	244	7.939	7.939	(0.912)	990744	40.0000	38.9	
1 N-Methyl-N-nitrosomethylamine	74	2.410	2.410	(0.614)	276992	40.0000	36.8	
2 Pyridine	79	2.446	2.446	(0.623)	381913	40.0000	30.2	
4 Aniline	66	3.710	3.710	(0.945)	244181	40.0000	33.0	
6 Phenol	94	3.646	3.646	(0.928)	599483	40.0000	33.8	
7 bis(2-Chloroethyl) ether	63	3.722	3.722	(0.948)	417273	40.0000	33.8	
8 2-Chlorophenol	128	3.787	3.787	(0.964)	512179	40.0000	34.0	
203 n-Decane	43	3.775	3.775	(0.961)	707542	40.0000	37.3	
9 1,3-Dichlorobenzene	146	3.893	3.893	(0.991)	606813	40.0000	34.3	
11 1,4-Dichlorobenzene	146	3.934	3.934	(1.001)	598440	40.0000	34.5	
13 1,2-Dichlorobenzene	146	4.040	4.040	(1.028)	543984	40.0000	34.0	
14 bis(2-Chloroisopropyl)ether	45	4.069	4.069	(1.036)	1027894	40.0000	35.0	
12 Benzyl alcohol	108	3.993	3.993	(1.016)	316054	40.0000	34.5	
15 o-Cresol	107	4.040	4.040	(1.028)	382773	40.0000	34.1	
18 m,p-Cresols	107	4.146	4.146	(1.055)	530984	40.0000	34.8	

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
17 N-Nitrosodipropylamine	70	4.163	4.163	(1.060)	325364	40.0000	32.2
19 Hexachloroethane	117	4.269	4.269	(1.087)	206306	40.0000	33.1
21 Nitrobenzene	77	4.304	4.304	(0.898)	528723	40.0000	34.9
22 Isophorone	82	4.457	4.457	(0.930)	944401	40.0000	35.6
23 2-Nitrophenol	139	4.516	4.516	(0.942)	274410	40.0000	34.1
24 2,4-Dimethylphenol	122	4.504	4.504	(0.940)	516190	40.0000	40.1
25 bis(2-Chloroethoxy)methane	93	4.575	4.575	(0.955)	561140	40.0000	32.9
26 2,4-Dichlorophenol	162	4.681	4.681	(0.977)	415624	40.0000	34.4
27 Benzoic acid	105	4.575	4.575	(0.955)	365053	40.0000	41.2
28 1,2,4-Trichlorobenzene	180	4.745	4.745	(0.990)	467914	40.0000	35.0
30 Naphthalene	128	4.810	4.810	(1.004)	1690998	40.0000	36.7
204 alpha-Terpineol	59	4.787	4.787	(0.999)	424496	40.0000	39.2
31 4-Chloroaniline	127	4.822	4.822	(1.006)	756952	40.0000	36.0
32 Hexachlorobutadiene	225	4.875	4.875	(1.017)	233369	40.0000	34.0
33 4-Chloro-3-methylphenol	107	5.134	5.134	(1.071)	380998	40.0000	32.3
34 2-Methylnaphthalene	142	5.293	5.293	(1.104)	1146146	40.0000	37.9
35 1-Methylnaphthalene	142	5.363	5.363	(1.119)	1056787	40.0000	38.8
36 Hexachlorocyclopentadiene	237	5.393	5.393	(0.893)	141475	40.0000	40.8
205 2,3-Dichloroaniline	161	5.487	5.487	(0.908)	505408	40.0000	39.2
37 2,4,6-Trichlorophenol	196	5.475	5.475	(0.906)	283075	40.0000	37.5(H)
38 2,4,5-Trichlorophenol	196	5.504	5.504	(0.911)	290570	40.0000	36.2
40 2-Chloronaphthalene	162	5.645	5.645	(0.935)	931485	40.0000	33.2
42 o-Nitroaniline	65	5.698	5.698	(0.944)	283207	40.0000	32.6
41 m-Nitroaniline	138	5.992	5.992	(0.992)	254734	40.0000	33.2
43 Dimethylphthalate	163	5.810	5.810	(0.962)	1089088	40.0000	35.2
44 2,6-Dinitrotoluene	165	5.863	5.863	(0.971)	252831	40.0000	32.8
50 2,4-Dinitrotoluene	165	6.145	6.145	(1.018)	334220	40.0000	32.7
45 Acenaphthylene	152	5.945	5.945	(0.984)	1666713	40.0000	38.1
47 Acenaphthene	154	6.063	6.063	(1.004)	973838	40.0000	37.2
48 2,4-Dinitrophenol	184	6.057	6.057	(1.003)	104771	40.0000	34.4(Q)
49 Dibenzofuran	168	6.181	6.181	(1.023)	1277902	40.0000	33.7
51 Diethylphthalate	149	6.287	6.287	(1.041)	1059428	40.0000	36.7
52 4-Nitrophenol	139	6.075	6.075	(1.006)	211838	40.0000	39.6
53 Fluorene	166	6.416	6.416	(1.062)	1132809	40.0000	37.1
54 4-Chlorophenylphenylether	204	6.392	6.392	(1.058)	483371	40.0000	37.5
55 2-Methyl-4,6-dinitrophenol	198	6.428	6.428	(0.911)	184539	40.0000	38.9
56 p-Nitroaniline	138	6.410	6.410	(1.061)	247705	40.0000	33.0
133 Diphenylamine	169	6.469	6.469	(0.917)	871532	40.0000	34.8
58 1,2-Diphenylhydrazine	77	6.498	6.498	(0.921)	1045567	40.0000	34.3
61 4-Bromophenylphenylether	248	6.716	6.716	(0.952)	264808	40.0000	41.1(H)
63 Hexachlorobenzene	284	6.775	6.775	(0.960)	270561	40.0000	34.2
65 Pentachlorophenol	266	6.892	6.892	(0.977)	169503	40.0000	35.8
206 n-Octadecane	57	6.869	6.869	(0.973)	797995	40.0000	39.2
68 Phenanthrene	178	7.039	7.039	(0.997)	1566761	40.0000	36.8
69 Anthracene	178	7.069	7.069	(1.002)	1595437	40.0000	36.8
72 Di-n-butylphthalate	149	7.310	7.310	(1.036)	1788243	40.0000	38.7
76 Fluoranthene	202	7.751	7.751	(1.098)	1531590	40.0000	37.2

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
79 Pyrene	202	7.892	7.892	(0.907)	1593654	40.0000	37.0
85 Butylbenzylphthalate	149	8.204	8.204	(0.943)	757996	40.0000	38.6
89 Benzo(a)anthracene	228	8.692	8.692	(0.999)	1420191	40.0000	36.5(H)
92 Chrysene	228	8.728	8.728	(1.003)	1333078	40.0000	36.7
93 bis(2-Ethylhexyl)phthalate	149	8.569	8.569	(0.984)	1058534	40.0000	37.2(H)
94 Di-n-octylphthalate	149	9.110	9.110	(0.893)	1768724	40.0000	36.5
95 Benzo(b)fluoranthene	252	9.716	9.716	(0.953)	1289484	40.0000	34.7(H)
96 Benzo(k)fluoranthene	252	9.745	9.745	(0.956)	1416940	40.0000	38.1
97 Benzo(a)pyrene	252	10.122	10.122	(0.992)	1227658	40.0000	37.9
99 Indeno(1,2,3-cd)pyrene	276	11.863	11.863	(1.163)	1204623	40.0000	35.8(H)
100 Dibenzo(a,h)anthracene	278	11.863	11.863	(1.163)	986733	40.0000	35.1
101 Benzo(ghi)perylene	276	12.380	12.380	(1.214)	1034720	40.0000	37.2
126 m-Dinitrobenzene	168	5.845	5.845	(0.968)	178196	40.0000	33.7
130 2,3,4,6-Tetrachlorophenol	232	6.251	6.251	(1.035)	223733	40.0000	36.5
143 Dinoseb	211	6.981	6.981	(0.989)	205546	40.0000	35.2
173 Carbazole	167	7.151	7.151	(1.013)	1307938	40.0000	34.6
184 p-Benzoquinone	54	3.404	3.404	(0.867)	35940	40.0000	40.5
192 Methoxychlor	227	8.557	8.557	(0.983)	586700	40.0000	45.6
211 p-Toluidine	106	4.204	4.204	(1.070)	505668	40.0000	54.2(H)
210 m-Toluidine	106	4.228	4.228	(1.076)	504598	40.0000	41.8
26 Phthalic anhydride	104	5.322	5.322	(1.110)	224154	40.0000	42.7
179 Dibenzo(a,e)pyrene	302	16.327	16.327	(1.601)	410219	40.0000	24.9(H)
214 1,4-Dinitrobenzene	168	5.787	5.787	(0.958)	164654	40.0000	33.5
215 2-Ethoxyethanol	59	2.257	2.257	(0.575)	316469	40.0000	39.6
216 Methylenebis(2-chloroaniline)	231	8.622	8.622	(0.991)	200666	40.0000	38.3
M 225 Trichlorophenols	196				573645	80.0000	73.6
M 226 Tetrachlorophenols	232				223733	40.0000	36.5
M 227 Benzo(b,k)fluoranthene	252				2706424	80.0000	75.7

QC Flag Legend

Q - Qualifier signal failed the ratio test.
H - Operator selected an alternate compound hit.

Data File: /chem/MSD1.i/s111409.b/s1k1261.d
Date : 17-NOV-2009 16:27
Client ID: MEGAICV
Sample Info: IWBN091027-09,3140 PPM11ISVMF11MEGAICV
Column phase: J&W DB-5MS

Instrument: MSD1.i
Operator: amy
Column diameter: 0.20

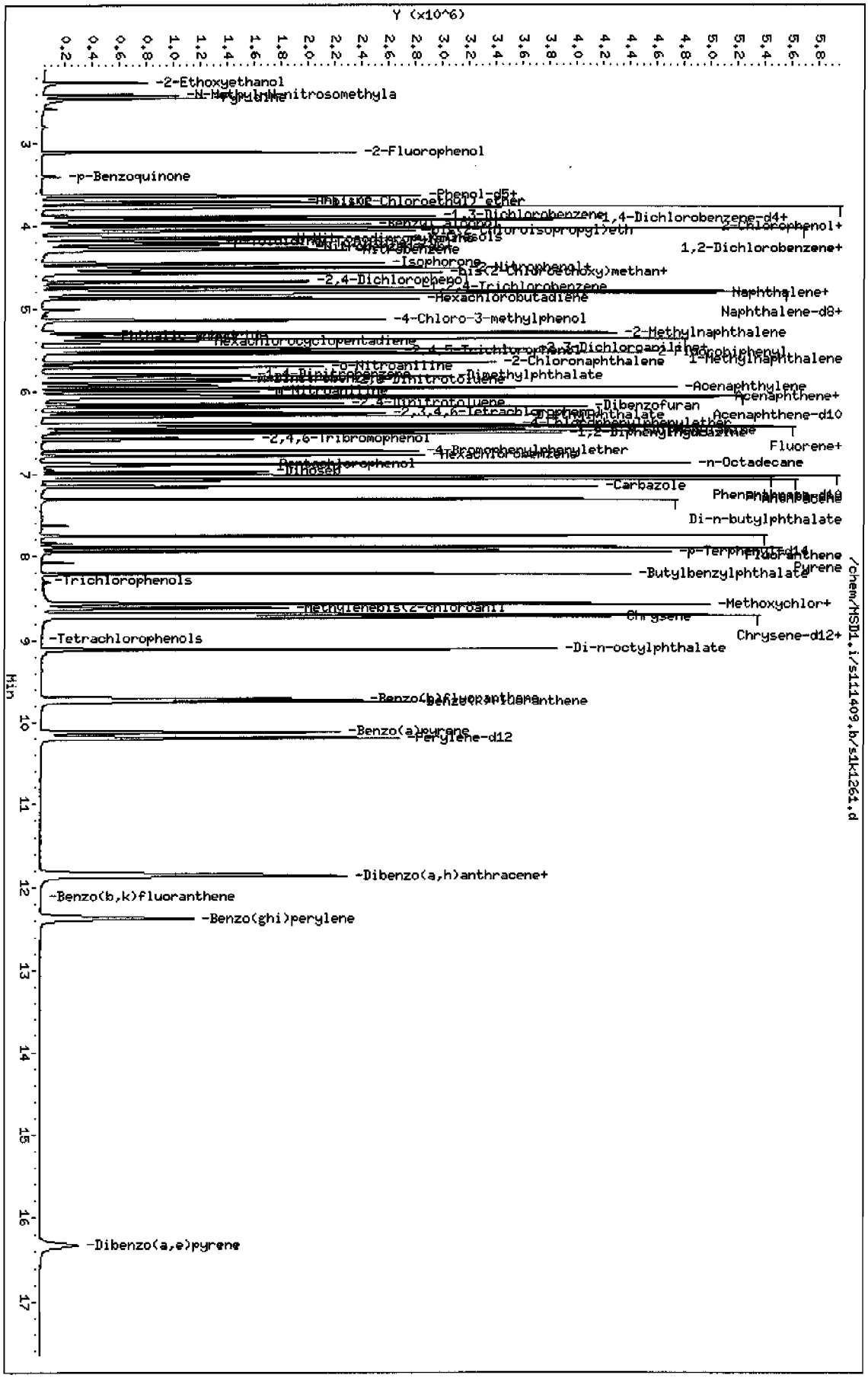

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD3.i Injection Date: 06-DEC-2009 14:32
Lab File ID: s310612.d Init. Cal. Date(s): 06-DEC-2009 06-DEC-2009
Analysis Type: Init. Cal. Times: 10:12 13:35
Lab Sample ID: WBN091106-05.2 Quant Type: ISTD
Method: /chem/MSD3.i/s120609.b/MSD3-8270R-AQA-120609.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
$ 3 2-Fluorophenol	1.04626	1.15430	1.15430	0.000	10.32625	60.00000	Averaged	
$ 5 Phenol-d5	1.33296	1.49094	1.49094	0.000	11.85229	60.00000	Averaged	
$ 20 Nitrobenzene-d5	0.29235	0.36624	0.36624	0.000	25.27709	60.00000	Averaged	
$ 39 2-Fluorobiphenyl	0.93759	1.17332	1.17332	0.000	25.14213	60.00000	Averaged	
$ 60 2,4,6-Tribromophenol	0.10984	0.12530	0.12530	0.000	14.06723	60.00000	Averaged	
$ 81 p-Terphenyl-d14	0.64244	0.73639	0.73639	0.000	14.62466	60.00000	Averaged	
1 N-Methyl-N-nitrosomethylami	0.67245	0.80566	0.80566	0.000	19.80984	60.00000	Averaged	
2 Pyridine	1.09150	1.04957	1.04957	0.000	-3.84142	60.00000	Averaged	
4 Aniline	0.55794	0.61481	0.61481	0.000	10.19309	60.00000	Averaged	
6 Phenol	1.38856	1.47050	1.47050	0.001	5.90118	20.00000	Averaged	ccc
7 bis(2-Chloroethyl) ether	43.42385	40.00000	0.94109	0.000	8.55963	60.00000	Linear	
8 2-Chlorophenol	1.07117	1.15560	1.15560	0.000	7.88268	60.00000	Averaged	
203 n-Decane	1.09536	1.28042	1.28042	0.000	16.89536	60.00000	Averaged	
9 1,3-Dichlorobenzene	1.23726	1.29764	1.29764	0.000	4.87961	60.00000	Averaged	
11 1,4-Dichlorobenzene	1.25267	1.32574	1.32574	0.001	5.83245	20.00000	Averaged	ccc
13 1,2-Dichlorobenzene	1.18843	1.24828	1.24828	0.000	5.03637	60.00000	Averaged	
14 bis(2-Chloroisopropyl)ether	1.67844	1.85476	1.85476	0.000	10.50474	60.00000	Averaged	
12 Benzyl alcohol	0.68288	0.73148	0.73148	0.000	7.11613	60.00000	Averaged	
15 o-Cresol	0.89111	0.93477	0.93477	0.000	4.89945	60.00000	Averaged	
18 m,p-Cresols	1.08247	1.21938	1.21938	0.000	12.64735	60.00000	Averaged	
17 N-Nitrosodipropylamine	0.86839	0.93080	0.93080	0.050	7.18721	60.00000	Averaged	spcc
19 Hexachloroethane	0.47182	0.48784	0.48784	0.000	3.39485	60.00000	Averaged	
21 Nitrobenzene	0.33969	0.37876	0.37876	0.000	11.50328	60.00000	Averaged	
22 Isophorone	0.54661	0.65632	0.65632	0.000	20.07192	60.00000	Averaged	
23 2-Nitrophenol	0.14291	0.15056	0.15056	0.001	5.34662	20.00000	Averaged	ccc
24 2,4-Dimethylphenol	0.25541	0.26831	0.26831	0.000	5.05223	60.00000	Averaged	
25 bis(2-Chloroethoxy)methane	0.37883	0.40222	0.40222	0.000	6.17407	60.00000	Averaged	
26 2,4-Dichlorophenol	0.22061	0.23934	0.23934	0.001	8.48979	20.00000	Averaged	ccc
27 Benzoic acid	43.45484	40.00000	0.11574	0.000	8.63709	60.00000	Linear	
28 1,2,4-Trichlorobenzene	0.25228	0.27159	0.27159	0.000	7.65453	60.00000	Averaged	
30 Naphthalene	47.15937	40.00000	0.95988	0.000	17.89843	60.00000	Wt Linear	
204 alpha-Terpineol	0.20029	0.24985	0.24985	0.000	24.74020	60.00000	Averaged	
31 4-Chloroaniline	0.26741	0.31572	0.31572	0.000	18.06551	60.00000	Averaged	
32 Hexachlorobutadiene	0.15474	0.15458	0.15458	0.001	-0.10095	20.00000	Averaged	ccc
33 4-Chloro-3-methylphenol	0.24248	0.26379	0.26379	0.001	8.78721	20.00000	Averaged	ccc
34 2-Methylnaphthalene	0.57399	0.66096	0.66096	0.000	15.15135	60.00000	Averaged	

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD3.i Injection Date: 06-DEC-2009 14:32
Lab File ID: s310612.d Init. Cal. Date(s): 06-DEC-2009 06-DEC-2009
Analysis Type: Init. Cal. Times: 10:12 13:35
Lab Sample ID: WBN091106-05.2 Quant Type: ISTD
Method: /chem/MSD3.i/s120609.b/MSD3-8270R-AQA-120609.m

	COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
35	1-Methylnaphthalene	0.51209	0.62141	0.62141	0.000	21.34928	60.00000	Averaged	
36	Hexachlorocyclopentadiene	0.11464	0.15698	0.15698	0.050	36.93089	60.00000	Averaged	spcc
205	2,3-Dichloroaniline	0.45038	0.55124	0.55124	0.000	22.39300	60.00000	Averaged	
37	2,4,6-Trichlorophenol	0.26952	0.28417	0.28417	0.001	5.43682	20.00000	Averaged	ccc
38	2,4,5-Trichlorophenol	0.29699	0.32180	0.32180	0.000	8.35389	60.00000	Averaged	
40	2-Chloronaphthalene	0.99133	0.99360	0.99360	0.000	0.22915	60.00000	Averaged	
42	o-Nitroaniline	0.33246	0.35120	0.35120	0.000	5.63447	60.00000	Averaged	
41	m-Nitroaniline	43.78973	40.00000	0.22968	0.000	9.47433	60.00000	Linear	
43	Dimethylphthalate	1.03853	1.18949	1.18949	0.000	14.53604	60.00000	Averaged	
44	2,6-Dinitrotoluene	0.26099	0.27989	0.27989	0.000	7.24061	60.00000	Averaged	
50	2,4-Dinitrotoluene	0.33455	0.37150	0.37150	0.000	11.04423	60.00000	Averaged	
45	Acenaphthylene	1.53207	1.78100	1.78100	0.000	16.24827	60.00000	Averaged	
47	Acenaphthene	0.95069	1.05630	1.05630	0.001	11.10924	20.00000	Averaged	ccc
48	2,4-Dinitrophenol	40.25225	40.00000	0.08170	0.050	0.63062	60.00000	Linear	spcc
49	Dibenzofuran	1.30612	1.37840	1.37840	0.000	5.53383	60.00000	Averaged	
51	Diethylphthalate	1.03172	1.20429	1.20429	0.000	16.72656	60.00000	Averaged	
52	4-Nitrophenol	40.13785	40.00000	0.15160	0.050	0.34464	60.00000	Linear	spcc
53	Fluorene	1.13622	1.28301	1.28301	0.000	12.91920	60.00000	Averaged	
54	4-Chlorophenylphenylether	0.49131	0.56006	0.56006	0.000	13.99345	60.00000	Averaged	
55	2-Methyl-4,6-dinitrophenol	47.03587	40.00000	0.11197	0.000	17.58968	60.00000	Linear	
56	p-Nitroaniline	36.94242	40.00000	0.16179	0.000	-7.64396	60.00000	Linear	
133	Diphenylamine	0.51728	0.54461	0.54461	0.001	5.28274	20.00000	Averaged	ccc
58	1,2-Diphenylhydrazine	0.77099	0.79967	0.79967	0.000	3.72000	60.00000	Averaged	
61	4-Bromophenylphenylether	0.14948	0.18517	0.18517	0.000	23.87351	60.00000	Averaged	
63	Hexachlorobenzene	0.17899	0.18176	0.18176	0.000	1.54793	60.00000	Averaged	
65	Pentachlorophenol	33.84495	40.00000	0.07367	0.001	-15.38762	20.00000	Linear	ccc
206	n-Octadecane	0.45303	0.52986	0.52986	0.000	16.95911	60.00000	Averaged	
68	Phenanthrene	0.95465	1.03135	1.03135	0.000	8.03438	60.00000	Averaged	
69	Anthracene	0.97123	1.06482	1.06482	0.000	9.63665	60.00000	Averaged	
72	Di-n-butylphthalate	1.02595	1.20841	1.20841	0.000	17.78441	60.00000	Averaged	
76	Fluoranthene	0.94500	1.05474	1.05474	0.001	11.61238	20.00000	Averaged	ccc
79	Pyrene	1.11852	1.19895	1.19895	0.000	7.19029	60.00000	Averaged	
85	Butylbenzylphthalate	0.52498	0.55344	0.55344	0.000	5.42216	60.00000	Averaged	
89	Benzo(a)anthracene	0.96306	1.04768	1.04768	0.000	8.78671	60.00000	Averaged	
92	Chrysene	0.89432	0.98196	0.98196	0.000	9.79961	60.00000	Averaged	
93	bis(2-Ethylhexyl)phthalate	0.69950	0.77615	0.77615	0.000	10.95720	60.00000	Averaged	

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD3.i
Lab File ID: s310612.d
Analysis Type:
Lab Sample ID: WBN091106-05.2 Quant Type: ISTD
Method: /chem/MSD3.i/s120609.b/MSD3-8270R-AQA-120609.m

Injection Date: 06-DEC-2009 14:32
Init. Cal. Date(s): 06-DEC-2009 06-DEC-2009
Init. Cal. Times: 10:12 13:35

	COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
	94 Di-n-octylphthalate	1.47710	1.51161	1.51161	0.001	2.33635	20.00000	Averaged	ccc
	95 Benzo(b)fluoranthene	1.05660	1.13924	1.13924	0.000	7.82075	60.00000	Averaged	
	96 Benzo(k)fluoranthene	0.99905	1.13161	1.13161	0.000	13.26928	60.00000	Averaged	
	97 Benzo(a)pyrene	0.86919	1.02524	1.02524	0.001	17.95354	20.00000	Averaged	ccc
	99 Indeno(1,2,3-cd)pyrene	0.76472	0.92909	0.92909	0.000	21.49400	60.00000	Averaged	
	100 Dibenzo(a,h)anthracene	0.64640	0.76366	0.76366	0.000	18.14175	60.00000	Averaged	
	101 Benzo(ghi)perylene	0.64348	0.76309	0.76309	0.000	18.58766	60.00000	Averaged	
	126 m-Dinitrobenzene	0.18165	0.20488	0.20488	0.000	12.78768	60.00000	Averaged	
	130 2,3,4,6-Tetrachlorophenol	0.21489	0.24322	0.24322	0.000	13.18574	60.00000	Averaged	
	143 Dinoseb	42.88147	40.00000	0.12880	0.000	7.20367	60.00000	Linear	
	173 Carbazole	35.13269	40.00000	0.58910	0.000	-12.16827	60.00000	Linear	
	184 p-Benzoquinone	49.07689	40.00000	0.06735	0.000	22.69223	60.00000	Linear	
	192 Methoxychlor	0.47514	0.58151	0.58151	0.000	22.38744	60.00000	Averaged	
	211 p-Toluidine	0.50316	1.04781	1.04781	0.000	108	60.00000	Averaged	<-
	210 m-Toluidine	0.77001	1.35472	1.35472	0.000	75.93485	60.00000	Averaged	<-
	26 Phthalic anhydride	0.10419	0.14261	0.14261	0.000	36.87446	60.00000	Averaged	
	179 Dibenzo(a,e)pyrene	0.29273	0.25193	0.25193	0.000	-13.93914	60.00000	Averaged	
	214 1,4-Dinitrobenzene	0.20234	0.22516	0.22516	0.000	11.27422	60.00000	Averaged	
	215 2-Ethoxyethanol	0.61024	0.74516	0.74516	0.000	22.10846	60.00000	Averaged	
	216 Methylenebis(2-chloroanilin	41.92976	40.00000	0.11604	0.000	4.82439	60.00000	Linear	
M	225 Trichlorophenols	0.28326	0.30299	0.30299	0.000	6.96608	60.00000	Averaged	
M	226 Tetrachlorophenols	0.21489	0.24322	0.24322	0.000	13.18574	60.00000	Averaged	
M	227 Benzo(b,k)fluoranthene	1.02783	1.13543	1.13543	0.000	10.46796	60.00000	Averaged	

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Data file : /chem/MSD3.i/s120609.b/s310612.d
Lab Smp Id: WBN091106-05.2 Client Smp ID: MEGAICV
Inj Date : 06-DEC-2009 14:32
Operator : JLD1 Inst ID: MSD3.i
Smp Info : |WBN091106-05.2|40PPM|1|SVMF|1|MEGAICV
Misc Info : |MSD8270|WBN091128-02|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD3.i/s120609.b/MSD3-8270R-AQA-120609.m
Meth Date : 07-Dec-2009 09:35 jen00986 Quant Type: ISTD
Cal Date : 06-DEC-2009 13:35 Cal File: s310610.d
Als bottle: 11 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: MEGAII.sub
Target Version: 3.50
Processing Host: hpclp1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	4.400	4.400	(1.000)	142754	40.0000	
* 29 Naphthalene-d8	136	5.661	5.661	(1.000)	536307	40.0000	
* 46 Acenaphthene-d10	164	7.515	7.515	(1.000)	297729	40.0000	
* 67 Phenanthrene-d10	188	9.111	9.111	(1.000)	496098	40.0000	
* 91 Chrysene-d12	240	11.998	11.998	(1.000)	451262	40.0000	
* 98 Perylene-d12	264	14.059	14.059	(1.000)	355260	40.0000	
$ 3 2-Fluorophenol	112	3.266	3.266	(0.742)	164781	40.0000	44.1
$ 5 Phenol-d5	99	4.048	4.048	(0.920)	212838	40.0000	44.7
$ 20 Nitrobenzene-d5	82	4.937	4.937	(0.872)	196418	40.0000	50.1
$ 39 2-Fluorobiphenyl	172	6.785	6.785	(0.903)	349330	40.0000	50.0
$ 60 2,4,6-Tribromophenol	329	8.357	8.357	(1.112)	37304	40.0000	45.6
$ 81 p-Terphenyl-d14	244	10.814	10.814	(0.901)	332306	40.0000	45.8
1 N-Methyl-N-nitrosomethylamine	74	2.308	2.308	(0.525)	115011	40.0000	47.9
2 Pyridine	79	2.334	2.334	(0.531)	149830	40.0000	38.5
4 Aniline	66	4.107	4.107	(0.933)	87766	40.0000	44.1
6 Phenol	94	4.060	4.060	(0.923)	209920	40.0000	42.4
7 bis(2-Chloroethyl) ether	63	4.145	4.145	(0.942)	134344	40.0000	43.4
8 2-Chlorophenol	128	4.209	4.209	(0.957)	164967	40.0000	43.2
203 n-Decane	43	4.212	4.212	(0.957)	182785	40.0000	46.8
9 1,3-Dichlorobenzene	146	4.347	4.347	(0.988)	185243	40.0000	42.0
11 1,4-Dichlorobenzene	146	4.415	4.415	(1.003)	189254	40.0000	42.3
13 1,2-Dichlorobenzene	146	4.561	4.561	(1.037)	178197	40.0000	42.0
14 bis(2-Chloroisopropyl)ether	45	4.640	4.640	(1.055)	264774	40.0000	44.2
12 Benzyl alcohol	108	4.526	4.526	(1.029)	104421	40.0000	42.8
15 o-Cresol	107	4.620	4.620	(1.050)	133442	40.0000	42.0
18 m,p-Cresols	107	4.775	4.775	(1.085)	174071	40.0000	45.0

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
17 N-Nitrosodipropylamine	70	4.778	4.778	(1.086)	132876	40.0000	42.9
19 Hexachloroethane	117	4.887	4.887	(1.111)	69641	40.0000	41.4
21 Nitrobenzene	77	4.957	4.957	(0.876)	203134	40.0000	44.6
22 Isophorone	82	5.186	5.186	(0.916)	351990	40.0000	48.0
23 2-Nitrophenol	139	5.268	5.268	(0.931)	80744	40.0000	42.1
24 2,4-Dimethylphenol	122	5.300	5.300	(0.936)	143896	40.0000	42.0
25 bis(2-Chloroethoxy)methane	93	5.394	5.394	(0.953)	215713	40.0000	42.5
26 2,4-Dichlorophenol	162	5.514	5.514	(0.974)	128360	40.0000	43.4
27 Benzoic acid	105	5.426	5.426	(0.959)	62070	40.0000	43.4
28 1,2,4-Trichlorobenzene	180	5.594	5.594	(0.988)	145656	40.0000	43.1
30 Naphthalene	128	5.682	5.682	(1.004)	514793	40.0000	47.2
204 alpha-Terpineol	59	5.682	5.682	(1.004)	133994	40.0000	49.9
31 4-Chloroaniline	127	5.737	5.737	(1.013)	169322	40.0000	47.2
32 Hexachlorobutadiene	225	5.796	5.796	(1.024)	82902	40.0000	40.0
33 4-Chloro-3-methylphenol	107	6.236	6.236	(1.102)	141471	40.0000	43.5
34 2-Methylnaphthalene	142	6.400	6.400	(1.131)	354479	40.0000	46.1
35 1-Methylnaphthalene	142	6.506	6.506	(1.149)	333268	40.0000	48.5
36 Hexachlorocyclopentadiene	237	6.559	6.559	(0.873)	46738	40.0000	54.8
205 2,3-Dichloroaniline	161	6.705	6.705	(0.892)	164120	40.0000	49.0
37 2,4,6-Trichlorophenol	196	6.696	6.696	(0.891)	84607	40.0000	42.2
38 2,4,5-Trichlorophenol	196	6.735	6.735	(0.896)	95810	40.0000	43.3
40 2-Chloronaphthalene	162	6.917	6.917	(0.920)	295825	40.0000	40.1
42 o-Nitroaniline	65	7.034	7.034	(0.936)	104561	40.0000	42.2
41 m-Nitroaniline	138	7.480	7.480	(0.995)	68382	40.0000	43.8
43 Dimethylphthalate	163	7.228	7.228	(0.962)	354146	40.0000	45.8
44 2,6-Dinitrotoluene	165	7.292	7.292	(0.970)	83330	40.0000	42.9
50 2,4-Dinitrotoluene	165	7.720	7.720	(1.027)	110607	40.0000	44.4
45 Acenaphthylene	152	7.365	7.365	(0.980)	530256	40.0000	46.5
47 Acenaphthene	154	7.550	7.550	(1.005)	314492	40.0000	44.4
48 2,4-Dinitrophenol	184	7.580	7.580	(1.009)	24323	40.0000	40.2
49 Dibenzofuran	168	7.732	7.732	(1.029)	410389	40.0000	42.2
51 Diethylphthalate	149	7.973	7.973	(1.061)	358552	40.0000	46.7
52 4-Nitrophenol	139	7.659	7.659	(1.019)	45137	40.0000	40.1
53 Fluorene	166	8.099	8.099	(1.078)	381990	40.0000	45.2
54 4-Chlorophenylphenylether	204	8.093	8.093	(1.077)	166746	40.0000	45.6
55 2-Methyl-4,6-dinitrophenol	198	8.155	8.155	(0.895)	55546	40.0000	47.0
56 p-Nitroaniline	138	8.137	8.137	(1.083)	48169	40.0000	36.9
133 Diphenylamine	169	8.225	8.225	(0.903)	270179	40.0000	42.1
58 1,2-Diphenylhydrazine	77	8.266	8.266	(0.907)	396717	40.0000	41.5
61 4-Bromophenylphenylether	248	8.618	8.618	(0.946)	91861	40.0000	49.5
63 Hexachlorobenzene	284	8.686	8.686	(0.953)	90173	40.0000	40.6
65 Pentachlorophenol	266	8.903	8.903	(0.977)	36548	40.0000	33.8
206 n-Octadecane	57	8.958	8.958	(0.983)	262862	40.0000	46.8
68 Phenanthrene	178	9.138	9.138	(1.003)	511653	40.0000	43.2
69 Anthracene	178	9.190	9.190	(1.009)	528256	40.0000	43.8
72 Di-n-butylphthalate	149	9.721	9.721	(1.067)	599490	40.0000	47.1
76 Fluoranthene	202	10.412	10.412	(1.143)	523255	40.0000	44.6

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
79 Pyrene	202	10.659	10.659	(0.888)	541039	40.0000	42.9
85 Butylbenzylphthalate	149	11.336	11.336	(0.945)	249747	40.0000	42.2
89 Benzo(a)anthracene	228	11.981	11.981	(0.999)	472778	40.0000	43.5
92 Chrysene	228	12.031	12.031	(1.003)	443123	40.0000	43.9
93 bis(2-Ethylhexyl)phthalate	149	11.975	11.975	(0.998)	350246	40.0000	44.4
94 Di-n-octylphthalate	149	12.834	12.834	(0.913)	537013	40.0000	40.9
95 Benzo(b)fluoranthene	252	13.452	13.452	(0.957)	404726	40.0000	43.1
96 Benzo(k)fluoranthene	252	13.499	13.499	(0.960)	402017	40.0000	45.3
97 Benzo(a)pyrene	252	13.965	13.965	(0.993)	364226	40.0000	47.2
99 Indeno(1,2,3-cd)pyrene	276	15.854	15.854	(1.128)	330068	40.0000	48.6
100 Dibenzo(a,h)anthracene	278	15.887	15.887	(1.130)	271299	40.0000	47.2
101 Benzo(ghi)perylene	276	16.326	16.326	(1.161)	271095	40.0000	47.4(Q)
126 m-Dinitrobenzene	168	7.266	7.266	(0.967)	61000	40.0000	45.1
130 2,3,4,6-Tetrachlorophenol	232	7.861	7.861	(1.046)	72415	40.0000	45.3
143 Dinoseb	211	9.090	9.090	(0.998)	63899	40.0000	42.9
173 Carbazole	167	9.363	9.363	(1.028)	292251	40.0000	35.1
184 p-Benzoquinone	54	3.679	3.679	(0.836)	9615	40.0000	49.1
192 Methoxychlor	227	11.890	11.890	(0.991)	262415	40.0000	49.0
211 p-Toluidine	106	4.825	4.825	(1.097)	149579	40.0000	83.3
210 m-Toluidine	106	4.860	4.860	(1.105)	193391	40.0000	70.4
26 Phthalic anhydride	104	6.468	6.468	(1.142)	76484	40.0000	54.7
179 Dibenzo(a,e)pyrene	302	19.318	19.318	(1.374)	89499	40.0000	34.4
214 1,4-Dinitrobenzene	75	7.181	7.181	(0.955)	67036	40.0000	44.5
215 2-Ethoxyethanol	59	2.106	2.106	(0.479)	106374	40.0000	48.8
216 Methylenebis(2-chloroaniline)	231	11.951	11.951	(0.996)	52365	40.0000	41.9(Q)
M 225 Trichlorophenols	196				180417	80.0000	85.6
M 226 Tetrachlorophenols	232				72415	40.0000	45.3
M 227 Benzo(b,k)fluoranthene	252				806743	80.0000	88.4

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: /chem/MSD3.i/s120609.b/s310612.d
Date : 06-DEC-2009 14:32
Client ID: MEGAICV
Sample Info: WBN091106-05,2|40PPM|1|SVMF|1|MEGAICV
Column phase: J&W DB-5MS

Instrument: MSD3.i
Operator: JLD1
Column diameter: 0.20

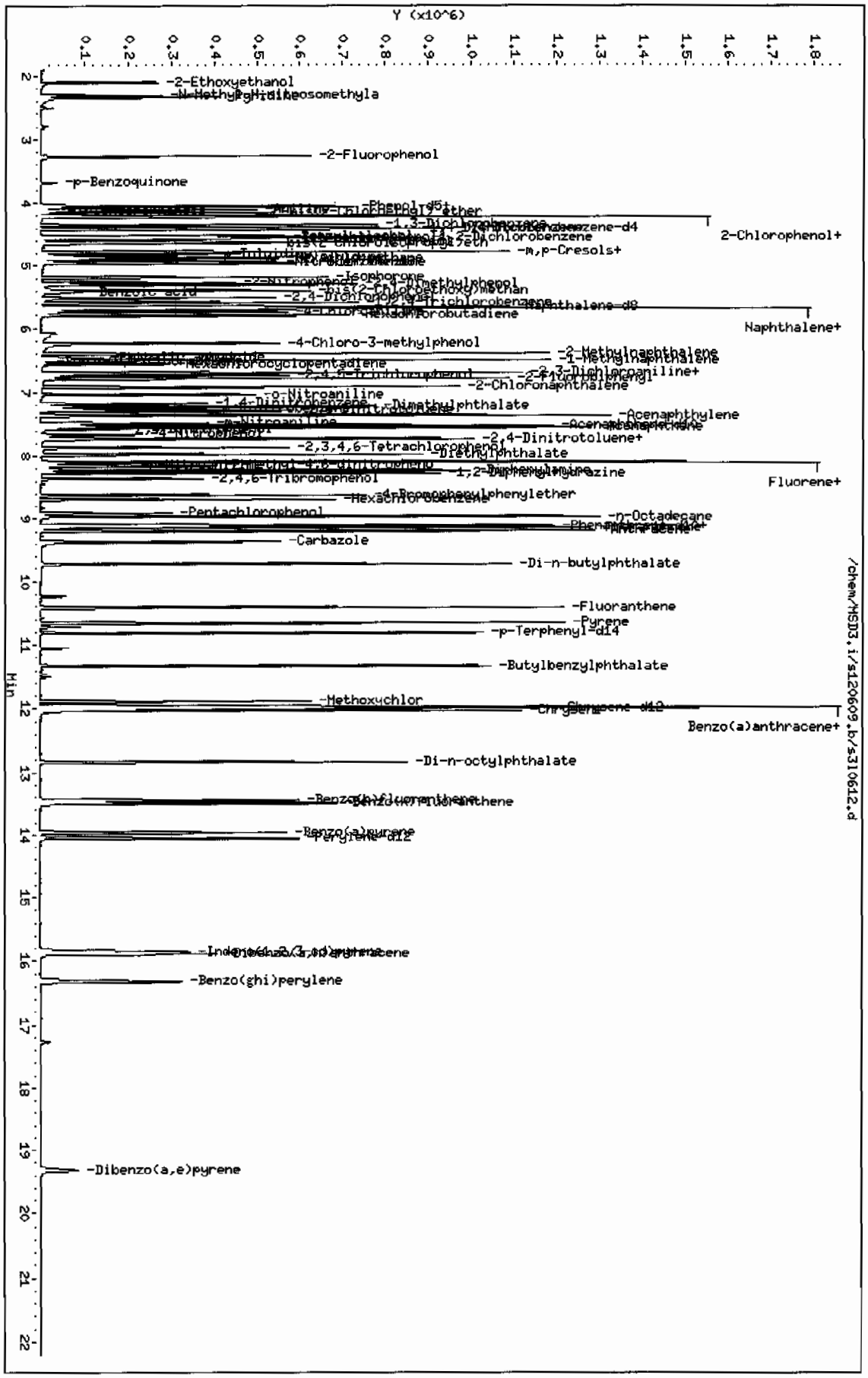

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD3.i
Lab File ID: s310810.d
Analysis Type:
Lab Sample ID: WBN091201-08.1
Method: /chem/MSD3.i/s120809.b/MSD3-8270R-AQA-120809.m

Injection Date: 08-DEC-2009 12:53
Init. Cal. Date(s): 06-DEC-2009 08-DEC-2009
Init. Cal. Times: 10:12 12:26
Quant Type: ISTD

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
209 Benzaldehyde	0.96429	0.83562	0.83562	0.000	-13.34312	60.00000	Averaged
16 Acetophenone	1.33163	1.33895	1.33895	0.000	0.54964	60.00000	Averaged
189 Caprolactam	0.09173	0.10481	0.10481	0.000	14.25028	60.00000	Averaged
208 1,1'-Biphenyl	1.21700	1.28860	1.28860	0.000	5.88284	60.00000	Averaged
207 Atrazine	0.04375	0.04859	0.04859	0.000	11.05025	60.00000	Averaged
77 Benzidine	45.89285	40.00000	0.30963	0.000	14.73212	60.00000	Linear
90 3,3'-Dichlorobenzidine	0.27489	0.29908	0.29908	0.000	8.79838	60.00000	Averaged
102 1,4-Dioxane	0.37765	0.47912	0.47912	0.000	26.86863	60.00000	Averaged
103 Methyl methacrylate	0.21438	0.27564	0.27564	0.000	28.57516	60.00000	Averaged
104 Ethyl methacrylate	0.84060	1.04720	1.04720	0.000	24.57729	60.00000	Averaged
105 2-Picoline	1.36059	1.30318	1.30318	0.000	-4.21984	60.00000	Averaged
106 N-Nitrosomethylethylamine	0.54734	0.55540	0.55540	0.000	1.47128	60.00000	Averaged
107 Methyl methanesulfonate	0.57769	0.63494	0.63494	0.000	9.91129	60.00000	Averaged
108 N-Nitrosodiethylamine	0.56251	0.56493	0.56493	0.000	0.42897	60.00000	Averaged
109 Ethyl Methanesulfonate	0.74348	0.93734	0.93734	0.000	26.07482	60.00000	Averaged
110 Pentachloroethane	0.31184	0.44234	0.44234	0.000	41.84610	60.00000	Averaged
111 N-Nitrosopyrrolidine	0.57216	0.57372	0.57372	0.000	0.27265	60.00000	Averaged
113 N-Nitrosomorpholine	0.68237	0.68126	0.68126	0.000	-0.16265	60.00000	Averaged
114 o-Toluidine	1.81766	1.78241	1.78241	0.000	-1.93930	60.00000	Averaged
115 N-Nitrosopiperidine	0.15407	0.15193	0.15193	0.000	-1.39002	60.00000	Averaged
116 a,a-Dimethylphenethylamine	0.80710	0.80910	0.80910	0.000	0.24773	60.00000	Averaged
118 2,6-Dichlorophenol	0.22077	0.23259	0.23259	0.000	5.35725	60.00000	Averaged
119 Hexachloropropene	0.10907	0.16896	0.16896	0.000	54.89885	60.00000	Averaged
120 p-Phenylenediamine	0.23642	0.29660	0.29660	0.000	25.45548	60.00000	Averaged
121 N-Nitrosodi-n-butylamine	0.24128	0.23927	0.23927	0.000	-0.83088	60.00000	Averaged
122 Safrole	0.20022	0.24043	0.24043	0.000	20.08440	60.00000	Averaged
123 1,2,4,5-Tetrachlorobenzene	0.44036	0.48375	0.48375	0.000	9.85235	60.00000	Averaged
124 Isosafrole	0.34861	0.47878	0.47878	0.000	37.33960	60.00000	Averaged
125 1,4-Naphthoquinone	0.30537	0.33871	0.33871	0.000	10.91756	60.00000	Averaged
127 Pentachlorobenzene	0.38598	0.40633	0.40633	0.000	5.27265	60.00000	Averaged
128 1-Naphthylamine	0.91301	0.96336	0.96336	0.000	5.51435	60.00000	Averaged
129 2-Naphthylamine	0.99339	1.04526	1.04526	0.000	5.22150	60.00000	Averaged
131 5-Nitro-o-toluidine	0.29359	0.30360	0.30360	0.000	3.40887	60.00000	Averaged
136 1,3,5-Trinitrobenzene	0.14119	0.19876	0.19876	0.000	40.77719	60.00000	Averaged
137 Phenacetin	0.30819	0.33666	0.33666	0.000	9.23923	60.00000	Averaged
138 Diallate	0.29433	0.28224	0.28224	0.000	-4.10819	60.00000	Averaged

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD3.i
Lab File ID: s310810.d
Analysis Type:
Lab Sample ID: WBN091201-08.1
Method: /chem/MSD3.i/s120809.b/MSD3-8270R-AQA-120809.m

Injection Date: 08-DEC-2009 12:53
Init. Cal. Date(s): 06-DEC-2009 08-DEC-2009
Init. Cal. Times: 10:12 12:26
Quant Type: ISTD

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
140 4-Aminobiphenyl	0.62917	0.64094	0.64094	0.000	1.86996	60.00000	Averaged
141 Pentachloronitrobenzene	0.07114	0.07592	0.07592	0.000	6.71989	60.00000	Averaged
142 Pronamide	0.28257	0.30697	0.30697	0.000	8.63356	60.00000	Averaged
146 4-Nitroquinoline-1-oxide	0.02686	0.02812	0.02812	0.000	4.65976	60.00000	Averaged
147 Methapyrilene	0.41060	0.48298	0.48298	0.000	17.62726	60.00000	Averaged
148 Isodrin	0.11051	0.10636	0.10636	0.000	-3.75445	60.00000	Averaged
149 Aramite	0.05092	0.04939	0.04939	0.000	-2.99836	60.00000	Averaged
150 Kepone	0.07689	0.08140	0.08140	0.000	5.86758	60.00000	Averaged
151 p-(Dimethylamino)azobenzene	0.32461	0.30773	0.30773	0.000	-5.20053	60.00000	Averaged
152 Chlorobenzilate	0.30328	0.29896	0.29896	0.000	-1.42415	60.00000	Averaged
153 3,3'-Dimethylbenzidine	0.46065	0.46573	0.46573	0.000	1.10408	60.00000	Averaged
155 2-Acetylaminofluorene	0.31745	0.34783	0.34783	0.000	9.56886	60.00000	Averaged
157 7,12Dimethylbenz(a)anthrace	0.51543	0.48052	0.48052	0.000	-6.77190	60.00000	Averaged
158 3-Methylcholanthrene	0.41499	0.45708	0.45708	0.000	10.14261	60.00000	Averaged
212 Cis Diallate	0.29308	0.37811	0.37811	0.000	29.01391	60.00000	Averaged
213 Trans Diallate	0.34627	0.33204	0.33204	0.000	-4.10819	60.00000	Averaged

GEL Laboratories LLC

Data file : /chem/MSD3.i/s120809.b/s310810.d
Lab Smp Id: WBN091201-08.1 Client Smp ID: APICV
Inj Date : 08-DEC-2009 12:53
Operator : JLD1 Inst ID: MSD3.i
Smp Info : |WBN091201-08.1|40PPM|1|SVMF|1|APICV
Misc Info : |MSD8270|WBN091128-02|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD3.i/s120809.b/MSD3-8270R-AQA-120809.m
Meth Date : 08-Dec-2009 13:43 jen00986 Quant Type: ISTD
Cal Date : 07-DEC-2009 19:48 Cal File: s310717.d
Als bottle: 10 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AP12.sub
Target Version: 3.50
Processing Host: hpclp1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	4.373	4.373	(1.000)	135959	40.0000	
* 29 Naphthalene-d8	136	5.633	5.633	(1.000)	495952	40.0000	
* 46 Acenaphthene-d10	164	7.485	7.485	(1.000)	282043	40.0000	
* 67 Phenanthrene-d10	188	9.086	9.086	(1.000)	478764	40.0000	
* 91 Chrysene-d12	240	11.964	11.964	(1.000)	464674	40.0000	
* 98 Perylene-d12	264	14.012	14.012	(1.000)	384673	40.0000	
209 Benzaldehyde	77	3.984	3.984	(0.911)	113610	40.0000	34.7
16 Acetophenone	105	4.757	4.757	(1.088)	182042	40.0000	40.2
189 Caprolactam	113	6.078	6.078	(1.079)	51979	40.0000	45.7
208 1,1'-Biphenyl	154	6.870	6.870	(0.918)	363440	40.0000	42.4
207 Atrazine	173	8.778	8.778	(0.966)	23263	40.0000	44.4
77 Benzidine	184	10.536	10.536	(0.881)	143877	40.0000	45.9
90 3,3'-Dichlorobenzidine	252	11.920	11.920	(0.996)	138973	40.0000	43.5
102 1,4-Dioxane	88	2.080	2.080	(0.476)	65141	40.0000	50.7
103 Methyl methacrylate	100	2.080	2.080	(0.476)	37476	40.0000	51.4
104 Ethyl methacrylate	69	2.572	2.572	(0.588)	142376	40.0000	49.8
105 2-Picoline	93	2.818	2.818	(0.644)	177179	40.0000	38.3
106 N-Nitrosomethylethylamine	88	2.891	2.891	(0.661)	75511	40.0000	40.6
107 Methyl methanesulfonate	80	3.122	3.122	(0.714)	86326	40.0000	44.0
108 N-Nitrosodiethylamine	102	3.433	3.433	(0.785)	76807	40.0000	40.2
109 Ethyl Methanesulfonate	79	3.679	3.679	(0.841)	127440	40.0000	50.4
110 Pentachloroethane	167	4.118	4.118	(0.942)	60140	40.0000	56.7
111 N-Nitrosopyrrolidine	100	4.745	4.745	(1.085)	78002	40.0000	40.1
113 N-Nitrosomorpholine	56	4.780	4.780	(1.093)	92624	40.0000	39.9
114 o-Toluidine	106	4.795	4.795	(1.096)	242335	40.0000	39.2
115 N-Nitrosopiperidine	114	5.076	5.076	(0.901)	75351	40.0000	39.4

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
116 a,a-Dimethylphenethylamine	58	5.495	5.495	(0.976)	401275	40.0000	40.1
118 2,6-Dichlorophenol	162	5.718	5.718	(1.015)	115355	40.0000	42.1
119 Hexachloropropene	213	5.739	5.739	(1.019)	83794	40.0000	62.0
120 p-Phenylenediamine	108	6.087	6.087	(1.081)	147101	40.0000	50.2
121 N-Nitrosodi-n-butylamine	84	6.049	6.049	(1.074)	118668	40.0000	39.7(T)
122 Safrole	162	6.278	6.278	(1.114)	119243	40.0000	48.0
123 1,2,4,5-Tetrachlorobenzene	216	6.547	6.547	(0.875)	136437	40.0000	43.9
124 Isosafrole	162	6.831	6.831	(0.913)	135036	40.0000	54.9
125 1,4-Naphthoquinone	158	7.084	7.084	(0.946)	95530	40.0000	44.4
127 Pentachlorobenzene	250	7.655	7.655	(1.023)	114602	40.0000	42.1
128 1-Naphthylamine	143	7.793	7.793	(1.041)	271709	40.0000	42.2
129 2-Naphthylamine	143	7.878	7.878	(1.052)	294808	40.0000	42.1
131 5-Nitro-o-toluidine	152	8.095	8.095	(1.081)	85629	40.0000	41.4
136 1,3,5-Trinitrobenzene	75	8.487	8.487	(0.934)	95158	40.0000	56.3
137 Phenacetin	108	8.543	8.543	(0.940)	161183	40.0000	43.7
138 Diallate	86	8.496	8.496	(0.935)	135124	40.0000	38.4
140 4-Aminobiphenyl	169	8.883	8.883	(0.978)	306858	40.0000	40.7
141 Pentachloronitrobenzene	237	8.883	8.883	(0.978)	36349	40.0000	42.7
142 Pronamide	173	8.936	8.936	(0.984)	146966	40.0000	43.4
146 4-Nitroquinoline-1-oxide	101	9.944	9.944	(1.094)	13461	40.0000	41.9
147 Methapyrilene	58	10.012	10.012	(1.102)	231234	40.0000	47.0
148 Isodrin	193	10.220	10.220	(1.125)	50923	40.0000	38.5
149 Aramite	185	10.759	10.759	(1.184)	23648	40.0000	38.8
150 Kepone	272	11.360	11.360	(1.250)	38972	40.0000	42.3
151 p-(Dimethylamino)azobenzene	120	10.944	10.944	(0.915)	142995	40.0000	37.9
152 Chlorobenzilate	251	10.988	10.988	(0.918)	138919	40.0000	39.4
153 3,3'-Dimethylbenzidine	212	11.307	11.307	(0.945)	216414	40.0000	40.4
155 2-Acetylaminofluorene	181	11.589	11.589	(0.969)	161627	40.0000	43.8
157 7,12Dimethylbenz(a)anthracene	256	13.394	13.394	(0.956)	184844	40.0000	37.3
158 3-Methylcholanthrene	268	14.478	14.478	(1.033)	175826	40.0000	44.0
212 Cis Diallate	86	8.593	8.593	(0.946)	27154	6.00000	7.7
213 Trans Diallate	86	8.496	8.496	(0.935)	135124	34.0000	32.6

QC Flag Legend

T - Target compound detected outside RT window.

Data File: /chem/MSD3.i/s120809.b/s310810.d
Date : 08-DEC-2009 12:53
Client ID: APICV
Sample Info: IWBN091201-08,1|40PPM|1|SVMF1|1|APICV
Column phase: J&W DB-5MS

Instrument: MSD3.i
Operator: JLD1
Column diameter: 0.20

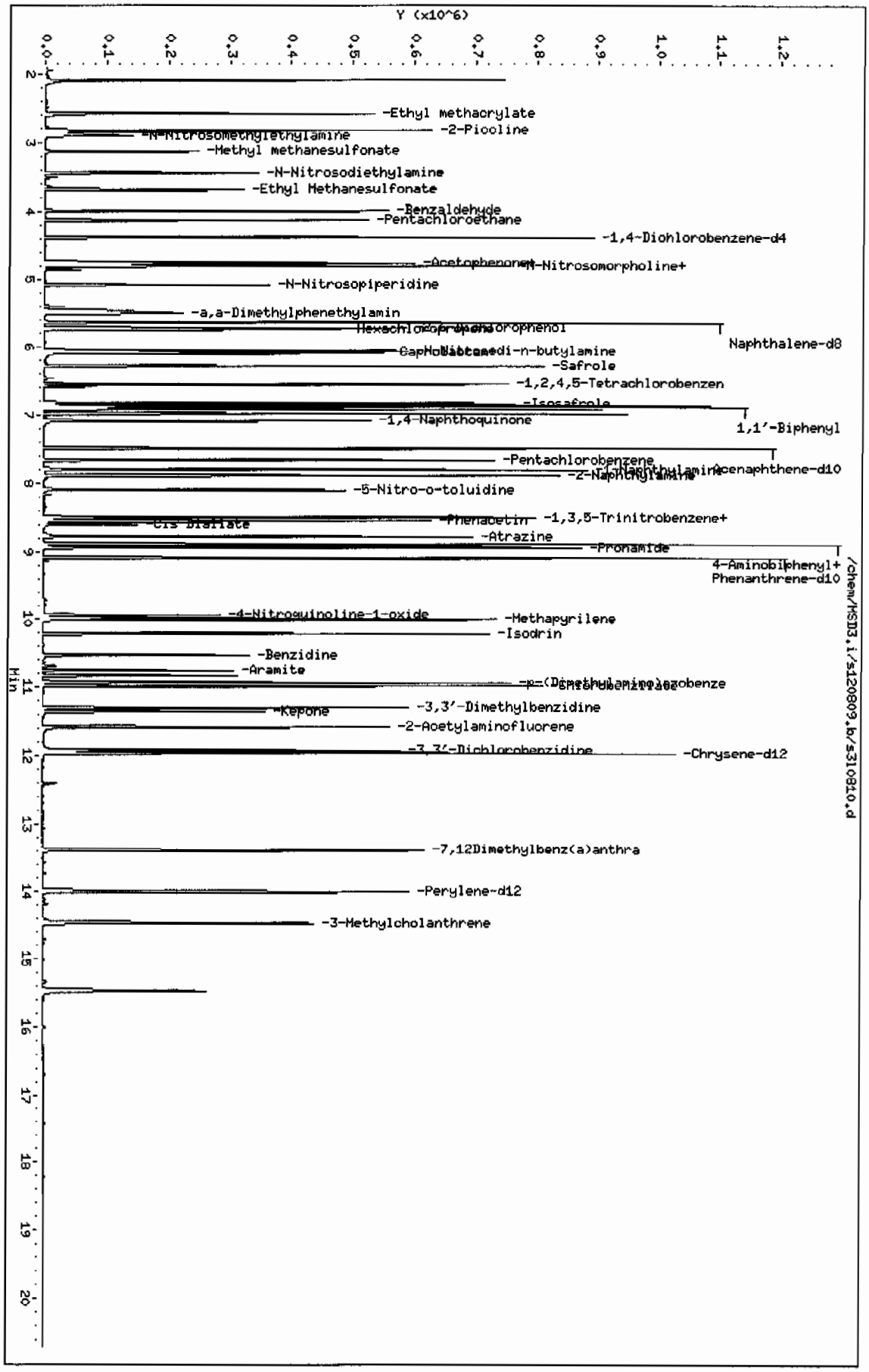

Page 1

Data File: /chem/MSD1.i/s123009.b/s113003.d
Report Date: 05-Jan-2010 10:56

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD1.i
Lab File ID: s113003.d
Analysis Type: WATER
Lab Sample ID: WBN091111-17.2
Method: /chem/MSD1.i/s123009.b/MSD1-M8270AQA-111409.m

Injection Date: 30-DEC-2009 10:40
Init. Cal. Date(s): 14-NOV-2009 17-NOV-2009
Init. Cal. Times: 18:22 19:15
Quant Type: ISTD

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
$ 3 2-Fluorophenol	1.04478	1.05696	1.05696	0.000	1.16512	60.00000	Averaged
$ 5 Phenol-d5	1.26984	1.25880	1.25880	0.000	-0.86876	60.00000	Averaged
$ 20 Nitrobenzene-d5	0.26360	0.27906	0.27906	0.000	5.86311	60.00000	Averaged
$ 39 2-Fluorobiphenyl	0.95800	1.09147	1.09147	0.000	13.93255	60.00000	Averaged
$ 60 2,4,6-Tribromophenol	0.11169	0.13266	0.13266	0.000	18.77496	60.00000	Averaged
$ 81 p-Terphenyl-d14	0.62787	0.70643	0.70643	0.000	12.51182	60.00000	Averaged
1 N-Methyl-N-nitrosomethylami	0.56740	0.64870	0.64870	0.000	14.32865	60.00000	Averaged
2 Pyridine	0.95281	0.85449	0.85449	0.000	-10.31866	60.00000	Averaged
4 Aniline	0.55813	0.50536	0.50536	0.000	-9.45521	60.00000	Averaged
6 Phenol	1.33800	1.29033	1.29033	0.001	-3.56300	20.00000	Averaged ccc
7 bis(2-Chloroethyl) ether	0.93081	0.88977	0.88977	0.000	-4.40881	60.00000	Averaged
8 2-Chlorophenol	1.13717	1.08452	1.08452	0.000	-4.62930	60.00000	Averaged
203 n-Decane	1.43160	1.52027	1.52027	0.000	6.19368	60.00000	Averaged
9 1,3-Dichlorobenzene	1.33431	1.23821	1.23821	0.000	-7.20266	60.00000	Averaged
11 1,4-Dichlorobenzene	1.30799	1.20507	1.20507	0.001	-7.86847	20.00000	Averaged ccc
13 1,2-Dichlorobenzene	1.20798	1.15057	1.15057	0.000	-4.75240	60.00000	Averaged
14 bis(2-Chloroisopropyl)ether	2.21709	2.01676	2.01676	0.000	-9.03544	60.00000	Averaged
12 Benzyl alcohol	0.69141	0.70948	0.70948	0.000	2.61301	60.00000	Averaged
15 o-Cresol	0.84650	0.81766	0.81766	0.000	-3.40605	60.00000	Averaged
18 m,p-Cresols	1.15179	1.10788	1.10788	0.000	-3.81206	60.00000	Averaged
17 N-Nitrosodipropylamine	0.76238	0.70103	0.70103	0.050	-8.04643	60.00000	Averaged spcc
19 Hexachloroethane	0.47075	0.44769	0.44769	0.000	-4.89783	60.00000	Averaged
21 Nitrobenzene	0.27466	0.28578	0.28578	0.000	4.04927	60.00000	Averaged
22 Isophorone	0.48049	0.51528	0.51528	0.000	7.23999	60.00000	Averaged
23 2-Nitrophenol	0.14580	0.13239	0.13239	0.001	-9.19481	20.00000	Averaged ccc
24 2,4-Dimethylphenol	0.23346	0.23000	0.23000	0.000	-1.48119	60.00000	Averaged
25 bis(2-Chloroethoxy)methane	0.30933	0.29953	0.29953	0.000	-3.16689	60.00000	Averaged
26 2,4-Dichlorophenol	0.21909	0.20995	0.20995	0.001	-4.17111	20.00000	Averaged ccc
27 Benzoic acid	0.16087	0.15618	0.15618	0.000	-2.91262	60.00000	Averaged
28 1,2,4-Trichlorobenzene	0.24210	0.24189	0.24189	0.000	-0.09013	60.00000	Averaged
30 Naphthalene	0.83482	0.83265	0.83265	0.000	-0.25925	60.00000	Averaged
204 alpha-Terpineol	0.19635	0.20960	0.20960	0.000	6.74742	60.00000	Averaged
31 4-Chloroaniline	0.38123	0.36468	0.36468	0.000	-4.34100	60.00000	Averaged
32 Hexachlorobutadiene	0.12432	0.13343	0.13343	0.001	7.32904	20.00000	Averaged ccc
33 4-Chloro-3-methylphenol	0.21406	0.21039	0.21039	0.001	-1.71216	20.00000	Averaged ccc
34 2-Methylnaphthalene	0.54880	0.57272	0.57272	0.000	4.35851	60.00000	Averaged

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD1.i Injection Date: 30-DEC-2009 10:40
Lab File ID: s113003.d Init. Cal. Date(s): 14-NOV-2009 17-NOV-2009
Analysis Type: WATER Init. Cal. Times: 18:22 19:15
Lab Sample ID: WBN091111-17.2 Quant Type: ISTD
Method: /chem/MSD1.i/s123009.b/MSD1-M8270AQA-111409.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
35 1-Methylnaphthalene	0.49330	0.54099	0.54099	0.000	9.66717	60.00000	Averaged	
36 Hexachlorocyclopentadiene	0.12213	0.10846	0.10846	0.050	-11.19454	60.00000	Averaged	spcc
205 2,3-Dichloroaniline	0.45401	0.48003	0.48003	0.000	5.73179	60.00000	Averaged	
37 2,4,6-Trichlorophenol	0.26606	0.27611	0.27611	0.001	3.77982	20.00000	Averaged	ccc
38 2,4,5-Trichlorophenol	0.28290	0.31002	0.31002	0.000	9.58789	60.00000	Averaged	
40 2-Chloronaphthalene	0.98748	0.88169	0.88169	0.000	-10.71387	60.00000	Averaged	
42 o-Nitroaniline	0.30619	0.27448	0.27448	0.000	-10.35511	60.00000	Averaged	
41 m-Nitroaniline	0.27055	0.17490	0.17490	0.000	-35.35384	60.00000	Averaged	
43 Dimethylphthalate	1.08995	1.06391	1.06391	0.000	-2.38899	60.00000	Averaged	
44 2,6-Dinitrotoluene	0.27156	0.23693	0.23693	0.000	-12.75056	60.00000	Averaged	
50 2,4-Dinitrotoluene	0.35993	0.29973	0.29973	0.000	-16.72606	60.00000	Averaged	
45 Acenaphthylene	1.54092	1.60387	1.60387	0.000	4.08510	60.00000	Averaged	
47 Acenaphthene	0.92259	0.94978	0.94978	0.001	2.94723	20.00000	Averaged	ccc
48 2,4-Dinitrophenol	0.10718	0.08368	0.08368	0.050	-21.93009	60.00000	Averaged	spcc
49 Dibenzofuran	1.33422	1.21660	1.21660	0.000	-8.81582	60.00000	Averaged	
51 Diethylphthalate	1.01616	1.06181	1.06181	0.000	4.49322	60.00000	Averaged	
52 4-Nitrophenol	0.18871	0.16233	0.16233	0.050	-13.97923	60.00000	Averaged	spcc
53 Fluorene	1.07578	1.12588	1.12588	0.000	4.65704	60.00000	Averaged	
54 4-Chlorophenylphenylether	0.45420	0.48291	0.48291	0.000	6.32059	60.00000	Averaged	
55 2-Methyl-4,6-dinitrophenol	0.10120	0.10270	0.10270	0.000	1.49045	60.00000	Averaged	
56 p-Nitroaniline	0.26458	0.14292	0.14292	0.000	-45.98306	60.00000	Averaged	
133 Diphenylamine	0.53354	0.48179	0.48179	0.001	-9.69895	20.00000	Averaged	ccc
58 1,2-Diphenylhydrazine	0.65098	0.62605	0.62605	0.000	-3.83040	60.00000	Averaged	
61 4-Bromophenylphenylether	0.13743	0.16528	0.16528	0.000	20.26154	60.00000	Averaged	
63 Hexachlorobenzene	0.16869	0.18202	0.18202	0.000	7.90422	60.00000	Averaged	
65 Pentachlorophenol	0.10117	0.10394	0.10394	0.001	2.74457	20.00000	Averaged	ccc
206 n-Octadecane	0.43383	0.46736	0.46736	0.000	7.73034	60.00000	Averaged	
68 Phenanthrene	0.90903	0.91023	0.91023	0.000	0.13146	60.00000	Averaged	
69 Anthracene	0.92447	0.91798	0.91798	0.000	-0.70179	60.00000	Averaged	
72 Di-n-butylphthalate	0.98605	1.11143	1.11143	0.000	12.71492	60.00000	Averaged	
76 Fluoranthene	0.87746	0.93737	0.93737	0.001	6.82761	20.00000	Averaged	ccc
79 Pyrene	1.06293	1.17873	1.17873	0.000	10.89431	60.00000	Averaged	
85 Butylbenzylphthalate	0.48372	0.53932	0.53932	0.000	11.49381	60.00000	Averaged	
89 Benzo(a)anthracene	0.95915	0.93770	0.93770	0.000	-2.23594	60.00000	Averaged	
92 Chrysene	0.89647	0.94997	0.94997	0.000	5.96809	60.00000	Averaged	
93 bis(2-Ethylhexyl)phthalate	0.70275	0.76378	0.76378	0.000	8.68362	60.00000	Averaged	

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD1.i Injection Date: 30-DEC-2009 10:40
Lab File ID: s113003.d Init. Cal. Date(s): 14-NOV-2009 17-NOV-2009
Analysis Type: WATER Init. Cal. Times: 18:22 19:15
Lab Sample ID: WBN091111-17.2 Quant Type: ISTD
Method: /chem/MSD1.i/s123009.b/MSD1-M8270AQA-111409.m

	COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
	94 Di-n-octylphthalate	1.30849	1.48829	1.48829	0.001	13.74118	20.00000	Averaged	ccc
	95 Benzo(b)fluoranthene	43.56166	40.00000	1.11133	0.000	8.90416	60.00000	Linear	
	96 Benzo(k)fluoranthene	1.00298	1.07042	1.07042	0.000	6.72460	60.00000	Averaged	
	97 Benzo(a)pyrene	42.51191	40.00000	0.92834	0.001	6.27977	20.00000	Linear	ccc
	99 Indeno(1,2,3-cd)pyrene	36.71455	40.00000	0.83268	0.000	-8.21363	60.00000	Linear	
	100 Dibenzo(a,h)anthracene	36.31453	40.00000	0.68890	0.000	-9.21367	60.00000	Linear	
	101 Benzo(ghi)perylene	0.75165	0.70906	0.70906	0.000	-5.66540	60.00000	Averaged	
	126 m-Dinitrobenzene	0.18653	0.16086	0.16086	0.000	-13.75805	60.00000	Averaged	
	130 2,3,4,6-Tetrachlorophenol	0.21604	0.23832	0.23832	0.000	10.31247	60.00000	Averaged	
	143 Dinoseb	0.12447	0.12322	0.12322	0.000	-1.00492	60.00000	Averaged	
	173 Carbazole	0.80714	0.56306	0.56306	0.000	-30.24045	60.00000	Averaged	
	184 p-Benzoquinone	37.03719	40.00000	0.06083	0.000	-7.40704	60.00000	Linear	
	192 Methoxychlor	0.31747	0.49198	0.49198	0.000	54.97141	60.00000	Averaged	
	211 p-Toluidine	0.70440	0.92215	0.92215	0.000	30.91175	60.00000	Averaged	
	210 m-Toluidine	0.91072	1.21104	1.21104	0.000	32.97687	60.00000	Averaged	
	26 Phthalic anhydride	36.19379	40.00000	0.08479	0.000	-9.51553	60.00000	Linear	
	179 Dibenzo(a,e)pyrene	20.30516	40.00000	0.21895	0.000	-49.23710	60.00000	Linear	
	214 1,4-Dinitrobenzene	0.17315	0.14322	0.14322	0.000	-17.28749	60.00000	Averaged	
	215 2-Ethoxyethanol	0.60315	0.68348	0.68348	0.000	13.31856	60.00000	Averaged	
	216 Methylenebis(2-chloroanilin	0.12921	0.06257	0.06257	0.000	-51.57450	60.00000	Averaged	
M	225 Trichlorophenols	0.27448	0.29307	0.29307	0.000	6.77296	60.00000	Averaged	
M	226 Tetrachlorophenols	0.21604	0.23832	0.23832	0.000	10.31247	60.00000	Averaged	
M	227 Benzo(b,k)fluoranthene	0.96552	1.09088	1.09088	0.000	12.98299	60.00000	Averaged	

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Data file : /chem/MSD1.i/s123009.b/s113003.d
Lab Smp Id: WBN091111-17.2 Client Smp ID: MEGACVS
Inj Date : 30-DEC-2009 10:40
Operator : AMY Inst ID: MSD1.i
Smp Info : |WBN091111-17.2|40 PPM|1|SVMF|1|MEGACVS
Misc Info : |MSD8270|WBN091208-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD1.i/s123009.b/MSD1-M8270AQA-111409.m
Meth Date : 05-Jan-2010 10:56 amy01291 Quant Type: ISTD
Cal Date : 17-NOV-2009 17:42 Cal File: s1k1264.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: MEGAIICARE.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vo *Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vo	1000.00000	volume of sample ext
Vi	0.50000	volume injected

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	3.763	3.763	(1.000)	687374	40.0000	
* 29 Naphthalene-d8	136	4.622	4.622	(1.000)	2750224	40.0000	
* 46 Acenaphthene-d10	164	5.869	5.869	(1.000)	1443314	40.0000	
* 67 Phenanthrene-d10	188	6.857	6.857	(1.000)	2352888	40.0000	
* 91 Chrysene-d12	240	8.486	8.486	(1.000)	1958666	40.0000	
* 98 Perylene-d12	264	9.828	9.828	(1.000)	1612518	40.0000	
$ 3 2-Fluorophenol	112	2.969	2.969	(0.789)	726525	40.0000	40.5
$ 5 Phenol-d5	99	3.499	3.499	(0.930)	865269	40.0000	39.6
$ 20 Nitrobenzene-d5	82	4.128	4.128	(0.893)	767475	40.0000	42.3
$ 39 2-Fluorobiphenyl	172	5.363	5.363	(0.914)	1575337	40.0000	45.6
$ 60 2,4,6-Tribromophenol	329	6.410	6.410	(1.092)	191477	40.0000	47.5
$ 81 p-Terphenyl-d14	244	7.775	7.775	(0.916)	1383665	40.0000	45.0
1 N-Methyl-N-nitrosomethylamine	74	2.281	2.281	(0.606)	445898	40.0000	45.7

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
2 Pyridine	79	2.316	2.316	(0.616)	587354	40.0000	35.9
4 Aniline	66	3.557	3.557	(0.945)	347371	40.0000	36.2
6 Phenol	94	3.504	3.504	(0.931)	886937	40.0000	38.6
7 bis(2-Chloroethyl) ether	63	3.569	3.569	(0.948)	611608	40.0000	38.2
8 2-Chlorophenol	128	3.634	3.634	(0.966)	745474	40.0000	38.1
203 n-Decane	43	3.610	3.610	(0.959)	1044992	40.0000	42.5
9 1,3-Dichlorobenzene	146	3.728	3.728	(0.991)	851110	40.0000	37.1
11 1,4-Dichlorobenzene	146	3.775	3.775	(1.003)	828334	40.0000	36.8
13 1,2-Dichlorobenzene	146	3.881	3.881	(1.031)	790875	40.0000	38.1
14 bis(2-Chloroisopropyl)ether	45	3.910	3.910	(1.039)	1386270	40.0000	36.4
12 Benzyl alcohol	108	3.840	3.840	(1.020)	487676	40.0000	41.0
15 o-Cresol	107	3.893	3.893	(1.034)	562041	40.0000	38.6
18 m,p-Cresols	107	3.999	3.999	(1.063)	761527	40.0000	38.5
17 N-Nitrosodipropylamine	70	4.010	4.010	(1.066)	481871	40.0000	36.8
19 Hexachloroethane	117	4.104	4.104	(1.091)	307731	40.0000	38.0
21 Nitrobenzene	77	4.140	4.140	(0.896)	785950	40.0000	41.6
22 Isophorone	82	4.293	4.293	(0.929)	1417122	40.0000	42.9
23 2-Nitrophenol	139	4.351	4.351	(0.941)	364108	40.0000	36.3
24 2,4-Dimethylphenol	122	4.351	4.351	(0.941)	632562	40.0000	39.4
25 bis(2-Chloroethoxy)methane	93	4.416	4.416	(0.955)	823782	40.0000	38.7
26 2,4-Dichlorophenol	162	4.516	4.516	(0.977)	577412	40.0000	38.3
27 Benzoic acid	105	4.428	4.428	(0.958)	429540	40.0000	38.8
28 1,2,4-Trichlorobenzene	180	4.575	4.575	(0.990)	665242	40.0000	40.0
30 Naphthalene	128	4.640	4.640	(1.004)	2289979	40.0000	39.9(Q)
204 alpha-Terpineol	59	4.616	4.616	(0.999)	576454	40.0000	42.7
31 4-Chloroaniline	127	4.663	4.663	(1.009)	1002953	40.0000	38.3
32 Hexachlorobutadiene	225	4.704	4.704	(1.018)	366961	40.0000	42.9
33 4-Chloro-3-methylphenol	107	4.981	4.981	(1.078)	578623	40.0000	39.3
34 2-Methylnaphthalene	142	5.116	5.116	(1.107)	1575101	40.0000	41.7
35 1-Methylnaphthalene	142	5.193	5.193	(1.123)	1487853	40.0000	43.9
36 Hexachlorocyclopentadiene	237	5.222	5.222	(0.890)	156538	40.0000	35.5
205 2,3-Dichloroaniline	161	5.322	5.322	(0.907)	692834	40.0000	42.3
37 2,4,6-Trichlorophenol	196	5.310	5.310	(0.905)	398517	40.0000	41.5
38 2,4,5-Trichlorophenol	196	5.340	5.340	(0.910)	447462	40.0000	43.8
40 2-Chloronaphthalene	162	5.469	5.469	(0.932)	1272550	40.0000	35.7
42 o-Nitroaniline	65	5.534	5.534	(0.943)	396161	40.0000	35.8
41 m-Nitroaniline	138	5.834	5.834	(0.994)	252437	40.0000	25.8
43 Dimethylphthalate	163	5.646	5.646	(0.962)	1535553	40.0000	39.0
44 2,6-Dinitrotoluene	165	5.698	5.698	(0.971)	341971	40.0000	34.9
50 2,4-Dinitrotoluene	165	5.987	5.987	(1.020)	432602	40.0000	33.3
45 Acenaphthylene	152	5.769	5.769	(0.983)	2314891	40.0000	41.6
47 Acenaphthene	154	5.893	5.893	(1.004)	1370830	40.0000	41.2
48 2,4-Dinitrophenol	184	5.898	5.898	(1.005)	120775	40.0000	31.2(Q)
49 Dibenzofuran	168	6.010	6.010	(1.024)	1755929	40.0000	36.5
51 Diethylphthalate	149	6.128	6.128	(1.044)	1532532	40.0000	41.8
52 4-Nitrophenol	139	5.934	5.934	(1.011)	234299	40.0000	34.4
53 Fluorene	166	6.245	6.245	(1.064)	1625004	40.0000	41.9

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
54 4-Chlorophenylphenylether	204	6.228	6.228	(1.061)	696995	40.0000	42.5
55 2-Methyl-4,6-dinitrophenol	198	6.269	6.269	(0.914)	241653	40.0000	40.6
56 p-Nitroaniline	138	6.257	6.257	(1.066)	206273	40.0000	21.6
133 Diphenylamine	169	6.304	6.304	(0.919)	1133602	40.0000	36.1
58 1,2-Diphenylhydrazine	77	6.334	6.334	(0.924)	1473021	40.0000	38.5
61 4-Bromophenylphenylether	248	6.551	6.551	(0.955)	388874	40.0000	48.1
63 Hexachlorobenzene	284	6.610	6.610	(0.964)	428278	40.0000	43.2
65 Pentachlorophenol	266	6.734	6.734	(0.982)	244566	40.0000	41.1
206 n-Octadecane	57	6.710	6.710	(0.979)	1099649	40.0000	43.1
68 Phenanthrene	178	6.875	6.875	(1.003)	2141667	40.0000	40.0
69 Anthracene	178	6.904	6.904	(1.007)	2159906	40.0000	39.7
72 Di-n-butylphthalate	149	7.151	7.151	(1.043)	2615059	40.0000	45.1
76 Fluoranthene	202	7.587	7.587	(1.106)	2205530	40.0000	42.7
79 Pyrene	202	7.728	7.728	(0.911)	2308734	40.0000	44.4
85 Butylbenzylphthalate	149	8.028	8.028	(0.946)	1056352	40.0000	44.6
89 Benzo(a)anthracene	228	8.475	8.475	(0.999)	1836647	40.0000	39.1
92 Chrysene	228	8.504	8.504	(1.002)	1860679	40.0000	42.4
93 bis(2-Ethylhexyl)phthalate	149	8.363	8.363	(0.985)	1495989	40.0000	43.5
94 Di-n-octylphthalate	149	8.851	8.851	(0.901)	2399897	40.0000	45.5
95 Benzo(b)fluoranthene	252	9.398	9.398	(0.956)	1792045	40.0000	43.6
96 Benzo(k)fluoranthene	252	9.428	9.428	(0.959)	1726075	40.0000	42.7
97 Benzo(a)pyrene	252	9.763	9.763	(0.993)	1496957	40.0000	42.5
99 Indeno(1,2,3-cd)pyrene	276	11.310	11.310	(1.151)	1342718	40.0000	36.7
100 Dibenzo(a,h)anthracene	278	11.310	11.310	(1.151)	1110865	40.0000	36.3
101 Benzo(ghi)perylene	276	11.775	11.775	(1.198)	1143379	40.0000	37.7
126 m-Dinitrobenzene	168	5.687	5.687	(0.969)	232178	40.0000	34.5
130 2,3,4,6-Tetrachlorophenol	232	6.087	6.087	(1.037)	343967	40.0000	44.1
143 Dinoseb	211	6.822	6.822	(0.995)	289925	40.0000	39.6
173 Carbazole	167	6.998	6.998	(1.021)	1324815	40.0000	27.9
184 p-Benzoquinone	54	3.263	3.263	(0.867)	41811	40.0000	37.0
192 Methoxychlor	227	8.351	8.351	(0.984)	963627	40.0000	62.0
211 p-Toluidine	106	4.046	4.046	(1.075)	633861	40.0000	52.4
210 m-Toluidine	106	4.069	4.069	(1.081)	832440	40.0000	53.2
26 Phthalic anhydride	104	5.163	5.163	(1.117)	233201	40.0000	36.2
179 Dibenzo(a,e)pyrene	302	15.286	15.286	(1.555)	353061	40.0000	20.3
214 1,4-Dinitrobenzene	168	5.628	5.628	(0.959)	206708	40.0000	33.1
215 2-Ethoxyethanol	59	2.128	2.128	(0.565)	469804	40.0000	45.3
216 Methylenebis(2-chloroaniline)	231	8.416	8.416	(0.992)	122551	40.0000	19.4
M 225 Trichlorophenols	196				845979	80.0000	85.4
M 226 Tetrachlorophenols	232				343967	40.0000	44.1
M 227 Benzo(b,k)fluoranthene	252				3518120	80.0000	90.4

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: /chem/MSD1.i/s123009.b/s113003.d
Date : 30-DEC-2009 10:40
Client ID: MEGACVS
Sample Info: IWBN091111-17,2140 PPM11SVMF11MEGACVS
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD1.i
Operator: AHY
Column diameter: 0.20

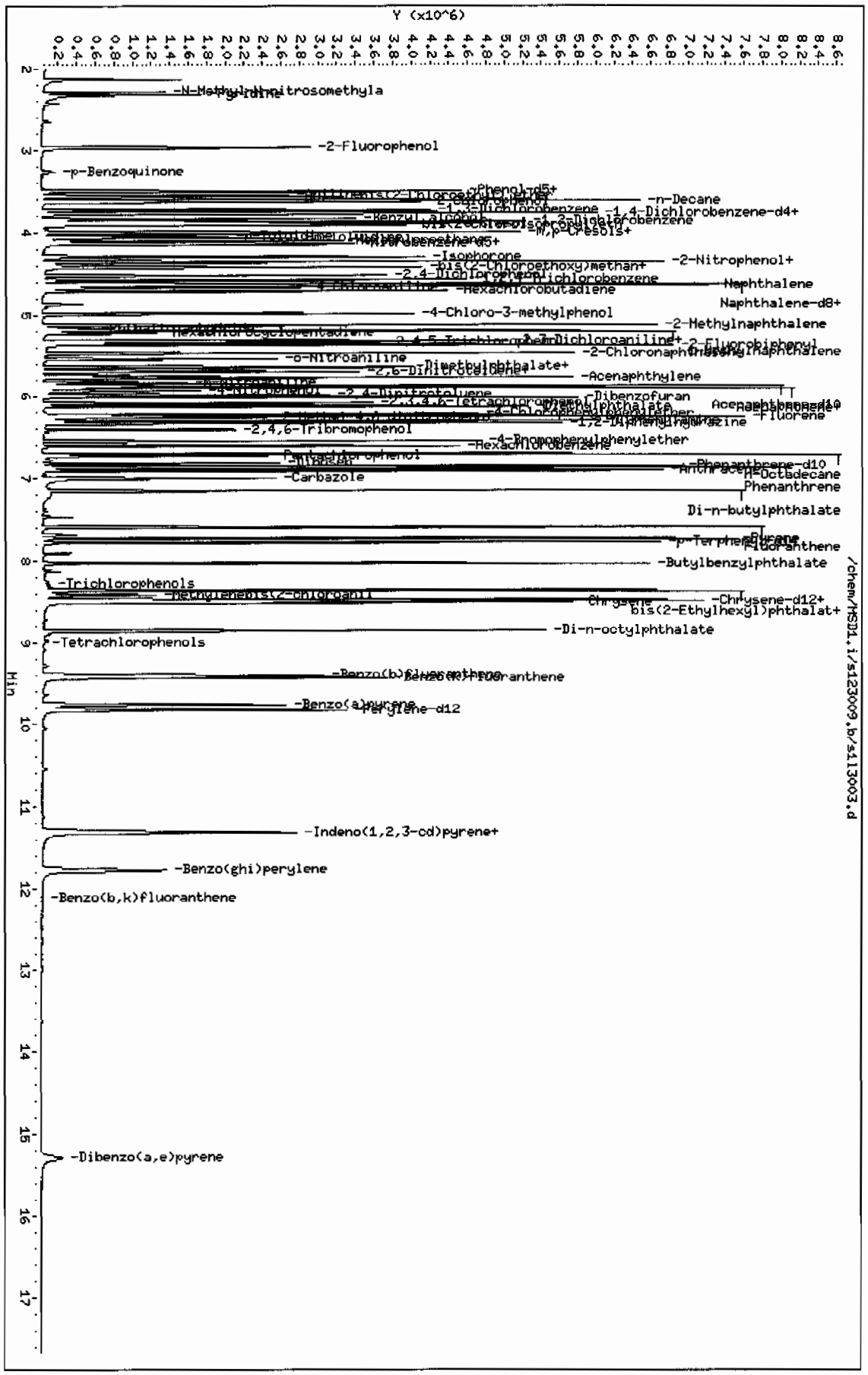

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GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD1.i Injection Date: 30-DEC-2009 11:22
Lab File ID: s113004.d Init. Cal. Date(s): 14-NOV-2009 17-NOV-2009
Analysis Type: WATER Init. Cal. Times: 18:22 19:15
Lab Sample ID: WBN091201-03.5 Quant Type: ISTD
Method: /chem/MSD1.i/s123009.b/MSD1-M8270AQA-111409.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
209 Benzaldehyde	0.82400	0.85273	0.85273	0.000	3.48734	60.00000	Averaged
16 Acetophenone	1.12880	1.13624	1.13624	0.000	0.65902	60.00000	Averaged
189 Caprolactam	0.07169	0.07651	0.07651	0.000	6.72511	60.00000	Averaged
208 1,1'-Biphenyl	1.12050	1.18443	1.18443	0.000	5.70517	60.00000	Averaged
207 Atrazine	0.04008	0.04173	0.04173	0.000	4.10588	60.00000	Averaged
77 Benzidine	0.36215	0.11324	0.11324	0.000	-68.73173	60.00000	Averaged <-
90 3,3'-Dichlorobenzidine	0.27540	0.27454	0.27454	0.000	-0.31144	60.00000	Averaged
102 1,4-Dioxane	0.31387	0.33676	0.33676	0.000	7.29427	60.00000	Averaged
103 Methyl methacrylate	0.17640	0.17182	0.17182	0.000	-2.60008	60.00000	Averaged
104 Ethyl methacrylate	0.71299	0.75717	0.75717	0.000	6.19677	60.00000	Averaged
105 2-Picoline	1.15384	1.18857	1.18857	0.000	3.00982	60.00000	Averaged
106 N-Nitrosomethylethylamine	0.45426	0.46231	0.46231	0.000	1.77256	60.00000	Averaged
107 Methyl methanesulfonate	0.42570	0.44570	0.44570	0.000	4.69756	60.00000	Averaged
108 N-Nitrosodiethylamine	0.47954	0.47175	0.47175	0.000	-1.62445	60.00000	Averaged
109 Ethyl Methanesulfonate	0.59625	0.60335	0.60335	0.000	1.19054	60.00000	Averaged
110 Pentachloroethane	0.29115	0.30009	0.30009	0.000	3.06923	60.00000	Averaged
111 N-Nitrosopyrrolidine	0.47509	0.48605	0.48605	0.000	2.30659	60.00000	Averaged
113 N-Nitrosomorpholine	0.61749	0.61844	0.61844	0.000	0.15479	60.00000	Averaged
114 o-Toluidine	1.65327	1.59782	1.59782	0.000	-3.35390	60.00000	Averaged
115 N-Nitrosopiperidine	0.13156	0.13075	0.13075	0.000	-0.61300	60.00000	Averaged
116 a,a-Dimethylphenethylamine	0.76801	0.76745	0.76745	0.000	-0.07298	60.00000	Averaged
118 2,6-Dichlorophenol	0.19701	0.20538	0.20538	0.000	4.24634	60.00000	Averaged
119 Hexachloropropene	0.08895	0.09272	0.09272	0.000	4.23201	60.00000	Averaged
120 p-Phenylenediamine	0.20154	0.08985	0.08985	0.000	-55.41931	60.00000	Averaged
121 N-Nitrosodi-n-butylamine	0.17172	0.17530	0.17530	0.000	2.08376	60.00000	Averaged
122 Safrole	0.17864	0.17753	0.17753	0.000	-0.61864	60.00000	Averaged
123 1,2,4,5-Tetrachlorobenzene	0.36713	0.42248	0.42248	0.000	15.07722	60.00000	Averaged
124 Isosafrole	0.32761	0.32996	0.32996	0.000	0.71724	60.00000	Averaged
125 1,4-Naphthoquinone	0.29676	0.33177	0.33177	0.000	11.79610	60.00000	Averaged
127 Pentachlorobenzene	0.31451	0.37406	0.37406	0.000	18.93206	60.00000	Averaged
128 1-Naphthylamine	0.89420	0.84909	0.84909	0.000	-5.04482	60.00000	Averaged
129 2-Naphthylamine	0.97473	0.85993	0.85993	0.000	-11.77809	60.00000	Averaged
131 5-Nitro-o-toluidine	0.28528	0.26025	0.26025	0.000	-8.77458	60.00000	Averaged
136 1,3,5-Trinitrobenzene	0.11623	0.11698	0.11698	0.000	0.65127	60.00000	Averaged
137 Phenacetin	0.25708	0.24827	0.24827	0.000	-3.42862	60.00000	Averaged
138 Diallate	0.23112	0.24498	0.24498	0.000	5.99676	60.00000	Averaged

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD1.i Injection Date: 30-DEC-2009 11:22
Lab File ID: s113004.d Init. Cal. Date(s): 14-NOV-2009 17-NOV-2009
Analysis Type: WATER Init. Cal. Times: 18:22 19:15
Lab Sample ID: WBN091201-03.5 Quant Type: ISTD
Method: /chem/MSD1.i/s123009.b/MSD1-M8270AQA-111409.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
212 Cis Diallate	0.23999	0.25444	0.25444	0.000	6.02044	60.00000	Averaged
213 Trans Diallate	0.27191	0.28821	0.28821	0.000	5.99676	60.00000	Averaged
140 4-Aminobiphenyl	0.53614	0.44691	0.44691	0.000	-16.64266	60.00000	Averaged
141 Pentachloronitrobenzene	0.05324	0.06407	0.06407	0.000	20.33908	60.00000	Averaged
142 Pronamide	0.23368	0.24482	0.24482	0.000	4.76704	60.00000	Averaged
146 4-Nitroquinoline-1-oxide	0.00980	0.01188	0.01188	0.000	21.15025	60.00000	Averaged
147 Methapyrilene	0.36822	0.39703	0.39703	0.000	7.82481	60.00000	Averaged
148 Isodrin	0.08609	0.09807	0.09807	0.000	13.91592	60.00000	Averaged
149 Aramite	0.04255	0.04477	0.04477	0.000	5.21060	60.00000	Averaged
150 Kepone	0.06308	0.07256	0.07256	0.000	15.01541	60.00000	Averaged
151 p-(Dimethylamino)azobenzene	0.28392	0.28228	0.28228	0.000	-0.58046	60.00000	Averaged
152 Chlorobenzilate	0.21994	0.30046	0.30046	0.000	36.61420	60.00000	Averaged
153 3,3'-Dimethylbenzidine	0.47945	0.35931	0.35931	0.000	-25.05922	60.00000	Averaged
155 2-Acetylaminofluorene	0.30801	0.30093	0.30093	0.000	-2.29881	60.00000	Averaged
157 7,12Dimethylbenz(a)anthrace	0.42123	0.46960	0.46960	0.000	11.48309	60.00000	Averaged
158 3-Methylcholanthrene	0.36711	0.37868	0.37868	0.000	3.15260	60.00000	Averaged

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Data file : /chem/MSD1.i/s123009.b/s113004.d
Lab Smp Id: WBN091201-03.5 Client Smp ID: APCVS
Inj Date : 30-DEC-2009 11:22
Operator : AMY Inst ID: MSD1.i
Smp Info : |WBN091201-03.5|40 PPM|1|SVMF|1|APCVS
Misc Info : |MSD8270|WBN091223-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD1.i/s123009.b/MSD1-M8270AQA-111409.m
Meth Date : 30-Dec-2009 13:47 amy01291 Quant Type: ISTD
Cal Date : 17-NOV-2009 17:42 Cal File: s1k1264.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ap12.sub
Target Version: 3.50
Processing Host: hpc1p1

Concentration Formula: Amt * DF * Uf * Vt/(Vo *Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vo	1000.00000	volume of sample ext
Vi	0.50000	volume injected

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	3.763	3.763	(1.000)	757837	40.0000	
* 29 Naphthalene-d8	136	4.622	4.622	(1.000)	2869969	40.0000	
* 46 Acenaphthene-d10	164	5.869	5.869	(1.000)	1549264	40.0000	
* 67 Phenanthrene-d10	188	6.863	6.863	(1.000)	2526808	40.0000	
* 91 Chrysene-d12	240	8.481	8.481	(1.000)	2066235	40.0000	
* 98 Perylene-d12	264	9.828	9.828	(1.000)	1680229	40.0000	
209 Benzaldehyde	77	3.493	3.493	(0.928)	646234	40.0000	41.4
16 Acetophenone	105	4.016	4.016	(1.067)	861082	40.0000	40.3
189 Caprolactam	113	4.910	4.910	(1.062)	219576	40.0000	42.7
208 1,1'-Biphenyl	154	5.440	5.440	(0.927)	1834997	40.0000	42.3
207 Atrazine	173	6.634	6.634	(0.967)	105437	40.0000	41.6
77 Benzidine	184	7.645	7.645	(0.902)	233979	40.0000	12.5
90 3,3'-Dichlorobenzidine	252	8.422	8.422	(0.993)	567274	40.0000	39.9

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
102 1,4-Dioxane	88	2.128	2.128	(0.565)	255211	40.0000	42.9
103 Methyl methacrylate	100	2.122	2.122	(0.564)	130210	40.0000	39.0
104 Ethyl methacrylate	69	2.481	2.481	(0.659)	573813	40.0000	42.5
105 2-Picoline	93	2.675	2.675	(0.711)	900744	40.0000	41.2
106 N-Nitrosomethylethylamine	88	2.722	2.722	(0.723)	350359	40.0000	40.7
107 Methyl methanesulfonate	80	2.881	2.881	(0.766)	337769	40.0000	41.9
108 N-Nitrosodiethylamine	102	3.104	3.104	(0.825)	357510	40.0000	39.4
109 Ethyl Methanesulfonate	79	3.263	3.263	(0.867)	457241	40.0000	40.5
110 Pentachloroethane	167	3.587	3.587	(0.953)	227420	40.0000	41.2
111 N-Nitrosopyrrolidine	100	4.010	4.010	(1.066)	368345	40.0000	40.9
113 N-Nitrosomorpholine	56	4.028	4.028	(1.070)	468679	40.0000	40.1
114 o-Toluidine	106	4.046	4.046	(1.075)	1210889	40.0000	38.6
115 N-Nitrosopiperidine	114	4.240	4.240	(0.917)	375261	40.0000	39.8
116 a,a-Dimethylphenethylamine	58	4.481	4.481	(0.969)	2202560	40.0000	40.0
118 2,6-Dichlorophenol	162	4.669	4.669	(1.010)	589422	40.0000	41.7
119 Hexachloropropene	213	4.693	4.693	(1.015)	266099	40.0000	41.7
120 p-Phenylenediamine	108	4.622	4.622	(1.000)	257857	40.0000	17.8
121 N-Nitrosodi-n-butylamine	84	4.869	4.869	(1.053)	503115	40.0000	40.8(Q)
122 Safrole	162	5.034	5.034	(1.089)	509512	40.0000	39.8
123 1,2,4,5-Tetrachlorobenzene	216	5.234	5.234	(0.892)	654533	40.0000	46.0
124 Isosafrole	162	5.404	5.404	(0.921)	511196	40.0000	40.3
125 1,4-Naphthoquinone	158	5.593	5.593	(0.953)	513999	40.0000	44.7
127 Pentachlorobenzene	250	5.981	5.981	(1.019)	579515	40.0000	47.6
128 1-Naphthylamine	143	6.063	6.063	(1.033)	1315467	40.0000	38.0
129 2-Naphthylamine	143	6.116	6.116	(1.042)	1332257	40.0000	35.3
131 5-Nitro-o-toluidine	152	6.245	6.245	(1.064)	403195	40.0000	36.5
136 1,3,5-Trinitrobenzene	75	6.475	6.475	(0.943)	295598	40.0000	40.3
137 Phenacetin	108	6.498	6.498	(0.947)	627330	40.0000	38.6
138 Diallate	86	6.475	6.475	(0.943)	619022	40.0000	42.4
212 Cis Diallate	86	6.540	6.540	(0.953)	96437	6.00000	6.4
213 Trans Diallate	86	6.475	6.475	(0.943)	619022	34.0000	36.0
140 4-Aminobiphenyl	169	6.728	6.728	(0.980)	1129256	40.0000	33.3
141 Pentachloronitrobenzene	237	6.740	6.740	(0.982)	161897	40.0000	48.1
142 Pronamide	173	6.734	6.734	(0.981)	618606	40.0000	41.9
146 4-Nitroquinoline-1-oxide	101	7.334	7.334	(1.069)	30013	40.0000	48.5
147 Methapyrilene	58	7.345	7.345	(1.070)	1003221	40.0000	43.1
148 Isodrin	193	7.498	7.498	(1.093)	247809	40.0000	45.6
149 Aramite	185	7.728	7.728	(1.126)	113124	40.0000	42.1
150 Kepone	272	8.122	8.122	(1.183)	183337	40.0000	46.0
151 p-(Dimethylamino)azobenzene	120	7.851	7.851	(0.926)	583247	40.0000	39.8
152 Chlorobenzilate	251	7.863	7.863	(0.927)	620830	40.0000	54.6
153 3,3'-Dimethylbenzidine	212	8.051	8.051	(0.949)	742412	40.0000	30.0
155 2-Acetylaminofluorene	181	8.222	8.222	(0.969)	621796	40.0000	39.1
157 7,12Dimethylbenz(a)anthracene	256	9.369	9.369	(0.953)	789028	40.0000	44.6
158 3-Methylcholanthrene	268	10.145	10.145	(1.032)	636276	40.0000	41.3

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: /chem/MSD1.i/s123009.b/s113004.d
Date : 30-DEC-2009 11:22
Client ID: APCVS
Sample Info: IWBN091201-03,5140 PPM11SVMF11APCVS
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD1.i
Operator: AMY
Column diameter: 0.20

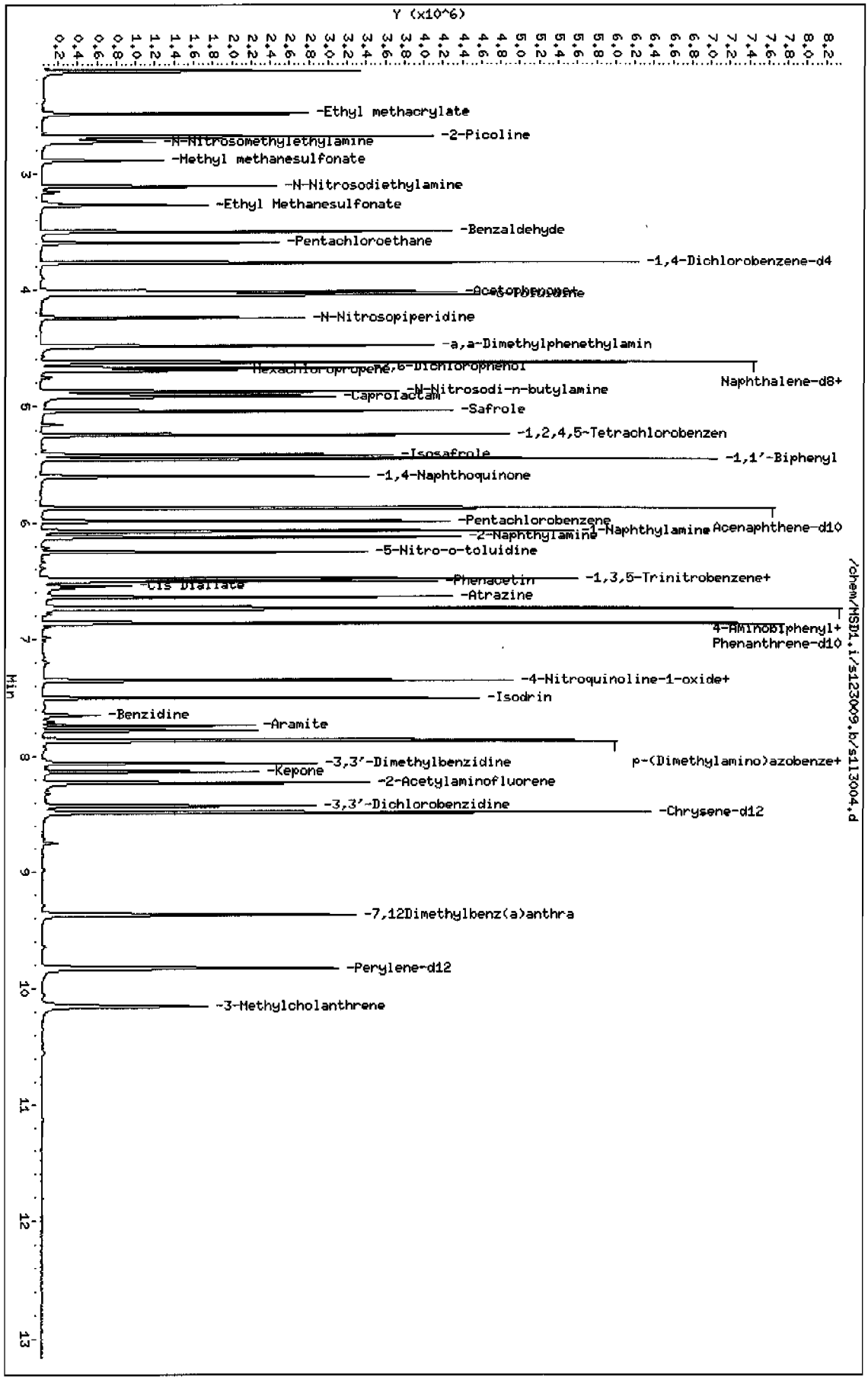

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD3.i Injection Date: 04-JAN-2010 15:20
Lab File ID: s3a0410.d Init. Cal. Date(s): 06-DEC-2009 08-DEC-2009
Analysis Type: Init. Cal. Times: 10:12 12:26
Lab Sample ID: WBN091201-17.3 Quant Type: ISTD
Method: /chem/MSD3.i/s010410a.b/MSD3-8270R-AQA-120809.m

	COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
$	3 2-Fluorophenol	1.04626	1.04378	1.04378	0.000	-0.23665	60.00000	Averaged
$	5 Phenol-d5	1.33296	1.31355	1.31355	0.000	-1.45605	60.00000	Averaged
$	20 Nitrobenzene-d5	0.29235	0.33232	0.33232	0.000	13.67345	60.00000	Averaged
$	39 2-Fluorobiphenyl	0.93759	1.09503	1.09503	0.000	16.79208	60.00000	Averaged
$	60 2,4,6-Tribromophenol	0.10984	0.12364	0.12364	0.000	12.56456	60.00000	Averaged
$	81 p-Terphenyl-d14	0.64244	0.68071	0.68071	0.000	5.95727	60.00000	Averaged
	1 N-Methyl-N-nitrosomethylami	0.67245	0.67352	0.67352	0.000	0.15948	60.00000	Averaged
	2 Pyridine	1.09150	0.79906	0.79906	0.000	-26.79217	60.00000	Averaged
	4 Aniline	0.55794	0.52474	0.52474	0.000	-5.94972	60.00000	Averaged
	6 Phenol	1.38856	1.29600	1.29600	0.001	-6.66576	20.00000	Averaged ccc
	7 bis(2-Chloroethyl) ether	34.02520	40.00000	0.74654	0.000	-14.93700	60.00000	Linear
	8 2-Chlorophenol	1.07117	1.13886	1.13886	0.000	6.31924	60.00000	Averaged
	203 n-Decane	1.09536	1.16435	1.16435	0.000	6.29898	60.00000	Averaged
	9 1,3-Dichlorobenzene	1.23726	1.21992	1.21992	0.000	-1.40212	60.00000	Averaged
	11 1,4-Dichlorobenzene	1.25267	1.23009	1.23009	0.001	-1.80293	20.00000	Averaged ccc
	13 1,2-Dichlorobenzene	1.18843	1.17137	1.17137	0.000	-1.43565	60.00000	Averaged
	14 bis(2-Chloroisopropyl)ether	1.67844	1.39908	1.39908	0.000	-16.64416	60.00000	Averaged
	12 Benzyl alcohol	0.68288	0.70388	0.70388	0.000	3.07483	60.00000	Averaged
	15 o-Cresol	0.89111	0.88445	0.88445	0.000	-0.74757	60.00000	Averaged
	18 m,p-Cresols	1.08247	1.11882	1.11882	0.000	3.35730	60.00000	Averaged
	17 N-Nitrosodipropylamine	0.86839	0.84599	0.84599	0.050	-2.57971	60.00000	Averaged spcc
	19 Hexachloroethane	0.47182	0.49742	0.49742	0.000	5.42563	60.00000	Averaged
	21 Nitrobenzene	0.33969	0.33857	0.33857	0.000	-0.32830	60.00000	Averaged
	22 Isophorone	0.54661	0.59265	0.59265	0.000	8.42427	60.00000	Averaged
	23 2-Nitrophenol	0.14291	0.14401	0.14401	0.001	0.76953	20.00000	Averaged ccc
	24 2,4-Dimethylphenol	0.25541	0.25712	0.25712	0.000	0.67128	60.00000	Averaged
	25 bis(2-Chloroethoxy)methane	0.37883	0.32464	0.32464	0.000	-14.30488	60.00000	Averaged
	26 2,4-Dichlorophenol	0.22061	0.21631	0.21631	0.001	-1.94850	20.00000	Averaged ccc
	27 Benzoic acid	42.18807	40.00000	0.10995	0.000	5.47017	60.00000	Linear
	28 1,2,4-Trichlorobenzene	0.25228	0.24593	0.24593	0.000	-2.51562	60.00000	Averaged
	30 Naphthalene	47.56773	40.00000	0.96811	0.000	18.91932	60.00000	Wt Linear
	204 alpha-Terpineol	0.20029	0.22084	0.22084	0.000	10.25712	60.00000	Averaged
	31 4-Chloroaniline	0.26741	0.20790	0.20790	0.000	-22.25339	60.00000	Averaged
	32 Hexachlorobutadiene	0.15474	0.14439	0.14439	0.001	-6.68469	20.00000	Averaged ccc
	33 4-Chloro-3-methylphenol	0.24248	0.26247	0.26247	0.001	8.24346	20.00000	Averaged ccc
	34 2-Methylnaphthalene	0.57399	0.63261	0.63261	0.000	10.21229	60.00000	Averaged

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD3.i Injection Date: 04-JAN-2010 15:20
Lab File ID: s3a0410.d Init. Cal. Date(s): 06-DEC-2009 08-DEC-2009
Analysis Type: Init. Cal. Times: 10:12 12:26
Lab Sample ID: WBN091201-17.3 Quant Type: ISTD
Method: /chem/MSD3.i/s010410a.b/MSD3-8270R-AQA-120809.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
35 1-Methylnaphthalene	0.51209	0.60663	0.60663	0.000	18.46203	60.00000	Averaged	
36 Hexachlorocyclopentadiene	0.11464	0.15420	0.15420	0.050	34.50745	60.00000	Averaged	spcc
205 2,3-Dichloroaniline	0.45038	0.49992	0.49992	0.000	10.99906	60.00000	Averaged	
37 2,4,6-Trichlorophenol	0.26952	0.28928	0.28928	0.001	7.33273	20.00000	Averaged	ccc
38 2,4,5-Trichlorophenol	0.29699	0.31295	0.31295	0.000	5.37198	60.00000	Averaged	
40 2-Chloronaphthalene	0.99133	0.88481	0.88481	0.000	-10.74531	60.00000	Averaged	
42 o-Nitroaniline	0.33246	0.30659	0.30659	0.000	-7.78121	60.00000	Averaged	
41 m-Nitroaniline	18.81757	40.00000	0.07607	0.000	-52.95609	60.00000	Linear	
43 Dimethylphthalate	1.03853	1.09501	1.09501	0.000	5.43893	60.00000	Averaged	
44 2,6-Dinitrotoluene	0.26099	0.24415	0.24415	0.000	-6.44993	60.00000	Averaged	
50 2,4-Dinitrotoluene	0.33455	0.33456	0.33456	0.000	0.00093	60.00000	Averaged	
45 Acenaphthylene	1.53207	1.68243	1.68243	0.000	9.81425	60.00000	Averaged	
47 Acenaphthene	0.95069	1.00744	1.00744	0.001	5.96944	20.00000	Averaged	ccc
48 2,4-Dinitrophenol	43.44870	40.00000	0.09253	0.050	8.62174	60.00000	Linear	spcc
49 Dibenzofuran	1.30612	1.28648	1.28648	0.000	-1.50327	60.00000	Averaged	
51 Diethylphthalate	1.03172	1.15971	1.15971	0.000	12.40562	60.00000	Averaged	
52 4-Nitrophenol	37.48399	40.00000	0.14001	0.050	-6.29003	60.00000	Linear	spcc
53 Fluorene	1.13622	1.24732	1.24732	0.000	9.77787	60.00000	Averaged	
54 4-Chlorophenylphenylether	0.49131	0.54502	0.54502	0.000	10.93269	60.00000	Averaged	
55 2-Methyl-4,6-dinitrophenol	47.59960	40.00000	0.11354	0.000	18.99900	60.00000	Linear	
56 p-Nitroaniline	23.17229	40.00000	0.08248	0.000	-42.06928	60.00000	Linear	
133 Diphenylamine	0.51728	0.44045	0.44045	0.001	-14.85321	20.00000	Averaged	ccc
58 1,2-Diphenylhydrazine	0.77099	0.73849	0.73849	0.000	-4.21557	60.00000	Averaged	
61 4-Bromophenylphenylether	0.14948	0.16435	0.16435	0.000	9.94429	60.00000	Averaged	
63 Hexachlorobenzene	0.17899	0.17192	0.17192	0.000	-3.95205	60.00000	Averaged	
65 Pentachlorophenol	35.90823	40.00000	0.07959	0.001	-10.22943	20.00000	Linear	ccc
206 n-Octadecane	0.45303	0.47548	0.47548	0.000	4.95552	60.00000	Averaged	
68 Phenanthrene	0.95465	0.95734	0.95734	0.000	0.28099	60.00000	Averaged	
69 Anthracene	0.97123	0.97673	0.97673	0.000	0.56653	60.00000	Averaged	
72 Di-n-butylphthalate	1.02595	1.19650	1.19650	0.000	16.62329	60.00000	Averaged	
76 Fluoranthene	0.94500	0.95967	0.95967	0.001	1.55228	20.00000	Averaged	ccc
79 Pyrene	1.11852	1.14272	1.14272	0.000	2.16322	60.00000	Averaged	
85 Butylbenzylphthalate	0.52498	0.57906	0.57906	0.000	10.30159	60.00000	Averaged	
89 Benzo(a)anthracene	0.96306	0.97781	0.97781	0.000	1.53167	60.00000	Averaged	
92 Chrysene	0.89432	0.86260	0.86260	0.000	-3.54776	60.00000	Averaged	
93 bis(2-Ethylhexyl)phthalate	0.69950	0.91751	0.91751	0.000	31.16633	60.00000	Averaged	

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD3.i
Lab File ID: s3a0410.d
Analysis Type:
Lab Sample ID: WBN091201-17.3 Quant Type: ISTD
Method: /chem/MSD3.i/s010410a.b/MSD3-8270R-AQA-120809.m

Injection Date: 04-JAN-2010 15:20
Init. Cal. Date(s): 06-DEC-2009 08-DEC-2009
Init. Cal. Times: 10:12 12:26

	COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
	94 Di-n-octylphthalate	1.47710	1.72371	1.72371	0.001	16.69611	20.00000	Averaged	ccc
	95 Benzo(b)fluoranthene	1.05660	1.05559	1.05559	0.000	-0.09557	60.00000	Averaged	
	96 Benzo(k)fluoranthene	0.99905	1.04601	1.04601	0.000	4.70041	60.00000	Averaged	
	97 Benzo(a)pyrene	0.86919	0.94317	0.94317	0.001	8.51170	20.00000	Averaged	ccc
	99 Indeno(1,2,3-cd)pyrene	0.76472	0.93787	0.93787	0.000	22.64200	60.00000	Averaged	
	100 Dibenzo(a,h)anthracene	0.64640	0.77083	0.77083	0.000	19.25076	60.00000	Averaged	
	101 Benzo(ghi)perylene	0.64348	0.79381	0.79381	0.000	23.36193	60.00000	Averaged	
	126 m-Dinitrobenzene	0.18165	0.16664	0.16664	0.000	-8.26293	60.00000	Averaged	
	130 2,3,4,6-Tetrachlorophenol	0.21489	0.23379	0.23379	0.000	8.79474	60.00000	Averaged	
	143 Dinoseb	43.82667	40.00000	0.13218	0.000	9.56667	60.00000	Linear	
	173 Carbazole	23.36907	40.00000	0.37663	0.000	-41.57732	60.00000	Linear	
	184 p-Benzoquinone	42.80110	40.00000	0.05695	0.000	7.00274	60.00000	Linear	
	192 Methoxychlor	0.47514	0.62717	0.62717	0.000	31.99661	60.00000	Averaged	
	211 p-Toluidine	0.50316	0.74577	0.74577	0.000	48.21737	60.00000	Averaged	
	210 m-Toluidine	0.77001	0.94197	0.94197	0.000	22.33251	60.00000	Averaged	
	26 Phthalic anhydride	0.10419	0.14676	0.14676	0.000	40.85195	60.00000	Averaged	
	179 Dibenzo(a,e)pyrene	0.29273	0.35375	0.35375	0.000	20.84715	60.00000	Averaged	
	214 1,4-Dinitrobenzene	0.20234	0.20120	0.20120	0.000	-0.56363	60.00000	Averaged	
	215 2-Ethoxyethanol	0.61024	0.58148	0.58148	0.000	-4.71307	60.00000	Averaged	
	216 Methylenebis(2-chloroanilin	33.45801	40.00000	0.08925	0.000	-16.35496	60.00000	Linear	
M	225 Trichlorophenols	0.28326	0.30112	0.30112	0.000	6.30481	60.00000	Averaged	
M	226 Tetrachlorophenols	0.21489	0.23379	0.23379	0.000	8.79474	60.00000	Averaged	
M	227 Benzo(b,k)fluoranthene	1.02783	1.05080	1.05080	0.000	2.23456	60.00000	Averaged	

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Data file : /chem/MSD3.i/s010410a.b/s3a0410.d
Lab Smp Id: WBN091201-17.3 Client Smp ID: MEGACVS
Inj Date : 04-JAN-2010 15:20
Operator : JLD1 Inst ID: MSD3.i
Smp Info : |WBN091201-17.3|40PPM|1|SVMF|1|MEGACVS
Misc Info : |MSD8270|WBN091223-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD3.i/s010410a.b/MSD3-8270R-AQA-120809.m
Meth Date : 04-Jan-2010 16:42 jen00986 Quant Type: ISTD
Cal Date : 07-DEC-2009 19:48 Cal File: s310717.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: MEGAII.sub
Target Version: 3.50
Processing Host: hpclp1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	4.203	4.203	(1.000)	125043	40.0000	
* 29 Naphthalene-d8	136	5.453	5.453	(1.000)	479154	40.0000	(H)
* 46 Acenaphthene-d10	164	7.298	7.298	(1.000)	259696	40.0000	
* 67 Phenanthrene-d10	188	8.888	8.888	(1.000)	428025	40.0000	
* 91 Chrysene-d12	240	11.745	11.745	(1.000)	372680	40.0000	
* 98 Perylene-d12	264	13.686	13.686	(1.000)	285873	40.0000	
$ 3 2-Fluorophenol	112	3.093	3.093	(0.736)	130518	40.0000	39.9
$ 5 Phenol-d5	99	3.869	3.869	(0.920)	164250	40.0000	39.4
$ 20 Nitrobenzene-d5	82	4.737	4.737	(0.865)	159232	40.0000	45.5
$ 39 2-Fluorobiphenyl	172	6.576	6.576	(0.901)	284374	40.0000	46.7
$ 60 2,4,6-Tribromophenol	329	8.143	8.143	(1.116)	32110	40.0000	45.0
$ 81 p-Terphenyl-d14	244	10.595	10.595	(0.902)	253687	40.0000	42.4
1 N-Methyl-N-nitrosomethylamine	74	2.152	2.152	(0.512)	84219	40.0000	40.1
2 Pyridine	79	2.173	2.173	(0.517)	99917	40.0000	29.3
4 Aniline	66	3.913	3.913	(0.931)	65615	40.0000	37.6
6 Phenol	94	3.881	3.881	(0.923)	162056	40.0000	37.3(H)
7 bis(2-Chloroethyl) ether	63	3.954	3.954	(0.941)	93349	40.0000	34.0
8 2-Chlorophenol	128	4.019	4.019	(0.956)	142406	40.0000	42.5
203 n-Decane	43	4.019	4.019	(0.956)	145594	40.0000	42.5
9 1,3-Dichlorobenzene	146	4.150	4.150	(0.987)	152542	40.0000	39.4
11 1,4-Dichlorobenzene	146	4.218	4.218	(1.003)	153814	40.0000	39.3
13 1,2-Dichlorobenzene	146	4.362	4.362	(1.038)	146471	40.0000	39.4
14 bis(2-Chloroisopropyl)ether	45	4.447	4.447	(1.058)	174945	40.0000	33.3
12 Benzyl alcohol	108	4.332	4.332	(1.031)	88015	40.0000	41.2
15 o-Cresol	107	4.435	4.435	(1.055)	110594	40.0000	39.7
18 m,p-Cresols	107	4.588	4.588	(1.091)	139900	40.0000	41.3

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
17 N-Nitrosodipropylamine	70	4.579	4.579	(1.089)	105785	40.0000	39.0
19 Hexachloroethane	117	4.681	4.681	(1.114)	62199	40.0000	42.2
21 Nitrobenzene	77	4.758	4.758	(0.869)	162229	40.0000	39.9
22 Isophorone	82	4.983	4.983	(0.910)	283973	40.0000	43.4
23 2-Nitrophenol	139	5.068	5.068	(0.926)	69005	40.0000	40.3
24 2,4-Dimethylphenol	122	5.110	5.110	(0.933)	123200	40.0000	40.3
25 bis(2-Chloroethoxy)methane	93	5.198	5.198	(0.949)	155552	40.0000	34.3
26 2,4-Dichlorophenol	162	5.312	5.312	(0.970)	103647	40.0000	39.2
27 Benzoic acid	105	5.236	5.236	(0.956)	52681	40.0000	42.2
28 1,2,4-Trichlorobenzene	180	5.388	5.388	(0.984)	117840	40.0000	39.0
30 Naphthalene	128	5.476	5.476	(1.000)	463872	40.0000	47.6
204 alpha-Terpineol	59	5.476	5.476	(1.000)	105815	40.0000	44.1
31 4-Chloroaniline	127	5.538	5.538	(1.011)	99617	40.0000	31.1
32 Hexachlorobutadiene	225	5.591	5.591	(1.021)	69186	40.0000	37.3
33 4-Chloro-3-methylphenol	107	6.045	6.045	(1.104)	125763	40.0000	43.3
34 2-Methylnaphthalene	142	6.192	6.192	(1.131)	303119	40.0000	44.1
35 1-Methylnaphthalene	142	6.295	6.295	(1.149)	290668	40.0000	47.4
36 Hexachlorocyclopentadiene	237	6.348	6.348	(0.870)	40046	40.0000	53.8
205 2,3-Dichloroaniline	161	6.500	6.500	(0.891)	129828	40.0000	44.4
37 2,4,6-Trichlorophenol	196	6.494	6.494	(0.890)	75126	40.0000	42.9
38 2,4,5-Trichlorophenol	196	6.535	6.535	(0.895)	81271	40.0000	42.1
40 2-Chloronaphthalene	162	6.706	6.706	(0.919)	229782	40.0000	35.7
42 o-Nitroaniline	65	6.832	6.832	(0.936)	79621	40.0000	36.9
41 m-Nitroaniline	138	7.278	7.278	(0.997)	19755	40.0000	18.8
43 Dimethylphthalate	163	7.022	7.022	(0.962)	284371	40.0000	42.2
44 2,6-Dinitrotoluene	165	7.090	7.090	(0.971)	63406	40.0000	37.4
50 2,4-Dinitrotoluene	165	7.515	7.515	(1.030)	86883	40.0000	40.0
45 Acenaphthylene	152	7.149	7.149	(0.980)	436920	40.0000	43.9
47 Acenaphthene	154	7.333	7.333	(1.005)	261628	40.0000	42.4
48 2,4-Dinitrophenol	184	7.380	7.380	(1.011)	24029	40.0000	43.4
49 Dibenzofuran	168	7.518	7.518	(1.030)	334095	40.0000	39.4
51 Diethylphthalate	149	7.765	7.765	(1.064)	301172	40.0000	45.0
52 4-Nitrophenol	139	7.474	7.474	(1.024)	36361	40.0000	37.5
53 Fluorene	166	7.882	7.882	(1.080)	323924	40.0000	43.9
54 4-Chlorophenylphenylether	204	7.882	7.882	(1.080)	141540	40.0000	44.4
55 2-Methyl-4,6-dinitrophenol	198	7.950	7.950	(0.894)	48598	40.0000	47.6
56 p-Nitroaniline	138	7.941	7.941	(1.088)	21419	40.0000	23.2
133 Diphenylamine	169	8.014	8.014	(0.902)	188523	40.0000	34.0
58 1,2-Diphenylhydrazine	77	8.052	8.052	(0.906)	316093	40.0000	38.3
61 4-Bromophenylphenylether	248	8.404	8.404	(0.946)	70344	40.0000	44.0
63 Hexachlorobenzene	284	8.466	8.466	(0.952)	73586	40.0000	38.4
65 Pentachlorophenol	266	8.689	8.689	(0.978)	34065	40.0000	35.9
206 n-Octadecane	57	8.750	8.750	(0.984)	203517	40.0000	42.0
68 Phenanthrene	178	8.915	8.915	(1.003)	409764	40.0000	40.1
69 Anthracene	178	8.971	8.971	(1.009)	418065	40.0000	40.2
72 Di-n-butylphthalate	149	9.510	9.510	(1.070)	512131	40.0000	46.6
76 Fluoranthene	202	10.190	10.190	(1.146)	410764	40.0000	40.6

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
79 Pyrene	202	10.433	10.433	(0.888)	425868	40.0000	40.9
85 Butylbenzylphthalate	149	11.120	11.120	(0.947)	215803	40.0000	44.1
89 Benzo(a)anthracene	228	11.730	11.730	(0.999)	364410	40.0000	40.6
92 Chrysene	228	11.774	11.774	(1.002)	321472	40.0000	38.6
93 bis(2-Ethylhexyl)phthalate	149	11.733	11.733	(0.999)	341938	40.0000	52.5
94 Di-n-octylphthalate	149	12.539	12.539	(0.916)	492763	40.0000	46.7
95 Benzo(b)fluoranthene	252	13.114	13.114	(0.958)	301766	40.0000	40.0
96 Benzo(k)fluoranthene	252	13.155	13.155	(0.961)	299025	40.0000	41.9
97 Benzo(a)pyrene	252	13.598	13.598	(0.994)	269627	40.0000	43.4
99 Indeno(1,2,3-cd)pyrene	276	15.404	15.404	(1.126)	268111	40.0000	49.0
100 Dibenzo(a,h)anthracene	278	15.436	15.436	(1.128)	220360	40.0000	47.7
101 Benzo(ghi)perylene	276	15.859	15.859	(1.159)	226929	40.0000	49.3
126 m-Dinitrobenzene	168	7.063	7.063	(0.968)	43277	40.0000	36.7
130 2,3,4,6-Tetrachlorophenol	232	7.653	7.653	(1.049)	60714	40.0000	43.5
143 Dinoseb	211	8.879	8.879	(0.999)	56575	40.0000	43.8
173 Carbazole	167	9.152	9.152	(1.030)	161205	40.0000	23.4
184 p-Benzoquinone	54	3.497	3.497	(0.832)	7121	40.0000	42.8
192 Methoxychlor	227	11.647	11.647	(0.992)	233734	40.0000	52.8
211 p-Toluidine	106	4.629	4.629	(1.101)	93253	40.0000	59.3
210 m-Toluidine	106	4.661	4.661	(1.109)	117787	40.0000	48.9
26 Phthalic anhydride	104	6.265	6.265	(1.144)	70319	40.0000	56.3
179 Dibenzo(a,e)pyrene	302	18.658	18.658	(1.363)	101129	40.0000	48.3
214 1,4-Dinitrobenzene	75	6.981	6.981	(0.957)	52252	40.0000	39.8
215 2-Ethoxyethanol	59	1.947	1.947	(0.463)	72710	40.0000	38.1
216 Methylenebis(2-chloroaniline)	231	11.709	11.709	(0.997)	33263	40.0000	33.4
M 225 Trichlorophenols	196				156397	80.0000	85.0
M 226 Tetrachlorophenols	232				60714	40.0000	43.5
M 227 Benzo(b,k)fluoranthene	252				600791	80.0000	81.8

QC Flag Legend

H - Operator selected an alternate compound hit.

Data File: /chem/MSD3.i/s010410a.b/s3a0410.d
Date : 04-JAN-2010 15:20
Client ID: MEGACVS
Sample Info: IWEN091201-17,3|40PPM|1|SVMF|1|MEGACVS

Column phase: J&W DB-5MS

Instrument: MSD3.i
Operator: JLD1
Column diameter: 0.20

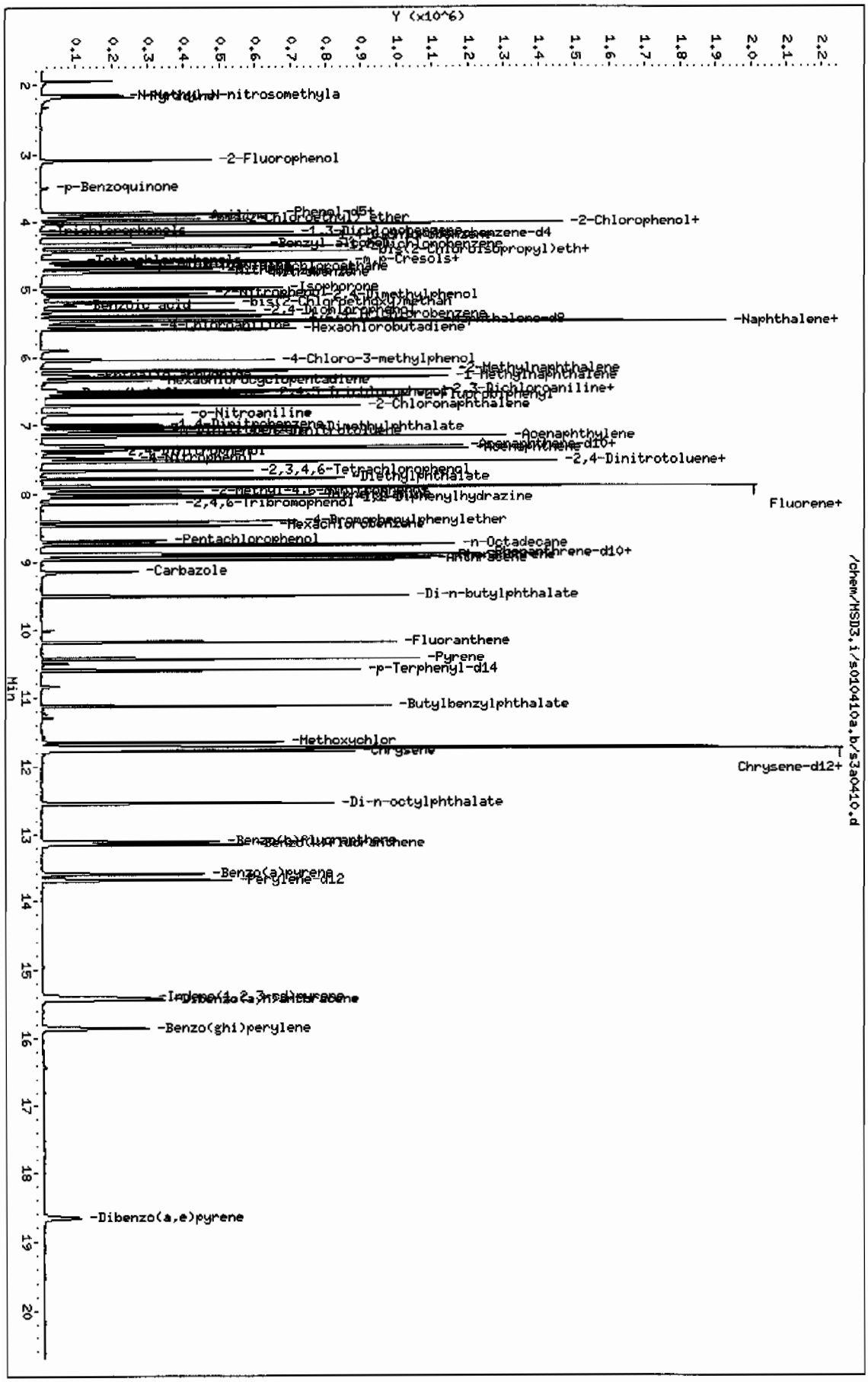

Page 1

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD3.i Injection Date: 04-JAN-2010 15:49
Lab File ID: s3a0411.d Init. Cal. Date(s): 06-DEC-2009 08-DEC-2009
Analysis Type: Init. Cal. Times: 10:12 12:26
Lab Sample ID: WBN100103-08.2 Quant Type: ISTD
Method: /chem/MSD3.i/s010410a.b/MSD3-8270R-AQA-120809.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
209 Benzaldehyde	0.96429	0.75838	0.75838	0.000	-21.35324	60.00000	Averaged
16 Acetophenone	1.33163	1.19798	1.19798	0.000	-10.03642	60.00000	Averaged
189 Caprolactam	0.09173	0.08751	0.08751	0.000	-4.60319	60.00000	Averaged
208 1,1'-Biphenyl	1.21700	1.21609	1.21609	0.000	-0.07523	60.00000	Averaged
207 Atrazine	0.04375	0.04815	0.04815	0.000	10.03927	60.00000	Averaged
77 Benzidine	17.27802	40.00000	0.06735	0.000	-56.80494	60.00000	Linear
90 3,3'-Dichlorobenzidine	0.27489	0.20951	0.20951	0.000	-23.78302	60.00000	Averaged
102 1,4-Dioxane	0.37765	0.44978	0.44978	0.000	19.09907	60.00000	Averaged
103 Methyl methacrylate	0.21438	0.26000	0.26000	0.000	21.28041	60.00000	Averaged
104 Ethyl methacrylate	0.84060	0.96431	0.96431	0.000	14.71658	60.00000	Averaged
105 2-Picoline	1.36059	1.16316	1.16316	0.000	-14.51064	60.00000	Averaged
106 N-Nitrosomethylethylamine	0.54734	0.47325	0.47325	0.000	-13.53698	60.00000	Averaged
107 Methyl methanesulfonate	0.57769	0.61320	0.61320	0.000	6.14752	60.00000	Averaged
108 N-Nitrosodiethylamine	0.56251	0.49441	0.49441	0.000	-12.10689	60.00000	Averaged
109 Ethyl Methanesulfonate	0.74348	0.78128	0.78128	0.000	5.08365	60.00000	Averaged
110 Pentachloroethane	0.31184	0.42670	0.42670	0.000	36.83243	60.00000	Averaged
111 N-Nitrosopyrrolidine	0.57216	0.48543	0.48543	0.000	-15.15786	60.00000	Averaged
113 N-Nitrosomorpholine	0.68237	0.66826	0.66826	0.000	-2.06890	60.00000	Averaged
114 o-Toluidine	1.81766	1.61216	1.61216	0.000	-11.30588	60.00000	Averaged
115 N-Nitrosopiperidine	0.15407	0.13517	0.13517	0.000	-12.26728	60.00000	Averaged
116 a,a-Dimethylphenethylamine	0.80710	0.57585	0.57585	0.000	-28.65221	60.00000	Averaged
118 2,6-Dichlorophenol	0.22077	0.20032	0.20032	0.000	-9.26039	60.00000	Averaged
119 Hexachloropropene	0.10907	0.15012	0.15012	0.000	37.63090	60.00000	Averaged
120 p-Phenylenediamine	0.23642	0.11527	0.11527	0.000	-51.24297	60.00000	Averaged
121 N-Nitrosodi-n-butylamine	0.24128	0.23260	0.23260	0.000	-3.59501	60.00000	Averaged
122 Safrole	0.20022	0.21497	0.21497	0.000	7.36882	60.00000	Averaged
123 1,2,4,5-Tetrachlorobenzene	0.44036	0.43775	0.43775	0.000	-0.59197	60.00000	Averaged
124 Isosafrole	0.34861	0.43188	0.43188	0.000	23.88570	60.00000	Averaged
125 1,4-Naphthoquinone	0.30537	0.30779	0.30779	0.000	0.79223	60.00000	Averaged
127 Pentachlorobenzene	0.38598	0.35527	0.35527	0.000	-7.95490	60.00000	Averaged
128 1-Naphthylamine	0.91301	0.77372	0.77372	0.000	-15.25625	60.00000	Averaged
129 2-Naphthylamine	0.99339	0.81450	0.81450	0.000	-18.00799	60.00000	Averaged
131 5-Nitro-o-toluidine	0.29359	0.23444	0.23444	0.000	-20.14683	60.00000	Averaged
136 1,3,5-Trinitrobenzene	0.14119	0.20067	0.20067	0.000	42.12961	60.00000	Averaged
137 Phenacetin	0.30819	0.30139	0.30139	0.000	-2.20669	60.00000	Averaged
138 Diallate	0.29433	0.26839	0.26839	0.000	-8.81150	60.00000	Averaged

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD3.i Injection Date: 04-JAN-2010 15:49
Lab File ID: s3a0411.d Init. Cal. Date(s): 06-DEC-2009 08-DEC-2009
Analysis Type: Init. Cal. Times: 10:12 12:26
Lab Sample ID: WBN100103-08.2 Quant Type: ISTD
Method: /chem/MSD3.i/s010410a.b/MSD3-8270R-AQA-120809.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
140 4-Aminobiphenyl	0.62917	0.38585	0.38585	0.000	-38.67323	60.00000	Averaged
141 Pentachloronitrobenzene	0.07114	0.08197	0.08197	0.000	15.22691	60.00000	Averaged
142 Pronamide	0.28257	0.30322	0.30322	0.000	7.30759	60.00000	Averaged
146 4-Nitroquinoline-1-oxide	0.02686	0.01711	0.01711	0.000	-36.31269	60.00000	Averaged
147 Methapyrilene	0.41060	0.38743	0.38743	0.000	-5.64469	60.00000	Averaged
148 Isodrin	0.11051	0.10155	0.10155	0.000	-8.10990	60.00000	Averaged
149 Aramite	0.05092	0.04767	0.04767	0.000	-6.38493	60.00000	Averaged
150 Kepone	0.07689	0.07179	0.07179	0.000	-6.62626	60.00000	Averaged
151 p-(Dimethylamino)azobenzene	0.32461	0.36692	0.36692	0.000	13.03147	60.00000	Averaged
152 Chlorobenzilate	0.30328	0.35854	0.35854	0.000	18.22019	60.00000	Averaged
153 3,3'-Dimethylbenzidine	0.46065	0.29353	0.29353	0.000	-36.27911	60.00000	Averaged
155 2-Acetylaminofluorene	0.31745	0.29888	0.29888	0.000	-5.84946	60.00000	Averaged
157 7,12Dimethylbenz(a)anthrace	0.51543	0.50351	0.50351	0.000	-2.31208	60.00000	Averaged
158 3-Methylcholanthrene	0.41499	0.42502	0.42502	0.000	2.41677	60.00000	Averaged
212 Cis Diallate	0.29308	0.34344	0.34344	0.000	17.18302	60.00000	Averaged
213 Trans Diallate	0.34627	0.31576	0.31576	0.000	-8.81150	60.00000	Averaged

GEL Laboratories LLC

Data file : /chem/MSD3.i/s010410a.b/s3a0411.d
Lab Smp Id: WBN100103-08.2 Client Smp ID: APCVS
Inj Date : 04-JAN-2010 15:49
Operator : JLD1 Inst ID: MSD3.i
Smp Info : |WBN100103-08.2|40PPM|1|SVMF|1|APCVS
Misc Info : |MSD8270|WBN091223-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD3.i/s010410a.b/MSD3-8270R-AQA-120809.m
Meth Date : 04-Jan-2010 16:26 jen00986 Quant Type: ISTD
Cal Date : 07-DEC-2009 19:48 Cal File: s310717.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AP12.sub
Target Version: 3.50
Processing Host: hpclp1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	4.201	4.201	(1.000)	145302	40.0000	
* 29 Naphthalene-d8	136	5.452	5.452	(1.000)	546100	40.0000	
* 46 Acenaphthene-d10	164	7.296	7.296	(1.000)	300873	40.0000	
* 67 Phenanthrene-d10	188	8.891	8.891	(1.000)	483308	40.0000	
* 91 Chrysene-d12	240	11.739	11.739	(1.000)	358197	40.0000	
* 98 Perylene-d12	264	13.682	13.682	(1.000)	260295	40.0000	
209 Benzaldehyde	77	3.817	3.817	(0.909)	110194	40.0000	31.4
16 Acetophenone	105	4.584	4.584	(1.091)	174069	40.0000	36.0(H)
189 Caprolactam	113	5.894	5.894	(1.081)	47790	40.0000	38.2(H)
208 1,1'-Biphenyl	154	6.686	6.686	(0.916)	365888	40.0000	40.0(H)
207 Atrazine	173	8.592	8.592	(0.966)	23270	40.0000	44.0
77 Benzidine	184	10.351	10.351	(0.882)	24125	40.0000	17.3
90 3,3'-Dichlorobenzidine	252	11.703	11.703	(0.997)	75047	40.0000	30.5(H)
102 1,4-Dioxane	88	1.941	1.941	(0.462)	65354	40.0000	47.6(H)
103 Methyl methacrylate	100	1.944	1.944	(0.463)	37779	40.0000	48.5(H)
104 Ethyl methacrylate	69	2.422	2.422	(0.577)	140116	40.0000	45.9
105 2-Picoline	93	2.662	2.662	(0.634)	169010	40.0000	34.2(H)
106 N-Nitrosomethylethylamine	88	2.744	2.744	(0.653)	68764	40.0000	34.6(H)
107 Methyl methanesulfonate	80	2.973	2.973	(0.708)	89099	40.0000	42.4
108 N-Nitrosodiethylamine	102	3.275	3.275	(0.780)	71839	40.0000	35.2
109 Ethyl Methanesulfonate	79	3.521	3.521	(0.838)	113521	40.0000	42.0
110 Pentachloroethane	167	3.946	3.946	(0.939)	62001	40.0000	54.7
111 N-Nitrosopyrrolidine	100	4.573	4.573	(1.089)	70534	40.0000	33.9(H)
113 N-Nitrosomorpholine	56	4.608	4.608	(1.097)	97099	40.0000	39.2
114 o-Toluidine	106	4.623	4.623	(1.100)	234250	40.0000	35.5(H)
115 N-Nitrosopiperidine	114	4.901	4.901	(0.899)	73818	40.0000	35.1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
116 a,a-Dimethylphenethylamine	58	5.288	5.288	(0.970)	314471	40.0000	28.5
118 2,6-Dichlorophenol	162	5.543	5.543	(1.017)	109396	40.0000	36.3(H)
119 Hexachloropropene	213	5.557	5.557	(1.019)	81981	40.0000	55.0
120 p-Phenylenediamine	108	5.915	5.915	(1.085)	62950	40.0000	19.5(H)
121 N-Nitrosodi-n-butylamine	84	5.871	5.871	(1.077)	127025	40.0000	38.6(QH)
122 Safrole	162	6.097	6.097	(1.118)	117397	40.0000	42.9
123 1,2,4,5-Tetrachlorobenzene	216	6.363	6.363	(0.872)	131708	40.0000	39.8
124 Isosafrole	162	6.648	6.648	(0.911)	129940	40.0000	49.6(H)
125 1,4-Naphthoquinone	158	6.903	6.903	(0.946)	92605	40.0000	40.3
127 Pentachlorobenzene	250	7.469	7.469	(1.024)	106892	40.0000	36.8
128 1-Naphthylamine	143	7.607	7.607	(1.043)	232792	40.0000	33.9(H)
129 2-Naphthylamine	143	7.695	7.695	(1.055)	245061	40.0000	32.8
131 5-Nitro-o-toluidine	152	7.912	7.912	(1.084)	70538	40.0000	31.9(H)
136 1,3,5-Trinitrobenzene	75	8.325	8.325	(0.936)	96984	40.0000	56.8
137 Phenacetin	108	8.363	8.363	(0.941)	145664	40.0000	39.1
138 Diallate	86	8.310	8.310	(0.935)	129716	40.0000	36.5
140 4-Aminobiphenyl	169	8.698	8.698	(0.978)	186485	40.0000	24.5(H)
141 Pentachloronitrobenzene	237	8.695	8.695	(0.978)	39619	40.0000	46.1
142 Pronamide	173	8.751	8.751	(0.984)	146550	40.0000	42.9
146 4-Nitroquinoline-1-oxide	101	9.753	9.753	(1.097)	8269	40.0000	25.5(H)
147 Methapyrilene	58	9.817	9.817	(1.104)	187246	40.0000	37.7
148 Isodrin	193	10.017	10.017	(1.127)	49080	40.0000	36.8
149 Aramite	185	10.568	10.568	(1.189)	23039	40.0000	37.4
150 Kepone	272	11.152	11.152	(1.254)	34699	40.0000	37.3(H)
151 p-(Dimethylamino)azobenzene	120	10.750	10.750	(0.916)	131428	40.0000	45.2(H)
152 Chlorobenzilate	251	10.794	10.794	(0.920)	128427	40.0000	47.3
153 3,3'-Dimethylbenzidine	212	11.117	11.117	(0.947)	105141	40.0000	25.5
155 2-Acetylaminofluorene	181	11.387	11.387	(0.970)	107059	40.0000	37.7(H)
157 7,12Dimethylbenz(a)anthracene	256	13.095	13.095	(0.957)	131061	40.0000	39.1
158 3-Methylcholanthrene	268	14.127	14.127	(1.033)	110630	40.0000	41.0
212 Cis Diallate	86	8.407	8.407	(0.946)	24898	6.00000	7.0
213 Trans Diallate	86	8.310	8.310	(0.935)	129716	34.0000	31.0

QC Flag Legend

Q - Qualifier signal failed the ratio test.
H - Operator selected an alternate compound hit.

Data File: /chem/MSD3.i/s010410a.b/s3a0411.d
Date : 04-JAN-2010 15:49
Client ID: APCVS
Sample Info: IWBN100103-08,2140PPM|1|SWMF11|APCVS
Column phase: J&W DB-5MS

Instrument: MSD3.i
Operator: JLD1
Column diameter: 0.20

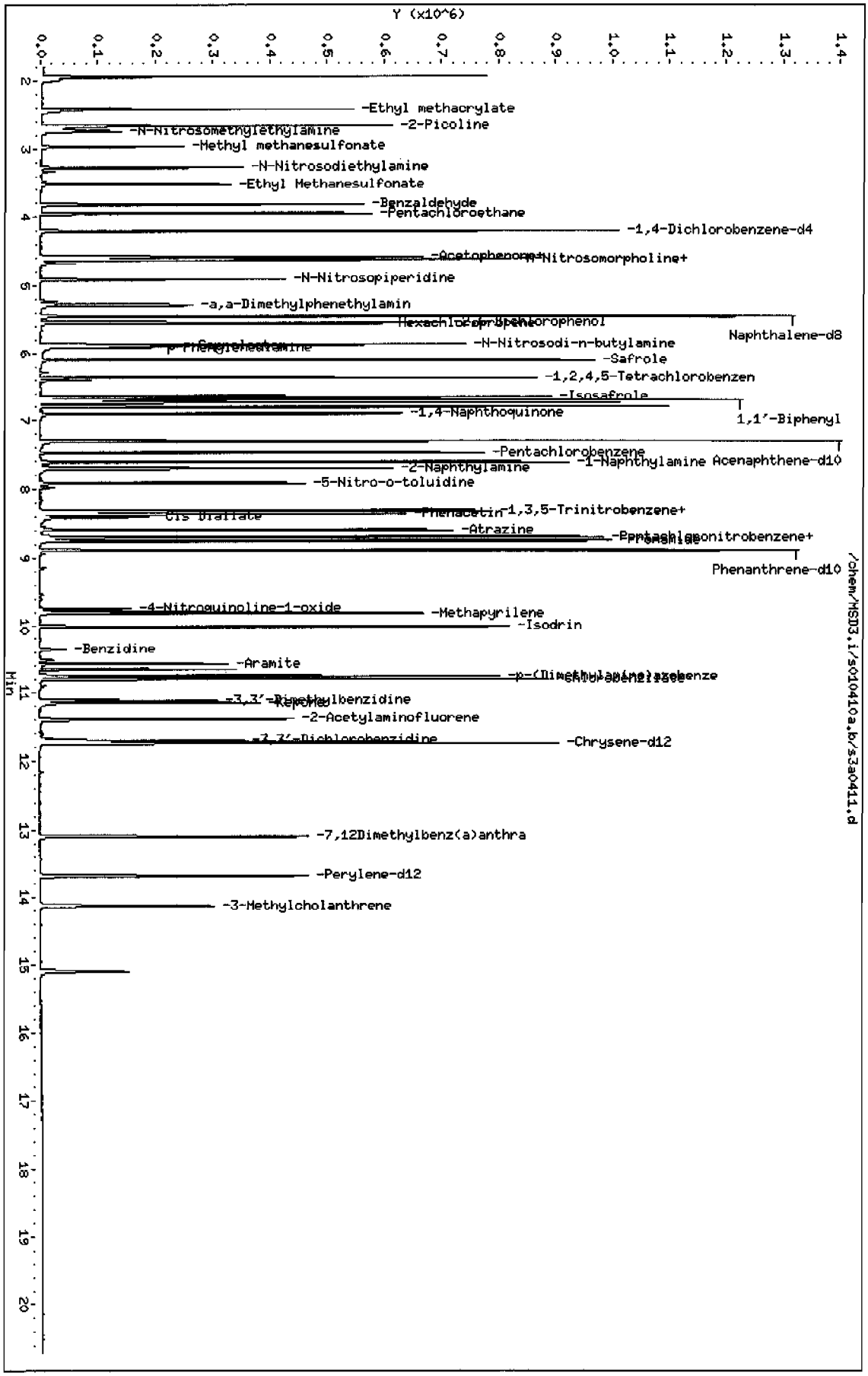

QC Data

Data File: /chem/MSD1.i/s111409.b/s1k1201.d

Page 1

Date : 14-NOV-2009 17:38

Client ID: DFTPP

Instrument: MSD1.i

Sample Info: |WBN091101-01|50 PPM|1|SVMF|1|DFTPP

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

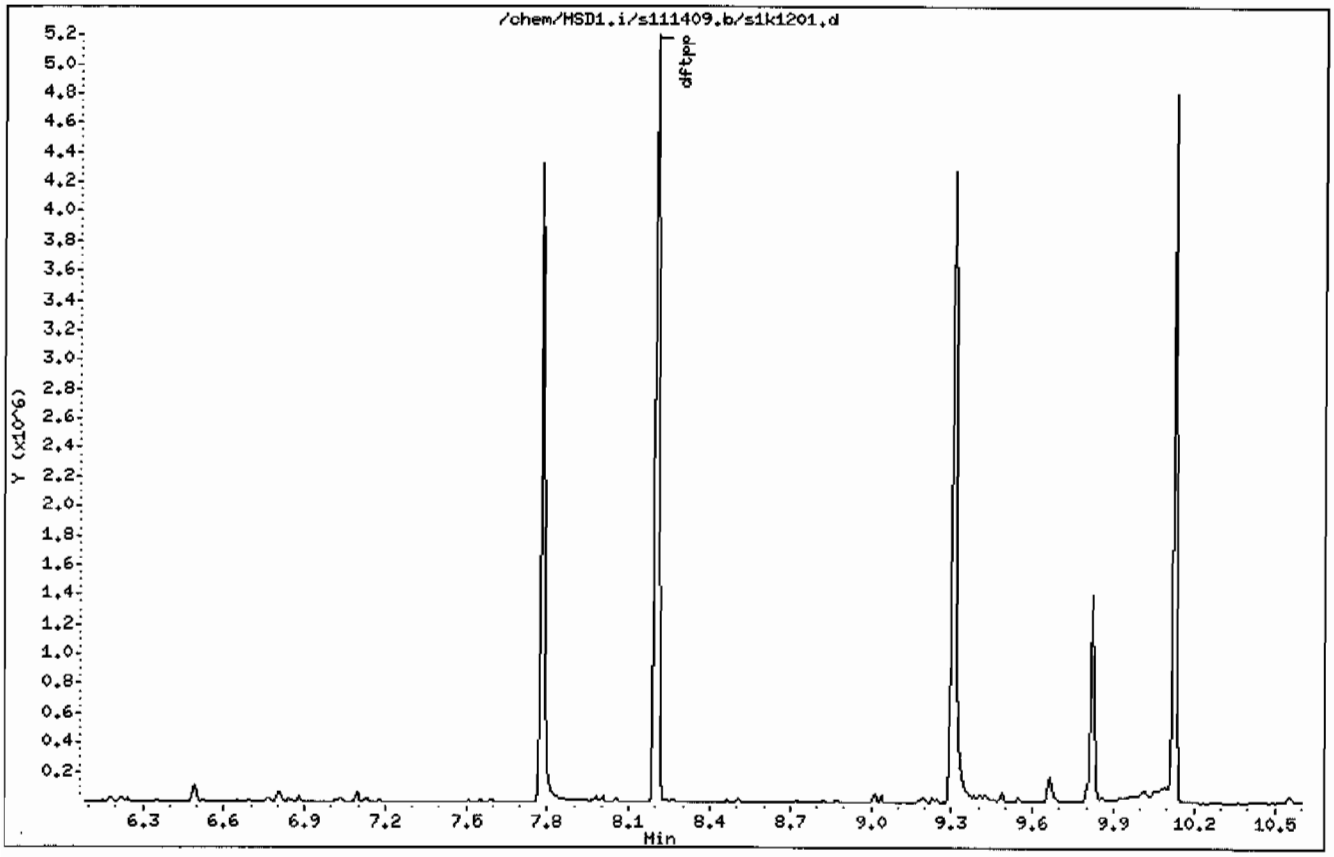

Data File: /chem/MSD1.i/s111409.b/s1k1201.d

Date : 14-NOV-2009 17:38

Client ID: DFTPP

Instrument: MSD1.i

Sample Info: IWBN091101-01|50 PPM|1|SVMF|1|DFTPP

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

1 dftpp

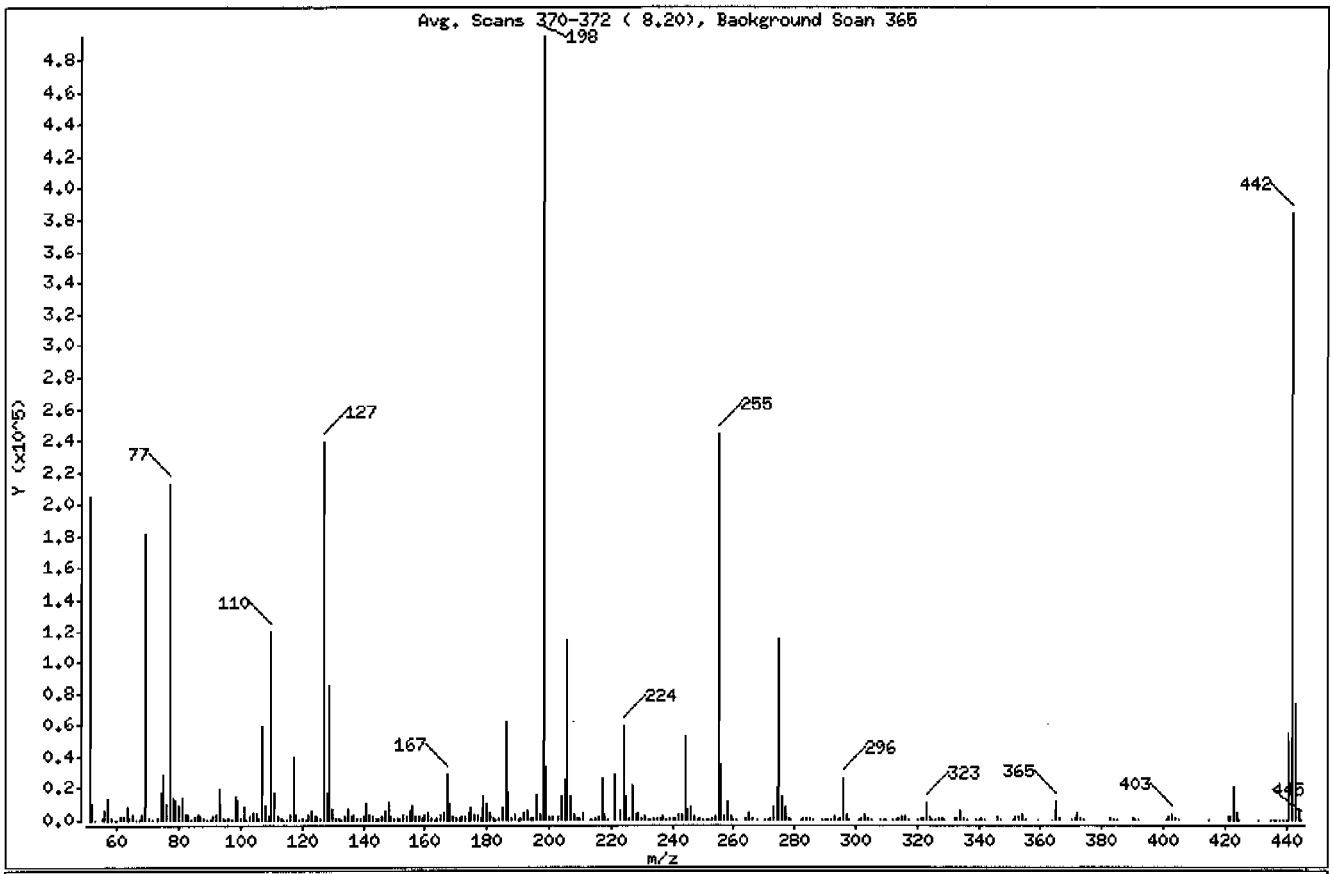

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	41.33
68	Less than 2.00% of mass 69	0.66 (1.81)
69	Mass 69 relative abundance	36.68
70	Less than 2.00% of mass 69	0.20 (0.55)
127	40.00 - 60.00% of mass 198	48.32
197	Less than 1.00% of mass 198	0.69
199	5.00 - 9.00% of mass 198	6.57
275	10.00 - 30.00% of mass 198	23.31
365	Greater than 1.00% of mass 198	2.23
441	Present, but less than mass 443	11.00
442	Greater than 40.00% of mass 198	77.37
443	17.00 - 23.00% of mass 442	14.83 (19.16)

Data File: /chem/MSD1.i/s111409.b/s1k1201.d

Date : 14-NOV-2009 17:38

Client ID: DFTPP

Instrument: MSD1.i

Sample Info: |WBN091101-01|50 PPM|1|SVMF|1|DFTPP

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

Data File: s1k1201.d
Spectrum: Avg. Scans 370-372 (8.20), Background Scan 365
Location of Maximum: 198.00
Number of points: 312

m/z	Y	m/z	Y	m/z	Y	m/z	Y
51.00	204544	132.00	849	213.00	322	304.00	857
52.00	10058	133.00	398	214.00	81	305.00	126
53.00	476	134.00	2213	215.00	1065	308.00	339
55.00	808	135.00	6445	216.00	2209	309.00	249
56.00	5675	136.00	2682	217.00	25976	310.00	361
57.00	13163	137.00	3409	218.00	3600	312.00	52
58.00	676	138.00	864	219.00	390	313.00	288
59.00	142	139.00	1285	221.00	28416	314.00	1372
60.00	58	140.00	1711	223.00	5970	315.00	2833
61.00	2414	141.00	10495	224.00	59288	316.00	1731
62.00	2627	142.00	3783	225.00	15318	317.00	279
63.00	7561	143.00	2378	226.00	1533	320.00	54
64.00	1048	144.00	706	227.00	21184	321.00	903
65.00	3902	145.00	666	228.00	3165	322.00	596
66.00	253	146.00	1908	229.00	4804	323.00	9908
67.00	264	147.00	5356	230.00	759	324.00	1942
68.00	3280	148.00	10849	231.00	2133	325.00	119
69.00	181568	149.00	2326	232.00	408	326.00	93
70.00	999	150.00	640	233.00	450	327.00	1701
71.00	119	151.00	1554	234.00	1483	328.00	891
73.00	1219	152.00	808	235.00	1658	329.00	88
74.00	17536	153.00	3187	236.00	1183	332.00	578
75.00	28056	154.00	2701	237.00	1728	333.00	855
76.00	9746	155.00	5991	238.00	324	334.00	5817
77.00	212736	156.00	9066	239.00	813	335.00	1475
78.00	13840	157.00	1942	240.00	775	336.00	75
79.00	12099	158.00	1971	241.00	1214	339.00	62
80.00	9416	159.00	1574	242.00	3186	340.00	77
81.00	13432	160.00	3233	243.00	3508	341.00	1027
82.00	3448	161.00	4832	244.00	51832	342.00	243
83.00	3440	162.00	1519	245.00	6691	346.00	2015
84.00	276	163.00	414	246.00	8221	347.00	283
85.00	2469	164.00	763	247.00	1725	351.00	182
86.00	3499	165.00	3823	248.00	403	352.00	2745
87.00	1914	166.00	4542	249.00	1698	353.00	2043

Data File: /chem/MSD1.i/s111409.b/s1k1201.d

Date : 14-NOV-2009 17:38

Client ID: DFTPP

Instrument: MSD1.i

Sample Info: |WBN091101-01|50 PPM|1|SVMF|1|DFTPP

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

Data File: s1k1201.d
Spectrum: Avg. Scans 370-372 (8.20), Background Scan 365
Location of Maximum: 198.00
Number of points: 312

m/z	Y	m/z	Y	m/z	Y	m/z	Y
88.00	945	167.00	28056	250.00	338	354.00	3347
89.00	408	168.00	9882	251.00	378	355.00	568
90.00	81	169.00	1949	252.00	461	359.00	68
91.00	2811	170.00	666	253.00	965	364.00	82
92.00	3305	171.00	868	254.00	2194	365.00	11049
93.00	19392	172.00	1736	255.00	243712	366.00	1525
94.00	1530	173.00	2151	256.00	34792	370.00	312
95.00	401	174.00	4365	257.00	2654	371.00	749
96.00	1021	175.00	8331	258.00	11699	372.00	5103
97.00	481	176.00	2950	259.00	1976	373.00	1317
98.00	14829	177.00	3734	260.00	354	374.00	211
99.00	12143	178.00	1429	261.00	488	383.00	1475
100.00	1081	179.00	14903	264.00	588	384.00	413
101.00	7582	180.00	10676	265.00	4651	385.00	112
102.00	501	181.00	5074	266.00	630	390.00	664
103.00	2806	182.00	848	268.00	97	391.00	481
104.00	4764	183.00	484	270.00	316	392.00	349
105.00	4470	184.00	1118	271.00	565	401.00	323
106.00	1531	185.00	7578	272.00	574	402.00	2089
107.00	58720	186.00	61632	273.00	7763	403.00	3027
108.00	9198	187.00	16824	274.00	20360	404.00	981
109.00	1983	188.00	1678	275.00	115400	405.00	157
110.00	119360	189.00	3368	276.00	14998	415.00	61
111.00	17336	190.00	542	277.00	8371	421.00	2728
112.00	2224	191.00	1652	278.00	1328	422.00	2498
113.00	793	192.00	4637	279.00	337	423.00	19928
114.00	277	193.00	5425	282.00	172	424.00	3991
115.00	405	194.00	1196	283.00	908	425.00	403
116.00	3276	195.00	960	284.00	671	431.00	50
117.00	39312	196.00	15938	285.00	1513	435.00	182
118.00	2868	197.00	3428	286.00	245	436.00	64
119.00	376	198.00	494976	289.00	275	437.00	123
120.00	724	199.00	32528	290.00	365	438.00	300
121.00	279	200.00	2387	291.00	237	439.00	370
122.00	3763	201.00	2747	292.00	481	440.00	354

Data File: /chem/MSD1.i/s111409.b/s1k1201.d

Date : 14-NOV-2009 17:38

Client ID: DFTPP

Instrument: MSD1.i

Sample Info: |WBN091101-01|50 PPM|1|SVMF|1|DFTPP

Operator: AHY

Column phase: J&W DB-5MS

Column diameter: 0.20

Data File: s1k1201.d
Spectrum: Avg. Scans 370-372 (8.20), Background Scan 365
Location of Maximum: 198.00
Number of points: 312

m/z	Y	m/z	Y	m/z	Y	m/z	Y
123.00	6008	203.00	2693	293.00	2054	441.00	54440
124.00	2602	204.00	14604	294.00	532	442.00	382976
125.00	2647	205.00	25208	295.00	657	443.00	73384
126.00	904	206.00	113680	296.00	26240	444.00	6543
127.00	239168	207.00	14454	297.00	3789	445.00	363
128.00	17576	208.00	3160	298.00	253		
129.00	85072	209.00	1021	301.00	417		
130.00	7156	210.00	801	302.00	580		
131.00	1445	211.00	4362	303.00	3041		

Data File: /chem/MSD1.i/s111409.b/s1k1213.d

Page 1

Date : 15-NOV-2009 14:50

Client ID: DFTPP

Instrument: MSD1.i

Sample Info: |WBN091101-01|50 PPM|1|SVMF|1|DFTPP

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

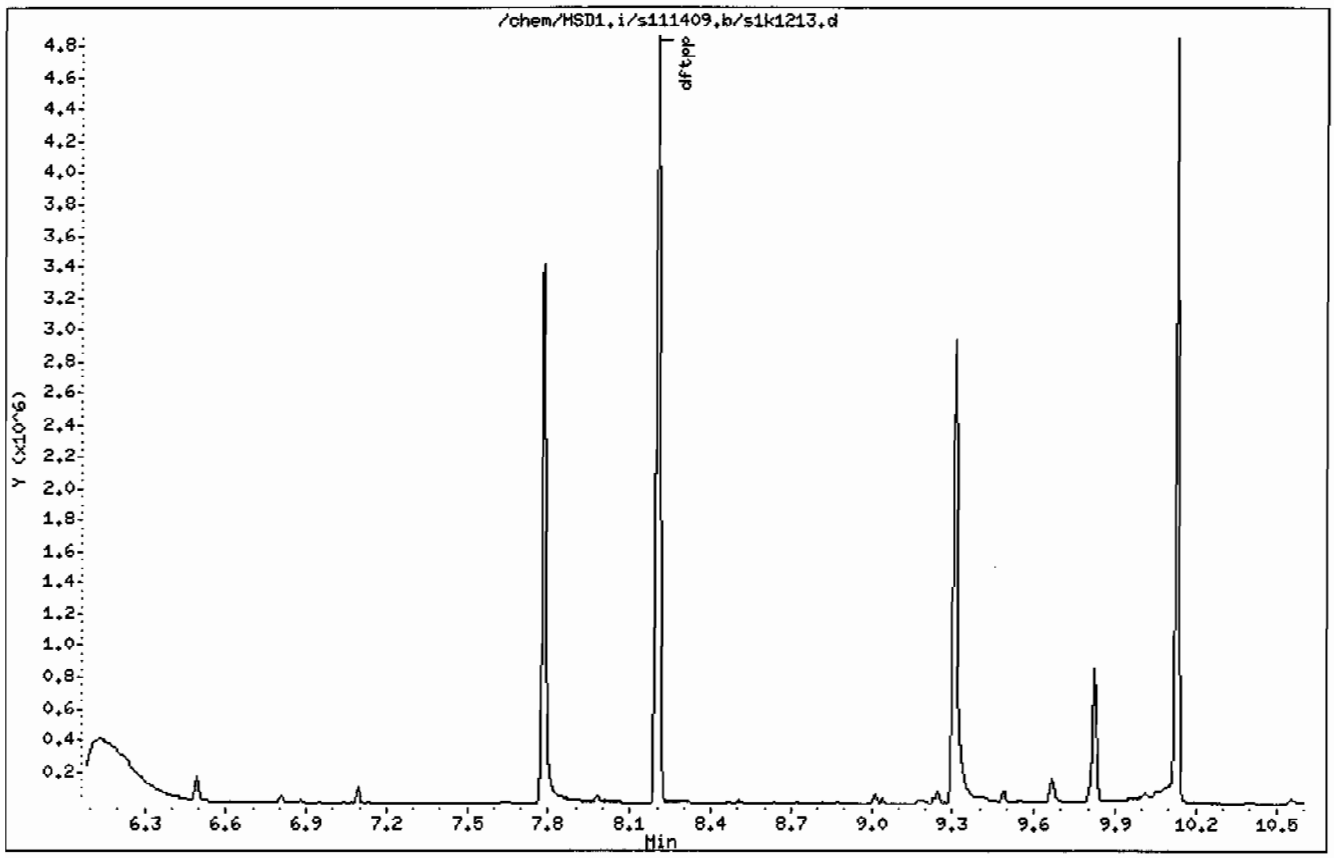

Data File: /chem/MSD1.i/s111409.b/s1k1213.d

Date : 15-NOV-2009 14:50

Client ID: DFTPP

Instrument: MSD1.i

Sample Info: IWBN091101-01|50 PPM|1|SVMF|1|DFTPP

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

1 dftpp

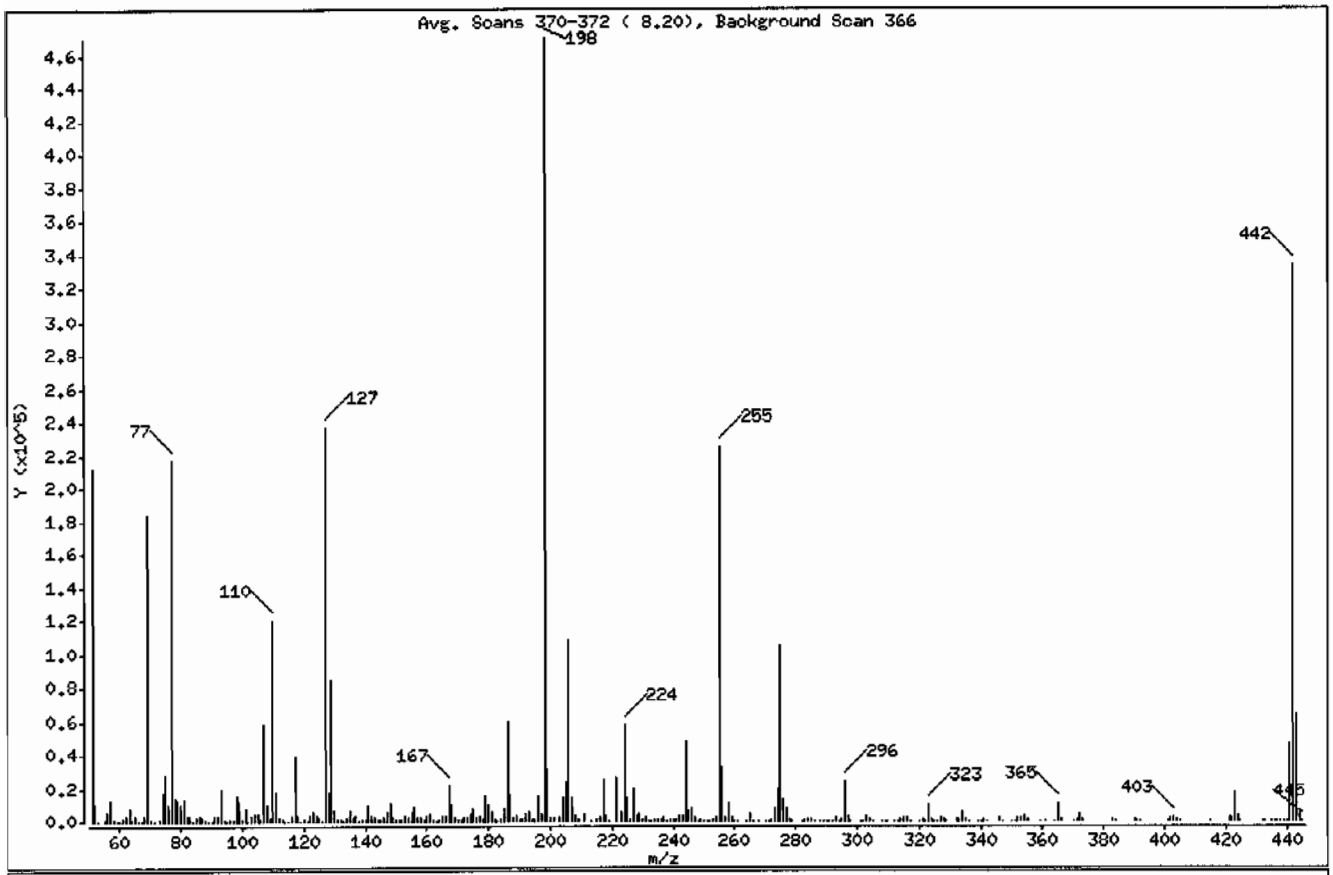

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	45.07
68	Less than 2.00% of mass 69	0.69 (1.77)
69	Mass 69 relative abundance	39.06
70	Less than 2.00% of mass 69	0.20 (0.51)
127	40.00 - 60.00% of mass 198	50.24
197	Less than 1.00% of mass 198	0.94
199	5.00 - 9.00% of mass 198	6.64
275	10.00 - 30.00% of mass 198	22.36
365	Greater than 1.00% of mass 198	2.27
441	Present, but less than mass 443	9.91
442	Greater than 40.00% of mass 198	70.70
443	17.00 - 23.00% of mass 442	13.63 (19.28)

Data File: /chem/MSD1.i/s111409.b/s1k1213.d

Date : 15-NOV-2009 14:50

Client ID: DFTPP

Instrument: MSD1.i

Sample Info: |WBN091101-01|50 PPM|1|SVMF|1|DFTPP

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

Data File: s1k1213.d
Spectrum: Avg. Scans 370-372 (8.20), Background Scan 366
Location of Maximum: 198.00
Number of points: 312

m/z	Y	m/z	Y	m/z	Y	m/z	Y
51.00	212096	132.00	898	215.00	1069	305.00	54
52.00	10563	133.00	158	216.00	2175	308.00	369
53.00	539	134.00	2246	217.00	25096	309.00	234
55.00	827	135.00	6673	218.00	3427	310.00	330
56.00	5710	136.00	2589	219.00	310	312.00	53
57.00	13040	137.00	3388	221.00	26264	313.00	225
58.00	622	138.00	481	223.00	5732	314.00	1148
59.00	197	139.00	738	224.00	57128	315.00	2673
60.00	264	140.00	1183	225.00	14268	316.00	1636
61.00	2458	141.00	10022	226.00	1583	317.00	257
62.00	2719	142.00	3500	227.00	19912	320.00	120
63.00	7568	143.00	2527	228.00	3016	321.00	868
64.00	1100	144.00	604	229.00	4436	322.00	443
65.00	3684	145.00	642	230.00	645	323.00	9345
66.00	306	146.00	1966	231.00	2162	324.00	1574
67.00	172	147.00	5499	232.00	373	325.00	117
68.00	3245	148.00	10590	233.00	410	326.00	63
69.00	183808	149.00	2267	234.00	1277	327.00	1667
70.00	937	150.00	711	235.00	1617	328.00	859
71.00	201	151.00	1389	236.00	1067	329.00	66
73.00	1312	152.00	1009	237.00	1713	332.00	666
74.00	16976	153.00	3123	238.00	252	333.00	761
75.00	27896	154.00	2582	239.00	815	334.00	5270
76.00	9904	155.00	5732	240.00	635	335.00	1342
77.00	217344	156.00	8806	241.00	1337	336.00	127
78.00	14484	157.00	1860	242.00	2922	339.00	65
79.00	12543	158.00	1872	243.00	3255	340.00	61
80.00	9582	159.00	1459	244.00	47840	341.00	1023
81.00	13483	160.00	3146	245.00	6361	342.00	289
82.00	3494	161.00	4861	246.00	7662	346.00	1844
83.00	3404	162.00	1440	247.00	1632	347.00	399
84.00	268	163.00	441	248.00	425	350.00	54
85.00	2429	164.00	756	249.00	1557	351.00	146
86.00	3717	165.00	3644	250.00	323	352.00	2683
87.00	1777	166.00	3330	251.00	376	353.00	1903

Data File: /chem/MSD1.i/s111409.b/s1k1213.d

Date : 15-NOV-2009 14:50

Client ID: DFTPP

Instrument: MSD1.i

Sample Info: |WBN091101-01|50 PPM|1|SVMF|1|DFTPP

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

Data File: s1k1213.d
Spectrum: Avg. Scans 370-372 (8.20), Background Scan 366
Location of Maximum: 198.00
Number of points: 312

m/z	Y	m/z	Y	m/z	Y	m/z	Y
88.00	858	167.00	21384	252.00	497	354.00	2848
89.00	353	168.00	9329	253.00	1026	355.00	645
90.00	52	169.00	1925	254.00	2307	359.00	128
91.00	2960	170.00	698	255.00	224896	361.00	54
92.00	3280	171.00	771	256.00	32856	364.00	139
93.00	19472	172.00	1741	257.00	2457	365.00	10703
94.00	1413	173.00	2444	258.00	11321	366.00	1552
95.00	284	174.00	4219	259.00	1877	370.00	274
96.00	1152	175.00	8099	260.00	305	371.00	720
97.00	591	176.00	2630	261.00	356	372.00	4645
98.00	14679	177.00	3711	264.00	230	373.00	1151
99.00	12313	178.00	1199	265.00	4470	383.00	1268
100.00	1108	179.00	14622	266.00	429	384.00	380
101.00	7679	180.00	10168	268.00	129	390.00	651
102.00	505	181.00	5015	270.00	325	391.00	487
103.00	2879	182.00	784	271.00	443	392.00	279
104.00	4625	183.00	540	272.00	688	401.00	276
105.00	4311	184.00	1176	273.00	7045	402.00	1862
106.00	1512	185.00	7084	274.00	19240	403.00	2656
107.00	58544	186.00	59904	275.00	105256	404.00	848
108.00	9265	187.00	16158	276.00	13094	405.00	140
109.00	1897	188.00	1716	277.00	7627	415.00	133
110.00	119952	189.00	3108	278.00	1312	421.00	2323
111.00	16904	190.00	572	279.00	308	422.00	2190
112.00	2240	191.00	1592	282.00	136	423.00	16944
113.00	768	192.00	4599	283.00	867	424.00	3191
114.00	126	193.00	5084	284.00	734	425.00	414
115.00	267	194.00	1198	285.00	1299	432.00	51
116.00	3229	195.00	880	286.00	172	433.00	63
117.00	38800	196.00	15085	288.00	53	435.00	138
118.00	2837	197.00	4415	289.00	263	436.00	193
119.00	448	198.00	470656	290.00	271	437.00	144
120.00	769	199.00	31248	291.00	161	438.00	208
121.00	319	200.00	2323	292.00	403	439.00	422
122.00	3761	201.00	2603	293.00	1958	440.00	420

Data File: /chem/MSD1.i/s111409.b/s1k1213.d

Date : 15-NOV-2009 14:50

Client ID: DFTPP

Instrument: MSD1.i

Sample Info: |WBN091101-01|50 PPM|1|SVMF|1|DFTPP

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

Data File: s1k1213.d
Spectrum: Avg. Scans 370-372 (8.20), Background Scan 366
Location of Maximum: 198.00
Number of points: 312

m/z	Y	m/z	Y	m/z	Y	m/z	Y
123.00	5880	203.00	2606	294.00	491	441.00	46632
124.00	2783	204.00	13871	295.00	593	442.00	332736
125.00	2563	205.00	24136	296.00	24248	443.00	64136
126.00	365	206.00	107936	297.00	3568	444.00	5493
127.00	236480	207.00	13718	298.00	201	445.00	305
128.00	17448	208.00	3264	301.00	372		
129.00	84656	209.00	932	302.00	462		
130.00	6942	211.00	4014	303.00	2821		
131.00	1354	213.00	308	304.00	785		

Data File: /chem/MSD1.i/s111409.b/s1k1259.d

Page 1

Date : 17-NOV-2009 15:48

Client ID: DFTPP

Instrument: MSD1.i

Sample Info: |WBN091101-01|50 PPM|1|SVMF|1|DFTPP

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

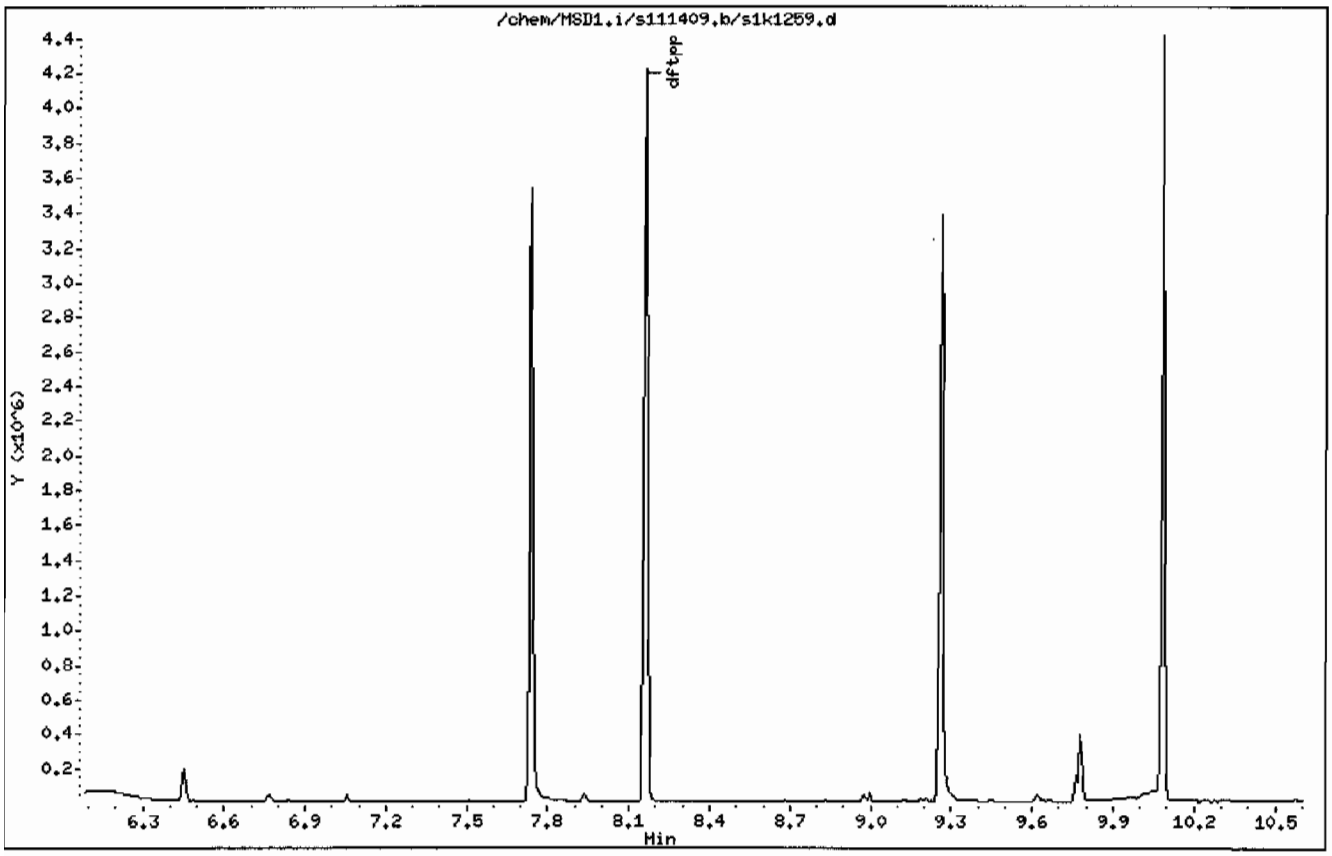

Data File: /chem/MSD1.i/s111409.b/s1k1259.d

Date : 17-NOV-2009 15:48

Client ID: DFTPP

Instrument: MSD1.i

Sample Info: |WBN091101-01|50 PPM|1|SVMF|1|DFTPP

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

1 dftpp

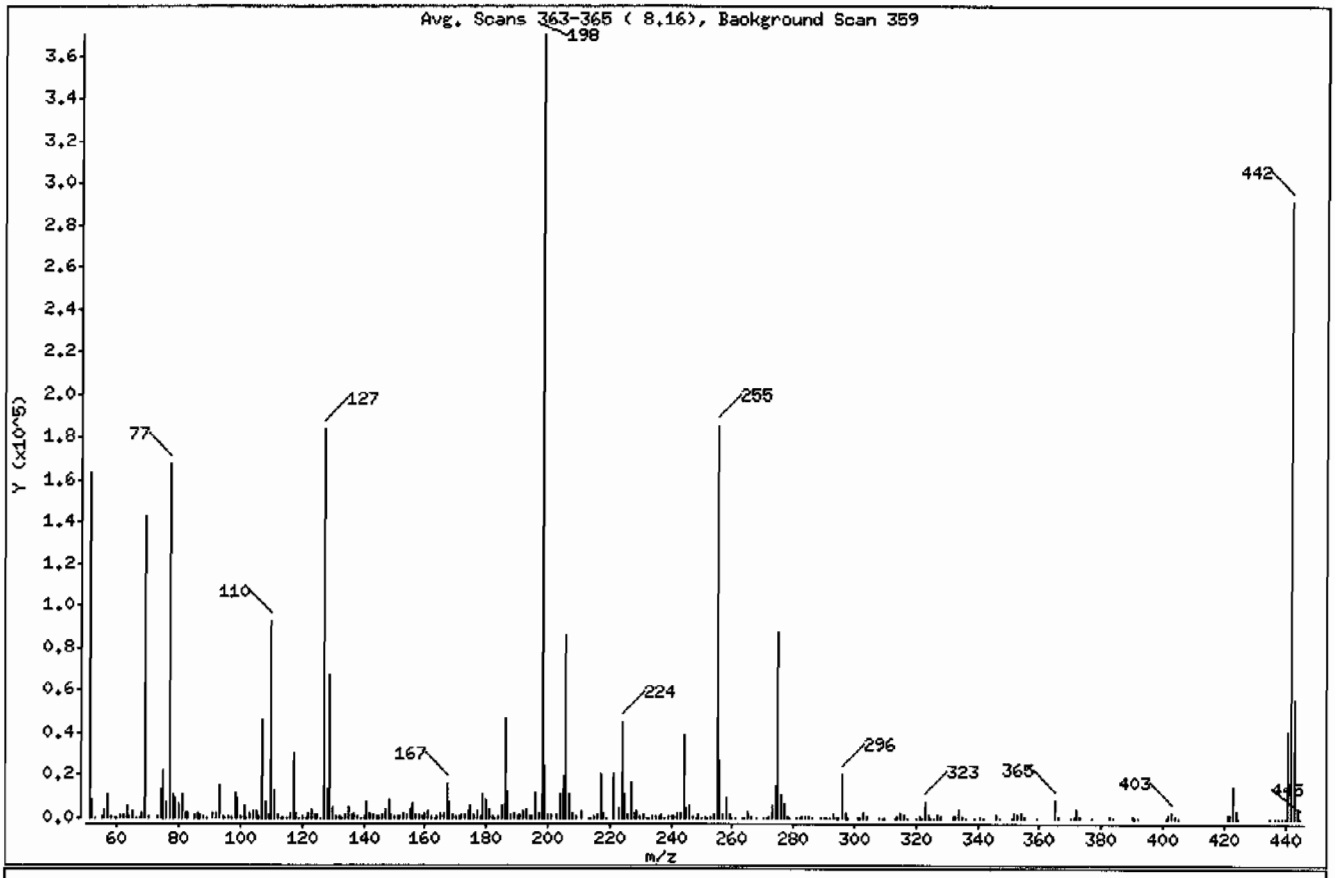

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	44.19
68	Less than 2.00% of mass 69	0.70 (1.82)
69	Mass 69 relative abundance	38.52
70	Less than 2.00% of mass 69	0.22 (0.58)
127	40.00 - 60.00% of mass 198	49.61
197	Less than 1.00% of mass 198	0.73
199	5.00 - 9.00% of mass 198	6.68
275	10.00 - 30.00% of mass 198	23.76
365	Greater than 1.00% of mass 198	2.39
441	Present, but less than mass 443	10.94
442	Greater than 40.00% of mass 198	78.91
443	17.00 - 23.00% of mass 442	15.11 (19.15)

Data File: /chem/MSD1.i/s111409.b/s1k1259.d

Date : 17-NOV-2009 15:48

Client ID: DFTPP

Instrument: MSD1.i

Sample Info: |WBN091101-01|50 PPM|1|SVMF|1|DFTPP

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

Data File: s1k1259.d
Spectrum: Avg. Scans 363-365 (8.16), Background Scan 359
Location of Maximum: 198.00
Number of points: 301

m/z	Y	m/z	Y	m/z	Y	m/z	Y
51.00	163520	132.00	696	209.00	894	295.00	409
52.00	8218	133.00	165	211.00	3176	296.00	20504
53.00	278	134.00	1736	213.00	157	297.00	2961
55.00	768	135.00	5284	214.00	60	298.00	242
56.00	4517	136.00	1990	215.00	896	301.00	228
57.00	10646	137.00	2882	216.00	1633	302.00	377
58.00	485	138.00	608	217.00	20280	303.00	2440
59.00	173	139.00	322	218.00	2791	304.00	779
60.00	130	140.00	728	219.00	287	308.00	333
61.00	1880	141.00	8017	221.00	20640	309.00	180
62.00	1926	142.00	2864	223.00	4752	310.00	288
63.00	5930	143.00	1765	224.00	45496	313.00	172
64.00	771	144.00	446	225.00	11459	314.00	1000
65.00	3009	145.00	462	226.00	1320	315.00	2189
66.00	190	146.00	1638	227.00	16640	316.00	1304
67.00	147	147.00	4131	228.00	2433	317.00	255
68.00	2590	148.00	8419	229.00	3596	320.00	58
69.00	142592	149.00	1752	230.00	541	321.00	701
70.00	823	150.00	512	231.00	1631	322.00	395
73.00	1236	151.00	1272	232.00	323	323.00	7827
74.00	13875	152.00	886	233.00	236	324.00	1465
75.00	21824	153.00	2474	234.00	1059	325.00	55
76.00	7905	154.00	2034	235.00	1215	326.00	117
77.00	167296	155.00	4599	236.00	846	327.00	1319
78.00	11034	156.00	6876	237.00	1279	328.00	683
79.00	9492	157.00	1450	238.00	168	332.00	545
80.00	7131	158.00	1509	239.00	670	333.00	652
81.00	10804	159.00	1113	240.00	518	334.00	4627
82.00	2610	160.00	2655	241.00	1019	335.00	1148
83.00	2719	161.00	3658	242.00	2369	336.00	50
85.00	1896	162.00	1109	243.00	2744	339.00	57
86.00	2616	163.00	339	244.00	39256	341.00	855
87.00	1519	164.00	493	245.00	4982	342.00	192
88.00	684	165.00	2904	246.00	6349	346.00	1554
89.00	219	166.00	2427	247.00	1255	347.00	356

Data File: /chem/MSD1.i/s111409.b/s1k1259.d

Date : 17-NOV-2009 15:48

Client ID: DFTPP

Instrument: MSD1.i

Sample Info: |WBN091101-01|50 PPM|1|SVMF|1|DFTPP

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

Data File: s1k1259.d
Spectrum: Avg. Scans 363-365 (8.16), Background Scan 359
Location of Maximum: 198.00
Number of points: 301

m/z	Y	m/z	Y	m/z	Y	m/z	Y
91.00	2379	167.00	16175	248.00	341	351.00	56
92.00	2447	168.00	7387	249.00	1305	352.00	2339
93.00	14969	169.00	1311	250.00	210	353.00	1624
94.00	1153	170.00	539	251.00	450	354.00	2500
95.00	287	171.00	706	252.00	278	355.00	434
96.00	810	172.00	1473	253.00	769	359.00	83
97.00	388	173.00	1748	254.00	1972	365.00	8863
98.00	11810	174.00	3414	255.00	185216	366.00	1195
99.00	9686	175.00	6350	256.00	27176	370.00	215
100.00	914	176.00	2063	257.00	2039	371.00	581
101.00	5933	177.00	3047	258.00	9022	372.00	4002
102.00	375	178.00	995	259.00	1444	373.00	996
103.00	2163	179.00	11274	260.00	214	377.00	51
104.00	3736	180.00	8159	261.00	279	383.00	974
105.00	3394	181.00	4009	263.00	55	384.00	323
106.00	1190	182.00	670	264.00	157	390.00	592
107.00	46232	183.00	413	265.00	3712	391.00	375
108.00	7538	184.00	909	266.00	481	392.00	323
109.00	1503	185.00	5852	268.00	53	401.00	231
110.00	92872	186.00	47008	270.00	282	402.00	1478
111.00	12963	187.00	12615	271.00	380	403.00	2390
112.00	1503	188.00	1316	272.00	540	404.00	821
113.00	406	189.00	2602	273.00	5676	405.00	134
114.00	121	190.00	427	274.00	15599	421.00	2054
115.00	133	191.00	1281	275.00	87936	422.00	1867
116.00	2637	192.00	3712	276.00	11240	423.00	15373
117.00	30336	193.00	4225	277.00	6439	424.00	3047
118.00	2397	194.00	901	278.00	950	425.00	291
119.00	332	195.00	603	279.00	182	435.00	71
120.00	620	196.00	12028	281.00	60	437.00	71
121.00	175	197.00	2717	282.00	68	438.00	134
122.00	2801	198.00	370176	283.00	713	439.00	238
123.00	4622	199.00	24728	284.00	493	440.00	191
124.00	2083	200.00	1826	285.00	1250	441.00	40480
125.00	1949	201.00	2072	286.00	254	442.00	292096

Data File: /chem/MSD1.i/s111409.b/s1k1259.d

Date : 17-NOV-2009 15:48

Client ID: DFTPP

Instrument: MSD1.i

Sample Info: |WBN091101-01|50 PPM|1|SVMF|1|DFTPP

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

Data File: s1k1259.d
Spectrum: Avg. Scans 363-365 (8.16), Background Scan 359
Location of Maximum: 198.00
Number of points: 301

m/z	Y	m/z	Y	m/z	Y	m/z	Y
126.00	135	203.00	2082	289.00	243	443.00	55944
127.00	183616	204.00	10956	290.00	235	444.00	5034
128.00	13544	205.00	19552	291.00	131	445.00	311
129.00	66872	206.00	85904	292.00	339		
130.00	5516	207.00	10725	293.00	1482		
131.00	1048	208.00	2576	294.00	389		

Data File: /chem/MSD3.i/s120609.b/s310601.d

Page 1

Date : 06-DEC-2009 09:33

Client ID: DFTPP

Instrument: MSD3.i

Sample Info: |WBN091128-01|DFTPP|1|SVM|1|DFTPP|

Operator: JLD1

Column phase: J&W DB-5MS

Column diameter: 0.20

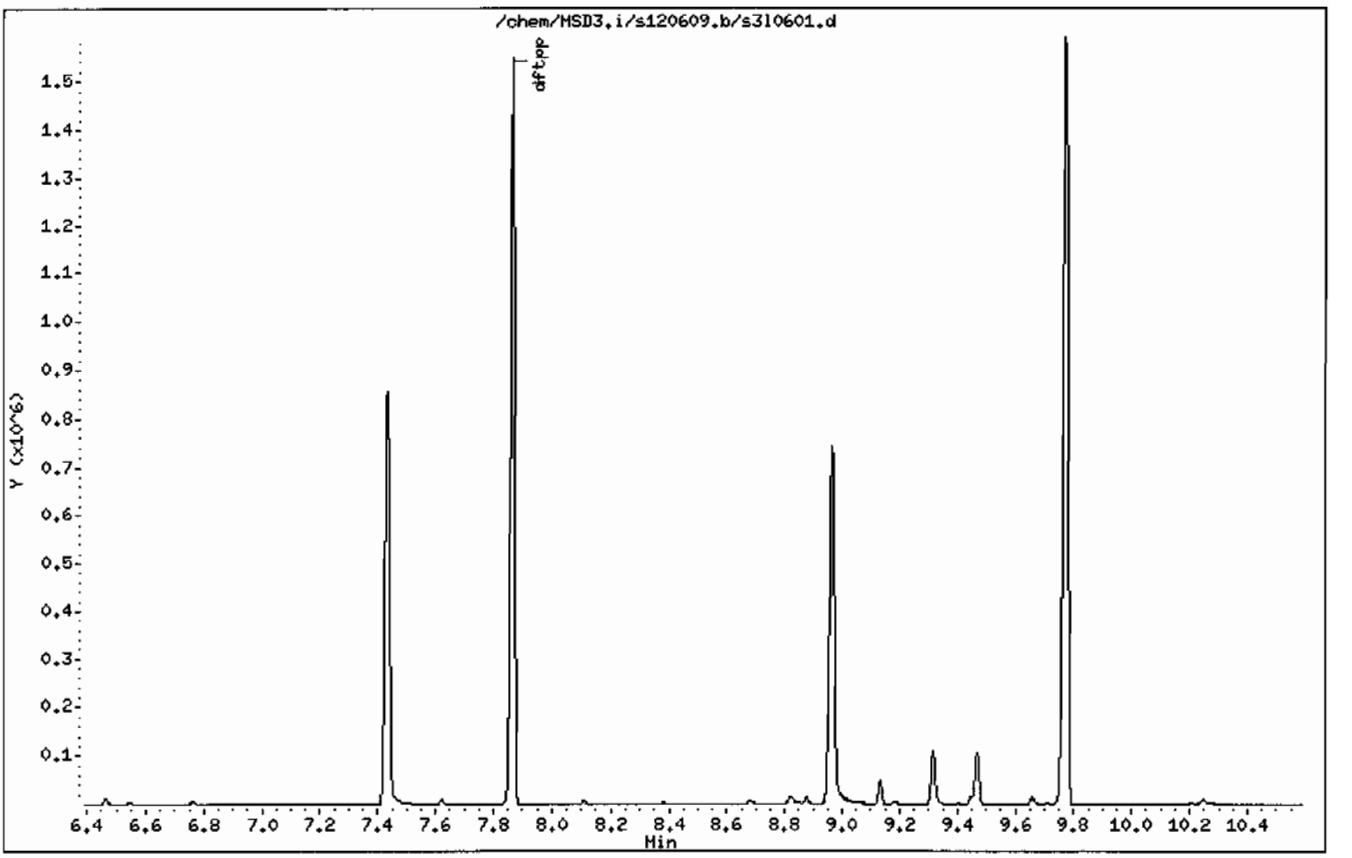

Data File: /chem/MSD3.i/s120609.b/s310601.d

Date : 06-DEC-2009 09:33

Client ID: DFTPP

Instrument: MSD3.i

Sample Info: |WBN091128-01|DFTPP|1|SVM|1|DFTPP|

Operator: JLD1

Column phase: J&W DB-5MS

Column diameter: 0.20

1 dftpp

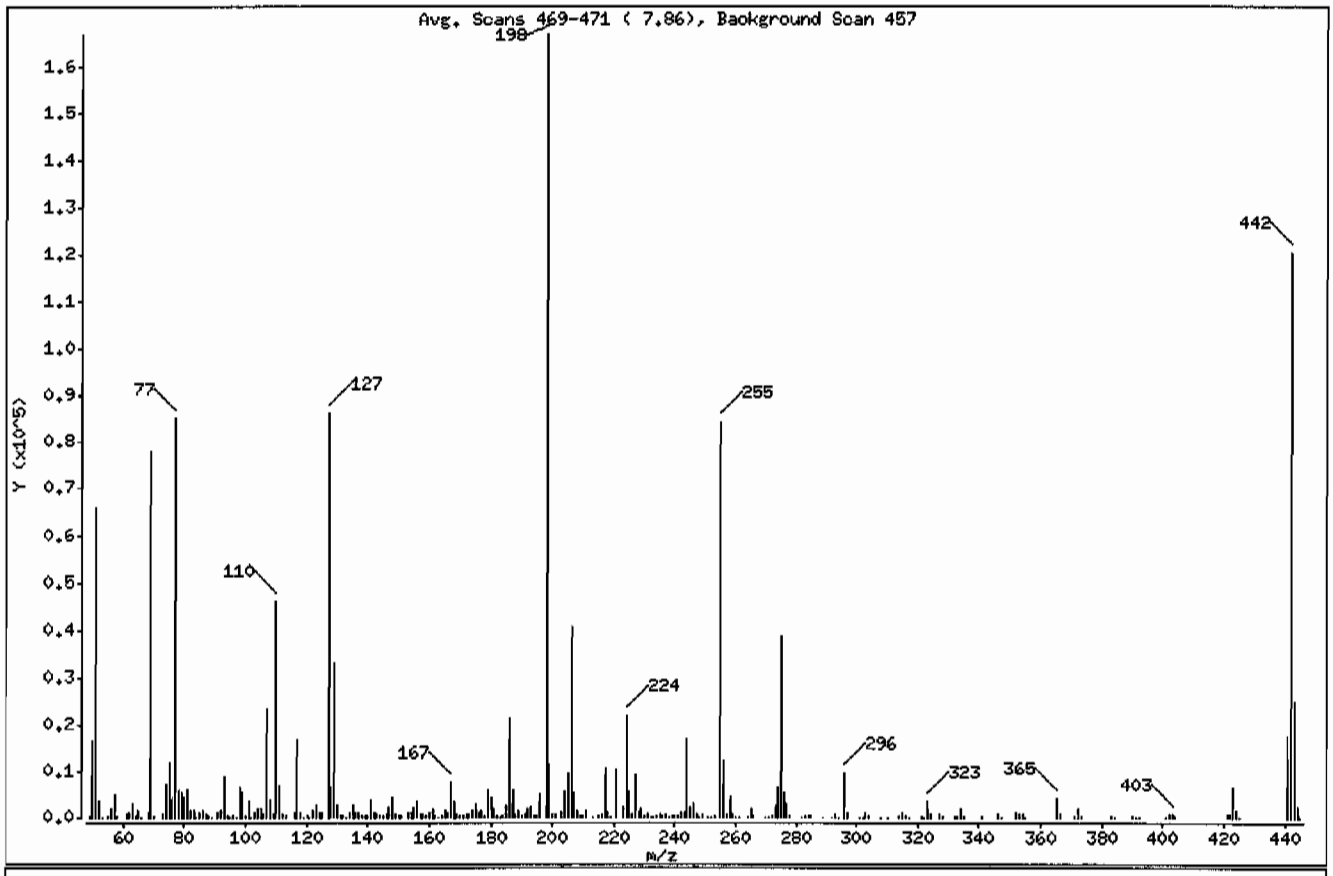

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	39.55
68	Less than 2.00% of mass 69	0.73 (1.56)
69	Mass 69 relative abundance	46.83
70	Less than 2.00% of mass 69	0.22 (0.47)
127	40.00 - 60.00% of mass 198	51.67
197	Less than 1.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.89
275	10.00 - 30.00% of mass 198	23.16
365	Greater than 1.00% of mass 198	2.62
441	Present, but less than mass 443	10.68
442	Greater than 40.00% of mass 198	72.12
443	17.00 - 23.00% of mass 442	14.87 (20.62)

Data File: /chem/MSD3.i/s120609.b/s310601.d

Date : 06-DEC-2009 09:33

Client ID: DFTPP

Instrument: MSD3.i

Sample Info: |WBN091128-01|DFTPP|1|SVM|1|DFTPP|

Operator: JLD1

Column phase: J&W DB-5MS

Column diameter: 0.20

Data File: s310601.d
Spectrum: Avg. Scans 469-471 (7.86), Background Scan 457
Location of Maximum: 198.00
Number of points: 267

m/z	Y	m/z	Y	m/z	Y	m/z	Y
49.00	454	125.00	1015	194.00	406	274.00	6545
50.00	16400	127.00	86224	195.00	257	275.00	38656
51.00	66008	128.00	6475	196.00	5080	276.00	5386
52.00	3339	129.00	33128	198.00	166848	277.00	2954
53.00	143	130.00	2817	199.00	11504	278.00	484
55.00	330	131.00	515	200.00	878	282.00	33
56.00	2047	132.00	252	201.00	812	283.00	382
57.00	4994	133.00	151	203.00	1107	284.00	216
58.00	208	134.00	975	204.00	5714	285.00	525
61.00	901	135.00	2608	205.00	9703	289.00	144
62.00	994	136.00	985	206.00	40568	292.00	124
63.00	2914	137.00	1296	207.00	5242	293.00	669
64.00	399	138.00	263	208.00	1364	294.00	164
65.00	1655	139.00	194	209.00	423	296.00	9510
66.00	143	140.00	398	210.00	468	297.00	1314
68.00	1222	141.00	3974	211.00	1601	301.00	79
69.00	78152	142.00	1335	213.00	34	302.00	171
70.00	369	143.00	875	215.00	409	303.00	1118
73.00	659	144.00	236	216.00	846	304.00	278
74.00	7372	145.00	205	217.00	10612	308.00	120
75.00	11947	146.00	711	218.00	1285	310.00	128
76.00	3932	147.00	2121	219.00	128	314.00	476
77.00	85096	148.00	4346	221.00	10259	315.00	1016
78.00	5733	149.00	876	223.00	2427	316.00	560
79.00	5475	150.00	227	224.00	21992	317.00	74
80.00	4318	151.00	528	225.00	5758	321.00	332
81.00	6073	153.00	1251	226.00	588	322.00	140
82.00	1476	154.00	969	227.00	9092	323.00	3381
83.00	1416	155.00	2164	228.00	1197	324.00	593
84.00	176	156.00	3395	229.00	1771	327.00	589
85.00	1001	157.00	622	230.00	264	328.00	329
86.00	1626	158.00	726	231.00	838	332.00	240
87.00	754	159.00	478	232.00	125	333.00	336
88.00	285	160.00	1207	233.00	159	334.00	2042
89.00	147	161.00	1974	234.00	540	335.00	501

Data File: /chem/MSD3.i/s120609.b/s310601.d

Date : 06-DEC-2009 09:33

Client ID: DFTPP

Instrument: MSD3.i

Sample Info: |WBN091128-01|DFTPP|1|SVM|1|DFTPP|

Operator: JLD1

Column phase: J&W DB-5MS

Column diameter: 0.20

Data File: s310601.d
Spectrum: Avg. Scans 469-471 (7.86), Background Scan 457
Location of Maximum: 198.00
Number of points: 267

m/z	Y	m/z	Y	m/z	Y	m/z	Y
91.00	1247	162.00	543	235.00	670	341.00	385
92.00	1521	163.00	159	236.00	404	346.00	659
93.00	8896	164.00	231	237.00	693	347.00	116
94.00	563	165.00	1473	238.00	35	352.00	974
95.00	149	166.00	1205	239.00	359	353.00	649
96.00	425	167.00	7680	240.00	266	354.00	942
97.00	108	168.00	3287	241.00	483	355.00	187
98.00	6638	169.00	605	242.00	1104	365.00	4374
99.00	5298	170.00	242	243.00	1209	366.00	632
100.00	495	171.00	296	244.00	16928	371.00	271
101.00	3283	172.00	718	245.00	2297	372.00	1774
102.00	160	173.00	917	246.00	3064	373.00	416
103.00	1060	174.00	1584	247.00	615	383.00	431
104.00	2104	175.00	3085	248.00	151	384.00	73
105.00	2041	176.00	1002	249.00	702	390.00	203
106.00	641	177.00	1531	251.00	147	391.00	152
107.00	23456	178.00	491	252.00	145	392.00	91
108.00	3844	179.00	6049	253.00	371	401.00	34
109.00	705	180.00	4046	255.00	84464	402.00	640
110.00	46008	181.00	1929	256.00	12330	403.00	955
111.00	7031	182.00	275	257.00	925	404.00	320
112.00	849	183.00	191	258.00	4732	421.00	880
113.00	287	184.00	437	259.00	740	422.00	803
116.00	1301	185.00	2808	260.00	136	423.00	6662
117.00	16872	186.00	21392	261.00	136	424.00	1444
118.00	1178	187.00	5960	264.00	170	425.00	135
119.00	174	188.00	606	265.00	1761	441.00	17832
120.00	304	189.00	1353	266.00	331	442.00	120360
121.00	69	190.00	216	270.00	36	443.00	24816
122.00	1603	191.00	683	271.00	179	444.00	2317
123.00	2530	192.00	1821	272.00	226	445.00	121
124.00	1051	193.00	2133	273.00	2531		

Data File: /chem/MSD3.i/s120809.b/s310801.d

Page 1

Date : 08-DEC-2009 09:03

Client ID: DFTPP

Instrument: MSD3.i

Sample Info: |WBN091128-01|DFTPP|1|SVM|1|DFTPP|

Operator: JLD1

Column phase: J&W DB-5MS

Column diameter: 0.20

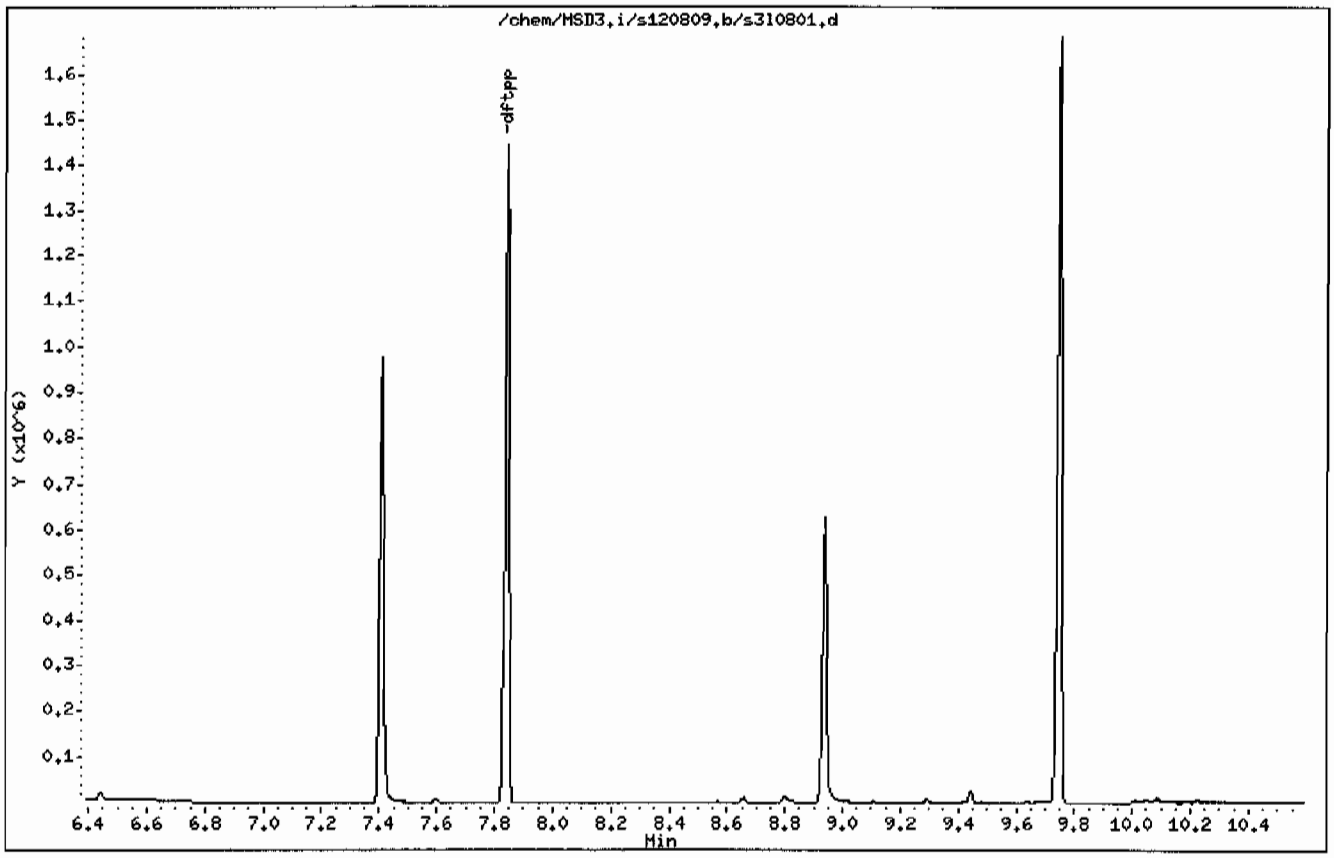

Data File: /chem/MSD3.i/s120809.b/s310801.d

Date : 08-DEC-2009 09:03

Client ID: DFTPP

Instrument: MSD3.i

Sample Info: |WBN091128-01|DFTPP|1|SVM|1|DFTPP|

Operator: JLD1

Column phase: J&W DB-5MS

Column diameter: 0.20

1 dftpp

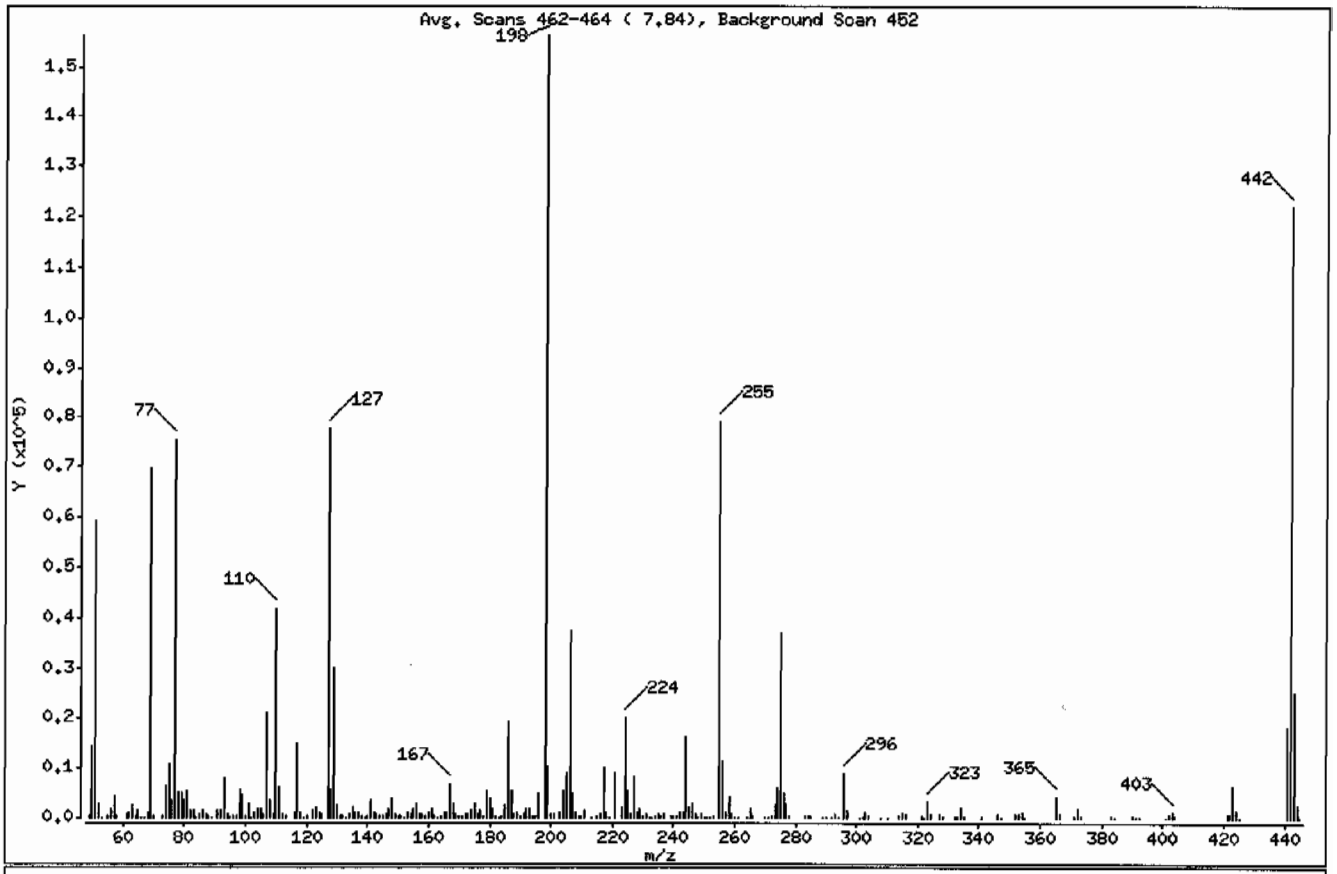

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	37.90
68	Less than 2.00% of mass 69	0.71 (1.60)
69	Mass 69 relative abundance	44.56
70	Less than 2.00% of mass 69	0.22 (0.50)
127	40.00 - 60.00% of mass 198	49.68
197	Less than 1.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.71
275	10.00 - 30.00% of mass 198	23.65
365	Greater than 1.00% of mass 198	2.78
441	Present, but less than mass 443	11.79
442	Greater than 40.00% of mass 198	77.95
443	17.00 - 23.00% of mass 442	16.20 (20.78)

Data File: /chem/MSD3.i/s120809.b/s310801.d

Date : 08-DEC-2009 09:03

Client ID: DFTPP

Instrument: MSD3.i

Sample Info: |WBN091128-01|DFTPP|1|SVM|1|DFTPP|

Operator: JLD1

Column phase: J&W DB-5MS

Column diameter: 0.20

Data File: s310801.d

Spectrum: Avg. Scans 462-464 (7.84), Background Scan 452

Location of Maximum: 198.00

Number of points: 267

m/z	Y	m/z	Y	m/z	Y	m/z	Y
49.00	371	126.00	892	193.00	1812	273.00	2426
50.00	14531	127.00	77696	194.00	363	274.00	6211
51.00	59272	128.00	5887	195.00	309	275.00	36984
52.00	2965	129.00	29992	196.00	4886	276.00	5012
53.00	90	130.00	2561	198.00	156352	277.00	2863
55.00	298	131.00	440	199.00	10496	278.00	489
56.00	1808	132.00	245	200.00	855	283.00	336
57.00	4439	133.00	125	201.00	806	284.00	229
58.00	190	134.00	821	203.00	991	285.00	493
61.00	789	135.00	2335	204.00	5313	289.00	79
62.00	916	136.00	931	205.00	8958	290.00	33
63.00	2630	137.00	1100	206.00	37416	292.00	131
64.00	316	138.00	267	207.00	4924	293.00	643
65.00	1278	139.00	137	208.00	1238	294.00	114
66.00	88	140.00	349	209.00	379	296.00	9002
67.00	33	141.00	3662	210.00	448	297.00	1267
68.00	1117	142.00	1198	211.00	1550	301.00	120
69.00	69696	143.00	784	213.00	69	302.00	155
70.00	351	144.00	204	215.00	386	303.00	1029
73.00	484	145.00	223	216.00	765	304.00	275
74.00	6616	146.00	622	217.00	9912	308.00	127
75.00	10620	147.00	1898	218.00	1163	310.00	133
76.00	3425	148.00	3999	219.00	81	314.00	453
77.00	75360	149.00	816	221.00	9107	315.00	989
78.00	5164	150.00	211	223.00	2285	316.00	593
79.00	4901	151.00	469	224.00	20216	321.00	281
80.00	3627	152.00	115	225.00	5266	322.00	156
81.00	5461	153.00	1117	226.00	540	323.00	3221
82.00	1305	154.00	883	227.00	8205	324.00	555
83.00	1322	155.00	1970	228.00	1157	327.00	564
84.00	142	156.00	3009	229.00	1703	328.00	300
85.00	842	157.00	578	230.00	240	332.00	203
86.00	1396	158.00	677	231.00	749	333.00	266
87.00	644	159.00	455	232.00	126	334.00	1982
88.00	268	160.00	1145	233.00	148	335.00	531

Data File: /chem/MSD3.i/s120809.b/s310801.d

Date : 08-DEC-2009 09:03

Client ID: DFTPP

Instrument: MSD3.i

Sample Info: |WBN091128-01|DFTPP|1|SVM|1|DFTPP|

Operator: JLD1

Column phase: J&W DB-5MS

Column diameter: 0.20

Data File: s310801.d
Spectrum: Avg. Scans 462-464 (7.84), Background Scan 452
Location of Maximum: 198.00
Number of points: 267

m/z	Y	m/z	Y	m/z	Y	m/z	Y
89.00	135	161.00	1618	234.00	509	341.00	356
91.00	1274	162.00	465	235.00	582	346.00	697
92.00	1260	163.00	122	236.00	356	347.00	35
93.00	7918	164.00	214	237.00	662	352.00	882
94.00	550	165.00	1257	239.00	299	353.00	640
95.00	152	166.00	1126	240.00	226	354.00	983
96.00	350	167.00	6920	241.00	517	355.00	151
97.00	183	168.00	2839	242.00	1027	365.00	4349
98.00	5701	169.00	541	243.00	1195	366.00	575
99.00	4729	170.00	240	244.00	16176	371.00	229
100.00	400	171.00	338	245.00	2192	372.00	1621
101.00	3029	172.00	659	246.00	2962	373.00	441
102.00	171	173.00	767	247.00	584	383.00	434
103.00	975	174.00	1414	248.00	139	384.00	116
104.00	1858	175.00	2835	249.00	556	390.00	209
105.00	1745	176.00	889	250.00	76	391.00	156
106.00	551	177.00	1326	251.00	137	392.00	114
107.00	21368	178.00	424	252.00	123	401.00	33
108.00	3539	179.00	5483	253.00	342	402.00	625
109.00	653	180.00	3793	255.00	78976	403.00	920
110.00	41792	181.00	1748	256.00	11585	404.00	327
111.00	6263	182.00	287	257.00	899	421.00	820
112.00	703	183.00	158	258.00	4279	422.00	810
113.00	248	184.00	380	259.00	672	423.00	6585
116.00	1218	185.00	2619	260.00	74	424.00	1344
117.00	15113	186.00	19424	261.00	35	425.00	126
118.00	1117	187.00	5539	264.00	162	441.00	18432
119.00	147	188.00	555	265.00	1750	442.00	121912
120.00	243	189.00	1221	266.00	349	443.00	25336
122.00	1455	190.00	207	270.00	69	444.00	2337
123.00	2158	191.00	613	271.00	151	445.00	135
124.00	980	192.00	1765	272.00	247		

Data File: /chem/MSD1.i/s123009.b/s113002.d

Page 1

Date : 30-DEC-2009 10:24

Client ID: DFTPP

Instrument: MSD1.i

Sample Info: IWBN091213-01|50 PPM|1|SVMF|1|DFTPP

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

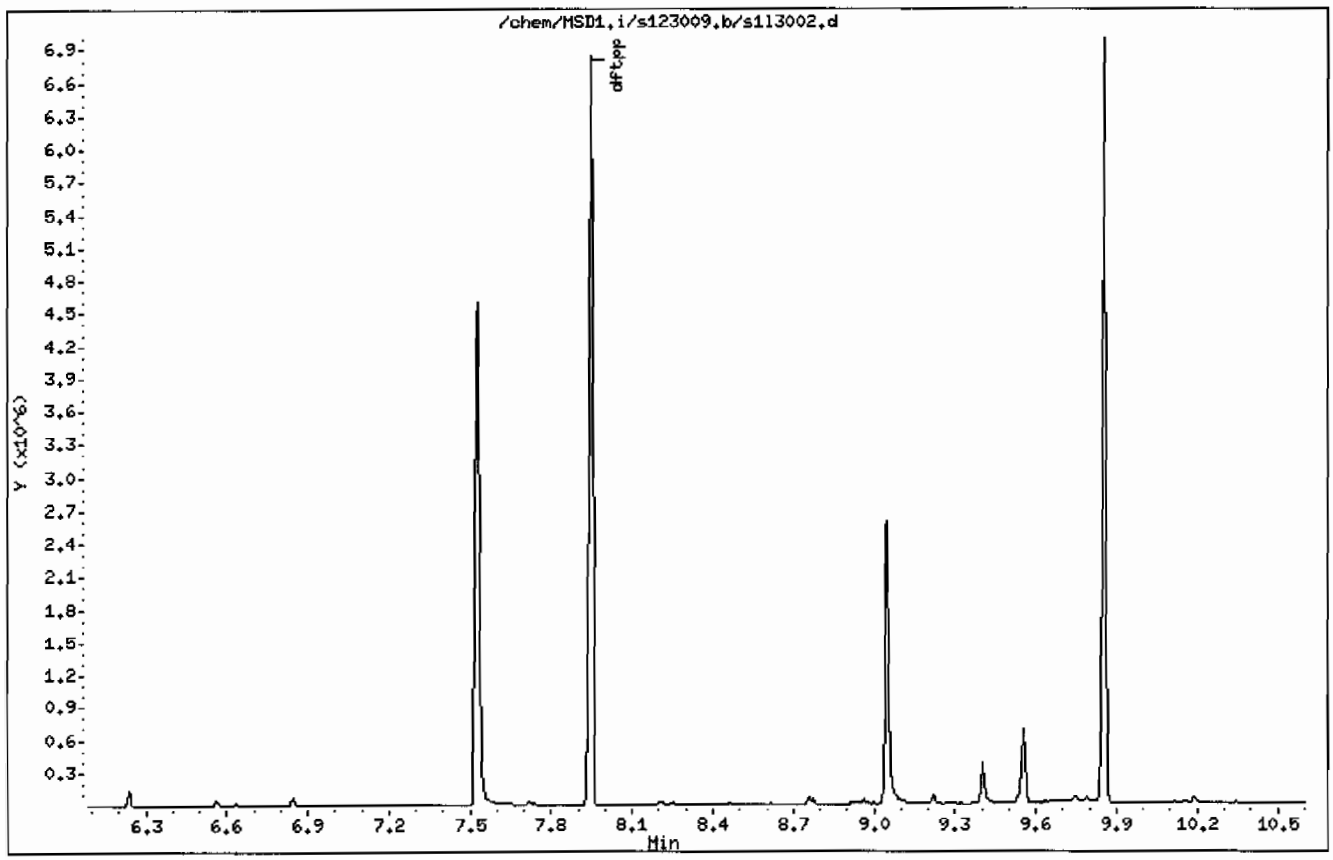

Data File: /chem/MSD1.i/s123009.b/s113002.d

Date : 30-DEC-2009 10:24

Client ID: DFTPP

Instrument: MSD1.i

Sample Info: |WBN091213-01|50 PPM|1|SVMF|1|DFTPP

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

1 dftpp

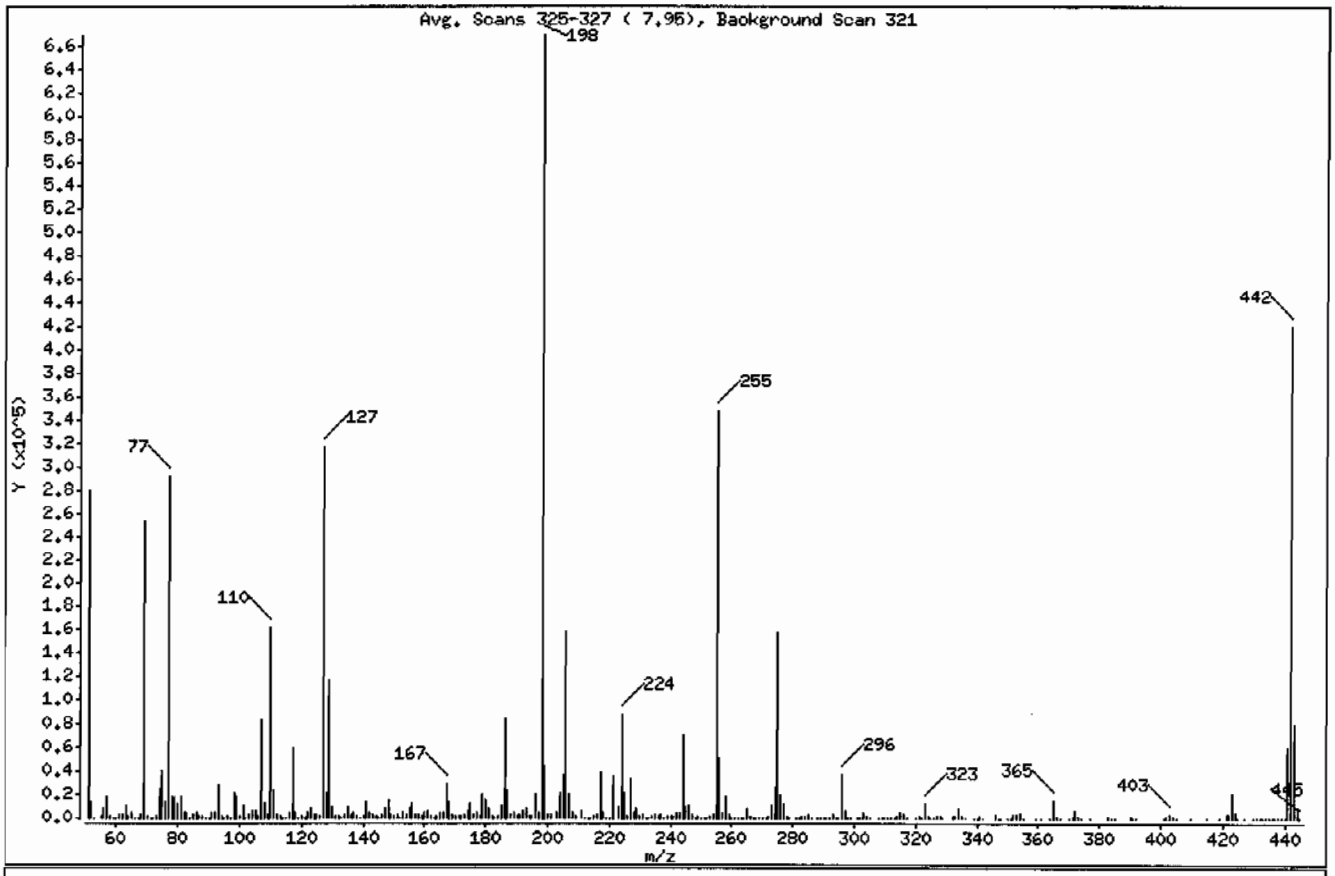

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	41.75
68	Less than 2.00% of mass 69	0.56 (1.48)
69	Mass 69 relative abundance	37.93
70	Less than 2.00% of mass 69	0.20 (0.53)
127	40.00 - 60.00% of mass 198	47.33
197	Less than 1.00% of mass 198	0.72
199	5.00 - 9.00% of mass 198	6.65
275	10.00 - 30.00% of mass 198	23.38
365	Greater than 1.00% of mass 198	2.19
441	Present, but less than mass 443	8.98
442	Greater than 40.00% of mass 198	62.69
443	17.00 - 23.00% of mass 442	11.86 (18.93)

Data File: /chem/MSD1.i/s123009.b/s113002.d

Date : 30-DEC-2009 10:24

Client ID: DFTPP

Instrument: MSD1.i

Sample Info: |WBN091213-01|50 PPM|1|SVMF|1|DFTPP

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

Data File: s113002.d
Spectrum: Avg. Scans 325-327 (7.95), Background Scan 321
Location of Maximum: 198.00
Number of points: 334

m/z	Y	m/z	Y	m/z	Y	m/z	Y
51.00	279040	136.00	3486	223.00	9113	312.00	105
52.00	13769	137.00	4293	224.00	87288	313.00	315
53.00	543	138.00	999	225.00	21672	314.00	1885
55.00	980	139.00	607	226.00	2149	315.00	4025
56.00	7538	140.00	1432	227.00	33696	316.00	2487
57.00	18368	141.00	13918	228.00	4797	317.00	420
58.00	776	142.00	5011	229.00	7163	320.00	57
59.00	243	143.00	3282	230.00	883	321.00	1157
60.00	303	144.00	914	231.00	3024	322.00	586
61.00	3397	145.00	679	232.00	535	323.00	11785
62.00	3449	146.00	2462	233.00	623	324.00	2283
63.00	10195	147.00	7503	234.00	1931	325.00	205
64.00	1415	148.00	15377	235.00	2460	326.00	246
65.00	4789	149.00	3462	236.00	1694	327.00	2270
66.00	296	150.00	992	237.00	2656	328.00	1387
67.00	328	151.00	2408	238.00	411	329.00	223
68.00	3742	152.00	758	239.00	1239	332.00	951
69.00	253504	153.00	4412	240.00	1009	333.00	1078
70.00	1345	154.00	3367	241.00	1885	334.00	7740
71.00	78	155.00	7979	242.00	4761	335.00	2127
72.00	56	156.00	12447	243.00	5099	336.00	258
73.00	1827	157.00	2398	244.00	70720	339.00	188
74.00	24032	158.00	2737	245.00	9383	340.00	160
75.00	39672	159.00	2034	246.00	11473	341.00	1245
76.00	13076	160.00	4159	247.00	2481	342.00	316
77.00	291456	161.00	6679	248.00	583	346.00	2668
78.00	19144	162.00	2046	249.00	2300	347.00	449
79.00	16177	163.00	588	250.00	470	348.00	51
80.00	13010	164.00	922	251.00	635	350.00	53
81.00	18816	165.00	4829	252.00	762	351.00	241
82.00	4776	166.00	4100	253.00	1606	352.00	3529
83.00	4764	167.00	29776	254.00	2535	353.00	2604
84.00	382	168.00	14419	255.00	346752	354.00	4012
85.00	3343	169.00	2733	256.00	50056	355.00	655
86.00	5029	170.00	968	257.00	4047	359.00	230

Data File: /chem/MSD1.i/s123009.b/s113002.d

Date : 30-DEC-2009 10:24

Client ID: DFTPP

Instrument: MSD1.i

Sample Info: |WBN091213-01|50 PPM|1|SVMF|1|DFTPP

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

Data File: s113002.d
Spectrum: Avg. Scans 325-327 (7.95), Background Scan 321
Location of Maximum: 198.00
Number of points: 334

m/z	Y	m/z	Y	m/z	Y	m/z	Y
87.00	2273	171.00	1352	258.00	17760	361.00	55
88.00	1228	172.00	2296	259.00	2927	364.00	141
89.00	482	173.00	3336	260.00	482	365.00	14665
90.00	87	174.00	6542	261.00	546	366.00	2147
91.00	3928	175.00	11622	262.00	64	367.00	188
92.00	4391	176.00	3463	263.00	148	370.00	316
93.00	28064	177.00	5341	264.00	163	371.00	885
94.00	2120	178.00	1663	265.00	7319	372.00	6077
95.00	320	179.00	20720	266.00	868	373.00	1356
96.00	1331	180.00	14963	267.00	195	374.00	90
97.00	669	181.00	7209	268.00	145	377.00	74
98.00	21448	182.00	1200	269.00	76	383.00	1635
99.00	17824	183.00	604	270.00	586	384.00	387
100.00	1750	184.00	1732	271.00	754	385.00	71
101.00	10808	185.00	10756	272.00	1004	390.00	908
102.00	674	186.00	85056	273.00	10061	391.00	572
103.00	3552	187.00	23360	274.00	26848	392.00	343
104.00	6427	188.00	2473	275.00	156288	401.00	438
105.00	6069	189.00	4580	276.00	19488	402.00	2226
106.00	1921	190.00	786	277.00	11542	403.00	3396
107.00	83208	191.00	2407	278.00	1940	404.00	1102
108.00	12773	192.00	6889	279.00	351	405.00	154
109.00	2368	193.00	7458	281.00	63	410.00	54
110.00	160896	194.00	1725	282.00	278	415.00	220
111.00	22680	195.00	1056	283.00	1248	419.00	112
112.00	2794	196.00	19824	284.00	875	421.00	2837
113.00	877	197.00	4846	285.00	2342	422.00	2897
114.00	186	198.00	668544	286.00	450	423.00	21896
115.00	306	199.00	44448	288.00	175	424.00	4751
116.00	4177	200.00	3451	289.00	461	425.00	589
117.00	59544	201.00	3411	290.00	456	427.00	128
118.00	4452	203.00	4058	291.00	277	430.00	70
119.00	662	204.00	21152	292.00	693	431.00	51
120.00	1159	205.00	37168	293.00	2578	432.00	230
121.00	395	206.00	157952	294.00	686	433.00	191

Data File: /chem/MSD1.i/s123009.b/s113002.d

Date : 30-DEC-2009 10:24

Client ID: DFTPP

Instrument: MSD1.i

Sample Info: |WBN091213-01|50 PPM|1|SVMF|1|DFTPP

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

Data File: s113002.d
Spectrum: Avg. Scans 325-327 (7.95), Background Scan 321
Location of Maximum: 198.00
Number of points: 334

m/z	Y	m/z	Y	m/z	Y	m/z	Y
122.00	4946	207.00	19800	295.00	757	434.00	123
123.00	7786	208.00	4950	296.00	37368	435.00	161
124.00	3722	209.00	1520	297.00	5774	436.00	164
125.00	3517	211.00	6084	298.00	333	437.00	189
126.00	1345	212.00	329	299.00	51	438.00	240
127.00	316416	213.00	532	301.00	460	439.00	97
128.00	22032	214.00	110	302.00	677	440.00	261
129.00	116912	215.00	1568	303.00	4075	441.00	60048
130.00	9972	216.00	3124	304.00	1311	442.00	419072
131.00	1945	217.00	38944	305.00	63	443.00	79312
132.00	1085	218.00	5198	308.00	580	444.00	7372
133.00	230	219.00	470	309.00	385	445.00	326
134.00	3120	220.00	198	310.00	429		
135.00	8821	221.00	36048	311.00	188		

Data File: /chem/MSD3.i/s010410a.b/s3a0409.d

Page 1

Date : 04-JAN-2010 15:08

Client ID: DFTPP

Instrument: MSD3.i

Sample Info: |WBN091213-01|DFTPP|1|SVM|1|DFTPP|

Operator: JLD1

Column phase: J&W DB-5MS

Column diameter: 0.20

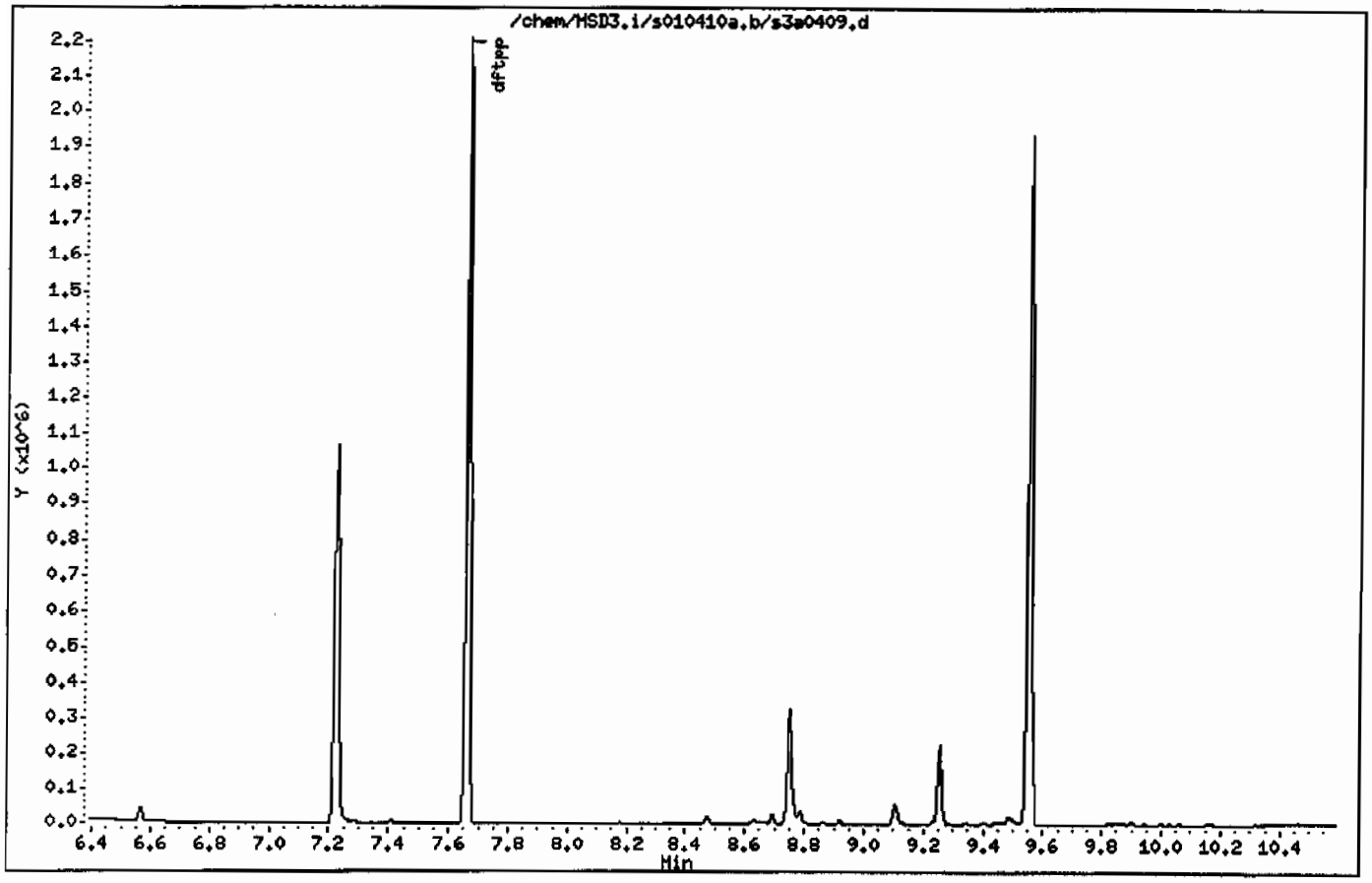

Data File: /chem/MSD3.i/s010410a.b/s3a0409.d

Date : 04-JAN-2010 15:08

Client ID: DFTPP

Instrument: MSD3.i

Sample Info: |WBN091213-01|DFTPP|1|SVM|1|DFTPP|

Operator: JLD1

Column phase: J&W DB-5MS

Column diameter: 0.20

1 dftpp

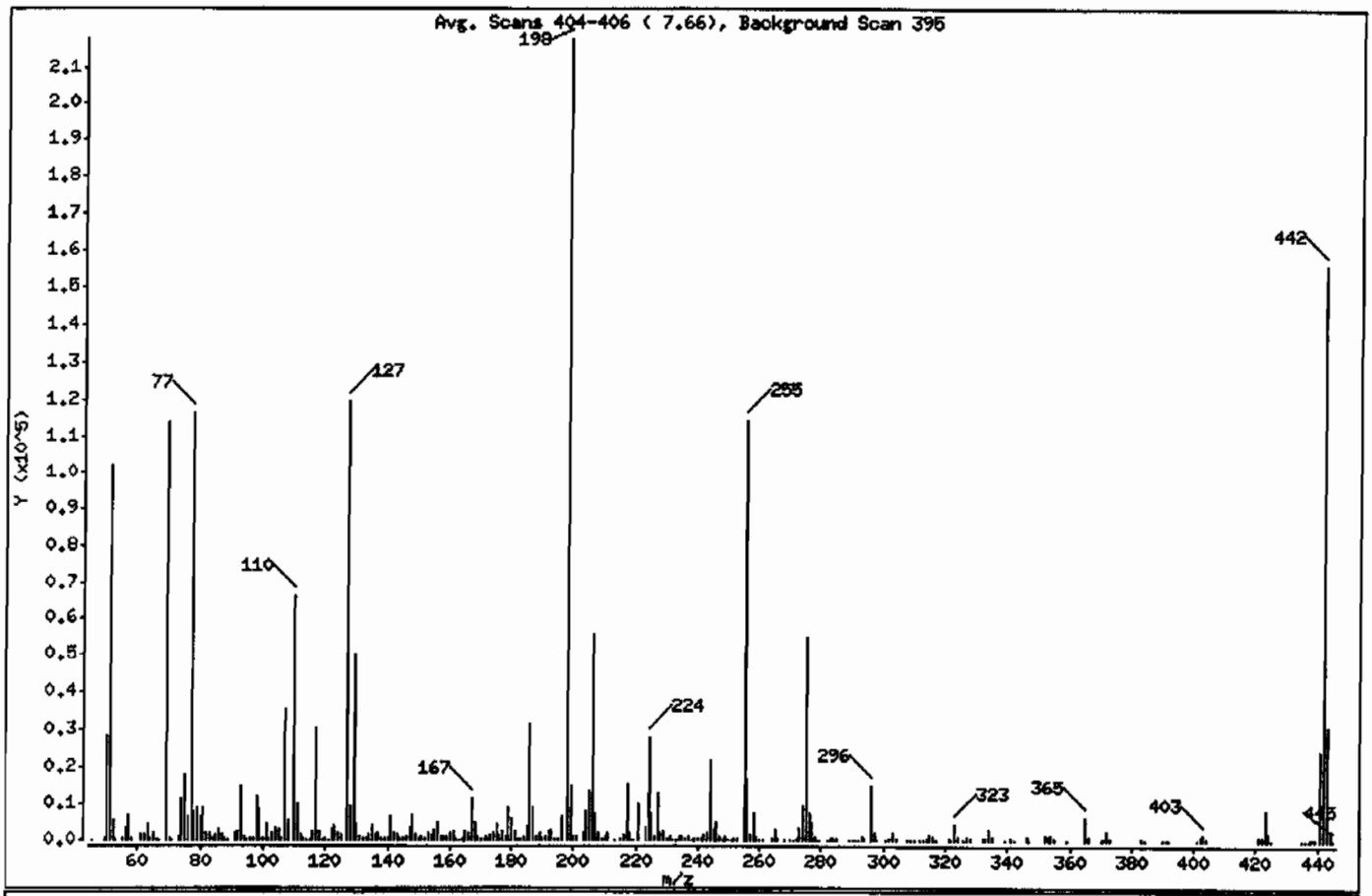

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	46.78
68	Less than 2.00% of mass 69	0.00 (0.00)
69	Mass 69 relative abundance	52.42
70	Less than 2.00% of mass 69	0.31 (0.59)
127	40.00 - 60.00% of mass 198	54.79
197	Less than 1.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.96
275	10.00 - 30.00% of mass 198	25.12
365	Greater than 1.00% of mass 198	3.09
441	Present, but less than mass 443	11.26
442	Greater than 40.00% of mass 198	71.79
443	17.00 - 23.00% of mass 442	14.26 (19.87)

Data File: /chem/MSD3.i/s010410a.b/s3a0409.d

Date : 04-JAN-2010 15:08

Client ID: DFTPP

Instrument: MSD3.i

Sample Info: |WBN091213-01|DFTPP|1|SVM|1|DFTPP|

Operator: JLD1

Column phase: J&W DB-5MS

Column diameter: 0.20

Data File: s3a0409.d
Spectrum: Avg. Scans 404-406 (7.66), Background Scan 395
Location of Maximum: 198.00
Number of points: 290

m/z	Y	m/z	Y	m/z	Y	m/z	Y
45.00	67	129.00	50128	204.00	7894	291.00	128
49.00	374	130.00	4368	205.00	13408	292.00	222
50.00	28488	131.00	919	206.00	55472	293.00	989
51.00	101880	132.00	449	207.00	7471	294.00	255
52.00	5413	133.00	263	208.00	2124	296.00	15213
53.00	230	134.00	1506	209.00	704	297.00	2010
55.00	699	135.00	4150	210.00	997	298.00	139
56.00	3273	136.00	1604	211.00	2091	301.00	148
57.00	7124	137.00	2010	213.00	173	302.00	273
58.00	290	138.00	424	215.00	615	303.00	1761
61.00	1430	139.00	320	216.00	1341	304.00	458
62.00	1603	140.00	674	217.00	15599	308.00	208
63.00	4358	141.00	6772	218.00	1937	309.00	141
64.00	608	142.00	2144	219.00	225	310.00	214
65.00	2062	143.00	1290	221.00	10171	312.00	69
66.00	148	144.00	367	223.00	3509	313.00	37
67.00	204	145.00	393	224.00	28216	314.00	655
69.00	114160	146.00	1242	225.00	7374	315.00	1677
70.00	677	147.00	3363	226.00	899	316.00	931
71.00	72	148.00	7263	227.00	12856	317.00	142
73.00	1120	149.00	1412	228.00	1790	321.00	440
74.00	11628	150.00	415	229.00	2624	322.00	109
75.00	17864	151.00	834	230.00	284	323.00	4405
76.00	6313	152.00	435	231.00	1104	324.00	854
77.00	116528	153.00	2046	232.00	176	326.00	124
78.00	7890	154.00	1478	233.00	248	327.00	894
79.00	9208	155.00	3214	234.00	822	328.00	475
80.00	6653	156.00	4924	235.00	925	332.00	338
81.00	9154	157.00	993	236.00	581	333.00	505
82.00	2165	158.00	1173	237.00	987	334.00	2851
83.00	1971	159.00	974	238.00	144	335.00	802
84.00	258	160.00	2022	239.00	499	339.00	35
85.00	1736	161.00	2666	240.00	400	341.00	484
86.00	2853	162.00	742	241.00	701	342.00	128
87.00	1336	163.00	192	242.00	1607	346.00	885

Data File: /chem/MSD3.i/s010410a.b/s3a0409.d

Date : 04-JAN-2010 15:08

Client ID: DFTPP

Instrument: MSD3.i

Sample Info: |WBN091213-01|DFTPP|1|SVM|1|DFTPP|

Operator: JLD1

Column phase: J&W DB-5MS

Column diameter: 0.20

Data File: s3a0409.d
Spectrum: Avg. Scans 404-406 (7.66), Background Scan 395
Location of Maximum: 198.00
Number of points: 290

m/z	Y	m/z	Y	m/z	Y	m/z	Y
88.00	396	164.00	382	243.00	1966	347.00	179
89.00	180	165.00	2532	244.00	21920	352.00	1327
91.00	2220	166.00	2010	245.00	3054	353.00	1008
92.00	2652	167.00	11659	246.00	4915	354.00	1343
93.00	14962	168.00	5215	247.00	1010	355.00	281
94.00	1027	169.00	918	248.00	210	359.00	87
95.00	240	170.00	365	249.00	901	365.00	6730
96.00	603	171.00	533	250.00	172	366.00	1013
97.00	417	172.00	1148	251.00	167	370.00	175
98.00	12245	173.00	1370	252.00	302	371.00	462
99.00	8292	174.00	2111	253.00	626	372.00	2436
100.00	686	175.00	4356	255.00	114320	373.00	664
101.00	4743	176.00	1351	256.00	17128	383.00	549
102.00	271	177.00	2406	257.00	1475	384.00	179
103.00	1946	178.00	853	258.00	7452	390.00	238
104.00	3544	179.00	8838	259.00	984	391.00	215
105.00	2984	180.00	5821	260.00	211	392.00	148
106.00	379	181.00	2603	261.00	150	401.00	176
107.00	35680	182.00	373	264.00	308	402.00	994
108.00	5734	183.00	260	265.00	2958	403.00	1261
110.00	66112	184.00	770	266.00	533	404.00	464
111.00	9917	185.00	4248	268.00	39	421.00	1214
112.00	1275	186.00	31488	270.00	144	422.00	1250
113.00	398	187.00	9132	271.00	226	423.00	8531
114.00	33	188.00	989	272.00	385	424.00	1823
115.00	176	189.00	2254	273.00	3543	425.00	195
116.00	2447	190.00	389	274.00	9696	435.00	117
117.00	30752	191.00	967	275.00	54704	436.00	81
118.00	2321	192.00	2631	276.00	7667	437.00	170
119.00	248	193.00	2787	277.00	4799	438.00	313
120.00	434	194.00	631	278.00	782	439.00	612
121.00	240	195.00	290	279.00	131	441.00	24528
122.00	2852	196.00	6365	282.00	112	442.00	156288
123.00	3806	198.00	217792	283.00	513	443.00	31064
124.00	1762	199.00	15162	284.00	362	444.00	2835

Data File: /chem/MSD3.i/s010410a.b/s3a0409.d

Date : 04-JAN-2010 15:08

Client ID: DFTPP

Instrument: MSD3.i

Sample Info: |WBN091213-01|DFTPP|1|SVM|1|DFTPP|

Operator: JLD1

Column phase: J&W DB-5MS

Column diameter: 0.20

Data File: s3a0409.d

Spectrum: Avg. Scans 404-406 (7.66), Background Scan 395

Location of Maximum: 198.00

Number of points: 290

m/z	Y	m/z	Y	m/z	Y	m/z	Y
125.00	1474	200.00	1177	285.00	724	445.00	134
127.00	119320	201.00	1006	289.00	184		
128.00	9591	203.00	1885	290.00	128		

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1086**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202005357**				
Client Sample:	**QC for batch 937150**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 937150**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**937151**	**Inst:**	**MSD3.I**	**Dilution:**	**1**
Run Date:	**01/04/2010 16:44**	**Analyst:**	**JLD1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/29/2009 10:16**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**s3a0413-1.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	333	ug/kg	66.7	333
108-95-2	Phenol	U	333	ug/kg	66.7	333
95-57-8	2-Chlorophenol	U	333	ug/kg	66.7	333
106-46-7	1,4-Dichlorobenzene	U	333	ug/kg	66.7	333
621-64-7	N-Nitrosodipropylamine	U	333	ug/kg	66.7	333
59-50-7	4-Chloro-3-methylphenol	U	333	ug/kg	66.7	333
83-32-9	Acenaphthene	U	33.3	ug/kg	11.0	33.3
121-14-2	2,4-Dinitrotoluene	U	333	ug/kg	33.3	333
100-02-7	4-Nitrophenol	U	333	ug/kg	110	333
87-86-5	Pentachlorophenol	U	333	ug/kg	83.3	333
129-00-0	Pyrene	U	33.3	ug/kg	10.0	33.3
110-86-1	Pyridine	U	333	ug/kg	66.7	333
62-53-3	Aniline	U	333	ug/kg	100	333
111-44-4	bis(2-Chloroethyl) ether	U	333	ug/kg	66.7	333
541-73-1	1,3-Dichlorobenzene	U	333	ug/kg	66.7	333
100-51-6	Benzyl alcohol	U	333	ug/kg	100	333
95-50-1	1,2-Dichlorobenzene	U	333	ug/kg	66.7	333
108-60-1	bis(2-Chloroisopropyl)ether	U	333	ug/kg	66.7	333
95-48-7	o-Cresol	U	333	ug/kg	66.7	333
65794-96-9	m,p-Cresols	U	333	ug/kg	100	333
67-72-1	Hexachloroethane	U	333	ug/kg	66.7	333
98-95-3	Nitrobenzene	U	333	ug/kg	66.7	333
78-59-1	Isophorone	U	333	ug/kg	66.7	333
88-75-5	2-Nitrophenol	U	333	ug/kg	66.7	333
105-67-9	2,4-Dimethylphenol	U	333	ug/kg	117	333
111-91-1	bis(2-Chloroethoxy)methane	U	333	ug/kg	66.7	333
120-83-2	2,4-Dichlorophenol	U	333	ug/kg	66.7	333
65-85-0	Benzoic acid	U	667	ug/kg	167	667
91-20-3	Naphthalene	U	33.3	ug/kg	10.0	33.3
106-47-8	4-Chloroaniline	U	333	ug/kg	66.7	333
87-68-3	Hexachlorobutadiene	U	333	ug/kg	66.7	333
91-57-6	2-Methylnaphthalene	U	33.3	ug/kg	6.67	33.3
77-47-4	Hexachlorocyclopentadiene	U	333	ug/kg	66.7	333
88-06-2	2,4,6-Trichlorophenol	U	333	ug/kg	66.7	333
95-95-4	2,4,5-Trichlorophenol	U	333	ug/kg	66.7	333
91-58-7	2-Chloronaphthalene	U	33.3	ug/kg	11.0	33.3
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	333	ug/kg	66.7	333
99-09-2	3-Nitroaniline	U	333	ug/kg	66.7	333

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1086			Matrix:	SOIL
Lab Sample ID:	1202005357				
Client Sample:	QC for batch 937150	Client:	LANL010	Project:	QC
Client ID:	MB for batch 937150	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	937151	Inst:	MSD3.I	Dilution:	1
Run Date:	01/04/2010 16:44	Analyst:	JLD1	Inj. Vol:	.5 uL
Prep Date:	12/29/2009 10:16	Aliquot:	30 g	Final Volume:	1 mL
Data File:	s3a0413-1.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	333	ug/kg	66.7	333
606-20-2	2,6-Dinitrotoluene	U	333	ug/kg	33.3	333
208-96-8	Acenaphthylene	U	33.3	ug/kg	10.0	33.3
51-28-5	2,4-Dinitrophenol	U	667	ug/kg	127	667
132-64-9	Dibenzofuran	U	333	ug/kg	66.7	333
84-66-2	Diethylphthalate	U	333	ug/kg	66.7	333
86-73-7	Fluorene	U	33.3	ug/kg	10.0	33.3
7005-72-3	4-Chlorophenylphenylether	U	333	ug/kg	66.7	333
534-52-1	2-Methyl-4,6-dinitrophenol	U	333	ug/kg	66.7	333
100-01-6	4-Nitroaniline	U	333	ug/kg	100	333
	p-Nitroaniline					
122-39-4	Diphenylamine	U	333	ug/kg	66.7	333
122-66-7	Azobenzene	U	333	ug/kg	66.7	333
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	333	ug/kg	66.7	333
118-74-1	Hexachlorobenzene	U	333	ug/kg	66.7	333
85-01-8	Phenanthrene	U	33.3	ug/kg	10.0	33.3
120-12-7	Anthracene	U	33.3	ug/kg	6.67	33.3
84-74-2	Di-n-butylphthalate	U	333	ug/kg	66.7	333
206-44-0	Fluoranthene	U	33.3	ug/kg	10.0	33.3
85-68-7	Butylbenzylphthalate	U	333	ug/kg	66.7	333
56-55-3	Benzo(a)anthracene	U	33.3	ug/kg	10.0	33.3
91-94-1	3,3'-Dichlorobenzidine	U	333	ug/kg	100	333
218-01-9	Chrysene	U	33.3	ug/kg	10.0	33.3
117-81-7	bis(2-Ethylhexyl)phthalate	U	333	ug/kg	66.7	333
117-84-0	Di-n-octylphthalate	U	333	ug/kg	66.7	333
205-99-2	Benzo(b)fluoranthene	U	33.3	ug/kg	10.0	33.3
207-08-9	Benzo(k)fluoranthene	U	33.3	ug/kg	10.0	33.3
50-32-8	Benzo(a)pyrene	U	33.3	ug/kg	10.0	33.3
193-39-5	Indeno(1,2,3-cd)pyrene	U	33.3	ug/kg	10.0	33.3
53-70-3	Dibenzo(a,h)anthracene	U	33.3	ug/kg	10.0	33.3
191-24-2	Benzo(ghi)perylene	U	33.3	ug/kg	10.0	33.3
120-82-1	1,2,4-Trichlorobenzene	U	333	ug/kg	66.7	333

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
78-95-5	2-Propanone, 1-chloro-	1.84	249	ug/kg	81	NJ
	Unknown Aldol Condensate	2.85	620	ug/kg		JA

GEL Laboratories LLC

Data file : /chem/MSD3.i/s010410a.b/s3a0413-3.d
Lab Smp Id: 1202005357 Client Smp ID: SBLK01
Inj Date : 04-JAN-2010 16:44
Operator : JLD1 Inst ID: MSD3.i
Smp Info : |1202005357|937151|1|SVMF|1|SBLK01
Misc Info : |MSD8270_S|WBN091223-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD3.i/s010410a.b/MSD3-8270R-AQA-120809.m
Meth Date : 04-Jan-2010 16:42 jen00986 Quant Type: ISTD
Cal Date : 07-DEC-2009 19:48 Cal File: s310717.d
Als bottle: 5 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-1086.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	0.00000	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	4.201	4.203	(1.000)	123401	40.0000	
* 29 Naphthalene-d8	136	5.449	5.453	(1.000)	465340	40.0000	
* 46 Acenaphthene-d10	164	7.291	7.298	(1.000)	252936	40.0000	
* 67 Phenanthrene-d10	188	8.885	8.888	(1.000)	419180	40.0000	
* 91 Chrysene-d12	240	11.735	11.745	(1.000)	306107	40.0000	
* 98 Perylene-d12	264	13.678	13.686	(1.000)	241697	40.0000	
$ 3 2-Fluorophenol	112	3.105	3.093	(0.739)	216833	67.1779	2240
$ 5 Phenol-d5	99	3.870	3.869	(0.921)	296488	72.0995	2400
$ 20 Nitrobenzene-d5	82	4.731	4.737	(0.868)	103900	30.5498	1020
$ 39 2-Fluorobiphenyl	172	6.574	6.576	(0.902)	210413	35.4904	1180
$ 60 2,4,6-Tribromophenol	329	8.138	8.143	(1.116)	68024	97.9350	3260
$ 81 p-Terphenyl-d14	244	10.593	10.595	(0.903)	260026	52.8898	1760

GEL Laboratories LLC

Data file : /chem/MSD3.i/s010410a.b/s3a0413-3.d
Lab Smp Id: 1202005357 Client Smp ID: SBLK01
Inj Date : 04-JAN-2010 16:44
Operator : JLD1 Inst ID: MSD3.i
Smp Info : |1202005357|937151|1|SVMF|1|SBLK01
Misc Info : |MSD8270_S|WBN091223-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD3.i/s010410a.b/MSD3-8270R-AQA-120809.m
Meth Date : 04-Jan-2010 16:42 jen00986 Quant Type: ISTD
Cal Date : 07-DEC-2009 19:48 Cal File: s310717.d
Als bottle: 5 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-1086.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	0.00000	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	4.201	815763	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
2-Propanone, 1-chloro-				CAS #: 78-95-5			
1.839	152097	7.45791615	248	81	NIST05.L	2355	10
Unknown Aldol Condensate				CAS #:			
2.853	379633	18.6148530	620	0		0	10

Data File: /chem/MSD3.i/s010410a.b/s3a0413-3.d
Date : 04-JAN-2010 16:44
Client ID: SBLK01
Sample Info: |1202005357193715111|SVMF|1|SBLK01
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Page 1

Instrument: MSD3.i

Operator: JLD1
Column diameter: 0.20

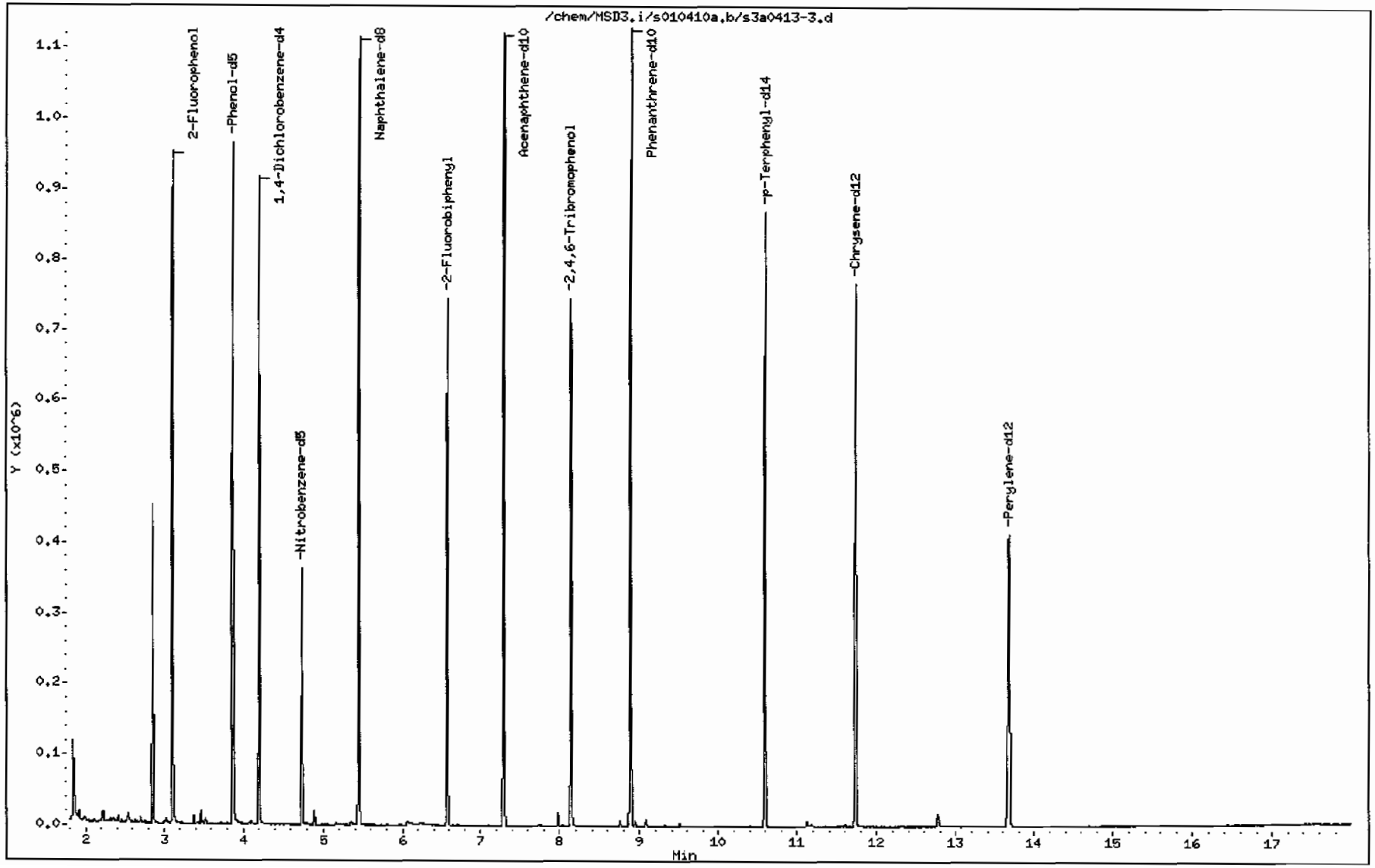

Data File: /chem/MSD3.i/s010410a.b/s3a0413-3.d

Date : 04-JAN-2010 16:44

Client ID: SBLK01

Instrument: MSD3.i

Sample Info: |1202005357|937151|1|SVMF|1|SBLK01

Volume Injected (uL): 0.5

Operator: JLD1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
2-Propanone, 1-chloro-	78-95-5	NIST05.L	2355	81	C3H5ClO	92
Chloroacetamidine	20846-52-0	NIST05.L	2347	59	C2H5ClN2	92
2-Propanone, 1-chloro-	78-95-5	NIST05.L	2352	50	C3H5ClO	92

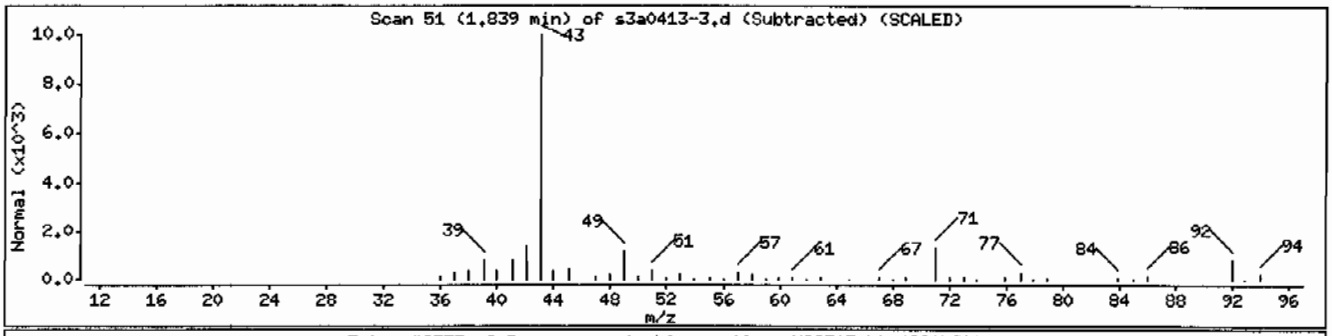

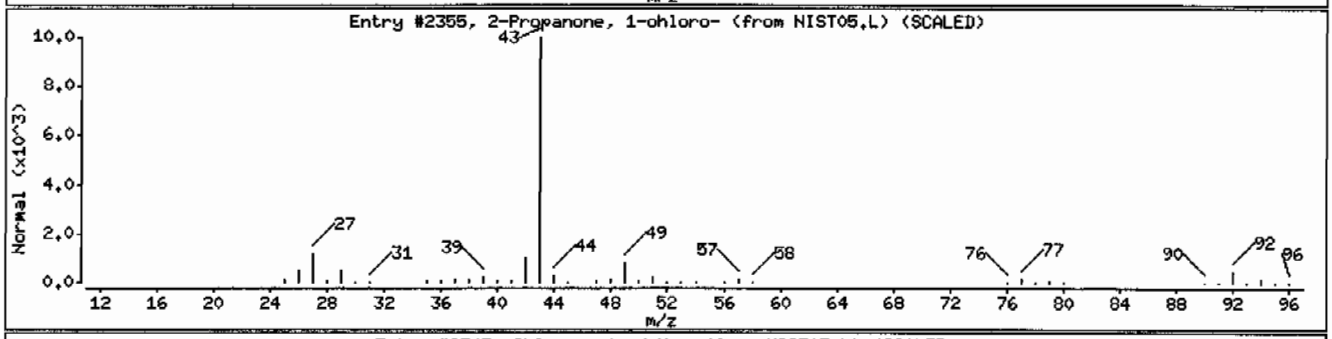

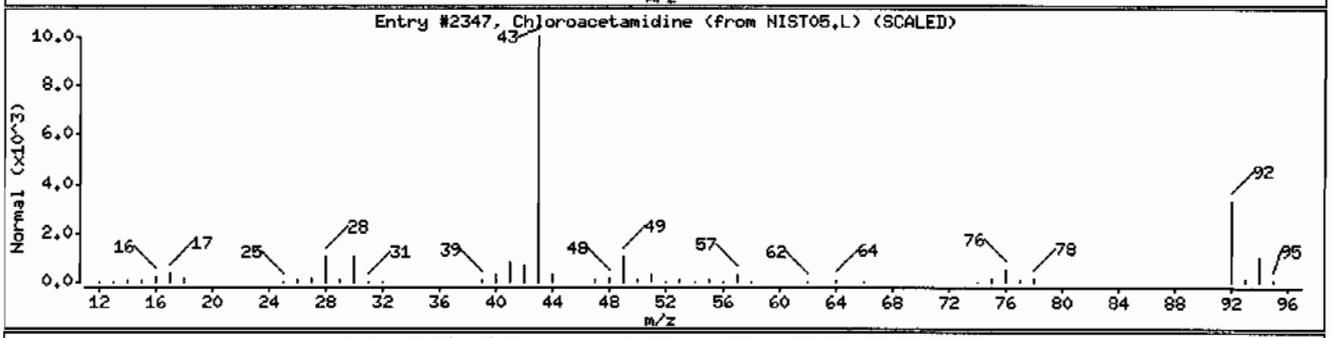

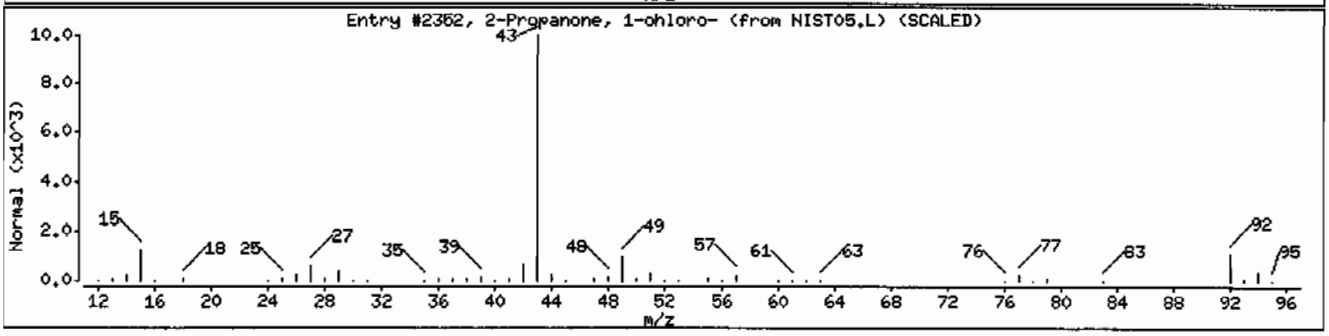

Data File: /chem/MSD3.i/s010410a.b/s3a0413-3.d

Date : 04-JAN-2010 16:44

Client ID: SBLK01

Instrument: MSD3.i

Sample Info: |1202005357|937151|1|SVMF|1|SBLK01

Volume Injected (uL): 0.5

Operator: JLD1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	56	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7945	50	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	40	C6H12O2	116

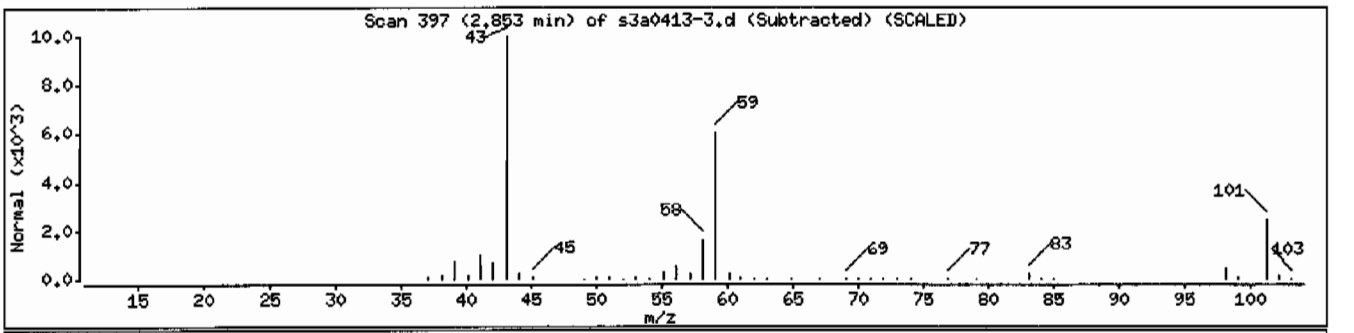

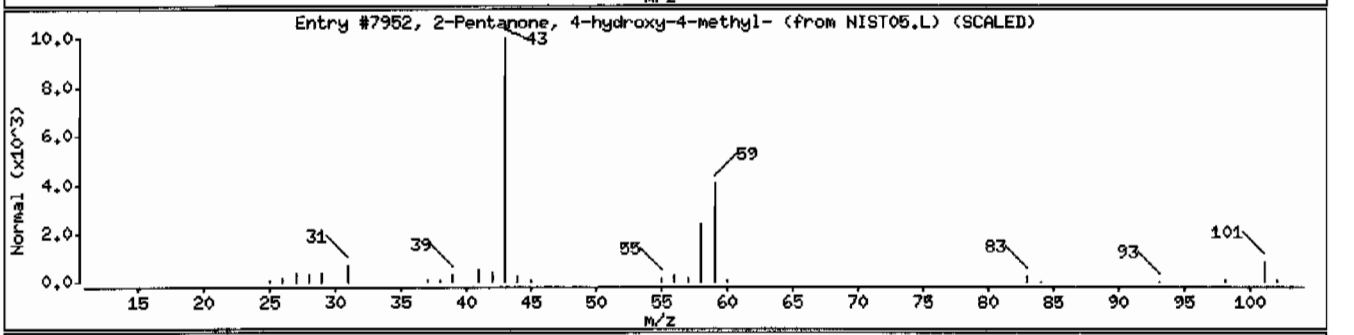

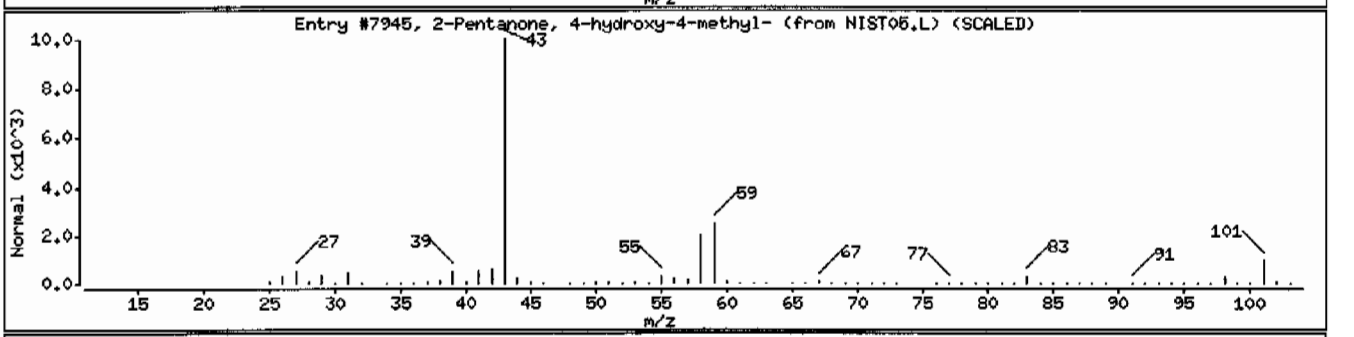

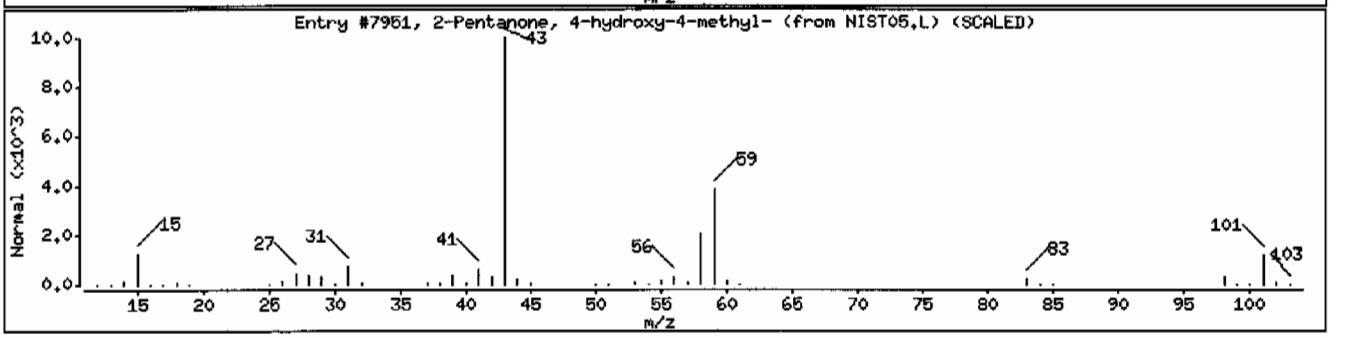

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1086**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202005808**				
Client Sample:	**QC for batch 937366**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 937366**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**937367**	**Inst:**	**MSD1.I**	**Dilution:**	**1**
Run Date:	**12/30/2009 16:34**	**Analyst:**	**AMY**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/29/2009 17:48**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**s1l3017.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	333	ug/kg	66.7	333
108-95-2	Phenol	U	333	ug/kg	66.7	333
95-57-8	2-Chlorophenol	U	333	ug/kg	66.7	333
106-46-7	1,4-Dichlorobenzene	U	333	ug/kg	66.7	333
621-64-7	N-Nitrosodipropylamine	U	333	ug/kg	66.7	333
59-50-7	4-Chloro-3-methylphenol	U	333	ug/kg	66.7	333
83-32-9	Acenaphthene	U	33.3	ug/kg	11.0	33.3
121-14-2	2,4-Dinitrotoluene	U	333	ug/kg	33.3	333
100-02-7	4-Nitrophenol	U	333	ug/kg	110	333
87-86-5	Pentachlorophenol	U	333	ug/kg	83.3	333
129-00-0	Pyrene	U	33.3	ug/kg	10.0	33.3
110-86-1	Pyridine	U	333	ug/kg	66.7	333
62-53-3	Aniline	U	333	ug/kg	100	333
111-44-4	bis(2-Chloroethyl) ether	U	333	ug/kg	66.7	333
541-73-1	1,3-Dichlorobenzene	U	333	ug/kg	66.7	333
100-51-6	Benzyl alcohol	U	333	ug/kg	100	333
95-50-1	1,2-Dichlorobenzene	U	333	ug/kg	66.7	333
108-60-1	bis(2-Chloroisopropyl)ether	U	333	ug/kg	66.7	333
95-48-7	o-Cresol	U	333	ug/kg	66.7	333
65794-96-9	m,p-Cresols	U	333	ug/kg	100	333
67-72-1	Hexachloroethane	U	333	ug/kg	66.7	333
98-95-3	Nitrobenzene	U	333	ug/kg	66.7	333
78-59-1	Isophorone	U	333	ug/kg	66.7	333
88-75-5	2-Nitrophenol	U	333	ug/kg	66.7	333
105-67-9	2,4-Dimethylphenol	U	333	ug/kg	117	333
111-91-1	bis(2-Chloroethoxy)methane	U	333	ug/kg	66.7	333
120-83-2	2,4-Dichlorophenol	U	333	ug/kg	66.7	333
65-85-0	Benzoic acid	U	667	ug/kg	167	667
91-20-3	Naphthalene	U	33.3	ug/kg	10.0	33.3
106-47-8	4-Chloroaniline	U	333	ug/kg	66.7	333
87-68-3	Hexachlorobutadiene	U	333	ug/kg	66.7	333
91-57-6	2-Methylnaphthalene	U	33.3	ug/kg	6.67	33.3
77-47-4	Hexachlorocyclopentadiene	U	333	ug/kg	66.7	333
88-06-2	2,4,6-Trichlorophenol	U	333	ug/kg	66.7	333
95-95-4	2,4,5-Trichlorophenol	U	333	ug/kg	66.7	333
91-58-7	2-Chloronaphthalene	U	33.3	ug/kg	11.0	33.3
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	333	ug/kg	66.7	333
99-09-2	3-Nitroaniline	U	333	ug/kg	66.7	333

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1086			Matrix:	SOIL
Lab Sample ID:	1202005808				
Client Sample:	QC for batch 937366	Client:	LANL010	Project:	QC
Client ID:	MB for batch 937366	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	937367	Inst:	MSD1.I	Dilution:	1
Run Date:	12/30/2009 16:34	Analyst:	AMY	Inj. Vol:	.5 uL
Prep Date:	12/29/2009 17:48	Aliquot:	30 g	Final Volume:	1 mL
Data File:	s1l3017.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	333	ug/kg	66.7	333
606-20-2	2,6-Dinitrotoluene	U	333	ug/kg	33.3	333
208-96-8	Acenaphthylene	U	33.3	ug/kg	10.0	33.3
51-28-5	2,4-Dinitrophenol	U	667	ug/kg	127	667
132-64-9	Dibenzofuran	U	333	ug/kg	66.7	333
84-66-2	Diethylphthalate	U	333	ug/kg	66.7	333
86-73-7	Fluorene	U	33.3	ug/kg	10.0	33.3
7005-72-3	4-Chlorophenylphenylether	U	333	ug/kg	66.7	333
534-52-1	2-Methyl-4,6-dinitrophenol	U	333	ug/kg	66.7	333
100-01-6	4-Nitroaniline	U	333	ug/kg	100	333
	p-Nitroaniline					
122-39-4	Diphenylamine	U	333	ug/kg	66.7	333
122-66-7	Azobenzene	U	333	ug/kg	66.7	333
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	333	ug/kg	66.7	333
118-74-1	Hexachlorobenzene	U	333	ug/kg	66.7	333
85-01-8	Phenanthrene	U	33.3	ug/kg	10.0	33.3
120-12-7	Anthracene	U	33.3	ug/kg	6.67	33.3
84-74-2	Di-n-butylphthalate	U	333	ug/kg	66.7	333
206-44-0	Fluoranthene	U	33.3	ug/kg	10.0	33.3
85-68-7	Butylbenzylphthalate	U	333	ug/kg	66.7	333
56-55-3	Benzo(a)anthracene	U	33.3	ug/kg	10.0	33.3
91-94-1	3,3'-Dichlorobenzidine	U	333	ug/kg	100	333
218-01-9	Chrysene	U	33.3	ug/kg	10.0	33.3
117-81-7	bis(2-Ethylhexyl)phthalate	U	333	ug/kg	66.7	333
117-84-0	Di-n-octylphthalate	U	333	ug/kg	66.7	333
205-99-2	Benzo(b)fluoranthene	U	33.3	ug/kg	10.0	33.3
207-08-9	Benzo(k)fluoranthene	U	33.3	ug/kg	10.0	33.3
50-32-8	Benzo(a)pyrene	U	33.3	ug/kg	10.0	33.3
193-39-5	Indeno(1,2,3-cd)pyrene	U	33.3	ug/kg	10.0	33.3
53-70-3	Dibenzo(a,h)anthracene	U	33.3	ug/kg	10.0	33.3
191-24-2	Benzo(ghi)perylene	U	33.3	ug/kg	10.0	33.3
120-82-1	1,2,4-Trichlorobenzene	U	333	ug/kg	66.7	333

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	1.7	180	ug/kg		J
	Unknown	1.93	765	ug/kg		J

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1086**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202005808**				
Client Sample:	**QC for batch 937366**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 937366**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**937367**	**Inst:**	**MSD1.I**	**Dilution:**	**1**
Run Date:	**12/30/2009 16:34**	**Analyst:**	**AMY**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/29/2009 17:48**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**s113017.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.81	552	ug/kg		JA
559-74-0	Friedelan-3-one	7.86	229	ug/kg	99	NJ
	Unknown	9.45	255	ug/kg		J
	Unknown	10.07	257	ug/kg		J

GEL Laboratories LLC

Data file : /chem/MSD1.i/s123009.b/s113017.d
Lab Smp Id: 1202005808 Client Smp ID: SBLK02
Inj Date : 30-DEC-2009 16:34
Operator : AMY Inst ID: MSD1.i
Smp Info : |1202005808|937367|1|SVM|1|SBLK02
Misc Info : |MSD8270_S|WBN091223-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD1.i/s123009.b/MSD1-M8270AQA-111409.m
Meth Date : 05-Jan-2010 10:56 amy01291 Quant Type: ISTD
Cal Date : 17-NOV-2009 17:42 Cal File: s1k1264.d
Als bottle: 16 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-1086.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	0.00000	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.763	3.763	(1.000)	759334	40.0000	
* 29 Naphthalene-d8	136	4.622	4.622	(1.000)	3049292	40.0000	
* 46 Acenaphthene-d10	164	5.869	5.869	(1.000)	1633968	40.0000	
* 67 Phenanthrene-d10	188	6.863	6.857	(1.000)	2813501	40.0000	
* 91 Chrysene-d12	240	8.481	8.486	(1.000)	2332616	40.0000	
* 98 Perylene-d12	264	9.834	9.828	(1.000)	1764543	40.0000	
$ 3 2-Fluorophenol	112	2.975	2.969	(0.791)	1487816	75.0153	2500
$ 5 Phenol-d5	99	3.499	3.499	(0.930)	1883897	78.1514	2600
$ 20 Nitrobenzene-d5	82	4.128	4.128	(0.893)	901562	44.8647	1500
$ 39 2-Fluorobiphenyl	172	5.363	5.363	(0.914)	1793175	45.8220	1530
$ 60 2,4,6-Tribromophenol	329	6.410	6.410	(1.092)	450331	98.7001	3290
$ 81 p-Terphenyl-d14	244	7.775	7.775	(0.917)	1783363	48.7062	1620

GEL Laboratories LLC

Data file : /chem/MSD1.i/s123009.b/s113017.d
Lab Smp Id: 1202005808 Client Smp ID: SBLK02
Inj Date : 30-DEC-2009 16:34
Operator : AMY Inst ID: MSD1.i
Smp Info : |1202005808|937367|1|SVM|1|SBLK02
Misc Info : |MSD8270_S|WBN091223-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD1.i/s123009.b/MSD1-M8270AQA-111409.m
Meth Date : 05-Jan-2010 10:56 amy01291 Quant Type: ISTD
Cal Date : 17-NOV-2009 17:42 Cal File: s1k1264.d
Als bottle: 16 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-1086.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	0.00000	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	3.763	4524241	40.000
* 91 Chrysene-d12	8.481	5990267	40.000
* 98 Perylene-d12	9.834	4673046	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown				CAS #:			
1.705	609555	5.38923154	180	0		0	10
Unknown				CAS #:			
1.928	2594697	22.9403940	765	0		0	10
Unknown Aldol Condensate				CAS #:			
2.810	1873540	16.5644569	552	0		0	10
Friedelan-3-one				CAS #: 559-74-0			
7.857	1027914	6.86389342	229	99	NIST05.L	176566	91
Unknown				CAS #:			
9.451	895450	7.66480845	255	0		0	98
Unknown				CAS #:			
10.069	902379	7.72412096	257	0		0	98

Data File: /chem/MSD1.i/s123009.b/s113017.d
Date : 30-DEC-2009 16:34
Client ID: SBLK02
Sample Info: 1120200580819373671 1SVMI1SBLK02
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Page 1

Instrument: MSD1.i

Operator: AMY
Column diameter: 0.20

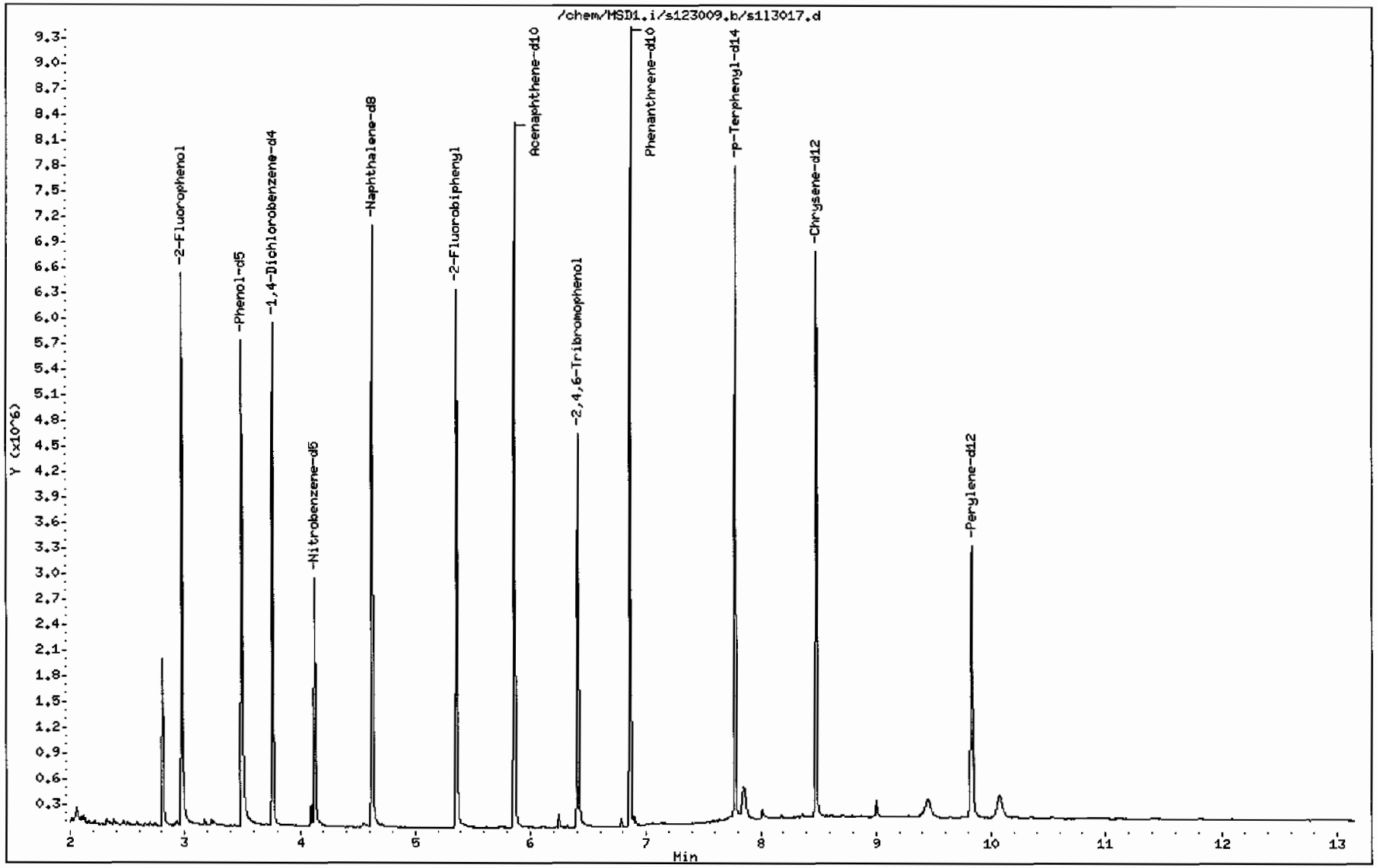

Data File: /chem/MSD1.i/s123009.b/s113017.d

Date : 30-DEC-2009 16:34

Client ID: SBLK02

Instrument: MSD1.i

Sample Info: 1120200580819373671|1|SVMI1|SBLK02

Volume Injected (uL): 0.5

Operator: AHY

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Butanal	123-72-8	NIST05.L	631	38	C4H8O	72
Propanal, 2-methyl-	78-84-2	NIST05.L	672	38	C4H8O	72
Propanal, 2-methyl-	78-84-2	NIST05.L	669	38	C4H8O	72

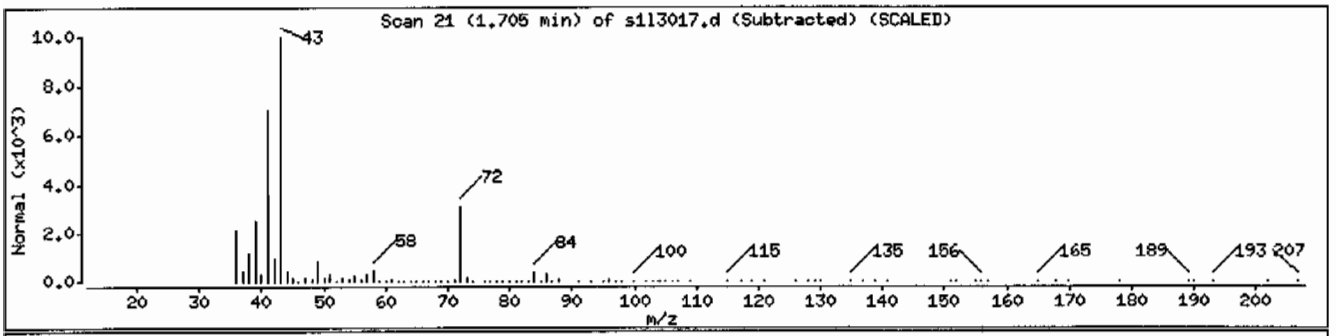

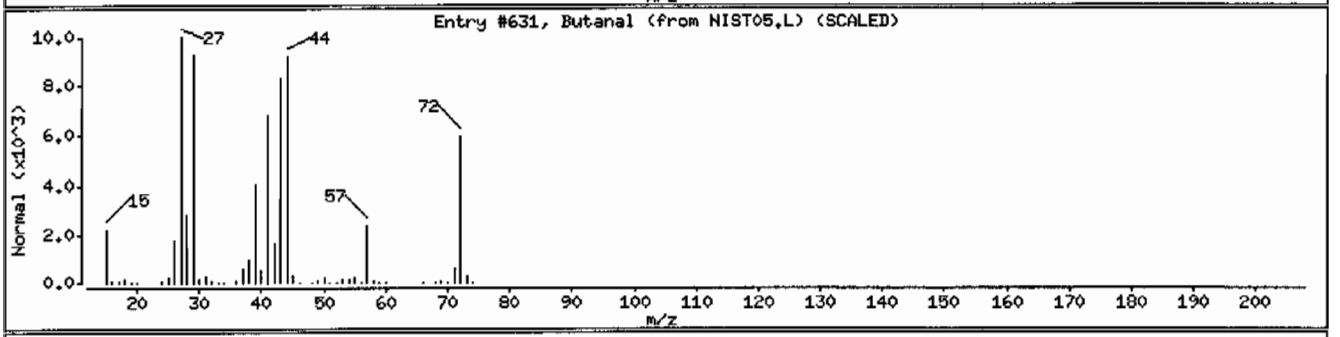

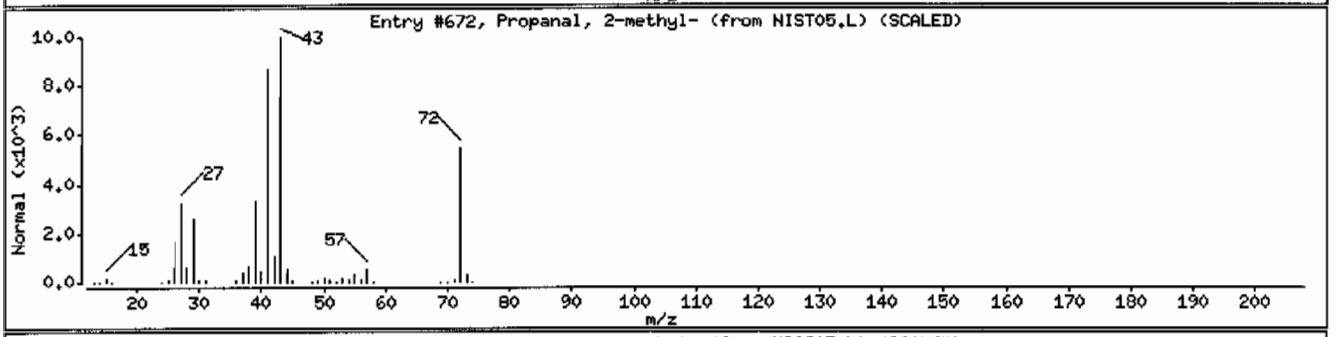

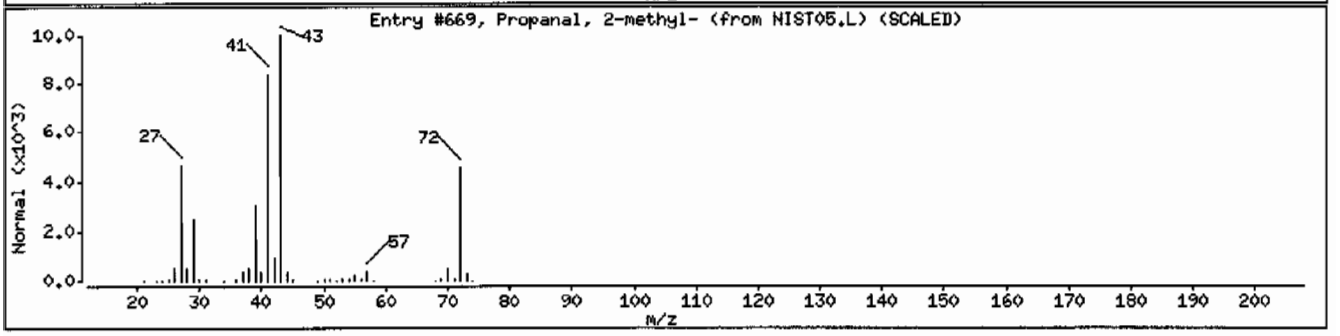

Data File: /chem/MSD1.i/s123009.b/s113017.d

Date : 30-DEC-2009 16:34

Client ID: SBLK02

Instrument: MSD1.i

Sample Info: 1120200580819373671|1|SVM|1|SBLK02

Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Propane, 2,2-dimethoxy-	77-76-9	NIST05.L	4663	59	C5H12O2	104
Propane, 2,2-dimethoxy-	77-76-9	NIST05.L	4658	38	C5H12O2	104
Propanoic acid, 2-methyl-, propyl ester	644-49-5	NIST05.L	13119	17	C7H14O2	130

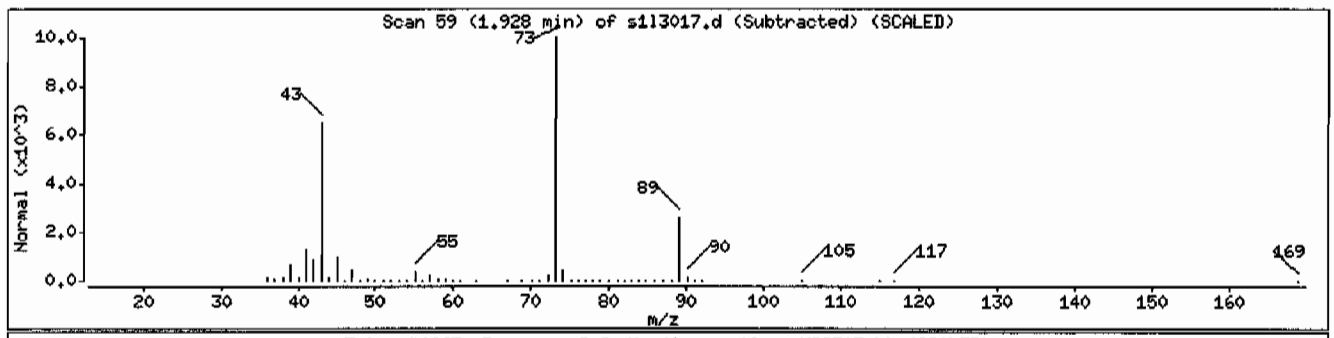

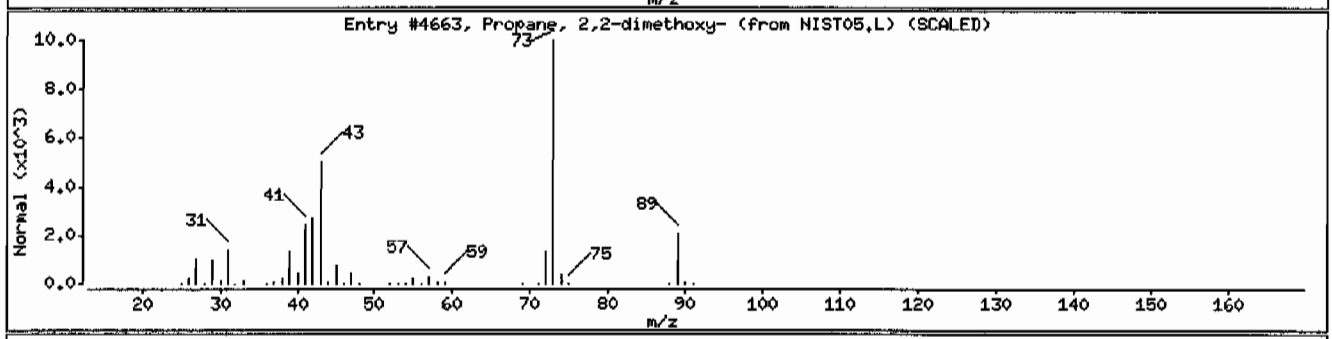

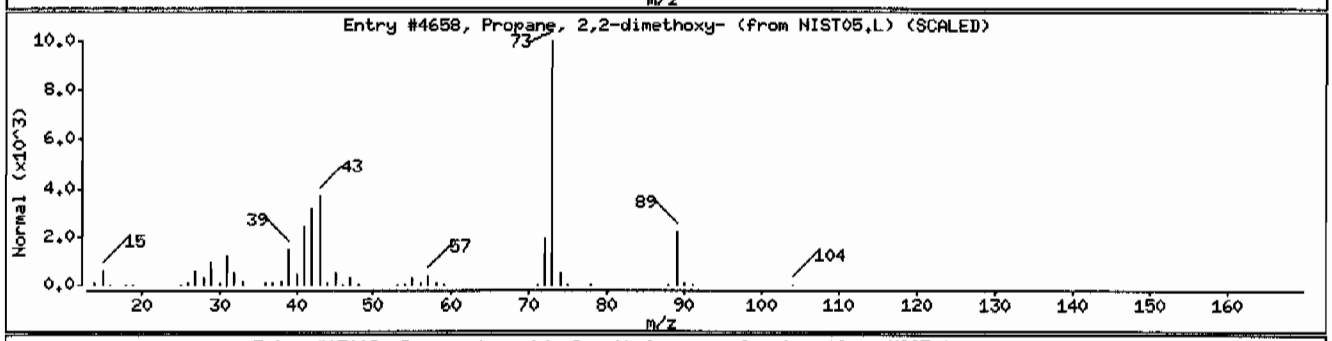

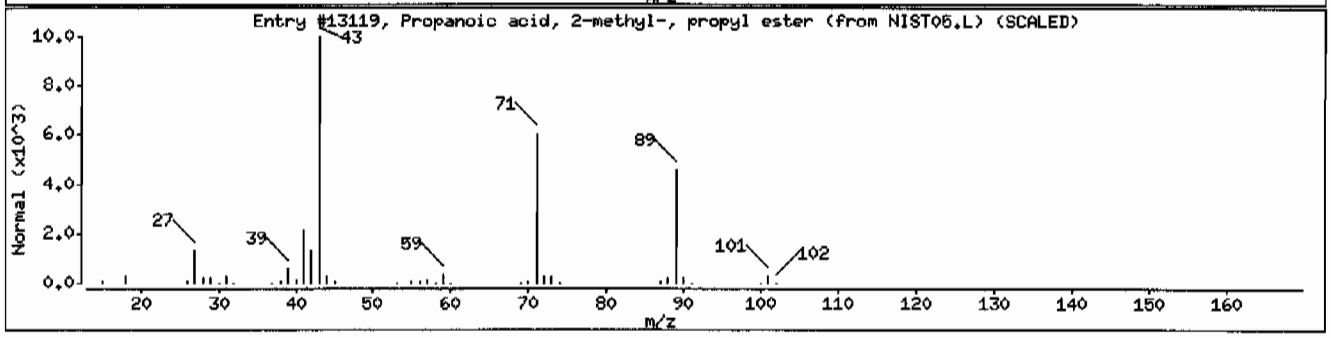

Data File: /chem/MSD1.i/s123009.b/s113017.d

Date : 30-DEC-2009 16:34

Client ID: SBLK02

Instrument: MSD1.i

Sample Info: |1202005808|937367|1|SVMI1|SBLK02

Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	53	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	45	C6H12O2	116
2,3-Butanedione, monooxime	57-71-6	NIST05.L	3949	27	C4H7NO2	101

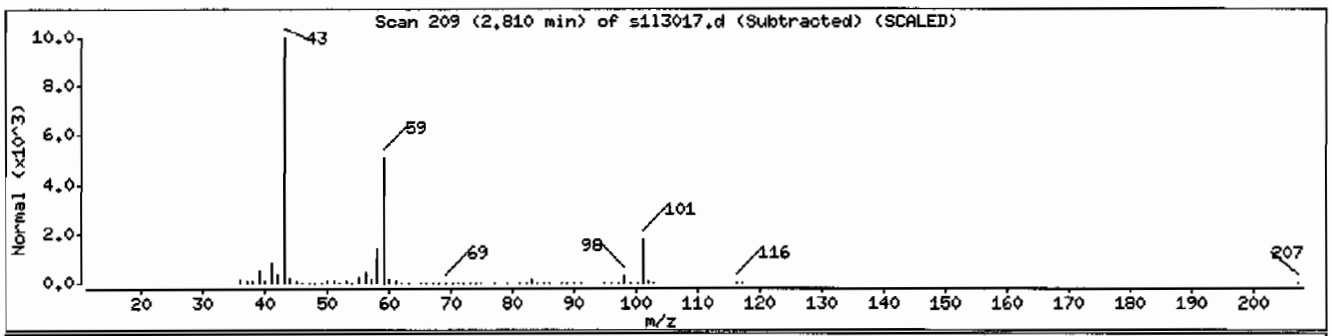

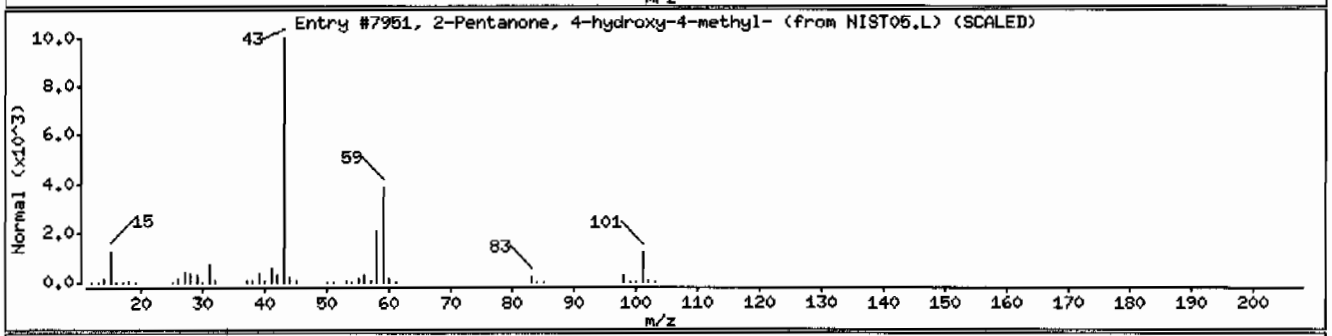

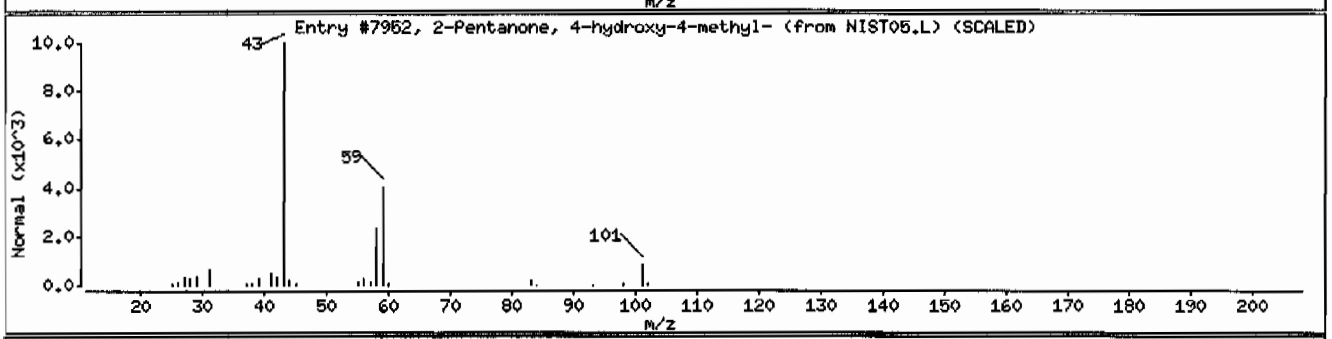

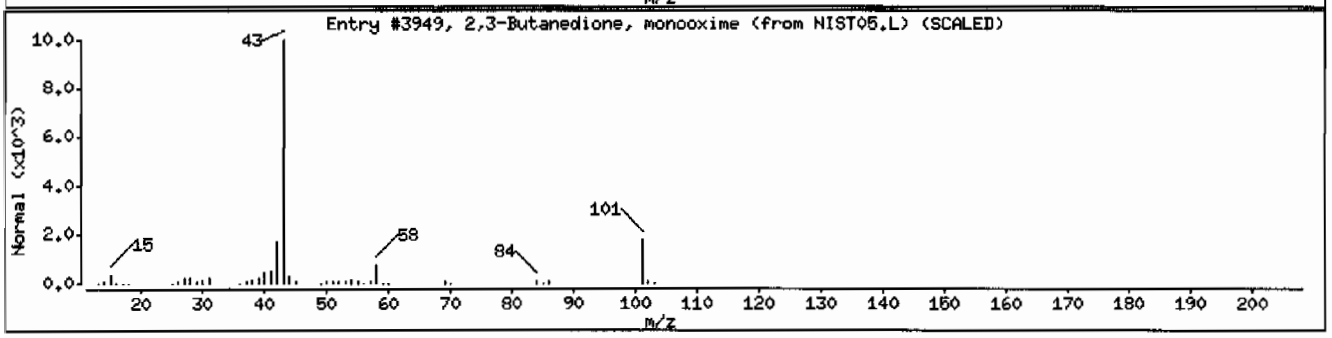

Data File: /chem/MSD1.i/s123009.b/s113017.d

Date : 30-DEC-2009 16:34

Client ID: SBLK02 Instrument: MSD1.i

Sample Info: |1202005808193736711|SVMI1|SBLK02

Volume Injected (uL): 0.5 Operator: AMY

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Friedelan-3-one	559-74-0	NIST05.L	176566	99	C30H500	426
3(4H)-Phenanthrenone, 4a,4b,5,6,7,8,8a,9	57684-12-5	NIST05.L	89397	50	C17H260	246
7-Tetradecyne	35216-11-6	NIST05.L	52910	49	C14H26	194

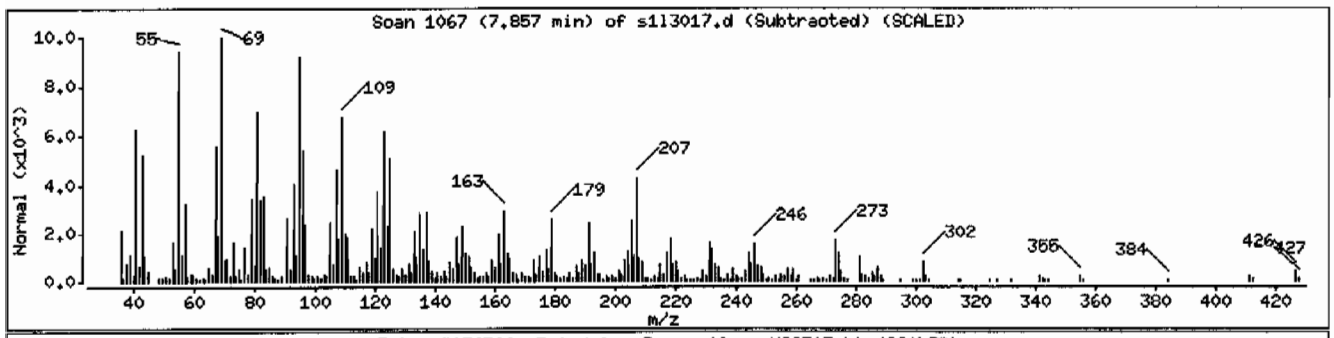

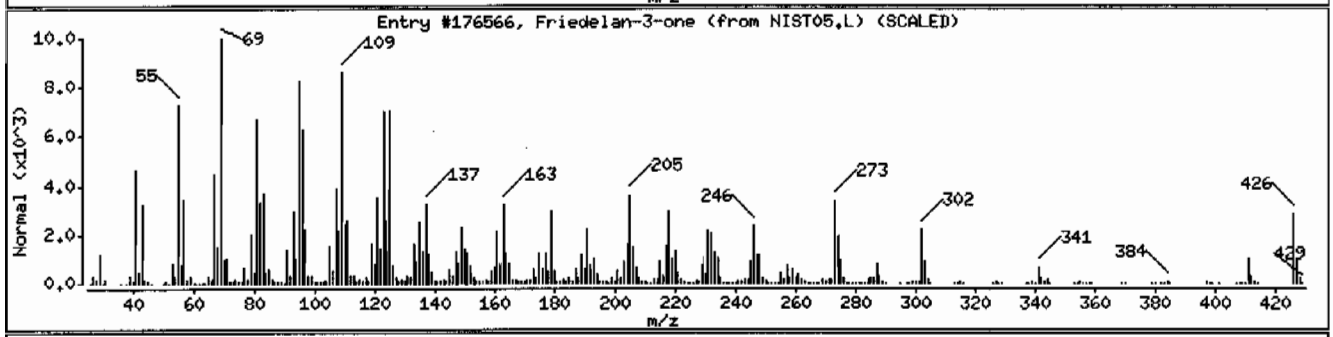

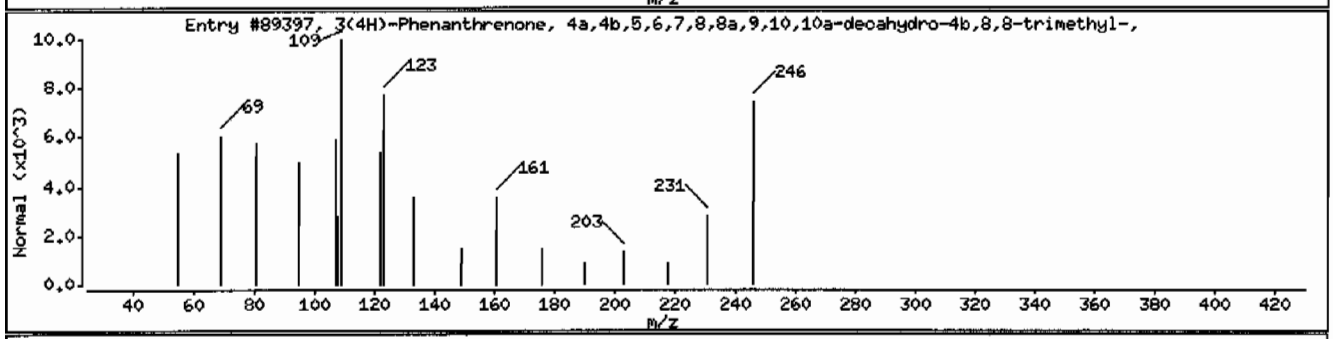

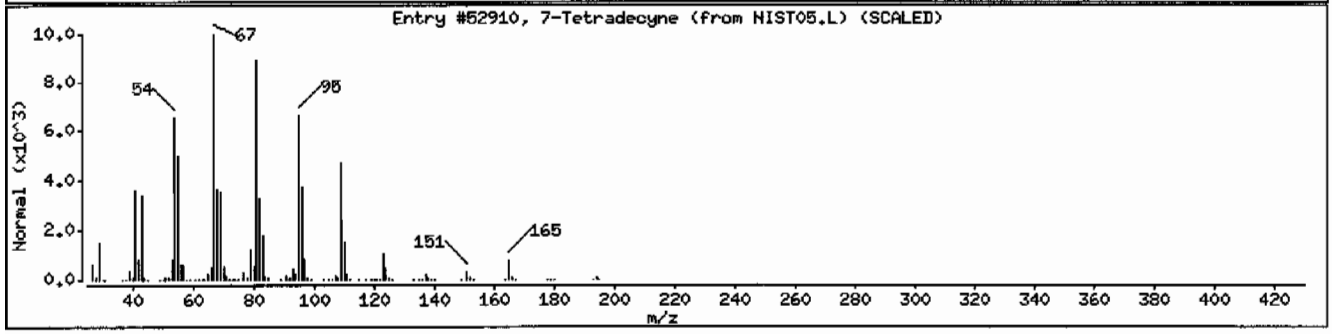

Data File: /chem/MSD1.i/s123009.b/s113017.d

Date : 30-DEC-2009 16:34

Client ID: SBLK02 Instrument: MSD1.i

Sample Info: |120200580819373671|SVMI1|SBLK02

Volume Injected (uL): 0.5 Operator: AMY

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
N,N-Dimethyl-4-nitroso-3-(trimethylsilyl	17993-84-9	NIST05.L	72386	35	C11H18N2OSi	222
Acetic acid, 2-(2-propyl-1-benzimidazoly	331736-92-6	NIST05.L	69668	25	C12H14N2O2	218
Silane, 1,4-phenylenebis[trimethyl-	13183-70-5	NIST05.L	72522	25	C12H22Si2	222

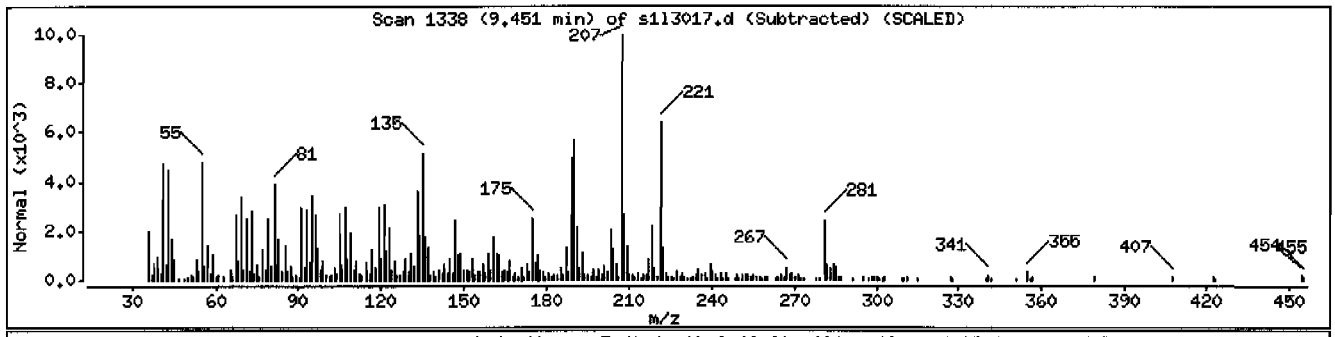

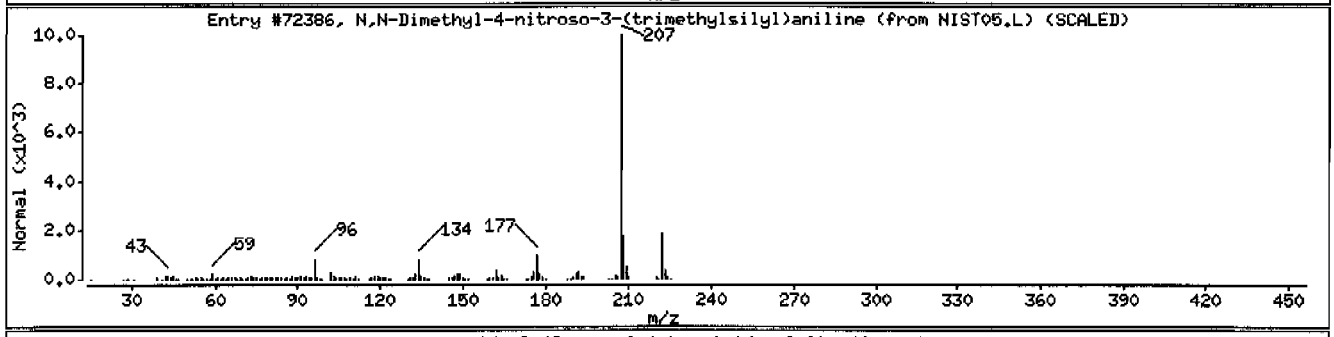

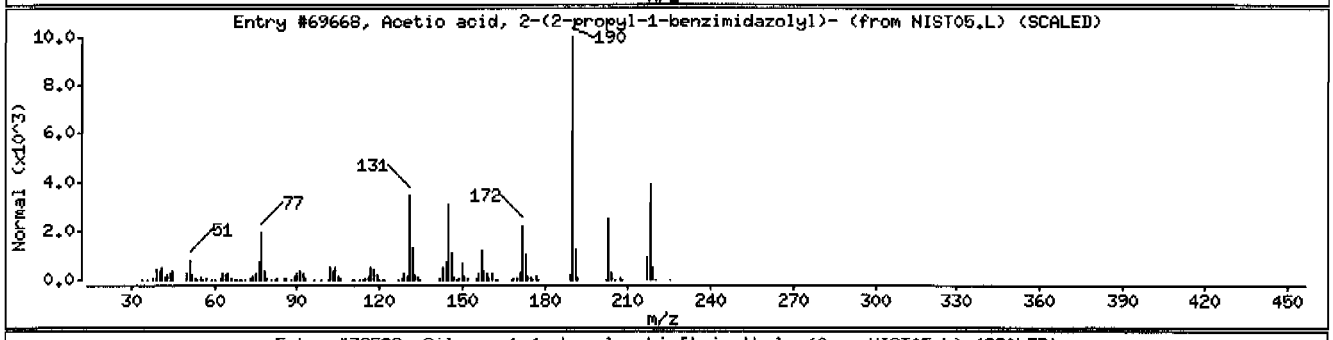

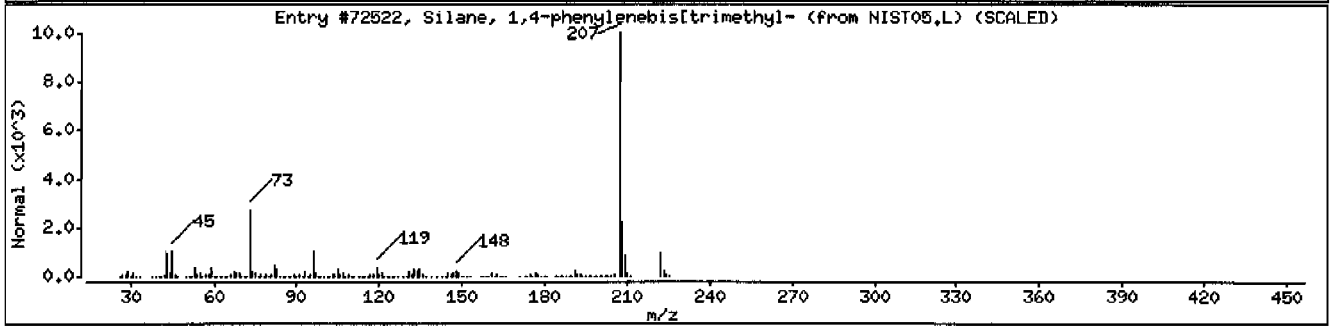

Data File: /chem/MSD1.i/s123009.b/s113017.d

Date : 30-DEC-2009 16:34

Client ID: SBLK02 Instrument: MSD1.i

Sample Info: |12020058081937367|1|SVM|1|SBLK02

Volume Injected (uL): 0.5 Operator: AMY

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
3-Methoxymethyl-2,5,5,8a-tetramethyl-6,7	64201-73-6	NIST05.L	82517	38	C15H24O2	236
N,N-Dimethyl-4-nitroso-3-(trimethylsilyl	17993-84-9	NIST05.L	72386	35	C11H18N2OSi	222
Phenylacetic acid, 2-(1-adamantyl)ethyl	1000282-91-2	NIST05.L	123764	22	C20H26O2	298

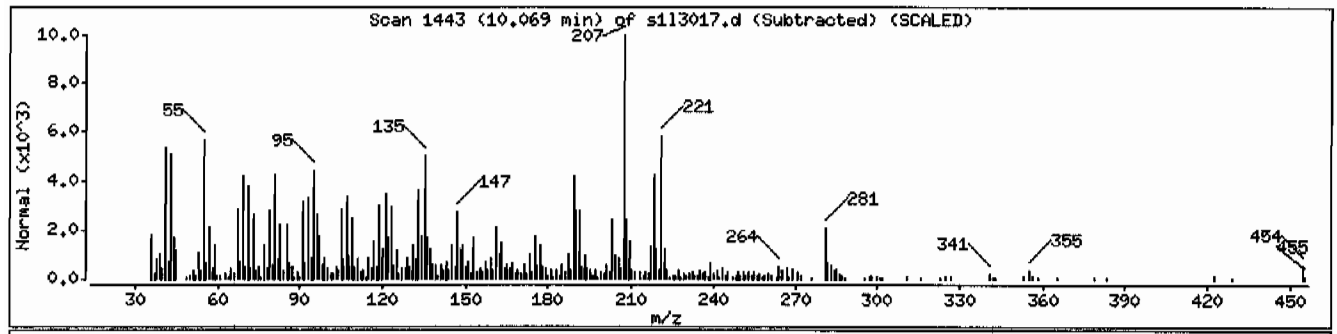

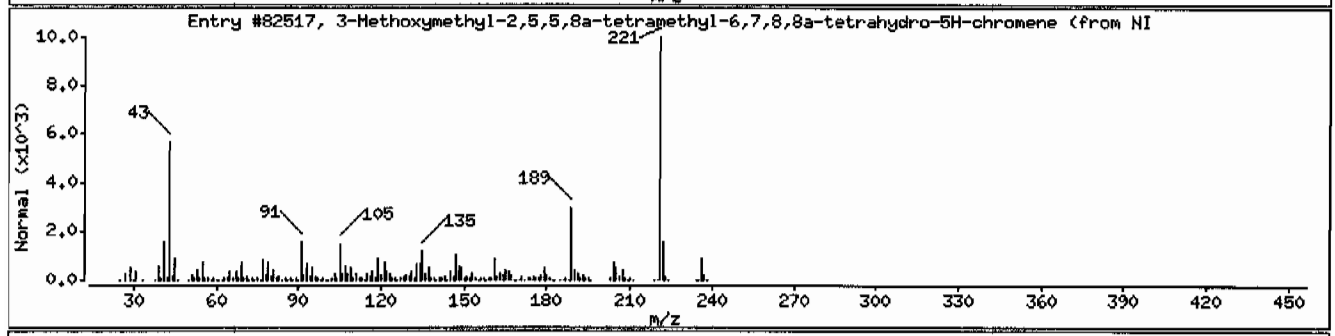

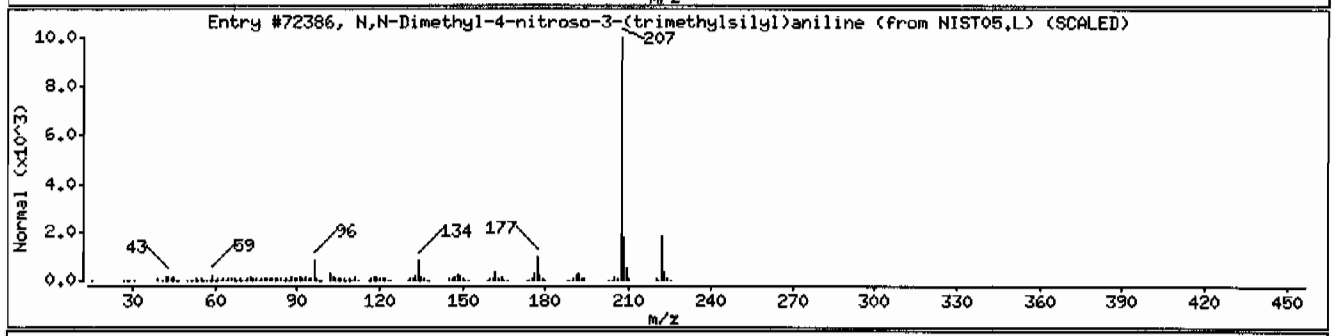

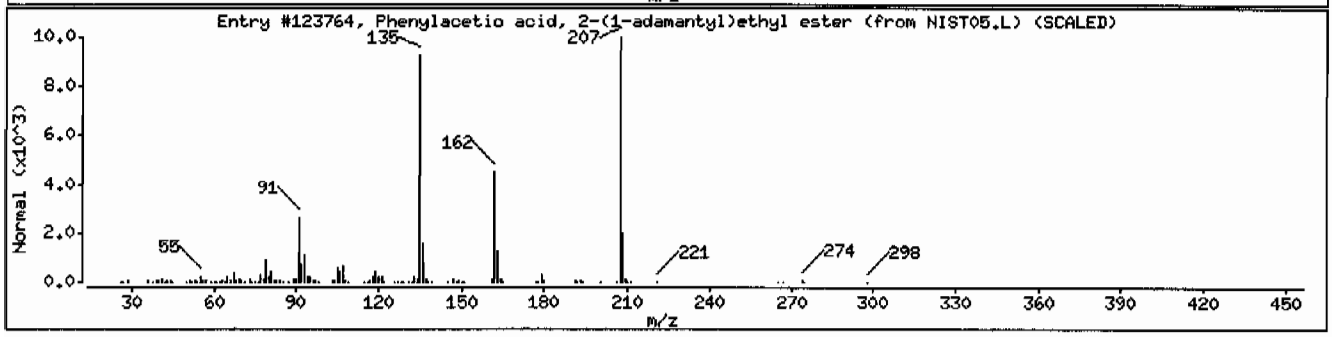

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1086			Matrix:	SOIL
Lab Sample ID:	1202005358				
Client Sample:	QC for batch 937150	Client:	LANL010	Project:	QC
Client ID:	LCS for batch 937150	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	937151	Inst:	MSD3.I	Dilution:	1
Run Date:	01/04/2010 17:08	Analyst:	JLD1	Inj. Vol:	.5 uL
Prep Date:	12/29/2009 10:16	Aliquot:	30 g	Final Volume:	1 mL
Data File:	s3a0414-1.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine		975	ug/kg	66.7	333
108-95-2	Phenol		1230	ug/kg	66.7	333
95-57-8	2-Chlorophenol		1280	ug/kg	66.7	333
106-46-7	1,4-Dichlorobenzene		912	ug/kg	66.7	333
621-64-7	N-Nitrosodipropylamine		1250	ug/kg	66.7	333
59-50-7	4-Chloro-3-methylphenol		1390	ug/kg	66.7	333
83-32-9	Acenaphthene		1170	ug/kg	11.0	33.3
121-14-2	2,4-Dinitrotoluene		1260	ug/kg	33.3	333
100-02-7	4-Nitrophenol		984	ug/kg	110	333
87-86-5	Pentachlorophenol		1270	ug/kg	83.3	333
129-00-0	Pyrene		1150	ug/kg	10.0	33.3
110-86-1	Pyridine		806	ug/kg	66.7	333
62-53-3	Aniline		1040	ug/kg	100	333
111-44-4	bis(2-Chloroethyl) ether		907	ug/kg	66.7	333
541-73-1	1,3-Dichlorobenzene		866	ug/kg	66.7	333
100-51-6	Benzyl alcohol		1510	ug/kg	100	333
95-50-1	1,2-Dichlorobenzene		938	ug/kg	66.7	333
108-60-1	bis(2-Chloroisopropyl)ether		943	ug/kg	66.7	333
95-48-7	o-Cresol		1210	ug/kg	66.7	333
65794-96-9	m,p-Cresols		1520	ug/kg	100	333
67-72-1	Hexachloroethane		994	ug/kg	66.7	333
98-95-3	Nitrobenzene		1120	ug/kg	66.7	333
78-59-1	Isophorone		1340	ug/kg	66.7	333
88-75-5	2-Nitrophenol		1200	ug/kg	66.7	333
105-67-9	2,4-Dimethylphenol		1260	ug/kg	117	333
111-91-1	bis(2-Chloroethoxy)methane		1010	ug/kg	66.7	333
120-83-2	2,4-Dichlorophenol		1230	ug/kg	66.7	333
65-85-0	Benzoic acid		2760	ug/kg	167	667
91-20-3	Naphthalene		1210	ug/kg	10.0	33.3
106-47-8	4-Chloroaniline		902	ug/kg	66.7	333
87-68-3	Hexachlorobutadiene		1030	ug/kg	66.7	333
91-57-6	2-Methylnaphthalene		1190	ug/kg	6.67	33.3
77-47-4	Hexachlorocyclopentadiene		1890	ug/kg	66.7	333
88-06-2	2,4,6-Trichlorophenol		1400	ug/kg	66.7	333
95-95-4	2,4,5-Trichlorophenol		1280	ug/kg	66.7	333
91-58-7	2-Chloronaphthalene		1110	ug/kg	11.0	33.3
88-74-4	2-Nitroaniline		1170	ug/kg	66.7	333
99-09-2	*o-Nitroaniline* 3-Nitroaniline		1190	ug/kg	66.7	333

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1086**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202005358**				
Client Sample:	**QC for batch 937150**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 937150**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**937151**	**Inst:**	**MSD3.I**	**Dilution:**	**1**
Run Date:	**01/04/2010 17:08**	**Analyst:**	**JLD1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/29/2009 10:16**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**s3a0414-1.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate		1300	ug/kg	66.7	333
606-20-2	2,6-Dinitrotoluene		1150	ug/kg	33.3	333
208-96-8	Acenaphthylene		1210	ug/kg	10.0	33.3
51-28-5	2,4-Dinitrophenol		1400	ug/kg	127	667
132-64-9	Dibenzofuran		1490	ug/kg	66.7	333
84-66-2	Diethylphthalate		1400	ug/kg	66.7	333
86-73-7	Fluorene		1250	ug/kg	10.0	33.3
7005-72-3	4-Chlorophenylphenylether		1360	ug/kg	66.7	333
534-52-1	2-Methyl-4,6-dinitrophenol		1250	ug/kg	66.7	333
100-01-6	4-Nitroaniline		1210	ug/kg	100	333
	p-Nitroaniline					
122-39-4	Diphenylamine		1280	ug/kg	66.7	333
122-66-7	Azobenzene		1200	ug/kg	66.7	333
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether		1340	ug/kg	66.7	333
118-74-1	Hexachlorobenzene		1240	ug/kg	66.7	333
85-01-8	Phenanthrene		1170	ug/kg	10.0	33.3
120-12-7	Anthracene		1150	ug/kg	6.67	33.3
84-74-2	Di-n-butylphthalate		1450	ug/kg	66.7	333
206-44-0	Fluoranthene		1200	ug/kg	10.0	33.3
85-68-7	Butylbenzylphthalate		1350	ug/kg	66.7	333
56-55-3	Benzo(a)anthracene		1210	ug/kg	10.0	33.3
91-94-1	3,3'-Dichlorobenzidine		1020	ug/kg	100	333
218-01-9	Chrysene		1150	ug/kg	10.0	33.3
117-81-7	bis(2-Ethylhexyl)phthalate		1590	ug/kg	66.7	333
117-84-0	Di-n-octylphthalate		1340	ug/kg	66.7	333
205-99-2	Benzo(b)fluoranthene		1170	ug/kg	10.0	33.3
207-08-9	Benzo(k)fluoranthene		1190	ug/kg	10.0	33.3
50-32-8	Benzo(a)pyrene		1280	ug/kg	10.0	33.3
193-39-5	Indeno(1,2,3-cd)pyrene		1590	ug/kg	10.0	33.3
53-70-3	Dibenzo(a,h)anthracene		1600	ug/kg	10.0	33.3
191-24-2	Benzo(ghi)perylene		1580	ug/kg	10.0	33.3
120-82-1	1,2,4-Trichlorobenzene		1100	ug/kg	66.7	333

GEL Laboratories LLC

Data file : /chem/MSD3.i/s010410a.b/s3a0414-3.d
Lab Smp Id: 1202005358 Client Smp ID: SBLK01LCS
Inj Date : 04-JAN-2010 17:08
Operator : JLD1 Inst ID: MSD3.i
Smp Info : |1202005358|937151|1|SVMF|1|SBLK01LCS
Misc Info : |MSD8270_S|WBN091223-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD3.i/s010410a.b/MSD3-8270R-AQA-120809.m
Meth Date : 04-Jan-2010 16:42 jen00986 Quant Type: ISTD
Cal Date : 07-DEC-2009 19:48 Cal File: s310717.d
Als bottle: 6 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-1086.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	0.00000	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	4.201	4.203	(1.000)	127521	40.0000	
* 29 Naphthalene-d8	136	5.454	5.453	(1.000)	484652	40.0000	
* 46 Acenaphthene-d10	164	7.296	7.298	(1.000)	267372	40.0000	
* 67 Phenanthrene-d10	188	8.890	8.888	(1.000)	454926	40.0000	
* 91 Chrysene-d12	240	11.745	11.745	(1.000)	420614	40.0000	
* 98 Perylene-d12	264	13.689	13.686	(1.000)	342432	40.0000	
$ 3 2-Fluorophenol	112	3.105	3.093	(0.739)	255096	76.4785	2550
$ 5 Phenol-d5	99	3.873	3.869	(0.922)	313438	73.7584	2460
$ 20 Nitrobenzene-d5	82	4.738	4.737	(0.869)	141295	39.8896	1330
$ 39 2-Fluorobiphenyl	172	6.577	6.576	(0.901)	246339	39.3066	1310
$ 60 2,4,6-Tribromophenol	329	8.144	8.143	(1.116)	68495	93.2888	3110
$ 81 p-Terphenyl-d14	244	10.593	10.595	(0.902)	262007	38.7845	1290

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
6 Phenol	94	3.884	3.881	(0.925)	162958	36.8118	1230
8 2-Chlorophenol	128	4.019	4.019	(0.957)	131366	38.4684	1280
11 1,4-Dichlorobenzene	146	4.216	4.218	(1.003)	109236	27.3531	912
17 N-Nitrosodipropylamine	70	4.579	4.579	(1.090)	103528	37.3955	1250(Q)
28 1,2,4-Trichlorobenzene	180	5.389	5.388	(0.988)	100663	32.9321	1100
33 4-Chloro-3-methylphenol	107	6.052	6.045	(1.110)	122888	41.8276	1390
47 Acenaphthene	154	7.331	7.333	(1.005)	223383	35.1525	1170
50 2,4-Dinitrotoluene	165	7.513	7.515	(1.030)	84770	37.9072	1260
52 4-Nitrophenol	139	7.478	7.474	(1.025)	28143	29.5260	984
65 Pentachlorophenol	266	8.693	8.689	(0.978)	39141	38.1588	1270
79 Pyrene	202	10.432	10.433	(0.888)	404481	34.3898	1150
2 Pyridine	79	2.187	2.173	(0.521)	84160	24.1860	806
4 Aniline	66	3.911	3.913	(0.931)	55527	31.2178	1040
7 bis(2-Chloroethyl) ether	63	3.952	3.954	(0.941)	77185	27.2009	907
9 1,3-Dichlorobenzene	146	4.148	4.150	(0.987)	102456	25.9748	866
12 Benzyl alcohol	108	4.336	4.332	(1.032)	98897	45.4270	1510
13 1,2-Dichlorobenzene	146	4.359	4.362	(1.038)	106575	28.1293	938
14 bis(2-Chloroisopropyl)ether	45	4.445	4.447	(1.058)	151316	28.2784	943
15 o-Cresol	107	4.442	4.435	(1.057)	102950	36.2388	1210
18 m,p-Cresols	107	4.585	4.588	(1.091)	157568	45.6590	1520(Q)
19 Hexachloroethane	117	4.682	4.681	(1.115)	44842	29.8115	994
21 Nitrobenzene	77	4.755	4.758	(0.872)	138293	33.6007	1120
22 Isophorone	82	4.981	4.983	(0.913)	265755	40.1269	1340
23 2-Nitrophenol	139	5.066	5.068	(0.929)	62122	35.8760	1200
24 2,4-Dimethylphenol	122	5.107	5.110	(0.936)	116649	37.6950	1260
25 bis(2-Chloroethoxy)methane	93	5.195	5.198	(0.953)	139286	30.3455	1010
26 2,4-Dichlorophenol	162	5.313	5.312	(0.974)	98989	37.0332	1230
27 Benzoic acid	105	5.266	5.236	(0.966)	143297	82.8211	2760
30 Naphthalene	128	5.474	5.476	(1.004)	358977	36.2720	1210
31 4-Chloroaniline	127	5.539	5.538	(1.016)	87716	27.0728	902
32 Hexachlorobutadiene	225	5.589	5.591	(1.025)	57959	30.9144	1030
34 2-Methylnaphthalene	142	6.190	6.192	(1.135)	248798	35.7741	1190
36 Hexachlorocyclopentadiene	237	6.348	6.348	(0.870)	43349	56.5690	1880
37 2,4,6-Trichlorophenol	196	6.495	6.494	(0.890)	75416	41.8616	1400
38 2,4,5-Trichlorophenol	196	6.542	6.535	(0.897)	76115	38.3419	1280
40 2-Chloronaphthalene	162	6.707	6.706	(0.919)	221076	33.3630	1110
42 o-Nitroaniline	65	6.833	6.832	(0.936)	78322	35.2442	1170
41 m-Nitroaniline	138	7.273	7.278	(0.997)	48108	35.7021	1190(Q)
43 Dimethylphthalate	163	7.017	7.022	(0.962)	269726	38.8550	1300
44 2,6-Dinitrotoluene	165	7.088	7.090	(0.971)	60074	34.4360	1150
45 Acenaphthylene	152	7.147	7.149	(0.979)	373090	36.4316	1210
48 2,4-Dinitrophenol	184	7.378	7.380	(1.011)	23452	42.0289	1400
49 Dibenzofuran	168	7.516	7.518	(1.030)	391168	44.8047	1490
51 Diethylphthalate	149	7.766	7.765	(1.064)	289448	41.9713	1400
53 Fluorene	166	7.883	7.882	(1.080)	283962	37.3888	1250
54 4-Chlorophenylphenylether	204	7.880	7.882	(1.080)	134273	40.8863	1360
55 2-Methyl-4,6-dinitrophenol	198	7.951	7.950	(0.894)	38992	37.6345	1250

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
56 p-Nitroaniline	138	7.933	7.941	(1.087)	42281	36.3083	1210
133 Diphenylamine	169	8.015	8.014	(0.902)	226734	38.5398	1280
58 1,2-Diphenylhydrazine	77	8.053	8.052	(0.906)	314445	35.8602	1200
61 4-Bromophenylphenylether	248	8.402	8.404	(0.945)	68110	40.0633	1340
63 Hexachlorobenzene	284	8.467	8.466	(0.952)	75605	37.1395	1240
68 Phenanthrene	178	8.916	8.915	(1.003)	381484	35.1357	1170
69 Anthracene	178	8.969	8.971	(1.009)	380883	34.4817	1150
72 Di-n-butylphthalate	149	9.508	9.510	(1.070)	507714	43.5123	1450
76 Fluoranthene	202	10.188	10.190	(1.146)	386811	35.9902	1200
85 Butylbenzylphthalate	149	11.117	11.120	(0.947)	223368	40.4631	1350
89 Benzo(a)anthracene	228	11.727	11.730	(0.998)	368249	36.3635	1210
90 3,3'-Dichlorobenzidine	252	11.704	11.703	(0.996)	88221	30.5206	1020
92 Chrysene	228	11.774	11.774	(1.002)	323704	34.4215	1150
93 bis(2-Ethylhexyl)phthalate	149	11.733	11.733	(0.999)	350209	47.6118	1590
94 Di-n-octylphthalate	149	12.540	12.539	(0.916)	507025	40.0965	1340
95 Benzo(b)fluoranthene	252	13.114	13.114	(0.958)	318688	35.2322	1170
96 Benzo(k)fluoranthene	252	13.156	13.155	(0.961)	304227	35.5712	1180
97 Benzo(a)pyrene	252	13.598	13.598	(0.993)	286200	38.4630	1280
99 Indeno(1,2,3-cd)pyrene	276	15.407	15.404	(1.125)	312795	47.7797	1590
100 Dibenzo(a,h)anthracene	278	15.439	15.436	(1.128)	265641	48.0047	1600
101 Benzo(ghi)perylene	276	15.862	15.859	(1.159)	261314	47.4367	1580
1 N-Methyl-N-nitrosomethylamine	74	2.161	2.152	(0.514)	62719	29.2561	975

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: /chem/MSD3.i/s010410a.b/s3a0414-3.d

Date : 04-JAN-2010 17:08

Client ID: SBLK01LCS

Sample Info: !1202005358!937151!1!SVMF!1!SBLK01LCS

Volume Injected (uL): 0.5

Column phase: J&W DB-5MS

Instrument: MSD3.i

Operator: JLD1

Column diameter: 0.20

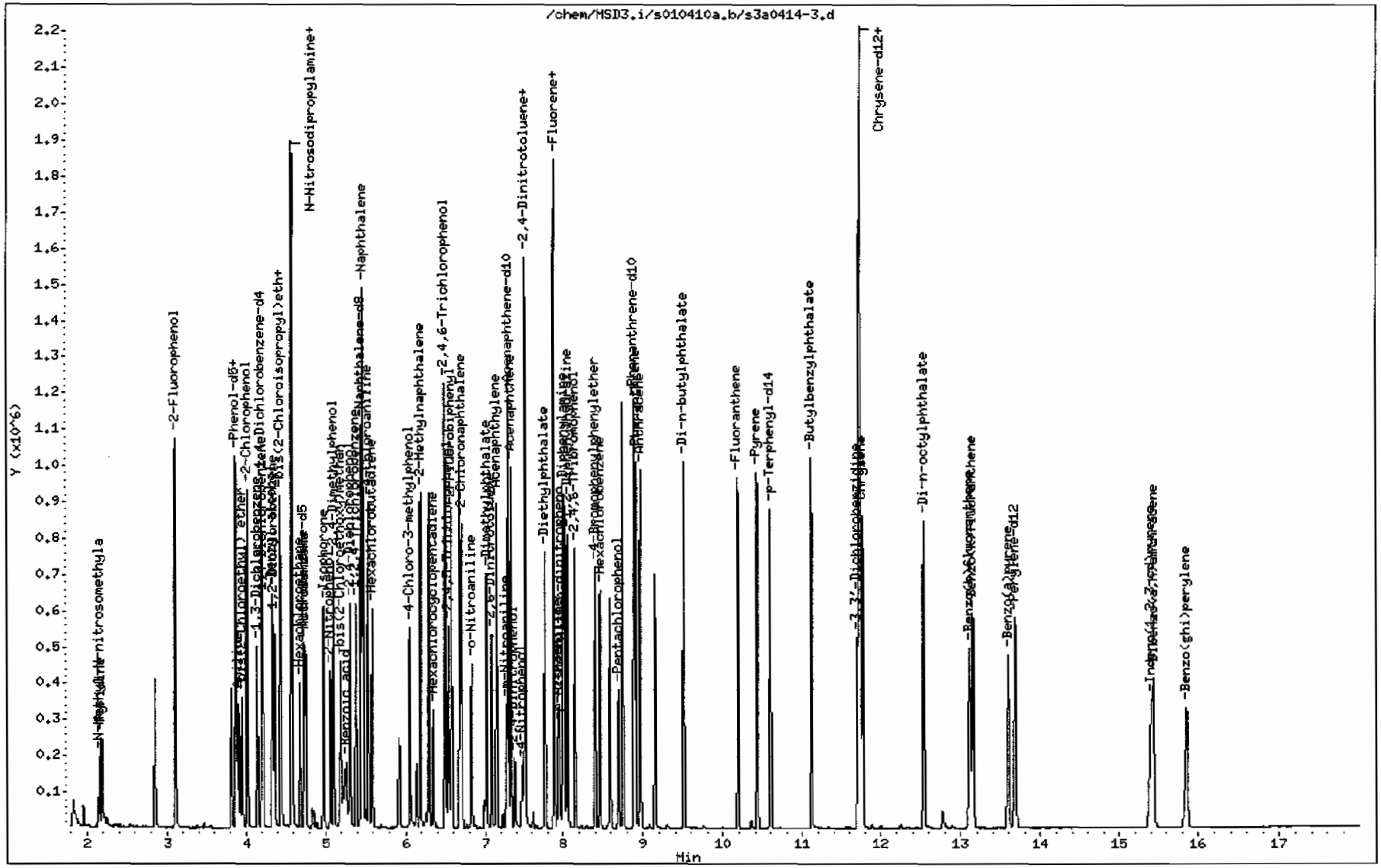

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1086**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202005809**				
Client Sample:	**QC for batch 937366**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 937366**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**937367**	**Inst:**	**MSD1.I**	**Dilution:**	**1**
Run Date:	**12/30/2009 16:59**	**Analyst:**	**AMY**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/29/2009 17:48**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**s113018.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine		1290	ug/kg	66.7	333
108-95-2	Phenol		1310	ug/kg	66.7	333
95-57-8	2-Chlorophenol		1370	ug/kg	66.7	333
106-46-7	1,4-Dichlorobenzene		1240	ug/kg	66.7	333
621-64-7	N-Nitrosodipropylamine		1290	ug/kg	66.7	333
59-50-7	4-Chloro-3-methylphenol		1520	ug/kg	66.7	333
83-32-9	Acenaphthene		1350	ug/kg	11.0	33.3
121-14-2	2,4-Dinitrotoluene		1240	ug/kg	33.3	333
100-02-7	4-Nitrophenol		546	ug/kg	110	333
87-86-5	Pentachlorophenol		1490	ug/kg	83.3	333
129-00-0	Pyrene		1650	ug/kg	10.0	33.3
110-86-1	Pyridine		1050	ug/kg	66.7	333
62-53-3	Aniline		1280	ug/kg	100	333
111-44-4	bis(2-Chloroethyl) ether		1300	ug/kg	66.7	333
541-73-1	1,3-Dichlorobenzene		1230	ug/kg	66.7	333
100-51-6	Benzyl alcohol		1390	ug/kg	100	333
95-50-1	1,2-Dichlorobenzene		1300	ug/kg	66.7	333
108-60-1	bis(2-Chloroisopropyl)ether		1220	ug/kg	66.7	333
95-48-7	o-Cresol		1450	ug/kg	66.7	333
65794-96-9	m,p-Cresols		1460	ug/kg	100	333
67-72-1	Hexachloroethane		1240	ug/kg	66.7	333
98-95-3	Nitrobenzene		1470	ug/kg	66.7	333
78-59-1	Isophorone		1560	ug/kg	66.7	333
88-75-5	2-Nitrophenol		1380	ug/kg	66.7	333
105-67-9	2,4-Dimethylphenol		1450	ug/kg	117	333
111-91-1	bis(2-Chloroethoxy)methane		1360	ug/kg	66.7	333
120-83-2	2,4-Dichlorophenol		1430	ug/kg	66.7	333
65-85-0	Benzoic acid		2650	ug/kg	167	667
91-20-3	Naphthalene		1300	ug/kg	10.0	33.3
106-47-8	4-Chloroaniline		1250	ug/kg	66.7	333
87-68-3	Hexachlorobutadiene		1580	ug/kg	66.7	333
91-57-6	2-Methylnaphthalene		1400	ug/kg	6.67	33.3
77-47-4	Hexachlorocyclopentadiene		1310	ug/kg	66.7	333
88-06-2	2,4,6-Trichlorophenol		1490	ug/kg	66.7	333
95-95-4	2,4,5-Trichlorophenol		1670	ug/kg	66.7	333
91-58-7	2-Chloronaphthalene		1340	ug/kg	11.0	33.3
88-74-4	2-Nitroaniline		1340	ug/kg	66.7	333
99-09-2	*o-Nitroaniline* 3-Nitroaniline		1230	ug/kg	66.7	333

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1086**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202005809**				
Client Sample:	**QC for batch 937366**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 937366**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**937367**	**Inst:**	**MSD1.I**	**Dilution:**	**1**
Run Date:	**12/30/2009 16:59**	**Analyst:**	**AMY**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/29/2009 17:48**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**s113018.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate		1380	ug/kg	66.7	333
606-20-2	2,6-Dinitrotoluene		1280	ug/kg	33.3	333
208-96-8	Acenaphthylene		1380	ug/kg	10.0	33.3
51-28-5	2,4-Dinitrophenol		932	ug/kg	127	667
132-64-9	Dibenzofuran		1610	ug/kg	66.7	333
84-66-2	Diethylphthalate		1510	ug/kg	66.7	333
86-73-7	Fluorene		1370	ug/kg	10.0	33.3
7005-72-3	4-Chlorophenylphenylether		1540	ug/kg	66.7	333
534-52-1	2-Methyl-4,6-dinitrophenol		967	ug/kg	66.7	333
100-01-6	4-Nitroaniline		1220	ug/kg	100	333
	p-Nitroaniline					
122-39-4	Diphenylamine		1440	ug/kg	66.7	333
122-66-7	Azobenzene		1400	ug/kg	66.7	333
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether		1760	ug/kg	66.7	333
118-74-1	Hexachlorobenzene		1580	ug/kg	66.7	333
85-01-8	Phenanthrene		1390	ug/kg	10.0	33.3
120-12-7	Anthracene		1360	ug/kg	6.67	33.3
84-74-2	Di-n-butylphthalate		1600	ug/kg	66.7	333
206-44-0	Fluoranthene		1480	ug/kg	10.0	33.3
85-68-7	Butylbenzylphthalate		1800	ug/kg	66.7	333
56-55-3	Benzo(a)anthracene		1430	ug/kg	10.0	33.3
91-94-1	3,3'-Dichlorobenzidine		1560	ug/kg	100	333
218-01-9	Chrysene		1430	ug/kg	10.0	33.3
117-81-7	bis(2-Ethylhexyl)phthalate		1700	ug/kg	66.7	333
117-84-0	Di-n-octylphthalate		2280	ug/kg	66.7	333
205-99-2	Benzo(b)fluoranthene		1610	ug/kg	10.0	33.3
207-08-9	Benzo(k)fluoranthene		1670	ug/kg	10.0	33.3
50-32-8	Benzo(a)pyrene		1540	ug/kg	10.0	33.3
193-39-5	Indeno(1,2,3-cd)pyrene		1060	ug/kg	10.0	33.3
53-70-3	Dibenzo(a,h)anthracene		1100	ug/kg	10.0	33.3
191-24-2	Benzo(ghi)perylene		963	ug/kg	10.0	33.3
120-82-1	1,2,4-Trichlorobenzene		1470	ug/kg	66.7	333

GEL Laboratories LLC

Data file : /chem/MSD1.i/s123009.b/s113018.d
Lab Smp Id: 1202005809 Client Smp ID: SBLK02LCS
Inj Date : 30-DEC-2009 16:59
Operator : AMY Inst ID: MSD1.i
Smp Info : |1202005809|937367|1|SVM|1|SBLK02LCS
Misc Info : |MSD8270_S|WBN091223-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD1.i/s123009.b/MSD1-M8270AQA-111409.m
Meth Date : 05-Jan-2010 10:56 amy01291 Quant Type: ISTD
Cal Date : 17-NOV-2009 17:42 Cal File: s1k1264.d
Als bottle: 17 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-1086.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	0.00000	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.763	3.763	(1.000)	784093	40.0000	
* 29 Naphthalene-d8	136	4.628	4.622	(1.000)	3060077	40.0000	
* 46 Acenaphthene-d10	164	5.869	5.869	(1.000)	1682739	40.0000	
* 67 Phenanthrene-d10	188	6.863	6.857	(1.000)	2792477	40.0000	
* 91 Chrysene-d12	240	8.492	8.486	(1.000)	2115950	40.0000	
* 98 Perylene-d12	264	9.833	9.828	(1.000)	1383179	40.0000	
$ 3 2-Fluorophenol	112	2.981	2.969	(0.792)	1582343	77.2621	2580
$ 5 Phenol-d5	99	3.504	3.499	(0.931)	1891740	75.9987	2530
$ 20 Nitrobenzene-d5	82	4.128	4.128	(0.892)	870939	43.1881	1440
$ 39 2-Fluorobiphenyl	172	5.369	5.363	(0.915)	1771944	43.9672	1460
$ 60 2,4,6-Tribromophenol	329	6.416	6.410	(1.093)	465014	98.9643	3300
$ 81 p-Terphenyl-d14	244	7.780	7.775	(0.916)	1820022	54.7973	1830

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
6 Phenol	94	3.516	3.504	(0.934)	1030756	39.3000	1310
8 2-Chlorophenol	128	3.634	3.634	(0.966)	913484	40.9797	1360
11 1,4-Dichlorobenzene	146	3.775	3.775	(1.003)	952492	37.1492	1240
17 N-Nitrosodipropylamine	70	4.004	4.010	(1.064)	579763	38.7948	1290(Q)
28 1,2,4-Trichlorobenzene	180	4.575	4.575	(0.989)	816250	44.0705	1470
33 4-Chloro-3-methylphenol	107	4.998	4.981	(1.080)	744942	45.4907	1520
47 Acenaphthene	154	5.892	5.893	(1.004)	1566584	40.3635	1340
50 2,4-Dinitrotoluene	165	5.992	5.987	(1.021)	563978	37.2466	1240
52 4-Nitrophenol	139	5.957	5.934	(1.015)	130017	16.3771	546(R)
65 Pentachlorophenol	266	6.745	6.734	(0.983)	315528	44.6758	1490
79 Pyrene	202	7.728	7.728	(0.910)	2775774	49.3667	1640
2 Pyridine	79	2.357	2.316	(0.626)	589340	31.5539	1050
4 Aniline	66	3.551	3.557	(0.944)	420519	38.4363	1280(Q)
7 bis(2-Chloroethyl) ether	63	3.569	3.569	(0.948)	710088	38.9173	1300(Q)
9 1,3-Dichlorobenzene	146	3.728	3.728	(0.991)	967843	37.0033	1230
12 Benzyl alcohol	108	3.845	3.840	(1.022)	567035	41.8376	1390
13 1,2-Dichlorobenzene	146	3.875	3.881	(1.030)	924614	39.0474	1300
14 bis(2-Chloroisopropyl)ether	45	3.910	3.910	(1.039)	1589529	36.5745	1220
15 o-Cresol	107	3.904	3.893	(1.038)	723713	43.6148	1450
18 m,p-Cresols	107	3.998	3.999	(1.063)	986743	43.7044	1460
19 Hexachloroethane	117	4.098	4.104	(1.089)	342008	37.0630	1240
21 Nitrobenzene	77	4.145	4.140	(0.896)	926344	44.0872	1470
22 Isophorone	82	4.293	4.293	(0.928)	1717736	46.7306	1560
23 2-Nitrophenol	139	4.357	4.351	(0.942)	460505	41.2867	1380
24 2,4-Dimethylphenol	122	4.357	4.351	(0.942)	778215	43.5724	1450
25 bis(2-Chloroethoxy)methane	93	4.416	4.416	(0.954)	967958	40.9038	1360
26 2,4-Dichlorophenol	162	4.522	4.516	(0.977)	717186	42.7896	1430
27 Benzoic acid	105	4.457	4.428	(0.963)	979236	79.5687	2650
30 Naphthalene	128	4.640	4.640	(1.003)	2496859	39.0959	1300(Q)
31 4-Chloroaniline	127	4.669	4.663	(1.009)	1095110	37.5490	1250
32 Hexachlorobutadiene	225	4.704	4.704	(1.017)	451550	47.4787	1580
34 2-Methylnaphthalene	142	5.122	5.116	(1.107)	1765643	42.0550	1400
36 Hexachlorocyclopentadiene	237	5.222	5.222	(0.890)	201849	39.2872	1310
37 2,4,6-Trichlorophenol	196	5.316	5.310	(0.906)	499453	44.6236	1490
38 2,4,5-Trichlorophenol	196	5.357	5.340	(0.913)	594975	49.9930	1670
40 2-Chloronaphthalene	162	5.475	5.469	(0.933)	1667103	40.1306	1340
42 o-Nitroaniline	65	5.539	5.534	(0.944)	518661	40.2663	1340
41 m-Nitroaniline	138	5.834	5.834	(0.994)	418282	36.7505	1220
43 Dimethylphthalate	163	5.639	5.646	(0.961)	1895127	41.3310	1380
44 2,6-Dinitrotoluene	165	5.704	5.698	(0.972)	438673	38.3989	1280
45 Acenaphthylene	152	5.775	5.769	(0.984)	2683795	41.4011	1380
48 2,4-Dinitrophenol	184	5.910	5.898	(1.007)	126114	27.9688	932(Q)
49 Dibenzofuran	168	6.016	6.010	(1.025)	2711038	48.3006	1610
51 Diethylphthalate	149	6.128	6.128	(1.044)	1933086	45.2203	1510
53 Fluorene	166	6.251	6.245	(1.065)	1860603	41.1123	1370
54 4-Chlorophenylphenylether	204	6.228	6.228	(1.061)	882880	46.2055	1540
55 2-Methyl-4,6-dinitrophenol	198	6.275	6.269	(0.914)	204880	29.0004	967

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
56 p-Nitroaniline	138	6.269	6.257	(1.068)	408425	36.6948	1220
133 Diphenylamine	169	6.310	6.304	(0.919)	1613458	43.3173	1440
58 1,2-Diphenylhydrazine	77	6.339	6.334	(0.924)	1907891	41.9811	1400
61 4-Bromophenylphenylether	248	6.557	6.551	(0.955)	506349	52.7764	1760
63 Hexachlorobenzene	284	6.616	6.610	(0.964)	558681	47.4404	1580
68 Phenanthrene	178	6.881	6.875	(1.003)	2647054	41.7112	1390
69 Anthracene	178	6.910	6.904	(1.007)	2635361	40.8337	1360
72 Di-n-butylphthalate	149	7.157	7.151	(1.043)	3304764	48.0078	1600
76 Fluoranthene	202	7.592	7.587	(1.106)	2712817	44.2856	1480
85 Butylbenzylphthalate	149	8.033	8.028	(0.946)	1379166	53.8981	1800
89 Benzo(a)anthracene	228	8.480	8.475	(0.999)	2169845	42.7659	1420
90 3,3'-Dichlorobenzidine	252	8.428	8.422	(0.992)	681333	46.7677	1560
92 Chrysene	228	8.510	8.504	(1.002)	2037476	42.9646	1430
93 bis(2-Ethylhexyl)phthalate	149	8.369	8.363	(0.985)	1900321	51.1184	1700
94 Di-n-octylphthalate	149	8.857	8.851	(0.901)	3090856	68.3109	2280(R)
95 Benzo(b)fluoranthene	252	9.410	9.398	(0.957)	1710388	48.1702	1600
96 Benzo(k)fluoranthene	252	9.433	9.428	(0.959)	1737323	50.0924	1670
97 Benzo(a)pyrene	252	9.774	9.763	(0.994)	1396045	46.2331	1540
99 Indeno(1,2,3-cd)pyrene	276	11.327	11.310	(1.152)	1001063	31.8539	1060
100 Dibenzo(a,h)anthracene	278	11.321	11.310	(1.151)	865208	32.9572	1100
101 Benzo(ghi)perylene	276	11.786	11.775	(1.199)	750848	28.8881	963
1 N-Methyl-N-nitrosomethylamine	74	2.316	2.281	(0.615)	431434	38.7900	1290

QC Flag Legend

Q - Qualifier signal failed the ratio test.
R - Spike/Surrogate failed recovery limits.

Data File: /chem/MSD1.i/s123009.b/s113018.d
Date : 30-DEC-2009 16:59
Client ID: SBLK02LCS
Sample Info: I120200580919373671|SWM11|SBLK02LCS
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD1.i
Operator: AHY
Column diameter: 0.20

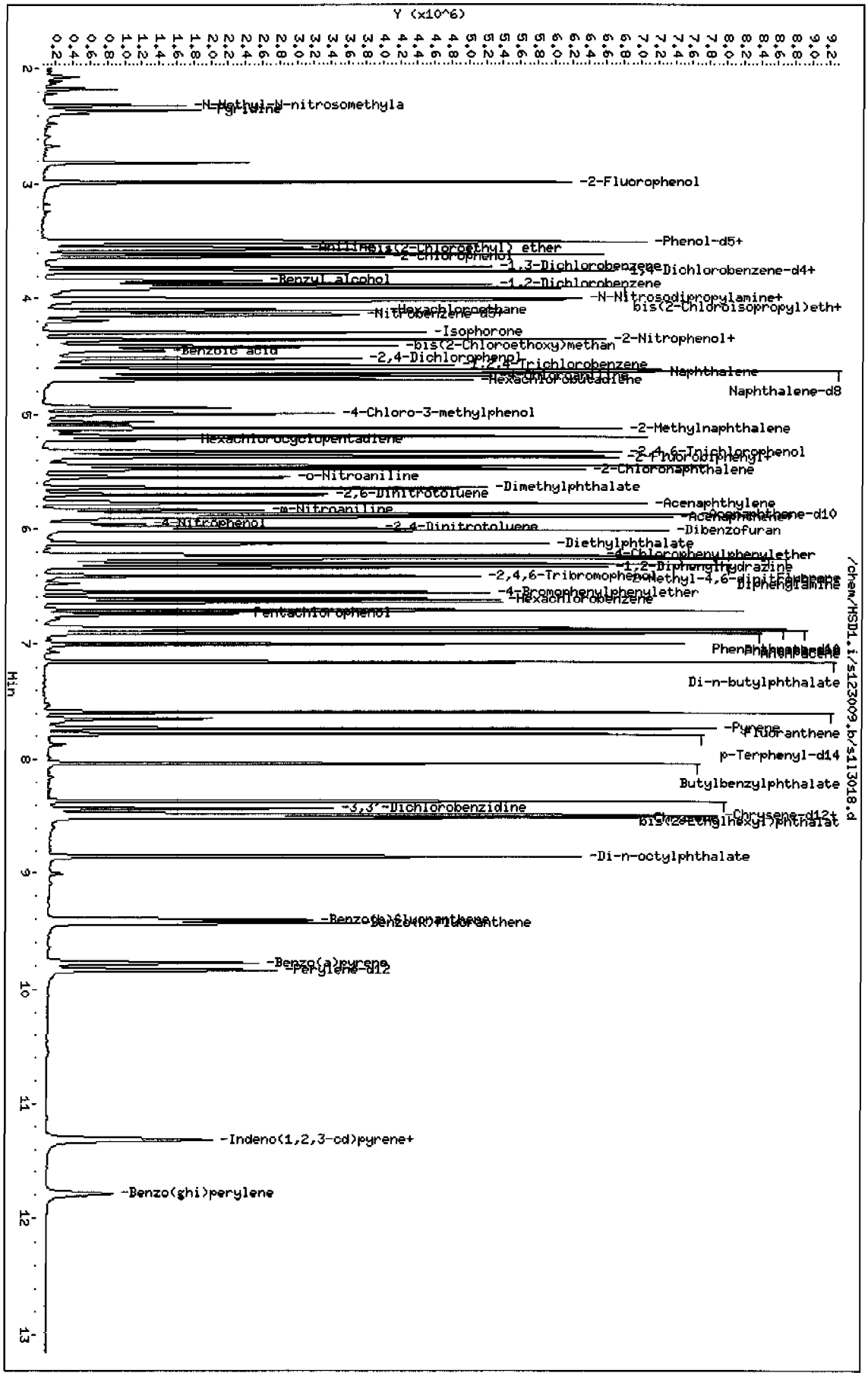

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1086**	**Date Collected:**	**12/22/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**1202005359**	**Date Received:**	**12/24/2009 09:30**	**%Moisture:**	**7.4**
Client Sample:	**QC for batch 937150**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**RE03-09-14233MS**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**937151**	**Inst:**	**MSD3.I**	**Dilution:**	**1**
Run Date:	**01/04/2010 20:49**	**Analyst:**	**JLD1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/29/2009 10:16**	**Aliquot:**	**30.08 g**	**Final Volume:**	**1 mL**
Data File:	**s3a0423.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine		1040	ug/kg	71.8	359
108-95-2	Phenol		1170	ug/kg	71.8	359
95-57-8	2-Chlorophenol		1140	ug/kg	71.8	359
106-46-7	1,4-Dichlorobenzene		839	ug/kg	71.8	359
621-64-7	N-Nitrosodipropylamine		1120	ug/kg	71.8	359
59-50-7	4-Chloro-3-methylphenol		1300	ug/kg	71.8	359
83-32-9	Acenaphthene		1100	ug/kg	11.8	35.9
121-14-2	2,4-Dinitrotoluene		1200	ug/kg	35.9	359
100-02-7	4-Nitrophenol		613	ug/kg	118	359
87-86-5	Pentachlorophenol		982	ug/kg	89.7	359
129-00-0	Pyrene		1160	ug/kg	10.8	35.9
110-86-1	Pyridine		752	ug/kg	71.8	359
62-53-3	Aniline		1020	ug/kg	108	359
111-44-4	bis(2-Chloroethyl) ether		873	ug/kg	71.8	359
541-73-1	1,3-Dichlorobenzene		800	ug/kg	71.8	359
100-51-6	Benzyl alcohol		1340	ug/kg	108	359
95-50-1	1,2-Dichlorobenzene		870	ug/kg	71.8	359
108-60-1	bis(2-Chloroisopropyl)ether		850	ug/kg	71.8	359
95-48-7	o-Cresol		1070	ug/kg	71.8	359
65794-96-9	m,p-Cresols		1340	ug/kg	108	359
67-72-1	Hexachloroethane		836	ug/kg	71.8	359
98-95-3	Nitrobenzene		1040	ug/kg	71.8	359
78-59-1	Isophorone		1220	ug/kg	71.8	359
88-75-5	2-Nitrophenol		1110	ug/kg	71.8	359
105-67-9	2,4-Dimethylphenol		1060	ug/kg	126	359
111-91-1	bis(2-Chloroethoxy)methane		923	ug/kg	71.8	359
120-83-2	2,4-Dichlorophenol		1100	ug/kg	71.8	359
65-85-0	Benzoic acid		1510	ug/kg	179	718
91-20-3	Naphthalene		1080	ug/kg	10.8	35.9
106-47-8	4-Chloroaniline		993	ug/kg	71.8	359
87-68-3	Hexachlorobutadiene		844	ug/kg	71.8	359
91-57-6	2-Methylnaphthalene		1060	ug/kg	7.18	35.9
77-47-4	Hexachlorocyclopentadiene		1310	ug/kg	71.8	359
88-06-2	2,4,6-Trichlorophenol		1290	ug/kg	71.8	359
95-95-4	2,4,5-Trichlorophenol		1210	ug/kg	71.8	359
91-58-7	2-Chloronaphthalene		1030	ug/kg	11.8	35.9
88-74-4	2-Nitroaniline		1170	ug/kg	71.8	359
99-09-2	*o-Nitroaniline* 3-Nitroaniline		1210	ug/kg	71.8	359

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1086	Date Collected:	12/22/2009 12:00	Matrix:	S
Lab Sample ID:	1202005359	Date Received:	12/24/2009 09:30	%Moisture:	7.4
Client Sample:	QC for batch 937150	Client:	LANL010	Project:	QC
Client ID:	RE03-09-14233MS	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	937151	Inst:	MSD3.I	Dilution:	1
Run Date:	01/04/2010 20:49	Analyst:	JLD1	Inj. Vol:	.5 uL
Prep Date:	12/29/2009 10:16	Aliquot:	30.08 g	Final Volume:	1 mL
Data File:	s3a0423.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate		1240	ug/kg	71.8	359
606-20-2	2,6-Dinitrotoluene		1100	ug/kg	35.9	359
208-96-8	Acenaphthylene		1140	ug/kg	10.8	35.9
51-28-5	2,4-Dinitrophenol		1190	ug/kg	136	718
132-64-9	Dibenzofuran		1430	ug/kg	71.8	359
84-66-2	Diethylphthalate		1310	ug/kg	71.8	359
86-73-7	Fluorene		1190	ug/kg	10.8	35.9
7005-72-3	4-Chlorophenylphenylether		1290	ug/kg	71.8	359
534-52-1	2-Methyl-4,6-dinitrophenol		1050	ug/kg	71.8	359
100-01-6	4-Nitroaniline		1040	ug/kg	108	359
	p-Nitroaniline					
122-39-4	Diphenylamine		1150	ug/kg	71.8	359
122-66-7	Azobenzene		1160	ug/kg	71.8	359
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether		1270	ug/kg	71.8	359
118-74-1	Hexachlorobenzene		1160	ug/kg	71.8	359
85-01-8	Phenanthrene		1120	ug/kg	10.8	35.9
120-12-7	Anthracene		1110	ug/kg	7.18	35.9
84-74-2	Di-n-butylphthalate		1330	ug/kg	71.8	359
206-44-0	Fluoranthene		1130	ug/kg	10.8	35.9
85-68-7	Butylbenzylphthalate		1350	ug/kg	71.8	359
56-55-3	Benzo(a)anthracene		1170	ug/kg	10.8	35.9
91-94-1	3,3'-Dichlorobenzidine		658	ug/kg	108	359
218-01-9	Chrysene		1120	ug/kg	10.8	35.9
117-81-7	bis(2-Ethylhexyl)phthalate		1540	ug/kg	71.8	359
117-84-0	Di-n-octylphthalate		1600	ug/kg	71.8	359
205-99-2	Benzo(b)fluoranthene		1210	ug/kg	10.8	35.9
207-08-9	Benzo(k)fluoranthene		1300	ug/kg	10.8	35.9
50-32-8	Benzo(a)pyrene		1260	ug/kg	10.8	35.9
193-39-5	Indeno(1,2,3-cd)pyrene		1070	ug/kg	10.8	35.9
53-70-3	Dibenzo(a,h)anthracene		1100	ug/kg	10.8	35.9
191-24-2	Benzo(ghi)perylene		936	ug/kg	10.8	35.9
120-82-1	1,2,4-Trichlorobenzene		970	ug/kg	71.8	359

GEL Laboratories LLC

Data file : /chem/MSD3.i/s010410a.b/s3a0423.d
Lab Smp Id: 1202005359 Client Smp ID: RE03-09-14233MS
Inj Date : 04-JAN-2010 20:49
Operator : JLD1 Inst ID: MSD3.i
Smp Info : |1202005359|937151|1|SVMF|1|MS
Misc Info : |MSD8270_S|WBN091223-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD3.i/s010410a.b/MSD3-8270R-AQA-120809.m
Meth Date : 04-Jan-2010 16:42 jen00986 Quant Type: ISTD
Cal Date : 07-DEC-2009 19:48 Cal File: s310717.d
Als bottle: 15 QC Sample: MS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-1086.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.08000	weight of sample
M	7.39220	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	4.201	4.203	(1.000)	147547	40.0000	
* 29 Naphthalene-d8	136	5.454	5.453	(1.000)	560463	40.0000	
* 46 Acenaphthene-d10	164	7.300	7.298	(1.000)	301541	40.0000	
* 67 Phenanthrene-d10	188	8.891	8.888	(1.000)	514516	40.0000	
* 91 Chrysene-d12	240	11.748	11.745	(1.000)	433659	40.0000	
* 98 Perylene-d12	264	13.692	13.686	(1.000)	282165	40.0000	
$ 3 2-Fluorophenol	112	3.108	3.093	(0.740)	246098	63.7671	2290
$ 5 Phenol-d5	99	3.878	3.869	(0.923)	307104	62.4593	2240
$ 20 Nitrobenzene-d5	82	4.738	4.737	(0.869)	136556	33.3372	1200
$ 39 2-Fluorobiphenyl	172	6.578	6.576	(0.901)	235084	33.2603	1190
$ 60 2,4,6-Tribromophenol	329	8.148	8.143	(1.116)	67926	82.0309	2940
$ 81 p-Terphenyl-d14	244	10.598	10.595	(0.902)	258488	37.1126	1330

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
6 Phenol	94	3.887	3.881	(0.925)	167463	32.6951	1170
8 2-Chlorophenol	128	4.019	4.019	(0.957)	125812	31.8416	1140
11 1,4-Dichlorobenzene	146	4.219	4.218	(1.004)	107965	23.3655	839
17 N-Nitrosodipropylamine	70	4.580	4.579	(1.090)	100053	31.2351	1120(Q)
28 1,2,4-Trichlorobenzene	180	5.389	5.388	(0.988)	95526	27.0243	970
33 4-Chloro-3-methylphenol	107	6.055	6.045	(1.110)	123009	36.2056	1300
47 Acenaphthene	154	7.332	7.333	(1.004)	219196	30.5851	1100
50 2,4-Dinitrotoluene	165	7.517	7.515	(1.030)	84326	33.4360	1200
52 4-Nitrophenol	139	7.488	7.474	(1.026)	15342	17.0751	613
65 Pentachlorophenol	266	8.697	8.689	(0.978)	28345	27.3647	982
79 Pyrene	202	10.436	10.433	(0.888)	393519	32.4514	1160
2 Pyridine	79	2.196	2.173	(0.523)	84395	20.9616	752
4 Aniline	66	3.911	3.913	(0.931)	58261	28.3089	1020(Q)
7 bis(2-Chloroethyl) ether	63	3.952	3.954	(0.941)	80519	24.3240	873
9 1,3-Dichlorobenzene	146	4.148	4.150	(0.987)	101662	22.2754	800
12 Benzyl alcohol	108	4.339	4.332	(1.033)	94138	37.3723	1340
13 1,2-Dichlorobenzene	146	4.360	4.362	(1.038)	106186	24.2228	870
14 bis(2-Chloroisopropyl)ether	45	4.445	4.447	(1.058)	146647	23.6862	850
15 o-Cresol	107	4.445	4.435	(1.058)	98301	29.9059	1070
18 m,p-Cresols	107	4.588	4.588	(1.092)	148820	37.2712	1340(Q)
19 Hexachloroethane	117	4.682	4.681	(1.115)	40539	23.2933	836
21 Nitrobenzene	77	4.756	4.758	(0.872)	138252	29.0472	1040
22 Isophorone	82	4.984	4.983	(0.914)	261000	34.0783	1220
23 2-Nitrophenol	139	5.067	5.068	(0.929)	61877	30.9008	1110
24 2,4-Dimethylphenol	122	5.111	5.110	(0.937)	105434	29.4621	1060
25 bis(2-Chloroethoxy)methane	93	5.199	5.198	(0.953)	136478	25.7118	923
26 2,4-Dichlorophenol	162	5.316	5.312	(0.975)	95098	30.7651	1100
27 Benzoic acid	105	5.266	5.236	(0.966)	61591	42.1765	1510
30 Naphthalene	128	5.475	5.476	(1.004)	346064	30.1512	1080
31 4-Chloroaniline	127	5.542	5.538	(1.016)	103672	27.6695	993
32 Hexachlorobutadiene	225	5.589	5.591	(1.025)	50996	23.5215	844
34 2-Methylnaphthalene	142	6.190	6.192	(1.135)	238542	29.6599	1060
36 Hexachlorocyclopentadiene	237	6.349	6.348	(0.870)	31512	36.4622	1310
37 2,4,6-Trichlorophenol	196	6.499	6.494	(0.890)	72992	35.9250	1290
38 2,4,5-Trichlorophenol	196	6.546	6.535	(0.897)	75738	33.8288	1210
40 2-Chloronaphthalene	162	6.707	6.706	(0.919)	214310	28.6773	1030
42 o-Nitroaniline	65	6.833	6.832	(0.936)	81523	32.5276	1170
41 m-Nitroaniline	138	7.279	7.278	(0.997)	50396	33.6211	1210(Q)
43 Dimethylphthalate	163	7.018	7.022	(0.961)	269622	34.4390	1240
44 2,6-Dinitrotoluene	165	7.088	7.090	(0.971)	60304	30.6506	1100
45 Acenaphthylene	152	7.147	7.149	(0.979)	367949	31.8583	1140
48 2,4-Dinitrophenol	184	7.385	7.380	(1.012)	17366	33.1398	1190
49 Dibenzofuran	168	7.517	7.518	(1.030)	391936	39.8058	1430
51 Diethylphthalate	149	7.766	7.765	(1.064)	283071	36.3956	1310
53 Fluorene	166	7.884	7.882	(1.080)	284755	33.2447	1190
54 4-Chlorophenylphenylether	204	7.881	7.882	(1.080)	132755	35.8437	1290
55 2-Methyl-4,6-dinitrophenol	198	7.951	7.950	(0.894)	32096	29.2806	1050

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
56 p-Nitroaniline	138	7.937	7.941	(1.087)	34880	28.9362	1040
133 Diphenylamine	169	8.016	8.014	(0.902)	212310	31.9084	1140
58 1,2-Diphenylhydrazine	77	8.054	8.052	(0.906)	320208	32.2881	1160
61 4-Bromophenylphenylether	248	8.406	8.404	(0.946)	68014	35.3735	1270
63 Hexachlorobenzene	284	8.468	8.466	(0.952)	74590	32.3972	1160
68 Phenanthrene	178	8.917	8.915	(1.003)	381731	31.0865	1120
69 Anthracene	178	8.970	8.971	(1.009)	388007	31.0584	1110
72 Di-n-butylphthalate	149	9.513	9.510	(1.070)	487899	36.9713	1330
76 Fluoranthene	202	10.190	10.190	(1.146)	383563	31.5547	1130
85 Butylbenzylphthalate	149	11.120	11.120	(0.947)	213758	37.5573	1350
89 Benzo(a)anthracene	228	11.730	11.730	(0.998)	340091	32.5727	1170
90 3,3'-Dichlorobenzidine	252	11.710	11.703	(0.997)	54660	18.3410	658
92 Chrysene	228	11.775	11.774	(1.002)	301422	31.0879	1120
93 bis(2-Ethylhexyl)phthalate	149	11.733	11.733	(0.999)	325757	42.9552	1540
94 Di-n-octylphthalate	149	12.541	12.539	(0.916)	463010	44.4364	1600
95 Benzo(b)fluoranthene	252	13.119	13.114	(0.958)	250946	33.6686	1210
96 Benzo(k)fluoranthene	252	13.157	13.155	(0.961)	254640	36.1325	1300
97 Benzo(a)pyrene	252	13.600	13.598	(0.993)	214578	34.9968	1260
99 Indeno(1,2,3-cd)pyrene	276	15.406	15.404	(1.125)	161207	29.8840	1070
100 Dibenzo(a,h)anthracene	278	15.438	15.436	(1.128)	139686	30.6345	1100
101 Benzo(ghi)perylene	276	15.855	15.859	(1.158)	118305	26.0630	936
1 N-Methyl-N-nitrosomethylamine	74	2.167	2.152	(0.516)	71864	28.9722	1040

QC Flag Legend

Q - Qualifier signal failed the ratio test.

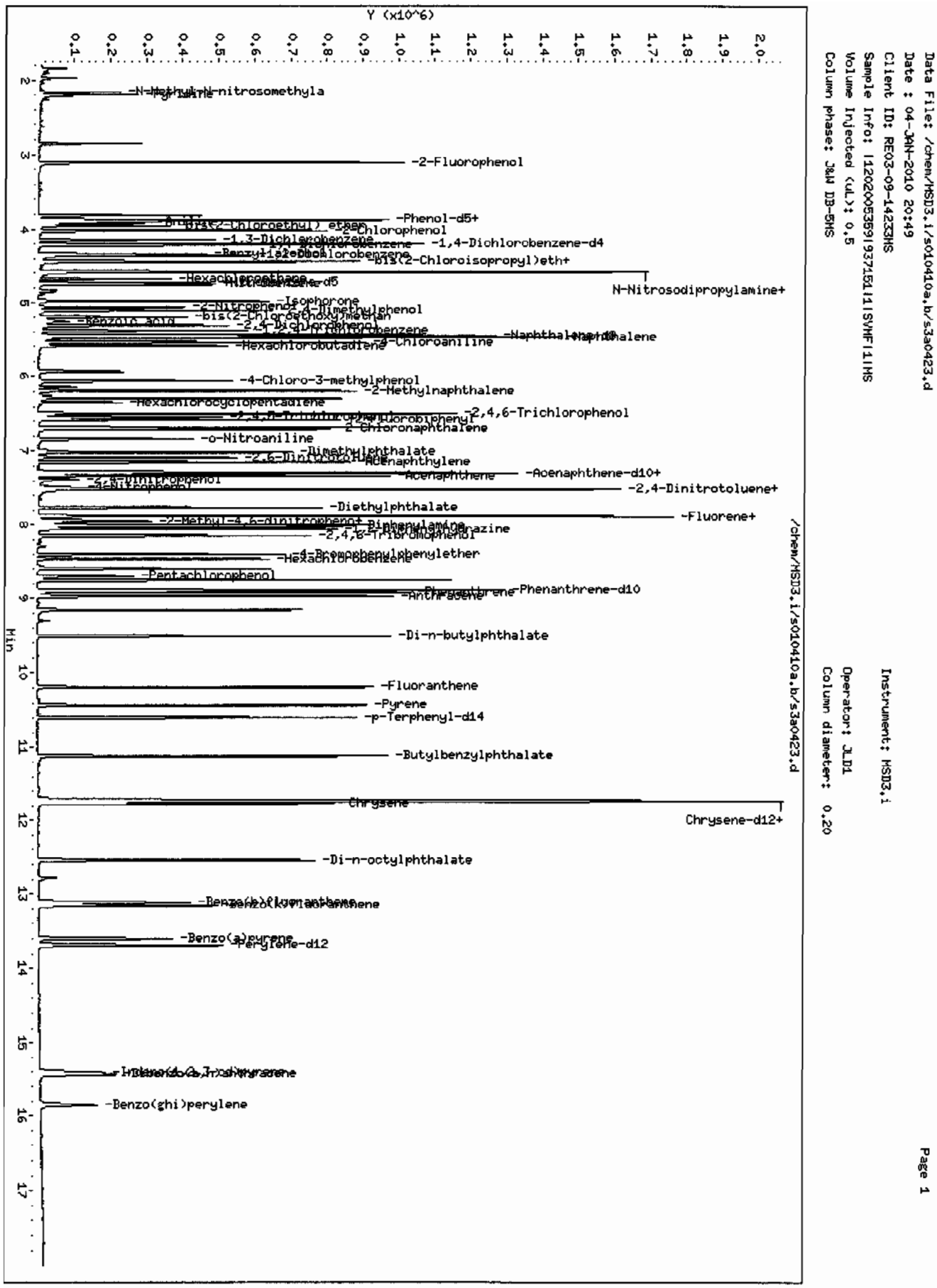
Data File: /chem/MSD3.i/s010410a.b/s3a0423.d
Date : 04-JAN-2010 20:49
Client ID: RE03-09-142ZZMS
Sample Info: 1120200535591937151!1SVMF11!MS
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS
Instrument: MSD3.i
Operator: JLD1
Column diameter: 0.20
Page 1
Y (x10^6)
Min
/chem/MSD3.i/s010410a.b/s3a0423.d
-2-Fluorophenol
-Phenol-d5+
-2-Chlorophenol
-1,4-Dichlorobenzene-d4
-bis(2-Chloroisopropyl)eth+
N-Nitrosodipropylamine+
-Isophorone
-2-Nitrophenol
-bis(2-Chloroethoxy)methan
-2,4-Dichlorophenol
-Naphthalene
-Hexachlorobutadiene
-2-Chloroaniline
-4-Chloro-3-methylphenol
-2-Methylnaphthalene
-Hexachlorocyclopentadiene
-2,4,6-Trichlorophenol
-2-Chloronaphthalene
-o-Nitroaniline
-Dimethylphthalate
-Acenaphthylene
-Acenaphthene-d10+
-2,4-Dinitrotoluene+
-Diethylphthalate
-Fluorene+
-Diphenylamine
-2,4,6-Tribromophenol
-4-Bromophenylphenylether
-Hexachlorobenzene
-Pentachlorophenol
-Phenanthrene
-Phenanthrene-d10
-Anthracene
-Di-n-butylphthalate
-Fluoranthene
-Pyrene
-p-Terphenyl-d14
-Butylbenzylphthalate
-Chrysene
Chrysene-d12+
-Di-n-octylphthalate
-Benzo(b)fluoranthene
-Benzo(k)fluoranthene
-Benzo(a)pyrene
-Perylene-d12
-Indeno(1,2,3-cd)pyrene
-Benzo(ghi)perylene

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1086**	**Date Collected:**	**12/22/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**1202005810**	**Date Received:**	**12/24/2009 09:30**	**%Moisture:**	**11.9**
Client Sample:	**QC for batch 937366**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**RE03-10-9872MS**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**937367**	**Inst:**	**MSD1.I**	**Dilution:**	**1**
Run Date:	**12/30/2009 17:47**	**Analyst:**	**AMY**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/29/2009 17:48**	**Aliquot:**	**30.05 g**	**Final Volume:**	**1 mL**
Data File:	**s1l3020.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine		1240	ug/kg	75.5	378
108-95-2	Phenol		1340	ug/kg	75.5	378
95-57-8	2-Chlorophenol		1330	ug/kg	75.5	378
106-46-7	1,4-Dichlorobenzene		1110	ug/kg	75.5	378
621-64-7	N-Nitrosodipropylamine		1290	ug/kg	75.5	378
59-50-7	4-Chloro-3-methylphenol		1590	ug/kg	75.5	378
83-32-9	Acenaphthene		1440	ug/kg	12.5	37.8
121-14-2	2,4-Dinitrotoluene		1330	ug/kg	37.8	378
100-02-7	4-Nitrophenol		560	ug/kg	125	378
87-86-5	Pentachlorophenol		1390	ug/kg	94.4	378
129-00-0	Pyrene		1510	ug/kg	11.3	37.8
110-86-1	Pyridine	J	120	ug/kg	75.5	378
62-53-3	Aniline		976	ug/kg	113	378
111-44-4	bis(2-Chloroethyl) ether		1210	ug/kg	75.5	378
541-73-1	1,3-Dichlorobenzene		1110	ug/kg	75.5	378
100-51-6	Benzyl alcohol		1150	ug/kg	113	378
95-50-1	1,2-Dichlorobenzene		1190	ug/kg	75.5	378
108-60-1	bis(2-Chloroisopropyl)ether		1180	ug/kg	75.5	378
95-48-7	o-Cresol		1530	ug/kg	75.5	378
65794-96-9	m,p-Cresols		1540	ug/kg	113	378
67-72-1	Hexachloroethane		1100	ug/kg	75.5	378
98-95-3	Nitrobenzene		1390	ug/kg	75.5	378
78-59-1	Isophorone		1530	ug/kg	75.5	378
88-75-5	2-Nitrophenol		1300	ug/kg	75.5	378
105-67-9	2,4-Dimethylphenol		1470	ug/kg	132	378
111-91-1	bis(2-Chloroethoxy)methane		1340	ug/kg	75.5	378
120-83-2	2,4-Dichlorophenol		1450	ug/kg	75.5	378
65-85-0	Benzoic acid		2790	ug/kg	189	755
91-20-3	Naphthalene		1250	ug/kg	11.3	37.8
106-47-8	4-Chloroaniline		1150	ug/kg	75.5	378
87-68-3	Hexachlorobutadiene		1460	ug/kg	75.5	378
91-57-6	2-Methylnaphthalene		1400	ug/kg	7.55	37.8
77-47-4	Hexachlorocyclopentadiene		1250	ug/kg	75.5	378
88-06-2	2,4,6-Trichlorophenol		1540	ug/kg	75.5	378
95-95-4	2,4,5-Trichlorophenol		1760	ug/kg	75.5	378
91-58-7	2-Chloronaphthalene		1380	ug/kg	12.5	37.8
88-74-4	2-Nitroaniline		1420	ug/kg	75.5	378
99-09-2	*o-Nitroaniline* 3-Nitroaniline		1230	ug/kg	75.5	378

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1086**	**Date Collected:**	**12/22/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**1202005810**	**Date Received:**	**12/24/2009 09:30**	**%Moisture:**	**11.9**
Client Sample:	**QC for batch 937366**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**RE03-10-9872MS**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**937367**	**Inst:**	**MSD1.I**	**Dilution:**	**1**
Run Date:	**12/30/2009 17:47**	**Analyst:**	**AMY**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/29/2009 17:48**	**Aliquot:**	**30.05 g**	**Final Volume:**	**1 mL**
Data File:	**s113020.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate		1480	ug/kg	75.5	378
606-20-2	2,6-Dinitrotoluene		1350	ug/kg	37.8	378
208-96-8	Acenaphthylene		1460	ug/kg	11.3	37.8
51-28-5	2,4-Dinitrophenol		849	ug/kg	144	755
132-64-9	Dibenzofuran		1730	ug/kg	75.5	378
84-66-2	Diethylphthalate		1600	ug/kg	75.5	378
86-73-7	Fluorene		1470	ug/kg	11.3	37.8
7005-72-3	4-Chlorophenylphenylether		1620	ug/kg	75.5	378
534-52-1	2-Methyl-4,6-dinitrophenol		935	ug/kg	75.5	378
100-01-6	4-Nitroaniline		1110	ug/kg	113	378
	p-Nitroaniline					
122-39-4	Diphenylamine		1470	ug/kg	75.5	378
122-66-7	Azobenzene		1470	ug/kg	75.5	378
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether		1830	ug/kg	75.5	378
118-74-1	Hexachlorobenzene		1670	ug/kg	75.5	378
85-01-8	Phenanthrene		1370	ug/kg	11.3	37.8
120-12-7	Anthracene		1400	ug/kg	7.55	37.8
84-74-2	Di-n-butylphthalate		1620	ug/kg	75.5	378
206-44-0	Fluoranthene		1520	ug/kg	11.3	37.8
85-68-7	Butylbenzylphthalate		1660	ug/kg	75.5	378
56-55-3	Benzo(a)anthracene		1460	ug/kg	11.3	37.8
91-94-1	3,3'-Dichlorobenzidine		1500	ug/kg	113	378
218-01-9	Chrysene		1480	ug/kg	11.3	37.8
117-81-7	bis(2-Ethylhexyl)phthalate		1620	ug/kg	75.5	378
117-84-0	Di-n-octylphthalate		1880	ug/kg	75.5	378
205-99-2	Benzo(b)fluoranthene		1520	ug/kg	11.3	37.8
207-08-9	Benzo(k)fluoranthene		1670	ug/kg	11.3	37.8
50-32-8	Benzo(a)pyrene		1550	ug/kg	11.3	37.8
193-39-5	Indeno(1,2,3-cd)pyrene		1200	ug/kg	11.3	37.8
53-70-3	Dibenzo(a,h)anthracene		1230	ug/kg	11.3	37.8
191-24-2	Benzo(ghi)perylene		1110	ug/kg	11.3	37.8
120-82-1	1,2,4-Trichlorobenzene		1380	ug/kg	75.5	378

GEL Laboratories LLC

Data file : /chem/MSD1.i/s123009.b/s113020.d
Lab Smp Id: 1202005810 Client Smp ID: RE03-10-9872MS
Inj Date : 30-DEC-2009 17:47
Operator : AMY Inst ID: MSD1.i
Smp Info : |1202005810|937367|1|SVM|1|LANLMS
Misc Info : |MSD8270_S|WBN091223-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD1.i/s123009.b/MSD1-M8270AQA-111409.m
Meth Date : 06-Jan-2010 14:43 amy01291 Quant Type: ISTD
Cal Date : 17-NOV-2009 17:42 Cal File: s1k1264.d
Als bottle: 19 QC Sample: MS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-1086.sub
Target Version: 3.50
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.05000	weight of sample
M	11.88000	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.763	3.816	(1.000)	717939	40.0000	
* 29 Naphthalene-d8	136	4.628	4.675	(1.000)	2880419	40.0000	
* 46 Acenaphthene-d10	164	5.869	5.922	(1.000)	1561664	40.0000	
* 67 Phenanthrene-d10	188	6.863	6.904	(1.000)	2683577	40.0000	
* 91 Chrysene-d12	240	8.486	8.533	(1.000)	2301621	40.0000	
* 98 Perylene-d12	264	9.833	9.910	(1.000)	1774671	40.0000	
$ 3 2-Fluorophenol	112	2.975	3.016	(0.791)	1219868	65.0517	2460
$ 5 Phenol-d5	99	3.504	3.546	(0.931)	1529585	67.1117	2530
$ 20 Nitrobenzene-d5	82	4.128	4.181	(0.892)	682275	35.9428	1360
$ 39 2-Fluorobiphenyl	172	5.363	5.416	(0.914)	1486738	39.7504	1500
$ 60 2,4,6-Tribromophenol	329	6.416	6.457	(1.093)	411530	94.3720	3560
$ 81 p-Terphenyl-d14	244	7.775	7.816	(0.916)	1562924	43.2605	1630

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
6 Phenol	94	3.516	3.551	(0.934)	854995	35.6025	1340
8 2-Chlorophenol	128	3.640	3.681	(0.967)	720245	35.2881	1330
11 1,4-Dichlorobenzene	146	3.775	3.822	(1.003)	690755	29.4234	1110
17 N-Nitrosodipropylamine	70	4.004	4.057	(1.064)	468673	34.2510	1290(Q)
28 1,2,4-Trichlorobenzene	180	4.575	4.628	(0.989)	635341	36.4425	1380
33 4-Chloro-3-methylphenol	107	4.998	5.028	(1.080)	648288	42.0576	1590
47 Acenaphthene	154	5.892	5.940	(1.004)	1369663	38.0258	1440
50 2,4-Dinitrotoluene	165	5.992	6.034	(1.021)	496727	35.3485	1330
52 4-Nitrophenol	139	5.957	5.975	(1.015)	109255	14.8288	560
65 Pentachlorophenol	266	6.739	6.775	(0.982)	249011	36.6884	1380
79 Pyrene	202	7.728	7.769	(0.911)	2440099	39.8960	1510
2 Pyridine	79	2.393	2.363	(0.636)	54402	3.18114	120(aR)
4 Aniline	66	3.557	3.604	(0.945)	258788	25.8333	976(Q)
7 bis(2-Chloroethyl) ether	63	3.569	3.616	(0.948)	533130	31.9112	1200(Q)
9 1,3-Dichlorobenzene	146	3.728	3.781	(0.991)	702565	29.3361	1110
12 Benzyl alcohol	108	3.845	3.887	(1.022)	376390	30.3302	1140
13 1,2-Dichlorobenzene	146	3.875	3.928	(1.030)	680772	31.3988	1180
14 bis(2-Chloroisopropyl)ether	45	3.910	3.957	(1.039)	1246544	31.3255	1180
15 o-Cresol	107	3.904	3.940	(1.038)	617205	40.6235	1530
18 m,p-Cresols	107	3.998	4.046	(1.063)	842309	40.7448	1540(Q)
19 Hexachloroethane	117	4.104	4.151	(1.091)	246426	29.1656	1100
21 Nitrobenzene	77	4.140	4.193	(0.894)	727769	36.7968	1390
22 Isophorone	82	4.293	4.346	(0.928)	1402304	40.5288	1530
23 2-Nitrophenol	139	4.351	4.404	(0.940)	362269	34.5052	1300
24 2,4-Dimethylphenol	122	4.357	4.404	(0.942)	653647	38.8805	1470
25 bis(2-Chloroethoxy)methane	93	4.416	4.463	(0.954)	790655	35.4953	1340
26 2,4-Dichlorophenol	162	4.522	4.569	(0.977)	606778	38.4603	1450
27 Benzoic acid	105	4.451	4.475	(0.962)	857114	73.9895	2790
30 Naphthalene	128	4.640	4.693	(1.003)	1993522	33.1615	1250(Q)
31 4-Chloroaniline	127	4.669	4.710	(1.009)	834665	30.4039	1150
32 Hexachlorobutadiene	225	4.704	4.751	(1.017)	345537	38.5980	1460
34 2-Methylnaphthalene	142	5.122	5.169	(1.107)	1463301	37.0276	1400
36 Hexachlorocyclopentadiene	237	5.222	5.269	(0.890)	158366	33.2135	1250
37 2,4,6-Trichlorophenol	196	5.316	5.363	(0.906)	424818	40.8980	1540
38 2,4,5-Trichlorophenol	196	5.357	5.387	(0.913)	515001	46.6281	1760
40 2-Chloronaphthalene	162	5.475	5.522	(0.933)	1406483	36.4818	1380
42 o-Nitroaniline	65	5.539	5.587	(0.944)	449813	37.6287	1420
41 m-Nitroaniline	138	5.834	5.881	(0.994)	343895	32.5573	1230
43 Dimethylphthalate	163	5.639	5.692	(0.961)	1672573	39.3054	1480
44 2,6-Dinitrotoluene	165	5.698	5.745	(0.971)	380150	35.8560	1350
45 Acenaphthylene	152	5.775	5.822	(0.984)	2330962	38.7460	1460
48 2,4-Dinitrophenol	184	5.910	5.945	(1.007)	94104	22.4879	849(Q)
49 Dibenzofuran	168	6.016	6.057	(1.025)	2382875	45.7454	1730
51 Diethylphthalate	149	6.128	6.175	(1.044)	1678067	42.2981	1600
53 Fluorene	166	6.251	6.292	(1.065)	1634291	38.9114	1470
54 4-Chlorophenylphenylether	204	6.228	6.275	(1.061)	761593	42.9481	1620
55 2-Methyl-4,6-dinitrophenol	198	6.275	6.316	(0.914)	168112	24.7616	935

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
56 p-Nitroaniline	138	6.263	6.304	(1.067)	303228	29.3555	1110
133 Diphenylamine	169	6.310	6.351	(0.919)	1389608	38.8214	1470
58 1,2-Diphenylhydrazine	77	6.339	6.381	(0.924)	1702623	38.9847	1470
61 4-Bromophenylphenylether	248	6.557	6.598	(0.955)	446613	48.4391	1830
63 Hexachlorobenzene	284	6.616	6.657	(0.964)	501340	44.2988	1670
68 Phenanthrene	178	6.881	6.922	(1.003)	2215082	36.3208	1370
69 Anthracene	178	6.910	6.951	(1.007)	2291533	36.9471	1400
72 Di-n-butylphthalate	149	7.157	7.192	(1.043)	2829464	42.7712	1620
76 Fluoranthene	202	7.592	7.628	(1.106)	2365108	40.1762	1520
85 Butylbenzylphthalate	149	8.028	8.069	(0.946)	1221379	43.8813	1660
89 Benzo(a)anthracene	228	8.475	8.522	(0.999)	2127753	38.5533	1460
90 3,3'-Dichlorobenzidine	252	8.422	8.422	(0.992)	627554	39.6013	1500
92 Chrysene	228	8.504	8.551	(1.002)	2018791	39.1365	1480
93 bis(2-Ethylhexyl)phthalate	149	8.363	8.410	(0.985)	1736297	42.9384	1620
94 Di-n-octylphthalate	149	8.851	8.910	(0.900)	2897140	49.9047	1880
95 Benzo(b)fluoranthene	252	9.404	9.469	(0.956)	1815878	40.3190	1520
96 Benzo(k)fluoranthene	252	9.433	9.498	(0.959)	1962727	44.1074	1660
97 Benzo(a)pyrene	252	9.769	9.845	(0.993)	1595526	41.1662	1550
99 Indeno(1,2,3-cd)pyrene	276	11.321	11.427	(1.151)	1282259	31.8000	1200
100 Dibenzo(a,h)anthracene	278	11.321	11.427	(1.151)	1099648	32.6454	1230
101 Benzo(ghi)perylene	276	11.786	11.904	(1.199)	979293	29.3657	1110
1 N-Methyl-N-nitrosomethylamine	74	2.310	2.334	(0.614)	333192	32.7175	1240

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
R - Spike/Surrogate failed recovery limits.

Data File: /chem/MSD1.i/s123009.b/s113020.d
Date : 30-DEC-2009 17:47
Client ID: RE03-10-9372MS
Sample Info: I120200561019373671|SVM14|LANLMS
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD1.i
Operator: AMY
Column diameter: 0.20

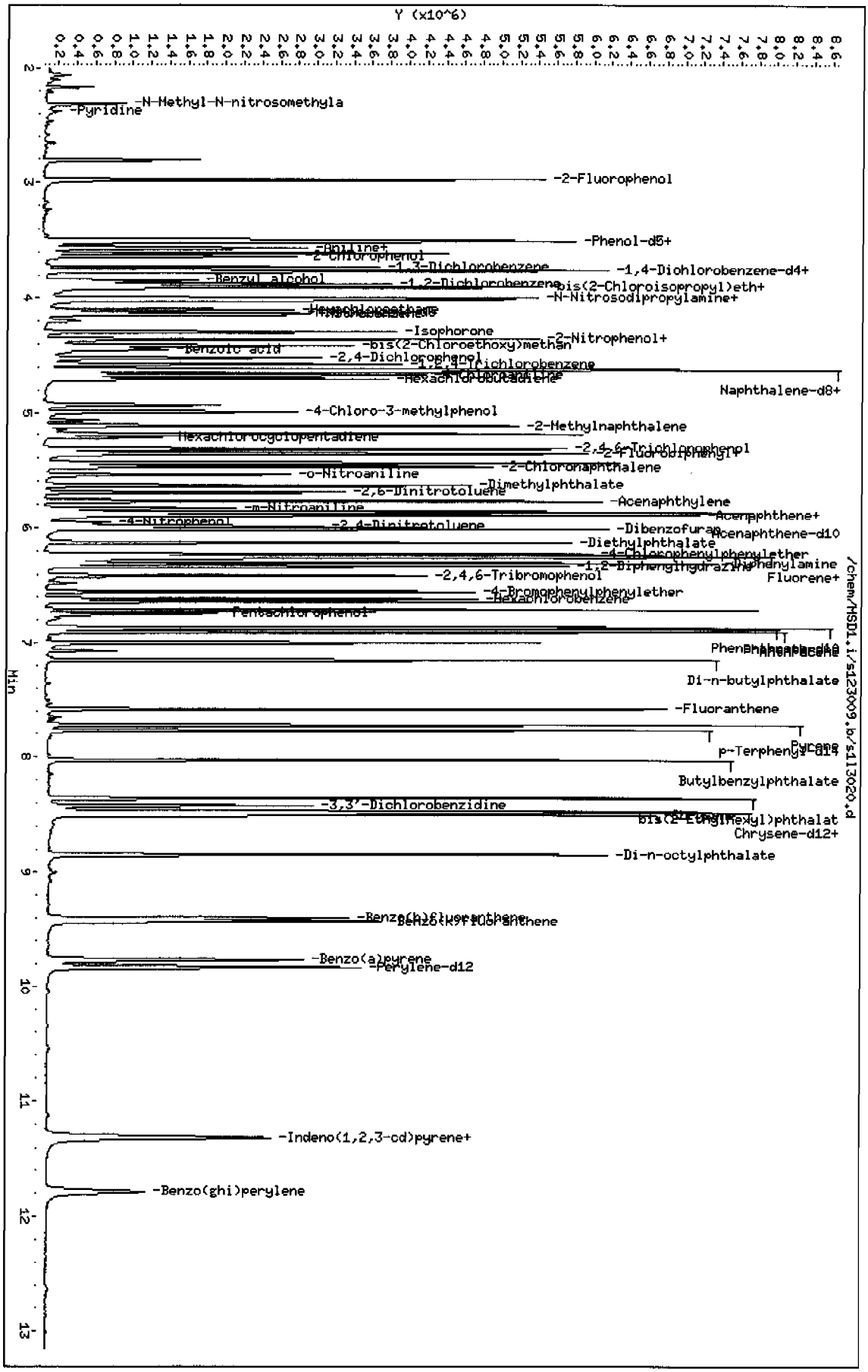

Page 1

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1086**	**Date Collected:**	**12/22/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**1202005360**	**Date Received:**	**12/24/2009 09:30**	**%Moisture:**	**7.4**
Client Sample:	**QC for batch 937150**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**RE03-09-14233MSD**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**937151**	**Inst:**	**MSD3.I**	**Dilution:**	**1**
Run Date:	**01/04/2010 21:13**	**Analyst:**	**JLD1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/29/2009 10:16**	**Aliquot:**	**30.01 g**	**Final Volume:**	**1 mL**
Data File:	**s3a0424.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine		1030	ug/kg	72.0	360
108-95-2	Phenol		1160	ug/kg	72.0	360
95-57-8	2-Chlorophenol		1100	ug/kg	72.0	360
106-46-7	1,4-Dichlorobenzene		830	ug/kg	72.0	360
621-64-7	N-Nitrosodipropylamine		1100	ug/kg	72.0	360
59-50-7	4-Chloro-3-methylphenol		1210	ug/kg	72.0	360
83-32-9	Acenaphthene		998	ug/kg	11.9	36.0
121-14-2	2,4-Dinitrotoluene		1080	ug/kg	36.0	360
100-02-7	4-Nitrophenol		460	ug/kg	119	360
87-86-5	Pentachlorophenol		861	ug/kg	90.0	360
129-00-0	Pyrene		1050	ug/kg	10.8	36.0
110-86-1	Pyridine		706	ug/kg	72.0	360
62-53-3	Aniline		895	ug/kg	108	360
111-44-4	bis(2-Chloroethyl) ether		854	ug/kg	72.0	360
541-73-1	1,3-Dichlorobenzene		800	ug/kg	72.0	360
100-51-6	Benzyl alcohol		1300	ug/kg	108	360
95-50-1	1,2-Dichlorobenzene		850	ug/kg	72.0	360
108-60-1	bis(2-Chloroisopropyl)ether		840	ug/kg	72.0	360
95-48-7	o-Cresol		1050	ug/kg	72.0	360
65794-96-9	m,p-Cresols		1290	ug/kg	108	360
67-72-1	Hexachloroethane		828	ug/kg	72.0	360
98-95-3	Nitrobenzene		1010	ug/kg	72.0	360
78-59-1	Isophorone		1200	ug/kg	72.0	360
88-75-5	2-Nitrophenol		1080	ug/kg	72.0	360
105-67-9	2,4-Dimethylphenol		991	ug/kg	126	360
111-91-1	bis(2-Chloroethoxy)methane		905	ug/kg	72.0	360
120-83-2	2,4-Dichlorophenol		1050	ug/kg	72.0	360
65-85-0	Benzoic acid		1400	ug/kg	180	720
91-20-3	Naphthalene		1050	ug/kg	10.8	36.0
106-47-8	4-Chloroaniline		958	ug/kg	72.0	360
87-68-3	Hexachlorobutadiene		857	ug/kg	72.0	360
91-57-6	2-Methylnaphthalene		1030	ug/kg	7.20	36.0
77-47-4	Hexachlorocyclopentadiene		1060	ug/kg	72.0	360
88-06-2	2,4,6-Trichlorophenol		1160	ug/kg	72.0	360
95-95-4	2,4,5-Trichlorophenol		1110	ug/kg	72.0	360
91-58-7	2-Chloronaphthalene		946	ug/kg	11.9	36.0
88-74-4	2-Nitroaniline		1070	ug/kg	72.0	360
99-09-2	*o-Nitroaniline* 3-Nitroaniline		1070	ug/kg	72.0	360

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1086**	**Date Collected:**	**12/22/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**1202005360**	**Date Received:**	**12/24/2009 09:30**	**%Moisture:**	**7.4**
Client Sample:	**QC for batch 937150**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**RE03-09-14233MSD**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**937151**	**Inst:**	**MSD3.I**	**Dilution:**	**1**
Run Date:	**01/04/2010 21:13**	**Analyst:**	**JLD1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/29/2009 10:16**	**Aliquot:**	**30.01 g**	**Final Volume:**	**1 mL**
Data File:	**s3a0424.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate		1120	ug/kg	72.0	360
606-20-2	2,6-Dinitrotoluene		991	ug/kg	36.0	360
208-96-8	Acenaphthylene		1040	ug/kg	10.8	36.0
51-28-5	2,4-Dinitrophenol		1030	ug/kg	137	720
132-64-9	Dibenzofuran		1300	ug/kg	72.0	360
84-66-2	Diethylphthalate		1190	ug/kg	72.0	360
86-73-7	Fluorene		1070	ug/kg	10.8	36.0
7005-72-3	4-Chlorophenylphenylether		1160	ug/kg	72.0	360
534-52-1	2-Methyl-4,6-dinitrophenol		922	ug/kg	72.0	360
100-01-6	4-Nitroaniline		922	ug/kg	108	360
	p-Nitroaniline					
122-39-4	Diphenylamine		1010	ug/kg	72.0	360
122-66-7	Azobenzene		1040	ug/kg	72.0	360
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether		1150	ug/kg	72.0	360
118-74-1	Hexachlorobenzene		1070	ug/kg	72.0	360
85-01-8	Phenanthrene		1000	ug/kg	10.8	36.0
120-12-7	Anthracene		1010	ug/kg	7.20	36.0
84-74-2	Di-n-butylphthalate		1190	ug/kg	72.0	360
206-44-0	Fluoranthene		1000	ug/kg	10.8	36.0
85-68-7	Butylbenzylphthalate		1220	ug/kg	72.0	360
56-55-3	Benzo(a)anthracene		1030	ug/kg	10.8	36.0
91-94-1	3,3'-Dichlorobenzidine		563	ug/kg	108	360
218-01-9	Chrysene		991	ug/kg	10.8	36.0
117-81-7	bis(2-Ethylhexyl)phthalate		1400	ug/kg	72.0	360
117-84-0	Di-n-octylphthalate		1510	ug/kg	72.0	360
205-99-2	Benzo(b)fluoranthene		1070	ug/kg	10.8	36.0
207-08-9	Benzo(k)fluoranthene		1160	ug/kg	10.8	36.0
50-32-8	Benzo(a)pyrene		1120	ug/kg	10.8	36.0
193-39-5	Indeno(1,2,3-cd)pyrene		965	ug/kg	10.8	36.0
53-70-3	Dibenzo(a,h)anthracene		1000	ug/kg	10.8	36.0
191-24-2	Benzo(ghi)perylene		859	ug/kg	10.8	36.0
120-82-1	1,2,4-Trichlorobenzene		939	ug/kg	72.0	360

GEL Laboratories LLC

Data file : /chem/MSD3.i/s010410a.b/s3a0424.d
Lab Smp Id: 1202005360 Client Smp ID: RE03-09-14233MSD
Inj Date : 04-JAN-2010 21:13
Operator : JLD1 Inst ID: MSD3.i
Smp Info : |1202005360|937151|1|SVMF|1|MSD
Misc Info : |MSD8270_S|WBN091223-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD3.i/s010410a.b/MSD3-8270R-AQA-120809.m
Meth Date : 04-Jan-2010 16:42 jen00986 Quant Type: ISTD
Cal Date : 07-DEC-2009 19:48 Cal File: s310717.d
Als bottle: 16 QC Sample: MSD
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-1086.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.01000	weight of sample
M	7.39220	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	4.204	4.203	(1.000)	142914	40.0000	
* 29 Naphthalene-d8	136	5.454	5.453	(1.000)	543886	40.0000	
* 46 Acenaphthene-d10	164	7.299	7.298	(1.000)	305242	40.0000	
* 67 Phenanthrene-d10	188	8.890	8.888	(1.000)	521451	40.0000	
* 91 Chrysene-d12	240	11.744	11.745	(1.000)	433227	40.0000	
* 98 Perylene-d12	264	13.690	13.686	(1.000)	269714	40.0000	
$ 3 2-Fluorophenol	112	3.108	3.093	(0.739)	246542	65.9533	2370
$ 5 Phenol-d5	99	3.878	3.869	(0.923)	300832	63.1673	2270
$ 20 Nitrobenzene-d5	82	4.738	4.737	(0.869)	136851	34.4274	1240
$ 39 2-Fluorobiphenyl	172	6.578	6.576	(0.901)	234506	32.7763	1180
$ 60 2,4,6-Tribromophenol	329	8.148	8.143	(1.116)	63399	75.6363	2720
$ 81 p-Terphenyl-d14	244	10.597	10.595	(0.902)	241172	34.6609	1250

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
6 Phenol	94	3.890	3.881	(0.925)	159356	32.1210	1160
8 2-Chlorophenol	128	4.022	4.019	(0.957)	116786	30.5155	1100
11 1,4-Dichlorobenzene	146	4.219	4.218	(1.004)	103193	23.0567	830
17 N-Nitrosodipropylamine	70	4.579	4.579	(1.089)	94570	30.4807	1100(Q)
28 1,2,4-Trichlorobenzene	180	5.389	5.388	(0.988)	89526	26.0989	939
33 4-Chloro-3-methylphenol	107	6.055	6.045	(1.110)	111123	33.7040	1210
47 Acenaphthene	154	7.332	7.333	(1.004)	201182	27.7311	998
50 2,4-Dinitrotoluene	165	7.517	7.515	(1.030)	76739	30.0586	1080
52 4-Nitrophenol	139	7.490	7.474	(1.026)	9809	12.7838	460
65 Pentachlorophenol	266	8.696	8.689	(0.978)	23583	23.9241	861
79 Pyrene	202	10.435	10.433	(0.889)	354792	29.2869	1050
2 Pyridine	79	2.193	2.173	(0.522)	76512	19.6198	706
4 Aniline	66	3.911	3.913	(0.930)	49575	24.8697	895(Q)
7 bis(2-Chloroethyl) ether	63	3.952	3.954	(0.940)	76258	23.7384	854
9 1,3-Dichlorobenzene	146	4.148	4.150	(0.987)	98290	22.2347	800
12 Benzyl alcohol	108	4.339	4.332	(1.032)	88035	36.0824	1300
13 1,2-Dichlorobenzene	146	4.362	4.362	(1.038)	100248	23.6097	850
14 bis(2-Chloroisopropyl)ether	45	4.445	4.447	(1.057)	139952	23.3377	840
15 o-Cresol	107	4.445	4.435	(1.057)	92929	29.1880	1050
18 m,p-Cresols	107	4.588	4.588	(1.091)	138275	35.7531	1290(Q)
19 Hexachloroethane	117	4.682	4.681	(1.114)	38799	23.0162	828
21 Nitrobenzene	77	4.756	4.758	(0.872)	129292	27.9926	1010
22 Isophorone	82	4.984	4.983	(0.914)	248013	33.3696	1200
23 2-Nitrophenol	139	5.066	5.068	(0.929)	58480	30.0943	1080
24 2,4-Dimethylphenol	122	5.110	5.110	(0.937)	95631	27.5374	991
25 bis(2-Chloroethoxy)methane	93	5.196	5.198	(0.953)	129522	25.1451	905
26 2,4-Dichlorophenol	162	5.316	5.312	(0.975)	87308	29.1059	1050
27 Benzoic acid	105	5.260	5.236	(0.964)	51596	38.8888	1400
30 Naphthalene	128	5.474	5.476	(1.004)	325590	29.2162	1050
31 4-Chloroaniline	127	5.542	5.538	(1.016)	96791	26.6203	958
32 Hexachlorobutadiene	225	5.589	5.591	(1.025)	50124	23.8239	857
34 2-Methylnaphthalene	142	6.190	6.192	(1.135)	223955	28.6950	1030
36 Hexachlorocyclopentadiene	237	6.349	6.348	(0.870)	25792	29.4824	1060
37 2,4,6-Trichlorophenol	196	6.498	6.494	(0.890)	66500	32.3333	1160
38 2,4,5-Trichlorophenol	196	6.545	6.535	(0.897)	69694	30.7515	1110
40 2-Chloronaphthalene	162	6.707	6.706	(0.919)	198786	26.2774	946
42 o-Nitroaniline	65	6.833	6.832	(0.936)	75511	29.7635	1070
41 m-Nitroaniline	138	7.276	7.278	(0.997)	43862	29.8116	1070(Q)
43 Dimethylphthalate	163	7.018	7.022	(0.961)	247182	31.1899	1120
44 2,6-Dinitrotoluene	165	7.088	7.090	(0.971)	54837	27.5341	991
45 Acenaphthylene	152	7.147	7.149	(0.979)	339052	29.0004	1040
48 2,4-Dinitrophenol	184	7.385	7.380	(1.012)	12786	28.5059	1020
49 Dibenzofuran	168	7.517	7.518	(1.030)	359386	36.0574	1300
51 Diethylphthalate	149	7.766	7.765	(1.064)	260416	33.0767	1190
53 Fluorene	166	7.883	7.882	(1.080)	258708	29.8375	1070
54 4-Chlorophenylphenylether	204	7.880	7.882	(1.080)	120860	32.2362	1160
55 2-Methyl-4,6-dinitrophenol	198	7.951	7.950	(0.894)	27220	25.6353	922

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
56 p-Nitroaniline	138	7.936	7.941	(1.087)	29497	25.6304	922
133 Diphenylamine	169	8.016	8.014	(0.902)	189152	28.0498	1010
58 1,2-Diphenylhydrazine	77	8.054	8.052	(0.906)	289867	28.8400	1040
61 4-Bromophenylphenylether	248	8.406	8.404	(0.946)	62299	31.9703	1150
63 Hexachlorobenzene	284	8.467	8.466	(0.952)	69572	29.8157	1070
68 Phenanthrene	178	8.917	8.915	(1.003)	346500	27.8422	1000
69 Anthracene	178	8.970	8.971	(1.009)	353848	27.9474	1000
72 Di-n-butylphthalate	149	9.509	9.510	(1.070)	443332	33.1473	1190
76 Fluoranthene	202	10.189	10.190	(1.146)	343894	27.9150	1000
85 Butylbenzylphthalate	149	11.119	11.120	(0.947)	193104	33.9622	1220
89 Benzo(a)anthracene	228	11.732	11.730	(0.999)	297740	28.5449	1030
90 3,3'-Dichlorobenzidine	252	11.708	11.703	(0.997)	46562	15.6395	563(R)
92 Chrysene	228	11.773	11.774	(1.002)	266859	27.5506	991
93 bis(2-Ethylhexyl)phthalate	149	11.732	11.733	(0.999)	295528	39.0081	1400
94 Di-n-octylphthalate	149	12.539	12.539	(0.916)	417456	41.9139	1510
95 Benzo(b)fluoranthene	252	13.117	13.114	(0.958)	212773	29.8648	1070
96 Benzo(k)fluoranthene	252	13.155	13.155	(0.961)	217922	32.3498	1160
97 Benzo(a)pyrene	252	13.599	13.598	(0.993)	182345	31.1126	1120
99 Indeno(1,2,3-cd)pyrene	276	15.403	15.404	(1.125)	138357	26.8322	965
100 Dibenzo(a,h)anthracene	278	15.436	15.436	(1.128)	121270	27.8236	1000
101 Benzo(ghi)perylene	276	15.853	15.859	(1.158)	103597	23.8764	859
1 N-Methyl-N-nitrosomethylamine	74	2.164	2.152	(0.515)	68508	28.5148	1030

QC Flag Legend

Q - Qualifier signal failed the ratio test.
R - Spike/Surrogate failed recovery limits.

Data File: /chem/MSD3.i/s010410a.b/s3a0424.d
Date : 04-JAN-2010 21:13
Client ID: RE03-09-14233MSD
Sample Info: 1|1202005360|937151|1|SVMF|1|MSD
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD3.i

Operator: JLD1
Column diameter: 0.20

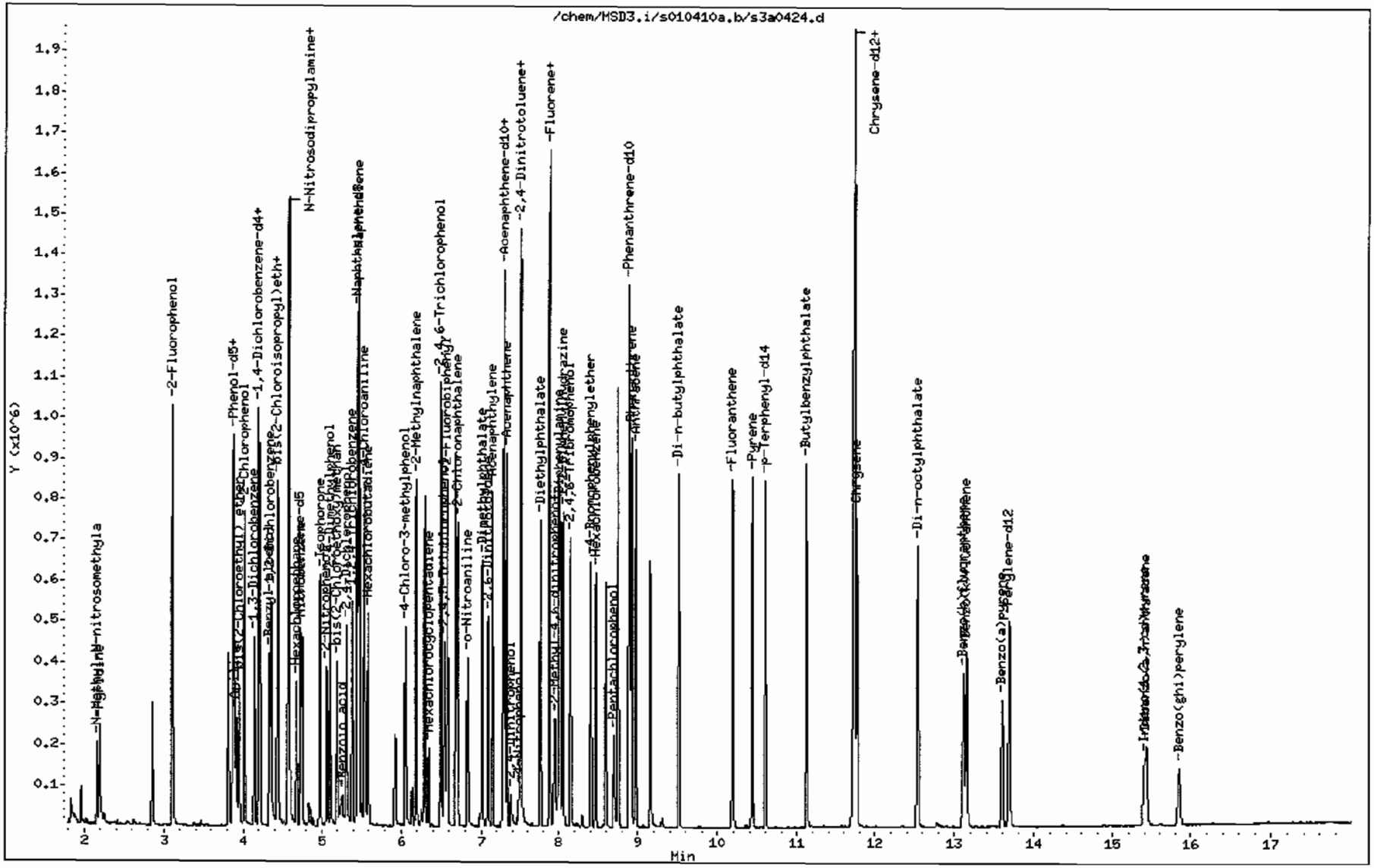

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1086	Date Collected:	12/22/2009 12:00	Matrix:	S
Lab Sample ID:	1202005811	Date Received:	12/24/2009 09:30	%Moisture:	11.9
Client Sample:	QC for batch 937366	Client:	LANL010	Project:	QC
Client ID:	RE03-10-9872MSD	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	937367	Inst:	MSD1.I	Dilution:	1
Run Date:	12/30/2009 18:12	Analyst:	AMY	Inj. Vol:	.5 uL
Prep Date:	12/29/2009 17:48	Aliquot:	30.06 g	Final Volume:	1 mL
Data File:	s113021.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine		1280	ug/kg	75.5	378
108-95-2	Phenol		1330	ug/kg	75.5	378
95-57-8	2-Chlorophenol		1310	ug/kg	75.5	378
106-46-7	1,4-Dichlorobenzene		1150	ug/kg	75.5	378
621-64-7	N-Nitrosodipropylamine		1280	ug/kg	75.5	378
59-50-7	4-Chloro-3-methylphenol		1560	ug/kg	75.5	378
83-32-9	Acenaphthene		1410	ug/kg	12.5	37.8
121-14-2	2,4-Dinitrotoluene		1350	ug/kg	37.8	378
100-02-7	4-Nitrophenol		925	ug/kg	125	378
87-86-5	Pentachlorophenol		1000	ug/kg	94.4	378
129-00-0	Pyrene		1680	ug/kg	11.3	37.8
110-86-1	Pyridine	J	191	ug/kg	75.5	378
62-53-3	Aniline		1070	ug/kg	113	378
111-44-4	bis(2-Chloroethyl) ether		1220	ug/kg	75.5	378
541-73-1	1,3-Dichlorobenzene		1110	ug/kg	75.5	378
100-51-6	Benzyl alcohol		1180	ug/kg	113	378
95-50-1	1,2-Dichlorobenzene		1210	ug/kg	75.5	378
108-60-1	bis(2-Chloroisopropyl)ether		1200	ug/kg	75.5	378
95-48-7	o-Cresol		1490	ug/kg	75.5	378
65794-96-9	m,p-Cresols		1540	ug/kg	113	378
67-72-1	Hexachloroethane		1100	ug/kg	75.5	378
98-95-3	Nitrobenzene		1380	ug/kg	75.5	378
78-59-1	Isophorone		1510	ug/kg	75.5	378
88-75-5	2-Nitrophenol		1240	ug/kg	75.5	378
105-67-9	2,4-Dimethylphenol		1450	ug/kg	132	378
111-91-1	bis(2-Chloroethoxy)methane		1320	ug/kg	75.5	378
120-83-2	2,4-Dichlorophenol		1410	ug/kg	75.5	378
65-85-0	Benzoic acid		1670	ug/kg	189	755
91-20-3	Naphthalene		1250	ug/kg	11.3	37.8
106-47-8	4-Chloroaniline		1250	ug/kg	75.5	378
87-68-3	Hexachlorobutadiene		1450	ug/kg	75.5	378
91-57-6	2-Methylnaphthalene		1380	ug/kg	7.55	37.8
77-47-4	Hexachlorocyclopentadiene		1000	ug/kg	75.5	378
88-06-2	2,4,6-Trichlorophenol		1480	ug/kg	75.5	378
95-95-4	2,4,5-Trichlorophenol		1750	ug/kg	75.5	378
91-58-7	2-Chloronaphthalene		1370	ug/kg	12.5	37.8
88-74-4	2-Nitroaniline		1430	ug/kg	75.5	378
99-09-2	*o-Nitroaniline* 3-Nitroaniline		1270	ug/kg	75.5	378

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1086**	**Date Collected:**	**12/22/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**1202005811**	**Date Received:**	**12/24/2009 09:30**	**%Moisture:**	**11.9**
Client Sample:	**QC for batch 937366**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**RE03-10-9872MSD**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**937367**	**Inst:**	**MSD1.I**	**Dilution:**	**1**
Run Date:	**12/30/2009 18:12**	**Analyst:**	**AMY**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/29/2009 17:48**	**Aliquot:**	**30.06 g**	**Final Volume:**	**1 mL**
Data File:	**s1l3021.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate		1510	ug/kg	75.5	378
606-20-2	2,6-Dinitrotoluene		1360	ug/kg	37.8	378
208-96-8	Acenaphthylene		1460	ug/kg	11.3	37.8
51-28-5	2,4-Dinitrophenol	J	358	ug/kg	143	755
132-64-9	Dibenzofuran		1720	ug/kg	75.5	378
84-66-2	Diethylphthalate		1660	ug/kg	75.5	378
86-73-7	Fluorene		1470	ug/kg	11.3	37.8
7005-72-3	4-Chlorophenylphenylether		1620	ug/kg	75.5	378
534-52-1	2-Methyl-4,6-dinitrophenol		575	ug/kg	75.5	378
100-01-6	4-Nitroaniline		1070	ug/kg	113	378
	p-Nitroaniline					
122-39-4	Diphenylamine		1540	ug/kg	75.5	378
122-66-7	Azobenzene		1470	ug/kg	75.5	378
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether		1870	ug/kg	75.5	378
118-74-1	Hexachlorobenzene		1760	ug/kg	75.5	378
85-01-8	Phenanthrene		1500	ug/kg	11.3	37.8
120-12-7	Anthracene		1450	ug/kg	7.55	37.8
84-74-2	Di-n-butylphthalate		1800	ug/kg	75.5	378
206-44-0	Fluoranthene		1600	ug/kg	11.3	37.8
85-68-7	Butylbenzylphthalate		1880	ug/kg	75.5	378
56-55-3	Benzo(a)anthracene		1550	ug/kg	11.3	37.8
91-94-1	3,3'-Dichlorobenzidine		1650	ug/kg	113	378
218-01-9	Chrysene		1620	ug/kg	11.3	37.8
117-81-7	bis(2-Ethylhexyl)phthalate		1820	ug/kg	75.5	378
117-84-0	Di-n-octylphthalate		2230	ug/kg	75.5	378
205-99-2	Benzo(b)fluoranthene		1640	ug/kg	11.3	37.8
207-08-9	Benzo(k)fluoranthene		1880	ug/kg	11.3	37.8
50-32-8	Benzo(a)pyrene		1670	ug/kg	11.3	37.8
193-39-5	Indeno(1,2,3-cd)pyrene		1290	ug/kg	11.3	37.8
53-70-3	Dibenzo(a,h)anthracene		1310	ug/kg	11.3	37.8
191-24-2	Benzo(ghi)perylene		1200	ug/kg	11.3	37.8
120-82-1	1,2,4-Trichlorobenzene		1380	ug/kg	75.5	378

GEL Laboratories LLC

Data file : /chem/MSD1.i/s123009.b/s113021.d
Lab Smp Id: 1202005811 Client Smp ID: RE03-10-9872MSD
Inj Date : 30-DEC-2009 18:12
Operator : AMY Inst ID: MSD1.i
Smp Info : |1202005811|937367|1|SVM|1|LANLMS
Misc Info : |MSD8270_S|WBN091223-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD1.i/s123009.b/MSD1-M8270AQA-111409.m
Meth Date : 06-Jan-2010 14:43 amy01291 Quant Type: ISTD
Cal Date : 17-NOV-2009 17:42 Cal File: s1k1264.d
Als bottle: 20 QC Sample: MSD
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-1086.sub
Target Version: 3.50
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.06000	weight of sample
M	11.88000	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.763	3.816	(1.000)	603111	40.0000	
* 29 Naphthalene-d8	136	4.628	4.675	(1.000)	2407761	40.0000	
* 46 Acenaphthene-d10	164	5.869	5.922	(1.000)	1295956	40.0000	
* 67 Phenanthrene-d10	188	6.863	6.904	(1.000)	2214810	40.0000	
* 91 Chrysene-d12	240	8.481	8.533	(1.000)	1827722	40.0000	
* 98 Perylene-d12	264	9.828	9.910	(1.000)	1313789	40.0000	
$ 3 2-Fluorophenol	112	2.975	3.016	(0.791)	1019002	64.6861	2440
$ 5 Phenol-d5	99	3.504	3.546	(0.931)	1274789	66.5815	2510
$ 20 Nitrobenzene-d5	82	4.128	4.181	(0.892)	569539	35.8937	1360
$ 39 2-Fluorobiphenyl	172	5.363	5.416	(0.914)	1245002	40.1121	1510
$ 60 2,4,6-Tribromophenol	329	6.416	6.457	(1.093)	331849	91.7021	3460
$ 81 p-Terphenyl-d14	244	7.775	7.816	(0.917)	1395745	48.6501	1840

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
6 Phenol	94	3.510	3.551	(0.933)	709643	35.1760	1330
8 2-Chlorophenol	128	3.640	3.681	(0.967)	592939	34.5819	1300
11 1,4-Dichlorobenzene	146	3.775	3.822	(1.003)	602424	30.5465	1150
17 N-Nitrosodipropylamine	70	4.004	4.057	(1.064)	388790	33.8227	1280(Q)
28 1,2,4-Trichlorobenzene	180	4.575	4.628	(0.989)	534474	36.6750	1380
33 4-Chloro-3-methylphenol	107	4.993	5.028	(1.079)	532607	41.3357	1560
47 Acenaphthene	154	5.892	5.940	(1.004)	1114295	37.2788	1410
50 2,4-Dinitrotoluene	165	5.992	6.034	(1.021)	418019	35.8465	1350
52 4-Nitrophenol	139	5.969	5.975	(1.017)	149790	24.4989	925
65 Pentachlorophenol	266	6.745	6.775	(0.983)	148513	26.5126	1000
79 Pyrene	202	7.722	7.769	(0.911)	2162524	44.5253	1680
2 Pyridine	79	2.369	2.363	(0.630)	72495	5.04622	190(aR)
4 Aniline	66	3.557	3.604	(0.945)	238536	28.3452	1070(Q)
7 bis(2-Chloroethyl) ether	63	3.569	3.616	(0.948)	452379	32.2332	1220(Q)
9 1,3-Dichlorobenzene	146	3.728	3.781	(0.991)	589553	29.3041	1110
12 Benzyl alcohol	108	3.846	3.887	(1.022)	326035	31.2746	1180
13 1,2-Dichlorobenzene	146	3.875	3.928	(1.030)	582446	31.9785	1210
14 bis(2-Chloroisopropyl)ether	45	3.910	3.957	(1.039)	1063641	31.8182	1200
15 o-Cresol	107	3.904	3.940	(1.038)	504295	39.5114	1490
18 m,p-Cresols	107	3.998	4.046	(1.063)	708202	40.7801	1540
19 Hexachloroethane	117	4.104	4.151	(1.091)	206163	29.0460	1100
21 Nitrobenzene	77	4.140	4.193	(0.894)	604851	36.5854	1380
22 Isophorone	82	4.293	4.346	(0.928)	1154286	39.9096	1510
23 2-Nitrophenol	139	4.357	4.404	(0.942)	287479	32.7568	1240
24 2,4-Dimethylphenol	122	4.357	4.404	(0.942)	540287	38.4464	1450
25 bis(2-Chloroethoxy)methane	93	4.416	4.463	(0.954)	652332	35.0344	1320
26 2,4-Dichlorophenol	162	4.522	4.569	(0.977)	493796	37.4432	1410
27 Benzoic acid	105	4.428	4.475	(0.957)	427435	44.1412	1670
30 Naphthalene	128	4.640	4.693	(1.003)	1668393	33.2012	1250(Q)
31 4-Chloroaniline	127	4.669	4.710	(1.009)	760107	33.1234	1250
32 Hexachlorobutadiene	225	4.704	4.751	(1.017)	288067	38.4951	1450
34 2-Methylnaphthalene	142	5.122	5.169	(1.107)	1203602	36.4349	1380
36 Hexachlorocyclopentadiene	237	5.222	5.269	(0.890)	105168	26.5787	1000
37 2,4,6-Trichlorophenol	196	5.316	5.363	(0.906)	337324	39.1331	1480
38 2,4,5-Trichlorophenol	196	5.357	5.387	(0.913)	425306	46.4022	1750
40 2-Chloronaphthalene	162	5.475	5.522	(0.933)	1157957	36.1936	1370
42 o-Nitroaniline	65	5.540	5.587	(0.944)	375634	37.8660	1430
41 m-Nitroaniline	138	5.834	5.881	(0.994)	293740	33.5107	1260
43 Dimethylphthalate	163	5.640	5.692	(0.961)	1410078	39.9308	1510
44 2,6-Dinitrotoluene	165	5.698	5.745	(0.971)	317925	36.1350	1360
45 Acenaphthylene	152	5.775	5.822	(0.984)	1924576	38.5499	1460
48 2,4-Dinitrophenol	184	5.916	5.945	(1.008)	32907	9.47601	358(aQR)
49 Dibenzofuran	168	6.010	6.057	(1.024)	1966893	45.5013	1720
51 Diethylphthalate	149	6.128	6.175	(1.044)	1451091	44.0762	1660
53 Fluorene	166	6.251	6.292	(1.065)	1358924	38.9888	1470
54 4-Chlorophenylphenylether	204	6.228	6.275	(1.061)	629690	42.7903	1620
55 2-Methyl-4,6-dinitrophenol	198	6.275	6.316	(0.914)	85330	15.2286	575

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
56 p-Nitroaniline	138	6.263	6.304	(1.067)	242597	28.3011	1070
133 Diphenylamine	169	6.310	6.351	(0.919)	1201947	40.6857	1540
58 1,2-Diphenylhydrazine	77	6.334	6.381	(0.923)	1404196	38.9566	1470
61 4-Bromophenylphenylether	248	6.557	6.598	(0.955)	377702	49.6354	1870
63 Hexachlorobenzene	284	6.616	6.657	(0.964)	434252	46.4921	1760
68 Phenanthrene	178	6.881	6.922	(1.003)	1995041	39.6365	1500
69 Anthracene	178	6.910	6.951	(1.007)	1967239	38.4316	1450
72 Di-n-butylphthalate	149	7.151	7.192	(1.042)	2603419	47.6836	1800
76 Fluoranthene	202	7.586	7.628	(1.105)	2060701	42.4141	1600
85 Butylbenzylphthalate	149	8.022	8.069	(0.946)	1103184	49.9115	1880
89 Benzo(a)anthracene	228	8.469	8.522	(0.999)	1801994	41.1166	1550
90 3,3'-Dichlorobenzidine	252	8.422	8.422	(0.993)	551274	43.8076	1650
92 Chrysene	228	8.498	8.551	(1.002)	1759597	42.9563	1620
93 bis(2-Ethylhexyl)phthalate	149	8.357	8.410	(0.985)	1544107	48.0865	1820
94 Di-n-octylphthalate	149	8.845	8.910	(0.900)	2536127	59.0113	2230
95 Benzo(b)fluoranthene	252	9.398	9.469	(0.956)	1451905	43.3333	1640
96 Benzo(k)fluoranthene	252	9.428	9.498	(0.959)	1637897	49.7199	1880
97 Benzo(a)pyrene	252	9.763	9.845	(0.993)	1270000	44.2737	1670
99 Indeno(1,2,3-cd)pyrene	276	11.316	11.427	(1.151)	1017458	34.1162	1290
100 Dibenzo(a,h)anthracene	278	11.310	11.427	(1.151)	867088	34.7831	1310
101 Benzo(ghi)perylene	276	11.780	11.904	(1.199)	782442	31.6936	1200
1 N-Methyl-N-nitrosomethylamine	74	2.299	2.334	(0.611)	289192	33.8035	1280

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
R - Spike/Surrogate failed recovery limits.

Data File: /chem/MSD1.i/s123009.b/s113021.d
Date : 30-DEC-2009 18:12
Client ID: RE03-10-9872MSD
Sample Info: I120200581|1937367|1|SVM|1|LANLHS
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD1.i
Operator: ANY
Column diameter: 0.20

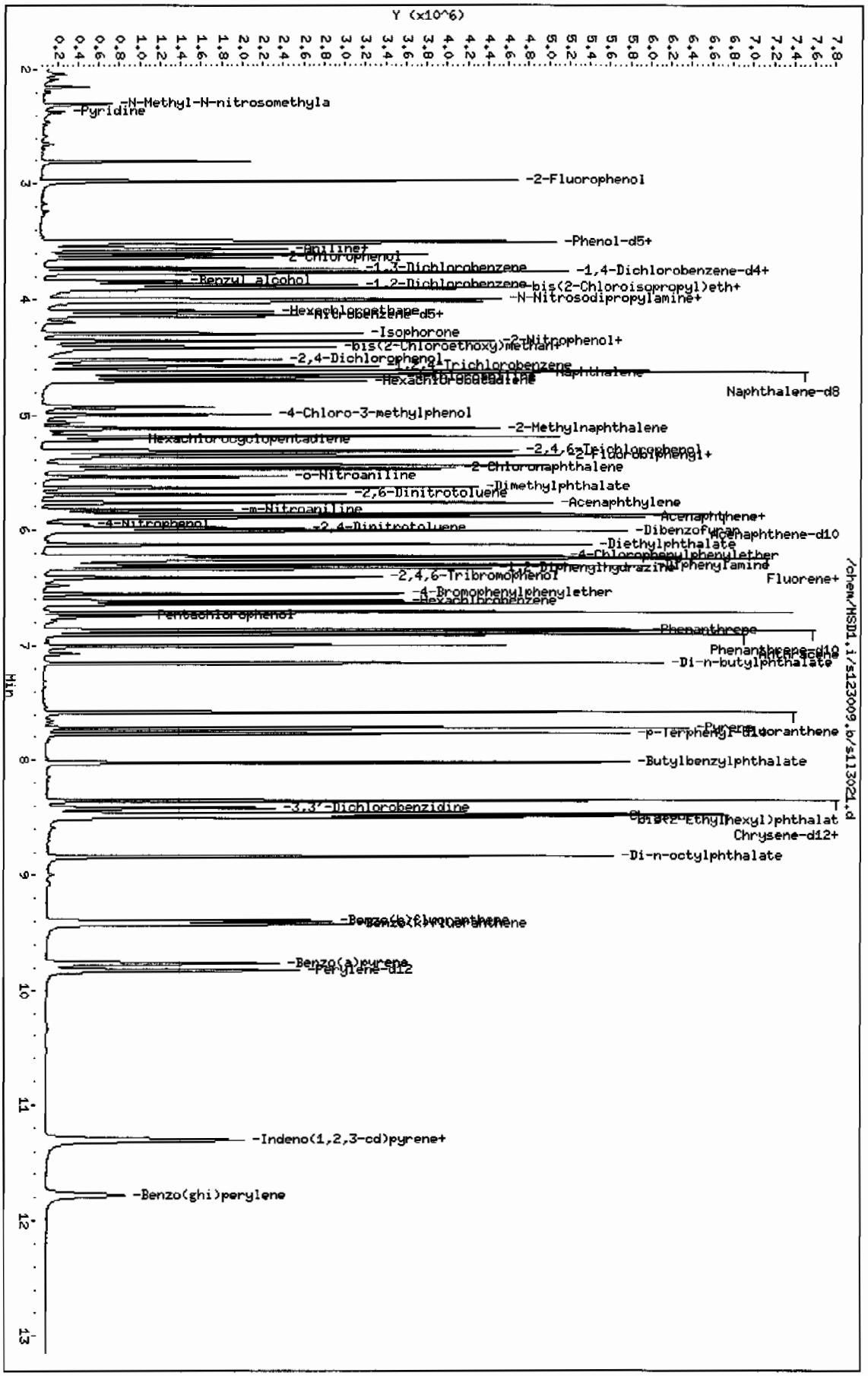

Page 1

Miscellaneous Data

Prep Logbook

Extraction of Semivolatile and Nonvolatile Organic Compounds from Soil, Sludge, and Other Miscellaneous Solid Samples

Batch ID: 937150 **Verified by:** _____

Analyst: Joshua McCartney

Method: SW846 3550B

Lab SOP: GL-OA-E-010 REV# 18

Instrument: Semi-Volatiles Manual

Sample ID	Run Date	Aliquot (g)	Prepped Aliquot (mL)	Prepped Factor (mL/g)
1202005357 MB	29-DEC-2009 10:16:52	30	1	0.03333
1202005358 LCS	29-DEC-2009 10:16:52	30	1	0.03333
243546001	29-DEC-2009 10:16:52	30	1	0.03333
243546002	29-DEC-2009 10:16:52	30.03	1	0.0333
243546003	29-DEC-2009 10:16:52	30.06	1	0.03327
243547002	29-DEC-2009 10:16:52	30	1	0.03333
243547003	29-DEC-2009 10:16:52	30	1	0.03333
243549002	29-DEC-2009 10:16:52	30	1	0.03333
243552001	29-DEC-2009 10:16:52	30.09	1	0.03323
1202005359 MS (243552001)	29-DEC-2009 10:16:52	30.08	1	0.03324
1202005360 MSD (243552001)	29-DEC-2009 10:16:52	30.01	1	0.03332
243552002	29-DEC-2009 10:16:52	30	1	0.03333
243552003	29-DEC-2009 10:16:52	30.05	1	0.03328
243552004	29-DEC-2009 10:16:52	30.03	1	0.0333
243552005	29-DEC-2009 10:16:52	30.01	1	0.03332
243552006	29-DEC-2009 10:16:52	30.02	1	0.03331
243552007	29-DEC-2009 10:16:52	30	1	0.03333
243552008	29-DEC-2009 10:16:52	30	1	0.03333
243552009	29-DEC-2009 10:16:52	30.09	1	0.03323
243552010	29-DEC-2009 10:16:52	30.08	1	0.03324
243552011	29-DEC-2009 10:16:52	30.03	1	0.0333
243552012	29-DEC-2009 10:16:52	30.04	1	0.03329
243552014	29-DEC-2009 10:16:52	30	1	0.03333

Type	Sample Id	Description	Serial Number	Spike Amt	Units
LCS	1202005358	BNA LCS w/o Benzidine 50ppm	UE091217-12	1	mL
LCS	1202005358	BENZIDINE LCS	UE091223-21	1	mL
MS	1202005359	BNA LCS w/o Benzidine 50ppm	UE091217-12	1	mL
MS	1202005359	BENZIDINE LCS	UE091223-21	1	mL
MSD	1202005360	BNA LCS w/o Benzidine 50ppm	UE091217-12	1	mL
MSD	1202005360	BENZIDINE LCS	UE091223-21	1	mL
SURR	All	BNA for all Surrogate	UE091217-10	1	mL
REGNT	All	Acetone	1233927	150	mL
REGNT	All	Methylene Chloride	1242565-D	150	mL
SOURC	All	SODIUM SULFATE	1242582	30	g

Comments:

Verified By: RWH

Final Solvent: CH2Cl2

Prep Logbook

Extraction of Semivolatile and Nonvolatile Organic Compounds from Soil, Sludge, and Other Miscellaneous Solid Samples

Batch ID: 937366 **Verified by:** _____
Analyst: Alberto Velasco
Method: SW846 3550B

Lab SOP: GL-OA-E-010 REV# 18
Instrument: Semi-Volatiles Manual

Sample ID	Run Date	Aliquot (g)	Prepped Aliquot (mL)	Prepped Factor (mL/g)
1202005808 MB	29-DEC-2009 17:48:13	30	1	0.03333
1202005809 LCS	29-DEC-2009 17:48:13	30	1	0.03333
243552016	29-DEC-2009 17:48:13	30.03	1	0.0333
1202005810 MS (243552016)	29-DEC-2009 17:48:13	30.05	1	0.03328
1202005811 MSD (243552016)	29-DEC-2009 17:48:13	30.06	1	0.03327
243552017	29-DEC-2009 17:48:13	30.01	1	0.03332

Type	Sample Id	Description	Serial Number	Spike Amt	Units
LCS	1202005809	BNA LCS w/o Benzidine 50ppm	UE091217-12	1	mL
LCS	1202005809	BENZIDINE LCS	UE091229-21	1	mL
MS	1202005810	BNA LCS w/o Benzidine 50ppm	UE091217-12	1	mL
MS	1202005810	BENZIDINE LCS	UE091229-21	1	mL
MSD	1202005811	BNA LCS w/o Benzidine 50ppm	UE091217-12	1	mL
MSD	1202005811	BENZIDINE LCS	UE091229-21	1	mL
SURR	All	BNA for all Surrogate	UE091217-10	1	mL
REGNT	All	Acetone	1233927	150	mL
REGNT	All	Methylene Chloride	1246976-D	150	mL
SOURC	All	SODIUM SULFATE	1248200	30	g

Comments:

Verified By: AJS
Final Solvent: CH2Cl2

GEL ORGANIC RUN LOG INSTRUMENT ID: MSD3

DATE: 12/06/2009 METHOD: See raw data OPERATOR: JLD1 REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT:1202440-D
Multiplier Voltage: 976 Emv Extr. Injection Volume: 0.5, 1.0 ul
DFTPP Solution ID: WBN091128-01 Internal Std ID: WBN091128-02
CALIBRATION & QC INFORMATION:
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.

SOP: GL-OA-E-009 Rev. 22 Sequence Number: /chem/MSD3.i/s120609.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
s3i1406.d	WBN090825-05.1	JLD1	14-SEP-2009 11:51	40PPM	s091409	1.0	APCVS	DUSE; FOR RT ONLY
s310601-D.d	WBN091128-01	JLD1	06-DEC-2009 09:33	50NG	s120609	1.0	DFTPP	USE; 8270D MEGA ICAL/ICV
s310601.d	WBN091128-01	JLD1	06-DEC-2009 09:33	50NG	s120609	1.0	DFTPP	USE; 8270C MEGA ICAL/ICV
s310602.d	INSTRUMENTBLANK	JLD1	06-DEC-2009 09:45		s120609	1.0		IB
s310603-MQC.	WBN091201-16	JLD1	06-DEC-2009 10:12	01PPM	s120609	1.0	MEGAICAL	8270D MQC NOT NEEDED
s310603.d	WBN091201-16	JLD1	06-DEC-2009 10:12	01PPM	s120609	1.0	MEGAICAL	USE; LEV 1
s310604-MQC.d	WBN091201-15	JLD1	06-DEC-2009 10:41	10PPM	s120609	1.0	MEGAICAL	8270D MQC PASS
s310604.d	WBN091201-15	JLD1	06-DEC-2009 10:41	10PPM	s120609	1.0	MEGAICAL	USE; LEV 2
s310605-MQC.	WBN091201-14	JLD1	06-DEC-2009 11:10	20PPM	s120609	1.0	MEGAICAL	8270D MQC PASS
s310605.d	WBN091201-14	JLD1	06-DEC-2009 11:10	20PPM	s120609	1.0	MEGAICAL	USE; LEV 3
s310606.d	WBN091201-13.1	JLD1	06-DEC-2009 11:39	40PPM	s120609	1.0	MEGAICAL	USE; LEV 4
s310607.d	WBN091201-12	JLD1	06-DEC-2009 12:08	50PPM	s120609	1.0	MEGAICAL	USE; LEV 5
s310608.d	WBN091201-11	JLD1	06-DEC-2009 12:37	80PPM	s120609	1.0	MEGAICAL	USE; LEV 6
s310609.d	WBN091201-10	JLD1	06-DEC-2009 13:06	100PPM	s120609	1.0	MEGAICAL	USE; LEV 7
s310610.d	WBN091201-09	JLD1	06-DEC-2009 13:35	120PPM	s120609	1.0	MEGAICAL	USE; LEV 8
s310611.d	INSTRUMENTBLANK	JLD1	06-DEC-2009 14:04		s120609	1.0		IB
s310612-8270	WBN091106-05.2	JLD1	06-DEC-2009 14:32	40PPM	s120609	1.0	MEGAICV	USE; 8270D 36/210/211/26 ESTIMATED
s310612-BOE.	WBN091106-05.2	JLD1	06-DEC-2009 14:32	40PPM	s120609	1.0	MEGAICV	USE; BOE PASSED ALL BUT 210/211
s310612.d	WBN091106-05.2	JLD1	06-DEC-2009 14:32	40PPM	s120609	1.0	MEGAICV	USE; 8270C PASSED ALL BUT 210/211

s310613-D.d	WBN091128-01	JLD1	06-DEC-2009 19:35	50NG	s120609		1.0	DFTPP	USE; 8270D PEST/HEX ICAL; PEST ICV
s310613.d	WBN091128-01	JLD1	06-DEC-2009 19:35	50NG	s120609		1.0	DFTPP	USE; 8270C PEST/HEX ICAL; PEST ICV
s310614.d	INSTRUMENTBLANK	JLD1	06-DEC-2009 19:47		s120609		1.0		IB
s310615.d	WBN091201-01	JLD1	06-DEC-2009 20:14	10PPM	s120609		1.0	AP010	DUSE; AP ICAL FAILS C 77/146
s310616.d	WBN091201-02	JLD1	06-DEC-2009 20:41	20PPM	s120609		1.0	AP020	DUSE; AP ICAL FAILS C 77/146
s310617.d	WBN091201-03.1	JLD1	06-DEC-2009 21:09	40PPM	s120609		1.0	AP040	DUSE; AP ICAL FAILS C 77/146
s310618.d	WBN091201-04	JLD1	06-DEC-2009 21:36	50PPM	s120609		1.0	AP050	DUSE; AP ICAL FAILS C 77/146
s310619.d	WBN091201-05	JLD1	06-DEC-2009 22:04	80PPM	s120609		1.0	AP080	DUSE; AP ICAL FAILS C 77/146
s310620.d	WBN091201-06	JLD1	06-DEC-2009 22:31	100PPM	s120609		1.0	AP100	DUSE; AP ICAL FAILS C 77/146
s310621.d	WBN091201-07	JLD1	06-DEC-2009 22:58	120PPM	s120609		1.0	AP120	DUSE; AP ICAL FAILS C 77/146
s310622.d	WBN091202-25	JLD1	06-DEC-2009 23:25	10PPM	s120609		1.0	PEST010	USE; LEV 2
s310623.d	WBN091202-24	JLD1	06-DEC-2009 23:53	20PPM	s120609		1.0	PEST020	USE; LEV 3
s310624.d	WBN091202-23.1	JLD1	07-DEC-2009 00:20	40PPM	s120609		1.0	PEST040	USE; LEV 4
s310625.d	WBN091202-22	JLD1	07-DEC-2009 00:47	50PPM	s120609		1.0	PEST050	USE; LEV 5
s310626.d	WBN091202-21	JLD1	07-DEC-2009 01:14	80PPM	s120609		1.0	PEST080	USE; LEV 6
s310627.d	WBN091202-20	JLD1	07-DEC-2009 01:42	100PPM	s120609		1.0	PEST100	USE; LEV 7
s310628.d	WBN091202-19	JLD1	07-DEC-2009 02:09	120PPM	s120609		1.0	PEST120	USE; LEV 8
s310629-MQC.	WBN091202-16	JLD1	07-DEC-2009 02:36	500PPM	s120609		1.0	HEX500	8270 HEX PASS MQC
s310629.d	WBN091202-16	JLD1	07-DEC-2009 02:36	500PPM	s120609		1.0	HEX500	USE; LEV 2
s310630.d	WBN091202-15	JLD1	07-DEC-2009 03:03	1000PPM	s120609		1.0	HEX1000	USE; LEV 3
s310631.d	WBN091202-13	JLD1	07-DEC-2009 03:30	1250PPM	s120609		1.0	HEX1250	USE; LEV 4
s310632.d	WBN091202-12	JLD1	07-DEC-2009 03:57	1500PPM	s120609		1.0	HEX1500	USE; LEV 5

Instrument Batch: /chem/MSD3.i/s120609.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
s310633.d	WBN091202-11	JLD1	07-DEC-2009 04:24	1750PPM	s120609		1.0	HEX1750	USE; LEV 6
s310634.d	UBN090828-02.3	JLD1	07-DEC-2009 04:52	2000PPM	s120609		1.0	HEX2000	USE; LEV 7
s310635.d	WBN091201-08.1	JLD1	07-DEC-2009 05:19	40PPM	s120609		1.0	APICV	DUSE; AP ICAL FAILS C 77/146

s310636-8270	WBN091202-26.1	JLD1	07-DEC-2009 05:46	40PPM	s120609	1.0	PESTICV	USE; 8270D
s310636.d	WBN091202-26.1	JLD1	07-DEC-2009 05:46	40PPM	s120609	1.0	PESTICV	USE; 8270C
s310637.d	WBN091202-10.2	JLD1	07-DEC-2009 06:13	1250PPM	s120609	1.0	HEXICV	DUSE; ICV HIGH

GEL ORGANIC RUN LOG INSTRUMENT ID: MSD3

DATE: 12/08/2009 METHOD: See raw data OPERATOR: JLD1 REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT:1202440-D
Multiplier Voltage: 976 Emv Extr. Injection Volume: 0.5, 1.0 ul
DFTPP Solution ID: WBN091128-01 Internal Std ID: WBN091128-02
CALIBRATION & QC INFORMATION:
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.

SOP: GL-OA-E-009 Rev. 22 Sequence Number: /chem/MSD3.i/s120809.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
s310801-D.d	WBN091128-01	JLD1	08-DEC-2009 09:03	50NG	s120809	1.0	DFTPP	USE; 8270D AP ICAL/ICV; HEX ICV
s310801.d	WBN091128-01	JLD1	08-DEC-2009 09:03	50NG	s120809	1.0	DFTPP	USE; 8270C AP ICAL/ICV; HEX ICV
s310802.d	INSTRUMENTBLANK	JLD1	08-DEC-2009 09:15		s120809	1.0		IB
s310803-MQC.	WBN091201-01	JLD1	08-DEC-2009 09:42	10PPM	s120809	1.0	AP010	8270D FAIL MIN QUANT CHECK FOR C 77
s310803.d	WBN091201-01	JLD1	08-DEC-2009 09:42	10PPM	s120809	1.0	AP010	USE; LEV 2
s310804.d	WBN091201-02	JLD1	08-DEC-2009 10:09	20PPM	s120809	1.0	AP020	USE; LEV 3
s310805.d	WBN091201-03.1	JLD1	08-DEC-2009 10:37	40PPM	s120809	1.0	AP040	USE; LEV 4
s310806.d	WBN091201-04	JLD1	08-DEC-2009 11:04	50PPM	s120809	1.0	AP050	USE; LEV 5
s310807.d	WBN091201-05	JLD1	08-DEC-2009 11:31	80PPM	s120809	1.0	AP080	USE; LEV 6
s310808.d	WBN091201-06	JLD1	08-DEC-2009 11:58	100PPM	s120809	1.0	AP100	USE; LEV 7
s310809.d	WBN091201-07	JLD1	08-DEC-2009 12:26	120PPM	s120809	1.0	AP120	USE; LEV 8 (ICAL FAILS C 120)
s310810-8270	WBN091201-08.1	JLD1	08-DEC-2009 12:53	40PPM	s120809	1.0	APICV	USE; 8270D 110/119/124/136 ESTIMATED
s310810.d	WBN091201-08.1	JLD1	08-DEC-2009 12:53	40PPM	s120809	1.0	APICV	USE; 8270C PASS
s310811-8270	WBN090827-10.3	JLD1	08-DEC-2009 13:20	1250PPM	s120809	1.0	HEXICV	USE; 8270D PASS
s310811.d	WBN090827-10.3	JLD1	08-DEC-2009 13:20	1250PPM	s120809	1.0	HEXICV	USE; 8270C PASS

GEL ORGANIC RUN LOG INSTRUMENT ID: MSD1

DATE: 11/14/2009 METHOD: See raw data OPERATOR: AMY REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT:116462-D
Multiplier Voltage: 1400 Emv Extr. Injection Volume: 0.5, 1.0 ul
DFTPP Solution ID: WBN091101-01 Internal Std ID: WBN091024-01
CALIBRATION & QC INFORMATION:
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.

SOP: GL-OA-E-009 Rev. 22 Sequence Number: /chem/MSD1.i/s111409.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
s1k1201-D.d	WBN091101-01	AMY	14-NOV-2009 17:38	50 PPM	s111409	1.0	DFTPP	TUNE-MEGA ICAL
s1k1201.d	WBN091101-01	AMY	14-NOV-2009 17:38	50 PPM	s111409	1.0	DFTPP	TUNE-MEGA ICAL
s1k1202.d	INST BLK	amy	14-NOV-2009 17:53	-----	s111409	1.0	INST BLK	
s1k1203.d	WBN091111-16	amy	14-NOV-2009 18:22	1 PPM	s111409	1.0	MEGA001	
s1k1204.d	WBN091111-15	amy	14-NOV-2009 18:51	10 PPM	s111409	1.0	MEGA010	
s1k1204MRQ.d	WBN091111-15	amy	14-NOV-2009 18:51	10 PPM	s111409	1.0	MEGA010	pass linearity for c26 and c184
s1k1205.d	WBN091111-14	amy	14-NOV-2009 19:21	20 PPM	s111409	1.0	MEGA020	
s1k1206.d	WBN091111-13.1	amy	14-NOV-2009 19:50	40 PPM	s111409	1.0	MEGA040	
s1k1207.d	WBN091111-12	amy	14-NOV-2009 20:19	50 PPM	s111409	1.0	MEGA050	
s1k1208.d	WBN091111-11	amy	14-NOV-2009 20:47	80 PPM	s111409	1.0	MEGA080	
s1k1209.d	WBN091111-10	amy	14-NOV-2009 21:16	100 PPM	s111409	1.0	MEGA100	
s1k1210.d	WBN091111-09	amy	14-NOV-2009 21:45	120 PPM	s111409	1.0	MEGA120	
s1k1211.d	INST BLK	amy	14-NOV-2009 22:14	-----	s111409	1.0	INST BLK	
s1k1212-BOE.d	WBN091111-17.1	amy	14-NOV-2009 22:43	40 PPM	s111409	1.0	MEGAICV	DUSE-fail c65
s1k1212-D.d	WBN091111-17.1	amy	14-NOV-2009 22:43	40 PPM	s111409	1.0	MEGAICV	DUSE-fail c65
s1k1212.d	WBN091111-17.1	amy	14-NOV-2009 22:43	40 PPM	s111409	1.0	MEGAICV	DUSE: fails c65
s1k1213-D.d	WBN091101-01	AMY	15-NOV-2009 14:50	50 PPM	s111409	1.0	DFTPP	TUNE-AP/PEST/HEX ICALS
s1k1213.d	WBN091101-01	AMY	15-NOV-2009 14:50	50 PPM	s111409	1.0	DFTPP	TUNE-AP/PEST/HEX ICALS
s1k1214.d	INST BLK	amy	15-NOV-2009 15:05	-----	s111409	1.0	INST BLK	

s1k1215.d	WBN091111-01	amy	15-NOV-2009 15:28	10 PPM	s111409		1.0	AP010	
s1k1216.d	WBN091111-02	amy	15-NOV-2009 15:51	20 PPM	s111409		1.0	AP020	
s1k1217.d	WBN091111-03.1	amy	15-NOV-2009 16:14	40 PPM	s111409		1.0	AP040	
s1k1218.d	WBN091111-04	amy	15-NOV-2009 16:38	50 PPM	s111409		1.0	AP050	
s1k1219.d	WBN091111-05	amy	15-NOV-2009 17:01	80 PPM	s111409		1.0	AP080	
s1k1220.d	WBN091111-06	amy	15-NOV-2009 17:24	100 PPM	s111409		1.0	AP100	
s1k1221.d	WBN091111-07	amy	15-NOV-2009 17:47	120 PPM	s111409		1.0	AP120	
s1k1222.d	WBN091029-25	amy	15-NOV-2009 18:11	10 PPM	s111409		1.0	PEST010	
s1k1223.d	WBN091029-24	amy	15-NOV-2009 18:35	20 PPM	s111409		1.0	PEST020	
s1k1224.d	WBN091029-23.1	amy	15-NOV-2009 18:58	40 PPM	s111409		1.0	PEST040	
s1k1225.d	WBN091029-22	amy	15-NOV-2009 19:21	50 PPM	s111409		1.0	PEST050	
s1k1226.d	WBN091029-21	amy	15-NOV-2009 19:45	80 PPM	s111409		1.0	PEST080	
s1k1227.d	WBN091029-20	amy	15-NOV-2009 20:09	100 PPM	s111409		1.0	PEST100	
s1k1228.d	WBN091029-19	amy	15-NOV-2009 20:31	120 PPM	s111409		1.0	PEST120	
s1k1229.d	WBN091016-16	amy	15-NOV-2009 20:55	500 PPM	s111409		1.0	HEX500	
s1k1230.d	WBN091016-15	amy	15-NOV-2009 21:18	1000 PPM	s111409		1.0	HEX1000	
s1k1231.d	WBN091016-14	amy	15-NOV-2009 21:42	1250 PPM	s111409		1.0	HEX1250	
s1k1232.d	WBN091016-13	amy	15-NOV-2009 22:06	1500 PPM	s111409		1.0	HEX503	
s1k1233.d	WBN091016-12	amy	15-NOV-2009 22:30	1750 PPM	s111409		1.0	HEX504	
s1k1234.d	UBN090825-02.4	amy	15-NOV-2009 22:53	2000 PPM	s111409		1.0	HEX2000	
s1k1235-D.d	WBN091111-08.1	amy	15-NOV-2009 23:17	40 PPM	s111409		1.0	APICV	
s1k1235.d	WBN091111-08.1	amy	15-NOV-2009 23:17	40 PPM	s111409		1.0	APICV	
s1k1236-D.d	WBN091029-26.1	amy	15-NOV-2009 23:40	40 PPM	s111409		1.0	PESTICV	
s1k1236.d	WBN091029-26.1	amy	15-NOV-2009 23:40	40 PPM	s111409		1.0	PESTICV	
s1k1237-D.d	WBN091016-10.2	amy	16-NOV-2009 00:03	1250 PPM	s111409		1.0	HEXICV	
s1k1237.d	WBN091016-10.2	amy	16-NOV-2009 00:03	1250 PPM	s111409		1.0	HEXICV	
s1k1238-D.d	WBN091101-01	AMY	16-NOV-2009 00:27	50 PPM	s111409		1.0	DFTPP	DUSE: fails breakdown

s1k1238.d	WBN091101-01	AMY	16-NOV-2009 00:27	50 PPM	s111409	1.0	DFTPP	DUSE: fails breakdown
s1k1239.d	INST BLK	amy	16-NOV-2009 00:43	-----	s111409	1.0	INST BLK	
s1k1240.d	UBN090924-01	amy	16-NOV-2009 01:05	10 PPM	s111409	1.0	NEV010	DUSE
s1k1241.d	UBN090924-02	amy	16-NOV-2009 01:28	20 PPM	s111409	1.0	NEV020	DUSE
s1k1242.d	UBN090924-03	amy	16-NOV-2009 01:51	40 PPM	s111409	1.0	NEV040	DUSE
s1k1243.d	UBN090924-04	amy	16-NOV-2009 02:14	50 PPM	s111409	1.0	NEV050	DUSE
s1k1244.d	UBN090924-05	amy	16-NOV-2009 02:38	80 PPM	s111409	1.0	NEV080	DUSE
s1k1245.d	UBN090924-06	amy	16-NOV-2009 03:01	100 PPM	s111409	1.0	NEV100	DUSE
s1k1246.d	UBN090924-07	amy	16-NOV-2009 03:23	120 PPM	s111409	1.0	NEV120	DUSE
s1k1247-D.d	WBN091101-01	AMY	17-NOV-2009 09:05	50 PPM	s111409	1.0	DFTPP	DUSE
s1k1247.d	WBN091101-01	AMY	17-NOV-2009 09:05	50 PPM	s111409	1.0	DFTPP	DUSE
s1k1248.d	INST BLK	amy	17-NOV-2009 09:20	-----	s111409	1.0	INST BLK	
s1k1249.d	WBN091027-09.2	amy	17-NOV-2009 09:48	40 PPM	s111409	1.0	MEGAICV	DUSE: c65 fails
s1k1250.d	UBN090924-01	amy	17-NOV-2009 10:17	10 PPM	s111409	1.0	NEV010	DUSE
s1k1251.d	UBN090924-02	amy	17-NOV-2009 10:41	20 PPM	s111409	1.0	NEV020	DUSE
s1k1252.d	UBN090924-03	amy	17-NOV-2009 11:04	40 PPM	s111409	1.0	NEV040	DUSE
s1k1253.d	UBN090924-04	amy	17-NOV-2009 11:27	50 PPM	s111409	1.0	NEV050	DUSE
s1k1254.d	UBN090924-05	amy	17-NOV-2009 11:50	80 PPM	s111409	1.0	NEV080	DUSE
s1k1255.d	UBN090924-06	amy	17-NOV-2009 12:14	100 PPM	s111409	1.0	NEV100	DUSE
s1k1256.d	UBN090924-07	amy	17-NOV-2009 12:38	120 PPM	s111409	1.0	NEV120	DUSE
s1k1257.d	WBN091027-09.1	amy	17-NOV-2009 13:02	40 PPM	s111409	1.0	MEGAICV	DUSE: c65 fails /clean inj port
s1k1259-D.d	WBN091101-01	AMY	17-NOV-2009 15:48	50 PPM	s111409	1.0	DFTPP	TUNE-MEGAICV/NEV ICAL
s1k1259.d	WBN091101-01	AMY	17-NOV-2009 15:48	50 PPM	s111409	1.0	DFTPP	TUNE-MEGAICV/NEV ICAL
s1k1260.d	INST BLK	amy	17-NOV-2009 16:04	-----	s111409	1.0	INST BLK	
s1k1261-BOE.d	WBN091027-09.3	amy	17-NOV-2009 16:27	40 PPM	s111409	1.0	MEGAICV	
s1k1261-D.d	WBN091027-09.3	amy	17-NOV-2009 16:27	40 PPM	s111409	1.0	MEGAICV	
s1k1261.d	WBN091027-09.3	amy	17-NOV-2009 16:27	40 PPM	s111409	1.0	MEGAICV	pass 530038

s1k1262.d	UBN091117-01	amy	17-NOV-2009 16:56	10 PPM	s111409	1.0	NEV010	
s1k1263.d	UBN091117-02	amy	17-NOV-2009 17:19	20 PPM	s111409	1.0	NEV020	
s1k1264.d	UBN091117-03	amy	17-NOV-2009 17:42	40 PPM	s111409	1.0	NEV040	
s1k1265.d	UBN091117-04	amy	17-NOV-2009 18:05	50 PPM	s111409	1.0	NEV050	DUSE
s1k1266.d	UBN091117-05	amy	17-NOV-2009 18:28	80 PPM	s111409	1.0	NEV080	
s1k1267.d	UBN091117-06	amy	17-NOV-2009 18:52	100 PPM	s111409	1.0	NEV100	DUSE
s1k1268.d	UBN091117-07	amy	17-NOV-2009 19:15	120 PPM	s111409	1.0	NEV120	

GEL ORGANIC RUN LOG INSTRUMENT ID: MSD1

DATE: 12/30/2009 METHOD: See raw data OPERATOR: AMY REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT:1202440-D
Multiplier Voltage: 1318 Emv Extr. Injection Volume: 0.5, 1.0 ul
DFTPP Solution ID: WBN091101-01 Internal Std ID: WBN091106-10
CALIBRATION & QC INFORMATION:
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.

SOP: GL-OA-E-009 Rev. 23 Sequence Number: /chem/MSD1.i/s123009.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
s113001.d	INSTBLK	AMY	30-DEC-2009 10:00		all	1.0		DUSE
s113002-D.d	WBN091213-01	AMY	30-DEC-2009 10:24	50 PPM	s123009	1.0	DFTPP	PASSING
s113002.d	WBN091213-01	AMY	30-DEC-2009 10:24	50 PPM	s123009	1.0	DFTPP	PASSING
s113003-D.d	WBN091111-17.2	AMY	30-DEC-2009 10:40	40 PPM	MEGAIICARE	1.0	MEGACVS	PASSING
s113003.d	WBN091111-17.2	AMY	30-DEC-2009 10:40	40 PPM	MEGAIICARE	1.0	MEGACVS	PASSING
s113004.d	WBN091201-03.5	AMY	30-DEC-2009 11:22	40 PPM	ap12	1.0	APCVS	Failing c.77
s113005.d	WBN091202-23.3	AMY	30-DEC-2009 11:46	40 PPM	pest	1.0	PESTCVS	PASSING-not needed
s113006-1.d	1202003528	AMY	30-DEC-2009 12:10	936371	10-1005	1.0	SBLK01	REPORT
s113006.d	1202003528	AMY	30-DEC-2009 12:10	936371	10-940	1.0	SBLK01	REPORT
s113007-2.d	1202003529	AMY	30-DEC-2009 12:33	936371	10-1005	1.0	SBLK01LCS	REPORT
s113007.d	1202003529	AMY	30-DEC-2009 12:33	936371	10-940	1.0	SBLK01LCS	REPORT
s113008.d	1202002434	AMY	30-DEC-2009 12:57	935486	s123009	1.0	SBLK01	DUSE-batch looking for c.77
s113009.d	1202002435	AMY	30-DEC-2009 13:21	935486		1.0	SBLK01LCS	DUSE-batch looking for c.77
s113010.d	243406009	AMY	30-DEC-2009 13:44	935855	10-1011	10.0	LANL	REPORT-rr of s112826
s113011.d	243406008	AMY	30-DEC-2009 14:08	935855	10-1011	4.0	LANL	REPORT-rr of s112825
s113012.d	243406003	AMY	30-DEC-2009 14:33	935855	10-1011	2.0	LANL	REPORT-rr of s112819
s113013.d	243033006	AMY	30-DEC-2009 14:57	936371	10-940	1.0	LANLRE	REPORT-RE of s612219
s113014.d	243393002	AMY	30-DEC-2009 15:21	936371	10-1005	1.0	LANL	REPORT
s113015.d	1202003530	AMY	30-DEC-2009 15:46	936371	10-1005	1.0	LANLMS	REPORT-c90 low, confirmed in MSD

s113016.d	1202003531	AMY	30-DEC-2009 16:10	936371	10-1005	1.0	LANLMSD	REPORT-c90 low, confirmed in MS
s113017.d	1202005808	AMY	30-DEC-2009 16:34	937367	10-1086	1.0	SBLK01	REPORT
s113018.d	1202005809	AMY	30-DEC-2009 16:59	937367	10-1086	1.0	SBLK01LCS	REPORT-c53 low, c94 high
s113019.d	243552016	AMY	30-DEC-2009 17:23	937367	10-1086	1.0	LANL	REPORT
s113020.d	1202005810	AMY	30-DEC-2009 17:47	937367	10-1086	1.0	LANLMS	REPORT-c2 low, confirmed by MSD
s113021.d	1202005811	AMY	30-DEC-2009 18:12	937367	10-1086	1.0	LANLMSD	REPORT-c2 low, confirmed by MS. c48 low, matrix.
s113022.d	243552017	AMY	30-DEC-2009 18:36	937367	10-1086	1.0	LANL	REPORT
s113023.d	1202003597	AMY	30-DEC-2009 19:00	937379	EUI-7448	1.0	TBLK01	PASS
s113024.d	1202005833	AMY	30-DEC-2009 19:24	937379	EUI-7448	1.0	MB	PASS
s113025.d	1202005834	AMY	30-DEC-2009 19:48	937379	EUI-7448	1.0	LCS	RR for c65 failure
s113026.d	UE091230-16	AMY	30-DEC-2009 20:12	SCREEN	all	1.0	TCLPLCS	PASS
s113027.d	243361001	AMY	30-DEC-2009 20:36	937379	EUI-7448	1.0	CARE	PASS
s113028.d	1202005835	AMY	30-DEC-2009 21:00	937379	EUI-7448	1.0	MS	PASS
s113029.d	1202005836	AMY	30-DEC-2009 21:24	937379	EUI-7448	1.0	MSD	PASS

GEL ORGANIC RUN LOG INSTRUMENT ID: MSD3

DATE: 01/04/2010 METHOD: See raw data OPERATOR: JLD1 REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT:1238037-D
Multiplier Voltage: 1059 Emv Extr. Injection Volume: 0.5, 1.0 ul
DFTPP Solution ID: WBN091213-01 Internal Std ID: WBN091223-01
CALIBRATION & QC INFORMATION:
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.

SOP: GL-OA-E-009 Rev. 23 Sequence Number: /chem/MSD3.i/s010410a.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
s3a0409.d	WBN091213-01	JLD1	04-JAN-2010 15:08	50NG	s010410	1.0	DFTPP	USE
s3a0410.d	WBN091201-17.3	JLD1	04-JAN-2010 15:20	40PPM	s010410	1.0	MEGACVS	USE (125043)
s3a0411.d	WBN100103-08.2	JLD1	04-JAN-2010 15:49	40PPM	s010410a	1.0	APCVS	USE
s3a0412.d	WBN100103-26.2	JLD1	04-JAN-2010 16:16	40PPM	s010410a	1.0	PESTCVS	USE
s3a0413-1.d	1202005357	JLD1	04-JAN-2010 16:44	937151	10-1084	1.0	SBLK01	USE
s3a0413-2.d	1202005357	JLD1	04-JAN-2010 16:44	937151	10-1085	1.0	SBLK01	USE
s3a0413-3.d	1202005357	JLD1	04-JAN-2010 16:44	937151	10-1086	1.0	SBLK01	USE
s3a0413.d	1202005357	JLD1	04-JAN-2010 16:44	937151	10-1083	1.0	SBLK01	USE
s3a0414-1.d	1202005358	JLD1	04-JAN-2010 17:08	937151	10-1084	1.0	SBLK01LCS	USE
s3a0414-2.d	1202005358	JLD1	04-JAN-2010 17:08	937151	10-1085	1.0	SBLK01LCS	USE
s3a0414-3.d	1202005358	JLD1	04-JAN-2010 17:08	937151	10-1086	1.0	SBLK01LCS	USE
s3a0414.d	1202005358	JLD1	04-JAN-2010 17:08	937151	10-1083	1.0	SBLK01LCS	USE
s3a0415.d	243510010	JLD1	04-JAN-2010 17:33	937147	10-1070	1.0	LANL	USE; RR OF S3A0219; ISTD PASS
s3a0416.d	243546001	JLD1	04-JAN-2010 17:57	937151	10-1083	1.0	LANL	USE
s3a0417.d	243546002	JLD1	04-JAN-2010 18:21	937151	10-1083	1.0	LANL	USE
s3a0418.d	243546003	JLD1	04-JAN-2010 18:46	937151	10-1083	1.0	LANL	USE
s3a0419.d	243547002	JLD1	04-JAN-2010 19:10	937151	10-1084	1.0	LANL	USE
s3a0420.d	243547003	JLD1	04-JAN-2010 19:35	937151	10-1084	1.0	LANL	USE
s3a0421.d	243549002	JLD1	04-JAN-2010 19:59	937151	10-1085	1.0	LANL	USE

s3a0422.d	243552001	JLD1	04-JAN-2010 20:24	937151	10-1086		1.0	LANL	USE
s3a0423.d	1202005359	JLD1	04-JAN-2010 20:49	937151	10-1086		1.0	MS	USE
s3a0424.d	1202005360	JLD1	04-JAN-2010 21:13	937151	10-1086		1.0	MSD	USE
s3a0425.d	243552002	JLD1	04-JAN-2010 21:37	937151	10-1086		1.0	LANL	USE
s3a0426.d	243552003	JLD1	04-JAN-2010 22:02	937151	10-1086		1.0	LANL	USE
s3a0427.d	243552004	JLD1	04-JAN-2010 22:27	937151	10-1086		1.0	LANL	USE
s3a0428.d	243552005	JLD1	04-JAN-2010 22:51	937151	10-1086		1.0	LANL	USE
s3a0429.d	243552006	JLD1	04-JAN-2010 23:15	937151	10-1086		1.0	LANL	USE
s3a0430.d	243552007	JLD1	04-JAN-2010 23:40	937151	10-1086		1.0	LANL	USE
s3a0431.d	243552008	JLD1	05-JAN-2010 00:04	937151	10-1086		1.0	LANL	USE
s3a0432.d	243552009	JLD1	05-JAN-2010 00:29	937151	10-1086		1.0	LANL	USE
s3a0433.d	243552010	JLD1	05-JAN-2010 00:54	937151	10-1086		1.0	LANL	USE
s3a0434.d	243552011	JLD1	05-JAN-2010 01:18	937151	10-1086		1.0	LANL	USE
s3a0435.d	243552012	JLD1	05-JAN-2010 01:42	937151	10-1086		1.0	LANL	USE
s3a0436.d	243552014	JLD1	05-JAN-2010 02:07	937151	10-1086		1.0	LANL	USE

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
06-JAN-10	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
SEMIVOA GC/MS	SW846 8270C	Solid	LANL
Batch ID:	**Sample Numbers:**		
937367	See Below		

Potentially affected work order(s)(SDG): 243552(10-1086)

Application Issues:

Failed Recovery for MS/PS

Failed RPD for MS/MSD, or PS/PSD

Failed Recovery for LCS/LCSD

Failed Recovery for MSD/PSD

Specification and Requirements Exception Description:	DER Disposition:
1. The LCS(1202005809) recovered recovered Di-n-octylphthalate at 137%. The limits are 39%-123%.	1. The LCS failure represented less than 5% of the total requested spike analyte list. That satisfied the acceptance criteria for the client and the data results have been reported.
2. The MS(1202005810) recovered Pyridine at 6%. The limits are 30%-95%.	2. Since the MSD displayed a similar recovery to the MS, the failure was attributed to matrix interference and the data results have been reported.
3. The MSD(1202005811) recovered Pyridine at 10% (limits are 30%-95%) and 2,4-Dinitrophenol at 19% (limits are 25%-104%).	3. Since the MS displayed similar recovery to the MSD for Pyridine, the failure was attributed to matrix interference and the data results have been reported. The MS passed for 2,4-Dinitrophenol. There were multiple MS/MSD RPD value failures (see item #4 below). Therefore, the failure was attributed to an inconsistent sample matrix (matrix interference) associated with the soil samples.
4. Multiple MS(1202005810)/MSD(1202005811) RPD failures were outside of the established acceptance limits. Please see the QC Summary Report for specific failures.	4. Since the failed RPD analytes were individually within the acceptance limits for the MS and MSD (with the exception of Pyridine and 2,4-Dinitrophenol, see Dispositions 2 & 3 above), the failure was attributed to an inconsistent sample matrix (matrix interference) associated with the soil samples.

Originator's Name:

Amy Carroll 06-JAN-10

Data Validator/Group Leader:

Daniel Beacham 19-JAN-10

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
06-JAN-10	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
SEMIVOA GC/MS	SW846 8270C	Solid	LANL
Batch ID:	**Sample Numbers:**		
937151	See Below		

Potentially affected work order(s)(SDG): 243546(10-1083),243547(10-1084),243549(10-1085),243552(10-1086)

Application Issues:

Failed Recovery for MSD/PSD

Specification and Requirements Exception Description:	DER Disposition:
1. The MSD(1202005360) recovered 3,3'-Dichlorobenzidine at 31% (limits: 35%-106%).	1. The associated MS displayed a similar low (but passing) recovery for that analyte. Therefore, the failure was attributed to sample matrix interference and the data were reported.

Originator's Name:

Jennifer Dunagan Jones06-JAN-10

Data Validator/Group Leader:

Daniel Beacham 11-JAN-10

GC SEMIVOLATILE PCB ANALYSIS

PCB Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-1086

Method/Analysis Information

Procedure:	**Analysis of Polychlorinated Biphenyls by ECD**
Analytical Method:	SW846 8082
Prep Method:	SW846 3550B
Analytical Batch Number:	937178, 937369
Prep Batch Number:	937176, 937368

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 8082:

Sample ID	Client ID
243552001	RE03-09-14233
243552002	RE03-09-14236
243552003	RE03-09-14239
243552004	RE03-09-14240
243552005	RE03-09-14231
243552006	RE03-09-14232
243552007	RE03-09-14235
243552008	RE03-09-14238
243552009	RE03-09-14234
243552010	RE03-09-14241
243552011	RE03-10-2737
243552012	RE03-10-2736
243552014	RE03-10-9873
1202005418	Method Blank (MB) (Batch 937178)
1202005419	Laboratory Control Sample (LCS) (Batch 937178)
1202005420	243552003(RE03-09-14239) Matrix Spike (MS) (Batch 937178)
1202005421	243552003(RE03-09-14239) Matrix Spike Duplicate (MSD) (Batch 937178)
243552016	RE03-10-9872
243552017	RE03-10-9874

1202005812	Method Blank (MB) (Batch 937369)
1202005813	Laboratory Control Sample (LCS) (Batch 937369)
1202005814	243552017(RE03-10-9874) Matrix Spike (MS) (Batch 937369)
1202005815	243552017(RE03-10-9874) Matrix Spike Duplicate (MSD) (Batch 937369)

The samples in this SDG were analyzed on a "dry weight" basis.

Preparation/Analytical Method Verification

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-040 REV# 14.

Raw data reports are processed and reviewed by the analyst using the Target software package. False positives have been removed from the Target quantitation reports per standard operating procedures (SOP) section 23.0.

Calibration Information

Please note that the 'Cal Date' indicated on each quantitation report reflects the date and time of the most recent calibrated analyte(s) in the Target processing method. Since the laboratory may calibrate with multiple solutions on different days using the same processing method, the Target software will update the 'Cal Date' to the last calibration file, date and time. The correct dates and times for all calibration files are located on the Calibration History report in the Standard Data section in the data package.

Due to software limitations, the Calibration Summary Form 6 may not indicate all the calibration files comprising the initial calibration. A complete list of the initial calibration data files are shown in the Calibration History report located in the Standard Data section of the data package.

Initial Calibration
All initial calibration requirements have been met for this sample delivery group (SDG).

The linear equation used in Target and indicated on the initial calibration summary form is not a conventional linear equation (slope intercept formula) and does not match the equation found in SW-846 method 8000B. The x and y axes are inversed in Target, so that the instrument response is treated as the independent variable (x) and the concentration ratio is treated as the dependent variable (y). The equation used in Target to calculate sample results is adjusted to account for the linear equation inversion and reciprocal slope. The adjusted calculation has been independently verified to produce valid results.

Continuing Calibration Verification (CCV) Requirements
All associated calibration verification standard(s) (ICV or CCV) met the acceptance criteria.

Surrogate recovery did not meet the acceptance criteria in the standards bracketing the samples in this SDG; however, this had no adverse effects on the data as the surrogate recovery was well within the acceptance range in the sample in this SDG.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB(s) analyzed with this SDG met the acceptance criteria.

Surrogate Recoveries
All surrogate recoveries were within the established acceptance criteria for this SDG.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

QC Sample Designation
Sample 243552003 (RE03-09-14239) was selected for the matrix spike and matrix spike duplicate analysis in batch 937178.

Sample 243552017 (RE03-10-9874) was selected for the matrix spike and matrix spike duplicate analysis in batch 937369.

Matrix Spike (MS) Recovery Statement
The MS recoveries for this SDG were within the established acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recoveries for this SDG were within the established acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD between the MS and MSD met the acceptance limits.

Technical Information

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP. All sample extracts were cleaned using alumina. Additionally, copper was added to all sample extracts to remove sulfur.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-extraction/Re-analysis
Re-extractions or re-analyses were not required in this SDG.

Miscellaneous Information

Electronic Package Comment

The following package was generated using an electronic data processing program referred to as "virtual packaging". In an effort to increase quality and efficiency, the laboratory is developing systems to eventually generate all data packages electronically. The following change from "traditional" packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. An electronic signature page inserted after the case narrative of each electronic package will indicate the analyst, reviewer, and report specialist names associated with the generation of the data and package. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Data Exception (DER) Documentation
Data exception report (DER) is for documentation of any procedural anomalies that may deviate from referenced SOP or contractual document. A DER was not required for this SDG.

Manual Integration
Certain standards and samples may have required manual integration to correctly position the baseline as set in the calibration standard injections. If manual integration was performed, copies of all manual integration peak profiles are included in the raw data section of this PCB fraction.

Additional Comments
The additional comments field is used to address special issues associated with each analysis, clarify method/contractual issues pertaining to the analysis, and to list any report documents generated as a result of sample analysis or review. The following additional comments were required:

The higher results from either column have been chosen and reported in the data package for the client samples, MB and LCS. The data reported for the MS and MSD are from the same analytical column as the parent sample.

The data reported on the form I and III may differ slightly from the data reported on the form X. This is due to software limitations in rounding differences between the forms.

Aroclors quantitated on the raw data report by the Target data system do not necessarily represent positive Aroclor identification. In order for positive identification to be made, the Aroclor must match in pattern and retention time; as well as quantitate relatively close between the primary and confirmation columns, as specified in SW846 method 8000. When these conditions are not met, the Aroclor is reported as a non-detect on the data report. These situations will be noted on the raw data as DMP, representing does not match pattern, or DNC does not confirm.

Due to software limitation, the Form VIIs will display the results either in the % difference or % drift depending on the type of the calibration curve. If the curve of all analytes is generated using an average response factor (RF), the Form VII will display results using the %difference calculation (RF). If the curve of one or more analytes is generated using a linear curve, the Form VII will display results using the % drift calculation (by concentration) for all analytes.

System Configuration

The Semi-Volatiles-PCB analysis was performed on the following instrument configuration:

Instrument ID	Instrument	System Configuration	Column ID	Column Description
ECD1A.I_1	HP Gas Chromatograph	HP6890 Series ECD	Rtx-CLP I	30m x 0.25mm, 0.25um (Rtx-CLPesticide)
ECD1A.I_2	HP Gas Chromatograph	HP6890 Series ECD	Rtx-CLP II	30m x 0.25mm, 0.20um (Rtx-CLPesticideII)
ECD2A.I_1	HP Gas Chromatograph	HP6890 Series ECD	Rtx-CLP I	30m x 0.25mm, 0.25um (Rtx-CLPesticide)
ECD2A.I_2	HP Gas Chromatograph	HP6890 Series ECD	Rtx-CLP II	30m x 0.25mm, 0.20um (Rtx-CLPesticide II)

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Jimmi Cao Date: 1/20/10

Roadmap for LANL 10-1086 PCB

This roadmap was analyzed by jen01212 on 01-05-2010, 09:42.
This roadmap was reviewed by jim01140 on 01-05-2010, 15:08.
This roadmap was packaged by yml on 01-18-2010, 10:30.
This roadmap was validated by jim01140 on 01-20-2010, 11:18.

Front Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd1a.i/123009.b/033f3301.d	243552001	sample	30-DEC-2009	13:16	10-1086.sub	RE03-09-14233	1.00000	937178	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd1a.i/123009.b/034f3401.d	243552002	sample	30-DEC-2009	13:27	10-1086.sub	RE03-09-14236	1.00000	937178	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd1a.i/123009.b/035f3501.d	243552003	sample	30-DEC-2009	13:37	10-1086.sub	RE03-09-14239	1.00000	937178	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd1a.i/123009.b/038f3801.d	243552004	sample	30-DEC-2009	14:09	10-1086.sub	RE03-09-14240	1.00000	937178	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd1a.i/123009.b/039f3901.d	243552005	sample	30-DEC-2009	14:20	10-1086.sub	RE03-09-14231	1.00000	937178	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd1a.i/123009.b/042f4201.d	243552006	sample	30-DEC-2009	14:51	10-1086.sub	RE03-09-14232	1.00000	937178	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd1a.i/123009.b/043f4301.d	243552007	sample	30-DEC-2009	15:02	10-1086.sub	RE03-09-14235	1.00000	937178	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd1a.i/123009.b/044f4401.d	243552008	sample	30-DEC-2009	15:12	10-1086.sub	RE03-09-14238	1.00000	937178	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd1a.i/123009.b/045f4501.d	243552009	sample	30-DEC-2009	15:23	10-1086.sub	RE03-09-14234	1.00000	937178	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd1a.i/123009.b/046f4601.d	243552010	sample	30-DEC-2009	15:33	10-1086.sub	RE03-09-14241	1.00000	937178	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd1a.i/123009.b/047f4701.d	243552011	sample	30-DEC-2009	15:44	10-1086.sub	RE03-10-2737	1.00000	937178	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd1a.i/123009.b/048f4801.d	243552012	sample	30-DEC-2009	15:54	10-1086.sub	RE03-10-2736	1.00000	937178	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd1a.i/123009.b/049f4901.d	243552014	sample	30-DEC-2009	16:05	10-1086.sub	RE03-10-9873	1.00000	937178	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd2a.i/123009.b/043f4301.d	243552016	sample	30-DEC-2009	15:40	10-1086.sub	RE03-10-9872	1.00000	937369	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd2a.i/123009.b/044f4401.d	243552017	sample	30-DEC-2009	15:51	10-1086.sub	RE03-10-9874	1.00000	937369	UPLOAD BOTH, USE HIGHER

Back Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd1a.i/123009.b/033b3301.d	243552001	sample	30-DEC-2009	13:16	10-1086.sub	RE03-09-14233	1.00000	937178	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd1a.i/123009.b/034b3401.d	243552002	sample	30-DEC-2009	13:27	10-1086.sub	RE03-09-14236	1.00000	937178	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd1a.i/123009.b/035b3501.d	243552003	sample	30-DEC-2009	13:37	10-1086.sub	RE03-09-14239	1.00000	937178	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd1a.i/123009.b/038b3801.d	243552004	sample	30-DEC-2009	14:09	10-1086.sub	RE03-09-14240	1.00000	937178	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd1a.i/123009.b/039b3901.d	243552005	sample	30-DEC-2009	14:20	10-1086.sub	RE03-09-14231	1.00000	937178	UPLOAD BOTH, USE HIGHER

☐	N	/chem/ecd1a.i/123009.b/042b4201.d	243552006	sample	30-DEC-2009	14:51	10-1086.sub	RE03-09-14232	1.00000	937178	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd1a.i/123009.b/043b4301.d	243552007	sample	30-DEC-2009	15:02	10-1086.sub	RE03-09-14235	1.00000	937178	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd1a.i/123009.b/044b4401.d	243552008	sample	30-DEC-2009	15:12	10-1086.sub	RE03-09-14238	1.00000	937178	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd1a.i/123009.b/045b4501.d	243552009	sample	30-DEC-2009	15:23	10-1086.sub	RE03-09-14234	1.00000	937178	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd1a.i/123009.b/046b4601.d	243552010	sample	30-DEC-2009	15:33	10-1086.sub	RE03-09-14241	1.00000	937178	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd1a.i/123009.b/047b4701.d	243552011	sample	30-DEC-2009	15:44	10-1086.sub	RE03-10-2737	1.00000	937178	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd1a.i/123009.b/048b4801.d	243552012	sample	30-DEC-2009	15:54	10-1086.sub	RE03-10-2736	1.00000	937178	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd1a.i/123009.b/049b4901.d	243552014	sample	30-DEC-2009	16:05	10-1086.sub	RE03-10-9873	1.00000	937178	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd2a.i/123009.b/043b4301.d	243552016	sample	30-DEC-2009	15:40	10-1086.sub	RE03-10-9872	1.00000	937369	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd2a.i/123009.b/044b4401.d	243552017	sample	30-DEC-2009	15:51	10-1086.sub	RE03-10-9874	1.00000	937369	UPLOAD BOTH, USE HIGHER

Front QC Sample Column

exclude	manual	datafile	ampid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd1a.i/123009.b/030f3001-1.d	1202005418	mb	30-DEC-2009	12:45	10-1086.sub	PBLK01	1.00000	937178	
☐	N	/chem/ecd2a.i/123009.b/041f4101.d	1202005812	mb	30-DEC-2009	15:17	10-1086.sub	PBLK02	1.00000	937369	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd1a.i/123009.b/031f3101-1.d	1202005419	lcs	30-DEC-2009	12:55	10-1086.sub	PBLK01LCS	1.00000	937178	
☐	N	/chem/ecd2a.i/123009.b/042f4201.d	1202005813	lcs	30-DEC-2009	15:28	10-1086.sub	PBLK02LCS	1.00000	937369	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd1a.i/123009.b/036f3601.d	1202005420	ms	30-DEC-2009	13:48	10-1086.sub	RE03-09-14239MS	1.00000	937178	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd2a.i/123009.b/045f4501.d	1202005814	ms	30-DEC-2009	16:02	10-1086.sub	RE03-10-9874MS	1.00000	937369	UPLOAD BOTH, USE HIGHER

☐	N	/chem/ecd1a.i/123009.b/037f3701.d	1202005421	msd	30-DEC-2009	13:58	10-1086.sub	RE03-09-14239MSD	1.00000	937178	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd2a.i/123009.b/046f4601.d	1202005815	msd	30-DEC-2009	16:13	10-1086.sub	RE03-10-9874MSD	1.00000	937369	UPLOAD BOTH, USE HIGHER

Back QC Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd1a.i/123009.b/030b3001-1.d	1202005418	mb	30-DEC-2009	12:45	10-1086.sub	PBLK01	1.00000	937178	
☐	N	/chem/ecd2a.i/123009.b/041b4101.d	1202005812	mb	30-DEC-2009	15:17	10-1086.sub	PBLK02	1.00000	937369	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd1a.i/123009.b/031b3101-1.d	1202005419	lcs	30-DEC-2009	12:55	10-1085.sub	PBLK01LCS	1.00000	937178	
☐	N	/chem/ecd2a.i/123009.b/042b4201.d	1202005813	lcs	30-DEC-2009	15:28	10-1086.sub	PBLK02LCS	1.00000	937369	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd1a.i/123009.b/036b3601.d	1202005420	ms	30-DEC-2009	13:48	10-1086.sub	RE03-09-14239MS	1.00000	937178	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd2a.i/123009.b/045b4501.d	1202005814	ms	30-DEC-2009	16:02	10-1086.sub	RE03-10-9874MS	1.00000	937369	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd1a.i/123009.b/037b3701.d	1202005421	msd	30-DEC-2009	13:58	10-1086.sub	RE03-09-14239MSD	1.00000	937178	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd2a.i/123009.b/046b4601.d	1202005815	msd	30-DEC-2009	16:13	10-1086.sub	RE03-10-9874MSD	1.00000	937369	UPLOAD BOTH, USE HIGHER

SAMPLE DATA SUMMARY

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–1086**	**Date Collected:**	**12/22/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243552005**	**Date Received:**	**12/24/2009 09:30**	**%Moisture:**	**7.3**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03–09–14231**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**937178**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**12/30/2009 14:20**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**12/29/2009 09:29**	**Aliquot:**	**30.02 g**	**Final Volume:**	**1 mL**
Data File:	**039f3901.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	039b3901.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	3.59	ug/kg	1.20	3.59	1
11104–28–2	Aroclor–1221	U	3.59	ug/kg	1.20	3.59	1
11141–16–5	Aroclor–1232	U	3.59	ug/kg	1.20	3.59	1
53469–21–9	Aroclor–1242	U	3.59	ug/kg	1.20	3.59	1
12672–29–6	Aroclor–1248	U	3.59	ug/kg	1.20	3.59	1
11097–69–1	Aroclor–1254	U	3.59	ug/kg	1.20	3.59	1
11096–82–5	Aroclor–1260	U	3.59	ug/kg	1.20	3.59	1

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10-1086**	**Date Collected:**	**12/22/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243552006**	**Date Received:**	**12/24/2009 09:30**	**%Moisture:**	**5.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14232**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**937178**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**12/30/2009 14:51**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**12/29/2009 09:29**	**Aliquot:**	**30.09 g**	**Final Volume:**	**1 mL**
Data File:	**042f4201.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	042b4201.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.53	ug/kg	1.17	3.53	1
11104-28-2	Aroclor-1221	U	3.53	ug/kg	1.17	3.53	1
11141-16-5	Aroclor-1232	U	3.53	ug/kg	1.17	3.53	1
53469-21-9	Aroclor-1242	U	3.53	ug/kg	1.17	3.53	1
12672-29-6	Aroclor-1248	U	3.53	ug/kg	1.17	3.53	1
11097-69-1	Aroclor-1254	U	3.53	ug/kg	1.17	3.53	1
11096-82-5	Aroclor-1260	U	3.53	ug/kg	1.17	3.53	1

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10–1086	**Date Collected:**	12/22/2009 12:00	**Matrix:**	S
Lab Sample ID:	243552001	**Date Received:**	12/24/2009 09:30	**%Moisture:**	7.4
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03–09–14233	**Method:**	SW846 8082	**SOP Ref:**	GL–OA–E–040
Batch ID:	937178	**Inst:**	ECD1A.I	**Dilution:**	1
Run Date:	12/30/2009 13:16	**Analyst:**	JAOC	**Inj. Vol:**	1 uL
Prep Date:	12/29/2009 09:29	**Aliquot:**	30.05 g	**Final Volume:**	1 mL
Data File:	033f3301.d	**Column:**	1 CLP1	**Level:**	LOW
	033b3301.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	3.59	ug/kg	1.20	3.59	1
11104–28–2	Aroclor–1221	U	3.59	ug/kg	1.20	3.59	1
11141–16–5	Aroclor–1232	U	3.59	ug/kg	1.20	3.59	1
53469–21–9	Aroclor–1242		35.6	ug/kg	1.20	3.59	1
12672–29–6	Aroclor–1248	U	3.59	ug/kg	1.20	3.59	1
11097–69–1	Aroclor–1254		17.6	ug/kg	1.20	3.59	2
11096–82–5	Aroclor–1260		4.40	ug/kg	1.20	3.59	1

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–1086**	**Date Collected:**	**12/22/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243552009**	**Date Received:**	**12/24/2009 09:30**	**%Moisture:**	**7.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03–09–14234**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**937178**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**12/30/2009 15:23**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**12/29/2009 09:29**	**Aliquot:**	**30.05 g**	**Final Volume:**	**1 mL**
Data File:	**045f4501.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	045b4501.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	3.60	ug/kg	1.20	3.60	1
11104–28–2	Aroclor–1221	U	3.60	ug/kg	1.20	3.60	1
11141–16–5	Aroclor–1232	U	3.60	ug/kg	1.20	3.60	1
53469–21–9	Aroclor–1242	U	3.60	ug/kg	1.20	3.60	1
12672–29–6	Aroclor–1248	U	3.60	ug/kg	1.20	3.60	1
11097–69–1	Aroclor–1254	U	3.60	ug/kg	1.20	3.60	1
11096–82–5	Aroclor–1260	U	3.60	ug/kg	1.20	3.60	1

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10-1086**	**Date Collected:**	**12/22/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243552007**	**Date Received:**	**12/24/2009 09:30**	**%Moisture:**	**22.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14235**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**937178**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**12/30/2009 15:02**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**12/29/2009 09:29**	**Aliquot:**	**30.03 g**	**Final Volume:**	**1 mL**
Data File:	**043f4301.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	043b4301.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	4.30	ug/kg	1.43	4.30	1
11104-28-2	Aroclor-1221	U	4.30	ug/kg	1.43	4.30	1
11141-16-5	Aroclor-1232	U	4.30	ug/kg	1.43	4.30	1
53469-21-9	Aroclor-1242	U	4.30	ug/kg	1.43	4.30	1
12672-29-6	Aroclor-1248	U	4.30	ug/kg	1.43	4.30	1
11097-69-1	Aroclor-1254	U	4.30	ug/kg	1.43	4.30	1
11096-82-5	Aroclor-1260	U	4.30	ug/kg	1.43	4.30	1

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–1086**	**Date Collected:**	**12/22/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243552002**	**Date Received:**	**12/24/2009 09:30**	**%Moisture:**	**16.2**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03–09–14236**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**937178**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**12/30/2009 13:27**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**12/29/2009 09:29**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**034f3401.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	034b3401.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	3.98	ug/kg	1.32	3.98	1
11104–28–2	Aroclor–1221	U	3.98	ug/kg	1.32	3.98	1
11141–16–5	Aroclor–1232	U	3.98	ug/kg	1.32	3.98	1
53469–21–9	Aroclor–1242	U	3.98	ug/kg	1.32	3.98	1
12672–29–6	Aroclor–1248	U	3.98	ug/kg	1.32	3.98	1
11097–69–1	Aroclor–1254	U	3.98	ug/kg	1.32	3.98	1
11096–82–5	Aroclor–1260	U	3.98	ug/kg	1.32	3.98	1

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10-1086	**Date Collected:**	12/22/2009 12:00	**Matrix:**	S
Lab Sample ID:	243552008	**Date Received:**	12/24/2009 09:30	**%Moisture:**	5.4
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03-09-14238	**Method:**	SW846 8082	**SOP Ref:**	GL-OA-E-040
Batch ID:	937178	**Inst:**	ECD1A.I	**Dilution:**	1
Run Date:	12/30/2009 15:12	**Analyst:**	JAOC	**Inj. Vol:**	1 uL
Prep Date:	12/29/2009 09:29	**Aliquot:**	30.01 g	**Final Volume:**	1 mL
Data File:	044f4401.d	**Column:**	1 CLP1	**Level:**	LOW
	044b4401.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.52	ug/kg	1.17	3.52	1
11104-28-2	Aroclor-1221	U	3.52	ug/kg	1.17	3.52	1
11141-16-5	Aroclor-1232	U	3.52	ug/kg	1.17	3.52	1
53469-21-9	Aroclor-1242	U	3.52	ug/kg	1.17	3.52	1
12672-29-6	Aroclor-1248	U	3.52	ug/kg	1.17	3.52	1
11097-69-1	Aroclor-1254	U	3.52	ug/kg	1.17	3.52	1
11096-82-5	Aroclor-1260	U	3.52	ug/kg	1.17	3.52	1

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–1086**	**Date Collected:**	**12/22/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243552003**	**Date Received:**	**12/24/2009 09:30**	**%Moisture:**	**5.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03–09–14239**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**937178**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**12/30/2009 13:37**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**12/29/2009 09:29**	**Aliquot:**	**30.01 g**	**Final Volume:**	**1 mL**
Data File:	**035f3501.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	035b3501.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	3.52	ug/kg	1.17	3.52	1
11104–28–2	Aroclor–1221	U	3.52	ug/kg	1.17	3.52	1
11141–16–5	Aroclor–1232	U	3.52	ug/kg	1.17	3.52	1
53469–21–9	Aroclor–1242	U	3.52	ug/kg	1.17	3.52	1
12672–29–6	Aroclor–1248	U	3.52	ug/kg	1.17	3.52	1
11097–69–1	Aroclor–1254	U	3.52	ug/kg	1.17	3.52	1
11096–82–5	Aroclor–1260	U	3.52	ug/kg	1.17	3.52	1

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10-1086**	**Date Collected:**	**12/22/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243552004**	**Date Received:**	**12/24/2009 09:30**	**%Moisture:**	**5.4**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14240**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**937178**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**12/30/2009 14:09**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**12/29/2009 09:29**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**038f3801.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	038b3801.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.52	ug/kg	1.17	3.52	1
11104-28-2	Aroclor-1221	U	3.52	ug/kg	1.17	3.52	1
11141-16-5	Aroclor-1232	U	3.52	ug/kg	1.17	3.52	1
53469-21-9	Aroclor-1242	U	3.52	ug/kg	1.17	3.52	1
12672-29-6	Aroclor-1248	U	3.52	ug/kg	1.17	3.52	1
11097-69-1	Aroclor-1254	U	3.52	ug/kg	1.17	3.52	1
11096-82-5	Aroclor-1260	U	3.52	ug/kg	1.17	3.52	1

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10-1086**	**Date Collected:**	**12/22/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243552010**	**Date Received:**	**12/24/2009 09:30**	**%Moisture:**	**12.7**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14241**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**937178**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**12/30/2009 15:33**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**12/29/2009 09:29**	**Aliquot:**	**30.03 g**	**Final Volume:**	**1 mL**
Data File:	**046f4601.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	046b4601.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.81	ug/kg	1.27	3.81	1
11104-28-2	Aroclor-1221	U	3.81	ug/kg	1.27	3.81	1
11141-16-5	Aroclor-1232	U	3.81	ug/kg	1.27	3.81	1
53469-21-9	Aroclor-1242	U	3.81	ug/kg	1.27	3.81	1
12672-29-6	Aroclor-1248	U	3.81	ug/kg	1.27	3.81	1
11097-69-1	Aroclor-1254	U	3.81	ug/kg	1.27	3.81	1
11096-82-5	Aroclor-1260	U	3.81	ug/kg	1.27	3.81	1

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10-1086**	**Date Collected:**	**12/22/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243552012**	**Date Received:**	**12/24/2009 09:30**	**%Moisture:**	**7**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-10-2736**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**937178**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**12/30/2009 15:54**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**12/29/2009 09:29**	**Aliquot:**	**30.09 g**	**Final Volume:**	**1 mL**
Data File:	**048f4801.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	048b4801.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.57	ug/kg	1.19	3.57	1
11104-28-2	Aroclor-1221	U	3.57	ug/kg	1.19	3.57	1
11141-16-5	Aroclor-1232	U	3.57	ug/kg	1.19	3.57	1
53469-21-9	Aroclor-1242	U	3.57	ug/kg	1.19	3.57	1
12672-29-6	Aroclor-1248	U	3.57	ug/kg	1.19	3.57	1
11097-69-1	Aroclor-1254	U	3.57	ug/kg	1.19	3.57	1
11096-82-5	Aroclor-1260	U	3.57	ug/kg	1.19	3.57	1

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–1086**	**Date Collected:**	**12/22/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243552011**	**Date Received:**	**12/24/2009 09:30**	**%Moisture:**	**10.1**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03–10–2737**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**937178**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**12/30/2009 15:44**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**12/29/2009 09:29**	**Aliquot:**	**30.06 g**	**Final Volume:**	**1 mL**
Data File:	**047f4701.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	047b4701.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	3.70	ug/kg	1.23	3.70	1
11104–28–2	Aroclor–1221	U	3.70	ug/kg	1.23	3.70	1
11141–16–5	Aroclor–1232	U	3.70	ug/kg	1.23	3.70	1
53469–21–9	Aroclor–1242		99.4	ug/kg	1.23	3.70	2
12672–29–6	Aroclor–1248	U	3.70	ug/kg	1.23	3.70	1
11097–69–1	Aroclor–1254		102	ug/kg	1.23	3.70	1
11096–82–5	Aroclor–1260		25.4	ug/kg	1.23	3.70	1

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–1086**	**Date Collected:**	**12/22/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243552016**	**Date Received:**	**12/24/2009 09:30**	**%Moisture:**	**11.9**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03–10–9872**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**937369**	**Inst:**	**ECD2A.I**	**Dilution:**	**1**
Run Date:	**12/30/2009 15:40**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**12/29/2009 17:37**	**Aliquot:**	**30.04 g**	**Final Volume:**	**1 mL**
Data File:	**043f4301.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	043b4301.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	3.78	ug/kg	1.26	3.78	1
11104–28–2	Aroclor–1221	U	3.78	ug/kg	1.26	3.78	1
11141–16–5	Aroclor–1232	U	3.78	ug/kg	1.26	3.78	1
53469–21–9	Aroclor–1242	U	3.78	ug/kg	1.26	3.78	1
12672–29–6	Aroclor–1248	U	3.78	ug/kg	1.26	3.78	1
11097–69–1	Aroclor–1254	U	3.78	ug/kg	1.26	3.78	1
11096–82–5	Aroclor–1260	U	3.78	ug/kg	1.26	3.78	1

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–1086**	**Date Collected:**	**12/22/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243552014**	**Date Received:**	**12/24/2009 09:30**	**%Moisture:**	**5.3**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03–10–9873**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**937178**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**12/30/2009 16:05**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**12/29/2009 09:29**	**Aliquot:**	**30.03 g**	**Final Volume:**	**1 mL**
Data File:	**049f4901.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	049b4901.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	3.52	ug/kg	1.17	3.52	1
11104–28–2	Aroclor–1221	U	3.52	ug/kg	1.17	3.52	1
11141–16–5	Aroclor–1232	U	3.52	ug/kg	1.17	3.52	1
53469–21–9	Aroclor–1242	U	3.52	ug/kg	1.17	3.52	1
12672–29–6	Aroclor–1248	U	3.52	ug/kg	1.17	3.52	1
11097–69–1	Aroclor–1254	U	3.52	ug/kg	1.17	3.52	1
11096–82–5	Aroclor–1260	U	3.52	ug/kg	1.17	3.52	1

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10-1086**	**Date Collected:**	**12/22/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243552017**	**Date Received:**	**12/24/2009 09:30**	**%Moisture:**	**6.9**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-10-9874**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**937369**	**Inst:**	**ECD2A.I**	**Dilution:**	**1**
Run Date:	**12/30/2009 15:51**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**12/29/2009 17:37**	**Aliquot:**	**30.06 g**	**Final Volume:**	**1 mL**
Data File:	**044f4401.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	044b4401.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.57	ug/kg	1.19	3.57	1
11104-28-2	Aroclor-1221	U	3.57	ug/kg	1.19	3.57	1
11141-16-5	Aroclor-1232	U	3.57	ug/kg	1.19	3.57	1
53469-21-9	Aroclor-1242	U	3.57	ug/kg	1.19	3.57	1
12672-29-6	Aroclor-1248	U	3.57	ug/kg	1.19	3.57	1
11097-69-1	Aroclor-1254	U	3.57	ug/kg	1.19	3.57	1
11096-82-5	Aroclor-1260	U	3.57	ug/kg	1.19	3.57	1

QUALITY CONTROL SUMMARY

PCB

Surrogate Recovery Report

SDG Number: 10–1086

Matrix Type: SOLID

CAP Column (1) : CLP1 **CAP Column (2) : CLP2**

Sample ID	Client ID	4CMX 1 %REC #	4CMX 2 %REC #	DCB 1 %REC #	DCB 2 %REC #
1202005418	MB for batch 937176	59	58	84	82
1202005419	LCS for batch 937176	60	59	77	75
243552001	RE03–09–14233	39	38	56	58
243552002	RE03–09–14236	48	47	70	68
243552003	RE03–09–14239	54	54	72	72
1202005420	RE03–09–14239MS	60	58	69	72
1202005421	RE03–09–14239MSD	58	57	61	73
243552004	RE03–09–14240	49	49	54	64
243552005	RE03–09–14231	59	58	75	77
243552006	RE03–09–14232	51	51	72	72
243552007	RE03–09–14235	55	54	72	72
243552008	RE03–09–14238	50	50	54	65
1202005812	MB for batch 937368	78	82	85	92
243552009	RE03–09–14234	48	48	62	63
1202005813	LCS for batch 937368	70	75	81	84
243552010	RE03–09–14241	52	52	58	73
243552016	RE03–10–9872	72	76	81	85
243552011	RE03–10–2737	51	53	63	64
243552017	RE03–10–9874	72	77	87	89
243552012	RE03–10–2736	42	42	53	59
1202005814	RE03–10–9874MS	73	77	84	87
243552014	RE03–10–9873	62	61	61	70
1202005815	RE03–10–9874MSD	69	74	82	84

Surrogate	Acceptance Limits
4CMX = 4cmx	(34%–105%)
DCB = Decachlorobiphenyl	(33%–115%)

* Recovery outside Acceptance Limits

\# Column to be used to flag recovery values

D Sample Diluted

PCB

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1086
Client ID: LCS for batch 937176
Lab Sample ID: 1202005419
Instrument: ECD1A.I
Analyst: JAOC
Inj. Vol: 1 uL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 12/30/2009 12:55
Dilution: 1
Prep Batch ID: 937176
Batch ID: 937178

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
12674-11-2	LCS	Aroclor-1016	33.3	0.0	24.7	74	41-110
11096-82-5	LCS	Aroclor-1260	33.3	0.0	30.1	90	48-110

PCB

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1086
Sample Type: Laboratory Control Sample
Client ID: LCS for batch 937368
Matrix: SOIL
Lab Sample ID: 1202005813
Instrument: ECD2A.I
Analysis Date: 12/30/2009 15:28
Dilution: 1
Analyst: JAOC
Prep Batch ID: 937368
Inj. Vol: 1 uL
Batch ID: 937369

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
12674-11-2	LCS	Aroclor-1016	33.3	0.0	22.8	68	41-110
11096-82-5	LCS	Aroclor-1260	33.3	0.0	28.4	85	48-110

PCB

Quality Control Summary
Spike Recovery Report

SDG Number:	**10–1086**	**Sample Type:**	**Matrix Spike**	
Client ID:	**RE03–09–14239MS**	**Matrix:**	**S**	
Lab Sample ID:	**1202005420**	**%Moisture:**	**5.5**	
Instrument:	**ECD1A.I**	**Analysis Date:**	**12/30/2009 13:48**	**Dilution: 1**
Analyst:	**JAOC**	**Prep Batch ID:**	**937176**	
Inj. Vol:	**1 uL**	**Batch ID:**	**937178**	

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
12674–11–2	MS	Aroclor–1016	35.2	0.00	U	24.9	71	23–117
11096–82–5	MS	Aroclor–1260	35.2	0.00	U	30.5	87	27–116

PCB

Quality Control Summary
Spike Recovery Report

SDG Number:	**10-1086**	**Sample Type:**	**Matrix Spike Duplicate**
Client ID:	**RE03-09-14239MSD**	**Matrix:**	**S**
Lab Sample ID:	**1202005421**	**%Moisture:**	**5.5**
Instrument:	**ECD1A.I**	**Analysis Date:**	**12/30/2009 13:58**
Analyst:	**JAOC**	**Prep Batch ID:**	**937176**
Inj. Vol:	**1 uL**	**Batch ID:**	**937178**

Dilution: 1

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
12674-11-2	MSD Aroclor-1016	35.2	0.00	U	23.8	68	23-117	5	0-30
11096-82-5	MSD Aroclor-1260	35.2	0.00	U	29.3	83	27-116	4	0-30

PCB

Quality Control Summary
Spike Recovery Report

SDG Number:	**10–1086**	**Sample Type:**	**Matrix Spike**
Client ID:	**RE03–10–9874MS**	**Matrix:**	**S**
Lab Sample ID:	**1202005814**	**%Moisture:**	**6.9**
Instrument:	**ECD2A.I**	**Analysis Date:**	**12/30/2009 16:02**
Analyst:	**JAOC**	**Prep Batch ID:**	**937368**
Inj. Vol:	**1 uL**	**Batch ID:**	**937369**

Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
12674–11–2	MS	Aroclor–1016	35.8	0.00	U	26.0	73	23–117
11096–82–5	MS	Aroclor–1260	35.8	0.00	U	32.6	91	27–116

PCB

Quality Control Summary
Spike Recovery Report

SDG Number:	**10-1086**	**Sample Type:**	**Matrix Spike Duplicate**	
Client ID:	**RE03-10-9874MSD**	**Matrix:**	**S**	
Lab Sample ID:	**1202005815**	**%Moisture:**	**6.9**	
Instrument:	**ECD2A.I**	**Analysis Date:**	**12/30/2009 16:13**	**Dilution: 1**
Analyst:	**JAOC**	**Prep Batch ID:**	**937368**	
Inj. Vol:	**1 uL**	**Batch ID:**	**937369**	

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
12674-11-2	MSD Aroclor-1016	35.6	0.00	U	25.4	71	23-117	2	0-30
11096-82-5	MSD Aroclor-1260	35.6	0.00	U	32.4	91	27-116	1	0-30

Method Blank Summary

SDG Number:	10-1086	Client:	LANL010	Matrix:	SOIL
Client ID:	MB for batch 937176	Instrument ID:	ECD1A.I_2 ECD1A.I_1	Data File:	030b3001-1.d 030f3001-1.d
Lab Sample ID:	1202005418				
Column:	CLP2 CLP1	Prep Date:	12/29/2009 09:29	Analyzed:	12/30/09 12:45
		Level:	LOW		

This method blank applies to the following samples and quality control samples:

	Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01	LCS for batch 937176	1202005419	031f3101-1.d 031b3101-1.d	12/30/09	1255
02	RE03-09-14233	243552001	033f3301.d 033b3301.d	12/30/09	1316
03	RE03-09-14236	243552002	034f3401.d 034b3401.d	12/30/09	1327
04	RE03-09-14239	243552003	035f3501.d 035b3501.d	12/30/09	1337
05	RE03-09-14239MS	1202005420	036f3601.d 036b3601.d	12/30/09	1348
06	RE03-09-14239MSD	1202005421	037f3701.d 037b3701.d	12/30/09	1358
07	RE03-09-14240	243552004	038f3801.d 038b3801.d	12/30/09	1409
08	RE03-09-14231	243552005	039f3901.d 039b3901.d	12/30/09	1420
09	RE03-09-14232	243552006	042f4201.d 042b4201.d	12/30/09	1451
10	RE03-09-14235	243552007	043f4301.d 043b4301.d	12/30/09	1502
11	RE03-09-14238	243552008	044f4401.d 044b4401.d	12/30/09	1512
12	RE03-09-14234	243552009	045f4501.d 045b4501.d	12/30/09	1523
13	RE03-09-14241	243552010	046f4601.d 046b4601.d	12/30/09	1533
14	RE03-10-2737	243552011	047f4701.d 047b4701.d	12/30/09	1544
15	RE03-10-2736	243552012	048f4801.d 048b4801.d	12/30/09	1554
16	RE03-10-9873	243552014	049f4901.d 049b4901.d	12/30/09	1605

Method Blank Summary

SDG Number:	10–1086	Client:	LANL010	Matrix:	SOIL
Client ID:	MB for batch 937368	Instrument ID:	ECD2A.I_2 ECD2A.I_1	Data File:	041b4101.d 041f4101.d
Lab Sample ID:	1202005812				
Column:	CLP2 CLP1	Prep Date:	12/29/2009 17:37	Analyzed:	12/30/09 15:17
		Level:	LOW		

This method blank applies to the following samples and quality control samples:

Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01 LCS for batch 937368	1202005813	042f4201.d 042b4201.d	12/30/09	1528
02 RE03–10–9872	243552016	043f4301.d 043b4301.d	12/30/09	1540
03 RE03–10–9874	243552017	044f4401.d 044b4401.d	12/30/09	1551
04 RE03–10–9874MS	1202005814	045f4501.d 045b4501.d	12/30/09	1602
05 RE03–10–9874MSD	1202005815	046f4601.d 046b4601.d	12/30/09	1613

SAMPLE DATA

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10-1086**	**Date Collected:**	**12/22/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243552005**	**Date Received:**	**12/24/2009 09:30**	**%Moisture:**	**7.3**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14231**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**937178**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**12/30/2009 14:20**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**12/29/2009 09:29**	**Aliquot:**	**30.02 g**	**Final Volume:**	**1 mL**
Data File:	**039f3901.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	039b3901.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.59	ug/kg	1.20	3.59	1
11104-28-2	Aroclor-1221	U	3.59	ug/kg	1.20	3.59	1
11141-16-5	Aroclor-1232	U	3.59	ug/kg	1.20	3.59	1
53469-21-9	Aroclor-1242	U	3.59	ug/kg	1.20	3.59	1
12672-29-6	Aroclor-1248	U	3.59	ug/kg	1.20	3.59	1
11097-69-1	Aroclor-1254	U	3.59	ug/kg	1.20	3.59	1
11096-82-5	Aroclor-1260	U	3.59	ug/kg	1.20	3.59	1

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RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/123009.b/039f3901.d
Lab Smp Id: 243552005 Client Smp ID: RE03-09-14231
Inj Date : 30-DEC-2009 14:20
Operator : JAOC Inst ID: ecd1a.i
Smp Info : |243552005|1|
Misc Info : |ECD82P_1S|937178|SVA|LANL|SOIL|RE03-09-14231|||
Comment :
Method : /chem/ecd1a.i/123009.b/ECD1-F-8082-121409.m
Meth Date : 31-Dec-2009 08:24 jen01212 Quant Type: ESTD
Cal Date : 14-DEC-2009 11:34 Cal File: 040f4001.d
Als bottle: 39
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1086.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.02000	Weight of sample extracted (g)
M	7.32150	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.971	1.972	-0.001	43961056	117.021	4.2	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.285	5.287	-0.002	47823870	150.607	5.4	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/123009.b/039f3901.d

Date : 30-DEC-2009 14:20

Client ID: RE03-09-14231

Sample Info: |243552005|1|

Volume Injected (uL): 1.0

Column phase: CLP1

Instrument: ecd1a.i

Operator: JAOC

Column diameter: 0.25

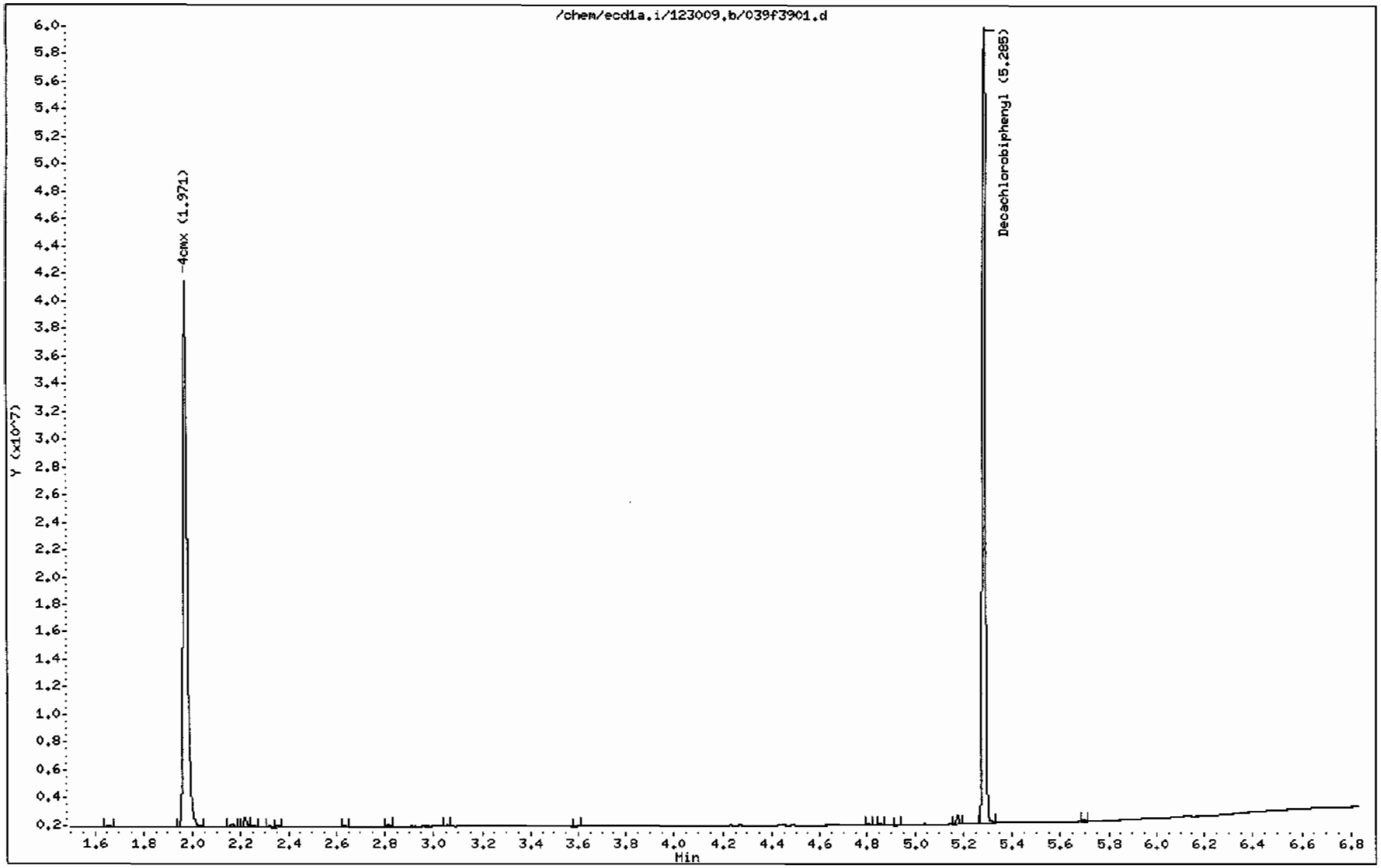

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/123009.b/039b3901.d
Lab Smp Id: 243552005 Client Smp ID: RE03-09-14231
Inj Date : 30-DEC-2009 14:20
Operator : JAOC Inst ID: ecd1a.i
Smp Info : |243552005|1|
Misc Info : |ECD82P_1S|937178|SVA|LANL|SOIL|RE03-09-14231|||
Comment :
Method : /chem/ecd1a.i/123009.b/ECD1-B-8082-121409.m
Meth Date : 31-Dec-2009 08:30 jen01212 Quant Type: ESTD
Cal Date : 14-DEC-2009 12:16 Cal File: 044b4401.d
Als bottle: 39
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1086.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.02000	Weight of sample extracted (g)
M	7.32150	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.303	2.303	0.000	34779129	115.920	4.2	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.948	5.949	-0.001	35821400	153.590	5.5	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/123009.b/039b3901.d
Date : 30-DEC-2009 14:20
Client ID: RE03-09-14231
Sample Info: 1243552005111
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd1a.i
Operator: JAOC
Column diameter: 0.25

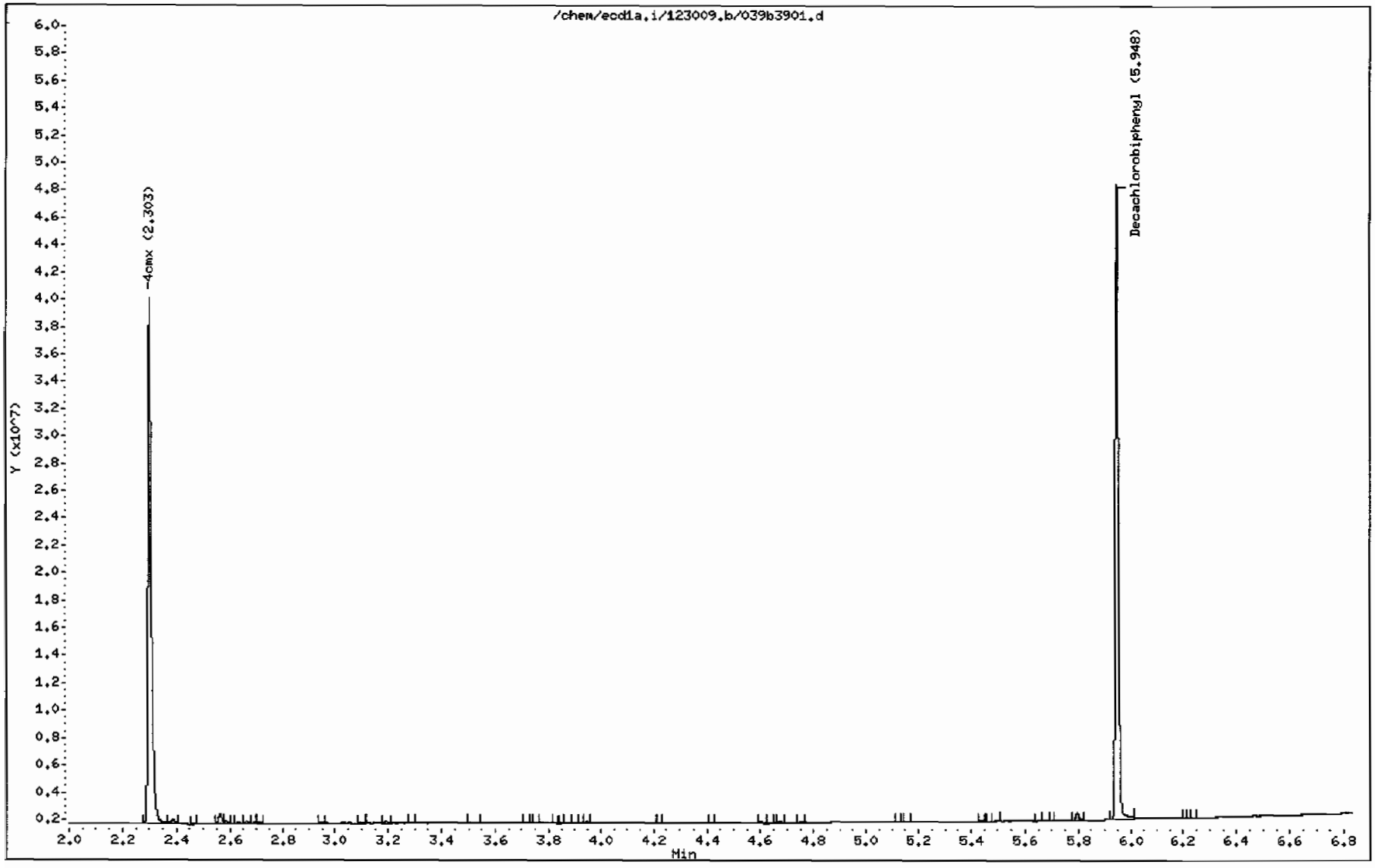

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10-1086**	**Date Collected:**	**12/22/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243552006**	**Date Received:**	**12/24/2009 09:30**	**%Moisture:**	**5.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14232**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**937178**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**12/30/2009 14:51**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**12/29/2009 09:29**	**Aliquot:**	**30.09 g**	**Final Volume:**	**1 mL**
Data File:	**042f4201.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	042b4201.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.53	ug/kg	1.17	3.53	1
11104-28-2	Aroclor-1221	U	3.53	ug/kg	1.17	3.53	1
11141-16-5	Aroclor-1232	U	3.53	ug/kg	1.17	3.53	1
53469-21-9	Aroclor-1242	U	3.53	ug/kg	1.17	3.53	1
12672-29-6	Aroclor-1248	U	3.53	ug/kg	1.17	3.53	1
11097-69-1	Aroclor-1254	U	3.53	ug/kg	1.17	3.53	1
11096-82-5	Aroclor-1260	U	3.53	ug/kg	1.17	3.53	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/123009.b/042f4201.d
Lab Smp Id: 243552006 Client Smp ID: RE03-09-14232
Inj Date : 30-DEC-2009 14:51
Operator : JAOC Inst ID: ecd1a.i
Smp Info : |243552006|1|
Misc Info : |ECD82P_1S|937178|SVA|LANL|SOIL|RE03-09-14232|||
Comment :
Method : /chem/ecd1a.i/123009.b/ECD1-F-8082-121409.m
Meth Date : 31-Dec-2009 08:24 jen01212 Quant Type: ESTD
Cal Date : 14-DEC-2009 11:34 Cal File: 040f4001.d
Als bottle: 42
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1086.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.09000	Weight of sample extracted (g)
M	5.76950	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.972	1.972	0.000	38452994	102.359	3.6	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.286	5.287	-0.001	45591513	143.577	5.1	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/123009.b/042f4201.d

Page 1

Date : 30-DEC-2009 14:51

Client ID: RE03-09-14232

Instrument: ecd1a.i

Sample Info: 1243552006|1|

Volume Injected (uL): 1.0

Operator: JAOC

Column phase: CLP1

Column diameter: 0.25

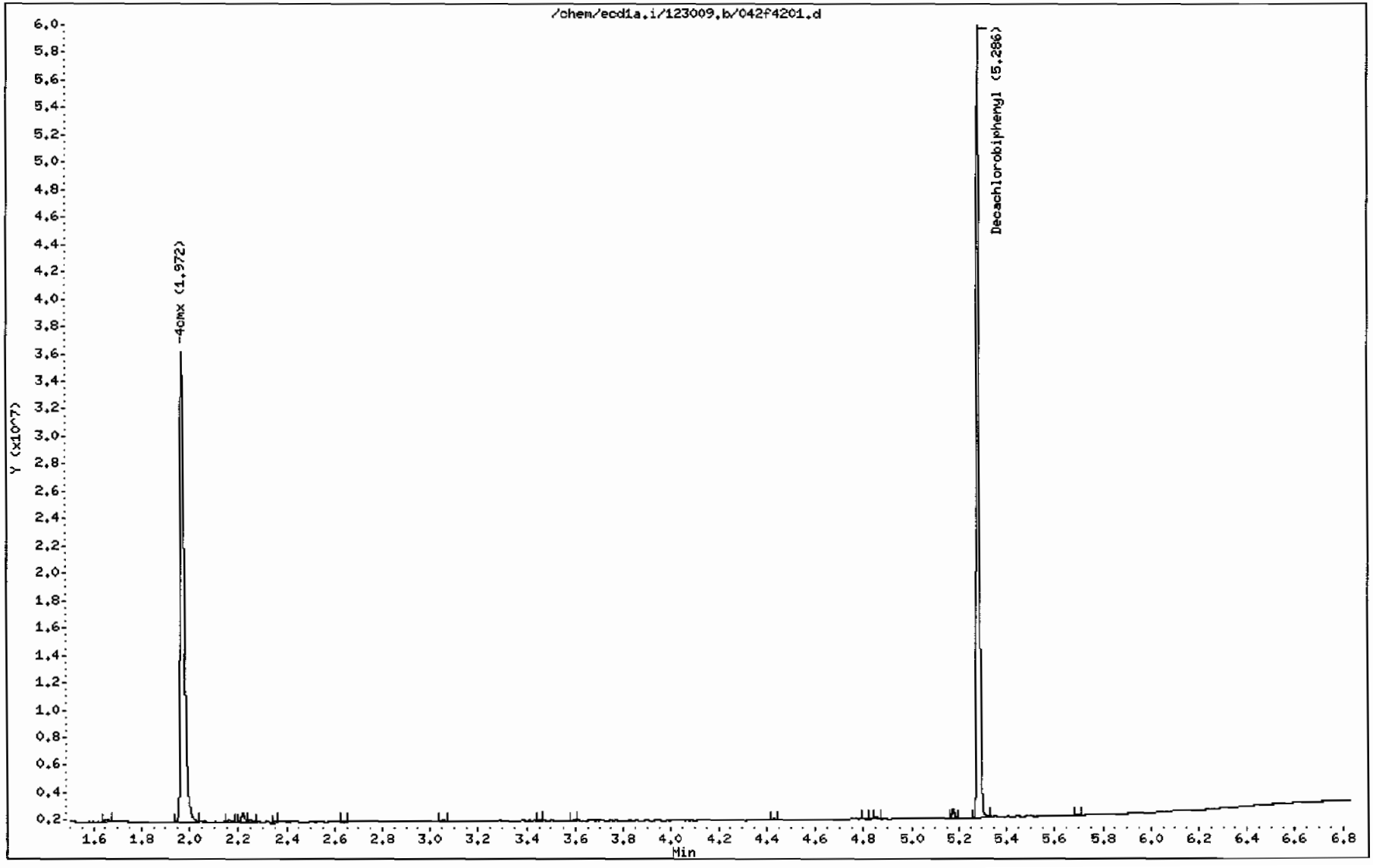

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/123009.b/042b4201.d
Lab Smp Id: 243552006 Client Smp ID: RE03-09-14232
Inj Date : 30-DEC-2009 14:51
Operator : JAOC Inst ID: ecd1a.i
Smp Info : |243552006|1|
Misc Info : |ECD82P_1S|937178|SVA|LANL|SOIL|RE03-09-14232|||
Comment :
Method : /chem/ecd1a.i/123009.b/ECD1-B-8082-121409.m
Meth Date : 31-Dec-2009 08:30 jen01212 Quant Type: ESTD
Cal Date : 14-DEC-2009 12:16 Cal File: 044b4401.d
Als bottle: 42
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1086.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.09000	Weight of sample extracted (g)
M	5.76950	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.302	2.303	-0.001	30539537	101.790	3.6	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.948	5.949	-0.001	33662141	144.332	5.1	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/123009.b/042b4201.d

Date : 30-DEC-2009 14:51

Client ID: RE03-09-14232

Sample Info: |243552006|1|

Volume Injected (uL): 1.0

Column phase: CLP2

Instrument: ecd1a.i

Operator: JAOC

Column diameter: 0.25

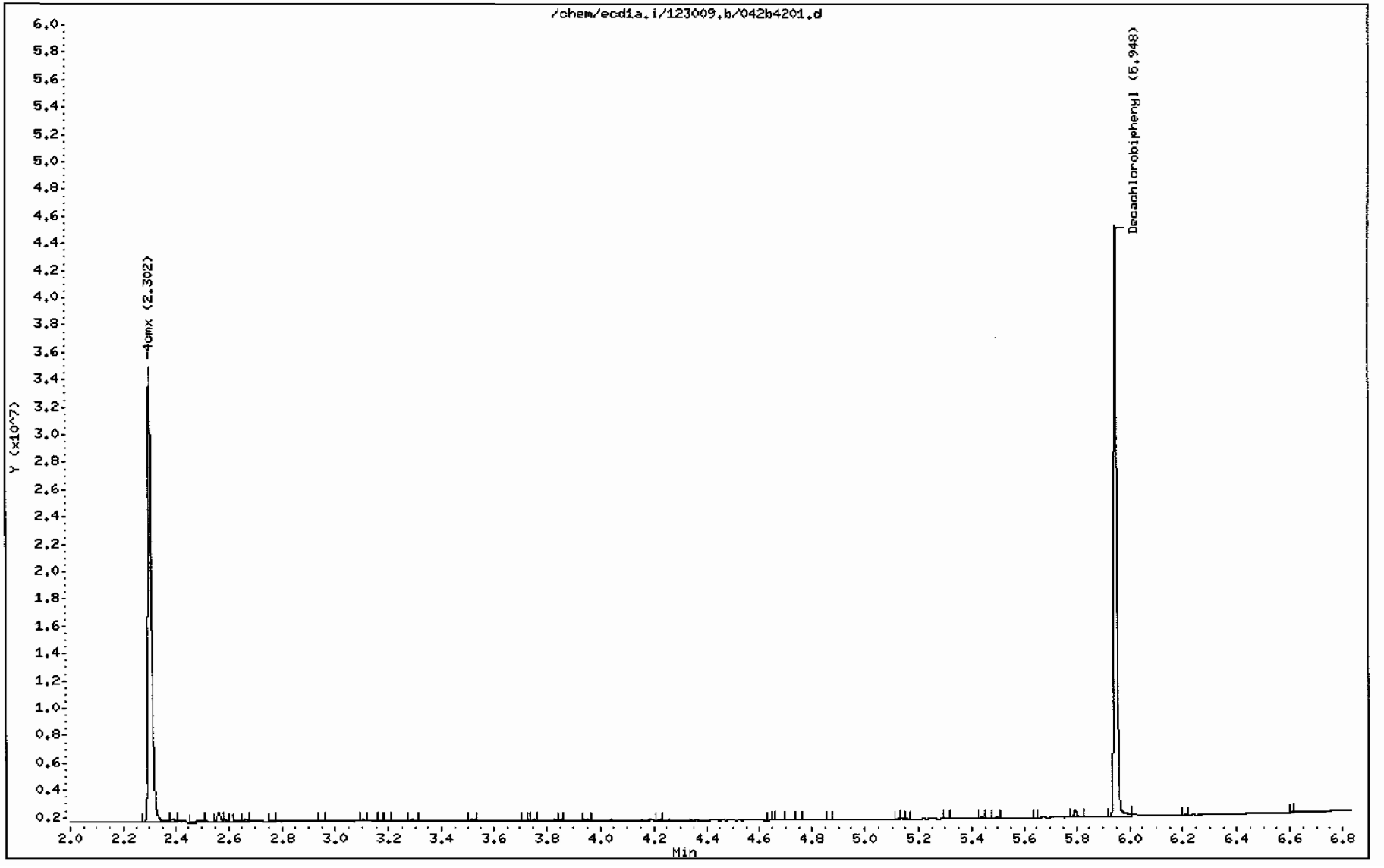

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10-1086**	**Date Collected:**	**12/22/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243552001**	**Date Received:**	**12/24/2009 09:30**	**%Moisture:**	**7.4**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14233**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**937178**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**12/30/2009 13:16**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**12/29/2009 09:29**	**Aliquot:**	**30.05 g**	**Final Volume:**	**1 mL**
Data File:	**033f3301.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	033b3301.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.59	ug/kg	1.20	3.59	1
11104-28-2	Aroclor-1221	U	3.59	ug/kg	1.20	3.59	1
11141-16-5	Aroclor-1232	U	3.59	ug/kg	1.20	3.59	1
53469-21-9	Aroclor-1242		35.6	ug/kg	1.20	3.59	1
12672-29-6	Aroclor-1248	U	3.59	ug/kg	1.20	3.59	1
11097-69-1	Aroclor-1254		17.6	ug/kg	1.20	3.59	2
11096-82-5	Aroclor-1260		4.40	ug/kg	1.20	3.59	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/123009.b/033f3301.d
Lab Smp Id: 243552001 Client Smp ID: RE03-09-14233
Inj Date : 30-DEC-2009 13:16
Operator : JAOC Inst ID: ecd1a.i
Smp Info : |243552001|1|
Misc Info : |ECD82P_1S|937178|SVA|LANL|SOIL|RE03-09-14233|||
Comment :
Method : /chem/ecd1a.i/123009.b/ECD1-F-8082-121409.m
Meth Date : 31-Dec-2009 08:24 jen01212 Quant Type: ESTD
Cal Date : 14-DEC-2009 11:34 Cal File: 040f4001.d
Als bottle: 33
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1086.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.05000	Weight of sample extracted (g)
M	7.39220	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.971	1.972	-0.001	29090076	77.4353	2.8	80.00- 120.00	100.00(M)
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.284	5.287	-0.003	35643596	112.249	4.0	80.00- 120.00	100.00
4 Aroclor-1242					CAS #: 53469-21-9		
2.427	2.427	0.000	9624229	825.418	29.7	80.00- 120.00	100.00(M)
2.716	2.716	0.000	12027644	894.049	32.1	106.61- 146.61	124.97
2.834	2.835	-0.001	5268324	956.847	34.4	30.92- 70.92	54.74
3.045	3.046	-0.001	7915496	1092.57	39.3	46.80- 86.80	82.25
3.298	3.300	-0.002	8037729	1180.15	42.4	48.03- 88.03	83.52
			Average of Peak Concentrations =		35.6		

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
6 Aroclor-1254					CAS #: 11097-69-1		
3.274	3.275	-0.001	4205412	336.824	12.1	80.00- 120.00	100.00(M)
3.430	3.430	0.000	8362321	500.081	18.0	117.30- 157.30	198.85
3.663	3.665	-0.002	6913879	333.779	12.0	161.76- 201.76	164.40
3.826	3.828	-0.002	5607067	357.270	12.8	119.82- 159.82	133.33
3.935	3.936	-0.001	5990975	394.858	14.2	111.74- 151.74	142.46
Average of Peak Concentrations =					13.8		
7 Aroclor-1260					CAS #: 11096-82-5		
3.771	3.773	-0.002	2840251	169.545	6.1	80.00- 120.00	100.00
3.935	3.936	-0.001	5990975	242.132	8.7	134.25- 174.25	210.93
4.164	4.166	-0.002	921218	62.7219	2.2	72.46- 112.46	32.43
4.307	4.308	-0.001	960498	63.2550	2.3	76.84- 116.84	33.82
4.486	4.488	-0.002	2389761	69.5700	2.5	203.73- 243.73	84.14
Average of Peak Concentrations =					4.4		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd1a.i/123009.b/033f3301.d
Date : 30-DEC-2009 13:16
Client ID: RE03-09-14233
Sample Info: |243552001|1|
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecd1a.i
Operator: JAOC
Column diameter: 0.25

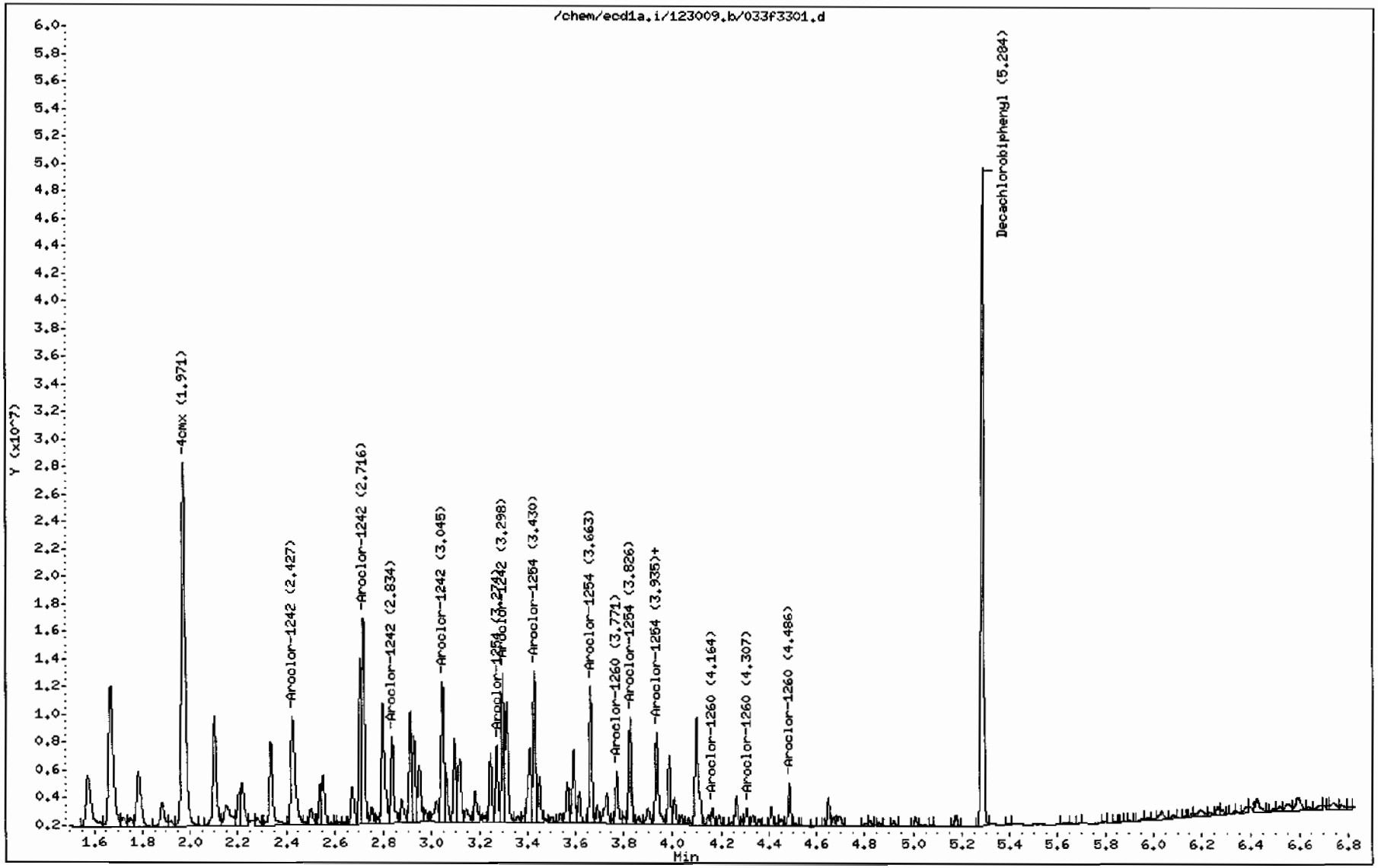

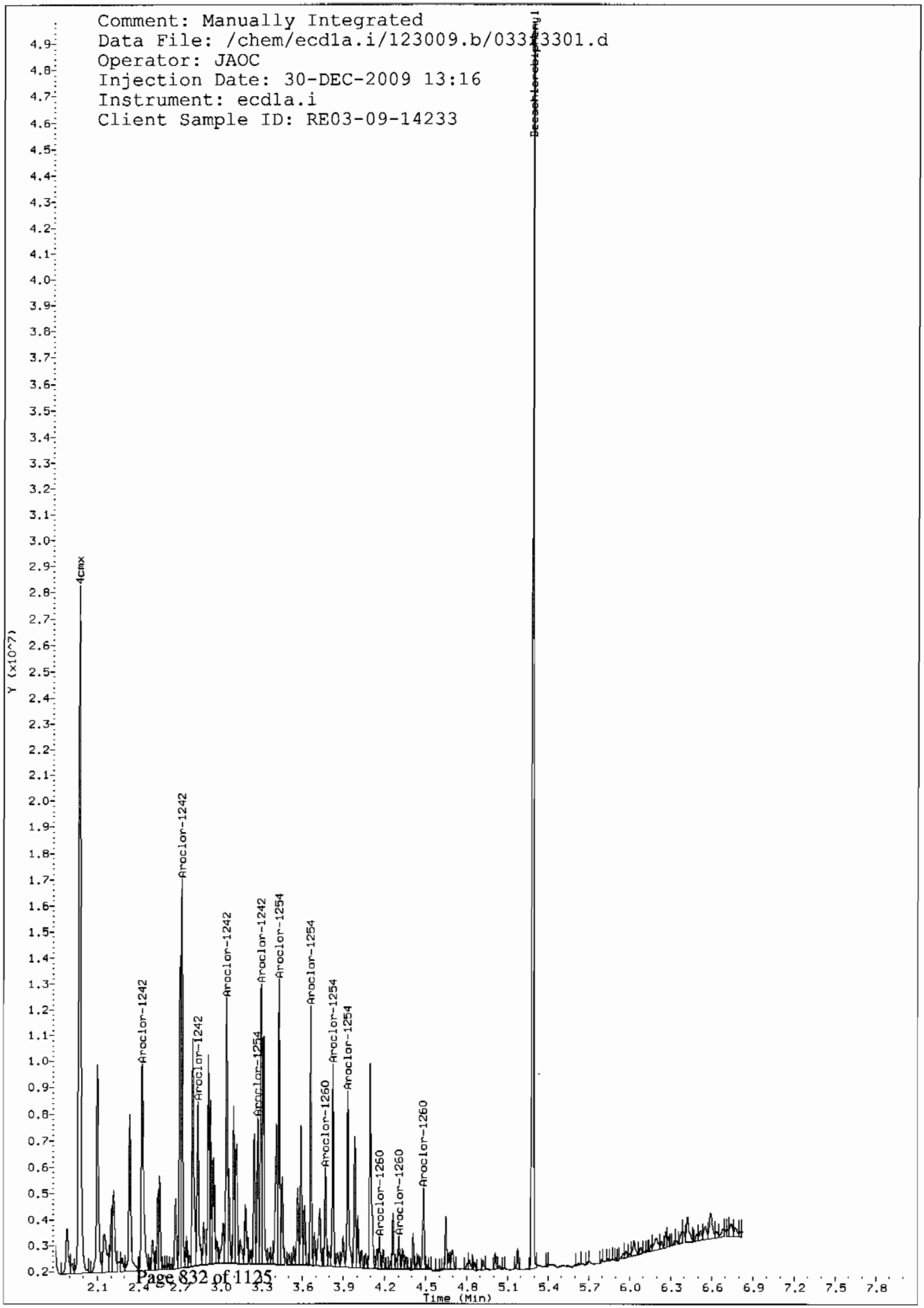
Comment: Manually Integrated
Data File: /chem/ecd1a.i/123009.b/0333301.d
Operator: JAOC
Injection Date: 30-DEC-2009 13:16
Instrument: ecd1a.i
Client Sample ID: RE03-09-14233
Decachlorobiphenyl
4cmx
Aroclor-1242
Aroclor-1242
Aroclor-1242
Aroclor-1242
Aroclor-1254
Aroclor-1254
Aroclor-1254
Aroclor-1254
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Y (x10^7)
Time (Min)

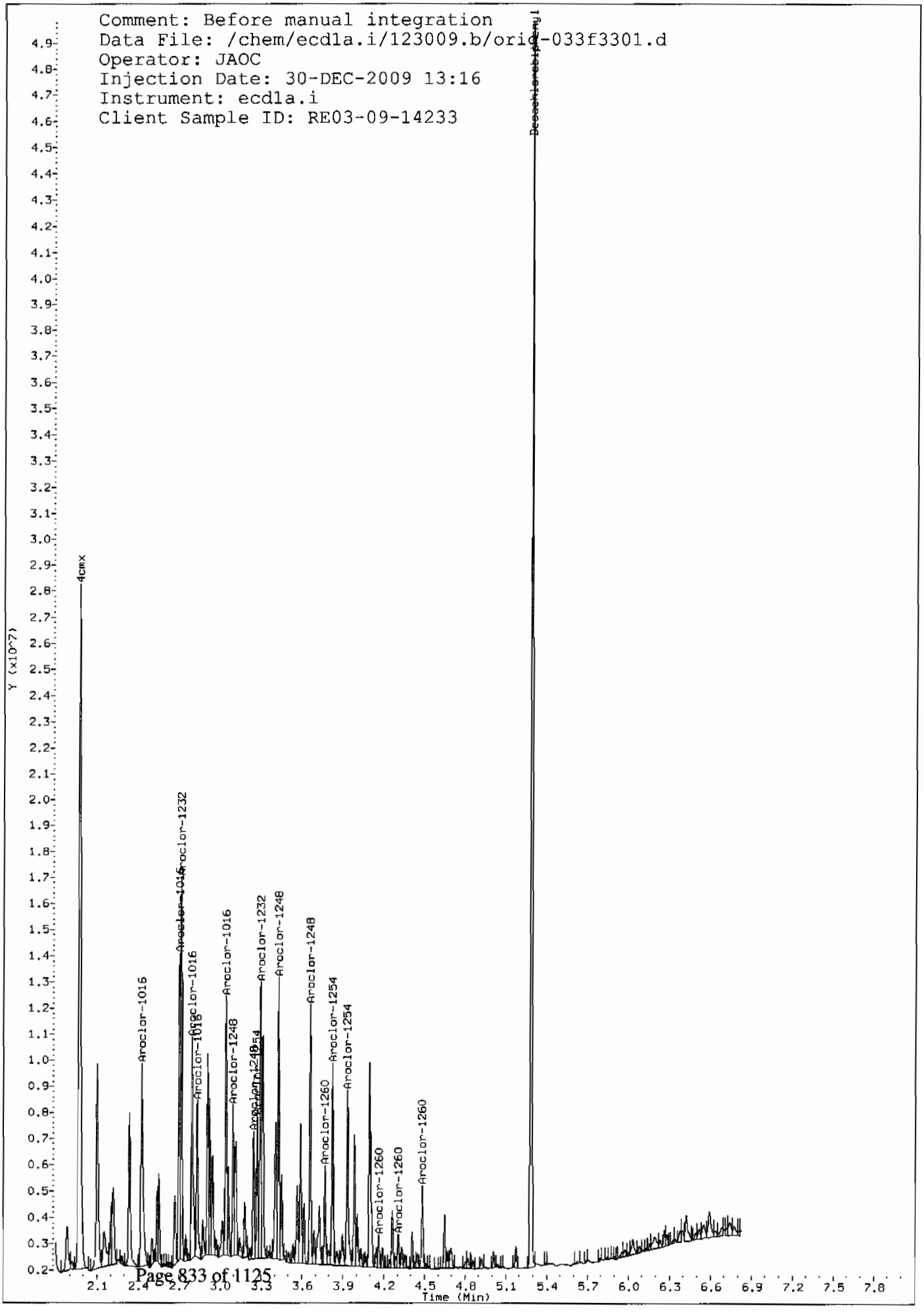
Comment: Before manual integration
Data File: /chem/ecd1a.i/123009.b/orig-033f3301.d
Operator: JAOC
Injection Date: 30-DEC-2009 13:16
Instrument: ecd1a.i
Client Sample ID: RE03-09-14233
Decachlorobiphenyl
4cmx
Aroclor-1016
Aroclor-1232
Aroclor-1248
Aroclor-1254
Aroclor-1260
Y (x10^7)
Time (Min)

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/123009.b/033b3301.d
Lab Smp Id: 243552001 Client Smp ID: RE03-09-14233
Inj Date : 30-DEC-2009 13:16
Operator : JAOC Inst ID: ecd1a.i
Smp Info : |243552001|1|
Misc Info : |ECD82P_1S|937178|SVA|LANL|SOIL|RE03-09-14233|||
Comment :
Method : /chem/ecd1a.i/123009.b/ECD1-B-8082-121409.m
Meth Date : 31-Dec-2009 08:30 jen01212 Quant Type: ESTD
Cal Date : 14-DEC-2009 12:16 Cal File: 044b4401.d
Als bottle: 33
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1086.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.05000	Weight of sample extracted (g)
M	7.39220	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.303	2.303	0.000	23058155	76.8539	2.8	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.948	5.949	-0.001	26956154	115.579	4.2	80.00- 120.00	100.00
4 Aroclor-1242					CAS #: 53469-21-9		
3.200	3.200	0.000	8771090	828.355	29.8	80.00- 120.00	100.00
3.283	3.283	0.000	7465718	927.003	33.3	45.52- 85.52	85.12
3.573	3.574	-0.001	5809735	974.428	35.0	32.30- 72.30	66.24
3.807	3.807	0.000	6156787	1016.51	36.5	35.15- 75.15	70.19
3.834	3.836	-0.002	7819808	1166.90	41.9	40.38- 80.38	89.15

Average of Peak Concentrations = 35.3

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	CONCENTRATIONS FINAL (ug/Kg)	TARGET RANGE	RATIO
6 Aroclor-1254					CAS #: 11097-69-1		
3.408	3.409	-0.001	4950528	769.282	27.6	80.00- 120.00	100.00
3.834	3.832	0.002	7819808	676.494	24.3	161.84- 201.84	157.96
3.947	3.948	-0.001	4381041	352.421	12.7	181.60- 221.60	88.50
4.223	4.225	-0.002	5479478	324.612	11.7	262.91- 302.91	110.68
4.359	4.360	-0.001	4071174	327.384	11.8	189.60- 229.60	82.24
Average of Peak Concentrations =					17.6		
7 Aroclor-1260					CAS #: 11096-82-5		
4.338	4.340	-0.002	2372085	173.398	6.2	80.00- 120.00	100.00
4.463	4.464	-0.001	2767301	172.643	6.2	103.77- 143.77	116.66
4.731	4.731	0.000	1009038	80.3123	2.9	74.68- 114.68	42.54
4.903	4.905	-0.002	797218	62.2337	2.2	77.13- 117.13	33.61
5.050	5.051	-0.001	1997757	71.6102	2.6	200.92- 240.92	84.22
Average of Peak Concentrations =					4.0		

Data File: /chem/ecd1a.i/123009.b/033b3301.d
Date : 30-DEC-2009 13:16
Client ID: RE03-09-14233
Sample Info: |243552001|1|
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd1a.i
Operator: JAOC
Column diameter: 0.25

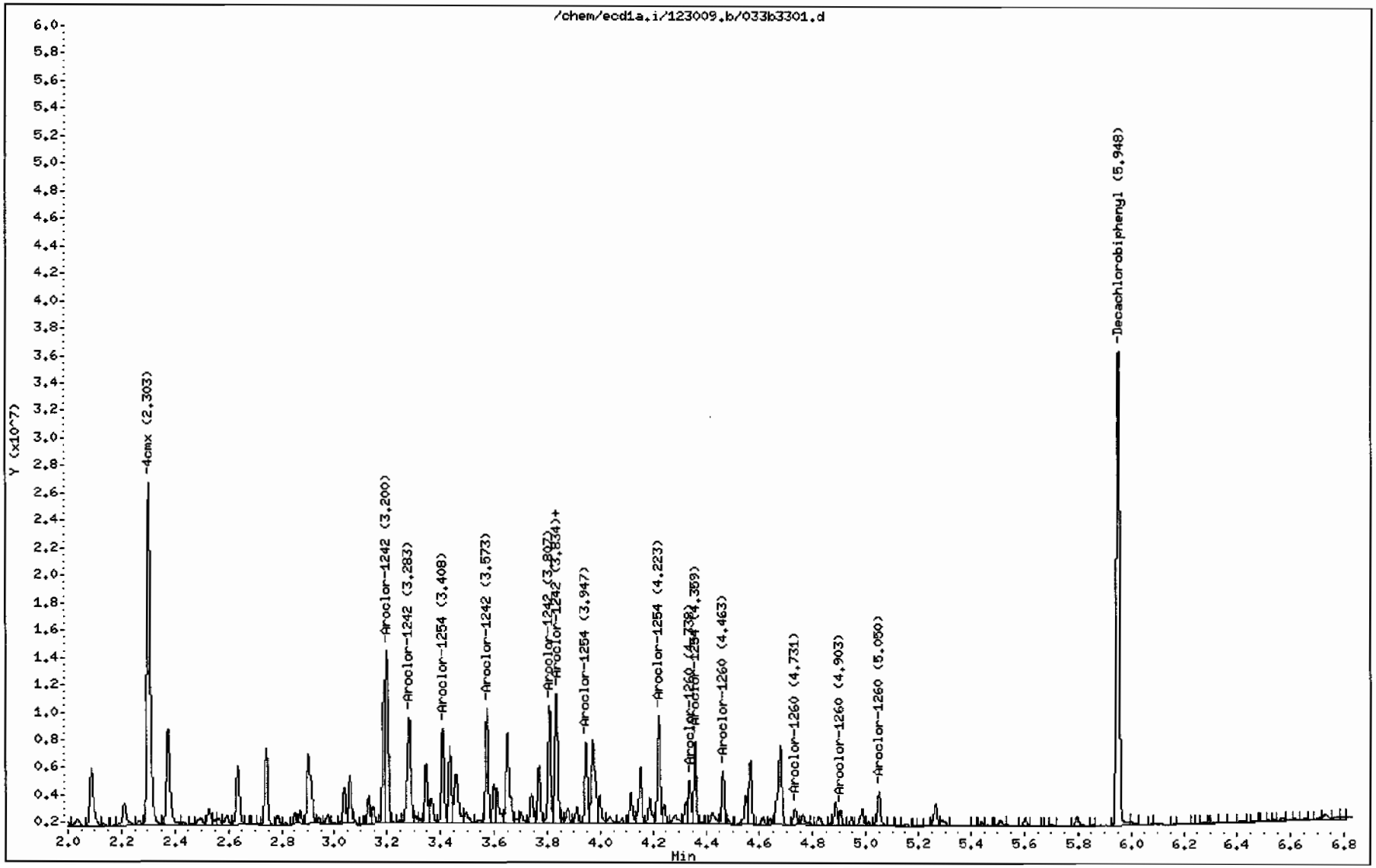

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10–1086	**Date Collected:**	12/22/2009 12:00	**Matrix:**	S
Lab Sample ID:	243552009	**Date Received:**	12/24/2009 09:30	**%Moisture:**	7.5
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE03–09–14234	**Method:**	SW846 8082	**SOP Ref:**	GL–OA–E–040
Batch ID:	937178	**Inst:**	ECD1A.I	**Dilution:**	1
Run Date:	12/30/2009 15:23	**Analyst:**	JAOC	**Inj. Vol:**	1 uL
Prep Date:	12/29/2009 09:29	**Aliquot:**	30.05 g	**Final Volume:**	1 mL
Data File:	045f4501.d	**Column:**	1 CLP1	**Level:**	LOW
	045b4501.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	3.60	ug/kg	1.20	3.60	1
11104–28–2	Aroclor–1221	U	3.60	ug/kg	1.20	3.60	1
11141–16–5	Aroclor–1232	U	3.60	ug/kg	1.20	3.60	1
53469–21–9	Aroclor–1242	U	3.60	ug/kg	1.20	3.60	1
12672–29–6	Aroclor–1248	U	3.60	ug/kg	1.20	3.60	1
11097–69–1	Aroclor–1254	U	3.60	ug/kg	1.20	3.60	1
11096–82–5	Aroclor–1260	U	3.60	ug/kg	1.20	3.60	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/123009.b/045f4501.d
Lab Smp Id: 243552009 Client Smp ID: RE03-09-14234
Inj Date : 30-DEC-2009 15:23
Operator : JAOC Inst ID: ecd1a.i
Smp Info : |243552009|1|
Misc Info : |ECD82P_1S|937178|SVA|LANL|SOIL|RE03-09-14234|||
Comment :
Method : /chem/ecd1a.i/123009.b/ECD1-F-8082-121409.m
Meth Date : 31-Dec-2009 08:24 jen01212 Quant Type: ESTD
Cal Date : 14-DEC-2009 11:34 Cal File: 040f4001.d
Als bottle: 45
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1086.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.05000	Weight of sample extracted (g)
M	7.45230	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.970	1.972	-0.002	36257167	96.5135	3.5	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.285	5.287	-0.002	39127432	123.220	4.4	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/123009.b/045f4501.d

Date : 30-DEC-2009 15:23

Client ID: RE03-09-14234

Sample Info: |243552009|1|

Volume Injected (uL): 1.0

Column phase: CLP1

Instrument: ecd1a.i

Operator: JAOC

Column diameter: 0.25

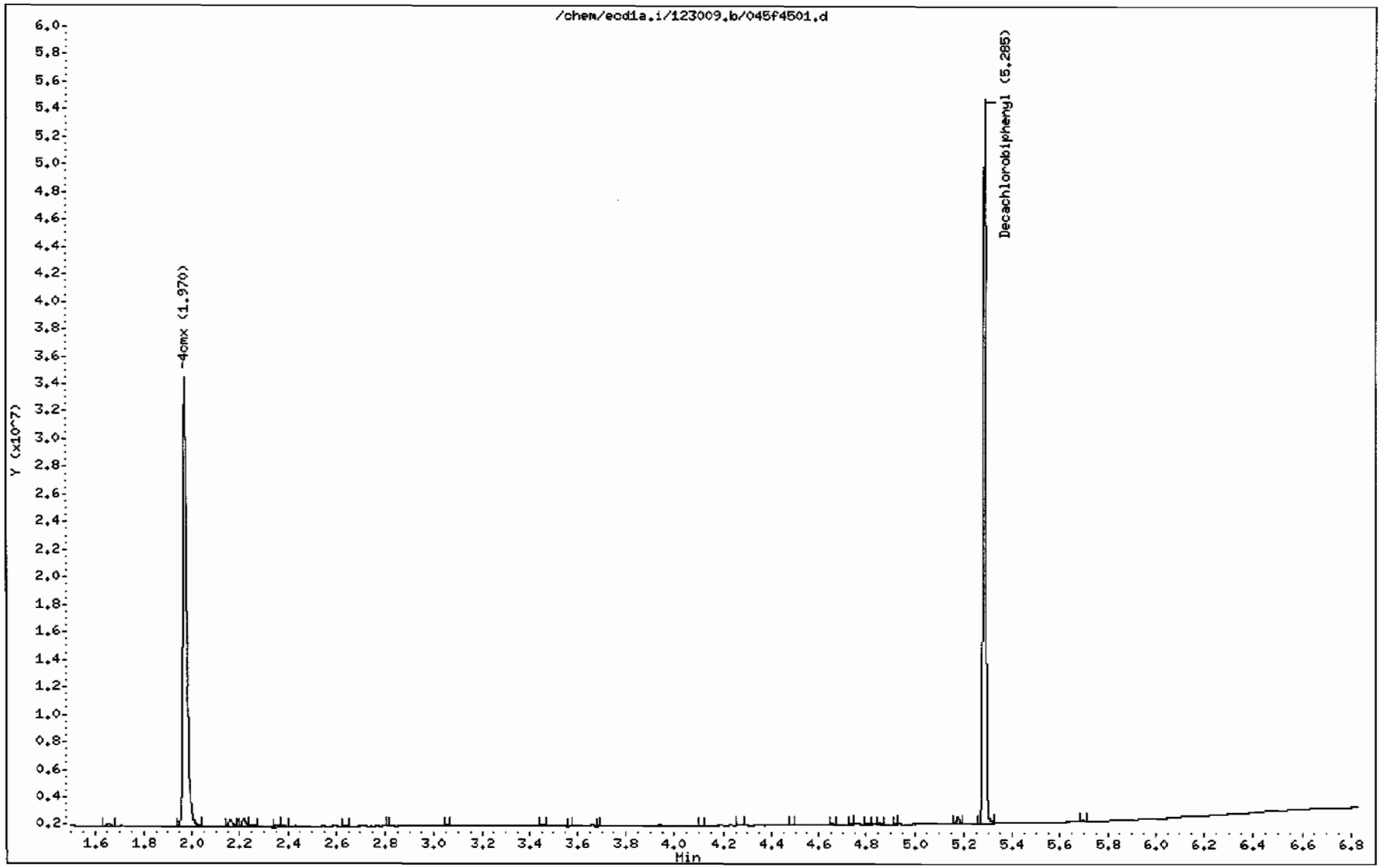

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/123009.b/045b4501.d
Lab Smp Id: 243552009 Client Smp ID: RE03-09-14234
Inj Date : 30-DEC-2009 15:23
Operator : JAOC Inst ID: ecd1a.i
Smp Info : |243552009|1|
Misc Info : |ECD82P_1S|937178|SVA|LANL|SOIL|RE03-09-14234|||
Comment :
Method : /chem/ecd1a.i/123009.b/ECD1-B-8082-121409.m
Meth Date : 31-Dec-2009 08:30 jen01212 Quant Type: ESTD
Cal Date : 14-DEC-2009 12:16 Cal File: 044b4401.d
Als bottle: 45
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1086.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.05000	Weight of sample extracted (g)
M	7.45230	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	CONCENTRATIONS FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.302	2.303	-0.001	28820916	96.0615	3.4	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.949	5.949	0.000	29359800	125.885	4.5	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/123009.b/045b4501.d

Page 1

Date : 30-DEC-2009 15:23

Client ID: RE03-09-14234

Instrument: ecd1a.i

Sample Info: 1243552009111

Volume Injected (uL): 1.0

Operator: JAOC

Column phase: CLP2

Column diameter: 0.25

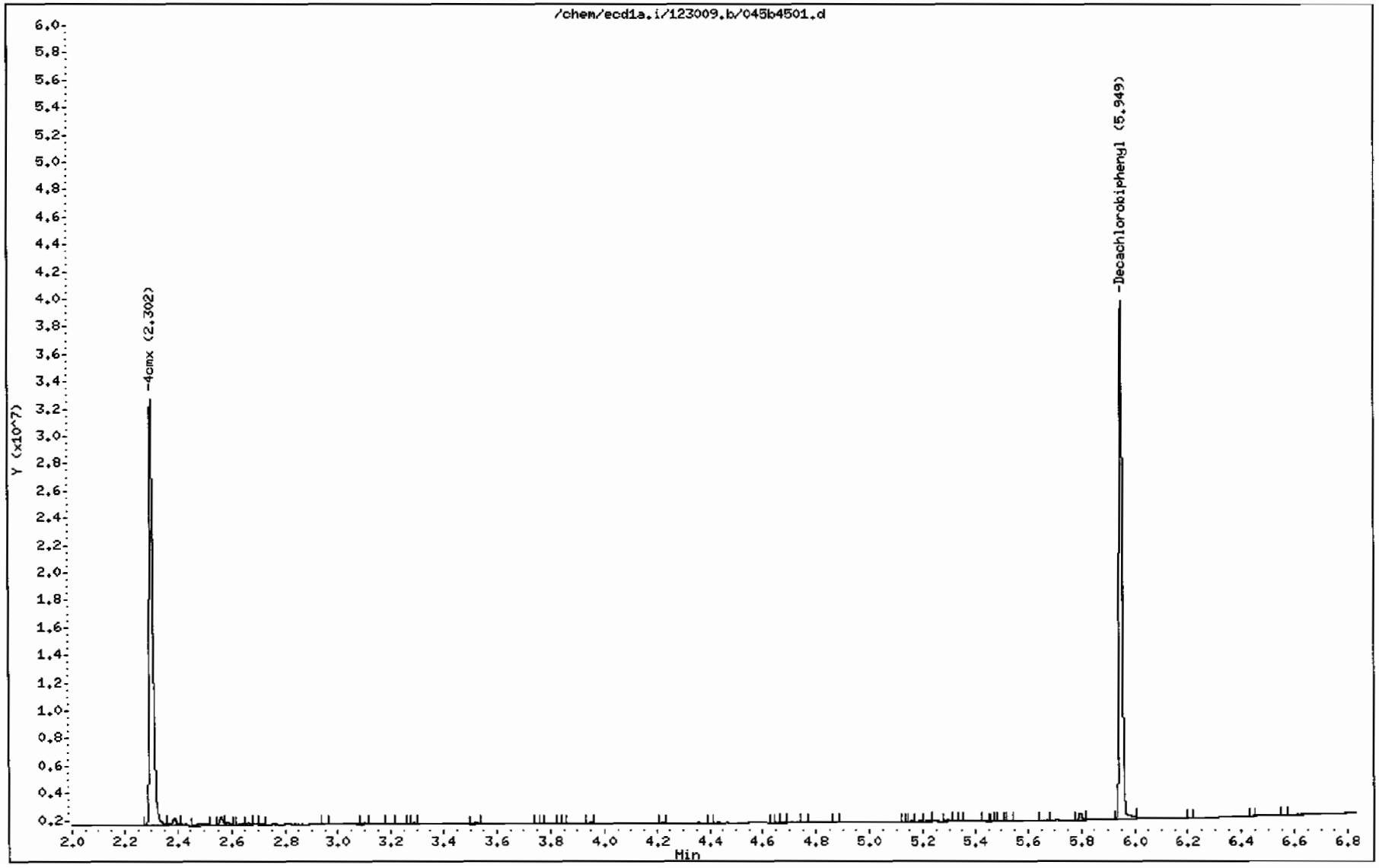

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–1086**	**Date Collected:**	**12/22/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243552007**	**Date Received:**	**12/24/2009 09:30**	**%Moisture:**	**22.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03–09–14235**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**937178**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**12/30/2009 15:02**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**12/29/2009 09:29**	**Aliquot:**	**30.03 g**	**Final Volume:**	**1 mL**
Data File:	**043f4301.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	043b4301.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	4.30	ug/kg	1.43	4.30	1
11104–28–2	Aroclor–1221	U	4.30	ug/kg	1.43	4.30	1
11141–16–5	Aroclor–1232	U	4.30	ug/kg	1.43	4.30	1
53469–21–9	Aroclor–1242	U	4.30	ug/kg	1.43	4.30	1
12672–29–6	Aroclor–1248	U	4.30	ug/kg	1.43	4.30	1
11097–69–1	Aroclor–1254	U	4.30	ug/kg	1.43	4.30	1
11096–82–5	Aroclor–1260	U	4.30	ug/kg	1.43	4.30	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/123009.b/043f4301.d
Lab Smp Id: 243552007 Client Smp ID: RE03-09-14235
Inj Date : 30-DEC-2009 15:02
Operator : JAOC Inst ID: ecd1a.i
Smp Info : |243552007|1|
Misc Info : |ECD82P_1S|937178|SVA|LANL|SOIL|RE03-09-14235|||
Comment :
Method : /chem/ecd1a.i/123009.b/ECD1-F-8082-121409.m
Meth Date : 31-Dec-2009 08:24 jen01212 Quant Type: ESTD
Cal Date : 14-DEC-2009 11:34 Cal File: 040f4001.d
Als bottle: 43
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1086.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.03000	Weight of sample extracted (g)
M	22.47550	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.970	1.972	-0.002	41105805	109.420	4.7	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.284	5.287	-0.003	45427752	143.061	6.1	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/123009.b/043f4301.d

Page 1

Date : 30-DEC-2009 15:02

Client ID: RE03-09-14235

Instrument: ecd1a.i

Sample Info: |243552007|1|

Volume Injected (uL): 1.0

Operator: JAOC

Column phase: CLP1

Column diameter: 0.25

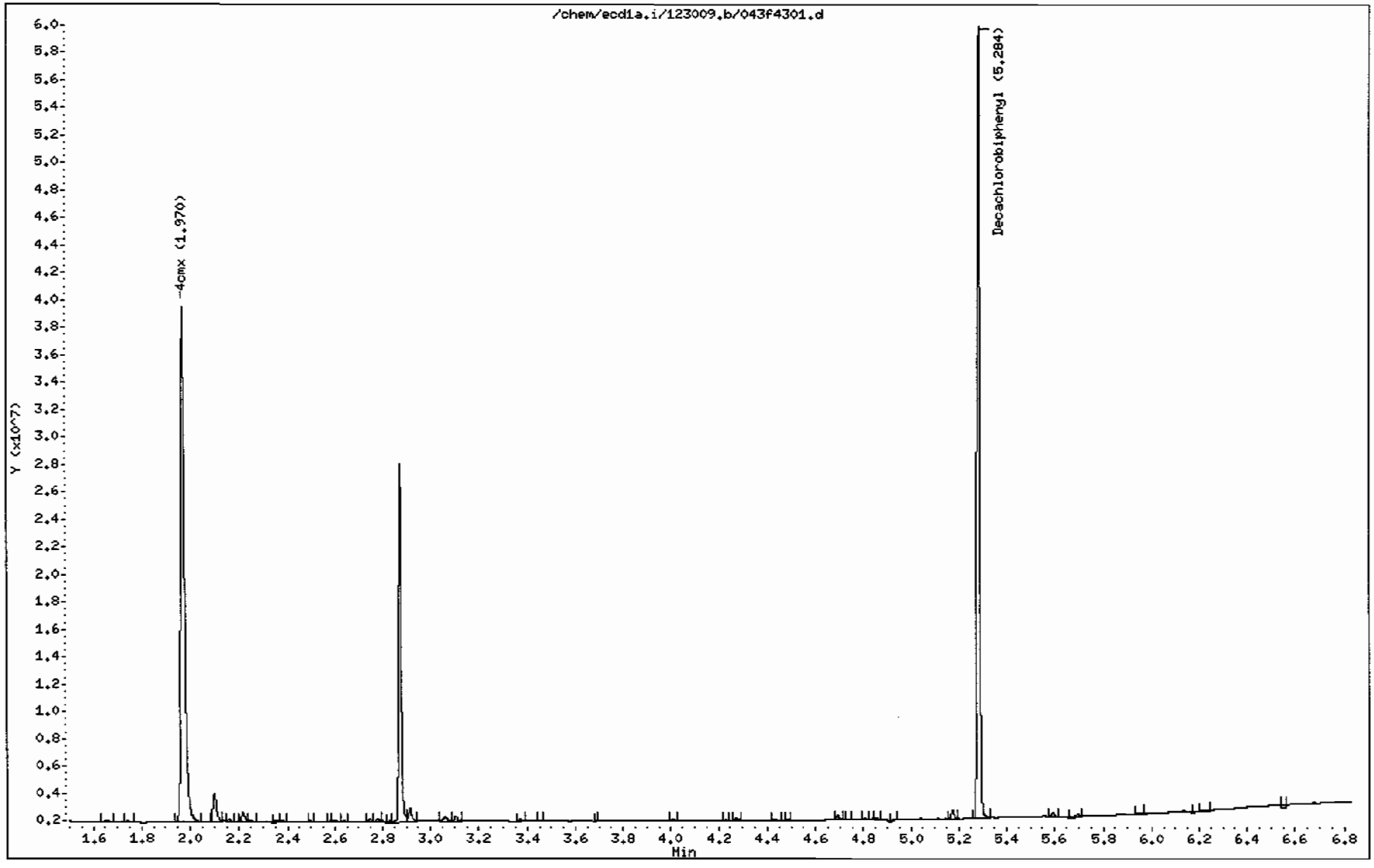

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/123009.b/043b4301.d
Lab Smp Id: 243552007 Client Smp ID: RE03-09-14235
Inj Date : 30-DEC-2009 15:02
Operator : JAOC Inst ID: ecd1a.i
Smp Info : |243552007|1|
Misc Info : |ECD82P_1S|937178|SVA|LANL|SOIL|RE03-09-14235|||
Comment :
Method : /chem/ecd1a.i/123009.b/ECD1-B-8082-121409.m
Meth Date : 31-Dec-2009 08:30 jen01212 Quant Type: ESTD
Cal Date : 14-DEC-2009 12:16 Cal File: 044b4401.d
Als bottle: 43
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1086.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.03000	Weight of sample extracted (g)
M	22.47550	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.302	2.303	-0.001	32344259	107.805	4.6	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.948	5.949	-0.001	33368419	143.073	6.1	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/123009.b/043b4301.d

Date : 30-DEC-2009 15:02

Client ID: RE03-09-14235

Sample Info: 1243552007|1|

Volume Injected (uL): 1.0

Column phase: CLP2

Instrument: ecd1a.i

Operator: JAOC

Column diameter: 0.25

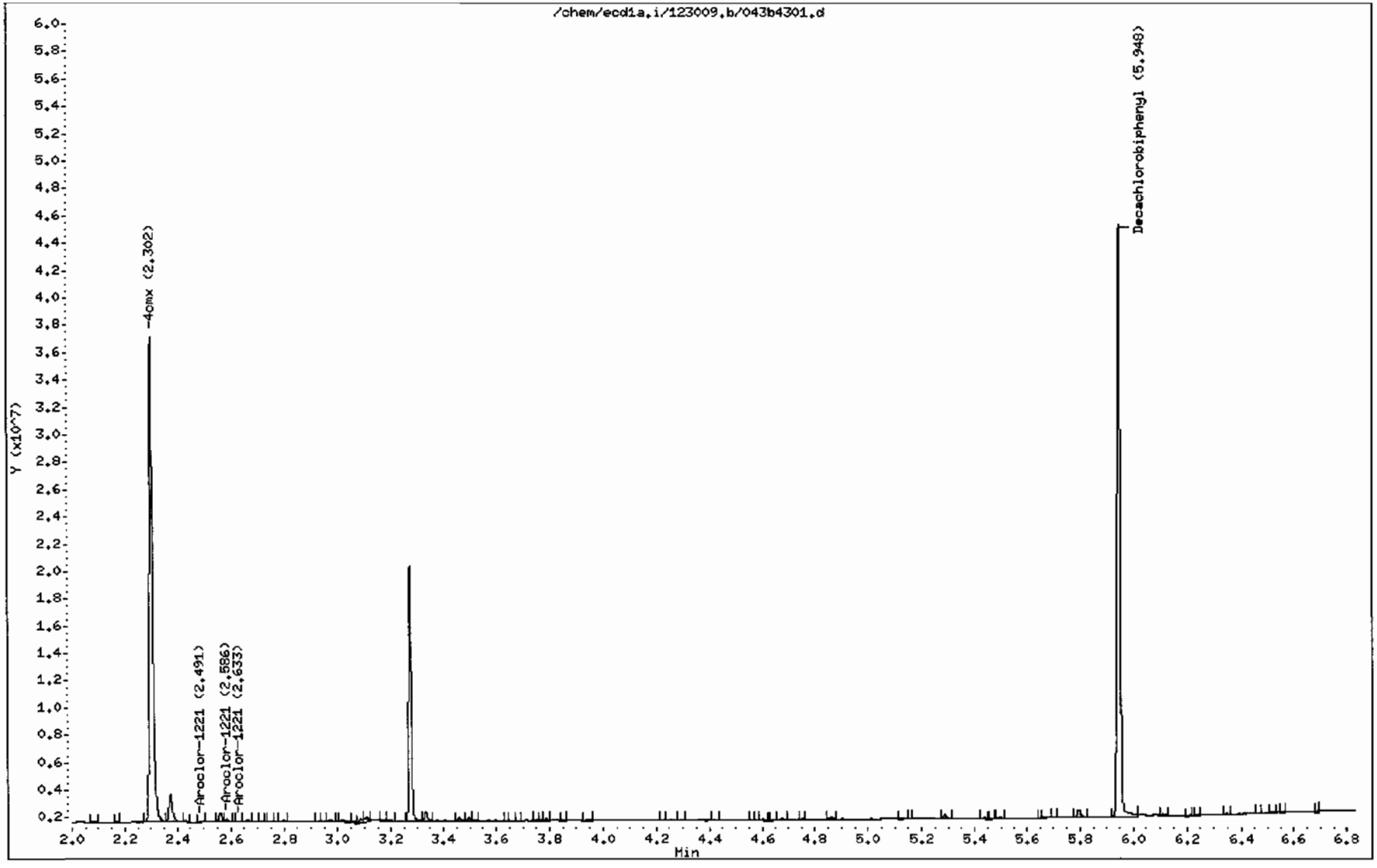

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–1086**	**Date Collected:**	**12/22/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243552002**	**Date Received:**	**12/24/2009 09:30**	**%Moisture:**	**16.2**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03–09–14236**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**937178**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**12/30/2009 13:27**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**12/29/2009 09:29**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**034f3401.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	034b3401.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	3.98	ug/kg	1.32	3.98	1
11104–28–2	Aroclor–1221	U	3.98	ug/kg	1.32	3.98	1
11141–16–5	Aroclor–1232	U	3.98	ug/kg	1.32	3.98	1
53469–21–9	Aroclor–1242	U	3.98	ug/kg	1.32	3.98	1
12672–29–6	Aroclor–1248	U	3.98	ug/kg	1.32	3.98	1
11097–69–1	Aroclor–1254	U	3.98	ug/kg	1.32	3.98	1
11096–82–5	Aroclor–1260	U	3.98	ug/kg	1.32	3.98	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/123009.b/034f3401.d
Lab Smp Id: 243552002 Client Smp ID: RE03-09-14236
Inj Date : 30-DEC-2009 13:27
Operator : JAOC Inst ID: ecd1a.i
Smp Info : |243552002|1|
Misc Info : |ECD82P_1S|937178|SVA|LANL|SOIL|RE03-09-14236|||
Comment :
Method : /chem/ecd1a.i/123009.b/ECD1-F-8082-121409.m
Meth Date : 31-Dec-2009 08:24 jen01212 Quant Type: ESTD
Cal Date : 14-DEC-2009 11:34 Cal File: 040f4001.d
Als bottle: 34
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1086.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	16.16260	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.971	1.972	-0.001	35689025	95.0011	3.8	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.285	5.287	-0.002	44251674	139.358	5.5	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/123009.b/034f3401.d

Date : 30-DEC-2009 13:27

Client ID: RE03-09-14236

Sample Info: |2435520021|

Volume Injected (uL): 1.0

Column phase: CLP1

Instrument: ecd1a.i

Operator: JAOC

Column diameter: 0.25

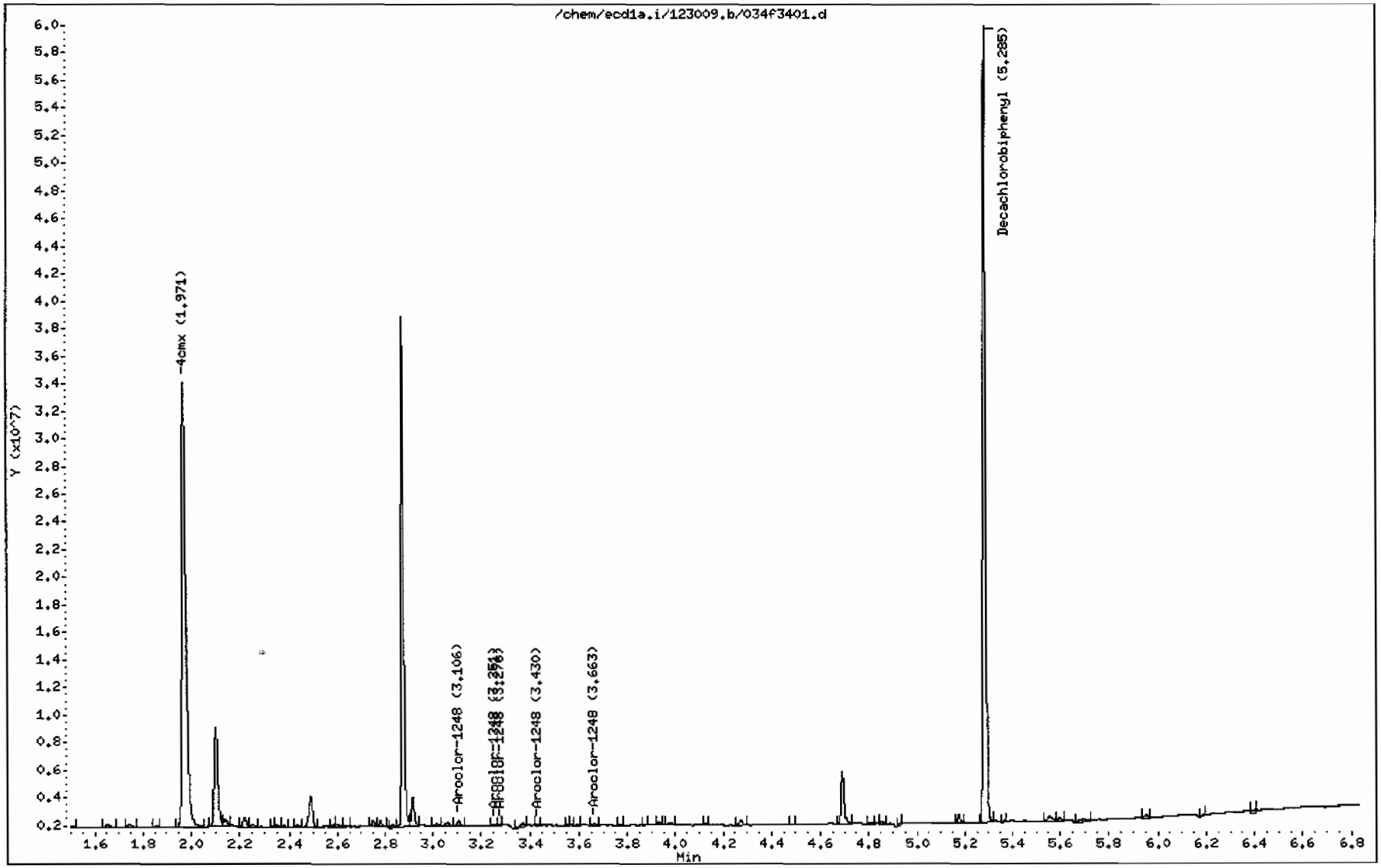

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RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/123009.b/034b3401.d
Lab Smp Id: 243552002 Client Smp ID: RE03-09-14236
Inj Date : 30-DEC-2009 13:27
Operator : JAOC Inst ID: ecd1a.i
Smp Info : |243552002|1|
Misc Info : |ECD82P_1S|937178|SVA|LANL|SOIL|RE03-09-14236|||
Comment :
Method : /chem/ecd1a.i/123009.b/ECD1-B-8082-121409.m
Meth Date : 31-Dec-2009 08:30 jen01212 Quant Type: ESTD
Cal Date : 14-DEC-2009 12:16 Cal File: 044b4401.d
Als bottle: 34
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1086.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	16.16260	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.302	2.303	-0.001	28002496	93.3336	3.7	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.948	5.949	-0.001	31644414	135.681	5.4	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/123009.b/034b3401.d

Date : 30-DEC-2009 13:27

Client ID: RE03-09-14236

Sample Info: |243552002|1|

Volume Injected (uL): 1.0

Column phase: CLP2

Instrument: ecd1a.i

Operator: JAOC

Column diameter: 0.25

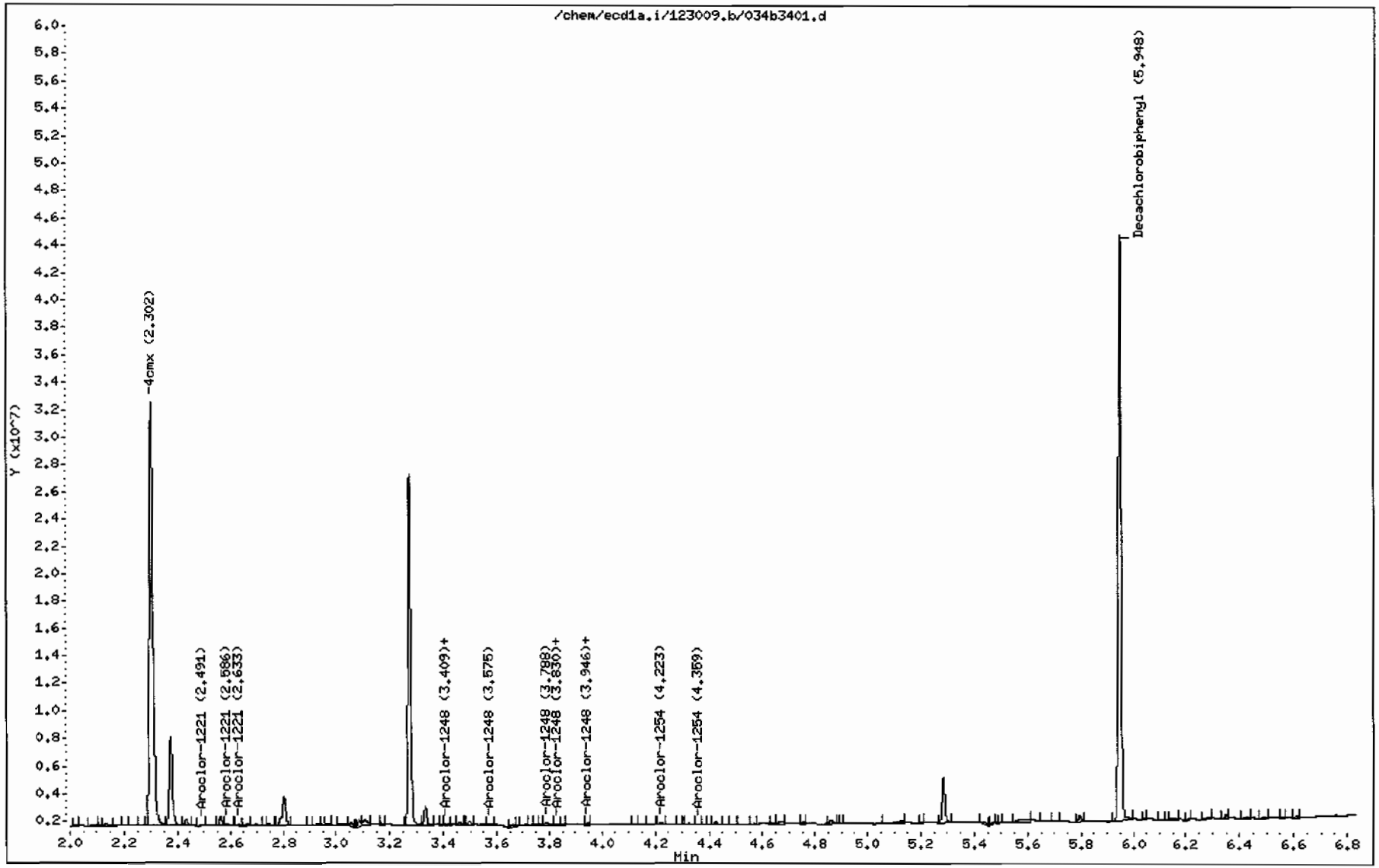

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–1086**	**Date Collected:**	**12/22/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243552008**	**Date Received:**	**12/24/2009 09:30**	**%Moisture:**	**5.4**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03–09–14238**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**937178**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**12/30/2009 15:12**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**12/29/2009 09:29**	**Aliquot:**	**30.01 g**	**Final Volume:**	**1 mL**
Data File:	**044f4401.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	044b4401.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	3.52	ug/kg	1.17	3.52	1
11104–28–2	Aroclor–1221	U	3.52	ug/kg	1.17	3.52	1
11141–16–5	Aroclor–1232	U	3.52	ug/kg	1.17	3.52	1
53469–21–9	Aroclor–1242	U	3.52	ug/kg	1.17	3.52	1
12672–29–6	Aroclor–1248	U	3.52	ug/kg	1.17	3.52	1
11097–69–1	Aroclor–1254	U	3.52	ug/kg	1.17	3.52	1
11096–82–5	Aroclor–1260	U	3.52	ug/kg	1.17	3.52	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/123009.b/044f4401.d
Lab Smp Id: 243552008 Client Smp ID: RE03-09-14238
Inj Date : 30-DEC-2009 15:12
Operator : JAOC Inst ID: ecd1a.i
Smp Info : |243552008|1|
Misc Info : |ECD82P_1S|937178|SVA|LANL|SOIL|RE03-09-14238|||
Comment :
Method : /chem/ecd1a.i/123009.b/ECD1-F-8082-121409.m
Meth Date : 31-Dec-2009 08:24 jen01212 Quant Type: ESTD
Cal Date : 14-DEC-2009 11:34 Cal File: 040f4001.d
Als bottle: 44
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1086.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.01000	Weight of sample extracted (g)
M	5.39950	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.971	1.972	-0.001	37735097	100.448	3.5	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.285	5.287	-0.002	34444592	108.473	3.8	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/123009.b/044f4401.d

Page 1

Date : 30-DEC-2009 15:12

Client ID: RE03-09-14238

Instrument: ecd1a.i

Sample Info: |243552008|1|

Volume Injected (uL): 1.0

Operator: JAOC

Column phase: CLP1

Column diameter: 0.25

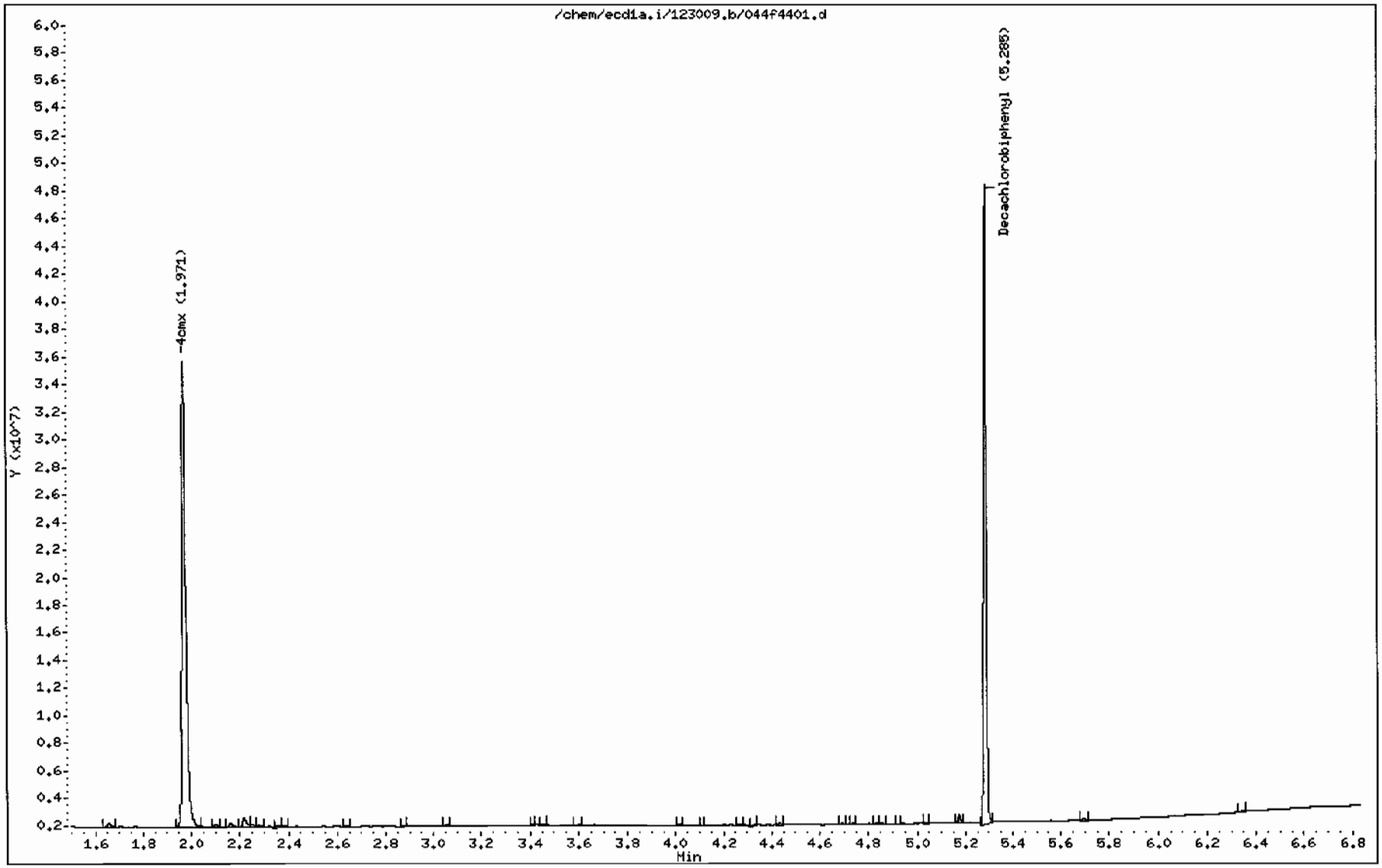

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/123009.b/044b4401.d
Lab Smp Id: 243552008 Client Smp ID: RE03-09-14238
Inj Date : 30-DEC-2009 15:12
Operator : JAOC Inst ID: ecd1a.i
Smp Info : |243552008|1|
Misc Info : |ECD82P_1S|937178|SVA|LANL|SOIL|RE03-09-14238|||
Comment :
Method : /chem/ecd1a.i/123009.b/ECD1-B-8082-121409.m
Meth Date : 31-Dec-2009 08:30 jen01212 Quant Type: ESTD
Cal Date : 14-DEC-2009 12:16 Cal File: 044b4401.d
Als bottle: 44
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1086.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.01000	Weight of sample extracted (g)
M	5.39950	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.302	2.303	-0.001	29943837	99.8042	3.5	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.948	5.949	-0.001	30156776	129.302	4.6	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/123009.b/044b4401.d

Page 1

Date : 30-DEC-2009 15:12

Client ID: RE03-09-14238

Instrument: ecd1a.i

Sample Info: |243552008|1|

Volume Injected (uL): 1.0

Operator: JAOC

Column phase: CLP2

Column diameter: 0.25

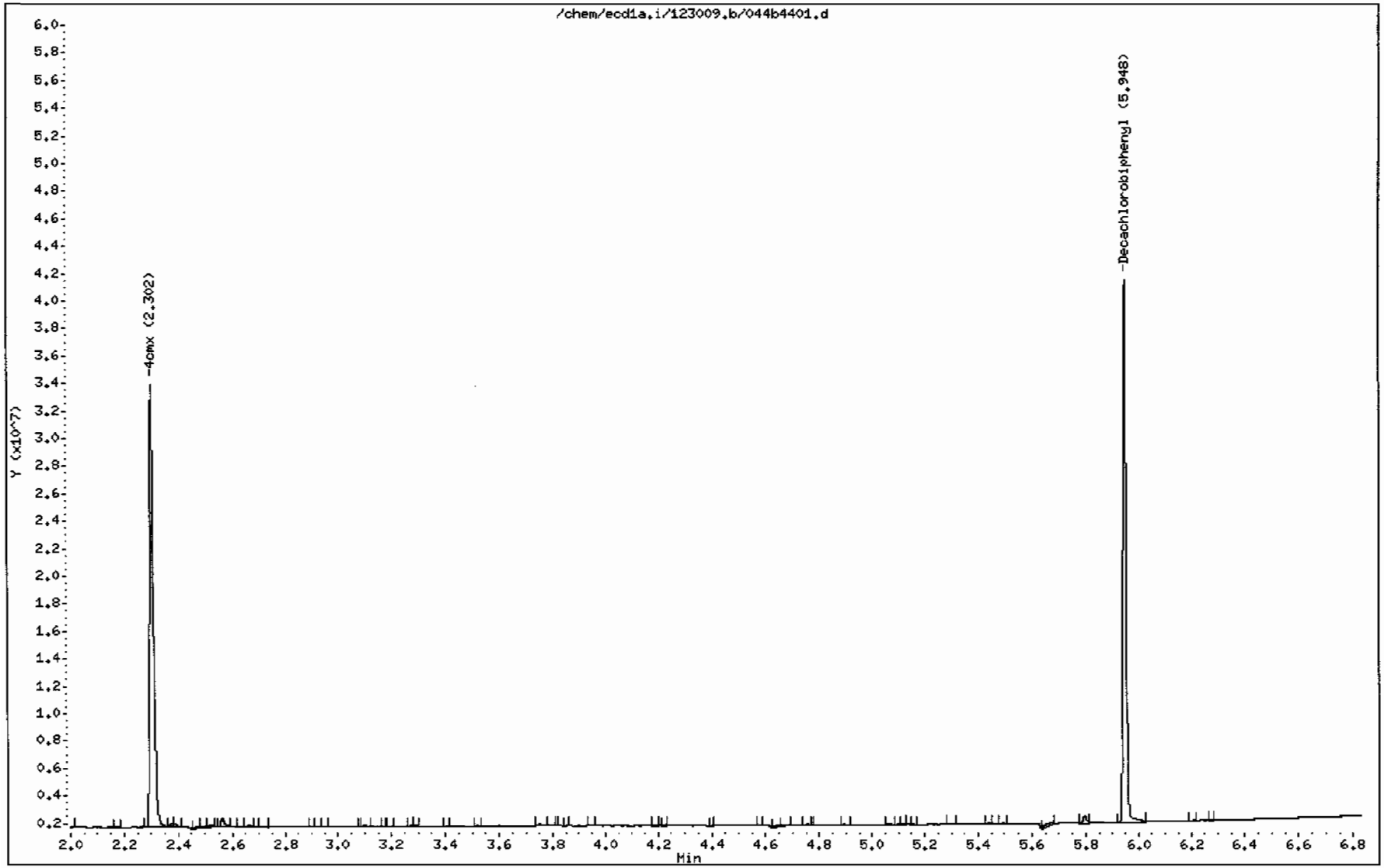

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–1086**	**Date Collected:**	**12/22/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243552003**	**Date Received:**	**12/24/2009 09:30**	**%Moisture:**	**5.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03–09–14239**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**937178**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**12/30/2009 13:37**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**12/29/2009 09:29**	**Aliquot:**	**30.01 g**	**Final Volume:**	**1 mL**
Data File:	**035f3501.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	035b3501.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	3.52	ug/kg	1.17	3.52	1
11104–28–2	Aroclor–1221	U	3.52	ug/kg	1.17	3.52	1
11141–16–5	Aroclor–1232	U	3.52	ug/kg	1.17	3.52	1
53469–21–9	Aroclor–1242	U	3.52	ug/kg	1.17	3.52	1
12672–29–6	Aroclor–1248	U	3.52	ug/kg	1.17	3.52	1
11097–69–1	Aroclor–1254	U	3.52	ug/kg	1.17	3.52	1
11096–82–5	Aroclor–1260	U	3.52	ug/kg	1.17	3.52	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/123009.b/035f3501.d
Lab Smp Id: 243552003 Client Smp ID: RE03-09-14239
Inj Date : 30-DEC-2009 13:37
Operator : JAOC Inst ID: ecd1a.i
Smp Info : |243552003|1|
Misc Info : |ECD82P_1S|937178|SVA|LANL|SOIL|RE03-09-14239|||
Comment :
Method : /chem/ecd1a.i/123009.b/ECD1-F-8082-121409.m
Meth Date : 31-Dec-2009 08:24 jen01212 Quant Type: ESTD
Cal Date : 14-DEC-2009 11:34 Cal File: 040f4001.d
Als bottle: 35
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1086.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.01000	Weight of sample extracted (g)
M	5.46650	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.971	1.972	-0.001	40713251	108.375	3.8	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.284	5.287	-0.003	45694492	143.901	5.1	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/123009.b/035f3501.d
Date : 30-DEC-2009 13:37
Client ID: RE03-09-14239
Sample Info: |243552003|1|
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecd1a.i
Operator: JAOC
Column diameter: 0.25

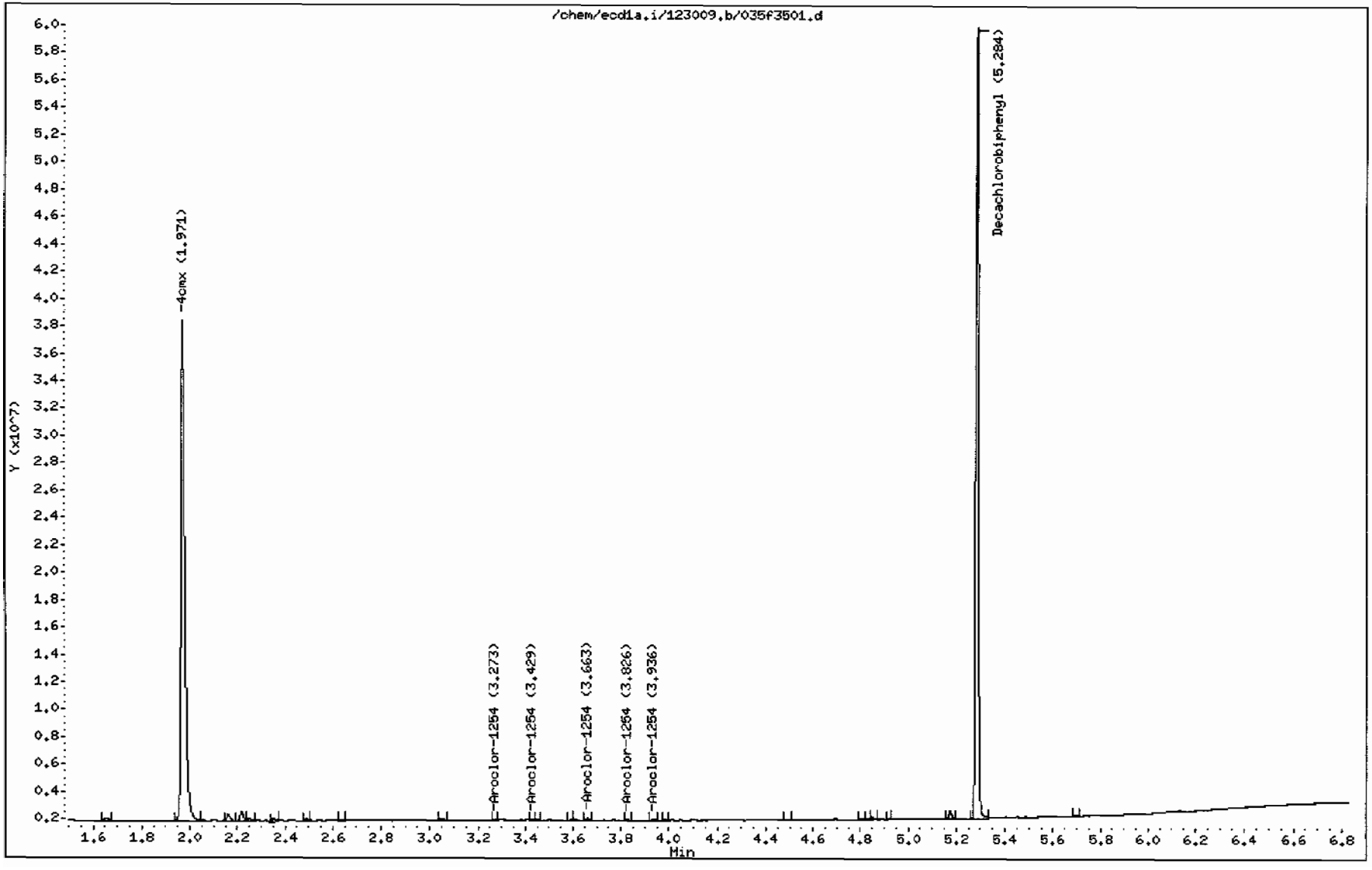

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/123009.b/035b3501.d
Lab Smp Id: 243552003 Client Smp ID: RE03-09-14239
Inj Date : 30-DEC-2009 13:37
Operator : JAOC Inst ID: ecd1a.i
Smp Info : |243552003|1|
Misc Info : |ECD82P_1S|937178|SVA|LANL|SOIL|RE03-09-14239|||
Comment :
Method : /chem/ecd1a.i/123009.b/ECD1-B-8082-121409.m
Meth Date : 31-Dec-2009 08:30 jen01212 Quant Type: ESTD
Cal Date : 14-DEC-2009 12:16 Cal File: 044b4401.d
Als bottle: 35
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1086.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.01000	Weight of sample extracted (g)
M	5.46650	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.302	2.303	-0.001	32375806	107.910	3.8	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.947	5.949	-0.002	33438081	143.371	5.0	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/123009.b/035b3501.d
Date : 30-DEC-2009 13:37
Client ID: RE03-09-14239
Sample Info: |243552003|1|
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd1a.i
Operator: JAOC
Column diameter: 0.25

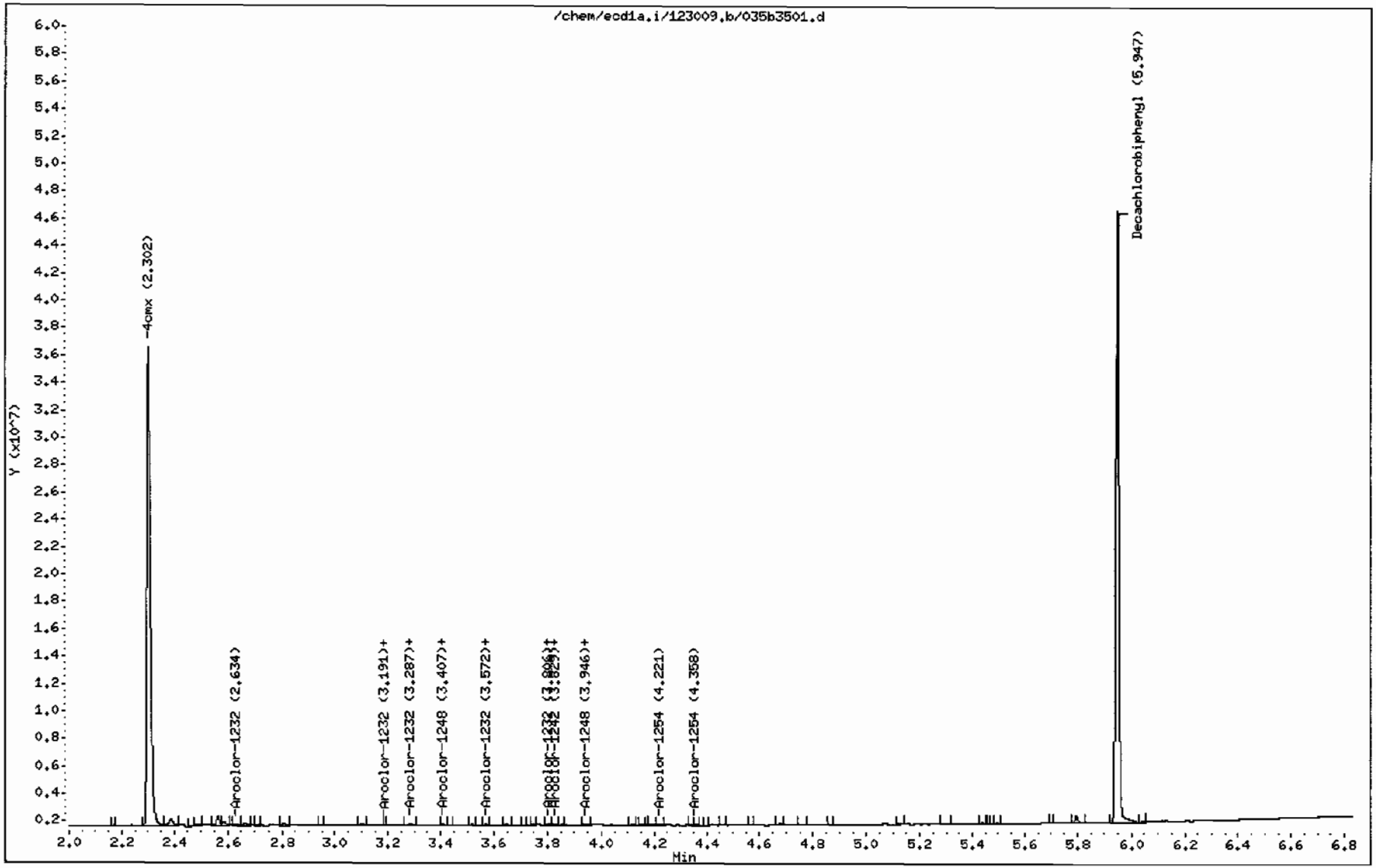

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10-1086**	**Date Collected:**	**12/22/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243552004**	**Date Received:**	**12/24/2009 09:30**	**%Moisture:**	**5.4**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-09-14240**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**937178**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**12/30/2009 14:09**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**12/29/2009 09:29**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**038f3801.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	038b3801.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.52	ug/kg	1.17	3.52	1
11104-28-2	Aroclor-1221	U	3.52	ug/kg	1.17	3.52	1
11141-16-5	Aroclor-1232	U	3.52	ug/kg	1.17	3.52	1
53469-21-9	Aroclor-1242	U	3.52	ug/kg	1.17	3.52	1
12672-29-6	Aroclor-1248	U	3.52	ug/kg	1.17	3.52	1
11097-69-1	Aroclor-1254	U	3.52	ug/kg	1.17	3.52	1
11096-82-5	Aroclor-1260	U	3.52	ug/kg	1.17	3.52	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/123009.b/038f3801.d
Lab Smp Id: 243552004 Client Smp ID: RE03-09-14240
Inj Date : 30-DEC-2009 14:09
Operator : JAOC Inst ID: ecd1a.i
Smp Info : |243552004|1|
Misc Info : |ECD82P_1S|937178|SVA|LANL|SOIL|RE03-09-14240|||
Comment :
Method : /chem/ecd1a.i/123009.b/ECD1-F-8082-121409.m
Meth Date : 31-Dec-2009 08:24 jen01212 Quant Type: ESTD
Cal Date : 14-DEC-2009 11:34 Cal File: 040f4001.d
Als bottle: 38
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1086.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	5.41730	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.971	1.972	-0.001	37180028	98.9701	3.5	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.285	5.287	-0.002	34089671	107.355	3.8	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/123009.b/038f3801.d

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Date : 30-DEC-2009 14:09

Client ID: RE03-09-14240

Instrument: ecd1a.i

Sample Info: |2435520041|1|

Volume Injected (uL): 1.0

Operator: JAOC

Column phase: CLP1

Column diameter: 0.25

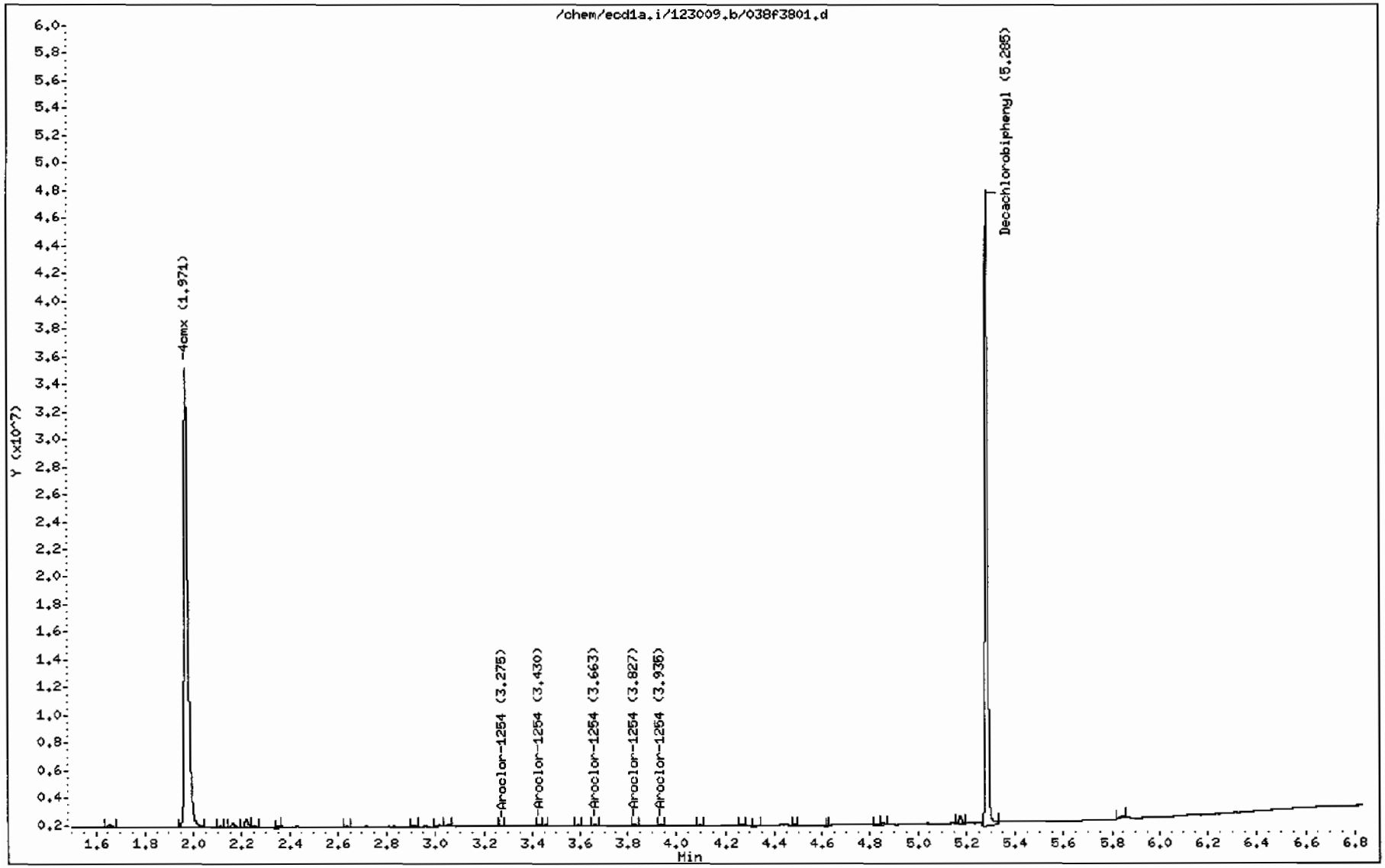

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/123009.b/038b3801.d
Lab Smp Id: 243552004 Client Smp ID: RE03-09-14240
Inj Date : 30-DEC-2009 14:09
Operator : JAOC Inst ID: ecd1a.i
Smp Info : |243552004|1|
Misc Info : |ECD82P_1S|937178|SVA|LANL|SOIL|RE03-09-14240|||
Comment :
Method : /chem/ecd1a.i/123009.b/ECD1-B-8082-121409.m
Meth Date : 31-Dec-2009 08:30 jen01212 Quant Type: ESTD
Cal Date : 14-DEC-2009 12:16 Cal File: 044b4401.d
Als bottle: 38
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1086.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	5.41730	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.303	2.303	0.000	29313279	97.7025	3.4	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.948	5.949	-0.001	30021931	128.724	4.5	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/123009.b/038b3801.d

Date : 30-DEC-2009 14:09

Client ID: RE03-09-14240

Sample Info: |243552004|1|

Volume Injected (uL): 1.0

Column phase: CLP2

Instrument: ecd1a.i

Operator: JAOC

Column diameter: 0.25

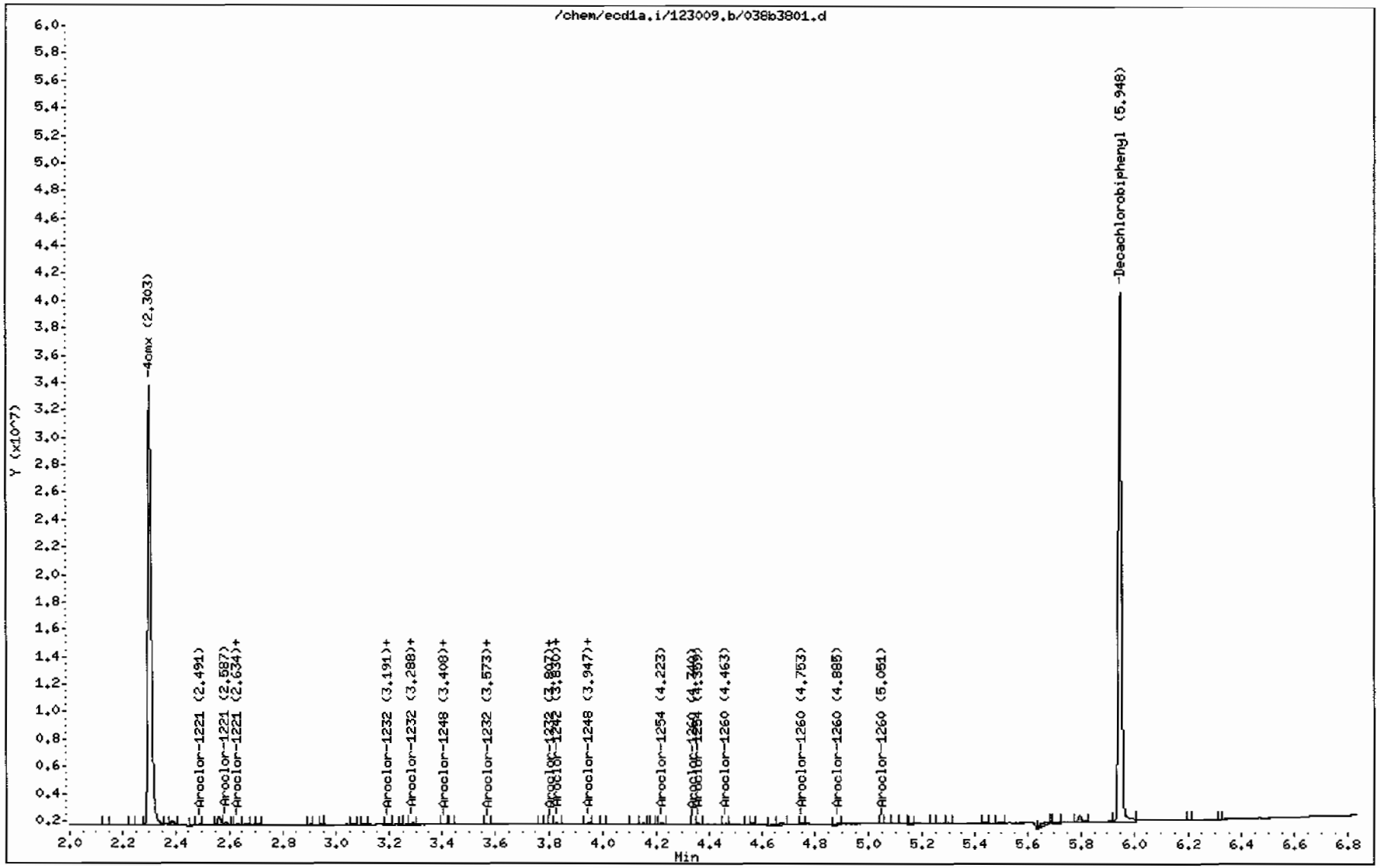

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–1086**	**Date Collected:**	**12/22/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243552010**	**Date Received:**	**12/24/2009 09:30**	**%Moisture:**	**12.7**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03–09–14241**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**937178**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**12/30/2009 15:33**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**12/29/2009 09:29**	**Aliquot:**	**30.03 g**	**Final Volume:**	**1 mL**
Data File:	**046f4601.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	046b4601.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	3.81	ug/kg	1.27	3.81	1
11104–28–2	Aroclor–1221	U	3.81	ug/kg	1.27	3.81	1
11141–16–5	Aroclor–1232	U	3.81	ug/kg	1.27	3.81	1
53469–21–9	Aroclor–1242	U	3.81	ug/kg	1.27	3.81	1
12672–29–6	Aroclor–1248	U	3.81	ug/kg	1.27	3.81	1
11097–69–1	Aroclor–1254	U	3.81	ug/kg	1.27	3.81	1
11096–82–5	Aroclor–1260	U	3.81	ug/kg	1.27	3.81	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/123009.b/046f4601.d
Lab Smp Id: 243552010 Client Smp ID: RE03-09-14241
Inj Date : 30-DEC-2009 15:33
Operator : JAOC Inst ID: ecd1a.i
Smp Info : |243552010|1|
Misc Info : |ECD82P_1S|937178|SVA|LANL|SOIL|RE03-09-14241|||
Comment :
Method : /chem/ecd1a.i/123009.b/ECD1-F-8082-121409.m
Meth Date : 31-Dec-2009 08:24 jen01212 Quant Type: ESTD
Cal Date : 14-DEC-2009 11:34 Cal File: 040f4001.d
Als bottle: 46
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1086.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.03000	Weight of sample extracted (g)
M	12.66320	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.971	1.972	-0.001	39385287	104.840	4.0	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.285	5.287	-0.002	37030305	116.616	4.4	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/123009.b/046f4601.d

Date : 30-DEC-2009 15:33

Client ID: RE03-09-14241

Sample Info: |243552010|1|

Volume Injected (uL): 1.0

Column phase: CLP1

Instrument: ecd1a.i

Operator: JAOC

Column diameter: 0.25

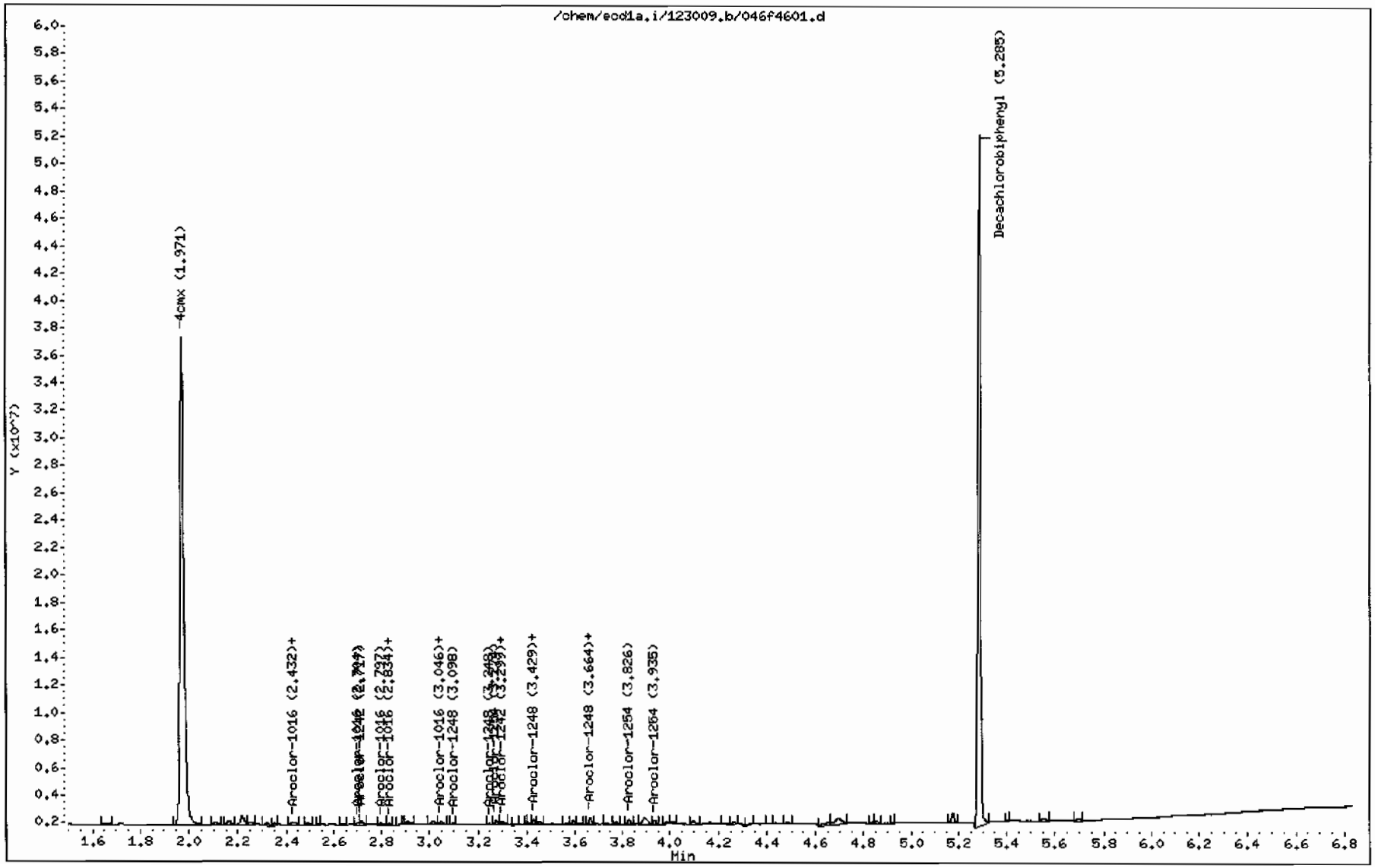

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RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/123009.b/046b4601.d
Lab Smp Id: 243552010 Client Smp ID: RE03-09-14241
Inj Date : 30-DEC-2009 15:33
Operator : JAOC Inst ID: ecd1a.i
Smp Info : |243552010|1|
Misc Info : |ECD82P_1S|937178|SVA|LANL|SOIL|RE03-09-14241|||
Comment :
Method : /chem/ecd1a.i/123009.b/ECD1-B-8082-121409.m
Meth Date : 31-Dec-2009 08:30 jen01212 Quant Type: ESTD
Cal Date : 14-DEC-2009 12:16 Cal File: 044b4401.d
Als bottle: 46
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1086.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.03000	Weight of sample extracted (g)
M	12.66320	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.303	2.303	0.000	31187878	103.951	4.0	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.948	5.949	-0.001	34030401	145.911	5.6	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/123009.b/0468b4601.d
Date : 30-DEC-2009 15:33
Client ID: RE03-09-14241
Sample Info: I2435520101!
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd1a.i
Operator: JAOC
Column diameter: 0.25

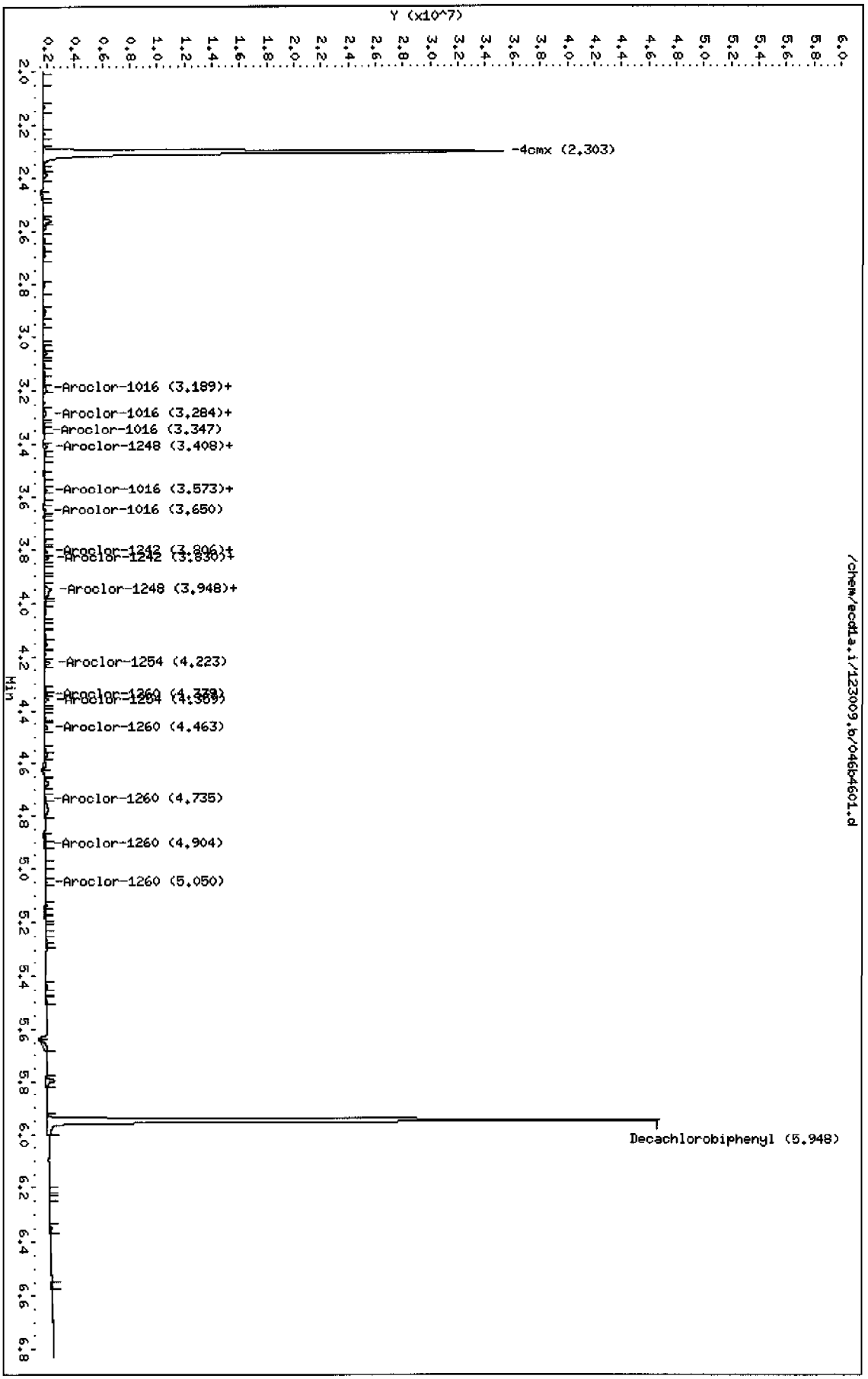

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PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10-1086**	**Date Collected:**	**12/22/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243552012**	**Date Received:**	**12/24/2009 09:30**	**%Moisture:**	**7**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-10-2736**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**937178**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**12/30/2009 15:54**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**12/29/2009 09:29**	**Aliquot:**	**30.09 g**	**Final Volume:**	**1 mL**
Data File:	**048f4801.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	048b4801.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.57	ug/kg	1.19	3.57	1
11104-28-2	Aroclor-1221	U	3.57	ug/kg	1.19	3.57	1
11141-16-5	Aroclor-1232	U	3.57	ug/kg	1.19	3.57	1
53469-21-9	Aroclor-1242	U	3.57	ug/kg	1.19	3.57	1
12672-29-6	Aroclor-1248	U	3.57	ug/kg	1.19	3.57	1
11097-69-1	Aroclor-1254	U	3.57	ug/kg	1.19	3.57	1
11096-82-5	Aroclor-1260	U	3.57	ug/kg	1.19	3.57	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/123009.b/048f4801.d
Lab Smp Id: 243552012 Client Smp ID: RE03-10-2736
Inj Date : 30-DEC-2009 15:54
Operator : JAOC Inst ID: ecd1a.i
Smp Info : |243552012|1|
Misc Info : |ECD82P_1S|937178|SVA|LANL|SOIL|RE03-10-2736|||
Comment :
Method : /chem/ecd1a.i/123009.b/ECD1-F-8082-121409.m
Meth Date : 31-Dec-2009 08:24 jen01212 Quant Type: ESTD
Cal Date : 14-DEC-2009 11:34 Cal File: 040f4001.d
Als bottle: 48
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1086.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.09000	Weight of sample extracted (g)
M	7.02740	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.971	1.972	-0.001	31583941	84.0738	3.0	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.285	5.287	-0.002	33877903	106.688	3.8	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/123009.b/048f4801.d

Date : 30-DEC-2009 15:54

Client ID: RE03-10-2736

Sample Info: |243552012|1|

Volume Injected (uL): 1.0

Column phase: CLP1

Instrument: ecd1a.i

Operator: JAOC

Column diameter: 0.25

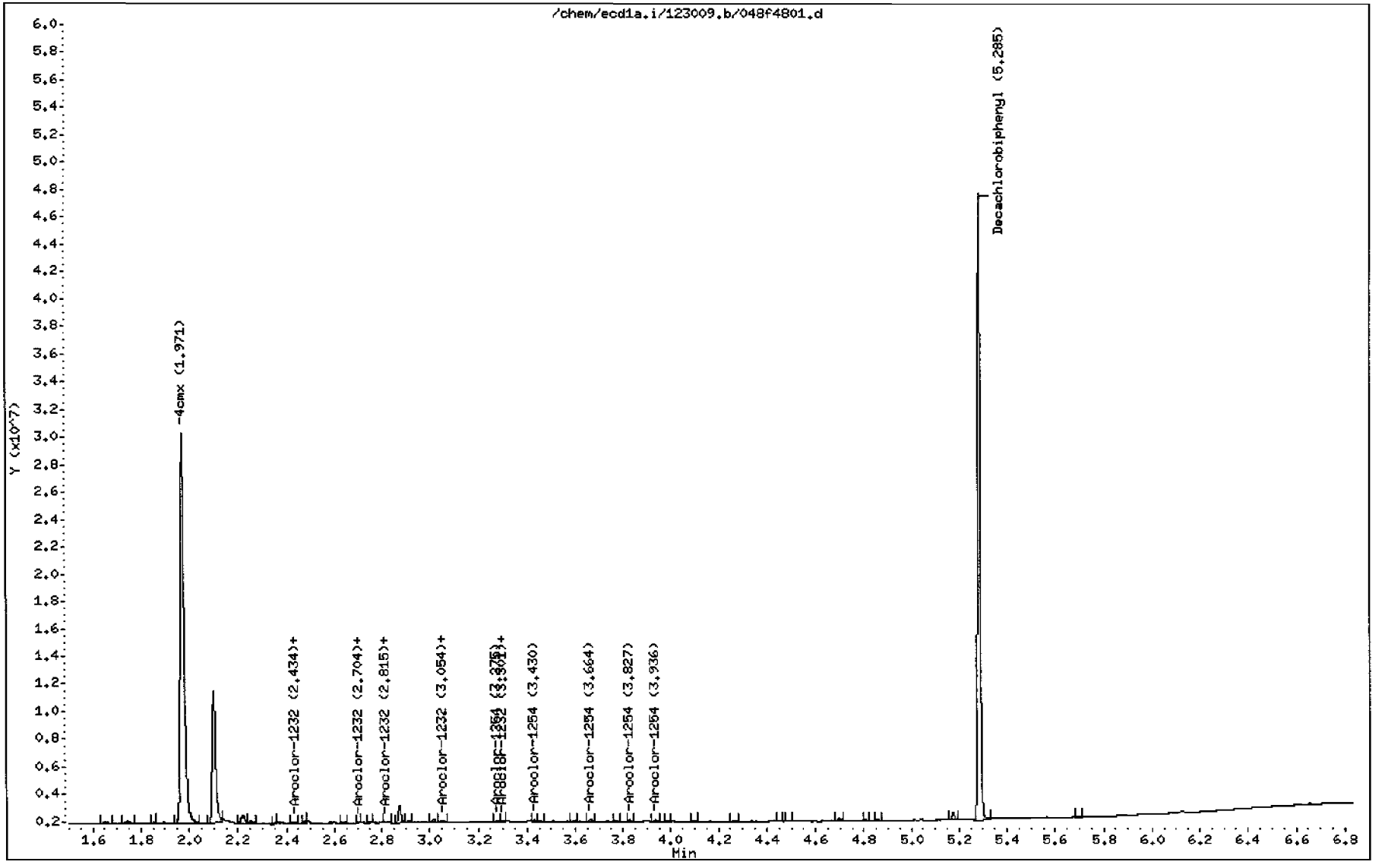

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/123009.b/048b4801.d
Lab Smp Id: 243552012 Client Smp ID: RE03-10-2736
Inj Date : 30-DEC-2009 15:54
Operator : JAOC Inst ID: ecd1a.i
Smp Info : |243552012|1|
Misc Info : |ECD82P_1S|937178|SVA|LANL|SOIL|RE03-10-2736|||
Comment :
Method : /chem/ecd1a.i/123009.b/ECD1-B-8082-121409.m
Meth Date : 31-Dec-2009 08:30 jen01212 Quant Type: ESTD
Cal Date : 14-DEC-2009 12:16 Cal File: 044b4401.d
Als bottle: 48
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1086.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.09000	Weight of sample extracted (g)
M	7.02740	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.302	2.303	-0.001	25183760	83.9387	3.0	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.948	5.949	-0.001	27399047	117.478	4.2	80.00- 120.00	100.00

Data File: /chem/eodia.i/123009.b/048b4801.d
Date : 30-DEC-2009 15:54
Client ID: REO3-10-2736
Sample Info: 1243552012111
Volume Injected (ul): 1.0
Column phase: CLP2

Instrument: eodia.i
Operator: JAOC
Column diameter: 0.25

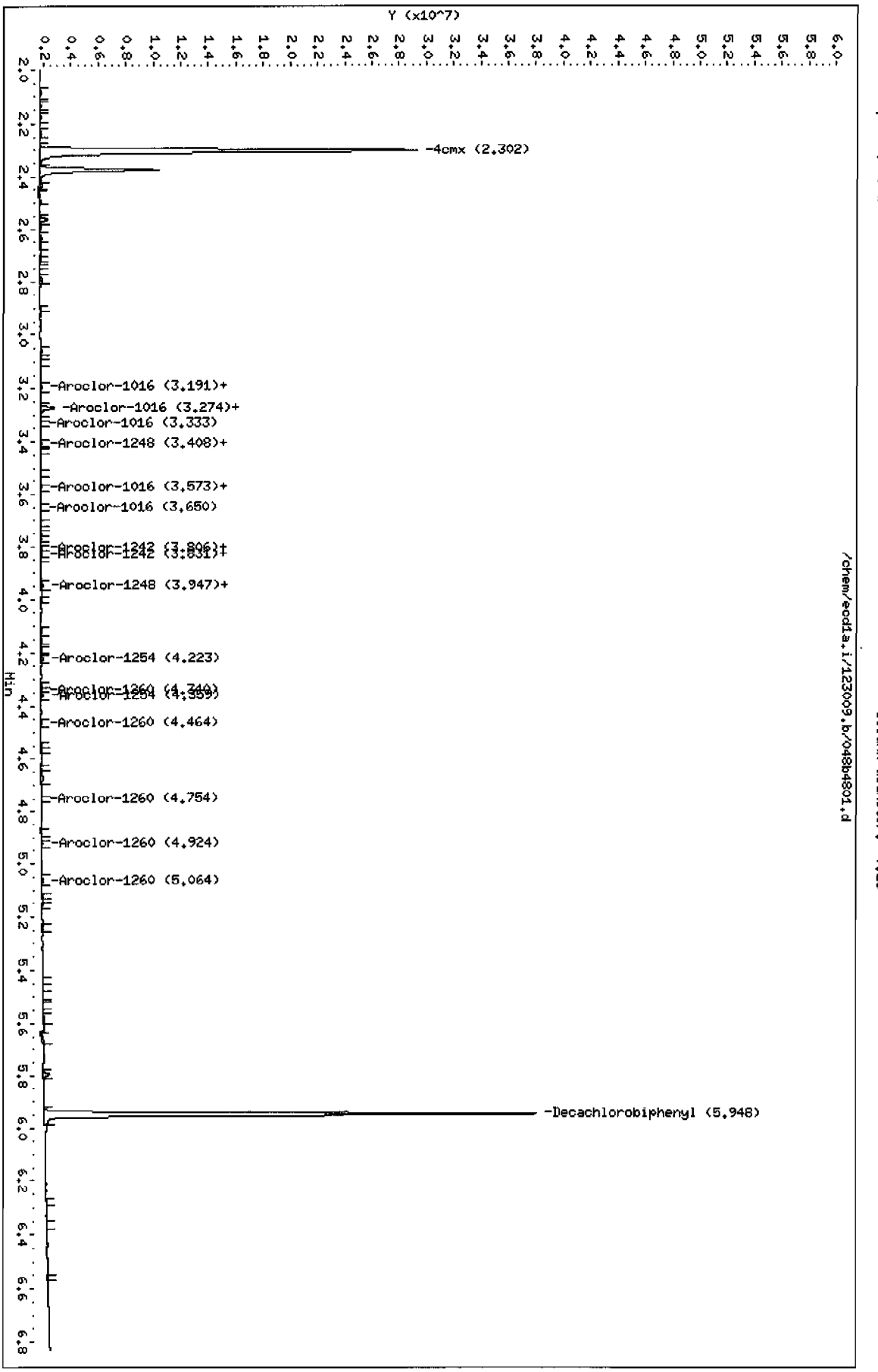

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PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–1086**	**Date Collected:**	**12/22/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243552011**	**Date Received:**	**12/24/2009 09:30**	**%Moisture:**	**10.1**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03–10–2737**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**937178**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**12/30/2009 15:44**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**12/29/2009 09:29**	**Aliquot:**	**30.06 g**	**Final Volume:**	**1 mL**
Data File:	**047f4701.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	047b4701.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	3.70	ug/kg	1.23	3.70	1
11104–28–2	Aroclor–1221	U	3.70	ug/kg	1.23	3.70	1
11141–16–5	Aroclor–1232	U	3.70	ug/kg	1.23	3.70	1
53469–21–9	Aroclor–1242		99.4	ug/kg	1.23	3.70	2
12672–29–6	Aroclor–1248	U	3.70	ug/kg	1.23	3.70	1
11097–69–1	Aroclor–1254		102	ug/kg	1.23	3.70	1
11096–82–5	Aroclor–1260		25.4	ug/kg	1.23	3.70	1

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RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/123009.b/047f4701.d
Lab Smp Id: 243552011 Client Smp ID: RE03-10-2737
Inj Date : 30-DEC-2009 15:44
Operator : JAOC Inst ID: ecd1a.i
Smp Info : |243552011|1|
Misc Info : |ECD82P_1S|937178|SVA|LANL|SOIL|RE03-10-2737|||
Comment :
Method : /chem/ecd1a.i/123009.b/ECD1-F-8082-121409.m
Meth Date : 31-Dec-2009 08:24 jen01212 Quant Type: ESTD
Cal Date : 14-DEC-2009 11:34 Cal File: 040f4001.d
Als bottle: 47
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1086.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.06000	Weight of sample extracted (g)
M	10.13370	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.971	1.972	-0.001	38172456	101.612	3.8	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.284	5.287	-0.003	39999254	125.966	4.7	80.00- 120.00	100.00
4 Aroclor-1242					CAS #: 53469-21-9		
2.427	2.427	0.000	10986488	942.251	34.9	80.00- 120.00	100.00
2.716	2.716	0.000	15071423	1120.30	41.5	106.61- 146.61	137.18
2.834	2.835	-0.001	6030427	1095.26	40.5	30.92- 70.92	54.89
3.045	3.046	-0.001	21815842	3011.22	111	46.80- 86.80	198.57
3.298	3.300	-0.002	33108966	4861.27	180	48.03- 88.03	301.36

Average of Peak Concentrations = 81.6

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
6 Aroclor-1254					CAS #: 11097-69-1		
3.273	3.275	-0.002	30215948	2420.09	89.6	80.00- 120.00	100.00
3.429	3.430	-0.001	47116642	2817.65	104	117.30- 157.30	155.93
3.662	3.665	-0.003	58466729	2822.58	104	161.76- 201.76	193.50
3.825	3.828	-0.003	48864772	3113.56	115	119.82- 159.82	161.72
3.934	3.936	-0.002	39803690	2623.41	97.1	111.74- 151.74	131.73
Average of Peak Concentrations =					102		
7 Aroclor-1260					CAS #: 11096-82-5		
3.770	3.773	-0.003	19815684	1182.87	43.8	80.00- 120.00	100.00
3.934	3.936	-0.002	39803690	1608.71	59.6	134.25- 174.25	200.87
4.163	4.166	-0.003	2951891	200.982	7.4	72.46- 112.46	14.90
4.306	4.308	-0.002	3092268	203.646	7.5	76.84- 116.84	15.61
4.486	4.488	-0.002	8277900	240.984	8.9	203.73- 243.73	41.77
Average of Peak Concentrations =					25.4		

Data File: /chem/ecd1a.i/123009.b/047f4701.d

Date : 30-DEC-2009 15:44

Client ID: RE03-10-2737

Sample Info: 1243552011|1|

Volume Injected (uL): 1.0

Column phase: CLP1

Instrument: ecd1a.i

Operator: JAOC

Column diameter: 0.25

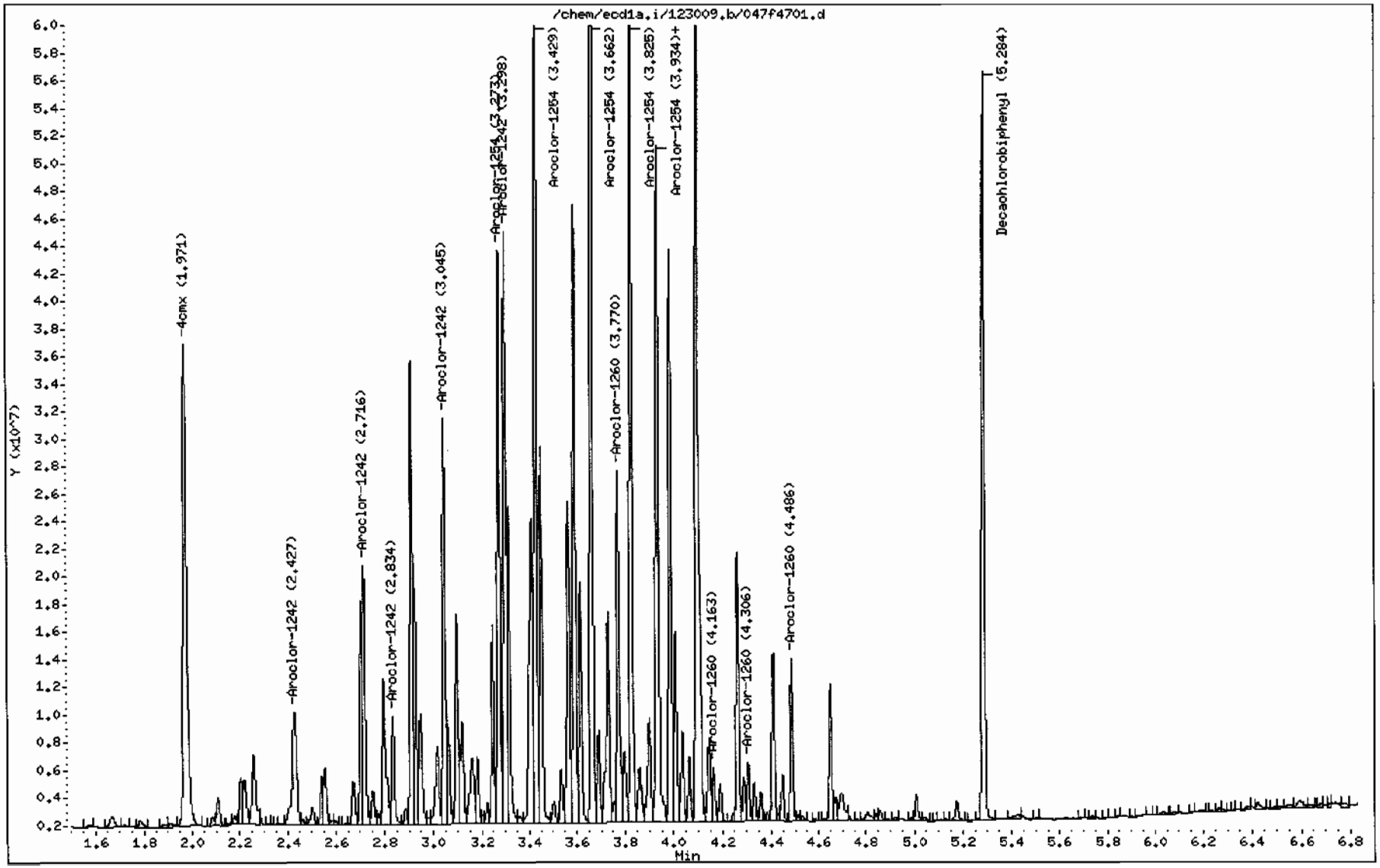

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RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/123009.b/047b4701.d
Lab Smp Id: 243552011 Client Smp ID: RE03-10-2737
Inj Date : 30-DEC-2009 15:44
Operator : JAOC Inst ID: ecd1a.i
Smp Info : |243552011|1|
Misc Info : |ECD82P_1S|937178|SVA|LANL|SOIL|RE03-10-2737|||
Comment :
Method : /chem/ecd1a.i/123009.b/ECD1-B-8082-121409.m
Meth Date : 31-Dec-2009 08:30 jen01212 Quant Type: ESTD
Cal Date : 14-DEC-2009 12:16 Cal File: 044b4401.d
Als bottle: 47
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1086.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.06000	Weight of sample extracted (g)
M	10.13370	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.302	2.303	-0.001	31580166	105.258	3.9	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.948	5.949	-0.001	29916443	128.272	4.7	80.00- 120.00	100.00(M)
4 Aroclor-1242					CAS #: 53469-21-9		
3.200	3.200	0.000	11510400	1087.06	40.2	80.00- 120.00	100.00(M)
3.282	3.283	-0.001	8470945	1051.82	38.9	45.52- 85.52	73.59
3.572	3.574	-0.002	16373349	2746.19	102	32.30- 72.30	142.25
3.807	3.807	0.000	21994302	3631.34	134	35.15- 75.15	191.08
3.831	3.836	-0.005	32942118	4915.73	182	40.38- 80.38	286.19

Average of Peak Concentrations = 99.4

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
6 Aroclor-1254					CAS #: 11097-69-1		
3.408	3.409	-0.001	19012189	2954.38	109	80.00- 120.00	100.00(M)
3.831	3.832	-0.001	32942118	2849.83	105	161.84- 201.84	173.27
3.947	3.948	-0.001	31346173	2521.56	93.3	181.60- 221.60	164.87
4.222	4.225	-0.003	44226778	2620.06	97.0	262.91- 302.91	232.62
4.358	4.360	-0.002	35527385	2856.94	106	189.60- 229.60	186.87
Average of Peak Concentrations =					102		
7 Aroclor-1260					CAS #: 11096-82-5		
4.338	4.340	-0.002	16327756	1193.55	44.2	80.00- 120.00	100.00(M)
4.463	4.464	-0.001	19228264	1199.59	44.4	103.77- 143.77	117.76
4.735	4.731	0.004	5154361	410.251	15.2	74.68- 114.68	31.57
4.902	4.905	-0.003	2868651	223.937	8.3	77.13- 117.13	17.57
5.050	5.051	-0.001	7304218	261.822	9.7	200.92- 240.92	44.73
Average of Peak Concentrations =					24.4		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd1a.i/123009.b/047b4701.d
Date : 30-DEC-2009 15:44
Client ID: RE03-10-2737
Sample Info: |243552011|1|
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd1a.i
Operator: JAOC
Column diameter: 0.25

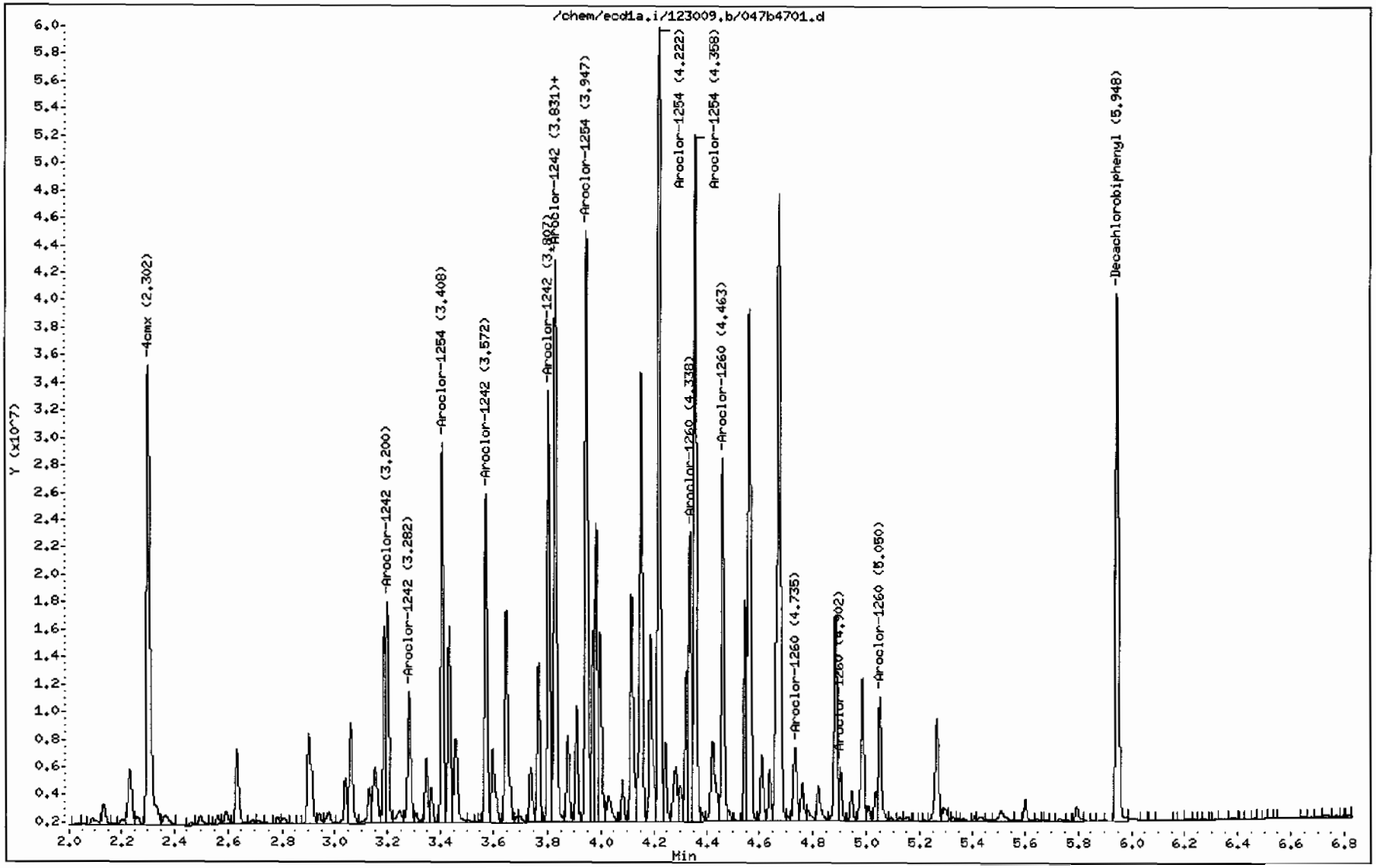

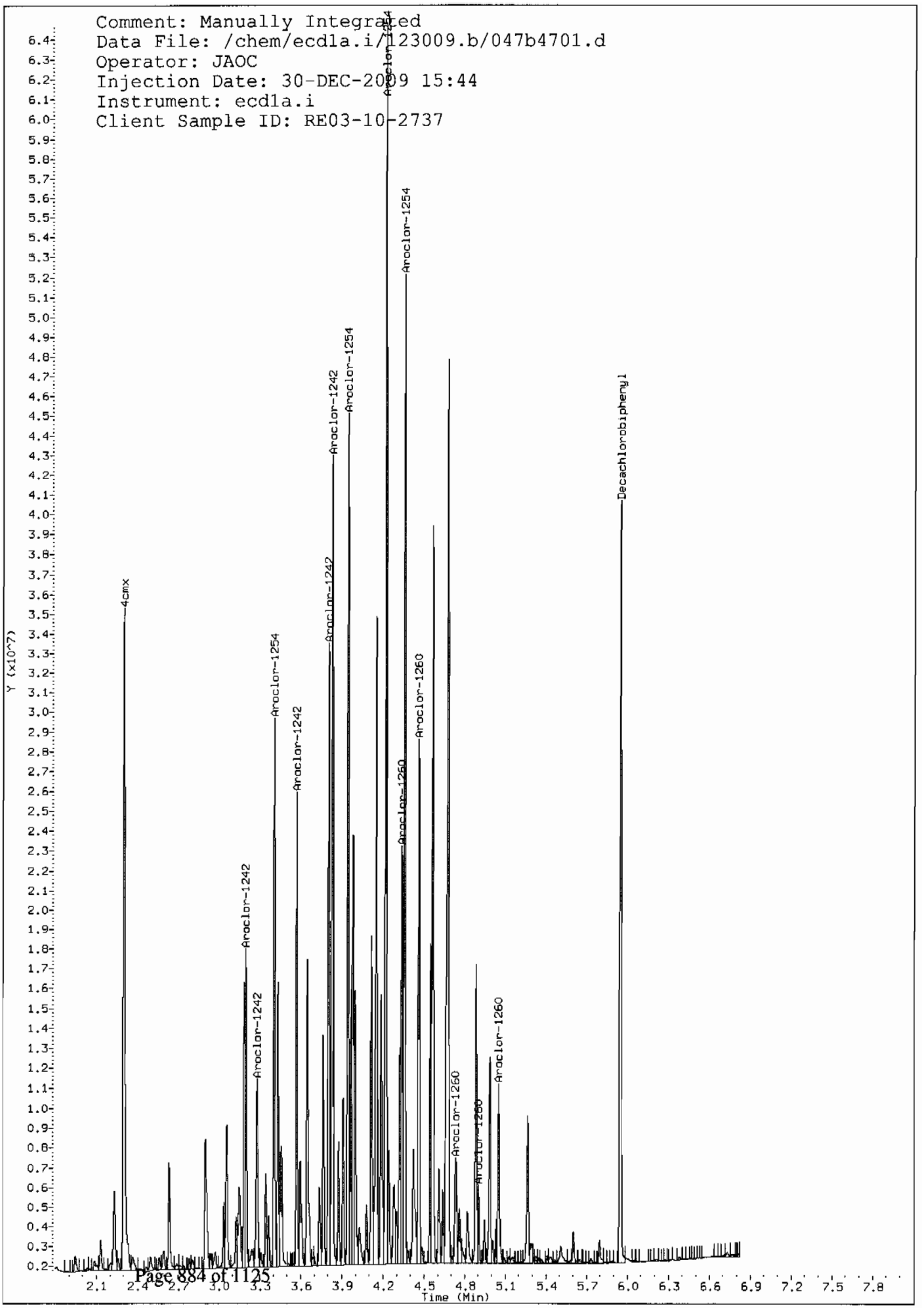
Comment: Manually Integrated
Data File: /chem/ecd1a.i/123009.b/047b4701.d
Operator: JAOC
Injection Date: 30-DEC-2009 15:44
Instrument: ecd1a.i
Client Sample ID: RE03-10-2737
Y (x10^7)
Time (Min)
4cmx
Aroclor-1242
Aroclor-1254
Aroclor-1260
Decachlorobiphenyl

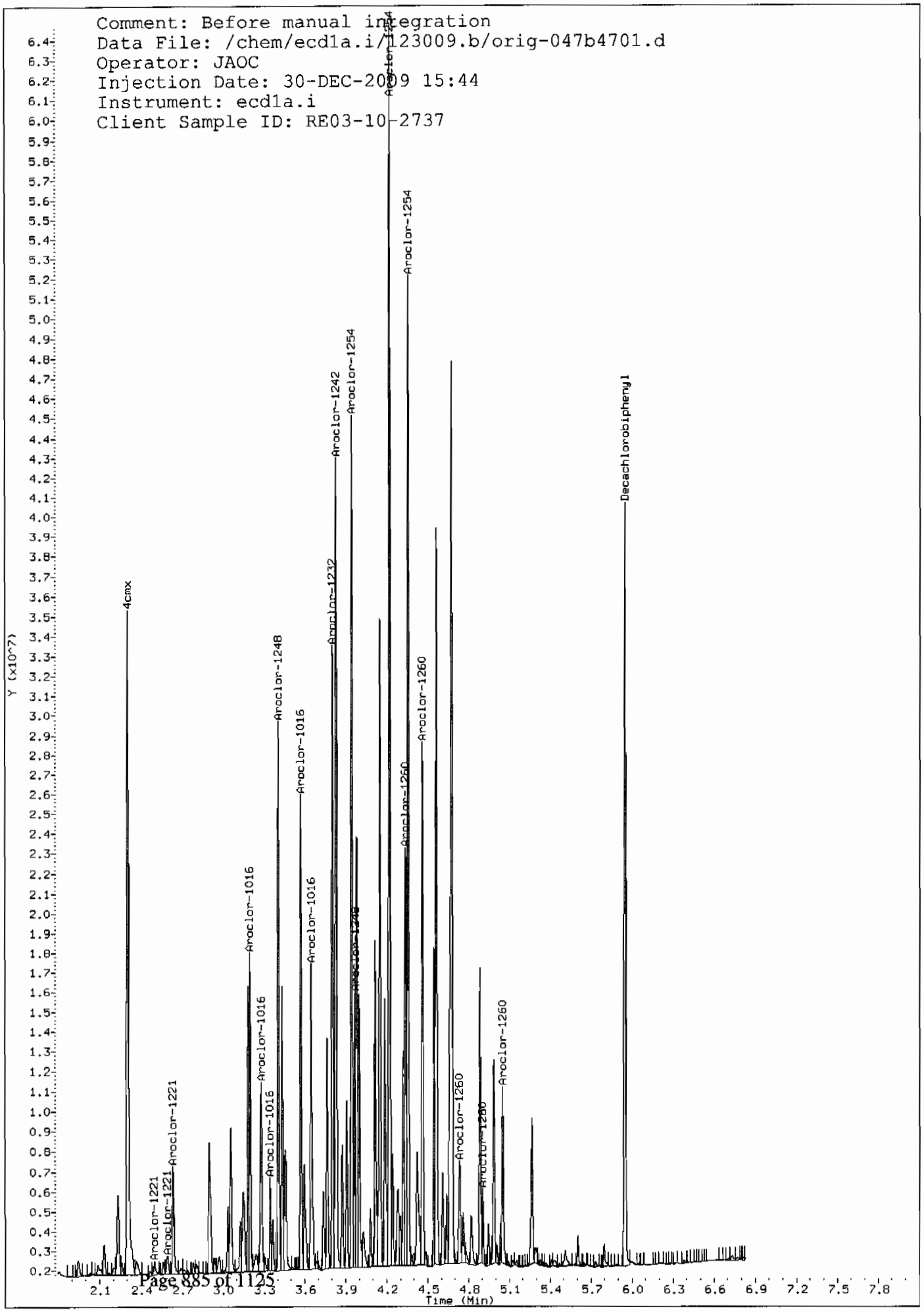
Comment: Before manual integration
Data File: /chem/ecd1a.i/123009.b/orig-047b4701.d
Operator: JAOC
Injection Date: 30-DEC-2009 15:44
Instrument: ecd1a.i
Client Sample ID: RE03-10-2737
Y (x10^7)
Time (Min)
4cmx
Aroclor-1221
Aroclor-1221
Aroclor-1221
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1248
Aroclor-1016
Aroclor-1016
Aroclor-1232
Aroclor-1242
Aroclor-1254
Aroclor-1254
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–1086**	**Date Collected:**	**12/22/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243552016**	**Date Received:**	**12/24/2009 09:30**	**%Moisture:**	**11.9**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03–10–9872**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**937369**	**Inst:**	**ECD2A.I**	**Dilution:**	**1**
Run Date:	**12/30/2009 15:40**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**12/29/2009 17:37**	**Aliquot:**	**30.04 g**	**Final Volume:**	**1 mL**
Data File:	**043f4301.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	043b4301.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	3.78	ug/kg	1.26	3.78	1
11104–28–2	Aroclor–1221	U	3.78	ug/kg	1.26	3.78	1
11141–16–5	Aroclor–1232	U	3.78	ug/kg	1.26	3.78	1
53469–21–9	Aroclor–1242	U	3.78	ug/kg	1.26	3.78	1
12672–29–6	Aroclor–1248	U	3.78	ug/kg	1.26	3.78	1
11097–69–1	Aroclor–1254	U	3.78	ug/kg	1.26	3.78	1
11096–82–5	Aroclor–1260	U	3.78	ug/kg	1.26	3.78	1

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RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/123009.b/043f4301.d
Lab Smp Id: 243552016 Client Smp ID: RE03-10-9872
Inj Date : 30-DEC-2009 15:40
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |243552016|1|
Misc Info : |ECD82P_1S|937369|SVA|LANL|SOIL|RE03-10-9872|||
Comment :
Method : /chem/ecd2a.i/123009.b/ECD2-F-8082-111209A.m
Meth Date : 31-Dec-2009 07:50 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012f1201.d
Als bottle: 43
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1086.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.04000	Weight of sample extracted (g)
M	11.87920	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.772	1.773	-0.001	8924832	143.275	5.4	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.607	5.608	-0.001	8718115	161.114	6.1	80.00- 120.00	100.00

Data File: /chem/ecd2a.i/123009.b/043f4301.d

Date : 30-DEC-2009 15:40

Client ID: RE03-10-9872

Sample Info: |243552016|1|

Volume Injected (uL): 1.0

Column phase: CLP1

Instrument: ecd2a.i

Operator: JAOC

Column diameter: 0.25

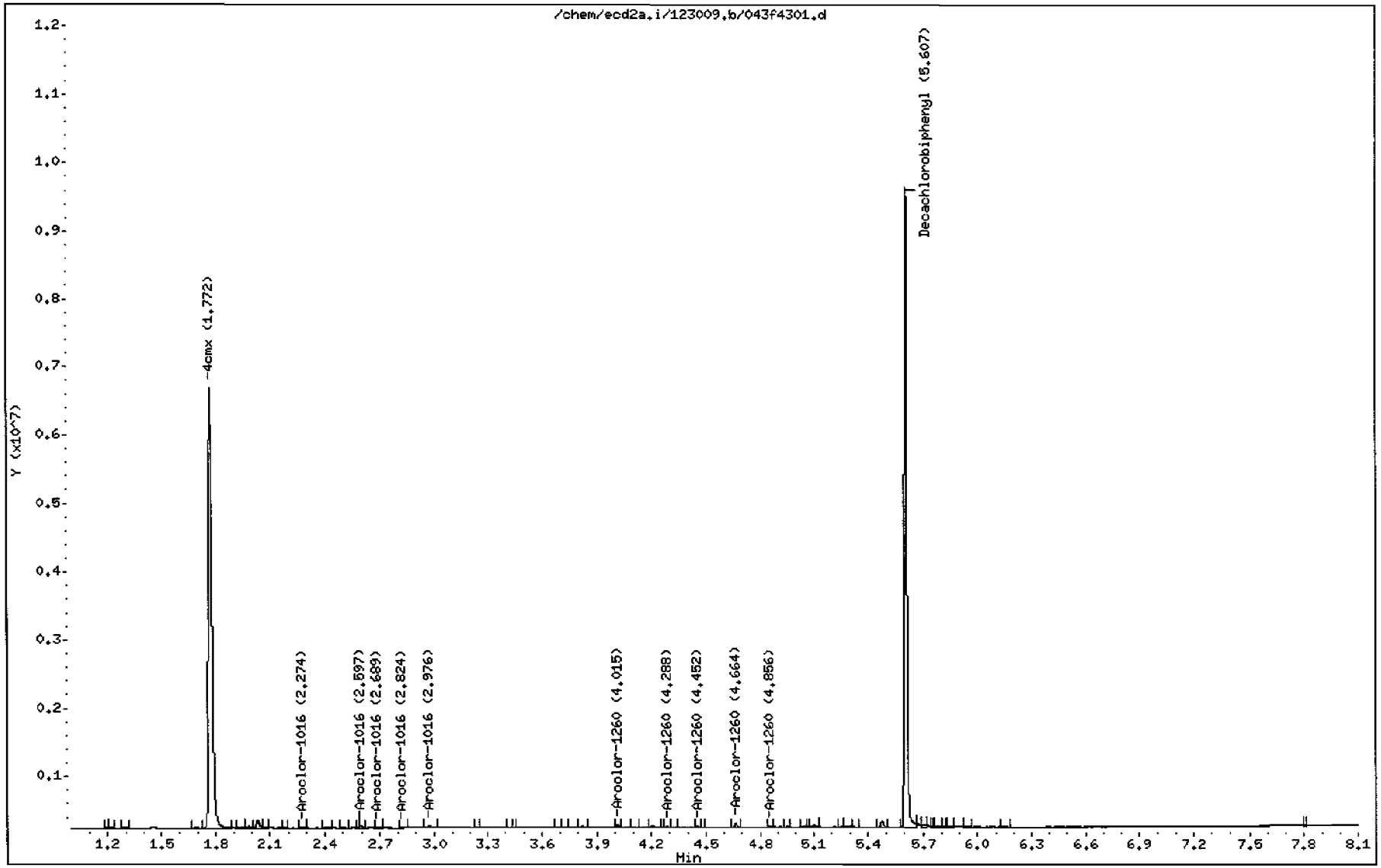

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/123009.b/043b4301.d
Lab Smp Id: 243552016 Client Smp ID: RE03-10-9872
Inj Date : 30-DEC-2009 15:40
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |243552016|1|
Misc Info : |ECD82P_1S|937369|SVA|LANL|SOIL|RE03-10-9872|||
Comment :
Method : /chem/ecd2a.i/123009.b/ECD2-B-8082-111209A.m
Meth Date : 31-Dec-2009 07:09 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012b1201.d
Als bottle: 43
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1086.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.04000	Weight of sample extracted (g)
M	11.87920	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.069	2.070	-0.001	19701539	152.350	5.8	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.299	6.301	-0.002	19203758	170.272	6.4	80.00- 120.00	100.00

Data File: /chem/ecd2a.i/123009.b/043b4301.d

Page 1

Date : 30-DEC-2009 15:40

Client ID: RE03-10-9872

Instrument: ecd2a.i

Sample Info: |243552016|1|

Volume Injected (uL): 1.0

Operator: JAOC

Column phase: CLP2

Column diameter: 0.25

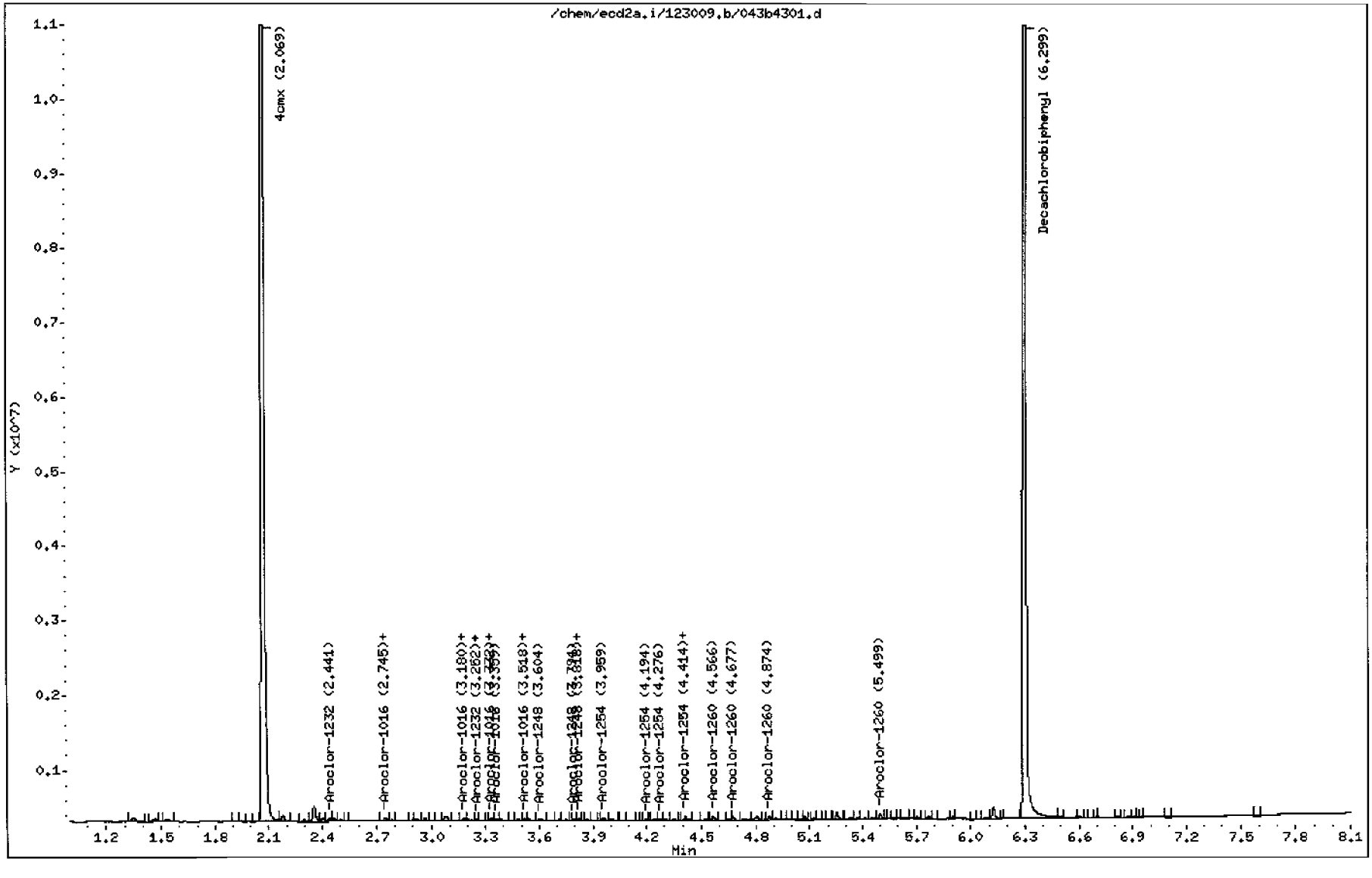

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10-1086**	**Date Collected:**	**12/22/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243552014**	**Date Received:**	**12/24/2009 09:30**	**%Moisture:**	**5.3**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03-10-9873**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**937178**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**12/30/2009 16:05**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**12/29/2009 09:29**	**Aliquot:**	**30.03 g**	**Final Volume:**	**1 mL**
Data File:	**049f4901.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	049b4901.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.52	ug/kg	1.17	3.52	1
11104-28-2	Aroclor-1221	U	3.52	ug/kg	1.17	3.52	1
11141-16-5	Aroclor-1232	U	3.52	ug/kg	1.17	3.52	1
53469-21-9	Aroclor-1242	U	3.52	ug/kg	1.17	3.52	1
12672-29-6	Aroclor-1248	U	3.52	ug/kg	1.17	3.52	1
11097-69-1	Aroclor-1254	U	3.52	ug/kg	1.17	3.52	1
11096-82-5	Aroclor-1260	U	3.52	ug/kg	1.17	3.52	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/123009.b/049f4901.d
Lab Smp Id: 243552014 Client Smp ID: RE03-10-9873
Inj Date : 30-DEC-2009 16:05
Operator : JAOC Inst ID: ecd1a.i
Smp Info : |243552014|1|
Misc Info : |ECD82P_1S|937178|SVA|LANL|SOIL|RE03-10-9873|||
Comment :
Method : /chem/ecd1a.i/123009.b/ECD1-F-8082-121409.m
Meth Date : 31-Dec-2009 08:24 jen01212 Quant Type: ESTD
Cal Date : 14-DEC-2009 11:34 Cal File: 040f4001.d
Als bottle: 49
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1086.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.03000	Weight of sample extracted (g)
M	5.28680	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.969	1.972	-0.003	46254934	123.127	4.3	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.285	5.287	-0.002	39005533	122.836	4.3	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/123009.b/049f4901.d
Date : 30-DEC-2009 16:05
Client ID: RE03-10-9873
Sample Info: |243552014|1|
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecd1a.i
Operator: JAOC
Column diameter: 0.25

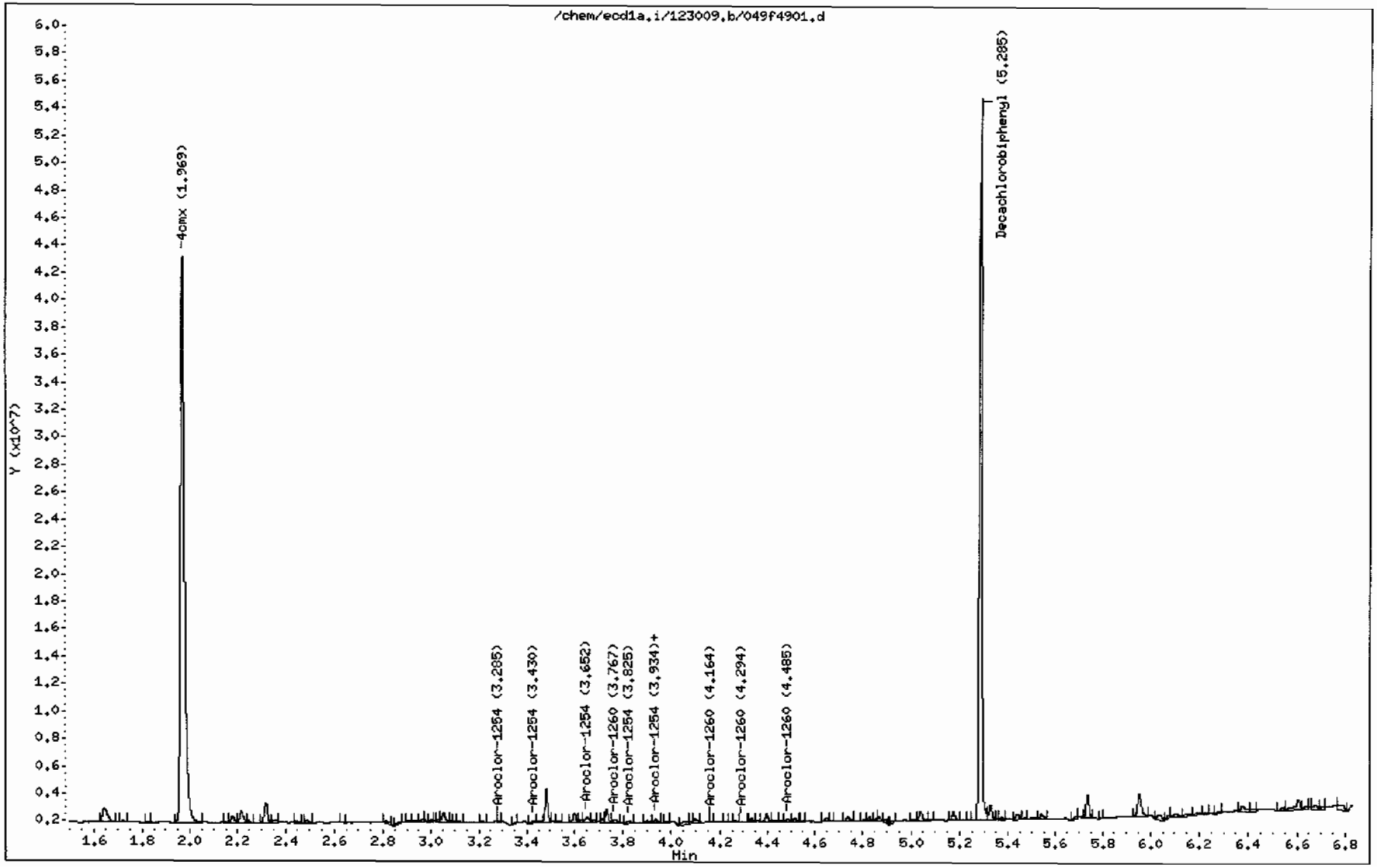

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/123009.b/049b4901.d
Lab Smp Id: 243552014 Client Smp ID: RE03-10-9873
Inj Date : 30-DEC-2009 16:05
Operator : JAOC Inst ID: ecd1a.i
Smp Info : |243552014|1|
Misc Info : |ECD82P_1S|937178|SVA|LANL|SOIL|RE03-10-9873|||
Comment :
Method : /chem/ecd1a.i/123009.b/ECD1-B-8082-121409.m
Meth Date : 31-Dec-2009 08:30 jen01212 Quant Type: ESTD
Cal Date : 14-DEC-2009 12:16 Cal File: 044b4401.d
Als bottle: 49
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1086.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.03000	Weight of sample extracted (g)
M	5.28680	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.300	2.303	-0.003	36407282	121.347	4.3	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.948	5.949	-0.001	32436788	139.078	4.9	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/123009.b/049b4901.d

Date : 30-DEC-2009 16:05

Client ID: RE03-10-9873

Sample Info: |243552014|1|

Volume Injected (uL): 1.0

Column phase: CLP2

Instrument: ecd1a.i

Operator: JAOC

Column diameter: 0.25

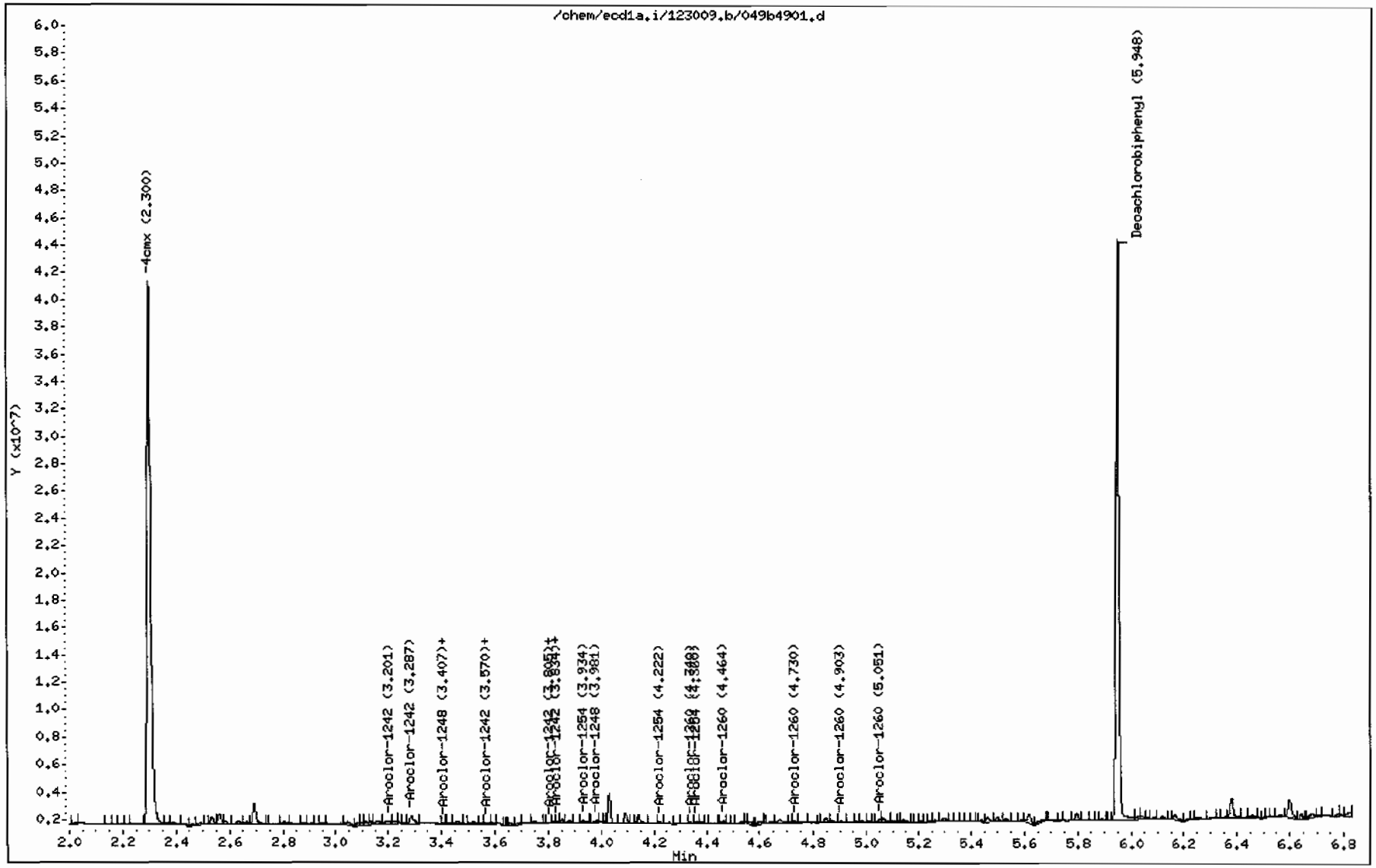

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–1086**	**Date Collected:**	**12/22/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243552017**	**Date Received:**	**12/24/2009 09:30**	**%Moisture:**	**6.9**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE03–10–9874**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**937369**	**Inst:**	**ECD2A.I**	**Dilution:**	**1**
Run Date:	**12/30/2009 15:51**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**12/29/2009 17:37**	**Aliquot:**	**30.06 g**	**Final Volume:**	**1 mL**
Data File:	**044f4401.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	044b4401.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	3.57	ug/kg	1.19	3.57	1
11104–28–2	Aroclor–1221	U	3.57	ug/kg	1.19	3.57	1
11141–16–5	Aroclor–1232	U	3.57	ug/kg	1.19	3.57	1
53469–21–9	Aroclor–1242	U	3.57	ug/kg	1.19	3.57	1
12672–29–6	Aroclor–1248	U	3.57	ug/kg	1.19	3.57	1
11097–69–1	Aroclor–1254	U	3.57	ug/kg	1.19	3.57	1
11096–82–5	Aroclor–1260	U	3.57	ug/kg	1.19	3.57	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/123009.b/044f4401.d
Lab Smp Id: 243552017 Client Smp ID: RE03-10-9874
Inj Date : 30-DEC-2009 15:51
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |243552017|1|
Misc Info : |ECD82P_1S|937369|SVA|LANL|SOIL|RE03-10-9874|||
Comment :
Method : /chem/ecd2a.i/123009.b/ECD2-F-8082-111209A.m
Meth Date : 31-Dec-2009 07:50 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012f1201.d
Als bottle: 44
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1086.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.06000	Weight of sample extracted (g)
M	6.85550	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.773	1.773	0.000	8964633	143.914	5.1	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.608	5.608	0.000	9453313	174.700	6.2	80.00- 120.00	100.00

Data File: /chem/ecd2a.i/123009.b/044f4401.d

Page 1

Date : 30-DEC-2009 15:51

Client ID: RE03-10-9874

Instrument: ecd2a.i

Sample Info: 1243552017111

Volume Injected (uL): 1.0

Operator: JAOC

Column phase: CLP1

Column diameter: 0.25

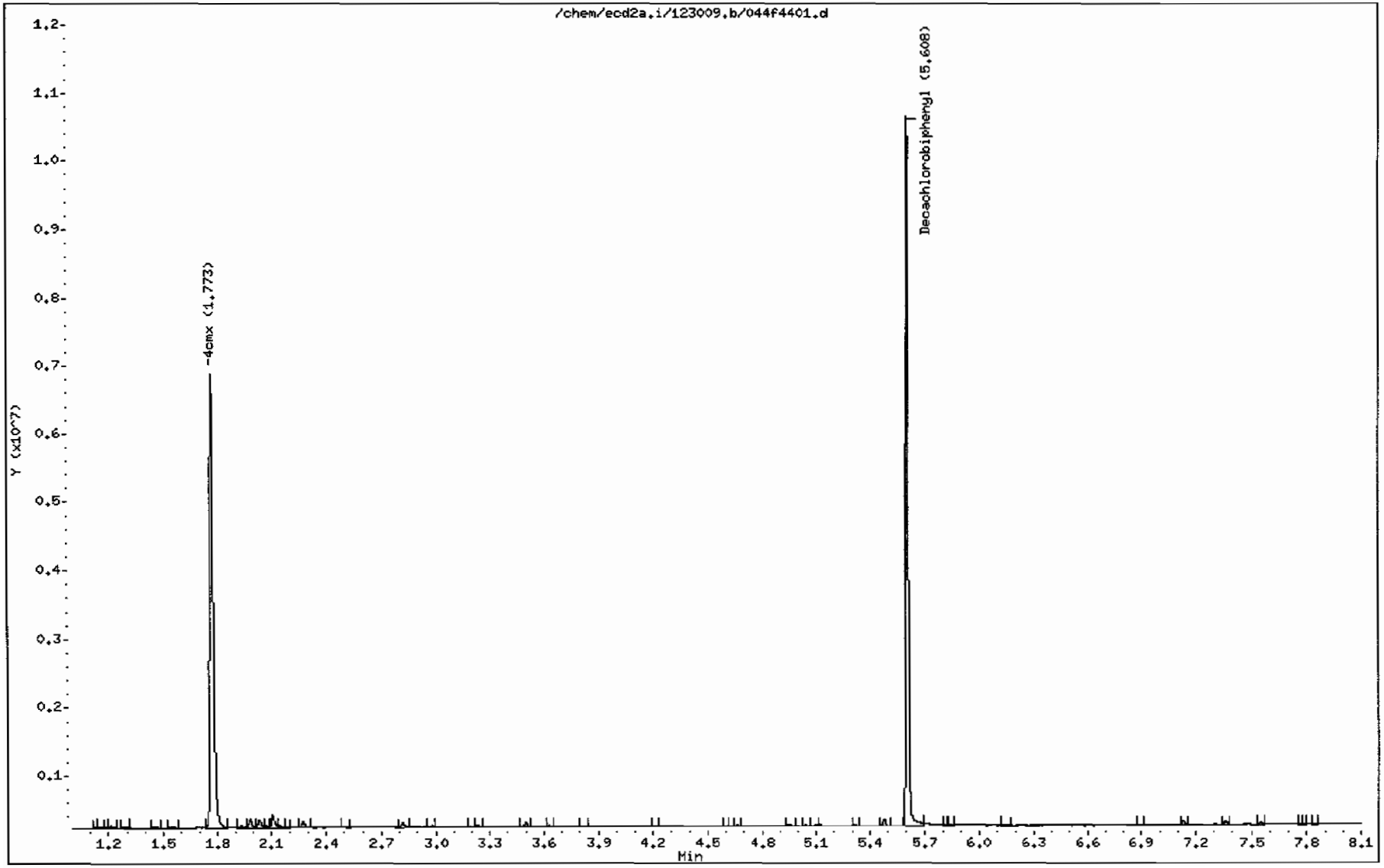

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/123009.b/044b4401.d
Lab Smp Id: 243552017 Client Smp ID: RE03-10-9874
Inj Date : 30-DEC-2009 15:51
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |243552017|1|
Misc Info : |ECD82P_1S|937369|SVA|LANL|SOIL|RE03-10-9874|||
Comment :
Method : /chem/ecd2a.i/123009.b/ECD2-B-8082-111209A.m
Meth Date : 31-Dec-2009 07:09 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012b1201.d
Als bottle: 44
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1086.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.06000	Weight of sample extracted (g)
M	6.85550	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.069	2.070	-0.001	19870029	153.652	5.5	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.300	6.301	-0.001	20148866	178.652	6.4	80.00- 120.00	100.00

Data File: /chem/ecd2a.i/123009.b/044b4401.d

Date : 30-DEC-2009 15:51

Client ID: RE03-10-9874

Sample Info: |243552017|1|

Volume Injected (uL): 1.0

Column phase: CLP2

Instrument: ecd2a.i

Operator: JAOC

Column diameter: 0.25

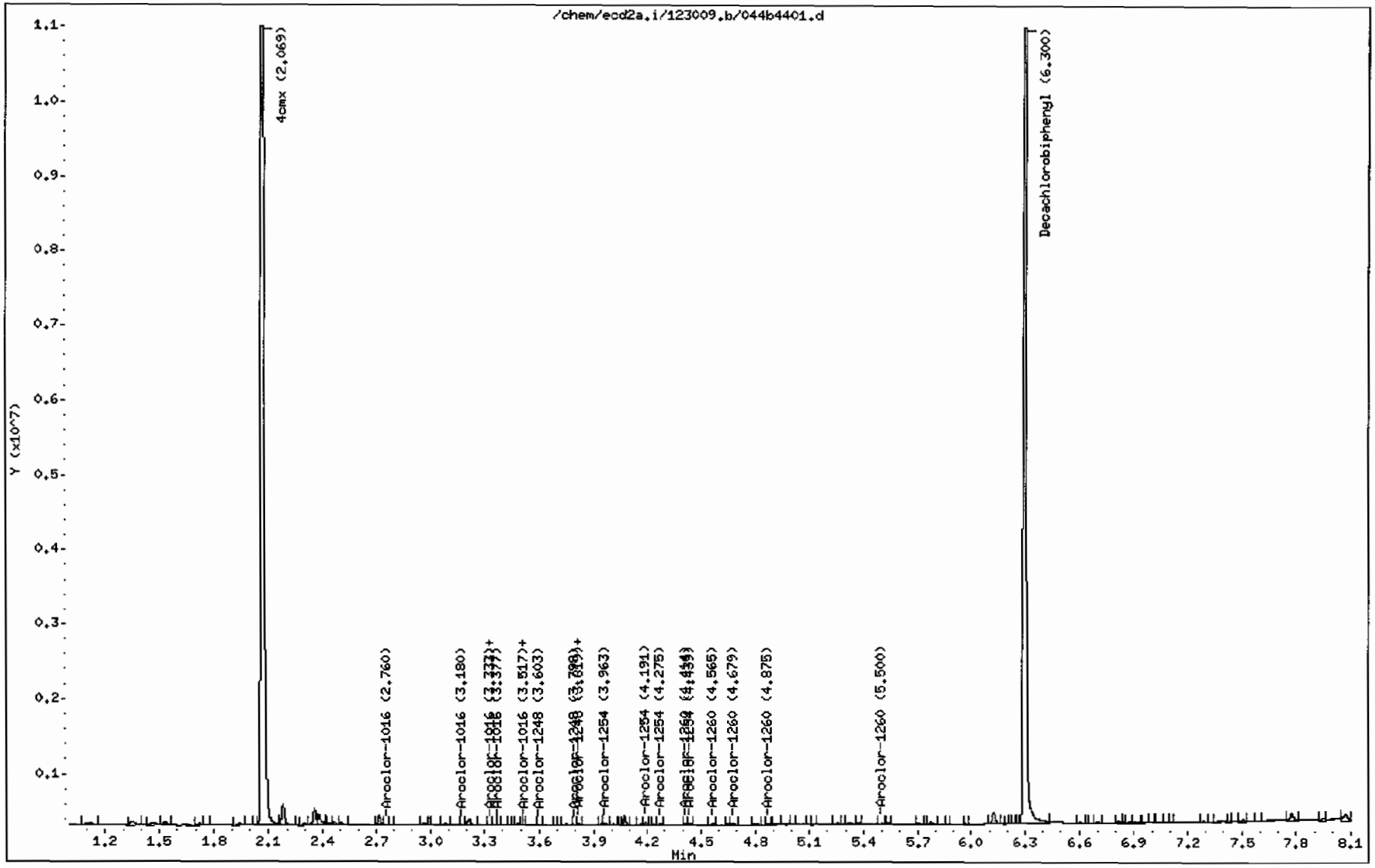

STANDARDS DATA

Report Date: 31-Dec-2009 09:25

Calibration History

Method : /chem/ecd1a.i/123009.b/ECD1-F-8082-121409.m
Start Cal Date: 14-DEC-2009 05:36
End Cal Date : 14-DEC-2009 12:37

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 100.00000		
14-DEC-2009 11:34	AR1268	/chem/ecd1a.i/121409.b/040f4001.d
14-DEC-2009 09:28	AR1248	/chem/ecd1a.i/121409.b/028f2801.d
14-DEC-2009 08:25	AR1242	/chem/ecd1a.i/121409.b/022f2201.d
14-DEC-2009 07:22	AR1254	/chem/ecd1a.i/121409.b/016f1601.d
14-DEC-2009 10:31	AR1660	/chem/ecd1a.i/121409.b/034f3401.d
Cal Level: 2 , Cal Amount: 200.00000		
14-DEC-2009 11:44	AR1268	/chem/ecd1a.i/121409.b/041f4101.d
14-DEC-2009 09:38	AR1248	/chem/ecd1a.i/121409.b/029f2901.d
14-DEC-2009 08:35	AR1242	/chem/ecd1a.i/121409.b/023f2301.d
14-DEC-2009 07:32	AR1254	/chem/ecd1a.i/121409.b/017f1701.d
14-DEC-2009 10:41	AR1660	/chem/ecd1a.i/121409.b/035f3501.d
Cal Level: 3 , Cal Amount: 500.00000		
14-DEC-2009 11:55	AR1268	/chem/ecd1a.i/121409.b/042f4201.d
14-DEC-2009 09:49	AR1248	/chem/ecd1a.i/121409.b/030f3001.d
14-DEC-2009 08:46	AR1242	/chem/ecd1a.i/121409.b/024f2401.d
14-DEC-2009 07:43	AR1254	/chem/ecd1a.i/121409.b/018f1801.d
14-DEC-2009 10:52	AR1660	/chem/ecd1a.i/121409.b/036f3601.d
Cal Level: 4 , Cal Amount: 1000.00000		
14-DEC-2009 12:37	DDTANALOGSTD	/chem/ecd1a.i/121409.b/046f4601.d
14-DEC-2009 09:59	AR1248	/chem/ecd1a.i/121409.b/031f3101.d
14-DEC-2009 08:56	AR1242	/chem/ecd1a.i/121409.b/025f2501.d
14-DEC-2009 07:53	AR1254	/chem/ecd1a.i/121409.b/019f1901.d
14-DEC-2009 11:02	AR1660	/chem/ecd1a.i/121409.b/037f3701.d
14-DEC-2009 12:06	AR1268	/chem/ecd1a.i/121409.b/043f4301.d
14-DEC-2009 05:58	AR1262	/chem/ecd1a.i/121409.b/008f0801.d
14-DEC-2009 05:47	AR1221	/chem/ecd1a.i/121409.b/007f0701.d
14-DEC-2009 05:36	AR1232	/chem/ecd1a.i/121409.b/006f0601.d
Cal Level: 5 , Cal Amount: 4000.00000		
14-DEC-2009 12:16	AR1268	/chem/ecd1a.i/121409.b/044f4401.d
14-DEC-2009 10:10	AR1248	/chem/ecd1a.i/121409.b/032f3201.d
14-DEC-2009 09:07	AR1242	/chem/ecd1a.i/121409.b/026f2601.d
14-DEC-2009 08:04	AR1254	/chem/ecd1a.i/121409.b/020f2001.d
14-DEC-2009 11:13	AR1660	/chem/ecd1a.i/121409.b/038f3801.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 1000		
30-DEC-2009 16:15	AR1660	/chem/ecd1a.i/123009.b/050f5001.d
Ccal Level: 4 , Ccal Amount: 1000		
30-DEC-2009 14:30	AR1660	/chem/ecd1a.i/123009.b/040f4001.d
Ccal Level: 4 , Ccal Amount: 1000		
30-DEC-2009 12:24	AR1660	/chem/ecd1a.i/123009.b/028f2801.d
Ccal Level: 4 , Ccal Amount: 1000		
30-DEC-2009 11:21	AR1660	/chem/ecd1a.i/123009.b/022f2201.d
Ccal Level: 4 , Ccal Amount: 1000		
30-DEC-2009 09:04	AR1268	/chem/ecd1a.i/123009.b/009f0901.d
Ccal Level: 4 , Ccal Amount: 1000		
30-DEC-2009 08:54	AR1262	/chem/ecd1a.i/123009.b/008f0801.d
Ccal Level: 4 , Ccal Amount: 1000		
30-DEC-2009 08:43	AR1221	/chem/ecd1a.i/123009.b/007f0701.d
Ccal Level: 4 , Ccal Amount: 1000		
30-DEC-2009 08:33	AR1232	/chem/ecd1a.i/123009.b/006f0601.d
Ccal Level: 4 , Ccal Amount: 1000		
30-DEC-2009 08:22	AR1248	/chem/ecd1a.i/123009.b/005f0501.d
Ccal Level: 4 , Ccal Amount: 1000		
30-DEC-2009 08:12	AR1242	/chem/ecd1a.i/123009.b/004f0401.d
Ccal Level: 4 , Ccal Amount: 1000		
30-DEC-2009 08:01	AR1254	/chem/ecd1a.i/123009.b/003f0301.d
Ccal Level: 4 , Ccal Amount: 1000		
30-DEC-2009 07:51	AR1660	/chem/ecd1a.i/123009.b/002f0201.d

Report Date: 31-Dec-2009 09:25

Calibration History

Method : /chem/ecd1a.i/123009.b/ECD1-B-8082-121409.m
Start Cal Date: 11-DEC-2009 10:17
End Cal Date : 14-DEC-2009 12:37

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 100.00000		
14-DEC-2009 11:34	AR1268	/chem/ecd1a.i/121409.b/040b4001.d
14-DEC-2009 09:28	AR1248	/chem/ecd1a.i/121409.b/028b2801.d
14-DEC-2009 08:25	AR1242	/chem/ecd1a.i/121409.b/022b2201.d
14-DEC-2009 07:22	AR1254	/chem/ecd1a.i/121409.b/016b1601.d
14-DEC-2009 10:31	AR1660	/chem/ecd1a.i/121409.b/034b3401.d
Cal Level: 2 , Cal Amount: 200.00000		
14-DEC-2009 11:44	AR1268	/chem/ecd1a.i/121409.b/041b4101.d
14-DEC-2009 09:38	AR1248	/chem/ecd1a.i/121409.b/029b2901.d
14-DEC-2009 08:35	AR1242	/chem/ecd1a.i/121409.b/023b2301.d
14-DEC-2009 07:32	AR1254	/chem/ecd1a.i/121409.b/017b1701.d
14-DEC-2009 10:41	AR1660	/chem/ecd1a.i/121409.b/035b3501.d
Cal Level: 3 , Cal Amount: 500.00000		
14-DEC-2009 11:55	AR1268	/chem/ecd1a.i/121409.b/042b4201.d
14-DEC-2009 09:49	AR1248	/chem/ecd1a.i/121409.b/030b3001.d
14-DEC-2009 08:46	AR1242	/chem/ecd1a.i/121409.b/024b2401.d
14-DEC-2009 07:43	AR1254	/chem/ecd1a.i/121409.b/018b1801.d
14-DEC-2009 10:52	AR1660	/chem/ecd1a.i/121409.b/036b3601.d
Cal Level: 4 , Cal Amount: 1000.00000		
14-DEC-2009 12:37	DDTANALOGSTD	/chem/ecd1a.i/121409.b/046b4601.d
14-DEC-2009 12:06	AR1268	/chem/ecd1a.i/121409.b/043b4301.d
14-DEC-2009 05:58	AR1262	/chem/ecd1a.i/121409.b/008b0801.d
14-DEC-2009 05:47	AR1221	/chem/ecd1a.i/121409.b/007b0701.d
14-DEC-2009 05:36	AR1232	/chem/ecd1a.i/121409.b/006b0601.d
14-DEC-2009 09:59	AR1248	/chem/ecd1a.i/121409.b/031b3101.d
14-DEC-2009 08:56	AR1242	/chem/ecd1a.i/121409.b/025b2501.d
14-DEC-2009 07:53	AR1254	/chem/ecd1a.i/121409.b/019b1901.d
14-DEC-2009 11:02	AR1660	/chem/ecd1a.i/121409.b/037b3701.d
Cal Level: 5 , Cal Amount: 4000.00000		
14-DEC-2009 12:16	AR1268	/chem/ecd1a.i/121409.b/044b4401.d
14-DEC-2009 10:10	AR1248	/chem/ecd1a.i/121409.b/032b3201.d
14-DEC-2009 09:07	AR1242	/chem/ecd1a.i/121409.b/026b2601.d
14-DEC-2009 08:04	AR1254	/chem/ecd1a.i/121409.b/020b2001.d
14-DEC-2009 11:13	AR1660	/chem/ecd1a.i/121409.b/038b3801.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 1000
30-DEC-2009 16:15 | AR1660 | /chem/ecd1a.i/123009.b/050b5001.d
Ccal Level: 4 , Ccal Amount: 1000
30-DEC-2009 14:30 | AR1660 | /chem/ecd1a.i/123009.b/040b4001.d
Ccal Level: 4 , Ccal Amount: 1000
30-DEC-2009 12:24 | AR1660 | /chem/ecd1a.i/123009.b/028b2801.d
Ccal Level: 4 , Ccal Amount: 1000
30-DEC-2009 11:21 | AR1660 | /chem/ecd1a.i/123009.b/022b2201.d
Ccal Level: 4 , Ccal Amount: 1000
30-DEC-2009 09:04 | AR1268 | /chem/ecd1a.i/123009.b/009b0901.d
Ccal Level: 4 , Ccal Amount: 1000
30-DEC-2009 08:54 | AR1262 | /chem/ecd1a.i/123009.b/008b0801.d
Ccal Level: 4 , Ccal Amount: 1000
30-DEC-2009 08:43 | AR1221 | /chem/ecd1a.i/123009.b/007b0701.d
Ccal Level: 4 , Ccal Amount: 1000
30-DEC-2009 08:33 | AR1232 | /chem/ecd1a.i/123009.b/006b0601.d
Ccal Level: 4 , Ccal Amount: 1000
30-DEC-2009 08:22 | AR1248 | /chem/ecd1a.i/123009.b/005b0501.d
Ccal Level: 4 , Ccal Amount: 1000
30-DEC-2009 08:12 | AR1242 | /chem/ecd1a.i/123009.b/004b0401.d
Ccal Level: 4 , Ccal Amount: 1000
30-DEC-2009 08:01 | AR1254 | /chem/ecd1a.i/123009.b/003b0301.d
Ccal Level: 4 , Ccal Amount: 1000
30-DEC-2009 07:51 | AR1660 | /chem/ecd1a.i/123009.b/002b0201.d

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd1a.i/123009.b/ECD1-F-8082-121409.m
Quant Method : ESTD Target Version : 3.50
Last Update : 31-Dec-2009 08:24 Number of Cpnds : 15
Data Type : GC MULTI COMP

Global Integrator : Falcon

Chromat Events	Values
Initial:Start Threshold	12031.000000
Initial:End Threshold	6015.500000
Initial:Area Threshold	15489.000000
Initial:P-P Resolution	1.000000
Initial:Bunch Factor	2.000000
Initial:Negative Peaks	OFF
Initial:Tension	0.500000

Compound	RT	RT Window	RF
1 Aroclor-1016	2.428	2.398-2.458	1.387e+04
	2.705	2.675-2.735	1.010e+04
	2.798	2.768-2.828	1.176e+04
	2.835	2.805-2.865	6.599e+03
	3.046	3.016-3.076	8.673e+03
63 4,4-DDD	3.953	3.933-3.973	3.938e+05
64 4,4-DDE	3.603	3.583-3.623	4.795e+05
62 4,4-DDT	4.118	4.098-4.138	3.238e+05
2 Aroclor-1221	2.084	2.054-2.114	4.301e+03
	2.178	2.148-2.208	2.440e+03
	2.204	2.174-2.233	1.027e+04
3 Aroclor-1232	2.427	2.397-2.457	6.717e+03
	2.717	2.687-2.747	8.157e+03
	2.797	2.767-2.827	5.751e+03
	3.046	3.016-3.076	3.954e+03
	3.299	3.269-3.329	3.533e+03
4 Aroclor-1242	2.427	2.397-2.457	1.166e+04
	2.716	2.686-2.746	1.345e+04
	2.835	2.805-2.865	5.506e+03
	3.046	3.015-3.075	7.245e+03
	3.300	3.270-3.330	6.811e+03

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd1a.i/123009.b/ECD1-F-8082-121409.m

Compound	RT	RT Window	RF
5 Aroclor-1248	3.097	3.067-3.127	7.848e+03
	3.248	3.218-3.278	6.870e+03
	3.299	3.269-3.329	1.331e+04
	3.432	3.402-3.462	1.101e+04
	3.664	3.634-3.694	7.455e+03
6 Aroclor-1254	3.275	3.245-3.305	1.249e+04
	3.430	3.400-3.460	1.672e+04
	3.665	3.635-3.695	2.071e+04
	3.828	3.798-3.858	1.569e+04
	3.936	3.906-3.966	1.517e+04
7 Aroclor-1260	3.773	3.743-3.803	1.675e+04
	3.936	3.906-3.966	2.474e+04
	4.166	4.136-4.196	1.469e+04
	4.308	4.278-4.338	1.518e+04
	4.488	4.458-4.518	3.435e+04
8 Aroclor-1262	3.772	3.742-3.802	1.402e+04
	3.934	3.904-3.964	1.841e+04
	4.165	4.135-4.195	2.251e+04
	4.308	4.278-4.338	2.033e+04
	4.488	4.458-4.518	4.317e+04
9 Aroclor-1268	4.672	4.642-4.702	5.438e+04
	4.695	4.665-4.725	5.419e+04
	4.807	4.777-4.837	4.052e+04
	5.011	4.981-5.041	1.833e+04
	5.176	5.146-5.206	1.233e+05
M 10 Aroclor-Total	1.000	0.980-1.020	
$ 11 4cmx	1.972	1.942-2.002	3.757e+05
$ 12 Decachlorobiphenyl	5.287	5.257-5.317	3.175e+05

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd1a.i/123009.b/ECD1-B-8082-121409.m
Quant Method : ESTD Target Version : 3.50
Last Update : 31-Dec-2009 08:30 Number of Cpnds : 15
Data Type : GC MULTI COMP

Global Integrator : Falcon

Chromat Events	Values
Initial:Start Threshold	7222.000000
Initial:End Threshold	3611.000000
Initial:Area Threshold	6833.000000
Initial:P-P Resolution	0.000000
Initial:Bunch Factor	2.000000
Initial:Negative Peaks	OFF
Initial:Tension	0.500000

Compound	RT	RT Window	RF
1 Aroclor-1016	3.200	3.170-3.230	1.261e+04
	3.283	3.253-3.313	9.328e+03
	3.347	3.317-3.377	5.411e+03
	3.574	3.544-3.604	7.052e+03
	3.650	3.620-3.680	6.551e+03
62 4,4-DDT	4.670	4.650-4.690	2.436e+05
63 4,4-DDE	4.139	4.119-4.159	3.580e+05
64 4,4-DDD	4.483	4.463-4.503	2.893e+05
2 Aroclor-1221	2.499	2.469-2.529	3.640e+03
	2.594	2.564-2.624	2.329e+03
	2.635	2.605-2.665	8.119e+03
3 Aroclor-1232	2.634	2.604-2.664	6.156e+03
	3.200	3.170-3.230	6.302e+03
	3.283	3.253-3.313	4.701e+03
	3.573	3.543-3.603	3.243e+03
	3.808	3.778-3.838	3.151e+03
4 Aroclor-1242	3.200	3.170-3.230	1.059e+04
	3.283	3.253-3.313	8.054e+03
	3.574	3.544-3.604	5.962e+03
	3.807	3.777-3.837	6.057e+03
	3.836	3.805-3.865	6.701e+03

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd1a.i/123009.b/ECD1-B-8082-121409.m

Compound	RT	RT Window	RF
5 Aroclor-1248	3.408	3.378-3.438	8.054e+03
	3.573	3.543-3.603	9.874e+03
	3.807	3.777-3.837	1.122e+04
	3.834	3.804-3.864	1.248e+04
	3.972	3.942-4.002	1.210e+04
6 Aroclor-1254	3.409	3.379-3.439	6.435e+03
	3.832	3.802-3.862	1.156e+04
	3.948	3.918-3.978	1.243e+04
	4.225	4.195-4.255	1.688e+04
	4.360	4.330-4.390	1.244e+04
7 Aroclor-1260	4.340	4.310-4.370	1.368e+04
	4.464	4.434-4.494	1.603e+04
	4.731	4.701-4.761	1.256e+04
	4.905	4.875-4.935	1.281e+04
	5.051	5.021-5.081	2.790e+04
8 Aroclor-1262	4.463	4.433-4.493	1.292e+04
	4.730	4.700-4.760	1.831e+04
	4.904	4.874-4.934	1.658e+04
	5.051	5.021-5.081	3.329e+04
	5.264	5.234-5.294	2.297e+04
9 Aroclor-1268	5.262	5.232-5.292	4.358e+04
	5.290	5.260-5.320	4.039e+04
	5.440	5.410-5.470	3.144e+04
	5.604	5.574-5.634	1.427e+04
	5.796	5.766-5.826	8.886e+04
M 10 Aroclor-Total	1.000	0.980-1.020	
$ 11 4cmx	2.303	2.273-2.333	3.000e+05
$ 12 Decachlorobiphenyl	5.949	5.919-5.979	2.332e+05

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 14-DEC-2009 05:36
End Cal Date : 14-DEC-2009 12:37
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd1a.i/123009.b/ECD1-F-8082-121409.m
Cal Date : 31-Dec-2009 08:24 jen01212
Curve Type : Average

Calibration File Names:
Level 1: /chem/ecd1a.i/121409.b/040f4001.d
Level 2: /chem/ecd1a.i/121409.b/041f4101.d
Level 3: /chem/ecd1a.i/121409.b/042f4201.d
Level 4: /chem/ecd1a.i/121409.b/046f4601.d
Level 5: /chem/ecd1a.i/121409.b/044f4401.d

Compound	100.000 Level 1	200.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
1 Aroclor-1016(1)	15975	14641	13829	13236	11653	13867	11.596
(2)	10801	10349	9832	9922	9584	10098	4.757
(3)	13242	12280	11732	11291	10240	11757	9.507
(4)	7178	6867	6609	6421	5920	6599	7.183
(5)	9710	9021	8649	8224	7763	8673	8.604
63 4,4-DDD	+++++	+++++	+++++	393799	+++++	393799	0.000
64 4,4-DDE	+++++	+++++	+++++	479509	+++++	479509	0.000
62 4,4-DDT	+++++	+++++	+++++	323817	+++++	323817	0.000
2 Aroclor-1221(1)	+++++	+++++	+++++	4301	+++++	4301	0.000
(2)	+++++	+++++	+++++	2440	+++++	2440	0.000
(3)	+++++	+++++	+++++	10272	+++++	10272	0.000
3 Aroclor-1232(1)	+++++	+++++	+++++	6717	+++++	6717	0.000
(2)	+++++	+++++	+++++	8157	+++++	8157	0.000
(3)	+++++	+++++	+++++	5751	+++++	5751	0.000
(4)	+++++	+++++	+++++	3954	+++++	3954	0.000
(5)	+++++	+++++	+++++	3533	+++++	3533	0.000
4 Aroclor-1242(1)	13692	12467	11522	10819	9798	11660	12.846
(2)	14782	14429	13236	12555	12263	13453	8.301
(3)	6076	5890	5423	5191	4949	5506	8.563
(4)	8395	7578	7079	6747	6426	7245	10.645
(5)	7587	7189	6604	6378	6296	6811	8.178
5 Aroclor-1248(1)	9070	8103	7743	7247	7078	7848	10.119
(2)	7785	7181	6827	6444	6114	6870	9.456
(3)	15108	13267	13037	12915	12225	13310	8.094
(4)	12682	11331	10815	10392	9852	11015	9.799
(5)	8605	7806	7405	7124	6336	7455	11.244

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 14-DEC-2009 05:36
End Cal Date : 14-DEC-2009 12:37
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd1a.i/123009.b/ECD1-F-8082-121409.m
Cal Date : 31-Dec-2009 08:24 jen01212
Curve Type : Average

Compound	100.000 Level 1	200.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	___ RRF	% RSD
6 Aroclor-1254(1)	14281	12975	12313	11911	10947	12485	9.963
(2)	18803	17181	16666	15949	15010	16722	8.494
(3)	22492	20906	20786	20326	19059	20714	5.957
(4)	16753	15627	15809	15513	14770	15694	4.535
(5)	16595	15169	15433	15075	13591	15172	7.071
7 Aroclor-1260(1)	18145	17177	16842	16407	15189	16752	6.464
(2)	26410	24871	24973	24571	22887	24743	5.081
(3)	16099	14386	14855	14472	13625	14687	6.171
(4)	16517	14719	15311	15032	14343	15185	5.451
(5)	35425	33953	34899	34487	32987	34350	2.719
8 Aroclor-1262(1)	+++++	+++++	+++++	14019	+++++	14019	0.000
(2)	+++++	+++++	+++++	18406	+++++	18406	0.000
(3)	+++++	+++++	+++++	22511	+++++	22511	0.000
(4)	+++++	+++++	+++++	20327	+++++	20327	0.000
(5)	+++++	+++++	+++++	43170	+++++	43170	0.000
9 Aroclor-1268(1)	56914	55996	53872	52565	52528	54375	3.680
(2)	57500	55307	54092	52376	51697	54194	4.300
(3)	43006	41368	40020	38976	39247	40524	4.120
(4)	19620	18932	18085	17425	17569	18326	5.094
(5)	128350	126812	122798	118830	119599	123278	3.436
M 10 Aroclor-Total	+++++	+++++	+++++	+++++	+++++	+++++	+++++
$ 11 4cmx	367897	454677	359986	359846	335942	375669	12.182
$ 12 Decachlorobiphenyl	316645	388263	307193	296602	278999	317541	13.206

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 11-DEC-2009 10:17
End Cal Date : 14-DEC-2009 12:37
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd1a.i/123009.b/ECD1-B-8082-121409.m
Cal Date : 31-Dec-2009 08:30 jen01212
Curve Type : Average

Calibration File Names:
Level 1: /chem/ecd1a.i/121409.b/040b4001.d
Level 2: /chem/ecd1a.i/121409.b/041b4101.d
Level 3: /chem/ecd1a.i/121409.b/042b4201.d
Level 4: /chem/ecd1a.i/121409.b/046b4601.d
Level 5: /chem/ecd1a.i/121409.b/044b4401.d

Compound	100.000 Level 1	200.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
1 Aroclor-1016(1)	14281	12734	12848	12156	11039	12612	9.333
(2)	10954	9913	9256	8806	7710	9328	13.003
(3)	6310	5679	5380	5089	4598	5411	11.852
(4)	8214	7430	6981	6696	5938	7052	12.003
(5)	7754	6843	6481	6115	5561	6551	12.561
62 4,4-DDT	+++++	+++++	+++++	243613	+++++	243613	0.000
63 4,4-DDE	+++++	+++++	+++++	357996	+++++	357996	0.000
64 4,4-DDD	+++++	+++++	+++++	289343	+++++	289343	0.000
2 Aroclor-1221(1)	+++++	+++++	+++++	3640	+++++	3640	0.000
(2)	+++++	+++++	+++++	2329	+++++	2329	0.000
(3)	+++++	+++++	+++++	8119	+++++	8119	0.000
3 Aroclor-1232(1)	+++++	+++++	+++++	6156	+++++	6156	0.000
(2)	+++++	+++++	+++++	6302	+++++	6302	0.000
(3)	+++++	+++++	+++++	4701	+++++	4701	0.000
(4)	+++++	+++++	+++++	3243	+++++	3243	0.000
(5)	+++++	+++++	+++++	3151	+++++	3151	0.000
4 Aroclor-1242(1)	12348	11309	9989	9755	9542	10589	11.338
(2)	9730	8628	7875	7358	6677	8054	14.627
(3)	7163	6326	5763	5452	5107	5962	13.534
(4)	7183	6468	5900	5548	5185	6057	12.997
(5)	7820	7123	6589	6229	5746	6701	11.977
5 Aroclor-1248(1)	9914	8542	7972	7289	6553	8054	15.880
(2)	11996	10356	9798	9046	8173	9874	14.605
(3)	13306	11756	11119	10365	9555	11220	12.723
(4)	14720	13121	12480	11577	10516	12483	12.732
(5)	14361	12633	11977	11210	10342	12104	12.596

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 11-DEC-2009 10:17
End Cal Date : 14-DEC-2009 12:37
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd1a.i/123009.b/ECD1-B-8082-121409.m
Cal Date : 31-Dec-2009 08:30 jen01212
Curve Type : Average

	Compound	100.000 Level 1	200.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
	6 Aroclor-1254(1)	7857	6938	6317	5878	5185	6435	15.850
	(2)	13759	12316	11389	10708	9625	11559	13.615
	(3)	14674	13172	12243	11576	10492	12431	12.786
	(4)	19102	17554	16808	16165	14771	16880	9.533
	(5)	14276	12708	12612	11843	10739	12435	10.425
	7 Aroclor-1260(1)	15678	14232	13583	13177	11731	13680	10.567
	(2)	18142	16574	16035	15527	13867	16029	9.709
	(3)	14298	13064	12524	12030	10903	12564	9.989
	(4)	14593	13310	12766	12230	11150	12810	9.970
	(5)	30553	28626	28257	27276	24777	27898	7.569
	8 Aroclor-1262(1)	+++++	+++++	+++++	12922	+++++	12922	0.000
	(2)	+++++	+++++	+++++	18311	+++++	18311	0.000
	(3)	+++++	+++++	+++++	16579	+++++	16579	0.000
	(4)	+++++	+++++	+++++	33287	+++++	33287	0.000
	(5)	+++++	+++++	+++++	22972	+++++	22972	0.000
	9 Aroclor-1268(1)	48327	45655	43354	41349	39206	43578	8.193
	(2)	44968	41865	39872	38249	36983	40388	7.790
	(3)	35350	32573	30975	29630	28674	31440	8.372
	(4)	16410	14977	13894	13214	12876	14274	10.077
	(5)	96769	92419	87897	84047	83161	88859	6.460
M	10 Aroclor-Total	+++++	+++++	+++++	+++++	+++++	+++++	+++++
$	11 4cmx	307069	367145	286931	282899	256086	300026	13.893
$	12 Decachlorobiphenyl	248884	286011	224119	212175	194946	233227	15.194

Report Date: 31-Dec-2009 13:14

Calibration History

Method : /chem/ecd2a.i/123009.b/ECD2-F-8082-111209A.m
Start Cal Date: 12-NOV-2009 11:00
End Cal Date : 14-DEC-2009 09:35

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 100.00000		
02-DEC-2009 07:05	AR1262	/chem/ecd2a.i/120209.b/008f0801.d
12-NOV-2009 16:22	AR1268	/chem/ecd2a.i/111209a.b/035f3501.d
30-NOV-2009 10:12	AR1248	/chem/ecd2a.i/113009a.b/011f1101.d
12-NOV-2009 14:09	AR1242	/chem/ecd2a.i/111209a.b/023f2301.d
30-NOV-2009 08:43	AR1254	/chem/ecd2a.i/113009a.b/003f0301.d
14-DEC-2009 08:51	AR1660	/chem/ecd2a.i/121409.b/011f1101.d
Cal Level: 2 , Cal Amount: 250.00000		
02-DEC-2009 07:16	AR1262	/chem/ecd2a.i/120209.b/009f0901.d
12-NOV-2009 16:33	AR1268	/chem/ecd2a.i/111209a.b/036f3601.d
30-NOV-2009 10:23	AR1248	/chem/ecd2a.i/113009a.b/012f1201.d
12-NOV-2009 14:20	AR1242	/chem/ecd2a.i/111209a.b/024f2401.d
30-NOV-2009 08:54	AR1254	/chem/ecd2a.i/113009a.b/004f0401.d
14-DEC-2009 09:02	AR1660	/chem/ecd2a.i/121409.b/012f1201.d
Cal Level: 3 , Cal Amount: 500.00000		
02-DEC-2009 07:27	AR1262	/chem/ecd2a.i/120209.b/010f1001.d
12-NOV-2009 16:44	AR1268	/chem/ecd2a.i/111209a.b/037f3701.d
30-NOV-2009 10:34	AR1248	/chem/ecd2a.i/113009a.b/013f1301.d
12-NOV-2009 14:31	AR1242	/chem/ecd2a.i/111209a.b/025f2501.d
30-NOV-2009 09:05	AR1254	/chem/ecd2a.i/113009a.b/005f0501.d
14-DEC-2009 09:13	AR1660	/chem/ecd2a.i/121409.b/013f1301.d
Cal Level: 4 , Cal Amount: 1000.00000		
30-NOV-2009 10:45	AR1248	/chem/ecd2a.i/113009a.b/014f1401.d
12-NOV-2009 14:42	AR1242	/chem/ecd2a.i/111209a.b/026f2601.d
30-NOV-2009 09:16	AR1254	/chem/ecd2a.i/113009a.b/006f0601.d
14-DEC-2009 09:24	AR1660	/chem/ecd2a.i/121409.b/014f1401.d
12-NOV-2009 11:45	DDTANALOGSTD	/chem/ecd2a.i/111209a.b/010f1001.d
12-NOV-2009 16:55	AR1268	/chem/ecd2a.i/111209a.b/038f3801.d
02-DEC-2009 07:38	AR1262	/chem/ecd2a.i/120209.b/011f1101.d
12-NOV-2009 11:11	AR1221	/chem/ecd2a.i/111209a.b/007f0701.d
12-NOV-2009 11:00	AR1232	/chem/ecd2a.i/111209a.b/006f0601.d
Cal Level: 5 , Cal Amount: 4000.00000		
02-DEC-2009 07:50	AR1262	/chem/ecd2a.i/120209.b/012f1201.d
12-NOV-2009 17:07	AR1268	/chem/ecd2a.i/111209a.b/039f3901.d
30-NOV-2009 10:56	AR1248	/chem/ecd2a.i/113009a.b/015f1501.d
12-NOV-2009 14:53	AR1242	/chem/ecd2a.i/111209a.b/027f2701.d
30-NOV-2009 09:27	AR1254	/chem/ecd2a.i/113009a.b/007f0701.d
14-DEC-2009 09:35	AR1660	/chem/ecd2a.i/121409.b/015f1501.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 1000		
30-DEC-2009 16:24	AR1660	/chem/ecd2a.i/123009.b/047f4701.d
Ccal Level: 4 , Ccal Amount: 1000		
30-DEC-2009 14:55	AR1660	/chem/ecd2a.i/123009.b/039f3901.d
Ccal Level: 4 , Ccal Amount: 1000		
30-DEC-2009 12:21	AR1660	/chem/ecd2a.i/123009.b/028f2801.d
Ccal Level: 4 , Ccal Amount: 1000		
30-DEC-2009 11:14	AR1660	/chem/ecd2a.i/123009.b/022f2201.d
Ccal Level: 4 , Ccal Amount: 1000		
30-DEC-2009 08:51	AR1268	/chem/ecd2a.i/123009.b/009f0901.d
Ccal Level: 4 , Ccal Amount: 1000		
30-DEC-2009 08:39	AR1262	/chem/ecd2a.i/123009.b/008f0801.d
Ccal Level: 4 , Ccal Amount: 1000		
30-DEC-2009 08:28	AR1221	/chem/ecd2a.i/123009.b/007f0701.d
Ccal Level: 4 , Ccal Amount: 1000		
30-DEC-2009 08:06	AR1248	/chem/ecd2a.i/123009.b/005f0501.d
Ccal Level: 4 , Ccal Amount: 1000		
30-DEC-2009 08:17	AR1232	/chem/ecd2a.i/123009.b/006f0601.d
Ccal Level: 4 , Ccal Amount: 1000		
30-DEC-2009 07:55	AR1242	/chem/ecd2a.i/123009.b/004f0401.d
Ccal Level: 4 , Ccal Amount: 1000		
30-DEC-2009 07:44	AR1254	/chem/ecd2a.i/123009.b/003f0301.d
Ccal Level: 4 , Ccal Amount: 1000		
30-DEC-2009 07:33	AR1660	/chem/ecd2a.i/123009.b/002f0201.d

Report Date: 31-Dec-2009 13:13

Calibration History

Method : /chem/ecd2a.i/123009.b/ECD2-B-8082-111209A.m
Start Cal Date: 12-NOV-2009 11:00
End Cal Date : 14-DEC-2009 09:35

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 100.00000		
02-DEC-2009 07:05	AR1262	/chem/ecd2a.i/120209.b/008b0801.d
12-NOV-2009 16:22	AR1268	/chem/ecd2a.i/111209a.b/035b3501.d
30-NOV-2009 10:12	AR1248	/chem/ecd2a.i/113009a.b/011b1101.d
12-NOV-2009 14:09	AR1242	/chem/ecd2a.i/111209a.b/023b2301.d
30-NOV-2009 08:43	AR1254	/chem/ecd2a.i/113009a.b/003b0301.d
14-DEC-2009 08:51	AR1660	/chem/ecd2a.i/121409.b/011b1101.d
Cal Level: 2 , Cal Amount: 250.00000		
02-DEC-2009 07:16	AR1262	/chem/ecd2a.i/120209.b/009b0901.d
12-NOV-2009 16:33	AR1268	/chem/ecd2a.i/111209a.b/036b3601.d
30-NOV-2009 10:23	AR1248	/chem/ecd2a.i/113009a.b/012b1201.d
12-NOV-2009 14:20	AR1242	/chem/ecd2a.i/111209a.b/024b2401.d
30-NOV-2009 08:54	AR1254	/chem/ecd2a.i/113009a.b/004b0401.d
14-DEC-2009 09:02	AR1660	/chem/ecd2a.i/121409.b/012b1201.d
Cal Level: 3 , Cal Amount: 500.00000		
02-DEC-2009 07:27	AR1262	/chem/ecd2a.i/120209.b/010b1001.d
12-NOV-2009 16:44	AR1268	/chem/ecd2a.i/111209a.b/037b3701.d
30-NOV-2009 10:34	AR1248	/chem/ecd2a.i/113009a.b/013b1301.d
12-NOV-2009 14:31	AR1242	/chem/ecd2a.i/111209a.b/025b2501.d
30-NOV-2009 09:05	AR1254	/chem/ecd2a.i/113009a.b/005b0501.d
14-DEC-2009 09:13	AR1660	/chem/ecd2a.i/121409.b/013b1301.d
Cal Level: 4 , Cal Amount: 1000.00000		
30-NOV-2009 10:45	AR1248	/chem/ecd2a.i/113009a.b/014b1401.d
12-NOV-2009 14:42	AR1242	/chem/ecd2a.i/111209a.b/026b2601.d
30-NOV-2009 09:16	AR1254	/chem/ecd2a.i/113009a.b/006b0601.d
14-DEC-2009 09:24	AR1660	/chem/ecd2a.i/121409.b/014b1401.d
12-NOV-2009 11:45	DDTANALOGSTD	/chem/ecd2a.i/111209a.b/010b1001.d
12-NOV-2009 16:55	AR1268	/chem/ecd2a.i/111209a.b/038b3801.d
02-DEC-2009 07:38	AR1262	/chem/ecd2a.i/120209.b/011b1101.d
12-NOV-2009 11:11	AR1221	/chem/ecd2a.i/111209a.b/007b0701.d
12-NOV-2009 11:00	AR1232	/chem/ecd2a.i/111209a.b/006b0601.d
Cal Level: 5 , Cal Amount: 4000.00000		
02-DEC-2009 07:50	AR1262	/chem/ecd2a.i/120209.b/012b1201.d
12-NOV-2009 17:07	AR1268	/chem/ecd2a.i/111209a.b/039b3901.d
30-NOV-2009 10:56	AR1248	/chem/ecd2a.i/113009a.b/015b1501.d
12-NOV-2009 14:53	AR1242	/chem/ecd2a.i/111209a.b/027b2701.d
30-NOV-2009 09:27	AR1254	/chem/ecd2a.i/113009a.b/007b0701.d
14-DEC-2009 09:35	AR1660	/chem/ecd2a.i/121409.b/015b1501.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 1000		
30-DEC-2009 16:24	AR1660	/chem/ecd2a.i/123009.b/047b4701.d
Ccal Level: 4 , Ccal Amount: 1000		
30-DEC-2009 14:55	AR1660	/chem/ecd2a.i/123009.b/039b3901.d
Ccal Level: 4 , Ccal Amount: 1000		
30-DEC-2009 12:21	AR1660	/chem/ecd2a.i/123009.b/028b2801.d
Ccal Level: 4 , Ccal Amount: 1000		
30-DEC-2009 11:14	AR1660	/chem/ecd2a.i/123009.b/022b2201.d
Ccal Level: 4 , Ccal Amount: 1000		
30-DEC-2009 08:51	AR1268	/chem/ecd2a.i/123009.b/009b0901.d
Ccal Level: 4 , Ccal Amount: 1000		
30-DEC-2009 08:39	AR1262	/chem/ecd2a.i/123009.b/008b0801.d
Ccal Level: 4 , Ccal Amount: 1000		
30-DEC-2009 08:28	AR1221	/chem/ecd2a.i/123009.b/007b0701.d
Ccal Level: 4 , Ccal Amount: 1000		
30-DEC-2009 08:17	AR1232	/chem/ecd2a.i/123009.b/006b0601.d
Ccal Level: 4 , Ccal Amount: 1000		
30-DEC-2009 08:06	AR1248	/chem/ecd2a.i/123009.b/005b0501.d
Ccal Level: 4 , Ccal Amount: 1000		
30-DEC-2009 07:55	AR1242	/chem/ecd2a.i/123009.b/004b0401.d
Ccal Level: 4 , Ccal Amount: 1000		
30-DEC-2009 07:44	AR1254	/chem/ecd2a.i/123009.b/003b0301.d
Ccal Level: 4 , Ccal Amount: 1000		
30-DEC-2009 07:33	AR1660	/chem/ecd2a.i/123009.b/002b0201.d

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd2a.i/123009.b/ECD2-F-8082-111209A.m
Quant Method : ESTD Target Version : 3.50
Last Update : 31-Dec-2009 07:50 Number of Cpnds : 15
Data Type : GC MULTI COMP

Global Integrator : Falcon

Chromat Events	Values
Initial:Start Threshold	500.000000
Initial:End Threshold	250.000000
Initial:Area Threshold	10000.000000
Initial:P-P Resolution	1.000000
Initial:Bunch Factor	2.000000
Initial:Negative Peaks	OFF
Initial:Tension	1.100000
8.500:Bunch Factor	2.000000

Compound	RT	RT Window	RF
1 Aroclor-1016	2.276	2.245-2.305	2.238e+03
	2.599	2.569-2.629	4.685e+03
	2.690	2.660-2.720	1.901e+03
	2.825	2.795-2.855	9.760e+02
	2.975	2.946-3.006	1.458e+03
2 Aroclor-1221	1.438	1.408-1.468	4.641e+02
	1.898	1.868-1.928	6.570e+02
	1.997	1.967-2.027	3.467e+02
3 Aroclor-1232	2.027	1.997-2.057	1.165e+03
	2.276	2.246-2.306	9.314e+02
	2.690	2.660-2.720	8.004e+02
	2.732	2.702-2.762	5.102e+02
	2.976	2.946-3.006	5.840e+02
4 Aroclor-1242	2.275	2.245-2.305	1.733e+03
	2.690	2.660-2.720	1.484e+03
	2.732	2.702-2.762	9.058e+02
	2.825	2.795-2.855	7.269e+02
	2.976	2.946-3.006	1.120e+03
5 Aroclor-1248	2.824	2.794-2.854	1.527e+03
	2.976	2.946-3.006	2.027e+03
	3.036	3.006-3.066	1.571e+03
	3.271	3.241-3.301	2.218e+03
	3.423	3.393-3.453	1.913e+03

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd2a.i/123009.b/ECD2-F-8082-111209A.m

	Compound	RT	RT Window	RF
	6 Aroclor-1254	3.243	3.213-3.273	2.080e+03
		3.425	3.395-3.455	2.772e+03
		3.694	3.664-3.724	3.742e+03
		3.887	3.857-3.917	2.783e+03
		4.016	3.986-4.046	2.760e+03
	7 Aroclor-1260	4.016	3.986-4.045	4.165e+03
		4.287	4.257-4.317	2.591e+03
		4.452	4.422-4.482	2.631e+03
		4.665	4.635-4.695	6.088e+03
		4.854	4.824-4.884	2.942e+03
	8 Aroclor-1262	3.824	3.794-3.854	2.273e+03
		4.015	3.985-4.045	3.072e+03
		4.287	4.257-4.317	4.004e+03
		4.452	4.422-4.482	3.573e+03
		4.855	4.825-4.885	2.501e+03
	9 Aroclor-1268	4.884	4.854-4.914	9.392e+03
		4.910	4.880-4.940	9.361e+03
		5.043	5.013-5.073	7.073e+03
		5.282	5.252-5.312	3.056e+03
		5.478	5.448-5.508	2.201e+04
M	10 Aroclor-Total	1.000	0.980-1.020	
$	11 4cmx	1.773	1.743-1.803	6.229e+04
$	12 Decachlorobiphenyl	5.608	5.578-5.638	5.411e+04
	13 4,4'-DDT	4.229	4.209-4.249	5.006e+04
	14 4,4'-DDD	4.036	4.016-4.056	7.298e+04
	15 4,4'-DDE	3.632	3.612-3.652	7.426e+04

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd2a.i/123009.b/ECD2-B-8082-111209A.m
Quant Method : ESTD Target Version : 3.50
Last Update : 31-Dec-2009 07:09 Number of Cpnds : 15
Data Type : GC MULTI COMP

Global Integrator : Falcon

Chromat Events	Values
Initial:Start Threshold	1000.000000
Initial:End Threshold	500.000000
Initial:Area Threshold	500.000000
Initial:P-P Resolution	0.000000
Initial:Bunch Factor	3.000000
Initial:Negative Peaks	OFF
Initial:Tension	4.000000
4.200:Tension	1.000000

Compound	RT	RT Window	RF
1 Aroclor-1016	2.747	2.717-2.777	4.538e+03
	3.181	3.151-3.211	3.602e+03
	3.332	3.302-3.362	2.053e+03
	3.360	3.330-3.390	2.137e+03
	3.518	3.488-3.548	2.871e+03
2 Aroclor-1221	2.292	2.262-2.322	1.263e+03
	2.398	2.368-2.428	7.739e+02
	2.442	2.412-2.472	3.051e+03
3 Aroclor-1232	2.443	2.413-2.473	2.061e+03
	2.746	2.716-2.776	1.960e+03
	3.181	3.151-3.211	1.498e+03
	3.253	3.223-3.283	9.309e+02
	3.518	3.489-3.549	1.107e+03
4 Aroclor-1242	2.746	2.716-2.776	3.445e+03
	3.181	3.151-3.211	2.681e+03
	3.252	3.222-3.282	1.637e+03
	3.332	3.302-3.362	1.508e+03
	3.518	3.488-3.548	2.145e+03
5 Aroclor-1248	3.332	3.302-3.362	3.282e+03
	3.518	3.488-3.548	4.187e+03
	3.604	3.574-3.634	4.451e+03
	3.794	3.764-3.824	4.697e+03
	3.824	3.794-3.854	5.389e+03

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd2a.i/123009.b/ECD2-B-8082-111209A.m

Compound	RT	RT Window	RF
6 Aroclor-1254	3.818	3.788-3.848	4.985e+03
	3.959	3.929-3.989	5.799e+03
	4.196	4.166-4.226	4.023e+03
	4.277	4.247-4.307	7.731e+03
	4.440	4.410-4.470	5.608e+03
7 Aroclor-1260	4.414	4.384-4.444	5.767e+03
	4.566	4.536-4.596	7.124e+03
	4.677	4.647-4.707	4.819e+03
	4.874	4.844-4.904	5.632e+03
	5.500	5.470-5.530	9.038e+03
8 Aroclor-1262	4.415	4.385-4.445	4.703e+03
	4.566	4.536-4.596	5.853e+03
	4.875	4.845-4.905	8.946e+03
	5.075	5.045-5.105	7.772e+03
	5.253	5.223-5.283	1.672e+04
9 Aroclor-1268	5.499	5.469-5.529	2.032e+04
	5.530	5.500-5.560	2.018e+04
	5.703	5.673-5.733	1.496e+04
	5.903	5.873-5.933	6.438e+03
	6.126	6.096-6.156	4.409e+04
M 10 Aroclor-Total	1.000	0.980-1.020	
$ 11 4cmx	2.070	2.040-2.100	1.293e+05
$ 12 Decachlorobiphenyl	6.301	6.271-6.331	1.128e+05
13 4,4'-DDT	4.814	4.794-4.834	8.705e+04
14 4,4'-DDD	4.600	4.580-4.620	1.499e+05
15 4,4'-DDE	4.195	4.175-4.215	1.504e+05

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 12-NOV-2009 11:00
End Cal Date : 14-DEC-2009 09:35
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd2a.i/123009.b/ECD2-F-8082-111209A.m
Cal Date : 31-Dec-2009 07:50 jen01212
Curve Type : Average

Calibration File Names:
Level 1: /chem/ecd2a.i/120209.b/008f0801.d
Level 2: /chem/ecd2a.i/120209.b/009f0901.d
Level 3: /chem/ecd2a.i/120209.b/010f1001.d
Level 4: /chem/ecd2a.i/113009a.b/014f1401.d
Level 5: /chem/ecd2a.i/120209.b/012f1201.d

Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
1 Aroclor-1016(1)	2466	2335	2250	2152	1986	2238	8.133
(2)	4869	4683	4664	4616	4594	4685	2.323
(3)	2072	1962	1892	1818	1764	1901	6.365
(4)	1061	990	984	930	915	976	5.885
(5)	1595	1490	1441	1389	1375	1458	6.121
2 Aroclor-1221(1)	+++++	+++++	+++++	464	+++++	464	0.000
(2)	+++++	+++++	+++++	657	+++++	657	0.000
(3)	+++++	+++++	+++++	347	+++++	347	0.000
3 Aroclor-1232(1)	+++++	+++++	+++++	1165	+++++	1165	0.000
(2)	+++++	+++++	+++++	931	+++++	931	0.000
(3)	+++++	+++++	+++++	800	+++++	800	0.000
(4)	+++++	+++++	+++++	510	+++++	510	0.000
(5)	+++++	+++++	+++++	584	+++++	584	0.000
4 Aroclor-1242(1)	1990	1799	1692	1619	1566	1733	9.686
(2)	1678	1536	1439	1387	1381	1484	8.410
(3)	1015	931	874	843	866	906	7.639
(4)	817	761	714	669	673	727	8.615
(5)	1272	1143	1059	1036	1087	1120	8.434
5 Aroclor-1248(1)	1738	1529	1527	1515	1325	1527	9.560
(2)	2238	2070	1990	2006	1832	2027	7.247
(3)	1706	1611	1571	1551	1415	1571	6.718
(4)	2322	2198	2161	2230	2178	2218	2.874
(5)	2083	1922	1902	1885	1770	1913	5.861
6 Aroclor-1254(1)	2304	2118	2048	2007	1924	2080	6.888
(2)	2981	2797	2739	2702	2642	2772	4.677
(3)	3870	3712	3711	3744	3675	3742	2.011
(4)	2886	2776	2725	2760	2767	2783	2.186
(5)	2994	2820	2741	2711	2533	2760	6.080

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 12-NOV-2009 11:00
End Cal Date : 14-DEC-2009 09:35
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd2a.i/123009.b/ECD2-F-8082-111209A.m
Cal Date : 31-Dec-2009 07:50 jen01212
Curve Type : Average

	Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
	7 Aroclor-1260(1)	4187	4145	4185	4134	4175	4165	0.584
	(2)	2696	2603	2589	2529	2536	2591	2.593
	(3)	2699	2626	2625	2591	2614	2631	1.539
	(4)	5867	6003	6142	6129	6296	6088	2.650
	(5)	2925	2904	2929	2920	3034	2942	1.769
	8 Aroclor-1262(1)	2530	2266	2239	2239	2092	2273	6.993
	(2)	3295	3066	3031	3051	2917	3072	4.482
	(3)	4237	3997	3977	3997	3815	4004	3.763
	(4)	3754	3532	3556	3594	3430	3573	3.295
	(5)	2578	2453	2481	2538	2454	2501	2.217
	9 Aroclor-1268(1)	9077	9136	9272	9373	10103	9392	4.409
	(2)	9332	9272	9238	9197	9765	9361	2.470
	(3)	6985	6923	6953	6984	7523	7073	3.568
	(4)	3112	3015	2984	2964	3207	3056	3.331
	(5)	21397	21592	21760	21851	23464	22013	3.767
M	10 Aroclor-Total	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	13 4,4'-DDT	+++++	+++++	+++++	50063	+++++	50063	0.000
	14 4,4'-DDD	+++++	+++++	+++++	72978	+++++	72978	0.000
	15 4,4'-DDE	+++++	+++++	+++++	74262	+++++	74262	0.000
$	11 4cmx	61300	61246	62868	63075	62969	62292	1.498
$	12 Decachlorobiphenyl	55102	53352	54400	53360	54345	54112	1.389

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 12-NOV-2009 11:00
End Cal Date : 14-DEC-2009 09:35
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd2a.i/123009.b/ECD2-B-8082-111209A.m
Cal Date : 31-Dec-2009 07:09 jen01212
Curve Type : Average

Calibration File Names:
Level 1: /chem/ecd2a.i/120209.b/008b0801.d
Level 2: /chem/ecd2a.i/120209.b/009b0901.d
Level 3: /chem/ecd2a.i/120209.b/010b1001.d
Level 4: /chem/ecd2a.i/113009a.b/014b1401.d
Level 5: /chem/ecd2a.i/120209.b/012b1201.d

Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
1 Aroclor-1016(1)	4662	4582	4609	4551	4285	4538	3.244
(2)	3647	3696	3564	3575	3528	3602	1.886
(3)	2078	2044	2044	2059	2041	2053	0.760
(4)	2149	2125	2133	2140	2138	2137	0.428
(5)	2852	2832	2882	2908	2879	2871	1.025
2 Aroclor-1221(1)	+++++	+++++	+++++	1263	+++++	1263	0.000
(2)	+++++	+++++	+++++	774	+++++	774	0.000
(3)	+++++	+++++	+++++	3051	+++++	3051	0.000
3 Aroclor-1232(1)	+++++	+++++	+++++	2061	+++++	2061	0.000
(2)	+++++	+++++	+++++	1960	+++++	1960	0.000
(3)	+++++	+++++	+++++	1498	+++++	1498	0.000
(4)	+++++	+++++	+++++	931	+++++	931	0.000
(5)	+++++	+++++	+++++	1107	+++++	1107	0.000
4 Aroclor-1242(1)	3674	3489	3409	3384	3271	3445	4.346
(2)	2815	2677	2634	2637	2644	2681	2.863
(3)	1696	1624	1594	1606	1663	1637	2.599
(4)	1601	1513	1471	1467	1487	1508	3.655
(5)	2235	2100	2068	2141	2180	2145	3.068
5 Aroclor-1248(1)	3439	3315	3263	3296	3099	3282	3.723
(2)	4291	4205	4192	4250	3996	4187	2.717
(3)	4601	4495	4377	4484	4299	4451	2.609
(4)	4665	4612	4696	4831	4682	4697	1.733
(5)	5471	5399	5390	5477	5208	5389	2.022
6 Aroclor-1254(1)	5121	4955	4998	5025	4828	4985	2.145
(2)	5885	5693	5812	5852	5753	5799	1.330
(3)	4010	3906	3992	4126	4082	4023	2.109
(4)	7559	7611	7766	7925	7797	7731	1.909
(5)	5659	5569	5439	5821	5553	5608	2.538

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 12-NOV-2009 11:00
End Cal Date : 14-DEC-2009 09:35
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd2a.i/123009.b/ECD2-B-8082-111209A.m
Cal Date : 31-Dec-2009 07:09 jen01212
Curve Type : Average

	Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
	7 Aroclor-1260(1)	5735	5627	5779	5816	5877	5767	1.626
	(2)	6687	7031	7243	7286	7372	7124	3.855
	(3)	4572	4701	4890	4942	4988	4819	3.647
	(4)	5377	5518	5714	5746	5803	5632	3.163
	(5)	8369	8607	9231	9252	9728	9038	6.039
	8 Aroclor-1262(1)	4855	4536	4634	4812	4677	4703	2.776
	(2)	5760	5648	5834	6083	5942	5853	2.859
	(3)	8687	8674	9001	9349	9021	8946	3.121
	(4)	7559	7507	7790	8124	7880	7772	3.221
	(5)	15890	16154	16824	17584	17141	16719	4.167
	9 Aroclor-1268(1)	18829	19584	20101	20533	22559	20321	6.904
	(2)	18822	19343	20333	20389	22025	20182	6.077
	(3)	13874	14365	14864	15141	16565	14962	6.808
	(4)	5734	6115	6404	6840	7097	6438	8.497
	(5)	40707	42777	43856	44408	48724	44094	6.689
M	10 Aroclor-Total	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	13 4,4'-DDT	+++++	+++++	+++++	87046	+++++	87046	0.000
	14 4,4'-DDD	+++++	+++++	+++++	149858	+++++	149858	0.000
	15 4,4'-DDE	+++++	+++++	+++++	150414	+++++	150414	0.000
$	11 4cmx	118604	126358	131414	133891	136323	129318	5.440
$	12 Decachlorobiphenyl	109662	108705	113295	113170	119083	112783	3.614

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1086

Instrument ID: ECD1A Calibration Date: 12/30/09 Time: 0751

Lab File ID: 002F0201 Init. Calib. Date(s): 12/14/09 12/14/09

Heated Purge: (Y/N) N Init. Calib. Times: 1031 1113

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	13866.870	12048.649	0.01	-13.1	15.0
(2)	10097.726	10253.153	0.01	1.5	15.0
(3)	11757.020	10400.861	0.01	-11.5	15.0
(4)	6599.010	6229.744	0.01	-5.6	15.0
(5)	8673.402	8016.497	0.01	-7.6	15.0
Aroclor-1260	16752.150	16303.916	0.01	-2.7	15.0
(2)	24742.603	25139.543	0.01	1.6	15.0
(3)	14687.346	15017.211	0.01	2.2	15.0
(4)	15184.529	15730.807	0.01	3.6	15.0
(5)	34350.443	36419.593	0.01	6.0	15.0
4cmx	375669.41	364542.48	0.01	-3.0	15.0
Decachlorobiphenyl	317540.53	319061.34	0.01	0.5	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1086

Instrument ID: ECD1A Calibration Date: 12/30/09 Time: 0751

Lab File ID: 002B0201 Init. Calib. Date(s): 12/14/09 12/14/09

Heated Purge: (Y/N) N Init. Calib. Times: 1031 1113

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	12611.539	12595.442	0.01	-0.1	15.0
(2)	9327.875	8188.657	0.01	-12.2	15.0
(3)	5411.316	5082.283	0.01	-6.1	15.0
(4)	7051.879	6677.358	0.01	-5.3	15.0
(5)	6550.733	6209.576	0.01	-5.2	15.0
Aroclor-1260	13680.027	12787.983	0.01	-6.5	15.0
(2)	16029.019	15799.919	0.01	-1.4	15.0
(3)	12563.933	12092.518	0.01	-3.8	15.0
(4)	12810.076	12394.695	0.01	-3.2	15.0
(5)	27897.674	28137.110	0.01	0.8	15.0
4cmx	300025.77	290797.42	0.01	-3.1	15.0
Decachlorobiphenyl	233227.08	233521.61	0.01	0.1	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1086

Instrument ID: ECD1A Calibration Date: 12/30/09 Time: 0801

Lab File ID: 003F0301 Init. Calib. Date(s): 12/14/09 12/14/09

Heated Purge: (Y/N) N Init. Calib. Times: 0722 0804

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1254	12485.476	12004.329	0.01	-3.8	15.0
(2)	16721.938	16482.009	0.01	-1.4	15.0
(3)	20713.923	21819.152	0.01	5.3	15.0
(4)	15694.205	16784.132	0.01	6.9	15.0
(5)	15172.491	15814.639	0.01	4.2	15.0
4cmx	375669.41	376818.35	0.01	0.3	15.0
Decachlorobiphenyl	317540.53	332815.83	0.01	4.8	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1086

Instrument ID: ECD1A Calibration Date: 12/30/09 Time: 0801

Lab File ID: 003B0301 Init. Calib. Date(s): 12/14/09 12/14/09

Heated Purge: (Y/N) N Init. Calib. Times: 0722 0804

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1254	6435.255	6057.470	0.01	-5.9	15.0
(2)	11559.316	11014.700	0.01	-4.7	15.0
(3)	12431.285	12211.951	0.01	-1.8	15.0
(4)	16880.060	17136.946	0.01	1.5	15.0
(5)	12435.475	12696.225	0.01	2.1	15.0
4cmx	300025.77	302311.34	0.01	0.8	15.0
Decachlorobiphenyl	233227.08	244482.55	0.01	4.8	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1086

Instrument ID: ECD1A Calibration Date: 12/30/09 Time: 0812

Lab File ID: 004F0401 Init. Calib. Date(s): 12/14/09 12/14/09

Heated Purge: (Y/N) N Init. Calib. Times: 0825 0907

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1242	11659.831	10940.190	0.01	-6.2	15.0
(2)	13453.003	13851.500	0.01	3.0	15.0
(3)	5505.921	5570.438	0.01	1.2	15.0
(4)	7244.860	7308.038	0.01	0.9	15.0
(5)	6810.757	7443.106	0.01	9.3	15.0
4cmx	375669.41	388931.20	0.01	3.5	15.0
Decachlorobiphenyl	317540.53	326610.04	0.01	2.8	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1086

Instrument ID: ECD1A Calibration Date: 12/30/09 Time: 0812

Lab File ID: 004B0401 Init. Calib. Date(s): 12/14/09 12/14/09

Heated Purge: (Y/N) N Init. Calib. Times: 0825 0907

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1242	10588.563	11134.542	0.01	5.2	15.0
(2)	8053.609	7295.301	0.01	-9.4	15.0
(3)	5962.199	5822.956	0.01	-2.3	15.0
(4)	6056.800	6140.550	0.01	1.4	15.0
(5)	6701.366	6723.495	0.01	0.3	15.0
4cmx	300025.77	308876.50	0.01	2.9	15.0
Decachlorobiphenyl	233227.08	252722.45	0.01	8.4	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1086

Instrument ID: ECD1A Calibration Date: 12/30/09 Time: 1224

Lab File ID: 028F2801 Init. Calib. Date(s): 12/14/09 12/14/09

Heated Purge: (Y/N) N Init. Calib. Times: 1031 1113

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	13866.870	12218.879	0.01	-11.9	15.0
(2)	10097.726	10309.388	0.01	2.1	15.0
(3)	11757.020	10597.480	0.01	-9.9	15.0
(4)	6599.010	6375.826	0.01	-3.4	15.0
(5)	8673.402	8264.360	0.01	-4.7	15.0
Aroclor-1260	16752.150	16360.737	0.01	-2.3	15.0
(2)	24742.603	25324.946	0.01	2.4	15.0
(3)	14687.346	15115.198	0.01	2.9	15.0
(4)	15184.529	15867.070	0.01	4.5	15.0
(5)	34350.443	36779.998	0.01	7.1	15.0
4cmx	375669.41	369520.81	0.01	-1.6	15.0
Decachlorobiphenyl	317540.53	325719.30	0.01	2.6	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1086

Instrument ID: ECD1A Calibration Date: 12/30/09 Time: 1224

Lab File ID: 028B2801 Init. Calib. Date(s): 12/14/09 12/14/09

Heated Purge: (Y/N) N Init. Calib. Times: 1031 1113

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	12611.539	11986.954	0.01	-5.0	15.0
(2)	9327.875	8048.707	0.01	-13.7	15.0
(3)	5411.316	5002.513	0.01	-7.6	15.0
(4)	7051.879	6528.763	0.01	-7.4	15.0
(5)	6550.733	5996.959	0.01	-8.4	15.0
Aroclor-1260	13680.027	12544.559	0.01	-8.3	15.0
(2)	16029.019	15416.214	0.01	-3.8	15.0
(3)	12563.933	11870.025	0.01	-5.5	15.0
(4)	12810.076	12265.139	0.01	-4.2	15.0
(5)	27897.674	28017.847	0.01	0.4	15.0
4cmx	300025.77	286023.90	0.01	-4.7	15.0
Decachlorobiphenyl	233227.08	236704.26	0.01	1.5	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1086

Instrument ID: ECD1A Calibration Date: 12/30/09 Time: 1430

Lab File ID: 040F4001 Init. Calib. Date(s): 12/14/09 12/14/09

Heated Purge: (Y/N) N Init. Calib. Times: 1031 1113

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	13866.870	12628.616	0.01	-8.9	15.0
(2)	10097.726	10613.649	0.01	5.1	15.0
(3)	11757.020	10947.178	0.01	-6.9	15.0
(4)	6599.010	6556.315	0.01	-0.6	15.0
(5)	8673.402	8494.168	0.01	-2.1	15.0
Aroclor-1260	16752.150	17088.963	0.01	2.0	15.0
(2)	24742.603	26441.056	0.01	6.9	15.0
(3)	14687.346	15786.747	0.01	7.5	15.0
(4)	15184.529	16602.794	0.01	9.3	15.0
(5)	34350.443	38280.474	0.01	11.4	15.0
4cmx	375669.41	381781.16	0.01	1.6	15.0
Decachlorobiphenyl	317540.53	343819.47	0.01	8.3	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1086

Instrument ID: ECD1A Calibration Date: 12/30/09 Time: 1430

Lab File ID: 040B4001 Init. Calib. Date(s): 12/14/09 12/14/09

Heated Purge: (Y/N) N Init. Calib. Times: 1031 1113

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	12611.539	12840.175	0.01	1.8	15.0
(2)	9327.875	8476.812	0.01	-9.1	15.0
(3)	5411.316	5277.131	0.01	-2.5	15.0
(4)	7051.879	6897.786	0.01	-2.2	15.0
(5)	6550.733	6365.167	0.01	-2.8	15.0
Aroclor-1260	13680.027	13280.555	0.01	-2.9	15.0
(2)	16029.019	16433.880	0.01	2.5	15.0
(3)	12563.933	12607.227	0.01	0.3	15.0
(4)	12810.076	13050.459	0.01	1.9	15.0
(5)	27897.674	29709.618	0.01	6.5	15.0
4cmx	300025.77	298700.96	0.01	-0.4	15.0
Decachlorobiphenyl	233227.08	251137.11	0.01	7.7	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1086

Instrument ID: ECD1A Calibration Date: 12/30/09 Time: 1615

Lab File ID: 050F5001 Init. Calib. Date(s): 12/14/09 12/14/09

Heated Purge: (Y/N) N Init. Calib. Times: 1031 1113

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	13866.870	12625.090	0.01	-9.0	15.0
(2)	10097.726	10418.177	0.01	3.2	15.0
(3)	11757.020	10917.437	0.01	-7.1	15.0
(4)	6599.010	6581.094	0.01	-0.3	15.0
(5)	8673.402	8410.796	0.01	-3.0	15.0
Aroclor-1260	16752.150	17077.914	0.01	1.9	15.0
(2)	24742.603	26343.032	0.01	6.5	15.0
(3)	14687.346	15789.897	0.01	7.5	15.0
(4)	15184.529	16538.324	0.01	8.9	15.0
(5)	34350.443	38208.130	0.01	11.2	15.0
4cmx	375669.41	380988.95	0.01	1.4	15.0
Decachlorobiphenyl	317540.53	341662.93	0.01	7.6	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1086

Instrument ID: ECD1A Calibration Date: 12/30/09 Time: 1615

Lab File ID: 050B5001 Init. Calib. Date(s): 12/14/09 12/14/09

Heated Purge: (Y/N) N Init. Calib. Times: 1031 1113

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	12611.539	12874.138	0.01	2.1	15.0
(2)	9327.875	8489.859	0.01	-9.0	15.0
(3)	5411.316	5317.183	0.01	-1.7	15.0
(4)	7051.879	6868.906	0.01	-2.6	15.0
(5)	6550.733	6308.746	0.01	-3.7	15.0
Aroclor-1260	13680.027	13114.907	0.01	-4.1	15.0
(2)	16029.019	16232.159	0.01	1.3	15.0
(3)	12563.933	12417.645	0.01	-1.2	15.0
(4)	12810.076	12738.893	0.01	-0.6	15.0
(5)	27897.674	28973.210	0.01	3.8	15.0
4cmx	300025.77	298950.92	0.01	-0.4	15.0
Decachlorobiphenyl	233227.08	244261.04	0.01	4.7	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1086

Instrument ID: ECD2A Calibration Date: 12/30/09 Time: 0733

Lab File ID: 002F0201 Init. Calib. Date(s): 12/14/09 12/14/09

Heated Purge: (Y/N) N Init. Calib. Times: 0851 0935

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	2237.690	2046.595	0.01	-8.5	15.0
(2)	4685.268	4266.245	0.01	-8.9	15.0
(3)	1901.482	1709.337	0.01	-10.1	15.0
(4)	975.978	866.702	0.01	-11.2	15.0
(5)	1457.866	1316.898	0.01	-9.7	15.0
Aroclor-1260	4165.097	4058.979	0.01	-2.5	15.0
(2)	2590.571	2561.392	0.01	-1.1	15.0
(3)	2631.205	2644.323	0.01	0.5	15.0
(4)	6087.596	6249.084	0.01	2.6	15.0
(5)	2942.150	3008.836	0.01	2.3	15.0
4cmx	62291.660	65109.080	0.01	4.5	15.0
Decachlorobiphenyl	54111.563	59980.750	0.01	10.8	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1086

Instrument ID: ECD2A Calibration Date: 12/30/09 Time: 0733

Lab File ID: 002B0201 Init. Calib. Date(s): 12/14/09 12/14/09

Heated Purge: (Y/N) N Init. Calib. Times: 0851 0935

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	4537.819	4274.292	0.01	-5.8	15.0
(2)	3602.166	3353.853	0.01	-6.9	15.0
(3)	2053.230	1933.976	0.01	-5.8	15.0
(4)	2137.091	2011.646	0.01	-5.9	15.0
(5)	2870.516	2721.743	0.01	-5.2	15.0
Aroclor-1260	5766.921	5677.392	0.01	-1.6	15.0
(2)	7123.891	7139.796	0.01	0.2	15.0
(3)	4818.707	4932.566	0.01	2.4	15.0
(4)	5631.757	5675.293	0.01	0.8	15.0
(5)	9037.511	9455.990	0.01	4.6	15.0
4cmx	129318.03	141033.96	0.01	9.0	15.0
Decachlorobiphenyl	112782.99	128263.15	0.01	13.7	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1086

Instrument ID: ECD2A Calibration Date: 12/30/09 Time: 1455

Lab File ID: 039F3901 Init. Calib. Date(s): 12/14/09 12/14/09

Heated Purge: (Y/N) N Init. Calib. Times: 0851 0935

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	2237.690	2077.078	0.01	-7.2	15.0
(2)	4685.268	4365.244	0.01	-6.8	15.0
(3)	1901.482	1753.183	0.01	-7.8	15.0
(4)	975.978	872.091	0.01	-10.6	15.0
(5)	1457.866	1317.286	0.01	-9.6	15.0
Aroclor-1260	4165.097	4153.092	0.01	-0.3	15.0
(2)	2590.571	2608.320	0.01	0.7	15.0
(3)	2631.205	2729.252	0.01	3.7	15.0
(4)	6087.596	6322.701	0.01	3.9	15.0
(5)	2942.150	3135.767	0.01	6.6	15.0
4cmx	62291.660	65540.250	0.01	5.2	15.0
Decachlorobiphenyl	54111.563	61332.060	0.01	13.3	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1086

Instrument ID: ECD2A Calibration Date: 12/30/09 Time: 1455

Lab File ID: 039B3901 Init. Calib. Date(s): 12/14/09 12/14/09

Heated Purge: (Y/N) N Init. Calib. Times: 0851 0935

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D	
Aroclor-1016	4537.819	4322.826	0.01	-4.7	15.0	
(2)	3602.166	3406.278	0.01	-5.4	15.0	
(3)	2053.230	1953.408	0.01	-4.9	15.0	
(4)	2137.091	2024.963	0.01	-5.2	15.0	
(5)	2870.516	2757.017	0.01	-4.0	15.0	
Aroclor-1260	5766.921	5735.503	0.01	-0.5	15.0	
(2)	7123.891	7286.574	0.01	2.3	15.0	
(3)	4818.707	4965.500	0.01	3.0	15.0	
(4)	5631.757	5761.670	0.01	2.3	15.0	
(5)	9037.511	9623.732	0.01	6.5	15.0	
4cmx	129318.03	141272.29	0.01	9.2	15.0	
Decachlorobiphenyl	112782.99	129922.59	0.01	15.2	15.0	<-

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1086

Instrument ID: ECD2A Calibration Date: 12/30/09 Time: 1624

Lab File ID: 047F4701 Init. Calib. Date(s): 12/14/09 12/14/09

Heated Purge: (Y/N) N Init. Calib. Times: 0851 0935

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D	
Aroclor-1016	2237.690	2059.687	0.01	-8.0	15.0	
(2)	4685.268	4386.304	0.01	-6.4	15.0	
(3)	1901.482	1758.198	0.01	-7.5	15.0	
(4)	975.978	893.753	0.01	-8.4	15.0	
(5)	1457.866	1331.821	0.01	-8.6	15.0	
Aroclor-1260	4165.097	4189.290	0.01	0.6	15.0	
(2)	2590.571	2681.610	0.01	3.5	15.0	
(3)	2631.205	2757.541	0.01	4.8	15.0	
(4)	6087.596	6479.882	0.01	6.4	15.0	
(5)	2942.150	3155.341	0.01	7.2	15.0	
4cmx	62291.660	66404.530	0.01	6.6	15.0	
Decachlorobiphenyl	54111.563	62711.440	0.01	15.9	15.0	<-

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1086

Instrument ID: ECD2A Calibration Date: 12/30/09 Time: 1624

Lab File ID: 047B4701 Init. Calib. Date(s): 12/14/09 12/14/09

Heated Purge: (Y/N) N Init. Calib. Times: 0851 0935

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D	
Aroclor-1016	4537.819	4352.692	0.01	-4.1	15.0	
(2)	3602.166	3421.160	0.01	-5.0	15.0	
(3)	2053.230	1978.648	0.01	-3.6	15.0	
(4)	2137.091	2061.226	0.01	-3.5	15.0	
(5)	2870.516	2788.521	0.01	-2.8	15.0	
Aroclor-1260	5766.921	5874.575	0.01	1.9	15.0	
(2)	7123.891	7506.870	0.01	5.4	15.0	
(3)	4818.707	5148.050	0.01	6.8	15.0	
(4)	5631.757	5911.453	0.01	5.0	15.0	
(5)	9037.511	9845.892	0.01	8.9	15.0	
4cmx	129318.03	143711.81	0.01	11.1	15.0	
Decachlorobiphenyl	112782.99	133056.31	0.01	18.0	15.0	<-

FORM VII PEST

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/123009.b/002f0201.d
Lab Smp Id: WAR091211-60 01 Client Smp ID: AR166001
Inj Date : 30-DEC-2009 07:51
Operator : JAOC Inst ID: ecd1a.i
Smp Info : |WAR091211-60 01
Misc Info :
Comment :
Method : /chem/ecd1a.i/123009.b/ECD1-F-8082-121409.m
Meth Date : 30-Dec-2009 09:58 jen01212 Quant Type: ESTD
Cal Date : 14-DEC-2009 11:34 Cal File: 040f4001.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.972	1.972	0.000	36454248	100.000	97.0	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.287	5.287	0.000	31906134	100.000	100	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.428	2.428	0.000	12048649	1000.00	869	80.00- 120.00	100.00
2.705	2.705	0.000	10253152	1000.00	1020	65.10- 105.10	85.10
2.798	2.798	0.000	10400861	1000.00	885	66.32- 106.32	86.32
2.835	2.835	0.000	6229744	1000.00	944	31.70- 71.70	51.70
3.046	3.046	0.000	8016497	1000.00	924	46.53- 86.53	66.53
Average of Peak Amounts =					927		
7 Aroclor-1260					CAS #: 11096-82-5		
3.773	3.773	0.000	16303916	1000.00	973	80.00- 120.00	100.00
3.936	3.936	0.000	25139543	1000.00	1020	134.19- 174.19	154.19
4.166	4.166	0.000	15017211	1000.00	1020	72.11- 112.11	92.11
4.308	4.308	0.000	15730806	1000.00	1040	76.48- 116.48	96.48
4.488	4.488	0.000	36419592	1000.00	1060	203.38- 243.38	223.38
Average of Peak Amounts =					1.02e+03		

Data File: /chem/ecd1a.i/123009.b/002f0201.d

Date : 30-DEC-2009 07:51

Client ID: AR166001

Sample Info: IWAR091211-60 01

Column phase: CLP1

Instrument: ecd1a.i

Operator: JAOC

Column diameter: 0.25

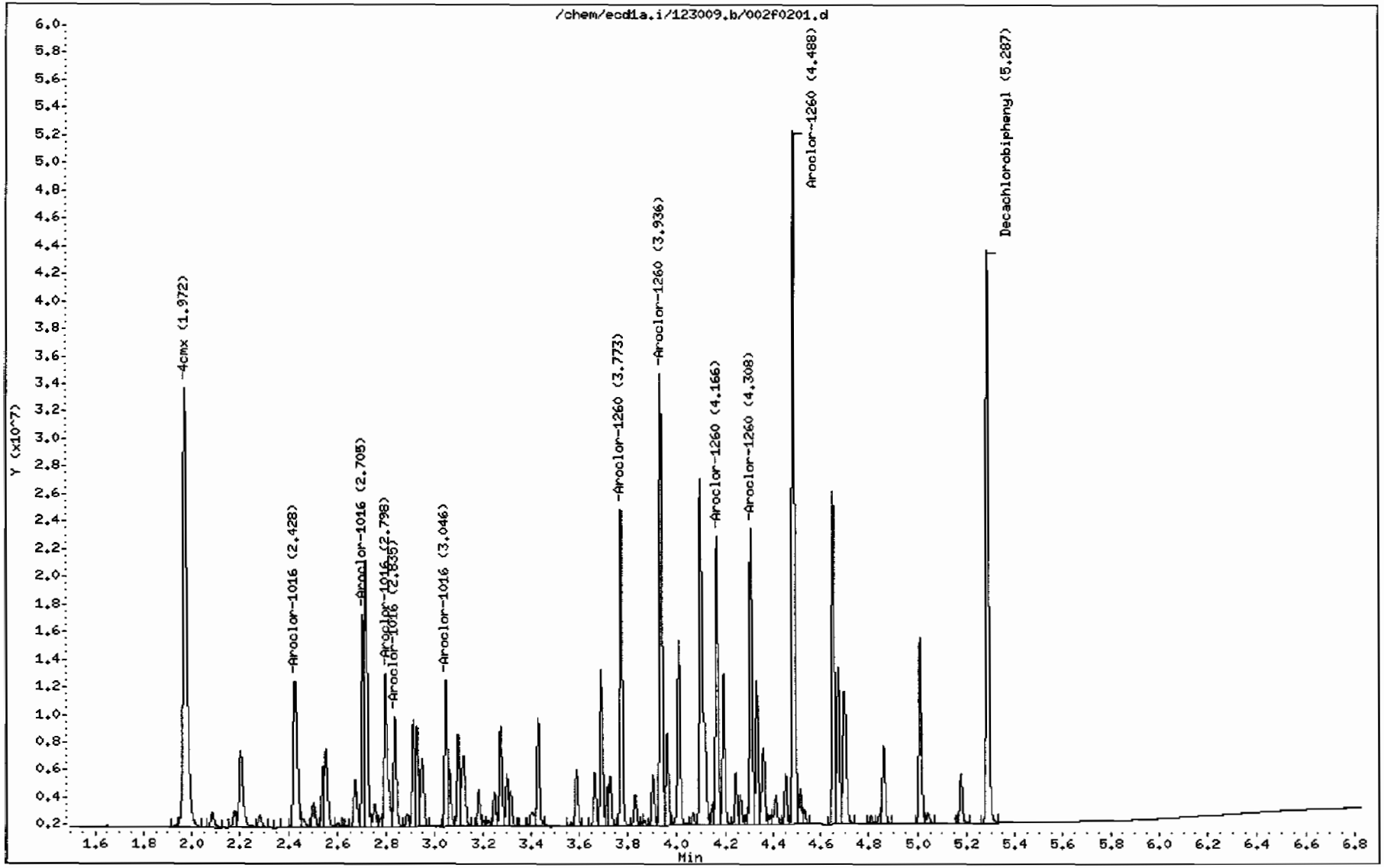

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/123009.b/002b0201.d
Lab Smp Id: WAR091211-60 01 Client Smp ID: AR166001
Inj Date : 30-DEC-2009 07:51
Operator : JAOC Inst ID: ecd1a.i
Smp Info : |WAR091211-60 01
Misc Info :
Comment :
Method : /chem/ecd1a.i/123009.b/ECD1-B-8082-121409.m
Meth Date : 30-Dec-2009 09:57 jen01212 Quant Type: ESTD
Cal Date : 14-DEC-2009 12:16 Cal File: 044b4401.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.303	2.303	0.000	29079742	100.000	96.9	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.949	5.949	0.000	23352161	100.000	100	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.200	3.200	0.000	12595442	1000.00	999	80.00- 120.00	100.00
3.283	3.283	0.000	8188656	1000.00	878	45.01- 85.01	65.01
3.347	3.347	0.000	5082282	1000.00	939	20.35- 60.35	40.35
3.574	3.574	0.000	6677358	1000.00	947	33.01- 73.01	53.01
3.650	3.650	0.000	6209575	1000.00	948	29.30- 69.30	49.30
Average of Peak Amounts =					942		
7 Aroclor-1260					CAS #: 11096-82-5		
4.340	4.340	0.000	12787983	1000.00	935	80.00- 120.00	100.00
4.464	4.464	0.000	15799918	1000.00	986	103.55- 143.55	123.55
4.731	4.731	0.000	12092518	1000.00	962	74.56- 114.56	94.56
4.905	4.905	0.000	12394695	1000.00	968	76.92- 116.92	96.92
5.051	5.051	0.000	28137110	1000.00	1010	200.03- 240.03	220.03
Average of Peak Amounts =					972		

Data File: /chem/ecd1a.i/123009.b/002b0201.d
Date : 30-DEC-2009 07:51
Client ID: AR166001
Sample Info: IWAR091211-60 01

Column phase: CLP2

Instrument: ecd1a.i

Operator: JADC
Column diameter: 0.25

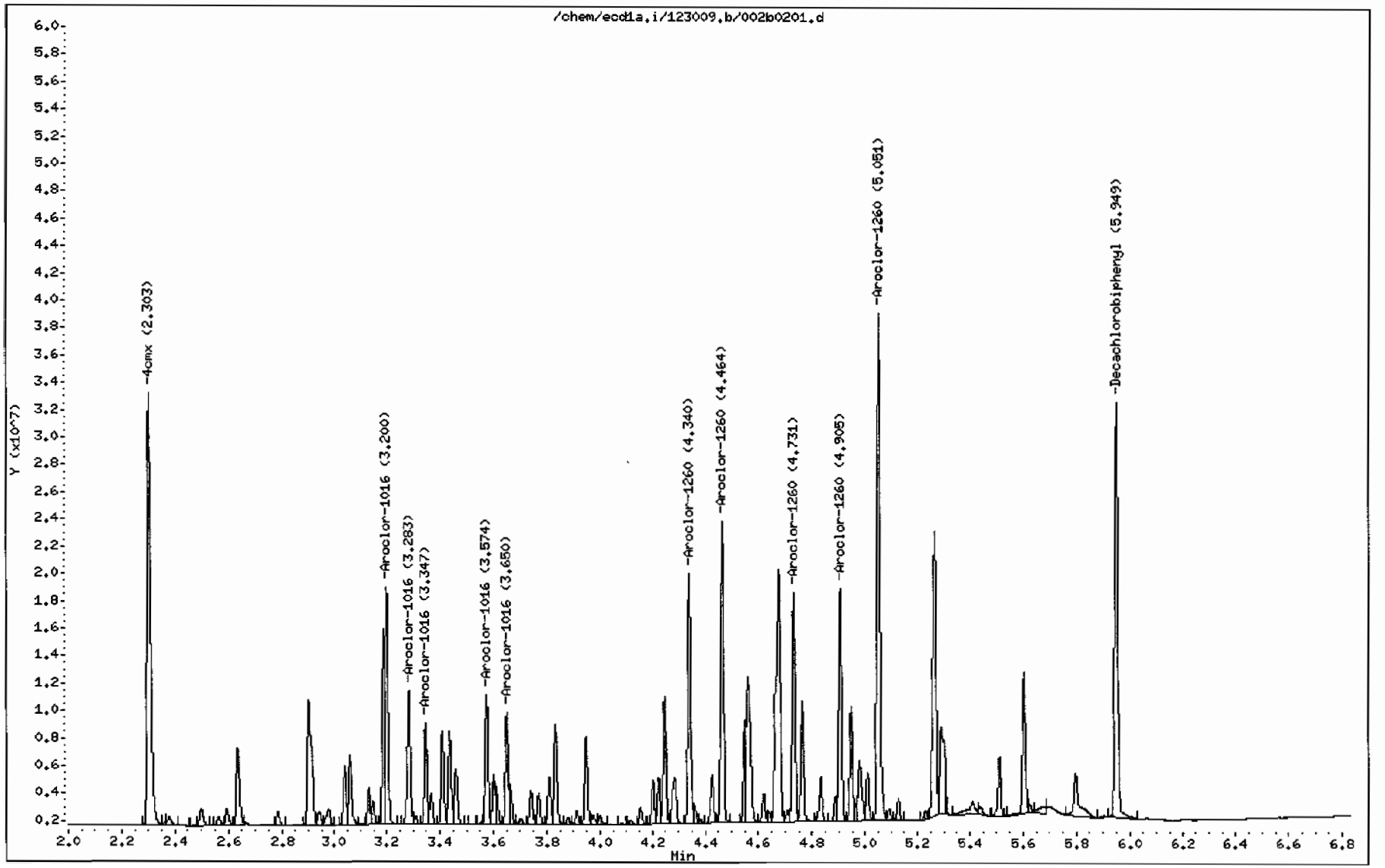

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/123009.b/003f0301.d
Lab Smp Id: WAR091216-54 Client Smp ID: AR125401
Inj Date : 30-DEC-2009 08:01
Operator : JAOC Inst ID: ecd1a.i
Smp Info : |WAR091216-54
Misc Info :
Comment :
Method : /chem/ecd1a.i/123009.b/ECD1-F-8082-121409.m
Meth Date : 30-Dec-2009 09:58 jen01212 Quant Type: ESTD
Cal Date : 14-DEC-2009 11:34 Cal File: 040f4001.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1254.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.972	1.972	0.000	37681835	100.000	100	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.286	5.287	-0.001	33281583	100.000	105	80.00- 120.00	100.00
6 Aroclor-1254					CAS #: 11097-69-1		
3.275	3.275	0.000	12004329	1000.00	961	80.00- 120.00	100.00
3.430	3.430	0.000	16482008	1000.00	986	117.30- 157.30	137.30
3.665	3.665	0.000	21819152	1000.00	1050	161.76- 201.76	181.76
3.828	3.828	0.000	16784132	1000.00	1070	119.82- 159.82	139.82
3.936	3.936	0.000	15814639	1000.00	1040	111.74- 151.74	131.74

Average of Peak Amounts = 1.02e+03

Data File: /chem/ecd1a.i/123009.b/003f0301.d

Date : 30-DEC-2009 08:01

Client ID: AR125401

Sample Info: IWAR091216-54

Column phase: CLP1

Instrument: ecd1a.i

Operator: JAOC

Column diameter: 0.25

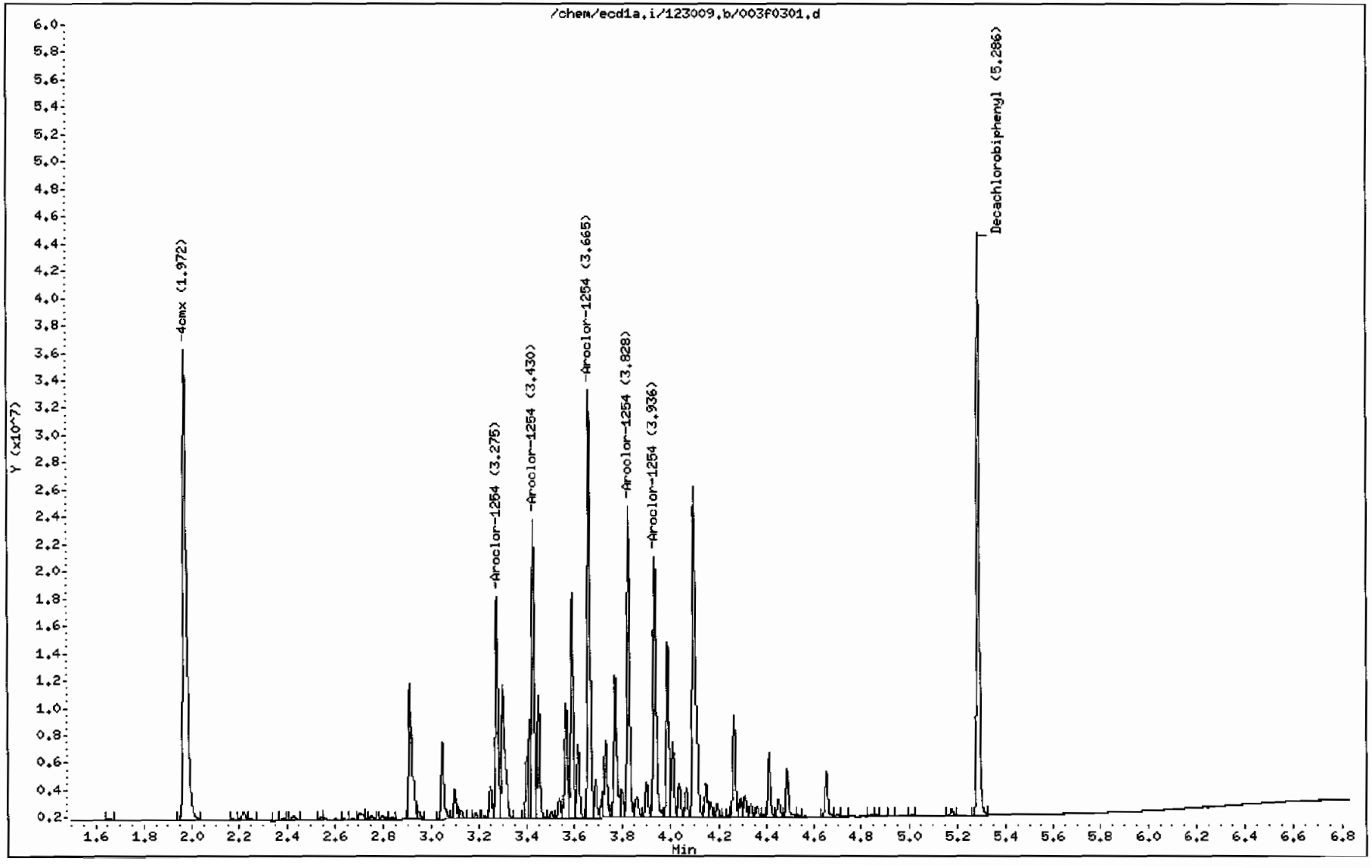

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/123009.b/003b0301.d
Lab Smp Id: WAR091216-54 Client Smp ID: AR125401
Inj Date : 30-DEC-2009 08:01
Operator : JAOC Inst ID: ecd1a.i
Smp Info : |WAR091216-54
Misc Info :
Comment :
Method : /chem/ecd1a.i/123009.b/ECD1-B-8082-121409.m
Meth Date : 30-Dec-2009 09:57 jen01212 Quant Type: ESTD
Cal Date : 14-DEC-2009 12:16 Cal File: 044b4401.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1254.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.304	2.303	0.001	30231134	100.000	101	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.950	5.949	0.001	24448255	100.000	105	80.00- 120.00	100.00
6 Aroclor-1254					CAS #: 11097-69-1		
3.409	3.409	0.000	6057470	1000.00	941	80.00- 120.00	100.00
3.832	3.832	0.000	11014699	1000.00	953	161.84- 201.84	181.84
3.948	3.948	0.000	12211951	1000.00	982	181.60- 221.60	201.60
4.225	4.225	0.000	17136945	1000.00	1020	262.91- 302.91	282.91
4.360	4.360	0.000	12696224	1000.00	1020	189.60- 229.60	209.60
Average of Peak Amounts =					983		

Data File: /chem/ecd1a.i/123009.b/003b0301.d

Date : 30-DEC-2009 08:01

Client ID: AR125401

Sample Info: IWAR091216-54

Column phase: CLP2

Instrument: ecd1a.i

Operator: JAOC

Column diameter: 0.25

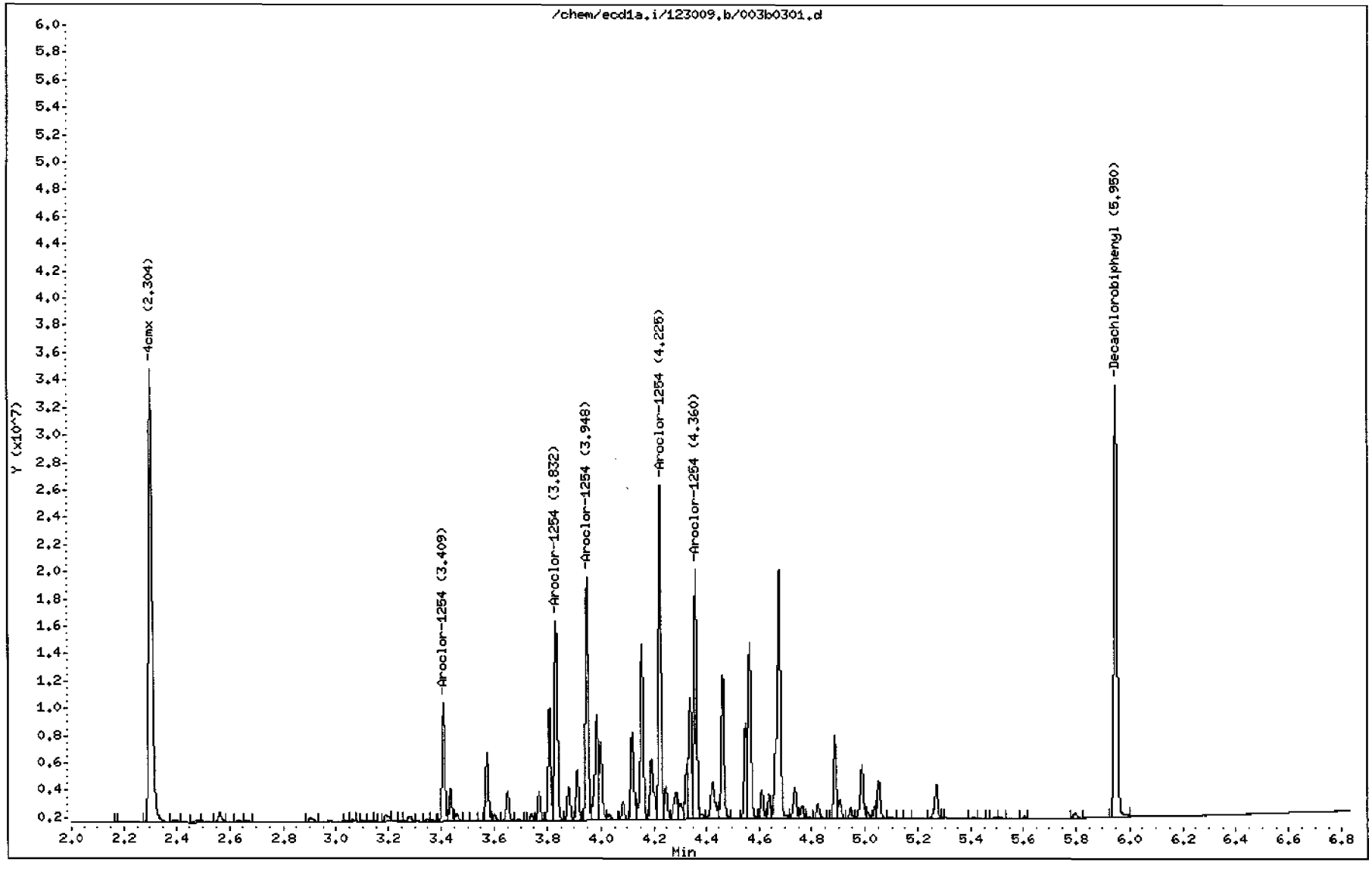

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/123009.b/004f0401.d
Lab Smp Id: WAR091102-42 Client Smp ID: AR124201
Inj Date : 30-DEC-2009 08:12
Operator : JAOC Inst ID: ecd1a.i
Smp Info : |WAR091102-42
Misc Info :
Comment :
Method : /chem/ecd1a.i/123009.b/ECD1-F-8082-121409.m
Meth Date : 30-Dec-2009 09:58 jen01212 Quant Type: ESTD
Cal Date : 14-DEC-2009 11:34 Cal File: 040f4001.d
Als bottle: 4 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1242.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.970	1.972	-0.002	38893120	100.000	104	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.286	5.287	-0.001	32661004	100.000	103	80.00- 120.00	100.00
4 Aroclor-1242					CAS #: 53469-21-9		
2.427	2.427	0.000	10940190	1000.00	938	80.00- 120.00	100.00
2.716	2.716	0.000	13851499	1000.00	1030	106.61- 146.61	126.61
2.835	2.835	0.000	5570438	1000.00	1010	30.92- 70.92	50.92
3.046	3.046	0.000	7308038	1000.00	1010	46.80- 86.80	66.80
3.300	3.300	0.000	7443105	1000.00	1090	48.03- 88.03	68.03

Average of Peak Amounts = 1.02e+03

Data File: /chem/ecd1a.i/123009.b/004f0401.d
Date : 30-DEC-2009 08:12
Client ID: AR124201
Sample Info: IWAR091102-42

Column phase: CLP1

Instrument: ecd1a.i

Operator: JAOC
Column diameter: 0.25

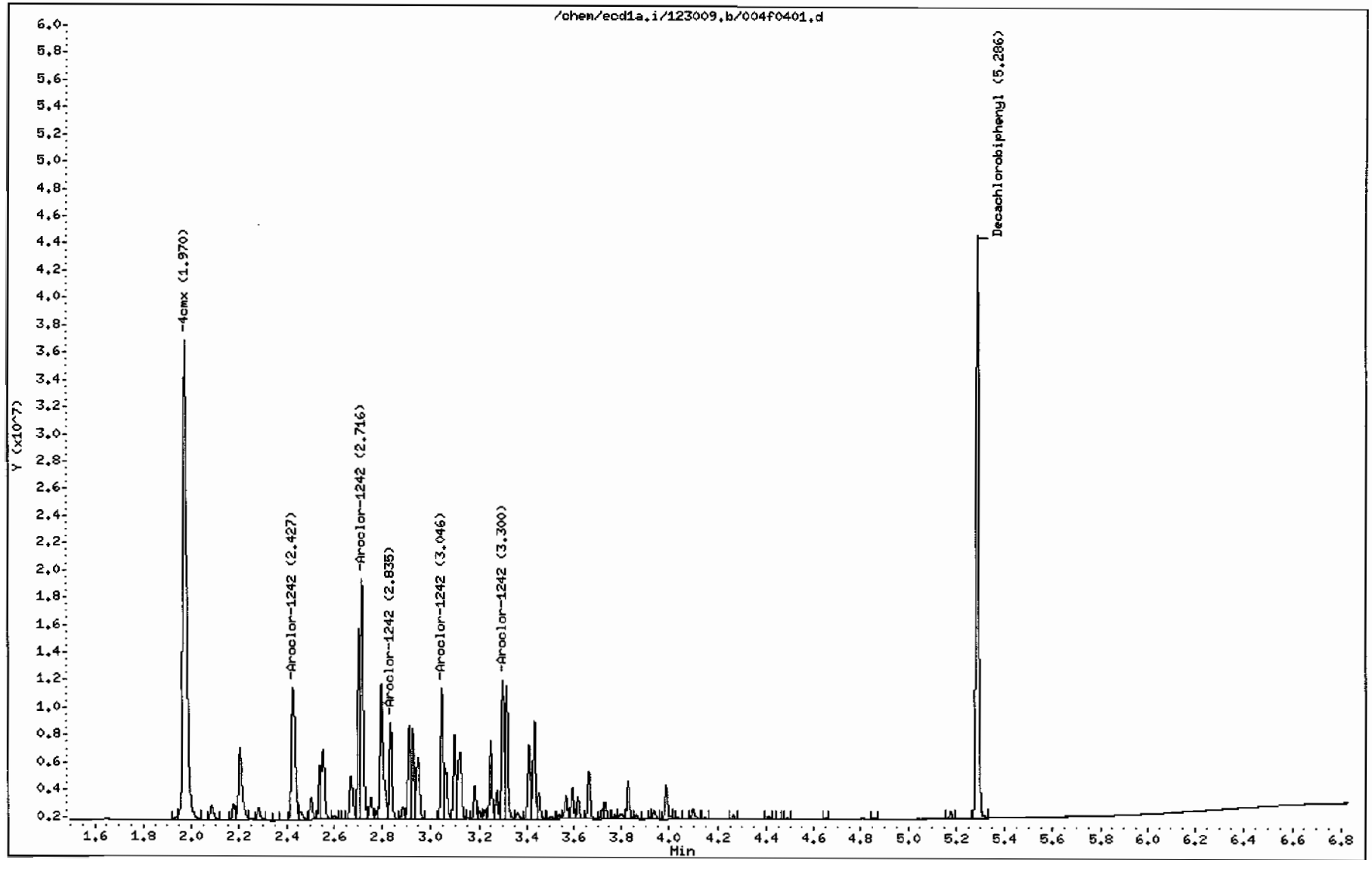

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/123009.b/004b0401.d
Lab Smp Id: WAR091102-42 Client Smp ID: AR124201
Inj Date : 30-DEC-2009 08:12
Operator : JAOC Inst ID: ecd1a.i
Smp Info : |WAR091102-42
Misc Info :
Comment :
Method : /chem/ecd1a.i/123009.b/ECD1-B-8082-121409.m
Meth Date : 30-Dec-2009 09:57 jen01212 Quant Type: ESTD
Cal Date : 14-DEC-2009 12:16 Cal File: 044b4401.d
Als bottle: 4 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1242.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.302	2.303	-0.001	30887650	100.000	103	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.949	5.949	0.000	25272245	100.000	108	80.00- 120.00	100.00
4 Aroclor-1242					CAS #: 53469-21-9		
3.200	3.200	0.000	11134541	1000.00	1050	80.00- 120.00	100.00
3.283	3.283	0.000	7295301	1000.00	906	45.52- 85.52	65.52
3.574	3.574	0.000	5822956	1000.00	977	32.30- 72.30	52.30
3.807	3.807	0.000	6140550	1000.00	1010	35.15- 75.15	55.15
3.836	3.836	0.000	6723494	1000.00	1000	40.38- 80.38	60.38
Average of Peak Amounts =					990		

Data File: /chem/ecd1a.i/123009.b/004b0401.d
Date : 30-DEC-2009 08:12
Client ID: AR124201
Sample Info: IWAR091102-42

Column phase: CLP2

Instrument: ecd1a.i

Operator: JAOC
Column diameter: 0.25

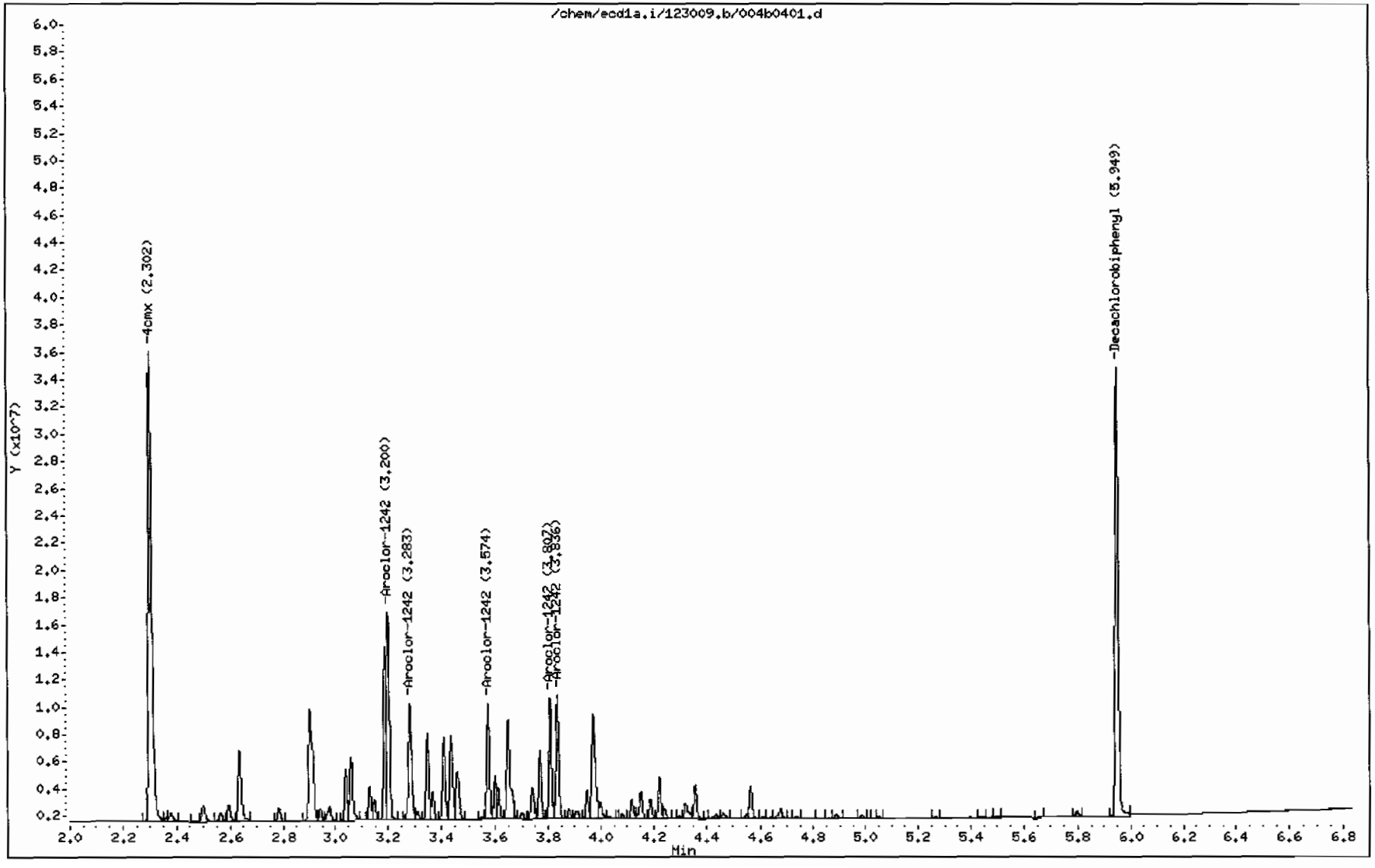

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/123009.b/005f0501.d
Lab Smp Id: WAR091027-48 Client Smp ID: AR124801
Inj Date : 30-DEC-2009 08:22
Operator : JAOC Inst ID: ecd1a.i
Smp Info : |WAR091027-48
Misc Info :
Comment :
Method : /chem/ecd1a.i/123009.b/ECD1-F-8082-121409.m
Meth Date : 30-Dec-2009 09:58 jen01212 Quant Type: ESTD
Cal Date : 14-DEC-2009 11:34 Cal File: 040f4001.d
Als bottle: 5 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1248.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.971	1.972	-0.001	41674173	100.000	111	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.287	5.287	0.000	37549891	100.000	118	80.00- 120.00	100.00
5 Aroclor-1248					CAS #: 12672-29-6		
3.097	3.097	0.000	8322623	1000.00	1060	80.00- 120.00	100.00
3.248	3.248	0.000	7450416	1000.00	1080	69.52- 109.52	89.52
3.299	3.299	0.000	14482982	1000.00	1090	154.02- 194.02	174.02
3.432	3.432	0.000	11719002	1000.00	1060	120.81- 160.81	140.81
3.664	3.664	0.000	7591500	1000.00	1020	71.22- 111.22	91.22

Average of Peak Amounts = 1.06e+03

Data File: /chem/ecd1a.i/123009.b/005f0501.d
Date : 30-DEC-2009 08:22
Client ID: AR124801
Sample Info: !WAR091027-48

Column phase: CLP1

Instrument: ecd1a.i

Operator: JAOC
Column diameter: 0.25

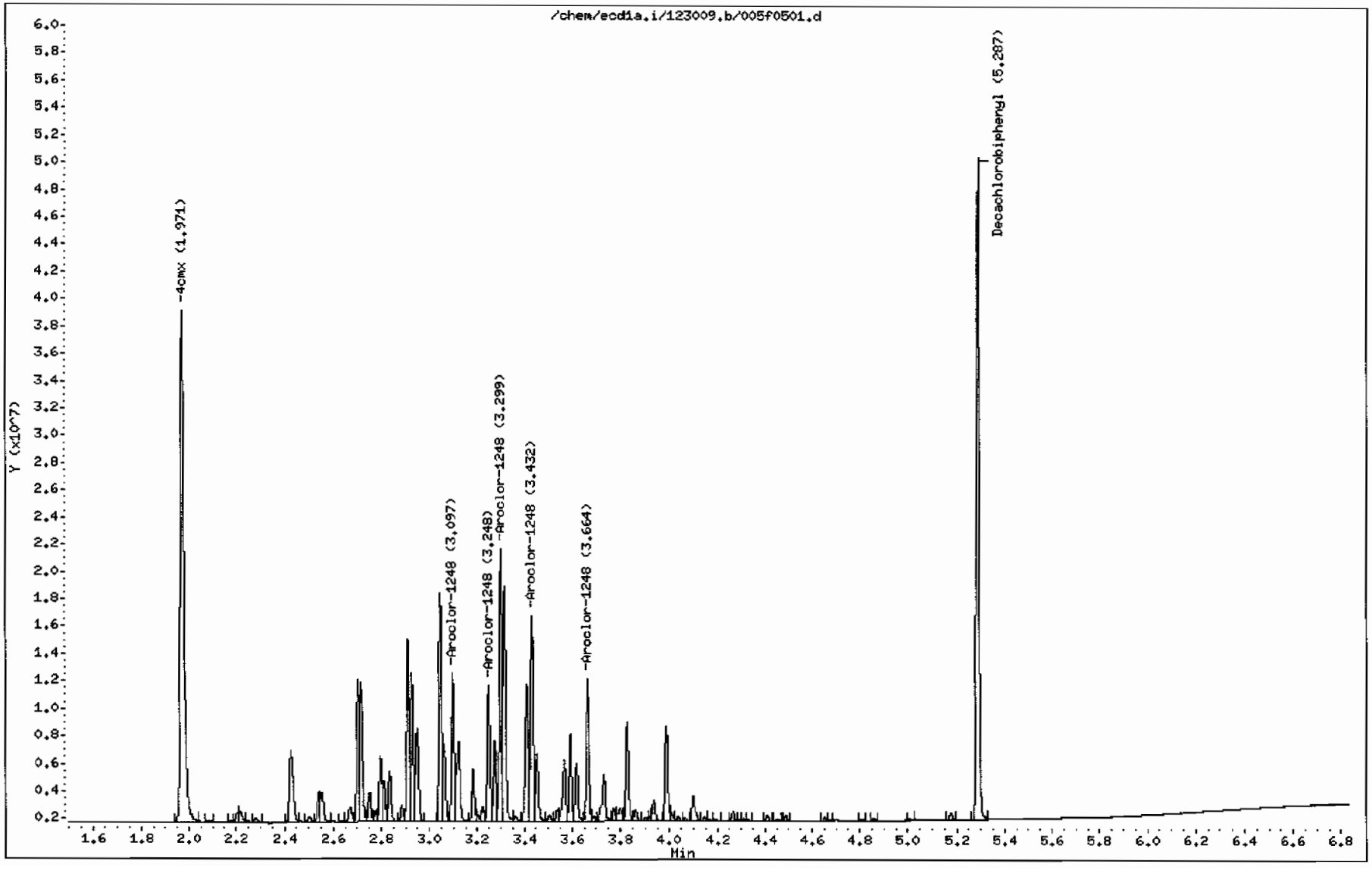

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/123009.b/005b0501.d
Lab Smp Id: WAR091027-48 Client Smp ID: AR124801
Inj Date : 30-DEC-2009 08:22
Operator : JAOC Inst ID: ecd1a.i
Smp Info : |WAR091027-48
Misc Info :
Comment :
Method : /chem/ecd1a.i/123009.b/ECD1-B-8082-121409.m
Meth Date : 30-Dec-2009 09:57 jen01212 Quant Type: ESTD
Cal Date : 14-DEC-2009 12:16 Cal File: 044b4401.d
Als bottle: 5 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1248.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.302	2.303	-0.001	33338528	100.000	111	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.949	5.949	0.000	27159019	100.000	116	80.00- 120.00	100.00
5 Aroclor-1248					CAS #: 12672-29-6		
3.408	3.408	0.000	8010397	1000.00	994	80.00- 120.00	100.00
3.573	3.573	0.000	10045586	1000.00	1020	105.41- 145.41	125.41
3.807	3.807	0.000	11628107	1000.00	1040	125.16- 165.16	145.16
3.834	3.834	0.000	12987066	1000.00	1040	142.13- 182.13	162.13
3.972	3.972	0.000	12440291	1000.00	1030	135.30- 175.30	155.30

Average of Peak Amounts = 1.02e+03

Data File: /chem/ecd1a.i/123009.b/005b0501.d
Date : 30-DEC-2009 08:22
Client ID: AR124801
Sample Info: iWAR091027-48

Column phase: CLP2

Instrument: ecd1a.i

Operator: JAOC
Column diameter: 0.25

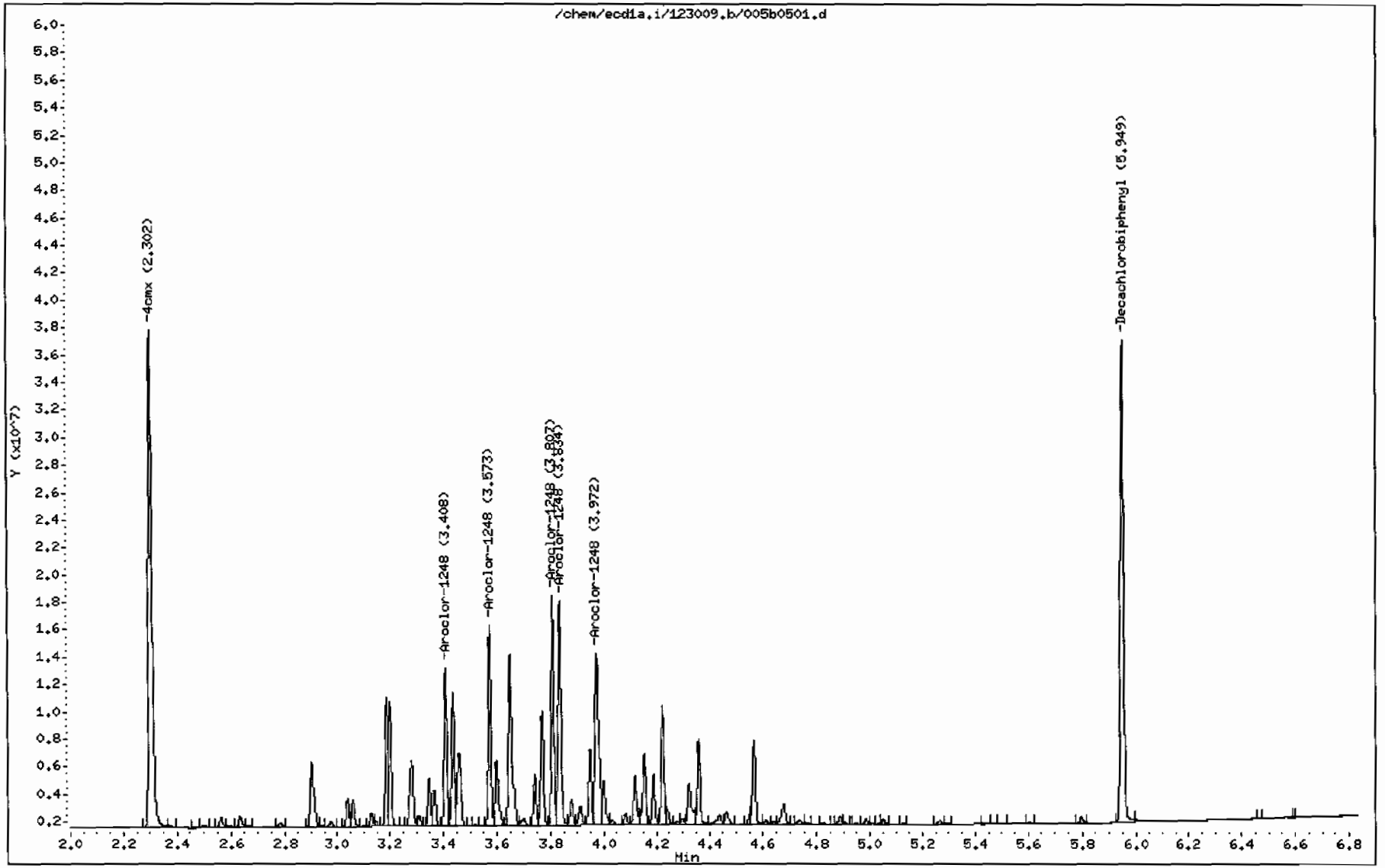

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/123009.b/006f0601.d
Lab Smp Id: WAR090930-32 Client Smp ID: AR123201
Inj Date : 30-DEC-2009 08:33
Operator : JAOC Inst ID: ecd1a.i
Smp Info : |WAR090930-32
Misc Info :
Comment :
Method : /chem/ecd1a.i/123009.b/ECD1-F-8082-121409.m
Meth Date : 30-Dec-2009 10:00 jen01212 Quant Type: ESTD
Cal Date : 14-DEC-2009 11:34 Cal File: 040f4001.d
Als bottle: 6 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1232.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.971	1.972	-0.001	58600459	100.000	156	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.286	5.287	-0.001	52414769	100.000	165	80.00- 120.00	100.00
3 Aroclor-1232					CAS #: 11141-16-5		
2.427	2.427	0.000	7844231	1000.00	1170	80.00- 120.00	100.00
2.717	2.717	0.000	10130742	1000.00	1240	109.15- 149.15	129.15
2.797	2.797	0.000	6739094	1000.00	1170	65.91- 105.91	85.91
3.046	3.046	0.000	4981077	1000.00	1260	43.50- 83.50	63.50
3.299	3.299	0.000	4743952	1000.00	1340	40.48- 80.48	60.48

Average of Peak Amounts = 1.24e+03

Data File: /chem/ecd1a.i/123009.b/006f0601.d

Date : 30-DEC-2009 08:33

Client ID: AR123201

Sample Info: IWAR090930-32

Column phase: CLP1

Instrument: ecd1a.i

Operator: JAOC

Column diameter: 0.25

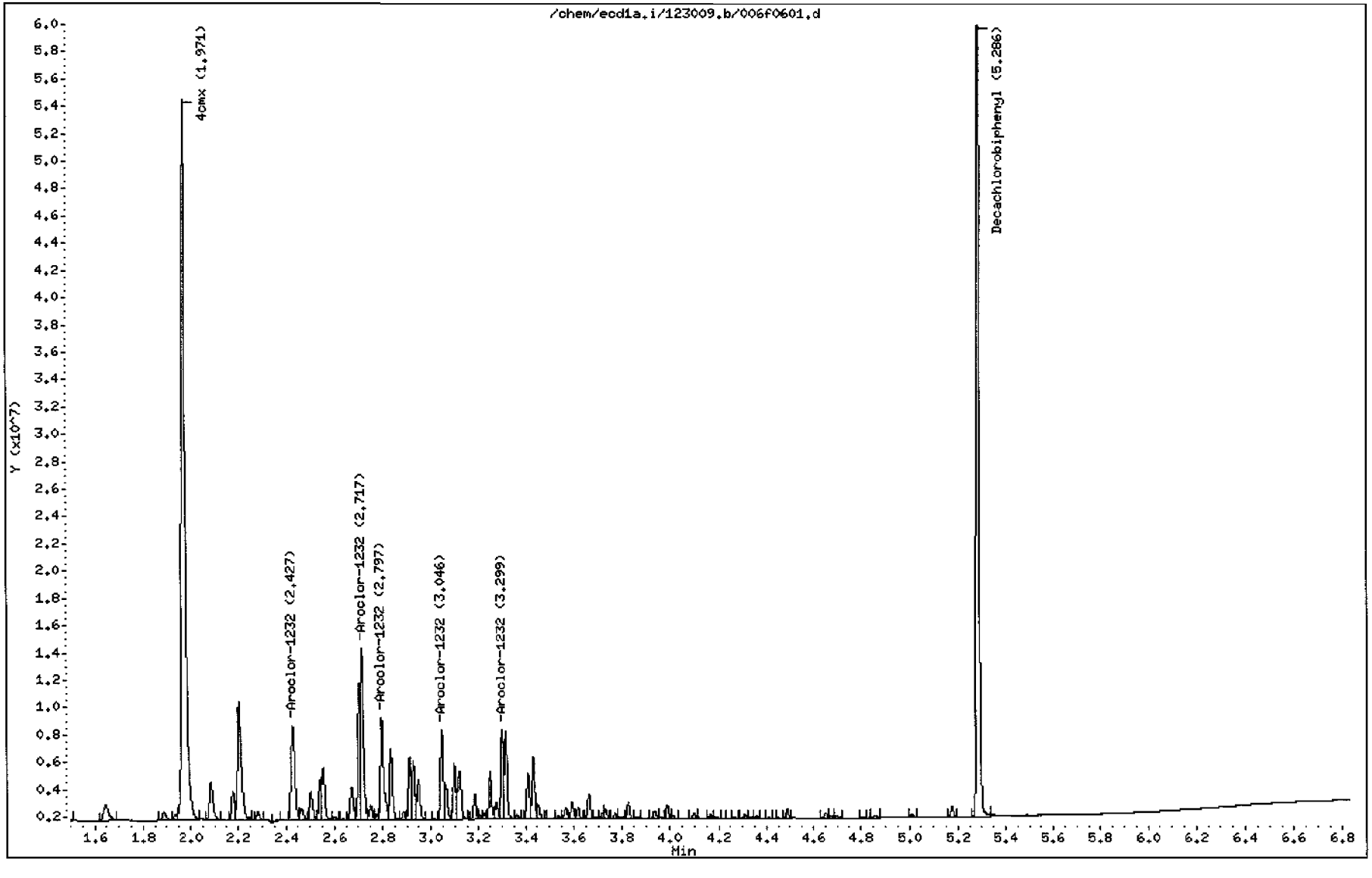

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/123009.b/006b0601.d
Lab Smp Id: WAR090930-32 Client Smp ID: AR123201
Inj Date : 30-DEC-2009 08:33
Operator : JAOC Inst ID: ecd1a.i
Smp Info : |WAR090930-32
Misc Info :
Comment :
Method : /chem/ecd1a.i/123009.b/ECD1-B-8082-121409.m
Meth Date : 30-Dec-2009 10:01 jen01212 Quant Type: ESTD
Cal Date : 14-DEC-2009 12:16 Cal File: 044b4401.d
Als bottle: 6 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1232.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.302	2.303	-0.001	46155454	100.000	154	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.949	5.949	0.000	38179251	100.000	164	80.00- 120.00	100.00
3 Aroclor-1232					CAS #: 11141-16-5		
2.634	2.634	0.000	7285869	1000.00	1180	80.00- 120.00	100.00
3.200	3.200	0.000	7940842	1000.00	1260	88.99- 128.99	108.99
3.283	3.283	0.000	5409821	1000.00	1150	54.25- 94.25	74.25
3.573	3.573	0.000	4034708	1000.00	1240	35.38- 75.38	55.38
3.808	3.808	0.000	4057347	1000.00	1290	35.69- 75.69	55.69

Average of Peak Amounts = 1.23e+03

Data File: /chem/ecd1a.i/123009.b/006b0601.d

Date : 30-DEC-2009 08:33

Client ID: AR123201

Sample Info: IWAR090930-32

Column phase: CLP2

Instrument: ecd1a.i

Operator: JAOC

Column diameter: 0.25

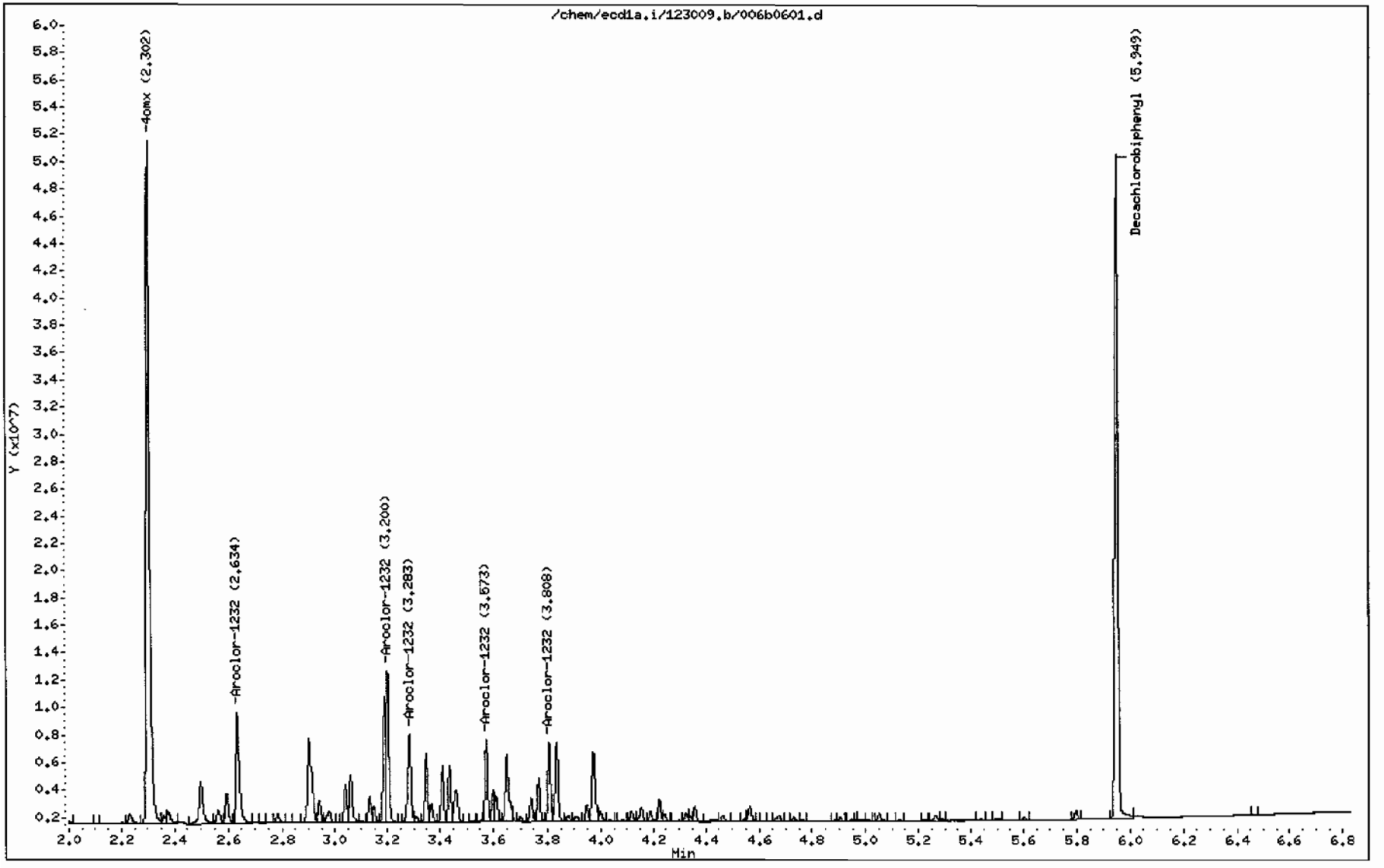

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RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/123009.b/007f0701.d
Lab Smp Id: WAR090803-21 Client Smp ID: AR122101
Inj Date : 30-DEC-2009 08:43
Operator : JAOC Inst ID: ecd1a.i
Smp Info : |WAR090803-21
Misc Info :
Comment :
Method : /chem/ecd1a.i/123009.b/ECD1-F-8082-121409.m
Meth Date : 30-Dec-2009 10:00 jen01212 Quant Type: ESTD
Cal Date : 14-DEC-2009 11:34 Cal File: 040f4001.d
Als bottle: 7 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1221.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.972	1.972	0.000	39017178	100.000	104	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.287	5.287	0.000	34895259	100.000	110	80.00- 120.00	100.00
2 Aroclor-1221					CAS #: 11104-28-2		
2.084	2.084	0.000	4465634	1000.00	1040	80.00- 120.00	100.00
2.178	2.178	0.000	2530803	1000.00	1040	36.67- 76.67	56.67
2.204	2.204	0.000	10714607	1000.00	1040	219.93- 259.93	239.93

Average of Peak Amounts = 1.04e+03

Data File: /chem/ecd1a.i/123009.b/007f0701.d

Date : 30-DEC-2009 08:43

Client ID: AR122101

Sample Info: IWAR090803-21

Column phase: CLP1

Instrument: ecd1a.i

Operator: JAOC

Column diameter: 0.25

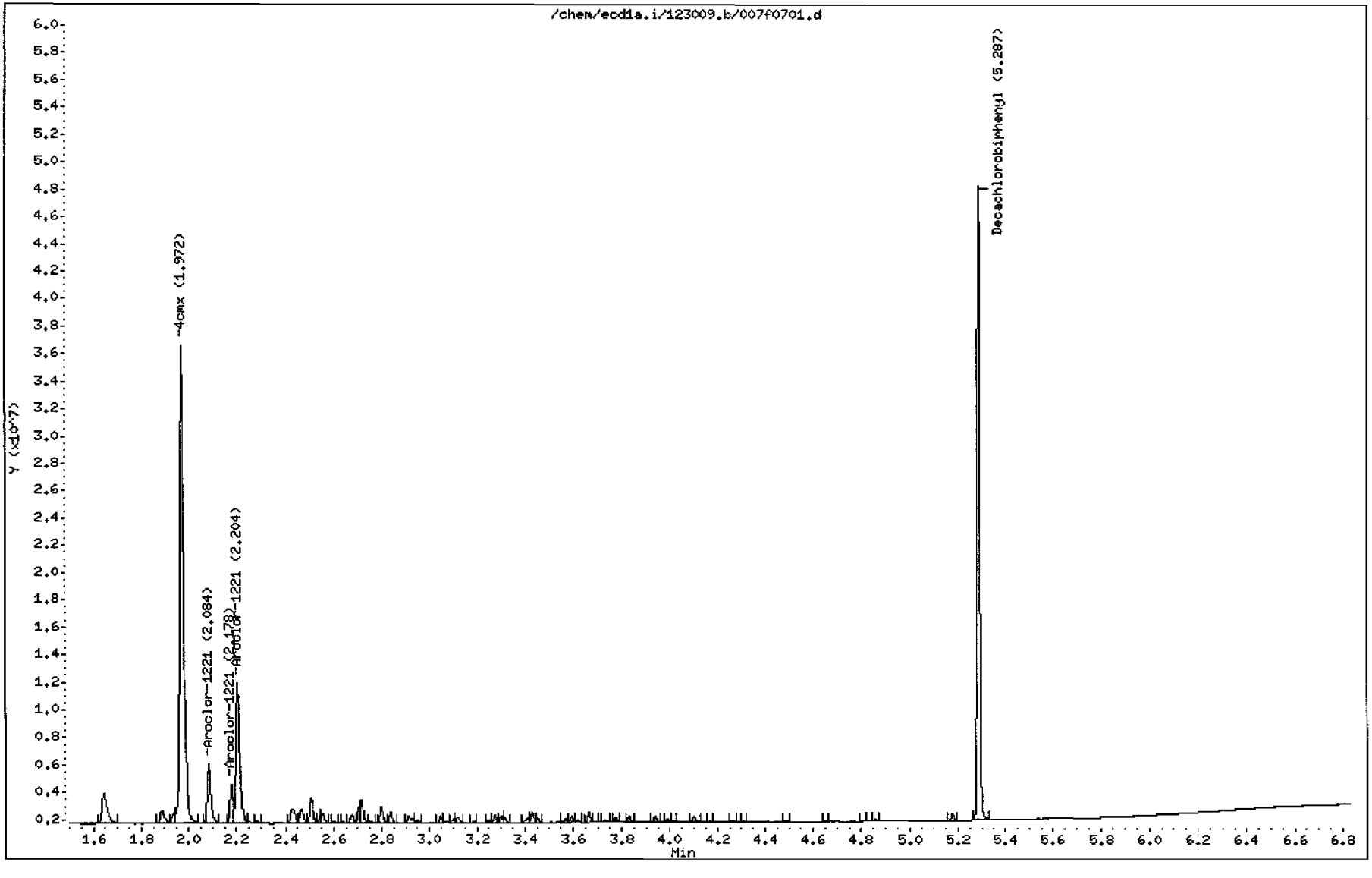

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/123009.b/007b0701.d
Lab Smp Id: WAR090803-21 Client Smp ID: AR122101
Inj Date : 30-DEC-2009 08:43
Operator : JAOC Inst ID: ecd1a.i
Smp Info : |WAR090803-21
Misc Info :
Comment :
Method : /chem/ecd1a.i/123009.b/ECD1-B-8082-121409.m
Meth Date : 30-Dec-2009 10:01 jen01212 Quant Type: ESTD
Cal Date : 14-DEC-2009 12:16 Cal File: 044b4401.d
Als bottle: 7 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1221.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.303	2.303	0.000	30753245	100.000	102	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.950	5.949	0.001	25608987	100.000	110	80.00- 120.00	100.00
2 Aroclor-1221					CAS #: 11104-28-2		
2.499	2.499	0.000	4087797	1000.00	1120	80.00- 120.00	100.00
2.594	2.594	0.000	2463313	1000.00	1060	40.26- 80.26	60.26
2.635	2.635	0.000	8554558	1000.00	1050	189.27- 229.27	209.27

Average of Peak Amounts = 1.08e+03

Data File: /chem/ecd1a.i/123009.b/007b0701.d
Date : 30-DEC-2009 08:43
Client ID: AR122101
Sample Info: IWAR090803-21

Column phase: CLP2

Instrument: ecd1a.i

Operator: JAOC
Column diameter: 0.25

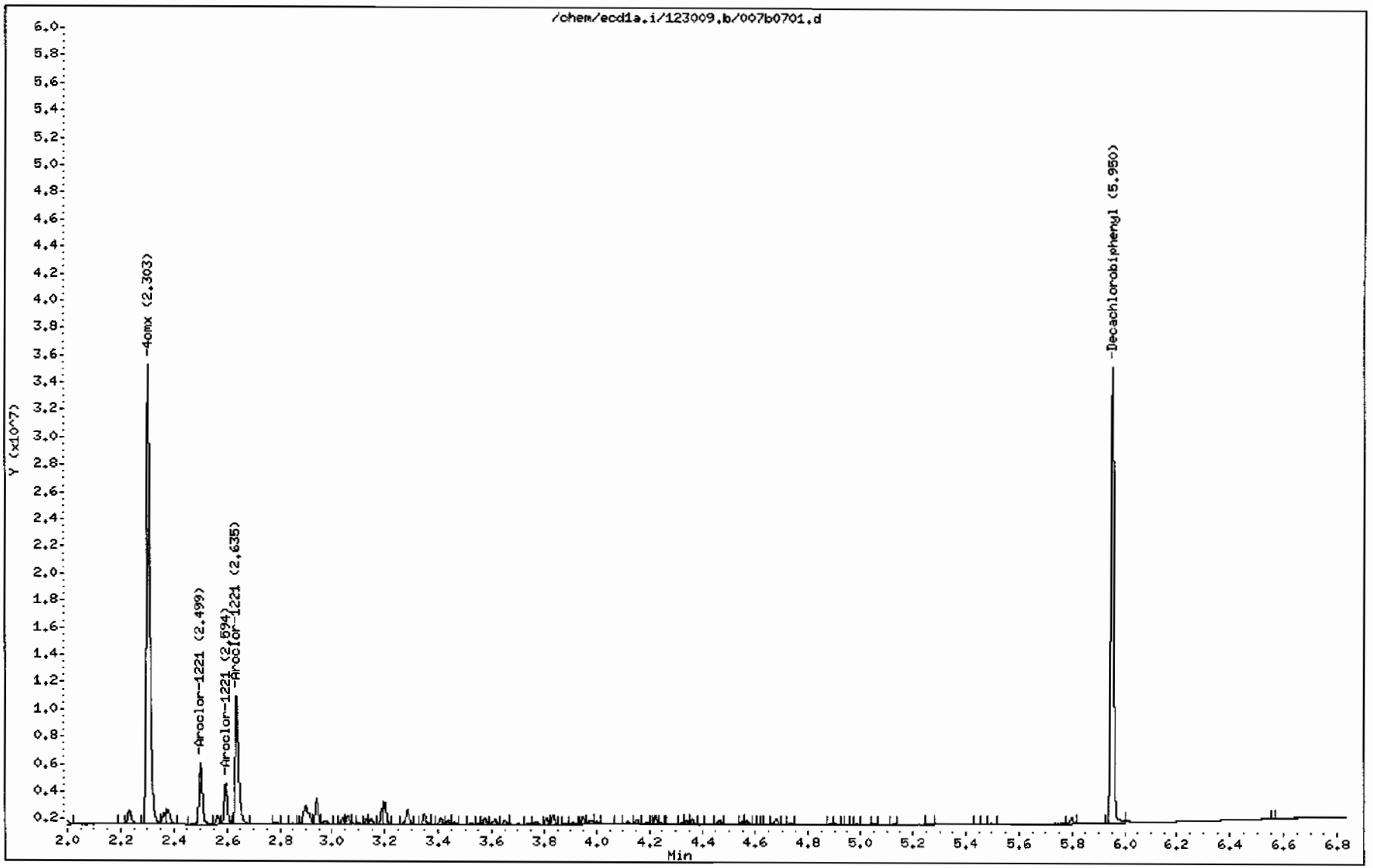

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RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/123009.b/028f2801.d
Lab Smp Id: WAR091211-60 03 Client Smp ID: AR166003
Inj Date : 30-DEC-2009 12:24
Operator : JAOC Inst ID: ecd1a.i
Smp Info : |WAR091211-60 03
Misc Info :
Comment :
Method : /chem/ecd1a.i/123009.b/ECD1-F-8082-121409.m
Meth Date : 30-Dec-2009 12:56 jen01212 Quant Type: ESTD
Cal Date : 14-DEC-2009 11:34 Cal File: 040f4001.d
Als bottle: 28 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.970	1.972	-0.002	36952081	100.000	98.4	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.285	5.287	-0.002	32571930	100.000	102	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.426	2.428	-0.002	12218879	1000.00	881	80.00- 120.00	100.00
2.704	2.705	-0.001	10309388	1000.00	1020	64.37- 104.37	84.37
2.796	2.798	-0.002	10597479	1000.00	901	66.73- 106.73	86.73
2.835	2.835	0.000	6375826	1000.00	966	32.18- 72.18	52.18
3.045	3.046	-0.001	8264359	1000.00	953	47.64- 87.64	67.64
Average of Peak Amounts =					945		
7 Aroclor-1260					CAS #: 11096-82-5		
3.772	3.773	-0.001	16360737	1000.00	977	80.00- 120.00	100.00
3.935	3.936	-0.001	25324946	1000.00	1020	134.79- 174.79	154.79
4.165	4.166	-0.001	15115197	1000.00	1030	72.39- 112.39	92.39
4.307	4.308	-0.001	15867070	1000.00	1040	76.98- 116.98	96.98
4.486	4.488	-0.002	36779997	1000.00	1070	204.81- 244.81	224.81
Average of Peak Amounts =					1.03e+03		

Data File: /chem/ecd1a.i/123009.b/028f2801.d
Date : 30-DEC-2009 12:24
Client ID: AR166003
Sample Info: IWAR091211-60 03

Column phase: CLP1

Instrument: ecd1a.i

Operator: JAOC
Column diameter: 0.25

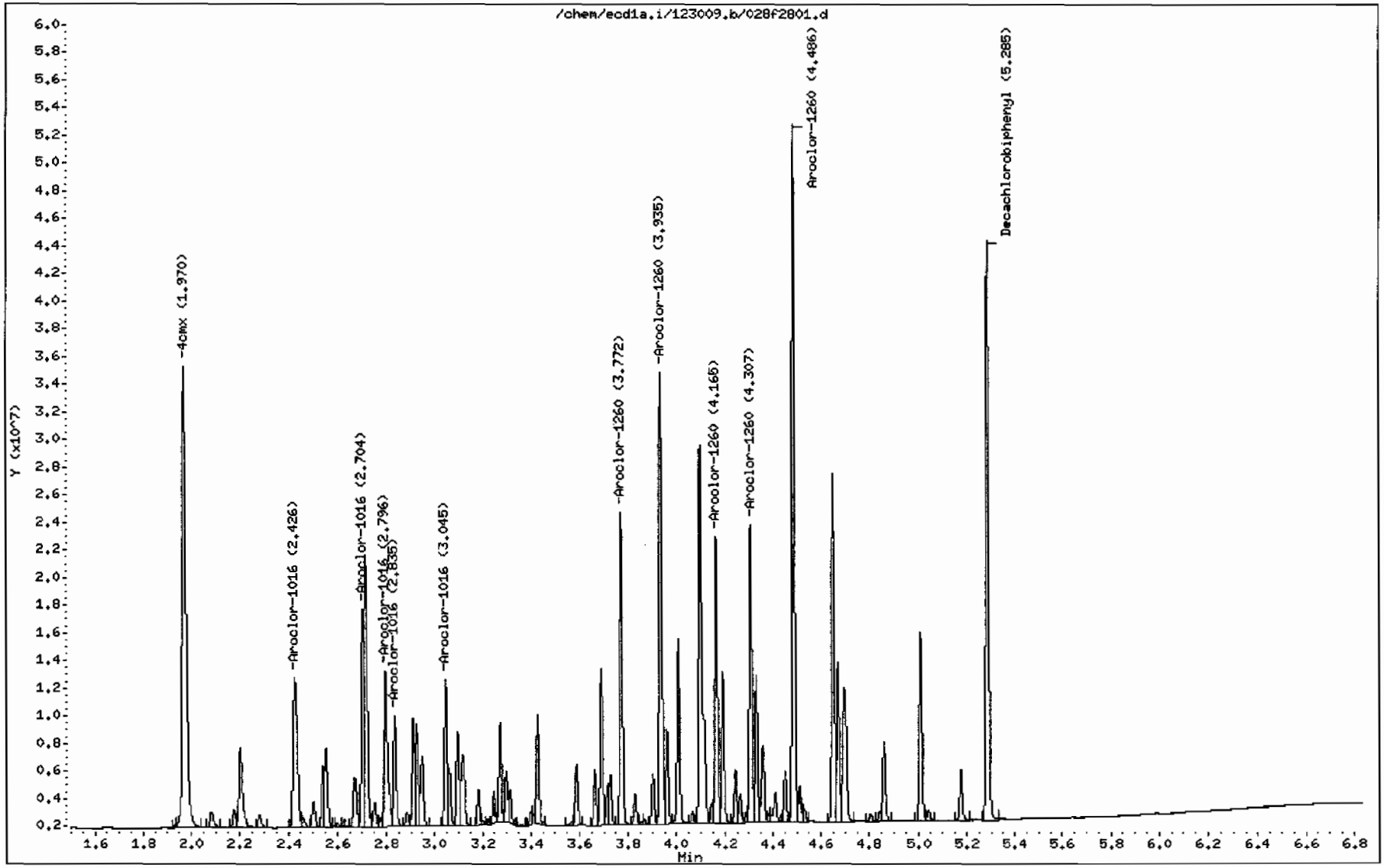

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/123009.b/028b2801.d
Lab Smp Id: WAR091211-60 03 Client Smp ID: AR166003
Inj Date : 30-DEC-2009 12:24
Operator : JAOC Inst ID: ecd1a.i
Smp Info : |WAR091211-60 03
Misc Info :
Comment :
Method : /chem/ecd1a.i/123009.b/ECD1-B-8082-121409.m
Meth Date : 30-Dec-2009 12:55 jen01212 Quant Type: ESTD
Cal Date : 14-DEC-2009 12:16 Cal File: 044b4401.d
Als bottle: 28 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.302	2.303	-0.001	28602390	100.000	95.3	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.948	5.949	-0.001	23670426	100.000	101	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.200	3.200	0.000	11986954	1000.00	950	80.00- 120.00	100.00
3.282	3.283	-0.001	8048707	1000.00	863	47.15- 87.15	67.15
3.346	3.347	-0.001	5002513	1000.00	924	21.73- 61.73	41.73
3.574	3.574	0.000	6528762	1000.00	926	34.47- 74.47	54.47
3.649	3.650	-0.001	5996959	1000.00	915	30.03- 70.03	50.03
Average of Peak Amounts =					916		
7 Aroclor-1260					CAS #: 11096-82-5		
4.339	4.340	-0.001	12544558	1000.00	917	80.00- 120.00	100.00
4.464	4.464	0.000	15416214	1000.00	962	102.89- 142.89	122.89
4.730	4.731	-0.001	11870024	1000.00	945	74.62- 114.62	94.62
4.904	4.905	-0.001	12265138	1000.00	957	77.77- 117.77	97.77
5.050	5.051	-0.001	28017847	1000.00	1000	203.35- 243.35	223.35
Average of Peak Amounts =					957		

Data File: /chem/ecd1a.i/123009.b/028b2801.d

Page 1

Date : 30-DEC-2009 12:24

Client ID: AR166003

Instrument: ecd1a.i

Sample Info: IWAR091211-60 03

Operator: JAOC

Column phase: CLP2

Column diameter: 0.25

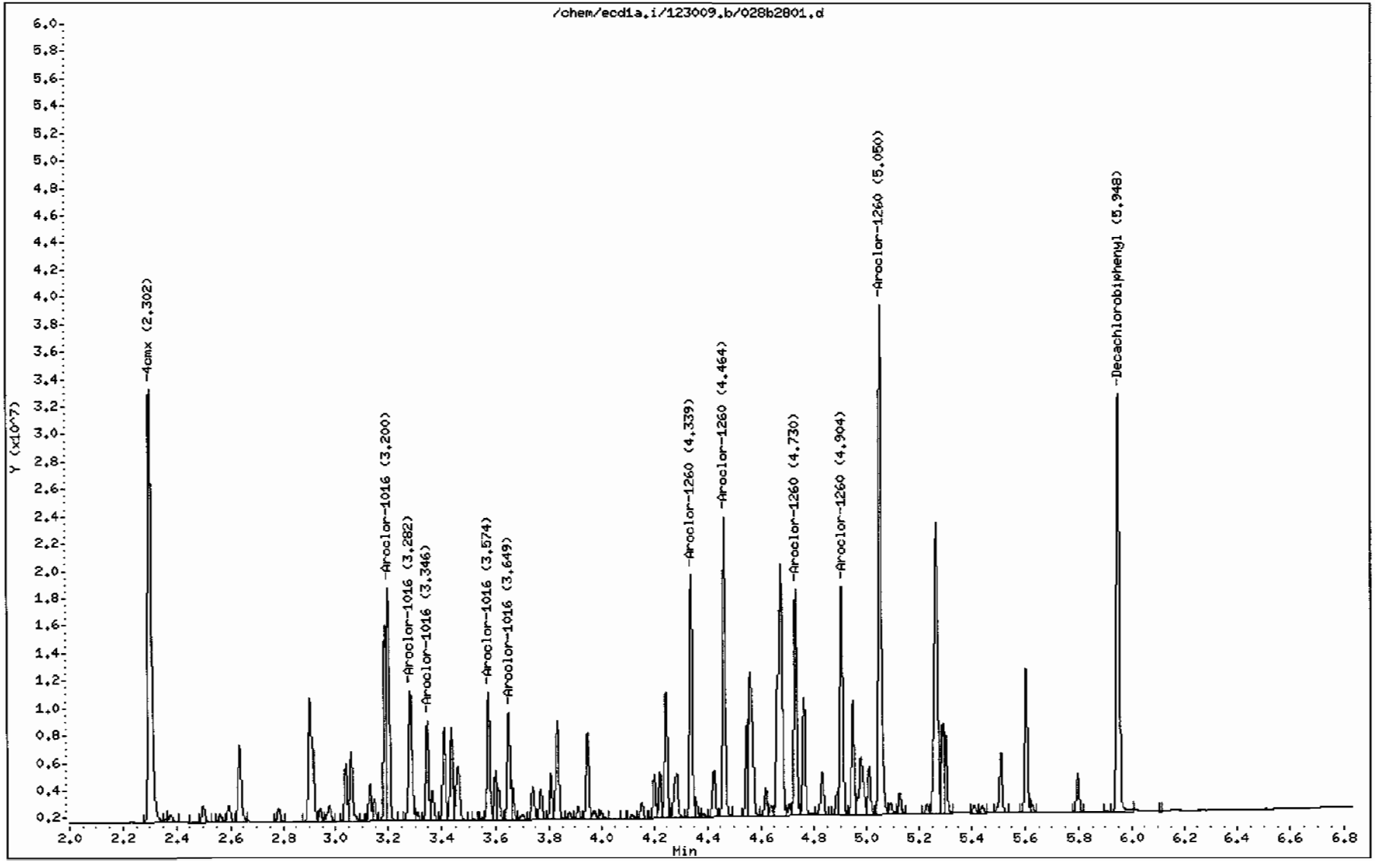

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RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/123009.b/040f4001.d
Lab Smp Id: WAR091211-60 04 Client Smp ID: AR166004
Inj Date : 30-DEC-2009 14:30
Operator : JAOC Inst ID: ecd1a.i
Smp Info : |WAR091211-60 04
Misc Info :
Comment :
Method : /chem/ecd1a.i/123009.b/ECD1-F-8082-121409.m
Meth Date : 31-Dec-2009 08:24 jen01212 Quant Type: ESTD
Cal Date : 14-DEC-2009 11:34 Cal File: 040f4001.d
Als bottle: 40 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.972	1.972	0.000	38178116	100.000	102	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.285	5.287	-0.002	34381947	100.000	108	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.427	2.428	-0.001	12628616	1000.00	911	80.00- 120.00	100.00
2.704	2.705	-0.001	10613649	1000.00	1050	62.52- 102.52	84.04
2.797	2.798	-0.001	10947178	1000.00	931	66.47- 106.47	86.69
2.834	2.835	-0.001	6556315	1000.00	994	32.13- 72.13	51.92
3.045	3.046	-0.001	8494168	1000.00	979	46.62- 86.62	67.26
Average of Peak Amounts =					973		
7 Aroclor-1260					CAS #: 11096-82-5		
3.771	3.773	-0.002	17088963	1000.00	1020	80.00- 120.00	100.00
3.934	3.936	-0.002	26441056	1000.00	1070	134.25- 174.25	154.73
4.164	4.166	-0.002	15786747	1000.00	1070	72.46- 112.46	92.38
4.308	4.308	0.000	16602793	1000.00	1090	76.84- 116.84	97.16
4.487	4.488	-0.001	38280473	1000.00	1110	203.73- 243.73	224.01
Average of Peak Amounts =					1.07e+03		

Data File: /chem/ecd1a.i/123009.b/040f4001.d

Date : 30-DEC-2009 14:30

Client ID: AR166004

Sample Info: IWAR091211-60 04

Column phase: CLP1

Instrument: ecd1a.i

Operator: JAOC

Column diameter: 0.25

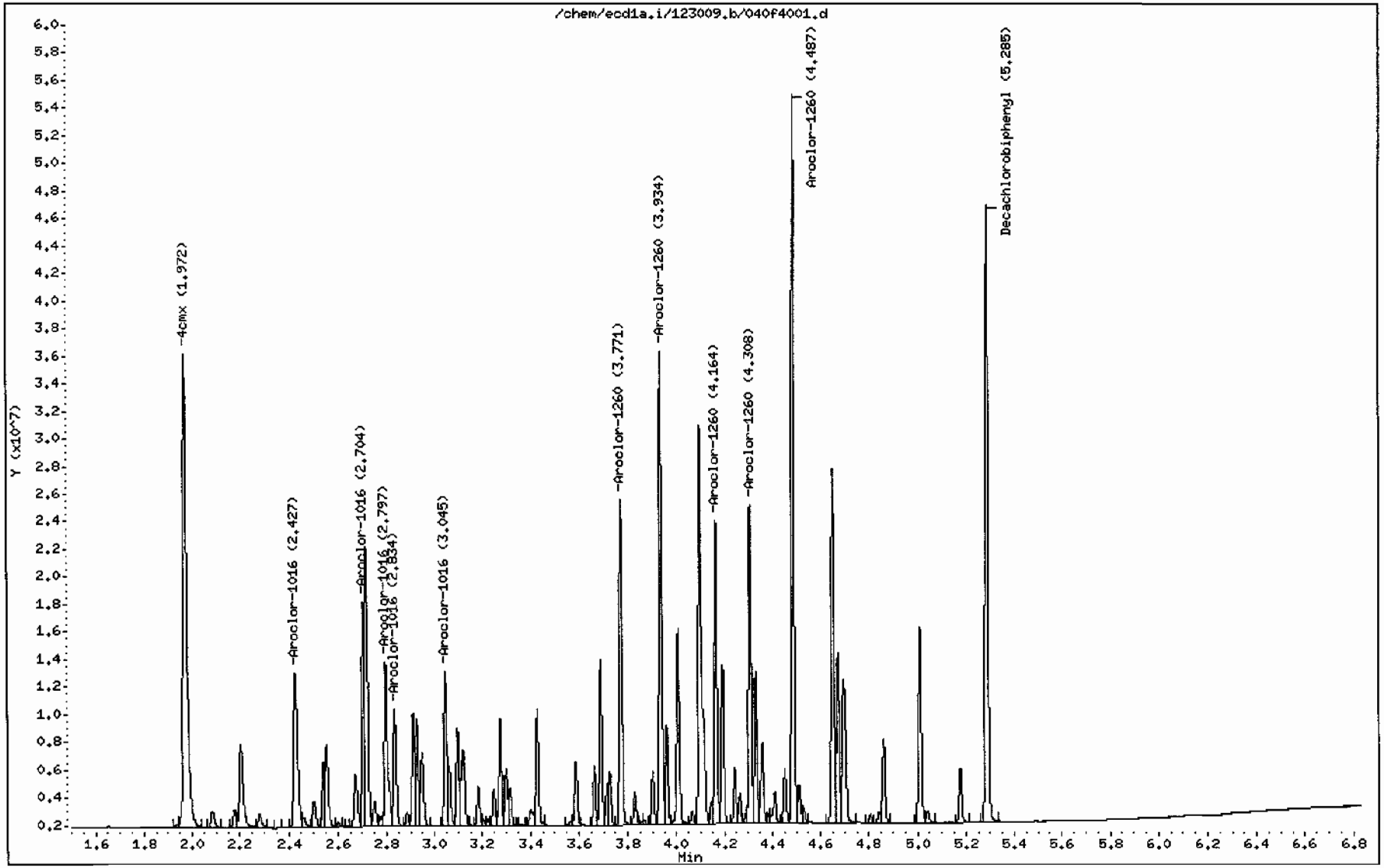

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/123009.b/040b4001.d
Lab Smp Id: WAR091211-60 04 Client Smp ID: AR166004
Inj Date : 30-DEC-2009 14:30
Operator : JAOC Inst ID: ecd1a.i
Smp Info : |WAR091211-60 04
Misc Info :
Comment :
Method : /chem/ecd1a.i/123009.b/ECD1-B-8082-121409.m
Meth Date : 31-Dec-2009 08:30 jen01212 Quant Type: ESTD
Cal Date : 14-DEC-2009 12:16 Cal File: 044b4401.d
Als bottle: 40 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.303	2.303	0.000	29870096	100.000	99.6	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.949	5.949	0.000	25113711	100.000	108	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.199	3.200	-0.001	12840174	1000.00	1020	80.00- 120.00	100.00
3.283	3.283	0.000	8476812	1000.00	909	45.95- 85.95	66.02
3.346	3.347	-0.001	5277131	1000.00	975	21.30- 61.30	41.10
3.573	3.574	-0.001	6897786	1000.00	978	33.35- 73.35	53.72
3.648	3.650	-0.002	6365166	1000.00	972	29.00- 69.00	49.57
Average of Peak Amounts =					970		
7 Aroclor-1260					CAS #: 11096-82-5		
4.339	4.340	-0.001	13280554	1000.00	971	80.00- 120.00	100.00
4.464	4.464	0.000	16433880	1000.00	1020	103.77- 143.77	123.74
4.730	4.731	-0.001	12607227	1000.00	1000	74.68- 114.68	94.93
4.904	4.905	-0.001	13050459	1000.00	1020	77.13- 117.13	98.27
5.050	5.051	-0.001	29709618	1000.00	1060	200.92- 240.92	223.71
Average of Peak Amounts =					1.02e+03		

Data File: /chem/ecd1a.i/123009.b/040b4001.d

Date : 30-DEC-2009 14:30

Client ID: AR166004

Sample Info: IWAR091211-60 04

Column phase: CLP2

Instrument: ecd1a.i

Operator: JAOC

Column diameter: 0.25

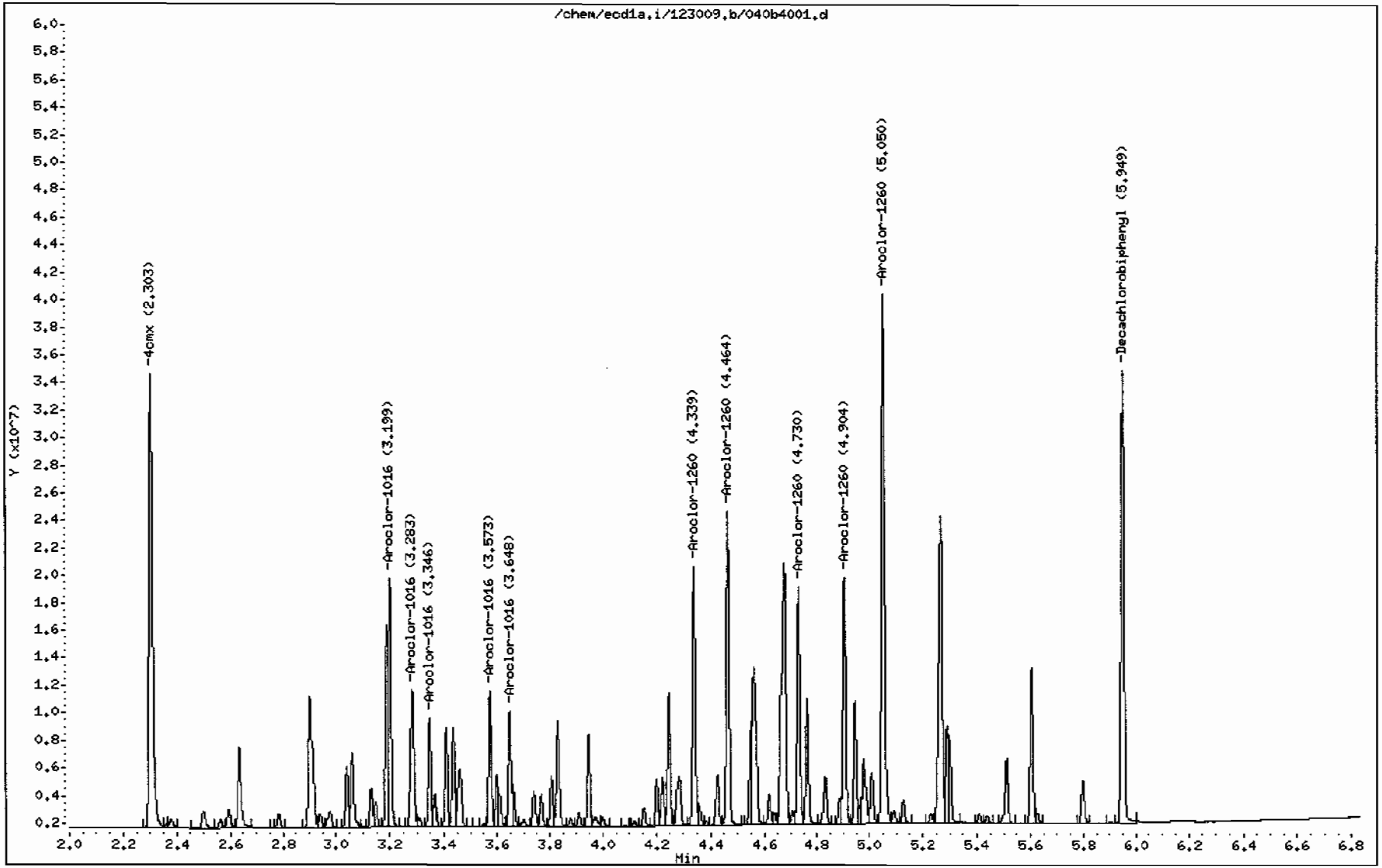

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/123009.b/050f5001.d
Lab Smp Id: WAR091211-60 05 Client Smp ID: AR166005
Inj Date : 30-DEC-2009 16:15
Operator : JAOC Inst ID: ecd1a.i
Smp Info : |WAR091211-60 05
Misc Info :
Comment :
Method : /chem/ecd1a.i/123009.b/ECD1-F-8082-121409.m
Meth Date : 31-Dec-2009 08:24 jen01212 Quant Type: ESTD
Cal Date : 14-DEC-2009 11:34 Cal File: 040f4001.d
Als bottle: 50 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.971	1.972	-0.001	38098895	100.000	101	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.286	5.287	-0.001	34166293	100.000	108	80.00- 120.00	100.00(M)
1 Aroclor-1016					CAS #: 12674-11-2		
2.427	2.428	-0.001	12625090	1000.00	910	80.00- 120.00	100.00
2.704	2.705	-0.001	10418177	1000.00	1030	62.52- 102.52	82.52
2.796	2.798	-0.002	10917437	1000.00	928	66.47- 106.47	86.47
2.835	2.835	0.000	6581094	1000.00	997	32.13- 72.13	52.13
3.045	3.046	-0.001	8410796	1000.00	970	46.62- 86.62	66.62
Average of Peak Amounts =					968		
7 Aroclor-1260					CAS #: 11096-82-5		
3.771	3.773	-0.002	17077914	1000.00	1020	80.00- 120.00	100.00(M)
3.934	3.936	-0.002	26343031	1000.00	1060	134.25- 174.25	154.25
4.164	4.166	-0.002	15789897	1000.00	1080	72.46- 112.46	92.46
4.307	4.308	-0.001	16538323	1000.00	1090	76.84- 116.84	96.84
4.486	4.488	-0.002	38208129	1000.00	1110	203.73- 243.73	223.73
Average of Peak Amounts =					1.07e+03		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd1a.i/123009.b/050f5001.d
Date : 30-DEC-2009 16:15
Client ID: AR166005
Sample Info: IWAR091211-60 05

Column phase: CLP1

Instrument: ecd1a.i

Operator: JADC
Column diameter: 0.25

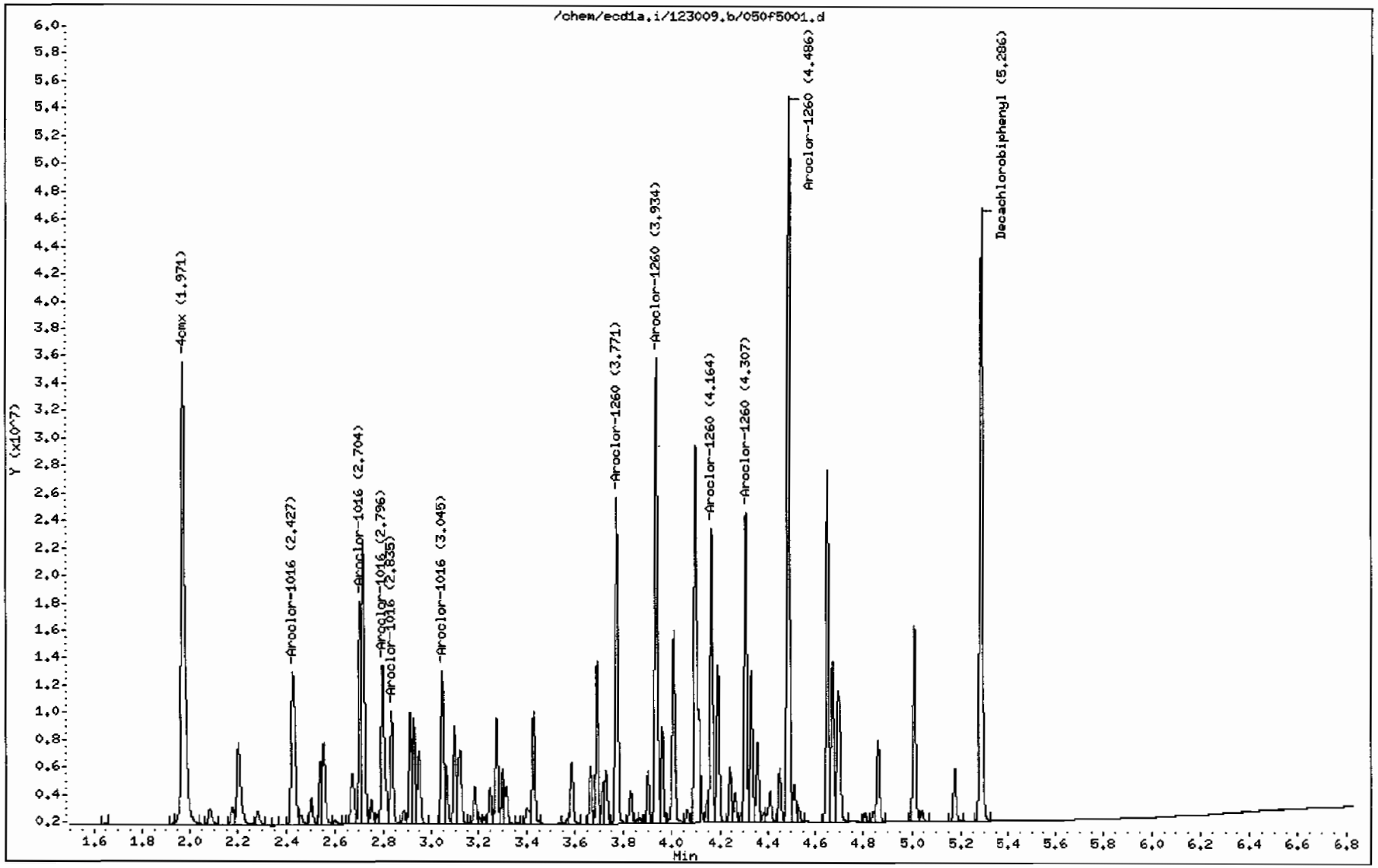

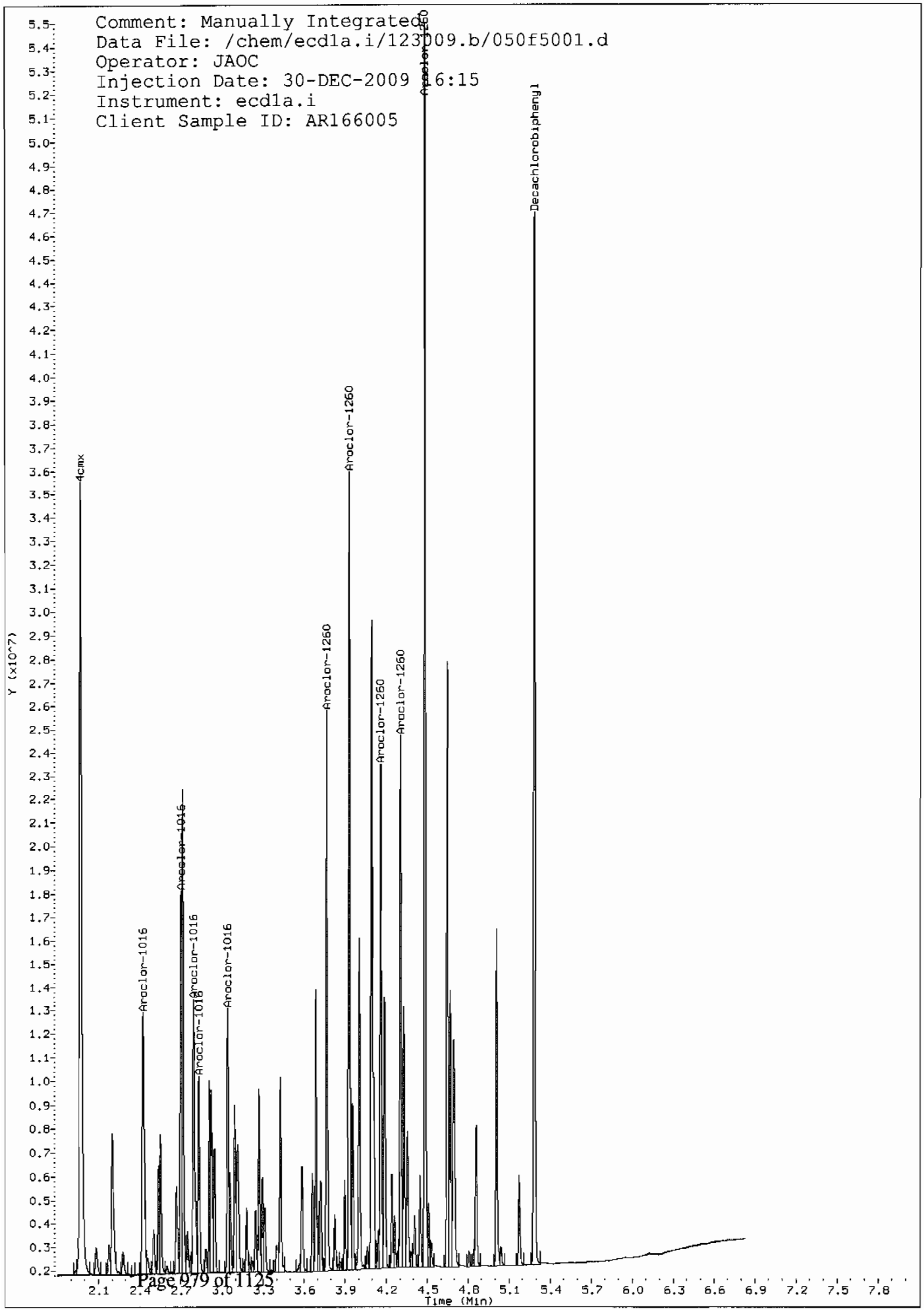
Comment: Manually Integrated
Data File: /chem/ecd1a.i/123009.b/050f5001.d
Operator: JAOC
Injection Date: 30-DEC-2009 16:15
Instrument: ecd1a.i
Client Sample ID: AR166005
Y (x10^7)
Time (Min)
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl

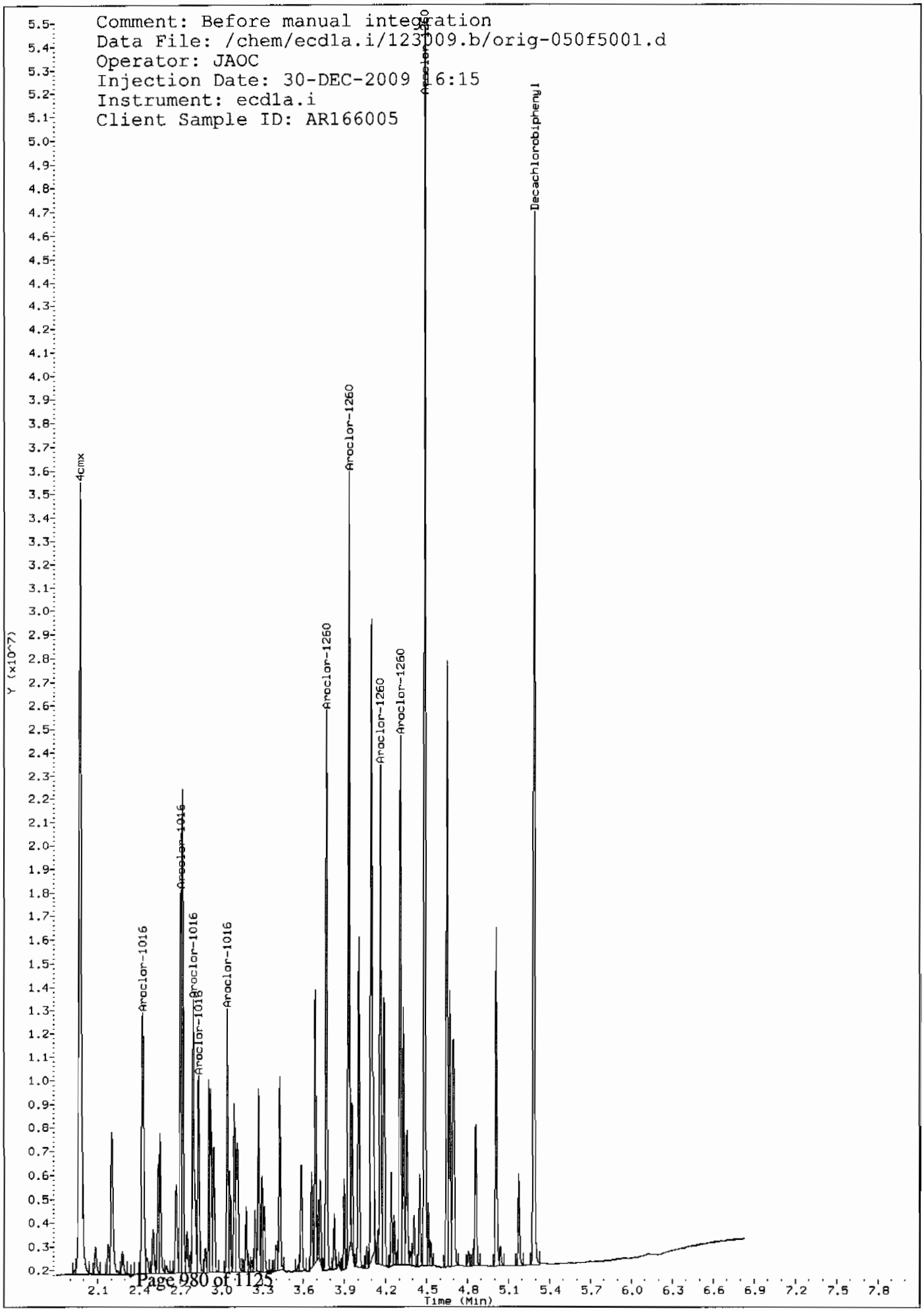
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Data File: /chem/ecd1a.i/123009.b/orig-050f5001.d
Operator: JAOC
Injection Date: 30-DEC-2009 16:15
Instrument: ecd1a.i
Client Sample ID: AR166005
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/123009.b/050b5001.d
Lab Smp Id: WAR091211-60 05 Client Smp ID: AR166005
Inj Date : 30-DEC-2009 16:15
Operator : JAOC Inst ID: ecd1a.i
Smp Info : |WAR091211-60 05
Misc Info :
Comment :
Method : /chem/ecd1a.i/123009.b/ECD1-B-8082-121409.m
Meth Date : 31-Dec-2009 08:30 jen01212 Quant Type: ESTD
Cal Date : 14-DEC-2009 12:16 Cal File: 044b4401.d
Als bottle: 50 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.302	2.303	-0.001	29895092	100.000	99.6	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.948	5.949	-0.001	24426104	100.000	105	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.200	3.200	0.000	12874138	1000.00	1020	80.00- 120.00	100.00(M)
3.282	3.283	-0.001	8489859	1000.00	910	45.95- 85.95	65.95
3.346	3.347	-0.001	5317183	1000.00	983	21.30- 61.30	41.30
3.573	3.574	-0.001	6868905	1000.00	974	33.35- 73.35	53.35
3.649	3.650	-0.001	6308745	1000.00	963	29.00- 69.00	49.00
Average of Peak Amounts =					970		
7 Aroclor-1260					CAS #: 11096-82-5		
4.339	4.340	-0.001	13114907	1000.00	959	80.00- 120.00	100.00
4.463	4.464	-0.001	16232159	1000.00	1010	103.77- 143.77	123.77
4.730	4.731	-0.001	12417645	1000.00	988	74.68- 114.68	94.68
4.903	4.905	-0.002	12738893	1000.00	994	77.13- 117.13	97.13
5.050	5.051	-0.001	28973210	1000.00	1040	200.92- 240.92	220.92
Average of Peak Amounts =					999		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd1a.i/123009.b/050b5001.d

Date : 30-DEC-2009 16:15

Client ID: AR166005

Sample Info: IWAR091211-60 05

Column phase: CLP2

Instrument: ecd1a.i

Operator: JADC

Column diameter: 0.25

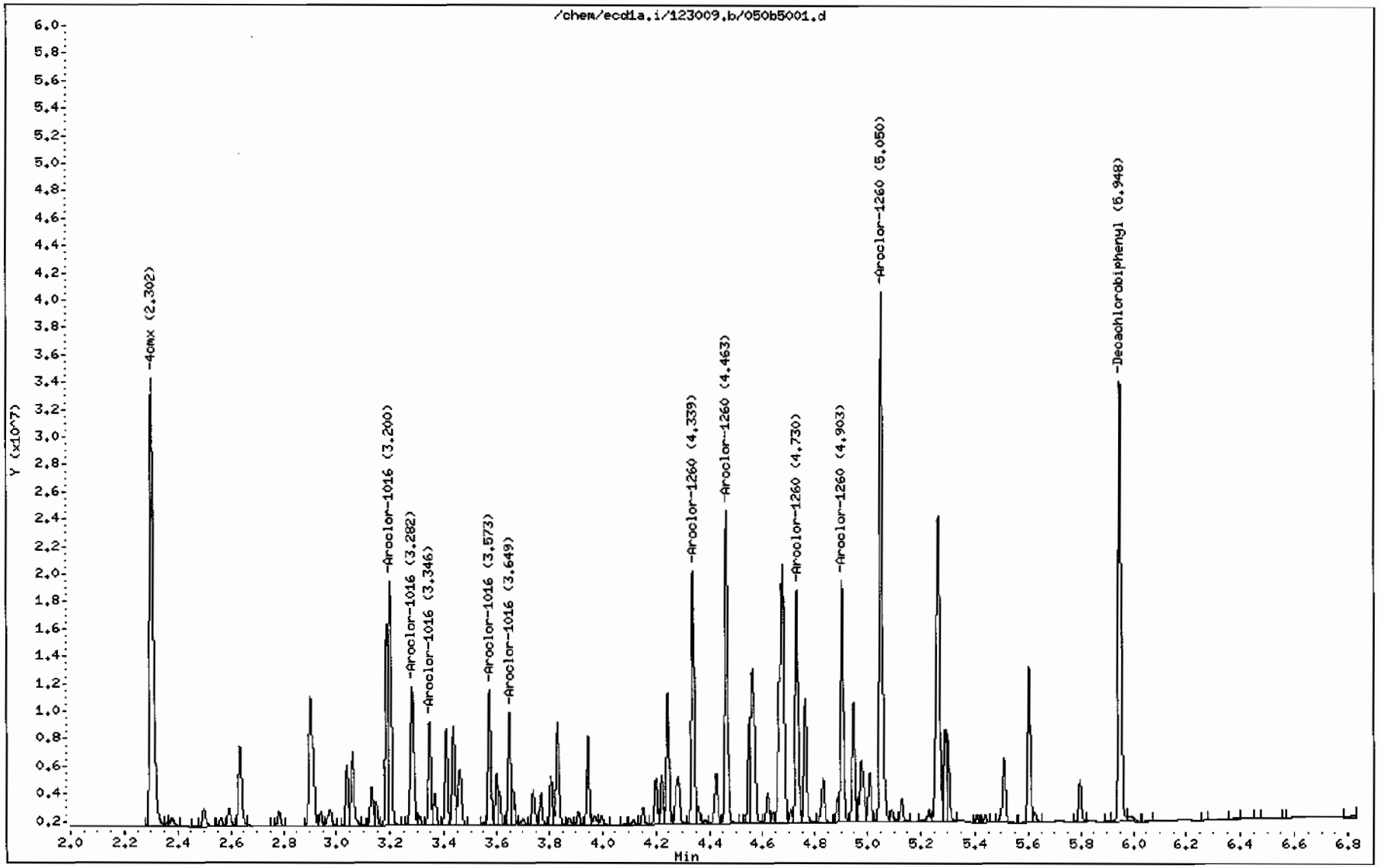

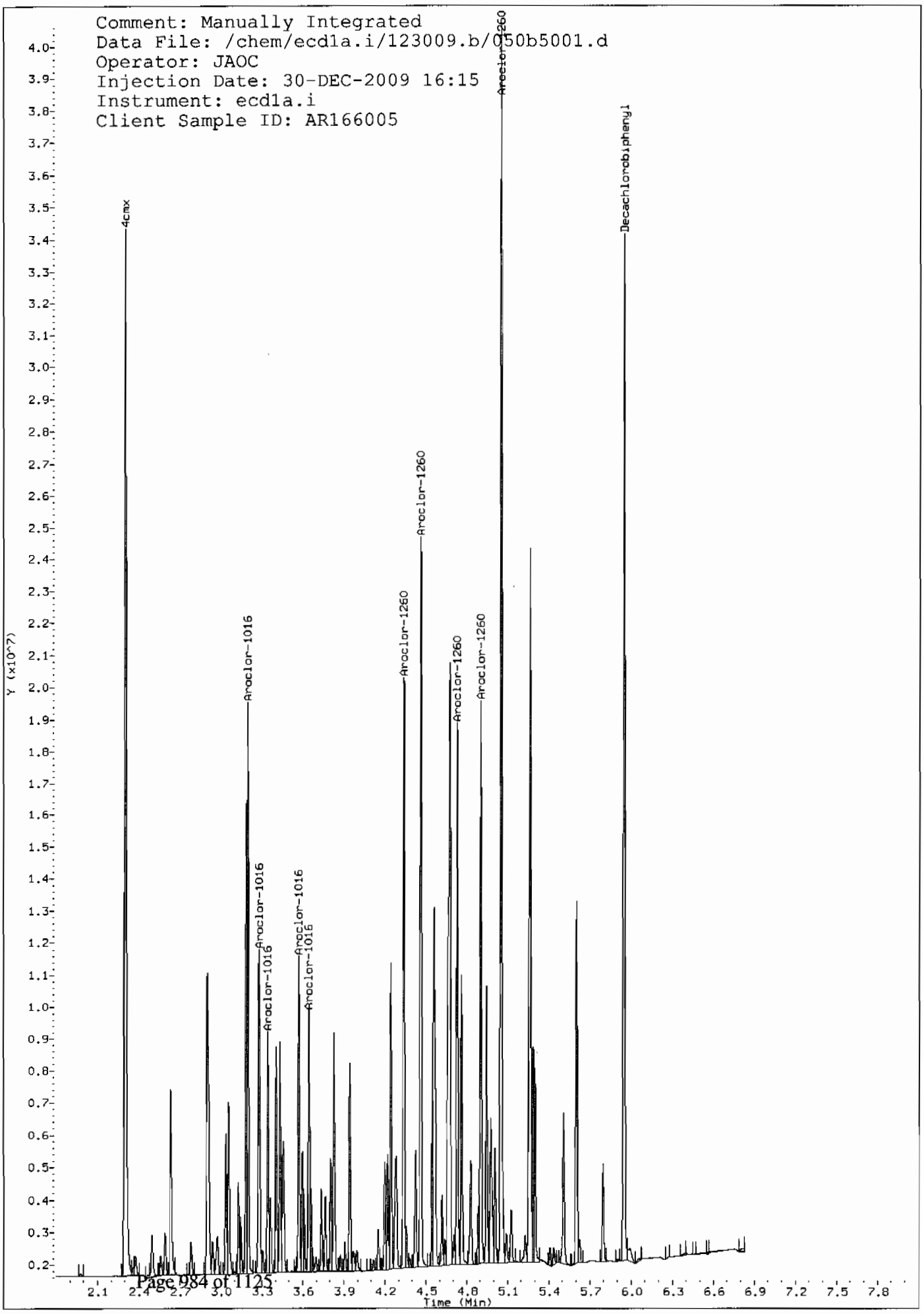
Comment: Manually Integrated
Data File: /chem/ecd1a.i/123009.b/050b5001.d
Operator: JAOC
Injection Date: 30-DEC-2009 16:15
Instrument: ecd1a.i
Client Sample ID: AR166005
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
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Decachlorobiphenyl
Y (x10^7)
Time (Min)

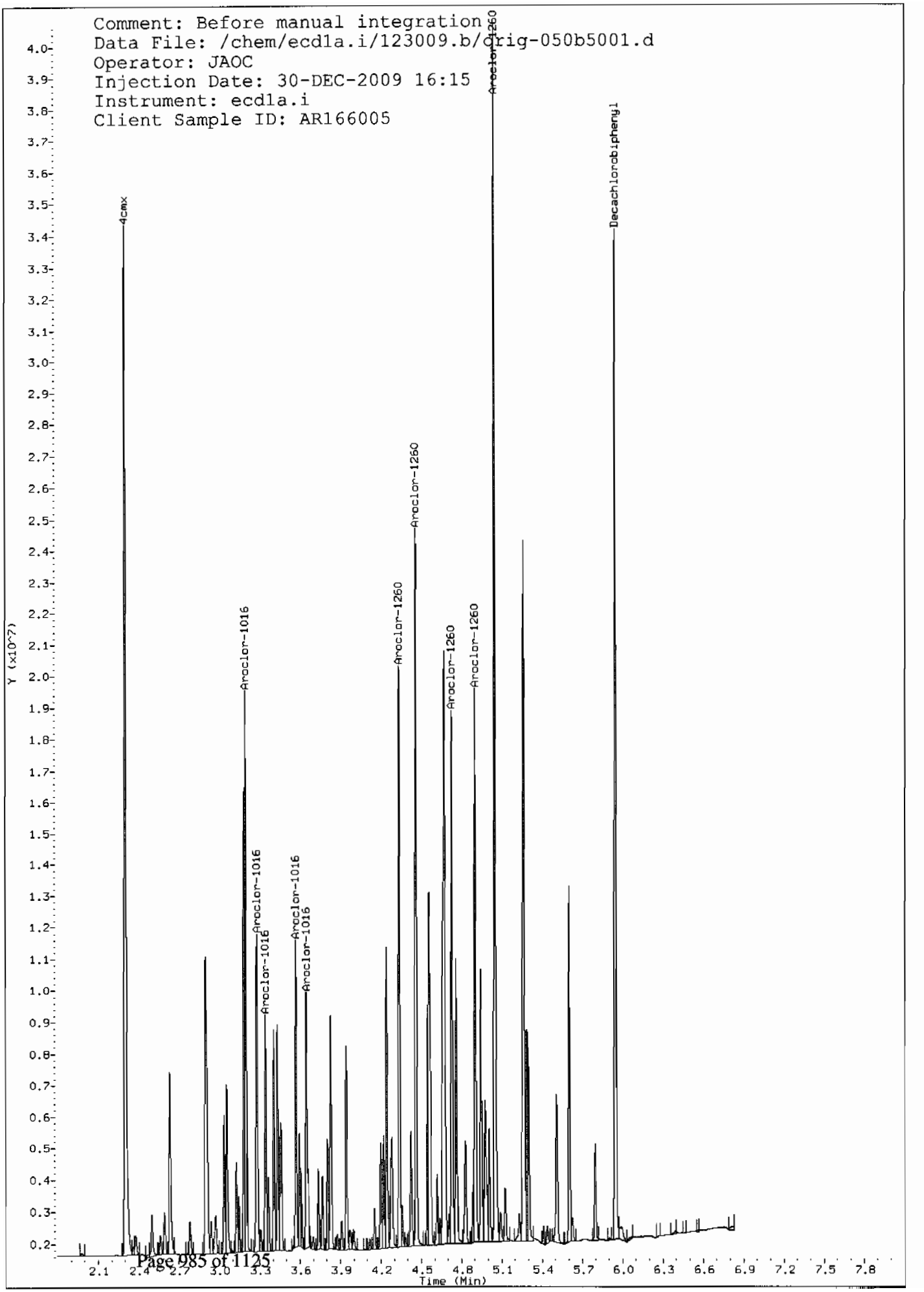
Comment: Before manual integration
Data File: /chem/ecd1a.i/123009.b/drig-050b5001.d
Operator: JAOC
Injection Date: 30-DEC-2009 16:15
Instrument: ecd1a.i
Client Sample ID: AR166005
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/123009.b/002f0201.d
Lab Smp Id: WAR091211-60 01 Client Smp ID: AR166001
Inj Date : 30-DEC-2009 07:33
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |WAR091211-60 01
Misc Info : |PCB_CVS|1660||CVS|
Comment :
Method : /chem/ecd2a.i/123009.b/ECD2-F-8082-111209A.m
Meth Date : 30-Dec-2009 11:15 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012f1201.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

AMOUNTS

RT	EXP RT	DLT RT	RESPONSE	CAL-AMT (ug/L)	ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.773	1.773	0.000	6510908	100.000	104	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.608	5.608	0.000	5998075	100.000	111	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.276	2.276	0.000	2046595	1000.00	915	80.00- 120.00	100.00
2.599	2.599	0.000	4266244	1000.00	910	188.46- 228.46	208.46
2.690	2.690	0.000	1709336	1000.00	899	63.52- 103.52	83.52
2.825	2.825	0.000	866701	1000.00	888	22.35- 62.35	42.35
2.975	2.975	0.000	1316898	1000.00	903	44.35- 84.35	64.35
Average of Peak Amounts =					903		
7 Aroclor-1260					CAS #: 11096-82-5		
4.016	4.016	0.000	4058978	1000.00	974	80.00- 120.00	100.00
4.287	4.287	0.000	2561391	1000.00	989	43.10- 83.10	63.10
4.452	4.452	0.000	2644322	1000.00	1000	45.15- 85.15	65.15
4.665	4.665	0.000	6249084	1000.00	1030	133.96- 173.96	153.96
4.854	4.854	0.000	3008836	1000.00	1020	54.13- 94.13	74.13
Average of Peak Amounts =					1e+03		

Data File: /chem/ecd2a.i/123009.b/002f0201.d
Date : 30-DEC-2009 07:33
Client ID: AR166001
Sample Info: IWAR091211-60 01

Column phase: CLP1

Instrument: ecd2a.i

Operator: JAOC
Column diameter: 0.25

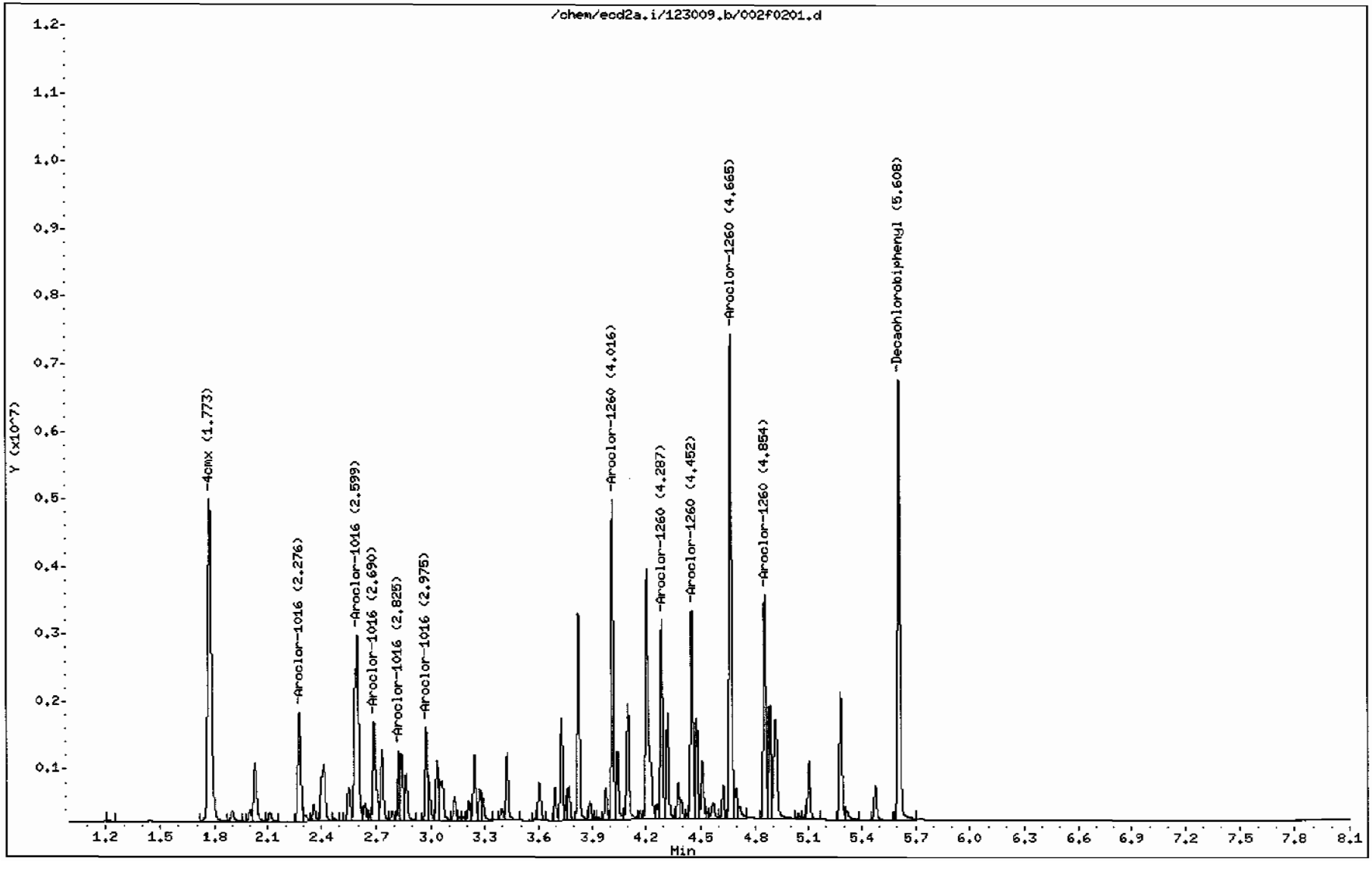

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RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/123009.b/002b0201.d
Lab Smp Id: WAR091211-60 01 Client Smp ID: AR166001
Inj Date : 30-DEC-2009 07:33
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |WAR091211-60 01
Misc Info : |PCB_CVS|1660||CVS|
Comment :
Method : /chem/ecd2a.i/123009.b/ECD2-B-8082-111209A.m
Meth Date : 30-Dec-2009 11:13 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012b1201.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.070	2.070	0.000	14103396	100.000	109	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.301	6.301	0.000	12826315	100.000	114	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.747	2.747	0.000	4274292	1000.00	942	80.00- 120.00	100.00
3.181	3.181	0.000	3353853	1000.00	931	58.47- 98.47	78.47
3.332	3.332	0.000	1933976	1000.00	942	25.25- 65.25	45.25
3.360	3.360	0.000	2011646	1000.00	941	27.06- 67.06	47.06
3.518	3.518	0.000	2721743	1000.00	948	43.68- 83.68	63.68
Average of Peak Amounts =					941		
7 Aroclor-1260					CAS #: 11096-82-5		
4.414	4.414	0.000	5677392	1000.00	984	80.00- 120.00	100.00(M)
4.566	4.566	0.000	7139796	1000.00	1000	105.76- 145.76	125.76
4.677	4.677	0.000	4932566	1000.00	1020	66.88- 106.88	86.88
4.874	4.874	0.000	5675293	1000.00	1010	79.96- 119.96	99.96
5.500	5.500	0.000	9455990	1000.00	1050	146.56- 186.56	166.56
Average of Peak Amounts =					1.01e+03		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd2a.i/123009.b/002b0201.d
Date : 30-DEC-2009 07:33
Client ID: AR166001
Sample Info: IWAR091211-60 01
Column phase: CLP2

Instrument: ecd2a.i
Operator: JAOC
Column diameter: 0.25

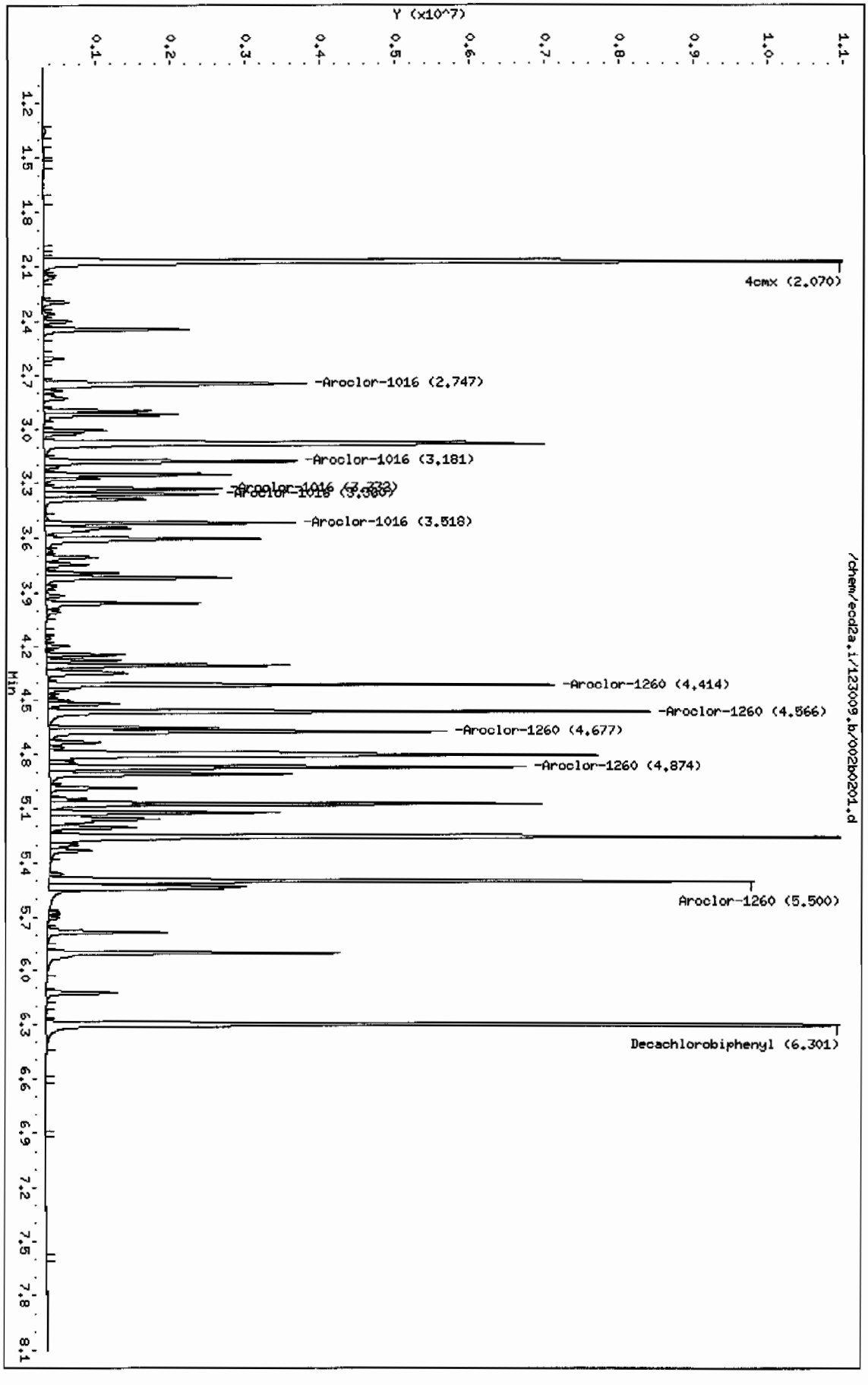

Page 1

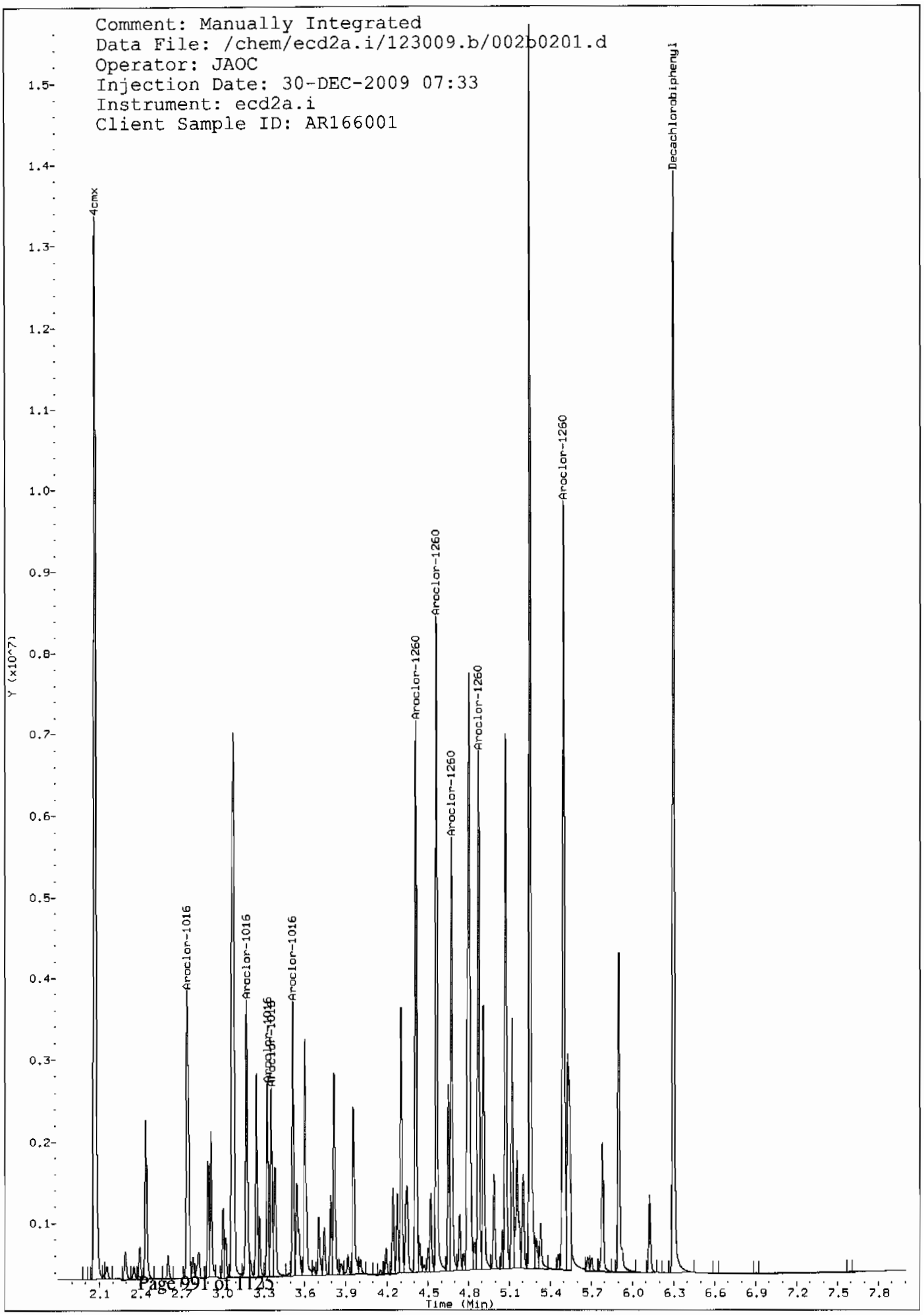
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Data File: /chem/ecd2a.i/123009.b/002b0201.d
Operator: JAOC
Injection Date: 30-DEC-2009 07:33
Instrument: ecd2a.i
Client Sample ID: AR166001
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

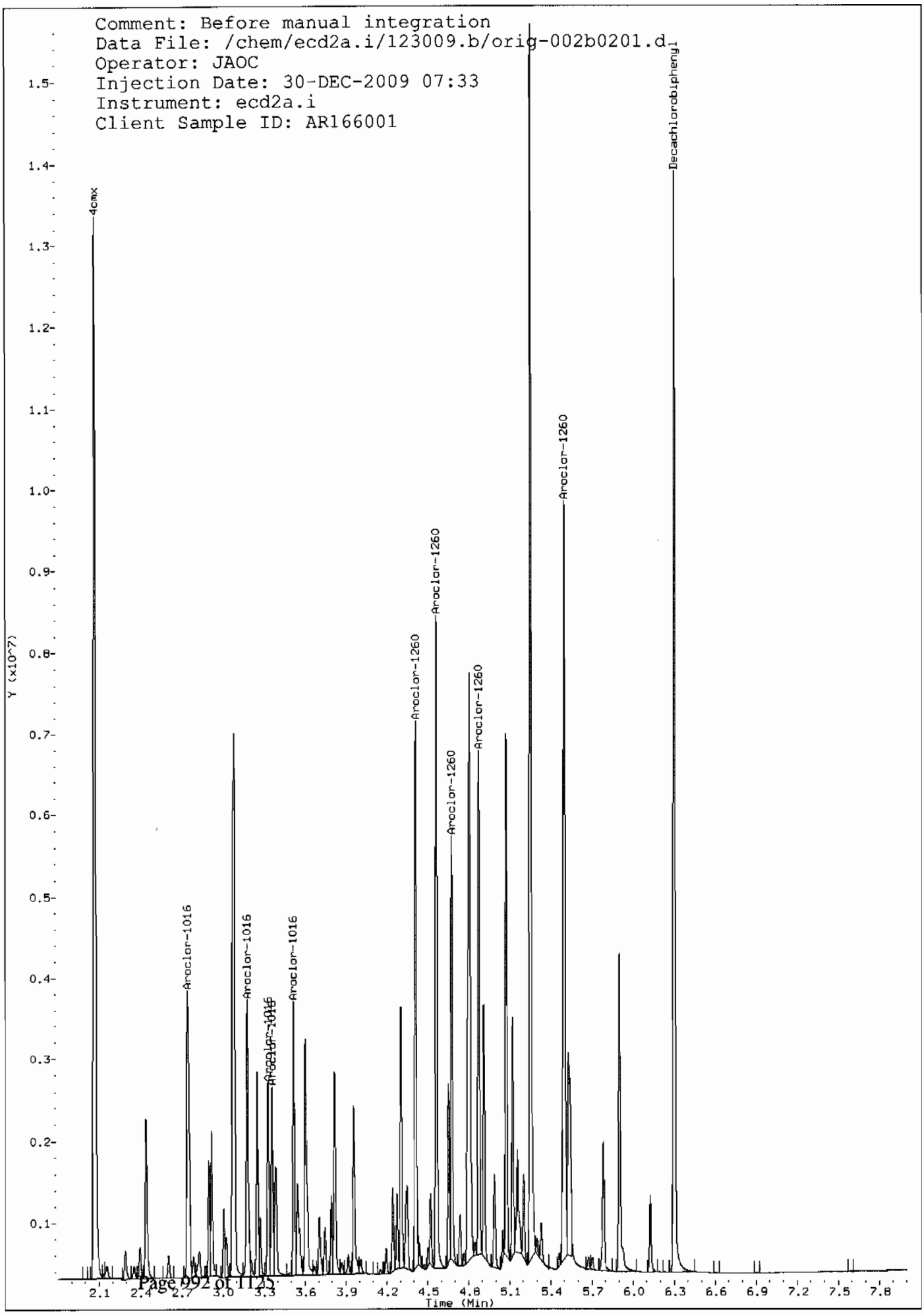
Comment: Before manual integration
Data File: /chem/ecd2a.i/123009.b/orig-002b0201.d
Operator: JAOC
Injection Date: 30-DEC-2009 07:33
Instrument: ecd2a.i
Client Sample ID: AR166001
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/123009.b/003f0301.d
Lab Smp Id: WAR091216-54 Client Smp ID: AR125401
Inj Date : 30-DEC-2009 07:44
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |WAR091216-54
Misc Info : |PCB_CVS|1254||CVS|
Comment :
Method : /chem/ecd2a.i/123009.b/ECD2-F-8082-111209A.m
Meth Date : 30-Dec-2009 11:15 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012f1201.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1254.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.773	1.773	0.000	6837716	100.000	110	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.609	5.608	0.001	6438926	100.000	119	80.00- 120.00	100.00
6 Aroclor-1254					CAS #: 11097-69-1		
3.243	3.243	0.000	1997342	1000.00	960	80.00- 120.00	100.00
3.425	3.425	0.000	2638402	1000.00	952	112.10- 152.10	132.10
3.694	3.694	0.000	3656733	1000.00	977	163.08- 203.08	183.08
3.887	3.887	0.000	2699703	1000.00	970	115.16- 155.16	135.16
4.016	4.016	0.000	2752211	1000.00	997	117.79- 157.79	137.79
		Average of Peak Amounts =			971		

Data File: /chem/ecd2a.i/123009.b/003f0301.d
Date : 30-DEC-2009 07:44
Client ID: AR125401
Sample Info: IWAR091216-54

Column phase: CLP1

Instrument: ecd2a.i

Operator: JAOC
Column diameter: 0.25

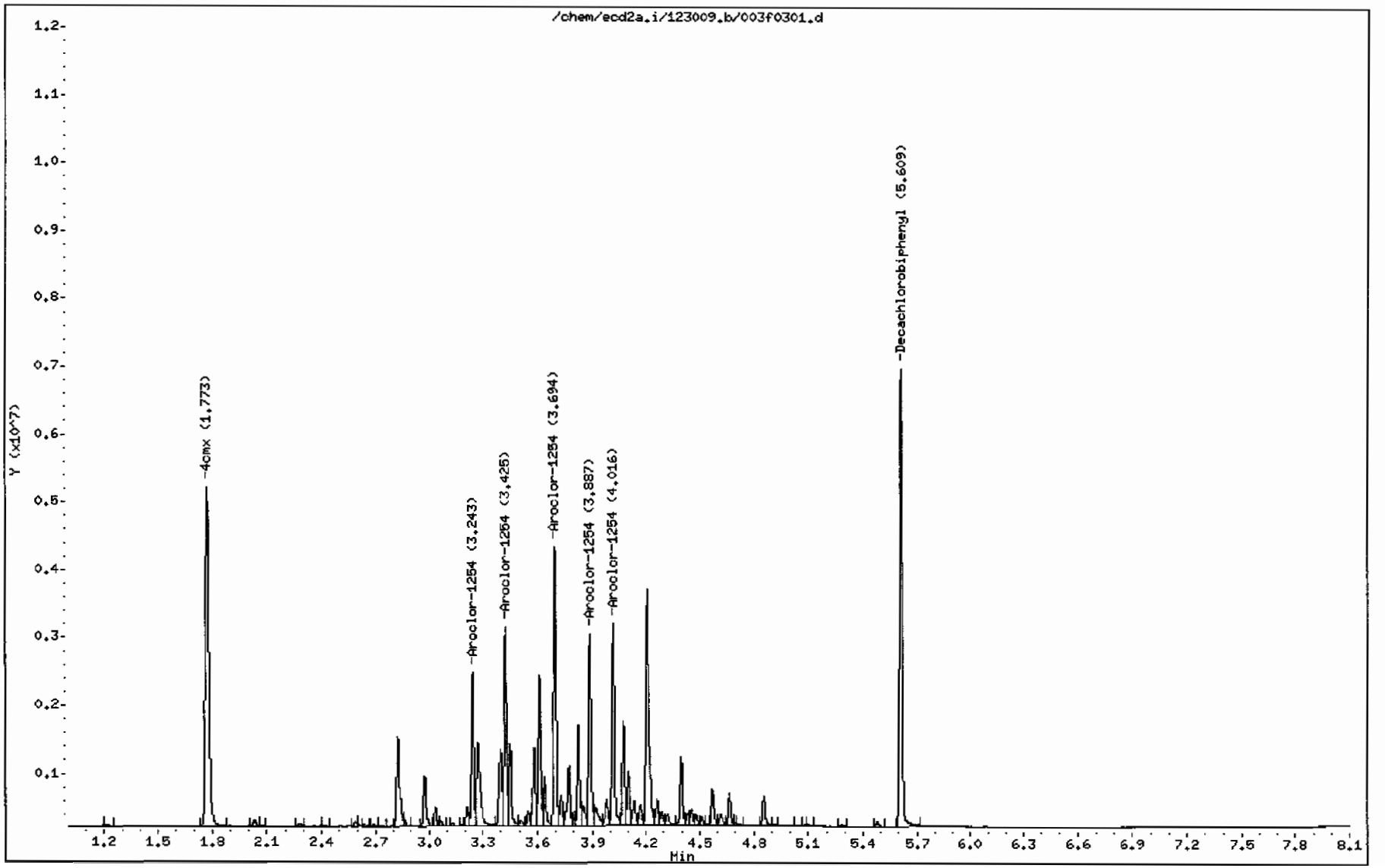

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/123009.b/003b0301.d
Lab Smp Id: WAR091216-54 Client Smp ID: AR125401
Inj Date : 30-DEC-2009 07:44
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |WAR091216-54
Misc Info : |PCB_CVS|1254||CVS|
Comment :
Method : /chem/ecd2a.i/123009.b/ECD2-B-8082-111209A.m
Meth Date : 30-Dec-2009 11:13 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012b1201.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1254.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.070	2.070	0.000	14880077	100.000	115	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.301	6.301	0.000	13721091	100.000	122	80.00- 120.00	100.00
6 Aroclor-1254					CAS #: 11097-69-1		
3.818	3.818	0.000	4986982	1000.00	1000	80.00- 120.00	100.00
3.959	3.959	0.000	5722383	1000.00	987	94.75- 134.75	114.75
4.196	4.196	0.000	4062708	1000.00	1010	61.47- 101.47	81.47
4.277	4.277	0.000	7808915	1000.00	1010	136.59- 176.59	156.59
4.440	4.440	0.000	5721348	1000.00	1020	94.73- 134.73	114.73

Average of Peak Amounts = 1.01e+03

Data File: /chem/ecd2a.i/123009.b/003b0301.d
Date : 30-DEC-2009 07:44
Client ID: AR125401
Sample Info: IWAR091216-54

Column phase: CLP2

Instrument: ecd2a.i

Operator: JAOC
Column diameter: 0.25

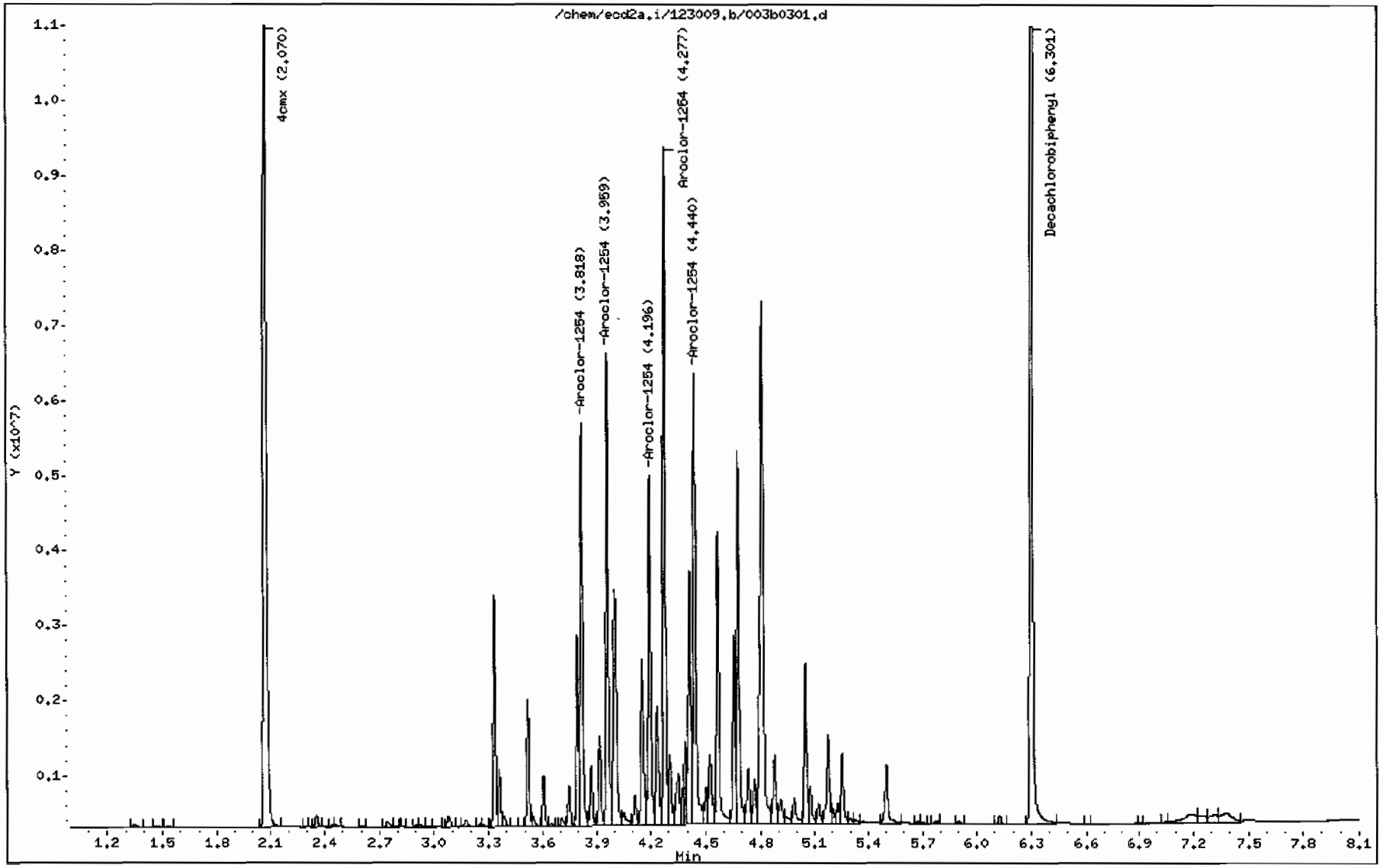

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/123009.b/004f0401.d
Lab Smp Id: WAR091217-42 Client Smp ID: AR124201
Inj Date : 30-DEC-2009 07:55
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |WAR091217-42
Misc Info : |PCB_CVS|1242||CVS|
Comment :
Method : /chem/ecd2a.i/123009.b/ECD2-F-8082-111209A.m
Meth Date : 30-Dec-2009 11:15 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012f1201.d
Als bottle: 4 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1242.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.773	1.773	0.000	6988116	100.000	112	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.609	5.608	0.001	6494690	100.000	120	80.00- 120.00	100.00
4 Aroclor-1242					CAS #: 53469-21-9		
2.275	2.275	0.000	1863843	1000.00	1080	80.00- 120.00	100.00
2.690	2.690	0.000	1517864	1000.00	1020	61.44- 101.44	81.44
2.732	2.732	0.000	926327	1000.00	1020	29.70- 69.70	49.70
2.825	2.825	0.000	757158	1000.00	1040	20.62- 60.62	40.62
2.976	2.976	0.000	1188789	1000.00	1060	43.78- 83.78	63.78

Average of Peak Amounts = 1.04e+03

Data File: /chem/ecd2a.i/123009.b/004f0401.d

Date : 30-DEC-2009 07:55

Client ID: AR124201

Sample Info: IWAR091217-42

Column phase: CLP1

Instrument: ecd2a.i

Operator: JAOC

Column diameter: 0.25

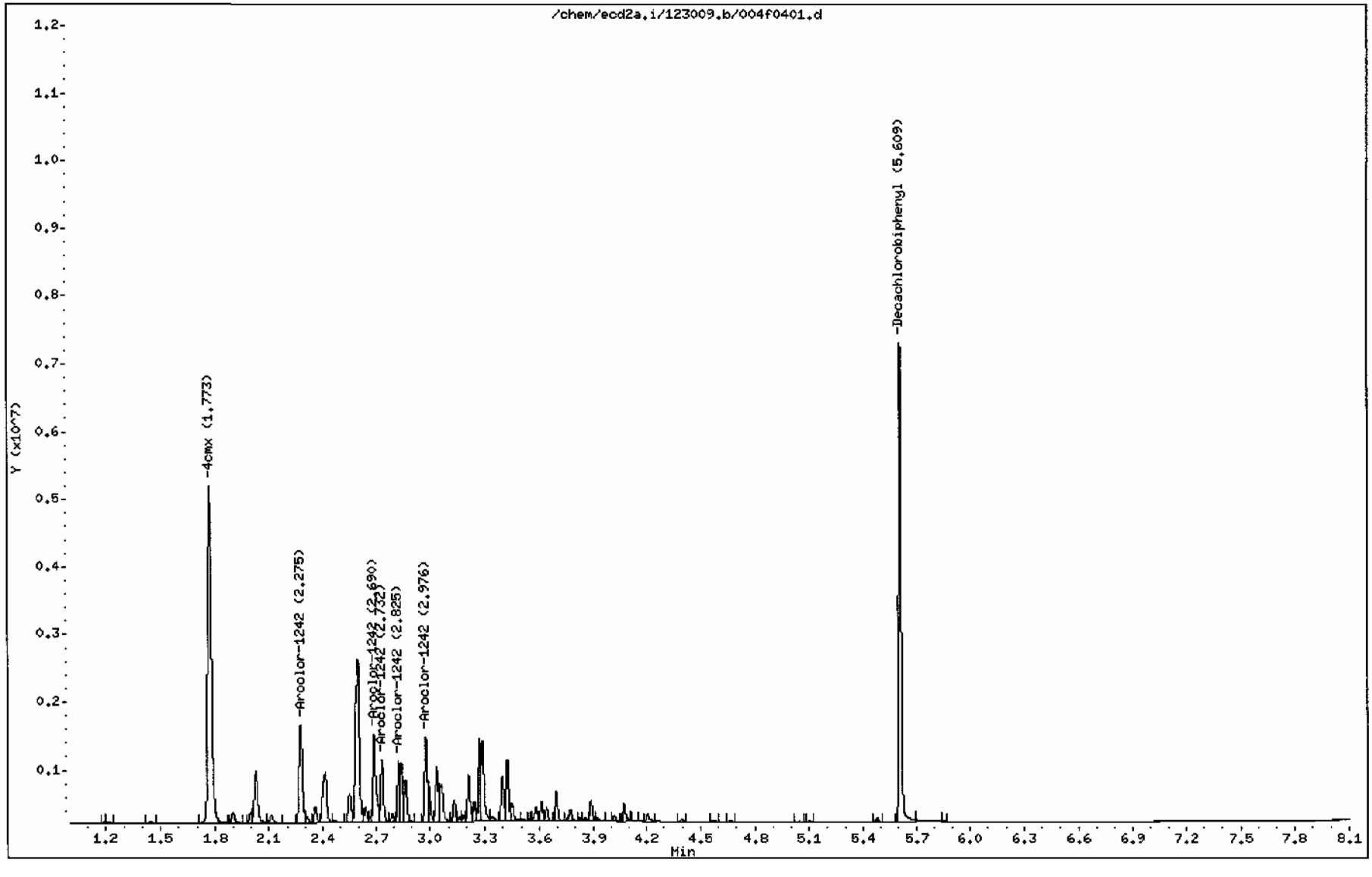

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/123009.b/004b0401.d
Lab Smp Id: WAR091217-42 Client Smp ID: AR124201
Inj Date : 30-DEC-2009 07:55
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |WAR091217-42
Misc Info : |PCB_CVS|1242||CVS|
Comment :
Method : /chem/ecd2a.i/123009.b/ECD2-B-8082-111209A.m
Meth Date : 30-Dec-2009 11:13 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012b1201.d
Als bottle: 4 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1242.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.069	2.070	-0.001	15179724	100.000	117	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.301	6.301	0.000	13930714	100.000	124	80.00- 120.00	100.00
4 Aroclor-1242					CAS #: 53469-21-9		
2.746	2.746	0.000	3858898	1000.00	1120	80.00- 120.00	100.00
3.181	3.181	0.000	2923308	1000.00	1090	55.75- 95.75	75.75
3.252	3.252	0.000	1754542	1000.00	1070	25.47- 65.47	45.47
3.332	3.332	0.000	1648081	1000.00	1090	22.71- 62.71	42.71
3.518	3.518	0.000	2420769	1000.00	1130	42.73- 82.73	62.73

Average of Peak Amounts = 1.1e+03

Data File: /chem/ecd2a.i/123009.b/004b0401.d

Date : 30-DEC-2009 07:55

Client ID: AR124201

Sample Info: IWAR091217-42

Column phase: CLP2

Instrument: ecd2a.i

Operator: JAOC

Column diameter: 0.25

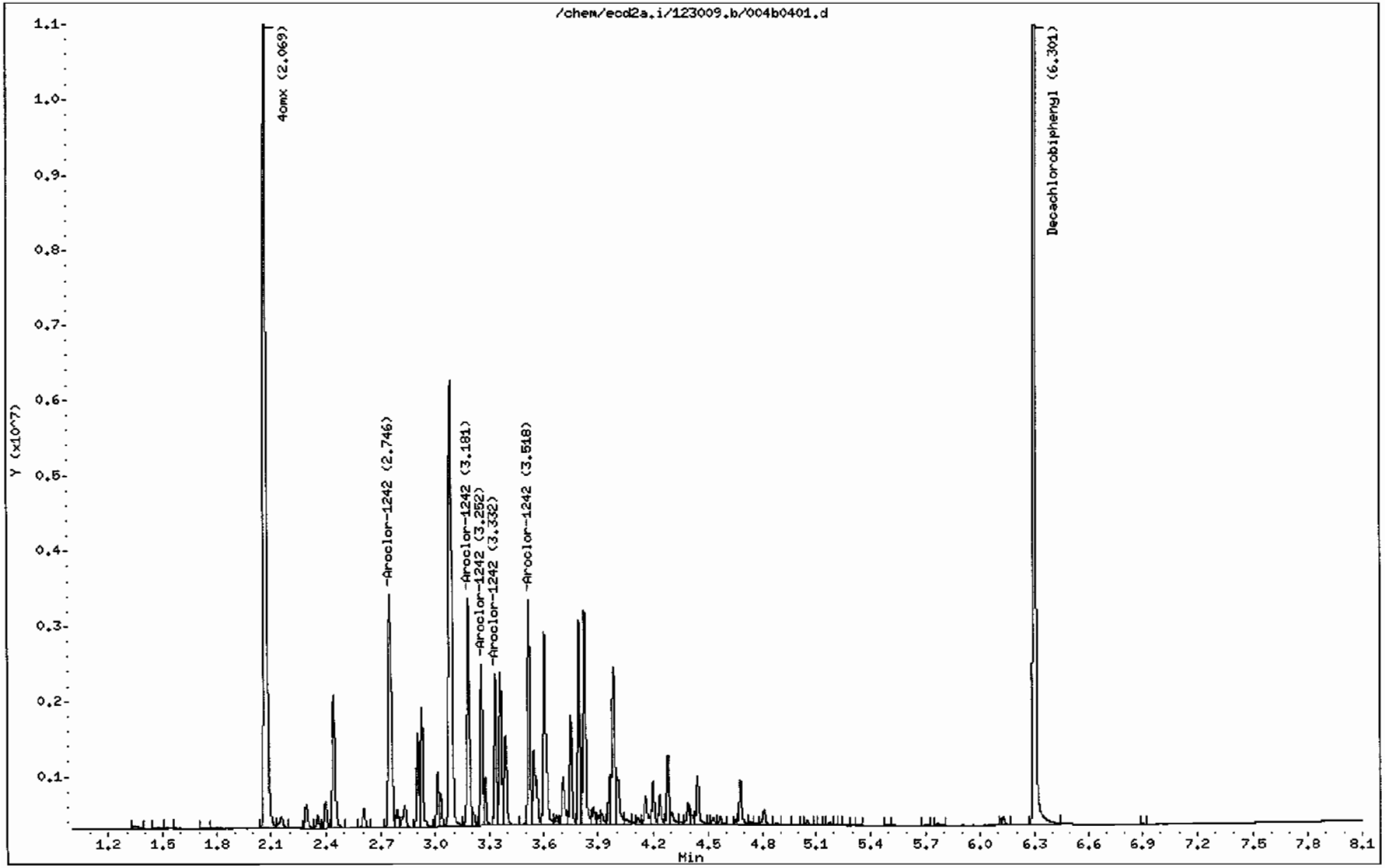

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/123009.b/005f0501.d
Lab Smp Id: WAR091217-48 Client Smp ID: AR124801
Inj Date : 30-DEC-2009 08:06
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |WAR091217-48
Misc Info : |PCB_CVS|1248||CVS|
Comment :
Method : /chem/ecd2a.i/123009.b/ECD2-F-8082-111209A.m
Meth Date : 30-Dec-2009 11:15 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012f1201.d
Als bottle: 5 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1248.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.773	1.773	0.000	7509591	100.000	120	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.609	5.608	0.001	7109844	100.000	131	80.00- 120.00	100.00
5 Aroclor-1248					CAS #: 12672-29-6		
2.824	2.824	0.000	1546198	1000.00	1010	80.00- 120.00	100.00(M)
2.976	2.976	0.000	1963846	1000.00	969	107.01- 147.01	127.01
3.036	3.036	0.000	1565773	1000.00	997	81.27- 121.27	101.27
3.271	3.271	0.000	2208457	1000.00	996	122.83- 162.83	142.83
3.423	3.423	0.000	1878659	1000.00	982	101.50- 141.50	121.50
Average of Peak Amounts =					991		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd2a.i/123009.b/005f0501.d

Page 1

Date : 30-DEC-2009 08:06

Client ID: AR124801

Instrument: ecd2a.i

Sample Info: IWAR091217-48

Operator: JAOC

Column phase: CLP1

Column diameter: 0.25

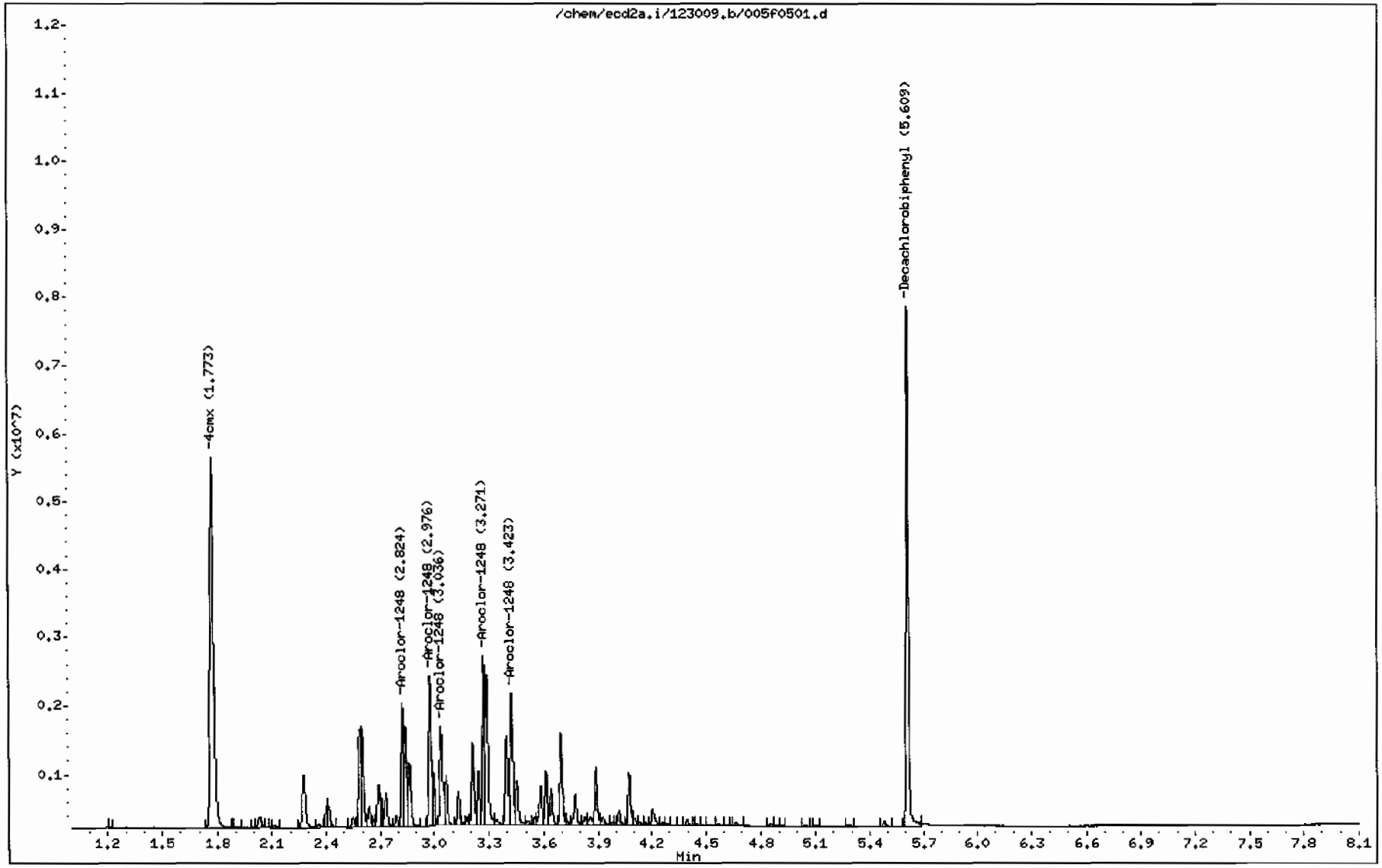

Comment: Manually Integrated
Data File: /chem/ecd2a.i/123009.b/005f0505.d
Operator: JAOC
Injection Date: 30-DEC-2009 08:06
Instrument: ecd2a.i
Client Sample ID: AR124801

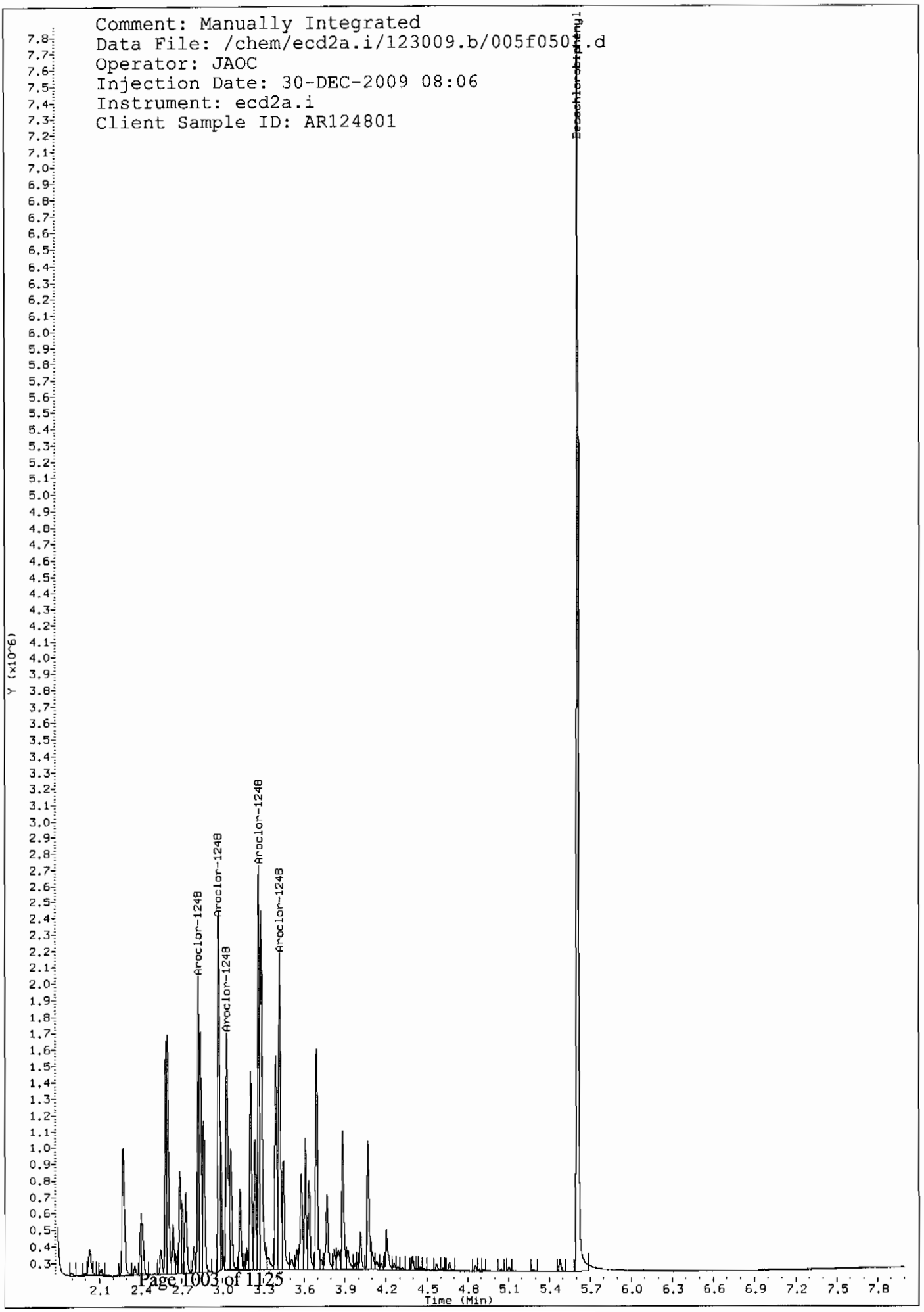

Comment: Before manual integration
Data File: /chem/ecd2a.i/123009.b/orig-00[illegible]f0501.d
Operator: JAOC
Injection Date: 30-DEC-2009 08:06
Instrument: ecd2a.i
Client Sample ID: AR124801

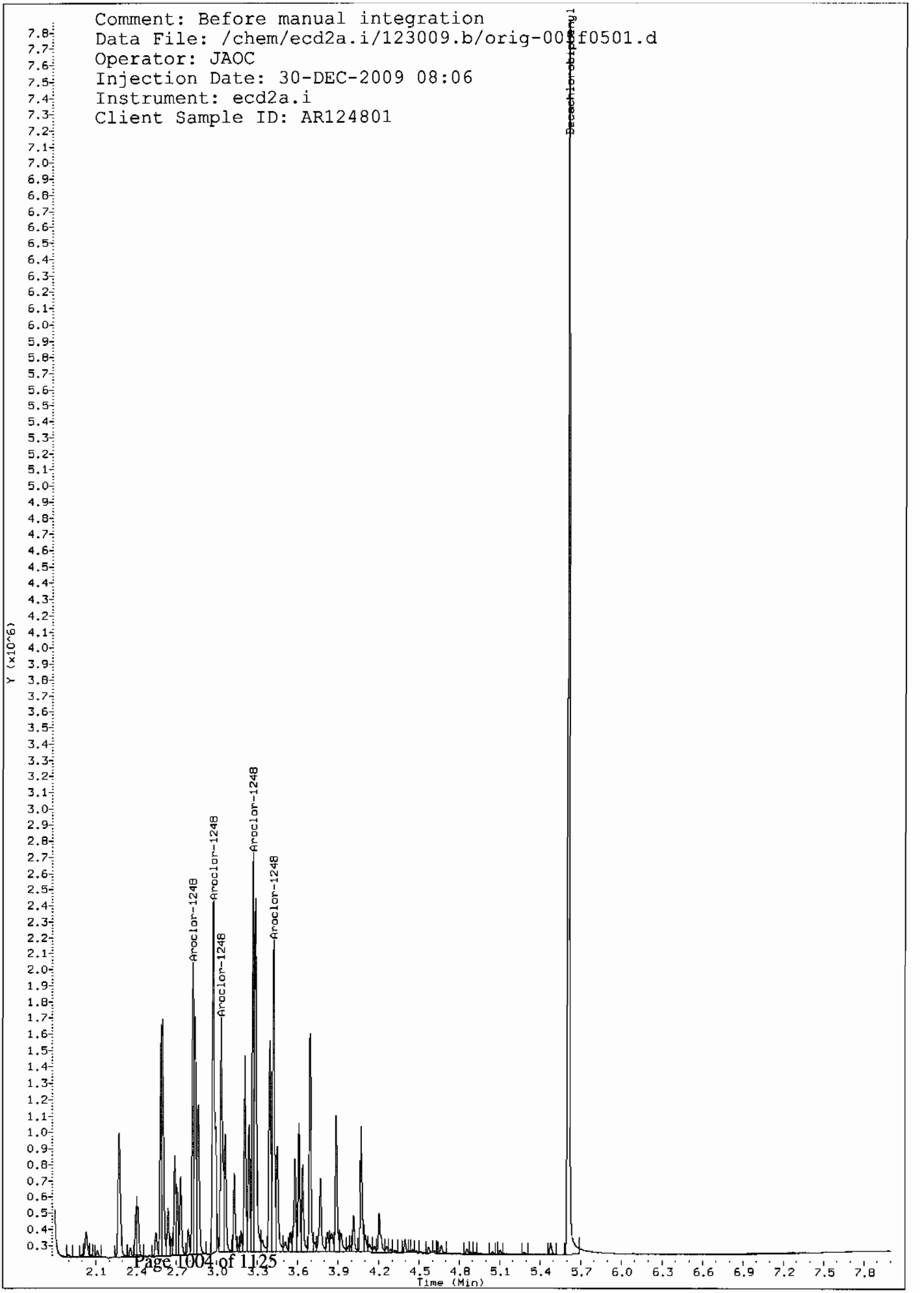

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/123009.b/005b0501.d
Lab Smp Id: WAR091217-48 Client Smp ID: AR124801
Inj Date : 30-DEC-2009 08:06
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |WAR091217-48
Misc Info : |PCB_CVS|1248||CVS|
Comment :
Method : /chem/ecd2a.i/123009.b/ECD2-B-8082-111209A.m
Meth Date : 30-Dec-2009 11:13 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012b1201.d
Als bottle: 5 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1248.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.069	2.070	-0.001	16408496	100.000	127	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.301	6.301	0.000	15339019	100.000	136	80.00- 120.00	100.00
5 Aroclor-1248					CAS #: 12672-29-6		
3.332	3.332	0.000	3359203	1000.00	1020	80.00- 120.00	100.00
3.518	3.518	0.000	4298689	1000.00	1030	107.97- 147.97	127.97
3.604	3.604	0.000	4516093	1000.00	1010	114.44- 154.44	134.44
3.794	3.794	0.000	4716756	1000.00	1000	120.41- 160.41	140.41
3.824	3.824	0.000	5469872	1000.00	1010	142.83- 182.83	162.83

Average of Peak Amounts = 1.02e+03

Data File: /chem/ecd2a.i/123009.b/005b0501.d

Date : 30-DEC-2009 08:06

Client ID: AR124801

Sample Info: IWAR091217-48

Column phase: CLP2

Instrument: ecd2a.i

Operator: JAOC

Column diameter: 0.25

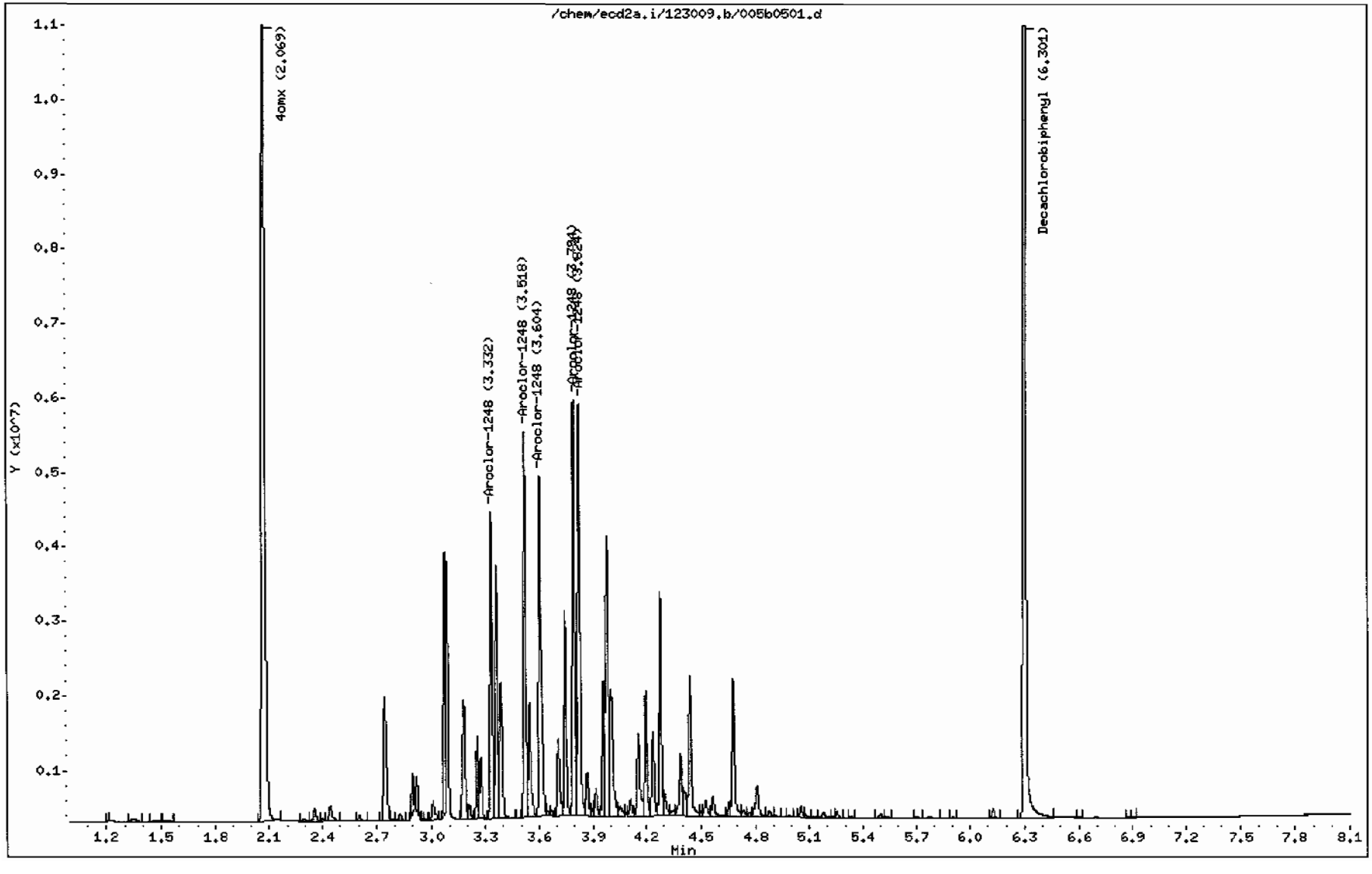

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RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/123009.b/006f0601.d
Lab Smp Id: WAR090930-32 Client Smp ID: AR123201
Inj Date : 30-DEC-2009 08:17
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |WAR090930-32
Misc Info : |PCB_CVS|1232||CVS|
Comment :
Method : /chem/ecd2a.i/123009.b/ECD2-F-8082-111209A.m
Meth Date : 30-Dec-2009 11:15 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012f1201.d
Als bottle: 6 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1232.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.773	1.773	0.000	10463929	100.000	168	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.608	5.608	0.000	9776053	100.000	181	80.00- 120.00	100.00
3 Aroclor-1232					CAS #: 11141-16-5		
2.027	2.027	0.000	1660377	1000.00	1420	80.00- 120.00	100.00
2.276	2.276	0.000	1332823	1000.00	1430	60.27- 100.27	80.27
2.690	2.690	0.000	1126163	1000.00	1410	47.83- 87.83	67.83
2.732	2.732	0.000	719180	1000.00	1410	23.31- 63.31	43.31
2.976	2.976	0.000	832411	1000.00	1420	30.13- 70.13	50.13

Average of Peak Amounts = 1.42e+03

Data File: /chem/ecd2a.i/123009.b/006f0601.d
Date : 30-DEC-2009 08:17
Client ID: AR123201
Sample Info: !WAR090930-32

Column phase: CLP1

Instrument: ecd2a.i

Operator: JAOC
Column diameter: 0.25

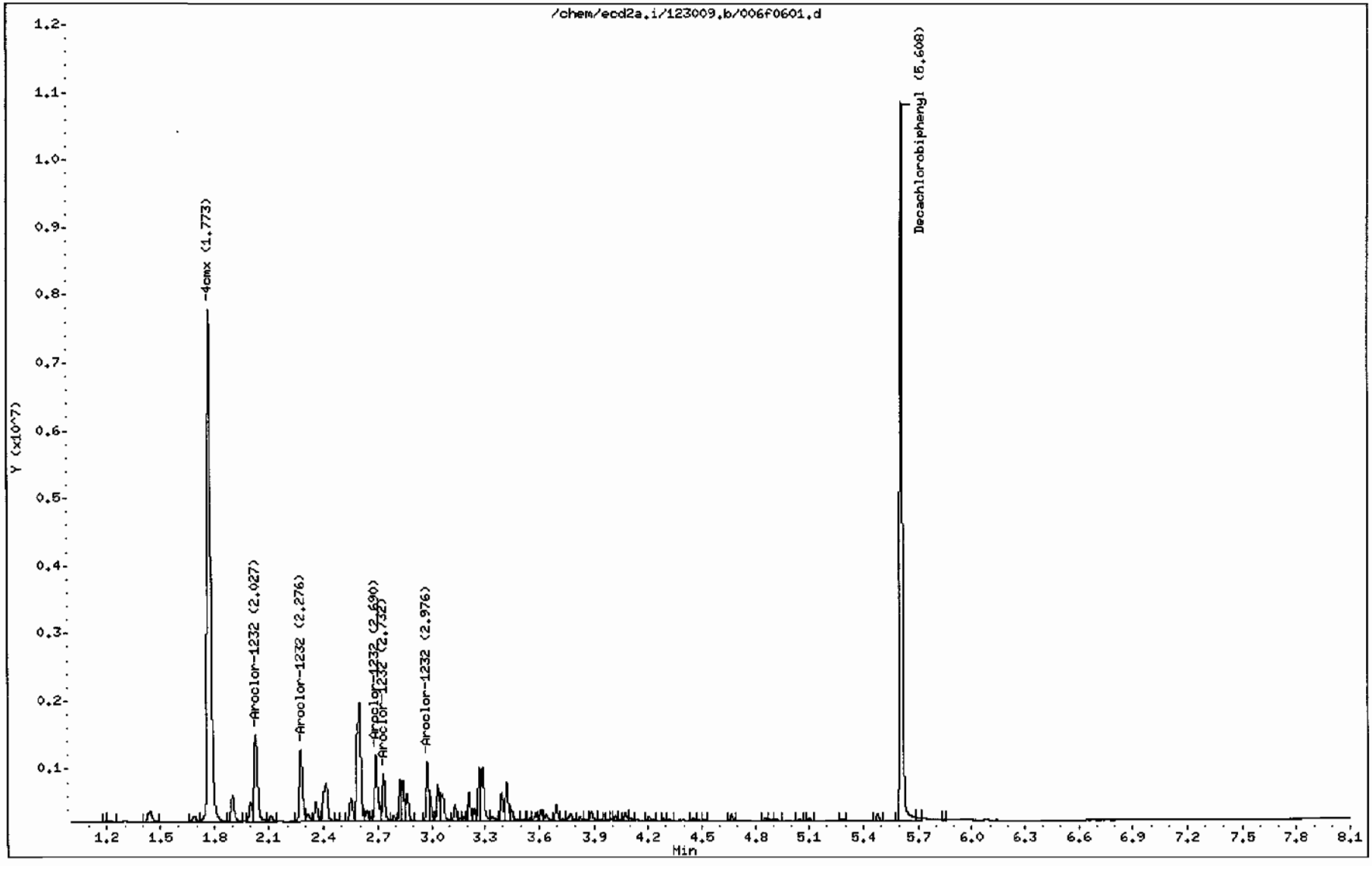

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/123009.b/006b0601.d
Lab Smp Id: WAR090930-32 Client Smp ID: AR123201
Inj Date : 30-DEC-2009 08:17
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |WAR090930-32
Misc Info : |PCB_CVS|1232||CVS|
Comment :
Method : /chem/ecd2a.i/123009.b/ECD2-B-8082-111209A.m
Meth Date : 30-Dec-2009 11:13 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012b1201.d
Als bottle: 6 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1232.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.069	2.070	-0.001	22857452	100.000	177	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.300	6.301	-0.001	21244439	100.000	188	80.00- 120.00	100.00
3 Aroclor-1232					CAS #: 11141-16-5		
2.443	2.443	0.000	2907806	1000.00	1410	80.00- 120.00	100.00
2.746	2.746	0.000	2774971	1000.00	1420	75.43- 115.43	95.43
3.181	3.181	0.000	2097186	1000.00	1400	52.12- 92.12	72.12
3.253	3.253	0.000	1279798	1000.00	1370	24.01- 64.01	44.01
3.518	3.518	0.000	1628353	1000.00	1470	36.00- 76.00	56.00

Average of Peak Amounts = 1.41e+03

Data File: /chem/ecd2a.i/123009.b/006b0601.d

Date : 30-DEC-2009 08:17

Client ID: AR123201

Sample Info: IWAR090930-32

Column phase: CLP2

Instrument: ecd2a.i

Operator: JAOC

Column diameter: 0.25

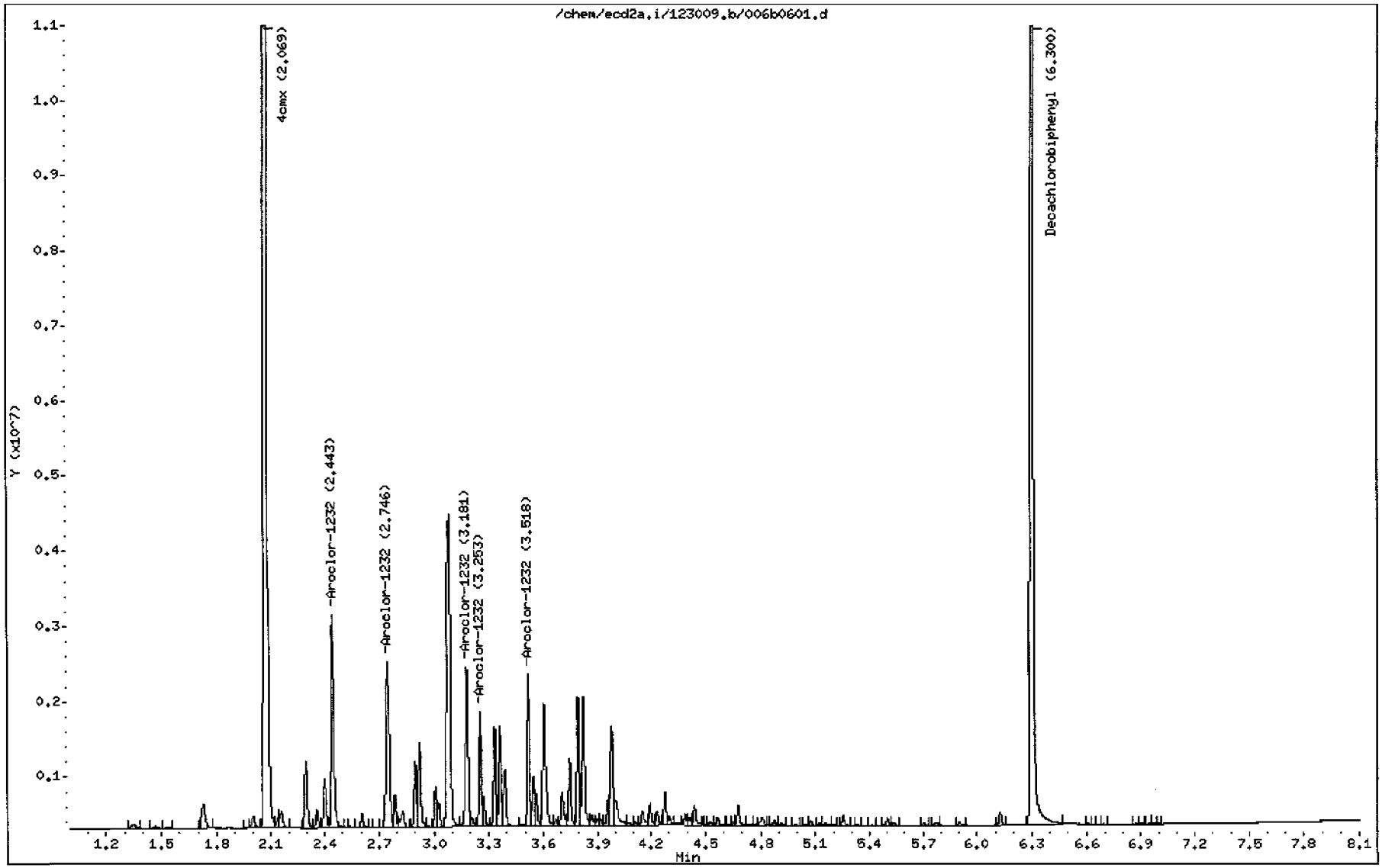

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/123009.b/007f0701.d
Lab Smp Id: WAR091111-21 Client Smp ID: AR122101
Inj Date : 30-DEC-2009 08:28
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |WAR091111-21
Misc Info : |PCB_CVS|1221||CVS|
Comment :
Method : /chem/ecd2a.i/123009.b/ECD2-F-8082-111209A.m
Meth Date : 31-Dec-2009 07:50 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012f1201.d
Als bottle: 7 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1221.sub
Target Version: 3.50 Sample Matrix: None

AMOUNTS

RT	EXP RT	DLT RT	RESPONSE	CAL-AMT (ug/L)	ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.771	1.773	-0.002	7147278	100.000	115	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.609	5.608	0.001	6577700	100.000	122	80.00- 120.00	100.00
2 Aroclor-1221					CAS #: 11104-28-2		
1.438	1.438	0.000	571130	1000.00	1230	80.00- 120.00	100.00
1.898	1.898	0.000	772449	1000.00	1180	115.25- 155.25	135.25
1.997	1.997	0.000	437291	1000.00	1260	56.57- 96.57	76.57

Average of Peak Amounts = 1.22e+03

Data File: /chem/ecd2a.i/123009.b/007f0701.d

Date : 30-DEC-2009 08:28

Client ID: AR122101

Sample Info: IWAR091111-21

Column phase: CLP1

Instrument: ecd2a.i

Operator: JAOC

Column diameter: 0.25

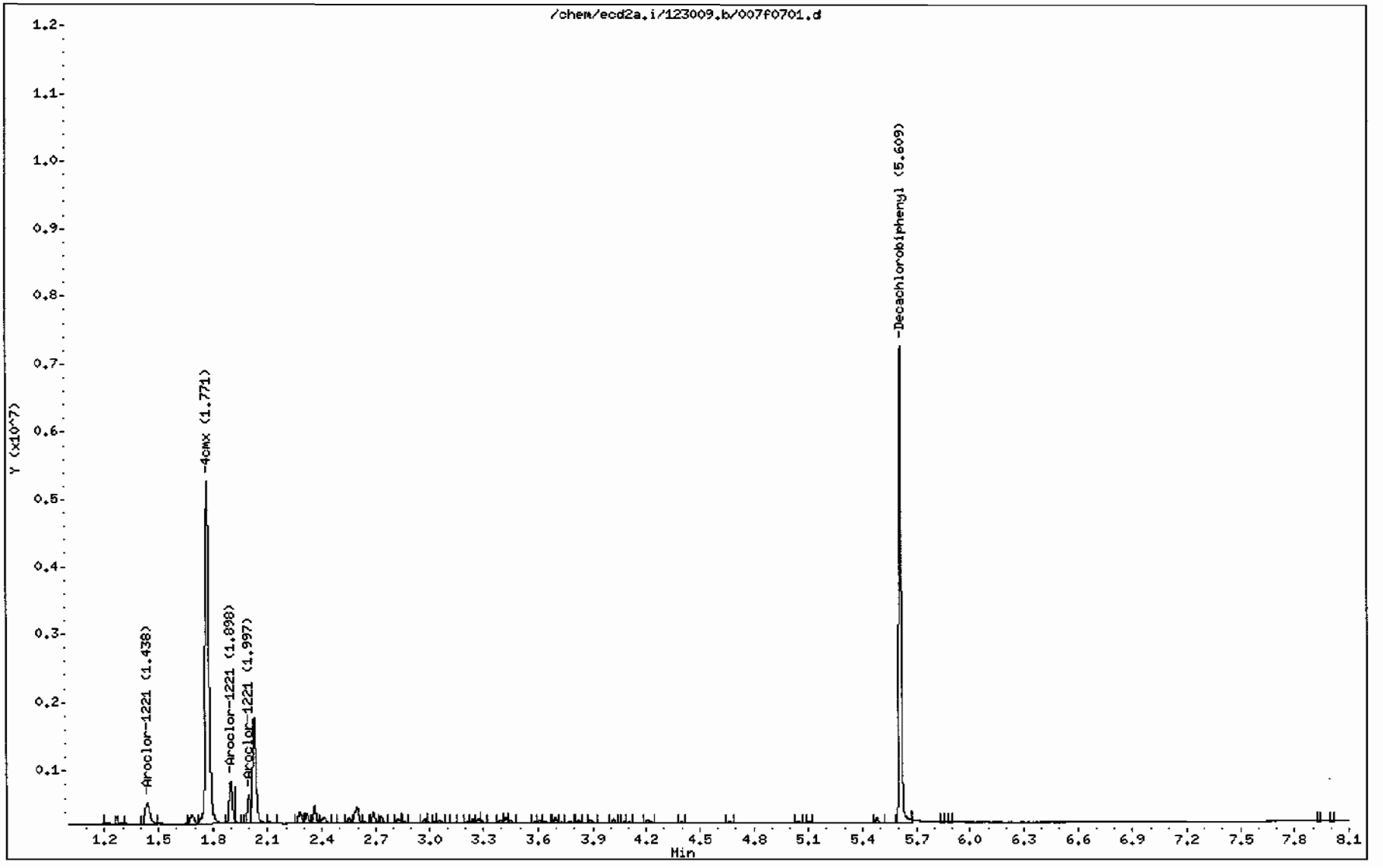

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/123009.b/007b0701.d
Lab Smp Id: WAR091111-21 Client Smp ID: AR122101
Inj Date : 30-DEC-2009 08:28
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |WAR091111-21
Misc Info : |PCB_CVS|1221||CVS|
Comment :
Method : /chem/ecd2a.i/123009.b/ECD2-B-8082-111209A.m
Meth Date : 31-Dec-2009 07:09 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012b1201.d
Als bottle: 7 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1221.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.068	2.070	-0.002	15287542	100.000	118	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.301	6.301	0.000	14261492	100.000	126	80.00- 120.00	100.00
2 Aroclor-1221					CAS #: 11104-28-2		
2.292	2.292	0.000	1497544	1000.00	1180	80.00- 120.00	100.00
2.398	2.398	0.000	926867	1000.00	1200	41.89- 81.89	61.89
2.442	2.442	0.000	3636402	1000.00	1190	222.82- 262.82	242.82

Average of Peak Amounts = 1.19e+03

Data File: /chem/ecd2a.i/123009.b/007b0701.d

Page 1

Date : 30-DEC-2009 08:28

Client ID: AR122101

Instrument: ecd2a.i

Sample Info: IWAR091111-21

Operator: JAOC

Column phase: CLP2

Column diameter: 0.25

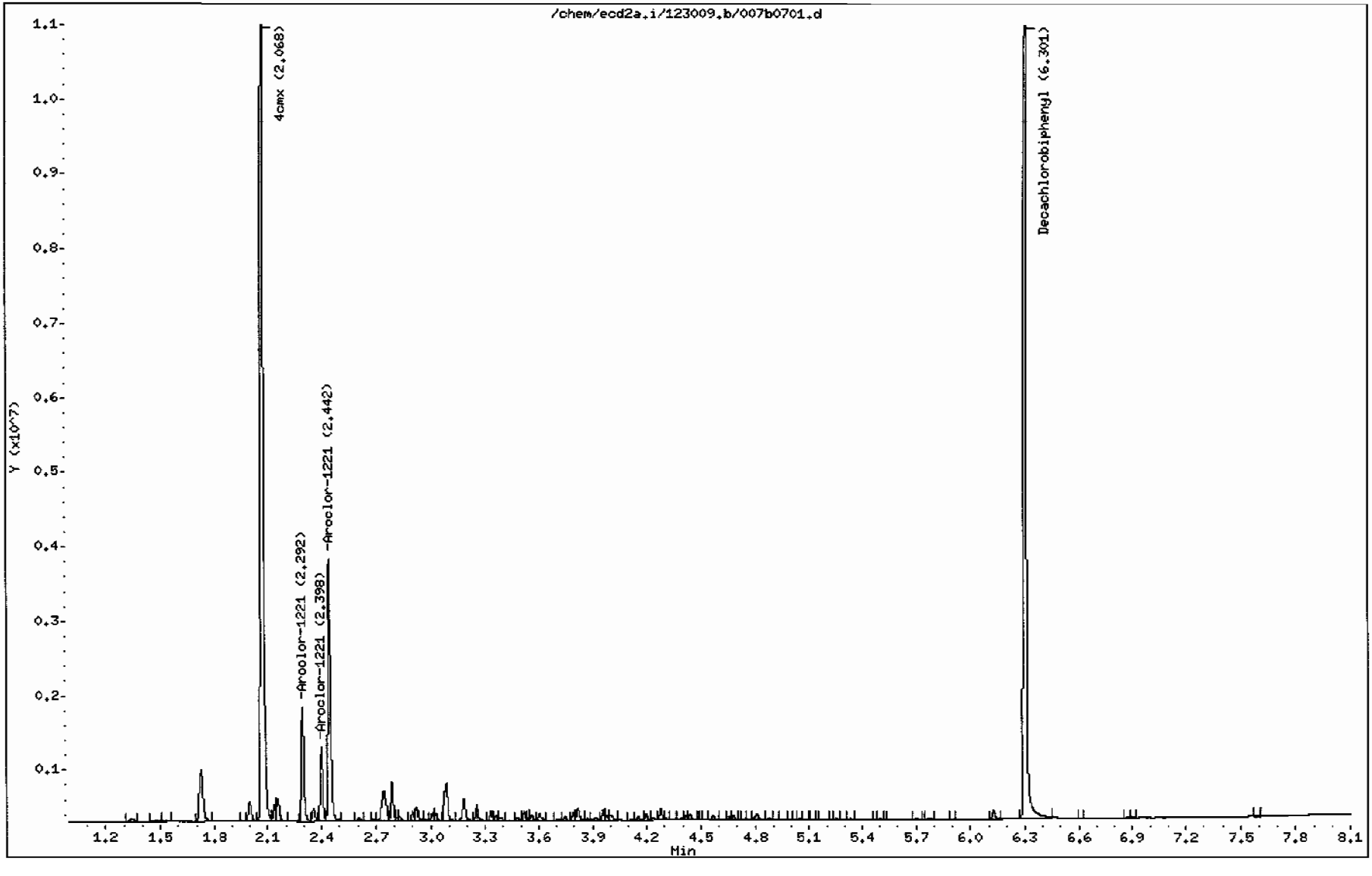

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/123009.b/039f3901.d
Lab Smp Id: WAR091211-60 04 Client Smp ID: AR166004
Inj Date : 30-DEC-2009 14:55
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |WAR091211-60 04
Misc Info : |PCB_CVS|1660||CVS|
Comment :
Method : /chem/ecd2a.i/123009.b/ECD2-F-8082-111209A.m
Meth Date : 31-Dec-2009 07:50 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012f1201.d
Als bottle: 39 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.771	1.773	-0.002	6554025	100.000	105	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.604	5.608	-0.004	6133206	100.000	113	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.272	2.276	-0.004	2077078	1000.00	928	80.00- 120.00	100.00(M)
2.595	2.599	-0.004	4365244	1000.00	932	192.96- 232.96	210.16
2.686	2.690	-0.004	1753183	1000.00	922	65.36- 105.36	84.41
2.821	2.825	-0.004	872091	1000.00	894	23.39- 63.39	41.99
2.972	2.975	-0.003	1317286	1000.00	904	44.66- 84.66	63.42
			Average of Peak Amounts =		916		
7 Aroclor-1260					CAS #: 11096-82-5		
4.011	4.016	-0.005	4153092	1000.00	997	80.00- 120.00	100.00
4.283	4.287	-0.004	2608320	1000.00	1010	44.01- 84.01	62.80
4.449	4.452	-0.003	2729252	1000.00	1040	45.82- 85.82	65.72
4.660	4.665	-0.005	6322701	1000.00	1040	134.68- 174.68	152.24
4.850	4.854	-0.004	3135767	1000.00	1060	55.32- 95.32	75.50
			Average of Peak Amounts =		1.03e+03		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd2a.i/123009.b/039f3901.d

Date : 30-DEC-2009 14:55

Client ID: AR166004

Sample Info: !WAR091211-60 04

Column phase: CLP1

Instrument: ecd2a.i

Operator: JAOC

Column diameter: 0.25

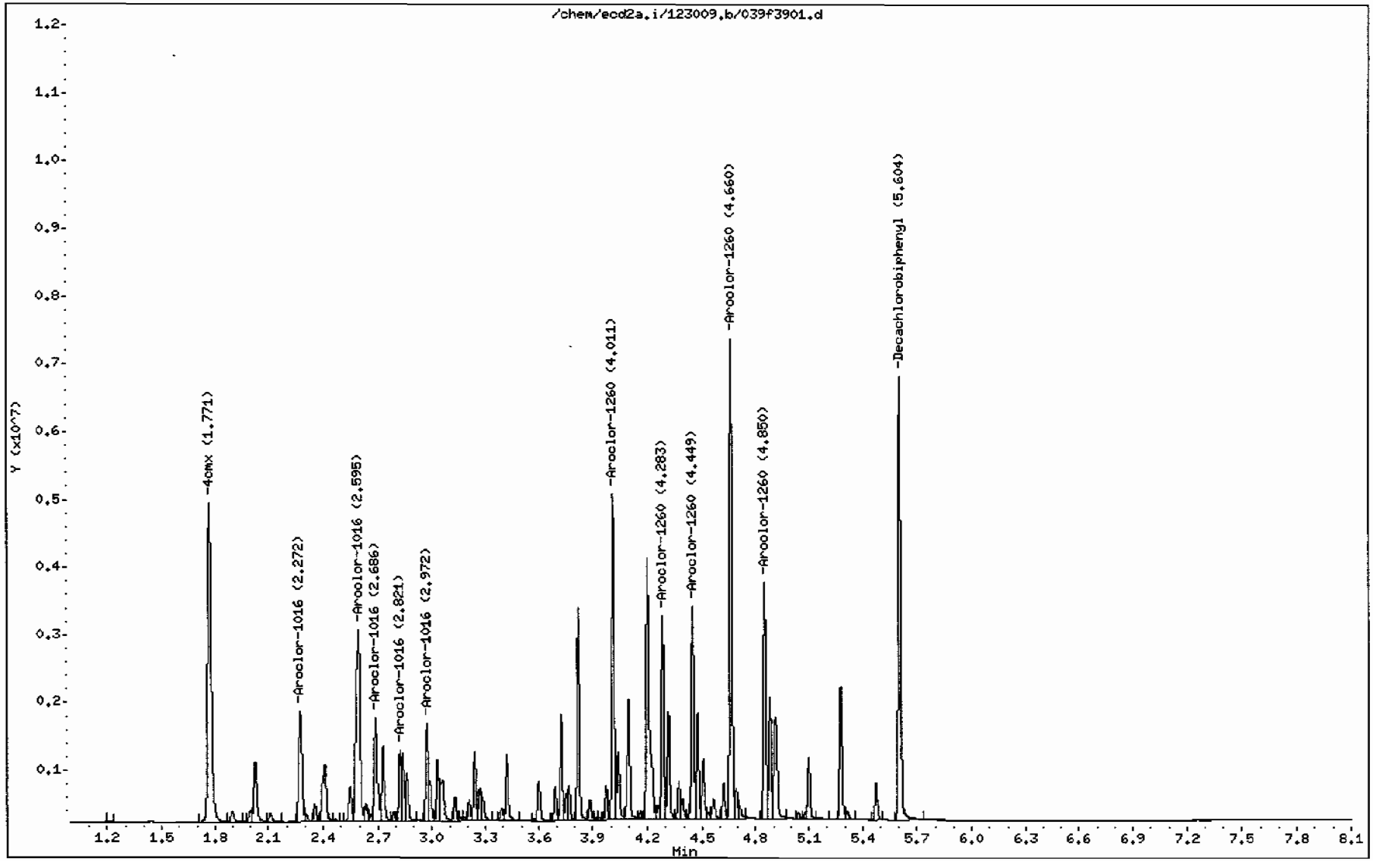

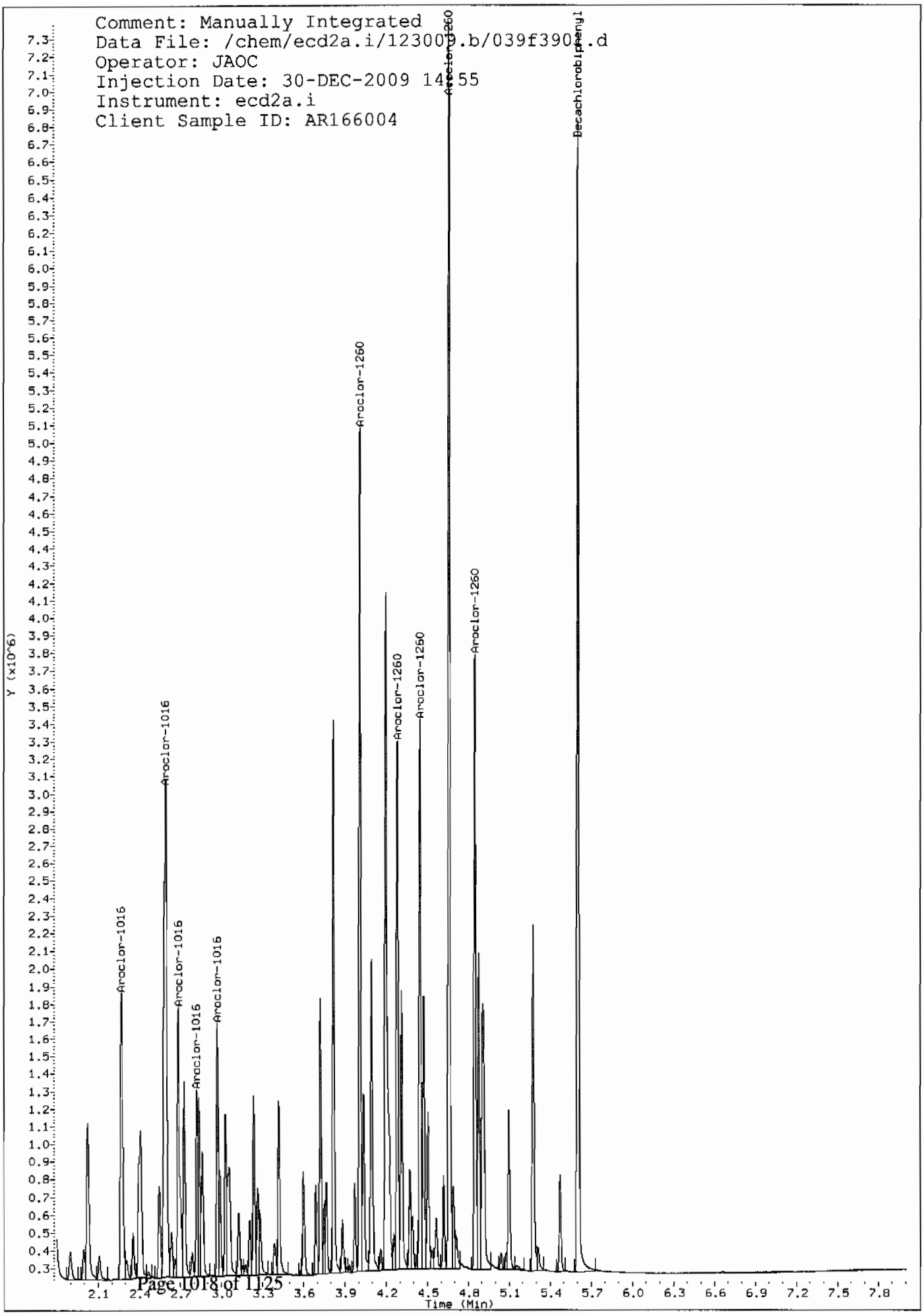
Comment: Manually Integrated
Data File: /chem/ecd2a.i/123009.b/039f3904.d
Operator: JAOC
Injection Date: 30-DEC-2009 14:55
Instrument: ecd2a.i
Client Sample ID: AR166004
Aroclor-1260
Decachlorobiphenyl
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
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Y (x10^6)
Time (Min)

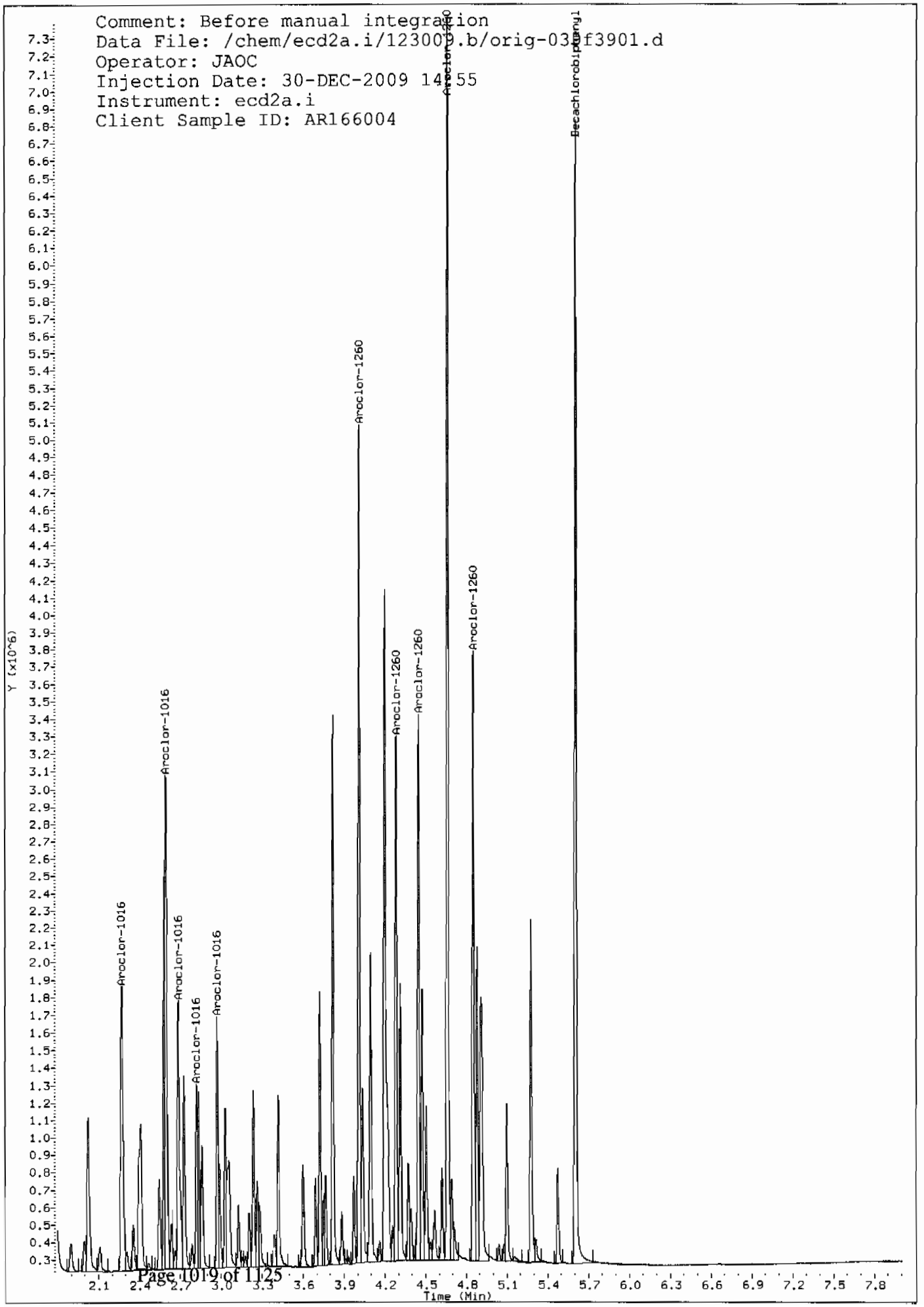
Comment: Before manual integration
Data File: /chem/ecd2a.i/123009.b/orig-03f3901.d
Operator: JAOC
Injection Date: 30-DEC-2009 14:55
Instrument: ecd2a.i
Client Sample ID: AR166004
Decachlorobiphenyl
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Y (x10^6)
Time (Min)

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/123009.b/039b3901.d
Lab Smp Id: WAR091211-60 04 Client Smp ID: AR166004
Inj Date : 30-DEC-2009 14:55
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |WAR091211-60 04
Misc Info : |PCB_CVS|1660||CVS|
Comment :
Method : /chem/ecd2a.i/123009.b/ECD2-B-8082-111209A.m
Meth Date : 31-Dec-2009 07:09 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012b1201.d
Als bottle: 39 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

AMOUNTS

RT	EXP RT	DLT RT	RESPONSE	CAL-AMT (ug/L)	ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.067	2.070	-0.003	14127229	100.000	109	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.297	6.301	-0.004	12992259	100.000	115	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.744	2.747	-0.003	4322826	1000.00	953	80.00- 120.00	100.00
3.178	3.181	-0.003	3406277	1000.00	946	58.60- 98.60	78.80
3.329	3.332	-0.003	1953407	1000.00	951	25.46- 65.46	45.19
3.357	3.360	-0.003	2024962	1000.00	948	27.36- 67.36	46.84
3.516	3.518	-0.002	2757017	1000.00	960	44.06- 84.06	63.78
Average of Peak Amounts =					952		
7 Aroclor-1260					CAS #: 11096-82-5		
4.412	4.414	-0.002	5735502	1000.00	994	80.00- 120.00	100.00
4.563	4.566	-0.003	7286573	1000.00	1020	107.79- 147.79	127.04
4.675	4.677	-0.002	4965500	1000.00	1030	67.63- 107.63	86.57
4.872	4.874	-0.002	5761669	1000.00	1020	80.63- 120.63	100.46
5.497	5.500	-0.003	9623732	1000.00	1060	147.60- 187.60	167.79
Average of Peak Amounts =					1.03e+03		

Data File: /chem/ecd2a.i/123009.b/039b3901.d
Date : 30-DEC-2009 14:55
Client ID: AR166004
Sample Info: IWAR091211-60 04

Column phase: CLP2

Instrument: ecd2a.i

Operator: JAOC
Column diameter: 0.25

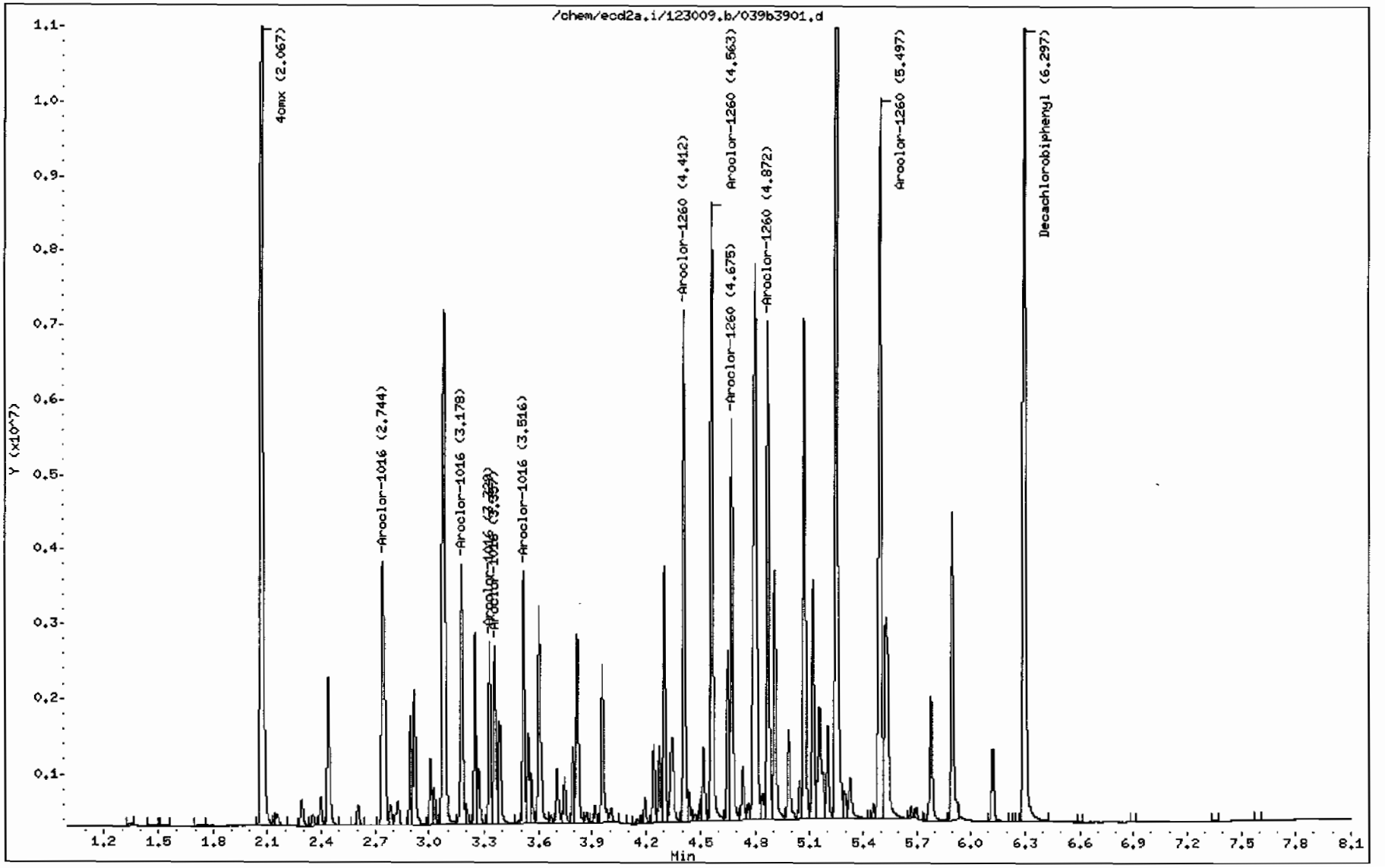

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/123009.b/047f4701.d
Lab Smp Id: WAR091211-60 05 Client Smp ID: AR166005
Inj Date : 30-DEC-2009 16:24
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |WAR091211-60 05
Misc Info : |PCB_CVS|1660||CVS|
Comment :
Method : /chem/ecd2a.i/123009.b/ECD2-F-8082-111209A.m
Meth Date : 31-Dec-2009 07:50 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012f1201.d
Als bottle: 47 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.770	1.773	-0.003	6640453	100.000	107	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.608	5.608	0.000	6271144	100.000	116	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.273	2.276	-0.003	2059687	1000.00	920	80.00- 120.00	100.00
2.597	2.599	-0.002	4386304	1000.00	936	192.96- 232.96	212.96
2.688	2.690	-0.002	1758198	1000.00	925	65.36- 105.36	85.36
2.824	2.825	-0.001	893753	1000.00	916	23.39- 63.39	43.39
2.975	2.975	0.000	1331820	1000.00	914	44.66- 84.66	64.66
Average of Peak Amounts =					922		
7 Aroclor-1260					CAS #: 11096-82-5		
4.015	4.016	-0.001	4189289	1000.00	1000	80.00- 120.00	100.00
4.287	4.287	0.000	2681609	1000.00	1040	44.01- 84.01	64.01
4.452	4.452	0.000	2757541	1000.00	1050	45.82- 85.82	65.82
4.665	4.665	0.000	6479881	1000.00	1060	134.68- 174.68	154.68
4.854	4.854	0.000	3155340	1000.00	1070	55.32- 95.32	75.32
Average of Peak Amounts =					1.05e+03		

Data File: /chem/ecd2a.i/123009.b/047f4701.d
Date : 30-DEC-2009 16:24
Client ID: AR166005
Sample Info: IWAR091211-60 05

Column phase: CLP1

Instrument: ecd2a.i

Operator: JAOC
Column diameter: 0.25

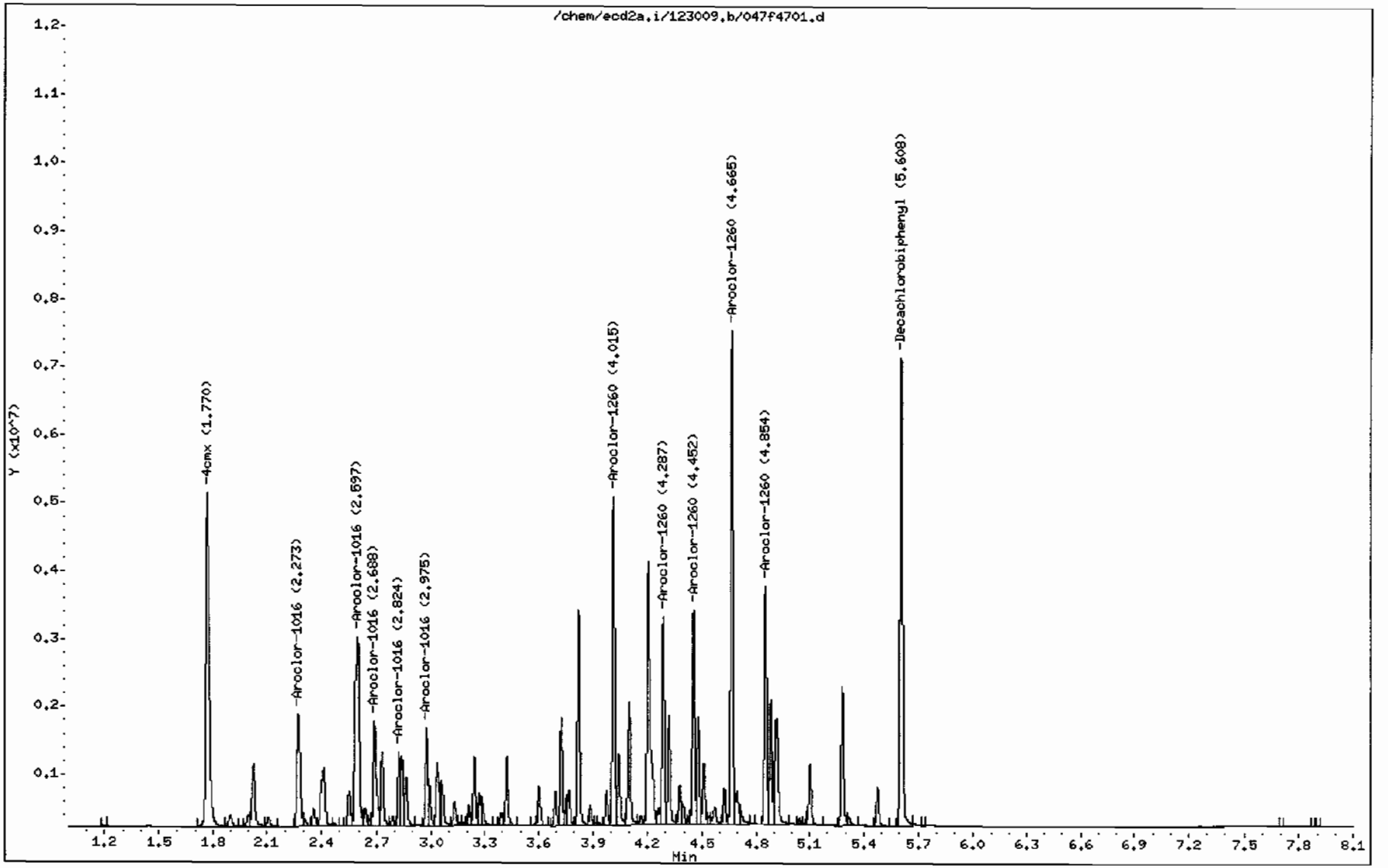

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/123009.b/047b4701.d
Lab Smp Id: WAR091211-60 05 Client Smp ID: AR166005
Inj Date : 30-DEC-2009 16:24
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |WAR091211-60 05
Misc Info : |PCB_CVS|1660||CVS|
Comment :
Method : /chem/ecd2a.i/123009.b/ECD2-B-8082-111209A.m
Meth Date : 31-Dec-2009 07:09 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012b1201.d
Als bottle: 47 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.067	2.070	-0.003	14371181	100.000	111	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.300	6.301	-0.001	13305631	100.000	118	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.745	2.747	-0.002	4352691	1000.00	959	80.00- 120.00	100.00
3.180	3.181	-0.001	3421159	1000.00	950	58.60- 98.60	78.60
3.331	3.332	-0.001	1978648	1000.00	964	25.46- 65.46	45.46
3.359	3.360	-0.001	2061226	1000.00	964	27.36- 67.36	47.36
3.517	3.518	-0.001	2788520	1000.00	971	44.06- 84.06	64.06
Average of Peak Amounts =					962		
7 Aroclor-1260					CAS #: 11096-82-5		
4.415	4.414	0.001	5874575	1000.00	1020	80.00- 120.00	100.00
4.566	4.566	0.000	7506869	1000.00	1050	107.79- 147.79	127.79
4.677	4.677	0.000	5148050	1000.00	1070	67.63- 107.63	87.63
4.874	4.874	0.000	5911452	1000.00	1050	80.63- 120.63	100.63
5.501	5.500	0.001	9845892	1000.00	1090	147.60- 187.60	167.60
Average of Peak Amounts =					1.06e+03		

Data File: /chem/ecd2a.i/123009.b/047b4701.d
Date : 30-DEC-2009 16:24
Client ID: AR166005
Sample Info: IWAR091211-60 05
Column phase: CLP2

Instrument: ecd2a.i
Operator: JAOC
Column diameter: 0.25

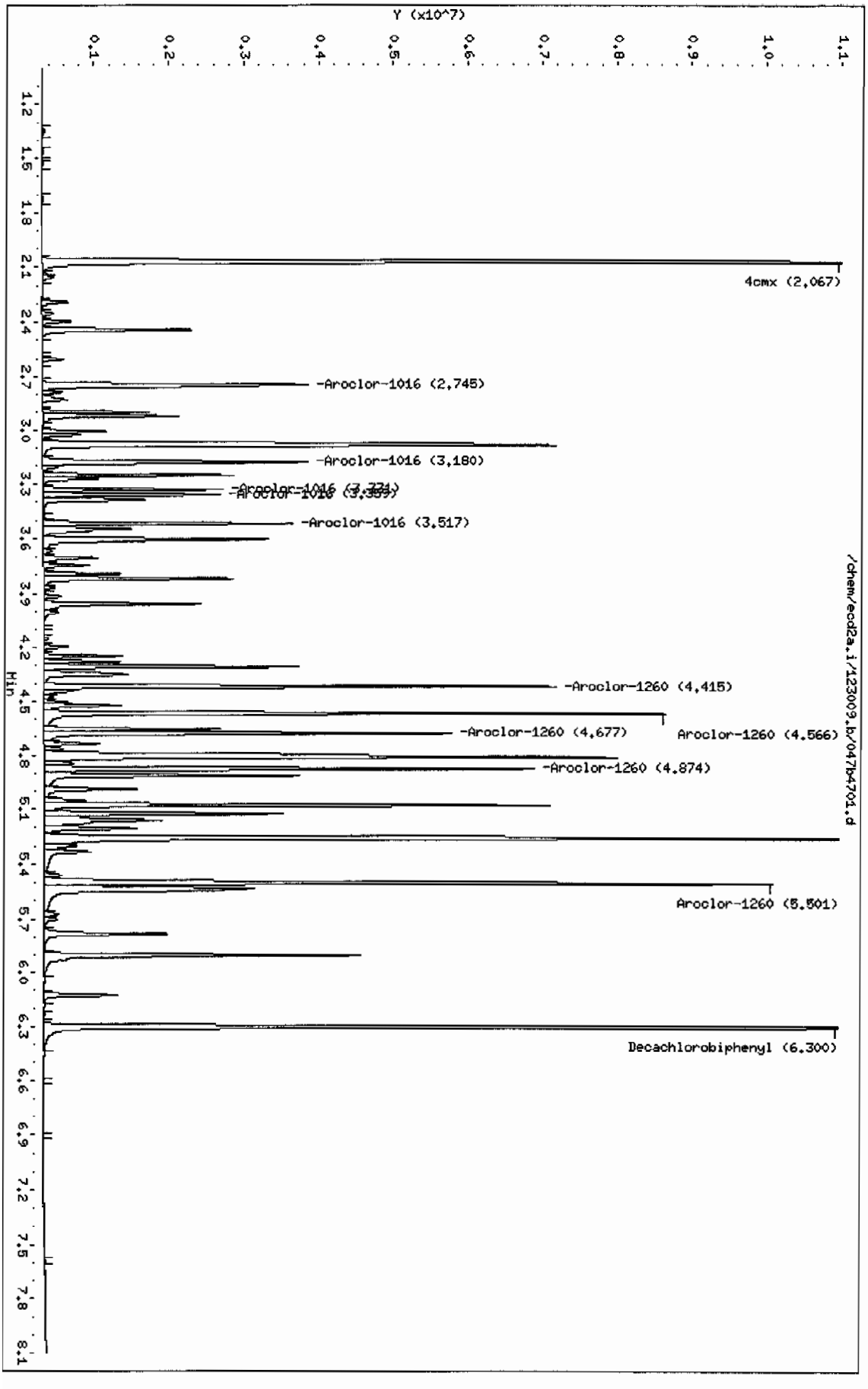

Page 1

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1086

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 12/14/09 12/14/09

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 1.97 DCB: 5.29

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR091130-99	12/14/09	0444	1.97	5.29
02	ZZZZZ	ZZZZZ	12/14/09	0454	1.97	5.29
03	ZZZZZ	ZZZZZ	12/14/09	0505	1.97	5.29
04	ZZZZZ	ZZZZZ	12/14/09	0515	1.97	5.29
05	ZZZZZ	ZZZZZ	12/14/09	0526	1.97	5.29
06	AR123201	WAR090930-32	12/14/09	0536	1.97	5.29
07	AR122101	WAR090803-21	12/14/09	0547	1.97	5.29
08	AR126201	WAR090803-62	12/14/09	0558	1.97	5.29
09	ZZZZZ	ZZZZZ	12/14/09	0608	1.97	5.29
10	ZZZZZ	ZZZZZ	12/14/09	0619	1.97	5.29
11	ZZZZZ	ZZZZZ	12/14/09	0629	1.97	5.29
12	ZZZZZ	ZZZZZ	12/14/09	0640	1.97	5.29
13	ZZZZZ	ZZZZZ	12/14/09	0650	1.97	5.29
14	ZZZZZ	ZZZZZ	12/14/09	0701	1.97	5.29
15	ZZZZZ	ZZZZZ	12/14/09	0711	1.97	5.29
16	AR125401	WAR091214-05	12/14/09	0722	1.97	5.29
17	AR125402	WAR091214-06	12/14/09	0732	1.97	5.29
18	AR125403	WAR091214-07	12/14/09	0743	1.97	5.29
19	AR125404	WAR091214-08	12/14/09	0753	1.97	5.29
20	AR125405	IAR091027-01	12/14/09	0804	1.97	5.29
21	AR125401	WAR091102-54	12/14/09	0814	1.97	5.29
22	AR124201	WAR091214-09	12/14/09	0825	1.97	5.29
23	AR124202	WAR091214-10	12/14/09	0835	1.97	5.29
24	AR124203	WAR091214-11	12/14/09	0846	1.97	5.29
25	AR124204	WAR091214-12	12/14/09	0856	1.97	5.29
26	AR124205	IAR0911111-0	12/14/09	0907	1.97	5.29
27	AR124201	WAR091102-42	12/14/09	0917	1.97	5.29
28	AR124801	WAR091214-13	12/14/09	0928	1.97	5.29
29	AR124802	WAR091214-14	12/14/09	0938	1.97	5.29
30	AR124803	WAR091214-15	12/14/09	0949	1.97	5.29
31	AR124804	WAR091214-16	12/14/09	0959	1.97	5.29
32	AR124805	IAR091027-02	12/14/09	1010	1.97	5.29

QC LIMITS
S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1086

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 12/14/09 12/14/09

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 1.97 DCB: 5.29

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	AR124801	WAR091027-48	12/14/09	1020	1.97	5.29
02	AR166001	WAR091214-01	12/14/09	1031	1.97	5.29
03	AR166002	WAR091214-02	12/14/09	1041	1.97	5.29
04	AR166003	WAR091214-03	12/14/09	1052	1.97	5.29
05	AR166004	WAR091214-04	12/14/09	1102	1.97	5.29
06	AR166005	IAR091102-01	12/14/09	1113	1.97	5.29
07	AR166001	WAR091211-60	12/14/09	1123	1.97	5.29
08	AR126801	WAR091214-17	12/14/09	1134	1.97	5.29
09	AR126802	WAR091214-18	12/14/09	1144	1.97	5.29
10	AR126803	WAR091214-19	12/14/09	1155	1.97	5.29
11	AR126804	WAR091214-20	12/14/09	1206	1.97	5.29
12	AR126805	IAR090817-02	12/14/09	1216	1.97	5.29
13	AR126801	WAR091106-68	12/14/09	1227	1.97	5.29
14	DDTANALOGSTD	WAR091020-DD	12/14/09	1237		
15	PIBLK02	WAR091130-99	12/14/09	1248	1.97	5.29
16	ZZZZZ	ZZZZZ	12/14/09	1258	1.97	5.29
17	ZZZZZ	ZZZZZ	12/14/09	1309	1.97	5.29
18	ZZZZZ	ZZZZZ	12/14/09	1319	1.97	5.29
19	ZZZZZ	ZZZZZ	12/14/09	1330	1.97	5.29
20	ZZZZZ	ZZZZZ	12/14/09	1340	1.97	5.29
21	ZZZZZ	ZZZZZ	12/14/09	1351	1.97	5.29
22	ZZZZZ	ZZZZZ	12/14/09	1403	1.97	5.29
23	ZZZZZ	ZZZZZ	12/14/09	1416	1.97	5.29
24	ZZZZZ	ZZZZZ	12/14/09	1429	1.97	5.29
25	ZZZZZ	ZZZZZ	12/14/09	1441	1.97	5.29
26	AR166002	WAR091211-60	12/14/09	1452	1.97	5.29
27	PIBLK03	WAR091130-99	12/14/09	1502	1.97	5.29
28	ZZZZZ	ZZZZZ	12/14/09	1513	1.97	5.29
29	ZZZZZ	ZZZZZ	12/14/09	1525	1.97	5.29
30	ZZZZZ	ZZZZZ	12/14/09	1538	1.97	5.29
31	ZZZZZ	ZZZZZ	12/14/09	1551	1.97	5.29
32	ZZZZZ	ZZZZZ	12/14/09	1603	1.97	5.27

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1086

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 12/14/09 12/14/09

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.30 DCB: 5.94

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR091130-99	12/14/09	0444	2.30	5.95
02	ZZZZZ	ZZZZZ	12/14/09	0454	2.30	5.94
03	ZZZZZ	ZZZZZ	12/14/09	0505	2.30	5.95
04	ZZZZZ	ZZZZZ	12/14/09	0515	2.30	5.95
05	ZZZZZ	ZZZZZ	12/14/09	0526	2.30	5.95
06	AR123201	WAR090930-32	12/14/09	0536	2.30	5.95
07	AR122101	WAR090803-21	12/14/09	0547	2.30	5.95
08	AR126201	WAR090803-62	12/14/09	0558	2.30	5.94
09	ZZZZZ	ZZZZZ	12/14/09	0608	2.30	5.94
10	ZZZZZ	ZZZZZ	12/14/09	0619	2.30	5.95
11	ZZZZZ	ZZZZZ	12/14/09	0629	2.30	5.94
12	ZZZZZ	ZZZZZ	12/14/09	0640	2.30	5.94
13	ZZZZZ	ZZZZZ	12/14/09	0650	2.30	5.95
14	ZZZZZ	ZZZZZ	12/14/09	0701	2.30	5.94
15	ZZZZZ	ZZZZZ	12/14/09	0711	2.30	5.95
16	AR125401	WAR091214-05	12/14/09	0722	2.30	5.94
17	AR125402	WAR091214-06	12/14/09	0732	2.30	5.94
18	AR125403	WAR091214-07	12/14/09	0743	2.30	5.94
19	AR125404	WAR091214-08	12/14/09	0753	2.30	5.94
20	AR125405	IAR091027-01	12/14/09	0804	2.30	5.95
21	AR125401	WAR091102-54	12/14/09	0814	2.30	5.94
22	AR124201	WAR091214-09	12/14/09	0825	2.30	5.94
23	AR124202	WAR091214-10	12/14/09	0835	2.30	5.94
24	AR124203	WAR091214-11	12/14/09	0846	2.30	5.94
25	AR124204	WAR091214-12	12/14/09	0856	2.30	5.94
26	AR124205	IAR0911111-0	12/14/09	0907	2.30	5.94
27	AR124201	WAR091102-42	12/14/09	0917	2.30	5.94
28	AR124801	WAR091214-13	12/14/09	0928	2.30	5.94
29	AR124802	WAR091214-14	12/14/09	0938	2.30	5.94
30	AR124803	WAR091214-15	12/14/09	0949	2.30	5.94
31	AR124804	WAR091214-16	12/14/09	0959	2.30	5.94
32	AR124805	IAR091027-02	12/14/09	1010	2.30	5.94

QC LIMITS
S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D

PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1086

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 12/14/09 12/14/09

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.30 DCB: 5.94

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	AR124801	WAR091027-48	12/14/09	1020	2.30	5.95
02	AR166001	WAR091214-01	12/14/09	1031	2.30	5.94
03	AR166002	WAR091214-02	12/14/09	1041	2.30	5.94
04	AR166003	WAR091214-03	12/14/09	1052	2.30	5.94
05	AR166004	WAR091214-04	12/14/09	1102	2.30	5.94
06	AR166005	IAR091102-01	12/14/09	1113	2.30	5.94
07	AR166001	WAR091211-60	12/14/09	1123	2.30	5.94
08	AR126801	WAR091214-17	12/14/09	1134	2.30	5.95
09	AR126802	WAR091214-18	12/14/09	1144	2.30	5.94
10	AR126803	WAR091214-19	12/14/09	1155	2.30	5.94
11	AR126804	WAR091214-20	12/14/09	1206	2.30	5.94
12	AR126805	IAR090817-02	12/14/09	1216	2.30	5.94
13	AR126801	WAR091106-68	12/14/09	1227	2.30	5.94
14	DDTANALOGSTD	WAR091020-DD	12/14/09	1237		
15	PIBLK02	WAR091130-99	12/14/09	1248	2.30	5.94
16	ZZZZZ	ZZZZZ	12/14/09	1258	2.30	5.94
17	ZZZZZ	ZZZZZ	12/14/09	1309	2.30	5.94
18	ZZZZZ	ZZZZZ	12/14/09	1319	2.30	5.94
19	ZZZZZ	ZZZZZ	12/14/09	1330	2.30	5.94
20	ZZZZZ	ZZZZZ	12/14/09	1340	2.30	5.94
21	ZZZZZ	ZZZZZ	12/14/09	1351	2.30	5.94
22	ZZZZZ	ZZZZZ	12/14/09	1403	2.30	5.94
23	ZZZZZ	ZZZZZ	12/14/09	1416	2.30	5.94
24	ZZZZZ	ZZZZZ	12/14/09	1429	2.30	5.94
25	ZZZZZ	ZZZZZ	12/14/09	1441	2.30	5.94
26	AR166002	WAR091211-60	12/14/09	1452	2.30	5.94
27	PIBLK03	WAR091130-99	12/14/09	1502	2.30	5.94
28	ZZZZZ	ZZZZZ	12/14/09	1513	2.30	5.94
29	ZZZZZ	ZZZZZ	12/14/09	1525	2.30	5.94
30	ZZZZZ	ZZZZZ	12/14/09	1538	2.30	5.94
31	ZZZZZ	ZZZZZ	12/14/09	1551	2.30	5.94
32	ZZZZZ	ZZZZZ	12/14/09	1603	2.30	5.94

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1086

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 12/14/09 12/14/09

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 1.97 DCB: 5.29

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR091130-99	12/30/09	0740	1.97	5.29
02	AR166001	WAR091211-60	12/30/09	0751	1.97	5.29
03	AR125401	WAR091216-54	12/30/09	0801	1.97	5.29
04	AR124201	WAR091102-42	12/30/09	0812	1.97	5.29
05	AR124801	WAR091027-48	12/30/09	0822	1.97	5.29
06	AR123201	WAR090930-32	12/30/09	0833	1.97	5.29
07	AR122101	WAR090803-21	12/30/09	0843	1.97	5.29
08	AR126201	WAR090803-62	12/30/09	0854	1.97	5.29
09	AR126801	WAR091106-68	12/30/09	0904	1.97	5.29
10	ZZZZZ	ZZZZZ	12/30/09	0915	1.97	5.29
11	DDTANALOGSTD	WAR091219-DD	12/30/09	0925		
12	PIBLK02	WAR091130-99	12/30/09	0936	1.97	5.29
13	ZZZZZ	ZZZZZ	12/30/09	0946	1.97	5.29
14	ZZZZZ	ZZZZZ	12/30/09	0957	1.97	5.29
15	ZZZZZ	ZZZZZ	12/30/09	1007	1.97	5.29
16	ZZZZZ	ZZZZZ	12/30/09	1018	1.97	5.29
17	ZZZZZ	ZZZZZ	12/30/09	1028	1.97	5.28
18	ZZZZZ	ZZZZZ	12/30/09	1039	1.97	5.29
19	ZZZZZ	ZZZZZ	12/30/09	1049	1.97	5.29
20	ZZZZZ	ZZZZZ	12/30/09	1100	1.97	5.29
21	ZZZZZ	ZZZZZ	12/30/09	1110	1.97	5.29
22	AR166002	WAR091211-60	12/30/09	1121	1.97	5.28
23	PIBLK03	WAR091130-99	12/30/09	1131	1.97	5.28
24	ZZZZZ	ZZZZZ	12/30/09	1142	1.97	5.28
25	ZZZZZ	ZZZZZ	12/30/09	1152	1.97	5.29
26	ZZZZZ	ZZZZZ	12/30/09	1203	1.97	5.28
27	ZZZZZ	ZZZZZ	12/30/09	1213	1.97	5.28
28	AR166003	WAR091211-60	12/30/09	1224	1.97	5.29
29	PIBLK04	WAR091130-99	12/30/09	1234	1.97	5.29
30	PBLK01	1202005418	12/30/09	1245	1.97	5.28
31	PBLK01LCS	1202005419	12/30/09	1255	1.97	5.29
32	ZZZZZ	ZZZZZ	12/30/09	1306	1.97	5.28

QC LIMITS
S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1086

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 12/14/09 12/14/09

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 1.97 DCB: 5.29

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	RE03-09-14233	243552001	12/30/09	1316	1.97	5.28
02	RE03-09-14236	243552002	12/30/09	1327	1.97	5.28
03	RE03-09-14239	243552003	12/30/09	1337	1.97	5.28
04	RE03-09-14239MS	1202005420	12/30/09	1348	1.97	5.28
05	RE03-09-14239MSD	1202005421	12/30/09	1358	1.97	5.29
06	RE03-09-14240	243552004	12/30/09	1409	1.97	5.28
07	RE03-09-14231	243552005	12/30/09	1420	1.97	5.29
08	AR166004	WAR091211-60	12/30/09	1430	1.97	5.29
09	PIBLK05	WAR091130-99	12/30/09	1441	1.97	5.28
10	RE03-09-14232	243552006	12/30/09	1451	1.97	5.29
11	RE03-09-14235	243552007	12/30/09	1502	1.97	5.28
12	RE03-09-14238	243552008	12/30/09	1512	1.97	5.28
13	RE03-09-14234	243552009	12/30/09	1523	1.97	5.29
14	RE03-09-14241	243552010	12/30/09	1533	1.97	5.29
15	RE03-10-2737	243552011	12/30/09	1544	1.97	5.28
16	RE03-10-2736	243552012	12/30/09	1554	1.97	5.28
17	RE03-10-9873	243552014	12/30/09	1605	1.97	5.28
18	AR166005	WAR091211-60	12/30/09	1615	1.97	5.29
19	ZZZZZ	ZZZZZ	12/30/09	1626	1.97	5.29
20	PIBLK06	WAR091130-99	12/30/09	1636	1.97	5.28
21						
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30						
31						
32						

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1086

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 12/14/09 12/14/09

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.30 DCB: 5.95

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR091130-99	12/30/09	0740	2.30	5.95
02	AR166001	WAR091211-60	12/30/09	0751	2.30	5.95
03	AR125401	WAR091216-54	12/30/09	0801	2.30	5.95
04	AR124201	WAR091102-42	12/30/09	0812	2.30	5.95
05	AR124801	WAR091027-48	12/30/09	0822	2.30	5.95
06	AR123201	WAR090930-32	12/30/09	0833	2.30	5.95
07	AR122101	WAR090803-21	12/30/09	0843	2.30	5.95
08	AR126201	WAR090803-62	12/30/09	0854	2.30	5.95
09	AR126801	WAR091106-68	12/30/09	0904	2.30	5.95
10	ZZZZZ	ZZZZZ	12/30/09	0915	2.30	5.95
11	DDTANALOGSTD	WAR091219-DD	12/30/09	0925		
12	PIBLK02	WAR091130-99	12/30/09	0936	2.30	5.95
13	ZZZZZ	ZZZZZ	12/30/09	0946	2.30	5.95
14	ZZZZZ	ZZZZZ	12/30/09	0957	2.30	5.95
15	ZZZZZ	ZZZZZ	12/30/09	1007	2.30	5.95
16	ZZZZZ	ZZZZZ	12/30/09	1018	2.30	5.95
17	ZZZZZ	ZZZZZ	12/30/09	1028	2.30	5.95
18	ZZZZZ	ZZZZZ	12/30/09	1039	2.30	5.95
19	ZZZZZ	ZZZZZ	12/30/09	1049	2.30	5.95
20	ZZZZZ	ZZZZZ	12/30/09	1100	2.30	5.95
21	ZZZZZ	ZZZZZ	12/30/09	1110	2.30	5.95
22	AR166002	WAR091211-60	12/30/09	1121	2.30	5.95
23	PIBLK03	WAR091130-99	12/30/09	1131	2.30	5.95
24	ZZZZZ	ZZZZZ	12/30/09	1142	2.30	5.95
25	ZZZZZ	ZZZZZ	12/30/09	1152	2.30	5.95
26	ZZZZZ	ZZZZZ	12/30/09	1203	2.30	5.95
27	ZZZZZ	ZZZZZ	12/30/09	1213	2.30	5.95
28	AR166003	WAR091211-60	12/30/09	1224	2.30	5.95
29	PIBLK04	WAR091130-99	12/30/09	1234	2.30	5.95
30	PBLK01	1202005418	12/30/09	1245	2.30	5.95
31	PBLK01LCS	1202005419	12/30/09	1255	2.30	5.95
32	ZZZZZ	ZZZZZ	12/30/09	1306	2.30	5.95

QC LIMITS
S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D

PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1086

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 12/14/09 12/14/09

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.30 DCB: 5.95

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	RE03-09-14233	243552001	12/30/09	1316	2.30	5.95
02	RE03-09-14236	243552002	12/30/09	1327	2.30	5.95
03	RE03-09-14239	243552003	12/30/09	1337	2.30	5.95
04	RE03-09-14239MS	1202005420	12/30/09	1348	2.30	5.95
05	RE03-09-14239MSD	1202005421	12/30/09	1358	2.30	5.95
06	RE03-09-14240	243552004	12/30/09	1409	2.30	5.95
07	RE03-09-14231	243552005	12/30/09	1420	2.30	5.95
08	AR166004	WAR091211-60	12/30/09	1430	2.30	5.95
09	PIBLK05	WAR091130-99	12/30/09	1441	2.30	5.95
10	RE03-09-14232	243552006	12/30/09	1451	2.30	5.95
11	RE03-09-14235	243552007	12/30/09	1502	2.30	5.95
12	RE03-09-14238	243552008	12/30/09	1512	2.30	5.95
13	RE03-09-14234	243552009	12/30/09	1523	2.30	5.95
14	RE03-09-14241	243552010	12/30/09	1533	2.30	5.95
15	RE03-10-2737	243552011	12/30/09	1544	2.30	5.95
16	RE03-10-2736	243552012	12/30/09	1554	2.30	5.95
17	RE03-10-9873	243552014	12/30/09	1605	2.30	5.95
18	AR166005	WAR091211-60	12/30/09	1615	2.30	5.95
19	ZZZZZ	ZZZZZ	12/30/09	1626	2.30	5.95
20	PIBLK06	WAR091130-99	12/30/09	1636	2.30	5.95
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	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1086

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 12/14/09 12/14/09

Instrument ID: ECD2A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 1.77 DCB: 5.61

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR091130-99	12/14/09	0700	1.77	5.61
02	ZZZZZ	ZZZZZ	12/14/09	0711	1.77	5.61
03	AR125401	WAR091102-54	12/14/09	0722	1.77	5.61
04	AR124201	WAR091102-42	12/14/09	0733	1.77	5.61
05	AR124801	WAR091027-48	12/14/09	0744	1.77	5.61
06	AR123201	WAR090930-32	12/14/09	0755	1.77	5.61
07	AR122101	WAR091111-21	12/14/09	0807	1.77	5.61
08	ZZZZZ	ZZZZZ	12/14/09	0818	1.77	5.61
09	AR126201	WAR091111-62	12/14/09	0829	1.77	5.61
10	AR126801	WAR091106-68	12/14/09	0840	1.77	5.61
11	AR166001	WAR091214-01	12/14/09	0851	1.77	5.61
12	AR166002	WAR091214-02	12/14/09	0902	1.77	5.61
13	AR166003	WAR091214-03	12/14/09	0913	1.77	5.61
14	AR166004	WAR091214-04	12/14/09	0924	1.77	5.61
15	AR166005	IAR091102-01	12/14/09	0935	1.77	5.61
16	AR166001	WAR091211-60	12/14/09	0946	1.77	5.61
17	DDTANALOGSTD	WAR091020-DD	12/14/09	0958		
18	PIBLK02	WAR091130-99	12/14/09	1009	1.77	5.61
19	ZZZZZ	ZZZZZ	12/14/09	1020	1.77	5.61
20	ZZZZZ	ZZZZZ	12/14/09	1031	1.77	5.61
21	ZZZZZ	ZZZZZ	12/14/09	1042	1.77	
22	ZZZZZ	ZZZZZ	12/14/09	1053	1.76	
23	ZZZZZ	ZZZZZ	12/14/09	1104	1.76	
24	ZZZZZ	ZZZZZ	12/14/09	1115	1.77	5.61
25	ZZZZZ	ZZZZZ	12/14/09	1126	1.77	5.61
26	ZZZZZ	ZZZZZ	12/14/09	1137	1.76	
27	ZZZZZ	ZZZZZ	12/14/09	1148	1.77	5.61
28	ZZZZZ	ZZZZZ	12/14/09	1159	1.76	5.62
29	AR166002	WAR091211-60	12/14/09	1211	1.77	5.61
30	PIBLK03	WAR091130-99	12/14/09	1222	1.77	5.61
31	ZZZZZ	ZZZZZ	12/14/09	1233	1.77	5.61
32	ZZZZZ	ZZZZZ	12/14/09	1244	1.76	

QC LIMITS
S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1086

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 12/14/09 12/14/09

Instrument ID: ECD2A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.07 DCB: 6.30

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR091130-99	12/14/09	0700	2.07	6.31
02	ZZZZZ	ZZZZZ	12/14/09	0711	2.07	6.30
03	AR125401	WAR091102-54	12/14/09	0722	2.07	6.30
04	AR124201	WAR091102-42	12/14/09	0733	2.07	6.30
05	AR124801	WAR091027-48	12/14/09	0744	2.07	6.30
06	AR123201	WAR090930-32	12/14/09	0755	2.07	6.30
07	AR122101	WAR091111-21	12/14/09	0807	2.07	6.30
08	ZZZZZ	ZZZZZ	12/14/09	0818	2.07	6.30
09	AR166201	WAR091111-62	12/14/09	0829	2.07	6.30
10	AR126801	WAR091106-68	12/14/09	0840	2.07	6.30
11	AR166001	WAR091214-01	12/14/09	0851	2.07	6.30
12	AR166002	WAR091214-02	12/14/09	0902	2.07	6.30
13	AR166003	WAR091214-03	12/14/09	0913	2.07	6.30
14	AR166004	WAR091214-04	12/14/09	0924	2.07	6.30
15	AR166005	IAR091102-01	12/14/09	0935	2.07	6.30
16	AR166001	WAR091211-60	12/14/09	0946	2.07	6.30
17	DDTANALOGSTD	WAR091020-DD	12/14/09	0958		
18	PIBLK02	WAR091130-99	12/14/09	1009	2.07	6.30
19	ZZZZZ	ZZZZZ	12/14/09	1020	2.07	6.30
20	ZZZZZ	ZZZZZ	12/14/09	1031	2.07	6.30
21	ZZZZZ	ZZZZZ	12/14/09	1042	2.07	
22	ZZZZZ	ZZZZZ	12/14/09	1053	2.07	
23	ZZZZZ	ZZZZZ	12/14/09	1104	2.06	
24	ZZZZZ	ZZZZZ	12/14/09	1115	2.07	6.30
25	ZZZZZ	ZZZZZ	12/14/09	1126	2.07	6.31
26	ZZZZZ	ZZZZZ	12/14/09	1137	2.07	
27	ZZZZZ	ZZZZZ	12/14/09	1148	2.07	6.30
28	ZZZZZ	ZZZZZ	12/14/09	1159	2.06	6.30
29	AR166002	WAR091211-60	12/14/09	1211	2.07	6.30
30	PIBLK03	WAR091130-99	12/14/09	1222	2.07	6.30
31	ZZZZZ	ZZZZZ	12/14/09	1233	2.07	6.31
32	ZZZZZ	ZZZZZ	12/14/09	1244	2.07	

QC LIMITS
S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1086

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 12/14/09 12/14/09

Instrument ID: ECD2A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 1.77 DCB: 5.61

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR091130-99	12/30/09	0722	1.77	5.61
02	AR166001	WAR091211-60	12/30/09	0733	1.77	5.61
03	AR125401	WAR091216-54	12/30/09	0744	1.77	5.61
04	AR124201	WAR091217-42	12/30/09	0755	1.77	5.61
05	AR124801	WAR091217-48	12/30/09	0806	1.77	5.61
06	AR123201	WAR090930-32	12/30/09	0817	1.77	5.61
07	AR122101	WAR091111-21	12/30/09	0828	1.77	5.61
08	AR126201	WAR091111-62	12/30/09	0839	1.77	5.61
09	AR126801	WAR091106-68	12/30/09	0851	1.77	5.61
10	DDTANALOGSTD	WAR091219-DD	12/30/09	0902		
11	PIBLK02	WAR091130-99	12/30/09	0913	1.77	5.61
12	ZZZZZ	ZZZZZ	12/30/09	0924	1.77	5.61
13	ZZZZZ	ZZZZZ	12/30/09	0935	1.77	5.61
14	ZZZZZ	ZZZZZ	12/30/09	0946	1.77	5.61
15	ZZZZZ	ZZZZZ	12/30/09	0957	1.77	5.61
16	ZZZZZ	ZZZZZ	12/30/09	1008	1.77	5.61
17	ZZZZZ	ZZZZZ	12/30/09	1019	1.77	5.61
18	ZZZZZ	ZZZZZ	12/30/09	1030	1.77	5.61
19	ZZZZZ	ZZZZZ	12/30/09	1041	1.77	5.61
20	ZZZZZ	ZZZZZ	12/30/09	1052	1.77	5.61
21	ZZZZZ	ZZZZZ	12/30/09	1103	1.78	5.61
22	AR166002	WAR091211-60	12/30/09	1114	1.77	5.61
23	PIBLK03	WAR091130-99	12/30/09	1125	1.77	5.61
24	ZZZZZ	ZZZZZ	12/30/09	1137	1.77	5.61
25	ZZZZZ	ZZZZZ	12/30/09	1148	1.77	5.61
26	ZZZZZ	ZZZZZ	12/30/09	1159	1.77	5.61
27	ZZZZZ	ZZZZZ	12/30/09	1210	1.77	5.61
28	AR166003	WAR091211-60	12/30/09	1221	1.77	5.61
29	PIBLK04	WAR091130-99	12/30/09	1232	1.77	5.61
30	ZZZZZ	ZZZZZ	12/30/09	1243	1.77	5.61
31	ZZZZZ	ZZZZZ	12/30/09	1254	1.77	5.61
32	ZZZZZ	ZZZZZ	12/30/09	1305	1.77	5.61

QC LIMITS
S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1086

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 12/14/09 12/14/09

Instrument ID: ECD2A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 1.77 DCB: 5.61

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	ZZZZZ	ZZZZZ	12/30/09	1321	1.77	5.60
02	ZZZZZ	ZZZZZ	12/30/09	1337	1.77	5.60
03	ZZZZZ	ZZZZZ	12/30/09	1352	1.77	5.60
04	ZZZZZ	ZZZZZ	12/30/09	1408	1.77	5.60
05	ZZZZZ	ZZZZZ	12/30/09	1424	1.77	5.60
06	ZZZZZ	ZZZZZ	12/30/09	1439	1.77	5.60
07	AR166004	WAR091211-60	12/30/09	1455	1.77	5.60
08	PIBLK05	WAR091130-99	12/30/09	1506	1.77	5.61
09	PBLK02	1202005812	12/30/09	1517	1.77	5.61
10	PBLK02LCS	1202005813	12/30/09	1528	1.77	5.61
11	RE03-10-9872	243552016	12/30/09	1540	1.77	5.61
12	RE03-10-9874	243552017	12/30/09	1551	1.77	5.61
13	RE03-10-9874MS	1202005814	12/30/09	1602	1.77	5.61
14	RE03-10-9874MSD	1202005815	12/30/09	1613	1.77	5.61
15	AR166005	WAR091211-60	12/30/09	1624	1.77	5.61
16	PIBLK06	WAR091130-99	12/30/09	1635	1.77	5.61
17						
18						
19						
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21						
22						
23						
24						
25						
26						
27						
28						
29						
30						
31						
32						

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1086

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 12/14/09 12/14/09

Instrument ID: ECD2A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.07 DCB: 6.30

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR091130-99	12/30/09	0722	2.07	6.30
02	AR166001	WAR091211-60	12/30/09	0733	2.07	6.30
03	AR125401	WAR091216-54	12/30/09	0744	2.07	6.30
04	AR124201	WAR091217-42	12/30/09	0755	2.07	6.30
05	AR124801	WAR091217-48	12/30/09	0806	2.07	6.30
06	AR123201	WAR090930-32	12/30/09	0817	2.07	6.30
07	AR122101	WAR091111-21	12/30/09	0828	2.07	6.30
08	AR126201	WAR091111-62	12/30/09	0839	2.07	6.30
09	AR126801	WAR091106-68	12/30/09	0851	2.07	6.30
10	DDTANALOGSTD	WAR091219-DD	12/30/09	0902		
11	PIBLK02	WAR091130-99	12/30/09	0913	2.07	6.30
12	ZZZZZ	ZZZZZ	12/30/09	0924	2.07	6.30
13	ZZZZZ	ZZZZZ	12/30/09	0935	2.07	6.30
14	ZZZZZ	ZZZZZ	12/30/09	0946	2.07	6.30
15	ZZZZZ	ZZZZZ	12/30/09	0957	2.07	6.30
16	ZZZZZ	ZZZZZ	12/30/09	1008	2.07	6.30
17	ZZZZZ	ZZZZZ	12/30/09	1019	2.07	6.30
18	ZZZZZ	ZZZZZ	12/30/09	1030	2.07	6.30
19	ZZZZZ	ZZZZZ	12/30/09	1041	2.07	6.30
20	ZZZZZ	ZZZZZ	12/30/09	1052	2.07	6.30
21	ZZZZZ	ZZZZZ	12/30/09	1103	2.07	6.30
22	AR166002	WAR091211-60	12/30/09	1114	2.07	6.30
23	PIBLK03	WAR091130-99	12/30/09	1125	2.07	6.30
24	ZZZZZ	ZZZZZ	12/30/09	1137	2.07	6.30
25	ZZZZZ	ZZZZZ	12/30/09	1148	2.07	6.30
26	ZZZZZ	ZZZZZ	12/30/09	1159	2.07	6.30
27	ZZZZZ	ZZZZZ	12/30/09	1210	2.07	6.30
28	AR166003	WAR091211-60	12/30/09	1221	2.07	6.30
29	PIBLK04	WAR091130-99	12/30/09	1232	2.07	6.30
30	ZZZZZ	ZZZZZ	12/30/09	1243	2.07	6.30
31	ZZZZZ	ZZZZZ	12/30/09	1254	2.07	6.30
32	ZZZZZ	ZZZZZ	12/30/09	1305	2.07	6.30

QC LIMITS
S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1086

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 12/14/09 12/14/09

Instrument ID: ECD2A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.07 DCB: 6.30

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	ZZZZZ	ZZZZZ	12/30/09	1321	2.07	6.30
02	ZZZZZ	ZZZZZ	12/30/09	1337	2.07	6.30
03	ZZZZZ	ZZZZZ	12/30/09	1352	2.07	6.30
04	ZZZZZ	ZZZZZ	12/30/09	1408	2.07	6.30
05	ZZZZZ	ZZZZZ	12/30/09	1424	2.07	6.30
06	ZZZZZ	ZZZZZ	12/30/09	1439	2.07	6.30
07	AR166004	WAR091211-60	12/30/09	1455	2.07	6.30
08	PIBLK05	WAR091130-99	12/30/09	1506	2.07	6.30
09	PBLK02	1202005812	12/30/09	1517	2.07	6.30
10	PBLK02LCS	1202005813	12/30/09	1528	2.07	6.30
11	RE03-10-9872	243552016	12/30/09	1540	2.07	6.30
12	RE03-10-9874	243552017	12/30/09	1551	2.07	6.30
13	RE03-10-9874MS	1202005814	12/30/09	1602	2.07	6.30
14	RE03-10-9874MSD	1202005815	12/30/09	1613	2.07	6.30
15	AR166005	WAR091211-60	12/30/09	1624	2.07	6.30
16	PIBLK06	WAR091130-99	12/30/09	1635	2.07	6.30
17						
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						
31						
32						

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

Identification Summary

SDG Number: 10–1086 **Client ID:** LCS for batch 937176

Lab Sample ID: 1202005419

Data File:	031f3101.d	**Data File:**	031b3101.d
Inst:	ECD1A.I_1	**Inst:**	ECD1A.I_2
Column:	CLP1	**Column:**	CLP2
Analyzed:	30–DEC–09 12:55	**Analyzed:**	30–DEC–09 12:55

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor–1016							3.79
Column 1	1	2.43	2.4 – 2.46	21.9		ug/kg	
	2	2.7	2.68 – 2.74	25.6		ug/kg	
	3	2.8	2.77 – 2.83	22.9		ug/kg	
	4	2.83	2.81 – 2.87	24.3		ug/kg	
	5	3.04	3.02 – 3.08	24.3		ug/kg	
					23.8		
Column 2	1	3.2	3.17 – 3.23	24.5		ug/kg	
	2	3.28	3.25 – 3.31	22.6		ug/kg	
	3	3.35	3.32 – 3.38	23.7		ug/kg	
	4	3.57	3.54 – 3.6	23.8		ug/kg	
	5	3.65	3.62 – 3.68	28.9		ug/kg	
					24.7		
Aroclor–1260							5.81
Column 1	1	3.77	3.74 – 3.8	28.2		ug/kg	
	2	3.93	3.91 – 3.97	29.8		ug/kg	
	3	4.16	4.14 – 4.2	30.3		ug/kg	
	4	4.31	4.28 – 4.34	30.5		ug/kg	
	5	4.49	4.46 – 4.52	31.9		ug/kg	
					30.1		
Column 2	1	4.34	4.31 – 4.37	26.7		ug/kg	
	2	4.46	4.43 – 4.49	28.5		ug/kg	
	3	4.73	4.7 – 4.76	28.1		ug/kg	
	4	4.9	4.88 – 4.94	28.6		ug/kg	
	5	5.05	5.02 – 5.08	30.3		ug/kg	
					28.4		

Identification Summary

SDG Number: 10–1086 **Client ID:** LCS for batch 937368

Lab Sample ID: 1202005813

Data File:	042f4201.d	**Data File:**	042b4201.d
Inst:	ECD2A.I_1	**Inst:**	ECD2A.I_2
Column:	CLP1	**Column:**	CLP2
Analyzed:	30–DEC–09 15:28	**Analyzed:**	30–DEC–09 15:28

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor–1016							.408
Column 1	1	2.27	2.25 – 2.31	22.7		ug/kg	
	2	2.6	2.57 – 2.63	22.7		ug/kg	
	3	2.69	2.66 – 2.72	22.5		ug/kg	
	4	2.82	2.79 – 2.85	22.7		ug/kg	
	5	2.97	2.95 – 3.01	23		ug/kg	
					22.7		
Column 2	1	2.75	2.72 – 2.78	23.1		ug/kg	
	2	3.18	3.15 – 3.21	22.5		ug/kg	
	3	3.33	3.3 – 3.36	22.8		ug/kg	
	4	3.36	3.33 – 3.39	22.6		ug/kg	
	5	3.52	3.49 – 3.55	23.1		ug/kg	
					22.8		
Aroclor–1260							.703
Column 1	1	4.01	3.99 – 4.05	27		ug/kg	
	2	4.29	4.26 – 4.32	28		ug/kg	
	3	4.45	4.42 – 4.48	28.5		ug/kg	
	4	4.66	4.63 – 4.69	29.1		ug/kg	
	5	4.85	4.82 – 4.88	29.4		ug/kg	
					28.4		
Column 2	1	4.41	4.38 – 4.44	26.9		ug/kg	
	2	4.57	4.54 – 4.6	28		ug/kg	
	3	4.68	4.65 – 4.71	28.3		ug/kg	
	4	4.87	4.84 – 4.9	28		ug/kg	
	5	5.5	5.47 – 5.53	29.9		ug/kg	
					28.2		

Identification Summary

SDG Number: 10–1086 **Client ID:** RE03–09–14233

Lab Sample ID: 243552001

Data File:	033f3301.d	**Data File:**	033b3301.d
Inst:	ECD1A.I_1	**Inst:**	ECD1A.I_2
Column:	CLP1	**Column:**	CLP2
Analyzed:	30–DEC–09 13:16	**Analyzed:**	30–DEC–09 13:16

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor–1242							.727
Column 1	1	2.43	2.4 – 2.46	29.7		ug/kg	
	2	2.72	2.69 – 2.75	32.1		ug/kg	
	3	2.83	2.8 – 2.86	34.4		ug/kg	
	4	3.05	3.02 – 3.08	39.3		ug/kg	
	5	3.3	3.27 – 3.33	42.4		ug/kg	
					35.6		
Column 2	1	3.2	3.17 – 3.23	29.8		ug/kg	
	2	3.28	3.25 – 3.31	33.3		ug/kg	
	3	3.57	3.54 – 3.6	35		ug/kg	
	4	3.81	3.78 – 3.84	36.5		ug/kg	
	5	3.83	3.81 – 3.87	41.9		ug/kg	
					35.3		
Aroclor–1254							24.1
Column 1	1	3.27	3.25 – 3.31	12.1		ug/kg	
	2	3.43	3.4 – 3.46	18		ug/kg	
	3	3.66	3.63 – 3.69	12		ug/kg	
	4	3.83	3.8 – 3.86	12.8		ug/kg	
	5	3.94	3.91 – 3.97	14.2		ug/kg	
					13.8		
Column 2	1	3.41	3.38 – 3.44	27.6		ug/kg	
	2	3.83	3.8 – 3.86	24.3		ug/kg	
	3	3.95	3.92 – 3.98	12.7		ug/kg	
	4	4.22	4.19 – 4.25	11.7		ug/kg	
	5	4.36	4.33 – 4.39	11.8		ug/kg	
					17.6		

Identification Summary

SDG Number: 10–1086 **Client ID:** RE03–09–14233

Lab Sample ID: 243552001

Data File:	033f3301.d	**Data File:**	033b3301.d
Inst:	ECD1A.I_1	**Inst:**	ECD1A.I_2
Column:	CLP1	**Column:**	CLP2
Analyzed:	30–DEC–09 13:16	**Analyzed:**	30–DEC–09 13:16

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor–1260							8.06
Column 1	1	3.77	3.74 – 3.8	6.09		ug/kg	
	2	3.94	3.91 – 3.97	8.7		ug/kg	
	3	4.16	4.14 – 4.2	2.25		ug/kg	
	4	4.31	4.28 – 4.34	2.27		ug/kg	
	5	4.49	4.46 – 4.52	2.5		ug/kg	
					4.36		
Column 2	1	4.34	4.31 – 4.37	6.23		ug/kg	
	2	4.46	4.43 – 4.49	6.2		ug/kg	
	3	4.73	4.7 – 4.76	2.89		ug/kg	
	4	4.9	4.88 – 4.94	2.24		ug/kg	
	5	5.05	5.02 – 5.08	2.57		ug/kg	
					4.03		

Identification Summary

SDG Number: 10–1086 **Client ID:** RE03–09–14239MS

Lab Sample ID: 1202005420

Data File:	036f3601.d	**Data File:**	036b3601.d
Inst:	ECD1A.I_1	**Inst:**	ECD1A.I_2
Column:	CLP1	**Column:**	CLP2
Analyzed:	30–DEC–09 13:48	**Analyzed:**	30–DEC–09 13:48

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor–1016							6.62
Column 1	1	2.43	2.4 – 2.46	23.6		ug/kg	
	2	2.7	2.68 – 2.74	26.2		ug/kg	
	3	2.8	2.77 – 2.83	23.9		ug/kg	
	4	2.83	2.81 – 2.87	25.2		ug/kg	
	5	3.04	3.02 – 3.08	25.4		ug/kg	
					24.8		
Column 2	1	3.2	3.17 – 3.23	26.7		ug/kg	
	2	3.28	3.25 – 3.31	23.9		ug/kg	
	3	3.35	3.32 – 3.38	25.2		ug/kg	
	4	3.57	3.54 – 3.6	25.8		ug/kg	
	5	3.65	3.62 – 3.68	31.1		ug/kg	
					26.5		
Aroclor–1260							4.11
Column 1	1	3.77	3.74 – 3.8	29.2		ug/kg	
	2	3.93	3.91 – 3.97	30.8		ug/kg	
	3	4.16	4.14 – 4.2	31		ug/kg	
	4	4.31	4.28 – 4.34	29.4		ug/kg	
	5	4.49	4.46 – 4.52	32.2		ug/kg	
					30.5		
Column 2	1	4.34	4.31 – 4.37	27.9		ug/kg	
	2	4.46	4.43 – 4.49	29.6		ug/kg	
	3	4.73	4.7 – 4.76	28.9		ug/kg	
	4	4.9	4.88 – 4.94	29.1		ug/kg	
	5	5.05	5.02 – 5.08	30.8		ug/kg	
					29.3		

Identification Summary

SDG Number: 10–1086 **Client ID:** RE03–09–14239MSD

Lab Sample ID: 1202005421

Data File:	037f3701.d	**Data File:**	037b3701.d
Inst:	ECD1A.I_1	**Inst:**	ECD1A.I_2
Column:	CLP1	**Column:**	CLP2
Analyzed:	30–DEC–09 13:58	**Analyzed:**	30–DEC–09 13:58

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor–1016							1.2
Column 1	1	2.43	2.4 – 2.46	22.1		ug/kg	
	2	2.7	2.68 – 2.74	25.9		ug/kg	
	3	2.8	2.77 – 2.83	22.8		ug/kg	
	4	2.83	2.81 – 2.87	24.1		ug/kg	
	5	3.04	3.02 – 3.08	24.3		ug/kg	
					23.8		
Column 2	1	3.2	3.17 – 3.23	24.7		ug/kg	
	2	3.28	3.25 – 3.31	22.7		ug/kg	
	3	3.35	3.32 – 3.38	24		ug/kg	
	4	3.57	3.54 – 3.6	24.6		ug/kg	
	5	3.65	3.62 – 3.68	24.6		ug/kg	
					24.1		
Aroclor–1260							2.47
Column 1	1	3.77	3.74 – 3.8	28.2		ug/kg	
	2	3.93	3.91 – 3.97	29.7		ug/kg	
	3	4.16	4.14 – 4.2	30		ug/kg	
	4	4.31	4.28 – 4.34	27.2		ug/kg	
	5	4.49	4.46 – 4.52	31.4		ug/kg	
					29.3		
Column 2	1	4.34	4.31 – 4.37	26.8		ug/kg	
	2	4.46	4.43 – 4.49	28.7		ug/kg	
	3	4.73	4.7 – 4.76	28.3		ug/kg	
	4	4.9	4.88 – 4.94	28.9		ug/kg	
	5	5.05	5.02 – 5.08	30.2		ug/kg	
					28.6		

Identification Summary

SDG Number: 10–1086 **Client ID:** RE03–10–2737

Lab Sample ID: 243552011

Data File:	047f4701.d	**Data File:**	047b4701.d
Inst:	ECD1A.I_1	**Inst:**	ECD1A.I_2
Column:	CLP1	**Column:**	CLP2
Analyzed:	30–DEC–09 15:44	**Analyzed:**	30–DEC–09 15:44

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor–1242							19.6
Column 1	1	2.43	2.4 – 2.46	34.9		ug/kg	
	2	2.72	2.69 – 2.75	41.5		ug/kg	
	3	2.83	2.8 – 2.86	40.5		ug/kg	
	4	3.04	3.02 – 3.08	111		ug/kg	
	5	3.3	3.27 – 3.33	180		ug/kg	
					81.7		
Column 2	1	3.2	3.17 – 3.23	40.2		ug/kg	
	2	3.28	3.25 – 3.31	38.9		ug/kg	
	3	3.57	3.54 – 3.6	102		ug/kg	
	4	3.81	3.78 – 3.84	134		ug/kg	
	5	3.83	3.81 – 3.87	182		ug/kg	
					99.5		
Aroclor–1254							.0397
Column 1	1	3.27	3.25 – 3.31	89.6		ug/kg	
	2	3.43	3.4 – 3.46	104		ug/kg	
	3	3.66	3.63 – 3.69	104		ug/kg	
	4	3.82	3.8 – 3.86	115		ug/kg	
	5	3.93	3.91 – 3.97	97.1		ug/kg	
					102		
Column 2	1	3.41	3.38 – 3.44	109		ug/kg	
	2	3.83	3.8 – 3.86	106		ug/kg	
	3	3.95	3.92 – 3.98	93.4		ug/kg	
	4	4.22	4.19 – 4.25	97		ug/kg	
	5	4.36	4.33 – 4.39	106		ug/kg	
					102		

Identification Summary

SDG Number: 10–1086 **Client ID:** RE03–10–2737

Lab Sample ID: 243552011

Data File:	047f4701.d	**Data File:**	047b4701.d
Inst:	ECD1A.I_1	**Inst:**	ECD1A.I_2
Column:	CLP1	**Column:**	CLP2
Analyzed:	30–DEC–09 15:44	**Analyzed:**	30–DEC–09 15:44

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor–1260							4.4
Column 1	1	3.77	3.74 – 3.8	43.8		ug/kg	
	2	3.93	3.91 – 3.97	59.6		ug/kg	
	3	4.16	4.14 – 4.2	7.44		ug/kg	
	4	4.31	4.28 – 4.34	7.54		ug/kg	
	5	4.49	4.46 – 4.52	8.92		ug/kg	
					25.5		
Column 2	1	4.34	4.31 – 4.37	44.2		ug/kg	
	2	4.46	4.43 – 4.49	44.4		ug/kg	
	3	4.73	4.7 – 4.76	15.2		ug/kg	
	4	4.9	4.88 – 4.94	8.29		ug/kg	
	5	5.05	5.02 – 5.08	9.69		ug/kg	
					24.4		

Identification Summary

SDG Number: 10–1086 **Client ID:** RE03–10–9874MS

Lab Sample ID: 1202005814

Data File:	045f4501.d	**Data File:**	045b4501.d
Inst:	ECD2A.I_1	**Inst:**	ECD2A.I_2
Column:	CLP1	**Column:**	CLP2
Analyzed:	30–DEC–09 16:02	**Analyzed:**	30–DEC–09 16:02

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor–1016							.668
Column 1	1	2.28	2.25 – 2.31	25.1		ug/kg	
	2	2.6	2.57 – 2.63	25.5		ug/kg	
	3	2.69	2.66 – 2.72	25.2		ug/kg	
	4	2.82	2.79 – 2.85	27.9		ug/kg	
	5	2.98	2.95 – 3.01	26.3		ug/kg	
					26		
Column 2	1	2.75	2.72 – 2.78	25.7		ug/kg	
	2	3.18	3.15 – 3.21	25.4		ug/kg	
	3	3.33	3.3 – 3.36	26		ug/kg	
	4	3.36	3.33 – 3.39	25.7		ug/kg	
	5	3.52	3.49 – 3.55	26.3		ug/kg	
					25.8		
Aroclor–1260							1.86
Column 1	1	4.02	3.99 – 4.05	31.5		ug/kg	
	2	4.29	4.26 – 4.32	32.2		ug/kg	
	3	4.45	4.42 – 4.48	32.4		ug/kg	
	4	4.66	4.63 – 4.69	33.4		ug/kg	
	5	4.85	4.82 – 4.88	33.7		ug/kg	
					32.6		
Column 2	1	4.41	4.38 – 4.44	30.8		ug/kg	
	2	4.57	4.54 – 4.6	32		ug/kg	
	3	4.68	4.65 – 4.71	32		ug/kg	
	4	4.87	4.84 – 4.9	31.8		ug/kg	
	5	5.5	5.47 – 5.53	33.6		ug/kg	
					32		

Identification Summary

SDG Number: 10–1086 **Client ID:** RE03–10–9874MSD

Lab Sample ID: 1202005815

Data File:	046f4601.d	**Data File:**	046b4601.d
Inst:	ECD2A.I_1	**Inst:**	ECD2A.I_2
Column:	CLP1	**Column:**	CLP2
Analyzed:	30–DEC–09 16:13	**Analyzed:**	30–DEC–09 16:13

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor–1016							.306
Column 1	1	2.27	2.25 – 2.31	24.6		ug/kg	
	2	2.6	2.57 – 2.63	25.1		ug/kg	
	3	2.69	2.66 – 2.72	24.9		ug/kg	
	4	2.82	2.79 – 2.85	26.9		ug/kg	
	5	2.97	2.95 – 3.01	25.7		ug/kg	
					25.5		
Column 2	1	2.75	2.72 – 2.78	25.1		ug/kg	
	2	3.18	3.15 – 3.21	25		ug/kg	
	3	3.33	3.3 – 3.36	25.5		ug/kg	
	4	3.36	3.33 – 3.39	25.4		ug/kg	
	5	3.52	3.49 – 3.55	25.9		ug/kg	
					25.4		
Aroclor–1260							1.23
Column 1	1	4.01	3.99 – 4.05	31.2		ug/kg	
	2	4.29	4.26 – 4.32	31.9		ug/kg	
	3	4.45	4.42 – 4.48	32.3		ug/kg	
	4	4.66	4.63 – 4.69	33.3		ug/kg	
	5	4.85	4.82 – 4.88	33.5		ug/kg	
					32.4		
Column 2	1	4.41	4.38 – 4.44	30.7		ug/kg	
	2	4.56	4.54 – 4.6	32.1		ug/kg	
	3	4.68	4.65 – 4.71	32		ug/kg	
	4	4.87	4.84 – 4.9	31.8		ug/kg	
	5	5.5	5.47 – 5.53	33.6		ug/kg	
					32		

QUALITY CONTROL DATA

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–1086**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202005418**				
Client Sample:	**QC for batch 937176**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 937176**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**937178**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**12/30/2009 12:45**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**12/29/2009 09:29**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**030f3001–1.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	030b3001–1.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	3.33	ug/kg	1.11	3.33	1
11104–28–2	Aroclor–1221	U	3.33	ug/kg	1.11	3.33	1
11141–16–5	Aroclor–1232	U	3.33	ug/kg	1.11	3.33	1
53469–21–9	Aroclor–1242	U	3.33	ug/kg	1.11	3.33	1
12672–29–6	Aroclor–1248	U	3.33	ug/kg	1.11	3.33	1
11097–69–1	Aroclor–1254	U	3.33	ug/kg	1.11	3.33	1
11096–82–5	Aroclor–1260	U	3.33	ug/kg	1.11	3.33	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/123009.b/030f3001-1.d
Lab Smp Id: 1202005418 Client Smp ID: PBLK01
Inj Date : 30-DEC-2009 12:45
Operator : JAOC Inst ID: ecd1a.i
Smp Info : |1202005418|1|
Misc Info : |ECD82P_1S|937178|SVA|QC A|SOIL|MB|||
Comment :
Method : /chem/ecd1a.i/123009.b/ECD1-F-8082-121409.m
Meth Date : 31-Dec-2009 08:24 jen01212 Quant Type: ESTD
Cal Date : 14-DEC-2009 11:34 Cal File: 040f4001.d
Als bottle: 30 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1086.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.971	1.972	-0.001	44427824	118.263	3.9	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.284	5.287	-0.003	53259838	167.726	5.6	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/123009.b/030f3001-1.d
Date : 30-DEC-2009 12:45
Client ID: PBLK01
Sample Info: |1202005418|1|
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecd1a.i

Operator: JAOC
Column diameter: 0.25

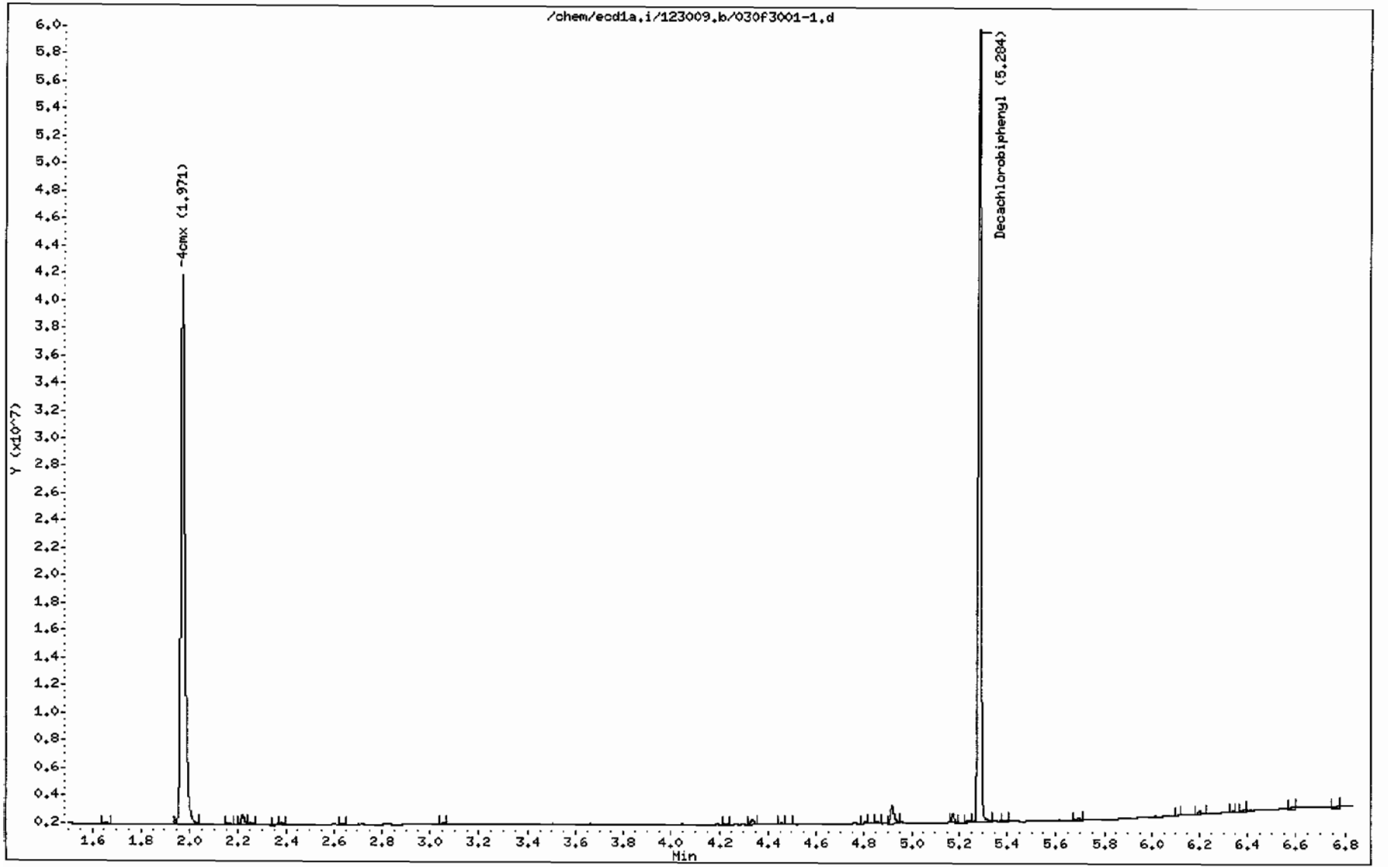

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/123009.b/030b3001-1.d
Lab Smp Id: 1202005418 Client Smp ID: PBLK01
Inj Date : 30-DEC-2009 12:45
Operator : JAOC Inst ID: ecd1a.i
Smp Info : |1202005418|1|
Misc Info : |ECD82P_1S|937178|SVA|QC A|SOIL|MB|||
Comment :
Method : /chem/ecd1a.i/123009.b/ECD1-B-8082-121409.m
Meth Date : 31-Dec-2009 08:30 jen01212 Quant Type: ESTD
Cal Date : 14-DEC-2009 12:16 Cal File: 044b4401.d
Als bottle: 30 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1086.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.302	2.303	-0.001	35030657	116.759	3.9	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.949	5.949	0.000	38290417	164.177	5.5	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/123009.b/030b3001-1.d

Date : 30-DEC-2009 12:45

Client ID: PBLK01

Sample Info: |1202005418(1|

Volume Injected (uL): 1.0

Column phase: CLP2

Instrument: ecd1a.i

Operator: JAOC

Column diameter: 0.25

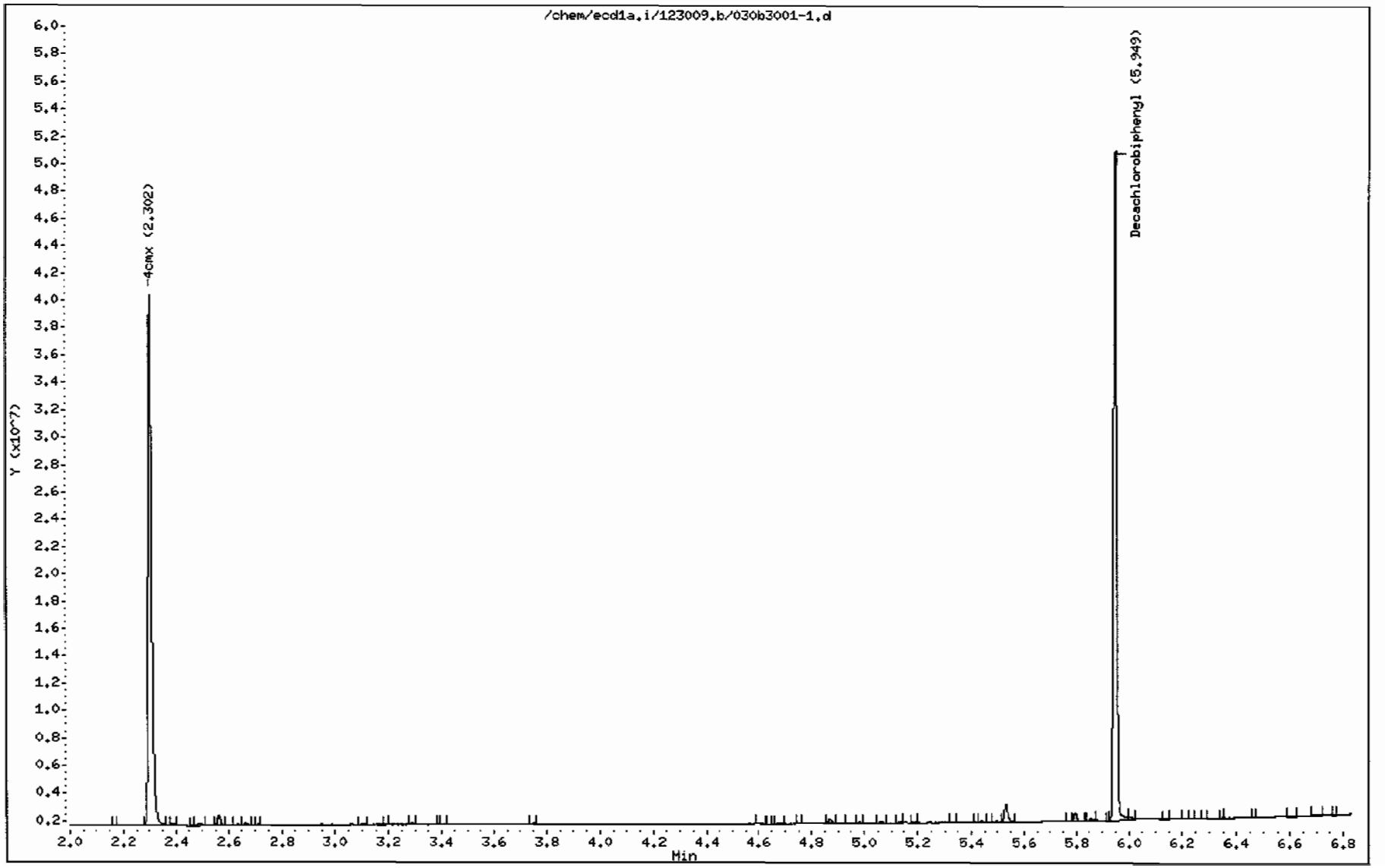

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–1086**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202005812**				
Client Sample:	**QC for batch 937368**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 937368**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**937369**	**Inst:**	**ECD2A.I**	**Dilution:**	**1**
Run Date:	**12/30/2009 15:17**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**12/29/2009 17:37**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**041f4101.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	041b4101.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	3.33	ug/kg	1.11	3.33	1
11104–28–2	Aroclor–1221	U	3.33	ug/kg	1.11	3.33	1
11141–16–5	Aroclor–1232	U	3.33	ug/kg	1.11	3.33	1
53469–21–9	Aroclor–1242	U	3.33	ug/kg	1.11	3.33	1
12672–29–6	Aroclor–1248	U	3.33	ug/kg	1.11	3.33	1
11097–69–1	Aroclor–1254	U	3.33	ug/kg	1.11	3.33	1
11096–82–5	Aroclor–1260	U	3.33	ug/kg	1.11	3.33	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/123009.b/041f4101.d
Lab Smp Id: 1202005812 Client Smp ID: PBLK02
Inj Date : 30-DEC-2009 15:17
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |1202005812|1|
Misc Info : |ECD82P_1S|937369|SVA|QC A|SOIL|MB|||
Comment :
Method : /chem/ecd2a.i/123009.b/ECD2-F-8082-111209A.m
Meth Date : 31-Dec-2009 07:50 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012f1201.d
Als bottle: 41 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1086.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.772	1.773	-0.001	9656269	155.017	5.2	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.608	5.608	0.000	9233232	170.633	5.7	80.00- 120.00	100.00

Data File: /chem/ecd2a.i/123009.b/041f4101.d

Page 1

Date : 30-DEC-2009 15:17

Client ID: PBLK02

Instrument: ecd2a.i

Sample Info: |1202005812:1|

Volume Injected (uL): 1.0

Operator: JADC

Column phase: CLP1

Column diameter: 0.25

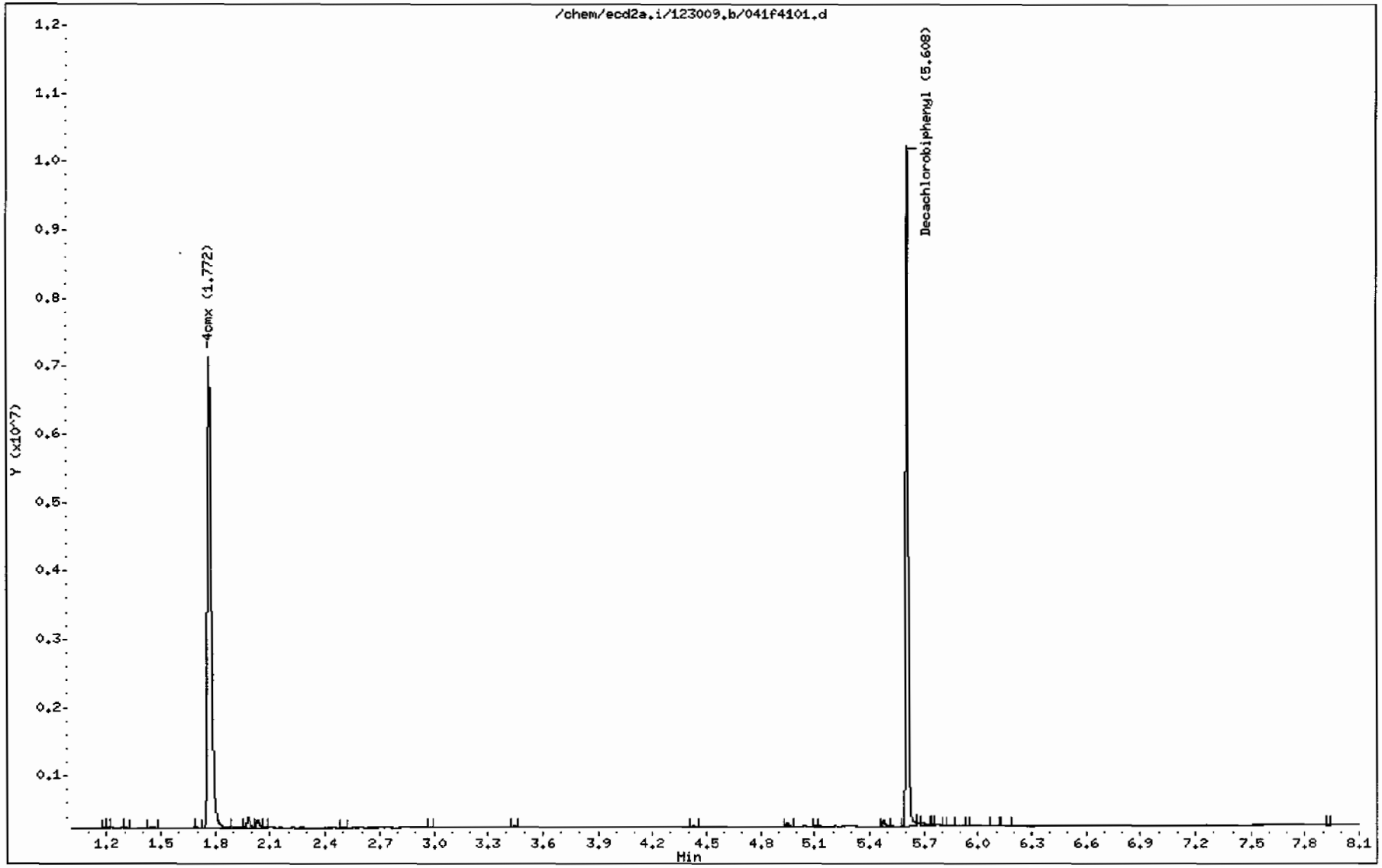

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/123009.b/041b4101.d
Lab Smp Id: 1202005812 Client Smp ID: PBLK02
Inj Date : 30-DEC-2009 15:17
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |1202005812|1|
Misc Info : |ECD82P_1S|937369|SVA|QC A|SOIL|MB|||
Comment :
Method : /chem/ecd2a.i/123009.b/ECD2-B-8082-111209A.m
Meth Date : 31-Dec-2009 07:09 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012b1201.d
Als bottle: 41 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1086.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.068	2.070	-0.002	21311061	164.796	5.5	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.300	6.301	-0.001	20660012	183.184	6.1	80.00- 120.00	100.00

Data File: /chem/ecd2a.i/123009.b/041b4101.d

Date : 30-DEC-2009 15:17

Client ID: PBLK02

Sample Info: |1202005812|1|

Volume Injected (uL): 1.0

Column phase: CLP2

Instrument: ecd2a.i

Operator: JAOC

Column diameter: 0.25

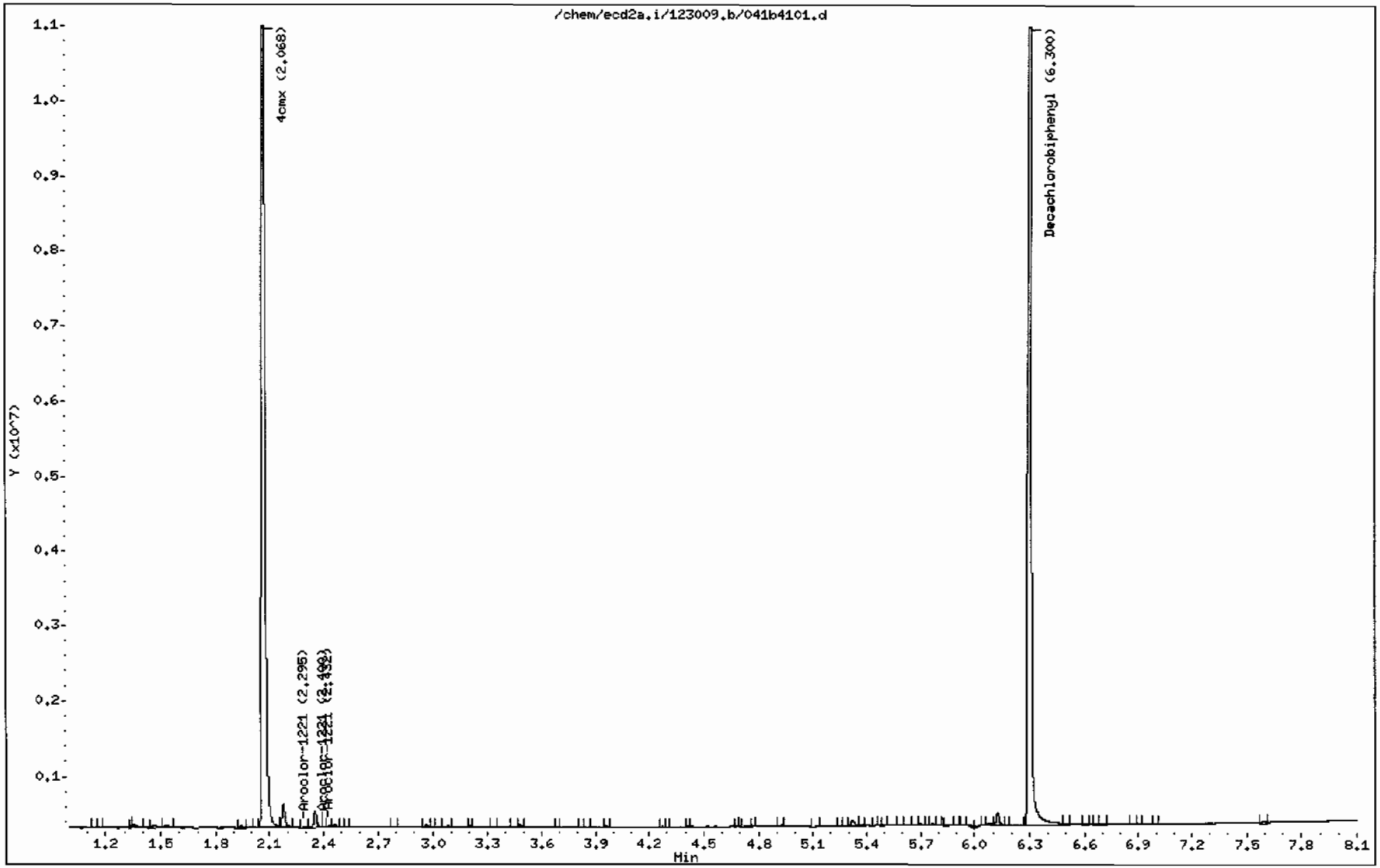

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–1086**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202005419**				
Client Sample:	**QC for batch 937176**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 937176**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**937178**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**12/30/2009 12:55**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**12/29/2009 09:29**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**031f3101–1.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	031b3101–1.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016		24.7	ug/kg	1.11	3.33	2
11104–28–2	Aroclor–1221	U	3.33	ug/kg	1.11	3.33	1
11141–16–5	Aroclor–1232	U	3.33	ug/kg	1.11	3.33	1
53469–21–9	Aroclor–1242	U	3.33	ug/kg	1.11	3.33	1
12672–29–6	Aroclor–1248	U	3.33	ug/kg	1.11	3.33	1
11097–69–1	Aroclor–1254	U	3.33	ug/kg	1.11	3.33	1
11096–82–5	Aroclor–1260		30.1	ug/kg	1.11	3.33	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/123009.b/031f3101-1.d
Lab Smp Id: 1202005419 Client Smp ID: PBLK01LCS
Inj Date : 30-DEC-2009 12:55
Operator : JAOC Inst ID: ecd1a.i
Smp Info : |1202005419|1|
Misc Info : |ECD82P_1S|937178|SVA|QC A|SOIL|LCS|||
Comment :
Method : /chem/ecd1a.i/123009.b/ECD1-F-8082-121409.m
Meth Date : 31-Dec-2009 08:24 jen01212 Quant Type: ESTD
Cal Date : 14-DEC-2009 11:34 Cal File: 040f4001.d
Als bottle: 31 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1086.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.969	1.972	-0.003	45076274	119.989	4.0	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.285	5.287	-0.002	49161103	154.818	5.2	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.425	2.428	-0.003	9118635	657.584	21.9	80.00- 120.00	100.00
2.703	2.705	-0.002	7746924	767.195	25.6	62.52- 102.52	84.96
2.795	2.798	-0.003	8072748	686.632	22.9	66.47- 106.47	88.53
2.834	2.835	-0.001	4808516	728.672	24.3	32.13- 72.13	52.73

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
1 Aroclor-1016 (continued)							
3.044	3.046	-0.002	6310869	727.612	24.2	46.62- 86.62	69.21
Average of Peak Concentrations =					23.8		
7 Aroclor-1260					CAS #: 11096-82-5		
3.771	3.773	-0.002	14179275	846.415	28.2	80.00- 120.00	100.00
3.934	3.936	-0.002	22087635	892.696	29.8	134.25- 174.25	155.77
4.164	4.166	-0.002	13342665	908.446	30.3	72.46- 112.46	94.10
4.307	4.308	-0.001	13875596	913.798	30.4	76.84- 116.84	97.86
4.486	4.488	-0.002	32859352	956.592	31.9	203.73- 243.73	231.74
Average of Peak Concentrations =					30.1		

Data File: /chem/ecdla.i/123009.b/031f3101-1.d
Date : 30-DEC-2009 12:55
Client ID: PBLK01LCS
Sample Info: 1120200541911
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecdla.i
Operator: JAOC
Column diameter: 0.25

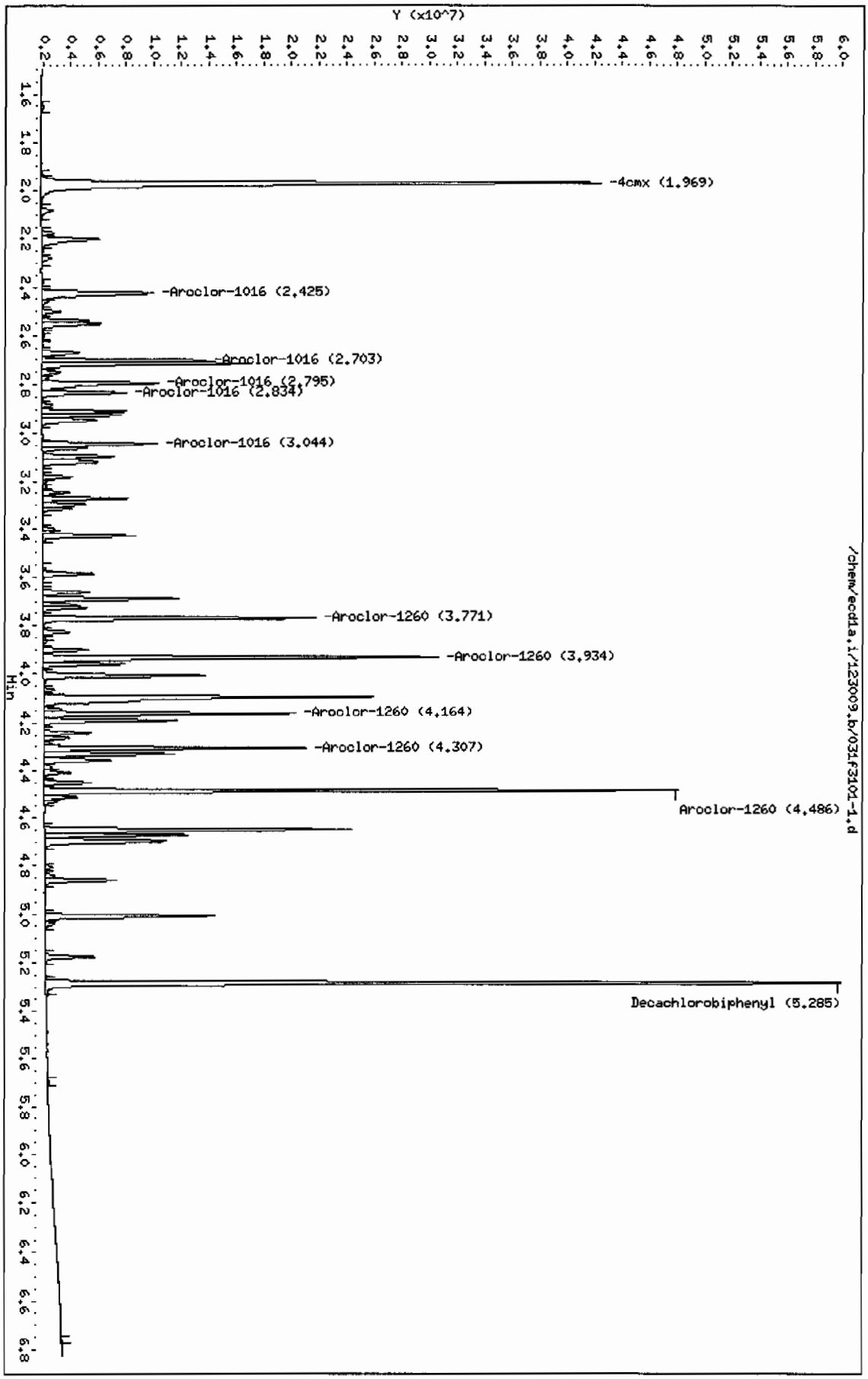

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GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/123009.b/031b3101-1.d
Lab Smp Id: 1202005419 Client Smp ID: PBLK01LCS
Inj Date : 30-DEC-2009 12:55
Operator : JAOC Inst ID: ecd1a.i
Smp Info : |1202005419|1|
Misc Info : |ECD82P_1S|937178|SVA|QC A|SOIL|LCS|||
Comment :
Method : /chem/ecd1a.i/123009.b/ECD1-B-8082-121409.m
Meth Date : 31-Dec-2009 08:30 jen01212 Quant Type: ESTD
Cal Date : 14-DEC-2009 12:16 Cal File: 044b4401.d
Als bottle: 31 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1085.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclpl

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.301	2.303	-0.002	35108395	117.018	3.9	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.948	5.949	-0.001	35117919	150.574	5.0	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.199	3.200	-0.001	9275818	735.502	24.5	80.00- 120.00	100.00
3.282	3.283	-0.001	6336071	679.262	22.6	45.95- 85.95	68.31
3.345	3.347	-0.002	3841452	709.892	23.7	21.30- 61.30	41.41
3.572	3.574	-0.002	5029794	713.256	23.8	33.35- 73.35	54.22

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
1 Aroclor-1016 (continued)							
3.649	3.650	-0.001	5682584	867.473	28.9	29.00- 69.00	61.26
Average of Peak Concentrations =					24.7		
7 Aroclor-1260					CAS #: 11096-82-5		
4.339	4.340	-0.001	10957145	800.959	26.7	80.00- 120.00	100.00
4.463	4.464	-0.001	13682430	853.604	28.4	103.77- 143.77	124.87
4.729	4.731	-0.002	10595492	843.326	28.1	74.68- 114.68	96.70
4.903	4.905	-0.002	10975477	856.785	28.6	77.13- 117.13	100.17
5.049	5.051	-0.002	25340425	908.335	30.3	200.92- 240.92	231.27
Average of Peak Concentrations =					28.4		

Data File: /chem/ecd1a.i/123009.b/031b3101-1.d

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Date : 30-DEC-2009 12:55

Client ID: PBLK01LCS

Instrument: ecd1a.i

Sample Info: |1202005419|1|

Volume Injected (uL): 1.0

Operator: JAOC

Column phase: CLP2

Column diameter: 0.25

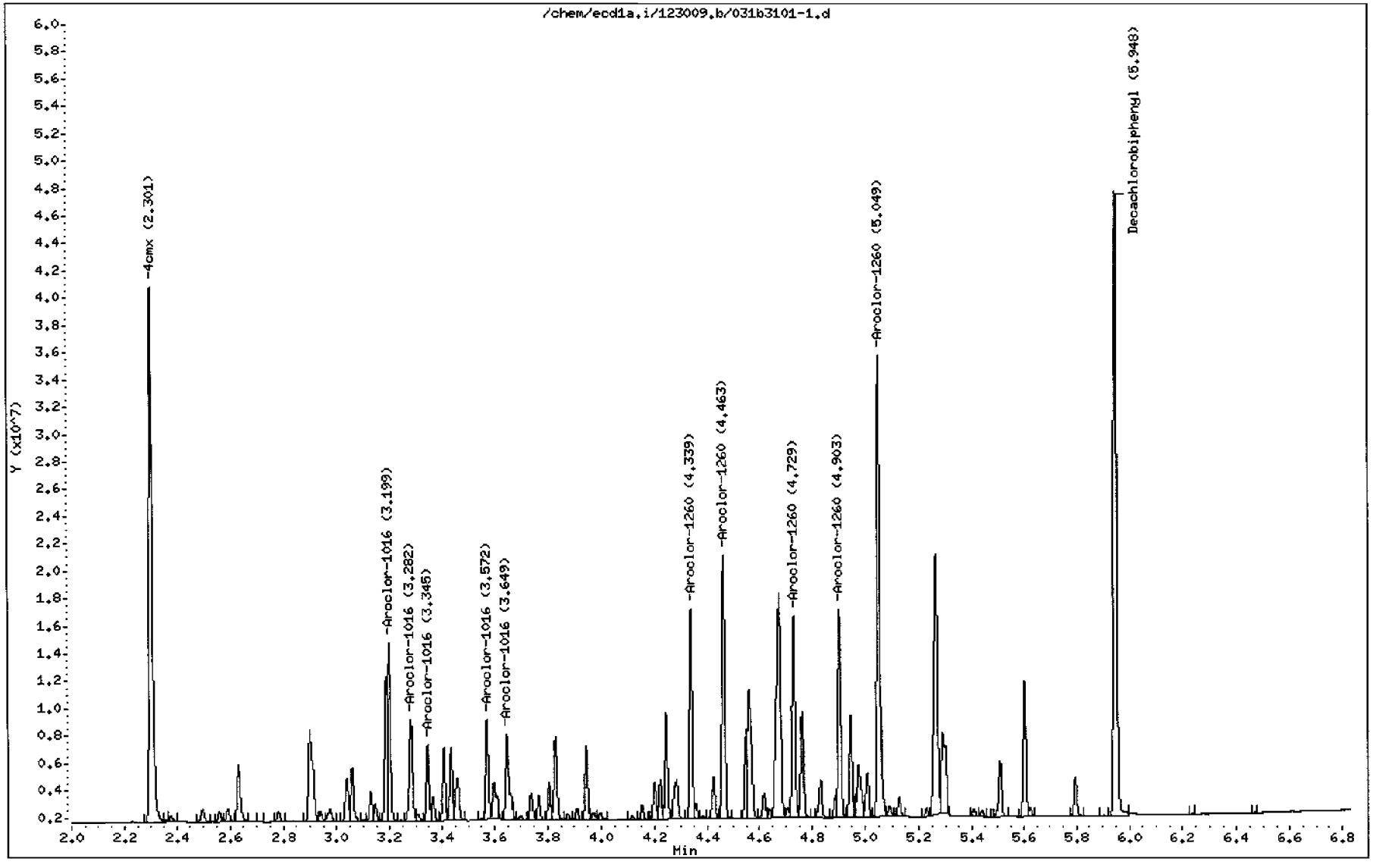

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–1086**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202005813**				
Client Sample:	**QC for batch 937368**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 937368**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**937369**	**Inst:**	**ECD2A.I**	**Dilution:**	**1**
Run Date:	**12/30/2009 15:28**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**12/29/2009 17:37**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**042f4201.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	042b4201.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016		22.8	ug/kg	1.11	3.33	2
11104–28–2	Aroclor–1221	U	3.33	ug/kg	1.11	3.33	1
11141–16–5	Aroclor–1232	U	3.33	ug/kg	1.11	3.33	1
53469–21–9	Aroclor–1242	U	3.33	ug/kg	1.11	3.33	1
12672–29–6	Aroclor–1248	U	3.33	ug/kg	1.11	3.33	1
11097–69–1	Aroclor–1254	U	3.33	ug/kg	1.11	3.33	1
11096–82–5	Aroclor–1260		28.4	ug/kg	1.11	3.33	1

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RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/123009.b/042f4201.d
Lab Smp Id: 1202005813 Client Smp ID: PBLK02LCS
Inj Date : 30-DEC-2009 15:28
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |1202005813|1|
Misc Info : |ECD82P_1S|937369|SVA|QC A|SOIL|LCS|||
Comment :
Method : /chem/ecd2a.i/123009.b/ECD2-F-8082-111209A.m
Meth Date : 31-Dec-2009 07:50 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012f1201.d
Als bottle: 42 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1086.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.772	1.773	-0.001	8775712	140.881	4.7	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.607	5.608	-0.001	8796356	162.560	5.4	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.274	2.276	-0.002	1524948	681.483	22.7	80.00- 120.00	100.00
2.597	2.599	-0.002	3184544	679.693	22.6	192.96- 232.96	208.83
2.688	2.690	-0.002	1285688	676.151	22.5	65.36- 105.36	84.31
2.824	2.825	-0.001	664512	680.868	22.7	23.39- 63.39	43.58

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
1 Aroclor-1016 (continued)							
2.975	2.975	0.000	1006347	690.288	23.0	44.66- 84.66	65.99
Average of Peak Concentrations =					22.7		
7 Aroclor-1260					CAS #: 11096-82-5		
4.015	4.016	-0.001	3380024	811.512	27.0	80.00- 120.00	100.00
4.287	4.287	0.000	2176758	840.262	28.0	44.01- 84.01	64.40
4.452	4.452	0.000	2251583	855.723	28.5	45.82- 85.82	66.61
4.664	4.665	-0.001	5315145	873.111	29.1	134.68- 174.68	157.25
4.853	4.854	-0.001	2596679	882.579	29.4	55.32- 95.32	76.82
Average of Peak Concentrations =					28.4		

Data File: /chem/ecd2a.i/123009.b/042f4201.d
Date : 30-DEC-2009 15:28
Client ID: PBLK02LCS
Sample Info: |1202005813|1|
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecd2a.i
Operator: JAOC
Column diameter: 0.25

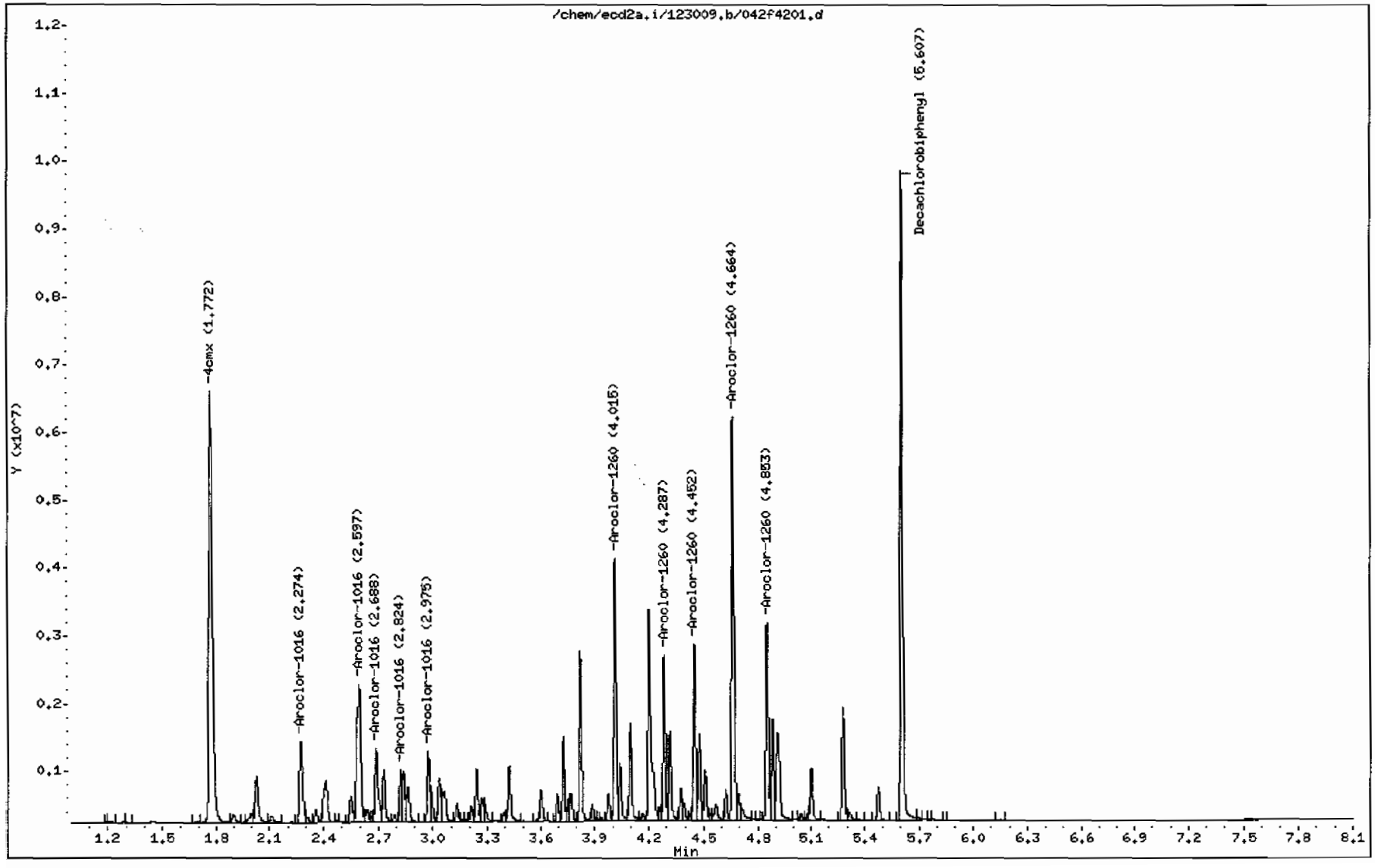

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/123009.b/042b4201.d
Lab Smp Id: 1202005813 Client Smp ID: PBLK02LCS
Inj Date : 30-DEC-2009 15:28
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |1202005813|1|
Misc Info : |ECD82P_1S|937369|SVA|QC A|SOIL|LCS|||
Comment :
Method : /chem/ecd2a.i/123009.b/ECD2-B-8082-111209A.m
Meth Date : 31-Dec-2009 07:09 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012b1201.d
Als bottle: 42 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1086.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.069	2.070	-0.001	19287410	149.147	5.0	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.300	6.301	-0.001	18904364	167.617	5.6	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.745	2.747	-0.002	3141446	692.281	23.1	80.00- 120.00	100.00
3.180	3.181	-0.001	2428005	674.040	22.5	58.60- 98.60	77.29
3.331	3.332	-0.001	1406073	684.810	22.8	25.46- 65.46	44.76
3.359	3.360	-0.001	1451039	678.979	22.6	27.36- 67.36	46.19

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
1 Aroclor-1016 (continued)							
3.518	3.518	0.000	1987251	692.297	23.1	44.06- 84.06	63.26
Average of Peak Concentrations =					22.8		
7 Aroclor-1260					CAS #: 11096-82-5		
4.414	4.414	0.000	4649669	806.265	26.9	80.00- 120.00	100.00(M)
4.565	4.566	-0.001	5988804	840.665	28.0	107.79- 147.79	128.80
4.677	4.677	0.000	4089631	848.699	28.3	67.63- 107.63	87.96
4.874	4.874	0.000	4731405	840.129	28.0	80.63- 120.63	101.76
5.500	5.500	0.000	8111917	897.583	29.9	147.60- 187.60	174.46
Average of Peak Concentrations =					28.2		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd2a.i/123009.b/042b4201.d

Page 1

Date : 30-DEC-2009 15:28

Client ID: PBLK02LCS

Instrument: ecd2a.i

Sample Info: |120200581311|

Volume Injected (uL): 1.0

Operator: JAOC

Column phase: CLP2

Column diameter: 0.25

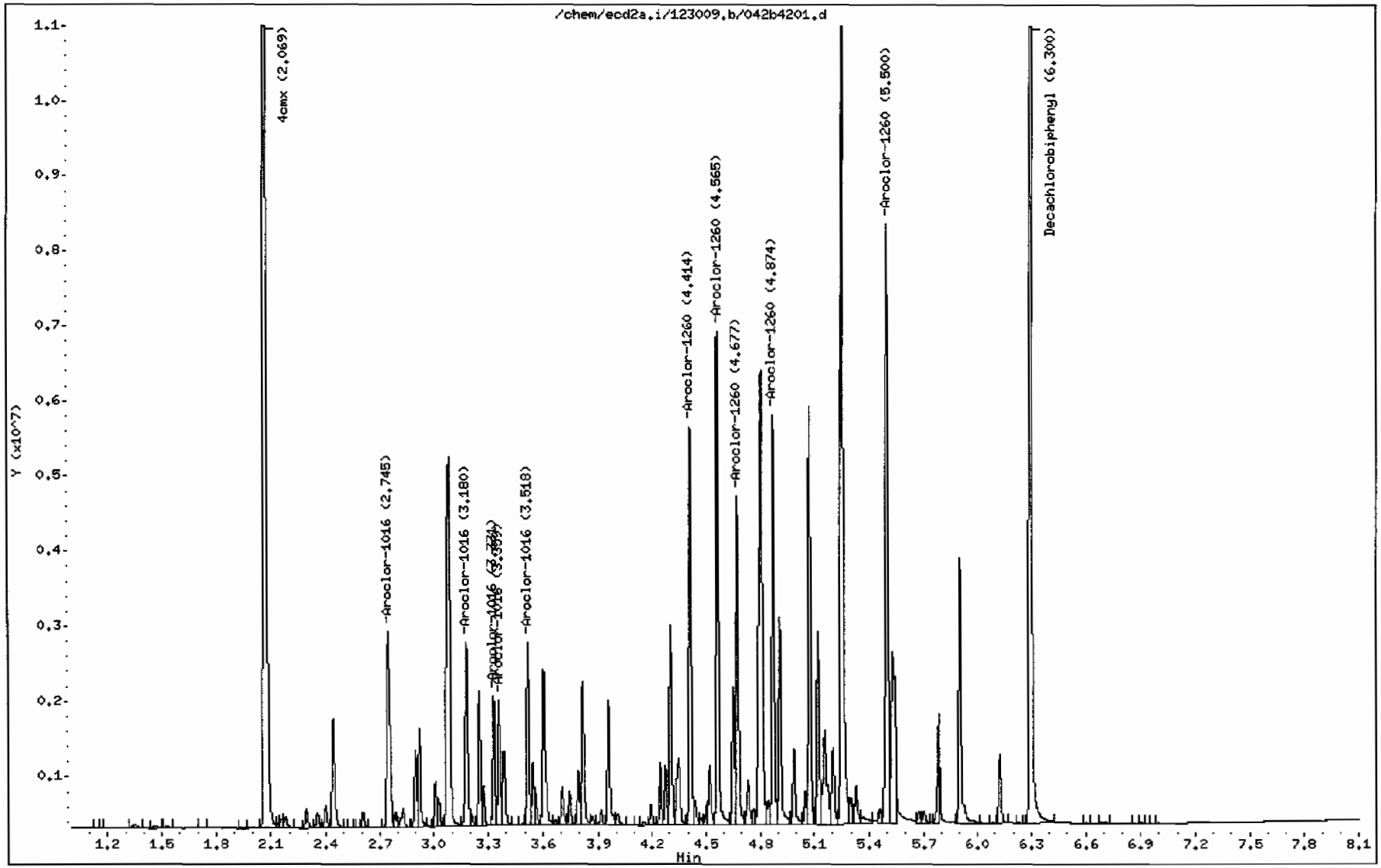

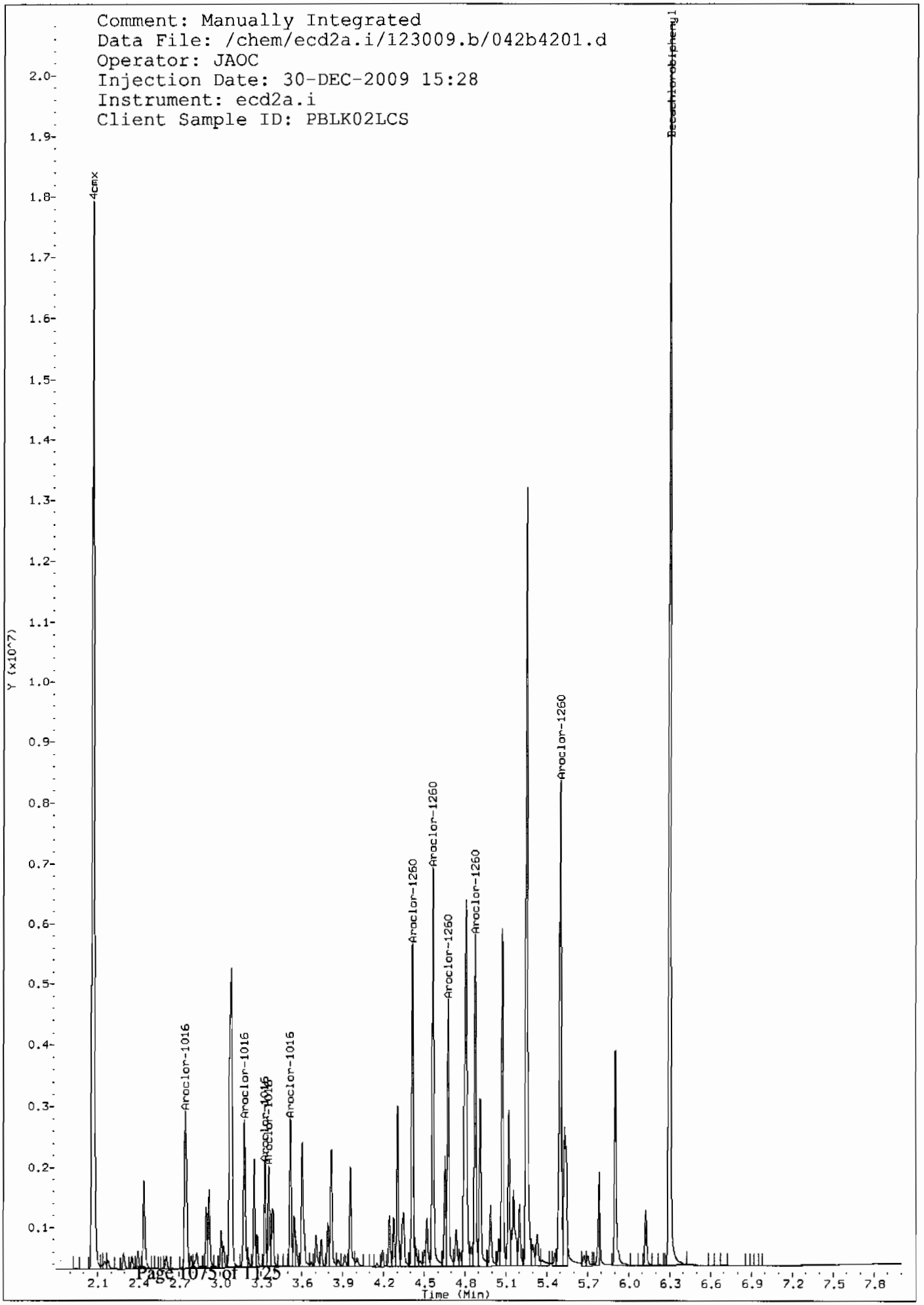
Comment: Manually Integrated
Data File: /chem/ecd2a.i/123009.b/042b4201.d
Operator: JAOC
Injection Date: 30-DEC-2009 15:28
Instrument: ecd2a.i
Client Sample ID: PBLK02LCS
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

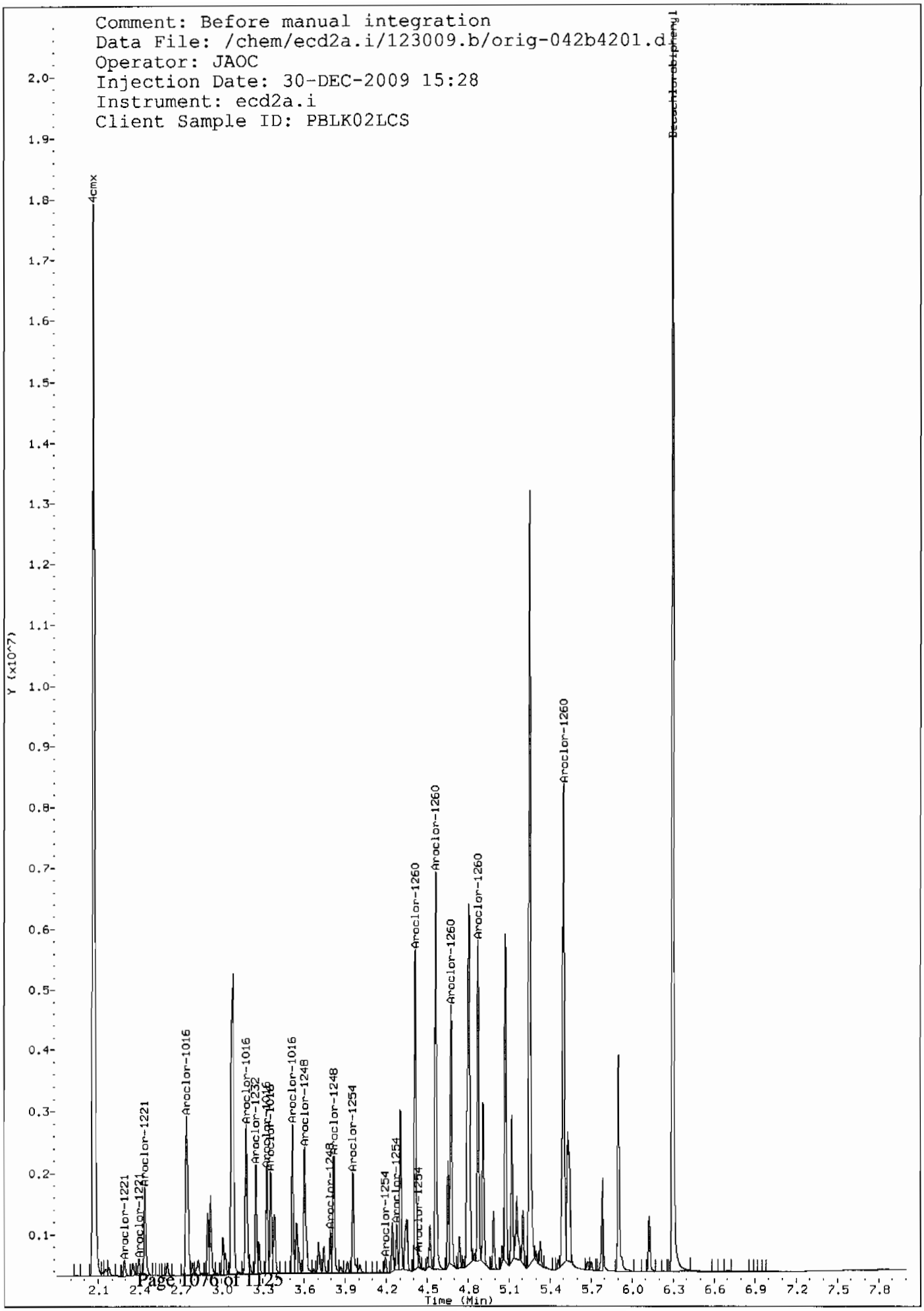
Comment: Before manual integration
Data File: /chem/ecd2a.i/123009.b/orig-042b4201.d
Operator: JAOC
Injection Date: 30-DEC-2009 15:28
Instrument: ecd2a.i
Client Sample ID: PBLK02LCS
Decachlorobiphenyl
4cmx
Aroclor-1221
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Aroclor-1221
Aroclor-1016
Aroclor-1016
Aroclor-1232
Aroclor-1016
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Aroclor-1260
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Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Y (x10^7)
Time (Min)

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10–1086	**Date Collected:**	12/22/2009 12:00	**Matrix:**	S
Lab Sample ID:	1202005420	**Date Received:**	12/24/2009 09:30	**%Moisture:**	5.5
Client Sample:	QC for batch 937176	**Client:**	LANL010	**Project:**	QC
Client ID:	RE03–09–14239MS	**Method:**	SW846 8082	**SOP Ref:**	GL–OA–E–040
Batch ID:	937178	**Inst:**	ECD1A.I	**Dilution:**	1
Run Date:	12/30/2009 13:48	**Analyst:**	JAOC	**Inj. Vol:**	1 uL
Prep Date:	12/29/2009 09:29	**Aliquot:**	30.02 g	**Final Volume:**	1 mL
Data File:	036f3601.d	**Column:**	1 CLP1	**Level:**	LOW
	036b3601.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016		24.9	ug/kg	1.17	3.52	1
11104–28–2	Aroclor–1221	U	3.52	ug/kg	1.17	3.52	1
11141–16–5	Aroclor–1232	U	3.52	ug/kg	1.17	3.52	1
53469–21–9	Aroclor–1242	U	3.52	ug/kg	1.17	3.52	1
12672–29–6	Aroclor–1248	U	3.52	ug/kg	1.17	3.52	1
11097–69–1	Aroclor–1254	U	3.52	ug/kg	1.17	3.52	1
11096–82–5	Aroclor–1260		30.5	ug/kg	1.17	3.52	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/123009.b/036f3601.d
Lab Smp Id: 1202005420 Client Smp ID: RE03-09-14239MS
Inj Date : 30-DEC-2009 13:48
Operator : JAOC Inst ID: ecd1a.i
Smp Info : |1202005420|1|
Misc Info : |ECD82P_1S|937178|SVA|QC A|SOIL|MS|||
Comment :
Method : /chem/ecd1a.i/123009.b/ECD1-F-8082-121409.m
Meth Date : 31-Dec-2009 08:24 jen01212 Quant Type: ESTD
Cal Date : 14-DEC-2009 11:34 Cal File: 040f4001.d
Als bottle: 36 QC Sample: MS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1086.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.02000	Weight of sample extracted (g)
M	5.46650	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.971	1.972	-0.001	44948446	119.649	4.2	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.285	5.287	-0.002	43576403	137.231	4.8	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.427	2.428	-0.001	9274394	668.817	23.6	80.00- 120.00	100.00
2.705	2.705	0.000	7498573	742.600	26.2	62.52- 102.52	80.85
2.796	2.798	-0.002	7967584	677.687	23.9	66.47- 106.47	85.91
2.835	2.835	0.000	4718127	714.975	25.2	32.13- 72.13	50.87
3.045	3.046	-0.001	6250998	720.709	25.4	46.62- 86.62	67.40

Average of Peak Concentrations = 24.9

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
7 Aroclor-1260					CAS #: 11096-82-5		
3.771	3.773	-0.002	13899972	829.743	29.2	80.00- 120.00	100.00
3.934	3.936	-0.002	21593357	872.720	30.8	134.25- 174.25	155.35
4.164	4.166	-0.002	12903361	878.536	31.0	72.46- 112.46	92.83
4.306	4.308	-0.002	12679778	835.046	29.4	76.84- 116.84	91.22
4.486	4.488	-0.002	31409158	914.374	32.2	203.73- 243.73	225.97
			Average of Peak Concentrations =		30.5		

Data File: /chem/ecd1a.i/123009.b/036f3601.d

Date : 30-DEC-2009 13:48

Client ID: RE03-09-14239HS

Sample Info: |120200542011|

Volume Injected (uL): 1.0

Column phase: CLP1

Instrument: ecd1a.i

Operator: JAOC

Column diameter: 0.25

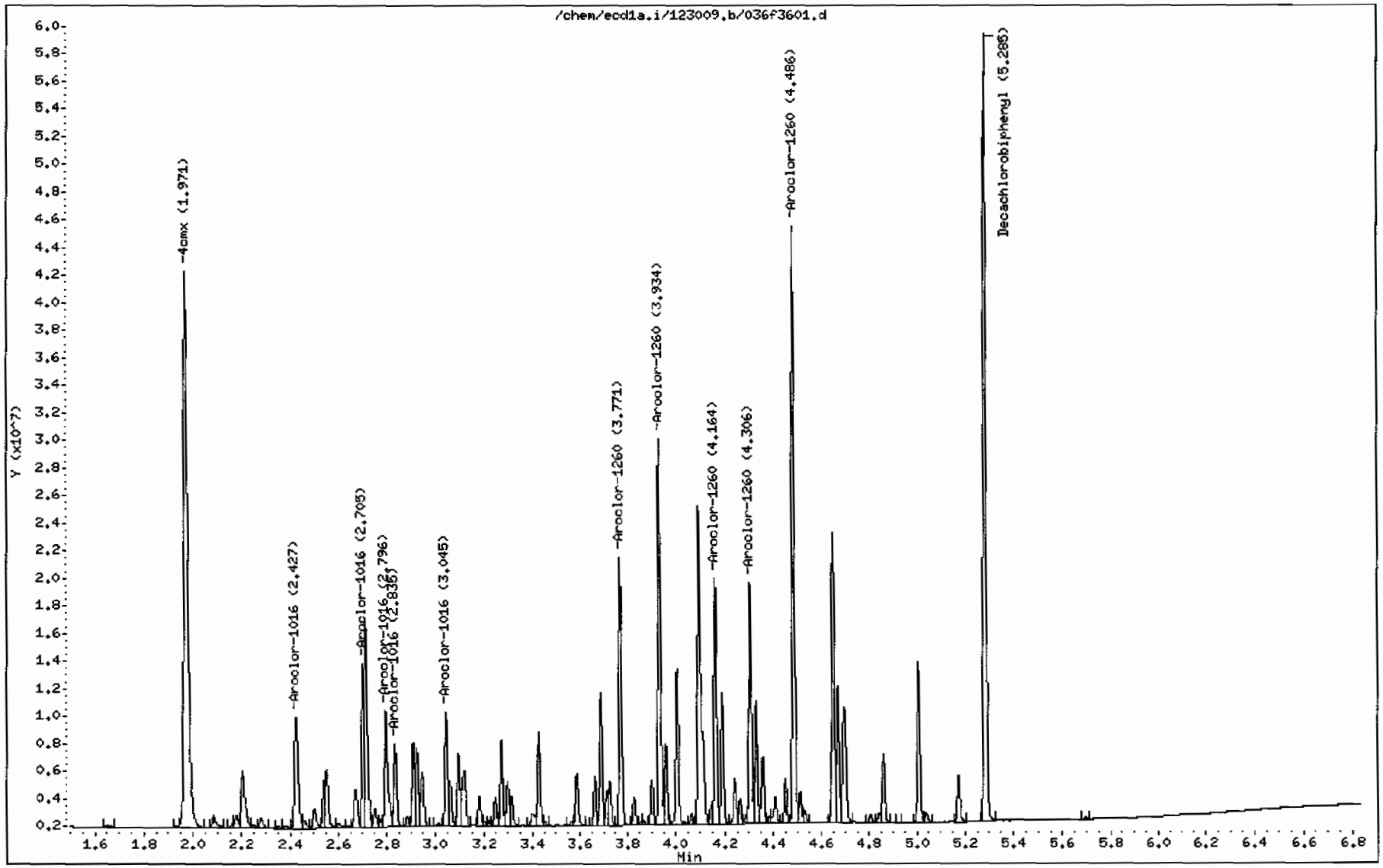

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/123009.b/036b3601.d
Lab Smp Id: 1202005420 Client Smp ID: RE03-09-14239MS
Inj Date : 30-DEC-2009 13:48
Operator : JAOC Inst ID: ecd1a.i
Smp Info : |1202005420|1|
Misc Info : |ECD82P_1S|937178|SVA|QC A|SOIL|MS|||
Comment :
Method : /chem/ecd1a.i/123009.b/ECD1-B-8082-121409.m
Meth Date : 31-Dec-2009 08:30 jen01212 Quant Type: ESTD
Cal Date : 14-DEC-2009 12:16 Cal File: 044b4401.d
Als bottle: 36 QC Sample: MS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1086.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.02000	Weight of sample extracted (g)
M	5.46650	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.302	2.303	-0.001	34862214	116.197	4.1	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.948	5.949	-0.001	33782419	144.848	5.1	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.200	3.200	0.000	9562663	758.247	26.7	80.00- 120.00	100.00(M)
3.282	3.283	-0.001	6325623	678.142	23.9	45.95- 85.95	66.15
3.346	3.347	-0.001	3874820	716.059	25.2	21.30- 61.30	40.52
3.573	3.574	-0.001	5158856	731.558	25.8	33.35- 73.35	53.95
3.649	3.650	-0.001	5778802	882.161	31.1	29.00- 69.00	60.43

Average of Peak Concentrations = 26.5

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
7 Aroclor-1260					CAS #: 11096-82-5		
4.339	4.340	-0.001	10844322	792.712	27.9	80.00- 120.00	100.00
4.463	4.464	-0.001	13483033	841.164	29.6	103.77- 143.77	124.33
4.730	4.731	-0.001	10320435	821.433	28.9	74.68- 114.68	95.17
4.903	4.905	-0.002	10594306	827.029	29.1	77.13- 117.13	97.69
5.050	5.051	-0.001	24369098	873.517	30.8	200.92- 240.92	224.72
			Average of Peak Concentrations =		29.3		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd1a.i/123009.b/036b3601.d
Date : 30-DEC-2009 13:48
Client ID: RE03-09-14239MS
Sample Info: |1202005420|1|
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd1a.i
Operator: JAOC
Column diameter: 0.25

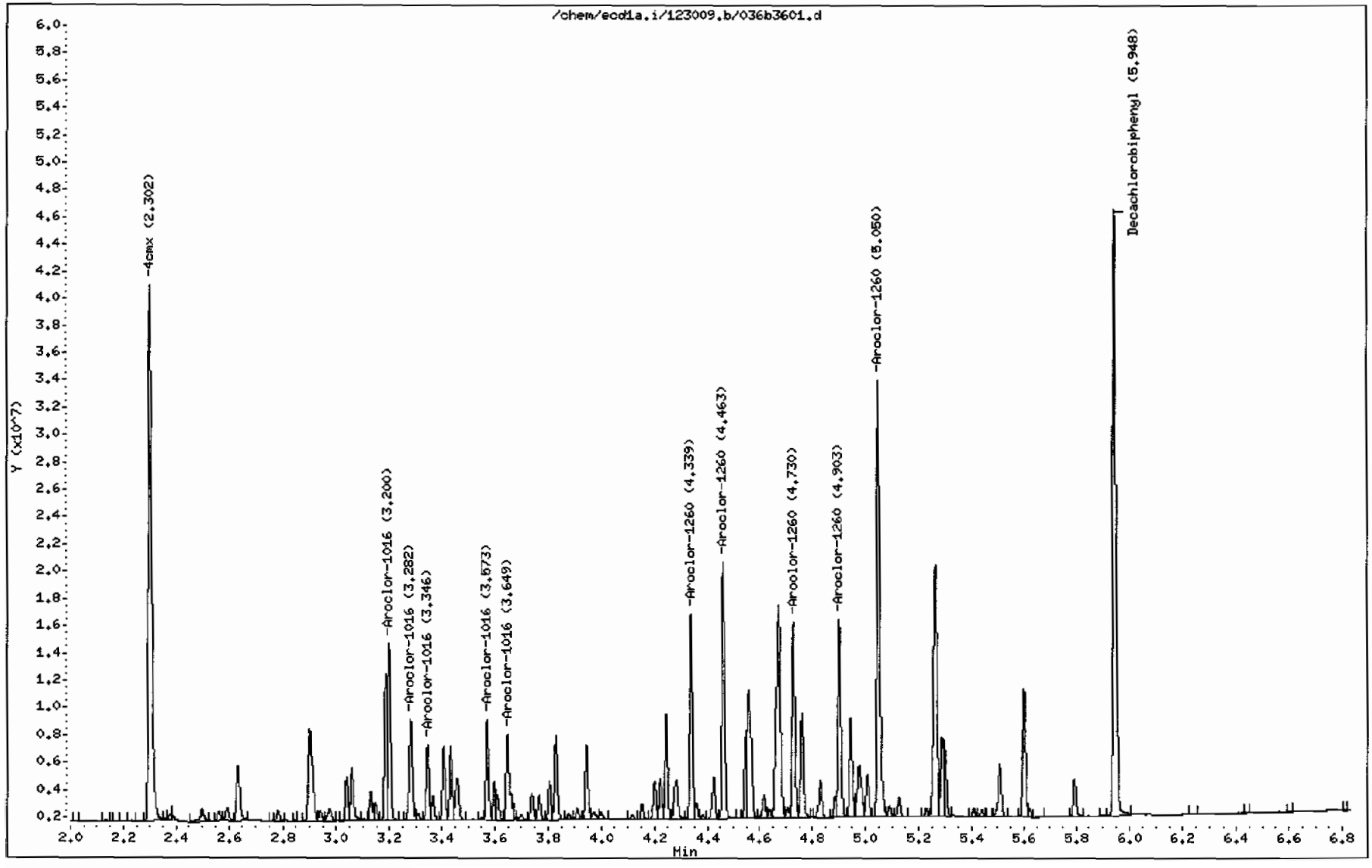

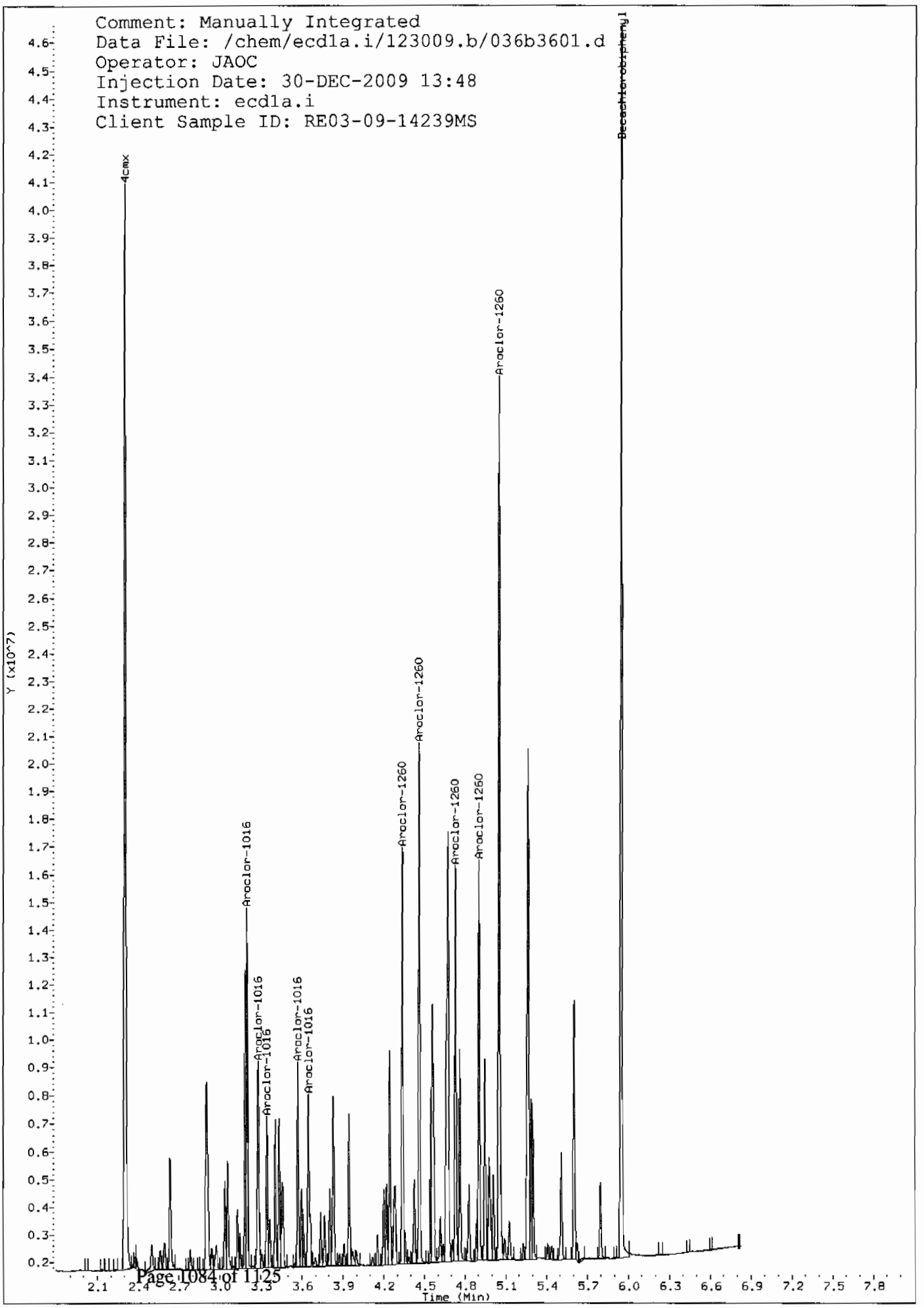
Comment: Manually Integrated
Data File: /chem/ecd1a.i/123009.b/036b3601.d
Operator: JAOC
Injection Date: 30-DEC-2009 13:48
Instrument: ecd1a.i
Client Sample ID: RE03-09-14239MS
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

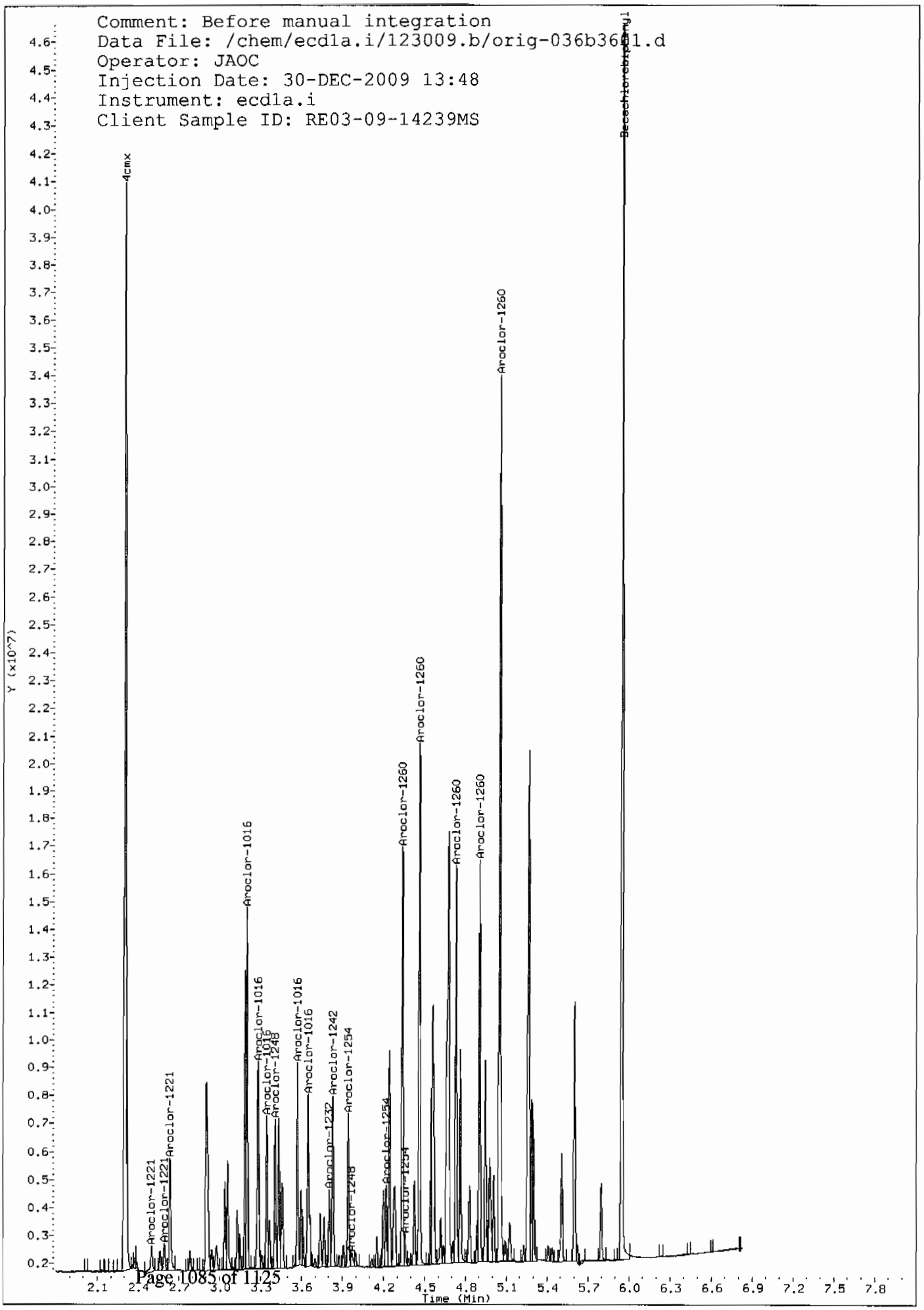
Comment: Before manual integration
Data File: /chem/ecd1a.i/123009.b/orig-036b3661.d
Operator: JAOC
Injection Date: 30-DEC-2009 13:48
Instrument: ecd1a.i
Client Sample ID: RE03-09-14239MS
4cmx
Decachlorobiphenyl
Aroclor-1260
Aroclor-1016
Aroclor-1221
Aroclor-1248
Aroclor-1242
Aroclor-1254
Y (x10^7)
Time (Min)

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10–1086	**Date Collected:**	12/22/2009 12:00	**Matrix:**	S
Lab Sample ID:	1202005814	**Date Received:**	12/24/2009 09:30	**%Moisture:**	6.9
Client Sample:	QC for batch 937368	**Client:**	LANL010	**Project:**	QC
Client ID:	RE03–10–9874MS	**Method:**	SW846 8082	**SOP Ref:**	GL–OA–E–040
Batch ID:	937369	**Inst:**	ECD2A.I	**Dilution:**	1
Run Date:	12/30/2009 16:02	**Analyst:**	JAOC	**Inj. Vol:**	1 uL
Prep Date:	12/29/2009 17:37	**Aliquot:**	30.02 g	**Final Volume:**	1 mL
Data File:	045f4501.d	**Column:**	1 CLP1	**Level:**	LOW
	045b4501.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016		26.0	ug/kg	1.19	3.58	1
11104–28–2	Aroclor–1221	U	3.58	ug/kg	1.19	3.58	1
11141–16–5	Aroclor–1232	U	3.58	ug/kg	1.19	3.58	1
53469–21–9	Aroclor–1242	U	3.58	ug/kg	1.19	3.58	1
12672–29–6	Aroclor–1248	U	3.58	ug/kg	1.19	3.58	1
11097–69–1	Aroclor–1254	U	3.58	ug/kg	1.19	3.58	1
11096–82–5	Aroclor–1260		32.6	ug/kg	1.19	3.58	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/123009.b/045f4501.d
Lab Smp Id: 1202005814 Client Smp ID: RE03-10-9874MS
Inj Date : 30-DEC-2009 16:02
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |1202005814|1|
Misc Info : |ECD82P_1S|937369|SVA|QC A|SOIL|MS|||
Comment :
Method : /chem/ecd2a.i/123009.b/ECD2-F-8082-111209A.m
Meth Date : 31-Dec-2009 07:50 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012f1201.d
Als bottle: 45 QC Sample: MS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1086.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.02000	Weight of sample extracted (g)
M	6.85550	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.774	1.773	0.001	9032497	145.003	5.2	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.608	5.608	0.000	9131320	168.750	6.0	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.276	2.276	0.000	1573262	703.074	25.1	80.00- 120.00	100.00(M)
2.599	2.599	0.000	3339617	712.791	25.5	192.96- 232.96	212.27
2.689	2.690	-0.001	1338224	703.780	25.2	65.36- 105.36	85.06
2.824	2.825	-0.001	761862	780.614	27.9	23.39- 63.39	48.43
2.976	2.975	0.001	1071186	734.763	26.3	44.66- 84.66	68.09

Average of Peak Concentrations = 26.0

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
7 Aroclor-1260					CAS #: 11096-82-5		
4.015	4.016	-0.001	3663368	879.540	31.4	80.00- 120.00	100.00
4.286	4.287	-0.001	2335284	901.455	32.2	44.01- 84.01	63.75
4.452	4.452	0.000	2387383	907.334	32.4	45.82- 85.82	65.17
4.664	4.665	-0.001	5680587	933.141	33.4	134.68- 174.68	155.06
4.854	4.854	0.000	2775354	943.308	33.7	55.32- 95.32	75.76
			Average of Peak Concentrations =		32.6		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd2a.i/123009.b/045f4501.d
Date : 30-DEC-2009 16:02
Client ID: RE03-10-9874MS
Sample Info: |1202005814|1|
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecd2a.i

Operator: JAOC
Column diameter: 0.25

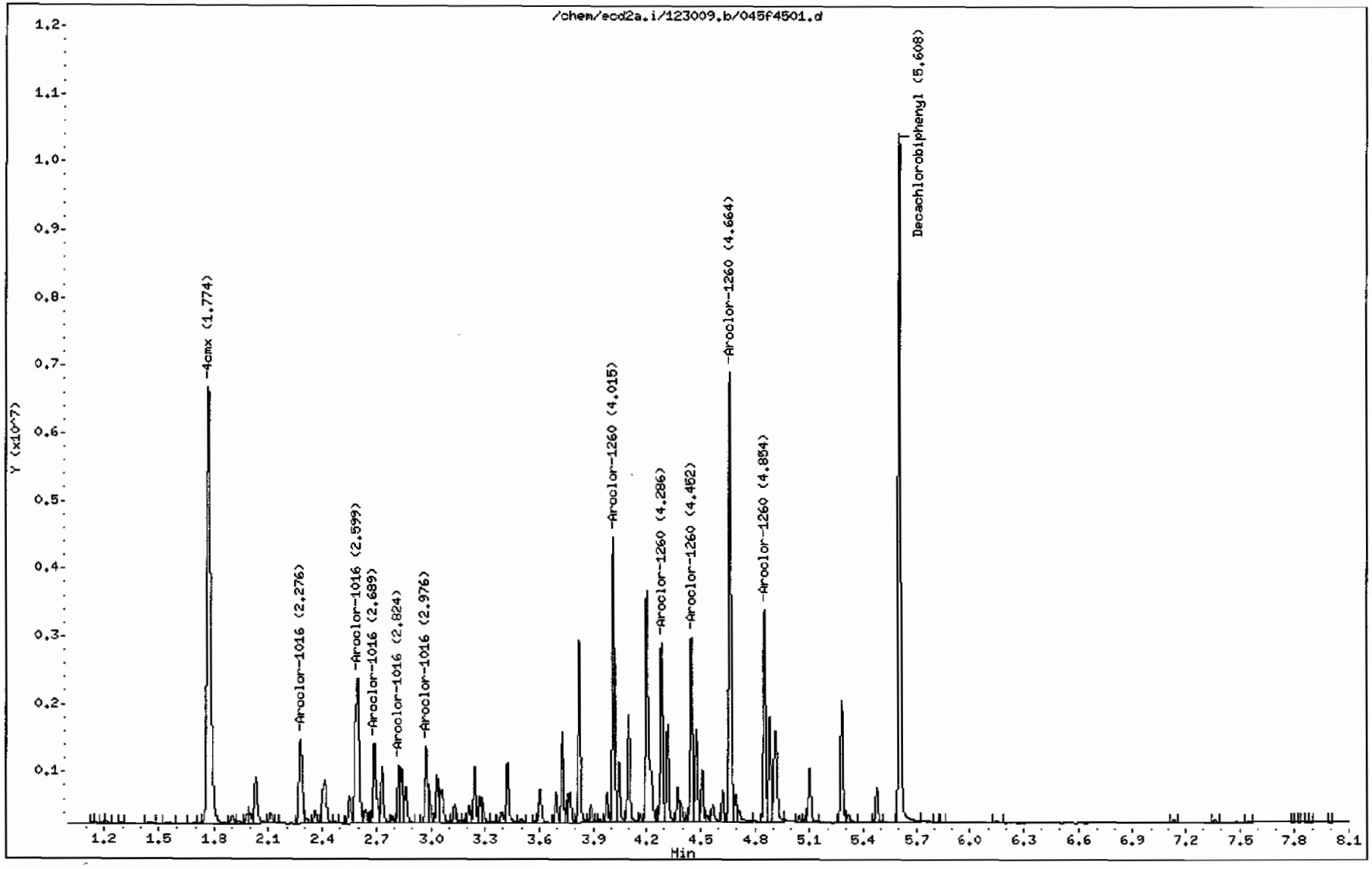

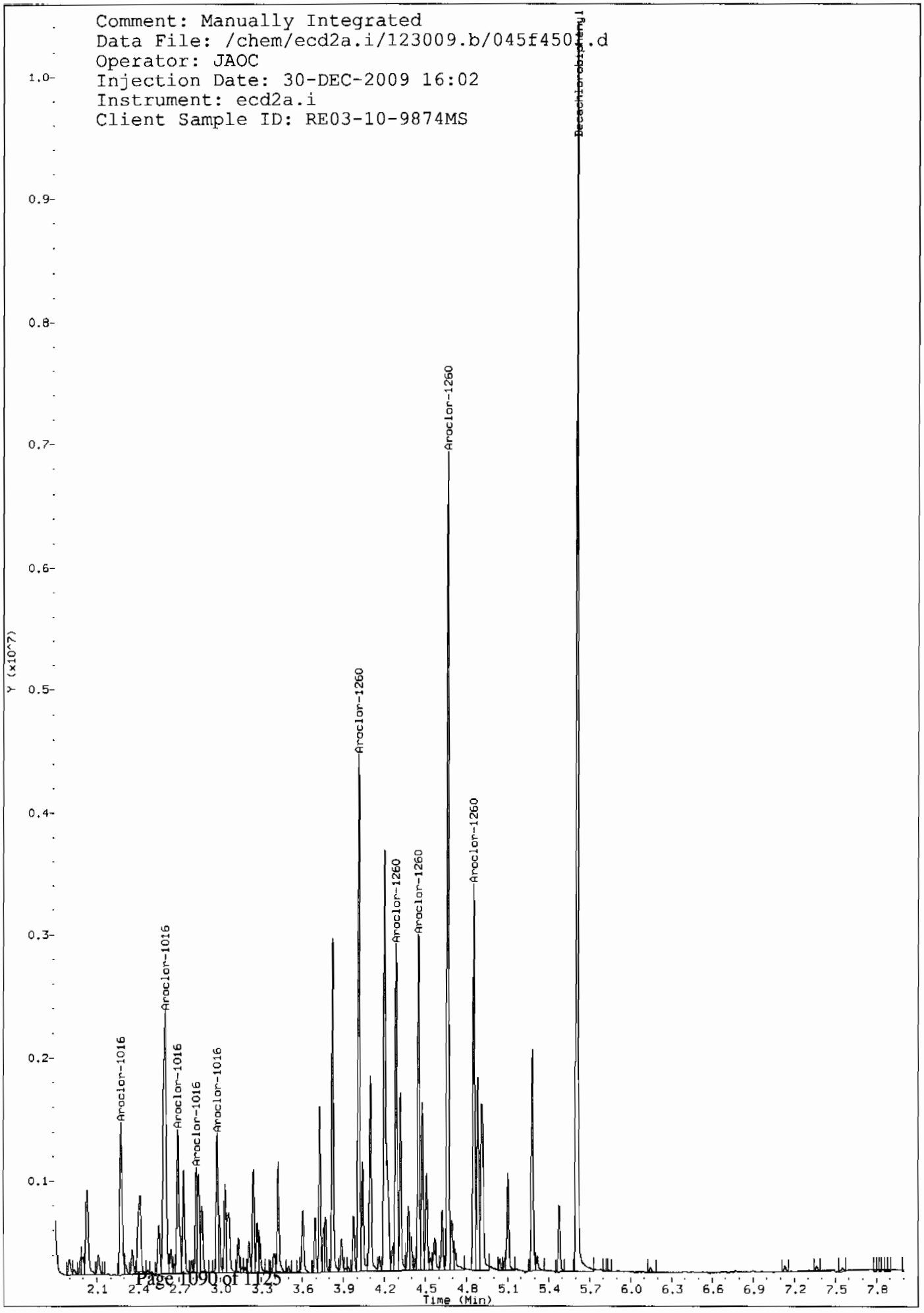
Comment: Manually Integrated
Data File: /chem/ecd2a.i/123009.b/045f4501.d
Operator: JAOC
Injection Date: 30-DEC-2009 16:02
Instrument: ecd2a.i
Client Sample ID: RE03-10-9874MS
Decachlorobiphenyl
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Y (x10^7)
1.0
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
2.1
2.4
2.7
3.0
3.3
3.6
3.9
4.2
4.5
4.8
5.1
5.4
5.7
6.0
6.3
6.6
6.9
7.2
7.5
7.8
Time (Min)

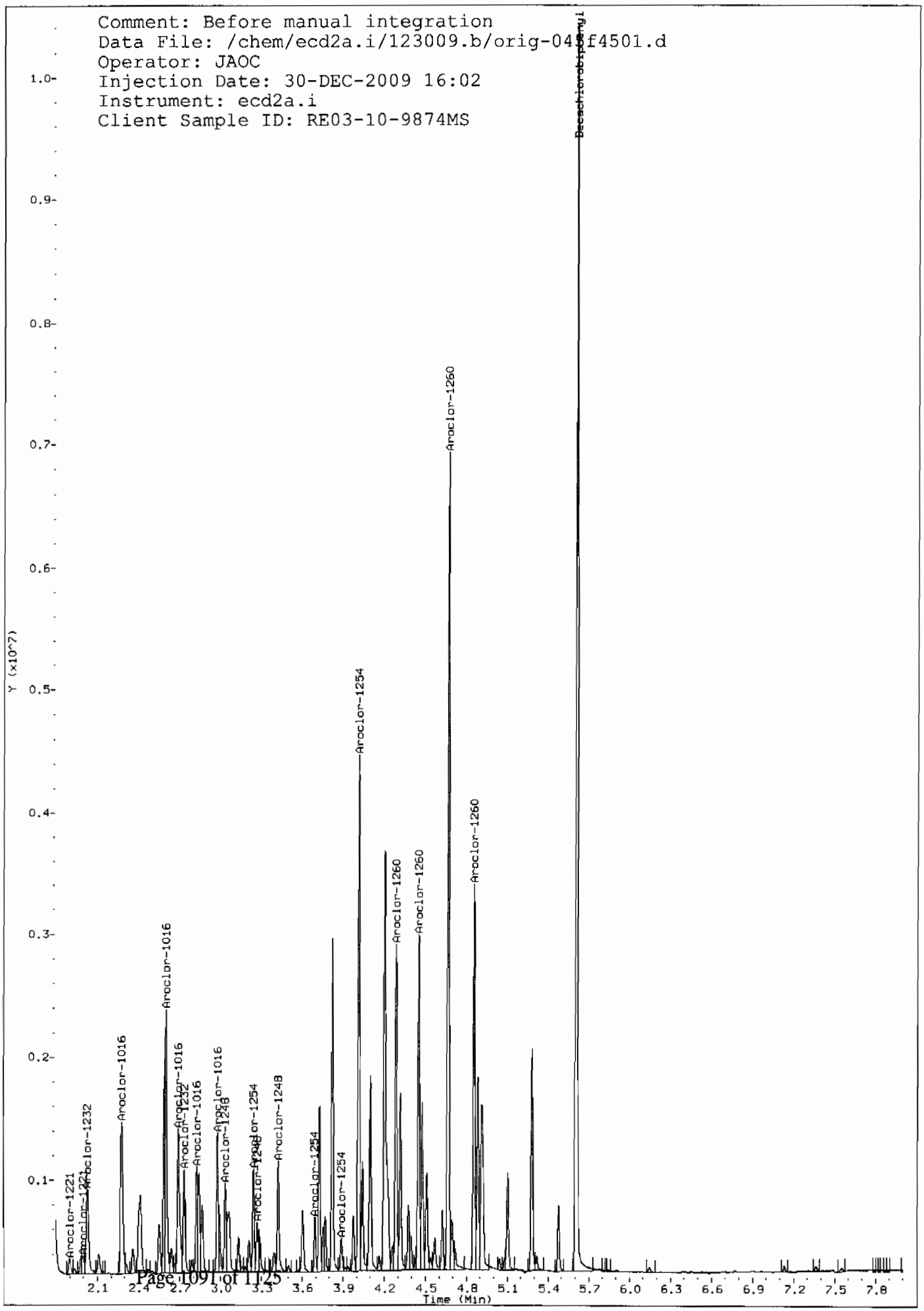
Comment: Before manual integration
Data File: /chem/ecd2a.i/123009.b/orig-04 f4501.d
Operator: JAOC
Injection Date: 30-DEC-2009 16:02
Instrument: ecd2a.i
Client Sample ID: RE03-10-9874MS
Decachlorobiphenyl
Aroclor-1260
Aroclor-1254
Aroclor-1016
Aroclor-1248
Aroclor-1232
Aroclor-1221
Y (x10^7)
Time (Min)

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/123009.b/045b4501.d
Lab Smp Id: 1202005814 Client Smp ID: RE03-10-9874MS
Inj Date : 30-DEC-2009 16:02
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |1202005814|1|
Misc Info : |ECD82P_1S|937369|SVA|QC A|SOIL|MS|||
Comment :
Method : /chem/ecd2a.i/123009.b/ECD2-B-8082-111209A.m
Meth Date : 31-Dec-2009 07:09 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012b1201.d
Als bottle: 45 QC Sample: MS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1086.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.02000	Weight of sample extracted (g)
M	6.85550	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.070	2.070	0.000	19989833	154.579	5.5	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.301	6.301	0.000	19606872	173.846	6.2	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.746	2.747	-0.001	3257276	717.806	25.7	80.00- 120.00	100.00
3.181	3.181	0.000	2563034	711.526	25.4	58.60- 98.60	78.69
3.331	3.332	-0.001	1492363	726.837	26.0	25.46- 65.46	45.82
3.360	3.360	0.000	1535016	718.274	25.7	27.36- 67.36	47.13
3.518	3.518	0.000	2113774	736.374	26.3	44.06- 84.06	64.89

Average of Peak Concentrations = 25.8

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
7 Aroclor-1260					CAS #: 11096-82-5		
4.414	4.414	0.000	4967586	861.393	30.8	80.00- 120.00	100.00
4.566	4.566	0.000	6380337	895.625	32.0	107.79- 147.79	128.44
4.676	4.677	-0.001	4314440	895.352	32.0	67.63- 107.63	86.85
4.874	4.874	0.000	5006047	888.896	31.8	80.63- 120.63	100.77
5.499	5.500	-0.001	8490471	939.470	33.6	147.60- 187.60	170.92
			Average of Peak Concentrations =		32.0		

Data File: /chem/ecd2a.i/123009.b/045b4501.d
Date : 30-DEC-2009 16:02
Client ID: RE03-10-9874MS
Sample Info: |1202005814|1|
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd2a.i
Operator: JAOC
Column diameter: 0.25

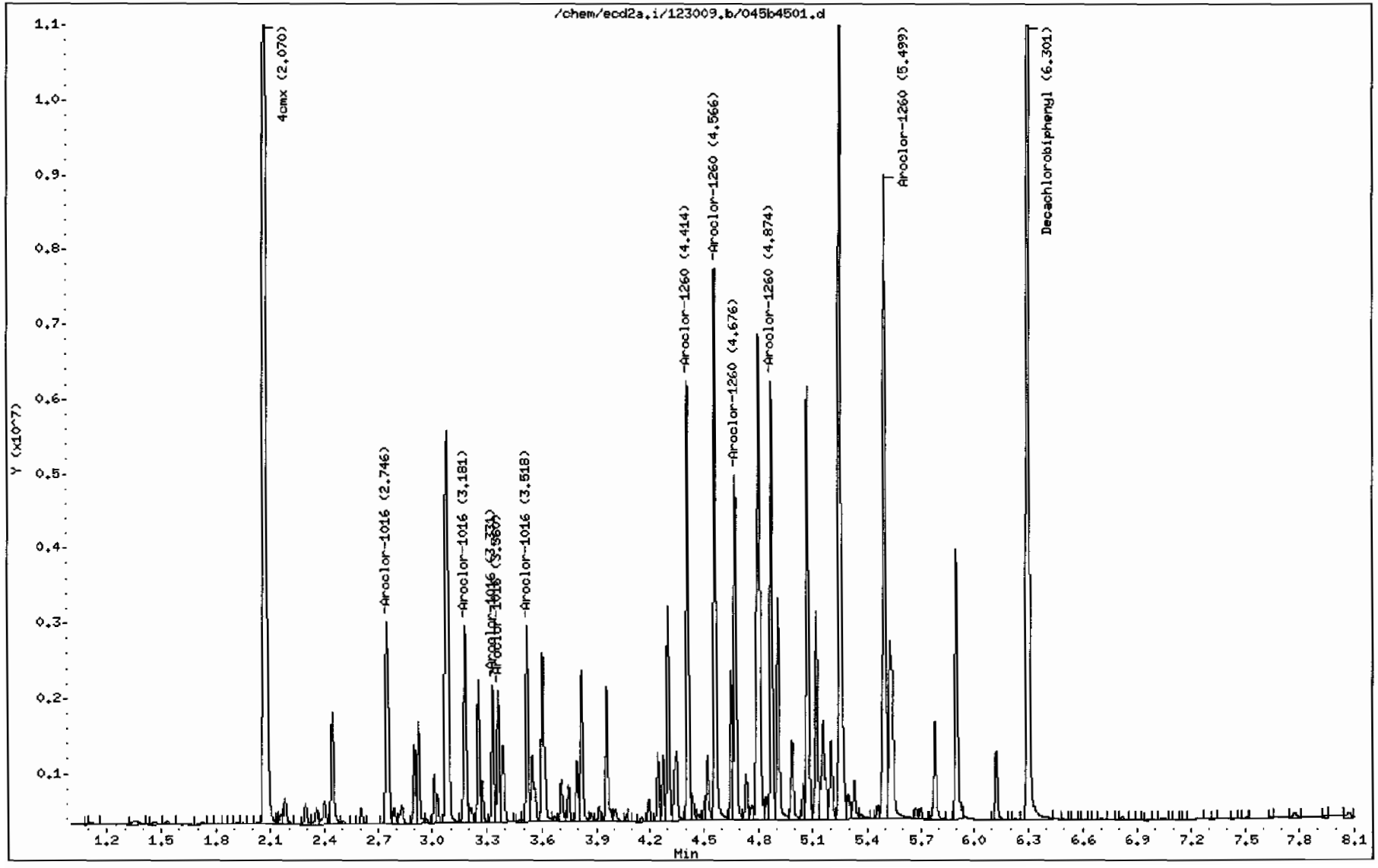

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10–1086	**Date Collected:**	12/22/2009 12:00	**Matrix:**	S
Lab Sample ID:	1202005421	**Date Received:**	12/24/2009 09:30	**%Moisture:**	5.5
Client Sample:	QC for batch 937176	**Client:**	LANL010	**Project:**	QC
Client ID:	RE03–09–14239MSD	**Method:**	SW846 8082	**SOP Ref:**	GL–OA–E–040
Batch ID:	937178	**Inst:**	ECD1A.I	**Dilution:**	1
Run Date:	12/30/2009 13:58	**Analyst:**	JAOC	**Inj. Vol:**	1 uL
Prep Date:	12/29/2009 09:29	**Aliquot:**	30.02 g	**Final Volume:**	1 mL
Data File:	037f3701.d	**Column:**	1 CLP1	**Level:**	LOW
	037b3701.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016		23.8	ug/kg	1.17	3.52	1
11104–28–2	Aroclor–1221	U	3.52	ug/kg	1.17	3.52	1
11141–16–5	Aroclor–1232	U	3.52	ug/kg	1.17	3.52	1
53469–21–9	Aroclor–1242	U	3.52	ug/kg	1.17	3.52	1
12672–29–6	Aroclor–1248	U	3.52	ug/kg	1.17	3.52	1
11097–69–1	Aroclor–1254	U	3.52	ug/kg	1.17	3.52	1
11096–82–5	Aroclor–1260		29.3	ug/kg	1.17	3.52	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/123009.b/037f3701.d
Lab Smp Id: 1202005421 Client Smp ID: RE03-09-14239MSD
Inj Date : 30-DEC-2009 13:58
Operator : JAOC Inst ID: ecd1a.i
Smp Info : |1202005421|1|
Misc Info : |ECD82P_1S|937178|SVA|QC A|SOIL|MSD|||
Comment :
Method : /chem/ecd1a.i/123009.b/ECD1-F-8082-121409.m
Meth Date : 31-Dec-2009 08:24 jen01212 Quant Type: ESTD
Cal Date : 14-DEC-2009 11:34 Cal File: 040f4001.d
Als bottle: 37 QC Sample: MSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1086.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.02000	Weight of sample extracted (g)
M	5.46650	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.971	1.972	-0.001	43263458	115.164	4.0	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.286	5.287	-0.001	38911712	122.541	4.3	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.427	2.428	-0.001	8682359	626.122	22.1	80.00- 120.00	100.00
2.704	2.705	-0.001	7409384	733.768	25.8	62.52- 102.52	85.34
2.797	2.798	-0.001	7613331	647.556	22.8	66.47- 106.47	87.69
2.834	2.835	-0.001	4517637	684.593	24.1	32.13- 72.13	52.03
3.045	3.046	-0.001	5973730	688.741	24.3	46.62- 86.62	68.80

Average of Peak Concentrations = 23.8

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
7 Aroclor-1260					CAS #: 11096-82-5		
3.772	3.773	-0.001	13407355	800.336	28.2	80.00- 120.00	100.00
3.934	3.936	-0.002	20881663	843.956	29.7	134.25- 174.25	155.75
4.164	4.166	-0.002	12509249	851.702	30.0	72.46- 112.46	93.30
4.307	4.308	-0.001	11741586	773.260	27.2	76.84- 116.84	87.58
4.487	4.488	-0.001	30585616	890.399	31.4	203.73- 243.73	228.13
			Average of Peak Concentrations =		29.3		

Data File: /chem/ecd1a.i/123009.b/037f3701.d
Date : 30-DEC-2009 13:58
Client ID: RE03-09-14239MSD
Sample Info: 1120200542111
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecd1a.i
Operator: JADC
Column diameter: 0.25

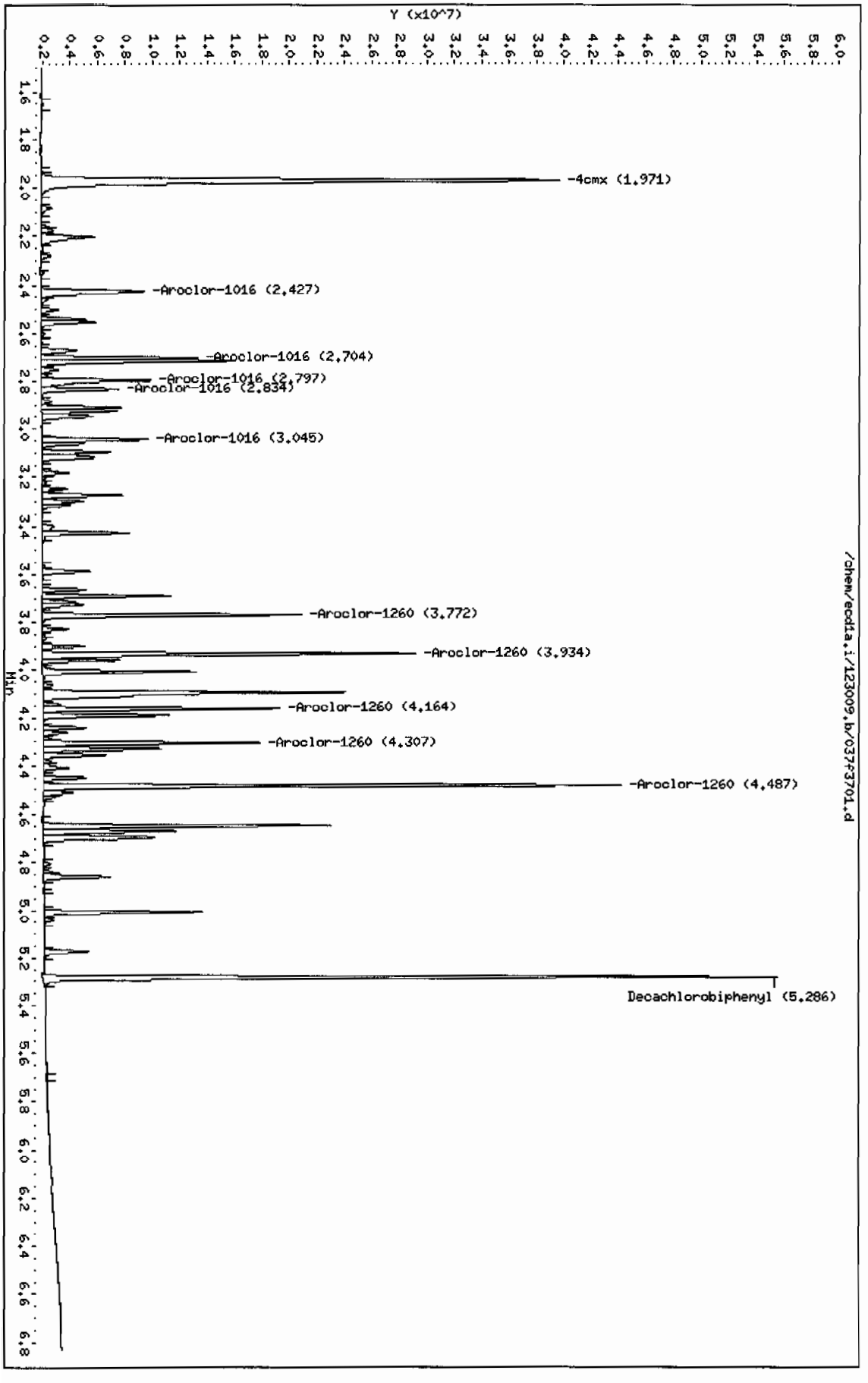

Page 1

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/123009.b/037b3701.d
Lab Smp Id: 1202005421 Client Smp ID: RE03-09-14239MSD
Inj Date : 30-DEC-2009 13:58
Operator : JAOC Inst ID: ecd1a.i
Smp Info : |1202005421|1|
Misc Info : |ECD82P_1S|937178|SVA|QC A|SOIL|MSD|||
Comment :
Method : /chem/ecd1a.i/123009.b/ECD1-B-8082-121409.m
Meth Date : 31-Dec-2009 08:30 jen01212 Quant Type: ESTD
Cal Date : 14-DEC-2009 12:16 Cal File: 044b4401.d
Als bottle: 37 QC Sample: MSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1086.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.02000	Weight of sample extracted (g)
M	5.46650	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.302	2.303	-0.001	34063845	113.536	4.0	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.948	5.949	-0.001	33982979	145.708	5.1	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.200	3.200	0.000	8838375	700.817	24.7	80.00- 120.00	100.00
3.282	3.283	-0.001	6013586	644.690	22.7	45.95- 85.95	68.04
3.347	3.347	0.000	3684519	680.891	24.0	21.30- 61.30	41.69
3.573	3.574	-0.001	4918802	697.517	24.6	33.35- 73.35	55.65
3.649	3.650	-0.001	4569890	697.615	24.6	29.00- 69.00	51.71

Average of Peak Concentrations = 24.1

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
7 Aroclor-1260					CAS #: 11096-82-5		
4.339	4.340	-0.001	10421596	761.811	26.8	80.00- 120.00	100.00
4.463	4.464	-0.001	13066111	815.154	28.7	103.77- 143.77	125.38
4.730	4.731	-0.001	10073965	801.816	28.2	74.68- 114.68	96.66
4.903	4.905	-0.002	10519488	821.189	28.9	77.13- 117.13	100.94
5.050	5.051	-0.001	23937644	858.052	30.2	200.92- 240.92	229.69
			Average of Peak Concentrations =		28.6		

Data File: /chem/ecd1a.i/123009.b/037b3701.d
Date : 30-DEC-2009 13:58
Client ID: RE03-09-14239MSD
Sample Info: |1202005421|1|
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd1a.i
Operator: JAOC
Column diameter: 0.25

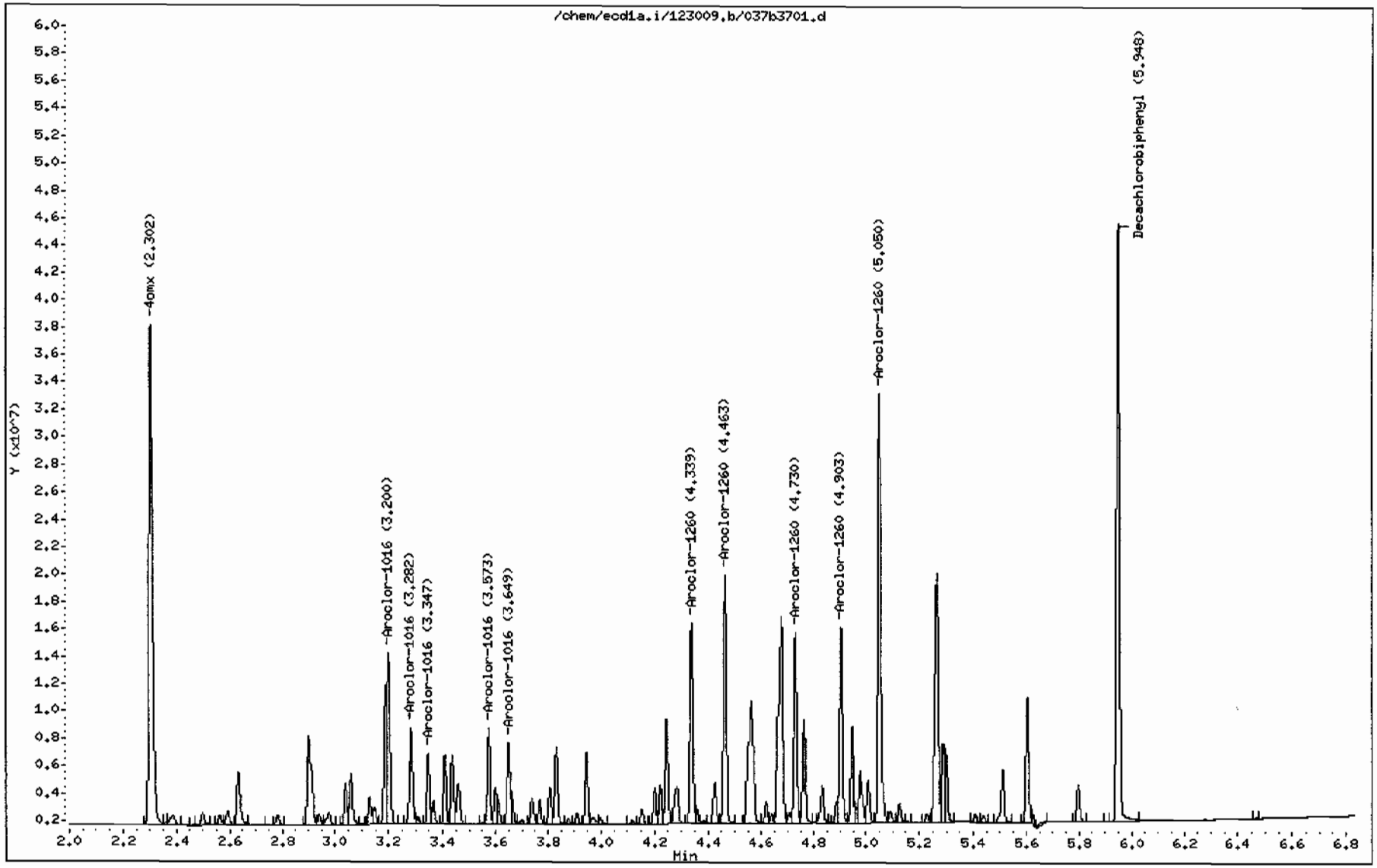

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–1086**	**Date Collected:**	**12/22/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**1202005815**	**Date Received:**	**12/24/2009 09:30**	**%Moisture:**	**6.9**
Client Sample:	**QC for batch 937368**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**RE03–10–9874MSD**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**937369**	**Inst:**	**ECD2A.I**	**Dilution:**	**1**
Run Date:	**12/30/2009 16:13**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**12/29/2009 17:37**	**Aliquot:**	**30.17 g**	**Final Volume:**	**1 mL**
Data File:	**046f4601.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	046b4601.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016		25.4	ug/kg	1.18	3.56	1
11104–28–2	Aroclor–1221	U	3.56	ug/kg	1.18	3.56	1
11141–16–5	Aroclor–1232	U	3.56	ug/kg	1.18	3.56	1
53469–21–9	Aroclor–1242	U	3.56	ug/kg	1.18	3.56	1
12672–29–6	Aroclor–1248	U	3.56	ug/kg	1.18	3.56	1
11097–69–1	Aroclor–1254	U	3.56	ug/kg	1.18	3.56	1
11096–82–5	Aroclor–1260		32.4	ug/kg	1.18	3.56	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/123009.b/046f4601.d
Lab Smp Id: 1202005815 Client Smp ID: RE03-10-9874MSD
Inj Date : 30-DEC-2009 16:13
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |1202005815|1|
Misc Info : |ECD82P_1S|937369|SVA|QC A|SOIL|MSD|||
Comment :
Method : /chem/ecd2a.i/123009.b/ECD2-F-8082-111209A.m
Meth Date : 31-Dec-2009 07:50 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012f1201.d
Als bottle: 46 QC Sample: MSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1086.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.17000	Weight of sample extracted (g)
M	6.85550	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.772	1.773	-0.001	8632079	138.575	4.9	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.607	5.608	-0.001	8883399	164.168	5.8	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.274	2.276	-0.002	1546446	691.090	24.6	80.00- 120.00	100.00
2.598	2.599	-0.001	3305885	705.591	25.1	192.96- 232.96	213.77
2.689	2.690	-0.001	1331886	700.446	24.9	65.36- 105.36	86.13
2.824	2.825	-0.001	738115	756.283	26.9	23.39- 63.39	47.73
2.974	2.975	-0.001	1053522	722.647	25.7	44.66- 84.66	68.13

Average of Peak Concentrations = 25.4

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
7 Aroclor-1260					CAS #: 11096-82-5		
4.014	4.016	-0.002	3648626	876.000	31.2	80.00- 120.00	100.00
4.286	4.287	-0.001	2320264	895.657	31.9	44.01- 84.01	63.59
4.451	4.452	-0.001	2388712	907.839	32.3	45.82- 85.82	65.47
4.664	4.665	-0.001	5693148	935.205	33.3	134.68- 174.68	156.04
4.853	4.854	-0.001	2770033	941.500	33.5	55.32- 95.32	75.92
			Average of Peak Concentrations =		32.4		

Data File: /chem/ecd2a.i/123009.b/046f4601.d
Date : 30-DEC-2009 16:13
Client ID: RE03-10-9874MSD
Sample Info: |1202005815|1|
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecd2a.i

Operator: JAOC
Column diameter: 0.25

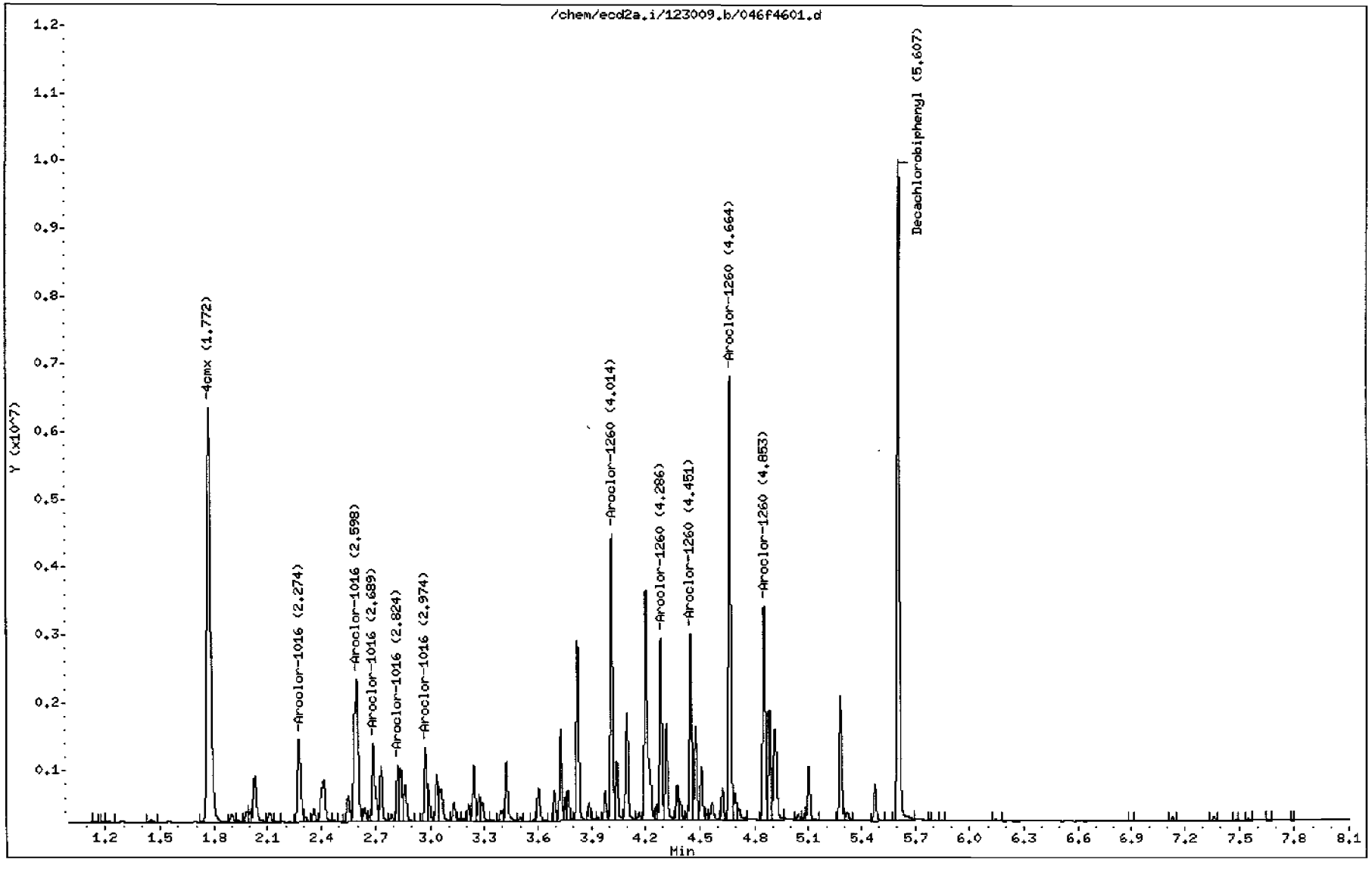

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/123009.b/046b4601.d
Lab Smp Id: 1202005815 Client Smp ID: RE03-10-9874MSD
Inj Date : 30-DEC-2009 16:13
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |1202005815|1|
Misc Info : |ECD82P_1S|937369|SVA|QC A|SOIL|MSD|||
Comment :
Method : /chem/ecd2a.i/123009.b/ECD2-B-8082-111209A.m
Meth Date : 31-Dec-2009 07:09 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012b1201.d
Als bottle: 46 QC Sample: MSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1086.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.17000	Weight of sample extracted (g)
M	6.85550	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.068	2.070	-0.002	19056321	147.360	5.2	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.300	6.301	-0.001	18960186	168.112	6.0	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.746	2.747	-0.001	3205852	706.474	25.1	80.00- 120.00	100.00
3.180	3.181	-0.001	2530517	702.499	25.0	58.60- 98.60	78.93
3.331	3.332	-0.001	1469951	715.921	25.5	25.46- 65.46	45.85
3.359	3.360	-0.001	1524010	713.124	25.4	27.36- 67.36	47.54
3.517	3.518	-0.001	2087145	727.097	25.9	44.06- 84.06	65.10

Average of Peak Concentrations = 25.4

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
7 Aroclor-1260					CAS #: 11096-82-5		
4.413	4.414	-0.001	4975908	862.836	30.7	80.00- 120.00	100.00
4.565	4.566	-0.001	6417171	900.796	32.0	107.79- 147.79	128.96
4.676	4.677	-0.001	4328480	898.266	32.0	67.63- 107.63	86.99
4.874	4.874	0.000	5031865	893.480	31.8	80.63- 120.63	101.12
5.499	5.500	-0.001	8542645	945.243	33.6	147.60- 187.60	171.68
			Average of Peak Concentrations =		32.0		

Data File: /chem/ecd2a.i/123009.b/046b4601.d
Date : 30-DEC-2009 16:13
Client ID: RE03-10-9874MSD
Sample Info: 1120200583151L1
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd2a.i
Operator: JAOC
Column diameter: 0.25

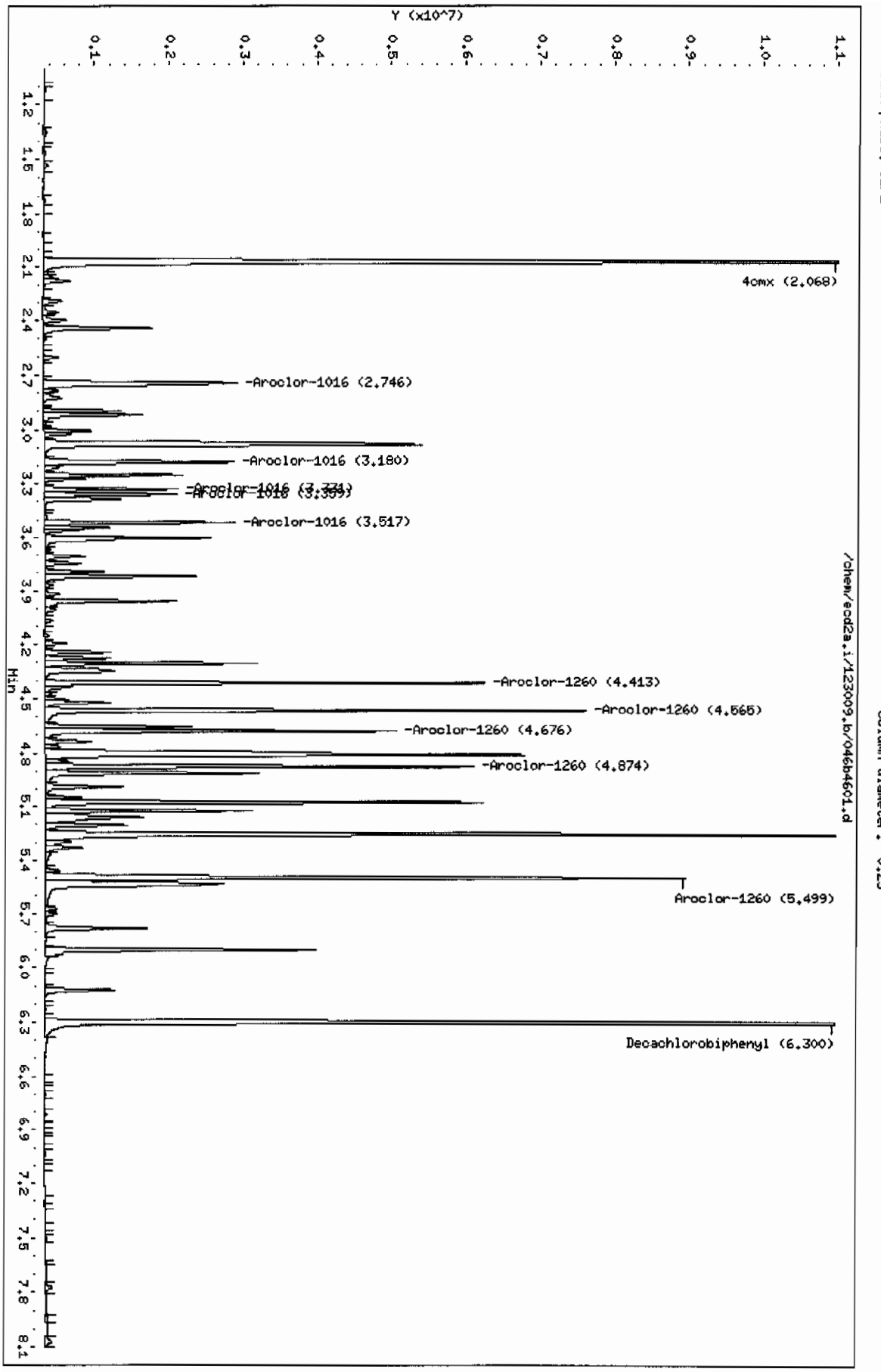

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MISCELLANEOUS DATA

GEL ORGANIC RUN LOG INSTRUMENT ID: ECD1

DATE: 12/15/2009 METHOD: ECD1-F-8082-121409.m OPERATOR:YS1 REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1

SOLVENT LOT DA385
ALUMINA LOT 1230997-A
COPPER LOT 236547-A

Calibration & QC Information
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.
GEL SOP GL-OA-E-040 Polychlorinated Biphenyl: EPA 8082
Chromatogram Abbreviation Legend: AB-Assign Baseline, AP-Assign Peak,
DNC-Do Not Call, DMP-Doesn't Match Pattern, NC-Not Confirmed, RT-Retention Time,
BF-Before, AF-After.

Sequence Number: /chem/ecd1a.i/121409.b Injection Volume: 0.5 ul

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001f0101.d	WAR091130-99 01	YS1	14-DEC-2009 04:44		121409	1.0	CLEAN	
002f0201.d	WAR091211-60 01	YS1	14-DEC-2009 04:54		121409	1.0	DUSE RE-ICAL	
003f0301.d	WAR091102-54	YS1	14-DEC-2009 05:05		121409	1.0	DUSE RE-ICAL	
004f0401.d	WAR091102-42	YS1	14-DEC-2009 05:15		121409	1.0	DUSE RE-ICAL	
005f0501.d	WAR091027-48	YS1	14-DEC-2009 05:26		121409	1.0	DUSE RE-ICAL	
006f0601.d	WAR090930-32	YS1	14-DEC-2009 05:36		121409	1.0	PATTERN ONLY	
007f0701.d	WAR090803-21	YS1	14-DEC-2009 05:47		121409	1.0	PATTERN ONLY	
008f0801.d	WAR090803-62	YS1	14-DEC-2009 05:58		121409	1.0	PATTERN ONLY	
009f0901.d	WAR091106-68	YS1	14-DEC-2009 06:08		121409	1.0	DUSE RE-ICAL	
010f1001.d	1660-1	YS1	14-DEC-2009 06:19		121409	1.0	DUSE	
011f1101.d	1660-2	YS1	14-DEC-2009 06:29		121409	1.0	DUSE	
012f1201.d	1660-3	YS1	14-DEC-2009 06:40		121409	1.0	DUSE	
013f1301.d	1660-4	YS1	14-DEC-2009 06:50		121409	1.0	DUSE	
014f1401.d	IAR091102-01	YS1	14-DEC-2009 07:01		121409	1.0	DUSE	
015f1501.d	WAR091211-60 01	YS1	14-DEC-2009 07:11		121409	1.0	DUSE	

Instrument Batch: /chem/ecd1a.i/121409.b Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments

016f1601.d	WAR091214-05 54	YS1	14-DEC-2009 07:22		121409		1.0	AR1254 I-CAL LEVEL 1
017f1701.d	WAR091214-06 54	YS1	14-DEC-2009 07:32		121409		1.0	AR1254 I-CAL LEVEL 2
018f1801.d	WAR091214-07 54	YS1	14-DEC-2009 07:43		121409		1.0	AR1254 I-CAL LEVEL 3
019f1901.d	WAR091214-08 54	YS1	14-DEC-2009 07:53		121409		1.0	AR1254 I-CAL LEVEL 4
020f2001.d	IAR091027-01	YS1	14-DEC-2009 08:04		121409		1.0	AR1254 I-CAL LEVEL 5
021f2101.d	WAR091102-54	YS1	14-DEC-2009 08:14		121409		1.0	PASSED ON BOTH COLUMNS
022f2201.d	WAR091214-09 42	YS1	14-DEC-2009 08:25		121409		1.0	AR1242 I-CAL LEVEL 1
023f2301.d	WAR091214-10 42	YS1	14-DEC-2009 08:35		121409		1.0	AR1242 I-CAL LEVEL 2
024f2401.d	WAR091214-11 42	YS1	14-DEC-2009 08:46		121409		1.0	AR1242 I-CAL LEVEL 3
025f2501.d	WAR091214-12 42	YS1	14-DEC-2009 08:56		121409		1.0	AR1242 I-CAL LEVEL 4
026f2601.d	IAR0911111-01	YS1	14-DEC-2009 09:07		121409		1.0	AR1242 I-CAL LEVEL 5
027f2701.d	WAR091102-42	YS1	14-DEC-2009 09:17		121409		1.0	PASSED ON BOTH COLUMNS
028f2801.d	WAR091214-13 48	YS1	14-DEC-2009 09:28		121409		1.0	AR1248 I-CAL LEVEL 1
029f2901.d	WAR091214-14 48	YS1	14-DEC-2009 09:38		121409		1.0	AR1248 I-CAL LEVEL 2
030f3001.d	WAR091214-15 48	YS1	14-DEC-2009 09:49		121409		1.0	AR1248 I-CAL LEVEL 3
031f3101.d	WAR091214-16 48	YS1	14-DEC-2009 09:59		121409		1.0	AR1248 I-CAL LEVEL 4
032f3201.d	IAR091027-02	YS1	14-DEC-2009 10:10		121409		1.0	AR1248 I-CAL LEVEL 5
033f3301.d	WAR091027-48	YS1	14-DEC-2009 10:20		121409		1.0	PASSED ON BOTH COLUMNS
034f3401.d	WAR091214-01 60	YS1	14-DEC-2009 10:31		121409		1.0	AR1660 I-CAL LEVEL 1
035f3501.d	WAR091214-02 60	YS1	14-DEC-2009 10:41		121409		1.0	AR1660 I-CAL LEVEL 2

Instrument Batch: /chem/ecd1a.i/121409.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
036f3601.d	WAR091214-03 60	YS1	14-DEC-2009 10:52		121409		1.0	AR1660 I-CAL LEVEL 3
037f3701.d	WAR091214-04 60	YS1	14-DEC-2009 11:02		121409		1.0	AR1660 I-CAL LEVEL 4
038f3801.d	IAR091102-01	YS1	14-DEC-2009 11:13		121409		1.0	AR1660 I-CAL LEVEL 5
039f3901.d	WAR091211-60 01	YS1	14-DEC-2009 11:23		121409		1.0	PASSED ON BOTH COLUMNS
040f4001.d	WAR091214-17 68	YS1	14-DEC-2009 11:34		121409		1.0	AR1268 I-CAL LEVEL 1

041f4101.d	WAR091214-18 68	YS1	14-DEC-2009 11:44		121409		1.0		AR1268 I-CAL LEVEL 2
042f4201.d	WAR091214-19 68	YS1	14-DEC-2009 11:55		121409		1.0		AR1268 I-CAL LEVEL 3
043f4301.d	WAR091214-20 68	YS1	14-DEC-2009 12:06		121409		1.0		AR1268 I-CAL LEVEL 4
044f4401.d	IAR090817-02	YS1	14-DEC-2009 12:16		121409		1.0		AR1268 I-CAL LEVEL 5
045f4501.d	WAR091106-68	YS1	14-DEC-2009 12:27		121409		1.0		PASSED ON BOTH COLUMNS
046f4601.d	WAR091020-DDT	YS1	14-DEC-2009 12:37		121409		1.0		DDT ANALOG STANDARD
047f4701.d	WAR091130-99 02	YS1	14-DEC-2009 12:48		121409		1.0		CLEAN
048f4801.d	1201991693	YS1	14-DEC-2009 12:58	931140	10-782		1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
049f4901.d	1201991694	YS1	14-DEC-2009 13:09	931140	10-782		1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
050f5001.d	242297001	YS1	14-DEC-2009 13:19	931140	10-782		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
051f5101.d	242297002	YS1	14-DEC-2009 13:30	931140	10-782		10.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
052f5201.d	242297003	YS1	14-DEC-2009 13:40	931140	10-782		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
053f5301.d	242297004	YS1	14-DEC-2009 13:51	931140	10-782		5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
054f5401.d	242297005	YS1	14-DEC-2009 14:03	931140	10-782		5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
055f5501.d	242297006	YS1	14-DEC-2009 14:16	931140	10-782		10.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
056f5601.d	242297007	YS1	14-DEC-2009 14:29	931140	10-782	5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
057f5701.d	242297008	YS1	14-DEC-2009 14:41	931140	10-782	25.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
058f5801.d	WAR091211-60 02	YS1	14-DEC-2009 14:52		121409	1.0		PASSED ON BOTH COLUMNS
059f5901.d	WAR091130-99 03	YS1	14-DEC-2009 15:02		121409	1.0		CLEAN
060f6001.d	242297009	YS1	14-DEC-2009 15:13	931140	10-782	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
061f6101.d	242297010	YS1	14-DEC-2009 15:25	931140	10-782	1.0	LANL	DCB LOW RE
062f6201.d	242297011	YS1	14-DEC-2009 15:38	931140	10-782	5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
063f6301.d	242297012	YS1	14-DEC-2009 15:51	931140	10-782	5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
064f6401.d	242297013	YS1	14-DEC-2009 16:03	931140	10-782	10.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER

065f6501.d	242305004	YS1	14-DEC-2009 16:16	931140	10-786		5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
066f6601.d	1201991695	YS1	14-DEC-2009 16:28	931140	10-786		5.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
067f6701.d	1201991696	YS1	14-DEC-2009 16:41	931140	10-786		5.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
068f6801.d	242305005	YS1	14-DEC-2009 16:53	931140	10-786		5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
069f6901.d	242305006	YS1	14-DEC-2009 17:06	931140	10-786		5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
070f7001.d	WAR091211-60 03	YS1	14-DEC-2009 17:19		121409		1.0		PASSED ON BOTH COLUMNS
071f7101.d	WAR091130-99 04	YS1	14-DEC-2009 17:31		121409		1.0		CLEAN
072f7201.d	1201992645	YS1	14-DEC-2009 17:44	931553	242521		1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
073f7301.d	1201992646	YS1	14-DEC-2009 17:57	931553	242521		1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
074f7401.d	242264001	YS1	14-DEC-2009 18:09	931553	242264		5.0	ENRG	UPLOAD BOTH COLUMNS, USE HIGHER
075f7501.d	242521001	YS1	14-DEC-2009 18:22	931553	242521		5.0	EMSC	UPLOAD BOTH COLUMNS, USE HIGHER

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
076f7601.d	1201992647	YS1	14-DEC-2009 18:35	931553	242521		5.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
077f7701.d	1201992648	YS1	14-DEC-2009 18:47	931553	242521		5.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
078f7801.d	242521002	YS1	14-DEC-2009 19:00	931553	242521		5.0	EMSC	UPLOAD BOTH COLUMNS, USE HIGHER
079f7901.d	242521003	YS1	14-DEC-2009 19:12	931553	242521		5.0	EMSC	UPLOAD BOTH COLUMNS, USE HIGHER
080f8001.d	242521004	YS1	14-DEC-2009 19:25	931553	242521		5.0	EMSC	UPLOAD BOTH COLUMNS, USE HIGHER
081f8101.d	242521005	YS1	14-DEC-2009 19:38	931553	242521		5.0	EMSC	UPLOAD BOTH COLUMNS, USE HIGHER
082f8201.d	WAR091211-60 04	YS1	14-DEC-2009 19:50		121409		1.0		PASSED ON BOTH COLUMNS
083f8301.d	WAR091130-99 05	YS1	14-DEC-2009 20:03		121409		1.0		CLEAN
084f8401.d	242521006	YS1	14-DEC-2009 20:15	931553	242521		5.0	EMSC	UPLOAD BOTH COLUMNS, USE HIGHER
085f8501.d	242521007	YS1	14-DEC-2009 20:28	931553	242521		5.0	EMSC	UPLOAD BOTH COLUMNS, USE HIGHER
086f8601.d	242521008	YS1	14-DEC-2009 20:41	931553	242521		5.0	EMSC	UPLOAD BOTH COLUMNS, USE HIGHER
087f8701.d	WAR091211-60 05	YS1	14-DEC-2009 20:53		121409		1.0		PASSED ON BOTH COLUMNS
088f8801.d	WAR091130-99 06	YS1	14-DEC-2009 21:06		121409		1.0		CLEAN
089f8901.d	242297010	YS1	14-DEC-2009 21:19	931140	10-782		1.0	LANL	

090f9001.d	WAR091211-60 06	YS1	14-DEC-2009 21:31		121409	1.0	PASSED ON BOTH COLUMNS
091f9101.d	WAR091130-99 07	YS1	14-DEC-2009 21:44		121409	1.0	CLEAN
092f9201.d	1660	YS1	14-DEC-2009 21:56		121409	1.0	screen
093f9301.d	1660	YS1	14-DEC-2009 22:09		121409	1.0	screen
094f9401.d	1660	YS1	14-DEC-2009 22:22		121409	1.0	screen

GEL ORGANIC RUN LOG INSTRUMENT ID: ECD1

DATE: 12/31/2009 METHOD: ECD1-F-8082-121409.m OPERATOR:JAOC REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1

SOLVENT LOT DA385
ALUMINA LOT 1230997-A
COPPER LOT 236547-A

Calibration & QC Information
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.
GEL SOP GL-OA-E-040 Polychlorinated Biphenyl: EPA 8082
Chromatogram Abbreviation Legend: AB-Assign Baseline, AP-Assign Peak,
DNC-Do Not Call, DMP-Doesn't Match Pattern, NC-Not Confirmed, RT-Retention Time,
BF-Before, AF-After.

Sequence Number: /chem/ecd1a.i/123009.b Injection Volume: 0.5 ul

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001f0101.d	WAR091130-99 01	JAOC	30-DEC-2009 07:40		123009	1.0		CLEAN
002f0201.d	WAR091211-60 01	JAOC	30-DEC-2009 07:51		123009	1.0		PASSES BOTH COLUMNS
003f0301.d	WAR091216-54	JAOC	30-DEC-2009 08:01		123009	1.0		PASSES BOTH COLUMNS
004f0401.d	WAR091102-42	JAOC	30-DEC-2009 08:12		123009	1.0		PASSES BOTH COLUMNS
005f0501.d	WAR091027-48	JAOC	30-DEC-2009 08:22		123009	1.0		PASSES BOTH COLUMNS
006f0601.d	WAR090930-32	JAOC	30-DEC-2009 08:33		123009	1.0		PATTERN ONLY
007f0701.d	WAR090803-21	JAOC	30-DEC-2009 08:43		123009	1.0		PATTERN ONLY
008f0801.d	WAR090803-62	JAOC	30-DEC-2009 08:54		123009	1.0		PATTERN ONLY
009f0901.d	WAR091106-68	JAOC	30-DEC-2009 09:04		123009	1.0		PATTERN ONLY
010f1001.d	alumina screen	JAOC	30-DEC-2009 09:15		123009	1.0		DUSE
011f1101.d	WAR091219-DDT	JAOC	30-DEC-2009 09:25		123009	1.0		DDT
012f1201.d	WAR091130-99 02	JAOC	30-DEC-2009 09:36		123009	1.0		CLEAN
013f1301.d	1202003498	JAOC	30-DEC-2009 09:46	936355	123009	1.0	QC A	UPLOAD BOTH, USE HIGHER
014f1401.d	1202003499	JAOC	30-DEC-2009 09:57	936355	243281	1.0	QC A	UPLOAD BOTH, USE HIGHER
015f1501.d	243281002	JAOC	30-DEC-2009 10:07	936355	243281	1.0	LAID	UPLOAD BOTH, USE HIGHER

Instrument Batch: /chem/ecd1a.i/123009.b Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments

016f1601.d	243281003	JAOC	30-DEC-2009 10:18	936355	243281	1.0	LAID	UPLOAD BOTH, USE HIGHER
017f1701.d	243281004	JAOC	30-DEC-2009 10:28	936355	243281	1.0	LAID	UPLOAD BOTH, USE HIGHER
018f1801.d	243281005	JAOC	30-DEC-2009 10:39	936355	243281	1.0	LAID	UPLOAD BOTH, USE HIGHER
019f1901.d	1202003500	JAOC	30-DEC-2009 10:49	936355	243281	1.0	QC A	UPLOAD BOTH, USE HIGHER
020f2001.d	1202003501	JAOC	30-DEC-2009 11:00	936355	243281	1.0	QC A	UPLOAD BOTH, USE HIGHER
021f2101.d	243281006	JAOC	30-DEC-2009 11:10	936355	243281	1.0	LAID	UPLOAD BOTH, USE HIGHER
022f2201.d	WAR091211-60 02	JAOC	30-DEC-2009 11:21		123009	1.0		PASSES BOTH COLUMNS
023f2301.d	WAR091130-99 03	JAOC	30-DEC-2009 11:31		123009	1.0		CLEAN
024f2401.d	243436005	JAOC	30-DEC-2009 11:42	936355	243436	1.0	GEEL	UPLOAD BOTH, USE HIGHER
025f2501.d	243436006	JAOC	30-DEC-2009 11:52	936355	243436	1.0	GEEL	UPLOAD BOTH, USE HIGHER
026f2601.d	243436007	JAOC	30-DEC-2009 12:03	936355	243436	1.0	GEEL	UPLOAD BOTH, USE HIGHER
027f2701.d	243436008	JAOC	30-DEC-2009 12:13	936355	243436	1.0	GEEL	UPLOAD BOTH, USE HIGHER
028f2801.d	WAR091211-60 03	JAOC	30-DEC-2009 12:24		123009	1.0		PASSES BOTH COLUMNS
029f2901.d	WAR091130-99 04	JAOC	30-DEC-2009 12:34		123009	1.0		CLEAN
030f3001.d	1202005418	JAOC	30-DEC-2009 12:45	937178	10-1085	1.0	QC A	UPLOAD BOTH, USE HIGHER
031f3101.d	1202005419	JAOC	30-DEC-2009 12:55	937178	10-1085	1.0	QC A	UPLOAD BOTH, USE HIGHER
032f3201.d	243549002	JAOC	30-DEC-2009 13:06	937178	10-1085	1.0	LANL	UPLOAD BOTH, USE HIGHER
033f3301.d	243552001	JAOC	30-DEC-2009 13:16	937178	10-1086	1.0	LANL	UPLOAD BOTH, USE HIGHER
034f3401.d	243552002	JAOC	30-DEC-2009 13:27	937178	10-1086	1.0	LANL	UPLOAD BOTH, USE HIGHER
035f3501.d	243552003	JAOC	30-DEC-2009 13:37	937178	10-1086	1.0	LANL	UPLOAD BOTH, USE HIGHER

Instrument Batch: /chem/ecd1a.i/123009.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
036f3601.d	1202005420	JAOC	30-DEC-2009 13:48	937178	10-1086	1.0	QC A	UPLOAD BOTH, USE HIGHER
037f3701.d	1202005421	JAOC	30-DEC-2009 13:58	937178	10-1086	1.0	QC A	UPLOAD BOTH, USE HIGHER
038f3801.d	243552004	JAOC	30-DEC-2009 14:09	937178	10-1086	1.0	LANL	UPLOAD BOTH, USE HIGHER
039f3901.d	243552005	JAOC	30-DEC-2009 14:20	937178	10-1086	1.0	LANL	UPLOAD BOTH, USE HIGHER
040f4001.d	WAR091211-60 04	JAOC	30-DEC-2009 14:30		123009	1.0		PASSES BOTH COLUMNS

041f4101.d	WAR091130-99 05	JAOC	30-DEC-2009 14:41		123009	1.0		CLEAN
042f4201.d	243552006	JAOC	30-DEC-2009 14:51	937178	10-1086	1.0	LANL	UPLOAD BOTH, USE HIGHER
043f4301.d	243552007	JAOC	30-DEC-2009 15:02	937178	10-1086	1.0	LANL	UPLOAD BOTH, USE HIGHER
044f4401.d	243552008	JAOC	30-DEC-2009 15:12	937178	10-1086	1.0	LANL	UPLOAD BOTH, USE HIGHER
045f4501.d	243552009	JAOC	30-DEC-2009 15:23	937178	10-1086	1.0	LANL	UPLOAD BOTH, USE HIGHER
046f4601.d	243552010	JAOC	30-DEC-2009 15:33	937178	10-1086	1.0	LANL	UPLOAD BOTH, USE HIGHER
047f4701.d	243552011	JAOC	30-DEC-2009 15:44	937178	10-1086	1.0	LANL	UPLOAD BOTH, USE HIGHER
048f4801.d	243552012	JAOC	30-DEC-2009 15:54	937178	10-1086	1.0	LANL	UPLOAD BOTH, USE HIGHER
049f4901.d	243552014	JAOC	30-DEC-2009 16:05	937178	10-1086	1.0	LANL	UPLOAD BOTH, USE HIGHER
050f5001.d	WAR091211-60 05	JAOC	30-DEC-2009 16:15		123009	1.0		PASSES BOTH COLJMNS
051f5101.d	alumina screen	JAOC	30-DEC-2009 16:26		123009	1.0		ALUMINA SCREEN PASSES
052f5201.d	WAR091130-99 06	JAOC	30-DEC-2009 16:36		123009	1.0		CLEAN

GEL ORGANIC RUN LOG INSTRUMENT ID: ECD2

DATE: 12/14/2009 METHOD: ECD2-F-8082-111209A.m OPERATOR:YS1 REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT:DA385
ALUMINA LOT:1230997-A
COPPER LOT:236547-A

Calibration & QC Information
Initial Calibration Dates: See Calibration History and Standards Log
Initial Calibration Std ID's: See Calibration History and Standards Log
GEL SOP GL-OA-E-040
EPA Method: 8082 Polychlorinated Biphenyls PCBs by Gas Chromatography
Sequence Number: Injection Volume: 1.0 uL

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001f0101.d	WAR091130-99 IB	YS1	14-DEC-2009 07:00		121409	1.0		CLEAN
002f0201.d	WAR091211-60 01	YS1	14-DEC-2009 07:11		121409	1.0		DUSE RE-I-CAL
003f0301.d	WAR091102-54	YS1	14-DEC-2009 07:22		121409	1.0		PASSED ON BOTH COLUMNS
004f0401.d	WAR091102-42	YS1	14-DEC-2009 07:33		121409	1.0		PASSED ON BOTH COLUMNS
005f0501.d	WAR091027-48	YS1	14-DEC-2009 07:44		121409	1.0		PASSED ON BOTH COLUMNS
006f0601.d	WAR090930-32	YS1	14-DEC-2009 07:55		121409	1.0		PATTERN ONLY
007f0701.d	WAR091111-21	YS1	14-DEC-2009 08:07		121409	1.0		PATTERN ONLY
008f0801.d	AR1660-4	YS1	14-DEC-2009 08:18		121409	1.0		DUSE SCREEN
009f0901.d	WAR091111-62	YS1	14-DEC-2009 08:29		121409	1.0		PATTERN ONLY
010f1001.d	WAR091106-68	YS1	14-DEC-2009 08:40		121409	1.0		PATTERN ONLY
011f1101.d	WAR091214-01 60	YS1	14-DEC-2009 08:51		121409	1.0		AR1660 I-CAL LEVEL 1
012f1201.d	WAR091214-02 60	YS1	14-DEC-2009 09:02		121409	1.0		AR1660 I-CAL LEVEL 2
013f1301.d	WAR091214-03 60	YS1	14-DEC-2009 09:13		121409	1.0		AR1660 I-CAL LEVEL 3
014f1401.d	WAR091214-04 60	YS1	14-DEC-2009 09:24		121409	1.0		AR1660 I-CAL LEVEL 4
015f1501.d	IAR091102-01	YS1	14-DEC-2009 09:35		121409	1.0		AR1660 I-CAL LEVEL 5

Instrument Batch: /chem/ecd2a.i/121409.b Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
016f1601.d	WAR091211-60 01	YS1	14-DEC-2009 09:46		121409	1.0		PASSED ON BOTH COLUMNS

017f1701.d	WAR091020-DDT	YS1	14-DEC-2009 09:58		121409		1.0		DDT ANALOG STANDARD
018f1801.d	WAR091130-99 02	YS1	14-DEC-2009 10:09	SOLV	121409		1.0	IB	CLEAN
019f1901.d	1201992205	YS1	14-DEC-2009 10:20	931371	241934		1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
020f2001.d	1201992206	YS1	14-DEC-2009 10:31	931371	241934		1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
021f2101.d	241934001	YS1	14-DEC-2009 10:42	931371	241934		10.0	NREA	UPLOAD BOTH COLUMNS, USE HIGHER
022f2201.d	1201992207	YS1	14-DEC-2009 10:53	931371	241934		10.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
023f2301.d	1201992208	YS1	14-DEC-2009 11:04	931371	241934		10.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
024f2401.d	241934002	YS1	14-DEC-2009 11:15	931371	241934		1.0	NREA	UPLOAD BOTH COLUMNS, USE HIGHER
025f2501.d	241934003	YS1	14-DEC-2009 11:26	931371	241934		1.0	NREA	UPLOAD BOTH COLUMNS, USE HIGHER
026f2601.d	241934004	YS1	14-DEC-2009 11:37	931371	241934		10.0	NREA	UPLOAD BOTH COLUMNS, USE HIGHER
027f2701.d	241934005	YS1	14-DEC-2009 11:48	931371	241934		1.0	NREA	UPLOAD BOTH COLUMNS, USE HIGHER
028f2801.d	241934006	YS1	14-DEC-2009 11:59	931371	241934		20.0	NREA	UPLOAD BOTH COLUMNS, USE HIGHER
029f2901.d	WAR091211-60 02	YS1	14-DEC-2009 12:11	1660	121409		1.0	CVS	PASSED ON BOTH COLUMNS
030f3001.d	WAR091130-99 03	YS1	14-DEC-2009 12:22	SOLV	121409		1.0	IB	CLEAN
031f3101.d	241934007	YS1	14-DEC-2009 12:33	931371	241934		1.0	NREA	UPLOAD BOTH COLUMNS, USE HIGHER
032f3201.d	241934008	YS1	14-DEC-2009 12:44	931371	241934		10.0	NREA	UPLOAD BOTH COLUMNS, USE HIGHER
033f3301.d	241934009	YS1	14-DEC-2009 13:00	931371	241934		1.0	NREA	DUSE RR5X AFTER MORE SULFUR CLEANED
034f3401.d	241934010	YS1	14-DEC-2009 13:11	931371	241934		10.0	NREA	UPLOAD BOTH COLUMNS, USE HIGHER
035f3501.d	241934011	YS1	14-DEC-2009 13:27	931371	241934		5.0	NREA	UPLOAD BOTH COLUMNS, USE HIGHER

Instrument Batch: /chem/ecd2a.i/121409.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
036f3601.d	241935001	YS1	14-DEC-2009 13:43	931371	241935	1.0	NREA	UPLOAD BOTH COLUMNS, USE HIGHER
037f3701.d	241935004	YS1	14-DEC-2009 13:54	931371	241935	5.0	NREA	UPLOAD BOTH COLUMNS, USE HIGHER
038f3801.d	241935005	YS1	14-DEC-2009 14:05	931371	241935	5.0	NREA	UPLOAD BOTH COLUMNS, USE HIGHER
039f3901.d	241935006	YS1	14-DEC-2009 14:21	931371	241935	50.0	NREA	UPLOAD BOTH COLUMNS, USE HIGHER
040f4001.d	241935007	YS1	14-DEC-2009 14:36	931371	241935	5.0	NREA	UPLOAD BOTH COLUMNS, USE HIGHER
041f4101.d	WAR091211-60 03	YS1	14-DEC-2009 14:52		121409	1.0		PASSED ON BOTH COLUMNS

042f4201.d	WAR091130-99 04	YS1	14-DEC-2009 15:03	SOLV	121409		1.0	IB	CLEAN
043f4301.d	241934009	YS1	14-DEC-2009 15:14	931371	241934		5.0	NREA	UPLOAD BOTH COLUMNS, USE HIGHER
044f4401.d	241935008	YS1	14-DEC-2009 15:30	931371	241935		20000.0	NREA	UPLOAD BOTH COLUMNS, USE HIGHER
045f4501.d	WAR091211-60 04	YS1	14-DEC-2009 15:45		121409		1.0		PASSED ON BOTH COLUMNS

GEL ORGANIC RUN LOG INSTRUMENT ID: ECD2

DATE: 12/31/2009 METHOD: ECD2-F-8082-111209A.m OPERATOR:JAOC REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT:DA385
ALUMINA LOT:1230997-A
COPPER LOT:236547-A

Calibration & QC Information
Initial Calibration Dates: See Calibration History and Standards Log
Initial Calibration Std ID's: See Calibration History and Standards Log
GEL SOP GL-OA-E-040
EPA Method: 8082 Polychlorinated Biphenyls PCBs by Gas Chromatography
Sequence Number:123009 Injection Volume: 1.0 uL

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001f0101.d	WAR091130-99 IB	JAOC	30-DEC-2009 07:22		123009	1.0		CLEAN
002f0201.d	WAR091211-60 01	JAOC	30-DEC-2009 07:33		123009	1.0		PASSES BOTH COLUMNS
003f0301.d	WAR091216-54	JAOC	30-DEC-2009 07:44		123009	1.0		PASSES BOTH COLUMNS
004f0401.d	WAR091217-42	JAOC	30-DEC-2009 07:55		123009	1.0		PASSES BOTH COLUMNS
005f0501.d	WAR091217-48	JAOC	30-DEC-2009 08:06		123009	1.0		PASSES BOTH COLUMNS
006f0601.d	WAR090930-32	JAOC	30-DEC-2009 08:17		123009	1.0		PATTERN ONLY
007f0701.d	WAR091111-21	JAOC	30-DEC-2009 08:28		123009	1.0		PATTERN ONLY
008f0801.d	WAR091111-62	JAOC	30-DEC-2009 08:39		123009	1.0		PATTERN ONLY
009f0901.d	WAR091106-68	JAOC	30-DEC-2009 08:51		123009	1.0		PATTERN ONLY
010f1001.d	WAR091219-DDT	JAOC	30-DEC-2009 09:02		123009	1.0		DDT
011f1101.d	WAR091130-99 02	JAOC	30-DEC-2009 09:13		123009	1.0		CLEAN
012f1201.d	1202005366	JAOC	30-DEC-2009 09:24	937154	242986	1.0	QC A	UPLOAD BOTH, USE FRONT
013f1301.d	1202005367	JAOC	30-DEC-2009 09:35	937154	242986	1.0	QC A	UPLOAD BOTH, USE FRONT
014f1401.d	242986001	JAOC	30-DEC-2009 09:46	937154	242986	1.0	CDMF	UPLOAD BOTH, USE FRONT
015f1501.d	242986002	JAOC	30-DEC-2009 09:57	937154	242986	1.0	CDMF	UPLOAD BOTH, USE FRONT

Instrument Batch: /chem/ecd2a.i/123009.b Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
016f1601.d	1202005368	JAOC	30-DEC-2009 10:08	937154	242986	1.0	QC A	UPLOAD BOTH, USE FRONT

017f1701.d	1202005369	JAOC	30-DEC-2009 10:19	937154	242986	1.0	QC A	UPLOAD BOTH, USE FRONT
018f1801.d	242986003	JAOC	30-DEC-2009 10:30	937154	242986	1.0	CDMF	UPLOAD BOTH, USE FRONT
019f1901.d	242986004	JAOC	30-DEC-2009 10:41	937154	242986	1.0	CDMF	UPLOAD BOTH, USE FRONT
020f2001.d	242986005	JAOC	30-DEC-2009 10:52	937154	242986	1.0	CDMF	UPLOAD BOTH, USE FRONT
021f2101.d	242986006	JAOC	30-DEC-2009 11:03	937154	242986	1.0	CDMF	UPLOAD BOTH, USE FRONT
022f2201.d	WAR091211-60 02	JAOC	30-DEC-2009 11:14		123009	1.0		PASSES BOTH COUMNS
023f2301.d	WAR091130-99 03	JAOC	30-DEC-2009 11:25		123009	1.0		CLEAN
024f2401.d	242986007	JAOC	30-DEC-2009 11:37	937154	242986	1.0	CDMF	UPLOAD BOTH, USE FRONT
025f2501.d	242986008	JAOC	30-DEC-2009 11:48	937154	242986	1.0	CDMF	UPLOAD BOTH, USE FRONT
026f2601.d	242986009	JAOC	30-DEC-2009 11:59	937154	242986	1.0	CDMF	UPLOAD BOTH, USE FRONT
027f2701.d	242986010	JAOC	30-DEC-2009 12:10	937154	242986	1.0	CDMF	UPLOAD BOTH, USE FRONT
028f2801.d	WAR091211-60 03	JAOC	30-DEC-2009 12:21		123009	1.0		PASSES BOTH COUMNS
029f2901.d	WAR091130-99 04	JAOC	30-DEC-2009 12:32		123009	1.0		CLEAN
030f3001.d	1202005816	JAOC	30-DEC-2009 12:43	937371	242986	1.0	QC A	UPLOAD BOTH, USE FRONT
031f3101.d	1202005817	JAOC	30-DEC-2009 12:54	937371	242986	1.0	QC A	UPLOAD BOTH, USE FRONT
032f3201.d	242986011	JAOC	30-DEC-2009 13:05	937371	242986	1.0	CDMF	UPLOAD BOTH, USE FRONT
033f3301.d	1202005818	JAOC	30-DEC-2009 13:21	937371	242986	1.0	QC A	UPLOAD BOTH, USE FRONT
034f3401.d	1202005819	JAOC	30-DEC-2009 13:37	937371	242986	1.0	QC A	UPLOAD BOTH, USE FRONT
035f3501.d	242986012	JAOC	30-DEC-2009 13:52	937371	242986	5.0	CDMF	UPLOAD BOTH, USE FRONT

Instrument Batch: /chem/ecd2a.i/123009.b Page: 2

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
036f3601.d	242986013	JAOC	30-DEC-2009 14:08	937371	242986	1.0	CDMF	UPLOAD BOTH, USE FRONT
037f3701.d	242986014	JAOC	30-DEC-2009 14:24	937371	242986	1.0	CDMF	UPLOAD BOTH, USE FRONT
038f3801.d	242986015	JAOC	30-DEC-2009 14:39	937371	242986	5.0	CDMF	UPLOAD BOTH, USE FRONT
039f3901.d	WAR091211-60 04	JAOC	30-DEC-2009 14:55		123009	1.0		PASSES BOTH COUMNS
040f4001.d	WAR091130-99 05	JAOC	30-DEC-2009 15:06		123009	1.0		CLEAN
041f4101.d	1202005812	JAOC	30-DEC-2009 15:17	937369	10-1086	1.0	QC A	UPLOAD BOTH, USE HIGHER

042f4201.d	1202005813	JAOC	30-DEC-2009 15:28	937369	10-1086	1.0	QC A	UPLOAD BOTH, USE HIGHER
043f4301.d	243552016	JAOC	30-DEC-2009 15:40	937369	10-1086	1.0	LANL	UPLOAD BOTH, USE HIGHER
044f4401.d	243552017	JAOC	30-DEC-2009 15:51	937369	10-1086	1.0	LANL	UPLOAD BOTH, USE HIGHER
045f4501.d	1202005814	JAOC	30-DEC-2009 16:02	937369	10-1086	1.0	QC A	UPLOAD BOTH, USE HIGHER
046f4601.d	1202005815	JAOC	30-DEC-2009 16:13	937369	10-1086	1.0	QC A	UPLOAD BOTH, USE HIGHER
047f4701.d	WAR091211-60 05	JAOC	30-DEC-2009 16:24	1660	123009	1.0	CVS	PASSES BOTH COUMNS
048f4801.d	WAR091130-99 06	JAOC	30-DEC-2009 16:35	SOLV	123009	1.0	IB	CLEAN

Prep Logbook

Extraction of Semivolatile and Nonvolatile Organic Compounds from Soil, Sludge, and Other Miscellaneous Solid Samples

Batch ID: 937176 **Verified by:** _____

Analyst: Robin Hunt

Method: SW846 3550B

Lab SOP: GL-OA-E-010 REV# 18

Instrument: Semi-Volatiles Manual

Sample ID	Run Date	Aliquot (g)	Clean Up	Prior to Clean up (mL)	Amount Cleaned (mL)	After Clean up (mL)	Prepped Aliquot (mL)	Prepped Factor (mL/g)
1202005418 MB	29-DEC-2009 09:29:52	30	H2SO4/KMnl		1	8	1	0.03333
1202005419 LCS	29-DEC-2009 09:29:52	30	H2SO4/KMnl		1	8	1	0.03333
243549002	29-DEC-2009 09:29:52	30.04	H2SO4/KMnl		1	8	1	0.03329
243552001	29-DEC-2009 09:29:52	30.05	H2SO4/KMnl		1	8	1	0.03328
243552002	29-DEC-2009 09:29:52	30	H2SO4/KMnl		1	8	1	0.03333
243552003	29-DEC-2009 09:29:52	30.01	H2SO4/KMnl		1	8	1	0.03332
1202005420 MS (243552003)	29-DEC-2009 09:29:52	30.02	H2SO4/KMnl		1	8	1	0.03331
1202005421 MSD (243552003)	29-DEC-2009 09:29:52	30.02	H2SO4/KMnl		1	8	1	0.03331
243552004	29-DEC-2009 09:29:52	30	H2SO4/KMnl		1	8	1	0.03333
243552005	29-DEC-2009 09:29:52	30.02	H2SO4/KMnl		1	8	1	0.03331
243552006	29-DEC-2009 09:29:52	30.09	H2SO4/KMnl		1	8	1	0.03323
243552007	29-DEC-2009 09:29:52	30.03	H2SO4/KMnl		1	8	1	0.0333
243552008	29-DEC-2009 09:29:52	30.01	H2SO4/KMnl		1	8	1	0.03332
243552009	29-DEC-2009 09:29:52	30.05	H2SO4/KMnl		1	8	1	0.03328
243552010	29-DEC-2009 09:29:52	30.03	H2SO4/KMnl		1	8	1	0.0333
243552011	29-DEC-2009 09:29:52	30.06	H2SO4/KMnl		1	8	1	0.03327
243552012	29-DEC-2009 09:29:52	30.09	H2SO4/KMnl		1	8	1	0.03323
243552014	29-DEC-2009 09:29:52	30.03	H2SO4/KMnl		1	8	1	0.0333

Type	Sample Id	Description	Serial Number	Spike Amt	Units
LCS	1202005419	PCB Laboratory Control	WE091210-07	1	mL
MS	1202005420	PCB Laboratory Control	WE091210-07	1	mL
MSD	1202005421	PCB Laboratory Control	WE091210-07	1	mL
SURR	All	PEST LOW LEVEL SURROGATE 200 UG/L	UE091130-15	1	mL
REGNT	All	1:1 sulfuric acid	1133264a	5	mL
REGNT	All	Acetone	1233927	150	mL
REGNT	All	Hexane	1241300-B2	150	mL
REGNT	All	5% Potassium Permanganate	B1202457-F	5	mL
SOURC	All	SODIUM SULFATE	1242582	30	g

Comments:

Clean up Date: 12/29/2009

Clean up Initials: RWH

Verified By: JAM

Final Solvent: Hexane

Clean Up SOP: GL-OA-E-037

Prep Logbook

Extraction of Semivolatile and Nonvolatile Organic Compounds from Soil, Sludge, and Other Miscellaneous Solid Samples

Batch ID: 937368 **Verified by:** _____

Analyst: Andrew Schwemin

Method: SW846 3550B

Lab SOP: GL-OA-E-010 REV# 18

Instrument: Semi-Volatiles Manual

Sample ID	Run Date	Aliquot (g)	Clean Up	Prior to Clean up (mL)	Amount Cleaned (mL)	After Clean up (mL)	Prepped Aliquot (mL)	Prepped Factor (mL/g)
1202005812 MB	29-DEC-2009 17:37:04	30	H2SO4/KMl2	2	9	1	0.03333	
1202005813 LCS	29-DEC-2009 17:37:04	30	H2SO4/KMl2	2	9	1	0.03333	
243552016	29-DEC-2009 17:37:04	30.04	H2SO4/KMl2	2	9	1	0.03329	
243552017	29-DEC-2009 17:37:04	30.06	H2SO4/KMl2	2	9	1	0.03327	
1202005814 MS (243552017)	29-DEC-2009 17:37:04	30.02	H2SO4/KMl2	2	9	1	0.03331	
1202005815 MSD (243552017)	29-DEC-2009 17:37:04	30.17	H2SO4/KMl2	2	9	1	0.03315	

Type	Sample Id	Description	Serial Number	Spike Amt	Units
LCS	1202005813	PCB Laboratory Control	WE091210-07	1	mL
MS	1202005814	PCB Laboratory Control	WE091210-07	1	mL
MSD	1202005815	PCB Laboratory Control	WE091210-07	1	mL
SURR	All	PEST LOW LEVEL SURROGATE 200 UG/L	UE091130-15	1	mL
REGNT	All	1:1 sulfuric acid	1133264a	5	mL
REGNT	All	Acetone	1233927	150	mL
REGNT	All	Hexane	1241300-B2	150	mL
REGNT	All	5% Potassium Permanganate	B1202457-F	5	mL
SOURC	All	SODIUM SULFATE	1248200	30	g

Comments:

Clean up Date: 12/29/09

Clean up Initials: AJS

Verified By: AV

Final Solvent: Hexane

Clean Up SOP: GL-OA-E-037

Wednesday, December 23, 2009

REQUEST NUMBER: 10-1085

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

These Samples are on:

LANL Request Number:10-1085

Per Agreement Number:126310011

Project Cost Code: MR2A054196D0

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 12/23/2009

TURNAROUND/REPORT DUE: 1/22/2010

TURNAROUND REQ'D: 30 Days

RAD SCREENING: Not Required

LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:

Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:906.0	1	WST03-10-2148	R	12/22/2009	
	HASL-300:ISOPU	1	WST03-10-2148	R	12/22/2009	
	HASL-300:ISOU	1	WST03-10-2148	R	12/22/2009	
	SW-846:6010B	1	WST03-10-2148	R	12/22/2009	
	SW-846:8015M_EXTRACTABLE	1	WST03-10-2148	R	12/22/2009	
	SW-846:8015M_PURGEABLE	1	WST03-10-2148	R	12/22/2009	
		2	WST03-10-2148	R	12/22/2009	

Wednesday, December 23, 2009

REQUEST NUMBER: 10-1085

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8081A	1	WST03-10-2148	R	12/22/2009	
	SW-846:8081A_TCLP	1	WST03-10-2148	R	12/22/2009	
	SW-846:8082	1	WST03-10-2148	R	12/22/2009	
	SW-846:8151A	1	WST03-10-2148	R	12/22/2009	
	SW-846:8151A_TCLP	1	WST03-10-2148	R	12/22/2009	
	SW-846:8260B	1	WST03-10-2148	R	12/22/2009	
		2	WST03-10-2148	R	12/22/2009	
		1	WST03-10-2201	S	12/22/2009	
		2	WST03-10-2201	S	12/22/2009	
	SW-846:8260B_TCLP	1	WST03-10-2148	R	12/22/2009	
	SW-846:8270C	1	WST03-10-2148	R	12/22/2009	
	SW-846:8270C_TCLP	1	WST03-10-2148	R	12/22/2009	
	SW-846:9012A	1	WST03-10-2148	R	12/22/2009	

Final Page of REQUEST NUMBER 10-1085

Wednesday, December 23, 2009

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1085

REQUEST NUMBER: 10-1085

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 1/22/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS:

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
WST03-10-2201	1	SEPTUM AMBER GLASS	8260B Trip Blank	Ice	S
WST03-10-2201	2	SEPTUM AMBER GLASS	8260B Trip Blank	Ice	S
WST03-10-2148	1	GLASS	8081A+8151A	Ice	R
WST03-10-2148	1	GLASS	8260B+TPH-GRO	Ice	R
WST03-10-2148	2	GLASS	8260B+TPH-GRO	Ice	R
WST03-10-2148	1	GLASS	8270C+8082+TPH-DRO	Ice	R
WST03-10-2148	1	POLY	AM-241+ISOPU+ISOU+SR90	None	R
WST03-10-2148	1	POLY	H3	Ice	R
WST03-10-2148	1	POLY	TAL metals + TCLP metals	Ice	R
WST03-10-2148	1	AMBER GLASS	TCLP ORGANICS P/H/S/V	Ice	R
WST03-10-2148	1	POLY	TCN	Ice	R

Relinquished By:	Date	Time	Received By:	Date	Time
Printed Name / Signature	12/23/09	1400	Printed Name / Signature		
Printed Name / Signature			Printed Name / Signature		
Printed Name / Signature			Printed Name / Signature		

Received for DISPOSAL By:	Date	Time	Remarks:
Printed Name / Signature			

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2350 **EVENT NAME:** Upper Sandia Cyn Aggregate Area - Waste Characterization

SAMPLE ID: WST03-10-2148 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12/22/09	MEDIA:	NA	All H
TIME COLLECTED (HH:MM)		1542	SUB-MEDIA:	OTHER	NA
PRS ID:	60-006(a)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	WST-600902	ok	FIELD QC TYPE:	NA	
LOCATION TYPE:	GENERIC	ok	FIELD PREP:	NA	
TOP DEPTH:	0	0 ft	SAMPLE USAGE:	WST	
BOTTOM DEPTH:	0	61 ft	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	X S MS 12/22/09		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: ——— COMPOSITE TIME INTERVAL: ——— WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: ——— BOREHOLE DIRECTION: ———

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8081A+8151A	500 ML GLASS	Ice	Y	
2		8260B+TPH-GRO	125 ML GLASS	Ice	Y	
1		8270C+8082+TPH-DRO	500 ML GLASS	Ice	Y	
1		AM-241+ISOPU+ISOU+SR90	1 LITER POLY	None	Y	
1		H3	500 ML POLY	Ice	Y	
1		TAL metals + TCLP metals	1 LITER POLY	Ice	Y	
1		TCLP ORGANICS P/H/S/V	500 ML AMBER GLASS	Ice	Y	
1		TCN	125 ML POLY	Ice	Y	

SAMPLE DESC: ~~QC Sample of~~: ID 10094595 JLJ 12-22-09 waste ID

SAMPLE COMMENTS: 10 DAY TURNAROUND

LOCATION DESC: 6(a)-1-4

FIELD SCREENING/MEASUREMENT RESULTS: PID = 0.5 ppm All < MDA
α = 78 dpm
β = 1356 dpm

COLLECTED BY (PRINT) M. Sherald / J. Toya REVIEWED BY (PRINT) J. Jurd

RELINQUISHED BY (Printed Name)	Date/Time	RECEIVED BY (Printed Name)	Date/Time
[signature]	12-22-09 1715	[signature]	12-22-09 1715

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2350 **EVENT NAME:** Upper Sandia Cyn Aggregate Area - Waste Characterization

SAMPLE ID: WST03-10-2201 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12/22/09	MEDIA:	ALLH	ok
TIME COLLECTED (HH:MM)		1542	SUB-MEDIA:	SOIL	
PRS ID:	60-0006(5)	ok	SAMPLE TECH CODE:	DC	
LOCATION ID:	WST-600902		FIELD QC TYPE:	FTB	
LOCATION TYPE:	GENERIC		FIELD PREP:	NA	
TOP DEPTH:	0	0	SAMPLE USAGE:	QC	
BOTTOM DEPTH:	0	61 ft	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	S		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: _____ COMPOSITE TIME INTERVAL: _____ WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: _____ BOREHOLE DIRECTION: _____

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
2		8260B Trip Blank	40 ML SEPTUM AMBER GLASS	Ice	Y	

SAMPLE DESC: QC Sample of ~~WST03~~ JLJ WST03-10-2148
12-22-09

SAMPLE COMMENTS: ~~10~~ 15 DAY TURNAROUND
JLJ 12-22-09

LOCATION DESC: 69 1 thru 4

FIELD SCREENING/MEASUREMENT RESULTS: PID = 0.5 ppm All < MDA
α = 78 dpm
β = 1356 dpm

COLLECTED BY (PRINT) M. Sherman J. Toya REVIEWED BY (PRINT) J. J

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) J. J (Signature)	10-22-09 1715	(Printed Name) (Signature)	10-22-09 1715
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name) (Signature)		(Printed Name) (Signature)	

DATA VALIDATION COVER SHEET

5114-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-1085 VALIDATION DATE: 01/28/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Ellen McEntee ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☒ OTHER (DESCRIBE): non-TCLP and TCLP VOCs

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☒	☐	☐	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☒	☐	☐	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. In the FTB, sample WST03-10-2201 which was associated with the non-TCLP sample analysis, acetone was detected. The associated sample result was ND and, thus, was not qualified.
2. The ICV/CCV %Ds associated with the non-TCLP VOCs were >20% for dichlorodifluoromethane, chloromethane, acetone, and trichlorotrifluoroethane. The associated result for acetone in sample WST03-10-2201 was a detect and, thus, was qualified J,V7c. All other associated results were NDs and, thus, were qualified UJ,V7c. The ICV/CCV %Ds associated with TCLP VOCs were >20% for 2-butanone and carbon tetrachloride. The associated sample results were NDs and, thus, were qualified UJ,V7c.
3. The non-TCLP VOC MS/MSD RPDs for three analytes were above the laboratory acceptance limit. Since MS/MSD analyses are not required, no sample results were qualified. It should be noted that the MS/MSD for TCLP VOCs was performed on a LANL sample of similar matrix from another RN. No sample data was qualified as a result.

Reviewed by: Mary Donivan Level: I Date: 02/01/10

VALIDATOR'S SIGNATURE: [illegible] DATE: 01/28/10

Form 5114-1, Revision 0.0	LOS ALAMOS Environmental Restoration Project

VOLATILE ORGANIC COMPOUND (VOC) ANALYTICAL DATA VALIDATION CHECKLIST

5114-2

Volatile Organic Compound (VOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, V9	J-, V9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, V9a	J-, V9a
☐	☐	☒	3. The instrument performance sample did not pass method acceptance criteria.	R, V16	R, V16
☐	☐	☒	4. Samples were analyzed outside specific method tune time criteria.	N/A	J, V16b
☐	☐	☒	5. The required instrument performance sample information is missing. Contact the SMO or external laboratory for information.	R, V16c	R, V16c
☐	☒	☐	6. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ or R, V7	J, V7
☐	☒	☐	7. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, V7a	J, V7a
☐	☒	☐	8. The affected analytes were analyzed with an RRF of <0.05 in the initial calibration and/or CCV.	R, V7b	J, V7b
☒	☐	☐	9. The Initial Calibration Verification (ICV) and/or Continuing Calibration Verification (CCV) were recovered outside the method-specific limits.	UJ, V7c	J, V7c
☐	☒	☐	10. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, V7d	J, V7d
☐	☒	☐	11. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, V7f	R, V7f

VOLATILE ORGANIC COMPOUND (VOC) ANALYTICAL DATA VALIDATION CHECKLIST

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Volatile Organic Compound (VOC) Analytical Data Validation Checklist

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Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	12. The sample result is ≤5X (10X for common organic laboratory contaminants) the concentration of the related analyte in the method blank.	U, V4	N/A
☐	☒	☐	13. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X (10X for common laboratory contaminants).	N/A	J, V4a
☒	☐	☐	14. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, and/or equipment blank.	U, V4d	N/A
☐	☒	☐	15. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V4e	R, V4e
☐	☒	☐	16. The IS retention time has shifted by more than 30 seconds.	UJ, V0	J, V0
☐	☐	☒	17. Analyte is positively confirmed but outside the IS retention time window; however, spectral matches must be provided.	N/A	J, V0a
☐	☒	☐	18. Required IS retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V0b	R, V0b
☐	☐	☒	19. The quantitating IS are count is <10% of the expected value, which indicates increased potential for false negative results and other possible problems with sample quantitation. Follow method-specific windows.	R, V1a	J, V1a
☐	☐	☒	20. The IS area count for the quantitating IS is <50% but >10% for organics window relation to the previous continuing calibration. Follow the method-specific windows.	UJ, V1b	J, V1b

VOLATILE ORGANIC COMPOUND (VOC) ANALYTICAL DATA VALIDATION CHECKLIST

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Volatile Organic Compound (VOC) Analytical Data Validation Checklist

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Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	21. The IS area count for the quantitating IS is >200% of the area count for the previous organic continuing calibration. Follow the method-specific windows.	UJ, V1c	J, V1c
☐	☐	☒	22. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V1d	R, V1d
☐	☒	☐	23. The surrogate is <10%R. Follow the external laboratory limits located within the associated data package.	R, V3	J-, V3
☐	☒	☐	24. The surrogate is < the Lower Acceptance Limit (LAL) but ≥10%R. Follow the external laboratory limits located within the associated data package.	UJ, V3a	J-, V3a
☐	☒	☐	25. The surrogate %R is > the Upper Acceptance Limit (UAL) Follow the external laboratory limits located within the associated data package.	N/A	J+, V3b
☐	☒	☐	26. At least one surrogate is > the UAL and one surrogate is < the LAL. Follow the external laboratory limits located within the associated data package.	UJ, V3c	J, V3c
☐	☒	☐	27. Required surrogate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V3d	R, V3d
☐	☒	☐	28. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, V12	J-, V12
☐	☒	☐	29. The LCS percent recovery was < the LAL but > 10%. Follow the external laboratory limits located within the associated data package.	UV, V12a	J-, V12a
☐	☒	☐	30. The LCS percent recover was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, V12b

VOLATILE ORGANIC COMPOUND (VOC) ANALYTICAL DATA VALIDATION CHECKLIST

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Volatile Organic Compound (VOC) Analytical Data Validation Checklist

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Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	31. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V12c	R, V12c
☐	☒	☐	32. The affected analyte is considered not detected because mass spectrum did not meet specifications.	N/A	U, V8
☐	☒	☐	33. The mass spectrum column documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V8a	R, V8a
☐	☒	☐	34. Duplicate, dilution, or reanalysis.	UJ, V88	J, V88
☐	☐	☒	35. The affected analytes have elevated detection limits and may not meet project DQOs because the sample was diluted without any target analytees identified due to matrix interference. Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.	UJ, R, V15	R, V15
☒	☐	☐	36. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB, NQ, NQ
☐	☒	☐	37. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.	UJ, R, V19	J, R, V19

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1085	**Date Collected:**	12/22/2009 12:00	**Matrix:**	S
Lab Sample ID:	243549001	**Date Received:**	12/24/2009 09:30		
		Client:	LANL010	**Project:**	LANL01004
Client ID:	WST03-10-2201	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	938022	**Inst:**	VOA6.I	**Dilution:**	1
Run Date:	12/31/2009 17:07	**Analyst:**	RXD1	**Purge Vol:**	5 mL
Prep Date:	12/31/2009 13:40	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	123109V6\6R415.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
75-71-8	Dichlorodifluoromethane	U	1.00	ug/kg	0.340	1.00	UJ,V7c
74-87-3	Chloromethane	U	1.00	ug/kg	0.300	1.00	UJ,V7c
75-01-4	Vinyl chloride	U	1.00	ug/kg	0.300	1.00	
74-83-9	Bromomethane	U	1.00	ug/kg	0.300	1.00	
75-00-3	Chloroethane	U	1.00	ug/kg	0.300	1.00	
75-69-4	Trichlorofluoromethane	U	1.00	ug/kg	0.300	1.00	
67-64-1	Acetone	J	3.86	ug/kg	1.66	5.00	J,V7c
75-35-4	1,1-Dichloroethylene	U	1.00	ug/kg	0.300	1.00	
74-88-4	Iodomethane	U	5.00	ug/kg	1.60	5.00	
75-09-2	Methylene chloride	U	5.00	ug/kg	2.00	5.00	
75-15-0	Carbon disulfide	U	5.00	ug/kg	1.25	5.00	
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00	
75-34-3	1,1-Dichloroethane	U	1.00	ug/kg	0.300	1.00	
78-93-3	2-Butanone	U	5.00	ug/kg	1.50	5.00	
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00	
594-20-7	2,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00	
67-66-3	Chloroform	U	1.00	ug/kg	0.300	1.00	
74-97-5	Bromochloromethane	U	1.00	ug/kg	0.330	1.00	
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/kg	0.300	1.00	
563-58-6	1,1-Dichloropropene	U	1.00	ug/kg	0.300	1.00	
56-23-5	Carbon tetrachloride	U	1.00	ug/kg	0.300	1.00	
107-06-2	1,2-Dichloroethane	U	1.00	ug/kg	0.300	1.00	
71-43-2	Benzene	U	1.00	ug/kg	0.300	1.00	
79-01-6	Trichloroethylene	U	1.00	ug/kg	0.330	1.00	
78-87-5	1,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00	
75-27-4	Bromodichloromethane	U	1.00	ug/kg	0.300	1.00	
74-95-3	Dibromomethane	U	1.00	ug/kg	0.300	1.00	
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/kg	1.25	5.00	
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00	
108-88-3	Toluene	U	1.00	ug/kg	0.300	1.00	
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00	
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/kg	0.300	1.00	
591-78-6	2-Hexanone	U	5.00	ug/kg	1.50	5.00	
142-28-9	1,3-Dichloropropane	U	1.00	ug/kg	0.300	1.00	
127-18-4	Tetrachloroethylene	U	1.00	ug/kg	0.300	1.00	
124-48-1	Dibromochloromethane	U	1.00	ug/kg	0.300	1.00	
106-93-4	1,2-Dibromoethane	U	1.00	ug/kg	0.300	1.00	
108-90-7	Chlorobenzene	U	1.00	ug/kg	0.300	1.00	

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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1085	Date Collected:	12/22/2009 12:00	Matrix:	S
Lab Sample ID:	243549001	Date Received:	12/24/2009 09:30		
		Client:	LANL010	Project:	LANL01004
Client ID:	WST03-10-2201	Method:	SW846 8260B	SOP Ref:	GL-OA-E-038
Batch ID:	938022	Inst:	VOA6.I	Dilution:	1
Run Date:	12/31/2009 17:07	Analyst:	RXD1	Purge Vol:	5 mL
Prep Date:	12/31/2009 13:40	Aliquot:	5 g	Final Volume:	5 mL
Data File:	123109V6\6R415.D	Column:	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
100-41-4	Ethylbenzene	U	1.00	ug/kg	0.300	1.00	
179601-23-1	m,p-Xylenes	U	2.00	ug/kg	0.300	2.00	
95-47-6	o-Xylene	U	1.00	ug/kg	0.300	1.00	
100-42-5	Styrene	U	1.00	ug/kg	0.300	1.00	
75-25-2	Bromoform	U	1.00	ug/kg	0.300	1.00	
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00	
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/kg	0.300	1.00	
108-86-1	Bromobenzene	U	1.00	ug/kg	0.300	1.00	
103-65-1	n-Propylbenzene	U	1.00	ug/kg	0.300	1.00	
95-49-8	2-Chlorotoluene	U	1.00	ug/kg	0.300	1.00	
98-82-8	Isopropylbenzene	U	1.00	ug/kg	0.300	1.00	
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00	
106-43-4	4-Chlorotoluene	U	1.00	ug/kg	0.300	1.00	
98-06-6	tert-Butylbenzene	U	1.00	ug/kg	0.300	1.00	
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00	
135-98-8	sec-Butylbenzene	U	1.00	ug/kg	0.300	1.00	
99-87-6	4-Isopropyltoluene	U	1.00	ug/kg	0.300	1.00	
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00	
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00	
104-51-8	n-Butylbenzene	U	1.00	ug/kg	0.300	1.00	
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/kg	0.300	1.00	
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.00	ug/kg	1.60	5.00	UJ,V7c
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00	
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	No Tentatively Identified Compounds Found			ug/kg		

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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1085	**Date Collected:**	12/22/2009 12:00	**Matrix:**	R
Lab Sample ID:	243549002	**Date Received:**	12/24/2009 09:30	**%Moisture:**	7.2
		Client:	LANL010	**Project:**	LANL01004
Client ID:	WST03-10-2148	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	938022	**Inst:**	VOA6.I	**Dilution:**	1
Run Date:	12/31/2009 17:35	**Analyst:**	RXD1	**Purge Vol:**	5 mL
Prep Date:	12/31/2009 13:42	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	123109V6\6R416.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
75-71-8	Dichlorodifluoromethane	U	1.08	ug/kg	0.366	1.08	UJ,V7c
74-87-3	Chloromethane	U	1.08	ug/kg	0.323	1.08	UJ,V7c
75-01-4	Vinyl chloride	U	1.08	ug/kg	0.323	1.08	
74-83-9	Bromomethane	U	1.08	ug/kg	0.323	1.08	
75-00-3	Chloroethane	U	1.08	ug/kg	0.323	1.08	
75-69-4	Trichlorofluoromethane	U	1.08	ug/kg	0.323	1.08	
67-64-1	Acetone	U	5.39	ug/kg	1.79	5.39	UJ,V7c
75-35-4	1,1-Dichloroethylene	U	1.08	ug/kg	0.323	1.08	
74-88-4	Iodomethane	U	5.39	ug/kg	1.72	5.39	
75-09-2	Methylene chloride	U	5.39	ug/kg	2.15	5.39	
75-15-0	Carbon disulfide	U	5.39	ug/kg	1.35	5.39	
156-60-5	trans-1,2-Dichloroethylene	U	1.08	ug/kg	0.323	1.08	
75-34-3	1,1-Dichloroethane	U	1.08	ug/kg	0.323	1.08	
78-93-3	2-Butanone	U	5.39	ug/kg	1.62	5.39	
156-59-2	cis-1,2-Dichloroethylene	U	1.08	ug/kg	0.323	1.08	
594-20-7	2,2-Dichloropropane	U	1.08	ug/kg	0.323	1.08	
67-66-3	Chloroform	U	1.08	ug/kg	0.323	1.08	
74-97-5	Bromochloromethane	U	1.08	ug/kg	0.356	1.08	
71-55-6	1,1,1-Trichloroethane	U	1.08	ug/kg	0.323	1.08	
563-58-6	1,1-Dichloropropene	U	1.08	ug/kg	0.323	1.08	
56-23-5	Carbon tetrachloride	U	1.08	ug/kg	0.323	1.08	
107-06-2	1,2-Dichloroethane	U	1.08	ug/kg	0.323	1.08	
71-43-2	Benzene	U	1.08	ug/kg	0.323	1.08	
79-01-6	Trichloroethylene	U	1.08	ug/kg	0.356	1.08	
78-87-5	1,2-Dichloropropane	U	1.08	ug/kg	0.323	1.08	
75-27-4	Bromodichloromethane	U	1.08	ug/kg	0.323	1.08	
74-95-3	Dibromomethane	U	1.08	ug/kg	0.323	1.08	
108-10-1	4-Methyl-2-pentanone	U	5.39	ug/kg	1.35	5.39	
10061-01-5	cis-1,3-Dichloropropylene	U	1.08	ug/kg	0.323	1.08	
108-88-3	Toluene	U	1.08	ug/kg	0.323	1.08	
10061-02-6	trans-1,3-Dichloropropylene	U	1.08	ug/kg	0.323	1.08	
79-00-5	1,1,2-Trichloroethane	U	1.08	ug/kg	0.323	1.08	
591-78-6	2-Hexanone	U	5.39	ug/kg	1.62	5.39	
142-28-9	1,3-Dichloropropane	U	1.08	ug/kg	0.323	1.08	
127-18-4	Tetrachloroethylene	U	1.08	ug/kg	0.323	1.08	
124-48-1	Dibromochloromethane	U	1.08	ug/kg	0.323	1.08	
106-93-4	1,2-Dibromoethane	U	1.08	ug/kg	0.323	1.08	
108-90-7	Chlorobenzene	U	1.08	ug/kg	0.323	1.08	

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Certificate of Analysis
Sample Summary

SDG Number:	**10-1085**	**Date Collected:**	**12/22/2009 12:00**	**Matrix:**	**R**
Lab Sample ID:	**243549002**	**Date Received:**	**12/24/2009 09:30**	**%Moisture:**	**7.2**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**WST03-10-2148**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**938022**	**Inst:**	**VOA6.I**	**Dilution:**	**1**
Run Date:	**12/31/2009 17:35**	**Analyst:**	**RXD1**	**Purge Vol:**	**5 mL**
Prep Date:	**12/31/2009 13:42**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**123109V6\6R416.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
100-41-4	Ethylbenzene	U	1.08	ug/kg	0.323	1.08	
179601-23-1	m,p-Xylenes	U	2.15	ug/kg	0.323	2.15	
95-47-6	o-Xylene	U	1.08	ug/kg	0.323	1.08	
100-42-5	Styrene	U	1.08	ug/kg	0.323	1.08	
75-25-2	Bromoform	U	1.08	ug/kg	0.323	1.08	
79-34-5	1,1,2,2-Tetrachloroethane	U	1.08	ug/kg	0.323	1.08	
96-18-4	1,2,3-Trichloropropane	U	1.08	ug/kg	0.323	1.08	
108-86-1	Bromobenzene	U	1.08	ug/kg	0.323	1.08	
103-65-1	n-Propylbenzene	U	1.08	ug/kg	0.323	1.08	
95-49-8	2-Chlorotoluene	U	1.08	ug/kg	0.323	1.08	
98-82-8	Isopropylbenzene	U	1.08	ug/kg	0.323	1.08	
108-67-8	1,3,5-Trimethylbenzene	U	1.08	ug/kg	0.323	1.08	
106-43-4	4-Chlorotoluene	U	1.08	ug/kg	0.323	1.08	
98-06-6	tert-Butylbenzene	U	1.08	ug/kg	0.323	1.08	
95-63-6	1,2,4-Trimethylbenzene	U	1.08	ug/kg	0.323	1.08	
135-98-8	sec-Butylbenzene	U	1.08	ug/kg	0.323	1.08	
99-87-6	4-Isopropyltoluene	U	1.08	ug/kg	0.323	1.08	
541-73-1	1,3-Dichlorobenzene	U	1.08	ug/kg	0.323	1.08	
106-46-7	1,4-Dichlorobenzene	U	1.08	ug/kg	0.323	1.08	
104-51-8	n-Butylbenzene	U	1.08	ug/kg	0.323	1.08	
96-12-8	1,2-Dibromo-3-chloropropane	U	1.08	ug/kg	0.323	1.08	
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.39	ug/kg	1.72	5.39	UJ,V7c
630-20-6	1,1,1,2-Tetrachloroethane	U	1.08	ug/kg	0.323	1.08	
95-50-1	1,2-Dichlorobenzene	U	1.08	ug/kg	0.323	1.08	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Flt	Qual
	unknown siloxane	14.24	5.87	ug/kg	0	J

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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1085-1**	**Date Collected:**	**12/22/2009 12:00**	**Matrix:**	**TCLP R**
Lab Sample ID:	**243551001**	**Date Received:**	**12/24/2009 09:30**		
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**WST03-10-2148**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**938016**	**Inst:**	**VOA5.I**	**Dilution:**	**10**
Run Date:	**12/31/2009 15:06**	**Analyst:**	**DXK1**	**Purge Vol:**	**5 mL**
Prep Date:	**12/28/2009 16:00**				
Data File:	**123109V5\5R416.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
75-01-4	Vinyl chloride	U	0.010	mg/L	0.005	0.010	
75-35-4	1,1-Dichloroethylene	U	0.010	mg/L	0.003	0.010	
78-93-3	2-Butanone	U	0.050	mg/L	0.0125	0.050	UJ,V7c
67-66-3	Chloroform	U	0.010	mg/L	0.0025	0.010	
56-23-5	Carbon tetrachloride	U	0.010	mg/L	0.003	0.010	UJ,V7c
107-06-2	1,2-Dichloroethane	U	0.010	mg/L	0.0025	0.010	
71-43-2	Benzene	U	0.010	mg/L	0.003	0.010	
79-01-6	Trichloroethylene	U	0.010	mg/L	0.0025	0.010	
127-18-4	Tetrachloroethylene	U	0.010	mg/L	0.003	0.010	
108-90-7	Chlorobenzene	U	0.010	mg/L	0.0025	0.010	
106-46-7	1,4-Dichlorobenzene	U	0.010	mg/L	0.0025	0.010	

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DATA VALIDATION COVER SHEET

5115-1

Data Validation Cover Sheet

Records Use only

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Section I.

REQUEST NUMBER: 10-1085 VALIDATION DATE: 01/28/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Ellen McEntee ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☒ OTHER (DESCRIBE): non-TCLP and TCLP SVOCs

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☒	☐	☐	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☒	☐	☐	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. The ICV/CCV %Ds associated with the non-TCLP SVOCs were >20% for 3,3'-dichlorobenzidine; hexachlorocyclopentadiene; 4-bromophenylphenylether, indeno(1,2,3-cd)pyrene; pyridine; 4-chloroaniline; 3-nitroaniline; 4-nitroaniline; bis(2-ethylhexyl)phthalate; and benzo(g,h,i)perylene. The associated sample results were NDs and, thus, were qualified UJ,SV7c. The ICV/CCV %D associated with TCLP SVOCs was >20% for pyridine. The associated sample result was ND and, thus, was qualified UJ,SV7c.
2. The non-TCLP SVOC MSD %R for 3,3-dichlorobenzidine was < the laboratory LAL but ≥10% and the TCLP SVOC MS/MSD RPD for pyridine was above the laboratory acceptance limit. Since MS/MSD analyses are not required, no sample results were qualified. It should be noted that the MS/MSDs for non-TCLP SVOCs and TCLP SVOCs were performed on LANL samples of similar matrix from other RNs. No sample data was qualified as a result.

Reviewed by: Mary Donivan Level: I Date: 02/01/10

VALIDATOR'S SIGNATURE: Ellen McCutcel	DATE: 01/28/10
Form 5115-1, Revision 0.0	LOS ALAMOS Environmental Restoration Project

SEMIVOLATILE ORGANIC COMPOUND (SVOC) ANALYTICAL DATA VALIDATION CHECKLIST

5115-2

Semivolatile Organic Compound (SVOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, SV9	J-, SV9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, SV9a	J-, SV9a
☐	☒	☐	3. The affected analytes are regarded as rejected because the analytical holding time was exceeded.	R, SV9b	R, SV9b
☐	☐	☒	4. The instrument performance sample did not pass method acceptance criteria.	R, SV16	R, SV16
☐	☐	☒	5. Samples were analyzed outside specific method tune time criteria.	N/A	J, SV16b
☐	☐	☒	6. The required instrument performance sample information is missing. Contact the SMO or external laboratory for information.	R, SV16c	R, SV16c
☐	☒	☐	7. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, SV7	J, SV7
☐	☒	☐	8. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, SV7a	J, SV7a
☐	☒	☐	9. The affected analytes were analyzed with an RRF of <0.05 in the initial calibration and/or Continuing Calibration Verification (CCV).	R, SV7b	J, SV7b
☒	☐	☐	10. The Initial Calibration Verification (ICV) and/or CCV were recovered outside the method-specific limits.	UJ, SV7c	J, SV7c
☐	☒	☐	11. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, SV7d	J, SV7d

SEMIVOLATILE ORGANIC COMPOUND (SVOC) ANALYTICAL DATA VALIDATION CHECKLIST

5115-2 Semivolatile Organic Compound (SVOC) Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	12. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, SV7f	R, SV7f
☐	☒	☐	13. The sample result is ≤5X (10X for common organic laboratory contaminates) the concentration of the related analyte in the method blank.	U, SV4	J, V4a
☐	☒	☐	14. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was greater than 5X (10X for common laboratory contaminates).	N/A	J, SV4a
☐	☐	☒	15. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	UJ, SV4d	N/A
☐	☒	☐	16. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV4e	R, SV4e
☐	☒	☐	17. The IS retention time has shifted by more than 30 seconds.	UJ, SV0	J, SV0
☐	☐	☒	18. Analyte is positively confirmed but outside the IS retention time window; however, spectral matches must be provided.	N/A	J, SV0a
☐	☒	☐	19. Required IS retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV0b	R, SV0b
☐	☐	☒	20. The quantitating IS area count is <10% of the expected value, which indicates increased potential for false negative results and other possible problems with sample quantitation. Follow method-specific windows.	R, SV1a	J, SV1a

SEMIVOLATILE ORGANIC COMPOUND (SVOC) ANALYTICAL DATA VALIDATION CHECKLIST

5115-2

Semivolatile Organic Compound (SVOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	21. The IS area count for the quantitating IS is <50% but >10% for organics window relation to the previous continuing calibration. Follow method-specific windows.	UJ, SV1b	J, SV1b
☐	☐	☒	22. The IS area count for the quantitating IS is >200% of the area count for the previous continuing calibration. Follow method-specific windows.	UJ, SV1c	J, SV1c
☐	☐	☒	23. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV1d	R, SV1d
☐	☒	☐	24. The surrogate is <10%R. Follow the external laboratory limits located within the associated data package.	R, SV3	J-, SV3
☐	☒	☐	25. The surrogate is < the Lower Acceptance Level (LAL) but ≥10%R. Follow the external laboratory limits located within the associated data package.	UJ, SV3a	J-, SV3a
☐	☒	☐	26. The surrogate %R value is > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, SV3b
☐	☒	☐	27. At least one surrogate is > the Upper Acceptance Limit (UAL) and one surrogate is < the LAL. Follow the external laboratory limits located within the associated data package.	UJ, SV3c	J, SV3c
☐	☒	☐	28. Required surrogate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV3d	R, SV3d
☐	☒	☐	29. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, SV12	J-, SV12

SEMIVOLATILE ORGANIC COMPOUND (SVOC) ANALYTICAL DATA VALIDATION CHECKLIST

5115-2

Semivolatile Organic Compound (SVOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below if Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	30. The LCS percent recovery was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, SV12a	J-, SV12a
☐	☒	☐	31. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, SV12b
☐	☒	☐	32. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV12c	R, SV12c
☐	☐	☒	33. The affected analyte is considered not detected because mass spectrum did not meet specifications.	N/A	U, SV8
☐	☐	☒	34. The mass spectrum column documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV8a	R, SV8a
☐	☒	☐	35. Duplicate, dilution, or reanalysis.	UJ, SV88	J, SV88
☐	☐	☒	36. The affected analytes have elevated detection limits and may not meet project DQOs because the sample was diluted without any target analytees identified due to matrix interference. Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.	UJ, R, SV15	R, SV15
☒	☐	☐	37. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB, NQ, NQ
☐	☒	☐	38. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.	UJ, R, SV19	J, R, SV19

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1085	Date Collected:	12/22/2009 12:00	Matrix:	R
Lab Sample ID:	243549002	Date Received:	12/24/2009 09:30	%Moisture:	7.2
		Client:	LANL010	Project:	LANL01004
Client ID:	WST03-10-2148	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	937151	Inst:	MSD3.I	Dilution:	1
Run Date:	01/04/2010 19:59	Analyst:	JLD1	Inj. Vol:	.5 uL
Prep Date:	12/29/2009 10:16	Aliquot:	30 g	Final Volume:	1 mL
Data File:	s3a0421.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
62-75-9	N-Methyl-N-nitrosomethylamine	U	359	ug/kg	71.8	359	
108-95-2	Phenol	U	359	ug/kg	71.8	359	
95-57-8	2-Chlorophenol	U	359	ug/kg	71.8	359	
106-46-7	1,4-Dichlorobenzene	U	359	ug/kg	71.8	359	
621-64-7	N-Nitrosodipropylamine	U	359	ug/kg	71.8	359	
59-50-7	4-Chloro-3-methylphenol	U	359	ug/kg	71.8	359	
83-32-9	Acenaphthene	U	35.9	ug/kg	11.9	35.9	
121-14-2	2,4-Dinitrotoluene	U	359	ug/kg	35.9	359	
100-02-7	4-Nitrophenol	U	359	ug/kg	119	359	
87-86-5	Pentachlorophenol	U	359	ug/kg	89.8	359	
129-00-0	Pyrene	U	35.9	ug/kg	10.8	35.9	
110-86-1	Pyridine	U	359	ug/kg	71.8	359	UJ,SV7c
62-53-3	Aniline	U	359	ug/kg	108	359	
111-44-4	bis(2-Chloroethyl) ether	U	359	ug/kg	71.8	359	
541-73-1	1,3-Dichlorobenzene	U	359	ug/kg	71.8	359	
100-51-6	Benzyl alcohol	U	359	ug/kg	108	359	
95-50-1	1,2-Dichlorobenzene	U	359	ug/kg	71.8	359	
108-60-1	bis(2-Chloroisopropyl)ether	U	359	ug/kg	71.8	359	
95-48-7	o-Cresol	U	359	ug/kg	71.8	359	
65794-96-9	m,p-Cresols	U	359	ug/kg	108	359	
67-72-1	Hexachloroethane	U	359	ug/kg	71.8	359	
98-95-3	Nitrobenzene	U	359	ug/kg	71.8	359	
78-59-1	Isophorone	U	359	ug/kg	71.8	359	
88-75-5	2-Nitrophenol	U	359	ug/kg	71.8	359	
105-67-9	2,4-Dimethylphenol	U	359	ug/kg	126	359	
111-91-1	bis(2-Chloroethoxy)methane	U	359	ug/kg	71.8	359	
120-83-2	2,4-Dichlorophenol	U	359	ug/kg	71.8	359	
65-85-0	Benzoic acid	U	718	ug/kg	180	718	
91-20-3	Naphthalene	U	35.9	ug/kg	10.8	35.9	
106-47-8	4-Chloroaniline	U	359	ug/kg	71.8	359	UJ,SV7c
87-68-3	Hexachlorobutadiene	U	359	ug/kg	71.8	359	
91-57-6	2-Methylnaphthalene	U	35.9	ug/kg	7.18	35.9	
77-47-4	Hexachlorocyclopentadiene	U	359	ug/kg	71.8	359	UJ,SV7c
88-06-2	2,4,6-Trichlorophenol	U	359	ug/kg	71.8	359	
95-95-4	2,4,5-Trichlorophenol	U	359	ug/kg	71.8	359	
91-58-7	2-Chloronaphthalene	U	35.9	ug/kg	11.9	35.9	
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	359	ug/kg	71.8	359	
99-09-2	3-Nitroaniline	U	359	ug/kg	71.8	359	UJ,SV7c

EJM
01/28/10

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1085	Date Collected:	12/22/2009 12:00	Matrix:	R
Lab Sample ID:	243549002	Date Received:	12/24/2009 09:30	%Moisture:	7.2
		Client:	LANL010	Project:	LANL01004
Client ID:	WST03-10-2148	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	937151	Inst:	MSD3.I	Dilution:	1
Run Date:	01/04/2010 19:59	Analyst:	JLD1	Inj. Vol:	.5 uL
Prep Date:	12/29/2009 10:16	Aliquot:	30 g	Final Volume:	1 mL
Data File:	s3a0421.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
	m-Nitroaniline						
131-11-3	Dimethylphthalate	U	359	ug/kg	71.8	359	
606-20-2	2,6-Dinitrotoluene	U	359	ug/kg	35.9	359	
208-96-8	Acenaphthylene	U	35.9	ug/kg	10.8	35.9	
51-28-5	2,4-Dinitrophenol	U	718	ug/kg	136	718	
132-64-9	Dibenzofuran	U	359	ug/kg	71.8	359	
84-66-2	Diethylphthalate	U	359	ug/kg	71.8	359	
86-73-7	Fluorene	U	35.9	ug/kg	10.8	35.9	
7005-72-3	4-Chlorophenylphenylether	U	359	ug/kg	71.8	359	
534-52-1	2-Methyl-4,6-dinitrophenol	U	359	ug/kg	71.8	359	
100-01-6	4-Nitroaniline	U	359	ug/kg	108	359	UJ,SV7c
	p-Nitroaniline						
122-39-4	Diphenylamine	U	359	ug/kg	71.8	359	
122-66-7	Azobenzene	U	359	ug/kg	71.8	359	
	1,2-Diphenylhydrazine						
101-55-3	4-Bromophenylphenylether	U	359	ug/kg	71.8	359	UJ,SV7c
118-74-1	Hexachlorobenzene	U	359	ug/kg	71.8	359	
85-01-8	Phenanthrene	U	35.9	ug/kg	10.8	35.9	
120-12-7	Anthracene	U	35.9	ug/kg	7.18	35.9	
84-74-2	Di-n-butylphthalate	U	359	ug/kg	71.8	359	
206-44-0	Fluoranthene	U	35.9	ug/kg	10.8	35.9	
85-68-7	Butylbenzylphthalate	U	359	ug/kg	71.8	359	
56-55-3	Benzo(a)anthracene	U	35.9	ug/kg	10.8	35.9	
91-94-1	3,3'-Dichlorobenzidine	U	359	ug/kg	108	359	UJ,SV7c
218-01-9	Chrysene	U	35.9	ug/kg	10.8	35.9	
117-81-7	bis(2-Ethylhexyl)phthalate	U	359	ug/kg	71.8	359	UJ,SV7c
117-84-0	Di-n-octylphthalate	U	359	ug/kg	71.8	359	
205-99-2	Benzo(b)fluoranthene	U	35.9	ug/kg	10.8	35.9	
207-08-9	Benzo(k)fluoranthene	U	35.9	ug/kg	10.8	35.9	
50-32-8	Benzo(a)pyrene	U	35.9	ug/kg	10.8	35.9	
193-39-5	Indeno(1,2,3-cd)pyrene	U	35.9	ug/kg	10.8	35.9	UJ,SV7c
53-70-3	Dibenzo(a,h)anthracene	U	35.9	ug/kg	10.8	35.9	
191-24-2	Benzo(ghi)perylene	U	35.9	ug/kg	10.8	35.9	UJ,SV7c
120-82-1	1,2,4-Trichlorobenzene	U	359	ug/kg	71.8	359	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Flt	Qual
	Unknown	1.84	147	ug/kg		J
	Unknown Aldol Condensate	2.85	461	ug/kg		JA

EJM
01/28/10

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1085**	**Date Collected:**	**12/22/2009 12:00**	**Matrix:**	**R**
Lab Sample ID:	**243549002**	**Date Received:**	**12/24/2009 09:30**	**%Moisture:**	**7.2**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**WST03-10-2148**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**937151**	**Inst:**	**MSD3.I**	**Dilution:**	**1**
Run Date:	**01/04/2010 19:59**	**Analyst:**	**JLD1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/29/2009 10:16**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**s3a0421.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
301-02-0	9-Octadecenamide, (Z)-	12.78	212	ug/kg	80	NJ

EJM
01/28/10

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1085-1	Date Collected:	12/22/2009 12:00	Matrix:	TCLP R
Lab Sample ID:	243551001	Date Received:	12/24/2009 09:30		
		Client:	LANL010	Project:	LANL01004
Client ID:	WST03-10-2148	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	937667	Inst:	MSD1.I	Dilution:	1
Run Date:	12/31/2009 18:52	Analyst:	AMY	Inj. Vol:	.5 uL
Prep Date:	12/30/2009 19:30	Aliquot:	200 mL	Final Volume:	1 mL
Data File:	s1l3118.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
106-46-7	1,4-Dichlorobenzene	U	0.050	mg/L	0.010	0.050	
121-14-2	2,4-Dinitrotoluene	U	0.050	mg/L	0.010	0.050	
87-86-5	Pentachlorophenol	U	0.050	mg/L	0.010	0.050	
110-86-1	Pyridine	U	0.050	mg/L	0.015	0.050	UJ,SV7c
95-48-7	o-Cresol	U	0.050	mg/L	0.010	0.050	
65794-96-9	m,p-Cresols	U	0.050	mg/L	0.015	0.050	
67-72-1	Hexachloroethane	U	0.050	mg/L	0.010	0.050	
98-95-3	Nitrobenzene	U	0.050	mg/L	0.015	0.050	
87-68-3	Hexachlorobutadiene	U	0.050	mg/L	0.010	0.050	
88-06-2	2,4,6-Trichlorophenol	U	0.050	mg/L	0.010	0.050	
95-95-4	2,4,5-Trichlorophenol	U	0.050	mg/L	0.010	0.050	
118-74-1	Hexachlorobenzene	U	0.050	mg/L	0.010	0.050	

EJM
01/28/10

DATA VALIDATION COVER SHEET

5130-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-1085 VALIDATION DATE: 01/28/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Ellen McEntee ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☒ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE):

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

None.

Reviewed by: Mary Donivan Level: I Date: 02/01/10

VALIDATOR'S SIGNATURE: [illegible] DATE: 01/28/10

Form 5130-1, Revision 0.0	LOS ALAMOS Environmental Restoration Project

TPH GRO AND DRO ANALYTICAL DATA VALIDATION CHECKLIST

5130-2 TPH GRO and DRO Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The retention time criteria were not met.	R, DR0 or GR0	R, DR0 or GR0
☐	☒	☐	2. Required retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, DR0b	R, GR0b
☐	☒	☐	3. The surrogate is less than 10%R. Follow external laboratory limits.	R, DR3 or GR3	J-, DR3 or GR3
☐	☒	☐	4. The surrogate is less than the Lower Acceptance Limit, but greater than or equal to 10%R. Follow external laboratory limits.	UJ, DR3a or GR3a	J-, DR3a or GR3a
☐	☒	☐	5. The surrogate %R value is greater than the Upper Acceptance Limit. Follow external laboratory limits.	N/A	J+, DR3b or GR3b
☐	☒	☐	6. Required surrogate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, DR3d or GR3d	R, DR3d or GR3d
☐	☒	☐	7. The sample result is less than or equal to 5 times the concentration of the related analyte in the method blank.	U, DR4 or GR4	N/A
☐	☒	☐	8. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank, but was greater than 5x.	N/A	J+, DR4a or GR4a
☐	☐	☒	9. The sample result is less than or equal to 5 times the concentration of the related analyte in the trip blank, rinsate blank or equipment blank.	U, DR4d or GR4d	N/A
☐	☒	☐	10. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, DR4e or GR4e	R, DR4e or GR4e
☐	☒	☐	11. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ or R, DR7 or GR7	J, DR7 or GR7

TPH GRO AND DRO ANALYTICAL DATA VALIDATION CHECKLIST

5130-2

TPH GRO and DRO Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	12. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is less than 0.995.	UJ, DR7a or GR7a	J, DR7a or GR7a
☐	☒	☐	13. The ICV and/or CCV were recovered outside the method specific limits.	UJ, DR7c or GR7c	J, DR7c or GR7c
☐	☒	☐	14. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, DR7d or GR7d	J, DR7d or GR7d
☐	☒	☐	15. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, DR7f or GR7f	R, DR7f or GR7f
☐	☒	☐	16. The holding time was greater than 1 and less than or equal to 2 times the applicable holding time requirement.	UJ, DR9 or GR9	J-, DR9 or GR9
☐	☒	☐	17. The holding time was greater than 2 times the applicable holding time requirement.	R, DR9a or GR9a	J-, DR9a or GR9a
☐	☒	☐	18. The LCS percent recovery was less than 10%. Follow the external laboratory limits.	R, DR12 or GR12	J-, DR12 or GR12
☐	☒	☐	19. The LCS percent recovery was less than the Lower Acceptance Limit, but greater than 10%. Follow the external laboratory limits.	UJ, DR12a or GR12a	J-, DR12a or GR12a
☐	☒	☐	20. The LCS percent recovery was greater than the Upper Acceptance Limit. Follow the external laboratory limits.	N/A	J+, DR12b or GR12b
☐	☒	☐	21. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or the external laboratory for information.	R, DR12c or GR12c	R, DR12c or GR12c
☐	☒	☐	22. The MS/MSD percent recovery was less than 10%.	R, DR12d or GR12d	R, DR12d or Gr12d
☐	☒	☐	23. The MS/MSD percent recovery was greater than 10%, but less than 70%.	UJ, DR12e or GR12e	J, DR12e or GR12e

TPH GRO AND DRO ANALYTICAL DATA VALIDATION CHECKLIST	
5130-2 **TPH GRO and DRO Analytical Data Validation Checklist**	Records Use only Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	24. The MS/MSD percent recovery was greater than 70%.	N/A	J+, DR12f or GR12f
☐	☒	☐	25. The MS/MSD relative percent difference was greater than 30%.	UJ, DR12g or GR12g	J, DR12g or GR12g
☐	☐	☒	26. The affected analytes have elevated detection limits and may not meet project DQOs because the sample was diluted without any target analytes identified due to matrix interference. (Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.)	UJ, R, DR15 or GR15	R, DR15 or GR15
☐	☒	☐	27. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.	UJ, R, DR19 or GR19	J, R, DR19 or GR19
☐	☒	☐	28. Duplicate, dilution, or reanalysis.	UJ, DR88 or GR88	J, DR88 or GR88

Flame Ionization Detector
Certificate of Analysis
Sample Summary

SDG Number:	10-1085	Date Collected:	12/22/2009 12:00	Matrix:	R
Lab Sample ID:	243549002	Date Received:	12/24/2009 09:30	%Moisture:	7.2
		Client:	LANL010	Project:	LANL01004
Client ID:	WST03-10-2148	Method:	SW846 8015A/B SVOC	SOP Ref:	GL-OA-E-003
Batch ID:	937101	Inst:	FID7.I	Dilution:	1
Run Date:	12/29/2009 23:49	Analyst:	KXR2	Inj. Vol:	1 uL
Prep Date:	12/28/2009 21:00	Aliquot:	30.11 g	Final Volume:	1 mL
Data File:	016f1601.d	Column:	DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics	U	7.16	mg/kg	2.33	7.16

EJM
01/28/10

DATA VALIDATION COVER SHEET

5130-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY

Section I.

REQUEST NUMBER: 10-1085 VALIDATION DATE: 01/28/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Ellen McEntee ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☒ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE):

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. It should be noted that the MS/MSD was performed on a LANL sample from another RN. No sample data was qualified as a result.

Reviewed by: Mary Donivan Level: I Date: 02/01/10

VALIDATOR'S SIGNATURE: Ellen McEntee DATE: 01/28/10

TPH GRO AND DRO ANALYTICAL DATA VALIDATION CHECKLIST

5130-2 TPH GRO and DRO Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The retention time criteria were not met.	R, DR0 or GR0	R, DR0 or GR0
☐	☒	☐	2. Required retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, DR0b	R, GR0b
☐	☒	☐	3. The surrogate is less than 10%R. Follow external laboratory limits.	R, DR3 or GR3	J-, DR3 or GR3
☐	☒	☐	4. The surrogate is less than the Lower Acceptance Limit, but greater than or equal to 10%R. Follow external laboratory limits.	UJ, DR3a or GR3a	J-, DR3a or GR3a
☐	☒	☐	5. The surrogate %R value is greater than the Upper Acceptance Limit. Follow external laboratory limits.	N/A	J+, DR3b or GR3b
☐	☒	☐	6. Required surrogate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, DR3d or GR3d	R, DR3d or GR3d
☐	☒	☐	7. The sample result is less than or equal to 5 times the concentration of the related analyte in the method blank.	U, DR4 or GR4	N/A
☐	☒	☐	8. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank, but was greater than 5x.	N/A	J+, DR4a or GR4a
☐	☐	☒	9. The sample result is less than or equal to 5 times the concentration of the related analyte in the trip blank, rinsate blank or equipment blank.	U, DR4d or GR4d	N/A
☐	☒	☐	10. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, DR4e or GR4e	R, DR4e or GR4e
☐	☒	☐	11. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ or R, DR7 or GR7	J, DR7 or GR7

TPH GRO AND DRO ANALYTICAL DATA VALIDATION CHECKLIST

5130-2 TPH GRO and DRO Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	12. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is less than 0.995.	UJ, DR7a or GR7a	J, DR7a or GR7a
☐	☒	☐	13. The ICV and/or CCV were recovered outside the method specific limits.	UJ, DR7c or GR7c	J, DR7c or GR7c
☐	☒	☐	14. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, DR7d or GR7d	J, DR7d or GR7d
☐	☒	☐	15. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, DR7f or GR7f	R, DR7f or GR7f
☐	☒	☐	16. The holding time was greater than 1 and less than or equal to 2 times the applicable holding time requirement.	UJ, DR9 or GR9	J-, DR9 or GR9
☐	☒	☐	17. The holding time was greater than 2 times the applicable holding time requirement.	R, DR9a or GR9a	J-, DR9a or GR9a
☐	☒	☐	18. The LCS percent recovery was less than 10%. Follow the external laboratory limits.	R, DR12 or GR12	J-, DR12 or GR12
☐	☒	☐	19. The LCS percent recovery was less than the Lower Acceptance Limit, but greater than 10%. Follow the external laboratory limits.	UJ, DR12a or GR12a	J-, DR12a or GR12a
☐	☒	☐	20. The LCS percent recovery was greater than the Upper Acceptance Limit. Follow the external laboratory limits.	N/A	J+, DR12b or GR12b
☐	☒	☐	21. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or the external laboratory for information.	R, DR12c or GR12c	R, DR12c or GR12c
☐	☒	☐	22. The MS/MSD percent recovery was less than 10%.	R, DR12d or GR12d	R, DR12d or Gr12d
☐	☒	☐	23. The MS/MSD percent recovery was greater than 10%, but less than 70%.	UJ, DR12e or GR12e	J, DR12e or GR12e

TPH GRO AND DRO ANALYTICAL DATA VALIDATION CHECKLIST	
5130-2 **TPH GRO and DRO Analytical Data Validation Checklist**	Records Use only Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	24. The MS/MSD percent recovery was greater than 70%.	N/A	J+, DR12f or GR12f
☐	☒	☐	25. The MS/MSD relative percent difference was greater than 30%.	UJ, DR12g or GR12g	J, DR12g or GR12g
☐	☐	☒	26. The affected analytes have elevated detection limits and may not meet project DQOs because the sample was diluted without any target analytes identified due to matrix interference. (Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.)	UJ, R, DR15 or GR15	R, DR15 or GR15
☐	☒	☐	27. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.	UJ, R, DR19 or GR19	J, R, DR19 or GR19
☐	☒	☐	28. Duplicate, dilution, or reanalysis.	UJ, DR88 or GR88	J, DR88 or GR88

GC Volatiles (GRO)
Certificate of Analysis
Sample Summary

SDG Number:	10-1085	**Date Collected:**	12/22/2009 12:00	**Matrix:**	R
Lab Sample ID:	243549002	**Date Received:**	12/24/2009 09:30	**%Moisture:**	7.2
		Client:	LANL010	**Project:**	LANL01004
Client ID:	WST03-10-2148	**Method:**	SW846 8015A/B VOC	**SOP Ref:**	GL-OA-E-004
Batch ID:	938557	**Inst:**	VOC4A.I	**Dilution:**	1
Run Date:	01/05/2010 16:51	**Analyst:**	ACJ	**Aliquot:**	5 mL
Prep Date:	01/05/2010 16:27	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	4s200007.d	**Column:**	Rtx-Volatiles	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
TPH-GRO	Gasoline Range Organics	J	46.0	ug/kg	12.1	53.9

EJM
01/28/10

DATA VALIDATION COVER SHEET

5116-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY

Section I.

REQUEST NUMBER: 10-1085 VALIDATION DATE: 01/28/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Ellen McEntee ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☒ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE): non-TCLP and TCLP Pesticides

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. The CCV %Ds associated with non-TCLP pesticides were >15% for endrin and 4,4'-DDD on the confirmation column and gamma-BHC on the primary column. The outliers were >15% on only one column and associated results were NDs. Thus, sample data was not qualified. The CCV %Ds associated with TCLP pesticides were >15% for gamma-BHC on the primary column and endrin on both columns. The result for gamma-BHC was a detect and, thus, was qualified J,P7c. The result for endrin was ND and, thus, was qualified UJ,P7c.
2. The surrogate %R was < the laboratory LAL but >10% in the LCS associated with TCLP pesticides. No sample data was qualified as a result.
3. It should be noted that toxaphene was not present in the MS/MSD associated with non-TCLP pesticides. No sample data was qualified as a result.

Reviewed by: Mary Donivan Level: I Date: 02/01/10

VALIDATOR'S SIGNATURE: Ellen McEntee DATE: 01/28/10

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2

Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, P9	J-, P9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, P9	J-, P9a
☐	☒	☐	3. The affected analytes are regarded as rejected because the analytical holding time was exceeded.	R, P9b	R, P9b
☐	☒	☐	4. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, P7	J, P7
☐	☒	☐	5. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, P7a	J, P7a
☒	☐	☐	6. The Initial Calibration Verification (ICV) and/or Continuing Calibration Verification (CCV) were recovered outside the method-specific limits.	UJ, P7c	J, P7c
☐	☒	☐	7. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, P7d	J, P7d
☐	☐	☒	8. The multicomponent standard was not analyzed within 72 hours of the initial analysis.	R, P7e	J, P7e
☐	☒	☐	9. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, P7f	R, P7f
☐	☐	☒	10. The breakdown criteria have been exceeded. This can cause low bias in reported results. If compound is detected, qualify J-. If compound is not present, but breakdown products are present, qualify R. If no compounds or breakdown products are present, qualify UJ (4,4' DDT and Endrin).	UJ, R, P13	J-, P13

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2

Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	11. The breakdown criteria have been exceeded. This can cause high bias in the reported results and potential false positive results for the breakdown products Endrin ketone, Endrin aldehyde, DDD, and DDE.	UJ, P13a	J+, P13a
☐	☐	☒	12. The breakdown documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P13b	R, P13b
☐	☒	☐	13. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, P4	N/A
☐	☒	☐	14. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was greater than 5X.	N/A	J, P4a
☐	☐	☒	15. The sample result is ≤5X the concentration of the related analyte in the instrument blank and continuing calibration blank.	UJ, P4b	N/A
☐	☐	☒	16. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	UJ, P4d	N/A
☐	☒	☐	17. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P4e	R, P4e
☐	☒	☐	18. The analyte RT shifted by more than 0.05 minutes from the mid-level standard of the initial calibration.	R, P0	J, P0
☐	☒	☐	19. Required retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P0b	R, P0b
☐	☒	☐	20. The surrogate is <10%R. Follow the external laboratory limits located within the associated data package.	R, P3	J-, P3

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2

Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below if Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☒	☐	☐	21. The surrogate is < the Lower Acceptance Level (LAL) but ≥10%R. Follow the external laboratory limits located within the associated data package.	UJ, P3a	J-, P3a
☐	☒	☐	22. The surrogate %R value is > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, P3b
☐	☒	☐	23. At least one surrogate is > the Upper Acceptance Limit (UAL) and one surrogate is < the LAL. Follow the external laboratory limits located within the associated data package.	UJ, P3c	J, P3c
☐	☒	☐	24. Required surrogate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P3d	R, P3d
☐	☒	☐	25. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, P12	J-, P12
☐	☒	☐	26. The LCS percent recovery was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, P12a	J-, P12a
☐	☒	☐	27. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, P12b
☐	☒	☐	28. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P12c	R, P12c
☐	☒	☐	29. The analyte was not confirmed on a second dissimilar column.	N/A	R, P8
☐	☒	☐	30. The second dissimilar column documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P8a	R, P8a
☐	☒	☐	31. Duplicate, Dilution, or reanalysis.	UJ, P88	J, P88

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST	
5116-2 Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	32. The affected analytes have elevated detection limits and may not meet project DQOs because the sample was diluted without any target analytees identified due to matrix interference. Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.	UJ, R, P15	R, P15
☒	☐	☐	33. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB, NQ, NQ
☐	☒	☐	34. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.	UJ, R, P19	J, R, P19

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	10-1085	Date Collected:	12/22/2009 12:00	Matrix:	R
Lab Sample ID:	243549002	Date Received:	12/24/2009 09:30	%Moisture:	7.2
		Client:	LANL010	Project:	LANL01004
Client ID:	WST03-10-2148	Method:	SW846 8081A	SOP Ref:	GL-OA-E-041
Batch ID:	937144	Inst:	ECD3A.I	Dilution:	1
Run Date:	12/31/2009 19:25	Analyst:	HXJ1	Inj. Vol:	1 uL
Prep Date:	12/29/2009 09:25	Aliquot:	30 g	Final Volume:	5 mL
Data File:	021f2101.d	Column:	1 CLP-1	Level:	LOW
	021b2101.d		2 CLP-2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
319-84-6	alpha-BHC	U	0.718	ug/kg	0.180	0.718	1
58-89-9	gamma-BHC (Lindane)	U	0.718	ug/kg	0.180	0.718	1
319-85-7	beta-BHC	U	0.718	ug/kg	0.180	0.718	1
319-86-8	delta-BHC	U	0.718	ug/kg	0.180	0.718	1
76-44-8	Heptachlor	U	0.718	ug/kg	0.180	0.718	1
309-00-2	Aldrin	U	0.718	ug/kg	0.180	0.718	1
1024-57-3	Heptachlor epoxide	U	0.718	ug/kg	0.224	0.718	1
5103-74-2	gamma-Chlordane	U	0.718	ug/kg	0.180	0.718	1
5103-71-9	alpha-Chlordane	U	0.718	ug/kg	0.180	0.718	1
959-98-8	Endosulfan I	U	0.718	ug/kg	0.180	0.718	1
72-55-9	4,4'-DDE	U	1.44	ug/kg	0.359	1.44	1
60-57-1	Dieldrin	U	1.44	ug/kg	0.359	1.44	1
72-20-8	Endrin	U	1.44	ug/kg	0.359	1.44	1
72-54-8	4,4'-DDD	U	1.44	ug/kg	0.359	1.44	1
33213-65-9	Endosulfan II	U	1.44	ug/kg	0.359	1.44	1
7421-93-4	Endrin aldehyde	U	1.44	ug/kg	0.359	1.44	1
50-29-3	4,4'-DDT	U	1.44	ug/kg	0.359	1.44	1
1031-07-8	Endosulfan sulfate	U	1.44	ug/kg	0.359	1.44	1
72-43-5	Methoxychlor	U	7.18	ug/kg	1.80	7.18	1
53494-70-5	Endrin ketone	U	1.44	ug/kg	0.359	1.44	1
8001-35-2	Toxaphene	U	18.0	ug/kg	5.98	18.0	1

EJM
01/28/10

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	10-1085-1	**Date Collected:**	12/22/2009 12:00	**Matrix:**	TCLP R
Lab Sample ID:	243551001	**Date Received:**	12/24/2009 09:30		
		Client:	LANL010	**Project:**	LANL01004
Client ID:	WST03-10-2148	**Method:**	SW846 8081A	**SOP Ref:**	GL-OA-E-041
Batch ID:	937695	**Inst:**	ECD3A.I	**Dilution:**	1
Run Date:	01/05/2010 17:29	**Analyst:**	HXJ1	**Inj. Vol:**	1 uL
Prep Date:	01/04/2010 16:40	**Aliquot:**	20 mL	**Final Volume:**	1 mL
Data File:	022f2201.d	**Column:**	1 CLP-1	**Level:**	LOW
	022b2201.d		2 CLP-2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ		Column
58-89-9	gamma-BHC (Lindane)	J	0.000112	mg/L	0.00005	0.0002	J,P7c	1
76-44-8	Heptachlor	U	0.0002	mg/L	0.00005	0.0002		1
1024-57-3	Heptachlor epoxide	U	0.0002	mg/L	0.00005	0.0002		1
72-20-8	Endrin	U	0.0004	mg/L	0.0001	0.0004	UJ,P7c	1
72-43-5	Methoxychlor	U	0.002	mg/L	0.0005	0.002		1
57-74-9	Chlordane (tech.)	U	0.0025	mg/L	0.000765	0.0025		1
8001-35-2	Toxaphene	U	0.005	mg/L	0.0015	0.005		1

EJM
01/28/10

DATA VALIDATION COVER SHEET

5116-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-1085 VALIDATION DATE: 01/28/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Ellen McEntee ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☒ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE): PCBs

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. It should be noted that the MS/MSD was performed on a LANL sample from another RN. No sample data was qualified as a result.

Reviewed by: Mary Donivan Level: I Date: 02/01/10

VALIDATOR'S SIGNATURE: Ellen McEntee DATE: 01/28/10

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2

Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, P9	J-, P9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, P9	J-, P9a
☐	☒	☐	3. The affected analytes are regarded as rejected because the analytical holding time was exceeded.	R, P9b	R, P9b
☐	☒	☐	4. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, P7	J, P7
☐	☒	☐	5. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, P7a	J, P7a
☐	☒	☐	6. The Initial Calibration Verification (ICV) and/or Continuing Calibration Verification (CCV) were recovered outside the method-specific limits.	UJ, P7c	J, P7c
☐	☒	☐	7. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, P7d	J, P7d
☐	☐	☒	8. The multicomponent standard was not analyzed within 72 hours of the initial analysis.	R, P7e	J, P7e
☐	☒	☐	9. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, P7f	R, P7f
☐	☐	☒	10. The breakdown criteria have been exceeded. This can cause low bias in reported results. If compound is detected, qualify J-. If compound is not present, but breakdown products are present, qualify R. If no compounds or breakdown products are present, qualify UJ (4,4' DDT and Endrin).	UJ, R, P13	J-, P13

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2

Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	11. The breakdown criteria have been exceeded. This can cause high bias in the reported results and potential false positive results for the breakdown products Endrin ketone, Endrin aldehyde, DDD, and DDE.	UJ, P13a	J+, P13a
☐	☐	☒	12. The breakdown documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P13b	R, P13b
☐	☒	☐	13. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, P4	N/A
☐	☒	☐	14. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was greater than 5X.	N/A	J, P4a
☐	☐	☒	15. The sample result is ≤5X the concentration of the related analyte in the instrument blank and continuing calibration blank.	UJ, P4b	N/A
☐	☐	☒	16. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	UJ, P4d	N/A
☐	☒	☐	17. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P4e	R, P4e
☐	☒	☐	18. The analyte RT shifted by more than 0.05 minutes from the mid-level standard of the initial calibration.	R, P0	J, P0
☐	☒	☐	19. Required retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P0b	R, P0b
☐	☒	☐	20. The surrogate is <10%R. Follow the external laboratory limits located within the associated data package.	R, P3	J-, P3

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2

Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	21. The surrogate is < the Lower Acceptance Level (LAL) but ≥10%R. Follow the external laboratory limits located within the associated data package.	UJ, P3a	J-, P3a
☐	☒	☐	22. The surrogate %R value is > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, P3b
☐	☒	☐	23. At least one surrogate is > the Upper Acceptance Limit (UAL) and one surrogate is < the LAL. Follow the external laboratory limits located within the associated data package.	UJ, P3c	J, P3c
☐	☒	☐	24. Required surrogate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P3d	R, P3d
☐	☒	☐	25. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, P12	J-, P12
☐	☒	☐	26. The LCS percent recovery was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, P12a	J-, P12a
☐	☒	☐	27. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, P12b
☐	☒	☐	28. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P12c	R, P12c
☐	☐	☒	29. The analyte was not confirmed on a second dissimilar column.	N/A	R, P8
☐	☐	☒	30. The second dissimilar column documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P8a	R, P8a
☐	☒	☐	31. Duplicate, Dilution, or reanalysis.	UJ, P88	J, P88

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST	
5116-2 **Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist**	Records Use only Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	32. The affected analytes have elevated detection limits and may not meet project DQOs because the sample was diluted without any target analytees identified due to matrix interference. Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.	UJ, R, P15	R, P15
☒	☐	☐	33. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB, NQ, NQ
☐	☒	☐	34. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.	UJ, R, P19	J, R, P19

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10-1085**	**Date Collected:**	**12/22/2009 12:00**	**Matrix:**	**R**
Lab Sample ID:	**243549002**	**Date Received:**	**12/24/2009 09:30**	**%Moisture:**	**7.2**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**WST03-10-2148**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**937178**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**12/30/2009 13:06**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**12/29/2009 09:29**	**Aliquot:**	**30.04 g**	**Final Volume:**	**1 mL**
Data File:	**032f3201.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	032b3201.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.59	ug/kg	1.19	3.59	1
11104-28-2	Aroclor-1221	U	3.59	ug/kg	1.19	3.59	1
11141-16-5	Aroclor-1232	U	3.59	ug/kg	1.19	3.59	1
53469-21-9	Aroclor-1242	U	3.59	ug/kg	1.19	3.59	1
12672-29-6	Aroclor-1248	U	3.59	ug/kg	1.19	3.59	1
11097-69-1	Aroclor-1254	U	3.59	ug/kg	1.19	3.59	1
11096-82-5	Aroclor-1260	U	3.59	ug/kg	1.19	3.59	1

EJM
01/28/10

DATA VALIDATION COVER SHEET

5116-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-1085 VALIDATION DATE: 01/28/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Ellen McEntee ORGANIZATION: Analytical Quality Associates

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☒ OTHER (DESCRIBE): non-TCLP and TCLP Herbicides

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. The CCV %Ds associated with TCLP herbicides were >15% for 2,4-D and 2,4,5-TP on the primary column. The outliers were >15% on only one column and associated results were NDs. Thus, sample data was not qualified.
2. The surrogate %R was > the laboratory UAL in the LCS and MS associated with TCLP herbicides. Because these were QC samples, no sample data was qualified as a result.
3. The TCLP herbicide MS %R for 2,4-D was > the laboratory UAL. Since MS/MSD analyses are not required, no sample results were qualified.

Reviewed by: Mary Donivan Level: I Date: 02/01/10

VALIDATOR'S SIGNATURE: Ellen McEntee DATE: 01/28/10

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2

Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, P9	J-, P9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, P9	J-, P9a
☐	☒	☐	3. The affected analytes are regarded as rejected because the analytical holding time was exceeded.	R, P9b	R, P9b
☐	☒	☐	4. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, P7	J, P7
☐	☒	☐	5. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, P7a	J, P7a
☒	☐	☐	6. The Initial Calibration Verification (ICV) and/or Continuing Calibration Verification (CCV) were recovered outside the method-specific limits.	UJ, P7c	J, P7c
☐	☒	☐	7. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, P7d	J, P7d
☐	☐	☒	8. The multicomponent standard was not analyzed within 72 hours of the initial analysis.	R, P7e	J, P7e
☐	☒	☐	9. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, P7f	R, P7f
☐	☐	☒	10. The breakdown criteria have been exceeded. This can cause low bias in reported results. If compound is detected, qualify J-. If compound is not present, but breakdown products are present, qualify R. If no compounds or breakdown products are present, qualify UJ (4,4' DDT and Endrin).	UJ, R, P13	J-, P13

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2

Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	11. The breakdown criteria have been exceeded. This can cause high bias in the reported results and potential false positive results for the breakdown products Endrin ketone, Endrin aldehyde, DDD, and DDE.	UJ, P13a	J+, P13a
☐	☐	☒	12. The breakdown documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P13b	R, P13b
☐	☒	☐	13. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, P4	N/A
☐	☒	☐	14. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was greater than 5X.	N/A	J, P4a
☐	☐	☒	15. The sample result is ≤5X the concentration of the related analyte in the instrument blank and continuing calibration blank.	UJ, P4b	N/A
☐	☐	☒	16. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	UJ, P4d	N/A
☐	☒	☐	17. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P4e	R, P4e
☐	☒	☐	18. The analyte RT shifted by more than 0.05 minutes from the mid-level standard of the initial calibration.	R, P0	J, P0
☐	☒	☐	19. Required retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P0b	R, P0b
☐	☒	☐	20. The surrogate is <10%R. Follow the external laboratory limits located within the associated data package.	R, P3	J-, P3

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2

Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	21. The surrogate is < the Lower Acceptance Level (LAL) but ≥10%R. Follow the external laboratory limits located within the associated data package.	UJ, P3a	J-, P3a
☒	☐	☐	22. The surrogate %R value is > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, P3b
☐	☐	☒	23. At least one surrogate is > the Upper Acceptance Limit (UAL) and one surrogate is < the LAL. Follow the external laboratory limits located within the associated data package.	UJ, P3c	J, P3c
☐	☒	☐	24. Required surrogate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P3d	R, P3d
☐	☒	☐	25. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, P12	J-, P12
☐	☒	☐	26. The LCS percent recovery was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, P12a	J-, P12a
☐	☒	☐	27. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, P12b
☐	☒	☐	28. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P12c	R, P12c
☐	☐	☒	29. The analyte was not confirmed on a second dissimilar column.	N/A	R, P8
☐	☐	☒	30. The second dissimilar column documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P8a	R, P8a
☐	☒	☐	31. Duplicate, Dilution, or reanalysis.	UJ, P88	J, P88

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2

Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	32. The affected analytes have elevated detection limits and may not meet project DQOs because the sample was diluted without any target analytees identified due to matrix interference. Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.	UJ, R, P15	R, P15
☒	☐	☐	33. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB, NQ, NQ
☐	☒	☐	34. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.	UJ, R, P19	J, R, P19

Herbicide
Certificate of Analysis
Sample Summary

SDG Number:	10-1085	**Date Collected:**	12/22/2009 12:00	**Matrix:**	R
Lab Sample ID:	243549002	**Date Received:**	12/24/2009 09:30	**%Moisture:**	7.2
		Client:	LANL010	**Project:**	LANL01004
Client ID:	WST03-10-2148	**Method:**	SW846 8151A	**SOP Ref:**	GL-OA-E-011
Batch ID:	937099	**Inst:**	ECD6A.I	**Dilution:**	1
Run Date:	12/30/2009 02:27	**Analyst:**	RXE1	**Inj. Vol:**	1 uL
Prep Date:	12/28/2009 20:19	**Aliquot:**	50.02 g	**Final Volume:**	10 mL
Data File:	027f2701.d	**Column:**	1 Rtx-CLP	**Level:**	LOW
	027b2701.d		2 Rtx-CLPII		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
75-99-0	Dalapon	U	108	ug/kg	21.5	108	1
1918-00-9	Dicamba	U	5.39	ug/kg	1.79	5.39	1
93-65-2	MCPP	U	1080	ug/kg	215	1080	1
94-74-6	MCPA	U	1080	ug/kg	248	1080	1
120-36-5	Dichlorprop	U	5.39	ug/kg	1.79	5.39	1
94-75-7	2,4-D	U	5.39	ug/kg	1.79	5.39	1
93-72-1	2,4,5-TP	U	5.39	ug/kg	1.79	5.39	1
93-76-5	2,4,5-T	U	5.39	ug/kg	1.79	5.39	1
94-82-6	2,4-DB	U	5.39	ug/kg	1.79	5.39	1
88-85-7	Dinoseb	U	5.39	ug/kg	1.79	5.39	1

EJM
01/28/10

Herbicide
Certificate of Analysis
Sample Summary

SDG Number:	10-1085-1	Date Collected:	12/22/2009 12:00	Matrix:	TCLP R
Lab Sample ID:	243551001	Date Received:	12/24/2009 09:30		
		Client:	LANL010	Project:	LANL01004
Client ID:	WST03-10-2148	Method:	SW846 8151A	SOP Ref:	GL-OA-E-011
Batch ID:	937384	Inst:	ECD6A.I	Dilution:	1
Run Date:	01/01/2010 01:44	Analyst:	RXE1	Inj. Vol:	1 uL
Prep Date:	12/30/2009 15:06	Aliquot:	5 mL	Final Volume:	10 mL
Data File:	029f2901.d	Column:	1 Rtx-CLP	Level:	LOW
	029b2901.d		2 Rtx-CLPII		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
94-75-7	2,4-D	U	0.050	mg/L	0.0166	0.050	1
93-72-1	2,4,5-TP	U	0.050	mg/L	0.0166	0.050	1

EJM
01/28/10

DATA VALIDATION COVER SHEET

5118-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-1085 VALIDATION DATE: 1/27/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Eyda Hergenreder ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☒ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE): non-TCLP and TCLP

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☐	☐	☒	8. QUANTITATION REPORTS
☐	☐	☒	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. In the MB associated with the soil sample, Pb and Cr were detected. The associated Pb and Cr sample results were detects >5X but ≤50X the blank values and, thus were qualified J,I4a.
2. The MS %Rs for Ca, Al, Fe, Mg, Mn and K associated with the soil sample were > the laboratory UAL. The associated sample results for Ca, Mg and K were detects and, thus, were qualified J+,I6b. The parent sample results for Al, Fe and Mn were >4X the spike concentrations and, thus, were not qualified based on professional judgment.
3. The MS %R for Hg associated with the TCLP analyses was < the laboratory LAL but ≥10%. The associated sample result was ND and, thus was qualified UJ,I6a.
4. It should be noted that the matrix QC for all Hg analyses and for the ICPMS associated with the TCLP analysis were performed on samples from other LANL RNs. No data were qualified as a result.

Reviewed by: Mary Donivan Level: I Date: 02/01/10

VALIDATOR'S SIGNATURE: Eyda Hergenreder (Eyda Hergenreder) DATE: 1/27/10

METALS ANALYTICAL DATA VALIDATION CHECKLIST

5118-2 Metals Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, I9	J-, I9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, I9a	J-, I9a
☐	☐	☒	3. The instrument performance sample did not pass method acceptance criteria.	R, I16	R, I16
☐	☐	☒	4. The mass calibration is not within 0.1 amu or %RSD is >5% for any isotope (Be, Mg, Co, In, Pb).	UJ, I16a	J, I16a
☐	☐	☒	5. Samples were analyzed outside specific method tune time criteria.	N/A	J, I16b
☐	☐	☒	6. The required instrument performance sample information is missing. Contact the SMO or external laboratory for information.	R, I16c	R, I16c
☐	☒	☐	7. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, I7	J, I7
☐	☒	☐	8. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, I7a	J, I7a
☐	☒	☐	9. The initial Calibration Verification (ICV) and/or Continuing Calibration Verification (CCV) were recovered outside the method-specific limits.	UJ, I7c	J, I7c
☐	☒	☐	10. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, I7d	J, I7d
☐	☒	☐	11. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, I7f	R, I7f
☐	☒	☐	12. Metals interference check sample percent recover value is <50%.	R, I2	J-, I2

METALS ANALYTICAL DATA VALIDATION CHECKLIST

5118-2

Metals Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	13. Metals interference check sample percent recovery value is ≥50% and <80%	UJ, I2a	J-, I2a
☐	☒	☐	14. Metals interference check sample percent recovery value is >120%.	N/A	J+, I2b
☐	☒	☐	15. Metals interference check sample was not analyzed with the samples.	R, I2c	R, I2c
☐	☒	☐	16. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, I4	N/A
☒	☐	☐	17. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X.	N/A	J, I4a
☐	☒	☐	18. The sample result is ≤5X the concentration of the related analyte in the instrument blank and continuing calibration blank.	U, I4b	N/A
☐	☒	☐	19. Continuing calibration blanks were not analyzed at the appropriate method frequency.	UJ, I4c	J, I4c
☐	☐	☒	20. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	U, I4d	N/A
☐	☒	☐	21. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, I4e	R, I4e
☐	☒	☐	22. The associated matrix spike recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I6	R, I6
☒	☐	☐	23. The associated matrix spike recovery was <the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I6a	J+, I6a
☒	☐	☐	24. The associated matrix spike recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	UJ, I6b	J+, I6b

METALS ANALYTICAL DATA VALIDATION CHECKLIST

5118-2

Metals Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	25. Required matrix spike information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. If the LCS information is present, do not Reject. Qualify data based on the LCS information.	R, I6c	R, I6c
☐	☒	☐	26. The sample and the duplicate sample results were ≥5X the RL and the duplicate RPD was >20% for water samples and >35% for soil samples.	UJ, I10a	J, I10a
☐	☒	☐	27. The duplicate sample was not prepared and/or analyzed with the samples for unspecified reasons. The duplicate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	UJ, I10d	J, I10d
☐	☒	☐	28. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I12	R, I12
☐	☒	☐	29. The LCS percent recover was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I12a	J-, I12a
☐	☒	☐	30. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, I12b
☐	☒	☐	31. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. Do not Reject if MS/MSD information is present. Qualify according to MS/MSD criteria.	R, I12c	R, I12c
☐	☐	☒	32. The quantitating IS area count is <10% for metals window in relation to the initial calibration blank. Follow the method-specific windows.	R, I1a	J, I1a

METALS ANALYTICAL DATA VALIDATION CHECKLIST

5118-2

Metals Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	33. The IS area count for the quantitating IS is <60% but >10% for metals window in relation to the initial calibration blank. Follow the method-specific windows.	UJ, I1b	J, I1b
☐	☐	☒	34. The IS area count for the quantitating IS is >125% in relation to the metals initial calibration blank. Follow method-specific windows.	UJ, I1c	J, I1c
☐	☐	☒	35. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, I1d	R, I1d
☐	☐	☒	36. Serial dilution sample RPD was >10% and the sample result was >50X the MDL (>100X the MDL for ICPMS). Qualify ONLY the sample used for the serial dilution.	UJ, I18	J, I18
☐	☐	☒	37. Serial dilution sample was not analyzed with the samples.	UJ, I18a	J, I18
☐	☐	☒	38. The sample result was reported as detected between the IDL and the EDL.	N/A	J, I1
☐	☒	☐	39. Duplicate, dilution, or reanalysis.	UJ, I88	J, I88
☒	☐	☐	40. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB, NQ, NQ
☐	☒	☐	41. The LANL project chemist identified quality deficiencies in the reported data that require further qualification. This code can ONLY be used and/or under advisement by the LANL project chemist.	UJ, R, I19	J, R, I19

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1085 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 243549002 **BASIS:** Dry Weight **DATE COLLECTED** 22-DEC-09

CLIENT ID: WST03-10-2148 **LEVEL:** Low **DATE RECEIVED** 24-DEC-09

MATRIX: SOIL **%SOLIDS:** 92.8

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	3890000	ug/kg		7230	21300	21300	1	P	HSC	01/12/10 02:47	011110A-1	936808
7440-36-0	Antimony	1010	ug/kg	U	333	1010	1010	1	P	HSC	01/14/10 23:38	011410-2	941050
7440-38-2	Arsenic	864	ug/kg	J	214	1070	1070	2	MS	RMJ	01/13/10 23:26	100113-4	936805
7440-39-3	Barium	47200	ug/kg		106	531	531	1	P	HSC	01/12/10 02:47	011110A-1	936808
7440-41-7	Beryllium	542	ug/kg	*	21.4	107	107	2	MS	RMJ	01/12/10 14:47	100111-3	936805
7440-43-9	Cadmium	531	ug/kg	U	106	531	531	1	P	HSC	01/12/10 02:47	011110A-1	936808
7440-70-2	Calcium J+,I6b	816000	ug/kg	N	8500	26600	26600	1	P	HSC	01/12/10 02:47	011110A-1	936808
7440-47-3	Chromium J,I4a	12200	ug/kg		159	531	531	1	P	HSC	01/12/10 02:47	011110A-1	936808
7440-48-4	Cobalt	2510	ug/kg	*	159	531	531	1	P	HSC	01/12/10 02:47	011110A-1	936808
7440-50-8	Copper	3480	ug/kg		319	1060	1060	1	P	HSC	01/12/10 02:47	011110A-1	936808
7439-89-6	Iron	8430000	ug/kg	E	8500	26600	26600	1	P	HSC	01/12/10 02:47	011110A-1	936808
7439-92-1	Lead J,I4a	7570	ug/kg		266	1060	1060	1	P	HSC	01/12/10 02:47	011110A-1	936808
7439-95-4	Magnesium J+,I6b	750000	ug/kg	N	9030	31900	31900	1	P	HSC	01/12/10 02:47	011110A-1	936808
7439-96-5	Manganese	220000	ug/kg		213	1060	1060	1	P	HSC	01/12/10 02:47	011110A-1	936808
7439-97-6	Mercury	5.15	ug/kg	J	4.12	12.1	12.1	1	AV	JXL1	01/11/10 10:03	011110S1-7	939596
7440-02-0	Nickel	2950	ug/kg	*	107	428	428	2	MS	RMJ	01/12/10 14:47	100111-3	936805
7440-09-7	Potassium J+,I6b	581000	ug/kg	N	6800	26600	26600	1	P	HSC	01/12/10 02:47	011110A-1	936808
7782-49-2	Selenium	1070	ug/kg	UN	536	1070	1070	2	MS	RMJ	01/12/10 14:47	100111-3	936805
7440-22-4	Silver	531	ug/kg	U	106	531	531	1	P	HSC	01/12/10 02:47	011110A-1	936808
7440-23-5	Sodium	174000	ug/kg		7440	26600	26600	1	P	HSC	01/12/10 02:47	011110A-1	936808
7440-28-0	Thallium	214	ug/kg	U	64.3	214	214	2	MS	RMJ	01/13/10 23:26	100113-4	936805
7440-62-2	Vanadium	10700	ug/kg	*	106	531	531	1	P	HSC	01/12/10 02:47	011110A-1	936808
7440-66-6	Zinc	26200	ug/kg		351	1060	1060	1	P	HSC	01/12/10 02:47	011110A-1	936808

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
936805	936804	SW846 3050B	0.503	g	50	mL	12/29/09	FGA
936808	936807	SW846 3050B	0.507	g	50	mL	12/29/09	FGA
939596	939594	SW846 7471A Prep	0.534	g	30	mL	01/08/10	TXB3
941050	941049	SW846 3050B	0.534	g	50	mL	01/13/10	FGA

EH
1/27/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1085-1 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 243551001 **BASIS:** As Received **DATE COLLECTED** 22-DEC-09

CLIENT ID: WST03-10-2148 **LEVEL:** Low **DATE RECEIVED** 24-DEC-09

MATRIX: TCLP **%SOLIDS:** 0

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7440-38-2	Arsenic	0.050	mg/L	U	0.016	0.05	0.05	1	MS	BAJ	01/02/10 19:12	100102-1	937458
7440-39-3	Barium	0.394	mg/L		0.006	0.02	0.02	1	MS	BAJ	01/02/10 19:12	100102-1	937458
7440-43-9	Cadmium	0.010	mg/L	U	0.0011	0.01	0.01	1	MS	BAJ	01/02/10 19:12	100102-1	937458
7440-47-3	Chromium	0.0442	mg/L	J	0.02	0.1	0.1	1	MS	BAJ	01/02/10 19:12	100102-1	937458
7439-92-1	Lead	0.020	mg/L	U	0.005	0.02	0.02	1	MS	BAJ	01/02/10 19:12	100102-1	937458
7439-97-6	Mercury UJ,I6a	0.002	mg/L	U	0.00066	0.002	0.002	1	AV	JXL1	01/05/10 09:46	010510W1-2	937652
7782-49-2	Selenium	0.050	mg/L	U	0.01	0.05	0.05	1	MS	BAJ	01/02/10 19:12	100102-1	937458
7440-22-4	Silver	0.010	mg/L	U	0.002	0.01	0.01	1	MS	BAJ	01/02/10 19:12	100102-1	937458

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
937458	937457	SW846 3010A	5	mL	50	mL	12/30/09	AXG2
937652	937650	SW846 7470A Prep	2	mL	20	mL	01/04/10	TXB3

EH
1/27/10

DATA VALIDATION COVER SHEET

5120-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY

Section I.

REQUEST NUMBER: 10-1085 VALIDATION DATE: 1/27/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Eyda Hergenreder ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☒ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE): total cyanide only

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☐	☐	☒	8. QUANTITATION REPORTS
☐	☐	☒	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. It should be noted that the matrix QC for total cyanide was performed on a sample from another LANL RN. No data were qualified as a result.

Reviewed by: Mary Donivan Level: I Date: 02/01/10

VALIDATOR'S SIGNATURE: Eyda Hergenreder Eyda Hergenreder DATE: 1/27/10

GENERAL CHEMISTRY ANALYTICAL DATA VALIDATION CHECKLIST

5120-2

General Chemistry Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, I9	J-, I9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, I9a	J-, I9a
☐	☐	☒	3. The affected analytes are regarded as rejected because the analytical holding time was exceeded.	R, I9b	R, I9b
☐	☒	☐	4. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, I7	J, I7
☐	☒	☐	5. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, I7a	J, I7a
☐	☒	☐	6. The ICV and/or CCV were recovered outside the method specific limits.	UJ, I7c	J, I7c
☐	☒	☐	7. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, I7d	J, I7d
☐	☒	☐	8. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, I7f	R, I7f
☐	☐	☒	9. The interference check sample percent recovery value is <50%.	R, I2	J-, I2
☐	☐	☒	10. The interference check sample percent recovery value is ≥50% and <80%.	UJ, I2a	J-, I2a
☐	☐	☒	11. The interference check sample percent recovery value is >120%.	N/A	J+, I2b
☐	☐	☒	12. The interference check sample was not analyzed with the samples.	R, I2c	R, I2c
☐	☒	☐	13. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, I4	N/A

GENERAL CHEMISTRY ANALYTICAL DATA VALIDATION CHECKLIST

5120-2

General Chemistry Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	14. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X.	N/A	J, I4a
☐	☒	☐	15. The sample result is ≤5X the concentration of the related analyte in the instrument blank and continuing calibration blank.	U, I4b	N/A
☐	☒	☐	16. Continuing calibration blanks were not analyzed at the appropriate method frequency.	UJ, I4c	J, I4c
☐	☐	☒	17. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	U, I4d	N/A
☐	☒	☐	18. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, I4e	R, I4e
☐	☒	☐	19. The associate matrix spike recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I6	R, I6
☐	☒	☐	20. The associated matrix spike recovery was below the Lower Acceptance Limit (LAL) but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I6a	J-, I6a
☐	☒	☐	21. The associated matrix spike recovery was above the Upper Acceptance Limit (UAL). Follow the external laboratory limits located within the associated data package.	UJ, I6b	J+, I6b
☐	☒	☐	22. Required matrix spike information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. If LCS information is present, do not reject. Qualify data based on LCS information.	R, I6c	R, I6c
☐	☒	☐	23. The sample and/or the duplicate sample results RPD is not within the acceptance limits. Follow the external laboratory limits located within the associated data package.	UJ, I10b	J, I10b

GENERAL CHEMISTRY ANALYTICAL DATA VALIDATION CHECKLIST	
5120-2 General Chemistry Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	24. The duplicate sample was not prepared and/or analyzed with the samples for unspecified reasons. The duplicate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	UJ, I10d	J, I10d
☐	☒	☐	25. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I12	R, I12
☐	☒	☐	26. The LCS percent recover was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I12a	J-, I12a
☐	☒	☐	27. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, I12b
☐	☒	☐	28. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. Do not Reject if MS/MSD information is present. Qualify according to MS/MSD criteria.	R, I12c	R, I12c
☐	☒	☐	29. Duplicate, dilution, or reanalysis	UJ, I88	J, I88
☐	☒	☐	30. The LANL project chemist identified quality deficiencies in the reported data that require further qualification. This code can ONLY be used and/or under advisement by the LANL project chemist.	UJ, R, I19	J, R, I19
☒	☐	☐	31. Qualification of data via data validation does not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB NQ, NQ (no qualification)

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: January 6, 2010

Client SDG: 10-1085

Client Sample ID:	WST03-10-2148	Project:	LANL01004
Sample ID:	243549002	Client ID:	LANL010
Matrix:	R		
Collect Date:	22-DEC-09 12:00		
Receive Date:	24-DEC-09		
Collector:	Client		
Moisture:	7.19%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total Federal "Dry Weight Corrected"										
Cyanide, Total	J	76.5	65.4	241	ug/kg	1	AXC2 01/04/10	1133	936843	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	12/31/09	1509	936841

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

EH
1/27/10

DATA VALIDATION COVER SHEET

5119-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-1085 VALIDATION DATE: 1/27/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Eyda Hergenreder ORGANIZATION: Analytical Quality Associates, Inc

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☒ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE):

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☐	☐	☒	8. QUANTITATION REPORTS
☐	☐	☒	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. It should be noted that an MS was not analyzed with tritium. However an LCS was analyzed and met acceptance criteria and, thus, no data was qualified. In addition it should be noted that the matrix QC for Sr-90 and tritium were performed on samples from other LANL RNs. No data were qualified as a result.

Reviewed by: Mary Donivan Level: I Date: 02/01/10

VALIDATOR'S SIGNATURE: Eyda Hergenreder Eyda Hergenreder DATE: 1/27/10

RAD ANALYTICAL DATA VALIDATION CHECKLIST

5119-2

Rad Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, R9	J-, R9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, R9a	J-, R9a
☐	☐	☒	3. The results for the affected analytes are considered not detected (U) because the associated sample concentration was less than or equal to the MDC.	U, R5	N/A
☐	☐	☒	4. The analyte should be regarded as rejected because spectral interferences prevent positive identification of the analytes.	R, R5a	R, R5a
☐	☒	☐	5. The MDC and/or TPU documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, R5b	J-, R5b
☐	☐	☒	6. The results for the affected analytes should be regarded as not detected (U) because the associated sample concentration was less than 3X the 1 sigma TPU.	U, R11	N/A
☐	☒	☐	7. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, R4	N/A
☐	☒	☐	8. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X.	N/A	J, R4a
☐	☐	☒	9. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	U, R4d	N/A
☐	☒	☐	10. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, R4e	R, R4e
☐	☒	☐	11. The tracer is <10%R. Follow the external laboratory limits located within the associated data package. Tracer%R is not applicable for Gamma Spectroscopy.	R, R3	R, R3

RAD ANALYTICAL DATA VALIDATION CHECKLIST

5119-2 Rad Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	12. The tracer is < the Lower Acceptance Level (LAL) but ≥10%R. Follow the external laboratory limits located within the associated data package. Tracer%R is not applicable for Gamma Spectroscopy.	UJ, R3a	J-, R3a
☐	☒	☐	13. The Tracer%R value is > the Upper Acceptance Limit (UAL). Follow the external laboratory limits located within the associated data package. Tracer%R is not applicable for Gamma Spectroscopy.	N/A	J+, R3b
☐	☒	☐	14. Required tracer information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. Tracer%R is not applicable for Gamma Spectroscopy.	R, R3d	R, R3d
☐	☒	☐	15. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, R12	R, R12
☐	☒	☐	16. The LCS percent recovery was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, R12a	J-, R12a
☐	☒	☐	17. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, R12b
☐	☒	☐	18. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, R12c	R, R12c
☐	☒	☐	19. Associated duplicate sample has DER or RER > the analytical laboratory's acceptance limits.	R, R10	J, J10
☐	☒	☐	20. The duplicate sample was not prepared and/or analyzed with the samples for unspecified reasons. The duplicate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, R6	R, R6

RAD ANALYTICAL DATA VALIDATION CHECKLIST

5119-2

Rad Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	21. The associated matrix spike recovery was <10%. Follow the external laboratory limits. MS/MSD is not applicable to Gamma Spectroscopy.	R, R6	R, R6
☐	☐	☒	22. The associated matrix spike recovery was <10%. Follow the external laboratory limits. MS/MSD is not applicable to Gamma Spectroscopy.	UJ, R6a	J-, R6a
☐	☐	☒	23. The associated matrix spike recovery was above the UAL. Follow the external laboratory limits. MS/MSD is not applicable to Gamma Spectroscopy.	UJ, R6b	J+, R6b
☒	☐	☐	24. Required matrix spike information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. If LCS information is present, do not Reject. Qualify data based on LCS information. MS/MSD is not applicable to Gamma Spectroscopy.	R, R6c	R, R6c
☐	☒	☐	25. Duplicate, dilution, or reanalysis.	UJ, R88	J, R88
☐	☒	☐	26. The LANL project chemist identified quality deficiencies in the reported data that require further qualification. This code can ONLY be used and/or under advisement by the LANL project chemist.	UJ, R, R19	J, R, R19
☒	☐	☐	27. Quantification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB NQ, NQ

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: January 12, 2010

Client Sample ID:	WST03-10-2148	Project:	LANL01004
Sample ID:	243549002	Client ID:	LANL010
Matrix:	R		
Collect Date:	22-DEC-09		
Receive Date:	24-DEC-09		
Collector:	Client		
Moisture:	7.19%		

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids												
"As Received"												
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	-0.00298	0.0196	+/-0.00422	0.050	pCi/g		HAKB	01/06/10	1345	937614	2
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	0.000965	0.0159	+/-0.000966	0.050	pCi/g		HAKB	01/05/10	1430	937615	3
Plutonium-239/240	U	0.00193	0.0182	+/-0.00137	0.050	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		0.968	0.147	+/-0.0978	0.100	pCi/g		HAKB	01/08/10	1601	937616	4
Uranium-235/236	U	0.0352	0.0912	+/-0.0146	0.100	pCi/g						
Uranium-238		0.977	0.0853	+/-0.0982	0.100	pCi/g						
Rad Gas Flow Proportional Counting												
SR90 "Dry Weight Corrected"												
Strontium-90	U	-0.0771	0.332	+/-0.0874	0.500	pCi/g		MXB1	01/07/10	0659	938289	5
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium	U	84.5	218	+/-65.4	250	pCi/L		KXK2	01/06/10	0836	936900	6

The following Analytical Methods were performed

Method	Description
1	ASTM D 2216 (Modified)
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, U-02-RC Modified
5	EPA 905.0 Modified
6	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	88.2	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	97.8	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	76.1	(50%-105%)

EH
1/27/10

Wednesday, December 23, 2009

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1085

REQUEST NUMBER: 10-1085

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC,

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 1/22/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS: 243549%, 243551%, ~~243557%~~ GRT 12/26/09

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
WST03-10-2201	1	SEPTUM AMBER GLASS	8260B Trip Blank	Ice	S
WST03-10-2201	2	SEPTUM AMBER GLASS	8260B Trip Blank	Ice	S
WST03-10-2148	1	GLASS	8081A+8151A	Ice	R
WST03-10-2148	1	GLASS	8260B+TPH-GRO	Ice	R
WST03-10-2148	2	GLASS	8260B+TPH-GRO	Ice	R
WST03-10-2148	1	GLASS	8270C+8082+TPH-DRO	Ice	R
WST03-10-2148	1	POLY	AM-241+ISOPU+ISOU+SR90	None	R
WST03-10-2148	1	POLY	H3	Ice	R
WST03-10-2148	1	POLY	TAL metals + TCLP metals	Ice	R
WST03-10-2148	1	AMBER GLASS	TCLP ORGANICS P/H/S/V	Ice	R
WST03-10-2148	1	POLY	TCN	Ice	R

Relinquished By:		Date	Time	Received By:		Date	Time
[illegible]	[illegible]	12/23/09	1400	Greg Tyler	[illegible]	12-24-09	0930
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

Received for DISPOSAL By: **Date** **Time** **Remarks:**

Printed Name Signature

Wednesday, December 23, 2009

REQUEST NUMBER: 10-1085

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis
General Engineering Laboratories, Inc., Charleston, SC.
2040 Savage Rd
Charleston, SC 29407

These Samples are on:
LANL Request Number:10-1085
Per Agreement Number:126310011
Project Cost Code: MR2A054196D0

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 12/23/2009
TURNAROUND/REPORT DUE: 1/22/2010
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Not Required
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:906.0	1	WST03-10-2148	R	12/22/2009	
	HASL-300:ISOPU	1	WST03-10-2148	R	12/22/2009	
	HASL-300:ISOU	1	WST03-10-2148	R	12/22/2009	
	SW-846:6010B	1	WST03-10-2148	R	12/22/2009	
	SW-846:8015M_EXTRACTABLE	1	WST03-10-2148	R	12/22/2009	
	SW-846:8015M_PURGEABLE	1	WST03-10-2148	R	12/22/2009	
		2	WST03-10-2148	R	12/22/2009	

Wednesday, December 23, 2009

REQUEST NUMBER: 10-1085

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8081A	1	WST03-10-2148	R	12/22/2009	
	SW-846:8081A_TCLP	1	WST03-10-2148	R	12/22/2009	
	SW-846:8082	1	WST03-10-2148	R	12/22/2009	
	SW-846:8151A	1	WST03-10-2148	R	12/22/2009	
	SW-846:8151A_TCLP	1	WST03-10-2148	R	12/22/2009	
	SW-846:8260B	1	WST03-10-2148	R	12/22/2009	
		2	WST03-10-2148	R	12/22/2009	
		1	WST03-10-2201	S	12/22/2009	
		2	WST03-10-2201	S	12/22/2009	
	SW-846:8260B_TCLP	1	WST03-10-2148	R	12/22/2009	
	SW-846:8270C	1	WST03-10-2148	R	12/22/2009	
	SW-846:8270C_TCLP	1	WST03-10-2148	R	12/22/2009	
	SW-846:9012A	1	WST03-10-2148	R	12/22/2009	

Final Page of REQUEST NUMBER 10-1085

GEL Laboratories LLC

a member of The GEL Group INC

PO Box 30712 Charleston, SC 29417
2040 Savage Road Charleston, SC 29407
P 843.556.8171 F 843.766.1178

www.gel.com

January 06, 2010

Ms. Joylene Valdez
Los Alamos National Laboratory
PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545

Re: LANL ER Project
Work Orders: 243549 243551
SDG: 10-1085

Dear Ms. Valdez:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the following analytical results for the sample(s) we received on December 24, 2009, and analyzed for FID Flame Ionization Detector, GC Semivolatile Herbicide, GC Semivolatile PCB, GC Semivolatile Pesticide, GC Volatiles (GRO), GC/MS Semivolatile, GC/MS Volatile, General Chemistry, Metals and Radiochemistry. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 4485.

Sincerely,

for

Valerie Davis
Project Manager

Purchase Order: 72733-001-09
Chain of Custody: 10-1085
Enclosures

problem solved

Los Alamos National Laboratory (72733-001-09)
LANL ER Project
Work Order #: 243549 and 243551
SDG: 10-1085

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Sample Data 1151
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Quality Control Data 1208
Miscellaneous Data 1243

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Sample Data 1263
Standards Data 1269
Quality Control Data 1321
Miscellaneous Data 1360

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Case Narrative

Case Narrative for
Los Alamos National Laboratory (72733-001-09)
LANL ER Project
Workorder #: 243549 and 243551
SDG # : 10-1085

January 06, 2010

Laboratory Identification:

GEL Laboratories LLC
2040 Savage Road
Charleston, South Carolina 29407
(843) 556-8171

Summary

Sample receipt The samples arrived at GEL Laboratories LLC, Charleston, South Carolina on December 24, 2009 for analysis. The samples were prepared/analyzed within the required holding time. Shipping container temperatures were checked, documented, and within specifications. The samples were screened according to GEL Standard Operating Procedure. The lab received (1) 40ml vial 8260B container for sample WST03-10-2201 instead of (2) as indicated on the COC. All sample containers arrived without any visible signs of tampering or breakage. Containers were checked for pH, where appropriate, and matched the preservative as documented on the accompanying chain of custody. The containers for radiochemistry were received at 14/15C temperatures. Shipping container temperature was within specification (0 - 6C).

Sample Identification The laboratory received the following samples:

Laboratory ID	Client ID
243549001	WST03-10-2201
243549002	WST03-10-2148
243551001	WST03-10-2148

Case Narrative

Sample analyses were conducted using methodology as outlined in GEL Laboratories, LLC (GEL) Standard Operating Procedures. Any technical or administrative problems during analysis, data review, and reduction are contained in the analytical case narratives in the enclosed data package.

Data Package The enclosed data package contains the following sections: Case Narrative, Chain of Custody, Cooler Receipt Checklist, Data Package Qualifier Definitions and data from the following fractions: FID Flame Ionization Detector, GC Semivolatile Herbicide, GC Semivolatile PCB, GC Semivolatile Pesticide, GC Volatiles (GRO), GC/MS Semivolatile, GC/MS Volatile, General Chemistry, Metals and Radiochemistry.

I certify that this data report is in compliance with the terms and conditions of the subcontract and task order, both technically and for completeness, for other than the conditions detailed in the attached case narrative.

for Francis

Valerie Davis

Project Manager

List of current GEL Certifications as of 06 January 2010

State	Certification
Arizona	AZ0668
Arkansas	88–0651
CLIA	42D0904046
California – NELAP	01151CA
Colorado	GEL
Connecticut	PH–0169
Dept. of Navy	NFESC 413
EPA Region 5	WG–15J
Florida – NELAP	E87156
Georgia	E87156 (FL/NELAP)
Georgia DW	967
Hawaii	N/A
ISO 17025	2567.01
Idaho	SC00012
Illinois – NELAP	200029
Indiana	C–SC–01
Kansas – NELAP	E–10332
Kentucky	90129
Louisiana – NELAP	03046
Maryland	270
Massachusetts	M–SC012
Nevada	SC00012
New Jersey – NELAP	SC002
New Mexico	FL NELAP E87156
New York – NELAP	11501
North Carolina	233
North Carolina DW	45709
Oklahoma	9904
Pennsylvania – NELAP	68–00485
South Carolina	10120001/10120002
Tennessee	TN 02934
Texas – NELAP	T104704235–07B–TX
U.S. Dept. of Agriculture	S–52597
Utah – NELAP	GEL
Vermont	VT87156
Virginia	00151
Washington	C1641

Chain of Custody and Supporting Documentation

Wednesday, December 23, 2009

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1085

REQUEST NUMBER: 10-1085

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 1/22/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS: 243549%, ~~243557%~~ 243551% GRT 12/26/09

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
WST03-10-2201	1	SEPTUM AMBER GLASS	8260B Trip Blank	Ice	S
WST03-10-2201	2	SEPTUM AMBER GLASS	8260B Trip Blank	Ice	S
WST03-10-2148	1	GLASS	8081A+8151A	Ice	R
WST03-10-2148	1	GLASS	8260B+TPH-GRO	Ice	R
WST03-10-2148	2	GLASS	8260B+TPH-GRO	Ice	R
WST03-10-2148	1	GLASS	8270C+8082+TPH-DRO	Ice	R
WST03-10-2148	1	POLY	AM-241+ISOPU+ISOU+SR90	None	R
WST03-10-2148	1	POLY	H3	Ice	R
WST03-10-2148	1	POLY	TAL metals + TCLP metals	Ice	R
WST03-10-2148	1	AMBER GLASS	TCLP ORGANICS P/H/S/V	Ice	R
WST03-10-2148	1	POLY	TCN	Ice	R

Relinquished By:		Date	Time	Received By:		Date	Time
[illegible]	[illegible]	12/23/09	1400	Greg Tyler	[illegible]	12-24-09	0930
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

Received for DISPOSAL By: **Date** **Time** **Remarks:**

Printed Name Signature

Wednesday, December 23, 2009

REQUEST NUMBER: 10-1085

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

These Samples are on:

LANL Request Number:10-1085

Per Agreement Number:126310011

Project Cost Code: MR2A054196D0

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 12/23/2009

TURNAROUND/REPORT DUE: 1/22/2010

TURNAROUND REQ'D: 30 Days

RAD SCREENING: Not Required

LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:

Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:906.0	1	WST03-10-2148	R	12/22/2009	
	HASL-300:ISOPU	1	WST03-10-2148	R	12/22/2009	
	HASL-300:ISOU	1	WST03-10-2148	R	12/22/2009	
	SW-846:6010B	1	WST03-10-2148	R	12/22/2009	
	SW-846:8015M_EXTRACTABLE	1	WST03-10-2148	R	12/22/2009	
	SW-846:8015M_PURGEABLE	1	WST03-10-2148	R	12/22/2009	
		2	WST03-10-2148	R	12/22/2009	

Wednesday, December 23, 2009

REQUEST NUMBER: 10-1085

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8081A	1	WST03-10-2148	R	12/22/2009	
	SW-846:8081A_TCLP	1	WST03-10-2148	R	12/22/2009	
	SW-846:8082	1	WST03-10-2148	R	12/22/2009	
	SW-846:8151A	1	WST03-10-2148	R	12/22/2009	
	SW-846:8151A_TCLP	1	WST03-10-2148	R	12/22/2009	
	SW-846:8260B	1	WST03-10-2148	R	12/22/2009	
		2	WST03-10-2148	R	12/22/2009	
		1	WST03-10-2201	S	12/22/2009	
		2	WST03-10-2201	S	12/22/2009	
	SW-846:8260B_TCLP	1	WST03-10-2148	R	12/22/2009	
	SW-846:8270C	1	WST03-10-2148	R	12/22/2009	
	SW-846:8270C_TCLP	1	WST03-10-2148	R	12/22/2009	
	SW-846:9012A	1	WST03-10-2148	R	12/22/2009	

Final Page of REQUEST NUMBER 10-1085

GEL Laboratories LLC

SAMPLE RECEIPT & REVIEW FORM

Client: LANL	**SDG/ARCOC/Work Order: 10-1085**
Received By: Greg Tyler	**Date Received: 12/24/09**

Suspected Hazard Information	**Yes**	**No**	*If Counts > x2 area background on samples not marked "radioactive", contact the Radiation Safety Group of further investigation.
COC/Samples marked as radioactive?		X	Maximum Counts Observed*: 60cpm
Classified Radioactive II by RSO?		X	
COC/Samples marked containing PCBs?		X	
Shipped as a DOT Hazardous?		X	Hazard Class Shipped: UN#:
Samples identified as Foreign Soil?		X	

	Sample Receipt Criteria	**Yes**	**NA**	**No**	**Comments/Qualifiers (Required for Non-Conforming Items)**
1	Shipping containers received intact and sealed?	X			Circle Applicable: seals broken damaged container leaking container other (describe)
2	Samples requiring cold preservation within 0 ≤ 6 deg. C?	X			Preservation Method: ice bags **blue ice** dry ice **none** other 3-5C 14,15C
3	Chain of custody documents included with shipment?	X			
4	Sample containers intact and sealed?	X			Circle Applicable: seals broken damaged container leaking container other (describe)
5	Samples requiring chemical preservation at proper pH?		X		Sample ID's, containers affected and observed pH: If Preservation added, Lot#:
6	VOA vials free of headspace (defined as < 6mm bubble)?		X		Sample ID's and containers affected:
7	Are Encore containers present?			X	(If yes, immediately deliver to Volatiles laboratory)
8	Samples received within holding time?	X			Id's and tests affected:
9	Sample ID's on COC match ID's on bottles?	X			Sample ID's and containers affected:
10	Date & time on COC match date & time on bottles?		X		Sample ID's affected: **No time on Chain of Custody.**
11	Number of containers received match number indicated on COC?			X	Sample ID's affected: **WST03-10-2201** **The lab rec'd (1) 40ML vial 8260B instead of (2) as indicated on COC.**
12	COC form is properly signed in relinquished/received sections?	X			

Comments:

Fed Ex Tracking Numbers

7209 7849 3755 3C **7209 7849 3803 5C**
7209 7849 3788 4C **7209 7849 3825 14C**
7209 7849 3799 4C **7209 7849 3744 14C**
7209 7849 3858 4C **7209 7849 3733 15C**
7209 7849 3836 5C **7209 7849 3766 15C**
7209 7849 3777 5C
7209 7849 3722 5C
7209 7849 3847 5C

PM (or PMA) review: Initials JAR Date 12-24-09

Issues from 12/24/09

Possible incorrect ID?

ID on containers: RE16-10-1103 (not found on COC)

8260B (125 ML amber wide-mouth)
METALS-GEL (125 ML Poly)
Anions + CL04 (125 ML poly)
8270C+NMED (500ML Amber)
AM241+GS+ISOPU+ISOU (100ML poly)

ID on COC: RE16-10-1003 (no containers found for these analyses.)

8260B
METALS-GEL
Anions + CL04
8270C+NMED
AM241+GS+ISOPU+ISOU

OOUR COC SAYS 1103 SO I THINK WE ARE GOOD HERE

Other issues…

Missing Containers

Soils

WST03-10-2201	8260B 40ML (received 1 instead of 2 as indicated on COC.)
WST21-10-9930	8260B 40ML (received 1 instead of 2 as indicated on COC.)
WST21-10-9928	8260B 40ML (received 1 instead of 2 as indicated on COC.)
RE16-10-2867	8260B 40 ML (received 1 instead of 2 as indicated on COC.)
RE-10-7559	AM241+GS+ISOPU+ISOU
	Met+U+CL04+CN
	NMED Explosives list
RE-10-7560	AM241+GS+ISOPU+ISOU
	Met+U+CL04+CN
	NMED Explosives list

Cancel 7559 and 7560

Waters

RE03-10-6972	METALS-GEL
	TCN
RE03-10-7560	METALS-GEL
	TCN

We'll see if these show up if not in tomorrows delivery then cancel

Containers Received that were not listed on COC(s)

RE03-10-9872	Perchlorate+CN+NO3+pH (500ML poly) H3 AM241+ISOPU+ISOU (500ML poly) 8270C+8082 (250ML amber) 8260B (125ML amber) METALS-GEL (125ML poly)
RE03-10-9874	Perchlorate+CN+NO3+pH (500ML poly) H3 AM241+ISOPU+ISOU (500ML poly) 8270C+8082 (250ML amber) 8260B (125ML amber) METALS-GEL (125ML poly)

These were added to 10-1086/1087 and 1088 will received revised requestes tommorrow

WSTR47-10-7140	TPH DRO (250ML amber)
WSTR47-10-7141	TPH DRO (250ML amber)

Missing bottles from 10-1000

GIN ID: SAFA (505)665-9968
LENE VALDEZ
ALAMOS NATL LAB
00 BLDG 1237 DPU 03

ALAMOS, NM 87545
TED STATES US

SHIP DATE: 23DEC09
ACTWGT: 66.0 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

ALERIE DAVIS
ENERAL ENGINEERING LAB
040 SAVAGE RD

HARLESTON SC 29407
43)556-8171
EF: 6B01AMR3A0352VA00

3c

15

FedEx Express

2 of 2
SH# 7209 7849 3755
trk# 7209 7849 3744 0201

THU - 24DEC A1
PRIORITY OVERNIGHT

29407
SC-US
CHS

X CHSA

ORIGIN ID: SAFA (505)665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 23DEC09
ACTWGT: 51.0 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843)556-8171
REF: 6B01AMR2A054196D0

4c

FedEx Express

3 of 3
MPS# 0263 7209 7849 3788
Matrk 7209 7849 3766 0201

THU - 24DEC A1
PRIORITY OVERNIGHT

29407
SC-US
CHS

XX CHSA

Part # 156148-434 NAIT V3 09-09

ORIGIN ID: SAFA (505)665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 23DEC09
ACTWGT: 51.0 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

ALERIE DAVIS
ENERAL ENGINEERING LAB
040 SAVAGE RD

HARLESTON SC 29407
843)556-8171
EF: 6B01AMR2A054190D0

4c

FedEx Express

1 of 2
RK# 0201 7209 7849 3799
MASTER NN

THU - 24DEC A1
PRIORITY OVERNIGHT

29407
SC-US

X CHSA

ORIGIN ID: SAFA (505)665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 23DEC09
ACTWGT: 45.0 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843)556-8171
REF: 6B01AMR3A0352VA00

4c

FedEx Express

2 of 2
MPS# 0263 7209 7849 3858
Matrk 7209 7849 3847 0201

THU - 24DEC A1
PRIORITY OVERNIGHT

29407
SC-US

XX CHSA

IGIN ID: SAFA (505)665-9968
YLENE VALDEZ
S ALAMOS NATL LAB
00 BLDG 1237 DPU 03

S ALAMOS, NM 87545
ITED STATES US

SHIP DATE: 23DEC09
ACTWGT: 57.0 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

ALERIE DAVIS
ENERAL ENGINEERING LAB
040 SAVAGE RD

HARLESTON SC 29407
843)556-9171
EF: 6B01AMR3A0352VA00

5c

FedEx Express

3 of 3
PS# 7209 7849 3836
63
trk# 7209 7849 3814 0201

THU - 24DEC A1
PRIORITY OVERNIGHT

29407
SC-US
CHS

XX CHSA

IGIN ID: SAFA (505)665-9968
YLENE VALDEZ
S ALAMOS NATL LAB
00 BLDG 1237 DPU 03

S ALAMOS, NM 87545
ITED STATES US

SHIP DATE: 23DEC09
ACTWGT: 62.0 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

ALERIE DAVIS
ENERAL ENGINEERING LAB
040 SAVAGE RD

HARLESTON SC 29407
843)556-9171
EF: 6B01AMR3A0325VA00

5c

FedEx Express

1 of 2
7209 7849 3722
MASTER NN

THU - 24DEC A1
PRIORITY OVERNIGHT

29407
SC-US
CHS

X CHSA

ORIGIN ID: [illegible]
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 23DEC09
ACTWGT: 55.0 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843)556-9171
REF: 6B01AMR2A054196D0

5c

FedEx Express

2 of 3
MPS# 7209 7849 3777
0263
Mstr# 7209 7849 3766 0201

THU - 24DEC A1
PRIORITY OVERNIGHT

29407
SC-US
CHS

XX CHSA

ORIGIN ID: SAFA (505)665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 23DEC09
ACTWGT: 54.0 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843)556-9171
REF: 6B01AMR3A0352VA00

5c

FedEx Express

1 of 2
TRK# 7209 7849 3847
0201
NN MASTER NN

THU - 24DEC A1
PRIORITY OVERNIGHT

29407
SC-US
CHS

XX CHSA

ORIGIN ID: SAFA (505)665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 23DEC09
ACTWGT: 62.0 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843)556-8171
REF: 6801AMR2A05419D0

5C

FedEx Express

2 of 2
MPS# 7209 7849 3803
Mstr# 7209 7849 3799

THU - 24DEC A1
PRIORITY OVERNIGHT

29407
SC-US
CHS

XX CHSA

ORIGIN ID: SAFA (505)665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 23DEC09
ACTWGT: 62.0 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843)556-8171
REF: 6801AMR3A0352VA00

14C
no ice

FedEx Express

2 of 3
MPS# 7209 7849 3825
Mstr# 7209 7849 3814

THU - 24DEC A1
PRIORITY OVERNIGHT

29407
SC-US
CHS

XX CHSA

Part # 156148-434 NRIT V3 06-09

ORIGIN ID: SAFA (505)665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 23DEC09
ACTWGT: 62.0 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843)556-8171
REF: 6801AMR3A0352VA00

14C
no ice

FedEx Express

1 of 2
MPS# 7209 7849 3744
Mstr# MASTER

THU - 24DEC A1
PRIORITY OVERNIGHT

29407
SC-US
CHS

XX CHSA

ORIGIN ID: SAFA (505)665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 23DEC09
ACTWGT: 62.0 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843)556-8171
REF: 6801AMR3A0325VA00

15C
no ice

FedEx Express

2 of 2
MPS# 7209 7849 3733
Mstr# 7209 7849 3722

THU - 24DEC A1
PRIORITY OVERNIGHT

29407
SC-US
CHS

XX CHSA

ORIGIN ID: SAFR (505)665-9960
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 23DEC09
ACTWGT: 39.0 LB MAN
CAD: 0014175/CAFE2434

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843)556-8171
REF: 6B01AMR20054196D0

15C
NO ice

FedEx Express

1 of 3

TRK# 0201 7209 7849 3766

THU - 24DEC A1
PRIORITY OVERNIGHT

MN MASTER MN

XX CHSA

29407
SC-US
CHS

Part # 156148-434 NRT V3.09-09

Data Review Qualifier Flag Definition Sheet

Data Review Qualifier Definitions

Qualifier	Explanation
*	A quality control analyte recovery is outside of specified acceptance criteria
**	Analyte is a surrogate compound
<	Result is less than value reported
>	Result is greater than value reported
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL
A	The TIC is a suspected aldol-condensation product
B	Target analyte was detected in the associated blank
B	Metals-Either presence of analyte detected in the associated blank, or MDL/IDL < sample value < PQL
BD	Results are either below the MDC or tracer recovery is low
C	Analyte has been confirmed by GC/MS analysis
D	Results are reported from a diluted aliquot of the sample
d	5-day BOD-The 2:1 depletion requirement was not met for this sample
E	Organics-Concentration of the target analyte exceeds the instrument calibration range
E	Metals-%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
H	Analytical holding time was exceeded
h	Preparation or preservation holding time was exceeded
J	Value is estimated
N	Metals-The Matrix spike sample recovery is not within specified control limits
N	Organics-Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A	Spike recovery limits do not apply. Sample concentration exceeds spike concentration by 4X or more
ND	Analyte concentration is not detected above the reporting limit
UI	Gamma Spectroscopy-Uncertain identification
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
Z	Paint Filter Test-Particulates passed through the filter, however no free liquids were observed.

GC/MS Volatile Analysis

Case Narrative

ChemStation Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-1085

Method/Analysis Information

Procedure:	Volatile Organic Compounds (VOC) by Gas Chromatograph/Mass Spectrometer
Analytical Method:	SW846 8260B
Prep Method:	SW846 5030
Analytical Batch Number:	938022
Prep Batch Number:	938021

Sample Analysis

The following client and quality control samples were analyzed to complete this SDG using the methods referenced in the Analysis Information section:

Sample ID	Client ID
243549001	WST03-10-2201
243549002	WST03-10-2148
1202007245	Method Blank (MB)
1202007248	Laboratory Control Sample (LCS)
1202007249	Laboratory Control Sample (LCS)
1202009751	Method Blank (MB)
1202009752	Laboratory Control Sample (LCS)
1202009753	Laboratory Control Sample (LCS)
1202007246	243549002(WST03-10-2148) Post Spike (PS)
1202007247	243549002(WST03-10-2148) Post Spike Duplicate (PSD)

NOTE: For volatile organic analyses the matrix spike designations may be indicated as "PS" or "PSD". The "PS" designation (post spike) indicates that the matrix was fortified prior to analysis but after applying any prep factors, such as a dilution. The laboratory considers the MS/MSD and PS/PSD designations interchangeable.
Samples 243549 002 in this SDG were analyzed on an "dry weight" basis. Samples 243549 001 in this SDG were analyzed on a "as received" basis.

Preparation/Analytical Method Verification

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-038 REV# 13.

Raw data reports are processed and reviewed by the analyst using the Chemstation software package. False positives have been removed from the quantitation reports per standard operating procedures (SOP) section 19.1.2. False positive analytes are designated on the quantitation report with a 'd' qualifier.

Calibration Information

Please note that the 'Cal Date' indicated on each quantitation report reflects the date and time of the most recent calibrated analyte(s) in the processing method. Since the laboratory may calibrate with multiple solutions on different days using the same processing method, the software will update the 'Cal Date' to the last calibration file, date and time. The correct dates and times for all calibration files are located on the Calibration History report in the Standard Data section in the data package.

The surrogate compounds were calibrated using a minimum five-point calibration curve. The surrogates were added by the auto sampler at a concentration of 50 ug/L. GEL Laboratories LLC will not have

surrogate recoveries reported for Dibromofluoromethane. This is due to increased regulations for this analyte and an industry shortage.

A complete list of the initial calibration data files are shown in the Calibration History report located in the Standard Data section of the data package.

Initial Calibration
All initial calibration requirements have been met for this sample delivery groups (SDG). A second source initial calibration verification (ICV) was included in the standard section directly behind the initial calibration.

Continuing Calibration Verification Requirements
All associated calibration verification standard(s) (ICV or CCV) met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
Target analytes were detected in the blank (1202009751) below the reporting limit.

Surrogate Recoveries
Surrogate recoveries in all client and quality control samples were within the acceptance limits.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

QC Sample Designation
Sample 243549002 (WST03-10-2148) was designated for spike analysis in this SDG.

Matrix Spike (PS) Recovery Statement
The spike recoveries for this SDG were within the required acceptance limits.

Matrix Spike Duplicate (PSD) Recovery Statement
The spike duplicate recoveries for this SDG were within the required acceptance limits.

Relative Percent Difference (RPD) Statement
The RPD between the matrix spike pair were not all within the acceptance limits. The results are reported. See NCR 778170.

Internal Standard (ISTD) Acceptance
In samples 1202007246 (WST03-10-2148MS) and 243549002 (WST03-10-2148), internal standard responses were outside the required acceptance criteria. It is believed matrix interference has been demonstrated. See NCR 778170.

Technical Information

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection or sample receipt. Those holding times expressed in hours are calculated in the ALPHALIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Sample Preservation and Integrity
All samples met the sample preservation and integrity requirements.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-extraction/Re-analysis
QC samples 1202007246 (WST03-10-2148MS) and 1202007247 (WST03-10-2148MSD) were re-analyzed due to unacceptable recoveries in the initial analysis.

Miscellaneous Information

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted: Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. An electronic signature page inserted after the case narrative will include the data validator's signature and title. The signature page also includes the data qualifiers used in the fractional package. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Non-Conformance Report (NCR)
NCR # 778170 was generated for this SDG.

Manual Integrations
Data files associated with the initial calibration, continuing calibration check, and samples did not require manual integrations.

TIC Comment
Tentatively identified compounds (TIC) were required for this sample delivery group/work order. Please note that non-requested target analytes that are reported on the quantitation reports will not be present on the Form I. These detected analytes are included in the calibrated method and as a result cannot be reported on the TIC quantitation report.

Additional Comments
Additional comments were not required for this SDG.

Residual Chlorine
Residual Chlorine was not detected in any of the samples in this SDG.

System Configuration
The Volatile-GC/MS analysis was performed on the following instrument configuration:

Instrument ID	Instrument	System Configuration	Column ID	Column Description	P & T Trap
VOA6.I	Gas Chromatograph/Mass Spectrometer	HP6890N/HP5975	DB-624	J&W, 60m x 0.25mm x 1.4um	Trap 10

Certification Statement
Where the analytical method has been performed under NELAP certification, the analysis has met all the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis Report
for

LANL010 Los Alamos National Laboratory (72733-001-09)

Client SDG: 10-1085 GEL Work Order: 243549

The Qualifiers in this report are defined as follows:

* A quality control analyte recovery is outside of specified acceptance criteria

** Analyte is a surrogate compound

B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.

E Organics--Concentration of the target analyte exceeds the instrument calibration range

J Value is estimated

U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

Review/Validation

GEL requires all analytical data to be verified by a qualified data reviewer. In addition, all CLP-like deliverables receive a third level review of the fractional data package.

The following data validator verified the information presented in this case narrative:

Signature: Erin Haubert **Name: Erin Haubert**

Date: 20 JAN 2010 **Title: Data Validator**

Sample Data Summary

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1085	**Date Collected:**	12/22/2009 12:00	**Matrix:**	S
Lab Sample ID:	243549001	**Date Received:**	12/24/2009 09:30		
		Client:	LANL010	**Project:**	LANL01004
Client ID:	WST03-10-2201	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	938022	**Inst:**	VOA6.I	**Dilution:**	1
Run Date:	12/31/2009 17:07	**Analyst:**	RXD1	**Purge Vol:**	5 mL
Prep Date:	12/31/2009 13:40	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	123109V6\6R415.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/kg	0.340	1.00
74-87-3	Chloromethane	U	1.00	ug/kg	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/kg	0.300	1.00
74-83-9	Bromomethane	U	1.00	ug/kg	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/kg	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/kg	0.300	1.00
67-64-1	Acetone	J	3.86	ug/kg	1.66	5.00
75-35-4	1,1-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/kg	1.60	5.00
75-09-2	Methylene chloride	U	5.00	ug/kg	2.00	5.00
75-15-0	Carbon disulfide	U	5.00	ug/kg	1.25	5.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/kg	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/kg	1.50	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/kg	0.300	1.00
74-97-5	Bromochloromethane	U	1.00	ug/kg	0.330	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/kg	0.300	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/kg	0.300	1.00
56-23-5	Carbon tetrachloride	U	1.00	ug/kg	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/kg	0.300	1.00
71-43-2	Benzene	U	1.00	ug/kg	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/kg	0.330	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/kg	0.300	1.00
74-95-3	Dibromomethane	U	1.00	ug/kg	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/kg	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
108-88-3	Toluene	U	1.00	ug/kg	0.300	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/kg	0.300	1.00
591-78-6	2-Hexanone	U	5.00	ug/kg	1.50	5.00
142-28-9	1,3-Dichloropropane	U	1.00	ug/kg	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/kg	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/kg	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/kg	0.300	1.00
108-90-7	Chlorobenzene	U	1.00	ug/kg	0.300	1.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1085**	**Date Collected:**	**12/22/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243549001**	**Date Received:**	**12/24/2009 09:30**		
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**WST03-10-2201**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**938022**	**Inst:**	**VOA6.I**	**Dilution:**	**1**
Run Date:	**12/31/2009 17:07**	**Analyst:**	**RXD1**	**Purge Vol:**	**5 mL**
Prep Date:	**12/31/2009 13:40**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**123109V6\6R415.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.00	ug/kg	0.300	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/kg	0.300	2.00
95-47-6	o-Xylene	U	1.00	ug/kg	0.300	1.00
100-42-5	Styrene	U	1.00	ug/kg	0.300	1.00
75-25-2	Bromoform	U	1.00	ug/kg	0.300	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/kg	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/kg	0.300	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/kg	0.300	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/kg	0.300	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/kg	0.300	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/kg	0.300	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/kg	0.300	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/kg	0.300	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/kg	0.300	1.00
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.00	ug/kg	1.60	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated Units	Fit	Qual
	No Tentatively Identified Compounds Found		ug/kg		

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1085	**Date Collected:**	12/22/2009 12:00	**Matrix:**	R
Lab Sample ID:	243549002	**Date Received:**	12/24/2009 09:30	**%Moisture:**	7.2
		Client:	LANL010	**Project:**	LANL01004
Client ID:	WST03-10-2148	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	938022	**Inst:**	VOA6.I	**Dilution:**	1
Run Date:	12/31/2009 17:35	**Analyst:**	RXD1	**Purge Vol:**	5 mL
Prep Date:	12/31/2009 13:42	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	123109V6\6R416.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.08	ug/kg	0.366	1.08
74-87-3	Chloromethane	U	1.08	ug/kg	0.323	1.08
75-01-4	Vinyl chloride	U	1.08	ug/kg	0.323	1.08
74-83-9	Bromomethane	U	1.08	ug/kg	0.323	1.08
75-00-3	Chloroethane	U	1.08	ug/kg	0.323	1.08
75-69-4	Trichlorofluoromethane	U	1.08	ug/kg	0.323	1.08
67-64-1	Acetone	U	5.39	ug/kg	1.79	5.39
75-35-4	1,1-Dichloroethylene	U	1.08	ug/kg	0.323	1.08
74-88-4	Iodomethane	U	5.39	ug/kg	1.72	5.39
75-09-2	Methylene chloride	U	5.39	ug/kg	2.15	5.39
75-15-0	Carbon disulfide	U	5.39	ug/kg	1.35	5.39
156-60-5	trans-1,2-Dichloroethylene	U	1.08	ug/kg	0.323	1.08
75-34-3	1,1-Dichloroethane	U	1.08	ug/kg	0.323	1.08
78-93-3	2-Butanone	U	5.39	ug/kg	1.62	5.39
156-59-2	cis-1,2-Dichloroethylene	U	1.08	ug/kg	0.323	1.08
594-20-7	2,2-Dichloropropane	U	1.08	ug/kg	0.323	1.08
67-66-3	Chloroform	U	1.08	ug/kg	0.323	1.08
74-97-5	Bromochloromethane	U	1.08	ug/kg	0.356	1.08
71-55-6	1,1,1-Trichloroethane	U	1.08	ug/kg	0.323	1.08
563-58-6	1,1-Dichloropropene	U	1.08	ug/kg	0.323	1.08
56-23-5	Carbon tetrachloride	U	1.08	ug/kg	0.323	1.08
107-06-2	1,2-Dichloroethane	U	1.08	ug/kg	0.323	1.08
71-43-2	Benzene	U	1.08	ug/kg	0.323	1.08
79-01-6	Trichloroethylene	U	1.08	ug/kg	0.356	1.08
78-87-5	1,2-Dichloropropane	U	1.08	ug/kg	0.323	1.08
75-27-4	Bromodichloromethane	U	1.08	ug/kg	0.323	1.08
74-95-3	Dibromomethane	U	1.08	ug/kg	0.323	1.08
108-10-1	4-Methyl-2-pentanone	U	5.39	ug/kg	1.35	5.39
10061-01-5	cis-1,3-Dichloropropylene	U	1.08	ug/kg	0.323	1.08
108-88-3	Toluene	U	1.08	ug/kg	0.323	1.08
10061-02-6	trans-1,3-Dichloropropylene	U	1.08	ug/kg	0.323	1.08
79-00-5	1,1,2-Trichloroethane	U	1.08	ug/kg	0.323	1.08
591-78-6	2-Hexanone	U	5.39	ug/kg	1.62	5.39
142-28-9	1,3-Dichloropropane	U	1.08	ug/kg	0.323	1.08
127-18-4	Tetrachloroethylene	U	1.08	ug/kg	0.323	1.08
124-48-1	Dibromochloromethane	U	1.08	ug/kg	0.323	1.08
106-93-4	1,2-Dibromoethane	U	1.08	ug/kg	0.323	1.08
108-90-7	Chlorobenzene	U	1.08	ug/kg	0.323	1.08

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1085	**Date Collected:**	12/22/2009 12:00	**Matrix:**	R
Lab Sample ID:	243549002	**Date Received:**	12/24/2009 09:30	**%Moisture:**	7.2
		Client:	LANL010	**Project:**	LANL01004
Client ID:	WST03-10-2148	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	938022	**Inst:**	VOA6.I	**Dilution:**	1
Run Date:	12/31/2009 17:35	**Analyst:**	RXD1	**Purge Vol:**	5 mL
Prep Date:	12/31/2009 13:42	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	123109V6\6R416.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.08	ug/kg	0.323	1.08
179601-23-1	m,p-Xylenes	U	2.15	ug/kg	0.323	2.15
95-47-6	o-Xylene	U	1.08	ug/kg	0.323	1.08
100-42-5	Styrene	U	1.08	ug/kg	0.323	1.08
75-25-2	Bromoform	U	1.08	ug/kg	0.323	1.08
79-34-5	1,1,2,2-Tetrachloroethane	U	1.08	ug/kg	0.323	1.08
96-18-4	1,2,3-Trichloropropane	U	1.08	ug/kg	0.323	1.08
108-86-1	Bromobenzene	U	1.08	ug/kg	0.323	1.08
103-65-1	n-Propylbenzene	U	1.08	ug/kg	0.323	1.08
95-49-8	2-Chlorotoluene	U	1.08	ug/kg	0.323	1.08
98-82-8	Isopropylbenzene	U	1.08	ug/kg	0.323	1.08
108-67-8	1,3,5-Trimethylbenzene	U	1.08	ug/kg	0.323	1.08
106-43-4	4-Chlorotoluene	U	1.08	ug/kg	0.323	1.08
98-06-6	tert-Butylbenzene	U	1.08	ug/kg	0.323	1.08
95-63-6	1,2,4-Trimethylbenzene	U	1.08	ug/kg	0.323	1.08
135-98-8	sec-Butylbenzene	U	1.08	ug/kg	0.323	1.08
99-87-6	4-Isopropyltoluene	U	1.08	ug/kg	0.323	1.08
541-73-1	1,3-Dichlorobenzene	U	1.08	ug/kg	0.323	1.08
106-46-7	1,4-Dichlorobenzene	U	1.08	ug/kg	0.323	1.08
104-51-8	n-Butylbenzene	U	1.08	ug/kg	0.323	1.08
96-12-8	1,2-Dibromo-3-chloropropane	U	1.08	ug/kg	0.323	1.08
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.39	ug/kg	1.72	5.39
630-20-6	1,1,1,2-Tetrachloroethane	U	1.08	ug/kg	0.323	1.08
95-50-1	1,2-Dichlorobenzene	U	1.08	ug/kg	0.323	1.08

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown siloxane	14.24	5.87	ug/kg	0	J

Quality Control Summary

Volatile

Surrogate Recovery Report

SDG Number: 10-1085

Matrix Type: SOLID

Sample ID	Client ID	DCED4 %REC	TOL %REC	BFB %REC
1202007248	LCS for batch 938021	100	96	101
1202007249	LCS for batch 938021	99	95	101
1202007245	MB for batch 938021	102	96	101
243549001	WST03-10-2201	101	99	102
243549002	WST03-10-2148	103	95	102
1202009752	LCS for batch 938021	98	94	98
1202009753	LCS for batch 938021	100	93	98
1202009751	MB for batch 938021	102	95	100
1202007246	WST03-10-2148PS	99	94	99
1202007247	WST03-10-2148PSD	98	98	100

Surrogate		Acceptance Limits
DCED4	= 1,2-Dichloroethane-d4	(68%-131%)
TOL	= Toluene-d8	(75%-129%)
BFB	= Bromofluorobenzene	(68%-133%)

* Recovery outside Acceptance Limits

\# Column to be used to flag recovery values

D Sample Diluted

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1085
Client ID: WST03-10-2148PS
Lab Sample ID: 1202007246
Instrument: VOA6.I
Analyst: RXD1
Purge Vol: 5 mL

Sample Type: Post Spike
Matrix: R
%Moisture: 7.2
Analysis Date: 01/04/2010 21:45
Prep Batch ID 938021
Batch ID: 938022
Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
75-71-8	PS	Dichlorodifluoromethane	50.0	0.00	U	32.6	65	25-149
74-87-3	PS	Chloromethane	50.0	0.00	U	35.1	70	39-140
75-01-4	PS	Vinyl chloride	50.0	0.00	U	37.9	76	47-129
74-83-9	PS	Bromomethane	50.0	0.00	U	40.4	81	31-135
75-00-3	PS	Chloroethane	50.0	0.00	U	39.3	79	53-128
75-69-4	PS	Trichlorofluoromethane	50.0	0.00	U	39.4	79	51-151
67-64-1	PS	Acetone	250	0.00	U	214	86	21-153
75-35-4	PS	1,1-Dichloroethylene	50.0	0.00	U	40.0	80	61-125
74-88-4	PS	Iodomethane	250	0.00	U	197	79	53-142
75-09-2	PS	Methylene chloride	50.0	0.00	U	38.3	77	59-136
75-15-0	PS	Carbon disulfide	250	0.00	U	210	84	46-129
156-60-5	PS	trans-1,2-Dichloroethylene	50.0	0.00	U	40.8	82	56-126
75-34-3	PS	1,1-Dichloroethane	50.0	0.00	U	40.4	81	62-125
78-93-3	PS	2-Butanone	250	0.00	U	265	106	26-152
156-59-2	PS	cis-1,2-Dichloroethylene	50.0	0.00	U	40.9	82	60-130
594-20-7	PS	2,2-Dichloropropane	50.0	0.00	U	43.2	86	55-135
67-66-3	PS	Chloroform	50.0	0.00	U	40.5	81	60-127
74-97-5	PS	Bromochloromethane	50.0	0.00	U	41.2	82	61-131
71-55-6	PS	1,1,1-Trichloroethane	50.0	0.00	U	42.3	85	59-131
563-58-6	PS	1,1-Dichloropropene	50.0	0.00	U	41.3	83	57-128
56-23-5	PS	Carbon tetrachloride	50.0	0.00	U	43.4	87	58-136
107-06-2	PS	1,2-Dichloroethane	50.0	0.00	U	42.3	85	58-126

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1085
Client ID: WST03-10-2148PS
Lab Sample ID: 1202007246
Instrument: VOA6.I
Analyst: RXD1
Purge Vol: 5 mL

Sample Type: Post Spike
Matrix: R
%Moisture: 7.2
Analysis Date: 01/04/2010 21:45
Dilution: 1
Prep Batch ID: 938021
Batch ID: 938022

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
71-43-2	PS	Benzene	50.0	0.00	U	39.4	79	56-123
79-01-6	PS	Trichloroethylene	50.0	0.00	U	39.8	80	51-137
78-87-5	PS	1,2-Dichloropropane	50.0	0.00	U	42.4	85	60-126
75-27-4	PS	Bromodichloromethane	50.0	0.00	U	43.9	88	55-138
74-95-3	PS	Dibromomethane	50.0	0.00	U	42.5	85	60-132
108-10-1	PS	4-Methyl-2-pentanone	250	0.00	U	251	100	58-136
10061-01-5	PS	cis-1,3-Dichloropropylene	50.0	0.00	U	40.6	81	54-133
108-88-3	PS	Toluene	50.0	0.00	U	39.2	78	52-128
10061-02-6	PS	trans-1,3-Dichloropropylene	50.0	0.00	U	41.9	84	53-137
79-00-5	PS	1,1,2-Trichloroethane	50.0	0.00	U	42.4	85	59-130
591-78-6	PS	2-Hexanone	250	0.00	U	228	91	31-148
142-28-9	PS	1,3-Dichloropropane	50.0	0.00	U	42.4	85	57-127
127-18-4	PS	Tetrachloroethylene	50.0	0.00	U	40.3	81	51-128
124-48-1	PS	Dibromochloromethane	50.0	0.00	U	45.4	91	59-139
106-93-4	PS	1,2-Dibromoethane	50.0	0.00	U	42.8	86	57-133
108-90-7	PS	Chlorobenzene	50.0	0.00	U	41.4	83	53-122
100-41-4	PS	Ethylbenzene	50.0	0.00	U	41.6	83	51-125
179601-23-1	PS	m,p-Xylenes	100	0.00	U	82.9	83	50-126
95-47-6	PS	o-Xylene	50.0	0.00	U	42.2	84	52-127
100-42-5	PS	Styrene	50.0	0.00	U	41.2	82	49-135
75-25-2	PS	Bromoform	50.0	0.00	U	48.5	97	57-149
79-34-5	PS	1,1,2,2-Tetrachloroethane	50.0	0.00	U	45.9	92	63-127

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1085
Client ID: WST03-10-2148PS
Lab Sample ID: 1202007246
Instrument: VOA6.I
Analyst: RXD1
Purge Vol: 5 mL

Sample Type: Post Spike
Matrix: R
%Moisture: 7.2
Analysis Date: 01/04/2010 21:45
Prep Batch ID: 938021
Batch ID: 938022
Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
96-18-4	PS	1,2,3-Trichloropropane	50.0	0.00	U	46.7	93	57-149
108-86-1	PS	Bromobenzene	50.0	0.00	U	41.7	83	49-131
103-65-1	PS	n-Propylbenzene	50.0	0.00	U	42.4	85	40-136
95-49-8	PS	2-Chlorotoluene	50.0	0.00	U	42.9	86	44-135
98-82-8	PS	Isopropylbenzene	50.0	0.00	U	43.2	86	44-140
108-67-8	PS	1,3,5-Trimethylbenzene	50.0	0.00	U	43.6	87	42-140
106-43-4	PS	4-Chlorotoluene	50.0	0.00	U	41.9	84	44-132
98-06-6	PS	tert-Butylbenzene	50.0	0.00	U	43.9	88	42-142
95-63-6	PS	1,2,4-Trimethylbenzene	50.0	0.00	U	41.4	83	43-137
135-98-8	PS	sec-Butylbenzene	50.0	0.00	U	43.1	86	39-139
99-87-6	PS	4-Isopropyltoluene	50.0	0.00	U	41.9	84	38-145
541-73-1	PS	1,3-Dichlorobenzene	50.0	0.00	U	40.6	81	43-129
106-46-7	PS	1,4-Dichlorobenzene	50.0	0.00	U	39.3	79	44-125
104-51-8	PS	n-Butylbenzene	50.0	0.00	U	40.9	82	36-141
96-12-8	PS	1,2-Dibromo-3-chloropropane	50.0	0.00	U	43.7	87	47-151
630-20-6	PS	1,1,1,2-Tetrachloroethane	50.0	0.00	U	43.3	87	59-131
95-50-1	PS	1,2-Dichlorobenzene	50.0	0.00	U	39.8	80	43-129

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1085
Client ID: WST03-10-2148PSD
Lab Sample ID: 1202007247
Instrument: VOA6.I
Analyst: RXD1
Purge Vol: 5 mL

Sample Type: Post Spike Duplicate
Matrix: R
%Moisture: 7.2
Analysis Date: 01/04/2010 22:13
Dilution: 1
Prep Batch ID: 938021
Batch ID: 938022

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
75-71-8	PSD	Dichlorodifluoromethane	50.0	0.00	U	41.6	83	25-149	24	0-25
74-87-3	PSD	Chloromethane	50.0	0.00	U	46.0	92	39-140	27 *	0-25
75-01-4	PSD	Vinyl chloride	50.0	0.00	U	50.5	101	47-129	28 *	0-25
74-83-9	PSD	Bromomethane	50.0	0.00	U	50.0	100	31-135	21	0-25
75-00-3	PSD	Chloroethane	50.0	0.00	U	50.9	102	53-128	26 *	0-25
75-69-4	PSD	Trichlorofluoromethane	50.0	0.00	U	49.1	98	51-151	22	0-25
67-64-1	PSD	Acetone	250	0.00	U	206	82	21-153	4	0-25
75-35-4	PSD	1,1-Dichloroethylene	50.0	0.00	U	49.9	100	61-125	22	0-25
74-88-4	PSD	Iodomethane	250	0.00	U	237	95	53-142	18	0-25
75-09-2	PSD	Methylene chloride	50.0	0.00	U	43.6	87	59-136	13	0-25
75-15-0	PSD	Carbon disulfide	250	0.00	U	264	106	46-129	23	0-25
156-60-5	PSD	trans-1,2-Dichloroethylene	50.0	0.00	U	49.6	99	56-126	19	0-25
75-34-3	PSD	1,1-Dichloroethane	50.0	0.00	U	48.7	97	62-125	19	0-25
78-93-3	PSD	2-Butanone	250	0.00	U	259	104	26-152	2	0-25
156-59-2	PSD	cis-1,2-Dichloroethylene	50.0	0.00	U	48.6	97	60-130	17	0-25
594-20-7	PSD	2,2-Dichloropropane	50.0	0.00	U	52.9	106	55-135	20	0-25
67-66-3	PSD	Chloroform	50.0	0.00	U	47.6	95	60-127	16	0-25
74-97-5	PSD	Bromochloromethane	50.0	0.00	U	46.4	93	61-131	12	0-25
71-55-6	PSD	1,1,1-Trichloroethane	50.0	0.00	U	52.9	106	59-131	22	0-25
563-58-6	PSD	1,1-Dichloropropene	50.0	0.00	U	51.4	103	57-128	22	0-25
56-23-5	PSD	Carbon tetrachloride	50.0	0.00	U	54.0	108	58-136	22	0-25
107-06-2	PSD	1,2-Dichloroethane	50.0	0.00	U	46.1	92	58-126	9	0-25

Volatile

Quality Control Summary

Spike Recovery Report

SDG Number: 10-1085

Client ID: WST03-10-2148PSD

Lab Sample ID: 1202007247

Instrument: VOA6.I

Analyst: RXD1

Purge Vol: 5 mL

Sample Type: Post Spike Duplicate

Matrix: R

%Moisture: 7.2

Analysis Date: 01/04/2010 22:13

Dilution: 1

Prep Batch ID: 938021

Batch ID: 938022

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
71-43-2	PSD	Benzene	50.0	0.00	U	46.8	94	56-123	17	0-25
79-01-6	PSD	Trichloroethylene	50.0	0.00	U	48.1	96	51-137	19	0-25
78-87-5	PSD	1,2-Dichloropropane	50.0	0.00	U	47.8	96	60-126	12	0-25
75-27-4	PSD	Bromodichloromethane	50.0	0.00	U	49.6	99	55-138	12	0-25
74-95-3	PSD	Dibromomethane	50.0	0.00	U	46.2	92	60-132	8	0-25
108-10-1	PSD	4-Methyl-2-pentanone	250	0.00	U	250	100	58-136	0	0-25
10061-01-5	PSD	cis-1,3-Dichloropropylene	50.0	0.00	U	46.2	92	54-133	13	0-25
108-88-3	PSD	Toluene	50.0	0.00	U	46.5	93	52-128	17	0-25
10061-02-6	PSD	trans-1,3-Dichloropropylene	50.0	0.00	U	47.0	94	53-137	12	0-25
79-00-5	PSD	1,1,2-Trichloroethane	50.0	0.00	U	45.8	92	59-130	8	0-25
591-78-6	PSD	2-Hexanone	250	0.00	U	209	84	31-148	9	0-25
142-28-9	PSD	1,3-Dichloropropane	50.0	0.00	U	45.1	90	57-127	6	0-25
127-18-4	PSD	Tetrachloroethylene	50.0	0.00	U	47.9	96	51-128	17	0-25
124-48-1	PSD	Dibromochloromethane	50.0	0.00	U	50.3	101	59-139	10	0-25
106-93-4	PSD	1,2-Dibromoethane	50.0	0.00	U	46.0	92	57-133	7	0-25
108-90-7	PSD	Chlorobenzene	50.0	0.00	U	47.2	94	53-122	13	0-25
100-41-4	PSD	Ethylbenzene	50.0	0.00	U	48.0	96	51-125	14	0-25
179601-23-1	PSD	m,p-Xylenes	100	0.00	U	96.3	96	50-126	15	0-25
95-47-6	PSD	o-Xylene	50.0	0.00	U	48.3	97	52-127	14	0-25
100-42-5	PSD	Styrene	50.0	0.00	U	47.4	95	49-135	14	0-25
75-25-2	PSD	Bromoform	50.0	0.00	U	54.0	108	57-149	11	0-25
79-34-5	PSD	1,1,2,2-Tetrachloroethane	50.0	0.00	U	49.0	98	63-127	7	0-25

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1085
Client ID: WST03-10-2148PSD
Lab Sample ID: 1202007247
Instrument: VOA6.I
Analyst: RXD1
Purge Vol: 5 mL

Sample Type: Post Spike Duplicate
Matrix: R
%Moisture: 7.2
Analysis Date: 01/04/2010 22:13
Dilution: 1
Prep Batch ID: 938021
Batch ID: 938022

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
96-18-4	PSD	1,2,3-Trichloropropane	50.0	0.00	U	48.1	96	57-149	3	0-25
108-86-1	PSD	Bromobenzene	50.0	0.00	U	46.1	92	49-131	10	0-25
103-65-1	PSD	n-Propylbenzene	50.0	0.00	U	48.4	97	40-136	13	0-25
95-49-8	PSD	2-Chlorotoluene	50.0	0.00	U	49.3	99	44-135	14	0-25
98-82-8	PSD	Isopropylbenzene	50.0	0.00	U	50.3	101	44-140	15	0-25
108-67-8	PSD	1,3,5-Trimethylbenzene	50.0	0.00	U	49.9	100	42-140	14	0-25
106-43-4	PSD	4-Chlorotoluene	50.0	0.00	U	47.3	95	44-132	12	0-25
98-06-6	PSD	tert-Butylbenzene	50.0	0.00	U	50.6	101	42-142	14	0-25
95-63-6	PSD	1,2,4-Trimethylbenzene	50.0	0.00	U	47.0	94	43-137	13	0-25
135-98-8	PSD	sec-Butylbenzene	50.0	0.00	U	49.1	98	39-139	13	0-25
99-87-6	PSD	4-Isopropyltoluene	50.0	0.00	U	47.9	96	38-145	13	0-25
541-73-1	PSD	1,3-Dichlorobenzene	50.0	0.00	U	45.0	90	43-129	10	0-25
106-46-7	PSD	1,4-Dichlorobenzene	50.0	0.00	U	43.7	87	44-125	11	0-25
104-51-8	PSD	n-Butylbenzene	50.0	0.00	U	46.7	93	36-141	13	0-25
96-12-8	PSD	1,2-Dibromo-3-chloropropane	50.0	0.00	U	50.4	101	47-151	14	0-25
630-20-6	PSD	1,1,1,2-Tetrachloroethane	50.0	0.00	U	49.8	100	59-131	14	0-25
95-50-1	PSD	1,2-Dichlorobenzene	50.0	0.00	U	44.5	89	43-129	11	0-25

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1085
Client ID: LCS for batch 938021
Lab Sample ID: 1202007248
Instrument: VOA6.I
Analyst: RXD1
Purge Vol: 5 mL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 12/31/2009 11:33
Dilution: 1
Prep Batch ID: 938021
Batch ID: 938022

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
75-71-8	LCS	Dichlorodifluoromethane	50.0	0.0	48.0	96	33-155
74-87-3	LCS	Chloromethane	50.0	0.0	47.9	96	53-132
75-01-4	LCS	Vinyl chloride	50.0	0.0	50.7	101	61-128
74-83-9	LCS	Bromomethane	50.0	0.0	49.7	99	63-126
75-00-3	LCS	Chloroethane	50.0	0.0	50.5	101	67-124
75-69-4	LCS	Trichlorofluoromethane	50.0	0.0	50.9	102	67-151
67-64-1	LCS	Acetone	250	0.0	198	79	29-160
75-35-4	LCS	1,1-Dichloroethylene	50.0	0.0	50.3	101	70-125
74-88-4	LCS	Iodomethane	250	0.0	240	96	74-131
75-09-2	LCS	Methylene chloride	50.0	0.0	43.4	87	72-127
75-15-0	LCS	Carbon disulfide	250	0.0	265	106	64-127
156-60-5	LCS	trans-1,2-Dichloroethylene	50.0	0.0	49.3	99	71-122
75-34-3	LCS	1,1-Dichloroethane	50.0	0.0	48.2	96	75-120
78-93-3	LCS	2-Butanone	250	0.0	251	100	35-162
156-59-2	LCS	cis-1,2-Dichloroethylene	50.0	0.0	49.2	98	76-122
594-20-7	LCS	2,2-Dichloropropane	50.0	0.0	56.4	113	74-135
67-66-3	LCS	Chloroform	50.0	0.0	48.2	96	77-120
74-97-5	LCS	Bromochloromethane	50.0	0.0	47.2	94	76-122
71-55-6	LCS	1,1,1-Trichloroethane	50.0	0.0	52.7	105	75-128
563-58-6	LCS	1,1-Dichloropropene	50.0	0.0	51.7	103	77-125
56-23-5	LCS	Carbon tetrachloride	50.0	0.0	53.8	108	77-134
107-06-2	LCS	1,2-Dichloroethane	50.0	0.0	47.2	94	72-120

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1085
Client ID: LCS for batch 938021
Lab Sample ID: 1202007248
Instrument: VOA6.I
Analyst: RXD1
Purge Vol: 5 mL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 12/31/2009 11:33
Dilution: 1
Prep Batch ID: 938021
Batch ID: 938022

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
71-43-2	LCS	Benzene	50.0	0.0	47.5	95	72-120
79-01-6	LCS	Trichloroethylene	50.0	0.0	49.0	98	78-121
78-87-5	LCS	1,2-Dichloropropane	50.0	0.0	48.7	97	74-120
75-27-4	LCS	Bromodichloromethane	50.0	0.0	51.6	103	79-125
74-95-3	LCS	Dibromomethane	50.0	0.0	48.1	96	78-122
108-10-1	LCS	4-Methyl-2-pentanone	250	0.0	255	102	71-134
10061-01-5	LCS	cis-1,3-Dichloropropylene	50.0	0.0	51.8	104	80-125
108-88-3	LCS	Toluene	50.0	0.0	46.5	93	65-124
10061-02-6	LCS	trans-1,3-Dichloropropylene	50.0	0.0	51.1	102	71-134
79-00-5	LCS	1,1,2-Trichloroethane	50.0	0.0	46.1	92	76-120
591-78-6	LCS	2-Hexanone	250	0.0	266	107	42-159
142-28-9	LCS	1,3-Dichloropropane	50.0	0.0	46.0	92	72-120
127-18-4	LCS	Tetrachloroethylene	50.0	0.0	48.4	97	74-123
124-48-1	LCS	Dibromochloromethane	50.0	0.0	52.5	105	83-128
106-93-4	LCS	1,2-Dibromoethane	50.0	0.0	48.1	96	79-121
108-90-7	LCS	Chlorobenzene	50.0	0.0	48.0	96	75-120
100-41-4	LCS	Ethylbenzene	50.0	0.0	49.0	98	74-120
179601-23-1	LCS	m,p-Xylenes	100	0.0	97.8	98	74-120
95-47-6	LCS	o-Xylene	50.0	0.0	48.2	96	74-120
100-42-5	LCS	Styrene	50.0	0.0	50.0	100	76-125
75-25-2	LCS	Bromoform	50.0	0.0	57.2	114	77-138
79-34-5	LCS	1,1,2,2-Tetrachloroethane	50.0	0.0	49.8	100	72-122

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1085
Client ID: LCS for batch 938021
Lab Sample ID: 1202007248
Instrument: VOA6.I
Analyst: RXD1
Purge Vol: 5 mL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 12/31/2009 11:33
Dilution: 1
Prep Batch ID: 938021
Batch ID: 938022

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
96-18-4	LCS	1,2,3-Trichloropropane	50.0	0.0	49.0	98	75-135
108-86-1	LCS	Bromobenzene	50.0	0.0	47.4	95	73-120
103-65-1	LCS	n-Propylbenzene	50.0	0.0	50.1	100	68-121
95-49-8	LCS	2-Chlorotoluene	50.0	0.0	49.1	98	69-120
98-82-8	LCS	Isopropylbenzene	50.0	0.0	49.8	100	66-127
108-67-8	LCS	1,3,5-Trimethylbenzene	50.0	0.0	49.2	98	67-126
106-43-4	LCS	4-Chlorotoluene	50.0	0.0	49.3	99	72-120
98-06-6	LCS	tert-Butylbenzene	50.0	0.0	48.1	96	72-124
95-63-6	LCS	1,2,4-Trimethylbenzene	50.0	0.0	47.9	96	72-122
135-98-8	LCS	sec-Butylbenzene	50.0	0.0	49.1	98	71-124
99-87-6	LCS	4-Isopropyltoluene	50.0	0.0	49.1	98	72-130
541-73-1	LCS	1,3-Dichlorobenzene	50.0	0.0	47.1	94	73-120
106-46-7	LCS	1,4-Dichlorobenzene	50.0	0.0	47.0	94	73-120
104-51-8	LCS	n-Butylbenzene	50.0	0.0	49.3	99	72-128
96-12-8	LCS	1,2-Dibromo-3-chloropropane	50.0	0.0	55.2	110	68-145
630-20-6	LCS	1,1,1,2-Tetrachloroethane	50.0	0.0	49.5	99	78-121
95-50-1	LCS	1,2-Dichlorobenzene	50.0	0.0	46.5	93	74-120

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: **10-1085**

Sample Type: **Laboratory Control Sample**

Client ID: **LCS for batch 938021**

Matrix: **SOIL**

Lab Sample ID: **1202007249**

Instrument: **VOA6.I**

Analysis Date: **12/31/2009 12:28**

Dilution: 1

Analyst: **RXD1**

Prep Batch ID: **938021**

Purge Vol: **5 mL**

Batch ID: **938022**

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
76-13-1	LCS	1,1,2-Trichloro-1,2,2-Trifluor *Trichlorotrifluoroethane*	250	0.0	286	115	52-139

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1085
Client ID: LCS for batch 938021
Lab Sample ID: 1202009752
Instrument: VOA6.I
Analyst: RXD1
Purge Vol: 5 mL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 01/04/2010 12:33
Dilution: 1
Prep Batch ID: 938021
Batch ID: 938022

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
75-71-8	LCS	Dichlorodifluoromethane	50.0	0.0	42.0	84	33-155
74-87-3	LCS	Chloromethane	50.0	0.0	40.4	81	53-132
75-01-4	LCS	Vinyl chloride	50.0	0.0	44.5	89	61-128
74-83-9	LCS	Bromomethane	50.0	0.0	44.8	90	63-126
75-00-3	LCS	Chloroethane	50.0	0.0	44.8	90	67-124
75-69-4	LCS	Trichlorofluoromethane	50.0	0.0	45.8	92	67-151
67-64-1	LCS	Acetone	250	0.0	177	71	29-160
75-35-4	LCS	1,1-Dichloroethylene	50.0	0.0	45.4	91	70-125
74-88-4	LCS	Iodomethane	250	0.0	218	87	74-131
75-09-2	LCS	Methylene chloride	50.0	0.0	39.7	79	72-127
75-15-0	LCS	Carbon disulfide	250	0.0	239	96	64-127
156-60-5	LCS	trans-1,2-Dichloroethylene	50.0	0.0	44.3	89	71-122
75-34-3	LCS	1,1-Dichloroethane	50.0	0.0	44.0	88	75-120
78-93-3	LCS	2-Butanone	250	0.0	221	88	35-162
156-59-2	LCS	cis-1,2-Dichloroethylene	50.0	0.0	44.6	89	76-122
594-20-7	LCS	2,2-Dichloropropane	50.0	0.0	50.3	101	74-135
67-66-3	LCS	Chloroform	50.0	0.0	43.5	87	77-120
74-97-5	LCS	Bromochloromethane	50.0	0.0	43.4	87	76-122
71-55-6	LCS	1,1,1-Trichloroethane	50.0	0.0	47.4	95	75-128
563-58-6	LCS	1,1-Dichloropropene	50.0	0.0	47.1	94	77-125
56-23-5	LCS	Carbon tetrachloride	50.0	0.0	48.6	97	77-134
107-06-2	LCS	1,2-Dichloroethane	50.0	0.0	43.3	87	72-120

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1085 **Sample Type:** Laboratory Control Sample

Client ID: LCS for batch 938021 **Matrix:** SOIL

Lab Sample ID: 1202009752

Instrument: VOA6.I **Analysis Date:** 01/04/2010 12:33 **Dilution:** 1

Analyst: RXD1 **Prep Batch ID** 938021

Purge Vol: 5 mL **Batch ID:** 938022

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
71-43-2	LCS	Benzene	50.0	0.0	43.1	86	72-120
79-01-6	LCS	Trichloroethylene	50.0	0.0	44.5	89	78-121
78-87-5	LCS	1,2-Dichloropropane	50.0	0.0	44.3	89	74-120
75-27-4	LCS	Bromodichloromethane	50.0	0.0	47.0	94	79-125
74-95-3	LCS	Dibromomethane	50.0	0.0	44.8	90	78-122
108-10-1	LCS	4-Methyl-2-pentanone	250	0.0	231	92	71-134
10061-01-5	LCS	cis-1,3-Dichloropropylene	50.0	0.0	46.9	94	80-125
108-88-3	LCS	Toluene	50.0	0.0	42.0	84	65-124
10061-02-6	LCS	trans-1,3-Dichloropropylene	50.0	0.0	46.5	93	71-134
79-00-5	LCS	1,1,2-Trichloroethane	50.0	0.0	42.7	85	76-120
591-78-6	LCS	2-Hexanone	250	0.0	237	95	42-159
142-28-9	LCS	1,3-Dichloropropane	50.0	0.0	42.0	84	72-120
127-18-4	LCS	Tetrachloroethylene	50.0	0.0	43.8	88	74-123
124-48-1	LCS	Dibromochloromethane	50.0	0.0	48.1	96	83-128
106-93-4	LCS	1,2-Dibromoethane	50.0	0.0	43.6	87	79-121
108-90-7	LCS	Chlorobenzene	50.0	0.0	43.8	88	75-120
100-41-4	LCS	Ethylbenzene	50.0	0.0	44.2	88	74-120
179601-23-1	LCS	m,p-Xylenes	100	0.0	88.1	88	74-120
95-47-6	LCS	o-Xylene	50.0	0.0	43.9	88	74-120
100-42-5	LCS	Styrene	50.0	0.0	44.7	89	76-125
75-25-2	LCS	Bromoform	50.0	0.0	50.8	102	77-138
79-34-5	LCS	1,1,2,2-Tetrachloroethane	50.0	0.0	44.8	90	72-122

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1085
Client ID: LCS for batch 938021
Lab Sample ID: 1202009752
Instrument: VOA6.I
Analyst: RXD1
Purge Vol: 5 mL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 01/04/2010 12:33
Dilution: 1
Prep Batch ID: 938021
Batch ID: 938022

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
96-18-4	LCS	1,2,3-Trichloropropane	50.0	0.0	43.9	88	75-135
108-86-1	LCS	Bromobenzene	50.0	0.0	43.0	86	73-120
103-65-1	LCS	n-Propylbenzene	50.0	0.0	44.5	89	68-121
95-49-8	LCS	2-Chlorotoluene	50.0	0.0	44.0	88	69-120
98-82-8	LCS	Isopropylbenzene	50.0	0.0	44.6	89	66-127
108-67-8	LCS	1,3,5-Trimethylbenzene	50.0	0.0	44.2	88	67-126
106-43-4	LCS	4-Chlorotoluene	50.0	0.0	44.2	88	72-120
98-06-6	LCS	tert-Butylbenzene	50.0	0.0	43.4	87	72-124
95-63-6	LCS	1,2,4-Trimethylbenzene	50.0	0.0	43.1	86	72-122
135-98-8	LCS	sec-Butylbenzene	50.0	0.0	44.3	89	71-124
99-87-6	LCS	4-Isopropyltoluene	50.0	0.0	44.2	88	72-130
541-73-1	LCS	1,3-Dichlorobenzene	50.0	0.0	42.6	85	73-120
106-46-7	LCS	1,4-Dichlorobenzene	50.0	0.0	42.2	84	73-120
104-51-8	LCS	n-Butylbenzene	50.0	0.0	44.5	89	72-128
96-12-8	LCS	1,2-Dibromo-3-chloropropane	50.0	0.0	49.7	99	68-145
630-20-6	LCS	1,1,1,2-Tetrachloroethane	50.0	0.0	44.9	90	78-121
95-50-1	LCS	1,2-Dichlorobenzene	50.0	0.0	41.8	84	74-120

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1085
Client ID: LCS for batch 938021
Lab Sample ID: 1202009753
Instrument: VOA6.I
Analyst: RXD1
Purge Vol: 5 mL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 01/04/2010 13:28
Dilution: 1
Prep Batch ID: 938021
Batch ID: 938022

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
76-13-1	LCS	1,1,2-Trichloro-1,2,2-Trifluor *Trichlorotrifluoroethane*	250	0.0	259	104	52-139

Method Blank Summary

SDG Number:	10-1085	Client:	LANL010	Matrix:	SOIL
Client ID:	MB for batch 938021	Instrument ID:	VOA6.I	Data File:	123109V6\6R406BL.D
Lab Sample ID:	1202007245	Prep Date:	12/31/2009 09:34	Analyzed:	12/31/09 12:56
Column:	DB-624				

This method blank applies to the following samples and quality control samples:

Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01 LCS for batch 938021	1202007248	123109V6\6R403LL.D	12/31/09	1133
02 LCS for batch 938021	1202007249	123109V6\6R405SL.D	12/31/09	1228
03 WST03-10-2201	243549001	123109V6\6R415.D	12/31/09	1707
04 WST03-10-2148	243549002	123109V6\6R416.D	12/31/09	1735

Method Blank Summary

SDG Number:	10-1085	Client:	LANL010	Matrix:	SOIL
Client ID:	MB for batch 938021	Instrument ID:	VOA6.I	Data File:	010410V6\6S109BL.D
Lab Sample ID:	1202009751	Prep Date:	01/04/2010 09:51	Analyzed:	01/04/10 13:56
Column:	DB-624				

This method blank applies to the following samples and quality control samples:

	Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01	LCS for batch 938021	1202009752	010410V6\6S106LL.D	01/04/10	1233
02	LCS for batch 938021	1202009753	010410V6\6S108SL.D	01/04/10	1328
03	WST03-10-2148PS	1202007246	010410V6\6S126.D	01/04/10	2145
04	WST03-10-2148PSD	1202007247	010410V6\6S127.D	01/04/10	2213

Instrument Performance Check

BFB

Lab Name GEL Laboratories LLC **Client SDG:** 10-1085

Instrument ID: VOA6.I **Injection Date/Time:** 04-JAN-10 12:05

Column Description: DB-624 **Lab File ID** 010410V6\6S105BFB.D

m/e	Ion Abundance Criteria	% Relative Abundance
50	15.0 - 40.0% of mass 95	20.7
75	30.0 - 60.0% of mass 95	48.7
95	Base Peak, 100% Relative Abundance	100
96	5.0 - 9.0% of mass 95	6.6
173	Less than 2.0% of mass 174	0.9
174	50.0 - 100.0% of mass 95	84.7
175	5.0 -9.0% of mass 174	7.2
176	95.0 - 101.0% of mass 174	96.8
177	5.0 - 9.0% of mass 176	6.7

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
CCVMIX[A]03	W6VM100104-01	010410V6\6S105.D	04-JAN-10 12:05
BLK02LCS	1202009752	010410V6\6S106LL.D	04-JAN-10 12:33
CCVMIX[B]04	W6VM100104-03	010410V6\6S107.D	04-JAN-10 13:01
BLK02SLCS	1202009753	010410V6\6S108SL.D	04-JAN-10 13:28
BLK02	1202009751	010410V6\6S109BL.D	04-JAN-10 13:56
WST03-10-2148MS	1202007246	010410V6\6S126.D	04-JAN-10 21:45
WST03-10-2148MSD	1202007247	010410V6\6S127.D	04-JAN-10 22:13

Instrument Performance Check

BFB

Lab Name GEL Laboratories LLC **Client SDG:** 10-1085

Instrument ID: VOA6.I **Injection Date/Time:** 10-DEC-09 10:12

Column Description: DB-624 **Lab File ID** 121009V6\6O404.D

m/e	Ion Abundance Criteria	% Relative Abundance
50	15.0 - 40.0% of mass 95	20
75	30.0 - 60.0% of mass 95	48.2
95	Base Peak, 100% Relative Abundance	100
96	5.0 - 9.0% of mass 95	6.7
173	Less than 2.0% of mass 174	0.8
174	50.0 - 100.0% of mass 95	84.2
175	5.0 -9.0% of mass 174	7.2
176	95.0 - 101.0% of mass 174	96.8
177	5.0 - 9.0% of mass 176	6.6

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
ICALMIX[A]	W6VM091210-03	121009V6\6O407.D	10-DEC-09 11:34
ICALMIX[A]	W6VM091210-04	121009V6\6O408.D	10-DEC-09 12:02
ICALMIX[A]	W6VM091210-05	121009V6\6O409.D	10-DEC-09 12:30
ICALMIX[A]	W6VM091210-06	121009V6\6O410.D	10-DEC-09 12:58
ICALMIX[A]	W6VM091210-07	121009V6\6O411.D	10-DEC-09 13:26
ICALMIX[A]	W6VM091210-08	121009V6\6O412.D	10-DEC-09 13:54
ICALMIX[A]	W6VM091210-09	121009V6\6O414.D	10-DEC-09 14:49
ICALMIX[A]	W6VM091210-10	121009V6\6O415.D	10-DEC-09 15:17
ICVMIX[A]01	W6VM091210-11	121009V6\6O416.D	10-DEC-09 15:45
ICALMIX[B]	W6VM091210-13	121009V6\6O418.D	10-DEC-09 16:40
ICALMIX[B]	W6VM091210-14	121009V6\6O419.D	10-DEC-09 17:08
ICALMIX[B]	W6VM091210-15	121009V6\6O420.D	10-DEC-09 17:36
ICALMIX[B]	W6VM091210-16	121009V6\6O421.D	10-DEC-09 18:04
ICALMIX[B]	W6VM091210-17	121009V6\6O422.D	10-DEC-09 18:32
ICALMIX[B]	W6VM091210-18	121009V6\6O423.D	10-DEC-09 19:00
ICALMIX[B]	W6VM091210-19	121009V6\6O424.D	10-DEC-09 19:28
ICVMIX[B]02	W6VM091210-20	121009V6\6O426.D	10-DEC-09 20:23

Instrument Performance Check

BFB

Lab Name GEL Laboratories LLC **Client SDG:** 10-1085

Instrument ID: VOA6.I **Injection Date/Time:** 31-DEC-09 10:38

Column Description: DB-624 **Lab File ID** 123109V6\6R401.D

m/e	Ion Abundance Criteria	% Relative Abundance
50	15.0 - 40.0% of mass 95	20.4
75	30.0 - 60.0% of mass 95	48.8
95	Base Peak, 100% Relative Abundance	100
96	5.0 - 9.0% of mass 95	6.5
173	Less than 2.0% of mass 174	0.8
174	50.0 - 100.0% of mass 95	84.5
175	5.0 -9.0% of mass 174	7
176	95.0 - 101.0% of mass 174	97.5
177	5.0 - 9.0% of mass 176	6.4

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
CCVMIX[A]01	W6VM091231-01	123109V6\6R402.D	31-DEC-09 11:05
BLK01LCS	1202007248	123109V6\6R403LL.D	31-DEC-09 11:33
CCVMIX[B]02	W6VM091231-03	123109V6\6R404.D	31-DEC-09 12:01
BLK01SLCS	1202007249	123109V6\6R405SL.D	31-DEC-09 12:28
BLK01	1202007245	123109V6\6R406BL.D	31-DEC-09 12:56
WST03-10-2201	243549001	123109V6\6R415.D	31-DEC-09 17:07
WST03-10-2148	243549002	123109V6\6R416.D	31-DEC-09 17:35

Internal Standard
Area and RT Summary

Lab Name : GEL Laboratories LLC

Instrument: VOA6.I

GC Column: DB-624

Client SDG: 10-1085

STD Analysis Time: 04-JAN-10 12:05

Data File: C:\msdchem\1\DATA\010410V6\6S105.D

	Fluorobenzene				Chlorobenzene-d5				1,4-Dichlorobenzene-d4			
	Area	#	RT	#	Area	#	RT	#	Area	#	RT	#
12 Hour STD	1473570		9.97		1099894		13.2		605179		15.6	
Upper Limit	2947140		10.5		2199788		13.7		1210358		16.1	
Lower Limit	736785		9.47		549947		12.7		302590		15.1	
Sample ID												
BLK02LCS	1553210		9.97		1154724		13.2		634458		15.6	
BLK02SLCS	1544017		9.98		1144914		13.2		645320		15.6	
BLK02	1510164		9.98		1119795		13.2		608795		15.6	
WST03-10-2148MS	697382	*	9.97		514087	*	13.2		277545	*	15.6	
WST03-10-2148MSD	983691		9.97		711691		13.2		383042		15.6	

Area Upper Limit = +100% of internal standard area
Area Lower Limit = - 50% of internal standard area

RT Upper Limit = + 0.50 minutes of internal standard RT
RT Lower Limit = - 0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Value outside of QC Limits

Internal Standard
Area and RT Summary

Lab Name : GEL Laboratories LLC

Instrument: VOA6.I

GC Column: DB-624

Client SDG: 10-1085

STD Analysis Time: 31-DEC-09 11:05

Data File: C:\msdchem\1\DATA\123109V6\6R402.D

	Fluorobenzene				Chlorobenzene-d5				1,4-Dichlorobenzene-d4			
	Area	#	RT	#	Area	#	RT	#	Area	#	RT	#
12 Hour STD	1230239		9.97		905496		13.2		499047		15.6	
Upper Limit	2460478		10.5		1810992		13.7		998094		16.1	
Lower Limit	615120		9.47		452748		12.7		249524		15.1	
Sample ID												
BLK01LCS	1263492		9.98		934490		13.2		510823		15.6	
BLK01SLCS	1259696		9.98		919441		13.2		505552		15.6	
BLK01	1246430		9.98		916841		13.2		485836		15.6	
WST03-10-2201	1102610		9.98		801959		13.2		420835		15.6	
WST03-10-2148	438732	*	9.98		314927	*	13.2		152491	*	15.6	

Area Upper Limit = +100% of internal standard area
Area Lower Limit = - 50% of internal standard area

RT Upper Limit = + 0.50 minutes of internal standard RT
RT Lower Limit = - 0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Value outside of QC Limits

Sample Data

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1085	Date Collected:	12/22/2009 12:00	Matrix:	S
Lab Sample ID:	243549001	Date Received:	12/24/2009 09:30		
		Client:	LANL010	Project:	LANL01004
Client ID:	WST03-10-2201	Method:	SW846 8260B	SOP Ref:	GL-OA-E-038
Batch ID:	938022	Inst:	VOA6.I	Dilution:	1
Run Date:	12/31/2009 17:07	Analyst:	RXD1	Purge Vol:	5 mL
Prep Date:	12/31/2009 13:40	Aliquot:	5 g	Final Volume:	5 mL
Data File:	123109V6\6R415.D	Column:	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/kg	0.340	1.00
74-87-3	Chloromethane	U	1.00	ug/kg	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/kg	0.300	1.00
74-83-9	Bromomethane	U	1.00	ug/kg	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/kg	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/kg	0.300	1.00
67-64-1	Acetone	J	3.86	ug/kg	1.66	5.00
75-35-4	1,1-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/kg	1.60	5.00
75-09-2	Methylene chloride	U	5.00	ug/kg	2.00	5.00
75-15-0	Carbon disulfide	U	5.00	ug/kg	1.25	5.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/kg	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/kg	1.50	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/kg	0.300	1.00
74-97-5	Bromochloromethane	U	1.00	ug/kg	0.330	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/kg	0.300	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/kg	0.300	1.00
56-23-5	Carbon tetrachloride	U	1.00	ug/kg	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/kg	0.300	1.00
71-43-2	Benzene	U	1.00	ug/kg	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/kg	0.330	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/kg	0.300	1.00
74-95-3	Dibromomethane	U	1.00	ug/kg	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/kg	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
108-88-3	Toluene	U	1.00	ug/kg	0.300	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/kg	0.300	1.00
591-78-6	2-Hexanone	U	5.00	ug/kg	1.50	5.00
142-28-9	1,3-Dichloropropane	U	1.00	ug/kg	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/kg	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/kg	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/kg	0.300	1.00
108-90-7	Chlorobenzene	U	1.00	ug/kg	0.300	1.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1085**	**Date Collected:**	**12/22/2009 12:00**	**Matrix:**	**S**
Lab Sample ID:	**243549001**	**Date Received:**	**12/24/2009 09:30**		
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**WST03-10-2201**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**938022**	**Inst:**	**VOA6.I**	**Dilution:**	**1**
Run Date:	**12/31/2009 17:07**	**Analyst:**	**RXD1**	**Purge Vol:**	**5 mL**
Prep Date:	**12/31/2009 13:40**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**123109V6\6R415.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.00	ug/kg	0.300	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/kg	0.300	2.00
95-47-6	o-Xylene	U	1.00	ug/kg	0.300	1.00
100-42-5	Styrene	U	1.00	ug/kg	0.300	1.00
75-25-2	Bromoform	U	1.00	ug/kg	0.300	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/kg	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/kg	0.300	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/kg	0.300	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/kg	0.300	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/kg	0.300	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/kg	0.300	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/kg	0.300	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/kg	0.300	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/kg	0.300	1.00
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.00	ug/kg	1.60	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	No Tentatively Identified Compounds Found			ug/kg		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\123109V6\
Data File : 6R415.D
Acq On : 31 Dec 2009 5:07 pm
Operator : RXD1
InstName : VOA6
Sample : |243549001|938022|1|VOAF|1|VOA8260BS|
Misc : LANL 5g N/A
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Jan 04 09:12:11 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Fluorobenzene	9.980	96	1103677	50.00 ug/L	0.00
41) Chlorobenzene-d5	13.156	117	801959	50.00 ug/L	0.00
58) 1,4-Dichlorobenzene-d4	15.576	152	420835	50.00 ug/L	0.00
82) B Fluorobenzene	9.980	96	1102610	50.00 ug/L	0.00
103) B Chlorobenzene-d5	13.156	117	801959	50.00 ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	15.576	152	420835	50.00 ug/L	0.00
System Monitoring Compounds					
29) 1,2-Dichloroethane-d4	9.626	65	328690	50.48 ug/L	0.00
Spiked Amount 50.000	Range 59 - 130		Recovery = 100.96%		
43) Toluene-d8	11.626	98	1099729	49.46 ug/L	0.00
Spiked Amount 50.000	Range 76 - 129		Recovery = 98.92%		
61) Bromofluorobenzene	14.357	95	412092	50.81 ug/L	0.00
Spiked Amount 50.000	Range 71 - 126		Recovery = 101.62%		
Target Compounds					Qvalue
2) Dichlorodifluoromethane	0.000		0	N.D.	
3) Chloromethane	0.000		0	N.D.	
4) Vinyl chloride	0.000		0	N.D.	
5) Bromomethane	0.000		0	N.D.	
6) Chloroethane	0.000		0	N.D.	
7) Trichlorofluoromethane	0.000		0	N.D.	
8) Ethyl ether	0.000		0	N.D.	
9) Acetone	6.712	43	7755	3.86 ug/L	80
10) 1,1-Dichloroethylene	0.000		0	N.D.	
11) Iodomethane	0.000		0	N.D.	
12) Acetonitrile	0.000		0	N.D.	
13) Methyl acetate	0.000		0	N.D.	
14) Carbon disulfide	0.000		0	N.D.	
15) Methylene chloride	7.285	84	5886	N.D.	
16) tert-Butyl methyl ether	0.000		0	N.D.	
17) trans-1,2-Dichloroethy...	0.000		0	N.D.	
18) Vinyl acetate	0.000		0	N.D.	
19) 1,1-Dichloroethane	0.000		0	N.D.	
20) 2-Butanone	8.712	43	196	N.D.	
21) cis-1,2-Dichloroethylene	0.000		0	N.D.	
22) 2,2-Dichloropropane	0.000		0	N.D.	
23) Bromochloromethane	0.000		0	N.D.	
24) Chloroform	0.000		0	N.D.	
25) 1,1,1-Trichloroethane	0.000		0	N.D.	
26) Cyclohexane	0.000		0	N.D.	
27) 1,1-Dichloropropene	0.000		0	N.D.	
28) Carbon tetrachloride	0.000		0	N.D.	
30) 1,2-Dichloroethane	0.000		0	N.D.	
31) Benzene	0.000		0	N.D.	
32) Cyclohexene	0.000		0	N.D.	
33) n-Butyl alcohol	0.000		0	N.D.	
34) Trichloroethylene	0.000		0	N.D.	
35) 1,2-Dichloropropane	0.000		0	N.D.	
36) Methylcyclohexane	0.000		0	N.D.	
37) Dibromomethane	0.000		0	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\123109V6\
Data File : 6R415.D
Acq On : 31 Dec 2009 5:07 pm
Operator : RXD1
InstName : VOA6
Sample : |243549001|938022|1|VOAF|1|VOA8260BS|
Misc : LANL 5g N/A
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Jan 04 09:12:11 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc Units Dev(Min)
38) Bromodichloromethane	0.000		0	N.D.
39) 2-Chloroethylvinyl ether	0.000		0	N.D.
40) cis-1,3-Dichloropropylene	0.000		0	N.D.
42) 4-Methyl-2-pentanone	11.406	58	852	N.D.
44) Toluene	11.705	91	875	N.D.
45) trans-1,3-Dichloroprop...	0.000		0	N.D.
46) 1,1,2-Trichloroethane	0.000		0	N.D.
47) 2-Hexanone	0.000		0	N.D.
48) 1,3-Dichloropropane	0.000		0	N.D.
49) Tetrachloroethylene	0.000		0	N.D.
50) Dibromochloromethane	0.000		0	N.D.
51) 1,2-Dibromoethane	0.000		0	N.D.
52) Chlorobenzene	0.000		0	N.D.
53) 1,1,1,2-Tetrachloroethane	0.000		0	N.D.
54) Ethylbenzene	0.000		0	N.D.
55) m,p-Xylenes	0.000		0	N.D.
56) o-Xylene	0.000		0	N.D.
57) Styrene	0.000		0	N.D.
59) Bromoform	0.000		0	N.D.
60) Isopropylbenzene	0.000		0	N.D.
62) 1,1,2,2-Tetrachloroethane	0.000		0	N.D.
63) 1,2,3-Trichloropropane	0.000		0	N.D.
64) Bromobenzene	0.000		0	N.D.
65) n-Propylbenzene	0.000		0	N.D.
66) 1,3,5-Trimethylbenzene	0.000		0	N.D.
67) 2-Chlorotoluene	0.000		0	N.D.
68) 4-Chlorotoluene	0.000		0	N.D.
69) tert-Butylbenzene	0.000		0	N.D.
70) 1,2,4-Trimethylbenzene	15.156	105	627	N.D.
71) sec-Butylbenzene	0.000		0	N.D.
72) 4-Isopropyltoluene	15.454	119	204	N.D.
73) 1,3-Dichlorobenzene	0.000		0	N.D.
74) 1,4-Dichlorobenzene	0.000		0	N.D.
75) n-Butylbenzene	0.000		0	N.D.
76) 1,2-Dichlorobenzene	0.000		0	N.D.
77) 1,2-Dibromo-3-chloropr...	0.000		0	N.D.
78) 1,2,4-Trichlorobenzene	0.000		0	N.D.
79) Hexachlorobutadiene	0.000		0	N.D.
80) Naphthalene	18.295	128	3221	N.D.
81) 1,2,3-Trichlorobenzene	0.000		0	N.D.
83) Chlorotrifluoroethylene	0.000		0	N.D.
84) 2-Chloro-1,1,1-trifluo...	0.000		0	N.D.
85) Acrolein	0.000		0	N.D.
86) Trichlorotrifluoroethane	0.000		0	N.D.
87) Isopropyl Alcohol	0.000		0	N.D.
88) Allyl chloride	0.000		0	N.D.
89) tert-Butyl Alcohol	0.000		0	N.D.
90) Acrylonitrile	0.000		0	N.D.
91) Isopropyl ether	0.000		0	N.D.
92) 2-Chloro-1,3-butadiene	0.000		0	N.D.
93) Ethyl tert-butyl ether	0.000		0	N.D.
94) Ethyl acetate	8.712	43	196	N.D.

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\123109V6\
Data File : 6R415.D
Acq On : 31 Dec 2009 5:07 pm
Operator : RXD1
InstName : VOA6
Sample : |243549001|938022|1|VOAF|1|VOA8260BS|
Misc : LANL 5g N/A
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Jan 04 09:12:11 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
95)	Propionitrile	0.000		0	N.D.	
96)	Methacrylonitrile	0.000		0	N.D.	
97)	Tetrahydrofuran	0.000		0	N.D.	
98)	Isobutyl alcohol	0.000		0	N.D.	
99)	Methyl tert-amyl ether	0.000		0	N.D.	
100)	Methyl methacrylate	0.000		0	N.D.	
101)	1,4-Dioxane	0.000		0	N.D.	
102)	2-Nitropropane	0.000		0	N.D.	
104)	Ethyl methacrylate	0.000		0	N.D.	
106)	1-Chlorohexane	0.000		0	N.D.	
107)	cis-1,4-Dichloro-2-butene	0.000		0	N.D.	
108)	Cyclohexanone	0.000		0	N.D.	
109)	trans-1,4-Dichloro-2-b...	0.000		0	N.D.	
110)	Pentachloroethane	0.000		0	N.D.	
111)	Benzyl chloride	0.000		0m	N.D.	d
112)	bis(2-Chloroisopropyl)...	16.168	45	2188	N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\123109V6\
Data File : 6R415.D
Acq On : 31 Dec 2009 5:07 pm
Operator : RXD1
InstName : VOA6
Sample : |243549001|938022|1|VOAF|1|VOA8260BS|
Misc : LANL 5g N/A
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Jan 04 09:12:11 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

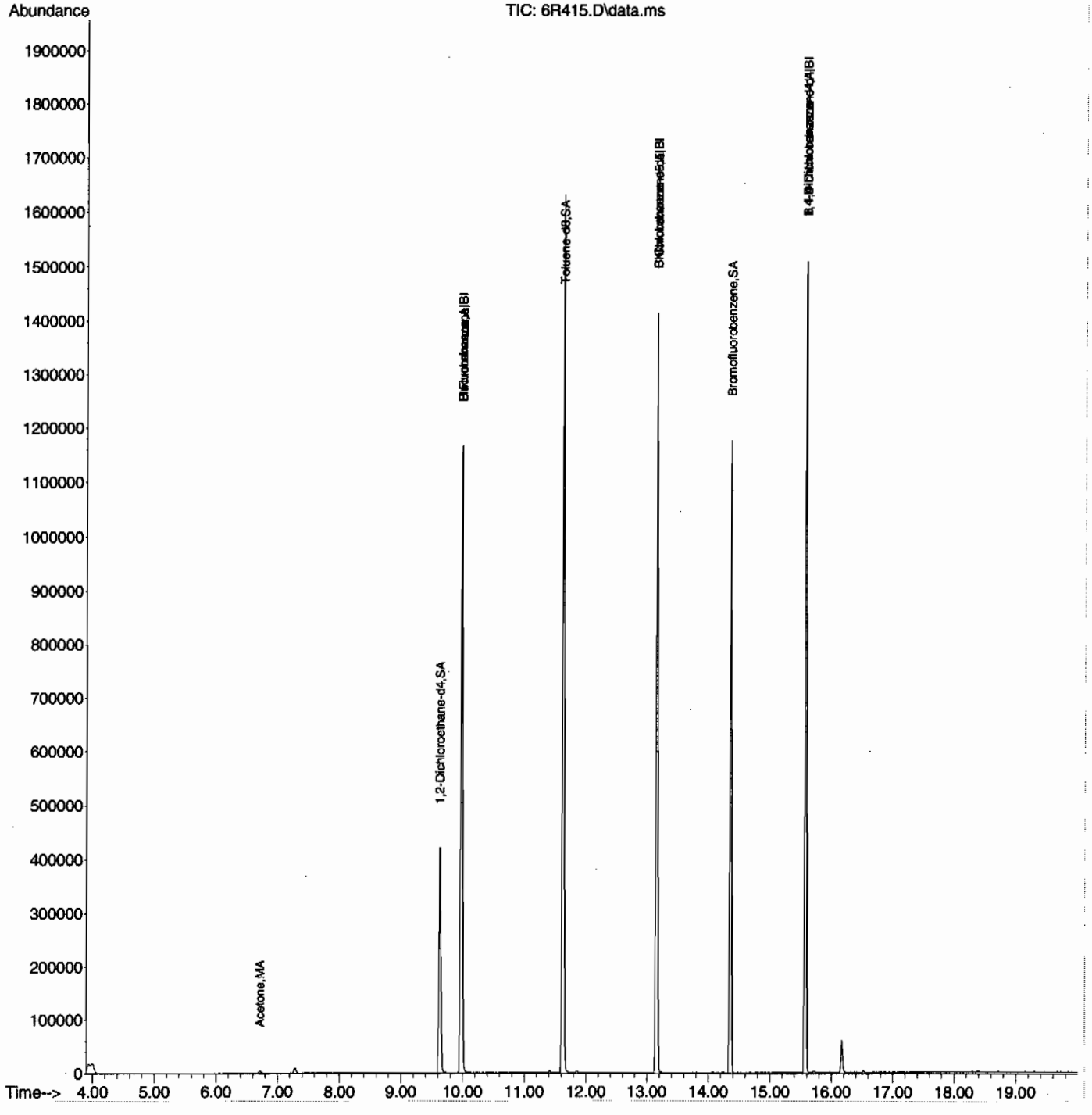

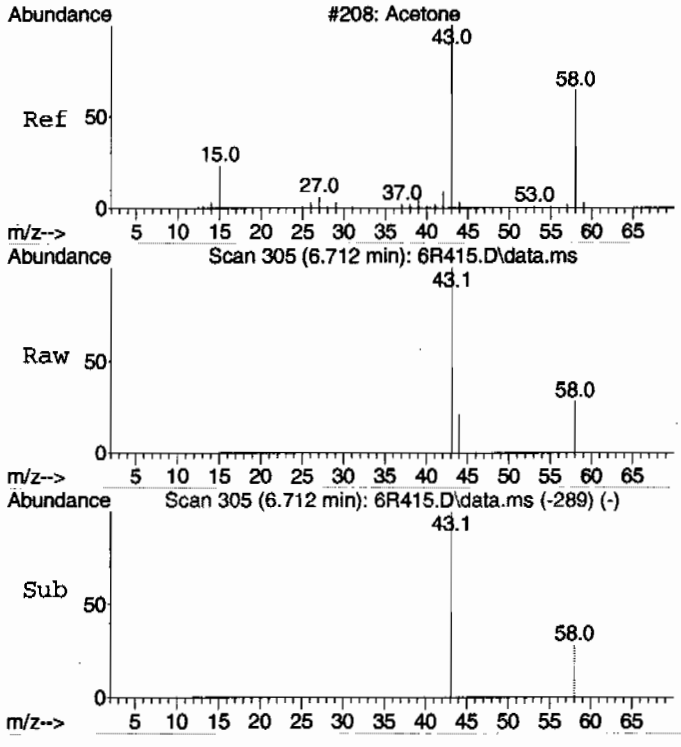

#9
Acetone
Concen: 3.86 ug/L
RT: 6.712 min Scan# 305
Delta R.T. 0.000 min
Lab File: 6R415.D
Acq: 31 Dec 2009 5:07 pm

Tgt Ion: 43 Resp: 7755

Ion	Ratio	Lower	Upper
43	100		
58	19.3	0.4	60.4

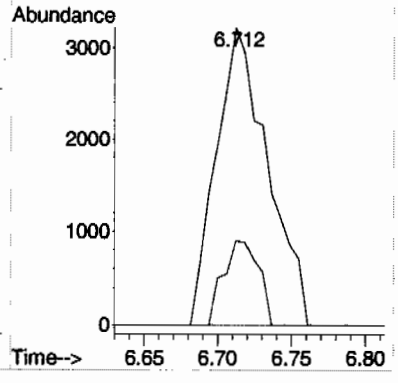

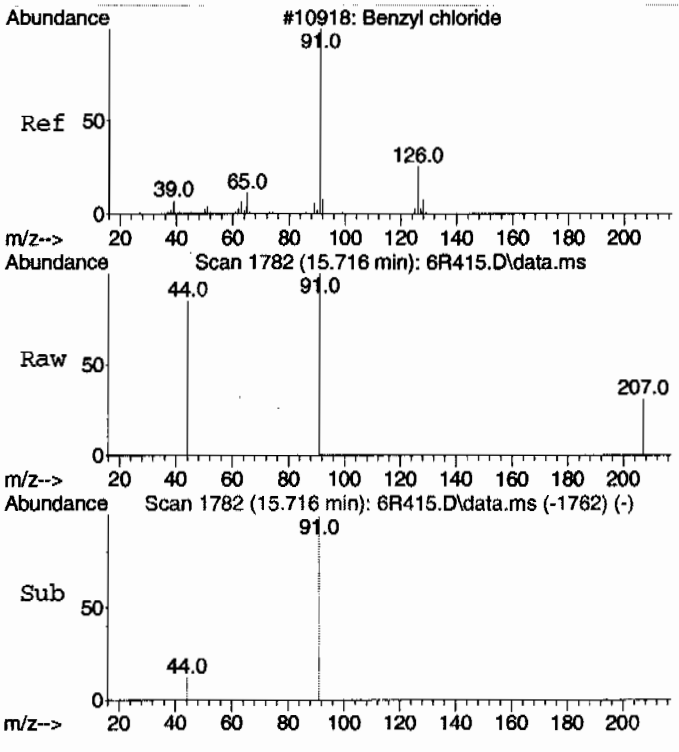

#111 BEFORE analyst DELETION
Benzyl chloride
Concen: 0.23 ug/L
RT: 15.716 min Scan# 1782
Delta R.T. 0.000 min
Lab File: 6R415.D
Acq: 31 Dec 2009 5:07 pm

Tgt Ion: 91 Resp: 2521

Ion	Ratio	Lower	Upper
91	100		
126	0.0	0.0	52.6
65	0.0	0.0	42.9

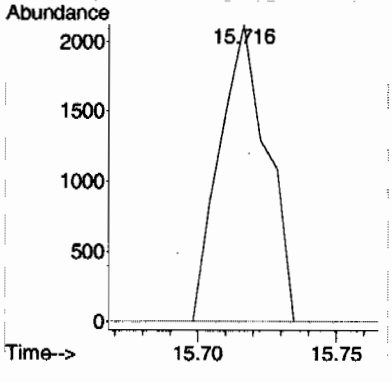

Library Search Compound Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\123109V6\
Data File : 6R415.D
Acq On : 31 Dec 2009 5:07 pm
Operator : RXD1
Sample : |243549001|938022|1|VOAF|1|VOA8260BS|
Misc : LANL 5g N/A
ALS Vial : 15 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

No Library Search Compounds Detected
****

Tentatively Identified Compound (LSC) summary
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\123109V6\
Data File : 6R415.D
Acq On : 31 Dec 2009 5:07 pm
Operator : RXD1
Sample : |243549001|938022|1|VOAF|1|VOA8260BS|
Misc : LANL 5g N/A
ALS Vial : 15 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

TIC Top Hit name	RT	EstConc	Units	Response	--Internal Standard--- #	RT	Resp	Conc

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1085	**Date Collected:**	12/22/2009 12:00	**Matrix:**	R
Lab Sample ID:	243549002	**Date Received:**	12/24/2009 09:30	**%Moisture:**	7.2
		Client:	LANL010	**Project:**	LANL01004
Client ID:	WST03-10-2148	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	938022	**Inst:**	VOA6.I	**Dilution:**	1
Run Date:	12/31/2009 17:35	**Analyst:**	RXD1	**Purge Vol:**	5 mL
Prep Date:	12/31/2009 13:42	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	123109V6\6R416.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.08	ug/kg	0.366	1.08
74-87-3	Chloromethane	U	1.08	ug/kg	0.323	1.08
75-01-4	Vinyl chloride	U	1.08	ug/kg	0.323	1.08
74-83-9	Bromomethane	U	1.08	ug/kg	0.323	1.08
75-00-3	Chloroethane	U	1.08	ug/kg	0.323	1.08
75-69-4	Trichlorofluoromethane	U	1.08	ug/kg	0.323	1.08
67-64-1	Acetone	U	5.39	ug/kg	1.79	5.39
75-35-4	1,1-Dichloroethylene	U	1.08	ug/kg	0.323	1.08
74-88-4	Iodomethane	U	5.39	ug/kg	1.72	5.39
75-09-2	Methylene chloride	U	5.39	ug/kg	2.15	5.39
75-15-0	Carbon disulfide	U	5.39	ug/kg	1.35	5.39
156-60-5	trans-1,2-Dichloroethylene	U	1.08	ug/kg	0.323	1.08
75-34-3	1,1-Dichloroethane	U	1.08	ug/kg	0.323	1.08
78-93-3	2-Butanone	U	5.39	ug/kg	1.62	5.39
156-59-2	cis-1,2-Dichloroethylene	U	1.08	ug/kg	0.323	1.08
594-20-7	2,2-Dichloropropane	U	1.08	ug/kg	0.323	1.08
67-66-3	Chloroform	U	1.08	ug/kg	0.323	1.08
74-97-5	Bromochloromethane	U	1.08	ug/kg	0.356	1.08
71-55-6	1,1,1-Trichloroethane	U	1.08	ug/kg	0.323	1.08
563-58-6	1,1-Dichloropropene	U	1.08	ug/kg	0.323	1.08
56-23-5	Carbon tetrachloride	U	1.08	ug/kg	0.323	1.08
107-06-2	1,2-Dichloroethane	U	1.08	ug/kg	0.323	1.08
71-43-2	Benzene	U	1.08	ug/kg	0.323	1.08
79-01-6	Trichloroethylene	U	1.08	ug/kg	0.356	1.08
78-87-5	1,2-Dichloropropane	U	1.08	ug/kg	0.323	1.08
75-27-4	Bromodichloromethane	U	1.08	ug/kg	0.323	1.08
74-95-3	Dibromomethane	U	1.08	ug/kg	0.323	1.08
108-10-1	4-Methyl-2-pentanone	U	5.39	ug/kg	1.35	5.39
10061-01-5	cis-1,3-Dichloropropylene	U	1.08	ug/kg	0.323	1.08
108-88-3	Toluene	U	1.08	ug/kg	0.323	1.08
10061-02-6	trans-1,3-Dichloropropylene	U	1.08	ug/kg	0.323	1.08
79-00-5	1,1,2-Trichloroethane	U	1.08	ug/kg	0.323	1.08
591-78-6	2-Hexanone	U	5.39	ug/kg	1.62	5.39
142-28-9	1,3-Dichloropropane	U	1.08	ug/kg	0.323	1.08
127-18-4	Tetrachloroethylene	U	1.08	ug/kg	0.323	1.08
124-48-1	Dibromochloromethane	U	1.08	ug/kg	0.323	1.08
106-93-4	1,2-Dibromoethane	U	1.08	ug/kg	0.323	1.08
108-90-7	Chlorobenzene	U	1.08	ug/kg	0.323	1.08

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1085**	**Date Collected:**	**12/22/2009 12:00**	**Matrix:**	**R**
Lab Sample ID:	**243549002**	**Date Received:**	**12/24/2009 09:30**	**%Moisture:**	**7.2**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**WST03-10-2148**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**938022**	**Inst:**	**VOA6.I**	**Dilution:**	**1**
Run Date:	**12/31/2009 17:35**	**Analyst:**	**RXD1**	**Purge Vol:**	**5 mL**
Prep Date:	**12/31/2009 13:42**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**123109V6\6R416.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.08	ug/kg	0.323	1.08
179601-23-1	m,p-Xylenes	U	2.15	ug/kg	0.323	2.15
95-47-6	o-Xylene	U	1.08	ug/kg	0.323	1.08
100-42-5	Styrene	U	1.08	ug/kg	0.323	1.08
75-25-2	Bromoform	U	1.08	ug/kg	0.323	1.08
79-34-5	1,1,2,2-Tetrachloroethane	U	1.08	ug/kg	0.323	1.08
96-18-4	1,2,3-Trichloropropane	U	1.08	ug/kg	0.323	1.08
108-86-1	Bromobenzene	U	1.08	ug/kg	0.323	1.08
103-65-1	n-Propylbenzene	U	1.08	ug/kg	0.323	1.08
95-49-8	2-Chlorotoluene	U	1.08	ug/kg	0.323	1.08
98-82-8	Isopropylbenzene	U	1.08	ug/kg	0.323	1.08
108-67-8	1,3,5-Trimethylbenzene	U	1.08	ug/kg	0.323	1.08
106-43-4	4-Chlorotoluene	U	1.08	ug/kg	0.323	1.08
98-06-6	tert-Butylbenzene	U	1.08	ug/kg	0.323	1.08
95-63-6	1,2,4-Trimethylbenzene	U	1.08	ug/kg	0.323	1.08
135-98-8	sec-Butylbenzene	U	1.08	ug/kg	0.323	1.08
99-87-6	4-Isopropyltoluene	U	1.08	ug/kg	0.323	1.08
541-73-1	1,3-Dichlorobenzene	U	1.08	ug/kg	0.323	1.08
106-46-7	1,4-Dichlorobenzene	U	1.08	ug/kg	0.323	1.08
104-51-8	n-Butylbenzene	U	1.08	ug/kg	0.323	1.08
96-12-8	1,2-Dibromo-3-chloropropane	U	1.08	ug/kg	0.323	1.08
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.39	ug/kg	1.72	5.39
630-20-6	1,1,1,2-Tetrachloroethane	U	1.08	ug/kg	0.323	1.08
95-50-1	1,2-Dichlorobenzene	U	1.08	ug/kg	0.323	1.08

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown siloxane	14.24	5.87	ug/kg	0	J

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\123109V6\
Data File : 6R416.D
Acq On : 31 Dec 2009 5:35 pm
Operator : RXD1
InstName : VOA6
Sample : |243549002|938022|1|VOAF|1|VOA8260BS|
Misc : LANL 5g N/A
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Jan 04 09:12:45 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Fluorobenzene	9.980	96	438732	50.00 ug/L	0.00
41) Chlorobenzene-d5	13.156	117	314927	50.00 ug/L	0.00
58) 1,4-Dichlorobenzene-d4	15.576	152	152491	50.00 ug/L	0.00
82) B Fluorobenzene	9.980	96	438732	50.00 ug/L	0.00
103) B Chlorobenzene-d5	13.156	117	314927	50.00 ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	15.576	152	152491	50.00 ug/L	0.00
System Monitoring Compounds					
29) 1,2-Dichloroethane-d4	9.626	65	132901	51.34 ug/L	0.00
Spiked Amount 50.000	Range 59 - 130		Recovery = 102.68%		
43) Toluene-d8	11.626	98	416343	47.68 ug/L	0.00
Spiked Amount 50.000	Range 76 - 129		Recovery = 95.36%		
61) Bromofluorobenzene	14.357	95	149688	50.94 ug/L	0.00
Spiked Amount 50.000	Range 71 - 126		Recovery = 101.88%		
Target Compounds					Qvalue
2) Dichlorodifluoromethane	0.000		0	N.D.	
3) Chloromethane	0.000		0	N.D.	
4) Vinyl chloride	0.000		0	N.D.	
5) Bromomethane	0.000		0	N.D.	
6) Chloroethane	0.000		0	N.D.	
7) Trichlorofluoromethane	0.000		0	N.D.	
8) Ethyl ether	0.000		0	N.D.	
9) Acetone	0.000		0	N.D.	
10) 1,1-Dichloroethylene	0.000		0	N.D.	
11) Iodomethane	0.000		0	N.D.	
12) Acetonitrile	0.000		0	N.D.	
13) Methyl acetate	0.000		0	N.D.	
14) Carbon disulfide	0.000		0	N.D.	
15) Methylene chloride	7.279	84	2345	N.D.	
16) tert-Butyl methyl ether	0.000		0	N.D.	
17) trans-1,2-Dichloroethy...	0.000		0	N.D.	
18) Vinyl acetate	0.000		0	N.D.	
19) 1,1-Dichloroethane	0.000		0	N.D.	
20) 2-Butanone	0.000		0	N.D.	
21) cis-1,2-Dichloroethylene	0.000		0	N.D.	
22) 2,2-Dichloropropane	0.000		0	N.D.	
23) Bromochloromethane	0.000		0	N.D.	
24) Chloroform	0.000		0	N.D.	
25) 1,1,1-Trichloroethane	0.000		0	N.D.	
26) Cyclohexane	0.000		0	N.D.	
27) 1,1-Dichloropropene	0.000		0	N.D.	
28) Carbon tetrachloride	0.000		0	N.D.	
30) 1,2-Dichloroethane	0.000		0	N.D.	
31) Benzene	0.000		0	N.D.	
32) Cyclohexene	0.000		0	N.D.	
33) n-Butyl alcohol	0.000		0	N.D.	
34) Trichloroethylene	0.000		0	N.D.	
35) 1,2-Dichloropropane	0.000		0	N.D.	
36) Methylcyclohexane	0.000		0	N.D.	
37) Dibromomethane	0.000		0	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\123109V6\
Data File : 6R416.D
Acq On : 31 Dec 2009 5:35 pm
Operator : RXD1
InstName : VOA6
Sample : |243549002|938022|1|VOAF|1|VOA8260BS|
Misc : LANL 5g N/A
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Jan 04 09:12:45 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
38)	Bromodichloromethane	0.000		0	N.D.	
39)	2-Chloroethylvinyl ether	0.000		0	N.D.	
40)	cis-1,3-Dichloropropylene	0.000		0	N.D.	
42)	4-Methyl-2-pentanone	0.000		0	N.D.	
44)	Toluene	0.000		0	N.D.	
45)	trans-1,3-Dichloroprop...	0.000		0	N.D.	
46)	1,1,2-Trichloroethane	0.000		0	N.D.	
47)	2-Hexanone	0.000		0	N.D.	
48)	1,3-Dichloropropane	0.000		0	N.D.	
49)	Tetrachloroethylene	0.000		0	N.D.	
50)	Dibromochloromethane	0.000		0	N.D.	
51)	1,2-Dibromoethane	0.000		0	N.D.	
52)	Chlorobenzene	0.000		0	N.D.	
53)	1,1,1,2-Tetrachloroethane	0.000		0	N.D.	
54)	Ethylbenzene	0.000		0	N.D.	
55)	m,p-Xylenes	0.000		0	N.D.	
56)	o-Xylene	0.000		0	N.D.	
57)	Styrene	0.000		0	N.D.	
59)	Bromoform	0.000		0	N.D.	
60)	Isopropylbenzene	0.000		0	N.D.	
62)	1,1,2,2-Tetrachloroethane	0.000		0	N.D.	
63)	1,2,3-Trichloropropane	0.000		0	N.D.	
64)	Bromobenzene	0.000		0	N.D.	
65)	n-Propylbenzene	0.000		0	N.D.	
66)	1,3,5-Trimethylbenzene	0.000		0	N.D.	
67)	2-Chlorotoluene	0.000		0	N.D.	
68)	4-Chlorotoluene	0.000		0	N.D.	
69)	tert-Butylbenzene	0.000		0	N.D.	
70)	1,2,4-Trimethylbenzene	0.000		0	N.D.	
71)	sec-Butylbenzene	0.000		0	N.D.	
72)	4-Isopropyltoluene	0.000		0	N.D.	
73)	1,3-Dichlorobenzene	0.000		0	N.D.	
74)	1,4-Dichlorobenzene	0.000		0	N.D.	
75)	n-Butylbenzene	0.000		0	N.D.	
76)	1,2-Dichlorobenzene	0.000		0	N.D.	
77)	1,2-Dibromo-3-chloropr...	0.000		0	N.D.	
78)	1,2,4-Trichlorobenzene	0.000		0	N.D.	
79)	Hexachlorobutadiene	0.000		0	N.D.	
80)	Naphthalene	0.000		0m	N.D.	d
81)	1,2,3-Trichlorobenzene	0.000		0	N.D.	
83)	Chlorotrifluoroethylene	0.000		0	N.D.	
84)	2-Chloro-1,1,1-trifluo...	0.000		0	N.D.	
85)	Acrolein	0.000		0	N.D.	
86)	Trichlorotrifluoroethane	0.000		0	N.D.	
87)	Isopropyl Alcohol	0.000		0	N.D.	
88)	Allyl chloride	0.000		0	N.D.	
89)	tert-Butyl Alcohol	0.000		0	N.D.	
90)	Acrylonitrile	0.000		0	N.D.	
91)	Isopropyl ether	0.000		0	N.D.	
92)	2-Chloro-1,3-butadiene	0.000		0	N.D.	
93)	Ethyl tert-butyl ether	0.000		0	N.D.	
94)	Ethyl acetate	0.000		0	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\123109V6\
Data File : 6R416.D
Acq On : 31 Dec 2009 5:35 pm
Operator : RXD1
InstName : VOA6
Sample : |243549002|938022|1|VOAF|1|VOA8260BS|
Misc : LANL 5g N/A
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Jan 04 09:12:45 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
95)	Propionitrile	0.000		0	N.D.	
96)	Methacrylonitrile	0.000		0	N.D.	
97)	Tetrahydrofuran	0.000		0	N.D.	
98)	Isobutyl alcohol	0.000		0	N.D.	
99)	Methyl tert-amyl ether	0.000		0	N.D.	
100)	Methyl methacrylate	0.000		0	N.D.	
101)	1,4-Dioxane	0.000		0	N.D.	
102)	2-Nitropropane	0.000		0	N.D.	
104)	Ethyl methacrylate	0.000		0	N.D.	
106)	1-Chlorohexane	0.000		0	N.D.	
107)	cis-1,4-Dichloro-2-butene	0.000		0	N.D.	
108)	Cyclohexanone	0.000		0	N.D.	
109)	trans-1,4-Dichloro-2-b...	0.000		0	N.D.	
110)	Pentachloroethane	0.000		0	N.D.	
111)	Benzyl chloride	0.000		0m	N.D.	d
112)	bis(2-Chloroisopropyl)...	0.000		0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\123109V6\
Data File : 6R416.D
Acq On : 31 Dec 2009 5:35 pm
Operator : RXD1
InstName : VOA6
Sample : |243549002|938022|1|VOAF|1|VOA8260BS|
Misc : LANL 5g N/A
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Jan 04 09:12:45 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

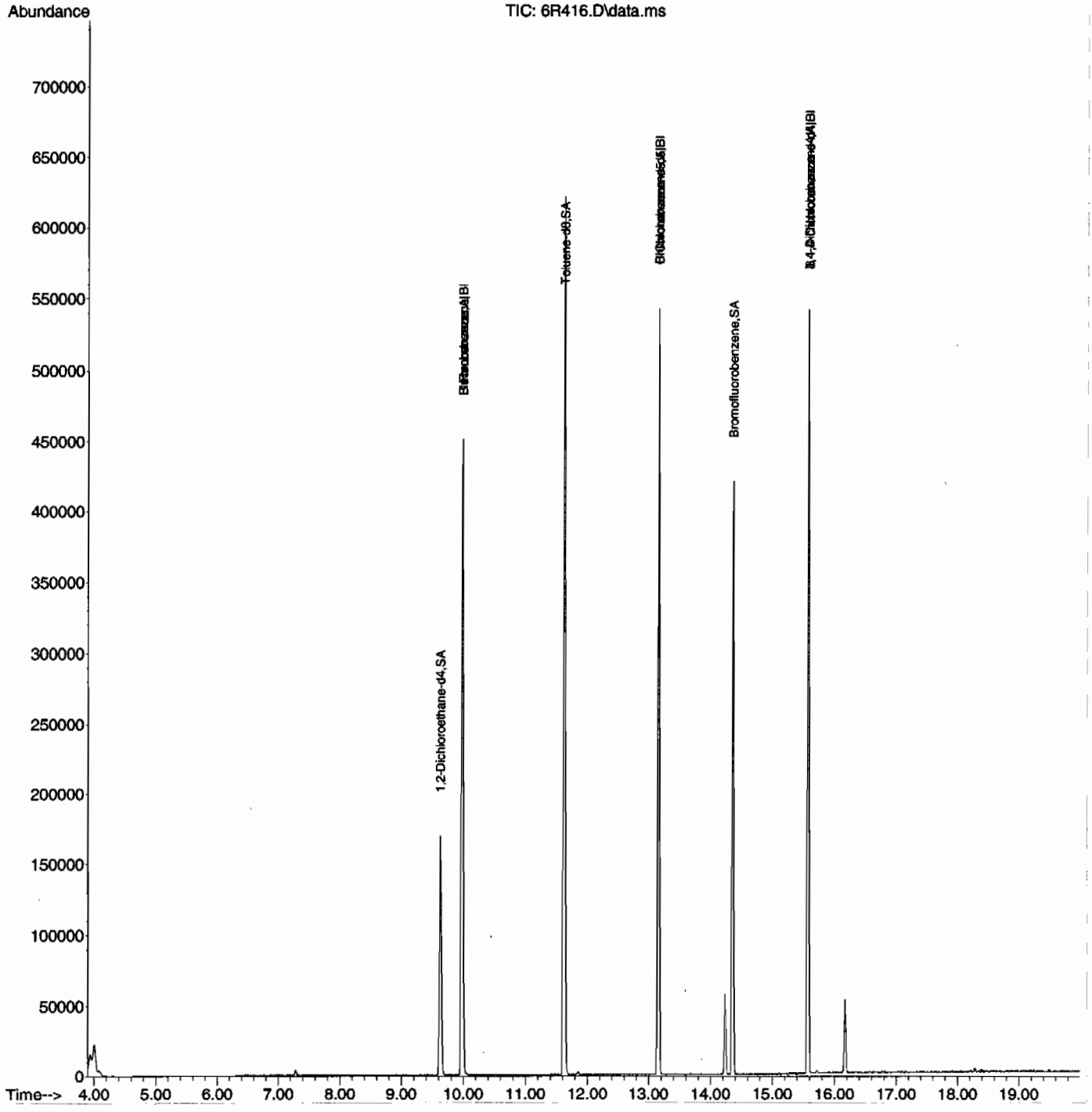

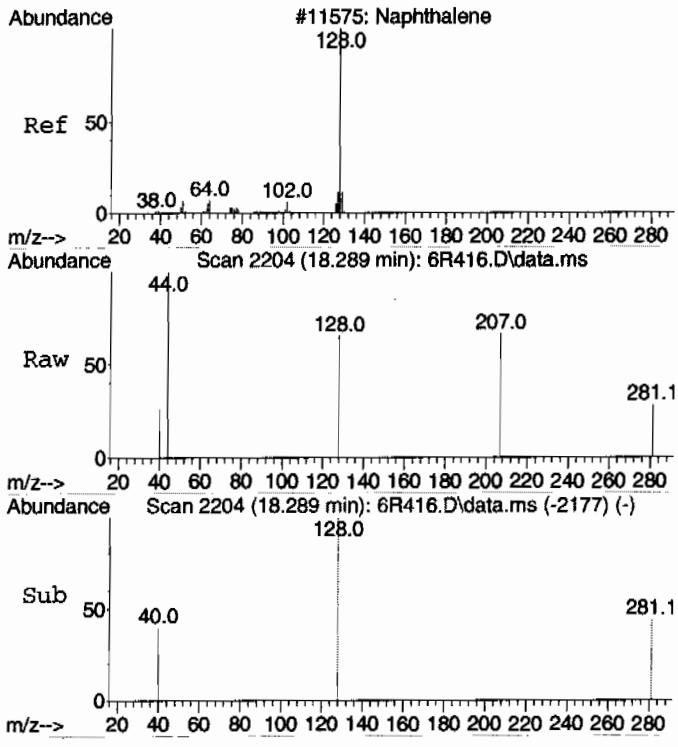

#80 BEFORE analyst DELETION
Naphthalene
Concen: 0.35 ug/L
RT: 18.289 min Scan# 2204
Delta R.T. 0.000 min
Lab File: 6R416.D
Acq: 31 Dec 2009 5:35 pm

Tgt Ion:128 Resp: 2366

Ion	Ratio	Lower	Upper
128	100		
127	0.0	0.0	42.6
129	0.0	0.0	40.9

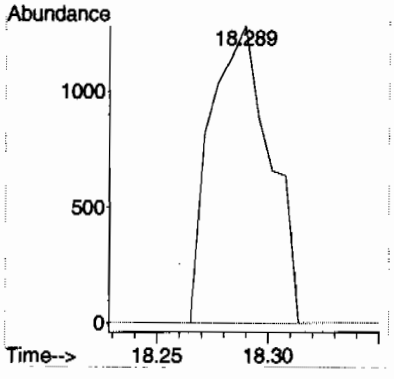

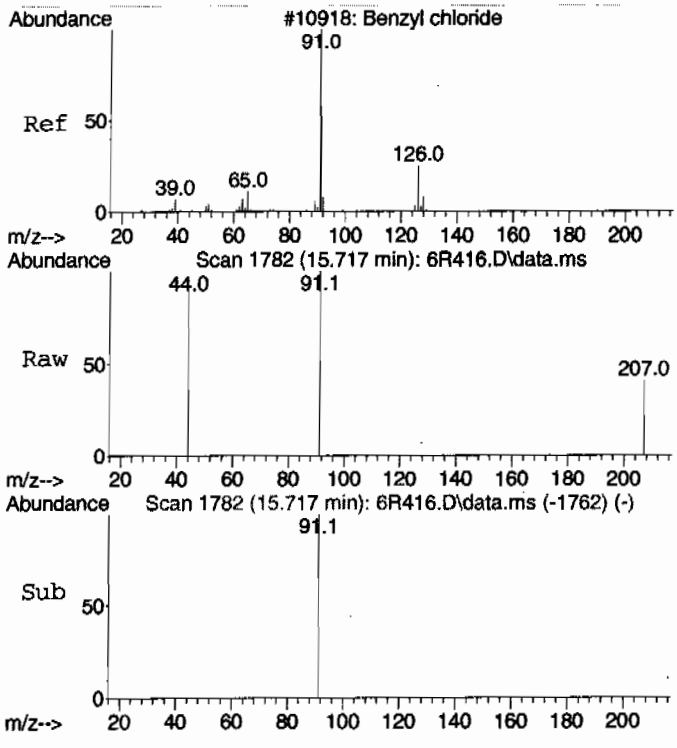

#111 BEFORE analyst DELETION
Benzyl chloride
Concen: 0.69 ug/L
RT: 15.717 min Scan# 1782
Delta R.T. 0.001 min
Lab File: 6R416.D
Acq: 31 Dec 2009 5:35 pm

Tgt Ion: 91 Resp: 2735

Ion	Ratio	Lower	Upper
91	100		
126	0.0	0.0	52.6
65	0.0	0.0	42.9

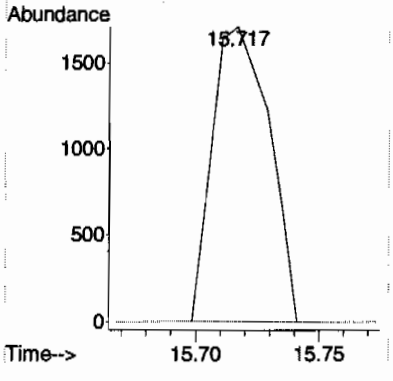

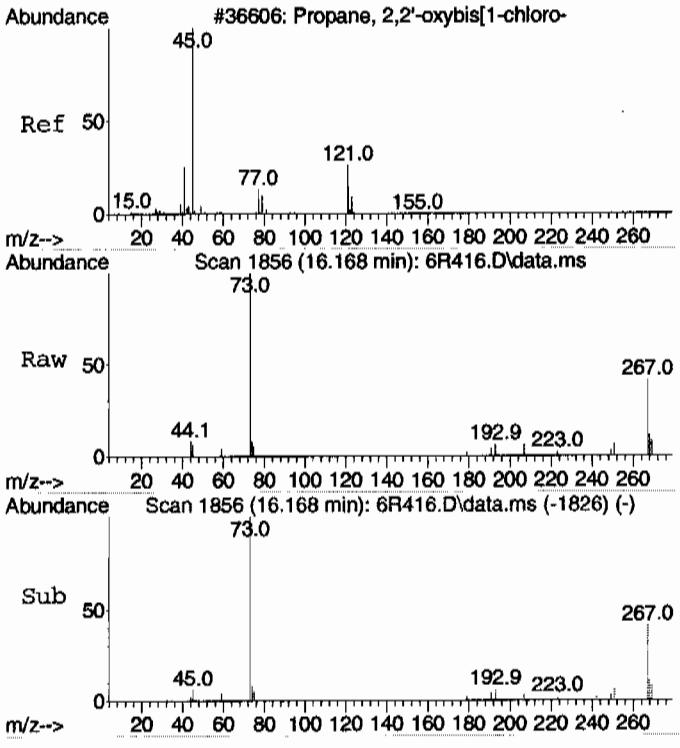

#112 BEFORE analyst DELETION
bis(2-Chloroisopropyl)ether
Concen: 2.03 ug/L
RT: 16.168 min Scan# 1856
Delta R.T. 0.055 min
Lab File: 6R416.D
Acq: 31 Dec 2009 5:35 pm

Tgt Ion: 45 Resp: 2345

Ion	Ratio	Lower	Upper
45	100		
121	0.0	0.0	53.0

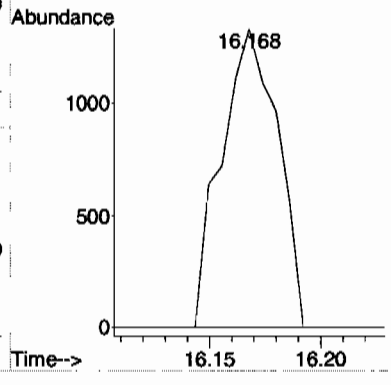

Library Search Compound Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\123109V6\
Data File : 6R416.D
Acq On : 31 Dec 2009 5:35 pm
Operator : RXD1
Sample : |243549002|938022|1|VOAF|1|VOA8260BS|
Misc : LANL 5g N/A
ALS Vial : 16 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

****
Peak Number 1 unknown siloxane Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
14.235	5.45 ug/L	104875	B Chlorobenzene-d5	13.156

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclotetrasiloxane, octamethyl-	296	C8H24O4Si4	000556-67-2	91
2	Cyclotetrasiloxane, octamethyl-	296	C8H24O4Si4	000556-67-2	90
3	Cyclotetrasiloxane, octamethyl-	296	C8H24O4Si4	000556-67-2	78
4	trans-4-(2-(5-Nitro-2-furyl)viny...	281	C15H11N3O3	000847-10-9	59
5	1-Thia-2-azacyclopenta[a]anthrac...	281	C15H7NO3S	1000303-19-5	50

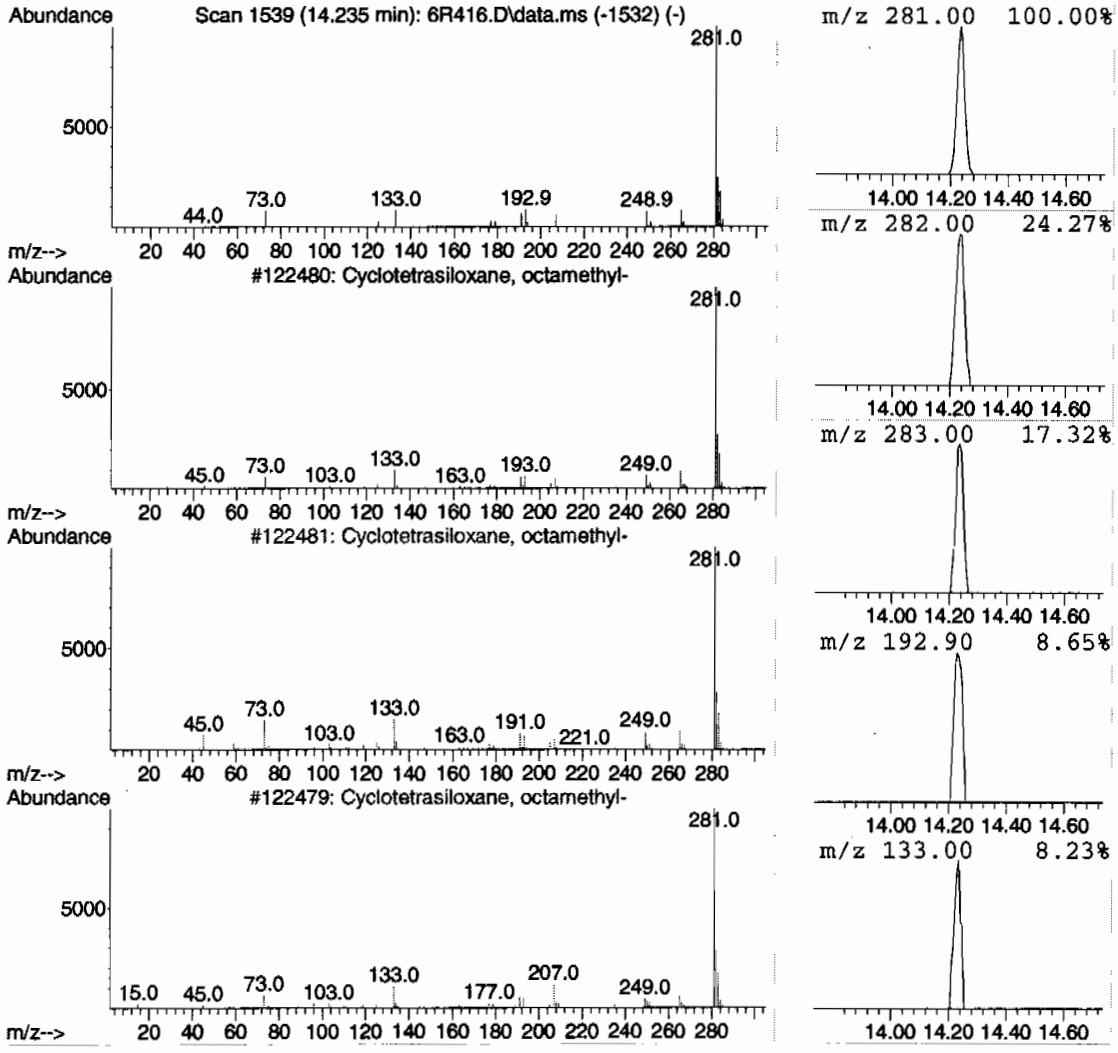

Tentatively Identified Compound (LSC) summary
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\123109V6\
Data File : 6R416.D
Acq On : 31 Dec 2009 5:35 pm
Operator : RXD1
Sample : |243549002|938022|1|VOAF|1|VOA8260BS|
Misc : LANL 5g N/A
ALS Vial : 16 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

TIC Top Hit name	RT	EstConc	Units	Response	--Internal Standard--- #	RT	Resp	Conc
unknown siloxane	14.235	5.5	ug/L	104875	4	13.156	961956	50.0

Standards

EPA 524.2/Low level SW846 8260B and Regular level 8260B and EPA 624

Calibration Standard Concentration Levels

	Level 1	Level 1a	Level 2	Level 3	Level 4 #	Level 5	Level 6	Level 7 !	Level 7a
Fluorobenzene (IS)									
1,2-Dichloroethane-d4(surr)		0.5	1	2	5	10	20	50	100
Dichlorodifluoromethane		0.5	1	2	5	10	20	50	100
Chloromethane		0.5	1	2	5	10	20	50	100
Vinyl chloride		0.5	1	2	5	10	20	50	100
Bromomethane		0.5	1	2	5	10	20	50	100
Chloroethane		0.5	1	2	5	10	20	50	100
Trichlorofluoromethane		0.5	1	2	5	10	20	50	100
1,1-Dichloroethene		0.5	1	2	5	10	20	50	100
Acetone	1	2.5	5	10	25	50	100	250	500
Iodomethane	1	2.5	5	10	25	50	100	250	500
Carbon disulfide	1	2.5	5	10	25	50	100	250	500
Methylene chloride		0.5	1	2	5	10	20	50	100
trans-1,2-Dichloroethene		0.5	1	2	5	10	20	50	100
1,1-Dichloroethane		0.5	1	2	5	10	20	50	100
Ethyl ether		0.5	1	2	5	10	20	50	100
Vinyl acetate	1	2.5	5	10	25	50	100	250	500
cis-1,2-Dichloroethene		0.5	1	2	5	10	20	50	100
1,2-Dichloroethene (total)		1	2	4	10	20	40	100	200
Cyclohexene		0.5	1	2	5	10	20	50	100
2-Chloroethylvinyl ether			5	10	25	50	100	250	500
2,2-Dichloropropane		0.5	1	2	5	10	20	50	100
2-Butanone	1	2.5	5	10	25	50	100	250	500
Bromochloromethane		0.5	1	2	5	10	20	50	100
Chloroform		0.5	1	2	5	10	20	50	100
1,1,1-Trichloroethane		0.5	1	2	5	10	20	50	100
1,1-Dichloropropene		0.5	1	2	5	10	20	50	100
Carbon tetrachloride		0.5	1	2	5	10	20	50	100
Benzene		0.5	1	2	5	10	20	50	100
1,2-Dichloroethane		0.5	1	2	5	10	20	50	100
Trichloroethene		0.5	1	2	5	10	20	50	100
1,2-Dichloropropane		0.5	1	2	5	10	20	50	100
Dibromomethane		0.5	1	2	5	10	20	50	100
Bromodichloromethane		0.5	1	2	5	10	20	50	100
cis-1,3-Dichloropropene		0.5	1	2	5	10	20	50	100
tert-Butylmethylether		0.5	1	2	5	10	20	50	100
Ethyl Ether			1	2	5	10	20	50	100
Acetonitrile			25	50	125	250	500	1250	2500
Methyl acetate			5	10	25	50	100	250	500
Cyclohexane			1	2	5	10	20	50	100
Methylcyclohexane			1	2	5	10	20	50	100
n-Butyl alcohol			50	100	250	500	1000	2500	5000
2-Nitropropane			5	10	25	50	100	250	500
Ethyl acetate			5	10	25	50	100	250	500
Acrolein			5	10	25	50	100	250	500
Trichlorotrifluoroethane			5	10	25	50	100	250	500
Allyl chloride			5	10	25	50	100	250	500
Acrylonitrile			5	10	25	50	100	250	500
1,4-Dioxane			50	100	250	500	1000	2500	5000
Isobutyl alcohol			50	100	250	500	1000	2500	5000
Methacrylonitrile			5	10	25	50	100	250	500
Propionitrile			5	10	25	50	100	250	500
Methyl methacrylate			5	10	25	50	100	250	500
Chlorotrifluoroethylene			5	10	25	50	100	250	500
2-Chloro-1,1,1-trifluoroethane			5	10	25	50	100	250	500

tert-Butyl alcohol			50	100	250	500	1000	2500	5000
Isopropyl ether			1	2	5	10	20	50	100
Ethyl tert-butyl ether			1	2	5	10	20	50	100
Isopropyl alcohol			50	100	250	500	1000	2500	5000
Methyl tert-amyl ether			1	2	5	10	20	50	100
1-Chlorohexane			1	2	5	10	20	50	100
2-Chloro-1,3-butadiene(chloroprene)			1	2	5	10	20	50	100
Chlorobenzene-d5 (IS)									
Toluene-d8 (surr)		0.5	1	2	5	10	20	50	100
4-Methyl-2-pentanone	1	2.5	5	10	25	50	100	250	500
Toluene		0.5	1	2	5	10	20	50	100
trans-1,3-Dichloropropene		0.5	1	2	5	10	20	50	100
1,1,2-Trichloroethane		0.5	1	2	5	10	20	50	100
Tetrachloroethene		0.5	1	2	5	10	20	50	100
1,3-Dichloropropane		0.5	1	2	5	10	20	50	100
2-Hexanone	1	2.5	5	10	25	50	20	250	500
Dibromochloromethane		0.5	1	2	5	10	20	50	100
1,2-Dibromoethane		0.5	1	2	5	10	20	50	100
Chlorobenzene		0.5	1	2	5	10	20	50	100
1,1,1,2-Tetrachloroethane		0.5	1	2	5	10	20	50	100
Ethylbenzene		0.5	1	2	5	10	20	50	100
m,p-Xylene		1	2	4	10	20	20	100	200
o-Xylene		0.5	1	2	5	10	20	50	100
Xylenes (total)		1.5	3	6	15	30	60	150	300
Stryene		0.5	1	2	5	10	20	50	100
Cyclohexanone			50	100	250	500	1000	2500	5000
Ethyl methacrylate			5	10	25	50	100	250	500
1,4-Dichlorobenzene-d4 (IS)									
Bromofluorobenzene (surr)		0.5	1	2	5	10	20	50	100
Bromoform		0.5	1	2	5	10	20	50	100
Isopropylbenzene		0.5	1	2	5	10	20	50	100
1,1,2,2-Tetrachloroethane		0.5	1	2	5	10	20	50	100
Bromobenzene		0.5	1	2	5	10	20	50	100
1,2,3-Trichloropropane		0.5	1	2	5	10	20	50	100
n-Propylbenzene		0.5	1	2	5	10	20	50	100
2-Chlorotoluene		0.5	1	2	5	10	20	50	100
1,3,5-Trimethylbenzene		0.5	1	2	5	10	20	50	100
4-Chlorotoluene		0.5	1	2	5	10	20	50	100
1,2,4-Trimethylbenzene		0.5	1	2	5	10	20	50	100
sec-Butylbenzene		0.5	1	2	5	10	20	50	100
1,3-Dichlorobenzene		0.5	1	2	5	10	20	50	100
tert-Butylbenzene		0.5	1	2	5	10	20	50	100
Isopropyltoluene		0.5	1	2	5	10	20	50	100
1,4-Dichlorobenzene		0.5	1	2	5	10	20	50	100
n-Butylbenzene		0.5	1	2	5	10	20	50	100
1,2-Dichlorobenzene		0.5	1	2	5	10	20	50	100
1,2-Dibromo-3-chloropropa		0.5	1	2	5	10	20	50	100
1,2,4-Trichlorobenzene		0.5	1	2	5	10	20	50	100
Hexachlorobutadiene		0.5	1	2	5	10	20	50	100
Naphthalene		0.5	1	2	5	10	20	50	100
1,2,3-Trichlorobenzene		0.5	1	2	5	10	20	50	100
cis-1,4-Dichloro-2-butene			5	10	25	50	100	250	500
trans-1,4-Dichloro-2-butene			5	10	25	50	100	250	500
Tetrahydrofuran			5	10	25	50	100	250	500
Pentachloroethane			5	10	25	50	100	250	500
Benzyl chloride			5	10	25	50	100	250	500
bis(2-Chloro-isopropyl)ether			5	10	25	50	100	250	500

Method	PQL	Concentration range
EPA 524.2	Level 1a	Levels 1a -> 7a
SW 846 8260B low level	Level 1a	Levels 1-> 7a
EPA 624	Level 2	Levels 2-> 7a
SW846 8260B	Level 2	Levels 2-> 7a

#: Indicates calibration verification concentration level used for low level analysis

!: Indicates calibration verification concentration level used for regular level analysis

Calibration History Report VOA6
GEL Laboratories, LLC

Method File : C:\msdchem\1\METHODS\VOA6-8260-121009.M
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Integrator : (RTE Integrator) Response via : Initial Calibration

Cal Lvl:8 Amt:-1 Last Updated with: C:\msdchem\1\DATA\121009V6\60414.D

Injection Date	Mix	Calibration File
10 Dec 2009 2:49 pm	A	C:\msdchem\1\DATA\121009V6\60414.D

Cal Lvl:1 Amt:1 Last Updated with: C:\msdchem\1\DATA\121009V6\60418.D

Injection Date	Mix	Calibration File
10 Dec 2009 3:17 pm	A	C:\msdchem\1\DATA\121009V6\60415.D
10 Dec 2009 4:40 pm	B	C:\msdchem\1\DATA\121009V6\60418.D

Cal Lvl:2 Amt:2 Last Updated with: C:\msdchem\1\DATA\121009V6\60419.D

Injection Date	Mix	Calibration File
10 Dec 2009 11:34 am	A	C:\msdchem\1\DATA\121009V6\60407.D
10 Dec 2009 5:08 pm	B	C:\msdchem\1\DATA\121009V6\60419.D

Cal Lvl:3 Amt:5 Last Updated with: C:\msdchem\1\DATA\121009V6\60420.D

Injection Date	Mix	Calibration File
10 Dec 2009 12:02 pm	A	C:\msdchem\1\DATA\121009V6\60408.D
10 Dec 2009 5:36 pm	B	C:\msdchem\1\DATA\121009V6\60420.D

Cal Lvl:4 Amt:10 Last Updated with: C:\msdchem\1\DATA\121009V6\60421.D

Injection Date	Mix	Calibration File
10 Dec 2009 12:30 pm	A	C:\msdchem\1\DATA\121009V6\60409.D
10 Dec 2009 6:04 pm	B	C:\msdchem\1\DATA\121009V6\60421.D

Cal Lvl:5 Amt:20 Last Updated with: C:\msdchem\1\DATA\121009V6\60422.D

Injection Date	Mix	Calibration File
10 Dec 2009 12:58 pm	A	C:\msdchem\1\DATA\121009V6\60410.D
10 Dec 2009 6:32 pm	B	C:\msdchem\1\DATA\121009V6\60422.D

Cal Lvl:6 Amt:50 Last Updated with: C:\msdchem\1\DATA\121009V6\60423.D

Injection Date	Mix	Calibration File
10 Dec 2009 1:26 pm	A	C:\msdchem\1\DATA\121009V6\60411.D
10 Dec 2009 7:00 pm	B	C:\msdchem\1\DATA\121009V6\60423.D

Cal Lvl:7 Amt:100 Last Updated with: C:\msdchem\1\DATA\121009V6\60424.D

Injection Date	Mix	Calibration File
10 Dec 2009 1:54 pm	A	C:\msdchem\1\DATA\121009V6\60412.D
10 Dec 2009 7:28 pm	B	C:\msdchem\1\DATA\121009V6\60424.D

Response Factor Report VOA6
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For Linear Calibration: y = concentration ratio, x = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
2)MA Dichlorodifluoromethane	0.2122344	0.2232812 0.2116585	0.2246314	0.2792048	0.2086322	0.2094071	0.2241	AVRG		11.2099
3)MPA Chloromethane	0.3018661	0.3377571 0.3004831	0.3107589	0.3220134	0.2922306	0.2928066	0.3083	AVRG		5.3998
4)MCA Vinyl chloride	0.2701427	0.2854050 0.2661185	0.2798535	0.2793538	0.2574013	0.2562340	0.2706	AVRG		4.2191
5)MA Bromomethane	0.2055878	0.2082186 0.2001872	0.2035578	0.2044313	0.1953195	0.1956995	0.2019	AVRG		2.4550
6)MA Chloroethane	0.2053181	0.1952824 0.2012262	0.1986611	0.2015154	0.2002854	0.2038765	0.2009	AVRG		1.6487
7)MA Trichlorofluoromethane	0.3997047	0.3941850 0.3884566	0.4116021	0.3975569	0.3941101	0.3917678	0.3968	AVRG		1.8892
8)MA Ethyl ether	0.2476936	0.2981892 0.2357482	0.2773795	0.2492815	0.2442189	0.2520515	0.2578	AVRG		8.5179
9)MA Acetone		0.1105217	0.0983102	0.0841360	0.0810798	0.0807655	0.0910	AVRG		14.3843
10)MCA 1,1-Dichloroethylene	0.3759820	0.3796793 0.3524014	0.3629430	0.3459163	0.3753148	0.3696478	0.3660	AVRG		3.4999
11)MA Iodomethane	0.3943182	0.4027922 0.3607777	0.4129224	0.3859253	0.4079415	0.3958907	0.3944	AVRG		4.3937
12)MA Acetonitrile	0.0374099	0.0381593 0.0355251	0.0364691	0.0362921	0.0381896	0.0389799	0.0373	AVRG		3.3243
13)MA Methyl acetate	0.2119610	0.2062288 0.1961051	0.1959205	0.2011061	0.2042341	0.2165080	0.2046	AVRG		3.7782
14)MA Carbon disulfide	0.7342336	0.7427821 0.6535432	0.7701791	0.7148046	0.7816045	0.7437036	0.7344	AVRG		5.7197
15)MA Methylene chloride	0.2650295	0.2504097	0.3586873	0.2965955	0.2843227	0.2716573	0.2878	AVRG		13.2697
16)MA tert-Butyl methyl ether	0.7178414	0.7916862 0.6912656	0.7640083	0.6846200	0.7126300	0.7280524	0.7272	AVRG		5.3019

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For Linear Calibration: y = concentration ratio, x = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
17)MA trans-1,2-Dichloroethyle	0.3776554	0.3683886 0.3524416	0.4015524	0.3537796	0.3876870	0.3732115	0.3735	AVRG		4.7187
18)MA Vinyl acetate	0.5608365	0.4905047 0.5259008	0.5108814	0.5558842	0.5450210	0.5774248	0.5381	AVRG		5.6690
19)MPA 1,1-Dichloroethane	0.4689507	0.4735992 0.4394961	0.4838472	0.4549248	0.4839184	0.4670680	0.4674	AVRG		3.4037
20)MA 2-Butanone	0.1105573	0.1213262 0.1040462	0.1148871	0.1185865	0.1150297	0.1212154	0.1151	AVRG		5.3934
21)MA cis-1,2-Dichloroethylene	0.4182469	0.4195003 0.3964212	0.4236643	0.4068955	0.4278609	0.4198225	0.4161	AVRG		2.5915
22)MA 2,2-Dichloropropane	0.3501550	0.3275044 0.3303592	0.3362806	0.3210795	0.3478993	0.3436341	0.3367	AVRG		3.2613
23)MA Bromochloromethane	0.1316678	0.1243742 0.1258530	0.1254803	0.1274374	0.1331449	0.1291842	0.1282	AVRG		2.5792
24)MCA Chloroform	0.4357051	0.4327655 0.4088180	0.4517753	0.4320750	0.4466964	0.4384843	0.4352	AVRG		3.1530
25)MA 1,1,1-Trichloroethane	0.3766651	0.3545665 0.3564585	0.3781073	0.3429955	0.3752445	0.3724629	0.3652	AVRG		3.7646
26)MA Cyclohexane	0.4872574	0.4658020 0.4538365	0.4746435	0.4533501	0.4920645	0.4789968	0.4723	AVRG		3.2424
27)MA 1,1-Dichloropropene	0.3373146	0.3267449 0.3157520	0.3460611	0.3219637	0.3460734	0.3330388	0.3324	AVRG		3.5086
28)MA Carbon tetrachloride	0.3318274	0.3260108 0.3186325	0.3191166	0.3100868	0.3287754	0.3271430	0.3231	AVRG		2.3243
29)SA 1,2-Dichloroethane-d4	0.2962702	0.2993517 0.2883697	0.2966709	0.2953114	0.2955918	0.2934623	0.2950	AVRG		1.1588
30)MA 1,2-Dichloroethane	0.3560932	0.3729201 0.3353587	0.3560339	0.3576492	0.3613600	0.3581947	0.3568	AVRG		3.1212
31)MA Benzene	1.0999736 0.9930403	1.0415992 0.9179240	1.0414520	1.0006924	1.0382904	1.0154085	1.0185	AVRG		5.1392

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Compound b | m1 | m2	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
32)MA Cyclohexene	0.5019296	0.4667640 0.4716311	0.4824499	0.4619734	0.5039427	0.5027549	0.4845	AVRG		3.7748
33)MA n-Butyl alcohol -0.0092 | 0.0086 | 0.00	13494 1762453	22120 3606257	45316	125907	295915	713263		LINR	#	0.9997
34)MA Trichloroethylene	0.2551409	0.2695070 0.2379508	0.2586517	0.2446072	0.2599620	0.2537951	0.2542	AVRG		4.0764
35)MCA 1,2-Dichloropropane	0.2733027	0.2681400 0.2586003	0.2688681	0.2668460	0.2754567	0.2731595	0.2692	AVRG		2.0947
36)MA Methylcyclohexane	0.4528596	0.4399298 0.4205278	0.4571718	0.4146793	0.4625598	0.4491111	0.4424	AVRG		4.1597
37)MA Dibromomethane	0.1493533	0.1361965 0.1421583	0.1387731	0.1434422	0.1437514	0.1473206	0.1430	AVRG		3.1875
38)MA Bromodichloromethane	0.3274031	0.2757345 0.3128155	0.2864166	0.2900783	0.3029399	0.3149084	0.3015	AVRG		6.0602
39)MA 2-Chloroethylvinyl ether	0.1727019	0.1437961 0.1640503	0.1445594	0.1936062	0.1634662	0.1718516	0.1649	AVRG		10.4918
40)MA cis-1,3-Dichloropropylen	0.4096143	0.3609206 0.3927613	0.3482530	0.3701967	0.3849783	0.3963204	0.3804	AVRG		5.6760
42)MA 4-Methyl-2-pentanone	0.1368731	0.1241555 0.1328924	0.1169303	0.1298552	0.1358418	0.1424309	0.1313	AVRG		6.5061
43)SA Toluene-d8	1.3826016	1.4063658 1.3692128	1.4037116	1.3758963	1.3859025	1.3803183	1.3863	AVRG		1.0011
44)MCA Toluene	1.4288332	1.6072192 1.3239846	1.5996153	1.4745282	1.5061227	1.4893060	1.4899	AVRG		6.5737
45)MA trans-1,3-Dichloropropyl	0.5194597	0.4513267 0.5012892	0.4482156	0.4467542	0.4897035	0.5151138	0.4817	AVRG		6.7030
46)MA 1,1,2-Trichloroethane	0.2456732	0.2526383 0.2379460	0.2452014	0.2379916	0.2436152	0.2524711	0.2451	AVRG		2.4449
47)MA 2-Hexanone	0.2519791	0.2341341 0.2397697	0.2145162	0.2349889	0.2425614	0.2670615	0.2407	AVRG		6.7580

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For Linear Calibration: y = concentration ratio, x = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
48)MA 1,3-Dichloropropane	0.5182872	0.5277262 0.4833653	0.5198835	0.5294688	0.5366747	0.5355168	0.5216	AVRG		3.4972
49)MA Tetrachloroethylene	0.2867699	0.3219671 0.2694709	0.3198263	0.2944521	0.3145210	0.3003462	0.3011	AVRG		6.3847
50)MA Dibromochloromethane	0.3485497	0.2618656 0.3433980	0.2782664	0.2837730	0.3144298	0.3301487	0.3086	AVRG		11.0874
51)MA 1,2-Dibromoethane	0.3063965	0.2847395 0.2970674	0.2904709	0.2867757	0.2994790	0.3035953	0.2955	AVRG		2.8305
52)MPA Chlorobenzene	0.9505480	0.9700730 0.8950379	1.0085837	0.9725408	0.9735874	0.9741070	0.9635	AVRG		3.6020
53)MA 1,1,1,2-Tetrachloroethan	0.3532770	0.2998710 0.3340249	0.3281956	0.3291800	0.3414970	0.3486527	0.3335	AVRG		5.2827
54)MCA Ethylbenzene	1.6174875	1.6835128 1.4859878	1.6688459	1.6127534	1.7068395	1.6597100	1.6336	AVRG		4.4888
55)MA m,p-Xylenes	0.6551259	0.6638384 0.6036628	0.6584253	0.6422963	0.6747784	0.6753009	0.6533	AVRG		3.7859
56)MA o-Xylene	0.6530015	0.6611161 0.6096110	0.6142579	0.6238887	0.6636513	0.6637868	0.6413	AVRG		3.8053
57)MA Styrene	1.0764753	0.9809620 1.0120490	0.9430807	0.9912570	1.0599807	1.0877000	1.0216	AVRG		5.3137
59)MPA Bromoform	0.4129312	0.2977739 0.4168101	0.3003833	0.3111675	0.3463784	0.3890668	0.3535	AVRG		14.8681
60)MA Isopropylbenzene	3.0509839	3.0934768 2.7744449	3.0640796	2.9850060	3.1810630	3.1851114	3.0477	AVRG		4.5944
61)SA Bromofluorobenzene	0.9668800	0.9796877 0.9391525	0.9668644	0.9652127	0.9606038	0.9666108	0.9636	AVRG		1.2700
62)MPA 1,1,2,2-Tetrachloroethan	0.7003404	0.6497580 0.6714973	0.6785578	0.6772856	0.6866139	0.7187445	0.6833	AVRG		3.2069
63)MA 1,2,3-Trichloropropane	0.1964037	0.1611670 0.1907103	0.1973369	0.1998901	0.1957398	0.2040378	0.1922	AVRG		7.4232

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Compound b | m1 | m2	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
64)MA Bromobenzene		0.8413387	0.8187846	0.7620473	0.7933353	0.7923493				
	0.7696909	0.7077793					0.7836	AVRG		5.5012
65)MA n-Propylbenzene		3.7621957	3.6484124	3.5249531	3.7005892	3.6840295				
	3.5156399	3.1628154					3.5712	AVRG		5.6458
66)MA 1,3,5-Trimethylbenzene		2.7105701	2.6419943	2.5446442	2.7125708	2.6942284				
	2.6038213	2.3810487					2.6127	AVRG		4.5671
67)MA 2-Chlorotoluene		0.7793660	0.7646150	0.7553678	0.7855246	0.7866550				
	0.7510140	0.6930984					0.7594	AVRG		4.2785
68)MA 4-Chlorotoluene		2.3003674	2.2344153	2.1711396	2.2741567	2.2514575				
	2.1634039	1.9979894					2.1990	AVRG		4.6368
69)MA tert-Butylbenzene		0.6374780	0.5556470	0.5469296	0.5969844	0.5948356				
	0.5865540	0.5500763					0.5812	AVRG		5.6311
70)MA 1,2,4-Trimethylbenzene		2.9025961	2.8455061	2.7107079	2.8226597	2.7878638				
	2.7008576	2.4985635					2.7527	AVRG		4.8343
71)MA sec-Butylbenzene		3.6647193	3.5222670	3.4220850	3.6614145	3.6096166				
	3.5077111	3.2018291					3.5128	AVRG		4.6427
72)MA 4-Isopropyltoluene		3.0039538	2.8435132	2.7611634	2.9810390	2.9650620				
	2.8893721	2.6637164					2.8725	AVRG		4.3745
73)MA 1,3-Dichlorobenzene		1.6471735	1.5794464	1.5207738	1.5572737	1.5462071				
	1.4810019	1.3887383					1.5315	AVRG		5.3050
74)MA 1,4-Dichlorobenzene		1.7340242	1.6203186	1.5941590	1.5891533	1.5468635				
	1.5004775	1.4068187					1.5703	AVRG		6.4936
75)MA n-Butylbenzene		2.8738367	2.7836913	2.6970713	2.9236329	2.8680236				
	2.7968535	2.5716912					2.7878	AVRG		4.3273
76)MA 1,2-Dichlorobenzene		1.5622316	1.5360911	1.4861645	1.5057432	1.4982778				
	1.4471145	1.3570774					1.4847	AVRG		4.5168
77)MA 1,2-Dibromo-3-chloroprop		0.1010395	0.1073264	0.1228811	0.1269645	0.1400227				
	0.1493914						0.1246	AVRG		14.8610
78)MA 1,2,4-Trichlorobenzene		1.3000887	1.1132870	1.0888211	1.1105460	1.0936020				
	1.0959346	1.0145764					1.1167	AVRG		7.8283

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For Linear Calibration: y = concentration ratio, x = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
79)MA Hexachlorobutadiene	0.6922023	0.7926004 0.6317986	0.7317473	0.7046472	0.7222174	0.6878052	0.7090	AVRG		6.9077
80)MA Naphthalene	2.2616887	2.6711850 2.1625424	1.9890184	2.1503816	2.2126319	2.2623259	2.2443	AVRG		9.3561
81)MA 1,2,3-Trichlorobenzene	0.9162040	1.1336407 0.8601809	0.9105267	0.8813930	0.9286071	0.9152550	0.9351	AVRG		9.6948
83)B Chlorotrifluoroethylene	0.1881216	0.1490342	0.1816961	0.1788430	0.1898346	0.1848474	0.1787	AVRG		8.4468
84)B 2-Chloro-1,1,1-trifluoro	0.3264422	0.2824525 0.2908168	0.2879324	0.2875075	0.3110905	0.2998157	0.2980	AVRG		5.2851
85)B Acrolein	0.0395317	0.0356113 0.0363122	0.0359365	0.0356931	0.0348688	0.0373620	0.0365	AVRG		4.2451
86)B Trichlorotrifluoroethane	0.0922475	0.1000504 0.0891276	0.0967221	0.0905673	0.0939880	0.0911033	0.0934	AVRG		4.1117
87)B Isopropyl Alcohol	0.0215827	0.0196008 0.0194556	0.0187955	0.0177190	0.0189093	0.0196533	0.0194	AVRG		6.0674
88)B Allyl chloride	0.4383010	0.4550005 0.4124570	0.4406552	0.4273726	0.4484022	0.4377811	0.4371	AVRG		3.1871
89)B tert-Butyl Alcohol	0.0330042	0.0290000 0.0290688	0.0295413	0.0276804	0.0285352	0.0302175	0.0296	AVRG		5.7625
90)B Acrylonitrile	0.0978829	0.0914371 0.0898519	0.0936750	0.0907006	0.0926063	0.0939948	0.0929	AVRG		2.8817
91)B Isopropyl ether	1.0445233	0.9702112 0.9845102	0.9702464	0.9587353	1.0107760	1.0272262	0.9952	AVRG		3.2798
92)B 2-Chloro-1,3-butadiene	0.3994571	0.3469645 0.3937049	0.3501799	0.3461045	0.3820921	0.3856556	0.3720	AVRG		6.2913
93)B Ethyl tert-butyl ether	0.8972627	0.8171915 0.8476037	0.8171509	0.8112386	0.8577802	0.8677665	0.8451	AVRG		3.7754
94)B Ethyl acetate	0.2700764	0.2945890 0.2417925	0.2773388	0.2549074	0.2572784	0.2613638	0.2653	AVRG		6.4659

Response Factor Report VOA6
GEL Laboratories, LLC

Method File : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Last Update : Mon Dec 14 12:44:52 2009
Integrator : (RTE Integrator) Response via : Initial Calibration

For Linear Calibration: y = concentration ratio, x = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
95)B Propionitrile	0.0384242	0.0353437 0.0354602	0.0364254	0.0339544	0.0363230	0.0367154	0.0361	AVRG		3.8393
96)B Methacrylonitrile	0.1675008	0.1506741 0.1527979	0.1625637	0.1539664	0.1616947	0.1620017	0.1587	AVRG		3.9332
97)B Tetrahydrofuran	0.0864598	0.0896706 0.0775202	0.0877985	0.0827308	0.0816822	0.0841379	0.0843	AVRG		4.8691
98)B Isobutyl alcohol	0.0106873	0.0090225 0.0093963	0.0095742	0.0089893	0.0091716	0.0098651	0.0095	AVRG	#	6.2815
99)B Methyl tert-amyl ether	0.7785884	0.6722986 0.7250961	0.6932561	0.6933257	0.7362331	0.7538752	0.7218	AVRG		5.2294
100)B Methyl methacrylate	0.1644996	0.1431557 0.1476097	0.1466455	0.1462899	0.1539413	0.1602513	0.1518	AVRG		5.2882
101)B 1,4-Dioxane	0.0024191	0.0024798 0.0022436	0.0024445	0.0023123	0.0022142	0.0023018	0.0023	AVRG	#	4.4001
102)B 2-Nitropropane -0.0058 | 0.0780 | 0.00	831550	11509 1561467	24133	59867	127906	294691		LINR		0.9983
104)B Ethyl methacrylate	0.4180230	0.3499429 0.3693288	0.3833601	0.3903187	0.4136001	0.4152529	0.3914	AVRG		6.6315
106)B 1-Chlorohexane	0.7159302	0.6241483 0.7024941	0.6720327	0.6761025	0.7303460	0.7123984	0.6905	AVRG		5.2246
107)B cis-1,4-Dichloro-2-buten	0.2492203	0.2250675 0.2345680	0.2295042	0.2248694	0.2388553	0.2451969	0.2353	AVRG		4.0759
108)B Cyclohexanone	0.0212890	0.0183082 0.0197798	0.0189898	0.0173811	0.0187546	0.0202618	0.0193	AVRG		6.7576
109)B trans-1,4-Dichloro-2-but	0.2381868	0.2140663 0.2222904	0.2271296	0.2192916	0.2301195	0.2313238	0.2261	AVRG		3.5950
110)B Pentachloroethane	0.3483537	0.3198791 0.3218054	0.3046995	0.3480490	0.3529256	0.3443905	0.3343	AVRG		5.5636
111)B Benzyl chloride	1.3269105	1.2676355 1.1561169	1.3106652	1.2969449	1.3396149	1.3571593	1.2936	AVRG		5.1997

Response Factor Report VOA6
GEL Laboratories, LLC

Method File : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Last Update : Mon Dec 14 12:44:52 2009
Integrator : (RTE Integrator) Response via : Initial Calibration

For Linear Calibration: y = concentration ratio, x = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
112)B bis(2-Chloroisopropyl)et		0.3888848	0.3923756	0.3593955	0.3612045	0.3881230				
	0.4024800	0.3645249					0.3796	AVRG		4.5878

(#) = Out of Range

Continuing Calibration Summary

Client SDG: 10-1085

Instrument ID: VOA6.I **Injection Date** 10-DEC-09 15:45

Data File: 121009V6\6O416.D **Init. Cal. Date(s)** 10-DEC-09 11:34 - 10-DEC-09 19:2

Lab Sample ID W6VM091210-11 **Quant Type** ISTD **Method:** VOA6-8260-121009.M

	Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type	
S	1,2-Dichloroethane-d4	0.295	0.28522		.01		-3.31525	30		Averaged	
S	Toluene-d8	1.3863	1.37374		.01		-0.90601	30		Averaged	
S	Bromofluorobenzene	0.9636	0.96409		.01		0.05085	30		Averaged	
	Dichlorodifluoromethane	0.2241	0.17489		.01		-21.95895	30		Averaged	
	Chloromethane	0.3083	0.24044		.1		-22.01103	30		Averaged	spcc
	Vinyl chloride	0.2706	0.24311		.01		-10.15891	20		Averaged	ccc
	Bromomethane	0.2019	0.18278		.01		-9.47003	30		Averaged	
	Chloroethane	0.2009	0.18563		.01		-7.6008	30		Averaged	
	Trichlorofluoromethane	0.3968	0.372		.01		-6.25	30		Averaged	
	Ethyl ether	0.2578	0.2312		.01		-10.31808	30		Averaged	
	Acetone	0.091	0.07078		.01		-22.21978	40		Averaged	
	1,1-Dichloroethylene	0.366	0.34543		.01		-5.62022	20		Averaged	ccc
	Iodomethane	0.3944	0.36435		.01		-7.61917	30		Averaged	
	Acetonitrile	0.0373	0.03702		.01		-0.75067	30		Averaged	
	Carbon disulfide	0.7344	0.7168		.01		-2.39651	30		Averaged	
	Methyl acetate	0.2046	0.20258		.01		-0.98729	40		Averaged	
	Methylene chloride	0.2878	0.25012		.01		-13.09243	30		Averaged	
	tert-Butyl methyl ether	0.7272	0.68144		.01		-6.29263	30		Averaged	
	trans-1,2-Dichloroethylene	0.3735	0.35831		.01		-4.06693	30		Averaged	
	Vinyl acetate	0.5381	0.58958		.01		9.56699	40		Averaged	
	1,1-Dichloroethane	0.4674	0.44799		.1		-4.15276	30		Averaged	spcc
	2-Butanone	0.1151	0.1155		.01		0.34752	40		Averaged	
	cis-1,2-Dichloroethylene	0.4161	0.40307		.01		-3.13146	30		Averaged	
	2,2-Dichloropropane	0.3367	0.35182		.01		4.49064	30		Averaged	
	Bromochloromethane	0.1282	0.12437		.01		-2.98752	30		Averaged	
	Chloroform	0.4352	0.41847		.01		-3.84421	20		Averaged	ccc
	1,1,1-Trichloroethane	0.3652	0.36984		.01		1.27054	30		Averaged	
	Cyclohexane	0.4723	0.48637		.01		2.97904	30		Averaged	
	1,1-Dichloropropene	0.3324	0.33568		.01		0.98676	30		Averaged	
	Carbon tetrachloride	0.3231	0.32867		.01		1.72392	30		Averaged	
	1,2-Dichloroethane	0.3568	0.33679		.01		-5.60818	30		Averaged	
	Benzene	1.0185	0.96132		.01		-5.61414	30		Averaged	
	Cyclohexene	0.4845	0.48291		.01		-0.32817	30		Averaged	
	n-Butyl alcohol	5000	5176.1	5000			3.522	40		Linear	
	Trichloroethylene	0.2542	0.24527		.01		-3.51298	30		Averaged	
	Methylcyclohexane	0.4424	0.45818		.01		3.56691	30		Averaged	
	1,2-Dichloropropane	0.2692	0.26546		.01		-1.3893	20		Averaged	ccc

Continuing Calibration Summary

Instrument ID: VOA6.I **Injection Date** 10-DEC-09 15:45

Data File: 121009V6\6O416.D **Init. Cal. Date(s)** 10-DEC-09 11:34 10-DEC-09 19:2

Lab Sample ID W6VM091210-11 **Quant Type** ISTD **Method:** VOA6-8260-121009.M

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type	
Dibromomethane	0.143	0.1431		.01		0.06993	30		Averaged	
Bromodichloromethane	0.3015	0.31168		.01		3.37645	30		Averaged	
2-Chloroethylvinyl ether	0.1649	0.1587		.01		-3.75985	30		Averaged	
cis-1,3-Dichloropropylene	0.3804	0.39161		.01		2.9469	30		Averaged	
4-Methyl-2-pentanone	0.1313	0.14172		.01		7.93602	40		Averaged	
Toluene	1.4899	1.40874		.01		-5.44735	20		Averaged	ccc
trans-1,3-Dichloropropylene	0.4817	0.50939		.01		5.74839	30		Averaged	
1,1,2-Trichloroethane	0.2451	0.24367		.01		-0.58344	30		Averaged	
2-Hexanone	0.2407	0.2584		.01		7.35355	40		Averaged	
1,3-Dichloropropane	0.5216	0.50181		.01		-3.7941	30		Averaged	
Tetrachloroethylene	0.3011	0.29232		.01		-2.91597	30		Averaged	
Dibromochloromethane	0.3086	0.33407		.01		8.2534	30		Averaged	
1,2-Dibromoethane	0.2955	0.29919		.01		1.24873	30		Averaged	
Chlorobenzene	0.9635	0.95414		.3		-0.97146	30		Averaged	spcc
1,1,1,2-Tetrachloroethane	0.3335	0.34501		.01		3.45127	30		Averaged	
Ethylbenzene	1.6336	1.60387		.01		-1.81991	20		Averaged	ccc
m,p-Xylenes	0.6533	0.64511		.01		-1.25364	30		Averaged	
o-Xylene	0.6413	0.64163		.01		0.05146	30		Averaged	
Styrene	1.0216	1.06105		.01		3.86159	30		Averaged	
Bromoform	0.3535	0.40598		.1		14.84583	30		Averaged	spcc
Isopropylbenzene	3.0477	3.05443		.01		0.22082	30		Averaged	
1,1,2,2-Tetrachloroethane	0.6833	0.69191		.3		1.26006	30		Averaged	spcc
1,2,3-Trichloropropane	0.1922	0.19345		.01		0.65036	30		Averaged	
Bromobenzene	0.7836	0.762		.01		-2.75651	30		Averaged	
n-Propylbenzene	3.5712	3.52957		.01		-1.16571	30		Averaged	
2-Chlorotoluene	0.7594	0.7636		.01		0.55307	30		Averaged	
1,3,5-Trimethylbenzene	2.6127	2.61898		.01		0.24036	30		Averaged	
4-Chlorotoluene	2.199	2.19172		.01		-0.33106	30		Averaged	
tert-Butylbenzene	0.5812	0.58558		.01		0.75361	30		Averaged	
1,2,4-Trimethylbenzene	2.7527	2.70923		.01		-1.57918	30		Averaged	
sec-Butylbenzene	3.5128	3.57971		.01		1.90475	30		Averaged	
4-Isopropyltoluene	2.8725	2.93059		.01		2.02228	30		Averaged	
1,3-Dichlorobenzene	1.5315	1.50041		.01		-2.03004	30		Averaged	
1,4-Dichlorobenzene	1.5703	1.51104		.01		-3.7738	30		Averaged	
n-Butylbenzene	2.7878	2.86819		.01		2.88364	30		Averaged	
1,2-Dichlorobenzene	1.4847	1.45009		.01		-2.33111	30		Averaged	
1,2-Dibromo-3-chloropropane	0.1246	0.14729		.01		18.21027	30		Averaged	

Continuing Calibration Summary

Instrument ID: VOA6.I **Injection Dat** 10-DEC-09 15:45

Data File: 121009V6\6O416.D **Init. Cal. Date(s)** 10-DEC-09 11:34 10-DEC-09 19:2

Lab Sample ID W6VM091210-11 **Quant Type** ISTD **Method:** VOA6-8260-121009.M

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
1,2,4-Trichlorobenzene	1.1167	1.09445		.01		-1.99248	30		Averaged
Hexachlorobutadiene	0.709	0.70257		.01		-0.90691	30		Averaged
Naphthalene	2.2443	2.17025		.01		-3.29947	30		Averaged
1,2,3-Trichlorobenzene	0.9351	0.90939		.01		-2.74944	30		Averaged

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121009V6\
Data File : 60416.D
Acq On : 10 Dec 2009 3:45 pm
Operator : RXD1
InstName : VOA6
Sample : |W6VM091210-11|ICV|1|VOAF|1|VOA8260BLF|
Misc : ICV 5uL N/A MIX[A] 1129-01C+1209-01
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Dec 18 14:01:52 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)	
Internal Standards						
1) Fluorobenzene	9.974	96	2076762	50.00 ug/L	0.00	
41) Chlorobenzene-d5	13.156	117	1479289	50.00 ug/L	0.00	
58) 1,4-Dichlorobenzene-d4	15.576	152	821790	50.00 ug/L	0.00	
82) B Fluorobenzene	9.974	96	2074029	50.00 ug/L	0.00	
103) B Chlorobenzene-d5	13.156	117	1479289	50.00 ug/L	0.00	
105) B 1,4-Dichlorobenzene-d4	15.576	152	821790	50.00 ug/L	0.00	
System Monitoring Compounds						
29) 1,2-Dichloroethane-d4	9.626	65	592342	48.34 ug/L	0.00	
43) Toluene-d8	11.626	98	2032165	49.55 ug/L	0.00	
61) Bromofluorobenzene	14.357	95	792283	50.03 ug/L	0.00	
Target Compounds					Qvalue	
2) Dichlorodifluoromethane	4.350	85	363203	39.01 ug/L	99	
3) Chloromethane	4.672	50	499344	39.00 ug/L	100	
4) Vinyl chloride	4.904	62	504880	44.91 ug/L	99	
5) Bromomethane	5.468	94	379588	45.27 ug/L	99	
6) Chloroethane	5.609	64	385512	46.20 ug/L	100	
7) Trichlorofluoromethane	6.022	101	772555	46.88 ug/L	100	
8) Ethyl ether	6.328	59	480153	44.84 ug/L	98	
9) Acetone	6.706	43	734983	194.53 ug/L	99	E
10) 1,1-Dichloroethylene	6.706	61	717365	47.19 ug/L	99	
11) Iodomethane	6.956	142	3783308	230.97 ug/L	99	
12) Acetonitrile	7.066	41	1921932	1240.90 ug/L	100	
13) Methyl acetate	7.096	43	2103597	247.56 ug/L	99	
14) Carbon disulfide	7.078	76	7443145	244.01 ug/L	100	
15) Methylene chloride	7.285	84	519443	43.46 ug/L	99	
16) tert-Butyl methyl ether	7.572	73	1415189	46.86 ug/L	100	
17) trans-1,2-Dichloroethy...	7.615	61	744131	47.96 ug/L	100	
18) Vinyl acetate	8.060	43	6122051	273.93 ug/L	98	
19) 1,1-Dichloroethane	8.102	63	930374	47.92 ug/L	100	
20) 2-Butanone	8.694	43	1199321	250.88 ug/L	100	
21) cis-1,2-Dichloroethylene	8.742	61	837075	48.44 ug/L	99	
22) 2,2-Dichloropropane	8.767	77	730642	52.24 ug/L	100	
23) Bromochloromethane	9.017	128	258291	48.52 ug/L	99	
24) Chloroform	9.053	83	869059	48.08 ug/L	99	
25) 1,1,1-Trichloroethane	9.322	97	768065	50.63 ug/L	99	
26) Cyclohexane	9.413	56	1010074	51.49 ug/L	99	
27) 1,1-Dichloropropene	9.480	75	697122	50.49 ug/L	99	
28) Carbon tetrachloride	9.510	117	682571	50.86 ug/L	100	
30) 1,2-Dichloroethane	9.712	62	699424	47.20 ug/L	100	
31) Benzene	9.724	78	1996431	47.19 ug/L	100	
32) Cyclohexene	9.834	67	1002879	49.84 ug/L	100	
33) n-Butyl alcohol	10.084	56	1821129	5176.10 ug/L	99	
34) Trichloroethylene	10.364	95	509356	48.24 ug/L	99	
35) 1,2-Dichloropropane	10.614	63	551304	49.31 ug/L	100	
36) Methylcyclohexane	10.602	83	951526	51.78 ug/L	99	
37) Dibromomethane	10.748	93	297183	50.03 ug/L	99	
38) Bromodichloromethane	10.864	83	647276	51.69 ug/L	100	
39) 2-Chloroethylvinyl ether	11.089	63	1647879	240.65 ug/L	99	
40) cis-1,3-Dichloropropylene	11.315	75	813271	51.47 ug/L	99	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121009V6\
Data File : 60416.D
Acq On : 10 Dec 2009 3:45 pm
Operator : RXD1
InstName : VOA6
Sample : |W6VM091210-11|ICV|1|VOAF|1|VOA8260BLF|
Misc : ICV 5uL N/A MIX[A] 1129-01C+1209-01
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Dec 18 14:01:52 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)	
42) 4-Methyl-2-pentanone	11.413	58	1048244	269.88 ug/L	98	
44) Toluene	11.699	91	2083933	47.27 ug/L	99	
45) trans-1,3-Dichloroprop...	11.858	75	753539	52.88 ug/L	100	
46) 1,1,2-Trichloroethane	12.083	83	360461	49.71 ug/L	99	
47) 2-Hexanone	12.260	43	1911268	268.37 ug/L	98	
48) 1,3-Dichloropropane	12.272	76	742316	48.11 ug/L	99	
49) Tetrachloroethylene	12.290	164	432420	48.55 ug/L	100	
50) Dibromochloromethane	12.540	129	494184	54.12 ug/L	99	
51) 1,2-Dibromoethane	12.705	107	442584	50.62 ug/L	100	
52) Chlorobenzene	13.187	112	1411452	49.51 ug/L	100	
53) 1,1,1,2-Tetrachloroethane	13.241	131	510375	51.72 ug/L	100	
54) Ethylbenzene	13.254	91	2372593	49.09 ug/L	100	
55) m,p-Xylenes	13.363	106	1908607	98.74 ug/L	99	
56) o-Xylene	13.796	106	949151	50.02 ug/L	100	
57) Styrene	13.802	104	1569605	51.93 ug/L	100	
59) Bromoform	14.064	173	333633	57.42 ug/L	99	
60) Isopropylbenzene	14.156	105	2510102	50.11 ug/L	100	
62) 1,1,2,2-Tetrachloroethane	14.442	83	568603	50.63 ug/L	100	
63) 1,2,3-Trichloropropane	14.528	110	158978	50.33 ug/L	98	
64) Bromobenzene	14.564	156	626203	48.62 ug/L	99	
65) n-Propylbenzene	14.583	91	2900567	49.42 ug/L	100	
66) 1,3,5-Trimethylbenzene	14.735	105	2152253	50.12 ug/L	100	
67) 2-Chlorotoluene	14.729	126	627521	50.28 ug/L	100	
68) 4-Chlorotoluene	14.833	91	1801130	49.83 ug/L	100	
69) tert-Butylbenzene	15.107	134	481226	50.38 ug/L #	92	
70) 1,2,4-Trimethylbenzene	15.150	105	2226416	49.21 ug/L	100	
71) sec-Butylbenzene	15.333	105	2941769	50.95 ug/L	99	
72) 4-Isopropyltoluene	15.454	119	2408327	51.01 ug/L	100	
73) 1,3-Dichlorobenzene	15.515	146	1233026	48.98 ug/L	100	
74) 1,4-Dichlorobenzene	15.601	146	1241759	48.11 ug/L	100	
75) n-Butylbenzene	15.887	91	2357048	51.44 ug/L	100	
76) 1,2-Dichlorobenzene	16.021	146	1191666	48.84 ug/L	100	
77) 1,2-Dibromo-3-chloropr...	16.881	157	121043	59.10 ug/L	100	E
78) 1,2,4-Trichlorobenzene	17.911	180	899407	49.00 ug/L	99	
79) Hexachlorobutadiene	18.076	225	577367	49.55 ug/L	100	
80) Naphthalene	18.283	128	1783489	48.35 ug/L	100	
81) 1,2,3-Trichlorobenzene	18.618	180	747330	48.62 ug/L	99	
83) Chlorotrifluoroethylene	0.000		0	N.D.		
84) 2-Chloro-1,1,1-trifluo...	0.000		0	N.D.		
85) Acrolein	6.474		0m	N.D. d		
86) Trichlorotrifluoroethane	0.000		0	N.D.		
87) Isopropyl Alcohol	6.700		0m	N.D. d		
88) Allyl chloride	7.066		0m	N.D. d		
89) tert-Butyl Alcohol	7.298		0m	N.D. d		
90) Acrylonitrile	7.578		0m	N.D. d		
91) Isopropyl ether	8.060		0m	N.D. d		
92) 2-Chloro-1,3-butadiene	8.212		0m	N.D. d		
93) Ethyl tert-butyl ether	0.000		0	N.D.		
94) Ethyl acetate	8.694		0m	N.D. d		
95) Propionitrile	8.694		0m	N.D. d		
96) Methacrylonitrile	0.000		0	N.D.		
97) Tetrahydrofuran	9.053		0m	N.D. d		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121009V6\
Data File : 60416.D
Acq On : 10 Dec 2009 3:45 pm
Operator : RXD1
InstName : VOA6
Sample : |W6VM091210-11|ICV|1|VOAF|1|VOA8260BLF|
Misc : ICV 5uL N/A MIX[A] 1129-01C+1209-01
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Dec 18 14:01:52 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
98)	Isobutyl alcohol	9.413		0m	N.D.	d	
99)	Methyl tert-amyl ether	9.724		0m	N.D.	d	
100)	Methyl methacrylate	10.602		0m	N.D.	d	
101)	1,4-Dioxane	10.748		0m	N.D.	d	
102)	2-Nitropropane	11.089		0m	N.D.	d	
104)	Ethyl methacrylate	11.797		0m	N.D.	d	
106)	1-Chlorohexane	0.000		0	N.D.		
107)	cis-1,4-Dichloro-2-butene	14.156		0m	N.D.	d	
108)	Cyclohexanone	0.000		0	N.D.		
109)	trans-1,4-Dichloro-2-b...	14.577		0m	N.D.	d	
110)	Pentachloroethane	15.180		0m	N.D.	d	
111)	Benzyl chloride	15.717		0m	N.D.	d	
112)	bis(2-Chloroisopropyl)...	16.168		0m	N.D.	d	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121009V6\
Data File : 6O416.D
Acq On : 10 Dec 2009 3:45 pm
Operator : RXD1
InstName : VOA6
Sample : |W6VM091210-11|ICV|1|VOAF|1|VOA8260BLF|
Misc : ICV 5uL N/A MIX[A] 1129-01C+1209-01
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Dec 18 14:01:52 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

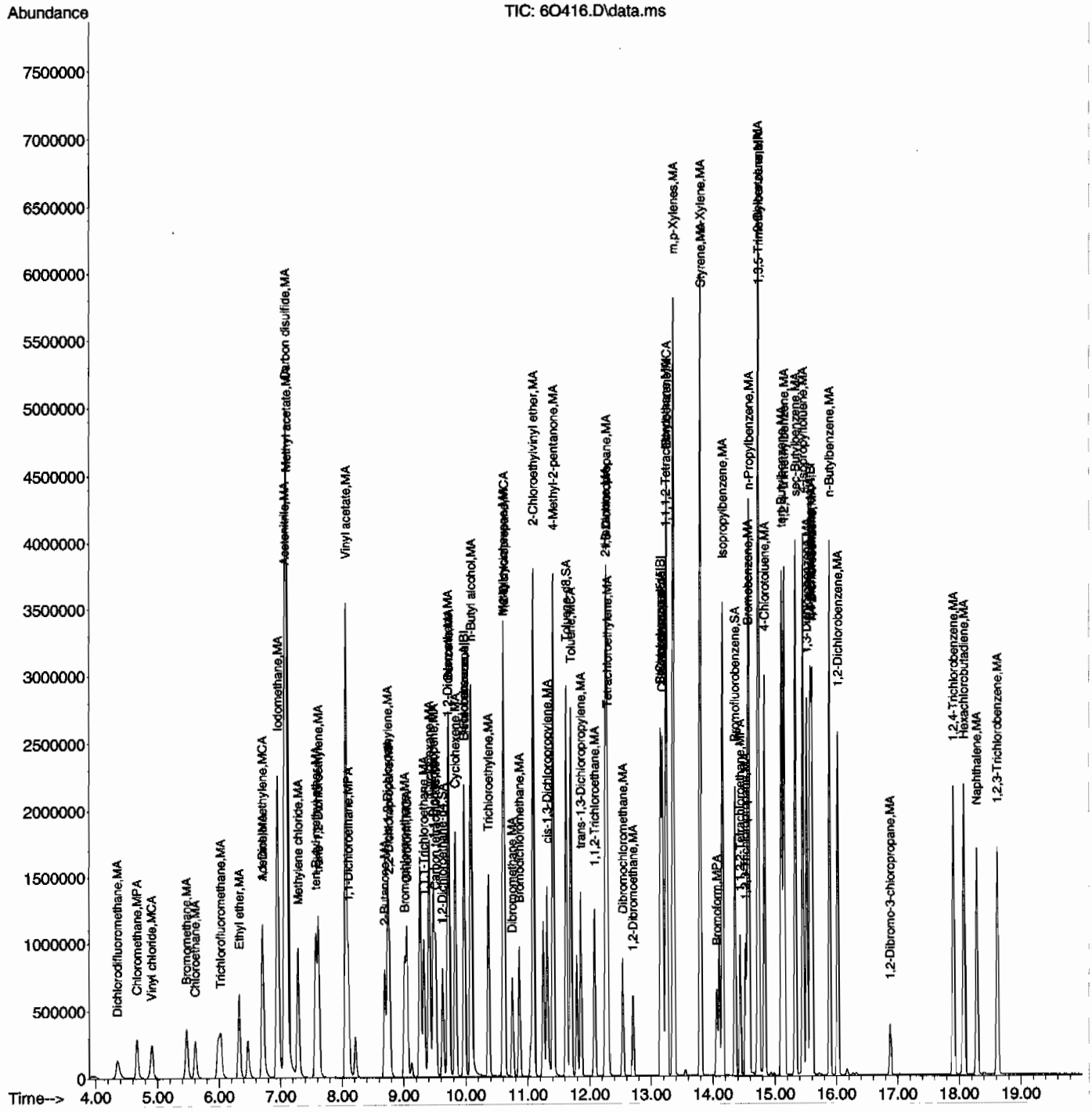

Continuing Calibration Summary

Client SDG: 10-1085

Instrument ID: VOA6.I **Injection Date** 10-DEC-09 20:23

Data File: 121009V6\6O426.D **Init. Cal. Date(s)** 10-DEC-09 11:34 - 10-DEC-09 19:2

Lab Sample ID W6VM091210-20 **Quant Type** ISTD **Method:** VOA6-8260-121009.M

	Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
S	1,2-Dichloroethane-d4	0.295	0.28775		.01		-2.45763	30		Averaged
S	Toluene-d8	1.3863	1.32236		.01		-4.61228	30		Averaged
S	Bromofluorobenzene	0.9636	0.9473		.01		-1.69157	30		Averaged
	Chlorotrifluoroethylene	0.1787	0.17081		.01		-4.41522	30		Averaged
	2-Chloro-1,1,1-trifluoroethane	0.298	0.3032		.01		1.74497	30		Averaged
	Acrolein	0.0365	0.03752		.01		2.79452	30		Averaged
	Trichlorotrifluoroethane	0.0934	0.09837		.01		5.3212	30		Averaged
	Isopropyl Alcohol	0.0194	0.01952		.01		0.61856	40		Averaged
	Allyl chloride	0.4371	0.43895		.01		0.42324	30		Averaged
	tert-Butyl Alcohol	0.0296	0.02942		.01		-0.60811	40		Averaged
	Acrylonitrile	0.0929	0.09193		.01		-1.04413	30		Averaged
	Isopropyl ether	0.9952	1.00769		.01		1.25502	30		Averaged
	2-Chloro-1,3-butadiene	0.372	0.39445		.01		6.03495	30		Averaged
	Ethyl tert-butyl ether	0.8451	0.86472		.01		2.32162	30		Averaged
	Ethyl acetate	0.2653	0.23815		.01		-10.2337	40		Averaged
	Propionitrile	0.0361	0.03522		.01		-2.43767	30		Averaged
	Methacrylonitrile	0.1587	0.15541		.01		-2.07309	30		Averaged
	Tetrahydrofuran	0.0843	0.08134		.01		-3.51127	30		Averaged
	Isobutyl alcohol	0.0095	0.00935		.01		-1.57895	40		Averaged
	Methyl tert-amyl ether	0.7218	0.74518		.01		3.23912	30		Averaged
	Methyl methacrylate	0.1518	0.15186		.01		0.03953	30		Averaged
	1,4-Dioxane	0.0023	0.00225		.01		-2.17391	40		Averaged
	2-Nitropropane	250	241.39	250			-3.444	30		Linear
	Ethyl methacrylate	0.3914	0.38964		.01		-0.44967	30		Averaged
	1-Chlorohexane	0.6905	0.6849		.01		-0.81101	30		Averaged
	cis-1,4-Dichloro-2-butene	0.2353	0.24021		.01		2.0867	30		Averaged
	Cyclohexanone	0.0193	0.01686		.01		-12.64249	40		Averaged
	trans-1,4-Dichloro-2-butene	0.2261	0.23045		.01		1.92393	30		Averaged
	Pentachloroethane	0.3343	0.31118		.01		-6.91594	30		Averaged
	Benzyl chloride	1.2936	1.12957		.01		-12.68012	30		Averaged
	bis(2-Chloroisopropyl)ether	0.3796	0.36692		.01		-3.34036	30		Averaged

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121009V6\
Data File : 60426.D
Acq On : 10 Dec 2009 8:23 pm
Operator : RXD1
InstName : VOA6
Sample : |W6VM091210-20|ICV|1|VOAF|1|VOA8260BLF|
Misc : ICV 5uL N/A MIX[B] 1118-08B+1105-02D
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Dec 18 14:02:16 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Fluorobenzene	9.974	96	2070691	50.00 ug/L	0.00
41) Chlorobenzene-d5	13.156	117	1510228	50.00 ug/L	0.00
58) 1,4-Dichlorobenzene-d4	15.576	152	850667	50.00 ug/L	0.00
82) B Fluorobenzene	9.974	96	2067712	50.00 ug/L	0.00
103) B Chlorobenzene-d5	13.156	117	1510228	50.00 ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	15.576	152	850667	50.00 ug/L	0.00
System Monitoring Compounds					
29) 1,2-Dichloroethane-d4	9.626	65	595841	48.77 ug/L	0.00
43) Toluene-d8	11.626	98	1997061	47.69 ug/L	0.00
61) Bromofluorobenzene	14.357	95	805834	49.16 ug/L	0.00

Target Compounds			Qvalue
2) Dichlorodifluoromethane	4.269	0m N.D.	d
3) Chloromethane	4.652	0m N.D.	d
4) Vinyl chloride	4.894	0m N.D.	d
5) Bromomethane	0.000	0 N.D.	
6) Chloroethane	0.000	0 N.D.	
7) Trichlorofluoromethane	0.000	0 N.D.	
8) Ethyl ether	0.000	0 N.D.	
9) Acetone	6.676	0m N.D.	d
10) 1,1-Dichloroethylene	6.663	0m N.D.	d
11) Iodomethane	6.956	0m N.D.	d
12) Acetonitrile	7.054	0m N.D.	d
13) Methyl acetate	7.102	0m N.D.	d
14) Carbon disulfide	7.139	0m N.D.	d
15) Methylene chloride	7.285	0m N.D.	d
16) tert-Butyl methyl ether	7.572	0m N.D.	d
17) trans-1,2-Dichloroethy...	0.000	0 N.D.	
18) Vinyl acetate	8.078	0m N.D.	d
19) 1,1-Dichloroethane	8.206	0m N.D.	d
20) 2-Butanone	8.700	0m N.D.	d
21) cis-1,2-Dichloroethylene	8.700	0m N.D.	d
22) 2,2-Dichloropropane	0.000	0 N.D.	
23) Bromochloromethane	0.000	0 N.D.	
24) Chloroform	9.047	0m N.D.	d
25) 1,1,1-Trichloroethane	0.000	0 N.D.	
26) Cyclohexane	9.389	0m N.D.	d
27) 1,1-Dichloropropene	0.000	0 N.D.	
28) Carbon tetrachloride	0.000	0 N.D.	
30) 1,2-Dichloroethane	9.736	0m N.D.	d
31) Benzene	9.724	0m N.D.	d
32) Cyclohexene	0.000	0 N.D.	
33) n-Butyl alcohol	0.000	0 N.D.	
34) Trichloroethylene	10.370	0m N.D.	d
35) 1,2-Dichloropropane	0.000	0 N.D.	
36) Methylcyclohexane	10.590	0m N.D.	d
37) Dibromomethane	0.000	0 N.D.	
38) Bromodichloromethane	0.000	0 N.D.	
39) 2-Chloroethylvinyl ether	11.096	0m N.D.	d
40) cis-1,3-Dichloropropylene	0.000	0 N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121009V6\
Data File : 60426.D
Acq On : 10 Dec 2009 8:23 pm
Operator : RXD1
InstName : VOA6
Sample : |W6VM091210-20|ICV|1|VOAF|1|VOA8260BLF|
Misc : ICV 5uL N/A MIX[B] 1118-08B+1105-02D
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Dec 18 14:02:16 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
42) 4-Methyl-2-pentanone	0.000		0	N.D.	
44) Toluene	11.699		0m	N.D. d	
45) trans-1,3-Dichloroprop...	11.852		0m	N.D. d	
46) 1,1,2-Trichloroethane	0.000		0	N.D.	
47) 2-Hexanone	12.260		0m	N.D. d	
48) 1,3-Dichloropropane	12.309		0m	N.D. d	
49) Tetrachloroethylene	12.290		0m	N.D. d	
50) Dibromochloromethane	0.000		0	N.D.	
51) 1,2-Dibromoethane	12.705		0m	N.D. d	
52) Chlorobenzene	13.187		0m	N.D. d	
53) 1,1,1,2-Tetrachloroethane	0.000		0	N.D.	
54) Ethylbenzene	13.248		0m	N.D. d	
55) m,p-Xylenes	13.363		0m	N.D. d	
56) o-Xylene	0.000		0	N.D.	
57) Styrene	13.796		0m	N.D. d	
59) Bromoform	0.000		0	N.D.	
60) Isopropylbenzene	14.156		0m	N.D. d	
62) 1,1,2,2-Tetrachloroethane	14.491		0m	N.D. d	
63) 1,2,3-Trichloropropane	0.000		0	N.D.	
64) Bromobenzene	0.000		0	N.D.	
65) n-Propylbenzene	14.583		0m	N.D. d	
66) 1,3,5-Trimethylbenzene	14.735		0m	N.D. d	
67) 2-Chlorotoluene	14.729		0m	N.D. d	
68) 4-Chlorotoluene	14.833		0m	N.D. d	
69) tert-Butylbenzene	15.180		0m	N.D. d	
70) 1,2,4-Trimethylbenzene	15.150		0m	N.D. d	
71) sec-Butylbenzene	15.333		0m	N.D. d	
72) 4-Isopropyltoluene	15.454		0m	N.D. d	
73) 1,3-Dichlorobenzene	15.515		0m	N.D. d	
74) 1,4-Dichlorobenzene	15.601		0m	N.D. d	
75) n-Butylbenzene	0.000		0	N.D.	
76) 1,2-Dichlorobenzene	16.015		0m	N.D. d	
77) 1,2-Dibromo-3-chloropr...	0.000		0	N.D.	
78) 1,2,4-Trichlorobenzene	0.000		0	N.D.	
79) Hexachlorobutadiene	0.000		0	N.D.	
80) Naphthalene	18.283		0m	N.D. d	
81) 1,2,3-Trichlorobenzene	0.000		0	N.D.	
83) Chlorotrifluoroethylene	4.280	116	1059558	143.35 ug/L	100
84) 2-Chloro-1,1,1-trifluo...	5.025	118	1880817	152.62 ug/L	100
85) Acrolein	6.535	56	387873	257.15 ug/L	99
86) Trichlorotrifluoroethane	6.676	85	1016953	263.29 ug/L	99
87) Isopropyl Alcohol	6.785	45	2017620	2516.44 ug/L	100
88) Allyl chloride	7.139	41	4538143	251.04 ug/L	100
89) tert-Butyl Alcohol	7.285	59	3041617	2486.64 ug/L	100
90) Acrylonitrile	7.541	53	950443	247.45 ug/L	100
91) Isopropyl ether	8.078	45	2083609	50.63 ug/L	99
92) 2-Chloro-1,3-butadiene	8.206	53	815608	53.01 ug/L	99
93) Ethyl tert-butyl ether	8.486	59	1787994	51.16 ug/L	100
94) Ethyl acetate	8.700	43	2462110	224.38 ug/L	100
95) Propionitrile	8.773	54	364096	243.94 ug/L	100
96) Methacrylonitrile	8.950	41	1606705	244.75 ug/L	100
97) Tetrahydrofuran	9.059	42	840938	241.26 ug/L	99

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121009V6\
Data File : 60426.D
Acq On : 10 Dec 2009 8:23 pm
Operator : RXD1
InstName : VOA6
Sample : |W6VM091210-20|ICV|1|VOAF|1|VOA8260BLF|
Misc : ICV 5uL N/A MIX[B] 1118-08B+1105-02D
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Dec 18 14:02:16 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
98)	Isobutyl alcohol	9.389	41	966349	2452.14 ug/L	99
99)	Methyl tert-amyl ether	9.742	73	1540810	51.62 ug/L	99
100)	Methyl methacrylate	10.590	69	1570042	250.15 ug/L	99
101)	1,4-Dioxane	10.699	88	232295	2395.33 ug/L	99
102)	2-Nitropropane	11.071	43	766103	241.39 ug/L	98
104)	Ethyl methacrylate	11.858	69	2942230	248.87 ug/L	100
106)	1-Chlorohexane	13.052	55	582623	49.60 ug/L	99
107)	cis-1,4-Dichloro-2-butene	14.205	53	1021686	255.19 ug/L	100
108)	Cyclohexanone	14.314	42	358486	1094.48 ug/L	98
109)	trans-1,4-Dichloro-2-b...	14.491	53	980168	254.85 ug/L	99
110)	Pentachloroethane	15.180	167	1323559	232.71 ug/L	99
111)	Benzyl chloride	15.717	91	4804424	218.30 ug/L	100
112)	bis(2-Chloroisopropyl)...	16.113	45	1560613	241.67 ug/L	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121009V6\
Data File : 6O426.D
Acq On : 10 Dec 2009 8:23 pm
Operator : RXD1
InstName : VOA6
Sample : |W6VM091210-20|ICV|1|VOAF|1|VOA8260BLF|
Misc : ICV 5uL N/A MIX[B] 1118-08B+1105-02D
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Dec 18 14:02:16 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

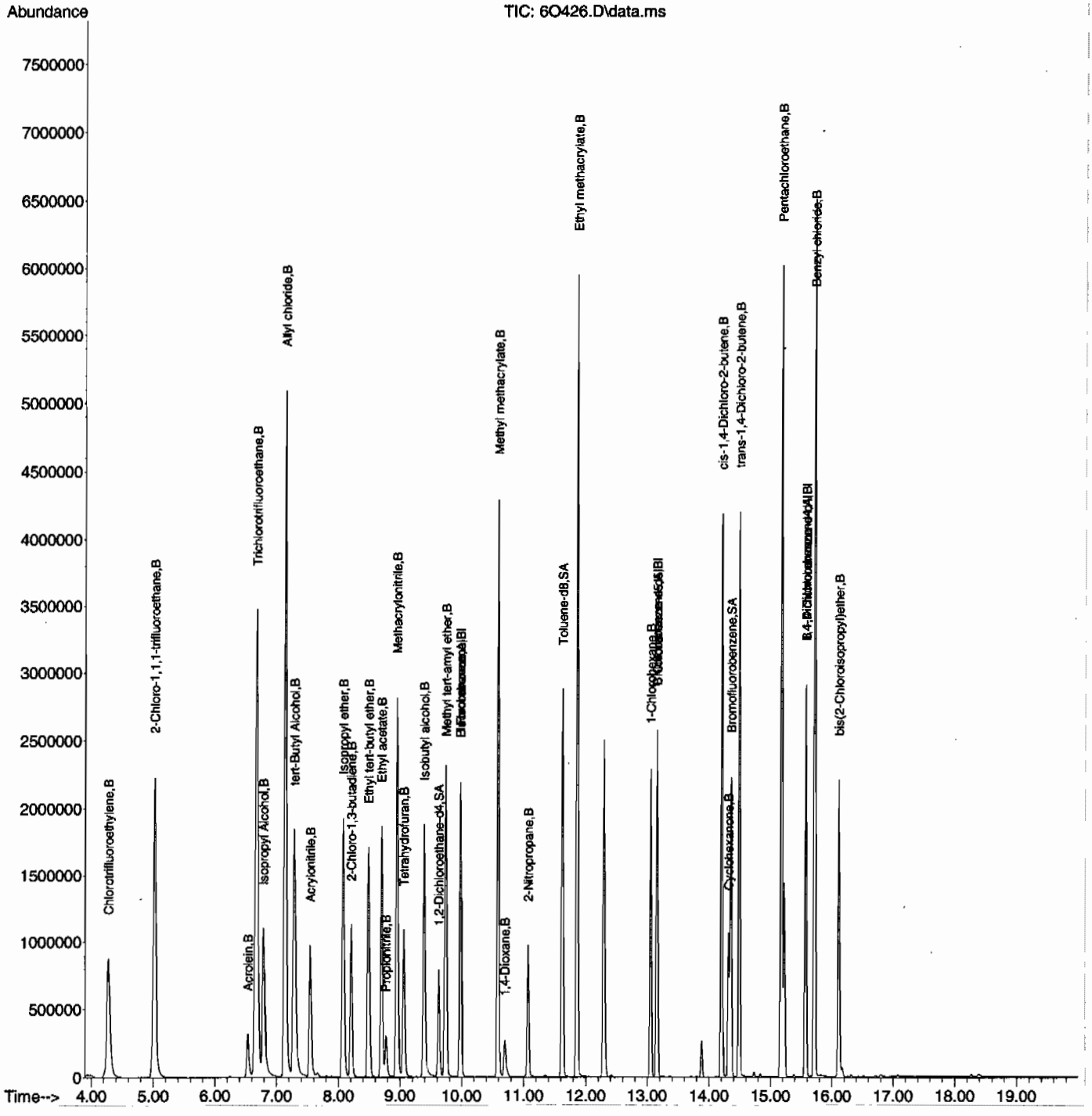

Continuing Calibration Summary

Client SDG: 10-1085

Instrument ID: VOA6.I **Injection Date** 31-DEC-09 11:05

Data File: 123109V6\6R402.D **Init. Cal. Date(s)** 10-DEC-09 11:34 - 10-DEC-09 19:2

Lab Sample ID W6VM091231-01 **Quant Type** ISTD **Method:** VOA6-8260-121009.M

	Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type	
S	1,2-Dichloroethane-d4	0.295	0.29314		.01		-0.63051	30		Averaged	
S	Toluene-d8	1.3863	1.34724		.01		-2.81757	30		Averaged	
S	Bromofluorobenzene	0.9636	0.96132		.01		-0.23661	30		Averaged	
	Dichlorodifluoromethane	0.2241	0.21793		.01		-2.75324	30		Averaged	
	Chloromethane	0.3083	0.29632		.1		-3.88583	30		Averaged	spcc
	Vinyl chloride	0.2706	0.28304		.01		4.59719	20		Averaged	ccc
	Bromomethane	0.2019	0.20942		.01		3.72462	30		Averaged	
	Chloroethane	0.2009	0.20663		.01		2.85217	30		Averaged	
	Trichlorofluoromethane	0.3968	0.41602		.01		4.84375	30		Averaged	
	Ethyl ether	0.2578	0.23133		.01		-10.26765	30		Averaged	
	Acetone	0.091	0.06484		.01		-28.74725	40		Averaged	
	1,1-Dichloroethylene	0.366	0.37862		.01		3.44809	20		Averaged	ccc
	Iodomethane	0.3944	0.39083		.01		-0.90517	30		Averaged	
	Acetonitrile	0.0373	0.03568		.01		-4.34316	30		Averaged	
	Carbon disulfide	0.7344	0.80438		.01		9.52887	30		Averaged	
	Methyl acetate	0.2046	0.19552		.01		-4.43793	40		Averaged	
	Methylene chloride	0.2878	0.26343		.01		-8.46769	30		Averaged	
	tert-Butyl methyl ether	0.7272	0.66666		.01		-8.32508	30		Averaged	
	trans-1,2-Dichloroethylene	0.3735	0.38252		.01		2.41499	30		Averaged	
	Vinyl acetate	0.5381	0.58607		.01		8.9147	40		Averaged	
	1,1-Dichloroethane	0.4674	0.47113		.1		0.79803	30		Averaged	spcc
	2-Butanone	0.1151	0.10012		.01		-13.01477	40		Averaged	
	cis-1,2-Dichloroethylene	0.4161	0.42765		.01		2.77578	30		Averaged	
	2,2-Dichloropropane	0.3367	0.38976		.01		15.75884	30		Averaged	
	Bromochloromethane	0.1282	0.12442		.01		-2.94852	30		Averaged	
	Chloroform	0.4352	0.43662		.01		0.32629	20		Averaged	ccc
	1,1,1-Trichloroethane	0.3652	0.39946		.01		9.38116	30		Averaged	
	Cyclohexane	0.4723	0.51805		.01		9.68664	30		Averaged	
	1,1-Dichloropropene	0.3324	0.35732		.01		7.49699	30		Averaged	
	Carbon tetrachloride	0.3231	0.36397		.01		12.64933	30		Averaged	
	1,2-Dichloroethane	0.3568	0.35095		.01		-1.63957	30		Averaged	
	Benzene	1.0185	1.00391		.01		-1.4325	30		Averaged	
	Cyclohexene	0.4845	0.519		.01		7.12074	30		Averaged	
	n-Butyl alcohol	5000	4829.91	5000			-3.4018	40		Linear	
	Trichloroethylene	0.2542	0.2592		.01		1.96696	30		Averaged	
	Methylcyclohexane	0.4424	0.47877		.01		8.22107	30		Averaged	
	1,2-Dichloropropane	0.2692	0.27401		.01		1.78678	20		Averaged	ccc

Continuing Calibration Summary

Instrument ID: VOA6.I **Injection Dat** 31-DEC-09 11:05

Data File: 123109V6\6R402.D **Init. Cal. Date(s)** 10-DEC-09 11:34 10-DEC-09 19:2

Lab Sample ID W6VM091231-01 **Quant Type** ISTD **Method:** VOA6-8260-121009.M

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type	
Dibromomethane	0.143	0.14317		.01		0.11888	30		Averaged	
Bromodichloromethane	0.3015	0.32553		.01		7.97015	30		Averaged	
2-Chloroethylvinyl ether	0.1649	0.14476		.01		-12.21346	30		Averaged	
cis-1,3-Dichloropropylene	0.3804	0.40496		.01		6.45636	30		Averaged	
4-Methyl-2-pentanone	0.1313	0.12561		.01		-4.33359	40		Averaged	
Toluene	1.4899	1.45377		.01		-2.42499	20		Averaged	ccc
trans-1,3-Dichloropropylene	0.4817	0.51179		.01		6.24663	30		Averaged	
1,1,2-Trichloroethane	0.2451	0.23615		.01		-3.65157	30		Averaged	
2-Hexanone	0.2407	0.22591		.01		-6.14458	40		Averaged	
1,3-Dichloropropane	0.5216	0.50135		.01		-3.88229	30		Averaged	
Tetrachloroethylene	0.3011	0.30758		.01		2.15211	30		Averaged	
Dibromochloromethane	0.3086	0.34236		.01		10.93973	30		Averaged	
1,2-Dibromoethane	0.2955	0.29091		.01		-1.5533	30		Averaged	
Chlorobenzene	0.9635	0.97148		.3		0.82823	30		Averaged	spcc
1,1,1,2-Tetrachloroethane	0.3335	0.3474		.01		4.16792	30		Averaged	
Ethylbenzene	1.6336	1.69221		.01		3.58778	20		Averaged	ccc
m,p-Xylenes	0.6533	0.66915		.01		2.42614	30		Averaged	
o-Xylene	0.6413	0.6455		.01		0.65492	30		Averaged	
Styrene	1.0216	1.07743		.01		5.46496	30		Averaged	
Bromoform	0.3535	0.40826		.1		15.49081	30		Averaged	spcc
Isopropylbenzene	3.0477	3.14783		.01		3.28543	30		Averaged	
1,1,2,2-Tetrachloroethane	0.6833	0.67447		.3		-1.29226	30		Averaged	spcc
1,2,3-Trichloropropane	0.1922	0.18642		.01		-3.00728	30		Averaged	
Bromobenzene	0.7836	0.77201		.01		-1.47907	30		Averaged	
n-Propylbenzene	3.5712	3.74031		.01		4.73538	30		Averaged	
2-Chlorotoluene	0.7594	0.78112		.01		2.86015	30		Averaged	
1,3,5-Trimethylbenzene	2.6127	2.67872		.01		2.52689	30		Averaged	
4-Chlorotoluene	2.199	2.27409		.01		3.41473	30		Averaged	
tert-Butylbenzene	0.5812	0.58502		.01		0.65726	30		Averaged	
1,2,4-Trimethylbenzene	2.7527	2.74131		.01		-0.41378	30		Averaged	
sec-Butylbenzene	3.5128	3.60274		.01		2.56035	30		Averaged	
4-Isopropyltoluene	2.8725	2.93934		.01		2.32689	30		Averaged	
1,3-Dichlorobenzene	1.5315	1.5114		.01		-1.31244	30		Averaged	
1,4-Dichlorobenzene	1.5703	1.51954		.01		-3.2325	30		Averaged	
n-Butylbenzene	2.7878	2.87772		.01		3.22548	30		Averaged	
1,2-Dichlorobenzene	1.4847	1.40933		.01		-5.07645	30		Averaged	
1,2-Dibromo-3-chloropropane	0.1246	0.12588		.01		1.02729	30		Averaged	

Continuing Calibration Summary

Instrument ID: VOA6.I **Injection Dat** 31-DEC-09 11:05

Data File: 123109V6\6R402.D **Init. Cal. Date(s)** 10-DEC-09 11:34 10-DEC-09 19:2

Lab Sample ID W6VM091231-01 **Quant Type** ISTD **Method:** VOA6-8260-121009.M

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
1,2,4-Trichlorobenzene	1.1167	1.01985		.01		-8.67288	30		Averaged
Hexachlorobutadiene	0.709	0.66711		.01		-5.90832	30		Averaged
Naphthalene	2.2443	1.96039		.01		-12.65027	30		Averaged
1,2,3-Trichlorobenzene	0.9351	0.85581		.01		-8.47931	30		Averaged

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\123109V6\
Data File : 6R402.D
Acq On : 31 Dec 2009 11:05 am
Operator : RXD1
InstName : VOA6
Sample : |W6VM091231-01|CCV|1|VOAF|1|VOA8260BS|
Misc : CCV 5mL N/A MIX[A] 1214-01D+1230-01
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 31 11:23:26 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)	
Internal Standards						
1) Fluorobenzene	9.974	96	1231384	50.00 ug/L	0.00	
41) Chlorobenzene-d5	13.156	117	905496	50.00 ug/L	0.00	
58) 1,4-Dichlorobenzene-d4	15.576	152	499047	50.00 ug/L	0.00	
82) B Fluorobenzene	9.974	96	1230239	50.00 ug/L	0.00	
103) B Chlorobenzene-d5	13.156	117	905496	50.00 ug/L	0.00	
105) B 1,4-Dichlorobenzene-d4	15.576	152	499047	50.00 ug/L	0.00	
System Monitoring Compounds						
29) 1,2-Dichloroethane-d4	9.626	65	360971	49.68 ug/L	0.00	
43) Toluene-d8	11.626	98	1219919	48.59 ug/L	0.00	
61) Bromofluorobenzene	14.357	95	479744	49.88 ug/L	0.00	
Target Compounds					Qvalue	
2) Dichlorodifluoromethane	4.360	85	268355	48.61 ug/L	99	
3) Chloromethane	4.672	50	364882	48.06 ug/L	99	
4) Vinyl chloride	4.914	62	348529	52.29 ug/L	100	
5) Bromomethane	5.468	94	257870	51.87 ug/L	99	
6) Chloroethane	5.609	64	254442	51.43 ug/L	99	
7) Trichlorofluoromethane	6.022	101	512278	52.43 ug/L	100	
8) Ethyl ether	6.328	59	284852	44.87 ug/L	99	
9) Acetone	6.712	43	399199	178.20 ug/L	97	E
10) 1,1-Dichloroethylene	6.706	61	466225	51.73 ug/L	100	
11) Iodomethane	6.956	142	2406303	247.76 ug/L	99	
12) Acetonitrile	7.072	41	1098478	1196.14 ug/L	98	
13) Methyl acetate	7.096	43	1203786	238.92 ug/L	100	
14) Carbon disulfide	7.078	76	4952515	273.82 ug/L	100	
15) Methylene chloride	7.285	84	324379	45.77 ug/L	99	
16) tert-Butyl methyl ether	7.572	73	820916	45.84 ug/L	100	
17) trans-1,2-Dichloroethy...	7.621	61	471030	51.20 ug/L	99	
18) Vinyl acetate	8.059	43	3608367	272.30 ug/L	93	
19) 1,1-Dichloroethane	8.102	63	580136	50.40 ug/L	100	
20) 2-Butanone	8.694	43	616441	217.48 ug/L	100	
21) cis-1,2-Dichloroethylene	8.742	61	526604	51.39 ug/L	98	
22) 2,2-Dichloropropane	8.767	77	479943	57.88 ug/L	97	
23) Bromochloromethane	9.017	128	153212	48.54 ug/L	98	
24) Chloroform	9.053	83	537649	50.16 ug/L	100	
25) 1,1,1-Trichloroethane	9.328	97	491885	54.69 ug/L	100	
26) Cyclohexane	9.413	56	637918	54.85 ug/L	100	
27) 1,1-Dichloropropene	9.480	75	440001	53.75 ug/L	96	
28) Carbon tetrachloride	9.517	117	448189	56.33 ug/L	99	
30) 1,2-Dichloroethane	9.712	62	432153	49.18 ug/L	99	
31) Benzene	9.724	78	1236203	49.28 ug/L	100	
32) Cyclohexene	9.834	67	639083	53.56 ug/L	99	
33) n-Butyl alcohol	10.083	56	1006831	4829.91 ug/L	100	
34) Trichloroethylene	10.364	95	319178	50.98 ug/L	99	
35) 1,2-Dichloropropane	10.614	63	337417	50.89 ug/L	99	
36) Methylcyclohexane	10.602	83	589547	54.11 ug/L	100	
37) Dibromomethane	10.748	93	176299	50.06 ug/L	99	
38) Bromodichloromethane	10.864	83	400854	53.99 ug/L	100	
39) 2-Chloroethylvinyl ether	11.089	63	891267	219.52 ug/L	99	
40) cis-1,3-Dichloropropylene	11.315	75	498655	53.22 ug/L	98	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\123109V6\
Data File : 6R402.D
Acq On : 31 Dec 2009 11:05 am
Operator : RXD1
InstName : VOA6
Sample : |W6VM091231-01|CCV|1|VOAF|1|VOA8260BS|
Misc : CCV 5mL N/A MIX[A] 1214-01D+1230-01
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 31 11:23:26 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	QIon	Response	Conc Units		Dev(Min)	
42)	4-Methyl-2-pentanone	11.412	58	568708	239.20 ug/L		95	
44)	Toluene	11.699	91	1316382	48.79 ug/L		100	
45)	trans-1,3-Dichloroprop...	11.858	75	463422	53.12 ug/L		98	
46)	1,1,2-Trichloroethane	12.083	83	213828	48.18 ug/L		100	
47)	2-Hexanone	12.260	43	1022795	234.62 ug/L		99	
48)	1,3-Dichloropropane	12.272	76	453973	48.06 ug/L		99	
49)	Tetrachloroethylene	12.290	164	278511	51.08 ug/L		98	
50)	Dibromochloromethane	12.540	129	310009	55.46 ug/L		99	
51)	1,2-Dibromoethane	12.711	107	263420	49.22 ug/L		99	
52)	Chlorobenzene	13.193	112	879667	50.41 ug/L		100	
53)	1,1,1,2-Tetrachloroethane	13.247	131	314565	52.08 ug/L		99	
54)	Ethylbenzene	13.254	91	1532292	51.79 ug/L		99	
55)	m,p-Xylenes	13.363	106	1211828	102.42 ug/L		97	
56)	o-Xylene	13.796	106	584500	50.33 ug/L		97	
57)	Styrene	13.802	104	975607	52.73 ug/L		99	
59)	Bromoform	14.058	173	203739	57.74 ug/L		99	
60)	Isopropylbenzene	14.156	105	1570917	51.64 ug/L		100	
62)	1,1,2,2-Tetrachloroethane	14.436	83	336592	49.36 ug/L		99	
63)	1,2,3-Trichloropropane	14.528	110	93031	48.50 ug/L	#	88	
64)	Bromobenzene	14.564	156	385268	49.26 ug/L		98	
65)	n-Propylbenzene	14.583	91	1866591	52.37 ug/L		99	
66)	1,3,5-Trimethylbenzene	14.735	105	1336808	51.26 ug/L		99	
67)	2-Chlorotoluene	14.729	126	389814	51.43 ug/L		98	
68)	4-Chlorotoluene	14.833	91	1134876	51.71 ug/L		99	
69)	tert-Butylbenzene	15.107	134	291954	50.33 ug/L		97	
70)	1,2,4-Trimethylbenzene	15.150	105	1368043	49.79 ug/L		98	
71)	sec-Butylbenzene	15.332	105	1797936	51.28 ug/L		99	
72)	4-Isopropyltoluene	15.454	119	1466868	51.16 ug/L		99	
73)	1,3-Dichlorobenzene	15.515	146	754261	49.34 ug/L		99	
74)	1,4-Dichlorobenzene	15.601	146	758322	48.39 ug/L		100	
75)	n-Butylbenzene	15.887	91	1436117	51.61 ug/L		99	
76)	1,2-Dichlorobenzene	16.021	146	703320	47.46 ug/L		99	
77)	1,2-Dibromo-3-chloropr...	16.881	157	62820	50.51 ug/L		97	E
78)	1,2,4-Trichlorobenzene	17.911	180	508952	45.66 ug/L		99	
79)	Hexachlorobutadiene	18.076	225	332918	47.05 ug/L		100	
80)	Naphthalene	18.283	128	978325	43.68 ug/L		100	
81)	1,2,3-Trichlorobenzene	18.618	180	427091	45.76 ug/L		99	
83)	Chlorotrifluoroethylene	0.000		0	N.D.			
84)	2-Chloro-1,1,1-trifluo...	0.000		0	N.D.			
85)	Acrolein	6.462		0m	N.D.	d		
86)	Trichlorotrifluoroethane	0.000		0	N.D.			
87)	Isopropyl Alcohol	0.000		0	N.D.			
88)	Allyl chloride	7.072		0m	N.D.	d		
89)	tert-Butyl Alcohol	7.285		0m	N.D.	d		
90)	Acrylonitrile	7.572		0m	N.D.	d		
91)	Isopropyl ether	8.066		0m	N.D.	d		
92)	2-Chloro-1,3-butadiene	8.218		0m	N.D.	d		
93)	Ethyl tert-butyl ether	0.000		0	N.D.			
94)	Ethyl acetate	8.694		0m	N.D.	d		
95)	Propionitrile	8.700		0m	N.D.	d		
96)	Methacrylonitrile	0.000		0	N.D.			
97)	Tetrahydrofuran	9.041		0m	N.D.	d		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\123109V6\
Data File : 6R402.D
Acq On : 31 Dec 2009 11:05 am
Operator : RXD1
InstName : VOA6
Sample : |W6VM091231-01|CCV|1|VOAF|1|VOA8260BS|
Misc : CCV 5mL N/A MIX[A] 1214-01D+1230-01
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 31 11:23:26 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
98)	Isobutyl alcohol	9.413		0m	N.D.	d
99)	Methyl tert-amyl ether	9.724		0m	N.D.	d
100)	Methyl methacrylate	10.602		0m	N.D.	d
101)	1,4-Dioxane	10.742		0m	N.D.	d
102)	2-Nitropropane	11.089		0m	N.D.	d
104)	Ethyl methacrylate	11.797		0m	N.D.	d
106)	1-Chlorohexane	0.000		0	N.D.	
107)	cis-1,4-Dichloro-2-butene	14.156		0m	N.D.	d
108)	Cyclohexanone	0.000		0	N.D.	
109)	trans-1,4-Dichloro-2-b...	0.000		0	N.D.	
110)	Pentachloroethane	15.180		0m	N.D.	d
111)	Benzyl chloride	15.717		0m	N.D.	d
112)	bis(2-Chloroisopropyl)...	16.113		0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\123109V6\
Data File : 6R402.D
Acq On : 31 Dec 2009 11:05 am
Operator : RXD1
InstName : VOA6
Sample : |W6VM091231-01|CCV|1|VOAF|1|VOA8260BS|
Misc : CCV 5mL N/A MIX[A] 1214-01D+1230-01
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 31 11:23:26 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

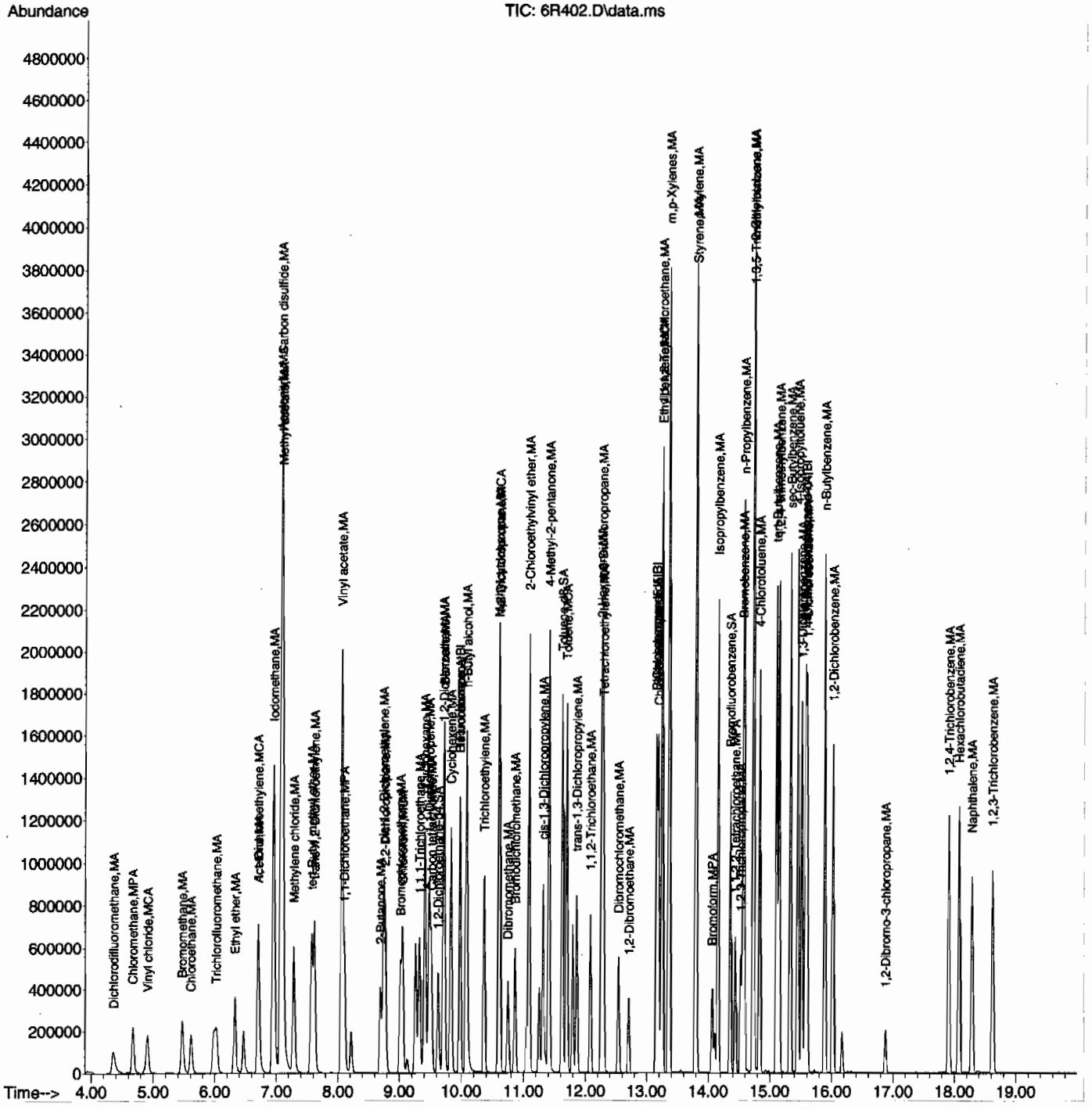

Continuing Calibration Summary

Client SDG: 10-1085

Instrument ID: VOA6.I **Injection Date** 31-DEC-09 12:01

Data File: 123109V6\6R404.D **Init. Cal. Date(s)** 10-DEC-09 11:34 - 10-DEC-09 19:2

Lab Sample ID W6VM091231-03 **Quant Type** ISTD **Method:** VOA6-8260-121009.M

	Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
S	1,2-Dichloroethane-d4	0.295	0.29085		.01		-1.40678	30		Averaged
S	Toluene-d8	1.3863	1.35207		.01		-2.46916	30		Averaged
S	Bromofluorobenzene	0.9636	0.97375		.01		1.05334	30		Averaged
	Acrolein	0.0365	0.03974		.01		8.87671	30		Averaged
	Trichlorotrifluoroethane	0.0934	0.11538		.01		23.53319	30		Averaged
	Allyl chloride	0.4371	0.48866		.01		11.79593	30		Averaged
	Acrylonitrile	0.0929	0.09105		.01		-1.99139	30		Averaged
	2-Chloro-1,3-butadiene	0.372	0.41161		.01		10.64785	30		Averaged
	Ethyl acetate	0.2653	0.24421		.01		-7.94949	40		Averaged
	Propionitrile	0.0361	0.03452		.01		-4.37673	30		Averaged
	Methacrylonitrile	0.1587	0.1588		.01		0.06301	30		Averaged
	Tetrahydrofuran	0.0843	0.08148		.01		-3.3452	30		Averaged
	Isobutyl alcohol	0.0095	0.01		.01		5.26316	40		Averaged
	Methyl methacrylate	0.1518	0.15433		.01		1.66667	30		Averaged
	1,4-Dioxane	0.0023	0.00235		.01		2.17391	40		Averaged
	2-Nitropropane	250	268.7	250			7.48	30		Linear
	Ethyl methacrylate	0.3914	0.40098		.01		2.44762	30		Averaged
	cis-1,4-Dichloro-2-butene	0.2353	0.26716		.01		13.54016	30		Averaged
	Cyclohexanone	0.0193	0.01751		.01		-9.27461	40		Averaged
	trans-1,4-Dichloro-2-butene	0.2261	0.25624		.01		13.33038	30		Averaged
	Pentachloroethane	0.3343	0.47724		.01		42.758	30	*	Averaged
	Benzyl chloride	1.2936	1.34698		.01		4.12647	30		Averaged
	bis(2-Chloroisopropyl)ether	0.3796	0.3626		.01		-4.4784	30		Averaged

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\123109V6\
Data File : 6R404.D
Acq On : 31 Dec 2009 12:01 pm
Operator : RXD1
InstName : VOA6
Sample : |W6VM091231-03|CCV|1|VOAF|1|VOA8260BS|
Misc : CCV 5mL N/A MIX[B] 1216-08A
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Dec 31 12:22:14 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	9.974	96	1233150	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.156	117	897561	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	15.576	152	490898	50.00	ug/L	0.00
82) B Fluorobenzene	9.974	96	1232417	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.156	117	897561	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	15.576	152	490898	50.00	ug/L	0.00
System Monitoring Compounds						
29) 1,2-Dichloroethane-d4	9.626	65	358666	49.30	ug/L	0.00
43) Toluene-d8	11.626	98	1213563	48.77	ug/L	0.00
61) Bromofluorobenzene	14.357	95	478011	50.53	ug/L	0.00

Target Compounds				Qvalue
2) Dichlorodifluoromethane	0.000	0	N.D.	
3) Chloromethane	4.672	0m	N.D. d	
4) Vinyl chloride	4.914	0m	N.D. d	
5) Bromomethane	0.000	0	N.D.	
6) Chloroethane	0.000	0	N.D.	
7) Trichlorofluoromethane	0.000	0	N.D.	
8) Ethyl ether	0.000	0	N.D.	
9) Acetone	6.682	0m	N.D. d	
10) 1,1-Dichloroethylene	6.688	0m	N.D. d	
11) Iodomethane	6.956	0m	N.D. d	
12) Acetonitrile	7.139	0m	N.D. d	
13) Methyl acetate	7.103	0m	N.D. d	
14) Carbon disulfide	7.139	0m	N.D. d	
15) Methylene chloride	7.285	0m	N.D. d	
16) tert-Butyl methyl ether	0.000	0	N.D.	
17) trans-1,2-Dichloroethy...	0.000	0	N.D.	
18) Vinyl acetate	8.206	0m	N.D. d	
19) 1,1-Dichloroethane	8.206	0m	N.D. d	
20) 2-Butanone	8.706	0m	N.D. d	
21) cis-1,2-Dichloroethylene	8.706	0m	N.D. d	
22) 2,2-Dichloropropane	0.000	0	N.D.	
23) Bromochloromethane	0.000	0	N.D.	
24) Chloroform	0.000	0	N.D.	
25) 1,1,1-Trichloroethane	0.000	0	N.D.	
26) Cyclohexane	9.389	0m	N.D. d	
27) 1,1-Dichloropropene	0.000	0	N.D.	
28) Carbon tetrachloride	0.000	0	N.D.	
30) 1,2-Dichloroethane	0.000	0	N.D.	
31) Benzene	9.724	0m	N.D. d	
32) Cyclohexene	0.000	0	N.D.	
33) n-Butyl alcohol	10.096	0m	N.D. d	
34) Trichloroethylene	10.370	0m	N.D. d	
35) 1,2-Dichloropropane	0.000	0	N.D.	
36) Methylcyclohexane	10.596	0m	N.D. d	
37) Dibromomethane	0.000	0	N.D.	
38) Bromodichloromethane	0.000	0	N.D.	
39) 2-Chloroethylvinyl ether	11.090	0m	N.D. d	
40) cis-1,3-Dichloropropylene	0.000	0	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\123109V6\
Data File : 6R404.D
Acq On : 31 Dec 2009 12:01 pm
Operator : RXD1
InstName : VOA6
Sample : |W6VM091231-03|CCV|1|VOAF|1|VOA8260BS|
Misc : CCV 5mL N/A MIX[B] 1216-08A
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Dec 31 12:22:14 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
42)	4-Methyl-2-pentanone	11.413		0m	N.D. d	
44)	Toluene	11.693		0m	N.D. d	
45)	trans-1,3-Dichloroprop...	11.858		0m	N.D. d	
46)	1,1,2-Trichloroethane	0.000		0	N.D.	
47)	2-Hexanone	12.266		0m	N.D. d	
48)	1,3-Dichloropropane	12.272		0m	N.D. d	
49)	Tetrachloroethylene	12.291		0m	N.D. d	
50)	Dibromochloromethane	0.000		0	N.D.	
51)	1,2-Dibromoethane	12.705		0m	N.D. d	
52)	Chlorobenzene	13.193		0m	N.D. d	
53)	1,1,1,2-Tetrachloroethane	13.242		0m	N.D. d	
54)	Ethylbenzene	13.254		0m	N.D. d	
55)	m,p-Xylenes	13.370		0m	N.D. d	
56)	o-Xylene	13.796		0m	N.D. d	
57)	Styrene	13.802		0m	N.D. d	
59)	Bromoform	0.000		0	N.D.	
60)	Isopropylbenzene	14.156		0m	N.D. d	
62)	1,1,2,2-Tetrachloroethane	14.436		0m	N.D. d	
63)	1,2,3-Trichloropropane	0.000		0	N.D.	
64)	Bromobenzene	14.564		0m	N.D. d	
65)	n-Propylbenzene	14.583		0m	N.D. d	
66)	1,3,5-Trimethylbenzene	14.735		0m	N.D. d	
67)	2-Chlorotoluene	14.729		0m	N.D. d	
68)	4-Chlorotoluene	14.833		0m	N.D. d	
69)	tert-Butylbenzene	15.113		0m	N.D. d	
70)	1,2,4-Trimethylbenzene	15.150		0m	N.D. d	
71)	sec-Butylbenzene	15.333		0m	N.D. d	
72)	4-Isopropyltoluene	15.455		0m	N.D. d	
73)	1,3-Dichlorobenzene	15.516		0m	N.D. d	
74)	1,4-Dichlorobenzene	15.601		0m	N.D. d	
75)	n-Butylbenzene	15.887		0m	N.D. d	
76)	1,2-Dichlorobenzene	16.022		0m	N.D. d	
77)	1,2-Dibromo-3-chloropr...	16.881		0m	N.D. d	
78)	1,2,4-Trichlorobenzene	17.911		0m	N.D. d	
79)	Hexachlorobutadiene	18.070		0m	N.D. d	
80)	Naphthalene	18.289		0m	N.D. d	
81)	1,2,3-Trichlorobenzene	18.619		0m	N.D. d	
83)	Chlorotrifluoroethylene	0.000		0	N.D.	
84)	2-Chloro-1,1,1-trifluo...	0.000		0	N.D.	
85)	Acrolein	6.536	56	244903	272.41 ug/L	98
86)	Trichlorotrifluoroethane	6.682	85	710997	308.84 ug/L	99
87)	Isopropyl Alcohol	0.000		0m	N.D. d	
88)	Allyl chloride	7.139	41	3011153	279.46 ug/L	98
89)	tert-Butyl Alcohol	0.000		0	N.D.	
90)	Acrylonitrile	7.548	53	561060	245.08 ug/L	100
91)	Isopropyl ether	0.000		0	N.D.	
92)	2-Chloro-1,3-butadiene	8.206	53	507275	55.32 ug/L	99
93)	Ethyl tert-butyl ether	0.000		0	N.D.	
94)	Ethyl acetate	8.706	43	1504810	230.09 ug/L	99
95)	Propionitrile	8.773	54	212696	239.09 ug/L	99
96)	Methacrylonitrile	8.950	41	978554	250.09 ug/L	100
97)	Tetrahydrofuran	9.059	42	502113	241.69 ug/L	98

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\123109V6\
Data File : 6R404.D
Acq On : 31 Dec 2009 12:01 pm
Operator : RXD1
InstName : VOA6
Sample : |W6VM091231-03|CCV|1|VOAF|1|VOA8260BS|
Misc : CCV 5mL N/A MIX[B] 1216-08A
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Dec 31 12:22:14 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
98)	Isobutyl alcohol	9.389	41	616107	2623.01 ug/L	99
99)	Methyl tert-amyl ether	9.736	73	424	N.D.	
100)	Methyl methacrylate	10.590	69	951000	254.22 ug/L	97
101)	1,4-Dioxane	10.699	88	144809	2505.26 ug/L	100
102)	2-Nitropropane	11.071	43	509105	268.70 ug/L	99
104)	Ethyl methacrylate	11.858	69	1799505	256.11 ug/L	97
106)	1-Chlorohexane	0.000		0	N.D.	
107)	cis-1,4-Dichloro-2-butene	14.205	53	655730	283.81 ug/L	99
108)	Cyclohexanone	14.321	42	214897	1136.93 ug/L	98
109)	trans-1,4-Dichloro-2-b...	14.491	53	628946	283.38 ug/L	97
110)	Pentachloroethane	15.180	167	1171385	356.90 ug/L	99
111)	Benzyl chloride	15.717	91	3306156	260.32 ug/L	99
112)	bis(2-Chloroisopropyl)...	16.113	45	890008	238.83 ug/L	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\123109V6\
Data File : 6R404.D
Acq On : 31 Dec 2009 12:01 pm
Operator : RXD1
InstName : VOA6
Sample : |W6VM091231-03|CCV|1|VOAF|1|VOA8260BS|
Misc : CCV 5mL N/A MIX[B] 1216-08A
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Dec 31 12:22:14 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

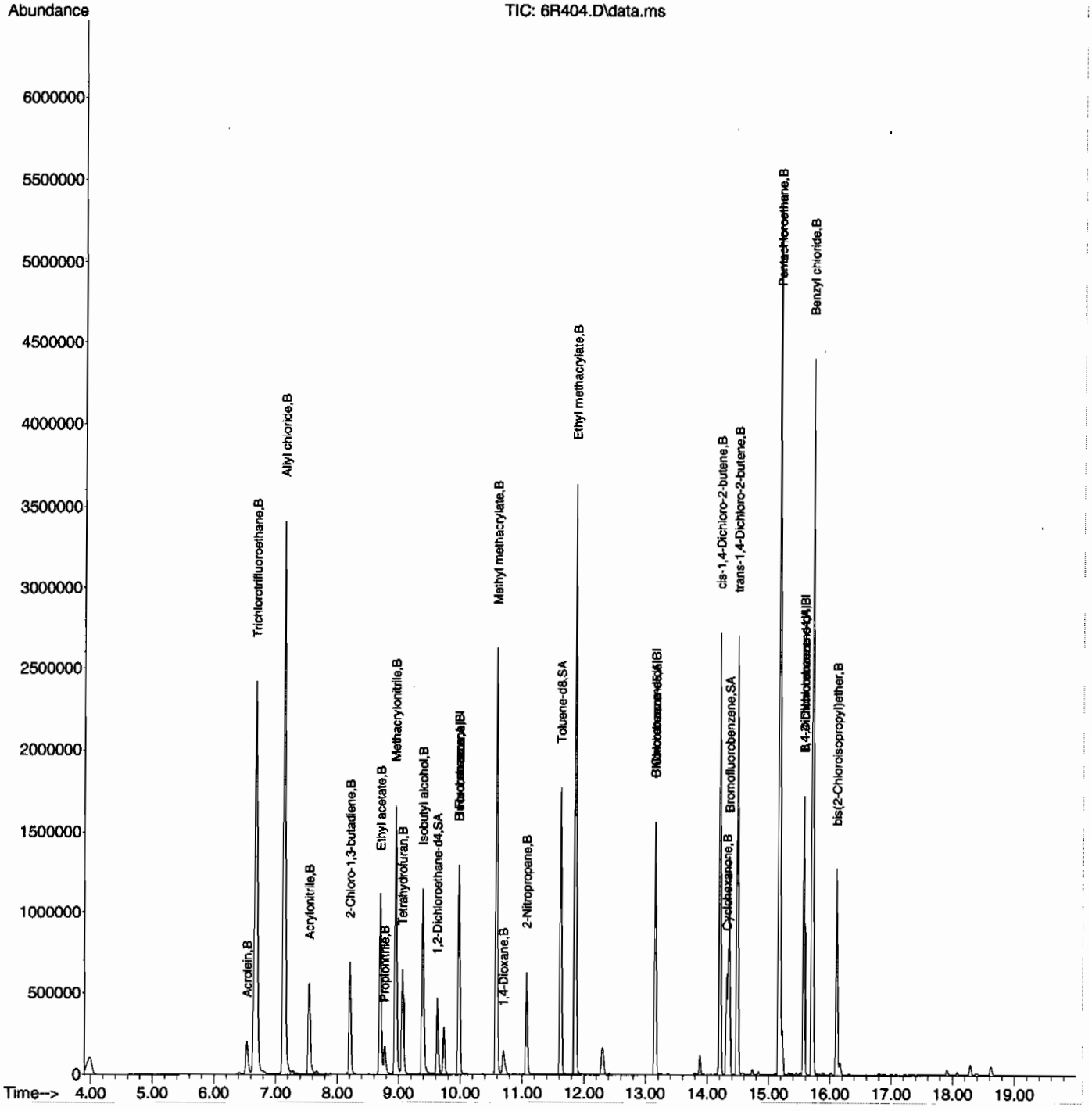

Continuing Calibration Summary

Client SDG: 10-1085

Instrument ID: VOA6.I **Injection Date** 04-JAN-10 12:05

Data File: 010410V6\6S105.D **Init. Cal. Date(s)** 10-DEC-09 11:34 - 10-DEC-09 19:2

Lab Sample ID W6VM100104-01 **Quant Type** ISTD **Method:** VOA6-8260-121009.M

	Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type	
S	1,2-Dichloroethane-d4	0.295	0.28445		.01		-3.57627	30		Averaged	
S	Toluene-d8	1.3863	1.32699		.01		-4.27829	30		Averaged	
S	Bromofluorobenzene	0.9636	0.94883		.01		-1.53279	30		Averaged	
	Dichlorodifluoromethane	0.2241	0.19896		.01		-11.21821	30		Averaged	
	Chloromethane	0.3083	0.26863		.1		-12.86734	30		Averaged	spcc
	Vinyl chloride	0.2706	0.25487		.01		-5.81301	20		Averaged	ccc
	Bromomethane	0.2019	0.1935		.01		-4.16048	30		Averaged	
	Chloroethane	0.2009	0.19219		.01		-4.33549	30		Averaged	
	Trichlorofluoromethane	0.3968	0.38556		.01		-2.83266	30		Averaged	
	Ethyl ether	0.2578	0.21282		.01		-17.44763	30		Averaged	
	Acetone	0.091	0.06625		.01		-27.1978	40		Averaged	
	1,1-Dichloroethylene	0.366	0.35053		.01		-4.22678	20		Averaged	ccc
	Iodomethane	0.3944	0.36425		.01		-7.64452	30		Averaged	
	Acetonitrile	0.0373	0.03471		.01		-6.9437	30		Averaged	
	Carbon disulfide	0.7344	0.74478		.01		1.4134	30		Averaged	
	Methyl acetate	0.2046	0.18454		.01		-9.8045	40		Averaged	
	Methylene chloride	0.2878	0.23983		.01		-16.66782	30		Averaged	
	tert-Butyl methyl ether	0.7272	0.61026		.01		-16.08086	30		Averaged	
	trans-1,2-Dichloroethylene	0.3735	0.35042		.01		-6.17938	30		Averaged	
	Vinyl acetate	0.5381	0.55005		.01		2.22078	40		Averaged	
	1,1-Dichloroethane	0.4674	0.43133		.1		-7.71716	30		Averaged	spcc
	2-Butanone	0.1151	0.10323		.01		-10.31277	40		Averaged	
	cis-1,2-Dichloroethylene	0.4161	0.39147		.01		-5.91925	30		Averaged	
	2,2-Dichloropropane	0.3367	0.35831		.01		6.41818	30		Averaged	
	Bromochloromethane	0.1282	0.11697		.01		-8.75975	30		Averaged	
	Chloroform	0.4352	0.40095		.01		-7.86994	20		Averaged	ccc
	1,1,1-Trichloroethane	0.3652	0.366		.01		0.21906	30		Averaged	
	Cyclohexane	0.4723	0.47477		.01		0.52297	30		Averaged	
	1,1-Dichloropropene	0.3324	0.33113		.01		-0.38207	30		Averaged	
	Carbon tetrachloride	0.3231	0.33318		.01		3.11978	30		Averaged	
	1,2-Dichloroethane	0.3568	0.31957		.01		-10.43442	30		Averaged	
	Benzene	1.0185	0.92674		.01		-9.00933	30		Averaged	
	Cyclohexene	0.4845	0.47406		.01		-2.1548	30		Averaged	
	n-Butyl alcohol	5000	4634.86	5000			-7.3028	40		Linear	
	Trichloroethylene	0.2542	0.2403		.01		-5.46814	30		Averaged	
	Methylcyclohexane	0.4424	0.43898		.01		-0.77306	30		Averaged	
	1,2-Dichloropropane	0.2692	0.24904		.01		-7.48886	20		Averaged	ccc

Continuing Calibration Summary

Instrument ID: VOA6.I **Injection Date** 04-JAN-10 12:05

Data File: 010410V6\6S105.D **Init. Cal. Date(s)** 10-DEC-09 11:34 10-DEC-09 19:2

Lab Sample ID W6VM100104-01 **Quant Type** ISTD **Method:** VOA6-8260-121009.M

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type	
Dibromomethane	0.143	0.13377		.01		-6.45455	30		Averaged	
Bromodichloromethane	0.3015	0.29823		.01		-1.08458	30		Averaged	
2-Chloroethylvinyl ether	0.1649	0.13339		.01		-19.10855	30		Averaged	
cis-1,3-Dichloropropylene	0.3804	0.3734		.01		-1.84017	30		Averaged	
4-Methyl-2-pentanone	0.1313	0.12045		.01		-8.26352	40		Averaged	
Toluene	1.4899	1.3227		.01		-11.22223	20		Averaged	ccc
trans-1,3-Dichloropropylene	0.4817	0.466		.01		-3.25929	30		Averaged	
1,1,2-Trichloroethane	0.2451	0.21459		.01		-12.44798	30		Averaged	
2-Hexanone	0.2407	0.22887		.01		-4.91483	40		Averaged	
1,3-Dichloropropane	0.5216	0.4535		.01		-13.05598	30		Averaged	
Tetrachloroethylene	0.3011	0.27972		.01		-7.10063	30		Averaged	
Dibromochloromethane	0.3086	0.30829		.01		-0.10045	30		Averaged	
1,2-Dibromoethane	0.2955	0.26437		.01		-10.53469	30		Averaged	
Chlorobenzene	0.9635	0.87981		.3		-8.68604	30		Averaged	spcc
1,1,1,2-Tetrachloroethane	0.3335	0.31573		.01		-5.32834	30		Averaged	
Ethylbenzene	1.6336	1.51957		.01		-6.98029	20		Averaged	ccc
m,p-Xylenes	0.6533	0.60669		.01		-7.13455	30		Averaged	
o-Xylene	0.6413	0.59024		.01		-7.96195	30		Averaged	
Styrene	1.0216	0.96693		.01		-5.35141	30		Averaged	
Bromoform	0.3535	0.37237		.1		5.33805	30		Averaged	spcc
Isopropylbenzene	3.0477	2.8469		.01		-6.58857	30		Averaged	
1,1,2,2-Tetrachloroethane	0.6833	0.62514		.3		-8.51163	30		Averaged	spcc
1,2,3-Trichloropropane	0.1922	0.17071		.01		-11.18106	30		Averaged	
Bromobenzene	0.7836	0.69803		.01		-10.92011	30		Averaged	
n-Propylbenzene	3.5712	3.37952		.01		-5.36738	30		Averaged	
2-Chlorotoluene	0.7594	0.71089		.01		-6.38794	30		Averaged	
1,3,5-Trimethylbenzene	2.6127	2.4324		.01		-6.90091	30		Averaged	
4-Chlorotoluene	2.199	2.03766		.01		-7.33697	30		Averaged	
tert-Butylbenzene	0.5812	0.5345		.01		-8.0351	30		Averaged	
1,2,4-Trimethylbenzene	2.7527	2.48532		.01		-9.71337	30		Averaged	
sec-Butylbenzene	3.5128	3.27251		.01		-6.84041	30		Averaged	
4-Isopropyltoluene	2.8725	2.69116		.01		-6.31297	30		Averaged	
1,3-Dichlorobenzene	1.5315	1.37083		.01		-10.49102	30		Averaged	
1,4-Dichlorobenzene	1.5703	1.38857		.01		-11.57295	30		Averaged	
n-Butylbenzene	2.7878	2.62613		.01		-5.7992	30		Averaged	
1,2-Dichlorobenzene	1.4847	1.28867		.01		-13.20334	30		Averaged	
1,2-Dibromo-3-chloropropane	0.1246	0.11846		.01		-4.92777	30		Averaged	

Continuing Calibration Summary

Instrument ID: VOA6.I **Injection Date** 04-JAN-10 12:05

Data File: 010410V6\6S105.D **Init. Cal. Date(s)** 10-DEC-09 11:34 10-DEC-09 19:2

Lab Sample ID W6VM100104-01 **Quant Type** ISTD **Method:** VOA6-8260-121009.M

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
1,2,4-Trichlorobenzene	1.1167	0.95219		.01		-14.7318	30		Averaged
Hexachlorobutadiene	0.709	0.61257		.01		-13.60085	30		Averaged
Naphthalene	2.2443	1.86111		.01		-17.07392	30		Averaged
1,2,3-Trichlorobenzene	0.9351	0.80593		.01		-13.8135	30		Averaged

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\010410V6\
Data File : 6S105.D
Acq On : 4 Jan 2010 12:05 pm
Operator : RXD1
InstName : VOA6
Sample : |W6VM100104-01|CCV|1|VOAF|1|VOA8260BS|
Misc : CCV 5mL N/A MIX[A] 1214-01D+1230-01
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jan 04 12:32:18 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Fluorobenzene	9.974	96	1475192	50.00 ug/L	0.00
41) Chlorobenzene-d5	13.156	117	1099894	50.00 ug/L	0.00
58) 1,4-Dichlorobenzene-d4	15.576	152	605179	50.00 ug/L	0.00
82) B Fluorobenzene	9.974	96	1473570	50.00 ug/L	0.00
103) B Chlorobenzene-d5	13.156	117	1099894	50.00 ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	15.576	152	605179	50.00 ug/L	0.00
System Monitoring Compounds					
29) 1,2-Dichloroethane-d4	9.626	65	419613	48.21 ug/L	0.00
43) Toluene-d8	11.626	98	1459546	47.86 ug/L	0.00
61) Bromofluorobenzene	14.357	95	574212	49.23 ug/L	0.00
Target Compounds					Qvalue
2) Dichlorodifluoromethane	4.360	85	293507	44.38 ug/L	99
3) Chloromethane	4.682	50	396282	43.57 ug/L	99
4) Vinyl chloride	4.924	62	375986	47.09 ug/L	100
5) Bromomethane	5.478	94	285443	47.93 ug/L	99
6) Chloroethane	5.609	64	283521	47.84 ug/L	100
7) Trichlorofluoromethane	6.022	101	568778	48.59 ug/L	100
8) Ethyl ether	6.328	59	313954	41.28 ug/L	97
9) Acetone	6.712	43	488636	182.07 ug/L	97 E
10) 1,1-Dichloroethylene	6.706	61	517102	47.89 ug/L	99
11) Iodomethane	6.956	142	2686659	230.91 ug/L	99
12) Acetonitrile	7.072	41	1280153	1163.59 ug/L	100
13) Methyl acetate	7.096	43	1361153	225.51 ug/L	100
14) Carbon disulfide	7.078	76	5493468	253.53 ug/L	100
15) Methylene chloride	7.285	84	353796	41.67 ug/L	100
16) tert-Butyl methyl ether	7.572	73	900257	41.96 ug/L	100
17) trans-1,2-Dichloroethy...	7.621	61	516936	46.91 ug/L	99
18) Vinyl acetate	8.066	43	4057113	255.57 ug/L	96
19) 1,1-Dichloroethane	8.102	63	636300	46.14 ug/L	100
20) 2-Butanone	8.694	43	761452	224.24 ug/L	100
21) cis-1,2-Dichloroethylene	8.742	61	577494	47.05 ug/L	98
22) 2,2-Dichloropropane	8.767	77	528578	53.21 ug/L	96
23) Bromochloromethane	9.017	128	172550	45.63 ug/L	99
24) Chloroform	9.053	83	591476	46.07 ug/L	99
25) 1,1,1-Trichloroethane	9.321	97	539921	50.11 ug/L	99
26) Cyclohexane	9.413	56	700382	50.26 ug/L	100
27) 1,1-Dichloropropene	9.480	75	488481	49.81 ug/L	98
28) Carbon tetrachloride	9.517	117	491503	51.56 ug/L	100
30) 1,2-Dichloroethane	9.712	62	471420	44.78 ug/L	100
31) Benzene	9.724	78	1367125	45.49 ug/L	100
32) Cyclohexene	9.834	67	699331	48.92 ug/L	100
33) n-Butyl alcohol	10.084	56	1156920	4634.86 ug/L	98
34) Trichloroethylene	10.364	95	354489	47.26 ug/L	99
35) 1,2-Dichloropropane	10.614	63	367386	46.26 ug/L	99
36) Methylcyclohexane	10.602	83	647582	49.61 ug/L	99
37) Dibromomethane	10.754	93	197342	46.77 ug/L	98
38) Bromodichloromethane	10.864	83	439951	49.46 ug/L	99
39) 2-Chloroethylvinyl ether	11.089	63	983910	202.28 ug/L	99
40) cis-1,3-Dichloropropylene	11.315	75	550832	49.07 ug/L	99

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\010410V6\
Data File : 6S105.D
Acq On : 4 Jan 2010 12:05 pm
Operator : RXD1
InstName : VOA6
Sample : |W6VM100104-01|CCV|1|VOAF|1|VOA8260BS|
Misc : CCV 5mL N/A MIX[A] 1214-01D+1230-01
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jan 04 12:32:18 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
42)	4-Methyl-2-pentanone	11.413	58	662427	229.38	ug/L		95
44)	Toluene	11.699	91	1454833	44.39	ug/L		100
45)	trans-1,3-Dichloroprop...	11.858	75	512546	48.37	ug/L		98
46)	1,1,2-Trichloroethane	12.083	83	236030	43.78	ug/L		100
47)	2-Hexanone	12.260	43	1258641	237.69	ug/L		99
48)	1,3-Dichloropropane	12.272	76	498800	43.48	ug/L		99
49)	Tetrachloroethylene	12.290	164	307663	46.46	ug/L		98
50)	Dibromochloromethane	12.540	129	339087	49.94	ug/L		99
51)	1,2-Dibromoethane	12.705	107	290779	44.73	ug/L		99
52)	Chlorobenzene	13.193	112	967692	45.66	ug/L		99
53)	1,1,1,2-Tetrachloroethane	13.248	131	347269	47.33	ug/L		100
54)	Ethylbenzene	13.254	91	1671365	46.51	ug/L		99
55)	m,p-Xylenes	13.363	106	1334585	92.86	ug/L		98
56)	o-Xylene	13.796	106	649199	46.02	ug/L		98
57)	Styrene	13.802	104	1063525	47.32	ug/L		99
59)	Bromoform	14.058	173	225353	52.67	ug/L		99
60)	Isopropylbenzene	14.156	105	1722883	46.71	ug/L		100
62)	1,1,2,2-Tetrachloroethane	14.436	83	378323	45.75	ug/L		99
63)	1,2,3-Trichloropropane	14.528	110	103310	44.41	ug/L	#	90
64)	Bromobenzene	14.564	156	422434	44.54	ug/L		98
65)	n-Propylbenzene	14.583	91	2045215	47.32	ug/L		100
66)	1,3,5-Trimethylbenzene	14.735	105	1472037	46.55	ug/L		99
67)	2-Chlorotoluene	14.735	126	430215	46.81	ug/L		98
68)	4-Chlorotoluene	14.833	91	1233148	46.33	ug/L		100
69)	tert-Butylbenzene	15.107	134	323470	45.98	ug/L	#	90
70)	1,2,4-Trimethylbenzene	15.150	105	1504063	45.14	ug/L		99
71)	sec-Butylbenzene	15.333	105	1980454	46.58	ug/L		99
72)	4-Isopropyltoluene	15.454	119	1628632	46.84	ug/L		99
73)	1,3-Dichlorobenzene	15.515	146	829597	44.75	ug/L		99
74)	1,4-Dichlorobenzene	15.601	146	840333	44.21	ug/L		100
75)	n-Butylbenzene	15.887	91	1589277	47.10	ug/L		99
76)	1,2-Dichlorobenzene	16.021	146	779875	43.40	ug/L		99
77)	1,2-Dibromo-3-chloropr...	16.881	157	71690	47.53	ug/L		98
78)	1,2,4-Trichlorobenzene	17.911	180	576244	42.63	ug/L		99
79)	Hexachlorobutadiene	18.076	225	370714	43.20	ug/L		100
80)	Naphthalene	18.283	128	1126307	41.46	ug/L		100
81)	1,2,3-Trichlorobenzene	18.618	180	487734	43.09	ug/L		99
83)	Chlorotrifluoroethylene	0.000		0	N.D.			
84)	2-Chloro-1,1,1-trifluo...	0.000		0	N.D.			
85)	Acrolein	6.462		0m	N.D.	d		
86)	Trichlorotrifluoroethane	0.000		0	N.D.			
87)	Isopropyl Alcohol	0.000		0	N.D.			
88)	Allyl chloride	7.072		0m	N.D.	d		
89)	tert-Butyl Alcohol	0.000		0	N.D.			
90)	Acrylonitrile	7.578		0m	N.D.	d		
91)	Isopropyl ether	8.060		0m	N.D.	d		
92)	2-Chloro-1,3-butadiene	8.212		0m	N.D.	d		
93)	Ethyl tert-butyl ether	8.480		0m	N.D.	d		
94)	Ethyl acetate	8.694		0m	N.D.	d		
95)	Propionitrile	8.694		0m	N.D.	d		
96)	Methacrylonitrile	0.000		0	N.D.			
97)	Tetrahydrofuran	9.059		0m	N.D.	d		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\010410V6\
Data File : 6S105.D
Acq On : 4 Jan 2010 12:05 pm
Operator : RXD1
InstName : VOA6
Sample : |W6VM100104-01|CCV|1|VOAF|1|VOA8260BS|
Misc : CCV 5mL N/A MIX[A] 1214-01D+1230-01
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jan 04 12:32:18 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
98)	Isobutyl alcohol	9.413		0m	N.D.	d
99)	Methyl tert-amyl ether	9.724		0m	N.D.	d
100)	Methyl methacrylate	10.602		0m	N.D.	d
101)	1,4-Dioxane	10.742		0m	N.D.	d
102)	2-Nitropropane	11.089		0m	N.D.	d
104)	Ethyl methacrylate	11.797		0m	N.D.	d
106)	1-Chlorohexane	0.000		0	N.D.	
107)	cis-1,4-Dichloro-2-butene	14.156		0m	N.D.	d
108)	Cyclohexanone	0.000		0	N.D.	
109)	trans-1,4-Dichloro-2-b...	0.000		0	N.D.	
110)	Pentachloroethane	15.180		0m	N.D.	d
111)	Benzyl chloride	15.717		0m	N.D.	d
112)	bis(2-Chloroisopropyl)...	16.168		0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\010410V6\
Data File : 6S105.D
Acq On : 4 Jan 2010 12:05 pm
Operator : RXD1
InstName : VOA6
Sample : |W6VM100104-01|CCV|1|VOAF|1|VOA8260BS|
Misc : CCV 5mL N/A MIX[A] 1214-01D+1230-01
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jan 04 12:32:18 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

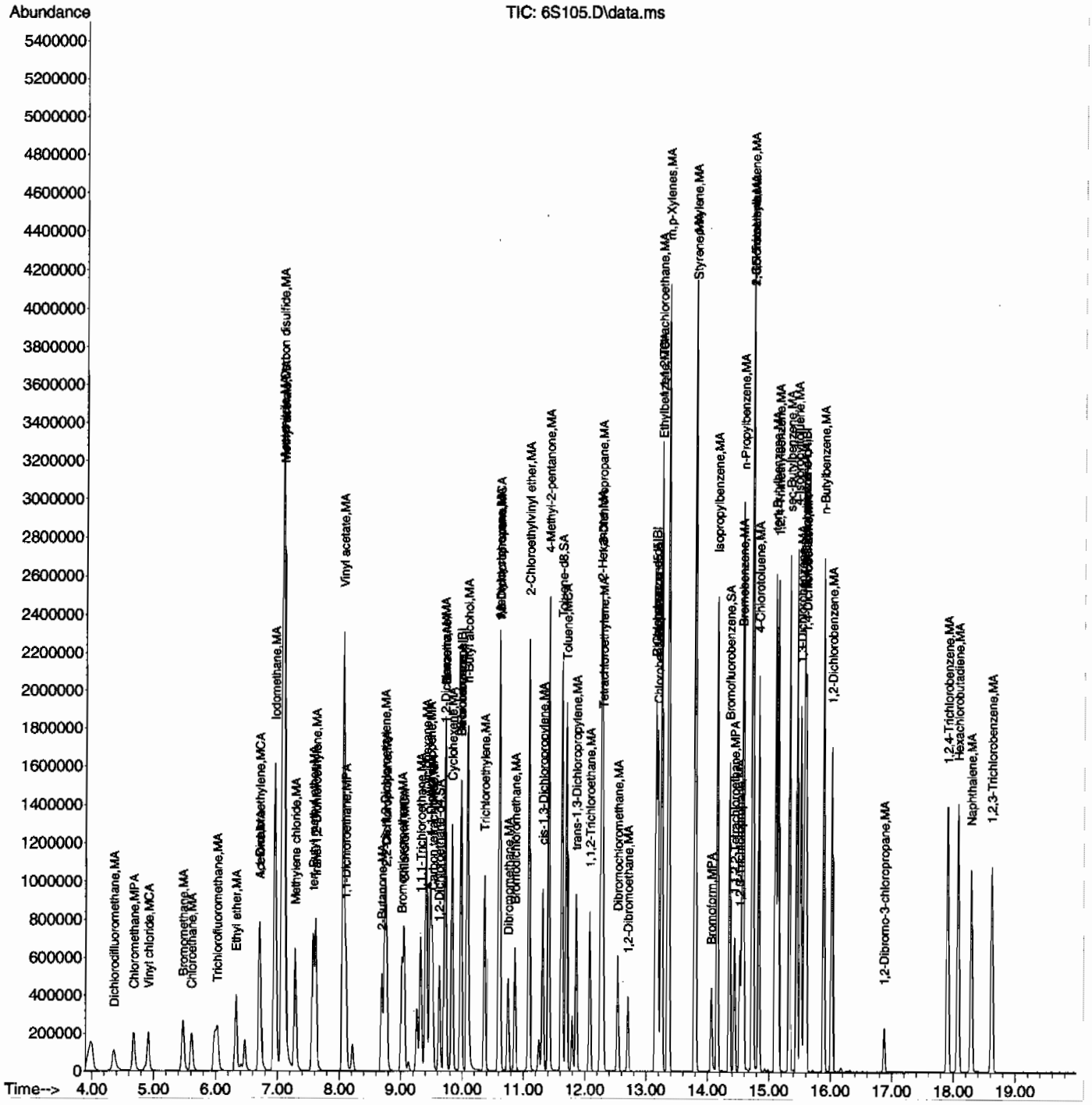

Continuing Calibration Summary

Client SDG: 10-1085

Instrument ID: VOA6.I **Injection Dat** 04-JAN-10 13:01

Data File: 010410V6\6S107.D **Init. Cal. Date(s)** 10-DEC-09 11:34 - 10-DEC-09 19:2

Lab Sample ID W6VM100104-03 **Quant Type** ISTD **Method:** VOA6-8260-121009.M

	Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
S	1,2-Dichloroethane-d4	0.295	0.29062		.01		-1.48475	30		Averaged
S	Toluene-d8	1.3863	1.31921		.01		-4.8395	30		Averaged
S	Bromofluorobenzene	0.9636	0.94202		.01		-2.23952	30		Averaged
	Acrolein	0.0365	0.03777		.01		3.47945	30		Averaged
	Trichlorotrifluoroethane	0.0934	0.10648		.01		14.00428	30		Averaged
	Allyl chloride	0.4371	0.45055		.01		3.0771	30		Averaged
	Acrylonitrile	0.0929	0.08688		.01		-6.48009	30		Averaged
	2-Chloro-1,3-butadiene	0.372	0.3735		.01		0.40323	30		Averaged
	Ethyl acetate	0.2653	0.23554		.01		-11.21749	40		Averaged
	Propionitrile	0.0361	0.03349		.01		-7.22992	30		Averaged
	Methacrylonitrile	0.1587	0.15224		.01		-4.07057	30		Averaged
	Tetrahydrofuran	0.0843	0.07941		.01		-5.80071	30		Averaged
	Isobutyl alcohol	0.0095	0.00978		.01		2.94737	40		Averaged
	Methyl methacrylate	0.1518	0.14808		.01		-2.45059	30		Averaged
	1,4-Dioxane	0.0023	0.00231		.01		0.43478	40		Averaged
	2-Nitropropane	250	255.53	250			2.212	30		Linear
	Ethyl methacrylate	0.3914	0.38027		.01		-2.84364	30		Averaged
	cis-1,4-Dichloro-2-butene	0.2353	0.24515		.01		4.18615	30		Averaged
	Cyclohexanone	0.0193	0.01622		.01		-15.95855	40		Averaged
	trans-1,4-Dichloro-2-butene	0.2261	0.23272		.01		2.92791	30		Averaged
	Pentachloroethane	0.3343	0.43773		.01		30.93928	30	*	Averaged
	Benzyl chloride	1.2936	1.22356		.01		-5.41435	30		Averaged
	bis(2-Chloroisopropyl)ether	0.3796	0.3497		.01		-7.87671	30		Averaged

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\010410V6\
Data File : 6S107.D
Acq On : 4 Jan 2010 1:01 pm
Operator : RXD1
InstName : VOA6
Sample : |W6VM100104-03|CCV|1|VOAF|1|VOA8260BS|
Misc : CCV 5mL N/A MIX[B] 1216-08A
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jan 04 13:49:04 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	9.974	96	1525876	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.156	117	1116101	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	15.576	152	632860	50.00	ug/L	0.00
82) B Fluorobenzene	9.974	96	1523989	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.156	117	1116101	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	15.576	152	632860	50.00	ug/L	0.00
System Monitoring Compounds						
29) 1,2-Dichloroethane-d4	9.626	65	443444	49.26	ug/L	0.00
43) Toluene-d8	11.626	98	1472377	47.58	ug/L	0.00
61) Bromofluorobenzene	14.357	95	596168	48.88	ug/L	0.00

Target Compounds				Qvalue
2) Dichlorodifluoromethane	0.000	0	N.D.	
3) Chloromethane	4.662	0m	N.D. d	
4) Vinyl chloride	4.914	0m	N.D. d	
5) Bromomethane	0.000	0	N.D.	
6) Chloroethane	0.000	0	N.D.	
7) Trichlorofluoromethane	0.000	0	N.D.	
8) Ethyl ether	0.000	0	N.D.	
9) Acetone	6.682	0m	N.D. d	
10) 1,1-Dichloroethylene	6.688	0m	N.D. d	
11) Iodomethane	6.944	0m	N.D. d	
12) Acetonitrile	7.139	0m	N.D. d	
13) Methyl acetate	7.096	0m	N.D. d	
14) Carbon disulfide	7.139	0m	N.D. d	
15) Methylene chloride	7.285	0m	N.D. d	
16) tert-Butyl methyl ether	0.000	0	N.D.	
17) trans-1,2-Dichloroethy...	0.000	0	N.D.	
18) Vinyl acetate	8.206	0m	N.D. d	
19) 1,1-Dichloroethane	8.206	0m	N.D. d	
20) 2-Butanone	8.700	0m	N.D. d	
21) cis-1,2-Dichloroethylene	8.706	0m	N.D. d	
22) 2,2-Dichloropropane	0.000	0	N.D.	
23) Bromochloromethane	0.000	0	N.D.	
24) Chloroform	0.000	0	N.D.	
25) 1,1,1-Trichloroethane	0.000	0	N.D.	
26) Cyclohexane	9.389	0m	N.D. d	
27) 1,1-Dichloropropene	0.000	0	N.D.	
28) Carbon tetrachloride	0.000	0	N.D.	
30) 1,2-Dichloroethane	0.000	0	N.D.	
31) Benzene	9.724	0m	N.D. d	
32) Cyclohexene	9.846	0m	N.D. d	
33) n-Butyl alcohol	10.090	0m	N.D. d	
34) Trichloroethylene	10.370	0m	N.D. d	
35) 1,2-Dichloropropane	0.000	0	N.D.	
36) Methylcyclohexane	10.590	0m	N.D. d	
37) Dibromomethane	0.000	0	N.D.	
38) Bromodichloromethane	0.000	0	N.D.	
39) 2-Chloroethylvinyl ether	11.089	0m	N.D. d	
40) cis-1,3-Dichloropropylene	11.315	0m	N.D. d	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\010410V6\
Data File : 6S107.D
Acq On : 4 Jan 2010 1:01 pm
Operator : RXD1
InstName : VOA6
Sample : |W6VM100104-03|CCV|1|VOAF|1|VOA8260BS|
Misc : CCV 5mL N/A MIX[B] 1216-08A
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jan 04 13:49:04 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
42)	4-Methyl-2-pentanone	11.406		0m	N.D. d	
44)	Toluene	11.693		0m	N.D. d	
45)	trans-1,3-Dichloroprop...	11.858		0m	N.D. d	
46)	1,1,2-Trichloroethane	0.000		0	N.D.	
47)	2-Hexanone	12.260		0m	N.D. d	
48)	1,3-Dichloropropane	12.266		0m	N.D. d	
49)	Tetrachloroethylene	12.290		0m	N.D. d	
50)	Dibromochloromethane	0.000		0	N.D.	
51)	1,2-Dibromoethane	12.705		0m	N.D. d	
52)	Chlorobenzene	13.187		0m	N.D. d	
53)	1,1,1,2-Tetrachloroethane	13.248		0m	N.D. d	
54)	Ethylbenzene	13.254		0m	N.D. d	
55)	m,p-Xylenes	13.357		0m	N.D. d	
56)	o-Xylene	13.796		0m	N.D. d	
57)	Styrene	13.796		0m	N.D. d	
59)	Bromoform	14.052		0m	N.D. d	
60)	Isopropylbenzene	14.162		0m	N.D. d	
62)	1,1,2,2-Tetrachloroethane	14.442		0m	N.D. d	
63)	1,2,3-Trichloropropane	14.528		0m	N.D. d	
64)	Bromobenzene	14.564		0m	N.D. d	
65)	n-Propylbenzene	14.583		0m	N.D. d	
66)	1,3,5-Trimethylbenzene	14.735		0m	N.D. d	
67)	2-Chlorotoluene	14.729		0m	N.D. d	
68)	4-Chlorotoluene	14.833		0m	N.D. d	
69)	tert-Butylbenzene	15.107		0m	N.D. d	
70)	1,2,4-Trimethylbenzene	15.150		0m	N.D. d	
71)	sec-Butylbenzene	15.332		0m	N.D. d	
72)	4-Isopropyltoluene	15.454		0m	N.D. d	
73)	1,3-Dichlorobenzene	15.515		0m	N.D. d	
74)	1,4-Dichlorobenzene	15.595		0m	N.D. d	
75)	n-Butylbenzene	15.887		0m	N.D. d	
76)	1,2-Dichlorobenzene	16.021		0m	N.D. d	
77)	1,2-Dibromo-3-chloropr...	16.875		0m	N.D. d	
78)	1,2,4-Trichlorobenzene	17.905		0m	N.D. d	
79)	Hexachlorobutadiene	18.070		0m	N.D. d	
80)	Naphthalene	18.283		0m	N.D. d	
81)	1,2,3-Trichlorobenzene	18.625		0m	N.D. d	
83)	Chlorotrifluoroethylene	0.000		0	N.D.	
84)	2-Chloro-1,1,1-trifluo...	0.000		0	N.D.	
85)	Acrolein	6.535	56	287827	258.90 ug/L	98
86)	Trichlorotrifluoroethane	6.682	85	811368	285.01 ug/L	98
87)	Isopropyl Alcohol	0.000		0m	N.D. d	
88)	Allyl chloride	7.139	41	3433154	257.67 ug/L	98
89)	tert-Butyl Alcohol	0.000		0	N.D.	
90)	Acrylonitrile	7.547	53	661983	233.84 ug/L	99
91)	Isopropyl ether	0.000		0	N.D.	
92)	2-Chloro-1,3-butadiene	8.206	53	569203	50.20 ug/L	98
93)	Ethyl tert-butyl ether	0.000		0	N.D.	
94)	Ethyl acetate	8.700	43	1794792	221.93 ug/L	99
95)	Propionitrile	8.773	54	255185	231.97 ug/L	99
96)	Methacrylonitrile	8.950	41	1160076	239.76 ug/L	100
97)	Tetrahydrofuran	9.059	42	605125	235.55 ug/L	98

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\010410V6\
Data File : 6S107.D
Acq On : 4 Jan 2010 1:01 pm
Operator : RXD1
InstName : VOA6
Sample : |W6VM100104-03|CCV|1|VOAF|1|VOA8260BS|
Misc : CCV 5mL N/A MIX[B] 1216-08A
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jan 04 13:49:04 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
98)	Isobutyl alcohol	9.389	41	745559	2566.85 ug/L	99
99)	Methyl tert-amyl ether	9.724	73	1442	N.D.	
100)	Methyl methacrylate	10.590	69	1128381	243.93 ug/L	98
101)	1,4-Dioxane	10.699	88	176331	2466.96 ug/L	100
102)	2-Nitropropane	11.071	43	598243	255.53 ug/L	98
104)	Ethyl methacrylate	11.858	69	2122091	242.89 ug/L	98
106)	1-Chlorohexane	0.000		0	N.D.	
107)	cis-1,4-Dichloro-2-butene	14.205	53	775735	260.44 ug/L	99
108)	Cyclohexanone	14.320	42	256665	1053.30 ug/L	99
109)	trans-1,4-Dichloro-2-b...	14.491	53	736384	257.36 ug/L	98
110)	Pentachloroethane	15.180	167	1385102	327.35 ug/L	99
111)	Benzyl chloride	15.717	91	3871715	236.47 ug/L	99
112)	bis(2-Chloroisopropyl)...	16.113	45	1106566	230.33 ug/L	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\010410V6\
Data File : 6S107.D
Acq On : 4 Jan 2010 1:01 pm
Operator : RXD1
InstName : VOA6
Sample : |W6VM100104-03|CCV|1|VOAF|1|VOA8260BS|
Misc : CCV 5mL N/A MIX[B] 1216-08A
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jan 04 13:49:04 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

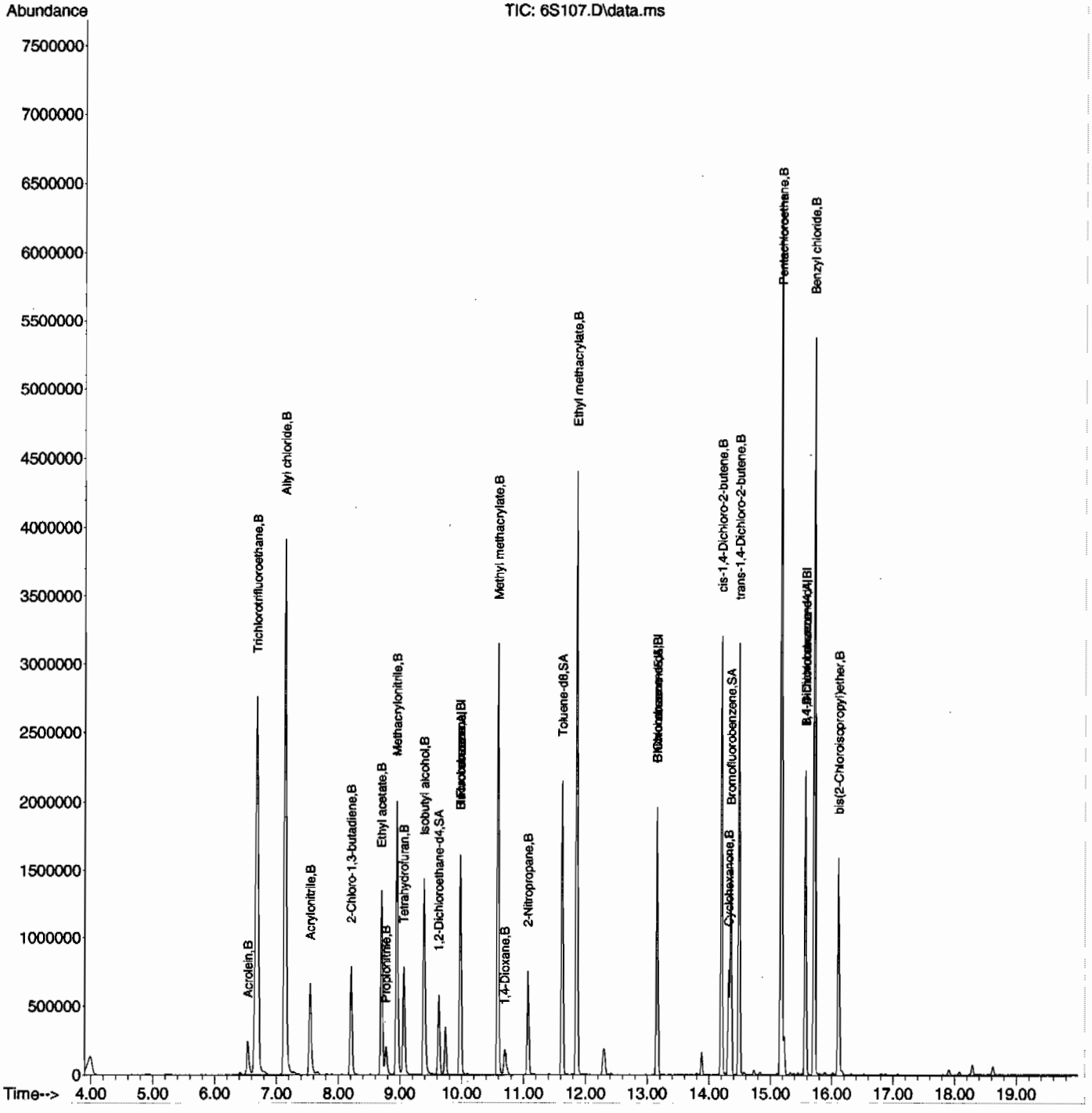

Quality Control Data

Tune Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\121009V6\
Data File : 6O404.D
Acq On : 10 Dec 2009 10:12 am
Operator : RXD1
Sample : |UVM091020-02|BFB|1|VOAF|1|VOA8260BLF|
Misc : GEL 5mL N/A BFB
ALS Vial : 4 Sample Multiplier: 1

Integration File: default.P

Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Title : Volatile Organics 8260B SubList :
Last Update : Mon Dec 14 12:44:52 2009

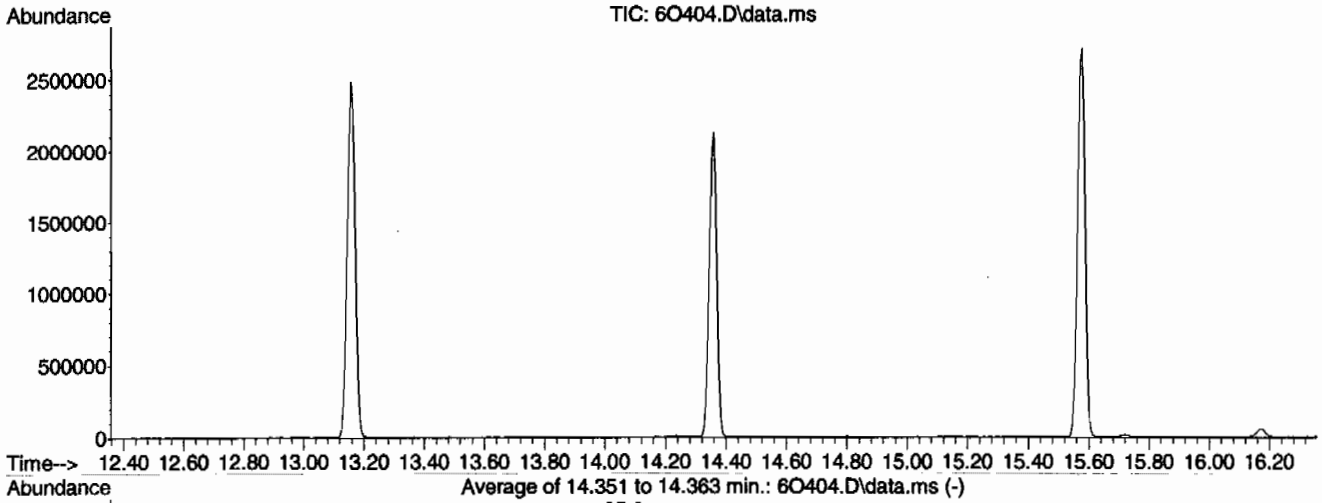

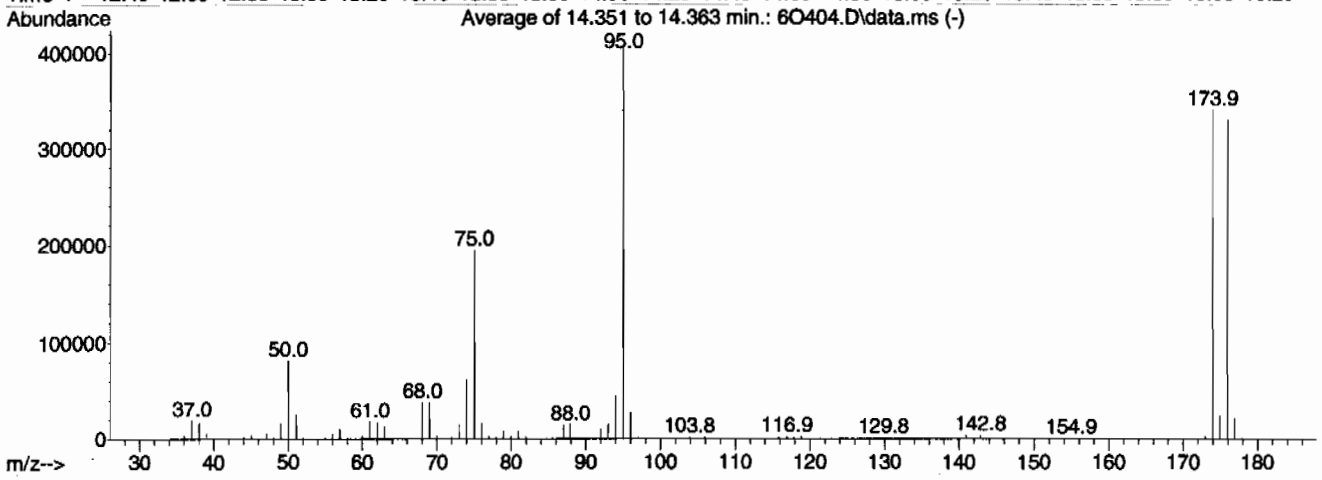

AutoFind: Scans 1558, 1559, 1560; Background Corrected with Scan 1550

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	20.0	80893	PASS
75	95	30	60	48.2	194667	PASS
95	95	100	100	100.0	404032	PASS
96	95	5	9	6.7	27179	PASS
173	174	0.00	2	0.8	2837	PASS
174	95	50	100	84.2	340352	PASS
175	174	5	9	7.2	24547	PASS
176	174	95	101	96.8	329472	PASS
177	176	5	9	6.6	21595	PASS

Tune Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\123109V6\
Data File : 6R401.D
Acq On : 31 Dec 2009 10:38 am
Operator : RXD1
Sample : |UVM091020-02|BFB|1|VOAF|1|
Misc : GEL 5mL N/A BFB
ALS Vial : 1 Sample Multiplier: 1

Integration File: default.P

Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Title : Volatile Organics 8260B SubList :
Last Update : Mon Dec 14 12:44:52 2009

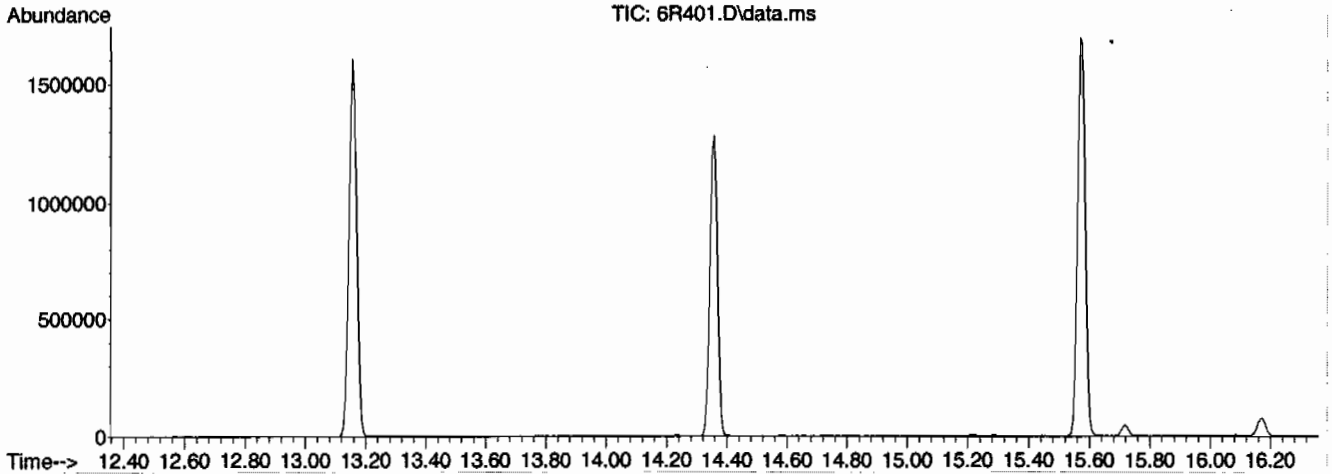

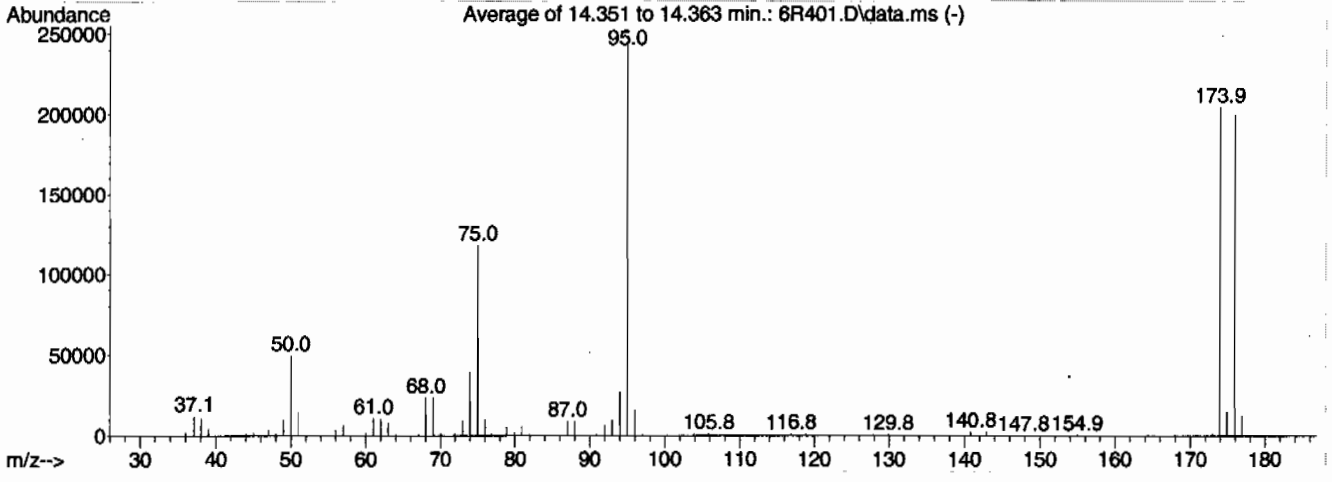

AutoFind: Scans 1558, 1559, 1560; Background Corrected with Scan 1550

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	20.4	49456	PASS
75	95	30	60	48.8	118235	PASS
95	95	100	100	100.0	242432	PASS
96	95	5	9	6.5	15831	PASS
173	174	0.00	2	0.8	1702	PASS
174	95	50	100	84.5	204736	PASS
175	174	5	9	7.0	14286	PASS
176	174	95	101	97.5	199701	PASS
177	176	5	9	6.4	12735	PASS

Tune Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\010410V6\
Data File : 6S105BFB.D
Acq On : 4 Jan 2010 12:05 pm
Operator : RXD1
Sample : |W6VM100104-01|BFB|1|VOAF|1|VOA8260BS|
Misc : BFB 5mL N/A MIX[A] 1214-01D+1230-01
ALS Vial : 5 Sample Multiplier: 1

Integration File: default.P

Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Title : Volatile Organics 8260B SubList :
Last Update : Mon Dec 14 12:44:52 2009

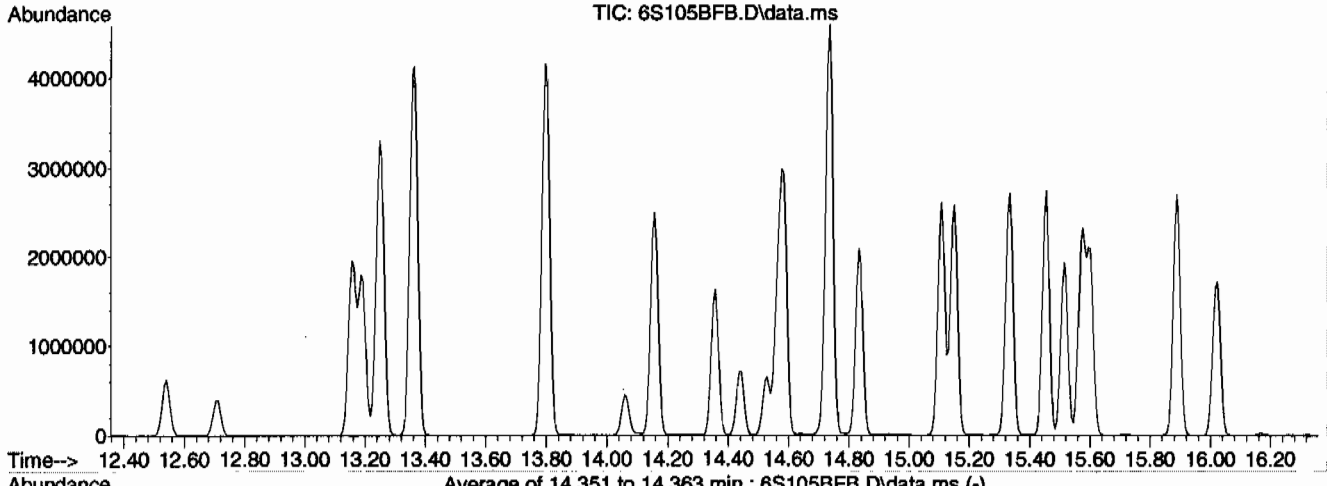

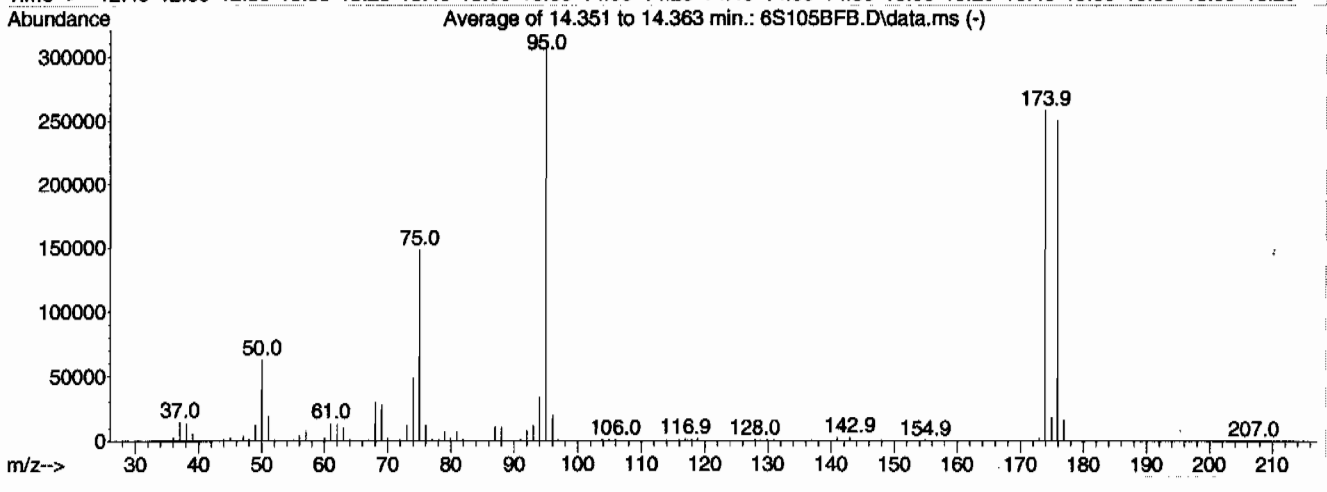

AutoFind: Scans 1558, 1559, 1560; Background Corrected with Scan 1550

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	20.7	62995	PASS
75	95	30	60	48.7	148488	PASS
95	95	100	100	100.0	305045	PASS
96	95	5	9	6.6	20103	PASS
173	174	0.00	2	0.9	2408	PASS
174	95	50	100	84.7	258475	PASS
175	174	5	9	7.2	18560	PASS
176	174	95	101	96.8	250133	PASS
177	176	5	9	6.7	16644	PASS

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1085**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202007245**				
Client Sample:	**QC for batch 938021**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 938021**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**938022**	**Inst:**	**VOA6.I**	**Dilution:**	**1**
Run Date:	**12/31/2009 12:56**	**Analyst:**	**RXD1**	**Purge Vol:**	**5 mL**
Prep Date:	**12/31/2009 09:34**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**123109V6\6R406BL.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/kg	0.340	1.00
74-87-3	Chloromethane	U	1.00	ug/kg	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/kg	0.300	1.00
74-83-9	Bromomethane	U	1.00	ug/kg	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/kg	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/kg	0.300	1.00
67-64-1	Acetone	U	5.00	ug/kg	1.66	5.00
75-35-4	1,1-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/kg	1.60	5.00
75-09-2	Methylene chloride	U	5.00	ug/kg	2.00	5.00
75-15-0	Carbon disulfide	U	5.00	ug/kg	1.25	5.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/kg	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/kg	1.50	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/kg	0.300	1.00
74-97-5	Bromochloromethane	U	1.00	ug/kg	0.330	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/kg	0.300	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/kg	0.300	1.00
56-23-5	Carbon tetrachloride	U	1.00	ug/kg	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/kg	0.300	1.00
71-43-2	Benzene	U	1.00	ug/kg	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/kg	0.330	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/kg	0.300	1.00
74-95-3	Dibromomethane	U	1.00	ug/kg	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/kg	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
108-88-3	Toluene	U	1.00	ug/kg	0.300	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/kg	0.300	1.00
591-78-6	2-Hexanone	U	5.00	ug/kg	1.50	5.00
142-28-9	1,3-Dichloropropane	U	1.00	ug/kg	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/kg	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/kg	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/kg	0.300	1.00
108-90-7	Chlorobenzene	U	1.00	ug/kg	0.300	1.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1085**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202007245**				
Client Sample:	**QC for batch 938021**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 938021**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**938022**	**Inst:**	**VOA6.I**	**Dilution:**	**1**
Run Date:	**12/31/2009 12:56**	**Analyst:**	**RXD1**	**Purge Vol:**	**5 mL**
Prep Date:	**12/31/2009 09:34**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**123109V6\6R406BL.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.00	ug/kg	0.300	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/kg	0.300	2.00
95-47-6	o-Xylene	U	1.00	ug/kg	0.300	1.00
100-42-5	Styrene	U	1.00	ug/kg	0.300	1.00
75-25-2	Bromoform	U	1.00	ug/kg	0.300	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/kg	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/kg	0.300	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/kg	0.300	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/kg	0.300	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/kg	0.300	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/kg	0.300	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/kg	0.300	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/kg	0.300	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/kg	0.300	1.00
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.00	ug/kg	1.60	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated Units	Fit	Qual
	No Tentatively Identified Compounds Found		ug/kg		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\123109V6\
Data File : 6R406BL.D
Acq On : 31 Dec 2009 12:56 pm
Operator : RXD1
InstName : VOA6
Sample : |1202007245|938022|1|VOAF|1|VOA8260BS|
Misc : BLANK 5g N/A SOIL
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Dec 31 14:04:19 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	9.980	96	1247489	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.156	117	916841	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	15.576	152	485836	50.00	ug/L	0.00
82) B Fluorobenzene	9.980	96	1246430	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.156	117	916841	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	15.576	152	485836	50.00	ug/L	0.00
System Monitoring Compounds						
29) 1,2-Dichloroethane-d4	9.626	65	374062	50.82	ug/L	0.00
Spiked Amount 50.000	Range 68 - 131		Recovery = 101.64%			
43) Toluene-d8	11.626	98	1220378	48.01	ug/L	0.00
Spiked Amount 50.000	Range 75 - 129		Recovery = 96.02%			
61) Bromofluorobenzene	14.357	95	474792	50.71	ug/L	0.00
Spiked Amount 50.000	Range 68 - 133		Recovery = 101.42%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	0.000		0	N.D.		
3) Chloromethane	4.662	50	389	N.D.		
4) Vinyl chloride	4.914	62	172	N.D.		
5) Bromomethane	0.000		0	N.D.		
6) Chloroethane	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000		0	N.D.		
8) Ethyl ether	0.000		0	N.D.		
9) Acetone	6.712	43	2848	N.D.		
10) 1,1-Dichloroethylene	0.000		0	N.D.		
11) Iodomethane	0.000		0	N.D.		
12) Acetonitrile	7.133	41	234	N.D.		
13) Methyl acetate	0.000		0	N.D.		
14) Carbon disulfide	7.084	76	211	N.D.		
15) Methylene chloride	7.291	84	4467	N.D.		
16) tert-Butyl methyl ether	0.000		0	N.D.		
17) trans-1,2-Dichloroethy...	0.000		0	N.D.		
18) Vinyl acetate	0.000		0	N.D.		
19) 1,1-Dichloroethane	0.000		0	N.D.		
20) 2-Butanone	8.700	43	2197	N.D.		
21) cis-1,2-Dichloroethylene	0.000		0	N.D.		
22) 2,2-Dichloropropane	0.000		0	N.D.		
23) Bromochloromethane	0.000		0	N.D.		
24) Chloroform	0.000		0	N.D.		
25) 1,1,1-Trichloroethane	0.000		0	N.D.		
26) Cyclohexane	0.000		0	N.D.		
27) 1,1-Dichloropropene	0.000		0	N.D.		
28) Carbon tetrachloride	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000		0	N.D.		
31) Benzene	0.000		0	N.D.		
32) Cyclohexene	0.000		0	N.D.		
33) n-Butyl alcohol	0.000		0	N.D.		
34) Trichloroethylene	0.000		0	N.D.		
35) 1,2-Dichloropropane	0.000		0	N.D.		
36) Methylcyclohexane	0.000		0	N.D.		
37) Dibromomethane	0.000		0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\123109V6\
Data File : 6R406BL.D
Acq On : 31 Dec 2009 12:56 pm
Operator : RXD1
InstName : VOA6
Sample : |1202007245|938022|1|VOAF|1|VOA8260BS|
Misc : BLANK 5g N/A SOIL
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Dec 31 14:04:19 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
38)	Bromodichloromethane	0.000		0	N.D.	
39)	2-Chloroethylvinyl ether	0.000		0	N.D.	
40)	cis-1,3-Dichloropropylene	0.000		0	N.D.	
42)	4-Methyl-2-pentanone	0.000		0	N.D.	
44)	Toluene	11.687	91	193	N.D.	
45)	trans-1,3-Dichloroprop...	0.000		0	N.D.	
46)	1,1,2-Trichloroethane	0.000		0	N.D.	
47)	2-Hexanone	12.266	43	226	N.D.	
48)	1,3-Dichloropropane	0.000		0	N.D.	
49)	Tetrachloroethylene	0.000		0	N.D.	
50)	Dibromochloromethane	0.000		0	N.D.	
51)	1,2-Dibromoethane	0.000		0	N.D.	
52)	Chlorobenzene	0.000		0	N.D.	
53)	1,1,1,2-Tetrachloroethane	0.000		0	N.D.	
54)	Ethylbenzene	0.000		0	N.D.	
55)	m,p-Xylenes	0.000		0	N.D.	
56)	o-Xylene	0.000		0	N.D.	
57)	Styrene	0.000		0	N.D.	
59)	Bromoform	0.000		0	N.D.	
60)	Isopropylbenzene	14.156	105	222	N.D.	
62)	1,1,2,2-Tetrachloroethane	0.000		0	N.D.	
63)	1,2,3-Trichloropropane	0.000		0	N.D.	
64)	Bromobenzene	0.000		0	N.D.	
65)	n-Propylbenzene	14.583	91	1578	N.D.	
66)	1,3,5-Trimethylbenzene	14.741	105	936	N.D.	
67)	2-Chlorotoluene	0.000		0	N.D.	
68)	4-Chlorotoluene	14.833	91	231	N.D.	
69)	tert-Butylbenzene	0.000		0	N.D.	
70)	1,2,4-Trimethylbenzene	15.150	105	1631	N.D.	
71)	sec-Butylbenzene	15.326	105	1444	N.D.	
72)	4-Isopropyltoluene	15.454	119	1528	N.D.	
73)	1,3-Dichlorobenzene	0.000		0	N.D.	
74)	1,4-Dichlorobenzene	15.607	146	397	N.D.	
75)	n-Butylbenzene	15.893	91	1539	N.D.	
76)	1,2-Dichlorobenzene	0.000		0	N.D.	
77)	1,2-Dibromo-3-chloropr...	0.000		0	N.D.	
78)	1,2,4-Trichlorobenzene	0.000		0	N.D.	
79)	Hexachlorobutadiene	0.000		0	N.D.	
80)	Naphthalene	0.000		0m	N.D.	d
81)	1,2,3-Trichlorobenzene	18.618	180	405	N.D.	
83)	Chlorotrifluoroethylene	0.000		0	N.D.	
84)	2-Chloro-1,1,1-trifluo...	0.000		0	N.D.	
85)	Acrolein	0.000		0	N.D.	
86)	Trichlorotrifluoroethane	0.000		0	N.D.	
87)	Isopropyl Alcohol	0.000		0	N.D.	
88)	Allyl chloride	7.133	41	234	N.D.	
89)	tert-Butyl Alcohol	0.000		0	N.D.	
90)	Acrylonitrile	0.000		0	N.D.	
91)	Isopropyl ether	0.000		0	N.D.	
92)	2-Chloro-1,3-butadiene	0.000		0	N.D.	
93)	Ethyl tert-butyl ether	0.000		0	N.D.	
94)	Ethyl acetate	8.700	43	2197	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\123109V6\
Data File : 6R406BL.D
Acq On : 31 Dec 2009 12:56 pm
Operator : RXD1
InstName : VOA6
Sample : |1202007245|938022|1|VOAF|1|VOA8260BS|
Misc : BLANK 5g N/A SOIL
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Dec 31 14:04:19 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
95)	Propionitrile	0.000		0	N.D.	
96)	Methacrylonitrile	0.000		0	N.D.	
97)	Tetrahydrofuran	0.000		0	N.D.	
98)	Isobutyl alcohol	0.000		0m	N.D. d	
99)	Methyl tert-amyl ether	0.000		0	N.D.	
100)	Methyl methacrylate	10.602	69	878	N.D.	
101)	1,4-Dioxane	0.000		0	N.D.	
102)	2-Nitropropane	0.000		0	N.D.	
104)	Ethyl methacrylate	11.857	69	2601	N.D.	
106)	1-Chlorohexane	0.000		0	N.D.	
107)	cis-1,4-Dichloro-2-butene	14.198	53	1568	N.D.	
108)	Cyclohexanone	0.000		0	N.D.	
109)	trans-1,4-Dichloro-2-b...	0.000		0m	N.D. d	
110)	Pentachloroethane	15.180	167	3826	1.18 ug/L	86
111)	Benzyl chloride	15.716	91	25286	2.01 ug/L	92
112)	bis(2-Chloroisopropyl)...	16.113	45	10425	2.83 ug/L	95

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\123109V6\
Data File : 6R406BL.D
Acq On : 31 Dec 2009 12:56 pm
Operator : RXD1
InstName : VOA6
Sample : |1202007245|938022|1|VOAF|1|VOA8260BS|
Misc : BLANK 5g N/A SOIL
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Dec 31 14:04:19 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

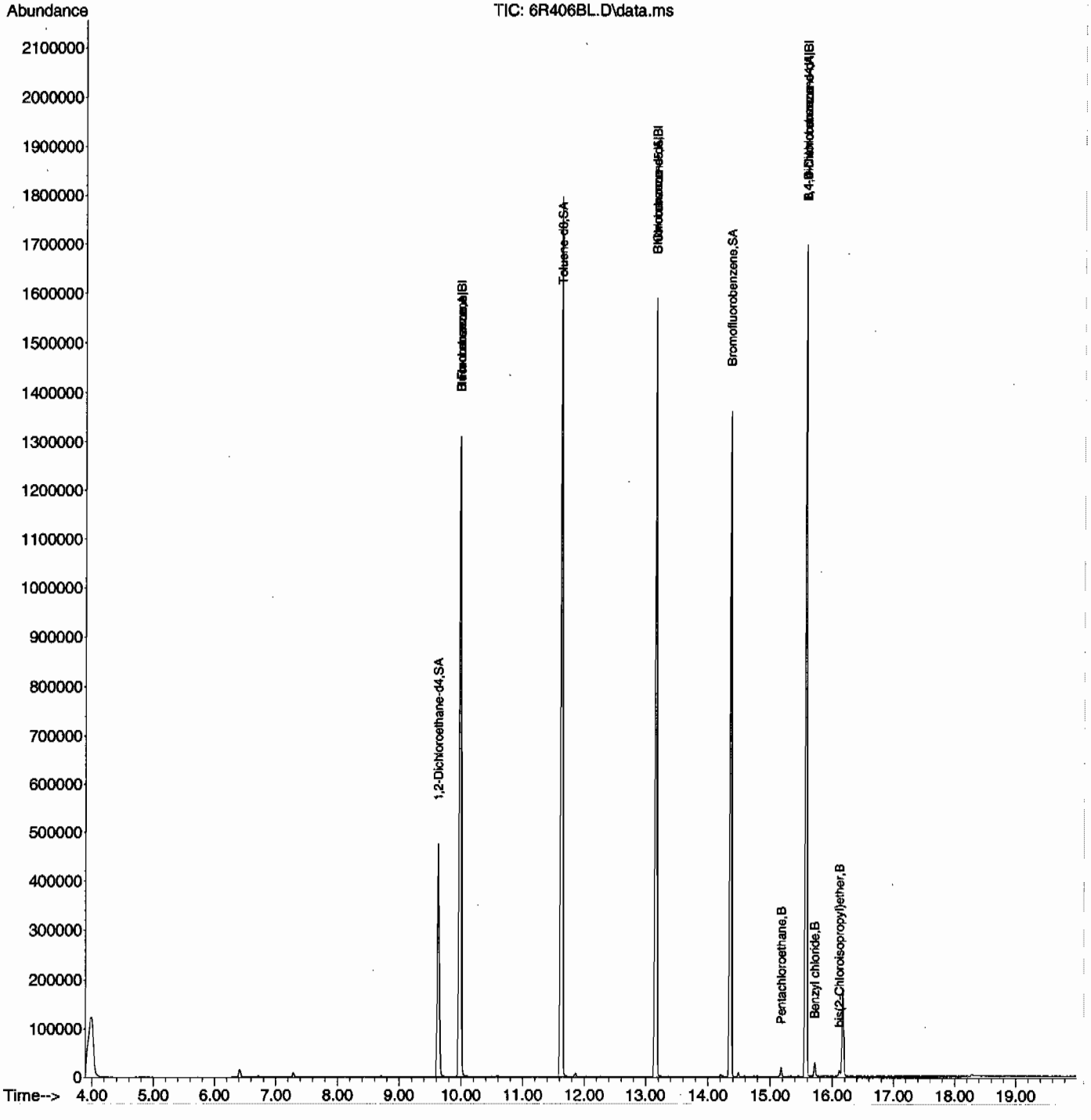

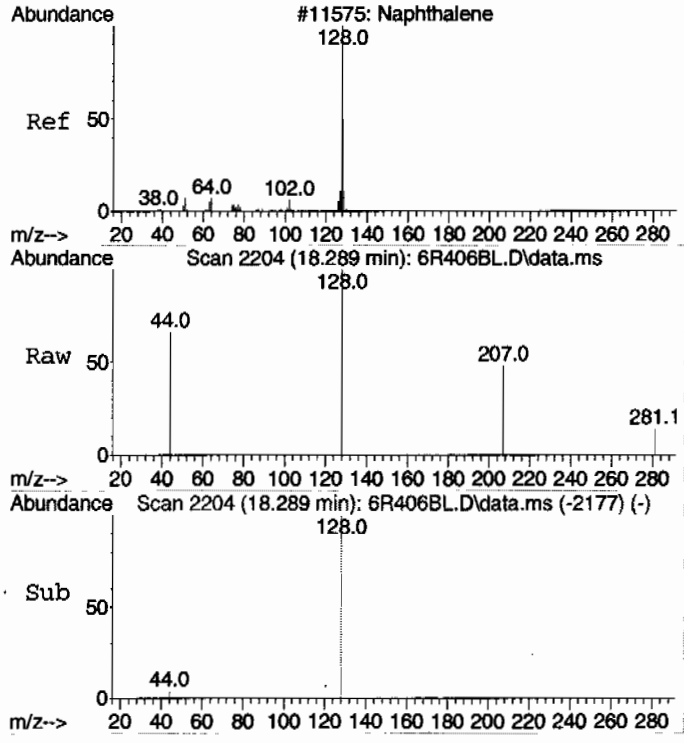

#80 BEFORE analyst DELETION
Naphthalene
Concen: 0.31 ug/L
RT: 18.289 min Scan# 2204
Delta R.T. 0.000 min
Lab File: 6R406BL.D
Acq: 31 Dec 2009 12:56 pm

Tgt Ion:128 Resp: 6791

Ion	Ratio	Lower	Upper
128	100		
127	2.7	0.0	42.6
129	0.0	0.0	40.9

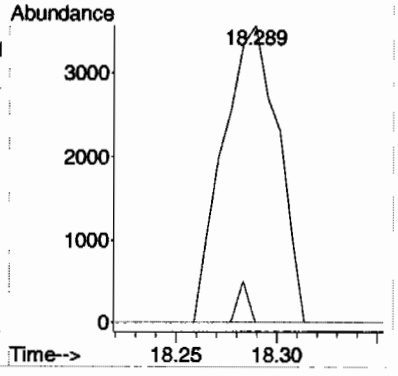

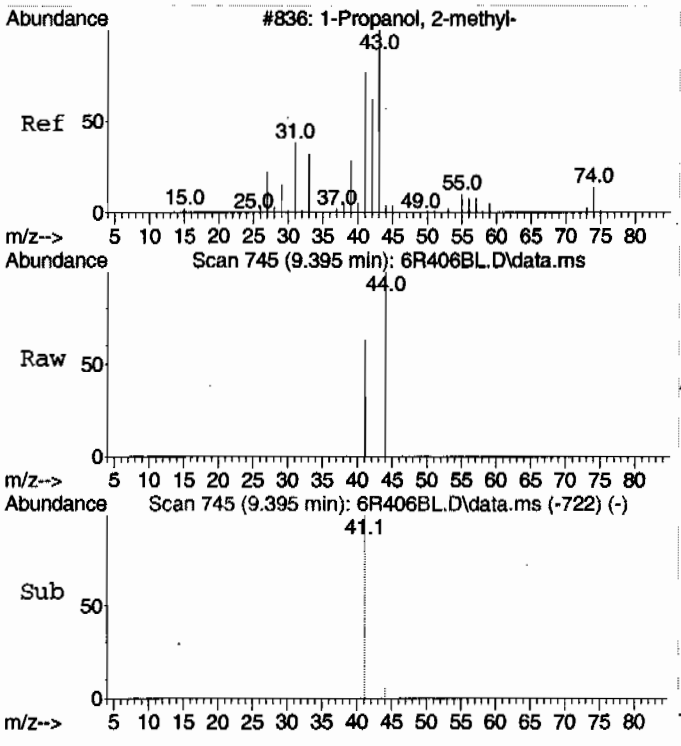

#98 BEFORE analyst DELETION
Isobutyl alcohol
Concen: 0.80 ug/L
RT: 9.395 min Scan# 745
Delta R.T. 0.007 min
Lab File: 6R406BL.D
Acq: 31 Dec 2009 12:56 pm

Tgt Ion: 41 Resp: 190

Ion	Ratio	Lower	Upper
41	100		
43	204.7	111.2	171.2#

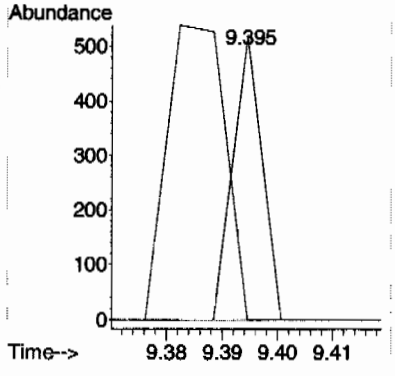

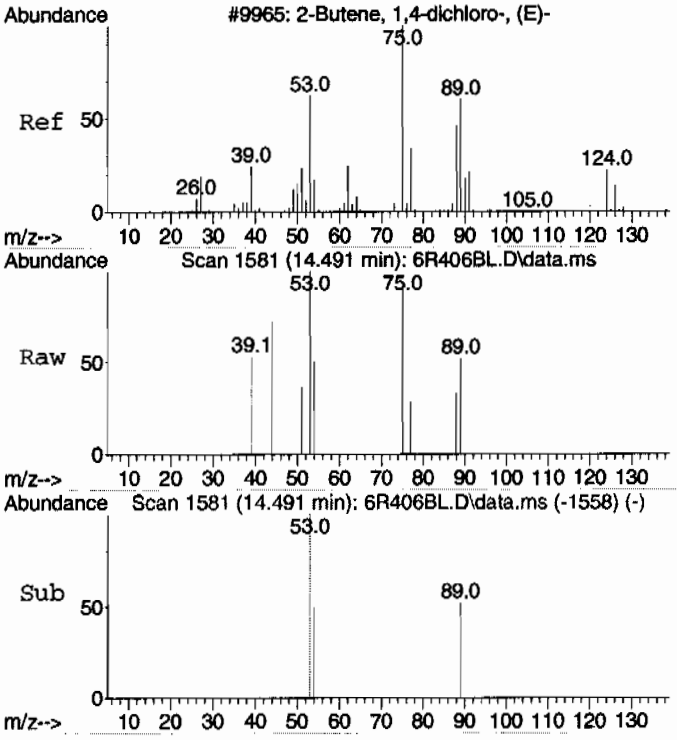

#109 BEFORE analyst DELETION
trans-1,4-Dichloro-2-butene
Concen: 1.23 ug/L
RT: 14.491 min Scan# 1581
Delta R.T. 0.000 min
Lab File: 6R406BL.D
Acq: 31 Dec 2009 12:56 pm

Tgt Ion: 53 Resp: 2703

Ion	Ratio	Lower	Upper
53	100		
88	29.3	19.8	79.8
75	85.5	91.6	151.6#

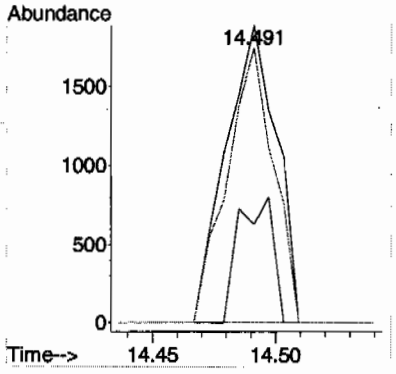

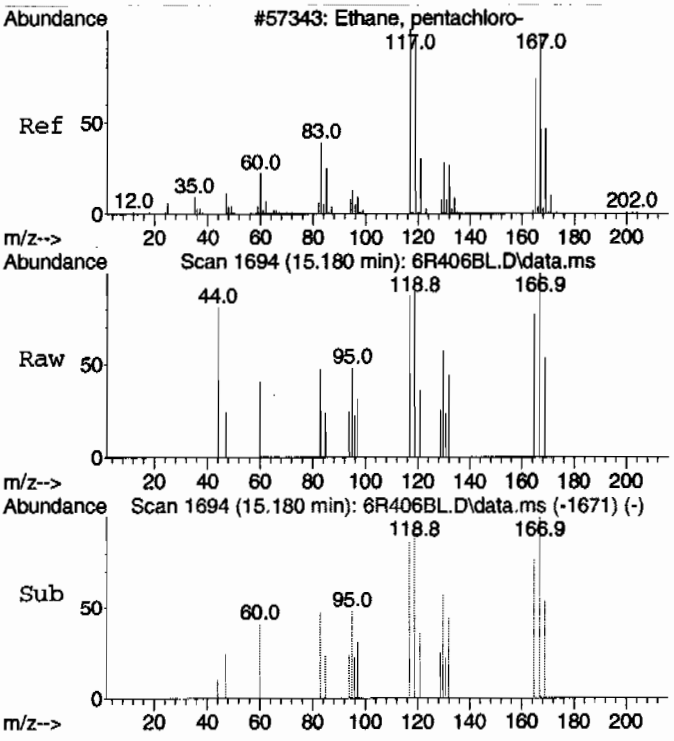

#110
Pentachloroethane
Concen: 1.18 ug/L
RT: 15.180 min Scan# 1694
Delta R.T. 0.000 min
Lab File: 6R406BL.D
Acq: 31 Dec 2009 12:56 pm

Tgt Ion:167 Resp: 3826

Ion	Ratio	Lower	Upper
167	100		
130	49.1	10.0	70.0
132	45.6	7.5	67.5

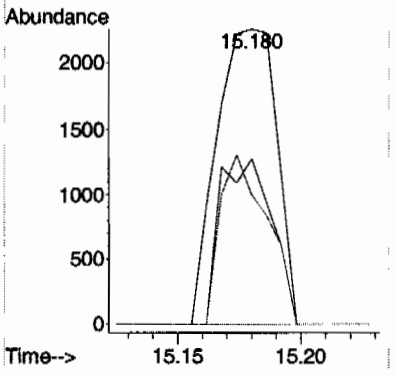

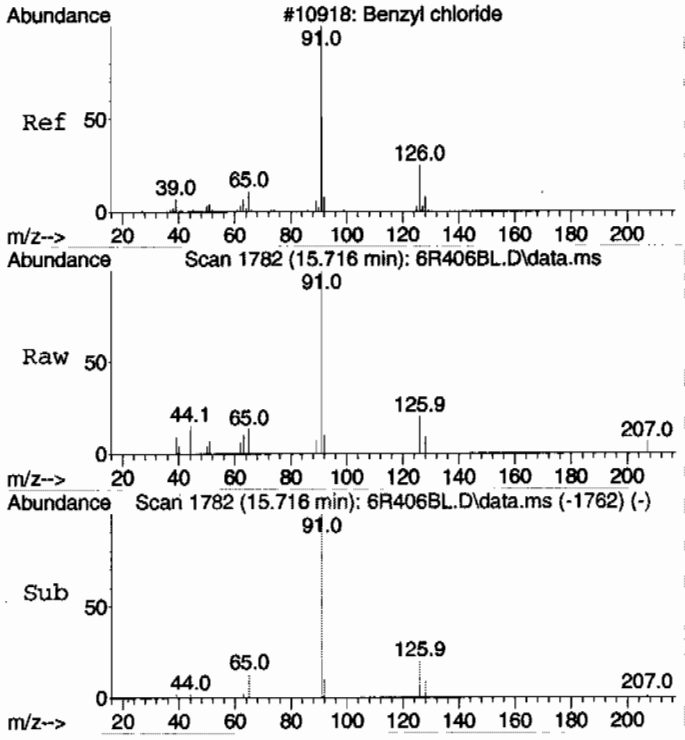

#111
Benzyl chloride
Concen: 2.01 ug/L
RT: 15.716 min Scan# 1782
Delta R.T. 0.000 min
Lab File: 6R406BL.D
Acq: 31 Dec 2009 12:56 pm

Tgt Ion: 91 Resp: 25286

Ion	Ratio	Lower	Upper
91	100		
126	17.9	0.0	52.6
65	10.9	0.0	42.9

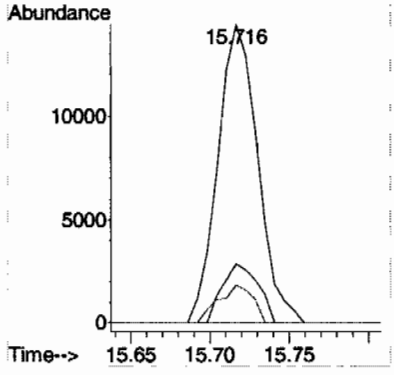

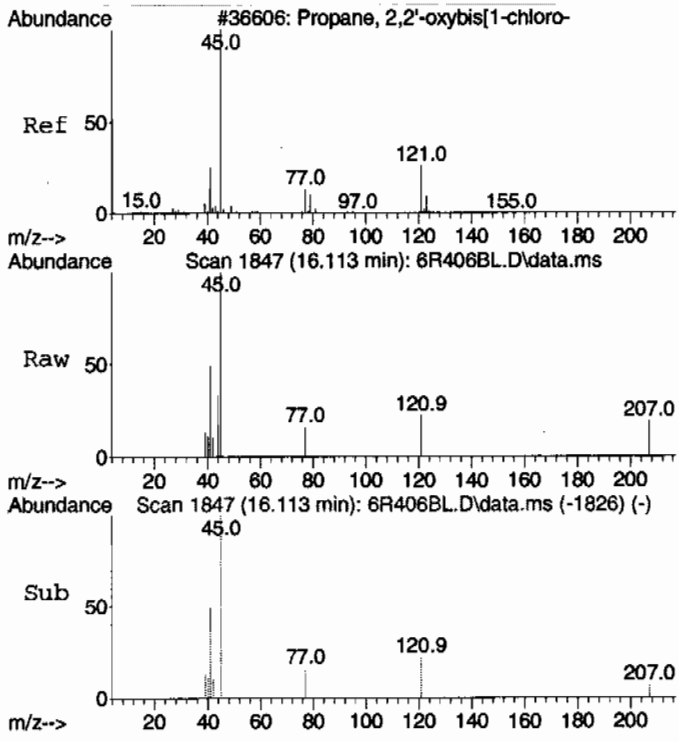

#112
bis(2-Chloroisopropyl)ether
Concen: 2.83 ug/L
RT: 16.113 min Scan# 1847
Delta R.T. -0.000 min
Lab File: 6R406BL.D
Acq: 31 Dec 2009 12:56 pm

Tgt Ion: 45 Resp: 10425

Ion	Ratio	Lower	Upper
45	100		
121	20.4	0.0	53.0

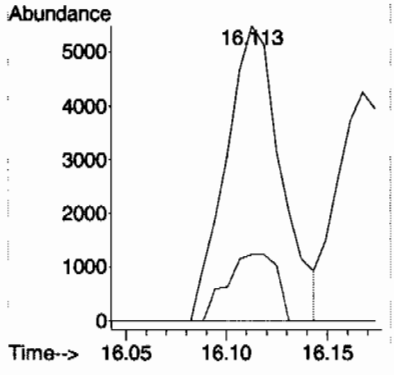

Library Search Compound Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\123109V6\
Data File : 6R406BL.D
Acq On : 31 Dec 2009 12:56 pm
Operator : RXD1
Sample : |1202007245|938022|1|VOAF|1|VOA8260BS|
Misc : BLANK 5g N/A SOIL
ALS Vial : 6 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

No Library Search Compounds Detected
****

Tentatively Identified Compound (LSC) summary
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\123109V6\
Data File : 6R406BL.D
Acq On : 31 Dec 2009 12:56 pm
Operator : RXD1
Sample : |1202007245|938022|1|VOAF|1|VOA8260BS|
Misc : BLANK 5g N/A SOIL
ALS Vial : 6 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

TIC Top Hit name	RT	EstConc	Units	Response	--Internal Standard--- #	RT	Resp	Conc

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1085**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202009751**				
Client Sample:	**QC for batch 938021**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 938021**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**938022**	**Inst:**	**VOA6.I**	**Dilution:**	**1**
Run Date:	**01/04/2010 13:56**	**Analyst:**	**RXD1**	**Purge Vol:**	**5 mL**
Prep Date:	**01/04/2010 09:51**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**010410V6\6S109BL.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/kg	0.340	1.00
74-87-3	Chloromethane	U	1.00	ug/kg	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/kg	0.300	1.00
74-83-9	Bromomethane	U	1.00	ug/kg	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/kg	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/kg	0.300	1.00
67-64-1	Acetone	J	4.01	ug/kg	1.66	5.00
75-35-4	1,1-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/kg	1.60	5.00
75-09-2	Methylene chloride	U	5.00	ug/kg	2.00	5.00
75-15-0	Carbon disulfide	U	5.00	ug/kg	1.25	5.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/kg	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/kg	1.50	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/kg	0.300	1.00
74-97-5	Bromochloromethane	U	1.00	ug/kg	0.330	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/kg	0.300	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/kg	0.300	1.00
56-23-5	Carbon tetrachloride	U	1.00	ug/kg	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/kg	0.300	1.00
71-43-2	Benzene	U	1.00	ug/kg	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/kg	0.330	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/kg	0.300	1.00
74-95-3	Dibromomethane	U	1.00	ug/kg	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/kg	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
108-88-3	Toluene	U	1.00	ug/kg	0.300	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/kg	0.300	1.00
591-78-6	2-Hexanone	U	5.00	ug/kg	1.50	5.00
142-28-9	1,3-Dichloropropane	U	1.00	ug/kg	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/kg	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/kg	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/kg	0.300	1.00
108-90-7	Chlorobenzene	U	1.00	ug/kg	0.300	1.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1085**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202009751**				
Client Sample:	**QC for batch 938021**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 938021**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**938022**	**Inst:**	**VOA6.I**	**Dilution:**	**1**
Run Date:	**01/04/2010 13:56**	**Analyst:**	**RXD1**	**Purge Vol:**	**5 mL**
Prep Date:	**01/04/2010 09:51**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**010410V6\6S109BL.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.00	ug/kg	0.300	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/kg	0.300	2.00
95-47-6	o-Xylene	U	1.00	ug/kg	0.300	1.00
100-42-5	Styrene	U	1.00	ug/kg	0.300	1.00
75-25-2	Bromoform	U	1.00	ug/kg	0.300	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/kg	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/kg	0.300	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/kg	0.300	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/kg	0.300	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/kg	0.300	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/kg	0.300	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/kg	0.300	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/kg	0.300	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/kg	0.300	1.00
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.00	ug/kg	1.60	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated Units	Flt	Qual
	No Tentatively Identified Compounds Found		ug/kg		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\010410V6\
Data File : 6S109BL.D
Acq On : 4 Jan 2010 1:56 pm
Operator : RXD1
InstName : VOA6
Sample : |1202009751|938022|1|VOAF|1|VOA8260BS|
Misc : BLANK 5g N/A SOIL
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jan 04 14:13:51 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	9.980	96	1511622	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.156	117	1119795	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	15.576	152	608795	50.00	ug/L	0.00
82) B Fluorobenzene	9.980	96	1510164	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.156	117	1119795	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	15.576	152	608795	50.00	ug/L	0.00
System Monitoring Compounds						
29) 1,2-Dichloroethane-d4	9.626	65	453128	50.81	ug/L	0.00
Spiked Amount 50.000	Range 68 - 131		Recovery = 101.62%			
43) Toluene-d8	11.626	98	1481961	47.73	ug/L	0.00
Spiked Amount 50.000	Range 75 - 129		Recovery = 95.46%			
61) Bromofluorobenzene	14.357	95	587904	50.11	ug/L	0.00
Spiked Amount 50.000	Range 68 - 133		Recovery = 100.22%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	0.000		0	N.D.		
3) Chloromethane	4.662	50	820	N.D.		
4) Vinyl chloride	4.924	62	337	N.D.		
5) Bromomethane	0.000		0	N.D.		
6) Chloroethane	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000		0	N.D.		
8) Ethyl ether	0.000		0	N.D.		
9) Acetone	6.718	43	11028	4.01	ug/L	79
10) 1,1-Dichloroethylene	0.000		0	N.D.		
11) Iodomethane	0.000		0	N.D.		
12) Acetonitrile	7.127	41	434	N.D.		
13) Methyl acetate	0.000		0	N.D.		
14) Carbon disulfide	0.000		0	N.D.		
15) Methylene chloride	7.285	84	5860	N.D.		
16) tert-Butyl methyl ether	0.000		0	N.D.		
17) trans-1,2-Dichloroethy...	0.000		0	N.D.		
18) Vinyl acetate	0.000		0	N.D.		
19) 1,1-Dichloroethane	0.000		0	N.D.		
20) 2-Butanone	8.712	43	2541	N.D.		
21) cis-1,2-Dichloroethylene	0.000		0	N.D.		
22) 2,2-Dichloropropane	0.000		0	N.D.		
23) Bromochloromethane	0.000		0	N.D.		
24) Chloroform	0.000		0	N.D.		
25) 1,1,1-Trichloroethane	0.000		0	N.D.		
26) Cyclohexane	0.000		0	N.D.		
27) 1,1-Dichloropropene	0.000		0	N.D.		
28) Carbon tetrachloride	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000		0	N.D.		
31) Benzene	0.000		0	N.D.		
32) Cyclohexene	0.000		0	N.D.		
33) n-Butyl alcohol	0.000		0	N.D.		
34) Trichloroethylene	0.000		0	N.D.		
35) 1,2-Dichloropropane	0.000		0	N.D.		
36) Methylcyclohexane	0.000		0	N.D.		
37) Dibromomethane	0.000		0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\010410V6\
Data File : 6S109BL.D
Acq On : 4 Jan 2010 1:56 pm
Operator : RXD1
InstName : VOA6
Sample : |1202009751|938022|1|VOAF|1|VOA8260BS|
Misc : BLANK 5g N/A SOIL
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jan 04 14:13:51 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
38) Bromodichloromethane	0.000		0	N.D.	
39) 2-Chloroethylvinyl ether	0.000		0	N.D.	
40) cis-1,3-Dichloropropylene	0.000		0	N.D.	
42) 4-Methyl-2-pentanone	0.000		0	N.D.	
44) Toluene	11.699	91	408	N.D.	
45) trans-1,3-Dichloroprop...	0.000		0	N.D.	
46) 1,1,2-Trichloroethane	0.000		0	N.D.	
47) 2-Hexanone	12.260	43	194	N.D.	
48) 1,3-Dichloropropane	0.000		0	N.D.	
49) Tetrachloroethylene	0.000		0	N.D.	
50) Dibromochloromethane	0.000		0	N.D.	
51) 1,2-Dibromoethane	0.000		0	N.D.	
52) Chlorobenzene	0.000		0	N.D.	
53) 1,1,1,2-Tetrachloroethane	0.000		0	N.D.	
54) Ethylbenzene	0.000		0	N.D.	
55) m,p-Xylenes	0.000		0	N.D.	
56) o-Xylene	0.000		0	N.D.	
57) Styrene	13.790	104	191	N.D.	
59) Bromoform	0.000		0	N.D.	
60) Isopropylbenzene	14.156	105	422	N.D.	
62) 1,1,2,2-Tetrachloroethane	0.000		0	N.D.	
63) 1,2,3-Trichloropropane	0.000		0	N.D.	
64) Bromobenzene	0.000		0	N.D.	
65) n-Propylbenzene	14.589	91	1687	N.D.	
66) 1,3,5-Trimethylbenzene	14.741	105	1125	N.D.	
67) 2-Chlorotoluene	0.000		0	N.D.	
68) 4-Chlorotoluene	14.839	91	213	N.D.	
69) tert-Butylbenzene	15.180	134	431	N.D.	
70) 1,2,4-Trimethylbenzene	15.150	105	2429	N.D.	
71) sec-Butylbenzene	15.332	105	1915	N.D.	
72) 4-Isopropyltoluene	15.448	119	1319	N.D.	
73) 1,3-Dichlorobenzene	0.000		0	N.D.	
74) 1,4-Dichlorobenzene	15.595	146	203	N.D.	
75) n-Butylbenzene	15.887	91	1919	N.D.	
76) 1,2-Dichlorobenzene	0.000		0	N.D.	
77) 1,2-Dibromo-3-chloropr...	0.000		0	N.D.	
78) 1,2,4-Trichlorobenzene	17.911	180	198	N.D.	
79) Hexachlorobutadiene	0.000		0	N.D.	
80) Naphthalene	18.283	128	8137	N.D.	
81) 1,2,3-Trichlorobenzene	18.625	180	813	N.D.	
83) Chlorotrifluoroethylene	0.000		0	N.D.	
84) 2-Chloro-1,1,1-trifluo...	0.000		0	N.D.	
85) Acrolein	0.000		0	N.D.	
86) Trichlorotrifluoroethane	0.000		0	N.D.	
87) Isopropyl Alcohol	0.000		0	N.D.	
88) Allyl chloride	7.127	41	434	N.D.	
89) tert-Butyl Alcohol	0.000		0	N.D.	
90) Acrylonitrile	0.000		0	N.D.	
91) Isopropyl ether	0.000		0	N.D.	
92) 2-Chloro-1,3-butadiene	0.000		0	N.D.	
93) Ethyl tert-butyl ether	0.000		0	N.D.	
94) Ethyl acetate	8.712	43	2541	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\010410V6\
Data File : 6S109BL.D
Acq On : 4 Jan 2010 1:56 pm
Operator : RXD1
InstName : VOA6
Sample : |1202009751|938022|1|VOAF|1|VOA8260BS|
Misc : BLANK 5g N/A SOIL
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jan 04 14:13:51 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
95)	Propionitrile	0.000		0	N.D.	
96)	Methacrylonitrile	8.962	41	1033	N.D.	
97)	Tetrahydrofuran	9.059	42	689	N.D.	
98)	Isobutyl alcohol	0.000		0m	N.D. d	
99)	Methyl tert-amyl ether	0.000		0	N.D.	
100)	Methyl methacrylate	10.589	69	1208	N.D.	
101)	1,4-Dioxane	0.000		0	N.D.	
102)	2-Nitropropane	0.000		0	N.D.	
104)	Ethyl methacrylate	11.858	69	2799	N.D.	
106)	1-Chlorohexane	0.000		0	N.D.	
107)	cis-1,4-Dichloro-2-butene	14.205	53	1723	N.D.	
108)	Cyclohexanone	14.320	42	691	N.D.	
109)	trans-1,4-Dichloro-2-b...	14.485	53	3006	1.09 ug/L	87
110)	Pentachloroethane	15.180	167	3929	0.97 ug/L	70
111)	Benzyl chloride	15.717	91	29688	1.88 ug/L	96
112)	bis(2-Chloroisopropyl)...	16.113	45	12645	2.74 ug/L	95

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\010410V6\
Data File : 6S109BL.D
Acq On : 4 Jan 2010 1:56 pm
Operator : RXD1
InstName : VOA6
Sample : |1202009751|938022|1|VOAF|1|VOA8260BS|
Misc : BLANK 5g N/A SOIL
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jan 04 14:13:51 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

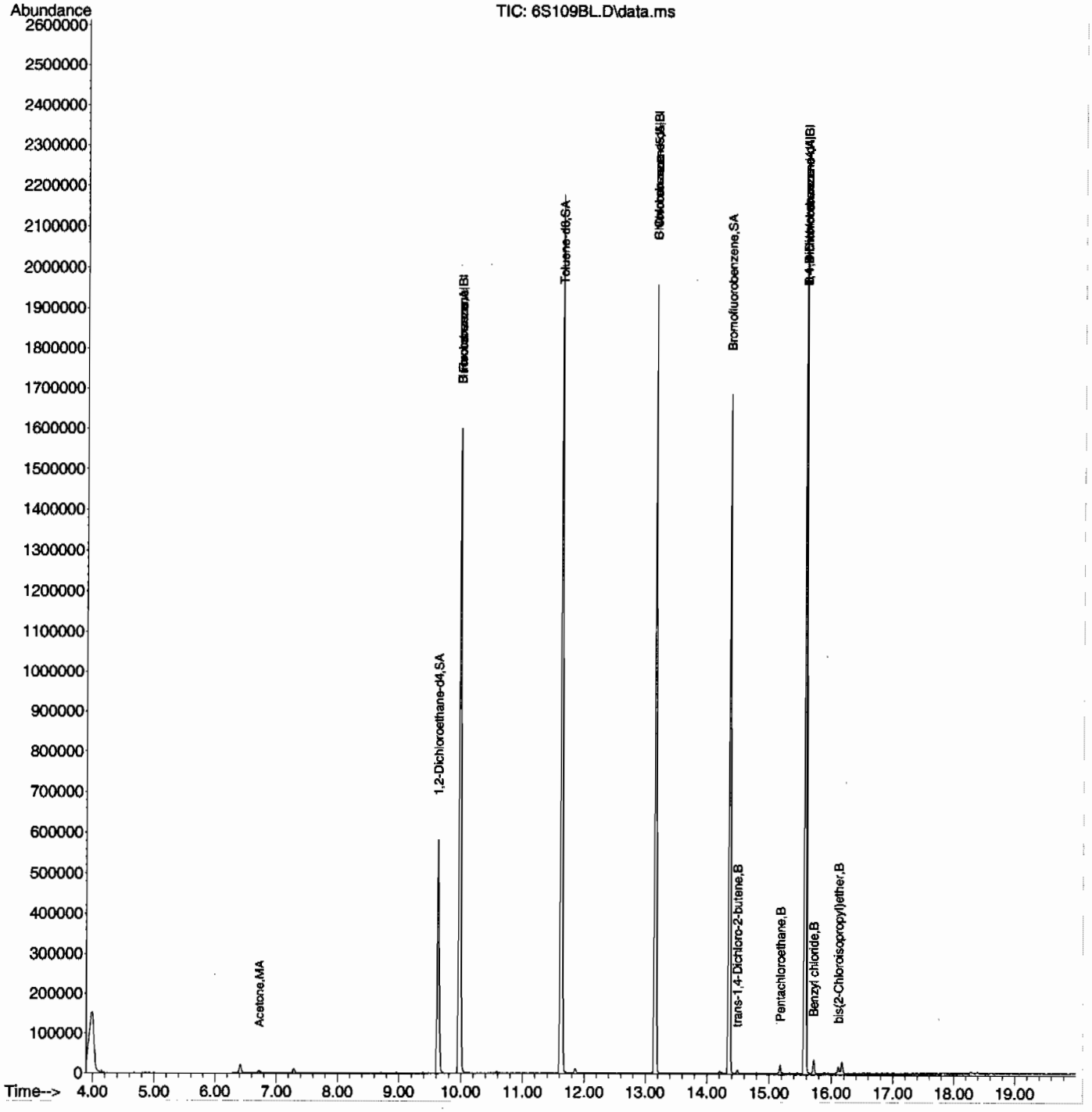

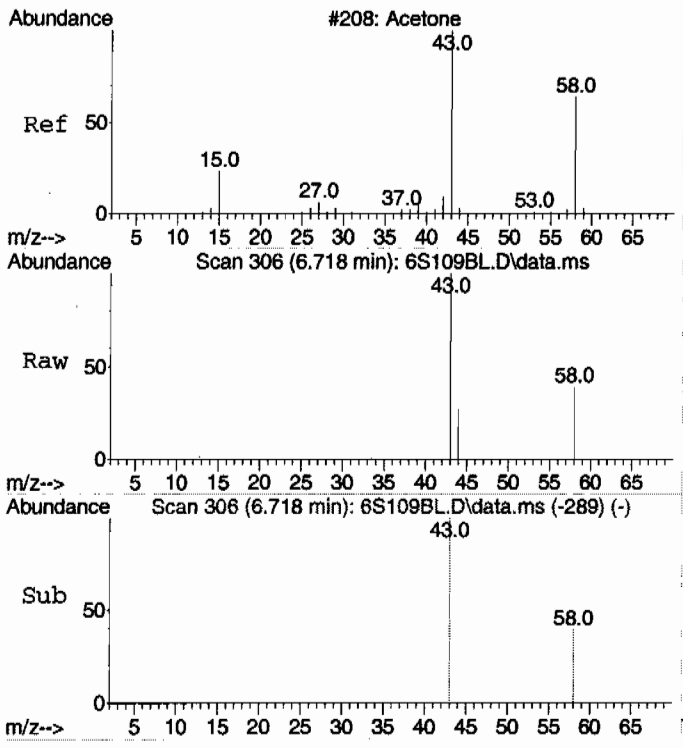

#9
Acetone
Concen: 4.01 ug/L
RT: 6.718 min Scan# 306
Delta R.T. 0.006 min
Lab File: 6S109BL.D
Acq: 4 Jan 2010 1:56 pm

Tgt Ion: 43 Resp: 11028

Ion	Ratio	Lower	Upper
43	100		
58	19.2	0.4	60.4

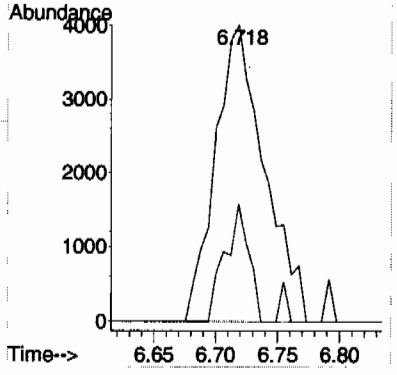

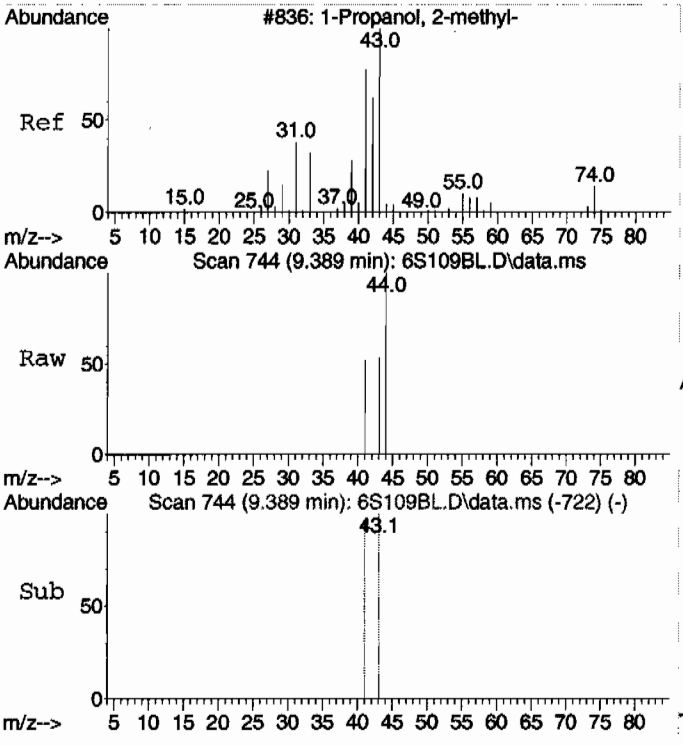

#98 BEFORE analyst DELETION
Isobutyl alcohol
Concen: 0.70 ug/L
RT: 9.389 min Scan# 744
Delta R.T. 0.001 min
Lab File: 6S109BL.D
Acq: 4 Jan 2010 1:56 pm

Tgt Ion: 41 Resp: 202

Ion	Ratio	Lower	Upper
41	100		
43	550.5	111.2	171.2#

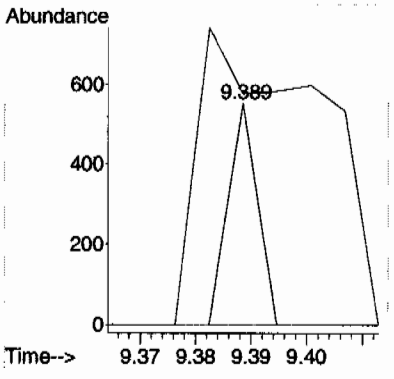

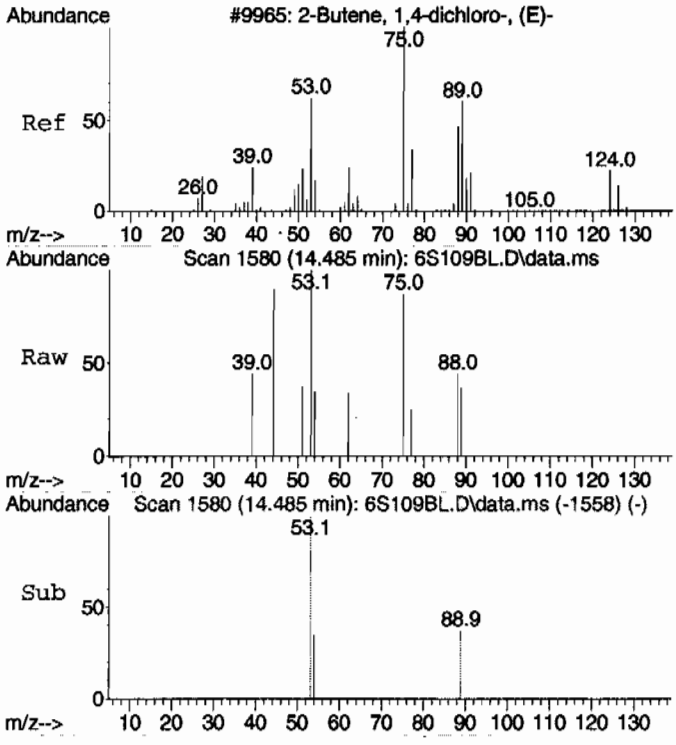

#109
trans-1,4-Dichloro-2-butene
Concen: 1.09 ug/L
RT: 14.485 min Scan# 1580
Delta R.T. -0.006 min
Lab File: 6S109BL.D
Acq: 4 Jan 2010 1:56 pm

Tgt Ion: 53 Resp: 3006

Ion	Ratio	Lower	Upper
53	100		
88	33.5	19.8	79.8
75	111.4	91.6	151.6

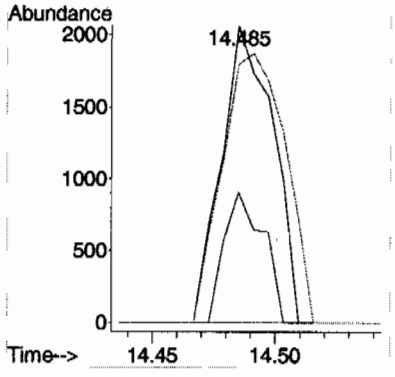

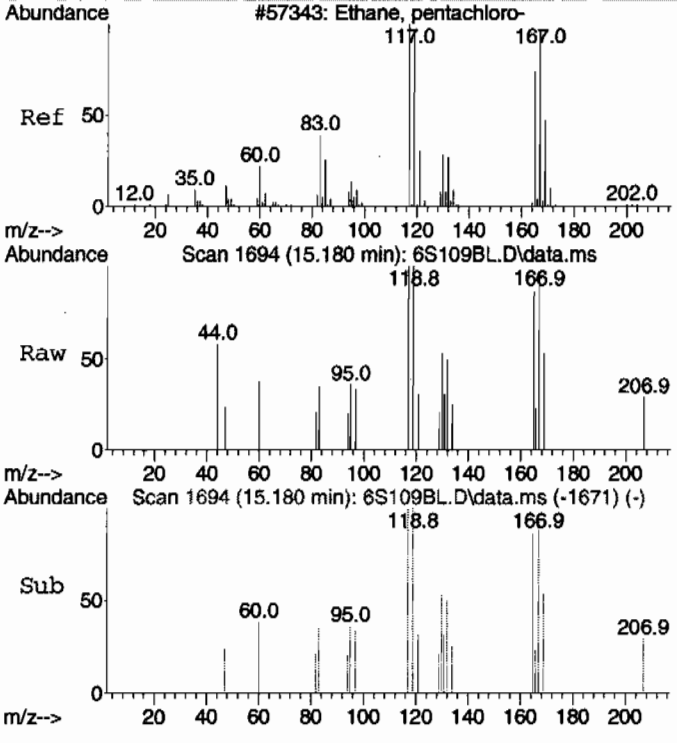

#110
Pentachloroethane
Concen: 0.97 ug/L
RT: 15.180 min Scan# 1694
Delta R.T. 0.000 min
Lab File: 6S109BL.D
Acq: 4 Jan 2010 1:56 pm

Tgt Ion:167 Resp: 3929

Ion	Ratio	Lower	Upper
167	100		
130	62.6	10.0	70.0
132	51.2	7.5	67.5

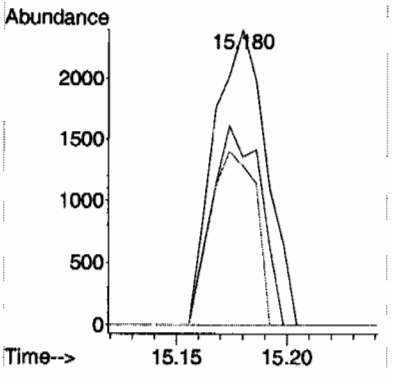

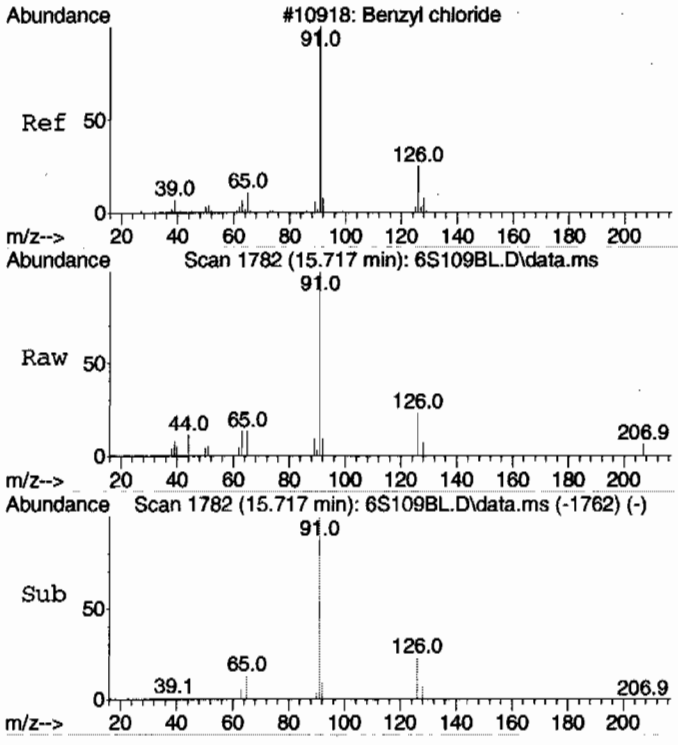

#111
Benzyl chloride
Concen: 1.88 ug/L
RT: 15.717 min Scan# 1782
Delta R.T. 0.001 min
Lab File: 6S109BL.D
Acq: 4 Jan 2010 1:56 pm

Tgt Ion: 91 Resp: 29688

Ion	Ratio	Lower	Upper
91	100		
126	20.8	0.0	52.6
65	10.9	0.0	42.9

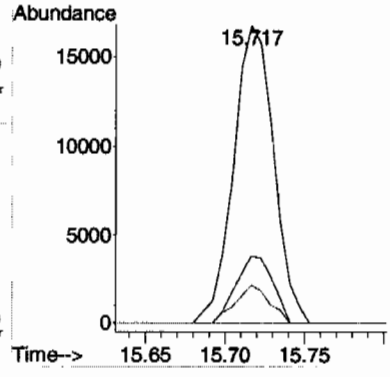

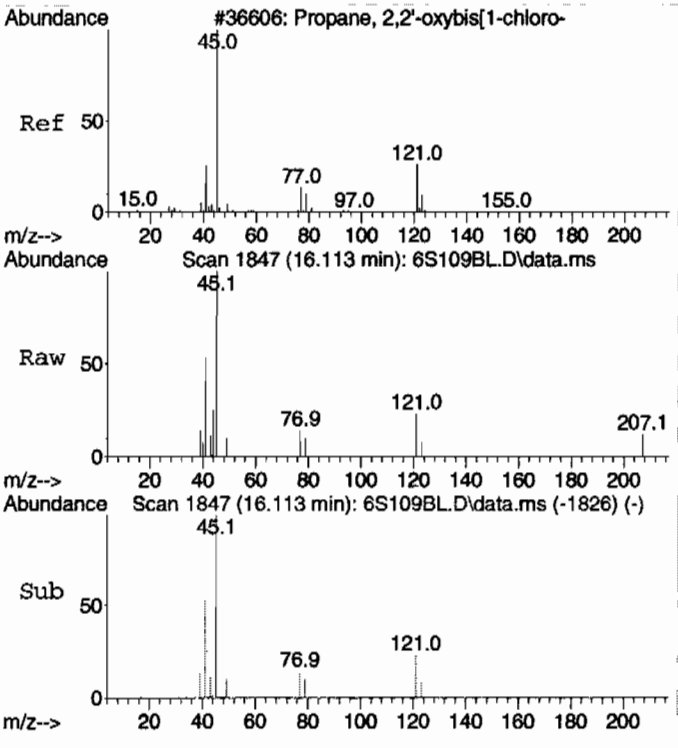

#112
bis(2-Chloroisopropyl)ether
Concen: 2.74 ug/L
RT: 16.113 min Scan# 1847
Delta R.T. -0.000 min
Lab File: 6S109BL.D
Acq: 4 Jan 2010 1:56 pm

Tgt Ion: 45 Resp: 12645

Ion	Ratio	Lower	Upper
45	100		
121	20.5	0.0	53.0

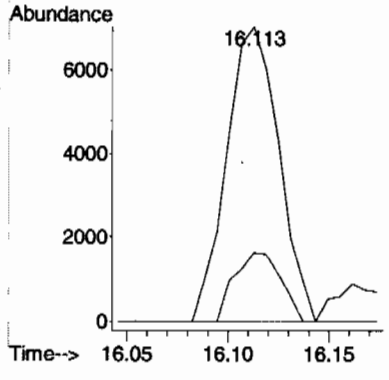

Library Search Compound Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\010410V6\
Data File : 6S109BL.D
Acq On : 4 Jan 2010 1:56 pm
Operator : RXD1
Sample : |1202009751|938022|1|VOAF|1|VOA8260BS|
Misc : BLANK 5g N/A SOIL
ALS Vial : 9 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

No Library Search Compounds Detected
****

Tentatively Identified Compound (LSC) summary
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\010410V6\
Data File : 6S109BL.D
Acq On : 4 Jan 2010 1:56 pm
Operator : RXD1
Sample : |1202009751|938022|1|VOAF|1|VOA8260BS|
Misc : BLANK 5g N/A SOIL
ALS Vial : 9 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

TIC Top Hit name	RT	EstConc	Units	Response	--Internal Standard--- #	RT	Resp	Conc

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1085**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202007248**				
Client Sample:	**QC for batch 938021**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 938021**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**938022**	**Inst:**	**VOA6.I**	**Dilution:**	**1**
Run Date:	**12/31/2009 11:33**	**Analyst:**	**RXD1**	**Purge Vol:**	**5 mL**
Prep Date:	**12/31/2009 09:31**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**123109V6\6R403LL.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane		48.0	ug/kg	0.340	1.00
74-87-3	Chloromethane		47.9	ug/kg	0.300	1.00
75-01-4	Vinyl chloride		50.7	ug/kg	0.300	1.00
74-83-9	Bromomethane		49.7	ug/kg	0.300	1.00
75-00-3	Chloroethane		50.5	ug/kg	0.300	1.00
75-69-4	Trichlorofluoromethane		50.9	ug/kg	0.300	1.00
67-64-1	Acetone	E	198	ug/kg	1.66	5.00
75-35-4	1,1-Dichloroethylene		50.3	ug/kg	0.300	1.00
74-88-4	Iodomethane		240	ug/kg	1.60	5.00
75-09-2	Methylene chloride		43.4	ug/kg	2.00	5.00
75-15-0	Carbon disulfide		265	ug/kg	1.25	5.00
156-60-5	trans-1,2-Dichloroethylene		49.3	ug/kg	0.300	1.00
75-34-3	1,1-Dichloroethane		48.2	ug/kg	0.300	1.00
78-93-3	2-Butanone		251	ug/kg	1.50	5.00
156-59-2	cis-1,2-Dichloroethylene		49.2	ug/kg	0.300	1.00
594-20-7	2,2-Dichloropropane		56.4	ug/kg	0.300	1.00
67-66-3	Chloroform		48.2	ug/kg	0.300	1.00
74-97-5	Bromochloromethane		47.2	ug/kg	0.330	1.00
71-55-6	1,1,1-Trichloroethane		52.7	ug/kg	0.300	1.00
563-58-6	1,1-Dichloropropene		51.7	ug/kg	0.300	1.00
56-23-5	Carbon tetrachloride		53.8	ug/kg	0.300	1.00
107-06-2	1,2-Dichloroethane		47.2	ug/kg	0.300	1.00
71-43-2	Benzene		47.5	ug/kg	0.300	1.00
79-01-6	Trichloroethylene		49.0	ug/kg	0.330	1.00
78-87-5	1,2-Dichloropropane		48.7	ug/kg	0.300	1.00
75-27-4	Bromodichloromethane		51.6	ug/kg	0.300	1.00
74-95-3	Dibromomethane		48.1	ug/kg	0.300	1.00
108-10-1	4-Methyl-2-pentanone		255	ug/kg	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene		51.8	ug/kg	0.300	1.00
108-88-3	Toluene		46.5	ug/kg	0.300	1.00
10061-02-6	trans-1,3-Dichloropropylene		51.1	ug/kg	0.300	1.00
79-00-5	1,1,2-Trichloroethane		46.1	ug/kg	0.300	1.00
591-78-6	2-Hexanone		266	ug/kg	1.50	5.00
142-28-9	1,3-Dichloropropane		46.0	ug/kg	0.300	1.00
127-18-4	Tetrachloroethylene		48.4	ug/kg	0.300	1.00
124-48-1	Dibromochloromethane		52.5	ug/kg	0.300	1.00
106-93-4	1,2-Dibromoethane		48.1	ug/kg	0.300	1.00
108-90-7	Chlorobenzene		48.0	ug/kg	0.300	1.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1085**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202007248**				
Client Sample:	**QC for batch 938021**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 938021**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**938022**	**Inst:**	**VOA6.I**	**Dilution:**	**1**
Run Date:	**12/31/2009 11:33**	**Analyst:**	**RXD1**	**Purge Vol:**	**5 mL**
Prep Date:	**12/31/2009 09:31**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**123109V6\6R403LL.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene		49.0	ug/kg	0.300	1.00
179601-23-1	m,p-Xylenes		97.8	ug/kg	0.300	2.00
95-47-6	o-Xylene		48.2	ug/kg	0.300	1.00
100-42-5	Styrene		50.0	ug/kg	0.300	1.00
75-25-2	Bromoform		57.2	ug/kg	0.300	1.00
79-34-5	1,1,2,2-Tetrachloroethane		49.8	ug/kg	0.300	1.00
96-18-4	1,2,3-Trichloropropane		49.0	ug/kg	0.300	1.00
108-86-1	Bromobenzene		47.4	ug/kg	0.300	1.00
103-65-1	n-Propylbenzene		50.1	ug/kg	0.300	1.00
95-49-8	2-Chlorotoluene		49.1	ug/kg	0.300	1.00
98-82-8	Isopropylbenzene		49.8	ug/kg	0.300	1.00
108-67-8	1,3,5-Trimethylbenzene		49.2	ug/kg	0.300	1.00
106-43-4	4-Chlorotoluene		49.3	ug/kg	0.300	1.00
98-06-6	tert-Butylbenzene		48.1	ug/kg	0.300	1.00
95-63-6	1,2,4-Trimethylbenzene		47.9	ug/kg	0.300	1.00
135-98-8	sec-Butylbenzene		49.1	ug/kg	0.300	1.00
99-87-6	4-Isopropyltoluene		49.1	ug/kg	0.300	1.00
541-73-1	1,3-Dichlorobenzene		47.1	ug/kg	0.300	1.00
106-46-7	1,4-Dichlorobenzene		47.0	ug/kg	0.300	1.00
104-51-8	n-Butylbenzene		49.3	ug/kg	0.300	1.00
96-12-8	1,2-Dibromo-3-chloropropane	E	55.2	ug/kg	0.300	1.00
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.00	ug/kg	1.60	5.00
630-20-6	1,1,1,2-Tetrachloroethane		49.5	ug/kg	0.300	1.00
95-50-1	1,2-Dichlorobenzene		46.5	ug/kg	0.300	1.00

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\123109V6\
Data File : 6R403LL.D
Acq On : 31 Dec 2009 11:33 am
Operator : RXD1
InstName : VOA6
Sample : |1202007248|938022|1|VOAF|1|VOA8260BS|
Misc : LCS 5g N/A SOIL MIX[A] 1214-01D+1230-01
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Dec 31 11:57:51 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	9.980	96	1263809	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.156	117	934490	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	15.576	152	510823	50.00	ug/L	0.00
82) B Fluorobenzene	9.980	96	1263492	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.156	117	934490	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	15.576	152	510823	50.00	ug/L	0.00
System Monitoring Compounds						
29) 1,2-Dichloroethane-d4	9.626	65	372918	50.01	ug/L	0.00
Spiked Amount 50.000	Range 68 - 131		Recovery = 100.02%			
43) Toluene-d8	11.626	98	1247213	48.14	ug/L	0.00
Spiked Amount 50.000	Range 75 - 129		Recovery = 96.28%			
61) Bromofluorobenzene	14.357	95	496183	50.40	ug/L	0.00
Spiked Amount 50.000	Range 68 - 133		Recovery = 100.80%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	4.360	85	272144	48.03	ug/L	100
3) Chloromethane	4.682	50	373492	47.93	ug/L	99
4) Vinyl chloride	4.924	62	346948	50.72	ug/L	100
5) Bromomethane	5.478	94	253605	49.71	ug/L	100
6) Chloroethane	5.619	64	256462	50.51	ug/L	99
7) Trichlorofluoromethane	6.022	101	510308	50.88	ug/L	100
8) Ethyl ether	6.328	59	288175	44.23	ug/L	100
9) Acetone	6.712	43	455729	198.21	ug/L	96 E
10) 1,1-Dichloroethylene	6.706	61	465416	50.31	ug/L	99
11) Iodomethane	6.956	142	2391692	239.93	ug/L	99
12) Acetonitrile	7.072	41	1147945	1217.94	ug/L	98
13) Methyl acetate	7.096	43	1258515	243.38	ug/L	99
14) Carbon disulfide	7.078	76	4920705	265.08	ug/L	100
15) Methylene chloride	7.285	84	316002	43.44	ug/L	99
16) tert-Butyl methyl ether	7.572	73	836175	45.49	ug/L	100
17) trans-1,2-Dichloroethy...	7.620	61	465639	49.32	ug/L	100
18) Vinyl acetate	8.066	43	3738806	274.91	ug/L	95
19) 1,1-Dichloroethane	8.102	63	568898	48.15	ug/L	100
20) 2-Butanone	8.693	43	729747	250.85	ug/L	99
21) cis-1,2-Dichloroethylene	8.742	61	517317	49.19	ug/L	97
22) 2,2-Dichloropropane	8.767	77	479767	56.37	ug/L	99
23) Bromochloromethane	9.017	128	152875	47.19	ug/L	99
24) Chloroform	9.053	83	529887	48.17	ug/L	99
25) 1,1,1-Trichloroethane	9.327	97	485992	52.65	ug/L	100
26) Cyclohexane	9.413	56	632880	53.02	ug/L	100
27) 1,1-Dichloropropene	9.480	75	434000	51.65	ug/L	96
28) Carbon tetrachloride	9.510	117	439520	53.82	ug/L	100
30) 1,2-Dichloroethane	9.712	62	425441	47.17	ug/L	98
31) Benzene	9.724	78	1223198	47.51	ug/L	100
32) Cyclohexene	9.833	67	633110	51.70	ug/L	100
33) n-Butyl alcohol	10.083	56	1123126	5244.89	ug/L	99
34) Trichloroethylene	10.364	95	314574	48.95	ug/L	100
35) 1,2-Dichloropropane	10.614	63	331110	48.66	ug/L	99
36) Methylcyclohexane	10.602	83	583646	52.19	ug/L	99
37) Dibromomethane	10.754	93	173825	48.09	ug/L	99

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\123109V6\
Data File : 6R403LL.D
Acq On : 31 Dec 2009 11:33 am
Operator : RXD1
InstName : VOA6
Sample : |1202007248|938022|1|VOAF|1|VOA8260BS|
Misc : LCS 5g N/A SOIL MIX[A] 1214-01D+1230-01
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Dec 31 11:57:51 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	QIon	Response	Conc Units		Dev(Min)	
38)	Bromodichloromethane	10.864	83	393130	51.59 ug/L		99	
39)	2-Chloroethylvinyl ether	11.089	63	905581	217.32 ug/L		98	
40)	cis-1,3-Dichloropropylene	11.315	75	497911	51.78 ug/L		99	
42)	4-Methyl-2-pentanone	11.412	58	624482	254.51 ug/L		96	
44)	Toluene	11.699	91	1294579	46.49 ug/L		100	
45)	trans-1,3-Dichloroprop...	11.864	75	459970	51.09 ug/L		98	
46)	1,1,2-Trichloroethane	12.083	83	211067	46.08 ug/L		99	
47)	2-Hexanone	12.260	43	1198494	266.40 ug/L		98	
48)	1,3-Dichloropropane	12.272	76	448373	46.00 ug/L		97	
49)	Tetrachloroethylene	12.290	164	272480	48.43 ug/L		99	
50)	Dibromochloromethane	12.540	129	302833	52.50 ug/L		100	
51)	1,2-Dibromoethane	12.711	107	265610	48.09 ug/L		100	
52)	Chlorobenzene	13.193	112	865014	48.04 ug/L		100	
53)	1,1,1,2-Tetrachloroethane	13.247	131	308548	49.50 ug/L		99	
54)	Ethylbenzene	13.254	91	1495519	48.98 ug/L		99	
55)	m,p-Xylenes	13.363	106	1193921	97.77 ug/L		97	
56)	o-Xylene	13.796	106	577286	48.16 ug/L		97	
57)	Styrene	13.802	104	955362	50.03 ug/L		99	
59)	Bromoform	14.064	173	206540	57.19 ug/L		99	
60)	Isopropylbenzene	14.156	105	1551646	49.83 ug/L		100	
62)	1,1,2,2-Tetrachloroethane	14.442	83	347340	49.76 ug/L		99	
63)	1,2,3-Trichloropropane	14.528	110	96254	49.02 ug/L		96	
64)	Bromobenzene	14.564	156	379687	47.43 ug/L		98	
65)	n-Propylbenzene	14.583	91	1829276	50.14 ug/L		100	
66)	1,3,5-Trimethylbenzene	14.735	105	1314123	49.23 ug/L		100	
67)	2-Chlorotoluene	14.729	126	381247	49.14 ug/L		97	
68)	4-Chlorotoluene	14.832	91	1107647	49.30 ug/L		100	
69)	tert-Butylbenzene	15.107	134	285794	48.13 ug/L	#	89	
70)	1,2,4-Trimethylbenzene	15.150	105	1347281	47.91 ug/L		99	
71)	sec-Butylbenzene	15.332	105	1761238	49.08 ug/L		99	
72)	4-Isopropyltoluene	15.454	119	1439605	49.05 ug/L		99	
73)	1,3-Dichlorobenzene	15.515	146	736831	47.09 ug/L		100	
74)	1,4-Dichlorobenzene	15.601	146	754392	47.02 ug/L		99	
75)	n-Butylbenzene	15.887	91	1404382	49.31 ug/L		99	
76)	1,2-Dichlorobenzene	16.021	146	705288	46.50 ug/L		99	
77)	1,2-Dibromo-3-chloropr...	16.881	157	70269	55.20 ug/L		98	E
78)	1,2,4-Trichlorobenzene	17.911	180	516677	45.29 ug/L		100	
79)	Hexachlorobutadiene	18.076	225	314801	43.46 ug/L		99	
80)	Naphthalene	18.283	128	1082782	47.22 ug/L		100	
81)	1,2,3-Trichlorobenzene	18.618	180	450804	47.19 ug/L		99	
83)	Chlorotrifluoroethylene	0.000		0	N.D.			
84)	2-Chloro-1,1,1-trifluo...	0.000		0	N.D.			
85)	Acrolein	0.000		0	N.D.			
86)	Trichlorotrifluoroethane	0.000		0	N.D.			
87)	Isopropyl Alcohol	0.000		0	N.D.			
88)	Allyl chloride	7.072		0m	N.D. d			
89)	tert-Butyl Alcohol	0.000		0	N.D.			
90)	Acrylonitrile	7.578		0m	N.D. d			
91)	Isopropyl ether	8.066		0m	N.D. d			
92)	2-Chloro-1,3-butadiene	8.218		0m	N.D. d			
93)	Ethyl tert-butyl ether	8.492		0m	N.D. d			
94)	Ethyl acetate	8.693		0m	N.D. d			

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\123109V6\
Data File : 6R403LL.D
Acq On : 31 Dec 2009 11:33 am
Operator : RXD1
InstName : VOA6
Sample : |1202007248|938022|1|VOAF|1|VOA8260BS|
Misc : LCS 5g N/A SOIL MIX[A] 1214-01D+1230-01
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Dec 31 11:57:51 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
95)	Propionitrile	8.693		0m	N.D.	d
96)	Methacrylonitrile	0.000		0	N.D.	
97)	Tetrahydrofuran	9.047		0m	N.D.	d
98)	Isobutyl alcohol	9.413		0m	N.D.	d
99)	Methyl tert-amyl ether	9.724		0m	N.D.	d
100)	Methyl methacrylate	10.602		0m	N.D.	d
101)	1,4-Dioxane	0.000		0	N.D.	
102)	2-Nitropropane	11.089		0m	N.D.	d
104)	Ethyl methacrylate	11.803		0m	N.D.	d
106)	1-Chlorohexane	0.000		0	N.D.	
107)	cis-1,4-Dichloro-2-butene	14.156		0m	N.D.	d
108)	Cyclohexanone	0.000		0	N.D.	
109)	trans-1,4-Dichloro-2-b...	0.000		0	N.D.	
110)	Pentachloroethane	15.180		0m	N.D.	d
111)	Benzyl chloride	15.716		0m	N.D.	d
112)	bis(2-Chloroisopropyl)...	16.113		0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\123109V6\
Data File : 6R403LL.D
Acq On : 31 Dec 2009 11:33 am
Operator : RXD1
InstName : VOA6
Sample : |1202007248|938022|1|VOAF|1|VOA8260BS|
Misc : LCS 5g N/A SOIL MIX[A] 1214-01D+1230-01
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Dec 31 11:57:51 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

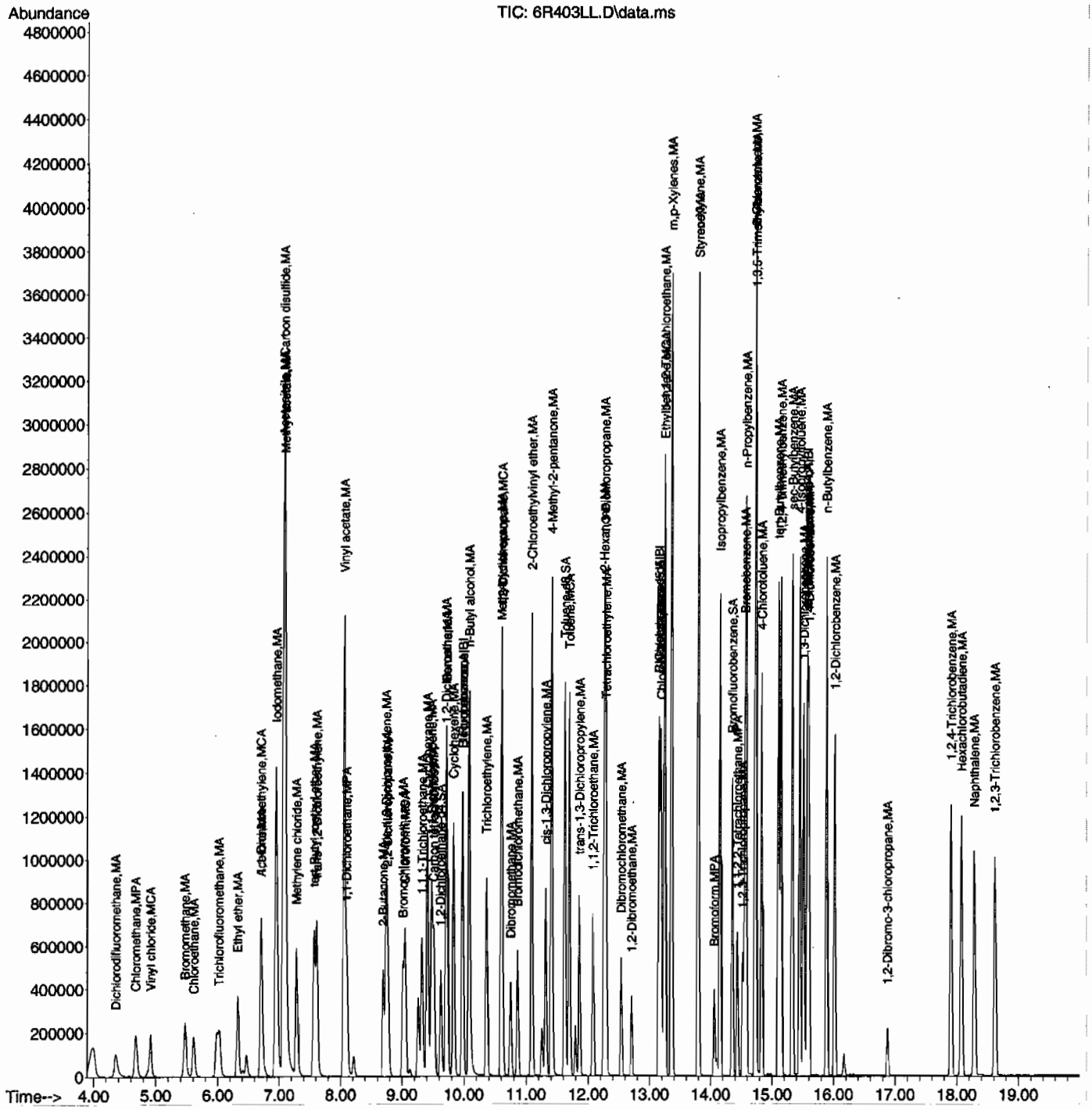

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1085**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202007249**				
Client Sample:	**QC for batch 938021**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 938021**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**938022**	**Inst:**	**VOA6.I**	**Dilution:**	**1**
Run Date:	**12/31/2009 12:28**	**Analyst:**	**RXD1**	**Purge Vol:**	**5 mL**
Prep Date:	**12/31/2009 09:32**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**123109V6\6R405SL.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/kg	0.340	1.00
74-87-3	Chloromethane	U	1.00	ug/kg	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/kg	0.300	1.00
74-83-9	Bromomethane	U	1.00	ug/kg	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/kg	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/kg	0.300	1.00
67-64-1	Acetone	U	5.00	ug/kg	1.66	5.00
75-35-4	1,1-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/kg	1.60	5.00
75-09-2	Methylene chloride	U	5.00	ug/kg	2.00	5.00
75-15-0	Carbon disulfide	U	5.00	ug/kg	1.25	5.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/kg	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/kg	1.50	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/kg	0.300	1.00
74-97-5	Bromochloromethane	U	1.00	ug/kg	0.330	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/kg	0.300	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/kg	0.300	1.00
56-23-5	Carbon tetrachloride	U	1.00	ug/kg	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/kg	0.300	1.00
71-43-2	Benzene	U	1.00	ug/kg	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/kg	0.330	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/kg	0.300	1.00
74-95-3	Dibromomethane	U	1.00	ug/kg	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/kg	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
108-88-3	Toluene	U	1.00	ug/kg	0.300	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/kg	0.300	1.00
591-78-6	2-Hexanone	U	5.00	ug/kg	1.50	5.00
142-28-9	1,3-Dichloropropane	U	1.00	ug/kg	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/kg	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/kg	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/kg	0.300	1.00
108-90-7	Chlorobenzene	U	1.00	ug/kg	0.300	1.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1085**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202007249**				
Client Sample:	**QC for batch 938021**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 938021**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**938022**	**Inst:**	**VOA6.I**	**Dilution:**	**1**
Run Date:	**12/31/2009 12:28**	**Analyst:**	**RXD1**	**Purge Vol:**	**5 mL**
Prep Date:	**12/31/2009 09:32**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**123109V6\6R405SL.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.00	ug/kg	0.300	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/kg	0.300	2.00
95-47-6	o-Xylene	U	1.00	ug/kg	0.300	1.00
100-42-5	Styrene	U	1.00	ug/kg	0.300	1.00
75-25-2	Bromoform	U	1.00	ug/kg	0.300	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/kg	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/kg	0.300	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/kg	0.300	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/kg	0.300	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/kg	0.300	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/kg	0.300	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/kg	0.300	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/kg	0.300	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/kg	0.300	1.00
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*		286	ug/kg	1.60	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\123109V6\
Data File : 6R405SL.D
Acq On : 31 Dec 2009 12:28 pm
Operator : RXD1
InstName : VOA6
Sample : |1202007249|938022|1|VOAF|1|VOA8260BS|
Misc : LCS 5g N/A SOIL MIX[B] 1216-08A
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Dec 31 14:02:39 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Fluorobenzene	9.980	96	1260800	50.00 ug/L	0.00
41) Chlorobenzene-d5	13.156	117	919441	50.00 ug/L	0.00
58) 1,4-Dichlorobenzene-d4	15.576	152	505552	50.00 ug/L	0.00
82) B Fluorobenzene	9.980	96	1259696	50.00 ug/L	0.00
103) B Chlorobenzene-d5	13.156	117	919441	50.00 ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	15.576	152	505552	50.00 ug/L	0.00
System Monitoring Compounds					
29) 1,2-Dichloroethane-d4	9.632	65	369064	49.61 ug/L	0.00
Spiked Amount 50.000	Range 68 - 131		Recovery = 99.22%		
43) Toluene-d8	11.626	98	1209132	47.43 ug/L	0.00
Spiked Amount 50.000	Range 75 - 129		Recovery = 94.86%		
61) Bromofluorobenzene	14.357	95	491236	50.42 ug/L	0.00
Spiked Amount 50.000	Range 68 - 133		Recovery = 100.84%		

Target Compounds			Qvalue
2) Dichlorodifluoromethane	0.000	0	N.D.
3) Chloromethane	4.672	0m	N.D. d
4) Vinyl chloride	4.914	0m	N.D. d
5) Bromomethane	0.000	0	N.D.
6) Chloroethane	0.000	0	N.D.
7) Trichlorofluoromethane	0.000	0	N.D.
8) Ethyl ether	0.000	0	N.D.
9) Acetone	6.675	0m	N.D. d
10) 1,1-Dichloroethylene	6.682	0m	N.D. d
11) Iodomethane	0.000	0	N.D.
12) Acetonitrile	7.139	0m	N.D. d
13) Methyl acetate	7.102	0m	N.D. d
14) Carbon disulfide	7.139	0m	N.D. d
15) Methylene chloride	7.291	0m	N.D. d
16) tert-Butyl methyl ether	0.000	0	N.D.
17) trans-1,2-Dichloroethy...	0.000	0	N.D.
18) Vinyl acetate	8.065	0m	N.D. d
19) 1,1-Dichloroethane	8.206	0m	N.D. d
20) 2-Butanone	8.706	0m	N.D. d
21) cis-1,2-Dichloroethylene	8.706	0m	N.D. d
22) 2,2-Dichloropropane	0.000	0	N.D.
23) Bromochloromethane	0.000	0	N.D.
24) Chloroform	0.000	0	N.D.
25) 1,1,1-Trichloroethane	0.000	0	N.D.
26) Cyclohexane	9.394	0m	N.D. d
27) 1,1-Dichloropropene	0.000	0	N.D.
28) Carbon tetrachloride	0.000	0	N.D.
30) 1,2-Dichloroethane	0.000	0	N.D.
31) Benzene	9.724	0m	N.D. d
32) Cyclohexene	0.000	0	N.D.
33) n-Butyl alcohol	10.083	0m	N.D. d
34) Trichloroethylene	10.370	0m	N.D. d
35) 1,2-Dichloropropane	0.000	0	N.D.
36) Methylcyclohexane	10.589	0m	N.D. d
37) Dibromomethane	0.000	0	N.D.

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\123109V6\
Data File : 6R405SL.D
Acq On : 31 Dec 2009 12:28 pm
Operator : RXD1
InstName : VOA6
Sample : |1202007249|938022|1|VOAF|1|VOA8260BS|
Misc : LCS 5g N/A SOIL MIX[B] 1216-08A
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Dec 31 14:02:39 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
38)	Bromodichloromethane	0.000		0	N.D.	
39)	2-Chloroethylvinyl ether	11.095		0m	N.D. d	
40)	cis-1,3-Dichloropropylene	0.000		0	N.D.	
42)	4-Methyl-2-pentanone	0.000		0	N.D.	
44)	Toluene	11.699		0m	N.D. d	
45)	trans-1,3-Dichloroprop...	0.000		0	N.D.	
46)	1,1,2-Trichloroethane	0.000		0	N.D.	
47)	2-Hexanone	12.266		0m	N.D. d	
48)	1,3-Dichloropropane	12.308		0m	N.D. d	
49)	Tetrachloroethylene	12.290		0m	N.D. d	
50)	Dibromochloromethane	0.000		0	N.D.	
51)	1,2-Dibromoethane	0.000		0	N.D.	
52)	Chlorobenzene	13.186		0m	N.D. d	
53)	1,1,1,2-Tetrachloroethane	0.000		0	N.D.	
54)	Ethylbenzene	13.253		0m	N.D. d	
55)	m,p-Xylenes	13.357		0m	N.D. d	
56)	o-Xylene	0.000		0	N.D.	
57)	Styrene	13.808		0m	N.D. d	
59)	Bromoform	0.000		0	N.D.	
60)	Isopropylbenzene	14.156		0m	N.D. d	
62)	1,1,2,2-Tetrachloroethane	14.491		0m	N.D. d	
63)	1,2,3-Trichloropropane	0.000		0	N.D.	
64)	Bromobenzene	0.000		0	N.D.	
65)	n-Propylbenzene	14.589		0m	N.D. d	
66)	1,3,5-Trimethylbenzene	14.735		0m	N.D. d	
67)	2-Chlorotoluene	14.729		0m	N.D. d	
68)	4-Chlorotoluene	14.832		0m	N.D. d	
69)	tert-Butylbenzene	15.180		0m	N.D. d	
70)	1,2,4-Trimethylbenzene	15.149		0m	N.D. d	
71)	sec-Butylbenzene	15.332		0m	N.D. d	
72)	4-Isopropyltoluene	15.454		0m	N.D. d	
73)	1,3-Dichlorobenzene	15.515		0m	N.D. d	
74)	1,4-Dichlorobenzene	15.594		0m	N.D. d	
75)	n-Butylbenzene	15.948		0m	N.D. d	
76)	1,2-Dichlorobenzene	16.021		0m	N.D. d	
77)	1,2-Dibromo-3-chloropr...	0.000		0	N.D.	
78)	1,2,4-Trichlorobenzene	17.911		0m	N.D. d	
79)	Hexachlorobutadiene	18.076		0m	N.D. d	
80)	Naphthalene	18.283		0m	N.D. d	
81)	1,2,3-Trichlorobenzene	18.624		0m	N.D. d	
83)	Chlorotrifluoroethylene	0.000		0	N.D.	
84)	2-Chloro-1,1,1-trifluo...	0.000		0	N.D.	
85)	Acrolein	6.529	56	234687	255.40 ug/L	100
86)	Trichlorotrifluoroethane	6.682	85	673619	286.26 ug/L	98
87)	Isopropyl Alcohol	0.000		0m	N.D. d	
88)	Allyl chloride	7.139	41	2856417	259.36 ug/L	98
89)	tert-Butyl Alcohol	0.000		0	N.D.	
90)	Acrylonitrile	7.547	53	546642	233.61 ug/L	100
91)	Isopropyl ether	0.000		0	N.D.	
92)	2-Chloro-1,3-butadiene	8.206	53	478967	51.10 ug/L	98
93)	Ethyl tert-butyl ether	0.000		0	N.D.	
94)	Ethyl acetate	8.706	43	1457256	217.99 ug/L	99

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\123109V6\
Data File : 6R405SL.D
Acq On : 31 Dec 2009 12:28 pm
Operator : RXD1
InstName : VOA6
Sample : |1202007249|938022|1|VOAF|1|VOA8260BS|
Misc : LCS 5g N/A SOIL MIX[B] 1216-08A
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Dec 31 14:02:39 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
95)	Propionitrile	8.779	54	206196	226.76 ug/L	100
96)	Methacrylonitrile	8.949	41	944980	236.28 ug/L	99
97)	Tetrahydrofuran	9.065	42	490411	230.95 ug/L	98
98)	Isobutyl alcohol	9.388	41	600002	2499.12 ug/L	99
99)	Methyl tert-amyl ether	9.730	73	206	N.D.	
100)	Methyl methacrylate	10.589	69	927951	242.68 ug/L	97
101)	1,4-Dioxane	10.705	88	138986	2352.45 ug/L	98
102)	2-Nitropropane	11.077	43	495677	256.13 ug/L	99
104)	Ethyl methacrylate	11.857	69	1752929	243.55 ug/L	97
106)	1-Chlorohexane	0.000		0	N.D.	
107)	cis-1,4-Dichloro-2-butene	14.204	53	639425	268.73 ug/L	100
108)	Cyclohexanone	14.320	42	206366	1060.15 ug/L	100
109)	trans-1,4-Dichloro-2-b...	14.491	53	610467	267.08 ug/L	97
110)	Pentachloroethane	15.180	167	1125694	333.03 ug/L	99
111)	Benzyl chloride	15.716	91	3159470	241.56 ug/L	99
112)	bis(2-Chloroisopropyl)...	16.113	45	882615	229.98 ug/L	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\123109V6\
Data File : 6R405SL.D
Acq On : 31 Dec 2009 12:28 pm
Operator : RXD1
InstName : VOA6
Sample : |1202007249|938022|1|VOAF|1|VOA8260BS|
Misc : LCS 5g N/A SOIL MIX[B] 1216-08A
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Dec 31 14:02:39 2009
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

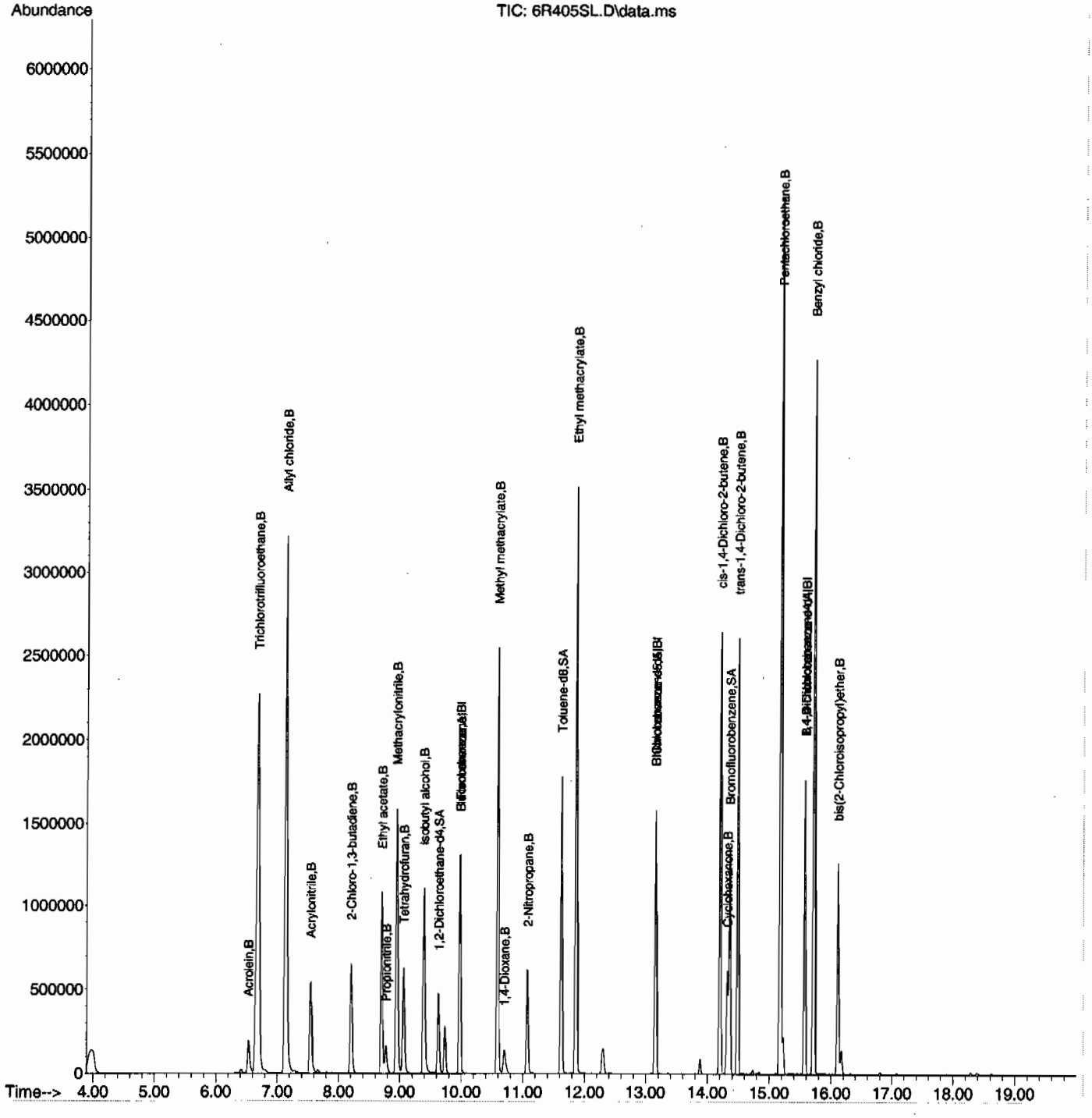

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1085			Matrix:	SOIL
Lab Sample ID:	1202009752				
Client Sample:	QC for batch 938021	Client:	LANL010	Project:	QC
Client ID:	LCS for batch 938021	Method:	SW846 8260B	SOP Ref:	GL-OA-E-038
Batch ID:	938022	Inst:	VOA6.I	Dilution:	1
Run Date:	01/04/2010 12:33	Analyst:	RXD1	Purge Vol:	5 mL
Prep Date:	01/04/2010 09:48	Aliquot:	5 g	Final Volume:	5 mL
Data File:	010410V6\6S106LL.D	Column:	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane		42.0	ug/kg	0.340	1.00
74-87-3	Chloromethane		40.4	ug/kg	0.300	1.00
75-01-4	Vinyl chloride		44.5	ug/kg	0.300	1.00
74-83-9	Bromomethane		44.8	ug/kg	0.300	1.00
75-00-3	Chloroethane		44.8	ug/kg	0.300	1.00
75-69-4	Trichlorofluoromethane		45.8	ug/kg	0.300	1.00
67-64-1	Acetone	BE	177	ug/kg	1.66	5.00
75-35-4	1,1-Dichloroethylene		45.4	ug/kg	0.300	1.00
74-88-4	Iodomethane		218	ug/kg	1.60	5.00
75-09-2	Methylene chloride		39.7	ug/kg	2.00	5.00
75-15-0	Carbon disulfide		239	ug/kg	1.25	5.00
156-60-5	trans-1,2-Dichloroethylene		44.3	ug/kg	0.300	1.00
75-34-3	1,1-Dichloroethane		44.0	ug/kg	0.300	1.00
78-93-3	2-Butanone		221	ug/kg	1.50	5.00
156-59-2	cis-1,2-Dichloroethylene		44.6	ug/kg	0.300	1.00
594-20-7	2,2-Dichloropropane		50.3	ug/kg	0.300	1.00
67-66-3	Chloroform		43.5	ug/kg	0.300	1.00
74-97-5	Bromochloromethane		43.4	ug/kg	0.330	1.00
71-55-6	1,1,1-Trichloroethane		47.4	ug/kg	0.300	1.00
563-58-6	1,1-Dichloropropene		47.1	ug/kg	0.300	1.00
56-23-5	Carbon tetrachloride		48.6	ug/kg	0.300	1.00
107-06-2	1,2-Dichloroethane		43.3	ug/kg	0.300	1.00
71-43-2	Benzene		43.1	ug/kg	0.300	1.00
79-01-6	Trichloroethylene		44.5	ug/kg	0.330	1.00
78-87-5	1,2-Dichloropropane		44.3	ug/kg	0.300	1.00
75-27-4	Bromodichloromethane		47.0	ug/kg	0.300	1.00
74-95-3	Dibromomethane		44.8	ug/kg	0.300	1.00
108-10-1	4-Methyl-2-pentanone		231	ug/kg	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene		46.9	ug/kg	0.300	1.00
108-88-3	Toluene		42.0	ug/kg	0.300	1.00
10061-02-6	trans-1,3-Dichloropropylene		46.5	ug/kg	0.300	1.00
79-00-5	1,1,2-Trichloroethane		42.7	ug/kg	0.300	1.00
591-78-6	2-Hexanone		237	ug/kg	1.50	5.00
142-28-9	1,3-Dichloropropane		42.0	ug/kg	0.300	1.00
127-18-4	Tetrachloroethylene		43.8	ug/kg	0.300	1.00
124-48-1	Dibromochloromethane		48.1	ug/kg	0.300	1.00
106-93-4	1,2-Dibromoethane		43.6	ug/kg	0.300	1.00
108-90-7	Chlorobenzene		43.8	ug/kg	0.300	1.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1085**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202009752**				
Client Sample:	**QC for batch 938021**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 938021**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**938022**	**Inst:**	**VOA6.I**	**Dilution:**	**1**
Run Date:	**01/04/2010 12:33**	**Analyst:**	**RXD1**	**Purge Vol:**	**5 mL**
Prep Date:	**01/04/2010 09:48**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**010410V6\6S106LL.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene		44.2	ug/kg	0.300	1.00
179601-23-1	m,p-Xylenes		88.1	ug/kg	0.300	2.00
95-47-6	o-Xylene		43.9	ug/kg	0.300	1.00
100-42-5	Styrene		44.7	ug/kg	0.300	1.00
75-25-2	Bromoform		50.8	ug/kg	0.300	1.00
79-34-5	1,1,2,2-Tetrachloroethane		44.8	ug/kg	0.300	1.00
96-18-4	1,2,3-Trichloropropane		43.9	ug/kg	0.300	1.00
108-86-1	Bromobenzene		43.0	ug/kg	0.300	1.00
103-65-1	n-Propylbenzene		44.5	ug/kg	0.300	1.00
95-49-8	2-Chlorotoluene		44.0	ug/kg	0.300	1.00
98-82-8	Isopropylbenzene		44.6	ug/kg	0.300	1.00
108-67-8	1,3,5-Trimethylbenzene		44.2	ug/kg	0.300	1.00
106-43-4	4-Chlorotoluene		44.2	ug/kg	0.300	1.00
98-06-6	tert-Butylbenzene		43.4	ug/kg	0.300	1.00
95-63-6	1,2,4-Trimethylbenzene		43.1	ug/kg	0.300	1.00
135-98-8	sec-Butylbenzene		44.3	ug/kg	0.300	1.00
99-87-6	4-Isopropyltoluene		44.2	ug/kg	0.300	1.00
541-73-1	1,3-Dichlorobenzene		42.6	ug/kg	0.300	1.00
106-46-7	1,4-Dichlorobenzene		42.2	ug/kg	0.300	1.00
104-51-8	n-Butylbenzene		44.5	ug/kg	0.300	1.00
96-12-8	1,2-Dibromo-3-chloropropane		49.7	ug/kg	0.300	1.00
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.00	ug/kg	1.60	5.00
630-20-6	1,1,1,2-Tetrachloroethane		44.9	ug/kg	0.300	1.00
95-50-1	1,2-Dichlorobenzene		41.8	ug/kg	0.300	1.00

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\010410V6\
Data File : 6S106LL.D
Acq On : 4 Jan 2010 12:33 pm
Operator : RXD1
InstName : VOA6
Sample : |1202009752|938022|1|VOAF|1|VOA8260BS|
Misc : LCS 5g N/A SOIL MIX[A] 1214-01D+1230-01
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jan 04 13:48:11 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	9.974	96	1555307	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.156	117	1154724	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	15.576	152	634458	50.00	ug/L	0.00
82) B Fluorobenzene	9.974	96	1553210	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.156	117	1154724	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	15.576	152	634458	50.00	ug/L	0.00
System Monitoring Compounds						
29) 1,2-Dichloroethane-d4	9.626	65	447528	48.77	ug/L	0.00
Spiked Amount 50.000	Range 68 - 131		Recovery = 97.54%			
43) Toluene-d8	11.626	98	1503372	46.96	ug/L	0.00
Spiked Amount 50.000	Range 75 - 129		Recovery = 93.92%			
61) Bromofluorobenzene	14.357	95	601375	49.18	ug/L	0.00
Spiked Amount 50.000	Range 68 - 133		Recovery = 98.36%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	4.360	85	292991	42.02	ug/L	100
3) Chloromethane	4.672	50	387417	40.40	ug/L	99
4) Vinyl chloride	4.914	62	374677	44.51	ug/L	100
5) Bromomethane	5.478	94	281111	44.77	ug/L	99
6) Chloroethane	5.609	64	279975	44.81	ug/L	99
7) Trichlorofluoromethane	6.022	101	565127	45.79	ug/L	100
8) Ethyl ether	6.328	59	330744	41.25	ug/L	99
9) Acetone	6.712	43	500802	176.99	ug/L	98 E
10) 1,1-Dichloroethylene	6.706	61	516487	45.37	ug/L	99
11) Iodomethane	6.956	142	2671164	217.75	ug/L	99
12) Acetonitrile	7.072	41	1312920	1131.90	ug/L	99
13) Methyl acetate	7.096	43	1437401	225.87	ug/L	99
14) Carbon disulfide	7.078	76	5463297	239.15	ug/L	100
15) Methylene chloride	7.285	84	355202	39.68	ug/L	99
16) tert-Butyl methyl ether	7.578	73	941847	41.64	ug/L	100
17) trans-1,2-Dichloroethy...	7.620	61	514235	44.26	ug/L	99
18) Vinyl acetate	8.066	43	4159171	248.50	ug/L	96
19) 1,1-Dichloroethane	8.102	63	639895	44.01	ug/L	100
20) 2-Butanone	8.693	43	791544	221.10	ug/L	100
21) cis-1,2-Dichloroethylene	8.742	61	576828	44.57	ug/L	98
22) 2,2-Dichloropropane	8.767	77	526550	50.27	ug/L	97
23) Bromochloromethane	9.017	128	173053	43.41	ug/L	99
24) Chloroform	9.053	83	588596	43.48	ug/L	98
25) 1,1,1-Trichloroethane	9.321	97	538431	47.40	ug/L	99
26) Cyclohexane	9.413	56	700106	47.66	ug/L	100
27) 1,1-Dichloropropene	9.480	75	486572	47.06	ug/L	97
28) Carbon tetrachloride	9.516	117	488305	48.59	ug/L	100
30) 1,2-Dichloroethane	9.712	62	481048	43.34	ug/L	99
31) Benzene	9.724	78	1364705	43.07	ug/L	100
32) Cyclohexene	9.833	67	696021	46.18	ug/L	99
33) n-Butyl alcohol	10.083	56	1261884	4793.10	ug/L	99
34) Trichloroethylene	10.364	95	352033	44.52	ug/L	99
35) 1,2-Dichloropropane	10.614	63	370701	44.27	ug/L	99
36) Methylcyclohexane	10.608	83	644397	46.83	ug/L	99
37) Dibromomethane	10.748	93	199033	44.75	ug/L	99

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\010410V6\
Data File : 6S106LL.D
Acq On : 4 Jan 2010 12:33 pm
Operator : RXD1
InstName : VOA6
Sample : |1202009752|938022|1|VOAF|1|VOA8260BS|
Misc : LCS 5g N/A SOIL MIX[A] 1214-01D+1230-01
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jan 04 13:48:11 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
38)	Bromodichloromethane	10.864	83	440811	47.01 ug/L	99
39)	2-Chloroethylvinyl ether	11.089	63	1009676	196.89 ug/L	99
40)	cis-1,3-Dichloropropylene	11.315	75	555227	46.92 ug/L	99
42)	4-Methyl-2-pentanone	11.412	58	699967	230.87 ug/L	95
44)	Toluene	11.699	91	1444096	41.97 ug/L	100
45)	trans-1,3-Dichloroprop...	11.857	75	517504	46.52 ug/L	98
46)	1,1,2-Trichloroethane	12.083	83	241830	42.73 ug/L	99
47)	2-Hexanone	12.260	43	1316203	236.76 ug/L	99
48)	1,3-Dichloropropane	12.272	76	505368	41.96 ug/L	97
49)	Tetrachloroethylene	12.290	164	304668	43.82 ug/L	99
50)	Dibromochloromethane	12.540	129	343158	48.14 ug/L	99
51)	1,2-Dibromoethane	12.705	107	297518	43.60 ug/L	100
52)	Chlorobenzene	13.193	112	973703	43.76 ug/L	100
53)	1,1,1,2-Tetrachloroethane	13.241	131	345789	44.89 ug/L	99
54)	Ethylbenzene	13.254	91	1668318	44.22 ug/L	99
55)	m,p-Xylenes	13.363	106	1329007	88.08 ug/L	98
56)	o-Xylene	13.796	106	650543	43.92 ug/L	99
57)	Styrene	13.802	104	1055590	44.74 ug/L	98
59)	Bromoform	14.064	173	227967	50.82 ug/L	100
60)	Isopropylbenzene	14.156	105	1724251	44.59 ug/L	100
62)	1,1,2,2-Tetrachloroethane	14.436	83	388055	44.76 ug/L	100
63)	1,2,3-Trichloropropane	14.528	110	106977	43.87 ug/L	95
64)	Bromobenzene	14.564	156	427813	43.02 ug/L	99
65)	n-Propylbenzene	14.583	91	2018361	44.54 ug/L	100
66)	1,3,5-Trimethylbenzene	14.735	105	1465377	44.20 ug/L	99
67)	2-Chlorotoluene	14.729	126	423613	43.96 ug/L	98
68)	4-Chlorotoluene	14.833	91	1234366	44.24 ug/L	100
69)	tert-Butylbenzene	15.107	134	320362	43.44 ug/L #	89
70)	1,2,4-Trimethylbenzene	15.150	105	1506411	43.13 ug/L	99
71)	sec-Butylbenzene	15.332	105	1972452	44.25 ug/L	99
72)	4-Isopropyltoluene	15.454	119	1612716	44.24 ug/L	99
73)	1,3-Dichlorobenzene	15.515	146	827557	42.58 ug/L	99
74)	1,4-Dichlorobenzene	15.601	146	841232	42.22 ug/L	99
75)	n-Butylbenzene	15.887	91	1572444	44.45 ug/L	99
76)	1,2-Dichlorobenzene	16.021	146	787484	41.80 ug/L	100
77)	1,2-Dibromo-3-chloropr...	16.881	157	78585	49.70 ug/L	97
78)	1,2,4-Trichlorobenzene	17.911	180	614627	43.38 ug/L	100
79)	Hexachlorobutadiene	18.076	225	376849	41.89 ug/L	99
80)	Naphthalene	18.289	128	1273338	44.71 ug/L	100
81)	1,2,3-Trichlorobenzene	18.618	180	536017	45.17 ug/L	98
83)	Chlorotrifluoroethylene	0.000		0	N.D.	
84)	2-Chloro-1,1,1-trifluo...	0.000		0	N.D.	
85)	Acrolein	6.468		0m	N.D. d	
86)	Trichlorotrifluoroethane	0.000		0	N.D.	
87)	Isopropyl Alcohol	6.706		0m	N.D. d	
88)	Allyl chloride	7.072		0m	N.D. d	
89)	tert-Butyl Alcohol	0.000		0	N.D.	
90)	Acrylonitrile	7.572		0m	N.D. d	
91)	Isopropyl ether	8.066		0m	N.D. d	
92)	2-Chloro-1,3-butadiene	8.212		0m	N.D. d	
93)	Ethyl tert-butyl ether	0.000		0	N.D.	
94)	Ethyl acetate	8.693		0m	N.D. d	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\010410V6\
Data File : 6S106LL.D
Acq On : 4 Jan 2010 12:33 pm
Operator : RXD1
InstName : VOA6
Sample : |1202009752|938022|1|VOAF|1|VOA8260BS|
Misc : LCS 5g N/A SOIL MIX[A] 1214-01D+1230-01
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jan 04 13:48:11 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
95)	Propionitrile	8.687		0m	N.D. d	
96)	Methacrylonitrile	8.895		0m	N.D. d	
97)	Tetrahydrofuran	9.059		0m	N.D. d	
98)	Isobutyl alcohol	9.413		0m	N.D. d	
99)	Methyl tert-amyl ether	9.718		0m	N.D. d	
100)	Methyl methacrylate	10.608		0m	N.D. d	
101)	1,4-Dioxane	10.754		0m	N.D. d	
102)	2-Nitropropane	11.089		0m	N.D. d	
104)	Ethyl methacrylate	11.870		0m	N.D. d	
106)	1-Chlorohexane	0.000		0	N.D.	
107)	cis-1,4-Dichloro-2-butene	14.150		0m	N.D. d	
108)	Cyclohexanone	0.000		0	N.D.	
109)	trans-1,4-Dichloro-2-b...	0.000		0	N.D.	
110)	Pentachloroethane	15.180		0m	N.D. d	
111)	Benzyl chloride	15.716		0m	N.D. d	
112)	bis(2-Chloroisopropyl)...	16.162		0m	N.D. d	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\010410V6\
Data File : 6S106LL.D
Acq On : 4 Jan 2010 12:33 pm
Operator : RXD1
InstName : VOA6
Sample : |1202009752|938022|1|VOAF|1|VOA8260BS|
Misc : LCS 5g N/A SOIL MIX[A] 1214-01D+1230-01
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jan 04 13:48:11 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

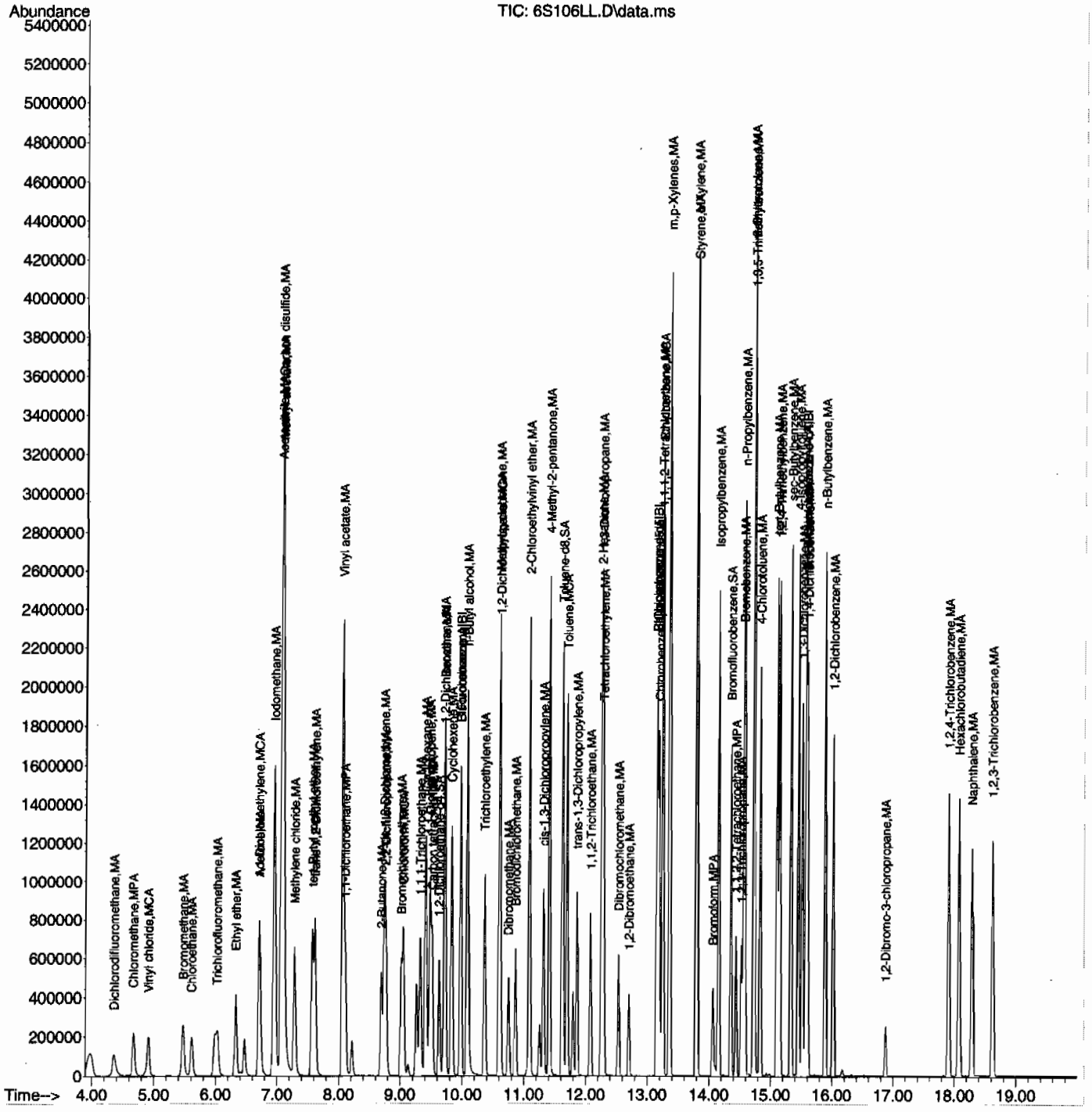

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1085			**Matrix:**	SOIL
Lab Sample ID:	1202009753				
Client Sample:	QC for batch 938021	**Client:**	LANL010	**Project:**	QC
Client ID:	LCS for batch 938021	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	938022	**Inst:**	VOA6.I	**Dilution:**	1
Run Date:	01/04/2010 13:28	**Analyst:**	RXD1	**Purge Vol:**	5 mL
Prep Date:	01/04/2010 09:49	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	010410V6\6S108SL.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/kg	0.340	1.00
74-87-3	Chloromethane	U	1.00	ug/kg	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/kg	0.300	1.00
74-83-9	Bromomethane	U	1.00	ug/kg	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/kg	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/kg	0.300	1.00
67-64-1	Acetone	U	5.00	ug/kg	1.66	5.00
75-35-4	1,1-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/kg	1.60	5.00
75-09-2	Methylene chloride	U	5.00	ug/kg	2.00	5.00
75-15-0	Carbon disulfide	U	5.00	ug/kg	1.25	5.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/kg	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/kg	1.50	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/kg	0.300	1.00
74-97-5	Bromochloromethane	U	1.00	ug/kg	0.330	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/kg	0.300	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/kg	0.300	1.00
56-23-5	Carbon tetrachloride	U	1.00	ug/kg	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/kg	0.300	1.00
71-43-2	Benzene	U	1.00	ug/kg	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/kg	0.330	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/kg	0.300	1.00
74-95-3	Dibromomethane	U	1.00	ug/kg	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/kg	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
108-88-3	Toluene	U	1.00	ug/kg	0.300	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/kg	0.300	1.00
591-78-6	2-Hexanone	U	5.00	ug/kg	1.50	5.00
142-28-9	1,3-Dichloropropane	U	1.00	ug/kg	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/kg	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/kg	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/kg	0.300	1.00
108-90-7	Chlorobenzene	U	1.00	ug/kg	0.300	1.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1085**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202009753**				
Client Sample:	**QC for batch 938021**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 938021**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**938022**	**Inst:**	**VOA6.I**	**Dilution:**	**1**
Run Date:	**01/04/2010 13:28**	**Analyst:**	**RXD1**	**Purge Vol:**	**5 mL**
Prep Date:	**01/04/2010 09:49**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**010410V6\6S108SL.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.00	ug/kg	0.300	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/kg	0.300	2.00
95-47-6	o-Xylene	U	1.00	ug/kg	0.300	1.00
100-42-5	Styrene	U	1.00	ug/kg	0.300	1.00
75-25-2	Bromoform	U	1.00	ug/kg	0.300	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/kg	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/kg	0.300	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/kg	0.300	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/kg	0.300	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/kg	0.300	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/kg	0.300	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/kg	0.300	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/kg	0.300	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/kg	0.300	1.00
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*		259	ug/kg	1.60	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\010410V6\
Data File : 6S108SL.D
Acq On : 4 Jan 2010 1:28 pm
Operator : RXD1
InstName : VOA6
Sample : |1202009753|938022|1|VOAF|1|VOA8260BS|
Misc : LCS 5g N/A SOIL MIX[B] 1216-08A
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jan 04 13:50:02 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Fluorobenzene	9.980	96	1545093	50.00 ug/L	0.00
41) Chlorobenzene-d5	13.156	117	1144914	50.00 ug/L	0.00
58) 1,4-Dichlorobenzene-d4	15.576	152	645320	50.00 ug/L	0.00
82) B Fluorobenzene	9.980	96	1544017	50.00 ug/L	0.00
103) B Chlorobenzene-d5	13.156	117	1144914	50.00 ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	15.576	152	645320	50.00 ug/L	0.00
System Monitoring Compounds					
29) 1,2-Dichloroethane-d4	9.632	65	454308	49.84 ug/L	0.00
Spiked Amount 50.000	Range 68 - 131		Recovery = 99.68%		
43) Toluene-d8	11.626	98	1474796	46.46 ug/L	0.00
Spiked Amount 50.000	Range 75 - 129		Recovery = 92.92%		
61) Bromofluorobenzene	14.357	95	606595	48.78 ug/L	0.00
Spiked Amount 50.000	Range 68 - 133		Recovery = 97.56%		

Target Compounds				Qvalue
2) Dichlorodifluoromethane	0.000	0	N.D.	
3) Chloromethane	4.662	0m	N.D.	d
4) Vinyl chloride	4.914	0m	N.D.	d
5) Bromomethane	0.000	0	N.D.	
6) Chloroethane	0.000	0	N.D.	
7) Trichlorofluoromethane	0.000	0	N.D.	
8) Ethyl ether	0.000	0	N.D.	
9) Acetone	6.706	0m	N.D.	d
10) 1,1-Dichloroethylene	6.688	0m	N.D.	d
11) Iodomethane	6.956	0m	N.D.	d
12) Acetonitrile	7.139	0m	N.D.	d
13) Methyl acetate	7.102	0m	N.D.	d
14) Carbon disulfide	7.139	0m	N.D.	d
15) Methylene chloride	7.285	0m	N.D.	d
16) tert-Butyl methyl ether	0.000	0	N.D.	
17) trans-1,2-Dichloroethy...	0.000	0	N.D.	
18) Vinyl acetate	8.059	0m	N.D.	d
19) 1,1-Dichloroethane	8.206	0m	N.D.	d
20) 2-Butanone	8.706	0m	N.D.	d
21) cis-1,2-Dichloroethylene	8.706	0m	N.D.	d
22) 2,2-Dichloropropane	0.000	0	N.D.	
23) Bromochloromethane	0.000	0	N.D.	
24) Chloroform	0.000	0	N.D.	
25) 1,1,1-Trichloroethane	0.000	0	N.D.	
26) Cyclohexane	9.388	0m	N.D.	d
27) 1,1-Dichloropropene	0.000	0	N.D.	
28) Carbon tetrachloride	0.000	0	N.D.	
30) 1,2-Dichloroethane	0.000	0	N.D.	
31) Benzene	9.718	0m	N.D.	d
32) Cyclohexene	0.000	0	N.D.	
33) n-Butyl alcohol	10.096	0m	N.D.	d
34) Trichloroethylene	10.370	0m	N.D.	d
35) 1,2-Dichloropropane	0.000	0	N.D.	
36) Methylcyclohexane	10.583	0m	N.D.	d
37) Dibromomethane	0.000	0	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\010410V6\
Data File : 6S108SL.D
Acq On : 4 Jan 2010 1:28 pm
Operator : RXD1
InstName : VOA6
Sample : |1202009753|938022|1|VOAF|1|VOA8260BS|
Misc : LCS 5g N/A SOIL MIX[B] 1216-08A
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jan 04 13:50:02 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
38)	Bromodichloromethane	0.000		0	N.D.	
39)	2-Chloroethylvinyl ether	11.089		0m	N.D. d	
40)	cis-1,3-Dichloropropylene	0.000		0	N.D.	
42)	4-Methyl-2-pentanone	11.412		0m	N.D. d	
44)	Toluene	11.699		0m	N.D. d	
45)	trans-1,3-Dichloroprop...	0.000		0	N.D.	
46)	1,1,2-Trichloroethane	0.000		0	N.D.	
47)	2-Hexanone	12.260		0m	N.D. d	
48)	1,3-Dichloropropane	12.315		0m	N.D. d	
49)	Tetrachloroethylene	12.290		0m	N.D. d	
50)	Dibromochloromethane	0.000		0	N.D.	
51)	1,2-Dibromoethane	0.000		0	N.D.	
52)	Chlorobenzene	13.193		0m	N.D. d	
53)	1,1,1,2-Tetrachloroethane	0.000		0	N.D.	
54)	Ethylbenzene	13.254		0m	N.D. d	
55)	m,p-Xylenes	13.369		0m	N.D. d	
56)	o-Xylene	13.796		0m	N.D. d	
57)	Styrene	13.796		0m	N.D. d	
59)	Bromoform	0.000		0	N.D.	
60)	Isopropylbenzene	14.156		0m	N.D. d	
62)	1,1,2,2-Tetrachloroethane	14.491		0m	N.D. d	
63)	1,2,3-Trichloropropane	0.000		0	N.D.	
64)	Bromobenzene	0.000		0	N.D.	
65)	n-Propylbenzene	14.583		0m	N.D. d	
66)	1,3,5-Trimethylbenzene	14.735		0m	N.D. d	
67)	2-Chlorotoluene	14.735		0m	N.D. d	
68)	4-Chlorotoluene	14.832		0m	N.D. d	
69)	tert-Butylbenzene	15.107		0m	N.D. d	
70)	1,2,4-Trimethylbenzene	15.149		0m	N.D. d	
71)	sec-Butylbenzene	15.332		0m	N.D. d	
72)	4-Isopropyltoluene	15.454		0m	N.D. d	
73)	1,3-Dichlorobenzene	15.515		0m	N.D. d	
74)	1,4-Dichlorobenzene	15.601		0m	N.D. d	
75)	n-Butylbenzene	0.000		0	N.D.	
76)	1,2-Dichlorobenzene	16.021		0m	N.D. d	
77)	1,2-Dibromo-3-chloropr...	0.000		0	N.D.	
78)	1,2,4-Trichlorobenzene	17.905		0m	N.D. d	
79)	Hexachlorobutadiene	18.076		0m	N.D. d	
80)	Naphthalene	18.283		0m	N.D. d	
81)	1,2,3-Trichlorobenzene	18.624		0m	N.D. d	
83)	Chlorotrifluoroethylene	0.000		0	N.D.	
84)	2-Chloro-1,1,1-trifluo...	0.000		0	N.D.	
85)	Acrolein	6.535	56	283467	251.68 ug/L	97
86)	Trichlorotrifluoroethane	6.682	85	747418	259.14 ug/L	98
87)	Isopropyl Alcohol	0.000		0m	N.D. d	
88)	Allyl chloride	7.139	41	3189424	236.27 ug/L	98
89)	tert-Butyl Alcohol	0.000		0	N.D.	
90)	Acrylonitrile	7.547	53	663256	231.25 ug/L	100
91)	Isopropyl ether	0.000		0	N.D.	
92)	2-Chloro-1,3-butadiene	8.206	53	529176	46.06 ug/L	98
93)	Ethyl tert-butyl ether	0.000		0	N.D.	
94)	Ethyl acetate	8.706	43	1782319	217.52 ug/L	99

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\010410V6\
Data File : 6S108SL.D
Acq On : 4 Jan 2010 1:28 pm
Operator : RXD1
InstName : VOA6
Sample : |1202009753|938022|1|VOAF|1|VOA8260BS|
Misc : LCS 5g N/A SOIL MIX[B] 1216-08A
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jan 04 13:50:02 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
95)	Propionitrile	8.779	54	254765	228.58 ug/L	100
96)	Methacrylonitrile	8.949	41	1137817	232.11 ug/L	99
97)	Tetrahydrofuran	9.065	42	609225	234.07 ug/L	98
98)	Isobutyl alcohol	9.388	41	772998	2626.80 ug/L	99
99)	Methyl tert-amyl ether	9.730	73	1346	N.D.	
100)	Methyl methacrylate	10.589	69	1106150	236.02 ug/L	97
101)	1,4-Dioxane	10.705	88	174575	2410.71 ug/L	100
102)	2-Nitropropane	11.077	43	602179	253.89 ug/L	99
104)	Ethyl methacrylate	11.857	69	2063192	230.20 ug/L	98
106)	1-Chlorohexane	0.000		0	N.D.	
107)	cis-1,4-Dichloro-2-butene	14.205	53	763606	251.42 ug/L	99
108)	Cyclohexanone	14.320	42	267187	1075.31 ug/L	98
109)	trans-1,4-Dichloro-2-b...	14.491	53	728548	249.71 ug/L	98
110)	Pentachloroethane	15.180	167	1279723	296.60 ug/L	99
111)	Benzyl chloride	15.716	91	3708477	222.13 ug/L	99
112)	bis(2-Chloroisopropyl)...	16.113	45	1125074	229.66 ug/L	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\010410V6\
Data File : 6S108SL.D
Acq On : 4 Jan 2010 1:28 pm
Operator : RXD1
InstName : VOA6
Sample : |1202009753|938022|1|VOAF|1|VOA8260BS|
Misc : LCS 5g N/A SOIL MIX[B] 1216-08A
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jan 04 13:50:02 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

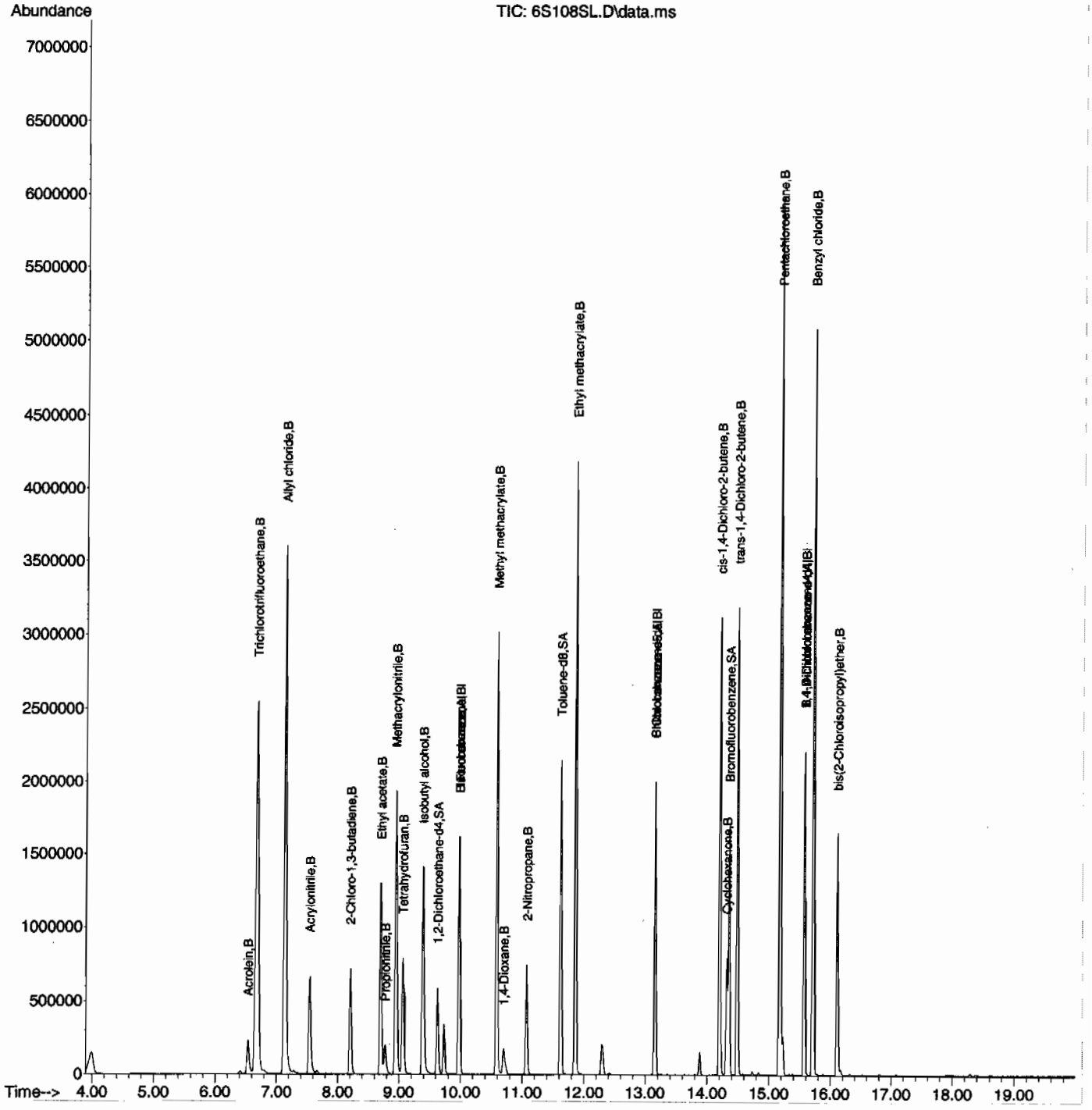

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1085**	**Date Collected:**	**12/22/2009 12:00**	**Matrix:**	**R**
Lab Sample ID:	**1202007246**	**Date Received:**	**12/24/2009 09:30**	**%Moisture:**	**7.2**
Client Sample:	**QC for batch 938021**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**WST03-10-2148PS**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**938022**	**Inst:**	**VOA6.I**	**Dilution:**	**1**
Run Date:	**01/04/2010 21:45**	**Analyst:**	**RXD1**	**Purge Vol:**	**5 mL**
Prep Date:	**01/04/2010 14:22**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**010410V6\6S126.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane		35.1	ug/kg	0.366	1.08
74-87-3	Chloromethane		37.9	ug/kg	0.323	1.08
75-01-4	Vinyl chloride		40.9	ug/kg	0.323	1.08
74-83-9	Bromomethane		43.6	ug/kg	0.323	1.08
75-00-3	Chloroethane		42.3	ug/kg	0.323	1.08
75-69-4	Trichlorofluoromethane		42.4	ug/kg	0.323	1.08
67-64-1	Acetone	BE	230	ug/kg	1.79	5.39
75-35-4	1,1-Dichloroethylene		43.1	ug/kg	0.323	1.08
74-88-4	Iodomethane		212	ug/kg	1.72	5.39
75-09-2	Methylene chloride		41.2	ug/kg	2.15	5.39
75-15-0	Carbon disulfide		226	ug/kg	1.35	5.39
156-60-5	trans-1,2-Dichloroethylene		43.9	ug/kg	0.323	1.08
75-34-3	1,1-Dichloroethane		43.6	ug/kg	0.323	1.08
78-93-3	2-Butanone		285	ug/kg	1.62	5.39
156-59-2	cis-1,2-Dichloroethylene		44.1	ug/kg	0.323	1.08
594-20-7	2,2-Dichloropropane		46.5	ug/kg	0.323	1.08
67-66-3	Chloroform		43.6	ug/kg	0.323	1.08
74-97-5	Bromochloromethane		44.4	ug/kg	0.356	1.08
71-55-6	1,1,1-Trichloroethane		45.5	ug/kg	0.323	1.08
563-58-6	1,1-Dichloropropene		44.5	ug/kg	0.323	1.08
56-23-5	Carbon tetrachloride		46.7	ug/kg	0.323	1.08
107-06-2	1,2-Dichloroethane		45.6	ug/kg	0.323	1.08
71-43-2	Benzene		42.4	ug/kg	0.323	1.08
79-01-6	Trichloroethylene		42.8	ug/kg	0.356	1.08
78-87-5	1,2-Dichloropropane		45.7	ug/kg	0.323	1.08
75-27-4	Bromodichloromethane		47.3	ug/kg	0.323	1.08
74-95-3	Dibromomethane		45.7	ug/kg	0.323	1.08
108-10-1	4-Methyl-2-pentanone		270	ug/kg	1.35	5.39
10061-01-5	cis-1,3-Dichloropropylene		43.7	ug/kg	0.323	1.08
108-88-3	Toluene		42.2	ug/kg	0.323	1.08
10061-02-6	trans-1,3-Dichloropropylene		45.1	ug/kg	0.323	1.08
79-00-5	1,1,2-Trichloroethane		45.7	ug/kg	0.323	1.08
591-78-6	2-Hexanone		246	ug/kg	1.62	5.39
142-28-9	1,3-Dichloropropane		45.7	ug/kg	0.323	1.08
127-18-4	Tetrachloroethylene		43.4	ug/kg	0.323	1.08
124-48-1	Dibromochloromethane		48.9	ug/kg	0.323	1.08
106-93-4	1,2-Dibromoethane		46.1	ug/kg	0.323	1.08
108-90-7	Chlorobenzene		44.6	ug/kg	0.323	1.08

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1085	**Date Collected:**	12/22/2009 12:00	**Matrix:**	R
Lab Sample ID:	1202007246	**Date Received:**	12/24/2009 09:30	**%Moisture:**	7.2
Client Sample:	QC for batch 938021	**Client:**	LANL010	**Project:**	QC
Client ID:	WST03-10-2148PS	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	938022	**Inst:**	VOA6.I	**Dilution:**	1
Run Date:	01/04/2010 21:45	**Analyst:**	RXD1	**Purge Vol:**	5 mL
Prep Date:	01/04/2010 14:22	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	010410V6\6S126.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene		44.8	ug/kg	0.323	1.08
179601-23-1	m,p-Xylenes		89.3	ug/kg	0.323	2.15
95-47-6	o-Xylene		45.4	ug/kg	0.323	1.08
100-42-5	Styrene		44.4	ug/kg	0.323	1.08
75-25-2	Bromoform		52.2	ug/kg	0.323	1.08
79-34-5	1,1,2,2-Tetrachloroethane		49.4	ug/kg	0.323	1.08
96-18-4	1,2,3-Trichloropropane		50.3	ug/kg	0.323	1.08
108-86-1	Bromobenzene		44.9	ug/kg	0.323	1.08
103-65-1	n-Propylbenzene		45.7	ug/kg	0.323	1.08
95-49-8	2-Chlorotoluene		46.2	ug/kg	0.323	1.08
98-82-8	Isopropylbenzene		46.5	ug/kg	0.323	1.08
108-67-8	1,3,5-Trimethylbenzene		47.0	ug/kg	0.323	1.08
106-43-4	4-Chlorotoluene		45.1	ug/kg	0.323	1.08
98-06-6	tert-Butylbenzene		47.3	ug/kg	0.323	1.08
95-63-6	1,2,4-Trimethylbenzene		44.6	ug/kg	0.323	1.08
135-98-8	sec-Butylbenzene		46.4	ug/kg	0.323	1.08
99-87-6	4-Isopropyltoluene		45.2	ug/kg	0.323	1.08
541-73-1	1,3-Dichlorobenzene		43.7	ug/kg	0.323	1.08
106-46-7	1,4-Dichlorobenzene		42.3	ug/kg	0.323	1.08
104-51-8	n-Butylbenzene		44.1	ug/kg	0.323	1.08
96-12-8	1,2-Dibromo-3-chloropropane		47.1	ug/kg	0.323	1.08
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.39	ug/kg	1.72	5.39
630-20-6	1,1,1,2-Tetrachloroethane		46.7	ug/kg	0.323	1.08
95-50-1	1,2-Dichlorobenzene		42.9	ug/kg	0.323	1.08

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\010410V6\
Data File : 6S126.D
Acq On : 4 Jan 2010 9:45 pm
Operator : RXD1
InstName : VOA6
Sample : |1202007246|938022|1|VOAF|1|VOA8260BS|
Misc : LANL 5g N/A MIX[A] MS 243549002
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Jan 05 09:06:03 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	9.974	96	697382	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.156	117	514087	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	15.570	152	277545	50.00	ug/L	0.00
82) B Fluorobenzene	9.974	96	697382	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.156	117	514087	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	15.570	152	277545	50.00	ug/L	0.00
System Monitoring Compounds						
29) 1,2-Dichloroethane-d4	9.626	65	202676	49.26	ug/L	0.00
Spiked Amount 50.000	Range 59 - 130		Recovery = 98.52%			
43) Toluene-d8	11.626	98	671729	47.13	ug/L	0.00
Spiked Amount 50.000	Range 76 - 129		Recovery = 94.26%			
61) Bromofluorobenzene	14.357	95	263826	49.33	ug/L	0.00
Spiked Amount 50.000	Range 71 - 126		Recovery = 98.66%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	4.350	85	101868	32.58	ug/L	100
3) Chloromethane	4.662	50	151048	35.13	ug/L	100
4) Vinyl chloride	4.894	62	143230	37.94	ug/L	99
5) Bromomethane	5.468	94	113812	40.42	ug/L	99
6) Chloroethane	5.609	64	110052	39.28	ug/L	99
7) Trichlorofluoromethane	5.992	101	217950	39.38	ug/L	99
8) Ethyl ether	6.328	59	146775	40.82	ug/L	98
9) Acetone	6.706	43	271228	213.78	ug/L	97 E
10) 1,1-Dichloroethylene	6.706	61	204398	40.04	ug/L	99
11) Iodomethane	6.950	142	1083986	197.07	ug/L	99
12) Acetonitrile	7.066	41	661861	1272.57	ug/L	98
13) Methyl acetate	7.090	43	893234	313.04	ug/L	100
14) Carbon disulfide	7.078	76	2146983	209.60	ug/L	99
15) Methylene chloride	7.285	84	153623	38.27	ug/L	98
16) tert-Butyl methyl ether	7.572	73	423726	41.78	ug/L	99
17) trans-1,2-Dichloroethy...	7.614	61	212498	40.79	ug/L	99
18) Vinyl acetate	8.059	43	793199	105.69	ug/L	92
19) 1,1-Dichloroethane	8.102	63	263588	40.43	ug/L	100
20) 2-Butanone	8.687	43	425252	264.91	ug/L	99
21) cis-1,2-Dichloroethylene	8.736	61	237294	40.89	ug/L	99
22) 2,2-Dichloropropane	8.761	77	202761	43.18	ug/L	95
23) Bromochloromethane	9.017	128	73713	41.24	ug/L	99
24) Chloroform	9.047	83	245592	40.46	ug/L	99
25) 1,1,1-Trichloroethane	9.321	97	215260	42.26	ug/L	98
26) Cyclohexane	9.407	56	279453	42.42	ug/L	99
27) 1,1-Dichloropropene	9.480	75	191377	41.28	ug/L	98
28) Carbon tetrachloride	9.510	117	195368	43.35	ug/L	99
30) 1,2-Dichloroethane	9.712	62	210501	42.30	ug/L	98
31) Benzene	9.724	78	559522	39.39	ug/L	99
32) Cyclohexene	9.834	67	281622	41.68	ug/L	99
33) n-Butyl alcohol	10.077	56	542249	4595.71	ug/L	100
34) Trichloroethylene	10.364	95	140977	39.76	ug/L	99
35) 1,2-Dichloropropane	10.614	63	159345	42.44	ug/L	99
36) Methylcyclohexane	10.602	83	262502	42.54	ug/L	99
37) Dibromomethane	10.748	93	84686	42.46	ug/L	98

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\010410V6\
Data File : 6S126.D
Acq On : 4 Jan 2010 9:45 pm
Operator : RXD1
InstName : VOA6
Sample : |1202007246|938022|1|VOAF|1|VOA8260BS|
Misc : LANL 5g N/A MIX[A] MS 243549002
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Jan 05 09:06:03 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
38)	Bromodichloromethane	10.864	83	184471	43.87 ug/L	100
39)	2-Chloroethylvinyl ether	11.089	63	447903	194.79 ug/L	99
40)	cis-1,3-Dichloropropylene	11.315	75	215378	40.59 ug/L	97
42)	4-Methyl-2-pentanone	11.406	58	338565	250.82 ug/L	96
44)	Toluene	11.699	91	600001	39.17 ug/L	100
45)	trans-1,3-Dichloroprop...	11.858	75	207261	41.85 ug/L	98
46)	1,1,2-Trichloroethane	12.083	83	106923	42.43 ug/L	99
47)	2-Hexanone	12.260	43	564789	228.20 ug/L	97
48)	1,3-Dichloropropane	12.272	76	227559	42.43 ug/L	100
49)	Tetrachloroethylene	12.290	164	124694	40.28 ug/L	99
50)	Dibromochloromethane	12.540	129	143930	45.36 ug/L	100
51)	1,2-Dibromoethane	12.705	107	130068	42.81 ug/L	98
52)	Chlorobenzene	13.187	112	410054	41.39 ug/L	100
53)	1,1,1,2-Tetrachloroethane	13.241	131	148587	43.33 ug/L	100
54)	Ethylbenzene	13.254	91	698400	41.58 ug/L	99
55)	m,p-Xylenes	13.357	106	556576	82.85 ug/L	97
56)	o-Xylene	13.796	106	277952	42.15 ug/L	98
57)	Styrene	13.802	104	433091	41.23 ug/L	99
59)	Bromoform	14.064	173	95123	48.48 ug/L	98
60)	Isopropylbenzene	14.156	105	730860	43.20 ug/L	99
62)	1,1,2,2-Tetrachloroethane	14.436	83	174038	45.89 ug/L	100
63)	1,2,3-Trichloropropane	14.528	110	49779	46.66 ug/L #	92
64)	Bromobenzene	14.564	156	181238	41.67 ug/L	98
65)	n-Propylbenzene	14.583	91	841234	42.44 ug/L	99
66)	1,3,5-Trimethylbenzene	14.735	105	632326	43.60 ug/L	98
67)	2-Chlorotoluene	14.735	126	180638	42.85 ug/L	95
68)	4-Chlorotoluene	14.833	91	511503	41.90 ug/L	98
69)	tert-Butylbenzene	15.107	134	141619	43.90 ug/L	99
70)	1,2,4-Trimethylbenzene	15.150	105	633080	41.43 ug/L	99
71)	sec-Butylbenzene	15.332	105	839856	43.07 ug/L	99
72)	4-Isopropyltoluene	15.454	119	668371	41.92 ug/L	99
73)	1,3-Dichlorobenzene	15.515	146	345147	40.60 ug/L	99
74)	1,4-Dichlorobenzene	15.601	146	342259	39.27 ug/L	99
75)	n-Butylbenzene	15.887	91	633494	40.94 ug/L	99
76)	1,2-Dichlorobenzene	16.021	146	328263	39.83 ug/L	99
77)	1,2-Dibromo-3-chloropr...	16.881	157	30204	43.67 ug/L	96
78)	1,2,4-Trichlorobenzene	17.911	180	202591	32.68 ug/L	100
79)	Hexachlorobutadiene	18.076	225	151286	38.44 ug/L	99
80)	Naphthalene	18.289	128	418448	33.59 ug/L	100
81)	1,2,3-Trichlorobenzene	18.618	180	168510	32.46 ug/L	99
83)	Chlorotrifluoroethylene	0.000		0	N.D.	
84)	2-Chloro-1,1,1-trifluo...	0.000		0	N.D.	
85)	Acrolein	0.000		0	N.D.	
86)	Trichlorotrifluoroethane	0.000		0	N.D.	
87)	Isopropyl Alcohol	6.706		0m	N.D. d	
88)	Allyl chloride	7.066		0m	N.D. d	
89)	tert-Butyl Alcohol	0.000		0	N.D.	
90)	Acrylonitrile	7.578		0m	N.D. d	
91)	Isopropyl ether	8.066		0m	N.D. d	
92)	2-Chloro-1,3-butadiene	8.212		0m	N.D. d	
93)	Ethyl tert-butyl ether	0.000		0	N.D.	
94)	Ethyl acetate	8.687		0m	N.D. d	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\010410V6\
Data File : 6S126.D
Acq On : 4 Jan 2010 9:45 pm
Operator : RXD1
InstName : VOA6
Sample : |1202007246|938022|1|VOAF|1|VOA8260BS|
Misc : LANL 5g N/A MIX[A] MS 243549002
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Jan 05 09:06:03 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
95)	Propionitrile	8.694		0m	N.D. d	
96)	Methacrylonitrile	0.000		0	N.D.	
97)	Tetrahydrofuran	9.047		0m	N.D. d	
98)	Isobutyl alcohol	9.407		0m	N.D. d	
99)	Methyl tert-amyl ether	9.730		0m	N.D. d	
100)	Methyl methacrylate	10.602		0m	N.D. d	
101)	1,4-Dioxane	0.000		0	N.D.	
102)	2-Nitropropane	11.089		0m	N.D. d	
104)	Ethyl methacrylate	0.000		0	N.D.	
106)	1-Chlorohexane	0.000		0	N.D.	
107)	cis-1,4-Dichloro-2-butene	14.156		0m	N.D. d	
108)	Cyclohexanone	0.000		0	N.D.	
109)	trans-1,4-Dichloro-2-b...	0.000		0	N.D.	
110)	Pentachloroethane	15.168		0m	N.D. d	
111)	Benzyl chloride	15.717		0m	N.D. d	
112)	bis(2-Chloroisopropyl)...	16.168		0m	N.D. d	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\010410V6\
Data File : 6S126.D
Acq On : 4 Jan 2010 9:45 pm
Operator : RXD1
InstName : VOA6
Sample : |1202007246|938022|1|VOAF|1|VOA8260BS|
Misc : LANL 5g N/A MIX[A] MS 243549002
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Jan 05 09:06:03 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

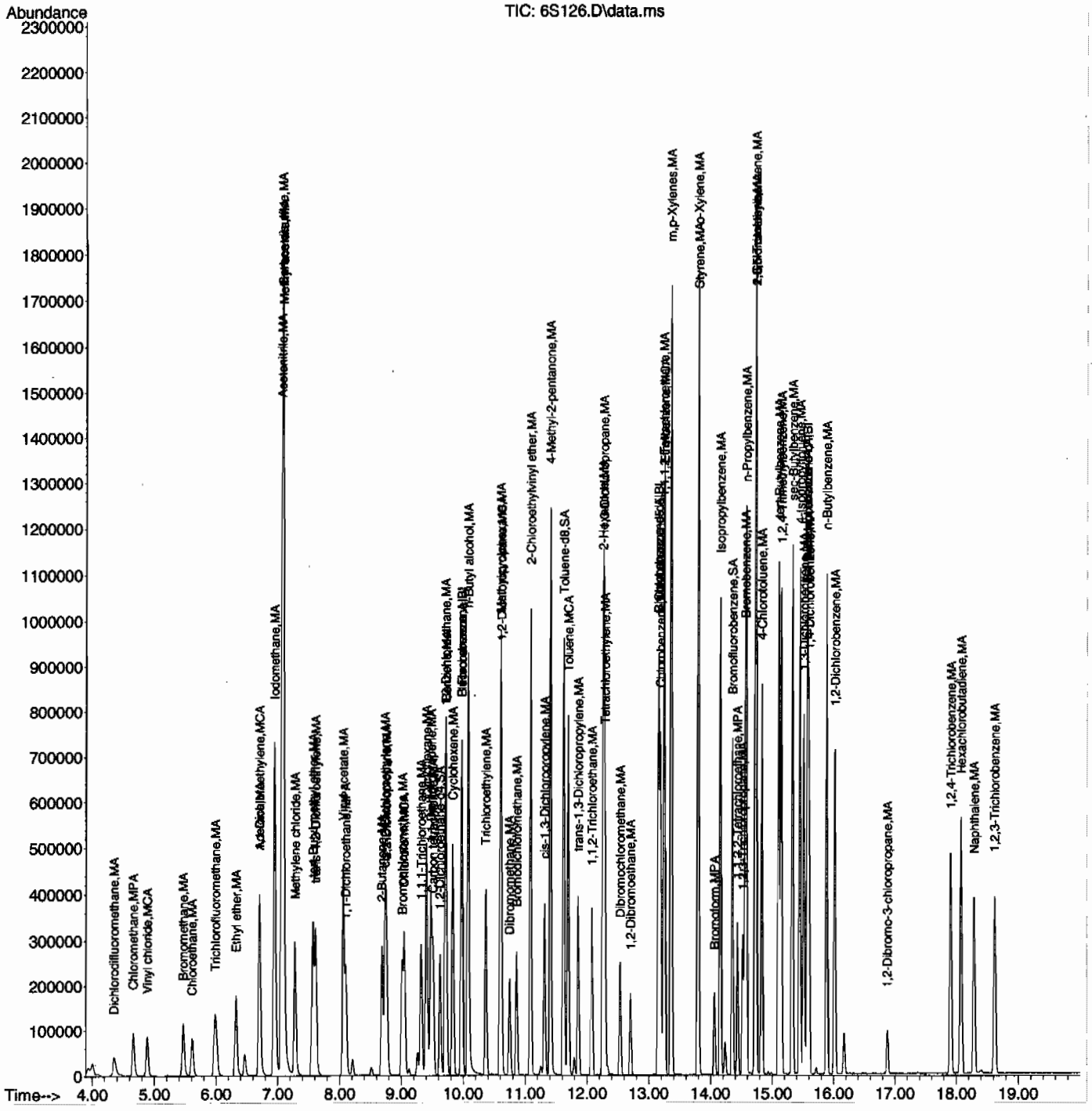

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1085	**Date Collected:**	12/22/2009 12:00	**Matrix:**	R
Lab Sample ID:	1202007247	**Date Received:**	12/24/2009 09:30	**%Moisture:**	7.2
Client Sample:	QC for batch 938021	**Client:**	LANL010	**Project:**	QC
Client ID:	WST03-10-2148PSD	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	938022	**Inst:**	VOA6.I	**Dilution:**	1
Run Date:	01/04/2010 22:13	**Analyst:**	RXD1	**Purge Vol:**	5 mL
Prep Date:	01/04/2010 14:24	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	010410V6\6S127.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane		44.8	ug/kg	0.366	1.08
74-87-3	Chloromethane		49.5	ug/kg	0.323	1.08
75-01-4	Vinyl chloride		54.4	ug/kg	0.323	1.08
74-83-9	Bromomethane		53.9	ug/kg	0.323	1.08
75-00-3	Chloroethane		54.9	ug/kg	0.323	1.08
75-69-4	Trichlorofluoromethane		52.9	ug/kg	0.323	1.08
67-64-1	Acetone	BE	222	ug/kg	1.79	5.39
75-35-4	1,1-Dichloroethylene		53.7	ug/kg	0.323	1.08
74-88-4	Iodomethane		255	ug/kg	1.72	5.39
75-09-2	Methylene chloride		47.0	ug/kg	2.15	5.39
75-15-0	Carbon disulfide		284	ug/kg	1.35	5.39
156-60-5	trans-1,2-Dichloroethylene		53.4	ug/kg	0.323	1.08
75-34-3	1,1-Dichloroethane		52.4	ug/kg	0.323	1.08
78-93-3	2-Butanone		279	ug/kg	1.62	5.39
156-59-2	cis-1,2-Dichloroethylene		52.4	ug/kg	0.323	1.08
594-20-7	2,2-Dichloropropane		57.0	ug/kg	0.323	1.08
67-66-3	Chloroform		51.3	ug/kg	0.323	1.08
74-97-5	Bromochloromethane		50.0	ug/kg	0.356	1.08
71-55-6	1,1,1-Trichloroethane		57.0	ug/kg	0.323	1.08
563-58-6	1,1-Dichloropropene		55.3	ug/kg	0.323	1.08
56-23-5	Carbon tetrachloride		58.2	ug/kg	0.323	1.08
107-06-2	1,2-Dichloroethane		49.6	ug/kg	0.323	1.08
71-43-2	Benzene		50.4	ug/kg	0.323	1.08
79-01-6	Trichloroethylene		51.8	ug/kg	0.356	1.08
78-87-5	1,2-Dichloropropane		51.5	ug/kg	0.323	1.08
75-27-4	Bromodichloromethane		53.4	ug/kg	0.323	1.08
74-95-3	Dibromomethane		49.8	ug/kg	0.323	1.08
108-10-1	4-Methyl-2-pentanone		269	ug/kg	1.35	5.39
10061-01-5	cis-1,3-Dichloropropylene		49.8	ug/kg	0.323	1.08
108-88-3	Toluene		50.1	ug/kg	0.323	1.08
10061-02-6	trans-1,3-Dichloropropylene		50.6	ug/kg	0.323	1.08
79-00-5	1,1,2-Trichloroethane		49.4	ug/kg	0.323	1.08
591-78-6	2-Hexanone		226	ug/kg	1.62	5.39
142-28-9	1,3-Dichloropropane		48.6	ug/kg	0.323	1.08
127-18-4	Tetrachloroethylene		51.6	ug/kg	0.323	1.08
124-48-1	Dibromochloromethane		54.2	ug/kg	0.323	1.08
106-93-4	1,2-Dibromoethane		49.6	ug/kg	0.323	1.08
108-90-7	Chlorobenzene		50.8	ug/kg	0.323	1.08

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1085	**Date Collected:**	12/22/2009 12:00	**Matrix:**	R
Lab Sample ID:	1202007247	**Date Received:**	12/24/2009 09:30	**%Moisture:**	7.2
Client Sample:	QC for batch 938021	**Client:**	LANL010	**Project:**	QC
Client ID:	WST03-10-2148PSD	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	938022	**Inst:**	VOA6.I	**Dilution:**	1
Run Date:	01/04/2010 22:13	**Analyst:**	RXD1	**Purge Vol:**	5 mL
Prep Date:	01/04/2010 14:24	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	010410V6\6S127.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene		51.7	ug/kg	0.323	1.08
179601-23-1	m,p-Xylenes		104	ug/kg	0.323	2.15
95-47-6	o-Xylene		52.1	ug/kg	0.323	1.08
100-42-5	Styrene		51.1	ug/kg	0.323	1.08
75-25-2	Bromoform		58.2	ug/kg	0.323	1.08
79-34-5	1,1,2,2-Tetrachloroethane		52.8	ug/kg	0.323	1.08
96-18-4	1,2,3-Trichloropropane		51.8	ug/kg	0.323	1.08
108-86-1	Bromobenzene		49.7	ug/kg	0.323	1.08
103-65-1	n-Propylbenzene		52.1	ug/kg	0.323	1.08
95-49-8	2-Chlorotoluene		53.1	ug/kg	0.323	1.08
98-82-8	Isopropylbenzene		54.2	ug/kg	0.323	1.08
108-67-8	1,3,5-Trimethylbenzene		53.8	ug/kg	0.323	1.08
106-43-4	4-Chlorotoluene		51.0	ug/kg	0.323	1.08
98-06-6	tert-Butylbenzene		54.6	ug/kg	0.323	1.08
95-63-6	1,2,4-Trimethylbenzene		50.7	ug/kg	0.323	1.08
135-98-8	sec-Butylbenzene		52.9	ug/kg	0.323	1.08
99-87-6	4-Isopropyltoluene		51.6	ug/kg	0.323	1.08
541-73-1	1,3-Dichlorobenzene		48.5	ug/kg	0.323	1.08
106-46-7	1,4-Dichlorobenzene		47.1	ug/kg	0.323	1.08
104-51-8	n-Butylbenzene		50.3	ug/kg	0.323	1.08
96-12-8	1,2-Dibromo-3-chloropropane	E	54.3	ug/kg	0.323	1.08
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.39	ug/kg	1.72	5.39
630-20-6	1,1,1,2-Tetrachloroethane		53.6	ug/kg	0.323	1.08
95-50-1	1,2-Dichlorobenzene		47.9	ug/kg	0.323	1.08

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\010410V6\
Data File : 6S127.D
Acq On : 4 Jan 2010 10:13 pm
Operator : RXD1
InstName : VOA6
Sample : |1202007247|938022|1|VOAF|1|VOA8260BS|
Misc : LANL 5g N/A MIX[A] MSD 243549002
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Jan 05 09:06:06 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	9.974	96	984125	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.156	117	711691	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	15.576	152	383042	50.00	ug/L	0.00
82) B Fluorobenzene	9.974	96	983691	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.156	117	711691	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	15.576	152	383042	50.00	ug/L	0.00
System Monitoring Compounds						
29) 1,2-Dichloroethane-d4	9.626	65	284391	48.98	ug/L	0.00
Spiked Amount 50.000	Range 59 - 130		Recovery = 97.96%			
43) Toluene-d8	11.626	98	964677	48.89	ug/L	0.00
Spiked Amount 50.000	Range 76 - 129		Recovery = 97.78%			
61) Bromofluorobenzene	14.357	95	368546	49.93	ug/L	0.00
Spiked Amount 50.000	Range 71 - 126		Recovery = 99.86%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	4.360	85	183557	41.61	ug/L	99
3) Chloromethane	4.662	50	278883	45.96	ug/L	100
4) Vinyl chloride	4.904	62	269049	50.51	ug/L	100
5) Bromomethane	5.468	94	198581	49.98	ug/L	99
6) Chloroethane	5.609	64	201425	50.94	ug/L	99
7) Trichlorofluoromethane	5.992	101	383746	49.14	ug/L	100
8) Ethyl ether	6.328	59	220470	43.45	ug/L	99
9) Acetone	6.706	43	368565	205.86	ug/L	98 E
10) 1,1-Dichloroethylene	6.706	61	359202	49.87	ug/L	99
11) Iodomethane	6.950	142	1837887	236.78	ug/L	99
12) Acetonitrile	7.066	41	911972	1242.56	ug/L	99
13) Methyl acetate	7.090	43	1302867	323.56	ug/L	99
14) Carbon disulfide	7.078	76	3813200	263.80	ug/L	100
15) Methylene chloride	7.279	84	246983	43.60	ug/L	97
16) tert-Butyl methyl ether	7.572	73	634968	44.37	ug/L	99
17) trans-1,2-Dichloroethy...	7.614	61	364449	49.57	ug/L	99
18) Vinyl acetate	8.060	43	985603	93.07	ug/L	92
19) 1,1-Dichloroethane	8.102	63	447670	48.66	ug/L	100
20) 2-Butanone	8.694	43	586862	259.06	ug/L	99
21) cis-1,2-Dichloroethylene	8.742	61	398088	48.61	ug/L	97
22) 2,2-Dichloropropane	8.767	77	350617	52.91	ug/L	96
23) Bromochloromethane	9.017	128	117091	46.42	ug/L	99
24) Chloroform	9.053	83	408090	47.64	ug/L	99
25) 1,1,1-Trichloroethane	9.321	97	380479	52.93	ug/L	100
26) Cyclohexane	9.413	56	495411	53.30	ug/L	99
27) 1,1-Dichloropropene	9.480	75	336013	51.36	ug/L	98
28) Carbon tetrachloride	9.510	117	343415	54.00	ug/L	99
30) 1,2-Dichloroethane	9.706	62	323509	46.07	ug/L	99
31) Benzene	9.724	78	937506	46.76	ug/L	99
32) Cyclohexene	9.834	67	495630	51.97	ug/L	100
33) n-Butyl alcohol	10.077	56	753463	4526.01	ug/L	100
34) Trichloroethylene	10.364	95	240629	48.09	ug/L	99
35) 1,2-Dichloropropane	10.614	63	253480	47.84	ug/L	100
36) Methylcyclohexane	10.602	83	450379	51.72	ug/L	99
37) Dibromomethane	10.748	93	130012	46.19	ug/L	100

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\010410V6\
Data File : 6S127.D
Acq On : 4 Jan 2010 10:13 pm
Operator : RXD1
InstName : VOA6
Sample : |1202007247|938022|1|VOAF|1|VOA8260BS|
Misc : LANL 5g N/A MIX[A] MSD 243549002
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Jan 05 09:06:06 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)	
38)	Bromodichloromethane	10.864	83	294341	49.60	ug/L		100	
39)	2-Chloroethylvinyl ether	11.089	63	668114	205.90	ug/L		98	
40)	cis-1,3-Dichloropropylene	11.315	75	345793	46.18	ug/L		98	
42)	4-Methyl-2-pentanone	11.406	58	466951	249.89	ug/L		96	
44)	Toluene	11.699	91	987043	46.54	ug/L		100	
45)	trans-1,3-Dichloroprop...	11.858	75	321930	46.95	ug/L		98	
46)	1,1,2-Trichloroethane	12.077	83	159861	45.83	ug/L		99	
47)	2-Hexanone	12.260	43	717211	209.32	ug/L		97	
48)	1,3-Dichloropropane	12.272	76	334733	45.09	ug/L		95	
49)	Tetrachloroethylene	12.290	164	205259	47.90	ug/L		99	
50)	Dibromochloromethane	12.540	129	220789	50.26	ug/L		99	
51)	1,2-Dibromoethane	12.705	107	193457	45.99	ug/L		99	
52)	Chlorobenzene	13.187	112	646638	47.15	ug/L		100	
53)	1,1,1,2-Tetrachloroethane	13.241	131	236295	49.77	ug/L		99	
54)	Ethylbenzene	13.254	91	1116320	48.01	ug/L		99	
55)	m,p-Xylenes	13.363	106	895367	96.28	ug/L		98	
56)	o-Xylene	13.796	106	441162	48.33	ug/L		98	
57)	Styrene	13.802	104	689714	47.43	ug/L		98	
59)	Bromoform	14.058	173	146179	53.98	ug/L		99	
60)	Isopropylbenzene	14.156	105	1174066	50.29	ug/L		100	
62)	1,1,2,2-Tetrachloroethane	14.436	83	256393	48.98	ug/L		100	
63)	1,2,3-Trichloropropane	14.528	110	70801	48.09	ug/L		97	
64)	Bromobenzene	14.564	156	276683	46.09	ug/L		98	
65)	n-Propylbenzene	14.583	91	1323262	48.37	ug/L		99	
66)	1,3,5-Trimethylbenzene	14.735	105	998905	49.91	ug/L		99	
67)	2-Chlorotoluene	14.729	126	286721	49.29	ug/L		97	
68)	4-Chlorotoluene	14.833	91	797151	47.32	ug/L		99	
69)	tert-Butylbenzene	15.107	134	225501	50.64	ug/L	#	91	
70)	1,2,4-Trimethylbenzene	15.150	105	991866	47.03	ug/L		99	
71)	sec-Butylbenzene	15.333	105	1321098	49.09	ug/L		99	
72)	4-Isopropyltoluene	15.454	119	1053257	47.86	ug/L		99	
73)	1,3-Dichlorobenzene	15.515	146	527701	44.98	ug/L		99	
74)	1,4-Dichlorobenzene	15.601	146	526082	43.73	ug/L		99	
75)	n-Butylbenzene	15.887	91	997778	46.72	ug/L		99	
76)	1,2-Dichlorobenzene	16.021	146	505849	44.47	ug/L		99	
77)	1,2-Dibromo-3-chloropr...	16.881	157	48138	50.43	ug/L		98	E
78)	1,2,4-Trichlorobenzene	17.911	180	318520	37.23	ug/L		100	
79)	Hexachlorobutadiene	18.076	225	227638	41.91	ug/L		99	
80)	Naphthalene	18.283	128	684425	39.81	ug/L		100	
81)	1,2,3-Trichlorobenzene	18.618	180	281449	39.29	ug/L		100	
83)	Chlorotrifluoroethylene	0.000		0	N.D.				
84)	2-Chloro-1,1,1-trifluo...	0.000		0	N.D.				
85)	Acrolein	0.000		0	N.D.				
86)	Trichlorotrifluoroethane	0.000		0	N.D.				
87)	Isopropyl Alcohol	6.706		0m	N.D.	d			
88)	Allyl chloride	7.066		0m	N.D.	d			
89)	tert-Butyl Alcohol	7.273		0m	N.D.	d			
90)	Acrylonitrile	7.566		0m	N.D.	d			
91)	Isopropyl ether	8.060		0m	N.D.	d			
92)	2-Chloro-1,3-butadiene	8.218		0m	N.D.	d			
93)	Ethyl tert-butyl ether	0.000		0	N.D.				
94)	Ethyl acetate	8.694		0m	N.D.	d			

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\010410V6\
Data File : 6S127.D
Acq On : 4 Jan 2010 10:13 pm
Operator : RXD1
InstName : VOA6
Sample : |1202007247|938022|1|VOAF|1|VOA8260BS|
Misc : LANL 5g N/A MIX[A] MSD 243549002
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Jan 05 09:06:06 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
95)	Propionitrile	8.687		0m	N.D.	d	
96)	Methacrylonitrile	8.937		0m	N.D.	d	
97)	Tetrahydrofuran	9.059		0m	N.D.	d	
98)	Isobutyl alcohol	9.407		0m	N.D.	d	
99)	Methyl tert-amyl ether	9.724		0m	N.D.	d	
100)	Methyl methacrylate	10.602		0m	N.D.	d	
101)	1,4-Dioxane	10.748		0m	N.D.	d	
102)	2-Nitropropane	11.089		0m	N.D.	d	
104)	Ethyl methacrylate	0.000		0	N.D.		
106)	1-Chlorohexane	0.000		0	N.D.		
107)	cis-1,4-Dichloro-2-butene	14.156		0m	N.D.	d	
108)	Cyclohexanone	0.000		0	N.D.		
109)	trans-1,4-Dichloro-2-b...	14.577		0m	N.D.	d	
110)	Pentachloroethane	15.174		0m	N.D.	d	
111)	Benzyl chloride	15.717		0m	N.D.	d	
112)	bis(2-Chloroisopropyl)...	16.162		0m	N.D.	d	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\010410V6\
Data File : 6S127.D
Acq On : 4 Jan 2010 10:13 pm
Operator : RXD1
InstName : VOA6
Sample : |1202007247|938022|1|VOAF|1|VOA8260BS|
Misc : LANL 5g N/A MIX[A] MSD 243549002
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Jan 05 09:06:06 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-121009.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 14 12:44:52 2009
Response via : Initial Calibration
Integrator: RTE

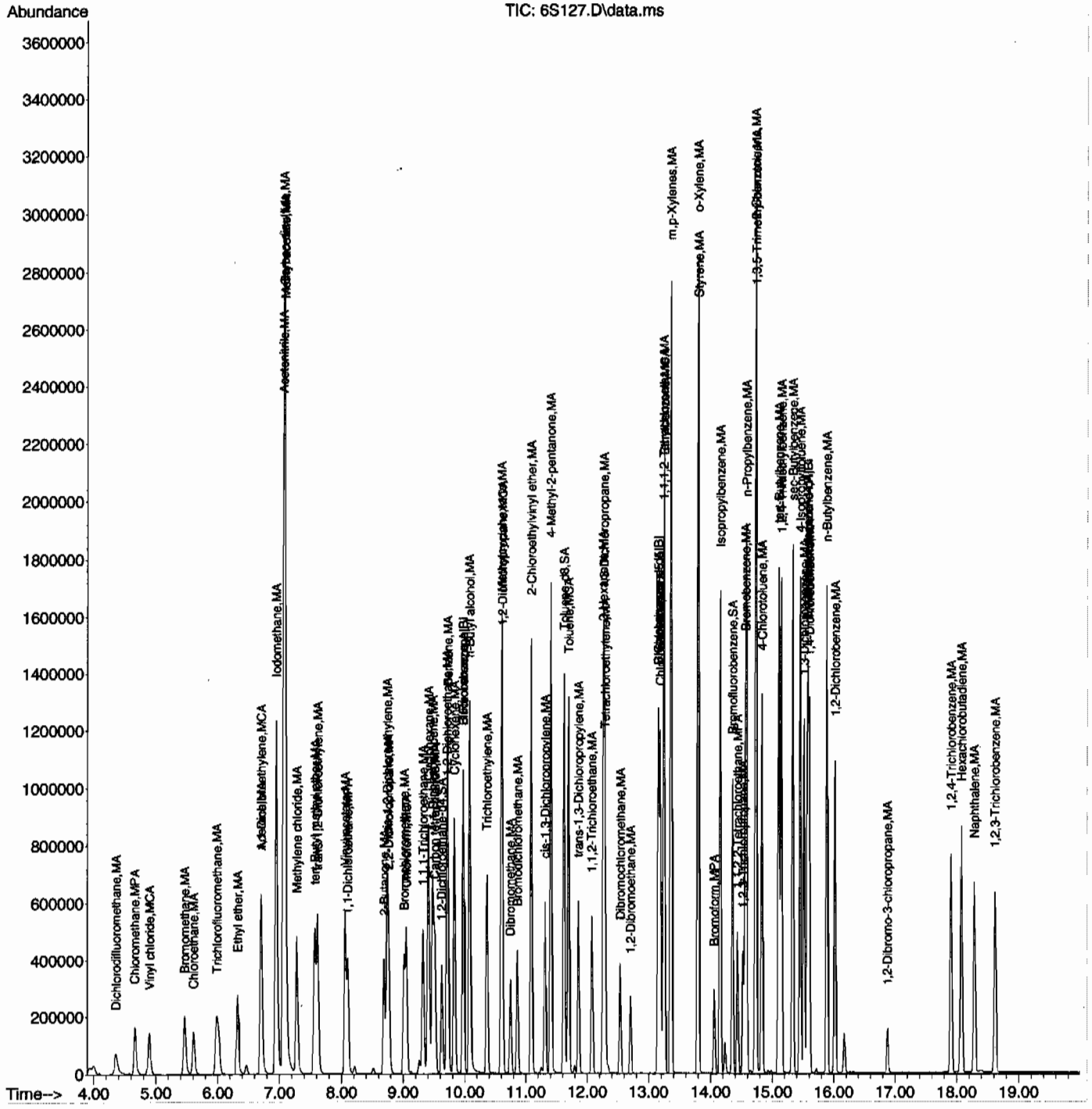

Miscellaneous

Prep Logbook

Volatile Organic Compounds (VOC) by Gas Chromatograph/Mass Spectrometer

Batch ID: **938021** Verified by: _____

Analyst: Ryan Dushak
Method: SW846 5030
Lab SOP: GL-OA-E-038 REV# 13
Instrument: Sartorius Balance B-001

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units

Sample ID	Run Date	Matrix	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check 1
1202009752 LCS	04-JAN-2010 09:48:00	Soil	5	5	1	
1202009753 LCS	04-JAN-2010 09:49:00	Soil	5	5	1	
1202009751 MB	04-JAN-2010 09:51:00	Soil	5	5	1	
1202007246 PS (243549002)	04-JAN-2010 14:22:00	Soil	5	5	1	
1202007247 PSD (243549002)	04-JAN-2010 14:24:00	Soil	5	5	1	
243596005	04-JAN-2010 14:26:00	Soil	5	5	1	
243555004	04-JAN-2010 14:28:00	Soil	5	5	1	
1202007248 LCS	31-DEC-2009 09:31:00	Soil	5	5	1	
1202007249 LCS	31-DEC-2009 09:32:00	Soil	5	5	1	
1202007245 MB	31-DEC-2009 09:34:00	Soil	5	5	1	
243549001	31-DEC-2009 13:40:00	Soil	5	5	1	
243549002	31-DEC-2009 13:42:00	Soil	5	5	1	
243555003	31-DEC-2009 13:48:00	Soil	5	5	1	
243596001	31-DEC-2009 13:50:00	Soil	5	5	1	
243596002	31-DEC-2009 13:52:00	Soil	5	5	1	
243596003	31-DEC-2009 13:54:00	Soil	5	5	1	
243596004	31-DEC-2009 13:56:00	Soil	5	5	1	
243596006	31-DEC-2009 14:00:00	Soil	5	5	1	

Reagent/Solvent Lot ID	Description	Amount

Comments:

GEL Laboratories, LLC
Revision:11/22/04

ORGANIC RUN LOG - INSTRUMENT ID#VOA6

Date: 12/10/2009 Method 8260B/624 Operator: RXD1

REVIEWED BY:
DATE:

HARDWARE CONFIGURATION & METHOD CONDITIONS SUMMARY No# 4

Daily Instrument Readings:
Multiplier Voltage: 1624

CALIBRATION & CC INFORMATION:

Initial Calibration Date: 12/10/2009

(See pg. for ICAL Std. Sci. Ids)

NaHSO4 lot # n/a
Cl test lot # 72612
Sequence Number: 121009V6

Daily Standard	Solution ID#	Volume Added for Purge (ul) Blk/ Smpl	CCV	MS/ LCS	BFB
L-ICV	W6VM091210-11		5+5		
IS	UVM091203-01	1	1		
SS	UVM091020-02	1	1		
S-ICV	W6VM091210-20		5+5		
BFB	UVM091020-02				1
N/A					
N/A					

Purge Amount	
5	Water Purge Vol:ML
N/A	Soil Purge Wt.:G
N/A	Mid level ext. MeOH Vol:
N/A	ul
N/A	Methanol Lot #
x	Heated Purge

Analysis Date	Time	Data File	Lab Sample ID	Client	Batch #	Wt.(g) or Vol(ml/ul)	Dil. Factor	pH	AS Slot #	Matrix w or s	Analyst	Cl test (Y/N)	Acceptable (O/X)	Comments
12/10/2009	8:31	6O401.D	12019--	BLANK	BLANK	5mL	1	N/A	1	w	RXD1	N/A	X	RINSE
12/10/2009	8:59	6O402.D	W6VM091210-00	GEL	CCV	5mL	1	N/A	2	w	RXD1	N/A	X	MIX[A] UVM091129-01C+IVM091209-01
12/10/2009	9:26	6O403.D	12019--	BLANK	BLANK	5mL	1	N/A	3	w	RXD1	N/A	X	RINSE
12/10/2009	10:12	6O404.D	UVM091020-02	GEL	BFB	5mL	1	N/A	4	w	RXD1	N/A	O	BFB
12/10/2009	10:39	6O405.D	W6VM091210-01	VSTD001	ICAL	5uL	1	N/A	5	w	RXD1	N/A	X	MIX[A] UVM090911-02C+UVM091130-02B, see 6O415
12/10/2009	11:07	6O406.D	W6VM091210-02	VSTD001	ICAL	5uL	1	N/A	6	w	RXD1	N/A	X	MIX[A] UVM090911-02C+UVM091130-02B, see 6O415
12/10/2009	11:34	6O407.D	W6VM091210-03	VSTD002	ICAL	5uL	1	N/A	7	w	RXD1	N/A	O	MIX[A] UVM090911-03C+UVM091130-03B
12/10/2009	12:02	6O408.D	W6VM091210-04	VSTD005	ICAL	5uL	1	N/A	8	w	RXD1	N/A	O	MIX[A] UVM090911-04C+UVM091130-04B
12/10/2009	12:30	6O409.D	W6VM091210-05	VSTD010	ICAL	5uL	1	N/A	9	w	RXD1	N/A	O	MIX[A] UVM090911-05C+UVM091130-05B
12/10/2009	12:58	6O410.D	W6VM091210-06	VSTD020	ICAL	5uL	1	N/A	10	w	RXD1	N/A	O	MIX[A] UVM090911-06C+UVM091130-06B
12/10/2009	13:26	6O411.D	W6VM091210-07	VSTD050	ICAL	5uL	1	N/A	11	w	RXD1	N/A	O	MIX[A] UVM090911-07C+UVM091130-07B
12/10/2009	13:54	6O412.D	W6VM091210-08	VSTD100	ICAL	5uL	1	N/A	12	w	RXD1	N/A	O	MIX[A] UVM090911-08C+UVM091130-08B
12/10/2009	14:22	6O413.D	12019--	BLANK	BLANK	5mL	1	N/A	13	w	RXD1	N/A	X	RINSE
12/10/2009	14:49	6O414.D	W6VM091210-09	VSTD0005	ICAL	5uL	1	N/A	14	w	RXD1	N/A	O	MIX[A] UVM090911-01C+UVM091130-01B
12/10/2009	15:17	6O415.D	W6VM091210-10	VSTD001	ICAL	2.5uL	1	N/A	15	w	RXD1	N/A	O	MIX[A] UVM090911-03C+UVM091130-03B
12/10/2009	15:45	6O416.D	W6VM091210-11	ICV	ICV	5uL	1	N/A	16	w	RXD1	N/A	O	MIX[A] UVM091129-01C+IVM091209-01
12/10/2009	16:13	6O417.D	W6VM091210-12	ICV	ICV	5uL	1	N/A	17	w	RXD1	N/A	X	MIX[A] UVM091105-01D+IVM091209-01
12/10/2009	16:40	6O418.D	W6VM091210-13	VSTD005S	ICAL	5uL	1	N/A	18	w	RXD1	N/A	O	MIX[B] UVM091118-01+UVM091110-01B
12/10/2009	17:08	6O419.D	W6VM091210-14	VSTD010S	ICAL	5uL	1	N/A	19	w	RXD1	N/A	O	MIX[B] UVM091118-02+UVM091110-02B
12/10/2009	17:36	6O420.D	W6VM091210-15	VSTD025S	ICAL	5uL	1	N/A	20	w	RXD1	N/A	O	MIX[B] UVM091118-03+UVM091110-03B
12/10/2009	18:04	6O421.D	W6VM091210-16	VSTD050S	ICAL	5uL	1	N/A	21	w	RXD1	N/A	O	MIX[B] UVM091118-04+UVM091110-04B
12/10/2009	18:32	6O422.D	W6VM091210-17	VSTD100S	ICAL	5uL	1	N/A	22	w	RXD1	N/A	O	MIX[B] UVM091118-05+UVM091110-05B
12/10/2009	19:00	6O423.D	W6VM091210-18	VSTD250S	ICAL	5uL	1	N/A	23	w	RXD1	N/A	O	MIX[B] UVM091118-06+UVM091110-06B
12/10/2009	19:28	6O424.D	W6VM091210-19	VSTD500S	ICAL	5uL	1	N/A	24	w	RXD1	N/A	O	MIX[B] UVM091118-07+UVM091110-07B
12/10/2009	19:56	6O425.D	12019--	BLANK	BLANK	5mL	1	N/A	25	w	RXD1	N/A	X	RINSE
12/10/2009	20:23	6O426.D	W6VM091210-20	ICV	ICV	5uL	1	N/A	26	w	RXD1	N/A	O	MIX[B] UVM091118-08B+UVM091105-02D
12/10/2009	20:51	6O427.D	12019--	BLANK	BLANK	5mL	1	N/A	27	w	RXD1	N/A	X	RINSE

GEL Laboratories, LLC
Revision:11/22/04

ORGANIC RUN LOG - INSTRUMENT ID#VOA6

Date: 12/31/2009 Method 8260B/624 Operator: RXD1

REVIEWED BY: ew
DATE: 01/18/10

HARDWARE CONFIGURATION & METHOD CONDITIONS SUMMARY No# 4

Daily Instrument Readings:
Multiplier Voltage: 1682

CALIBRATION & CC INFORMATION:

Initial Calibration Date: 12/10/2009

(See pg. 234 for ICAL Std. Sol. Ids)

NaHSO4 lot # n/a
Cl test lot # 72612
Sequence Number: 123109V6

Daily Standard	Solution ID#	Volume Added for Purge (ul) Blk/ Smpl	CCV	MS/ LCS	BFB
CCV	W6VM091231-01		5+5		
IS	UVM091216-09	1	1	1	
SS	UVM091117-02	1	1	1	
LCS/MS	W6VM091231-01/02			5+5	
BFB	UVM091020-02				1
SHORT	W6VM091231-03		5	5	
DHEC	N/A		0		

Purge Amount	
5	Water Purge Vol:ML
5	Soil Purge Wt.:G
N/A	Mid level ext. MeOH Vol:
N/A	ul
N/A	Methanol Lot #
x	Heated Purge

KP 01/18/10

Analysis Date Time	Data File	Lab Sample ID	Client	Batch #	Wt.(g) or Vol(ml/ul)	Dil. Factor	pH	AS Slot #	Matrix w or s	Analyst	Cl test (Y/N)	Acceptable (O/X)	Comments
12/31/2009 10:38	6R401.D	UVM091020-02	GEL	BFB	5mL	1	N/A	1	w	RXD1	N/A	O	BFB
12/31/2009 11:05	6R402.D	W6VM091231-01	GEL	CCV/LCS	5mL	1	N/A	2	w	RXD1	N/A	O	MIX[A] UVM091214-01D+IVM091230-01
12/31/2009 11:33	6R403.D	W6VM091231-02	GEL	LCS	5g	1	N/A	3	s	RXD1	N/A	O	SOIL MIX[A] UVM091214-01D+IVM091230-01
12/31/2009 12:01	6R404.D	W6VM091231-03	GEL	CCV	5mL	1	N/A	4	w	RXD1	N/A	O	MIX[B] UVM091216-08A
12/31/2009 12:28	6R405.D	W6VM091231-04	GEL	LCS	5g	1	N/A	5	s	RXD1	N/A	O	SOIL MIX[B] UVM091216-08A
12/31/2009 12:56	6R406.D	12020--	BLANK	BLANK	5g	1	N/A	6	s	RXD1	N/A	O	SOIL
12/31/2009 13:25	6R407.D	12020--	BLANK	BLANK	5mL	1	N/A	7	w	RXD1	N/A	O	
12/31/2009 13:52	6R408.D	242497022	QCQA	938002	5mL	1	pH2	8	w	RXD1	N	O	target analyte hit, see 010410V6
12/31/2009 14:20	6R409.D	242497023	QCQA	938002	5mL	1	pH2	9	w	RXD1	N	O	target analyte hit, see 010410V6
12/31/2009 14:48	6R410.D	242497024	QCQA	938002	5mL	1	pH5	10	w	RXD1	N	O	
12/31/2009 15:15	6R411.D	242497025	QCQA	938002	5mL	1	pH5	11	w	RXD1	N	O	
12/31/2009 15:43	6R412.D	242497026	QCQA	938002	5mL	1	pH2	12	w	RXD1	N	O	target analyte hit, see 010410V6
12/31/2009 16:11	6R413.D	242497027	QCQA	938002	5mL	1	pH2	13	w	RXD1	N	O	target analyte hit, see 010410V6
12/31/2009 16:39	6R414.D	242497028	QCQA	938002	5mL	1	pH2	14	w	RXD1	N	O	target analyte hit, see 010410V6
12/31/2009 17:07	6R415.D	243549001	LANL	938022	5g	1	N/A	15	s	RXD1	N/A	O	
12/31/2009 17:35	6R416.D	243549002	LANL	938022	5g	1	N/A	16	s	RXD1	N/A	o ✗	IS low, see 010410V6; report this run ew 01/18/10
12/31/2009 18:02	6R417.D	243555003	LANL	938022	5g	1	N/A	17	s	RXD1	N/A	O	
12/31/2009 18:30	6R418.D	243596001	LANL	938022	5g	1	N/A	18	s	RXD1	N/A	O	
12/31/2009 18:58	6R419.D	243596002	LANL	938022	5g	1	N/A	19	s	RXD1	N/A	O	
12/31/2009 19:26	6R420.D	243596003	LANL	938022	5g	1	N/A	20	s	RXD1	N/A	O	
12/31/2009 19:54	6R421.D	243596004	LANL	938022	5g	1	N/A	21	s	RXD1	N/A	O	
12/31/2009 20:21	6R422.D	243596005	LANL	938022	5g	1	N/A	22	s	RXD1	N/A	x	IS low, see 010410V6
12/31/2009 20:49	6R423.D	243596006	LANL	938022	5g	1	N/A	23	s	RXD1	N/A	O	
12/31/2009 21:17	6R424.D	1202007246	LANL	938022	5g	1	N/A	24	s	RXD1	N/A	X	MIX[A] MS 243549002, RPD, see 010410
12/31/2009 21:44	6R425.D	1202007247	LANL	938022	5g	1	N/A	25	s	RXD1	N/A	X	MIX[A] MSD 243549002
12/31/2009 22:12	6R426.D	12020--	BLANK	BLANK	5mL	1	N/A	26	w	RXD1	N/A	X	RINSE
12/31/2009 22:40	6R427.D	12020--	BLANK	BLANK	5mL	1	N/A	27	w	RXD1	N/A	X	RINSE

GEL Laboratories, LLC
Revision:11/22/04

ORGANIC RUN LOG - INSTRUMENT ID#VOA6

Date: 1/4/2010 Method 8260B/624 Operator: RXD1

REVIEWED BY: DSH
DATE: 1/05/09

HARDWARE CONFIGURATION & METHOD CONDITIONS SUMMARY No# 4

Daily Instrument Readings:
Multiplier Voltage: 1706

CALIBRATION & CC INFORMATION:

Initial Calibration Date: 12/10/2009

(See pg. 234 for ICAL Std. Sci. ids)

NaHSO4 lot # n/a
Cl test lot # 72612
Sequence Number: 010410V6

Daily Standard — Volume Added for Purge (ul)

	Solution ID#	Blk/ Smpl	CCV	MS/ LCS	BFB
CCV	W6VM100104-01		5+5		
IS	UVM091216-09	1	1	1	
SS	UVM091117-02	1	1	1	
LCS/MS	W6VM100104-01/02			5+5	
BFB	UVM091117-02				1
SHORT	W6VM100104-03		5		
DHEC	N/A		0		

Purge Amount

5	Water Purge Vol:ML
5	Soil Purge Wt.:G
N/A	Mid level ext. MeOH Vol:
N/A	ul
N/A	Methanol Lot #
x	Heated Purge

1/5/10

Analysis Date	Time	Data File	Lab Sample ID	Client	Batch #	Wt.(g) or Vol(ml/ul)	Dil. Factor	pH	AS Slot #	Matrix w or s	Analyst	Cl test (Y/N)	Acceptable (O/X)	Comments
4 Jan 2010	10:14	6S101.D	12020--	BLANK	BLANK	5mL	1	N/A	1	w	RXD1	N/A	X	RINSE
4 Jan 2010	10:42	6S102.D	12020--	BLANK	BLANK	5mL	1	N/A	2	w	RXD1	N/A	X	RINSE
4 Jan 2010	11:10	6S103.D	12020--	BLANK	BLANK	5mL	1	N/A	3	w	RXD1	N/A	X	RINSE
4 Jan 2010	11:37	6S104.D	UVM091117-02	GEL	BFB	5mL	1	N/A	4	w	RXD1	N/A	O	BFB
4 Jan 2010	12:05	6S105.D	W6VM100104-01	GEL	CCV/LCS	5mL	1	N/A	5	w	RXD1	N/A	O	MIX[A] UVM091214-01D+IVM091230-01
4 Jan 2010	12:33	6S106.D	W6VM100104-02	GEL	LCS	5g	1	N/A	6	s	RXD1	N/A	O	SOIL MIX[A] UVM091214-01D+IVM091230-01
4 Jan 2010	13:01	6S107.D	W6VM100104-03	GEL	CCV	5mL	1	N/A	7	w	RXD1	N/A	O	MIX[B] UVM091216-08A
4 Jan 2010	13:28	6S108.D	W6VM100104-04	GEL	LCS	5g	1	N/A	8	s	RXD1	N/A	O	SOIL MIX[B] UVM091216-08A
4 Jan 2010	13:56	6S109.D	12020--	BLANK	BLANK	5g	1	N/A	9	s	RXD1	N/A	O	SOIL
4 Jan 2010	14:24	6S110.D	12020--	BLANK	BLANK	5mL	1	N/A	10	w	RXD1	N/A	O	
4 Jan 2010	14:52	6S111.D	242497022	QCQA	938022	5mL	1	pH2	11	w	RXD1	N	O	RR of 6R408
4 Jan 2010	15:20	6S112.D	242497023	QCQA	938022	5mL	1	pH2	12	w	RXD1	N	x	RR of 6R409, not needed
4 Jan 2010	15:47	6S113.D	242497026	QCQA	938002	5mL	1	pH2	13	w	RXD1	N	x	RR of 6R412, not needed
4 Jan 2010	16:14	6S114.D	242497027	QCQA	938002	5mL	1	pH2	14	w	RXD1	N	x	RR of 6R413, not needed
4 Jan 2010	16:42	6S115.D	242497028	QCQA	938002	5mL	1	pH2	15	w	RXD1	N	x	RR of 6R414, not needed
4 Jan 2010	17:10	6S116.D	243549002	LANL	938022	5g	1	N/A	16	s	RXD1	N/A	x	RR of 6R416, IS low, not needed
4 Jan 2010	17:37	6S117.D	243596005	LANL	938022	5g	1	N/A	17	s	RXD1	N/A	O	RR of 6R422
4 Jan 2010	18:05	6S118.D	243555004	LANL	938022	5g	1	N/A	18	s	RXD1	N/A	O	
4 Jan 2010	18:32	6S119.D	243580001	GEEL	938439	5mL	1	pH2	19	w	RXD1	N	O	
4 Jan 2010	19:00	6S120.D	243580002	GEEL	938439	5mL	1	pH2	20	w	RXD1	N	O	
4 Jan 2010	19:27	6S121.D	243580003	GEEL	938439	5mL	1	pH2	21	w	RXD1	N	O	
4 Jan 2010	19:55	6S122.D	243580004	GEEL	938439	5mL	1	pH2	22	w	RXD1	N	O	
4 Jan 2010	20:22	6S123.D	243580005	GEEL	938439	5mL	1	pH2	23	w	RXD1	N	O	
4 Jan 2010	20:50	6S124.D	243580006	GEEL	938439	5mL	1	pH2	24	w	RXD1	N	O	
4 Jan 2010	21:18	6S125.D	243580007	GEEL	938439	5mL	1	pH2	25	w	RXD1	N	O	
4 Jan 2010	21:45	6S126.D	1202007246	LANL	938022	5g	1	N/A	26	s	RXD1	N/A	O	MIX[A] MS 243549002, RR of 6R424, IS low
4 Jan 2010	22:13	6S127.D	1202007247	LANL	938022	5g	1	N/A	27	s	RXD1	N/A	O	MIX[A] MSD 243549002, RR of 6R425
4 Jan 2010	22:41	6S128.D	1202008033	GEEL	938439	5mL	1	pH2	28	w	RXD1	N	O	MIX[A] MS 243580001
4 Jan 2010	23:09	6S129.D	1202008034	GEEL	938439	5mL	1	pH2	29	w	RXD1	N	O	MIX[A] MSD 243580001

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
07-JAN-10	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
VOA GC/MS	SW846 8260B	Solid	LANL
Batch ID:	**Sample Numbers:**		
938022	See Below		

Potentially affected work order(s)(SDG): 243549(10-1085),243555(10-1089-1),243596(10-1090-1)

Application Issues:

Failed RPD for MS/MSD, or PS/PSD

Container scanning event for custody missed

Other

Specification and Requirements Exception Description:	DER Disposition:
1. Failed RPD for MS/MSD: Chloroethane Actual 25.848 Limit 0.00 - 25.00% Chloromethane Actual 26.711 Limit 0.00 - 25.00% Vinyl chloride Actual 28.423 Limit 0.00 - 25.00% 2. Container scanning event for custody missed: 243555004 3. Failed Yield for Internal Standards: 243549002 Fluorobenzene Actual 35.63 Limit 50 - 200% Chlorobenzene-d5 Actual 34.78 Limit 50 - 200% 1,4-Dichlorobenzene-d4 Actual 30.56 Limit 50 - 200% 1202007246MS Fluorobenzene Actual 47.27 Limit 50 - 200% Chlorobenzene-d5 Actual 46.74 Limit 50 - 200% 1,4-Dichlorobenzene-d4 Actual 45.86 Limit 50 - 200%	1. Narrate and report. These compounds failed RPD for the MS and MSD. However, all of the compounds passed recovery for both the MS and MSD. 2. Narrate and report. The container scanning event for custody was missed for this sample however, the sample remained in the analyst's possession throughout the entire analysis. 3. Narrate and report. This sample failed yield for internal standards. The failures were confirmed by the MS.

Originator's Name:

Ryan Dushak 07-JAN-10

Data Validator/Group Leader:

Erin Haubert 18-JAN-10

GC/MS Volatile Analysis

Case Narrative

ChemStation Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-1085-1

Method/Analysis Information

Procedure:	Volatile Organic Compounds (VOC) by Gas Chromatograph/Mass Spectrometer
Analytical Method:	SW846 8260B
Prep Method:	SW846 1311 / 5030B
Analytical Batch Number:	938016
Prep Batch Number:	936997

Sample Analysis

The following client and quality control samples were analyzed to complete this SDG using the methods referenced in the Analysis Information section:

Sample ID	Client ID
243551001	WST03-10-2148
1202005010	Tumbling Blank (TB)
1202007230	Method Blank (MB)
1202007231	Laboratory Control Sample (LCS)
1202010143	243421001(WST12-10-8879) Post Spike (PS)
1202010144	243421001(WST12-10-8879) Post Spike Duplicate (PSD)

NOTE: For volatile organic analyses the matrix spike designations may be indicated as "PS" or "PSD". The "PS" designation (post spike) indicates that the matrix was fortified prior to analysis but after applying any prep factors, such as a dilution. The laboratory considers the MS/MSD and PS/PSD designations interchangeable.
The samples in this SDG were analyzed on an "as received" basis.

Preparation/Analytical Method Verification

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-038 REV# 13.

Raw data reports are processed and reviewed by the analyst using the Chemstation software package. False positives have been removed from the quantitation reports per standard operating procedures (SOP) section 19.1.2. False positive analytes are designated on the quantitation report with a 'd' qualifier.

Calibration Information

Please note that the 'Cal Date' indicated on each quantitation report reflects the date and time of the most recent calibrated analyte(s) in the processing method. Since the laboratory may calibrate with multiple solutions on different days using the same processing method, the software will update the 'Cal Date' to the last calibration file, date and time. The correct dates and times for all calibration files are located on the Calibration History report in the Standard Data section in the data package.

The surrogate compounds were calibrated using a minimum five-point calibration curve. The surrogates were added by the auto sampler at a concentration of 50 ug/L. GEL Laboratories LLC will not have surrogate recoveries reported for Dibromofluoromethane. This is due to increased regulations for this analyte and an industry shortage.

A complete list of the initial calibration data files are shown in the Calibration History report located in the Standard Data section of the data package.

Initial Calibration
All initial calibration requirements have been met for this sample delivery groups (SDG). A second source initial calibration verification (ICV) was included in the standard section directly behind the initial calibration.

Continuing Calibration Verification Requirements
All associated calibration verification standard(s) (ICV or CCV) met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Surrogate Recoveries
Surrogate recoveries in all client and quality control samples were within the acceptance limits.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

QC Sample Designation
Sample 243421001 (WST12-10-8879) was designated for spike analysis in this SDG.

Matrix Spike (PS) Recovery Statement
The spike recoveries for this SDG were within the required acceptance limits.

Matrix Spike Duplicate (PSD) Recovery Statement
The spike duplicate recoveries for this SDG were within the required acceptance limits.

Relative Percent Difference (RPD) Statement
The RPD(s) between the matrix spike pair met the acceptance limits.

Internal Standard (ISTD) Acceptance
The internal standard responses in all client and quality control samples met the required acceptance criteria.

Technical Information

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection or sample receipt. Those holding times expressed in hours are calculated in the ALPHALIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Sample Preservation and Integrity
All samples met the sample preservation and integrity requirements.

Sample Dilutions
Due to problems associated with the nature of the TCLP matrix, volatile extracts are routinely diluted before analysis. The dilution factor does not increase detection limits above the regulatory limits required by the client.

Sample Re-extraction/Re-analysis
Re-analyses were not required for samples in this SDG.

Miscellaneous Information

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted: Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. An electronic signature page inserted after the case narrative will include the data validator's signature and title. The signature page also includes the data qualifiers used in the fractional package. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Nonconformance (NCR) Documentation
A nonconformance report was not required for this SDG.

Manual Integrations
Data files associated with the initial calibration, continuing calibration check, and samples did not require manual integrations.

TIC Comment
Tentatively identified compounds (TIC) were not required for this SDG.

Additional Comments
Additional comments were not required for this SDG.

Residual Chlorine
Residual Chlorine was not detected in any of the samples in this SDG.

System Configuration
The Volatile-GC/MS analysis was performed on the following instrument configuration:

Instrument ID	Instrument	System Configuration	Column ID	Column Description	P & T Trap
VOA5.I	Gas Chromatograph/Mass Spectrometer	HP6890N/HP5975	DB-624	J&W, 60m x 0.25mm x 1.4um	Trap 10

Certification Statement
Where the analytical method has been performed under NELAP certification, the analysis has met all the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis Report
for

LANL010 Los Alamos National Laboratory (72733-001-09)

Client SDG: 10-1085-1 GEL Work Order: 243551

The Qualifiers in this report are defined as follows:

* A quality control analyte recovery is outside of specified acceptance criteria

** Analyte is a surrogate compound

J Value is estimated

U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

Review/Validation

GEL requires all analytical data to be verified by a qualified data reviewer. In addition, all CLP-like deliverables receive a third level review of the fractional data package.

The following data validator verified the information presented in this case narrative:

Signature: Stacy Calloway **Name: Stacy Calloway**

Date: 19 JAN 2010 **Title: Data Validator**

Sample Data Summary

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1085-1**	**Date Collected:**	**12/22/2009 12:00**	**Matrix:**	**TCLP R**
Lab Sample ID:	**243551001**	**Date Received:**	**12/24/2009 09:30**		
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**WST03-10-2148**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**938016**	**Inst:**	**VOA5.I**	**Dilution:**	**10**
Run Date:	**12/31/2009 15:06**	**Analyst:**	**DXK1**	**Purge Vol:**	**5 mL**
Prep Date:	**12/28/2009 16:00**				
Data File:	**123109V5\5R416.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-01-4	Vinyl chloride	U	0.010	mg/L	0.005	0.010
75-35-4	1,1-Dichloroethylene	U	0.010	mg/L	0.003	0.010
78-93-3	2-Butanone	U	0.050	mg/L	0.0125	0.050
67-66-3	Chloroform	U	0.010	mg/L	0.0025	0.010
56-23-5	Carbon tetrachloride	U	0.010	mg/L	0.003	0.010
107-06-2	1,2-Dichloroethane	U	0.010	mg/L	0.0025	0.010
71-43-2	Benzene	U	0.010	mg/L	0.003	0.010
79-01-6	Trichloroethylene	U	0.010	mg/L	0.0025	0.010
127-18-4	Tetrachloroethylene	U	0.010	mg/L	0.003	0.010
108-90-7	Chlorobenzene	U	0.010	mg/L	0.0025	0.010
106-46-7	1,4-Dichlorobenzene	U	0.010	mg/L	0.0025	0.010

Quality Control Summary

Volatile

Surrogate Recovery Report

SDG Number: 10-1085-1

Matrix Type: TCLP SOLID

Sample ID	Client ID	DCED4 %REC		TOL %REC		BFB %REC	
1202007231	LCS for batch 938016	94		95		100	
1202007230	MB for batch 938016	96		96		105	
1202005010	TB for batch 936997	96	D	95	D	106	D
243551001	WST03-10-2148	92	D	94	D	104	D

Surrogate		Acceptance Limits
DCED4	= 1,2-Dichloroethane-d4	(59%-130%)
TOL	= Toluene-d8	(76%-129%)
BFB	= Bromofluorobenzene	(71%-126%)

* Recovery outside Acceptance Limits

\# Column to be used to flag recovery values

D Sample Diluted

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1085-1
Client ID: LCS for batch 938016
Lab Sample ID: 1202007231
Instrument: VOA5.I
Analyst: DXK1
Purge Vol: 5 mL

Sample Type: Laboratory Control Sample
Matrix: TCLP MISC SOLID
Analysis Date: 12/31/2009 08:59
Dilution: 1
Prep Batch ID: 936997
Batch ID: 938016

CAS No		Parmname	Amount Added mg/L	Sample Conc. mg/L	Spike Conc. mg/L	Recovery %	Acceptance Limits
75-01-4	LCS	Vinyl chloride	0.050	0.0	0.0484	97	61-131
75-35-4	LCS	1,1-Dichloroethylene	0.050	0.0	0.0548	110	70-128
78-93-3	LCS	2-Butanone	0.250	0.0	0.185	74	31-160
67-66-3	LCS	Chloroform	0.050	0.0	0.0542	108	76-121
56-23-5	LCS	Carbon tetrachloride	0.050	0.0	0.0622	124	75-139
107-06-2	LCS	1,2-Dichloroethane	0.050	0.0	0.0499	100	70-123
71-43-2	LCS	Benzene	0.050	0.0	0.0531	106	72-120
79-01-6	LCS	Trichloroethylene	0.050	0.0	0.055	110	76-123
127-18-4	LCS	Tetrachloroethylene	0.050	0.0	0.0544	109	72-126
108-90-7	LCS	Chlorobenzene	0.050	0.0	0.0527	105	76-120
106-46-7	LCS	1,4-Dichlorobenzene	0.050	0.0	0.052	104	74-120

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1085-1
Client ID: WST12-10-8879PS
Lab Sample ID: 1202010143
Instrument: VOA5.I
Analyst: DXK1
Purge Vol: 5 mL

Sample Type: Post Spike
Matrix: TCLP R
%Moisture: 12.1
Analysis Date: 01/07/2010 19:11
Dilution: 10
Prep Batch ID: 936997
Batch ID: 938016

CAS No		Parmname	Amount Added mg/L	Sample Conc. mg/L		Spike Conc. mg/L	Recovery %	Acceptance Limits
75-01-4	PS	Vinyl chloride	0.050	0.00	U	0.0368	74	51-134
75-35-4	PS	1,1-Dichloroethylene	0.050	0.00	U	0.0413	83	61-129
78-93-3	PS	2-Butanone	0.250	0.00	U	0.108	43	11-151
67-66-3	PS	Chloroform	0.050	0.00	U	0.0465	93	70-126
56-23-5	PS	Carbon tetrachloride	0.050	0.00	U	0.0495	99	66-138
107-06-2	PS	1,2-Dichloroethane	0.050	0.00	U	0.0447	89	65-129
71-43-2	PS	Benzene	0.050	0.00	U	0.0449	90	66-121
79-01-6	PS	Trichloroethylene	0.050	0.00	U	0.046	92	66-127
127-18-4	PS	Tetrachloroethylene	0.050	0.00	U	0.0456	91	63-126
108-90-7	PS	Chlorobenzene	0.050	0.00	U	0.0453	91	69-120
106-46-7	PS	1,4-Dichlorobenzene	0.050	0.00	U	0.0449	90	64-120

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1085-1
Client ID: WST12-10-8879PSD
Lab Sample ID: 1202010144
Instrument: VOA5.I
Analyst: DXK1
Purge Vol: 5 mL

Sample Type: Post Spike Duplicate
Matrix: TCLP R
%Moisture: 12.1
Analysis Date: 01/07/2010 19:36
Prep Batch ID: 936997
Batch ID: 938016
Dilution: 10

CAS No		Parmname	Amount Added mg/L	Sample Conc. mg/L		Spike Conc. mg/L	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
75-01-4	PSD	Vinyl chloride	0.050	0.00	U	0.0352	70	51-134	4	0-20
75-35-4	PSD	1,1-Dichloroethylene	0.050	0.00	U	0.0398	80	61-129	4	0-20
78-93-3	PSD	2-Butanone	0.250	0.00	U	0.105	42	11-151	3	0-20
67-66-3	PSD	Chloroform	0.050	0.00	U	0.0466	93	70-126	0	0-20
56-23-5	PSD	Carbon tetrachloride	0.050	0.00	U	0.0476	95	66-138	4	0-20
107-06-2	PSD	1,2-Dichloroethane	0.050	0.00	U	0.0443	89	65-129	1	0-20
71-43-2	PSD	Benzene	0.050	0.00	U	0.0446	89	66-121	1	0-20
79-01-6	PSD	Trichloroethylene	0.050	0.00	U	0.0451	90	66-127	2	0-20
127-18-4	PSD	Tetrachloroethylene	0.050	0.00	U	0.0445	89	63-126	2	0-20
108-90-7	PSD	Chlorobenzene	0.050	0.00	U	0.0452	90	69-120	0	0-20
106-46-7	PSD	1,4-Dichlorobenzene	0.050	0.00	U	0.0457	91	64-120	2	0-20

Method Blank Summary

SDG Number:	10-1085-1	Client:	LANL010	Matrix:	TCLP MISC SOLID
Client ID:	MB for batch 938016	Instrument ID:	VOA5.I	Data File:	123109V5\5R404BL.D
Lab Sample ID:	1202007230	Prep Date:	12/31/2009 09:50	Analyzed:	12/31/09 09:50
Column:	DB-624				

This method blank applies to the following samples and quality control samples:

Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01 LCS for batch 938016	1202007231	123109V5\5R402LL.D	12/31/09	0859
02 TB for batch 936997	1202005010	123109V5\5R413.D	12/31/09	1350
03 WST03-10-2148	243551001	123109V5\5R416.D	12/31/09	1506

Instrument Performance Check

BFB

Lab Name GEL Laboratories LLC **Client SDG:** 10-1085-1

Instrument ID: VOA5.I **Injection Date/Time:** 09-DEC-09 11:58

Column Description: DB-624 **Lab File ID** 120909V5\5O303.D

m/e	Ion Abundance Criteria	% Relative Abundance
50	15.0 - 40.0% of mass 95	22.8
75	30.0 - 60.0% of mass 95	45.1
95	Base Peak, 100% Relative Abundance	100
96	5.0 - 9.0% of mass 95	6.9
173	Less than 2.0% of mass 174	0.6
174	50.0 - 100.0% of mass 95	85.1
175	5.0 -9.0% of mass 174	7.3
176	95.0 - 101.0% of mass 174	97.4
177	5.0 - 9.0% of mass 176	6.6

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
ICALMIX[A]	W5VM091209-01	120909V5\5O313.D	09-DEC-09 17:25
ICALMIX[A]	W5VM091209-08	120909V5\5O314.D	09-DEC-09 17:51
ICALMIX[A]	W5VM091209-02	120909V5\5O315.D	09-DEC-09 18:18
ICALMIX[A]	W5VM091209-03	120909V5\5O316.D	09-DEC-09 18:44
ICALMIX[A]	W5VM091209-04	120909V5\5O317.D	09-DEC-09 19:10
ICALMIX[A]	W5VM091209-05	120909V5\5O318.D	09-DEC-09 19:37
ICALMIX[A]	W5VM091209-06	120909V5\5O319.D	09-DEC-09 20:03
ICALMIX[A]	W5VM091209-07	120909V5\5O320.D	09-DEC-09 20:30
ICVMIX[A]01	W5VM091209-09	120909V5\5O322.D	09-DEC-09 21:22

Instrument Performance Check

BFB

Lab Name GEL Laboratories LLC **Client SDG:** 10-1085-1

Instrument ID: VOA5.I **Injection Date/Time:** 31-DEC-09 08:34

Column Description: DB-624 **Lab File ID** 123109V5\5R401.D

m/e	Ion Abundance Criteria	% Relative Abundance
50	15.0 - 40.0% of mass 95	20
75	30.0 - 60.0% of mass 95	45.3
95	Base Peak, 100% Relative Abundance	100
96	5.0 - 9.0% of mass 95	6.4
173	Less than 2.0% of mass 174	0.6
174	50.0 - 100.0% of mass 95	86.3
175	5.0 -9.0% of mass 174	7.3
176	95.0 - 101.0% of mass 174	95.7
177	5.0 - 9.0% of mass 176	6.6

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
CCVMIX[A]05	W5VM091231-01	123109V5\5R402.D	31-DEC-09 08:59
BLK01LCS	1202007231	123109V5\5R402LL.D	31-DEC-09 08:59
BLK01	1202007230	123109V5\5R404BL.D	31-DEC-09 09:50
TBLK01	1202005010	123109V5\5R413.D	31-DEC-09 13:50
WST03-10-2148	243551001	123109V5\5R416.D	31-DEC-09 15:06

Internal Standard
Area and RT Summary

Lab Name : GEL Laboratories LLC

Instrument: VOA5.I

GC Column: DB-624

Client SDG: 10-1085-1

STD Analysis Time: 31-DEC-09 08:59

Data File: C:\msdchem\1\DATA\123109V5\5R402.D

	Fluorobenzene			Chlorobenzene-d5			1,4-Dichlorobenzene-d4		
	Area	#	RT #	Area	#	RT #	Area	#	RT #
12 Hour STD	2255120		10.4	1566203		13.6	842954		16.0
Upper Limit	4510240		10.9	3132406		14.1	1685908		16.5
Lower Limit	1127560		9.87	783102		13.1	421477		15.5
Sample ID									
BLK01LCS	2255120		10.4	1566203		13.6	842954		16.0
BLK01	2180269		10.4	1498668		13.6	738955		16.0
TBLK01	2151809		10.4	1478792		13.5	726020		16.0
WST03-10-2148	2112535		10.4	1427224		13.6	686456		16.0

Area Upper Limit = +100% of internal standard area
Area Lower Limit = - 50% of internal standard area

RT Upper Limit = + 0.50 minutes of internal standard RT
RT Lower Limit = - 0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Value outside of QC Limits

Sample Data

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1085-1**	**Date Collected:**	**12/22/2009 12:00**	**Matrix:**	**TCLP R**
Lab Sample ID:	**243551001**	**Date Received:**	**12/24/2009 09:30**		
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**WST03-10-2148**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**938016**	**Inst:**	**VOA5.I**	**Dilution:**	**10**
Run Date:	**12/31/2009 15:06**	**Analyst:**	**DXK1**	**Purge Vol:**	**5 mL**
Prep Date:	**12/28/2009 16:00**				
Data File:	**123109V5\5R416.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-01-4	Vinyl chloride	U	0.010	mg/L	0.005	0.010
75-35-4	1,1-Dichloroethylene	U	0.010	mg/L	0.003	0.010
78-93-3	2-Butanone	U	0.050	mg/L	0.0125	0.050
67-66-3	Chloroform	U	0.010	mg/L	0.0025	0.010
56-23-5	Carbon tetrachloride	U	0.010	mg/L	0.003	0.010
107-06-2	1,2-Dichloroethane	U	0.010	mg/L	0.0025	0.010
71-43-2	Benzene	U	0.010	mg/L	0.003	0.010
79-01-6	Trichloroethylene	U	0.010	mg/L	0.0025	0.010
127-18-4	Tetrachloroethylene	U	0.010	mg/L	0.003	0.010
108-90-7	Chlorobenzene	U	0.010	mg/L	0.0025	0.010
106-46-7	1,4-Dichlorobenzene	U	0.010	mg/L	0.0025	0.010

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\123109V5\
Data File : 5R416.D
Acq On : 31 Dec 2009 3:06 pm
Operator : DXK1
InstName : VOA5
Sample : |243551001|938016|10|VOA|1|VOATCLPL|
Misc : LANL 500uL N/A
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Jan 04 08:53:00 2010
Quant Method : C:\msdchem\1\METHODS\VOA5-8260-120909.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Fri Dec 11 08:24:46 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Fluorobenzene	10.375	96	2112535	50.00 ug/L	0.00
41) Chlorobenzene-d5	13.547	117	1427224	50.00 ug/L	0.00
58) 1,4-Dichlorobenzene-d4	15.963	152	686456	50.00 ug/L	0.00
82) B Fluorobenzene	10.375	96	2112535	50.00 ug/L	0.00
103) B Chlorobenzene-d5	13.547	117	1427224	50.00 ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	15.963	152	686456	50.00 ug/L	0.00
System Monitoring Compounds					
29) 1,2-Dichloroethane-d4	10.021	65	472287	46.19 ug/L	0.00
Spiked Amount 50.000	Range 59 - 130		Recovery = 92.38%		
43) Toluene-d8	12.016	98	1918117	46.96 ug/L	0.00
Spiked Amount 50.000	Range 76 - 129		Recovery = 93.92%		
61) Bromofluorobenzene	14.735	95	657537	51.77 ug/L	0.00
Spiked Amount 50.000	Range 71 - 126		Recovery = 103.54%		

Target Compounds				Qvalue
2) Dichlorodifluoromethane	0.000		0	N.D.
3) Chloromethane	5.031	50	990	N.D.
4) Vinyl chloride	5.263	62	348	N.D.
5) Bromomethane	0.000		0	N.D.
6) Chloroethane	0.000		0	N.D.
7) Trichlorofluoromethane	0.000		0	N.D.
8) Ethyl ether	0.000		0	N.D.
9) Acetone	7.111	43	2160	N.D.
10) 1,1-Dichloroethylene	0.000		0	N.D.
11) Iodomethane	0.000		0	N.D.
12) Acetonitrile	7.691	41	114	N.D.
13) Methyl acetate	7.486	43	114	N.D.
14) Carbon disulfide	7.514	76	443	N.D.
15) Methylene chloride	7.687	84	13109	N.D.
16) tert-Butyl methyl ether	0.000		0	N.D.
17) trans-1,2-Dichloroethy...	0.000		0	N.D.
18) Vinyl acetate	8.324	43	659	N.D.
19) 1,1-Dichloroethane	0.000		0	N.D.
20) 2-Butanone	9.088	43	1874	N.D.
21) cis-1,2-Dichloroethylene	0.000		0	N.D.
22) 2,2-Dichloropropane	0.000		0	N.D.
23) Bromochloromethane	0.000		0	N.D.
24) Chloroform	0.000		0	N.D.
25) 1,1,1-Trichloroethane	0.000		0	N.D.
26) Cyclohexane	0.000		0	N.D.
27) 1,1-Dichloropropene	0.000		0	N.D.
28) Carbon tetrachloride	0.000		0	N.D.
30) 1,2-Dichloroethane	0.000		0	N.D.
31) Benzene	10.124	78	507	N.D.
32) Cyclohexene	0.000		0	N.D.
33) n-Butyl alcohol	0.000		0	N.D.
34) Trichloroethylene	0.000		0	N.D.
35) 1,2-Dichloropropane	0.000		0	N.D.
36) Methylcyclohexane	0.000		0	N.D.
37) Dibromomethane	0.000		0	N.D.

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\123109V5\
Data File : 5R416.D
Acq On : 31 Dec 2009 3:06 pm
Operator : DXK1
InstName : VOA5
Sample : |243551001|938016|10|VOA|1|VOATCLPL|
Misc : LANL 500uL N/A
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Jan 04 08:53:00 2010
Quant Method : C:\msdchem\1\METHODS\VOA5-8260-120909.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Fri Dec 11 08:24:46 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
38) Bromodichloromethane	0.000		0	N.D.	
39) 2-Chloroethylvinyl ether	0.000		0	N.D.	
40) cis-1,3-Dichloropropylene	11.638	75	1688	N.D.	
42) 4-Methyl-2-pentanone	0.000		0	N.D.	
44) Toluene	12.090	91	2975	N.D.	
45) trans-1,3-Dichloroprop...	0.000		0	N.D.	
46) 1,1,2-Trichloroethane	0.000		0	N.D.	
47) 2-Hexanone	12.617	43	14661	N.D.	
48) 1,3-Dichloropropane	0.000		0	N.D.	
49) Tetrachloroethylene	0.000		0	N.D.	
50) Dibromochloromethane	0.000		0	N.D.	
51) 1,2-Dibromoethane	0.000		0	N.D.	
52) Chlorobenzene	0.000		0	N.D.	
53) 1,1,1,2-Tetrachloroethane	0.000		0	N.D.	
54) Ethylbenzene	13.544	91	2593	N.D.	
55) m,p-Xylenes	13.752	106	112	N.D.	
56) o-Xylene	0.000		0	N.D.	
57) Styrene	0.000		0	N.D.	
59) Bromoform	0.000		0	N.D.	
60) Isopropylbenzene	14.735	105	254	N.D.	
62) 1,1,2,2-Tetrachloroethane	0.000		0	N.D.	
63) 1,2,3-Trichloropropane	0.000		0	N.D.	
64) Bromobenzene	0.000		0	N.D.	
65) n-Propylbenzene	14.969	91	174	N.D.	
66) 1,3,5-Trimethylbenzene	15.114	105	119	N.D.	
67) 2-Chlorotoluene	0.000		0	N.D.	
68) 4-Chlorotoluene	15.220	91	540	N.D.	
69) tert-Butylbenzene	0.000		0	N.D.	
70) 1,2,4-Trimethylbenzene	15.528	105	238	N.D.	
71) sec-Butylbenzene	0.000		0	N.D.	
72) 4-Isopropyltoluene	15.832	119	129	N.D.	
73) 1,3-Dichlorobenzene	15.906	146	247	N.D.	
74) 1,4-Dichlorobenzene	15.991	146	1520	N.D.	
75) n-Butylbenzene	16.270	91	118	N.D.	
76) 1,2-Dichlorobenzene	0.000		0	N.D.	
77) 1,2-Dibromo-3-chloropr...	0.000		0	N.D.	
78) 1,2,4-Trichlorobenzene	0.000		0	N.D.	
79) Hexachlorobutadiene	0.000		0	N.D.	
80) Naphthalene	0.000		0m	N.D.	d
81) 1,2,3-Trichlorobenzene	0.000		0	N.D.	
83) Chlorotrifluoroethylene	0.000		0	N.D.	
84) 2-Chloro-1,1,1-trifluo...	0.000		0	N.D.	
85) Acrolein	0.000		0	N.D.	
86) Trichlorotrifluoroethane	0.000		0	N.D.	
87) Isopropyl Alcohol	0.000		0	N.D.	
88) Allyl chloride	7.691	41	114	N.D.	
89) tert-Butyl Alcohol	0.000		0	N.D.	
90) Acrylonitrile	0.000		0	N.D.	
91) Isopropyl ether	0.000		0	N.D.	
92) 2-Chloro-1,3-butadiene	0.000		0	N.D.	
93) Ethyl tert-butyl ether	0.000		0	N.D.	
94) Ethyl acetate	9.088	43	1874	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\123109V5\
Data File : 5R416.D
Acq On : 31 Dec 2009 3:06 pm
Operator : DXK1
InstName : VOA5
Sample : |243551001|938016|10|VOA|1|VOATCLPL|
Misc : LANL 500uL N/A
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Jan 04 08:53:00 2010
Quant Method : C:\msdchem\1\METHODS\VOA5-8260-120909.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Fri Dec 11 08:24:46 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
95) Propionitrile	0.000		0	N.D.	
96) Methacrylonitrile	9.473	41	111	N.D.	
97) Tetrahydrofuran	9.466	42	197	N.D.	
98) Isobutyl alcohol	0.000		0m	N.D.	d
99) Methyl tert-amyl ether	0.000		0	N.D.	
100) Methyl methacrylate	0.000		0	N.D.	
101) 1,4-Dioxane	0.000		0	N.D.	
102) 2-Nitropropane	0.000		0m	N.D.	d
104) Ethyl methacrylate	0.000		0	N.D.	
106) 1-Chlorohexane	0.000		0	N.D.	
107) cis-1,4-Dichloro-2-butene	0.000		0	N.D.	
108) Cyclohexanone	0.000		0	N.D.	
109) trans-1,4-Dichloro-2-b...	0.000		0	N.D.	
110) Pentachloroethane	0.000		0	N.D.	
111) Benzyl chloride	0.000		0	N.D.	
112) bis(2-Chloroisopropyl)...	16.550	45	1834	N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\123109V5\
Data File : 5R416.D
Acq On : 31 Dec 2009 3:06 pm
Operator : DXK1
InstName : VOA5
Sample : |243551001|938016|10|VOA|1|VOATCLPL|
Misc : LANL 500uL N/A
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Jan 04 08:53:00 2010
Quant Method : C:\msdchem\1\METHODS\VOA5-8260-120909.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Fri Dec 11 08:24:46 2009
Response via : Initial Calibration
Integrator: RTE

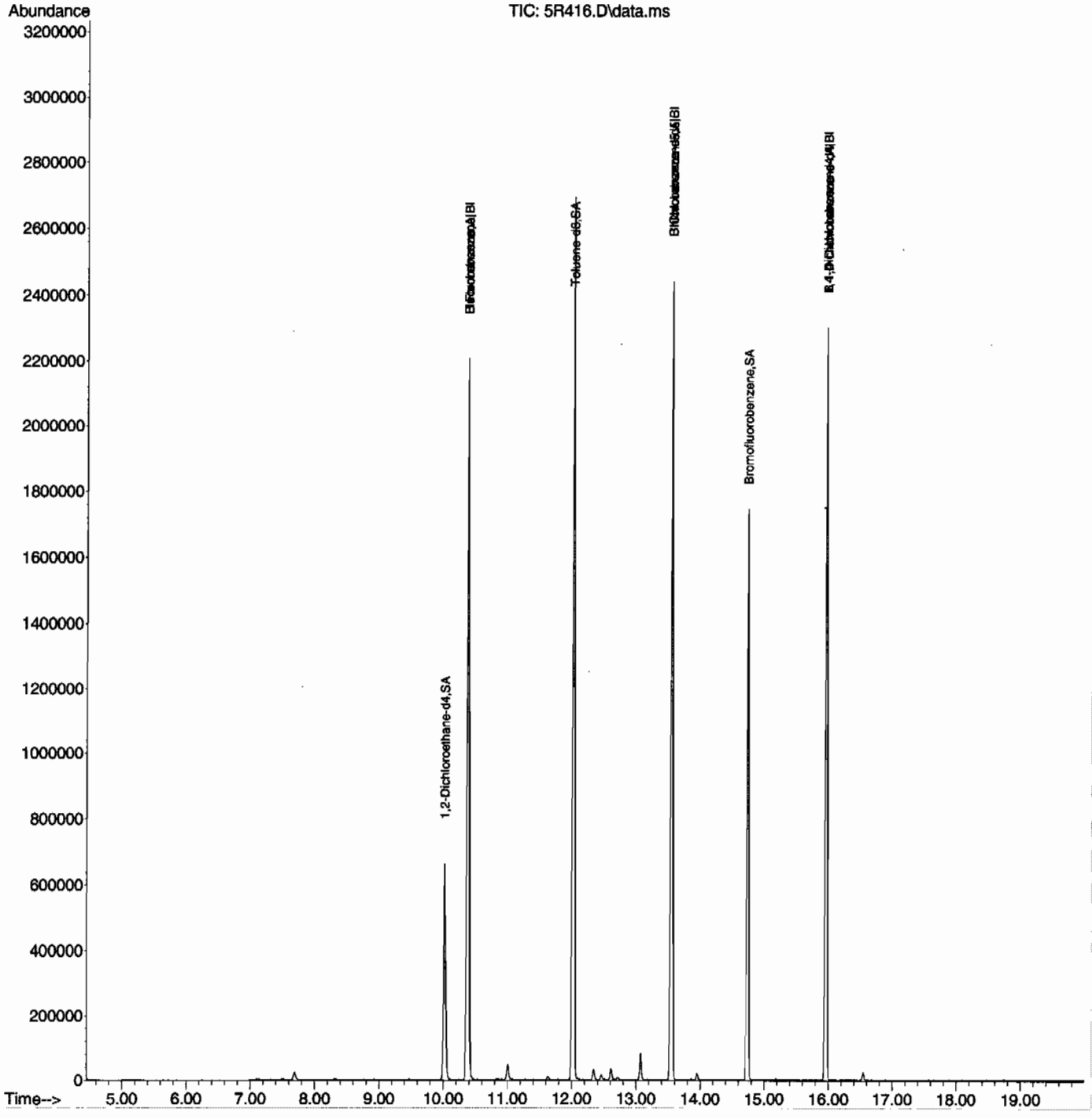

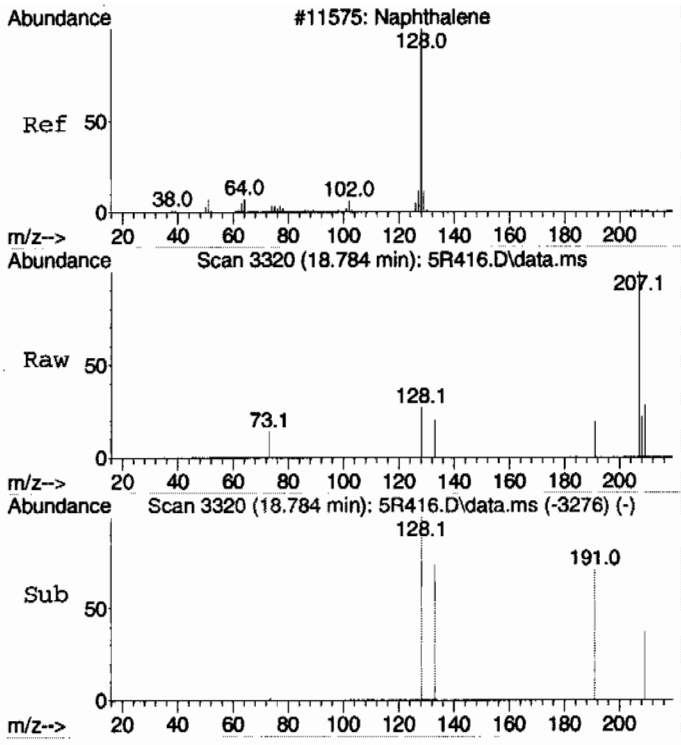

#80 BEFORE analyst DELETION
Naphthalene
Concen: 1.07 ug/L
RT: 18.784 min Scan# 3320
Delta R.T. 0.022 min
Lab File: 5R416.D
Acq: 31 Dec 2009 3:06 pm

Tgt Ion:128 Resp: 1047

Ion	Ratio	Lower	Upper
128	100		
127	0.0	0.0	42.5
129	0.0	0.0	40.8

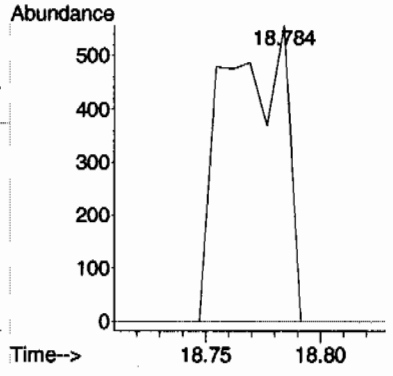

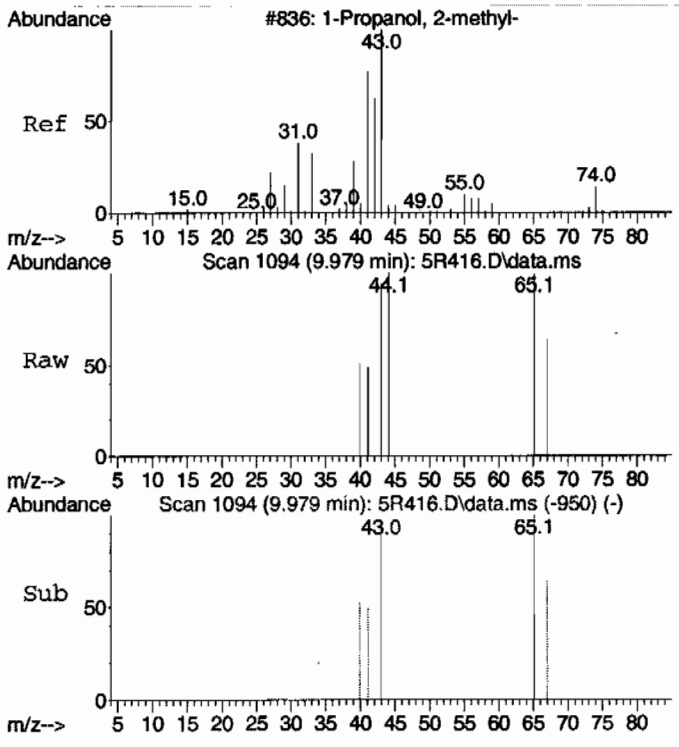

#98 BEFORE analyst DELETION
Isobutyl alcohol
Concen: 30.70 ug/L
RT: 9.979 min Scan# 1094
Delta R.T. 0.209 min
Lab File: 5R416.D
Acq: 31 Dec 2009 3:06 pm

Tgt Ion: 41 Resp: 134

Ion	Ratio	Lower	Upper
41	100		
43	0.0	107.1	167.1#

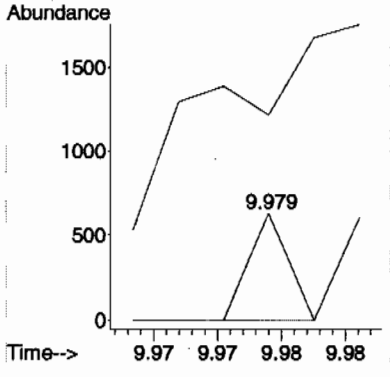

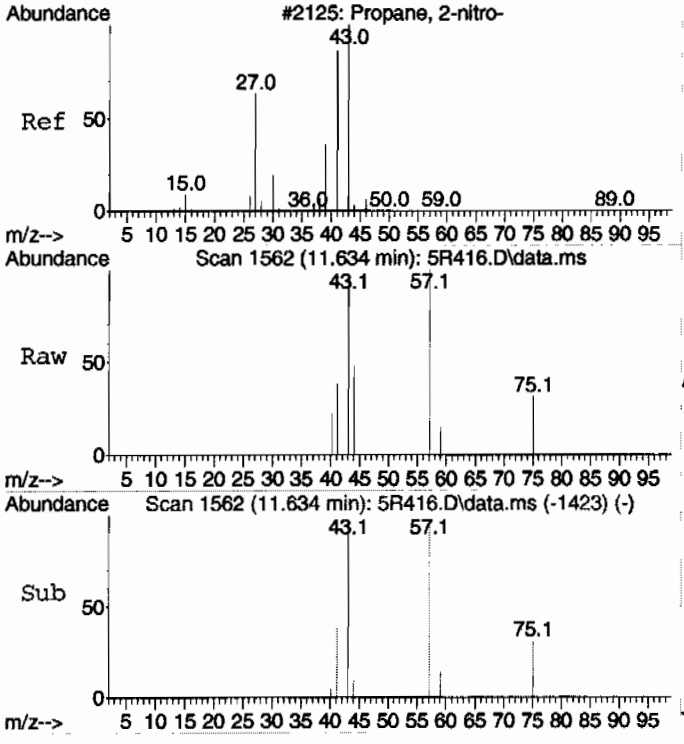

#102 BEFORE analyst DELETION
2-Nitropropane
Concen: 7.14 ug/L
RT: 11.634 min Scan# 1562
Delta R.T. 0.191 min
Lab File: 5R416.D
Acq: 31 Dec 2009 3:06 pm

Tgt Ion: 43 Resp: 4432

Ion	Ratio	Lower	Upper
43	100		
41	35.1	57.0	117.0#

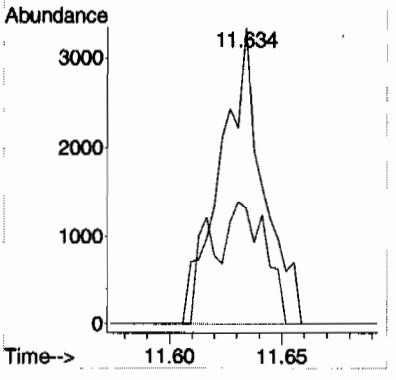

Standards

EPA 524.2/Low level SW846 8260B and Regular level 8260B and EPA 624
Calibration Standard Concentration Levels

	Level 1	Level 1a	Level 2	Level 3	Level 4 #	Level 5	Level 6	Level 7 !	Level 7a
Fluorobenzene (IS)									
1,2-Dichloroethane-d4(surr)		0.5	1	2	5	10	20	50	100
Dichlorodifluoromethane		0.5	1	2	5	10	20	50	100
Chloromethane		0.5	1	2	5	10	20	50	100
Vinyl chloride		0.5	1	2	5	10	20	50	100
Bromomethane		0.5	1	2	5	10	20	50	100
Chloroethane		0.5	1	2	5	10	20	50	100
Trichlorofluoromethane		0.5	1	2	5	10	20	50	100
1,1-Dichloroethene		0.5	1	2	5	10	20	50	100
Acetone	1	2.5	5	10	25	50	100	250	500
Iodomethane	1	2.5	5	10	25	50	100	250	500
Carbon disulfide	1	2.5	5	10	25	50	100	250	500
Methylene chloride		0.5	1	2	5	10	20	50	100
trans-1,2-Dichloroethene		0.5	1	2	5	10	20	50	100
1,1-Dichloroethane		0.5	1	2	5	10	20	50	100
Ethyl ether		0.5	1	2	5	10	20	50	100
Vinyl acetate	1	2.5	5	10	25	50	100	250	500
cis-1,2-Dichloroethene		0.5	1	2	5	10	20	50	100
1,2-Dichloroethene (total)		1	2	4	10	20	40	100	200
Cyclohexene		0.5	1	2	5	10	20	50	100
2-Chloroethylvinyl ether			5	10	25	50	100	250	500
2,2-Dichloropropane		0.5	1	2	5	10	20	50	100
2-Butanone	1	2.5	5	10	25	50	100	250	500
Bromochloromethane		0.5	1	2	5	10	20	50	100
Chloroform		0.5	1	2	5	10	20	50	100
1,1,1-Trichloroethane		0.5	1	2	5	10	20	50	100
1,1-Dichloropropene		0.5	1	2	5	10	20	50	100
Carbon tetrachloride		0.5	1	2	5	10	20	50	100
Benzene		0.5	1	2	5	10	20	50	100
1,2-Dichloroethane		0.5	1	2	5	10	20	50	100
Trichloroethene		0.5	1	2	5	10	20	50	100
1,2-Dichloropropane		0.5	1	2	5	10	20	50	100
Dibromomethane		0.5	1	2	5	10	20	50	100
Bromodichloromethane		0.5	1	2	5	10	20	50	100
cis-1,3-Dichloropropene		0.5	1	2	5	10	20	50	100
tert-Butylmethylether		0.5	1	2	5	10	20	50	100
Ethyl Ether			1	2	5	10	20	50	100
Acetonitrile			25	50	125	250	500	1250	2500
Methyl acetate			5	10	25	50	100	250	500
Cyclohexane			1	2	5	10	20	50	100
Methylcyclohexane			1	2	5	10	20	50	100
n-Butyl alcohol			50	100	250	500	1000	2500	5000
2-Nitropropane			5	10	25	50	100	250	500
Ethyl acetate			5	10	25	50	100	250	500
Acrolein			5	10	25	50	100	250	500
Trichlorotrifluoroethane			5	10	25	50	100	250	500
Allyl chloride			5	10	25	50	100	250	500
Acrylonitrile			5	10	25	50	100	250	500
1,4-Dioxane			50	100	250	500	1000	2500	5000
Isobutyl alcohol			50	100	250	500	1000	2500	5000
Methacrylonitrile			5	10	25	50	100	250	500
Propionitrile			5	10	25	50	100	250	500
Methyl methacrylate			5	10	25	50	100	250	500
Chlorotrifluoroethylene			5	10	25	50	100	250	500
2-Chloro-1,1,1-trifluoroethane			5	10	25	50	100	250	500

tert-Butyl alcohol			50	100	250	500	1000	2500	5000
Isopropyl ether			1	2	5	10	20	50	100
Ethyl tert-butyl ether			1	2	5	10	20	50	100
Isopropyl alcohol			50	100	250	500	1000	2500	5000
Methyl tert-amyl ether			1	2	5	10	20	50	100
1-Chlorohexane			1	2	5	10	20	50	100
2-Chloro-1,3-butadiene(chloroprene)			1	2	5	10	20	50	100
Chlorobenzene-d5 (IS)									
Toluene-d8 (surr)		0.5	1	2	5	10	20	50	100
4-Methyl-2-pentanone	1	2.5	5	10	25	50	100	250	500
Toluene		0.5	1	2	5	10	20	50	100
trans-1,3-Dichloropropene		0.5	1	2	5	10	20	50	100
1,1,2-Trichloroethane		0.5	1	2	5	10	20	50	100
Tetrachloroethene		0.5	1	2	5	10	20	50	100
1,3-Dichloropropane		0.5	1	2	5	10	20	50	100
2-Hexanone	1	2.5	5	10	25	50	20	250	500
Dibromochloromethane		0.5	1	2	5	10	20	50	100
1,2-Dibromoethane		0.5	1	2	5	10	20	50	100
Chlorobenzene		0.5	1	2	5	10	20	50	100
1,1,1,2-Tetrachloroethane		0.5	1	2	5	10	20	50	100
Ethylbenzene		0.5	1	2	5	10	20	50	100
m,p-Xylene		1	2	4	10	20	20	100	200
o-Xylene		0.5	1	2	5	10	20	50	100
Xylenes (total)		1.5	3	6	15	30	60	150	300
Stryene		0.5	1	2	5	10	20	50	100
Cyclohexanone			50	100	250	500	1000	2500	5000
Ethyl methacrylate			5	10	25	50	100	250	500
1,4-Dichlorobenzene-d4 (IS)									
Bromofluorobenzene (surr)		0.5	1	2	5	10	20	50	100
Bromoform		0.5	1	2	5	10	20	50	100
Isopropylbenzene		0.5	1	2	5	10	20	50	100
1,1,2,2-Tetrachloroethane		0.5	1	2	5	10	20	50	100
Bromobenzene		0.5	1	2	5	10	20	50	100
1,2,3-Trichloropropane		0.5	1	2	5	10	20	50	100
n-Propylbenzene		0.5	1	2	5	10	20	50	100
2-Chlorotoluene		0.5	1	2	5	10	20	50	100
1,3,5-Trimethylbenzene		0.5	1	2	5	10	20	50	100
4-Chlorotoluene		0.5	1	2	5	10	20	50	100
1,2,4-Trimethylbenzene		0.5	1	2	5	10	20	50	100
sec-Butylbenzene		0.5	1	2	5	10	20	50	100
1,3-Dichlorobenzene		0.5	1	2	5	10	20	50	100
tert-Butylbenzene		0.5	1	2	5	10	20	50	100
Isopropyltoluene		0.5	1	2	5	10	20	50	100
1,4-Dichlorobenzene		0.5	1	2	5	10	20	50	100
n-Butylbenzene		0.5	1	2	5	10	20	50	100
1,2-Dichlorobenzene		0.5	1	2	5	10	20	50	100
1,2-Dibromo-3-chloropropa		0.5	1	2	5	10	20	50	100
1,2,4-Trichlorobenzene		0.5	1	2	5	10	20	50	100
Hexachlorobutadiene		0.5	1	2	5	10	20	50	100
Naphthalene		0.5	1	2	5	10	20	50	100
1,2,3-Trichlorobenzene		0.5	1	2	5	10	20	50	100
cis-1,4-Dichloro-2-butene			5	10	25	50	100	250	500
trans-1,4-Dichloro-2-butene			5	10	25	50	100	250	500
Tetrahydrofuran			5	10	25	50	100	250	500
Pentachloroethane			5	10	25	50	100	250	500
Benzyl chloride			5	10	25	50	100	250	500
bis(2-Chloro-isopropyl)ether			5	10	25	50	100	250	500

Method	PQL	Concentration range
EPA 524.2	Level 1a	Levels 1a -> 7a
SW 846 8260B low level	Level 1a	Levels 1-> 7a
EPA 624	Level 2	Levels 2-> 7a
SW846 8260B	Level 2	Levels 2-> 7a

#: Indicates calibration verification concentration level used for low level analysis

!: Indicates calibration verification concentration level used for regular level analysis

Calibration History Report VOA5
GEL Laboratories, LLC

Method File : C:\msdchem\1\METHODS\VOA5-8260-120909.M
Last Update : Fri Dec 11 08:24:46 2009
Integrator : (RTE Integrator) Response via : Initial Calibration

Cal Lvl:8 Amt:-1 Last Updated with: C:\msdchem\1\DATA\120909V5\50314.D

Injection Date	Mix	Calibration File
9 Dec 2009 5:51 pm	A	C:\msdchem\1\DATA\120909V5\50314.D

Cal Lvl:1 Amt:1 Last Updated with: C:\msdchem\1\DATA\120909V5\50313.D

Injection Date	Mix	Calibration File
9 Dec 2009 5:25 pm	A	C:\msdchem\1\DATA\120909V5\50313.D
9 Dec 2009 1:16 pm	B	C:\msdchem\1\DATA\120909V5\50304.D

Cal Lvl:2 Amt:2 Last Updated with: C:\msdchem\1\DATA\120909V5\50315.D

Injection Date	Mix	Calibration File
9 Dec 2009 6:18 pm	A	C:\msdchem\1\DATA\120909V5\50315.D
9 Dec 2009 1:43 pm	B	C:\msdchem\1\DATA\120909V5\50305.D

Cal Lvl:3 Amt:5 Last Updated with: C:\msdchem\1\DATA\120909V5\50316.D

Injection Date	Mix	Calibration File
9 Dec 2009 6:44 pm	A	C:\msdchem\1\DATA\120909V5\50316.D
9 Dec 2009 2:10 pm	B	C:\msdchem\1\DATA\120909V5\50306.D

Cal Lvl:4 Amt:10 Last Updated with: C:\msdchem\1\DATA\120909V5\50317.D

Injection Date	Mix	Calibration File
9 Dec 2009 7:10 pm	A	C:\msdchem\1\DATA\120909V5\50317.D
9 Dec 2009 2:36 pm	B	C:\msdchem\1\DATA\120909V5\50307.D

Cal Lvl:5 Amt:20 Last Updated with: C:\msdchem\1\DATA\120909V5\50318.D

Injection Date	Mix	Calibration File
9 Dec 2009 7:37 pm	A	C:\msdchem\1\DATA\120909V5\50318.D
9 Dec 2009 3:12 pm	B	C:\msdchem\1\DATA\120909V5\50308.D

Cal Lvl:6 Amt:50 Last Updated with: C:\msdchem\1\DATA\120909V5\50319.D

Injection Date	Mix	Calibration File
9 Dec 2009 8:03 pm	A	C:\msdchem\1\DATA\120909V5\50319.D
9 Dec 2009 3:37 pm	B	C:\msdchem\1\DATA\120909V5\50309.D

Cal Lvl:7 Amt:100 Last Updated with: C:\msdchem\1\DATA\120909V5\50320.D

Injection Date	Mix	Calibration File
9 Dec 2009 8:30 pm	A	C:\msdchem\1\DATA\120909V5\50320.D

Response Factor Report VOA5
GEL Laboratories, LLC

Method File : C:\msdchem\1\METHODS\VOA5-8260-120909.M
Last Update : Fri Dec 11 08:24:46 2009
Integrator : (RTE Integrator) Response via : Initial Calibration

For Linear Calibration: y = concentration ratio, x = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
2)MA Dichlorodifluoromethane	0.1111126	0.1021128 0.1156194	0.1105196	0.1325650	0.1182942	0.1113064	0.1145	AVRG		8.2309
3)MPA Chloromethane	0.2936032	0.3423965 0.2851755	0.3383039	0.3453442	0.3118678	0.3069324	0.3177	AVRG		7.6972
4)MCA Vinyl chloride	0.2622285	0.2994666 0.2536807	0.2744969	0.2949236	0.2719522	0.2718070	0.2755	AVRG		5.9846
5)MA Bromomethane	0.1765919	0.1757730 0.1746548	0.1847363	0.1917565	0.1798502	0.1833618	0.1810	AVRG		3.3732
6)MA Chloroethane	0.1619543	0.1491349 0.1592722	0.1672190	0.1689328	0.1623241	0.1650748	0.1620	AVRG		4.0466
7)MA Trichlorofluoromethane	0.2269629	0.2074686 0.2216540	0.2270192	0.2374928	0.2344361	0.2319564	0.2267	AVRG		4.4088
8)MA Ethyl ether	0.2143220	0.2170814 0.2127761	0.2110121	0.2157674	0.2108792	0.2215354	0.2148	AVRG		1.7581
9)MA Acetone	0.2172956	0.2333423 0.2072189	0.2331200	0.2244317	0.2116169	0.2291520	0.2223	AVRG		4.7074
10)MCA 1,1-Dichloroethylene	0.2754339	0.3057594 0.2864379	0.2900611	0.3001409	0.2669138	0.2719868	0.2852	AVRG		5.1113
11)MA Iodomethane	0.2997499	0.3168702 0.3154717	0.3165504	0.3115140	0.2880645	0.2923264	0.3058	AVRG		3.9985
12)MA Acetonitrile	0.0375140	0.0379775 0.0369694	0.0372130	0.0397062	0.0375472	0.0394966	0.0381	AVRG		2.8878
13)MA Methyl acetate	0.2190833	0.2148577 0.2147946	0.2177894	0.2252539	0.2096973	0.2301090	0.2188	AVRG		3.1505
14)MA Carbon disulfide	0.5897480	0.6050948 0.6156446	0.6259046	0.6064910	0.5624268	0.5642710	0.5957	AVRG		4.1379
15)MA Methylene chloride 0.0033 | 0.2200 | 0.00	304077	657757	17626	32663	59814	117275		LINR		0.9999
16)MA tert-Butyl methyl ether	0.5352590	0.5023025 0.5529007	0.6105458	0.5330706	0.5067191	0.5530040	0.5420	AVRG		6.6885

Response Factor Report VOA5
GEL Laboratories, LLC

Method File : C:\msdchem\1\METHODS\VOA5-8260-120909.M
Last Update : Fri Dec 11 08:24:46 2009
Integrator : (RTE Integrator) Response via : Initial Calibration

For Linear Calibration: y = concentration ratio, x = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
17)MA trans-1,2-Dichloroethyle		0.3373391	0.3218136	0.3175293	0.2874211	0.2940261				
	0.2954748	0.3018192					0.3079	AVRG		5.8640
18)MA Vinyl acetate		0.5021558	0.5112010	0.5484867	0.5664104	0.5821550				
	0.5801901	0.5630606					0.5505	AVRG		5.8297
19)MPA 1,1-Dichloroethane		0.4050926	0.4060775	0.3981877	0.3683246	0.3782722				
	0.3827538	0.3869636					0.3894	AVRG		3.6617
20)MA 2-Butanone		0.2432795	0.2494735	0.2520237	0.2462704	0.2747139				
	0.2859534	0.2645682					0.2595	AVRG		6.1974
21)MA cis-1,2-Dichloroethylene		0.3406206	0.3464585	0.3597039	0.3308541	0.3405686				
	0.3417599	0.3460320					0.3437	AVRG		2.5398
22)MA 2,2-Dichloropropane		0.1978557	0.1880384	0.1937271	0.1774964	0.1851122				
	0.1881621	0.1955015					0.1894	AVRG		3.6762
23)MA Bromochloromethane		0.0985225	0.1064524	0.1082714	0.1000038	0.1079681				
	0.1080226	0.1090068					0.1055	AVRG		4.1008
24)MCA Chloroform		0.3528201	0.3345186	0.3414756	0.3169557	0.3253452				
	0.3255154	0.3295413					0.3323	AVRG		3.5767
25)MA 1,1,1-Trichloroethane		0.2561893	0.2528320	0.2409333	0.2274393	0.2355790				
	0.2348342	0.2468123					0.2421	AVRG		4.2911
26)MA Cyclohexane		0.4426948	0.3851776	0.4122082	0.3667275	0.3844421				
	0.3892649	0.4063312					0.3981	AVRG		6.2133
27)MA 1,1-Dichloropropene		0.2654934	0.2712754	0.2630302	0.2320291	0.2439402				
	0.2499389	0.2563826					0.2546	AVRG		5.3565
28)MA Carbon tetrachloride		0.2145335	0.1917230	0.2114627	0.1890790	0.1948891				
	0.2000138	0.2103147					0.2017	AVRG		5.1292
29)SA 1,2-Dichloroethane-d4		0.2431606	0.2459491	0.2510271	0.2401164	0.2498714				
	0.2390852	0.2247752					0.2420	AVRG		3.6539
30)MA 1,2-Dichloroethane		0.2733690	0.2837186	0.2920807	0.2739600	0.2812764				
	0.2705675	0.2704065					0.2779	AVRG		2.9096
31)MA Benzene		0.9801287	0.8971437	0.8908523	0.8170165	0.8417983				
	0.8382203	0.8588360					0.8749	AVRG		6.2384

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Last Update : Fri Dec 11 08:24:46 2009
Integrator : (RTE Integrator) Response via : Initial Calibration

For Linear Calibration: y = concentration ratio, x = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
32)MA Cyclohexene	0.4008365	0.4370583 0.4212141	0.4131850	0.4211729	0.3739752	0.3911012	0.4084	AVRG		5.2072
33)MA n-Butyl alcohol -0.0183 | 0.0091 | 0.00	6551 1202062	13592 2697168	29612	85401	193859	449490		LINR	#	0.9996
34)MA Trichloroethylene	0.1935224	0.2186643 0.2004262	0.2085154	0.2051713	0.1865845	0.1940652	0.2010	AVRG		5.3664
35)MCA 1,2-Dichloropropane	0.2395893	0.2515952 0.2444223	0.2473553	0.2484847	0.2358773	0.2453328	0.2447	AVRG		2.1969
36)MA Methylcyclohexane	0.3517087	0.4011548 0.3738338	0.3620227	0.3688625	0.3243288	0.3414312	0.3605	AVRG		6.8441
37)MA Dibromomethane	0.1175422	0.1094480 0.1202383	0.1160164	0.1167273	0.1145486	0.1191473	0.1162	AVRG		3.0500
38)MA Bromodichloromethane	0.2457614	0.2320606 0.2530934	0.2288515	0.2397219	0.2258157	0.2442477	0.2385	AVRG		4.1776
39)MA 2-Chloroethylvinyl ether	0.1371942	0.0998968 0.1371935	0.1060376	0.1502845	0.1210259	0.1374517	0.1270	AVRG		14.6202
40)MA cis-1,3-Dichloropropylen	0.3317456	0.2956446 0.3407346	0.2951350	0.3160998	0.2898814	0.3216472	0.3130	AVRG		6.3364
42)MA 4-Methyl-2-pentanone	0.1858169	0.1323093 0.1703346	0.1375987	0.1480644	0.1507025	0.1687553	0.1562	AVRG		12.3893
43)SA Toluene-d8	1.4439194	1.4386253 1.3974198	1.4196126	1.4352901	1.4165317	1.4645366	1.4308	AVRG		1.5191
44)MCA Toluene	1.2982975	1.5460920 1.3389301	1.4499814	1.3799416	1.2586708	1.2850950	1.3653	AVRG		7.5088
45)MA trans-1,3-Dichloropropyl	0.4218137	0.3894085 0.4413817	0.3743400	0.3956127	0.3800093	0.4139770	0.4024	AVRG		6.0317
46)MA 1,1,2-Trichloroethane	0.2268119	0.2163319 0.2305309	0.2306319	0.2251380	0.2219837	0.2303015	0.2260	AVRG		2.3659
47)MA 2-Hexanone	0.5724767	0.3865286 0.5231856	0.4149743	0.4368021	0.4524446	0.5163856	0.4718	AVRG		14.1816

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Compound b | m1 | m2	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
48)MA 1,3-Dichloropropane	0.4990673	0.4959776 0.4999491	0.4922767	0.4968788	0.4795399	0.4991995	0.4947	AVRG		1.4505
49)MA Tetrachloroethylene	0.2320219	0.2825593 0.2398411	0.2476963	0.2517222	0.2251517	0.2367946	0.2451	AVRG		7.6677
50)MA Dibromochloromethane	0.2747696	0.2275379 0.2896424	0.2335730	0.2425580	0.2485519	0.2677761	0.2549	AVRG		9.0081
51)MA 1,2-Dibromoethane	0.2565673	0.2492215 0.2609115	0.2585581	0.2433399	0.2410629	0.2574316	0.2524	AVRG		3.1265
52)MPA Chlorobenzene	0.8090214	0.9589535 0.8354621	0.9189166	0.8584908	0.7998078	0.8106417	0.8559	AVRG		7.1401
53)MA 1,1,1,2-Tetrachloroethan	0.2774366	0.2628928 0.2910395	0.2657508	0.2624386	0.2560024	0.2720308	0.2697	AVRG		4.3431
54)MCA Ethylbenzene	1.3965639	1.5404329 1.4483127	1.3771227	1.4100443	1.3348121	1.3728111	1.4114	AVRG		4.7319
55)MA m,p-Xylenes	0.5662689	0.5887633 0.5883227	0.5534146	0.5547098	0.5314657	0.5494849	0.5618	AVRG		3.7359
56)MA o-Xylene	0.5720848	0.5819276 0.5964838	0.5428294	0.5314428	0.5248634	0.5552209	0.5578	AVRG		4.7951
57)MA Styrene	0.9642804	0.7271014 1.0146991	0.7635895	0.8483262	0.8260082	0.8947313	0.8627	AVRG		11.9917
59)MPA Bromoform	0.3269253	0.2482628 0.3488276	0.2781191	0.2727471	0.2870127	0.3162783	0.2969	AVRG		11.8076
60)MA Isopropylbenzene	2.4313602	2.6478768 2.5530843	2.4210004	2.5101439	2.3000903	2.3985928	2.4660	AVRG		4.6208
61)SA Bromofluorobenzene	0.9339909	0.9511564 0.8989060	0.9197863	0.9311865	0.8969772	0.9433084	0.9250	AVRG		2.2641
62)MPA 1,1,2,2-Tetrachloroethan	0.6488072	0.6445028 0.6616842	0.6460323	0.6469221	0.6241789	0.6752478	0.6496	AVRG		2.4311
63)MA 1,2,3-Trichloropropane	0.1659740	0.1319314 0.1673963	0.1809409	0.1721108	0.1651703	0.1773375	0.1658	AVRG		9.6989

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Compound b | m1 | m2	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
64)MA Bromobenzene		0.7289656	0.7039221	0.6686943	0.6172711	0.6368818				
	0.6295981	0.6423660					0.6611	AVRG		6.2818
65)MA n-Propylbenzene		3.2336568	2.9769004	3.0334259	2.7933706	2.9010021				
	2.9502789	3.0710667					2.9942	AVRG		4.6444
66)MA 1,3,5-Trimethylbenzene		2.1253883	1.9950284	2.0307363	1.9189691	2.0274389				
	2.0664076	2.1643736					2.0469	AVRG		3.9908
67)MA 2-Chlorotoluene		0.7082399	0.6514436	0.6411381	0.5901539	0.6138152				
	0.6227445	0.6426153					0.6386	AVRG		5.8067
68)MA 4-Chlorotoluene		1.9844312	1.8271084	1.8516759	1.7277301	1.7954913				
	1.8012545	1.8599910					1.8354	AVRG		4.3074
69)MA tert-Butylbenzene		0.4872771	0.4599619	0.4677957	0.4332997	0.4549944				
	0.4644512	0.4929503					0.4658	AVRG		4.3036
70)MA 1,2,4-Trimethylbenzene		2.1017655	2.0047236	2.0620312	1.9748482	2.0906486				
	2.1316498	2.2183456					2.0834	AVRG		3.8874
71)MA sec-Butylbenzene		2.8843282	2.6663698	2.6892482	2.4727235	2.6561654				
	2.6933703	2.8347591					2.6996	AVRG		4.9468
72)MA 4-Isopropyltoluene		2.1621598	1.9749050	2.1103920	1.9700169	2.1050441				
	2.1548534	2.2723688					2.1071	AVRG		5.0860
73)MA 1,3-Dichlorobenzene		1.4072313	1.2601603	1.2493320	1.1746747	1.2153286				
	1.2165542	1.2552555					1.2541	AVRG		5.8895
74)MA 1,4-Dichlorobenzene		1.5003855	1.3514763	1.3247652	1.2206444	1.2628814				
	1.2377333	1.2736994					1.3102	AVRG		7.3026
75)MA n-Butylbenzene		2.1345255	1.9575437	2.0544219	1.9051535	2.0392300				
	2.0976471	2.2019828					2.0558	AVRG		4.9425
76)MA 1,2-Dichlorobenzene		1.2101141	1.2218865	1.2277577	1.1446176	1.1954894				
	1.1796003	1.2066349					1.1980	AVRG		2.3786
77)MA 1,2-Dibromo-3-chloroprop		0.0931543	0.1005039	0.1043309	0.1057242	0.1179628				
	0.1194916	0.1302212					0.1102	AVRG		11.6358
78)MA 1,2,4-Trichlorobenzene		0.7295228	0.7252291	0.7851210	0.7748655	0.8243048				
	0.8114973	0.8403439					0.7844	AVRG		5.7156

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For Linear Calibration: y = concentration ratio, x = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
79)MA Hexachlorobutadiene	0.4353791	0.5244942 0.4430770	0.4860039	0.4645189	0.4280469	0.4385970	0.4600	AVRG		7.5449
80)MA Naphthalene -0.0413 | 2.0072 | 0.00	1029585	11253 2256381	24616	68762	162253	375773		LINR		0.9998
81)MA 1,2,3-Trichlorobenzene	0.7217996	0.5880085 0.7252848	0.6408464	0.6657254	0.6932569	0.7403980	0.6822	AVRG		7.9813
83)B Chlorotrifluoroethylene	0.1240451	0.0995263	0.1133697	0.1262712	0.1287280	0.1370400	0.1215	AVRG		10.8690
84)B 2-Chloro-1,1,1-trifluoro	0.2610435	0.2697009	0.2510836	0.2641333	0.2594330	0.2629626	0.2614	AVRG		2.3536
85)B Acrolein 0.0049 | 0.0292 | 0.00	193440	5163	11210	24798	40870	92529		LINR		0.9931
86)B Trichlorotrifluoroethane	0.0674279	0.0746655	0.0650381	0.0589621	0.0694364	0.0695026	0.0675	AVRG		7.7843
87)B Isopropyl Alcohol	0.0189068	0.0139117	0.0180860	0.0171051	0.0172834	0.0203935	0.0176	AVRG		12.3588
88)B Allyl chloride	0.4320928	0.4187741	0.3920210	0.3620737	0.4131044	0.4240745	0.4070	AVRG		6.3498
89)B tert-Butyl Alcohol	0.0253061	0.0175531	0.0233240	0.0225139	0.0229860	0.0272400	0.0232	AVRG		14.0832
90)B Acrylonitrile	0.0909716	0.0735593	0.0890670	0.0889018	0.0873084	0.0951070	0.0875	AVRG		8.3796
91)B Isopropyl ether	0.9984919	0.8862218	0.8908984	0.9385168	0.9505379	0.9928958	0.9429	AVRG		5.1047
92)B 2-Chloro-1,3-butadiene	0.3539684	0.3150225	0.3032859	0.2795955	0.3257625	0.3471538	0.3208	AVRG		8.6581
93)B Ethyl tert-butyl ether	0.7240173	0.5841328	0.6312354	0.6451881	0.6766976	0.7089624	0.6617	AVRG		7.8700
94)B Ethyl acetate	0.2780889	0.2423698	0.2799208	0.2693549	0.2650441	0.2881226	0.2705	AVRG		5.9137

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For Linear Calibration: y = concentration ratio, x = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
95)B Propionitrile	0.0365738	0.0257923	0.0342802	0.0349834	0.0342315	0.0383720	0.0340	AVRG		12.7513
96)B Methacrylonitrile	0.1773104	0.1435588	0.1689365	0.1674444	0.1663116	0.1806159	0.1674	AVRG		7.7667
97)B Tetrahydrofuran	0.0890960	0.0778095	0.0911164	0.0874412	0.0858895	0.0935834	0.0875	AVRG		6.2424
98)B Isobutyl alcohol -0.0072 | 0.0119 | 0.00	771113	8952	24198	59972	130464	303144		LINR		0.9996
99)B Methyl tert-amyl ether	0.5826208	0.4611181	0.4769684	0.4917272	0.5218093	0.5590837	0.5156	AVRG		9.2827
100)B Methyl methacrylate -0.0161 | 0.1729 | 0.00	1119057	12973	32536	82896	177835	416543		LINR		0.9991
101)B 1,4-Dioxane -0.0009 | 0.0024 | 0.00	156073	1422	5407	13264	26806	63851		LINR	#	0.9991
102)B 2-Nitropropane -0.0080 | 0.0708 | 0.00	456172	5041	11658	32209	67041	171634		LINR		0.9985
104)B Ethyl methacrylate -0.0477 | 0.4816 | 0.00	2188351	24292	59064	157982	342611	810740		LINR		0.9992
106)B 1-Chlorohexane	0.7505385	0.6110701	0.5981291	0.6558543	0.6807784	0.7174604	0.6690	AVRG		8.8907
107)B cis-1,4-Dichloro-2-buten	0.2675245	0.1876237	0.1940250	0.2200665	0.2268912	0.2547492	0.2251	AVRG		14.1540
108)B Cyclohexanone -0.0301 | 0.0813 | 0.00	909974	9615	27618	72924	147679	369629		LINR		0.9992
109)B trans-1,4-Dichloro-2-but	0.2516517	0.1711759	0.2031358	0.2134954	0.2172153	0.2434218	0.2167	AVRG		13.3799
110)B Pentachloroethane	0.4325769	0.3091941	0.3107155	0.3383182	0.3661682	0.3831732	0.3567	AVRG		13.3026
111)B Benzyl chloride -0.2166 | 1.4463 | 0.00	3229170	30054	73003	212957	473611	1154605		LINR		0.9976

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For Linear Calibration: y = concentration ratio, x = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
112)B bis(2-Chloroisopropyl)et	0.4088005	0.2702200	0.3353271	0.3482957	0.3385506	0.4104773	0.3519	AVRG		14.9307

(#) = Out of Range

Continuing Calibration Summary

Client SDG: 10-1085-1

Instrument ID: VOA5.I **Injection Date** 09-DEC-09 21:22

Data File: 120909V5\5O322.D **Init. Cal. Date(s)** 09-DEC-09 17:25 - 09-DEC-09 20:3

Lab Sample ID W5VM091209-09 **Quant Type** ISTD **Method:** VOA5-8260-120909.M

	Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type	
S	1,2-Dichloroethane-d4	0.242	0.24086		.01		-0.47107	30		Averaged	
S	Toluene-d8	1.4308	1.44637		.01		1.0882	30		Averaged	
S	Bromofluorobenzene	0.925	0.93217		.01		0.77514	30		Averaged	
	Dichlorodifluoromethane	0.1145	0.09612		.01		-16.0524	30		Averaged	
	Chloromethane	0.3177	0.25404		.1		-20.03777	30		Averaged	spcc
	Vinyl chloride	0.2755	0.24203		.01		-12.14882	20		Averaged	ccc
	Bromomethane	0.181	0.16791		.01		-7.23204	30		Averaged	
	Chloroethane	0.162	0.15545		.01		-4.04321	30		Averaged	
	Trichlorofluoromethane	0.2267	0.21867		.01		-3.54213	30		Averaged	
	Ethyl ether	0.2148	0.20965		.01		-2.39758	30		Averaged	
	Acetone	0.2223	0.18197		.01		-18.14215	40		Averaged	
	1,1-Dichloroethylene	0.2852	0.26721		.01		-6.30785	20		Averaged	ccc
	Iodomethane	0.3058	0.30071		.01		-1.66449	30		Averaged	
	Acetonitrile	0.0381	0.03665		.01		-3.80577	30		Averaged	
	Methyl acetate	0.2188	0.21075		.01		-3.67916	40		Averaged	
	Carbon disulfide	0.5957	0.61744		.01		3.64949	30		Averaged	
	Methylene chloride	50	51.48	50			2.96	30		Linear	
	tert-Butyl methyl ether	0.542	0.53226		.01		-1.79705	30		Averaged	
	trans-1,2-Dichloroethylene	0.3079	0.30084		.01		-2.29295	30		Averaged	
	Vinyl acetate	0.5505	0.60833		.01		10.505	40		Averaged	
	1,1-Dichloroethane	0.3894	0.38982		.1		0.10786	30		Averaged	spcc
	2-Butanone	0.2595	0.21985		.01		-15.27938	40		Averaged	
	cis-1,2-Dichloroethylene	0.3437	0.35207		.01		2.43526	30		Averaged	
	2,2-Dichloropropane	0.1894	0.19562		.01		3.28405	30		Averaged	
	Bromochloromethane	0.1055	0.11127		.01		5.46919	30		Averaged	
	Chloroform	0.3323	0.34177		.01		2.84983	20		Averaged	ccc
	1,1,1-Trichloroethane	0.2421	0.24133		.01		-0.31805	30		Averaged	
	Cyclohexane	0.3981	0.39946		.01		0.34162	30		Averaged	
	1,1-Dichloropropene	0.2546	0.25812		.01		1.38256	30		Averaged	
	Carbon tetrachloride	0.2017	0.20738		.01		2.81606	30		Averaged	
	1,2-Dichloroethane	0.2779	0.27959		.01		0.60813	30		Averaged	
	Benzene	0.8749	0.87852		.01		0.41376	30		Averaged	
	Cyclohexene	0.4084	0.40377		.01		-1.13369	30		Averaged	
	n-Butyl alcohol	5000	4828.36	5000			-3.4328	40		Linear	
	Trichloroethylene	0.201	0.20115		.01		0.07463	30		Averaged	
	1,2-Dichloropropane	0.2447	0.25296		.01		3.37556	20		Averaged	ccc
	Methylcyclohexane	0.3605	0.36344		.01		0.81553	30		Averaged	

Continuing Calibration Summary

Instrument ID: VOA5.I **Injection Dat** 09-DEC-09 21:22

Data File: 120909V5\5O322.D **Init. Cal. Date(s)** 09-DEC-09 17:25 09-DEC-09 20:3

Lab Sample ID W5VM091209-09 **Quant Type** ISTD **Method:** VOA5-8260-120909.M

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type	
Dibromomethane	0.1162	0.12173		.01		4.75904	30		Averaged	
Bromodichloromethane	0.2385	0.25871		.01		8.47379	30		Averaged	
2-Chloroethylvinyl ether	0.127	0.12565		.01		-1.06299	30		Averaged	
cis-1,3-Dichloropropylene	0.313	0.34614		.01		10.58786	30		Averaged	
4-Methyl-2-pentanone	0.1562	0.15373		.01		-1.58131	40		Averaged	
Toluene	1.3653	1.3427		.01		-1.65531	20		Averaged	ccc
trans-1,3-Dichloropropylene	0.4024	0.4399		.01		9.31909	30		Averaged	
1,1,2-Trichloroethane	0.226	0.23374		.01		3.42478	30		Averaged	
2-Hexanone	0.4718	0.40687		.01		-13.76219	40		Averaged	
1,3-Dichloropropane	0.4947	0.50801		.01		2.69052	30		Averaged	
Tetrachloroethylene	0.2451	0.23446		.01		-4.34109	30		Averaged	
Dibromochloromethane	0.2549	0.28405		.01		11.43586	30		Averaged	
1,2-Dibromoethane	0.2524	0.26079		.01		3.32409	30		Averaged	
Chlorobenzene	0.8559	0.85468		.3		-0.14254	30		Averaged	spcc
1,1,1,2-Tetrachloroethane	0.2697	0.29435		.01		9.13978	30		Averaged	
Ethylbenzene	1.4114	1.4301		.01		1.32493	20		Averaged	ccc
m,p-Xylenes	0.5618	0.57965		.01		3.17729	30		Averaged	
o-Xylene	0.5578	0.59103		.01		5.95733	30		Averaged	
Styrene	0.8627	0.99703		.01		15.57088	30		Averaged	
Bromoform	0.2969	0.33384		.1		12.4419	30		Averaged	spcc
Isopropylbenzene	2.466	2.51499		.01		1.98662	30		Averaged	
1,1,2,2-Tetrachloroethane	0.6496	0.66415		.3		2.23984	30		Averaged	spcc
1,2,3-Trichloropropane	0.1658	0.17143		.01		3.39566	30		Averaged	
Bromobenzene	0.6611	0.65447		.01		-1.00287	30		Averaged	
n-Propylbenzene	2.9942	3.03347		.01		1.31154	30		Averaged	
1,3,5-Trimethylbenzene	2.0469	2.12223		.01		3.6802	30		Averaged	
2-Chlorotoluene	0.6386	0.64542		.01		1.06796	30		Averaged	
4-Chlorotoluene	1.8354	1.87478		.01		2.14558	30		Averaged	
tert-Butylbenzene	0.4658	0.48277		.01		3.64319	30		Averaged	
1,2,4-Trimethylbenzene	2.0834	2.17787		.01		4.53441	30		Averaged	
sec-Butylbenzene	2.6996	2.76787		.01		2.52889	30		Averaged	
4-Isopropyltoluene	2.1071	2.1946		.01		4.15263	30		Averaged	
1,3-Dichlorobenzene	1.2541	1.25678		.01		0.2137	30		Averaged	
1,4-Dichlorobenzene	1.3102	1.27417		.01		-2.74996	30		Averaged	
n-Butylbenzene	2.0558	2.1041		.01		2.34945	30		Averaged	
1,2-Dichlorobenzene	1.198	1.2181		.01		1.6778	30		Averaged	
1,2-Dibromo-3-chloropropane	0.1102	0.12072		.01		9.54628	30		Averaged	

Continuing Calibration Summary

Instrument ID: VOA5.I **Injection Date** 09-DEC-09 21:22

Data File: 120909V5\5O322.D **Init. Cal. Date(s)** 09-DEC-09 17:25 09-DEC-09 20:3

Lab Sample ID W5VM091209-09 **Quant Type** ISTD **Method:** VOA5-8260-120909.M

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
1,2,4-Trichlorobenzene	0.7844	0.78842		.01		0.51249	30		Averaged
Hexachlorobutadiene	0.46	0.43678		.01		-5.04783	30		Averaged
Naphthalene	50	48.08	50			-3.84	30		Linear
1,2,3-Trichlorobenzene	0.6822	0.73101		.01		7.15479	30		Averaged

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\120909V5\
Data File : 50322.D
Acq On : 9 Dec 2009 9:22 pm
Operator : DXK1
InstName : VOA5
Sample : |W5VM091209-09|ICV|1|VOA|1|
Misc : ICV 5mL N/A MIX[A] Ultra
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Dec 11 08:28:20 2009
Quant Method : C:\msdchem\1\METHODS\VOA5-8260-120909.M
Quant Title : Volatile Organics 8260B
QLast Update : Fri Dec 11 08:24:46 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	10.375	96	1406804	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.547	117	993715	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	15.959	152	542323	50.00	ug/L	0.00
82) B Fluorobenzene	10.375	96	1406804	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.547	117	993715	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	15.959	152	542323	50.00	ug/L	0.00
System Monitoring Compounds						
29) 1,2-Dichloroethane-d4	10.022	65	338843	49.76	ug/L	0.00
43) Toluene-d8	12.016	98	1437279	50.54	ug/L	0.00
61) Bromofluorobenzene	14.739	95	505535	50.38	ug/L	0.00
Target Compounds						Qvalue
2) Dichlorodifluoromethane	4.699	85	135220	41.97	ug/L	99
3) Chloromethane	5.041	50	357380	39.99	ug/L	100
4) Vinyl chloride	5.273	62	340482	43.92	ug/L	100
5) Bromomethane	5.867	94	236213	46.39	ug/L	98
6) Chloroethane	6.018	64	218690	47.98	ug/L	100
7) Trichlorofluoromethane	6.411	101	307621	48.23	ug/L	99
8) Ethyl ether	6.733	59	294942	48.81	ug/L	100
9) Acetone	7.097	43	1279943	204.63	ug/L	100
10) 1,1-Dichloroethylene	7.129	61	375918	46.84	ug/L	99
11) Iodomethane	7.376	142	2115166	245.84	ug/L	100
12) Acetonitrile	7.447	41	1288919	1203.61	ug/L	99
13) Methyl acetate	7.493	43	1482388	240.80	ug/L	100
14) Carbon disulfide	7.511	76	4343052	259.14	ug/L	99
15) Methylene chloride	7.695	84	323271	51.48	ug/L	97
16) tert-Butyl methyl ether	7.988	73	748779	49.10	ug/L	99
17) trans-1,2-Dichloroethy...	8.034	61	423219	48.85	ug/L	100
18) Vinyl acetate	8.455	43	4278988	276.25	ug/L	99
19) 1,1-Dichloroethane	8.508	63	548400	50.06	ug/L	99
20) 2-Butanone	9.077	43	1546448	211.83	ug/L	99
21) cis-1,2-Dichloroethylene	9.148	61	495291	51.22	ug/L	99
22) 2,2-Dichloropropane	9.169	77	275202	51.64	ug/L	99
23) Bromochloromethane	9.417	128	156528	52.75	ug/L	99
24) Chloroform	9.452	83	480809	51.42	ug/L	100
25) 1,1,1-Trichloroethane	9.732	97	339510	49.84	ug/L	100
26) Cyclohexane	9.831	56	561960	50.17	ug/L	99
27) 1,1-Dichloropropene	9.887	75	363121	50.69	ug/L	99
28) Carbon tetrachloride	9.926	117	291741	51.40	ug/L	100
30) 1,2-Dichloroethane	10.103	62	393332	50.30	ug/L	100
31) Benzene	10.124	78	1235899	50.21	ug/L	100
32) Cyclohexene	10.244	67	568028	49.44	ug/L	98
33) n-Butyl alcohol	10.460	56	1216400	4828.36	ug/L	100
34) Trichloroethylene	10.764	95	282982	50.04	ug/L	100
35) 1,2-Dichloropropane	11.008	63	355859	51.69	ug/L	99
36) Methylcyclohexane	11.015	83	511289	50.41	ug/L	98
37) Dibromomethane	11.143	93	171252	52.36	ug/L	99
38) Bromodichloromethane	11.252	83	363956	54.24	ug/L	99
39) 2-Chloroethylvinyl ether	11.468	63	883796	247.31	ug/L	99
40) cis-1,3-Dichloropropylene	11.701	75	486947	55.30	ug/L	99

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\120909V5\
Data File : 50322.D
Acq On : 9 Dec 2009 9:22 pm
Operator : DXK1
InstName : VOA5
Sample : |W5VM091209-09|ICV|1|VOA|1|
Misc : ICV 5mL N/A MIX[A] Ultra
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Dec 11 08:28:20 2009
Quant Method : C:\msdchem\1\METHODS\VOA5-8260-120909.M
Quant Title : Volatile Organics 8260B
QLast Update : Fri Dec 11 08:24:46 2009
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
42)	4-Methyl-2-pentanone	11.783	58	763829	246.01 ug/L	99
44)	Toluene	12.090	91	1334263	49.17 ug/L	100
45)	trans-1,3-Dichloroprop...	12.239	75	437131	54.66 ug/L	98
46)	1,1,2-Trichloroethane	12.462	83	232271	51.72 ug/L	100
47)	2-Hexanone	12.631	43	2021552	215.58 ug/L	100
48)	1,3-Dichloropropane	12.656	76	504816	51.35 ug/L #	82
49)	Tetrachloroethylene	12.691	164	232989	47.83 ug/L	99
50)	Dibromochloromethane	12.925	129	282260	55.71 ug/L	99
51)	1,2-Dibromoethane	13.095	107	259149	51.65 ug/L	99
52)	Chlorobenzene	13.579	112	849304	49.93 ug/L	99
53)	1,1,1,2-Tetrachloroethane	13.632	131	292498	54.58 ug/L	98
54)	Ethylbenzene	13.639	91	1421116	50.66 ug/L	99
55)	m,p-Xylenes	13.745	106	1152016	103.18 ug/L	100
56)	o-Xylene	14.180	106	587316	52.98 ug/L	100
57)	Styrene	14.184	104	990761	57.79 ug/L	99
59)	Bromoform	14.445	173	181049	56.22 ug/L	99
60)	Isopropylbenzene	14.537	105	1363936	50.99 ug/L	100
62)	1,1,2,2-Tetrachloroethane	14.810	83	360186	51.12 ug/L	99
63)	1,2,3-Trichloropropane	14.898	110	92968	51.68 ug/L	98
64)	Bromobenzene	14.951	156	354936	49.50 ug/L	98
65)	n-Propylbenzene	14.965	91	1645123	50.66 ug/L	100
66)	1,3,5-Trimethylbenzene	15.114	105	1150934	51.84 ug/L	100
67)	2-Chlorotoluene	15.117	126	350026	50.53 ug/L	98
68)	4-Chlorotoluene	15.216	91	1016739	51.07 ug/L	100
69)	tert-Butylbenzene	15.489	134	261819	51.82 ug/L	99
70)	1,2,4-Trimethylbenzene	15.528	105	1181109	52.27 ug/L	100
71)	sec-Butylbenzene	15.712	105	1501080	51.27 ug/L	100
72)	4-Isopropyltoluene	15.832	119	1190182	52.08 ug/L	100
73)	1,3-Dichlorobenzene	15.902	146	681583	50.11 ug/L	100
74)	1,4-Dichlorobenzene	15.987	146	691011	48.62 ug/L	99
75)	n-Butylbenzene	16.277	91	1141102	51.18 ug/L	99
76)	1,2-Dichlorobenzene	16.419	146	660603	50.84 ug/L	100
77)	1,2-Dibromo-3-chloropr...	17.294	157	65468	54.77 ug/L	99
78)	1,2,4-Trichlorobenzene	18.371	180	427577	50.26 ug/L	100
79)	Hexachlorobutadiene	18.548	225	236877	47.47 ug/L	99
80)	Naphthalene	18.762	128	1024279	48.08 ug/L	100
81)	1,2,3-Trichlorobenzene	19.116	180	396445	53.58 ug/L	100
83)	Chlorotrifluoroethylene	0.000		0	N.D.	
84)	2-Chloro-1,1,1-trifluo...	0.000		0	N.D.	
85)	Acrolein	0.000		0	N.D.	
86)	Trichlorotrifluoroethane	0.000		0	N.D.	
87)	Isopropyl Alcohol	0.000		0	N.D.	
88)	Allyl chloride	7.447		0m	N.D. d	
89)	tert-Butyl Alcohol	7.698		0m	N.D. d	
90)	Acrylonitrile	7.988		0m	N.D. d	
91)	Isopropyl ether	8.458		0m	N.D. d	
92)	2-Chloro-1,3-butadiene	8.611		0m	N.D. d	
93)	Ethyl tert-butyl ether	0.000		0	N.D.	
94)	Ethyl acetate	9.077		0m	N.D. d	
95)	Propionitrile	9.074		0m	N.D. d	
96)	Methacrylonitrile	9.169		0m	N.D. d	
97)	Tetrahydrofuran	9.456		0m	N.D. d	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\120909V5\
Data File : 50322.D
Acq On : 9 Dec 2009 9:22 pm
Operator : DXK1
InstName : VOA5
Sample : |W5VM091209-09|ICV|1|VOA|1|
Misc : ICV 5mL N/A MIX[A] Ultra
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Dec 11 08:28:20 2009
Quant Method : C:\msdchem\1\METHODS\VOA5-8260-120909.M
Quant Title : Volatile Organics 8260B
QLast Update : Fri Dec 11 08:24:46 2009
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
98)	Isobutyl alcohol	9.831		0m	N.D.	d
99)	Methyl tert-amyl ether	10.128		0m	N.D.	d
100)	Methyl methacrylate	11.019		0m	N.D.	d
101)	1,4-Dioxane	11.146		0m	N.D.	d
102)	2-Nitropropane	11.468		0m	N.D.	d
104)	Ethyl methacrylate	12.016		0m	N.D.	d
106)	1-Chlorohexane	0.000		0	N.D.	
107)	cis-1,4-Dichloro-2-butene	14.537		0m	N.D.	d
108)	Cyclohexanone	14.545		0m	N.D.	d
109)	trans-1,4-Dichloro-2-b...	14.965		0m	N.D.	d
110)	Pentachloroethane	15.559		0m	N.D.	d
111)	Benzyl chloride	16.097		0m	N.D.	d
112)	bis(2-Chloroisopropyl)...	16.546		0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\120909V5\
Data File : 5O322.D
Acq On : 9 Dec 2009 9:22 pm
Operator : DXK1
InstName : VOA5
Sample : |W5VM091209-09|ICV|1|VOA|1|
Misc : ICV 5mL N/A MIX[A] Ultra
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Dec 11 08:28:20 2009
Quant Method : C:\msdchem\1\METHODS\VOA5-8260-120909.M
Quant Title : Volatile Organics 8260B
QLast Update : Fri Dec 11 08:24:46 2009
Response via : Initial Calibration
Integrator: RTE

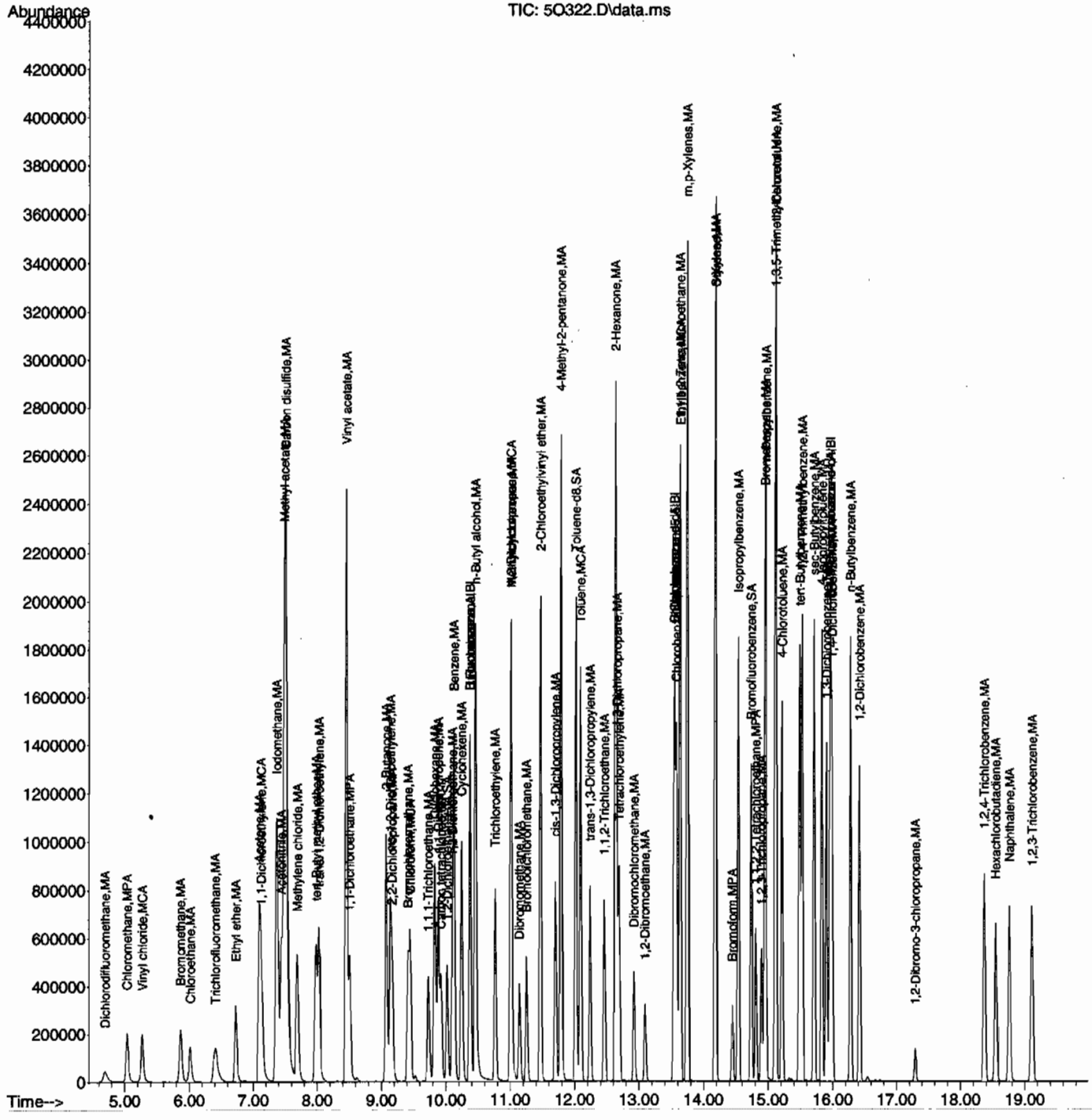

Continuing Calibration Summary

Client SDG: 10-1085-1

Instrument ID: VOA5.I **Injection Date** 31-DEC-09 08:59

Data File: 123109V5\5R402.D **Init. Cal. Date(s)** 09-DEC-09 17:25 - 09-DEC-09 20:3

Lab Sample ID W5VM091231-01 **Quant Type** ISTD **Method:** VOA5-8260-120909.M

	Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type	
S	1,2-Dichloroethane-d4	0.242	0.22695		.01		-6.21901	30		Averaged	
S	Toluene-d8	1.4308	1.36497		.01		-4.60092	30		Averaged	
S	Bromofluorobenzene	0.925	0.92534		.01		0.03676	30		Averaged	
	Dichlorodifluoromethane	0.1145	0.13055		.01		14.01747	30		Averaged	
	Chloromethane	0.3177	0.27936		.1		-12.06799	30		Averaged	spcc
	Vinyl chloride	0.2755	0.2667		.01		-3.19419	20		Averaged	ccc
	Bromomethane	0.181	0.18443		.01		1.89503	30		Averaged	
	Chloroethane	0.162	0.17312		.01		6.8642	30		Averaged	
	Trichlorofluoromethane	0.2267	0.28013		.01		23.56859	30		Averaged	
	Ethyl ether	0.2148	0.20392		.01		-5.06518	30		Averaged	
	Acetone	0.2223	0.15995		.01		-28.04768	40		Averaged	
	1,1-Dichloroethylene	0.2852	0.31284		.01		9.69144	20		Averaged	ccc
	Iodomethane	0.3058	0.3185		.01		4.15304	30		Averaged	
	Acetonitrile	0.0381	0.03313		.01		-13.04462	30		Averaged	
	Methyl acetate	0.2188	0.19548		.01		-10.65814	40		Averaged	
	Carbon disulfide	0.5957	0.70365		.01		18.12154	30		Averaged	
	Methylene chloride	50	52.13	50			4.26	30		Linear	
	tert-Butyl methyl ether	0.542	0.44522		.01		-17.85609	30		Averaged	
	trans-1,2-Dichloroethylene	0.3079	0.31802		.01		3.28678	30		Averaged	
	Vinyl acetate	0.5505	0.59517		.01		8.11444	40		Averaged	
	1,1-Dichloroethane	0.3894	0.40131		.1		3.05855	30		Averaged	spcc
	2-Butanone	0.2595	0.19197		.01		-26.02312	40		Averaged	
	cis-1,2-Dichloroethylene	0.3437	0.35286		.01		2.66511	30		Averaged	
	2,2-Dichloropropane	0.1894	0.21825		.01		15.23231	30		Averaged	
	Bromochloromethane	0.1055	0.1104		.01		4.64455	30		Averaged	
	Chloroform	0.3323	0.35992		.01		8.31177	20		Averaged	ccc
	1,1,1-Trichloroethane	0.2421	0.27968		.01		15.52251	30		Averaged	
	Cyclohexane	0.3981	0.44661		.01		12.18538	30		Averaged	
	1,1-Dichloropropene	0.2546	0.29346		.01		15.26316	30		Averaged	
	Carbon tetrachloride	0.2017	0.25104		.01		24.46207	30		Averaged	
	1,2-Dichloroethane	0.2779	0.27739		.01		-0.18352	30		Averaged	
	Benzene	0.8749	0.92823		.01		6.09555	30		Averaged	
	Cyclohexene	0.4084	0.45705		.01		11.91234	30		Averaged	
	n-Butyl alcohol	5000	4274.87	5000			-14.5026	40		Linear	
	Trichloroethylene	0.201	0.22088		.01		9.89055	30		Averaged	
	1,2-Dichloropropane	0.2447	0.24549		.01		0.32284	20		Averaged	ccc
	Methylcyclohexane	0.3605	0.41353		.01		14.71012	30		Averaged	

Continuing Calibration Summary

Instrument ID: VOA5.I **Injection Date** 31-DEC-09 08:59

Data File: 123109V5\5R402.D **Init. Cal. Date(s)** 09-DEC-09 17:25 09-DEC-09 20:3

Lab Sample ID W5VM091231-01 **Quant Type** ISTD **Method:** VOA5-8260-120909.M

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type	
Dibromomethane	0.1162	0.12065		.01		3.8296	30		Averaged	
Bromodichloromethane	0.2385	0.26793		.01		12.33962	30		Averaged	
2-Chloroethylvinyl ether	0.127	0.11479		.01		-9.61417	30		Averaged	
cis-1,3-Dichloropropylene	0.313	0.34936		.01		11.61661	30		Averaged	
4-Methyl-2-pentanone	0.1562	0.14903		.01		-4.59027	40		Averaged	
Toluene	1.3653	1.43769		.01		5.30213	20		Averaged	ccc
trans-1,3-Dichloropropylene	0.4024	0.44895		.01		11.56809	30		Averaged	
1,1,2-Trichloroethane	0.226	0.22974		.01		1.65487	30		Averaged	
2-Hexanone	0.4718	0.38758		.01		-17.85078	40		Averaged	
1,3-Dichloropropane	0.4947	0.4907		.01		-0.80857	30		Averaged	
Tetrachloroethylene	0.2451	0.26681		.01		8.85761	30		Averaged	
Dibromochloromethane	0.2549	0.2955		.01		15.92781	30		Averaged	
1,2-Dibromoethane	0.2524	0.26196		.01		3.78764	30		Averaged	
Chlorobenzene	0.8559	0.90132		.3		5.30669	30		Averaged	spcc
1,1,1,2-Tetrachloroethane	0.2697	0.30136		.01		11.73897	30		Averaged	
Ethylbenzene	1.4114	1.57198		.01		11.37736	20		Averaged	ccc
m,p-Xylenes	0.5618	0.63234		.01		12.55607	30		Averaged	
o-Xylene	0.5578	0.6108		.01		9.50161	30		Averaged	
Styrene	0.8627	1.01539		.01		17.69908	30		Averaged	
Bromoform	0.2969	0.34518		.1		16.26137	30		Averaged	spcc
Isopropylbenzene	2.466	2.85148		.01		15.63179	30		Averaged	
1,1,2,2-Tetrachloroethane	0.6496	0.66612		.3		2.5431	30		Averaged	spcc
1,2,3-Trichloropropane	0.1658	0.17273		.01		4.17973	30		Averaged	
Bromobenzene	0.6611	0.68258		.01		3.24913	30		Averaged	
n-Propylbenzene	2.9942	3.40775		.01		13.8117	30		Averaged	
1,3,5-Trimethylbenzene	2.0469	2.33213		.01		13.93473	30		Averaged	
2-Chlorotoluene	0.6386	0.69125		.01		8.2446	30		Averaged	
4-Chlorotoluene	1.8354	2.057		.01		12.07366	30		Averaged	
tert-Butylbenzene	0.4658	0.53701		.01		15.28768	30		Averaged	
1,2,4-Trimethylbenzene	2.0834	2.39174		.01		14.79985	30		Averaged	
sec-Butylbenzene	2.6996	3.12593		.01		15.79234	30		Averaged	
4-Isopropyltoluene	2.1071	2.50788		.01		19.02045	30		Averaged	
1,3-Dichlorobenzene	1.2541	1.36202		.01		8.60537	30		Averaged	
1,4-Dichlorobenzene	1.3102	1.3634		.01		4.06045	30		Averaged	
n-Butylbenzene	2.0558	2.45452		.01		19.39488	30		Averaged	
1,2-Dichlorobenzene	1.198	1.26872		.01		5.90317	30		Averaged	
1,2-Dibromo-3-chloropropane	0.1102	0.12518		.01		13.59347	30		Averaged	

Continuing Calibration Summary

Instrument ID: VOA5.I **Injection Dat** 31-DEC-09 08:59

Data File: 123109V5\5R402.D **Init. Cal. Date(s)** 09-DEC-09 17:25 09-DEC-09 20:3

Lab Sample ID W5VM091231-01 **Quant Type** ISTD **Method:** VOA5-8260-120909.M

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
1,2,4-Trichlorobenzene	0.7844	0.8929		.01		13.83223	30		Averaged
Hexachlorobutadiene	0.46	0.49785		.01		8.22826	30		Averaged
Naphthalene	50	50.18	50			0.36	30		Linear
1,2,3-Trichlorobenzene	0.6822	0.79893		.01		17.11082	30		Averaged

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\123109V5\
Data File : 5R402.D
Acq On : 31 Dec 2009 8:59 am
Operator : DXK1
InstName : VOA5
Sample : |W5VM091231-01|CCV|1|VOA|1|VOA8260BL|
Misc : CCV 5mL N/A MIX[A]
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 31 10:22:21 2009
Quant Method : C:\msdchem\1\METHODS\VOA5-8260-120909.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Fri Dec 11 08:24:46 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Fluorobenzene	10.371	96	2255120	50.00 ug/L	0.00
41) Chlorobenzene-d5	13.547	117	1566203	50.00 ug/L	0.00
58) 1,4-Dichlorobenzene-d4	15.959	152	842954	50.00 ug/L	0.00
82) B Fluorobenzene	10.371	96	2255120	50.00 ug/L	0.00
103) B Chlorobenzene-d5	13.547	117	1566203	50.00 ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	15.959	152	842954	50.00 ug/L	0.00
System Monitoring Compounds					
29) 1,2-Dichloroethane-d4	10.018	65	511809	46.89 ug/L	0.00
43) Toluene-d8	12.016	98	2137823	47.70 ug/L	0.00
61) Bromofluorobenzene	14.735	95	780020	50.02 ug/L	0.00
Target Compounds					Qvalue
2) Dichlorodifluoromethane	4.678	85	294411	57.01 ug/L	99
3) Chloromethane	5.041	50	629979	43.97 ug/L	99
4) Vinyl chloride	5.273	62	601429	48.40 ug/L	99
5) Bromomethane	5.867	94	415921	50.96 ug/L	99
6) Chloroethane	6.008	64	390410	53.44 ug/L	100
7) Trichlorofluoromethane	6.411	101	631733	61.78 ug/L	99
8) Ethyl ether	6.723	59	459855	47.47 ug/L	98
9) Acetone	7.097	43	1803557	179.87 ug/L	99
10) 1,1-Dichloroethylene	7.125	61	705487	54.84 ug/L	98
11) Iodomethane	7.369	142	3591251	260.39 ug/L	97
12) Acetonitrile	7.443	41	1867886	1088.12 ug/L	99
13) Methyl acetate	7.489	43	2204199	223.36 ug/L	99
14) Carbon disulfide	7.511	76	7934119	295.33 ug/L	100
15) Methylene chloride	7.687	84	524658	52.13 ug/L	96
16) tert-Butyl methyl ether	7.981	73	1004026	41.07 ug/L	98
17) trans-1,2-Dichloroethy...	8.027	61	717179	51.64 ug/L	96
18) Vinyl acetate	8.451	43	6710872	270.27 ug/L	98
19) 1,1-Dichloroethane	8.508	63	904996	51.53 ug/L	99
20) 2-Butanone	9.074	43	2164568	184.96 ug/L	98
21) cis-1,2-Dichloroethylene	9.141	61	795733	51.33 ug/L	96
22) 2,2-Dichloropropane	9.169	77	492172	57.61 ug/L	97
23) Bromochloromethane	9.417	128	248956	52.34 ug/L	96
24) Chloroform	9.448	83	811655	54.15 ug/L	99
25) 1,1,1-Trichloroethane	9.728	97	630720	57.76 ug/L	98
26) Cyclohexane	9.827	56	1007168	56.09 ug/L	96
27) 1,1-Dichloropropene	9.883	75	661788	57.64 ug/L	97
28) Carbon tetrachloride	9.929	117	566125	62.23 ug/L	98
30) 1,2-Dichloroethane	10.103	62	625549	49.91 ug/L	100
31) Benzene	10.124	78	2093259	53.05 ug/L	99
32) Cyclohexene	10.244	67	1030706	55.96 ug/L	96
33) n-Butyl alcohol	10.456	56	1721643	4274.87 ug/L	99
34) Trichloroethylene	10.760	95	498121	54.95 ug/L	99
35) 1,2-Dichloropropane	11.004	63	553599	50.17 ug/L	100
36) Methylcyclohexane	11.015	83	932569	57.36 ug/L	96
37) Dibromomethane	11.142	93	272071	51.90 ug/L	96
38) Bromodichloromethane	11.252	83	604214	56.17 ug/L	100
39) 2-Chloroethylvinyl ether	11.464	63	1294302	225.94 ug/L	99
40) cis-1,3-Dichloropropylene	11.701	75	787838	55.81 ug/L	99

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\123109V5\
Data File : 5R402.D
Acq On : 31 Dec 2009 8:59 am
Operator : DXK1
InstName : VOA5
Sample : |W5VM091231-01|CCV|1|VOA|1|VOA8260BL|
Misc : CCV 5mL N/A MIX[A]
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 31 10:22:21 2009
Quant Method : C:\msdchem\1\METHODS\VOA5-8260-120909.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Fri Dec 11 08:24:46 2009
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
42)	4-Methyl-2-pentanone	11.782	58	1167066	238.49 ug/L	98
44)	Toluene	12.090	91	2251708	52.65 ug/L	100
45)	trans-1,3-Dichloroprop...	12.239	75	703143	55.79 ug/L	99
46)	1,1,2-Trichloroethane	12.461	83	359813	50.84 ug/L	99
47)	2-Hexanone	12.631	43	3035169	205.36 ug/L	99
48)	1,3-Dichloropropane	12.652	76	768534	49.60 ug/L #	81
49)	Tetrachloroethylene	12.691	164	417885	54.43 ug/L	99
50)	Dibromochloromethane	12.925	129	462816	57.96 ug/L	99
51)	1,2-Dibromoethane	13.094	107	410279	51.88 ug/L	99
52)	Chlorobenzene	13.579	112	1411654	52.65 ug/L	99
53)	1,1,1,2-Tetrachloroethane	13.632	131	471994	55.88 ug/L	99
54)	Ethylbenzene	13.636	91	2462041	55.69 ug/L	99
55)	m,p-Xylenes	13.745	106	1980734	112.56 ug/L	99
56)	o-Xylene	14.180	106	956637	54.75 ug/L	99
57)	Styrene	14.180	104	1590307	58.85 ug/L	99
59)	Bromoform	14.445	173	290974	58.13 ug/L	100
60)	Isopropylbenzene	14.537	105	2403667	57.82 ug/L	100
62)	1,1,2,2-Tetrachloroethane	14.810	83	561509	51.27 ug/L	100
63)	1,2,3-Trichloropropane	14.898	110	145605	52.08 ug/L	96
64)	Bromobenzene	14.951	156	575384	51.62 ug/L	99
65)	n-Propylbenzene	14.962	91	2872574	56.90 ug/L	99
66)	1,3,5-Trimethylbenzene	15.114	105	1965878	56.97 ug/L	100
67)	2-Chlorotoluene	15.117	126	582694	54.12 ug/L	98
68)	4-Chlorotoluene	15.213	91	1733956	56.04 ug/L	100
69)	tert-Butylbenzene	15.489	134	452675	57.64 ug/L	98
70)	1,2,4-Trimethylbenzene	15.524	105	2016124	57.40 ug/L	99
71)	sec-Butylbenzene	15.711	105	2635015	57.90 ug/L	100
72)	4-Isopropyltoluene	15.828	119	2114028	59.51 ug/L	99
73)	1,3-Dichlorobenzene	15.902	146	1148121	54.30 ug/L	99
74)	1,4-Dichlorobenzene	15.987	146	1149287	52.03 ug/L	99
75)	n-Butylbenzene	16.277	91	2069051	59.70 ug/L	100
76)	1,2-Dichlorobenzene	16.419	146	1069476	52.95 ug/L	99
77)	1,2-Dibromo-3-chloropr...	17.293	157	105520	56.80 ug/L	98
78)	1,2,4-Trichlorobenzene	18.371	180	752677	56.92 ug/L	99
79)	Hexachlorobutadiene	18.548	225	419666	54.11 ug/L	99
80)	Naphthalene	18.762	128	1663236	50.18 ug/L	100
81)	1,2,3-Trichlorobenzene	19.109	180	673461	58.56 ug/L	100
83)	Chlorotrifluoroethylene	0.000		0	N.D.	
84)	2-Chloro-1,1,1-trifluo...	0.000		0	N.D.	
85)	Acrolein	6.924		0m	N.D. d	
86)	Trichlorotrifluoroethane	7.093		0m	N.D. d	
87)	Isopropyl Alcohol	7.185		0m	N.D. d	
88)	Allyl chloride	7.443		0m	N.D. d	
89)	tert-Butyl Alcohol	7.712		0m	N.D. d	
90)	Acrylonitrile	7.931		0m	N.D. d	
91)	Isopropyl ether	8.451		0m	N.D. d	
92)	2-Chloro-1,3-butadiene	8.617		0m	N.D. d	
93)	Ethyl tert-butyl ether	8.886		0m	N.D. d	
94)	Ethyl acetate	9.074		0m	N.D. d	
95)	Propionitrile	9.148		0m	N.D. d	
96)	Methacrylonitrile	9.169		0m	N.D. d	
97)	Tetrahydrofuran	9.470		0m	N.D. d	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\123109V5\
Data File : 5R402.D
Acq On : 31 Dec 2009 8:59 am
Operator : DXK1
InstName : VOA5
Sample : |W5VM091231-01|CCV|1|VOA|1|VOA8260BL|
Misc : CCV 5mL N/A MIX[A]
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 31 10:22:21 2009
Quant Method : C:\msdchem\1\METHODS\VOA5-8260-120909.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Fri Dec 11 08:24:46 2009
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
98)	Isobutyl alcohol	9.827		0m	N.D.	d
99)	Methyl tert-amyl ether	10.127		0m	N.D.	d
100)	Methyl methacrylate	11.015		0m	N.D.	d
101)	1,4-Dioxane	11.139		0m	N.D.	d
102)	2-Nitropropane	11.553		0m	N.D.	d
104)	Ethyl methacrylate	12.221		0m	N.D.	d
106)	1-Chlorohexane	0.000		0	N.D.	
107)	cis-1,4-Dichloro-2-butene	14.541		0m	N.D.	d
108)	Cyclohexanone	14.696		0m	N.D.	d
109)	trans-1,4-Dichloro-2-b...	14.852		0m	N.D.	d
110)	Pentachloroethane	15.559		0m	N.D.	d
111)	Benzyl chloride	16.097		0m	N.D.	d
112)	bis(2-Chloroisopropyl)...	16.496		0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\123109V5\
Data File : 5R402.D
Acq On : 31 Dec 2009 8:59 am
Operator : DXK1
InstName : VOA5
Sample : |W5VM091231-01|CCV|1|VOA|1|VOA8260BL|
Misc : CCV 5mL N/A MIX[A]
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 31 10:22:21 2009
Quant Method : C:\msdchem\1\METHODS\VOA5-8260-120909.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Fri Dec 11 08:24:46 2009
Response via : Initial Calibration
Integrator: RTE

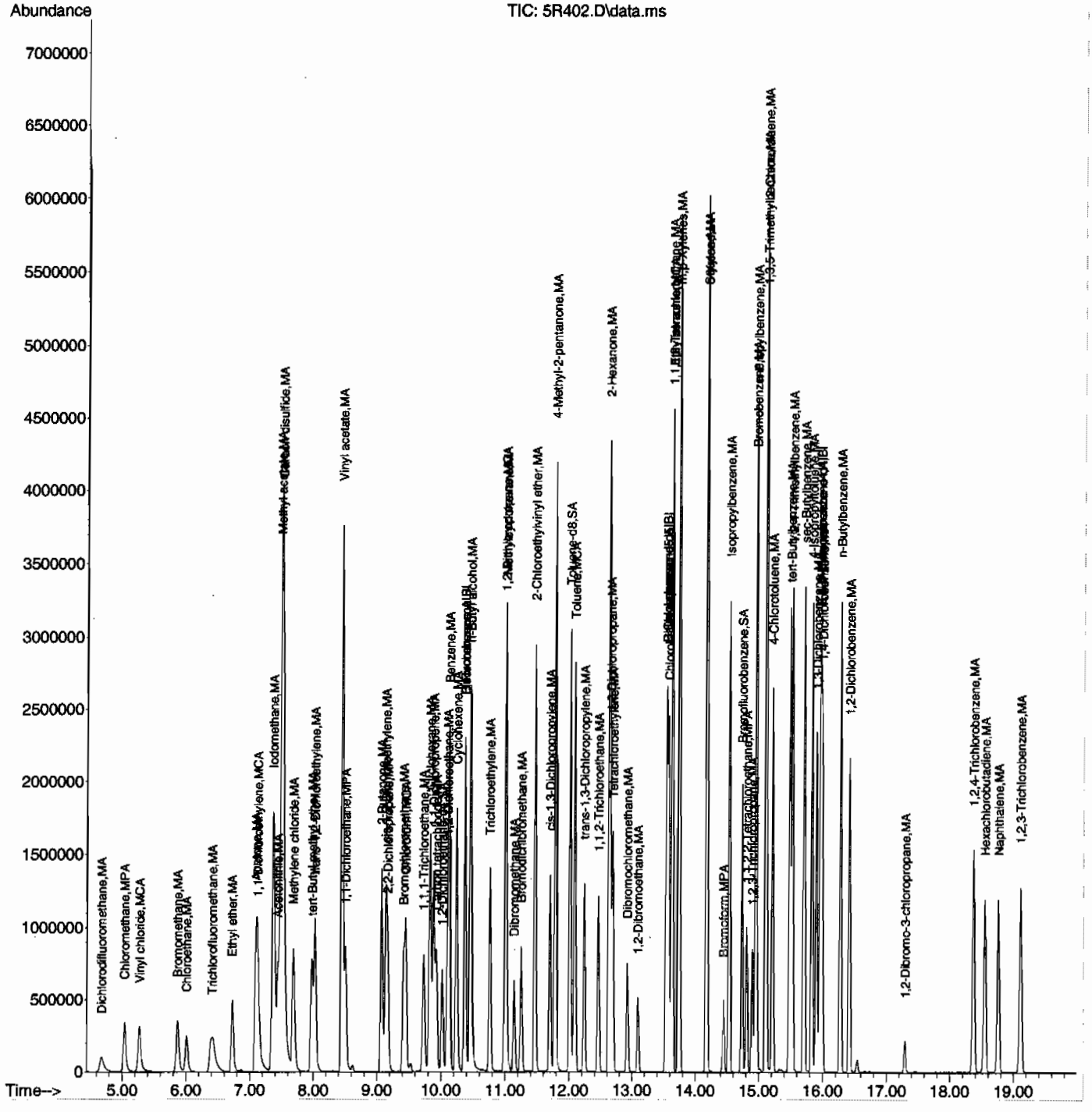

Quality Control Data

Tune Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\120909V5\
Data File : 5O303.D
Acq On : 9 Dec 2009 11:58 am
Operator : DXK1
Sample : |UVM090910-02|BFB|1|VOA|1|
Misc : GEL 5mL N/A
ALS Vial : 3 Sample Multiplier: 1

Integration File: default.P

Method : C:\msdchem\1\METHODS\VOA5-8260-120909.M
Title : Volatile Organics 8260B
Last Update : Fri Dec 11 08:24:46 2009

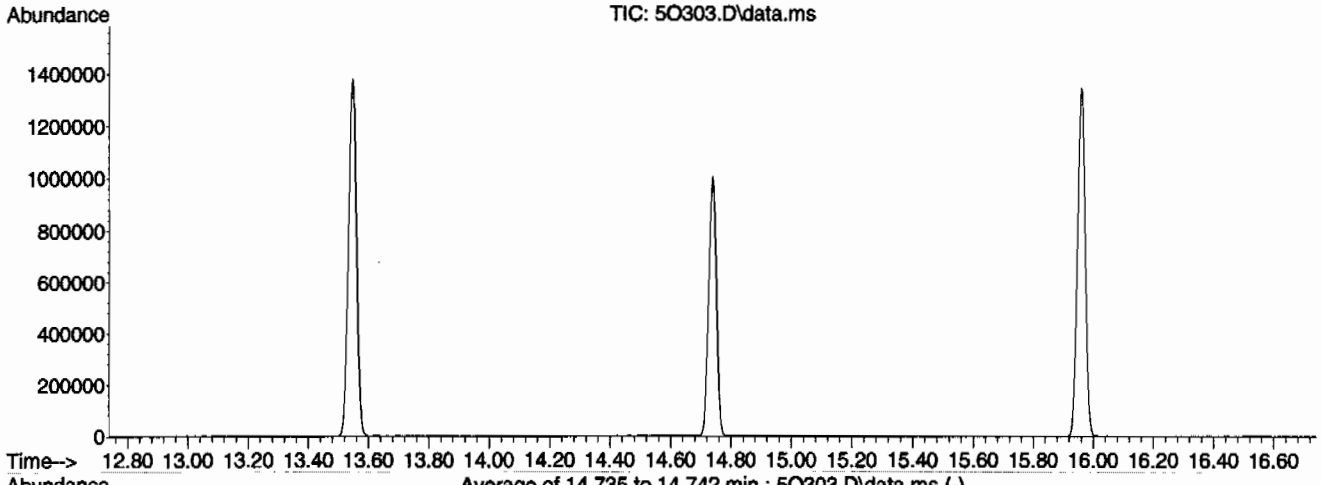

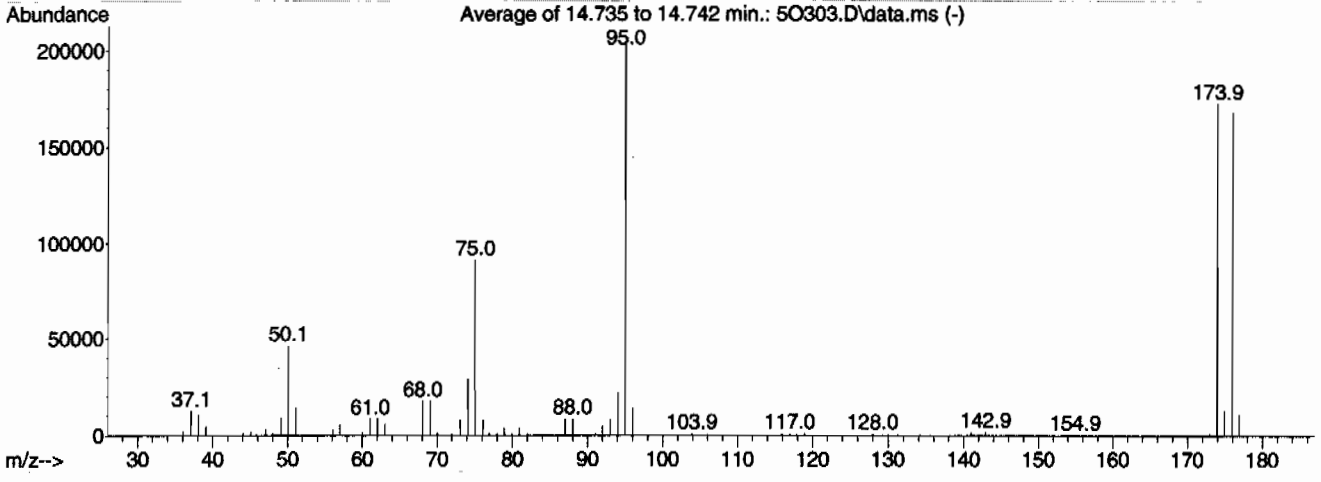

AutoFind: Scans 2439, 2440, 2441; Background Corrected with Scan 2426

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	22.8	46251	PASS
75	95	30	60	45.1	91416	PASS
95	95	100	100	100.0	202517	PASS
96	95	5	9	6.9	14002	PASS
173	174	0.00	2	0.6	1067	PASS
174	95	50	100	85.1	172267	PASS
175	174	5	9	7.3	12572	PASS
176	174	95	101	97.4	167765	PASS
177	176	5	9	6.6	11042	PASS

Tune Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\123109V5\
Data File : 5R401.D
Acq On : 31 Dec 2009 8:34 am
Operator : DXK1
Sample : |UVM090910-02|BFB|1|VOA|1|
Misc : GEL 5mL N/A
ALS Vial : 1 Sample Multiplier: 1

Integration File: default.P

Method : C:\msdchem\1\METHODS\VOA5-8260-120909.M
Title : Volatile Organics 8260B SubList :
Last Update : Fri Dec 11 08:24:46 2009

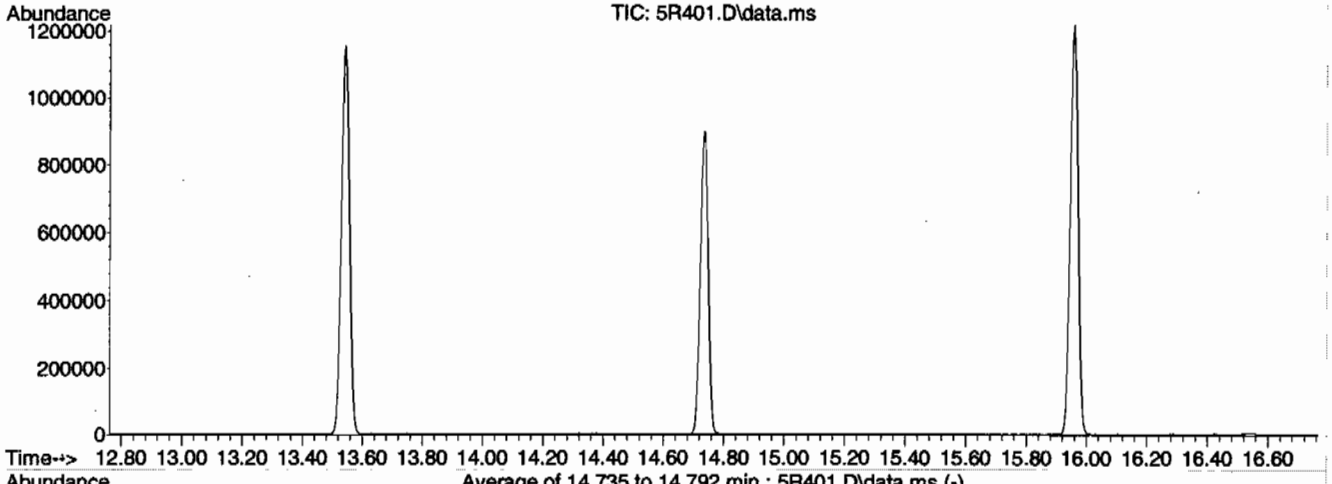

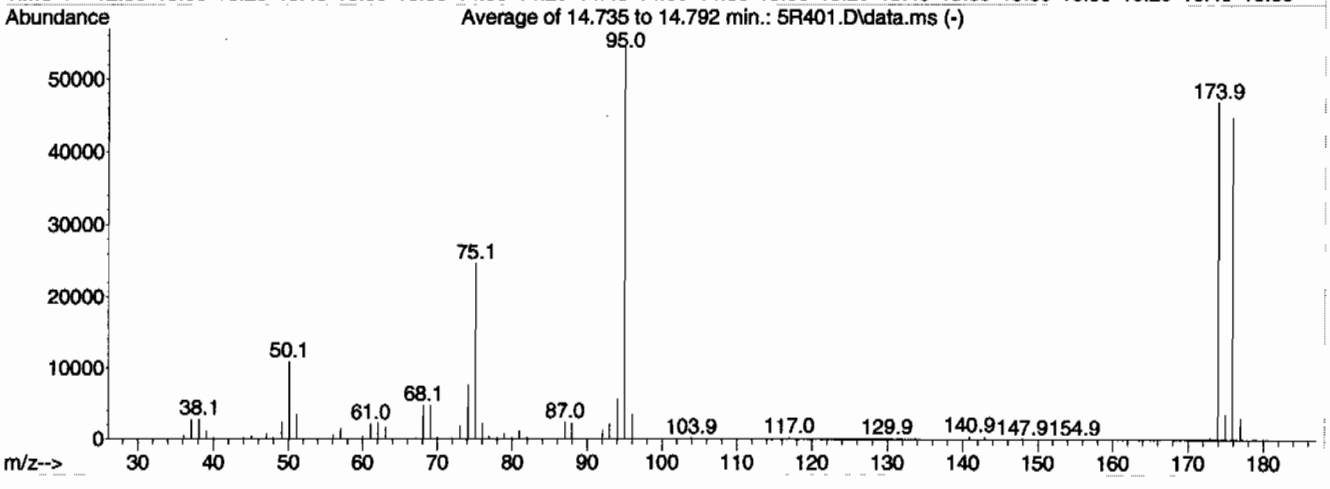

Spectrum Information: Average of 14.735 to 14.792 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	20.0	10862	PASS
75	95	30	60	45.3	24565	PASS
95	95	100	100	100.0	54279	PASS
96	95	5	9	6.4	3466	PASS
173	174	0.00	2	0.6	259	PASS
174	95	50	100	86.3	46846	PASS
175	174	5	9	7.3	3441	PASS
176	174	95	101	95.7	44854	PASS
177	176	5	9	6.6	2979	PASS

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1085-1**			**Matrix:**	**TCLP MISC SOLID**
Lab Sample ID:	**1202007230**				
Client Sample:	**QC for batch 938016**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 938016**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**938016**	**Inst:**	**VOA5.I**	**Dilution:**	**1**
Run Date:	**12/31/2009 09:50**	**Analyst:**	**DXK1**	**Purge Vol:**	**5 mL**
Prep Date:	**12/31/2009 09:50**				
Data File:	**123109V5\5R404BL.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-01-4	Vinyl chloride	U	0.001	mg/L	0.0005	0.001
75-35-4	1,1-Dichloroethylene	U	0.001	mg/L	0.0003	0.001
78-93-3	2-Butanone	U	0.005	mg/L	0.00125	0.005
67-66-3	Chloroform	U	0.001	mg/L	0.00025	0.001
56-23-5	Carbon tetrachloride	U	0.001	mg/L	0.0003	0.001
107-06-2	1,2-Dichloroethane	U	0.001	mg/L	0.00025	0.001
71-43-2	Benzene	U	0.001	mg/L	0.0003	0.001
79-01-6	Trichloroethylene	U	0.001	mg/L	0.00025	0.001
127-18-4	Tetrachloroethylene	U	0.001	mg/L	0.0003	0.001
108-90-7	Chlorobenzene	U	0.001	mg/L	0.00025	0.001
106-46-7	1,4-Dichlorobenzene	U	0.001	mg/L	0.00025	0.001

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\123109V5\
Data File : 5R404BL.D
Acq On : 31 Dec 2009 9:50 am
Operator : DXK1
InstName : VOA5
Sample : |1202007230|938016|1|VOA|1|VOA8260BL|
Misc : BLANK 5mL N/A
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Dec 31 10:24:39 2009
Quant Method : C:\msdchem\1\METHODS\VOA5-8260-120909.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Fri Dec 11 08:24:46 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Fluorobenzene	10.375	96	2180269	50.00 ug/L	0.00
41) Chlorobenzene-d5	13.547	117	1498668	50.00 ug/L	0.00
58) 1,4-Dichlorobenzene-d4	15.959	152	738955	50.00 ug/L	0.00
82) B Fluorobenzene	10.375	96	2180269	50.00 ug/L	0.00
103) B Chlorobenzene-d5	13.547	117	1498668	50.00 ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	15.959	152	738955	50.00 ug/L	0.00
System Monitoring Compounds					
29) 1,2-Dichloroethane-d4	10.021	65	506319	47.98 ug/L	0.00
Spiked Amount 50.000	Range 59 - 130		Recovery = 95.96%		
43) Toluene-d8	12.019	98	2054234	47.90 ug/L	0.00
Spiked Amount 50.000	Range 76 - 129		Recovery = 95.80%		
61) Bromofluorobenzene	14.739	95	716987	52.44 ug/L	0.00
Spiked Amount 50.000	Range 71 - 126		Recovery = 104.88%		
Target Compounds					Qvalue
2) Dichlorodifluoromethane	0.000		0	N.D.	
3) Chloromethane	5.021	50	973	N.D.	
4) Vinyl chloride	5.262	62	356	N.D.	
5) Bromomethane	0.000		0	N.D.	
6) Chloroethane	0.000		0	N.D.	
7) Trichlorofluoromethane	0.000		0	N.D.	
8) Ethyl ether	0.000		0	N.D.	
9) Acetone	7.086	43	568	N.D.	
10) 1,1-Dichloroethylene	0.000		0	N.D.	
11) Iodomethane	7.355	142	114	N.D.	
12) Acetonitrile	7.457	41	316	N.D.	
13) Methyl acetate	7.716	43	232	N.D.	
14) Carbon disulfide	7.500	76	2957	N.D.	
15) Methylene chloride	7.694	84	14364	N.D.	
16) tert-Butyl methyl ether	0.000		0	N.D.	
17) trans-1,2-Dichloroethy...	0.000		0	N.D.	
18) Vinyl acetate	8.458	43	400	N.D.	
19) 1,1-Dichloroethane	0.000		0	N.D.	
20) 2-Butanone	9.084	43	1123	N.D.	
21) cis-1,2-Dichloroethylene	0.000		0	N.D.	
22) 2,2-Dichloropropane	0.000		0	N.D.	
23) Bromochloromethane	0.000		0	N.D.	
24) Chloroform	0.000		0	N.D.	
25) 1,1,1-Trichloroethane	0.000		0	N.D.	
26) Cyclohexane	0.000		0	N.D.	
27) 1,1-Dichloropropene	0.000		0	N.D.	
28) Carbon tetrachloride	0.000		0	N.D.	
30) 1,2-Dichloroethane	10.028	62	108	N.D.	
31) Benzene	10.131	78	368	N.D.	
32) Cyclohexene	10.368	67	394	N.D.	
33) n-Butyl alcohol	0.000		0m	N.D.	d
34) Trichloroethylene	0.000		0	N.D.	
35) 1,2-Dichloropropane	0.000		0	N.D.	
36) Methylcyclohexane	0.000		0	N.D.	
37) Dibromomethane	0.000		0	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\123109V5\
Data File : 5R404BL.D
Acq On : 31 Dec 2009 9:50 am
Operator : DXK1
InstName : VOA5
Sample : |1202007230|938016|1|VOA|1|VOA8260BL|
Misc : BLANK 5mL N/A
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Dec 31 10:24:39 2009
Quant Method : C:\msdchem\1\METHODS\VOA5-8260-120909.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Fri Dec 11 08:24:46 2009
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
38)	Bromodichloromethane	0.000		0	N.D.	
39)	2-Chloroethylvinyl ether	0.000		0	N.D.	
40)	cis-1,3-Dichloropropylene	0.000		0	N.D.	
42)	4-Methyl-2-pentanone	0.000		0	N.D.	
44)	Toluene	12.090	91	1546	N.D.	
45)	trans-1,3-Dichloroprop...	0.000		0	N.D.	
46)	1,1,2-Trichloroethane	0.000		0	N.D.	
47)	2-Hexanone	12.635	43	437	N.D.	
48)	1,3-Dichloropropane	0.000		0	N.D.	
49)	Tetrachloroethylene	0.000		0	N.D.	
50)	Dibromochloromethane	12.691	129	177	N.D.	
51)	1,2-Dibromoethane	0.000		0	N.D.	
52)	Chlorobenzene	13.589	112	268	N.D.	
53)	1,1,1,2-Tetrachloroethane	0.000		0	N.D.	
54)	Ethylbenzene	13.642	91	800	N.D.	
55)	m,p-Xylenes	13.745	106	159	N.D.	
56)	o-Xylene	0.000		0	N.D.	
57)	Styrene	14.180	104	819	N.D.	
59)	Bromoform	0.000		0	N.D.	
60)	Isopropylbenzene	14.544	105	114	N.D.	
62)	1,1,2,2-Tetrachloroethane	0.000		0	N.D.	
63)	1,2,3-Trichloropropane	0.000		0	N.D.	
64)	Bromobenzene	0.000		0	N.D.	
65)	n-Propylbenzene	14.965	91	1041	N.D.	
66)	1,3,5-Trimethylbenzene	15.107	105	121	N.D.	
67)	2-Chlorotoluene	0.000		0	N.D.	
68)	4-Chlorotoluene	15.220	91	1436	N.D.	
69)	tert-Butylbenzene	0.000		0	N.D.	
70)	1,2,4-Trimethylbenzene	15.527	105	286	N.D.	
71)	sec-Butylbenzene	15.708	105	132	N.D.	
72)	4-Isopropyltoluene	15.832	119	453	N.D.	
73)	1,3-Dichlorobenzene	15.899	146	1164	N.D.	
74)	1,4-Dichlorobenzene	15.987	146	2192	N.D.	
75)	n-Butylbenzene	16.274	91	553	N.D.	
76)	1,2-Dichlorobenzene	16.422	146	787	N.D.	
77)	1,2-Dibromo-3-chloropr...	0.000		0	N.D.	
78)	1,2,4-Trichlorobenzene	18.371	180	1096	N.D.	
79)	Hexachlorobutadiene	0.000		0	N.D.	
80)	Naphthalene	0.000		0m	N.D. d	
81)	1,2,3-Trichlorobenzene	19.116	180	749	N.D.	
83)	Chlorotrifluoroethylene	0.000		0	N.D.	
84)	2-Chloro-1,1,1-trifluo...	0.000		0	N.D.	
85)	Acrolein	6.934	56	344	Below Cal #	8
86)	Trichlorotrifluoroethane	0.000		0	N.D.	
87)	Isopropyl Alcohol	0.000		0	N.D.	
88)	Allyl chloride	7.542	41	1317	N.D.	
89)	tert-Butyl Alcohol	0.000		0	N.D.	
90)	Acrylonitrile	7.938	53	118	N.D.	
91)	Isopropyl ether	0.000		0	N.D.	
92)	2-Chloro-1,3-butadiene	0.000		0	N.D.	
93)	Ethyl tert-butyl ether	0.000		0	N.D.	
94)	Ethyl acetate	9.084	43	1123	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\123109V5\
Data File : 5R404BL.D
Acq On : 31 Dec 2009 9:50 am
Operator : DXK1
InstName : VOA5
Sample : |1202007230|938016|1|VOA|1|VOA8260BL|
Misc : BLANK 5mL N/A
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Dec 31 10:24:39 2009
Quant Method : C:\msdchem\1\METHODS\VOA5-8260-120909.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Fri Dec 11 08:24:46 2009
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
95)	Propionitrile	9.158	54	121	N.D.	
96)	Methacrylonitrile	9.342	41	533	N.D.	
97)	Tetrahydrofuran	9.470	42	3402	N.D.	
98)	Isobutyl alcohol	0.000		0m	N.D.	d
99)	Methyl tert-amyl ether	0.000		0	N.D.	
100)	Methyl methacrylate	0.000		0m	N.D.	d
101)	1,4-Dioxane	0.000		0	N.D.	
102)	2-Nitropropane	0.000		0	N.D.	
104)	Ethyl methacrylate	0.000		0m	N.D.	d
106)	1-Chlorohexane	0.000		0	N.D.	
107)	cis-1,4-Dichloro-2-butene	14.565	53	301	N.D.	
108)	Cyclohexanone	0.000		0m	N.D.	d
109)	trans-1,4-Dichloro-2-b...	14.863	53	834	N.D.	
110)	Pentachloroethane	15.552	167	596	N.D.	
111)	Benzyl chloride	0.000		0m	N.D.	d
112)	bis(2-Chloroisopropyl)...	16.503	45	2324	N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\123109V5\
Data File : 5R404BL.D
Acq On : 31 Dec 2009 9:50 am
Operator : DXK1
InstName : VOA5
Sample : |1202007230|938016|1|VOA|1|VOA8260BL|
Misc : BLANK 5mL N/A
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Dec 31 10:24:39 2009
Quant Method : C:\msdchem\1\METHODS\VOA5-8260-120909.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Fri Dec 11 08:24:46 2009
Response via : Initial Calibration
Integrator: RTE

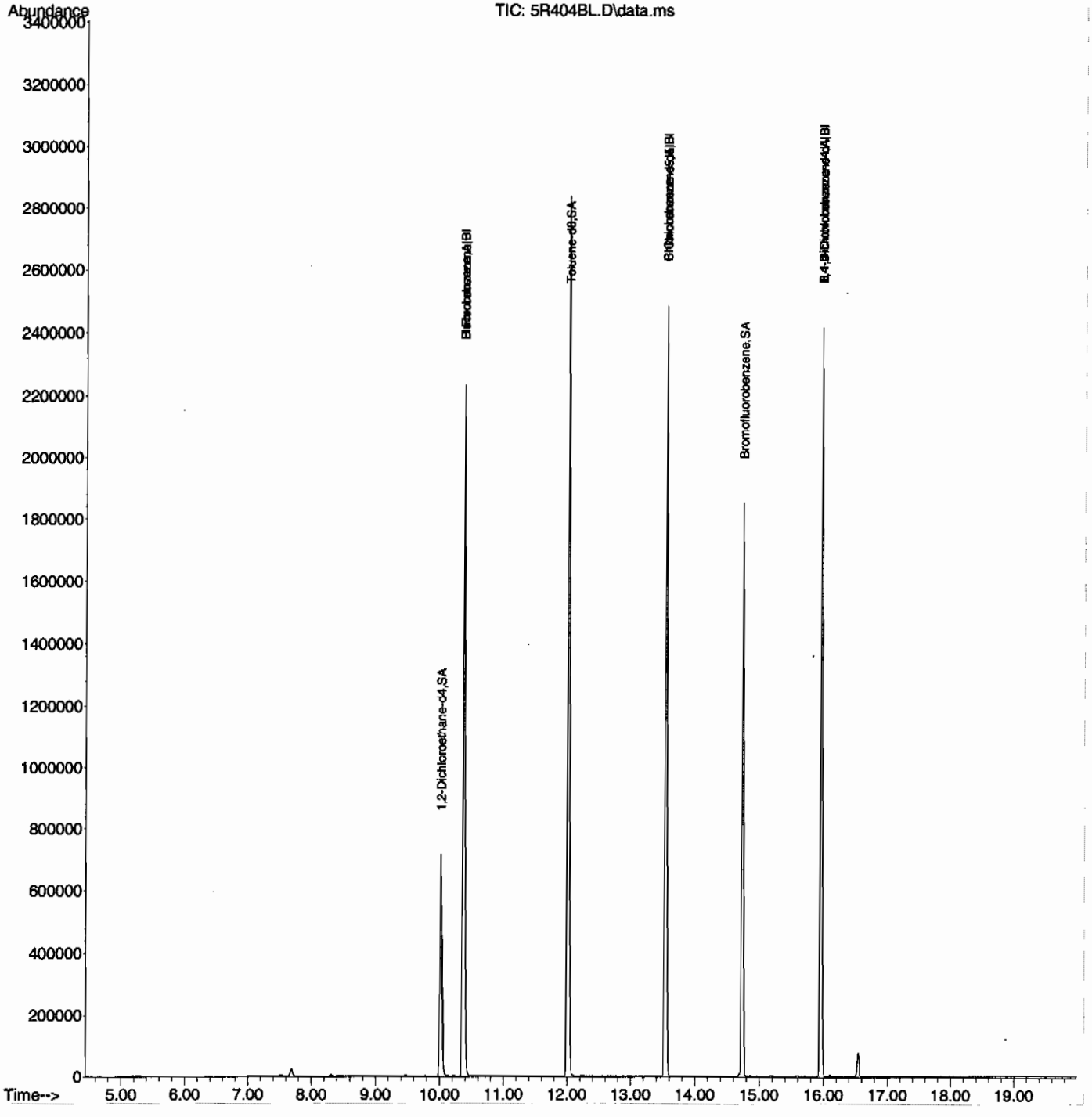

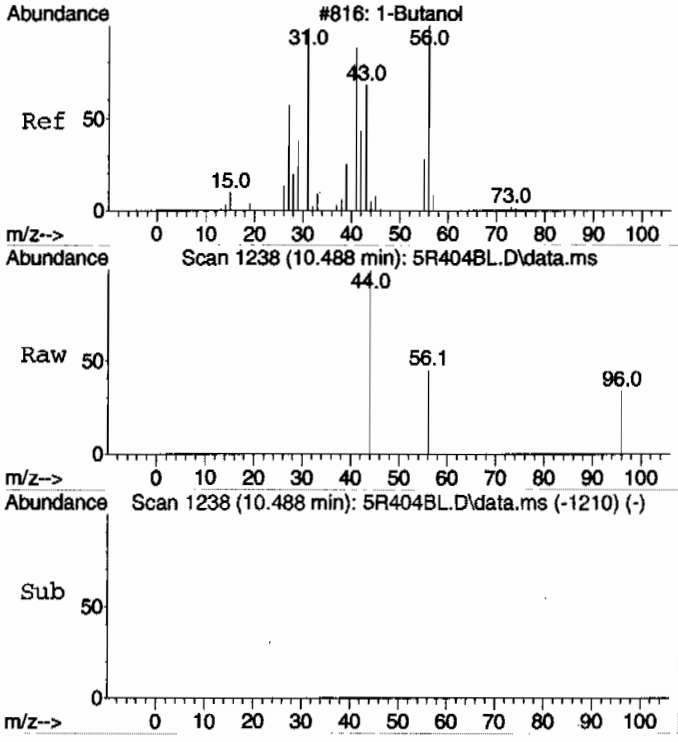

#33 BEFORE analyst DELETION
n-Butyl alcohol
Concen: 100.58 ug/L
RT: 10.488 min Scan# 1238
Delta R.T. 0.032 min
Lab File: 5R404BL.D
Acq: 31 Dec 2009 9:50 am

Tgt Ion: 56 Resp: 171

Ion	Ratio	Lower	Upper
56	100		
41	64.9	47.2	107.2
43	0.0	31.2	91.2#

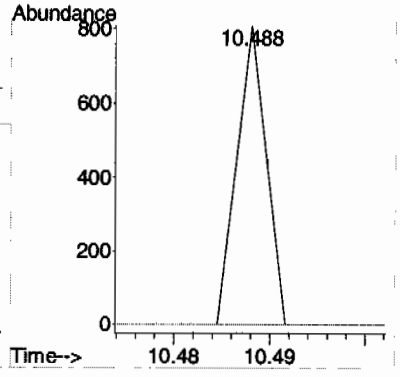

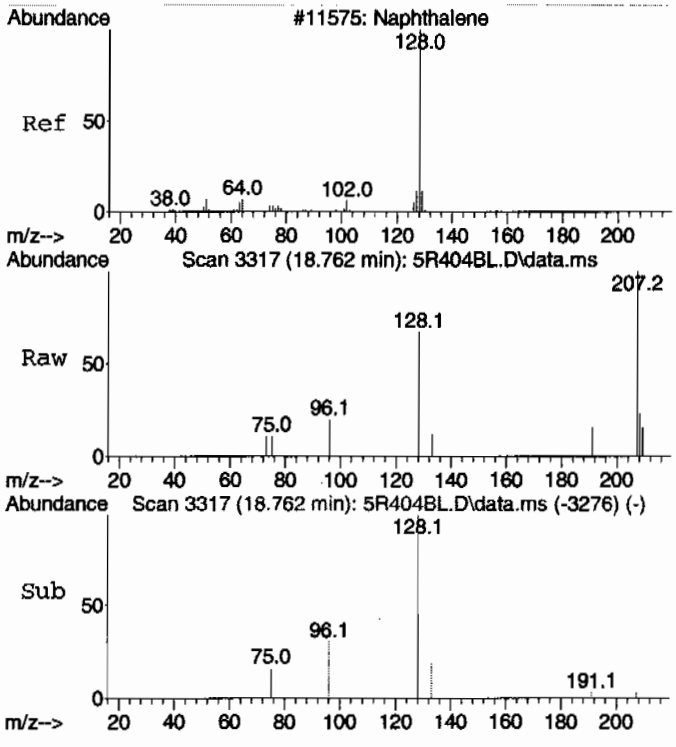

#80 BEFORE analyst DELETION
Naphthalene
Concen: 1.14 ug/L
RT: 18.762 min Scan# 3317
Delta R.T. -0.000 min
Lab File: 5R404BL.D
Acq: 31 Dec 2009 9:50 am

Tgt Ion:128 Resp: 3162

Ion	Ratio	Lower	Upper
128	100		
127	3.9	0.0	42.5
129	0.0	0.0	40.8

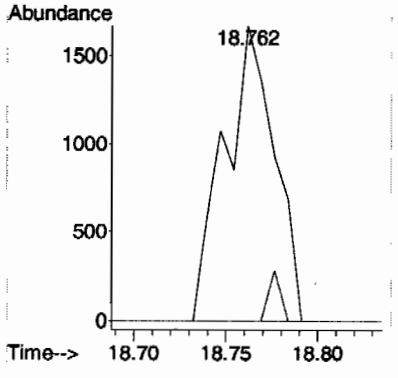

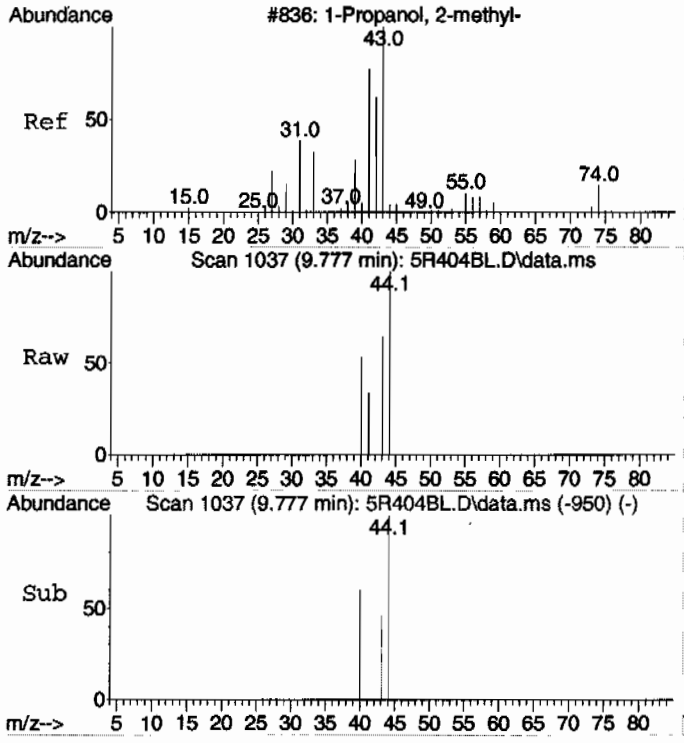

#98 BEFORE analyst DELETION
Isobutyl alcohol
Concen: 31.33 ug/L
RT: 9.777 min Scan# 1037
Delta R.T. 0.007 min
Lab File: 5R404BL.D
Acq: 31 Dec 2009 9:50 am

Tgt Ion: 41 Resp: 465

Ion	Ratio	Lower	Upper
41	100		
43	231.6	107.1	167.1#

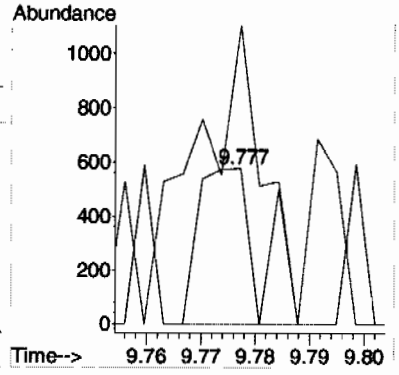

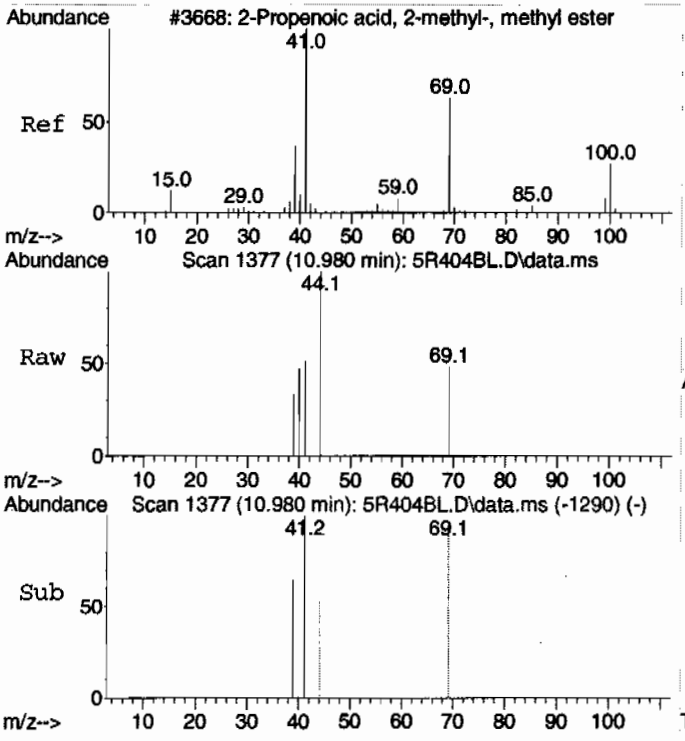

#100 BEFORE analyst DELETION
Methyl methacrylate
Concen: 4.72 ug/L
RT: 10.980 min Scan# 1377
Delta R.T. 0.007 min
Lab File: 5R404BL.D
Acq: 31 Dec 2009 9:50 am

Tgt Ion: 69 Resp: 560

Ion	Ratio	Lower	Upper
69	100		
41	216.6	125.2	185.2#
100	0.0	5.0	65.0#

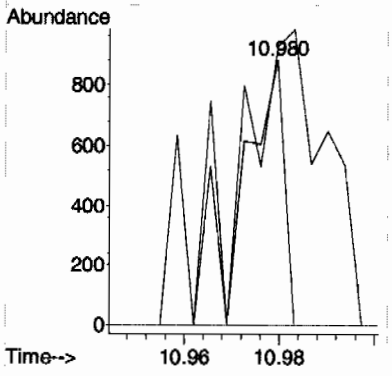

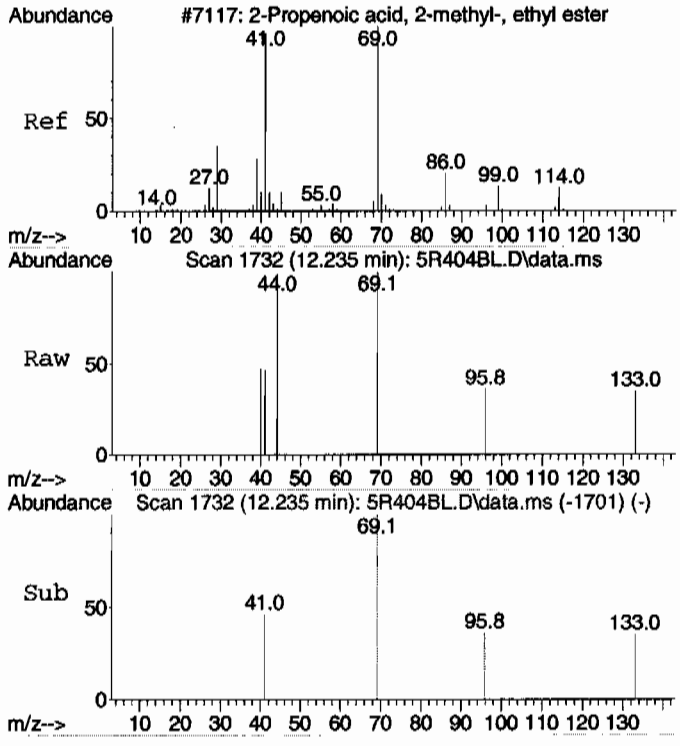

#104 BEFORE analyst DELETION
Ethyl methacrylate
Concen: 5.07 ug/L
RT: 12.235 min Scan# 1732
Delta R.T. 0.000 min
Lab File: 5R404BL.D
Acq: 31 Dec 2009 9:50 am

Tgt Ion: 69 Resp: 1721

Ion	Ratio	Lower	Upper
69	100		
41	93.8	55.1	115.1
99	0.0	0.0	47.7

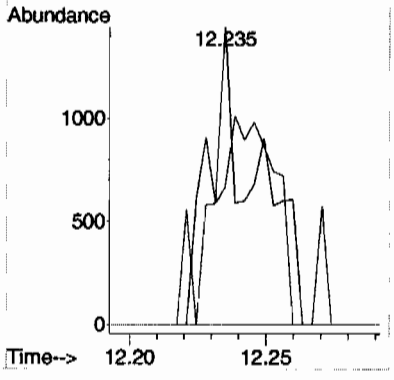

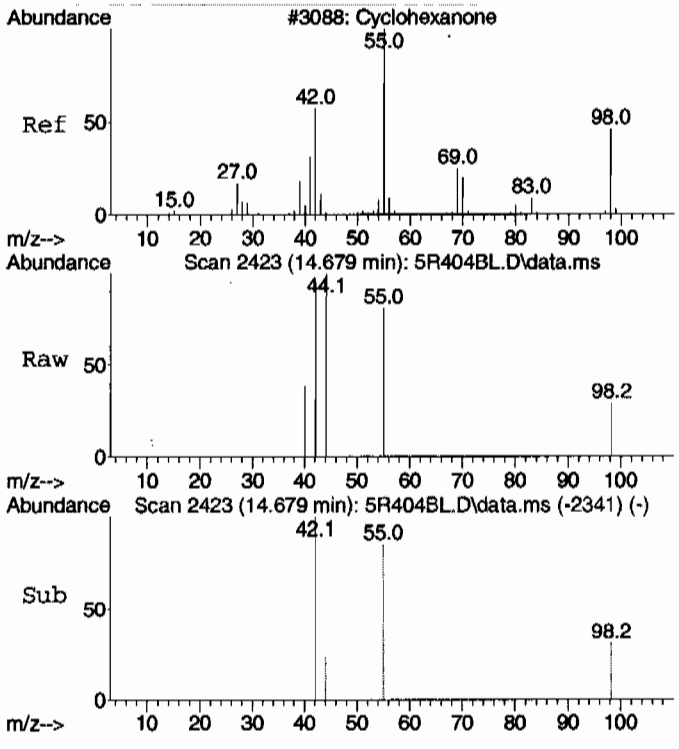

#108 BEFORE analyst DELETION
Cyclohexanone
Concen: 19.38 ug/L
RT: 14.679 min Scan# 2423
Delta R.T. -0.010 min
Lab File: 5R404BL.D
Acq: 31 Dec 2009 9:50 am

Tgt Ion: 42 Resp: 1064

Ion	Ratio	Lower	Upper
42	100		
55	478.7	104.7	164.7#
98	37.7	21.5	81.5

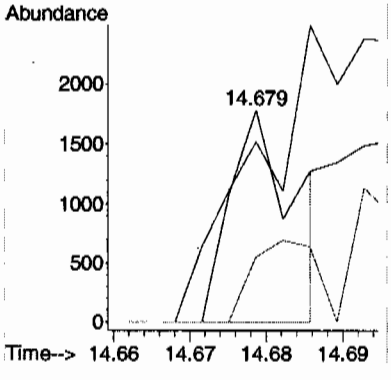

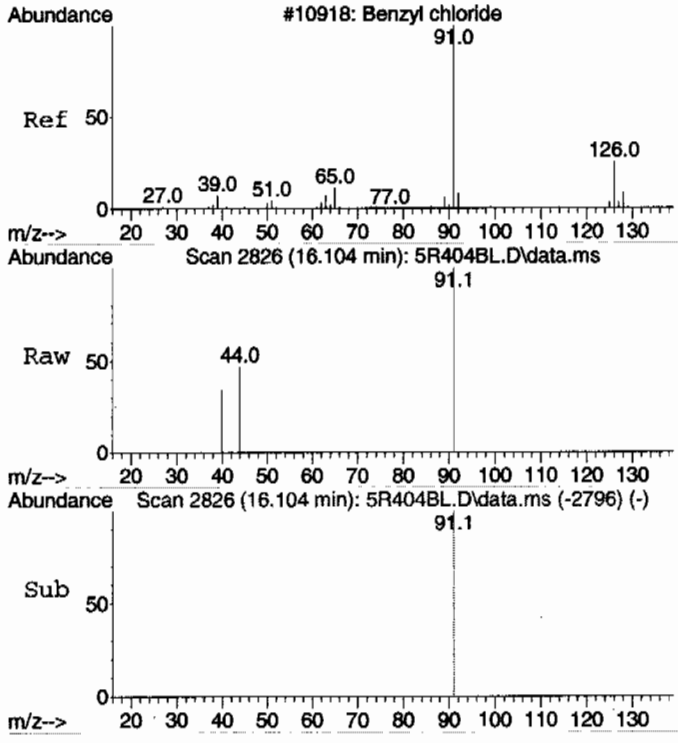

#111 BEFORE analyst DELETION
Benzyl chloride
Concen: 7.80 ug/L
RT: 16.104 min Scan# 2826
Delta R.T. 0.004 min
Lab File: 5R404BL.D
Acq: 31 Dec 2009 9:50 am

Tgt Ion: 91 Resp: 6552

Ion	Ratio	Lower	Upper
91	100		
126	8.9	0.0	51.6
65	5.3	0.0	41.9

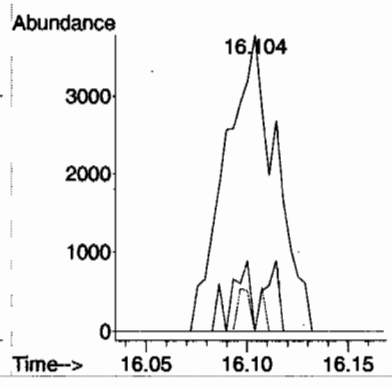

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1085-1**			**Matrix:**	**TCLP SOIL**
Lab Sample ID:	**1202005010**				
Client Sample:	**QC for batch 936997**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**TB for batch 936997**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**938016**	**Inst:**	**VOA5.I**	**Dilution:**	**10**
Run Date:	**12/31/2009 13:50**	**Analyst:**	**DXK1**	**Purge Vol:**	**5 mL**
Prep Date:	**12/28/2009 16:00**				
Data File:	**123109V5\5R413.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-01-4	Vinyl chloride	U	0.010	mg/L	0.005	0.010
75-35-4	1,1-Dichloroethylene	U	0.010	mg/L	0.003	0.010
78-93-3	2-Butanone	U	0.050	mg/L	0.0125	0.050
67-66-3	Chloroform	U	0.010	mg/L	0.0025	0.010
56-23-5	Carbon tetrachloride	U	0.010	mg/L	0.003	0.010
107-06-2	1,2-Dichloroethane	U	0.010	mg/L	0.0025	0.010
71-43-2	Benzene	U	0.010	mg/L	0.003	0.010
79-01-6	Trichloroethylene	U	0.010	mg/L	0.0025	0.010
127-18-4	Tetrachloroethylene	U	0.010	mg/L	0.003	0.010
108-90-7	Chlorobenzene	U	0.010	mg/L	0.0025	0.010
106-46-7	1,4-Dichlorobenzene	U	0.010	mg/L	0.0025	0.010

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\123109V5\
Data File : 5R413.D
Acq On : 31 Dec 2009 1:50 pm
Operator : DXK1
InstName : VOA5
Sample : |1202005010|938016|10|VOA|1|VOATCLPL|
Misc : LANL 500uL N/A TCLPBLANK
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Jan 04 08:52:12 2010
Quant Method : C:\msdchem\1\METHODS\VOA5-8260-120909.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Fri Dec 11 08:24:46 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Fluorobenzene	10.371	96	2151809	50.00 ug/L	0.00
41) Chlorobenzene-d5	13.544	117	1478792	50.00 ug/L	0.00
58) 1,4-Dichlorobenzene-d4	15.959	152	726020	50.00 ug/L	0.00
82) B Fluorobenzene	10.371	96	2151809	50.00 ug/L	0.00
103) B Chlorobenzene-d5	13.544	117	1478792	50.00 ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	15.959	152	726020	50.00 ug/L	0.00
System Monitoring Compounds					
29) 1,2-Dichloroethane-d4	10.018	65	501857	48.19 ug/L	0.00
Spiked Amount 50.000	Range 59 - 130		Recovery = 96.38%		
43) Toluene-d8	12.016	98	2011737	47.54 ug/L	0.00
Spiked Amount 50.000	Range 76 - 129		Recovery = 95.08%		
61) Bromofluorobenzene	14.739	95	708812	52.77 ug/L	0.00
Spiked Amount 50.000	Range 71 - 126		Recovery = 105.54%		
Target Compounds					Qvalue
2) Dichlorodifluoromethane	0.000		0	N.D.	
3) Chloromethane	5.021	50	1085	N.D.	
4) Vinyl chloride	5.283	62	832	N.D.	
5) Bromomethane	0.000		0	N.D.	
6) Chloroethane	0.000		0	N.D.	
7) Trichlorofluoromethane	0.000		0	N.D.	
8) Ethyl ether	0.000		0	N.D.	
9) Acetone	7.125	43	3947	N.D.	
10) 1,1-Dichloroethylene	0.000		0	N.D.	
11) Iodomethane	0.000		0	N.D.	
12) Acetonitrile	7.450	41	117	N.D.	
13) Methyl acetate	7.493	43	478	N.D.	
14) Carbon disulfide	7.511	76	1784	N.D.	
15) Methylene chloride	7.680	84	13663	N.D.	
16) tert-Butyl methyl ether	0.000		0	N.D.	
17) trans-1,2-Dichloroethy...	0.000		0	N.D.	
18) Vinyl acetate	8.448	43	165	N.D.	
19) 1,1-Dichloroethane	0.000		0	N.D.	
20) 2-Butanone	9.088	43	2574	N.D.	
21) cis-1,2-Dichloroethylene	0.000		0	N.D.	
22) 2,2-Dichloropropane	0.000		0	N.D.	
23) Bromochloromethane	0.000		0	N.D.	
24) Chloroform	9.448	83	395	N.D.	
25) 1,1,1-Trichloroethane	0.000		0	N.D.	
26) Cyclohexane	0.000		0	N.D.	
27) 1,1-Dichloropropene	0.000		0	N.D.	
28) Carbon tetrachloride	0.000		0	N.D.	
30) 1,2-Dichloroethane	10.035	62	116	N.D.	
31) Benzene	10.113	78	408	N.D.	
32) Cyclohexene	10.368	67	135	N.D.	
33) n-Butyl alcohol	0.000		0m	N.D. d	
34) Trichloroethylene	0.000		0	N.D.	
35) 1,2-Dichloropropane	0.000		0	N.D.	
36) Methylcyclohexane	0.000		0	N.D.	
37) Dibromomethane	0.000		0	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\123109V5\
Data File : 5R413.D
Acq On : 31 Dec 2009 1:50 pm
Operator : DXK1
InstName : VOA5
Sample : |1202005010|938016|10|VOA|1|VOATCLPL|
Misc : LANL 500uL N/A TCLPBLANK
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Jan 04 08:52:12 2010
Quant Method : C:\msdchem\1\METHODS\VOA5-8260-120909.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Fri Dec 11 08:24:46 2009
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
38)	Bromodichloromethane	0.000		0	N.D.	
39)	2-Chloroethylvinyl ether	0.000		0	N.D.	
40)	cis-1,3-Dichloropropylene	11.630	75	2204	N.D.	
42)	4-Methyl-2-pentanone	0.000		0	N.D.	
44)	Toluene	12.083	91	1364	N.D.	
45)	trans-1,3-Dichloroprop...	0.000		0	N.D.	
46)	1,1,2-Trichloroethane	0.000		0	N.D.	
47)	2-Hexanone	0.000		0m	N.D.	d
48)	1,3-Dichloropropane	12.603	76	122	N.D.	
49)	Tetrachloroethylene	0.000		0	N.D.	
50)	Dibromochloromethane	0.000		0	N.D.	
51)	1,2-Dibromoethane	0.000		0	N.D.	
52)	Chlorobenzene	13.579	112	429	N.D.	
53)	1,1,1,2-Tetrachloroethane	0.000		0	N.D.	
54)	Ethylbenzene	13.632	91	848	N.D.	
55)	m,p-Xylenes	13.749	106	393	N.D.	
56)	o-Xylene	0.000		0	N.D.	
57)	Styrene	14.184	104	113	N.D.	
59)	Bromoform	0.000		0	N.D.	
60)	Isopropylbenzene,	14.530	105	230	N.D.	
62)	1,1,2,2-Tetrachloroethane	0.000		0	N.D.	
63)	1,2,3-Trichloropropane	0.000		0	N.D.	
64)	Bromobenzene	14.742	156	154	N.D.	
65)	n-Propylbenzene	14.965	91	1247	N.D.	
66)	1,3,5-Trimethylbenzene	15.110	105	790	N.D.	
67)	2-Chlorotoluene	0.000		0	N.D.	
68)	4-Chlorotoluene	15.216	91	1473	N.D.	
69)	tert-Butylbenzene	0.000		0	N.D.	
70)	1,2,4-Trimethylbenzene	15.531	105	588	N.D.	
71)	sec-Butylbenzene	15.708	105	364	N.D.	
72)	4-Isopropyltoluene	15.835	119	395	N.D.	
73)	1,3-Dichlorobenzene	15.909	146	1206	N.D.	
74)	1,4-Dichlorobenzene	15.991	146	2977	N.D.	
75)	n-Butylbenzene	16.284	91	1007	N.D.	
76)	1,2-Dichlorobenzene	16.429	146	524	N.D.	
77)	1,2-Dibromo-3-chloropr...	0.000		0	N.D.	
78)	1,2,4-Trichlorobenzene	18.378	180	1011	N.D.	
79)	Hexachlorobutadiene	0.000		0	N.D.	
80)	Naphthalene	0.000		0m	N.D.	d
81)	1,2,3-Trichlorobenzene	19.101	180	726	N.D.	
83)	Chlorotrifluoroethylene	0.000		0	N.D.	
84)	2-Chloro-1,1,1-trifluo...	0.000		0	N.D.	
85)	Acrolein	0.000		0	N.D.	
86)	Trichlorotrifluoroethane	0.000		0	N.D.	
87)	Isopropyl Alcohol	0.000		0	N.D.	
88)	Allyl chloride	7.511	41	132	N.D.	
89)	tert-Butyl Alcohol	7.684	59	114	N.D.	
90)	Acrylonitrile	0.000		0	N.D.	
91)	Isopropyl ether	0.000		0	N.D.	
92)	2-Chloro-1,3-butadiene	0.000		0	N.D.	
93)	Ethyl tert-butyl ether	0.000		0	N.D.	
94)	Ethyl acetate	9.088	43	2574	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\123109V5\
Data File : 5R413.D
Acq On : 31 Dec 2009 1:50 pm
Operator : DXK1
InstName : VOA5
Sample : |1202005010|938016|10|VOA|1|VOATCLPL|
Misc : LANL 500uL N/A TCLPBLANK
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Jan 04 08:52:12 2010
Quant Method : C:\msdchem\1\METHODS\VOA5-8260-120909.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Fri Dec 11 08:24:46 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
95) Propionitrile	0.000		0	N.D.	
96) Methacrylonitrile	0.000		0	N.D.	
97) Tetrahydrofuran	9.473	42	155	N.D.	
98) Isobutyl alcohol	0.000		0m	N.D. d	
99) Methyl tert-amyl ether	0.000		0	N.D.	
100) Methyl methacrylate	0.000		0	N.D.	
101) 1,4-Dioxane	0.000		0	N.D.	
102) 2-Nitropropane	0.000		0m	N.D. d	
104) Ethyl methacrylate	0.000		0	N.D.	
106) 1-Chlorohexane	0.000		0	N.D.	
107) cis-1,4-Dichloro-2-butene	0.000		0	N.D.	
108) Cyclohexanone	0.000		0	N.D.	
109) trans-1,4-Dichloro-2-b...	0.000		0	N.D.	
110) Pentachloroethane	0.000		0	N.D.	
111) Benzyl chloride	0.000		0	N.D.	
112) bis(2-Chloroisopropyl)...	16.542	45	3670	N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\123109V5\
Data File : 5R413.D
Acq On : 31 Dec 2009 1:50 pm
Operator : DXK1
InstName : VOA5
Sample : |1202005010|938016|10|VOA|1|VOATCLPL|
Misc : LANL 500uL N/A TCLPBLANK
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Jan 04 08:52:12 2010
Quant Method : C:\msdchem\1\METHODS\VOA5-8260-120909.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Fri Dec 11 08:24:46 2009
Response via : Initial Calibration
Integrator: RTE

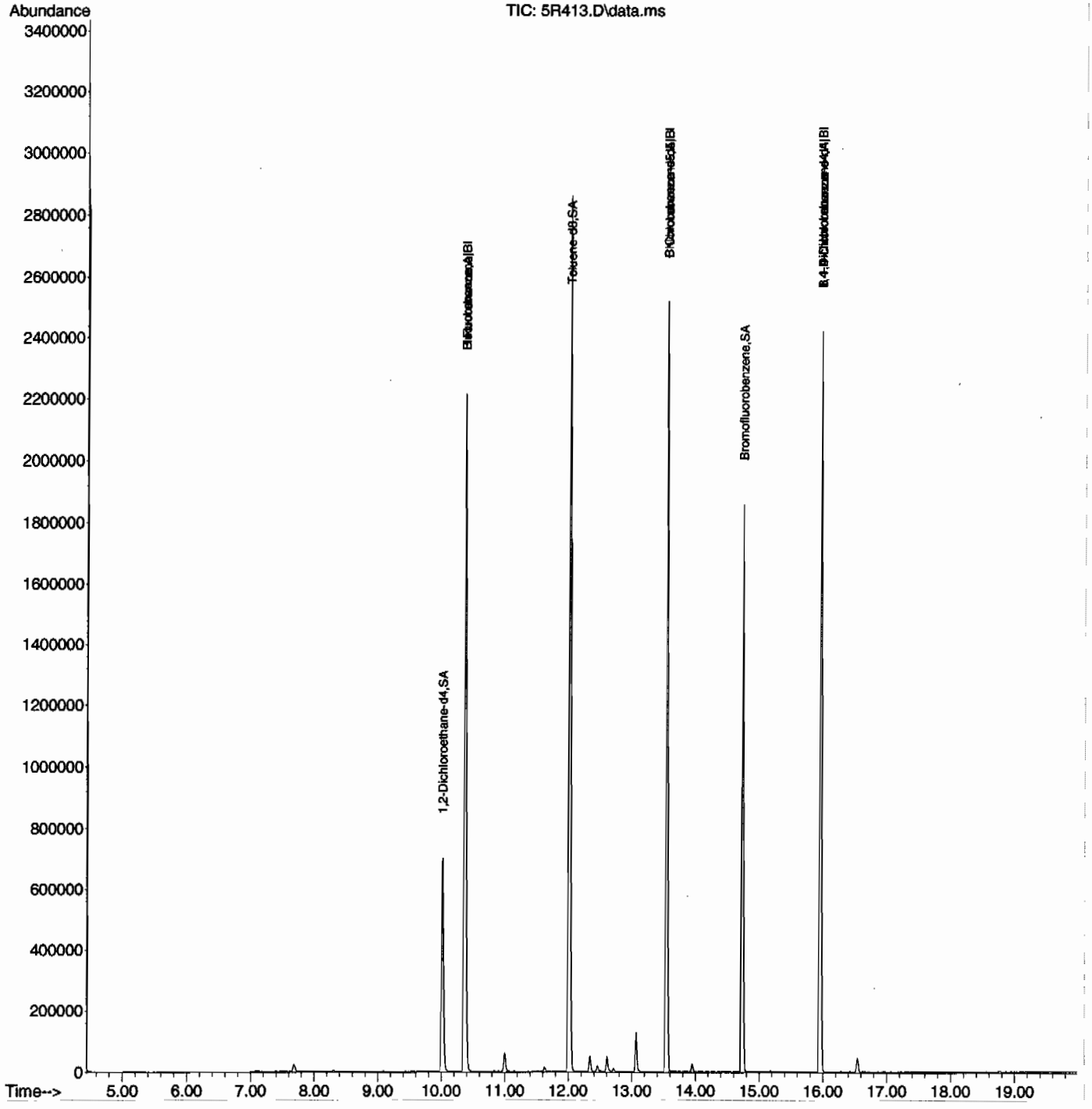

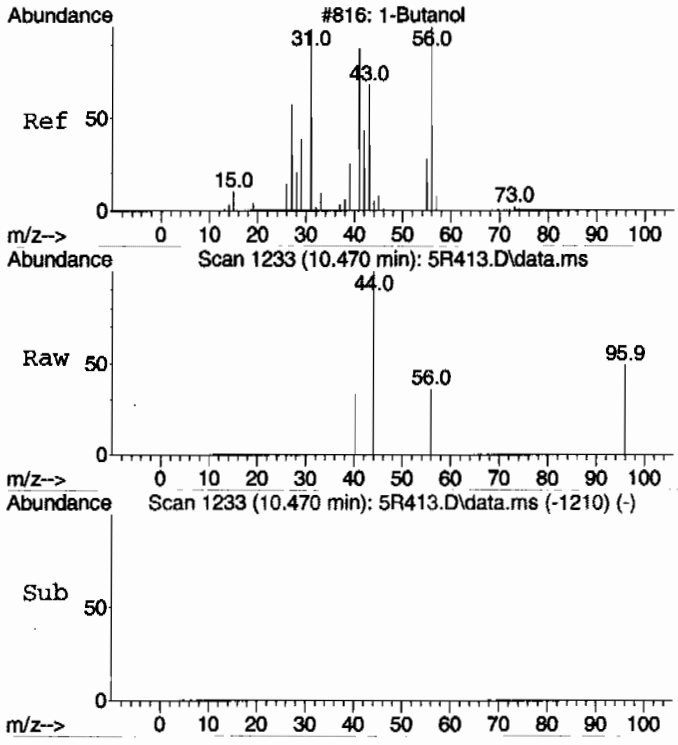

#33 BEFORE analyst DELETION
n-Butyl alcohol
Concen: 100.46 ug/L
RT: 10.470 min Scan# 1233
Delta R.T. 0.014 min
Lab File: 5R413.D
Acq: 31 Dec 2009 1:50 pm

Tgt Ion: 56 Resp: 122

Ion	Ratio	Lower	Upper
56	100		
41	92.6	47.2	107.2
43	0.0	31.2	91.2#

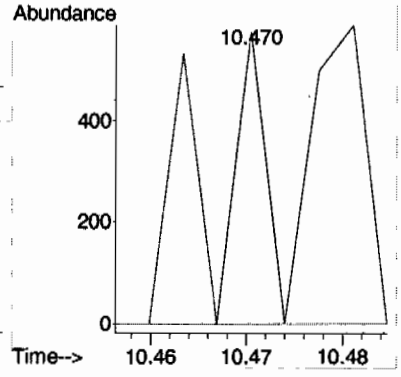

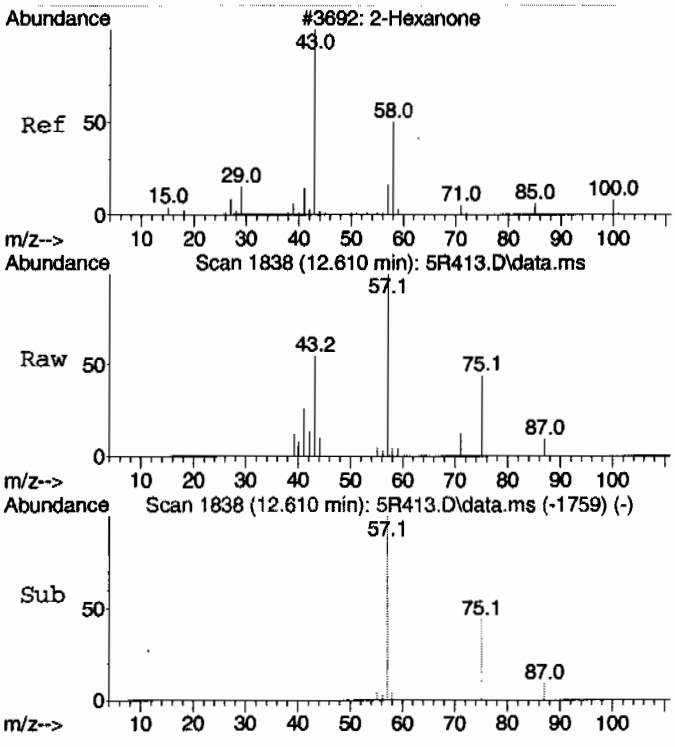

#47 BEFORE analyst DELETION
2-Hexanone
Concen: 1.53 ug/L
RT: 12.610 min Scan# 1838
Delta R.T. -0.021 min
Lab File: 5R413.D
Acq: 31 Dec 2009 1:50 pm

Tgt Ion: 43 Resp: 21327

Ion	Ratio	Lower	Upper
43	100		
58	5.8	20.0	80.0#
57	170.3	0.0	46.7#
100	0.0	0.0	39.2

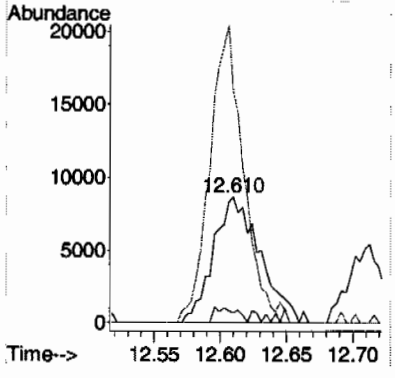

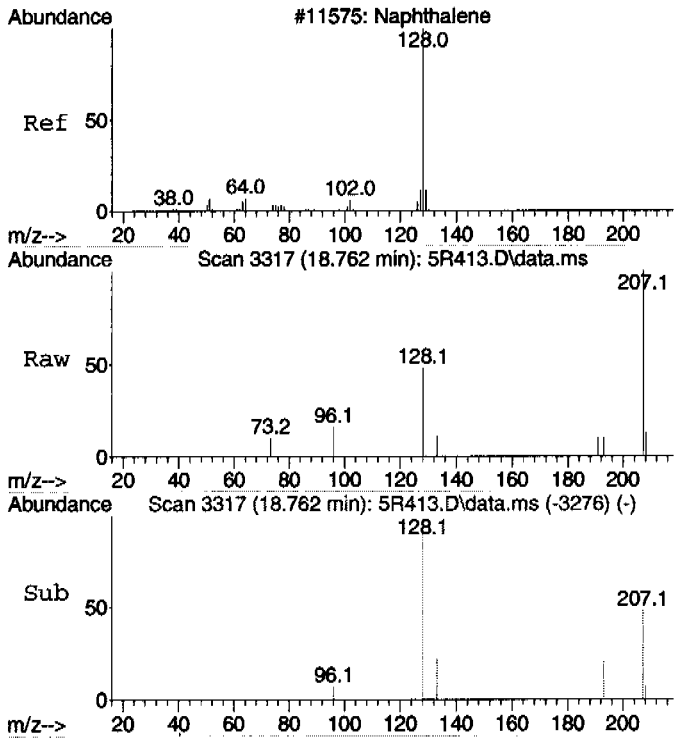

#80 BEFORE analyst DELETION
Naphthalene
Concen: 1.13 ug/L
RT: 18.762 min Scan# 3317
Delta R.T. -0.000 min
Lab File: 5R413.D
Acq: 31 Dec 2009 1:50 pm

Tgt Ion:128 Resp: 3076

Ion	Ratio	Lower	Upper
128	100		
127	4.6	0.0	42.5
129	0.0	0.0	40.8

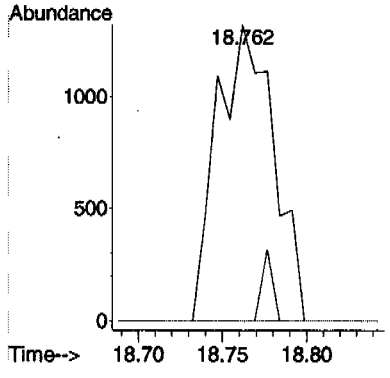

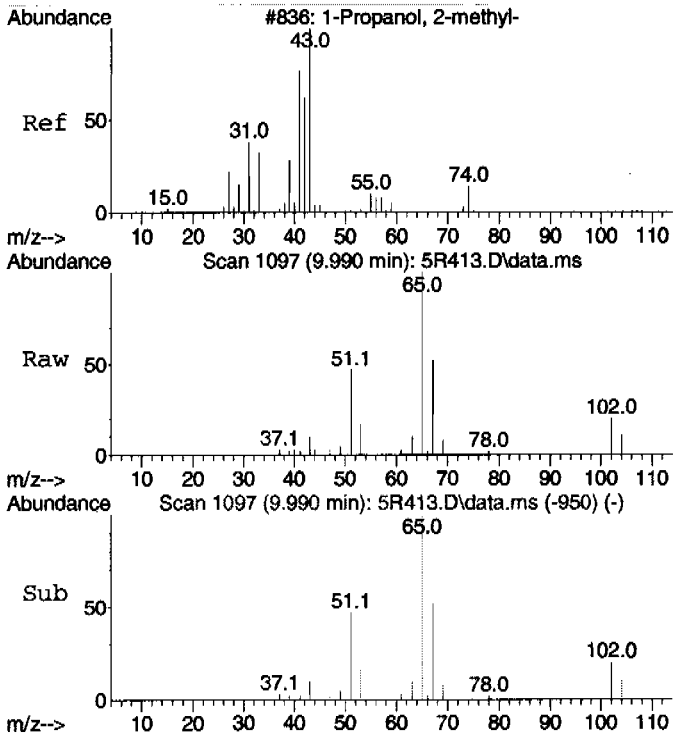

#98 BEFORE analyst DELETION
Isobutyl alcohol
Concen: 30.68 ug/L
RT: 9.990 min Scan# 1097
Delta R.T. 0.220 min
Lab File: 5R413.D
Acq: 31 Dec 2009 1:50 pm

Tgt Ion: 41 Resp: 128

Ion	Ratio	Lower	Upper
41	100		
43	4919.5	107.1	167.1#

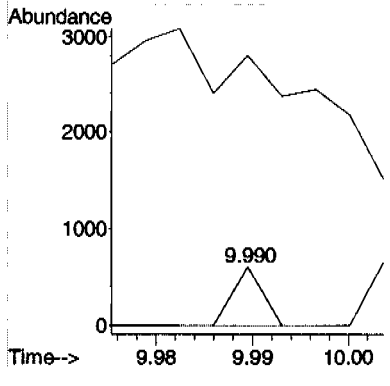

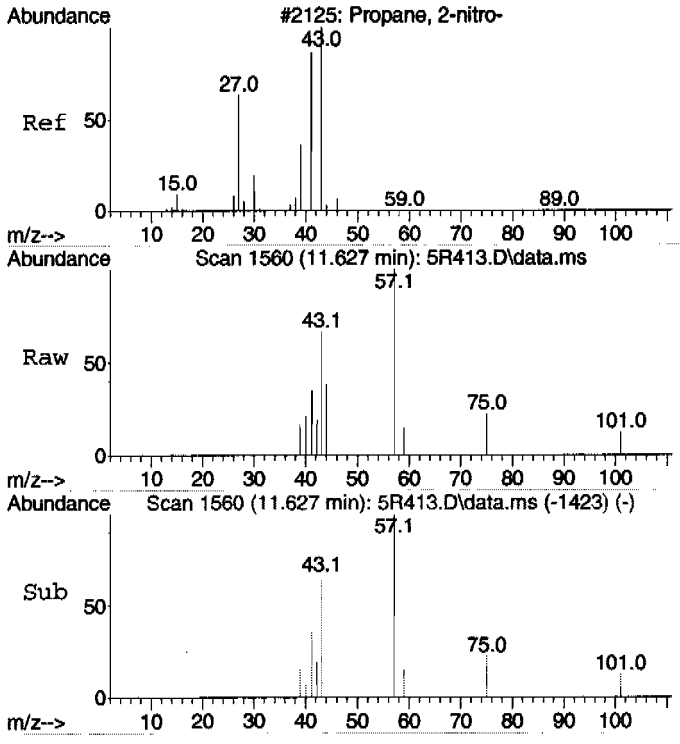

#102 BEFORE analyst DELETION
2-Nitropropane
Concen: 7.65 ug/L
RT: 11.627 min Scan# 1560
Delta R.T. 0.184 min
Lab File: 5R413.D
Acq: 31 Dec 2009 1:50 pm

Tgt Ion: 43 Resp: 6086

Ion	Ratio	Lower	Upper
43	100		
41	44.3	57.0	117.0#

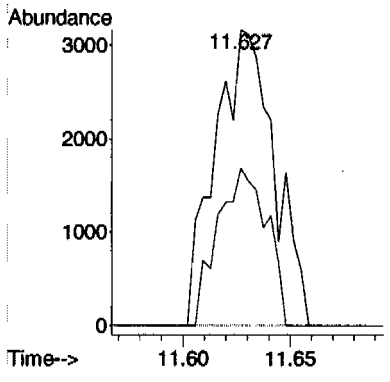

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1085-1**			**Matrix:**	**TCLP MISC SOLID**
Lab Sample ID:	**1202007231**				
Client Sample:	**QC for batch 938016**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 938016**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**938016**	**Inst:**	**VOA5.I**	**Dilution:**	**1**
Run Date:	**12/31/2009 08:59**	**Analyst:**	**DXK1**	**Purge Vol:**	**5 mL**
Prep Date:	**12/31/2009 08:59**				
Data File:	**123109V5\5R402LL.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-01-4	Vinyl chloride		0.0484	mg/L	0.0005	0.001
75-35-4	1,1-Dichloroethylene		0.0548	mg/L	0.0003	0.001
78-93-3	2-Butanone		0.185	mg/L	0.00125	0.005
67-66-3	Chloroform		0.0542	mg/L	0.00025	0.001
56-23-5	Carbon tetrachloride		0.0622	mg/L	0.0003	0.001
107-06-2	1,2-Dichloroethane		0.0499	mg/L	0.00025	0.001
71-43-2	Benzene		0.0531	mg/L	0.0003	0.001
79-01-6	Trichloroethylene		0.055	mg/L	0.00025	0.001
127-18-4	Tetrachloroethylene		0.0544	mg/L	0.0003	0.001
108-90-7	Chlorobenzene		0.0527	mg/L	0.00025	0.001
106-46-7	1,4-Dichlorobenzene		0.052	mg/L	0.00025	0.001

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\123109V5\
Data File : 5R402LL.D
Acq On : 31 Dec 2009 8:59 am
Operator : DXK1
InstName : VOA5
Sample : |1202007231|938016|1|VOA|1|VOA8260BL|
Misc : LCS 5mL N/A MIX[A]
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 31 10:22:23 2009
Quant Method : C:\msdchem\1\METHODS\VOA5-8260-120909.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Fri Dec 11 08:24:46 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	10.371	96	2255120	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.547	117	1566203	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	15.959	152	842954	50.00	ug/L	0.00
82) B Fluorobenzene	10.371	96	2255120	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.547	117	1566203	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	15.959	152	842954	50.00	ug/L	0.00
System Monitoring Compounds						
29) 1,2-Dichloroethane-d4	10.018	65	511809	46.89	ug/L	0.00
Spiked Amount 50.000	Range 59 - 130		Recovery = 93.78%			
43) Toluene-d8	12.016	98	2137823	47.70	ug/L	0.00
Spiked Amount 50.000	Range 76 - 129		Recovery = 95.40%			
61) Bromofluorobenzene	14.735	95	780020	50.02	ug/L	0.00
Spiked Amount 50.000	Range 71 - 126		Recovery = 100.04%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	4.678	85	294411	57.01	ug/L	99
3) Chloromethane	5.041	50	629979	43.97	ug/L	99
4) Vinyl chloride	5.273	62	601429	48.40	ug/L	99
5) Bromomethane	5.867	94	415921	50.96	ug/L	99
6) Chloroethane	6.008	64	390410	53.44	ug/L	100
7) Trichlorofluoromethane	6.411	101	631733	61.78	ug/L	99
8) Ethyl ether	6.723	59	459855	47.47	ug/L	98
9) Acetone	7.097	43	1803557	179.87	ug/L	99
10) 1,1-Dichloroethylene	7.125	61	705487	54.84	ug/L	98
11) Iodomethane	7.369	142	3591251	260.39	ug/L	97
12) Acetonitrile	7.443	41	1867886	1088.12	ug/L	99
13) Methyl acetate	7.489	43	2204199	223.36	ug/L	99
14) Carbon disulfide	7.511	76	7934119	295.33	ug/L	100
15) Methylene chloride	7.687	84	524658	52.13	ug/L	96
16) tert-Butyl methyl ether	7.981	73	1004026	41.07	ug/L	98
17) trans-1,2-Dichloroethy...	8.027	61	717179	51.64	ug/L	96
18) Vinyl acetate	8.451	43	6710872	270.27	ug/L	98
19) 1,1-Dichloroethane	8.508	63	904996	51.53	ug/L	99
20) 2-Butanone	9.074	43	2164568	184.96	ug/L	98
21) cis-1,2-Dichloroethylene	9.141	61	795733	51.33	ug/L	96
22) 2,2-Dichloropropane	9.169	77	492172	57.61	ug/L	97
23) Bromochloromethane	9.417	128	248956	52.34	ug/L	96
24) Chloroform	9.448	83	811655	54.15	ug/L	99
25) 1,1,1-Trichloroethane	9.728	97	630720	57.76	ug/L	98
26) Cyclohexane	9.827	56	1007168	56.09	ug/L	96
27) 1,1-Dichloropropene	9.883	75	661788	57.64	ug/L	97
28) Carbon tetrachloride	9.929	117	566125	62.23	ug/L	98
30) 1,2-Dichloroethane	10.103	62	625549	49.91	ug/L	100
31) Benzene	10.124	78	2093259	53.05	ug/L	99
32) Cyclohexene	10.244	67	1030706	55.96	ug/L	96
33) n-Butyl alcohol	10.456	56	1721643	4274.87	ug/L	99
34) Trichloroethylene	10.760	95	498121	54.95	ug/L	99
35) 1,2-Dichloropropane	11.004	63	553599	50.17	ug/L	100
36) Methylcyclohexane	11.015	83	932569	57.36	ug/L	96
37) Dibromomethane	11.142	93	272071	51.90	ug/L	96

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\123109V5\
Data File : 5R402LL.D
Acq On : 31 Dec 2009 8:59 am
Operator : DXK1
InstName : VOA5
Sample : |1202007231|938016|1|VOA|1|VOA8260BL|
Misc : LCS 5mL N/A MIX[A]
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 31 10:22:23 2009
Quant Method : C:\msdchem\1\METHODS\VOA5-8260-120909.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Fri Dec 11 08:24:46 2009
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
38)	Bromodichloromethane	11.252	83	604214	56.17 ug/L	100
39)	2-Chloroethylvinyl ether	11.464	63	1294302	225.94 ug/L	99
40)	cis-1,3-Dichloropropylene	11.701	75	787838	55.81 ug/L	99
42)	4-Methyl-2-pentanone	11.782	58	1167066	238.49 ug/L	98
44)	Toluene	12.090	91	2251708	52.65 ug/L	100
45)	trans-1,3-Dichloroprop...	12.239	75	703143	55.79 ug/L	99
46)	1,1,2-Trichloroethane	12.461	83	359813	50.84 ug/L	99
47)	2-Hexanone	12.631	43	3035169	205.36 ug/L	99
48)	1,3-Dichloropropane	12.652	76	768534	49.60 ug/L #	81
49)	Tetrachloroethylene	12.691	164	417885	54.43 ug/L	99
50)	Dibromochloromethane	12.925	129	462816	57.96 ug/L	99
51)	1,2-Dibromoethane	13.094	107	410279	51.88 ug/L	99
52)	Chlorobenzene	13.579	112	1411654	52.65 ug/L	99
53)	1,1,1,2-Tetrachloroethane	13.632	131	471994	55.88 ug/L	99
54)	Ethylbenzene	13.636	91	2462041	55.69 ug/L	99
55)	m,p-Xylenes	13.745	106	1980734	112.56 ug/L	99
56)	o-Xylene	14.180	106	956637	54.75 ug/L	99
57)	Styrene	14.180	104	1590307	58.85 ug/L	99
59)	Bromoform	14.445	173	290974	58.13 ug/L	100
60)	Isopropylbenzene	14.537	105	2403667	57.82 ug/L	100
62)	1,1,2,2-Tetrachloroethane	14.810	83	561509	51.27 ug/L	100
63)	1,2,3-Trichloropropane	14.898	110	145605	52.08 ug/L	96
64)	Bromobenzene	14.951	156	575384	51.62 ug/L	99
65)	n-Propylbenzene	14.962	91	2872574	56.90 ug/L	99
66)	1,3,5-Trimethylbenzene	15.114	105	1965878	56.97 ug/L	100
67)	2-Chlorotoluene	15.117	126	582694	54.12 ug/L	98
68)	4-Chlorotoluene	15.213	91	1733956	56.04 ug/L	100
69)	tert-Butylbenzene	15.489	134	452675	57.64 ug/L	98
70)	1,2,4-Trimethylbenzene	15.524	105	2016124	57.40 ug/L	99
71)	sec-Butylbenzene	15.711	105	2635015	57.90 ug/L	100
72)	4-Isopropyltoluene	15.828	119	2114028	59.51 ug/L	99
73)	1,3-Dichlorobenzene	15.902	146	1148121	54.30 ug/L	99
74)	1,4-Dichlorobenzene	15.987	146	1149287	52.03 ug/L	99
75)	n-Butylbenzene	16.277	91	2069051	59.70 ug/L	100
76)	1,2-Dichlorobenzene	16.419	146	1069476	52.95 ug/L	99
77)	1,2-Dibromo-3-chloropr...	17.293	157	105520	56.80 ug/L	98
78)	1,2,4-Trichlorobenzene	18.371	180	752677	56.92 ug/L	99
79)	Hexachlorobutadiene	18.548	225	419666	54.11 ug/L	99
80)	Naphthalene	18.762	128	1663236	50.18 ug/L	100
81)	1,2,3-Trichlorobenzene	19.109	180	673461	58.56 ug/L	100
83)	Chlorotrifluoroethylene	0.000		0	N.D.	
84)	2-Chloro-1,1,1-trifluo...	0.000		0	N.D.	
85)	Acrolein	6.924		0m	N.D. d	
86)	Trichlorotrifluoroethane	7.093		0m	N.D. d	
87)	Isopropyl Alcohol	7.185		0m	N.D. d	
88)	Allyl chloride	7.443		0m	N.D. d	
89)	tert-Butyl Alcohol	7.712		0m	N.D. d	
90)	Acrylonitrile	7.931		0m	N.D. d	
91)	Isopropyl ether	8.451		0m	N.D. d	
92)	2-Chloro-1,3-butadiene	8.617		0m	N.D. d	
93)	Ethyl tert-butyl ether	8.886		0m	N.D. d	
94)	Ethyl acetate	9.074		0m	N.D. d	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\123109V5\
Data File : 5R402LL.D
Acq On : 31 Dec 2009 8:59 am
Operator : DXK1
InstName : VOA5
Sample : |1202007231|938016|1|VOA|1|VOA8260BL|
Misc : LCS 5mL N/A MIX[A]
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 31 10:22:23 2009
Quant Method : C:\msdchem\1\METHODS\VOA5-8260-120909.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Fri Dec 11 08:24:46 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
95) Propionitrile	9.148		0m	N.D.	d	
96) Methacrylonitrile	9.169		0m	N.D.	d	
97) Tetrahydrofuran	9.470		0m	N.D.	d	
98) Isobutyl alcohol	9.827		0m	N.D.	d	
99) Methyl tert-amyl ether	10.127		0m	N.D.	d	
100) Methyl methacrylate	11.015		0m	N.D.	d	
101) 1,4-Dioxane	11.139		0m	N.D.	d	
102) 2-Nitropropane	11.553		0m	N.D.	d	
104) Ethyl methacrylate	12.221		0m	N.D.	d	
106) 1-Chlorohexane	0.000		0	N.D.		
107) cis-1,4-Dichloro-2-butene	14.541		0m	N.D.	d	
108) Cyclohexanone	14.696		0m	N.D.	d	
109) trans-1,4-Dichloro-2-b...	14.852		0m	N.D.	d	
110) Pentachloroethane	15.559		0m	N.D.	d	
111) Benzyl chloride	16.097		0m	N.D.	d	
112) bis(2-Chloroisopropyl)...	16.496		0m	N.D.	d	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\123109V5\
Data File : 5R402LL.D
Acq On : 31 Dec 2009 8:59 am
Operator : DXK1
InstName : VOA5
Sample : |1202007231|938016|1|VOA|1|VOA8260BL|
Misc : LCS 5mL N/A MIX[A]
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 31 10:22:23 2009
Quant Method : C:\msdchem\1\METHODS\VOA5-8260-120909.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Fri Dec 11 08:24:46 2009
Response via : Initial Calibration
Integrator: RTE

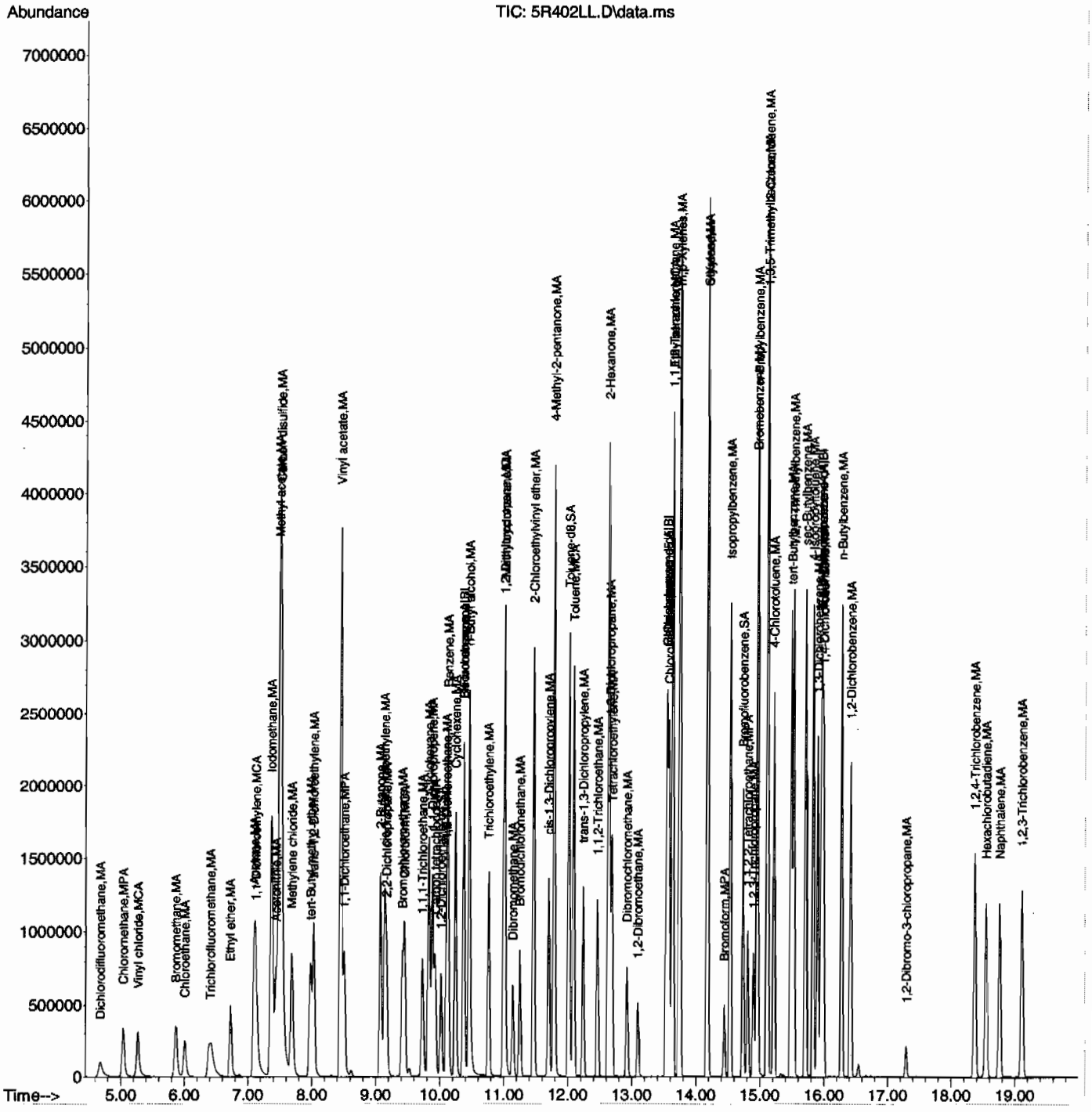

Miscellaneous

Prep Logbook

Toxicity Characteristic Leaching Procedure Preparation

Batch ID: 936997 **Verified by:** _____
Analyst: Richard Dollinger
Method: SW846 1311

Lab SOP: GL-LB-E-006 REV# 13
Instrument: TCLP Tumbler #105

Sample ID Analysis Start Date	1202005010 TB 28-DEC-2009 16:00:02	243421001 28-DEC-2009 16:00:02	243551001 28-DEC-2009 16:00:02	243553001 28-DEC-2009 16:00:02
100% Solid Y/N		y	y	y
(I) Sub Sample Aliquot I=G-H (g)		25	25	25
pH Temperature (celsius)	4.95			
Filtrate pH (su)	4.95			
Final pH (su)	4.95			
Tumbler Speed	28	28	28	28
Sample Properties <>/= Water	tclp#1	Solid	Solid	Solid
(J) 20X Wet Solid Weight 20XC (g)	500	500	500	500
Filtrate Volume (mL)	5	5	5	5
VOA Positive Pressure Y/N	y	y	y	y
ZHE Vessle ID	2	3	4	5

Type	Sample Id	Description		Spike Amt	Units
RGNT	All	TCLP EXTRACTION FLUID 1	1018208ZHE	2000	mL

Comments:

Extration End Date: 29-DEC-09 09:00:47
Filtration End Date: 29-DEC-09 15:00:47
Bottle Lot Number: B-9-195-01VB
Filter Lot Number: 521112
Extration Start Temperature: 23 C
Extration End Temperature: 23 C
Filtration End Temperature: 23 C

Prep Logbook

Toxicity Characteristic Leaching Procedure Preparation

Batch ID: 936997 **Verified by:** _____
Analyst: Richard Dollinger
Method: SW846 1311

Lab SOP: GL-LB-E-006 REV# 13
Instrument: TCLP Tumbler #105

Sample ID	243553002
Analysis Start Date	28-DEC-2009 16:00:02
100% Solid Y/N	y
(I) Sub Sample Aliquot 1=G-H (g)	25
pH Temperature (celsius)	
Filtrate pH (su)	
Final pH (su)	
Tumbler Speed	28
Sample Properties <>/= Water	Solid
(J) 20X Wet Solid Weight 20XC (g)	500
Filtrate Volume (mL)	5
VOA Positive Pressure Y/N	y
ZHE Vessle ID	6

Type	Sample Id	Description	Serial Number	Spike Amt	Units
RGNT	All	TCLP EXTRACTION FLUID 1	1018208ZHE	2000	mL

Comments:

Extration End Date: 29-DEC-09 09:00:47
Filtration End Date: 29-DEC-09 15:00:47
Bottle Lot Number: B-9-195-01VB
Filter Lot Number: 521112
Extration Start Temperature: 23 C
Extration End Temperature: 23 C
Filtration End Temperature: 23 C

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\010710V5\
Data File : 5S422.D
Acq On : 7 Jan 2010 7:11 pm
Operator : DXK1
InstName : VOA5
Sample : |1202010143|938016|10|VOA|1|VOATCLPL|
Misc : LANL 500uL N/A MIX[A] MS243421001
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Jan 08 08:07:16 2010
Quant Method : C:\msdchem\1\METHODS\VOA5-8260-120909.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Fri Dec 11 08:24:46 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	10.378	96	1608128	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.547	117	1132150	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	15.962	152	611828	50.00	ug/L	0.00
82) B Fluorobenzene	10.378	96	1608128	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.547	117	1132150	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	15.962	152	611828	50.00	ug/L	0.00
System Monitoring Compounds						
29) 1,2-Dichloroethane-d4	10.021	65	371297	47.70	ug/L	0.00
Spiked Amount 50.000	Range 59 - 130		Recovery = 95.40%			
43) Toluene-d8	12.016	98	1540587	47.55	ug/L	0.00
Spiked Amount 50.000	Range 76 - 129		Recovery = 95.10%			
61) Bromofluorobenzene	14.739	95	573576	50.67	ug/L	0.00
Spiked Amount 50.000	Range 71 - 126		Recovery = 101.34%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	4.678	85	133089	36.14	ug/L	99
3) Chloromethane	5.051	50	342662	33.54	ug/L	98
4) Vinyl chloride	5.283	62	326406	36.84	ug/L	99
5) Bromomethane	5.877	94	246680	42.38	ug/L	100
6) Chloroethane	6.018	64	225378	43.26	ug/L	99
7) Trichlorofluoromethane	6.390	101	328080	44.99	ug/L	99
8) Ethyl ether	6.733	59	290237	42.02	ug/L	97
9) Acetone	7.100	43	505410	70.69	ug/L	99
10) 1,1-Dichloroethylene	7.125	61	378719	41.28	ug/L	95
11) Iodomethane	7.373	142	2175523	221.20	ug/L	98
12) Acetonitrile	7.450	41	1164875	951.60	ug/L	100
13) Methyl acetate	7.493	43	1410822	200.48	ug/L	99
14) Carbon disulfide	7.510	76	4464475	233.04	ug/L	99
15) Methylene chloride	7.691	84	335661	46.69	ug/L	94
16) tert-Butyl methyl ether	7.981	73	642559	36.86	ug/L	97
17) trans-1,2-Dichloroethy...	8.034	61	420396	42.45	ug/L	95
18) Vinyl acetate	8.458	43	4384753	247.64	ug/L	99
19) 1,1-Dichloroethane	8.511	63	540889	43.19	ug/L	99
20) 2-Butanone	9.077	43	899956	107.84	ug/L	99
21) cis-1,2-Dichloroethylene	9.144	61	479965	43.42	ug/L	94
22) 2,2-Dichloropropane	9.169	77	253669	41.64	ug/L	96
23) Bromochloromethane	9.420	128	162241	47.83	ug/L	92
24) Chloroform	9.452	83	496813	46.48	ug/L	99
25) 1,1,1-Trichloroethane	9.735	97	351190	45.10	ug/L	98
26) Cyclohexane	9.830	56	491883	38.41	ug/L	96
27) 1,1-Dichloropropene	9.887	75	382937	46.77	ug/L	98
28) Carbon tetrachloride	9.926	117	320791	49.45	ug/L	100
30) 1,2-Dichloroethane	10.103	62	399400	44.68	ug/L	100
31) Benzene	10.127	78	1262312	44.86	ug/L	100
32) Cyclohexene	10.248	67	589476	44.88	ug/L	98
33) n-Butyl alcohol	10.456	56	1148695	4006.20	ug/L	99
34) Trichloroethylene	10.764	95	297098	45.96	ug/L	99
35) 1,2-Dichloropropane	11.008	63	340976	43.33	ug/L	99
36) Methylcyclohexane	11.015	83	527319	45.48	ug/L	96
37) Dibromomethane	11.142	93	174739	46.74	ug/L	98

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\010710V5\
Data File : 5S422.D
Acq On : 7 Jan 2010 7:11 pm
Operator : DXK1
InstName : VOA5
Sample : |1202010143|938016|10|VOA|1|VOATCLPL|
Misc : LANL 500uL N/A MIX[A] MS243421001
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Jan 08 08:07:16 2010
Quant Method : C:\msdchem\1\METHODS\VOA5-8260-120909.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Fri Dec 11 08:24:46 2009
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
38)	Bromodichloromethane	11.255	83	380564	49.61 ug/L	99
39)	2-Chloroethylvinyl ether	11.701	63	2292	N.D.	
40)	cis-1,3-Dichloropropylene	11.701	75	484131	48.09 ug/L	98
42)	4-Methyl-2-pentanone	11.786	58	699386	197.71 ug/L	97
44)	Toluene	12.090	91	1354171	43.80 ug/L	100
45)	trans-1,3-Dichloroprop...	12.242	75	441059	48.41 ug/L	98
46)	1,1,2-Trichloroethane	12.461	83	233382	45.61 ug/L	99
47)	2-Hexanone	12.631	43	1410392	132.01 ug/L	98
48)	1,3-Dichloropropane	12.656	76	483124	43.13 ug/L #	72
49)	Tetrachloroethylene	12.691	164	253104	45.60 ug/L	100
50)	Dibromochloromethane	12.928	129	295627	51.22 ug/L	99
51)	1,2-Dibromoethane	13.094	107	267522	46.80 ug/L	100
52)	Chlorobenzene	13.579	112	876993	45.25 ug/L	99
53)	1,1,1,2-Tetrachloroethane	13.632	131	299521	49.06 ug/L	99
54)	Ethylbenzene	13.639	91	1485822	46.49 ug/L	100
55)	m,p-Xylenes	13.745	106	1198092	94.19 ug/L	100
56)	o-Xylene	14.180	106	587712	46.53 ug/L	99
57)	Styrene	14.184	104	984254	50.39 ug/L	100
59)	Bromoform	14.445	173	188152	51.79 ug/L	99
60)	Isopropylbenzene	14.537	105	1448930	48.02 ug/L	99
62)	1,1,2,2-Tetrachloroethane	14.813	83	360429	45.34 ug/L	99
63)	1,2,3-Trichloropropane	14.901	110	96201	47.41 ug/L	92
64)	Bromobenzene	14.951	156	366414	45.29 ug/L	98
65)	n-Propylbenzene	14.962	91	1720853	46.97 ug/L	99
66)	1,3,5-Trimethylbenzene	15.114	105	1208054	48.23 ug/L	100
67)	2-Chlorotoluene	15.117	126	361932	46.32 ug/L	99
68)	4-Chlorotoluene	15.216	91	1056811	47.06 ug/L	99
69)	tert-Butylbenzene	15.489	134	277434	48.67 ug/L	99
70)	1,2,4-Trimethylbenzene	15.527	105	1242052	48.72 ug/L	100
71)	sec-Butylbenzene	15.711	105	1600455	48.45 ug/L	100
72)	4-Isopropyltoluene	15.832	119	1287735	49.94 ug/L	99
73)	1,3-Dichlorobenzene	15.902	146	717227	46.74 ug/L	99
74)	1,4-Dichlorobenzene	15.987	146	719690	44.89 ug/L	99
75)	n-Butylbenzene	16.277	91	1234094	49.06 ug/L	99
76)	1,2-Dichlorobenzene	16.419	146	688038	46.93 ug/L	100
77)	1,2-Dibromo-3-chloropr...	17.293	157	69660	51.66 ug/L	99
78)	1,2,4-Trichlorobenzene	18.371	180	486276	50.66 ug/L	100
79)	Hexachlorobutadiene	18.548	225	268164	47.64 ug/L	100
80)	Naphthalene	18.762	128	1123357	46.77 ug/L	100
81)	1,2,3-Trichlorobenzene	19.116	180	442148	52.97 ug/L	99
83)	Chlorotrifluoroethylene	0.000		0	N.D.	
84)	2-Chloro-1,1,1-trifluo...	0.000		0	N.D.	
85)	Acrolein	0.000		0	N.D.	
86)	Trichlorotrifluoroethane	0.000		0	N.D.	
87)	Isopropyl Alcohol	0.000		0	N.D.	
88)	Allyl chloride	7.450		0m	N.D. d	
89)	tert-Butyl Alcohol	7.698		0m	N.D. d	
90)	Acrylonitrile	7.981		0m	N.D. d	
91)	Isopropyl ether	8.451		0m	N.D. d	
92)	2-Chloro-1,3-butadiene	8.458		0m	N.D. d	
93)	Ethyl tert-butyl ether	0.000		0	N.D.	
94)	Ethyl acetate	9.077		0m	N.D. d	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\010710V5\
Data File : 5S422.D
Acq On : 7 Jan 2010 7:11 pm
Operator : DXK1
InstName : VOA5
Sample : |1202010143|938016|10|VOA|1|VOATCLPL|
Misc : LANL 500uL N/A MIX[A] MS243421001
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Jan 08 08:07:16 2010
Quant Method : C:\msdchem\1\METHODS\VOA5-8260-120909.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Fri Dec 11 08:24:46 2009
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
95)	Propionitrile	9.102		0m	N.D. d	
96)	Methacrylonitrile	9.165		0m	N.D. d	
97)	Tetrahydrofuran	9.463		0m	N.D. d	
98)	Isobutyl alcohol	9.830		0m	N.D. d	
99)	Methyl tert-amyl ether	10.127		0m	N.D. d	
100)	Methyl methacrylate	11.015		0m	N.D. d	
101)	1,4-Dioxane	11.139		0m	N.D. d	
102)	2-Nitropropane	11.330		0m	N.D. d	
104)	Ethyl methacrylate	0.000		0	N.D.	
106)	1-Chlorohexane	0.000		0	N.D.	
107)	cis-1,4-Dichloro-2-butene	14.537		0m	N.D. d	
108)	Cyclohexanone	14.537		0m	N.D. d	
109)	trans-1,4-Dichloro-2-b...	14.969		0m	N.D. d	
110)	Pentachloroethane	15.563		0m	N.D. d	
111)	Benzyl chloride	0.000		0	N.D.	
112)	bis(2-Chloroisopropyl)...	16.546		0m	N.D. d	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\010710V5\
Data File : 5S422.D
Acq On : 7 Jan 2010 7:11 pm
Operator : DXK1
InstName : VOA5
Sample : |1202010143|938016|10|VOA|1|VOATCLPL|
Misc : LANL 500uL N/A MIX[A] MS243421001
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Jan 08 08:07:16 2010
Quant Method : C:\msdchem\1\METHODS\VOA5-8260-120909.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Fri Dec 11 08:24:46 2009
Response via : Initial Calibration
Integrator: RTE

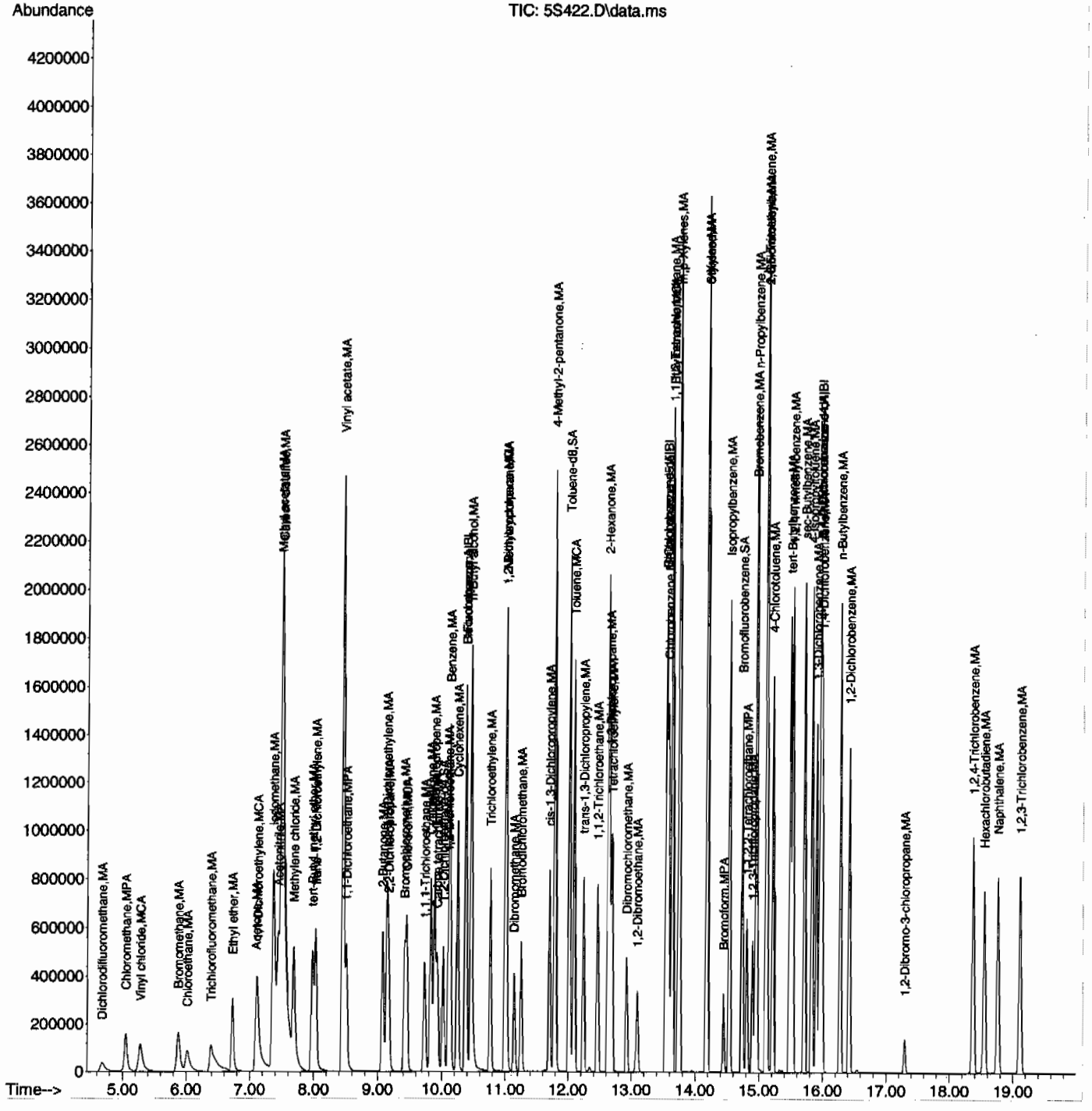

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\010710V5\
Data File : 5S423.D
Acq On : 7 Jan 2010 7:36 pm
Operator : DXK1
InstName : VOA5
Sample : |1202010144|938016|10|VOA|1|VOATCLPL|
Misc : LANL 500uL N/A MIX[A] MSD243421001
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Jan 08 08:07:18 2010
Quant Method : C:\msdchem\1\METHODS\VOA5-8260-120909.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Fri Dec 11 08:24:46 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	10.375	96	1678482	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.547	117	1176424	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	15.963	152	631590	50.00	ug/L	0.00
82) B Fluorobenzene	10.375	96	1678482	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.547	117	1176424	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	15.963	152	631590	50.00	ug/L	0.00
System Monitoring Compounds						
29) 1,2-Dichloroethane-d4	10.021	65	382026	47.03	ug/L	0.00
Spiked Amount 50.000	Range 59 - 130		Recovery = 94.06%			
43) Toluene-d8	12.019	98	1573520	46.74	ug/L	0.00
Spiked Amount 50.000	Range 76 - 129		Recovery = 93.48%			
61) Bromofluorobenzene	14.739	95	587791	50.30	ug/L	0.00
Spiked Amount 50.000	Range 71 - 126		Recovery = 100.60%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	4.689	85	137206	35.69	ug/L	98
3) Chloromethane	5.051	50	345756	32.42	ug/L	99
4) Vinyl chloride	5.283	62	325893	35.24	ug/L	100
5) Bromomethane	5.877	94	251298	41.37	ug/L	100
6) Chloroethane	6.018	64	230762	42.44	ug/L	98
7) Trichlorofluoromethane	6.391	101	321184	42.20	ug/L	100
8) Ethyl ether	6.733	59	311616	43.22	ug/L	94
9) Acetone	7.097	43	505117	67.68	ug/L	99
10) 1,1-Dichloroethylene	7.122	61	380939	39.78	ug/L	96
11) Iodomethane	7.373	142	2236015	217.82	ug/L	98
12) Acetonitrile	7.447	41	1140126	892.34	ug/L	99
13) Methyl acetate	7.496	43	1433570	195.18	ug/L	99
14) Carbon disulfide	7.507	76	4507554	225.42	ug/L	99
15) Methylene chloride	7.687	84	345993	46.10	ug/L	93
16) tert-Butyl methyl ether	7.984	73	645047	35.45	ug/L	97
17) trans-1,2-Dichloroethy...	8.030	61	433559	41.94	ug/L	96
18) Vinyl acetate	8.458	43	4524270	244.81	ug/L	99
19) 1,1-Dichloroethane	8.511	63	563472	43.11	ug/L	100
20) 2-Butanone	9.077	43	914926	105.04	ug/L	98
21) cis-1,2-Dichloroethylene	9.148	61	498354	43.19	ug/L	94
22) 2,2-Dichloropropane	9.169	77	258568	40.66	ug/L	94
23) Bromochloromethane	9.420	128	166949	47.16	ug/L	94
24) Chloroform	9.452	83	520242	46.64	ug/L	100
25) 1,1,1-Trichloroethane	9.731	97	353825	43.54	ug/L	98
26) Cyclohexane	9.830	56	488927	36.58	ug/L	96
27) 1,1-Dichloropropene	9.887	75	390670	45.71	ug/L	98
28) Carbon tetrachloride	9.929	117	322104	47.57	ug/L	99
30) 1,2-Dichloroethane	10.106	62	412910	44.26	ug/L	99
31) Benzene	10.128	78	1309144	44.58	ug/L	99
32) Cyclohexene	10.248	67	599659	43.74	ug/L	98
33) n-Butyl alcohol	10.460	56	1158312	3873.81	ug/L	100
34) Trichloroethylene	10.768	95	304283	45.10	ug/L	99
35) 1,2-Dichloropropane	11.008	63	354585	43.17	ug/L	100
36) Methylcyclohexane	11.019	83	525661	43.44	ug/L	96
37) Dibromomethane	11.146	93	179801	46.08	ug/L	98

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\010710V5\
Data File : 5S423.D
Acq On : 7 Jan 2010 7:36 pm
Operator : DXK1
InstName : VOA5
Sample : |1202010144|938016|10|VOA|1|VOATCLPL|
Misc : LANL 500uL N/A MIX[A] MSD243421001
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Jan 08 08:07:18 2010
Quant Method : C:\msdchem\1\METHODS\VOA5-8260-120909.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Fri Dec 11 08:24:46 2009
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
38)	Bromodichloromethane	11.256	83	395369	49.38 ug/L	99
39)	2-Chloroethylvinyl ether	11.471	63	184	N.D.	
40)	cis-1,3-Dichloropropylene	11.701	75	503844	47.95 ug/L	98
42)	4-Methyl-2-pentanone	11.786	58	712050	193.72 ug/L	97
44)	Toluene	12.090	91	1402270	43.65 ug/L	99
45)	trans-1,3-Dichloroprop...	12.242	75	456199	48.19 ug/L	99
46)	1,1,2-Trichloroethane	12.462	83	240591	45.25 ug/L	99
47)	2-Hexanone	12.635	43	1437979	129.53 ug/L	98
48)	1,3-Dichloropropane	12.656	76	500580	43.01 ug/L #	71
49)	Tetrachloroethylene	12.691	164	256885	44.54 ug/L	100
50)	Dibromochloromethane	12.928	129	311310	51.90 ug/L	97
51)	1,2-Dibromoethane	13.098	107	277592	46.74 ug/L	99
52)	Chlorobenzene	13.583	112	909854	45.18 ug/L	99
53)	1,1,1,2-Tetrachloroethane	13.632	131	311452	49.09 ug/L	98
54)	Ethylbenzene	13.639	91	1535949	46.25 ug/L	99
55)	m,p-Xylenes	13.749	106	1240306	93.84 ug/L	99
56)	o-Xylene	14.180	106	611971	46.63 ug/L	100
57)	Styrene	14.184	104	1027079	50.60 ug/L	99
59)	Bromoform	14.445	173	194496	51.86 ug/L	100
60)	Isopropylbenzene	14.537	105	1482877	47.60 ug/L	100
62)	1,1,2,2-Tetrachloroethane	14.813	83	369129	44.98 ug/L	99
63)	1,2,3-Trichloropropane	14.895	110	97931	46.75 ug/L	94
64)	Bromobenzene	14.951	156	380842	45.61 ug/L	98
65)	n-Propylbenzene	14.965	91	1764497	46.65 ug/L	99
66)	1,3,5-Trimethylbenzene	15.114	105	1238036	47.88 ug/L	100
67)	2-Chlorotoluene	15.117	126	372785	46.21 ug/L	99
68)	4-Chlorotoluene	15.216	91	1097955	47.36 ug/L	99
69)	tert-Butylbenzene	15.489	134	280112	47.60 ug/L	97
70)	1,2,4-Trimethylbenzene	15.528	105	1274162	48.42 ug/L	100
71)	sec-Butylbenzene	15.711	105	1620309	47.52 ug/L	99
72)	4-Isopropyltoluene	15.832	119	1316607	49.47 ug/L	99
73)	1,3-Dichlorobenzene	15.902	146	745626	47.07 ug/L	99
74)	1,4-Dichlorobenzene	15.991	146	755842	45.67 ug/L	100
75)	n-Butylbenzene	16.277	91	1261302	48.57 ug/L	100
76)	1,2-Dichlorobenzene	16.422	146	709663	46.89 ug/L	100
77)	1,2-Dibromo-3-chloropr...	17.294	157	68554	49.25 ug/L	99
78)	1,2,4-Trichlorobenzene	18.371	180	501380	50.60 ug/L	100
79)	Hexachlorobutadiene	18.548	225	268802	46.26 ug/L	98
80)	Naphthalene	18.762	128	1125024	45.40 ug/L	100
81)	1,2,3-Trichlorobenzene	19.116	180	453285	52.60 ug/L	100
83)	Chlorotrifluoroethylene	0.000		0	N.D.	
84)	2-Chloro-1,1,1-trifluo...	0.000		0	N.D.	
85)	Acrolein	0.000		0	N.D.	
86)	Trichlorotrifluoroethane	0.000		0	N.D.	
87)	Isopropyl Alcohol	7.111		0m	N.D. d	
88)	Allyl chloride	7.447		0m	N.D. d	
89)	tert-Butyl Alcohol	7.666		0m	N.D. d	
90)	Acrylonitrile	7.988		0m	N.D. d	
91)	Isopropyl ether	8.455		0m	N.D. d	
92)	2-Chloro-1,3-butadiene	0.000		0	N.D.	
93)	Ethyl tert-butyl ether	0.000		0	N.D.	
94)	Ethyl acetate	9.077		0m	N.D. d	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\010710V5\
Data File : 5S423.D
Acq On : 7 Jan 2010 7:36 pm
Operator : DXK1
InstName : VOA5
Sample : |1202010144|938016|10|VOA|1|VOATCLPL|
Misc : LANL 500uL N/A MIX[A] MSD243421001
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Jan 08 08:07:18 2010
Quant Method : C:\msdchem\1\METHODS\VOA5-8260-120909.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Fri Dec 11 08:24:46 2009
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
95)	Propionitrile	9.081		0m	N.D.	d
96)	Methacrylonitrile	9.173		0m	N.D.	d
97)	Tetrahydrofuran	9.470		0m	N.D.	d
98)	Isobutyl alcohol	10.021		0m	N.D.	d
99)	Methyl tert-amyl ether	10.124		0m	N.D.	d
100)	Methyl methacrylate	11.019		0m	N.D.	d
101)	1,4-Dioxane	11.142		0m	N.D.	d
102)	2-Nitropropane	11.404		0m	N.D.	d
104)	Ethyl methacrylate	0.000		0	N.D.	
106)	1-Chlorohexane	0.000		0	N.D.	
107)	cis-1,4-Dichloro-2-butene	14.537		0m	N.D.	d
108)	Cyclohexanone	14.537		0m	N.D.	d
109)	trans-1,4-Dichloro-2-b...	14.962		0m	N.D.	d
110)	Pentachloroethane	15.552		0m	N.D.	d
111)	Benzyl chloride	0.000		0	N.D.	
112)	bis(2-Chloroisopropyl)...	16.550		0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\010710V5\
Data File : 5S423.D
Acq On : 7 Jan 2010 7:36 pm
Operator : DXK1
InstName : VOA5
Sample : |1202010144|938016|10|VOA|1|VOATCLPL|
Misc : LANL 500uL N/A MIX[A] MSD243421001
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Jan 08 08:07:18 2010
Quant Method : C:\msdchem\1\METHODS\VOA5-8260-120909.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Fri Dec 11 08:24:46 2009
Response via : Initial Calibration
Integrator: RTE

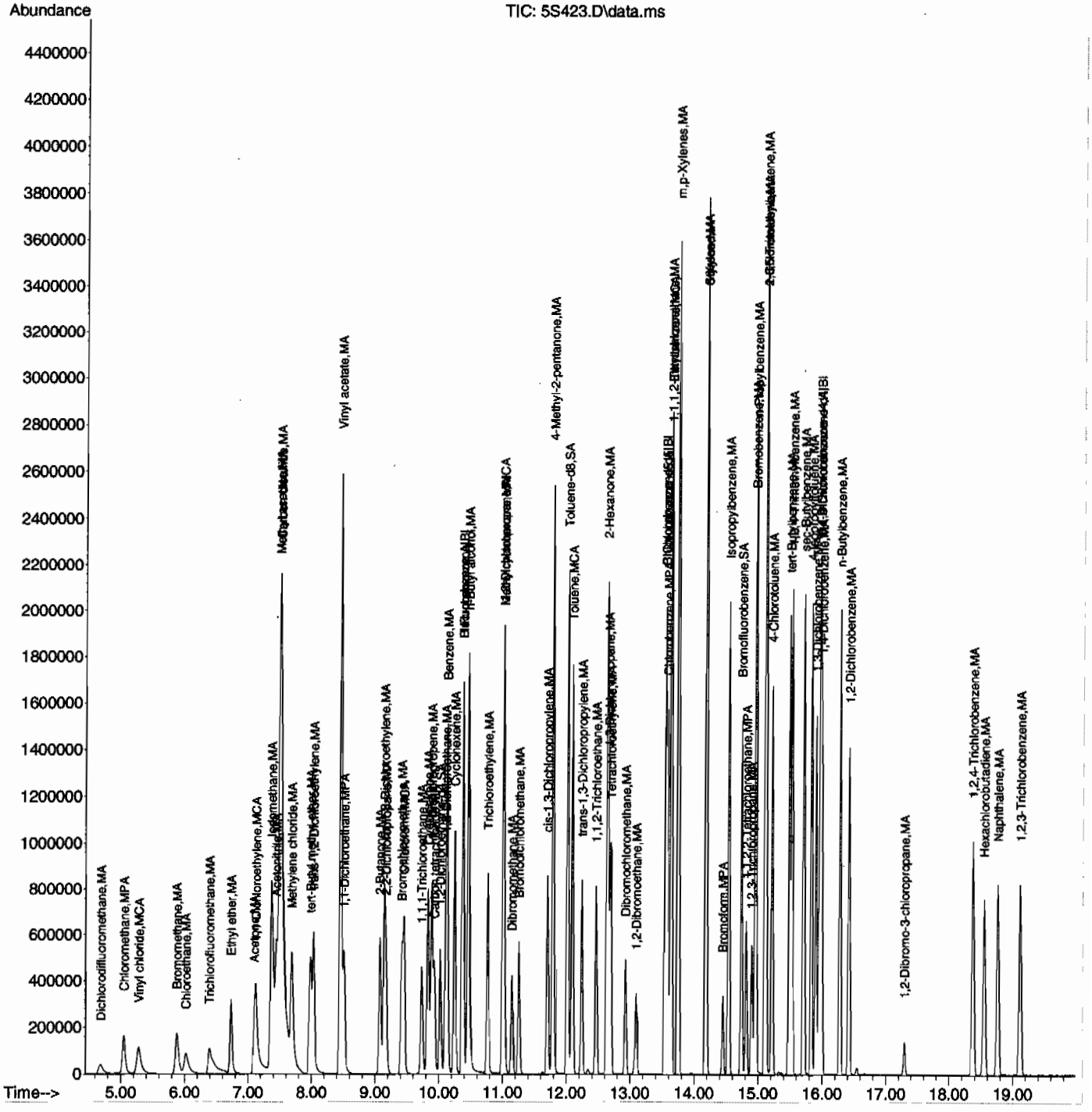

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\123109V5\
Data File : 5R415.D
Acq On : 31 Dec 2009 2:40 pm
Operator : DXK1
InstName : VOA5
Sample : |243421001|938016|10|VOA|1|VOATCLPL|
Misc : LANL 500uL N/A
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Jan 04 08:52:47 2010
Quant Method : C:\msdchem\1\METHODS\VOA5-8260-120909.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Fri Dec 11 08:24:46 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Fluorobenzene	10.375	96	2033192	50.00 ug/L	0.00
41) Chlorobenzene-d5	13.547	117	1404810	50.00 ug/L	0.00
58) 1,4-Dichlorobenzene-d4	15.959	152	676665	50.00 ug/L	0.00
82) B Fluorobenzene	10.375	96	2033192	50.00 ug/L	0.00
103) B Chlorobenzene-d5	13.547	117	1404810	50.00 ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	15.959	152	676665	50.00 ug/L	0.00
System Monitoring Compounds					
29) 1,2-Dichloroethane-d4	10.018	65	477996	48.57 ug/L	0.00
Spiked Amount 50.000	Range 59 - 130		Recovery = 97.14%		
43) Toluene-d8	12.016	98	1917817	47.71 ug/L	0.00
Spiked Amount 50.000	Range 76 - 129		Recovery = 95.42%		
61) Bromofluorobenzene	14.739	95	668043	53.36 ug/L	0.00
Spiked Amount 50.000	Range 71 - 126		Recovery = 106.72%		
Target Compounds					Qvalue
2) Dichlorodifluoromethane	0.000		0	N.D.	
3) Chloromethane	5.041	50	395	N.D.	
4) Vinyl chloride	5.272	62	760	N.D.	
5) Bromomethane	0.000		0	N.D.	
6) Chloroethane	0.000		0	N.D.	
7) Trichlorofluoromethane	0.000		0	N.D.	
8) Ethyl ether	0.000		0	N.D.	
9) Acetone	7.111	43	2904	N.D.	
10) 1,1-Dichloroethylene	0.000		0	N.D.	
11) Iodomethane	0.000		0	N.D.	
12) Acetonitrile	7.464	41	245	N.D.	
13) Methyl acetate	7.479	43	130	N.D.	
14) Carbon disulfide	7.493	76	1668	N.D.	
15) Methylene chloride	7.694	84	13827	N.D.	
16) tert-Butyl methyl ether	0.000		0	N.D.	
17) trans-1,2-Dichloroethy...	0.000		0	N.D.	
18) Vinyl acetate	8.306	43	1423	N.D.	
19) 1,1-Dichloroethane	0.000		0	N.D.	
20) 2-Butanone	9.084	43	1829	N.D.	
21) cis-1,2-Dichloroethylene	0.000		0	N.D.	
22) 2,2-Dichloropropane	0.000		0	N.D.	
23) Bromochloromethane	0.000		0	N.D.	
24) Chloroform	9.445	83	122	N.D.	
25) 1,1,1-Trichloroethane	0.000		0	N.D.	
26) Cyclohexane	0.000		0	N.D.	
27) 1,1-Dichloropropene	0.000		0	N.D.	
28) Carbon tetrachloride	0.000		0	N.D.	
30) 1,2-Dichloroethane	10.032	62	123	N.D.	
31) Benzene	10.124	78	160	N.D.	
32) Cyclohexene	0.000		0	N.D.	
33) n-Butyl alcohol	0.000		0	N.D.	
34) Trichloroethylene	0.000		0	N.D.	
35) 1,2-Dichloropropane	0.000		0	N.D.	
36) Methylcyclohexane	0.000		0	N.D.	
37) Dibromomethane	0.000		0	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\123109V5\
Data File : 5R415.D
Acq On : 31 Dec 2009 2:40 pm
Operator : DXK1
InstName : VOA5
Sample : |243421001|938016|10|VOA|1|VOATCLPL|
Misc : LANL 500uL N/A
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Jan 04 08:52:47 2010
Quant Method : C:\msdchem\1\METHODS\VOA5-8260-120909.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Fri Dec 11 08:24:46 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc Units Dev(Min)
38) Bromodichloromethane	0.000		0	N.D.
39) 2-Chloroethylvinyl ether	0.000		0	N.D.
40) cis-1,3-Dichloropropylene	11.630	75	1089	N.D.
42) 4-Methyl-2-pentanone	0.000		0	N.D.
44) Toluene	12.083	91	2758	N.D.
45) trans-1,3-Dichloroprop...	0.000		0	N.D.
46) 1,1,2-Trichloroethane	0.000		0	N.D.
47) 2-Hexanone	12.620	43	12705	N.D.
48) 1,3-Dichloropropane	0.000		0	N.D.
49) Tetrachloroethylene	0.000		0	N.D.
50) Dibromochloromethane	0.000		0	N.D.
51) 1,2-Dibromoethane	0.000		0	N.D.
52) Chlorobenzene	13.572	112	113	N.D.
53) 1,1,1,2-Tetrachloroethane	0.000		0	N.D.
54) Ethylbenzene	13.642	91	109	N.D.
55) m,p-Xylenes	0.000		0	N.D.
56) o-Xylene	0.000		0	N.D.
57) Styrene	0.000		0	N.D.
59) Bromoform	0.000		0	N.D.
60) Isopropylbenzene	14.725	105	109	N.D.
62) 1,1,2,2-Tetrachloroethane	0.000		0	N.D.
63) 1,2,3-Trichloropropane	0.000		0	N.D.
64) Bromobenzene	0.000		0	N.D.
65) n-Propylbenzene	14.969	91	119	N.D.
66) 1,3,5-Trimethylbenzene	15.128	105	139	N.D.
67) 2-Chlorotoluene	0.000		0	N.D.
68) 4-Chlorotoluene	15.216	91	466	N.D.
69) tert-Butylbenzene	0.000		0	N.D.
70) 1,2,4-Trimethylbenzene	0.000		0	N.D.
71) sec-Butylbenzene	0.000		0	N.D.
72) 4-Isopropyltoluene	15.831	119	238	N.D.
73) 1,3-Dichlorobenzene	15.902	146	366	N.D.
74) 1,4-Dichlorobenzene	15.983	146	1002	N.D.
75) n-Butylbenzene	16.273	91	115	N.D.
76) 1,2-Dichlorobenzene	0.000		0	N.D.
77) 1,2-Dibromo-3-chloropr...	0.000		0	N.D.
78) 1,2,4-Trichlorobenzene	18.363	180	152	N.D.
79) Hexachlorobutadiene	0.000		0	N.D.
80) Naphthalene	0.000		0m	N.D. d
81) 1,2,3-Trichlorobenzene	19.108	180	113	N.D.
83) Chlorotrifluoroethylene	0.000		0	N.D.
84) 2-Chloro-1,1,1-trifluo...	0.000		0	N.D.
85) Acrolein	0.000		0	N.D.
86) Trichlorotrifluoroethane	0.000		0	N.D.
87) Isopropyl Alcohol	0.000		0	N.D.
88) Allyl chloride	7.479	41	175	N.D.
89) tert-Butyl Alcohol	7.669	59	132	N.D.
90) Acrylonitrile	0.000		0	N.D.
91) Isopropyl ether	0.000		0	N.D.
92) 2-Chloro-1,3-butadiene	0.000		0	N.D.
93) Ethyl tert-butyl ether	0.000		0	N.D.
94) Ethyl acetate	9.084	43	1829	N.D.

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\123109V5\
Data File : 5R415.D
Acq On : 31 Dec 2009 2:40 pm
Operator : DXK1
InstName : VOA5
Sample : |243421001|938016|10|VOA|1|VOATCLPL|
Misc : LANL 500uL N/A
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Jan 04 08:52:47 2010
Quant Method : C:\msdchem\1\METHODS\VOA5-8260-120909.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Fri Dec 11 08:24:46 2009
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
95)	Propionitrile	0.000		0	N.D.	
96)	Methacrylonitrile	9.477	41	130	N.D.	
97)	Tetrahydrofuran	9.470	42	237	N.D.	
98)	Isobutyl alcohol	0.000		0	N.D.	
99)	Methyl tert-amyl ether	0.000		0	N.D.	
100)	Methyl methacrylate	0.000		0	N.D.	
101)	1,4-Dioxane	0.000		0	N.D.	
102)	2-Nitropropane	0.000		0m	N.D. d	
104)	Ethyl methacrylate	0.000		0	N.D.	
106)	1-Chlorohexane	0.000		0	N.D.	
107)	cis-1,4-Dichloro-2-butene	0.000		0	N.D.	
108)	Cyclohexanone	0.000		0	N.D.	
109)	trans-1,4-Dichloro-2-b...	0.000		0	N.D.	
110)	Pentachloroethane	0.000		0	N.D.	
111)	Benzyl chloride	0.000		0	N.D.	
112)	bis(2-Chloroisopropyl)...	16.521	45	607	N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\123109V5\
Data File : 5R415.D
Acq On : 31 Dec 2009 2:40 pm
Operator : DXK1
InstName : VOA5
Sample : |243421001|938016|10|VOA|1|VOATCLPL|
Misc : LANL 500uL N/A
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Jan 04 08:52:47 2010
Quant Method : C:\msdchem\1\METHODS\VOA5-8260-120909.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Fri Dec 11 08:24:46 2009
Response via : Initial Calibration
Integrator: RTE

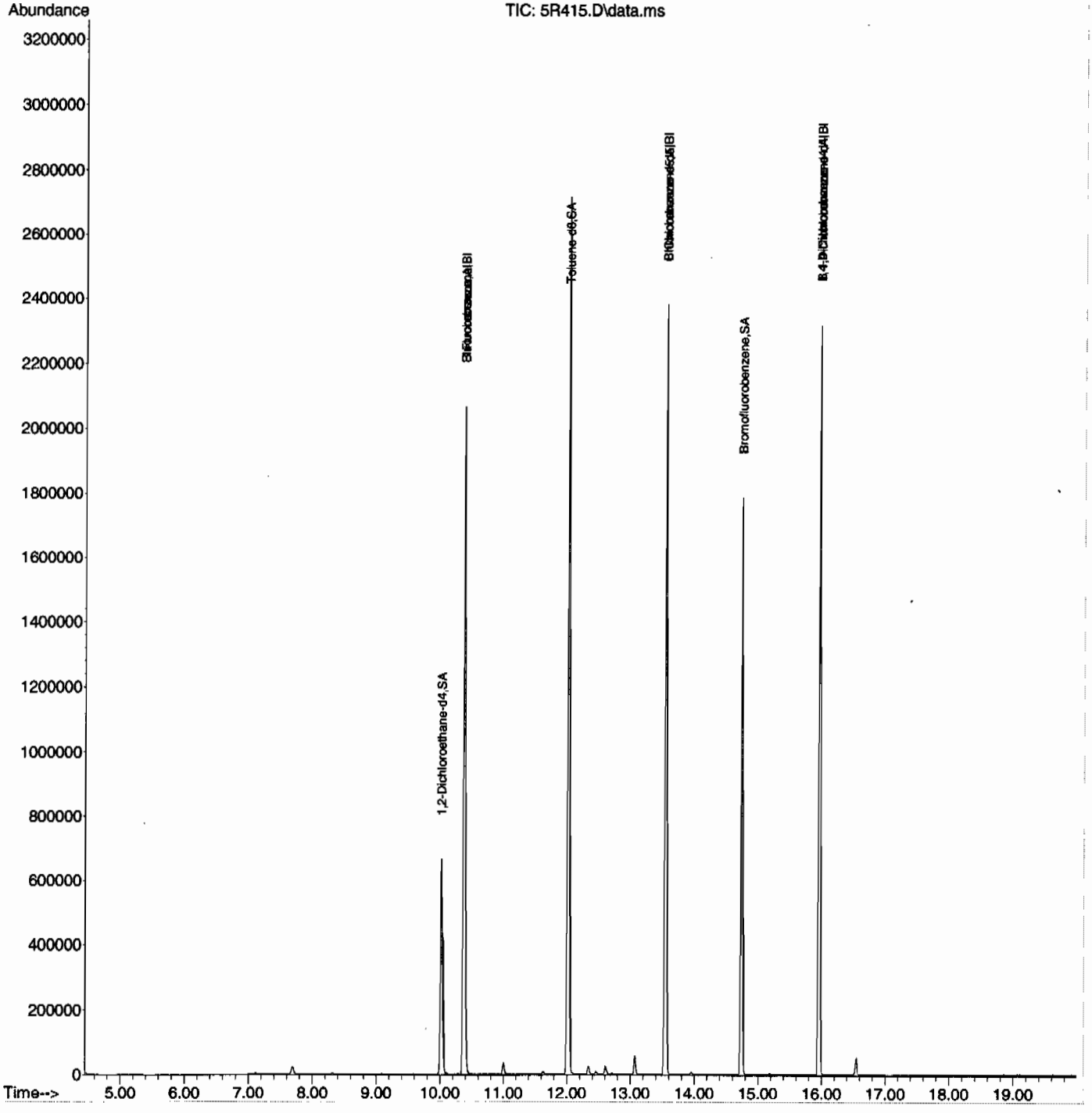

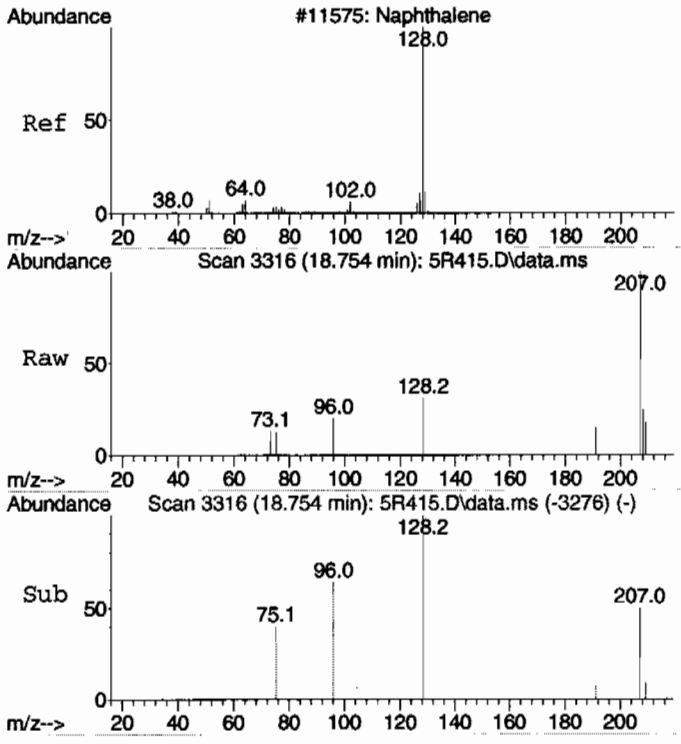

#80 BEFORE analyst DELETION
Naphthalene
Concen: 1.08 ug/L
RT: 18.754 min Scan# 3316
Delta R.T. -0.008 min
Lab File: 5R415.D
Acq: 31 Dec 2009 2:40 pm

Tgt Ion:128 Resp: 1307

Ion	Ratio	Lower	Upper
128	100		
127	0.0	0.0	42.5
129	0.0	0.0	40.8

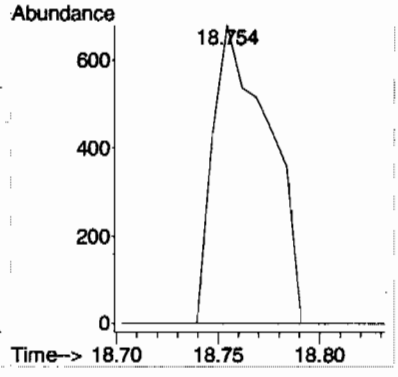

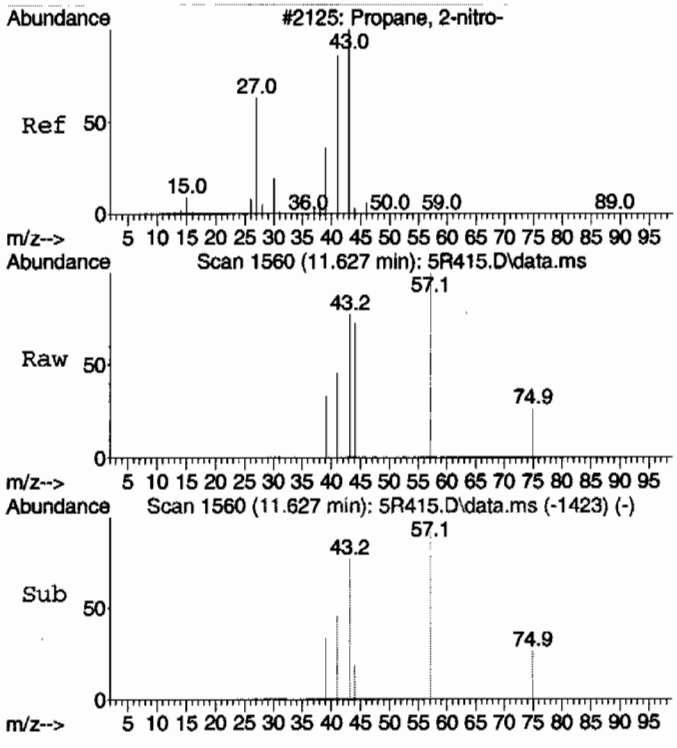

#102 BEFORE analyst DELETION
2-Nitropropane
Concen: 7.01 ug/L
RT: 11.627 min Scan# 1560
Delta R.T. 0.184 min
Lab File: 5R415.D
Acq: 31 Dec 2009 2:40 pm

Tgt Ion: 43 Resp: 3894

Ion	Ratio	Lower	Upper
43	100		
41	48.0	57.0	117.0#

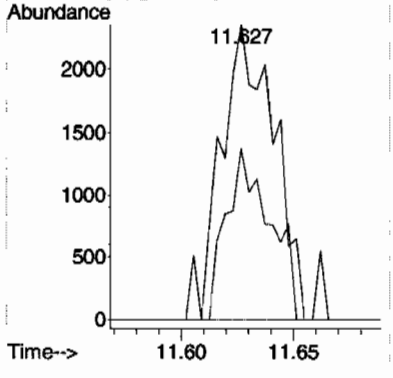

GEL Laboratories, LLC
Revision:11/22/04

ORGANIC RUN LOG - INSTRUMENT ID#VOA5

Date: 12/9/2009 Method 8260/624 Operator: DXK1

REVIEWED BY: _____
DATE: _____

HARDWARE CONFIGURATION & METHOD CONDITIONS SUMMARY No# 1

Daily Instrument Readings:
Multiplier Voltage: 1471

CALIBRATION & CC INFORMATION:

Initial Calibration Date: 12/9/2009

(See pg. 303 for ICAL Std. Sci. Ids)

NaHSO4 lot # n/a

Cl test lot # 81710

Sequence Number: 120909v5

Daily Standard Volume Added for Purge (ul)

	Solution ID#	Blk/ Smpl	ICV	MS/ LCS	BFB
ICV-A	W5VM091209-09		5+5		
IS	UVM091117-01	1	1		
SS	UVM090910-02	1	1		
ICV-B	W5VM091209-18		5+5		
BFB	UVM090910-02				1
	n/a	n/a		n/a	
	n/a	n/a		n/a	

Purge Amount

5	Water Purge Vol:
n/a	Soil Purge Wt.
n/a	Mid level ext. MeOH Vol:
n/a	ul
n/a	Methanol Lot #
X	Heated Purge

Analysis Date	Time	Data File	Lab Sample ID	Client	Batch #	Wt.(g) or Vol(ml/ul)	Dil. Factor	pH	AS Slot #	Matrix w or s	Analyst	Cl test (Y/N)	Acceptable(O/X)	Comments
9 Dec 2009	11:05	5O301.D	RINSE	GEL	RINSE	5mL	1	N/A	1	w	DXK1	N/A	X	new valve / lines
9 Dec 2009	11:31	5O302.D	RINSE	GEL	RINSE	5mL	1	N/A	2	w	DXK1	N/A	X	
9 Dec 2009	11:58	5O303.D	UVM090910-02	GEL	BFB	5mL	1	N/A	3	w	DXK1	N/A	O	
9 Dec 2009	13:16	5O304.D	W5VM091209-11	ICAL	ICAL	5mL	1	N/A	4	w	DXK1	N/A	O	UVM091118-01+UVM091110-01B
9 Dec 2009	13:43	5O305.D	W5VM091209-12	ICAL	ICAL	5mL	1	N/A	5	w	DXK1	N/A	O	UVM091118-02+UVM091110-02B
9 Dec 2009	14:10	5O306.D	W5VM091209-13	ICAL	ICAL	5mL	1	N/A	6	w	DXK1	N/A	O	UVM091118-03+UVM091110-03B
9 Dec 2009	14:36	5O307.D	W5VM091209-14	ICAL	ICAL	5mL	1	N/A	7	w	DXK1	N/A	O	UVM091118-04+UVM091110-04B
9 Dec 2009	15:12	5O308.D	W5VM091209-15	ICAL	ICAL	5mL	1	N/A	8	w	DXK1	N/A	O	UVM091118-05+UVM091110-05B
9 Dec 2009	15:37	5O309.D	W5VM091209-16	ICAL	ICAL	5mL	1	N/A	9	w	DXK1	N/A	O	UVM091118-06+UVM091110-06B
9 Dec 2009	16:06	5O310.D	W5VM091209-17	ICAL	ICAL	5mL	1	N/A	10	w	DXK1	N/A	X	did not fit with the curve
9 Dec 2009	16:32	5O311.D	RINSE	GEL	RINSE	5mL	1	N/A	11	w	DXK1	N/A	X	
9 Dec 2009	16:58	5O312.D	W5VM091209-18	ICV	ICV	5mL	1	N/A	12	w	DXK1	N/A	O	UVM091118-08B
9 Dec 2009	17:25	5O313.D	W5VM091209-01	ICAL	ICAL	5mL	1	N/A	13	w	DXK1	N/A	O	UVM090911-02C+UVM091130-02A
9 Dec 2009	17:51	5O314.D	W5VM091209-08	ICAL	ICAL	5mL	1	N/A	14	w	DXK1	N/A	O	UVM090911-01C+UVM091130-01A
9 Dec 2009	18:18	5O315.D	W5VM091209-02	ICAL	ICAL	5mL	1	N/A	15	w	DXK1	N/A	O	UVM090911-03C+UVM091130-03A
9 Dec 2009	18:44	5O316.D	W5VM091209-03	ICAL	ICAL	5mL	1	N/A	16	w	DXK1	N/A	O	UVM090911-04C+UVM091130-04A
9 Dec 2009	19:10	5O317.D	W5VM091209-04	ICAL	ICAL	5mL	1	N/A	17	w	DXK1	N/A	O	UVM090911-05C+UVM091130-05A
9 Dec 2009	19:37	5O318.D	W5VM091209-05	ICAL	ICAL	5mL	1	N/A	18	w	DXK1	N/A	O	UVM090911-06C+UVM091130-06A
9 Dec 2009	20:03	5O319.D	W5VM091209-06	ICAL	ICAL	5mL	1	N/A	19	w	DXK1	N/A	O	UVM090911-07C+UVM091130-07A
9 Dec 2009	20:30	5O320.D	W5VM091209-07	ICAL	ICAL	5mL	1	N/A	20	w	DXK1	N/A	O	UVM090911-08C+UVM091130-08A
9 Dec 2009	20:56	5O321.D	RINSE	GEL	RINSE	5mL	1	N/A	21	w	DXK1	N/A	X	
9 Dec 2009	21:22	5O322.D	W5VM091209-09	ICV	ICV	5mL	1	N/A	22	w	DXK1	N/A	O	UVM091129-01C+IVM091209-01
9 Dec 2009	21:49	5O323.D	W5VM091209-10	ICV	ICV	5mL	1	N/A	23	w	DXK1	N/A	X	MIX[A] / not needed, see 5o322
9 Dec 2009	22:15	5O324.D	RINSE	GEL	RINSE	5mL	1	N/A	24	w	DXK1	N/A	X	

GEL Laboratories, LLC
Revision:11/22/04

ORGANIC RUN LOG - INSTRUMENT ID#VOA5

Date: 12/31/2009 Method 8260/624 Operator: DXK1

REVIEWED BY: _____
DATE: _____

HARDWARE CONFIGURATION & METHOD CONDITIONS SUMMARY No# 1

Daily Instrument Readings:
Multiplier Voltage: 1576

CALIBRATION & CC INFORMATION:

Initial Calibration Date: 12/9/2009

(See pg. 303 for ICAL Std. Sci. Ids)

NaHSO4 lot # n/a

Cl test lot # 81710

Sequence Number: 123109v5

Daily Standard Volume Added for Purge (ul)

	Solution ID#	Blk/ Smpl	CCV	MS/ LCS	BFB
CCV	W5VM091231-01		5+5		
IS	UVM091216-09	1	1	1	
SS	UVM091117-02	1	1	1	
LCS/MS	W5VM091231-02			5+5	
BFB	UVM090910-02				1
SHORT	W5VM091231-03		5		
	n/a	n/a		n/a	

Purge Amount

5	Water Purge Vol:
n/a	Soil Purge Wt.
n/a	Mid level ext. MeOH Vol:
n/a	ul
n/a	Methanol Lot #
X	Heated Purge

Analysis Date	Time	Data File	Lab Sample ID	Client	Batch #	Wt.(g) or Vol(ml/ul)	Dil. Factor	pH	AS Slot #	Matrix w or s	Analyst	Cl test (Y/N)	Acceptable(O/X)	Comments
12/31/2009	8:34	5R401.D	UVM090910-02	GEL	BFB	5mL	1	N/A	1	w	DXK1	N/A	O	
12/31/2009	8:59	5R402.D	W5VM091231-01	GEL	CCV/LCS	5mL	1	N/A	2	w	DXK1	N/A	O	MIX[A]
12/31/2009	9:25	5R403.D	W5VM091231-03	GEL	CCV	5mL	1	N/A	3	w	DXK1	N/A	O	MIX[B]
12/31/2009	9:50	5R404.D	12020---	BLANK	BLANK	5mL	1	N/A	4	w	DXK1	N/A	O	
12/31/2009	10:16	5R405.D	1202001951	GEL	937774	500uL	10	pH2	5	w	DXK1	N/A	O	TCLPBLANK
12/31/2009	10:41	5R406.D	1202003598	GEL	937774	500uL	10	pH2	6	w	DXK1	N/A	O	TCLPBLANK
12/31/2009	11:06	5R407.D	243258001	GSRP	937774	500uL	10	pH2	7	w	DXK1	N/A	O	
12/31/2009	11:32	5R408.D	243258002	GSRP	937774	500uL	10	pH2	8	w	DXK1	N/A	O	
12/31/2009	11:57	5R409.D	243361001	CARE	937774	500uL	10	pH2	9	w	DXK1	N/A	O	
12/31/2009	12:22	5R410.D	1202006760	GSRP	937774	500uL	10	pH2	10	w	DXK1	N/A	O	MIX[A] MS243258001
12/31/2009	12:48	5R411.D	1202006761	GSRP	937774	500uL	10	pH2	11	w	DXK1	N/A	O	MIX[A] MSD243258001
12/31/2009	13:13	5R412.D	RINSE	GEL	RINSE	5mL	1	N/A	12	w	DXK1	N/A	X	rinse
12/31/2009	13:50	5R413.D	1202005010	LANL	938016	500uL	10	N/A	13	w	DXK1	N/A	O	TCLPBLANK
12/31/2009	14:15	5R414.D	243262001	MECP	938016	500uL	10	N/A	14	w	DXK1	N/A	O	
12/31/2009	14:40	5R415.D	243421001	LANL	938016	500uL	10	N/A	15	w	DXK1	N/A	O	
12/31/2009	15:06	5R416.D	243551001	LANL	938016	500uL	10	N/A	16	w	DXK1	N/A	O	
12/31/2009	15:31	5R417.D	243553001	LANL	938016	500uL	10	N/A	17	w	DXK1	N/A	O	
12/31/2009	15:57	5R418.D	243553002	LANL	938016	500uL	10	N/A	18	w	DXK1	N/A	O	
12/31/2009	16:22	5R419.D	1202001944	MECP	938016	500uL	10	N/A	19	w	DXK1	N/A	O	TCLPBLANK
12/31/2009	16:47	5R420.D	243262002	MECP	938016	500uL	10	N/A	20	w	DXK1	N/A	O	
12/31/2009	17:12	5R421.D	1202007232	MECP	938016	500uL	10	N/A	21	w	DXK1	N/A	O	MIX[A] MS243262001
12/31/2009	17:38	5R422.D	1202007233	MECP	938016	500uL	10	N/A	22	w	DXK1	N/A	O	MIX[A] MSD243262001

GEL Laboratories, LLC
Revision:11/22/04

ORGANIC RUN LOG - INSTRUMENT ID#VOA5

Date: 1/7/2010 Method 8260/624 Operator: DXK1

REVIEWED BY: _____
DATE: _____

HARDWARE CONFIGURATION & METHOD CONDITIONS SUMMARY No# 1

Daily Instrument Readings:
Multiplier Voltage: 1529

CALIBRATION & CC INFORMATION:

Initial Calibration Date: 12/9/2009

(See pg. 303 for ICAL Std. Sci. Ids)

NaHSO4 lot # n/a

Cl test lot # 81710

Sequence Number: 010710v5

Daily Standard Volume Added for Purge (ul)

	Solution ID#	Blk/ Smpl	CCV	MS/ LCS	BFB
CCV	W5VM100107-01		5+5		
IS	UVM091216-09	1	1	1	
SS	UVM091117-02	1	1	1	
LCS/MS	W5VM100107-02			5+5	
BFB	UVM091117-02				1
SHORT	W5VM100107-03		5		
	n/a	n/a		n/a	

Purge Amount

5	Water Purge Vol:
n/a	Soil Purge Wt.
n/a	Mid level ext. MeOH Vol:
n/a	ul
n/a	Methanol Lot #
X	Heated Purge

Analysis Date	Time	Data File	Lab Sample ID	Client	Batch #	Wt.(g) or Vol(ml/ul)	Dil. Factor	pH	AS Slot #	Matrix w or s	Analyst	Cl test (Y/N)	Acceptable(O/X)	Comments
7 Jan 2010	08:54	5S401.D	UVM091117-02	GEL	BFB	5mL	1	N/A	1	w	DXK1	N/A	O	
7 Jan 2010	09:25	5S402.D	W5VM100107-01	GEL	CCV	5mL	1	N/A	2	w	DXK1	N/A	O	UVM100106-07A+UVM091217-07A
7 Jan 2010	10:39	5S403.D	W5VM100107-02	GEL	LCS	5mL	1	N/A	3	w	DXK1	N/A	O	UVM091214-01E+IVM100105-01
7 Jan 2010	11:05	5S404.D	W5VM100107-03	GEL	CCV	5mL	1	N/A	4	w	DXK1	N/A	O	UVM091216-06
7 Jan 2010	11:31	5S405.D	12020---	BLANK	BLANK	5mL	1	N/A	5	w	DXK1	N/A	O	
7 Jan 2010	11:56	5S406.D	243637001	SHIP	938468	250uL	20	pH2	6	w	DXK1	N	O	DL for
7 Jan 2010	12:21	5S407.D	243637002	SHIP	938468	5mL	1	pH2	7	w	DXK1	N	O	
7 Jan 2010	12:47	5S408.D	243637004	SHIP	938468	50uL	100	pH2	8	w	DXK1	N	O	DL for 5s119
7 Jan 2010	13:12	5S409.D	243637005	SHIP	938468	50uL	5	pH2	9	w	DXK1	N	O	
7 Jan 2010	13:38	5S410.D	RINSE	GEL	RINSE	5mL	1	N/A	10	w	DXK1	N/A	X	rinse
7 Jan 2010	14:30	5S411.D	243668001	LAID	939104	5mL	1	pH2	11	w	DXK1	N	O	
7 Jan 2010	14:55	5S412.D	243668002	LAID	939104	5mL	1	pH2	12	w	DXK1	N	O	
7 Jan 2010	15:20	5S413.D	243668003	LAID	939104	5mL	1	pH2	13	w	DXK1	N	O	
7 Jan 2010	15:46	5S414.D	243668004	LAID	939104	5mL	1	pH2	14	w	DXK1	N	O	
7 Jan 2010	16:11	5S415.D	243668005	LAID	939104	5mL	1	pH2	15	w	DXK1	N	O	
7 Jan 2010	16:37	5S416.D	243668006	LAID	939104	5mL	1	pH2	16	w	DXK1	N	O	
7 Jan 2010	17:02	5S417.D	243668007	LAID	939104	5mL	1	pH2	17	w	DXK1	N	O	
7 Jan 2010	17:28	5S418.D	243668008	LAID	939104	5mL	1	pH2	18	w	DXK1	N	O	
7 Jan 2010	17:54	5S419.D	243668009	LAID	939104	5mL	1	pH2	19	w	DXK1	N	O	
7 Jan 2010	18:19	5S420.D	1202009720	LAID	939104	5mL	1	pH2	20	w	DXK1	N	O	MIX[A] MS243668001
7 Jan 2010	18:45	5S421.D	1202009721	LAID	939104	5mL	1	pH2	21	w	DXK1	N	O	MIX[A] MSD243668001
7 Jan 2010	19:11	5S422.D	1202010143	LANL	938016	500uL	10	N/A	22	w	DXK1	N	O	MIX[A] MS243421001
7 Jan 2010	19:36	5S423.D	1202010144	LANL	938016	500uL	10	N/A	23	w	DXK1	N	O	MIX[A] MSD243421001
7 Jan 2010	20:02	5S424.D	RINSE	GEL	RINSE	5mL	1	N/A	24	w	DXK1	N/A	X	rinse

GC/MS Semivolatile Analysis

Semi-Volatile Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-1085

Method/Analysis Information

Procedure:	**Analysis of Semivolatile Organic Compounds by Gas Chromatography/Mass Spectrometry**
Analytical Method:	SW846 8270C
Prep Method:	SW846 3550B
Analytical Batch Number:	937151
Prep Batch Number:	937150

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 8270C:

Sample ID	Client ID
243549002	WST03-10-2148
1202005357	Method Blank (MB)
1202005358	Laboratory Control Sample (LCS)
1202005359	243552001(RE03-09-14233) Matrix Spike (MS)
1202005360	243552001(RE03-09-14233) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on a "dry weight" basis.

Preparation/Analytical Method Verification

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-009 REV# 23.

Raw data reports are processed and reviewed by the analyst using the Target software package. False positives have been removed from the Target quantitation reports per standard operating procedures (SOP) section 18.2.

Calibration Information

Please note that the 'Cal Date' indicated on each quantitation report reflects the date and time of the most recent calibrated analyte(s) in the Target processing method. Since the laboratory may calibrate with multiple solutions on different days using the same processing method, the Target software will update the 'Cal Date' to the last calibration file, date and time. The correct dates and times for all calibration files are located on the Calibration History report in the Standard Data section in the data package.

Due to software limitations, the Calibration Summary Form 6 may not indicate all the calibration files comprising the initial calibration. A complete list of the initial calibration data files are shown in the Calibration History report located in the Standard Data section of the data package. Please note that the second level of the initial calibration (5 mg/L) is only used for n-Nitrosodipropylamine. The various calibration mixes may not be calibrated using all of the calibration levels. In addition, not all of the mixes are calibrated using the same levels.

Diphenylamine has now superseded N-Nitroso-diphenylamine as a CCC on Quantitation Reports, Initial Calibration Reports, Calibration Check Standard Reports, etc. Previous versions of EPA Method 8270 (prior to 8270C) listed N-Nitroso-diphenylamine as a CCC. However, as stated in EPA Method 8270C, Revision 3, December, 1996, Section 1.4.5, "N-Nitroso-diphenylamine decomposes in the gas chromatographic inlet and cannot be separated from Diphenylamine." Studies of these two compounds at GEL, both independent of each other and together, show that they not only co-elute, but also have similar mass spectra. N-Nitroso-diphenylamine and Diphenylamine will be reported as Diphenylamine on all reports and forms.

The linear equation used in Target and indicated on the initial calibration summary form is not a conventional linear equation (slope intercept formula) and does not match the equation found in SW-846 method 8000B. The x and y axes are inversed in Target, so that the instrument response is treated as the independent variable (x) and the concentration ratio is treated as the dependent variable (y). The equation used in Target to calculate sample results is adjusted to account for the linear equation inversion and reciprocal slope. The adjusted calculation has been independently verified to produce valid results.

Initial Calibration
All initial calibration requirements have been met for this sample delivery group (SDG). A second source initial calibration verification (ICV) was included in the standard section directly behind the initial calibration.

CCV Requirements
All associated calibration verification standard(s) (ICV or CCV) met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Surrogate Recoveries
All the surrogate recoveries were within the established acceptance criteria for this SDG.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

QC Sample Designation
The non-SDG sample 243552001 (RE03-09-14233) was selected for analysis as the matrix spike and matrix spike duplicate. Please see the associated raw data files located in the Miscellaneous Section of the data report.

Matrix Spike (MS) Recovery Statement
The MS recoveries were within the established acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD(1202005360) spike recovery for 3,3'-Dichlorobenzidine was 31% (limits: 35%-106%). Because the MS displayed a similar low (but passing) recovery for that analyte, the failure was attributed to sample matrix interference and the data were reported.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD(s) between the MS and MSD met the acceptance limits.

Internal Standard (ISTD) Acceptance
The internal standard responses were within the required acceptance criteria for all samples and QC.

Technical Information

Holding Time Specifications
All samples in this SDG met the specified holding time. GEL assigns holding times based on the associated methodology that assigns the date and time from sample collection or sample receipt. Those holding times expressed in hours are calculated in the ALPHALIMS system. Those holding times expressed as days expire at midnight on the day of expiration.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-extraction/Re-analysis
Re-extractions or re-analyses were not required in this SDG except for confirmations and/or dilutions.

Miscellaneous Information

Data Exception Report (DER) Documentation
A DER was not required for the samples reported in this SDG.

Manual Integrations
Some initial calibration standards, continuing calibration standards, and/or samples may require manual integrations due to software limitations. Please see the raw data in the Miscellaneous Section.

Additional Comments
Additional comments were not required for this SDG.

Electronic Package Comment
The following package was generated using an electronic data processing program referred to as "virtual packaging". In an effort to increase quality and efficiency, the laboratory is developing systems to eventually generate all data packages electronically. The following change from "traditional" packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. An electronic signature page inserted after the case narrative of each electronic package will indicate the analyst, reviewer, and report specialist names associated with the generation of the data and package. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

System Configuration

The samples reported in this SDG were analyzed on one or more of the following instrument systems. Instrument systems are referenced in the raw data and individual form headers by the Instrument ID designations listed below:

Instrument ID	Instrument	System Configuration	Column ID	Column Description
MSD3.I	HP Mass Spectrometer	HP7890A/HP5975C	DB-5MS	25m x 0.2mm, 0.33um (5% Phenylmethylpolysiloxane)

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

Reviewer: [illegible] **Date:** 1-19-10

Roadmap for LANL 10-1085 SVOA

This roadmap was analyzed by jen00986 on 01-06-2010, 15:22.
This roadmap was reviewed by dan01134 on 01-11-2010, 13:23.

Sample

exclude	manual	datafile	smpid	injdate	injtime	sublist	clientid	dilution	batchid	comment
☐	N	/chem/MSD3.i/s010410a.b/s3a0421.d	243549002	04-JAN-2010	19:59	10-1085.sub	WST03-10-2148	1	937151	USE

QC Sample

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	batchid	comment
☐	N	/chem/MSD3.i/s010410a.b/s3a0413-2.d	1202005357	mb	04-JAN-2010	16:44	10-1085.sub	SBLK01	1	937151	USE
☐	N	/chem/MSD3.i/s010410a.b/s3a0414-2.d	1202005358	lcs	04-JAN-2010	17:08	10-1085.sub	SBLK01LCS	1	937151	USE

Sample Data Summary

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1085	Date Collected:	12/22/2009 12:00	Matrix:	R
Lab Sample ID:	243549002	Date Received:	12/24/2009 09:30	%Moisture:	7.2
		Client:	LANL010	Project:	LANL01004
Client ID:	WST03-10-2148	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	937151	Inst:	MSD3.I	Dilution:	1
Run Date:	01/04/2010 19:59	Analyst:	JLD1	Inj. Vol:	.5 uL
Prep Date:	12/29/2009 10:16	Aliquot:	30 g	Final Volume:	1 mL
Data File:	s3a0421.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	359	ug/kg	71.8	359
108-95-2	Phenol	U	359	ug/kg	71.8	359
95-57-8	2-Chlorophenol	U	359	ug/kg	71.8	359
106-46-7	1,4-Dichlorobenzene	U	359	ug/kg	71.8	359
621-64-7	N-Nitrosodipropylamine	U	359	ug/kg	71.8	359
59-50-7	4-Chloro-3-methylphenol	U	359	ug/kg	71.8	359
83-32-9	Acenaphthene	U	35.9	ug/kg	11.9	35.9
121-14-2	2,4-Dinitrotoluene	U	359	ug/kg	35.9	359
100-02-7	4-Nitrophenol	U	359	ug/kg	119	359
87-86-5	Pentachlorophenol	U	359	ug/kg	89.8	359
129-00-0	Pyrene	U	35.9	ug/kg	10.8	35.9
110-86-1	Pyridine	U	359	ug/kg	71.8	359
62-53-3	Aniline	U	359	ug/kg	108	359
111-44-4	bis(2-Chloroethyl) ether	U	359	ug/kg	71.8	359
541-73-1	1,3-Dichlorobenzene	U	359	ug/kg	71.8	359
100-51-6	Benzyl alcohol	U	359	ug/kg	108	359
95-50-1	1,2-Dichlorobenzene	U	359	ug/kg	71.8	359
108-60-1	bis(2-Chloroisopropyl)ether	U	359	ug/kg	71.8	359
95-48-7	o-Cresol	U	359	ug/kg	71.8	359
65794-96-9	m,p-Cresols	U	359	ug/kg	108	359
67-72-1	Hexachloroethane	U	359	ug/kg	71.8	359
98-95-3	Nitrobenzene	U	359	ug/kg	71.8	359
78-59-1	Isophorone	U	359	ug/kg	71.8	359
88-75-5	2-Nitrophenol	U	359	ug/kg	71.8	359
105-67-9	2,4-Dimethylphenol	U	359	ug/kg	126	359
111-91-1	bis(2-Chloroethoxy)methane	U	359	ug/kg	71.8	359
120-83-2	2,4-Dichlorophenol	U	359	ug/kg	71.8	359
65-85-0	Benzoic acid	U	718	ug/kg	180	718
91-20-3	Naphthalene	U	35.9	ug/kg	10.8	35.9
106-47-8	4-Chloroaniline	U	359	ug/kg	71.8	359
87-68-3	Hexachlorobutadiene	U	359	ug/kg	71.8	359
91-57-6	2-Methylnaphthalene	U	35.9	ug/kg	7.18	35.9
77-47-4	Hexachlorocyclopentadiene	U	359	ug/kg	71.8	359
88-06-2	2,4,6-Trichlorophenol	U	359	ug/kg	71.8	359
95-95-4	2,4,5-Trichlorophenol	U	359	ug/kg	71.8	359
91-58-7	2-Chloronaphthalene	U	35.9	ug/kg	11.9	35.9
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	359	ug/kg	71.8	359
99-09-2	3-Nitroaniline	U	359	ug/kg	71.8	359

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1085	**Date Collected:**	12/22/2009 12:00	**Matrix:**	R
Lab Sample ID:	243549002	**Date Received:**	12/24/2009 09:30	**%Moisture:**	7.2
		Client:	LANL010	**Project:**	LANL01004
Client ID:	WST03-10-2148	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	937151	**Inst:**	MSD3.I	**Dilution:**	1
Run Date:	01/04/2010 19:59	**Analyst:**	JLD1	**Inj. Vol:**	.5 uL
Prep Date:	12/29/2009 10:16	**Aliquot:**	30 g	**Final Volume:**	1 mL
Data File:	s3a0421.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	359	ug/kg	71.8	359
606-20-2	2,6-Dinitrotoluene	U	359	ug/kg	35.9	359
208-96-8	Acenaphthylene	U	35.9	ug/kg	10.8	35.9
51-28-5	2,4-Dinitrophenol	U	718	ug/kg	136	718
132-64-9	Dibenzofuran	U	359	ug/kg	71.8	359
84-66-2	Diethylphthalate	U	359	ug/kg	71.8	359
86-73-7	Fluorene	U	35.9	ug/kg	10.8	35.9
7005-72-3	4-Chlorophenylphenylether	U	359	ug/kg	71.8	359
534-52-1	2-Methyl-4,6-dinitrophenol	U	359	ug/kg	71.8	359
100-01-6	4-Nitroaniline	U	359	ug/kg	108	359
	p-Nitroaniline					
122-39-4	Diphenylamine	U	359	ug/kg	71.8	359
122-66-7	Azobenzene	U	359	ug/kg	71.8	359
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	359	ug/kg	71.8	359
118-74-1	Hexachlorobenzene	U	359	ug/kg	71.8	359
85-01-8	Phenanthrene	U	35.9	ug/kg	10.8	35.9
120-12-7	Anthracene	U	35.9	ug/kg	7.18	35.9
84-74-2	Di-n-butylphthalate	U	359	ug/kg	71.8	359
206-44-0	Fluoranthene	U	35.9	ug/kg	10.8	35.9
85-68-7	Butylbenzylphthalate	U	359	ug/kg	71.8	359
56-55-3	Benzo(a)anthracene	U	35.9	ug/kg	10.8	35.9
91-94-1	3,3'-Dichlorobenzidine	U	359	ug/kg	108	359
218-01-9	Chrysene	U	35.9	ug/kg	10.8	35.9
117-81-7	bis(2-Ethylhexyl)phthalate	U	359	ug/kg	71.8	359
117-84-0	Di-n-octylphthalate	U	359	ug/kg	71.8	359
205-99-2	Benzo(b)fluoranthene	U	35.9	ug/kg	10.8	35.9
207-08-9	Benzo(k)fluoranthene	U	35.9	ug/kg	10.8	35.9
50-32-8	Benzo(a)pyrene	U	35.9	ug/kg	10.8	35.9
193-39-5	Indeno(1,2,3-cd)pyrene	U	35.9	ug/kg	10.8	35.9
53-70-3	Dibenzo(a,h)anthracene	U	35.9	ug/kg	10.8	35.9
191-24-2	Benzo(ghi)perylene	U	35.9	ug/kg	10.8	35.9
120-82-1	1,2,4-Trichlorobenzene	U	359	ug/kg	71.8	359

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	1.84	147	ug/kg		J
	Unknown Aldol Condensate	2.85	461	ug/kg		JA

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1085**	**Date Collected:**	**12/22/2009 12:00**	**Matrix:**	**R**
Lab Sample ID:	**243549002**	**Date Received:**	**12/24/2009 09:30**	**%Moisture:**	**7.2**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**WST03-10-2148**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**937151**	**Inst:**	**MSD3.I**	**Dilution:**	**1**
Run Date:	**01/04/2010 19:59**	**Analyst:**	**JLD1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/29/2009 10:16**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**s3a0421.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
301-02-0	9-Octadecenamide, (Z)-	12.78	212	ug/kg	80	NJ

QC Summary

Semi-Volatile

Surrogate Recovery Report

SDG Number: 10-1085

Matrix Type: SOLID

CAP Column (1) : J&W DB-5MS

Sample ID	Client ID	2FP %REC	PHL %REC	NBZ %REC	FBP %REC	TBP %REC	TPH %REC
1202005357	MB for batch 937150	67	72	61	71	98	106
1202005358	LCS for batch 937150	76	74	80	79	93	78
243549002	WST03-10-2148	70	67	67	66	92	86

Surrogate		Acceptance Limits
2FP	= 2-Fluorophenol	(35%-96%)
PHL	= Phenol-d5	(36%-96%)
NBZ	= Nitrobenzene-d5	(34%-104%)
FBP	= 2-Fluorobiphenyl	(36%-100%)
TBP	= 2,4,6-Tribromophenol	(37%-106%)
TPH	= p-Terphenyl-d14	(40%-124%)

* Recovery outside Acceptance Limits

\# Column to be used to flag recovery values

D Sample Diluted

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1085
Client ID: LCS for batch 937150
Lab Sample ID: 1202005358
Instrument: MSD3.I
Analyst: JLD1
Inj. Vol: .5 uL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 01/04/2010 17:08
Dilution: 1
Prep Batch ID: 937150
Batch ID: 937151

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
62-75-9	LCS	N-Methyl-N-nitrosomethylam	1670	0.0	975	59	31-95
108-95-2	LCS	Phenol	1670	0.0	1230	74	37-104
95-57-8	LCS	2-Chlorophenol	1670	0.0	1280	77	40-105
106-46-7	LCS	1,4-Dichlorobenzene	1670	0.0	912	55	34-103
621-64-7	LCS	N-Nitrosodipropylamine	1670	0.0	1250	75	36-110
59-50-7	LCS	4-Chloro-3-methylphenol	1670	0.0	1390	84	46-114
83-32-9	LCS	Acenaphthene	1670	0.0	1170	70	40-105
121-14-2	LCS	2,4-Dinitrotoluene	1670	0.0	1260	76	49-107
100-02-7	LCS	4-Nitrophenol	1670	0.0	984	59	33-110
87-86-5	LCS	Pentachlorophenol	1670	0.0	1270	76	38-116
129-00-0	LCS	Pyrene	1670	0.0	1150	69	43-108
110-86-1	LCS	Pyridine	1670	0.0	806	48	13-129
62-53-3	LCS	Aniline	1670	0.0	1040	62	30-121
111-44-4	LCS	bis(2-Chloroethyl) ether	1670	0.0	907	54	37-106
541-73-1	LCS	1,3-Dichlorobenzene	1670	0.0	866	52	33-103
100-51-6	LCS	Benzyl alcohol	1670	0.0	1510	91	31-100
95-50-1	LCS	1,2-Dichlorobenzene	1670	0.0	938	56	34-108
108-60-1	LCS	bis(2-Chloroisopropyl)ether	1670	0.0	943	57	34-120
95-48-7	LCS	o-Cresol	1670	0.0	1210	72	39-111
65794-96-9	LCS	m,p-Cresols	1670	0.0	1520	91	43-118
67-72-1	LCS	Hexachloroethane	1670	0.0	994	60	34-105
98-95-3	LCS	Nitrobenzene	1670	0.0	1120	67	37-110

Semi-Volatile
Quality Control Summary
Spike Recovery Report

SDG Number: 10-1085
Client ID: LCS for batch 937150
Lab Sample ID: 1202005358
Instrument: MSD3.I
Analyst: JLD1
Inj. Vol: .5 uL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 01/04/2010 17:08
Dilution: 1
Prep Batch ID: 937150
Batch ID: 937151

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
78-59-1	LCS	Isophorone	1670	0.0	1340	80	41-108
88-75-5	LCS	2-Nitrophenol	1670	0.0	1200	72	35-112
105-67-9	LCS	2,4-Dimethylphenol	1670	0.0	1260	75	35-114
111-91-1	LCS	bis(2-Chloroethoxy)methane	1670	0.0	1010	61	40-109
120-83-2	LCS	2,4-Dichlorophenol	1670	0.0	1230	74	45-109
65-85-0	LCS	Benzoic acid	3330	0.0	2760	83	27-137
91-20-3	LCS	Naphthalene	1670	0.0	1210	73	35-105
106-47-8	LCS	4-Chloroaniline	1670	0.0	902	54	30-122
87-68-3	LCS	Hexachlorobutadiene	1670	0.0	1030	62	37-111
91-57-6	LCS	2-Methylnaphthalene	1670	0.0	1190	72	40-106
77-47-4	LCS	Hexachlorocyclopentadiene	1670	0.0	1890	113	24-135
88-06-2	LCS	2,4,6-Trichlorophenol	1670	0.0	1400	84	46-107
95-95-4	LCS	2,4,5-Trichlorophenol	1670	0.0	1280	77	44-110
91-58-7	LCS	2-Chloronaphthalene	1670	0.0	1110	67	44-104
88-74-4	LCS	2-Nitroaniline *o-Nitroaniline*	1670	0.0	1170	70	44-113
99-09-2	LCS	3-Nitroaniline *m-Nitroaniline*	1670	0.0	1190	71	48-113
131-11-3	LCS	Dimethylphthalate	1670	0.0	1300	78	47-104
606-20-2	LCS	2,6-Dinitrotoluene	1670	0.0	1150	69	47-103
208-96-8	LCS	Acenaphthylene	1670	0.0	1210	73	43-104
51-28-5	LCS	2,4-Dinitrophenol	1670	0.0	1400	84	32-114
132-64-9	LCS	Dibenzofuran	1670	0.0	1490	90	47-112
84-66-2	LCS	Diethylphthalate	1670	0.0	1400	84	50-108

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1085
Client ID: LCS for batch 937150
Lab Sample ID: 1202005358
Instrument: MSD3.I
Analyst: JLD1
Inj. Vol: .5 uL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 01/04/2010 17:08
Dilution: 1
Prep Batch ID: 937150
Batch ID: 937151

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
86-73-7	LCS	Fluorene	1670	0.0	1250	75	49-102
7005-72-3	LCS	4-Chlorophenylphenylether	1670	0.0	1360	82	50-109
534-52-1	LCS	2-Methyl-4,6-dinitrophenol	1670	0.0	1250	75	35-114
100-01-6	LCS	4-Nitroaniline *p-Nitroaniline*	1670	0.0	1210	73	44-139
122-39-4	LCS	Diphenylamine	1670	0.0	1280	77	46-111
122-66-7	LCS	Azobenzene *1,2-Diphenylhydrazine*	1670	0.0	1200	72	40-119
101-55-3	LCS	4-Bromophenylphenylether	1670	0.0	1340	80	45-112
118-74-1	LCS	Hexachlorobenzene	1670	0.0	1240	74	44-115
85-01-8	LCS	Phenanthrene	1670	0.0	1170	70	45-107
120-12-7	LCS	Anthracene	1670	0.0	1150	69	46-106
84-74-2	LCS	Di-n-butylphthalate	1670	0.0	1450	87	52-115
206-44-0	LCS	Fluoranthene	1670	0.0	1200	72	50-115
85-68-7	LCS	Butylbenzylphthalate	1670	0.0	1350	81	49-115
56-55-3	LCS	Benzo(a)anthracene	1670	0.0	1210	73	48-105
91-94-1	LCS	3,3'-Dichlorobenzidine	1670	0.0	1020	61	45-98
218-01-9	LCS	Chrysene	1670	0.0	1150	69	48-105
117-81-7	LCS	bis(2-Ethylhexyl)phthalate	1670	0.0	1590	95	50-117
117-84-0	LCS	Di-n-octylphthalate	1670	0.0	1340	80	39-123
205-99-2	LCS	Benzo(b)fluoranthene	1670	0.0	1170	70	46-111
207-08-9	LCS	Benzo(k)fluoranthene	1670	0.0	1190	71	46-114
50-32-8	LCS	Benzo(a)pyrene	1670	0.0	1280	77	49-112
193-39-5	LCS	Indeno(1,2,3-cd)pyrene	1670	0.0	1590	96	45-128

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1085
Client ID: LCS for batch 937150
Lab Sample ID: 1202005358
Instrument: MSD3.I
Analyst: JLD1
Inj. Vol: .5 uL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 01/04/2010 17:08
Dilution: 1
Prep Batch ID: 937150
Batch ID: 937151

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
53-70-3	LCS	Dibenzo(a,h)anthracene	1670	0.0	1600	96	44-131
191-24-2	LCS	Benzo(ghi)perylene	1670	0.0	1580	95	42-128
120-82-1	LCS	1,2,4-Trichlorobenzene	1670	0.0	1100	66	36-109

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1085
Client ID: RE03-09-14233MS
Lab Sample ID: 1202005359
Instrument: MSD3.I
Analyst: JLD1
Inj. Vol: .5 uL

Sample Type: Matrix Spike
Matrix: S
%Moisture: 7.4
Analysis Date: 01/04/2010 20:49
Prep Batch ID: 937150
Batch ID: 937151
Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
62-75-9	MS	N-Methyl-N-nitrosomethylam	1790	0.00	U	1040	58	32-90
108-95-2	MS	Phenol	1790	0.00	U	1170	65	32-105
95-57-8	MS	2-Chlorophenol	1790	0.00	U	1140	64	33-106
106-46-7	MS	1,4-Dichlorobenzene	1790	0.00	U	839	47	33-95
621-64-7	MS	N-Nitrosodipropylamine	1790	0.00	U	1120	62	31-109
59-50-7	MS	4-Chloro-3-methylphenol	1790	0.00	U	1300	72	38-119
83-32-9	MS	Acenaphthene	1790	0.00	U	1100	61	39-100
121-14-2	MS	2,4-Dinitrotoluene	1790	0.00	U	1200	67	42-107
100-02-7	MS	4-Nitrophenol	1790	0.00	U	613	34	24-120
87-86-5	MS	Pentachlorophenol	1790	0.00	U	982	55	26-121
129-00-0	MS	Pyrene	1790	0.00	U	1160	65	34-120
110-86-1	MS	Pyridine	1790	0.00	U	752	42	30-95
62-53-3	MS	Aniline	1790	0.00	U	1020	57	34-111
111-44-4	MS	bis(2-Chloroethyl) ether	1790	0.00	U	873	49	34-101
541-73-1	MS	1,3-Dichlorobenzene	1790	0.00	U	800	45	31-97
100-51-6	MS	Benzyl alcohol	1790	0.00	U	1340	75	17-120
95-50-1	MS	1,2-Dichlorobenzene	1790	0.00	U	870	48	32-102
108-60-1	MS	bis(2-Chloroisopropyl)ether	1790	0.00	U	850	47	32-113
95-48-7	MS	o-Cresol	1790	0.00	U	1070	60	31-119
65794-96-9	MS	m,p-Cresols	1790	0.00	U	1340	75	35-125
67-72-1	MS	Hexachloroethane	1790	0.00	U	836	47	30-100
98-95-3	MS	Nitrobenzene	1790	0.00	U	1040	58	33-108

Semi-Volatile

Quality Control Summary

Spike Recovery Report

SDG Number: 10-1085

Client ID: RE03-09-14233MS

Lab Sample ID: 1202005359

Instrument: MSD3.I

Analyst: JLD1

Inj. Vol: .5 uL

Sample Type: Matrix Spike

Matrix: S

%Moisture: 7.4

Analysis Date: 01/04/2010 20:49

Dilution: 1

Prep Batch ID: 937150

Batch ID: 937151

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
78-59-1	MS	Isophorone	1790	0.00	U	1220	68	34-110
88-75-5	MS	2-Nitrophenol	1790	0.00	U	1110	62	32-108
105-67-9	MS	2,4-Dimethylphenol	1790	0.00	U	1060	59	32-115
111-91-1	MS	bis(2-Chloroethoxy)methane	1790	0.00	U	923	51	35-108
120-83-2	MS	2,4-Dichlorophenol	1790	0.00	U	1100	62	38-110
65-85-0	MS	Benzoic acid	3590	0.00	U	1510	42	18-134
91-20-3	MS	Naphthalene	1790	0.00	U	1080	60	31-105
106-47-8	MS	4-Chloroaniline	1790	0.00	U	993	55	29-123
87-68-3	MS	Hexachlorobutadiene	1790	0.00	U	844	47	31-109
91-57-6	MS	2-Methylnaphthalene	1790	0.00	U	1060	59	32-110
77-47-4	MS	Hexachlorocyclopentadiene	1790	0.00	U	1310	73	21-122
88-06-2	MS	2,4,6-Trichlorophenol	1790	0.00	U	1290	72	37-108
95-95-4	MS	2,4,5-Trichlorophenol	1790	0.00	U	1210	68	37-116
91-58-7	MS	2-Chloronaphthalene	1790	0.00	U	1030	57	37-103
88-74-4	MS	2-Nitroaniline *o-Nitroaniline*	1790	0.00	U	1170	65	36-115
99-09-2	MS	3-Nitroaniline *m-Nitroaniline*	1790	0.00	U	1210	67	39-117
131-11-3	MS	Dimethylphthalate	1790	0.00	U	1240	69	41-105
606-20-2	MS	2,6-Dinitrotoluene	1790	0.00	U	1100	61	41-103
208-96-8	MS	Acenaphthylene	1790	0.00	U	1140	64	41-103
51-28-5	MS	2,4-Dinitrophenol	1790	0.00	U	1190	66	25-104
132-64-9	MS	Dibenzofuran	1790	0.00	U	1430	80	40-114
84-66-2	MS	Diethylphthalate	1790	0.00	U	1310	73	43-110

Semi-Volatile
Quality Control Summary
Spike Recovery Report

SDG Number: 10-1085
Client ID: RE03-09-14233MS
Lab Sample ID: 1202005359
Instrument: MSD3.I
Analyst: JLD1
Inj. Vol: .5 uL

Sample Type: Matrix Spike
Matrix: S
%Moisture: 7.4
Analysis Date: 01/04/2010 20:49
Prep Batch ID: 937150
Batch ID: 937151

Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
86-73-7	MS	Fluorene	1790	0.00	U	1190	66	48-99
7005-72-3	MS	4-Chlorophenylphenylether	1790	0.00	U	1290	72	42-111
534-52-1	MS	2-Methyl-4,6-dinitrophenol	1790	0.00	U	1050	59	19-118
100-01-6	MS	4-Nitroaniline *p-Nitroaniline*	1790	0.00	U	1040	58	35-139
122-39-4	MS	Diphenylamine	1790	0.00	U	1150	64	41-112
122-66-7	MS	Azobenzene *1,2-Diphenylhydrazine*	1790	0.00	U	1160	65	37-118
101-55-3	MS	4-Bromophenylphenylether	1790	0.00	U	1270	71	39-112
118-74-1	MS	Hexachlorobenzene	1790	0.00	U	1160	65	38-113
85-01-8	MS	Phenanthrene	1790	0.00	U	1120	62	38-110
120-12-7	MS	Anthracene	1790	0.00	U	1110	62	38-112
84-74-2	MS	Di-n-butylphthalate	1790	0.00	U	1330	74	42-119
206-44-0	MS	Fluoranthene	1790	0.00	U	1130	63	38-119
85-68-7	MS	Butylbenzylphthalate	1790	0.00	U	1350	75	39-126
56-55-3	MS	Benzo(a)anthracene	1790	0.00	U	1170	65	39-110
91-94-1	MS	3,3'-Dichlorobenzidine	1790	0.00	U	658	37	35-106
218-01-9	MS	Chrysene	1790	0.00	U	1120	62	39-109
117-81-7	MS	bis(2-Ethylhexyl)phthalate	1790	0.00	U	1540	86	40-125
117-84-0	MS	Di-n-octylphthalate	1790	0.00	U	1600	89	30-147
205-99-2	MS	Benzo(b)fluoranthene	1790	0.00	U	1210	67	38-117
207-08-9	MS	Benzo(k)fluoranthene	1790	0.00	U	1300	72	39-120
50-32-8	MS	Benzo(a)pyrene	1790	0.00	U	1260	70	40-115
193-39-5	MS	Indeno(1,2,3-cd)pyrene	1790	0.00	U	1070	60	32-120

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number:	10-1085	**Sample Type:**	Matrix Spike
Client ID:	RE03-09-14233MS	**Matrix:**	S
Lab Sample ID:	1202005359	**%Moisture:**	7.4
Instrument:	MSD3.I	**Analysis Date:**	01/04/2010 20:49
Analyst:	JLD1	**Prep Batch ID:**	937150
Inj. Vol:	.5 uL	**Batch ID:**	937151

Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
53-70-3	MS	Dibenzo(a,h)anthracene	1790	0.00	U	1100	61	32-124
191-24-2	MS	Benzo(ghi)perylene	1790	0.00	U	936	52	28-119
120-82-1	MS	1,2,4-Trichlorobenzene	1790	0.00	U	970	54	31-105

Semi-Volatile
Quality Control Summary
Spike Recovery Report

SDG Number: 10-1085
Client ID: RE03-09-14233MSD
Lab Sample ID: 1202005360
Instrument: MSD3.I
Analyst: JLD1
Inj. Vol: .5 uL

Sample Type: Matrix Spike Duplicate
Matrix: S
%Moisture: 7.4
Analysis Date: 01/04/2010 21:13
Dilution: 1
Prep Batch ID: 937150
Batch ID: 937151

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
62-75-9	MSD	N-Methyl-N-nitrosomethylam	1800	0.00	U	1030	57	32-90	1	0-30
108-95-2	MSD	Phenol	1800	0.00	U	1160	64	32-105	2	0-30
95-57-8	MSD	2-Chlorophenol	1800	0.00	U	1100	61	33-106	4	0-30
106-46-7	MSD	1,4-Dichlorobenzene	1800	0.00	U	830	46	33-95	1	0-30
621-64-7	MSD	N-Nitrosodipropylamine	1800	0.00	U	1100	61	31-109	2	0-30
59-50-7	MSD	4-Chloro-3-methylphenol	1800	0.00	U	1210	67	38-119	7	0-30
83-32-9	MSD	Acenaphthene	1800	0.00	U	998	55	39-100	10	0-30
121-14-2	MSD	2,4-Dinitrotoluene	1800	0.00	U	1080	60	42-107	10	0-30
100-02-7	MSD	4-Nitrophenol	1800	0.00	U	460	26	24-120	29	0-30
87-86-5	MSD	Pentachlorophenol	1800	0.00	U	861	48	26-121	13	0-30
129-00-0	MSD	Pyrene	1800	0.00	U	1050	59	34-120	10	0-30
110-86-1	MSD	Pyridine	1800	0.00	U	706	39	30-95	6	0-30
62-53-3	MSD	Aniline	1800	0.00	U	895	50	34-111	13	0-30
111-44-4	MSD	bis(2-Chloroethyl) ether	1800	0.00	U	854	47	34-101	2	0-30
541-73-1	MSD	1,3-Dichlorobenzene	1800	0.00	U	800	44	31-97	0	0-30
100-51-6	MSD	Benzyl alcohol	1800	0.00	U	1300	72	17-120	3	0-30
95-50-1	MSD	1,2-Dichlorobenzene	1800	0.00	U	850	47	32-102	2	0-30
108-60-1	MSD	bis(2-Chloroisopropyl)ether	1800	0.00	U	840	47	32-113	1	0-30
95-48-7	MSD	o-Cresol	1800	0.00	U	1050	58	31-119	2	0-30
65794-96-9	MSD	m,p-Cresols	1800	0.00	U	1290	72	35-125	4	0-30
67-72-1	MSD	Hexachloroethane	1800	0.00	U	828	46	30-100	1	0-30
98-95-3	MSD	Nitrobenzene	1800	0.00	U	1010	56	33-108	3	0-30

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1085
Client ID: RE03-09-14233MSD
Lab Sample ID: 1202005360
Instrument: MSD3.I
Analyst: JLD1
Inj. Vol: .5 uL

Sample Type: Matrix Spike Duplicate
Matrix: S
%Moisture: 7.4
Analysis Date: 01/04/2010 21:13
Prep Batch ID: 937150
Batch ID: 937151
Dilution: 1

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
78-59-1	MSD Isophorone	1800	0.00	U	1200	67	34-110	2	0-30
88-75-5	MSD 2-Nitrophenol	1800	0.00	U	1080	60	32-108	2	0-30
105-67-9	MSD 2,4-Dimethylphenol	1800	0.00	U	991	55	32-115	7	0-30
111-91-1	MSD bis(2-Chloroethoxy)methane	1800	0.00	U	905	50	35-108	2	0-30
120-83-2	MSD 2,4-Dichlorophenol	1800	0.00	U	1050	58	38-110	5	0-30
65-85-0	MSD Benzoic acid	3600	0.00	U	1400	39	18-134	8	0-30
91-20-3	MSD Naphthalene	1800	0.00	U	1050	58	31-105	3	0-30
106-47-8	MSD 4-Chloroaniline	1800	0.00	U	958	53	29-123	4	0-30
87-68-3	MSD Hexachlorobutadiene	1800	0.00	U	857	48	31-109	2	0-30
91-57-6	MSD 2-Methylnaphthalene	1800	0.00	U	1030	57	32-110	3	0-30
77-47-4	MSD Hexachlorocyclopentadiene	1800	0.00	U	1060	59	21-122	21	0-30
88-06-2	MSD 2,4,6-Trichlorophenol	1800	0.00	U	1160	65	37-108	10	0-30
95-95-4	MSD 2,4,5-Trichlorophenol	1800	0.00	U	1110	62	37-116	9	0-30
91-58-7	MSD 2-Chloronaphthalene	1800	0.00	U	946	53	37-103	9	0-30
88-74-4	MSD 2-Nitroaniline *o-Nitroaniline*	1800	0.00	U	1070	60	36-115	9	0-30
99-09-2	MSD 3-Nitroaniline *m-Nitroaniline*	1800	0.00	U	1070	60	39-117	12	0-30
131-11-3	MSD Dimethylphthalate	1800	0.00	U	1120	62	41-105	10	0-30
606-20-2	MSD 2,6-Dinitrotoluene	1800	0.00	U	991	55	41-103	11	0-30
208-96-8	MSD Acenaphthylene	1800	0.00	U	1040	58	41-103	9	0-30
51-28-5	MSD 2,4-Dinitrophenol	1800	0.00	U	1030	57	25-104	15	0-30
132-64-9	MSD Dibenzofuran	1800	0.00	U	1300	72	40-114	10	0-30
84-66-2	MSD Diethylphthalate	1800	0.00	U	1190	66	43-110	9	0-30

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1085
Client ID: RE03-09-14233MSD
Lab Sample ID: 1202005360
Instrument: MSD3.I
Analyst: JLD1
Inj. Vol: .5 uL

Sample Type: Matrix Spike Duplicate
Matrix: S
%Moisture: 7.4
Analysis Date: 01/04/2010 21:13
Dilution: 1
Prep Batch ID: 937150
Batch ID: 937151

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
86-73-7	MSD	Fluorene	1800	0.00	U	1070	60	48-99	11	0-30
7005-72-3	MSD	4-Chlorophenylphenylether	1800	0.00	U	1160	64	42-111	10	0-30
534-52-1	MSD	2-Methyl-4,6-dinitrophenol	1800	0.00	U	922	51	19-118	13	0-30
100-01-6	MSD	4-Nitroaniline *p-Nitroaniline*	1800	0.00	U	922	51	35-139	12	0-30
122-39-4	MSD	Diphenylamine	1800	0.00	U	1010	56	41-112	13	0-30
122-66-7	MSD	Azobenzene *1,2-Diphenylhydrazine*	1800	0.00	U	1040	58	37-118	11	0-30
101-55-3	MSD	4-Bromophenylphenylether	1800	0.00	U	1150	64	39-112	10	0-30
118-74-1	MSD	Hexachlorobenzene	1800	0.00	U	1070	60	38-113	8	0-30
85-01-8	MSD	Phenanthrene	1800	0.00	U	1000	56	38-110	11	0-30
120-12-7	MSD	Anthracene	1800	0.00	U	1010	56	38-112	10	0-30
84-74-2	MSD	Di-n-butylphthalate	1800	0.00	U	1190	66	42-119	11	0-30
206-44-0	MSD	Fluoranthene	1800	0.00	U	1000	56	38-119	12	0-30
85-68-7	MSD	Butylbenzylphthalate	1800	0.00	U	1220	68	39-126	10	0-30
56-55-3	MSD	Benzo(a)anthracene	1800	0.00	U	1030	57	39-110	13	0-30
91-94-1	MSD	3,3'-Dichlorobenzidine	1800	0.00	U	563	31 *	35-106	16	0-30
218-01-9	MSD	Chrysene	1800	0.00	U	991	55	39-109	12	0-30
117-81-7	MSD	bis(2-Ethylhexyl)phthalate	1800	0.00	U	1400	78	40-125	9	0-30
117-84-0	MSD	Di-n-octylphthalate	1800	0.00	U	1510	84	30-147	6	0-30
205-99-2	MSD	Benzo(b)fluoranthene	1800	0.00	U	1070	60	38-117	12	0-30
207-08-9	MSD	Benzo(k)fluoranthene	1800	0.00	U	1160	65	39-120	11	0-30
50-32-8	MSD	Benzo(a)pyrene	1800	0.00	U	1120	62	40-115	12	0-30
193-39-5	MSD	Indeno(1,2,3-cd)pyrene	1800	0.00	U	965	54	32-120	11	0-30

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number:	**10-1085**	**Sample Type:**	**Matrix Spike Duplicate**
Client ID:	**RE03-09-14233MSD**	**Matrix:**	**S**
Lab Sample ID:	**1202005360**	**%Moisture:**	**7.4**
Instrument:	**MSD3.I**	**Analysis Date:**	**01/04/2010 21:13**
Analyst:	**JLD1**	**Prep Batch ID:**	**937150**
Inj. Vol:	**.5 uL**	**Batch ID:**	**937151**

Dilution: 1

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
53-70-3	MSD Dibenzo(a,h)anthracene	1800	0.00	U	1000	56	32-124	9	0-30
191-24-2	MSD Benzo(ghi)perylene	1800	0.00	U	859	48	28-119	9	0-30
120-82-1	MSD 1,2,4-Trichlorobenzene	1800	0.00	U	939	52	31-105	3	0-30

Method Blank Summary

SDG Number:	10-1085	Client:	LANL010	Matrix:	SOIL
Client ID:	MB for batch 937150	Instrument ID:	MSD3.I	Data File:	s3a0413-1.d
Lab Sample ID:	1202005357	Prep Date:	12/29/2009 10:16	Analyzed:	01/04/10 16:44
Column:	J&W DB-5MS	Level:	LOW		

This method blank applies to the following samples and quality control samples:

Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01 LCS for batch 937150	1202005358	s3a0414-1.d	01/04/10	1708
02 WST03-10-2148	243549002	s3a0421.d	01/04/10	1959

Instrument Performance Check

DFTPP

Lab Name GEL Laboratories LLC **Client SDG:** 10-1085

Instrument ID: MSD3.I **Injection Date/Time:** 04-JAN-10 15:08

Column Description: J&W DB-5MS **Lab File ID** /chem/MSD3.i/s010410a.b/s3a0409.d

m/e	Ion Abundance Criteria	% Relative Abundance
198	Base Peak, 100% Relative Abundance	100
51	30 - 60% of mass 198	46.8
68	Less than 2% of mass 69	0
69	Mass 69 Relative Abundance	52.4
70	Less than 2% of mass 69	0.6
127	40 - 60% of mass 198	54.8
197	0 - 1% of mass 198	0
199	5 - 9% of mass 198	7
275	10 - 30% of mass 198	25.1
365	Greater than 1% of mass 198	3.1
441	Present, but less than mass 443	79
442	Greater than 40% of mass 198	71.8
443	17 - 23% of mass 442	19.9

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
MEGACVS	WBN091201-17.3	/chem/MSD3.i/s010410a.b/s3a04	04-JAN-10 15:20
APCVS	WBN100103-08.2	/chem/MSD3.i/s010410a.b/s3a04	04-JAN-10 15:49
SBLK01	1202005357	/chem/MSD3.i/s010410a.b/s3a04	04-JAN-10 16:44
SBLK01LCS	1202005358	/chem/MSD3.i/s010410a.b/s3a04	04-JAN-10 17:08
WST03-10-2148	243549002	/chem/MSD3.i/s010410a.b/s3a04	04-JAN-10 19:59

Instrument Performance Check

DFTPP

Lab Name GEL Laboratories LLC **Client SDG:** 10-1085

Instrument ID: MSD3.I **Injection Date/Time:** 06-DEC-09 09:33

Column Description: J&W DB-5MS **Lab File ID** /chem/MSD3.i/s120609.b/s310601.d

m/e	Ion Abundance Criteria	% Relative Abundance
198	Base Peak, 100% Relative Abundance	100
51	30 - 60% of mass 198	39.6
68	Less than 2% of mass 69	1.6
69	Mass 69 Relative Abundance	46.8
70	Less than 2% of mass 69	0.5
127	40 - 60% of mass 198	51.7
197	0 - 1% of mass 198	0
199	5 - 9% of mass 198	6.9
275	10 - 30% of mass 198	23.2
365	Greater than 1% of mass 198	2.6
441	Present, but less than mass 443	71.8
442	Greater than 40% of mass 198	72.1
443	17 - 23% of mass 442	20.6

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
MEGAICAL001	WBN091201-16	/chem/MSD3.i/s120609.b/s310603	06-DEC-09 10:12
MEGAICAL010	WBN091201-15	/chem/MSD3.i/s120609.b/s310604	06-DEC-09 10:41
MEGAICAL020	WBN091201-14	/chem/MSD3.i/s120609.b/s310605	06-DEC-09 11:10
MEGAICAL040	WBN091201-13.1	/chem/MSD3.i/s120609.b/s310606	06-DEC-09 11:39
MEGAICAL050	WBN091201-12	/chem/MSD3.i/s120609.b/s310607	06-DEC-09 12:08
MEGAICAL080	WBN091201-11	/chem/MSD3.i/s120609.b/s310608	06-DEC-09 12:37
MEGAICAL100	WBN091201-10	/chem/MSD3.i/s120609.b/s310609	06-DEC-09 13:06
MEGAICAL120	WBN091201-09	/chem/MSD3.i/s120609.b/s310610	06-DEC-09 13:35
MEGAICV	WBN091106-05.2	/chem/MSD3.i/s120609.b/s310612	06-DEC-09 14:32

Instrument Performance Check

DFTPP

Lab Name GEL Laboratories LLC **Client SDG:** 10-1085

Instrument ID: MSD3.I **Injection Date/Time:** 08-DEC-09 09:03

Column Description: J&W DB-5MS **Lab File ID** /chem/MSD3.i/s120809.b/s3l0801.d

m/e	Ion Abundance Criteria	% Relative Abundance
198	Base Peak, 100% Relative Abundance	100
51	30 - 60% of mass 198	37.9
68	Less than 2% of mass 69	1.6
69	Mass 69 Relative Abundance	44.6
70	Less than 2% of mass 69	0.5
127	40 - 60% of mass 198	49.7
197	0 - 1% of mass 198	0
199	5 - 9% of mass 198	6.7
275	10 - 30% of mass 198	23.7
365	Greater than 1% of mass 198	2.8
441	Present, but less than mass 443	72.7
442	Greater than 40% of mass 198	78
443	17 - 23% of mass 442	20.8

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
AP010	WBN091201-01	/chem/MSD3.i/s120809.b/s3l0803	08-DEC-09 09:42
AP020	WBN091201-02	/chem/MSD3.i/s120809.b/s3l0804	08-DEC-09 10:09
AP040	WBN091201-03.1	/chem/MSD3.i/s120809.b/s3l0805	08-DEC-09 10:37
AP050	WBN091201-04	/chem/MSD3.i/s120809.b/s3l0806	08-DEC-09 11:04
AP080	WBN091201-05	/chem/MSD3.i/s120809.b/s3l0807	08-DEC-09 11:31
AP100	WBN091201-06	/chem/MSD3.i/s120809.b/s3l0808	08-DEC-09 11:58
AP120	WBN091201-07	/chem/MSD3.i/s120809.b/s3l0809	08-DEC-09 12:26
APICV	WBN091201-08.1	/chem/MSD3.i/s120809.b/s3l0810	08-DEC-09 12:53

Internal Standard
Area and RT Summary

Lab Name : GEL Laboratories LLC

Client SDG: 10-1085

Instrument: MSD3.I

STD Analysis Time: 04-JAN-10 15:20

GC Column: J&W DB-5MS

Data File: s3a0410.d

	1,4-Dichlorobenzene-d4			Naphthalene-d8			Acenaphthene-d10			Phenanthrene-d10			Chrysene-d12			Perylene-d12		
	Area	#	RT #	Area	#	RT #	Area	#	RT #	Area	#	RT #	Area	#	RT #	Area	#	RT #
12 Hour STD	125043		4.2	479154		5.45	259696		7.3	428025		8.89	372680		11.7	285873		13.7
Upper Limit	250086		4.7	958308		5.95	519392		7.8	856050		9.39	745360		12.2	571746		14.2
Lower Limit	62522		3.7	239577		4.95	129848		6.8	214013		8.39	186340		11.2	142937		13.2
Sample ID																		
BLK01	123401		4.2	465340		5.45	252936		7.29	419180		8.89	306107		11.7	241697		13.7
BLK01LCS	127521		4.2	484652		5.45	267372		7.3	454926		8.89	420614		11.7	342432		13.7
WST03-10-2148	144743		4.2	542430		5.45	302025		7.29	523268		8.89	431750		11.7	298062		13.7

Area Upper Limit = +100% of internal standard area
Area Lower Limit = - 50% of internal standard area

RT Upper Limit = + 0.50 minutes of internal standard RT
RT Lower Limit = - 0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Value outside of QC Limits

Sample Data

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1085**	**Date Collected:**	**12/22/2009 12:00**	**Matrix:**	**R**
Lab Sample ID:	**243549002**	**Date Received:**	**12/24/2009 09:30**	**%Moisture:**	**7.2**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**WST03-10-2148**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**937151**	**Inst:**	**MSD3.I**	**Dilution:**	**1**
Run Date:	**01/04/2010 19:59**	**Analyst:**	**JLD1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/29/2009 10:16**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**s3a0421.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	359	ug/kg	71.8	359
108-95-2	Phenol	U	359	ug/kg	71.8	359
95-57-8	2-Chlorophenol	U	359	ug/kg	71.8	359
106-46-7	1,4-Dichlorobenzene	U	359	ug/kg	71.8	359
621-64-7	N-Nitrosodipropylamine	U	359	ug/kg	71.8	359
59-50-7	4-Chloro-3-methylphenol	U	359	ug/kg	71.8	359
83-32-9	Acenaphthene	U	35.9	ug/kg	11.9	35.9
121-14-2	2,4-Dinitrotoluene	U	359	ug/kg	35.9	359
100-02-7	4-Nitrophenol	U	359	ug/kg	119	359
87-86-5	Pentachlorophenol	U	359	ug/kg	89.8	359
129-00-0	Pyrene	U	35.9	ug/kg	10.8	35.9
110-86-1	Pyridine	U	359	ug/kg	71.8	359
62-53-3	Aniline	U	359	ug/kg	108	359
111-44-4	bis(2-Chloroethyl) ether	U	359	ug/kg	71.8	359
541-73-1	1,3-Dichlorobenzene	U	359	ug/kg	71.8	359
100-51-6	Benzyl alcohol	U	359	ug/kg	108	359
95-50-1	1,2-Dichlorobenzene	U	359	ug/kg	71.8	359
108-60-1	bis(2-Chloroisopropyl)ether	U	359	ug/kg	71.8	359
95-48-7	o-Cresol	U	359	ug/kg	71.8	359
65794-96-9	m,p-Cresols	U	359	ug/kg	108	359
67-72-1	Hexachloroethane	U	359	ug/kg	71.8	359
98-95-3	Nitrobenzene	U	359	ug/kg	71.8	359
78-59-1	Isophorone	U	359	ug/kg	71.8	359
88-75-5	2-Nitrophenol	U	359	ug/kg	71.8	359
105-67-9	2,4-Dimethylphenol	U	359	ug/kg	126	359
111-91-1	bis(2-Chloroethoxy)methane	U	359	ug/kg	71.8	359
120-83-2	2,4-Dichlorophenol	U	359	ug/kg	71.8	359
65-85-0	Benzoic acid	U	718	ug/kg	180	718
91-20-3	Naphthalene	U	35.9	ug/kg	10.8	35.9
106-47-8	4-Chloroaniline	U	359	ug/kg	71.8	359
87-68-3	Hexachlorobutadiene	U	359	ug/kg	71.8	359
91-57-6	2-Methylnaphthalene	U	35.9	ug/kg	7.18	35.9
77-47-4	Hexachlorocyclopentadiene	U	359	ug/kg	71.8	359
88-06-2	2,4,6-Trichlorophenol	U	359	ug/kg	71.8	359
95-95-4	2,4,5-Trichlorophenol	U	359	ug/kg	71.8	359
91-58-7	2-Chloronaphthalene	U	35.9	ug/kg	11.9	35.9
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	359	ug/kg	71.8	359
99-09-2	3-Nitroaniline	U	359	ug/kg	71.8	359

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1085	Date Collected:	12/22/2009 12:00	Matrix:	R
Lab Sample ID:	243549002	Date Received:	12/24/2009 09:30	%Moisture:	7.2
		Client:	LANL010	Project:	LANL01004
Client ID:	WST03-10-2148	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	937151	Inst:	MSD3.I	Dilution:	1
Run Date:	01/04/2010 19:59	Analyst:	JLD1	Inj. Vol:	.5 uL
Prep Date:	12/29/2009 10:16	Aliquot:	30 g	Final Volume:	1 mL
Data File:	s3a0421.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	359	ug/kg	71.8	359
606-20-2	2,6-Dinitrotoluene	U	359	ug/kg	35.9	359
208-96-8	Acenaphthylene	U	35.9	ug/kg	10.8	35.9
51-28-5	2,4-Dinitrophenol	U	718	ug/kg	136	718
132-64-9	Dibenzofuran	U	359	ug/kg	71.8	359
84-66-2	Diethylphthalate	U	359	ug/kg	71.8	359
86-73-7	Fluorene	U	35.9	ug/kg	10.8	35.9
7005-72-3	4-Chlorophenylphenylether	U	359	ug/kg	71.8	359
534-52-1	2-Methyl-4,6-dinitrophenol	U	359	ug/kg	71.8	359
100-01-6	4-Nitroaniline	U	359	ug/kg	108	359
	p-Nitroaniline					
122-39-4	Diphenylamine	U	359	ug/kg	71.8	359
122-66-7	Azobenzene	U	359	ug/kg	71.8	359
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	359	ug/kg	71.8	359
118-74-1	Hexachlorobenzene	U	359	ug/kg	71.8	359
85-01-8	Phenanthrene	U	35.9	ug/kg	10.8	35.9
120-12-7	Anthracene	U	35.9	ug/kg	7.18	35.9
84-74-2	Di-n-butylphthalate	U	359	ug/kg	71.8	359
206-44-0	Fluoranthene	U	35.9	ug/kg	10.8	35.9
85-68-7	Butylbenzylphthalate	U	359	ug/kg	71.8	359
56-55-3	Benzo(a)anthracene	U	35.9	ug/kg	10.8	35.9
91-94-1	3,3'-Dichlorobenzidine	U	359	ug/kg	108	359
218-01-9	Chrysene	U	35.9	ug/kg	10.8	35.9
117-81-7	bis(2-Ethylhexyl)phthalate	U	359	ug/kg	71.8	359
117-84-0	Di-n-octylphthalate	U	359	ug/kg	71.8	359
205-99-2	Benzo(b)fluoranthene	U	35.9	ug/kg	10.8	35.9
207-08-9	Benzo(k)fluoranthene	U	35.9	ug/kg	10.8	35.9
50-32-8	Benzo(a)pyrene	U	35.9	ug/kg	10.8	35.9
193-39-5	Indeno(1,2,3-cd)pyrene	U	35.9	ug/kg	10.8	35.9
53-70-3	Dibenzo(a,h)anthracene	U	35.9	ug/kg	10.8	35.9
191-24-2	Benzo(ghi)perylene	U	35.9	ug/kg	10.8	35.9
120-82-1	1,2,4-Trichlorobenzene	U	359	ug/kg	71.8	359

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	1.84	147	ug/kg		J
	Unknown Aldol Condensate	2.85	461	ug/kg		JA

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1085**	**Date Collected:**	**12/22/2009 12:00**	**Matrix:**	**R**
Lab Sample ID:	**243549002**	**Date Received:**	**12/24/2009 09:30**	**%Moisture:**	**7.2**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**WST03-10-2148**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**937151**	**Inst:**	**MSD3.I**	**Dilution:**	**1**
Run Date:	**01/04/2010 19:59**	**Analyst:**	**JLD1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/29/2009 10:16**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**s3a0421.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
301-02-0	9-Octadecenamide, (Z)-	12.78	212	ug/kg	80	NJ

GEL Laboratories LLC

Data file : /chem/MSD3.i/s010410a.b/s3a0421.d
Lab Smp Id: 243549002 Client Smp ID: WST03-10-2148
Inj Date : 04-JAN-2010 19:59
Operator : JLD1 Inst ID: MSD3.i
Smp Info : |243549002|937151|1|SVMF|1|LANL
Misc Info : |MSD8270_S|WBN091223-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD3.i/s010410a.b/MSD3-8270R-AQA-120809.m
Meth Date : 04-Jan-2010 16:42 jen00986 Quant Type: ISTD
Cal Date : 07-DEC-2009 19:48 Cal File: s310717.d
Als bottle: 13
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-1085.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	7.18890	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	4.201	4.203	(1.000)	144743	40.0000	
* 29 Naphthalene-d8	136	5.449	5.453	(1.000)	542430	40.0000	
* 46 Acenaphthene-d10	164	7.295	7.298	(1.000)	302025	40.0000	
* 67 Phenanthrene-d10	188	8.889	8.888	(1.000)	523268	40.0000	
* 91 Chrysene-d12	240	11.742	11.745	(1.000)	431750	40.0000	
* 98 Perylene-d12	264	13.689	13.686	(1.000)	298062	40.0000	
$ 3 2-Fluorophenol	112	3.108	3.093	(0.740)	264350	69.8235	2510
$ 5 Phenol-d5	99	3.873	3.869	(0.922)	324577	67.2921	2420
$ 20 Nitrobenzene-d5	82	4.734	4.737	(0.869)	133344	33.6352	1210
$ 39 2-Fluorobiphenyl	172	6.577	6.576	(0.902)	233997	33.0534	1190
$ 60 2,4,6-Tribromophenol	329	8.145	8.143	(1.116)	75959	91.5847	3290
$ 81 p-Terphenyl-d14	244	10.598	10.595	(0.903)	298094	42.9882	1540

ION RATIO REPORT

SV REPORT

Data file: s3a0421.d
Report Date: 01/05/2010 09:22
Lab. ID: 243549002 SampleType: SAMPLE
Injection Date: 04-JAN-2010 19:59
Operator: JLD1 Instrument: MSD3.i
Sample Info: |243549002|937151|1|SVMF|1|LANL
Miscellaneous Info: |MSD8270_S|WBN091223-01|
Comment:
Method used: /chem/MSD3.i/s010410a.b/MSD3-8270R-AQA-120809.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-1085
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
17 N-Nitrosodipropylamine				CAS#: 621-64-7		
70	19062	4.73	4.58	80-120	100	(T)
42	10221	4.73	4.58	31- 91	54	(T)
44 2,6-Dinitrotoluene				CAS#: 606-20-2		
165	39078	7.29	7.09	80-120	100	(T)
63	614	7.29	7.09	49-109	2	(QT)
50 2,4-Dinitrotoluene				CAS#: 121-14-2		
165	39078	7.29	7.52	80-120	100	(T)
89	711	7.29	7.52	69-129	2	(QT)
63	614	7.29	7.52	56-116	2	(QT)
55 2-Methyl-4,6-dinitrophenol				CAS#: 534-52-1		
198	250	8.14	7.95	80-120	100	(T)
105	728	8.14	7.95	21- 81	291	(QT)
51	611	8.14	7.95	38- 98	244	(QT)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

Data file : /chem/MSD3.i/s010410a.b/s3a0421.d
Lab Smp Id: 243549002 Client Smp ID: WST03-10-2148
Inj Date : 04-JAN-2010 19:59
Operator : JLD1 Inst ID: MSD3.i
Smp Info : |243549002|937151|1|SVMF|1|LANL
Misc Info : |MSD8270_S|WBN091223-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD3.i/s010410a.b/MSD3-8270R-AQA-120809.m
Meth Date : 04-Jan-2010 16:42 jen00986 Quant Type: ISTD
Cal Date : 07-DEC-2009 19:48 Cal File: s310717.d
Als bottle: 13
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-1085.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	7.18890	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	4.201	953750	40.000
* 98 Perylene-d12	13.689	856037	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown				CAS #:			
1.839	97514	4.08968705	147	0		0	10

RT	AREA	CONCENTRATIONS ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	QUANT LIBRARY	LIB ENTRY	CPND #
Unknown Aldol Condensate				CAS #:			
2.853	306143	12.8395296	461	0		0	10
9-Octadecenamide, (Z)-				CAS #: 301-02-0			
12.776	126509	5.91137244	212	80	NIST05.L	112655	98

Data File: /chem/MSD3.i/s010410a.b/s3a0421.d
Date : 04-JAN-2010 19:59
Client ID: WST03-10-2148
Sample Info: |2435490021937151|1|SVHF11|LANL
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD3.i

Operator: JLD1
Column diameter: 0.20

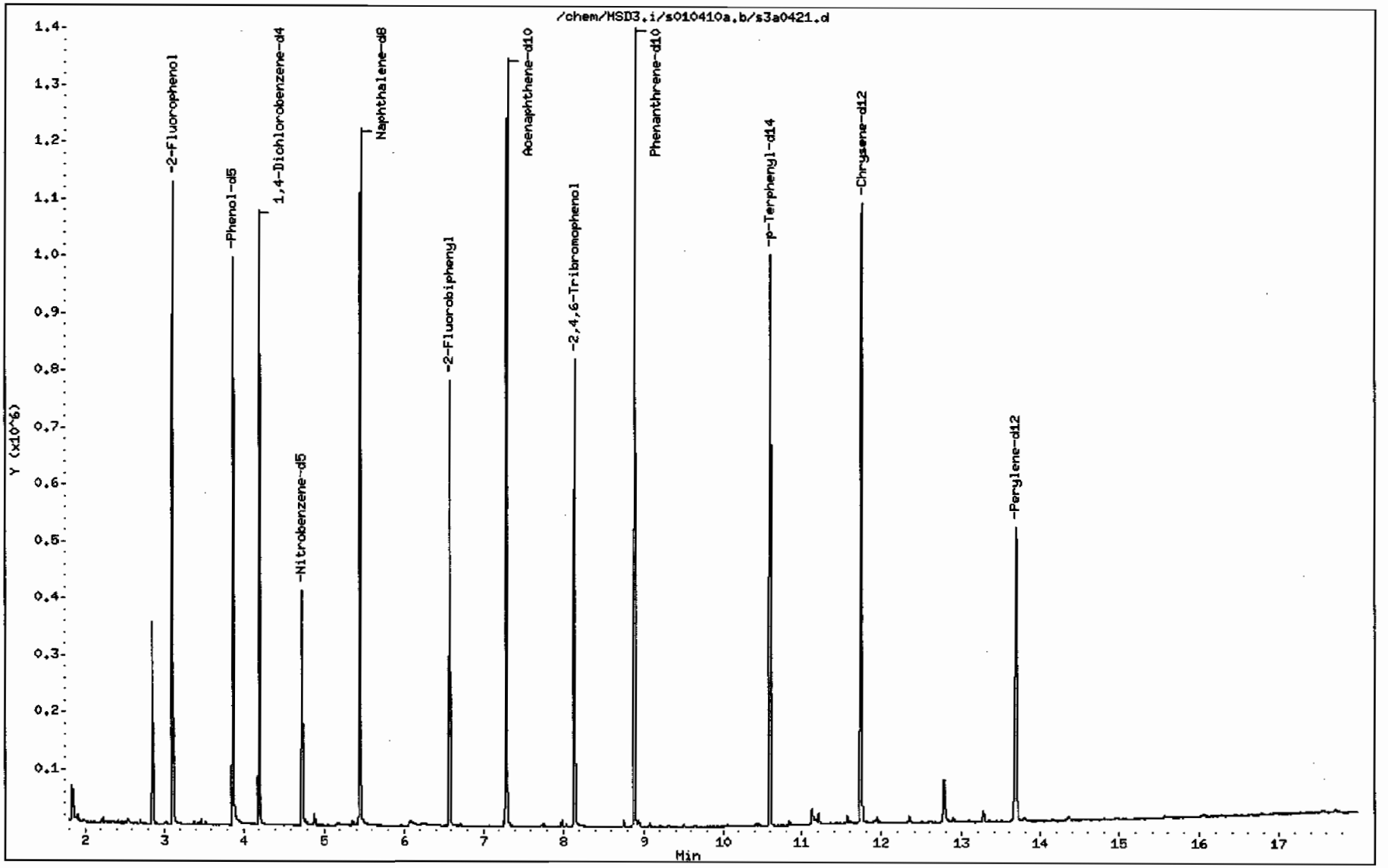

Data File: /chem/MSD3.i/s010410a.b/s3a0421.d

Date : 04-JAN-2010 19:59

Client ID: WST03-10-2148

Instrument: MSD3.i

Sample Info: |2435490021937151|1|SVMF|1|LANL

Volume Injected (uL): 0.5

Operator: JLD1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
2-Propanone, 1-chloro-	78-95-5	NIST05.L	2355	76	C3H5ClO	92
2-Propanone, 1-chloro-	78-95-5	NIST05.L	2356	59	C3H5ClO	92
2-Propanone, 1-chloro-	78-95-5	NIST05.L	2352	53	C3H5ClO	92

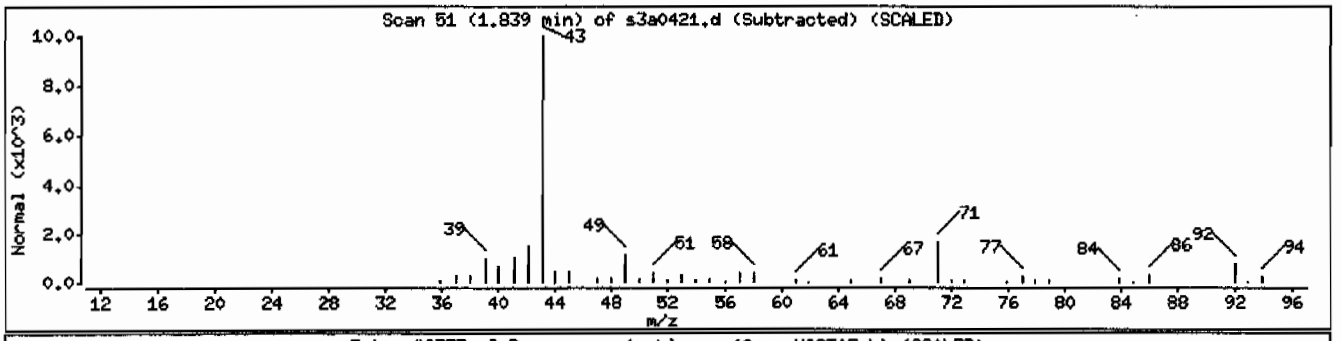

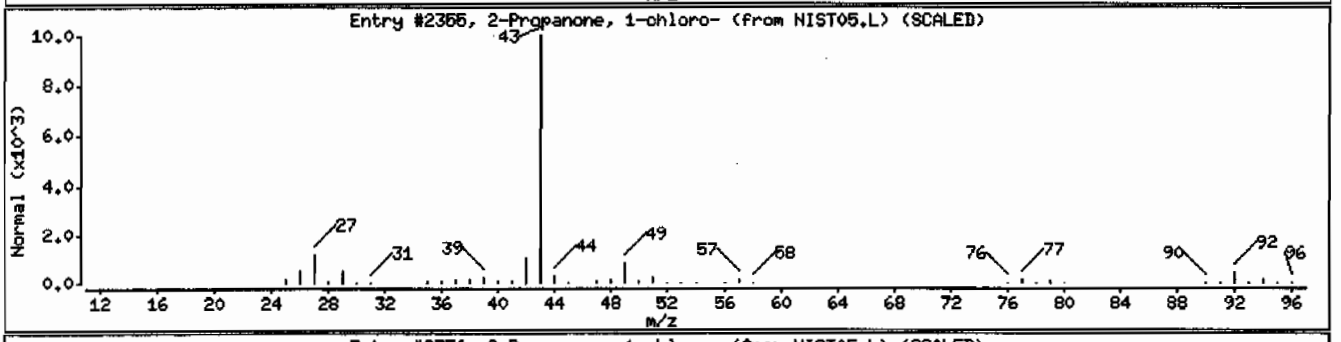

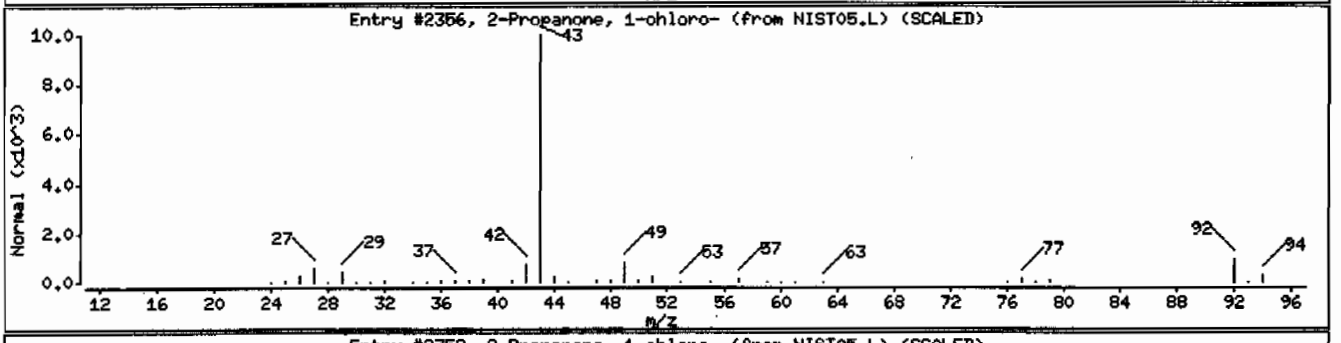

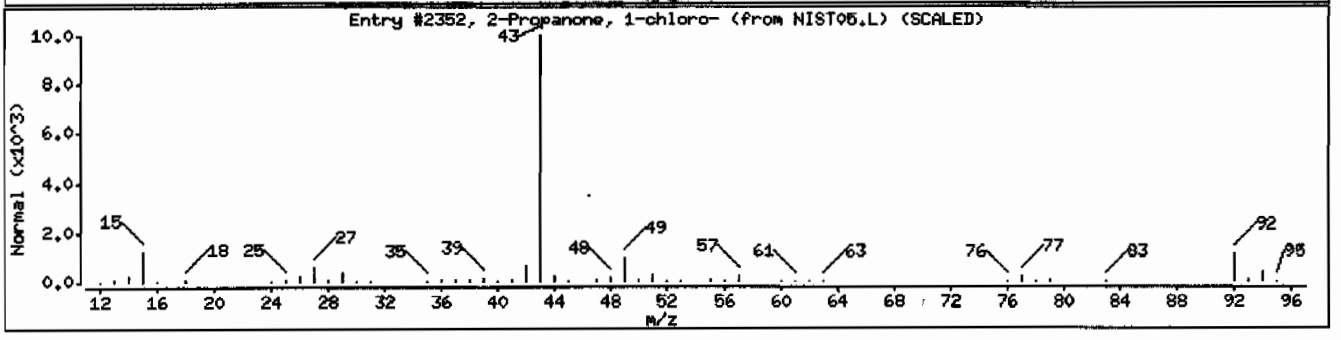

Data File: /chem/MSD3.i/s010410a.b/s3a0421.d

Date : 04-JAN-2010 19:59

Client ID: WST03-10-2148

Instrument: MSD3.i

Sample Info: |2435490021937151|1|SVMF|1|LANL

Volume Injected (uL): 0.5

Operator: JLD1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7945	64	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	40	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	40	C6H12O2	116

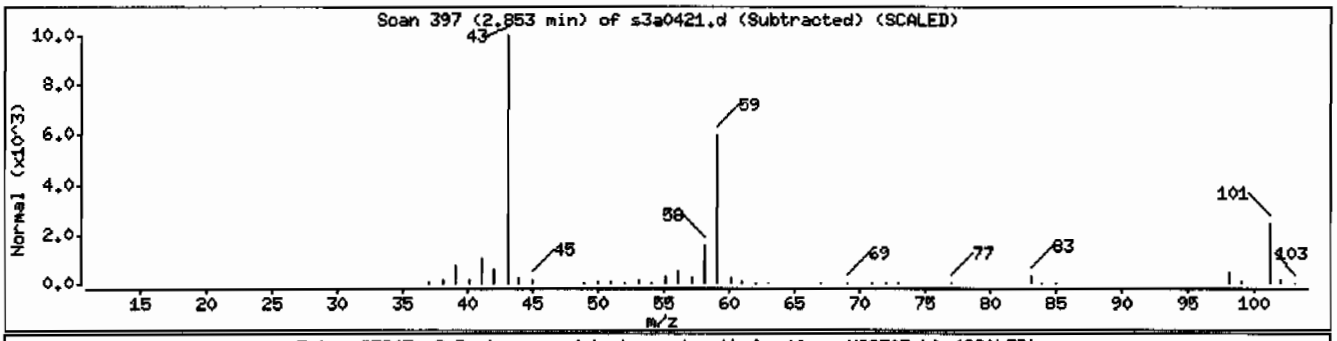

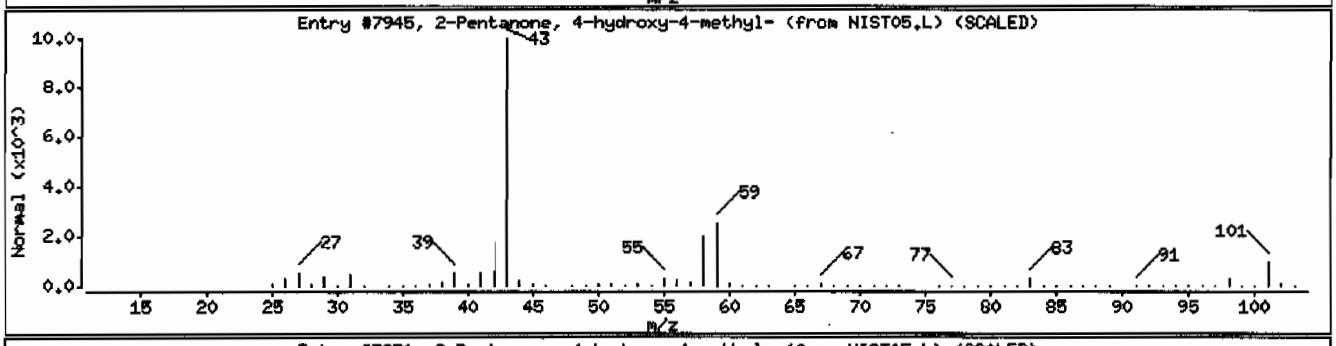

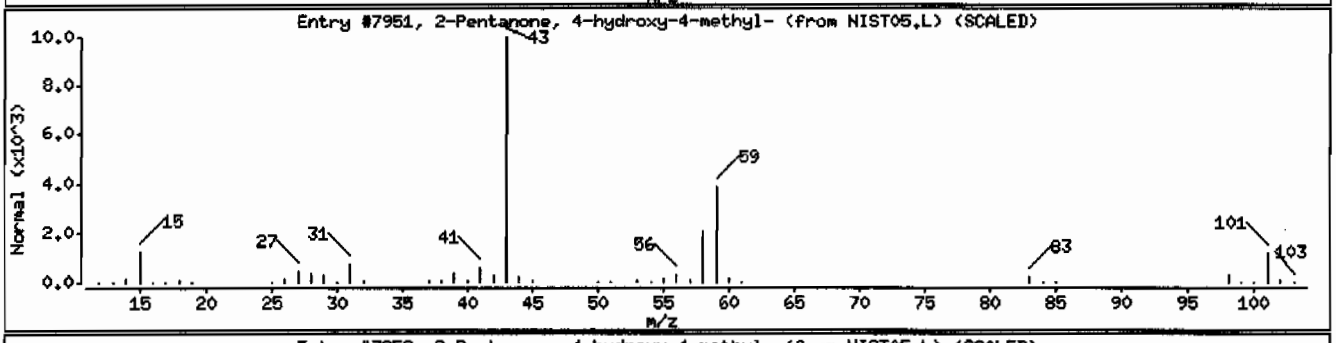

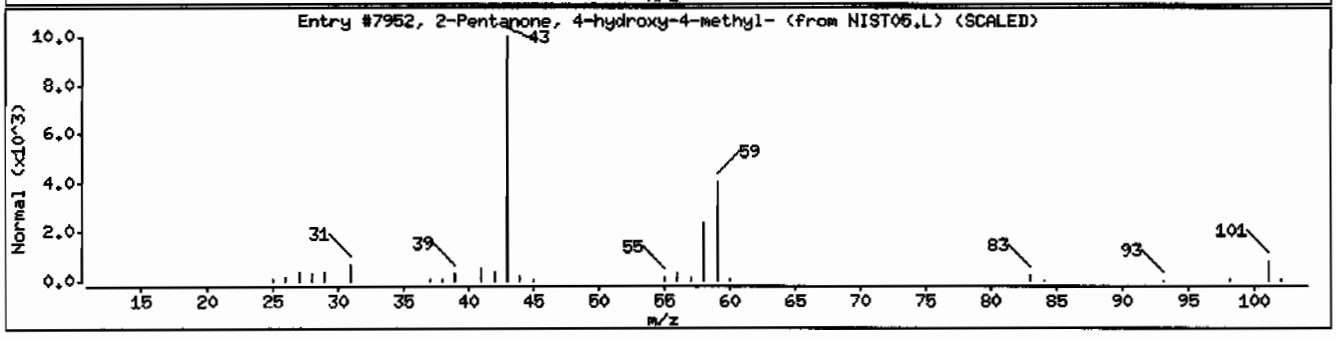

Data File: /chem/MSD3.i/s010410a.b/s3a0421.d

Date : 04-JAN-2010 19:59

Client ID: WST03-10-2148

Instrument: MSD3.i

Sample Info: |2435490021937151|1|SVMF|1|LANL

Volume Injected (uL): 0.5

Operator: JLD1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
9-Octadecenamide, (Z)-	301-02-0	NIST05.L	112655	80	C18H35NO	281
7-Nonenamide	90949-53-4	NIST05.L	26953	53	C9H17NO	155
9-Octadecenamide, (Z)-	301-02-0	NIST05.L	112656	53	C18H35NO	281

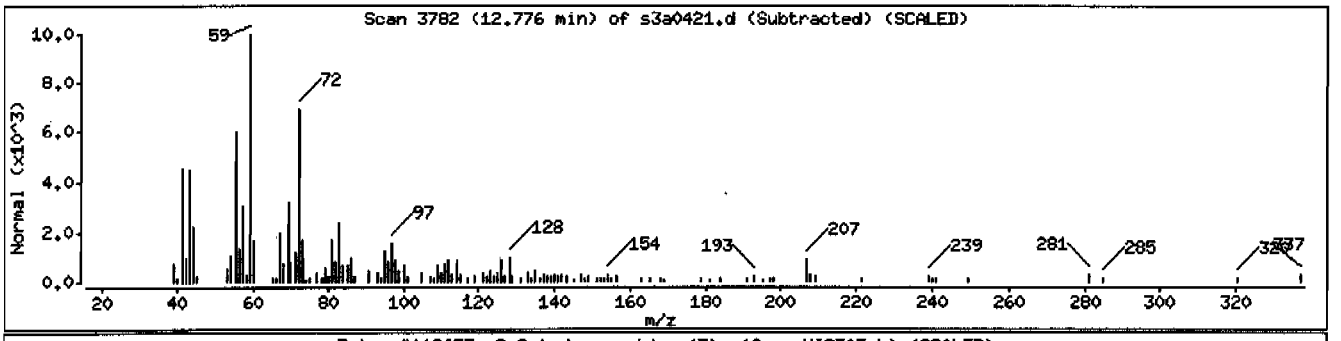

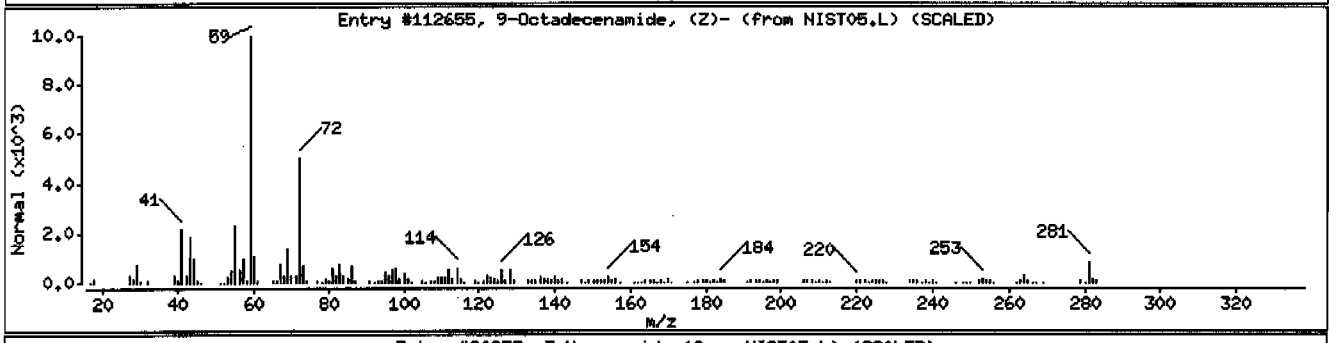

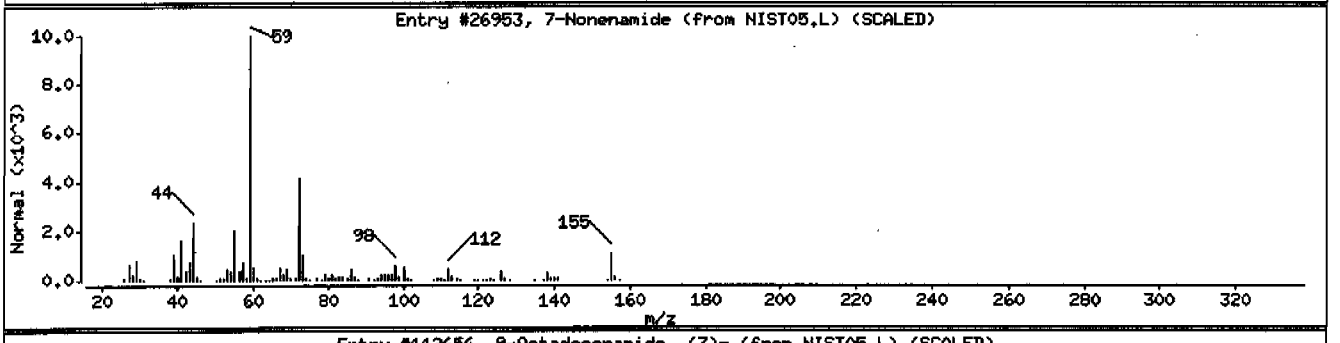

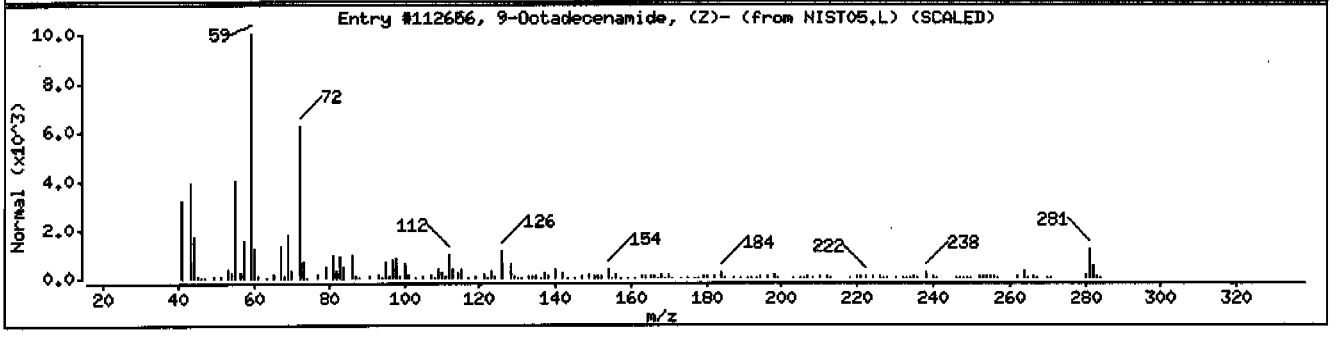

Standard Data

SW846 8270C//8270D/EPA 625								
Calibration Standard Concentration Levels*								
	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
1,4-Dichlorobenzene-d4 (INTERNAL STANDARD)								
Naphthalene-d8 (INTERNAL STANDARD)								
Acenaphthene-d10 (INTERNAL STANDARD)								
Phenanthrene-d10 (INTERNAL STANDARD)								
Chrysene-d12 (INTERNAL STANDARD)								
Perylene-d12 (INTERNAL STANDARD)								
2-Fluorophenol (SURROGATE)		10	20	40	50	80	100	120
Phenol-d5 (SURROGATE)		10	20	40	50	80	100	120
2-Chlorophenol-d4 (CLP SURROGATE)		10	20	40	50	80	100	120
1,2-Dichlorobenzene-d4 (CLP SURROGATE)		10	20	40	50	80	100	120
Nitrobenzene-d5 (SURROGATE)		10	20	40	50	80	100	120
2-Fluorobiphenyl (SURROGATE)		10	20	40	50	80	100	120
2,4,6-Tribromophenol (SURROGATE)		10	20	40	50	80	100	120
p-Terphenyl-d14 (SURROGATE)		10	20	40	50	80	100	120
N-Nitrosodimethylamine		10	20	40	50	80	100	120
Pyridine		10	20	40	50	80	100	120
Aniline		10	20	40	50	80	100	120
Benzaldehyde		10	20	40	50	80	100	120
Phenol		10	20	40	50	80	100	120
bis(2-Chloroethyl)ether	1	10	20	40	50	80	100	120
2-Chlorophenol		10	20	40	50	80	100	120
n-Decane		10	20	40	50	80	100	120
1,3-Dichlorobenzene		10	20	40	50	80	100	120
1,4-Dichlorobenzene		10	20	40	50	80	100	120
Benzyl Alcohol		10	20	40	50	80	100	120
1,2-Dichlorobenzene		10	20	40	50	80	100	120
bis(2-Chloroisopropyl)ether		10	20	40	50	80	100	120
o-Cresol (2-Methylphenol)		10	20	40	50	80	100	120
Acetophenone		10	20	40	50	80	100	120
N-Nitrosodipropylamine	1	10	20	40	50	80	100	120
m,p-Cresols (3-Methylphenol & 4-Methylphenol)		10	20	40	50	80	100	120
Hexachloroethane		10	20	40	50	80	100	120
Nitrobenzene		10	20	40	50	80	100	120
Isophorone		10	20	40	50	80	100	120
2-Nitrophenol		10	20	40	50	80	100	120
2,4-Dimethylphenol		10	20	40	50	80	100	120
bis(2-Chloroethoxy)methane		10	20	40	50	80	100	120
2,4-Dichlorophenol		10	20	40	50	80	100	120
Benzoic Acid			20	40	50	80	100	120
1,2,4-Trichlorobenzene		10	20	40	50	80	100	120
Naphthalene	1	10	20	40	50	80	100	120
alpha-Terpineol		10	20	40	50	80	100	120
4-Chloroaniline		10	20	40	50	80	100	120
Caprolactam		10	20	40	50	80	100	120

SW846 8270C//8270D/EPA 625								
Calibration Standard Concentration Levels*								
	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Hexachlorobutadiene		10	20	40	50	80	100	120
4-Chloro-3-methylphenol		10	20	40	50	80	100	120

2-Methylnaphthalene	1	10	20	40	50	80	100	120
1-Methylnaphthalene	1	10	20	40	50	80	100	120
Hexachlorocyclopentadiene		10	20	40	50	80	100	120
1,1'-Biphenyl		10	20	40	50	80	100	120
2,3-Dichloroaniline		10	20	40	50	80	100	120
2,4,6-Trichlorophenol		10	20	40	50	80	100	120
2,4,5-Trichlorophenol		10	20	40	50	80	100	120
2-Chloronaphthalene	1	10	20	40	50	80	100	120
o-Nitroaniline		10	20	40	50	80	100	120
m-Nitroaniline		10	20	40	50	80	100	120
Dimethylphthalate	1	10	20	40	50	80	100	120
2,6-Dinitrotoluene		10	20	40	50	80	100	120
Acenaphthylene	1	10	20	40	50	80	100	120
Acenaphthene	1	10	20	40	50	80	100	120
2,4-Dinitrophenol			20	40	50	80	100	120
Dibenzofuran		10	20	40	50	80	100	120
2,4-Dinitrotoluene		10	20	40	50	80	100	120
Diethylphthalate	1	10	20	40	50	80	100	120
4-Nitrophenol		10	20	40	50	80	100	120
Fluorene	1	10	20	40	50	80	100	120
4-Chlorophenyl phenyl ether		10	20	40	50	80	100	120
2-Methyl-4,6-dinitrophenol		10	20	40	50	80	100	120
p-Nitroaniline		10	20	40	50	80	100	120
Diphenylamine		10	20	40	50	80	100	120
1,2-Diphenylhydrazine		10	20	40	50	80	100	120
Tributylphosphate		10	20	40	50	80	100	120
4-Bromophenyl phenyether		10	20	40	50	80	100	120
Hexachlorobenzene		10	20	40	50	80	100	120
Atrazine		10	20	40	50	80	100	120
Pentachlorophenol		10	20	40	50	80	100	120
n-Octadecane		10	20	40	50	80	100	120
Phenanthrene	1	10	20	40	50	80	100	120
Anthracene	1	10	20	40	50	80	100	120
Di-n-butylphthalate	1	10	20	40	50	80	100	120
Fluoranthene	1	10	20	40	50	80	100	120
Benzidine		10	20	40	50	80	100	120
Pyrene	1	10	20	40	50	80	100	120
Butylbenzylphthalate	1	10	20	40	50	80	100	120
Benzo(a)anthracene	1	10	20	40	50	80	100	120
3,3'-Dichlorobenzidene		10	20	40	50	80	100	120
Chrysene	1	10	20	40	50	80	100	120
bis (2-Ethylhexyl) phthalate	1	10	20	40	50	80	100	120
Di-n-octylphthalate	1	10	20	40	50	80	100	120

SW846 8270C//8270D/EPA 625								
Calibration Standard Concentration Levels*								
	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Benzo(b)fluoranthene	1	10	20	40	50	80	100	120
Benzo(k)fluoranthene	1	10	20	40	50	80	100	120
Benzo(a)pyrene	1	10	20	40	50	80	100	120
Indeno-(1,2,3-cd)pyrene	1	10	20	40	50	80	100	120
Dibenzo(a,h)anthracene	1	10	20	40	50	80	100	120
Benzo(ghi)perylene	1	10	20	40	50	80	100	120
Carbazole	1	10	20	40	50	80	100	120

APPENDIX IX

1,4-Dioxane		10	20	40	50	80	100	120
Methyl methacrylate		10	20	40	50	80	100	120
Ethyl methacrylate		10	20	40	50	80	100	120
2-Picoline		10	20	40	50	80	100	120
N-Nitrosomethylethylamine		10	20	40	50	80	100	120
Methyl methanesulfonate		10	20	40	50	80	100	120
N-Nitrosodiethylamine		10	20	40	50	80	100	120
Ethyl methanesulfonate		10	20	40	50	80	100	120
Pentachloroethane		10	20	40	50	80	100	120
N-Nitrosopyrrolidine		10	20	40	50	80	100	120
N-Nitrosomorpholine		10	20	40	50	80	100	120
o-Toluidine		10	20	40	50	80	100	120
N-Nitrosopiperidine		10	20	40	50	80	100	120
a,a-Dimethhylphenethylamine		10	20	40	50	80	100	120
Triethylphosphorothioate		10	20	40	50	80	100	120
2,6-Dichlorophenol		10	20	40	50	80	100	120
Hexachloropropene		10	20	40	50	80	100	120
p-Phenylenediamine		10	20	40	50	80	100	120
N-Nitrosodi-n-butylamine		10	20	40	50	80	100	120
Safrole		10	20	40	50	80	100	120
1,2,4,5-Tetrachlorobenzene		10	20	40	50	80	100	120
Isosafrole		10	20	40	50	80	100	120
1,4-Naphthoquinone		10	20	40	50	80	100	120
m-Dinitrobenzene		10	20	40	50	80	100	120
Pentachlorobenzene		10	20	40	50	80	100	120
1-Naphthylamine		10	20	40	50	80	100	120
2-Naphthylamine		10	20	40	50	80	100	120
2,3,4,6-Tetrachlorophenol		10	20	40	50	80	100	120
5-Nitro-o-toluidine		10	20	40	50	80	100	120
Thionazin		10	20	40	50	80	100	120
Sulfotepp		10	20	40	50	80	100	120
Phorate		10	20	40	50	80	100	120
1,3,5-Trinitrobenzene		10	20	40	50	80	100	120
Phenacetin		10	20	40	50	80	100	120
Diallate (cis and trans)		10	20	40	50	80	100	120

SW846 8270C//8270D/EPA 625

Calibration Standard Concentration Levels*

	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Dimethoate		10	20	40	50	80	100	120
4-Aminobiphenyl		10	20	40	50	80	100	120
Pentachloronitrobenzene		10	20	40	50	80	100	120
Pronamide		10	20	40	50	80	100	120
Dinoseb		10	20	40	50	80	100	120
Disulfoton		10	20	40	50	80	100	120
Methyl parathion		10	20	40	50	80	100	120
4-Nitroquinoline oxide		10	20	40	50	80	100	120
Methapyrilene		10	20	40	50	80	100	120
Isodrin		10	20	40	50	80	100	120
Aramite		10	20	40	50	80	100	120
Kepone		10	20	40	50	80	100	120
p-(Dimethylamino)azobenzene		10	20	40	50	80	100	120

Chlorobenzilate		10	20	40	50	80	100	120
3,3'-Dimethylbenzidine		10	20	40	50	80	100	120
Famphur		10	20	40	50	80	100	120
2-Acetylaminofluorene		10	20	40	50	80	100	120
7,12-Dimethylbenz(a)anthracene		10	20	40	50	80	100	120
3-Methylcholanthrene		10	20	40	50	80	100	120
Hexachlorophene		500	1000	1250	1500	1750	2000	
p-Benzoquinone		10	20	40	50	80	100	120
Parathion		10	20	40	50	80	100	120
Methoxychlor		10	20	40	50	80	100	120
2-Ethoxyethanol		50	75	100	125	150	200	250
cis-Diallate		1.5	3	6	7.5	12	15	18
trans-Diallate		8.5	17	34	42	68	85	102
Dibenzo(a,e)pyrene		50	75	100	125	150	200	250
Phthalic anhydride		50	75	100	125	150	200	250
1,4-Dinitrobenzene		50	75	100	125	150	200	250
(2,3-Dibromopropyl)phosphate		50	75	100	125	150	200	250
Methylenebis(2-chloroaniline)		50	75	100	125	150	200	250
p-Toluidine		10	20	40	50	80	100	120
m-Toluidine		10	20	40	50	80	10	120

SW846 8270C//8270D/EPA 625								
Calibration Standard Concentration Levels*								
	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
bis(Chloromethyl)ether		10	20	40	50	80	100	120
Thiophenol		10	20	40	50	80	100	120
4-Chlorothiophenol		10	20	40	50	80	100	120
4-Chlorothio anisole		10	20	40	50	80	100	120
Phthalic acid		10	20	40	50	80	100	120
Hydroxymethyl phthalamide		10	20	40	50	80	100	120
Diphenyl sulfide		10	20	40	50	80	100	120
Diphenyl disulfide		10	20	40	50	80	100	120
Phenyl sulfone		10	20	40	50	80	100	120
Octachlorostyrene		10	20	40	50	80	100	120
2,2'-Dichlorobenzil		10	20	40	50	80	100	120
bis(p-Chlorophenyl)disulfide		10	20	40	50	80	100	120
bis(p-Chlorophenyl)sulfone		10	20	40	50	80	10	120

All values are mg/L without the prep factor.
# Indicates the calibration verification concentration level used
* Usual calibration levels using SCAN methodology
Level 1 may be included at request of client
(06/08)

Report Date: 04-Jan-2010 15:53

Calibration History

Method : /chem/MSD3.i/s010410a.b/MSD3-8270R-AQA-120809.m
Start Cal Date: 06-DEC-2009 10:12
End Cal Date : 08-DEC-2009 12:26

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 1.00000		
06-DEC-2009 10:12	MEGAII	/chem/MSD3.i/s120609.b/s310603.d
Cal Level: 2 , Cal Amount: 10.00000		
07-DEC-2009 18:53	NEV	/chem/MSD3.i/s120709.b/s310715.d
07-DEC-2009 02:36	HEX	/chem/MSD3.i/s120609.b/s310629.d
06-DEC-2009 23:25	PEST	/chem/MSD3.i/s120609.b/s310622.d
08-DEC-2009 09:42	AP12	/chem/MSD3.i/s120809.b/s310803.d
06-DEC-2009 10:41	MEGAII	/chem/MSD3.i/s120609.b/s310604.d
Cal Level: 3 , Cal Amount: 20.00000		
07-DEC-2009 19:21	NEV	/chem/MSD3.i/s120709.b/s310716.d
07-DEC-2009 03:03	HEX	/chem/MSD3.i/s120609.b/s310630.d
06-DEC-2009 23:53	PEST	/chem/MSD3.i/s120609.b/s310623.d
08-DEC-2009 10:09	AP12	/chem/MSD3.i/s120809.b/s310804.d
06-DEC-2009 11:10	MEGAII	/chem/MSD3.i/s120609.b/s310605.d
Cal Level: 4 , Cal Amount: 40.00000		
07-DEC-2009 19:48	NEV	/chem/MSD3.i/s120709.b/s310717.d
07-DEC-2009 03:30	HEX	/chem/MSD3.i/s120609.b/s310631.d
07-DEC-2009 00:20	PEST	/chem/MSD3.i/s120609.b/s310624.d
08-DEC-2009 10:37	AP12	/chem/MSD3.i/s120809.b/s310805.d
06-DEC-2009 11:39	MEGAII	/chem/MSD3.i/s120609.b/s310606.d
Cal Level: 5 , Cal Amount: 50.00000		
07-DEC-2009 20:15	NEV	/chem/MSD3.i/s120709.b/s310718.d
07-DEC-2009 03:57	HEX	/chem/MSD3.i/s120609.b/s310632.d
07-DEC-2009 00:47	PEST	/chem/MSD3.i/s120609.b/s310625.d
08-DEC-2009 11:04	AP12	/chem/MSD3.i/s120809.b/s310806.d
06-DEC-2009 12:08	MEGAII	/chem/MSD3.i/s120609.b/s310607.d
Cal Level: 6 , Cal Amount: 80.00000		
07-DEC-2009 20:43	NEV	/chem/MSD3.i/s120709.b/s310719.d
07-DEC-2009 04:24	HEX	/chem/MSD3.i/s120609.b/s310633.d
07-DEC-2009 01:14	PEST	/chem/MSD3.i/s120609.b/s310626.d
08-DEC-2009 11:31	AP12	/chem/MSD3.i/s120809.b/s310807.d
06-DEC-2009 12:37	MEGAII	/chem/MSD3.i/s120609.b/s310608.d
Cal Level: 7 , Cal Amount: 100.00000		

07-DEC-2009 21:10	NEV	/chem/MSD3.i/s120709.b/s310720.d
07-DEC-2009 04:52	HEX	/chem/MSD3.i/s120609.b/s310634.d
07-DEC-2009 01:42	PEST	/chem/MSD3.i/s120609.b/s310627.d
08-DEC-2009 11:58	AP12	/chem/MSD3.i/s120809.b/s310808.d
06-DEC-2009 13:06	MEGAII	/chem/MSD3.i/s120609.b/s310609.d

Cal Level: 8 , Cal Amount: 120.00000		
07-DEC-2009 21:37	NEV	/chem/MSD3.i/s120709.b/s310721.d
07-DEC-2009 02:09	PEST	/chem/MSD3.i/s120609.b/s310628.d
08-DEC-2009 12:26	AP12	/chem/MSD3.i/s120809.b/s310809.d
06-DEC-2009 13:35	MEGAII	/chem/MSD3.i/s120609.b/s310610.d

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INITIAL CALIBRATION DATA

Start Cal Date : 06-DEC-2009 10:12
End Cal Date : 08-DEC-2009 12:26
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD3.i/s010410a.b/MSD3-8270R-AQA-120809.m
Cal Date : 04-Jan-2010 15:41 jen00986

Calibration File Names:
Level 1: /chem/MSD3.i/s120609.b/s310603.d
Level 2: /chem/MSD3.i/s120709.b/s310715.d
Level 3: /chem/MSD3.i/s120709.b/s310716.d
Level 4: /chem/MSD3.i/s120709.b/s310717.d
Level 5: /chem/MSD3.i/s120709.b/s310718.d
Level 6: /chem/MSD3.i/s120709.b/s310719.d
Level 7: /chem/MSD3.i/s120709.b/s310720.d
Level 8: /chem/MSD3.i/s120709.b/s310721.d

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
1 N-Methyl-N-nitrosomethylamine	+++++	0.67943	0.74446	0.67067	0.68393	0.65729					
	0.63769	0.63366					AVRG		0.67245		5.53526
2 Pyridine	+++++	1.08752	1.22168	1.09411	1.11313	1.06272					
	1.01889	1.04243					AVRG		1.09150		6.02473
4 Aniline	+++++	0.54481	0.60225	0.53489	0.56504	0.55250					
	0.55388	0.55218					AVRG		0.55794		3.87001
209 Benzaldehyde	+++++	1.02071	1.05204	0.99760	0.95884	0.93374					
	0.91627	0.87080					AVRG		0.96429		6.55888
6 Phenol	+++++	1.36018	1.49856	1.37161	1.40855	1.36816					
	1.35072	1.36214					AVRG		1.38856		3.73513

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 06-DEC-2009 10:12
End Cal Date : 08-DEC-2009 12:26
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD3.i/s010410a.b/MSD3-8270R-AQA-120809.m
Cal Date : 04-Jan-2010 15:41 jen00986

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
7 bis(2-Chloroethyl) ether	4570	33228	75848	139734	174233	270102					
	336673	416426					LINR	-0.05098	0.82800		0.99934
8 2-Chlorophenol	+++++	1.06804	1.15967	1.05927	1.09176	1.05094					
	1.03133	1.03717					AVRG		1.07117		4.09784
203 n-Decane	+++++	1.26754	1.29419	1.09628	1.07334	0.95760					
	0.88318	+++++					AVRG		1.09536		14.92672
9 1,3-Dichlorobenzene	+++++	1.25893	1.36035	1.21900	1.24996	1.20774					
	1.17912	1.18576					AVRG		1.23726		5.00619
11 1,4-Dichlorobenzene	+++++	1.27305	1.36970	1.23422	1.26367	1.22968					
	1.19729	1.20110					AVRG		1.25267		4.70317
12 Benzyl alcohol	+++++	0.60530	0.71519	0.68049	0.70727	0.69235					
	0.68912	0.69045					AVRG		0.68288		5.29640
13 1,2-Dichlorobenzene	+++++	1.20730	1.29078	1.17369	1.20025	1.16469					
	1.13691	1.14538					AVRG		1.18843		4.38042
14 bis(2-Chloroisopropyl)ether	+++++	1.83611	1.91223	1.68921	1.71358	1.59874					
	1.52180	1.47742					AVRG		1.67844		9.48796
15 o-Cresol	+++++	0.90194	0.97040	0.87970	0.88721	0.87092					
	0.85992	0.86767					AVRG		0.89111		4.21876

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INITIAL CALIBRATION DATA

Start Cal Date : 06-DEC-2009 10:12
End Cal Date : 08-DEC-2009 12:26
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD3.i/s010410a.b/MSD3-8270R-AQA-120809.m
Cal Date : 04-Jan-2010 15:41 jen00986

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
16 Acetophenone	+++++	1.37378	1.40083	1.34491	1.31278	1.30638					
	1.31077	1.27196					AVRG		1.33163		3.32043
17 N-Nitrosodipropylamine	1.02808	0.84067	0.92144	0.82493	0.85947	0.83197					
	0.81546	0.82510					AVRG		0.86839		8.37826
18 m,p-Cresols	+++++	1.06214	1.16857	1.06639	1.10282	1.08174					
	1.06464	1.03101					AVRG		1.08247		4.03823
19 Hexachloroethane	+++++	0.46749	0.50498	0.47459	0.47798	0.46740					
	0.45744	0.45287					AVRG		0.47182		3.61877
21 Nitrobenzene	+++++	0.35630	0.36606	0.32304	0.34982	0.33326					
	0.32569	0.32366					AVRG		0.33969		5.16331
22 Isophorone	+++++	0.55832	0.58884	0.52216	0.56704	0.54306					
	0.53951	0.50734					AVRG		0.54661		5.03280
23 2-Nitrophenol	+++++	0.15227	0.14307	0.13034	0.14431	0.14096					
	0.14422	0.14523					AVRG		0.14291		4.59203
24 2,4-Dimethylphenol	+++++	0.25596	0.27128	0.24222	0.26226	0.25009					
	0.25253	0.25349					AVRG		0.25541		3.62148
25 bis(2-Chloroethoxy)methane	+++++	0.39619	0.41012	0.35978	0.38748	0.36749					
	0.36363	0.36713					AVRG		0.37883		5.07142

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	100 Level 7	120 Level 8									
26 2,4-Dichlorophenol	+++++	0.21194	0.22833	0.20908	0.22866	0.22067					
	0.22177	0.22381					AVRG		0.22061		3.43312
27 Benzoic acid	+++++	+++++	18928	55245	82612	163279					
	230526	301096					LINR	0.45335	0.18283		0.99292
28 1,2,4-Trichlorobenzene	+++++	0.26275	0.27079	0.23986	0.25845	0.24528					
	0.24522	0.24361					AVRG		0.25228		4.62981
30 Naphthalene	16169	115777	268135	496715	630869	955382					
	1186768	1469295					WLINR	-0.01295	0.80532		0.99757
204 alpha-Terpineol	+++++	0.21457	0.22479	0.19537	0.20806	0.19109					
	0.18517	0.18299					AVRG		0.20029		7.89726
31 4-Chloroaniline	+++++	0.21986	0.23798	0.26693	0.28046	0.27805					
	0.30019	0.28838					AVRG		0.26741		10.71392
189 Caprolactam	+++++	0.08696	0.09438	0.08713	0.09439	0.09659					
	0.09138	0.09132					AVRG		0.09173		4.02914
32 Hexachlorobutadiene	+++++	0.15996	0.16625	0.14801	0.15875	0.15027					
	0.15027	0.14963					AVRG		0.15474		4.47073
33 4-Chloro-3-methylphenol	+++++	0.22183	0.25638	0.23320	0.25267	0.24283					
	0.24408	0.24637					AVRG		0.24248		4.84281

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
34 2-Methylnaphthalene	0.76526	0.56802	0.59085	0.52053	0.56147	0.53008					
	0.52618	0.52957					AVRG		0.57399		14.13925
35 1-Methylnaphthalene	0.67031	0.50808	0.52804	0.46484	0.50114	0.47703					
	0.47173	0.47551					AVRG		0.51209		13.17285
36 Hexachlorocyclopentadiene	+++++	0.08323	0.10853	0.11547	0.11629	0.12066					
	0.13967	0.11865					AVRG		0.11464		14.70842
208 1,1'-Biphenyl	+++++	1.26421	1.27174	1.22180	1.19959	1.20426					
	1.18145	1.17598					AVRG		1.21700		3.12176
205 2,3-Dichloroaniline	+++++	0.44734	0.48253	0.44572	0.45855	0.44168					
	0.43858	0.43829					AVRG		0.45038		3.50190
37 2,4,6-Trichlorophenol	+++++	0.25111	0.28591	0.26936	0.27725	0.27019					
	0.26815	0.26469					AVRG		0.26952		3.98735
38 2,4,5-Trichlorophenol	+++++	0.25727	0.30355	0.28556	0.30808	0.30395					
	0.30867	0.31187					AVRG		0.29699		6.56429
40 2-Chloronaphthalene	1.31721	0.99057	1.03775	0.93234	0.95481	0.90793					
	0.89665	0.89340					AVRG		0.99133		14.19802
42 o-Nitroaniline	+++++	0.32222	0.35527	0.33252	0.33758	0.32622					
	0.32561	0.32781					AVRG		0.33246		3.38307

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	100 Level 7	120 Level 8									
41 m-Nitroaniline	+++++	8998	20627	69767	92503	151360					
	195653	245193					LINR	0.16127	0.24605		0.99832
43 Dimethylphthalate	+++++	1.06546	1.13464	1.02321	1.04996	1.00027					
	0.99067	1.00551					AVRG		1.03853		4.84197
44 2,6-Dinitrotoluene	+++++	0.25693	0.28224	0.25773	0.26520	0.25587					
	0.25241	0.25655					AVRG		0.26099		3.88296
45 Acenaphthylene	1.95808	1.52016	1.62601	1.45179	1.48653	1.41128					
	1.39965	1.40305					AVRG		1.53207		12.27930
47 Acenaphthene	1.26814	0.92364	0.99186	0.89754	0.92376	0.87713					
	0.86122	0.86222					AVRG		0.95069		14.22336
48 2,4-Dinitrophenol	+++++	+++++	9531	25751	34616	67000					
	100458	124978					LINR	0.40363	0.13555		0.99006
49 Dibenzofuran	+++++	1.36845	1.44295	1.29685	1.32436	1.25126					
	1.23153	1.22744					AVRG		1.30612		6.07614
50 2,4-Dinitrotoluene	+++++	0.31836	0.36307	0.33598	0.34123	0.32861					
	0.32696	0.32767					AVRG		0.33455		4.33599
51 Diethylphthalate	+++++	1.06349	1.13795	1.02459	1.05132	0.99678					
	0.96898	0.97892					AVRG		1.03172		5.68951

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	100 Level 7	120 Level 8									
52 4-Nitrophenol	+++++	7109	22586	49176	61666	105195					
	146314	174964					LINR	0.13564	0.17470		0.99658
53 Fluorene	1.49556	1.11508	1.20308	1.08436	1.10021	1.04439					
	1.02768	1.01942					AVRG		1.13622		13.79124
54 4-Chlorophenylphenylether	+++++	0.50843	0.54216	0.48887	0.49926	0.47308					
	0.46366	0.46369					AVRG		0.49131		5.76111
55 2-Methyl-4,6-dinitrophenol	+++++	5577	20662	48253	62460	109150					
	151521	181628					LINR	0.17358	0.11171		0.99725
56 p-Nitroaniline	+++++	10479	23488	51535	72065	130730					
	188690	224423					LINR	0.22131	0.23039		0.99022
133 Diphenylamine	+++++	0.53712	0.54351	0.49810	0.51956	0.50623					
	0.50761	0.50884					AVRG		0.51728		3.29337
58 1,2-Diphenylhydrazine	+++++	0.79395	0.85739	0.77414	0.79443	0.73987					
	0.72082	0.71637					AVRG		0.77099		6.48952
59 Tributylphosphate	+++++	1.34754	1.40434	1.36844	1.34363	1.28089					
	1.28992	1.26412					AVRG		1.32841		3.86756
61 4-Bromophenylphenylether	+++++	0.14542	0.15923	0.14682	0.15277	0.14749					
	0.14638	0.14826					AVRG		0.14948		3.28199

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	100 Level 7	120 Level 8									
63 Hexachlorobenzene	+++++	0.17367	0.18968	0.17483	0.18358	0.17666					
	0.17653	0.17800					AVRG		0.17899		3.17123
207 Atrazine	+++++	0.04547	0.04789	0.04541	0.04379	0.04233					
	0.04166	0.03974					AVRG		0.04375		6.28656
65 Pentachlorophenol	+++++	5125	20120	47371	62276	108116					
	147939	190753					LINR	0.20373	0.11468		0.99761
206 n-Octadecane	+++++	0.49528	0.52742	0.45971	0.47133	0.42486					
	0.40259	0.39001					AVRG		0.45303		11.03990
68 Phenanthrene	1.28804	0.92662	1.00321	0.90696	0.91702	0.86826					
	0.86689	0.86023					AVRG		0.95465		14.92256
69 Anthracene	1.22432	0.94868	1.02723	0.93474	0.95117	0.89937					
	0.89891	0.88541					AVRG		0.97123		11.49124
72 Di-n-butylphthalate	+++++	1.01024	1.12625	1.03541	1.07328	1.00092					
	0.97512	0.96044					AVRG		1.02595		5.64681
76 Fluoranthene	1.13506	0.91582	1.01772	0.92132	0.92811	0.87998					
	0.89411	0.86792					AVRG		0.94500		9.45361
77 Benzidine	+++++	13242	28067	121292	145292	229608					
	+++++	+++++					LINR	0.23308	0.33868		0.99360

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Compound	1 Level 1 100 Level 7	10 Level 2 120 Level 8	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
79 Pyrene	1.32796	1.10937	1.17546	1.07481	1.10786	1.08578					
	1.02162	1.04531					AVRG		1.11852		8.61766
85 Butylbenzylphthalate	+++++	0.48784	0.55867	0.52303	0.55554	0.53440					
	0.50034	0.51500					AVRG		0.52498		5.06830
89 Benzo(a)anthracene	1.27924	0.93976	0.99698	0.91211	0.93307	0.88441					
	0.88126	0.87764					AVRG		0.96306		13.89402
90 3,3'-Dichlorobenzidine	+++++	0.22599	0.25141	0.30097	0.28293	0.27489					
	0.29870	0.28934					AVRG		0.27489		9.92155
92 Chrysene	1.17240	0.86747	0.93266	0.84872	0.86424	0.83169					
	0.82423	0.81317					AVRG		0.89432		13.22520
93 bis(2-Ethylhexyl)phthalate	0.64156	0.70968	0.78820	0.71666	0.76491	0.70530					
	0.64105	0.62866					AVRG		0.69950		8.43497
94 Di-n-octylphthalate	+++++	1.30330	1.58098	1.48483	1.58864	1.49324					
	1.40369	1.48498					AVRG		1.47710		6.72530
95 Benzo(b)fluoranthene	1.14287	0.99761	1.08613	0.99866	1.06304	1.00973					
	1.05381	1.10097					AVRG		1.05660		4.97815
96 Benzo(k)fluoranthene	1.21762	0.97826	1.08557	0.98710	0.97424	0.95201					
	0.90253	0.89505					AVRG		0.99905		10.61976

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	100 Level 7	120 Level 8									
97 Benzo(a)pyrene	0.89631	0.80728	0.92629	0.85263	0.88988	0.85471					
	0.86398	0.86242					AVRG		0.86919		4.08253
99 Indeno(1,2,3-cd)pyrene	0.88470	0.67257	0.79574	0.73311	0.79072	0.73301					
	0.79815	0.70975					AVRG		0.76472		8.65543
100 Dibenzo(a,h)anthracene	0.77717	0.56282	0.65665	0.60884	0.66191	0.61909					
	0.67856	0.60613					AVRG		0.64640		9.99962
101 Benzo(ghi)perylene	0.82823	0.59201	0.66562	0.60292	0.65494	0.59680					
	0.64570	0.56162					AVRG		0.64348		12.85995
102 1,4-Dioxane	+++++	0.40773	0.40019	0.37522	0.38135	0.37922					
	0.35134	0.34853					AVRG		0.37765		5.89649
103 Methyl methacrylate	+++++	0.23020	0.22560	0.21852	0.21824	0.21052					
	0.19800	0.19960					AVRG		0.21438		5.74380
104 Ethyl methacrylate	+++++	0.87914	0.89122	0.84372	0.83343	0.83525					
	0.81038	0.79106					AVRG		0.84060		4.20722
105 2-Picoline	+++++	1.44338	1.43161	1.36083	1.33756	1.35081					
	1.31406	1.28591					AVRG		1.36059		4.27148
106 N-Nitrosomethylethylamine	+++++	0.56064	0.56927	0.54338	0.53547	0.54388					
	0.54172	0.53704					AVRG		0.54734		2.31584

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	100 Level 7	120 Level 8									
107 Methyl methanesulfonate	+++++	0.61824	0.61677	0.58583	0.57116	0.55903					
	0.55322	0.53955					AVRG		0.57769		5.32696
108 N-Nitrosodiethylamine	+++++	0.56922	0.58319	0.56262	0.55136	0.55913					
	0.56022	0.55186					AVRG		0.56251		1.95725
109 Ethyl Methanesulfonate	+++++	0.76770	0.77890	0.74736	0.72988	0.73521					
	0.72903	0.71628					AVRG		0.74348		3.03674
110 Pentachloroethane	+++++	0.31913	0.32392	0.31369	0.30674	0.31070					
	0.30692	0.30182					AVRG		0.31184		2.46493
111 N-Nitrosopyrrolidine	+++++	0.57409	0.60173	0.59457	0.58397	0.58513					
	0.53679	0.52882					AVRG		0.57216		4.95238
113 N-Nitrosomorpholine	+++++	0.72127	0.73483	0.70050	0.67638	0.66110					
	0.65461	0.62793					AVRG		0.68237		5.61742
114 o-Toluidine	+++++	1.85975	1.90667	1.81811	1.79337	1.79504					
	1.79339	1.75730					AVRG		1.81766		2.75332
115 N-Nitrosopiperidine	+++++	0.15150	0.15914	0.15436	0.15132	0.15496					
	0.15463	0.15261					AVRG		0.15407		1.74096
116 a,a-Dimethylphenethylamine	+++++	0.67729	0.77169	0.81345	0.80122	0.85594					
	0.86913	0.86098					AVRG		0.80710		8.35998

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	100 Level 7	120 Level 8										
117 Triethylphosphorothioate	+++++	0.13951	0.14249	0.14044	0.13647	0.13489						
	0.13602	0.13657					AVRG		0.13806		2.01303	
118 2,6-Dichlorophenol	+++++	0.21873	0.22853	0.22163	0.21640	0.22058						
	0.21985	0.21964					AVRG		0.22077		1.71840	
119 Hexachloropropene	+++++	0.10297	0.10669	0.11052	0.11353	0.11186						
	0.10484	0.11311					AVRG		0.10907		3.87058	
120 p-Phenylenediamine	+++++	0.13359	0.22355	0.29709	0.28378	0.24514						
	0.24211	0.22968					AVRG		0.23642		22.39280	<-
121 N-Nitrosodi-n-butylamine	+++++	0.27093	0.28578	0.23871	0.22611	0.22352						
	0.22392	0.21998					AVRG		0.24128		10.92114	
122 Safrole	+++++	0.20129	0.20683	0.19976	0.19759	0.19945						
	0.19971	0.19690					AVRG		0.20022		1.62805	
123 1,2,4,5-Tetrachlorobenzene	+++++	0.45276	0.45501	0.43265	0.43285	0.44088						
	0.43460	0.43377					AVRG		0.44036		2.19640	
124 Isosafrole	+++++	0.35063	0.35431	0.35388	0.34377	0.34758						
	0.34564	0.34446					AVRG		0.34861		1.25494	
125 1,4-Naphthoquinone	+++++	0.32196	0.35500	0.34168	0.30941	0.25892						
	0.24523	+++++					AVRG		0.30537		14.53302	

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	100 Level 7	120 Level 8									
126 m-Dinitrobenzene	+++++	0.16619	0.19197	0.18014	0.18390	0.18168					
	0.18356	0.18414					AVRG		0.18165		4.28018
127 Pentachlorobenzene	+++++	0.38359	0.39609	0.38672	0.37943	0.38393					
	0.38746	0.38462					AVRG		0.38598		1.33678
128 1-Naphthylamine	+++++	0.84495	0.88668	0.95833	0.93759	0.92482					
	0.92248	0.91625					AVRG		0.91301		4.05463
129 2-Naphthylamine	+++++	0.94397	0.99498	1.03743	1.00039	0.98529					
	0.99816	0.99350					AVRG		0.99339		2.76342
130 2,3,4,6-Tetrachlorophenol	+++++	0.17529	0.21735	0.21325	0.21981	0.22006					
	0.22600	0.23248					AVRG		0.21489		8.62469
131 5-Nitro-o-toluidine	+++++	0.25795	0.27853	0.30785	0.30393	0.29937					
	0.30291	0.30462					AVRG		0.29359		6.29534
132 Thionazin	+++++	0.17533	0.18440	0.18613	0.17835	0.17567					
	0.17701	0.17723					AVRG		0.17916		2.41147
134 Sulfotepp	+++++	0.09154	0.10186	0.09720	0.09862	0.09958					
	0.10232	0.10729					AVRG		0.09977		4.89510
135 Phorate	+++++	0.42827	0.45270	0.42158	0.41902	0.40069					
	0.40088	0.40448					AVRG		0.41823		4.47171

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 06-DEC-2009 10:12
End Cal Date : 08-DEC-2009 12:26
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD3.i/s010410a.b/MSD3-8270R-AQA-120809.m
Cal Date : 04-Jan-2010 15:41 jen00986

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
136 1,3,5-Trinitrobenzene	+++++	0.12808	0.14692	0.16140	0.15102	0.13713					
	0.13583	0.12793					AVRG		0.14119		8.82180
137 Phenacetin	+++++	0.28642	0.30265	0.31883	0.31254	0.31358					
	0.32085	0.30246					AVRG		0.30819		3.88162
138 Diallate	+++++	0.30357	0.31931	0.29343	0.28535	0.29176					
	0.28790	0.27896					AVRG		0.29433		4.54773
139 Dimethoate	+++++	0.24879	0.25927	0.27775	0.26541	0.27158					
	0.27714	0.27670					AVRG		0.26809		4.08331
140 4-Aminobiphenyl	+++++	0.56974	0.56896	0.64069	0.65401	0.65794					
	0.65894	0.65393					AVRG		0.62917		6.56451
141 Pentachloronitrobenzene	+++++	0.07041	0.07621	0.07268	0.06990	0.07044					
	0.07038	0.06798					AVRG		0.07114		3.68329
142 Pronamide	+++++	0.28048	0.29529	0.28499	0.27501	0.28206					
	0.28587	0.27432					AVRG		0.28257		2.53690
143 Dinoseb	+++++	6717	26500	61800	81713	140328					
	191602	233762					LINR	0.16987	0.14277		0.99849
144 Disulfoton	+++++	0.41599	0.42335	0.38021	0.37998	0.35395					
	0.35526	0.35307					AVRG		0.38026		7.73460

GEL Laboratories LLC

INITIAL CALIBRATION DATA

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Method file : /chem/MSD3.i/s010410a.b/MSD3-8270R-AQA-120809.m
Cal Date : 04-Jan-2010 15:41 jen00986

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
145 Methyl parathion	+++++	0.18007	0.19118	0.21428	0.20350	0.20818					
	0.21450	0.21468					AVRG		0.20377		6.59663
146 4-Nitroquinoline-1-oxide	+++++	0.02768	0.02926	0.02995	0.02654	0.02089					
	+++++	+++++					AVRG		0.02686		13.38493
147 Methapyrilene	+++++	0.43444	0.45260	0.45013	0.41798	0.38294					
	0.38330	0.35283					AVRG		0.41060		9.32538
148 Isodrin	+++++	0.11136	0.11509	0.11025	0.10831	0.11005					
	0.11176	0.10678					AVRG		0.11051		2.40356
149 Aramite	+++++	0.04841	0.05128	0.05360	0.05153	0.05052					
	0.05208	0.04904					AVRG		0.05092		3.49550
150 Kepone	+++++	0.07495	0.08066	0.07982	0.07514	0.07350					
	0.07917	0.07499					AVRG		0.07689		3.74818
151 p-(Dimethylamino)azobenzene	+++++	0.30929	0.33217	0.31520	0.31538	0.34418					
	0.32573	0.33035					AVRG		0.32461		3.73682
152 Chlorobenzilate	+++++	0.29428	0.31337	0.28335	0.28702	0.32621					
	0.30774	0.31100					AVRG		0.30328		5.12591
153 3,3'-Dimethylbenzidine	+++++	0.39844	0.41907	0.46528	0.45328	0.47396					
	0.50847	0.50603					AVRG		0.46065		8.94976

GEL Laboratories LLC

INITIAL CALIBRATION DATA

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End Cal Date : 08-DEC-2009 12:26
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD3.i/s010410a.b/MSD3-8270R-AQA-120809.m
Cal Date : 04-Jan-2010 15:41 jen00986

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
154 Famphur	+++++	0.31533	0.34031	0.34201	0.34625	0.34103					
	0.34999	0.34772					AVRG		0.34038		3.41584
155 2-Acetylaminofluorene	+++++	0.25716	0.29468	0.35530	0.33142	0.30953					
	0.34644	0.32764					AVRG		0.31745		10.59557
157 7,12Dimethylbenz(a)anthracene	+++++	0.48655	0.51522	0.48554	0.49693	0.54817					
	0.53260	0.54297					AVRG		0.51543		5.13016
158 3-Methylcholanthrene	+++++	0.38837	0.41062	0.42686	0.41545	0.41685					
	0.42734	0.41943					AVRG		0.41499		3.17973
26 Phthalic anhydride	+++++	0.07747	0.09334	0.10503	0.11483	0.11628					
	0.11560	0.10680					AVRG		0.10419		13.73404
173 Carbazole	12686	90960	171626	321015	419223	755937					
	1022764	1238500					LINR	0.06293	0.72248		0.99446
174 Hexachlorophene	+++++	198140	586522	834117	1079894	1373196					
	1600315	+++++					LINR	7.85464	0.07932		0.99930
179 Dibenzo(a,e)pyrene	+++++	0.24543	0.29302	0.27951	0.33517	0.28803					
	0.33713	0.27082					AVRG		0.29273		11.40448
185 (2,3-Dibromopropyl)phosphate	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+00		0.000e+00 <-

GEL Laboratories LLC

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Method file : /chem/MSD3.i/s010410a.b/MSD3-8270R-AQA-120809.m
Cal Date : 04-Jan-2010 15:41 jen00986

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	100 Level 7	120 Level 8										
184 p-Benzoquinone	+++++	840	2826	7498	11158	18965						
	+++++	+++++					LINR	0.21133	0.06632		0.99481	
191 Parathion	+++++	0.05805	0.06665	0.07157	0.06987	0.07239						
	0.07544	0.07721					AVRG		0.07017		9.07800	
192 Methoxychlor	+++++	0.45358	0.54818	0.49465	0.52243	0.45536						
	0.44261	0.40919					AVRG		0.47514		10.24430	
210 m-Toluidine	+++++	0.68301	0.72278	0.65734	0.78083	1.03755						
	0.75006	0.75849					AVRG		0.77001		16.31713	<-
211 p-Toluidine	+++++	0.51708	0.51422	0.52724	0.54280	0.41445						
	+++++	+++++					AVRG		0.50316		10.10363	
212 Cis Diallate	+++++	0.28865	0.30993	0.28793	0.28289	0.29619						
	0.29544	0.29054					AVRG		0.29308		2.97325	
213 Trans Diallate	+++++	0.35714	0.37566	0.34521	0.33571	0.34324						
	0.33871	0.32819					AVRG		0.34627		4.54773	
214 1,4-Dinitrobenzene	+++++	0.17934	0.21095	0.20092	0.20595	0.20371						
	0.20582	0.20972					AVRG		0.20234		5.28723	
215 2-Ethoxyethanol	+++++	0.60944	0.68466	0.61918	0.63214	0.59407						
	0.57967	0.55253					AVRG		0.61024		6.89616	

GEL Laboratories LLC

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End Cal Date : 08-DEC-2009 12:26
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD3.i/s010410a.b/MSD3-8270R-AQA-120809.m
Cal Date : 04-Jan-2010 15:41 jen00986

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
216 Methylenebis(2-chloroaniline)	+++++	7663	22316	48353	64662	107290					
	157471	174027					LINR	0.13078	0.12648		0.99649
229 2,2'-Dichlorobenzil	+++++	0.57758	0.61602	0.66013	0.63336	0.65134					
	0.67904	0.61600					AVRG		0.63335		5.33125
230 4-Chlorothioanisole	+++++	0.21545	0.23158	0.24562	0.24193	0.24382					
	0.24202	0.24141					AVRG		0.23741		4.49231
231 4-Chlorothiophenol	+++++	13605	41055	91578	112321	212015					
	265258	288747					LINR	0.13864	0.19590		0.99917
232 bis(p-Chlorophenyl)sulfone	+++++	0.35314	0.36096	0.37562	0.35589	0.35991					
	0.36847	0.34174					AVRG		0.35939		3.02997
233 bis(p-Chlorophenyl)disulfide	+++++	0.11077	0.11922	0.13126	0.13549	0.13230					
	0.14002	0.12903					AVRG		0.12830		7.82061
234 Diphenyl disulfide	+++++	0.21112	0.21681	0.23039	0.22379	0.22126					
	0.22468	0.22037					AVRG		0.22120		2.76817
235 Diphenyl sulfide	+++++	0.68112	0.68689	0.72164	0.69798	0.69886					
	0.68822	0.68516					AVRG		0.69427		1.97762
236 Phenyl sulfone	+++++	0.42223	0.42275	0.44408	0.42843	0.42374					
	0.41928	0.41658					AVRG		0.42530		2.13170

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Method file : /chem/MSD3.i/s010410a.b/MSD3-8270R-AQA-120809.m
Cal Date : 04-Jan-2010 15:41 jen00986

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	100 Level 7	120 Level 8										
237 Hydroxymethyl phthalimide	+++++	0.11067	0.11966	0.12210	0.11502	0.11423						
	0.11721	0.11574					AVRG		0.11637		3.21002	
238 Phthalic acid	+++++	5632	17570	45083	58670	118255						
	145548	176180					LINR	0.26415	0.11963		0.99275	
239 Thiophenol	+++++	0.68891	0.92477	1.00888	0.98947	1.04366						
	1.04124	1.03055					AVRG		0.96107		13.19970	
240 bis(Chloromethyl)ether	+++++	0.97322	0.96235	0.98507	0.95565	0.91448						
	0.90183	0.89061					AVRG		0.94046		3.98475	
241 Octachlorostyrene	+++++	0.06062	0.06084	0.06627	0.06427	0.06433						
	0.06570	0.06504					AVRG		0.06387		3.53490	
M 225 Trichlorophenols	+++++	0.25419	0.29473	0.27746	0.29266	0.28707						
	0.28841	0.28828					AVRG		0.28326		4.91915	<-
M 226 Tetrachlorophenols	+++++	0.17529	0.21735	0.21325	0.21981	0.22006						
	0.22600	0.23248					AVRG		0.21489		8.62469	
M 227 Benzo(b,k)fluoranthene	1.18031	0.98794	1.08585	0.99288	1.01864	0.98087						
	0.97817	0.99801					AVRG		1.02783		6.88676	
M 228 TTO Sum Semivolatiles	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 06-DEC-2009 10:12
End Cal Date : 08-DEC-2009 12:26
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD3.i/s010410a.b/MSD3-8270R-AQA-120809.m
Cal Date : 04-Jan-2010 15:41 jen00986

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	100 Level 7	120 Level 8										
$ 3 2-Fluorophenol	+++++	1.03069	1.13140	1.03553	1.05950	1.03309						
	1.01449	1.01911					AVRG		1.04626		3.84330	
$ 5 Phenol-d5	+++++	1.28227	1.42211	1.31250	1.36390	1.32493						
	1.30870	1.31628					AVRG		1.33296		3.46833	
$ 187 2-Chlorophenol-d4	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
$ 188 1,2-Dichlorobenzene-d4	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
$ 20 Nitrobenzene-d5	+++++	0.29639	0.31372	0.27919	0.30117	0.28569						
	0.28537	0.28488					AVRG		0.29235		4.12615	
$ 39 2-Fluorobiphenyl	+++++	0.96516	1.02647	0.92859	0.95106	0.90514						
	0.89226	0.89442					AVRG		0.93759		5.13265	
$ 60 2,4,6-Tribromophenol	+++++	0.08353	0.10758	0.10732	0.11276	0.11526						
	0.11914	0.12330					AVRG		0.10984		11.80767	
$ 81 p-Terphenyl-d14	+++++	0.64573	0.68682	0.63570	0.65257	0.64379						
	0.60582	0.62663					AVRG		0.64244		3.87670	

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 06-DEC-2009 10:12
End Cal Date : 08-DEC-2009 12:26
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD3.i/s010410a.b/MSD3-8270R-AQA-120809.m
Cal Date : 04-Jan-2010 15:41 jen00986

Curve	Formula	Units
Averaged	Amt = Rsp/ml	Response
Linear	Amt = b + Rsp/ml	Response
Wt Linear	Amt = b + Rsp/ml	Response

Data File: /chem/MSD3.i/s120609.b/s310612.d
Report Date: 07-Dec-2009 09:35

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD3.i
Lab File ID: s310612.d
Analysis Type:
Lab Sample ID: WBN091106-05.2 Quant Type: ISTD
Method: /chem/MSD3.i/s120609.b/MSD3-8270R-AQA-120609.m

Injection Date: 06-DEC-2009 14:32
Init. Cal. Date(s): 06-DEC-2009 06-DEC-2009
Init. Cal. Times: 10:12 13:35

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
$ 3 2-Fluorophenol	1.04626	1.15430	1.15430	0.000	10.32625	60.00000	Averaged
$ 5 Phenol-d5	1.33296	1.49094	1.49094	0.000	11.85229	60.00000	Averaged
$ 20 Nitrobenzene-d5	0.29235	0.36624	0.36624	0.000	25.27709	60.00000	Averaged
$ 39 2-Fluorobiphenyl	0.93759	1.17332	1.17332	0.000	25.14213	60.00000	Averaged
$ 60 2,4,6-Tribromophenol	0.10984	0.12530	0.12530	0.000	14.06723	60.00000	Averaged
$ 81 p-Terphenyl-d14	0.64244	0.73639	0.73639	0.000	14.62466	60.00000	Averaged
1 N-Methyl-N-nitrosomethylami	0.67245	0.80566	0.80566	0.000	19.80984	60.00000	Averaged
2 Pyridine	1.09150	1.04957	1.04957	0.000	-3.84142	60.00000	Averaged
4 Aniline	0.55794	0.61481	0.61481	0.000	10.19309	60.00000	Averaged
6 Phenol	1.38856	1.47050	1.47050	0.001	5.90118	20.00000	Averaged ccc
7 bis(2-Chloroethyl) ether	43.42385	40.00000	0.94109	0.000	8.55963	60.00000	Linear
8 2-Chlorophenol	1.07117	1.15560	1.15560	0.000	7.88268	60.00000	Averaged
203 n-Decane	1.09536	1.28042	1.28042	0.000	16.89536	60.00000	Averaged
9 1,3-Dichlorobenzene	1.23726	1.29764	1.29764	0.000	4.87961	60.00000	Averaged
11 1,4-Dichlorobenzene	1.25267	1.32574	1.32574	0.001	5.83245	20.00000	Averaged ccc
13 1,2-Dichlorobenzene	1.18843	1.24828	1.24828	0.000	5.03637	60.00000	Averaged
14 bis(2-Chloroisopropyl)ether	1.67844	1.85476	1.85476	0.000	10.50474	60.00000	Averaged
12 Benzyl alcohol	0.68288	0.73148	0.73148	0.000	7.11613	60.00000	Averaged
15 o-Cresol	0.89111	0.93477	0.93477	0.000	4.89945	60.00000	Averaged
18 m,p-Cresols	1.08247	1.21938	1.21938	0.000	12.64735	60.00000	Averaged
17 N-Nitrosodipropylamine	0.86839	0.93080	0.93080	0.050	7.18721	60.00000	Averaged spcc
19 Hexachloroethane	0.47182	0.48784	0.48784	0.000	3.39485	60.00000	Averaged
21 Nitrobenzene	0.33969	0.37876	0.37876	0.000	11.50328	60.00000	Averaged
22 Isophorone	0.54661	0.65632	0.65632	0.000	20.07192	60.00000	Averaged
23 2-Nitrophenol	0.14291	0.15056	0.15056	0.001	5.34662	20.00000	Averaged ccc
24 2,4-Dimethylphenol	0.25541	0.26831	0.26831	0.000	5.05223	60.00000	Averaged
25 bis(2-Chloroethoxy)methane	0.37883	0.40222	0.40222	0.000	6.17407	60.00000	Averaged
26 2,4-Dichlorophenol	0.22061	0.23934	0.23934	0.001	8.48979	20.00000	Averaged ccc
27 Benzoic acid	43.45484	40.00000	0.11574	0.000	8.63709	60.00000	Linear
28 1,2,4-Trichlorobenzene	0.25228	0.27159	0.27159	0.000	7.65453	60.00000	Averaged
30 Naphthalene	47.15937	40.00000	0.95988	0.000	17.89843	60.00000	Wt Linear
204 alpha-Terpineol	0.20029	0.24985	0.24985	0.000	24.74020	60.00000	Averaged
31 4-Chloroaniline	0.26741	0.31572	0.31572	0.000	18.06551	60.00000	Averaged
32 Hexachlorobutadiene	0.15474	0.15458	0.15458	0.001	-0.10095	20.00000	Averaged ccc
33 4-Chloro-3-methylphenol	0.24248	0.26379	0.26379	0.001	8.78721	20.00000	Averaged ccc
34 2-Methylnaphthalene	0.57399	0.66096	0.66096	0.000	15.15135	60.00000	Averaged

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD3.i
Lab File ID: s310612.d
Analysis Type:
Lab Sample ID: WBN091106-05.2
Method: /chem/MSD3.i/s120609.b/MSD3-8270R-AQA-120609.m

Injection Date: 06-DEC-2009 14:32
Init. Cal. Date(s): 06-DEC-2009 06-DEC-2009
Init. Cal. Times: 10:12 13:35
Quant Type: ISTD

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
35 1-Methylnaphthalene	0.51209	0.62141	0.62141	0.000	21.34928	60.00000	Averaged	
36 Hexachlorocyclopentadiene	0.11464	0.15698	0.15698	0.050	36.93089	60.00000	Averaged	spcc
205 2,3-Dichloroaniline	0.45038	0.55124	0.55124	0.000	22.39300	60.00000	Averaged	
37 2,4,6-Trichlorophenol	0.26952	0.28417	0.28417	0.001	5.43682	20.00000	Averaged	ccc
38 2,4,5-Trichlorophenol	0.29699	0.32180	0.32180	0.000	8.35389	60.00000	Averaged	
40 2-Chloronaphthalene	0.99133	0.99360	0.99360	0.000	0.22915	60.00000	Averaged	
42 o-Nitroaniline	0.33246	0.35120	0.35120	0.000	5.63447	60.00000	Averaged	
41 m-Nitroaniline	43.78973	40.00000	0.22968	0.000	9.47433	60.00000	Linear	
43 Dimethylphthalate	1.03853	1.18949	1.18949	0.000	14.53604	60.00000	Averaged	
44 2,6-Dinitrotoluene	0.26099	0.27989	0.27989	0.000	7.24061	60.00000	Averaged	
50 2,4-Dinitrotoluene	0.33455	0.37150	0.37150	0.000	11.04423	60.00000	Averaged	
45 Acenaphthylene	1.53207	1.78100	1.78100	0.000	16.24827	60.00000	Averaged	
47 Acenaphthene	0.95069	1.05630	1.05630	0.001	11.10924	20.00000	Averaged	ccc
48 2,4-Dinitrophenol	40.25225	40.00000	0.08170	0.050	0.63062	60.00000	Linear	spcc
49 Dibenzofuran	1.30612	1.37840	1.37840	0.000	5.53383	60.00000	Averaged	
51 Diethylphthalate	1.03172	1.20429	1.20429	0.000	16.72656	60.00000	Averaged	
52 4-Nitrophenol	40.13785	40.00000	0.15160	0.050	0.34464	60.00000	Linear	spcc
53 Fluorene	1.13622	1.28301	1.28301	0.000	12.91920	60.00000	Averaged	
54 4-Chlorophenylphenylether	0.49131	0.56006	0.56006	0.000	13.99345	60.00000	Averaged	
55 2-Methyl-4,6-dinitrophenol	47.03587	40.00000	0.11197	0.000	17.58968	60.00000	Linear	
56 p-Nitroaniline	36.94242	40.00000	0.16179	0.000	-7.64396	60.00000	Linear	
133 Diphenylamine	0.51728	0.54461	0.54461	0.001	5.28274	20.00000	Averaged	ccc
58 1,2-Diphenylhydrazine	0.77099	0.79967	0.79967	0.000	3.72000	60.00000	Averaged	
61 4-Bromophenylphenylether	0.14948	0.18517	0.18517	0.000	23.87351	60.00000	Averaged	
63 Hexachlorobenzene	0.17899	0.18176	0.18176	0.000	1.54793	60.00000	Averaged	
65 Pentachlorophenol	33.84495	40.00000	0.07367	0.001	-15.38762	20.00000	Linear	ccc
206 n-Octadecane	0.45303	0.52986	0.52986	0.000	16.95911	60.00000	Averaged	
68 Phenanthrene	0.95465	1.03135	1.03135	0.000	8.03438	60.00000	Averaged	
69 Anthracene	0.97123	1.06482	1.06482	0.000	9.63665	60.00000	Averaged	
72 Di-n-butylphthalate	1.02595	1.20841	1.20841	0.000	17.78441	60.00000	Averaged	
76 Fluoranthene	0.94500	1.05474	1.05474	0.001	11.61238	20.00000	Averaged	ccc
79 Pyrene	1.11852	1.19895	1.19895	0.000	7.19029	60.00000	Averaged	
85 Butylbenzylphthalate	0.52498	0.55344	0.55344	0.000	5.42216	60.00000	Averaged	
89 Benzo(a)anthracene	0.96306	1.04768	1.04768	0.000	8.78671	60.00000	Averaged	
92 Chrysene	0.89432	0.98196	0.98196	0.000	9.79961	60.00000	Averaged	
93 bis(2-Ethylhexyl)phthalate	0.69950	0.77615	0.77615	0.000	10.95720	60.00000	Averaged	

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD3.i
Lab File ID: s310612.d
Analysis Type:
Lab Sample ID: WBN091106-05.2
Method: /chem/MSD3.i/s120609.b/MSD3-8270R-AQA-120609.m

Injection Date: 06-DEC-2009 14:32
Init. Cal. Date(s): 06-DEC-2009 06-DEC-2009
Init. Cal. Times: 10:12 13:35
Quant Type: ISTD

	COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
	94 Di-n-octylphthalate	1.47710	1.51161	1.51161	0.001	2.33635	20.00000	Averaged	ccc
	95 Benzo(b)fluoranthene	1.05660	1.13924	1.13924	0.000	7.82075	60.00000	Averaged	
	96 Benzo(k)fluoranthene	0.99905	1.13161	1.13161	0.000	13.26928	60.00000	Averaged	
	97 Benzo(a)pyrene	0.86919	1.02524	1.02524	0.001	17.95354	20.00000	Averaged	ccc
	99 Indeno(1,2,3-cd)pyrene	0.76472	0.92909	0.92909	0.000	21.49400	60.00000	Averaged	
	100 Dibenzo(a,h)anthracene	0.64640	0.76366	0.76366	0.000	18.14175	60.00000	Averaged	
	101 Benzo(ghi)perylene	0.64348	0.76309	0.76309	0.000	18.58766	60.00000	Averaged	
	126 m-Dinitrobenzene	0.18165	0.20488	0.20488	0.000	12.78768	60.00000	Averaged	
	130 2,3,4,6-Tetrachlorophenol	0.21489	0.24322	0.24322	0.000	13.18574	60.00000	Averaged	
	143 Dinoseb	42.88147	40.00000	0.12880	0.000	7.20367	60.00000	Linear	
	173 Carbazole	35.13269	40.00000	0.58910	0.000	-12.16827	60.00000	Linear	
	184 p-Benzoquinone	49.07689	40.00000	0.06735	0.000	22.69223	60.00000	Linear	
	192 Methoxychlor	0.47514	0.58151	0.58151	0.000	22.38744	60.00000	Averaged	
	211 p-Toluidine	0.50316	1.04781	1.04781	0.000	108	60.00000	Averaged	<-
	210 m-Toluidine	0.77001	1.35472	1.35472	0.000	75.93485	60.00000	Averaged	<-
	26 Phthalic anhydride	0.10419	0.14261	0.14261	0.000	36.87446	60.00000	Averaged	
	179 Dibenzo(a,e)pyrene	0.29273	0.25193	0.25193	0.000	-13.93914	60.00000	Averaged	
	214 1,4-Dinitrobenzene	0.20234	0.22516	0.22516	0.000	11.27422	60.00000	Averaged	
	215 2-Ethoxyethanol	0.61024	0.74516	0.74516	0.000	22.10846	60.00000	Averaged	
	216 Methylenebis(2-chloroanilin	41.92976	40.00000	0.11604	0.000	4.82439	60.00000	Linear	
M	225 Trichlorophenols	0.28326	0.30299	0.30299	0.000	6.96608	60.00000	Averaged	
M	226 Tetrachlorophenols	0.21489	0.24322	0.24322	0.000	13.18574	60.00000	Averaged	
M	227 Benzo(b,k)fluoranthene	1.02783	1.13543	1.13543	0.000	10.46796	60.00000	Averaged	

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Data file : /chem/MSD3.i/s120609.b/s310612.d
Lab Smp Id: WBN091106-05.2 Client Smp ID: MEGAICV
Inj Date : 06-DEC-2009 14:32
Operator : JLD1 Inst ID: MSD3.i
Smp Info : |WBN091106-05.2|40PPM|1|SVMF|1|MEGAICV
Misc Info : |MSD8270|WBN091128-02|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD3.i/s120609.b/MSD3-8270R-AQA-120609.m
Meth Date : 07-Dec-2009 09:35 jen00986 Quant Type: ISTD
Cal Date : 06-DEC-2009 13:35 Cal File: s310610.d
Als bottle: 11 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: MEGAII.sub
Target Version: 3.50
Processing Host: hpclp1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	4.400	4.400	(1.000)	142754	40.0000	
* 29 Naphthalene-d8	136	5.661	5.661	(1.000)	536307	40.0000	
* 46 Acenaphthene-d10	164	7.515	7.515	(1.000)	297729	40.0000	
* 67 Phenanthrene-d10	188	9.111	9.111	(1.000)	496098	40.0000	
* 91 Chrysene-d12	240	11.998	11.998	(1.000)	451262	40.0000	
* 98 Perylene-d12	264	14.059	14.059	(1.000)	355260	40.0000	
$ 3 2-Fluorophenol	112	3.266	3.266	(0.742)	164781	40.0000	44.1
$ 5 Phenol-d5	99	4.048	4.048	(0.920)	212838	40.0000	44.7
$ 20 Nitrobenzene-d5	82	4.937	4.937	(0.872)	196418	40.0000	50.1
$ 39 2-Fluorobiphenyl	172	6.785	6.785	(0.903)	349330	40.0000	50.0
$ 60 2,4,6-Tribromophenol	329	8.357	8.357	(1.112)	37304	40.0000	45.6
$ 81 p-Terphenyl-d14	244	10.814	10.814	(0.901)	332306	40.0000	45.8
1 N-Methyl-N-nitrosomethylamine	74	2.308	2.308	(0.525)	115011	40.0000	47.9
2 Pyridine	79	2.334	2.334	(0.531)	149830	40.0000	38.5
4 Aniline	66	4.107	4.107	(0.933)	87766	40.0000	44.1
6 Phenol	94	4.060	4.060	(0.923)	209920	40.0000	42.4
7 bis(2-Chloroethyl) ether	63	4.145	4.145	(0.942)	134344	40.0000	43.4
8 2-Chlorophenol	128	4.209	4.209	(0.957)	164967	40.0000	43.2
203 n-Decane	43	4.212	4.212	(0.957)	182785	40.0000	46.8
9 1,3-Dichlorobenzene	146	4.347	4.347	(0.988)	185243	40.0000	42.0
11 1,4-Dichlorobenzene	146	4.415	4.415	(1.003)	189254	40.0000	42.3
13 1,2-Dichlorobenzene	146	4.561	4.561	(1.037)	178197	40.0000	42.0
14 bis(2-Chloroisopropyl)ether	45	4.640	4.640	(1.055)	264774	40.0000	44.2
12 Benzyl alcohol	108	4.526	4.526	(1.029)	104421	40.0000	42.8
15 o-Cresol	107	4.620	4.620	(1.050)	133442	40.0000	42.0
18 m,p-Cresols	107	4.775	4.775	(1.085)	174071	40.0000	45.0

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
17 N-Nitrosodipropylamine	70	4.778	4.778	(1.086)	132876	40.0000	42.9
19 Hexachloroethane	117	4.887	4.887	(1.111)	69641	40.0000	41.4
21 Nitrobenzene	77	4.957	4.957	(0.876)	203134	40.0000	44.6
22 Isophorone	82	5.186	5.186	(0.916)	351990	40.0000	48.0
23 2-Nitrophenol	139	5.268	5.268	(0.931)	80744	40.0000	42.1
24 2,4-Dimethylphenol	122	5.300	5.300	(0.936)	143896	40.0000	42.0
25 bis(2-Chloroethoxy)methane	93	5.394	5.394	(0.953)	215713	40.0000	42.5
26 2,4-Dichlorophenol	162	5.514	5.514	(0.974)	128360	40.0000	43.4
27 Benzoic acid	105	5.426	5.426	(0.959)	62070	40.0000	43.4
28 1,2,4-Trichlorobenzene	180	5.594	5.594	(0.988)	145656	40.0000	43.1
30 Naphthalene	128	5.682	5.682	(1.004)	514793	40.0000	47.2
204 alpha-Terpineol	59	5.682	5.682	(1.004)	133994	40.0000	49.9
31 4-Chloroaniline	127	5.737	5.737	(1.013)	169322	40.0000	47.2
32 Hexachlorobutadiene	225	5.796	5.796	(1.024)	82902	40.0000	40.0
33 4-Chloro-3-methylphenol	107	6.236	6.236	(1.102)	141471	40.0000	43.5
34 2-Methylnaphthalene	142	6.400	6.400	(1.131)	354479	40.0000	46.1
35 1-Methylnaphthalene	142	6.506	6.506	(1.149)	333268	40.0000	48.5
36 Hexachlorocyclopentadiene	237	6.559	6.559	(0.873)	46738	40.0000	54.8
205 2,3-Dichloroaniline	161	6.705	6.705	(0.892)	164120	40.0000	49.0
37 2,4,6-Trichlorophenol	196	6.696	6.696	(0.891)	84607	40.0000	42.2
38 2,4,5-Trichlorophenol	196	6.735	6.735	(0.896)	95810	40.0000	43.3
40 2-Chloronaphthalene	162	6.917	6.917	(0.920)	295825	40.0000	40.1
42 o-Nitroaniline	65	7.034	7.034	(0.936)	104561	40.0000	42.2
41 m-Nitroaniline	138	7.480	7.480	(0.995)	68382	40.0000	43.8
43 Dimethylphthalate	163	7.228	7.228	(0.962)	354146	40.0000	45.8
44 2,6-Dinitrotoluene	165	7.292	7.292	(0.970)	83330	40.0000	42.9
50 2,4-Dinitrotoluene	165	7.720	7.720	(1.027)	110607	40.0000	44.4
45 Acenaphthylene	152	7.365	7.365	(0.980)	530256	40.0000	46.5
47 Acenaphthene	154	7.550	7.550	(1.005)	314492	40.0000	44.4
48 2,4-Dinitrophenol	184	7.580	7.580	(1.009)	24323	40.0000	40.2
49 Dibenzofuran	168	7.732	7.732	(1.029)	410389	40.0000	42.2
51 Diethylphthalate	149	7.973	7.973	(1.061)	358552	40.0000	46.7
52 4-Nitrophenol	139	7.659	7.659	(1.019)	45137	40.0000	40.1
53 Fluorene	166	8.099	8.099	(1.078)	381990	40.0000	45.2
54 4-Chlorophenylphenylether	204	8.093	8.093	(1.077)	166746	40.0000	45.6
55 2-Methyl-4,6-dinitrophenol	198	8.155	8.155	(0.895)	55546	40.0000	47.0
56 p-Nitroaniline	138	8.137	8.137	(1.083)	48169	40.0000	36.9
133 Diphenylamine	169	8.225	8.225	(0.903)	270179	40.0000	42.1
58 1,2-Diphenylhydrazine	77	8.266	8.266	(0.907)	396717	40.0000	41.5
61 4-Bromophenylphenylether	248	8.618	8.618	(0.946)	91861	40.0000	49.5
63 Hexachlorobenzene	284	8.686	8.686	(0.953)	90173	40.0000	40.6
65 Pentachlorophenol	266	8.903	8.903	(0.977)	36548	40.0000	33.8
206 n-Octadecane	57	8.958	8.958	(0.983)	262862	40.0000	46.8
68 Phenanthrene	178	9.138	9.138	(1.003)	511653	40.0000	43.2
69 Anthracene	178	9.190	9.190	(1.009)	528256	40.0000	43.8
72 Di-n-butylphthalate	149	9.721	9.721	(1.067)	599490	40.0000	47.1
76 Fluoranthene	202	10.412	10.412	(1.143)	523255	40.0000	44.6

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
79 Pyrene	202	10.659	10.659	(0.888)	541039	40.0000	42.9
85 Butylbenzylphthalate	149	11.336	11.336	(0.945)	249747	40.0000	42.2
89 Benzo(a)anthracene	228	11.981	11.981	(0.999)	472778	40.0000	43.5
92 Chrysene	228	12.031	12.031	(1.003)	443123	40.0000	43.9
93 bis(2-Ethylhexyl)phthalate	149	11.975	11.975	(0.998)	350246	40.0000	44.4
94 Di-n-octylphthalate	149	12.834	12.834	(0.913)	537013	40.0000	40.9
95 Benzo(b)fluoranthene	252	13.452	13.452	(0.957)	404726	40.0000	43.1
96 Benzo(k)fluoranthene	252	13.499	13.499	(0.960)	402017	40.0000	45.3
97 Benzo(a)pyrene	252	13.965	13.965	(0.993)	364226	40.0000	47.2
99 Indeno(1,2,3-cd)pyrene	276	15.854	15.854	(1.128)	330068	40.0000	48.6
100 Dibenzo(a,h)anthracene	278	15.887	15.887	(1.130)	271299	40.0000	47.2
101 Benzo(ghi)perylene	276	16.326	16.326	(1.161)	271095	40.0000	47.4(Q)
126 m-Dinitrobenzene	168	7.266	7.266	(0.967)	61000	40.0000	45.1
130 2,3,4,6-Tetrachlorophenol	232	7.861	7.861	(1.046)	72415	40.0000	45.3
143 Dinoseb	211	9.090	9.090	(0.998)	63899	40.0000	42.9
173 Carbazole	167	9.363	9.363	(1.028)	292251	40.0000	35.1
184 p-Benzoquinone	54	3.679	3.679	(0.836)	9615	40.0000	49.1
192 Methoxychlor	227	11.890	11.890	(0.991)	262415	40.0000	49.0
211 p-Toluidine	106	4.825	4.825	(1.097)	149579	40.0000	83.3
210 m-Toluidine	106	4.860	4.860	(1.105)	193391	40.0000	70.4
26 Phthalic anhydride	104	6.468	6.468	(1.142)	76484	40.0000	54.7
179 Dibenzo(a,e)pyrene	302	19.318	19.318	(1.374)	89499	40.0000	34.4
214 1,4-Dinitrobenzene	75	7.181	7.181	(0.955)	67036	40.0000	44.5
215 2-Ethoxyethanol	59	2.106	2.106	(0.479)	106374	40.0000	48.8
216 Methylenebis(2-chloroaniline)	231	11.951	11.951	(0.996)	52365	40.0000	41.9(Q)
M 225 Trichlorophenols	196				180417	80.0000	85.6
M 226 Tetrachlorophenols	232				72415	40.0000	45.3
M 227 Benzo(b,k)fluoranthene	252				806743	80.0000	88.4

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: /chem/MSD3.i/s120609.b/s310612.d
Date : 06-DEC-2009 14:32
Client ID: MEGAICV
Sample Info: IWBN091106-05,2140PPM11ISVHF11IMEGAICV
Column phase: J&W DB-5MS

Instrument: MSD3.i
Operator: JLD1
Column diameter: 0.20

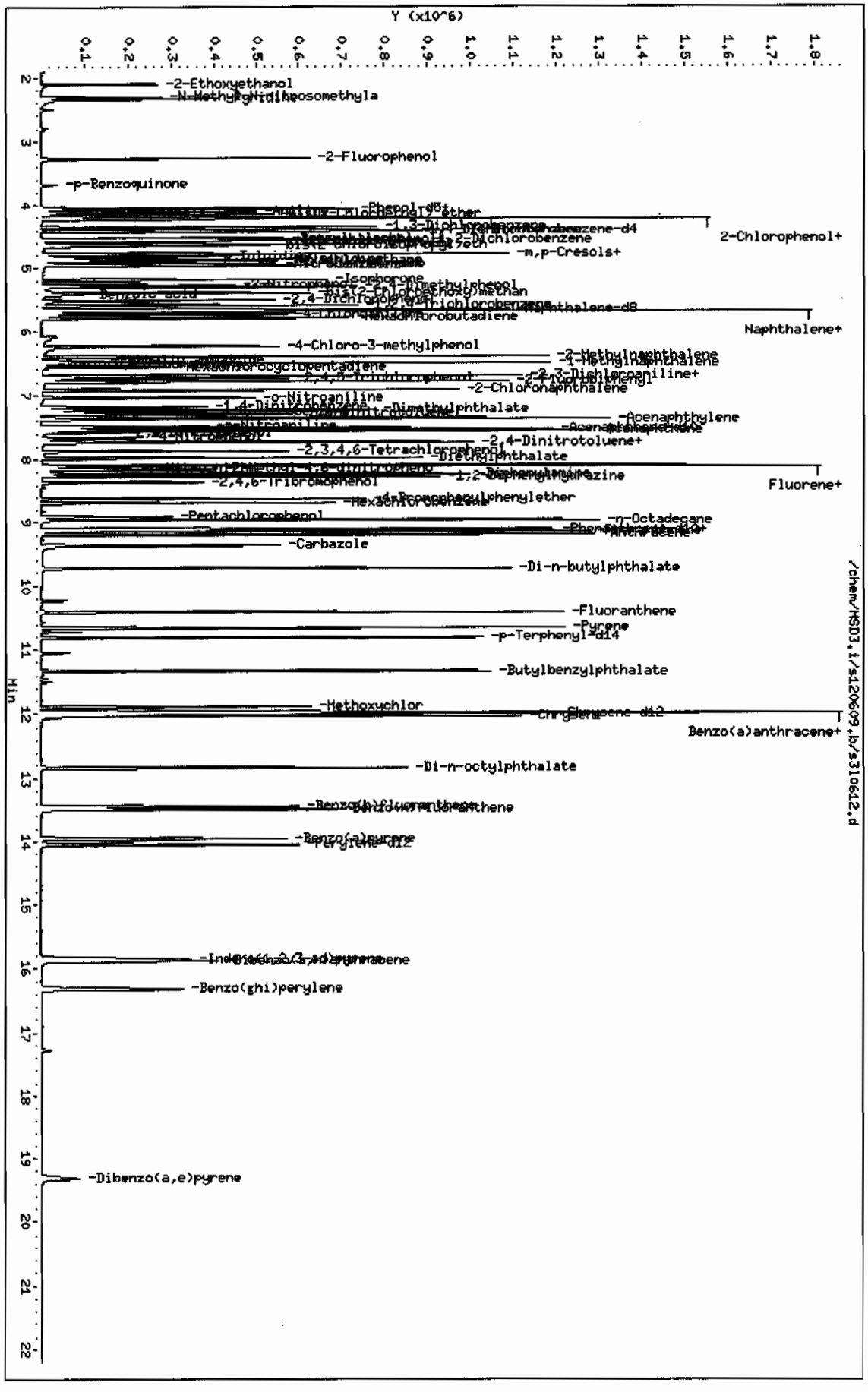

Page 1

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD3.i
Lab File ID: s310810.d
Analysis Type:
Lab Sample ID: WBN091201-08.1
Method: /chem/MSD3.i/s120809.b/MSD3-8270R-AQA-120809.m

Injection Date: 08-DEC-2009 12:53
Init. Cal. Date(s): 06-DEC-2009 08-DEC-2009
Init. Cal. Times: 10:12 12:26
Quant Type: ISTD

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
209 Benzaldehyde	0.96429	0.83562	0.83562	0.000	-13.34312	60.00000	Averaged
16 Acetophenone	1.33163	1.33895	1.33895	0.000	0.54964	60.00000	Averaged
189 Caprolactam	0.09173	0.10481	0.10481	0.000	14.25028	60.00000	Averaged
208 1,1'-Biphenyl	1.21700	1.28860	1.28860	0.000	5.88284	60.00000	Averaged
207 Atrazine	0.04375	0.04859	0.04859	0.000	11.05025	60.00000	Averaged
77 Benzidine	45.89285	40.00000	0.30963	0.000	14.73212	60.00000	Linear
90 3,3'-Dichlorobenzidine	0.27489	0.29908	0.29908	0.000	8.79838	60.00000	Averaged
102 1,4-Dioxane	0.37765	0.47912	0.47912	0.000	26.86863	60.00000	Averaged
103 Methyl methacrylate	0.21438	0.27564	0.27564	0.000	28.57516	60.00000	Averaged
104 Ethyl methacrylate	0.84060	1.04720	1.04720	0.000	24.57729	60.00000	Averaged
105 2-Picoline	1.36059	1.30318	1.30318	0.000	-4.21984	60.00000	Averaged
106 N-Nitrosomethylethylamine	0.54734	0.55540	0.55540	0.000	1.47128	60.00000	Averaged
107 Methyl methanesulfonate	0.57769	0.63494	0.63494	0.000	9.91129	60.00000	Averaged
108 N-Nitrosodiethylamine	0.56251	0.56493	0.56493	0.000	0.42897	60.00000	Averaged
109 Ethyl Methanesulfonate	0.74348	0.93734	0.93734	0.000	26.07482	60.00000	Averaged
110 Pentachloroethane	0.31184	0.44234	0.44234	0.000	41.84610	60.00000	Averaged
111 N-Nitrosopyrrolidine	0.57216	0.57372	0.57372	0.000	0.27265	60.00000	Averaged
113 N-Nitrosomorpholine	0.68237	0.68126	0.68126	0.000	-0.16265	60.00000	Averaged
114 o-Toluidine	1.81766	1.78241	1.78241	0.000	-1.93930	60.00000	Averaged
115 N-Nitrosopiperidine	0.15407	0.15193	0.15193	0.000	-1.39002	60.00000	Averaged
116 a,a-Dimethylphenethylamine	0.80710	0.80910	0.80910	0.000	0.24773	60.00000	Averaged
118 2,6-Dichlorophenol	0.22077	0.23259	0.23259	0.000	5.35725	60.00000	Averaged
119 Hexachloropropene	0.10907	0.16896	0.16896	0.000	54.89885	60.00000	Averaged
120 p-Phenylenediamine	0.23642	0.29660	0.29660	0.000	25.45548	60.00000	Averaged
121 N-Nitrosodi-n-butylamine	0.24128	0.23927	0.23927	0.000	-0.83088	60.00000	Averaged
122 Safrole	0.20022	0.24043	0.24043	0.000	20.08440	60.00000	Averaged
123 1,2,4,5-Tetrachlorobenzene	0.44036	0.48375	0.48375	0.000	9.85235	60.00000	Averaged
124 Isosafrole	0.34861	0.47878	0.47878	0.000	37.33960	60.00000	Averaged
125 1,4-Naphthoquinone	0.30537	0.33871	0.33871	0.000	10.91756	60.00000	Averaged
127 Pentachlorobenzene	0.38598	0.40633	0.40633	0.000	5.27265	60.00000	Averaged
128 1-Naphthylamine	0.91301	0.96336	0.96336	0.000	5.51435	60.00000	Averaged
129 2-Naphthylamine	0.99339	1.04526	1.04526	0.000	5.22150	60.00000	Averaged
131 5-Nitro-o-toluidine	0.29359	0.30360	0.30360	0.000	3.40887	60.00000	Averaged
136 1,3,5-Trinitrobenzene	0.14119	0.19876	0.19876	0.000	40.77719	60.00000	Averaged
137 Phenacetin	0.30819	0.33666	0.33666	0.000	9.23923	60.00000	Averaged
138 Diallate	0.29433	0.28224	0.28224	0.000	-4.10819	60.00000	Averaged

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD3.i
Lab File ID: s310810.d
Analysis Type:
Lab Sample ID: WBN091201-08.1
Method: /chem/MSD3.i/s120809.b/MSD3-8270R-AQA-120809.m

Injection Date: 08-DEC-2009 12:53
Init. Cal. Date(s): 06-DEC-2009 08-DEC-2009
Init. Cal. Times: 10:12 12:26
Quant Type: ISTD

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
140 4-Aminobiphenyl	0.62917	0.64094	0.64094	0.000	1.86996	60.00000	Averaged
141 Pentachloronitrobenzene	0.07114	0.07592	0.07592	0.000	6.71989	60.00000	Averaged
142 Pronamide	0.28257	0.30697	0.30697	0.000	8.63356	60.00000	Averaged
146 4-Nitroquinoline-1-oxide	0.02686	0.02812	0.02812	0.000	4.65976	60.00000	Averaged
147 Methapyrilene	0.41060	0.48298	0.48298	0.000	17.62726	60.00000	Averaged
148 Isodrin	0.11051	0.10636	0.10636	0.000	-3.75445	60.00000	Averaged
149 Aramite	0.05092	0.04939	0.04939	0.000	-2.99836	60.00000	Averaged
150 Kepone	0.07689	0.08140	0.08140	0.000	5.86758	60.00000	Averaged
151 p-(Dimethylamino)azobenzene	0.32461	0.30773	0.30773	0.000	-5.20053	60.00000	Averaged
152 Chlorobenzilate	0.30328	0.29896	0.29896	0.000	-1.42415	60.00000	Averaged
153 3,3'-Dimethylbenzidine	0.46065	0.46573	0.46573	0.000	1.10408	60.00000	Averaged
155 2-Acetylaminofluorene	0.31745	0.34783	0.34783	0.000	9.56886	60.00000	Averaged
157 7,12Dimethylbenz(a)anthrace	0.51543	0.48052	0.48052	0.000	-6.77190	60.00000	Averaged
158 3-Methylcholanthrene	0.41499	0.45708	0.45708	0.000	10.14261	60.00000	Averaged
212 Cis Diallate	0.29308	0.37811	0.37811	0.000	29.01391	60.00000	Averaged
213 Trans Diallate	0.34627	0.33204	0.33204	0.000	-4.10819	60.00000	Averaged

GEL Laboratories LLC

Data file : /chem/MSD3.i/s120809.b/s310810.d
Lab Smp Id: WBN091201-08.1 Client Smp ID: APICV
Inj Date : 08-DEC-2009 12:53
Operator : JLD1 Inst ID: MSD3.i
Smp Info : |WBN091201-08.1|40PPM|1|SVMF|1|APICV
Misc Info : |MSD8270|WBN091128-02|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD3.i/s120809.b/MSD3-8270R-AQA-120809.m
Meth Date : 08-Dec-2009 13:43 jen00986 Quant Type: ISTD
Cal Date : 07-DEC-2009 19:48 Cal File: s310717.d
Als bottle: 10 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AP12.sub
Target Version: 3.50
Processing Host: hpclp1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	4.373	4.373	(1.000)	135959	40.0000	
* 29 Naphthalene-d8	136	5.633	5.633	(1.000)	495952	40.0000	
* 46 Acenaphthene-d10	164	7.485	7.485	(1.000)	282043	40.0000	
* 67 Phenanthrene-d10	188	9.086	9.086	(1.000)	478764	40.0000	
* 91 Chrysene-d12	240	11.964	11.964	(1.000)	464674	40.0000	
* 98 Perylene-d12	264	14.012	14.012	(1.000)	384673	40.0000	
209 Benzaldehyde	77	3.984	3.984	(0.911)	113610	40.0000	34.7
16 Acetophenone	105	4.757	4.757	(1.088)	182042	40.0000	40.2
189 Caprolactam	113	6.078	6.078	(1.079)	51979	40.0000	45.7
208 1,1'-Biphenyl	154	6.870	6.870	(0.918)	363440	40.0000	42.4
207 Atrazine	173	8.778	8.778	(0.966)	23263	40.0000	44.4
77 Benzidine	184	10.536	10.536	(0.881)	143877	40.0000	45.9
90 3,3'-Dichlorobenzidine	252	11.920	11.920	(0.996)	138973	40.0000	43.5
102 1,4-Dioxane	88	2.080	2.080	(0.476)	65141	40.0000	50.7
103 Methyl methacrylate	100	2.080	2.080	(0.476)	37476	40.0000	51.4
104 Ethyl methacrylate	69	2.572	2.572	(0.588)	142376	40.0000	49.8
105 2-Picoline	93	2.818	2.818	(0.644)	177179	40.0000	38.3
106 N-Nitrosomethylethylamine	88	2.891	2.891	(0.661)	75511	40.0000	40.6
107 Methyl methanesulfonate	80	3.122	3.122	(0.714)	86326	40.0000	44.0
108 N-Nitrosodiethylamine	102	3.433	3.433	(0.785)	76807	40.0000	40.2
109 Ethyl Methanesulfonate	79	3.679	3.679	(0.841)	127440	40.0000	50.4
110 Pentachloroethane	167	4.118	4.118	(0.942)	60140	40.0000	56.7
111 N-Nitrosopyrrolidine	100	4.745	4.745	(1.085)	78002	40.0000	40.1
113 N-Nitrosomorpholine	56	4.780	4.780	(1.093)	92624	40.0000	39.9
114 o-Toluidine	106	4.795	4.795	(1.096)	242335	40.0000	39.2
115 N-Nitrosopiperidine	114	5.076	5.076	(0.901)	75351	40.0000	39.4

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
116 a,a-Dimethylphenethylamine	58	5.495	5.495	(0.976)	401275	40.0000	40.1
118 2,6-Dichlorophenol	162	5.718	5.718	(1.015)	115355	40.0000	42.1
119 Hexachloropropene	213	5.739	5.739	(1.019)	83794	40.0000	62.0
120 p-Phenylenediamine	108	6.087	6.087	(1.081)	147101	40.0000	50.2
121 N-Nitrosodi-n-butylamine	84	6.049	6.049	(1.074)	118668	40.0000	39.7(T)
122 Safrole	162	6.278	6.278	(1.114)	119243	40.0000	48.0
123 1,2,4,5-Tetrachlorobenzene	216	6.547	6.547	(0.875)	136437	40.0000	43.9
124 Isosafrole	162	6.831	6.831	(0.913)	135036	40.0000	54.9
125 1,4-Naphthoquinone	158	7.084	7.084	(0.946)	95530	40.0000	44.4
127 Pentachlorobenzene	250	7.655	7.655	(1.023)	114602	40.0000	42.1
128 1-Naphthylamine	143	7.793	7.793	(1.041)	271709	40.0000	42.2
129 2-Naphthylamine	143	7.878	7.878	(1.052)	294808	40.0000	42.1
131 5-Nitro-o-toluidine	152	8.095	8.095	(1.081)	85629	40.0000	41.4
136 1,3,5-Trinitrobenzene	75	8.487	8.487	(0.934)	95158	40.0000	56.3
137 Phenacetin	108	8.543	8.543	(0.940)	161183	40.0000	43.7
138 Diallate	86	8.496	8.496	(0.935)	135124	40.0000	38.4
140 4-Aminobiphenyl	169	8.883	8.883	(0.978)	306858	40.0000	40.7
141 Pentachloronitrobenzene	237	8.883	8.883	(0.978)	36349	40.0000	42.7
142 Pronamide	173	8.936	8.936	(0.984)	146966	40.0000	43.4
146 4-Nitroquinoline-1-oxide	101	9.944	9.944	(1.094)	13461	40.0000	41.9
147 Methapyrilene	58	10.012	10.012	(1.102)	231234	40.0000	47.0
148 Isodrin	193	10.220	10.220	(1.125)	50923	40.0000	38.5
149 Aramite	185	10.759	10.759	(1.184)	23648	40.0000	38.8
150 Kepone	272	11.360	11.360	(1.250)	38972	40.0000	42.3
151 p-(Dimethylamino)azobenzene	120	10.944	10.944	(0.915)	142995	40.0000	37.9
152 Chlorobenzilate	251	10.988	10.988	(0.918)	138919	40.0000	39.4
153 3,3'-Dimethylbenzidine	212	11.307	11.307	(0.945)	216414	40.0000	40.4
155 2-Acetylaminofluorene	181	11.589	11.589	(0.969)	161627	40.0000	43.8
157 7,12Dimethylbenz(a)anthracene	256	13.394	13.394	(0.956)	184844	40.0000	37.3
158 3-Methylcholanthrene	268	14.478	14.478	(1.033)	175826	40.0000	44.0
212 Cis Diallate	86	8.593	8.593	(0.946)	27154	6.00000	7.7
213 Trans Diallate	86	8.496	8.496	(0.935)	135124	34.0000	32.6

QC Flag Legend

T - Target compound detected outside RT window.

Data File: /chem/MSD3.i/s120809.b/s310810.d
Date : 08-DEC-2009 12:53
Client ID: APICV
Sample Info: IWBN091201-08,1140PPM11SVHF11APICV
Column phase: J&W DB-5MS

Instrument: MSD3.i
Operator: JLD1
Column diameter: 0.20

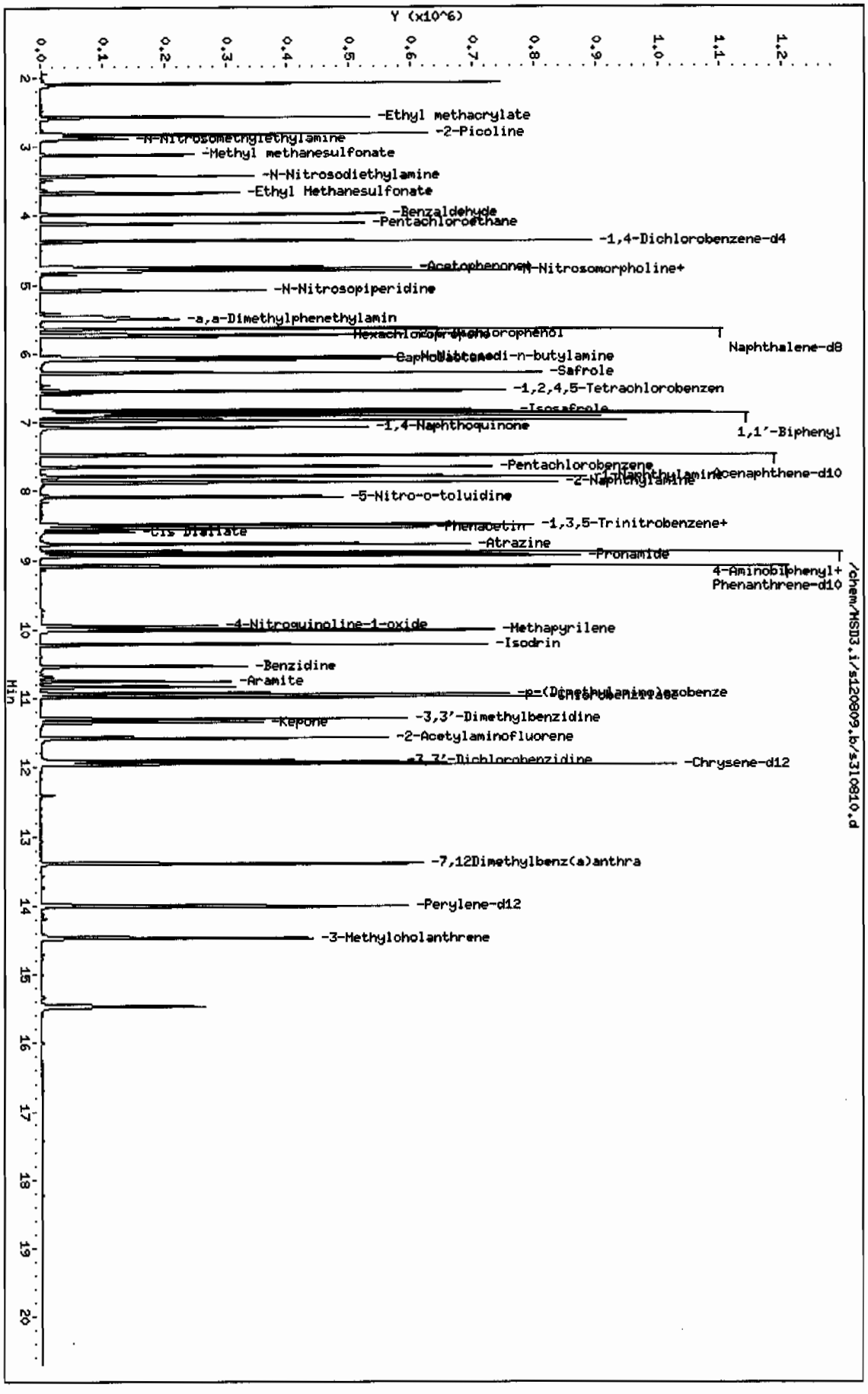

Page 1

Data File: /chem/MSD3.i/s010410a.b/s3a0410.d
Report Date: 04-Jan-2010 16:42

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD3.i
Lab File ID: s3a0410.d
Analysis Type:
Lab Sample ID: WBN091201-17.3 Quant Type: ISTD
Method: /chem/MSD3.i/s010410a.b/MSD3-8270R-AQA-120809.m

Injection Date: 04-JAN-2010 15:20
Init. Cal. Date(s): 06-DEC-2009 08-DEC-2009
Init. Cal. Times: 10:12 12:26

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
$ 3 2-Fluorophenol	1.04626	1.04378	1.04378	0.000	-0.23665	60.00000	Averaged
$ 5 Phenol-d5	1.33296	1.31355	1.31355	0.000	-1.45605	60.00000	Averaged
$ 20 Nitrobenzene-d5	0.29235	0.33232	0.33232	0.000	13.67345	60.00000	Averaged
$ 39 2-Fluorobiphenyl	0.93759	1.09503	1.09503	0.000	16.79208	60.00000	Averaged
$ 60 2,4,6-Tribromophenol	0.10984	0.12364	0.12364	0.000	12.56456	60.00000	Averaged
$ 81 p-Terphenyl-d14	0.64244	0.68071	0.68071	0.000	5.95727	60.00000	Averaged
1 N-Methyl-N-nitrosomethylami	0.67245	0.67352	0.67352	0.000	0.15948	60.00000	Averaged
2 Pyridine	1.09150	0.79906	0.79906	0.000	-26.79217	60.00000	Averaged
4 Aniline	0.55794	0.52474	0.52474	0.000	-5.94972	60.00000	Averaged
6 Phenol	1.38856	1.29600	1.29600	0.001	-6.66576	20.00000	Averaged ccc
7 bis(2-Chloroethyl) ether	34.02520	40.00000	0.74654	0.000	-14.93700	60.00000	Linear
8 2-Chlorophenol	1.07117	1.13886	1.13886	0.000	6.31924	60.00000	Averaged
203 n-Decane	1.09536	1.16435	1.16435	0.000	6.29898	60.00000	Averaged
9 1,3-Dichlorobenzene	1.23726	1.21992	1.21992	0.000	-1.40212	60.00000	Averaged
11 1,4-Dichlorobenzene	1.25267	1.23009	1.23009	0.001	-1.80293	20.00000	Averaged ccc
13 1,2-Dichlorobenzene	1.18843	1.17137	1.17137	0.000	-1.43565	60.00000	Averaged
14 bis(2-Chloroisopropyl)ether	1.67844	1.39908	1.39908	0.000	-16.64416	60.00000	Averaged
12 Benzyl alcohol	0.68288	0.70388	0.70388	0.000	3.07483	60.00000	Averaged
15 o-Cresol	0.89111	0.88445	0.88445	0.000	-0.74757	60.00000	Averaged
18 m,p-Cresols	1.08247	1.11882	1.11882	0.000	3.35730	60.00000	Averaged
17 N-Nitrosodipropylamine	0.86839	0.84599	0.84599	0.050	-2.57971	60.00000	Averaged spcc
19 Hexachloroethane	0.47182	0.49742	0.49742	0.000	5.42563	60.00000	Averaged
21 Nitrobenzene	0.33969	0.33857	0.33857	0.000	-0.32830	60.00000	Averaged
22 Isophorone	0.54661	0.59265	0.59265	0.000	8.42427	60.00000	Averaged
23 2-Nitrophenol	0.14291	0.14401	0.14401	0.001	0.76953	20.00000	Averaged ccc
24 2,4-Dimethylphenol	0.25541	0.25712	0.25712	0.000	0.67128	60.00000	Averaged
25 bis(2-Chloroethoxy)methane	0.37883	0.32464	0.32464	0.000	-14.30488	60.00000	Averaged
26 2,4-Dichlorophenol	0.22061	0.21631	0.21631	0.001	-1.94850	20.00000	Averaged ccc
27 Benzoic acid	42.18807	40.00000	0.10995	0.000	5.47017	60.00000	Linear
28 1,2,4-Trichlorobenzene	0.25228	0.24593	0.24593	0.000	-2.51562	60.00000	Averaged
30 Naphthalene	47.56773	40.00000	0.96811	0.000	18.91932	60.00000	Wt Linear
204 alpha-Terpineol	0.20029	0.22084	0.22084	0.000	10.25712	60.00000	Averaged
31 4-Chloroaniline	0.26741	0.20790	0.20790	0.000	-22.25339	60.00000	Averaged
32 Hexachlorobutadiene	0.15474	0.14439	0.14439	0.001	-6.68469	20.00000	Averaged ccc
33 4-Chloro-3-methylphenol	0.24248	0.26247	0.26247	0.001	8.24346	20.00000	Averaged ccc
34 2-Methylnaphthalene	0.57399	0.63261	0.63261	0.000	10.21229	60.00000	Averaged

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD3.i Injection Date: 04-JAN-2010 15:20
Lab File ID: s3a0410.d Init. Cal. Date(s): 06-DEC-2009 08-DEC-2009
Analysis Type: Init. Cal. Times: 10:12 12:26
Lab Sample ID: WBN091201-17.3 Quant Type: ISTD
Method: /chem/MSD3.i/s010410a.b/MSD3-8270R-AQA-120809.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
35 1-Methylnaphthalene	0.51209	0.60663	0.60663	0.000	18.46203	60.00000	Averaged	
36 Hexachlorocyclopentadiene	0.11464	0.15420	0.15420	0.050	34.50745	60.00000	Averaged	spcc
205 2,3-Dichloroaniline	0.45038	0.49992	0.49992	0.000	10.99906	60.00000	Averaged	
37 2,4,6-Trichlorophenol	0.26952	0.28928	0.28928	0.001	7.33273	20.00000	Averaged	ccc
38 2,4,5-Trichlorophenol	0.29699	0.31295	0.31295	0.000	5.37198	60.00000	Averaged	
40 2-Chloronaphthalene	0.99133	0.88481	0.88481	0.000	-10.74531	60.00000	Averaged	
42 o-Nitroaniline	0.33246	0.30659	0.30659	0.000	-7.78121	60.00000	Averaged	
41 m-Nitroaniline	18.81757	40.00000	0.07607	0.000	-52.95609	60.00000	Linear	
43 Dimethylphthalate	1.03853	1.09501	1.09501	0.000	5.43893	60.00000	Averaged	
44 2,6-Dinitrotoluene	0.26099	0.24415	0.24415	0.000	-6.44993	60.00000	Averaged	
50 2,4-Dinitrotoluene	0.33455	0.33456	0.33456	0.000	0.00093	60.00000	Averaged	
45 Acenaphthylene	1.53207	1.68243	1.68243	0.000	9.81425	60.00000	Averaged	
47 Acenaphthene	0.95069	1.00744	1.00744	0.001	5.96944	20.00000	Averaged	ccc
48 2,4-Dinitrophenol	43.44870	40.00000	0.09253	0.050	8.62174	60.00000	Linear	spcc
49 Dibenzofuran	1.30612	1.28648	1.28648	0.000	-1.50327	60.00000	Averaged	
51 Diethylphthalate	1.03172	1.15971	1.15971	0.000	12.40562	60.00000	Averaged	
52 4-Nitrophenol	37.48399	40.00000	0.14001	0.050	-6.29003	60.00000	Linear	spcc
53 Fluorene	1.13622	1.24732	1.24732	0.000	9.77787	60.00000	Averaged	
54 4-Chlorophenylphenylether	0.49131	0.54502	0.54502	0.000	10.93269	60.00000	Averaged	
55 2-Methyl-4,6-dinitrophenol	47.59960	40.00000	0.11354	0.000	18.99900	60.00000	Linear	
56 p-Nitroaniline	23.17229	40.00000	0.08248	0.000	-42.06928	60.00000	Linear	
133 Diphenylamine	0.51728	0.44045	0.44045	0.001	-14.85321	20.00000	Averaged	ccc
58 1,2-Diphenylhydrazine	0.77099	0.73849	0.73849	0.000	-4.21557	60.00000	Averaged	
61 4-Bromophenylphenylether	0.14948	0.16435	0.16435	0.000	9.94429	60.00000	Averaged	
63 Hexachlorobenzene	0.17899	0.17192	0.17192	0.000	-3.95205	60.00000	Averaged	
65 Pentachlorophenol	35.90823	40.00000	0.07959	0.001	-10.22943	20.00000	Linear	ccc
206 n-Octadecane	0.45303	0.47548	0.47548	0.000	4.95552	60.00000	Averaged	
68 Phenanthrene	0.95465	0.95734	0.95734	0.000	0.28099	60.00000	Averaged	
69 Anthracene	0.97123	0.97673	0.97673	0.000	0.56653	60.00000	Averaged	
72 Di-n-butylphthalate	1.02595	1.19650	1.19650	0.000	16.62329	60.00000	Averaged	
76 Fluoranthene	0.94500	0.95967	0.95967	0.001	1.55228	20.00000	Averaged	ccc
79 Pyrene	1.11852	1.14272	1.14272	0.000	2.16322	60.00000	Averaged	
85 Butylbenzylphthalate	0.52498	0.57906	0.57906	0.000	10.30159	60.00000	Averaged	
89 Benzo(a)anthracene	0.96306	0.97781	0.97781	0.000	1.53167	60.00000	Averaged	
92 Chrysene	0.89432	0.86260	0.86260	0.000	-3.54776	60.00000	Averaged	
93 bis(2-Ethylhexyl)phthalate	0.69950	0.91751	0.91751	0.000	31.16633	60.00000	Averaged	

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD3.i
Lab File ID: s3a0410.d
Analysis Type:
Lab Sample ID: WBN091201-17.3
Method: /chem/MSD3.i/s010410a.b/MSD3-8270R-AQA-120809.m

Injection Date: 04-JAN-2010 15:20
Init. Cal. Date(s): 06-DEC-2009 08-DEC-2009
Init. Cal. Times: 10:12 12:26
Quant Type: ISTD

	COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
	94 Di-n-octylphthalate	1.47710	1.72371	1.72371	0.001	16.69611	20.00000	Averaged	ccc
	95 Benzo(b)fluoranthene	1.05660	1.05559	1.05559	0.000	-0.09557	60.00000	Averaged	
	96 Benzo(k)fluoranthene	0.99905	1.04601	1.04601	0.000	4.70041	60.00000	Averaged	
	97 Benzo(a)pyrene	0.86919	0.94317	0.94317	0.001	8.51170	20.00000	Averaged	ccc
	99 Indeno(1,2,3-cd)pyrene	0.76472	0.93787	0.93787	0.000	22.64200	60.00000	Averaged	
	100 Dibenzo(a,h)anthracene	0.64640	0.77083	0.77083	0.000	19.25076	60.00000	Averaged	
	101 Benzo(ghi)perylene	0.64348	0.79381	0.79381	0.000	23.36193	60.00000	Averaged	
	126 m-Dinitrobenzene	0.18165	0.16664	0.16664	0.000	-8.26293	60.00000	Averaged	
	130 2,3,4,6-Tetrachlorophenol	0.21489	0.23379	0.23379	0.000	8.79474	60.00000	Averaged	
	143 Dinoseb	43.82667	40.00000	0.13218	0.000	9.56667	60.00000	Linear	
	173 Carbazole	23.36907	40.00000	0.37663	0.000	-41.57732	60.00000	Linear	
	184 p-Benzoquinone	42.80110	40.00000	0.05695	0.000	7.00274	60.00000	Linear	
	192 Methoxychlor	0.47514	0.62717	0.62717	0.000	31.99661	60.00000	Averaged	
	211 p-Toluidine	0.50316	0.74577	0.74577	0.000	48.21737	60.00000	Averaged	
	210 m-Toluidine	0.77001	0.94197	0.94197	0.000	22.33251	60.00000	Averaged	
	26 Phthalic anhydride	0.10419	0.14676	0.14676	0.000	40.85195	60.00000	Averaged	
	179 Dibenzo(a,e)pyrene	0.29273	0.35375	0.35375	0.000	20.84715	60.00000	Averaged	
	214 1,4-Dinitrobenzene	0.20234	0.20120	0.20120	0.000	-0.56363	60.00000	Averaged	
	215 2-Ethoxyethanol	0.61024	0.58148	0.58148	0.000	-4.71307	60.00000	Averaged	
	216 Methylenebis(2-chloroanilin	33.45801	40.00000	0.08925	0.000	-16.35496	60.00000	Linear	
M	225 Trichlorophenols	0.28326	0.30112	0.30112	0.000	6.30481	60.00000	Averaged	
M	226 Tetrachlorophenols	0.21489	0.23379	0.23379	0.000	8.79474	60.00000	Averaged	
M	227 Benzo(b,k)fluoranthene	1.02783	1.05080	1.05080	0.000	2.23456	60.00000	Averaged	

GEL Laboratories LLC

Data file : /chem/MSD3.i/s010410a.b/s3a0410.d
Lab Smp Id: WBN091201-17.3 Client Smp ID: MEGACVS
Inj Date : 04-JAN-2010 15:20
Operator : JLD1 Inst ID: MSD3.i
Smp Info : |WBN091201-17.3|40PPM|1|SVMF|1|MEGACVS
Misc Info : |MSD8270|WBN091223-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD3.i/s010410a.b/MSD3-8270R-AQA-120809.m
Meth Date : 04-Jan-2010 16:42 jen00986 Quant Type: ISTD
Cal Date : 07-DEC-2009 19:48 Cal File: s310717.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: MEGAII.sub
Target Version: 3.50
Processing Host: hpclp1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	4.203	4.203	(1.000)	125043	40.0000	
* 29 Naphthalene-d8	136	5.453	5.453	(1.000)	479154	40.0000	(H)
* 46 Acenaphthene-d10	164	7.298	7.298	(1.000)	259696	40.0000	
* 67 Phenanthrene-d10	188	8.888	8.888	(1.000)	428025	40.0000	
* 91 Chrysene-d12	240	11.745	11.745	(1.000)	372680	40.0000	
* 98 Perylene-d12	264	13.686	13.686	(1.000)	285873	40.0000	
$ 3 2-Fluorophenol	112	3.093	3.093	(0.736)	130518	40.0000	39.9
$ 5 Phenol-d5	99	3.869	3.869	(0.920)	164250	40.0000	39.4
$ 20 Nitrobenzene-d5	82	4.737	4.737	(0.865)	159232	40.0000	45.5
$ 39 2-Fluorobiphenyl	172	6.576	6.576	(0.901)	284374	40.0000	46.7
$ 60 2,4,6-Tribromophenol	329	8.143	8.143	(1.116)	32110	40.0000	45.0
$ 81 p-Terphenyl-d14	244	10.595	10.595	(0.902)	253687	40.0000	42.4
1 N-Methyl-N-nitrosomethylamine	74	2.152	2.152	(0.512)	84219	40.0000	40.1
2 Pyridine	79	2.173	2.173	(0.517)	99917	40.0000	29.3
4 Aniline	66	3.913	3.913	(0.931)	65615	40.0000	37.6
6 Phenol	94	3.881	3.881	(0.923)	162056	40.0000	37.3(H)
7 bis(2-Chloroethyl) ether	63	3.954	3.954	(0.941)	93349	40.0000	34.0
8 2-Chlorophenol	128	4.019	4.019	(0.956)	142406	40.0000	42.5
203 n-Decane	43	4.019	4.019	(0.956)	145594	40.0000	42.5
9 1,3-Dichlorobenzene	146	4.150	4.150	(0.987)	152542	40.0000	39.4
11 1,4-Dichlorobenzene	146	4.218	4.218	(1.003)	153814	40.0000	39.3
13 1,2-Dichlorobenzene	146	4.362	4.362	(1.038)	146471	40.0000	39.4
14 bis(2-Chloroisopropyl)ether	45	4.447	4.447	(1.058)	174945	40.0000	33.3
12 Benzyl alcohol	108	4.332	4.332	(1.031)	88015	40.0000	41.2
15 o-Cresol	107	4.435	4.435	(1.055)	110594	40.0000	39.7
18 m,p-Cresols	107	4.588	4.588	(1.091)	139900	40.0000	41.3

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
17 N-Nitrosodipropylamine	70	4.579	4.579	(1.089)	105785	40.0000	39.0
19 Hexachloroethane	117	4.681	4.681	(1.114)	62199	40.0000	42.2
21 Nitrobenzene	77	4.758	4.758	(0.869)	162229	40.0000	39.9
22 Isophorone	82	4.983	4.983	(0.910)	283973	40.0000	43.4
23 2-Nitrophenol	139	5.068	5.068	(0.926)	69005	40.0000	40.3
24 2,4-Dimethylphenol	122	5.110	5.110	(0.933)	123200	40.0000	40.3
25 bis(2-Chloroethoxy)methane	93	5.198	5.198	(0.949)	155552	40.0000	34.3
26 2,4-Dichlorophenol	162	5.312	5.312	(0.970)	103647	40.0000	39.2
27 Benzoic acid	105	5.236	5.236	(0.956)	52681	40.0000	42.2
28 1,2,4-Trichlorobenzene	180	5.388	5.388	(0.984)	117840	40.0000	39.0
30 Naphthalene	128	5.476	5.476	(1.000)	463872	40.0000	47.6
204 alpha-Terpineol	59	5.476	5.476	(1.000)	105815	40.0000	44.1
31 4-Chloroaniline	127	5.538	5.538	(1.011)	99617	40.0000	31.1
32 Hexachlorobutadiene	225	5.591	5.591	(1.021)	69186	40.0000	37.3
33 4-Chloro-3-methylphenol	107	6.045	6.045	(1.104)	125763	40.0000	43.3
34 2-Methylnaphthalene	142	6.192	6.192	(1.131)	303119	40.0000	44.1
35 1-Methylnaphthalene	142	6.295	6.295	(1.149)	290668	40.0000	47.4
36 Hexachlorocyclopentadiene	237	6.348	6.348	(0.870)	40046	40.0000	53.8
205 2,3-Dichloroaniline	161	6.500	6.500	(0.891)	129828	40.0000	44.4
37 2,4,6-Trichlorophenol	196	6.494	6.494	(0.890)	75126	40.0000	42.9
38 2,4,5-Trichlorophenol	196	6.535	6.535	(0.895)	81271	40.0000	42.1
40 2-Chloronaphthalene	162	6.706	6.706	(0.919)	229782	40.0000	35.7
42 o-Nitroaniline	65	6.832	6.832	(0.936)	79621	40.0000	36.9
41 m-Nitroaniline	138	7.278	7.278	(0.997)	19755	40.0000	18.8
43 Dimethylphthalate	163	7.022	7.022	(0.962)	284371	40.0000	42.2
44 2,6-Dinitrotoluene	165	7.090	7.090	(0.971)	63406	40.0000	37.4
50 2,4-Dinitrotoluene	165	7.515	7.515	(1.030)	86883	40.0000	40.0
45 Acenaphthylene	152	7.149	7.149	(0.980)	436920	40.0000	43.9
47 Acenaphthene	154	7.333	7.333	(1.005)	261628	40.0000	42.4
48 2,4-Dinitrophenol	184	7.380	7.380	(1.011)	24029	40.0000	43.4
49 Dibenzofuran	168	7.518	7.518	(1.030)	334095	40.0000	39.4
51 Diethylphthalate	149	7.765	7.765	(1.064)	301172	40.0000	45.0
52 4-Nitrophenol	139	7.474	7.474	(1.024)	36361	40.0000	37.5
53 Fluorene	166	7.882	7.882	(1.080)	323924	40.0000	43.9
54 4-Chlorophenylphenylether	204	7.882	7.882	(1.080)	141540	40.0000	44.4
55 2-Methyl-4,6-dinitrophenol	198	7.950	7.950	(0.894)	48598	40.0000	47.6
56 p-Nitroaniline	138	7.941	7.941	(1.088)	21419	40.0000	23.2
133 Diphenylamine	169	8.014	8.014	(0.902)	188523	40.0000	34.0
58 1,2-Diphenylhydrazine	77	8.052	8.052	(0.906)	316093	40.0000	38.3
61 4-Bromophenylphenylether	248	8.404	8.404	(0.946)	70344	40.0000	44.0
63 Hexachlorobenzene	284	8.466	8.466	(0.952)	73586	40.0000	38.4
65 Pentachlorophenol	266	8.689	8.689	(0.978)	34065	40.0000	35.9
206 n-Octadecane	57	8.750	8.750	(0.984)	203517	40.0000	42.0
68 Phenanthrene	178	8.915	8.915	(1.003)	409764	40.0000	40.1
69 Anthracene	178	8.971	8.971	(1.009)	418065	40.0000	40.2
72 Di-n-butylphthalate	149	9.510	9.510	(1.070)	512131	40.0000	46.6
76 Fluoranthene	202	10.190	10.190	(1.146)	410764	40.0000	40.6

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
79 Pyrene	202	10.433	10.433	(0.888)	425868	40.0000	40.9
85 Butylbenzylphthalate	149	11.120	11.120	(0.947)	215803	40.0000	44.1
89 Benzo(a)anthracene	228	11.730	11.730	(0.999)	364410	40.0000	40.6
92 Chrysene	228	11.774	11.774	(1.002)	321472	40.0000	38.6
93 bis(2-Ethylhexyl)phthalate	149	11.733	11.733	(0.999)	341938	40.0000	52.5
94 Di-n-octylphthalate	149	12.539	12.539	(0.916)	492763	40.0000	46.7
95 Benzo(b)fluoranthene	252	13.114	13.114	(0.958)	301766	40.0000	40.0
96 Benzo(k)fluoranthene	252	13.155	13.155	(0.961)	299025	40.0000	41.9
97 Benzo(a)pyrene	252	13.598	13.598	(0.994)	269627	40.0000	43.4
99 Indeno(1,2,3-cd)pyrene	276	15.404	15.404	(1.126)	268111	40.0000	49.0
100 Dibenzo(a,h)anthracene	278	15.436	15.436	(1.128)	220360	40.0000	47.7
101 Benzo(ghi)perylene	276	15.859	15.859	(1.159)	226929	40.0000	49.3
126 m-Dinitrobenzene	168	7.063	7.063	(0.968)	43277	40.0000	36.7
130 2,3,4,6-Tetrachlorophenol	232	7.653	7.653	(1.049)	60714	40.0000	43.5
143 Dinoseb	211	8.879	8.879	(0.999)	56575	40.0000	43.8
173 Carbazole	167	9.152	9.152	(1.030)	161205	40.0000	23.4
184 p-Benzoquinone	54	3.497	3.497	(0.832)	7121	40.0000	42.8
192 Methoxychlor	227	11.647	11.647	(0.992)	233734	40.0000	52.8
211 p-Toluidine	106	4.629	4.629	(1.101)	93253	40.0000	59.3
210 m-Toluidine	106	4.661	4.661	(1.109)	117787	40.0000	48.9
26 Phthalic anhydride	104	6.265	6.265	(1.144)	70319	40.0000	56.3
179 Dibenzo(a,e)pyrene	302	18.658	18.658	(1.363)	101129	40.0000	48.3
214 1,4-Dinitrobenzene	75	6.981	6.981	(0.957)	52252	40.0000	39.8
215 2-Ethoxyethanol	59	1.947	1.947	(0.463)	72710	40.0000	38.1
216 Methylenebis(2-chloroaniline)	231	11.709	11.709	(0.997)	33263	40.0000	33.4
M 225 Trichlorophenols	196				156397	80.0000	85.0
M 226 Tetrachlorophenols	232				60714	40.0000	43.5
M 227 Benzo(b,k)fluoranthene	252				600791	80.0000	81.8

QC Flag Legend

H - Operator selected an alternate compound hit.

Data File: /chem/MSD3.i/s010410a.b/s3a0410.d
Date : 04-JAN-2010 15:20
Client ID: MEGACVS
Sample Info: IWBN091201-17,3140PPM11ISVHF11MEGACVS
Column phase: J&W DB-5MS

Instrument: MSD3.i
Operator: JLD1
Column diameter: 0.20

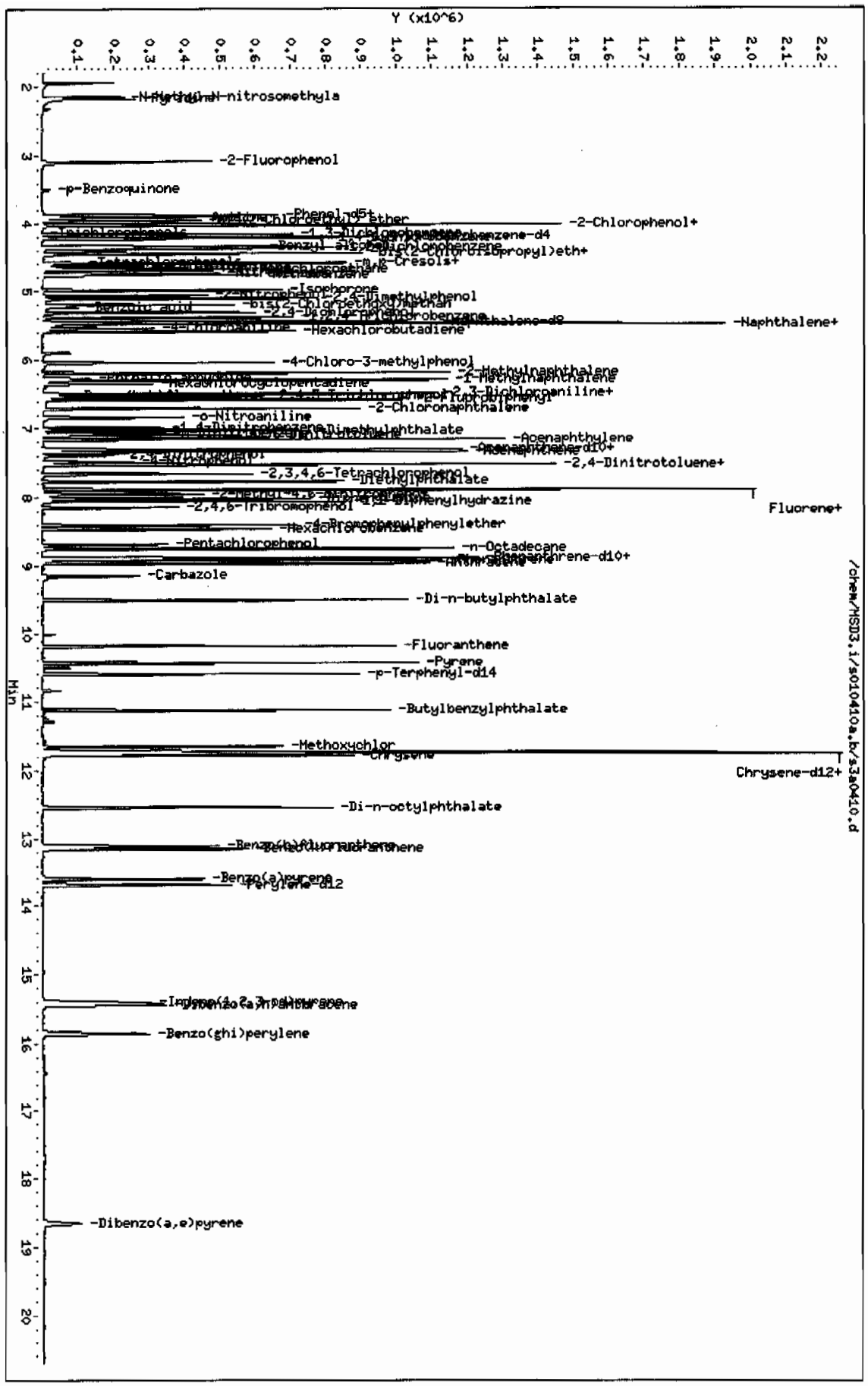

Page 1

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD3.i Injection Date: 04-JAN-2010 15:49
Lab File ID: s3a0411.d Init. Cal. Date(s): 06-DEC-2009 08-DEC-2009
Analysis Type: Init. Cal. Times: 10:12 12:26
Lab Sample ID: WBN100103-08.2 Quant Type: ISTD
Method: /chem/MSD3.i/s010410a.b/MSD3-8270R-AQA-120809.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
209 Benzaldehyde	0.96429	0.75838	0.75838	0.000	-21.35324	60.00000	Averaged
16 Acetophenone	1.33163	1.19798	1.19798	0.000	-10.03642	60.00000	Averaged
189 Caprolactam	0.09173	0.08751	0.08751	0.000	-4.60319	60.00000	Averaged
208 1,1'-Biphenyl	1.21700	1.21609	1.21609	0.000	-0.07523	60.00000	Averaged
207 Atrazine	0.04375	0.04815	0.04815	0.000	10.03927	60.00000	Averaged
77 Benzidine	17.27802	40.00000	0.06735	0.000	-56.80494	60.00000	Linear
90 3,3'-Dichlorobenzidine	0.27489	0.20951	0.20951	0.000	-23.78302	60.00000	Averaged
102 1,4-Dioxane	0.37765	0.44978	0.44978	0.000	19.09907	60.00000	Averaged
103 Methyl methacrylate	0.21438	0.26000	0.26000	0.000	21.28041	60.00000	Averaged
104 Ethyl methacrylate	0.84060	0.96431	0.96431	0.000	14.71658	60.00000	Averaged
105 2-Picoline	1.36059	1.16316	1.16316	0.000	-14.51064	60.00000	Averaged
106 N-Nitrosomethylethylamine	0.54734	0.47325	0.47325	0.000	-13.53698	60.00000	Averaged
107 Methyl methanesulfonate	0.57769	0.61320	0.61320	0.000	6.14752	60.00000	Averaged
108 N-Nitrosodiethylamine	0.56251	0.49441	0.49441	0.000	-12.10689	60.00000	Averaged
109 Ethyl Methanesulfonate	0.74348	0.78128	0.78128	0.000	5.08365	60.00000	Averaged
110 Pentachloroethane	0.31184	0.42670	0.42670	0.000	36.83243	60.00000	Averaged
111 N-Nitrosopyrrolidine	0.57216	0.48543	0.48543	0.000	-15.15786	60.00000	Averaged
113 N-Nitrosomorpholine	0.68237	0.66826	0.66826	0.000	-2.06890	60.00000	Averaged
114 o-Toluidine	1.81766	1.61216	1.61216	0.000	-11.30588	60.00000	Averaged
115 N-Nitrosopiperidine	0.15407	0.13517	0.13517	0.000	-12.26728	60.00000	Averaged
116 a,a-Dimethylphenethylamine	0.80710	0.57585	0.57585	0.000	-28.65221	60.00000	Averaged
118 2,6-Dichlorophenol	0.22077	0.20032	0.20032	0.000	-9.26039	60.00000	Averaged
119 Hexachloropropene	0.10907	0.15012	0.15012	0.000	37.63090	60.00000	Averaged
120 p-Phenylenediamine	0.23642	0.11527	0.11527	0.000	-51.24297	60.00000	Averaged
121 N-Nitrosodi-n-butylamine	0.24128	0.23260	0.23260	0.000	-3.59501	60.00000	Averaged
122 Safrole	0.20022	0.21497	0.21497	0.000	7.36882	60.00000	Averaged
123 1,2,4,5-Tetrachlorobenzene	0.44036	0.43775	0.43775	0.000	-0.59197	60.00000	Averaged
124 Isosafrole	0.34861	0.43188	0.43188	0.000	23.88570	60.00000	Averaged
125 1,4-Naphthoquinone	0.30537	0.30779	0.30779	0.000	0.79223	60.00000	Averaged
127 Pentachlorobenzene	0.38598	0.35527	0.35527	0.000	-7.95490	60.00000	Averaged
128 1-Naphthylamine	0.91301	0.77372	0.77372	0.000	-15.25625	60.00000	Averaged
129 2-Naphthylamine	0.99339	0.81450	0.81450	0.000	-18.00799	60.00000	Averaged
131 5-Nitro-o-toluidine	0.29359	0.23444	0.23444	0.000	-20.14683	60.00000	Averaged
136 1,3,5-Trinitrobenzene	0.14119	0.20067	0.20067	0.000	42.12961	60.00000	Averaged
137 Phenacetin	0.30819	0.30139	0.30139	0.000	-2.20669	60.00000	Averaged
138 Diallate	0.29433	0.26839	0.26839	0.000	-8.81150	60.00000	Averaged

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD3.i
Lab File ID: s3a0411.d
Analysis Type:
Lab Sample ID: WBN100103-08.2
Method: /chem/MSD3.i/s010410a.b/MSD3-8270R-AQA-120809.m

Injection Date: 04-JAN-2010 15:49
Init. Cal. Date(s): 06-DEC-2009 08-DEC-2009
Init. Cal. Times: 10:12 12:26
Quant Type: ISTD

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
140 4-Aminobiphenyl	0.62917	0.38585	0.38585	0.000	-38.67323	60.00000	Averaged
141 Pentachloronitrobenzene	0.07114	0.08197	0.08197	0.000	15.22691	60.00000	Averaged
142 Pronamide	0.28257	0.30322	0.30322	0.000	7.30759	60.00000	Averaged
146 4-Nitroquinoline-1-oxide	0.02686	0.01711	0.01711	0.000	-36.31269	60.00000	Averaged
147 Methapyrilene	0.41060	0.38743	0.38743	0.000	-5.64469	60.00000	Averaged
148 Isodrin	0.11051	0.10155	0.10155	0.000	-8.10990	60.00000	Averaged
149 Aramite	0.05092	0.04767	0.04767	0.000	-6.38493	60.00000	Averaged
150 Kepone	0.07689	0.07179	0.07179	0.000	-6.62626	60.00000	Averaged
151 p-(Dimethylamino)azobenzene	0.32461	0.36692	0.36692	0.000	13.03147	60.00000	Averaged
152 Chlorobenzilate	0.30328	0.35854	0.35854	0.000	18.22019	60.00000	Averaged
153 3,3'-Dimethylbenzidine	0.46065	0.29353	0.29353	0.000	-36.27911	60.00000	Averaged
155 2-Acetylaminofluorene	0.31745	0.29888	0.29888	0.000	-5.84946	60.00000	Averaged
157 7,12Dimethylbenz(a)anthrace	0.51543	0.50351	0.50351	0.000	-2.31208	60.00000	Averaged
158 3-Methylcholanthrene	0.41499	0.42502	0.42502	0.000	2.41677	60.00000	Averaged
212 Cis Diallate	0.29308	0.34344	0.34344	0.000	17.18302	60.00000	Averaged
213 Trans Diallate	0.34627	0.31576	0.31576	0.000	-8.81150	60.00000	Averaged

GEL Laboratories LLC

Data file : /chem/MSD3.i/s010410a.b/s3a0411.d
Lab Smp Id: WBN100103-08.2 Client Smp ID: APCVS
Inj Date : 04-JAN-2010 15:49
Operator : JLD1 Inst ID: MSD3.i
Smp Info : |WBN100103-08.2|40PPM|1|SVMF|1|APCVS
Misc Info : |MSD8270|WBN091223-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD3.i/s010410a.b/MSD3-8270R-AQA-120809.m
Meth Date : 04-Jan-2010 16:26 jen00986 Quant Type: ISTD
Cal Date : 07-DEC-2009 19:48 Cal File: s310717.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AP12.sub
Target Version: 3.50
Processing Host: hpclp1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	4.201	4.201	(1.000)	145302	40.0000	
* 29 Naphthalene-d8	136	5.452	5.452	(1.000)	546100	40.0000	
* 46 Acenaphthene-d10	164	7.296	7.296	(1.000)	300873	40.0000	
* 67 Phenanthrene-d10	188	8.891	8.891	(1.000)	483308	40.0000	
* 91 Chrysene-d12	240	11.739	11.739	(1.000)	358197	40.0000	
* 98 Perylene-d12	264	13.682	13.682	(1.000)	260295	40.0000	
209 Benzaldehyde	77	3.817	3.817	(0.909)	110194	40.0000	31.4
16 Acetophenone	105	4.584	4.584	(1.091)	174069	40.0000	36.0(H)
189 Caprolactam	113	5.894	5.894	(1.081)	47790	40.0000	38.2(H)
208 1,1'-Biphenyl	154	6.686	6.686	(0.916)	365888	40.0000	40.0(H)
207 Atrazine	173	8.592	8.592	(0.966)	23270	40.0000	44.0
77 Benzidine	184	10.351	10.351	(0.882)	24125	40.0000	17.3
90 3,3'-Dichlorobenzidine	252	11.703	11.703	(0.997)	75047	40.0000	30.5(H)
102 1,4-Dioxane	88	1.941	1.941	(0.462)	65354	40.0000	47.6(H)
103 Methyl methacrylate	100	1.944	1.944	(0.463)	37779	40.0000	48.5(H)
104 Ethyl methacrylate	69	2.422	2.422	(0.577)	140116	40.0000	45.9
105 2-Picoline	93	2.662	2.662	(0.634)	169010	40.0000	34.2(H)
106 N-Nitrosomethylethylamine	88	2.744	2.744	(0.653)	68764	40.0000	34.6(H)
107 Methyl methanesulfonate	80	2.973	2.973	(0.708)	89099	40.0000	42.4
108 N-Nitrosodiethylamine	102	3.275	3.275	(0.780)	71839	40.0000	35.2
109 Ethyl Methanesulfonate	79	3.521	3.521	(0.838)	113521	40.0000	42.0
110 Pentachloroethane	167	3.946	3.946	(0.939)	62001	40.0000	54.7
111 N-Nitrosopyrrolidine	100	4.573	4.573	(1.089)	70534	40.0000	33.9(H)
113 N-Nitrosomorpholine	56	4.608	4.608	(1.097)	97099	40.0000	39.2
114 o-Toluidine	106	4.623	4.623	(1.100)	234250	40.0000	35.5(H)
115 N-Nitrosopiperidine	114	4.901	4.901	(0.899)	73818	40.0000	35.1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
116 a,a-Dimethylphenethylamine	58	5.288	5.288	(0.970)	314471	40.0000	28.5
118 2,6-Dichlorophenol	162	5.543	5.543	(1.017)	109396	40.0000	36.3(H)
119 Hexachloropropene	213	5.557	5.557	(1.019)	81981	40.0000	55.0
120 p-Phenylenediamine	108	5.915	5.915	(1.085)	62950	40.0000	19.5(H)
121 N-Nitrosodi-n-butylamine	84	5.871	5.871	(1.077)	127025	40.0000	38.6(QH)
122 Safrole	162	6.097	6.097	(1.118)	117397	40.0000	42.9
123 1,2,4,5-Tetrachlorobenzene	216	6.363	6.363	(0.872)	131708	40.0000	39.8
124 Isosafrole	162	6.648	6.648	(0.911)	129940	40.0000	49.6(H)
125 1,4-Naphthoquinone	158	6.903	6.903	(0.946)	92605	40.0000	40.3
127 Pentachlorobenzene	250	7.469	7.469	(1.024)	106892	40.0000	36.8
128 1-Naphthylamine	143	7.607	7.607	(1.043)	232792	40.0000	33.9(H)
129 2-Naphthylamine	143	7.695	7.695	(1.055)	245061	40.0000	32.8
131 5-Nitro-o-toluidine	152	7.912	7.912	(1.084)	70538	40.0000	31.9(H)
136 1,3,5-Trinitrobenzene	75	8.325	8.325	(0.936)	96984	40.0000	56.8
137 Phenacetin	108	8.363	8.363	(0.941)	145664	40.0000	39.1
138 Diallate	86	8.310	8.310	(0.935)	129716	40.0000	36.5
140 4-Aminobiphenyl	169	8.698	8.698	(0.978)	186485	40.0000	24.5(H)
141 Pentachloronitrobenzene	237	8.695	8.695	(0.978)	39619	40.0000	46.1
142 Pronamide	173	8.751	8.751	(0.984)	146550	40.0000	42.9
146 4-Nitroquinoline-1-oxide	101	9.753	9.753	(1.097)	8269	40.0000	25.5(H)
147 Methapyrilene	58	9.817	9.817	(1.104)	187246	40.0000	37.7
148 Isodrin	193	10.017	10.017	(1.127)	49080	40.0000	36.8
149 Aramite	185	10.568	10.568	(1.189)	23039	40.0000	37.4
150 Kepone	272	11.152	11.152	(1.254)	34699	40.0000	37.3(H)
151 p-(Dimethylamino)azobenzene	120	10.750	10.750	(0.916)	131428	40.0000	45.2(H)
152 Chlorobenzilate	251	10.794	10.794	(0.920)	128427	40.0000	47.3
153 3,3'-Dimethylbenzidine	212	11.117	11.117	(0.947)	105141	40.0000	25.5
155 2-Acetylaminofluorene	181	11.387	11.387	(0.970)	107059	40.0000	37.7(H)
157 7,12Dimethylbenz(a)anthracene	256	13.095	13.095	(0.957)	131061	40.0000	39.1
158 3-Methylcholanthrene	268	14.127	14.127	(1.033)	110630	40.0000	41.0
212 Cis Diallate	86	8.407	8.407	(0.946)	24898	6.00000	7.0
213 Trans Diallate	86	8.310	8.310	(0.935)	129716	34.0000	31.0

QC Flag Legend

Q - Qualifier signal failed the ratio test.
H - Operator selected an alternate compound hit.

Data File: /chem/MSD3.i/s010410a.b/s3a0411.d
Date : 04-JAN-2010 15:49
Client ID: APCVS
Sample Info: IWBMLOO103-08,2|40PPM|1|SVMF|1|APCVS
Column phase: J&W DB-5MS

Instrument: MSD3.i
Operator: JLD1
Column diameter: 0.20

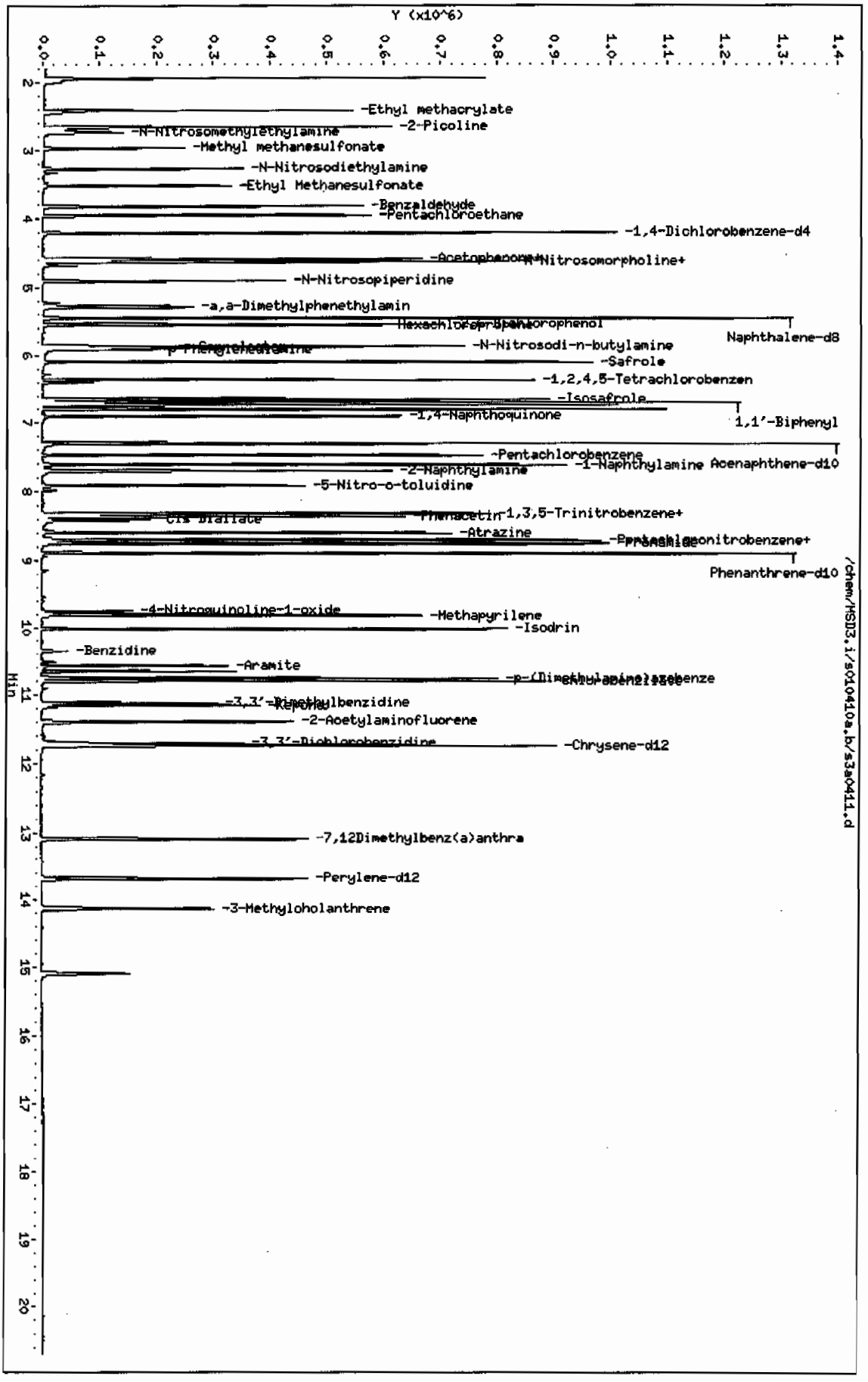

QC Data

Data File: /chem/MSD3.i/s120609.b/s310601.d

Page 1

Date : 06-DEC-2009 09:33

Client ID: DFTPP

Instrument: MSD3.i

Sample Info: |WBN091128-01|DFTPP|1|SVM|1|DFTPP|

Operator: JLD1

Column phase: J&W DB-5MS

Column diameter: 0.20

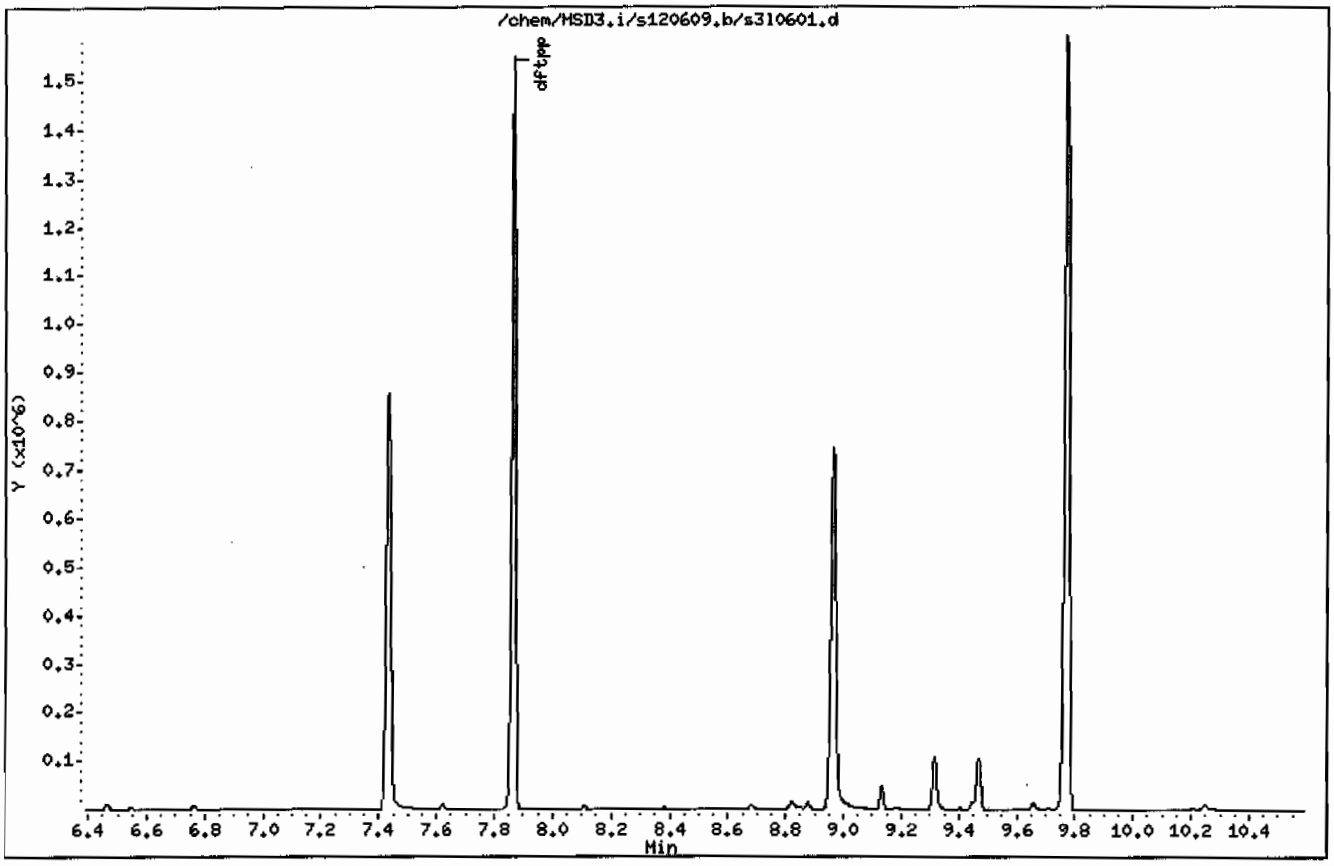

Data File: /chem/MSD3.i/s120609.b/s310601.d

Date : 06-DEC-2009 09:33

Client ID: DFTPP

Instrument: MSD3.i

Sample Info: |WBN091128-01|DFTPP|1|SVM|1|DFTPP|

Operator: JLD1

Column phase: J&W DB-5MS

Column diameter: 0.20

1 dftpp

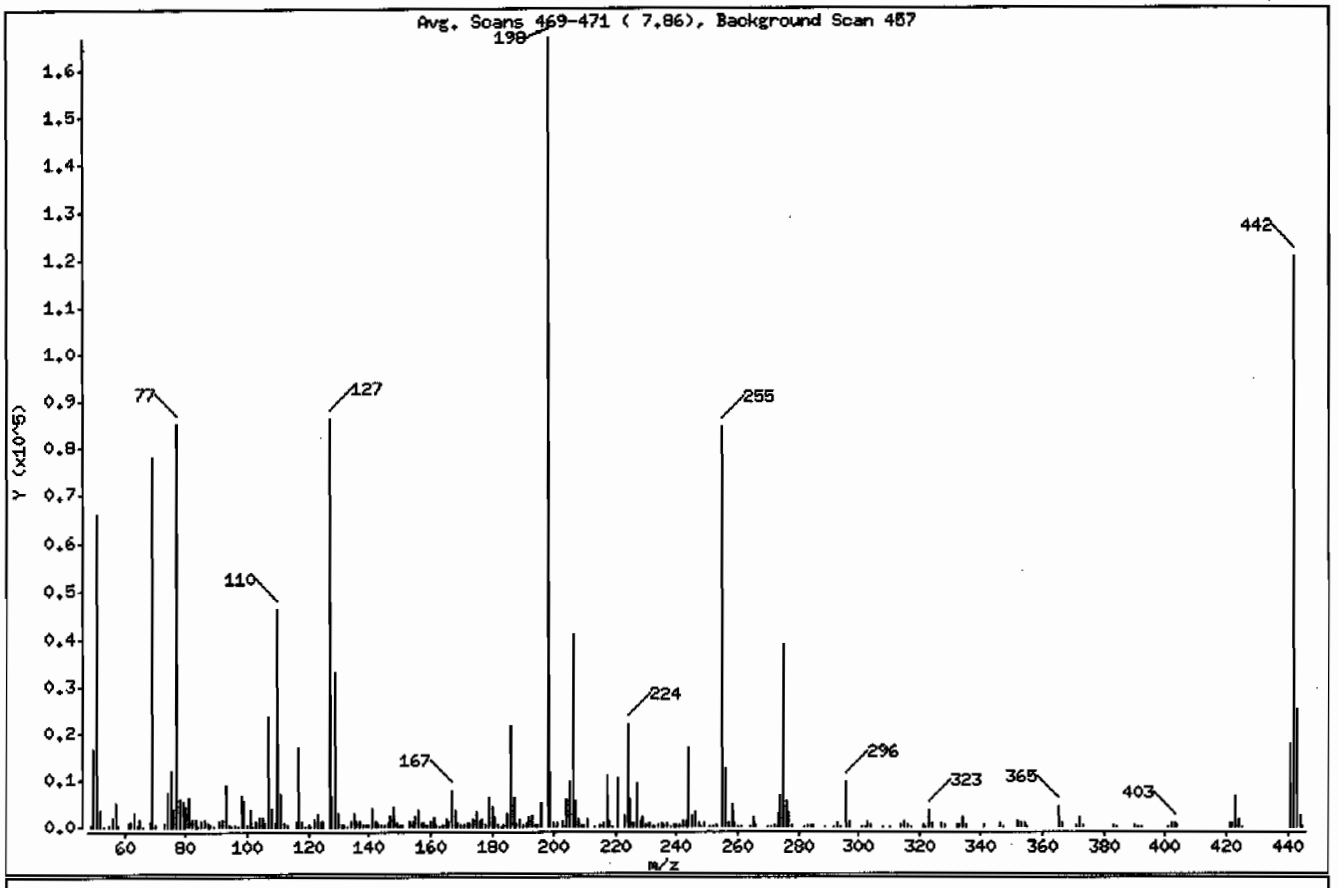

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	39.55
68	Less than 2.00% of mass 69	0.73 (1.56)
69	Mass 69 relative abundance	46.83
70	Less than 2.00% of mass 69	0.22 (0.47)
127	40.00 - 60.00% of mass 198	51.67
197	Less than 1.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.89
275	10.00 - 30.00% of mass 198	23.16
365	Greater than 1.00% of mass 198	2.62
441	Present, but less than mass 443	10.68
442	Greater than 40.00% of mass 198	72.12
443	17.00 - 23.00% of mass 442	14.87 (20.62)

Data File: /chem/HSD3.i/s120609.b/s310601.d

Date : 06-DEC-2009 09:33

Client ID: DFTPP

Instrument: HSD3.i

Sample Info: |WBN091128-01|DFTPP|1|SVMI1|DFTPP|

Operator: JLD1

Column phase: J&W DB-5MS

Column diameter: 0.20

Data File: s310601.d
Spectrum: Avg. Scans 469-471 (7.86), Background Scan 457
Location of Maximum: 198.00
Number of points: 267

m/z	Y	m/z	Y	m/z	Y	m/z	Y
49.00	454	126.00	1015	194.00	406	274.00	6545
50.00	16400	127.00	86224	195.00	257	275.00	38656
51.00	66008	128.00	6475	196.00	5080	276.00	5386
52.00	3339	129.00	33128	198.00	166848	277.00	2954
53.00	143	130.00	2817	199.00	11504	278.00	484
55.00	330	131.00	515	200.00	878	282.00	33
56.00	2047	132.00	252	201.00	812	283.00	382
57.00	4994	133.00	151	203.00	1107	284.00	216
58.00	208	134.00	975	204.00	5714	285.00	525
61.00	901	135.00	2608	205.00	9703	289.00	144
62.00	994	136.00	985	206.00	40568	292.00	124
63.00	2914	137.00	1296	207.00	5242	293.00	669
64.00	399	138.00	263	208.00	1364	294.00	164
65.00	1655	139.00	194	209.00	423	296.00	9510
66.00	143	140.00	398	210.00	468	297.00	1314
68.00	1222	141.00	3974	211.00	1601	301.00	79
69.00	78152	142.00	1335	213.00	34	302.00	171
70.00	369	143.00	875	215.00	409	303.00	1118
73.00	659	144.00	236	216.00	846	304.00	278
74.00	7372	145.00	205	217.00	10612	308.00	120
75.00	11947	146.00	711	218.00	1285	310.00	128
76.00	3932	147.00	2121	219.00	128	314.00	476
77.00	85096	148.00	4346	221.00	10259	315.00	1016
78.00	5733	149.00	876	223.00	2427	316.00	560
79.00	5475	150.00	227	224.00	21992	317.00	74
80.00	4318	151.00	528	225.00	5758	321.00	332
81.00	6073	153.00	1251	226.00	588	322.00	140
82.00	1476	154.00	969	227.00	9092	323.00	3381
83.00	1416	155.00	2164	228.00	1197	324.00	593
84.00	176	156.00	3395	229.00	1771	327.00	589
85.00	1001	157.00	622	230.00	264	328.00	329
86.00	1626	158.00	726	231.00	838	332.00	240
87.00	754	159.00	478	232.00	125	333.00	336
88.00	285	160.00	1207	233.00	159	334.00	2042
89.00	147	161.00	1974	234.00	540	335.00	501

Data File: /chem/MSD3.i/s120609.b/s310601.d

Date : 06-DEC-2009 09:33

Client ID: DFTPP

Instrument: MSD3.i

Sample Info: |WBN091128-01|DFTPP|1|SVM|1|DFTPP|

Operator: JLD1

Column phase: J&W DB-5MS

Column diameter: 0.20

Data File: s310601.d
Spectrum: Avg. Scans 469-471 (7.86), Background Scan 457
Location of Maximum: 198.00
Number of points: 267

m/z	Y	m/z	Y	m/z	Y	m/z	Y
91.00	1247	162.00	543	235.00	670	341.00	385
92.00	1521	163.00	159	236.00	404	346.00	659
93.00	8896	164.00	231	237.00	693	347.00	116
94.00	563	165.00	1473	238.00	35	352.00	974
95.00	149	166.00	1205	239.00	359	353.00	649
96.00	425	167.00	7680	240.00	266	354.00	942
97.00	108	168.00	3287	241.00	483	355.00	187
98.00	6638	169.00	605	242.00	1104	365.00	4374
99.00	5298	170.00	242	243.00	1209	366.00	632
100.00	495	171.00	296	244.00	16928	371.00	271
101.00	3283	172.00	718	245.00	2297	372.00	1774
102.00	160	173.00	917	246.00	3064	373.00	416
103.00	1060	174.00	1584	247.00	615	383.00	431
104.00	2104	175.00	3085	248.00	151	384.00	73
105.00	2041	176.00	1002	249.00	702	390.00	203
106.00	641	177.00	1531	251.00	147	391.00	152
107.00	23456	178.00	491	252.00	145	392.00	91
108.00	3844	179.00	6049	253.00	371	401.00	34
109.00	705	180.00	4046	255.00	84464	402.00	640
110.00	46008	181.00	1929	256.00	12330	403.00	955
111.00	7031	182.00	275	257.00	925	404.00	320
112.00	849	183.00	191	258.00	4732	421.00	880
113.00	287	184.00	437	259.00	740	422.00	803
116.00	1301	185.00	2808	260.00	136	423.00	6662
117.00	16872	186.00	21392	261.00	136	424.00	1444
118.00	1178	187.00	5960	264.00	170	425.00	135
119.00	174	188.00	606	265.00	1761	441.00	17832
120.00	304	189.00	1353	266.00	331	442.00	120360
121.00	69	190.00	216	270.00	36	443.00	24816
122.00	1603	191.00	683	271.00	179	444.00	2317
123.00	2530	192.00	1821	272.00	226	445.00	121
124.00	1051	193.00	2133	273.00	2631		

Data File: /chem/MSD3.i/s120809.b/s310801.d

Page 1

Date : 08-DEC-2009 09:03

Client ID: DFTPP

Instrument: MSD3.i

Sample Info: |WBN091128-01|DFTPP|1|SVM|1|DFTPP|

Operator: JLD1

Column phase: J&W DB-5MS

Column diameter: 0.20

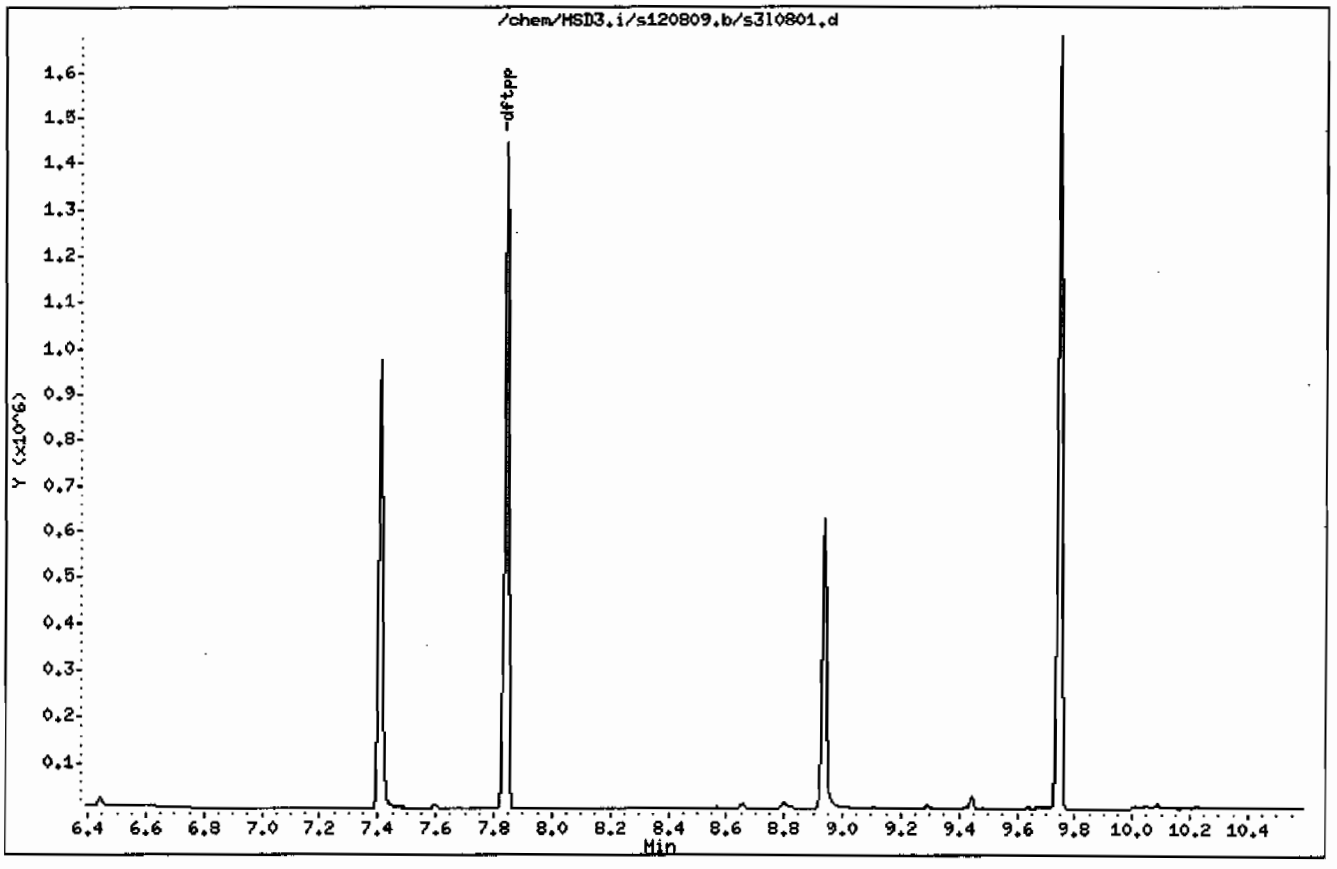

Data File: /chem/HSD3.i/s120809.b/s310801.d

Date : 08-DEC-2009 09:03

Client ID: DFTPP

Instrument: HSD3.i

Sample Info: |WBN091128-01|DFTPP|1|SVM|1|DFTPP|

Operator: JLD1

Column phase: J&W DB-5MS

Column diameter: 0.20

1 dftpp

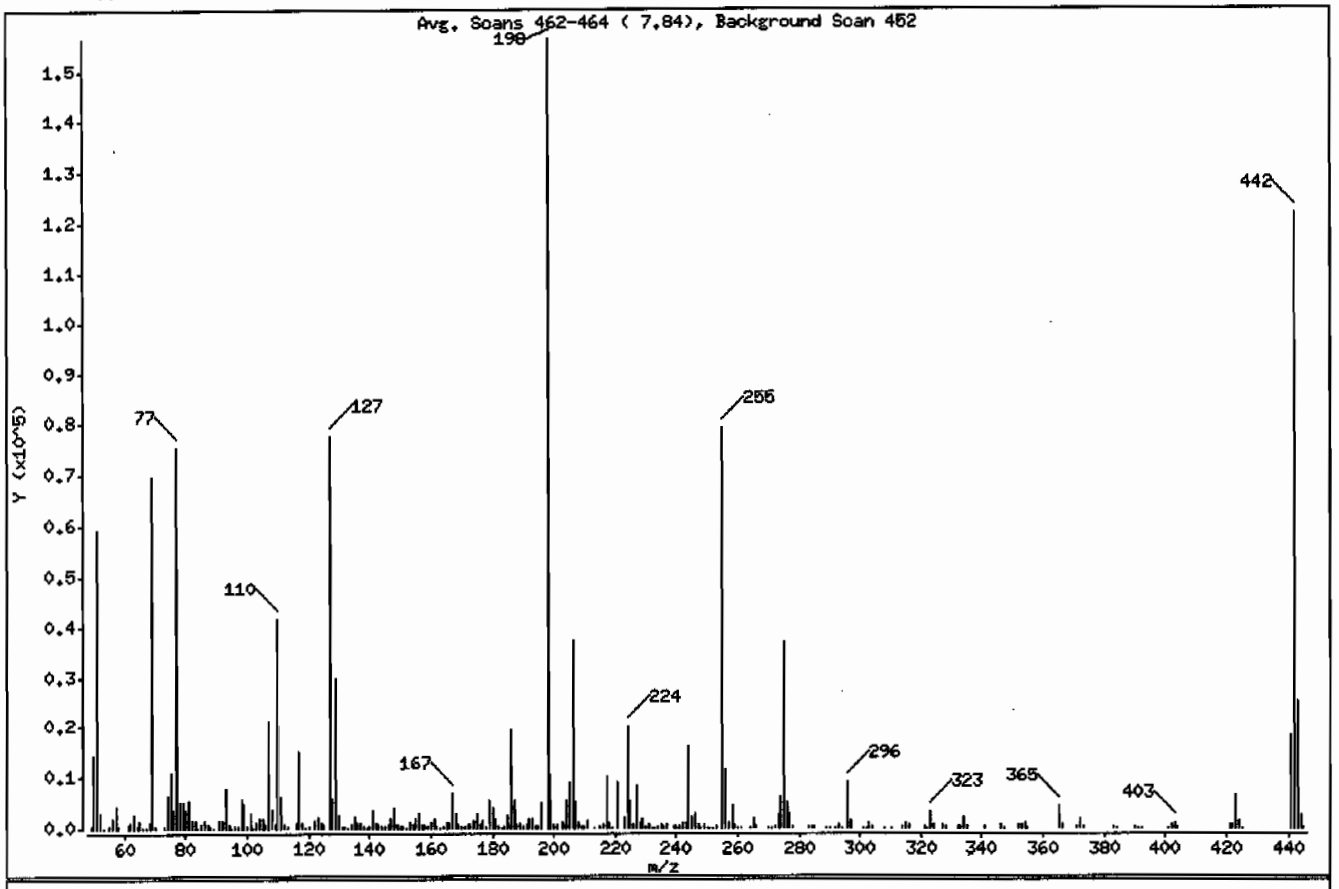

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	37.90
68	Less than 2.00% of mass 69	0.71 (1.60)
69	Mass 69 relative abundance	44.56
70	Less than 2.00% of mass 69	0.22 (0.50)
127	40.00 - 60.00% of mass 198	49.68
197	Less than 1.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.71
275	10.00 - 30.00% of mass 198	23.65
365	Greater than 1.00% of mass 198	2.78
441	Present, but less than mass 443	11.79
442	Greater than 40.00% of mass 198	77.95
443	17.00 - 23.00% of mass 442	16.20 (20.78)

Data File: /chem/MSD3.i/s120809.b/s310801.d

Date : 08-DEC-2009 09:03

Client ID: DFTPP

Instrument: MSD3.i

Sample Info: |WBN091128-01|DFTPP|1|SVMI1|DFTPP|

Operator: JLD1

Column phase: J&W DB-5MS

Column diameter: 0.20

Data File: s310801.d

Spectrum: Avg. Scans 462-464 (7.84), Background Scan 452

Location of Maximum: 198.00

Number of points: 267

m/z	Y	m/z	Y	m/z	Y	m/z	Y
49.00	371	126.00	892	193.00	1812	273.00	2426
50.00	14531	127.00	77696	194.00	363	274.00	6211
51.00	59272	128.00	5887	195.00	309	275.00	36984
52.00	2965	129.00	29992	196.00	4886	276.00	5012
53.00	90	130.00	2561	198.00	156352	277.00	2863
55.00	298	131.00	440	199.00	10496	278.00	489
56.00	1808	132.00	245	200.00	855	283.00	336
57.00	4439	133.00	125	201.00	806	284.00	229
58.00	190	134.00	821	203.00	991	285.00	493
61.00	789	135.00	2335	204.00	5313	289.00	79
62.00	916	136.00	931	205.00	8958	290.00	33
63.00	2630	137.00	1100	206.00	37416	292.00	131
64.00	316	138.00	267	207.00	4924	293.00	643
65.00	1278	139.00	137	208.00	1238	294.00	114
66.00	88	140.00	349	209.00	379	296.00	9002
67.00	33	141.00	3662	210.00	448	297.00	1267
68.00	1117	142.00	1198	211.00	1550	301.00	120
69.00	69696	143.00	784	213.00	69	302.00	155
70.00	351	144.00	204	215.00	386	303.00	1029
73.00	484	145.00	223	216.00	765	304.00	275
74.00	6616	146.00	622	217.00	9912	308.00	127
75.00	10620	147.00	1898	218.00	1163	310.00	133
76.00	3425	148.00	3999	219.00	81	314.00	453
77.00	75360	149.00	816	221.00	9107	315.00	989
78.00	5164	150.00	211	223.00	2285	316.00	593
79.00	4901	151.00	469	224.00	20216	321.00	281
80.00	3627	152.00	115	225.00	5266	322.00	156
81.00	5461	153.00	1117	226.00	540	323.00	3221
82.00	1305	154.00	883	227.00	8205	324.00	555
83.00	1322	155.00	1970	228.00	1157	327.00	564
84.00	142	156.00	3009	229.00	1703	328.00	300
85.00	842	157.00	578	230.00	240	332.00	203
86.00	1396	158.00	677	231.00	749	333.00	266
87.00	644	159.00	455	232.00	126	334.00	1982
88.00	268	160.00	1145	233.00	148	335.00	531

Data File: /chem/MSD3.i/s120809.b/s310801.d

Date : 08-DEC-2009 09:03

Client ID: DFTPP

Instrument: MSD3.i

Sample Info: |WBN091128-01|DFTPP|1|SVMI|1|DFTPP|

Operator: JLD1

Column phase: J&W DB-5MS

Column diameter: 0.20

Data File: s310801.d
Spectrum: Avg. Scans 462-464 (7.84), Background Scan 452
Location of Maximum: 198.00
Number of points: 267

m/z	Y	m/z	Y	m/z	Y	m/z	Y
89.00	135	161.00	1618	234.00	509	341.00	356
91.00	1274	162.00	465	235.00	582	346.00	697
92.00	1260	163.00	122	236.00	356	347.00	35
93.00	7918	164.00	214	237.00	662	352.00	882
94.00	550	165.00	1257	239.00	299	353.00	640
95.00	152	166.00	1126	240.00	226	354.00	983
96.00	350	167.00	6920	241.00	517	355.00	151
97.00	183	168.00	2839	242.00	1027	365.00	4349
98.00	5701	169.00	541	243.00	1195	366.00	575
99.00	4729	170.00	240	244.00	16176	371.00	229
100.00	400	171.00	338	245.00	2192	372.00	1621
101.00	3029	172.00	659	246.00	2962	373.00	441
102.00	171	173.00	767	247.00	584	383.00	434
103.00	975	174.00	1414	248.00	139	384.00	116
104.00	1868	175.00	2835	249.00	556	390.00	209
105.00	1745	176.00	889	250.00	76	391.00	156
106.00	551	177.00	1326	251.00	137	392.00	114
107.00	21368	178.00	424	252.00	123	401.00	33
108.00	3539	179.00	5483	253.00	342	402.00	625
109.00	653	180.00	3793	255.00	78976	403.00	920
110.00	41792	181.00	1748	256.00	11585	404.00	327
111.00	6263	182.00	287	257.00	899	421.00	820
112.00	703	183.00	158	258.00	4279	422.00	810
113.00	248	184.00	380	259.00	672	423.00	6585
116.00	1218	185.00	2619	260.00	74	424.00	1344
117.00	15113	186.00	19424	261.00	35	425.00	126
118.00	1117	187.00	5539	264.00	162	441.00	18432
119.00	147	188.00	555	265.00	1750	442.00	121912
120.00	243	189.00	1221	266.00	349	443.00	25336
122.00	1455	190.00	207	270.00	69	444.00	2337
123.00	2158	191.00	613	271.00	151	445.00	135
124.00	980	192.00	1765	272.00	247		

Data File: /chem/MSD3.i/s010410a.b/s3a0409.d

Date : 04-JAN-2010 15:08

Client ID: DFTPP

Instrument: MSD3.i

Sample Info: |WBN091213-01|DFTPP|1|SVM|1|DFTPP|

Operator: JLD1

Column phase: J&W DB-5MS

Column diameter: 0.20

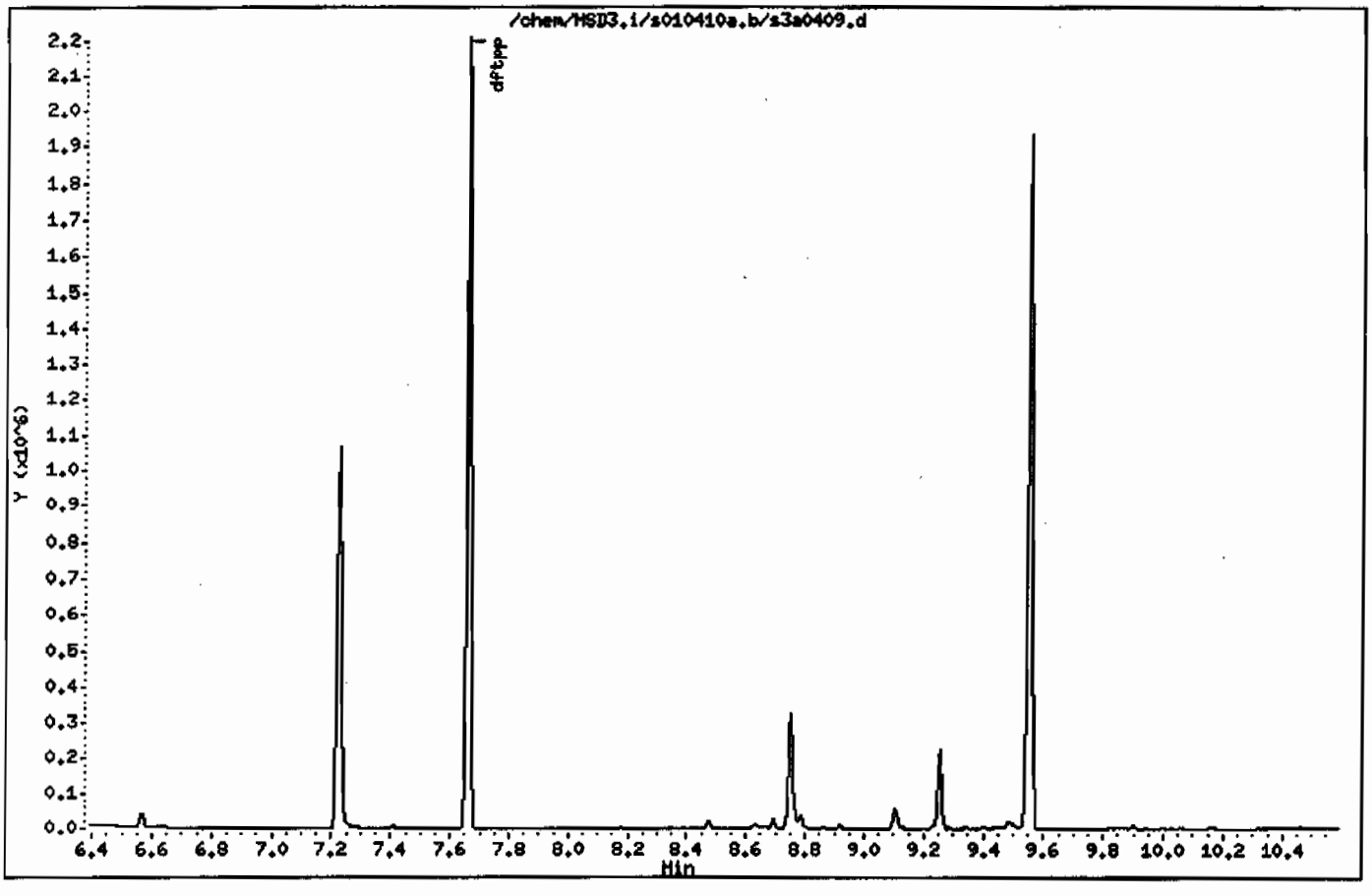

Data File: /chem/MSD3.i/s010410a.b/s3a0409.d

Page 2

Date : 04-JAN-2010 15:08

Client ID: DFTPP

Instrument: MSD3.i

Sample Info: |WBN091213-01|DFTPP|1|SVH|1|DFTPP|

Operator: JLD1

Column phase: J&W DB-5MS

Column diameter: 0.20

1 dftpp

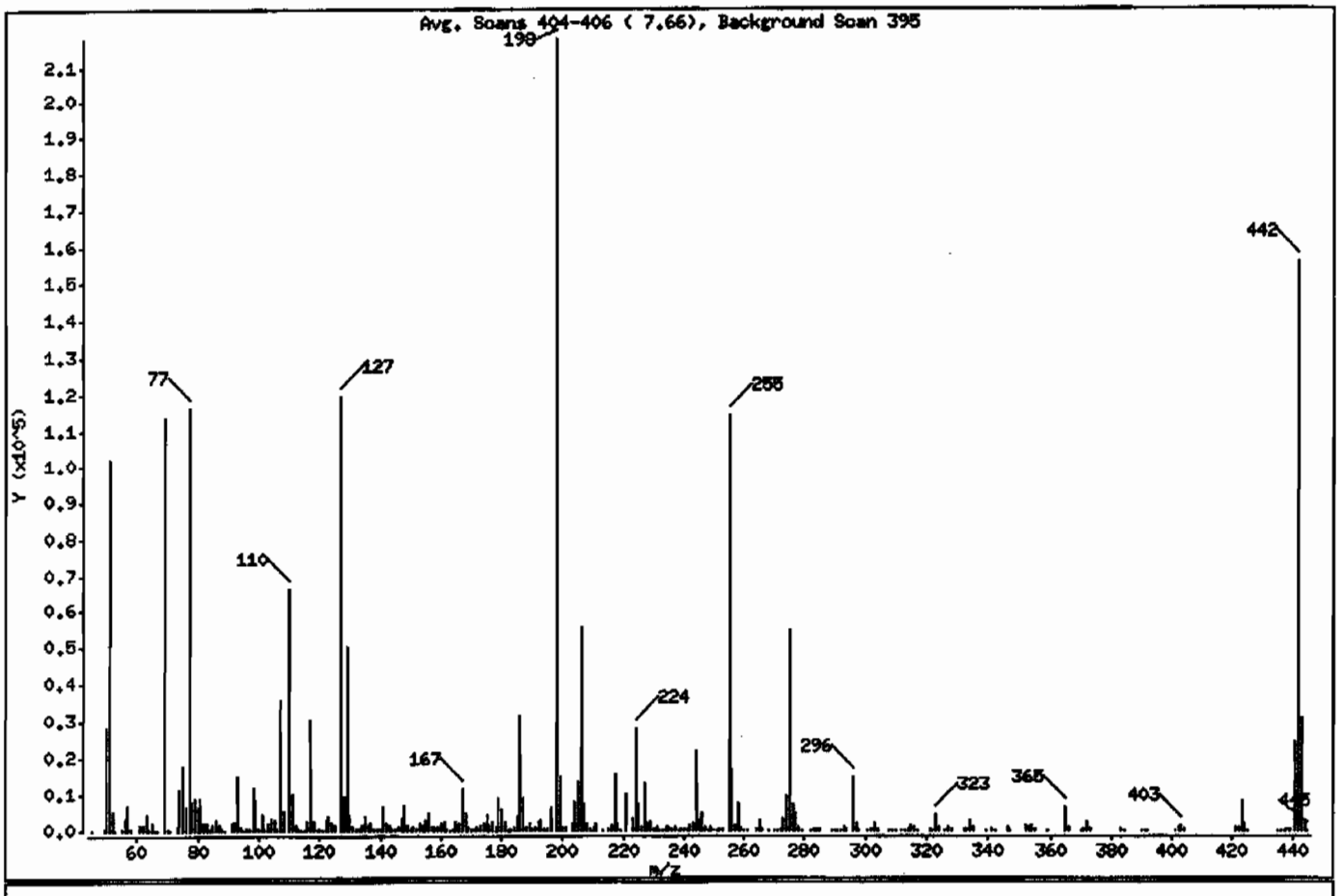

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	46.78
68	Less than 2.00% of mass 69	0.00 (0.00)
69	Mass 69 relative abundance	52.42
70	Less than 2.00% of mass 69	0.31 (0.59)
127	40.00 - 60.00% of mass 198	54.79
197	Less than 1.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.96
275	10.00 - 30.00% of mass 198	25.12
365	Greater than 1.00% of mass 198	3.09
441	Present, but less than mass 443	11.26
442	Greater than 40.00% of mass 198	71.79
443	17.00 - 23.00% of mass 442	14.26 (19.87)

Data File: /ohem/MSD3.i/s010410a.b/s3a0409.d

Date : 04-JAN-2010 15:08

Client ID: DFTPP

Instrument: MSD3.i

Sample Info: |WBN091213-01|DFTPP|1|SVM|1|DFTPP|

Operator: JLD1

Column phase: J&W DB-5MS

Column diameter: 0.20

Data File: s3a0409.d
Spectrum: Avg. Scans 404-406 (7.66), Background Scan 395
Location of Maximum: 198.00
Number of points: 290

m/z	Y	m/z	Y	m/z	Y	m/z	Y
45.00	67	129.00	50128	204.00	7894	291.00	128
49.00	374	130.00	4368	205.00	13408	292.00	222
50.00	28488	131.00	919	206.00	55472	293.00	989
51.00	101880	132.00	449	207.00	7471	294.00	255
52.00	5413	133.00	263	208.00	2124	296.00	15213
53.00	230	134.00	1506	209.00	704	297.00	2010
55.00	699	135.00	4150	210.00	997	298.00	139
56.00	3273	136.00	1604	211.00	2091	301.00	148
57.00	7124	137.00	2010	213.00	173	302.00	273
58.00	290	138.00	424	215.00	615	303.00	1761
61.00	1430	139.00	320	216.00	1341	304.00	458
62.00	1603	140.00	674	217.00	15599	308.00	208
63.00	4358	141.00	6772	218.00	1937	309.00	141
64.00	608	142.00	2144	219.00	225	310.00	214
65.00	2062	143.00	1290	221.00	10171	312.00	69
66.00	148	144.00	367	223.00	3509	313.00	37
67.00	204	145.00	393	224.00	28216	314.00	655
69.00	114160	146.00	1242	225.00	7374	315.00	1677
70.00	677	147.00	3363	226.00	899	316.00	931
71.00	72	148.00	7263	227.00	12856	317.00	142
73.00	1120	149.00	1412	228.00	1790	321.00	440
74.00	11628	150.00	415	229.00	2624	322.00	109
75.00	17864	151.00	834	230.00	284	323.00	4405
76.00	6313	152.00	435	231.00	1104	324.00	854
77.00	116528	153.00	2046	232.00	176	326.00	124
78.00	7890	154.00	1478	233.00	248	327.00	894
79.00	9208	155.00	3214	234.00	822	328.00	475
80.00	6653	156.00	4924	235.00	925	332.00	338
81.00	9154	157.00	993	236.00	581	333.00	505
82.00	2165	158.00	1173	237.00	987	334.00	2851
83.00	1971	159.00	974	238.00	144	335.00	802
84.00	258	160.00	2022	239.00	499	339.00	35
85.00	1736	161.00	2666	240.00	400	341.00	484
86.00	2853	162.00	742	241.00	701	342.00	128
87.00	1336	163.00	192	242.00	1607	346.00	885

Data File: /chem/MSD3.i/s010410a.b/s3a0409.d

Date : 04-JAN-2010 15:08

Client ID: DFTPP

Instrument: MSD3.i

Sample Info: |WBN091213-01|DFTPP|1|SVM|1|DFTPP|

Operator: JLD1

Column phase: J&W DB-5MS

Column diameter: 0.20

Data File: s3a0409.d

Spectrum: Avg. Scans 404-406 (7.66), Background Scan 396

Location of Maximum: 198.00

Number of points: 290

m/z	Y	m/z	Y	m/z	Y	m/z	Y
88.00	396	164.00	382	243.00	1966	347.00	179
89.00	180	165.00	2532	244.00	21920	352.00	1327
91.00	2220	166.00	2010	245.00	3054	353.00	1008
92.00	2652	167.00	11659	246.00	4915	354.00	1343
93.00	14962	168.00	5215	247.00	1010	355.00	281
94.00	1027	169.00	918	248.00	210	359.00	87
95.00	240	170.00	365	249.00	901	365.00	6730
96.00	603	171.00	533	250.00	172	366.00	1013
97.00	417	172.00	1148	251.00	167	370.00	175
98.00	12245	173.00	1370	252.00	302	371.00	462
99.00	8292	174.00	2111	253.00	626	372.00	2436
100.00	686	175.00	4356	255.00	114320	373.00	664
101.00	4743	176.00	1351	256.00	17128	383.00	549
102.00	271	177.00	2406	257.00	1475	384.00	179
103.00	1946	178.00	853	258.00	7452	390.00	238
104.00	3544	179.00	8838	259.00	984	391.00	215
105.00	2984	180.00	5821	260.00	211	392.00	148
106.00	379	181.00	2603	261.00	150	401.00	176
107.00	35680	182.00	373	264.00	308	402.00	994
108.00	5734	183.00	260	265.00	2958	403.00	1261
110.00	66112	184.00	770	266.00	533	404.00	464
111.00	9917	185.00	4248	268.00	39	421.00	1214
112.00	1275	186.00	31488	270.00	144	422.00	1250
113.00	398	187.00	9132	271.00	226	423.00	8531
114.00	33	188.00	989	272.00	385	424.00	1823
115.00	176	189.00	2254	273.00	3543	425.00	195
116.00	2447	190.00	389	274.00	9696	435.00	117
117.00	30752	191.00	967	275.00	54704	436.00	81
118.00	2321	192.00	2631	276.00	7667	437.00	170
119.00	248	193.00	2787	277.00	4799	438.00	313
120.00	434	194.00	631	278.00	782	439.00	612
121.00	240	195.00	290	279.00	131	441.00	24528
122.00	2852	196.00	6365	282.00	112	442.00	156288
123.00	3806	198.00	217792	283.00	513	443.00	31064
124.00	1762	199.00	15162	284.00	362	444.00	2835

Data File: /chem/MSD3.i/s010410a.b/s3a0409.d

Date : 04-JAN-2010 15:08

Client ID: DFTPP

Instrument: MSD3.i

Sample Info: |WBN091213-01|DFTPP|1|SVM|1|DFTPP|

Operator: JLD1

Column phase: J&W DB-5MS

Column diameter: 0.20

Data File: s3a0409.d
Spectrum: Avg. Scans 404-406 (7.66), Background Scan 396
Location of Maximum: 198.00
Number of points: 290

m/z	Y	m/z	Y	m/z	Y	m/z	Y
125.00	1474	200.00	1177	285.00	724	445.00	134
127.00	119320	201.00	1006	289.00	184		
128.00	9691	203.00	1885	290.00	128		

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1085			**Matrix:**	SOIL
Lab Sample ID:	1202005357				
Client Sample:	QC for batch 937150	**Client:**	LANL010	**Project:**	QC
Client ID:	MB for batch 937150	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	937151	**Inst:**	MSD3.I	**Dilution:**	1
Run Date:	01/04/2010 16:44	**Analyst:**	JLD1	**Inj. Vol:**	.5 uL
Prep Date:	12/29/2009 10:16	**Aliquot:**	30 g	**Final Volume:**	1 mL
Data File:	s3a0413-1.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	333	ug/kg	66.7	333
108-95-2	Phenol	U	333	ug/kg	66.7	333
95-57-8	2-Chlorophenol	U	333	ug/kg	66.7	333
106-46-7	1,4-Dichlorobenzene	U	333	ug/kg	66.7	333
621-64-7	N-Nitrosodipropylamine	U	333	ug/kg	66.7	333
59-50-7	4-Chloro-3-methylphenol	U	333	ug/kg	66.7	333
83-32-9	Acenaphthene	U	33.3	ug/kg	11.0	33.3
121-14-2	2,4-Dinitrotoluene	U	333	ug/kg	33.3	333
100-02-7	4-Nitrophenol	U	333	ug/kg	110	333
87-86-5	Pentachlorophenol	U	333	ug/kg	83.3	333
129-00-0	Pyrene	U	33.3	ug/kg	10.0	33.3
110-86-1	Pyridine	U	333	ug/kg	66.7	333
62-53-3	Aniline	U	333	ug/kg	100	333
111-44-4	bis(2-Chloroethyl) ether	U	333	ug/kg	66.7	333
541-73-1	1,3-Dichlorobenzene	U	333	ug/kg	66.7	333
100-51-6	Benzyl alcohol	U	333	ug/kg	100	333
95-50-1	1,2-Dichlorobenzene	U	333	ug/kg	66.7	333
108-60-1	bis(2-Chloroisopropyl)ether	U	333	ug/kg	66.7	333
95-48-7	o-Cresol	U	333	ug/kg	66.7	333
65794-96-9	m,p-Cresols	U	333	ug/kg	100	333
67-72-1	Hexachloroethane	U	333	ug/kg	66.7	333
98-95-3	Nitrobenzene	U	333	ug/kg	66.7	333
78-59-1	Isophorone	U	333	ug/kg	66.7	333
88-75-5	2-Nitrophenol	U	333	ug/kg	66.7	333
105-67-9	2,4-Dimethylphenol	U	333	ug/kg	117	333
111-91-1	bis(2-Chloroethoxy)methane	U	333	ug/kg	66.7	333
120-83-2	2,4-Dichlorophenol	U	333	ug/kg	66.7	333
65-85-0	Benzoic acid	U	667	ug/kg	167	667
91-20-3	Naphthalene	U	33.3	ug/kg	10.0	33.3
106-47-8	4-Chloroaniline	U	333	ug/kg	66.7	333
87-68-3	Hexachlorobutadiene	U	333	ug/kg	66.7	333
91-57-6	2-Methylnaphthalene	U	33.3	ug/kg	6.67	33.3
77-47-4	Hexachlorocyclopentadiene	U	333	ug/kg	66.7	333
88-06-2	2,4,6-Trichlorophenol	U	333	ug/kg	66.7	333
95-95-4	2,4,5-Trichlorophenol	U	333	ug/kg	66.7	333
91-58-7	2-Chloronaphthalene	U	33.3	ug/kg	11.0	33.3
88-74-4	2-Nitroaniline	U	333	ug/kg	66.7	333
	o-Nitroaniline					
99-09-2	3-Nitroaniline	U	333	ug/kg	66.7	333

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1085			Matrix:	SOIL
Lab Sample ID:	1202005357				
Client Sample:	QC for batch 937150	Client:	LANL010	Project:	QC
Client ID:	MB for batch 937150	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	937151	Inst:	MSD3.I	Dilution:	1
Run Date:	01/04/2010 16:44	Analyst:	JLD1	Inj. Vol:	.5 uL
Prep Date:	12/29/2009 10:16	Aliquot:	30 g	Final Volume:	1 mL
Data File:	s3a0413-1.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	333	ug/kg	66.7	333
606-20-2	2,6-Dinitrotoluene	U	333	ug/kg	33.3	333
208-96-8	Acenaphthylene	U	33.3	ug/kg	10.0	33.3
51-28-5	2,4-Dinitrophenol	U	667	ug/kg	127	667
132-64-9	Dibenzofuran	U	333	ug/kg	66.7	333
84-66-2	Diethylphthalate	U	333	ug/kg	66.7	333
86-73-7	Fluorene	U	33.3	ug/kg	10.0	33.3
7005-72-3	4-Chlorophenylphenylether	U	333	ug/kg	66.7	333
534-52-1	2-Methyl-4,6-dinitrophenol	U	333	ug/kg	66.7	333
100-01-6	4-Nitroaniline	U	333	ug/kg	100	333
	p-Nitroaniline					
122-39-4	Diphenylamine	U	333	ug/kg	66.7	333
122-66-7	Azobenzene	U	333	ug/kg	66.7	333
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	333	ug/kg	66.7	333
118-74-1	Hexachlorobenzene	U	333	ug/kg	66.7	333
85-01-8	Phenanthrene	U	33.3	ug/kg	10.0	33.3
120-12-7	Anthracene	U	33.3	ug/kg	6.67	33.3
84-74-2	Di-n-butylphthalate	U	333	ug/kg	66.7	333
206-44-0	Fluoranthene	U	33.3	ug/kg	10.0	33.3
85-68-7	Butylbenzylphthalate	U	333	ug/kg	66.7	333
56-55-3	Benzo(a)anthracene	U	33.3	ug/kg	10.0	33.3
91-94-1	3,3'-Dichlorobenzidine	U	333	ug/kg	100	333
218-01-9	Chrysene	U	33.3	ug/kg	10.0	33.3
117-81-7	bis(2-Ethylhexyl)phthalate	U	333	ug/kg	66.7	333
117-84-0	Di-n-octylphthalate	U	333	ug/kg	66.7	333
205-99-2	Benzo(b)fluoranthene	U	33.3	ug/kg	10.0	33.3
207-08-9	Benzo(k)fluoranthene	U	33.3	ug/kg	10.0	33.3
50-32-8	Benzo(a)pyrene	U	33.3	ug/kg	10.0	33.3
193-39-5	Indeno(1,2,3-cd)pyrene	U	33.3	ug/kg	10.0	33.3
53-70-3	Dibenzo(a,h)anthracene	U	33.3	ug/kg	10.0	33.3
191-24-2	Benzo(ghi)perylene	U	33.3	ug/kg	10.0	33.3
120-82-1	1,2,4-Trichlorobenzene	U	333	ug/kg	66.7	333

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
78-95-5	2-Propanone, 1-chloro-	1.84	249	ug/kg	81	NJ
	Unknown Aldol Condensate	2.85	620	ug/kg		JA

GEL Laboratories LLC

Data file : /chem/MSD3.i/s010410a.b/s3a0413-2.d
Lab Smp Id: 1202005357 Client Smp ID: SBLK01
Inj Date : 04-JAN-2010 16:44
Operator : JLD1 Inst ID: MSD3.i
Smp Info : |1202005357|937151|1|SVMF|1|SBLK01
Misc Info : |MSD8270_S|WBN091223-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD3.i/s010410a.b/MSD3-8270R-AQA-120809.m
Meth Date : 04-Jan-2010 16:42 jen00986 Quant Type: ISTD
Cal Date : 07-DEC-2009 19:48 Cal File: s310717.d
Als bottle: 5 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-1085.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	0.00000	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	4.201	4.203	(1.000)	123401	40.0000	
* 29 Naphthalene-d8	136	5.449	5.453	(1.000)	465340	40.0000	
* 46 Acenaphthene-d10	164	7.291	7.298	(1.000)	252936	40.0000	
* 67 Phenanthrene-d10	188	8.885	8.888	(1.000)	419180	40.0000	
* 91 Chrysene-d12	240	11.735	11.745	(1.000)	306107	40.0000	
* 98 Perylene-d12	264	13.678	13.686	(1.000)	241697	40.0000	
$ 3 2-Fluorophenol	112	3.105	3.093	(0.739)	216833	67.1779	2240
$ 5 Phenol-d5	99	3.870	3.869	(0.921)	296488	72.0995	2400
$ 20 Nitrobenzene-d5	82	4.731	4.737	(0.868)	103900	30.5498	1020
$ 39 2-Fluorobiphenyl	172	6.574	6.576	(0.902)	210413	35.4904	1180
$ 60 2,4,6-Tribromophenol	329	8.138	8.143	(1.116)	68024	97.9350	3260
$ 81 p-Terphenyl-d14	244	10.593	10.595	(0.903)	260026	52.8898	1760

GEL Laboratories LLC

Data file : /chem/MSD3.i/s010410a.b/s3a0413-2.d
Lab Smp Id: 1202005357 Client Smp ID: SBLK01
Inj Date : 04-JAN-2010 16:44
Operator : JLD1 Inst ID: MSD3.i
Smp Info : |1202005357|937151|1|SVMF|1|SBLK01
Misc Info : |MSD8270_S|WBN091223-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD3.i/s010410a.b/MSD3-8270R-AQA-120809.m
Meth Date : 04-Jan-2010 16:42 jen00986 Quant Type: ISTD
Cal Date : 07-DEC-2009 19:48 Cal File: s310717.d
Als bottle: 5 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-1085.sub
Target Version: 3.50
Processing Host: hpc1p1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	0.00000	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	4.201	815763	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
2-Propanone, 1-chloro-				CAS #: 78-95-5			
1.839	152097	7.45791615	248	81	NIST05.L	2355	10
Unknown Aldol Condensate				CAS #:			
2.853	379633	18.6148530	620	0		0	10

Data File: /chem/MSD3.i/s010410a.b/s3a0413-2.d
Date : 04-JAN-2010 16:44
Client ID: SBLK01
Sample Info: |1202005357|937151|1|SVHF|1|SBLK01
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD3.i

Operator: JLD1
Column diameter: 0.20

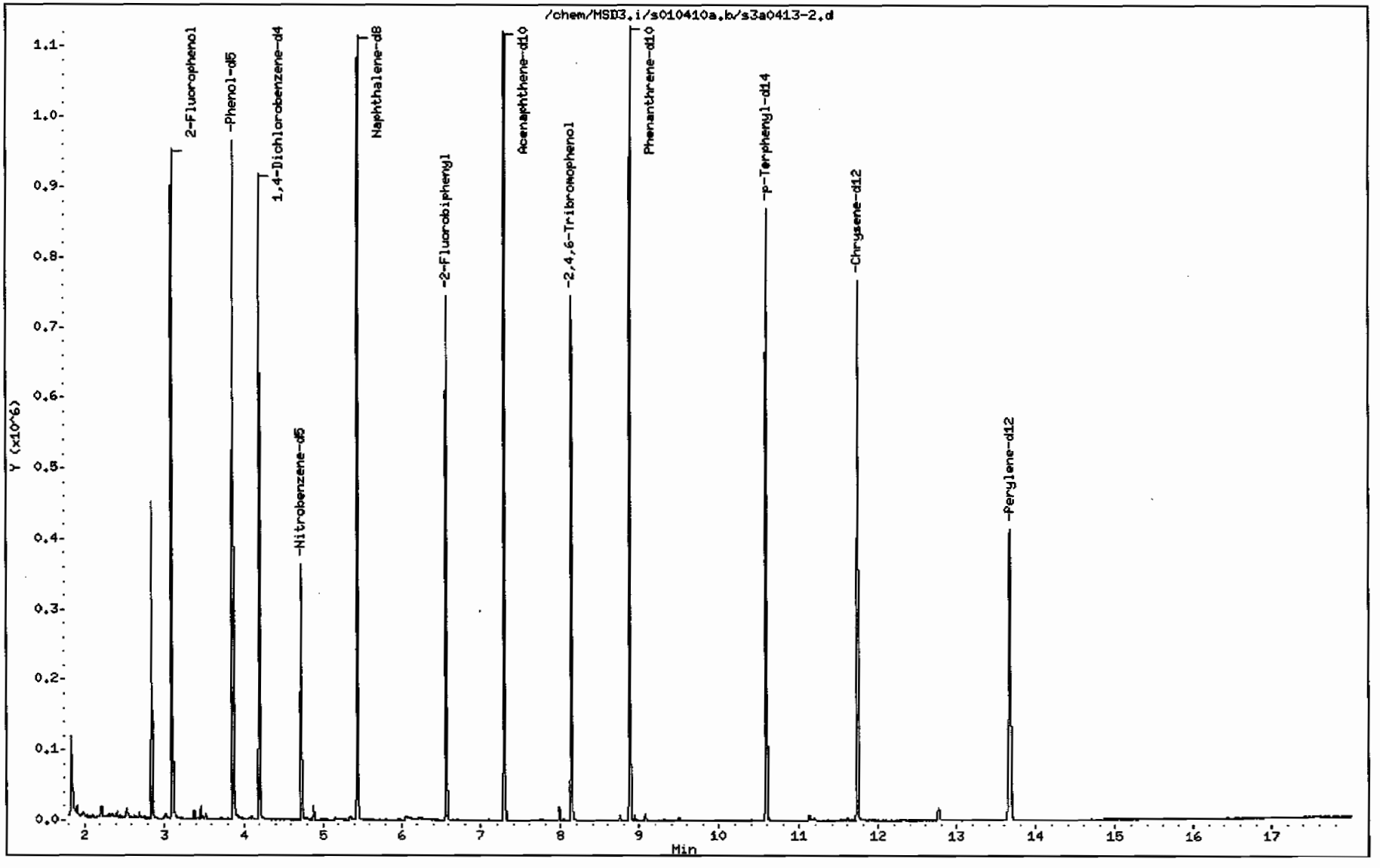

Data File: /chem/MSD3.i/s010410a.b/s3a0413-2.d

Date : 04-JAN-2010 16:44

Client ID: SBLK01

Instrument: MSD3.i

Sample Info: |1202005357|937151|1|SVMF|1|SBLK01

Volume Injected (uL): 0.5

Operator: JLD1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
2-Propanone, 1-chloro-	78-95-5	NIST05.L	2355	81	C3H5ClO	92
Chloroacetamidine	20846-52-0	NIST05.L	2347	59	C2H5ClN2	92
2-Propanone, 1-chloro-	78-95-5	NIST05.L	2352	50	C3H5ClO	92

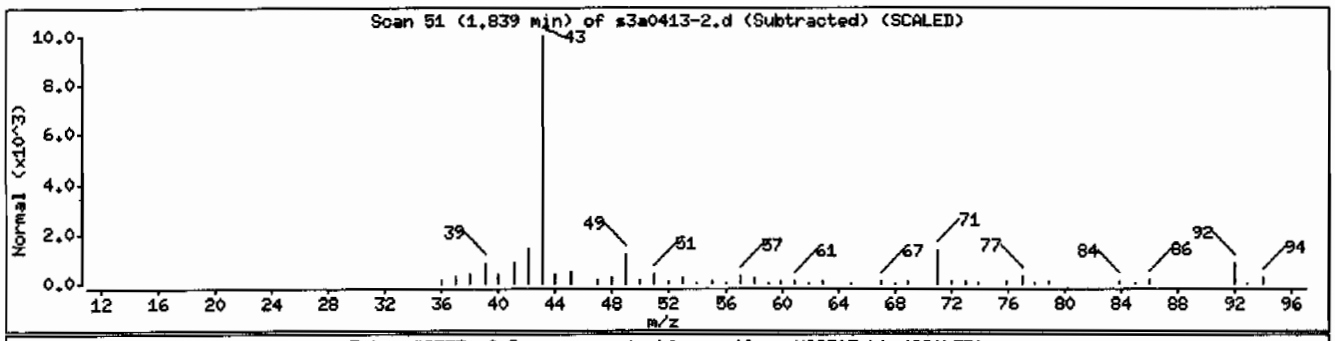

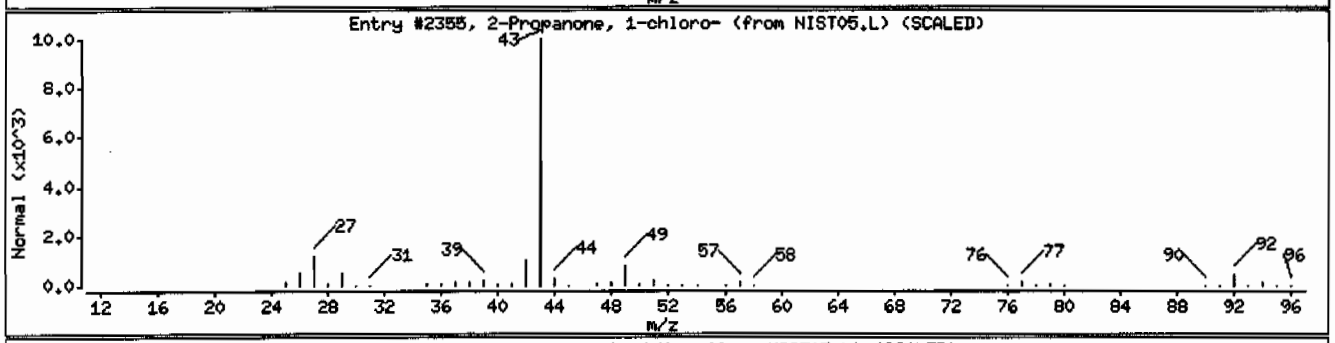

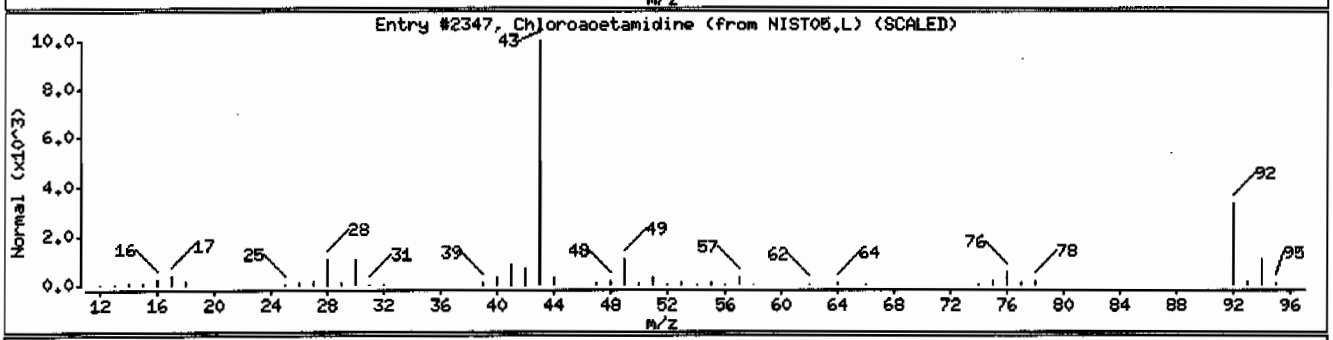

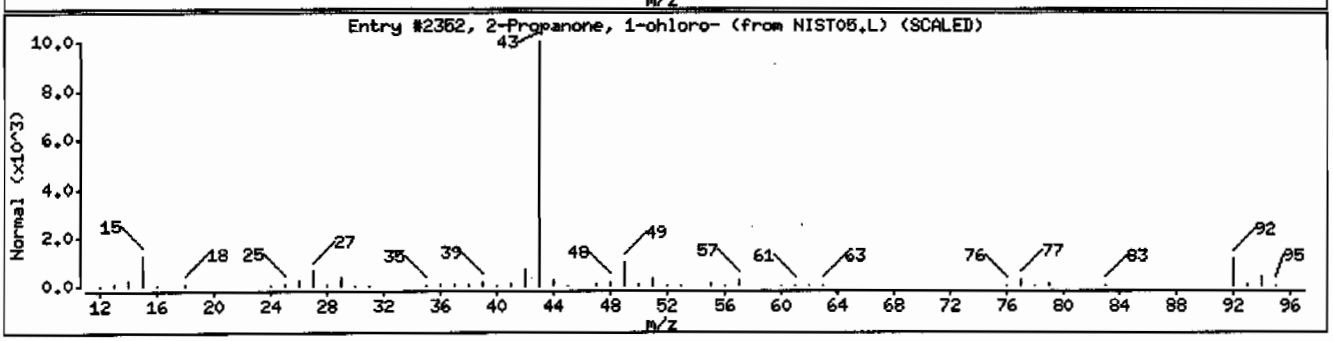

Data File: /chem/MSD3.i/s010410a.b/s3a0413-2.d

Date : 04-JAN-2010 16:44

Client ID: SBLK01

Instrument: MSD3.i

Sample Info: |1202005357|937151|1|SVMF|1|SBLK01

Volume Injected (uL): 0.5

Operator: JLD1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	56	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7945	50	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	40	C6H12O2	116

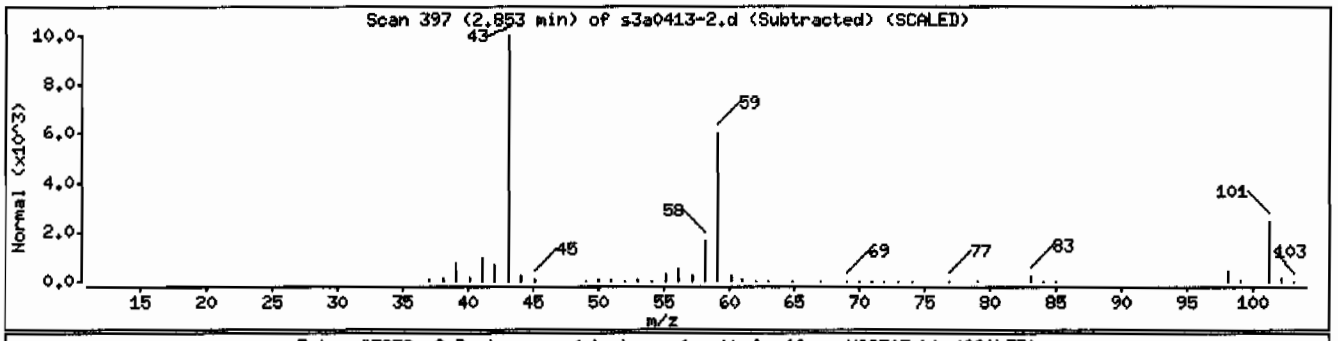

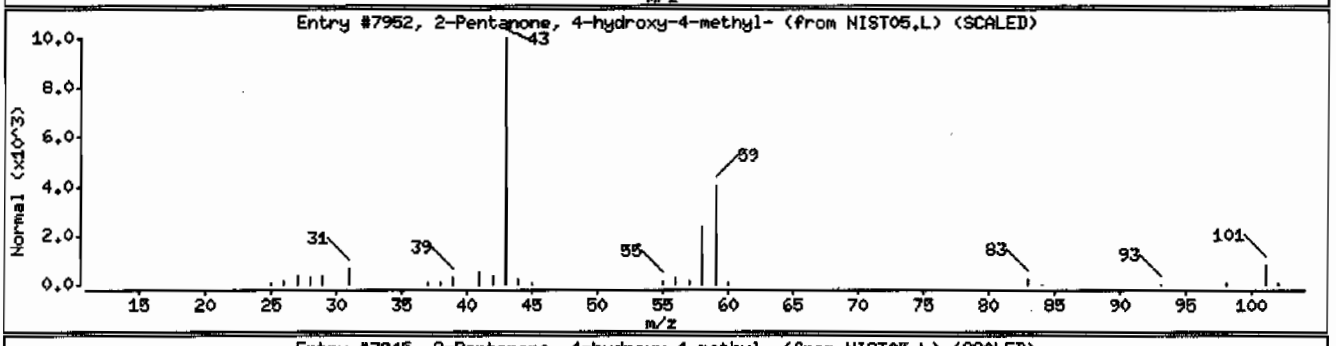

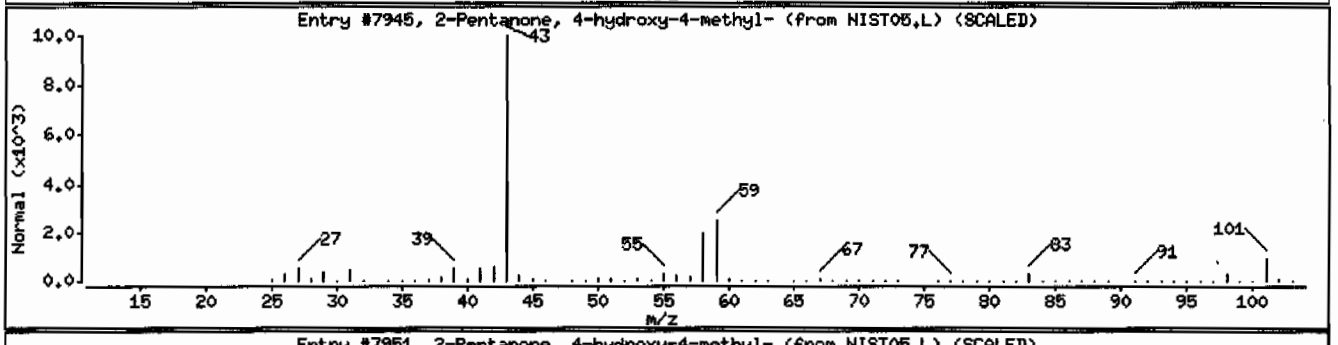

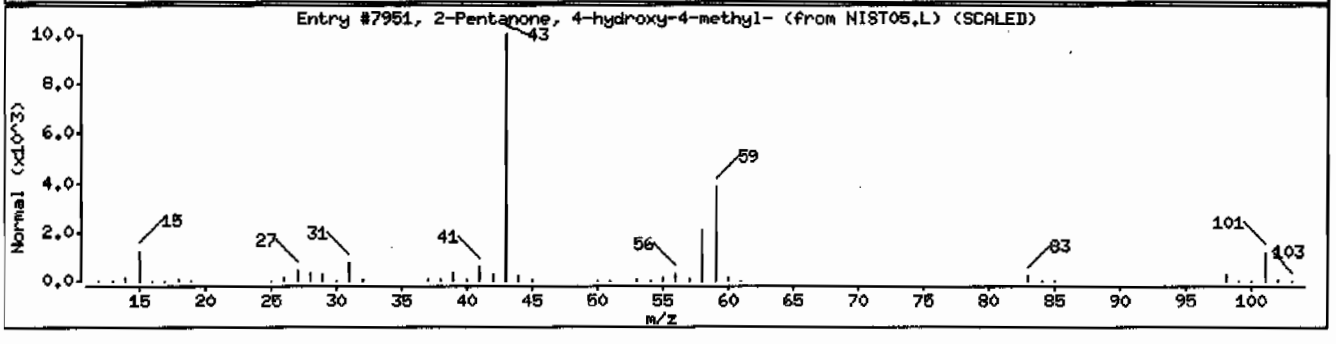

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1085			**Matrix:**	SOIL
Lab Sample ID:	1202005358				
Client Sample:	QC for batch 937150	**Client:**	LANL010	**Project:**	QC
Client ID:	LCS for batch 937150	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	937151	**Inst:**	MSD3.I	**Dilution:**	1
Run Date:	01/04/2010 17:08	**Analyst:**	JLD1	**Inj. Vol:**	.5 uL
Prep Date:	12/29/2009 10:16	**Aliquot:**	30 g	**Final Volume:**	1 mL
Data File:	s3a0414-1.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine		975	ug/kg	66.7	333
108-95-2	Phenol		1230	ug/kg	66.7	333
95-57-8	2-Chlorophenol		1280	ug/kg	66.7	333
106-46-7	1,4-Dichlorobenzene		912	ug/kg	66.7	333
621-64-7	N-Nitrosodipropylamine		1250	ug/kg	66.7	333
59-50-7	4-Chloro-3-methylphenol		1390	ug/kg	66.7	333
83-32-9	Acenaphthene		1170	ug/kg	11.0	33.3
121-14-2	2,4-Dinitrotoluene		1260	ug/kg	33.3	333
100-02-7	4-Nitrophenol		984	ug/kg	110	333
87-86-5	Pentachlorophenol		1270	ug/kg	83.3	333
129-00-0	Pyrene		1150	ug/kg	10.0	33.3
110-86-1	Pyridine		806	ug/kg	66.7	333
62-53-3	Aniline		1040	ug/kg	100	333
111-44-4	bis(2-Chloroethyl) ether		907	ug/kg	66.7	333
541-73-1	1,3-Dichlorobenzene		866	ug/kg	66.7	333
100-51-6	Benzyl alcohol		1510	ug/kg	100	333
95-50-1	1,2-Dichlorobenzene		938	ug/kg	66.7	333
108-60-1	bis(2-Chloroisopropyl)ether		943	ug/kg	66.7	333
95-48-7	o-Cresol		1210	ug/kg	66.7	333
65794-96-9	m,p-Cresols		1520	ug/kg	100	333
67-72-1	Hexachloroethane		994	ug/kg	66.7	333
98-95-3	Nitrobenzene		1120	ug/kg	66.7	333
78-59-1	Isophorone		1340	ug/kg	66.7	333
88-75-5	2-Nitrophenol		1200	ug/kg	66.7	333
105-67-9	2,4-Dimethylphenol		1260	ug/kg	117	333
111-91-1	bis(2-Chloroethoxy)methane		1010	ug/kg	66.7	333
120-83-2	2,4-Dichlorophenol		1230	ug/kg	66.7	333
65-85-0	Benzoic acid		2760	ug/kg	167	667
91-20-3	Naphthalene		1210	ug/kg	10.0	33.3
106-47-8	4-Chloroaniline		902	ug/kg	66.7	333
87-68-3	Hexachlorobutadiene		1030	ug/kg	66.7	333
91-57-6	2-Methylnaphthalene		1190	ug/kg	6.67	33.3
77-47-4	Hexachlorocyclopentadiene		1890	ug/kg	66.7	333
88-06-2	2,4,6-Trichlorophenol		1400	ug/kg	66.7	333
95-95-4	2,4,5-Trichlorophenol		1280	ug/kg	66.7	333
91-58-7	2-Chloronaphthalene		1110	ug/kg	11.0	33.3
88-74-4	2-Nitroaniline		1170	ug/kg	66.7	333
99-09-2	*o-Nitroaniline* 3-Nitroaniline		1190	ug/kg	66.7	333

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1085			Matrix:	SOIL
Lab Sample ID:	1202005358				
Client Sample:	QC for batch 937150	Client:	LANL010	Project:	QC
Client ID:	LCS for batch 937150	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	937151	Inst:	MSD3.I	Dilution:	1
Run Date:	01/04/2010 17:08	Analyst:	JLD1	Inj. Vol:	.5 uL
Prep Date:	12/29/2009 10:16	Aliquot:	30 g	Final Volume:	1 mL
Data File:	s3a0414-1.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate		1300	ug/kg	66.7	333
606-20-2	2,6-Dinitrotoluene		1150	ug/kg	33.3	333
208-96-8	Acenaphthylene		1210	ug/kg	10.0	33.3
51-28-5	2,4-Dinitrophenol		1400	ug/kg	127	667
132-64-9	Dibenzofuran		1490	ug/kg	66.7	333
84-66-2	Diethylphthalate		1400	ug/kg	66.7	333
86-73-7	Fluorene		1250	ug/kg	10.0	33.3
7005-72-3	4-Chlorophenylphenylether		1360	ug/kg	66.7	333
534-52-1	2-Methyl-4,6-dinitrophenol		1250	ug/kg	66.7	333
100-01-6	4-Nitroaniline		1210	ug/kg	100	333
	p-Nitroaniline					
122-39-4	Diphenylamine		1280	ug/kg	66.7	333
122-66-7	Azobenzene		1200	ug/kg	66.7	333
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether		1340	ug/kg	66.7	333
118-74-1	Hexachlorobenzene		1240	ug/kg	66.7	333
85-01-8	Phenanthrene		1170	ug/kg	10.0	33.3
120-12-7	Anthracene		1150	ug/kg	6.67	33.3
84-74-2	Di-n-butylphthalate		1450	ug/kg	66.7	333
206-44-0	Fluoranthene		1200	ug/kg	10.0	33.3
85-68-7	Butylbenzylphthalate		1350	ug/kg	66.7	333
56-55-3	Benzo(a)anthracene		1210	ug/kg	10.0	33.3
91-94-1	3,3'-Dichlorobenzidine		1020	ug/kg	100	333
218-01-9	Chrysene		1150	ug/kg	10.0	33.3
117-81-7	bis(2-Ethylhexyl)phthalate		1590	ug/kg	66.7	333
117-84-0	Di-n-octylphthalate		1340	ug/kg	66.7	333
205-99-2	Benzo(b)fluoranthene		1170	ug/kg	10.0	33.3
207-08-9	Benzo(k)fluoranthene		1190	ug/kg	10.0	33.3
50-32-8	Benzo(a)pyrene		1280	ug/kg	10.0	33.3
193-39-5	Indeno(1,2,3-cd)pyrene		1590	ug/kg	10.0	33.3
53-70-3	Dibenzo(a,h)anthracene		1600	ug/kg	10.0	33.3
191-24-2	Benzo(ghi)perylene		1580	ug/kg	10.0	33.3
120-82-1	1,2,4-Trichlorobenzene		1100	ug/kg	66.7	333

GEL Laboratories LLC

Data file : /chem/MSD3.i/s010410a.b/s3a0414-2.d
Lab Smp Id: 1202005358 Client Smp ID: SBLK01LCS
Inj Date : 04-JAN-2010 17:08
Operator : JLD1 Inst ID: MSD3.i
Smp Info : |1202005358|937151|1|SVMF|1|SBLK01LCS
Misc Info : |MSD8270_S|WBN091223-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD3.i/s010410a.b/MSD3-8270R-AQA-120809.m
Meth Date : 04-Jan-2010 16:42 jen00986 Quant Type: ISTD
Cal Date : 07-DEC-2009 19:48 Cal File: s310717.d
Als bottle: 6 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-1085.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	0.00000	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	4.201	4.203	(1.000)	127521	40.0000	
* 29 Naphthalene-d8	136	5.454	5.453	(1.000)	484652	40.0000	
* 46 Acenaphthene-d10	164	7.296	7.298	(1.000)	267372	40.0000	
* 67 Phenanthrene-d10	188	8.890	8.888	(1.000)	454926	40.0000	
* 91 Chrysene-d12	240	11.745	11.745	(1.000)	420614	40.0000	
* 98 Perylene-d12	264	13.689	13.686	(1.000)	342432	40.0000	
$ 3 2-Fluorophenol	112	3.105	3.093	(0.739)	255096	76.4785	2550
$ 5 Phenol-d5	99	3.873	3.869	(0.922)	313438	73.7584	2460
$ 20 Nitrobenzene-d5	82	4.738	4.737	(0.869)	141295	39.8896	1330
$ 39 2-Fluorobiphenyl	172	6.577	6.576	(0.901)	246339	39.3066	1310
$ 60 2,4,6-Tribromophenol	329	8.144	8.143	(1.116)	68495	93.2888	3110
$ 81 p-Terphenyl-d14	244	10.593	10.595	(0.902)	262007	38.7845	1290

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
6 Phenol	94	3.884	3.881	(0.925)	162958	36.8118	1230
8 2-Chlorophenol	128	4.019	4.019	(0.957)	131366	38.4684	1280
11 1,4-Dichlorobenzene	146	4.216	4.218	(1.003)	109236	27.3531	912
17 N-Nitrosodipropylamine	70	4.579	4.579	(1.090)	103528	37.3955	1250(Q)
28 1,2,4-Trichlorobenzene	180	5.389	5.388	(0.988)	100663	32.9321	1100
33 4-Chloro-3-methylphenol	107	6.052	6.045	(1.110)	122888	41.8276	1390
47 Acenaphthene	154	7.331	7.333	(1.005)	223383	35.1525	1170
50 2,4-Dinitrotoluene	165	7.513	7.515	(1.030)	84770	37.9072	1260
52 4-Nitrophenol	139	7.478	7.474	(1.025)	28143	29.5260	984
65 Pentachlorophenol	266	8.693	8.689	(0.978)	39141	38.1588	1270
79 Pyrene	202	10.432	10.433	(0.888)	404481	34.3898	1150
2 Pyridine	79	2.187	2.173	(0.521)	84160	24.1860	806
4 Aniline	66	3.911	3.913	(0.931)	55527	31.2178	1040
7 bis(2-Chloroethyl) ether	63	3.952	3.954	(0.941)	77185	27.2009	907
9 1,3-Dichlorobenzene	146	4.148	4.150	(0.987)	102456	25.9748	866
12 Benzyl alcohol	108	4.336	4.332	(1.032)	98897	45.4270	1510
13 1,2-Dichlorobenzene	146	4.359	4.362	(1.038)	106575	28.1293	938
14 bis(2-Chloroisopropyl)ether	45	4.445	4.447	(1.058)	151316	28.2784	943
15 o-Cresol	107	4.442	4.435	(1.057)	102950	36.2388	1210
18 m,p-Cresols	107	4.585	4.588	(1.091)	157568	45.6590	1520(Q)
19 Hexachloroethane	117	4.682	4.681	(1.115)	44842	29.8115	994
21 Nitrobenzene	77	4.755	4.758	(0.872)	138293	33.6007	1120
22 Isophorone	82	4.981	4.983	(0.913)	265755	40.1269	1340
23 2-Nitrophenol	139	5.066	5.068	(0.929)	62122	35.8760	1200
24 2,4-Dimethylphenol	122	5.107	5.110	(0.936)	116649	37.6950	1260
25 bis(2-Chloroethoxy)methane	93	5.195	5.198	(0.953)	139286	30.3455	1010
26 2,4-Dichlorophenol	162	5.313	5.312	(0.974)	98989	37.0332	1230
27 Benzoic acid	105	5.266	5.236	(0.966)	143297	82.8211	2760
30 Naphthalene	128	5.474	5.476	(1.004)	358977	36.2720	1210
31 4-Chloroaniline	127	5.539	5.538	(1.016)	87716	27.0728	902
32 Hexachlorobutadiene	225	5.589	5.591	(1.025)	57959	30.9144	1030
34 2-Methylnaphthalene	142	6.190	6.192	(1.135)	248798	35.7741	1190
36 Hexachlorocyclopentadiene	237	6.348	6.348	(0.870)	43349	56.5690	1880
37 2,4,6-Trichlorophenol	196	6.495	6.494	(0.890)	75416	41.8616	1400
38 2,4,5-Trichlorophenol	196	6.542	6.535	(0.897)	76115	38.3419	1280
40 2-Chloronaphthalene	162	6.707	6.706	(0.919)	221076	33.3630	1110
42 o-Nitroaniline	65	6.833	6.832	(0.936)	78322	35.2442	1170
41 m-Nitroaniline	138	7.273	7.278	(0.997)	48108	35.7021	1190(Q)
43 Dimethylphthalate	163	7.017	7.022	(0.962)	269726	38.8550	1300
44 2,6-Dinitrotoluene	165	7.088	7.090	(0.971)	60074	34.4360	1150
45 Acenaphthylene	152	7.147	7.149	(0.979)	373090	36.4316	1210
48 2,4-Dinitrophenol	184	7.378	7.380	(1.011)	23452	42.0289	1400
49 Dibenzofuran	168	7.516	7.518	(1.030)	391168	44.8047	1490
51 Diethylphthalate	149	7.766	7.765	(1.064)	289448	41.9713	1400
53 Fluorene	166	7.883	7.882	(1.080)	283962	37.3888	1250
54 4-Chlorophenylphenylether	204	7.880	7.882	(1.080)	134273	40.8863	1360
55 2-Methyl-4,6-dinitrophenol	198	7.951	7.950	(0.894)	38992	37.6345	1250

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
56 p-Nitroaniline	138	7.933	7.941	(1.087)	42281	36.3083	1210
133 Diphenylamine	169	8.015	8.014	(0.902)	226734	38.5398	1280
58 1,2-Diphenylhydrazine	77	8.053	8.052	(0.906)	314445	35.8602	1200
61 4-Bromophenylphenylether	248	8.402	8.404	(0.945)	68110	40.0633	1340
63 Hexachlorobenzene	284	8.467	8.466	(0.952)	75605	37.1395	1240
68 Phenanthrene	178	8.916	8.915	(1.003)	381484	35.1357	1170
69 Anthracene	178	8.969	8.971	(1.009)	380883	34.4817	1150
72 Di-n-butylphthalate	149	9.508	9.510	(1.070)	507714	43.5123	1450
76 Fluoranthene	202	10.188	10.190	(1.146)	386811	35.9902	1200
85 Butylbenzylphthalate	149	11.117	11.120	(0.947)	223368	40.4631	1350
89 Benzo(a)anthracene	228	11.727	11.730	(0.998)	368249	36.3635	1210
90 3,3'-Dichlorobenzidine	252	11.704	11.703	(0.996)	88221	30.5206	1020
92 Chrysene	228	11.774	11.774	(1.002)	323704	34.4215	1150
93 bis(2-Ethylhexyl)phthalate	149	11.733	11.733	(0.999)	350209	47.6118	1590
94 Di-n-octylphthalate	149	12.540	12.539	(0.916)	507025	40.0965	1340
95 Benzo(b)fluoranthene	252	13.114	13.114	(0.958)	318688	35.2322	1170
96 Benzo(k)fluoranthene	252	13.156	13.155	(0.961)	304227	35.5712	1180
97 Benzo(a)pyrene	252	13.598	13.598	(0.993)	286200	38.4630	1280
99 Indeno(1,2,3-cd)pyrene	276	15.407	15.404	(1.125)	312795	47.7797	1590
100 Dibenzo(a,h)anthracene	278	15.439	15.436	(1.128)	265641	48.0047	1600
101 Benzo(ghi)perylene	276	15.862	15.859	(1.159)	261314	47.4367	1580
1 N-Methyl-N-nitrosomethylamine	74	2.161	2.152	(0.514)	62719	29.2561	975

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: /chem/MSD3.i/s010410a.b/s3a0414-2.d
Date : 04-JAN-2010 17:08
Client ID: SBLK01LCS
Sample Info: 1120200535819371511|SVMF1|SBLK01LCS
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD3.1
Operator: JLD1
Column diameter: 0.20

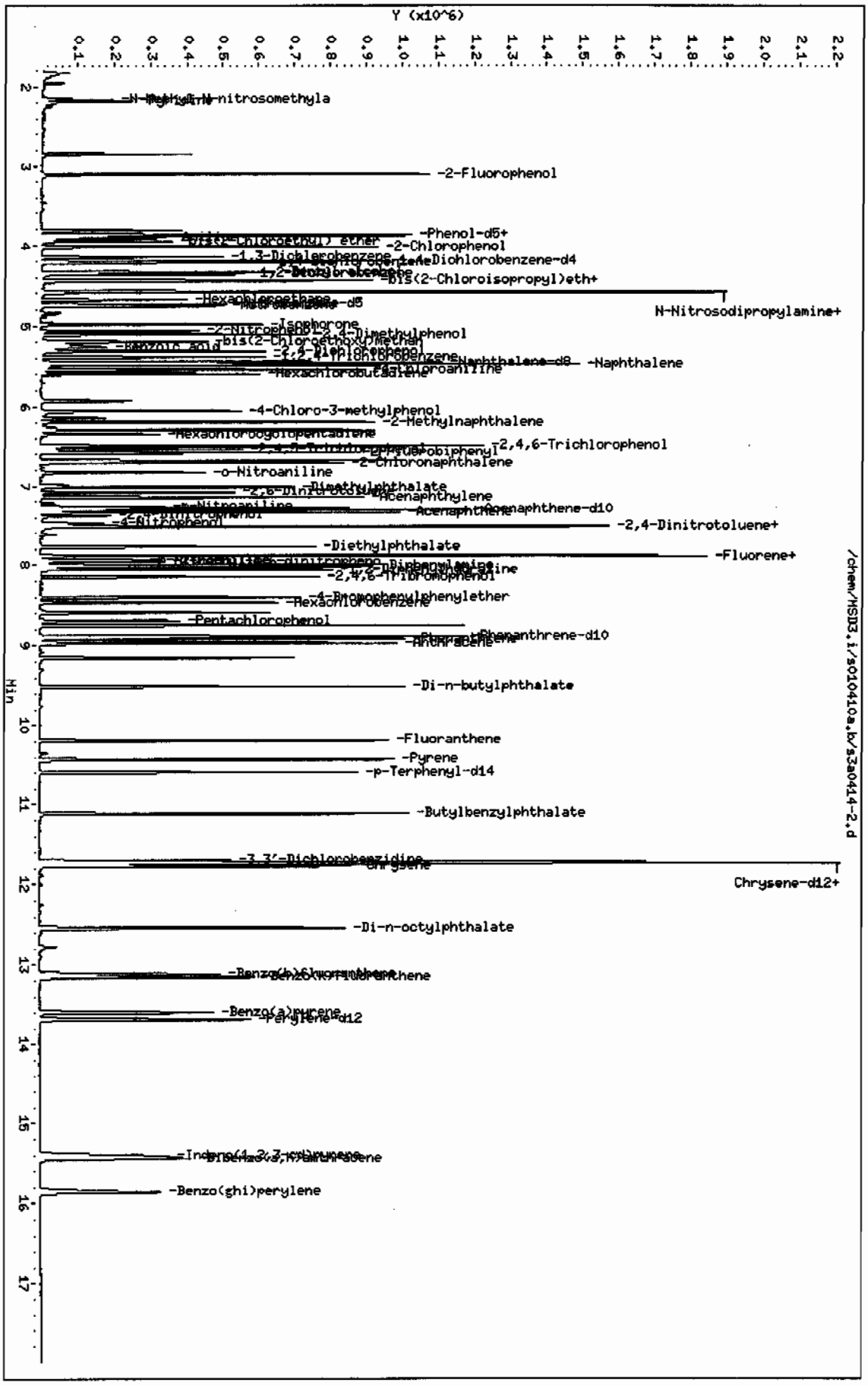

Page 1

Miscellaneous Data

Prep Logbook

Extraction of Semivolatile and Nonvolatile Organic Compounds from Soil, Sludge, and Other Miscellaneous Solid Samples

Batch ID: 937150 **Verified by:** _____
Analyst: Joshua McCartney
Method: SW846 3550B

Lab SOP: GL-OA-E-010 REV# 18
Instrument: Semi-Volatiles Manual

Sample ID	Run Date	Aliquot (g)	Prepped Aliquot (mL)	Prepped Factor (mL/g)
1202005357 MB	29-DEC-2009 10:16:52	30	1	0.03333
1202005358 LCS	29-DEC-2009 10:16:52	30	1	0.03333
243546001	29-DEC-2009 10:16:52	30	1	0.03333
243546002	29-DEC-2009 10:16:52	30.03	1	0.0333
243546003	29-DEC-2009 10:16:52	30.06	1	0.03327
243547002	29-DEC-2009 10:16:52	30	1	0.03333
243547003	29-DEC-2009 10:16:52	30	1	0.03333
243549002	29-DEC-2009 10:16:52	30	1	0.03333
243552001	29-DEC-2009 10:16:52	30.09	1	0.03323
1202005359 MS (243552001)	29-DEC-2009 10:16:52	30.08	1	0.03324
1202005360 MSD (243552001)	29-DEC-2009 10:16:52	30.01	1	0.03332
243552002	29-DEC-2009 10:16:52	30	1	0.03333
243552003	29-DEC-2009 10:16:52	30.05	1	0.03328
243552004	29-DEC-2009 10:16:52	30.03	1	0.0333
243552005	29-DEC-2009 10:16:52	30.01	1	0.03332
243552006	29-DEC-2009 10:16:52	30.02	1	0.03331
243552007	29-DEC-2009 10:16:52	30	1	0.03333
243552008	29-DEC-2009 10:16:52	30	1	0.03333
243552009	29-DEC-2009 10:16:52	30.09	1	0.03323
243552010	29-DEC-2009 10:16:52	30.08	1	0.03324
243552011	29-DEC-2009 10:16:52	30.03	1	0.0333
243552012	29-DEC-2009 10:16:52	30.04	1	0.03329
243552014	29-DEC-2009 10:16:52	30	1	0.03333

Type	Sample Id	Description	Serial Number	Spike Amt	Units
LCS	1202005358	BNA LCS w/o Benzidine 50ppm	UE091217-12	1	mL
LCS	1202005358	BENZIDINE LCS	UE091223-21	1	mL
MS	1202005359	BNA LCS w/o Benzidine 50ppm	UE091217-12	1	mL
MS	1202005359	BENZIDINE LCS	UE091223-21	1	mL
MSD	1202005360	BNA LCS w/o Benzidine 50ppm	UE091217-12	1	mL
MSD	1202005360	BENZIDINE LCS	UE091223-21	1	mL
SURR	All	BNA for all Surrogate	UE091217-10	1	mL
REGNT	All	Acetone	1233927	150	mL
REGNT	All	Methylene Chloride	1242565-D	150	mL
SOURC	All	SODIUM SULFATE	1242582	30	g

Comments:

Verified By: RWH
Final Solvent: CH2Cl2

GEL ORGANIC RUN LOG INSTRUMENT ID: MSD3

DATE: 12/06/2009 METHOD: See raw data OPERATOR: JLD1 REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT:1202440-D
Multiplier Voltage: 976 Emv Extr. Injection Volume: 0.5, 1.0 ul
DFTPP Solution ID: WBN091128-01 Internal Std ID: WBN091128-02
CALIBRATION & QC INFORMATION:
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.

SOP: GL-OA-E-009 Rev. 22 Sequence Number: /chem/MSD3.i/s120609.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
s3i1406.d	WBN090825-05.1	JLD1	14-SEP-2009 11:51	40PPM	s091409	1.0	APCVS	DUSE; FOR RT ONLY
s310601-D.d	WBN091128-01	JLD1	06-DEC-2009 09:33	50NG	s120609	1.0	DFTPP	USE; 8270D MEGA ICAL/ICV
s310601.d	WBN091128-01	JLD1	06-DEC-2009 09:33	50NG	s120609	1.0	DFTPP	USE; 8270C MEGA ICAL/ICV
s310602.d	INSTRUMENTBLANK	JLD1	06-DEC-2009 09:45		s120609	1.0		IB
s310603-MQC.	WBN091201-16	JLD1	06-DEC-2009 10:12	01PPM	s120609	1.0	MEGAICAL	8270D MQC NOT NEEDED
s310603.d	WBN091201-16	JLD1	06-DEC-2009 10:12	01PPM	s120609	1.0	MEGAICAL	USE; LEV 1
s310604-MQC.d	WBN091201-15	JLD1	06-DEC-2009 10:41	10PPM	s120609	1.0	MEGAICAL	8270D MQC PASS
s310604.d	WBN091201-15	JLD1	06-DEC-2009 10:41	10PPM	s120609	1.0	MEGAICAL	USE; LEV 2
s310605-MQC.	WBN091201-14	JLD1	06-DEC-2009 11:10	20PPM	s120609	1.0	MEGAICAL	8270D MQC PASS
s310605.d	WBN091201-14	JLD1	06-DEC-2009 11:10	20PPM	s120609	1.0	MEGAICAL	USE; LEV 3
s310606.d	WBN091201-13.1	JLD1	06-DEC-2009 11:39	40PPM	s120609	1.0	MEGAICAL	USE; LEV 4
s310607.d	WBN091201-12	JLD1	06-DEC-2009 12:08	50PPM	s120609	1.0	MEGAICAL	USE; LEV 5
s310608.d	WBN091201-11	JLD1	06-DEC-2009 12:37	80PPM	s120609	1.0	MEGAICAL	USE; LEV 6
s310609.d	WBN091201-10	JLD1	06-DEC-2009 13:06	100PPM	s120609	1.0	MEGAICAL	USE; LEV 7
s310610.d	WBN091201-09	JLD1	06-DEC-2009 13:35	120PPM	s120609	1.0	MEGAICAL	USE; LEV 8
s310611.d	INSTRUMENTBLANK	JLD1	06-DEC-2009 14:04		s120609	1.0		IB
s310612-8270	WBN091106-05.2	JLD1	06-DEC-2009 14:32	40PPM	s120609	1.0	MEGAICV	USE; 8270D 36/210/211/26 ESTIMATED
s310612-BOE.	WBN091106-05.2	JLD1	06-DEC-2009 14:32	40PPM	s120609	1.0	MEGAICV	USE; BOE PASSED ALL BUT 210/211
s310612.d	WBN091106-05.2	JLD1	06-DEC-2009 14:32	40PPM	s120609	1.0	MEGAICV	USE; 8270C PASSED ALL BUT 210/211

s310613-D.d	WBN091128-01	JLD1	06-DEC-2009 19:35	50NG	s120609		1.0	DFTPP	USE; 8270D PEST/HEX ICAL; PEST ICV
s310613.d	WBN091128-01	JLD1	06-DEC-2009 19:35	50NG	s120609		1.0	DFTPP	USE; 8270C PEST/HEX ICAL; PEST ICV
s310614.d	INSTRUMENTBLANK	JLD1	06-DEC-2009 19:47		s120609		1.0		IB
s310615.d	WBN091201-01	JLD1	06-DEC-2009 20:14	10PPM	s120609		1.0	AP010	USE; AP ICAL FAILS C 77/146
s310616.d	WBN091201-02	JLD1	06-DEC-2009 20:41	20PPM	s120609		1.0	AP020	USE; AP ICAL FAILS C 77/146
s310617.d	WBN091201-03.1	JLD1	06-DEC-2009 21:09	40PPM	s120609		1.0	AP040	USE; AP ICAL FAILS C 77/146
s310618.d	WBN091201-04	JLD1	06-DEC-2009 21:36	50PPM	s120609		1.0	AP050	USE; AP ICAL FAILS C 77/146
s310619.d	WBN091201-05	JLD1	06-DEC-2009 22:04	80PPM	s120609		1.0	AP080	USE; AP ICAL FAILS C 77/146
s310620.d	WBN091201-06	JLD1	06-DEC-2009 22:31	100PPM	s120609		1.0	AP100	USE; AP ICAL FAILS C 77/146
s310621.d	WBN091201-07	JLD1	06-DEC-2009 22:58	120PPM	s120609		1.0	AP120	USE; AP ICAL FAILS C 77/146
s310622.d	WBN091202-25	JLD1	06-DEC-2009 23:25	10PPM	s120609		1.0	PEST010	USE; LEV 2
s310623.d	WBN091202-24	JLD1	06-DEC-2009 23:53	20PPM	s120609		1.0	PEST020	USE; LEV 3
s310624.d	WBN091202-23.1	JLD1	07-DEC-2009 00:20	40PPM	s120609		1.0	PEST040	USE; LEV 4
s310625.d	WBN091202-22	JLD1	07-DEC-2009 00:47	50PPM	s120609		1.0	PEST050	USE; LEV 5
s310626.d	WBN091202-21	JLD1	07-DEC-2009 01:14	80PPM	s120609		1.0	PEST080	USE; LEV 6
s310627.d	WBN091202-20	JLD1	07-DEC-2009 01:42	100PPM	s120609		1.0	PEST100	USE; LEV 7
s310628.d	WBN091202-19	JLD1	07-DEC-2009 02:09	120PPM	s120609		1.0	PEST120	USE; LEV 8
s310629-MQC.	WBN091202-16	JLD1	07-DEC-2009 02:36	500PPM	s120609		1.0	HEX500	8270 HEX PASS MQC
s310629.d	WBN091202-16	JLD1	07-DEC-2009 02:36	500PPM	s120609		1.0	HEX500	USE; LEV 2
s310630.d	WBN091202-15	JLD1	07-DEC-2009 03:03	1000PPM	s120609		1.0	HEX1000	USE; LEV 3
s310631.d	WBN091202-13	JLD1	07-DEC-2009 03:30	1250PPM	s120609		1.0	HEX1250	USE; LEV 4
s310632.d	WBN091202-12	JLD1	07-DEC-2009 03:57	1500PPM	s120609		1.0	HEX1500	USE; LEV 5

Instrument Batch: /chem/MSD3.i/s120609.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
s310633.d	WBN091202-11	JLD1	07-DEC-2009 04:24	1750PPM	s120609	1.0	HEX1750	USE; LEV 6
s310634.d	UBN090828-02.3	JLD1	07-DEC-2009 04:52	2000PPM	s120609	1.0	HEX2000	USE; LEV 7
s310635.d	WBN091201-08.1	JLD1	07-DEC-2009 05:19	40PPM	s120609	1.0	APICV	USE; AP ICAL FAILS C 77/146

s310636-8270	WBN091202-26.1	JLD1	07-DEC-2009 05:46	40PPM	s120609	1.0	PESTICV	USE; 8270D
s310636.d	WBN091202-26.1	JLD1	07-DEC-2009 05:46	40PPM	s120609	1.0	PESTICV	USE; 8270C
s310637.d	WBN091202-10.2	JLD1	07-DEC-2009 06:13	1250PPM	s120609	1.0	HEXICV	DUSE; ICV HIGH

Instrument Batch: /chem/MSD3.i/s120609.b

GEL ORGANIC RUN LOG INSTRUMENT ID: MSD3

DATE: 12/08/2009 METHOD: See raw data OPERATOR: JLD1 REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT:1202440-D
Multiplier Voltage: 976 Emv Extr. Injection Volume: 0.5, 1.0 ul
DFTPP Solution ID: WBN091128-01 Internal Std ID: WBN091128-02
CALIBRATION & QC INFORMATION:
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.

SOP: GL-OA-E-009 Rev. 22 Sequence Number: /chem/MSD3.i/s120809.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
s310801-D.d	WBN091128-01	JLD1	08-DEC-2009 09:03	50NG	s120809	1.0	DFTPP	USE; 8270D AP ICAL/ICV; HEX ICV
s310801.d	WBN091128-01	JLD1	08-DEC-2009 09:03	50NG	s120809	1.0	DFTPP	USE; 8270C AP ICAL/ICV; HEX ICV
s310802.d	INSTRUMENTBLANK	JLD1	08-DEC-2009 09:15		s120809	1.0		IB
s310803-MQC.	WBN091201-01	JLD1	08-DEC-2009 09:42	10PPM	s120809	1.0	AP010	8270D FAIL MIN QUANT CHECK FOR C 77
s310803.d	WBN091201-01	JLD1	08-DEC-2009 09:42	10PPM	s120809	1.0	AP010	USE; LEV 2
s310804.d	WBN091201-02	JLD1	08-DEC-2009 10:09	20PPM	s120809	1.0	AP020	USE; LEV 3
s310805.d	WBN091201-03.1	JLD1	08-DEC-2009 10:37	40PPM	s120809	1.0	AP040	USE; LEV 4
s310806.d	WBN091201-04	JLD1	08-DEC-2009 11:04	50PPM	s120809	1.0	AP050	USE; LEV 5
s310807.d	WBN091201-05	JLD1	08-DEC-2009 11:31	80PPM	s120809	1.0	AP080	USE; LEV 6
s310808.d	WBN091201-06	JLD1	08-DEC-2009 11:58	100PPM	s120809	1.0	AP100	USE; LEV 7
s310809.d	WBN091201-07	JLD1	08-DEC-2009 12:26	120PPM	s120809	1.0	AP120	USE; LEV 8 (ICAL FAILS C 120)
s310810-8270	WBN091201-08.1	JLD1	08-DEC-2009 12:53	40PPM	s120809	1.0	APICV	USE; 8270D 110/119/124/136 ESTIMATED
s310810.d	WBN091201-08.1	JLD1	08-DEC-2009 12:53	40PPM	s120809	1.0	APICV	USE; 8270C PASS
s310811-8270	WBN090827-10.3	JLD1	08-DEC-2009 13:20	1250PPM	s120809	1.0	HEXICV	USE; 8270D PASS
s310811.d	WBN090827-10.3	JLD1	08-DEC-2009 13:20	1250PPM	s120809	1.0	HEXICV	USE; 8270C PASS

GEL ORGANIC RUN LOG INSTRUMENT ID: MSD3

DATE: 01/04/2010 METHOD: See raw data OPERATOR: JLD1 REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT:1238037-D
Multiplier Voltage: 1059 Emv Extr. Injection Volume: 0.5, 1.0 ul
DFTPP Solution ID: WBN091213-01 Internal Std ID: WBN091223-01
CALIBRATION & QC INFORMATION:
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.

SOP: GL-OA-E-009 Rev. 23 Sequence Number: /chem/MSD3.i/s010410a.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
s3a0409.d	WBN091213-01	JLD1	04-JAN-2010 15:08	50NG	s010410	1.0	DFTPP	USE
s3a0410.d	WBN091201-17.3	JLD1	04-JAN-2010 15:20	40PPM	s010410	1.0	MEGACVS	USE (125043)
s3a0411.d	WBN100103-08.2	JLD1	04-JAN-2010 15:49	40PPM	s010410a	1.0	APCVS	USE
s3a0412.d	WBN100103-26.2	JLD1	04-JAN-2010 16:16	40PPM	s010410a	1.0	PESTCVS	USE
s3a0413-1.d	1202005357	JLD1	04-JAN-2010 16:44	937151	10-1084	1.0	SBLK01	USE
s3a0413-2.d	1202005357	JLD1	04-JAN-2010 16:44	937151	10-1085	1.0	SBLK01	USE
s3a0413-3.d	1202005357	JLD1	04-JAN-2010 16:44	937151	10-1086	1.0	SBLK01	USE
s3a0413.d	1202005357	JLD1	04-JAN-2010 16:44	937151	10-1083	1.0	SBLK01	USE
s3a0414-1.d	1202005358	JLD1	04-JAN-2010 17:08	937151	10-1084	1.0	SBLK01LCS	USE
s3a0414-2.d	1202005358	JLD1	04-JAN-2010 17:08	937151	10-1085	1.0	SBLK01LCS	USE
s3a0414-3.d	1202005358	JLD1	04-JAN-2010 17:08	937151	10-1086	1.0	SBLK01LCS	USE
s3a0414.d	1202005358	JLD1	04-JAN-2010 17:08	937151	10-1083	1.0	SBLK01LCS	USE
s3a0415.d	243510010	JLD1	04-JAN-2010 17:33	937147	10-1070	1.0	LANL	USE; RR OF S3A0219; ISTD PASS
s3a0416.d	243546001	JLD1	04-JAN-2010 17:57	937151	10-1083	1.0	LANL	USE
s3a0417.d	243546002	JLD1	04-JAN-2010 18:21	937151	10-1083	1.0	LANL	USE
s3a0418.d	243546003	JLD1	04-JAN-2010 18:46	937151	10-1083	1.0	LANL	USE
s3a0419.d	243547002	JLD1	04-JAN-2010 19:10	937151	10-1084	1.0	LANL	USE
s3a0420.d	243547003	JLD1	04-JAN-2010 19:35	937151	10-1084	1.0	LANL	USE
s3a0421.d	243549002	JLD1	04-JAN-2010 19:59	937151	10-1085	1.0	LANL	USE

s3a0422.d	243552001	JLD1	04-JAN-2010 20:24	937151	10-1086	1.0	LANL	USE
s3a0423.d	1202005359	JLD1	04-JAN-2010 20:49	937151	10-1086	1.0	MS	USE
s3a0424.d	1202005360	JLD1	04-JAN-2010 21:13	937151	10-1086	1.0	MSD	USE
s3a0425.d	243552002	JLD1	04-JAN-2010 21:37	937151	10-1086	1.0	LANL	USE
s3a0426.d	243552003	JLD1	04-JAN-2010 22:02	937151	10-1086	1.0	LANL	USE
s3a0427.d	243552004	JLD1	04-JAN-2010 22:27	937151	10-1086	1.0	LANL	USE
s3a0428.d	243552005	JLD1	04-JAN-2010 22:51	937151	10-1086	1.0	LANL	USE
s3a0429.d	243552006	JLD1	04-JAN-2010 23:15	937151	10-1086	1.0	LANL	USE
s3a0430.d	243552007	JLD1	04-JAN-2010 23:40	937151	10-1086	1.0	LANL	USE
s3a0431.d	243552008	JLD1	05-JAN-2010 00:04	937151	10-1086	1.0	LANL	USE
s3a0432.d	243552009	JLD1	05-JAN-2010 00:29	937151	10-1086	1.0	LANL	USE
s3a0433.d	243552010	JLD1	05-JAN-2010 00:54	937151	10-1086	1.0	LANL	USE
s3a0434.d	243552011	JLD1	05-JAN-2010 01:18	937151	10-1086	1.0	LANL	USE
s3a0435.d	243552012	JLD1	05-JAN-2010 01:42	937151	10-1086	1.0	LANL	USE
s3a0436.d	243552014	JLD1	05-JAN-2010 02:07	937151	10-1086	1.0	LANL	USE

Instrument Batch: /chem/MSD3.i/s010410a.b

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GEL Laboratories LLC

Data file : /chem/MSD3.i/s010410a.b/s3a0423.d
Lab Smp Id: 1202005359 Client Smp ID: RE03-09-14233MS
Inj Date : 04-JAN-2010 20:49
Operator : JLD1 Inst ID: MSD3.i
Smp Info : |1202005359|937151|1|SVMF|1|MS
Misc Info : |MSD8270_S|WBN091223-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD3.i/s010410a.b/MSD3-8270R-AQA-120809.m
Meth Date : 04-Jan-2010 16:42 jen00986 Quant Type: ISTD
Cal Date : 07-DEC-2009 19:48 Cal File: s310717.d
Als bottle: 15 QC Sample: MS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-1086.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.08000	weight of sample
M	7.39220	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	4.201	4.203	(1.000)	147547	40.0000	
* 29 Naphthalene-d8	136	5.454	5.453	(1.000)	560463	40.0000	
* 46 Acenaphthene-d10	164	7.300	7.298	(1.000)	301541	40.0000	
* 67 Phenanthrene-d10	188	8.891	8.888	(1.000)	514516	40.0000	
* 91 Chrysene-d12	240	11.748	11.745	(1.000)	433659	40.0000	
* 98 Perylene-d12	264	13.692	13.686	(1.000)	282165	40.0000	
$ 3 2-Fluorophenol	112	3.108	3.093	(0.740)	246098	63.7671	2290
$ 5 Phenol-d5	99	3.878	3.869	(0.923)	307104	62.4593	2240
$ 20 Nitrobenzene-d5	82	4.738	4.737	(0.869)	136556	33.3372	1200
$ 39 2-Fluorobiphenyl	172	6.578	6.576	(0.901)	235084	33.2603	1190
$ 60 2,4,6-Tribromophenol	329	8.148	8.143	(1.116)	67926	82.0309	2940
$ 81 p-Terphenyl-d14	244	10.598	10.595	(0.902)	258488	37.1126	1330

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
6 Phenol	94	3.887	3.881	(0.925)	167463	32.6951	1170
8 2-Chlorophenol	128	4.019	4.019	(0.957)	125812	31.8416	1140
11 1,4-Dichlorobenzene	146	4.219	4.218	(1.004)	107965	23.3655	839
17 N-Nitrosodipropylamine	70	4.580	4.579	(1.090)	100053	31.2351	1120(Q)
28 1,2,4-Trichlorobenzene	180	5.389	5.388	(0.988)	95526	27.0243	970
33 4-Chloro-3-methylphenol	107	6.055	6.045	(1.110)	123009	36.2056	1300
47 Acenaphthene	154	7.332	7.333	(1.004)	219196	30.5851	1100
50 2,4-Dinitrotoluene	165	7.517	7.515	(1.030)	84326	33.4360	1200
52 4-Nitrophenol	139	7.488	7.474	(1.026)	15342	17.0751	613
65 Pentachlorophenol	266	8.697	8.689	(0.978)	28345	27.3647	982
79 Pyrene	202	10.436	10.433	(0.888)	393519	32.4514	1160
2 Pyridine	79	2.196	2.173	(0.523)	84395	20.9616	752
4 Aniline	66	3.911	3.913	(0.931)	58261	28.3089	1020(Q)
7 bis(2-Chloroethyl) ether	63	3.952	3.954	(0.941)	80519	24.3240	873
9 1,3-Dichlorobenzene	146	4.148	4.150	(0.987)	101662	22.2754	800
12 Benzyl alcohol	108	4.339	4.332	(1.033)	94138	37.3723	1340
13 1,2-Dichlorobenzene	146	4.360	4.362	(1.038)	106186	24.2228	870
14 bis(2-Chloroisopropyl)ether	45	4.445	4.447	(1.058)	146647	23.6862	850
15 o-Cresol	107	4.445	4.435	(1.058)	98301	29.9059	1070
18 m,p-Cresols	107	4.588	4.588	(1.092)	148820	37.2712	1340(Q)
19 Hexachloroethane	117	4.682	4.681	(1.115)	40539	23.2933	836
21 Nitrobenzene	77	4.756	4.758	(0.872)	138252	29.0472	1040
22 Isophorone	82	4.984	4.983	(0.914)	261000	34.0783	1220
23 2-Nitrophenol	139	5.067	5.068	(0.929)	61877	30.9008	1110
24 2,4-Dimethylphenol	122	5.111	5.110	(0.937)	105434	29.4621	1060
25 bis(2-Chloroethoxy)methane	93	5.199	5.198	(0.953)	136478	25.7118	923
26 2,4-Dichlorophenol	162	5.316	5.312	(0.975)	95098	30.7651	1100
27 Benzoic acid	105	5.266	5.236	(0.966)	61591	42.1765	1510
30 Naphthalene	128	5.475	5.476	(1.004)	346064	30.1512	1080
31 4-Chloroaniline	127	5.542	5.538	(1.016)	103672	27.6695	993
32 Hexachlorobutadiene	225	5.589	5.591	(1.025)	50996	23.5215	844
34 2-Methylnaphthalene	142	6.190	6.192	(1.135)	238542	29.6599	1060
36 Hexachlorocyclopentadiene	237	6.349	6.348	(0.870)	31512	36.4622	1310
37 2,4,6-Trichlorophenol	196	6.499	6.494	(0.890)	72992	35.9250	1290
38 2,4,5-Trichlorophenol	196	6.546	6.535	(0.897)	75738	33.8288	1210
40 2-Chloronaphthalene	162	6.707	6.706	(0.919)	214310	28.6773	1030
42 o-Nitroaniline	65	6.833	6.832	(0.936)	81523	32.5276	1170
41 m-Nitroaniline	138	7.279	7.278	(0.997)	50396	33.6211	1210(Q)
43 Dimethylphthalate	163	7.018	7.022	(0.961)	269622	34.4390	1240
44 2,6-Dinitrotoluene	165	7.088	7.090	(0.971)	60304	30.6506	1100
45 Acenaphthylene	152	7.147	7.149	(0.979)	367949	31.8583	1140
48 2,4-Dinitrophenol	184	7.385	7.380	(1.012)	17366	33.1398	1190
49 Dibenzofuran	168	7.517	7.518	(1.030)	391936	39.8058	1430
51 Diethylphthalate	149	7.766	7.765	(1.064)	283071	36.3956	1310
53 Fluorene	166	7.884	7.882	(1.080)	284755	33.2447	1190
54 4-Chlorophenylphenylether	204	7.881	7.882	(1.080)	132755	35.8437	1290
55 2-Methyl-4,6-dinitrophenol	198	7.951	7.950	(0.894)	32096	29.2806	1050

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
56 p-Nitroaniline	138	7.937	7.941	(1.087)	34880	28.9362	1040
133 Diphenylamine	169	8.016	8.014	(0.902)	212310	31.9084	1140
58 1,2-Diphenylhydrazine	77	8.054	8.052	(0.906)	320208	32.2881	1160
61 4-Bromophenylphenylether	248	8.406	8.404	(0.946)	68014	35.3735	1270
63 Hexachlorobenzene	284	8.468	8.466	(0.952)	74590	32.3972	1160
68 Phenanthrene	178	8.917	8.915	(1.003)	381731	31.0865	1120
69 Anthracene	178	8.970	8.971	(1.009)	388007	31.0584	1110
72 Di-n-butylphthalate	149	9.513	9.510	(1.070)	487899	36.9713	1330
76 Fluoranthene	202	10.190	10.190	(1.146)	383563	31.5547	1130
85 Butylbenzylphthalate	149	11.120	11.120	(0.947)	213758	37.5573	1350
89 Benzo(a)anthracene	228	11.730	11.730	(0.998)	340091	32.5727	1170
90 3,3'-Dichlorobenzidine	252	11.710	11.703	(0.997)	54660	18.3410	658
92 Chrysene	228	11.775	11.774	(1.002)	301422	31.0879	1120
93 bis(2-Ethylhexyl)phthalate	149	11.733	11.733	(0.999)	325757	42.9552	1540
94 Di-n-octylphthalate	149	12.541	12.539	(0.916)	463010	44.4364	1600
95 Benzo(b)fluoranthene	252	13.119	13.114	(0.958)	250946	33.6686	1210
96 Benzo(k)fluoranthene	252	13.157	13.155	(0.961)	254640	36.1325	1300
97 Benzo(a)pyrene	252	13.600	13.598	(0.993)	214578	34.9968	1260
99 Indeno(1,2,3-cd)pyrene	276	15.406	15.404	(1.125)	161207	29.8840	1070
100 Dibenzo(a,h)anthracene	278	15.438	15.436	(1.128)	139686	30.6345	1100
101 Benzo(ghi)perylene	276	15.855	15.859	(1.158)	118305	26.0630	936
1 N-Methyl-N-nitrosomethylamine	74	2.167	2.152	(0.516)	71864	28.9722	1040

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: /chem/MSD3.i/s010410a.b/s3a0423.d
Date : 04-JAN-2010 20:49
Client ID: RE03-09-14233MS
Sample Info: 1120200535919371514 1 1 SVMF 1 1 MS
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD3.i
Operator: JLD1
Column diameter: 0.20

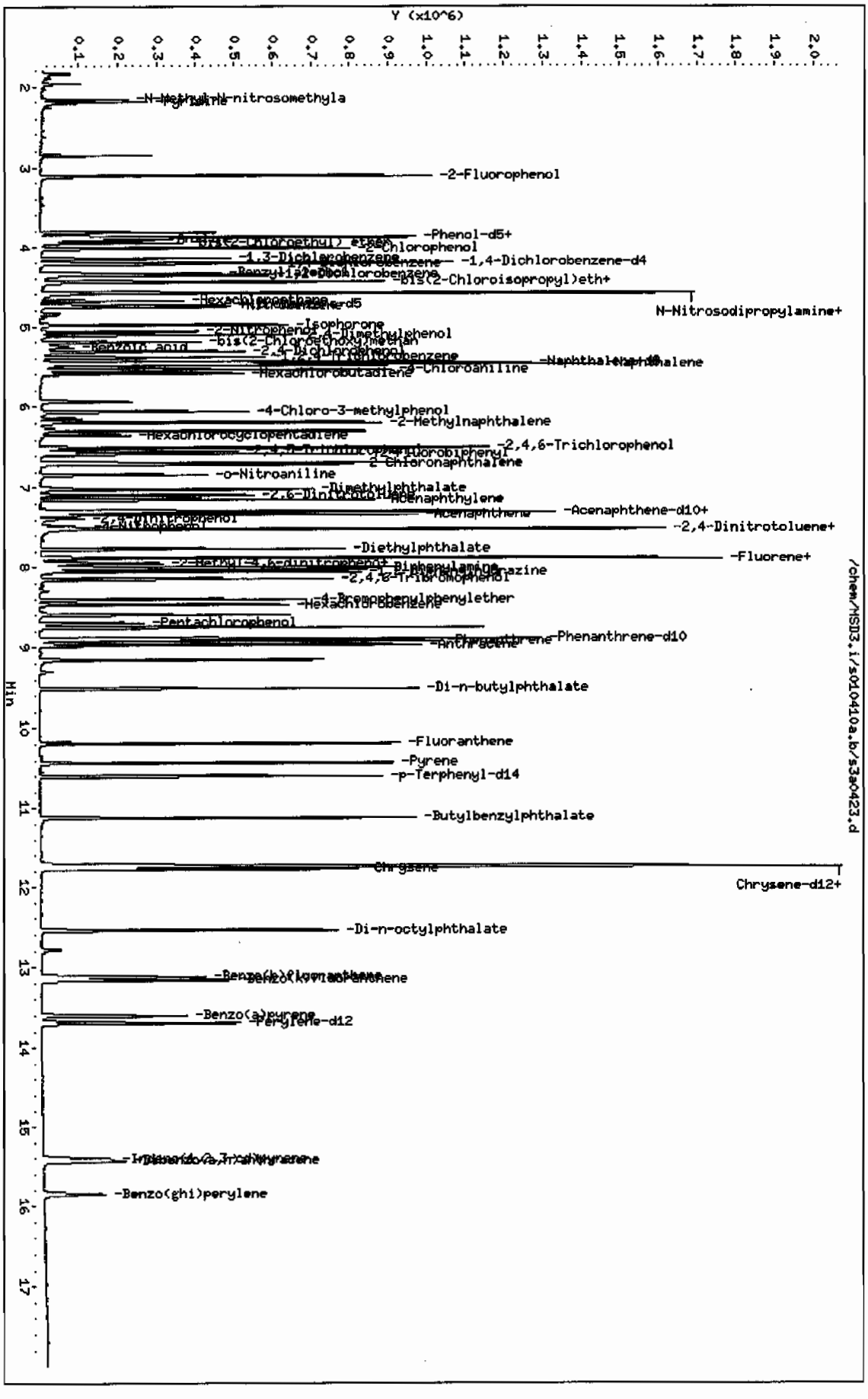

GEL Laboratories LLC

Data file : /chem/MSD3.i/s010410a.b/s3a0424.d
Lab Smp Id: 1202005360 Client Smp ID: RE03-09-14233MSD
Inj Date : 04-JAN-2010 21:13
Operator : JLD1 Inst ID: MSD3.i
Smp Info : |1202005360|937151|1|SVMF|1|MSD
Misc Info : |MSD8270_S|WBN091223-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD3.i/s010410a.b/MSD3-8270R-AQA-120809.m
Meth Date : 04-Jan-2010 16:42 jen00986 Quant Type: ISTD
Cal Date : 07-DEC-2009 19:48 Cal File: s310717.d
Als bottle: 16 QC Sample: MSD
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-1086.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.01000	weight of sample
M	7.39220	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	4.204	4.203	(1.000)	142914	40.0000	
* 29 Naphthalene-d8	136	5.454	5.453	(1.000)	543886	40.0000	
* 46 Acenaphthene-d10	164	7.299	7.298	(1.000)	305242	40.0000	
* 67 Phenanthrene-d10	188	8.890	8.888	(1.000)	521451	40.0000	
* 91 Chrysene-d12	240	11.744	11.745	(1.000)	433227	40.0000	
* 98 Perylene-d12	264	13.690	13.686	(1.000)	269714	40.0000	
$ 3 2-Fluorophenol	112	3.108	3.093	(0.739)	246542	65.9533	2370
$ 5 Phenol-d5	99	3.878	3.869	(0.923)	300832	63.1673	2270
$ 20 Nitrobenzene-d5	82	4.738	4.737	(0.869)	136851	34.4274	1240
$ 39 2-Fluorobiphenyl	172	6.578	6.576	(0.901)	234506	32.7763	1180
$ 60 2,4,6-Tribromophenol	329	8.148	8.143	(1.116)	63399	75.6363	2720
$ 81 p-Terphenyl-d14	244	10.597	10.595	(0.902)	241172	34.6609	1250

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
6 Phenol	94	3.890	3.881	(0.925)	159356	32.1210	1160
8 2-Chlorophenol	128	4.022	4.019	(0.957)	116786	30.5155	1100
11 1,4-Dichlorobenzene	146	4.219	4.218	(1.004)	103193	23.0567	830
17 N-Nitrosodipropylamine	70	4.579	4.579	(1.089)	94570	30.4807	1100(Q)
28 1,2,4-Trichlorobenzene	180	5.389	5.388	(0.988)	89526	26.0989	939
33 4-Chloro-3-methylphenol	107	6.055	6.045	(1.110)	111123	33.7040	1210
47 Acenaphthene	154	7.332	7.333	(1.004)	201182	27.7311	998
50 2,4-Dinitrotoluene	165	7.517	7.515	(1.030)	76739	30.0586	1080
52 4-Nitrophenol	139	7.490	7.474	(1.026)	9809	12.7838	460
65 Pentachlorophenol	266	8.696	8.689	(0.978)	23583	23.9241	861
79 Pyrene	202	10.435	10.433	(0.889)	354792	29.2869	1050
2 Pyridine	79	2.193	2.173	(0.522)	76512	19.6198	706
4 Aniline	66	3.911	3.913	(0.930)	49575	24.8697	895(Q)
7 bis(2-Chloroethyl) ether	63	3.952	3.954	(0.940)	76258	23.7384	854
9 1,3-Dichlorobenzene	146	4.148	4.150	(0.987)	98290	22.2347	800
12 Benzyl alcohol	108	4.339	4.332	(1.032)	88035	36.0824	1300
13 1,2-Dichlorobenzene	146	4.362	4.362	(1.038)	100248	23.6097	850
14 bis(2-Chloroisopropyl)ether	45	4.445	4.447	(1.057)	139952	23.3377	840
15 o-Cresol	107	4.445	4.435	(1.057)	92929	29.1880	1050
18 m,p-Cresols	107	4.588	4.588	(1.091)	138275	35.7531	1290(Q)
19 Hexachloroethane	117	4.682	4.681	(1.114)	38799	23.0162	828
21 Nitrobenzene	77	4.756	4.758	(0.872)	129292	27.9926	1010
22 Isophorone	82	4.984	4.983	(0.914)	248013	33.3696	1200
23 2-Nitrophenol	139	5.066	5.068	(0.929)	58480	30.0943	1080
24 2,4-Dimethylphenol	122	5.110	5.110	(0.937)	95631	27.5374	991
25 bis(2-Chloroethoxy)methane	93	5.196	5.198	(0.953)	129522	25.1451	905
26 2,4-Dichlorophenol	162	5.316	5.312	(0.975)	87308	29.1059	1050
27 Benzoic acid	105	5.260	5.236	(0.964)	51596	38.8888	1400
30 Naphthalene	128	5.474	5.476	(1.004)	325590	29.2162	1050
31 4-Chloroaniline	127	5.542	5.538	(1.016)	96791	26.6203	958
32 Hexachlorobutadiene	225	5.589	5.591	(1.025)	50124	23.8239	857
34 2-Methylnaphthalene	142	6.190	6.192	(1.135)	223955	28.6950	1030
36 Hexachlorocyclopentadiene	237	6.349	6.348	(0.870)	25792	29.4824	1060
37 2,4,6-Trichlorophenol	196	6.498	6.494	(0.890)	66500	32.3333	1160
38 2,4,5-Trichlorophenol	196	6.545	6.535	(0.897)	69694	30.7515	1110
40 2-Chloronaphthalene	162	6.707	6.706	(0.919)	198786	26.2774	946
42 o-Nitroaniline	65	6.833	6.832	(0.936)	75511	29.7635	1070
41 m-Nitroaniline	138	7.276	7.278	(0.997)	43862	29.8116	1070(Q)
43 Dimethylphthalate	163	7.018	7.022	(0.961)	247182	31.1899	1120
44 2,6-Dinitrotoluene	165	7.088	7.090	(0.971)	54837	27.5341	991
45 Acenaphthylene	152	7.147	7.149	(0.979)	339052	29.0004	1040
48 2,4-Dinitrophenol	184	7.385	7.380	(1.012)	12786	28.5059	1020
49 Dibenzofuran	168	7.517	7.518	(1.030)	359386	36.0574	1300
51 Diethylphthalate	149	7.766	7.765	(1.064)	260416	33.0767	1190
53 Fluorene	166	7.883	7.882	(1.080)	258708	29.8375	1070
54 4-Chlorophenylphenylether	204	7.880	7.882	(1.080)	120860	32.2362	1160
55 2-Methyl-4,6-dinitrophenol	198	7.951	7.950	(0.894)	27220	25.6353	922

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
56 p-Nitroaniline	138	7.936	7.941	(1.087)	29497	25.6304	922
133 Diphenylamine	169	8.016	8.014	(0.902)	189152	28.0498	1010
58 1,2-Diphenylhydrazine	77	8.054	8.052	(0.906)	289867	28.8400	1040
61 4-Bromophenylphenylether	248	8.406	8.404	(0.946)	62299	31.9703	1150
63 Hexachlorobenzene	284	8.467	8.466	(0.952)	69572	29.8157	1070
68 Phenanthrene	178	8.917	8.915	(1.003)	346500	27.8422	1000
69 Anthracene	178	8.970	8.971	(1.009)	353848	27.9474	1000
72 Di-n-butylphthalate	149	9.509	9.510	(1.070)	443332	33.1473	1190
76 Fluoranthene	202	10.189	10.190	(1.146)	343894	27.9150	1000
85 Butylbenzylphthalate	149	11.119	11.120	(0.947)	193104	33.9622	1220
89 Benzo(a)anthracene	228	11.732	11.730	(0.999)	297740	28.5449	1030
90 3,3'-Dichlorobenzidine	252	11.708	11.703	(0.997)	46562	15.6395	563(R)
92 Chrysene	228	11.773	11.774	(1.002)	266859	27.5506	991
93 bis(2-Ethylhexyl)phthalate	149	11.732	11.733	(0.999)	295528	39.0081	1400
94 Di-n-octylphthalate	149	12.539	12.539	(0.916)	417456	41.9139	1510
95 Benzo(b)fluoranthene	252	13.117	13.114	(0.958)	212773	29.8648	1070
96 Benzo(k)fluoranthene	252	13.155	13.155	(0.961)	217922	32.3498	1160
97 Benzo(a)pyrene	252	13.599	13.598	(0.993)	182345	31.1126	1120
99 Indeno(1,2,3-cd)pyrene	276	15.403	15.404	(1.125)	138357	26.8322	965
100 Dibenzo(a,h)anthracene	278	15.436	15.436	(1.128)	121270	27.8236	1000
101 Benzo(ghi)perylene	276	15.853	15.859	(1.158)	103597	23.8764	859
1 N-Methyl-N-nitrosomethylamine	74	2.164	2.152	(0.515)	68508	28.5148	1030

QC Flag Legend

Q - Qualifier signal failed the ratio test.
R - Spike/Surrogate failed recovery limits.

Data File: /chem/MSD3.i/s010410a.b/s3a0424.d
Date : 04-JAN-2010 21:13
Client ID: RE03-09-14233MSD
Sample Info: 1120200536019371511!1!SVMF11!MSD
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD3.i
Operator: JLD1
Column diameter: 0.20

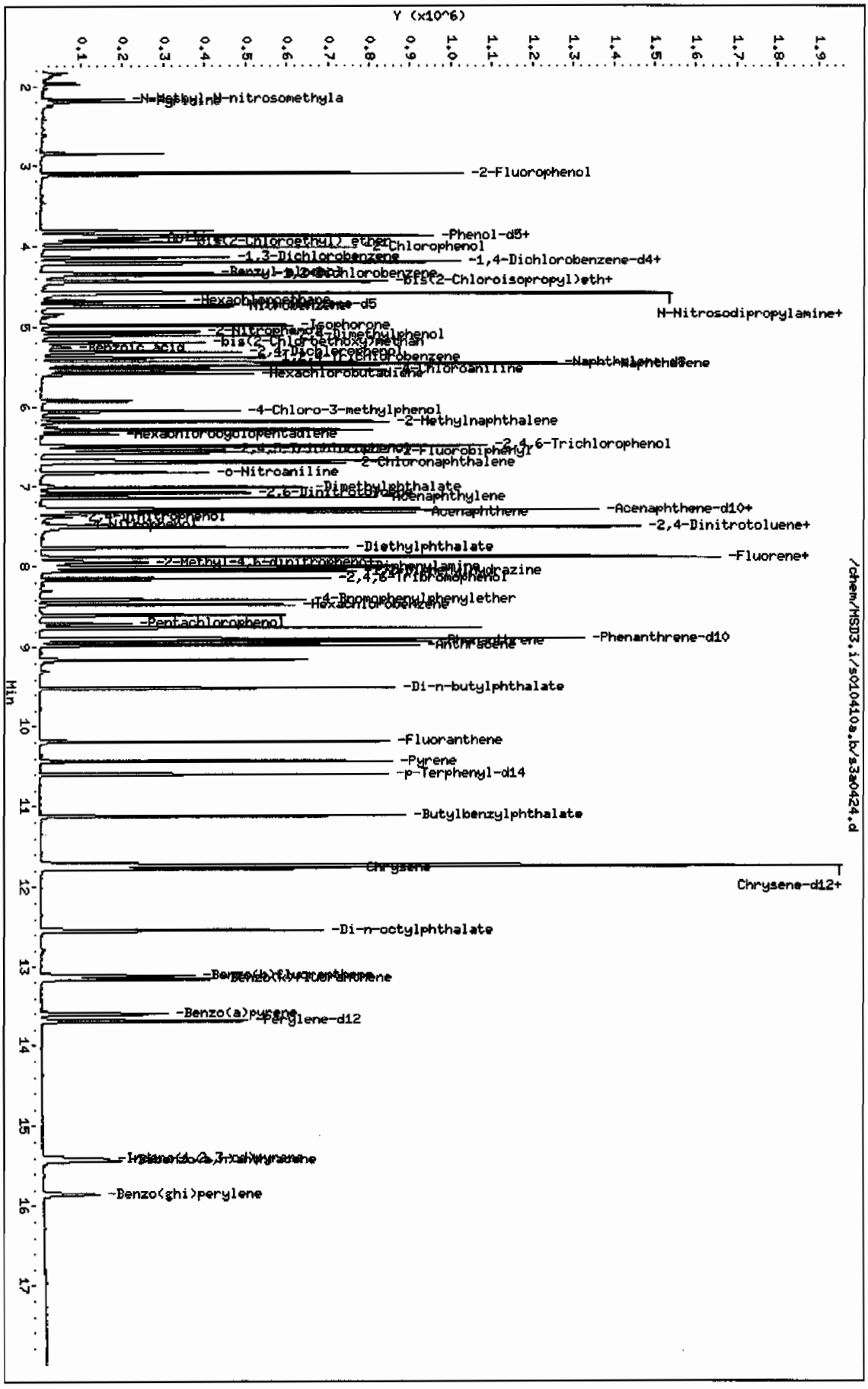

Page 1

GC/MS Semivolatile Analysis

Semi-Volatile Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-1085-1

Method/Analysis Information

Procedure:	**Analysis of Semivolatile Organic Compounds by Gas Chromatography/Mass Spectrometry**
Analytical Method:	SW846 8270C
Prep Method:	SW846 3510C
TCLP Prep Method :	SW846 1311
Analytical Batch Number:	937667
Prep Batch Number:	937666
TCLP Prep Batch Number:	936980

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 8270C:

Sample ID	Client ID
243551001	WST03-10-2148
1202004963	TCLP Blank (TB)
1202006522	Method Blank (MB)
1202006523	Laboratory Control Sample (LCS)
1202006524	243421001(WST12-10-8879) Matrix Spike (MS)
1202006525	243421001(WST12-10-8879) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on an "as received" basis.

Preparation/Analytical Method Verification

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-009 REV# 23.

Raw data reports are processed and reviewed by the analyst using the Target software package. False positives have been removed from the Target quantitation reports per standard operating procedures (SOP) section 18.2.

Calibration Information

Please note that the 'Cal Date' indicated on each quantitation report reflects the date and time of the most recent calibrated analyte(s) in the Target processing method. Since the laboratory may calibrate with multiple solutions on different days using the same processing method, the Target software will update the 'Cal Date' to the last calibration file, date and time. The correct dates and times for all calibration files are located on the Calibration History report in the Standard Data section in the data package.

Due to software limitations, the Calibration Summary Form 6 may not indicate all the calibration files comprising the initial calibration. A complete list of the initial calibration data files are shown in the Calibration History report located in the Standard Data section of the data package. Please note that the second level of the initial calibration (5 mg/L) is only used for n-Nitrosodipropylamine. The various

calibration mixes may not be calibrated using all of the calibration levels. In addition, not all of the mixes are calibrated using the same levels.

Diphenylamine has now superseded N-Nitroso-diphenylamine as a CCC on Quantitation Reports, Initial Calibration Reports, Calibration Check Standard Reports, etc. Previous versions of EPA Method 8270 (prior to 8270C) listed N-Nitroso-diphenylamine as a CCC. However, as stated in EPA Method 8270C, Revision 3, December, 1996, Section 1.4.5, "N-Nitroso-diphenylamine decomposes in the gas chromatographic inlet and cannot be separated from Diphenylamine." Studies of these two compounds at GEL, both independent of each other and together, show that they not only co-elute, but also have similar mass spectra. N-Nitroso-diphenylamine and Diphenylamine will be reported as Diphenylamine on all reports and forms.

The linear equation used in Target and indicated on the initial calibration summary form is not a conventional linear equation (slope intercept formula) and does not match the equation found in SW-846 method 8000B. The x and y axes are inversed in Target, so that the instrument response is treated as the independent variable (x) and the concentration ratio is treated as the dependent variable (y). The equation used in Target to calculate sample results is adjusted to account for the linear equation inversion and reciprocal slope. The adjusted calculation has been independently verified to produce valid results.

Initial Calibration
All initial calibration requirements have been met for this sample delivery group (SDG). A second source initial calibration verification (ICV) was included in the standard section directly behind the initial calibration.

CCV Requirements
All associated calibration verification standard(s) (ICV or CCV) met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Surrogate Recoveries
All the surrogate recoveries were within the established acceptance criteria for this SDG.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

QC Sample Designation
The non-SDG sample 243421001 (WST12-10-8879) was selected for analysis as the matrix spike and matrix spike duplicate. Please see the associated raw data files located in the Miscellaneous Section of the data report.

Matrix Spike (MS) Recovery Statement
The MS recoveries were within the established acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recoveries were within the established acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The MS (1202006524)/MSD (1202006525) RPD value for Pyridine was 32% (limit:25%). The individual MS and MSD recoveries for Pyridine were acceptable. Therefore, the data were reported un-qualified for the RPD value failures.

Internal Standard (ISTD) Acceptance
The internal standard responses were within the required acceptance criteria for all samples and QC.

Technical Information

Holding Time Specifications
All samples in this SDG met the specified holding time. GEL assigns holding times based on the associated methodology that assigns the date and time from sample collection or sample receipt. Those holding times expressed in hours are calculated in the ALPHALIMS system. Those holding times expressed as days expire at midnight on the day of expiration.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-extraction/Re-analysis
Re-extractions or re-analyses were not required in this SDG except for confirmations and/or dilutions.

Miscellaneous Information

Data Exception Report (DER) Documentation
The following DER was generated for this SDG: 777734. It is located in the Miscellaneous Section of the data report.

Manual Integrations
Some initial calibration standards, continuing calibration standards, and/or samples may require manual integrations due to software limitations. Please see the raw data in the Miscellaneous Section.

Additional Comments
The SDG associated samples in this batch were not scanned into analyst custody. The laboratory maintained physical custody of the samples throughout the analysis process.

Electronic Package Comment
The following package was generated using an electronic data processing program referred to as "virtual packaging". In an effort to increase quality and efficiency, the laboratory is developing systems to eventually generate all data packages electronically. The following change from "traditional" packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. An electronic signature page inserted after the case narrative of each electronic package will indicate the analyst, reviewer, and report specialist names associated with the generation of the data and package. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

System Configuration
The samples reported in this SDG were analyzed on one or more of the following instrument systems. Instrument systems are referenced in the raw data and individual form headers by the Instrument ID designations listed below:

Instrument ID	Instrument	System Configuration	Column ID	Column Description
MSD1.I	HP 5973 Mass Spectrometer	HP6890/HP5973	ZB-5ms	25m x 0.2mm, 0.33um (5% Polysilarylene-95% Polydimethylsiloxane)

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

Reviewer: [illegible] **Date:** 1-19-10

Roadmap for LANL 10-1085-1 SVOA

This roadmap was analyzed by nat00999 on 01-11-2010, 11:40.
This roadmap was reviewed by bar00895 on 01-11-2010, 12:26.

Sample

exclude	manual	datafile	smpid	injdate	injtime	sublist	clientid	dilution	batchid	comment
☐	N	/chem/MSD1.i/s123109.b/s113118.d	243551001	31-DEC-2009	18:52	10-1085-1.sub	WST03-10-2148	1	937667	USE

QC Sample

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	batchid	comment
☐	N	/chem/MSD1.i/s123109.b/s113111-1.d	1202004963	tb	31-DEC-2009	16:03	10-1085-1.sub	TBLK01	1	937667	USE
☐	N	/chem/MSD1.i/s123109.b/s113112-1.d	1202006522	mb	31-DEC-2009	16:27	10-1085-1.sub	SBLK01	1	937667	USE
☐	N	/chem/MSD1.i/s123109.b/s113113-1.d	1202006523	lcs	31-DEC-2009	16:51	10-1085-1.sub	SBLK01LCS	1	937667	USE

Sample Data Summary

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1085-1	**Date Collected:**	12/22/2009 12:00	**Matrix:**	TCLP R
Lab Sample ID:	243551001	**Date Received:**	12/24/2009 09:30		
		Client:	LANL010	**Project:**	LANL01004
Client ID:	WST03-10-2148	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	937667	**Inst:**	MSD1.I	**Dilution:**	1
Run Date:	12/31/2009 18:52	**Analyst:**	AMY	**Inj. Vol:**	.5 uL
Prep Date:	12/30/2009 19:30	**Aliquot:**	200 mL	**Final Volume:**	1 mL
Data File:	s1l3118.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
106-46-7	1,4-Dichlorobenzene	U	0.050	mg/L	0.010	0.050
121-14-2	2,4-Dinitrotoluene	U	0.050	mg/L	0.010	0.050
87-86-5	Pentachlorophenol	U	0.050	mg/L	0.010	0.050
110-86-1	Pyridine	U	0.050	mg/L	0.015	0.050
95-48-7	o-Cresol	U	0.050	mg/L	0.010	0.050
65794-96-9	m,p-Cresols	U	0.050	mg/L	0.015	0.050
67-72-1	Hexachloroethane	U	0.050	mg/L	0.010	0.050
98-95-3	Nitrobenzene	U	0.050	mg/L	0.015	0.050
87-68-3	Hexachlorobutadiene	U	0.050	mg/L	0.010	0.050
88-06-2	2,4,6-Trichlorophenol	U	0.050	mg/L	0.010	0.050
95-95-4	2,4,5-Trichlorophenol	U	0.050	mg/L	0.010	0.050
118-74-1	Hexachlorobenzene	U	0.050	mg/L	0.010	0.050

QC Summary

Semi-Volatile

Surrogate Recovery Report

SDG Number: 10-1085-1

Matrix Type: TCLP SOLID

CAP Column (1) : J&W DB-5MS

Sample ID	Client ID	2FP %REC	PHL %REC	NBZ %REC	FBP %REC	TBP %REC	TPH %REC
1202004963	TB for batch 936980	47	28	87	86	99	100
1202006522	MB for batch 937666	47	29	84	83	95	96
1202006523	LCS for batch 937666	49	32	84	82	100	97
243551001	WST03-10-2148	42	26	71	62	73	74

Surrogate			Acceptance Limits
2FP	=	2-Fluorophenol	(25%-92%)
PHL	=	Phenol-d5	(15%-73%)
NBZ	=	Nitrobenzene-d5	(40%-112%)
FBP	=	2-Fluorobiphenyl	(35%-100%)
TBP	=	2,4,6-Tribromophenol	(39%-115%)
TPH	=	p-Terphenyl-d14	(46%-130%)

* Recovery outside Acceptance Limits

\# Column to be used to flag recovery values

D Sample Diluted

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1085-1
Client ID: LCS for batch 937666
Lab Sample ID: 1202006523
Instrument: MSD1.I
Analyst: AMY
Inj. Vol: .5 uL

Sample Type: Laboratory Control Sample
Matrix: TCLP SOIL
Analysis Date: 12/31/2009 16:51
Dilution: 1
Prep Batch ID: 937666
Batch ID: 937667

CAS No		Parmname	Amount Added mg/L	Sample Conc. mg/L	Spike Conc. mg/L	Recovery %	Acceptance Limits
106-46-7	LCS	1,4-Dichlorobenzene	0.100	0.0	0.0616	62	38-88
121-14-2	LCS	2,4-Dinitrotoluene	0.100	0.0	0.0613	61	55-108
87-86-5	LCS	Pentachlorophenol	0.100	0.0	0.0862	86	44-121
110-86-1	LCS	Pyridine	0.100	0.0	0.0683	68	26-103
95-48-7	LCS	o-Cresol	0.100	0.0	0.0669	67	41-94
65794-96-9	LCS	m,p-Cresols	0.100	0.0	0.0617	62	38-96
67-72-1	LCS	Hexachloroethane	0.100	0.0	0.0567	57	35-92
98-95-3	LCS	Nitrobenzene	0.100	0.0	0.0786	79	48-112
87-68-3	LCS	Hexachlorobutadiene	0.100	0.0	0.0725	73	33-98
88-06-2	LCS	2,4,6-Trichlorophenol	0.100	0.0	0.0831	83	54-111
95-95-4	LCS	2,4,5-Trichlorophenol	0.100	0.0	0.0902	90	50-111
118-74-1	LCS	Hexachlorobenzene	0.100	0.0	0.089	89	53-115

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: **10-1085-1**
Client ID: **WST12-10-8879MS**
Lab Sample ID: **1202006524**
Instrument: **MSD1.I**
Analyst: **AMY**
Inj. Vol: **.5 uL**

Sample Type: **Matrix Spike**
Matrix: **TCLP R**
%Moisture: **12.1**
Analysis Date: **12/31/2009 18:04**
Prep Batch ID: **937666**
Batch ID: **937667**
Dilution: 1

CAS No		Parmname	Amount Added mg/L	Sample Conc. mg/L	Spike Conc. mg/L	Recovery %	Acceptance Limits
106-46-7	MS	1,4-Dichlorobenzene	0.500	0.00	0.336	67	37-91
121-14-2	MS	2,4-Dinitrotoluene	0.500	0.00	0.331	66	50-109
87-86-5	MS	Pentachlorophenol	0.500	0.00	0.421	84	38-131
110-86-1	MS	Pyridine	0.500	0.00	0.372	74	28-110
95-48-7	MS	o-Cresol	0.500	0.00	0.356	71	37-105
65794-96-9	MS	m,p-Cresols	0.500	0.00	0.305	61	33-110
67-72-1	MS	Hexachloroethane	0.500	0.00	0.319	64	34-95
98-95-3	MS	Nitrobenzene	0.500	0.00	0.428	86	43-118
87-68-3	MS	Hexachlorobutadiene	0.500	0.00	0.393	79	31-106
88-06-2	MS	2,4,6-Trichlorophenol	0.500	0.00	0.412	82	46-114
95-95-4	MS	2,4,5-Trichlorophenol	0.500	0.00	0.477	95	46-117
118-74-1	MS	Hexachlorobenzene	0.500	0.00	0.427	85	47-120

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1085-1
Client ID: WST12-10-8879MSD
Lab Sample ID: 1202006525
Instrument: MSD1.I
Analyst: AMY
Inj. Vol: .5 uL

Sample Type: Matrix Spike Duplicate
Matrix: TCLP R
%Moisture: 12.1
Analysis Date: 12/31/2009 18:28
Dilution: 1
Prep Batch ID: 937666
Batch ID: 937667

CAS No	Parmname	Amount Added mg/L	Sample Conc. mg/L	Spike Conc. mg/L	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
106-46-7	MSD 1,4-Dichlorobenzene	0.500	0.00	0.322	64	37-91	4	0-25
121-14-2	MSD 2,4-Dinitrotoluene	0.500	0.00	0.307	61	50-109	7	0-25
87-86-5	MSD Pentachlorophenol	0.500	0.00	0.411	82	38-131	2	0-25
110-86-1	MSD Pyridine	0.500	0.00	0.270	54	28-110	32 *	0-25
95-48-7	MSD o-Cresol	0.500	0.00	0.333	67	37-105	7	0-25
65794-96-9	MSD m,p-Cresols	0.500	0.00	0.299	60	33-110	2	0-25
67-72-1	MSD Hexachloroethane	0.500	0.00	0.295	59	34-95	8	0-25
98-95-3	MSD Nitrobenzene	0.500	0.00	0.415	83	43-118	3	0-25
87-68-3	MSD Hexachlorobutadiene	0.500	0.00	0.369	74	31-106	6	0-25
88-06-2	MSD 2,4,6-Trichlorophenol	0.500	0.00	0.400	80	46-114	3	0-25
95-95-4	MSD 2,4,5-Trichlorophenol	0.500	0.00	0.454	91	46-117	5	0-25
118-74-1	MSD Hexachlorobenzene	0.500	0.00	0.437	87	47-120	2	0-25

Method Blank Summary

SDG Number:	10-1085-1	Client:	LANL010	Matrix:	TCLP SOIL
Client ID:	MB for batch 937666	Instrument ID:	MSD1.I	Data File:	s1l3112-1.d
Lab Sample ID:	1202006522	Prep Date:	12/30/2009 19:30	Analyzed:	12/31/09 16:27
Column:	J&W DB-5MS	Level:	LOW		

This method blank applies to the following samples and quality control samples:

Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01 TB for batch 936980	1202004963	s1l3111-1.d	12/31/09	1603
02 LCS for batch 937666	1202006523	s1l3113-1.d	12/31/09	1651
05 WST03-10-2148	243551001	s1l3118.d	12/31/09	1852

Instrument Performance Check

DFTPP

Lab Name GEL Laboratories LLC **Client SDG:** 10-1085-1

Instrument ID: MSD1.I **Injection Date/Time:** 14-NOV-09 17:38

Column Description: J&W DB-5MS **Lab File ID** /chem/MSD1.i/s111409.b/s1k1201.d

m/e	Ion Abundance Criteria	% Relative Abundance
198	Base Peak, 100% Relative Abundance	100
51	30 - 60% of mass 198	41.3
68	Less than 2% of mass 69	1.8
69	Mass 69 Relative Abundance	36.7
70	Less than 2% of mass 69	0.6
127	40 - 60% of mass 198	48.3
197	0 - 1% of mass 198	0.7
199	5 - 9% of mass 198	6.6
275	10 - 30% of mass 198	23.3
365	Greater than 1% of mass 198	2.2
441	Present, but less than mass 443	74.2
442	Greater than 40% of mass 198	77.4
443	17 - 23% of mass 442	19.2

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
MEGA001	WBN091111-16	/chem/MSD1.i/s111409.b/s1k120	14-NOV-09 18:22
MEGA010	WBN091111-15	/chem/MSD1.i/s111409.b/s1k120	14-NOV-09 18:51
MEGA020	WBN091111-14	/chem/MSD1.i/s111409.b/s1k120	14-NOV-09 19:21
MEGA040	WBN091111-13.1	/chem/MSD1.i/s111409.b/s1k120	14-NOV-09 19:50
MEGA050	WBN091111-12	/chem/MSD1.i/s111409.b/s1k120	14-NOV-09 20:19
MEGA080	WBN091111-11	/chem/MSD1.i/s111409.b/s1k120	14-NOV-09 20:47
MEGA100	WBN091111-10	/chem/MSD1.i/s111409.b/s1k120	14-NOV-09 21:16
MEGA120	WBN091111-09	/chem/MSD1.i/s111409.b/s1k121	14-NOV-09 21:45

Instrument Performance Check

DFTPP

Lab Name GEL Laboratories LLC **Client SDG:** 10-1085-1

Instrument ID: MSD1.I **Injection Date/Time:** 17-NOV-09 15:48

Column Description: J&W DB-5MS **Lab File ID** /chem/MSD1.i/s111409.b/s1k1259.d

m/e	Ion Abundance Criteria	% Relative Abundance
198	Base Peak, 100% Relative Abundance	100
51	30 - 60% of mass 198	44.2
68	Less than 2% of mass 69	1.8
69	Mass 69 Relative Abundance	38.5
70	Less than 2% of mass 69	0.6
127	40 - 60% of mass 198	49.6
197	0 - 1% of mass 198	0.7
199	5 - 9% of mass 198	6.7
275	10 - 30% of mass 198	23.8
365	Greater than 1% of mass 198	2.4
441	Present, but less than mass 443	72.4
442	Greater than 40% of mass 198	78.9
443	17 - 23% of mass 442	19.2

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
MEGAICV	WBN091027-09.3	/chem/MSD1.i/s111409.b/s1k126	17-NOV-09 16:27

Instrument Performance Check

DFTPP

Lab Name GEL Laboratories LLC **Client SDG:** 10-1085-1

Instrument ID: MSD1.I **Injection Date/Time:** 31-DEC-09 11:46

Column Description: J&W DB-5MS **Lab File ID** /chem/MSD1.i/s123109.b/s1l3105.d

m/e	Ion Abundance Criteria	% Relative Abundance
198	Base Peak, 100% Relative Abundance	100
51	30 - 60% of mass 198	44.6
68	Less than 2% of mass 69	1.7
69	Mass 69 Relative Abundance	39.3
70	Less than 2% of mass 69	0.5
127	40 - 60% of mass 198	48.5
197	0 - 1% of mass 198	0.8
199	5 - 9% of mass 198	6.7
275	10 - 30% of mass 198	22.5
365	Greater than 1% of mass 198	2.2
441	Present, but less than mass 443	75.7
442	Greater than 40% of mass 198	59.3
443	17 - 23% of mass 442	19

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
MEGACVS	WBN091111-17.2	/chem/MSD1.i/s123109.b/s1l3106	31-DEC-09 12:02
TBLK01	1202004963	/chem/MSD1.i/s123109.b/s1l3111	31-DEC-09 16:03
SBLK01	1202006522	/chem/MSD1.i/s123109.b/s1l3112	31-DEC-09 16:27
SBLK01LCS	1202006523	/chem/MSD1.i/s123109.b/s1l3113	31-DEC-09 16:51
WST03-10-2148	243551001	/chem/MSD1.i/s123109.b/s1l3118	31-DEC-09 18:52

Internal Standard
Area and RT Summary

Lab Name : GEL Laboratories LLC

Client SDG: 10-1085-1

Instrument: MSD1.I

STD Analysis Time: 31-DEC-09 12:02

GC Column: J&W DB-5MS

Data File: s113106.d

	1,4-Dichlorobenzene-d4			Naphthalene-d8			Acenaphthene-d10			Phenanthrene-d10			Chrysene-d12			Perylene-d12		
	Area	#	RT #	Area	#	RT #	Area	#	RT #	Area	#	RT #	Area	#	RT #	Area	#	RT #
12 Hour STD	667932		3.74	2652716		4.6	1424266		5.85	2418680		6.84	2172089		8.46	1932182		9.79
Upper Limit	1335864		4.24	5305432		5.1	2848532		6.35	4837360		7.34	4344178		8.96	3864364		10.3
Lower Limit	333966		3.24	1326358		4.1	712133		5.35	1209340		6.34	1086045		7.96	966091		9.29
Sample ID																		
TBLK01	630843		3.74	2390532		4.6	1329520		5.85	2187986		6.83	1841282		8.45	1536594		9.78
BLK01	614021		3.74	2337753		4.6	1247681		5.85	2125385		6.84	1756323		8.45	1428587		9.78
BLK01LCS	643747		3.74	2480175		4.6	1375774		5.85	2269434		6.84	1978414		8.45	1708006		9.78
WST03-10-2148	639180		3.74	2363461		4.6	1358611		5.85	2272829		6.83	1995050		8.45	1575737		9.78

Area Upper Limit = +100% of internal standard area
Area Lower Limit = - 50% of internal standard area

RT Upper Limit = + 0.50 minutes of internal standard RT
RT Lower Limit = - 0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Value outside of QC Limits

Sample Data

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1085-1**	**Date Collected:**	**12/22/2009 12:00**	**Matrix:**	**TCLP R**
Lab Sample ID:	**243551001**	**Date Received:**	**12/24/2009 09:30**		
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**WST03-10-2148**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**937667**	**Inst:**	**MSD1.I**	**Dilution:**	**1**
Run Date:	**12/31/2009 18:52**	**Analyst:**	**AMY**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/30/2009 19:30**	**Aliquot:**	**200 mL**	**Final Volume:**	**1 mL**
Data File:	**s113118.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
106-46-7	1,4-Dichlorobenzene	U	0.050	mg/L	0.010	0.050
121-14-2	2,4-Dinitrotoluene	U	0.050	mg/L	0.010	0.050
87-86-5	Pentachlorophenol	U	0.050	mg/L	0.010	0.050
110-86-1	Pyridine	U	0.050	mg/L	0.015	0.050
95-48-7	o-Cresol	U	0.050	mg/L	0.010	0.050
65794-96-9	m,p-Cresols	U	0.050	mg/L	0.015	0.050
67-72-1	Hexachloroethane	U	0.050	mg/L	0.010	0.050
98-95-3	Nitrobenzene	U	0.050	mg/L	0.015	0.050
87-68-3	Hexachlorobutadiene	U	0.050	mg/L	0.010	0.050
88-06-2	2,4,6-Trichlorophenol	U	0.050	mg/L	0.010	0.050
95-95-4	2,4,5-Trichlorophenol	U	0.050	mg/L	0.010	0.050
118-74-1	Hexachlorobenzene	U	0.050	mg/L	0.010	0.050

GEL Laboratories LLC

Data file : /chem/MSD1.i/s123109.b/s113118.d
Lab Smp Id: 243551001 Client Smp ID: WST03-10-2148
Inj Date : 31-DEC-2009 18:52
Operator : AMY Inst ID: MSD1.i
Smp Info : |243551001|937667|1|SVM|1|LANL
Misc Info : |MSD8TCLP_L|WBN091223-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD1.i/s123109.b/MSD1-M8270AQA-111409.m
Meth Date : 01-Jan-2010 15:26 amy01291 Quant Type: ISTD
Cal Date : 17-NOV-2009 17:42 Cal File: s1k1264.d
Als bottle: 14
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-1085-1.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vo *Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	0.50000	ng unit correction factor
Vt	1.00000	volume of final ext
Vo	200.00000	volume of sample ext
Vi	0.50000	volume injected

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (mg/L)
* 10 1,4-Dichlorobenzene-d4	152	3.740	3.740	(1.000)	639180	40.0000	
* 29 Naphthalene-d8	136	4.598	4.604	(1.000)	2363461	40.0000	
* 46 Acenaphthene-d10	164	5.845	5.845	(1.000)	1358611	40.0000	
* 67 Phenanthrene-d10	188	6.833	6.839	(1.000)	2272829	40.0000	
* 91 Chrysene-d12	240	8.451	8.457	(1.000)	1995050	40.0000	
* 98 Perylene-d12	264	9.780	9.786	(1.000)	1575737	40.0000	
$ 3 2-Fluorophenol	112	2.946	2.945	(0.788)	695814	41.6777	0.21
$ 5 Phenol-d5	99	3.475	3.475	(0.929)	520580	25.6553	0.13
$ 20 Nitrobenzene-d5	82	4.104	4.104	(0.893)	549072	35.2525	0.18
$ 39 2-Fluorobiphenyl	172	5.339	5.339	(0.913)	1013579	31.1500	0.16
$ 60 2,4,6-Tribromophenol	329	6.386	6.386	(1.093)	278567	73.4283	0.37
$ 81 p-Terphenyl-d14	244	7.751	7.751	(0.917)	1155774	36.9068	0.18

ION RATIO REPORT

SV REPORT

Data file: s113118.d
Report Date: 01/01/2010 15:24
Lab. ID: 243551001 SampleType: SAMPLE
Injection Date: 31-DEC-2009 18:52
Operator: AMY Instrument: MSD1.i
Sample Info: |243551001|937667|1|SVM|1|LANL
Miscellaneous Info: |MSD8TCLP_L|WBN091223-01|
Comment:
Method used: /chem/MSD1.i/s123109.b/MSD1-M8270AQA-111409.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-1085-1
Sample Matrix: WATER

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
50	2,4-Dinitrotoluene			CAS#: 121-14-2		
165	166372	5.85	5.96	80-120	100	(T)
89	1879	5.84	5.96	40-100	1	(QT)
63	1743	5.84	5.96	19- 79	1	(QT)

Q qualifier indicates ion failed ratio requirement

Data File: /chem/MSD1.i/s123109.b/s113118.d

Date : 31-DEC-2009 18:52

Client ID: WST03-10-2148

Sample Info: |2435510011937667|1|SVMI1|LANL

Volume Injected (uL): 0.5

Column phase: J&W DB-5MS

Instrument: MSD1.i

Operator: AMY

Column diameter: 0.20

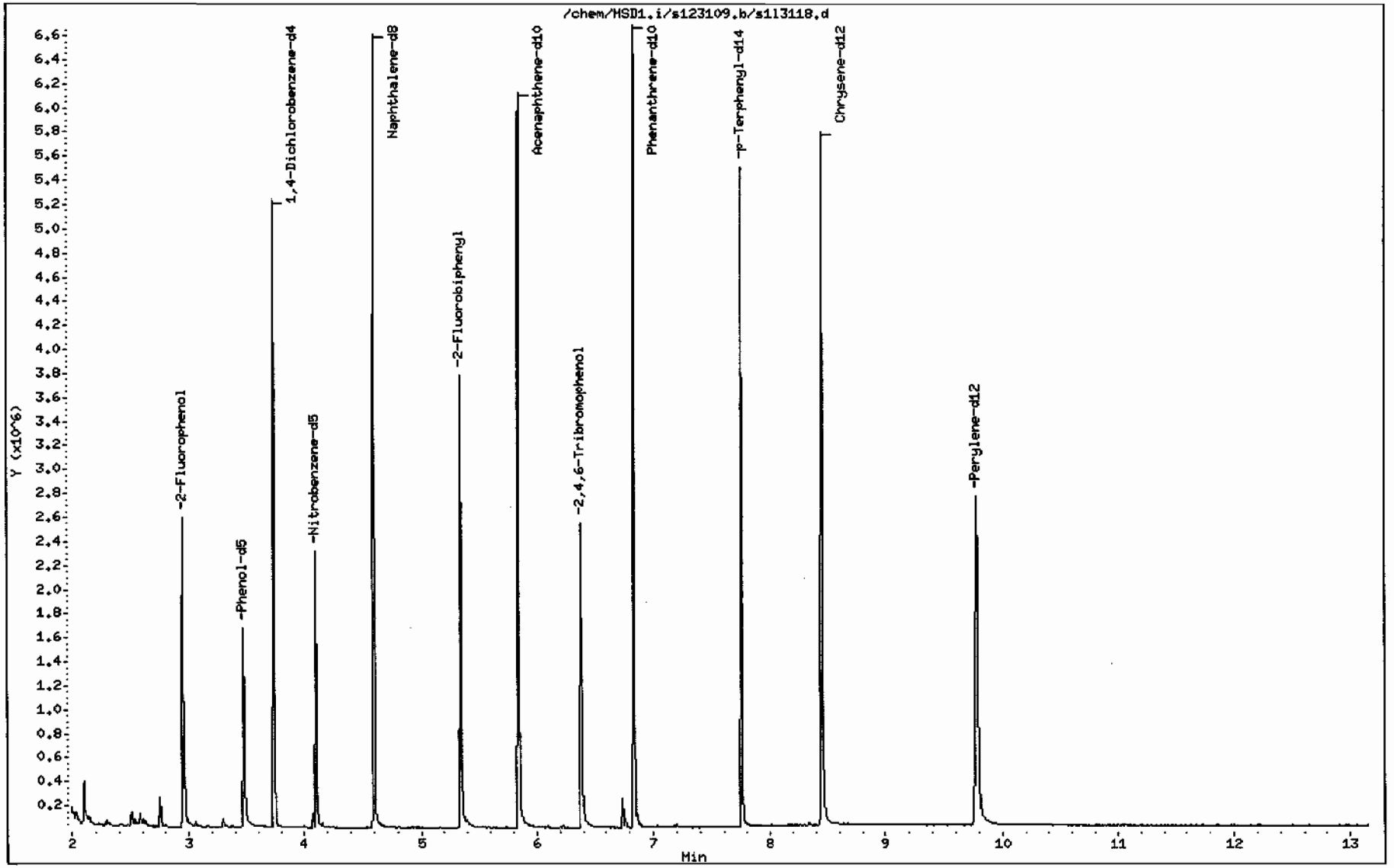

Standard Data

SW846 8270C//8270D/EPA 625								
Calibration Standard Concentration Levels*								
	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
1,4-Dichlorobenzene-d4 (INTERNAL STANDARD)								
Naphthalene-d8 (INTERNAL STANDARD)								
Acenaphthene-d10 (INTERNAL STANDARD)								
Phenanthrene-d10 (INTERNAL STANDARD)								
Chrysene-d12 (INTERNAL STANDARD)								
Perylene-d12 (INTERNAL STANDARD)								
2-Fluorophenol (SURROGATE)		10	20	40	50	80	100	120
Phenol-d5 (SURROGATE)		10	20	40	50	80	100	120
2-Chlorophenol-d4 (CLP SURROGATE)		10	20	40	50	80	100	120
1,2-Dichlorobenzene-d4 (CLP SURROGATE)		10	20	40	50	80	100	120
Nitrobenzene-d5 (SURROGATE)		10	20	40	50	80	100	120
2-Fluorobiphenyl (SURROGATE)		10	20	40	50	80	100	120
2,4,6-Tribromophenol (SURROGATE)		10	20	40	50	80	100	120
p-Terphenyl-d14 (SURROGATE)		10	20	40	50	80	100	120
N-Nitrosodimethylamine		10	20	40	50	80	100	120
Pyridine		10	20	40	50	80	100	120
Aniline		10	20	40	50	80	100	120
Benzaldehyde		10	20	40	50	80	100	120
Phenol		10	20	40	50	80	100	120
bis(2-Chloroethyl)ether	1	10	20	40	50	80	100	120
2-Chlorophenol		10	20	40	50	80	100	120
n-Decane		10	20	40	50	80	100	120
1,3-Dichlorobenzene		10	20	40	50	80	100	120
1,4-Dichlorobenzene		10	20	40	50	80	100	120
Benzyl Alcohol		10	20	40	50	80	100	120
1,2-Dichlorobenzene		10	20	40	50	80	100	120
bis(2-Chloroisopropyl)ether		10	20	40	50	80	100	120
o-Cresol (2-Methylphenol)		10	20	40	50	80	100	120
Acetophenone		10	20	40	50	80	100	120
N-Nitrosodipropylamine	1	10	20	40	50	80	100	120
m,p-Cresols (3-Methylphenol & 4-Methylphenol)		10	20	40	50	80	100	120
Hexachloroethane		10	20	40	50	80	100	120
Nitrobenzene		10	20	40	50	80	100	120
Isophorone		10	20	40	50	80	100	120
2-Nitrophenol		10	20	40	50	80	100	120
2,4-Dimethylphenol		10	20	40	50	80	100	120
bis(2-Chloroethoxy)methane		10	20	40	50	80	100	120
2,4-Dichlorophenol		10	20	40	50	80	100	120
Benzoic Acid			20	40	50	80	100	120
1,2,4-Trichlorobenzene		10	20	40	50	80	100	120
Naphthalene	1	10	20	40	50	80	100	120
alpha-Terpineol		10	20	40	50	80	100	120
4-Chloroaniline		10	20	40	50	80	100	120
Caprolactam		10	20	40	50	80	100	120

SW846 8270C//8270D/EPA 625								
Calibration Standard Concentration Levels*								
	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Hexachlorobutadiene		10	20	40	50	80	100	120
4-Chloro-3-methylphenol		10	20	40	50	80	100	120

2-Methylnaphthalene	1	10	20	40	50	80	100	120
1-Methylnaphthalene	1	10	20	40	50	80	100	120
Hexachlorocyclopentadiene		10	20	40	50	80	100	120
1,1'-Biphenyl		10	20	40	50	80	100	120
2,3-Dichloroaniline		10	20	40	50	80	100	120
2,4,6-Trichlorophenol		10	20	40	50	80	100	120
2,4,5-Trichlorophenol		10	20	40	50	80	100	120
2-Chloronaphthalene	1	10	20	40	50	80	100	120
o-Nitroaniline		10	20	40	50	80	100	120
m-Nitroaniline		10	20	40	50	80	100	120
Dimethylphthalate	1	10	20	40	50	80	100	120
2,6-Dinitrotoluene		10	20	40	50	80	100	120
Acenaphthylene	1	10	20	40	50	80	100	120
Acenaphthene	1	10	20	40	50	80	100	120
2,4-Dinitrophenol			20	40	50	80	100	120
Dibenzofuran		10	20	40	50	80	100	120
2,4-Dinitrotoluene		10	20	40	50	80	100	120
Diethylphthalate	1	10	20	40	50	80	100	120
4-Nitrophenol		10	20	40	50	80	100	120
Fluorene	1	10	20	40	50	80	100	120
4-Chlorophenyl phenyl ether		10	20	40	50	80	100	120
2-Methyl-4,6-dinitrophenol		10	20	40	50	80	100	120
p-Nitroaniline		10	20	40	50	80	100	120
Diphenylamine		10	20	40	50	80	100	120
1,2-Diphenylhydrazine		10	20	40	50	80	100	120
Tributylphosphate		10	20	40	50	80	100	120
4-Bromophenyl phenyether		10	20	40	50	80	100	120
Hexachlorobenzene		10	20	40	50	80	100	120
Atrazine		10	20	40	50	80	100	120
Pentachlorophenol		10	20	40	50	80	100	120
n-Octadecane		10	20	40	50	80	100	120
Phenanthrene	1	10	20	40	50	80	100	120
Anthracene	1	10	20	40	50	80	100	120
Di-n-butylphthalate	1	10	20	40	50	80	100	120
Fluoranthene	1	10	20	40	50	80	100	120
Benzidine		10	20	40	50	80	100	120
Pyrene	1	10	20	40	50	80	100	120
Butylbenzylphthalate	1	10	20	40	50	80	100	120
Benzo(a)anthracene	1	10	20	40	50	80	100	120
3,3'-Dichlorobenzidene		10	20	40	50	80	100	120
Chrysene	1	10	20	40	50	80	100	120
bis (2-Ethylhexyl) phthalate	1	10	20	40	50	80	100	120
Di-n-octylphthalate	1	10	20	40	50	80	100	120

SW846 8270C//8270D/EPA 625								
Calibration Standard Concentration Levels*								
	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Benzo(b)fluoranthene	1	10	20	40	50	80	100	120
Benzo(k)fluoranthene	1	10	20	40	50	80	100	120
Benzo(a)pyrene	1	10	20	40	50	80	100	120
Indeno-(1,2,3-cd)pyrene	1	10	20	40	50	80	100	120
Dibenzo(a,h)anthracene	1	10	20	40	50	80	100	120
Benzo(ghi)perylene	1	10	20	40	50	80	100	120
Carbazole	1	10	20	40	50	80	100	120

APPENDIX IX

1,4-Dioxane		10	20	40	50	80	100	120
Methyl methacrylate		10	20	40	50	80	100	120
Ethyl methacrylate		10	20	40	50	80	100	120
2-Picoline		10	20	40	50	80	100	120
N-Nitrosomethylethylamine		10	20	40	50	80	100	120
Methyl methanesulfonate		10	20	40	50	80	100	120
N-Nitrosodiethylamine		10	20	40	50	80	100	120
Ethyl methanesulfonate		10	20	40	50	80	100	120
Pentachloroethane		10	20	40	50	80	100	120
N-Nitrosopyrrolidine		10	20	40	50	80	100	120
N-Nitrosomorpholine		10	20	40	50	80	100	120
o-Toluidine		10	20	40	50	80	100	120
N-Nitrosopiperidine		10	20	40	50	80	100	120
a,a-Dimethhylphenethylamine		10	20	40	50	80	100	120
Triethylphosphorothioate		10	20	40	50	80	100	120
2,6-Dichlorophenol		10	20	40	50	80	100	120
Hexachloropropene		10	20	40	50	80	100	120
p-Phenylenediamine		10	20	40	50	80	100	120
N-Nitrosodi-n-butylamine		10	20	40	50	80	100	120
Safrole		10	20	40	50	80	100	120
1,2,4,5-Tetrachlorobenzene		10	20	40	50	80	100	120
Isosafrole		10	20	40	50	80	100	120
1,4-Naphthoquinone		10	20	40	50	80	100	120
m-Dinitrobenzene		10	20	40	50	80	100	120
Pentachlorobenzene		10	20	40	50	80	100	120
1-Naphthylamine		10	20	40	50	80	100	120
2-Naphthylamine		10	20	40	50	80	100	120
2,3,4,6-Tetrachlorophenol		10	20	40	50	80	100	120
5-Nitro-o-toluidine		10	20	40	50	80	100	120
Thionazin		10	20	40	50	80	100	120
Sulfotepp		10	20	40	50	80	100	120
Phorate		10	20	40	50	80	100	120
1,3,5-Trinitrobenzene		10	20	40	50	80	100	120
Phenacetin		10	20	40	50	80	100	120
Diallate (cis and trans)		10	20	40	50	80	100	120

SW846 8270C//8270D/EPA 625

Calibration Standard Concentration Levels*

	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Dimethoate		10	20	40	50	80	100	120
4-Aminobiphenyl		10	20	40	50	80	100	120
Pentachloronitrobenzene		10	20	40	50	80	100	120
Pronamide		10	20	40	50	80	100	120
Dinoseb		10	20	40	50	80	100	120
Disulfoton		10	20	40	50	80	100	120
Methyl parathion		10	20	40	50	80	100	120
4-Nitroquinoline oxide		10	20	40	50	80	100	120
Methapyrilene		10	20	40	50	80	100	120
Isodrin		10	20	40	50	80	100	120
Aramite		10	20	40	50	80	100	120
Kepone		10	20	40	50	80	100	120
p-(Dimethylamino)azobenzene		10	20	40	50	80	100	120

Chlorobenzilate		10	20	40	50	80	100	120
3,3'-Dimethylbenzidine		10	20	40	50	80	100	120
Famphur		10	20	40	50	80	100	120
2-Acetylaminofluorene		10	20	40	50	80	100	120
7,12-Dimethylbenz(a)anthracene		10	20	40	50	80	100	120
3-Methylcholanthrene		10	20	40	50	80	100	120
Hexachlorophene		500	1000	1250	1500	1750	2000	
p-Benzoquinone		10	20	40	50	80	100	120
Parathion		10	20	40	50	80	100	120
Methoxychlor		10	20	40	50	80	100	120
2-Ethoxyethanol		50	75	100	125	150	200	250
cis-Diallate		1.5	3	6	7.5	12	15	18
trans-Diallate		8.5	17	34	42	68	85	102
Dibenzo(a,e)pyrene		50	75	100	125	150	200	250
Phthalic anhydride		50	75	100	125	150	200	250
1,4-Dinitrobenzene		50	75	100	125	150	200	250
(2,3-Dibromopropyl)phosphate		50	75	100	125	150	200	250
Methylenebis(2-chloroaniline)		50	75	100	125	150	200	250
p-Toluidine		10	20	40	50	80	100	120
m-Toluidine		10	20	40	50	80	10	120

SW846 8270C//8270D/EPA 625								
Calibration Standard Concentration Levels*								
	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
bis(Chloromethyl)ether		10	20	40	50	80	100	120
Thiophenol		10	20	40	50	80	100	120
4-Chlorothiophenol		10	20	40	50	80	100	120
4-Chlorothio anisole		10	20	40	50	80	100	120
Phthalic acid		10	20	40	50	80	100	120
Hydroxymethyl phthalamide		10	20	40	50	80	100	120
Diphenyl sulfide		10	20	40	50	80	100	120
Diphenyl disulfide		10	20	40	50	80	100	120
Phenyl sulfone		10	20	40	50	80	100	120
Octachlorostyrene		10	20	40	50	80	100	120
2,2'-Dichlorobenzil		10	20	40	50	80	100	120
bis(p-Chlorophenyl)disulfide		10	20	40	50	80	100	120
bis(p-Chlorophenyl)sulfone		10	20	40	50	80	10	120

All values are mg/L without the prep factor.
# Indicates the calibration verification concentration level used
* Usual calibration levels using SCAN methodology
Level 1 may be included at request of client
(06/08)

Report Date: 01-Jan-2010 15:06

Calibration History

Method : /chem/MSD1.i/s123109.b/MSD1-M8270AQA-111409.m
Start Cal Date: 14-NOV-2009 18:22
End Cal Date : 17-NOV-2009 19:15

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 1.00000		
14-NOV-2009 18:22	MEGAIICARE	/chem/MSD1.i/s111409.b/s1k1203.d
Cal Level: 2 , Cal Amount: 10.00000		
17-NOV-2009 16:56	nev	/chem/MSD1.i/s111409.b/s1k1262.d
15-NOV-2009 20:55	hex	/chem/MSD1.i/s111409.b/s1k1229.d
15-NOV-2009 18:11	pest	/chem/MSD1.i/s111409.b/s1k1222.d
15-NOV-2009 15:28	ap12	/chem/MSD1.i/s111409.b/s1k1215.d
14-NOV-2009 18:51	MEGAIICARE	/chem/MSD1.i/s111409.b/s1k1204.d
Cal Level: 3 , Cal Amount: 20.00000		
17-NOV-2009 17:19	nev	/chem/MSD1.i/s111409.b/s1k1263.d
15-NOV-2009 21:18	hex	/chem/MSD1.i/s111409.b/s1k1230.d
15-NOV-2009 18:35	pest	/chem/MSD1.i/s111409.b/s1k1223.d
15-NOV-2009 15:51	ap12	/chem/MSD1.i/s111409.b/s1k1216.d
14-NOV-2009 19:21	MEGAIICARE	/chem/MSD1.i/s111409.b/s1k1205.d
Cal Level: 4 , Cal Amount: 40.00000		
17-NOV-2009 17:42	nev	/chem/MSD1.i/s111409.b/s1k1264.d
15-NOV-2009 21:42	hex	/chem/MSD1.i/s111409.b/s1k1231.d
15-NOV-2009 18:58	pest	/chem/MSD1.i/s111409.b/s1k1224.d
15-NOV-2009 16:14	ap12	/chem/MSD1.i/s111409.b/s1k1217.d
14-NOV-2009 19:50	MEGAIICARE	/chem/MSD1.i/s111409.b/s1k1206.d
Cal Level: 5 , Cal Amount: 50.00000		
17-NOV-2009 18:05	nev	/chem/MSD1.i/s111409.b/s1k1265.d
15-NOV-2009 22:06	hex	/chem/MSD1.i/s111409.b/s1k1232.d
15-NOV-2009 19:21	pest	/chem/MSD1.i/s111409.b/s1k1225.d
15-NOV-2009 16:38	ap12	/chem/MSD1.i/s111409.b/s1k1218.d
14-NOV-2009 20:19	MEGAIICARE	/chem/MSD1.i/s111409.b/s1k1207.d
Cal Level: 6 , Cal Amount: 80.00000		
17-NOV-2009 18:28	nev	/chem/MSD1.i/s111409.b/s1k1266.d
15-NOV-2009 22:30	hex	/chem/MSD1.i/s111409.b/s1k1233.d
15-NOV-2009 19:45	pest	/chem/MSD1.i/s111409.b/s1k1226.d
15-NOV-2009 17:01	ap12	/chem/MSD1.i/s111409.b/s1k1219.d
14-NOV-2009 20:47	MEGAIICARE	/chem/MSD1.i/s111409.b/s1k1208.d
Cal Level: 7 , Cal Amount: 100.00000		

17-NOV-2009 18:52	nev	/chem/MSD1.i/s111409.b/s1k1267.d
15-NOV-2009 22:53	hex	/chem/MSD1.i/s111409.b/s1k1234.d
15-NOV-2009 20:09	pest	/chem/MSD1.i/s111409.b/s1k1227.d
15-NOV-2009 17:24	ap12	/chem/MSD1.i/s111409.b/s1k1220.d
14-NOV-2009 21:16	MEGAIICARE	/chem/MSD1.i/s111409.b/s1k1209.d

Cal Level: 8 , Cal Amount: 120.00000		
17-NOV-2009 19:15	nev	/chem/MSD1.i/s111409.b/s1k1268.d
15-NOV-2009 20:31	pest	/chem/MSD1.i/s111409.b/s1k1228.d
15-NOV-2009 17:47	ap12	/chem/MSD1.i/s111409.b/s1k1221.d
14-NOV-2009 21:45	MEGAIICARE	/chem/MSD1.i/s111409.b/s1k1210.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 40.0		
31-DEC-2009 12:02	MEGAIICARE	/chem/MSD1.i/s123109.b/s113106.d

Ccal Level: 4 , Ccal Amount: 40.0		
31-DEC-2009 10:02	MEGAIICARE	/chem/MSD1.i/s123109.b/s113103.d

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 14-NOV-2009 18:22
End Cal Date : 17-NOV-2009 19:15
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD1.i/s123109.b/MSD1-M8270AQA-111409.m
Cal Date : 31-Dec-2009 14:05 amy01291

Calibration File Names:
Level 1: /chem/MSD1.i/s111409.b/s1k1203.d
Level 2: /chem/MSD1.i/s111409.b/s1k1262.d
Level 3: /chem/MSD1.i/s111409.b/s1k1263.d
Level 4: /chem/MSD1.i/s111409.b/s1k1264.d
Level 5: /chem/MSD1.i/s111409.b/s1k1265.d
Level 6: /chem/MSD1.i/s111409.b/s1k1266.d
Level 7: /chem/MSD1.i/s111409.b/s1k1267.d
Level 8: /chem/MSD1.i/s111409.b/s1k1268.d

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
1 N-Methyl-N-nitrosomethylamine	+++++	0.54039	0.59425	0.56483	0.56773	0.57115					
	0.58358	0.54985					AVRG		0.56740		3.25055
2 Pyridine	+++++	0.93895	1.06231	1.03607	0.88870	0.86312					
	1.01434	0.86615					AVRG		0.95281		8.83991
4 Aniline	+++++	0.52437	0.56877	0.55954	0.56752	0.56439					
	0.57920	0.54312					AVRG		0.55813		3.31324
209 Benzaldehyde	+++++	0.85863	0.89515	0.82459	0.84178	+++++					
	0.78498	0.73887					AVRG		0.82400		6.72378
6 Phenol	+++++	1.30044	1.37922	1.37450	1.34330	1.33206					
	1.36293	1.27353					AVRG		1.33800		2.93989

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 14-NOV-2009 18:22
End Cal Date : 17-NOV-2009 19:15
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD1.i/s123109.b/MSD1-M8270AQA-111409.m
Cal Date : 31-Dec-2009 14:05 amy01291

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
7 bis(2-Chloroethyl) ether	0.97066	0.92013	0.97374	0.95071	0.94120	0.92474					
	0.92138	0.84393					AVRG		0.93081		4.39644
8 2-Chlorophenol	+++++	1.10018	1.18374	1.15316	1.14675	1.13425					
	1.15576	1.08633					AVRG		1.13717		2.96542
203 n-Decane	+++++	1.60577	1.68138	1.52755	1.45137	1.35767					
	1.27260	1.12485					AVRG		1.43160		13.59167
9 1,3-Dichlorobenzene	+++++	1.34153	1.44138	1.36782	1.35778	1.32788					
	1.29449	1.20929					AVRG		1.33431		5.33878
11 1,4-Dichlorobenzene	+++++	1.33212	1.41388	1.35420	1.32607	1.29299					
	1.26993	1.16675					AVRG		1.30799		5.91221
12 Benzyl alcohol	+++++	0.65002	0.69243	0.70051	0.67929	0.68651					
	0.73179	0.69932					AVRG		0.69141		3.57264
13 1,2-Dichlorobenzene	+++++	1.29605	1.34639	1.26381	1.21944	1.15866					
	1.13607	1.03545					AVRG		1.20798		8.78247
14 bis(2-Chloroisopropyl)ether	+++++	2.32509	2.42028	2.31148	2.26329	2.15456					
	2.11135	1.93355					AVRG		2.21709		7.35350
15 o-Cresol	+++++	0.90774	0.91911	0.87727	0.85502	0.81471					
	0.80779	0.74384					AVRG		0.84650		7.32849

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INITIAL CALIBRATION DATA

Start Cal Date : 14-NOV-2009 18:22
End Cal Date : 17-NOV-2009 19:15
Quant Method : ISTD
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Integrator : HP RTE
Method file : /chem/MSD1.i/s123109.b/MSD1-M8270AQA-111409.m
Cal Date : 31-Dec-2009 14:05 amy01291

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
16 Acetophenone	+++++	1.16435	1.20208	1.12556	1.15316	+++++					
	1.08411	1.04352					AVRG		1.12880		5.09017
17 N-Nitrosodipropylamine	0.81293	0.75653	0.80116	0.77693	0.78822	0.71050					
	0.77452	0.67823					AVRG		0.76238		6.05014
18 m,p-Cresols	+++++	1.13181	1.16963	1.17353	1.13669	1.14618					
	1.18516	1.11948					AVRG		1.15179		2.12873
19 Hexachloroethane	+++++	0.47556	0.50281	0.48245	0.48088	0.46955					
	0.46206	0.42193					AVRG		0.47075		5.31168
21 Nitrobenzene	+++++	0.28437	0.30442	0.28298	0.28351	0.27052					
	0.25822	0.23858					AVRG		0.27466		7.74785
22 Isophorone	+++++	0.49709	0.51707	0.49540	0.49196	0.47802					
	0.46730	0.41658					AVRG		0.48049		6.70733
23 2-Nitrophenol	+++++	0.14839	0.15989	0.15609	0.15578	0.14421					
	0.13558	0.12065					AVRG		0.14580		9.49803
24 2,4-Dimethylphenol	+++++	0.25377	0.24260	0.23030	0.24361	0.23323					
	0.21824	0.21248					AVRG		0.23346		6.25831
25 bis(2-Chloroethoxy)methane	+++++	0.32659	0.33857	0.32017	0.31630	0.30271					
	0.29085	0.27012					AVRG		0.30933		7.51487

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
26 2,4-Dichlorophenol	+++++	0.21991	0.23451	0.22671	0.22578	0.22138					
	0.21025	0.19507					AVRG		0.21909		5.89795
27 Benzoic acid	+++++	+++++	0.12652	0.15647	0.17043	0.17939					
	0.17420	0.15820					AVRG		0.16087		11.85426
28 1,2,4-Trichlorobenzene	+++++	0.25324	0.26639	0.25283	0.25336	0.23817					
	0.22476	0.20597					AVRG		0.24210		8.56147
30 Naphthalene	1.00192	0.89427	0.93446	0.86563	0.83102	0.76369					
	0.73215	0.65539					AVRG		0.83482		13.59329
204 alpha-Terpineol	+++++	0.21791	0.22387	0.20802	0.18690	0.18694					
	0.18377	0.16707					AVRG		0.19635		10.50339
31 4-Chloroaniline	+++++	0.39677	0.40757	0.39487	0.39324	0.37614					
	0.36195	0.33806					AVRG		0.38123		6.35973
189 Caprolactam	+++++	0.06846	0.07656	0.07363	0.07653	+++++					
	0.06782	0.06711					AVRG		0.07169		6.15581
32 Hexachlorobutadiene	+++++	0.13511	0.14100	0.13045	0.12864	0.12021					
	0.11205	0.10277					AVRG		0.12432		10.80535
33 4-Chloro-3-methylphenol	+++++	0.21530	0.22699	0.22627	0.22610	0.21202					
	0.21204	0.17967					AVRG		0.21406		7.75567

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
34 2-Methylnaphthalene	0.63189	0.59091	0.61031	0.56805	0.55492	0.51261					
	0.47801	0.44368					AVRG		0.54880		11.97650
35 1-Methylnaphthalene	0.57039	0.52594	0.54774	0.50754	0.49716	0.46294					
	0.43668	0.39804					AVRG		0.49330		11.71827
36 Hexachlorocyclopentadiene	+++++	0.10604	0.13033	0.13014	0.13942	0.12687					
	0.11688	0.10523					AVRG		0.12213		10.70285
208 1,1'-Biphenyl	+++++	1.17951	1.24377	1.14549	1.13585	+++++					
	1.04839	0.97002					AVRG		1.12050		8.68804
205 2,3-Dichloroaniline	+++++	0.46645	0.48933	0.47427	0.46997	0.44649					
	0.43405	0.39749					AVRG		0.45401		6.79831
37 2,4,6-Trichlorophenol	+++++	0.26977	0.29094	0.27785	0.27904	0.25743					
	0.25024	0.23713					AVRG		0.26606		7.03474
38 2,4,5-Trichlorophenol	+++++	0.26905	0.31036	0.32159	0.23043	0.31171					
	0.26900	0.26816					AVRG		0.28290		11.57703
40 2-Chloronaphthalene	1.06866	1.01017	1.06218	1.02382	1.00740	0.95458					
	0.92971	0.84336					AVRG		0.98748		7.61587
42 o-Nitroaniline	+++++	0.29397	0.31274	0.31408	0.31185	0.30784					
	0.31350	0.28932					AVRG		0.30619		3.33957

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	100 Level 7	120 Level 8									
41 m-Nitroaniline	+++++	0.27156	0.28234	0.28082	0.27143	0.25979					
	0.28219	0.24573					AVRG		0.27055		5.03620
43 Dimethylphthalate	+++++	1.09522	1.14427	1.12702	1.11254	1.08188					
	1.07235	0.99634					AVRG		1.08995		4.43176
44 2,6-Dinitrotoluene	+++++	0.26660	0.28518	0.28098	0.27933	0.27123					
	0.26992	0.24768					AVRG		0.27156		4.59036
45 Acenaphthylene	1.62784	1.60004	1.67564	1.59865	1.57380	1.47905					
	1.44269	1.32968					AVRG		1.54092		7.42836
47 Acenaphthene	1.00456	0.99034	1.02942	0.97302	0.94853	0.86787					
	0.82882	0.73816					AVRG		0.92259		10.97291
48 2,4-Dinitrophenol	+++++	+++++	0.08843	0.11349	0.11534	0.11082					
	0.11305	0.10198					AVRG		0.10718		9.63049
49 Dibenzofuran	+++++	1.40383	1.45777	1.40759	1.36431	1.30285					
	1.24923	1.15395					AVRG		1.33422		7.92638
50 2,4-Dinitrotoluene	+++++	0.34056	0.36497	0.37079	0.37131	0.36633					
	0.36565	0.33990					AVRG		0.35993		3.80091
51 Diethylphthalate	+++++	1.04278	1.09197	1.06193	1.04018	0.99480					
	0.99307	0.88837					AVRG		1.01616		6.53371

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	100 Level 7	120 Level 8									
52 4-Nitrophenol	+++++	0.13809	0.17287	0.18777	0.19477	0.20369					
	0.21665	0.20716					AVRG		0.18871		14.01343
53 Fluorene	1.22796	1.15355	1.19493	1.10753	1.06188	0.99894					
	0.97721	0.88428					AVRG		1.07578		10.93658
54 4-Chlorophenylphenylether	+++++	0.47537	0.49720	0.47503	0.46785	0.44264					
	0.43218	0.38915					AVRG		0.45420		7.92169
55 2-Methyl-4,6-dinitrophenol	+++++	0.08375	0.09608	0.10582	0.10320	0.10771					
	0.10908	0.10272					AVRG		0.10120		8.67983
56 p-Nitroaniline	+++++	0.24392	0.26348	0.26430	0.28144	0.26774					
	0.27465	0.25651					AVRG		0.26458		4.60021
133 Diphenylamine	+++++	0.55588	0.57977	0.55886	0.54789	0.52659					
	0.50269	0.46310					AVRG		0.53354		7.43632
58 1,2-Diphenylhydrazine	+++++	0.69850	0.71486	0.68099	0.66427	0.63670					
	0.61324	0.54832					AVRG		0.65098		8.77582
59 Tributylphosphate	+++++	1.22698	1.16066	1.10479	1.12684	1.06119					
	1.01440	0.96114					AVRG		1.09371		8.21068
61 4-Bromophenylphenylether	+++++	0.13960	0.14381	0.14105	0.13893	0.13903					
	0.13474	0.12486					AVRG		0.13743		4.49074

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
63 Hexachlorobenzene	+++++	0.18056	0.18610	0.17775	0.16888	0.16686					
	0.15868	0.14199					AVRG		0.16869		8.86819
207 Atrazine	+++++	0.04275	0.04402	0.04191	0.04036	+++++					
	0.03698	0.03447					AVRG		0.04008		9.14364
65 Pentachlorophenol	+++++	0.08713	0.10123	0.10564	0.10198	0.10716					
	0.10688	0.09814					AVRG		0.10117		6.93558
206 n-Octadecane	+++++	0.49445	0.50531	0.45683	0.42873	0.36788					
	0.34975	+++++					AVRG		0.43383		14.85243
68 Phenanthrene	1.08140	0.97577	0.96718	0.91676	0.90684	0.85016					
	0.82329	0.75087					AVRG		0.90903		11.26824
69 Anthracene	1.05572	0.98071	1.00934	0.97561	0.92329	0.88140					
	0.83261	0.73707					AVRG		0.92447		11.24280
72 Di-n-butylphthalate	+++++	1.06714	1.12314	1.06117	1.02135	0.94081					
	0.88726	0.80148					AVRG		0.98605		11.57265
76 Fluoranthene	0.94603	0.94387	0.96313	0.92832	0.88364	0.83514					
	0.79976	0.71979					AVRG		0.87746		9.80038
77 Benzidine	+++++	0.28582	0.36970	0.35152	0.36897	+++++					
	0.43187	0.36504					AVRG		0.36215		12.90005

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
79 Pyrene	1.12921	1.08043	1.13184	1.09423	1.03887	1.05677					
	1.02924	0.94284					AVRG		1.06293		5.79953
85 Butylbenzylphthalate	+++++	0.53253	0.56219	0.50335	0.46569	0.43331					
	0.40529	+++++					AVRG		0.48372		12.38419
89 Benzo(a)anthracene	1.00602	0.91134	0.98073	0.96992	0.98002	0.96903					
	0.95763	0.89850					AVRG		0.95915		3.79585
90 3,3'-Dichlorobenzidine	+++++	0.24634	0.28908	0.28847	0.28710	+++++					
	0.28231	0.25909					AVRG		0.27540		6.60230
92 Chrysene	0.98731	0.93210	0.94599	0.88032	0.86729	0.85456					
	0.87955	0.82465					AVRG		0.89647		6.00506
93 bis(2-Ethylhexyl)phthalate	0.57061	0.72394	0.78180	0.75934	0.74451	0.72196					
	0.68855	0.63132					AVRG		0.70275		10.02985
94 Di-n-octylphthalate	+++++	1.17035	1.39716	1.40560	1.36840	1.34274					
	1.30766	1.16752					AVRG		1.30849		7.70640
95 Benzo(b)fluoranthene	21625	340509	730849	1739197	2305837	3304287					
	3978698	5127789					LINR	0.06661	1.08695		0.99870
96 Benzo(k)fluoranthene	1.03711	1.06722	1.12263	1.01575	1.02623	1.00211					
	0.97020	0.78256					AVRG		1.00298		9.96839

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97 Benzo(a)pyrene	20918	319721	688146	1504125	2094282	2912657					
	3398226	3934490					LINR	-0.00385	0.87033		0.99612
99 Indeno(1,2,3-cd)pyrene	21578	336515	700258	1580353	2201480	3025334					
	3523403	4020592					LINR	-0.01092	0.89653		0.99431
100 Dibenzo(a,h)anthracene	16162	268427	581631	1325626	1846286	2532762					
	2946699	3397425					LINR	-0.00445	0.75511		0.99519
101 Benzo(ghi)perylene	0.56462	0.70452	0.77602	0.81299	0.83023	0.80394					
	0.79303	0.72783					AVRG		-0.75165		11.54879
102 1,4-Dioxane	+++++	0.32550	0.33716	0.30934	0.31455	+++++					
	0.30805	0.28861					AVRG		0.31387		5.27573
103 Methyl methacrylate	+++++	0.17774	0.19107	0.17805	0.17495	+++++					
	0.17326	0.16336					AVRG		0.17640		5.08144
104 Ethyl methacrylate	+++++	0.73346	0.76622	0.70794	0.70643	+++++					
	0.69714	0.66675					AVRG		0.71299		4.73943
105 2-Picoline	+++++	1.18802	1.23130	1.15065	1.15312	+++++					
	1.12223	1.07774					AVRG		1.15384		4.58113
106 N-Nitrosomethylethylamine	+++++	0.42951	0.48460	0.44623	0.45222	+++++					
	0.46395	0.44906					AVRG		0.45426		4.08577

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	100 Level 7	120 Level 8									
107 Methyl methanesulfonate	+++++	0.43204	0.45674	0.42468	0.43227	+++++					
	0.41648	0.39202					AVRG		0.42570		5.00242
108 N-Nitrosodiethylamine	+++++	0.47915	0.50719	0.47065	0.48068	+++++					
	0.47830	0.46128					AVRG		0.47954		3.20356
109 Ethyl Methanesulfonate	+++++	0.59343	0.63202	0.58286	0.59990	+++++					
	0.59568	0.57362					AVRG		0.59625		3.34808
110 Pentachloroethane	+++++	0.30094	0.30775	0.28811	0.28717	+++++					
	0.28774	0.27522					AVRG		0.29115		3.95122
111 N-Nitrosopyrrolidine	+++++	0.47773	0.52978	0.49561	0.51566	+++++					
	0.41369	0.41806					AVRG		0.47509		10.34926
113 N-Nitrosomorpholine	+++++	0.63587	0.69755	0.63481	0.65791	+++++					
	0.54487	0.53392					AVRG		0.61749		10.47980
114 o-Toluidine	+++++	1.64551	1.76888	1.61850	1.65178	+++++					
	1.65679	1.57817					AVRG		1.65327		3.85302
115 N-Nitrosopiperidine	+++++	0.12931	0.13922	0.12850	0.13280	+++++					
	0.13244	0.12709					AVRG		0.13156		3.32124
116 a,a-Dimethylphenethylamine	+++++	0.70597	0.78545	0.76293	0.79408	+++++					
	0.79335	0.76628					AVRG		0.76801		4.32000

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117 Triethylphosphorothioate	+++++	0.12812	0.12428	0.12751	0.12901	0.12488					
	0.12021	0.11633					AVRG		0.12433		3.70966
118 2,6-Dichlorophenol	+++++	0.18796	0.20530	0.19528	0.20193	+++++					
	0.20014	0.19147					AVRG		0.19701		3.35416
119 Hexachloropropene	+++++	0.07891	0.09539	0.09133	0.09091	+++++					
	0.09225	0.08492					AVRG		0.08895		6.72708
120 p-Phenylenediamine	+++++	0.17417	0.23091	0.21919	0.22009	+++++					
	0.19257	0.17231					AVRG		0.20154		12.55674
121 N-Nitrosodi-n-butylamine	+++++	0.16926	0.19309	0.16843	0.17454	+++++					
	0.16640	0.15862					AVRG		0.17172		6.79719
122 Safrole	+++++	0.18021	0.18852	0.17847	0.18253	+++++					
	0.17443	0.16766					AVRG		0.17864		3.98501
123 1,2,4,5-Tetrachlorobenzene	+++++	0.38048	0.40351	0.37295	0.37017	+++++					
	0.35065	0.32500					AVRG		0.36713		7.29953
124 Isosafrole	+++++	0.32136	0.34935	0.32718	0.32927	+++++					
	0.32898	0.30952					AVRG		0.32761		3.96520
125 1,4-Naphthoquinone	+++++	0.37346	0.38046	0.31457	0.30180	+++++					
	0.18844	0.22186					AVRG		0.29676		26.34996 <-

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INITIAL CALIBRATION DATA

Start Cal Date : 14-NOV-2009 18:22
End Cal Date : 17-NOV-2009 19:15
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD1.i/s123109.b/MSD1-M8270AQA-111409.m
Cal Date : 31-Dec-2009 14:05 amy01291

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
126 m-Dinitrobenzene	+++++	0.17349	0.18721	0.19120	0.19440	0.19057					
	0.19238	0.17644					AVRG		0.18653		4.41251
127 Pentachlorobenzene	+++++	0.32992	0.34557	0.31675	0.31835	+++++					
	0.29677	0.27972					AVRG		0.31451		7.45207
128 1-Naphthylamine	+++++	0.82636	0.98891	0.93384	0.93443	+++++					
	0.87178	0.80990					AVRG		0.89420		7.80762
129 2-Naphthylamine	+++++	0.96588	1.05556	1.00159	1.00599	+++++					
	0.94403	0.87535					AVRG		0.97473		6.34557
130 2,3,4,6-Tetrachlorophenol	+++++	0.20567	0.22518	0.22987	0.20102	0.22712					
	0.21818	0.20523					AVRG		0.21604		5.51582
131 5-Nitro-o-toluidine	+++++	0.25535	0.29363	0.28574	0.29496	+++++					
	0.29982	0.28219					AVRG		0.28528		5.60973
132 Thionazin	+++++	0.16358	0.16364	0.16630	0.16880	0.16339					
	0.15554	0.14821					AVRG		0.16135		4.38820
134 Sulfotepp	+++++	0.08562	0.08304	0.08303	0.08467	0.07953					
	0.07427	0.07214					AVRG		0.08033		6.54838
135 Phorate	+++++	0.36567	0.35586	0.35721	0.36683	0.34385					
	0.32742	0.31541					AVRG		0.34747		5.65187

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Cal Date : 31-Dec-2009 14:05 amy01291

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
136 1,3,5-Trinitrobenzene	+++++	0.10196	0.12348	0.12395	0.12006	+++++					
	0.11894	0.10898					AVRG		0.11623		7.60291
137 Phenacetin	+++++	0.22684	0.26317	0.26291	0.26441	+++++					
	0.26599	0.25918					AVRG		0.25708		5.83046
138 Diallate	+++++	0.24760	0.24927	0.23322	0.23010	+++++					
	0.21802	0.20853					AVRG		0.23112		6.94549
139 Dimethoate	+++++	0.21461	0.21994	0.23007	0.23724	0.23858					
	0.23513	0.22967					AVRG		0.22932		3.92960
140 4-Aminobiphenyl	+++++	0.53696	0.55369	0.57677	0.59426	+++++					
	0.49840	0.45674					AVRG		0.53614		9.53476
141 Pentachloronitrobenzene	+++++	0.05720	0.06067	0.05490	0.05533	+++++					
	0.04673	0.04463					AVRG		0.05324		11.71339
142 Pronamide	+++++	0.24822	0.26125	0.24154	0.23765	+++++					
	0.17973	+++++					AVRG		0.23368		13.46482
143 Dinoseb	+++++	0.10297	0.12216	0.13126	0.12950	0.13024					
	0.13017	0.12500					AVRG		0.12447		8.06727
144 Disulfoton	+++++	0.32280	0.31415	0.31231	0.32231	0.30214					
	0.27306	0.26345					AVRG		0.30146		7.92046

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Cal Date : 31-Dec-2009 14:05 amy01291

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
145 Methyl parathion	+++++	0.18413	0.18908	0.19611	0.20206	0.20472					
	0.19613	0.19053					AVRG		0.19468		3.74715
146 4-Nitroquinoline-1-oxide	+++++	0.00831	0.00998	0.00800	0.01074	+++++					
	0.01133	0.01046					AVRG		0.00980		13.77700
147 Methapyrilene	+++++	0.36466	0.38869	0.39386	0.38311	+++++					
	0.36077	0.31821					AVRG		0.36822		7.55340
148 Isodrin	+++++	0.09085	0.09372	0.08925	0.08743	+++++					
	0.07960	0.07570					AVRG		0.08609		8.09255
149 Aramite	+++++	0.04141	0.04570	0.04371	0.04272	+++++					
	0.04204	0.03972					AVRG		0.04255		4.79399
150 Kepone	+++++	0.06055	0.06732	0.06349	0.06380	+++++					
	0.06458	0.05876					AVRG		0.06308		4.80408
151 p-(Dimethylamino)azobenzene	+++++	0.28782	0.31583	0.29702	0.29097	+++++					
	0.26535	0.24656					AVRG		0.28392		8.62091
152 Chlorobenzilate	+++++	0.21991	0.23787	0.22800	0.23044	+++++					
	0.20814	0.19524					AVRG		0.21994		7.17760
153 3,3'-Dimethylbenzidine	+++++	0.45675	0.51768	0.48413	0.48879	+++++					
	0.49372	0.43564					AVRG		0.47945		6.05117

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
154 Famphur	+++++	0.29819	0.30032	0.31780	0.33430	0.32440					
	0.30595	0.30061					AVRG		0.31165		4.49495
155 2-Acetylaminofluorene	+++++	0.23107	0.30345	0.31881	0.32045	+++++					
	0.34822	0.32608					AVRG		0.30801		13.11206
157 7,12Dimethylbenz(a)anthracene	+++++	0.41118	0.44192	0.42666	0.43253	+++++					
	0.40970	0.40537					AVRG		0.42123		3.47443
158 3-Methylcholanthrene	+++++	0.29680	0.36865	0.37932	0.38459	+++++					
	0.39125	0.38204					AVRG		0.36711		9.59696
26 Phthalic anhydride	+++++	30283	90214	245905	320454	497228					
	555160	687649					LINR	0.08413	0.10332		0.99692
173 Carbazole	0.90246	0.82255	0.80875	0.81414	0.83946	0.78812					
	0.78058	0.70109					AVRG		0.80714		7.06036
174 Hexachlorophene	+++++	0.03640	0.04820	0.05180	0.05353	0.05136					
	0.04905	+++++					AVRG		0.04839		12.77621
179 Dibenzo(a,e)pyrene	+++++	117900	312429	817402	1225621	1557621					
	1812574	+++++					LINR	0.07449	0.50549		0.99368
185 (2,3-Dibromopropyl)phosphate	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+00		0.000e+00 <-

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
184 p-Benzoquinone	+++++	2462	14132	46568	48315	83536					
	96111	113764					LINR	0.17192	0.08067		0.99223
191 Parathion	+++++	0.06169	0.06089	0.06449	0.06621	0.06308					
	0.06173	0.06112					AVRG		0.06274		3.14637
192 Methoxychlor	+++++	0.32535	0.36631	0.33959	0.33867	0.27894					
	0.25594	+++++					AVRG		0.31747		13.10686
210 m-Toluidine	+++++	0.77272	0.88703	0.90355	0.94226	1.01524					
	0.94351	+++++					AVRG		0.91072		8.87324
211 p-Toluidine	+++++	0.69169	0.70617	0.72166	0.71562	0.68688					
	+++++	+++++					AVRG		0.70440		2.12367
212 Cis Diallate	+++++	0.23437	0.24880	0.23465	0.23944	+++++					
	0.24434	0.23833					AVRG		0.23999		2.35508
213 Trans Diallate	+++++	0.29129	0.29326	0.27438	0.27070	+++++					
	0.25649	0.24533					AVRG		0.27191		6.94549
214 1,4-Dinitrobenzene	+++++	0.16000	0.17119	0.17754	0.17866	0.17639					
	0.17966	0.16860					AVRG		0.17315		4.08379
215 2-Ethoxyethanol	+++++	0.57555	0.62918	0.65385	0.56961	0.58718					
	0.62071	0.58595					AVRG		0.60315		5.24047

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Cal Date : 31-Dec-2009 14:05 amy01291

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
216 Methylenebis(2-chloroaniline)	+++++	0.11447	0.12909	0.13171	0.13536	0.13420					
	0.13376	0.12587					AVRG		0.12921		5.63660
229 2,2'-Dichlorobenzil	+++++	0.67948	0.77608	0.71487	+++++	0.73565					
	+++++	0.63422					AVRG		0.70806		7.63914
230 4-Chlorothioanisole	+++++	0.23155	0.23520	0.23685	+++++	0.23140					
	+++++	0.22159					AVRG		0.23132		2.56050
231 4-Chlorothiophenol	+++++	0.15409	0.17482	0.19368	+++++	0.19893					
	+++++	0.19703					AVRG		0.18371		10.41669
232 bis(p-Chlorophenyl)sulfone	+++++	0.39430	0.43698	0.38579	+++++	0.39600					
	+++++	0.34721					AVRG		0.39206		8.15529
233 bis(p-Chlorophenyl)disulfide	+++++	0.10045	0.11150	0.11707	+++++	0.12020					
	+++++	0.10635					AVRG		0.11111		7.18003
234 Diphenyl disulfide	+++++	0.17804	0.18209	0.18631	+++++	0.17491					
	+++++	0.16341					AVRG		0.17695		4.91531
235 Diphenyl sulfide	+++++	0.71955	0.73103	0.70874	+++++	0.65333					
	+++++	0.61709					AVRG		0.68595		7.09988
236 Phenyl sulfone	+++++	0.43275	0.44078	0.42799	+++++	0.41905					
	+++++	0.39177					AVRG		0.42247		4.46830

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
237 Hydroxymethyl phthalimide	+++++	0.12384	0.15720	0.10384	+++++	0.13032					
	+++++	0.12669					AVRG		0.12838		14.88299
238 Phthalic acid	+++++	24604	70600	163991	+++++	411903					
	+++++	634014					LINR	0.25540	0.11087		0.99102
239 Thiophenol	+++++	0.94048	1.03561	1.08365	+++++	1.12900					
	+++++	1.09332					AVRG		1.05641		6.89893
240 bis(Chloromethyl)ether	+++++	0.78790	0.79417	0.76917	+++++	0.75455					
	+++++	0.73576					AVRG		0.76831		3.12263
241 Octachlorostyrene	+++++	0.06103	0.06315	0.05827	+++++	0.05420					
	+++++	0.04861					AVRG		0.05705		10.14342
M 225 Trichlorophenols	+++++	0.26941	0.30065	0.29972	0.25473	0.28457					
	0.25962	0.25265					AVRG		0.27448		7.49129
M 226 Tetrachlorophenols	+++++	0.20567	0.22518	0.22987	0.20102	0.22712					
	0.21818	0.20523					AVRG		0.21604		5.51582
M 227 Benzo(b,k)fluoranthene	0.78278	0.93887	1.02131	1.01324	1.00976	1.01479					
	1.00963	0.93381					AVRG		0.96552		8.47131
M 228 TTO Sum Semivolatiles	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+00		0.000e+00 <-

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	100 Level 7	120 Level 8										
$ 3 2-Fluorophenol	+++++	0.97776	1.06271	1.06423	1.06306	1.07281						
	1.07136	1.00157					AVRG		1.04478		3.68308	
$ 5 Phenol-d5	+++++	1.21974	1.33050	1.28249	1.27680	1.26954						
	1.29216	1.21764					AVRG		1.26984		3.15351	
$ 187 2-Chlorophenol-d4	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
$ 188 1,2-Dichlorobenzene-d4	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
$ 20 Nitrobenzene-d5	+++++	0.27426	0.28571	0.27066	0.27231	0.25884						
	0.24945	0.23400					AVRG		0.26360		6.62019	
$ 39 2-Fluorobiphenyl	+++++	0.99823	1.04801	1.00239	0.98618	0.93991						
	0.91199	0.81928					AVRG		0.95800		7.87748	
$ 60 2,4,6-Tribromophenol	+++++	0.10924	0.11530	0.11503	0.10898	0.11186						
	0.11271	0.10874					AVRG		0.11169		2.51418	
$ 81 p-Terphenyl-d14	+++++	0.64452	0.67675	0.65301	0.63863	0.61256						
	0.60853	0.56112					AVRG		0.62787		5.98666	

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Cal Date : 31-Dec-2009 14:05 amy01291

Curve	Formula	Units
Averaged	Amt = Rsp/ml	Response
Linear	Amt = b + Rsp/ml	Response

GEL Laboratories LLC

Data file : /chem/MSD1.i/s111409.b/s1k1203.d
Lab Smp Id: WBN091111-16 Client Smp ID: MEGA001
Inj Date : 14-NOV-2009 18:22
Operator : amy Inst ID: MSD1.i
Smp Info : |WBN091111-16|1 PPM|1|SVMF|1|MEGA001
Misc Info : |MSD8270|WBN091106-10|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD1.i/s111409.b/MSD1-M8270AQA-111409.m
Meth Date : 16-Nov-2009 13:48 nat00999 Quant Type: ISTD
Cal Date : 14-NOV-2009 18:22 Cal File: s1k1203.d
Als bottle: 3 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: MEGAIICARE.sub
Target Version: 3.50
Processing Host: hpclp1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	3.951	3.951	(1.000)	611912	40.0000	(Q)
* 29 Naphthalene-d8	136	4.822	4.822	(1.000)	2450249	40.0000	
* 46 Acenaphthene-d10	164	6.069	6.069	(1.000)	1310986	40.0000	(Q)
* 67 Phenanthrene-d10	188	7.051	7.051	(1.000)	2065210	40.0000	
* 91 Chrysene-d12	240	8.733	8.733	(1.000)	1844410	40.0000	
* 98 Perylene-d12	264	10.245	10.245	(1.000)	1636855	40.0000	
1 N-Methyl-N-nitrosomethylamine	74	2.469	2.469	(0.625)	8070	1.00000	(Q)
7 bis(2-Chloroethyl) ether	63	3.746	3.746	(0.948)	14849	1.00000	1.0(Q)
17 N-Nitrosodipropylamine	70	4.181	4.181	(1.058)	12436	1.00000	1.0(Q)
30 Naphthalene	128	4.840	4.840	(1.004)	61374	1.00000	1.0(Q)
34 2-Methylnaphthalene	142	5.316	5.316	(1.102)	38707	1.00000	1.0(Q)
35 1-Methylnaphthalene	142	5.392	5.392	(1.118)	34940	1.00000	1.0(Q)
40 2-Chloronaphthalene	162	5.669	5.669	(0.934)	35025	1.00000	1.0(Q)
43 Dimethylphthalate	163	5.828	5.828	(0.960)	37880	1.00000	
45 Acenaphthylene	152	5.975	5.975	(0.984)	53352	1.00000	1.0
47 Acenaphthene	154	6.092	6.092	(1.004)	32924	1.00000	1.0(Q)
51 Diethylphthalate	149	6.310	6.310	(1.040)	35927	1.00000	
53 Fluorene	166	6.439	6.439	(1.061)	40246	1.00000	1.0(Q)
68 Phenanthrene	178	7.063	7.063	(1.002)	55833	1.00000	1.0
69 Anthracene	178	7.092	7.092	(1.006)	54507	1.00000	1.0
72 Di-n-butylphthalate	149	7.334	7.334	(1.040)	54685	1.00000	
76 Fluoranthene	202	7.775	7.775	(1.103)	48844	1.00000	1.0
79 Pyrene	202	7.916	7.916	(0.906)	52068	1.00000	1.0
85 Butylbenzylphthalate	149	8.228	8.228	(0.942)	23602	1.00000	(Q)
89 Benzo(a)anthracene	228	8.722	8.722	(0.999)	46388	1.00000	1.0
92 Chrysene	228	8.751	8.751	(1.002)	45525	1.00000	1.0

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
93 bis(2-Ethylhexyl)phthalate	149	8.598	8.598	(0.984)	26311	1.00000	1.0
94 Di-n-octylphthalate	149	9.139	9.139	(0.892)	30684	1.00000	
95 Benzo(b)fluoranthene	252	9.751	9.751	(0.952)	21625	1.00000	1.0
96 Benzo(k)fluoranthene	252	9.780	9.780	(0.955)	42440	1.00000	1.0
97 Benzo(a)pyrene	252	10.163	10.163	(0.992)	20918	1.00000	1.0
99 Indeno(1,2,3-cd)pyrene	276	11.910	11.910	(1.162)	21578	1.00000	1.0(Q)
100 Dibenzo(a,h)anthracene	278	11.916	11.916	(1.163)	16162	1.00000	1.0
101 Benzo(ghi)perylene	276	12.445	12.445	(1.215)	23105	1.00000	1.0(Q)
173 Carbazole	167	7.181	7.181	(1.018)	46594	1.00000	1.0
M 227 Benzo(b,k)fluoranthene	252				64065	2.00000	2.0

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: /chem/MSD1.i/s111409.b/s1k1203.d
Date : 14-NOV-2009 18:22
Client ID: MEG0001
Sample Info: WBN091111-1611 PPM1|1|SVMF1|1|MEG0001
Column phase: J&W DB-5MS

Instrument: MSD1.i
Operator: amy
Column diameter: 0.20

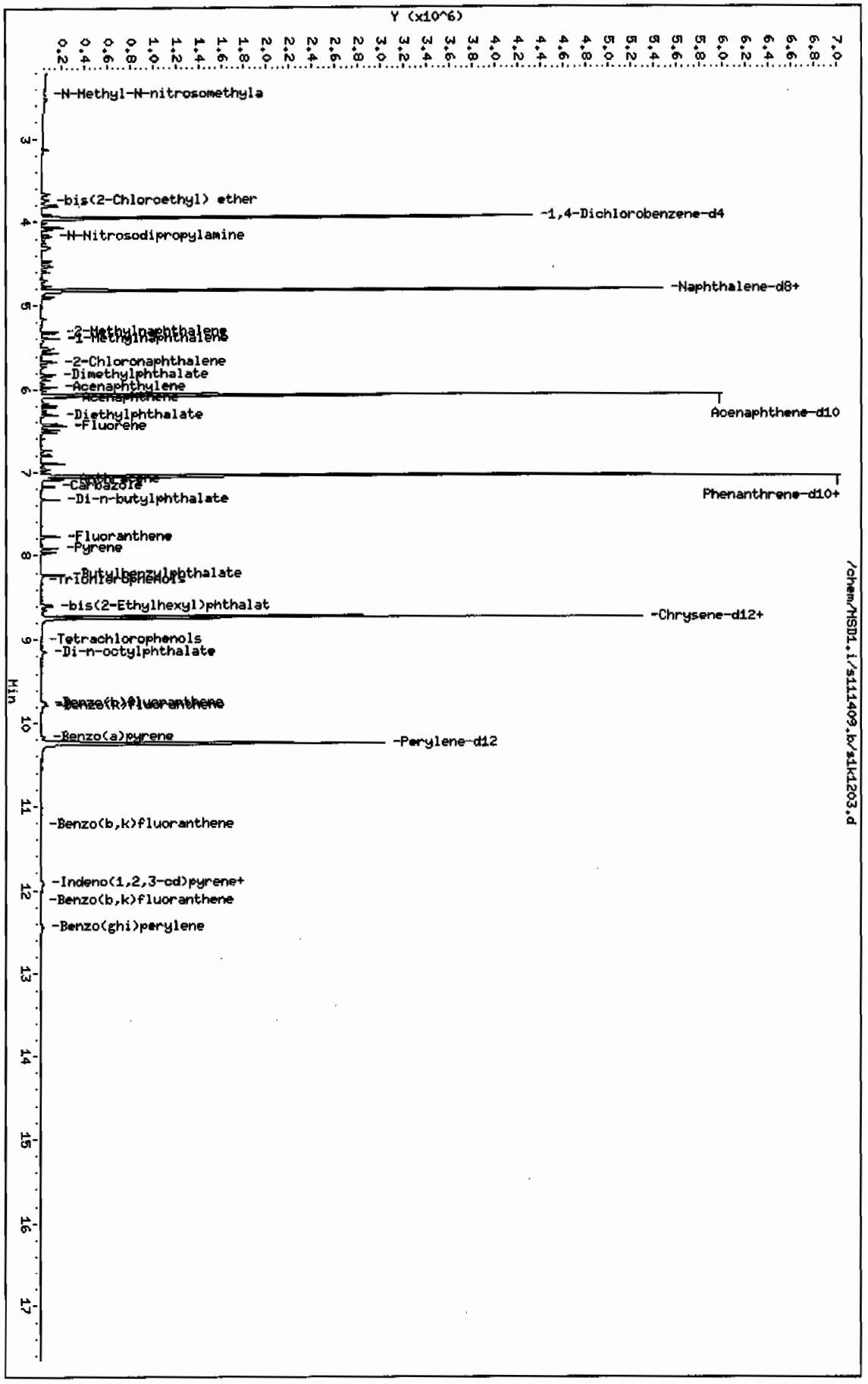

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Data file : /chem/MSD1.i/s111409.b/s1k1204.d
Lab Smp Id: WBN091111-15 Client Smp ID: MEGA010
Inj Date : 14-NOV-2009 18:51
Operator : amy Inst ID: MSD1.i
Smp Info : |WBN091111-15|10 PPM|1|SVMF|1|MEGA010
Misc Info : |MSD8270|WBN091106-10|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD1.i/s111409.b/MSD1-M8270AQA-111409.m
Meth Date : 16-Nov-2009 13:48 nat00999 Quant Type: ISTD
Cal Date : 14-NOV-2009 18:51 Cal File: s1k1204.d
Als bottle: 4 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: MEGAIICARE.sub
Target Version: 3.50
Processing Host: hpclp1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	3.957	3.957	(1.000)	571924	40.0000	(Q)
* 29 Naphthalene-d8	136	4.822	4.822	(1.000)	2314043	40.0000	
* 46 Acenaphthene-d10	164	6.075	6.075	(1.000)	1219358	40.0000	(Q)
* 67 Phenanthrene-d10	188	7.051	7.051	(1.000)	1990277	40.0000	
* 91 Chrysene-d12	240	8.734	8.734	(1.000)	1813541	40.0000	
* 98 Perylene-d12	264	10.251	10.251	(1.000)	1680464	40.0000	
$ 3 2-Fluorophenol	112	3.134	3.134	(0.792)	139801	10.0000	10.0(Q)
$ 5 Phenol-d5	99	3.663	3.663	(0.926)	174399	10.0000	10.0
$ 20 Nitrobenzene-d5	82	4.316	4.316	(0.895)	158664	10.0000	10.0(Q)
$ 39 2-Fluorobiphenyl	172	5.563	5.563	(0.916)	304301	10.0000	10.0(Q)
$ 60 2,4,6-Tribromophenol	329	6.598	6.598	(1.086)	33301	10.0000	10.0(Q)
$ 81 p-Terphenyl-d14	244	7.963	7.963	(0.912)	292216	10.0000	10.0
1 N-Methyl-N-nitrosomethylamine	74	2.440	2.440	(0.617)	77266	10.0000	10.0(Q)
2 Pyridine	79	2.481	2.481	(0.627)	134252	10.0000	10.0(Q)
4 Aniline	66	3.734	3.734	(0.944)	74975	10.0000	10.0(Q)
6 Phenol	94	3.669	3.669	(0.927)	185938	10.0000	10.0(Q)
7 bis(2-Chloroethyl) ether	63	3.752	3.752	(0.948)	131561	10.0000	9.7(Q)
8 2-Chlorophenol	128	3.816	3.816	(0.964)	157305	10.0000	10.0(Q)
203 n-Decane	43	3.804	3.804	(0.961)	229594	10.0000	10.0(QH)
9 1,3-Dichlorobenzene	146	3.922	3.922	(0.991)	191814	10.0000	10.0(Q)
11 1,4-Dichlorobenzene	146	3.963	3.963	(1.001)	190468	10.0000	10.0(Q)
13 1,2-Dichlorobenzene	146	4.069	4.069	(1.028)	185311	10.0000	10.0(Q)
14 bis(2-Chloroisopropyl)ether	45	4.099	4.099	(1.036)	332444	10.0000	10
12 Benzyl alcohol	108	4.016	4.016	(1.015)	92941	10.0000	10.0(QH)
15 o-Cresol	107	4.069	4.069	(1.028)	129789	10.0000	10.0(QH)
18 m,p-Cresols	107	4.163	4.163	(1.052)	161828	10.0000	10(Q)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
17 N-Nitrosodipropylamine	70	4.187	4.187	(1.058)	108169	10.0000	9.6(Q)
19 Hexachloroethane	117	4.304	4.304	(1.088)	67996	10.0000	10.0(Q)
21 Nitrobenzene	77	4.328	4.328	(0.898)	164510	10.0000	10.0(Q)
22 Isophorone	82	4.481	4.481	(0.929)	287570	10.0000	10.0
23 2-Nitrophenol	139	4.546	4.546	(0.943)	85846	10.0000	10.0(Q)
24 2,4-Dimethylphenol	122	4.534	4.534	(0.940)	146806	10.0000	10.0(Q)
25 bis(2-Chloroethoxy)methane	93	4.604	4.604	(0.955)	188937	10.0000	10.0(Q)
26 2,4-Dichlorophenol	162	4.704	4.704	(0.976)	127223	10.0000	10.0(Q)
27 Benzoic acid	105	4.569	4.569	(0.948)	62998	10.0000	(Q)
28 1,2,4-Trichlorobenzene	180	4.775	4.775	(0.990)	146502	10.0000	10.0(Q)
30 Naphthalene	128	4.840	4.840	(1.004)	517342	10.0000	9.4(Q)
204 alpha-Terpineol	59	4.810	4.810	(0.998)	126062	10.0000	10.0(Q)
31 4-Chloroaniline	127	4.851	4.851	(1.006)	229536	10.0000	10.0
32 Hexachlorobutadiene	225	4.904	4.904	(1.017)	78163	10.0000	10.0(Q)
33 4-Chloro-3-methylphenol	107	5.163	5.163	(1.071)	124556	10.0000	10.0(Q)
34 2-Methylnaphthalene	142	5.322	5.322	(1.104)	341845	10.0000	9.7(Q)
35 1-Methylnaphthalene	142	5.393	5.393	(1.118)	304261	10.0000	9.6(Q)
36 Hexachlorocyclopentadiene	237	5.428	5.428	(0.893)	32324	10.0000	10.0(Q)
205 2,3-Dichloroaniline	161	5.516	5.516	(0.908)	142192	10.0000	10.0(Q)
37 2,4,6-Trichlorophenol	196	5.504	5.504	(0.906)	82237	10.0000	10.0(Q)
38 2,4,5-Trichlorophenol	196	5.534	5.534	(0.911)	82016	10.0000	10.0(Q)
40 2-Chloronaphthalene	162	5.675	5.675	(0.934)	307939	10.0000	9.7(Q)
42 o-Nitroaniline	65	5.728	5.728	(0.943)	89613	10.0000	10.0(Q)
41 m-Nitroaniline	138	6.016	6.016	(0.990)	82781	10.0000	10.0(QH)
43 Dimethylphthalate	163	5.834	5.834	(0.960)	333867	10.0000	10.0
44 2,6-Dinitrotoluene	165	5.887	5.887	(0.969)	81271	10.0000	10.0(Q)
50 2,4-Dinitrotoluene	165	6.169	6.169	(1.015)	103817	10.0000	10.0(Q)
45 Acenaphthylene	152	5.975	5.975	(0.984)	487755	10.0000	9.9
47 Acenaphthene	154	6.093	6.093	(1.003)	301894	10.0000	9.9(Q)
48 2,4-Dinitrophenol	184	6.087	6.087	(1.002)	18735	10.0000	(Q)
49 Dibenzofuran	168	6.210	6.210	(1.022)	427942	10.0000	10.0(Q)
51 Diethylphthalate	149	6.310	6.310	(1.039)	317882	10.0000	10.0
52 4-Nitrophenol	139	6.098	6.098	(1.004)	42096	10.0000	10.0(QH)
53 Fluorene	166	6.440	6.440	(1.060)	351648	10.0000	9.7(Q)
54 4-Chlorophenylphenylether	204	6.416	6.416	(1.056)	144913	10.0000	10.0(Q)
55 2-Methyl-4,6-dinitrophenol	198	6.451	6.451	(0.915)	41672	10.0000	10.0(Q)
56 p-Nitroaniline	138	6.434	6.434	(1.059)	74357	10.0000	10.0(Q)
133 Diphenylamine	169	6.493	6.493	(0.921)	276589	10.0000	10.0(Q)
58 1,2-Diphenylhydrazine	77	6.528	6.528	(0.926)	347552	10.0000	10.0
61 4-Bromophenylphenylether	248	6.745	6.745	(0.957)	69460	10.0000	10.0(Q)
63 Hexachlorobenzene	284	6.804	6.804	(0.965)	89841	10.0000	10.0(Q)
65 Pentachlorophenol	266	6.922	6.922	(0.982)	43355	10.0000	10.0(Q)
206 n-Octadecane	57	6.898	6.898	(0.978)	246024	10.0000	10.0(Q)
68 Phenanthrene	178	7.063	7.063	(1.002)	485515	10.0000	9.5
69 Anthracene	178	7.098	7.098	(1.007)	487970	10.0000	9.6
72 Di-n-butylphthalate	149	7.334	7.334	(1.040)	530976	10.0000	10.0
76 Fluoranthene	202	7.775	7.775	(1.103)	469643	10.0000	10

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
79 Pyrene	202	7.916	7.916	(0.906)	489852	10.0000	9.8
85 Butylbenzylphthalate	149	8.228	8.228	(0.942)	241441	10.0000	10.0(Q)
89 Benzo(a)anthracene	228	8.722	8.722	(0.999)	413190	10.0000	9.5
92 Chrysene	228	8.757	8.757	(1.003)	422601	10.0000	9.7
93 bis(2-Ethylhexyl)phthalate	149	8.598	8.598	(0.984)	328225	10.0000	11.2
94 Di-n-octylphthalate	149	9.145	9.145	(0.892)	491683	10.0000	10.0
95 Benzo(b)fluoranthene	252	9.757	9.757	(0.952)	340509	10.0000	12.1
96 Benzo(k)fluoranthene	252	9.786	9.786	(0.955)	448357	10.0000	10.1
97 Benzo(a)pyrene	252	10.169	10.169	(0.992)	319721	10.0000	12.0
99 Indeno(1,2,3-cd)pyrene	276	11.922	11.922	(1.163)	336515	10.0000	12.1(Q)
100 Dibenzo(a,h)anthracene	278	11.928	11.928	(1.164)	268427	10.0000	12.4
101 Benzo(ghi)perylene	276	12.451	12.451	(1.215)	295980	10.0000	11.1(Q)
126 m-Dinitrobenzene	168	5.869	5.869	(0.966)	52887	10.0000	10.0(Q)
130 2,3,4,6-Tetrachlorophenol	232	6.281	6.281	(1.034)	62695	10.0000	10.0(Q)
143 Dinoseb	211	7.004	7.004	(0.993)	51236	10.0000	10.0(Q)
173 Carbazole	167	7.181	7.181	(1.018)	409275	10.0000	9.5
184 p-Benzoquinone	54	3.440	3.440	(0.869)	2462	10.0000	10(Q)
192 Methoxychlor	227	8.587	8.587	(0.983)	147508	10.0000	10.0
211 p-Toluidine	106	4.228	4.228	(1.068)	98899	10.0000	10.0(Q)
210 m-Toluidine	106	4.252	4.252	(1.074)	110484	10.0000	10.0(Q)
26 Phthalic anhydride	104	5.346	5.346	(1.109)	30283	10.0000	10.0(Q)
179 Dibenzo(a,e)pyrene	302	16.474	16.474	(1.607)	117900	10.0000	10.0
214 1,4-Dinitrobenzene	168	5.816	5.816	(0.957)	48775	10.0000	10.0(QH)
215 2-Ethoxyethanol	59	2.287	2.287	(0.578)	82292	10.0000	10.0(Q)
216 Methylenebis(2-chloroaniline)	231	8.651	8.651	(0.991)	51897	10.0000	10.0(Q)
M 225 Trichlorophenols	196				164253	20.0000	20.0
M 226 Tetrachlorophenols	232				62695	10.0000	10.0
M 227 Benzo(b,k)fluoranthene	252				788866	20.0000	21.8

QC Flag Legend

Q - Qualifier signal failed the ratio test.
H - Operator selected an alternate compound hit.

Data File: /chem/MSD1.i/s111409.b/s1k1204.d
Date : 14-NOV-2009 18:51
Client ID: MEGA010
Sample Info: WBN091111-15|10 PPM|1|SVMF|1|MEGA010
Column phase: J&W DB-5MS

Instrument: MSD1.i
Operator: amy
Column diameter: 0.20

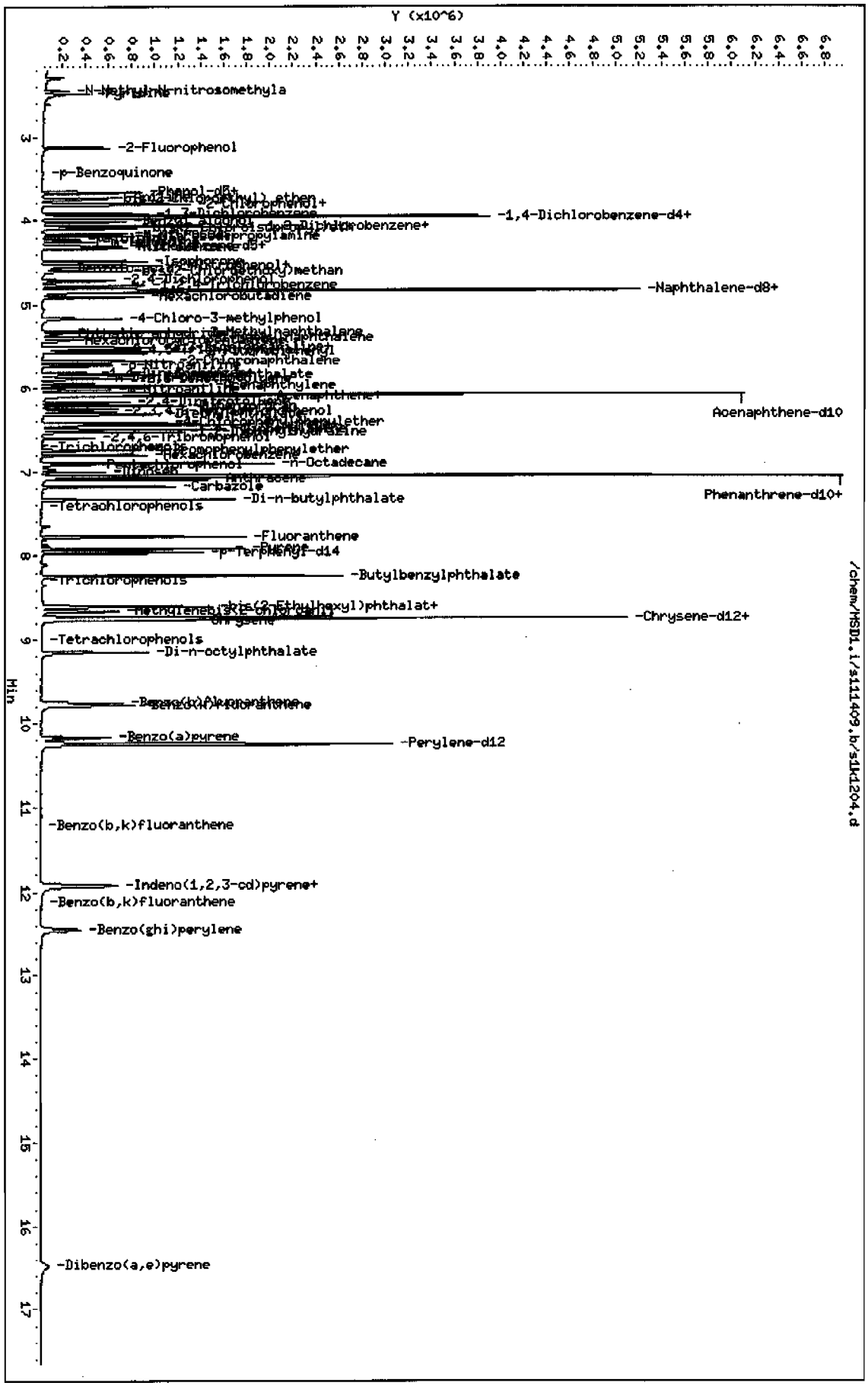

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Data file : /chem/MSD1.i/s111409.b/s1k1205.d
Lab Smp Id: WBN091111-14 Client Smp ID: MEGA020
Inj Date : 14-NOV-2009 19:21
Operator : amy Inst ID: MSD1.i
Smp Info : |WBN091111-14|20 PPM|1|SVMF|1|MEGA020
Misc Info : |MSD8270|WBN091106-10|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD1.i/s111409.b/MSD1-M8270AQA-111409.m
Meth Date : 16-Nov-2009 13:48 nat00999 Quant Type: ISTD
Cal Date : 14-NOV-2009 19:21 Cal File: s1k1205.d
Als bottle: 5 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: MEGAIICARE.sub
Target Version: 3.50
Processing Host: hpclp1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	3.957	3.957	(1.000)	556973	40.0000	(Q)
* 29 Naphthalene-d8	136	4.828	4.828	(1.000)	2267474	40.0000	
* 46 Acenaphthene-d10	164	6.075	6.075	(1.000)	1191688	40.0000	(Q)
* 67 Phenanthrene-d10	188	7.051	7.051	(1.000)	1965431	40.0000	
* 91 Chrysene-d12	240	8.739	8.739	(1.000)	1745104	40.0000	
* 98 Perylene-d12	264	10.251	10.251	(1.000)	1588805	40.0000	
$ 3 2-Fluorophenol	112	3.134	3.134	(0.792)	295950	20.0000	20.8(Q)
$ 5 Phenol-d5	99	3.663	3.663	(0.926)	370525	20.0000	20.9
$ 20 Nitrobenzene-d5	82	4.316	4.316	(0.894)	323918	20.0000	20.4(Q)
$ 39 2-Fluorobiphenyl	172	5.563	5.563	(0.916)	624449	20.0000	20.5(Q)
$ 60 2,4,6-Tribromophenol	329	6.604	6.604	(1.087)	68701	20.0000	20.5(Q)
$ 81 p-Terphenyl-d14	244	7.963	7.963	(0.911)	590496	20.0000	20.5
1 N-Methyl-N-nitrosomethylamine	74	2.440	2.440	(0.616)	165491	20.0000	20.9(Q)
2 Pyridine	79	2.475	2.475	(0.625)	295840	20.0000	21.2(Q)
4 Aniline	66	3.734	3.734	(0.944)	158396	20.0000	20.8(Q)
6 Phenol	94	3.675	3.675	(0.929)	384095	20.0000	20.6(Q)
7 bis(2-Chloroethyl) ether	63	3.751	3.751	(0.948)	271174	20.0000	20.4(Q)
8 2-Chlorophenol	128	3.816	3.816	(0.964)	329656	20.0000	20.7(Q)
203 n-Decane	43	3.804	3.804	(0.961)	468242	20.0000	20.5(Q)
9 1,3-Dichlorobenzene	146	3.922	3.922	(0.991)	401405	20.0000	20.7(Q)
11 1,4-Dichlorobenzene	146	3.969	3.969	(1.003)	393746	20.0000	20.6(Q)
13 1,2-Dichlorobenzene	146	4.069	4.069	(1.028)	374951	20.0000	20.4(Q)
14 bis(2-Chloroisopropyl)ether	45	4.098	4.098	(1.036)	674015	20.0000	20.4
12 Benzyl alcohol	108	4.022	4.022	(1.016)	192833	20.0000	20.6(Q)
15 o-Cresol	107	4.069	4.069	(1.028)	255960	20.0000	20.1(Q)
18 m,p-Cresols	107	4.169	4.169	(1.054)	325727	20.0000	20.3(Q)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
17 N-Nitrosodipropylamine	70	4.192	4.192	(1.059)	223111	20.0000	20.3(Q)
19 Hexachloroethane	117	4.304	4.304	(1.088)	140026	20.0000	20.6(Q)
21 Nitrobenzene	77	4.334	4.334	(0.898)	345136	20.0000	20.7(Q)
22 Isophorone	82	4.487	4.487	(0.929)	586219	20.0000	20.4
23 2-Nitrophenol	139	4.545	4.545	(0.942)	181276	20.0000	20.7(Q)
24 2,4-Dimethylphenol	122	4.539	4.539	(0.940)	275050	20.0000	19.6(Q)
25 bis(2-Chloroethoxy)methane	93	4.604	4.604	(0.954)	383850	20.0000	20.4(Q)
26 2,4-Dichlorophenol	162	4.710	4.710	(0.976)	265877	20.0000	20.6(Q)
27 Benzoic acid	105	4.587	4.587	(0.950)	143445	20.0000	20.0(Q)
28 1,2,4-Trichlorobenzene	180	4.775	4.775	(0.989)	302021	20.0000	20.5(Q)
30 Naphthalene	128	4.839	4.839	(1.002)	1059427	20.0000	19.8(Q)
204 alpha-Terpineol	59	4.816	4.816	(0.998)	253812	20.0000	20.3(Q)
31 4-Chloroaniline	127	4.851	4.851	(1.005)	462080	20.0000	20.3
32 Hexachlorobutadiene	225	4.904	4.904	(1.016)	159861	20.0000	20.4(Q)
33 4-Chloro-3-methylphenol	107	5.163	5.163	(1.069)	257352	20.0000	20.5(Q)
34 2-Methylnaphthalene	142	5.322	5.322	(1.102)	691936	20.0000	20.0(Q)
35 1-Methylnaphthalene	142	5.392	5.392	(1.117)	620991	20.0000	20.0(Q)
36 Hexachlorocyclopentadiene	237	5.428	5.428	(0.893)	77659	20.0000	22.0(Q)
205 2,3-Dichloroaniline	161	5.516	5.516	(0.908)	291562	20.0000	20.5(Q)
37 2,4,6-Trichlorophenol	196	5.510	5.510	(0.907)	173353	20.0000	20.8(Q)
38 2,4,5-Trichlorophenol	196	5.534	5.534	(0.911)	184924	20.0000	21.4(Q)
40 2-Chloronaphthalene	162	5.675	5.675	(0.934)	632892	20.0000	20.3(Q)
42 o-Nitroaniline	65	5.728	5.728	(0.943)	186342	20.0000	20.6(Q)
41 m-Nitroaniline	138	6.022	6.022	(0.991)	168233	20.0000	20.4(Q)
43 Dimethylphthalate	163	5.834	5.834	(0.960)	681804	20.0000	20.4
44 2,6-Dinitrotoluene	165	5.892	5.892	(0.970)	169923	20.0000	20.7(Q)
50 2,4-Dinitrotoluene	165	6.175	6.175	(1.016)	217463	20.0000	20.7(Q)
45 Acenaphthylene	152	5.975	5.975	(0.984)	998423	20.0000	20.5
47 Acenaphthene	154	6.098	6.098	(1.004)	613375	20.0000	20.4(Q)
48 2,4-Dinitrophenol	184	6.086	6.086	(1.002)	52689	20.0000	20.0(Q)
49 Dibenzofuran	168	6.210	6.210	(1.022)	868604	20.0000	20.4(Q)
51 Diethylphthalate	149	6.316	6.316	(1.040)	650642	20.0000	20.5
52 4-Nitrophenol	139	6.098	6.098	(1.004)	103003	20.0000	22.2(Q)
53 Fluorene	166	6.445	6.445	(1.061)	711989	20.0000	20.0(Q)
54 4-Chlorophenylphenylether	204	6.422	6.422	(1.057)	296255	20.0000	20.4(Q)
55 2-Methyl-4,6-dinitrophenol	198	6.451	6.451	(0.915)	94421	20.0000	21.4(Q)
56 p-Nitroaniline	138	6.439	6.439	(1.060)	156993	20.0000	20.8(Q)
133 Diphenylamine	169	6.498	6.498	(0.922)	569748	20.0000	20.4(Q)
58 1,2-Diphenylhydrazine	77	6.528	6.528	(0.926)	702504	20.0000	20.2
61 4-Bromophenylphenylether	248	6.745	6.745	(0.957)	141320	20.0000	20.3(Q)
63 Hexachlorobenzene	284	6.804	6.804	(0.965)	182888	20.0000	20.3(Q)
65 Pentachlorophenol	266	6.922	6.922	(0.982)	99478	20.0000	21.5(Q)
206 n-Octadecane	57	6.898	6.898	(0.978)	496580	20.0000	20.2(Q)
68 Phenanthrene	178	7.069	7.069	(1.002)	950464	20.0000	19.2
69 Anthracene	178	7.098	7.098	(1.007)	991893	20.0000	19.9
72 Di-n-butylphthalate	149	7.333	7.333	(1.040)	1103723	20.0000	20.5
76 Fluoranthene	202	7.775	7.775	(1.103)	946480	20.0000	20.2

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
79 Pyrene	202	7.916	7.916	(0.906)	987588	20.0000	20.3
85 Butylbenzylphthalate	149	8.233	8.233	(0.942)	490538	20.0000	20.5(Q)
89 Benzo(a)anthracene	228	8.722	8.722	(0.998)	855736	20.0000	20.3
92 Chrysene	228	8.757	8.757	(1.002)	825422	20.0000	19.8
93 bis(2-Ethylhexyl)phthalate	149	8.598	8.598	(0.984)	682157	20.0000	22.6(Q)
94 Di-n-octylphthalate	149	9.145	9.145	(0.892)	1109905	20.0000	21.8
95 Benzo(b)fluoranthene	252	9.763	9.763	(0.952)	730849	20.0000	24.4
96 Benzo(k)fluoranthene	252	9.792	9.792	(0.955)	891817	20.0000	20.9
97 Benzo(a)pyrene	252	10.174	10.174	(0.993)	688146	20.0000	24.3
99 Indeno(1,2,3-cd)pyrene	276	11.939	11.939	(1.165)	700258	20.0000	23.9(Q)
100 Dibenzo(a,h)anthracene	278	11.939	11.939	(1.165)	581631	20.0000	24.9
101 Benzo(ghi)perylene	276	12.463	12.463	(1.216)	616475	20.0000	22.8(Q)
126 m-Dinitrobenzene	168	5.875	5.875	(0.967)	111546	20.0000	20.8(Q)
130 2,3,4,6-Tetrachlorophenol	232	6.281	6.281	(1.034)	134175	20.0000	20.9(Q)
143 Dinoseb	211	7.004	7.004	(0.993)	120047	20.0000	21.7(Q)
173 Carbazole	167	7.180	7.180	(1.018)	794771	20.0000	19.2
184 p-Benzoquinone	54	3.440	3.440	(0.869)	14132	20.0000	29.9(Q)
192 Methoxychlor	227	8.586	8.586	(0.982)	319622	20.0000	21.2
211 p-Toluidine	106	4.234	4.234	(1.070)	196660	20.0000	20.2(Q)
210 m-Toluidine	106	4.251	4.251	(1.074)	247025	20.0000	21.4(Q)
26 Phthalic anhydride	104	5.345	5.345	(1.107)	90214	20.0000	24.1(Q)
179 Dibenzo(a,e)pyrene	302	16.486	16.486	(1.608)	312429	20.0000	23.3
214 1,4-Dinitrobenzene	168	5.816	5.816	(0.957)	102005	20.0000	20.7(QH)
215 2-Ethoxyethanol	59	2.287	2.287	(0.578)	175217	20.0000	20.9(Q)
216 Methylenebis(2-chloroaniline)	231	8.651	8.651	(0.990)	112634	20.0000	21.2(Q)
M 225 Trichlorophenols	196				358277	40.0000	42.2
M 226 Tetrachlorophenols	232				134175	20.0000	20.9
M 227 Benzo(b,k)fluoranthene	252				1622666	40.0000	44.7

QC Flag Legend

Q - Qualifier signal failed the ratio test.
H - Operator selected an alternate compound hit.

Data File: /chem/MSD1.i/s111409.b/s1k1205.d
Date : 14-NOV-2009 19:21
Client ID: MEGA020
Sample Info: IWBN091111-14|20 PPM|1|SVHF|1|MEGA020
Column phase: J&W DB-5MS

Instrument: MSD1.i
Operator: amy
Column diameter: 0.20

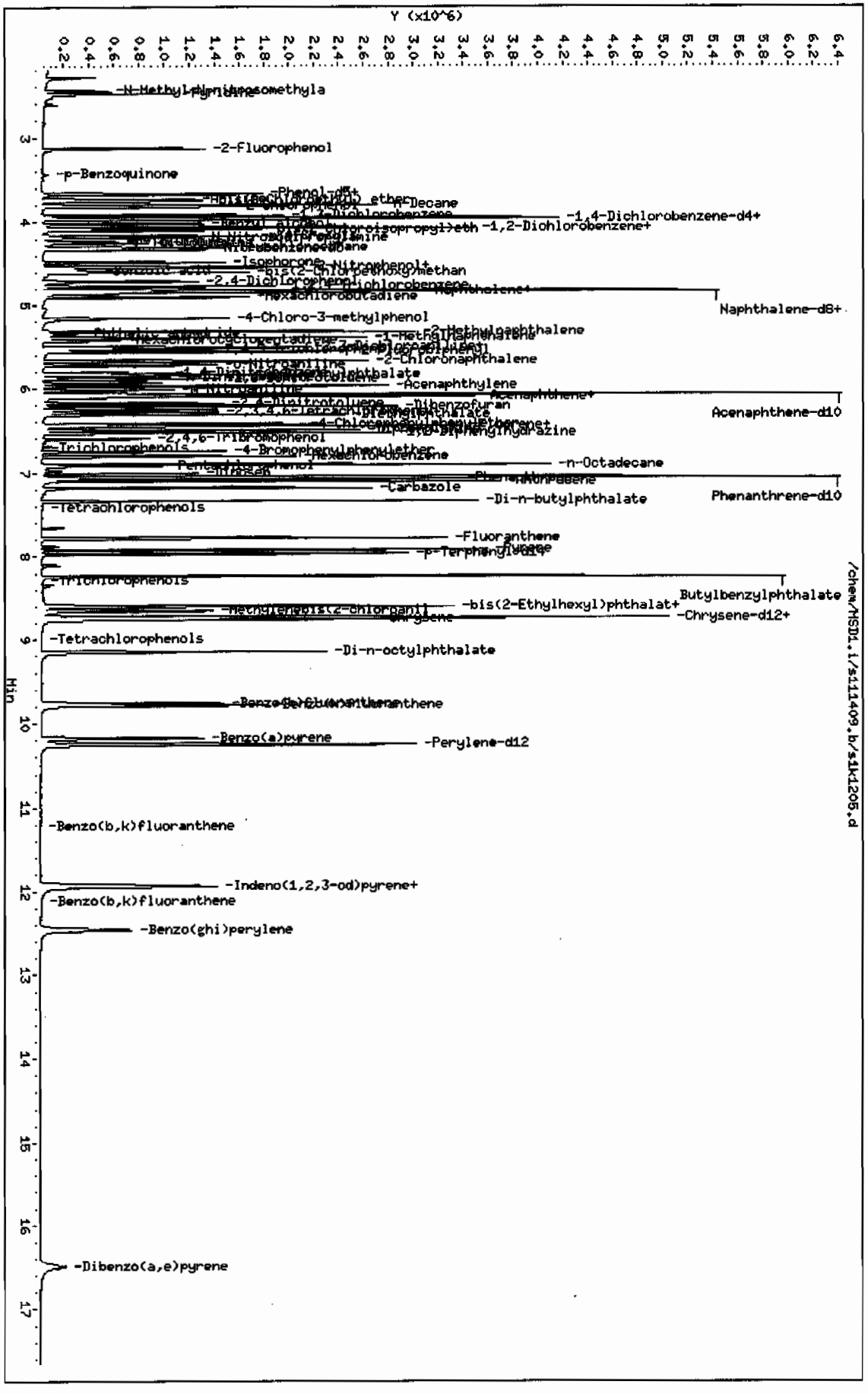

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Data file : /chem/MSD1.i/s111409.b/s1k1206.d
Lab Smp Id: WBN091111-13.1 Client Smp ID: MEGA040
Inj Date : 14-NOV-2009 19:50
Operator : amy Inst ID: MSD1.i
Smp Info : |WBN091111-13.1|40 PPM|1|SVMF|1|MEGA040
Misc Info : |MSD8270|WBN091106-10|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD1.i/s111409.b/MSD1-M8270AQA-111409.m
Meth Date : 17-Nov-2009 14:00 jos00786 Quant Type: ISTD
Cal Date : 17-NOV-2009 11:04 Cal File: s1k1252.d
Als bottle: 6 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: MEGAIICARE.sub
Target Version: 3.50
Processing Host: kilroy

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	3.957	3.957	(1.000)	590054	40.0000	
* 29 Naphthalene-d8	136	4.828	4.828	(1.000)	2479398	40.0000	
* 46 Acenaphthene-d10	164	6.075	6.075	(1.000)	1267371	40.0000	
* 67 Phenanthrene-d10	188	7.051	7.051	(1.000)	2101947	40.0000	
* 91 Chrysene-d12	240	8.739	8.739	(1.000)	1849609	40.0000	
* 98 Perylene-d12	264	10.251	10.251	(1.000)	1720712	40.0000	
$ 3 2-Fluorophenol	112	3.134	3.134	(0.792)	627953	40.0000	40.7
$ 5 Phenol-d5	99	3.669	3.669	(0.927)	756736	40.0000	40.4
$ 20 Nitrobenzene-d5	82	4.322	4.322	(0.895)	671069	40.0000	41.1
$ 39 2-Fluorobiphenyl	172	5.569	5.569	(0.917)	1270397	40.0000	41.8
$ 60 2,4,6-Tribromophenol	329	6.604	6.604	(1.087)	145789	40.0000	41.2
$ 81 p-Terphenyl-d14	244	7.963	7.963	(0.911)	1207810	40.0000	41.6
1 N-Methyl-N-nitrosomethylamine	74	2.440	2.440	(0.617)	333278	40.0000	39.8
2 Pyridine	79	2.475	2.475	(0.625)	611340	40.0000	43.5
4 Aniline	66	3.740	3.740	(0.945)	330159	40.0000	40.1
6 Phenol	94	3.681	3.681	(0.930)	811032	40.0000	41.1
7 bis(2-Chloroethyl) ether	63	3.752	3.752	(0.948)	560970	40.0000	40.8
8 2-Chlorophenol	128	3.822	3.822	(0.966)	680427	40.0000	40.6
203 n-Decane	43	3.804	3.804	(0.961)	901337	40.0000	42.7
9 1,3-Dichlorobenzene	146	3.922	3.922	(0.991)	807086	40.0000	41.0
11 1,4-Dichlorobenzene	146	3.969	3.969	(1.003)	799050	40.0000	41.4
13 1,2-Dichlorobenzene	146	4.069	4.069	(1.028)	745718	40.0000	41.8
14 bis(2-Chloroisopropyl)ether	45	4.099	4.099	(1.036)	1363899	40.0000	41.7
12 Benzyl alcohol	108	4.022	4.022	(1.016)	413340	40.0000	40.5
15 o-Cresol	107	4.075	4.075	(1.030)	517636	40.0000	41.4
18 m,p-Cresols	107	4.175	4.175	(1.055)	692446	40.0000	40.8

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
17 N-Nitrosodipropylamine	70	4.199	4.199	(1.061)	458428	40.0000	40.8
19 Hexachloroethane	117	4.304	4.304	(1.088)	284671	40.0000	41.0
21 Nitrobenzene	77	4.334	4.334	(0.898)	701609	40.0000	41.2
22 Isophorone	82	4.493	4.493	(0.931)	1228299	40.0000	41.2
23 2-Nitrophenol	139	4.546	4.546	(0.942)	387021	40.0000	42.8
24 2,4-Dimethylphenol	122	4.540	4.540	(0.940)	571005	40.0000	39.4
25 bis(2-Chloroethoxy)methane	93	4.604	4.604	(0.954)	793818	40.0000	41.4
26 2,4-Dichlorophenol	162	4.710	4.710	(0.976)	562114	40.0000	41.4
27 Benzoic acid	105	4.610	4.610	(0.955)	387952	40.0000	38.9
28 1,2,4-Trichlorobenzene	180	4.775	4.775	(0.989)	626871	40.0000	41.8
30 Naphthalene	128	4.846	4.846	(1.004)	2146240	40.0000	41.5
204 alpha-Terpineol	59	4.816	4.816	(0.998)	515772	40.0000	42.4
31 4-Chloroaniline	127	4.857	4.857	(1.006)	979040	40.0000	41.4
32 Hexachlorobutadiene	225	4.910	4.910	(1.017)	323427	40.0000	42.0
33 4-Chloro-3-methylphenol	107	5.163	5.163	(1.069)	561003	40.0000	42.3
34 2-Methylnaphthalene	142	5.322	5.322	(1.102)	1408431	40.0000	41.4
35 1-Methylnaphthalene	142	5.398	5.398	(1.118)	1258406	40.0000	41.2
36 Hexachlorocyclopentadiene	237	5.428	5.428	(0.893)	164940	40.0000	42.6
205 2,3-Dichloroaniline	161	5.516	5.516	(0.908)	601071	40.0000	41.8
37 2,4,6-Trichlorophenol	196	5.510	5.510	(0.907)	352143	40.0000	41.8
38 2,4,5-Trichlorophenol	196	5.540	5.540	(0.912)	407577	40.0000	45.5
40 2-Chloronaphthalene	162	5.675	5.675	(0.934)	1297555	40.0000	41.5
42 o-Nitroaniline	65	5.734	5.734	(0.944)	398060	40.0000	41.0
41 m-Nitroaniline	138	6.022	6.022	(0.991)	355905	40.0000	41.5
43 Dimethylphthalate	163	5.846	5.846	(0.962)	1428356	40.0000	41.4
44 2,6-Dinitrotoluene	165	5.898	5.898	(0.971)	356104	40.0000	41.4
50 2,4-Dinitrotoluene	165	6.181	6.181	(1.017)	469929	40.0000	41.2
45 Acenaphthylene	152	5.981	5.981	(0.984)	2026083	40.0000	41.5
47 Acenaphthene	154	6.098	6.098	(1.004)	1233173	40.0000	42.2
48 2,4-Dinitrophenol	184	6.093	6.093	(1.003)	143829	40.0000	42.4
49 Dibenzofuran	168	6.216	6.216	(1.023)	1783945	40.0000	42.2
51 Diethylphthalate	149	6.322	6.322	(1.041)	1345857	40.0000	41.8
52 4-Nitrophenol	139	6.104	6.104	(1.005)	237979	40.0000	39.8
53 Fluorene	166	6.445	6.445	(1.061)	1403646	40.0000	41.2
54 4-Chlorophenylphenylether	204	6.422	6.422	(1.057)	602040	40.0000	41.8
55 2-Methyl-4,6-dinitrophenol	198	6.457	6.457	(0.916)	222430	40.0000	41.8
56 p-Nitroaniline	138	6.445	6.445	(1.061)	334967	40.0000	40.0
133 Diphenylamine	169	6.498	6.498	(0.922)	1174689	40.0000	41.9
58 1,2-Diphenylhydrazine	77	6.528	6.528	(0.926)	1431409	40.0000	41.8
61 4-Bromophenylphenylether	248	6.745	6.745	(0.957)	296490	40.0000	41.0
63 Hexachlorobenzene	284	6.810	6.810	(0.966)	373630	40.0000	42.1
65 Pentachlorophenol	266	6.922	6.922	(0.982)	222040	40.0000	41.8
206 n-Octadecane	57	6.898	6.898	(0.978)	960229	40.0000	42.1
68 Phenanthrene	178	7.069	7.069	(1.002)	1926983	40.0000	40.3
69 Anthracene	178	7.098	7.098	(1.007)	2050681	40.0000	42.2
72 Di-n-butylphthalate	149	7.334	7.334	(1.040)	2230521	40.0000	43.0
76 Fluoranthene	202	7.775	7.775	(1.103)	1951281	40.0000	42.3

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
79 Pyrene	202	7.916	7.916	(0.906)	2023906	40.0000	41.2
85 Butylbenzylphthalate	149	8.228	8.228	(0.941)	930992	40.0000	41.6
89 Benzo(a)anthracene	228	8.722	8.722	(0.998)	1793971	40.0000	40.4
92 Chrysene	228	8.763	8.763	(1.003)	1628246	40.0000	39.3
93 bis(2-Ethylhexyl)phthalate	149	8.598	8.598	(0.984)	1404488	40.0000	43.2
94 Di-n-octylphthalate	149	9.145	9.145	(0.892)	2418641	40.0000	43.0
95 Benzo(b)fluoranthene	252	9.763	9.763	(0.952)	1739197	40.0000	39.8
96 Benzo(k)fluoranthene	252	9.798	9.798	(0.956)	1747806	40.0000	40.5
97 Benzo(a)pyrene	252	10.175	10.175	(0.993)	1504125	40.0000	40.0
99 Indeno(1,2,3-cd)pyrene	276	11.957	11.957	(1.166)	1580353	40.0000	40.5
100 Dibenzo(a,h)anthracene	278	11.957	11.957	(1.166)	1325626	40.0000	40.6
101 Benzo(ghi)perylene	276	12.480	12.480	(1.217)	1398914	40.0000	43.3
126 m-Dinitrobenzene	168	5.881	5.881	(0.968)	242319	40.0000	41.0
130 2,3,4,6-Tetrachlorophenol	232	6.287	6.287	(1.035)	291330	40.0000	42.6
143 Dinoseb	211	7.010	7.010	(0.994)	275899	40.0000	42.2
173 Carbazole	167	7.181	7.181	(1.018)	1711280	40.0000	40.3
184 p-Benzoquinone	54	3.434	3.434	(0.868)	46568	40.0000	46.0
192 Methoxychlor	227	8.587	8.587	(0.982)	628111	40.0000	42.8
211 p-Toluidine	106	4.234	4.234	(1.070)	425817	40.0000	41.0
210 m-Toluidine	106	4.257	4.257	(1.076)	533145	40.0000	39.7
26 Phthalic anhydride	104	5.351	5.351	(1.108)	245905	40.0000	41.8
179 Dibenzo(a,e)pyrene	302	16.527	16.527	(1.612)	817402	40.0000	40.6
214 1,4-Dinitrobenzene	168	5.822	5.822	(0.958)	225013	40.0000	41.0(H)
215 2-Ethoxyethanol	59	2.287	2.287	(0.578)	385809	40.0000	43.4
216 Methylenebis(2-chloroaniline)	231	8.651	8.651	(0.990)	243607	40.0000	40.8
M 225 Trichlorophenols	196				759720	80.0000	87.4
M 226 Tetrachlorophenols	232				291330	40.0000	42.6
M 227 Benzo(b,k)fluoranthene	252				3487003	80.0000	84.0

QC Flag Legend

H - Operator selected an alternate compound hit.

Data File: /chem/MSD1.i/s111409.b/s1k1206.d
Date : 14-NOV-2009 19:50
Client ID: MEGA040
Sample Info: IWBN091111-13,1|40 PPM|1|SVHF|1|MEGA040

Column phase: J&W DB-5MS

Instrument: MSD1.i
Operator: amy
Column diameter: 0.20

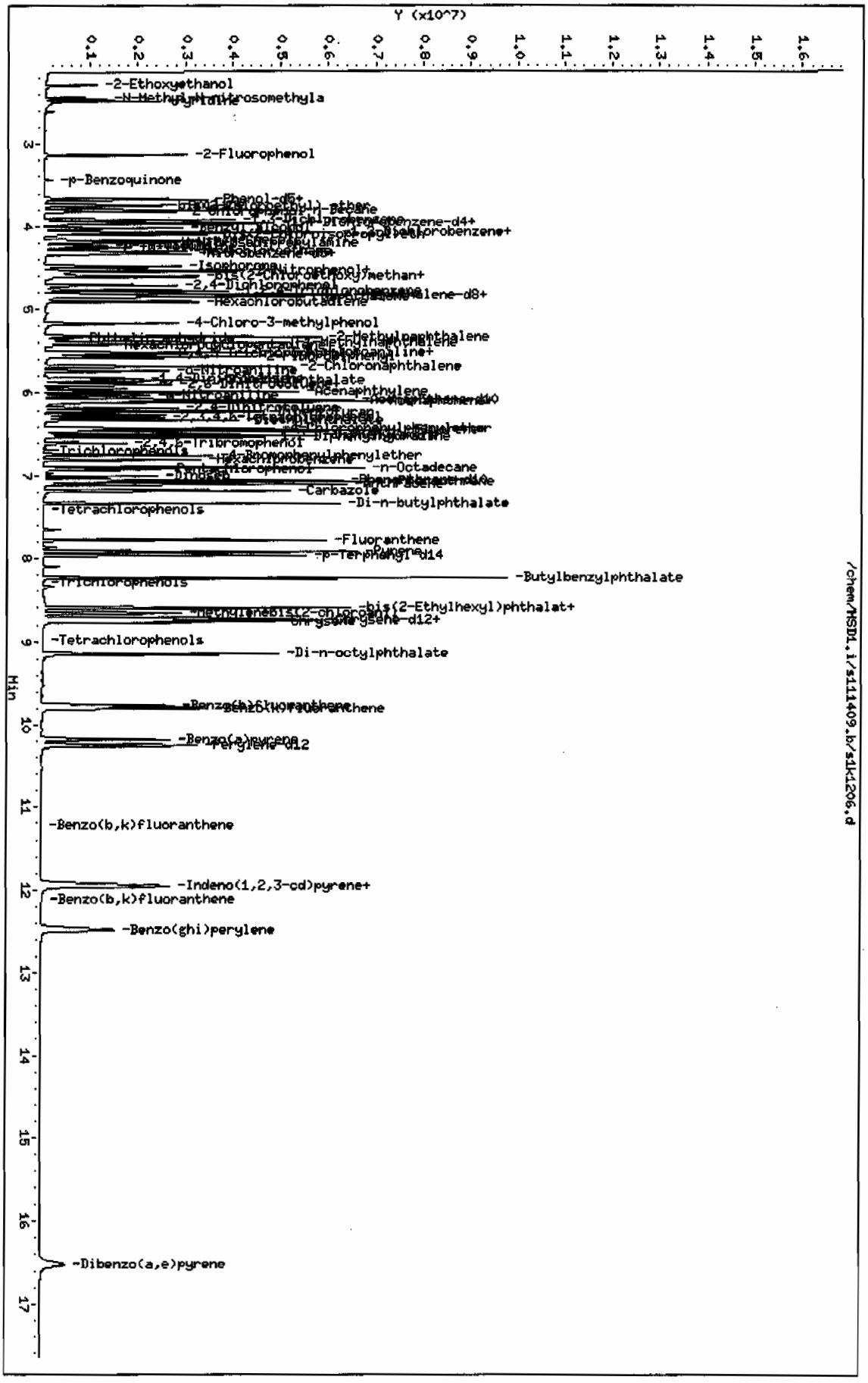

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Data file : /chem/MSD1.i/s111409.b/s1k1207.d
Lab Smp Id: WBN091111-12 Client Smp ID: MEGA050
Inj Date : 14-NOV-2009 20:19
Operator : amy Inst ID: MSD1.i
Smp Info : |WBN091111-12|50 PPM|1|SVMF|1|MEGA050
Misc Info : |MSD8270|WBN091106-10|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD1.i/s111409.b/MSD1-M8270AQA-111409.m
Meth Date : 16-Nov-2009 13:49 nat00999 Quant Type: ISTD
Cal Date : 14-NOV-2009 20:19 Cal File: s1k1207.d
Als bottle: 7 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: MEGAIICARE.sub
Target Version: 3.50
Processing Host: hpclpl

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	3.957	3.957	(1.000)	627288	40.0000	
* 29 Naphthalene-d8	136	4.828	4.828	(1.000)	2613858	40.0000	
* 46 Acenaphthene-d10	164	6.075	6.075	(1.000)	1347245	40.0000	
* 67 Phenanthrene-d10	188	7.057	7.057	(1.000)	2245160	40.0000	
* 91 Chrysene-d12	240	8.745	8.745	(1.000)	1946626	40.0000	
* 98 Perylene-d12	264	10.257	10.257	(1.000)	1857135	40.0000	
$ 3 2-Fluorophenol	112	3.134	3.134	(0.792)	833557	50.0000	51.0
$ 5 Phenol-d5	99	3.669	3.669	(0.927)	1001151	50.0000	50.0
$ 20 Nitrobenzene-d5	82	4.322	4.322	(0.895)	889724	50.0000	49.4
$ 39 2-Fluorobiphenyl	172	5.569	5.569	(0.917)	1660778	50.0000	48.9
$ 60 2,4,6-Tribromophenol	329	6.604	6.604	(1.087)	183524	50.0000	48.6
$ 81 p-Terphenyl-d14	244	7.969	7.969	(0.911)	1553975	50.0000	48.9
1 N-Methyl-N-nitrosomethylamine	74	2.440	2.440	(0.617)	445160	50.0000	50.1
2 Pyridine	79	2.475	2.475	(0.625)	696837	50.0000	45.3
4 Aniline	66	3.740	3.740	(0.945)	444998	50.0000	51.1(Q)
6 Phenol	94	3.681	3.681	(0.930)	1053298	50.0000	49.8
7 bis(2-Chloroethyl) ether	63	3.757	3.757	(0.949)	738007	50.0000	49.5(Q)
8 2-Chlorophenol	128	3.822	3.822	(0.966)	899175	50.0000	50.0
203 n-Decane	43	3.804	3.804	(0.961)	1138031	50.0000	46.3
9 1,3-Dichlorobenzene	146	3.922	3.922	(0.991)	1064651	50.0000	49.3
11 1,4-Dichlorobenzene	146	3.969	3.969	(1.003)	1039783	50.0000	48.9
13 1,2-Dichlorobenzene	146	4.075	4.075	(1.030)	956174	50.0000	47.6
14 bis(2-Chloroisopropyl)ether	45	4.099	4.099	(1.036)	1774665	50.0000	48.6
12 Benzyl alcohol	108	4.028	4.028	(1.018)	532635	50.0000	49.9
15 o-Cresol	107	4.075	4.075	(1.030)	670429	50.0000	48.0
18 m,p-Cresols	107	4.181	4.181	(1.056)	891292	50.0000	49.3

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
17 N-Nitrosodipropylamine	70	4.204	4.204	(1.062)	618055	50.0000	50.1
19 Hexachloroethane	117	4.304	4.304	(1.088)	377064	50.0000	49.5
21 Nitrobenzene	77	4.340	4.340	(0.899)	926306	50.0000	49.1
22 Isophorone	82	4.499	4.499	(0.932)	1607398	50.0000	49.2
23 2-Nitrophenol	139	4.551	4.551	(0.943)	508975	50.0000	50.2
24 2,4-Dimethylphenol	122	4.546	4.546	(0.942)	795961	50.0000	50.2
25 bis(2-Chloroethoxy)methane	93	4.610	4.610	(0.955)	1033460	50.0000	48.6
26 2,4-Dichlorophenol	162	4.716	4.716	(0.977)	737712	50.0000	49.8
27 Benzoic acid	105	4.622	4.622	(0.957)	556849	50.0000	56.4
28 1,2,4-Trichlorobenzene	180	4.775	4.775	(0.989)	827822	50.0000	49.4
30 Naphthalene	128	4.846	4.846	(1.004)	2715219	50.0000	45.9(Q)
204 alpha-Terpineol	59	4.822	4.822	(0.999)	610648	50.0000	44.7
31 4-Chloroaniline	127	4.857	4.857	(1.006)	1284835	50.0000	49.4
32 Hexachlorobutadiene	225	4.910	4.910	(1.017)	420296	50.0000	48.1
33 4-Chloro-3-methylphenol	107	5.169	5.169	(1.071)	738736	50.0000	50.5
34 2-Methylnaphthalene	142	5.322	5.322	(1.102)	1813114	50.0000	46.9
35 1-Methylnaphthalene	142	5.398	5.398	(1.118)	1624391	50.0000	46.9
36 Hexachlorocyclopentadiene	237	5.428	5.428	(0.893)	234784	50.0000	55.1
205 2,3-Dichloroaniline	161	5.522	5.522	(0.909)	791456	50.0000	49.5
37 2,4,6-Trichlorophenol	196	5.510	5.510	(0.907)	469912	50.0000	49.9
38 2,4,5-Trichlorophenol	196	5.540	5.540	(0.912)	388061	50.0000	40.7
40 2-Chloronaphthalene	162	5.675	5.675	(0.934)	1696510	50.0000	48.7
42 o-Nitroaniline	65	5.734	5.734	(0.944)	525179	50.0000	50.6
41 m-Nitroaniline	138	6.028	6.028	(0.992)	457103	50.0000	49.1
43 Dimethylphthalate	163	5.846	5.846	(0.962)	1873578	50.0000	49.7
44 2,6-Dinitrotoluene	165	5.898	5.898	(0.971)	470405	50.0000	50.2
50 2,4-Dinitrotoluene	165	6.187	6.187	(1.018)	625311	50.0000	51.3
45 Acenaphthylene	152	5.981	5.981	(0.984)	2650362	50.0000	48.7
47 Acenaphthene	154	6.104	6.104	(1.005)	1597376	50.0000	47.9
48 2,4-Dinitrophenol	184	6.093	6.093	(1.003)	194238	50.0000	54.5(Q)
49 Dibenzofuran	168	6.216	6.216	(1.023)	2297571	50.0000	48.4
51 Diethylphthalate	149	6.322	6.322	(1.041)	1751726	50.0000	49.1
52 4-Nitrophenol	139	6.110	6.110	(1.006)	328003	50.0000	56.2
53 Fluorene	166	6.451	6.451	(1.062)	1788273	50.0000	46.2
54 4-Chlorophenylphenylether	204	6.422	6.422	(1.057)	787890	50.0000	48.8
55 2-Methyl-4,6-dinitrophenol	198	6.463	6.463	(0.916)	289635	50.0000	53.1
56 p-Nitroaniline	138	6.451	6.451	(1.062)	473955	50.0000	53.4
133 Diphenylamine	169	6.504	6.504	(0.922)	1537626	50.0000	48.9
58 1,2-Diphenylhydrazine	77	6.534	6.534	(0.926)	1864231	50.0000	48.2
61 4-Bromophenylphenylether	248	6.745	6.745	(0.956)	389889	50.0000	49.3
63 Hexachlorobenzene	284	6.810	6.810	(0.965)	473942	50.0000	47.4
65 Pentachlorophenol	266	6.922	6.922	(0.981)	286215	50.0000	51.5
206 n-Octadecane	57	6.904	6.904	(0.978)	1203196	50.0000	45.5
68 Phenanthrene	178	7.069	7.069	(1.002)	2545012	50.0000	46.8
69 Anthracene	178	7.104	7.104	(1.007)	2591155	50.0000	46.7
72 Di-n-butylphthalate	149	7.334	7.334	(1.039)	2866374	50.0000	47.8
76 Fluoranthene	202	7.781	7.781	(1.103)	2479899	50.0000	47.4

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
79 Pyrene	202	7.922	7.922	(0.906)	2527858	50.0000	47.4
85 Butylbenzylphthalate	149	8.234	8.234	(0.941)	1133150	50.0000	45.1
89 Benzo(a)anthracene	228	8.728	8.728	(0.998)	2384672	50.0000	50.5
92 Chrysene	228	8.769	8.769	(1.003)	2110365	50.0000	47.0
93 bis(2-Ethylhexyl)phthalate	149	8.604	8.604	(0.984)	1811611	50.0000	52.0
94 Di-n-octylphthalate	149	9.151	9.151	(0.892)	3176622	50.0000	51.2
95 Benzo(b)fluoranthene	252	9.775	9.775	(0.953)	2305837	50.0000	58.2
96 Benzo(k)fluoranthene	252	9.804	9.804	(0.956)	2382314	50.0000	48.7
97 Benzo(a)pyrene	252	10.186	10.186	(0.993)	2094282	50.0000	57.6
99 Indeno(1,2,3-cd)pyrene	276	11.975	11.975	(1.167)	2201480	50.0000	58.2
100 Dibenzo(a,h)anthracene	278	11.975	11.975	(1.167)	1846286	50.0000	59.7
101 Benzo(ghi)perylene	276	12.498	12.498	(1.218)	1927320	50.0000	56.3(Q)
126 m-Dinitrobenzene	168	5.887	5.887	(0.969)	327377	50.0000	52.1
130 2,3,4,6-Tetrachlorophenol	232	6.287	6.287	(1.035)	338536	50.0000	46.6
143 Dinoseb	211	7.010	7.010	(0.993)	363433	50.0000	53.3
173 Carbazole	167	7.187	7.187	(1.018)	2355895	50.0000	50.1
184 p-Benzoquinone	54	3.440	3.440	(0.869)	48315	50.0000	59.1
192 Methoxychlor	227	8.592	8.592	(0.982)	824086	50.0000	49.4
211 p-Toluidine	106	4.234	4.234	(1.070)	561122	50.0000	50.5
210 m-Toluidine	106	4.257	4.257	(1.076)	738833	50.0000	53.8
26 Phthalic anhydride	104	5.357	5.357	(1.110)	320454	50.0000	59.6(Q)
179 Dibenzo(a,e)pyrene	302	16.551	16.551	(1.614)	1225621	50.0000	63.0
214 1,4-Dinitrobenzene	168	5.828	5.828	(0.959)	300874	50.0000	52.0(H)
215 2-Ethoxyethanol	59	2.287	2.287	(0.578)	446635	50.0000	46.9
216 Methylenebis(2-chloroaniline)	231	8.657	8.657	(0.990)	329376	50.0000	53.0(Q)
M 225 Trichlorophenols	196				857973	100.000	90.6
M 226 Tetrachlorophenols	232				338536	50.0000	46.6
M 227 Benzo(b,k)fluoranthene	252				4688151	100.000	106

QC Flag Legend

Q - Qualifier signal failed the ratio test.
H - Operator selected an alternate compound hit.

Data File: /chem/MSD1.i/s111409.b/s1k1207.d

Date : 14-NOV-2009 20:19

Client ID: MEGA050

Sample Info: |WBN091111-12|50 PPM|1|SVMF|1|MEGA050

Column phase: J&W DB-5MS

Instrument: MSD1.i

Operator: amy

Column diameter: 0.20

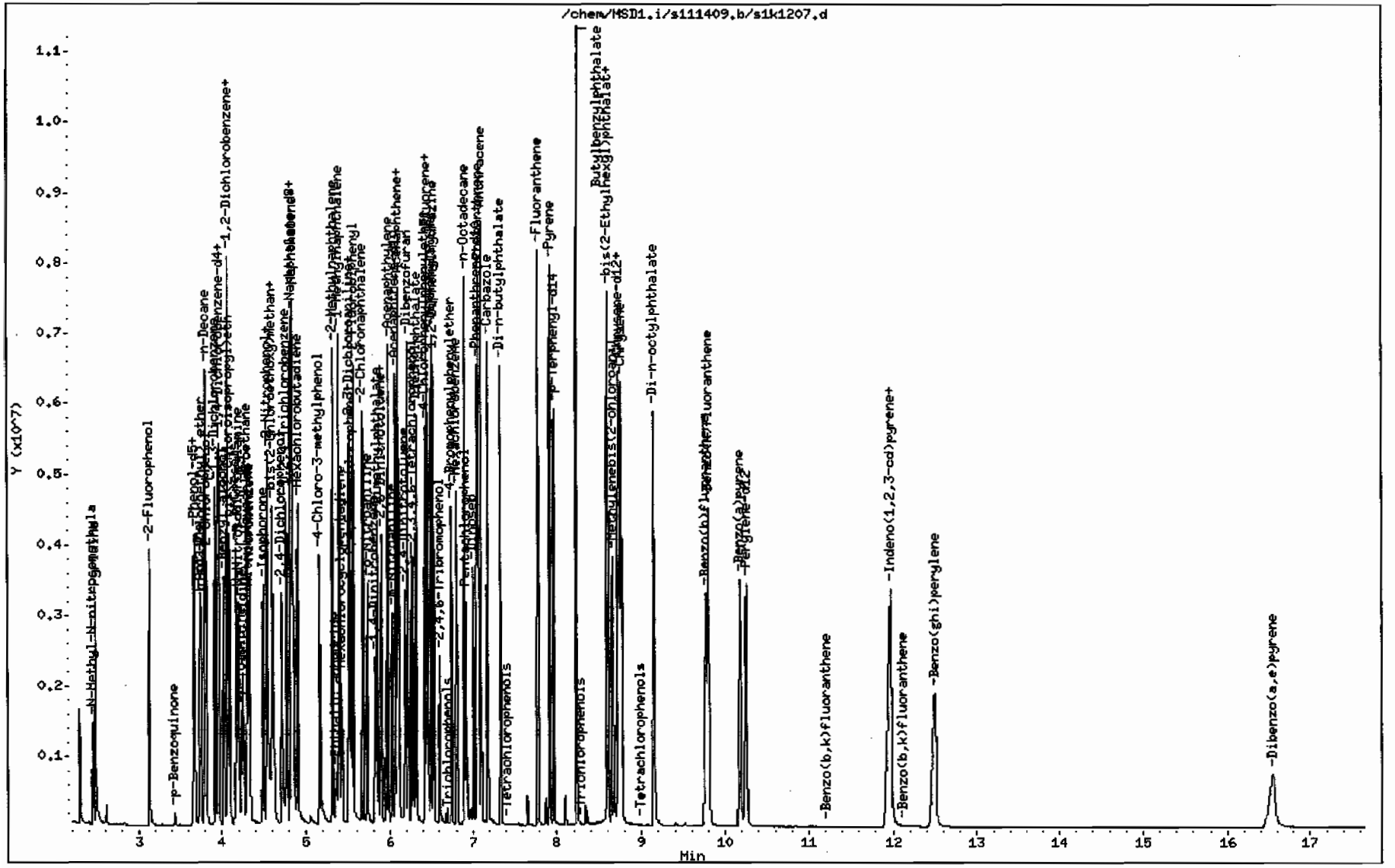

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Data file : /chem/MSD1.i/s111409.b/s1k1208.d
Lab Smp Id: WBN091111-11 Client Smp ID: MEGA080
Inj Date : 14-NOV-2009 20:47
Operator : amy Inst ID: MSD1.i
Smp Info : |WBN091111-11|80 PPM|1|SVMF 1|MEGA080
Misc Info : |MSD8270|WBN091106-10|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD1.i/s111409.b/MSD1-M8270AQA-111409.m
Meth Date : 16-Nov-2009 13:49 nat00999 Quant Type: ISTD
Cal Date : 14-NOV-2009 20:47 Cal File: s1k1208.d
Als bottle: 8 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: MEGAIICARE.sub
Target Version: 3.50
Processing Host: hpclp1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	3.957	3.957	(1.000)	554068	40.0000	
* 29 Naphthalene-d8	136	4.828	4.828	(1.000)	2386450	40.0000	
* 46 Acenaphthene-d10	164	6.081	6.081	(1.000)	1203183	40.0000	
* 67 Phenanthrene-d10	188	7.057	7.057	(1.000)	1980272	40.0000	
* 91 Chrysene-d12	240	8.745	8.745	(1.000)	1630786	40.0000	
* 98 Perylene-d12	264	10.257	10.257	(1.000)	1607979	40.0000	
$ 3 2-Fluorophenol	112	3.134	3.134	(0.792)	1188814	80.0000	81.9
$ 5 Phenol-d5	99	3.675	3.675	(0.929)	1406824	80.0000	79.6
$ 20 Nitrobenzene-d5	82	4.328	4.328	(0.896)	1235394	80.0000	76.0
$ 39 2-Fluorobiphenyl	172	5.569	5.569	(0.916)	2261767	80.0000	75.6
$ 60 2,4,6-Tribromophenol	329	6.610	6.610	(1.087)	269166	80.0000	79.8
$ 81 p-Terphenyl-d14	244	7.969	7.969	(0.911)	1997898	80.0000	76.0
1 N-Methyl-N-nitrosomethylamine	74	2.446	2.446	(0.618)	632917	80.0000	80.5
2 Pyridine	79	2.475	2.475	(0.625)	956454	80.0000	72.1
4 Aniline	66	3.746	3.746	(0.946)	625426	80.0000	81.1
6 Phenol	94	3.687	3.687	(0.932)	1476109	80.0000	79.2
7 bis(2-Chloroethyl) ether	63	3.757	3.757	(0.949)	1024737	80.0000	78.1
8 2-Chlorophenol	128	3.822	3.822	(0.966)	1256898	80.0000	79.3
203 n-Decane	43	3.804	3.804	(0.961)	1504488	80.0000	71.2
9 1,3-Dichlorobenzene	146	3.928	3.928	(0.993)	1471475	80.0000	77.7
11 1,4-Dichlorobenzene	146	3.969	3.969	(1.003)	1432804	80.0000	77.0
13 1,2-Dichlorobenzene	146	4.075	4.075	(1.030)	1283958	80.0000	73.7
14 bis(2-Chloroisopropyl)ether	45	4.104	4.104	(1.037)	2387545	80.0000	75.1
12 Benzyl alcohol	108	4.034	4.034	(1.019)	760746	80.0000	80.6
15 o-Cresol	107	4.081	4.081	(1.031)	902811	80.0000	74.5
18 m,p-Cresols	107	4.187	4.187	(1.058)	1270123	80.0000	79.6

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
17 N-Nitrosodipropylamine	70	4.210	4.210	(1.064)	787329	80.0000	73.4
19 Hexachloroethane	117	4.304	4.304	(1.088)	520322	80.0000	77.9
21 Nitrobenzene	77	4.340	4.340	(0.899)	1291157	80.0000	75.9
22 Isophorone	82	4.504	4.504	(0.933)	2281521	80.0000	77.1
23 2-Nitrophenol	139	4.551	4.551	(0.943)	688280	80.0000	75.5
24 2,4-Dimethylphenol	122	4.546	4.546	(0.942)	1113182	80.0000	77.5
25 bis(2-Chloroethoxy)methane	93	4.616	4.616	(0.956)	1444791	80.0000	75.5
26 2,4-Dichlorophenol	162	4.716	4.716	(0.977)	1056602	80.0000	78.5
27 Benzoic acid	105	4.646	4.646	(0.962)	856215	80.0000	90.7
28 1,2,4-Trichlorobenzene	180	4.781	4.781	(0.990)	1136773	80.0000	75.4
30 Naphthalene	128	4.846	4.846	(1.004)	3644998	80.0000	69.3(Q)
204 alpha-Terpineol	59	4.822	4.822	(0.999)	892247	80.0000	73.0
31 4-Chloroaniline	127	4.863	4.863	(1.007)	1795302	80.0000	76.4
32 Hexachlorobutadiene	225	4.910	4.910	(1.017)	573751	80.0000	73.4
33 4-Chloro-3-methylphenol	107	5.169	5.169	(1.071)	1011928	80.0000	76.6
34 2-Methylnaphthalene	142	5.328	5.328	(1.104)	2446659	80.0000	70.9
35 1-Methylnaphthalene	142	5.398	5.398	(1.118)	2209570	80.0000	71.4
36 Hexachlorocyclopentadiene	237	5.428	5.428	(0.893)	305299	80.0000	80.2
205 2,3-Dichloroaniline	161	5.522	5.522	(0.908)	1074423	80.0000	76.1
37 2,4,6-Trichlorophenol	196	5.516	5.516	(0.907)	619462	80.0000	74.9
38 2,4,5-Trichlorophenol	196	5.545	5.545	(0.912)	750081	80.0000	86.4
40 2-Chloronaphthalene	162	5.681	5.681	(0.934)	2297065	80.0000	74.8
42 o-Nitroaniline	65	5.740	5.740	(0.944)	740769	80.0000	79.9
41 m-Nitroaniline	138	6.034	6.034	(0.992)	625151	80.0000	76.1
43 Dimethylphthalate	163	5.851	5.851	(0.962)	2603411	80.0000	77.8
44 2,6-Dinitrotoluene	165	5.904	5.904	(0.971)	652687	80.0000	78.4
50 2,4-Dinitrotoluene	165	6.192	6.192	(1.018)	881523	80.0000	80.8
45 Acenaphthylene	152	5.987	5.987	(0.985)	3559128	80.0000	74.3
47 Acenaphthene	154	6.104	6.104	(1.004)	2088409	80.0000	71.6
48 2,4-Dinitrophenol	184	6.098	6.098	(1.003)	266678	80.0000	82.8(Q)
49 Dibenzofuran	168	6.216	6.216	(1.022)	3135122	80.0000	75.1
51 Diethylphthalate	149	6.328	6.328	(1.041)	2393842	80.0000	76.0
52 4-Nitrophenol	139	6.116	6.116	(1.006)	490150	80.0000	90.8
53 Fluorene	166	6.451	6.451	(1.061)	2403811	80.0000	71.1
54 4-Chlorophenylphenylether	204	6.428	6.428	(1.057)	1065151	80.0000	75.1
55 2-Methyl-4,6-dinitrophenol	198	6.469	6.469	(0.917)	426602	80.0000	86.8
56 p-Nitroaniline	138	6.463	6.463	(1.063)	644277	80.0000	81.1
133 Diphenylamine	169	6.504	6.504	(0.922)	2085589	80.0000	76.1
58 1,2-Diphenylhydrazine	77	6.534	6.534	(0.926)	2521674	80.0000	75.0
61 4-Bromophenylphenylether	248	6.751	6.751	(0.957)	550623	80.0000	79.2
63 Hexachlorobenzene	284	6.810	6.810	(0.965)	660840	80.0000	75.8
65 Pentachlorophenol	266	6.928	6.928	(0.982)	424424	80.0000	85.2
206 n-Octadecane	57	6.904	6.904	(0.978)	1456999	80.0000	65.3
68 Phenanthrene	178	7.075	7.075	(1.002)	3367098	80.0000	71.6
69 Anthracene	178	7.104	7.104	(1.007)	3490841	80.0000	72.6
72 Di-n-butylphthalate	149	7.339	7.339	(1.040)	3726128	80.0000	72.2
76 Fluoranthene	202	7.781	7.781	(1.103)	3307628	80.0000	72.9

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
79 Pyrene	202	7.922	7.922	(0.906)	3446747	80.0000	77.7
85 Butylbenzylphthalate	149	8.234	8.234	(0.941)	1413260	80.0000	69.4
89 Benzo(a)anthracene	228	8.733	8.733	(0.999)	3160572	80.0000	80.0
92 Chrysene	228	8.769	8.769	(1.003)	2787216	80.0000	75.0
93 bis(2-Ethylhexyl)phthalate	149	8.604	8.604	(0.984)	2354717	80.0000	80.6
94 Di-n-octylphthalate	149	9.151	9.151	(0.892)	4318185	80.0000	80.4
95 Benzo(b)fluoranthene	252	9.780	9.780	(0.954)	3304287	80.0000	93.2
96 Benzo(k)fluoranthene	252	9.810	9.810	(0.956)	3222758	80.0000	76.7
97 Benzo(a)pyrene	252	10.192	10.192	(0.994)	2912657	80.0000	90.2
99 Indeno(1,2,3-cd)pyrene	276	11.992	11.992	(1.169)	3025334	80.0000	90.0
100 Dibenzo(a,h)anthracene	278	11.986	11.986	(1.169)	2532762	80.0000	91.8
101 Benzo(ghi)perylene	276	12.510	12.510	(1.220)	2585433	80.0000	85.9(Q)
126 m-Dinitrobenzene	168	5.893	5.893	(0.969)	458582	80.0000	81.4
130 2,3,4,6-Tetrachlorophenol	232	6.292	6.292	(1.035)	546523	80.0000	83.4
143 Dinoseb	211	7.016	7.016	(0.994)	515831	80.0000	84.6
173 Carbazole	167	7.187	7.187	(1.018)	3121391	80.0000	76.0
184 p-Benzoquinone	54	3.440	3.440	(0.869)	83536	80.0000	106
192 Methoxychlor	227	8.592	8.592	(0.982)	909774	80.0000	67.7
211 p-Toluidine	106	4.240	4.240	(1.071)	761159	80.0000	78.0
210 m-Toluidine	106	4.269	4.269	(1.079)	1125023	80.0000	89.8
26 Phthalic anhydride	104	5.363	5.363	(1.111)	497228	80.0000	96.2
179 Dibenzo(a,e)pyrene	302	16.568	16.568	(1.615)	1557621	80.0000	89.6
214 1,4-Dinitrobenzene	168	5.828	5.828	(0.958)	424465	80.0000	81.7(H)
215 2-Ethoxyethanol	59	2.287	2.287	(0.578)	650677	80.0000	77.9
216 Methylenebis(2-chloroaniline)	231	8.663	8.663	(0.991)	437691	80.0000	83.2(Q)
M 225 Trichlorophenols	196				1369543	160.000	162
M 226 Tetrachlorophenols	232				546523	80.0000	83.4
M 227 Benzo(b,k)fluoranthene	252				6527045	160.000	168

QC Flag Legend

Q - Qualifier signal failed the ratio test.
H - Operator selected an alternate compound hit.

Data File: /chem/MSD1.i/s111409.b/s1k1208.d

Date : 14-NOV-2009 20:47

Client ID: MEGA080

Sample Info: |WBN091111-11|80 PPM|1|SVMF|1|MEGA080

Column phase: J&W DB-5MS

Instrument: MSD1.i

Operator: amy

Column diameter: 0.20

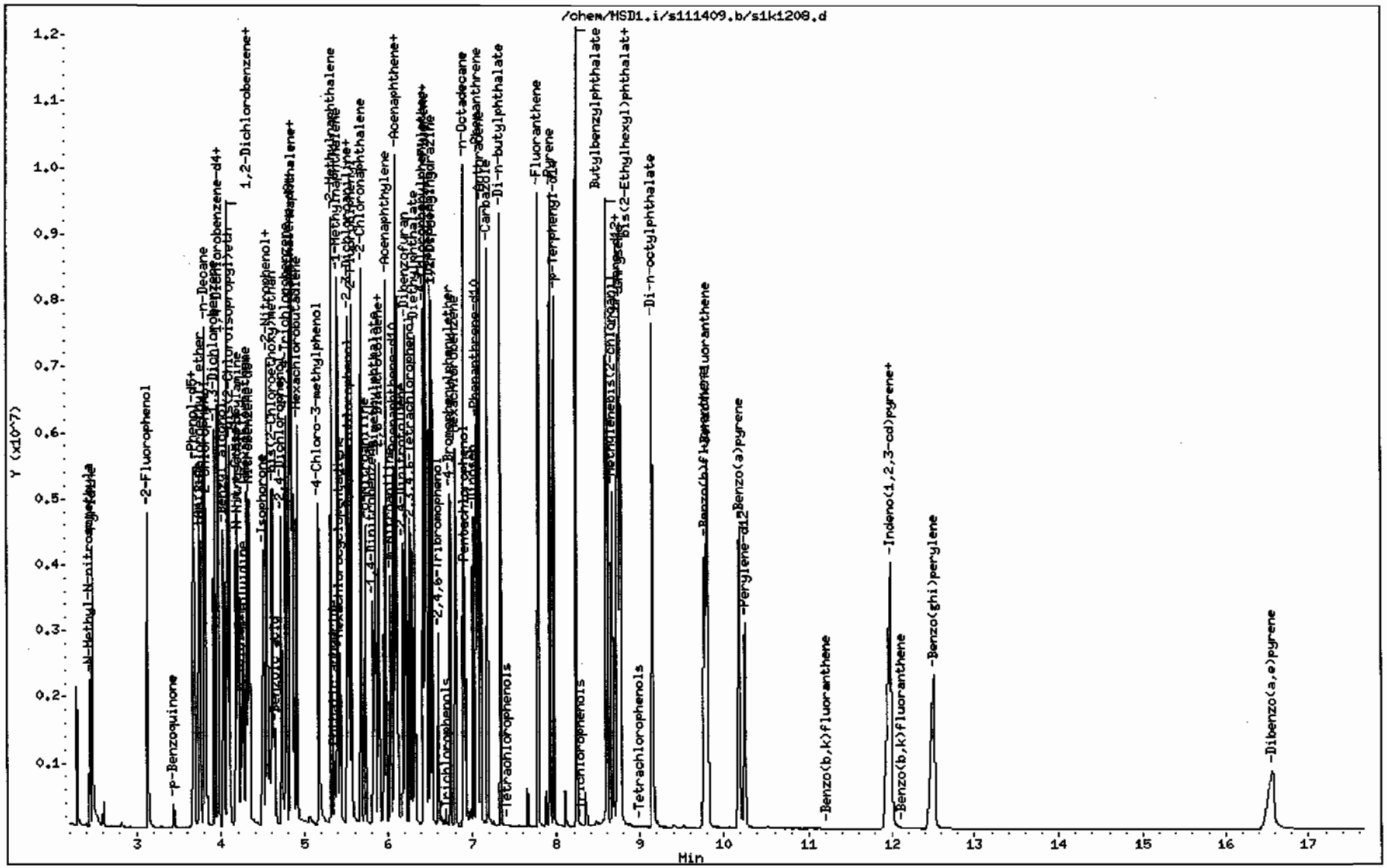

GEL Laboratories LLC

Data file : /chem/MSD1.i/s111409.b/s1k1209.d
Lab Smp Id: WBN091111-10 Client Smp ID: MEGA100
Inj Date : 14-NOV-2009 21:16
Operator : amy Inst ID: MSD1.i
Smp Info : |WBN091111-10|100 PPM|1|SVMF|1|MEGA100
Misc Info : |MSD8270|WBN091106-10|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD1.i/s111409.b/MSD1-M8270AQA-111409.m
Meth Date : 16-Nov-2009 13:49 nat00999 Quant Type: ISTD
Cal Date : 14-NOV-2009 21:16 Cal File: s1k1209.d
Als bottle: 9 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: MEGAIICARE.sub
Target Version: 3.50
Processing Host: hpclp1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	3.957	3.957	(1.000)	500597	40.0000	
* 29 Naphthalene-d8	136	4.828	4.828	(1.000)	2263280	40.0000	
* 46 Acenaphthene-d10	164	6.081	6.081	(1.000)	1115800	40.0000	
* 67 Phenanthrene-d10	188	7.057	7.057	(1.000)	1876064	40.0000	
* 91 Chrysene-d12	240	8.751	8.751	(1.000)	1509514	40.0000	
* 98 Perylene-d12	264	10.257	10.257	(1.000)	1517058	40.0000	
$ 3 2-Fluorophenol	112	3.140	3.140	(0.793)	1340793	100.000	102
$ 5 Phenol-d5	99	3.681	3.681	(0.930)	1617125	100.000	101
$ 20 Nitrobenzene-d5	82	4.328	4.328	(0.896)	1411460	100.000	92.9
$ 39 2-Fluorobiphenyl	172	5.569	5.569	(0.916)	2543998	100.000	93.0
$ 60 2,4,6-Tribromophenol	329	6.610	6.610	(1.087)	314404	100.000	100
$ 81 p-Terphenyl-d14	244	7.969	7.969	(0.911)	2296455	100.000	95.2
1 N-Methyl-N-nitrosomethylamine	74	2.446	2.446	(0.618)	730346	100.000	102
2 Pyridine	79	2.475	2.475	(0.625)	1269433	100.000	105
4 Aniline	66	3.746	3.746	(0.946)	724869	100.000	103(Q)
6 Phenol	94	3.687	3.687	(0.932)	1705697	100.000	101
7 bis(2-Chloroethyl) ether	63	3.763	3.763	(0.951)	1153099	100.000	97.7(Q)
8 2-Chlorophenol	128	3.828	3.828	(0.967)	1446429	100.000	101
203 n-Decane	43	3.804	3.804	(0.961)	1592653	100.000	85.8
9 1,3-Dichlorobenzene	146	3.928	3.928	(0.993)	1620045	100.000	95.5
11 1,4-Dichlorobenzene	146	3.969	3.969	(1.003)	1589303	100.000	95.4
13 1,2-Dichlorobenzene	146	4.075	4.075	(1.030)	1421780	100.000	91.9
14 bis(2-Chloroisopropyl)ether	45	4.104	4.104	(1.037)	2642341	100.000	93.2
12 Benzyl alcohol	108	4.034	4.034	(1.019)	915833	100.000	106
15 o-Cresol	107	4.081	4.081	(1.031)	1010944	100.000	93.5
18 m,p-Cresols	107	4.187	4.187	(1.058)	1483224	100.000	102

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
17 N-Nitrosodipropylamine	70	4.216	4.216	(1.065)	969302	100.000	100
19 Hexachloroethane	117	4.304	4.304	(1.088)	578260	100.000	96.5
21 Nitrobenzene	77	4.346	4.346	(0.900)	1461050	100.000	92.0
22 Isophorone	82	4.510	4.510	(0.934)	2644074	100.000	95.1
23 2-Nitrophenol	139	4.557	4.557	(0.944)	767127	100.000	90.4
24 2,4-Dimethylphenol	122	4.551	4.551	(0.943)	1234848	100.000	92.1
25 bis(2-Chloroethoxy)methane	93	4.616	4.616	(0.956)	1645676	100.000	92.1
26 2,4-Dichlorophenol	162	4.722	4.722	(0.978)	1189660	100.000	94.2
27 Benzoic acid	105	4.651	4.651	(0.963)	985669	100.000	108
28 1,2,4-Trichlorobenzene	180	4.781	4.781	(0.990)	1271739	100.000	90.6
30 Naphthalene	128	4.846	4.846	(1.004)	4142673	100.000	85.1(Q)
204 alpha-Terpineol	59	4.822	4.822	(0.999)	1039797	100.000	91.3
31 4-Chloroaniline	127	4.863	4.863	(1.007)	2048013	100.000	93.2
32 Hexachlorobutadiene	225	4.910	4.910	(1.017)	633978	100.000	87.6
33 4-Chloro-3-methylphenol	107	5.175	5.175	(1.072)	1199793	100.000	96.5
34 2-Methylnaphthalene	142	5.328	5.328	(1.104)	2704659	100.000	84.8
35 1-Methylnaphthalene	142	5.404	5.404	(1.119)	2470836	100.000	86.1
36 Hexachlorocyclopentadiene	237	5.428	5.428	(0.893)	326027	100.000	93.5
205 2,3-Dichloroaniline	161	5.522	5.522	(0.908)	1210794	100.000	93.7
37 2,4,6-Trichlorophenol	196	5.516	5.516	(0.907)	698032	100.000	92.4
38 2,4,5-Trichlorophenol	196	5.545	5.545	(0.912)	750383	100.000	94.3
40 2-Chloronaphthalene	162	5.681	5.681	(0.934)	2593432	100.000	92.2
42 o-Nitroaniline	65	5.740	5.740	(0.944)	874515	100.000	101
41 m-Nitroaniline	138	6.040	6.040	(0.993)	787172	100.000	103
43 Dimethylphthalate	163	5.857	5.857	(0.963)	2991309	100.000	97.0
44 2,6-Dinitrotoluene	165	5.910	5.910	(0.972)	752941	100.000	98.0
50 2,4-Dinitrotoluene	165	6.193	6.193	(1.018)	1019991	100.000	101
45 Acenaphthylene	152	5.987	5.987	(0.985)	4024393	100.000	91.8
47 Acenaphthene	154	6.104	6.104	(1.004)	2311996	100.000	87.3
48 2,4-Dinitrophenol	184	6.104	6.104	(1.004)	315357	100.000	104(Q)
49 Dibenzofuran	168	6.222	6.222	(1.023)	3484723	100.000	91.6
51 Diethylphthalate	149	6.328	6.328	(1.041)	2770170	100.000	95.7
52 4-Nitrophenol	139	6.122	6.122	(1.007)	604351	100.000	117
53 Fluorene	166	6.451	6.451	(1.061)	2725921	100.000	88.6
54 4-Chlorophenylphenylether	204	6.428	6.428	(1.057)	1205569	100.000	92.9
55 2-Methyl-4,6-dinitrophenol	198	6.475	6.475	(0.917)	511622	100.000	108
56 p-Nitroaniline	138	6.469	6.469	(1.064)	766144	100.000	103
133 Diphenylamine	169	6.510	6.510	(0.922)	2357682	100.000	92.2
58 1,2-Diphenylhydrazine	77	6.534	6.534	(0.926)	2876207	100.000	91.8
61 4-Bromophenylphenylether	248	6.751	6.751	(0.957)	631932	100.000	96.6
63 Hexachlorobenzene	284	6.816	6.816	(0.966)	744229	100.000	91.6
65 Pentachlorophenol	266	6.928	6.928	(0.982)	501299	100.000	105
206 n-Octadecane	57	6.904	6.904	(0.978)	1640399	100.000	80.6
68 Phenanthrene	178	7.075	7.075	(1.002)	3861342	100.000	88.4
69 Anthracene	178	7.110	7.110	(1.008)	3905091	100.000	87.5
72 Di-n-butylphthalate	149	7.340	7.340	(1.040)	4161387	100.000	87.2
76 Fluoranthene	202	7.787	7.787	(1.103)	3751010	100.000	88.9

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
79 Pyrene	202	7.928	7.928	(0.906)	3884116	100.000	95.3
85 Butylbenzylphthalate	149	8.234	8.234	(0.941)	1529464	100.000	83.8
89 Benzo(a)anthracene	228	8.734	8.734	(0.998)	3613873	100.000	98.9
92 Chrysene	228	8.775	8.775	(1.003)	3319233	100.000	97.0
93 bis(2-Ethylhexyl)phthalate	149	8.604	8.604	(0.983)	2598449	100.000	96.6
94 Di-n-octylphthalate	149	9.151	9.151	(0.892)	4959479	100.000	98.2
95 Benzo(b)fluoranthene	252	9.786	9.786	(0.954)	3978698	100.000	116
96 Benzo(k)fluoranthene	252	9.816	9.816	(0.957)	3679629	100.000	93.8
97 Benzo(a)pyrene	252	10.198	10.198	(0.994)	3398226	100.000	110
99 Indeno(1,2,3-cd)pyrene	276	12.004	12.004	(1.170)	3523403	100.000	109
100 Dibenzo(a,h)anthracene	278	11.992	11.992	(1.169)	2946699	100.000	111
101 Benzo(ghi)perylene	276	12.522	12.522	(1.221)	3007695	100.000	105(Q)
126 m-Dinitrobenzene	168	5.898	5.898	(0.970)	536646	100.000	102
130 2,3,4,6-Tetrachlorophenol	232	6.293	6.293	(1.035)	608604	100.000	100
143 Dinoseb	211	7.016	7.016	(0.994)	610533	100.000	105
173 Carbazole	167	7.192	7.192	(1.019)	3661050	100.000	94.9
184 p-Benzoquinone	54	3.440	3.440	(0.869)	96111	100.000	128(A)
192 Methoxychlor	227	8.598	8.598	(0.983)	965858	100.000	80.6
211 p-Toluidine	106	4.240	4.240	(1.071)	556833	100.000	67.3(H)
210 m-Toluidine	106	4.269	4.269	(1.079)	1180798	100.000	104(H)
26 Phthalic anhydride	104	5.363	5.363	(1.111)	555160	100.000	111
179 Dibenzo(a,e)pyrene	302	16.580	16.580	(1.616)	1812574	100.000	109
214 1,4-Dinitrobenzene	168	5.834	5.834	(0.959)	501175	100.000	103(H)
215 2-Ethoxyethanol	59	2.287	2.287	(0.578)	776809	100.000	102
216 Methylenebis(2-chloroaniline)	231	8.669	8.669	(0.991)	504773	100.000	103(Q)
M 225 Trichlorophenols	196				1448415	200.000	187
M 226 Tetrachlorophenols	232				608604	100.000	100
M 227 Benzo(b,k)fluoranthene	252				7658327	200.000	208

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
Q - Qualifier signal failed the ratio test.
H - Operator selected an alternate compound hit.

Data File: /chem/MSD1.i/s111409.b/s1k1209.d
Date : 14-NOV-2009 21:16
Client ID: MEGA100
Sample Info: IWBN091111-101100 PPM|1|SVMF|1|MEGA100
Column phase: J&W DB-5MS

Instrument: MSD1.i
Operator: amy
Column diameter: 0.20

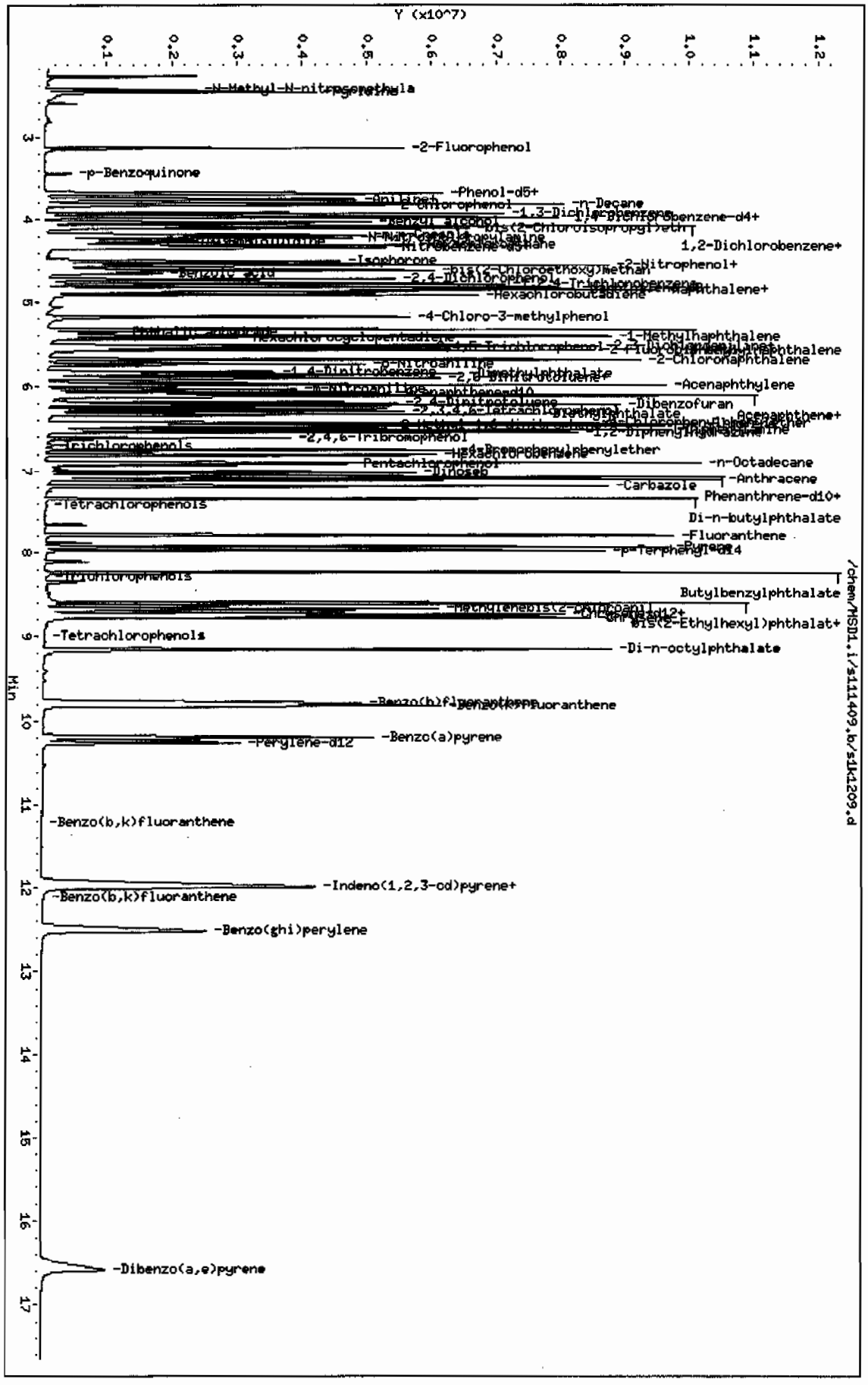

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GEL Laboratories LLC

Data file : /chem/MSD1.i/s111409.b/s1k1210.d
Lab Smp Id: WBN091111-09 Client Smp ID: MEGA120
Inj Date : 14-NOV-2009 21:45
Operator : amy Inst ID: MSD1.i
Smp Info : |WBN091111-09|120 PPM|1|SVMF|1|MEGA120
Misc Info : |MSD8270|WBN091106-10|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD1.i/s111409.b/MSD1-M8270AQA-111409.m
Meth Date : 16-Nov-2009 13:50 nat00999 • Quant Type: ISTD
Cal Date : 14-NOV-2009 21:45 Cal File: s1k1210.d
Als bottle: 10 Calibration Sample, Level: 8
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: MEGAIICARE.sub
Target Version: 3.50
Processing Host: hpclpl

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	3.957	3.957	(1.000)	513404	40.0000	
* 29 Naphthalene-d8	136	4.834	4.834	(1.000)	2325592	40.0000	
* 46 Acenaphthene-d10	164	6.081	6.081	(1.000)	1143250	40.0000	
* 67 Phenanthrene-d10	188	7.057	7.057	(1.000)	1922992	40.0000	
* 91 Chrysene-d12	240	8.751	8.751	(1.000)	1510326	40.0000	
* 98 Perylene-d12	264	10.263	10.263	(1.000)	1575272	40.0000	
$ 3 2-Fluorophenol	112	3.140	3.140	(0.793)	1542632	120.000	115
$ 5 Phenol-d5	99	3.681	3.681	(0.930)	1875417	120.000	115
$ 20 Nitrobenzene-d5	82	4.334	4.334	(0.897)	1632552	120.000	106
$ 39 2-Fluorobiphenyl	172	5.575	5.575	(0.917)	2809936	120.000	103
$ 60 2,4,6-Tribromophenol	329	6.616	6.616	(1.088)	372961	120.000	117
$ 81 p-Terphenyl-d14	244	7.969	7.969	(0.911)	2542442	120.000	107
1 N-Methyl-N-nitrosomethylamine	74	2.446	2.446	(0.618)	846885	120.000	116
2 Pyridine	79	2.475	2.475	(0.625)	1334062	120.000	109
4 Aniline	66	3.751	3.751	(0.948)	836522	120.000	117(Q)
6 Phenol	94	3.693	3.693	(0.933)	1961509	120.000	114
7 bis(2-Chloroethyl) ether	63	3.763	3.763	(0.951)	1299838	120.000	109(Q)
8 2-Chlorophenol	128	3.828	3.828	(0.967)	1673186	120.000	115
203 n-Decane	43	3.810	3.810	(0.963)	1732503	120.000	94.3
9 1,3-Dichlorobenzene	146	3.928	3.928	(0.993)	1862560	120.000	109
11 1,4-Dichlorobenzene	146	3.975	3.975	(1.004)	1797036	120.000	107
13 1,2-Dichlorobenzene	146	4.075	4.075	(1.030)	1594817	120.000	103
14 bis(2-Chloroisopropyl)ether	45	4.104	4.104	(1.037)	2978078	120.000	105
12 Benzyl alcohol	108	4.040	4.040	(1.021)	1077095	120.000	121(A)
15 o-Cresol	107	4.087	4.087	(1.033)	1145665	120.000	105
18 m,p-Cresols	107	4.193	4.193	(1.059)	1724243	120.000	117

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
17 N-Nitrosodipropylamine	70	4.216	4.216	(1.065)	1044619	120.000	107
19 Hexachloroethane	117	4.304	4.304	(1.088)	649855	120.000	108
21 Nitrobenzene	77	4.345	4.345	(0.899)	1664496	120.000	104
22 Isophorone	82	4.516	4.516	(0.934)	2906393	120.000	104
23 2-Nitrophenol	139	4.557	4.557	(0.943)	841721	120.000	99.3
24 2,4-Dimethylphenol	122	4.551	4.551	(0.942)	1482425	120.000	109
25 bis(2-Chloroethoxy)methane	93	4.616	4.616	(0.955)	1884541	120.000	105
26 2,4-Dichlorophenol	162	4.722	4.722	(0.977)	1360951	120.000	107
27 Benzoic acid	105	4.663	4.663	(0.965)	1103712	120.000	118
28 1,2,4-Trichlorobenzene	180	4.781	4.781	(0.989)	1437006	120.000	102
30 Naphthalene	128	4.851	4.851	(1.004)	4572530	120.000	94.2(Q)
204 alpha-Terpineol	59	4.822	4.822	(0.998)	1165606	120.000	102
31 4-Chloroaniline	127	4.863	4.863	(1.006)	2358548	120.000	106
32 Hexachlorobutadiene	225	4.910	4.910	(1.016)	717037	120.000	99.2
33 4-Chloro-3-methylphenol	107	5.175	5.175	(1.071)	1253518	120.000	101
34 2-Methylnaphthalene	142	5.328	5.328	(1.102)	3095445	120.000	97.0
35 1-Methylnaphthalene	142	5.404	5.404	(1.118)	2777035	120.000	96.8
36 Hexachlorocyclopentadiene	237	5.428	5.428	(0.893)	360900	120.000	103
205 2,3-Dichloroaniline	161	5.528	5.528	(0.909)	1363304	120.000	105
37 2,4,6-Trichlorophenol	196	5.516	5.516	(0.907)	813307	120.000	107
38 2,4,5-Trichlorophenol	196	5.545	5.545	(0.912)	919728	120.000	114
40 2-Chloronaphthalene	162	5.681	5.681	(0.934)	2892525	120.000	102
42 o-Nitroaniline	65	5.745	5.745	(0.945)	992301	120.000	113
41 m-Nitroaniline	138	6.039	6.039	(0.993)	842777	120.000	109
43 Dimethylphthalate	163	5.863	5.863	(0.964)	3417214	120.000	110
44 2,6-Dinitrotoluene	165	5.910	5.910	(0.972)	849470	120.000	109
50 2,4-Dinitrotoluene	165	6.198	6.198	(1.019)	1165765	120.000	113
45 Acenaphthylene	152	5.987	5.987	(0.985)	4560455	120.000	104
47 Acenaphthene	154	6.110	6.110	(1.005)	2531697	120.000	96.0
48 2,4-Dinitrophenol	184	6.104	6.104	(1.004)	349771	120.000	114(Q)
49 Dibenzofuran	168	6.222	6.222	(1.023)	3957754	120.000	104
51 Diethylphthalate	149	6.334	6.334	(1.042)	3046878	120.000	105
52 4-Nitrophenol	139	6.128	6.128	(1.008)	710503	120.000	132(A)
53 Fluorene	166	6.457	6.457	(1.062)	3032860	120.000	98.6
54 4-Chlorophenylphenylether	204	6.434	6.434	(1.058)	1334693	120.000	103
55 2-Methyl-4,6-dinitrophenol	198	6.481	6.481	(0.918)	592599	120.000	122(A)
56 p-Nitroaniline	138	6.475	6.475	(1.065)	879753	120.000	116
133 Diphenylamine	169	6.510	6.510	(0.922)	2671618	120.000	104
58 1,2-Diphenylhydrazine	77	6.539	6.539	(0.927)	3163265	120.000	101
61 4-Bromophenylphenylether	248	6.751	6.751	(0.957)	720317	120.000	109
63 Hexachlorobenzene	284	6.816	6.816	(0.966)	819147	120.000	101
65 Pentachlorophenol	266	6.928	6.928	(0.982)	566148	120.000	116
206 n-Octadecane	57	6.904	6.904	(0.978)	1784006	120.000	89.2
68 Phenanthrene	178	7.081	7.081	(1.003)	4331723	120.000	99.1
69 Anthracene	178	7.110	7.110	(1.008)	4252141	120.000	95.7
72 Di-n-butylphthalate	149	7.339	7.339	(1.040)	4623719	120.000	97.5
76 Fluoranthene	202	7.786	7.786	(1.103)	4152438	120.000	98.4

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
79 Pyrene	202	7.928	7.928	(0.906)	4271995	120.000	106
85 Butylbenzylphthalate	149	8.233	8.233	(0.941)	1633817	120.000	92.8
89 Benzo(a)anthracene	228	8.733	8.733	(0.998)	4071065	120.000	112
92 Chrysene	228	8.775	8.775	(1.003)	3736452	120.000	110
93 bis(2-Ethylhexyl)phthalate	149	8.604	8.604	(0.983)	2860516	120.000	108
94 Di-n-octylphthalate	149	9.151	9.151	(0.892)	5517508	120.000	107
95 Benzo(b)fluoranthene	252	9.792	9.792	(0.954)	5127789	120.000	140(A)
96 Benzo(k)fluoranthene	252	9.822	9.822	(0.957)	3698214	120.000	93.6
97 Benzo(a)pyrene	252	10.204	10.204	(0.994)	3934490	120.000	122(A)
99 Indeno(1,2,3-cd)pyrene	276	12.010	12.010	(1.170)	4020592	120.000	120(A)
100 Dibenzo(a,h)anthracene	278	11.998	11.998	(1.169)	3397425	120.000	123(A)
101 Benzo(ghi)perylene	276	12.527	12.527	(1.221)	3439598	120.000	116(Q)
126 m-Dinitrobenzene	168	5.904	5.904	(0.971)	605158	120.000	114
130 2,3,4,6-Tetrachlorophenol	232	6.292	6.292	(1.035)	703901	120.000	114
143 Dinoseb	211	7.022	7.022	(0.995)	721108	120.000	120(A)
173 Carbazole	167	7.192	7.192	(1.019)	4044554	120.000	104
184 p-Benzoquinone	54	3.440	3.440	(0.869)	113764	120.000	143(A)
192 Methoxychlor	227	8.598	8.598	(0.983)	973799	120.000	85.2
211 p-Toluidine	106	4.240	4.240	(1.071)	617495	120.000	77.1
210 m-Toluidine	106	4.275	4.275	(1.080)	852922	120.000	77.3
26 Phthalic anhydride	104	5.369	5.369	(1.111)	687649	120.000	131(A)
179 Dibenzo(a,e)pyrene	302	16.592	16.592	(1.617)	2111582	120.000	122(A)
214 1,4-Dinitrobenzene	168	5.834	5.834	(0.959)	578258	120.000	117(H)
215 2-Ethoxyethanol	59	2.287	2.287	(0.578)	902492	120.000	116
216 Methylenebis(2-chloroaniline)	231	8.669	8.669	(0.991)	570295	120.000	117(Q)
M 225 Trichlorophenols	196				1733035	240.000	221
M 226 Tetrachlorophenols	232				703901	120.000	114
M 227 Benzo(b,k)fluoranthene	252				8826003	240.000	232

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
Q - Qualifier signal failed the ratio test.
H - Operator selected an alternate compound hit.

Data File: /chem/MSD1.i/s111409.b/s1k1210.d
Date : 14-NOV-2009 21:45
Client ID: MEGA120
Sample Info: IWBN091111-091120 PPH11SVHF11MEGA120
Column phase: J&W DB-5MS

Instrument: MSD1.i
Operator: amy
Column diameter: 0.20

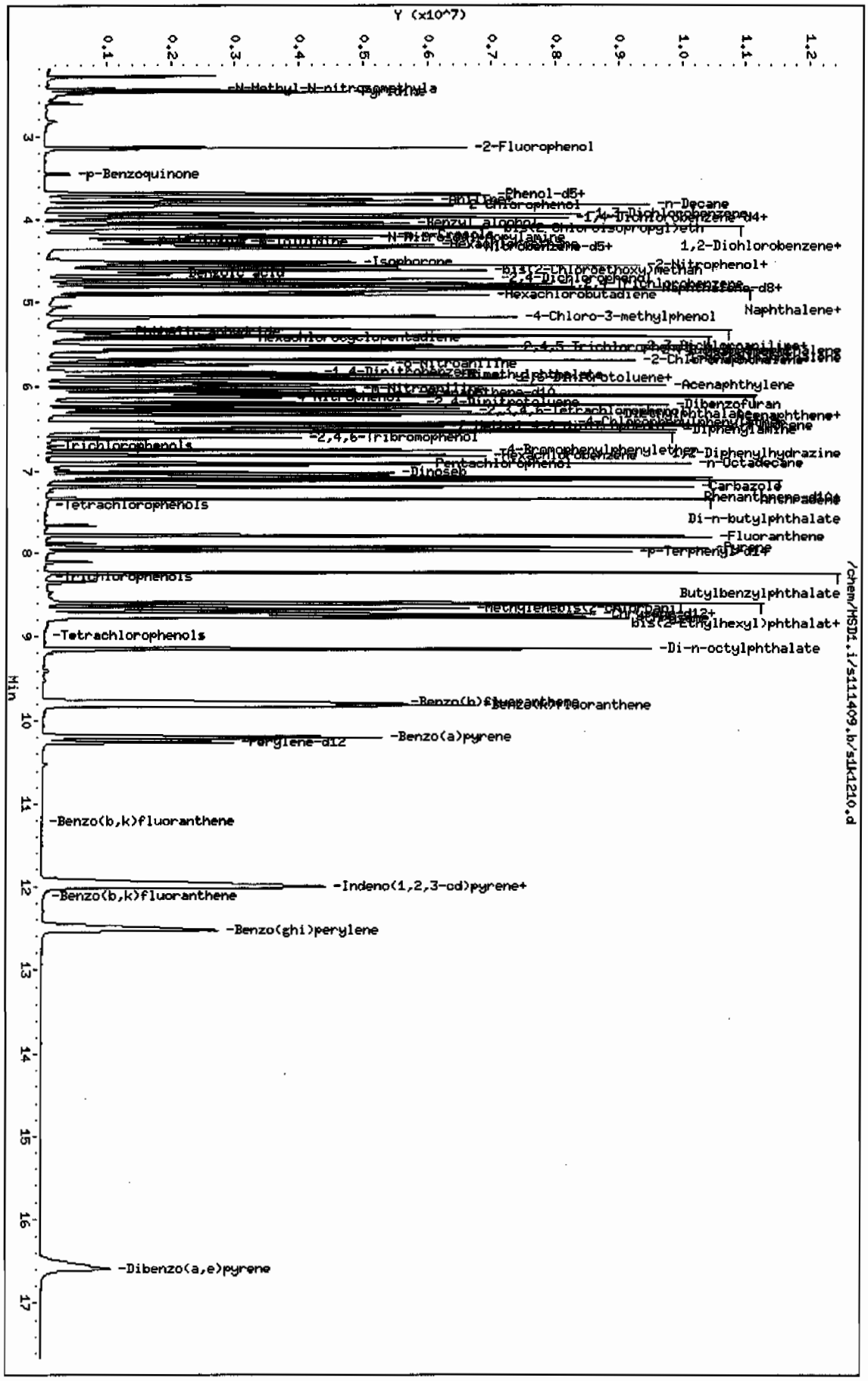

Page 1

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD1.i Injection Date: 17-NOV-2009 16:27
Lab File ID: s1k1261.d Init. Cal. Date(s): 14-NOV-2009 17-NOV-2009
Analysis Type: Init. Cal. Times: 18:22 12:38
Lab Sample ID: WBN091027-09.3 Quant Type: ISTD
Method: /chem/MSD1.i/s111409.b/MSD1-M8270AQA-111409.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
$ 3 2-Fluorophenol	1.04478	0.92701	0.92701	0.000	-11.27306	60.00000	Averaged
$ 5 Phenol-d5	1.26984	1.11829	1.11829	0.000	-11.93416	60.00000	Averaged
$ 20 Nitrobenzene-d5	0.26360	0.25882	0.25882	0.000	-1.81289	60.00000	Averaged
$ 39 2-Fluorobiphenyl	0.95800	0.95545	0.95545	0.000	-0.26619	60.00000	Averaged
$ 60 2,4,6-Tribromophenol	0.11169	0.11397	0.11397	0.000	2.04032	60.00000	Averaged
$ 81 p-Terphenyl-d14	0.62787	0.61091	0.61091	0.000	-2.70233	60.00000	Averaged
1 N-Methyl-N-nitrosomethylami	0.56740	0.52259	0.52259	0.000	-7.89719	60.00000	Averaged
2 Pyridine	0.95281	0.72054	0.72054	0.000	-24.37721	60.00000	Averaged
4 Aniline	0.55813	0.46069	0.46069	0.000	-17.45935	60.00000	Averaged
6 Phenol	1.33800	1.13102	1.13102	0.001	-15.46941	20.00000	Averaged ccc
7 bis(2-Chloroethyl) ether	0.93081	0.78725	0.78725	0.000	-15.42323	60.00000	Averaged
8 2-Chlorophenol	1.13717	0.96631	0.96631	0.000	-15.02517	60.00000	Averaged
203 n-Decane	1.43160	1.33489	1.33489	0.000	-6.75532	60.00000	Averaged
9 1,3-Dichlorobenzene	1.33431	1.14485	1.14485	0.000	-14.19930	60.00000	Averaged
11 1,4-Dichlorobenzene	1.30799	1.12905	1.12905	0.001	-13.68038	20.00000	Averaged ccc
13 1,2-Dichlorobenzene	1.20798	1.02631	1.02631	0.000	-15.03923	60.00000	Averaged
14 bis(2-Chloroisopropyl)ether	2.21709	1.93928	1.93928	0.000	-12.53006	60.00000	Averaged
12 Benzyl alcohol	0.69141	0.59629	0.59629	0.000	-13.75808	60.00000	Averaged
15 o-Cresol	0.84650	0.72216	0.72216	0.000	-14.68816	60.00000	Averaged
18 m,p-Cresols	1.15179	1.00178	1.00178	0.000	-13.02332	60.00000	Averaged
17 N-Nitrosodipropylamine	0.76238	0.61385	0.61385	0.050	-19.48192	60.00000	Averaged spcc
19 Hexachloroethane	0.47075	0.38923	0.38923	0.000	-17.31682	60.00000	Averaged
21 Nitrobenzene	0.27466	0.23975	0.23975	0.000	-12.70858	60.00000	Averaged
22 Isophorone	0.48049	0.42824	0.42824	0.000	-10.87384	60.00000	Averaged
23 2-Nitrophenol	0.14580	0.12443	0.12443	0.001	-14.65471	20.00000	Averaged ccc
24 2,4-Dimethylphenol	0.23346	0.23407	0.23407	0.000	0.25935	60.00000	Averaged
25 bis(2-Chloroethoxy)methane	0.30933	0.25445	0.25445	0.000	-17.74126	60.00000	Averaged
26 2,4-Dichlorophenol	0.21909	0.18847	0.18847	0.001	-13.97781	20.00000	Averaged ccc
27 Benzoic acid	0.16087	0.16553	0.16553	0.000	2.89975	60.00000	Averaged
28 1,2,4-Trichlorobenzene	0.24210	0.21218	0.21218	0.000	-12.36169	60.00000	Averaged
30 Naphthalene	0.83482	0.76679	0.76679	0.000	-8.14910	60.00000	Averaged
204 alpha-Terpineol	0.19635	0.19249	0.19249	0.000	-1.96852	60.00000	Averaged
31 4-Chloroaniline	0.38123	0.34324	0.34324	0.000	-9.96471	60.00000	Averaged
32 Hexachlorobutadiene	0.12432	0.10582	0.10582	0.001	-14.87841	20.00000	Averaged ccc
33 4-Chloro-3-methylphenol	0.21406	0.17276	0.17276	0.001	-19.29025	20.00000	Averaged ccc
34 2-Methylnaphthalene	0.54880	0.51972	0.51972	0.000	-5.29812	60.00000	Averaged

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD1.i
Lab File ID: s1k1261.d
Analysis Type:
Lab Sample ID: WBN091027-09.3
Method: /chem/MSD1.i/s111409.b/MSD1-M8270AQA-111409.m

Injection Date: 17-NOV-2009 16:27
Init. Cal. Date(s): 14-NOV-2009 17-NOV-2009
Init. Cal. Times: 18:22 12:38
Quant Type: ISTD

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
35 1-Methylnaphthalene	0.49330	0.47920	0.47920	0.000	-2.85884	60.00000	Averaged	
36 Hexachlorocyclopentadiene	0.12213	0.12462	0.12462	0.050	2.03810	60.00000	Averaged	spcc
205 2,3-Dichloroaniline	0.45401	0.44519	0.44519	0.000	-1.94238	60.00000	Averaged	
37 2,4,6-Trichlorophenol	0.26606	0.24935	0.24935	0.001	-6.28041	20.00000	Averaged	ccc
38 2,4,5-Trichlorophenol	0.28290	0.25595	0.25595	0.000	-9.52679	60.00000	Averaged	
40 2-Chloronaphthalene	0.98748	0.82050	0.82050	0.000	-16.91018	60.00000	Averaged	
42 o-Nitroaniline	0.30619	0.24946	0.24946	0.000	-18.52571	60.00000	Averaged	
41 m-Nitroaniline	0.27055	0.22438	0.22438	0.000	-17.06469	60.00000	Averaged	
43 Dimethylphthalate	1.08995	0.95932	0.95932	0.000	-11.98438	60.00000	Averaged	
44 2,6-Dinitrotoluene	0.27156	0.22271	0.22271	0.000	-17.99006	60.00000	Averaged	
50 2,4-Dinitrotoluene	0.35993	0.29440	0.29440	0.000	-18.20706	60.00000	Averaged	
45 Acenaphthylene	1.54092	1.46812	1.46812	0.000	-4.72441	60.00000	Averaged	
47 Acenaphthene	0.92259	0.85781	0.85781	0.001	-7.02192	20.00000	Averaged	ccc
48 2,4-Dinitrophenol	0.10718	0.09229	0.09229	0.050	-13.89853	60.00000	Averaged	spcc
49 Dibenzofuran	1.33422	1.12564	1.12564	0.000	-15.63294	60.00000	Averaged	
51 Diethylphthalate	1.01616	0.93320	0.93320	0.000	-8.16403	60.00000	Averaged	
52 4-Nitrophenol	0.18871	0.18660	0.18660	0.050	-1.12202	60.00000	Averaged	spcc
53 Fluorene	1.07578	0.99783	0.99783	0.000	-7.24582	60.00000	Averaged	
54 4-Chlorophenylphenylether	0.45420	0.42578	0.42578	0.000	-6.25867	60.00000	Averaged	
55 2-Methyl-4,6-dinitrophenol	0.10120	0.09844	0.09844	0.000	-2.71965	60.00000	Averaged	
56 p-Nitroaniline	0.26458	0.21819	0.21819	0.000	-17.53206	60.00000	Averaged	
133 Diphenylamine	0.53354	0.46493	0.46493	0.001	-12.85961	20.00000	Averaged	ccc
58 1,2-Diphenylhydrazine	0.65098	0.55777	0.55777	0.000	-14.31896	60.00000	Averaged	
61 4-Bromophenylphenylether	0.13743	0.14126	0.14126	0.000	2.79050	60.00000	Averaged	
63 Hexachlorobenzene	0.16869	0.14433	0.14433	0.000	-14.43782	60.00000	Averaged	
65 Pentachlorophenol	0.10117	0.09042	0.09042	0.001	-10.61921	20.00000	Averaged	ccc
206 n-Octadecane	0.43383	0.42570	0.42570	0.000	-1.87309	60.00000	Averaged	
68 Phenanthrene	0.90903	0.83581	0.83581	0.000	-8.05558	60.00000	Averaged	
69 Anthracene	0.92447	0.85110	0.85110	0.000	-7.93592	60.00000	Averaged	
72 Di-n-butylphthalate	0.98605	0.95396	0.95396	0.000	-3.25457	60.00000	Averaged	
76 Fluoranthene	0.87746	0.81704	0.81704	0.001	-6.88555	20.00000	Averaged	ccc
79 Pyrene	1.06293	0.98267	0.98267	0.000	-7.55079	60.00000	Averaged	
85 Butylbenzylphthalate	0.48372	0.46739	0.46739	0.000	-3.37649	60.00000	Averaged	
89 Benzo(a)anthracene	0.95915	0.87571	0.87571	0.000	-8.69930	60.00000	Averaged	
92 Chrysene	0.89647	0.82199	0.82199	0.000	-8.30767	60.00000	Averaged	
93 bis(2-Ethylhexyl)phthalate	0.70275	0.65271	0.65271	0.000	-7.12169	60.00000	Averaged	

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD1.i Injection Date: 17-NOV-2009 16:27
Lab File ID: s1k1261.d Init. Cal. Date(s): 14-NOV-2009 17-NOV-2009
Analysis Type: Init. Cal. Times: 18:22 12:38
Lab Sample ID: WBN091027-09.3 Quant Type: ISTD
Method: /chem/MSD1.i/s111409.b/MSD1-M8270AQA-111409.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
94 Di-n-octylphthalate	1.30849	1.19375	1.19375	0.001	-8.76858	20.00000	Averaged	ccc
95 Benzo(b)fluoranthene	34.69168	40.00000	0.87030	0.000	-13.27080	60.00000	Linear	
96 Benzo(k)fluoranthene	1.00298	0.95633	0.95633	0.000	-4.65112	60.00000	Averaged	
97 Benzo(a)pyrene	37.92700	40.00000	0.82858	0.001	-5.18249	20.00000	Linear	ccc
99 Indeno(1,2,3-cd)pyrene	35.83759	40.00000	0.81303	0.000	-10.40601	60.00000	Linear	
100 Dibenzo(a,h)anthracene	35.09981	40.00000	0.66597	0.000	-12.25048	60.00000	Linear	
101 Benzo(ghi)perylene	0.75165	0.69836	0.69836	0.000	-7.08991	60.00000	Averaged	
126 m-Dinitrobenzene	0.18653	0.15696	0.15696	0.000	-15.84920	60.00000	Averaged	
130 2,3,4,6-Tetrachlorophenol	0.21604	0.19708	0.19708	0.000	-8.77777	60.00000	Averaged	
143 Dinoseb	0.12447	0.10965	0.10965	0.000	-11.90708	60.00000	Averaged	
173 Carbazole	0.80714	0.69773	0.69773	0.000	-13.55506	60.00000	Averaged	
184 p-Benzoquinone	40.49777	40.00000	0.06781	0.000	1.24442	60.00000	Linear	
192 Methoxychlor	0.31747	0.36177	0.36177	0.000	13.95477	60.00000	Averaged	
211 p-Toluidine	0.70440	0.95402	0.95402	0.000	35.43664	60.00000	Averaged	
210 m-Toluidine	0.91072	0.95200	0.95200	0.000	4.53333	60.00000	Averaged	
26 Phthalic anhydride	42.71723	40.00000	0.10164	0.000	6.79306	60.00000	Linear	
179 Dibenzo(a,e)pyrene	24.88814	40.00000	0.27687	0.000	-37.77964	60.00000	Linear	
214 1,4-Dinitrobenzene	0.17315	0.14504	0.14504	0.000	-16.23762	60.00000	Averaged	
215 2-Ethoxyethanol	0.60315	0.59707	0.59707	0.000	-1.00765	60.00000	Averaged	
216 Methylenebis(2-chloroanilin	0.12921	0.12373	0.12373	0.000	-4.23543	60.00000	Averaged	
M 225 Trichlorophenols	0.27448	0.25265	0.25265	0.000	-7.95340	60.00000	Averaged	
M 226 Tetrachlorophenols	0.21604	0.19708	0.19708	0.000	-8.77777	60.00000	Averaged	
M 227 Benzo(b,k)fluoranthene	0.96552	0.91331	0.91331	0.000	-5.40733	60.00000	Averaged	

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Data file : /chem/MSD1.i/s111409.b/s1k1261.d
Lab Smp Id: WBN091027-09.3 Client Smp ID: MEGAICV
Inj Date : 17-NOV-2009 16:27
Operator : amy Inst ID: MSD1.i
Smp Info : |WBN091027-09.3|40 PPM|1|SVMF|1|MEGAICV
Misc Info : |MSD8270|WBN091106-10|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD1.i/s111409.b/MSD1-M8270AQA-111409.m
Meth Date : 17-Nov-2009 16:47 llo00884 Quant Type: ISTD
Cal Date : 17-NOV-2009 12:38 Cal File: s1k1256.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: MEGAIICARE.sub
Target Version: 3.50
Processing Host: kilroy

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	ON-COL (ng/ul)	
* 10 1,4-Dichlorobenzene-d4	152	3.928	3.928	(1.000)	530038	40.0000		
* 29 Naphthalene-d8	136	4.793	4.793	(1.000)	2205306	40.0000		
* 46 Acenaphthene-d10	164	6.040	6.040	(1.000)	1135267	40.0000		
* 67 Phenanthrene-d10	188	7.022	7.022	(1.000)	1874551	40.0000		(H)
* 91 Chrysene-d12	240	8.704	8.704	(1.000)	1621760	40.0000		
* 98 Perylene-d12	264	10.198	10.198	(1.000)	1481649	40.0000		
$ 3 2-Fluorophenol	112	3.104	3.104	(0.790)	491348	40.0000	35.5	
$ 5 Phenol-d5	99	3.640	3.640	(0.927)	592737	40.0000	35.2	
$ 20 Nitrobenzene-d5	82	4.287	4.287	(0.894)	570788	40.0000	39.3	
$ 39 2-Fluorobiphenyl	172	5.534	5.534	(0.916)	1084689	40.0000	39.9	
$ 60 2,4,6-Tribromophenol	329	6.575	6.575	(1.089)	129390	40.0000	40.8	
$ 81 p-Terphenyl-d14	244	7.939	7.939	(0.912)	990744	40.0000	38.9	
1 N-Methyl-N-nitrosomethylamine	74	2.410	2.410	(0.614)	276992	40.0000	36.8	
2 Pyridine	79	2.446	2.446	(0.623)	381913	40.0000	30.2	
4 Aniline	66	3.710	3.710	(0.945)	244181	40.0000	33.0	
6 Phenol	94	3.646	3.646	(0.928)	599483	40.0000	33.8	
7 bis(2-Chloroethyl) ether	63	3.722	3.722	(0.948)	417273	40.0000	33.8	
8 2-Chlorophenol	128	3.787	3.787	(0.964)	512179	40.0000	34.0	
203 n-Decane	43	3.775	3.775	(0.961)	707542	40.0000	37.3	
9 1,3-Dichlorobenzene	146	3.893	3.893	(0.991)	606813	40.0000	34.3	
11 1,4-Dichlorobenzene	146	3.934	3.934	(1.001)	598440	40.0000	34.5	
13 1,2-Dichlorobenzene	146	4.040	4.040	(1.028)	543984	40.0000	34.0	
14 bis(2-Chloroisopropyl)ether	45	4.069	4.069	(1.036)	1027894	40.0000	35.0	
12 Benzyl alcohol	108	3.993	3.993	(1.016)	316054	40.0000	34.5	
15 o-Cresol	107	4.040	4.040	(1.028)	382773	40.0000	34.1	
18 m,p-Cresols	107	4.146	4.146	(1.055)	530984	40.0000	34.8	

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
17 N-Nitrosodipropylamine	70	4.163	4.163	(1.060)	325364	40.0000	32.2
19 Hexachloroethane	117	4.269	4.269	(1.087)	206306	40.0000	33.1
21 Nitrobenzene	77	4.304	4.304	(0.898)	528723	40.0000	34.9
22 Isophorone	82	4.457	4.457	(0.930)	944401	40.0000	35.6
23 2-Nitrophenol	139	4.516	4.516	(0.942)	274410	40.0000	34.1
24 2,4-Dimethylphenol	122	4.504	4.504	(0.940)	516190	40.0000	40.1
25 bis(2-Chloroethoxy)methane	93	4.575	4.575	(0.955)	561140	40.0000	32.9
26 2,4-Dichlorophenol	162	4.681	4.681	(0.977)	415624	40.0000	34.4
27 Benzoic acid	105	4.575	4.575	(0.955)	365053	40.0000	41.2
28 1,2,4-Trichlorobenzene	180	4.745	4.745	(0.990)	467914	40.0000	35.0
30 Naphthalene	128	4.810	4.810	(1.004)	1690998	40.0000	36.7
204 alpha-Terpineol	59	4.787	4.787	(0.999)	424496	40.0000	39.2
31 4-Chloroaniline	127	4.822	4.822	(1.006)	756952	40.0000	36.0
32 Hexachlorobutadiene	225	4.875	4.875	(1.017)	233369	40.0000	34.0
33 4-Chloro-3-methylphenol	107	5.134	5.134	(1.071)	380998	40.0000	32.3
34 2-Methylnaphthalene	142	5.293	5.293	(1.104)	1146146	40.0000	37.9
35 1-Methylnaphthalene	142	5.363	5.363	(1.119)	1056787	40.0000	38.8
36 Hexachlorocyclopentadiene	237	5.393	5.393	(0.893)	141475	40.0000	40.8
205 2,3-Dichloroaniline	161	5.487	5.487	(0.908)	505408	40.0000	39.2
37 2,4,6-Trichlorophenol	196	5.475	5.475	(0.906)	283075	40.0000	37.5(H)
38 2,4,5-Trichlorophenol	196	5.504	5.504	(0.911)	290570	40.0000	36.2
40 2-Chloronaphthalene	162	5.645	5.645	(0.935)	931485	40.0000	33.2
42 o-Nitroaniline	65	5.698	5.698	(0.944)	283207	40.0000	32.6
41 m-Nitroaniline	138	5.992	5.992	(0.992)	254734	40.0000	33.2
43 Dimethylphthalate	163	5.810	5.810	(0.962)	1089088	40.0000	35.2
44 2,6-Dinitrotoluene	165	5.863	5.863	(0.971)	252831	40.0000	32.8
50 2,4-Dinitrotoluene	165	6.145	6.145	(1.018)	334220	40.0000	32.7
45 Acenaphthylene	152	5.945	5.945	(0.984)	1666713	40.0000	38.1
47 Acenaphthene	154	6.063	6.063	(1.004)	973838	40.0000	37.2
48 2,4-Dinitrophenol	184	6.057	6.057	(1.003)	104771	40.0000	34.4(Q)
49 Dibenzofuran	168	6.181	6.181	(1.023)	1277902	40.0000	33.7
51 Diethylphthalate	149	6.287	6.287	(1.041)	1059428	40.0000	36.7
52 4-Nitrophenol	139	6.075	6.075	(1.006)	211838	40.0000	39.6
53 Fluorene	166	6.416	6.416	(1.062)	1132809	40.0000	37.1
54 4-Chlorophenylphenylether	204	6.392	6.392	(1.058)	483371	40.0000	37.5
55 2-Methyl-4,6-dinitrophenol	198	6.428	6.428	(0.911)	184539	40.0000	38.9
56 p-Nitroaniline	138	6.410	6.410	(1.061)	247705	40.0000	33.0
133 Diphenylamine	169	6.469	6.469	(0.917)	871532	40.0000	34.8
58 1,2-Diphenylhydrazine	77	6.498	6.498	(0.921)	1045567	40.0000	34.3
61 4-Bromophenylphenylether	248	6.716	6.716	(0.952)	264808	40.0000	41.1(H)
63 Hexachlorobenzene	284	6.775	6.775	(0.960)	270561	40.0000	34.2
65 Pentachlorophenol	266	6.892	6.892	(0.977)	169503	40.0000	35.8
206 n-Octadecane	57	6.869	6.869	(0.973)	797995	40.0000	39.2
68 Phenanthrene	178	7.039	7.039	(0.997)	1566761	40.0000	36.8
69 Anthracene	178	7.069	7.069	(1.002)	1595437	40.0000	36.8
72 Di-n-butylphthalate	149	7.310	7.310	(1.036)	1788243	40.0000	38.7
76 Fluoranthene	202	7.751	7.751	(1.098)	1531590	40.0000	37.2

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
79 Pyrene	202	7.892	7.892	(0.907)	1593654	40.0000	37.0
85 Butylbenzylphthalate	149	8.204	8.204	(0.943)	757996	40.0000	38.6
89 Benzo(a)anthracene	228	8.692	8.692	(0.999)	1420191	40.0000	36.5(H)
92 Chrysene	228	8.728	8.728	(1.003)	1333078	40.0000	36.7
93 bis(2-Ethylhexyl)phthalate	149	8.569	8.569	(0.984)	1058534	40.0000	37.2(H)
94 Di-n-octylphthalate	149	9.110	9.110	(0.893)	1768724	40.0000	36.5
95 Benzo(b)fluoranthene	252	9.716	9.716	(0.953)	1289484	40.0000	34.7(H)
96 Benzo(k)fluoranthene	252	9.745	9.745	(0.956)	1416940	40.0000	38.1
97 Benzo(a)pyrene	252	10.122	10.122	(0.992)	1227658	40.0000	37.9
99 Indeno(1,2,3-cd)pyrene	276	11.863	11.863	(1.163)	1204623	40.0000	35.8(H)
100 Dibenzo(a,h)anthracene	278	11.863	11.863	(1.163)	986733	40.0000	35.1
101 Benzo(ghi)perylene	276	12.380	12.380	(1.214)	1034720	40.0000	37.2
126 m-Dinitrobenzene	168	5.845	5.845	(0.968)	178196	40.0000	33.7
130 2,3,4,6-Tetrachlorophenol	232	6.251	6.251	(1.035)	223733	40.0000	36.5
143 Dinoseb	211	6.981	6.981	(0.989)	205546	40.0000	35.2
173 Carbazole	167	7.151	7.151	(1.013)	1307938	40.0000	34.6
184 p-Benzoquinone	54	3.404	3.404	(0.867)	35940	40.0000	40.5
192 Methoxychlor	227	8.557	8.557	(0.983)	586700	40.0000	45.6
211 p-Toluidine	106	4.204	4.204	(1.070)	505668	40.0000	54.2(H)
210 m-Toluidine	106	4.228	4.228	(1.076)	504598	40.0000	41.8
26 Phthalic anhydride	104	5.322	5.322	(1.110)	224154	40.0000	42.7
179 Dibenzo(a,e)pyrene	302	16.327	16.327	(1.601)	410219	40.0000	24.9(H)
214 1,4-Dinitrobenzene	168	5.787	5.787	(0.958)	164654	40.0000	33.5
215 2-Ethoxyethanol	59	2.257	2.257	(0.575)	316469	40.0000	39.6
216 Methylenebis(2-chloroaniline)	231	8.622	8.622	(0.991)	200666	40.0000	38.3
M 225 Trichlorophenols	196				573645	80.0000	73.6
M 226 Tetrachlorophenols	232				223733	40.0000	36.5
M 227 Benzo(b,k)fluoranthene	252				2706424	80.0000	75.7

QC Flag Legend

Q - Qualifier signal failed the ratio test.
H - Operator selected an alternate compound hit.

Data File: /chem/MSD1.i/s111409.b/s1k1261.d
Date : 17-NOV-2009 16:27
Client ID: MEGAICV
Sample Info: IWBN091027-09,3140 PPH11SVMF11!MEGAICV
Column phase: J&W DB-5MS

Instrument: MSD1.i
Operator: amy
Column diameter: 0.20

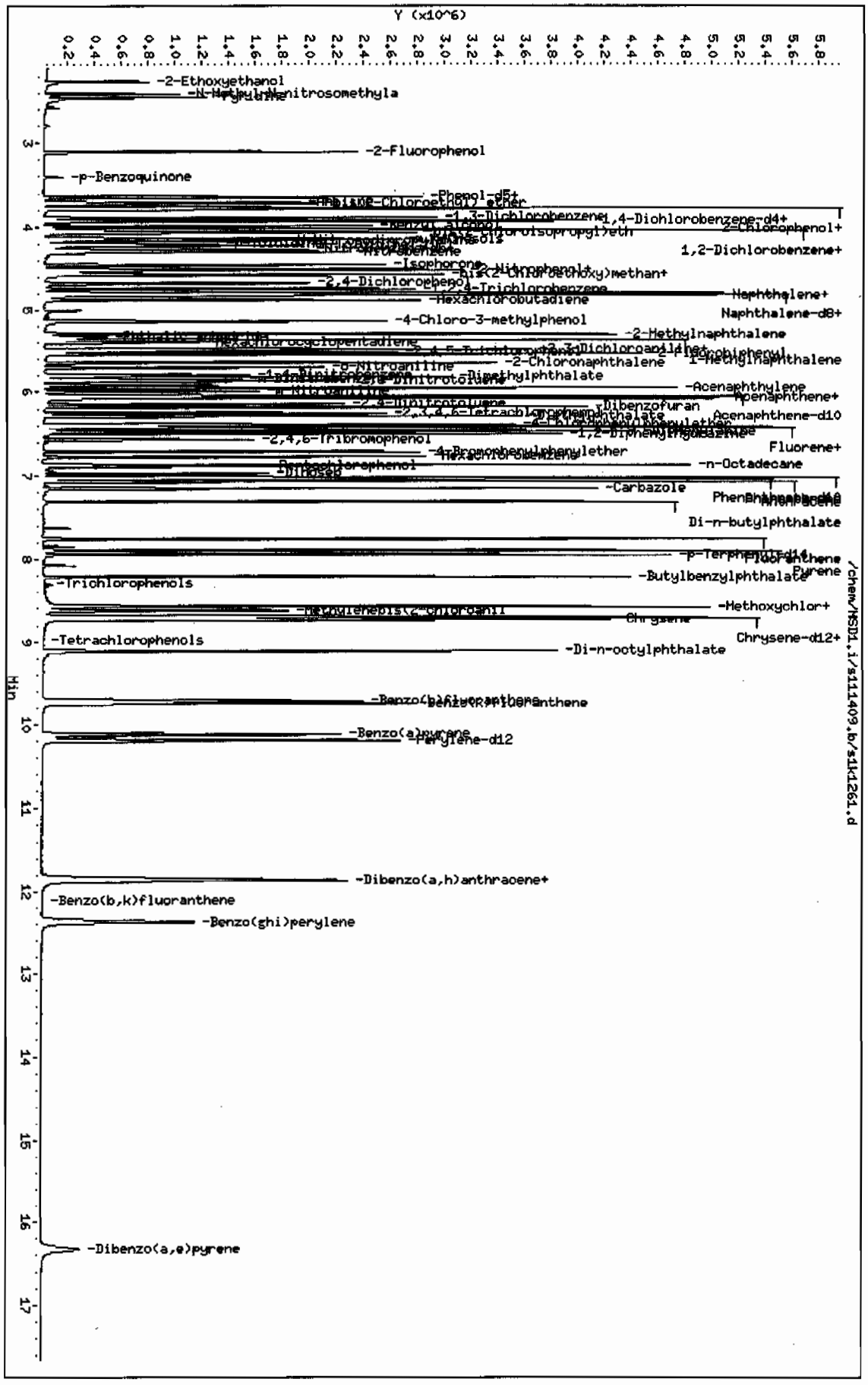

Page 1

Data File: /chem/MSD1.i/s123109.b/s113106.d
Report Date: 01-Jan-2010 15:26

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD1.i
Lab File ID: s113106.d
Analysis Type: WATER
Lab Sample ID: WBN091111-17.2
Method: /chem/MSD1.i/s123109.b/MSD1-M8270AQA-111409.m

Injection Date: 31-DEC-2009 12:02
Init. Cal. Date(s): 14-NOV-2009 17-NOV-2009
Init. Cal. Times: 18:22 19:15
Quant Type: ISTD

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
$ 3 2-Fluorophenol	1.04478	1.05478	1.05478	0.000	0.95653	60.00000	Averaged
$ 5 Phenol-d5	1.26984	1.25576	1.25576	0.000	-1.10862	60.00000	Averaged
$ 20 Nitrobenzene-d5	0.26360	0.28609	0.28609	0.000	8.53026	60.00000	Averaged
$ 39 2-Fluorobiphenyl	0.95800	1.12152	1.12152	0.000	17.06953	60.00000	Averaged
$ 60 2,4,6-Tribromophenol	0.11169	0.14126	0.14126	0.000	26.46720	60.00000	Averaged
$ 81 p-Terphenyl-d14	0.62787	0.69119	0.69119	0.000	10.08427	60.00000	Averaged
1 N-Methyl-N-nitrosomethylami	0.56740	0.62798	0.62798	0.000	10.67782	60.00000	Averaged
2 Pyridine	0.95281	0.87914	0.87914	0.000	-7.73118	60.00000	Averaged
4 Aniline	0.55813	0.51593	0.51593	0.000	-7.56215	60.00000	Averaged
6 Phenol	1.33800	1.30868	1.30868	0.001	-2.19110	20.00000	Averaged ccc
7 bis(2-Chloroethyl) ether	0.93081	0.91338	0.91338	0.000	-1.87326	60.00000	Averaged
8 2-Chlorophenol	1.13717	1.09656	1.09656	0.000	-3.57100	60.00000	Averaged
203 n-Decane	1.43160	1.53929	1.53929	0.000	7.52227	60.00000	Averaged
9 1,3-Dichlorobenzene	1.33431	1.25579	1.25579	0.000	-5.88513	60.00000	Averaged
11 1,4-Dichlorobenzene	1.30799	1.22838	1.22838	0.001	-6.08629	20.00000	Averaged ccc
13 1,2-Dichlorobenzene	1.20798	1.17365	1.17365	0.000	-2.84244	60.00000	Averaged
14 bis(2-Chloroisopropyl)ether	2.21709	2.11320	2.11320	0.000	-4.68589	60.00000	Averaged
12 Benzyl alcohol	0.69141	0.67089	0.67089	0.000	-2.96722	60.00000	Averaged
15 o-Cresol	0.84650	0.85584	0.85584	0.000	1.10420	60.00000	Averaged
18 m,p-Cresols	1.15179	1.08250	1.08250	0.000	-6.01553	60.00000	Averaged
17 N-Nitrosodipropylamine	0.76238	0.67147	0.67147	0.050	-11.92407	60.00000	Averaged spcc
19 Hexachloroethane	0.47075	0.44120	0.44120	0.000	-6.27748	60.00000	Averaged
21 Nitrobenzene	0.27466	0.29387	0.29387	0.000	6.99506	60.00000	Averaged
22 Isophorone	0.48049	0.54985	0.54985	0.000	14.43548	60.00000	Averaged
23 2-Nitrophenol	0.14580	0.13093	0.13093	0.001	-10.19743	20.00000	Averaged ccc
24 2,4-Dimethylphenol	0.23346	0.23224	0.23224	0.000	-0.52492	60.00000	Averaged
25 bis(2-Chloroethoxy)methane	0.30933	0.31342	0.31342	0.000	1.32148	60.00000	Averaged
26 2,4-Dichlorophenol	0.21909	0.21842	0.21842	0.001	-0.30383	20.00000	Averaged ccc
27 Benzoic acid	0.16087	0.15324	0.15324	0.000	-4.74133	60.00000	Averaged
28 1,2,4-Trichlorobenzene	0.24210	0.25425	0.25425	0.000	5.01531	60.00000	Averaged
30 Naphthalene	0.83482	0.86149	0.86149	0.000	3.19576	60.00000	Averaged
204 alpha-Terpineol	0.19635	0.22486	0.22486	0.000	14.51690	60.00000	Averaged
31 4-Chloroaniline	0.38123	0.37783	0.37783	0.000	-0.89065	60.00000	Averaged
32 Hexachlorobutadiene	0.12432	0.14243	0.14243	0.001	14.57065	20.00000	Averaged ccc
33 4-Chloro-3-methylphenol	0.21406	0.22390	0.22390	0.001	4.59867	20.00000	Averaged ccc
34 2-Methylnaphthalene	0.54880	0.61015	0.61015	0.000	11.17889	60.00000	Averaged

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD1.i Injection Date: 31-DEC-2009 12:02
Lab File ID: s113106.d Init. Cal. Date(s): 14-NOV-2009 17-NOV-2009
Analysis Type: WATER Init. Cal. Times: 18:22 19:15
Lab Sample ID: WBN091111-17.2 Quant Type: ISTD
Method: /chem/MSD1.i/s123109.b/MSD1-M8270AQA-111409.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
35 1-Methylnaphthalene	0.49330	0.56967	0.56967	0.000	15.47967	60.00000	Averaged	
36 Hexachlorocyclopentadiene	0.12213	0.12605	0.12605	0.050	3.20943	60.00000	Averaged	spcc
205 2,3-Dichloroaniline	0.45401	0.50348	0.50348	0.000	10.89777	60.00000	Averaged	
37 2,4,6-Trichlorophenol	0.26606	0.28398	0.28398	0.001	6.73743	20.00000	Averaged	ccc
38 2,4,5-Trichlorophenol	0.28290	0.32524	0.32524	0.000	14.96640	60.00000	Averaged	
40 2-Chloronaphthalene	0.98748	0.93336	0.93336	0.000	-5.48070	60.00000	Averaged	
42 o-Nitroaniline	0.30619	0.29002	0.29002	0.000	-5.27972	60.00000	Averaged	
41 m-Nitroaniline	0.27055	0.20622	0.20622	0.000	-23.77604	60.00000	Averaged	
43 Dimethylphthalate	1.08995	1.11953	1.11953	0.000	2.71386	60.00000	Averaged	
44 2,6-Dinitrotoluene	0.27156	0.24812	0.24812	0.000	-8.63003	60.00000	Averaged	
50 2,4-Dinitrotoluene	0.35993	0.31952	0.31952	0.000	-11.22700	60.00000	Averaged	
45 Acenaphthylene	1.54092	1.69324	1.69324	0.000	9.88469	60.00000	Averaged	
47 Acenaphthene	0.92259	1.00317	1.00317	0.001	8.73382	20.00000	Averaged	ccc
48 2,4-Dinitrophenol	0.10718	0.08952	0.08952	0.050	-16.48403	60.00000	Averaged	spcc
49 Dibenzofuran	1.33422	1.29571	1.29571	0.000	-2.88650	60.00000	Averaged	
51 Diethylphthalate	1.01616	1.11875	1.11875	0.000	10.09591	60.00000	Averaged	
52 4-Nitrophenol	0.18871	0.16390	0.16390	0.050	-13.14690	60.00000	Averaged	spcc
53 Fluorene	1.07578	1.17867	1.17867	0.000	9.56375	60.00000	Averaged	
54 4-Chlorophenylphenylether	0.45420	0.51323	0.51323	0.000	12.99426	60.00000	Averaged	
55 2-Methyl-4,6-dinitrophenol	0.10120	0.10750	0.10750	0.000	6.23090	60.00000	Averaged	
56 p-Nitroaniline	0.26458	0.17665	0.17665	0.000	-33.23313	60.00000	Averaged	
133 Diphenylamine	0.53354	0.50176	0.50176	0.001	-5.95611	20.00000	Averaged	ccc
58 1,2-Diphenylhydrazine	0.65098	0.63489	0.63489	0.000	-2.47253	60.00000	Averaged	
61 4-Bromophenylphenylether	0.13743	0.16946	0.16946	0.000	23.30735	60.00000	Averaged	
63 Hexachlorobenzene	0.16869	0.18665	0.18665	0.000	10.64497	60.00000	Averaged	
65 Pentachlorophenol	0.10117	0.10790	0.10790	0.001	6.65582	20.00000	Averaged	ccc
206 n-Octadecane	0.43383	0.48469	0.48469	0.000	11.72443	60.00000	Averaged	
68 Phenanthrene	0.90903	0.93475	0.93475	0.000	2.82907	60.00000	Averaged	
69 Anthracene	0.92447	0.94555	0.94555	0.000	2.28034	60.00000	Averaged	
72 Di-n-butylphthalate	0.98605	1.15536	1.15536	0.000	17.17060	60.00000	Averaged	
76 Fluoranthene	0.87746	1.00138	1.00138	0.001	14.12251	20.00000	Averaged	ccc
79 Pyrene	1.06293	1.13432	1.13432	0.000	6.71601	60.00000	Averaged	
85 Butylbenzylphthalate	0.48372	0.53386	0.53386	0.000	10.36439	60.00000	Averaged	
89 Benzo(a)anthracene	0.95915	0.97223	0.97223	0.000	1.36376	60.00000	Averaged	
92 Chrysene	0.89647	0.95403	0.95403	0.000	6.42063	60.00000	Averaged	
93 bis(2-Ethylhexyl)phthalate	0.70275	0.76242	0.76242	0.000	8.49023	60.00000	Averaged	

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD1.i
Lab File ID: s113106.d
Analysis Type: WATER
Lab Sample ID: WBN091111-17.2 Quant Type: ISTD
Method: /chem/MSD1.i/s123109.b/MSD1-M8270AQA-111409.m

Injection Date: 31-DEC-2009 12:02
Init. Cal. Date(s): 14-NOV-2009 17-NOV-2009
Init. Cal. Times: 18:22 19:15

	COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
	94 Di-n-octylphthalate	1.30849	1.41645	1.41645	0.001	8.25047	20.00000	Averaged	ccc
	95 Benzo(b)fluoranthene	39.00205	40.00000	0.98743	0.000	-2.49488	60.00000	Linear	
	96 Benzo(k)fluoranthene	1.00298	1.16512	1.16512	0.000	16.16630	60.00000	Averaged	
	97 Benzo(a)pyrene	43.79089	40.00000	0.95616	0.001	9.47722	20.00000	Linear	ccc
	99 Indeno(1,2,3-cd)pyrene	38.90673	40.00000	0.88182	0.000	-2.73317	60.00000	Linear	
	100 Dibenzo(a,h)anthracene	38.36057	40.00000	0.72753	0.000	-4.09858	60.00000	Linear	
	101 Benzo(ghi)perylene	0.75165	0.73607	0.73607	0.000	-2.07221	60.00000	Averaged	
	126 m-Dinitrobenzene	0.18653	0.17426	0.17426	0.000	-6.57561	60.00000	Averaged	
	130 2,3,4,6-Tetrachlorophenol	0.21604	0.24985	0.24985	0.000	15.65002	60.00000	Averaged	
	143 Dinoseb	0.12447	0.12105	0.12105	0.000	-2.74942	60.00000	Averaged	
	173 Carbazole	0.80714	0.71515	0.71515	0.000	-11.39697	60.00000	Averaged	
	184 p-Benzoquinone	48.01465	40.00000	0.08297	0.000	20.03664	60.00000	Linear	
	192 Methoxychlor	0.31747	0.47540	0.47540	0.000	49.74838	60.00000	Averaged	
	211 p-Toluidine	0.70440	0.88276	0.88276	0.000	25.31985	60.00000	Averaged	
	210 m-Toluidine	0.91072	1.18269	1.18269	0.000	29.86378	60.00000	Averaged	
	26 Phthalic anhydride	33.05111	40.00000	0.07668	0.000	-17.37224	60.00000	Linear	
	179 Dibenzo(a,e)pyrene	21.14859	40.00000	0.22961	0.000	-47.12852	60.00000	Linear	
	214 1,4-Dinitrobenzene	0.17315	0.15207	0.15207	0.000	-12.17463	60.00000	Averaged	
	215 2-Ethoxyethanol	0.60315	0.64758	0.64758	0.000	7.36741	60.00000	Averaged	
	216 Methylenebis(2-chloroanilin	0.12921	0.07458	0.07458	0.000	-42.27796	60.00000	Averaged	
M	225 Trichlorophenols	0.27448	0.30461	0.30461	0.000	10.97816	60.00000	Averaged	
M	226 Tetrachlorophenols	0.21604	0.24985	0.24985	0.000	15.65002	60.00000	Averaged	
M	227 Benzo(b,k)fluoranthene	0.96552	1.07628	1.07628	0.000	11.47067	60.00000	Averaged	

GEL Laboratories LLC

Data file : /chem/MSD1.i/s123109.b/s113106.d
Lab Smp Id: WBN091111-17.2 Client Smp ID: MEGACVS
Inj Date : 31-DEC-2009 12:02
Operator : AMY Inst ID: MSD1.i
Smp Info : |WBN091111-17.2|40 PPM|1|SVMF|1|MEGACVS
Misc Info : |MSD8270|WBN091208-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD1.i/s123109.b/MSD1-M8270AQA-111409.m
Meth Date : 01-Jan-2010 15:26 amy01291 Quant Type: ISTD
Cal Date : 17-NOV-2009 17:42 Cal File: s1k1264.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: MEGAIICARE.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vo *Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vo	1000.00000	volume of sample ext
Vi	0.50000	volume injected

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	3.740	3.740	(1.000)	667932	40.0000	
* 29 Naphthalene-d8	136	4.604	4.604	(1.000)	2652716	40.0000	
* 46 Acenaphthene-d10	164	5.845	5.845	(1.000)	1424266	40.0000	
* 67 Phenanthrene-d10	188	6.839	6.839	(1.000)	2418680	40.0000	
* 91 Chrysene-d12	240	8.457	8.457	(1.000)	2172089	40.0000	
* 98 Perylene-d12	264	9.786	9.786	(1.000)	1932182	40.0000	
$ 3 2-Fluorophenol	112	2.945	2.945	(0.788)	704520	40.0000	40.4
$ 5 Phenol-d5	99	3.475	3.475	(0.929)	838761	40.0000	39.6
$ 20 Nitrobenzene-d5	82	4.104	4.104	(0.891)	758915	40.0000	43.4
$ 39 2-Fluorobiphenyl	172	5.339	5.339	(0.913)	1597349	40.0000	46.8
$ 60 2,4,6-Tribromophenol	329	6.386	6.386	(1.093)	201187	40.0000	50.6
$ 81 p-Terphenyl-d14	244	7.751	7.751	(0.917)	1501327	40.0000	44.0
1 N-Methyl-N-nitrosomethylamine	74	2.257	2.257	(0.604)	419450	40.0000	44.3

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
2 Pyridine	79	2.293	2.293	(0.613)	587208	40.0000	36.9
4 Aniline	66	3.534	3.534	(0.945)	344603	40.0000	37.0
6 Phenol	94	3.487	3.487	(0.932)	874111	40.0000	39.1
7 bis(2-Chloroethyl) ether	63	3.545	3.545	(0.948)	610073	40.0000	39.2
8 2-Chlorophenol	128	3.610	3.610	(0.965)	732427	40.0000	38.6
203 n-Decane	43	3.592	3.592	(0.961)	1028139	40.0000	43.0
9 1,3-Dichlorobenzene	146	3.710	3.710	(0.992)	838779	40.0000	37.6
11 1,4-Dichlorobenzene	146	3.751	3.751	(1.003)	820475	40.0000	37.6
13 1,2-Dichlorobenzene	146	3.857	3.857	(1.031)	783916	40.0000	38.9
14 bis(2-Chloroisopropyl)ether	45	3.887	3.887	(1.039)	1411471	40.0000	38.1
12 Benzyl alcohol	108	3.816	3.816	(1.020)	448112	40.0000	38.8
15 o-Cresol	107	3.875	3.875	(1.036)	571645	40.0000	40.4
18 m,p-Cresols	107	3.975	3.975	(1.063)	723036	40.0000	37.6
17 N-Nitrosodipropylamine	70	3.981	3.981	(1.064)	448496	40.0000	35.2
19 Hexachloroethane	117	4.081	4.081	(1.091)	294689	40.0000	37.5
21 Nitrobenzene	77	4.122	4.122	(0.895)	779547	40.0000	42.8
22 Isophorone	82	4.269	4.269	(0.927)	1458592	40.0000	45.8
23 2-Nitrophenol	139	4.334	4.334	(0.941)	347321	40.0000	35.9
24 2,4-Dimethylphenol	122	4.334	4.334	(0.941)	616057	40.0000	39.8
25 bis(2-Chloroethoxy)methane	93	4.392	4.392	(0.954)	831405	40.0000	40.5
26 2,4-Dichlorophenol	162	4.498	4.498	(0.977)	579416	40.0000	39.9
27 Benzoic acid	105	4.404	4.404	(0.957)	406507	40.0000	38.1
28 1,2,4-Trichlorobenzene	180	4.551	4.551	(0.988)	674445	40.0000	42.0
30 Naphthalene	128	4.616	4.616	(1.003)	2285301	40.0000	41.3(Q)
204 alpha-Terpineol	59	4.592	4.592	(0.997)	596485	40.0000	45.8
31 4-Chloroaniline	127	4.639	4.639	(1.008)	1002287	40.0000	39.6
32 Hexachlorobutadiene	225	4.681	4.681	(1.017)	377832	40.0000	45.8
33 4-Chloro-3-methylphenol	107	4.957	4.957	(1.077)	593943	40.0000	41.8
34 2-Methylnaphthalene	142	5.092	5.092	(1.106)	1618548	40.0000	44.5
35 1-Methylnaphthalene	142	5.169	5.169	(1.123)	1511164	40.0000	46.2
36 Hexachlorocyclopentadiene	237	5.198	5.198	(0.889)	179527	40.0000	41.3
205 2,3-Dichloroaniline	161	5.298	5.298	(0.906)	717095	40.0000	44.4
37 2,4,6-Trichlorophenol	196	5.286	5.286	(0.904)	404465	40.0000	42.7
38 2,4,5-Trichlorophenol	196	5.322	5.322	(0.910)	463228	40.0000	46.0
40 2-Chloronaphthalene	162	5.445	5.445	(0.932)	1329357	40.0000	37.8
42 o-Nitroaniline	65	5.516	5.516	(0.944)	413066	40.0000	37.9
41 m-Nitroaniline	138	5.810	5.810	(0.994)	293719	40.0000	30.5
43 Dimethylphthalate	163	5.622	5.622	(0.962)	1594503	40.0000	41.1
44 2,6-Dinitrotoluene	165	5.675	5.675	(0.971)	353395	40.0000	36.5
50 2,4-Dinitrotoluene	165	5.963	5.963	(1.020)	455083	40.0000	35.5
45 Acenaphthylene	152	5.745	5.745	(0.983)	2411623	40.0000	44.0
47 Acenaphthene	154	5.869	5.869	(1.004)	1428775	40.0000	43.5
48 2,4-Dinitrophenol	184	5.881	5.881	(1.006)	127495	40.0000	33.4(Q)
49 Dibenzofuran	168	5.986	5.986	(1.024)	1845429	40.0000	38.8
51 Diethylphthalate	149	6.104	6.104	(1.044)	1593393	40.0000	44.0
52 4-Nitrophenol	139	5.916	5.916	(1.012)	233444	40.0000	34.7
53 Fluorene	166	6.222	6.222	(1.064)	1678739	40.0000	43.8

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
54 4-Chlorophenylphenylether	204	6.204	6.204	(1.061)	730969	40.0000	45.2
55 2-Methyl-4,6-dinitrophenol	198	6.245	6.245	(0.913)	260013	40.0000	42.5
56 p-Nitroaniline	138	6.239	6.239	(1.067)	251596	40.0000	26.7
133 Diphenylamine	169	6.286	6.286	(0.919)	1213600	40.0000	37.6
58 1,2-Diphenylhydrazine	77	6.310	6.310	(0.923)	1535590	40.0000	39.0
61 4-Bromophenylphenylether	248	6.533	6.533	(0.955)	409872	40.0000	49.3
63 Hexachlorobenzene	284	6.586	6.586	(0.963)	451436	40.0000	44.2
65 Pentachlorophenol	266	6.710	6.710	(0.981)	260975	40.0000	42.7
206 n-Octadecane	57	6.692	6.692	(0.978)	1172307	40.0000	44.7
68 Phenanthrene	178	6.857	6.857	(1.003)	2260864	40.0000	41.1
69 Anthracene	178	6.886	6.886	(1.007)	2286982	40.0000	40.9
72 Di-n-butylphthalate	149	7.133	7.133	(1.043)	2794447	40.0000	46.9
76 Fluoranthene	202	7.563	7.563	(1.106)	2422021	40.0000	45.6
79 Pyrene	202	7.704	7.704	(0.911)	2463834	40.0000	42.7
85 Butylbenzylphthalate	149	8.004	8.004	(0.946)	1159589	40.0000	44.1
89 Benzo(a)anthracene	228	8.445	8.445	(0.999)	2111769	40.0000	40.5
92 Chrysene	228	8.475	8.475	(1.002)	2072237	40.0000	42.6
93 bis(2-Ethylhexyl)phthalate	149	8.339	8.339	(0.986)	1656045	40.0000	43.4
94 Di-n-octylphthalate	149	8.822	8.822	(0.901)	2736832	40.0000	43.3
95 Benzo(b)fluoranthene	252	9.363	9.363	(0.957)	1907898	40.0000	39.0
96 Benzo(k)fluoranthene	252	9.392	9.392	(0.960)	2251224	40.0000	46.5
97 Benzo(a)pyrene	252	9.727	9.727	(0.994)	1847482	40.0000	43.8
99 Indeno(1,2,3-cd)pyrene	276	11.257	11.257	(1.150)	1703833	40.0000	38.9
100 Dibenzo(a,h)anthracene	278	11.257	11.257	(1.150)	1405712	40.0000	38.4
101 Benzo(ghi)perylene	276	11.710	11.710	(1.197)	1422226	40.0000	39.2
126 m-Dinitrobenzene	168	5.663	5.663	(0.969)	248195	40.0000	37.4
130 2,3,4,6-Tetrachlorophenol	232	6.069	6.069	(1.038)	355851	40.0000	46.3
143 Dinoseb	211	6.798	6.798	(0.994)	292780	40.0000	38.9
173 Carbazole	167	6.975	6.975	(1.020)	1729726	40.0000	35.4
184 p-Benzoquinone	54	3.245	3.245	(0.868)	55416	40.0000	48.0
192 Methoxychlor	227	8.327	8.327	(0.985)	1032611	40.0000	59.9
211 p-Toluidine	106	4.022	4.022	(1.075)	589623	40.0000	50.1
210 m-Toluidine	106	4.045	4.045	(1.082)	789958	40.0000	51.9
26 Phthalic anhydride	104	5.139	5.139	(1.116)	203400	40.0000	33.0
179 Dibenzo(a,e)pyrene	302	15.186	15.186	(1.552)	443646	40.0000	21.1
214 1,4-Dinitrobenzene	168	5.604	5.604	(0.959)	216589	40.0000	35.1
215 2-Ethoxyethanol	59	2.098	2.098	(0.561)	432541	40.0000	42.9
216 Methylenebis(2-chloroaniline)	231	8.386	8.386	(0.992)	161995	40.0000	23.1
M 225 Trichlorophenols	196				867693	80.0000	88.8
M 226 Tetrachlorophenols	232				355851	40.0000	46.3
M 227 Benzo(b,k)fluoranthene	252				4159122	80.0000	89.2

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: /chem/MSD1.i/s123109.b/s113106.d
Date : 31-DEC-2009 12:02
Client ID: MEGACVS
Sample Info: IWBN091111-17,2140 PPM:1:SVMF1:1:MEGACVS
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD1.i
Operator: AMY
Column diameter: 0.20

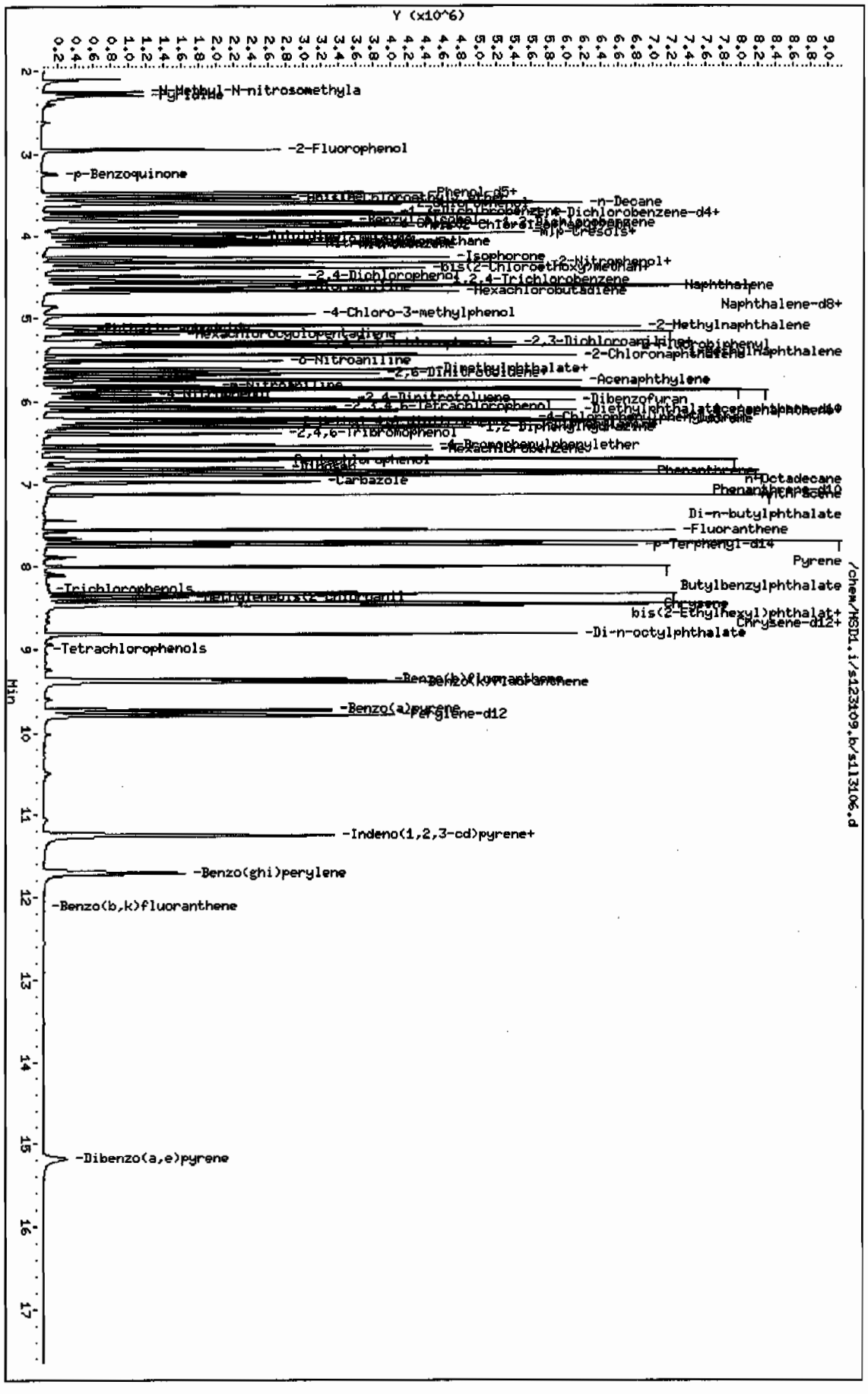

Page 1

QC Data

Data File: /chem/MSD1.i/s111409.b/s1k1201.d

Date : 14-NOV-2009 17:38

Client ID: DFTPP

Instrument: MSD1.i

Sample Info: IWBN091101-01|50 PPM|1|SVMF|1|DFTPP

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

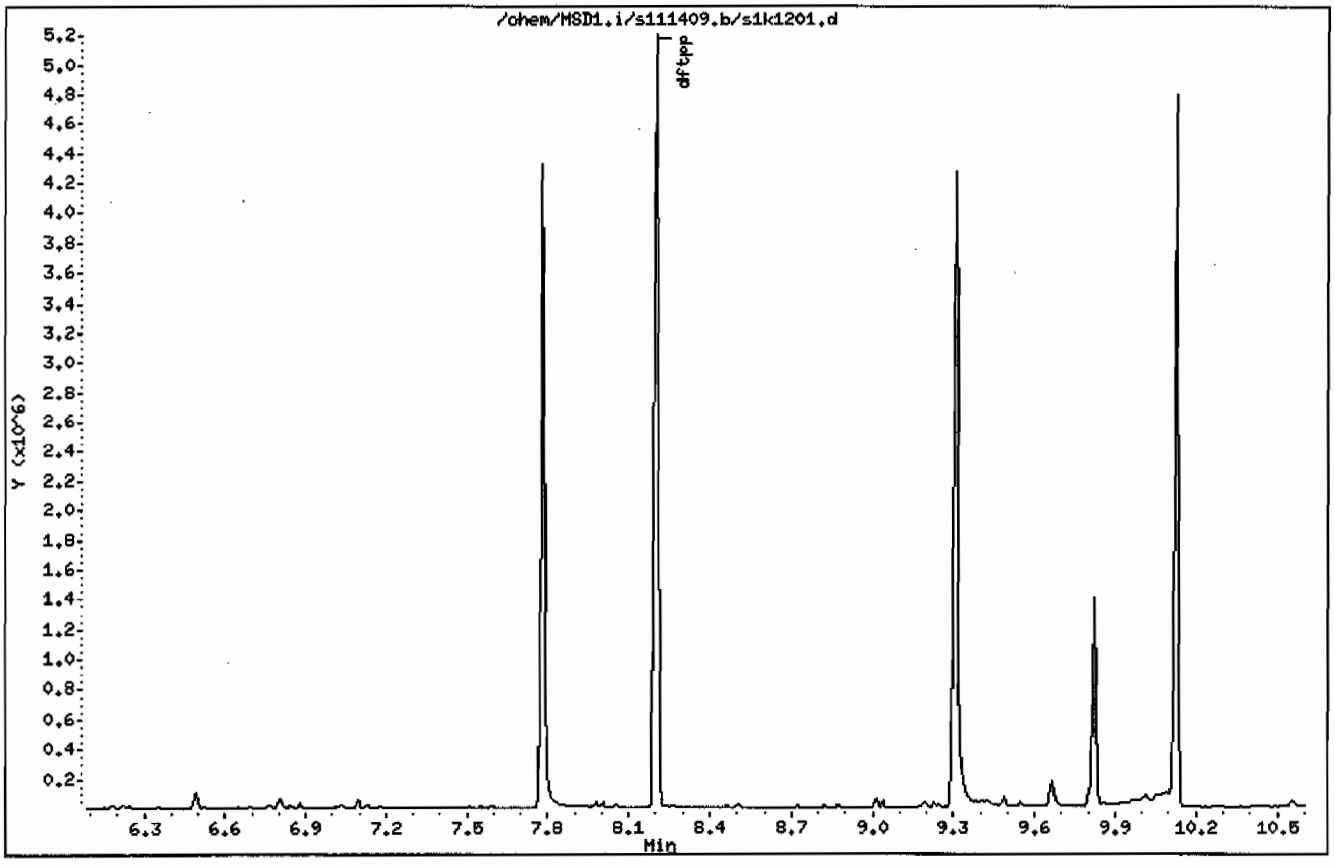

Data File: /chem/MSD1.i/s111409.b/s1k1201.d

Date : 14-NOV-2009 17:38

Client ID: DFTPP

Instrument: MSD1.i

Sample Info: IWBN091101-01|50 PPM|1|SVMF|1|DFTPP

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

1 dftpp

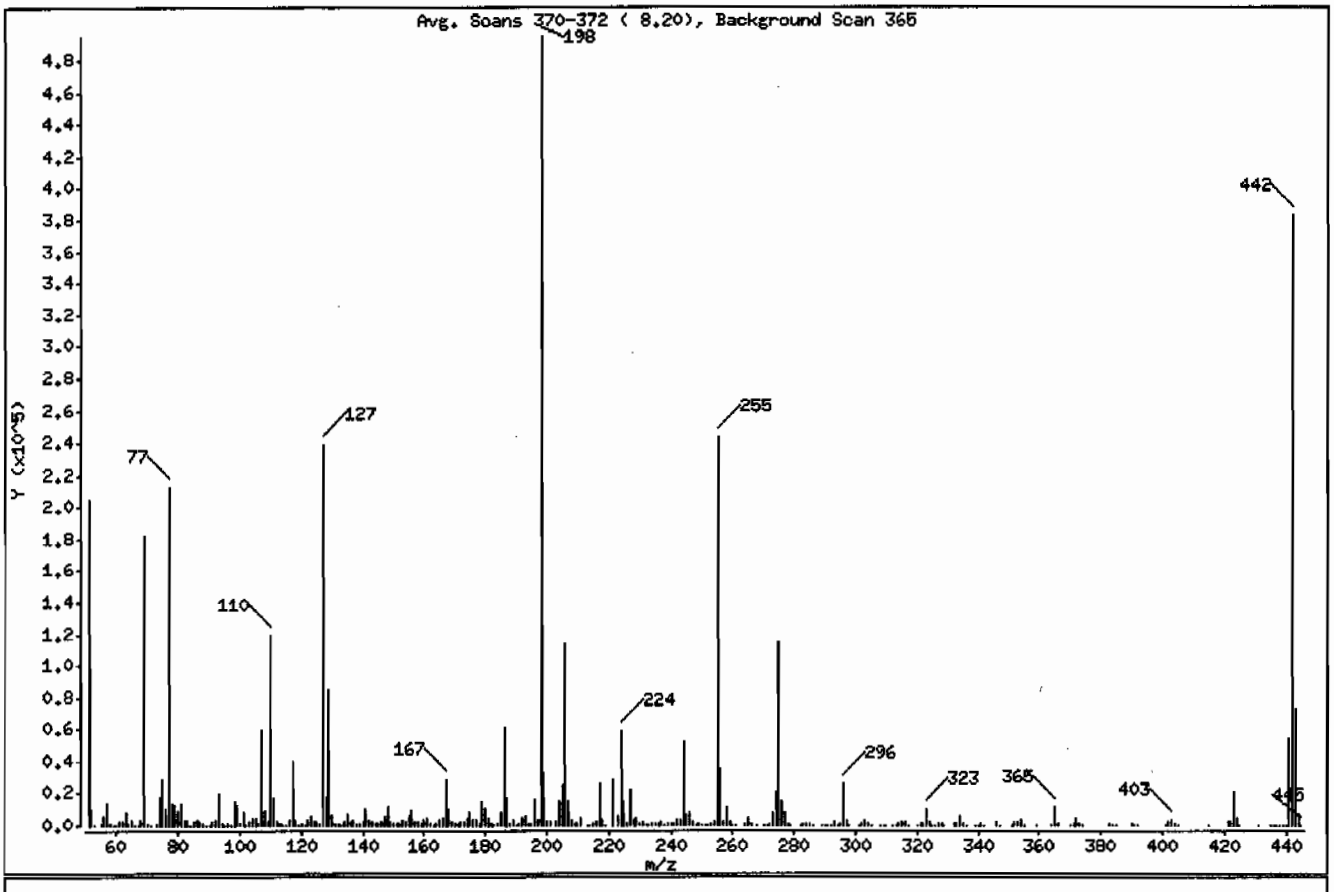

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	41.33
68	Less than 2.00% of mass 69	0.66 (1.81)
69	Mass 69 relative abundance	36.68
70	Less than 2.00% of mass 69	0.20 (0.55)
127	40.00 - 60.00% of mass 198	48.32
197	Less than 1.00% of mass 198	0.69
199	5.00 - 9.00% of mass 198	6.57
275	10.00 - 30.00% of mass 198	23.31
365	Greater than 1.00% of mass 198	2.23
441	Present, but less than mass 443	11.00
442	Greater than 40.00% of mass 198	77.37
443	17.00 - 23.00% of mass 442	14.83 (19.16)

Data File: /chem/MSD1.i/s111409.b/s1k1201.d

Date : 14-NOV-2009 17:38

Client ID: DFTPP

Instrument: MSD1.i

Sample Info: |WBN091101-01|50 PPM|1|SVMF|1|DFTPP

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

Data File: s1k1201.d
Spectrum: Avg. Scans 370-372 (8.20), Background Scan 365
Location of Maximum: 198.00
Number of points: 312

m/z	Y	m/z	Y	m/z	Y	m/z	Y
51.00	204544	132.00	849	213.00	322	304.00	857
52.00	10058	133.00	398	214.00	81	305.00	126
53.00	476	134.00	2213	215.00	1065	308.00	339
55.00	808	135.00	6445	216.00	2209	309.00	249
56.00	5675	136.00	2682	217.00	25976	310.00	361
57.00	13163	137.00	3409	218.00	3600	312.00	52
58.00	676	138.00	864	219.00	390	313.00	288
59.00	142	139.00	1285	221.00	28416	314.00	1372
60.00	58	140.00	1711	223.00	5970	315.00	2833
61.00	2414	141.00	10495	224.00	59288	316.00	1731
62.00	2627	142.00	3783	225.00	15318	317.00	279
63.00	7561	143.00	2378	226.00	1533	320.00	54
64.00	1048	144.00	706	227.00	21184	321.00	903
65.00	3902	145.00	666	228.00	3165	322.00	596
66.00	253	146.00	1908	229.00	4804	323.00	9908
67.00	264	147.00	5356	230.00	769	324.00	1942
68.00	3280	148.00	10849	231.00	2133	325.00	119
69.00	181568	149.00	2326	232.00	408	326.00	93
70.00	999	150.00	640	233.00	450	327.00	1701
71.00	119	151.00	1554	234.00	1483	328.00	891
73.00	1219	152.00	808	235.00	1658	329.00	88
74.00	17536	153.00	3187	236.00	1183	332.00	578
75.00	28056	154.00	2701	237.00	1728	333.00	855
76.00	9746	155.00	5991	238.00	324	334.00	5817
77.00	212736	156.00	9066	239.00	813	335.00	1475
78.00	13840	157.00	1942	240.00	775	336.00	75
79.00	12099	158.00	1971	241.00	1214	339.00	62
80.00	9416	159.00	1574	242.00	3186	340.00	77
81.00	13432	160.00	3233	243.00	3508	341.00	1027
82.00	3448	161.00	4832	244.00	51832	342.00	243
83.00	3440	162.00	1519	245.00	6691	346.00	2015
84.00	276	163.00	414	246.00	8221	347.00	283
85.00	2469	164.00	763	247.00	1725	351.00	182
86.00	3499	165.00	3823	248.00	403	352.00	2745
87.00	1914	166.00	4542	249.00	1698	353.00	2043

Data File: /chem/MSD1.i/s111409.b/s1k1201.d

Date : 14-NOV-2009 17:38

Client ID: DFTPP

Instrument: MSD1.i

Sample Info: |WBN091101-01|50 PPM|1|SVMF|1|DFTPP

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

Data File: s1k1201.d
Spectrum: Avg. Scans 370-372 (8.20), Background Scan 365
Location of Maximum: 198.00
Number of points: 312

m/z	Y	m/z	Y	m/z	Y	m/z	Y
88.00	945	167.00	28056	250.00	338	354.00	3347
89.00	408	168.00	9882	251.00	378	355.00	568
90.00	81	169.00	1949	252.00	461	359.00	68
91.00	2811	170.00	666	253.00	965	364.00	82
92.00	3305	171.00	868	254.00	2194	365.00	11049
93.00	19392	172.00	1736	255.00	243712	366.00	1525
94.00	1530	173.00	2151	256.00	34792	370.00	312
95.00	401	174.00	4365	257.00	2654	371.00	749
96.00	1021	175.00	8331	258.00	11699	372.00	5103
97.00	481	176.00	2950	259.00	1976	373.00	1317
98.00	14829	177.00	3734	260.00	354	374.00	211
99.00	12143	178.00	1429	261.00	488	383.00	1475
100.00	1081	179.00	14903	264.00	588	384.00	413
101.00	7582	180.00	10676	265.00	4651	385.00	112
102.00	501	181.00	5074	266.00	630	390.00	664
103.00	2806	182.00	848	268.00	97	391.00	481
104.00	4764	183.00	484	270.00	316	392.00	349
105.00	4470	184.00	1118	271.00	565	401.00	323
106.00	1531	185.00	7578	272.00	574	402.00	2059
107.00	58720	186.00	61632	273.00	7763	403.00	3027
108.00	9198	187.00	16824	274.00	20360	404.00	981
109.00	1983	188.00	1678	275.00	115400	405.00	157
110.00	119360	189.00	3368	276.00	14998	415.00	61
111.00	17336	190.00	542	277.00	8371	421.00	2728
112.00	2224	191.00	1652	278.00	1328	422.00	2498
113.00	793	192.00	4637	279.00	337	423.00	19928
114.00	277	193.00	5425	282.00	172	424.00	3991
115.00	405	194.00	1196	283.00	908	425.00	403
116.00	3276	195.00	960	284.00	671	431.00	50
117.00	39312	196.00	15938	285.00	1513	435.00	182
118.00	2868	197.00	3428	286.00	245	436.00	64
119.00	376	198.00	494976	289.00	275	437.00	123
120.00	724	199.00	32528	290.00	365	438.00	300
121.00	279	200.00	2387	291.00	237	439.00	370
122.00	3763	201.00	2747	292.00	481	440.00	354

Date : 14-NOV-2009 17:38

Client ID: DFTPP Instrument: MSD1.i

Sample Info: |WBN091101-01|50 PPM|1|SVMF|1|DFTPP

Operator: AMY

Column phase: J&W DB-5MS Column diameter: 0.20

Data File: s1k1201.d
Spectrum: Avg. Scans 370-372 (8.20), Background Scan 365
Location of Maximum: 198.00
Number of points: 312

m/z	Y	m/z	Y	m/z	Y	m/z	Y
123.00	6008	203.00	2693	293.00	2054	441.00	54440
124.00	2602	204.00	14604	294.00	532	442.00	382976
125.00	2647	205.00	25208	295.00	657	443.00	73384
126.00	904	206.00	113680	296.00	26240	444.00	6543
127.00	239168	207.00	14454	297.00	3789	445.00	363
128.00	17576	208.00	3160	298.00	253		
129.00	85072	209.00	1021	301.00	417		
130.00	7156	210.00	801	302.00	580		
131.00	1445	211.00	4362	303.00	3041		

Data File: /chem/MSD1.i/s111409.b/s1k1269.d

Date : 17-NOV-2009 15:48

Client ID: DFTPP

Instrument: MSD1.i

Sample Info: IWBN091101-01|50 PPM|1|SVMF|1|DFTPP

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

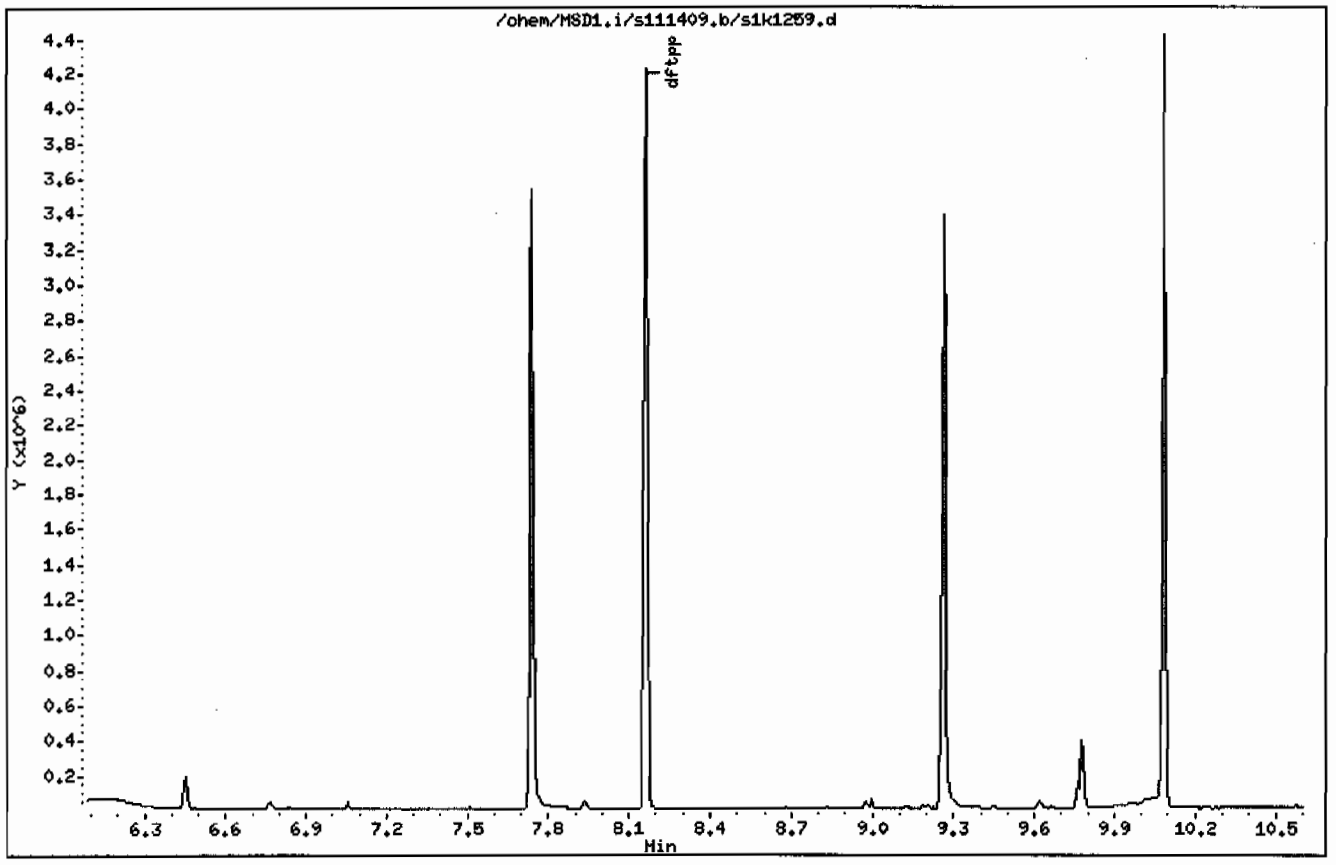

Data File: /chem/MSD1.i/s111409.b/s1k1259.d

Date : 17-NOV-2009 15:48

Client ID: DFTPP

Instrument: MSD1.i

Sample Info: IWBN091101-01|50 PPM|1|SVMF|1|DFTPP

Operator: AHY

Column phase: J&W DB-5MS

Column diameter: 0.20

1 dftpp

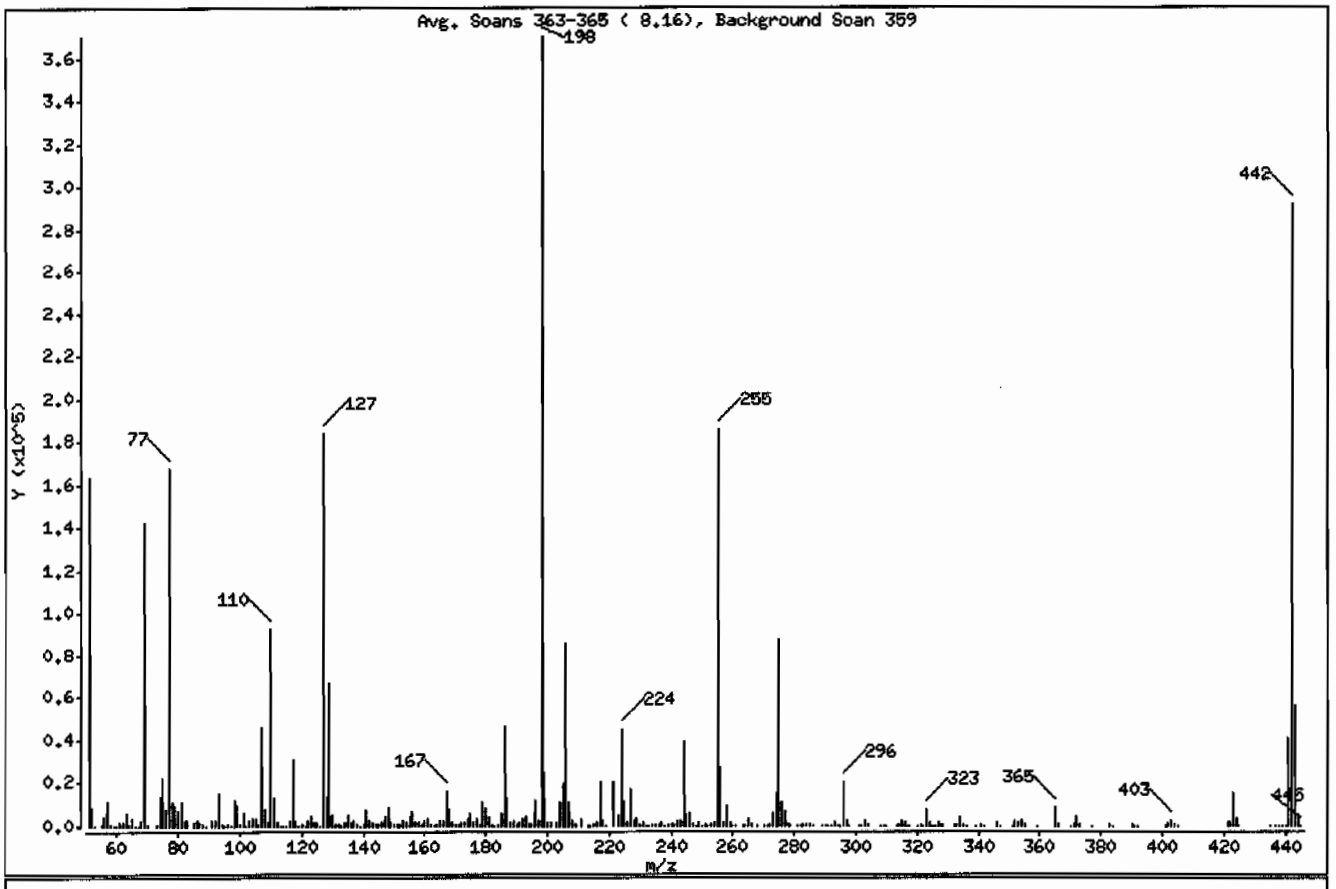

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	44.19
68	Less than 2.00% of mass 69	0.70 (1.82)
69	Mass 69 relative abundance	38.52
70	Less than 2.00% of mass 69	0.22 (0.58)
127	40.00 - 60.00% of mass 198	49.61
197	Less than 1.00% of mass 198	0.73
199	5.00 - 9.00% of mass 198	6.68
275	10.00 - 30.00% of mass 198	23.76
365	Greater than 1.00% of mass 198	2.39
441	Present, but less than mass 443	10.94
442	Greater than 40.00% of mass 198	78.91
443	17.00 - 23.00% of mass 442	15.11 (19.15)

Data File: /chem/MSD1.i/s111409.b/s1k1259.d

Date : 17-NOV-2009 15:48

Client ID: DFTPP

Instrument: MSD1.i

Sample Info: |WBN091101-01|50 PPM|1|SVMF|1|DFTPP

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

Data File: s1k1259.d
Spectrum: Avg. Scans 363-365 (8.16), Background Scan 359
Location of Maximum: 198.00
Number of points: 301

m/z	Y	m/z	Y	m/z	Y	m/z	Y
51.00	163520	132.00	696	209.00	894	295.00	409
52.00	8218	133.00	165	211.00	3176	296.00	20504
53.00	278	134.00	1736	213.00	157	297.00	2961
55.00	768	135.00	5284	214.00	60	298.00	242
56.00	4517	136.00	1990	215.00	896	301.00	228
57.00	10646	137.00	2882	216.00	1633	302.00	377
58.00	485	138.00	608	217.00	20280	303.00	2440
59.00	173	139.00	322	218.00	2791	304.00	779
60.00	130	140.00	728	219.00	287	308.00	333
61.00	1880	141.00	8017	221.00	20640	309.00	180
62.00	1926	142.00	2864	223.00	4752	310.00	288
63.00	5930	143.00	1765	224.00	45496	313.00	172
64.00	771	144.00	446	225.00	11459	314.00	1000
65.00	3009	145.00	462	226.00	1320	315.00	2189
66.00	190	146.00	1638	227.00	16640	316.00	1304
67.00	147	147.00	4131	228.00	2433	317.00	255
68.00	2590	148.00	8419	229.00	3596	320.00	58
69.00	142592	149.00	1752	230.00	541	321.00	701
70.00	823	150.00	512	231.00	1631	322.00	395
73.00	1236	151.00	1272	232.00	323	323.00	7827
74.00	13875	152.00	886	233.00	236	324.00	1465
75.00	21824	153.00	2474	234.00	1059	325.00	55
76.00	7905	154.00	2034	235.00	1215	326.00	117
77.00	167296	155.00	4599	236.00	846	327.00	1319
78.00	11034	156.00	6876	237.00	1279	328.00	683
79.00	9492	157.00	1450	238.00	168	332.00	545
80.00	7131	158.00	1509	239.00	670	333.00	652
81.00	10804	159.00	1113	240.00	518	334.00	4627
82.00	2610	160.00	2655	241.00	1019	335.00	1148
83.00	2719	161.00	3658	242.00	2369	336.00	50
85.00	1896	162.00	1109	243.00	2744	339.00	57
86.00	2616	163.00	339	244.00	39256	341.00	855
87.00	1519	164.00	493	245.00	4982	342.00	192
88.00	684	165.00	2904	246.00	6349	346.00	1554
89.00	219	166.00	2427	247.00	1255	347.00	356

Data File: /chem/MSD1.i/s111409.b/s1k1259.d

Date : 17-NOV-2009 15:48

Client ID: DFTPP

Instrument: MSD1.i

Sample Info: |WBN091101-01|50 PPM|1|SVMF|1|DFTPP

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

Data File: s1k1259.d
Spectrum: Avg. Scans 363-365 (8.16), Background Scan 359
Location of Maximum: 198.00
Number of points: 301

m/z	Y	m/z	Y	m/z	Y	m/z	Y
91.00	2379	167.00	16175	248.00	341	351.00	56
92.00	2447	168.00	7387	249.00	1305	352.00	2339
93.00	14969	169.00	1311	250.00	210	353.00	1624
94.00	1153	170.00	539	251.00	450	354.00	2500
95.00	287	171.00	706	252.00	278	355.00	434
96.00	810	172.00	1473	253.00	769	359.00	83
97.00	388	173.00	1748	254.00	1972	365.00	8863
98.00	11810	174.00	3414	255.00	185216	366.00	1195
99.00	9686	175.00	6350	256.00	27176	370.00	215
100.00	914	176.00	2063	257.00	2039	371.00	581
101.00	5933	177.00	3047	258.00	9022	372.00	4002
102.00	375	178.00	995	259.00	1444	373.00	996
103.00	2163	179.00	11274	260.00	214	377.00	51
104.00	3736	180.00	8159	261.00	279	383.00	974
105.00	3394	181.00	4009	263.00	55	384.00	323
106.00	1190	182.00	670	264.00	157	390.00	592
107.00	46232	183.00	413	265.00	3712	391.00	375
108.00	7538	184.00	909	266.00	481	392.00	323
109.00	1503	185.00	5852	268.00	53	401.00	231
110.00	92872	186.00	47008	270.00	282	402.00	1478
111.00	12963	187.00	12615	271.00	380	403.00	2390
112.00	1503	188.00	1316	272.00	540	404.00	821
113.00	406	189.00	2602	273.00	5676	405.00	134
114.00	121	190.00	427	274.00	15599	421.00	2054
115.00	133	191.00	1281	275.00	87936	422.00	1867
116.00	2637	192.00	3712	276.00	11240	423.00	15373
117.00	30336	193.00	4225	277.00	6439	424.00	3047
118.00	2397	194.00	901	278.00	950	425.00	291
119.00	332	195.00	603	279.00	182	435.00	71
120.00	620	196.00	12028	281.00	60	437.00	71
121.00	175	197.00	2717	282.00	68	438.00	134
122.00	2801	198.00	370176	283.00	713	439.00	238
123.00	4622	199.00	24728	284.00	493	440.00	191
124.00	2083	200.00	1826	285.00	1250	441.00	40480
125.00	1949	201.00	2072	286.00	254	442.00	292096

Data File: /chem/HSD1.i/s111409.b/s1k1259.d

Date : 17-NOV-2009 15:48

Client ID: DFTPP

Instrument: HSD1.i

Sample Info: IWBN091101-01|50 PPM|1|SVMF|1|DFTPP

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

Data File: s1k1259.d

Spectrum: Avg. Scans 363-365 (8.16), Background Scan 359

Location of Maximum: 198.00

Number of points: 301

m/z	Y	m/z	Y	m/z	Y	m/z	Y
126.00	135	203.00	2082	289.00	243	443.00	55944
127.00	183616	204.00	10956	290.00	235	444.00	5034
128.00	13544	205.00	19552	291.00	131	445.00	311
129.00	66872	206.00	85904	292.00	339		
130.00	5516	207.00	10725	293.00	1482		
131.00	1048	208.00	2576	294.00	389		

Data File: /chem/MSD1.i/s123109.b/s113105.d

Date : 31-DEC-2009 11:46

Client ID: DFTPP

Instrument: MSD1.i

Sample Info: IWBN091213-01|50 PPM|1|SVMF|1|DFTPP

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

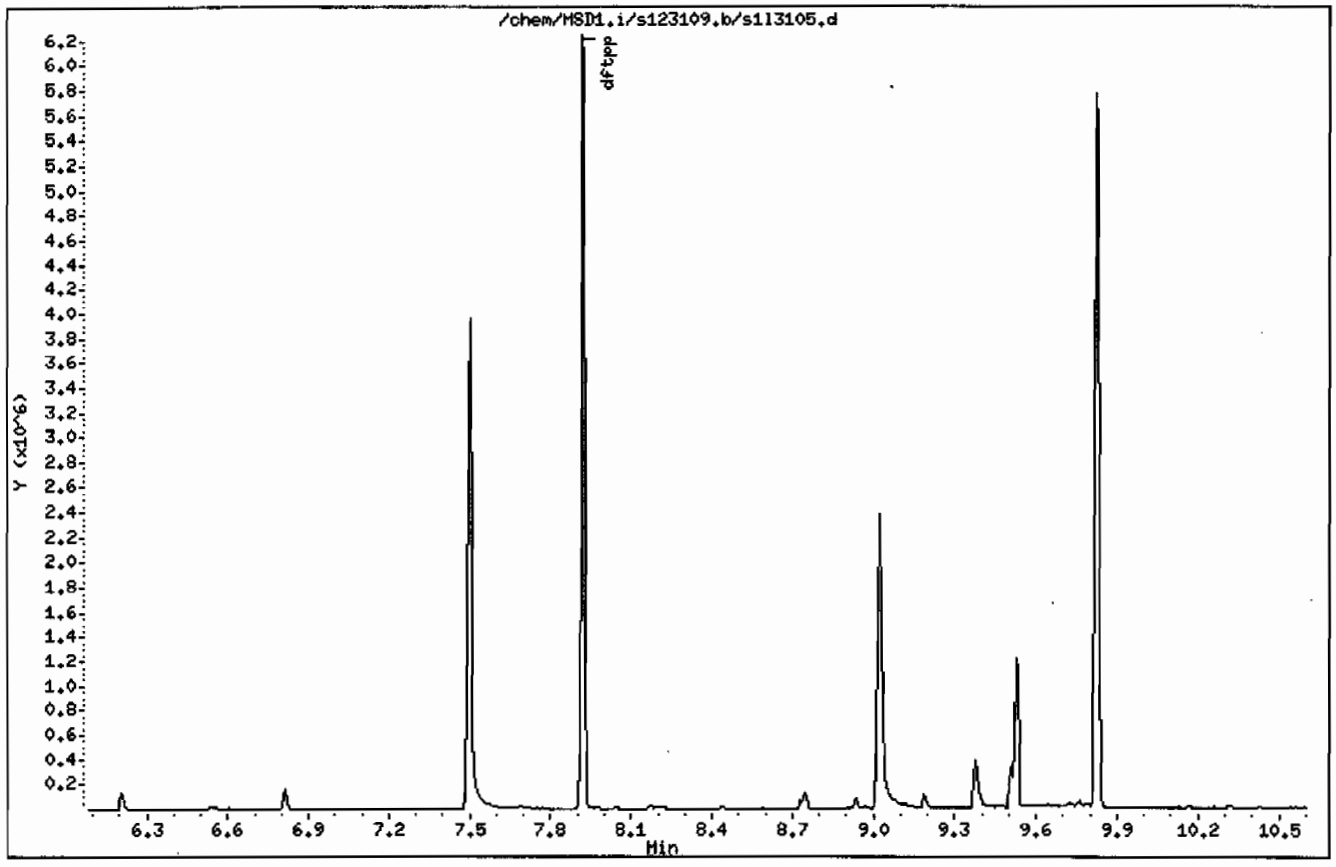

Data File: /chem/MSD1.i/s123109.b/s113105.d

Date : 31-DEC-2009 11:46

Client ID: DFTPP

Instrument: MSD1.i

Sample Info: |WBN091213-01|50 PPM|1|SVMF|1|DFTPP

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

1 dftpp

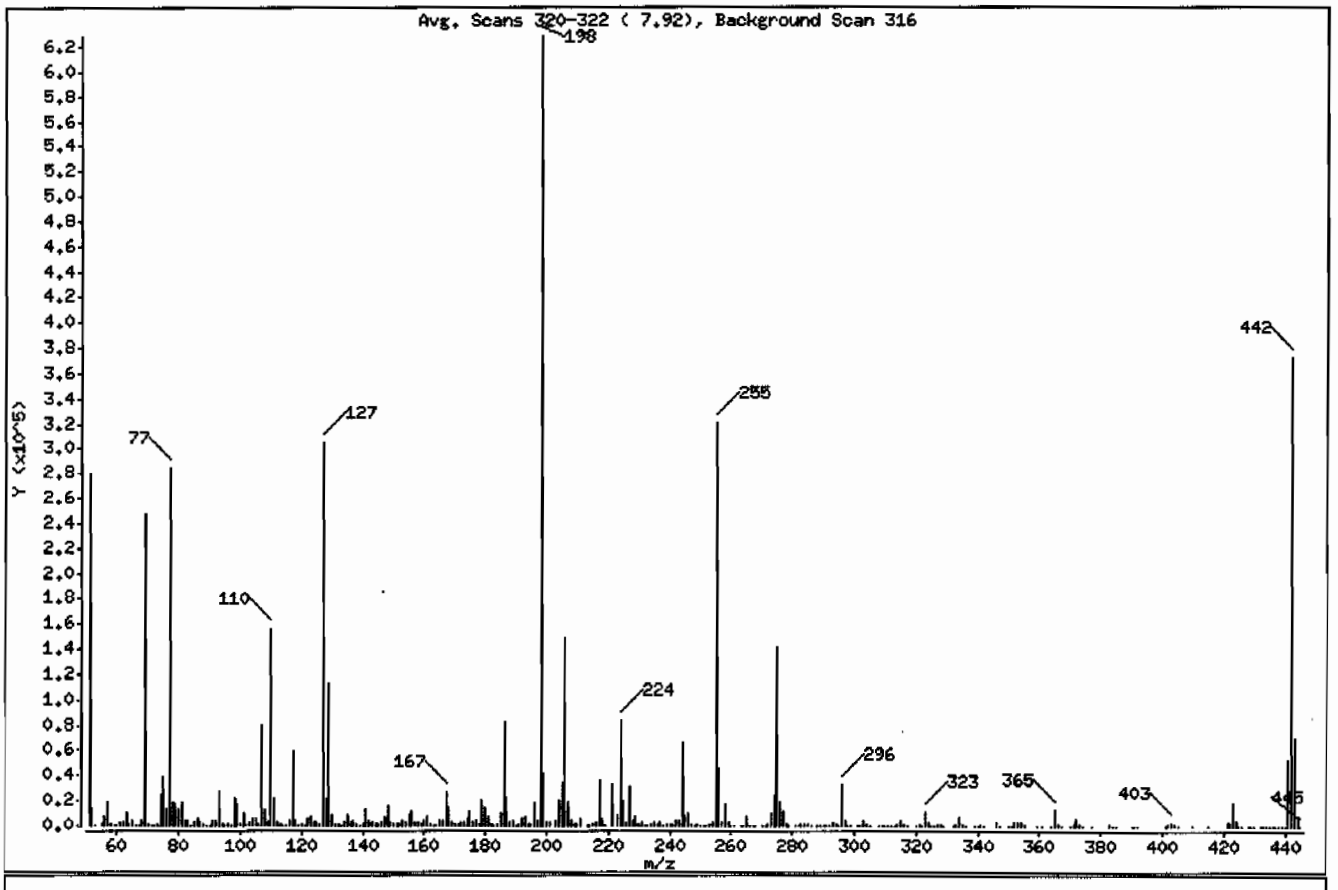

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	44.62
68	Less than 2.00% of mass 69	0.66 (1.69)
69	Mass 69 relative abundance	39.29
70	Less than 2.00% of mass 69	0.19 (0.49)
127	40.00 - 60.00% of mass 198	48.52
197	Less than 1.00% of mass 198	0.76
199	5.00 - 9.00% of mass 198	6.69
275	10.00 - 30.00% of mass 198	22.48
365	Greater than 1.00% of mass 198	2.16
441	Present, but less than mass 443	8.51
442	Greater than 40.00% of mass 198	59.28
443	17.00 - 23.00% of mass 442	11.24 (18.96)

Data File: /chem/MSD1.i/s123109.b/s113105.d

Date : 31-DEC-2009 11:46

Client ID: DFTPP

Instrument: MSD1.i

Sample Info: |WBN091213-01|50 PPM|1|SVHF|1|DFTPP

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

Data File: s113105.d
Spectrum: Avg. Scans 320-322 (7.92), Background Scan 316
Location of Maximum: 198.00
Number of points: 330

m/z	Y	m/z	Y	m/z	Y	m/z	Y
51.00	280576	135.00	8732	221.00	33344	312.00	56
52.00	14184	136.00	3415	223.00	8449	313.00	308
53.00	611	137.00	4566	224.00	83144	314.00	1621
55.00	1553	138.00	1069	225.00	20512	315.00	3674
56.00	7630	139.00	504	226.00	2321	316.00	2001
57.00	18232	140.00	1277	227.00	31920	317.00	334
58.00	908	141.00	13507	228.00	4597	320.00	127
59.00	236	142.00	4768	229.00	6789	321.00	1282
60.00	102	143.00	3196	230.00	958	322.00	608
61.00	3210	144.00	835	231.00	2989	323.00	11743
62.00	3415	145.00	866	232.00	465	324.00	2310
63.00	9960	146.00	2646	233.00	537	325.00	183
64.00	1352	147.00	6544	234.00	2050	326.00	239
65.00	4721	148.00	15480	235.00	2269	327.00	1905
66.00	382	149.00	3104	236.00	1499	328.00	982
67.00	339	150.00	1028	237.00	2688	329.00	229
68.00	4176	151.00	1815	238.00	415	332.00	719
69.00	247104	152.00	1236	239.00	1141	333.00	1102
70.00	1223	153.00	4344	240.00	1064	334.00	7545
71.00	209	154.00	3460	241.00	1736	335.00	2063
72.00	127	155.00	8094	242.00	4351	336.00	189
73.00	1656	156.00	11643	243.00	4646	339.00	132
74.00	24000	157.00	2483	244.00	65832	340.00	169
75.00	39072	158.00	2432	245.00	8702	341.00	1324
76.00	13080	159.00	2024	246.00	10734	342.00	471
77.00	285120	160.00	3930	247.00	2036	346.00	2324
78.00	19312	161.00	6700	248.00	476	347.00	449
79.00	16768	162.00	1743	249.00	2058	350.00	58
80.00	13147	163.00	508	250.00	526	351.00	219
81.00	18536	164.00	666	251.00	452	352.00	3270
82.00	4486	165.00	4714	252.00	649	353.00	2400
83.00	4390	166.00	4415	253.00	1515	354.00	3564
84.00	328	167.00	27624	254.00	2455	355.00	756
85.00	3356	168.00	14013	255.00	320960	359.00	226
86.00	5197	169.00	2592	256.00	46672	361.00	67

Data File: /chem/HSD1.i/s123109.b/s113105.d

Date : 31-DEC-2009 11:46

Client ID: DFTPP

Instrument: HSD1.i

Sample Info: |WBN091213-01|50 PPM|1|SVMF|1|DFTPP

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

Data File: s113105.d

Spectrum: Avg. Scans 320-322 (7.92), Background Scan 316

Location of Maximum: 198.00

Number of points: 330

m/z	Y	m/z	Y	m/z	Y	m/z	Y
87.00	2611	170.00	887	257.00	3396	364.00	60
88.00	1105	171.00	1137	258.00	17072	365.00	13595
89.00	503	172.00	2350	259.00	2746	366.00	2053
90.00	128	173.00	3215	260.00	632	367.00	85
91.00	4005	174.00	5844	261.00	612	370.00	249
92.00	4295	175.00	11398	263.00	103	371.00	832
93.00	27824	176.00	3611	264.00	551	372.00	5327
94.00	1963	177.00	4582	265.00	6875	373.00	1410
95.00	536	178.00	1487	266.00	689	374.00	87
96.00	1280	179.00	20216	267.00	122	377.00	153
97.00	293	180.00	14775	268.00	159	383.00	1464
98.00	21088	181.00	6968	270.00	407	384.00	431
99.00	17832	182.00	1065	271.00	571	385.00	68
100.00	1706	183.00	712	272.00	966	390.00	604
101.00	10550	184.00	1611	273.00	9571	391.00	492
102.00	646	185.00	9869	274.00	24664	392.00	358
103.00	3123	186.00	82016	275.00	141376	401.00	318
104.00	6122	187.00	22568	276.00	18840	402.00	2139
105.00	5813	188.00	2328	277.00	11294	403.00	2981
106.00	1921	189.00	4718	278.00	2006	404.00	1190
107.00	80128	190.00	722	279.00	426	405.00	167
108.00	13036	191.00	2151	281.00	74	410.00	57
109.00	2460	192.00	6301	282.00	313	415.00	85
110.00	155712	193.00	7160	283.00	1401	421.00	2604
111.00	22088	194.00	1612	284.00	786	422.00	2695
112.00	2868	195.00	1114	285.00	1846	423.00	19040
113.00	955	196.00	19200	286.00	384	424.00	4044
114.00	181	197.00	4802	288.00	119	425.00	441
115.00	355	198.00	628864	289.00	321	426.00	63
116.00	4038	199.00	42048	290.00	488	428.00	66
117.00	59400	200.00	3302	291.00	283	429.00	63
118.00	4209	201.00	2972	292.00	462	430.00	54
119.00	517	203.00	4163	293.00	2229	432.00	103
120.00	948	204.00	20600	294.00	739	433.00	131
121.00	342	205.00	34696	295.00	706	434.00	74

Data File: /chem/MSD1.i/s123109.b/s113105.d

Date : 31-DEC-2009 11:46

Client ID: DFTPP

Instrument: MSD1.i

Sample Info: |WBN091213-01|50 PPM|1|SVMF|1|DFTPP

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

Data File: s113105.d

Spectrum: Avg. Scans 320-322 (7.92), Background Scan 316

Location of Maximum: 198.00

Number of points: 330

m/z	Y	m/z	Y	m/z	Y	m/z	Y
122.00	5521	206.00	149568	296.00	33960	435.00	58
123.00	7774	207.00	19200	297.00	4942	436.00	148
124.00	3475	208.00	4633	298.00	261	437.00	63
125.00	3499	209.00	1545	299.00	50	438.00	87
126.00	1643	210.00	1162	301.00	385	439.00	238
127.00	305152	211.00	5565	302.00	638	440.00	280
128.00	22160	213.00	407	303.00	4351	441.00	53536
129.00	112264	214.00	154	304.00	1008	442.00	372800
130.00	8899	215.00	1512	305.00	149	443.00	70696
131.00	2013	216.00	2832	308.00	416	444.00	7044
132.00	894	217.00	36456	309.00	256	445.00	361
133.00	447	218.00	5071	310.00	471		
134.00	3010	219.00	522	311.00	67		

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1085-1**			**Matrix:**	**TCLP SOIL**
Lab Sample ID:	**1202004963**				
Client Sample:	**QC for batch 936980**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**TB for batch 936980**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**937667**	**Inst:**	**MSD1.I**	**Dilution:**	**1**
Run Date:	**12/31/2009 16:03**	**Analyst:**	**AMY**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/30/2009 19:30**	**Aliquot:**	**200 mL**	**Final Volume:**	**1 mL**
Data File:	**s1l3111-1.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
106-46-7	1,4-Dichlorobenzene	U	0.050	mg/L	0.010	0.050
121-14-2	2,4-Dinitrotoluene	U	0.050	mg/L	0.010	0.050
87-86-5	Pentachlorophenol	U	0.050	mg/L	0.010	0.050
110-86-1	Pyridine	U	0.050	mg/L	0.015	0.050
95-48-7	o-Cresol	U	0.050	mg/L	0.010	0.050
65794-96-9	m,p-Cresols	U	0.050	mg/L	0.015	0.050
67-72-1	Hexachloroethane	U	0.050	mg/L	0.010	0.050
98-95-3	Nitrobenzene	U	0.050	mg/L	0.015	0.050
87-68-3	Hexachlorobutadiene	U	0.050	mg/L	0.010	0.050
88-06-2	2,4,6-Trichlorophenol	U	0.050	mg/L	0.010	0.050
95-95-4	2,4,5-Trichlorophenol	U	0.050	mg/L	0.010	0.050
118-74-1	Hexachlorobenzene	U	0.050	mg/L	0.010	0.050

GEL Laboratories LLC

Data file : /chem/MSD1.i/s123109.b/s113111-1.d
Lab Smp Id: 1202004963 Client Smp ID: TBLK01
Inj Date : 31-DEC-2009 16:03
Operator : AMY Inst ID: MSD1.i
Smp Info : |1202004963|937667|1|SVM|1|TBLK01
Misc Info : |MSD8TCLP_L|WBN091223-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD1.i/s123109.b/MSD1-M8270AQA-111409.m
Meth Date : 01-Jan-2010 15:26 amy01291 Quant Type: ISTD
Cal Date : 17-NOV-2009 17:42 Cal File: s1k1264.d
Als bottle: 7 QC Sample: TB
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-1085-1.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vo *Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	0.50000	ng unit correction factor
Vt	1.00000	volume of final ext
Vo	200.00000	volume of sample ext
Vi	0.50000	volume injected

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (mg/L)
* 10 1,4-Dichlorobenzene-d4	152	3.740	3.740	(1.000)	630843	40.0000	
* 29 Naphthalene-d8	136	4.599	4.604	(1.000)	2390532	40.0000	
* 46 Acenaphthene-d10	164	5.846	5.845	(1.000)	1329520	40.0000	
* 67 Phenanthrene-d10	188	6.834	6.839	(1.000)	2187986	40.0000	
* 91 Chrysene-d12	240	8.451	8.457	(1.000)	1841282	40.0000	
* 98 Perylene-d12	264	9.781	9.786	(1.000)	1536594	40.0000	
$ 3 2-Fluorophenol	112	2.946	2.945	(0.788)	776487	47.1244	0.24
$ 5 Phenol-d5	99	3.475	3.475	(0.929)	567765	28.3504	0.14
$ 20 Nitrobenzene-d5	82	4.104	4.104	(0.893)	683551	43.3895	0.22
$ 39 2-Fluorobiphenyl	172	5.340	5.339	(0.913)	1361314	42.7522	0.21
$ 60 2,4,6-Tribromophenol	329	6.387	6.386	(1.093)	366323	98.6730	0.49
$ 81 p-Terphenyl-d14	244	7.751	7.751	(0.917)	1443668	49.9499	0.25

Data File: /chem/MSD1.i/s123109.b/s113111-1.d
Date : 31-DEC-2009 16:03
Client ID: TBLK01
Sample Info: |1202004963|937667|1|SVMI1|TBLK01
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD1.i

Operator: AMY
Column diameter: 0.20

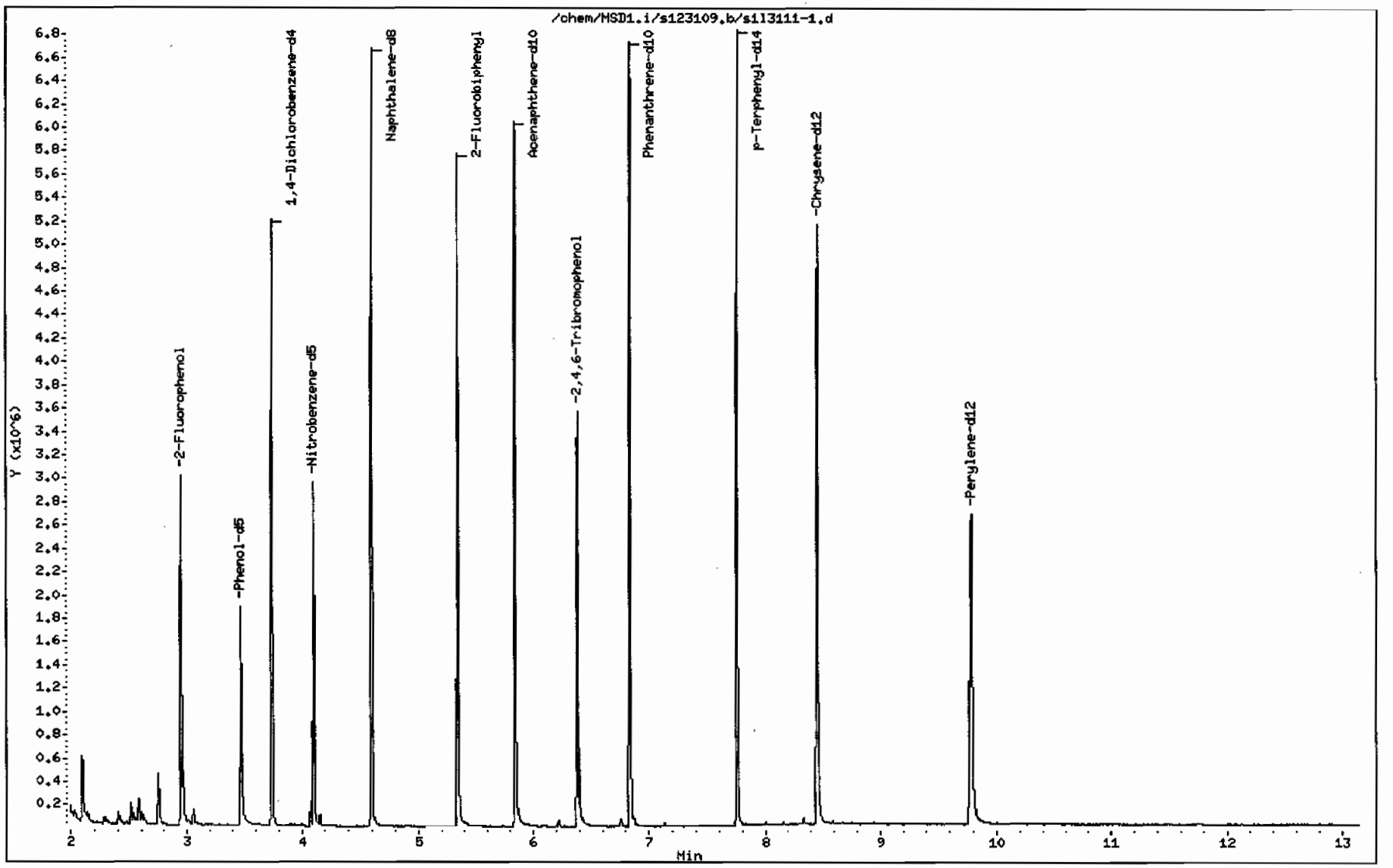

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1085-1**			**Matrix:**	**TCLP SOIL**
Lab Sample ID:	**1202006522**				
Client Sample:	**QC for batch 937666**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 937666**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**937667**	**Inst:**	**MSD1.I**	**Dilution:**	**1**
Run Date:	**12/31/2009 16:27**	**Analyst:**	**AMY**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/30/2009 19:30**	**Aliquot:**	**1000 mL**	**Final Volume:**	**1 mL**
Data File:	**s1l3112-1.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
106-46-7	1,4-Dichlorobenzene	U	0.010	mg/L	0.002	0.010
121-14-2	2,4-Dinitrotoluene	U	0.010	mg/L	0.002	0.010
87-86-5	Pentachlorophenol	U	0.010	mg/L	0.002	0.010
110-86-1	Pyridine	U	0.010	mg/L	0.003	0.010
95-48-7	o-Cresol	U	0.010	mg/L	0.002	0.010
65794-96-9	m,p-Cresols	U	0.010	mg/L	0.003	0.010
67-72-1	Hexachloroethane	U	0.010	mg/L	0.002	0.010
98-95-3	Nitrobenzene	U	0.010	mg/L	0.003	0.010
87-68-3	Hexachlorobutadiene	U	0.010	mg/L	0.002	0.010
88-06-2	2,4,6-Trichlorophenol	U	0.010	mg/L	0.002	0.010
95-95-4	2,4,5-Trichlorophenol	U	0.010	mg/L	0.002	0.010
118-74-1	Hexachlorobenzene	U	0.010	mg/L	0.002	0.010

GEL Laboratories LLC

Data file : /chem/MSD1.i/s123109.b/s113112-1.d
Lab Smp Id: 1202006522 Client Smp ID: SBLK01
Inj Date : 31-DEC-2009 16:27
Operator : AMY Inst ID: MSD1.i
Smp Info : |1202006522|937667|1|SVM|1|SBLK01
Misc Info : |MSD8TCLP_L|WBN091223-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD1.i/s123109.b/MSD1-M8270AQA-111409.m
Meth Date : 01-Jan-2010 15:26 amy01291 Quant Type: ISTD
Cal Date : 17-NOV-2009 17:42 Cal File: s1k1264.d
Als bottle: 8 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-1085-1.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vo *Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	0.50000	ng unit correction factor
Vt	1.00000	volume of final ext
Vo	1000.00000	volume of sample ext
Vi	0.50000	volume injected

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (mg/L)
* 10 1,4-Dichlorobenzene-d4	152	3.740	3.740	(1.000)	614021	40.0000	
* 29 Naphthalene-d8	136	4.598	4.604	(1.000)	2337753	40.0000	
* 46 Acenaphthene-d10	164	5.845	5.845	(1.000)	1247681	40.0000	
* 67 Phenanthrene-d10	188	6.839	6.839	(1.000)	2125385	40.0000	
* 91 Chrysene-d12	240	8.451	8.457	(1.000)	1756323	40.0000	
* 98 Perylene-d12	264	9.780	9.786	(1.000)	1428587	40.0000	
$ 3 2-Fluorophenol	112	2.945	2.945	(0.788)	759327	47.3455	0.047
$ 5 Phenol-d5	99	3.475	3.475	(0.929)	562729	28.8688	0.029
$ 20 Nitrobenzene-d5	82	4.104	4.104	(0.893)	646485	41.9632	0.042
$ 39 2-Fluorobiphenyl	172	5.339	5.339	(0.913)	1233856	41.2911	0.041
$ 60 2,4,6-Tribromophenol	329	6.386	6.386	(1.093)	331276	95.0858	0.095
$ 81 p-Terphenyl-d14	244	7.751	7.751	(0.917)	1321061	47.9188	0.048

Data File: /chem/MSD1.i/s123109.b/s113112-1.d
Date : 31-DEC-2009 16:27
Client ID: SBLK01
Sample Info: |1202006522|937667|1|SVM|1|SBLK01
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD1.i

Operator: AMY
Column diameter: 0.20

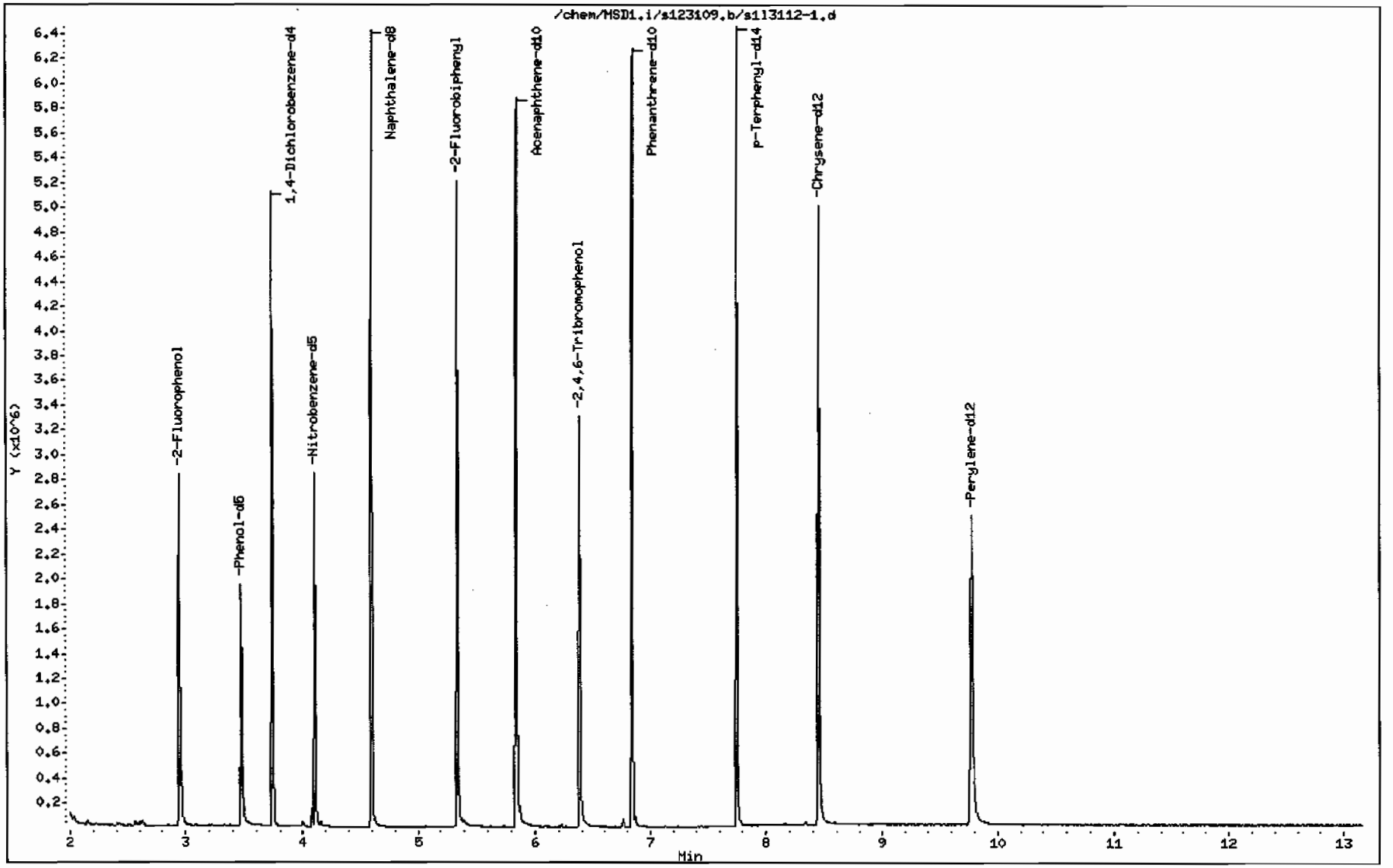

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1085-1**			**Matrix:**	**TCLP SOIL**
Lab Sample ID:	**1202006523**				
Client Sample:	**QC for batch 937666**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 937666**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**937667**	**Inst:**	**MSD1.I**	**Dilution:**	**1**
Run Date:	**12/31/2009 16:51**	**Analyst:**	**AMY**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/30/2009 19:30**	**Aliquot:**	**1000 mL**	**Final Volume:**	**1 mL**
Data File:	**s1l3113-1.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
106-46-7	1,4-Dichlorobenzene		0.0616	mg/L	0.002	0.010
121-14-2	2,4-Dinitrotoluene		0.0613	mg/L	0.002	0.010
87-86-5	Pentachlorophenol		0.0862	mg/L	0.002	0.010
110-86-1	Pyridine		0.0683	mg/L	0.003	0.010
95-48-7	o-Cresol		0.0669	mg/L	0.002	0.010
65794-96-9	m,p-Cresols		0.0617	mg/L	0.003	0.010
67-72-1	Hexachloroethane		0.0567	mg/L	0.002	0.010
98-95-3	Nitrobenzene		0.0786	mg/L	0.003	0.010
87-68-3	Hexachlorobutadiene		0.0725	mg/L	0.002	0.010
88-06-2	2,4,6-Trichlorophenol		0.0831	mg/L	0.002	0.010
95-95-4	2,4,5-Trichlorophenol		0.0902	mg/L	0.002	0.010
118-74-1	Hexachlorobenzene		0.089	mg/L	0.002	0.010

GEL Laboratories LLC

Data file : /chem/MSD1.i/s123109.b/s113113-1.d
Lab Smp Id: 1202006523 Client Smp ID: SBLK01LCS
Inj Date : 31-DEC-2009 16:51
Operator : AMY Inst ID: MSD1.i
Smp Info : |1202006523|937667|1|SVM|1|SBLK01LCS
Misc Info : |MSD8TCLP_L|WBN091223-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD1.i/s123109.b/MSD1-M8270AQA-111409.m
Meth Date : 01-Jan-2010 15:26 amy01291 Quant Type: ISTD
Cal Date : 17-NOV-2009 17:42 Cal File: s1k1264.d
Als bottle: 9 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-1085-1.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vo *Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	0.50000	ng unit correction factor
Vt	1.00000	volume of final ext
Vo	1000.00000	volume of sample ext
Vi	0.50000	volume injected

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (mg/L)
* 10 1,4-Dichlorobenzene-d4	152	3.740	3.740	(1.000)	643747	40.0000	
* 29 Naphthalene-d8	136	4.599	4.604	(1.000)	2480175	40.0000	
* 46 Acenaphthene-d10	164	5.846	5.845	(1.000)	1375774	40.0000	
* 67 Phenanthrene-d10	188	6.840	6.839	(1.000)	2269434	40.0000	
* 91 Chrysene-d12	240	8.451	8.457	(1.000)	1978414	40.0000	
* 98 Perylene-d12	264	9.781	9.786	(1.000)	1708006	40.0000	
$ 3 2-Fluorophenol	112	2.946	2.945	(0.788)	822263	48.9023	0.049
$ 5 Phenol-d5	99	3.475	3.475	(0.929)	644731	31.5483	0.032
$ 20 Nitrobenzene-d5	82	4.104	4.104	(0.893)	687289	42.0500	0.042
$ 39 2-Fluorobiphenyl	172	5.340	5.339	(0.913)	1357163	41.1889	0.041
$ 60 2,4,6-Tribromophenol	329	6.387	6.386	(1.093)	383398	99.8003	0.100
$ 81 p-Terphenyl-d14	244	7.751	7.751	(0.917)	1503745	48.4222	0.048
11 1,4-Dichlorobenzene	146	3.752	3.751	(1.003)	1295884	61.5612	0.062

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (mg/L)
50 2,4-Dinitrotoluene	165	5.963	5.963	(1.020)	759387	61.3419	0.061
65 Pentachlorophenol	266	6.710	6.710	(0.981)	494982	86.2374	0.086
2 Pyridine	79	2.287	2.293	(0.612)	1047244	68.2948	0.068
15 o-Cresol	107	3.869	3.875	(1.035)	911112	66.8793	0.067
18 m,p-Cresols	107	3.969	3.975	(1.061)	1143068	61.6659	0.062
19 Hexachloroethane	117	4.081	4.081	(1.091)	429388	56.6770	0.057
21 Nitrobenzene	77	4.122	4.122	(0.896)	1338526	78.5989	0.078
32 Hexachlorobutadiene	225	4.681	4.681	(1.018)	558891	72.5054	0.072
37 2,4,6-Trichlorophenol	196	5.287	5.286	(0.904)	760699	83.1290	0.083
38 2,4,5-Trichlorophenol	196	5.322	5.322	(0.910)	877787	90.2130	0.090
63 Hexachlorobenzene	284	6.593	6.586	(0.964)	852266	89.0495	0.089

Data File: /chem/MSD1.i/s123109.b/s113113-1.d
Date : 31-DEC-2009 16:51
Client ID: SBLK01LCS
Sample Info: |1202006523193766711|SVMI1|SBLK01LCS
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD1.i

Operator: AMY
Column diameter: 0.20

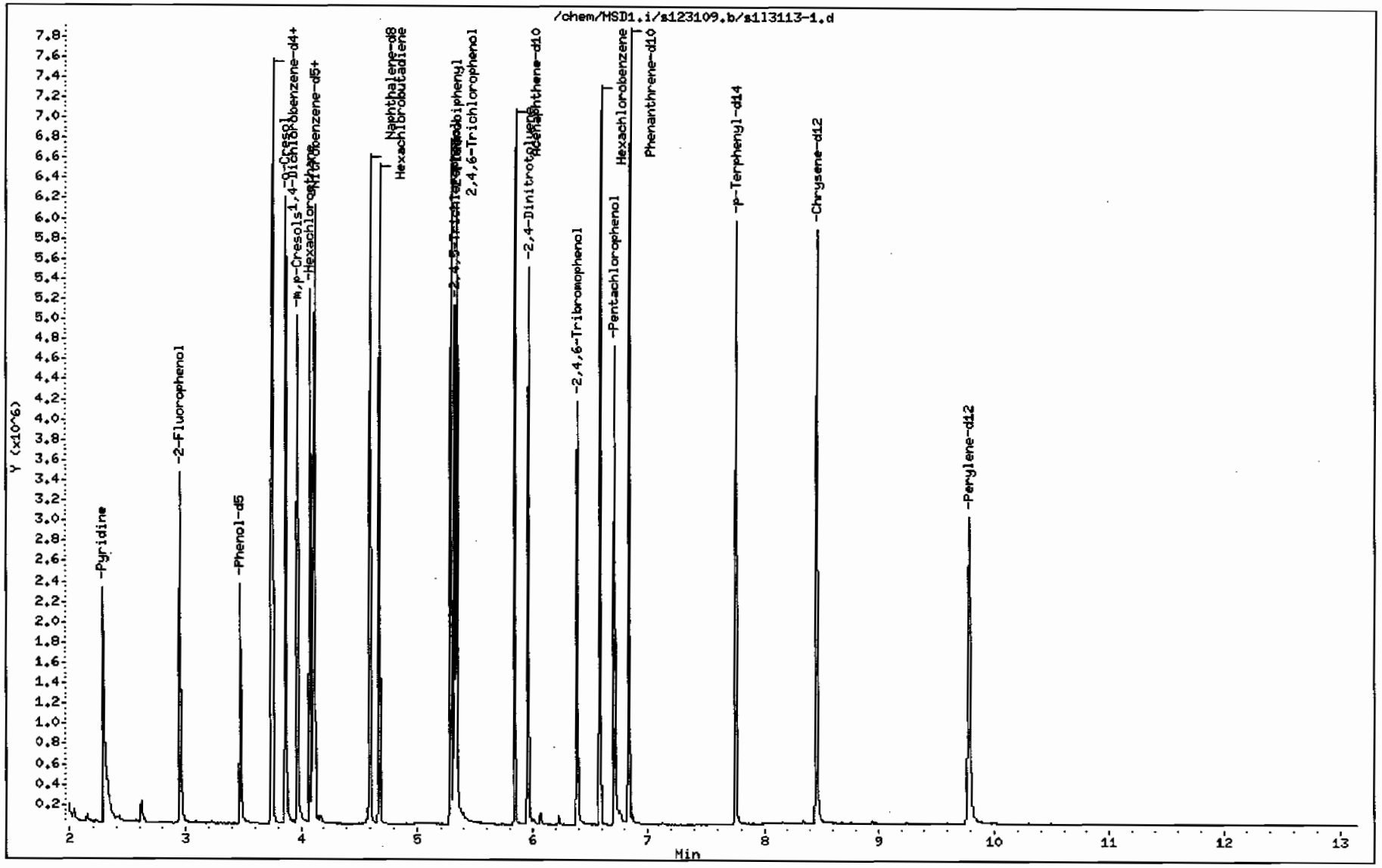

Miscellaneous Data

Prep Logbook

Toxicity Characteristic Leaching Procedure Preparation

Batch ID: 936980 **Verified by:** _____
Analyst: Richard Dollinger
Method: SW846 1311

Lab SOP: GL-LB-E-006 REV# 13
Instrument: TCLP Tumbler #105

Sample ID Analysis Start Date	1202004963 TB 28-DEC-2009 16:00:21	243421001 28-DEC-2009 16:00:21	243551001 28-DEC-2009 16:00:21	243553001 28-DEC-2009 16:00:21
100% Solid Y/N		y	y	y
(I) Sub Sample Aliquot I=G-H (g)		100	100	100
Initial pH (su)	4.95	7.08	5.03	8.76
pH Temperature (celsius)		50	50	50
Filtrate pH (su)	5	5	5	5
Final pH (su)	4.95	1.85	1.98	1.92
Tumbler Speed	28	28	28	28
Sample Properties <>/= Water	Solid	Solid	Solid	Solid
(J) 20X Wet Solid Weight 20XC (g)	2000	2000	2000	2000
Filtrate Volume (mL)	1000	1000	1000	1000

Type	Sample Id	Description	Spike Amt	Units

Comments:

Extration End Date: 29-DEC-09 9:00:18
Filtration End Date: 29-DEC-09 15:00:18
Bottle Lot Number: H931601DB
Filter Lot Number: 8335066
Extration Start Temperature: 23 C
Extration End Temperature: 23 C
Filtration End Temperature: 23 C

Prep Logbook

Toxicity Characteristic Leaching Procedure Preparation

Batch ID: 936980 **Verified by:** _____
Analyst: Richard Dollinger
Method: SW846 1311

Lab SOP: GL-LB-E-006 REV# 13
Instrument: TCLP Tumbler #105

Sample ID	243553002
Analysis Start Date	28-DEC-2009 16:00:21

100% Solid Y/N	y
(I) Sub Sample Aliquot I=G-H (g)	100
Initial pH (su)	7.37
pH Temperature (celsius)	50
Filtrate pH (su)	5
Final pH (su)	4.79
Tumbler Speed	28
Sample Properties <>/= Water	Solid
(J) 20X Wet Solid Weight 20XC (g)	2000
Filtrate Volume (mL)	1000

Type	Sample Id	Description	Serial Number	Spike Amt	Units

Comments:

Extration End Date: 29-DEC-09 9:00:18
Filtration End Date: 29-DEC-09 15:00:18
Bottle Lot Number: H931601DB
Filter Lot Number: 8335066
Extration Start Temperature: 23 C
Extration End Temperature: 23 C
Filtration End Temperature: 23 C

Prep Logbook

Extraction of Semivolatile and Nonvolatile Organic Compounds from Groundwater, Wastewater, and Other Aqueous Samples

Batch ID: 937666 **Verified by:** _____

Analyst: Alton Willis

Method: SW846 3510C

Lab SOP: GL-OA-E-013 REV# 21

Instrument: Semi-Volatiles Manual

Sample ID	Run Date	Initial Volume (mL)	Initial pH	Int Ext pH	Sec Ext pH	Final Volume (mL)	Prepped Factor (mL/mL)
1202004963 TB	30-DEC-2009 19:30:05	200	5	1	13	1	0.005
1202006522 MB	30-DEC-2009 19:30:05	1000	5	1	13	1	0.001
1202006523 LCS	30-DEC-2009 19:30:05	1000	5	1	13	1	0.001
243421001	30-DEC-2009 19:30:05	200	5	1	13	1	0.005
1202006524 MS (243421001)	30-DEC-2009 19:30:05	200	5	1	13	1	0.005
1202006525 MSD (243421001)	30-DEC-2009 19:30:05	200	5	1	13	1	0.005
243551001	30-DEC-2009 19:30:05	200	5	1	13	1	0.005
243553001	30-DEC-2009 19:30:05	200	5	1	13	1	0.005
243553002	30-DEC-2009 19:30:05	200	6	1	13	1	0.005

Type	Sample Id	Description	Serial Number	Spike Amt	Units
LCS	1202006523	8270 TCLP Spiking Solution	UE091221-16	1	mL
MS	1202006524	8270 TCLP Spiking Solution	UE091221-16	1	mL
MSD	1202006525	8270 TCLP Spiking Solution	UE091221-16	1	mL
SURR	All	BNA for all Surrogate	UE091217-10	1	mL
REGNT	All	Methylene Chloride	1245620-D	360	mL
REGNT	All	10 N Sodium Hydroxide Solution	1246682	10	mL
REGNT	All	Sulfuric Acid Sol., 1:1	1248656	2	mL
SOURC	All	SODIUM SULFATE	1242582	30	g

Comments:

Verified By: MJS

Final Solvent: CH2CL2

GEL ORGANIC RUN LOG INSTRUMENT ID: MSD1

DATE: 11/14/2009 METHOD: See raw data OPERATOR: AMY REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT:116462-D
Multiplier Voltage: 1400 Emv Extr. Injection Volume: 0.5, 1.0 ul
DFTPP Solution ID: WBN091101-01 Internal Std ID: WBN091024-01
CALIBRATION & QC INFORMATION:
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.

SOP: GL-OA-E-009 Rev. 22 Sequence Number: /chem/MSD1.i/s111409.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
s1k1201-D.d	WBN091101-01	AMY	14-NOV-2009 17:38	50 PPM	s111409	1.0	DFTPP	TUNE-MEGA ICAL
s1k1201.d	WBN091101-01	AMY	14-NOV-2009 17:38	50 PPM	s111409	1.0	DFTPP	TUNE-MEGA ICAL
s1k1202.d	INST BLK	amy	14-NOV-2009 17:53	-----	s111409	1.0	INST BLK	
s1k1203.d	WBN091111-16	amy	14-NOV-2009 18:22	1 PPM	s111409	1.0	MEGA001	
s1k1204.d	WBN091111-15	amy	14-NOV-2009 18:51	10 PPM	s111409	1.0	MEGA010	
s1k1204MRQ.d	WBN091111-15	amy	14-NOV-2009 18:51	10 PPM	s111409	1.0	MEGA010	pass linearity for c26 and c184
s1k1205.d	WBN091111-14	amy	14-NOV-2009 19:21	20 PPM	s111409	1.0	MEGA020	
s1k1206.d	WBN091111-13.1	amy	14-NOV-2009 19:50	40 PPM	s111409	1.0	MEGA040	
s1k1207.d	WBN091111-12	amy	14-NOV-2009 20:19	50 PPM	s111409	1.0	MEGA050	
s1k1208.d	WBN091111-11	amy	14-NOV-2009 20:47	80 PPM	s111409	1.0	MEGA080	
s1k1209.d	WBN091111-10	amy	14-NOV-2009 21:16	100 PPM	s111409	1.0	MEGA100	
s1k1210.d	WBN091111-09	amy	14-NOV-2009 21:45	120 PPM	s111409	1.0	MEGA120	
s1k1211.d	INST BLK	amy	14-NOV-2009 22:14	-----	s111409	1.0	INST BLK	
s1k1212-BOE.d	WBN091111-17.1	amy	14-NOV-2009 22:43	40 PPM	s111409	1.0	MEGAICV	DUSE-fail c65
s1k1212-D.d	WBN091111-17.1	amy	14-NOV-2009 22:43	40 PPM	s111409	1.0	MEGAICV	DUSE-fail c65
s1k1212.d	WBN091111-17.1	amy	14-NOV-2009 22:43	40 PPM	s111409	1.0	MEGAICV	DUSE: fails c65
s1k1213-D.d	WBN091101-01	AMY	15-NOV-2009 14:50	50 PPM	s111409	1.0	DFTPP	TUNE-AP/PEST/HEX ICALS
s1k1213.d	WBN091101-01	AMY	15-NOV-2009 14:50	50 PPM	s111409	1.0	DFTPP	TUNE-AP/PEST/HEX ICALS
s1k1214.d	INST BLK	amy	15-NOV-2009 15:05	-----	s111409	1.0	INST BLK	

s1k1215.d	WBN091111-01	amy	15-NOV-2009 15:28	10 PPM	s111409	1.0	AP010	
s1k1216.d	WBN091111-02	amy	15-NOV-2009 15:51	20 PPM	s111409	1.0	AP020	
s1k1217.d	WBN091111-03.1	amy	15-NOV-2009 16:14	40 PPM	s111409	1.0	AP040	
s1k1218.d	WBN091111-04	amy	15-NOV-2009 16:38	50 PPM	s111409	1.0	AP050	
s1k1219.d	WBN091111-05	amy	15-NOV-2009 17:01	80 PPM	s111409	1.0	AP080	
s1k1220.d	WBN091111-06	amy	15-NOV-2009 17:24	100 PPM	s111409	1.0	AP100	
s1k1221.d	WBN091111-07	amy	15-NOV-2009 17:47	120 PPM	s111409	1.0	AP120	
s1k1222.d	WBN091029-25	amy	15-NOV-2009 18:11	10 PPM	s111409	1.0	PEST010	
s1k1223.d	WBN091029-24	amy	15-NOV-2009 18:35	20 PPM	s111409	1.0	PEST020	
s1k1224.d	WBN091029-23.1	amy	15-NOV-2009 18:58	40 PPM	s111409	1.0	PEST040	
s1k1225.d	WBN091029-22	amy	15-NOV-2009 19:21	50 PPM	s111409	1.0	PEST050	
s1k1226.d	WBN091029-21	amy	15-NOV-2009 19:45	80 PPM	s111409	1.0	PEST080	
s1k1227.d	WBN091029-20	amy	15-NOV-2009 20:09	100 PPM	s111409	1.0	PEST100	
s1k1228.d	WBN091029-19	amy	15-NOV-2009 20:31	120 PPM	s111409	1.0	PEST120	
s1k1229.d	WBN091016-16	amy	15-NOV-2009 20:55	500 PPM	s111409	1.0	HEX500	
s1k1230.d	WBN091016-15	amy	15-NOV-2009 21:18	1000 PPM	s111409	1.0	HEX1000	
s1k1231.d	WBN091016-14	amy	15-NOV-2009 21:42	1250 PPM	s111409	1.0	HEX1250	
s1k1232.d	WBN091016-13	amy	15-NOV-2009 22:06	1500 PPM	s111409	1.0	HEX503	
s1k1233.d	WBN091016-12	amy	15-NOV-2009 22:30	1750 PPM	s111409	1.0	HEX504	
s1k1234.d	UBN090825-02.4	amy	15-NOV-2009 22:53	2000 PPM	s111409	1.0	HEX2000	
s1k1235-D.d	WBN091111-08.1	amy	15-NOV-2009 23:17	40 PPM	s111409	1.0	APICV	
s1k1235.d	WBN091111-08.1	amy	15-NOV-2009 23:17	40 PPM	s111409	1.0	APICV	
s1k1236-D.d	WBN091029-26.1	amy	15-NOV-2009 23:40	40 PPM	s111409	1.0	PESTICV	
s1k1236.d	WBN091029-26.1	amy	15-NOV-2009 23:40	40 PPM	s111409	1.0	PESTICV	
s1k1237-D.d	WBN091016-10.2	amy	16-NOV-2009 00:03	1250 PPM	s111409	1.0	HEXICV	
s1k1237.d	WBN091016-10.2	amy	16-NOV-2009 00:03	1250 PPM	s111409	1.0	HEXICV	
s1k1238-D.d	WBN091101-01	AMY	16-NOV-2009 00:27	50 PPM	s111409	1.0	DFTPP	DUSE: fails breakdown

s1k1238.d	WBN091101-01	AMY	16-NOV-2009 00:27	50 PPM	s111409	1.0	DFTPP	DUSE: fails breakdown
s1k1239.d	INST BLK	amy	16-NOV-2009 00:43	-----	s111409	1.0	INST BLK	
s1k1240.d	UBN090924-01	amy	16-NOV-2009 01:05	10 PPM	s111409	1.0	NEV010	DUSE
s1k1241.d	UBN090924-02	amy	16-NOV-2009 01:28	20 PPM	s111409	1.0	NEV020	DUSE
s1k1242.d	UBN090924-03	amy	16-NOV-2009 01:51	40 PPM	s111409	1.0	NEV040	DUSE
s1k1243.d	UBN090924-04	amy	16-NOV-2009 02:14	50 PPM	s111409	1.0	NEV050	DUSE
s1k1244.d	UBN090924-05	amy	16-NOV-2009 02:38	80 PPM	s111409	1.0	NEV080	DUSE
s1k1245.d	UBN090924-06	amy	16-NOV-2009 03:01	100 PPM	s111409	1.0	NEV100	DUSE
s1k1246.d	UBN090924-07	amy	16-NOV-2009 03:23	120 PPM	s111409	1.0	NEV120	DUSE
s1k1247-D.d	WBN091101-01	AMY	17-NOV-2009 09:05	50 PPM	s111409	1.0	DFTPP	DUSE
s1k1247.d	WBN091101-01	AMY	17-NOV-2009 09:05	50 PPM	s111409	1.0	DFTPP	DUSE
s1k1248.d	INST BLK	amy	17-NOV-2009 09:20	-----	s111409	1.0	INST BLK	
s1k1249.d	WBN091027-09.2	amy	17-NOV-2009 09:48	40 PPM	s111409	1.0	MEGAICV	DUSE: c65 fails
s1k1250.d	UBN090924-01	amy	17-NOV-2009 10:17	10 PPM	s111409	1.0	NEV010	DUSE
s1k1251.d	UBN090924-02	amy	17-NOV-2009 10:41	20 PPM	s111409	1.0	NEV020	DUSE
s1k1252.d	UBN090924-03	amy	17-NOV-2009 11:04	40 PPM	s111409	1.0	NEV040	DUSE
s1k1253.d	UBN090924-04	amy	17-NOV-2009 11:27	50 PPM	s111409	1.0	NEV050	DUSE
s1k1254.d	UBN090924-05	amy	17-NOV-2009 11:50	80 PPM	s111409	1.0	NEV080	DUSE
s1k1255.d	UBN090924-06	amy	17-NOV-2009 12:14	100 PPM	s111409	1.0	NEV100	DUSE
s1k1256.d	UBN090924-07	amy	17-NOV-2009 12:38	120 PPM	s111409	1.0	NEV120	DUSE
s1k1257.d	WBN091027-09.1	amy	17-NOV-2009 13:02	40 PPM	s111409	1.0	MEGAICV	DUSE: c65 fails /clean inj port
s1k1259-D.d	WBN091101-01	AMY	17-NOV-2009 15:48	50 PPM	s111409	1.0	DFTPP	TUNE-MEGAICV/NEV ICAL
s1k1259.d	WBN091101-01	AMY	17-NOV-2009 15:48	50 PPM	s111409	1.0	DFTPP	TUNE-MEGAICV/NEV ICAL
s1k1260.d	INST BLK	amy	17-NOV-2009 16:04	-----	s111409	1.0	INST BLK	
s1k1261-BOE.d	WBN091027-09.3	amy	17-NOV-2009 16:27	40 PPM	s111409	1.0	MEGAICV	
s1k1261-D.d	WBN091027-09.3	amy	17-NOV-2009 16:27	40 PPM	s111409	1.0	MEGAICV	
s1k1261.d	WBN091027-09.3	amy	17-NOV-2009 16:27	40 PPM	s111409	1.0	MEGAICV	pass 530038

s1k1262.d	UBN091117-01	amy	17-NOV-2009 16:56	10 PPM	s111409	1.0	NEV010	
s1k1263.d	UBN091117-02	amy	17-NOV-2009 17:19	20 PPM	s111409	1.0	NEV020	
s1k1264.d	UBN091117-03	amy	17-NOV-2009 17:42	40 PPM	s111409	1.0	NEV040	
s1k1265.d	UBN091117-04	amy	17-NOV-2009 18:05	50 PPM	s111409	1.0	NEV050	DUSE
s1k1266.d	UBN091117-05	amy	17-NOV-2009 18:28	80 PPM	s111409	1.0	NEV080	
s1k1267.d	UBN091117-06	amy	17-NOV-2009 18:52	100 PPM	s111409	1.0	NEV100	DUSE
s1k1268.d	UBN091117-07	amy	17-NOV-2009 19:15	120 PPM	s111409	1.0	NEV120	

GEL ORGANIC RUN LOG INSTRUMENT ID: MSD1

DATE: 12/31/2009 METHOD: See raw data OPERATOR: AMY REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT:1202440-D
Multiplier Voltage: 1318 Emv Extr. Injection Volume: 0.5, 1.0 ul
DFTPP Solution ID: WBN091101-01 Internal Std ID: WBN091106-10
CALIBRATION & QC INFORMATION:
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.

SOP: GL-OA-E-009 Rev. 23 Sequence Number: /chem/MSD1.i/s123109.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
s113101.d	INSTBLK	AMY	31-DEC-2009 09:22		MEGAIICARE	1.0		DUSE
s113102.d	WBN091213-01	AMY	31-DEC-2009 09:46	50 PPM	s123109	1.0	DFTPP	DUSE
s113103.d	WBN091111-17.2	AMY	31-DEC-2009 10:02	40 PPM	MEGAIICARE	1.0	MEGACVS	DUSE
s113104.d	INSTBLK	AMY	31-DEC-2009 11:21		MEGAIICARE	1.0		DUSE
s113105-D.d	WBN091213-01	AMY	31-DEC-2009 11:46	50 PPM	s123109	1.0	DFTPP	
s113105.d	WBN091213-01	AMY	31-DEC-2009 11:46	50 PPM	s123109	1.0	DFTPP	
s113106-CARE.d	WBN091111-17.2	AMY	31-DEC-2009 12:02	40 PPM	MEGAIICARE	1.0	MEGACVS	pass CARE list
s113106-D.d	WBN091111-17.2	AMY	31-DEC-2009 12:02	40 PPM	MEGAIICARE	1.0	MEGACVS	
s113106.d	WBN091111-17.2	AMY	31-DEC-2009 12:02	40 PPM	MEGAIICARE	1.0	MEGACVS	pass 667932
s113107.d	WBN091201-03.5	AMY	31-DEC-2009 14:28	40 PPM	s123109	1.0	APCVS	
s113108.d	1202006768	AMY	31-DEC-2009 14:51	937779	243262	1.0	SBLK01	DUSE-RE batch for s612925 which failed $ recovery.
s113109.d	1202006769	AMY	31-DEC-2009 15:15	937779	243262	1.0	SBLK01LCS	DUSE-RE batch for s612925 which failed $ recovery.
s113110.d	1202006770	AMY	31-DEC-2009 15:39	937779	243262	1.0	SBLK01LCSD	DUSE-RE batch for s612925 which failed $ recovery
s113111-1.d	1202004963	AMY	31-DEC-2009 16:03	937667	10-1085-1	1.0	TBLK01	USE
s113111-2.d	1202004963	AMY	31-DEC-2009 16:03	937667	10-1089	1.0	TBLK01	USE
s113111.d	1202004963	AMY	31-DEC-2009 16:03	937667	10-1005-1	1.0	TBLK01	USE
s113112-1.d	1202006522	AMY	31-DEC-2009 16:27	937667	10-1085-1	1.0	SBLK01	USE
s113112-2.d	1202006522	AMY	31-DEC-2009 16:27	937667	10-1089	1.0	SBLK01	USE
s113112.d	1202006522	AMY	31-DEC-2009 16:27	937667	10-1005-1	1.0	SBLK01	USE

s113113-1.d	1202006523	AMY	31-DEC-2009 16:51	937667	10-1085-1	1.0	SBLK01LCS	USE
s113113-2.d	1202006523	AMY	31-DEC-2009 16:51	937667	10-1089	1.0	SBLK01LCS	USE
s113113.d	1202006523	AMY	31-DEC-2009 16:51	937667	10-1005-1	1.0	SBLK01LCS	USE
s113114.d	1202005834	AMY	31-DEC-2009 17:15	937379	EUI-7448	1.0	SBLK01LCSRR	USE -rr of s113025
s113115.d	243421001	AMY	31-DEC-2009 17:39	937667	10-1005-1	1.0	LANL	USE
s113116.d	1202006524	AMY	31-DEC-2009 18:04	937667	10-1005-1	1.0	LANLMS	USE
s113117.d	1202006525	AMY	31-DEC-2009 18:28	937667	10-1005-1	1.0	LANLMSD	USE
s113118.d	243551001	AMY	31-DEC-2009 18:52	937667	10-1085-1	1.0	LANL	USE
s113119.d	243553001	AMY	31-DEC-2009 19:16	937667	10-1089	1.0	LANL	USE
s113120.d	243553002	AMY	31-DEC-2009 19:40	937667	10-1089	1.0	LANL	fail surr-RE see
s113121.d	243262002	AMY	31-DEC-2009 20:04	937779	243262	1.0	MECPRE	DUSE-re of s612925-confirms surr failure

Instrument Batch: /chem/MSD1.i/s123109.b

Page: 1

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
06-JAN-10	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
SEMIVOA GC/MS	SW846 8270C	Solid	LANL
Batch ID:	**Sample Numbers:**		
937667	See Below		

Potentially affected work order(s)(SDG): 243421(10-1005-1),243551(10-1085-1),243553(10-1089)

Application Issues:

Failed RPD for MS/MSD, or PS/PSD

Container scanning event for custody missed

Failed Yield for Surrogates

Specification and Requirements Exception Description:	DER Disposition:
1. Sample 243553002 recovered multiple surrogates outside of the established acceptance limits.	1. The sample was re-extracted within holding in batch 939603. Since the re-extraction was within the acceptance limits for all surrogates, the re-extraction data results have been reported.
2. The MS (1202006524)/MSD (1202006525) RPD value for Pyridine was 32%. The limit is 25%.	2. Since the individual MS and MSD recoveries for Pyridine were within the acceptance limits, the data results have been reported un-qualified for the RPD value failures.
3. The container scanning event for custody was missed for the following samples: 243421001, 243551001, 243553001 and 243553002.	3. The laboratory maintained custody of the samples throughout the analysis process.

Originator's Name:

Amy Carroll 06-JAN-10

Data Validator/Group Leader:

Barbara Bailey 11-JAN-10

GEL Laboratories LLC

Data file : /chem/MSD1.i/s123109.b/s113116.d
Lab Smp Id: 1202006524 Client Smp ID: WST12-10-8879MS
Inj Date : 31-DEC-2009 18:04
Operator : AMY Inst ID: MSD1.i
Smp Info : |1202006524|937667|1|SVM|1|LANLMS
Misc Info : |MSD8TCLP_L|WBN091223-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD1.i/s123109.b/MSD1-M8270AQA-111409.m
Meth Date : 01-Jan-2010 15:26 amy01291 Quant Type: ISTD
Cal Date : 17-NOV-2009 17:42 Cal File: s1k1264.d
Als bottle: 12 QC Sample: MS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-1005-1.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vo *Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	0.50000	ng unit correction factor
Vt	1.00000	volume of final ext
Vo	200.00000	volume of sample ext
Vi	0.50000	volume injected

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (mg/L)
* 10 1,4-Dichlorobenzene-d4	152	3.740	3.740	(1.000)	724030	40.0000	
* 29 Naphthalene-d8	136	4.598	4.604	(1.000)	2785974	40.0000	
* 46 Acenaphthene-d10	164	5.845	5.845	(1.000)	1573242	40.0000	
* 67 Phenanthrene-d10	188	6.839	6.839	(1.000)	2689618	40.0000	
* 91 Chrysene-d12	240	8.451	8.457	(1.000)	2452342	40.0000	
* 98 Perylene-d12	264	9.780	9.786	(1.000)	2132123	40.0000	
$ 3 2-Fluorophenol	112	2.946	2.945	(0.788)	992946	52.5052	0.26
$ 5 Phenol-d5	99	3.475	3.475	(0.929)	803771	34.9694	0.17
$ 20 Nitrobenzene-d5	82	4.104	4.104	(0.893)	843306	45.9321	0.23
$ 39 2-Fluorobiphenyl	172	5.340	5.339	(0.913)	1625592	43.1431	0.22
$ 60 2,4,6-Tribromophenol	329	6.387	6.386	(1.093)	419820	95.5645	0.48
$ 81 p-Terphenyl-d14	244	7.751	7.751	(0.917)	1754515	45.5789	0.23
11 1,4-Dichlorobenzene	146	3.751	3.751	(1.003)	1589548	67.1387	0.34

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (mg/L)
50 2,4-Dinitrotoluene	165	5.963	5.963	(1.020)	936085	66.1243	0.33
65 Pentachlorophenol	266	6.710	6.710	(0.981)	572498	84.1603	0.42
2 Pyridine	79	2.293	2.293	(0.613)	1283188	74.4027	0.37
15 o-Cresol	107	3.875	3.875	(1.036)	1092226	71.2838	0.36
18 m,p-Cresols	107	3.975	3.975	(1.063)	1272205	61.0224	0.30
19 Hexachloroethane	117	4.081	4.081	(1.091)	544213	63.8682	0.32
21 Nitrobenzene	77	4.122	4.122	(0.896)	1638035	85.6285	0.43
32 Hexachlorobutadiene	225	4.681	4.681	(1.018)	681393	78.6948	0.39
37 2,4,6-Trichlorophenol	196	5.287	5.286	(0.904)	863134	82.4840	0.41
38 2,4,5-Trichlorophenol	196	5.322	5.322	(0.910)	1062211	95.4646	0.48
63 Hexachlorobenzene	284	6.592	6.586	(0.964)	969269	85.4531	0.43

Data File: /chem/MSD1.i/s123109.b/s113116.d
Date : 31-DEC-2009 18:04
Client ID: WST12-10-8879MS
Sample Info: |120200652419376671|SVMI1|LANLMS
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD1.i
Operator: AMY
Column diameter: 0.20

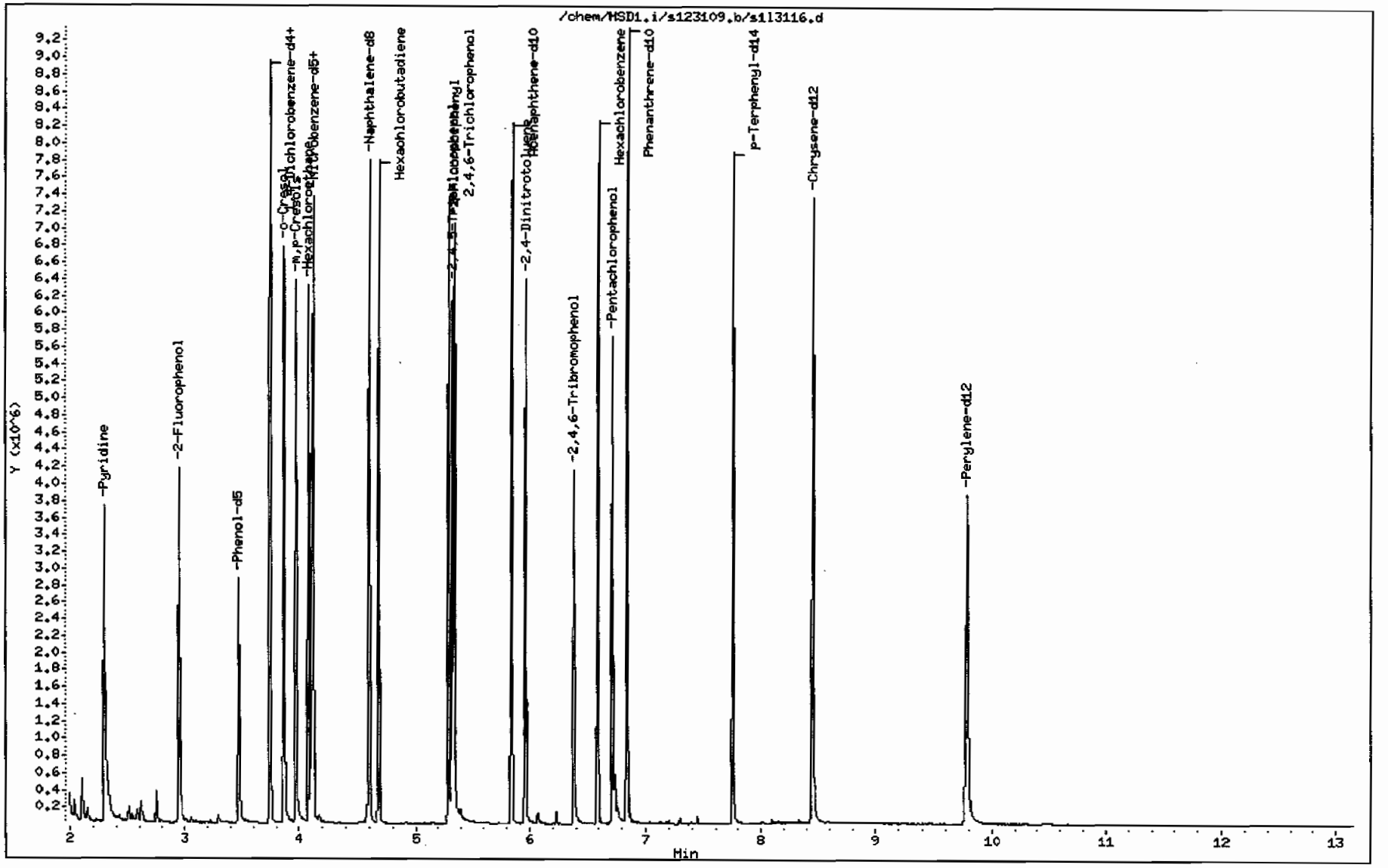

GEL Laboratories LLC

Data file : /chem/MSD1.i/s123109.b/s113117.d
Lab Smp Id: 1202006525 Client Smp ID: WST12-10-8879MSD
Inj Date : 31-DEC-2009 18:28
Operator : AMY Inst ID: MSD1.i
Smp Info : |1202006525|937667|1|SVM|1|LANLMSD
Misc Info : |MSD8TCLP_L|WBN091223-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD1.i/s123109.b/MSD1-M8270AQA-111409.m
Meth Date : 01-Jan-2010 15:26 amy01291 Quant Type: ISTD
Cal Date : 17-NOV-2009 17:42 Cal File: s1k1264.d
Als bottle: 13 QC Sample: MSD
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-1005-1.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vo *Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	0.50000	ng unit correction factor
Vt	1.00000	volume of final ext
Vo	200.00000	volume of sample ext
Vi	0.50000	volume injected

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (mg/L)
* 10 1,4-Dichlorobenzene-d4	152	3.740	3.740	(1.000)	625629	40.0000	
* 29 Naphthalene-d8	136	4.599	4.604	(1.000)	2409807	40.0000	
* 46 Acenaphthene-d10	164	5.846	5.845	(1.000)	1346509	40.0000	
* 67 Phenanthrene-d10	188	6.840	6.839	(1.000)	2202625	40.0000	
* 91 Chrysene-d12	240	8.451	8.457	(1.000)	1895354	40.0000	
* 98 Perylene-d12	264	9.781	9.786	(1.000)	1550913	40.0000	
$ 3 2-Fluorophenol	112	2.946	2.945	(0.788)	792361	48.4886	0.24
$ 5 Phenol-d5	99	3.475	3.475	(0.929)	619653	31.1992	0.16
$ 20 Nitrobenzene-d5	82	4.104	4.104	(0.893)	690812	43.4997	0.22
$ 39 2-Fluorobiphenyl	172	5.340	5.339	(0.913)	1321986	40.9933	0.20
$ 60 2,4,6-Tribromophenol	329	6.387	6.386	(1.093)	340089	90.4508	0.45
$ 81 p-Terphenyl-d14	244	7.751	7.751	(0.917)	1347476	45.2917	0.23
11 1,4-Dichlorobenzene	146	3.752	3.751	(1.003)	1316440	64.3487	0.32

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (mg/L)
50 2,4-Dinitrotoluene	165	5.963	5.963	(1.020)	744469	61.4439	0.31
65 Pentachlorophenol	266	6.710	6.710	(0.981)	458167	82.2446	0.41
2 Pyridine	79	2.299	2.293	(0.615)	803609	53.9241	0.27
15 o-Cresol	107	3.869	3.875	(1.035)	882351	66.6438	0.33
18 m,p-Cresols	107	3.969	3.975	(1.061)	1077914	59.8350	0.30
19 Hexachloroethane	117	4.081	4.081	(1.091)	434315	58.9875	0.29
21 Nitrobenzene	77	4.122	4.122	(0.896)	1373304	82.9959	0.41
32 Hexachlorobutadiene	225	4.681	4.681	(1.018)	552316	73.7447	0.37
37 2,4,6-Trichlorophenol	196	5.287	5.286	(0.904)	716555	80.0068	0.40
38 2,4,5-Trichlorophenol	196	5.322	5.322	(0.910)	864282	90.7556	0.45
63 Hexachlorobenzene	284	6.593	6.586	(0.964)	811465	87.3581	0.44

Data File: /chem/MSD1.i/s123109.b/s113117.d

Date : 31-DEC-2009 18:28

Client ID: WST12-10-8879MSD

Sample Info: |12020065251937667|1|SVMI1|LANLMSD

Volume Injected (uL): 0.5

Column phase: J&W DB-5MS

Instrument: MSD1.i

Operator: AMY

Column diameter: 0.20

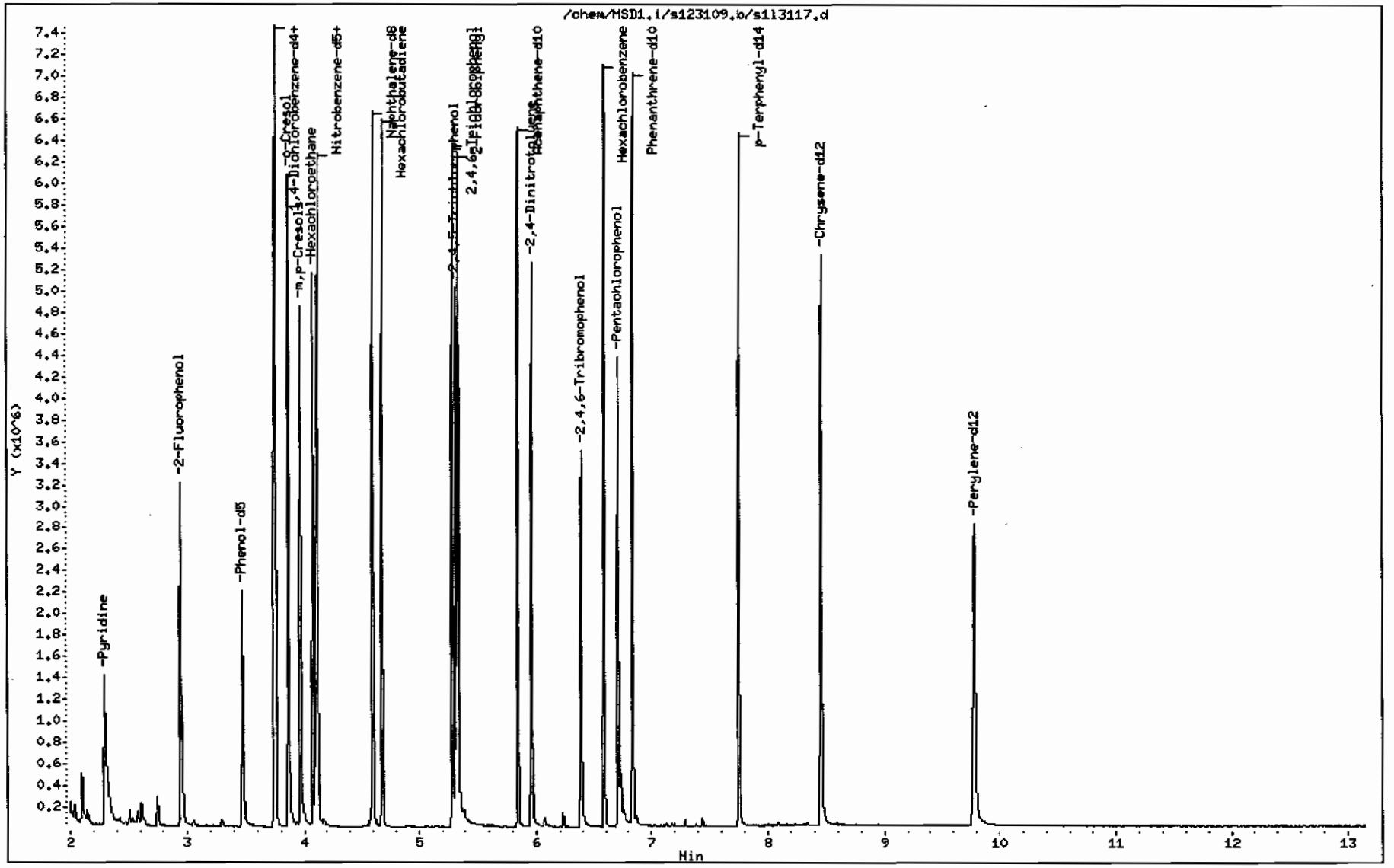

GC SEMIVOLATILE DRO ANALYSIS

FID Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-1085

Method/Analysis Information

Procedure:	**Analysis of Non-Volatile Total Petroleum Hydrocarbons by Flame Ionization Detector**
Analytical Method:	SW846 8015A/B SVOC
Prep Method:	SW846 3550B
Analytical Batch Number:	937101
Prep Batch Number:	937100

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 8015A/B SVOC:

Sample ID	Client ID
243549002	WST03-10-2148
1202005242	Method Blank (MB)
1202005243	Laboratory Control Sample (LCS)
1202005244	243549002(WST03-10-2148) Matrix Spike (MS)
1202005245	243549002(WST03-10-2148) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on a "dry weight" basis.

Preparation/Analytical Method Verification

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-003 REV# 18.

Raw data reports are processed and reviewed by the analyst using the Target software package. False positives have been removed from the Target quantitation reports per standard operating procedures (SOP) section 23.0.

Calibration Information

Initial Calibration
All initial calibration requirements have been met for this sample delivery group (SDG).

The linear equation used in Target and indicated on the initial calibration summary form is not a conventional linear equation (slope intercept formula) and does not match the equation found in SW-846 method 8000B. The x and y axes are inversed in Target, so that the instrument response is treated as the independent variable (x) and the concentration ratio is treated as the dependent variable (y). The equation used in Target to calculate sample results is adjusted to account for the linear equation inversion and reciprocal slope. The adjusted calculation has been independently verified to produce valid results.

Continuing Calibration Verification (CCV) Requirements
All associated calibration verification standard(s) (ICV or CCV) met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Surrogate Recoveries
All surrogate recoveries were within the established acceptance criteria for this SDG.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

QC Sample Designation
Sample 243549002 (WST03-10-2148) was selected for the matrix spike and matrix spike duplicate analysis.

Matrix Spike (MS) Recovery Statement
The MS recovery was within the established acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recovery was within the established acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD between the MS and MSD met the acceptance limits.

Technical Information

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-extraction/Re-analysis
Re-extractions or re-analyses were not required in this SDG.

Miscellaneous Information

Data Exception Report (DER) Documentation
Data exception report (DER) is for documentation of any procedural anomalies that may deviate from referenced SOP or contractual document. A DER was not required for this SDG.

Manual Integration
Certain standards and QC samples may have required manual integration to correctly position the baseline as set in the calibration standard injections. If manual integration was performed, copies of all manual integration peak profiles are included in the raw data section of this fraction.

Additional Comments
The additional comments field is used to address special issues associated with each analysis, clarify method/contractual issues pertaining to the analysis, and to list any report documents generated as a result of sample analysis or review. The following additional comments were required:

Due to software limitation, the Form VIIs will display the results either in the % difference or % drift depending on the type of the calibration curve. If the curve of all analytes is generated using an average response factor (RF), the

Form VII will display results using the %difference calculation (RF). If the curve of one or more analytes is generated using a linear curve, the Form VII will display results using the % drift calculation (by concentration) for all analytes.

System Configuration

The GC-FID analysis was performed on the following instrument configuration:

Instrument ID	Instrument	System Configuration	Column ID	Column Description
FID7.I	Agilent GC FID	Agilent 6890N GC/FID	DB-5MS	30m x 0.25mm, 0.25um(J&W)

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Jimi Cao **Date:** 1/15/10

Roadmap for LANL 10-1085 DRO

This roadmap was analyzed by kev01577 on 01-04-2010, 11:48.
This roadmap was reviewed by jcb on 01-04-2010, 15:18.
This roadmap was packaged by jim01140 on 01-15-2010, 08:00.

Sample

exclude	manual	datafile	smpid	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/fid7.i/122909dr/016f1601.d	243549002	29-DEC-2009	23:49	10-1085.sub	WST03-10-2148	1.00000	937101	USE

QC Sample

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/fid7.i/122909dr/010f1001a.d	1202005242	mb	29-DEC-2009	20:08	10-1085.sub	DBLK01	1.00000	937101	
☐	N	/chem/fid7.i/122909dr/011f1101a.d	1202005243	lcs	29-DEC-2009	20:45	10-1085.sub	DBLK01LCS	1.00000	937101	
☐	N	/chem/fid7.i/122909dr/017f1701.d	1202005244	ms	30-DEC-2009	00:26	10-1085.sub	WST03-10-2148MS	1.00000	937101	USE
☐	N	/chem/fid7.i/122909dr/018f1801.d	1202005245	msd	30-DEC-2009	01:02	10-1085.sub	WST03-10-2148MSD	1.00000	937101	USE

SAMPLE DATA SUMMARY

Flame Ionization Detector
Certificate of Analysis
Sample Summary

SDG Number:	10-1085	Date Collected:	12/22/2009 12:00	Matrix:	R
Lab Sample ID:	243549002	Date Received:	12/24/2009 09:30	%Moisture:	7.2
		Client:	LANL010	Project:	LANL01004
Client ID:	WST03-10-2148	Method:	SW846 8015A/B SVOC	SOP Ref:	GL-OA-E-003
Batch ID:	937101	Inst:	FID7.I	Dilution:	1
Run Date:	12/29/2009 23:49	Analyst:	KXR2	Inj. Vol:	1 uL
Prep Date:	12/28/2009 21:00	Aliquot:	30.11 g	Final Volume:	1 mL
Data File:	016f1601.d	Column:	DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics	U	7.16	mg/kg	2.33	7.16

QUALITY CONTROL SUMMARY

Flame Ionization Detector

Surrogate Recovery Report

SDG Number: 10-1085

Matrix Type: SOLID

CAP Column (1) : DB-5MS

Sample ID	Client ID	OTP %REC
1202005242	MB for batch 937100	48
1202005243	LCS for batch 937100	82
243549002	WST03-10-2148	49
1202005244	WST03-10-2148MS	62
1202005245	WST03-10-2148MSD	70

Surrogate	Acceptance Limits
OTP = o-Terphenyl	(24%-124%)

* Recovery outside Acceptance Limits

\# Column to be used to flag recovery values

D Sample Diluted

Flame Ionization Detector
Quality Control Summary
Spike Recovery Report

SDG Number: 10–1085
Client ID: LCS for batch 937100
Lab Sample ID: 1202005243
Instrument: FID7.I
Analyst: KXR2
Inj. Vol: 1 uL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 12/29/2009 20:45
Dilution: 1
Prep Batch ID: 937100
Batch ID: 937101

CAS No		Parmname	Amount Added mg/kg	Sample Conc. mg/kg	Spike Conc. mg/kg	Recovery %	Acceptance Limits
DRO	LCS	Diesel Range Organics	33.3	0.0	26.7	80	53–114

Flame Ionization Detector

Quality Control Summary

Spike Recovery Report

SDG Number:	**10–1085**	**Sample Type:**	**Matrix Spike**
Client ID:	**WST03–10–2148MS**	**Matrix:**	**R**
Lab Sample ID:	**1202005244**	**%Moisture:**	**7.2**
Instrument:	**FID7.I**	**Analysis Date:**	**12/30/2009 00:26**
Analyst:	**KXR2**	**Prep Batch ID:**	**937100**
Inj. Vol:	**1 uL**	**Batch ID:**	**937101**

Dilution: 1

CAS No		Parmname	Amount Added mg/kg	Sample Conc. mg/kg		Spike Conc. mg/kg	Recovery %	Acceptance Limits
DRO	MS	Diesel Range Organics	35.8	0.00	U	21.4	60	21–122

Flame Ionization Detector
Quality Control Summary
Spike Recovery Report

SDG Number:	**10–1085**	**Sample Type:**	**Matrix Spike Duplicate**
Client ID:	**WST03–10–2148MSD**	**Matrix:**	**R**
Lab Sample ID:	**1202005245**	**%Moisture:**	**7.2**
Instrument:	**FID7.I**	**Analysis Date:**	**12/30/2009 01:02**
Analyst:	**KXR2**	**Prep Batch ID:**	**937100**
Inj. Vol:	**1 uL**	**Batch ID:**	**937101**

Dilution: 1

CAS No	Parmname	Amount Added mg/kg	Sample Conc. mg/kg		Spike Conc. mg/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
DRO	MSD Diesel Range Organics	35.9	0.00	U	25.2	70	21–122	16	0–30

Method Blank Summary

SDG Number:	10–1085	Client:	LANL010	Matrix:	SOIL
Client ID:	MB for batch 937100	Instrument ID:	FID7.I	Data File:	010f1001.d
Lab Sample ID:	1202005242	Prep Date:	12/28/2009 21:00	Analyzed:	12/29/09 20:08
Column:	DB–5MS	Level:	LOW		

This method blank applies to the following samples and quality control samples:

Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01 LCS for batch 937100	1202005243	011f1101.d	12/29/09	2045
02 WST03–10–2148	243549002	016f1601.d	12/29/09	2349
03 WST03–10–2148MS	1202005244	017f1701.d	12/30/09	0026
04 WST03–10–2148MSD	1202005245	018f1801.d	12/30/09	0102

SAMPLE
DATA

Flame Ionization Detector
Certificate of Analysis
Sample Summary

SDG Number:	10–1085	Date Collected:	12/22/2009 12:00	Matrix:	R
Lab Sample ID:	243549002	Date Received:	12/24/2009 09:30	%Moisture:	7.2
		Client:	LANL010	Project:	LANL01004
Client ID:	WST03–10–2148	Method:	SW846 8015A/B SVOC	SOP Ref:	GL–OA–E–003
Batch ID:	937101	Inst:	FID7.I	Dilution:	1
Run Date:	12/29/2009 23:49	Analyst:	KXR2	Inj. Vol:	1 uL
Prep Date:	12/28/2009 21:00	Aliquot:	30.11 g	Final Volume:	1 mL
Data File:	016f1601.d	Column:	DB–5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics	U	7.16	mg/kg	2.33	7.16

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DB-5MS .25mm

Data file : /chem/fid7.i/122909dr/016f1601.d
Lab Smp Id: 243549002 Client Smp ID: WST03-10-2148
Inj Date : 29-DEC-2009 23:49
Operator : KXR2 Inst ID: fid7.i
Smp Info : |243549002|1|
Misc Info : |FIDDRO_S|937101|FID|LANL|
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fid7.i/122909dr/FID7a.i_b_DRO_121309.m
Meth Date : 04-Jan-2010 07:09 kev01577 Quant Type: ESTD
Cal Date : 13-DEC-2009 18:58 Cal File: 007f0701.d
Als bottle: 16
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1085.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.11000	Weigth of sample extracted (g)
M	7.19000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (mg/L)	FINAL (mg/Kg)
$ 2 o-Terphenyl					CAS #: 84-15-1
13.589	13.594	-0.005	260330	9.87425	0.35

Data File: /chem/fid7.i/122909dr/016f1601.d

Date : 29-DEC-2009 23:49

Client ID: WST03-10-2148

Sample Info: 1243549002|1|

Volume Injected (uL): 1.0

Column phase: DB-5MS

Instrument: fid7.i

Operator: KXR2

Column diameter: 0.25

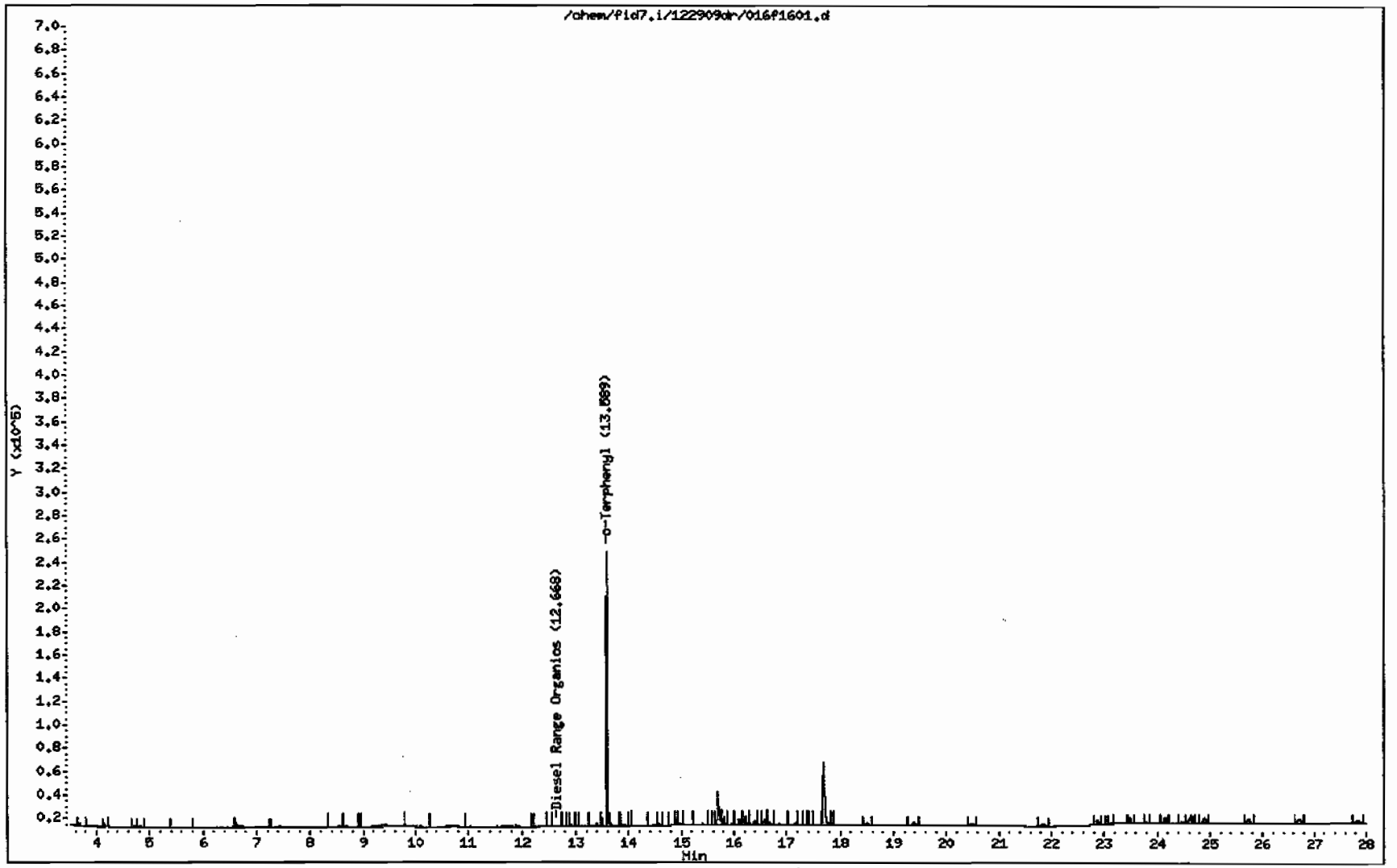

STANDARDS DATA

Report Date: 30-Dec-2009 12:55

Calibration History

Method : /chem/fid7.i/122909dr/FID7a.i_b_DRO_121309.m
Start Cal Date: 13-DEC-2009 16:31
End Cal Date : 13-DEC-2009 18:58

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 3 , Cal Amount: 200.00000		
13-DEC-2009 16:31	dro	/chem/fid7.i/121309dr/003f0301.d
Cal Level: 4 , Cal Amount: 500.00000		
13-DEC-2009 17:07	dro	/chem/fid7.i/121309dr/004f0401.d
Cal Level: 5 , Cal Amount: 1000.00000		
13-DEC-2009 17:45	dro	/chem/fid7.i/121309dr/005f0501.d
Cal Level: 6 , Cal Amount: 2000.00000		
13-DEC-2009 18:22	dro	/chem/fid7.i/121309dr/006f0601.d
Cal Level: 7 , Cal Amount: 5000.00000		
13-DEC-2009 18:58	dro	/chem/fid7.i/121309dr/007f0701.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 5

Ccal Level: 5 , Ccal Amount: 1000		
30-DEC-2009 01:39	dro	/chem/fid7.i/122909dr/019f1901.d
Ccal Level: 5 , Ccal Amount: 1000		
29-DEC-2009 22:35	dro	/chem/fid7.i/122909dr/014f1401.d
Ccal Level: 5 , Ccal Amount: 1000		
29-DEC-2009 15:51	dro	/chem/fid7.i/122909dr/003f0301.d

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COMPOUND LISTING

Method file : /chem/fid7.i/122909dr/FID7a.i_b_DRO_121309.m
Quant Method : ESTD Target Version : 3.50
Last Update : 30-Dec-2009 12:41 Number of Cpnds : 6
Data Type : GC DATA

Global Integrator : Falcon

Chromat Events	Values
Initial:Start Threshold	100.000000
Initial:End Threshold	50.000000
Initial:Area Threshold	100.000000
Initial:P-P Resolution	1.000000
Initial:Bunch Factor	11.000000
Initial:Negative Peaks	OFF
Initial:Tension	7.000000
5.000:Force Cluster ON	n/a
17.000:Force Cluster OFF	n/a
17.371:Tension	1.000000

	Compound	RT	RT Window	RF
	3 Decane (C10)	7.506	7.476-7.536	
S	1 Diesel Range Organics	12.668	7.480-17.855	1.342e+04
$	2 o-Terphenyl	13.594	13.565-13.624	2.636e+04
	4 Octacosane (C28)	17.821	17.791-17.851	
S	75 JP-4	6.750	3.500-10.000	
S	76 Motor oil	17.000	14.000-20.000	

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INITIAL CALIBRATION DATA

Start Cal Date : 13-DEC-2009 16:31
End Cal Date : 13-DEC-2009 18:58
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/fid7.i/122909dr/FID7a.i_b_DRO_121309.m
Cal Date : 30-Dec-2009 12:41 kev01577
Curve Type : Average

Calibration File Names:
Level 3: /chem/fid7.i/121309dr/003f0301.d
Level 4: /chem/fid7.i/121309dr/004f0401.d
Level 5: /chem/fid7.i/121309dr/005f0501.d
Level 6: /chem/fid7.i/121309dr/006f0601.d
Level 7: /chem/fid7.i/121309dr/007f0701.d

	Compound	200.000 Level 3	500.000 Level 4	1000.000 Level 5	2000.000 Level 6	5000.000 Level 7	___ RRF	% RSD
	3 Decane (C10)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
S	1 Diesel Range Organics	12370	13330	13518	14106	13763	13417	4.871
	4 Octacosane (C28)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
S	75 JP-4	+++++	+++++	+++++	+++++	+++++	+++++	+++++
S	76 Motor oil	+++++	+++++	+++++	+++++	+++++	+++++	+++++
$	2 o-Terphenyl	24795	27259	25475	26481	27813	26365	4.710

FORM 7
SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1085

Instrument ID: FID7 Calibration Date: 12/29/09 Time: 1551

Lab File ID: 003F0301 Init. Calib. Date(s): 12/13/09 12/13/09

Init. Calib. Times: 1631 1858

GC Column: DB-5MS ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Diesel Range Organics	13417.204	13608.430	0.01	1.4	15.0
o-Terphenyl	26364.536	24391.640	0.01	-7.5	15.0

FORM VII SV

FORM 7
SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1085

Instrument ID: FID7 Calibration Date: 12/29/09 Time: 2235

Lab File ID: 014F1401 Init. Calib. Date(s): 12/13/09 12/13/09

Init. Calib. Times: 1631 1858

GC Column: DB-5MS ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Diesel Range Organics	13417.204	14176.313	0.01	5.6	15.0
o-Terphenyl	26364.536	25364.480	0.01	-3.8	15.0

FORM VII SV

FORM 7
SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1085

Instrument ID: FID7 Calibration Date: 12/30/09 Time: 0139

Lab File ID: 019F1901 Init. Calib. Date(s): 12/13/09 12/13/09

Init. Calib. Times: 1631 1858

GC Column: DB-5MS ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Diesel Range Organics	13417.204	14103.807	0.01	5.1	15.0
o-Terpheny1	26364.536	25187.160	0.01	-4.5	15.0

FORM VII SV

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DB-5MS .25mm

Data file : /chem/fid7.i/122909dr/003f0301.d
Lab Smp Id: UFI091203-02 D1 Client Smp ID: DSTD01
Inj Date : 29-DEC-2009 15:51
Operator : KXR2 Inst ID: fid7.i
Smp Info : |UFI091203-02 D1
Misc Info :
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fid7.i/122909dr/FID7a.i_b_DRO_121309.m
Meth Date : 04-Jan-2010 07:09 kev01577 Quant Type: ESTD
Cal Date : 13-DEC-2009 18:58 Cal File: 007f0701.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: dro.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (mg/L)	AMOUNTS ON-COL (mg/L)	
S	1 Diesel Range Organics						CAS #:
	7.480- 17.855			13608430	1000.00		1010
$	2 o-Terphenyl						CAS #: 84-15-1
	13.594	13.594	0.000	609791	25.0000		23.1

Data File: /chem/fid7.i/122909dr/003f0301.d
Date : 29-DEC-2009 15:51
Client ID: DSTD01
Sample Info: IUFI091203-02 D1

Column phase: DB-5MS

Instrument: fid7.i

Operator: KXR2
Column diameter: 0.25

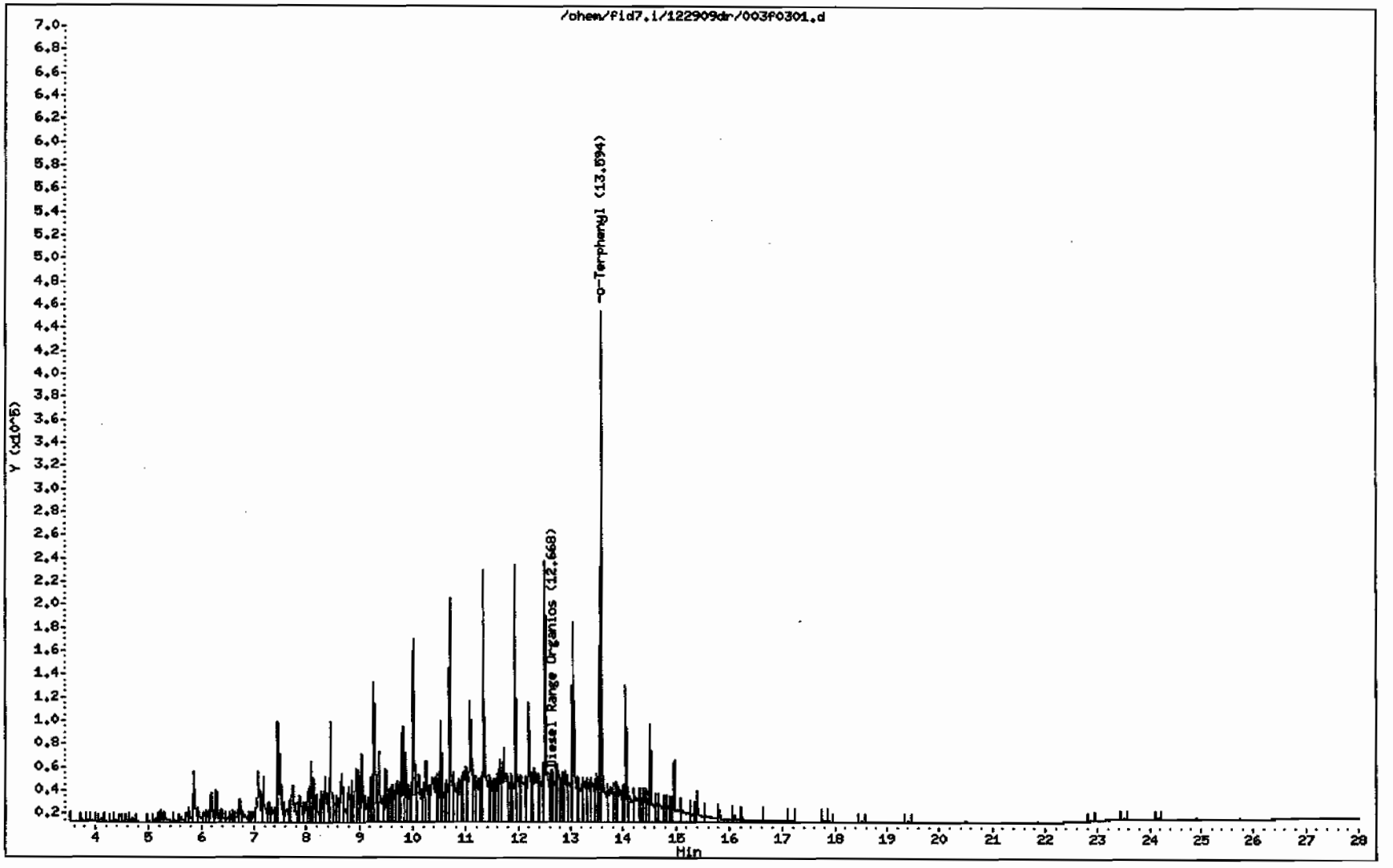

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DB-5MS .25mm

Data file : /chem/fid7.i/122909dr/014f1401.d
Lab Smp Id: UFI091203-02 D2 Client Smp ID: DSTD02
Inj Date : 29-DEC-2009 22:35
Operator : KXR2 Inst ID: fid7.i
Smp Info : |UFI091203-02 D2
Misc Info :
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fid7.i/122909dr/FID7a.i_b_DRO_121309.m
Meth Date : 04-Jan-2010 07:09 kev01577 Quant Type: ESTD
Cal Date : 13-DEC-2009 18:58 Cal File: 007f0701.d
Als bottle: 14 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: dro.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (mg/L)	AMOUNTS ON-COL (mg/L)	
S	1 Diesel Range Organics						CAS #:
	7.480- 17.855			14176313	1000.00	1060	
$	2 o-Terphenyl						CAS #: 84-15-1
	13.594	13.594	0.000	634112	25.0000	24.0	

Data File: /chem/fid7.i/122909dr/014f1401.d

Date : 29-DEC-2009 22:36

Client ID: DSTD02

Sample Info: !UFI091203-02 D2

Column phase: DB-5MS

Instrument: fid7.i

Operator: KXR2

Column diameter: 0.25

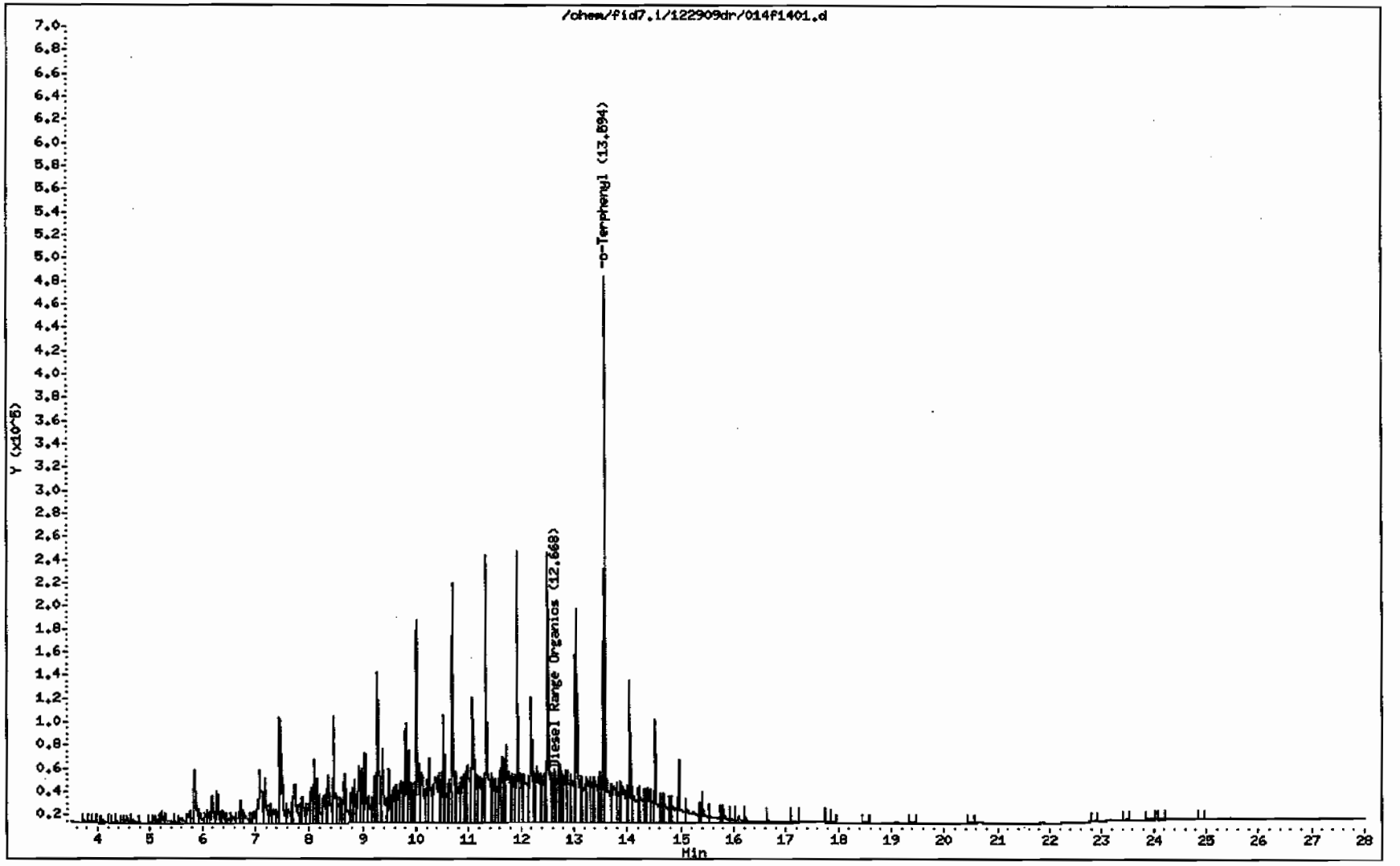

GEL Laboratories LLC

DB-5MS .25mm

Data file : /chem/fid7.i/122909dr/019f1901.d
Lab Smp Id: UFI091203-02 D3 Client Smp ID: DSTD03
Inj Date : 30-DEC-2009 01:39
Operator : KXR2 Inst ID: fid7.i
Smp Info : |UFI091203-02 D3
Misc Info :
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fid7.i/122909dr/FID7a.i_b_DRO_121309.m
Meth Date : 04-Jan-2010 07:10 kev01577 Quant Type: ESTD
Cal Date : 13-DEC-2009 18:58 Cal File: 007f0701.d
Als bottle: 19 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: dro.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (mg/L)	ON-COL (mg/L)
S 1 Diesel Range Organics					CAS #:
7.480- 17.855			14103807	1000.00	1050
$ 2 o-Terphenyl					CAS #: 84-15-1
13.593	13.594	-0.001	629679	25.0000	23.9

Data File: /chem/fid7.i/122909dr/019f1901.d
Date : 30-DEC-2009 01:39
Client ID: DSTD03
Sample Info: IUFI091203-02 D3

Column phase: DB-5HS

Instrument: fid7.i

Operator: KXR2
Column diameter: 0.25

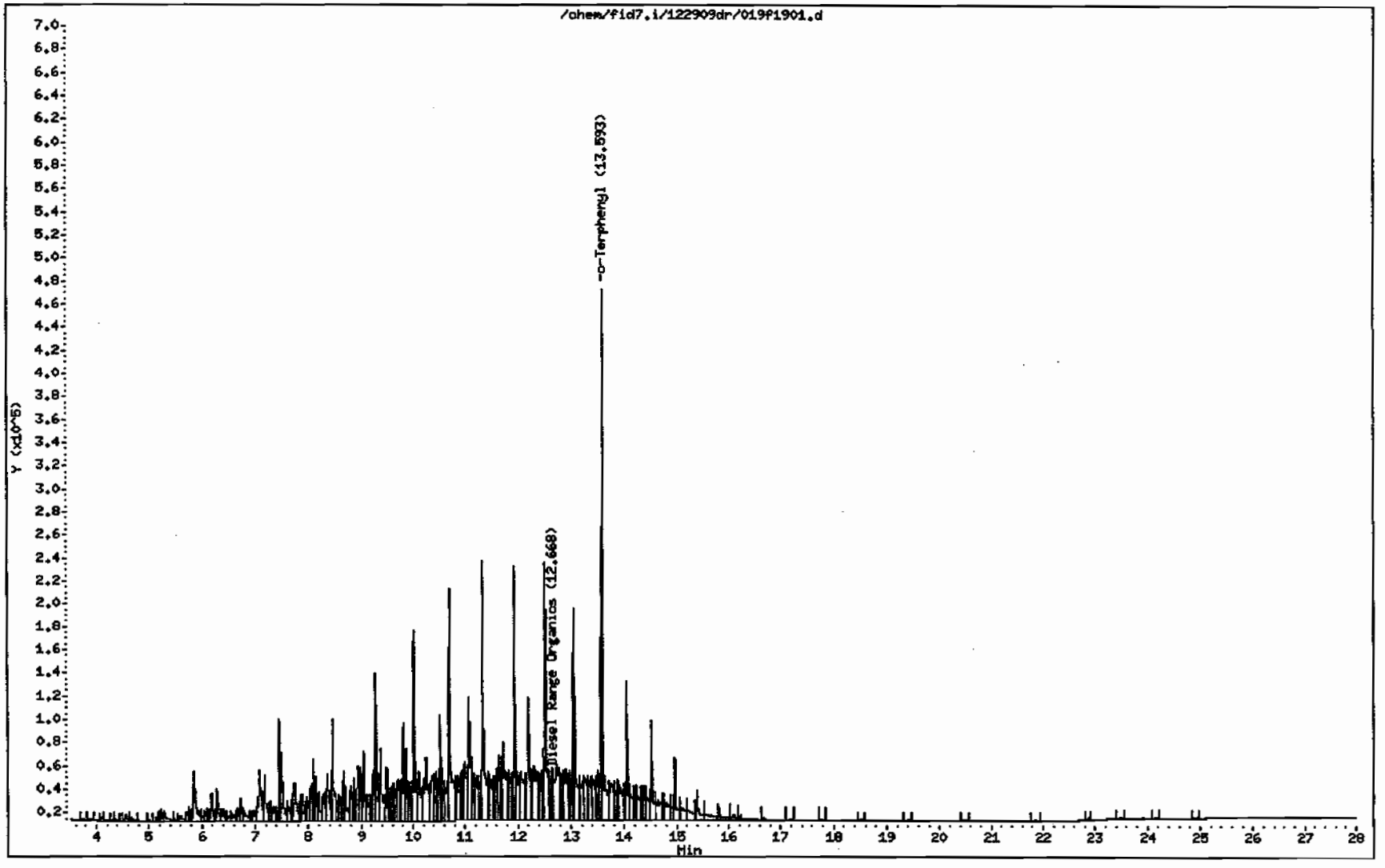

8D
DRO ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1085

GC Column: DB-5MS ID: 0.25 (mm) Init. Calib. Date(s): 12/13/09 12/13/09

Instrument ID: FID7

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 13.60

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	RT
01	DIBLK01	WFI091130-06	12/13/09	1516	13.59	
02	RTMARKER	UFI091013-03	12/13/09	1553		
03	CSTD01	UFI090827-10	12/13/09	1631	13.59	
04	CSTD02	UFI090827-11	12/13/09	1707	13.59	
05	CSTD03	UFI090827-12	12/13/09	1745	13.60	
06	CSTD04	UFI090827-13	12/13/09	1822	13.61	
07	CSTD05	UFI090827-14	12/13/09	1858	13.62	
08	DSTD01	WFI090928-01	12/13/09	1936	13.60	
09	DIBLK02	WFI091130-06	12/13/09	2012	13.59	
10	ZZZZZ	ZZZZZ	12/13/09	2049	13.59	
11	ZZZZZ	ZZZZZ	12/13/09	2126	13.59	
12	ZZZZZ	ZZZZZ	12/13/09	2203	13.59	
13	ZZZZZ	ZZZZZ	12/13/09	2240	13.59	
14	ZZZZZ	ZZZZZ	12/13/09	2318	13.60	
15	ZZZZZ	ZZZZZ	12/13/09	2354	13.59	
16	ZZZZZ	ZZZZZ	12/14/09	0032	13.59	
17	ZZZZZ	ZZZZZ	12/14/09	0109	13.59	
18	ZZZZZ	ZZZZZ	12/14/09	0146	13.59	
19	ZZZZZ	ZZZZZ	12/14/09	0223	13.59	
20	DSTD02	UFI091118-02	12/14/09	0300	13.60	
21	DIBLK03	WFI091130-06	12/14/09	0337	13.60	
22	ZZZZZ	ZZZZZ	12/14/09	0413	13.59	
23	ZZZZZ	ZZZZZ	12/14/09	0450	13.59	
24	ZZZZZ	ZZZZZ	12/14/09	0527	13.59	
25	ZZZZZ	ZZZZZ	12/14/09	0604	13.59	
26	ZZZZZ	ZZZZZ	12/14/09	0641	13.59	
27	ZZZZZ	ZZZZZ	12/14/09	0718	13.59	
28	ZZZZZ	ZZZZZ	12/14/09	0755	13.59	
29	ZZZZZ	ZZZZZ	12/14/09	0832	13.59	
30	ZZZZZ	ZZZZZ	12/14/09	0909	13.59	
31	DSTD03	UFI091118-02	12/14/09	0946	13.60	
32	DIBLK04	WFI091130-06	12/14/09	1023	13.60	

QC LIMITS
S1 = o-Terphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
DRO ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1085

GC Column: DB-5MS ID: 0.25 (mm) Init. Calib. Date(s): 12/13/09 12/13/09

Instrument ID: FID7

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 13.59

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	RT
01	DIBLK01	WFI091130-06	12/29/09	1437	13.59	
02	RTMARKER	UFI091013-03	12/29/09	1514		
03	DSTD01	UFI091203-02	12/29/09	1551	13.59	
04	DIBLK02	WFI091130-06	12/29/09	1627	13.59	
05	ZZZZZ	ZZZZZ	12/29/09	1704		
06	ZZZZZ	ZZZZZ	12/29/09	1741		
07	ZZZZZ	ZZZZZ	12/29/09	1818	13.59	
08	ZZZZZ	ZZZZZ	12/29/09	1855	13.59	
09	ZZZZZ	ZZZZZ	12/29/09	1932	13.59	
10	DBLK01	1202005242	12/29/09	2008	13.59	
11	DBLK01LCS	1202005243	12/29/09	2045	13.59	
12	ZZZZZ	ZZZZZ	12/29/09	2122	13.59	
13	ZZZZZ	ZZZZZ	12/29/09	2158	13.59	
14	DSTD02	UFI091203-02	12/29/09	2235	13.59	
15	DIBLK03	WFI091130-06	12/29/09	2312	13.59	
16	WST03-10-2148	243549002	12/29/09	2349	13.59	
17	WST03-10-2148MS	1202005244	12/30/09	0026	13.59	
18	WST03-10-2148MSD	1202005245	12/30/09	0102	13.59	
19	DSTD03	UFI091203-02	12/30/09	0139	13.59	
20	DIBLK04	WFI091130-06	12/30/09	0216	13.59	
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						
31						
32						

S1 = o-Terphenyl QC LIMITS (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

QUALITY CONTROL DATA

Flame Ionization Detector
Certificate of Analysis
Sample Summary

SDG Number:	10-1085			Matrix:	SOIL
Lab Sample ID:	1202005242				
Client Sample:	QC for batch 937100	Client:	LANL010	Project:	QC
Client ID:	MB for batch 937100	Method:	SW846 8015A/B SVOC	SOP Ref:	GL-OA-E-003
Batch ID:	937101	Inst:	FID7.I	Dilution:	1
Run Date:	12/29/2009 20:08	Analyst:	KXR2	Inj. Vol:	1 uL
Prep Date:	12/28/2009 21:00	Aliquot:	30 g	Final Volume:	1 mL
Data File:	010f1001.d	Column:	DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics	U	6.67	mg/kg	2.17	6.67

GEL Laboratories LLC

DB-5MS .25mm

Data file : /chem/fid7.i/122909dr/010f1001a.d
Lab Smp Id: 1202005242 Client Smp ID: DBLK01
Inj Date : 29-DEC-2009 20:08
Operator : KXR2 Inst ID: fid7.i
Smp Info : |1202005242|1|
Misc Info : |FIDDRO_S|937101|FID|MB|
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fid7.i/122909dr/FID7a.i_b_DRO_121309.m
Meth Date : 04-Jan-2010 07:09 kev01577 Quant Type: ESTD
Cal Date : 13-DEC-2009 18:58 Cal File: 007f0701.d
Als bottle: 10 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1085.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weigth of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (mg/L)	FINAL (mg/Kg)
$ 2 o-Terphenyl					CAS #: 84-15-1
13.591	13.594	-0.003	254396	9.64917	0.32

Date File: /chem/fid7.i/122909dr/010f1001a.d
Date : 29-DEC-2009 20:08
Client ID: DBLK01
Sample Info: |12020052421|
Volume Injected (uL): 1.0
Column phase: DB-5HS

Instrument: fid7.i

Operator: KXR2
Column diameter: 0.25

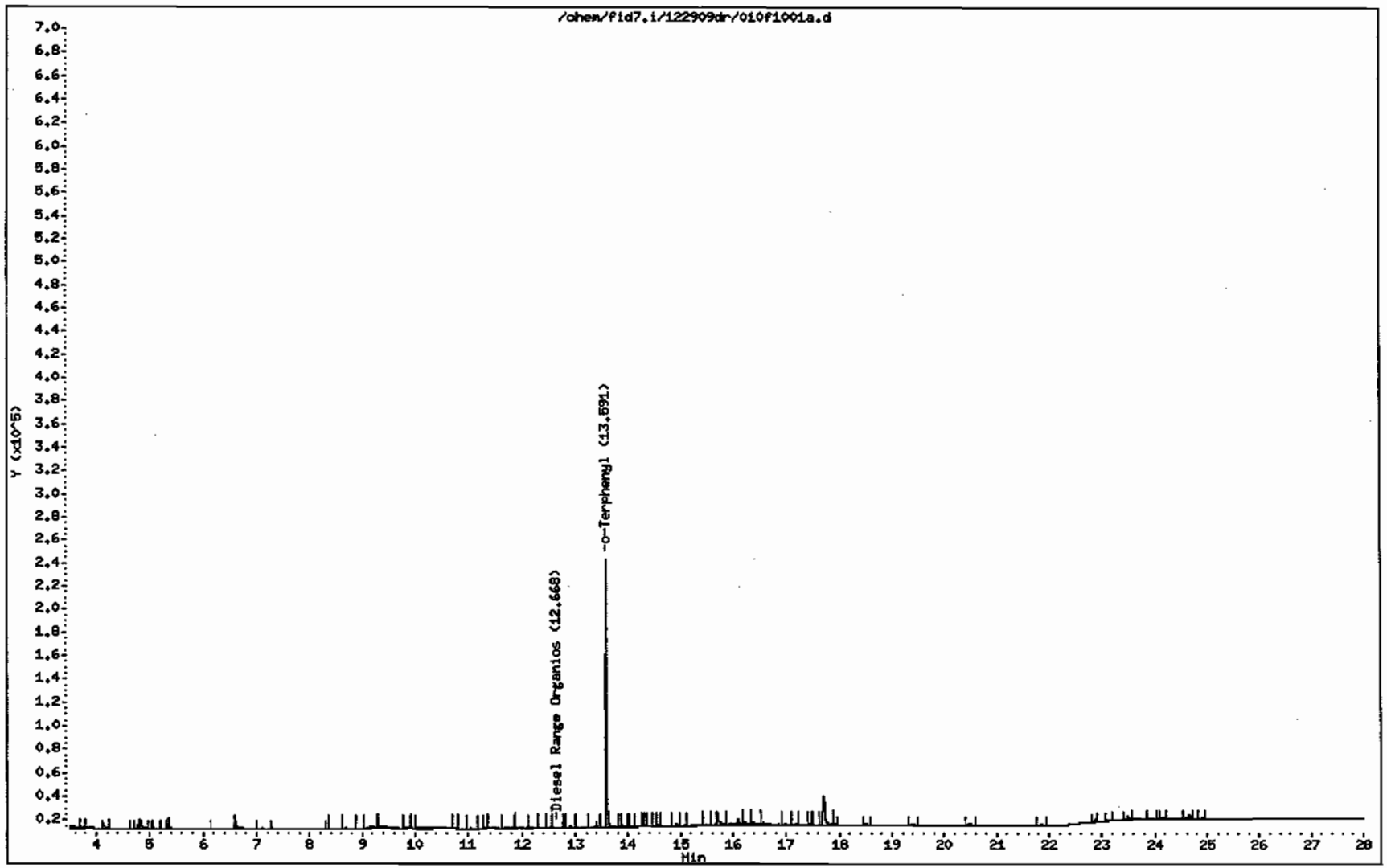

Flame Ionization Detector
Certificate of Analysis
Sample Summary

SDG Number:	10--1085			Matrix:	SOIL
Lab Sample ID:	1202005243				
Client Sample:	QC for batch 937100	Client:	LANL010	Project:	QC
Client ID:	LCS for batch 937100	Method:	SW846 8015A/B SVOC	SOP Ref:	GL-OA-E-003
Batch ID:	937101	Inst:	FID7.I	Dilution:	1
Run Date:	12/29/2009 20:45	Analyst:	KXR2	Inj. Vol:	1 uL
Prep Date:	12/28/2009 21:00	Aliquot:	30 g	Final Volume:	1 mL
Data File:	011f1101.d	Column:	DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics		26.7	mg/kg	2.17	6.67

GEL Laboratories LLC

DB-5MS .25mm

Data file : /chem/fid7.i/122909dr/011f1101a.d
Lab Smp Id: 1202005243 Client Smp ID: DBLK01LCS
Inj Date : 29-DEC-2009 20:45
Operator : KXR2 Inst ID: fid7.i
Smp Info : |1202005243|1|
Misc Info : |FIDDRO_S|937101|FID|LCS|
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fid7.i/122909dr/FID7a.i_b_DRO_121309.m
Meth Date : 04-Jan-2010 07:09 kev01577 Quant Type: ESTD
Cal Date : 13-DEC-2009 18:58 Cal File: 007f0701.d
Als bottle: 11 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1085.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weigth of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (mg/L)	FINAL (mg/Kg)
S 1 Diesel Range Organics					CAS #:
7.480- 17.855			10756730	801.712	26.7
$ 2 o-Terphenyl					CAS #: 84-15-1
13.592	13.594	-0.002	434713	16.4886	0.55

Data File: /chem/fid7.i/122909dr/011f1101a.d

Date : 29-DEC-2009 20:45

Client ID: DBLK01LCS

Sample Info: |1202005243|1|

Volume Injected (uL): 1.0

Column phase: DB-5MS

Instrument: fid7.i

Operator: KXR2

Column diameter: 0.25

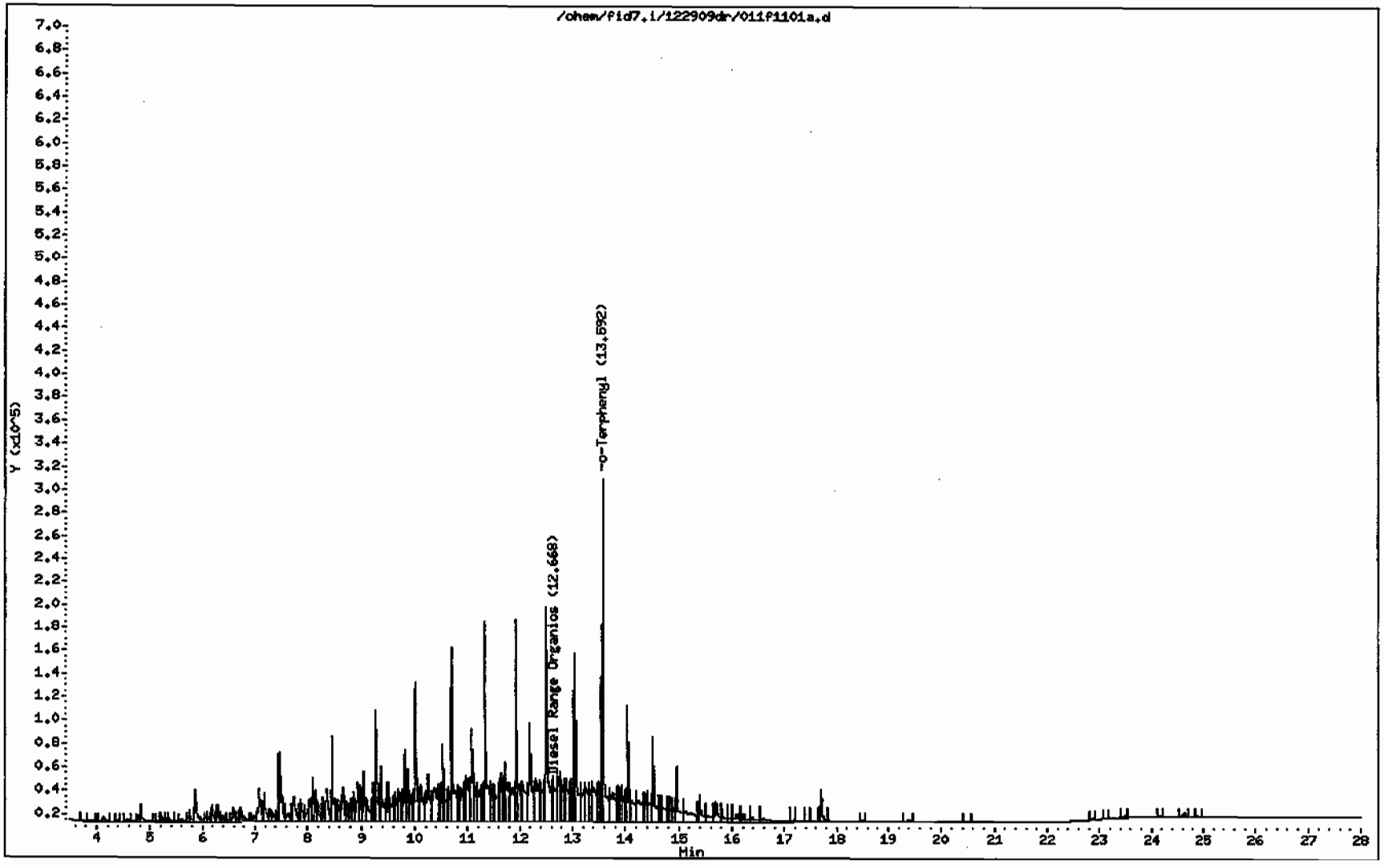

Flame Ionization Detector
Certificate of Analysis
Sample Summary

SDG Number:	10–1085	**Date Collected:**	12/22/2009 12:00	**Matrix:**	R
Lab Sample ID:	1202005244	**Date Received:**	12/24/2009 09:30	**%Moisture:**	7.2
Client Sample:	QC for batch 937100	**Client:**	LANL010	**Project:**	QC
Client ID:	WST03–10–2148MS	**Method:**	SW846 8015A/B SVOC	**SOP Ref:**	GL–OA–E–003
Batch ID:	937101	**Inst:**	FID7.I	**Dilution:**	1
Run Date:	12/30/2009 00:26	**Analyst:**	KXR2	**Inj. Vol:**	1 uL
Prep Date:	12/28/2009 21:00	**Aliquot:**	30.07 g	**Final Volume:**	1 mL
Data File:	017f1701.d	**Column:**	DB–5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics		21.4	mg/kg	2.33	7.17

GEL Laboratories LLC

DB-5MS .25mm

Data file : /chem/fid7.i/122909dr/017f1701.d
Lab Smp Id: 1202005244 Client Smp ID: WST03-10-2148MS
Inj Date : 30-DEC-2009 00:26
Operator : KXR2 Inst ID: fid7.i
Smp Info : |1202005244|1|
Misc Info : |FIDDRO_S|937101|FID|MS|
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fid7.i/122909dr/FID7a.i_b_DRO_121309.m
Meth Date : 04-Jan-2010 07:09 kev01577 Quant Type: ESTD
Cal Date : 13-DEC-2009 18:58 Cal File: 007f0701.d
Als bottle: 17 QC Sample: MS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1085.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.07000	Weigth of sample extracted (g)
M	7.19000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (mg/L)	FINAL (mg/Kg)
S 1 Diesel Range Organics					CAS #:
7.480- 17.855			8024536	598.078	21.4
$ 2 o-Terphenyl					CAS #: 84-15-1
13.590	13.594	-0.004	326081	12.3682	0.44

Data File: /chem/fid7.i/122909dr/017f1701.d
Date : 30-DEC-2009 00:26
Client ID: WST03-10-2148MS
Sample Info: |1202005244|1|
Volume Injected (uL): 1.0
Column phase: DB-5MS

Instrument: fid7.i
Operator: KXR2
Column diameter: 0.25

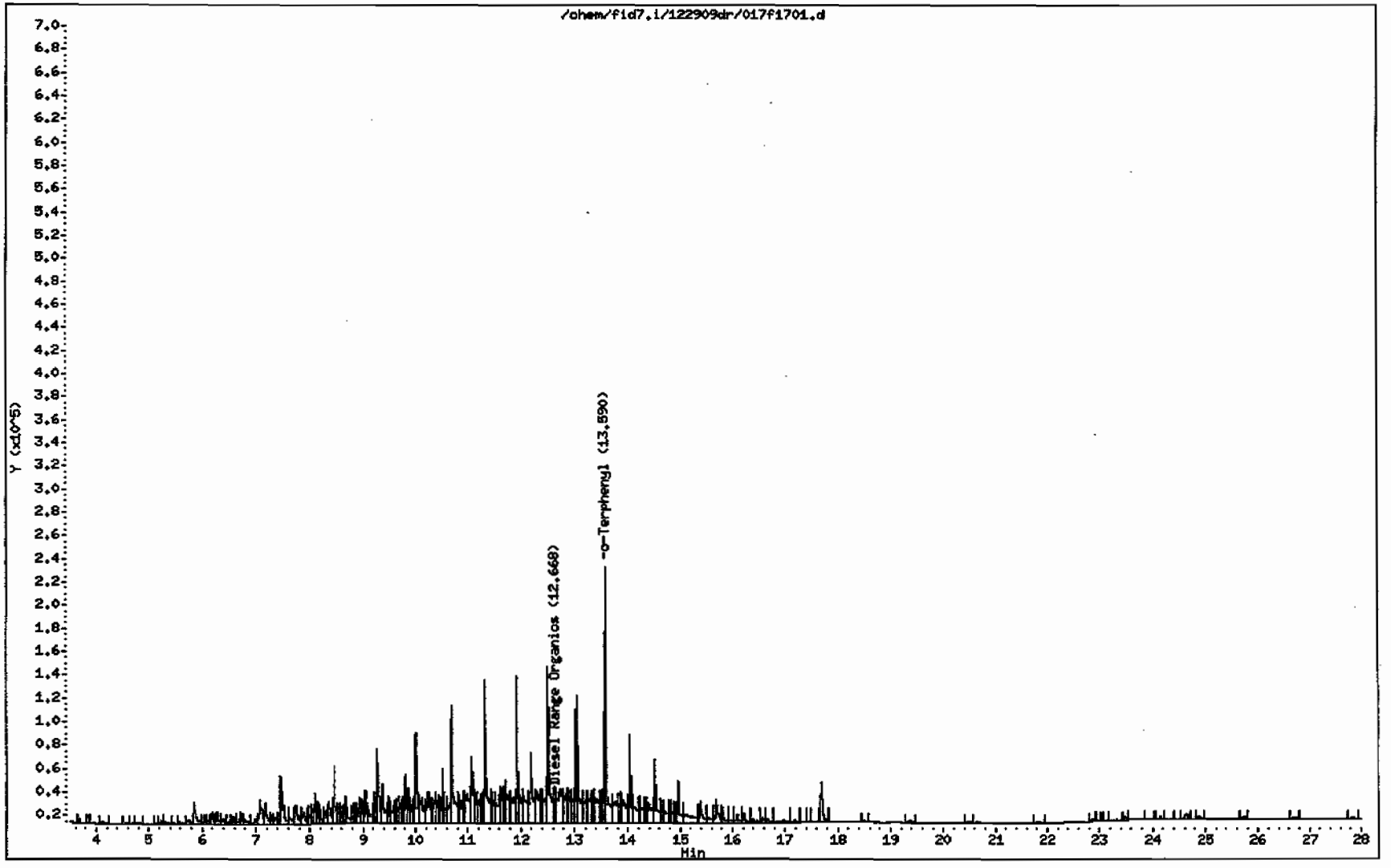

Flame Ionization Detector
Certificate of Analysis
Sample Summary

SDG Number:	10-1085	**Date Collected:**	12/22/2009 12:00	**Matrix:**	R
Lab Sample ID:	1202005245	**Date Received:**	12/24/2009 09:30	**%Moisture:**	7.2
Client Sample:	QC for batch 937100	**Client:**	LANL010	**Project:**	QC
Client ID:	WST03-10-2148MSD	**Method:**	SW846 8015A/B SVOC	**SOP Ref:**	GL-OA-E-003
Batch ID:	937101	**Inst:**	FID7.I	**Dilution:**	1
Run Date:	12/30/2009 01:02	**Analyst:**	KXR2	**Inj. Vol:**	1 uL
Prep Date:	12/28/2009 21:00	**Aliquot:**	30.02 g	**Final Volume:**	1 mL
Data File:	018f1801.d	**Column:**	DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics		25.2	mg/kg	2.33	7.18

GEL Laboratories LLC

DB-5MS .25mm

Data file : /chem/fid7.i/122909dr/018f1801.d
Lab Smp Id: 1202005245 Client Smp ID: WST03-10-2148MSD
Inj Date : 30-DEC-2009 01:02
Operator : KXR2 Inst ID: fid7.i
Smp Info : |1202005245|1|
Misc Info : |FIDDRO_S|937101|FID|MSD|
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fid7.i/122909dr/FID7a.i_b_DRO_121309.m
Meth Date : 04-Jan-2010 07:09 kev01577 Quant Type: ESTD
Cal Date : 13-DEC-2009 18:58 Cal File: 007f0701.d
Als bottle: 18 QC Sample: MSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1085.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.02000	Weigth of sample extracted (g)
M	7.19000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (mg/L)	FINAL (mg/Kg)
S 1 Diesel Range Organics					CAS #:
7.480- 17.855			9433208	703.068	25.2
$ 2 o-Terphenyl					CAS #: 84-15-1
13.590	13.594	-0.004	370960	14.0704	0.50

Data File: /chem/fid7.i/122909dr/018f1801.d
Date : 30-DEC-2009 01:02
Client ID: WST03-10-2148HSD
Sample Info: 1120200524511
Volume Injected (uL): 1.0
Column phase: DB-5MS

Instrument: fid7.i
Operator: KXR2
Column diameter: 0.25

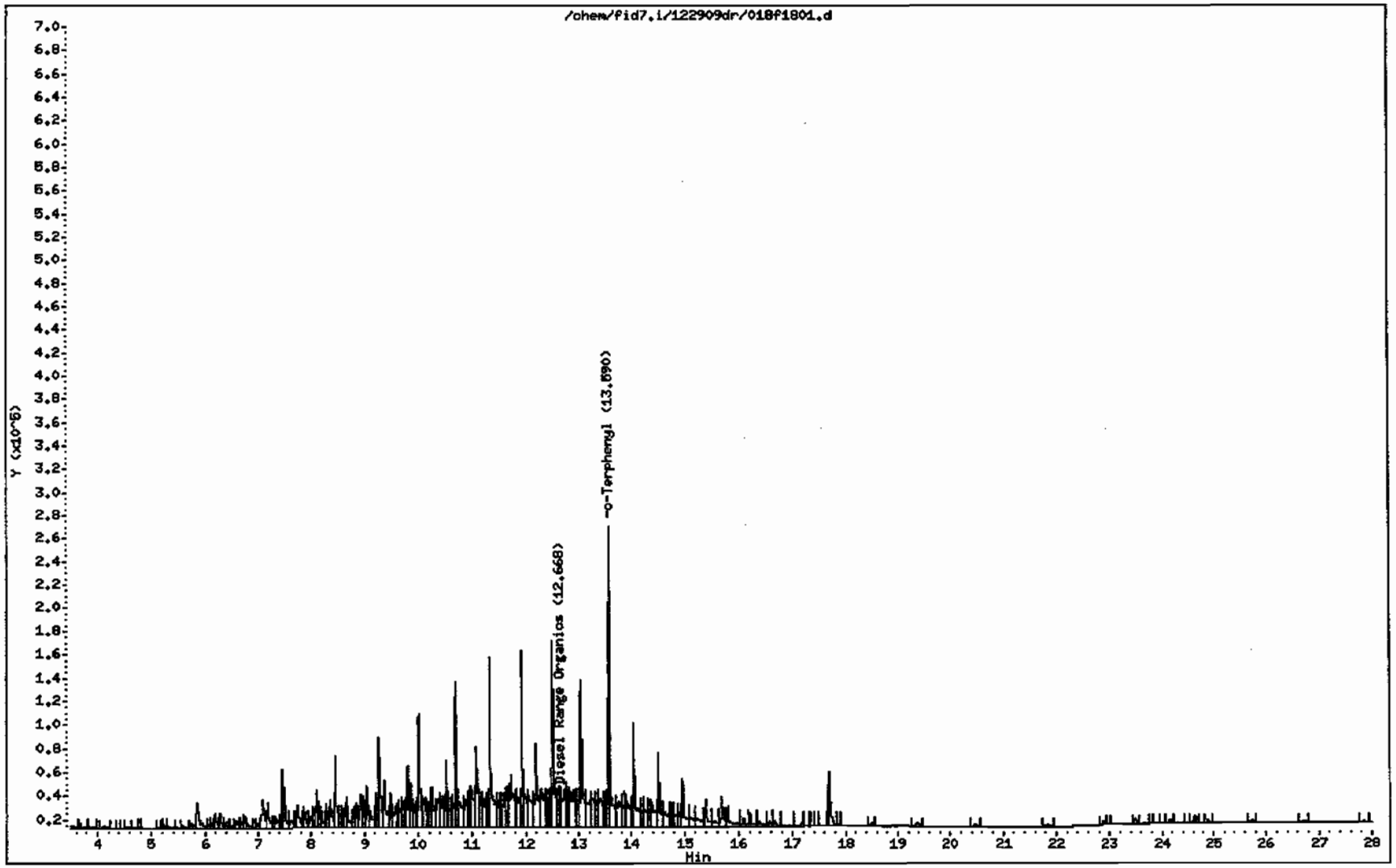

MISCELLANEOUS DATA

GEL ORGANIC RUN LOG INSTRUMENT ID: FID7.i

DATE: 12/14/2009 METHOD: FID7a.i_b_DRO_121309.m OPERATOR:KXR2 REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 16 on pg. 16 Solvent REMAT ID:CH2CL2

Calibration & QC Information
GC Column: DB-5MS 30m x 0.25mm x 0.25um
Initial Calibration Dates: See Calibration History and Standards Log
Initial Calibration Std ID's: See Calibration History and Standards Log
FID analysis of GEL SOP:GL-OA-E-003

Sequence Number:121309DR Injection Volume: 1.0 ul

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001f0101.d	WFI091130-06 B1	KXR2	13-DEC-2009 15:16		SDGa20942	1.0		CLEAN
002f0201.d	UFI091013-03 RT	KXR2	13-DEC-2009 15:53		SDGa20942	1.0		RTMARKER
003f0301.d	UFI090827-10 200	KXR2	13-DEC-2009 16:31		SDGa20942	1.0		CAL. LEVEL 1
004f0401.d	UFI090827-11 500	KXR2	13-DEC-2009 17:07		SDGa20942	1.0		CAL. LEVEL 2
005f0501.d	UFI090827-12 1000	KXR2	13-DEC-2009 17:45		SDGa20942	1.0		CAL. LEVEL 3
006f0601.d	UFI090827-13 2000	KXR2	13-DEC-2009 18:22		SDGa20942	1.0		CAL. LEVEL 4
007f0701.d	UFI090827-14 5000	KXR2	13-DEC-2009 18:58		SDGa20942	1.0		CAL. LEVEL 5
008f0801.d	WFI090928-01 D1	KXR2	13-DEC-2009 19:36		SDGa20942	1.0		PASSES
009f0901.d	WFI091130-06 B2	KXR2	13-DEC-2009 20:12		SDGa20942	1.0		CLEAN
010f1001.d	1201993826	KXR2	13-DEC-2009 20:49	932074	10-830	1.0	MB	USE
011f1101.d	1201993827	KXR2	13-DEC-2009 21:26	932074	10-830	1.0	LCS	USE
012f1201.d	242439002	KXR2	13-DEC-2009 22:03	932074	10-830	1.0	LANL	USE
013f1301.d	1201993828	KXR2	13-DEC-2009 22:40	932074	10-830	1.0	MS	USE
014f1401.d	1201993829	KXR2	13-DEC-2009 23:18	932074	10-830	1.0	MSD	USE
015f1501.d	242439003	KXR2	13-DEC-2009 23:54	932074	10-830	1.0	LANL	USE

Instrument Batch: /chem/fid7.i/121309dr Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
016f1601.d	242439004	KXR2	14-DEC-2009 00:32	932074	10-830	1.0	LANL	USE

017f1701.d	242439005	KXR2	14-DEC-2009 01:09	932074	10-830	5.0	LANL	USE
018f1801.d	242439006	KXR2	14-DEC-2009 01:46	932074	10-830	1.0	LANL	USE
019f1901.d	242439007	KXR2	14-DEC-2009 02:23	932074	10-830	1.0	LANL	USE
020f2001.d	UFI091118-02 D2	KXR2	14-DEC-2009 03:00		SDGa20942	1.0		PASSES
021f2101.d	WFI091130-06 B3	KXR2	14-DEC-2009 03:37		SDGa20942	1.0		CLEAN
022f2201.d	242439008	KXR2	14-DEC-2009 04:13	932074	10-830	1.0	LANL	USE
023f2301.d	242439009	KXR2	14-DEC-2009 04:50	932074	10-830	1.0	LANL	USE
024f2401.d	242439010	KXR2	14-DEC-2009 05:27	932074	10-830	1.0	LANL	USE
025f2501.d	242439011	KXR2	14-DEC-2009 06:04	932074	10-830	1.0	LANL	USE
026f2601.d	242439012	KXR2	14-DEC-2009 06:41	932074	10-830	1.0	LANL	USE
027f2701.d	242439013	KXR2	14-DEC-2009 07:18	932074	10-830	20.0	LANL	USE
028f2801.d	242439014	KXR2	14-DEC-2009 07:55	932074	10-830	1.0	LANL	USE
029f2901.d	242439015	KXR2	14-DEC-2009 08:32	932074	10-830	10.0	LANL	USE
030f3001.d	242439016	KXR2	14-DEC-2009 09:09	932074	10-830	1.0	LANL	USE
031f3101.d	UFI091118-02 D3	KXR2	14-DEC-2009 09:46		SDGa20942	1.0		PASSES
032f3201.d	WFI091130-06 B4	KXR2	14-DEC-2009 10:23		SDGa20942	1.0		CLEAN

GEL ORGANIC RUN LOG INSTRUMENT ID: FID7.1

DATE: 12/30/2009 METHOD: FID7a.i_b_DRO_121309.m OPERATOR:KXR2 REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 16 on pg. 16 Solvent REMAT ID:CH2CL2

Calibration & QC Information
GC Column: DB-5MS 30m x 0.25mm x 0.25um
Initial Calibration Dates: See Calibration History and Standards Log
Initial Calibration Std ID's: See Calibration History and Standards Log
FID analysis of GEL SOP:GL-OA-E-003

Sequence Number:122909DR Injection Volume: 1.0 ul

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001f0101.d	WFI091130-06 B1	KXR2	29-DEC-2009 14:37		SDGa24688	1.0		CLEAN
002f0201.d	UFI091013-03 RT	KXR2	29-DEC-2009 15:14		SDGa24688	1.0		RTMARKER
003f0301.d	UFI091203-02 D1	KXR2	29-DEC-2009 15:51		SDGa24688	1.0		PASSES
004f0401.d	WFI091130-06 B2	KXR2	29-DEC-2009 16:27		SDGa24688	1.0		CLEAN
005f0501.d	243390001	KXR2	29-DEC-2009 17:04	936367	10-1000	50.0	LANL	USE
006f0601.d	243390002	KXR2	29-DEC-2009 17:41	936367	10-1000	50.0	LANL	USE
007f0701.d	243393002	KXR2	29-DEC-2009 18:18	936367	10-1005	1.0	LANL	USE
008f0801.d	1202003525	KXR2	29-DEC-2009 18:55	936367	10-1005	1.0	MS	USE
009f0901.d	1202003526	KXR2	29-DEC-2009 19:32	936367	10-1005	1.0	MSD	USE
010f1001.d	1202005242	KXR2	29-DEC-2009 20:08	937101	10-1084	1.0	MB	USE
011f1101.d	1202005243	KXR2	29-DEC-2009 20:45	937101	10-1084	1.0	LCS	USE
012f1201.d	243547002	KXR2	29-DEC-2009 21:22	937101	10-1084	1.0	LANL	USE
013f1301.d	243547003	KXR2	29-DEC-2009 21:58	937101	10-1084	1.0	LANL	USE
014f1401.d	UFI091203-02 D2	KXR2	29-DEC-2009 22:35		SDGa24688	1.0		PASSES
015f1501.d	WFI091130-06 B3	KXR2	29-DEC-2009 23:12		SDGa24688	1.0		CLEAN

Instrument Batch: /chem/fid7.i/122909dr Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
016f1601.d	243549002	KXR2	29-DEC-2009 23:49	937101	10-1085	1.0	LANL	USE

017f1701.d	1202005244	KXR2	30-DEC-2009 00:26	937101	10-1085		1.0	MS	USE
018f1801.d	1202005245	KXR2	30-DEC-2009 01:02	937101	10-1085		1.0	MSD	USE
019f1901.d	UFI091203-02 D3	KXR2	30-DEC-2009 01:39		SDGa24688		1.0		PASSES
020f2001.d	WFI091130-06 B4	KXR2	30-DEC-2009 02:16		SDGa24688		1.0		CLEAN

Prep Logbook

Extraction of Semivolatile and Nonvolatile Organic Compounds from Soil, Sludge, and Other Miscellaneous Solid Samples

Batch ID: 937100 **Verified by:** _____

Analyst: Alberto Velasco

Method: SW846 3550B

Lab SOP: GL-OA-E-010 REV# 18

Instrument: Semi-Volatiles Manual

Sample ID	Run Date	Aliquot (g)	Prepped Aliquot (mL)	Prepped Factor (mL/g)
1202005242 MB	28-DEC-2009 21:00:37	30	1	0.03333
1202005243 LCS	28-DEC-2009 21:00:37	30	1	0.03333
243547002	28-DEC-2009 21:00:37	30.01	1	0.03332
243547003	28-DEC-2009 21:00:37	30.13	1	0.03319
243549002	28-DEC-2009 21:00:37	30.11	1	0.03321
1202005244 MS (243549002)	28-DEC-2009 21:00:37	30.07	1	0.03326
1202005245 MSD (243549002)	28-DEC-2009 21:00:37	30.02	1	0.03331

Type	Sample Id	Description	Serial Number	Spike Amt	Units
LCS	1202005243	TPH DRO LCS	UE091030-08	1	mL
MS	1202005244	TPH DRO LCS	UE091030-08	1	mL
MSD	1202005245	TPH DRO LCS	UE091030-08	1	mL
SURR	All	20 ppm surrogate	WE091210-04	1	mL
REGNT	All	Methylene Chloride	1246976-D	300	mL
SOURC	All	SODIUM SULFATE	1242582	30	g

Comments:

Verified By: AJS

Final Solvent: CH2Cl2

GC Volatile GRO Analysis

GC Volatile Organics
Los Alamos National Laboratory (LANL)
SDG 10-1085

Method/Analysis Information

Procedure:	Volatile Total Petroleum Hydrocarbons by Flame Ionization Detector
Analytical Method:	SW846 8015B VOC
Prep Method:	SW846 8015B PREP
Analytical Batch Number:	938557
Prep Batch Number:	938556

Sample Analysis

The following client and quality control samples were analyzed to complete this sample delivery group/work order using the methods referenced in the Analysis Information section:

Sample ID	Client ID
243549002	WST03-10-2148
1202014968	Method Blank (MB)
1202014969	Laboratory Control Sample (LCS)
1202008171	243547002(WST54-10-9921) Post Spike (PS)
1202008172	243547002(WST54-10-9921) Post Spike Duplicate (PSD)

The samples in this SDG were analyzed on a "dry weight" basis.

NOTE: For volatile organic analyses the matrix spike designations may be indicated as "PS" or "PSD". The "PS" designation (post spike) indicates that the matrix was fortified prior to analysis but after applying any prep factors, such as a dilution. The laboratory considers the MS/MSD and PS/PSD designations interchangeable.

Gasoline Range Organics will be designated as GRO throughout this case narrative.

Raw data reports are processed and reviewed by the analyst using the Target software package. False positives have been removed from the Target quantitation reports per standard operating procedures (SOP) section 20.2.6.

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-004 REV# 18.

Calibration Information

Due to the limited capacity of software, all of the current initial calibration files may not be displayed. If necessary, a calibration history report was inserted, prior to the appropriate Form 6, in the Standards section in the data package.

The linear equation used in Target and indicated on the initial calibration summary form is not a conventional linear equation (slope intercept formula) and does not match the equation found in SW-846 method 8000B. The x and y axes are inversed in Target, so that the instrument response is treated as the independent variable (x) and the concentration ratio is treated as the dependent variable (y). The equation used in Target to calculate sample results is adjusted to account for the linear equation inversion and reciprocal slope. The adjusted calculation has been independently verified to produce valid results.

Initial Calibration

All initial calibration requirements have been met for this sample delivery group (SDG).

CCV Requirements
All associated calibration verification standard(s) (ICV or CCV) met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB(s) analyzed with this SDG met the acceptance criteria.

Surrogate Recoveries
Surrogate recoveries, in all samples and quality control samples, were within the acceptance limits.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

QC Sample Designation
Sample 243547002 (WST54-10-9921) was selected for analysis as the matrix spike.

Matrix Spike (PS) Recovery Statement
The GRO recovery was within the acceptance limits.

Matrix Spike Duplicate (PSD) Recovery Statement
The GRO recovery was within the acceptance limits.

Relative Percent Difference (RPD) Statement
The RPD between the matrix spike pair met the acceptance limits.

Technical Information

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the ALPHALIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-extraction/Re-analysis
Re-extractions or re-analyses were not required in this SDG.

Miscellaneous Information

Electronic Package Comment
The following package was generated using an electronic data processing program referred to as "virtual packaging". In an effort to increase quality and efficiency, the laboratory is developing systems to eventually generate all data packages electronically. The following change from "traditional" packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. An electronic signature page inserted after the case narrative of each electronic package will indicate the analyst, reviewer, and report specialist names associated with the generation of the data and package. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Data Exception (DER) Documentation
A DER was not required for this sample delivery group/work order.

Manual Integrations
Data files associated with the initial calibration, continuing calibration check(s), and samples may have been manually integrated to correct misidentification of peaks by the integration software.

Additional Comments
Additional comments were not required for this SDG.

System Configuration
The GRO Organics analysis was performed on the following instrument configuration:

Instrument ID	Instrument	System Configuration	Column ID	Column Description	P & T Trap
VOC4A.I	Agilent 6890N FID	HP6890N GC/FID	DB-624	0.53mm x 3.0u x 15m	Tekmar #1

Certification Statement
Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis Report
for

LANL010 Los Alamos National Laboratory (72733-001-09)

Client SDG: 10-1085 GEL Work Order: 243549

The Qualifiers in this report are defined as follows:

* A quality control analyte recovery is outside of specified acceptance criteria

** Analyte is a surrogate compound

J Value is estimated

U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

Review/Validation

GEL requires all analytical data to be verified by a qualified data reviewer. In addition, all CLP-like deliverables receive a third level review of the fractional data package.

The following data validator verified the information presented in this case narrative:

Signature: Erin Haubert **Name: Erin Haubert**

Date: 19 JAN 2010 **Title: Data Validator**

Roadmap for LANL 10-1085 GRO

This roadmap was analyzed by ACJ on 01-13-2010, 20:51.
This roadmap was reviewed by ch1 on 01-14-2010, 15:45.

Sample

exclude	manual	datafile	smpid	injdate	injtime	sublist	clientid	dilution	comment
☐	N	/chem/voc4a.i/010510/4s200007.d	243549002	05-JAN-2010	16:51	GRO.sub	WST03-10-2148	1	

QC Sample

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	comment
☐	N	/chem/voc4a.i/010510/4s200006B.d	1202014968	mb	05-JAN-2010	16:01	GRO.sub	BLANK	1	
☐	N	/chem/voc4a.i/010510/4s200004L.d	1202014969	lcs	05-JAN-2010	14:59	GRO.sub	LCS	1	

Sample Data Summary

GC Volatiles (GRO)
Certificate of Analysis
Sample Summary

SDG Number:	10-1085	**Date Collected:**	12/22/2009 12:00	**Matrix:**	R
Lab Sample ID:	243549002	**Date Received:**	12/24/2009 09:30	**%Moisture:**	7.2
		Client:	LANL010	**Project:**	LANL01004
Client ID:	WST03-10-2148	**Method:**	SW846 8015A/B VOC	**SOP Ref:**	GL-OA-E-004
Batch ID:	938557	**Inst:**	VOC4A.I	**Dilution:**	1
Run Date:	01/05/2010 16:51	**Analyst:**	ACJ	**Aliquot:**	5 mL
Prep Date:	01/05/2010 16:27	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	4s200007.d	**Column:**	Rtx-Volatiles	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
TPH-GRO	Gasoline Range Organics	J	46.0	ug/kg	12.1	53.9

QC Summary

GC Volatiles (GRO)

Surrogate Recovery Report

SDG Number: 10-1085

Matrix Type: SOLID

CAP Column (1) : Rtx-Volatiles

Sample ID	Client ID	BFB %REC
1202014969	LCS for batch 938556	104
1202014968	MB for batch 938556	103
243549002	WST03-10-2148	101

Surrogate	Acceptance Limits
BFB = Bromofluorobenzene	(26%-143%)

* Recovery outside Acceptance Limits
# Column to be used to flag recovery values
D Sample Diluted

GC Volatiles (GRO)

Quality Control Summary

Spike Recovery Report

SDG Number: 10-1085
Client ID: WST54-10-9921PS
Lab Sample ID: 1202008171
Instrument: VOC4A.I
Analyst: ACJ
Aliquot: 5 mL

Sample Type: Post Spike
Matrix: S
%Moisture: 11.1
Analysis Date: 01/05/2010 01:02
Prep Batch ID: 938556
Batch ID: 938557

Dilution: 1

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
PS	Gasoline Range Organics	500	0.00	U	475	95	5-138

GC Volatiles (GRO)

Quality Control Summary

Spike Recovery Report

SDG Number: 10-1085
Client ID: WST54-10-9921PSD
Lab Sample ID: 1202008172
Instrument: VOC4A.I
Analyst: ACJ
Aliquot: 5 mL

Sample Type: Post Spike Duplicate
Matrix: S
%Moisture: 11.1
Analysis Date: 01/05/2010 01:31
Prep Batch ID: 938556
Batch ID: 938557
Dilution: 1

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
PSD	Gasoline Range Organics	500	0.00	U	466	93	5-138	2	0-30

GC Volatiles (GRO)

Quality Control Summary

Spike Recovery Report

SDG Number: 10-1085 **Sample Type:** Laboratory Control Sample

Client ID: LCS for batch 938556 **Matrix:** SOIL

Lab Sample ID: 1202014969

Instrument: VOC4A.I **Analysis Date:** 01/05/2010 14:59 **Dilution:** 1

Analyst: ACJ **Prep Batch ID:** 938556

Aliquot: 5 mL **Batch ID:** 938557

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
	LCS	Gasoline Range Organics	500	0.0	525	105	85-123

Method Blank Summary

SDG Number:	10-1085	Client:	LANL010	Matrix:	SOIL
Client ID:	MB for batch 938556	Instrument ID:	VOC4A.I	Data File:	4s200006B.d
Lab Sample ID:	1202014968	Prep Date:	01/05/2010 13:30	Analyzed:	01/05/10 16:01
Column:	Rtx-Volatiles	Heated Purge:	Yes		

This method blank applies to the following samples and quality control samples:

Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01 LCS for batch 938556	1202014969	4s200004L.d	01/05/10	1459
02 WST03-10-2148	243549002	4s200007.d	01/05/10	1651

Sample Data

GC Volatiles (GRO)
Certificate of Analysis
Sample Summary

SDG Number:	10-1085	**Date Collected:**	12/22/2009 12:00	**Matrix:**	R
Lab Sample ID:	243549002	**Date Received:**	12/24/2009 09:30	**%Moisture:**	7.2
		Client:	LANL010	**Project:**	LANL01004
Client ID:	WST03-10-2148	**Method:**	SW846 8015A/B VOC	**SOP Ref:**	GL-OA-E-004
Batch ID:	938557	**Inst:**	VOC4A.I	**Dilution:**	1
Run Date:	01/05/2010 16:51	**Analyst:**	ACJ	**Aliquot:**	5 mL
Prep Date:	01/05/2010 16:27	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	4s200007.d	**Column:**	Rtx-Volatiles	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
TPH-GRO	Gasoline Range Organics	J	46.0	ug/kg	12.1	53.9

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SW-846 3rd edition 8015 Modified

Data file : /chem/voc4a.i/010510/4s200007.d
Lab Smp Id: 243549002 Client Smp ID: WST03-10-2148
Inj Date : 05-JAN-2010 16:51
Operator : ACJ Inst ID: voc4a.i
Smp Info : |243549002|1|
Misc Info : |VOC8015_LF|938557|GROF|
Comment : FID
Method : /chem/voc4a.i/010510/8015GRO-120709.m
Meth Date : 13-Jan-2010 20:29 amj Quant Type: ESTD
Cal Date : 07-DEC-2009 19:47 Cal File: 4o100008.d
Als bottle: 7
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: GRO.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * (100/(100-M)*(Vt/Ws))*Uf * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	7.18890	% Moisture
Vt	5.00000	Purge Volume (mL)
Ws	5.00000	Weight of sample (g)
Uf	1.00000	Unit Correction Factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	
S 1 Gasoline Range Organics					CAS #:	
2.871-	10.942		43686451	42.6953	46.0	(a)
$ 3 Bromofluorobenzene					CAS #: 460-00-4	
9.512	9.509	0.003	40485971	50.4510	54.4	

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

Data File: /chem/voc4a.i/010510/4s200007.d
Date : 05-JAN-2010 16:51
Client ID: WST03-10-2148
Sample Info: |243549002|1|

Column phase: Rtx-Volatiles

Instrument: voc4a.i

Operator: ACJ
Column diameter: 0.25

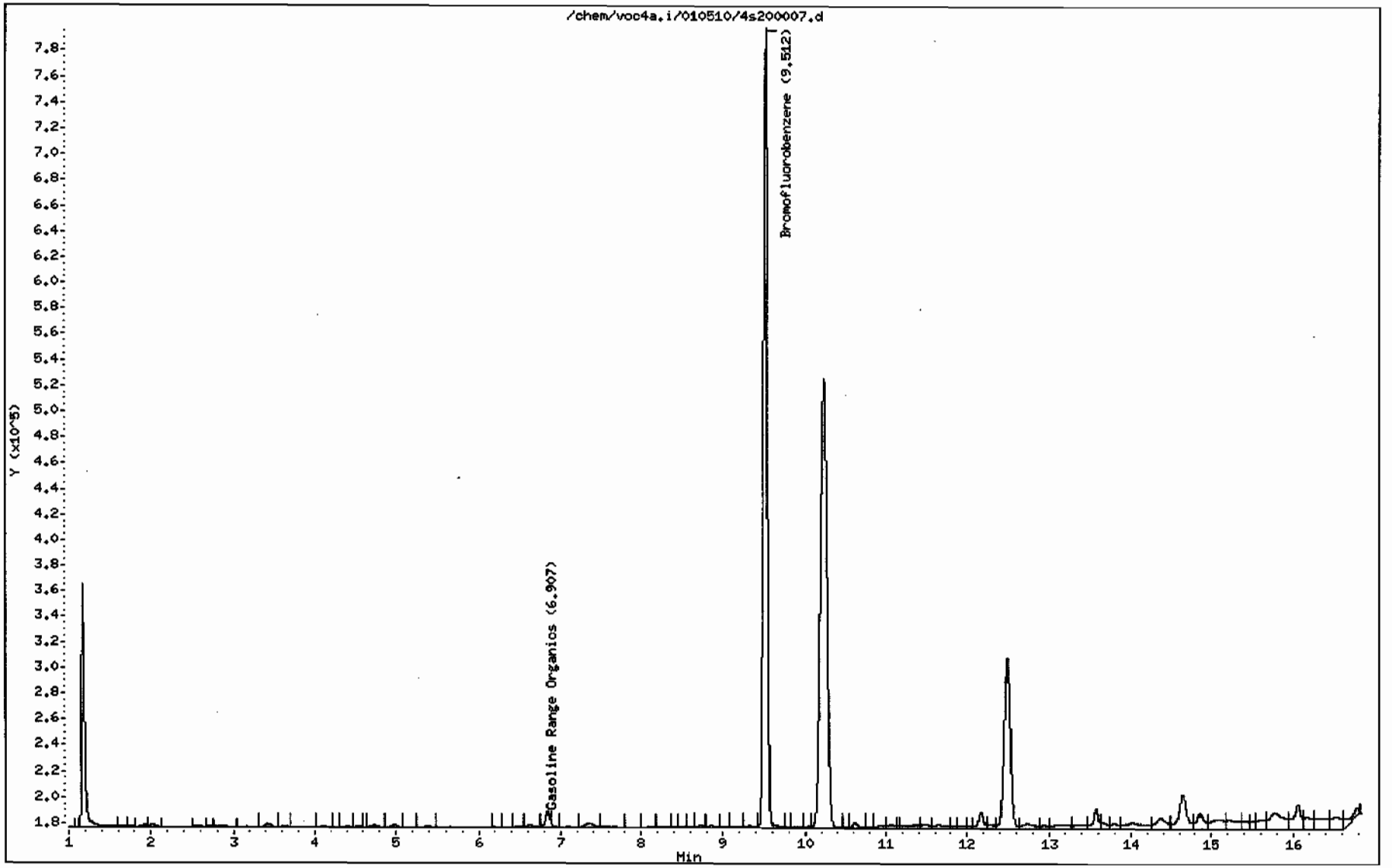

Standard Data

Report Date: 15-Jan-2010 13:25

Calibration History

Method : /chem/voc4a.i/010510/8015GRO-120709.m
Start Cal Date: 07-DEC-2009 16:47
End Cal Date : 07-DEC-2009 19:47

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 50.00000		
07-DEC-2009 16:47	GRO	/chem/voc4a.i/120709/4o100002.d
Cal Level: 2 , Cal Amount: 100.00000		
07-DEC-2009 17:17	GRO	/chem/voc4a.i/120709/4o100003.d
Cal Level: 3 , Cal Amount: 250.00000		
07-DEC-2009 17:48	GRO	/chem/voc4a.i/120709/4o100004.d
Cal Level: 4 , Cal Amount: 500.00000		
07-DEC-2009 18:18	GRO	/chem/voc4a.i/120709/4o100005.d
Cal Level: 5 , Cal Amount: 750.00000		
07-DEC-2009 18:48	GRO	/chem/voc4a.i/120709/4o100006.d
Cal Level: 6 , Cal Amount: 1000.00000		
07-DEC-2009 19:17	GRO	/chem/voc4a.i/120709/4o100007.d
Cal Level: 7 , Cal Amount: 2000.00000		
07-DEC-2009 19:47	GRO	/chem/voc4a.i/120709/4o100008.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 500		
05-JAN-2010 22:47	GRO	/chem/voc4a.i/010510/4s200017.d
Ccal Level: 4 , Ccal Amount: 500		
05-JAN-2010 17:21	GRO	/chem/voc4a.i/010510/4s200008.d
Ccal Level: 4 , Ccal Amount: 500		
05-JAN-2010 22:13	GRO	/chem/voc4a.i/010510/4s200016.d
Ccal Level: 4 , Ccal Amount: 500		

05-JAN-2010 13:57	GRO	/chem/voc4a.i/010510/4s200002.d

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INITIAL CALIBRATION DATA

Start Cal Date : 07-DEC-2009 16:47
End Cal Date : 07-DEC-2009 19:47
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem/voc4a.i/010510/8015GRO-120709.m
Cal Date : 15-Jan-2010 13:23 amj
Curve Type : Average

Calibration File Names:
Level 1: /chem/voc4a.i/120709/4o100002.d
Level 2: /chem/voc4a.i/120709/4o100003.d
Level 3: /chem/voc4a.i/120709/4o100004.d
Level 4: /chem/voc4a.i/120709/4o100005.d
Level 5: /chem/voc4a.i/120709/4o100006.d
Level 6: /chem/voc4a.i/120709/4o100007.d
Level 7: /chem/voc4a.i/120709/4o100008.d

Compound	50.000 Level 1 / 2000.000 Level 7	100.000 Level 2	250.000 Level 3	500.000 Level 4	750.000 Level 5	1000.000 Level 6	RRF	% RSD
S 1 Gasoline Range Organics	1082682 / 1057684	1001230	981010	1065173	1033194	941533	1023215	4.971
2 2-Methylpentane	++++++ / ++++++	++++++	++++++	++++++	++++++	++++++	++++++	++++++
4 1,2,4-Trimethylbenzene	++++++ / ++++++	++++++	++++++	++++++	++++++	++++++	++++++	++++++
$ 3 Bromofluorobenzene	++++++ / 777588	857128	835052	792622	785837	766662	802481	4.432

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: voc4a.i
Lab File ID: 4o100010.d
Analysis Type: WATER
Lab Sample ID: GROICV
Method: /chem/voc4a.i/120709/8015GRO-120709.m

Injection Date: 07-DEC-2009 20:47
Init. Cal. Date(s): 07-DEC-2009 07-DEC-2009
Init. Cal. Times: 16:47 19:47
Quant Type: ESTD

COMPOUND	RRF / AMOUNT	RF500	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
S 1 Gasoline Range Organics	1023215	1052132	0.010	2.82609	15.00000	Averaged
$ 3 Bromofluorobenzene	802481	794937	0.010	-0.94007	15.00000	Averaged

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SW-846 3rd edition 8015 Modified

Data file : /chem/voc4a.i/120709/4o100010.d
Lab Smp Id: GROICV
Client Smp ID: SECOND SOURCE
Inj Date : 07-DEC-2009 20:47
Operator : ACJ
Inst ID: voc4a.i
Smp Info : |GROICV|
Misc Info : |VOC8015_LF|-----|GROF|
Comment : FID
Method : /chem/voc4a.i/120709/8015GRO-120709.m
Meth Date : 07-Dec-2009 21:00 amj
Quant Type: ESTD
Cal Date : 07-DEC-2009 19:47
Cal File: 4o100008.d
Als bottle: 10
Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP Genie
Compound Sublist: GRO.sub
Target Version: 3.50
Sample Matrix: WATER
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (Vt/Vo)*Uf * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	5.00000	Purge Volume
Vo	5.00000	Initial sample volume
Uf	1.00000	Unit Correction Factor

Cpnd Variable — Local Compound Variable

	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
S 1 Gasoline Range Organics						CAS #:
	2.859-	10.941		526065994	500.000	514
$ 3 Bromofluorobenzene						CAS #: 460-00-4
	9.510	9.507	0.003	39746867	50.0000	49.5

Data File: /chem/voc4a.i/120709/4o100010.d

Date : 07-DEC-2009 20:47

Client ID: SECOND SOURCE

Sample Info: IGROICVI

Purge Volume: 5.0

Column phase: Rtx-Volatiles

Instrument: voc4a.i

Operator: ACJ

Column diameter: 0.25

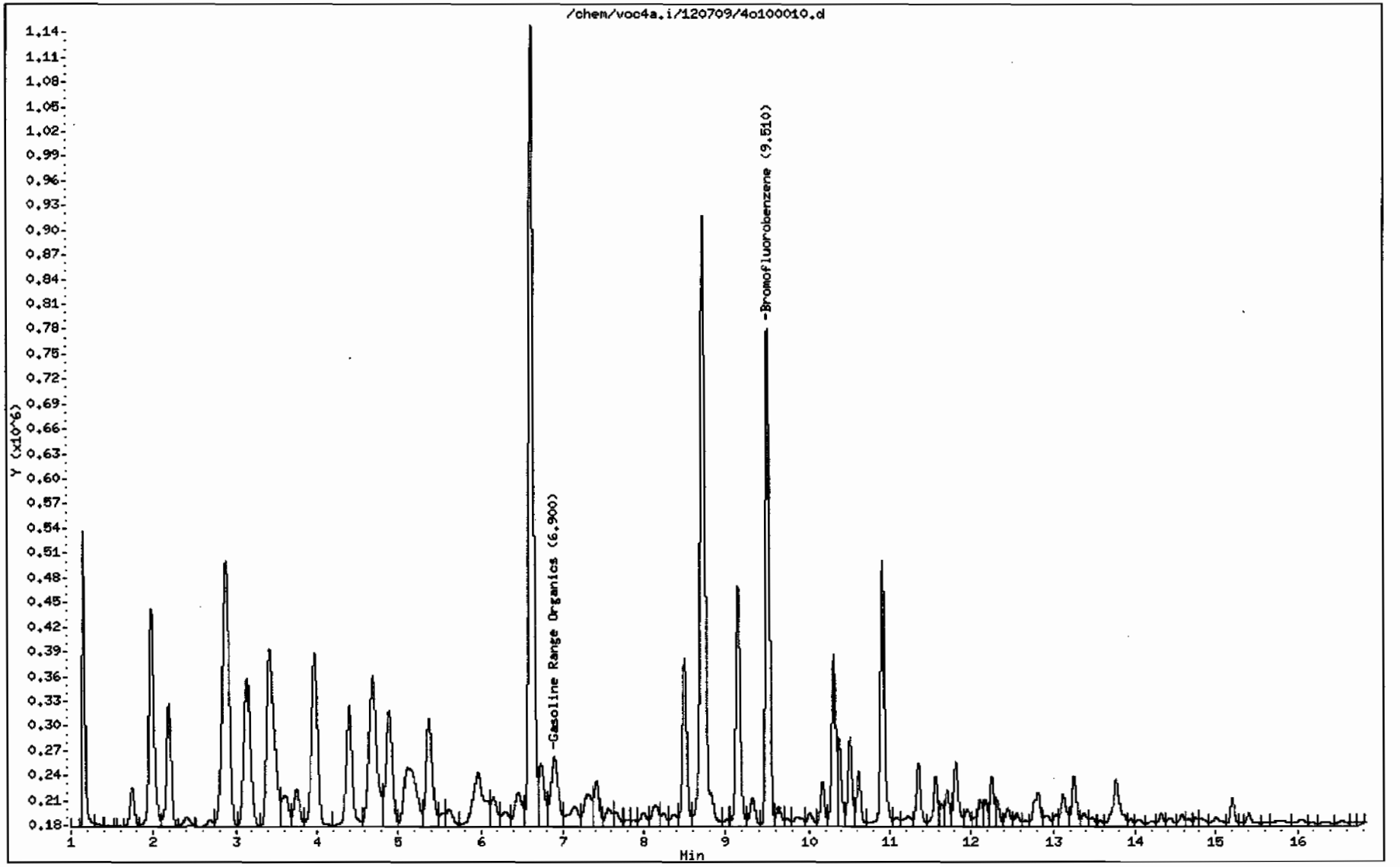

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COMPOUND LISTING

Method file : /chem/voc4a.i/010510/8015GRO-120709.m
Quant Method : ESTD Target Version : 3.50
Last Update : 15-Jan-2010 13:23 Number of Cpnds : 4
Data Type : GC DATA

Global Integrator : HP Genie

Chromat Events	Values
Initial:Thresh Units	1.000000
Initial:Peak Width	0.050000
Initial:Area Reject	50000.000000
Initial:Solvent Slope	500000.000000
Initial:Split Solvent	2000.000000
2.500:Baseline Now	n/a

	Compound	RT	RT Window	RF
S	1 Gasoline Range Organics	6.907	2.871-10.942	1.023e+06
	2 2-Methylpentane	2.901	2.871-2.931	
$	3 Bromofluorobenzene	9.509	9.479-9.539	8.025e+05
	4 1,2,4-Trimethylbenzene	10.912	10.882-10.942	

GEL Laboratories LLC

SW-846 3rd edition 8015 Modified

Data file : /chem/voc4a.i/010510/4s200001.d
Lab Smp Id: WVG100105-01 Client Smp ID: RT_CHECK
Inj Date : 05-JAN-2010 13:26
Operator : ACJ Inst ID: voc4a.i
Smp Info : |WVG100105-01|
Misc Info : |VOC8015_LF|-----|GROF|
Comment : FID
Method : /chem/voc4a.i/010510/8015GRO-120709.m
Meth Date : 15-Jan-2010 13:23 amj Quant Type: ESTD
Cal Date : 07-DEC-2009 19:47 Cal File: 4o100008.d
Als bottle: 1 QC Sample: RT_CHECK
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: Range.sub
Target Version: 3.50 Sample Matrix: WATER

Concentration Formula: Amt * DF * (Vt/Vo)*Uf * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	5.00000	Purge Volume
Vo	5.00000	Initial sample volume
Uf	1.00000	Unit Correction Factor

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	
2 2-Methylpentane					CAS #:	
2.901	2.901	0.000	75907526			(a)
$ 3 Bromofluorobenzene					CAS #: 460-00-4	
9.509	9.509	0.000	36132439	45.0259	45.0	
4 1,2,4-Trimethylbenzene					CAS #:	
10.912	10.912	0.000	76894220			(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: voc4a.i
Lab File ID: 4s200002.d
Analysis Type: WATER
Lab Sample ID: GROCCV
Method: /chem/voc4a.i/010510/8015GRO-120709.m

Injection Date: 05-JAN-2010 13:57
Init. Cal. Date(s): 07-DEC-2009 07-DEC-2009
Init. Cal. Times: 16:47 19:47
Quant Type: ESTD

COMPOUND	RRF / AMOUNT	RF500	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
S 1 Gasoline Range Organics	1023215	1003985	0.010	-1.87941	15.00000	Averaged
$ 3 Bromofluorobenzene	802481	696254	0.010	-13.23738	15.00000	Averaged

GEL Laboratories LLC

SW-846 3rd edition 8015 Modified

Data file : /chem/voc4a.i/010510/4s200002.d
Lab Smp Id: GROCCV Client Smp ID: VSTD0500
Inj Date : 05-JAN-2010 13:57
Operator : ACJ Inst ID: voc4a.i
Smp Info : |GROCCV|
Misc Info : |VOC8015_LF|-----|GROF|
Comment : FID
Method : /chem/voc4a.i/010510/8015GRO-120709.m
Meth Date : 15-Jan-2010 13:23 amj Quant Type: ESTD
Cal Date : 07-DEC-2009 19:47 Cal File: 4o100008.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: GRO.sub
Target Version: 3.50 Sample Matrix: WATER

Concentration Formula: Amt * DF * (Vt/Vo)*Uf * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	5.00000	Purge Volume
Vo	5.00000	Initial sample volume
Uf	1.00000	Unit Correction Factor

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
S 1 Gasoline Range Organics					CAS #:
2.871-	10.942		501992330	500.000	491
$ 3 Bromofluorobenzene					CAS #: 460-00-4
9.511	9.509	0.002	34812686	50.0000	43.4

Data File: /chem/voc4a.i/010510/4s200002.d

Date : 05-JAN-2010 13:57

Client ID: VSTD0500

Sample Info: |GROCCV|

Purge Volume: 5.0

Column phase: Rtx-Volatiles

Instrument: voc4a.i

Operator: ACJ

Column diameter: 0.25

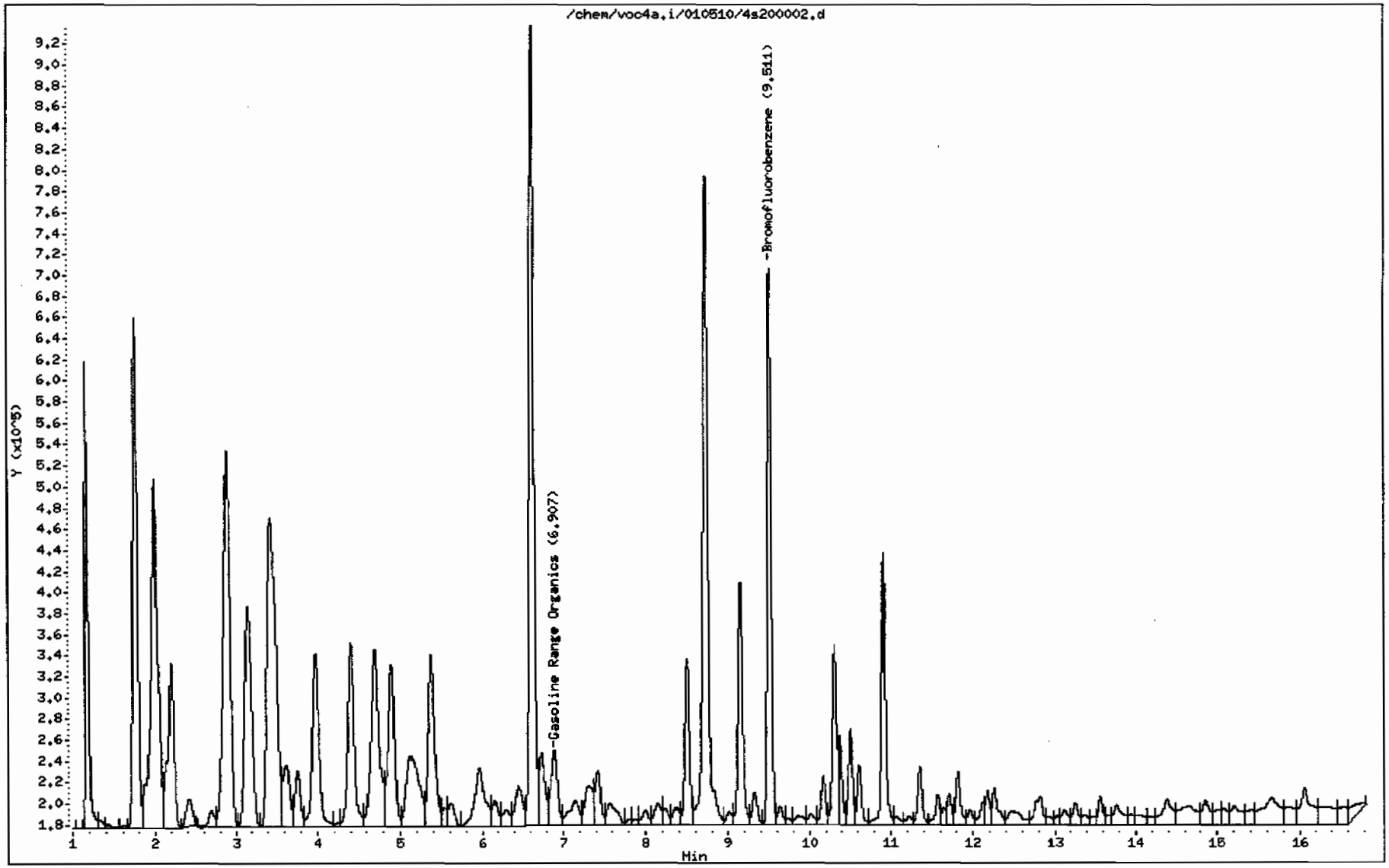

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: voc4a.i Injection Date: 05-JAN-2010 17:21
Lab File ID: 4s200008.d Init. Cal. Date(s): 07-DEC-2009 07-DEC-2009
Analysis Type: WATER Init. Cal. Times: 16:47 19:47
Lab Sample ID: GROCCV Quant Type: ESTD
Method: /chem/voc4a.i/010510/8015GRO-120709.m

COMPOUND	RRF / AMOUNT	RF500	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
S 1 Gasoline Range Organics	1023215	1153347	0.010	12.71792	15.00000	Averaged
$ 3 Bromofluorobenzene	802481	763671	0.010	-4.83634	15.00000	Averaged

GEL Laboratories LLC

SW-846 3rd edition 8015 Modified

Data file : /chem/voc4a.i/010510/4s200008.d
Lab Smp Id: GROCCV Client Smp ID: VSTD0500
Inj Date : 05-JAN-2010 17:21
Operator : ACJ Inst ID: voc4a.i
Smp Info : |GROCCV|
Misc Info : |VOC8015_LF|-----|GROF|
Comment : FID
Method : /chem/voc4a.i/010510/8015GRO-120709.m
Meth Date : 15-Jan-2010 13:23 amj Quant Type: ESTD
Cal Date : 07-DEC-2009 19:47 Cal File: 4o100008.d
Als bottle: 8 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: GRO.sub
Target Version: 3.50 Sample Matrix: WATER

Concentration Formula: Amt * DF * (Vt/Vo)*Uf * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	5.00000	Purge Volume
Vo	5.00000	Initial sample volume
Uf	1.00000	Unit Correction Factor

Cpnd Variable Local Compound Variable

	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
S 1 Gasoline Range Organics						CAS #:
	2.871-	10.942		576673337	500.000	564
$ 3 Bromofluorobenzene						CAS #: 460-00-4
	9.512	9.509	0.003	38183526	50.0000	47.6

Data File: /chem/voc4a.i/010510/4s200008.d
Date : 05-JAN-2010 17:21
Client ID: VSTD0500
Sample Info: |GROCCV|
Purge Volume: 5.0
Column phase: Rtx-Volatiles

Instrument: voc4a.i

Operator: ACJ
Column diameter: 0.25

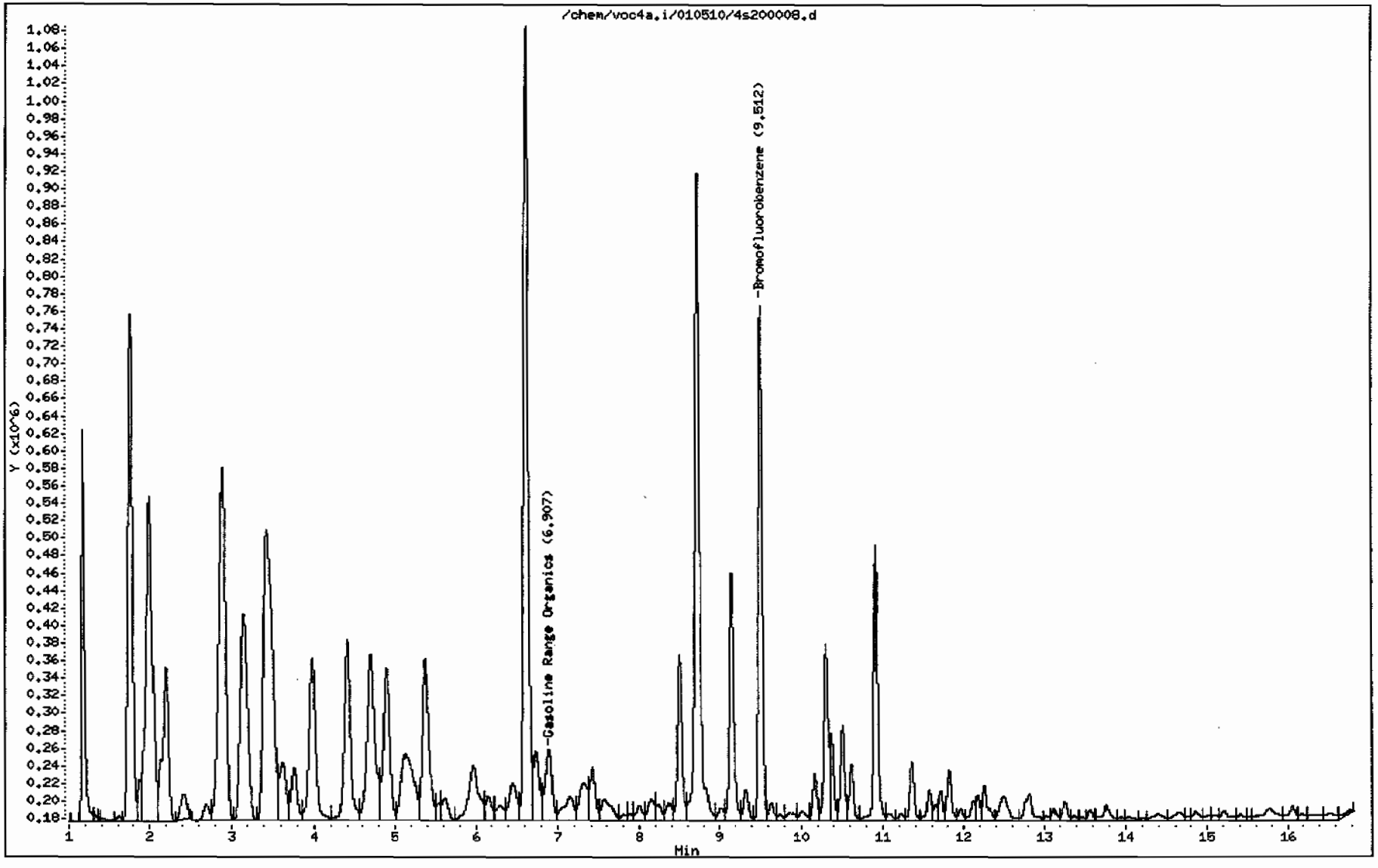

Analytical Sequence

Lab Name: GEL Laboratories LLC **Client SDG:** 10-1085

GC Column: Rtx-Volatiles **Init. Calibration Dates:** 07-DEC-09 16:47 - 07-DEC-09 19:47

Instrument ID: VOC4A.

Analytical Sequence for Performance Evaluation Mixtures, Blanks, Samples, and Standards is given below:

	Mean Surrogate RT From Initial Calibration:			9.51
	RT Range Based on Calibration Verification:			9.48 9.54 #
	Sample Number	**Lab Sample ID**	**Analysis Date**	**Bromofluorobenzene**
1	VSTD0050	VSTD0050	07-DEC-09 16:47	9.51
2	VSTD0100	VSTD0100	07-DEC-09 17:17	9.51
3	VSTD0250	VSTD0250	07-DEC-09 17:48	9.51
4	VSTD0500	VSTD0500	07-DEC-09 18:18	9.51
5	VSTD0750	VSTD0750	07-DEC-09 18:48	9.51
6	VSTD1000	VSTD1000	07-DEC-09 19:17	9.51
7	VSTD2000	VSTD2000	07-DEC-09 19:47	9.51
8	VSTD0500	GROICV	07-DEC-09 20:47	9.51

Column used to flag retention time values with an asterisk.

Analytical Sequence

Lab Name: GEL Laboratories LLC **Client SDG:** 10-1085

GC Column: Rtx-Volatiles **Init. Calibration Dates:** 07-DEC-09 16:47 - 07-DEC-09 19:47

Instrument ID: VOC4A.

Analytical Sequence for Performance Evaluation Mixtures, Blanks, Samples, and Standards is given below:

	Mean Surrogate RT From Initial Calibration:			9.51
	RT Range Based on Calibration Verification:			9.48 9.54 #
	Sample Number	**Lab Sample ID**	**Analysis Date**	**Bromofluorobenzene**
1	VSTD0500	GROCCV	05-JAN-10 13:57	9.51
2	ZZZZZZZ	ZZZZZZZ	05-JAN-10 14:28	ZZZZ
3	BLK01LCS	1202014969	05-JAN-10 14:59	9.51
4	ZZZZZZZ	ZZZZZZZ	05-JAN-10 15:30	ZZZZ
5	BLANK	1202014968	05-JAN-10 16:01	9.51
6	WST03-10-2148	243549002	05-JAN-10 16:51	9.51
7	VSTD0500	GROCCV	05-JAN-10 17:21	9.51

Column used to flag retention time values with an asterisk.

QC Data

GC Volatiles (GRO)
Certificate of Analysis
Sample Summary

SDG Number:	**10-1085**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202014968**				
Client Sample:	**QC for batch 938556**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 938556**	**Method:**	**SW846 8015A/B VOC**	**SOP Ref:**	**GL-OA-E-004**
Batch ID:	**938557**	**Inst:**	**VOC4A.I**	**Dilution:**	**1**
Run Date:	**01/05/2010 16:01**	**Analyst:**	**ACJ**	**Aliquot:**	**5 mL**
Prep Date:	**01/05/2010 13:30**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**4s200006B.d**	**Column:**	**Rtx-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
TPH-GRO	Gasoline Range Organics	U	50.0	ug/kg	11.2	50.0

GEL Laboratories LLC

SW-846 3rd edition 8015 Modified

Data file : /chem/voc4a.i/010510/4s200006B.d
Lab Smp Id: 1202014968 Client Smp ID: BLANK
Inj Date : 05-JAN-2010 16:01
Operator : ACJ Inst ID: voc4a.i
Smp Info : |1202014968|1|
Misc Info : |VOC8015_LF|938557|GROF|
Comment : FID
Method : /chem/voc4a.i/010510/8015GRO-120709.m
Meth Date : 13-Jan-2010 20:29 amj Quant Type: ESTD
Cal Date : 07-DEC-2009 19:47 Cal File: 4o100008.d
Als bottle: 6 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: GRO.sub
Target Version: 3.50 Sample Matrix: SOIL
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M)*(Vt/Ws))*Uf * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	0.00000	% Moisture
Vt	5.00000	Purge Volume (mL)
Ws	5.00000	Weight of sample (g)
Uf	1.00000	Unit Correction Factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)
$ 3 Bromofluorobenzene					CAS #: 460-00-4
9.511	9.509	0.002	41230366	51.3786	51.4

Data File: /chem/voc4a.i/010510/4s200006B.d
Date : 05-JAN-2010 16:01
Client ID: BLANK
Sample Info: |1202014968|1|

Column phase: Rtx-Volatiles

Instrument: voc4a.i

Operator: ACJ
Column diameter: 0.25

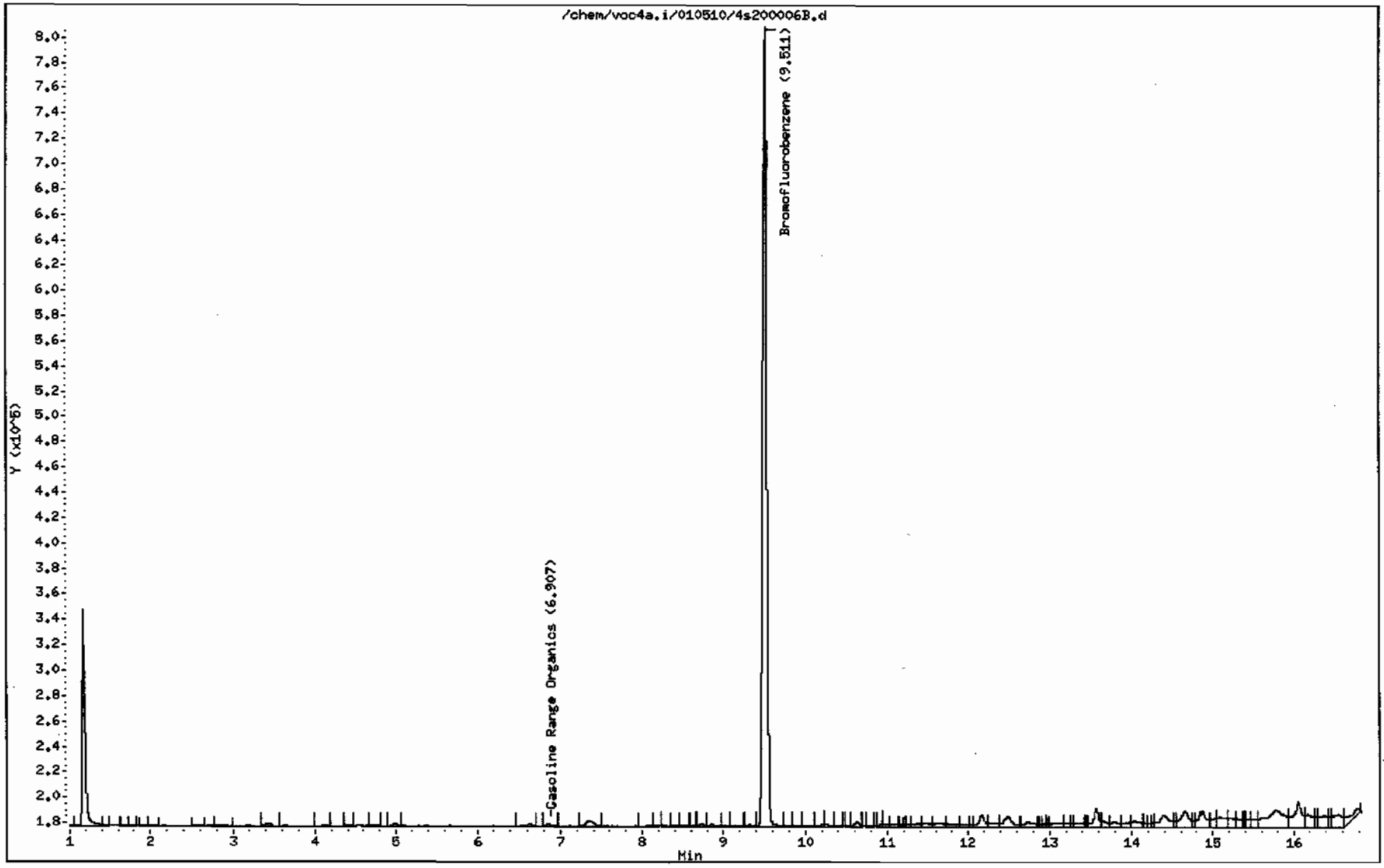

GC Volatiles (GRO)
Certificate of Analysis
Sample Summary

SDG Number:	10-1085			**Matrix:**	SOIL
Lab Sample ID:	1202014969				
Client Sample:	QC for batch 938556	**Client:**	LANL010	**Project:**	QC
Client ID:	LCS for batch 938556	**Method:**	SW846 8015A/B VOC	**SOP Ref:**	GL-OA-E-004
Batch ID:	938557	**Inst:**	VOC4A.I	**Dilution:**	1
Run Date:	01/05/2010 14:59	**Analyst:**	ACJ	**Aliquot:**	5 mL
Prep Date:	01/05/2010 13:00	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	4s200004L.d	**Column:**	Rtx-Volatiles	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
TPH-GRO	Gasoline Range Organics		525	ug/kg	11.2	50.0

GEL Laboratories LLC

SW-846 3rd edition 8015 Modified

Data file : /chem/voc4a.i/010510/4s200004L.d
Lab Smp Id: 1202014969 Client Smp ID: LCS
Inj Date : 05-JAN-2010 14:59
Operator : ACJ Inst ID: voc4a.i
Smp Info : |1202014969|1|
Misc Info : |VOC8015_LF|938557|GROF|
Comment : FID
Method : /chem/voc4a.i/010510/8015GRO-120709.m
Meth Date : 13-Jan-2010 20:29 amj Quant Type: ESTD
Cal Date : 07-DEC-2009 19:47 Cal File: 4o100008.d
Als bottle: 4 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: GRO.sub
Target Version: 3.50 Sample Matrix: SOIL

Concentration Formula: Amt * DF * (100/(100-M)*(Vt/Ws))*Uf * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	0.00000	% Moisture
Vt	5.00000	Purge Volume (mL)
Ws	5.00000	Weight of sample (g)
Uf	1.00000	Unit Correction Factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)
S 1 Gasoline Range Organics					CAS #:
2.871-	10.942		536735031	524.557	524
$ 3 Bromofluorobenzene					CAS #: 460-00-4
9.512	9.509	0.003	41566162	51.7971	51.8

Data File: /chem/voc4a.i/010510/4s200004L.d

Date : 05-JAN-2010 14:59

Client ID: LCS

Sample Info: |1202014969|1|

Column phase: Rtx-Volatiles

Instrument: voc4a.i

Operator: ACJ

Column diameter: 0.25

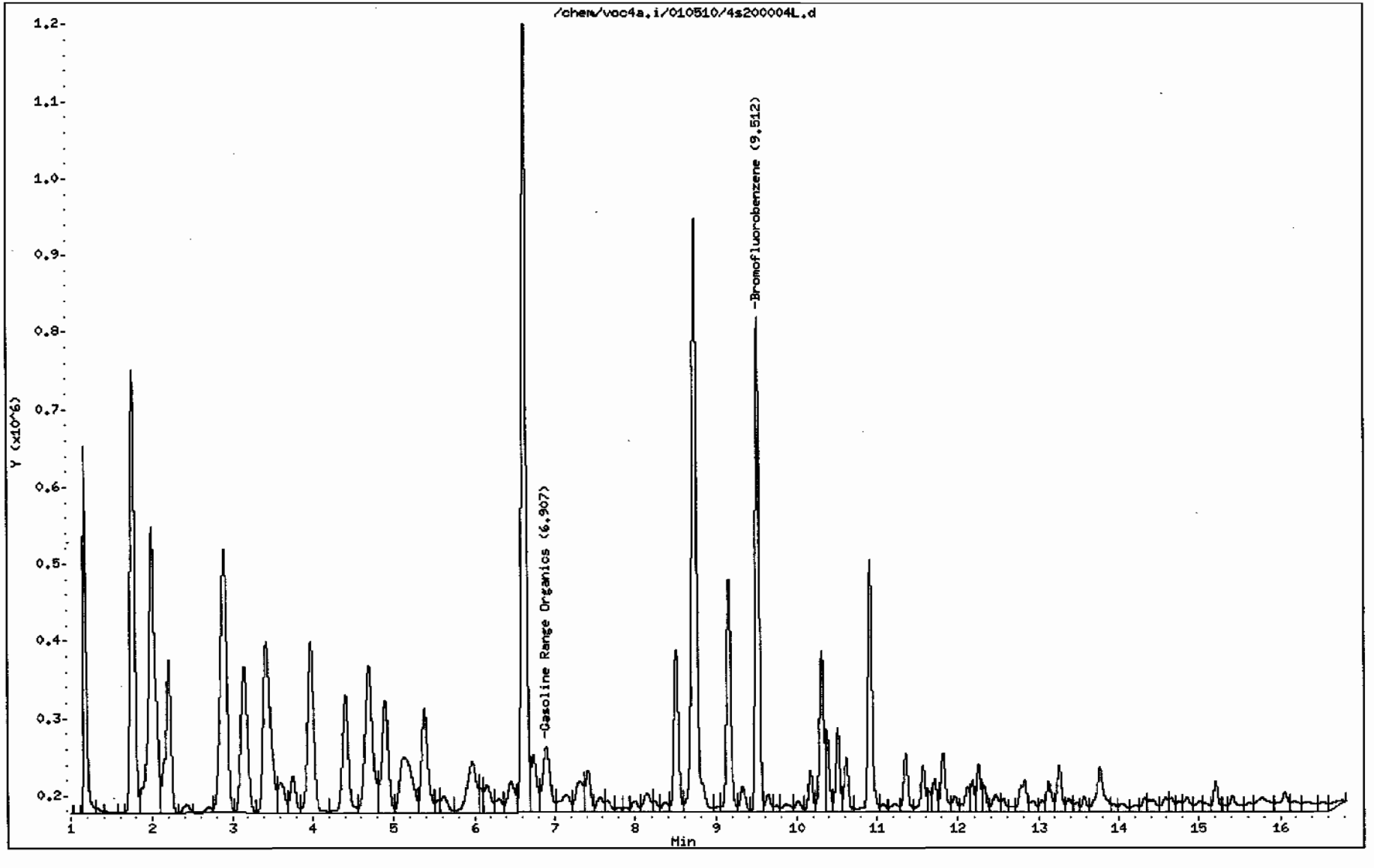

Miscellaneous Data

Prep Logbook

Volatile Total Petroleum Hydrocarbons by Flame Ionization Detector

Batch ID: **938556** Verified by: _____

Analyst: Amy Jamison

Method: SW846 8015A/B PREP

Lab SOP: GL-OA-E-004 REV# 18

Instrument: Sartorius Balance B-001

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units

Sample ID	Run Date	Matrix	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check 1
1202008173 LCS	04-JAN-2010 21:00:00	Soil	5	5	1	
1202008170 MB	04-JAN-2010 21:30:00	Soil	5	5	1	
243547002	04-JAN-2010 22:51:00	Soil	5	5	1	
1202008171 PS (243547002)	04-JAN-2010 22:52:00	Soil	5	5	1	
1202008172 PSD (243547002)	04-JAN-2010 22:53:00	Soil	5	5	1	
243547003	04-JAN-2010 22:54:00	Soil	5	5	1	
1202014969 LCS	05-JAN-2010 13:00:00	Soil	5	5	1	
1202014968 MB	05-JAN-2010 13:30:00	Soil	5	5	1	
243549002	05-JAN-2010 16:27:00	Soil	5	5	1	

Reagent/Solvent Lot ID	Description	Amount

Comments:

General Engineering Laboratories, LLC
Revision:11/22/04

ORGANIC RUN LOG - INSTRUMENT ID#VOC4A

Date: 12/7/2009 Method 8015 Operator ACJ

REVIEWED BY: _____
DATE: _____

HARDWARE CONFIGURATION & METHOD CONDITIONS SUMMARY No# 1

Daily Instrument Readings:
Multiplier Voltage: N/A

CALIBRATION & CC INFORMATION:

Initial Calibration Date: 12/7/2009

(See pg. 129 for ICAL Std. Sci. Ids)

NaHSO4 lot # N/A

Cl test lot # N/A

Sequence Number: VOC4A 120709

Daily Standard Solution ID#		Volume Added for Purge (ul) Blk/ Smpl	CCV	MS/ LCS	RT
CCV	UVG091112-01A		5		
IS	N/A				
SS	UVG091022-01D	2.5	2.5	2.5	2.5
LCS/MS	UVG091112-01A			5	
RTCHECK	WVG091207-01				5+5
C5/C12 RTCHECK	N/A				5

Purge Amount	
5	Water Purge Vol:
VARIED	Soil Purge Wt.
N/A	Mid level ext. MeOH Vol:
N/A	ul
N/A	Methanol Lot #
x	Heated Purge

Analysis Date Time	Data File	Lab Sample ID	Client	Batch #	Wt.(g) or Vol(ml/ul)	Dil. Factor	pH	AS Slot #	Matrix w or s	Analyst	Cl test (Y/N)	Acceptable(√/X)	Comments
12/7/2009 16:17	4O100001.D	WVG091207-01	GEL	RTCHECK	5ML	1	N/A	1	W	ACJ	N/A	O	UVG090909-01A/UVG081212-02B
12/7/2009 16:47	4O100002.D	VSTD0050	GEL	ICAL	5ML	1	N/A	2	W	ACJ	N/A	O	UVG090915-01C/UVG091022-01D
12/7/2009 17:17	4O100003.D	VSTD0100	GEL	ICAL	5ML	1	N/A	3	W	ACJ	N/A	O	UVG090915-01C/UVG091022-01D
12/7/2009 17:48	4O100004.D	VSTD0250	GEL	ICAL	5ML	1	N/A	4	W	ACJ	N/A	O	UVG090915-01C/UVG091022-01D
12/7/2009 18:18	4O100005.D	VSTD0500	GEL	ICAL	5ML	1	N/A	5	W	ACJ	N/A	O	UVG090915-01C/UVG091022-01D
12/7/2009 18:48	4O100006.D	VSTD0750	GEL	ICAL	5ML	1	N/A	6	W	ACJ	N/A	O	UVG090915-01C/UVG091022-01D
12/7/2009 19:17	4O100007.D	VSTD1000	GEL	ICAL	5ML	1	N/A	7	W	ACJ	N/A	O	UVG090915-01C/UVG091022-01D
12/7/2009 19:47	4O100008.D	VSTD2000	GEL	ICAL	5ML	1	N/A	8	W	ACJ	N/A	O	UVG090915-01C/UVG091022-01D
12/7/2009 20:17	4O100009.D	BLANK	GEL	BLANK	5ML	1	N/A	9	W	ACJ	N/A	X	
12/7/2009 20:47	4O100010.D	UVG091112-01A	GEL	ICV	5ML	1	N/A	10	W	ACJ	N/A	O	
12/7/2009 21:19	4O100011.D	UVG091112-01A	GEL	LCS	5G	1	N/A	11	S	ACJ	N/A	O	
12/7/2009 21:49	4O100012.D	UVG091112-01A	GEL	LCSD	5G	1	N/A	12	S	ACJ	N/A	X	SPIKED USING 2.5UL
12/7/2009 22:18	4O100013.D	BLANK	GEL	BLANK	5G	1	N/A	13	S	ACJ	N/A	X	
12/7/2009 22:48	4O100014.D	UVG091112-01A	GEL	LCSD	5G	1	N/A	14	S	ACJ	N/A	O	
12/7/2009 23:18	4O100015.D	BLANK	GEL	BLANK	5G	1	N/A	15	S	ACJ	N/A	O	
12/7/2009 23:58	4O100016.D	241238002	LANL	930378	5G	1	N/A	16	S	ACJ	N/A	O	
12/8/2009 0:28	4O100017.D	242247001	SLAC	929818	5.4G	1	N/A	17	S	ACJ	N/A	O	
12/8/2009 0:58	4O100018.D	242247002	SLAC	929818	5.4G	1	N/A	18	S	ACJ	N/A	O	
12/8/2009 1:27	4O100019.D	UVG091112-01A	GEL	CCV	5ML	1	N/A	19	W	ACJ	N/A	O	

General Engineering Laboratories, LLC
Revision:11/22/04

ORGANIC RUN LOG - INSTRUMENT ID#VOC4A

Date: 1/4/2010 Method 8015 Operator ACJ

REVIEWED BY: _____
DATE: _____

HARDWARE CONFIGURATION & METHOD CONDITIONS SUMMARY No# 1

Daily Instrument Readings:
Multiplier Voltage: N/A

CALIBRATION & CC INFORMATION:

Initial Calibration Date: 12/7/2009

(See pg. 129 for ICAL Std. Sci. Ids)

NaHSO4 lot # N/A

Cl test lot # N/A

Sequence Number: VOC4A 010410

Daily Standard Solution ID#		Volume Added for Purge (ul) Blk/ Smpl	CCV	MS/ LCS	RT
CCV	UVG090915-01D		5		
IS	N/A				
SS	UVG091022-01E	2.5	2.5	2.5	2.5
LCS/MS	UVG091112-01B			5	
RTCHECK	WVG100104-010				5+5
C5/C12 RTCHECK	N/A				5

Purge Amount	
5	Water Purge Vol:
5G	Soil Purge Wt.
N/A	Mid level ext. MeOH Vol:
N/A	ul
N/A	Methanol Lot #
x	Heated Purge

Analysis Date	Time	Data File	Lab Sample ID	Client	Batch #	Wt.(g) or Vol(ml/ul)	Dil. Factor	pH	AS Slot #	Matrix w or s	Analyst	Cl test (Y/N)	Acceptable(√/X)	Comments
1/4/2010	21:03	4S100001.D	WVG100104-01	GEL	RTCHECK	5ML	1	N/A	1	W	ACJ	N/A	O	UVG090909-01A/UVG081212-02B
1/4/2010	21:33	4S100002.D	UVG090915-01D	GEL	CCV	5ML	1	N/A	2	W	ACJ	N/A	O	
1/4/2010	22:03	4S100003.D	UVG091112-01B	GEL	LCS	5ML	1	N/A	3	W	ACJ	N/A	O	
1/4/2010	22:33	4S100004.D	UVG091112-01B	GEL	LCS	5G	1	N/A	4	S	ACJ	N/A	O	
1/4/2010	23:03	4S100005.D	BLANK	GEL	BLANK	5ML	1	N/A	5	W	ACJ	N/A	O	
1/4/2010	23:32	4S100006.D	BLANK	GEL	BLANK	5G	1	N/A	6	S	ACJ	N/A	O	
1/5/2010	0:02	4S100007.D	243547002	LANL	938557	5G	1	N/A	7	S	ACJ	N/A	O	
1/5/2010	0:32	4S100008.D	243547003	LANL	938557	5G	1	N/A	8	S	ACJ	N/A	O	
1/5/2010	1:02	4S100009.D	1202008171	LANL	938557	5G	1	N/A	9	S	ACJ	N/A	O	
1/5/2010	1:31	4S100010.D	1202008172	LANL	938557	5G	1	N/A	10	S	ACJ	N/A	O	
1/5/2010	2:01	4S100011.D	UVG090915-01D	GEL	CCV	5ML	1	N/A	11	W	ACJ	N/A	O	
1/5/2010	2:31	4S100012.D	243481001	PNTX	938558	5UL	1000	N/A	12	W	ACJ	N/A	X	OILY WATER; SEE 1/5/09
1/5/2010	3:01	4S100013.D	243481002	PNTX	938558	5UL	1000	N/A	13	W	ACJ	N/A	X	OILY WATER; SEE 1/5/09
1/5/2010	3:30	4S100014.D	BLANK	GEL	BLANK	5ML	1	N/A	14	W	ACJ	N/A	X	
1/5/2010	4:00	4S100015.D	UVG090915-01D	GEL	CCV	5ML	1	N/A	15	W	ACJ	N/A	X	

General Engineering Laboratories, LLC
Revision:11/22/04

ORGANIC RUN LOG - INSTRUMENT ID#VOC4A

Date: 1/5/2010 Method 8015 Operator ACJ

REVIEWED BY: _____
DATE: _____

HARDWARE CONFIGURATION & METHOD CONDITIONS SUMMARY No# 1

Daily Instrument Readings:
Multiplier Voltage: N/A

CALIBRATION & CC INFORMATION:

Initial Calibration Date: 12/7/2009

(See pg. 129 for ICAL Std. Sci. Ids)

NaHSO4 lot # N/A

Cl test lot # N/A

Sequence Number: VOC4A 010510

Daily Standard Solution ID#		Volume Added for Purge (ul) Blk/ Smpl	CCV	MS/ LCS	RT
CCV	UVG090915-01D		5		
IS	N/A				
SS	UVG091022-01E	2.5	2.5	2.5	2.5
LCS/MS	UVG091112-01B			5	
RTCHECK	WVG100105-01				5+5
C5/C12 RTCHECK	N/A				5

Purge Amount	
5	Water Purge Vol:
5G	Soil Purge Wt.
N/A	Mid level ext. MeOH Vol:
N/A	ul
N/A	Methanol Lot #
x	Heated Purge

Analysis Date Time	Data File	Lab Sample ID	Client	Batch #	Wt.(g) or Vol(ml/ul)	Dil. Factor	pH	AS Slot #	Matrix w or s	Analyst	Cl test (Y/N)	Acceptable(√/X)	Comments
1/5/2010 13:26	4S200001.D	WVG100105-01	GEL	RTCHECK	5ML	1	N/A	1	W	ACJ	N/A	O	UVG090909-01A/UVG081212-02B
1/5/2010 13:57	4S200002.D	UVG090915-01D	GEL	CCV	5ML	1	N/A	2	W	ACJ	N/A	O	
1/5/2010 14:28	4S200003.D	UVG091112-01B	GEL	LCS	5ML	1	N/A	3	W	ACJ	N/A	O	
1/5/2010 14:59	4S200004.D	UVG091112-01B	GEL	LCS	5G	1	N/A	4	S	ACJ	N/A	O	
1/5/2010 15:30	4S200005.D	BLANK	GEL	BLANK	5ML	1	N/A	5	W	ACJ	N/A	O	
1/5/2010 16:01	4S200006.D	BLANK	GEL	BLANK	5G	1	N/A	6	S	ACJ	N/A	O	
1/5/2010 16:51	4S200007.D	243549002	LANL	938557	5G	1	N/A	7	S	ACJ	N/A	O	
1/5/2010 17:21	4S200008.D	UVG090915-01D	GEL	CCV	5ML	1	N/A	8	W	ACJ	N/A	O	
1/5/2010 17:53	4S200009.D	243481001	PNTX	938558	200UL	25	N/A	9	W	ACJ	N/A	X	NO SURROGATE ADDED
1/5/2010 18:23	4S200010.D	243481002	PNTX	938558	100UL	50	N/A	10	W	ACJ	N/A	X	NO SURROGATE ADDED
1/5/2010 18:56	4S200011.D	243481001	PNTX	938558	200UL	25	N/A	11	W	ACJ	N/A	O	
1/5/2010 19:26	4S200012.D	243481002	PNTX	938558	100UL	50	N/A	12	W	ACJ	N/A	O	
1/5/2010 20:43	4S200013.D	1202008175	PNTX	938558	200UL	25	N/A	13	W	ACJ	N/A	O	
1/5/2010 21:13	4S200014.D	1202008176	PNTX	938558	200UL	25	N/A	14	W	ACJ	N/A	O	
1/5/2010 21:43	4S200015.D	BLANK	GEL	BLANK	5ML	1	N/A	15	W	ACJ	N/A	O	
1/5/2010 22:13	4S200016.D	UVG090915-01D	GEL	CCV	5ML	1	N/A	16	W	ACJ	N/A	X	SS LOW
1/5/2010 22:47	4S200017.D	UVG090915-01D	GEL	CCV	5ML	1	N/A	17	W	ACJ	N/A	O	

GEL Laboratories LLC

SW-846 3rd edition 8015 Modified

Data file : /chem/voc4a.i/010410/4s100007.d
Lab Smp Id: 243547002 Client Smp ID: WST54-10-9921
Inj Date : 05-JAN-2010 00:02
Operator : ACJ Inst ID: voc4a.i
Smp Info : |243547002|1|
Misc Info : |VOC8015_LF|938557|GROF|
Comment : FID
Method : /chem/voc4a.i/010410/8015GRO-120709.m
Meth Date : 05-Jan-2010 12:35 amj Quant Type: ESTD
Cal Date : 07-DEC-2009 19:47 Cal File: 4o100008.d
Als bottle: 7
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: GRO.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * (100/(100-M)*(Vt/Ws))*Uf * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	11.09100	% Moisture
Vt	5.00000	Purge Volume (mL)
Ws	5.00000	Weight of sample (g)
Uf	1.00000	Unit Correction Factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)
$ 3 Bromofluorobenzene					CAS #: 460-00-4
9.512	9.511	0.001	37043107	46.1607	51.9

Data File: /chem/voc4a.i/010410/4s100007.d
Date : 05-JAN-2010 00:02
Client ID: WST54-10-9921
Sample Info: |243547002|1|

Column phase: Rtx-Volatiles

Instrument: voc4a.i

Operator: ACJ
Column diameter: 0.25

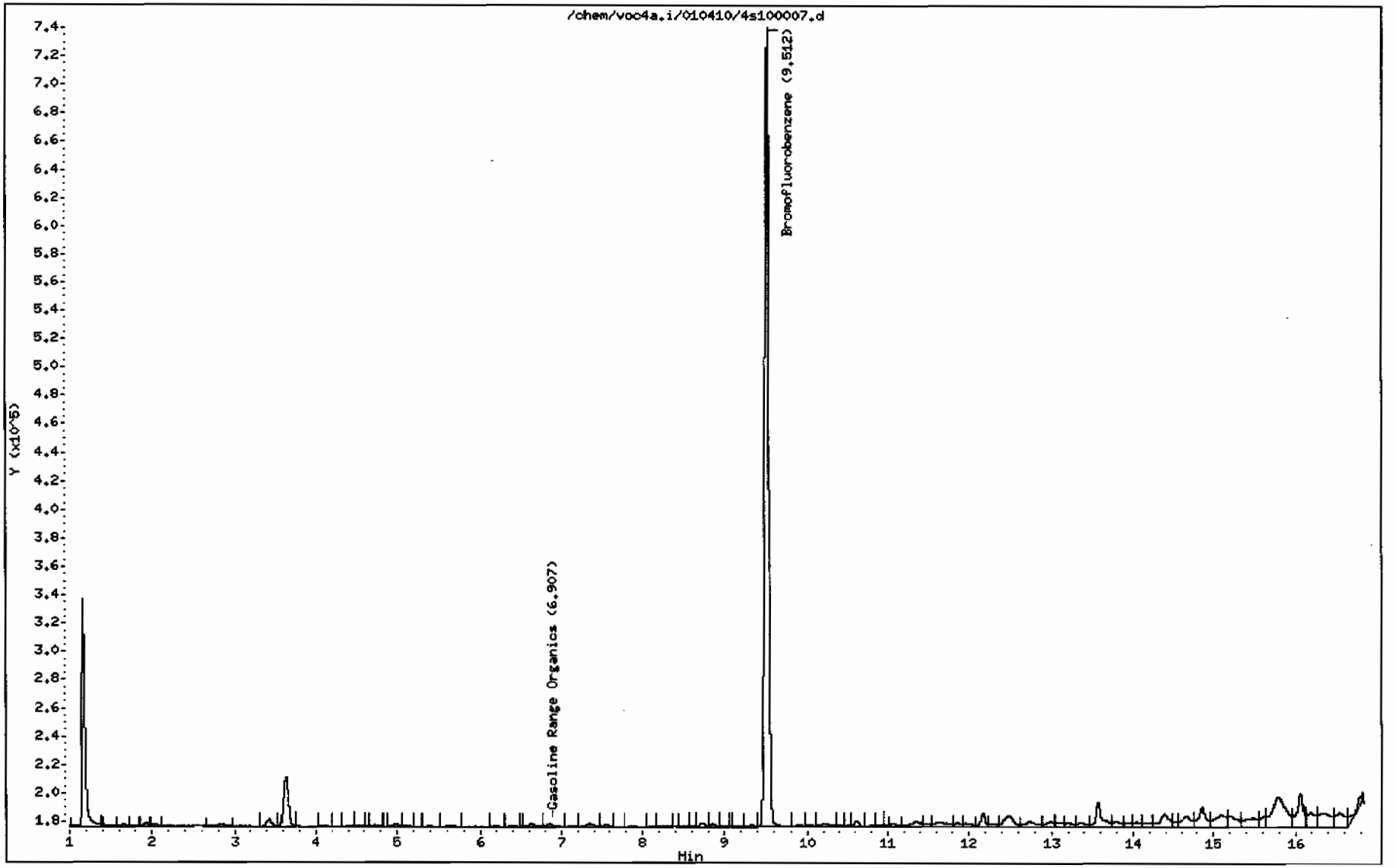

GEL Laboratories LLC

SW-846 3rd edition 8015 Modified

Data file : /chem/voc4a.i/010410/4s100009.d
Lab Smp Id: 1202008171 Client Smp ID: WST54-10-9921MS
Inj Date : 05-JAN-2010 01:02
Operator : ACJ Inst ID: voc4a.i
Smp Info : |1202008171|1|
Misc Info : |VOC8015_LF|938557|GROF|
Comment : FID
Method : /chem/voc4a.i/010410/8015GRO-120709.m
Meth Date : 05-Jan-2010 12:35 amj Quant Type: ESTD
Cal Date : 07-DEC-2009 19:47 Cal File: 4o100008.d
Als bottle: 9 QC Sample: MS
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: GRO.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * (100/(100-M)*(Vt/Ws))*Uf * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	11.09100	% Moisture
Vt	5.00000	Purge Volume (mL)
Ws	5.00000	Weight of sample (g)
Uf	1.00000	Unit Correction Factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)
S 1 Gasoline Range Organics					CAS #:
2.870-	10.944		485536098	474.520	534
$ 3 Bromofluorobenzene					CAS #: 460-00-4
9.513	9.511	0.002	30758025	38.3287	43.1

Data File: /chem/voc4a.i/010410/4s100009.d

Date : 05-JAN-2010 01:02

Client ID: WST54-10-9921MS

Sample Info: |120200817|1|

Column phase: Rtx-Volatiles

Instrument: voc4a.i

Operator: ACJ

Column diameter: 0.25

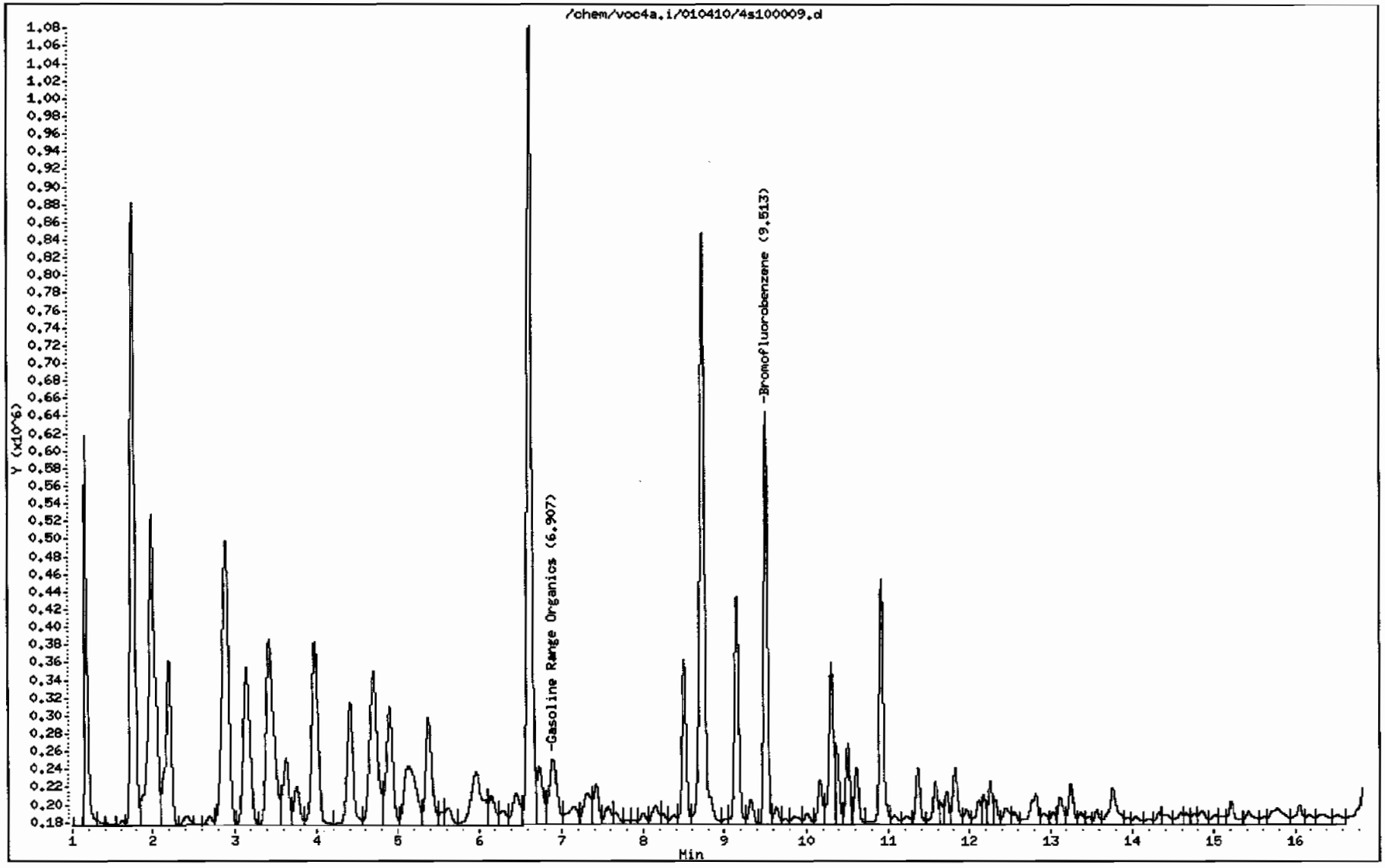

GEL Laboratories LLC

SW-846 3rd edition 8015 Modified

Data file : /chem/voc4a.i/010410/4s100010.d
Lab Smp Id: 1202008172 Client Smp ID: WST54-10-9921MSD
Inj Date : 05-JAN-2010 01:31
Operator : ACJ Inst ID: voc4a.i
Smp Info : |1202008172|1|
Misc Info : |VOC8015_LF|938557|GROF|
Comment : FID
Method : /chem/voc4a.i/010410/8015GRO-120709.m
Meth Date : 05-Jan-2010 12:35 amj Quant Type: ESTD
Cal Date : 07-DEC-2009 19:47 Cal File: 4o100008.d
Als bottle: 10 QC Sample: MSD
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: GRO.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * (100/(100-M)*(Vt/Ws))*Uf * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	11.09100	% Moisture
Vt	5.00000	Purge Volume (mL)
Ws	5.00000	Weight of sample (g)
Uf	1.00000	Unit Correction Factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)
S 1 Gasoline Range Organics					CAS #:
2.870-	10.944		476997497	466.175	524
$ 3 Bromofluorobenzene					CAS #: 460-00-4
9.512	9.511	0.001	30979508	38.6047	43.4

Data File: /chem/voc4a.i/010410/4s100010.d
Date : 05-JAN-2010 01:31
Client ID: WST54-10-9921MSD
Sample Info: |1202008172|1|

Column phase: Rtx-Volatiles

Instrument: voc4a.i

Operator: ACJ
Column diameter: 0.25

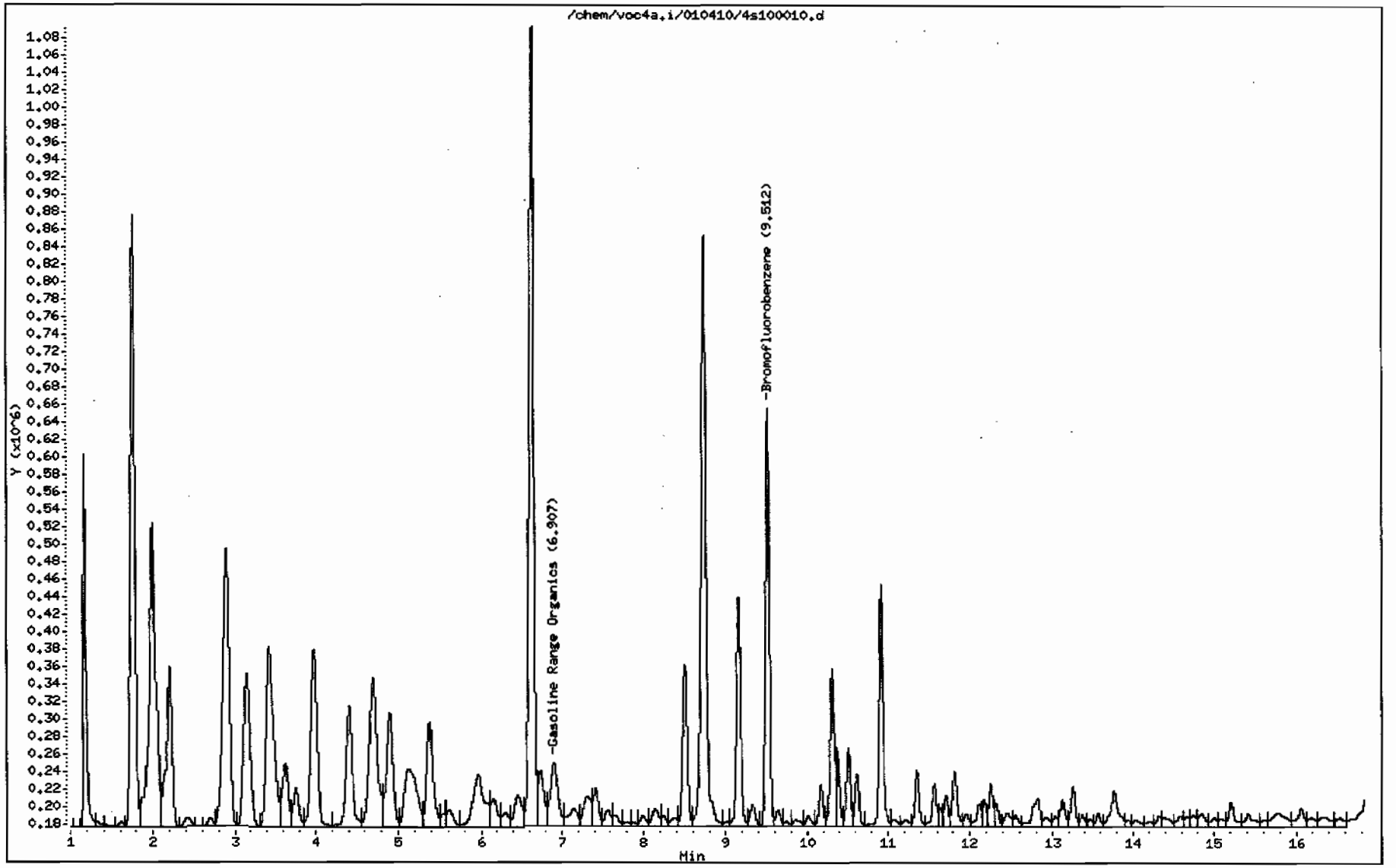

GC SEMIVOLATILE PESTICIDE ANALYSIS

Pesticide Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-1085

Method/Analysis Information

Procedure:	**Analysis of Organochlorine Pesticides and Chlorinated Hydrocarbons by ECD**
Analytical Method:	SW846 8081A
Prep Method:	SW846 3550B
Analytical Batch Number:	937144
Prep Batch Number:	937143

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 8081A:

Sample ID	Client ID
243549002	WST03-10-2148
1202005344	Method Blank (MB)
1202005345	Laboratory Control Sample (LCS)
1202005348	Laboratory Control Sample (LCS)-Toxaphene LCS Only
1202005346	243549002(WST03-10-2148) Matrix Spike (MS)
1202005347	243549002(WST03-10-2148) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on a "dry weight" basis.

Preparation/Analytical Method Verification

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-041 REV# 10.

Raw data reports are processed and reviewed by the analyst using the Target software package. False positives have been removed from the Target quantitation reports per standard operating procedures (SOP) section 23.0.

Calibration Information

Please note that the 'Cal Date' indicated on each quantitation report reflects the date and time of the most recent calibrated analyte(s) in the Target processing method. Since the laboratory may calibrate with multiple solutions on different days using the same processing method, the Target software will update the 'Cal Date' to the last calibration file, date and time. The correct dates and times for all calibration files are located on the Calibration History report in the Standard Data section in the data package.

Due to software limitations, the Calibration Summary Form 6 may not indicate all the calibration files comprising the initial calibration. A complete list of the initial calibration data files are shown in the Calibration History report located in the Standard Data section of the data package.

Initial Calibration
All initial calibration requirements have been met for this sample delivery group (SDG).

The linear equation used in Target and indicated on the initial calibration summary form is not a conventional linear equation (slope intercept formula) and does not match the equation found in SW-846 method 8000B. The x and y axes are inversed in Target, so that the instrument response is treated as the independent variable (x) and the concentration ratio is treated as the dependent variable (y). The equation used in Target to calculate sample results is adjusted to account for the linear equation inversion and reciprocal slope. The adjusted calculation has been independently verified to produce valid results.

Continuing Calibration Verification (CCV) Requirements
The calibration verification standards (CVS, ICV, or CCV) requirements have not been met for this SDG.

One of the five quantified peaks did not meet the acceptance criteria in Toxaphene standard analyzed for this SDG; however, the average concentration of the five peaks met the acceptance criteria.

Several target analytes failed to meet the acceptance criteria with positive bias in the standards analyzed for this SDG. The positive bias for the analytical data is a result of instrument response increasing after the initial calibration. These target analytes were not detected in the associated samples; therefore, the non-compliance has no adverse effects on the data.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Surrogate Recoveries
All surrogate recoveries were within the established acceptance criteria for this SDG.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

QC Sample Designation
Sample 243549002 (WST03-10-2148) was selected for the matrix spike and matrix spike duplicate analysis.

Matrix Spike (MS) Recovery Statement
The MS recoveries for this SDG were within the established acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recoveries for this SDG were within the established acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD between the MS and MSD met the acceptance limits.

Technical Information:

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP. Sample extracts were cleaned with Florisil prior to analysis. Additionally, copper was added to all sample extracts to remove sulfur.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-extraction/Re-analysis

Re-extractions or re-analyses were not required in this SDG.

Miscellaneous Information:

Electronic Package Comment

This package was generated using an electronic data processing program referred to as "virtual packaging". In an effort to increase quality and efficiency, the laboratory is developing systems to eventually generate all data packages electronically. The following change from "traditional" packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative.

Data Exception (DER) Documentation

Data Exception Report (DER) is for documentation of any procedural anomalies that may deviate from referenced SOP or contractual document. DER # 777513 was generated for this SDG. A copy is included in the Miscellaneous Data section of this package.

Manual Integration

Certain standards and samples may have required manual integration to correctly position the baseline as set in the calibration standard injections. If manual integration was performed, copies of all manual integration peak profiles are included in the raw data section of this pesticide fraction.

Additional Comments

The additional comments field is used to address special issues associated with each analysis, clarify method/contractual issues pertaining to the analysis, and to list any report documents generated as a result of sample analysis or review. The following additional comments were required:

The lower results from either column have been chosen and reported in the data package for the client samples, MB and LCS. The data reported for the MS and MSD are from the same analytical column as the parent sample.

The data reported on the form I and III may differ slightly from the data reported on the form X. This is due to software limitations in rounding differences between the forms.

Due to software limitation, the Form VIIs will display the results either in the % difference or % drift depending on the type of the calibration curve. If the curve of all analytes is generated using an average response factor (RF), the Form VII will display results using the difference calculation (RF). If the curve of one or more analytes is generated using a linear curve, the Form VII will display results using the % drift calculation (by concentration) for all analytes.

System Configuration

The Semi-Volatiles-Pesticide analysis was performed on the following instrument configuration:

Instrument ID	Instrument	System Configuration	Column ID	Column Description
ECD3A.I_1	HP Gas Chromatograph	HP6890 Series ECD	Rtx-CLP I	30m x 0.25mm, 0.25um (Rtx-CLPesticide)
ECD3A.I_2	HP Gas Chromatograph	HP6890 Series ECD	Rtx-CLP II	30m x 0.25mm, 0.20um (Rtx-CLPesticide II)

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Jimmi Cao Date: 1/20/10

Roadmap for LANL 10-1085 PEST

This roadmap was analyzed by cla01575 on 01-06-2010, 10:55.
This roadmap was reviewed by jcb on 01-07-2010, 11:29.
This roadmap was packaged by yml on 01-19-2010, 12:34.
This roadmap was validated by jim01140 on 01-20-2010, 07:56.

Front Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd3a.i/123109p.b/021f2101.d	243549002	sample	31-DEC-2009	19:25	10-1085.sub	WST03-10-2148	1.00000	937144	

Back Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd3a.i/123109p.b/021b2101.d	243549002	sample	31-DEC-2009	19:25	10-1085.sub	WST03-10-2148	1.00000	937144	

Front QC Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd3a.i/123109p.b/016f1601-85.d	1202005344	mb	31-DEC-2009	18:16	10-1085.sub	PBLK01	1.00000	937144	
☐	N	/chem/ecd3a.i/123109p.b/017f1701-85.d	1202005345	lcs	31-DEC-2009	18:30	10-1085.sub	PBLK01LCS	1.00000	937144	
☐	N	/chem/ecd3a.i/123109p.b/018f1801-85.d	1202005348	lcs	31-DEC-2009	18:44	10-1085.sub	PBLK01TLCS	1.00000	937144	
☐	N	/chem/ecd3a.i/123109p.b/022f2201.d	1202005346	ms	31-DEC-2009	19:38	10-1085.sub	WST03-10-2148MS	1.00000	937144	
☐	N	/chem/ecd3a.i/123109p.b/023f2301.d	1202005347	msd	31-DEC-2009	19:52	10-1085.sub	WST03-10-2148MSD	1.00000	937144	

Back QC Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd3a.i/123109p.b/016b1601-85.d	1202005344	mb	31-DEC-2009	18:16	10-1085.sub	PBLK01	1.00000	937144	
☐	N	/chem/ecd3a.i/123109p.b/017b1701-85.d	1202005345	lcs	31-DEC-2009	18:30	10-1085.sub	PBLK01LCS	1.00000	937144	
☐	N	/chem/ecd3a.i/123109p.b/018b1801-85.d	1202005348	lcs	31-DEC-2009	18:44	10-1085.sub	PBLK01TLCS	1.00000	937144	
☐	N	/chem/ecd3a.i/123109p.b/022b2201.d	1202005346	ms	31-DEC-2009	19:38	10-1085.sub	WST03-10-2148MS	1.00000	937144	
☐	N	/chem/ecd3a.i/123109p.b/023b2301.d	1202005347	msd	31-DEC-2009	19:52	10-1085.sub	WST03-10-2148MSD	1.00000	937144	

SAMPLE DATA SUMMARY

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	10–1085	Date Collected:	12/22/2009 12:00	Matrix:	R
Lab Sample ID:	243549002	Date Received:	12/24/2009 09:30	%Moisture:	7.2
		Client:	LANL010	Project:	LANL01004
Client ID:	WST03–10–2148	Method:	SW846 8081A	SOP Ref:	GL–OA–E–041
Batch ID:	937144	Inst:	ECD3A.I	Dilution:	1
Run Date:	12/31/2009 19:25	Analyst:	HXJ1	Inj. Vol:	1 uL
Prep Date:	12/29/2009 09:25	Aliquot:	30 g	Final Volume:	5 mL
Data File:	021f2101.d	Column:	1 CLP–1	Level:	LOW
	021b2101.d		2 CLP–2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
319–84–6	alpha–BHC	U	0.718	ug/kg	0.180	0.718	1
58–89–9	gamma–BHC (Lindane)	U	0.718	ug/kg	0.180	0.718	1
319–85–7	beta–BHC	U	0.718	ug/kg	0.180	0.718	1
319–86–8	delta–BHC	U	0.718	ug/kg	0.180	0.718	1
76–44–8	Heptachlor	U	0.718	ug/kg	0.180	0.718	1
309–00–2	Aldrin	U	0.718	ug/kg	0.180	0.718	1
1024–57–3	Heptachlor epoxide	U	0.718	ug/kg	0.224	0.718	1
5103–74–2	gamma–Chlordane	U	0.718	ug/kg	0.180	0.718	1
5103–71–9	alpha–Chlordane	U	0.718	ug/kg	0.180	0.718	1
959–98–8	Endosulfan I	U	0.718	ug/kg	0.180	0.718	1
72–55–9	4,4'–DDE	U	1.44	ug/kg	0.359	1.44	1
60–57–1	Dieldrin	U	1.44	ug/kg	0.359	1.44	1
72–20–8	Endrin	U	1.44	ug/kg	0.359	1.44	1
72–54–8	4,4'–DDD	U	1.44	ug/kg	0.359	1.44	1
33213–65–9	Endosulfan II	U	1.44	ug/kg	0.359	1.44	1
7421–93–4	Endrin aldehyde	U	1.44	ug/kg	0.359	1.44	1
50–29–3	4,4'–DDT	U	1.44	ug/kg	0.359	1.44	1
1031–07–8	Endosulfan sulfate	U	1.44	ug/kg	0.359	1.44	1
72–43–5	Methoxychlor	U	7.18	ug/kg	1.80	7.18	1
53494–70–5	Endrin ketone	U	1.44	ug/kg	0.359	1.44	1
8001–35–2	Toxaphene	U	18.0	ug/kg	5.98	18.0	1

QUALITY CONTROL SUMMARY

Pesticide

Surrogate Recovery Report

SDG Number: 10–1085

Matrix Type: SOLID

CAP Column (1) : CLP–1 **CAP Column (2) : CLP–2**

Sample ID	Client ID	4CMX 1 %REC #	4CMX 2 %REC #	DCB 1 %REC #	DCB 2 %REC #
1202005344	MB for batch 937143	46	45	86	90
1202005345	LCS for batch 937143	71	69	97	101
1202005348	LCS for batch 937143	80	75	88	94
243549002	WST03–10–2148	75	70	90	90
1202005346	WST03–10–2148MS	76	72	86	87
1202005347	WST03–10–2148MSD	71	66	87	90

Surrogate	Acceptance Limits
4CMX = 4cmx	(34%–105%)
DCB = Decachlorobiphenyl	(33%–115%)

* Recovery outside Acceptance Limits

\# Column to be used to flag recovery values

D Sample Diluted

Pesticide
Quality Control Summary
Spike Recovery Report

SDG Number: 10-1085
Client ID: LCS for batch 937143
Lab Sample ID: 1202005345
Instrument: ECD3A.I
Analyst: HXJ1
Inj. Vol: 1 uL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 12/31/2009 18:30
Prep Batch ID 937143
Batch ID: 937144
Dilution: 1

CAS No	Parmname		Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
319-84-6	LCS	alpha-BHC	16.7	0.0	12.8	77	56-129
58-89-9	LCS	gamma-BHC (Lindane)	16.7	0.0	14.0	84	56-127
319-85-7	LCS	beta-BHC	16.7	0.0	13.5	81	54-117
319-86-8	LCS	delta-BHC	16.7	0.0	13.2	79	60-129
76-44-8	LCS	Heptachlor	16.7	0.0	12.8	77	55-127
309-00-2	LCS	Aldrin	16.7	0.0	12.6	75	54-123
1024-57-3	LCS	Heptachlor epoxide	16.7	0.0	13.7	82	58-122
5103-74-2	LCS	gamma-Chlordane	16.7	0.0	13.4	80	55-124
5103-71-9	LCS	alpha-Chlordane	16.7	0.0	15.0	90	56-120
959-98-8	LCS	Endosulfan I	16.7	0.0	14.8	89	51-119
72-55-9	LCS	4,4'-DDE	41.7	0.0	38.2	92	60-128
60-57-1	LCS	Dieldrin	41.7	0.0	38.3	92	59-119
72-20-8	LCS	Endrin	41.7	0.0	44.1	106	63-131
72-54-8	LCS	4,4'-DDD	41.7	0.0	43.7	105	61-131
33213-65-9	LCS	Endosulfan II	41.7	0.0	41.6	100	59-120
7421-93-4	LCS	Endrin aldehyde	41.7	0.0	29.3	70	55-125
50-29-3	LCS	4,4'-DDT	41.7	0.0	40.4	97	63-139
1031-07-8	LCS	Endosulfan sulfate	41.7	0.0	41.3	99	60-127
72-43-5	LCS	Methoxychlor	167	0.0	156	93	59-143
53494-70-5	LCS	Endrin ketone	41.7	0.0	41.2	99	59-132

Pesticide

Quality Control Summary
Spike Recovery Report

SDG Number: 10–1085
Client ID: LCS for batch 937143
Lab Sample ID: 1202005348
Instrument: ECD3A.I
Analyst: HXJ1
Inj. Vol: 1 uL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 12/31/2009 18:44
Dilution: 1
Prep Batch ID: 937143
Batch ID: 937144

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
8001–35–2	LCS Toxaphene	133	0.0	116	87	48–131

Pesticide

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1085
Client ID: WST03-10-2148MS
Lab Sample ID: 1202005346
Instrument: ECD3A.I
Analyst: HXJ1
Inj. Vol: 1 uL

Sample Type: Matrix Spike
Matrix: R
%Moisture: 7.2
Analysis Date: 12/31/2009 19:38
Prep Batch ID: 937143
Batch ID: 937144
Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
319-84-6	MS	alpha-BHC	18.0	0.00	U	13.3	74	41-132
58-89-9	MS	gamma-BHC (Lindane)	18.0	0.00	U	16.1	90	43-127
319-85-7	MS	beta-BHC	18.0	0.00	U	14.6	81	36-130
319-86-8	MS	delta-BHC	18.0	0.00	U	13.6	76	39-134
76-44-8	MS	Heptachlor	18.0	0.00	U	16.1	90	41-133
309-00-2	MS	Aldrin	18.0	0.00	U	15.0	84	41-128
1024-57-3	MS	Heptachlor epoxide	18.0	0.00	U	15.5	86	39-133
5103-74-2	MS	gamma-Chlordane	18.0	0.00	U	15.2	85	37-133
5103-71-9	MS	alpha-Chlordane	18.0	0.00	U	15.4	86	40-122
959-98-8	MS	Endosulfan I	18.0	0.00	U	15.4	86	32-126
72-55-9	MS	4,4'-DDE	44.9	0.00	U	38.9	87	42-138
60-57-1	MS	Dieldrin	44.9	0.00	U	39.1	87	38-132
72-20-8	MS	Endrin	44.9	0.00	U	46.4	103	45-139
72-54-8	MS	4,4'-DDD	44.9	0.00	U	44.9	100	41-139
33213-65-9	MS	Endosulfan II	44.9	0.00	U	41.3	92	35-130
7421-93-4	MS	Endrin aldehyde	44.9	0.00	U	25.8	57	29-126
50-29-3	MS	4,4'-DDT	44.9	0.00	U	43.1	96	38-155
1031-07-8	MS	Endosulfan sulfate	44.9	0.00	U	39.2	87	39-131
72-43-5	MS	Methoxychlor	180	0.00	U	154	86	44-153
53494-70-5	MS	Endrin ketone	44.9	0.00	U	39.5	88	41-133

Quality Control Summary
Spike Recovery Report

SDG Number:	**10–1085**	**Sample Type:**	**Matrix Spike Duplicate**
Client ID:	**WST03–10–2148MSD**	**Matrix:**	**R**
Lab Sample ID:	**1202005347**	**%Moisture:**	**7.2**
Instrument:	**ECD3A.I**	**Analysis Date:**	**12/31/2009 19:52**
Analyst:	**HXJ1**	**Prep Batch ID:**	**937143**
Inj. Vol:	**1 uL**	**Batch ID:**	**937144**

Dilution: 1

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
319–84–6	MSD alpha–BHC	17.9	0.00	U	12.4	69	41–132	7	0–30
58–89–9	MSD gamma–BHC (Lindane)	17.9	0.00	U	14.9	83	43–127	8	0–30
319–85–7	MSD beta–BHC	17.9	0.00	U	13.7	76	36–130	7	0–30
319–86–8	MSD delta–BHC	17.9	0.00	U	12.3	69	39–134	10	0–30
76–44–8	MSD Heptachlor	17.9	0.00	U	14.4	80	41–133	11	0–30
309–00–2	MSD Aldrin	17.9	0.00	U	13.8	77	41–128	8	0–30
1024–57–3	MSD Heptachlor epoxide	17.9	0.00	U	14.3	80	39–133	8	0–30
5103–74–2	MSD gamma–Chlordane	17.9	0.00	U	14.5	81	37–133	5	0–30
5103–71–9	MSD alpha–Chlordane	17.9	0.00	U	14.4	80	40–122	7	0–30
959–98–8	MSD Endosulfan I	17.9	0.00	U	14.7	82	32–126	5	0–30
72–55–9	MSD 4,4'–DDE	44.9	0.00	U	36.9	82	42–138	5	0–30
60–57–1	MSD Dieldrin	44.9	0.00	U	36.7	82	38–132	6	0–30
72–20–8	MSD Endrin	44.9	0.00	U	42.8	95	45–139	8	0–30
72–54–8	MSD 4,4'–DDD	44.9	0.00	U	43.0	96	41–139	4	0–30
33213–65–9	MSD Endosulfan II	44.9	0.00	U	39.7	89	35–130	4	0–30
7421–93–4	MSD Endrin aldehyde	44.9	0.00	U	27.4	61	29–126	6	0–30
50–29–3	MSD 4,4'–DDT	44.9	0.00	U	40.2	90	38–155	7	0–30
1031–07–8	MSD Endosulfan sulfate	44.9	0.00	U	39.2	87	39–131	0	0–30
72–43–5	MSD Methoxychlor	179	0.00	U	151	84	44–153	2	0–30
53494–70–5	MSD Endrin ketone	44.9	0.00	U	38.7	86	41–133	2	0–30

Method Blank Summary

SDG Number:	10–1085	Client:	LANL010	Matrix:	SOIL
Client ID:	MB for batch 937143	Instrument ID:	ECD3A.I_2 ECD3A.I_1	Data File:	016b1601–85.d 016f1601–85.d
Lab Sample ID:	1202005344				
Column:	CLP–2 CLP–1	Prep Date:	12/29/2009 09:25	Analyzed:	12/31/09 18:16
		Level:	LOW		

This method blank applies to the following samples and quality control samples:

Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01 LCS for batch 937143	1202005345	017f1701–85.d 017b1701–85.d	12/31/09	1830
02 LCS for batch 937143	1202005348	018f1801–85.d 018b1801–85.d	12/31/09	1844
03 WST03–10–2148	243549002	021f2101.d 021b2101.d	12/31/09	1925
04 WST03–10–2148MS	1202005346	022f2201.d 022b2201.d	12/31/09	1938
05 WST03–10–2148MSD	1202005347	023f2301.d 023b2301.d	12/31/09	1952

SAMPLE
DATA

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	**10–1085**	**Date Collected:**	**12/22/2009 12:00**	**Matrix:**	**R**
Lab Sample ID:	**243549002**	**Date Received:**	**12/24/2009 09:30**	**%Moisture:**	**7.2**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**WST03–10–2148**	**Method:**	**SW846 8081A**	**SOP Ref:**	**GL–OA–E–041**
Batch ID:	**937144**	**Inst:**	**ECD3A.I**	**Dilution:**	**1**
Run Date:	**12/31/2009 19:25**	**Analyst:**	**HXJ1**	**Inj. Vol:**	**1 uL**
Prep Date:	**12/29/2009 09:25**	**Aliquot:**	**30 g**	**Final Volume:**	**5 mL**
Data File:	**021f2101.d**	**Column:**	**1 CLP–1**	**Level:**	**LOW**
	021b2101.d		**2 CLP–2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
319–84–6	alpha–BHC	U	0.718	ug/kg	0.180	0.718	1
58–89–9	gamma–BHC (Lindane)	U	0.718	ug/kg	0.180	0.718	1
319–85–7	beta–BHC	U	0.718	ug/kg	0.180	0.718	1
319–86–8	delta–BHC	U	0.718	ug/kg	0.180	0.718	1
76–44–8	Heptachlor	U	0.718	ug/kg	0.180	0.718	1
309–00–2	Aldrin	U	0.718	ug/kg	0.180	0.718	1
1024–57–3	Heptachlor epoxide	U	0.718	ug/kg	0.224	0.718	1
5103–74–2	gamma–Chlordane	U	0.718	ug/kg	0.180	0.718	1
5103–71–9	alpha–Chlordane	U	0.718	ug/kg	0.180	0.718	1
959–98–8	Endosulfan I	U	0.718	ug/kg	0.180	0.718	1
72–55–9	4,4'–DDE	U	1.44	ug/kg	0.359	1.44	1
60–57–1	Dieldrin	U	1.44	ug/kg	0.359	1.44	1
72–20–8	Endrin	U	1.44	ug/kg	0.359	1.44	1
72–54–8	4,4'–DDD	U	1.44	ug/kg	0.359	1.44	1
33213–65–9	Endosulfan II	U	1.44	ug/kg	0.359	1.44	1
7421–93–4	Endrin aldehyde	U	1.44	ug/kg	0.359	1.44	1
50–29–3	4,4'–DDT	U	1.44	ug/kg	0.359	1.44	1
1031–07–8	Endosulfan sulfate	U	1.44	ug/kg	0.359	1.44	1
72–43–5	Methoxychlor	U	7.18	ug/kg	1.80	7.18	1
53494–70–5	Endrin ketone	U	1.44	ug/kg	0.359	1.44	1
8001–35–2	Toxaphene	U	18.0	ug/kg	5.98	18.0	1

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CLP-1

Data file : /chem/ecd3a.i/123109p.b/021f2101.d
Lab Smp Id: 243549002 Client Smp ID: WST03-10-2148
Inj Date : 31-DEC-2009 19:25
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |243549002|1|
Misc Info : |ECD81A_1S|937144|SVP|LANL|SOIL|WST03-10-2148|||
Comment :
Method : /chem/ecd3a.i/123109p.b/ECD3-F-8081-122909.m
Meth Date : 04-Jan-2010 09:07 cla01575 Quant Type: ESTD
Cal Date : 29-DEC-2009 21:55 Cal File: 020f2001.d
Als bottle: 21
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1085.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weigth of sample extracted (g)
M	7.18890	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.679	2.682	-0.003	9951309	150.856	27.1	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.820	7.831	-0.011	8671433	179.923	32.3	80.00- 120.00	100.00

Data File: /chem/ecd3a.i/123109p.b/021f2101.d

Date : 31-DEC-2009 19:25

Client ID: WST03-10-2148

Sample Info: |243549002|1|

Volume Injected (uL): 1.0

Column phase: CLP-1

Instrument: ecd3a.i

Operator: HXJ1

Column diameter: 0.25

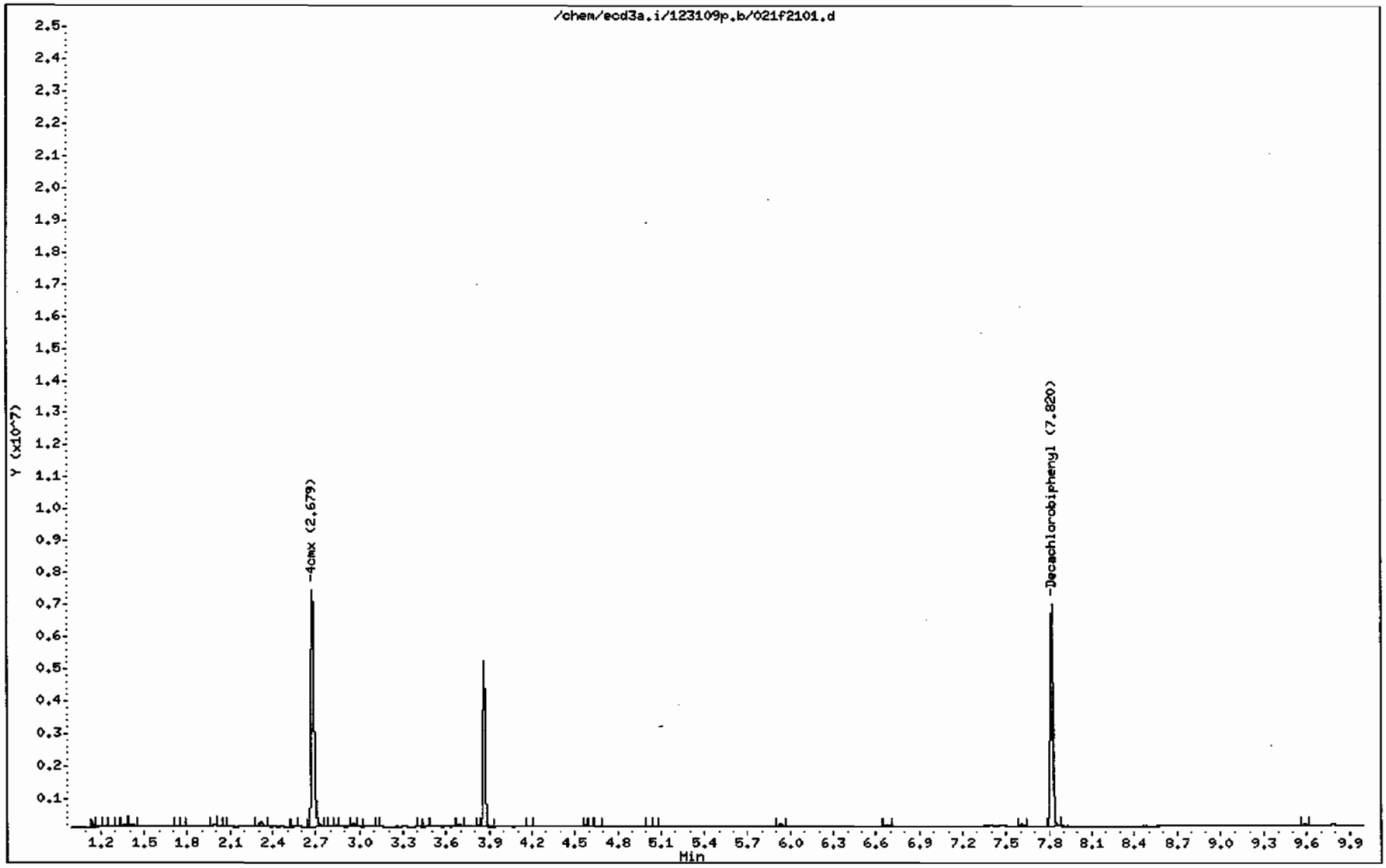

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CLP-2

Data file : /chem/ecd3a.i/123109p.b/021b2101.d
Lab Smp Id: 243549002 Client Smp ID: WST03-10-2148
Inj Date : 31-DEC-2009 19:25
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |243549002|1|
Misc Info : |ECD81A_1S|937144|SVP|LANL|SOIL|WST03-10-2148|||
Comment :
Method : /chem/ecd3a.i/123109p.b/ECD3-B-8081-122909.m
Meth Date : 04-Jan-2010 08:25 cla01575 Quant Type: ESTD
Cal Date : 29-DEC-2009 21:55 Cal File: 020b2001.d
Als bottle: 21
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1085.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weigth of sample extracted (g)
M	7.18890	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.922	2.924	-0.002	65204025	139.028	25.0	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.858	8.864	-0.006	59061166	179.942	32.3	80.00- 120.00	100.00

Data File: /chem/ecd3a.i/123109p.b/021b2101.d
Date : 31-DEC-2009 19:25
Client ID: WST03-10-2148
Sample Info: |243549002|1|
Volume Injected (uL): 1.0
Column phase: CLP-2

Instrument: ecd3a.i

Operator: HXJ1
Column diameter: 0.25

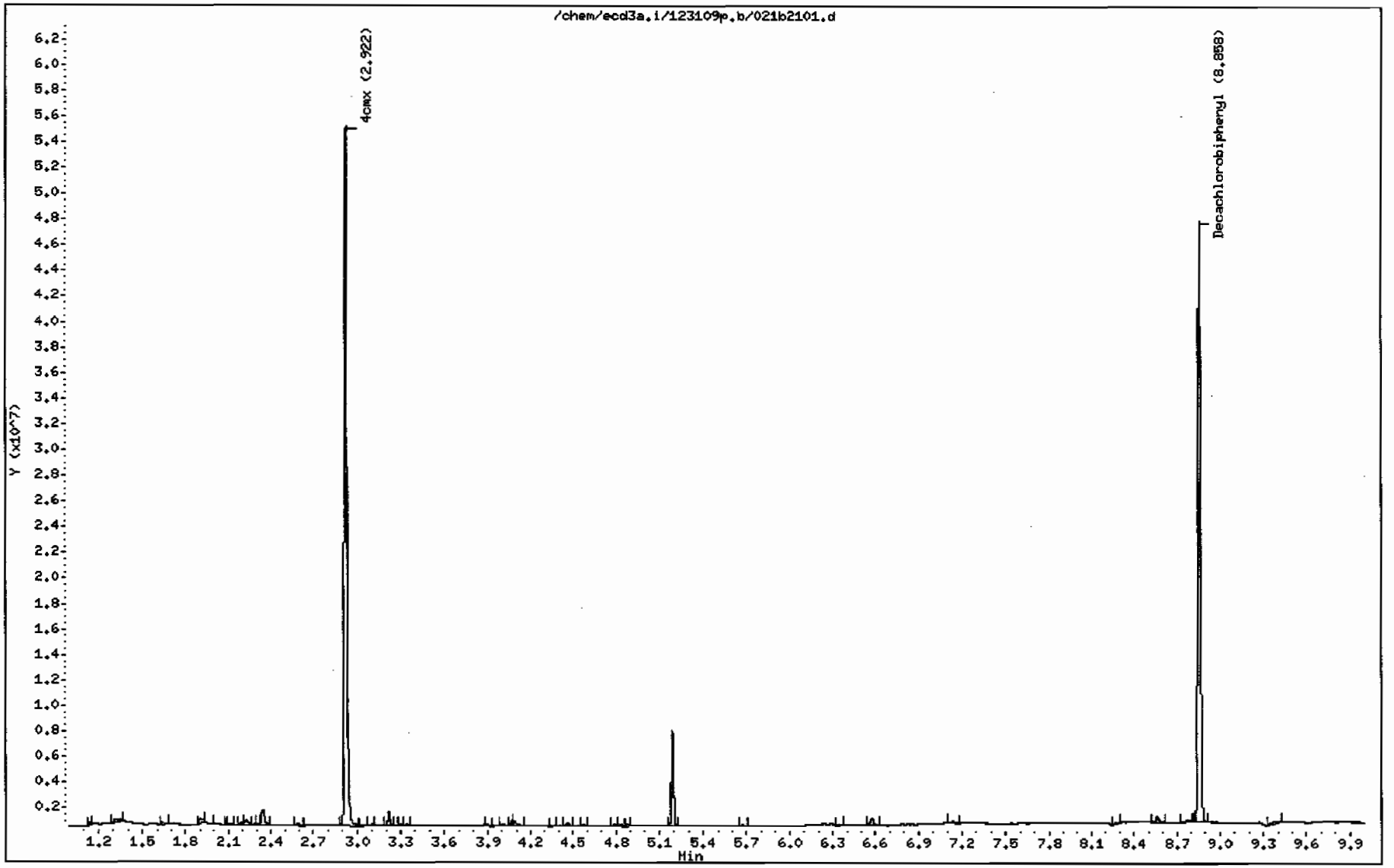

STANDARDS DATA

Report Date: 05-Jan-2010 12:31

Calibration History

Method : /chem/ecd3a.i/123109p.b/ECD3-F-8081-122909.m
Start Cal Date: 29-DEC-2009 17:34
End Cal Date : 29-DEC-2009 21:55

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 2.00000		
29-DEC-2009 20:42	chlor	/chem/ecd3a.i/122909p.b/016f1601.d
29-DEC-2009 18:56	tox	/chem/ecd3a.i/122909p.b/009f0901.d
29-DEC-2009 17:34	indab	/chem/ecd3a.i/122909p.b/003f0301.d
Cal Level: 2 , Cal Amount: 10.00000		
29-DEC-2009 21:14	chlor	/chem/ecd3a.i/122909p.b/017f1701.d
29-DEC-2009 19:10	tox	/chem/ecd3a.i/122909p.b/010f1001.d
29-DEC-2009 17:47	indab	/chem/ecd3a.i/122909p.b/004f0401.d
Cal Level: 3 , Cal Amount: 50.00000		
29-DEC-2009 21:28	chlor	/chem/ecd3a.i/122909p.b/018f1801.d
29-DEC-2009 19:24	tox	/chem/ecd3a.i/122909p.b/011f1101.d
29-DEC-2009 18:01	indab	/chem/ecd3a.i/122909p.b/005f0501.d
Cal Level: 4 , Cal Amount: 100.00000		
29-DEC-2009 21:41	chlor	/chem/ecd3a.i/122909p.b/019f1901.d
29-DEC-2009 20:01	tox	/chem/ecd3a.i/122909p.b/013f1301.d
29-DEC-2009 18:15	indab	/chem/ecd3a.i/122909p.b/006f0601.d
Cal Level: 5 , Cal Amount: 200.00000		
29-DEC-2009 21:55	chlor	/chem/ecd3a.i/122909p.b/020f2001.d
29-DEC-2009 20:14	tox	/chem/ecd3a.i/122909p.b/014f1401.d
29-DEC-2009 18:29	indab	/chem/ecd3a.i/122909p.b/007f0701.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 100		
31-DEC-2009 22:22	indab	/chem/ecd3a.i/123109p.b/034f3401.d
Ccal Level: 4 , Ccal Amount: 100		
31-DEC-2009 20:19	indab	/chem/ecd3a.i/123109p.b/025f2501.d
Ccal Level: 4 , Ccal Amount: 100		

31-DEC-2009 17:49	indab	/chem/ecd3a.i/123109p.b/014f1401.d
Ccal Level: 4 , Ccal Amount: 100		
31-DEC-2009 15:46	chlor	/chem/ecd3a.i/123109p.b/005f0501.d
Ccal Level: 4 , Ccal Amount: 100		
31-DEC-2009 15:32	tox	/chem/ecd3a.i/123109p.b/004f0401.d
Ccal Level: 4 , Ccal Amount: 100		
31-DEC-2009 15:18	indab	/chem/ecd3a.i/123109p.b/003f0301.d

Report Date: 05-Jan-2010 12:31

Calibration History

Method : /chem/ecd3a.i/123109p.b/ECD3-B-8081-122909.m
Start Cal Date: 29-DEC-2009 17:34
End Cal Date : 29-DEC-2009 21:55

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 2.00000		
29-DEC-2009 20:42	chlor	/chem/ecd3a.i/122909p.b/016b1601.d
29-DEC-2009 18:56	tox	/chem/ecd3a.i/122909p.b/009b0901.d
29-DEC-2009 17:34	indab	/chem/ecd3a.i/122909p.b/003b0301.d
Cal Level: 2 , Cal Amount: 10.00000		
29-DEC-2009 21:14	chlor	/chem/ecd3a.i/122909p.b/017b1701.d
29-DEC-2009 19:10	tox	/chem/ecd3a.i/122909p.b/010b1001.d
29-DEC-2009 17:47	indab	/chem/ecd3a.i/122909p.b/004b0401.d
Cal Level: 3 , Cal Amount: 50.00000		
29-DEC-2009 21:28	chlor	/chem/ecd3a.i/122909p.b/018b1801.d
29-DEC-2009 19:24	tox	/chem/ecd3a.i/122909p.b/011b1101.d
29-DEC-2009 18:01	indab	/chem/ecd3a.i/122909p.b/005b0501.d
Cal Level: 4 , Cal Amount: 100.00000		
29-DEC-2009 21:41	chlor	/chem/ecd3a.i/122909p.b/019b1901.d
29-DEC-2009 20:01	tox	/chem/ecd3a.i/122909p.b/013b1301.d
29-DEC-2009 18:15	indab	/chem/ecd3a.i/122909p.b/006b0601.d
Cal Level: 5 , Cal Amount: 200.00000		
29-DEC-2009 21:55	chlor	/chem/ecd3a.i/122909p.b/020b2001.d
29-DEC-2009 20:14	tox	/chem/ecd3a.i/122909p.b/014b1401.d
29-DEC-2009 18:29	indab	/chem/ecd3a.i/122909p.b/007b0701.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 100		
31-DEC-2009 22:22	indab	/chem/ecd3a.i/123109p.b/034b3401.d
Ccal Level: 4 , Ccal Amount: 100		
31-DEC-2009 20:19	indab	/chem/ecd3a.i/123109p.b/025b2501.d
Ccal Level: 4 , Ccal Amount: 100		
31-DEC-2009 17:49	indab	/chem/ecd3a.i/123109p.b/014b1401.d
Ccal Level: 4 , Ccal Amount: 100		

31-DEC-2009 15:46	chlor	/chem/ecd3a.i/123109p.b/005b0501.d
Ccal Level: 4 , Ccal Amount: 100		
31-DEC-2009 15:32	tox	/chem/ecd3a.i/123109p.b/004b0401.d
Ccal Level: 4 , Ccal Amount: 100		
31-DEC-2009 15:18	indab	/chem/ecd3a.i/123109p.b/003b0301.d

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COMPOUND LISTING

Method file : /chem/ecd3a.i/123109p.b/ECD3-F-8081-122909.m
Quant Method : ESTD Target Version : 3.50
Last Update : 04-Jan-2010 09:07 Number of Cpnds : 44
Data Type : GC MULTI COMP

Global Integrator : Falcon

Chromat Events	Values
Initial:Start Threshold	1005.000000
Initial:End Threshold	502.500000
Initial:Area Threshold	10005.000000
Initial:P-P Resolution	1.000000
Initial:Bunch Factor	5.000000
Initial:Negative Peaks	OFF
Initial:Tension	0.000000

Compound	RT	RT Window	RF
$ 1 4cmx	2.682	2.652-2.712	6.597e+04
63 2,4,5-Trichlorophenol	1.334	1.234-1.434	
59 Hexachlorobenzene	3.098	2.998-3.198	
2 Aroclor-1221	2.920	2.890-2.950	
	3.052	3.022-3.082	
	3.087	3.057-3.117	
3 Aroclor-1016	3.727	3.697-3.757	
	3.822	3.792-3.852	
	3.866	3.836-3.896	
	3.950	3.920-3.980	
	4.102	4.072-4.132	
4 Aroclor-1232	3.377	3.347-3.407	
	3.536	3.506-3.566	
	3.727	3.697-3.757	
	3.822	3.792-3.852	
	4.379	4.349-4.409	
5 alpha-BHC	3.089	3.059-3.119	1.113e+05
6 Aroclor-1242	3.377	3.277-3.477	
	3.728	3.628-3.828	
	3.866	3.766-3.966	
	4.379	4.279-4.479	
	4.398	4.298-4.498	
7 gamma-BHC (Lindane)	3.334	3.304-3.364	7.853e+04

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd3a.i/123109p.b/ECD3-F-8081-122909.m

Compound	RT	RT Window	RF
8 Chlordane (tech.)	3.645	3.545-3.745	2.510e+03
	4.082	3.982-4.182	2.557e+03
	4.445	4.345-4.545	1.407e+03
	4.619	4.519-4.719	8.435e+03
	5.485	5.385-5.585	1.813e+03
9 Aroclor-1248	3.949	3.849-4.049	
	4.103	4.003-4.203	
	4.159	4.059-4.259	
	4.378	4.278-4.478	
	4.768	4.668-4.868	
10 Heptachlor	3.718	3.688-3.748	6.406e+04
11 Aldrin	3.976	3.946-4.006	7.593e+04
12 beta-BHC	3.399	3.369-3.429	3.470e+04
13 delta-BHC	3.547	3.517-3.577	9.919e+04
14 Heptachlor epoxide	4.513	4.483-4.543	6.671e+04
15 Aroclor-1254	4.352	4.322-4.382	
	4.516	4.486-4.546	
	4.769	4.739-4.799	
	4.937	4.907-4.967	
	5.219	5.189-5.249	
16 Endosulfan I	4.884	4.854-4.914	5.951e+04
17 gamma-Chlordane	4.628	4.598-4.658	6.592e+04
18 alpha-Chlordane	4.751	4.721-4.781	6.611e+04
19 4,4'-DDE	4.818	4.788-4.848	6.629e+04
20 Dieldrin	5.112	5.082-5.142	6.786e+04
21 Aroclor-1260	4.881	4.781-4.981	
	5.046	4.946-5.146	
	5.125	5.025-5.225	
	5.219	5.119-5.319	
	5.436	5.336-5.536	
22 Endrin	5.340	5.310-5.370	5.269e+04
23 Toxaphene	5.004	4.974-5.034	4.853e+02
	5.108	5.078-5.138	7.541e+02
	5.195	5.165-5.225	8.704e+02
	5.354	5.324-5.384	1.137e+03
	5.544	5.514-5.574	2.022e+03
24 Endosulfan II	5.564	5.534-5.594	5.591e+04
25 4,4'-DDD	5.402	5.372-5.432	5.161e+04
26 4,4'-DDT	5.680	5.650-5.710	4.414e+04
27 Endrin aldehyde	5.988	5.958-6.018	4.711e+04

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd3a.i/123109p.b/ECD3-F-8081-122909.m

	Compound	RT	RT Window	RF
	28 Methoxychlor	6.184	6.154-6.214	2.154e+04
	29 Endosulfan sulfate	6.441	6.411-6.471	4.718e+04
	30 Aroclor-1268	5.050	4.950-5.150	
		5.067	4.967-5.167	
		5.185	5.085-5.285	
		5.378	5.278-5.478	
		5.531	5.431-5.631	
	61 Aroclor-1262	4.121	4.021-4.221	
		4.289	4.189-4.389	
		4.525	4.425-4.625	
		4.671	4.571-4.771	
		4.854	4.754-4.954	
	31 Endrin ketone	6.739	6.709-6.769	6.169e+04
	51 Mirex	5.620	5.590-5.650	
	52 C-Nonachlor	5.043	5.013-5.073	
	53 O-Chlordane	4.411	4.381-4.441	
	54 T-Nonachlor	4.632	4.602-4.662	
	55 1,2-Dichlorobenzene	6.525	6.495-6.555	
	56 2,4-DDE	4.471	4.441-4.501	
	58 2,4-DDD	4.798	4.768-4.828	
	57 2,4-DDT	4.955	4.925-4.985	
$	32 Decachlorobiphenyl	7.831	7.801-7.861	4.820e+04
M	62 TTO Sum Pesticides	1.000	0.980-1.020	

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd3a.i/123109p.b/ECD3-B-8081-122909.m
Quant Method : ESTD Target Version : 3.50
Last Update : 04-Jan-2010 08:25 Number of Cpnds : 43
Data Type : GC MULTI COMP

Global Integrator : Falcon

Chromat Events	Values
Initial:Start Threshold	9270.000000
Initial:End Threshold	4635.000000
Initial:Area Threshold	92700.000000
Initial:P-P Resolution	1.000000
Initial:Bunch Factor	10.000000
Initial:Negative Peaks	OFF
Initial:Tension	0.000000

Compound	RT	RT Window	RF
$ 1 4cmx	2.924	2.894-2.954	4.690e+05
61 2,4,5-Trichlorophenol	1.631	1.531-1.731	
59 Hexachlorobenzene	3.571	3.542-3.602	
2 Aroclor-1221	3.414	3.385-3.445	
	3.531	3.501-3.561	
	3.579	3.550-3.610	
3 Aroclor-1016	4.216	4.186-4.246	
	4.378	4.348-4.408	
	4.466	4.436-4.496	
	4.617	4.587-4.647	
	4.999	4.969-5.029	
4 Aroclor-1232	3.579	3.549-3.609	
	4.216	4.186-4.246	
	4.307	4.277-4.337	
	4.617	4.587-4.647	
	4.887	4.857-4.917	
5 alpha-BHC	3.417	3.387-3.447	6.484e+05
6 Aroclor-1242	3.888	3.858-3.918	
	4.308	4.278-4.338	
	4.378	4.348-4.408	
	4.617	4.587-4.647	
	4.698	4.668-4.728	
7 gamma-BHC (Lindane)	3.727	3.697-3.757	5.403e+05

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd3a.i/123109p.b/ECD3-B-8081-122909.m

Compound	RT	RT Window	RF
8 Chlordane (tech.)	3.999	3.969-4.029	1.597e+04
	4.577	4.547-4.607	1.176e+04
	4.957	4.927-4.987	6.808e+03
	5.335	5.305-5.365	2.675e+04
	6.275	6.245-6.305	1.236e+04
9 Aroclor-1248	4.436	4.406-4.466	
	4.617	4.587-4.647	
	4.697	4.667-4.727	
	4.856	4.826-4.886	
	5.034	5.004-5.064	
10 Heptachlor	4.140	4.110-4.170	4.119e+05
11 Aldrin	4.452	4.422-4.482	3.715e+05
12 beta-BHC	3.788	3.758-3.818	2.295e+05
13 delta-BHC	4.061	4.031-4.091	5.092e+05
14 Heptachlor epoxide	5.003	4.973-5.033	2.676e+05
15 Aroclor-1254	4.885	4.855-4.915	
	4.999	4.969-5.029	
	5.290	5.260-5.320	
	5.423	5.393-5.453	
	5.749	5.719-5.779	
16 Endosulfan I	5.405	5.375-5.435	2.464e+05
17 gamma-Chlordane	5.194	5.164-5.224	3.055e+05
18 alpha-Chlordane	5.341	5.311-5.371	2.612e+05
19 4,4'-DDE	5.498	5.468-5.528	2.620e+05
20 Dieldrin	5.685	5.655-5.715	2.938e+05
21 Aroclor-1260	5.310	5.280-5.340	
	5.406	5.376-5.436	
	5.526	5.496-5.556	
	5.628	5.598-5.658	
	5.749	5.719-5.779	
22 Endrin	6.005	5.975-6.035	2.755e+05
23 Toxaphene	5.653	5.623-5.683	5.066e+03
	5.777	5.747-5.807	2.991e+03
	6.167	6.137-6.197	6.013e+03
	6.210	6.180-6.240	1.060e+04
	6.312	6.282-6.342	1.915e+04
24 Endosulfan II	6.226	6.196-6.256	3.287e+05
25 4,4'-DDD	6.104	6.074-6.134	2.908e+05
26 4,4'-DDT	6.443	6.413-6.473	3.192e+05
27 Endrin aldehyde	6.583	6.553-6.613	3.261e+05

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd3a.i/123109p.b/ECD3-B-8081-122909.m

Compound	RT	RT Window	RF
28 Methoxychlor	7.186	7.156-7.216	1.798e+05
29 Endosulfan sulfate	6.885	6.855-6.915	4.124e+05
30 Aroclor-1268	5.217	5.187-5.247	
	5.596	5.566-5.626	
	5.628	5.598-5.658	
	5.769	5.739-5.799	
	6.149	6.119-6.179	
60 Aroclor-1262	4.689	4.589-4.789	
	4.779	4.679-4.879	
	5.074	4.974-5.174	
	5.224	5.124-5.324	
	5.396	5.296-5.496	
31 Endrin ketone	7.477	7.447-7.507	5.027e+05
51 Mirex	6.337	6.307-6.367	
52 C-Nonachlor	5.549	5.519-5.579	
53 O-Chlordane	4.834	4.804-4.864	
54 T-Nonachlor	5.070	5.040-5.100	
55 1,2-Dichlorobenzene	6.619	6.589-6.649	
56 2,4-DDE	5.000	4.970-5.030	
58 2,4-DDD	5.319	5.289-5.349	
57 2,4-DDT	5.509	5.479-5.539	
$ 32 Decachlorobiphenyl	8.864	8.834-8.894	3.282e+05

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 29-DEC-2009 17:34
End Cal Date : 29-DEC-2009 21:55
Quant Method : ESTD
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd3a.i/123109p.b/ECD3-F-8081-122909.m
Cal Date : 04-Jan-2010 09:07 c1a01575

Calibration File Names:
Level 1: /chem/ecd3a.i/122909p.b/016f1601.d
Level 2: /chem/ecd3a.i/122909p.b/017f1701.d
Level 3: /chem/ecd3a.i/122909p.b/018f1801.d
Level 4: /chem/ecd3a.i/122909p.b/019f1901.d
Level 5: /chem/ecd3a.i/122909p.b/020f2001.d

Compound	2 Level 1	10 Level 2	50 Level 3	100 Level 4	200 Level 5	Curve	Coefficients b	m1	m2	%RSD or R^2
63 2,4,5-Trichlorophenol	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
59 Hexachlorobenzene	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
2 Aroclor-1221 (1)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(2)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(3)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
3 Aroclor-1016 (1)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(2)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(3)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(4)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(5)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
4 Aroclor-1232 (1)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(2)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(3)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(4)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(5)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
5 alpha-BHC	264152	745708	4680402	9972466	22025703	LINR	5.10241	111344		0.99768
6 Aroclor-1242 (1)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(2)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(3)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(4)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(5)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 29-DEC-2009 17:34
End Cal Date : 29-DEC-2009 21:55
Quant Method : ESTD
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd3a.i/123109p.b/ECD3-F-8081-122909.m
Cal Date : 04-Jan-2010 09:07 cla01575

Compound	2 Level 1	10 Level 2	50 Level 3	100 Level 4	200 Level 5	Curve	Coefficients b	m1	m2	%RSD or R^2
7 gamma-BHC (Lindane)	60356	67072	82177	87245	95784	AVRG		78527		18.54783
8 Chlordane (tech.) (1)	2125	2195	2493	2718	3020	AVRG		2510		14.79274
(2)	2434	2422	2516	2647	2767	AVRG		2557		5.76710
(3)	1197	1289	1370	1508	1671	AVRG		1407		13.25852
(4)	6942	7337	8576	9356	9966	AVRG		8435		15.27981
(5)	1589	1611	1721	1967	2176	AVRG		1813		13.93886
9 Aroclor-1248 (1)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(2)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(3)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(4)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(5)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
10 Heptachlor	51630	56908	66376	70101	75287	AVRG		64060		15.08560
11 Aldrin	59595	65541	80298	83260	90946	AVRG		75928		17.08388
12 beta-BHC	30548	32139	34918	36260	39615	AVRG		34696		10.23361
13 delta-BHC	236893	660066	4151849	8828466	19622776	LINR	5.25094	99187		0.99741
14 Heptachlor epoxide	54724	59042	69225	72101	78470	AVRG		66712		14.53529
15 Aroclor-1254 (1)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(2)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(3)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(4)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(5)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
16 Endosulfan I	49125	51983	61812	64123	70521	AVRG		59513		14.84807
17 gamma-Chlordane	52666	56517	68461	71974	80000	AVRG		65924		17.05134
18 alpha-Chlordane	55120	58081	68171	70804	78369	AVRG		66109		14.38630

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 29-DEC-2009 17:34
End Cal Date : 29-DEC-2009 21:55
Quant Method : ESTD
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd3a.i/123109p.b/ECD3-F-8081-122909.m
Cal Date : 04-Jan-2010 09:07 cla01575

Compound	2 Level 1	10 Level 2	50 Level 3	100 Level 4	200 Level 5	Curve	Coefficients b	m1	m2	%RSD or R^2
19 4,4'-DDE	52631	58529	70505	71693	78109	AVRG		66293		15.70282
20 Dieldrin	54132	60242	71769	73217	79919	AVRG		67856		15.38420
21 Aroclor-1260 (1)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(2)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(3)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(4)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(5)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
22 Endrin	43010	47339	54972	56564	61583	AVRG		52694		14.12647
23 Toxaphene (1)	444	472	490	512	508	AVRG		485		5.76611
(2)	743	763	748	749	767	AVRG		754		1.36434
(3)	740	862	877	929	944	AVRG		870		9.23030
(4)	990	1124	1153	1182	1234	AVRG		1137		8.06830
(5)	1875	1952	1948	2080	2252	AVRG		2022		7.34628
24 Endosulfan II	46579	50368	58106	59223	65276	AVRG		55910		13.30386
25 4,4'-DDD	41119	45347	54178	55854	61543	AVRG		51608		15.99451
26 4,4'-DDT	36302	40184	45512	46898	51794	AVRG		44138		13.64848
27 Endrin aldehyde	40892	43259	48130	49348	53945	AVRG		47115		10.93946
28 Methoxychlor	20592	21089	21170	21142	23705	AVRG		21540		5.72500
29 Endosulfan sulfate	40227	42168	48060	49927	55539	AVRG		47184		13.04984
30 Aroclor-1268 (1)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(2)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(3)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(4)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(5)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 29-DEC-2009 17:34
End Cal Date : 29-DEC-2009 21:55
Quant Method : ESTD
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd3a.i/123109p.b/ECD3-F-8081-122909.m
Cal Date : 04-Jan-2010 09:07 cla01575

	Compound	2 Level 1	10 Level 2	50 Level 3	100 Level 4	200 Level 5	Curve	Coefficients b	m1	m2	%RSD or R^2
	61 Aroclor-1262(1)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
	(2)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
	(3)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
	(4)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
	(5)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
	31 Endrin ketone	54696	57827	62940	63545	69431	AVRG		61688		9.19736
	51 Mirex	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
	52 C-Nonachlor	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
	53 O-Chlordane	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
	54 T-Nonachlor	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
	55 1,2-Dichlorobenzene	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
	56 2,4-DDE	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
	58 2,4-DDD	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
	57 2,4-DDT	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
M	62 TTO Sum Pesticides	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
$	1 4cmx	56422	60699	68350	69753	74603	AVRG		65966		11.07362
$	32 Decachlorobiphenyl	47327	45714	47721	47554	52660	AVRG		48195		5.43834

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 29-DEC-2009 17:34
End Cal Date : 29-DEC-2009 21:55
Quant Method : ESTD
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd3a.i/123109p.b/ECD3-F-8081-122909.m
Cal Date : 04-Jan-2010 09:07 cla01575

Curve	Formula	Units
Averaged	Amt = Rsp/ml	Response
Linear	Amt = b + Rsp/ml	Response

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 29-DEC-2009 17:34
End Cal Date : 29-DEC-2009 21:55
Quant Method : ESTD
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd3a.i/123109p.b/ECD3-B-8081-122909.m
Cal Date : 04-Jan-2010 08:25 cla01575

Calibration File Names:
Level 1: /chem/ecd3a.i/122909p.b/016b1601.d
Level 2: /chem/ecd3a.i/122909p.b/017b1701.d
Level 3: /chem/ecd3a.i/122909p.b/018b1801.d
Level 4: /chem/ecd3a.i/122909p.b/019b1901.d
Level 5: /chem/ecd3a.i/122909p.b/020b2001.d

Compound	2 Level 1	10 Level 2	50 Level 3	100 Level 4	200 Level 5	Curve	Coefficients b	m1	m2	%RSD or R^2
61 2,4,5-Trichlorophenol	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
59 Hexachlorobenzene	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
2 Aroclor-1221 (1)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(2)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(3)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
3 Aroclor-1016 (1)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(2)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(3)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(4)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(5)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
4 Aroclor-1232 (1)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(2)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(3)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(4)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(5)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
5 alpha-BHC	549787	589210	674746	686622	741505	AVRG		648374		11.95957
6 Aroclor-1242 (1)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(2)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(3)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(4)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(5)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 29-DEC-2009 17:34
End Cal Date : 29-DEC-2009 21:55
Quant Method : ESTD
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd3a.i/123109p.b/ECD3-B-8081-122909.m
Cal Date : 04-Jan-2010 08:25 cla01575

Compound	2 Level 1	10 Level 2	50 Level 3	100 Level 4	200 Level 5	Curve	Coefficients b	m1	m2	%RSD or R^2
7 gamma-BHC (Lindane)	475730	503434	556205	565362	600688	AVRG		540284		9.28035
8 Chlordane (tech.) (1)	15279	15419	15641	16410	17082	AVRG		15966		4.76841
(2)	12806	12324	11225	11210	11245	AVRG		11762		6.39789
(3)	7744	6628	6215	6326	7129	AVRG		6808		9.27475
(4)	25690	25900	26043	27518	28578	AVRG		26746		4.68382
(5)	10143	11069	11884	13584	15097	AVRG		12355		16.08411
9 Aroclor-1248 (1)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(2)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(3)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(4)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(5)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
10 Heptachlor	380964	399102	421805	424647	432971	AVRG		411898		5.18630
11 Aldrin	347598	358946	380766	377675	392697	AVRG		371536		4.85638
12 beta-BHC	223166	223683	228733	229407	242512	AVRG		229500		3.40209
13 delta-BHC	439850	466712	524836	535183	579463	AVRG		509209		10.96547
14 Heptachlor epoxide	264932	260921	265281	267061	279813	AVRG		267602		2.68529
15 Aroclor-1254 (1)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(2)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(3)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(4)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(5)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
16 Endosulfan I	239537	233713	246165	248265	264407	AVRG		246417		4.69691
17 gamma-Chlordane	2301244	2459537	14031912	27148432	61575874	LINR	2.40580	305471		0.99502
18 alpha-Chlordane	253668	245458	259103	262782	284888	AVRG		261180		5.65489

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 29-DEC-2009 17:34
End Cal Date : 29-DEC-2009 21:55
Quant Method : ESTD
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd3a.i/123109p.b/ECD3-B-8081-122909.m
Cal Date : 04-Jan-2010 08:25 cla01575

Compound	2 Level 1	10 Level 2	50 Level 3	100 Level 4	200 Level 5	Curve	Coefficients b	m1	m2	%RSD or R^2
19 4,4'-DDE	242907	245547	271057	268719	281725	AVRG		261991		6.47608
20 Dieldrin	271752	276896	302856	300036	317441	AVRG		293796		6.48417
21 Aroclor-1260 (1)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(2)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(3)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(4)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(5)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
22 Endrin	252223	260705	285569	283399	295745	AVRG		275528		6.62881
23 Toxaphene (1)	4702	4871	4804	5615	5337	AVRG		5066		7.73537
(2)	2723	2764	2831	3440	3194	AVRG		2991		10.45886
(3)	5066	5867	5840	6796	6496	AVRG		6013		11.13937
(4)	9489	10306	10382	11696	11124	AVRG		10599		7.95706
(5)	17216	18854	18845	20949	19876	AVRG		19148		7.23958
24 Endosulfan II	308222	314103	337470	332098	351644	AVRG		328707		5.37211
25 4,4'-DDD	256304	267677	301652	303169	325199	AVRG		290800		9.69388
26 4,4'-DDT	277658	298716	329121	332155	358154	AVRG		319161		9.81966
27 Endrin aldehyde	304523	316501	334400	329403	345428	AVRG		326051		4.87609
28 Methoxychlor	177979	180759	174182	171410	194845	AVRG		179835		5.06997
29 Endosulfan sulfate	356524	380446	426347	433391	465147	AVRG		412371		10.54291
30 Aroclor-1268 (1)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(2)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(3)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(4)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(5)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 29-DEC-2009 17:34
End Cal Date : 29-DEC-2009 21:55
Quant Method : ESTD
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd3a.i/123109p.b/ECD3-B-8081-122909.m
Cal Date : 04-Jan-2010 08:25 cla01575

Compound	2 Level 1	10 Level 2	50 Level 3	100 Level 4	200 Level 5	Curve	Coefficients b	m1	m2	%RSD or R^2
60 Aroclor-1262 (1)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(2)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(3)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(4)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(5)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
31 Endrin ketone	457359	474055	516547	510704	554653	AVRG		502664		7.59581
51 Mirex	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
52 C-Nonachlor	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
53 O-Chlordane	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
54 T-Nonachlor	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
55 1,2-Dichlorobenzene	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
56 2,4-DDE	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
58 2,4-DDD	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
57 2,4-DDT	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
$ 1 4cmx	468813	472839	480186	459915	463237	AVRG		468998		1.70460
$ 32 Decachlorobiphenyl	331664	316036	320853	318785	353775	AVRG		328223		4.71180

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 29-DEC-2009 17:34
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Quant Method : ESTD
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Method file : /chem/ecd3a.i/123109p.b/ECD3-B-8081-122909.m
Cal Date : 04-Jan-2010 08:25 cla01575

Curve	Formula	Units
Averaged	Amt = Rsp/ml	Response
Linear	Amt = b + Rsp/ml	Response

7D

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1085

GC Column: CLP-1 ID: 0.25 (mm) Init. Calib. Date(s): 12/29/09 12/29/09

EPA Sample No.(PIBLK): _____ Date Analyzed :_____

Lab Sample ID (PIBLK): _____ Time Analyzed :_____

EPA Sample No.(PEM): PEM Date Analyzed :12/31/09

Lab Sample ID (PEM): WPE091219-99 Time Analyzed :1454

PEM COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aldrin	3.97	3.95	4.01	127	100	27.0
4,4'-DDE						
Endrin	5.33	5.31	5.37	111	100	11.0
4,4'-DDD						
4,4'-DDT	5.67	5.65	5.71	84.3	100	-15.7
Endrin ketone						
Endrin aldehyde						

4,4'-DDT % breakdown (1): 11.30 Endrin % breakdown (1): 8.50

Combined % breakdown (1): 19.80

FORM VII PEST-1 OLM03.0

7D

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1085

GC Column: CLP-2 ID: 0.25 (mm) Init. Calib. Date(s): 12/29/09 12/29/09

EPA Sample No.(PIBLK): _____ Date Analyzed :_____

Lab Sample ID (PIBLK): _____ Time Analyzed :_____

EPA Sample No.(PEM): PEM Date Analyzed :12/31/09

Lab Sample ID (PEM): WPE091219-99 Time Analyzed :1454

PEM COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aldrin	4.45	4.42	4.48	115	100	15.0
4,4'-DDE						
Endrin	6.00	5.97	6.03	124	100	24.0
4,4'-DDD						
4,4'-DDT	6.44	6.41	6.47	88.9	100	-11.1
Endrin ketone						
Endrin aldehyde						

4,4'-DDT % breakdown (1): 9.80 Endrin % breakdown (1): 11.80

Combined % breakdown (1): 21.60

FORM VII PEST-1 OLM03.0

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: Case No.: N/A SAS No.: N/A SDG No.: 10-1085

Instrument ID: ECD3A Calibration Date: 12/31/09 Time: 1518

Lab File ID: 003F0301 Init. Calib. Date(s): 12/29/09 12/29/09

Heated Purge: (Y/N) N Init. Calib. Times: 1734 1829

GC Column: CLP-1 ID: 0.25 (mm)

COMPOUND	SAMPLE AMOUNT	CAL100 AMOUNT	CURVE	%D	MAX %d
alpha-BHC	90.7	100	LINR	-9.3	15.0
beta-BHC	100	100	AVRG	0.0	15.0
delta-BHC	87.5	100	LINR	-12.5	15.0
gamma-BHC (Lindane)	110	100	AVRG	10.0	15.0
Heptachlor	94.6	100	AVRG	-5.4	15.0
Aldrin	98.6	100	AVRG	-1.4	15.0
Heptachlor epoxide	102	100	AVRG	2.0	15.0
Endosulfan I	106	100	AVRG	6.0	15.0
Dieldrin	202	200	AVRG	1.0	15.0
4,4'-DDE	205	200	AVRG	2.5	15.0
Endrin	208	200	AVRG	4.0	15.0
Endosulfan II	206	200	AVRG	3.0	15.0
4,4'-DDD	212	200	AVRG	6.0	15.0
Endosulfan sulfate	203	200	AVRG	1.5	15.0
4,4'-DDT	193	200	AVRG	-3.5	15.0
Methoxychlor	853	1000	AVRG	-14.7	15.0
Endrin ketone	196	200	AVRG	-2.0	15.0
Endrin aldehyde	194	200	AVRG	-3.0	15.0
gamma-Chlordane	109	100	AVRG	9.0	15.0
alpha-Chlordane	94.2	100	AVRG	-5.8	15.0
4cmx	194	200	AVRG	-3.0	15.0
Decachlorobiphenyl	183	200	AVRG	-8.5	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: Case No.: N/A SAS No.: N/A SDG No.: 10-1085

Instrument ID: ECD3A Calibration Date: 12/31/09 Time: 1518

Lab File ID: 003B0301 Init. Calib. Date(s): 12/29/09 12/29/09

Heated Purge: (Y/N) N Init. Calib. Times: 1734 1829

GC Column: CLP-2 ID: 0.25 (mm)

COMPOUND	SAMPLE AMOUNT	CAL100 AMOUNT	CURVE	%D	MAX %d	
alpha-BHC	105	100	AVRG	5.0	15.0	
beta-BHC	96.8	100	AVRG	-3.2	15.0	
delta-BHC	98.7	100	AVRG	-1.3	15.0	
gamma-BHC (Lindane)	105	100	AVRG	5.0	15.0	
Heptachlor	85.4	100	AVRG	-14.6	15.0	
Aldrin	89.2	100	AVRG	-10.8	15.0	
Heptachlor epoxide	97.3	100	AVRG	-2.7	15.0	
Endosulfan I	110	100	AVRG	10.0	15.0	
Dieldrin	219	200	AVRG	9.5	15.0	
4,4'-DDE	217	200	AVRG	8.5	15.0	
Endrin	233	200	AVRG	16.5	15.0	<-
Endosulfan II	222	200	AVRG	11.0	15.0	
4,4'-DDD	236	200	AVRG	18.0	15.0	<-
Endosulfan sulfate	228	200	AVRG	14.0	15.0	
4,4'-DDT	208	200	AVRG	4.0	15.0	
Methoxychlor	872	1000	AVRG	-12.8	15.0	
Endrin ketone	210	200	AVRG	5.0	15.0	
Endrin aldehyde	211	200	AVRG	5.5	15.0	
gamma-Chlordane	94.1	100	LINR	-5.9	15.0	
alpha-Chlordane	97.7	100	AVRG	-2.3	15.0	
4cmx	185	200	AVRG	-7.5	15.0	
Decachlorobiphenyl	196	200	AVRG	-2.0	15.0	

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: Case No.: N/A SAS No.: N/A SDG No.: 10-1085

Instrument ID: ECD3A Calibration Date: 12/31/09 Time: 1532

Lab File ID: 004F0401 Init. Calib. Date(s): 12/29/09 12/29/09

Heated Purge: (Y/N) N Init. Calib. Times: 1856 2014

GC Column: CLP-1 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF100	MIN RRF	%D	MAX %D	
Toxaphene	485.259	509.487	0.01	5.0	15.0	
(2)	754.120	858.914	0.01	13.9	15.0	
(3)	870.392	920.069	0.01	5.7	15.0	
(4)	1136.606	1095.601	0.01	-3.6	15.0	
(5)	2021.570	1690.934	0.01	-16.4	15.0	<-
4cmx	65965.544	68806.755	0.01	4.3	15.0	
Decachlorobiphenyl	48195.320	47658.480	0.01	-1.1	15.0	

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: Case No.: N/A SAS No.: N/A SDG No.: 10-1085

Instrument ID: ECD3A Calibration Date: 12/31/09 Time: 1532

Lab File ID: 004B0401 Init. Calib. Date(s): 12/29/09 12/29/09

Heated Purge: (Y/N) N Init. Calib. Times: 1856 2014

GC Column: CLP-2 ID: 0.25 (mm)

COMPOUND	RRF	RRF100	MIN RRF	%D	MAX %D
Toxaphene	5065.852	5791.846	0.01	14.3	15.0
(2)	2990.542	3272.697	0.01	9.4	15.0
(3)	6013.149	5376.130	0.01	-10.6	15.0
(4)	10599.481	9744.186	0.01	-8.1	15.0
(5)	19147.810	18365.197	0.01	-4.1	15.0
4cmx	468997.97	461696.20	0.01	-1.6	15.0
Decachlorobiphenyl	328222.63	340742.43	0.01	3.8	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: Case No.: N/A SAS No.: N/A SDG No.: 10-1085

Instrument ID: ECD3A Calibration Date: 12/31/09 Time: 1749

Lab File ID: 014F1401 Init. Calib. Date(s): 12/29/09 12/29/09

Heated Purge: (Y/N) N Init. Calib. Times: 1734 1829

GC Column: CLP-1 ID: 0.25 (mm)

COMPOUND	SAMPLE AMOUNT	CAL100 AMOUNT	CURVE	%D	MAX %d	
alpha-BHC	95.0	100	LINR	-5.0	15.0	
beta-BHC	104	100	AVRG	4.0	15.0	
delta-BHC	93.3	100	LINR	-6.7	15.0	
gamma-BHC (Lindane)	116	100	AVRG	16.0	15.0	<-
Heptachlor	105	100	AVRG	5.0	15.0	
Aldrin	102	100	AVRG	2.0	15.0	
Heptachlor epoxide	106	100	AVRG	6.0	15.0	
Endosulfan I	110	100	AVRG	10.0	15.0	
Dieldrin	210	200	AVRG	5.0	15.0	
4,4'-DDE	212	200	AVRG	6.0	15.0	
Endrin	227	200	AVRG	13.5	15.0	
Endosulfan II	213	200	AVRG	6.5	15.0	
4,4'-DDD	224	200	AVRG	12.0	15.0	
Endosulfan sulfate	215	200	AVRG	7.5	15.0	
4,4'-DDT	210	200	AVRG	5.0	15.0	
Methoxychlor	954	1000	AVRG	-4.6	15.0	
Endrin ketone	208	200	AVRG	4.0	15.0	
Endrin aldehyde	202	200	AVRG	1.0	15.0	
gamma-Chlordane	112	100	AVRG	12.0	15.0	
alpha-Chlordane	96.9	100	AVRG	-3.1	15.0	
4cmx	201	200	AVRG	0.5	15.0	
Decachlorobiphenyl	187	200	AVRG	-6.5	15.0	

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: Case No.: N/A SAS No.: N/A SDG No.: 10-1085

Instrument ID: ECD3A Calibration Date: 12/31/09 Time: 1749

Lab File ID: 014B1401 Init. Calib. Date(s): 12/29/09 12/29/09

Heated Purge: (Y/N) N Init. Calib. Times: 1734 1829

GC Column: CLP-2 ID: 0.25 (mm)

COMPOUND	SAMPLE AMOUNT	CAL100 AMOUNT	CURVE	%D	MAX %d	
alpha-BHC	104	100	AVRG	4.0	15.0	
beta-BHC	96.2	100	AVRG	-3.8	15.0	
delta-BHC	99.2	100	AVRG	-0.8	15.0	
gamma-BHC (Lindane)	105	100	AVRG	5.0	15.0	
Heptachlor	91.2	100	AVRG	-8.8	15.0	
Aldrin	91.2	100	AVRG	-8.8	15.0	
Heptachlor epoxide	96.9	100	AVRG	-3.1	15.0	
Endosulfan I	106	100	AVRG	6.0	15.0	
Dieldrin	210	200	AVRG	5.0	15.0	
4,4'-DDE	210	200	AVRG	5.0	15.0	
Endrin	232	200	AVRG	16.0	15.0	<-
Endosulfan II	211	200	AVRG	5.5	15.0	
4,4'-DDD	223	200	AVRG	11.5	15.0	
Endosulfan sulfate	218	200	AVRG	9.0	15.0	
4,4'-DDT	206	200	AVRG	3.0	15.0	
Methoxychlor	911	1000	AVRG	-8.9	15.0	
Endrin ketone	205	200	AVRG	2.5	15.0	
Endrin aldehyde	201	200	AVRG	0.5	15.0	
gamma-Chlordane	96.2	100	LINR	-3.8	15.0	
alpha-Chlordane	94.2	100	AVRG	-5.8	15.0	
4cmx	184	200	AVRG	-8.0	15.0	
Decachlorobiphenyl	192	200	AVRG	-4.0	15.0	

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: Case No.: N/A SAS No.: N/A SDG No.: 10-1085

Instrument ID: ECD3A Calibration Date: 12/31/09 Time: 2019

Lab File ID: 025F2501 Init. Calib. Date(s): 12/29/09 12/29/09

Heated Purge: (Y/N) N Init. Calib. Times: 1734 1829

GC Column: CLP-1 ID: 0.25 (mm)

COMPOUND	SAMPLE AMOUNT	CAL100 AMOUNT	CURVE	%D	MAX %d	
alpha-BHC	95.8	100	LINR	-4.2	15.0	
beta-BHC	105	100	AVRG	5.0	15.0	
delta-BHC	94.0	100	LINR	-6.0	15.0	
gamma-BHC (Lindane)	117	100	AVRG	17.0	15.0	<-
Heptachlor	105	100	AVRG	5.0	15.0	
Aldrin	104	100	AVRG	4.0	15.0	
Heptachlor epoxide	107	100	AVRG	7.0	15.0	
Endosulfan I	112	100	AVRG	12.0	15.0	
Dieldrin	213	200	AVRG	6.5	15.0	
4,4'-DDE	216	200	AVRG	8.0	15.0	
Endrin	222	200	AVRG	11.0	15.0	
Endosulfan II	218	200	AVRG	9.0	15.0	
4,4'-DDD	230	200	AVRG	15.0	15.0	
Endosulfan sulfate	221	200	AVRG	10.5	15.0	
4,4'-DDT	211	200	AVRG	5.5	15.0	
Methoxychlor	950	1000	AVRG	-5.0	15.0	
Endrin ketone	214	200	AVRG	7.0	15.0	
Endrin aldehyde	209	200	AVRG	4.5	15.0	
gamma-Chlordane	114	100	AVRG	14.0	15.0	
alpha-Chlordane	99.2	100	AVRG	-0.8	15.0	
4cmx	203	200	AVRG	1.5	15.0	
Decachlorobiphenyl	194	200	AVRG	-3.0	15.0	

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: Case No.: N/A SAS No.: N/A SDG No.: 10-1085

Instrument ID: ECD3A Calibration Date: 12/31/09 Time: 2019

Lab File ID: 025B2501 Init. Calib. Date(s): 12/29/09 12/29/09

Heated Purge: (Y/N) N Init. Calib. Times: 1734 1829

GC Column: CLP-2 ID: 0.25 (mm)

COMPOUND	SAMPLE AMOUNT	CAL100 AMOUNT	CURVE	%D	MAX %d	
alpha-BHC	102	100	AVRG	2.0	15.0	
beta-BHC	96.7	100	AVRG	-3.3	15.0	
delta-BHC	100	100	AVRG	0.0	15.0	
gamma-BHC (Lindane)	104	100	AVRG	4.0	15.0	
Heptachlor	90.4	100	AVRG	-9.6	15.0	
Aldrin	93.1	100	AVRG	-6.9	15.0	
Heptachlor epoxide	99.1	100	AVRG	-0.9	15.0	
Endosulfan I	109	100	AVRG	9.0	15.0	
Dieldrin	216	200	AVRG	8.0	15.0	
4,4'-DDE	216	200	AVRG	8.0	15.0	
Endrin	233	200	AVRG	16.5	15.0	<-
Endosulfan II	218	200	AVRG	9.0	15.0	
4,4'-DDD	234	200	AVRG	17.0	15.0	<-
Endosulfan sulfate	225	200	AVRG	12.5	15.0	
4,4'-DDT	212	200	AVRG	6.0	15.0	
Methoxychlor	901	1000	AVRG	-9.9	15.0	
Endrin ketone	214	200	AVRG	7.0	15.0	
Endrin aldehyde	212	200	AVRG	6.0	15.0	
gamma-Chlordane	105	100	LINR	5.0	15.0	
alpha-Chlordane	97.8	100	AVRG	-2.2	15.0	
4cmx	184	200	AVRG	-8.0	15.0	
Decachlorobiphenyl	203	200	AVRG	1.5	15.0	

FORM VII PEST

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd3a.i/123109p.b/002f0201.d
Lab Smp Id: WPE091219-99DG Client Smp ID: PEM01
Inj Date : 31-DEC-2009 14:54
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |WPE091219-99DG
Misc Info : |PEM|
Comment :
Method : /chem/ecd3a.i/123109p.b/ECD3-F-8081-122909.m
Meth Date : 04-Jan-2010 09:07 cla01575 Quant Type: ESTD
Cal Date : 29-DEC-2009 21:55 Cal File: 020f2001.d
Als bottle: 2 QC Sample: PEM
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: pem.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: kilroy

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
11 Aldrin					CAS #: 309-00-2		
3.969	3.976	-0.007	9654987	127.160	127	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.332	5.340	-0.008	5852749	111.071	111	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.394	5.402	-0.008	451666	8.75185	8.75	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
5.982	5.988	-0.006	138904	2.94820	2.95	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
5.673	5.680	-0.007	3721403	84.3133	84.3	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
6.732	6.739	-0.007	407662	6.60846	6.61	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
2.678	2.682	-0.004	13436982	203.697	204	80.00- 120.00	100.00(R)
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.824	7.831	-0.007	9171375	190.296	190	80.00- 120.00	100.00(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: /chem/ecd3a.i/123109p.b/002f0201.d

Date : 31-DEC-2009 14:54

Client ID: PEM01

Sample Info: IWPE091219-99DG

Column phase: CLP-1

Instrument: ecd3a.i

Operator: HXJ1

Column diameter: 0.25

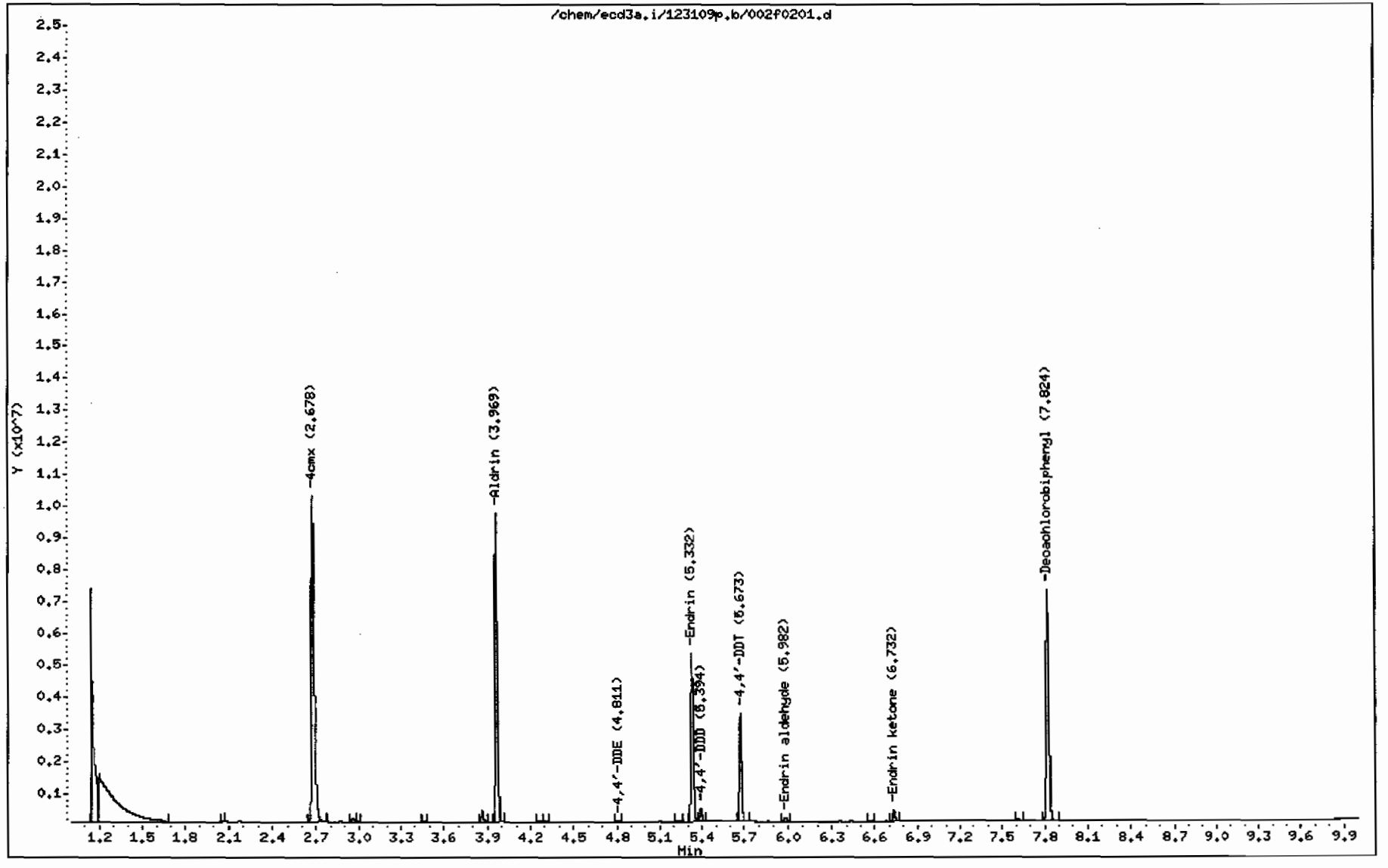

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd3a.i/123109p.b/002b0201.d
Lab Smp Id: WPE091219-99DG Client Smp ID: PEM01
Inj Date : 31-DEC-2009 14:54
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |WPE091219-99DG
Misc Info : |PEM|
Comment :
Method : /chem/ecd3a.i/123109p.b/ECD3-B-8081-122909.m
Meth Date : 04-Jan-2010 08:25 cla01575 Quant Type: ESTD
Cal Date : 29-DEC-2009 21:55 Cal File: 020b2001.d
Als bottle: 2 QC Sample: PEM
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: pem.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: kilroy

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
11 Aldrin					CAS #: 309-00-2		
4.449	4.452	-0.003	42641785	114.772	115	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
6.000	6.005	-0.005	34150902	123.947	124	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
6.099	6.104	-0.005	2908095	10.0003	10.0	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
6.578	6.583	-0.005	1069266	3.27944	3.28	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
6.438	6.443	-0.005	28365600	88.8755	88.9	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
7.471	7.477	-0.006	3524898	7.01244	7.01	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
2.921	2.924	-0.003	90682270	193.353	193	80.00- 120.00	100.00(R)
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.859	8.864	-0.005	66834959	203.627	204	80.00- 120.00	100.00(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: /chem/ecd3a.i/123109p.b/002b0201.d
Date : 31-DEC-2009 14:54
Client ID: PEW01
Sample Info: IWPE091219-99DC
Column phase: CLP-2

Instrument: ecd3a.i
Operator: HXJ1
Column diameter: 0.25

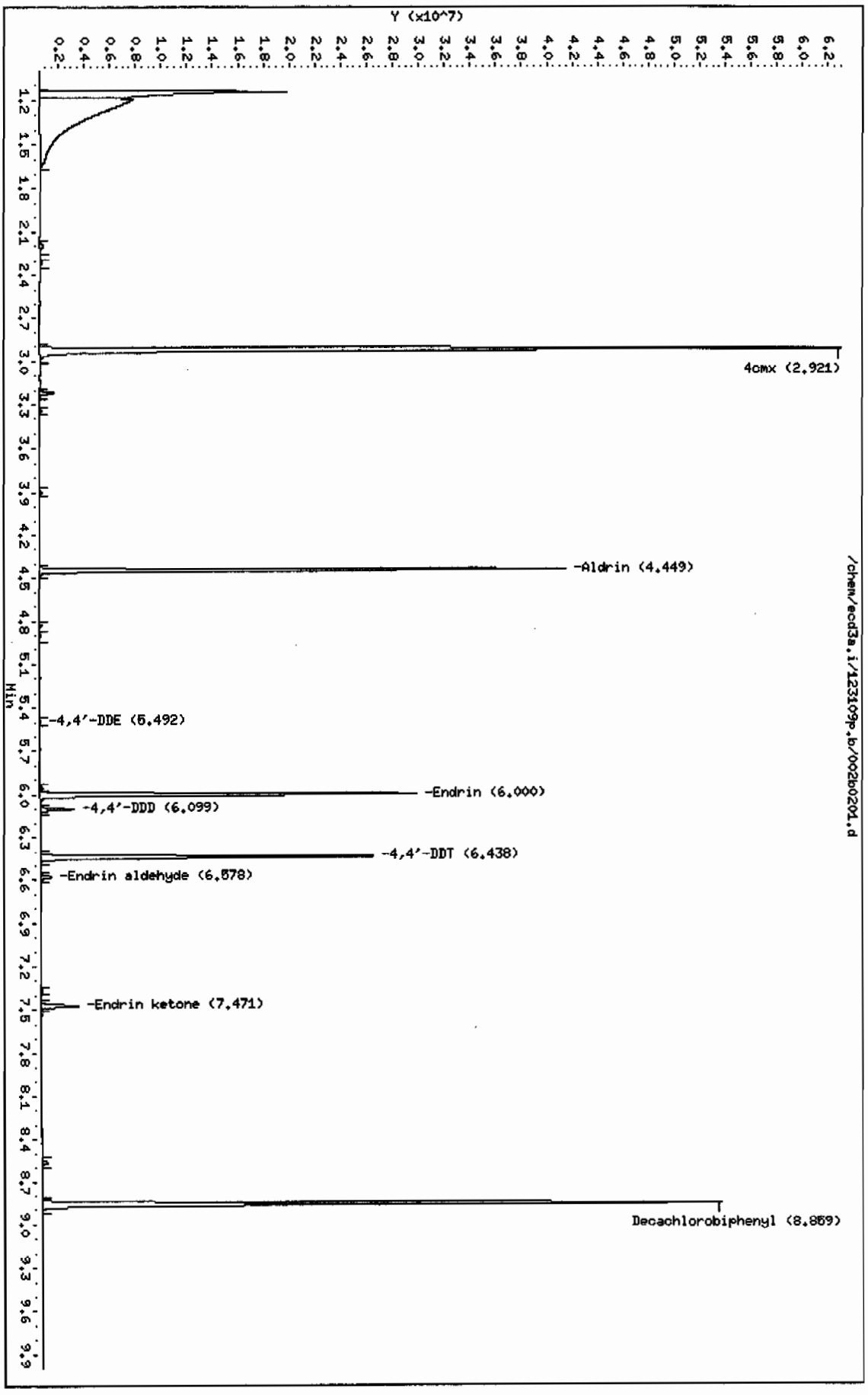

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GEL Laboratories LLC

CLP-1

Data file : /chem/ecd3a.i/123109p.b/003f0301.d
Lab Smp Id: WPE091218-10AB Client Smp ID: INDAB01
Inj Date : 31-DEC-2009 15:18
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |WPE091218-10AB
Misc Info : |ABICV|
Comment :
Method : /chem/ecd3a.i/123109p.b/ECD3-F-8081-122909.m
Meth Date : 04-Jan-2010 09:07 cla01575 Quant Type: ESTD
Cal Date : 29-DEC-2009 21:55 Cal File: 020f2001.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
3.089	3.089	0.000	9533870	100.000	90.7	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.334	3.334	0.000	8614033	100.000	110	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
3.399	3.399	0.000	3475052	100.000	100	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
3.718	3.718	0.000	6063941	100.000	94.6	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
3.547	3.547	0.000	8159041	100.000	87.5	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
3.976	3.976	0.000	7488436	100.000	98.6	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.513	4.513	0.000	6826337	100.000	102	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
4.628	4.628	0.000	7162383	100.000	109	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
4.751	4.751	0.000	6231041	100.000	94.2	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
16 Endosulfan I					CAS #: 959-98-8		
4.884	4.884	0.000	6336603	100.000	106	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
4.818	4.818	0.000	13578420	200.000	205	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
5.112	5.112	0.000	13717163	200.000	202	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.340	5.340	0.000	10970643	200.000	208	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.402	5.402	0.000	10969608	200.000	212	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
5.564	5.564	0.000	11503979	200.000	206	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
5.988	5.988	0.000	9134695	200.000	194	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
5.680	5.680	0.000	8536110	200.000	193	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
6.441	6.441	0.000	9590459	200.000	203	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
6.184	6.184	0.000	18366919	1000.00	853	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
6.739	6.739	0.000	12127155	200.000	196	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
2.682	2.682	0.000	12797737	200.000	194	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.831	7.831	0.000	8840071	200.000	183	80.00- 120.00	100.00

Data File: /chem/ecd3a.i/123109p.b/003f0301.d
Date : 31-DEC-2009 15:18
Client ID: INDA801
Sample Info: IWPE091218-10AB
Column phase: CLP-1

Instrument: ecd3a.i
Operator: HXJ1
Column diameter: 0.25

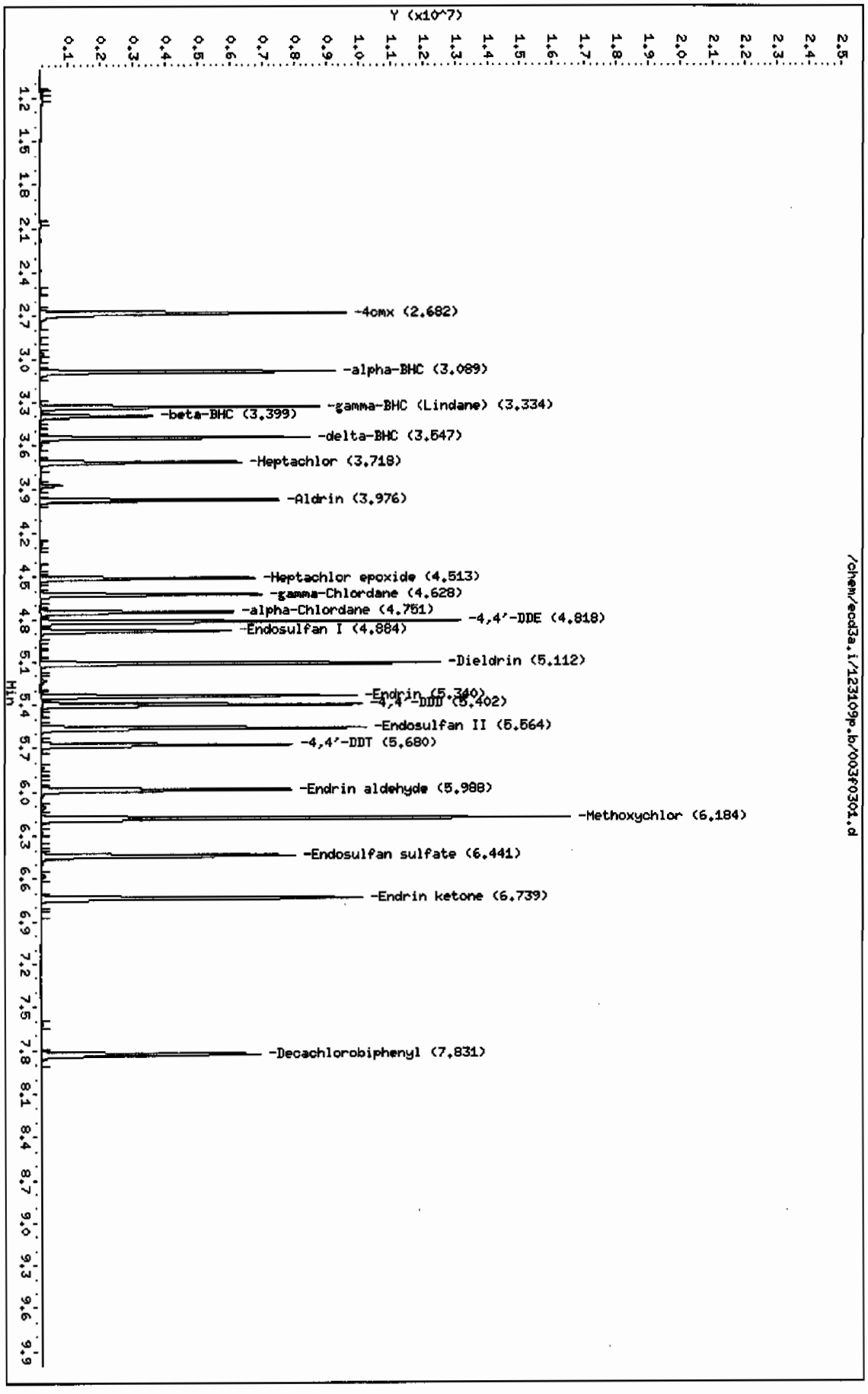

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GEL Laboratories LLC

CLP-2

Data file : /chem/ecd3a.i/123109p.b/003b0301.d
Lab Smp Id: WPE091218-10AB Client Smp ID: INDAB01
Inj Date : 31-DEC-2009 15:18
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |WPE091218-10AB
Misc Info : |ABICV|
Comment :
Method : /chem/ecd3a.i/123109p.b/ECD3-B-8081-122909.m
Meth Date : 04-Jan-2010 08:25 cla01575 Quant Type: ESTD
Cal Date : 29-DEC-2009 21:55 Cal File: 020b2001.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
3.417	3.417	0.000	67845488	100.000	105	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.727	3.727	0.000	56525647	100.000	105	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
3.788	3.788	0.000	22224700	100.000	96.8	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
4.140	4.140	0.000	35182539	100.000	85.4	80.00- 120.00	100.00(M)
13 delta-BHC					CAS #: 319-86-8		
4.061	4.061	0.000	50279903	100.000	98.7	80.00- 120.00	100.00(M)
11 Aldrin					CAS #: 309-00-2		
4.452	4.452	0.000	33135178	100.000	89.2	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
5.003	5.003	0.000	26041043	100.000	97.3	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
5.194	5.194	0.000	28021714	100.000	94.1	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
5.341	5.341	0.000	25517595	100.000	97.7	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
16 Endosulfan I					CAS #: 959-98-8		
5.405	5.405	0.000	27097221	100.000	110	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.498	5.498	0.000	56886694	200.000	217	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
5.685	5.685	0.000	64391123	200.000	219	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
6.005	6.005	0.000	64321740	200.000	233	80.00- 120.00	100.00(M)
25 4,4'-DDD					CAS #: 72-54-8		
6.104	6.104	0.000	68502267	200.000	236	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
6.226	6.226	0.000	72849764	200.000	222	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
6.583	6.583	0.000	68895010	200.000	211	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
6.443	6.443	0.000	66490316	200.000	208	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
6.885	6.885	0.000	93909868	200.000	228	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
7.186	7.186	0.000	156749071	1000.00	872	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
7.477	7.477	0.000	105539345	200.000	210	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
2.924	2.924	0.000	86694234	200.000	185	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.864	8.864	0.000	64395776	200.000	196	80.00- 120.00	100.00

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd3a.i/123109p.b/003b0301.d
Date : 31-DEC-2009 15:18
Client ID: INDAB01
Sample Info: IWPE091218-10AB

Column phase: CLP-2

Instrument: ecd3a.i

Operator: HXJ1
Column diameter: 0.25

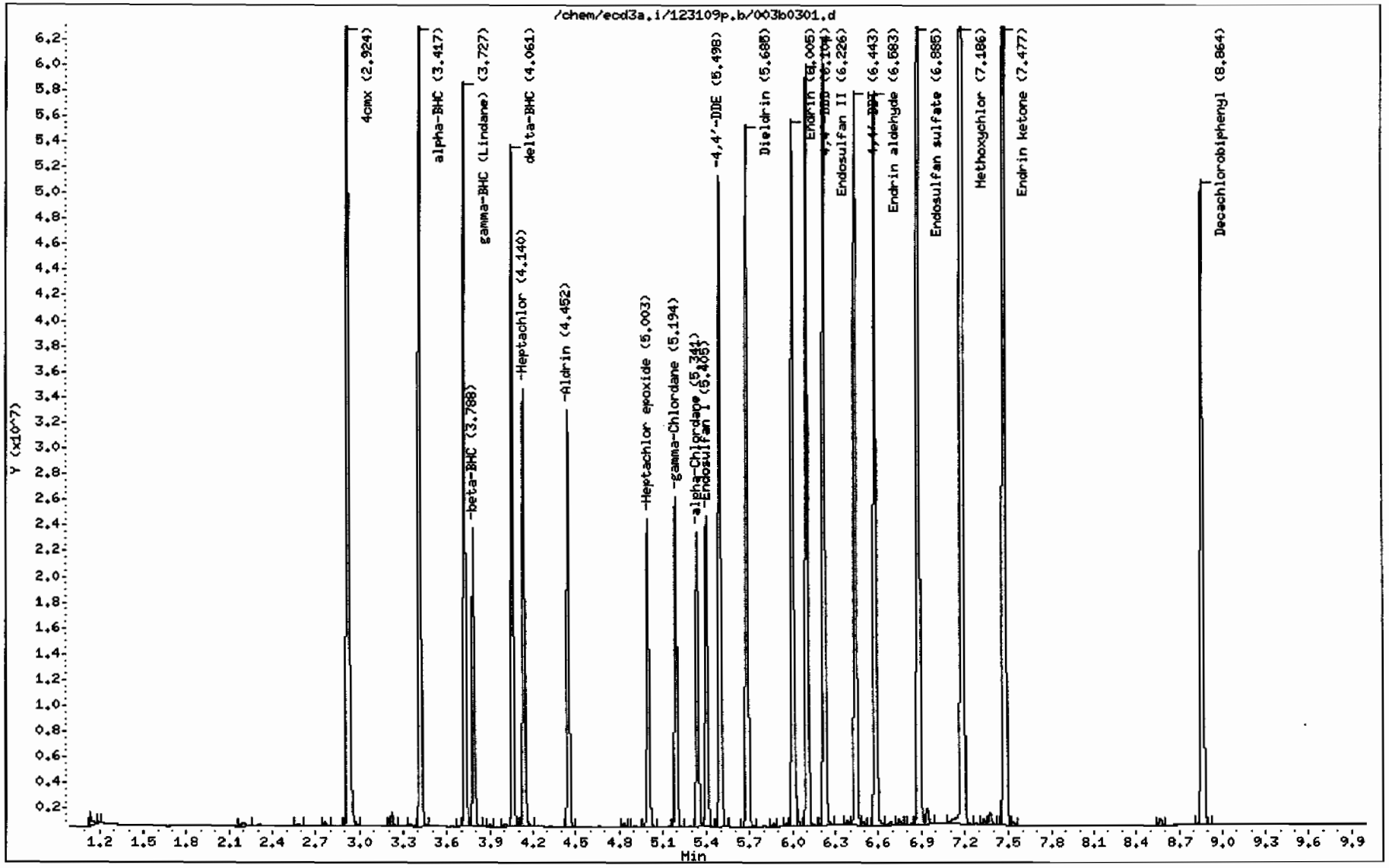

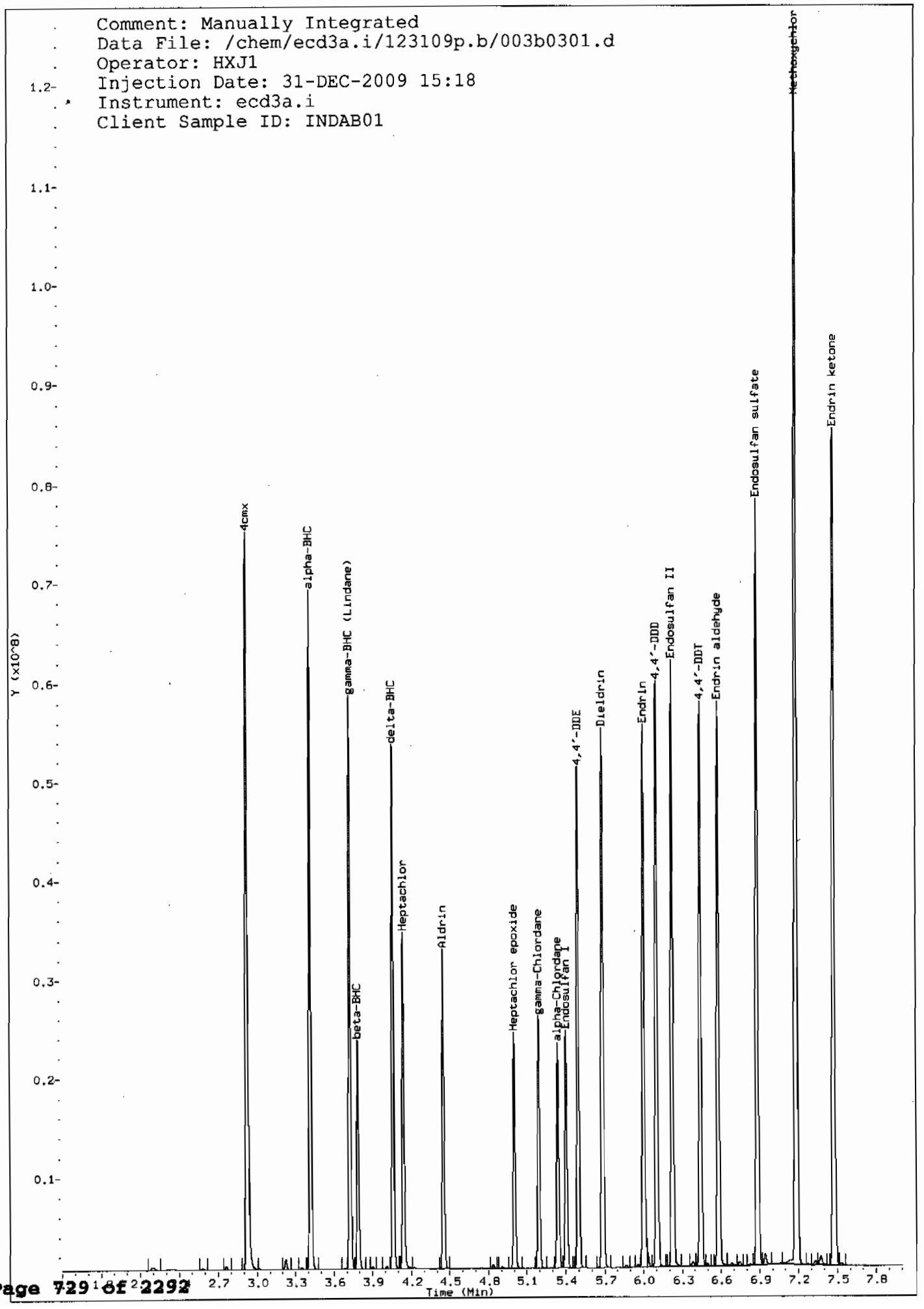
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Data File: /chem/ecd3a.i/123109p.b/003b0301.d
Operator: HXJ1
Injection Date: 31-DEC-2009 15:18
Instrument: ecd3a.i
Client Sample ID: INDAB01
Y (x10^8)
Time (Min)
4cmx
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide
gamma-Chlordane
alpha-Chlordane
Endosulfan I
4,4'-DDE
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Endosulfan sulfate
Methoxychlor
Endrin ketone

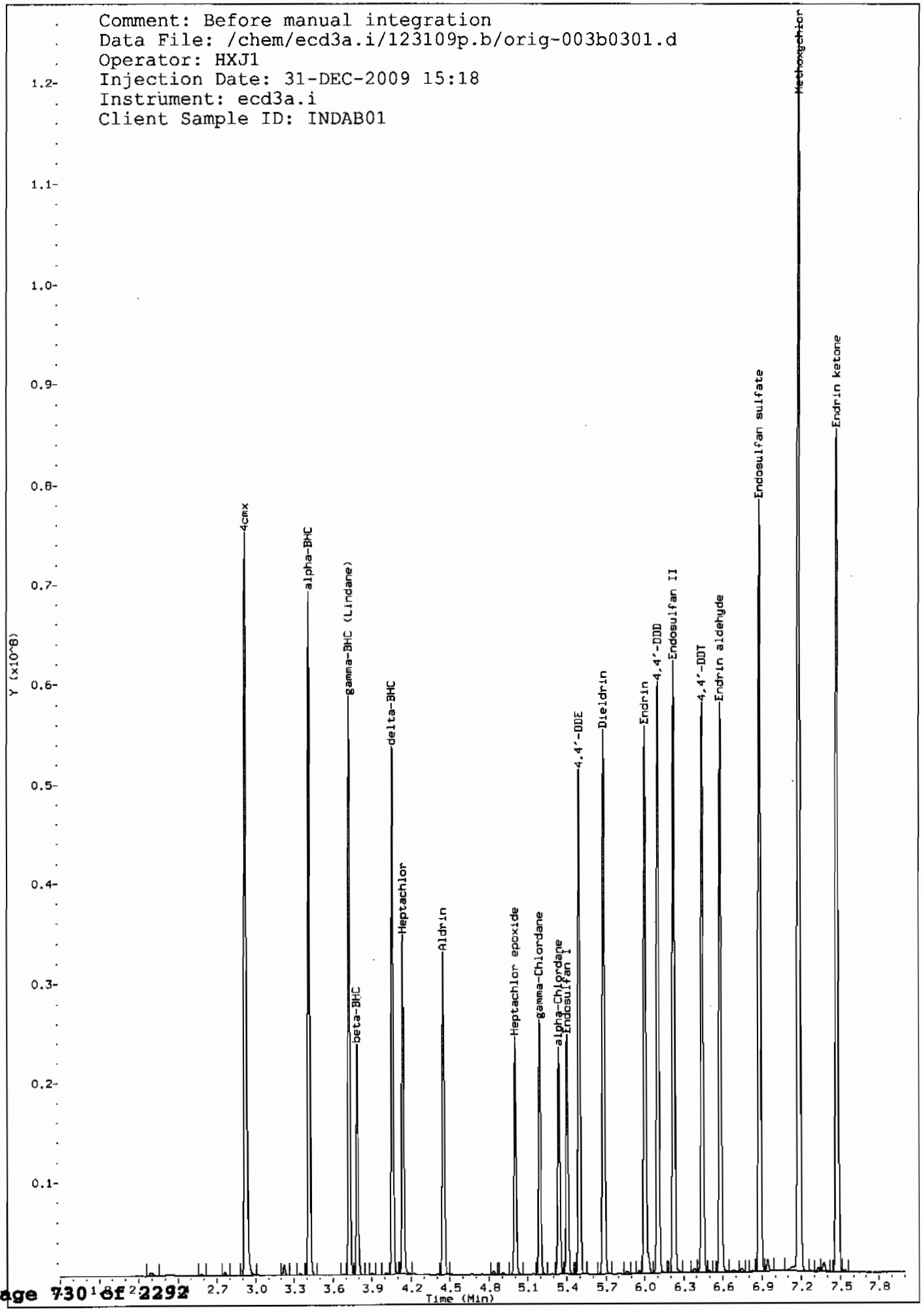
Comment: Before manual integration
Data File: /chem/ecd3a.i/123109p.b/orig-003b0301.d
Operator: HXJ1
Injection Date: 31-DEC-2009 15:18
Instrument: ecd3a.i
Client Sample ID: INDAB01
Y (x10^8)
Time (Min)
4cmx
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide
gamma-Chlordane
alpha-Chlordane
Endosulfan I
4,4'-DDE
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Endosulfan sulfate
Methoxychlor
Endrin ketone

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd3a.i/123109p.b/004f0401.d
Lab Smp Id: WPE091219-52TX Client Smp ID: TOXAPH01
Inj Date : 31-DEC-2009 15:32
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |WPE091219-52TX
Misc Info : |TOXICV
Comment :
Method : /chem/ecd3a.i/123109p.b/ECD3-F-8081-122909.m
Meth Date : 04-Jan-2010 09:07 cla01575 Quant Type: ESTD
Cal Date : 29-DEC-2009 21:55 Cal File: 020f2001.d
Als bottle: 4 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: tox.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
23 Toxaphene					CAS #: 8001-35-2		
5.004	5.004	0.000	1018974	2000.00	2100	80.00- 120.00	100.00(M)
5.108	5.108	0.000	1717829	2000.00	2280	148.58- 188.58	168.58
5.195	5.195	0.000	1840138	2000.00	2110	160.59- 200.59	180.59
5.354	5.354	0.000	2191202	2000.00	1930	195.04- 235.04	215.04
5.544	5.544	0.000	3381869	2000.00	1670	311.89- 351.89	331.89
Average of Peak Amounts =				2.02e+03			
$ 1 4cmx					CAS #: 877-09-8		
2.678	2.682	-0.004	13761351	200.000	209	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.824	7.831	-0.007	9531696	200.000	198	80.00- 120.00	100.00

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd3a.i/123109p.b/004f0401.d
Date : 31-DEC-2009 15:32
Client ID: TOXAPH01
Sample Info: IWPE091219-52TX

Column phase: CLP-1

Instrument: ecd3a.i

Operator: HXJ1
Column diameter: 0.25

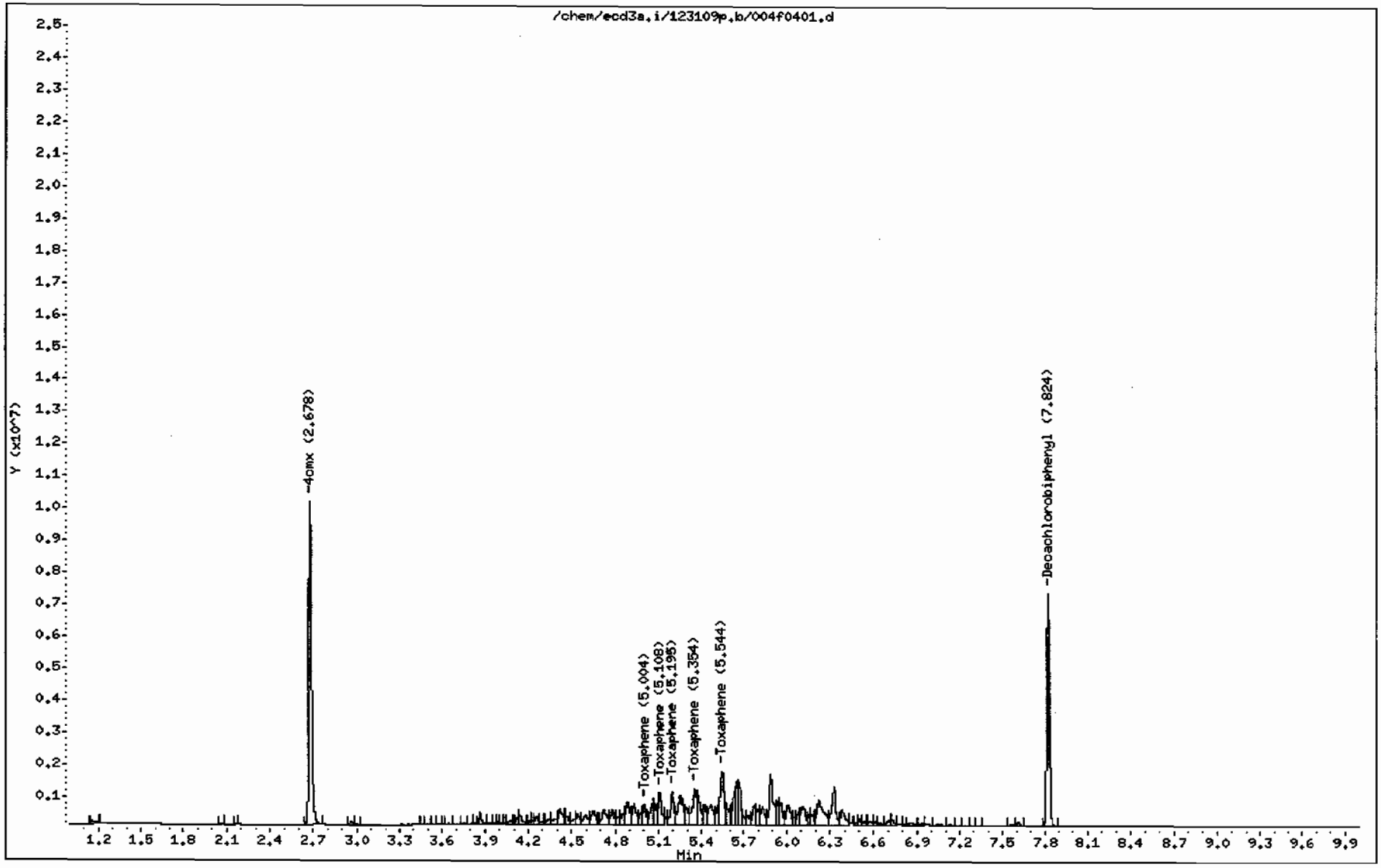

Comment: Manually Integrated
Data File: /chem/ecd3a.i/123109p.b/004f0401.d
Operator: HXJ1
Injection Date: 31-DEC-2009 15:32
Instrument: ecd3a.i
Client Sample ID: TOXAPH01

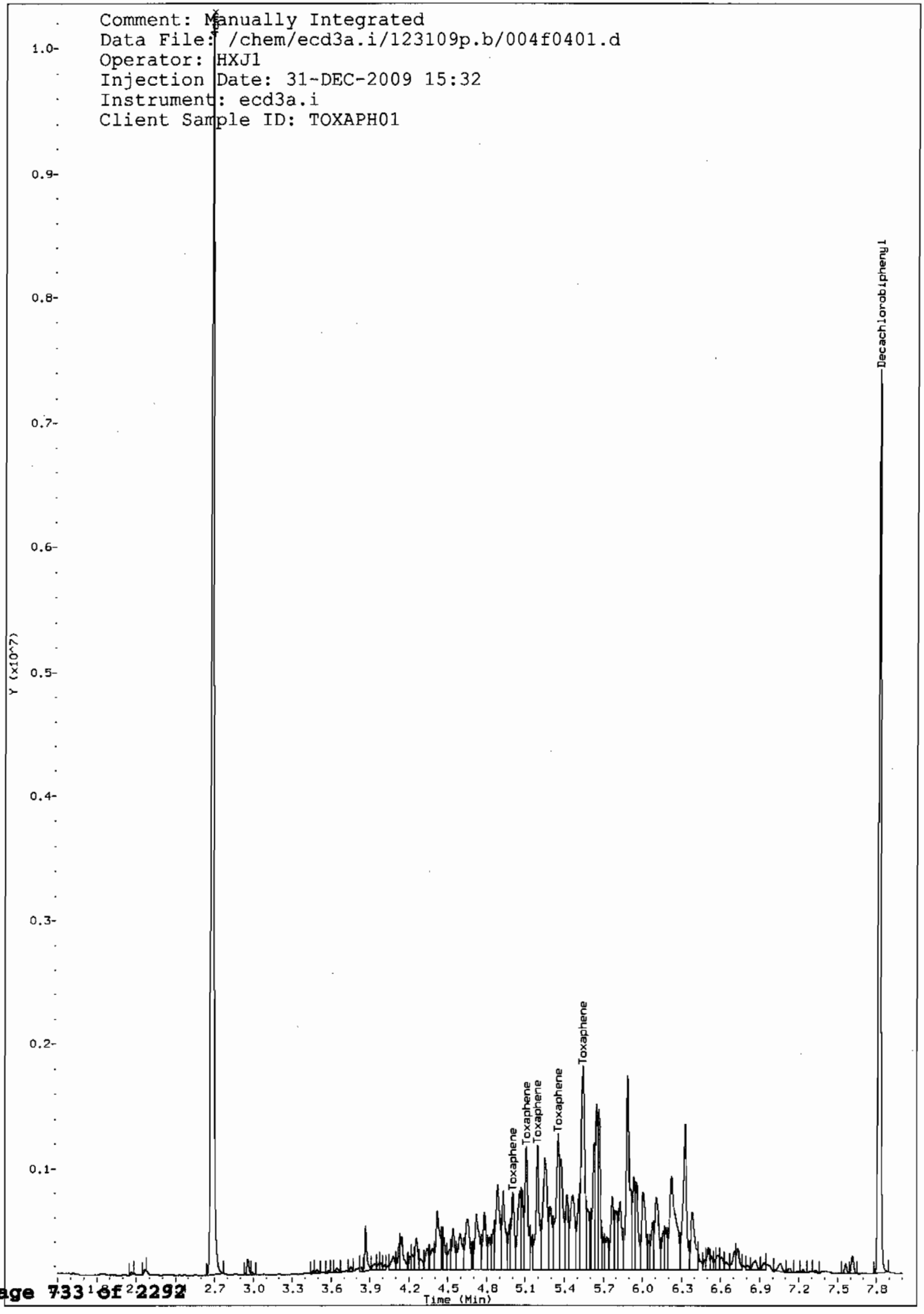

Comment: Before manual integration
Data File: /chem/ecd3a.i/123109p.b/orig-004f0401.d
Operator: HXJ1
Injection Date: 31-DEC-2009 15:32
Instrument: ecd3a.i
Client Sample ID: TOXAPH01

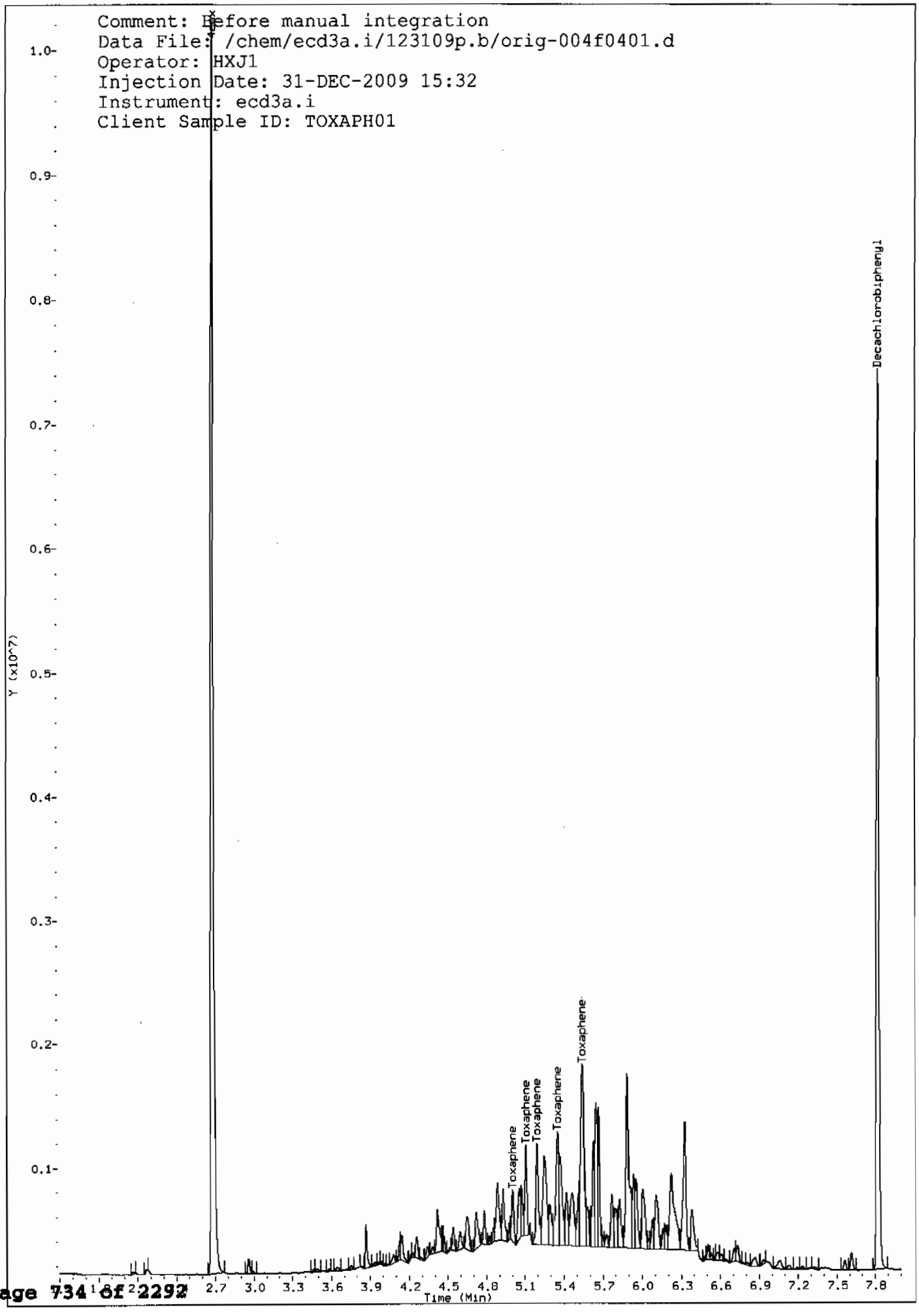

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd3a.i/123109p.b/004b0401.d
Lab Smp Id: WPE091219-52TX Client Smp ID: TOXAPH01
Inj Date : 31-DEC-2009 15:32
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |WPE091219-52TX
Misc Info : |TOXICV
Comment :
Method : /chem/ecd3a.i/123109p.b/ECD3-B-8081-122909.m
Meth Date : 04-Jan-2010 08:25 cla01575 Quant Type: ESTD
Cal Date : 29-DEC-2009 21:55 Cal File: 020b2001.d
Als bottle: 4 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: tox.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
23 Toxaphene					CAS #: 8001-35-2		
5.653	5.653	0.000	11583691	2000.00	2290	80.00- 120.00	100.00
5.777	5.777	0.000	6545394	2000.00	2190	36.51- 76.51	56.51
6.167	6.167	0.000	10752261	2000.00	1790	72.82- 112.82	92.82
6.210	6.210	0.000	19488372	2000.00	1840	148.24- 188.24	168.24
6.312	6.312	0.000	36730394	2000.00	1920	297.09- 337.09	317.09
Average of Peak Amounts =					2e+03		
$ 1 4cmx					CAS #: 877-09-8		
2.922	2.924	-0.002	92339240	200.000	197	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.859	8.864	-0.005	68148487	200.000	208	80.00- 120.00	100.00

Data File: /chem/ecd3a.i/123109p.b/004b0401.d

Date : 31-DEC-2009 15:32

Client ID: TOXAPH01

Sample Info: IWPE091219-52TX

Column phase: CLP-2

Instrument: ecd3a.i

Operator: HXJ1

Column diameter: 0.25

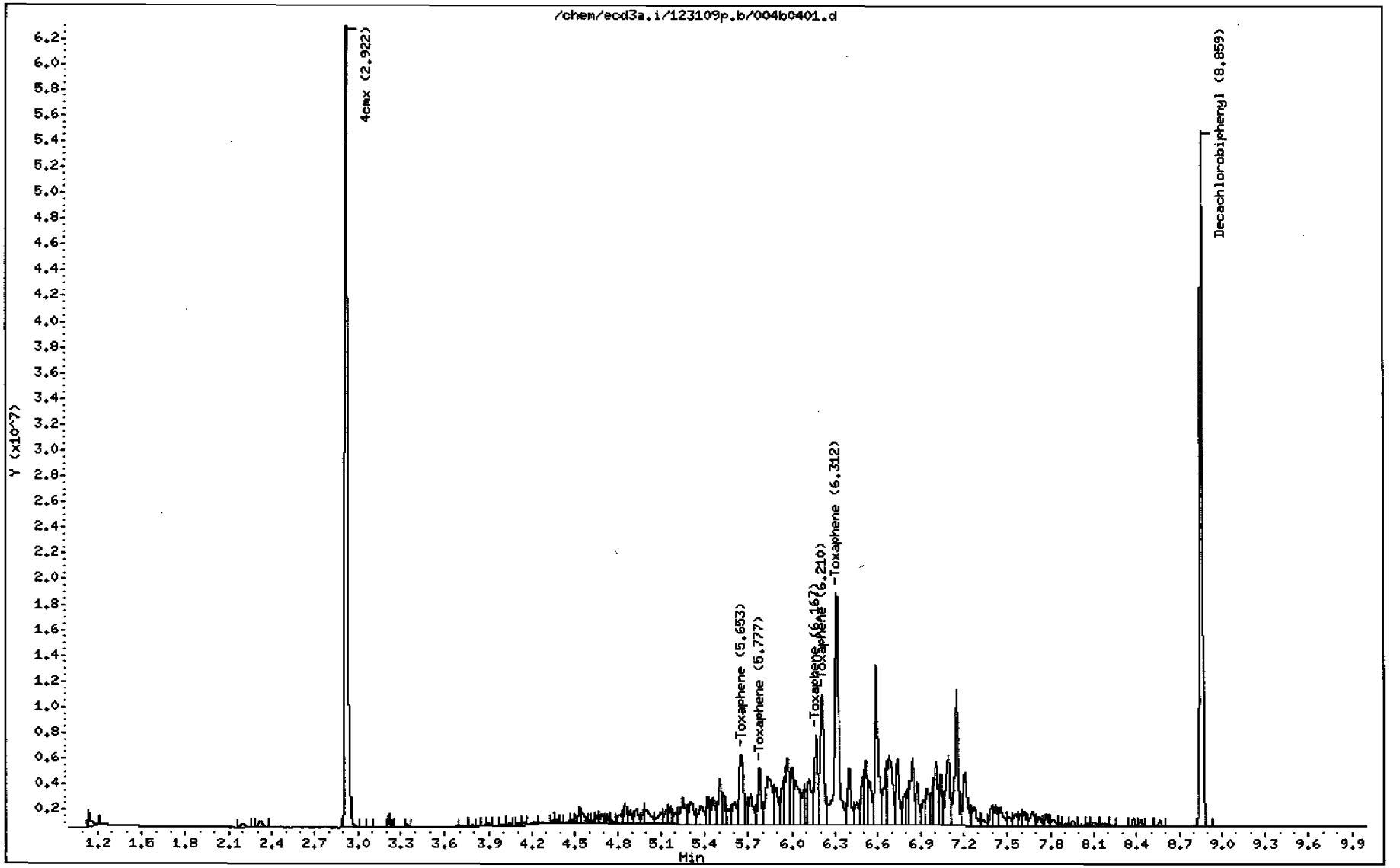

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd3a.i/123109p.b/014f1401.d
Lab Smp Id: WPE091218-10AB Client Smp ID: INDAB02
Inj Date : 31-DEC-2009 17:49
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |WPE091218-10AB
Misc Info : |ABICV|
Comment :
Method : /chem/ecd3a.i/123109p.b/ECD3-F-8081-122909.m
Meth Date : 04-Jan-2010 09:07 cla01575 Quant Type: ESTD
Cal Date : 29-DEC-2009 21:55 Cal File: 020f2001.d
Als bottle: 14 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
3.083	3.089	-0.006	10012611	100.000	95.0	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.327	3.334	-0.007	9077884	100.000	116	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
3.391	3.399	-0.008	3610176	100.000	104	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
3.710	3.718	-0.008	6755216	100.000	105	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
3.539	3.547	-0.008	8732496	100.000	93.3	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
3.967	3.976	-0.009	7747387	100.000	102	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.503	4.513	-0.010	7054948	100.000	106	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
4.618	4.628	-0.010	7376477	100.000	112	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
4.741	4.751	-0.010	6405136	100.000	96.9	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
16 Endosulfan I					CAS #: 959-98-8		
4.873	4.884	-0.011	6539793	100.000	110	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
4.808	4.818	-0.010	14029082	200.000	212	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
5.101	5.112	-0.011	14227996	200.000	210	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.329	5.340	-0.011	11975673	200.000	227	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.389	5.402	-0.013	11555068	200.000	224	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
5.553	5.564	-0.011	11924832	200.000	213	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
5.978	5.988	-0.010	9523580	200.000	202	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
5.670	5.680	-0.010	9254062	200.000	210	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
6.430	6.441	-0.011	10163025	200.000	215	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
6.173	6.184	-0.011	20549602	1000.00	954	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
6.728	6.739	-0.011	12810875	200.000	208	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
2.678	2.682	-0.004	13243492	200.000	201	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.820	7.831	-0.011	9014908	200.000	187	80.00- 120.00	100.00

Data File: /chem/ecd3a.i/123109p.b/014f1401.d
Date : 31-DEC-2009 17:49
Client ID: INDAB02
Sample Info: IWPE091218-10AB
Column phase: CLP-1

Instrument: ecd3a.i
Operator: HXJ1
Column diameter: 0.25

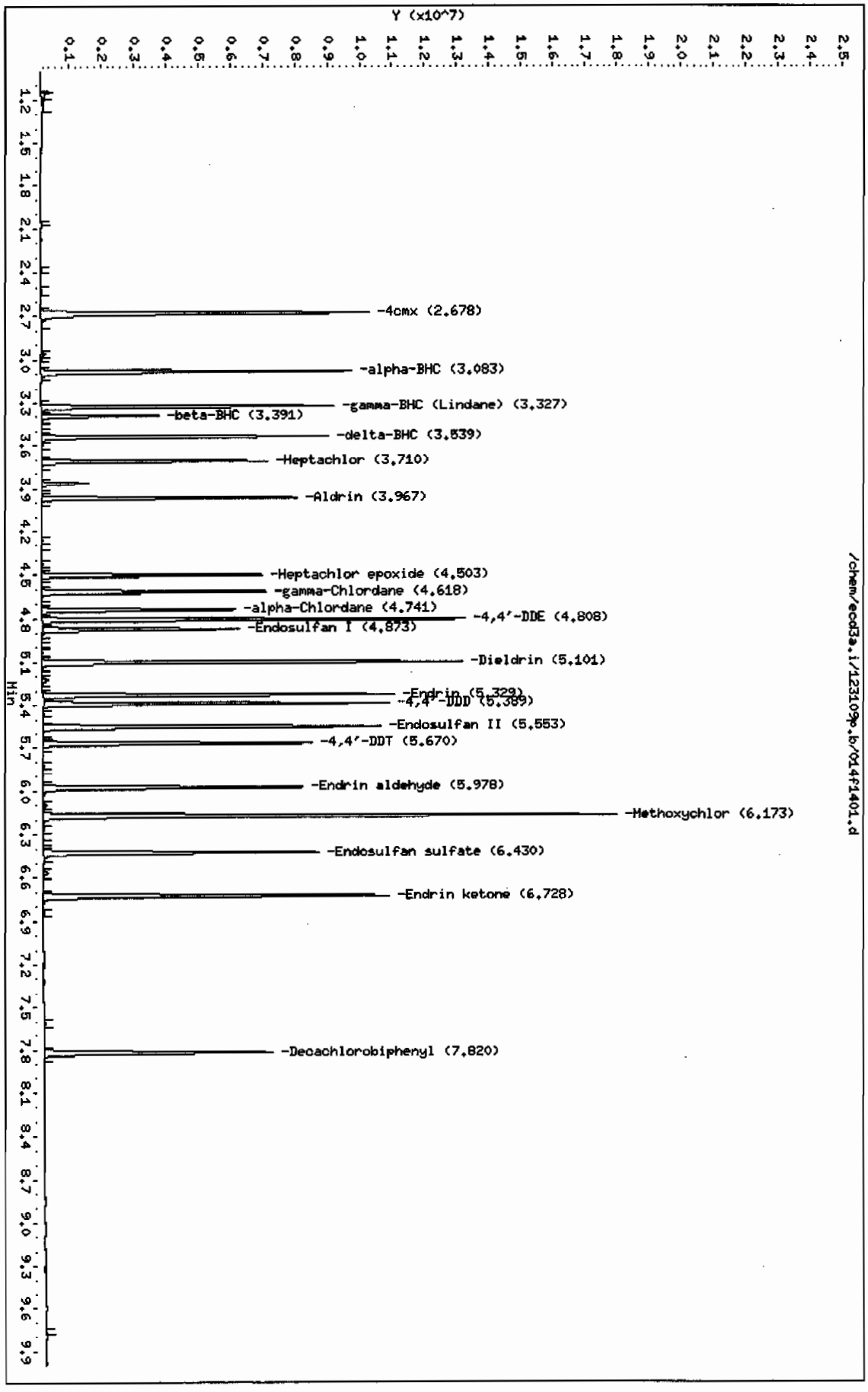

Page 1

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CLP-2

Data file : /chem/ecd3a.i/123109p.b/014b1401.d
Lab Smp Id: WPE091218-10AB Client Smp ID: INDAB02
Inj Date : 31-DEC-2009 17:49
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |WPE091218-10AB
Misc Info : |ABICV|
Comment :
Method : /chem/ecd3a.i/123109p.b/ECD3-B-8081-122909.m
Meth Date : 04-Jan-2010 08:25 cla01575 Quant Type: ESTD
Cal Date : 29-DEC-2009 21:55 Cal File: 020b2001.d
Als bottle: 14 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
3.413	3.417	-0.004	67369791	100.000	104	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.722	3.727	-0.005	56528752	100.000	105	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
3.783	3.788	-0.005	22071947	100.000	96.2	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
4.135	4.140	-0.005	37564958	100.000	91.2	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
4.056	4.061	-0.005	50488954	100.000	99.2	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.447	4.452	-0.005	33889636	100.000	91.2	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.997	5.003	-0.006	25923450	100.000	96.9	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
5.188	5.194	-0.006	28641905	100.000	96.2	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
5.334	5.341	-0.007	24604219	100.000	94.2	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
16 Endosulfan I					CAS #: 959-98-8		
5.398	5.405	-0.007	26113629	100.000	106	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.491	5.498	-0.007	55044729	200.000	210	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
5.678	5.685	-0.007	61727557	200.000	210	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.997	6.005	-0.008	63917168	200.000	232	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
6.097	6.104	-0.007	64857326	200.000	223	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
6.219	6.226	-0.007	69350521	200.000	211	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
6.575	6.583	-0.008	65515971	200.000	201	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
6.436	6.443	-0.007	65903320	200.000	206	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
6.878	6.885	-0.007	89736224	200.000	218	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
7.179	7.186	-0.007	163820618	1000.00	911	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
7.469	7.477	-0.008	102981278	200.000	205	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
2.921	2.924	-0.003	86559687	200.000	184	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.858	8.864	-0.006	63027088	200.000	192	80.00- 120.00	100.00

Data File: /chem/ecd3a.i/123109p.b/014b1401.d
Date : 31-DEC-2009 17:49
Client ID: INDAB02
Sample Info: IWPE091218-10AB

Column phase: CLP-2

Instrument: ecd3a.i

Operator: HXJ1
Column diameter: 0.25

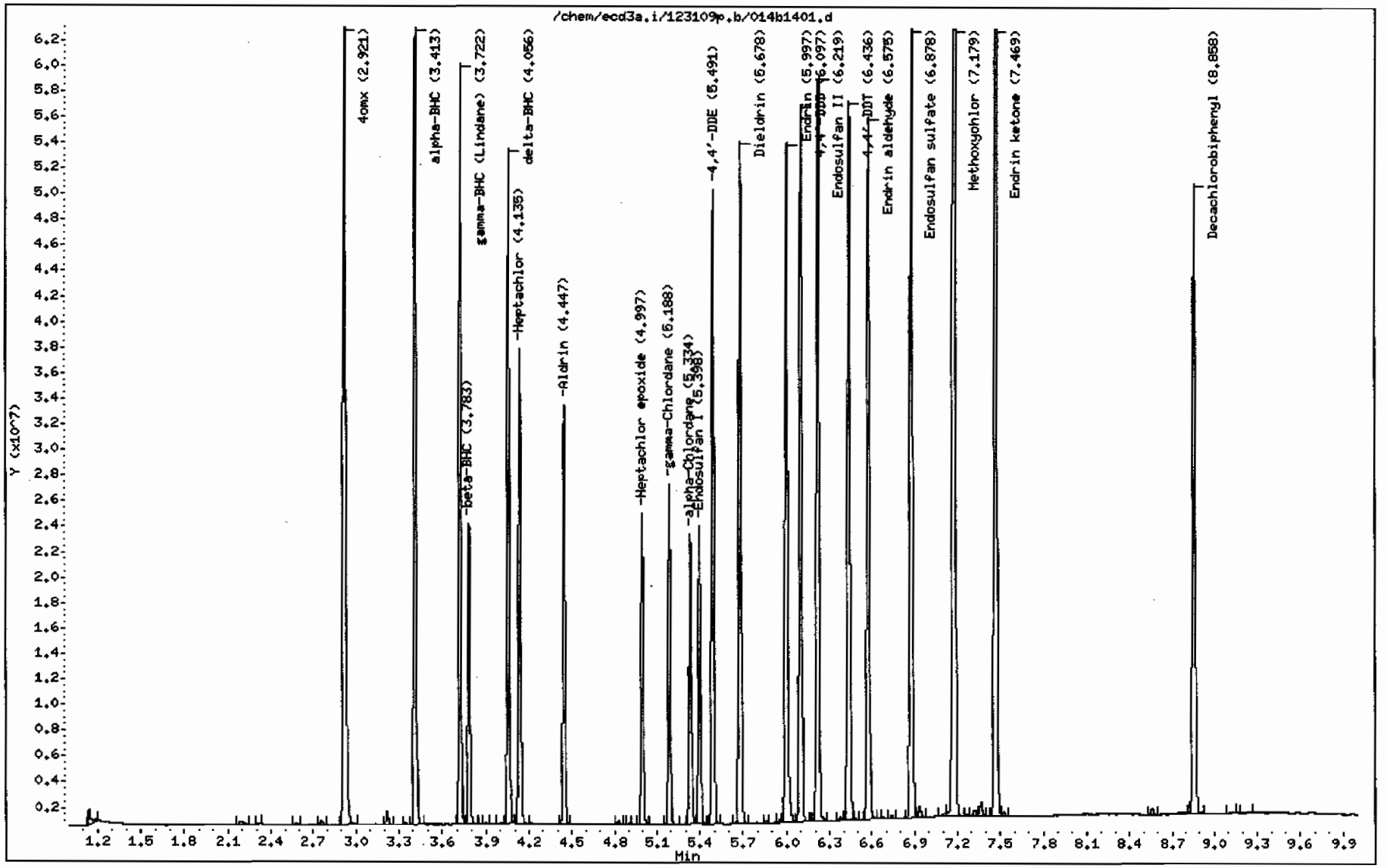

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CLP-1

Data file : /chem/ecd3a.i/123109p.b/025f2501.d
Lab Smp Id: WPE091218-10AB Client Smp ID: INDAB03
Inj Date : 31-DEC-2009 20:19
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |WPE091218-10AB
Misc Info : |ABICV|
Comment :
Method : /chem/ecd3a.i/123109p.b/ECD3-F-8081-122909.m
Meth Date : 04-Jan-2010 09:07 cla01575 Quant Type: ESTD
Cal Date : 29-DEC-2009 21:55 Cal File: 020f2001.d
Als bottle: 25 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
3.083	3.089	-0.006	10098164	100.000	95.8	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.328	3.334	-0.006	9181235	100.000	117	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
3.392	3.399	-0.007	3648473	100.000	105	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
3.711	3.718	-0.007	6733198	100.000	105	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
3.540	3.547	-0.007	8798406	100.000	94.0	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
3.968	3.976	-0.008	7866784	100.000	104	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.504	4.513	-0.009	7170536	100.000	107	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
4.618	4.628	-0.010	7520527	100.000	114	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
4.741	4.751	-0.010	6555971	100.000	99.2	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
16 Endosulfan I					CAS #: 959-98-8		
4.874	4.884	-0.010	6658750	100.000	112	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
4.808	4.818	-0.010	14291448	200.000	216	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
5.101	5.112	-0.011	14446948	200.000	213	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.329	5.340	-0.011	11708934	200.000	222	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.391	5.402	-0.011	11861951	200.000	230	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
5.554	5.564	-0.010	12185035	200.000	218	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
5.978	5.988	-0.010	9835616	200.000	209	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
5.670	5.680	-0.010	9324361	200.000	211	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
6.430	6.441	-0.011	10430782	200.000	221	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
6.174	6.184	-0.010	20454379	1000.00	950	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
6.729	6.739	-0.010	13219473	200.000	214	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
2.678	2.682	-0.004	13386478	200.000	203	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.820	7.831	-0.011	9347555	200.000	194	80.00- 120.00	100.00

Data File: /chem/ecd3a.i/123109p.b/025f2501.d
Date : 31-DEC-2009 20:19
Client ID: INDAB03
Sample Info: IWPE091218-10AB

Column phase: CLP-1

Instrument: ecd3a.i

Operator: HXJ1
Column diameter: 0.25

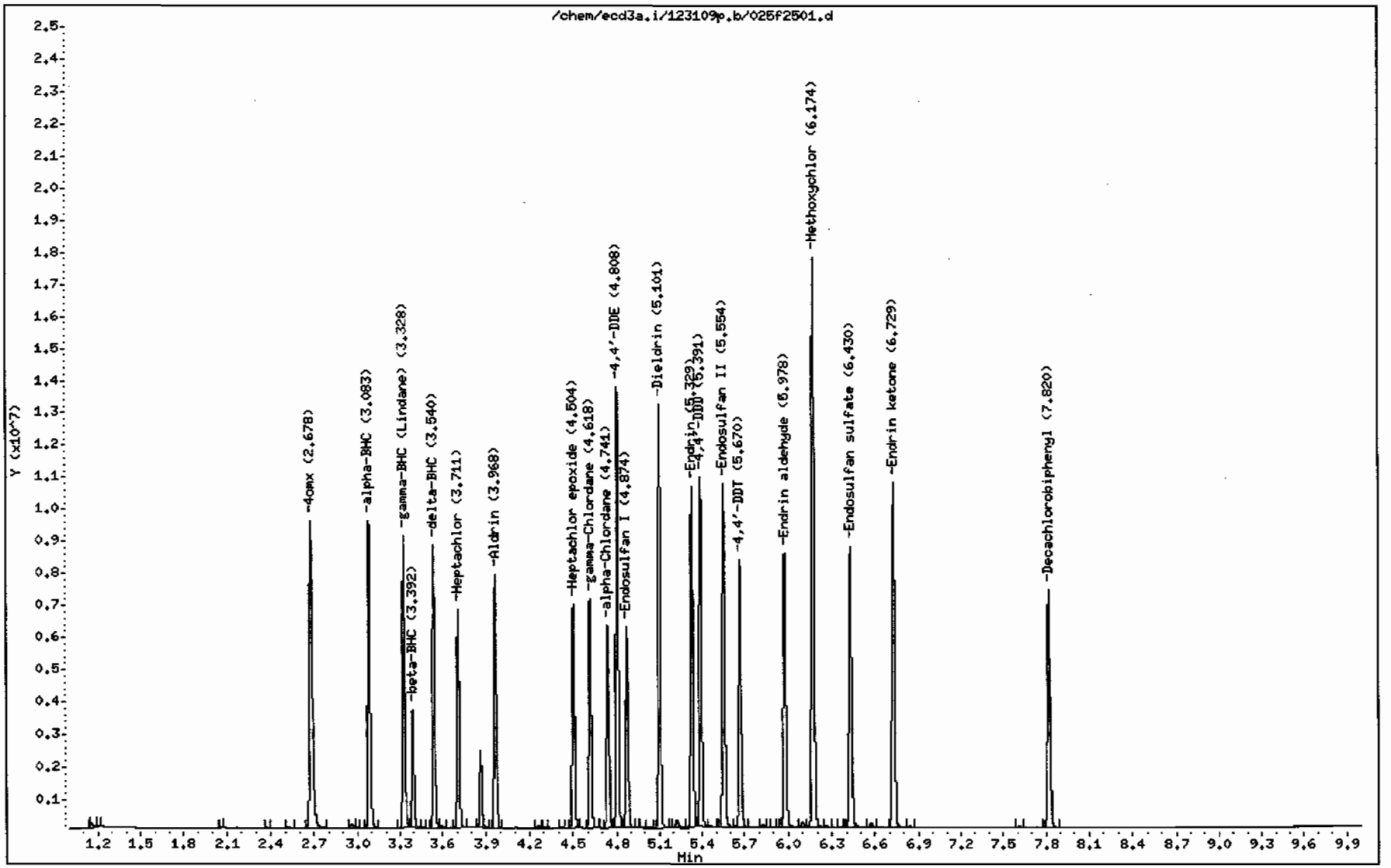

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd3a.i/123109p.b/025b2501.d
Lab Smp Id: WPE091218-10AB Client Smp ID: INDAB03
Inj Date : 31-DEC-2009 20:19
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |WPE091218-10AB
Misc Info : |ABICV|
Comment :
Method : /chem/ecd3a.i/123109p.b/ECD3-B-8081-122909.m
Meth Date : 04-Jan-2010 08:25 cla01575 Quant Type: ESTD
Cal Date : 29-DEC-2009 21:55 Cal File: 020b2001.d
Als bottle: 25 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
3.413	3.417	-0.004	66230576	100.000	102	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.722	3.727	-0.005	56422793	100.000	104	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
3.783	3.788	-0.005	22186086	100.000	96.7	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
4.135	4.140	-0.005	37235378	100.000	90.4	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
4.056	4.061	-0.005	51084362	100.000	100	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.447	4.452	-0.005	34580516	100.000	93.1	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.997	5.003	-0.006	26522740	100.000	99.1	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
5.188	5.194	-0.006	31454364	100.000	105	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
5.335	5.341	-0.006	25548818	100.000	97.8	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
16 Endosulfan I					CAS #: 959-98-8		
5.399	5.405	-0.006	26952857	100.000	109	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.492	5.498	-0.006	56612869	200.000	216	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
5.679	5.685	-0.006	63546561	200.000	216	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.999	6.005	-0.006	64098416	200.000	233	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
6.098	6.104	-0.006	68120928	200.000	234	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
6.220	6.226	-0.006	71706544	200.000	218	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
6.576	6.583	-0.007	69050593	200.000	212	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
6.437	6.443	-0.006	67570263	200.000	212	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
6.878	6.885	-0.007	92872112	200.000	225	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
7.179	7.186	-0.007	162079306	1000.00	901	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
7.470	7.477	-0.007	107830787	200.000	214	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
2.921	2.924	-0.003	86073681	200.000	184	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.858	8.864	-0.006	66558692	200.000	203	80.00- 120.00	100.00

Data File: /chem/ecd3a.i/123109p.b/025b2501.d
Date : 31-DEC-2009 20:19
Client ID: INDAB03
Sample Info: IWPE091218-10AB

Column phase: CLP-2

Instrument: ecd3a.i

Operator: HXJ1
Column diameter: 0.25

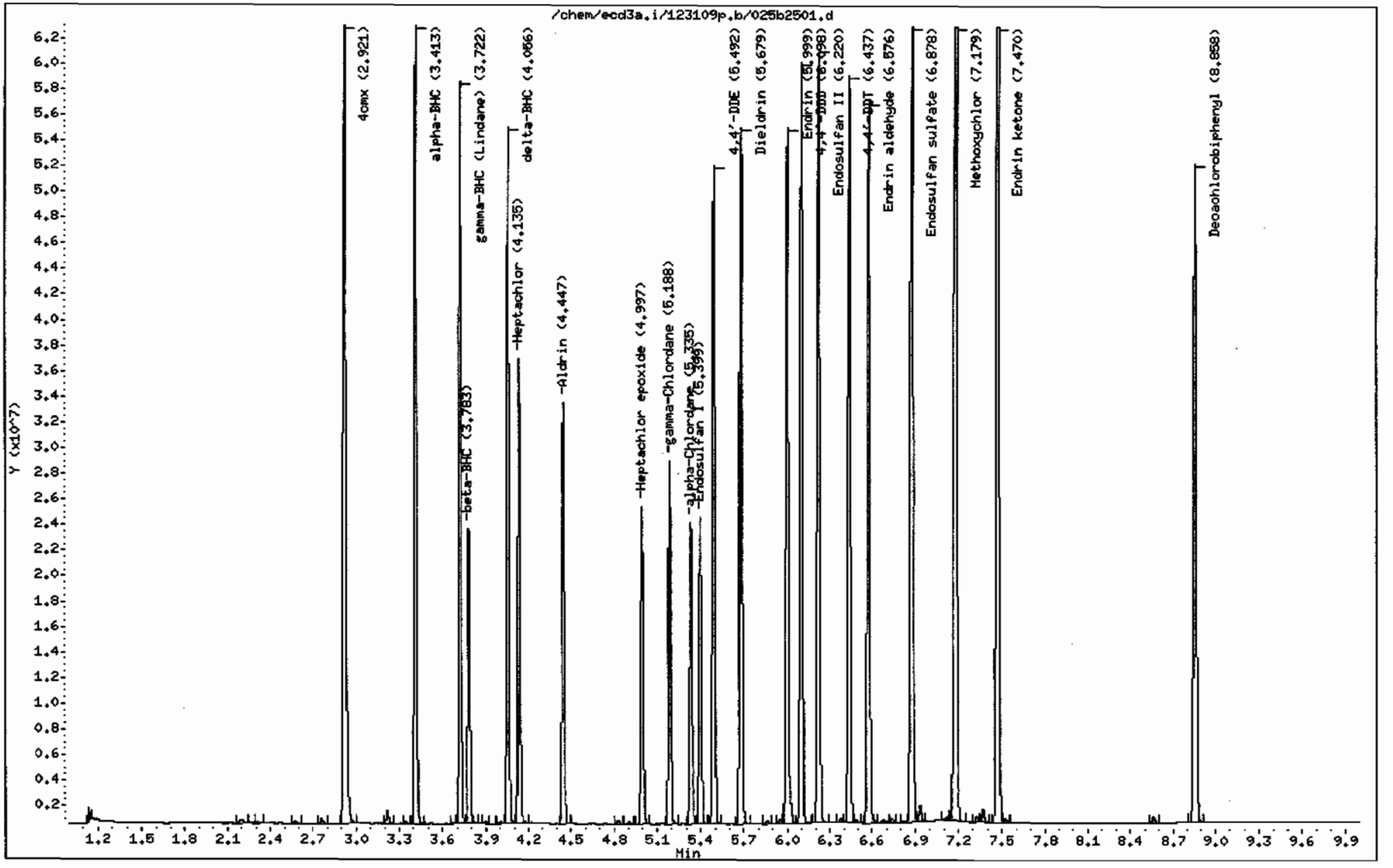

8D
PESTICIDE ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1085

GC Column: CLP-1 ID: 0.25 (mm) Init. Calib. Date(s): 12/29/09 12/29/09

Instrument ID: ECD3A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.68 DCB: 7.82

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR091130-99	12/29/09	1657	2.68	7.82
02	PEM01	WPE091219-99	12/29/09	1710	2.68	7.82
03	INDAB01	WPE091228-01	12/29/09	1734	2.68	7.83
04	INDAB02	WPE091228-02	12/29/09	1747	2.68	7.83
05	INDAB03	WPE091228-03	12/29/09	1801	2.68	7.82
06	INDAB04	WPE091228-04	12/29/09	1815	2.68	7.82
07	INDAB05	IPE091219-02	12/29/09	1829	2.68	7.82
08	INDAB01	WPE091218-10	12/29/09	1843	2.68	7.82
09	TOXAPH01	WPE091228-11	12/29/09	1856	2.68	7.82
10	TOXAPH02	WPE091228-12	12/29/09	1910	2.68	7.82
11	TOXAPH03	WPE091228-13	12/29/09	1924	2.68	7.82
12	ZZZZZ	ZZZZZ	12/29/09	1937		
13	TOXAPH04	WPE091228-14	12/29/09	2001	2.68	7.83
14	TOXAPH05	IPE091121-40	12/29/09	2014	2.68	7.82
15	TOXAPH01	WPE091219-52	12/29/09	2028	2.68	7.82
16	CHLOR01	WPE091228-21	12/29/09	2042	2.68	7.82
17	CHLOR02	WPE091228-22	12/29/09	2114	2.68	7.83
18	CHLOR03	WPE091228-23	12/29/09	2128	2.68	7.82
19	CHLOR04	WPE091228-24	12/29/09	2141	2.68	7.82
20	CHLOR05	IPE091029-06	12/29/09	2155	2.68	7.82
21	CHLOR01	WPE091206-60	12/29/09	2209	2.68	7.82
22	PEM02	WPE091219-99	12/29/09	2222	2.68	7.82
23	PIBLK02	WAR091130-99	12/29/09	2236	2.68	7.82
24	ZZZZZ	ZZZZZ	12/29/09	2249	2.68	7.82
25	ZZZZZ	ZZZZZ	12/29/09	2303	2.68	7.82
26	ZZZZZ	ZZZZZ	12/29/09	2317	2.68	7.82
27	ZZZZZ	ZZZZZ	12/29/09	2330	2.68	7.82
28	PIBLK03	WAR091130-99	12/29/09	2344	2.68	7.82
29	INDAB02	WPE091218-10	12/29/09	2358	2.68	7.82
30	PIBLK04	WAR091130-99	12/30/09	0011	2.68	7.82
31	ZZZZZ	ZZZZZ	12/30/09	0025	2.68	7.82
32	ZZZZZ	ZZZZZ	12/30/09	0039	2.68	7.82

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII SV OLM03.0

8D
PESTICIDE ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1085

GC Column: CLP-2 ID: 0.25 (mm) Init. Calib. Date(s): 12/29/09 12/29/09

Instrument ID: ECD3A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.92 DCB: 8.86

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR091130-99	12/29/09	1657	2.92	8.86
02	PEM01	WPE091219-99	12/29/09	1710	2.92	8.86
03	INDAB01	WPE091228-01	12/29/09	1734	2.92	8.87
04	INDAB02	WPE091228-02	12/29/09	1747	2.92	8.86
05	INDAB03	WPE091228-03	12/29/09	1801	2.92	8.86
06	INDAB04	WPE091228-04	12/29/09	1815	2.92	8.86
07	INDAB05	IPE091219-02	12/29/09	1829	2.92	8.86
08	INDAB01	WPE091218-10	12/29/09	1843	2.92	8.86
09	TOXAPH01	WPE091228-11	12/29/09	1856	2.92	8.86
10	TOXAPH02	WPE091228-12	12/29/09	1910	2.92	8.86
11	TOXAPH03	WPE091228-13	12/29/09	1924	2.92	8.86
12	ZZZZZ	ZZZZZ	12/29/09	1937		
13	TOXAPH04	WPE091228-14	12/29/09	2001	2.92	8.86
14	TOXAPH05	IPE091121-40	12/29/09	2014	2.92	8.86
15	TOXAPH01	WPE091219-52	12/29/09	2028	2.92	8.86
16	CHLOR01	WPE091228-21	12/29/09	2042	2.92	8.86
17	CHLOR02	WPE091228-22	12/29/09	2114	2.92	8.86
18	CHLOR03	WPE091228-23	12/29/09	2128	2.92	8.86
19	CHLOR04	WPE091228-24	12/29/09	2141	2.92	8.86
20	CHLOR05	IPE091029-06	12/29/09	2155	2.92	8.86
21	CHLOR01	WPE091206-60	12/29/09	2209	2.92	8.86
22	PEM02	WPE091219-99	12/29/09	2222	2.92	8.86
23	PIBLK02	WAR091130-99	12/29/09	2236	2.92	8.86
24	ZZZZZ	ZZZZZ	12/29/09	2249	2.92	8.86
25	ZZZZZ	ZZZZZ	12/29/09	2303	2.92	8.86
26	ZZZZZ	ZZZZZ	12/29/09	2317	2.92	8.86
27	ZZZZZ	ZZZZZ	12/29/09	2330	2.92	8.86
28	PIBLK03	WAR091130-99	12/29/09	2344	2.92	8.86
29	INDAB02	WPE091218-10	12/29/09	2358	2.92	8.86
30	PIBLK04	WAR091130-99	12/30/09	0011	2.92	8.86
31	ZZZZZ	ZZZZZ	12/30/09	0025	2.92	8.86
32	ZZZZZ	ZZZZZ	12/30/09	0039	2.92	8.86

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

page 1 of 1

FORM VIII SV OLM03.0

8D
PESTICIDE ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1085

GC Column: CLP-1 ID: 0.25 (mm) Init. Calib. Date(s): 12/29/09 12/29/09

Instrument ID: ECD3A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.68 DCB: 7.83

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR091130-99	12/31/09	1441	2.68	7.83
02	PEM01	WPE091219-99	12/31/09	1454	2.68	7.82
03	INDAB01	WPE091218-10	12/31/09	1518	2.68	7.83
04	TOXAPH01	WPE091219-52	12/31/09	1532	2.68	7.82
05	CHLOR01	WPE091021-00	12/31/09	1546	2.68	7.82
06	PIBLK02	WAR091130-99	12/31/09	1600	2.68	7.82
07	ZZZZZ	ZZZZZ	12/31/09	1613	2.68	7.82
08	ZZZZZ	ZZZZZ	12/31/09	1627	2.68	7.82
09	ZZZZZ	ZZZZZ	12/31/09	1641	2.68	7.82
10	ZZZZZ	ZZZZZ	12/31/09	1654	2.68	7.82
11	ZZZZZ	ZZZZZ	12/31/09	1708	2.68	7.82
12	ZZZZZ	ZZZZZ	12/31/09	1722	2.68	7.82
13	ZZZZZ	ZZZZZ	12/31/09	1735	2.68	7.82
14	INDAB02	WPE091218-10	12/31/09	1749	2.68	7.82
15	PIBLK03	WAR091130-99	12/31/09	1803	2.68	7.82
16	PBLK01	1202005344	12/31/09	1816	2.68	7.82
17	PBLK01LCS	1202005345	12/31/09	1830	2.68	7.82
18	PBLK01TLCS	1202005348	12/31/09	1844	2.68	7.82
19	ZZZZZ	ZZZZZ	12/31/09	1857	2.68	7.82
20	ZZZZZ	ZZZZZ	12/31/09	1911	2.68	7.82
21	WST03-10-2148	243549002	12/31/09	1925	2.68	7.82
22	WST03-10-2148MS	1202005346	12/31/09	1938	2.68	7.82
23	WST03-10-2148MSD	1202005347	12/31/09	1952	2.68	7.82
24	PIBLK04	WAR091130-99	12/31/09	2005	2.68	7.82
25	INDAB03	WPE091218-10	12/31/09	2019	2.68	7.82
26	PIBLK05	WAR091130-99	12/31/09	2033	2.68	7.82
27	ZZZZZ	ZZZZZ	12/31/09	2047	2.68	7.82
28	ZZZZZ	ZZZZZ	12/31/09	2100	2.68	7.82
29	ZZZZZ	ZZZZZ	12/31/09	2114	2.68	7.82
30	ZZZZZ	ZZZZZ	12/31/09	2128	2.68	7.82
31	ZZZZZ	ZZZZZ	12/31/09	2141	2.68	7.82
32	ZZZZZ	ZZZZZ	12/31/09	2155	2.68	7.82

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII SV OLM03.0

8D
PESTICIDE ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1085

GC Column: CLP-2 ID: 0.25 (mm) Init. Calib. Date(s): 12/29/09 12/29/09

Instrument ID: ECD3A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.92 DCB: 8.86

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR091130-99	12/31/09	1441	2.92	8.87
02	PEM01	WPE091219-99	12/31/09	1454	2.92	8.86
03	INDAB01	WPE091218-10	12/31/09	1518	2.92	8.86
04	TOXAPH01	WPE091219-52	12/31/09	1532	2.92	8.86
05	CHLOR01	WPE091021-00	12/31/09	1546	2.92	8.86
06	PIBLK02	WAR091130-99	12/31/09	1600	2.92	8.86
07	ZZZZZ	ZZZZZ	12/31/09	1613	2.92	8.86
08	ZZZZZ	ZZZZZ	12/31/09	1627	2.92	8.86
09	ZZZZZ	ZZZZZ	12/31/09	1641	2.92	8.86
10	ZZZZZ	ZZZZZ	12/31/09	1654	2.92	8.86
11	ZZZZZ	ZZZZZ	12/31/09	1708	2.92	8.86
12	ZZZZZ	ZZZZZ	12/31/09	1722	2.92	8.86
13	ZZZZZ	ZZZZZ	12/31/09	1735	2.92	8.86
14	INDAB02	WPE091218-10	12/31/09	1749	2.92	8.86
15	PIBLK03	WAR091130-99	12/31/09	1803	2.92	8.86
16	PBLK01	1202005344	12/31/09	1816	2.92	8.86
17	PBLK01LCS	1202005345	12/31/09	1830	2.92	8.86
18	PBLK01TLCS	1202005348	12/31/09	1844	2.92	8.86
19	ZZZZZ	ZZZZZ	12/31/09	1857	2.92	8.86
20	ZZZZZ	ZZZZZ	12/31/09	1911	2.92	8.86
21	WST03-10-2148	243549002	12/31/09	1925	2.92	8.86
22	WST03-10-2148MS	1202005346	12/31/09	1938	2.92	8.86
23	WST03-10-2148MSD	1202005347	12/31/09	1952	2.92	8.86
24	PIBLK04	WAR091130-99	12/31/09	2005	2.92	8.86
25	INDAB03	WPE091218-10	12/31/09	2019	2.92	8.86
26	PIBLK05	WAR091130-99	12/31/09	2033	2.92	8.86
27	ZZZZZ	ZZZZZ	12/31/09	2047	2.92	8.86
28	ZZZZZ	ZZZZZ	12/31/09	2100	2.92	8.86
29	ZZZZZ	ZZZZZ	12/31/09	2114	2.92	8.86
30	ZZZZZ	ZZZZZ	12/31/09	2128	2.92	8.86
31	ZZZZZ	ZZZZZ	12/31/09	2141	2.92	8.86
32	ZZZZZ	ZZZZZ	12/31/09	2155	2.92	8.86

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII SV OLM03.0

Identification Summary

SDG Number: 10–1085 **Client ID:** LCS for batch 937143

Lab Sample ID: 1202005345

Data File:	017f1701.d	**Data File:**	017b1701.d
Inst:	ECD3A.I_1	**Inst:**	ECD3A.I_2
Column:	CLP–1	**Column:**	CLP–2
Analyzed:	31–DEC–09 18:30	**Analyzed:**	31–DEC–09 18:30

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
alpha–BHC							5.66
Column 1	1	3.08	3.06 – 3.12	12.8		ug/kg	
Column 2	1	3.41	3.39 – 3.45	13.5		ug/kg	
gamma–BHC (Lindane)							10.1
Column 1	1	3.33	3.3 – 3.36	15.5		ug/kg	
Column 2	1	3.72	3.7 – 3.76	14		ug/kg	
beta–BHC							5.93
Column 1	1	3.39	3.37 – 3.43	14.3		ug/kg	
Column 2	1	3.78	3.76 – 3.82	13.5		ug/kg	
delta–BHC							6.29
Column 1	1	3.54	3.52 – 3.58	13.2		ug/kg	
Column 2	1	4.06	4.03 – 4.09	14		ug/kg	
Heptachlor							14.9
Column 1	1	3.71	3.69 – 3.75	14.9		ug/kg	
Column 2	1	4.14	4.11 – 4.17	12.8		ug/kg	

Identification Summary

SDG Number: 10-1085 **Client ID:** LCS for batch 937143

Lab Sample ID: 1202005345

Data File:	017f1701.d	**Data File:**	017b1701.d
Inst:	ECD3A.I_1	**Inst:**	ECD3A.I_2
Column:	CLP-1	**Column:**	CLP-2
Analyzed:	31-DEC-09 18:30	**Analyzed:**	31-DEC-09 18:30

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aldrin							13.6
Column 1	1	3.97	3.95 – 4.01	14.4		ug/kg	
Column 2	1	4.45	4.42 – 4.48	12.6		ug/kg	
Heptachlor epoxide							9.34
Column 1	1	4.5	4.48 – 4.54	15		ug/kg	
Column 2	1	5	4.97 – 5.03	13.7		ug/kg	
gamma-Chlordane							13.7
Column 1	1	4.62	4.6 – 4.66	15.3		ug/kg	
Column 2	1	5.19	5.16 – 5.22	13.4		ug/kg	
alpha-Chlordane							1.29
Column 1	1	4.74	4.72 – 4.78	15.2		ug/kg	
Column 2	1	5.33	5.31 – 5.37	15		ug/kg	
Endosulfan I							3.62
Column 1	1	4.87	4.85 – 4.91	15.4		ug/kg	
Column 2	1	5.4	5.38 – 5.44	14.8		ug/kg	

Identification Summary

SDG Number: 10-1085 **Client ID:** LCS for batch 937143

Lab Sample ID: 1202005345

Data File:	017f1701.d	**Data File:**	017b1701.d
Inst:	ECD3A.I_1	**Inst:**	ECD3A.I_2
Column:	CLP-1	**Column:**	CLP-2
Analyzed:	31-DEC-09 18:30	**Analyzed:**	31-DEC-09 18:30

Analyte		Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
4,4'-DDE								.223
	Column 1	1	4.81	4.79 – 4.85	38.2		ug/kg	
	Column 2	1	5.49	5.47 – 5.53	38.3		ug/kg	
Dieldrin								1.04
	Column 1	1	5.1	5.08 – 5.14	38.3		ug/kg	
	Column 2	1	5.68	5.66 – 5.72	38.7		ug/kg	
Endrin								.0915
	Column 1	1	5.33	5.31 – 5.37	44.1		ug/kg	
	Column 2	1	6	5.97 – 6.03	44.1		ug/kg	
4,4'-DDD								.992
	Column 1	1	5.39	5.37 – 5.43	44.1		ug/kg	
	Column 2	1	6.1	6.07 – 6.13	43.7		ug/kg	
Endosulfan II								.836
	Column 1	1	5.55	5.53 – 5.59	42		ug/kg	
	Column 2	1	6.22	6.2 – 6.26	41.6		ug/kg	

Identification Summary

SDG Number: 10–1085 **Client ID:** LCS for batch 937143

Lab Sample ID: 1202005345

Data File:	017f1701.d	**Data File:**	017b1701.d
Inst:	ECD3A.I_1	**Inst:**	ECD3A.I_2
Column:	CLP–1	**Column:**	CLP–2
Analyzed:	31–DEC–09 18:30	**Analyzed:**	31–DEC–09 18:30

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Endrin aldehyde							10.3
Column 1	1	5.98	5.96 – 6.02	29.3		ug/kg	
Column 2	1	6.58	6.55 – 6.61	32.5		ug/kg	
4,4'–DDT							3.89
Column 1	1	5.67	5.65 – 5.71	42		ug/kg	
Column 2	1	6.44	6.41 – 6.47	40.4		ug/kg	
Endosulfan sulfate							1.81
Column 1	1	6.43	6.41 – 6.47	41.3		ug/kg	
Column 2	1	6.88	6.86 – 6.92	42.1		ug/kg	
Methoxychlor							2.3
Column 1	1	6.17	6.15 – 6.21	159		ug/kg	
Column 2	1	7.18	7.16 – 7.22	156		ug/kg	
Endrin ketone							.379
Column 1	1	6.73	6.71 – 6.77	41.2		ug/kg	
Column 2	1	7.47	7.45 – 7.51	41.4		ug/kg	

Identification Summary

SDG Number: 10–1085 **Client ID:** LCS for batch 937143

Lab Sample ID: 1202005348

Data File:	018f1801.d	**Data File:**	018b1801.d
Inst:	ECD3A.I_1	**Inst:**	ECD3A.I_2
Column:	CLP–1	**Column:**	CLP–2
Analyzed:	31–DEC–09 18:44	**Analyzed:**	31–DEC–09 18:44

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Toxaphene							.222
Column 1	1	5	4.97 – 5.03	126		ug/kg	
	2	5.11	5.08 – 5.14	116		ug/kg	
	3	5.19	5.16 – 5.22	116		ug/kg	
	4	5.35	5.32 – 5.38	112		ug/kg	
	5	5.54	5.51 – 5.57	111		ug/kg	
					116		
Column 2	1	5.66	5.62 – 5.68	121		ug/kg	
	2	5.78	5.75 – 5.81	118		ug/kg	
	3	6.17	6.14 – 6.2	115		ug/kg	
	4	6.21	6.18 – 6.24	116		ug/kg	
	5	6.31	6.28 – 6.34	110		ug/kg	
					116		

Identification Summary

SDG Number: 10–1085 **Client ID:** WST03–10–2148MS

Lab Sample ID: 1202005346

Data File:	022f2201.d	**Data File:**	022b2201.d
Inst:	ECD3A.I_1	**Inst:**	ECD3A.I_2
Column:	CLP–1	**Column:**	CLP–2
Analyzed:	31–DEC–09 19:38	**Analyzed:**	31–DEC–09 19:38

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
alpha–BHC							.362
Column 1	1	3.08	3.06 – 3.12	13.3		ug/kg	
Column 2	1	3.41	3.39 – 3.45	13.3		ug/kg	
gamma–BHC (Lindane)							14.9
Column 1	1	3.33	3.3 – 3.36	16.1		ug/kg	
Column 2	1	3.72	3.7 – 3.76	13.9		ug/kg	
beta–BHC							6.88
Column 1	1	3.39	3.37 – 3.43	14.6		ug/kg	
Column 2	1	3.78	3.76 – 3.82	13.7		ug/kg	
delta–BHC							1.13
Column 1	1	3.54	3.52 – 3.58	13.6		ug/kg	
Column 2	1	4.06	4.03 – 4.09	13.8		ug/kg	
Heptachlor							19.3
Column 1	1	3.71	3.69 – 3.75	16.1		ug/kg	
Column 2	1	4.13	4.11 – 4.17	13.3		ug/kg	

Identification Summary

SDG Number: 10–1085 **Client ID:** WST03–10–2148MS

Lab Sample ID: 1202005346

Data File:	022f2201.d	**Data File:**	022b2201.d
Inst:	ECD3A.I_1	**Inst:**	ECD3A.I_2
Column:	CLP–1	**Column:**	CLP–2
Analyzed:	31–DEC–09 19:38	**Analyzed:**	31–DEC–09 19:38

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aldrin							14.6
Column 1	1	3.97	3.95 – 4.01	15		ug/kg	
Column 2	1	4.45	4.42 – 4.48	13		ug/kg	
Heptachlor epoxide							5.28
Column 1	1	4.5	4.48 – 4.54	15.5		ug/kg	
Column 2	1	5	4.97 – 5.03	14.7		ug/kg	
gamma–Chlordane							14.1
Column 1	1	4.62	4.6 – 4.66	15.2		ug/kg	
Column 2	1	5.19	5.16 – 5.22	17.5		ug/kg	
alpha–Chlordane							2.67
Column 1	1	4.74	4.72 – 4.78	15.4		ug/kg	
Column 2	1	5.33	5.31 – 5.37	15		ug/kg	
Endosulfan I							2.06
Column 1	1	4.87	4.85 – 4.91	15.4		ug/kg	
Column 2	1	5.4	5.38 – 5.44	15.1		ug/kg	

Identification Summary

SDG Number: 10–1085 **Client ID:** WST03–10–2148MS

Lab Sample ID: 1202005346

Data File:	022f2201.d	**Data File:**	022b2201.d
Inst:	ECD3A.I_1	**Inst:**	ECD3A.I_2
Column:	CLP–1	**Column:**	CLP–2
Analyzed:	31–DEC–09 19:38	**Analyzed:**	31–DEC–09 19:38

Analyte		Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
4,4'–DDE								2.71
	Column 1	1	4.81	4.79 – 4.85	38.9		ug/kg	
	Column 2	1	5.49	5.47 – 5.53	40		ug/kg	
Dieldrin								.987
	Column 1	1	5.1	5.08 – 5.14	39.1		ug/kg	
	Column 2	1	5.68	5.66 – 5.72	39.5		ug/kg	
Endrin								2.85
	Column 1	1	5.33	5.31 – 5.37	46.4		ug/kg	
	Column 2	1	6	5.97 – 6.03	45.1		ug/kg	
4,4'–DDD								3.56
	Column 1	1	5.39	5.37 – 5.43	44.9		ug/kg	
	Column 2	1	6.1	6.07 – 6.13	43.4		ug/kg	
Endosulfan II								1.16
	Column 1	1	5.55	5.53 – 5.59	41.3		ug/kg	
	Column 2	1	6.22	6.2 – 6.26	41.8		ug/kg	

Identification Summary

SDG Number: 10–1085 **Client ID:** WST03–10–2148MS

Lab Sample ID: 1202005346

Data File:	022f2201.d	**Data File:**	022b2201.d
Inst:	ECD3A.I_1	**Inst:**	ECD3A.I_2
Column:	CLP–1	**Column:**	CLP–2
Analyzed:	31–DEC–09 19:38	**Analyzed:**	31–DEC–09 19:38

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Endrin aldehyde							14.2
Column 1	1	5.98	5.96 – 6.02	25.8		ug/kg	
Column 2	1	6.57	6.55 – 6.61	29.7		ug/kg	
4,4'–DDT							5.94
Column 1	1	5.67	5.65 – 5.71	43.1		ug/kg	
Column 2	1	6.44	6.41 – 6.47	40.6		ug/kg	
Endosulfan sulfate							1.06
Column 1	1	6.43	6.41 – 6.47	39.2		ug/kg	
Column 2	1	6.88	6.86 – 6.92	39.7		ug/kg	
Methoxychlor							4.75
Column 1	1	6.17	6.15 – 6.21	154		ug/kg	
Column 2	1	7.18	7.16 – 7.22	147		ug/kg	
Endrin ketone							1.14
Column 1	1	6.73	6.71 – 6.77	39.5		ug/kg	
Column 2	1	7.47	7.45 – 7.51	39		ug/kg	

Identification Summary

SDG Number: 10–1085 **Client ID:** WST03–10–2148MSD

Lab Sample ID: 1202005347

Data File:	023f2301.d	**Data File:**	023b2301.d
Inst:	ECD3A.I_1	**Inst:**	ECD3A.I_2
Column:	CLP–1	**Column:**	CLP–2
Analyzed:	31–DEC–09 19:52	**Analyzed:**	31–DEC–09 19:52

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
alpha–BHC							.352
Column 1	1	3.08	3.06 – 3.12	12.4		ug/kg	
Column 2	1	3.41	3.39 – 3.45	12.4		ug/kg	
gamma–BHC (Lindane)							14.2
Column 1	1	3.33	3.3 – 3.36	14.9		ug/kg	
Column 2	1	3.72	3.7 – 3.76	12.9		ug/kg	
beta–BHC							14
Column 1	1	3.39	3.37 – 3.43	13.7		ug/kg	
Column 2	1	3.78	3.76 – 3.82	11.9		ug/kg	
delta–BHC							4.04
Column 1	1	3.54	3.52 – 3.58	12.3		ug/kg	
Column 2	1	4.06	4.03 – 4.09	12.8		ug/kg	
Heptachlor							17.5
Column 1	1	3.71	3.69 – 3.75	14.4		ug/kg	
Column 2	1	4.14	4.11 – 4.17	12.1		ug/kg	

Identification Summary

SDG Number: 10-1085 **Client ID:** WST03-10-2148MSD

Lab Sample ID: 1202005347

Data File:	023f2301.d	**Data File:**	023b2301.d
Inst:	ECD3A.I_1	**Inst:**	ECD3A.I_2
Column:	CLP-1	**Column:**	CLP-2
Analyzed:	31-DEC-09 19:52	**Analyzed:**	31-DEC-09 19:52

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aldrin							13.5
Column 1	1	3.97	3.95 – 4.01	13.8		ug/kg	
Column 2	1	4.45	4.42 – 4.48	12.1		ug/kg	
Heptachlor epoxide							9.36
Column 1	1	4.5	4.48 – 4.54	14.3		ug/kg	
Column 2	1	5	4.97 – 5.03	13		ug/kg	
gamma-Chlordane							9.27
Column 1	1	4.62	4.6 – 4.66	14.5		ug/kg	
Column 2	1	5.19	5.16 – 5.22	13.2		ug/kg	
alpha-Chlordane							2.1
Column 1	1	4.74	4.72 – 4.78	14.4		ug/kg	
Column 2	1	5.33	5.31 – 5.37	14.1		ug/kg	
Endosulfan I							3.22
Column 1	1	4.87	4.85 – 4.91	14.7		ug/kg	
Column 2	1	5.4	5.38 – 5.44	14.3		ug/kg	

Identification Summary

SDG Number: 10–1085 **Client ID:** WST03–10–2148MSD

Lab Sample ID: 1202005347

Data File:	023f2301.d	**Data File:**	023b2301.d
Inst:	ECD3A.I_1	**Inst:**	ECD3A.I_2
Column:	CLP–1	**Column:**	CLP–2
Analyzed:	31–DEC–09 19:52	**Analyzed:**	31–DEC–09 19:52

Analyte		Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
4,4'–DDE								.324
	Column 1	1	4.81	4.79 – 4.85	36.9		ug/kg	
	Column 2	1	5.49	5.47 – 5.53	37		ug/kg	
Dieldrin								1.25
	Column 1	1	5.1	5.08 – 5.14	36.7		ug/kg	
	Column 2	1	5.68	5.66 – 5.72	37.2		ug/kg	
Endrin								.13
	Column 1	1	5.33	5.31 – 5.37	42.8		ug/kg	
	Column 2	1	6	5.97 – 6.03	42.9		ug/kg	
4,4'–DDD								.72
	Column 1	1	5.39	5.37 – 5.43	43		ug/kg	
	Column 2	1	6.1	6.07 – 6.13	42.7		ug/kg	
Endosulfan II								.03
	Column 1	1	5.55	5.53 – 5.59	39.7		ug/kg	
	Column 2	1	6.22	6.2 – 6.26	39.7		ug/kg	

Identification Summary

SDG Number: 10–1085 **Client ID:** WST03–10–2148MSD

Lab Sample ID: 1202005347

Data File:	023f2301.d	**Data File:**	023b2301.d
Inst:	ECD3A.I_1	**Inst:**	ECD3A.I_2
Column:	CLP–1	**Column:**	CLP–2
Analyzed:	31–DEC–09 19:52	**Analyzed:**	31–DEC–09 19:52

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Endrin aldehyde							8.47
Column 1	1	5.98	5.96 – 6.02	27.4		ug/kg	
Column 2	1	6.58	6.55 – 6.61	29.8		ug/kg	
4,4'–DDT							4.56
Column 1	1	5.67	5.65 – 5.71	40.2		ug/kg	
Column 2	1	6.44	6.41 – 6.47	38.4		ug/kg	
Endosulfan sulfate							.184
Column 1	1	6.43	6.41 – 6.47	39.2		ug/kg	
Column 2	1	6.88	6.86 – 6.92	39.1		ug/kg	
Methoxychlor							5.35
Column 1	1	6.17	6.15 – 6.21	151		ug/kg	
Column 2	1	7.18	7.16 – 7.22	143		ug/kg	
Endrin ketone							.571
Column 1	1	6.73	6.71 – 6.77	38.7		ug/kg	
Column 2	1	7.47	7.45 – 7.51	38.5		ug/kg	

QUALITY CONTROL DATA

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	**10–1085**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202005344**				
Client Sample:	**QC for batch 937143**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 937143**	**Method:**	**SW846 8081A**	**SOP Ref:**	**GL–OA–E–041**
Batch ID:	**937144**	**Inst:**	**ECD3A.I**	**Dilution:**	**1**
Run Date:	**12/31/2009 18:16**	**Analyst:**	**HXJ1**	**Inj. Vol:**	**1 uL**
Prep Date:	**12/29/2009 09:25**	**Aliquot:**	**30 g**	**Final Volume:**	**5 mL**
Data File:	**016f1601–85.d**	**Column:**	**1 CLP–1**	**Level:**	**LOW**
	016b1601–85.d		**2 CLP–2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
319–84–6	alpha–BHC	U	0.667	ug/kg	0.167	0.667	1
58–89–9	gamma–BHC (Lindane)	U	0.667	ug/kg	0.167	0.667	1
319–85–7	beta–BHC	U	0.667	ug/kg	0.167	0.667	1
319–86–8	delta–BHC	U	0.667	ug/kg	0.167	0.667	1
76–44–8	Heptachlor	U	0.667	ug/kg	0.167	0.667	1
309–00–2	Aldrin	U	0.667	ug/kg	0.167	0.667	1
1024–57–3	Heptachlor epoxide	U	0.667	ug/kg	0.208	0.667	1
5103–74–2	gamma–Chlordane	U	0.667	ug/kg	0.167	0.667	1
5103–71–9	alpha–Chlordane	U	0.667	ug/kg	0.167	0.667	1
959–98–8	Endosulfan I	U	0.667	ug/kg	0.167	0.667	1
72–55–9	4,4'–DDE	U	1.33	ug/kg	0.333	1.33	1
60–57–1	Dieldrin	U	1.33	ug/kg	0.333	1.33	1
72–20–8	Endrin	U	1.33	ug/kg	0.333	1.33	1
72–54–8	4,4'–DDD	U	1.33	ug/kg	0.333	1.33	1
33213–65–9	Endosulfan II	U	1.33	ug/kg	0.333	1.33	1
7421–93–4	Endrin aldehyde	U	1.33	ug/kg	0.333	1.33	1
50–29–3	4,4'–DDT	U	1.33	ug/kg	0.333	1.33	1
1031–07–8	Endosulfan sulfate	U	1.33	ug/kg	0.333	1.33	1
72–43–5	Methoxychlor	U	6.67	ug/kg	1.67	6.67	1
53494–70–5	Endrin ketone	U	1.33	ug/kg	0.333	1.33	1
8001–35–2	Toxaphene	U	16.7	ug/kg	5.55	16.7	1

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd3a.i/123109p.b/016f1601-85.d
Lab Smp Id: 1202005344 Client Smp ID: PBLK01
Inj Date : 31-DEC-2009 18:16
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |1202005344|1|
Misc Info : |ECD81A_1S|937144|SVP|MB|SOIL|MB|||
Comment :
Method : /chem/ecd3a.i/123109p.b/ECD3-F-8081-122909.m
Meth Date : 04-Jan-2010 09:07 cla01575 Quant Type: ESTD
Cal Date : 29-DEC-2009 21:55 Cal File: 020f2001.d
Als bottle: 16 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1085.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weigth of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.679	2.682	-0.003	6062177	91.8991	15.3	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.820	7.831	-0.011	8302947	172.277	28.7	80.00- 120.00	100.00

Data File: /chem/ecd3a.i/123109p.b/016f1601-85.d

Date : 31-DEC-2009 18:16

Client ID: PBLK01

Sample Info: |1202005344|1|

Volume Injected (uL): 1.0

Column phase: CLP-1

Instrument: ecd3a.i

Operator: HXJ1

Column diameter: 0.25

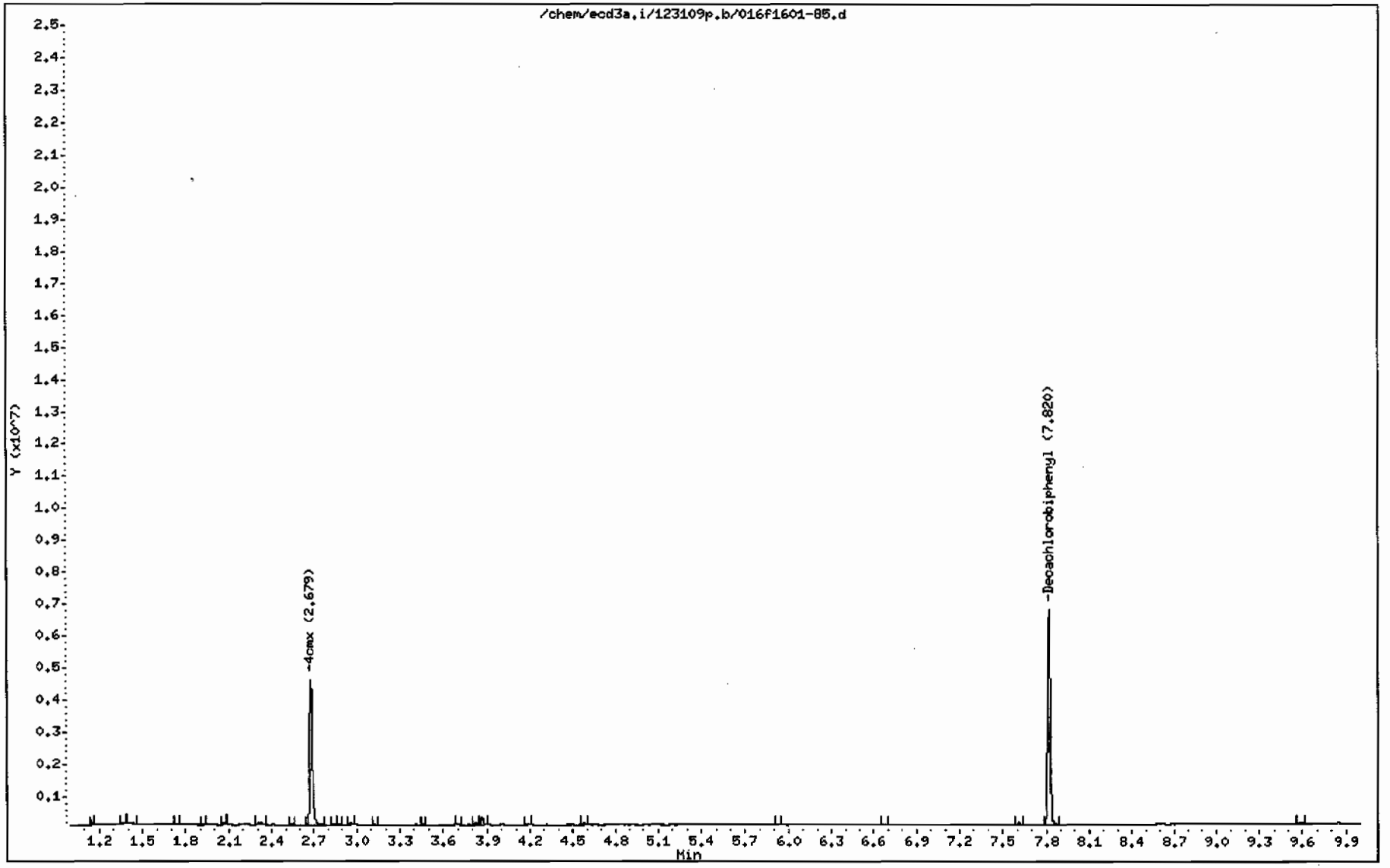

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd3a.i/123109p.b/016b1601-85.d
Lab Smp Id: 1202005344 Client Smp ID: PBLK01
Inj Date : 31-DEC-2009 18:16
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |1202005344|1|
Misc Info : |ECD81A_1S|937144|SVP|MB|SOIL|MB|||
Comment :
Method : /chem/ecd3a.i/123109p.b/ECD3-B-8081-122909.m
Meth Date : 04-Jan-2010 08:25 cla01575 Quant Type: ESTD
Cal Date : 29-DEC-2009 21:55 Cal File: 020b2001.d
Als bottle: 16 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1085.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weigth of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.922	2.924	-0.002	42118715	89.8058	15.0	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.857	8.864	-0.007	59373266	180.893	30.1	80.00- 120.00	100.00

Data File: /chem/ecd3a.i/123109p.b/016b1601-85.d
Date : 31-DEC-2009 18:16
Client ID: PBLK01
Sample Info: |1202005344|1|
Volume Injected (uL): 1.0
Column phase: CLP-2

Instrument: ecd3a.i

Operator: HXJ1
Column diameter: 0.25

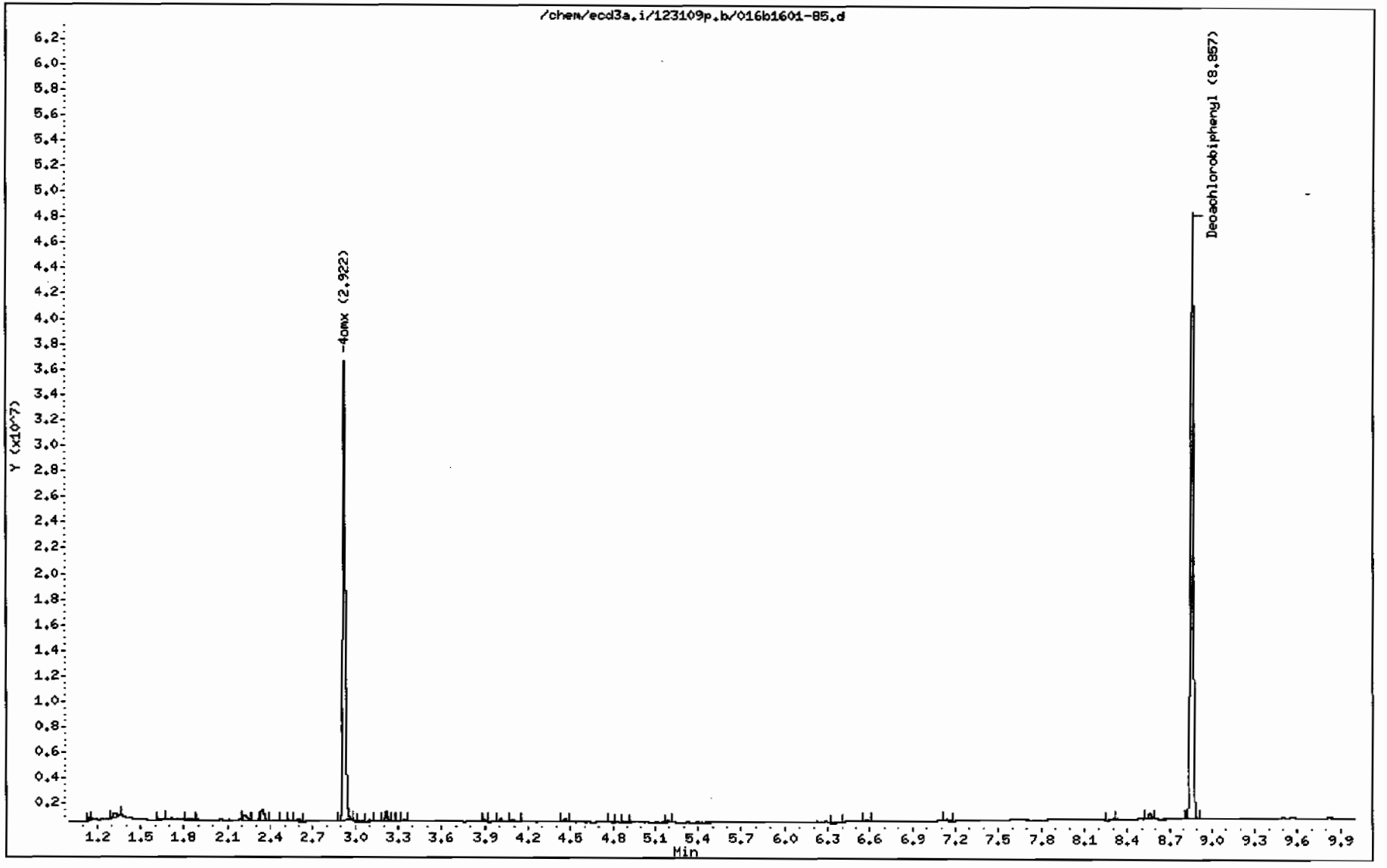

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	10-1085			**Matrix:**	SOIL
Lab Sample ID:	1202005345				
Client Sample:	QC for batch 937143	**Client:**	LANL010	**Project:**	QC
Client ID:	LCS for batch 937143	**Method:**	SW846 8081A	**SOP Ref:**	GL-OA-E-041
Batch ID:	937144	**Inst:**	ECD3A.I	**Dilution:**	1
Run Date:	12/31/2009 18:30	**Analyst:**	HXJ1	**Inj. Vol:**	1 uL
Prep Date:	12/29/2009 09:25	**Aliquot:**	30 g	**Final Volume:**	5 mL
Data File:	017f1701-85.d	**Column:**	1 CLP-1	**Level:**	LOW
	017b1701-85.d		2 CLP-2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
319-84-6	alpha-BHC		12.8	ug/kg	0.167	0.667	1
58-89-9	gamma-BHC (Lindane)		14.0	ug/kg	0.167	0.667	2
319-85-7	beta-BHC		13.5	ug/kg	0.167	0.667	2
319-86-8	delta-BHC		13.2	ug/kg	0.167	0.667	1
76-44-8	Heptachlor		12.8	ug/kg	0.167	0.667	2
309-00-2	Aldrin		12.6	ug/kg	0.167	0.667	2
1024-57-3	Heptachlor epoxide		13.7	ug/kg	0.208	0.667	2
5103-74-2	gamma-Chlordane		13.4	ug/kg	0.167	0.667	2
5103-71-9	alpha-Chlordane		15.0	ug/kg	0.167	0.667	2
959-98-8	Endosulfan I		14.8	ug/kg	0.167	0.667	2
72-55-9	4,4'-DDE		38.2	ug/kg	0.333	1.33	1
60-57-1	Dieldrin		38.3	ug/kg	0.333	1.33	1
72-20-8	Endrin		44.1	ug/kg	0.333	1.33	2
72-54-8	4,4'-DDD		43.7	ug/kg	0.333	1.33	2
33213-65-9	Endosulfan II		41.6	ug/kg	0.333	1.33	2
7421-93-4	Endrin aldehyde		29.3	ug/kg	0.333	1.33	1
50-29-3	4,4'-DDT		40.4	ug/kg	0.333	1.33	2
1031-07-8	Endosulfan sulfate		41.3	ug/kg	0.333	1.33	1
72-43-5	Methoxychlor		156	ug/kg	1.67	6.67	2
53494-70-5	Endrin ketone		41.2	ug/kg	0.333	1.33	1
8001-35-2	Toxaphene	U	16.7	ug/kg	5.55	16.7	1

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd3a.i/123109p.b/017f1701-85.d
Lab Smp Id: 1202005345 Client Smp ID: PBLK01LCS
Inj Date : 31-DEC-2009 18:30
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |1202005345|1|
Misc Info : |ECD81A_1S|937144|SVP|LCS|SOIL|LCS|||
Comment :
Method : /chem/ecd3a.i/123109p.b/ECD3-F-8081-122909.m
Meth Date : 04-Jan-2010 09:07 cla01575 Quant Type: ESTD
Cal Date : 29-DEC-2009 21:55 Cal File: 020f2001.d
Als bottle: 17 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1085.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weigth of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.678	2.682	-0.004	9389245	142.336	23.7	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.820	7.831	-0.011	9314360	193.263	32.2	80.00- 120.00	100.00
5 alpha-BHC					CAS #: 319-84-6		
3.083	3.089	-0.006	7971899	76.6998	12.8	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.328	3.334	-0.006	7303783	93.0098	15.5	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
12 beta-BHC					CAS #: 319-85-7		
3.392	3.399	-0.007	2976630	85.7916	14.3	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
3.540	3.547	-0.007	7316376	79.0142	13.2	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
3.710	3.718	-0.008	5715431	89.2193	14.9	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
3.967	3.976	-0.009	6559727	86.3941	14.4	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.504	4.513	-0.009	6012686	90.1285	15.0	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
4.618	4.628	-0.010	6064677	91.9956	15.3	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
4.741	4.751	-0.010	6009453	90.9026	15.2	80.00- 120.00	100.00
16 Endosulfan I					CAS #: 959-98-8		
4.873	4.884	-0.011	5491984	92.2821	15.4	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
4.808	4.818	-0.010	15184474	229.050	38.2	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
5.101	5.112	-0.011	15583019	229.649	38.3	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.330	5.340	-0.010	13945182	264.646	44.1	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.389	5.402	-0.013	13654930	264.589	44.1	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
5.553	5.564	-0.011	14076805	251.775	42.0	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
5.976	5.988	-0.012	8290465	175.963	29.3	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
5.669	5.680	-0.011	11110567	251.725	42.0	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
6.429	6.441	-0.012	11702836	248.024	41.3	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
28 Methoxychlor					CAS #: 72-43-5		
6.172	6.184	-0.012	20599747	956.364	159	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
6.728	6.739	-0.011	15249279	247.200	41.2	80.00- 120.00	100.00

Data File: /chem/ecd3a.i/123109p.b/017f1701-85.d
Date : 31-DEC-2009 18:30
Client ID: PBLK01LCS
Sample Info: 1120200534511
Volume Injected (uL): 1.0
Column phase: CLP-1

Instrument: ecd3a.i
Operator: HXJ1
Column diameter: 0.25

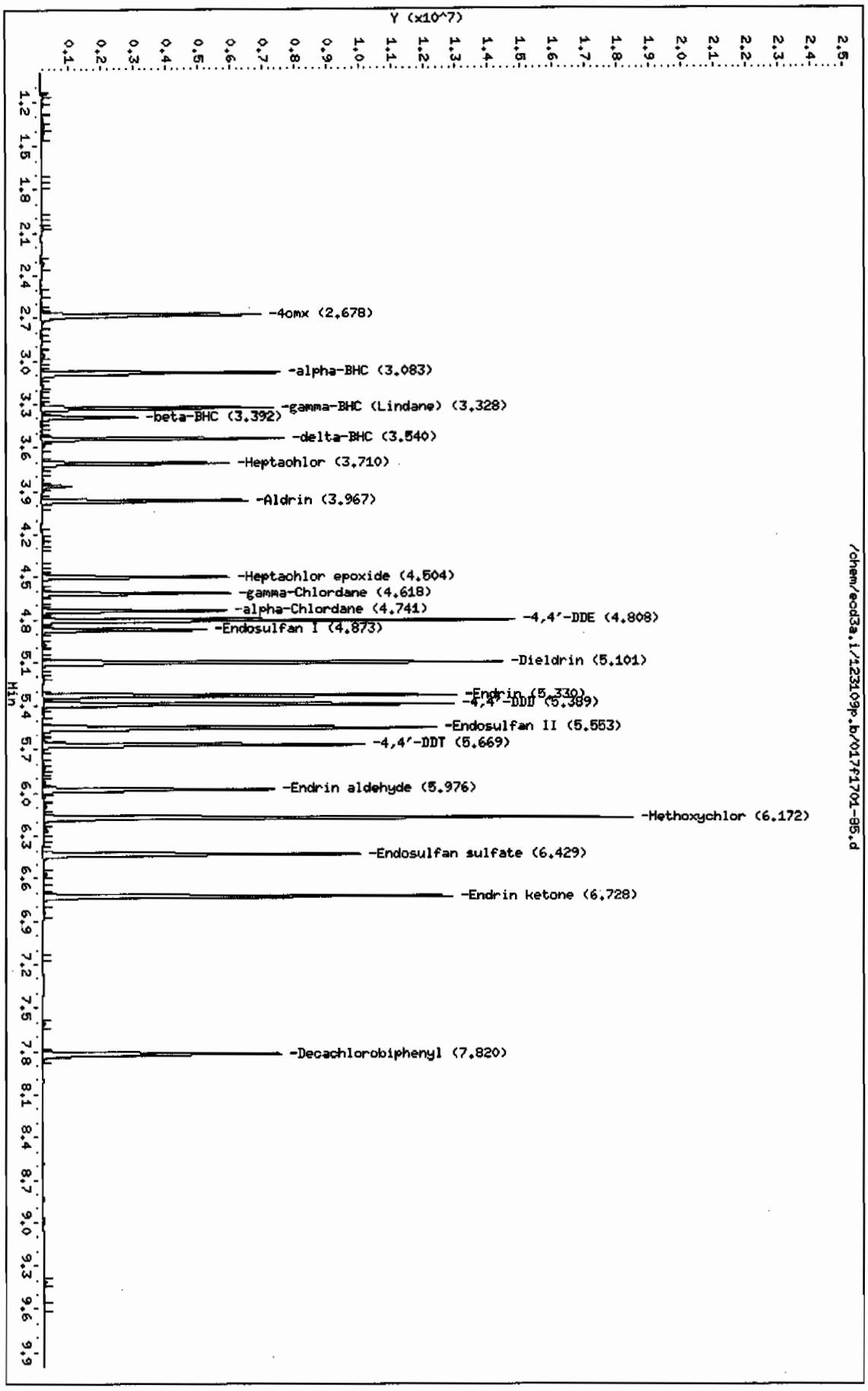

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GEL Laboratories LLC

CLP-2

Data file : /chem/ecd3a.i/123109p.b/017b1701-85.d
Lab Smp Id: 1202005345 Client Smp ID: PBLK01LCS
Inj Date : 31-DEC-2009 18:30
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |1202005345|1|
Misc Info : |ECD81A_1S|937144|SVP|LCS|SOIL|LCS|||
Comment :
Method : /chem/ecd3a.i/123109p.b/ECD3-B-8081-122909.m
Meth Date : 04-Jan-2010 08:25 cla01575 Quant Type: ESTD
Cal Date : 29-DEC-2009 21:55 Cal File: 020b2001.d
Als bottle: 17 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1085.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weigth of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.921	2.924	-0.003	65066128	138.734	23.1	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.858	8.864	-0.006	66481403	202.550	33.8	80.00- 120.00	100.00
5 alpha-BHC					CAS #: 319-84-6		
3.413	3.417	-0.004	52626035	81.1661	13.5	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.722	3.727	-0.005	45399355	84.0287	14.0	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
12 beta-BHC					CAS #: 319-85-7		
3.784	3.788	-0.004	18555279	80.8508	13.5	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
4.056	4.061	-0.005	42849250	84.1487	14.0	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
4.135	4.140	-0.005	31637701	76.8095	12.8	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.447	4.452	-0.005	28011832	75.3946	12.6	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.997	5.003	-0.006	21965773	82.0838	13.7	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
5.187	5.194	-0.007	23765312	80.2047	13.4	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
5.335	5.341	-0.006	23437545	89.7373	15.0	80.00- 120.00	100.00
16 Endosulfan I					CAS #: 959-98-8		
5.398	5.405	-0.007	21931807	89.0027	14.8	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.492	5.498	-0.006	60143068	229.562	38.3	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
5.679	5.685	-0.006	68176979	232.055	38.7	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.998	6.005	-0.007	72850863	264.404	44.1	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
6.097	6.104	-0.007	76183316	261.978	43.7	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
6.219	6.226	-0.007	82071636	249.680	41.6	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
6.575	6.583	-0.008	63583665	195.011	32.5	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
6.437	6.443	-0.006	77271517	242.108	40.4	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
6.878	6.885	-0.007	104141158	252.542	42.1	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
28 Methoxychlor					CAS #: 72-43-5		
7.178	7.186	-0.008	168069325	934.575	156	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
7.469	7.477	-0.008	124730440	248.139	41.4	80.00- 120.00	100.00

Data File: /chem/ecd3a.i/123109p.b/017b1701-85.d
Date : 31-DEC-2009 18:30
Client ID: PBLK01LCS
Sample Info: |1202005345|1|
Volume Injected (uL): 1.0
Column phase: CLP-2

Instrument: ecd3a.i
Operator: HXJ1
Column diameter: 0.25

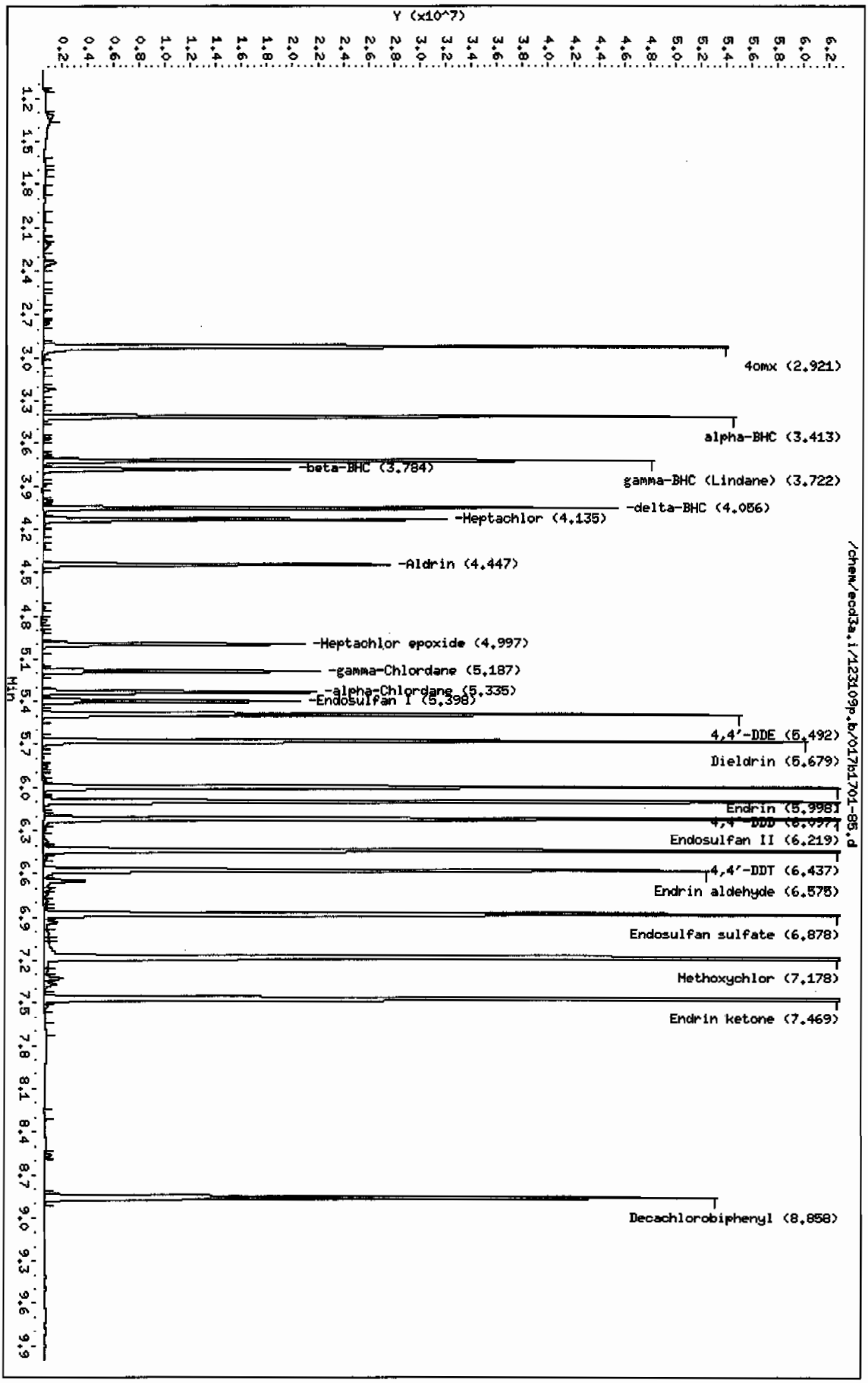

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Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	10–1085			**Matrix:**	SOIL
Lab Sample ID:	1202005348				
Client Sample:	QC for batch 937143	**Client:**	LANL010	**Project:**	QC
Client ID:	LCS for batch 937143	**Method:**	SW846 8081A	**SOP Ref:**	GL–OA–E–041
Batch ID:	937144	**Inst:**	ECD3A.I	**Dilution:**	1
Run Date:	12/31/2009 18:44	**Analyst:**	HXJ1	**Inj. Vol:**	1 uL
Prep Date:	12/29/2009 09:25	**Aliquot:**	30 g	**Final Volume:**	5 mL
Data File:	018f1801–85.d	**Column:**	1 CLP–1	**Level:**	LOW
	018b1801–85.d		2 CLP–2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
319–84–6	alpha–BHC	U	0.667	ug/kg	0.167	0.667	1
58–89–9	gamma–BHC (Lindane)	U	0.667	ug/kg	0.167	0.667	1
319–85–7	beta–BHC	U	0.667	ug/kg	0.167	0.667	1
319–86–8	delta–BHC	U	0.667	ug/kg	0.167	0.667	1
76–44–8	Heptachlor	U	0.667	ug/kg	0.167	0.667	1
309–00–2	Aldrin	U	0.667	ug/kg	0.167	0.667	1
1024–57–3	Heptachlor epoxide	U	0.667	ug/kg	0.208	0.667	1
5103–74–2	gamma–Chlordane	U	0.667	ug/kg	0.167	0.667	1
5103–71–9	alpha–Chlordane	U	0.667	ug/kg	0.167	0.667	1
959–98–8	Endosulfan I	U	0.667	ug/kg	0.167	0.667	1
72–55–9	4,4'–DDE	U	1.33	ug/kg	0.333	1.33	1
60–57–1	Dieldrin	U	1.33	ug/kg	0.333	1.33	1
72–20–8	Endrin	U	1.33	ug/kg	0.333	1.33	1
72–54–8	4,4'–DDD	U	1.33	ug/kg	0.333	1.33	1
33213–65–9	Endosulfan II	U	1.33	ug/kg	0.333	1.33	1
7421–93–4	Endrin aldehyde	U	1.33	ug/kg	0.333	1.33	1
50–29–3	4,4'–DDT	U	1.33	ug/kg	0.333	1.33	1
1031–07–8	Endosulfan sulfate	U	1.33	ug/kg	0.333	1.33	1
72–43–5	Methoxychlor	U	6.67	ug/kg	1.67	6.67	1
53494–70–5	Endrin ketone	U	1.33	ug/kg	0.333	1.33	1
8001–35–2	Toxaphene		116	ug/kg	5.55	16.7	1

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CLP-1

Data file : /chem/ecd3a.i/123109p.b/018f1801-85.d
Lab Smp Id: 1202005348 Client Smp ID: PBLK01TLCS
Inj Date : 31-DEC-2009 18:44
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |1202005348|1|
Misc Info : |ECD81A_1S|937144|SVP|TLCS|SOIL|TLCS|||
Comment :
Method : /chem/ecd3a.i/123109p.b/ECD3-F-8081-122909.m
Meth Date : 04-Jan-2010 09:07 cla01575 Quant Type: ESTD
Cal Date : 29-DEC-2009 21:55 Cal File: 020f2001.d
Als bottle: 18 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1085.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weigth of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.679	2.682	-0.003	10539757	159.777	26.6	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.820	7.831	-0.011	8514516	176.667	29.4	80.00- 120.00	100.00
23 Toxaphene					CAS #: 8001-35-2		
5.001	5.004	-0.003	367939	758.233	126	80.00- 120.00	100.00(M)
5.107	5.108	-0.001	525254	696.512	116	148.58- 188.58	142.76
5.193	5.195	-0.002	606778	697.132	116	160.59- 200.59	164.91
5.352	5.354	-0.002	762115	670.518	112	195.04- 235.04	207.13

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
23 Toxaphene (continued)							
5.542	5.544	-0.002	1343355	664.511	111	311.89- 351.89	365.10
		Average of Peak Concentrations =			116		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd3a.i/123109p.b/018f1801-85.d
Date : 31-DEC-2009 18:44
Client ID: PBLK01TLCS
Sample Info: !1202005348!1!
Volume Injected (uL): 1.0
Column phase: CLP-1

Instrument: ecd3a.i

Operator: HXJ1
Column diameter: 0.25

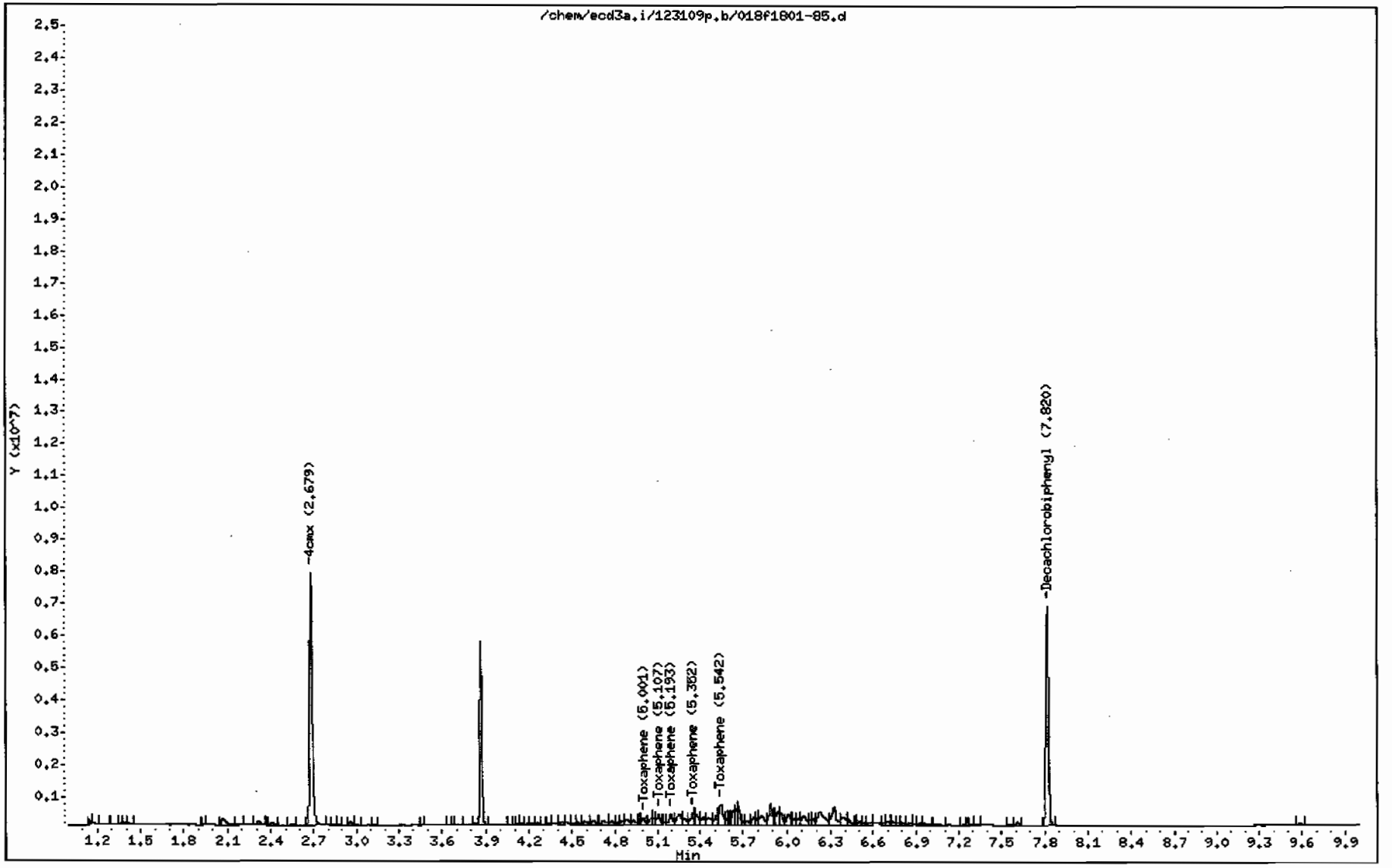

Comment: Manually Integrated
Data File: /chem/ecd3a.i/123109p.b/018f1801-85.d
Operator: HXJ1
Injection Date: 31-DEC-2009 18:44
Instrument: ecd3a.i
Client Sample ID: PBLK01TLCS

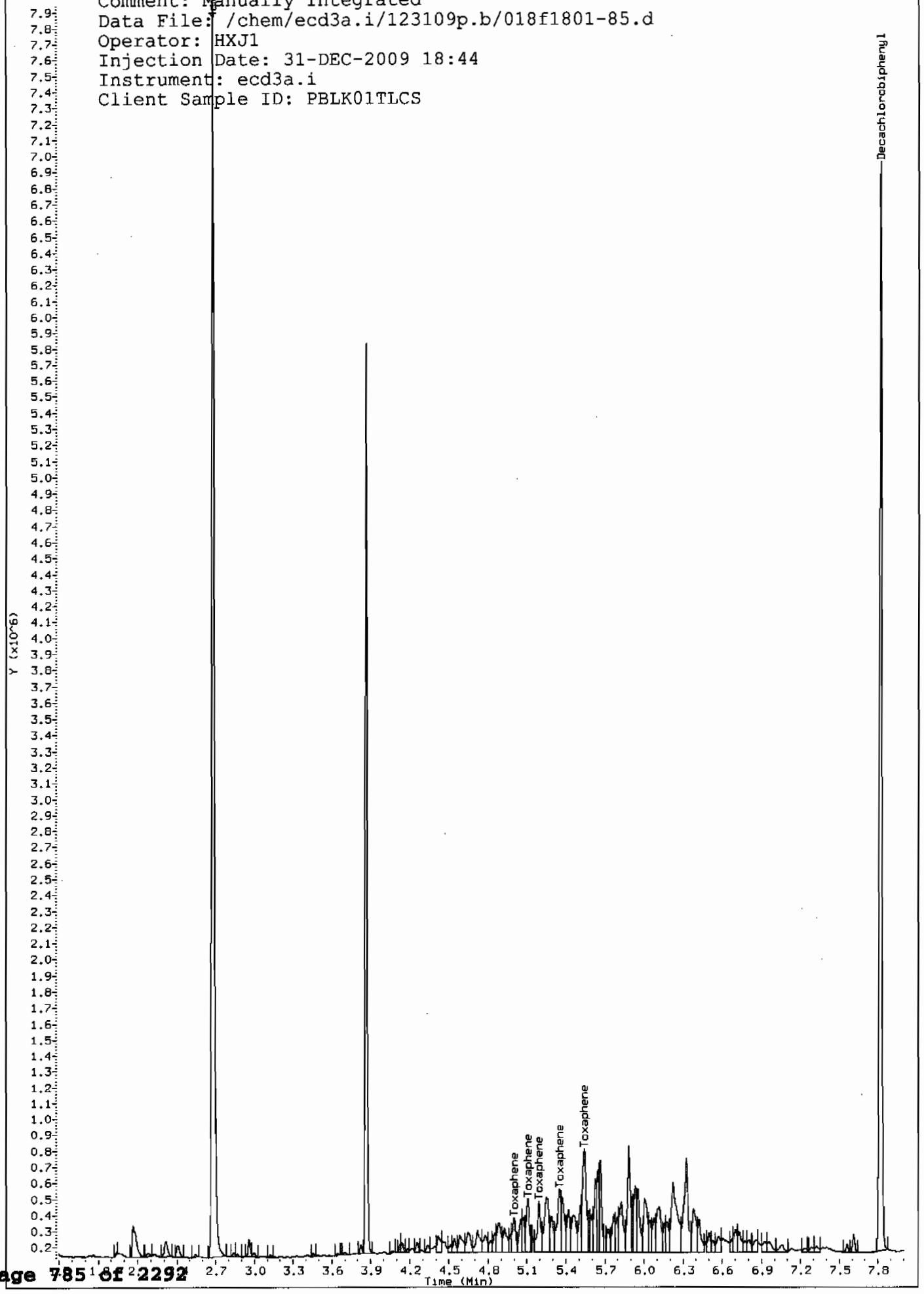

Comment: Before manual integration
Data File: /chem/ecd3a.i/123109p.b/orig-018f1801-85.d
Operator: HXJ1
Injection Date: 31-DEC-2009 18:44
Instrument: ecd3a.i
Client Sample ID: PBLK01TLCS

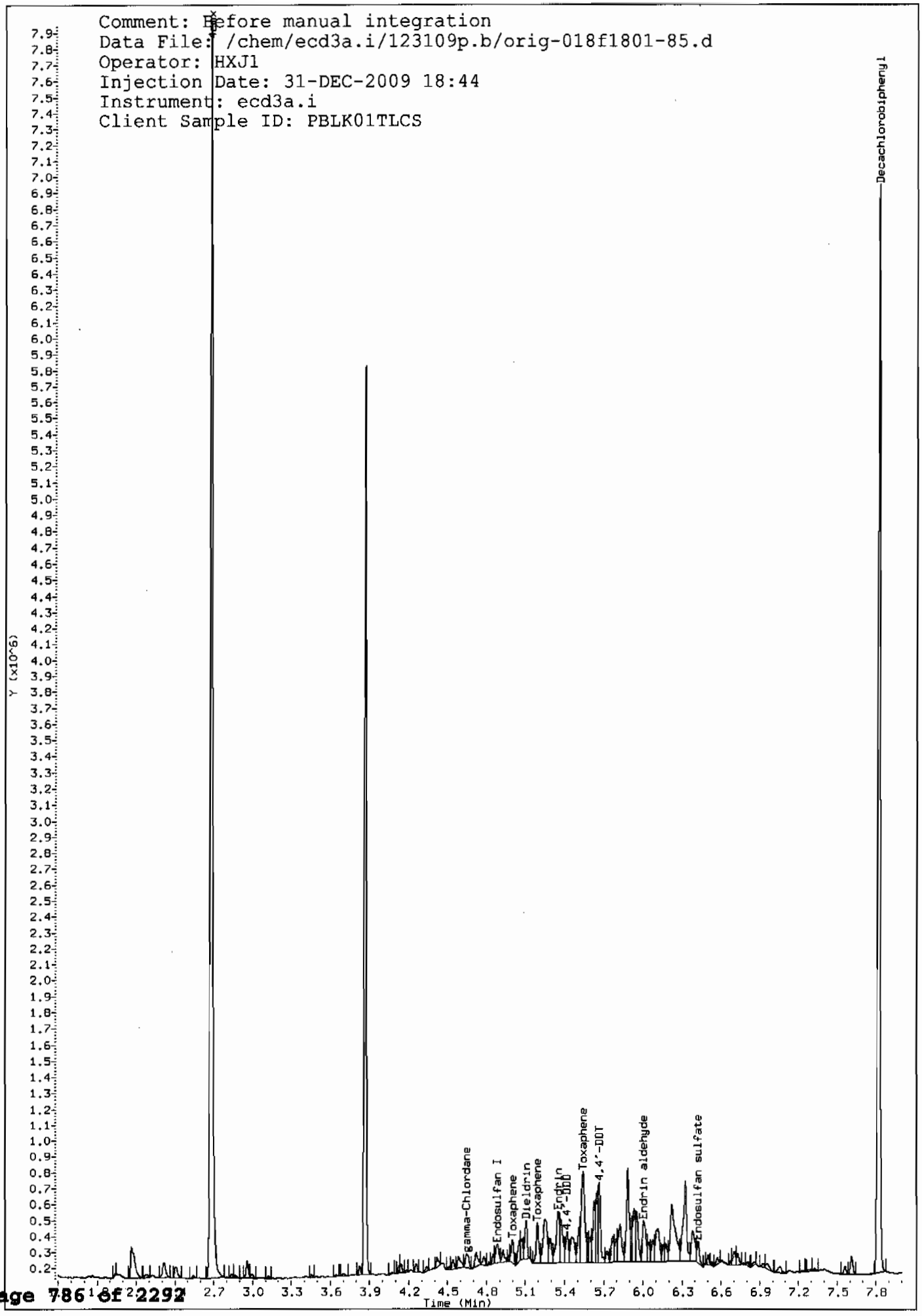

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CLP-2

Data file : /chem/ecd3a.i/123109p.b/018b1801-85.d
Lab Smp Id: 1202005348 Client Smp ID: PBLK01TLCS
Inj Date : 31-DEC-2009 18:44
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |1202005348|1|
Misc Info : |ECD81A_1S|937144|SVP|TLCS|SOIL|TLCS|||
Comment :
Method : /chem/ecd3a.i/123109p.b/ECD3-B-8081-122909.m
Meth Date : 04-Jan-2010 08:25 cla01575 Quant Type: ESTD
Cal Date : 29-DEC-2009 21:55 Cal File: 020b2001.d
Als bottle: 18 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1085.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weigth of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.921	2.924	-0.003	70356149	150.014	25.0	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.858	8.864	-0.006	61531314	187.468	31.2	80.00- 120.00	100.00
23 Toxaphene					CAS #: 8001-35-2		
5.657	5.653	0.004	3687955	728.003	121	80.00- 120.00	100.00(M)
5.776	5.777	-0.001	2111234	705.970	118	36.51- 76.51	57.25
6.166	6.167	-0.001	4146711	689.607	115	72.82- 112.82	112.44
6.209	6.210	-0.001	7364140	694.764	116	148.24- 188.24	199.68

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
23 Toxaphene (continued)							
6.310	6.312	-0.002	12653529	660.834	110	297.09- 337.09	343.10
			Average of Peak Concentrations =		116		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd3a.i/123109p.b/018b1801-85.d
Date : 31-DEC-2009 18:44
Client ID: PBLK01TLCS
Sample Info: |1202005348|1|
Volume Injected (uL): 1.0
Column phase: CLP-2

Instrument: ecd3a.i

Operator: HXJ1
Column diameter: 0.25

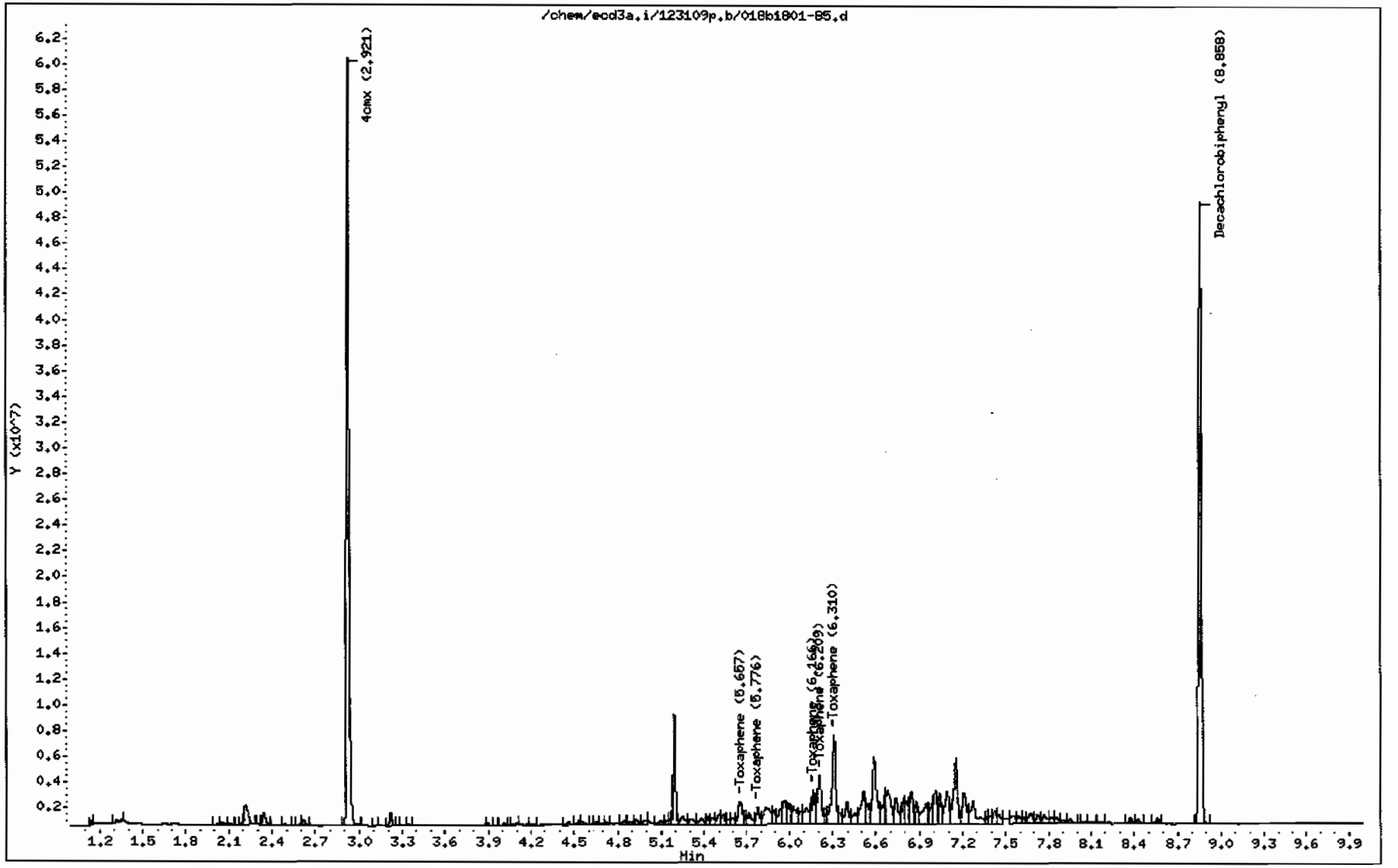

Comment: Manually Integrated
Data File: /chem/ecd3a.i/123109p.b/018b1801-85.d
Operator: HXJ1
Injection Date: 31-DEC-2009 18:44
Instrument: ecd3a.i
Client Sample ID: PBLK01TLCS

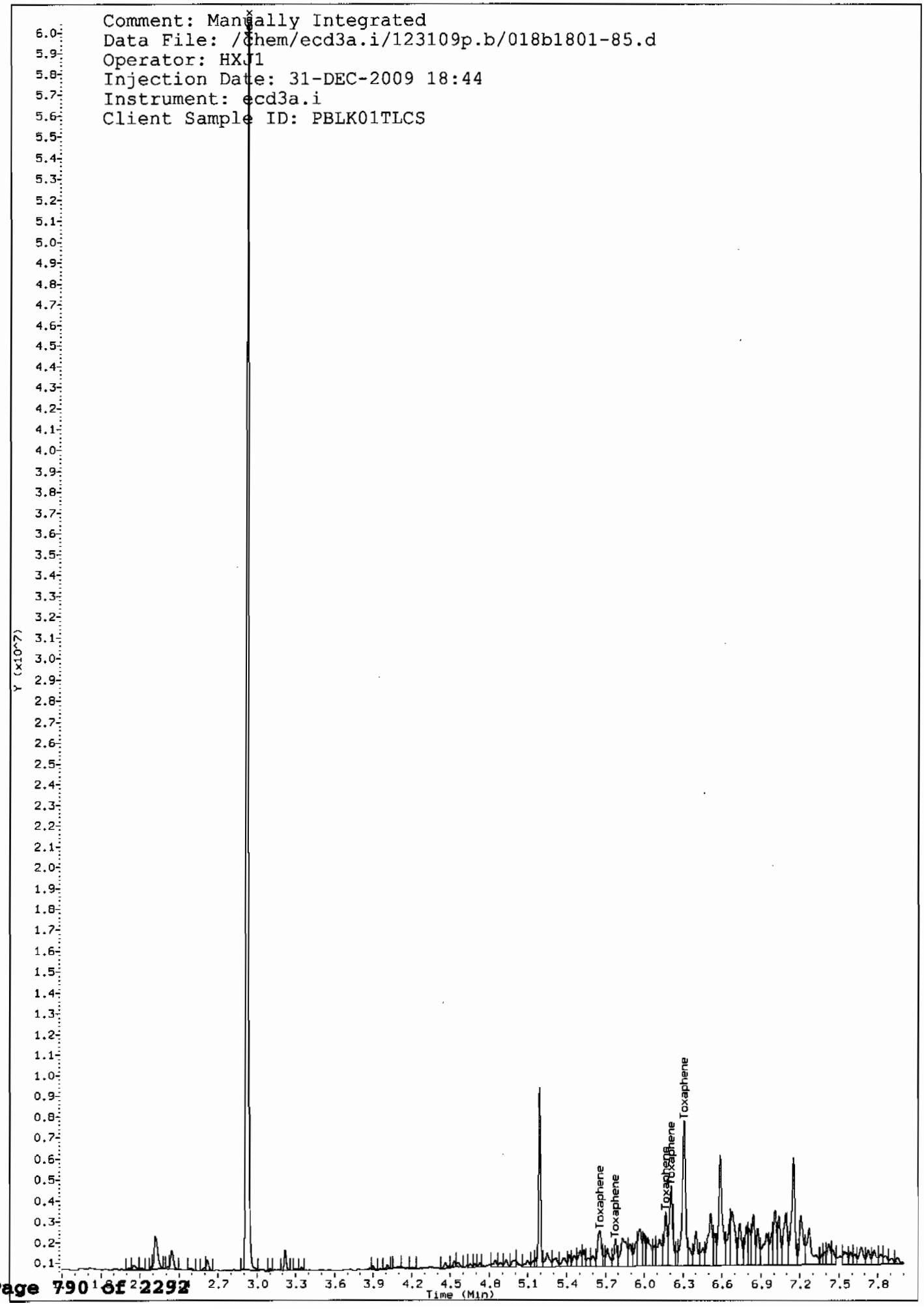

Comment: Before manual integration
Data File: /chem/ecd3a.i/123109p.b/orig-018b1801-85.d
Operator: HXJ1
Injection Date: 31-DEC-2009 18:44
Instrument: ecd3a.i
Client Sample ID: PBLK01TLCS

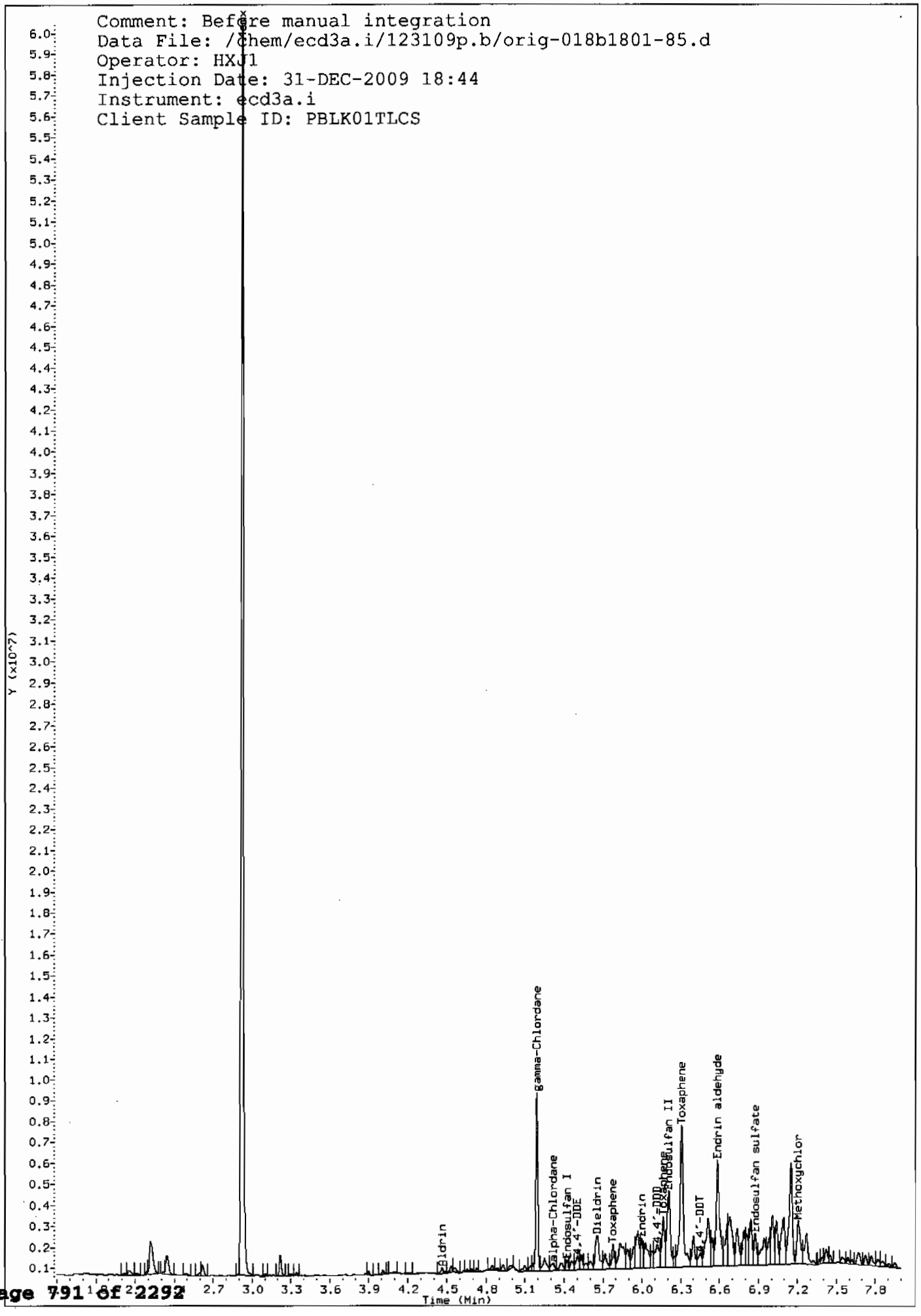

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	**10-1085**	**Date Collected:**	**12/22/2009 12:00**	**Matrix:**	**R**
Lab Sample ID:	**1202005346**	**Date Received:**	**12/24/2009 09:30**	**%Moisture:**	**7.2**
Client Sample:	**QC for batch 937143**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**WST03-10-2148MS**	**Method:**	**SW846 8081A**	**SOP Ref:**	**GL-OA-E-041**
Batch ID:	**937144**	**Inst:**	**ECD3A.I**	**Dilution:**	**1**
Run Date:	**12/31/2009 19:38**	**Analyst:**	**HXJ1**	**Inj. Vol:**	**1 uL**
Prep Date:	**12/29/2009 09:25**	**Aliquot:**	**30 g**	**Final Volume:**	**5 mL**
Data File:	**022f2201.d**	**Column:**	**1 CLP-1**	**Level:**	**LOW**
	022b2201.d		**2 CLP-2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
319-84-6	alpha-BHC		13.3	ug/kg	0.180	0.718	1
58-89-9	gamma-BHC (Lindane)		16.1	ug/kg	0.180	0.718	1
319-85-7	beta-BHC		14.6	ug/kg	0.180	0.718	1
319-86-8	delta-BHC		13.6	ug/kg	0.180	0.718	1
76-44-8	Heptachlor		16.1	ug/kg	0.180	0.718	1
309-00-2	Aldrin		15.0	ug/kg	0.180	0.718	1
1024-57-3	Heptachlor epoxide		15.5	ug/kg	0.224	0.718	1
5103-74-2	gamma-Chlordane		15.2	ug/kg	0.180	0.718	1
5103-71-9	alpha-Chlordane		15.4	ug/kg	0.180	0.718	1
959-98-8	Endosulfan I		15.4	ug/kg	0.180	0.718	1
72-55-9	4,4'-DDE		38.9	ug/kg	0.359	1.44	1
60-57-1	Dieldrin		39.1	ug/kg	0.359	1.44	1
72-20-8	Endrin		46.4	ug/kg	0.359	1.44	1
72-54-8	4,4'-DDD		44.9	ug/kg	0.359	1.44	1
33213-65-9	Endosulfan II		41.3	ug/kg	0.359	1.44	1
7421-93-4	Endrin aldehyde		25.8	ug/kg	0.359	1.44	1
50-29-3	4,4'-DDT		43.1	ug/kg	0.359	1.44	1
1031-07-8	Endosulfan sulfate		39.2	ug/kg	0.359	1.44	1
72-43-5	Methoxychlor		154	ug/kg	1.80	7.18	1
53494-70-5	Endrin ketone		39.5	ug/kg	0.359	1.44	1
8001-35-2	Toxaphene	U	18.0	ug/kg	5.98	18.0	1

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CLP-1

Data file : /chem/ecd3a.i/123109p.b/022f2201.d
Lab Smp Id: 1202005346 Client Smp ID: WST03-10-2148MS
Inj Date : 31-DEC-2009 19:38
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |1202005346|1|
Misc Info : |ECD81A_1S|937144|SVP|MS|SOIL|MS|||
Comment :
Method : /chem/ecd3a.i/123109p.b/ECD3-F-8081-122909.m
Meth Date : 04-Jan-2010 09:07 cla01575 Quant Type: ESTD
Cal Date : 29-DEC-2009 21:55 Cal File: 020f2001.d
Als bottle: 22 QC Sample: MS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1085.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weigth of sample extracted (g)
M	7.18890	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.679	2.682	-0.003	10025978	151.988	27.3	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.820	7.831	-0.011	8272757	171.651	30.8	80.00- 120.00	100.00
5 alpha-BHC					CAS #: 319-84-6		
3.084	3.089	-0.005	7693179	74.1965	13.3	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.328	3.334	-0.006	7046178	89.7293	16.1	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
12 beta-BHC					CAS #: 319-85-7		
3.392	3.399	-0.007	2826080	81.4525	14.6	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
3.540	3.547	-0.007	6988613	75.7097	13.6	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
3.710	3.718	-0.008	5740281	89.6072	16.1	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
3.967	3.976	-0.009	6349357	83.6234	15.0	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.504	4.513	-0.009	5744554	86.1093	15.5	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
4.618	4.628	-0.010	5580433	84.6501	15.2	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
4.741	4.751	-0.010	5677910	85.8875	15.4	80.00- 120.00	100.00
16 Endosulfan I					CAS #: 959-98-8		
4.873	4.884	-0.011	5111160	85.8831	15.4	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
4.807	4.818	-0.011	14366473	216.711	38.9	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
5.101	5.112	-0.011	14786127	217.905	39.1	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.329	5.340	-0.011	13619315	258.462	46.4	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.389	5.402	-0.013	12910891	250.172	44.9	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
5.553	5.564	-0.011	12852382	229.875	41.3	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
5.977	5.988	-0.011	6763712	143.558	25.8	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
5.669	5.680	-0.011	10601154	240.183	43.1	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
6.430	6.441	-0.011	10311266	218.532	39.2	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
28 Methoxychlor					CAS #: 72-43-5		
6.172	6.184	-0.012	18474182	857.683	154	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
6.727	6.739	-0.012	13561123	219.834	39.5	80.00- 120.00	100.00

Data File: /chem/ecd3a.i/123109p.b/022F2201.d
Date : 31-DEC-2009 19:38
Client ID: WST03-10-2148HS
Sample Info: |1202005346|1|
Volume Injected (uL): 1.0
Column phase: CLP-1

Instrument: ecd3a.i
Operator: HXJ1
Column diameter: 0.25

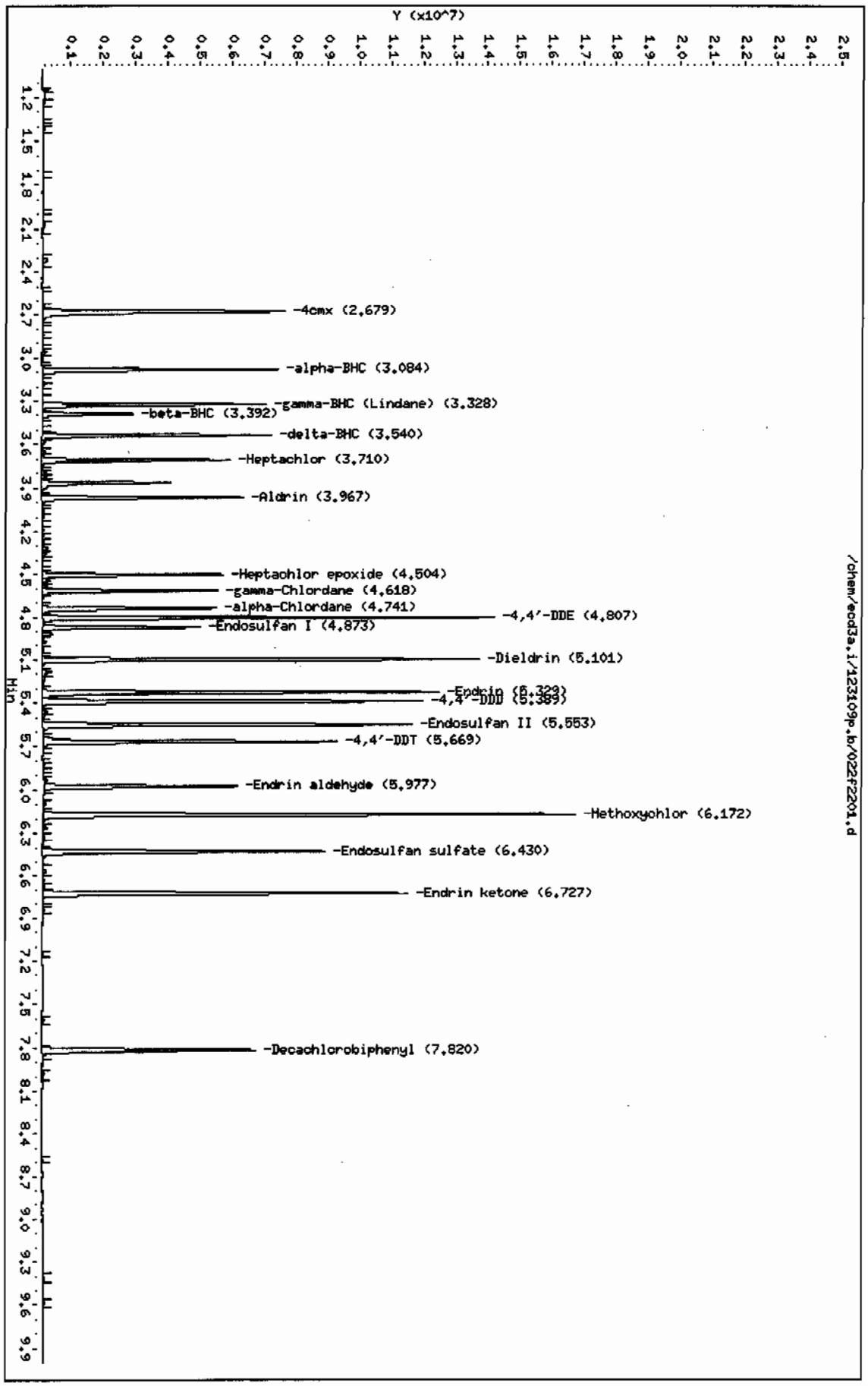

Page 1

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CLP-2

Data file : /chem/ecd3a.i/123109p.b/022b2201.d
Lab Smp Id: 1202005346 Client Smp ID: WST03-10-2148MS
Inj Date : 31-DEC-2009 19:38
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |1202005346|1|
Misc Info : |ECD81A_1S|937144|SVP|MS|SOIL|MS|||
Comment :
Method : /chem/ecd3a.i/123109p.b/ECD3-B-8081-122909.m
Meth Date : 04-Jan-2010 08:25 cla01575 Quant Type: ESTD
Cal Date : 29-DEC-2009 21:55 Cal File: 020b2001.d
Als bottle: 22 QC Sample: MS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1085.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weigth of sample extracted (g)
M	7.18890	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.921	2.924	-0.003	67095868	143.062	25.7	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.858	8.864	-0.006	57000684	173.665	31.2	80.00- 120.00	100.00
5 alpha-BHC					CAS #: 319-84-6		
3.413	3.417	-0.004	47933080	73.9281	13.3	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.722	3.727	-0.005	41774474	77.3195	13.9	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
12 beta-BHC					CAS #: 319-85-7		
3.783	3.788	-0.005	17449717	76.0335	13.6	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
4.056	4.061	-0.005	38989966	76.5697	13.8	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
4.135	4.140	-0.005	30405145	73.8172	13.2	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.446	4.452	-0.006	26845096	72.2543	13.0	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.997	5.003	-0.006	21858379	81.6825	14.7	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
5.188	5.194	-0.006	29035456	97.4572	17.5	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
5.334	5.341	-0.007	21840001	83.6206	15.0	80.00- 120.00	100.00
16 Endosulfan I					CAS #: 959-98-8		
5.398	5.405	-0.007	20730789	84.1287	15.1	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.491	5.498	-0.007	58334105	222.657	40.0	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
5.679	5.685	-0.006	64654738	220.067	39.5	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.998	6.005	-0.007	69215287	251.209	45.1	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
6.097	6.104	-0.007	70206689	241.426	43.4	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
6.218	6.226	-0.008	76444425	232.561	41.8	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
6.575	6.583	-0.008	53955684	165.482	29.7	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
6.437	6.443	-0.006	72235710	226.330	40.6	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
6.878	6.885	-0.007	91073580	220.853	39.7	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
28 Methoxychlor					CAS #: 72-43-5		
7.179	7.186	-0.007	147091013	817.922	147	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
7.469	7.477	-0.008	109251148	217.344	39.0	80.00- 120.00	100.00

Data File: /chem/ecd3a.i/123109p.b/022b2201.d
Date : 31-DEC-2009 19:38
Client ID: WST03-10-2148MS
Sample Info: |1202005346|1|
Volume Injected (uL): 1.0
Column phase: CLP-2

Instrument: ecd3a.i

Operator: HXJ1
Column diameter: 0.25

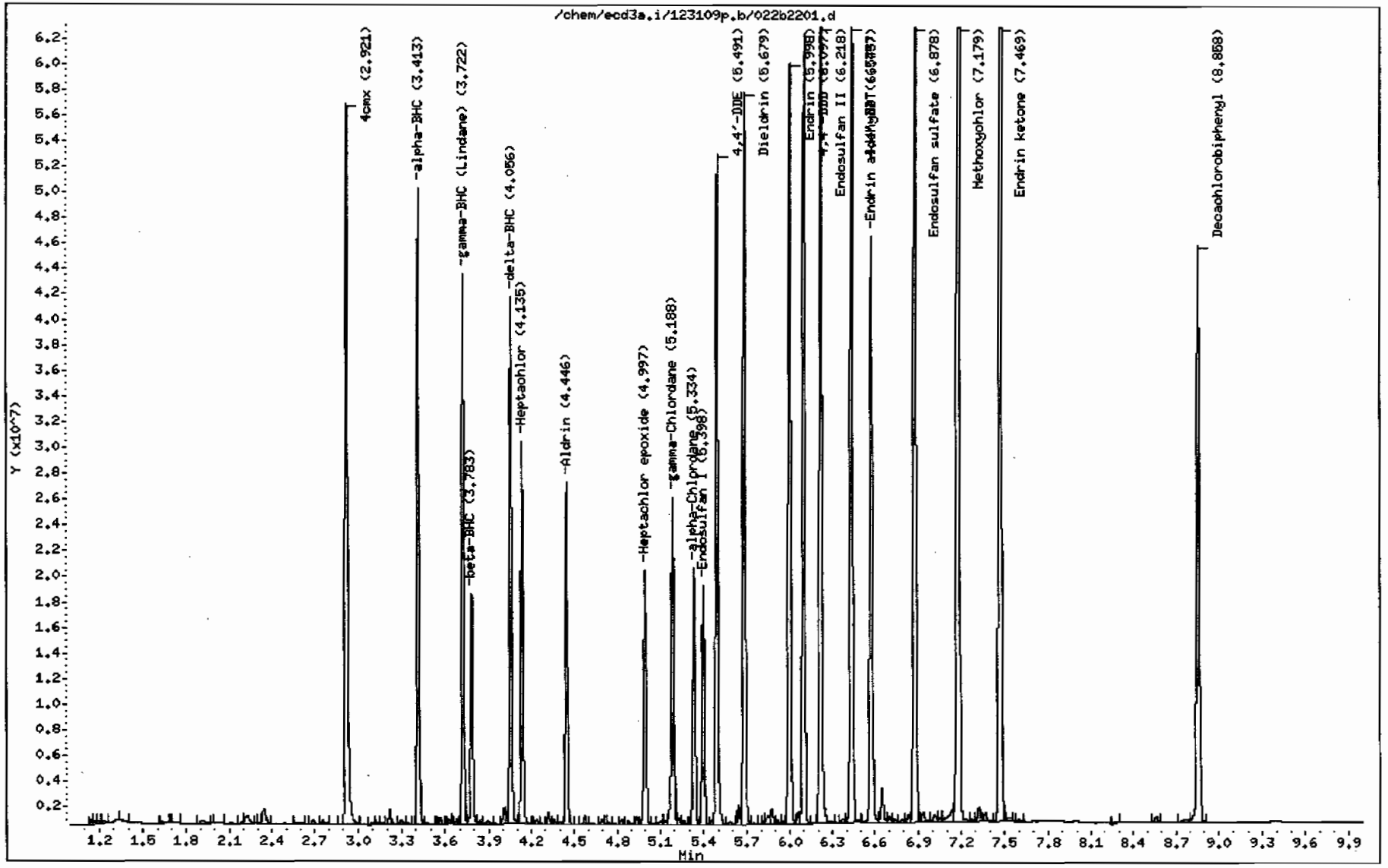

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	10-1085	**Date Collected:**	12/22/2009 12:00	**Matrix:**	R
Lab Sample ID:	1202005347	**Date Received:**	12/24/2009 09:30	**%Moisture:**	7.2
Client Sample:	QC for batch 937143	**Client:**	LANL010	**Project:**	QC
Client ID:	WST03-10-2148MSD	**Method:**	SW846 8081A	**SOP Ref:**	GL-OA-E-041
Batch ID:	937144	**Inst:**	ECD3A.I	**Dilution:**	1
Run Date:	12/31/2009 19:52	**Analyst:**	HXJ1	**Inj. Vol:**	1 uL
Prep Date:	12/29/2009 09:25	**Aliquot:**	30.02 g	**Final Volume:**	5 mL
Data File:	023f2301.d	**Column:**	1 CLP-1	**Level:**	LOW
	023b2301.d		2 CLP-2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
319-84-6	alpha-BHC		12.4	ug/kg	0.179	0.718	1
58-89-9	gamma-BHC (Lindane)		14.9	ug/kg	0.179	0.718	1
319-85-7	beta-BHC		13.7	ug/kg	0.179	0.718	1
319-86-8	delta-BHC		12.3	ug/kg	0.179	0.718	1
76-44-8	Heptachlor		14.4	ug/kg	0.179	0.718	1
309-00-2	Aldrin		13.8	ug/kg	0.179	0.718	1
1024-57-3	Heptachlor epoxide		14.3	ug/kg	0.224	0.718	1
5103-74-2	gamma-Chlordane		14.5	ug/kg	0.179	0.718	1
5103-71-9	alpha-Chlordane		14.4	ug/kg	0.179	0.718	1
959-98-8	Endosulfan I		14.7	ug/kg	0.179	0.718	1
72-55-9	4,4'-DDE		36.9	ug/kg	0.359	1.44	1
60-57-1	Dieldrin		36.7	ug/kg	0.359	1.44	1
72-20-8	Endrin		42.8	ug/kg	0.359	1.44	1
72-54-8	4,4'-DDD		43.0	ug/kg	0.359	1.44	1
33213-65-9	Endosulfan II		39.7	ug/kg	0.359	1.44	1
7421-93-4	Endrin aldehyde		27.4	ug/kg	0.359	1.44	1
50-29-3	4,4'-DDT		40.2	ug/kg	0.359	1.44	1
1031-07-8	Endosulfan sulfate		39.2	ug/kg	0.359	1.44	1
72-43-5	Methoxychlor		151	ug/kg	1.79	7.18	1
53494-70-5	Endrin ketone		38.7	ug/kg	0.359	1.44	1
8001-35-2	Toxaphene	U	17.9	ug/kg	5.98	17.9	1

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd3a.i/123109p.b/023f2301.d
Lab Smp Id: 1202005347 Client Smp ID: WST03-10-2148MSD
Inj Date : 31-DEC-2009 19:52
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |1202005347|1|
Misc Info : |ECD81A_1S|937144|SVP|MSD|SOIL|MSD|||
Comment :
Method : /chem/ecd3a.i/123109p.b/ECD3-F-8081-122909.m
Meth Date : 04-Jan-2010 09:07 cla01575 Quant Type: ESTD
Cal Date : 29-DEC-2009 21:55 Cal File: 020f2001.d
Als bottle: 23 QC Sample: MSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1085.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.02000	Weigth of sample extracted (g)
M	7.18890	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.678	2.682	-0.004	9390970	142.362	25.5	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.820	7.831	-0.011	8359285	173.446	31.1	80.00- 120.00	100.00
5 alpha-BHC					CAS #: 319-84-6		
3.083	3.089	-0.006	7137529	69.2061	12.4	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.328	3.334	-0.006	6504420	82.8303	14.9	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
12 beta-BHC					CAS #: 319-85-7		
3.392	3.399	-0.007	2647285	76.2993	13.7	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
3.540	3.547	-0.007	6287782	68.6439	12.3	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
3.711	3.718	-0.007	5132550	80.1204	14.4	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
3.967	3.976	-0.009	5842023	76.9416	13.8	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.504	4.513	-0.009	5316152	79.6877	14.3	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
4.618	4.628	-0.010	5311401	80.5691	14.4	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
4.741	4.751	-0.010	5289617	80.0139	14.4	80.00- 120.00	100.00
16 Endosulfan I					CAS #: 959-98-8		
4.873	4.884	-0.011	4880262	82.0033	14.7	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
4.808	4.818	-0.010	13629311	205.591	36.9	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
5.101	5.112	-0.011	13887976	204.669	36.7	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.330	5.340	-0.010	12577290	238.687	42.8	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.390	5.402	-0.012	12372478	239.739	43.0	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
5.552	5.564	-0.012	12381401	221.451	39.7	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
5.977	5.988	-0.011	7191047	152.628	27.4	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
5.670	5.680	-0.010	9897660	224.245	40.2	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
6.430	6.441	-0.011	10304770	218.394	39.2	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
28 Methoxychlor					CAS #: 72-43-5		
6.172	6.184	-0.012	18092089	839.944	151	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
6.728	6.739	-0.011	13297964	215.568	38.7	80.00- 120.00	100.00

Data File: /chem/ecd3a.i/123109p.b/023f2301.d

Date : 31-DEC-2009 19:52

Client ID: WST03-10-2148MSD

Sample Info: |1202005347|1|

Volume Injected (uL): 1.0

Column phase: CLP-1

Instrument: ecd3a.i

Operator: HXJ1

Column diameter: 0.25

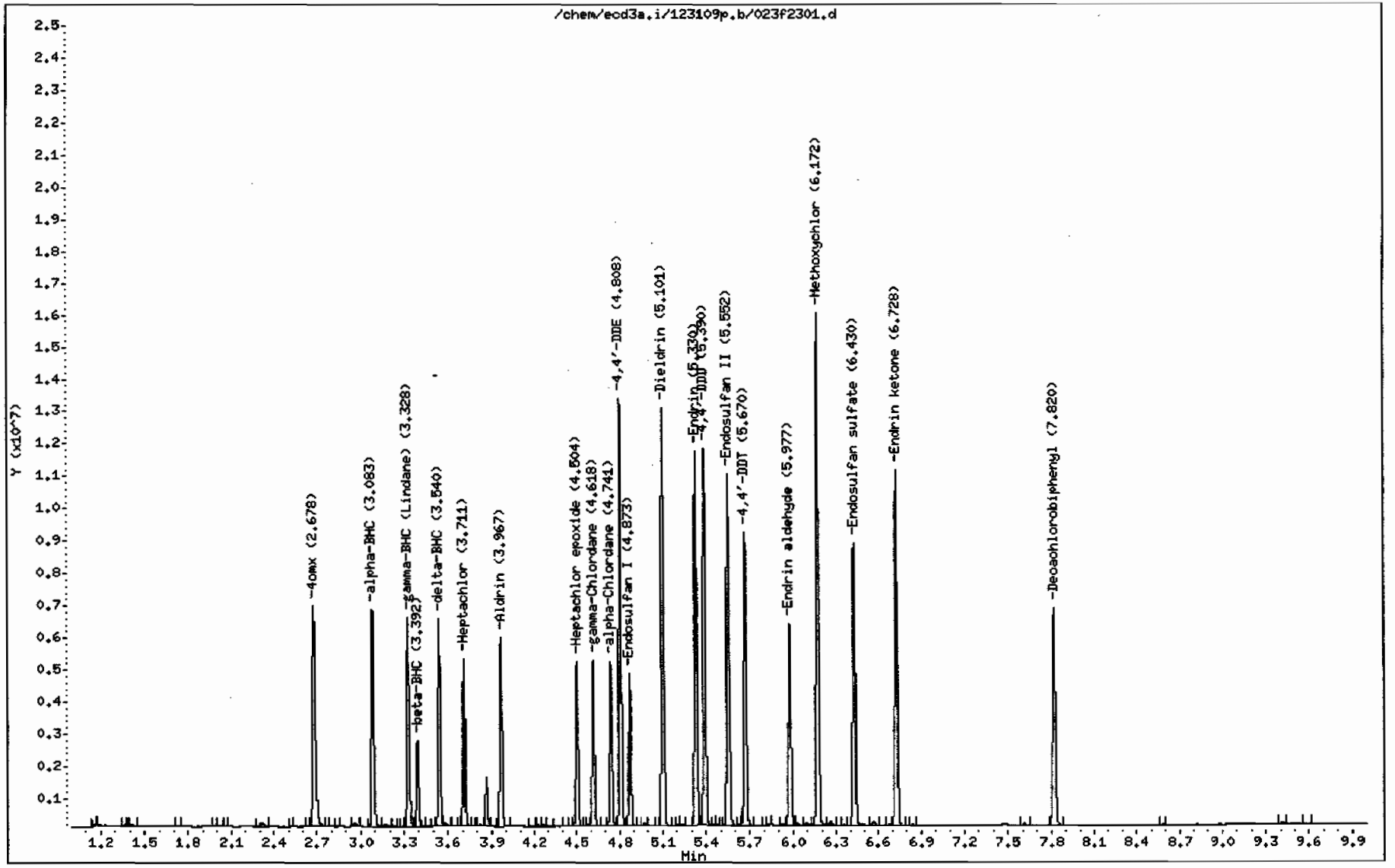

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd3a.i/123109p.b/023b2301.d
Lab Smp Id: 1202005347 Client Smp ID: WST03-10-2148MSD
Inj Date : 31-DEC-2009 19:52
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |1202005347|1|
Misc Info : |ECD81A_1S|937144|SVP|MSD|SOIL|MSD|||
Comment :
Method : /chem/ecd3a.i/123109p.b/ECD3-B-8081-122909.m
Meth Date : 04-Jan-2010 08:25 cla01575 Quant Type: ESTD
Cal Date : 29-DEC-2009 21:55 Cal File: 020b2001.d
Als bottle: 23 QC Sample: MSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1085.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.02000	Weigth of sample extracted (g)
M	7.18890	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.922	2.924	-0.002	62148292	132.513	23.8	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.858	8.864	-0.006	59243057	180.497	32.4	80.00- 120.00	100.00
5 alpha-BHC					CAS #: 319-84-6		
3.413	3.417	-0.004	44713563	68.9626	12.4	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.722	3.727	-0.005	38834791	71.8785	12.9	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
12 beta-BHC					CAS #: 319-85-7		
3.784	3.788	-0.004	15225971	66.3440	11.9	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
4.056	4.061	-0.005	36393732	71.4712	12.8	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
4.136	4.140	-0.004	27688291	67.2212	12.1	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.447	4.452	-0.005	24972734	67.2148	12.1	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.997	5.003	-0.006	19417002	72.5593	13.0	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
5.188	5.194	-0.006	21697156	73.4343	13.2	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
5.335	5.341	-0.006	20462729	78.3474	14.0	80.00- 120.00	100.00
16 Endosulfan I					CAS #: 959-98-8		
5.398	5.405	-0.007	19567575	79.4082	14.2	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.492	5.498	-0.006	54038104	206.260	37.0	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
5.679	5.685	-0.006	60884652	207.234	37.2	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.998	6.005	-0.007	65850850	238.999	42.9	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
6.097	6.104	-0.007	69216096	238.020	42.7	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
6.218	6.226	-0.008	72770778	221.385	39.7	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
6.576	6.583	-0.007	54166362	166.128	29.8	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
6.436	6.443	-0.007	68379219	214.247	38.4	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
6.878	6.885	-0.007	89894087	217.993	39.1	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	CONCENTRATIONS FINAL (ug/Kg)	TARGET RANGE	RATIO
28 Methoxychlor					CAS #: 72-43-5		
7.179	7.186	-0.007	143186047	796.208	143	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
7.470	7.477	-0.007	107741055	214.340	38.5	80.00- 120.00	100.00

Data File: /chem/ecd3a.i/123109p.b/023b2301.d
Date : 31-DEC-2009 19:52
Client ID: WST03-10-2149MSD
Sample Info: |1202005347|1|
Volume Injected (uL): 1.0
Column phase: CLP-2

Instrument: ecd3a.i

Operator: HXJ1
Column diameter: 0.25

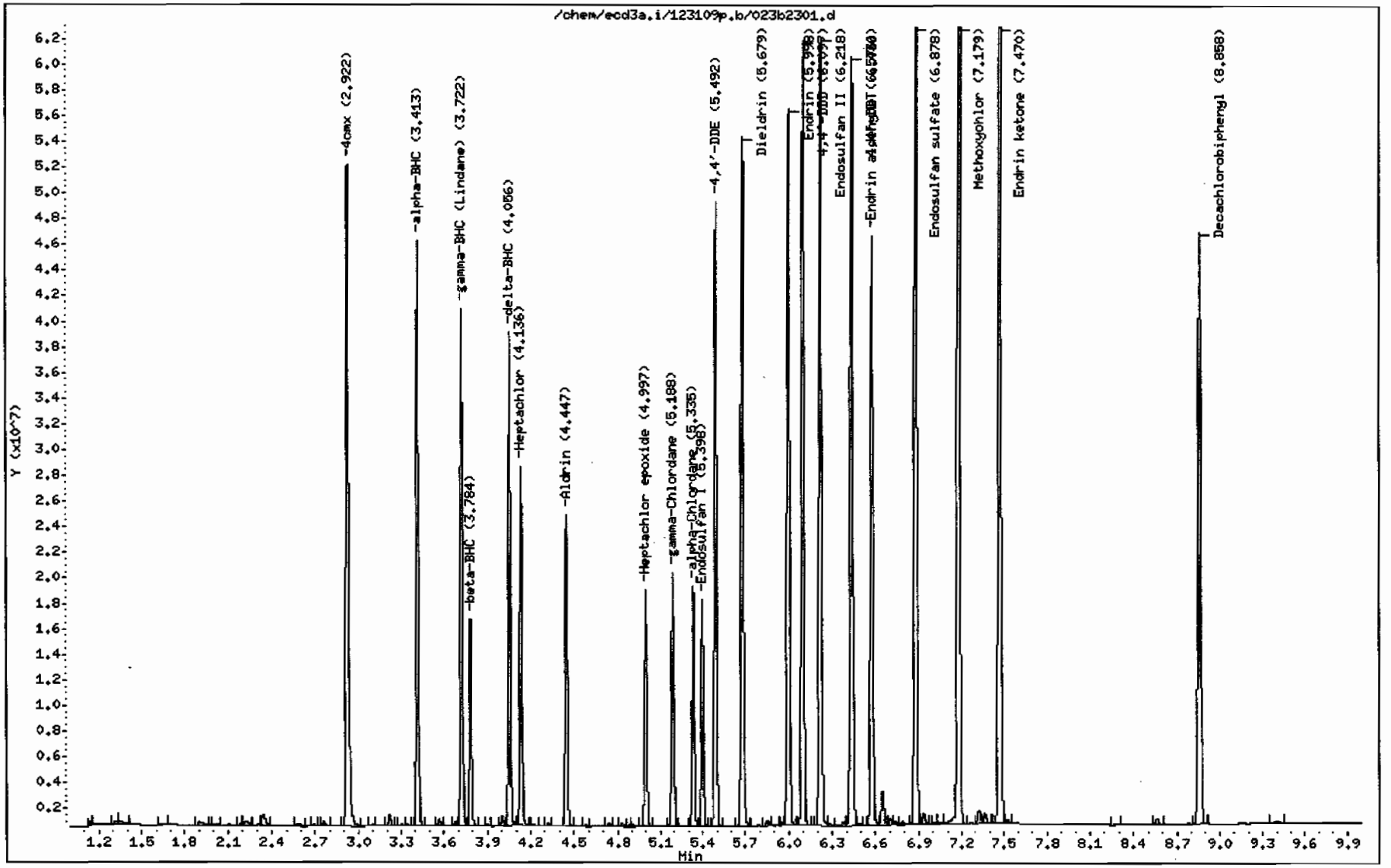

MISCELLANEOUS DATA

GEL ORGANIC RUN LOG INSTRUMENT ID: ECD3

DATE: 12/31/2009 METHOD: ECD3-B-8081-122909.m OPERATOR:CXC2 REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT DA385

Calibration & QC Information
Initial Calibration Dates: See Calibration History and Standards Log
Initial Calibration Std ID's: See Calibration History and Standards Log
GEL SOP GL-OA-E-041
EPA Method: 8081
8081A
Sequence Number:122909p.b Injection Volume: 1.0 uL

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001b0101.d	WAR091130-99IB	CXC2	29-DEC-2009 16:57		122909p	1.0		Clean
002b0201.d	WPE091219-99DG	CXC2	29-DEC-2009 17:10		122909p	1.0		(b) DDT 1.0%, Endrin 5.4%; (f) DDT 1.3%, Endrin 3.3%
003b0301.d	WPE091228-01AB	CXC2	29-DEC-2009 17:34		122909p	1.0		INDAB ICAL level 1
004b0401.d	WPE091228-02AB	CXC2	29-DEC-2009 17:47		122909p	1.0		INDAB ICAL level 2
005b0501.d	WPE091228-03AB	CXC2	29-DEC-2009 18:01		122909p	1.0		INDAB ICAL level 3
006b0601.d	WPE091228-04AB	CXC2	29-DEC-2009 18:15		122909p	1.0		INDAB ICAL level 4
007b0701.d	IPE091219-02AB	CXC2	29-DEC-2009 18:29		122909p	1.0		INDAB ICAL level 5
008b0801.d	WPE091218-10AB	CXC2	29-DEC-2009 18:43		122909p	1.0		(b) gamma-Chlordane elevated - NCR LANL batches; (f) All okay
009b0901.d	WPE091228-11TX	CXC2	29-DEC-2009 18:56		122909p	1.0		TOXAPH ICAL level 1
010b1001.d	WPE091228-12TX	CXC2	29-DEC-2009 19:10		122909p	1.0		TOXAPH ICAL level 2
011b1101.d	WPE091228-13TX	CXC2	29-DEC-2009 19:24		122909p	1.0		TOXAPH ICAL level 3
012b1201.d	WPE091228-14TX	CXC2	29-DEC-2009 19:37		122909p	1.0		DUSE - misinjection - see vial 13
013b1301.d	WPE091228-14TX	CXC2	29-DEC-2009 20:01		122909p	1.0		TOXAPH ICAL level 4
014b1401.d	IPE091121-40TX	CXC2	29-DEC-2009 20:14		122909p	1.0		TOXAPH ICAL level 5
015b1501.d	WPE091219-52TX	CXC2	29-DEC-2009 20:28		122909p	1.0		All okay

Instrument Batch: /chem/ecd3a.i/122909p.b Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
016b1601.d	WPE091228-21CL	CXC2	29-DEC-2009 20:42		122909p	1.0		CHLOR ICAL level 1

017b1701.d	WPE091228-22CL	CXC2	29-DEC-2009 21:14		122909p		1.0		CHLOR ICAL level 2
018b1801.d	WPE091228-23CL	CXC2	29-DEC-2009 21:28		122909p		1.0		CHLOR ICAL level 3
019b1901.d	WPE091228-24CL	CXC2	29-DEC-2009 21:41		122909p		1.0		CHLOR ICAL level 4
020b2001.d	IPE091029-06CL	CXC2	29-DEC-2009 21:55		122909p		1.0		CHLOR ICAL level 5
021b2101.d	WPE091206-60CL	CXC2	29-DEC-2009 22:09		122909p		1.0		All okay
022b2201.d	WPE091219-99DG	CXC2	29-DEC-2009 22:22		122909p		1.0		(b) DDT 2.9%, Endrin 8.6%; (f) DDT 3.3%, Endrin 5.7%
023b2301.d	WAR091130-99IB	CXC2	29-DEC-2009 22:36		122909p		1.0		Clean
024b2401.d	243434001	CXC2	29-DEC-2009 22:49	937138	243434		1.0	ENRG	USE, uploaded both columns, reporting higher result
025b2501.d	1202005324	CXC2	29-DEC-2009 23:03	937138	243434		1.0	MS	USE, uploaded both columns, reporting higher result
026b2601.d	1202005325	CXC2	29-DEC-2009 23:17	937138	243434		1.0	TMS	USE, uploaded both columns, reporting higher result
027b2701.d	1202005326	CXC2	29-DEC-2009 23:30	937138	243434		1.0	CMS	USE, uploaded both columns, reporting higher result
028b2801.d	WAR091130-99IB	CXC2	29-DEC-2009 23:44		122909p		1.0		Clean
029b2901.d	WPE091218-10AB	CXC2	29-DEC-2009 23:58		122909p		1.0		All okay
030b3001.d	WAR091130-99IB	CXC2	30-DEC-2009 00:11		122909p		1.0		Clean
031b3101.d	1202001156	CXC2	30-DEC-2009 00:25	937138	243434		1.0	TB	USE, uploaded both columns, reporting higher result
032b3201.d	1202003586	CXC2	30-DEC-2009 00:39	937138	243278		1.0	TB	USE, uploaded both columns, reporting higher result
033b3301.d	1202005320	CXC2	30-DEC-2009 00:52	937138	243434		1.0	MB	USE, uploaded both columns, reporting higher result
034b3401.d	1202005330	CXC2	30-DEC-2009 01:06	937138	243434		1.0	LCS	USE, uploaded both columns, reporting higher result
035b3501.d	1202005331	CXC2	30-DEC-2009 01:19	937138	243434		1.0	TLCS	USE, uploaded both columns, reporting higher result

Instrument Batch: /chem/ecd3a.i/122909p.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
036b3601.d	1202005332	CXC2	30-DEC-2009 01:33	937138	243434	1.0	CLCS	USE, uploaded both columns, reporting higher result
037b3701.d	WAR091130-99IB	CXC2	30-DEC-2009 01:47		122909p	1.0		Clean
038b3801.d	WPE091218-10AB	CXC2	30-DEC-2009 02:01		122909p	1.0		All okay
039b3901.d	WAR091130-99IB	CXC2	30-DEC-2009 02:14		122909p	1.0		Clean
040b4001.d	243278003	CXC2	30-DEC-2009 02:28	937138	243278	1.0	ECWS	USE, uploaded both columns, reporting higher result
041b4101.d	1202005321	CXC2	30-DEC-2009 02:42	937138	243278	1.0	MS	USE, uploaded both columns, reporting higher result

042b4201.d	1202005327	CXC2	30-DEC-2009 02:55	937138	243278	1.0	MSD	USE, uploaded both columns, reporting higher result
043b4301.d	1202005322	CXC2	30-DEC-2009 03:09	937138	243278	1.0	TMS	USE, uploaded both columns, reporting higher result
044b4401.d	1202005328	CXC2	30-DEC-2009 03:22	937138	243278	1.0	TMSD	USE, uploaded both columns, reporting higher result
045b4501.d	1202005323	CXC2	30-DEC-2009 03:36	937138	243278	1.0	CMS	USE, uploaded both columns, reporting higher result
046b4601.d	1202005329	CXC2	30-DEC-2009 03:50	937138	243278	1.0	CMSD	USE, uploaded both columns, reporting higher result
047b4701.d	WAR091130-99IB	CXC2	30-DEC-2009 04:03		122909p	1.0		Clean
048b4801.d	WPE091218-10AB	CXC2	30-DEC-2009 04:17		122909p	1.0		(b) Endrin elevated; (f) gamma-BHC, Endrin elevated
049b4901.d	WAR091130-99IB	CXC2	30-DEC-2009 04:31		122909p	1.0		Clean
050b5001.d	1202004566	CXC2	30-DEC-2009 04:44	936866	10-1044	1.0	MB	USE, uploaded both columns, reporting lower result
051b5101.d	1202004567	CXC2	30-DEC-2009 04:58	936866	10-1044	1.0	LCS	USE, uploaded both columns, reporting lower result
052b5201.d	1202004570	CXC2	30-DEC-2009 05:12	936866	10-1044	1.0	TLCS	USE, uploaded both columns, reporting lower result
053b5301.d	243458003	CXC2	30-DEC-2009 05:25	936866	10-1044	1.0	LANL	USE, uploaded both columns, reporting lower result
054b5401.d	243460001	CXC2	30-DEC-2009 05:39	936866	10-1049	1.0	LANL	USE, uploaded both columns, reporting lower result
055b5501.d	243467003	CXC2	30-DEC-2009 05:52	936866	10-1055	5.0	LANL	USE, uploaded both columns, reporting lower result NCR - DCB low - confirmed in MS/MSD - matrix and dilution

Instrument Batch: /chem/ecd3a.i/122909p.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
056b5601.d	1202004568	CXC2	30-DEC-2009 06:06	936866	10-1055	5.0	MS	USE, uploaded both columns, reporting lower result NCR - DCB low - confirmed in sample/MSD - matrix and dilution
057b5701.d	1202004569	CXC2	30-DEC-2009 06:20	936866	10-1055	5.0	MSD	USE, uploaded both columns, reporting lower result NCR - DCB low - confirmed in sample/MS - matrix and dilution
058b5801.d	243469002	CXC2	30-DEC-2009 06:33	936866	10-1052	1.0	LANL	USE, uploaded both columns, reporting lower result
059b5901.d	WPE091218-10AB	CXC2	30-DEC-2009 06:47		122909p	1.0		(b) Endrin elevated; (f) gamma-BHC, Endrin elevated
060b6001.d	WAR091130-99IB	CXC2	30-DEC-2009 07:01		122909p	1.0		Clean
061b6101.d	1202003313	CXC2	30-DEC-2009 07:14	936267	10-1020	1.0	MB	USE, uploaded both columns, reporting lower result
062b6201.d	1202003314	CXC2	30-DEC-2009 07:28	936267	10-1020	1.0	LCS	USE, uploaded both columns, reporting lower result
063b6301.d	1202003318	CXC2	30-DEC-2009 07:42	936267	10-1020	1.0	TLCS	USE, uploaded both columns, reporting lower result
064b6401.d	243401003	CXC2	30-DEC-2009 07:55	936267	10-1020	1.0	LANL	USE, uploaded both columns, reporting lower result

065b6501.d	1202003315	CXC2	30-DEC-2009 08:09	936267	10-1020	1.0	MS	USE, uploaded both columns, reporting lower result NCR - spikes and surrogates elevated - RPD fails? - no hits
066b6601.d	1202003316	CXC2	30-DEC-2009 08:23	936267	10-1020	1.0	MSD	USE, uploaded both columns, reporting lower result
067b6701.d	243401007	CXC2	30-DEC-2009 08:36	936267	10-1020	1.0	LANL	USE, uploaded both columns, reporting lower result
068b6801.d	WPE091218-10AB	CXC2	30-DEC-2009 08:50		122909p	1.0		(b) All okay; (f) gamma-BHC elevated
069b6901.d	WAR091130-99IB	CXC2	30-DEC-2009 09:04		122909p	1.0		Clean

Instrument Batch: /chem/ecd3a.i/122909p.b

GEL ORGANIC RUN LOG INSTRUMENT ID __ECD3__

DATE: 01/06/2010 METHOD: ECD3-B-8081-122909.m OPERATOR:HXJ1 REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No.__1__ on pg.__1__ SOLVENT LOT DA385

Calibration & QC Information
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.

Chromatogram Abbreviation Legend: AB-Assign Baseline, AP-Assign Peak, BD-Percent Endrin and 4,4'-DDT Breakdown, DNC-Do Not Call, DMP-Doesn't Match Pattern, NC-Not Confirmed, RT-Retention Time, BF-Before, AF-After.

Sequence Number: /chem/ecd3a.i/123109p.b Injection Volume:__1.0__ul

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001b0101.d	WAR091130-99IB	HXJ1	31-DEC-2009 14:41		123109p	1.0		Clean
002b0201.d	WPE091219-99DG	HXJ1	31-DEC-2009 14:54		123109p	1.0		(B) DDT 9.8% Endrin 11.8% (F) DDT 11.3% Endrin 8.5%
003b0301.d	WPE091218-10AB	HXJ1	31-DEC-2009 15:18		123109p	1.0		(B) Endrin & DDD elevated 8081A (F) All OK
004b0401.d	WPE091219-52TX	HXJ1	31-DEC-2009 15:32		123109p	1.0		(B) All OK (F) Passes on average, All OK 8081B
005b0501.d	WPE091021-00CL	HXJ1	31-DEC-2009 15:46		123109p	1.0		All OK
006b0601.d	WAR091130-99IB	HXJ1	31-DEC-2009 16:00		123109p	1.0		Clean
007b0701.d	1202005370	HXJ1	31-DEC-2009 16:13	937156	243436	1.0	MB	USE - uploaded both columns, reporting higher result
008b0801.d	1202005371	HXJ1	31-DEC-2009 16:27	937156	243436	1.0	LCS	USE - uploaded both columns, reporting higher result
009b0901.d	1202005372	HXJ1	31-DEC-2009 16:41	937156	243436	1.0	LCSD	USE - uploaded both columns, reporting higher result
010b1001.d	243436005	HXJ1	31-DEC-2009 16:54	937156	243436	1.0	GEEL	USE - uploaded both columns, reporting higher result
011b1101.d	243436006	HXJ1	31-DEC-2009 17:08	937156	243436	1.0	GEEL	USE - uploaded both columns, reporting higher result
012b1201.d	243436007	HXJ1	31-DEC-2009 17:22	937156	243436	1.0	GEEL	USE - uploaded both columns, reporting higher result
013b1301.d	243436008	HXJ1	31-DEC-2009 17:35	937156	243436	1.0	GEEL	USE - uploaded both columns, reporting higher result
014b1401.d	WPE091218-10AB	HXJ1	31-DEC-2009 17:49		123109p	1.0		(B) Endrin elevated (F) gamma-BHC elevated - All OK 8081B B&F
015b1501.d	WAR091130-99IB	HXJ1	31-DEC-2009 18:03		123109p	1.0		Clean

Instrument Batch: /chem/ecd3a.i/123109p.b Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments

016b1601.d	1202005344	HXJ1	31-DEC-2009 18:16	937144	10-1084	1.0	MB	USE - uploaded both columns, reporting lower result
017b1701.d	1202005345	HXJ1	31-DEC-2009 18:30	937144	10-1084	1.0	LCS	USE - uploaded both columns, reporting lower result
018b1801.d	1202005348	HXJ1	31-DEC-2009 18:44	937144	10-1084	1.0	TLCS	USE - uploaded both columns, reporting lower result
019b1901.d	243547002	HXJ1	31-DEC-2009 18:57	937144	10-1084	1.0	LANL	USE - uploaded both columns, reporting lower result
020b2001.d	243547003	HXJ1	31-DEC-2009 19:11	937144	10-1084	1.0	LANL	USE - uploaded both columns, reporting lower result
021b2101.d	243549002	HXJ1	31-DEC-2009 19:25	937144	10-1085	1.0	LANL	USE - uploaded both columns, reporting lower result
022b2201.d	1202005346	HXJ1	31-DEC-2009 19:38	937144	10-1085	1.0	MS	USE - uploaded both columns, reporting lower result
023b2301.d	1202005347	HXJ1	31-DEC-2009 19:52	937144	10-1085	1.0	MSD	USE - uploaded both columns, reporting lower result
024b2401.d	WAR091130-99IB	HXJ1	31-DEC-2009 20:05		123109p	1.0		Clean
025b2501.d	WPE091218-10AB	HXJ1	31-DEC-2009 20:19		123109p	1.0		(B) Endrin & DDD elevated (F) gamma-BHC elevated
026b2601.d	WAR091130-99IB	HXJ1	31-DEC-2009 20:33		123109p	1.0		Clean
027b2701.d	1202004020	HXJ1	31-DEC-2009 20:47	936601	10-1005	1.0	MB	**Re-analyze to determine if Methoxychlor is a hit or not
028b2801.d	1202004021	HXJ1	31-DEC-2009 21:00	936601	10-1005	1.0	LCS	
029b2901.d	1202004024	HXJ1	31-DEC-2009 21:14	936601	10-1005	1.0	TLCS	
030b3001.d	243393002	HXJ1	31-DEC-2009 21:28	936601	10-1005	1.0	LANL	** HIT OF METHOXYCHLOR?
031b3101.d	1202004022	HXJ1	31-DEC-2009 21:41	936601	10-1005	1.0	MS	
032b3201.d	1202004023	HXJ1	31-DEC-2009 21:55	936601	10-1005	1.0	MSD	
033b3301.d	WAR091130-99IB	HXJ1	31-DEC-2009 22:08		123109p	1.0		Clean
034b3401.d	WPE091218-10AB	HXJ1	31-DEC-2009 22:22		123109p	1.0		(B)Heptachlor,gamma-CHL,DDT,Meth,DCB low (F)gamma-BHC,Endrin,DDDhi
035b3501.d	WAR091130-99IB	HXJ1	31-DEC-2009 22:36		123109p	1.0		Clean

Prep Logbook

Extraction of Semivolatile and Nonvolatile Organic Compounds from Soil, Sludge, and Other Miscellaneous Solid Samples

Batch ID: 937143 **Verified by:** _____

Analyst: Joshua McCartney

Method: SW846 3550B

Lab SOP: GL–OA–E–010 REV# 18

Instrument: Semi–Volatiles Manual

Sample ID	Run Date	Aliquot (g)	Clean Up	Prior to Clean up (mL)	Amount Cleaned (mL)	After Clean up (mL)	Prepped Aliquot (mL)	Prepped Factor (mL/g)
1202005344 MB	29–DEC–2009 09:25:11	30	Florisil	5	1	10	5	0.16667
1202005345 LCS	29–DEC–2009 09:25:11	30	Florisil	5	1	10	5	0.16667
1202005348 LCS	29–DEC–2009 09:25:11	30	Florisil	5	1	10	5	0.16667
243547002	29–DEC–2009 09:25:11	30.05	Florisil	5	1	10	5	0.16639
243547003	29–DEC–2009 09:25:11	30	Florisil	5	1	10	5	0.16667
243549002	29–DEC–2009 09:25:11	30	Florisil	5	1	10	5	0.16667
1202005346 MS (243549002)	29–DEC–2009 09:25:11	30	Florisil	5	1	10	5	0.16667
1202005347 MSD (243549002)	29–DEC–2009 09:25:11	30.02	Florisil	5	1	10	5	0.16656

Type	Sample Id	Description	Serial Number	Spike Amt	Units
LCS	1202005345	PESTSPIKE	UE091204–04	1	mL
LCS	1202005348	Toxaphene TCLP LCS	WE091204–11	2	mL
MS	1202005346	PESTSPIKE	UE091204–04	1	mL
MSD	1202005347	PESTSPIKE	UE091204–04	1	mL
SURR	All	PEST SURROGATE 1000 UG/L	UE091114–07	1	mL
REGNT	All	Florisil cartridge 1000mg per cartridge	1103846–28	1	g
REGNT	All	Acetone	1233927	150	mL
REGNT	All	Hexane	1241300–B2	150	mL
SOURC	All	SODIUM SULFATE	1242582	30	g

Comments:

Clean up Date: 12/29/2009

Clean up Initials: JAM

Verified By: RWH

Final Solvent: Hexane

Clean Up SOP: GL–OA–E–036

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
06-JAN-10	Federal	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
GC/ECD	SW846 8081A	Solid	LANL
Batch ID:	**Sample Numbers:**		
937144	243547002, 243547003, 243549002, 1202005344, 1202005345, 1202005346, 1202005347, 1202005348		

Potentially affected work order(s)(SDG): 243547(10-1084),243549(10-1085)

Application Issues:

Failed CCV or CCB

Specification and Requirements Exception Description:	DER Disposition:
1. The initial calibration verification standard (ICV) read above the acceptance range for Endrin and 4,4'-DDD on one analytical column.	1. The ICV read above the acceptance range for two analytes on one of the two analytical columns. Despite this positive bias, these analytes were not detected in the samples in the SDG; therefore, this non-conformance has no adverse effects on the reported data.

Originator's Name:

Clairette Campbell 06-JAN-10

Data Validator/Group Leader:

Cameron Bearden 07-JAN-10

GC SEMIVOLATILE PESTICIDE ANALYSIS

Pesticide Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-1085-1

Method/Analysis Information

Procedure:	**Analysis of Organochlorine Pesticides and Chlorinated Hydrocarbons by ECD**
Analytical Method:	SW846 8081A
Prep Method:	SW846 3510C
TCLP Prep Method :	SW846 1311
Analytical Batch Number:	937695
Prep Batch Number:	937694
TCLP Prep Batch Number:	936980

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 8081A:

Sample ID	Client ID
243551001	WST03-10-2148
1202004963	TCLP Blank (TB)
1202006590	Method Blank (MB)
1202006592	Laboratory Control Sample (LCS)
1202006593	Laboratory Control Sample (LCS)-Toxaphene LCS Only
1202006594	Laboratory Control Sample (LCS)-Chlordane (tech.) LCS Only
1202006595	243551001(WST03-10-2148) Matrix Spike (MS)
1202006596	243551001(WST03-10-2148) Matrix Spike (MS)-Toxaphene MS Only
1202006597	243551001(WST03-10-2148) Matrix Spike (MS)-Chlordane (tech.) MS Only
1202006598	243551001(WST03-10-2148) Matrix Spike Duplicate (MSD)
1202006599	243551001(WST03-10-2148) Matrix Spike Duplicate (MSD)-Toxaphene MSD Only
1202006600	243551001(WST03-10-2148) Matrix Spike Duplicate (MSD)-Chlordane (tech.) MSD Only

The samples in this SDG were analyzed on an "as received" basis.

Preparation/Analytical Method Verification

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-041 REV# 10.

Raw data reports are processed and reviewed by the analyst using the Target software package. False positives have been removed from the Target quantitation reports per standard operating procedures (SOP) section 23.0.

Calibration Information

Please note that the 'Cal Date' indicated on each quantitation report reflects the date and time of the most recent calibrated analyte(s) in the Target processing method. Since the laboratory may calibrate with multiple solutions on different days using the same processing method, the Target software will update the 'Cal Date' to the last calibration file, date and time. The correct dates and times for all calibration files are located on the Calibration History report in the Standard Data section in the data package.

Due to software limitations, the Calibration Summary Form 6 may not indicate all the calibration files comprising the initial calibration. A complete list of the initial calibration data files are shown in the Calibration History report located in the Standard Data section of the data package.

Initial Calibration
All initial calibration requirements have been met for this sample delivery group (SDG).

The linear equation used in Target and indicated on the initial calibration summary form is not a conventional linear equation (slope intercept formula) and does not match the equation found in SW-846 method 8000B. The x and y axes are inversed in Target, so that the instrument response is treated as the independent variable (x) and the concentration ratio is treated as the dependent variable (y). The equation used in Target to calculate sample results is adjusted to account for the linear equation inversion and reciprocal slope. The adjusted calculation has been independently verified to produce valid results.

Continuing Calibration Verification (CCV) Requirements
The calibration verification standards (CVS, ICV, or CCV) requirements have not been met for this SDG.

One of the five quantified peaks did not meet the acceptance criteria in Toxaphene and Chlordane (tech.) standards analyzed for this SDG; however, the average concentration of the five peaks met the acceptance criteria.

Gamma-BHC and Endrin failed to meet the acceptance criteria with positive bias in the standards bracketing the sample in this SDG. The positive bias for the analytical data is a result of instrument response increasing after the initial calibration. Gamma-BHC and Endrin were not detected above the PQL in the associated samples; therefore, the non-compliance has no adverse effects on the data.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Surrogate Recoveries
QC sample 1202006592 (LCS) did not meet the surrogate recovery acceptance criteria for 4-cmx; however this non-conformance had no adverse effects on the reported data as the LCS met spike recovery acceptance criteria. See DER #777947 located in the Miscellaneous Data section.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

QC Sample Designation
Sample 243551001 (WST03-10-2148) was selected for the matrix spike and matrix spike duplicate analysis.

Matrix Spike (MS) Recovery Statement
The MS recoveries for this SDG were within the established acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recoveries for this SDG were within the established acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD between the MS and MSD met the acceptance limits.

Technical Information:

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-extraction/Re-analysis
Re-extractions were not required in this SDG.

Miscellaneous Information:

Electronic Package Comment

This package was generated using an electronic data processing program referred to as "virtual packaging". In an effort to increase quality and efficiency, the laboratory is developing systems to eventually generate all data packages electronically. The following change from "traditional" packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative.

Data Exception (DER) Documentation
Data Exception Report (DER) is for documentation of any procedural anomalies that may deviate from referenced SOP or contractual document. DER # 777947 was generated for this SDG. A copy is included in the Miscellaneous Data section of this package.

Manual Integration
Certain standards and samples may have required manual integration to correctly position the baseline as set in the calibration standard injections. If manual integration was performed, copies of all manual integration peak profiles are included in the raw data section of this pesticide fraction.

Additional Comments
The additional comments field is used to address special issues associated with each analysis, clarify method/contractual issues pertaining to the analysis, and to list any report documents generated as a result of sample analysis or review. The following additional comments were required:

The lower results from either column have been chosen and reported in the data package for the client samples, MB and LCS. The data reported for the MS and MSD are from the same analytical column as the parent sample.

The data reported on the form I and III may differ slightly from the data reported on the form X. This is due to software limitations in rounding differences between the forms.

Due to software limitation, the Form VIIs will display the results either in the % difference or % drift depending on the type of the calibration curve. If the curve of all analytes is generated using an average response factor (RF), the Form VII will display results using the difference calculation (RF). If the curve of one or more analytes is generated using a linear curve, the Form VII will display results using the % drift calculation (by concentration) for all analytes.

System Configuration

The Semi-Volatiles-Pesticide analysis was performed on the following instrument configuration:

Instrument ID	Instrument	System Configuration	Column ID	Column Description
ECD3A.I_1	HP Gas Chromatograph	HP6890 Series ECD	Rtx-CLP I	30m x 0.25mm, 0.25um (Rtx-CLPesticide)
ECD3A.I_2	HP Gas Chromatograph	HP6890 Series ECD	Rtx-CLP II	30m x 0.25mm, 0.20um (Rtx-CLPesticide II)

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Jimi Cao Date: 1/20/10

Roadmap for LANL 10-1085-1 PEST

This roadmap was analyzed by cla01575 on 01-07-2010, 12:10.
This roadmap was reviewed by jcb on 01-08-2010, 09:20.
This roadmap was packaged by yml on 01-19-2010, 12:33.
This roadmap was validated by jim01140 on 01-20-2010, 09:54.

Front Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
■	N	/chem/ecd3a.i/010610p.b/007f0701.d	243551001	sample	06-JAN-2010	12:28	8081.sub		1.00000	937695	DUSE - bad injection
■	N	/chem/ecd3a.i/010610p.b/016f1601.d	243551001	sample	06-JAN-2010	15:39	10-1085-1.sub	WST03-10-2148	1.00000	937695	DUSE - report original analysis 010609p.b file 22
□	N	/chem/ecd3a.i/010510p.b/022f2201.d	243551001	sample	05-JAN-2010	17:29	10-1085-1.sub	WST03-10-2148	1.00000	937695	USE: LOWER - genuine gamma-BHC hit <PQL, see 010609p.b file 16

Back Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
□	N	/chem/ecd3a.i/010510p.b/022b2201.d	243551001	sample	05-JAN-2010	17:29	10-1085-1.sub	WST03-10-2148	1.00000	937695	USE: LOWER - genuine gamma-BHC hit <PQL, see 010609p.b file 16
■	N	/chem/ecd3a.i/010610p.b/007b0701.d	243551001	sample	06-JAN-2010	12:28	8081.sub		1.00000	937695	DUSE - bad injection
■	N	/chem/ecd3a.i/010610p.b/016b1601.d	243551001	sample	06-JAN-2010	15:39	10-1085-1.sub	WST03-10-2148	1.00000	937695	DUSE - report original analysis 010609p.b file 22

Front QC Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
□	N	/chem/ecd3a.i/010510p.b/013f1301A.d	1202004963	tb	05-JAN-2010	15:26	10-1085-1.sub	TBLK01	1.00000	937695	
□	N	/chem/ecd3a.i/010510p.b/014f1401A.d	1202006590	mb	05-JAN-2010	15:40	10-1085-1.sub	PBLK01	1.00000	937695	
□	N	/chem/ecd3a.i/010510p.b/015f1501A.d	1202006592	lcs	05-JAN-2010	15:53	10-1085-1.sub	PBLK01LCS	1.00000	937695	
□	N	/chem/ecd3a.i/010510p.b/016f1601A.d	1202006593	lcs	05-JAN-2010	16:07	10-1085-1.sub	PBLK01TLCS	1.00000	937695	
□	N	/chem/ecd3a.i/010510p.b/017f1701A.d	1202006594	lcs	05-JAN-2010	16:21	10-1085-1.sub	PBLK01CLCS	1.00000	937695	
□	N	/chem/ecd3a.i/010510p.b/023f2301.d	1202006595	ms	05-JAN-2010	17:42	10-1085-1.sub	WST03-10-2148MS	1.00000	937695	USE: LOWER
□	N	/chem/ecd3a.i/010510p.b/026f2601.d	1202006596	ms	05-JAN-2010	18:23	10-1085-1.sub	WST03-10-2148TMS	1.00000	937695	USE: LOWER
□	N	/chem/ecd3a.i/010510p.b/027f2701.d	1202006597	ms	05-JAN-2010	18:37	10-1085-1.sub	WST03-10-2148CMS	1.00000	937695	USE: LOWER
□	N	/chem/ecd3a.i/010510p.b/028f2801.d	1202006598	msd	05-JAN-2010	18:51	10-1085-1.sub	WST03-10-2148CMSD	1.00000	937695	USE: LOWER
□	N	/chem/ecd3a.i/010510p.b/024f2401.d	1202006599	msd	05-JAN-2010	17:56	10-1085-1.sub	WST03-10-2148MSD	1.00000	937695	USE: LOWER
□	N	/chem/ecd3a.i/010510p.b/025f2501.d	1202006600	msd	05-JAN-2010	18:10	10-1085-1.sub	WST03-10-2148TMSD	1.00000	937695	USE: LOWER

Back QC Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
□	N	/chem/ecd3a.i/010510p.b/013b1301A.d	1202004963	tb	05-JAN-2010	15:26	10-1085-1.sub	TBLK01	1.00000	937695	
□	N	/chem/ecd3a.i/010510p.b/014b1401A.d	1202006590	mb	05-JAN-2010	15:40	10-1085-1.sub	PBLK01	1.00000	937695	

☐	N	/chem/ecd3a.i/010510p.b/015b1501A.d	1202006592	lcs	05-JAN-2010	15:53	10-1085-1.sub	PBLK01LCS	1.00000	937695	
☐	N	/chem/ecd3a.i/010510p.b/016b1601A.d	1202006593	lcs	05-JAN-2010	16:07	10-1085-1.sub	PBLK01TLCS	1.00000	937695	
☐	N	/chem/ecd3a.i/010510p.b/017b1701A.d	1202006594	lcs	05-JAN-2010	16:21	10-1085-1.sub	PBLK01CLCS	1.00000	937695	
☐	N	/chem/ecd3a.i/010510p.b/023b2301.d	1202006595	ms	05-JAN-2010	17:42	10-1085-1.sub	WST03-10-2148MS	1.00000	937695	USE: LOWER
☐	N	/chem/ecd3a.i/010510p.b/026b2601.d	1202006596	ms	05-JAN-2010	18:23	10-1085-1.sub	WST03-10-2148TMS	1.00000	937695	USE: LOWER
☐	N	/chem/ecd3a.i/010510p.b/027b2701.d	1202006597	ms	05-JAN-2010	18:37	10-1085-1.sub	WST03-10-2148CMS	1.00000	937695	USE: LOWER
☐	N	/chem/ecd3a.i/010510p.b/028b2801.d	1202006598	msd	05-JAN-2010	18:51	10-1085-1.sub	WST03-10-2148CMSD	1.00000	937695	USE: LOWER
☐	N	/chem/ecd3a.i/010510p.b/024b2401.d	1202006599	msd	05-JAN-2010	17:56	10-1085-1.sub	WST03-10-2148MSD	1.00000	937695	USE: LOWER
☐	N	/chem/ecd3a.i/010510p.b/025b2501.d	1202006600	msd	05-JAN-2010	18:10	10-1085-1.sub	WST03-10-2148TMSD	1.00000	937695	USE: LOWER

SAMPLE DATA SUMMARY

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	**10–1085–1**	**Date Collected:**	**12/22/2009 12:00**	**Matrix:**	**TCLP R**
Lab Sample ID:	**243551001**	**Date Received:**	**12/24/2009 09:30**		
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**WST03–10–2148**	**Method:**	**SW846 8081A**	**SOP Ref:**	**GL–OA–E–041**
Batch ID:	**937695**	**Inst:**	**ECD3A.I**	**Dilution:**	**1**
Run Date:	**01/05/2010 17:29**	**Analyst:**	**HXJ1**	**Inj. Vol:**	**1 uL**
Prep Date:	**01/04/2010 16:40**	**Aliquot:**	**20 mL**	**Final Volume:**	**1 mL**
Data File:	**022f2201.d**	**Column:**	**1 CLP–1**	**Level:**	**LOW**
	022b2201.d		**2 CLP–2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
58–89–9	gamma–BHC (Lindane)	J	0.000112	mg/L	0.00005	0.0002	1
76–44–8	Heptachlor	U	0.0002	mg/L	0.00005	0.0002	1
1024–57–3	Heptachlor epoxide	U	0.0002	mg/L	0.00005	0.0002	1
72–20–8	Endrin	U	0.0004	mg/L	0.0001	0.0004	1
72–43–5	Methoxychlor	U	0.002	mg/L	0.0005	0.002	1
57–74–9	Chlordane (tech.)	U	0.0025	mg/L	0.000765	0.0025	1
8001–35–2	Toxaphene	U	0.005	mg/L	0.0015	0.005	1

QUALITY CONTROL SUMMARY

Pesticide

Surrogate Recovery Report

SDG Number: 10–1085–1

Matrix Type: TCLP SOLID

CAP Column (1) : CLP–1 **CAP Column (2) : CLP–2**

Sample ID	Client ID	4CMX 1 %REC #	4CMX 2 %REC #	DCB 1 %REC #	DCB 2 %REC #
1202004963	TB for batch 936980	59	55	66	68
1202006590	MB for batch 937694	32	32	50	52
1202006592	LCS for batch 937694	19 *	19 *	61	63
1202006593	LCS for batch 937694	40	40	56	57
1202006594	LCS for batch 937694	63	57	60	61
243551001	WST03–10–2148	57	52	44	44
1202006595	WST03–10–2148MS	49	45	44	44
1202006599	WST03–10–2148MSD	57	50	56	56
1202006600	WST03–10–2148MSD	53	49	57	58
1202006596	WST03–10–2148MS	49	45	46	46
1202006597	WST03–10–2148MS	54	49	53	54
1202006598	WST03–10–2148MSD	72	64	52	51

Surrogate	Acceptance Limits
4CMX = 4cmx	(29%–103%)
DCB = Decachlorobiphenyl	(34%–118%)

* Recovery outside Acceptance Limits

\# Column to be used to flag recovery values

D Sample Diluted

Pesticide

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1085-1
Client ID: LCS for batch 937694
Lab Sample ID: 1202006594
Instrument: ECD3A.I
Analyst: HXJ1
Inj. Vol: 1 uL

Sample Type: Laboratory Control Sample
Matrix: TCLP SOIL
Analysis Date: 01/05/2010 16:21
Prep Batch ID: 937694
Batch ID: 937695
Dilution: 1

CAS No	Parmname	Amount Added mg/L	Sample Conc. mg/L	Spike Conc. mg/L	Recovery %	Acceptance Limits
57-74-9	LCS Chlordane (tech.)	0.100	0.0	0.0827	83	38-131

Pesticide

Quality Control Summary
Spike Recovery Report

SDG Number: 10–1085–1
Client ID: LCS for batch 937694
Lab Sample ID: 1202006592
Instrument: ECD3A.I
Analyst: HXJ1
Inj. Vol: 1 uL

Sample Type: Laboratory Control Sample
Matrix: TCLP SOIL
Analysis Date: 01/05/2010 15:53
Prep Batch ID: 937694
Batch ID: 937695
Dilution: 1

CAS No		Parmname	Amount Added mg/L	Sample Conc. mg/L	Spike Conc. mg/L	Recovery %	Acceptance Limits
58–89–9	LCS	gamma–BHC (Lindane)	0.005	0.0	0.00359	72	49–138
76–44–8	LCS	Heptachlor	0.005	0.0	0.00234	47	38–132
1024–57–3	LCS	Heptachlor epoxide	0.005	0.0	0.00333	67	49–134
72–20–8	LCS	Endrin	0.005	0.0	0.00443	89	56–145
72–43–5	LCS	Methoxychlor	0.050	0.0	0.0388	78	53–151

Pesticide

Quality Control Summary
Spike Recovery Report

SDG Number: **10-1085-1**
Client ID: **LCS for batch 937694**
Lab Sample ID: **1202006593**
Instrument: **ECD3A.I**
Analyst: **HXJ1**
Inj. Vol: **1 uL**

Sample Type: **Laboratory Control Sample**
Matrix: **TCLP SOIL**
Analysis Date: **01/05/2010 16:07**
Dilution: **1**
Prep Batch ID: **937694**
Batch ID: **937695**

CAS No	Parmname	Amount Added mg/L	Sample Conc. mg/L	Spike Conc. mg/L	Recovery %	Acceptance Limits
8001-35-2	LCS Toxaphene	0.100	0.0	0.0815	82	41-143

Pesticide

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1085-1
Client ID: WST03-10-2148MS
Lab Sample ID: 1202006597
Instrument: ECD3A.I
Analyst: HXJ1
Inj. Vol: 1 uL

Sample Type: Matrix Spike
Matrix: TCLP R
Analysis Date: 01/05/2010 18:37
Prep Batch ID: 937694
Batch ID: 937695
Dilution: 1

CAS No		Parmname	Amount Added mg/L	Sample Conc. mg/L		Spike Conc. mg/L	Recovery %	Acceptance Limits
57-74-9	MS	Chlordane (tech.)	0.100	0.00	U	0.0833	83	38-134

Pesticide

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1085-1
Client ID: WST03-10-2148MSD
Lab Sample ID: 1202006598
Instrument: ECD3A.I
Analyst: HXJ1
Inj. Vol: 1 uL

Sample Type: Matrix Spike Duplicate
Matrix: TCLP R
Analysis Date: 01/05/2010 18:51
Dilution: 1
Prep Batch ID: 937694
Batch ID: 937695

CAS No	Parmname	Amount Added mg/L	Sample Conc. mg/L		Spike Conc. mg/L	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
57-74-9	MSD Chlordane (tech.)	0.100	0.00	U	0.0905	91	38-134	8	0-30

Pesticide

Quality Control Summary
Spike Recovery Report

SDG Number: **10–1085–1**
Client ID: **WST03–10–2148MS**
Lab Sample ID: **1202006595**
Instrument: **ECD3A.I**
Analyst: **HXJ1**
Inj. Vol: **1 uL**

Sample Type: **Matrix Spike**
Matrix: **TCLP R**
Analysis Date: **01/05/2010 17:42**
Prep Batch ID: **937694**
Batch ID: **937695**
Dilution: **1**

CAS No		Parmname	Amount Added mg/L	Sample Conc. mg/L		Spike Conc. mg/L	Recovery %	Acceptance Limits
58–89–9	MS	gamma–BHC (Lindane)	0.005	0.000112	J	0.00445	87	46–132
76–44–8	MS	Heptachlor	0.005	0.00	U	0.00391	78	37–127
1024–57–3	MS	Heptachlor epoxide	0.005	0.00	U	0.00396	79	44–129
72–20–8	MS	Endrin	0.005	0.00	U	0.00476	95	48–145
72–43–5	MS	Methoxychlor	0.050	0.00	U	0.043	86	47–156

Pesticide

Quality Control Summary

Spike Recovery Report

SDG Number: 10–1085–1 **Sample Type:** Matrix Spike Duplicate

Client ID: WST03–10–2148MSD **Matrix:** TCLP R

Lab Sample ID: 1202006599

Instrument: ECD3A.I **Analysis Date:** 01/05/2010 17:56 **Dilution:** 1

Analyst: HXJ1 **Prep Batch ID** 937694

Inj. Vol: 1 uL **Batch ID:** 937695

CAS No	Parmname	Amount Added mg/L	Sample Conc. mg/L		Spike Conc. mg/L	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
58–89–9	MSD gamma–BHC (Lindane)	0.005	0.000112	J	0.00519	102	46–132	15	0–30
76–44–8	MSD Heptachlor	0.005	0.00	U	0.00469	94	37–127	18	0–30
1024–57–3	MSD Heptachlor epoxide	0.005	0.00	U	0.00463	93	44–129	16	0–30
72–20–8	MSD Endrin	0.005	0.00	U	0.00564	113	48–145	17	0–30
72–43–5	MSD Methoxychlor	0.050	0.00	U	0.049	98	47–156	13	0–30

Pesticide

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1085-1
Client ID: WST03-10-2148MS
Lab Sample ID: 1202006596
Instrument: ECD3A.I
Analyst: HXJ1
Inj. Vol: 1 uL

Sample Type: Matrix Spike
Matrix: TCLP R
Analysis Date: 01/05/2010 18:23
Prep Batch ID: 937694
Batch ID: 937695
Dilution: 1

CAS No	Parmname	Amount Added mg/L	Sample Conc. mg/L	Spike Conc. mg/L	Recovery %	Acceptance Limits
8001-35-2	MS Toxaphene	0.100	0.00 U	0.0786	79	38-138

Pesticide

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1085-1
Client ID: WST03-10-2148MSD
Lab Sample ID: 1202006600
Instrument: ECD3A.I
Analyst: HXJ1
Inj. Vol: 1 uL

Sample Type: Matrix Spike Duplicate
Matrix: TCLP R
Analysis Date: 01/05/2010 18:10
Prep Batch ID: 937694
Batch ID: 937695
Dilution: 1

CAS No	Parmname	Amount Added mg/L	Sample Conc. mg/L		Spike Conc. mg/L	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
8001-35-2	MSD Toxaphene	0.100	0.00	U	0.0875	88	38-138	11	0-30

Method Blank Summary

SDG Number:	10-1085-1	Client:	LANL010	Matrix:	TCLP SOIL
Client ID:	MB for batch 937694	Instrument ID:	ECD3A.I_2 ECD3A.I_1	Data File:	014b1401.d 014f1401.d
Lab Sample ID:	1202006590				
Column:	CLP-2 CLP-1	Prep Date:	01/04/2010 16:40	Analyzed:	01/05/10 15:40
		Level:	LOW		

This method blank applies to the following samples and quality control samples:

	Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01	TB for batch 936980	1202004963	013f1301.d 013b1301.d	01/05/10	1526
02	LCS for batch 937694	1202006592	015f1501.d 015b1501.d	01/05/10	1553
03	LCS for batch 937694	1202006593	016f1601.d 016b1601.d	01/05/10	1607
04	LCS for batch 937694	1202006594	017f1701.d 017b1701.d	01/05/10	1621
05	WST03-10-2148	243551001	022f2201.d 022b2201.d	01/05/10	1729
06	WST03-10-2148MS	1202006595	023f2301.d 023b2301.d	01/05/10	1742
07	WST03-10-2148MSD	1202006599	024f2401.d 024b2401.d	01/05/10	1756
08	WST03-10-2148MSD	1202006600	025f2501.d 025b2501.d	01/05/10	1810
09	WST03-10-2148MS	1202006596	026f2601.d 026b2601.d	01/05/10	1823
10	WST03-10-2148MS	1202006597	027f2701.d 027b2701.d	01/05/10	1837
11	WST03-10-2148MSD	1202006598	028f2801.d 028b2801.d	01/05/10	1851

SAMPLE DATA

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	10-1085-1	**Date Collected:**	12/22/2009 12:00	**Matrix:**	TCLP R
Lab Sample ID:	243551001	**Date Received:**	12/24/2009 09:30		
		Client:	LANL010	**Project:**	LANL01004
Client ID:	WST03-10-2148	**Method:**	SW846 8081A	**SOP Ref:**	GL-OA-E-041
Batch ID:	937695	**Inst:**	ECD3A.I	**Dilution:**	1
Run Date:	01/05/2010 17:29	**Analyst:**	HXJ1	**Inj. Vol:**	1 uL
Prep Date:	01/04/2010 16:40	**Aliquot:**	20 mL	**Final Volume:**	1 mL
Data File:	022f2201.d	**Column:**	1 CLP-1	**Level:**	LOW
	022b2201.d		2 CLP-2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
58-89-9	gamma-BHC (Lindane)	J	0.000112	mg/L	0.00005	0.0002	1
76-44-8	Heptachlor	U	0.0002	mg/L	0.00005	0.0002	1
1024-57-3	Heptachlor epoxide	U	0.0002	mg/L	0.00005	0.0002	1
72-20-8	Endrin	U	0.0004	mg/L	0.0001	0.0004	1
72-43-5	Methoxychlor	U	0.002	mg/L	0.0005	0.002	1
57-74-9	Chlordane (tech.)	U	0.0025	mg/L	0.000765	0.0025	1
8001-35-2	Toxaphene	U	0.005	mg/L	0.0015	0.005	1

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CLP-1

Data file : /chem/ecd3a.i/010510p.b/022f2201.d
Lab Smp Id: 243551001 Client Smp ID: WST03-10-2148
Inj Date : 05-JAN-2010 17:29
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |243551001|1|
Misc Info : |ECDPTL_1L|937695|SVP|LANL|SOIL|WST03-10-2148|||
Comment :
Method : /chem/ecd3a.i/010510p.b/ECD3-F-8081-122909.m
Meth Date : 11-Jan-2010 08:30 cla01575 Quant Type: ESTD
Cal Date : 05-JAN-2010 14:45 Cal File: 010f1001.d
Als bottle: 22
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1085-1.sub
Target Version: 3.50 Sample Matrix: Water
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	0.00100	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	20.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (mg/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.676	2.677	-0.001	7671209	113.197	0.00566	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.820	7.821	-0.001	4538096	87.5103	0.00438	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.327	3.327	0.000	185692	2.23559	0.000112	80.00- 120.00	100.00(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

Data File: /chem/ecd3a.i/010510p.b/022f2201.d

Date : 05-JAN-2010 17:29

Client ID: WST03-10-2148

Sample Info: 1243551001|1|

Volume Injected (uL): 1.0

Column phase: CLP-1

Instrument: ecd3a.i

Operator: HXJ1

Column diameter: 0.25

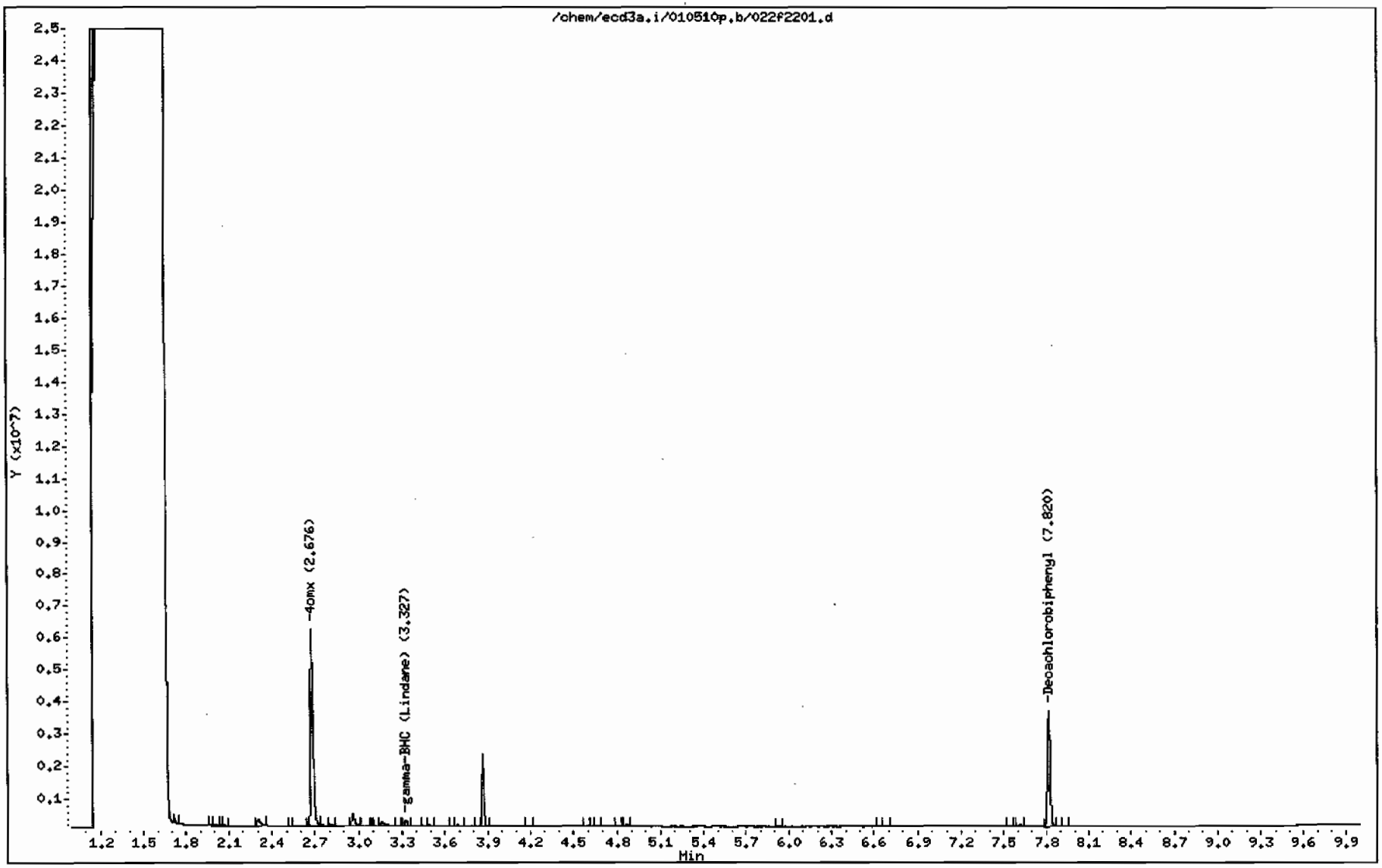

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CLP-2

Data file : /chem/ecd3a.i/010510p.b/022b2201.d
Lab Smp Id: 243551001 Client Smp ID: WST03-10-2148
Inj Date : 05-JAN-2010 17:29
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |243551001|1|
Misc Info : |ECDPTL_1L|937695|SVP|LANL|SOIL|WST03-10-2148|||
Comment :
Method : /chem/ecd3a.i/010510p.b/ECD3-B-8081-122909.m
Meth Date : 11-Jan-2010 08:29 cla01575 Quant Type: ESTD
Cal Date : 05-JAN-2010 14:45 Cal File: 010b1001.d
Als bottle: 22
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1085-1.sub
Target Version: 3.50 Sample Matrix: Water
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	0.00100	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	20.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (mg/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.920	2.920	0.000	52279198	104.552	0.00523	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.857	8.856	0.001	34546005	87.6413	0.00438	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.720	3.721	-0.001	1547025	2.66172	0.000133	80.00- 120.00	100.00(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

Data File: /chem/ecd3a.i/010510p.b/022b2201.d
Date : 05-JAN-2010 17:29
Client ID: WST03-10-2148
Sample Info: |2435510011|1|
Volume Injected (uL): 1.0
Column phase: CLP-2

Instrument: ecd3a.i

Operator: HXJ1
Column diameter: 0.25

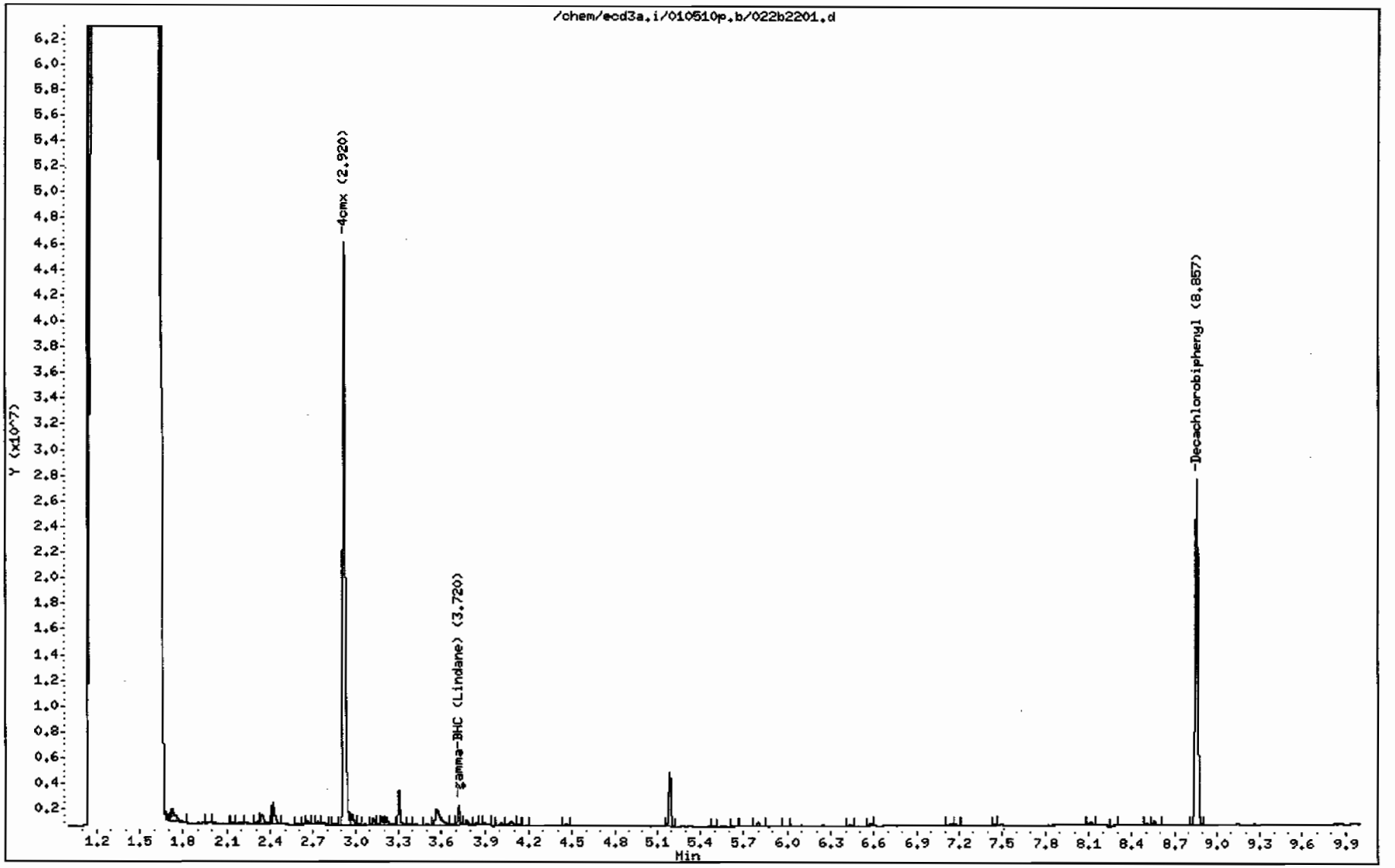

STANDARDS DATA

Report Date: 06-Jan-2010 11:37

Calibration History

Method : /chem/ecd3a.i/010510p.b/ECD3-F-8081-122909.m
Start Cal Date: 29-DEC-2009 17:34
End Cal Date : 05-JAN-2010 14:45

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 2.00000		
05-JAN-2010 13:49	gapa	/chem/ecd3a.i/010510p.b/006f0601.d
29-DEC-2009 20:42	chlor	/chem/ecd3a.i/122909p.b/016f1601.d
29-DEC-2009 18:56	tox	/chem/ecd3a.i/122909p.b/009f0901.d
04-JAN-2010 13:40	indab	/chem/ecd3a.i/010410p.b/006f0601.d
Cal Level: 2 , Cal Amount: 10.00000		
05-JAN-2010 14:04	gapa	/chem/ecd3a.i/010510p.b/007f0701.d
29-DEC-2009 21:14	chlor	/chem/ecd3a.i/122909p.b/017f1701.d
29-DEC-2009 19:10	tox	/chem/ecd3a.i/122909p.b/010f1001.d
04-JAN-2010 13:53	indab	/chem/ecd3a.i/010410p.b/007f0701.d
Cal Level: 3 , Cal Amount: 50.00000		
05-JAN-2010 14:17	gapa	/chem/ecd3a.i/010510p.b/008f0801.d
29-DEC-2009 21:28	chlor	/chem/ecd3a.i/122909p.b/018f1801.d
29-DEC-2009 19:24	tox	/chem/ecd3a.i/122909p.b/011f1101.d
04-JAN-2010 14:07	indab	/chem/ecd3a.i/010410p.b/008f0801.d
Cal Level: 4 , Cal Amount: 100.00000		
05-JAN-2010 14:31	gapa	/chem/ecd3a.i/010510p.b/009f0901.d
29-DEC-2009 21:41	chlor	/chem/ecd3a.i/122909p.b/019f1901.d
29-DEC-2009 20:01	tox	/chem/ecd3a.i/122909p.b/013f1301.d
04-JAN-2010 14:21	indab	/chem/ecd3a.i/010410p.b/009f0901.d
Cal Level: 5 , Cal Amount: 200.00000		
05-JAN-2010 14:45	gapa	/chem/ecd3a.i/010510p.b/010f1001.d
29-DEC-2009 21:55	chlor	/chem/ecd3a.i/122909p.b/020f2001.d
29-DEC-2009 20:14	tox	/chem/ecd3a.i/122909p.b/014f1401.d
04-JAN-2010 14:34	indab	/chem/ecd3a.i/010410p.b/010f1001.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 100		
06-JAN-2010 10:26	indab	/chem/ecd3a.i/010510p.b/040f4001.d

Ccal Level: 4 , Ccal Amount: 100
05-JAN-2010 20:54 | indab | /chem/ecd3a.i/010510p.b/037f3701.d
Ccal Level: 4 , Ccal Amount: 100
05-JAN-2010 19:18 | indab | /chem/ecd3a.i/010510p.b/030f3001.d
Ccal Level: 4 , Ccal Amount: 100
05-JAN-2010 16:48 | indab | /chem/ecd3a.i/010510p.b/019f1901.d
Ccal Level: 4 , Ccal Amount: 100
05-JAN-2010 14:58 | gapa | /chem/ecd3a.i/010510p.b/011f1101.d
Ccal Level: 4 , Ccal Amount: 100
05-JAN-2010 14:31 | gapa | /chem/ecd3a.i/010510p.b/009f0901.d
Ccal Level: 4 , Ccal Amount: 100
05-JAN-2010 12:30 | chlor | /chem/ecd3a.i/010510p.b/005f0501.d
Ccal Level: 4 , Ccal Amount: 100
05-JAN-2010 12:16 | tox | /chem/ecd3a.i/010510p.b/004f0401.d
Ccal Level: 4 , Ccal Amount: 100
05-JAN-2010 12:02 | indab | /chem/ecd3a.i/010510p.b/003f0301.d

Report Date: 06-Jan-2010 11:37

Calibration History

Method : /chem/ecd3a.i/010510p.b/ECD3-B-8081-122909.m
Start Cal Date: 29-DEC-2009 17:34
End Cal Date : 05-JAN-2010 14:45

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 2.00000		
05-JAN-2010 13:49	gapa	/chem/ecd3a.i/010510p.b/006b0601.d
29-DEC-2009 20:42	chlor	/chem/ecd3a.i/122909p.b/016b1601.d
29-DEC-2009 18:56	tox	/chem/ecd3a.i/122909p.b/009b0901.d
04-JAN-2010 13:40	indab	/chem/ecd3a.i/010410p.b/006b0601.d
Cal Level: 2 , Cal Amount: 10.00000		
05-JAN-2010 14:04	gapa	/chem/ecd3a.i/010510p.b/007b0701.d
29-DEC-2009 21:14	chlor	/chem/ecd3a.i/122909p.b/017b1701.d
29-DEC-2009 19:10	tox	/chem/ecd3a.i/122909p.b/010b1001.d
04-JAN-2010 13:53	indab	/chem/ecd3a.i/010410p.b/007b0701.d
Cal Level: 3 , Cal Amount: 50.00000		
05-JAN-2010 14:17	gapa	/chem/ecd3a.i/010510p.b/008b0801.d
29-DEC-2009 21:28	chlor	/chem/ecd3a.i/122909p.b/018b1801.d
29-DEC-2009 19:24	tox	/chem/ecd3a.i/122909p.b/011b1101.d
04-JAN-2010 14:07	indab	/chem/ecd3a.i/010410p.b/008b0801.d
Cal Level: 4 , Cal Amount: 100.00000		
05-JAN-2010 14:31	gapa	/chem/ecd3a.i/010510p.b/009b0901.d
29-DEC-2009 21:41	chlor	/chem/ecd3a.i/122909p.b/019b1901.d
29-DEC-2009 20:01	tox	/chem/ecd3a.i/122909p.b/013b1301.d
04-JAN-2010 14:21	indab	/chem/ecd3a.i/010410p.b/009b0901.d
Cal Level: 5 , Cal Amount: 200.00000		
05-JAN-2010 14:45	gapa	/chem/ecd3a.i/010510p.b/010b1001.d
29-DEC-2009 21:55	chlor	/chem/ecd3a.i/122909p.b/020b2001.d
29-DEC-2009 20:14	tox	/chem/ecd3a.i/122909p.b/014b1401.d
04-JAN-2010 14:34	indab	/chem/ecd3a.i/010410p.b/010b1001.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 100		
06-JAN-2010 10:26	indab	/chem/ecd3a.i/010510p.b/040b4001.d
Ccal Level: 4 , Ccal Amount: 100		
05-JAN-2010 20:54	indab	/chem/ecd3a.i/010510p.b/037b3701.d
Ccal Level: 4 , Ccal Amount: 100		

05-JAN-2010 19:18	indab	/chem/ecd3a.i/010510p.b/030b3001.d
Ccal Level: 4 , Ccal Amount: 100		
05-JAN-2010 16:48	indab	/chem/ecd3a.i/010510p.b/019b1901.d
Ccal Level: 4 , Ccal Amount: 100		
05-JAN-2010 14:58	gapa	/chem/ecd3a.i/010510p.b/011b1101.d
Ccal Level: 4 , Ccal Amount: 100		
05-JAN-2010 14:31	gapa	/chem/ecd3a.i/010510p.b/009b0901.d
Ccal Level: 4 , Ccal Amount: 100		
05-JAN-2010 12:30	chlor	/chem/ecd3a.i/010510p.b/005b0501.d
Ccal Level: 4 , Ccal Amount: 100		
05-JAN-2010 12:16	tox	/chem/ecd3a.i/010510p.b/004b0401.d
Ccal Level: 4 , Ccal Amount: 100		
05-JAN-2010 12:02	indab	/chem/ecd3a.i/010510p.b/003b0301.d

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COMPOUND LISTING

Method file : /chem/ecd3a.i/010510p.b/ECD3-F-8081-122909.m
Quant Method : ESTD Target Version : 3.50
Last Update : 08-Jan-2010 17:25 Number of Cpnds : 44
Data Type : GC MULTI COMP

Global Integrator : Falcon

Chromat Events	Values
Initial:Start Threshold	1005.000000
Initial:End Threshold	502.500000
Initial:Area Threshold	10005.000000
Initial:P-P Resolution	1.000000
Initial:Bunch Factor	5.000000
Initial:Negative Peaks	OFF
Initial:Tension	0.000000

Compound	RT	RT Window	RF
$ 1 4cmx	2.677	2.647-2.707	6.777e+04
63 2,4,5-Trichlorophenol	1.334	1.234-1.434	
59 Hexachlorobenzene	2.960	2.860-3.060	6.854e+04
2 Aroclor-1221	2.920	2.890-2.950	
	3.052	3.022-3.082	
	3.087	3.057-3.117	
3 Aroclor-1016	3.727	3.697-3.757	
	3.822	3.792-3.852	
	3.866	3.836-3.896	
	3.950	3.920-3.980	
	4.102	4.072-4.132	
4 Aroclor-1232	3.377	3.347-3.407	
	3.536	3.506-3.566	
	3.727	3.697-3.757	
	3.822	3.792-3.852	
	4.379	4.349-4.409	
5 alpha-BHC	3.083	3.053-3.113	1.064e+05
6 Aroclor-1242	3.377	3.277-3.477	
	3.728	3.628-3.828	
	3.866	3.766-3.966	
	4.379	4.279-4.479	
	4.398	4.298-4.498	
7 gamma-BHC (Lindane)	3.327	3.297-3.357	8.306e+04

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd3a.i/010510p.b/ECD3-F-8081-122909.m

Compound	RT	RT Window	RF
8 Chlordane (tech.)	3.644	3.544-3.744	2.510e+03
	4.081	3.981-4.181	2.557e+03
	4.444	4.344-4.544	1.407e+03
	4.618	4.518-4.718	8.435e+03
	5.485	5.385-5.585	1.813e+03
9 Aroclor-1248	3.949	3.849-4.049	
	4.103	4.003-4.203	
	4.159	4.059-4.259	
	4.378	4.278-4.478	
	4.768	4.668-4.868	
10 Heptachlor	3.710	3.680-3.740	6.505e+04
11 Aldrin	3.967	3.937-3.997	7.973e+04
12 beta-BHC	3.391	3.361-3.421	3.582e+04
13 delta-BHC	3.540	3.510-3.570	8.551e+04
14 Heptachlor epoxide	4.503	4.473-4.533	7.123e+04
15 Aroclor-1254	4.352	4.322-4.382	
	4.516	4.486-4.546	
	4.769	4.739-4.799	
	4.937	4.907-4.967	
	5.219	5.189-5.249	
16 Endosulfan I	4.873	4.843-4.903	6.168e+04
17 gamma-Chlordane	4.618	4.588-4.648	6.842e+04
18 alpha-Chlordane	4.741	4.711-4.771	6.955e+04
19 4,4'-DDE	4.809	4.779-4.839	6.853e+04
20 Dieldrin	5.101	5.071-5.131	7.124e+04
21 Aroclor-1260	4.881	4.781-4.981	
	5.046	4.946-5.146	
	5.125	5.025-5.225	
	5.219	5.119-5.319	
	5.436	5.336-5.536	
22 Endrin	5.330	5.300-5.360	5.696e+04
23 Toxaphene	5.002	4.972-5.032	4.853e+02
	5.106	5.076-5.136	7.541e+02
	5.193	5.163-5.223	8.704e+02
	5.352	5.322-5.382	1.137e+03
	5.543	5.513-5.573	2.022e+03
24 Endosulfan II	5.553	5.523-5.583	5.849e+04
25 4,4'-DDD	5.391	5.361-5.421	5.508e+04
26 4,4'-DDT	5.670	5.640-5.700	4.500e+04
27 Endrin aldehyde	5.977	5.947-6.007	4.929e+04

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd3a.i/010510p.b/ECD3-F-8081-122909.m

	Compound	RT	RT Window	RF
	28 Methoxychlor	6.173	6.143-6.203	2.218e+04
	29 Endosulfan sulfate	6.430	6.400-6.460	4.776e+04
	30 Aroclor-1268	5.050	4.950-5.150	
		5.067	4.967-5.167	
		5.185	5.085-5.285	
		5.378	5.278-5.478	
		5.531	5.431-5.631	
	61 Aroclor-1262	4.121	4.021-4.221	
		4.289	4.189-4.389	
		4.525	4.425-4.625	
		4.671	4.571-4.771	
		4.854	4.754-4.954	
	31 Endrin ketone	6.728	6.698-6.758	6.439e+04
	51 Mirex	6.317	6.287-6.347	4.430e+04
	52 C-Nonachlor	5.362	5.332-5.392	7.584e+04
	53 O-Chlordane	4.411	4.381-4.441	5.897e+04
	54 T-Nonachlor	4.725	4.695-4.755	6.169e+04
	55 1,2-Dichlorobenzene	6.525	6.495-6.555	
	56 2,4-DDE	4.489	4.459-4.519	4.070e+04
	58 2,4-DDD	4.977	4.947-5.007	3.710e+04
	57 2,4-DDT	5.223	5.193-5.253	3.497e+04
$	32 Decachlorobiphenyl	7.821	7.791-7.851	5.186e+04
M	62 TTO Sum Pesticides	1.000	0.980-1.020	

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd3a.i/010510p.b/ECD3-B-8081-122909.m
Quant Method : ESTD Target Version : 3.50
Last Update : 08-Jan-2010 17:26 Number of Cpnds : 43
Data Type : GC MULTI COMP

Global Integrator : Falcon

Chromat Events	Values
Initial:Start Threshold	9270.000000
Initial:End Threshold	4635.000000
Initial:Area Threshold	92700.000000
Initial:P-P Resolution	1.000000
Initial:Bunch Factor	10.000000
Initial:Negative Peaks	OFF
Initial:Tension	0.000000

Compound	RT	RT Window	RF
$ 1 4cmx	2.920	2.890-2.950	5.000e+05
61 2,4,5-Trichlorophenol	1.631	1.531-1.731	
59 Hexachlorobenzene	3.306	3.276-3.336	4.875e+05
2 Aroclor-1221	3.414	3.384-3.444	
	3.531	3.501-3.561	
	3.579	3.549-3.609	
3 Aroclor-1016	4.216	4.186-4.246	
	4.378	4.348-4.408	
	4.466	4.436-4.496	
	4.617	4.587-4.647	
	4.999	4.969-5.029	
4 Aroclor-1232	3.579	3.549-3.609	
	4.216	4.186-4.246	
	4.307	4.277-4.337	
	4.617	4.587-4.647	
	4.887	4.857-4.917	
5 alpha-BHC	3.412	3.382-3.442	6.855e+05
6 Aroclor-1242	3.888	3.858-3.918	
	4.308	4.278-4.338	
	4.378	4.348-4.408	
	4.617	4.587-4.647	
	4.698	4.668-4.728	
7 gamma-BHC (Lindane)	3.721	3.691-3.751	5.812e+05

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd3a.i/010510p.b/ECD3-B-8081-122909.m

Compound	RT	RT Window	RF
8 Chlordane (tech.)	3.998	3.968-4.028	1.597e+04
	4.575	4.545-4.605	1.176e+04
	4.957	4.927-4.987	6.808e+03
	5.333	5.303-5.363	2.675e+04
	6.273	6.243-6.303	1.236e+04
9 Aroclor-1248	4.436	4.406-4.466	
	4.617	4.587-4.647	
	4.697	4.667-4.727	
	4.856	4.826-4.886	
	5.034	5.004-5.064	
10 Heptachlor	4.134	4.104-4.164	4.236e+05
11 Aldrin	4.446	4.416-4.476	3.799e+05
12 beta-BHC	3.783	3.753-3.813	2.536e+05
13 delta-BHC	4.055	4.025-4.085	5.265e+05
14 Heptachlor epoxide	4.996	4.966-5.026	3.061e+05
15 Aroclor-1254	4.885	4.855-4.915	
	4.999	4.969-5.029	
	5.290	5.260-5.320	
	5.423	5.393-5.453	
	5.749	5.719-5.779	
16 Endosulfan I	5.397	5.367-5.427	2.828e+05
17 gamma-Chlordane	5.186	5.156-5.216	2.896e+05
18 alpha-Chlordane	5.334	5.304-5.364	2.986e+05
19 4,4'-DDE	5.491	5.461-5.521	2.959e+05
20 Dieldrin	5.678	5.648-5.708	3.456e+05
21 Aroclor-1260	5.310	5.280-5.340	
	5.406	5.376-5.436	
	5.526	5.496-5.556	
	5.628	5.598-5.658	
	5.749	5.719-5.779	
22 Endrin	5.997	5.967-6.027	3.364e+05
23 Toxaphene	5.651	5.621-5.681	5.066e+03
	5.775	5.745-5.805	2.991e+03
	6.165	6.135-6.195	6.013e+03
	6.208	6.178-6.238	1.060e+04
	6.309	6.279-6.339	1.915e+04
24 Endosulfan II	6.217	6.187-6.247	3.949e+05
25 4,4'-DDD	6.096	6.066-6.126	3.419e+05
26 4,4'-DDT	6.436	6.406-6.466	3.589e+05
27 Endrin aldehyde	6.574	6.544-6.604	3.833e+05

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd3a.i/010510p.b/ECD3-B-8081-122909.m

Compound	RT	RT Window	RF
28 Methoxychlor	7.178	7.148-7.208	1.980e+05
29 Endosulfan sulfate	6.877	6.847-6.907	4.704e+05
30 Aroclor-1268	5.217	5.187-5.247	
	5.596	5.566-5.626	
	5.628	5.598-5.658	
	5.769	5.739-5.799	
	6.149	6.119-6.179	
60 Aroclor-1262	4.689	4.589-4.789	
	4.779	4.679-4.879	
	5.074	4.974-5.174	
	5.224	5.124-5.324	
	5.396	5.296-5.496	
31 Endrin ketone	7.468	7.438-7.498	5.799e+05
51 Mirex	7.443	7.413-7.473	4.338e+05
52 C-Nonachlor	6.082	6.052-6.112	5.160e+05
53 O-Chlordane	4.907	4.877-4.937	2.112e+05
54 T-Nonachlor	5.282	5.252-5.312	2.894e+05
55 1,2-Dichlorobenzene	6.619	6.589-6.649	
56 2,4-DDE	5.174	5.144-5.204	1.343e+06
58 2,4-DDD	5.701	5.671-5.731	2.099e+05
57 2,4-DDT	6.026	5.996-6.056	2.540e+05
$ 32 Decachlorobiphenyl	8.856	8.826-8.886	3.942e+05

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 29-DEC-2009 17:34
End Cal Date : 05-JAN-2010 14:45
Quant Method : ESTD
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd3a.i/010510p.b/ECD3-F-8081-122909.m
Cal Date : 06-Jan-2010 10:54 tif01533

Calibration File Names:
Level 1: /chem/ecd3a.i/010510p.b/006f0601.d
Level 2: /chem/ecd3a.i/010510p.b/007f0701.d
Level 3: /chem/ecd3a.i/010510p.b/008f0801.d
Level 4: /chem/ecd3a.i/010510p.b/009f0901.d
Level 5: /chem/ecd3a.i/010510p.b/010f1001.d

Compound	2 Level 1	10 Level 2	50 Level 3	100 Level 4	200 Level 5	Curve	Coefficients b	m1	m2	%RSD or R^2
63 2,4,5-Trichlorophenol	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
59 Hexachlorobenzene	70184	69202	65901	67082	70356	AVRG		68545		2.87446
2 Aroclor-1221 (1)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(2)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(3)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
3 Aroclor-1016 (1)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(2)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(3)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(4)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(5)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
4 Aroclor-1232 (1)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(2)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(3)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(4)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(5)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
5 alpha-BHC	276561	784147	4754635	10200718	21049732	LINR	3.14094	106421		0.99962
6 Aroclor-1242 (1)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(2)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(3)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(4)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(5)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 29-DEC-2009 17:34
End Cal Date : 05-JAN-2010 14:45
Quant Method : ESTD
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd3a.i/010510p.b/ECD3-F-8081-122909.m
Cal Date : 06-Jan-2010 10:54 tif01533

Compound	2 Level 1	10 Level 2	50 Level 3	100 Level 4	200 Level 5	Curve	Coefficients b	m1	m2	%RSD or R^2
7 gamma-BHC (Lindane)	72701	74595	85079	90182	92753	AVRG		83062		10.89732
8 Chlordane (tech.) (1)	2125	2195	2493	2718	3020	AVRG		2510		14.79274
(2)	2434	2422	2516	2647	2767	AVRG		2557		5.76710
(3)	1197	1289	1370	1508	1671	AVRG		1407		13.25852
(4)	6942	7337	8576	9356	9966	AVRG		8435		15.27981
(5)	1589	1611	1721	1967	2176	AVRG		1813		13.93886
9 Aroclor-1248 (1)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(2)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(3)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(4)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(5)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
10 Heptachlor	58234	59729	65888	69450	71957	AVRG		65052		9.17645
11 Aldrin	71701	73132	81746	85512	86578	AVRG		79734		8.69756
12 beta-BHC	33697	34158	35794	37327	38138	AVRG		35823		5.39040
13 delta-BHC	85433	78554	83551	88366	91648	AVRG		85510		5.79014
14 Heptachlor epoxide	64116	66201	73058	75678	77108	AVRG		71232		8.11258
15 Aroclor-1254 (1)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(2)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(3)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(4)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(5)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
16 Endosulfan I	49870	58038	63917	67614	68951	AVRG		61678		12.71010
17 gamma-Chlordane	55961	60766	71694	76412	77254	AVRG		68417		13.98957
18 alpha-Chlordane	60988	64350	70992	75249	76181	AVRG		69552		9.61462

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 29-DEC-2009 17:34
End Cal Date : 05-JAN-2010 14:45
Quant Method : ESTD
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd3a.i/010510p.b/ECD3-F-8081-122909.m
Cal Date : 06-Jan-2010 10:54 tif01533

Compound	2 Level 1	10 Level 2	50 Level 3	100 Level 4	200 Level 5	Curve	Coefficients b	m1	m2	%RSD or R^2
19 4,4'-DDE	57534	65123	71858	73880	74252	AVRG		68529		10.44578
20 Dieldrin	59790	66080	74832	77282	78213	AVRG		71240		11.22467
21 Aroclor-1260 (1)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(2)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(3)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(4)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(5)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
22 Endrin	47486	54280	59834	60860	62358	AVRG		56963		10.73404
23 Toxaphene (1)	444	472	490	512	508	AVRG		485		5.76611
(2)	743	763	748	749	767	AVRG		754		1.36434
(3)	740	862	877	929	944	AVRG		870		9.23030
(4)	990	1124	1153	1182	1234	AVRG		1137		8.06830
(5)	1875	1952	1948	2080	2252	AVRG		2022		7.34628
24 Endosulfan II	49326	55378	60871	63009	63876	AVRG		58492		10.42582
25 4,4'-DDD	47927	51737	57470	58511	59767	AVRG		55082		9.15834
26 4,4'-DDT	39019	42785	46192	47764	49225	AVRG		44997		9.13539
27 Endrin aldehyde	45065	47028	50106	51950	52303	AVRG		49291		6.39883
28 Methoxychlor	21372	22510	21814	22169	23055	AVRG		22184		2.90476
29 Endosulfan sulfate	41427	44286	48362	51359	53380	AVRG		47762		10.31419
30 Aroclor-1268 (1)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(2)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(3)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(4)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(5)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 29-DEC-2009 17:34
End Cal Date : 05-JAN-2010 14:45
Quant Method : ESTD
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd3a.i/010510p.b/ECD3-F-8081-122909.m
Cal Date : 06-Jan-2010 10:54 tif01533

	Compound	2 Level 1	10 Level 2	50 Level 3	100 Level 4	200 Level 5	Curve	Coefficients b	m1	m2	%RSD or R^2
	61 Aroclor-1262(1)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
	(2)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
	(3)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
	(4)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
	(5)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
	31 Endrin ketone	58928	62526	65482	67000	68029	AVRG		64393		5.73505
	51 Mirex	47097	43647	42156	43355	45253	AVRG		44302		4.31991
	52 C-Nonachlor	71167	73746	75973	77824	80479	AVRG		75838		4.74025
	53 O-Chlordane	57091	58042	58623	59743	61333	AVRG		58966		2.77284
	54 T-Nonachlor	57935	60335	59689	62686	67812	AVRG		61692		6.19434
	55 1,2-Dichlorobenzene	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
	56 2,4-DDE	40043	40849	40593	40778	41246	AVRG		40702		1.07759
	58 2,4-DDD	37781	36964	36364	36753	37626	AVRG		37098		1.60624
	57 2,4-DDT	33050	33655	34616	35858	37674	AVRG		34971		5.28046
M	62 TTO Sum Pesticides	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
$	1 4cmx	62184	64689	69269	71498	71201	AVRG		67768		6.11161
$	32 Decachlorobiphenyl	52742	51351	50693	51959	52544	AVRG		51858		1.63528

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 29-DEC-2009 17:34
End Cal Date : 05-JAN-2010 14:45
Quant Method : ESTD
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd3a.i/010510p.b/ECD3-F-8081-122909.m
Cal Date : 06-Jan-2010 10:54 tif01533

Curve	Formula	Units
Averaged	Amt = Rsp/ml	Response
Linear	Amt = b + Rsp/ml	Response

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 29-DEC-2009 17:34
End Cal Date : 05-JAN-2010 14:45
Quant Method : ESTD
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd3a.i/010510p.b/ECD3-B-8081-122909.m
Cal Date : 06-Jan-2010 10:53 tif01533

Calibration File Names:
Level 1: /chem/ecd3a.i/010510p.b/006b0601.d
Level 2: /chem/ecd3a.i/010510p.b/007b0701.d
Level 3: /chem/ecd3a.i/010510p.b/008b0801.d
Level 4: /chem/ecd3a.i/010510p.b/009b0901.d
Level 5: /chem/ecd3a.i/010510p.b/010b1001.d

Compound	2 Level 1	10 Level 2	50 Level 3	100 Level 4	200 Level 5	Curve	Coefficients b	m1	m2	%RSD or R^2
61 2,4,5-Trichlorophenol	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
59 Hexachlorobenzene	546940	527615	474789	451888	436294	AVRG		487505		9.83441
2 Aroclor-1221(1)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(2)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(3)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
3 Aroclor-1016(1)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(2)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(3)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(4)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(5)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
4 Aroclor-1232(1)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(2)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(3)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(4)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(5)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
5 alpha-BHC	592486	645490	712650	734819	742303	AVRG		685550		9.41061
6 Aroclor-1242(1)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(2)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(3)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(4)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(5)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 29-DEC-2009 17:34
End Cal Date : 05-JAN-2010 14:45
Quant Method : ESTD
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd3a.i/010510p.b/ECD3-B-8081-122909.m
Cal Date : 06-Jan-2010 10:53 tif01533

Compound	2 Level 1	10 Level 2	50 Level 3	100 Level 4	200 Level 5	Curve	Coefficients b	m1	m2	%RSD or R^2
7 gamma-BHC (Lindane)	534132	559284	592473	609051	611123	AVRG		581213		5.76691
8 Chlordane (tech.) (1)	15279	15419	15641	16410	17082	AVRG		15966		4.76841
(2)	12806	12324	11225	11210	11245	AVRG		11762		6.39789
(3)	7744	6628	6215	6326	7129	AVRG		6808		9.27475
(4)	25690	25900	26043	27518	28578	AVRG		26746		4.68382
(5)	10143	11069	11884	13584	15097	AVRG		12355		16.08411
9 Aroclor-1248 (1)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(2)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(3)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(4)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(5)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
10 Heptachlor	470866	424431	411092	409991	401505	AVRG		423577		6.53470
11 Aldrin	376610	380399	382870	385640	374198	AVRG		379943		1.21574
12 beta-BHC	278511	259929	242491	246141	240809	AVRG		253576		6.24553
13 delta-BHC	482552	499526	537510	557981	554700	AVRG		526454		6.41798
14 Heptachlor epoxide	354412	313119	291395	292880	278725	AVRG		306106		9.69608
15 Aroclor-1254 (1)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(2)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(3)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(4)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(5)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
16 Endosulfan I	281079	280240	283479	288733	280254	AVRG		282757		1.27081
17 gamma-Chlordane	4850292	3916812	17026465	30525511	60419381	LINR	-7.83263	289556		0.99808
18 alpha-Chlordane	291234	291087	297108	308602	305127	AVRG		298631		2.67655

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 29-DEC-2009 17:34
End Cal Date : 05-JAN-2010 14:45
Quant Method : ESTD
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd3a.i/010510p.b/ECD3-B-8081-122909.m
Cal Date : 06-Jan-2010 10:53 tif01533

Compound	2 Level 1	10 Level 2	50 Level 3	100 Level 4	200 Level 5	Curve	Coefficients b	m1	m2	%RSD or R^2
19 4,4'-DDE	278756	304027	307644	301488	287373	AVRG		295858		4.14595
20 Dieldrin	326000	343567	358421	356474	343517	AVRG		345596		3.75944
21 Aroclor-1260 (1)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(2)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(3)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(4)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(5)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
22 Endrin	316067	337890	351053	344276	332891	AVRG		336435		3.94526
23 Toxaphene (1)	4702	4871	4804	5615	5337	AVRG		5066		7.73537
(2)	2723	2764	2831	3440	3194	AVRG		2991		10.45886
(3)	5066	5867	5840	6796	6496	AVRG		6013		11.13937
(4)	9489	10306	10382	11696	11124	AVRG		10599		7.95706
(5)	17216	18854	18845	20949	19876	AVRG		19148		7.23958
24 Endosulfan II	395303	398504	402416	396779	381309	AVRG		394862		2.03351
25 4,4'-DDD	312158	339873	357461	355029	344733	AVRG		341851		5.29621
26 4,4'-DDT	342502	356330	366055	366434	363334	AVRG		358931		2.79688
27 Endrin aldehyde	373105	384294	394907	389729	374311	AVRG		383269		2.48136
28 Methoxychlor	197394	206017	192312	191121	203032	AVRG		197975		3.28939
29 Endosulfan sulfate	410698	449073	490706	503932	497818	AVRG		470446		8.44100
30 Aroclor-1268 (1)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(2)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(3)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(4)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(5)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 29-DEC-2009 17:34
End Cal Date : 05-JAN-2010 14:45
Quant Method : ESTD
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd3a.i/010510p.b/ECD3-B-8081-122909.m
Cal Date : 06-Jan-2010 10:53 tif01533

Compound	2 Level 1	10 Level 2	50 Level 3	100 Level 4	200 Level 5	Curve	Coefficients b	m1	m2	%RSD or R^2	
60 Aroclor-1262(1)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00	
(2)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00	
(3)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00	
(4)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00	
(5)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00	
31 Endrin ketone	541199	572073	595633	596245	594217	AVRG		579873		4.11607	
51 Mirex	3352004	8547798	51080965	87876800	175132379	LINR	-5.48641	433825		0.99812	
52 C-Nonachlor	519662	517841	528373	514663	499250	AVRG		515958		2.06078	
53 O-Chlordane	201790	220827	196982	205137	231098	AVRG		211167		6.76412	
54 T-Nonachlor	322245	290682	283452	276687	274157	AVRG		289445		6.71216	
55 1,2-Dichlorobenzene	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00	
56 2,4-DDE	6146815	147496	119517	138991	159730	AVRG		1342510		200	<-
58 2,4-DDD	259966	214074	199844	191492	184227	AVRG		209921		14.33698	
57 2,4-DDT	262484	251497	257478	253337	245404	AVRG		254040		2.52556	
$ 1 4cmx	518207	520695	506775	489669	464811	AVRG		500031		4.63725	
$ 32 Decachlorobiphenyl	409909	395716	383952	390399	390899	AVRG		394175		2.47088	

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 29-DEC-2009 17:34
End Cal Date : 05-JAN-2010 14:45
Quant Method : ESTD
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd3a.i/010510p.b/ECD3-B-8081-122909.m
Cal Date : 06-Jan-2010 10:53 tif01533

Curve	Formula	Units
Averaged	Amt = Rsp/ml	Response
Linear	Amt = b + Rsp/ml	Response

7D

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1085-1

GC Column: CLP-1 ID: 0.25 (mm) Init. Calib. Date(s): 12/29/09 01/04/10

EPA Sample No.(PIBLK): _____ Date Analyzed :_____

Lab Sample ID (PIBLK): _____ Time Analyzed :_____

EPA Sample No.(PEM): PEM01 Date Analyzed :01/05/10

Lab Sample ID (PEM): WPE091219-99 Time Analyzed :1149

PEM COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aldrin	3.97	3.94	4.00	125	100	25.0
4,4'-DDE						
Endrin	5.33	5.30	5.36	121	100	21.0
4,4'-DDD						
4,4'-DDT	5.67	5.64	5.70	104	100	4.0
Endrin ketone						
Endrin aldehyde						

4,4'-DDT % breakdown (1): 3.20 Endrin % breakdown (1): 3.40

Combined % breakdown (1): 6.60

FORM VII PEST-1 OLM03.0

7D

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1085-1

GC Column: CLP-2 ID: 0.25 (mm) Init. Calib. Date(s): 12/29/09 01/04/10

EPA Sample No.(PIBLK): _____ Date Analyzed :_____

Lab Sample ID (PIBLK): _____ Time Analyzed :_____

EPA Sample No.(PEM): PEM01 Date Analyzed :01/05/10

Lab Sample ID (PEM): WPE091219-99 Time Analyzed :1149

PEM COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aldrin	4.45	4.42	4.48	118	100	18.0
4,4'-DDE						
Endrin	6.00	5.97	6.03	120	100	20.0
4,4'-DDD						
4,4'-DDT	6.43	6.41	6.47	104	100	4.0
Endrin ketone						
Endrin aldehyde						

4,4'-DDT % breakdown (1): 2.50 Endrin % breakdown (1): 5.00

Combined % breakdown (1): 7.50

FORM VII PEST-1 OLM03.0

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: Case No.: N/A SAS No.: N/A SDG No.: 10-1085-1

Instrument ID: ECD3A Calibration Date: 01/05/10 Time: 1202

Lab File ID: 003F0301 Init. Calib. Date(s): 01/04/10 01/04/10

Heated Purge: (Y/N) N Init. Calib. Times: 1340 1434

GC Column: CLP-1 ID: 0.25 (mm)

COMPOUND	SAMPLE AMOUNT	CAL100 AMOUNT	CURVE	%D	MAX %d
gamma-BHC (Lindane)	107	100	AVRG	7.0	15.0
Heptachlor	104	100	AVRG	4.0	15.0
Heptachlor epoxide	100	100	AVRG	0.0	15.0
Endrin	220	200	AVRG	10.0	15.0
Methoxychlor	962	1000	AVRG	-3.8	15.0
4cmx	190	200	AVRG	-5.0	15.0
Decachlorobiphenyl	174	200	AVRG	-13.0	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: Case No.: N/A SAS No.: N/A SDG No.: 10-1085-1

Instrument ID: ECD3A Calibration Date: 01/05/10 Time: 1202

Lab File ID: 003B0301 Init. Calib. Date(s): 01/04/10 01/04/10

Heated Purge: (Y/N) N Init. Calib. Times: 1340 1434

GC Column: CLP-2 ID: 0.25 (mm)

COMPOUND	SAMPLE AMOUNT	CAL100 AMOUNT	CURVE	%D	MAX %d
gamma-BHC (Lindane)	102	100	AVRG	2.0	15.0
Heptachlor	94.4	100	AVRG	-5.6	15.0
Heptachlor epoxide	91.2	100	AVRG	-8.8	15.0
Endrin	220	200	AVRG	10.0	15.0
Methoxychlor	920	1000	AVRG	-8.0	15.0
4cmx	180	200	AVRG	-10.0	15.0
Decachlorobiphenyl	172	200	AVRG	-14.0	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: Case No.: N/A SAS No.: N/A SDG No.: 10-1085-1

Instrument ID: ECD3A Calibration Date: 01/05/10 Time: 1216

Lab File ID: 004F0401 Init. Calib. Date(s): 12/29/09 12/29/09

Heated Purge: (Y/N) N Init. Calib. Times: 1856 2014

GC Column: CLP-1 ID: 0.25 (mm)

COMPOUND	RRF	RRF100	MIN RRF	%D	MAX %D
Toxaphene	485.259	497.421	0.01	2.5	15.0
(2)	754.120	746.956	0.01	-0.9	15.0
(3)	870.392	917.068	0.01	5.4	15.0
(4)	1136.606	1120.744	0.01	-1.4	15.0
(5)	2021.570	1745.046	0.01	-13.7	15.0
4cmx	67768.398	68089.985	0.01	0.5	15.0
Decachlorobiphenyl	51857.827	47487.290	0.01	-8.4	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: Case No.: N/A SAS No.: N/A SDG No.: 10-1085-1

Instrument ID: ECD3A Calibration Date: 01/05/10 Time: 1216

Lab File ID: 004B0401 Init. Calib. Date(s): 12/29/09 12/29/09

Heated Purge: (Y/N) N Init. Calib. Times: 1856 2014

GC Column: CLP-2 ID: 0.25 (mm)

COMPOUND	RRF	RRF100	MIN RRF	%D	MAX %D	
Toxaphene	5065.852	5978.000	0.01	18.0	15.0	<-
(2)	2990.542	3432.655	0.01	14.8	15.0	
(3)	6013.149	5673.920	0.01	-5.6	15.0	
(4)	10599.481	10437.441	0.01	-1.5	15.0	
(5)	19147.810	17685.368	0.01	-7.6	15.0	
4cmx	500031.47	474418.15	0.01	-5.1	15.0	
Decachlorobiphenyl	394175.00	357551.58	0.01	-9.3	15.0	

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: Case No.: N/A SAS No.: N/A SDG No.: 10-1085-1

Instrument ID: ECD3A Calibration Date: 01/05/10 Time: 1230

Lab File ID: 005F0501 Init. Calib. Date(s): 12/29/09 12/29/09

Heated Purge: (Y/N) N Init. Calib. Times: 2042 2155

GC Column: CLP-1 ID: 0.25 (mm)

COMPOUND	RRF	RRF100	MIN RRF	%D	MAX %D
Chlordane (tech.)	2510.319	2439.643	0.01	-2.8	15.0
(2)	2557.060	2873.736	0.01	12.4	15.0
(3)	1406.785	1354.259	0.01	-3.7	15.0
(4)	8435.396	8300.117	0.01	-1.6	15.0
(5)	1812.916	2057.976	0.01	13.5	15.0
4cmx	67768.398	69322.595	0.01	2.3	15.0
Decachlorobiphenyl	51857.827	47772.670	0.01	-7.9	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: Case No.: N/A SAS No.: N/A SDG No.: 10-1085-1

Instrument ID: ECD3A Calibration Date: 01/05/10 Time: 1230

Lab File ID: 005B0501 Init. Calib. Date(s): 12/29/09 12/29/09

Heated Purge: (Y/N) N Init. Calib. Times: 2042 2155

GC Column: CLP-2 ID: 0.25 (mm)

COMPOUND	RRF	RRF100	MIN RRF	%D	MAX %D	
Chlordane (tech.)	15966.344	15400.000	0.01	-3.5	15.0	
(2)	11761.800	12289.881	0.01	4.5	15.0	
(3)	6808.364	5926.158	0.01	-13.0	15.0	
(4)	26745.894	28114.933	0.01	5.1	15.0	
(5)	12355.250	15055.089	0.01	21.8	15.0	<-
4cmx	500031.47	497371.55	0.01	-0.5	15.0	
Decachlorobiphenyl	394175.00	363089.39	0.01	-7.9	15.0	

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: Case No.: N/A SAS No.: N/A SDG No.: 10-1085-1

Instrument ID: ECD3A Calibration Date: 01/05/10 Time: 1648

Lab File ID: 019F1901 Init. Calib. Date(s): 01/04/10 01/04/10

Heated Purge: (Y/N) N Init. Calib. Times: 1340 1434

GC Column: CLP-1 ID: 0.25 (mm)

COMPOUND	SAMPLE AMOUNT	CAL100 AMOUNT	CURVE	%D	MAX %d
gamma-BHC (Lindane)	110	100	AVRG	10.0	15.0
Heptachlor	105	100	AVRG	5.0	15.0
Heptachlor epoxide	101	100	AVRG	1.0	15.0
Endrin	224	200	AVRG	12.0	15.0
Methoxychlor	966	1000	AVRG	-3.4	15.0
4cmx	193	200	AVRG	-3.5	15.0
Decachlorobiphenyl	177	200	AVRG	-11.5	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: Case No.: N/A SAS No.: N/A SDG No.: 10-1085-1

Instrument ID: ECD3A Calibration Date: 01/05/10 Time: 1648

Lab File ID: 019B1901 Init. Calib. Date(s): 01/04/10 01/04/10

Heated Purge: (Y/N) N Init. Calib. Times: 1340 1434

GC Column: CLP-2 ID: 0.25 (mm)

COMPOUND	SAMPLE AMOUNT	CAL100 AMOUNT	CURVE	%D	MAX %d
gamma-BHC (Lindane)	103	100	AVRG	3.0	15.0
Heptachlor	94.7	100	AVRG	-5.3	15.0
Heptachlor epoxide	91.7	100	AVRG	-8.3	15.0
Endrin	225	200	AVRG	12.5	15.0
Methoxychlor	929	1000	AVRG	-7.1	15.0
4cmx	181	200	AVRG	-9.5	15.0
Decachlorobiphenyl	179	200	AVRG	-10.5	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: Case No.: N/A SAS No.: N/A SDG No.: 10-1085-1

Instrument ID: ECD3A Calibration Date: 01/05/10 Time: 1918

Lab File ID: 030F3001 Init. Calib. Date(s): 01/04/10 01/04/10

Heated Purge: (Y/N) N Init. Calib. Times: 1340 1434

GC Column: CLP-1 ID: 0.25 (mm)

COMPOUND	SAMPLE AMOUNT	CAL100 AMOUNT	CURVE	%D	MAX %d	
gamma-BHC (Lindane)	117	100	AVRG	17.0	15.0	<-
Heptachlor	113	100	AVRG	13.0	15.0	
Heptachlor epoxide	109	100	AVRG	9.0	15.0	
Endrin	236	200	AVRG	18.0	15.0	<-
Methoxychlor	1020	1000	AVRG	2.0	15.0	
4cmx	204	200	AVRG	2.0	15.0	
Decachlorobiphenyl	185	200	AVRG	-7.5	15.0	

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: Case No.: N/A SAS No.: N/A SDG No.: 10-1085-1

Instrument ID: ECD3A Calibration Date: 01/05/10 Time: 1918

Lab File ID: 030B3001 Init. Calib. Date(s): 01/04/10 01/04/10

Heated Purge: (Y/N) N Init. Calib. Times: 1340 1434

GC Column: CLP-2 ID: 0.25 (mm)

COMPOUND	SAMPLE AMOUNT	CAL100 AMOUNT	CURVE	%D	MAX %d	
gamma-BHC (Lindane)	108	100	AVRG	8.0	15.0	
Heptachlor	99.7	100	AVRG	-0.3	15.0	
Heptachlor epoxide	97.2	100	AVRG	-2.8	15.0	
Endrin	234	200	AVRG	17.0	15.0	<-
Methoxychlor	972	1000	AVRG	-2.8	15.0	
4cmx	186	200	AVRG	-7.0	15.0	
Decachlorobiphenyl	184	200	AVRG	-8.0	15.0	

FORM VII PEST

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd3a.i/010510p.b/002f0201.d
Lab Smp Id: WPE091219-99DG Client Smp ID: PEM01
Inj Date : 05-JAN-2010 11:49
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |WPE091219-99DG
Misc Info : |PEM|
Comment :
Method : /chem/ecd3a.i/010510p.b/ECD3-F-8081-122909.m
Meth Date : 06-Jan-2010 10:54 tif01533 Quant Type: ESTD
Cal Date : 29-DEC-2009 21:55 Cal File: 020f2001.d
Als bottle: 2 QC Sample: PEM
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: pem.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
11 Aldrin					CAS #: 309-00-2		
3.967	3.969	-0.002	9961566	124.935	125	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
4.807	4.810	-0.003	41378	0.60381	0.604	80.00- 120.00	100.00(M)
22 Endrin					CAS #: 72-20-8		
5.329	5.331	-0.002	6890569	120.965	121	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.391	5.393	-0.002	115962	2.10525	2.10	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
5.978	5.980	-0.002	78202	1.58655	1.59	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
5.670	5.672	-0.002	4702997	104.517	104	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
6.728	6.730	-0.002	164349	2.55228	2.55	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
2.677	2.679	-0.002	13557532	200.057	200	80.00- 120.00	100.00(R)
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.819	7.833	-0.014	9453242	182.292	182	80.00- 120.00	100.00(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Data File: /chem/ecd3a.i/010510p.b/002f0201.d

Date : 05-JAN-2010 11:49

Client ID: PEM01

Sample Info: IWPE091219-99DG

Column phase: CLP-1

Instrument: ecd3a.i

Operator: HXJ1

Column diameter: 0.25

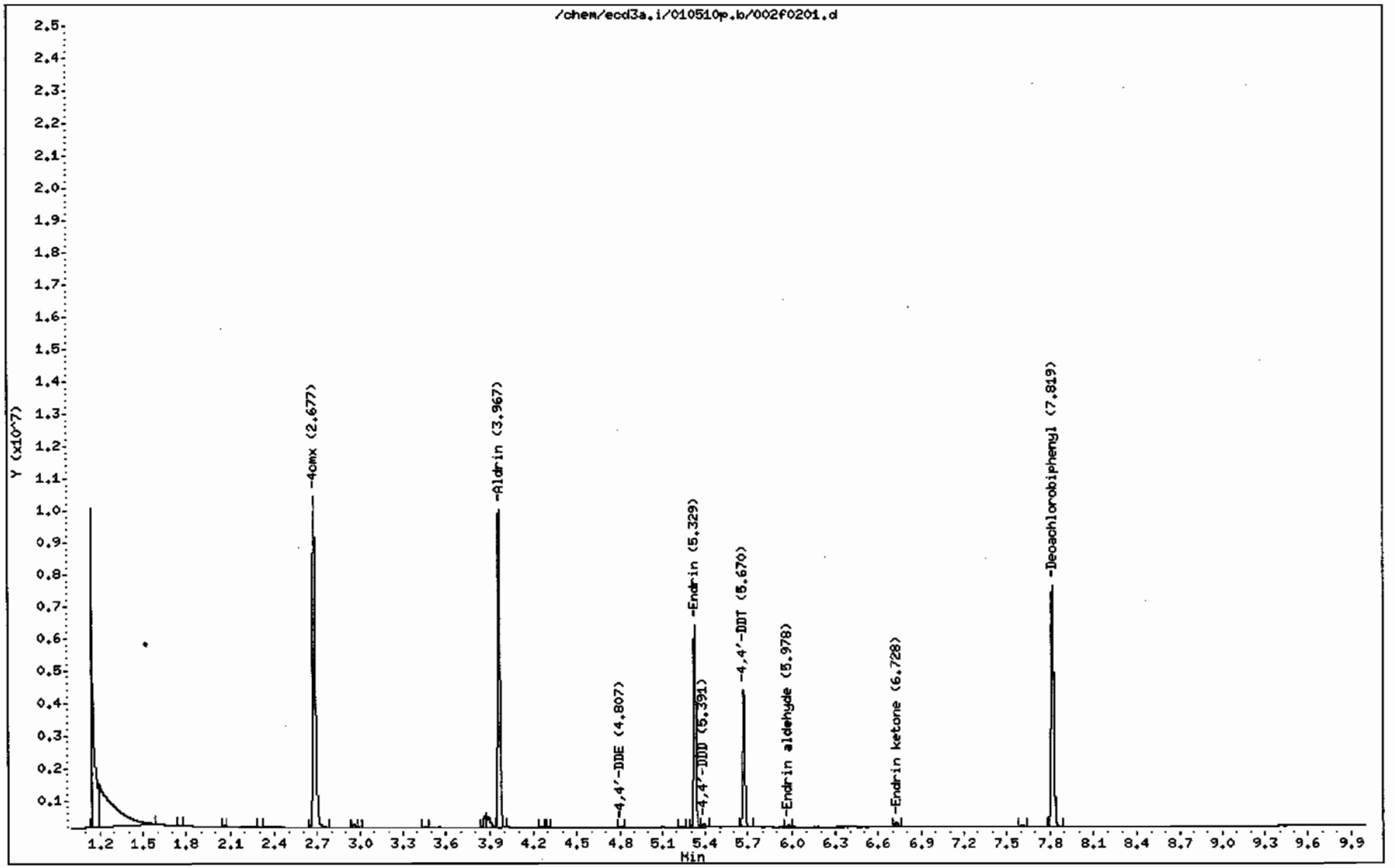

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd3a.i/010510p.b/002b0201.d
Lab Smp Id: WPE091219-99DG Client Smp ID: PEM01
Inj Date : 05-JAN-2010 11:49
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |WPE091219-99DG
Misc Info : |PEM|
Comment :
Method : /chem/ecd3a.i/010510p.b/ECD3-B-8081-122909.m
Meth Date : 06-Jan-2010 10:53 tif01533 Quant Type: ESTD
Cal Date : 29-DEC-2009 21:55 Cal File: 020b2001.d
Als bottle: 2 QC Sample: PEM
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: pem.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
11 Aldrin					CAS #: 309-00-2		
4.445	4.447	-0.002	44807359	117.932	118	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.491	5.493	-0.002	247749	0.83739	0.837	80.00- 120.00	100.00(M)
22 Endrin					CAS #: 72-20-8		
5.996	5.999	-0.003	40263834	119.678	120	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
6.096	6.099	-0.003	702252	2.05426	2.05	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
6.574	6.576	-0.002	649911	1.69570	1.70	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
6.435	6.438	-0.003	37183746	103.596	104	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
7.468	7.471	-0.003	1467139	2.53010	2.53	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
2.920	2.921	-0.001	93897698	187.784	188	80.00- 120.00	100.00(R)
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.856	8.866	-0.010	70485706	178.818	179	80.00- 120.00	100.00(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Data File: /chem/eod3a.i/010510p.b/002b0201.d
Date : 05-JAN-2010 11:49
Client ID: PEH01
Sample Info: IWPE091219-99DG

Column phase: CLP-2

Instrument: eod3a.i

Operator: HXJ1
Column diameter: 0.25

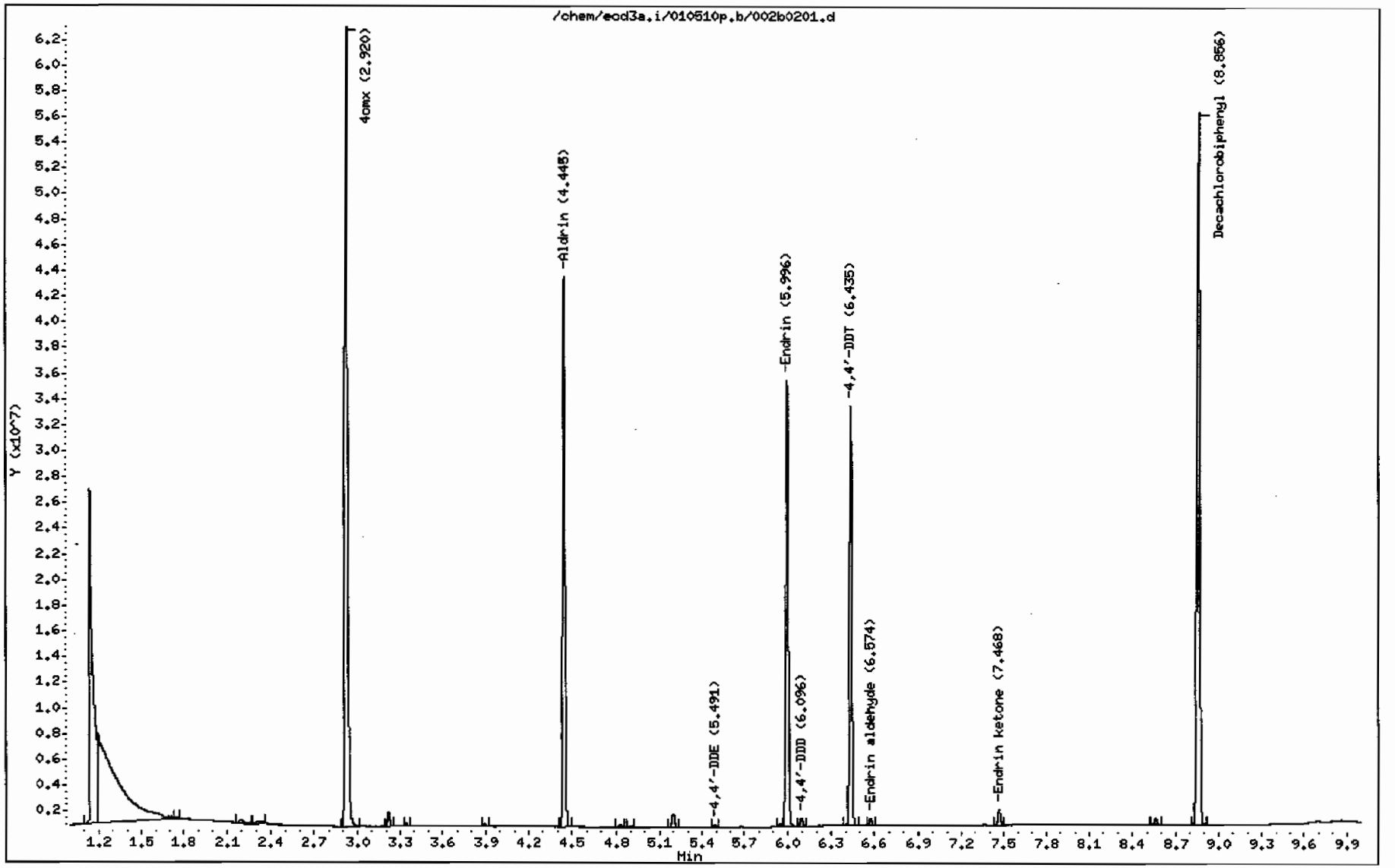

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd3a.i/010510p.b/003f0301.d
Lab Smp Id: WPE091218-10AB Client Smp ID: INDAB01
Inj Date : 05-JAN-2010 12:02
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |WPE091218-10AB
Misc Info : |ABICV|
Comment :
Method : /chem/ecd3a.i/010510p.b/ECD3-F-8081-122909.m
Meth Date : 08-Jan-2010 16:59 jc Quant Type: ESTD
Cal Date : 05-JAN-2010 14:45 Cal File: 010f1001.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: kilroy

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
3.083	3.083	0.000	9748455	100.000	94.7	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.327	3.327	0.000	8869518	100.000	107	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
3.391	3.391	0.000	3556841	100.000	99.3	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
3.710	3.710	0.000	6793077	100.000	104	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
3.540	3.540	0.000	8251118	100.000	96.5	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
3.967	3.967	0.000	7746212	100.000	97.2	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.503	4.503	0.000	7150957	100.000	100	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
4.618	4.618	0.000	7407343	100.000	108	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
4.741	4.741	0.000	6415230	100.000	92.2	80.00- 120.00	100.00

AMOUNTS

RT	EXP RT	DLT RT	RESPONSE	CAL-AMT (ug/L)	ON-COL (ug/L)	TARGET RANGE	RATIO
16 Endosulfan I					CAS #: 959-98-8		
4.873	4.873	0.000	6617107	100.000	107	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
4.809	4.809	0.000	14109459	200.000	206	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
5.101	5.101	0.000	14381328	200.000	202	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.330	5.330	0.000	12533051	200.000	220	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.391	5.391	0.000	11162313	200.000	203	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
5.553	5.553	0.000	11991897	200.000	205	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
5.977	5.977	0.000	9475013	200.000	192	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
5.670	5.670	0.000	9721814	200.000	216	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
6.430	6.430	0.000	9630836	200.000	202	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
6.173	6.173	0.000	21347024	1000.00	962	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
6.728	6.728	0.000	12249872	200.000	190	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
2.677	2.677	0.000	12900710	0.00000	190	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.821	7.821	0.000	9021311	0.00000	174	80.00- 120.00	100.00

Data File: /chem/ecd3a.i/010510p.b/003f0301.d

Date : 05-JAN-2010 12:02

Client ID: INDAB01

Sample Info: IWPE091218-10AB

Column phase: CLP-1

Instrument: ecd3a.i

Operator: HXJ1

Column diameter: 0.25

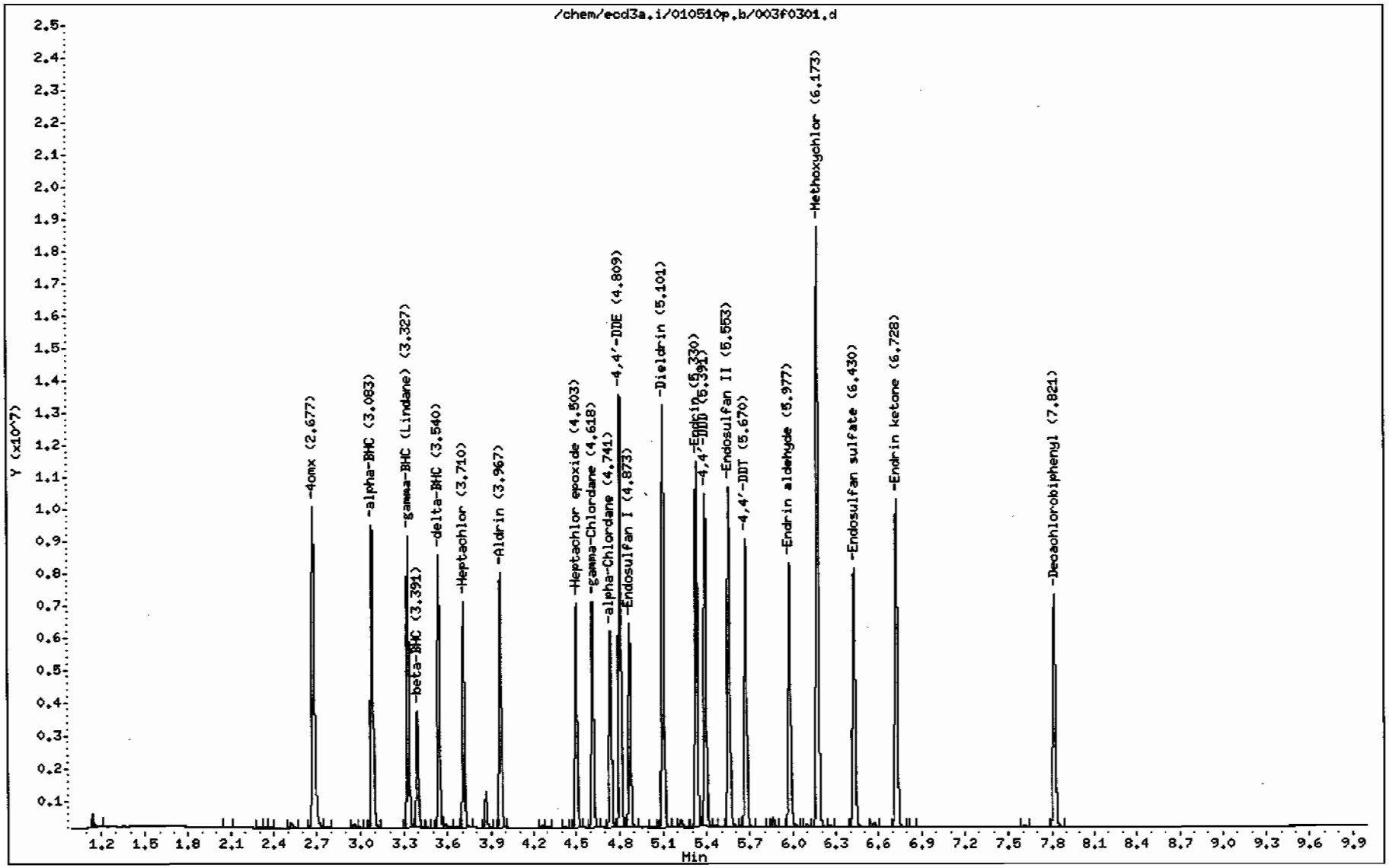

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd3a.i/010510p.b/003b0301.d
Lab Smp Id: WPE091218-10AB Client Smp ID: INDAB01
Inj Date : 05-JAN-2010 12:02
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |WPE091218-10AB
Misc Info : |ABICV|
Comment :
Method : /chem/ecd3a.i/010510p.b/ECD3-B-8081-122909.m
Meth Date : 08-Jan-2010 17:01 jc Quant Type: ESTD
Cal Date : 05-JAN-2010 14:45 Cal File: 010b1001.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: kilroy

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
3.412	3.412	0.000	70433942	100.000	103	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.721	3.721	0.000	59097577	100.000	102	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
3.783	3.783	0.000	23294294	100.000	91.9	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
4.134	4.134	0.000	39999465	100.000	94.4	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
4.055	4.055	0.000	50752279	100.000	96.4	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.446	4.446	0.000	35425503	100.000	93.2	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.996	4.996	0.000	27920334	100.000	91.2	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
5.186	5.186	0.000	30894185	100.000	98.9	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
5.334	5.334	0.000	27050692	100.000	90.6	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
16 Endsulfan I					CAS #: 959-98-8		
5.397	5.397	0.000	28966312	100.000	102	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.491	5.491	0.000	60414846	200.000	204	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
5.678	5.678	0.000	68949641	200.000	200	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.997	5.997	0.000	73868155	200.000	220	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
6.096	6.096	0.000	69914159	200.000	204	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
6.217	6.217	0.000	77792499	200.000	197	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
6.574	6.574	0.000	72874133	200.000	190	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
6.436	6.436	0.000	76138779	200.000	212	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
6.877	6.877	0.000	93724702	200.000	199	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
7.178	7.178	0.000	182088892	1000.00	920	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
7.468	7.468	0.000	107346179	200.000	185	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
2.920	2.920	0.000	89770882	0.00000	180	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.856	8.856	0.000	67795933	0.00000	172	80.00- 120.00	100.00

Data File: /chem/ecd3a.i/010510p.b/0030b0304.d
Date : 05-JAN-2010 12:02
Client ID: INDAB01
Sample Info: IWPE091218-10AB

Instrument: ecd3a.i
Operator: HXJ1
Column diameter: 0.25

Column phase: CLP-2

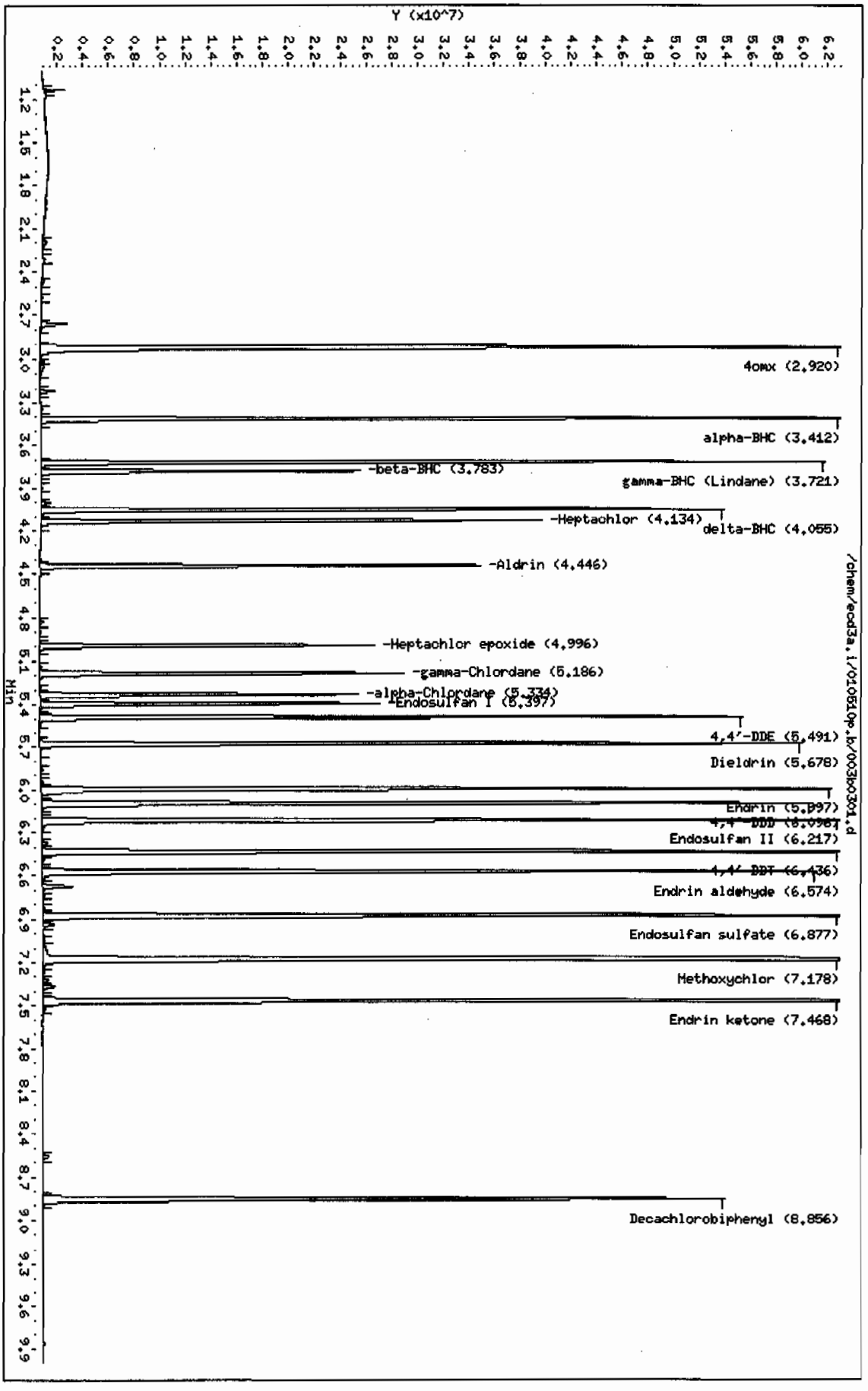

Page 1

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd3a.i/010510p.b/004f0401.d
Lab Smp Id: WPE091219-52TX Client Smp ID: TOXAHP01
Inj Date : 05-JAN-2010 12:16
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |WPE091219-52TX
Misc Info : |TOXICV
Comment :
Method : /chem/ecd3a.i/010510p.b/ECD3-F-8081-122909.m
Meth Date : 08-Jan-2010 17:23 jc Quant Type: ESTD
Cal Date : 05-JAN-2010 14:45 Cal File: 010f1001.d
Als bottle: 4 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: tox.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: kilroy

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
23 Toxaphene					CAS #: 8001-35-2		
5.002	5.002	0.000	994841	2000.00	2050	80.00- 120.00	100.00(M)
5.106	5.106	0.000	1493911	2000.00	1980	130.17- 170.17	150.17
5.193	5.193	0.000	1834137	2000.00	2110	164.36- 204.36	184.36
5.352	5.352	0.000	2241487	2000.00	1970	205.31- 245.31	225.31
5.543	5.543	0.000	3490092	2000.00	1730	330.82- 370.82	350.82
Average of Peak Amounts =					1.97e+03		
$ 1 4cmx					CAS #: 877-09-8		
2.678	2.677	0.001	13617997	0.00000	201	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.821	7.821	0.000	9497458	0.00000	183	80.00- 120.00	100.00

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd3a.i/010510p.b/004f0401.d
Date : 05-JAN-2010 12:16
Client ID: TOXAHP01
Sample Info: IWPE091219-52TX

Column phase: CLP-1

Instrument: ecd3a.i

Operator: HXJ1
Column diameter: 0.25

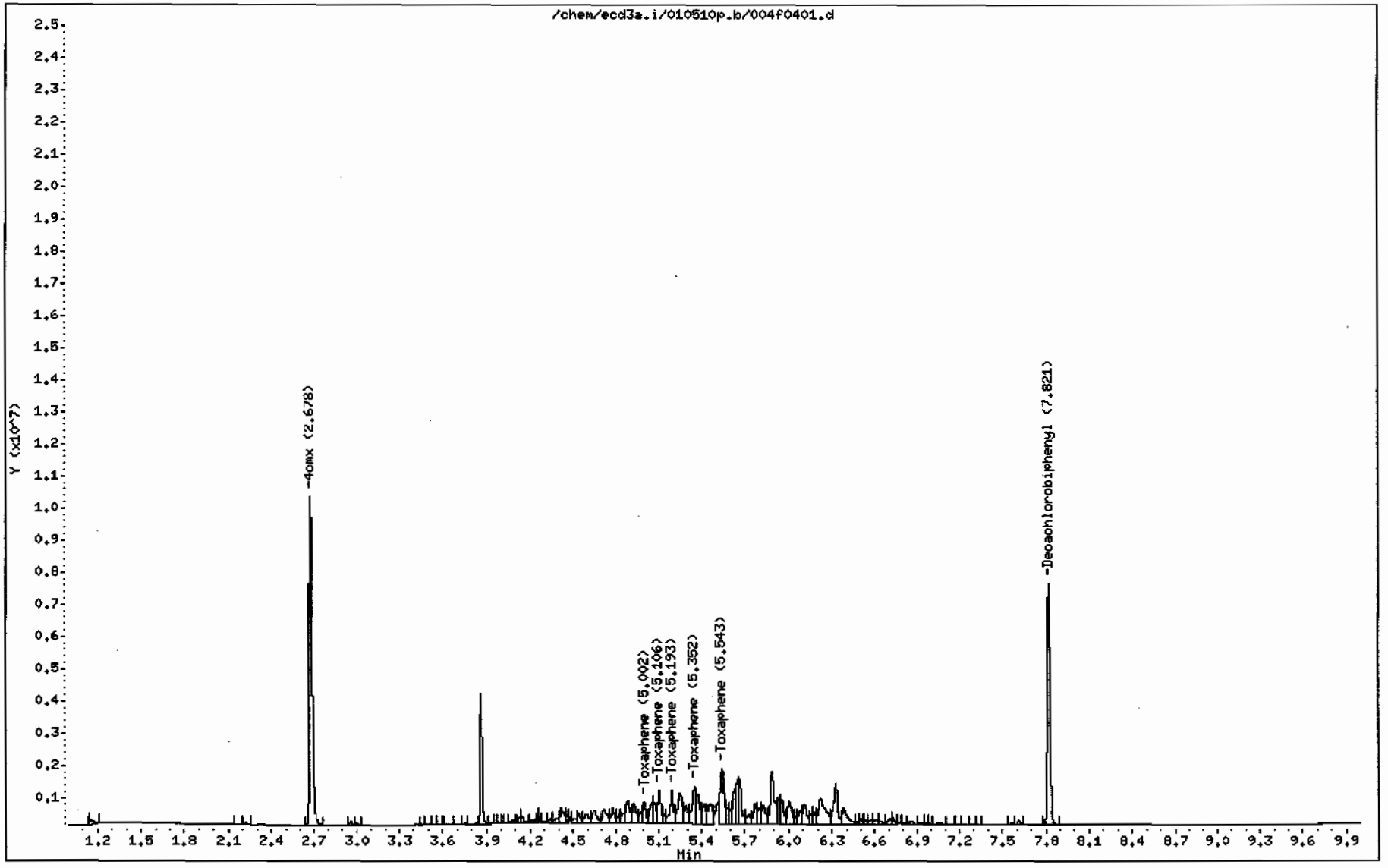

Comment: Manually Integrated
Data File: /chem/ecd3a.i/010510p.b/004f0401.d
Operator: HXJ1
Injection Date: 05-JAN-2010 12:16
Instrument: ecd3a.i
Client Sample ID: TOXAHP01

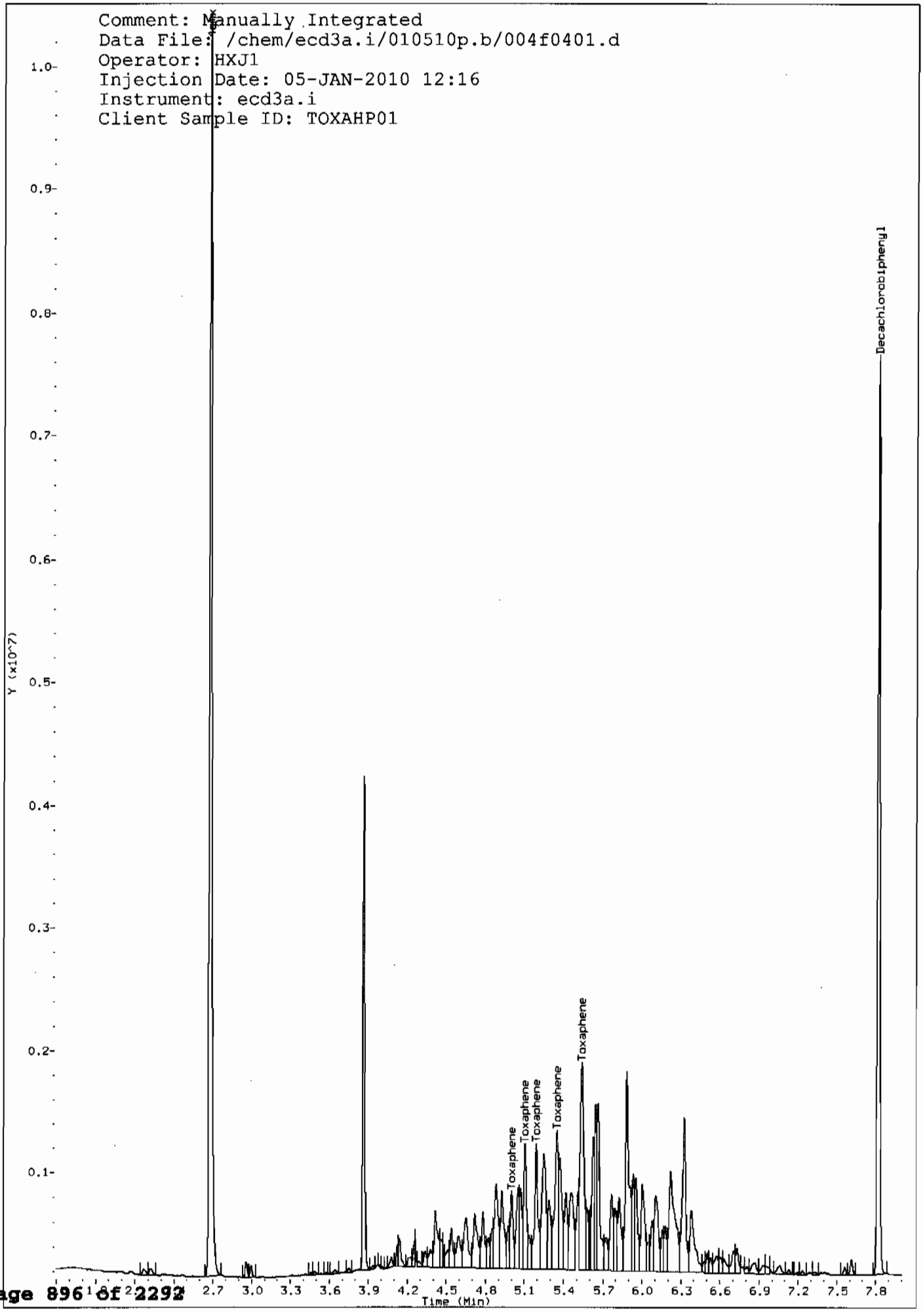

Comment: Before manual integration
Data File: /chem/ecd3a.i/010510p.b/orig-004f0401.d
Operator: HXJ1
Injection Date: 05-JAN-2010 12:16
Instrument: ecd3a.i
Client Sample ID: TOXAHP01

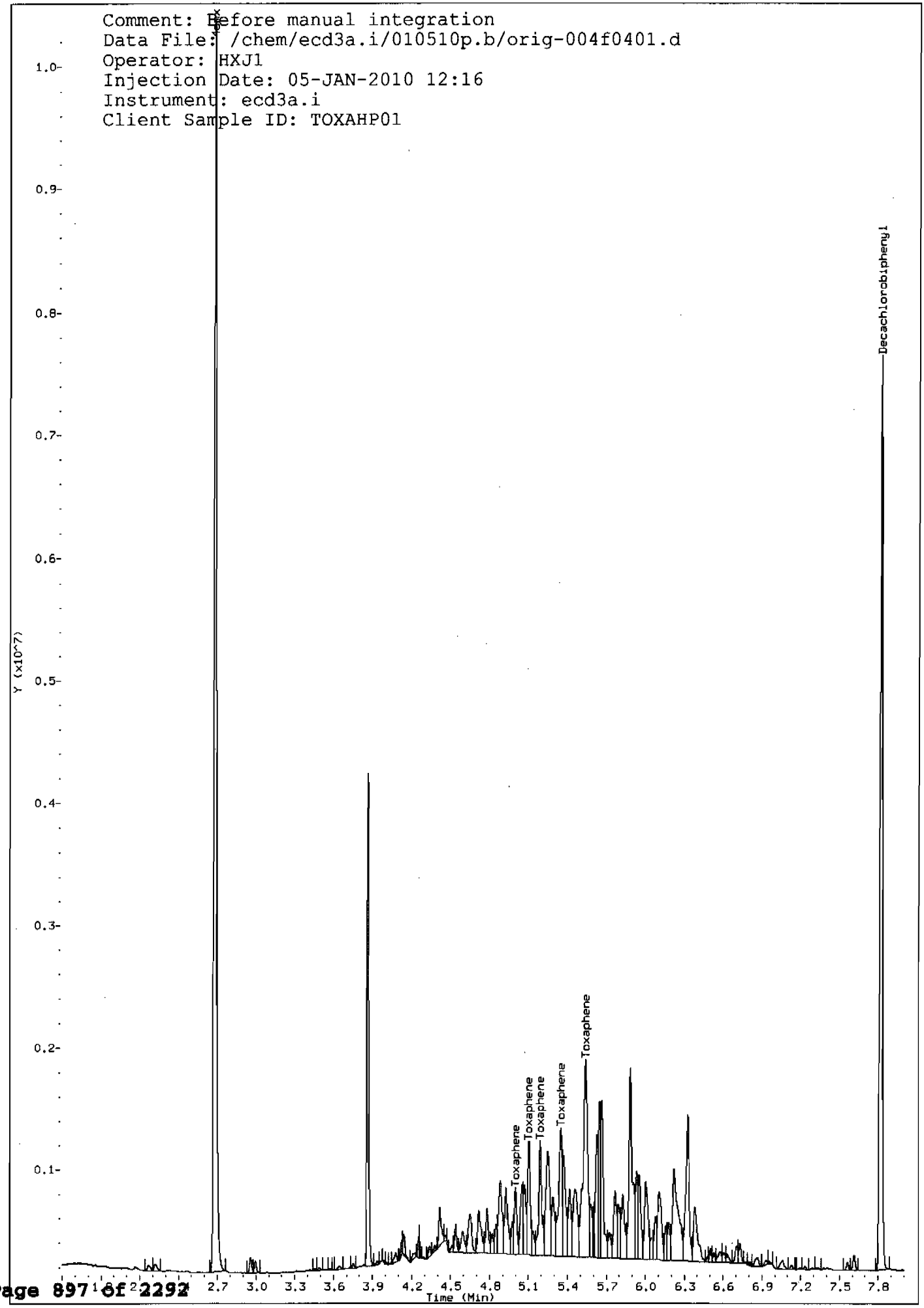

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd3a.i/010510p.b/004b0401.d
Lab Smp Id: WPE091219-52TX Client Smp ID: TOXAPH01
Inj Date : 05-JAN-2010 12:16
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |WPE091219-52TX
Misc Info : |TOXICV
Comment :
Method : /chem/ecd3a.i/010510p.b/ECD3-B-8081-122909.m
Meth Date : 08-Jan-2010 17:23 jc Quant Type: ESTD
Cal Date : 05-JAN-2010 14:45 Cal File: 010b1001.d
Als bottle: 4 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: tox.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: kilroy

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
23 Toxaphene					CAS #: 8001-35-2		
5.651	5.651	0.000	11956298	2000.00	2360	80.00- 120.00	100.00(M)
5.775	5.775	0.000	6865309	2000.00	2300	37.42- 77.42	57.42
6.165	6.165	0.000	11347839	2000.00	1890	74.91- 114.91	94.91
6.208	6.208	0.000	20874882	2000.00	1970	154.59- 194.59	174.59
6.309	6.309	0.000	35370736	2000.00	1850	275.83- 315.83	295.83
Average of Peak Amounts =					2.07e+03		
$ 1 4cmx					CAS #: 877-09-8		
2.921	2.920	0.001	94883630	0.00000	190	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.857	8.856	0.001	71510315	0.00000	181	80.00- 120.00	100.00

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd3a.i/010510p.b/004b0401.d

Date : 05-JAN-2010 12:16

Client ID: TOXAPH01

Sample Info: IWPE091219-52TX

Column phase: CLP-2

Instrument: ecd3a.i

Operator: HXJ1

Column diameter: 0.25

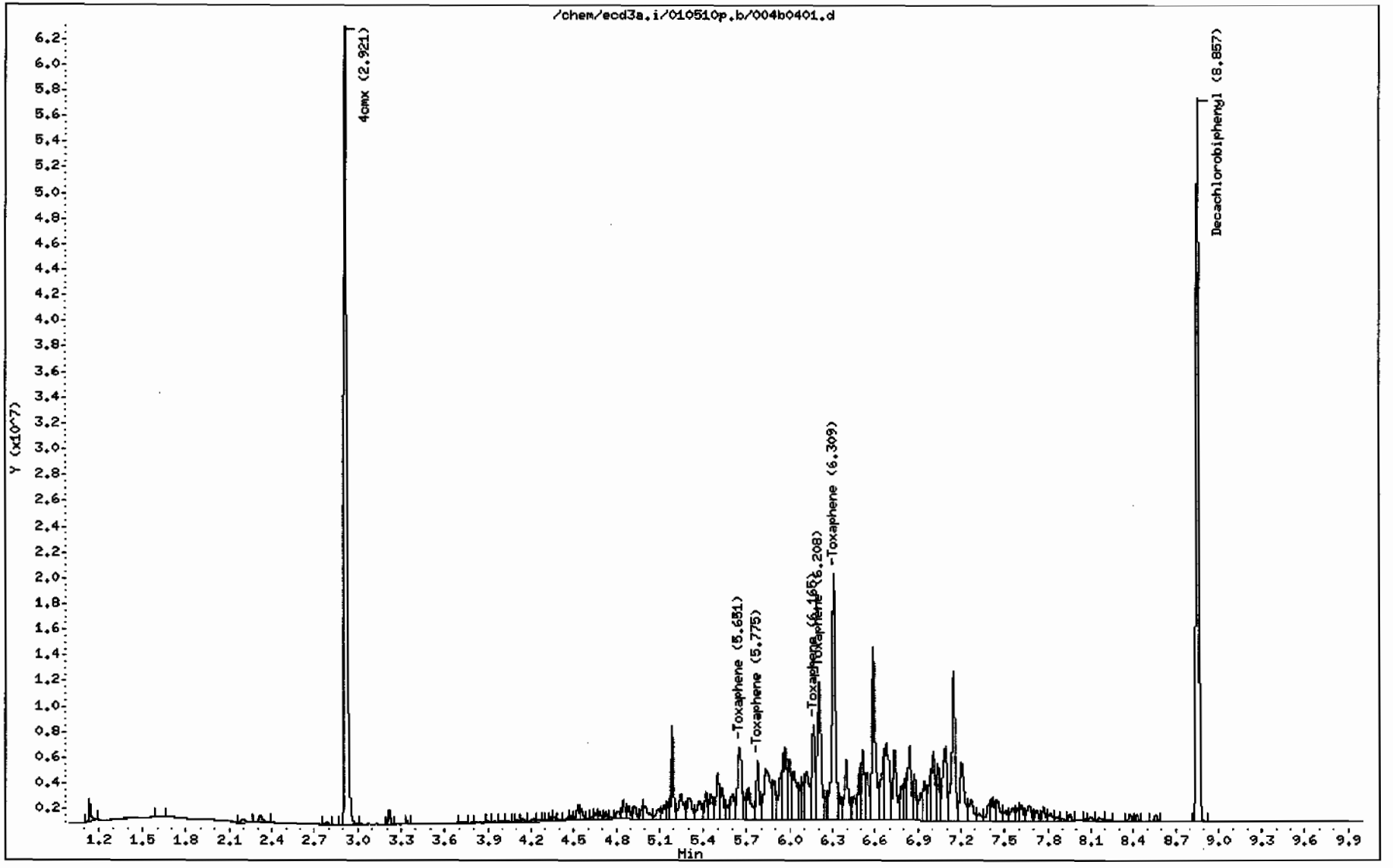

Comment: Manually Integrated
Data File: /chem/ecd3a.i/010510p.b/004b0401.d
Operator: HXJ1
Injection Date: 05-JAN-2010 12:16
Instrument: ecd3a.i
Client Sample ID: TOXAPH01

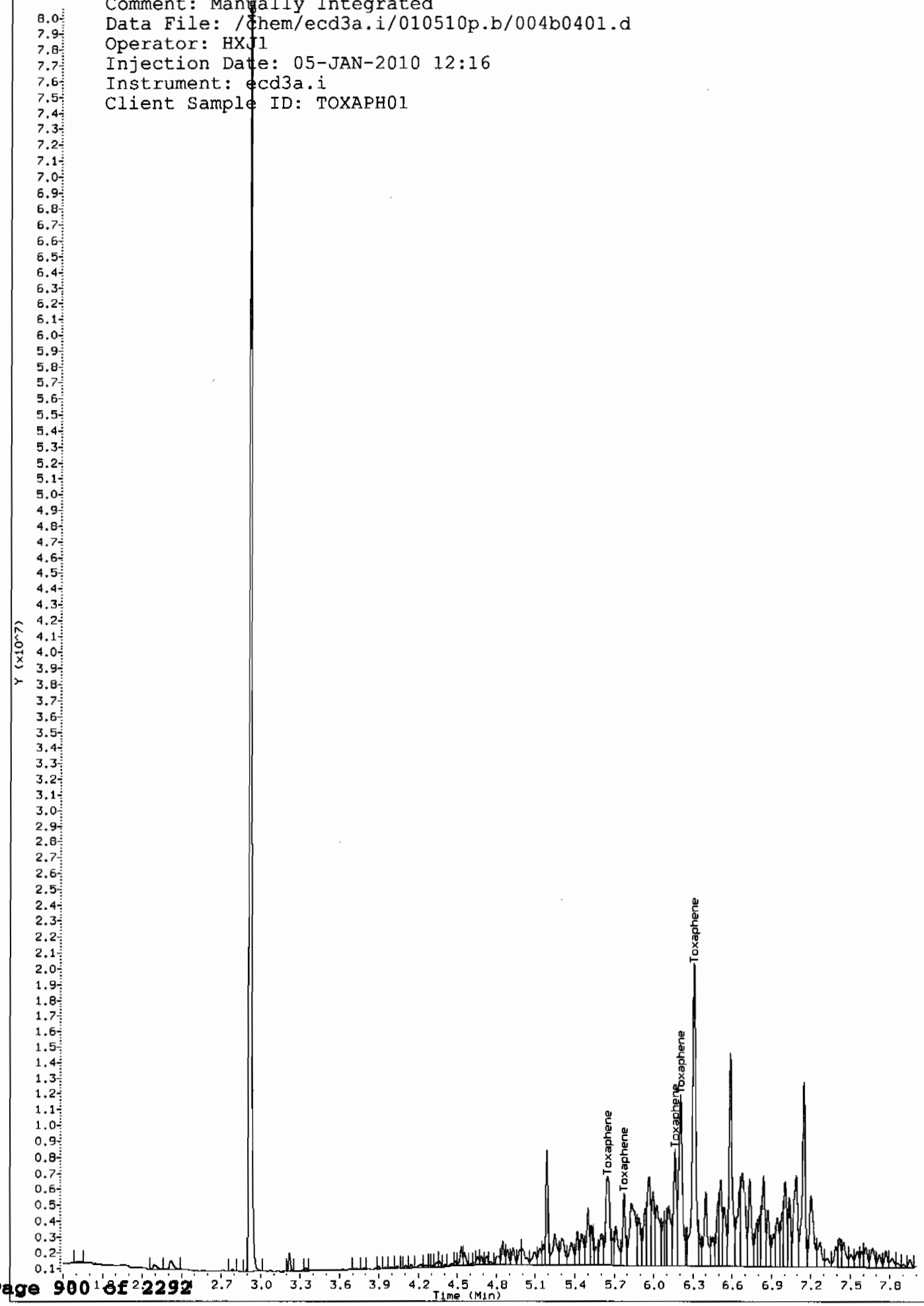

Comment: Before manual integration
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Operator: HXJ1
Injection Date: 05-JAN-2010 12:16
Instrument: ecd3a.i
Client Sample ID: TOXAPH01

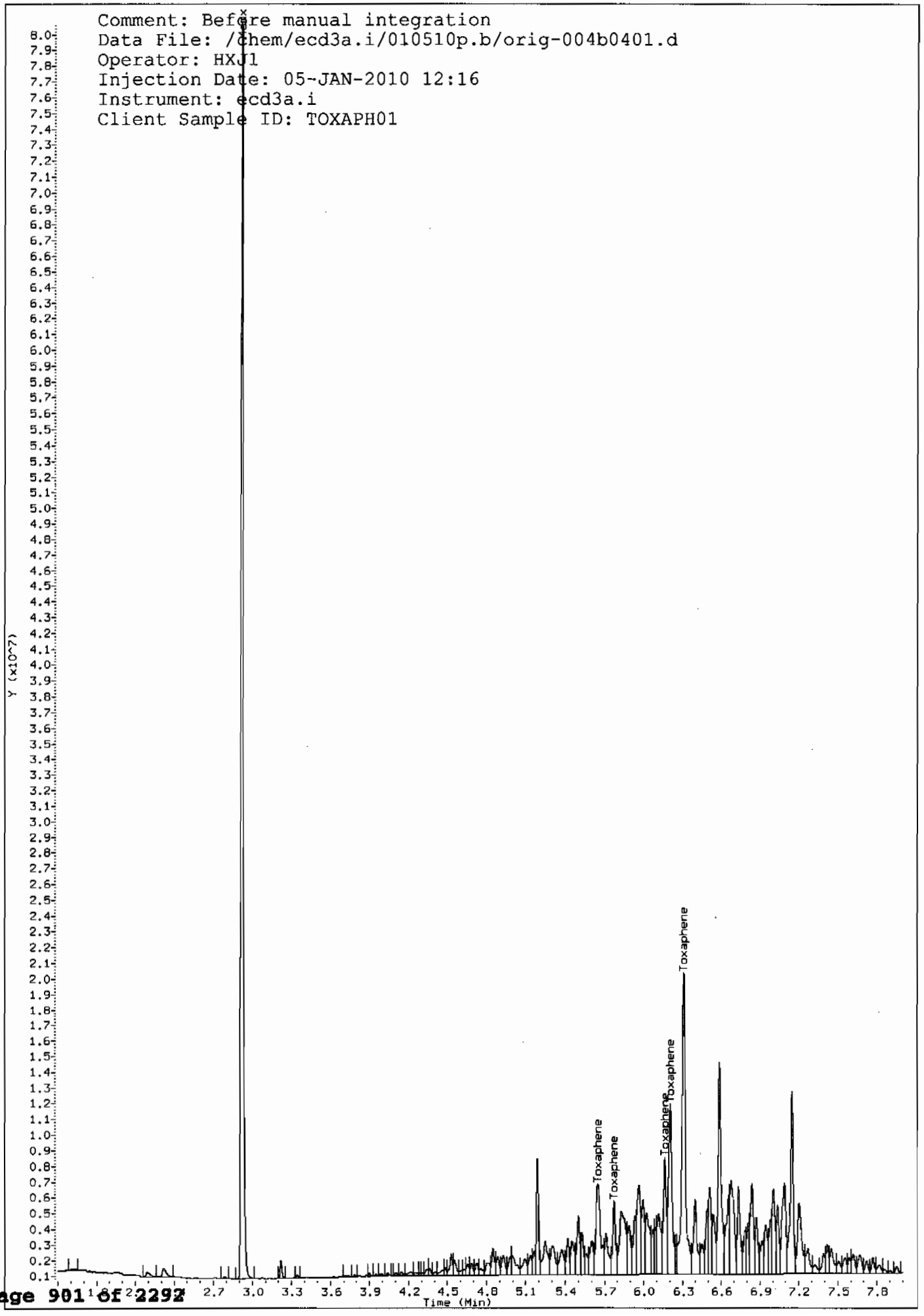

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd3a.i/010510p.b/005f0501.d
Lab Smp Id: WPE091021-00CL Client Smp ID: CHLOR01
Inj Date : 05-JAN-2010 12:30
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |WPE091021-00CL
Misc Info : |CHLICV
Comment :
Method : /chem/ecd3a.i/010510p.b/ECD3-F-8081-122909.m
Meth Date : 08-Jan-2010 17:25 jc Quant Type: ESTD
Cal Date : 05-JAN-2010 14:45 Cal File: 010f1001.d
Als bottle: 5 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: chlor.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: kilroy

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
8 Chlordane (tech.)					CAS #: 12789-03-6		
3.644	3.644	0.000	2439642	1000.00	972	80.00- 120.00	100.00
4.081	4.081	0.000	2873736	1000.00	1120	97.79- 137.79	117.79
4.444	4.444	0.000	1354258	1000.00	963	35.51- 75.51	55.51
4.618	4.618	0.000	8300117	1000.00	984	320.22- 360.22	340.22
5.485	5.485	0.000	2057975	1000.00	1140	64.36- 104.36	84.36
Average of Peak Amounts =					1.04e+03		
$ 1 4cmx					CAS #: 877-09-8		
2.678	2.677	0.001	13864519	0.00000	204	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.822	7.821	0.001	9554534	0.00000	184	80.00- 120.00	100.00

Data File: /chem/ecd3a.i/010510p.b/005f0501.d

Date : 05-JAN-2010 12:30

Client ID: CHLOR01

Sample Info: IWPE091021-00CL

Column phase: CLP-1

Instrument: ecd3a.i

Operator: HXJ1

Column diameter: 0.25

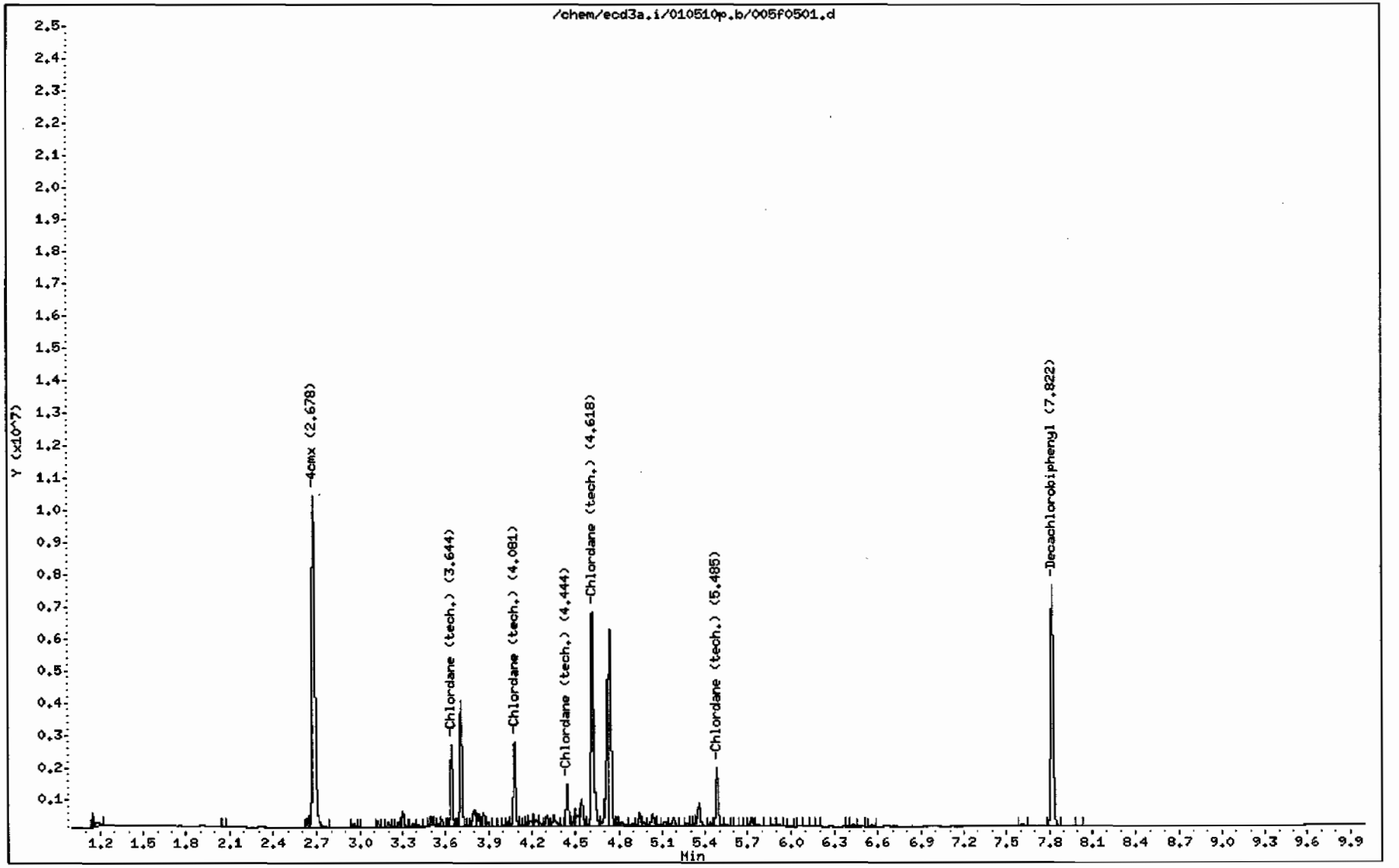

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CLP-2

Data file : /chem/ecd3a.i/010510p.b/005b0501.d
Lab Smp Id: WPE091021-00CL Client Smp ID: CHLOR01
Inj Date : 05-JAN-2010 12:30
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |WPE091021-00CL
Misc Info : |CHLICV
Comment :
Method : /chem/ecd3a.i/010510p.b/ECD3-B-8081-122909.m
Meth Date : 08-Jan-2010 17:26 jc Quant Type: ESTD
Cal Date : 05-JAN-2010 14:45 Cal File: 010b1001.d
Als bottle: 5 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: chlor.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: kilroy

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
8 Chlordane (tech.)					CAS #: 12789-03-6		
3.998	3.998	0.000	15403491	1000.00	965	80.00- 120.00	100.00(M)
4.575	4.575	0.000	12289881	1000.00	1040	59.79- 99.79	79.79
4.957	4.957	0.000	5926158	1000.00	870	18.47- 58.47	38.47
5.333	5.333	0.000	28114933	1000.00	1050	162.52- 202.52	182.52
6.273	6.273	0.000	15055088	1000.00	1220	77.74- 117.74	97.74
Average of Peak Amounts =					1.03e+03		
$ 1 4cmx					CAS #: 877-09-8		
2.921	2.920	0.001	99474310	0.00000	199	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.857	8.856	0.001	72617877	0.00000	184	80.00- 120.00	100.00

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd3a.i/010510p.b/005b0501.d
Date : 05-JAN-2010 12:30
Client ID: CHLOR01
Sample Info: IWPE091021-00CL

Column phase: CLP-2

Instrument: ecd3a.i

Operator: HXJ1
Column diameter: 0.25

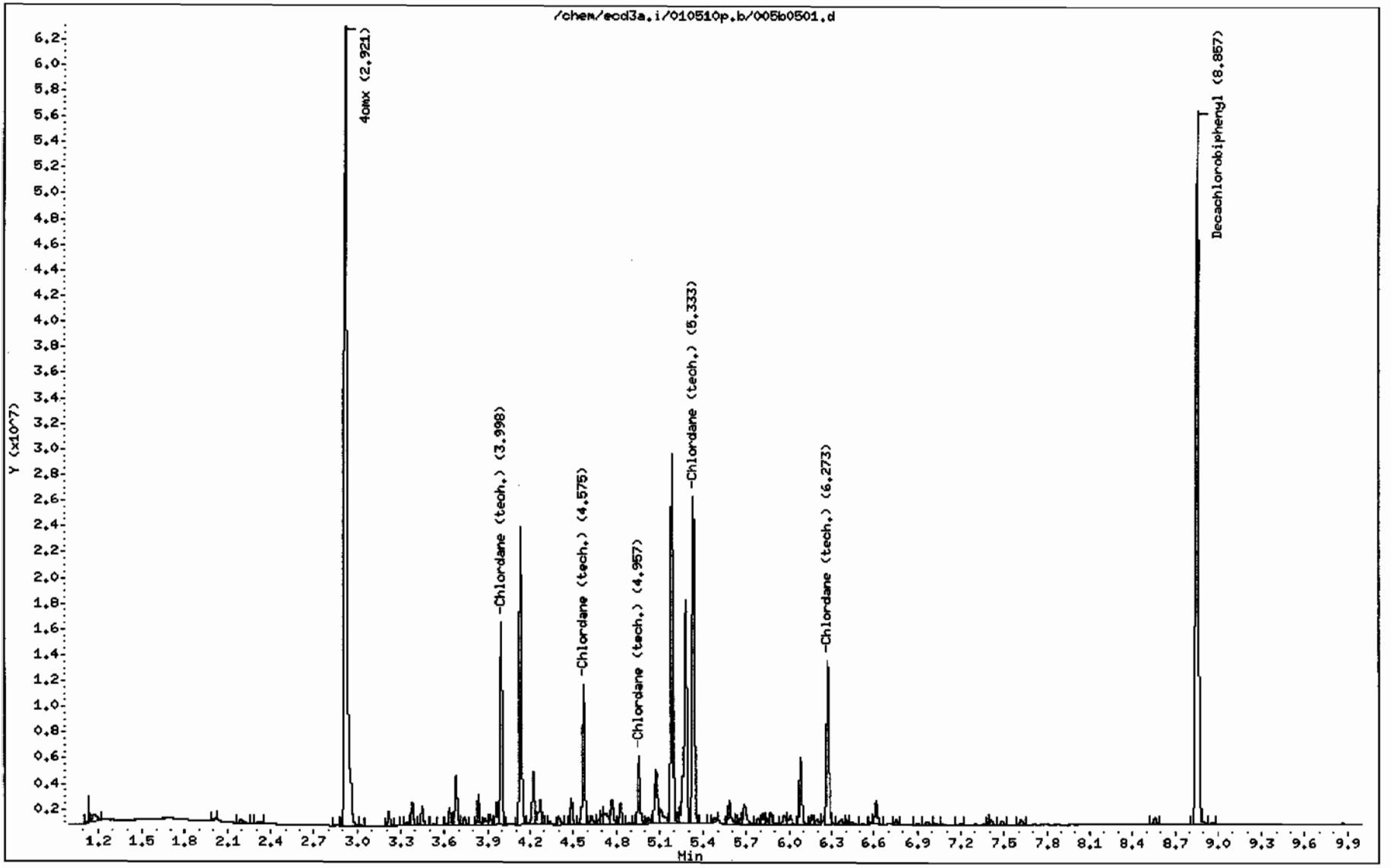

Comment: Manually Integrated
Data File: /chem/ecd3a.i/010510p.b/005b0501.d
Operator: HXJ1
Injection Date: 05-JAN-2010 12:30
Instrument: ecd3a.i
Client Sample ID: CHLOR01

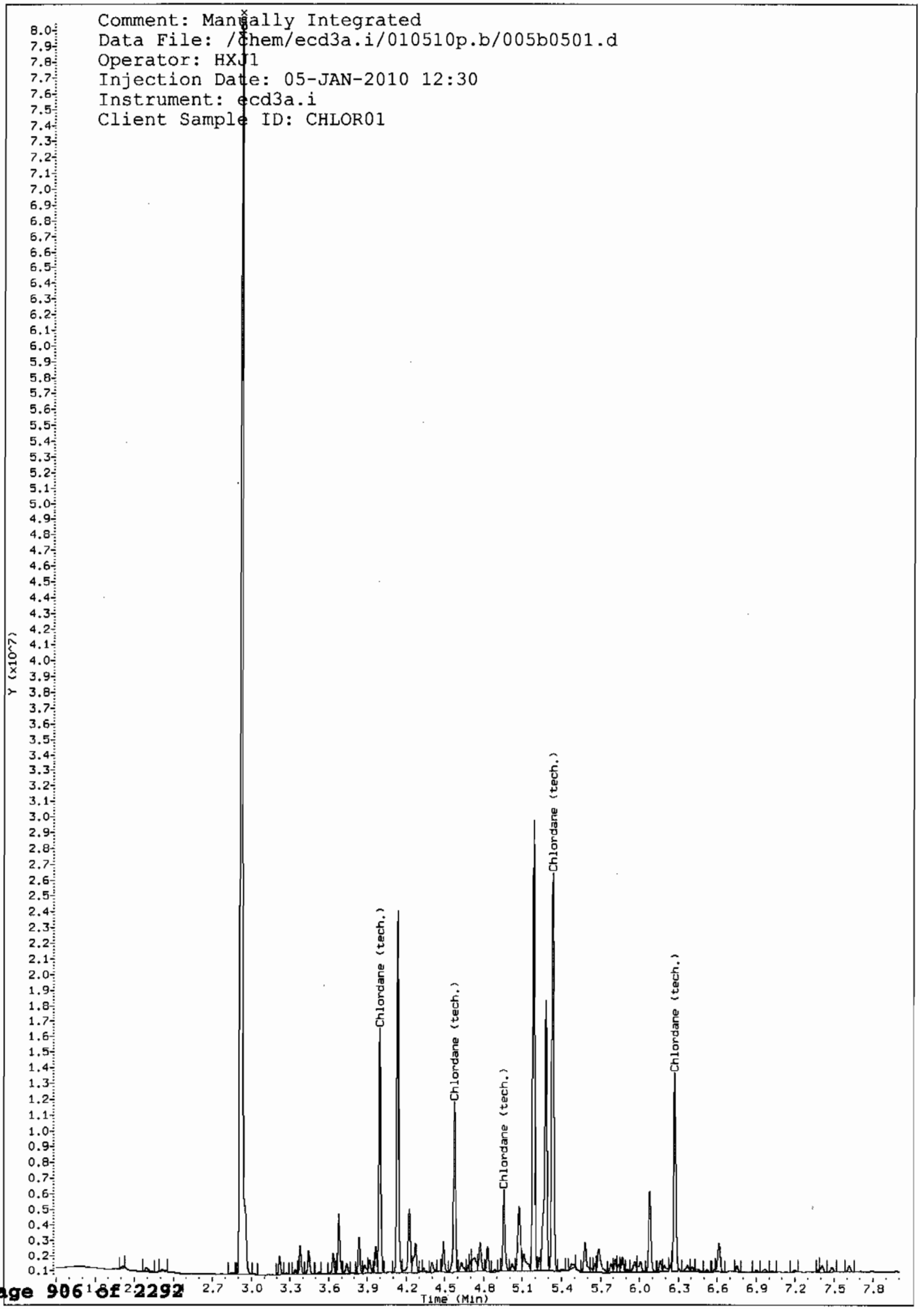

Comment: Before manual integration
Data File: /chem/ecd3a.i/010510p.b/orig-005b0501.d
Operator: HXJ1
Injection Date: 05-JAN-2010 12:30
Instrument: ecd3a.i
Client Sample ID: CHLOR01

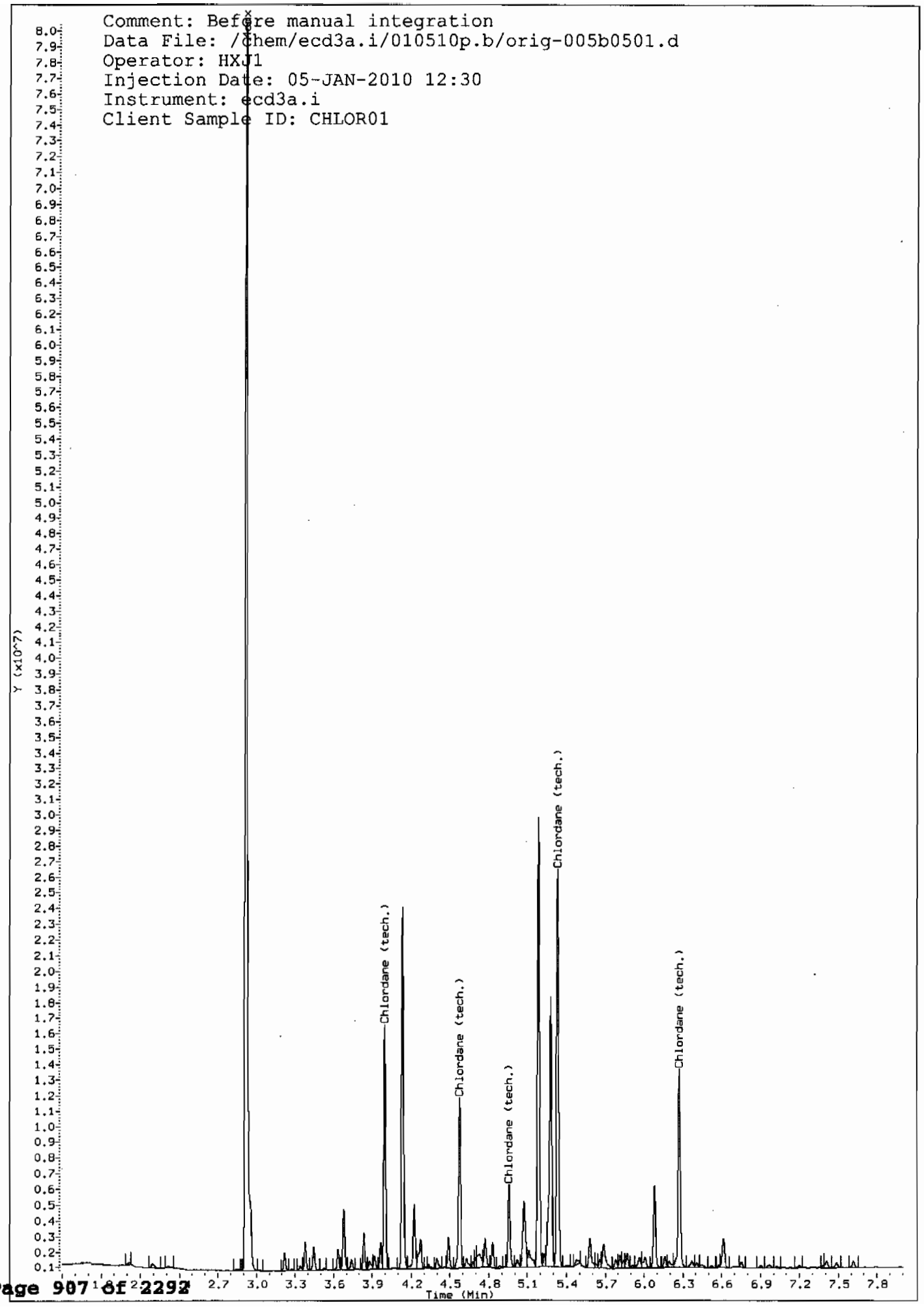

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CLP-1

Data file : /chem/ecd3a.i/010510p.b/019f1901.d
Lab Smp Id: WPE091218-10AB Client Smp ID: INDAB02
Inj Date : 05-JAN-2010 16:48
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |WPE091218-10AB
Misc Info : |ABICV|
Comment :
Method : /chem/ecd3a.i/010510p.b/ECD3-F-8081-122909.m
Meth Date : 11-Jan-2010 08:30 cla01575 Quant Type: ESTD
Cal Date : 05-JAN-2010 14:45 Cal File: 010f1001.d
Als bottle: 19 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: kilroy

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
3.084	3.083	0.001	9996510	100.000	97.1	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.328	3.327	0.001	9130592	100.000	110	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
3.392	3.391	0.001	3646171	100.000	102	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
3.711	3.710	0.001	6821178	100.000	105	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
3.540	3.540	0.000	8596005	100.000	100	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
3.968	3.967	0.001	7716354	100.000	96.8	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.504	4.503	0.001	7200403	100.000	101	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
4.618	4.618	0.000	6742553	100.000	98.6	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
4.741	4.741	0.000	6356971	100.000	91.4	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
16 Endosulfan I					CAS #: 959-98-8		
4.873	4.873	0.000	6633932	100.000	108	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
4.809	4.809	0.000	13963251	200.000	204	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
5.101	5.101	0.000	14408878	200.000	202	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.330	5.330	0.000	12738024	200.000	224	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.391	5.391	0.000	11287482	200.000	205	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
5.554	5.553	0.001	12090768	200.000	207	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
5.978	5.977	0.001	9510395	200.000	193	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
5.670	5.670	0.000	9724297	200.000	216	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
6.430	6.430	0.000	9733831	200.000	204	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
6.175	6.173	0.002	21419544	1000.00	966	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
6.729	6.728	0.001	12596978	200.000	196	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
2.679	2.677	0.002	13103381	0.00000	193	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.821	7.821	0.000	9192742	0.00000	177	80.00- 120.00	100.00

Data File: /chem/ecd3a.i/010510p.b/019f1901.d
Date : 05-JAN-2010 16:48
Client ID: INDAB02
Sample Info: IWPE091218-10AB

Column phase: CLP-1

Instrument: ecd3a.i

Operator: HXJ1
Column diameter: 0.25

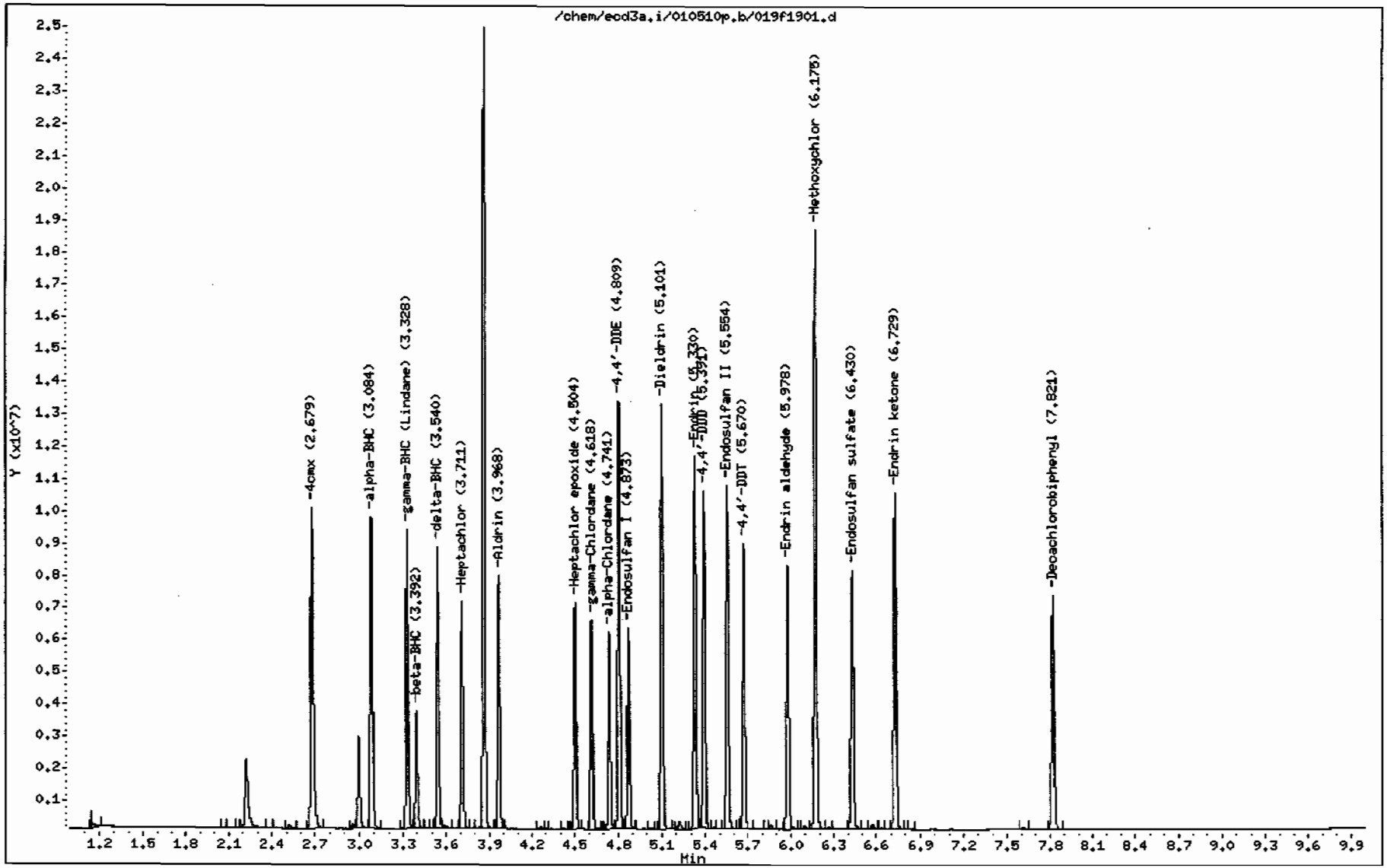

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd3a.i/010510p.b/019b1901.d
Lab Smp Id: WPE091218-10AB Client Smp ID: INDAB02
Inj Date : 05-JAN-2010 16:48
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |WPE091218-10AB
Misc Info : |ABICV|
Comment :
Method : /chem/ecd3a.i/010510p.b/ECD3-B-8081-122909.m
Meth Date : 11-Jan-2010 08:29 cla01575 Quant Type: ESTD
Cal Date : 05-JAN-2010 14:45 Cal File: 010b1001.d
Als bottle: 19 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: kilroy

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
3.412	3.412	0.000	71303930	100.000	104	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.721	3.721	0.000	60117137	100.000	103	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
3.783	3.783	0.000	23610884	100.000	93.1	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
4.134	4.134	0.000	40117133	100.000	94.7	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
4.055	4.055	0.000	50933861	100.000	96.7	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.446	4.446	0.000	34760217	100.000	91.5	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.996	4.996	0.000	28071882	100.000	91.7	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
5.189	5.186	0.003	90426934	100.000	304	80.00- 120.00	100.00(A)
18 alpha-Chlordane					CAS #: 5103-71-9		
5.333	5.334	-0.001	27449959	100.000	91.9	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
16 Endosulfan I					CAS #: 959-98-8		
5.397	5.397	0.000	29578355	100.000	105	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.491	5.491	0.000	60451536	200.000	204	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
5.677	5.678	-0.001	69725780	200.000	202	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.998	5.997	0.001	75722894	200.000	225	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
6.096	6.096	0.000	70643502	200.000	207	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
6.218	6.217	0.001	78854055	200.000	200	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
6.575	6.574	0.001	73694590	200.000	192	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
6.436	6.436	0.000	78046482	200.000	217	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
6.877	6.877	0.000	96740706	200.000	206	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
7.178	7.178	0.000	183945340	1000.00	929	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
7.468	7.468	0.000	114506805	200.000	197	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
2.921	2.920	0.001	90690183	0.00000	181	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.856	8.856	0.000	70617472	0.00000	179	80.00- 120.00	100.00

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.

Data File: /chem/ecd3a.i/010510p.b/019b1901.d
Date : 05-JAN-2010 16:48
Client ID: INDAB02
Sample Info: IWPE091218-10AB
Column phase: CLP-2

Instrument: ecd3a.i
Operator: HXJ1
Column diameter: 0.25

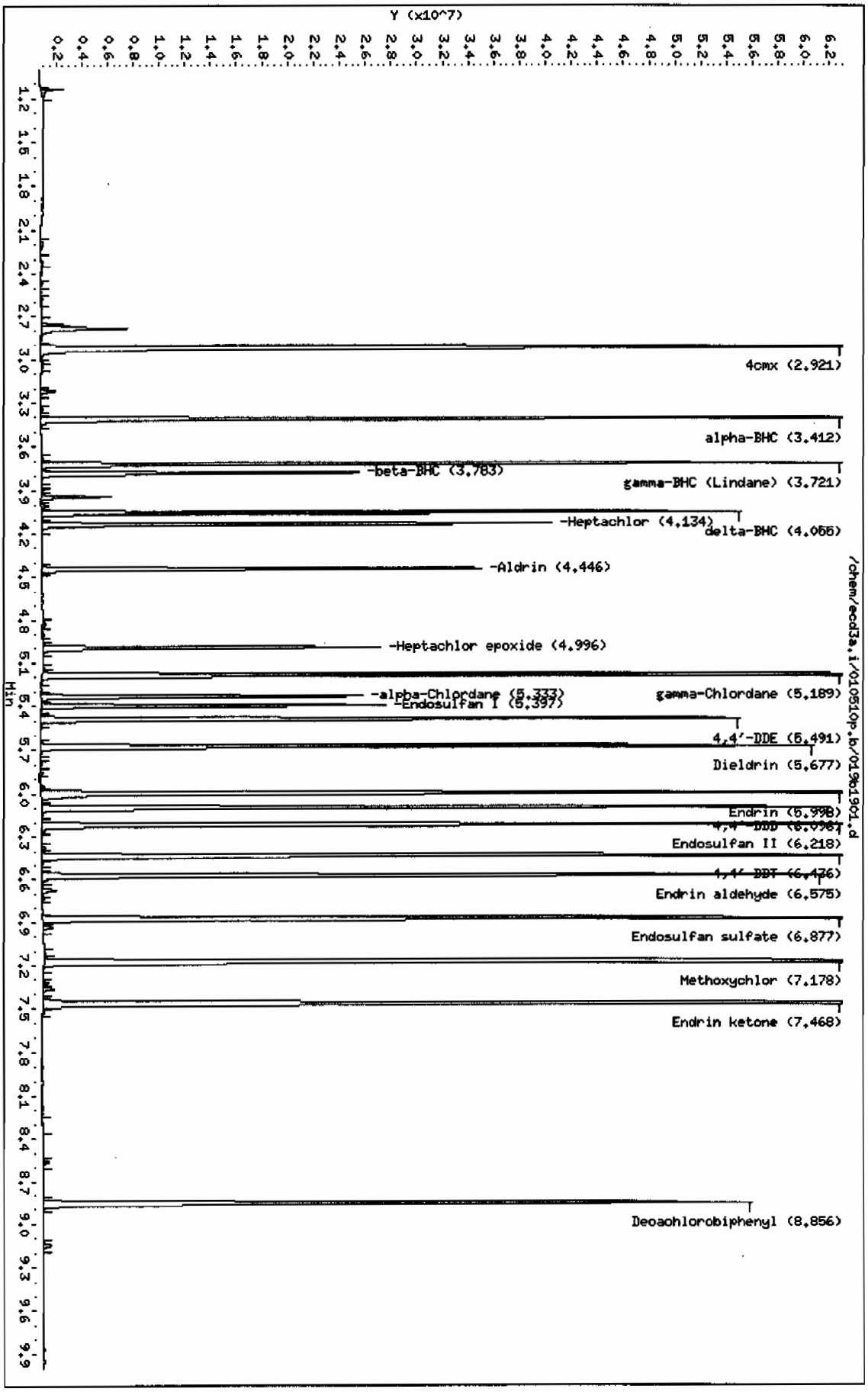

Page 1

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CLP-1

Data file : /chem/ecd3a.i/010510p.b/030f3001.d
Lab Smp Id: WPE091218-10AB Client Smp ID: INDAB03
Inj Date : 05-JAN-2010 19:18
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |WPE091218-10AB
Misc Info : |ABICV|
Comment :
Method : /chem/ecd3a.i/010510p.b/ECD3-F-8081-122909.m
Meth Date : 11-Jan-2010 08:31 cla01575 Quant Type: ESTD
Cal Date : 05-JAN-2010 14:45 Cal File: 010f1001.d
Als bottle: 30 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: kilroy

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
3.082	3.083	-0.001	10675972	100.000	103	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.327	3.327	0.000	9714649	100.000	117	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
3.391	3.391	0.000	3876848	100.000	108	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
3.710	3.710	0.000	7346223	100.000	113	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
3.539	3.540	-0.001	9164182	100.000	107	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
3.968	3.967	0.001	8364337	100.000	105	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.503	4.503	0.000	7747737	100.000	109	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
4.618	4.618	0.000	7977886	100.000	117	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
4.741	4.741	0.000	6952033	100.000	100	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
16 Endosulfan I					CAS #: 959-98-8		
4.873	4.873	0.000	7162301	100.000	116	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
4.809	4.809	0.000	15022222	200.000	219	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
5.101	5.101	0.000	15449554	200.000	217	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.329	5.330	-0.001	13420505	200.000	236	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.391	5.391	0.000	12058475	200.000	219	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
5.553	5.553	0.000	12938497	200.000	221	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
5.978	5.977	0.001	10238875	200.000	208	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
5.671	5.670	0.001	10362279	200.000	230	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
6.430	6.430	0.000	10485389	200.000	220	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
6.174	6.173	0.001	22719378	1000.00	1020	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
6.728	6.728	0.000	13401358	200.000	208	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
2.676	2.677	-0.001	13850002	0.00000	204	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.822	7.821	0.001	9574924	0.00000	185	80.00- 120.00	100.00

Data File: /chem/ecd3a.i/010510p.b/030f3001.d
Date : 05-JAN-2010 19:18
Client ID: INDAB03
Sample Info: IWPE091218-10AB

Column phase: CLP-1

Instrument: ecd3a.i

Operator: HXJ1
Column diameter: 0.25

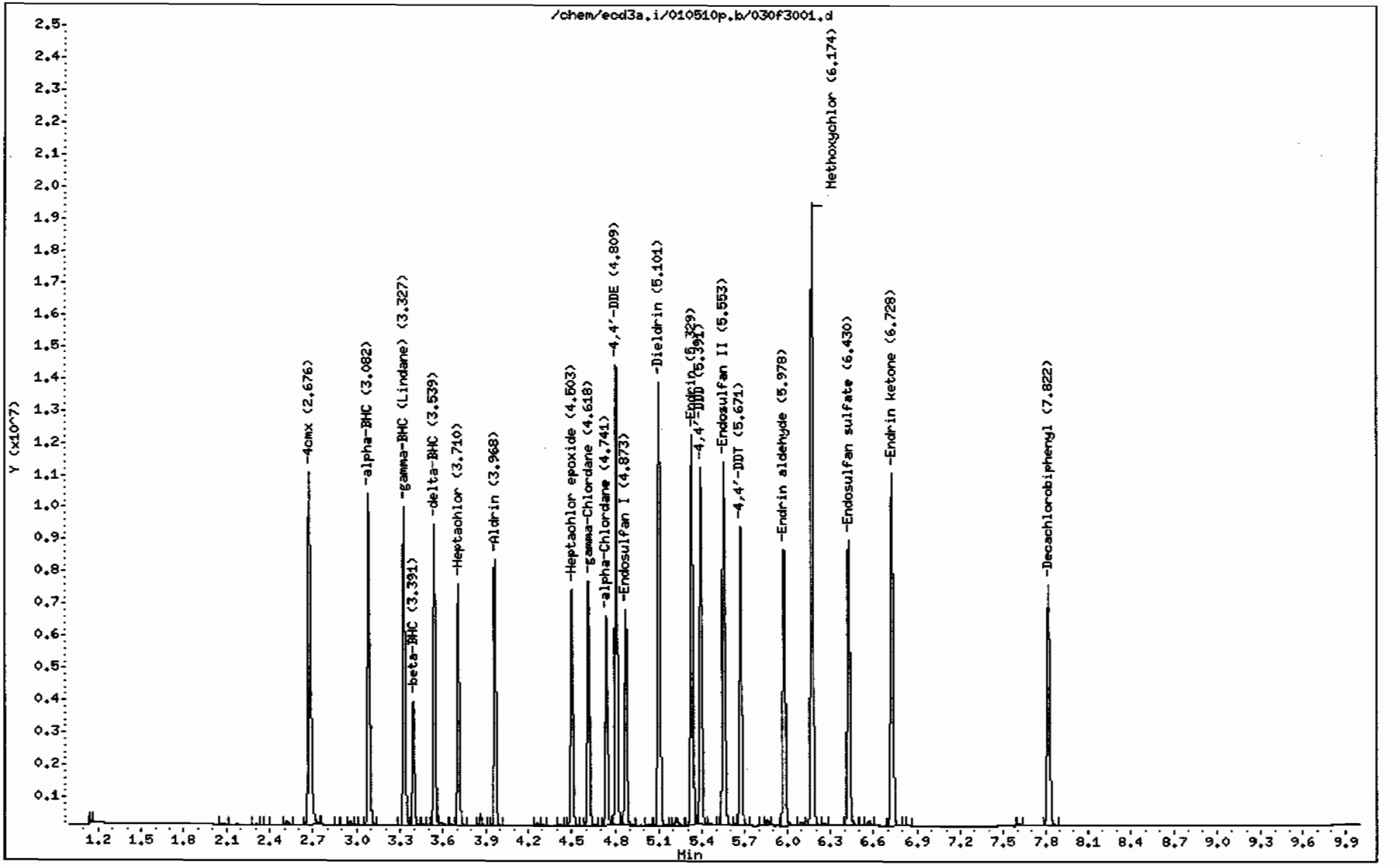

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd3a.i/010510p.b/030b3001.d
Lab Smp Id: WPE091218-10AB Client Smp ID: INDAB03
Inj Date : 05-JAN-2010 19:18
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |WPE091218-10AB
Misc Info : |ABICV|
Comment :
Method : /chem/ecd3a.i/010510p.b/ECD3-B-8081-122909.m
Meth Date : 11-Jan-2010 08:31 cla01575 Quant Type: ESTD
Cal Date : 05-JAN-2010 14:45 Cal File: 010b1001.d
Als bottle: 30 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: kilroy

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
3.411	3.412	-0.001	74327600	100.000	108	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.721	3.721	0.000	62584136	100.000	108	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
3.783	3.783	0.000	24654549	100.000	97.2	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
4.134	4.134	0.000	42222026	100.000	99.7	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
4.054	4.055	-0.001	54898294	100.000	104	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.446	4.446	0.000	36785519	100.000	96.8	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.996	4.996	0.000	29750083	100.000	97.2	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
5.187	5.186	0.001	31831210	100.000	102	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
5.333	5.334	-0.001	28924220	100.000	96.8	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
16 Endosulfan I					CAS #: 959-98-8		
5.397	5.397	0.000	31229174	100.000	110	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.491	5.491	0.000	63270928	200.000	214	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
5.678	5.678	0.000	73542027	200.000	213	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.997	5.997	0.000	78599219	200.000	234	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
6.097	6.096	0.001	74423989	200.000	218	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
6.217	6.217	0.000	82915703	200.000	210	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
6.575	6.574	0.001	78144290	200.000	204	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
6.436	6.436	0.000	80444137	200.000	224	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
6.877	6.877	0.000	102686520	200.000	218	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
7.178	7.178	0.000	192497350	1000.00	972	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
7.468	7.468	0.000	116946588	200.000	202	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
2.919	2.920	-0.001	93086806	0.00000	186	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.857	8.856	0.001	72567106	0.00000	184	80.00- 120.00	100.00

Data File: /chem/ecd3a.i/010510p.b/030b3001.d
Date : 05-JAN-2010 19:18
Client ID: INDAB03
Sample Info: IWPE091218-10AB

Column phase: CLP-2

Instrument: ecd3a.i

Operator: HXJ1
Column diameter: 0.25

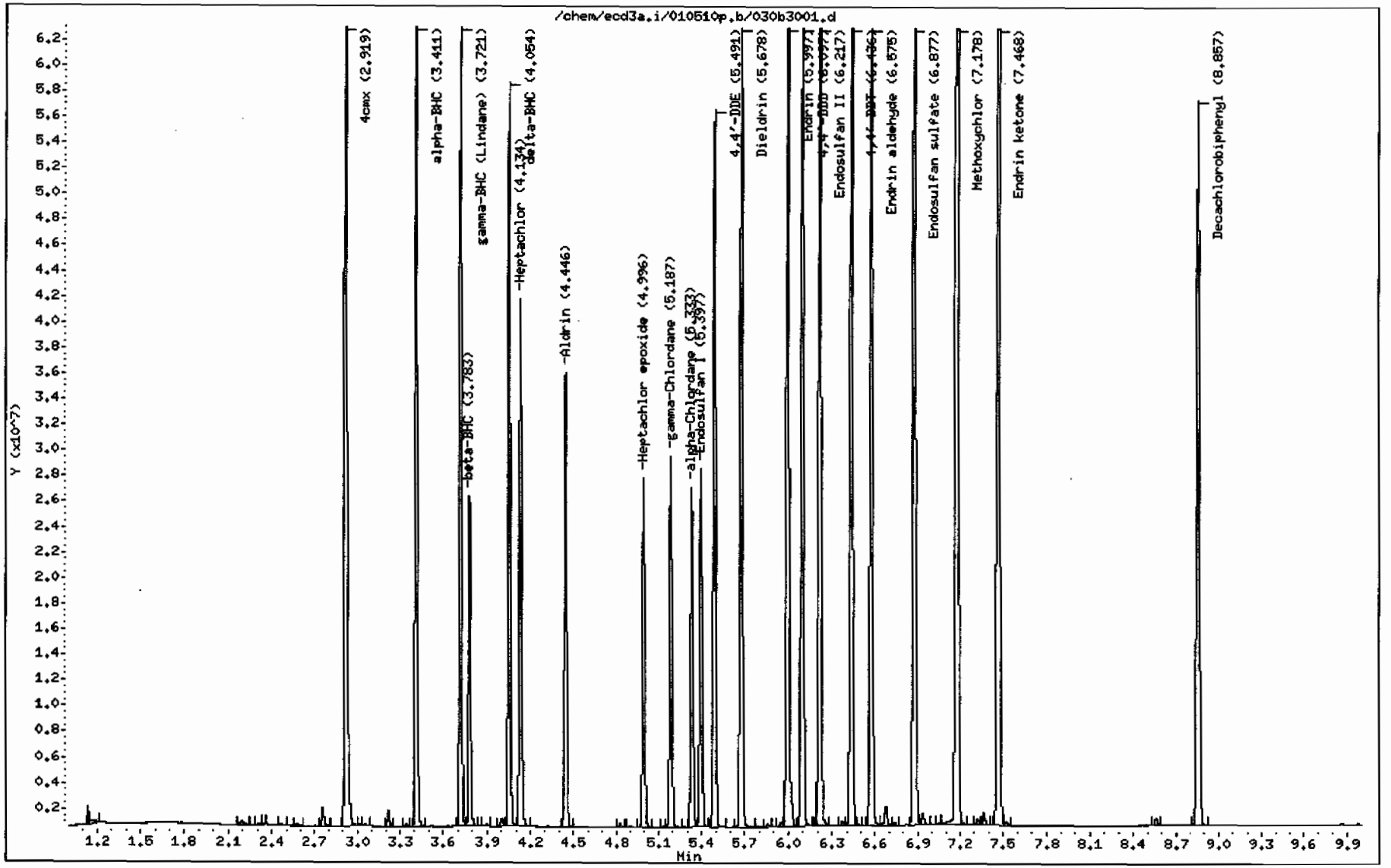

8D
PESTICIDE ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1085-1

GC Column: CLP-1 ID: 0.25 (mm) Init. Calib. Date(s): 12/29/09 12/29/09

Instrument ID: ECD3A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.68 DCB: 7.82

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR091130-99	12/29/09	1657	2.68	7.82
02	PEM01	WPE091219-99	12/29/09	1710	2.68	7.82
03	INDAB01	WPE091228-01	12/29/09	1734	2.68	7.83
04	INDAB02	WPE091228-02	12/29/09	1747	2.68	7.83
05	INDAB03	WPE091228-03	12/29/09	1801	2.68	7.82
06	INDAB04	WPE091228-04	12/29/09	1815	2.68	7.82
07	INDAB05	IPE091219-02	12/29/09	1829	2.68	7.82
08	INDAB01	WPE091218-10	12/29/09	1843	2.68	7.82
09	TOXAPH01	WPE091228-11	12/29/09	1856	2.68	7.82
10	TOXAPH02	WPE091228-12	12/29/09	1910	2.68	7.82
11	TOXAPH03	WPE091228-13	12/29/09	1924	2.68	7.82
12	ZZZZZ	ZZZZZ	12/29/09	1937		
13	TOXAPH04	WPE091228-14	12/29/09	2001	2.68	7.83
14	TOXAPH05	IPE091121-40	12/29/09	2014	2.68	7.82
15	TOXAPH01	WPE091219-52	12/29/09	2028	2.68	7.82
16	CHLOR01	WPE091228-21	12/29/09	2042	2.68	7.82
17	CHLOR02	WPE091228-22	12/29/09	2114	2.68	7.83
18	CHLOR03	WPE091228-23	12/29/09	2128	2.68	7.82
19	CHLOR04	WPE091228-24	12/29/09	2141	2.68	7.82
20	CHLOR05	IPE091029-06	12/29/09	2155	2.68	7.82
21	CHLOR01	WPE091206-60	12/29/09	2209	2.68	7.82
22	PEM02	WPE091219-99	12/29/09	2222	2.68	7.82
23	PIBLK02	WAR091130-99	12/29/09	2236	2.68	7.82
24	ZZZZZ	ZZZZZ	12/29/09	2249	2.68	7.82
25	ZZZZZ	ZZZZZ	12/29/09	2303	2.68	7.82
26	ZZZZZ	ZZZZZ	12/29/09	2317	2.68	7.82
27	ZZZZZ	ZZZZZ	12/29/09	2330	2.68	7.82
28	PIBLK03	WAR091130-99	12/29/09	2344	2.68	7.82
29	INDAB02	WPE091218-10	12/29/09	2358	2.68	7.82
30	PIBLK04	WAR091130-99	12/30/09	0011	2.68	7.82
31	ZZZZZ	ZZZZZ	12/30/09	0025	2.68	7.82
32	ZZZZZ	ZZZZZ	12/30/09	0039	2.68	7.82

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII SV OLM03.0

8D
PESTICIDE ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1085-1

GC Column: CLP-2 ID: 0.25 (mm) Init. Calib. Date(s): 12/29/09 12/29/09

Instrument ID: ECD3A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.92 DCB: 8.86

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR091130-99	12/29/09	1657	2.92	8.86
02	PEM01	WPE091219-99	12/29/09	1710	2.92	8.86
03	INDAB01	WPE091228-01	12/29/09	1734	2.92	8.87
04	INDAB02	WPE091228-02	12/29/09	1747	2.92	8.86
05	INDAB03	WPE091228-03	12/29/09	1801	2.92	8.86
06	INDAB04	WPE091228-04	12/29/09	1815	2.92	8.86
07	INDAB05	IPE091219-02	12/29/09	1829	2.92	8.86
08	INDAB01	WPE091218-10	12/29/09	1843	2.92	8.86
09	TOXAPH01	WPE091228-11	12/29/09	1856	2.92	8.86
10	TOXAPH02	WPE091228-12	12/29/09	1910	2.92	8.86
11	TOXAPH03	WPE091228-13	12/29/09	1924	2.92	8.86
12	ZZZZZ	ZZZZZ	12/29/09	1937		
13	TOXAPH04	WPE091228-14	12/29/09	2001	2.92	8.86
14	TOXAPH05	IPE091121-40	12/29/09	2014	2.92	8.86
15	TOXAPH01	WPE091219-52	12/29/09	2028	2.92	8.86
16	CHLOR01	WPE091228-21	12/29/09	2042	2.92	8.86
17	CHLOR02	WPE091228-22	12/29/09	2114	2.92	8.86
18	CHLOR03	WPE091228-23	12/29/09	2128	2.92	8.86
19	CHLOR04	WPE091228-24	12/29/09	2141	2.92	8.86
20	CHLOR05	IPE091029-06	12/29/09	2155	2.92	8.86
21	CHLOR01	WPE091206-60	12/29/09	2209	2.92	8.86
22	PEM02	WPE091219-99	12/29/09	2222	2.92	8.86
23	PIBLK02	WAR091130-99	12/29/09	2236	2.92	8.86
24	ZZZZZ	ZZZZZ	12/29/09	2249	2.92	8.86
25	ZZZZZ	ZZZZZ	12/29/09	2303	2.92	8.86
26	ZZZZZ	ZZZZZ	12/29/09	2317	2.92	8.86
27	ZZZZZ	ZZZZZ	12/29/09	2330	2.92	8.86
28	PIBLK03	WAR091130-99	12/29/09	2344	2.92	8.86
29	INDAB02	WPE091218-10	12/29/09	2358	2.92	8.86
30	PIBLK04	WAR091130-99	12/30/09	0011	2.92	8.86
31	ZZZZZ	ZZZZZ	12/30/09	0025	2.92	8.86
32	ZZZZZ	ZZZZZ	12/30/09	0039	2.92	8.86

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII SV OLM03.0

8D
PESTICIDE ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1085-1

GC Column: CLP-1 ID: 0.25 (mm) Init. Calib. Date(s): 01/04/10 01/04/10

Instrument ID: ECD3A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.68 DCB: 7.82

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR091130-99	01/04/10	1210	2.67	7.82
02	PEM	WPE091219-99	01/04/10	1224	2.67	7.82
03	ZZZZZ	ZZZZZ	01/04/10	1238	2.68	7.82
04	TOXAPH01	WPE091219-52	01/04/10	1310	2.68	7.83
05	CHLOR01	WPE091021-00	01/04/10	1324	2.68	7.82
06	INDAB01	WPE100104-01	01/04/10	1340	2.68	7.83
07	INDAB02	WPE100104-02	01/04/10	1353	2.68	7.82
08	INDAB03	WPE100104-03	01/04/10	1407	2.68	7.82
09	INDAB04	WPE100104-04	01/04/10	1421	2.68	7.82
10	INDAB05	IPE091219-02	01/04/10	1434	2.68	7.82
11	ZZZZZ	ZZZZZ	01/04/10	1448	2.68	7.82
12	INDAB01	WPE091218-10	01/04/10	1502	2.68	7.82
13	PIBLK02	WAR091130-99	01/04/10	1530	2.68	7.83
14	ZZZZZ	ZZZZZ	01/04/10	1543	2.68	7.82
15	ZZZZZ	ZZZZZ	01/04/10	1557	2.68	7.82
16	ZZZZZ	ZZZZZ	01/04/10	1611	2.68	7.82
17	ZZZZZ	ZZZZZ	01/04/10	1624	2.68	7.82
18	ZZZZZ	ZZZZZ	01/04/10	1638	2.68	7.82
19	ZZZZZ	ZZZZZ	01/04/10	1652	2.68	7.82
20	ZZZZZ	ZZZZZ	01/04/10	1705	2.68	7.82
21	INDAB02	WPE091218-10	01/04/10	1723	2.68	7.83
22	PIBLK03	WAR091130-99	01/04/10	1737	2.68	7.82
23	ZZZZZ	ZZZZZ	01/04/10	1750	2.68	7.82
24	ZZZZZ	ZZZZZ	01/04/10	1804	2.68	7.82
25	ZZZZZ	ZZZZZ	01/04/10	1817	2.68	7.82
26	ZZZZZ	ZZZZZ	01/04/10	1831	2.68	7.82
27	ZZZZZ	ZZZZZ	01/04/10	1845	2.68	7.82
28	ZZZZZ	ZZZZZ	01/04/10	1858	2.68	7.82
29	PIBLK04	WAR091130-99	01/04/10	1912	2.68	7.82
30	INDAB03	WPE091218-10	01/04/10	1926	2.68	7.82
31	PIBLK05	WAR091130-99	01/04/10	1939	2.68	7.82
32	ZZZZZ	ZZZZZ	01/04/10	1953	2.68	7.82

QC LIMITS
S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII SV OLM03.0

8D
PESTICIDE ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1085-1

GC Column: CLP-2 ID: 0.25 (mm) Init. Calib. Date(s): 01/04/10 01/04/10

Instrument ID: ECD3A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.92 DCB: 8.86

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PEM	WPE091219-99	01/04/10	1224	2.92	8.86
02	ZZZZZ	ZZZZZ	01/04/10	1238	2.92	8.86
03	TOXAPH01	WPE091219-52	01/04/10	1310	2.92	8.87
04	CHLOR01	WPE091021-00	01/04/10	1324	2.92	8.86
05	INDAB01	WPE100104-01	01/04/10	1340	2.92	8.86
06	INDAB02	WPE100104-02	01/04/10	1353	2.92	8.86
07	INDAB03	WPE100104-03	01/04/10	1407	2.92	8.86
08	INDAB04	WPE100104-04	01/04/10	1421	2.92	8.86
09	INDAB05	IPE091219-02	01/04/10	1434	2.92	8.86
10	ZZZZZ	ZZZZZ	01/04/10	1448	2.92	8.86
11	INDAB01	WPE091218-10	01/04/10	1502	2.92	8.86
12	PIBLK02	WAR091130-99	01/04/10	1530	2.92	8.87
13	ZZZZZ	ZZZZZ	01/04/10	1543	2.92	8.86
14	ZZZZZ	ZZZZZ	01/04/10	1557	2.92	8.86
15	ZZZZZ	ZZZZZ	01/04/10	1611	2.92	8.86
16	ZZZZZ	ZZZZZ	01/04/10	1624	2.92	8.86
17	ZZZZZ	ZZZZZ	01/04/10	1638	2.92	8.86
18	ZZZZZ	ZZZZZ	01/04/10	1652	2.92	8.86
19	ZZZZZ	ZZZZZ	01/04/10	1705	2.92	8.86
20	INDAB02	WPE091218-10	01/04/10	1723	2.92	8.86
21	PIBLK03	WAR091130-99	01/04/10	1736	2.92	8.86
22	ZZZZZ	ZZZZZ	01/04/10	1750	2.92	8.86
23	ZZZZZ	ZZZZZ	01/04/10	1804	2.92	8.86
24	ZZZZZ	ZZZZZ	01/04/10	1817	2.92	8.86
25	ZZZZZ	ZZZZZ	01/04/10	1831	2.92	8.86
26	ZZZZZ	ZZZZZ	01/04/10	1845	2.92	8.86
27	ZZZZZ	ZZZZZ	01/04/10	1858	2.92	8.86
28	PIBLK04	WAR091130-99	01/04/10	1912	2.92	8.86
29	INDAB03	WPE091218-10	01/04/10	1926	2.92	8.86
30	PIBLK05	WAR091130-99	01/04/10	1939	2.92	8.86
31	ZZZZZ	ZZZZZ	01/04/10	1953	2.92	8.86
32	ZZZZZ	ZZZZZ	01/04/10	2007	2.92	8.86

QC LIMITS
S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII SV OLM03.0

8D
PESTICIDE ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1085-1

GC Column: CLP-1 ID: 0.25 (mm) Init. Calib. Date(s): 12/29/09 01/04/10

Instrument ID: ECD3A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.68 DCB: 7.83

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR091130-99	01/05/10	1135	2.67	7.82
02	PEM01	WPE091219-99	01/05/10	1149	2.68	7.82
03	INDAB01	WPE091218-10	01/05/10	1202	2.68	7.82
04	TOXAHP01	WPE091219-52	01/05/10	1216	2.68	7.82
05	CHLOR01	WPE091021-00	01/05/10	1230	2.68	7.82
06	GAPA01	WPE100104-31	01/05/10	1349	2.68	7.83
07	GAPA02	WPE100104-32	01/05/10	1404	2.68	7.83
08	GAPA03	WPE100104-33	01/05/10	1417	2.68	7.82
09	GAPA04	WPE100104-34	01/05/10	1431	2.68	7.82
10	GAPA05	IPE091110-01	01/05/10	1445	2.68	7.82
11	GAPA01	WPE091021-05	01/05/10	1458	2.68	7.82
12	PIBLK02	WAR091130-99	01/05/10	1512	2.68	7.82
13	TBLK01	1202004963	01/05/10	1526	2.68	7.82
14	PBLK01	1202006590	01/05/10	1540	2.68	7.82
15	PBLK01LCS	1202006592	01/05/10	1553	2.68	7.82
16	PBLK01TLCS	1202006593	01/05/10	1607	2.68	7.82
17	PBLK01CLCS	1202006594	01/05/10	1621	2.68	7.82
18	PIBLK03	WAR091130-99	01/05/10	1634	2.68	7.82
19	INDAB02	WPE091218-10	01/05/10	1648	2.68	7.82
20	PIBLK04	WAR091130-99	01/05/10	1701	2.68	7.82
21	ZZZZZ	ZZZZZ	01/05/10	1715	2.68	7.82
22	WST03-10-2148	243551001	01/05/10	1729	2.68	7.82
23	WST03-10-2148MS	1202006595	01/05/10	1742	2.68	7.82
24	WST03-10-2148MSD	1202006599	01/05/10	1756	2.68	7.82
25	WST03-10-2148TMS	1202006600	01/05/10	1810	2.68	7.82
26	WST03-10-2148TMSD	1202006596	01/05/10	1823	2.68	7.82
27	WST03-10-2148CMS	1202006597	01/05/10	1837	2.68	7.82
28	WST03-10-2148CMSD	1202006598	01/05/10	1851	2.68	7.82
29	PIBLK05	WAR091130-99	01/05/10	1904	2.68	7.82
30	INDAB03	WPE091218-10	01/05/10	1918	2.68	7.82
31	PIBLK06	WAR091130-99	01/05/10	1932	2.67	7.82
32	ZZZZZ	ZZZZZ	01/05/10	1945	2.68	7.82

QC LIMITS
S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII SV OLM03.0

8D
PESTICIDE ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1085-1

GC Column: CLP-2 ID: 0.25 (mm) Init. Calib. Date(s): 12/29/09 01/04/10

Instrument ID: ECD3A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.92 DCB: 8.87

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR091130-99	01/05/10	1135	2.92	8.85
02	PEM01	WPE091219-99	01/05/10	1149	2.92	8.86
03	INDAB01	WPE091218-10	01/05/10	1202	2.92	8.86
04	TOXAPH01	WPE091219-52	01/05/10	1216	2.92	8.86
05	CHLOR01	WPE091021-00	01/05/10	1230	2.92	8.86
06	GAPA01	WPE100104-31	01/05/10	1349	2.92	8.87
07	GAPA02	WPE100104-32	01/05/10	1404	2.92	8.86
08	GAPA03	WPE100104-33	01/05/10	1417	2.92	8.86
09	GAPA04	WPE100104-34	01/05/10	1431	2.92	8.86
10	GAPA05	IPE091110-01	01/05/10	1445	2.92	8.86
11	GAPA01	WPE091021-05	01/05/10	1458	2.92	8.86
12	PIBLK02	WAR091130-99	01/05/10	1512	2.92	8.86
13	TBLK01	1202004963	01/05/10	1526	2.92	8.86
14	PBLK01	1202006590	01/05/10	1540	2.92	8.86
15	PBLK01LCS	1202006592	01/05/10	1553	2.92	8.86
16	PBLK01TLCS	1202006593	01/05/10	1607	2.92	8.86
17	PBLK01CLCS	1202006594	01/05/10	1621	2.92	8.86
18	PIBLK03	WAR091130-99	01/05/10	1634	2.92	8.86
19	INDAB02	WPE091218-10	01/05/10	1648	2.92	8.86
20	PIBLK04	WAR091130-99	01/05/10	1701	2.92	8.86
21	ZZZZZ	ZZZZZ	01/05/10	1715	2.92	8.86
22	WST03-10-2148	243551001	01/05/10	1729	2.92	8.86
23	WST03-10-2148MS	1202006595	01/05/10	1742	2.92	8.86
24	WST03-10-2148MSD	1202006599	01/05/10	1756	2.92	8.86
25	WST03-10-2148TMS	1202006600	01/05/10	1810	2.92	8.86
26	WST03-10-2148TMSD	1202006596	01/05/10	1823	2.92	8.86
27	WST03-10-2148CMS	1202006597	01/05/10	1837	2.92	8.86
28	WST03-10-2148CMSD	1202006598	01/05/10	1851	2.92	8.86
29	PIBLK05	WAR091130-99	01/05/10	1904	2.92	8.86
30	INDAB03	WPE091218-10	01/05/10	1918	2.92	8.86
31	PIBLK06	WAR091130-99	01/05/10	1932	2.92	8.86
32	ZZZZZ	ZZZZZ	01/05/10	1945	2.92	8.86

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII SV OLM03.0

Identification Summary

SDG Number: 10–1085–1 **Client ID:** LCS for batch 937694

Lab Sample ID: 1202006592

Data File:	015f1501.d	**Data File:**	015b1501.d
Inst:	ECD3A.I_1	**Inst:**	ECD3A.I_2
Column:	CLP–1	**Column:**	CLP–2
Analyzed:	05–JAN–10 15:53	**Analyzed:**	05–JAN–10 15:53

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
gamma–BHC (Lindane)							5.31
Column 1	1	3.33	3.3 – 3.36	.00378		mg/L	
Column 2	1	3.72	3.69 – 3.75	.00359		mg/L	
Heptachlor							10.2
Column 1	1	3.71	3.68 – 3.74	.0026		mg/L	
Column 2	1	4.13	4.1 – 4.16	.00234		mg/L	
Heptachlor epoxide							8.69
Column 1	1	4.5	4.47 – 4.53	.00363		mg/L	
Column 2	1	5	4.97 – 5.03	.00333		mg/L	
Endrin							1.17
Column 1	1	5.33	5.3 – 5.36	.00443		mg/L	
Column 2	1	6	5.97 – 6.03	.00448		mg/L	
Methoxychlor							4.2
Column 1	1	6.17	6.14 – 6.2	.0405		mg/L	
Column 2	1	7.18	7.15 – 7.21	.0388		mg/L	

Identification Summary

SDG Number: 10–1085–1 **Client ID:** LCS for batch 937694

Lab Sample ID: 1202006594

Data File:	017f1701.d	**Data File:**	017b1701.d
Inst:	ECD3A.I_1	**Inst:**	ECD3A.I_2
Column:	CLP–1	**Column:**	CLP–2
Analyzed:	05–JAN–10 16:21	**Analyzed:**	05–JAN–10 16:21

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Chlordane (tech.)							4.44
Column 1	1	3.65	3.54 – 3.74	.0783		mg/L	
	2	4.08	3.98 – 4.18	.09		mg/L	
	3	4.45	4.34 – 4.54	.084		mg/L	
	4	4.62	4.52 – 4.72	.0781		mg/L	
	5	5.48	5.38 – 5.58	.102		mg/L	
					.0866		
Column 2	1	4	3.97 – 4.03	.0674		mg/L	
	2	4.58	4.54 – 4.6	.0817		mg/L	
	3	4.96	4.93 – 4.99	.0688		mg/L	
	4	5.33	5.3 – 5.36	.0838		mg/L	
	5	6.27	6.24 – 6.3	.112		mg/L	
					.0828		

Identification Summary

SDG Number: 10-1085-1 **Client ID:** LCS for batch 937694

Lab Sample ID: 1202006593

Data File:	016f1601.d	**Data File:**	016b1601.d
Inst:	ECD3A.I_1	**Inst:**	ECD3A.I_2
Column:	CLP-1	**Column:**	CLP-2
Analyzed:	05-JAN-10 16:07	**Analyzed:**	05-JAN-10 16:07

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Toxaphene							20.3
Column 1	1	5	4.97 – 5.03	.0838		mg/L	
	2	5.11	5.08 – 5.14	.0791		mg/L	
	3	5.19	5.16 – 5.22	.0844		mg/L	
	4	5.35	5.32 – 5.38	.0776		mg/L	
	5	5.54	5.51 – 5.57	.0824		mg/L	
					.0814		
Column 2	1	5.66	5.62 – 5.68	.11		mg/L	
	2	5.78	5.74 – 5.8	.1		mg/L	
	3	6.17	6.13 – 6.19	.0958		mg/L	
	4	6.21	6.18 – 6.24	.0932		mg/L	
	5	6.31	6.28 – 6.34	.0995		mg/L	
					.0998		

Identification Summary

SDG Number: 10–1085–1 **Client ID:** WST03–10–2148

Lab Sample ID: 243551001

Data File:	022f2201.d	**Data File:**	022b2201.d
Inst:	ECD3A.I_1	**Inst:**	ECD3A.I_2
Column:	CLP–1	**Column:**	CLP–2
Analyzed:	05–JAN–10 17:29	**Analyzed:**	05–JAN–10 17:29

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
gamma–BHC (Lindane)							17.4
Column 1	1	3.33	3.3 – 3.36	.000112		mg/L	
Column 2	1	3.72	3.69 – 3.75	.000133		mg/L	

Identification Summary

SDG Number: 10–1085–1 **Client ID:** WST03–10–2148MS

Lab Sample ID: 1202006595

Data File:	023f2301.d	**Data File:**	023b2301.d
Inst:	ECD3A.I_1	**Inst:**	ECD3A.I_2
Column:	CLP–1	**Column:**	CLP–2
Analyzed:	05–JAN–10 17:42	**Analyzed:**	05–JAN–10 17:42

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
gamma–BHC (Lindane)							10.9
Column 1	1	3.33	3.3 – 3.36	.00445		mg/L	
Column 2	1	3.72	3.69 – 3.75	.00399		mg/L	
Heptachlor							19.2
Column 1	1	3.71	3.68 – 3.74	.00391		mg/L	
Column 2	1	4.13	4.1 – 4.16	.00322		mg/L	
Heptachlor epoxide							15.3
Column 1	1	4.5	4.47 – 4.53	.00396		mg/L	
Column 2	1	5	4.97 – 5.03	.00339		mg/L	
Endrin							4.08
Column 1	1	5.33	5.3 – 5.36	.00476		mg/L	
Column 2	1	6	5.97 – 6.03	.00457		mg/L	
Methoxychlor							6.94
Column 1	1	6.17	6.14 – 6.2	.043		mg/L	
Column 2	1	7.18	7.15 – 7.21	.0401		mg/L	

Identification Summary

SDG Number: 10–1085–1 **Client ID:** WST03–10–2148MSD

Lab Sample ID: 1202006599

Data File:	024f2401.d	**Data File:**	024b2401.d
Inst:	ECD3A.I_1	**Inst:**	ECD3A.I_2
Column:	CLP–1	**Column:**	CLP–2
Analyzed:	05–JAN–10 17:56	**Analyzed:**	05–JAN–10 17:56

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
gamma–BHC (Lindane)							13.6
Column 1	1	3.33	3.3 – 3.36	.00519		mg/L	
Column 2	1	3.72	3.69 – 3.75	.00453		mg/L	
Heptachlor							22.1
Column 1	1	3.71	3.68 – 3.74	.00469		mg/L	
Column 2	1	4.14	4.1 – 4.16	.00375		mg/L	
Heptachlor epoxide							13.5
Column 1	1	4.5	4.47 – 4.53	.00463		mg/L	
Column 2	1	5	4.97 – 5.03	.00405		mg/L	
Endrin							5.84
Column 1	1	5.33	5.3 – 5.36	.00564		mg/L	
Column 2	1	6	5.97 – 6.03	.00532		mg/L	
Methoxychlor							7.9
Column 1	1	6.17	6.14 – 6.2	.049		mg/L	
Column 2	1	7.18	7.15 – 7.21	.0452		mg/L	

Identification Summary

SDG Number: 10-1085-1 **Client ID:** WST03-10-2148MS

Lab Sample ID: 1202006597

Data File:	027f2701.d	**Data File:**	027b2701.d
Inst:	ECD3A.I_1	**Inst:**	ECD3A.I_2
Column:	CLP-1	**Column:**	CLP-2
Analyzed:	05-JAN-10 18:37	**Analyzed:**	05-JAN-10 18:37

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Chlordane (tech.)							8.01
Column 1	1	3.64	3.54 – 3.74	.0717		mg/L	
	2	4.08	3.98 – 4.18	.0887		mg/L	
	3	4.44	4.34 – 4.54	.0806		mg/L	
	4	4.62	4.52 – 4.72	.0765		mg/L	
	5	5.48	5.38 – 5.58	.0988		mg/L	
					.0833		
Column 2	1	4	3.97 – 4.03	.0604		mg/L	
	2	4.58	4.54 – 4.6	.0721		mg/L	
	3	4.96	4.93 – 4.99	.0647		mg/L	
	4	5.33	5.3 – 5.36	.0806		mg/L	
	5	6.27	6.24 – 6.3	.106		mg/L	
					.0768		

Identification Summary

SDG Number: 10-1085-1 **Client ID:** WST03-10-2148MSD

Lab Sample ID: 1202006598

Data File:	028f2801.d	**Data File:**	028b2801.d
Inst:	ECD3A.I_1	**Inst:**	ECD3A.I_2
Column:	CLP-1	**Column:**	CLP-2
Analyzed:	05-JAN-10 18:51	**Analyzed:**	05-JAN-10 18:51

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Chlordane (tech.)							5.29
Column 1	1	3.64	3.54 – 3.74	.0825		mg/L	
	2	4.08	3.98 – 4.18	.0927		mg/L	
	3	4.44	4.34 – 4.54	.0865		mg/L	
	4	4.62	4.52 – 4.72	.0829		mg/L	
	5	5.48	5.38 – 5.58	.108		mg/L	
					.0906		
Column 2	1	4	3.97 – 4.03	.0704		mg/L	
	2	4.58	4.54 – 4.6	.0828		mg/L	
	3	4.96	4.93 – 4.99	.0721		mg/L	
	4	5.33	5.3 – 5.36	.0884		mg/L	
	5	6.27	6.24 – 6.3	.116		mg/L	
					.0859		

Identification Summary

SDG Number: 10-1085-1 **Client ID:** WST03-10-2148MS

Lab Sample ID: 1202006596

Data File:	026f2601.d	**Data File:**	026b2601.d
Inst:	ECD3A.I_1	**Inst:**	ECD3A.I_2
Column:	CLP-1	**Column:**	CLP-2
Analyzed:	05-JAN-10 18:23	**Analyzed:**	05-JAN-10 18:23

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Toxaphene							9.11
Column 1	1	5	4.97 – 5.03	.0782		mg/L	
	2	5.11	5.08 – 5.14	.07		mg/L	
	3	5.19	5.16 – 5.22	.0773		mg/L	
	4	5.35	5.32 – 5.38	.0734		mg/L	
	5	5.54	5.51 – 5.57	.094		mg/L	
					.0786		
Column 2	1	5.66	5.62 – 5.68	.098		mg/L	
	2	5.78	5.74 – 5.8	.083		mg/L	
	3	6.16	6.13 – 6.19	.0788		mg/L	
	4	6.21	6.18 – 6.24	.0809		mg/L	
	5	6.31	6.28 – 6.34	.0897		mg/L	
					.0861		

Identification Summary

SDG Number: 10–1085–1 **Client ID:** WST03–10–2148MSD

Lab Sample ID: 1202006600

Data File:	025f2501.d	**Data File:**	025b2501.d
Inst:	ECD3A.I_1	**Inst:**	ECD3A.I_2
Column:	CLP–1	**Column:**	CLP–2
Analyzed:	05–JAN–10 18:10	**Analyzed:**	05–JAN–10 18:10

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Toxaphene							13.9
Column 1	1	5	4.97 – 5.03	.0916		mg/L	
	2	5.11	5.08 – 5.14	.0845		mg/L	
	3	5.19	5.16 – 5.22	.089		mg/L	
	4	5.35	5.32 – 5.38	.0869		mg/L	
	5	5.54	5.51 – 5.57	.0853		mg/L	
					.0875		
Column 2	1	5.66	5.62 – 5.68	.113		mg/L	
	2	5.77	5.74 – 5.8	.099		mg/L	
	3	6.16	6.13 – 6.19	.0954		mg/L	
	4	6.21	6.18 – 6.24	.0938		mg/L	
	5	6.31	6.28 – 6.34	.101		mg/L	
					.101		

QUALITY CONTROL DATA

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	**10-1085-1**			**Matrix:**	**TCLP SOIL**
Lab Sample ID:	**1202004963**				
Client Sample:	**QC for batch 936980**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**TB for batch 936980**	**Method:**	**SW846 8081A**	**SOP Ref:**	**GL-OA-E-041**
Batch ID:	**937695**	**Inst:**	**ECD3A.I**	**Dilution:**	**1**
Run Date:	**01/05/2010 15:26**	**Analyst:**	**HXJ1**	**Inj. Vol:**	**1 uL**
Prep Date:	**01/04/2010 16:40**	**Aliquot:**	**20 mL**	**Final Volume:**	**1 mL**
Data File:	**013f1301.d**	**Column:**	**1 CLP-1**	**Level:**	**LOW**
	013b1301.d		**2 CLP-2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
58-89-9	gamma-BHC (Lindane)	U	0.0002	mg/L	0.00005	0.0002	1
76-44-8	Heptachlor	U	0.0002	mg/L	0.00005	0.0002	1
1024-57-3	Heptachlor epoxide	U	0.0002	mg/L	0.00005	0.0002	1
72-20-8	Endrin	U	0.0004	mg/L	0.0001	0.0004	1
72-43-5	Methoxychlor	U	0.002	mg/L	0.0005	0.002	1
57-74-9	Chlordane (tech.)	U	0.0025	mg/L	0.000765	0.0025	1
8001-35-2	Toxaphene	U	0.005	mg/L	0.0015	0.005	1

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd3a.i/010510p.b/013f1301A.d
Lab Smp Id: 1202004963 Client Smp ID: TBLK01
Inj Date : 05-JAN-2010 15:26
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |1202004963|1|
Misc Info : |ECDPTL_1L|937695|SVP|TB|SOIL|TB|||
Comment :
Method : /chem/ecd3a.i/010510p.b/ECD3-F-8081-122909.m
Meth Date : 08-Jan-2010 17:25 jc Quant Type: ESTD
Cal Date : 05-JAN-2010 14:45 Cal File: 010f1001.d
Als bottle: 13 QC Sample: TB
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1085-1.sub
Target Version: 3.50 Sample Matrix: Water
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	0.00100	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	20.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (mg/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.680	2.677	0.003	8014702	118.266	0.00591	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.821	7.821	0.000	6884318	132.754	0.00664	80.00- 120.00	100.00

Data File: /chem/ecd3a.i/010510p.b/013f1301A.d

Date : 05-JAN-2010 15:26

Client ID: TBLK01

Sample Info: |120200496311|

Volume Injected (uL): 1.0

Column phase: CLP-1

Instrument: ecd3a.i

Operator: HXJ1

Column diameter: 0.25

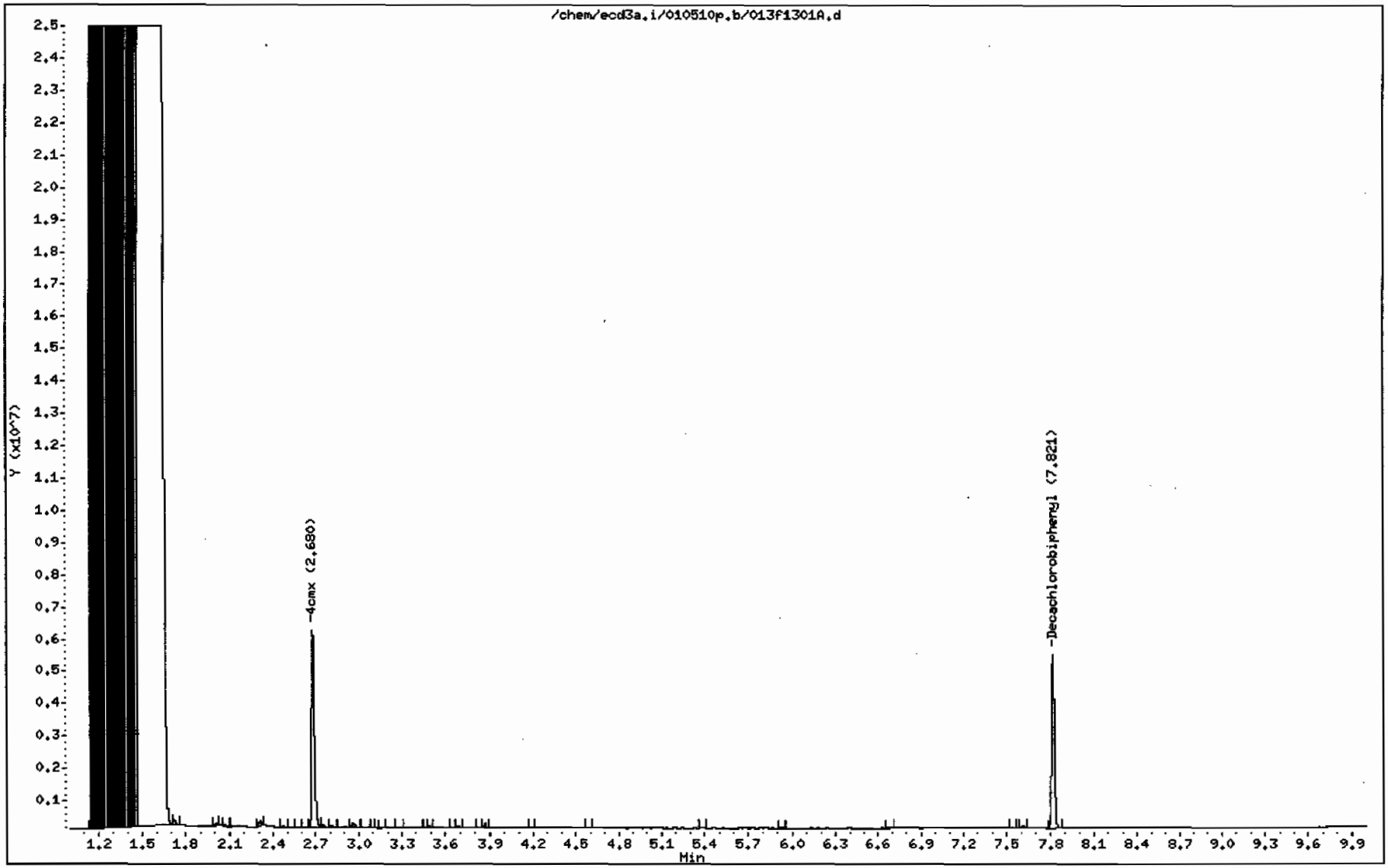

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd3a.i/010510p.b/013b1301A.d
Lab Smp Id: 1202004963 Client Smp ID: TBLK01
Inj Date : 05-JAN-2010 15:26
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |1202004963|1|
Misc Info : |ECDPTL_1L|937695|SVP|TB|SOIL|TB|||
Comment :
Method : /chem/ecd3a.i/010510p.b/ECD3-B-8081-122909.m
Meth Date : 08-Jan-2010 17:26 jc Quant Type: ESTD
Cal Date : 05-JAN-2010 14:45 Cal File: 010b1001.d
Als bottle: 13 QC Sample: TB
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1085-1.sub
Target Version: 3.50 Sample Matrix: Water
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	0.00100	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	20.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (mg/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.922	2.920	0.002	55502913	110.999	0.00555	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.857	8.856	0.001	53492209	135.707	0.00678	80.00- 120.00	100.00

Data File: /chem/ecd3a.i/010510p.b/013b1301A.d
Date : 05-JAN-2010 15:26
Client ID: TBLK01
Sample Info: |1202004963|1|
Volume Injected (uL): 1.0
Column phase: CLP-2

Instrument: ecd3a.i

Operator: HXJ1
Column diameter: 0.25

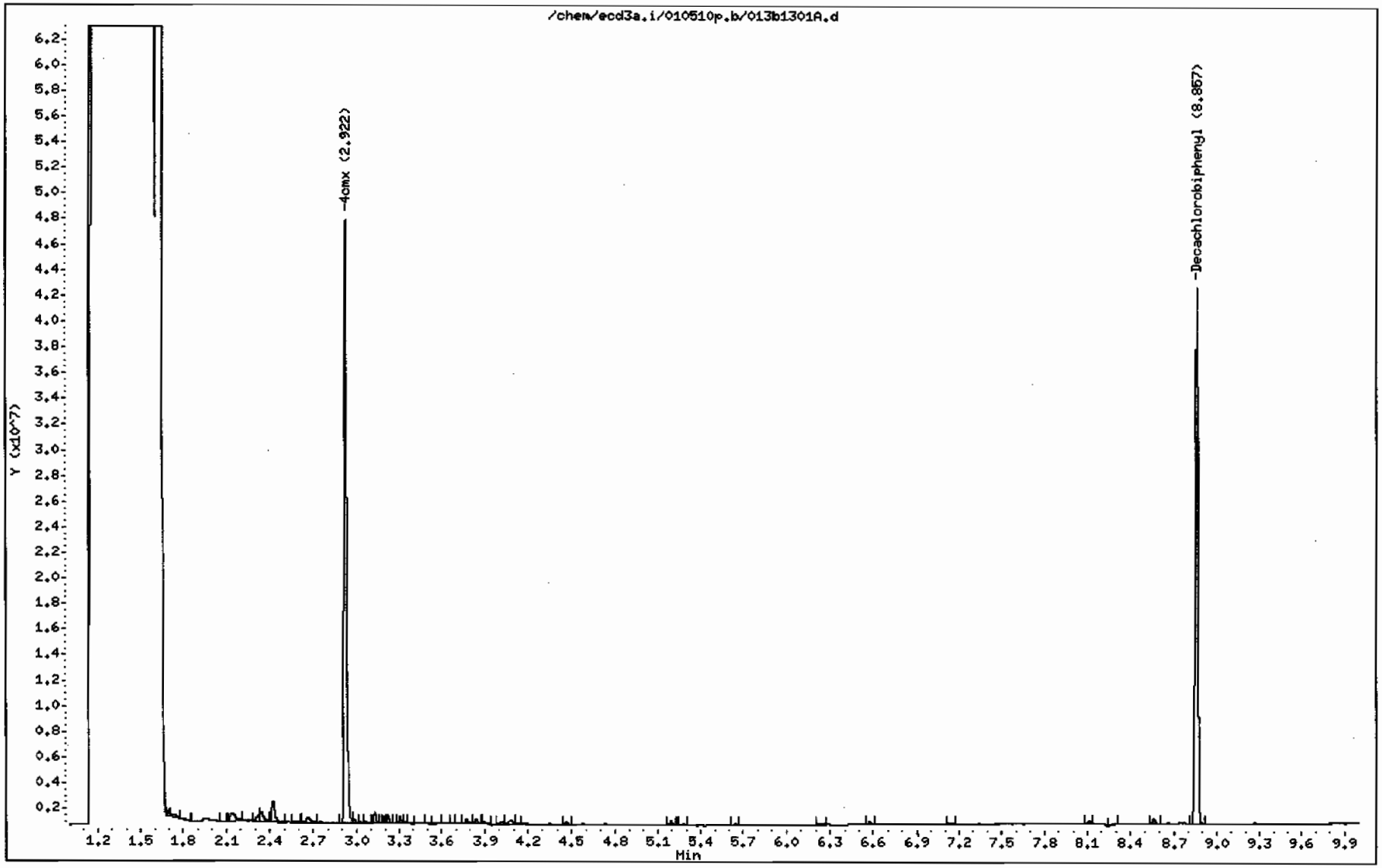

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	**10-1085-1**			**Matrix:**	**TCLP SOIL**
Lab Sample ID:	**1202006590**				
Client Sample:	**QC for batch 937694**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 937694**	**Method:**	**SW846 8081A**	**SOP Ref:**	**GL-OA-E-041**
Batch ID:	**937695**	**Inst:**	**ECD3A.I**	**Dilution:**	**1**
Run Date:	**01/05/2010 15:40**	**Analyst:**	**HXJ1**	**Inj. Vol:**	**1 uL**
Prep Date:	**01/04/2010 16:40**	**Aliquot:**	**20 mL**	**Final Volume:**	**1 mL**
Data File:	**014f1401.d**	**Column:**	**1 CLP-1**	**Level:**	**LOW**
	014b1401.d		**2 CLP-2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
58-89-9	gamma-BHC (Lindane)	U	0.0002	mg/L	0.00005	0.0002	1
76-44-8	Heptachlor	U	0.0002	mg/L	0.00005	0.0002	1
1024-57-3	Heptachlor epoxide	U	0.0002	mg/L	0.00005	0.0002	1
72-20-8	Endrin	U	0.0004	mg/L	0.0001	0.0004	1
72-43-5	Methoxychlor	U	0.002	mg/L	0.0005	0.002	1
57-74-9	Chlordane (tech.)	U	0.0025	mg/L	0.000765	0.0025	1
8001-35-2	Toxaphene	U	0.005	mg/L	0.0015	0.005	1

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CLP-1

Data file : /chem/ecd3a.i/010510p.b/014f1401A.d
Lab Smp Id: 1202006590 Client Smp ID: PBLK01
Inj Date : 05-JAN-2010 15:40
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |1202006590|1|
Misc Info : |ECDPTL_1L|937695|SVP|MB|SOIL|MB|||
Comment :
Method : /chem/ecd3a.i/010510p.b/ECD3-F-8081-122909.m
Meth Date : 08-Jan-2010 17:25 jc Quant Type: ESTD
Cal Date : 05-JAN-2010 14:45 Cal File: 010f1001.d
Als bottle: 14 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1085-1.sub
Target Version: 3.50 Sample Matrix: Water
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	0.00100	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	20.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (mg/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.680	2.677	0.003	4393087	64.8250	0.00324	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.821	7.821	0.000	5226109	100.778	0.00504	80.00- 120.00	100.00

Data File: /chem/ecd3a.i/010510p.b/014f1401A.d

Date : 05-JAN-2010 15:40

Client ID: PBLK01

Sample Info: |1202006590|1|

Volume Injected (uL): 1.0

Column phase: CLP-1

Instrument: ecd3a.i

Operator: HXJ1

Column diameter: 0.25

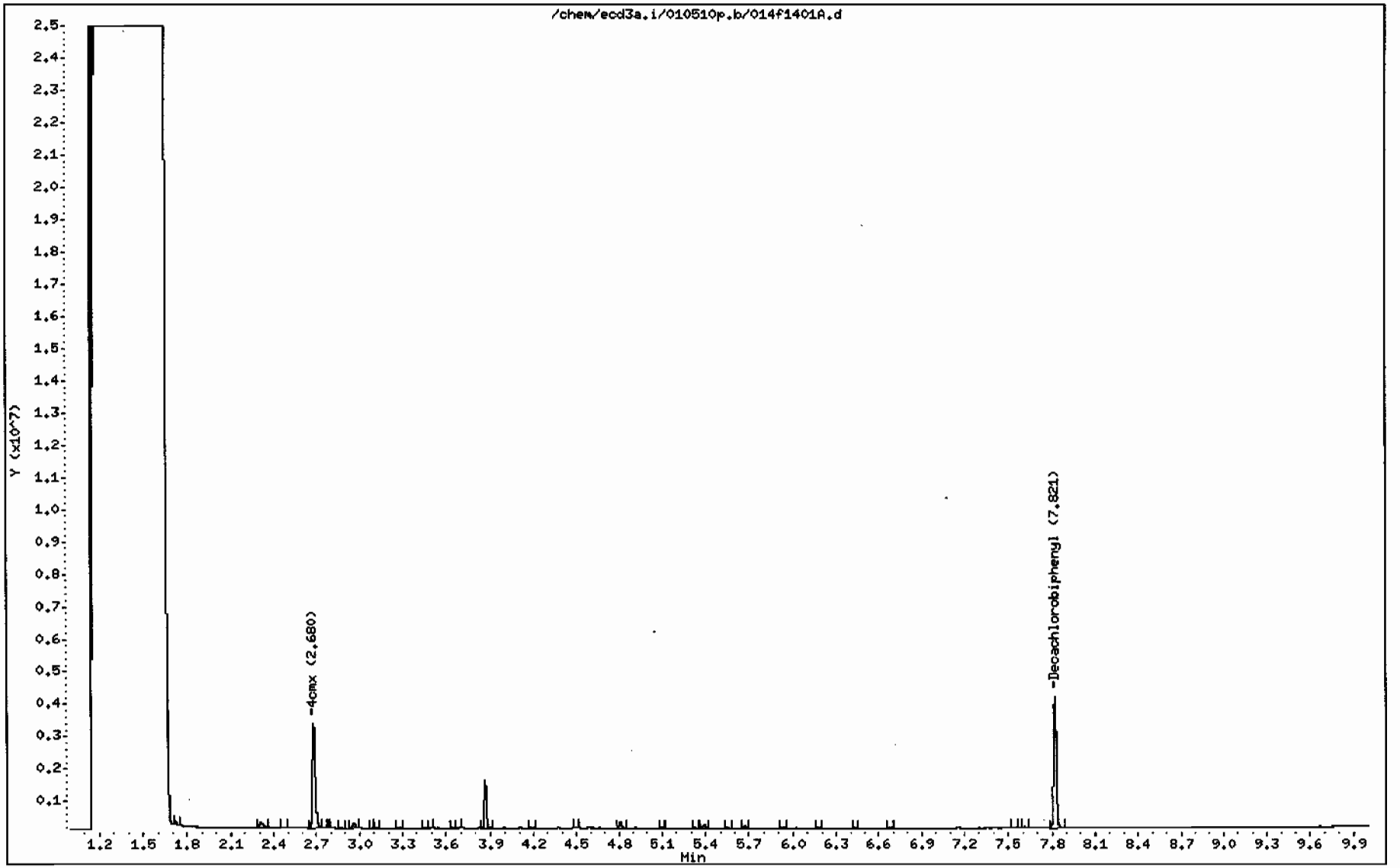

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CLP-2

Data file : /chem/ecd3a.i/010510p.b/014b1401A.d
Lab Smp Id: 1202006590 Client Smp ID: PBLK01
Inj Date : 05-JAN-2010 15:40
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |1202006590|1|
Misc Info : |ECDPTL_1L|937695|SVP|MB|SOIL|MB|||
Comment :
Method : /chem/ecd3a.i/010510p.b/ECD3-B-8081-122909.m
Meth Date : 08-Jan-2010 17:26 jc Quant Type: ESTD
Cal Date : 05-JAN-2010 14:45 Cal File: 010b1001.d
Als bottle: 14 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1085-1.sub
Target Version: 3.50 Sample Matrix: Water
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	0.00100	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	20.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (mg/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.922	2.920	0.002	31872194	63.7404	0.00319	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.857	8.856	0.001	40683816	103.213	0.00516	80.00- 120.00	100.00

Data File: /chem/ecd3a.i/010510p.b/014b1401A.d
Date : 05-JAN-2010 15:40
Client ID: PBLK01
Sample Info: |120200659011|
Volume Injected (uL): 1.0
Column phase: CLP-2

Instrument: ecd3a.i

Operator: HXJ1
Column diameter: 0.25

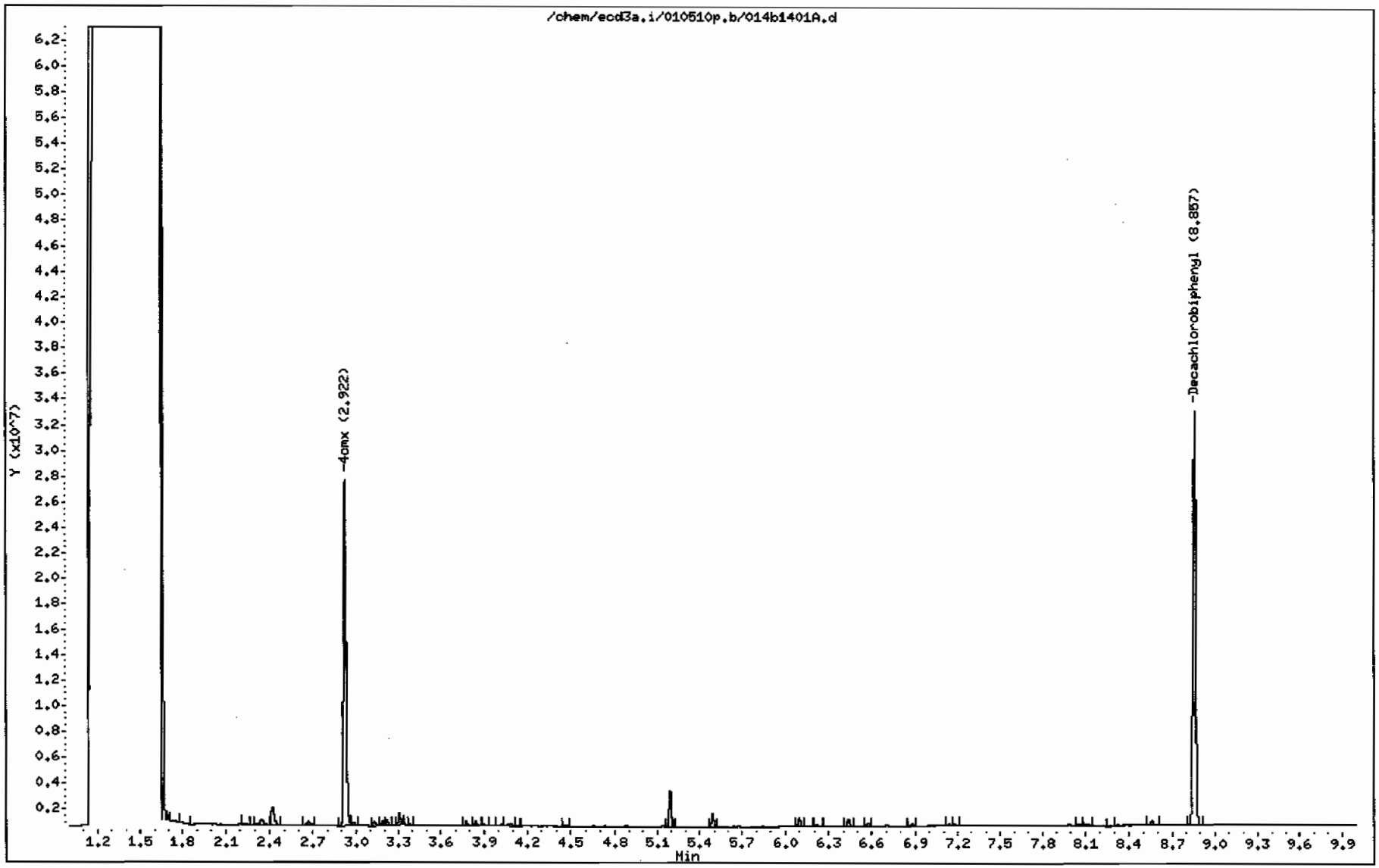

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	10-1085-1			**Matrix:**	TCLP SOIL
Lab Sample ID:	1202006594				
Client Sample:	QC for batch 937694	**Client:**	LANL010	**Project:**	QC
Client ID:	LCS for batch 937694	**Method:**	SW846 8081A	**SOP Ref:**	GL-OA-E-041
Batch ID:	937695	**Inst:**	ECD3A.I	**Dilution:**	1
Run Date:	01/05/2010 16:21	**Analyst:**	HXJ1	**Inj. Vol:**	1 uL
Prep Date:	01/04/2010 16:40	**Aliquot:**	20 mL	**Final Volume:**	1 mL
Data File:	017f1701.d	**Column:**	1 CLP-1	**Level:**	LOW
	017b1701.d		2 CLP-2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
58-89-9	gamma-BHC (Lindane)	U	0.0002	mg/L	0.00005	0.0002	1
76-44-8	Heptachlor	U	0.0002	mg/L	0.00005	0.0002	1
1024-57-3	Heptachlor epoxide	U	0.0002	mg/L	0.00005	0.0002	1
72-20-8	Endrin	U	0.0004	mg/L	0.0001	0.0004	1
72-43-5	Methoxychlor	U	0.002	mg/L	0.0005	0.002	1
57-74-9	Chlordane (tech.)		0.0827	mg/L	0.000765	0.0025	2
8001-35-2	Toxaphene	U	0.005	mg/L	0.0015	0.005	1

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CLP-1

Data file : /chem/ecd3a.i/010510p.b/017f1701A.d
Lab Smp Id: 1202006594 Client Smp ID: PBLK01CLCS
Inj Date : 05-JAN-2010 16:21
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |1202006594|1|
Misc Info : |ECDPTL_1L|937695|SVP|CLCSSOIL|CLCS|||
Comment :
Method : /chem/ecd3a.i/010510p.b/ECD3-F-8081-122909.m
Meth Date : 08-Jan-2010 17:25 jc Quant Type: ESTD
Cal Date : 05-JAN-2010 14:45 Cal File: 010f1001.d
Als bottle: 17 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1085-1.sub
Target Version: 3.50 Sample Matrix: Water
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	0.00100	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	20.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (mg/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.681	2.677	0.004	8510678	125.585	0.00628	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.820	7.821	-0.001	6272078	120.948	0.00605	80.00- 120.00	100.00
8 Chlordane (tech.)					CAS #: 12789-03-6		
3.646	3.644	0.002	3931526	1566.15	0.0783	80.00- 120.00	100.00
4.082	4.081	0.001	4602161	1799.79	0.0900	97.79- 137.79	117.06
4.445	4.444	0.001	2362248	1679.18	0.0840	35.51- 75.51	60.08
4.619	4.618	0.001	13178652	1562.30	0.0781	320.22- 360.22	335.20
5.484	5.485	-0.001	3713776	2048.51	0.102	64.36- 104.36	94.46

Average of Peak Concentrations = 0.0865

Data File: /chem/ecd3a.i/010510p.b/017f1701A.d

Date : 05-JAN-2010 16:21

Client ID: PBLK01CLCS

Sample Info: |12020065941|1|

Volume Injected (uL): 1.0

Column phase: CLP-1

Instrument: ecd3a.i

Operator: HXJ1

Column diameter: 0.25

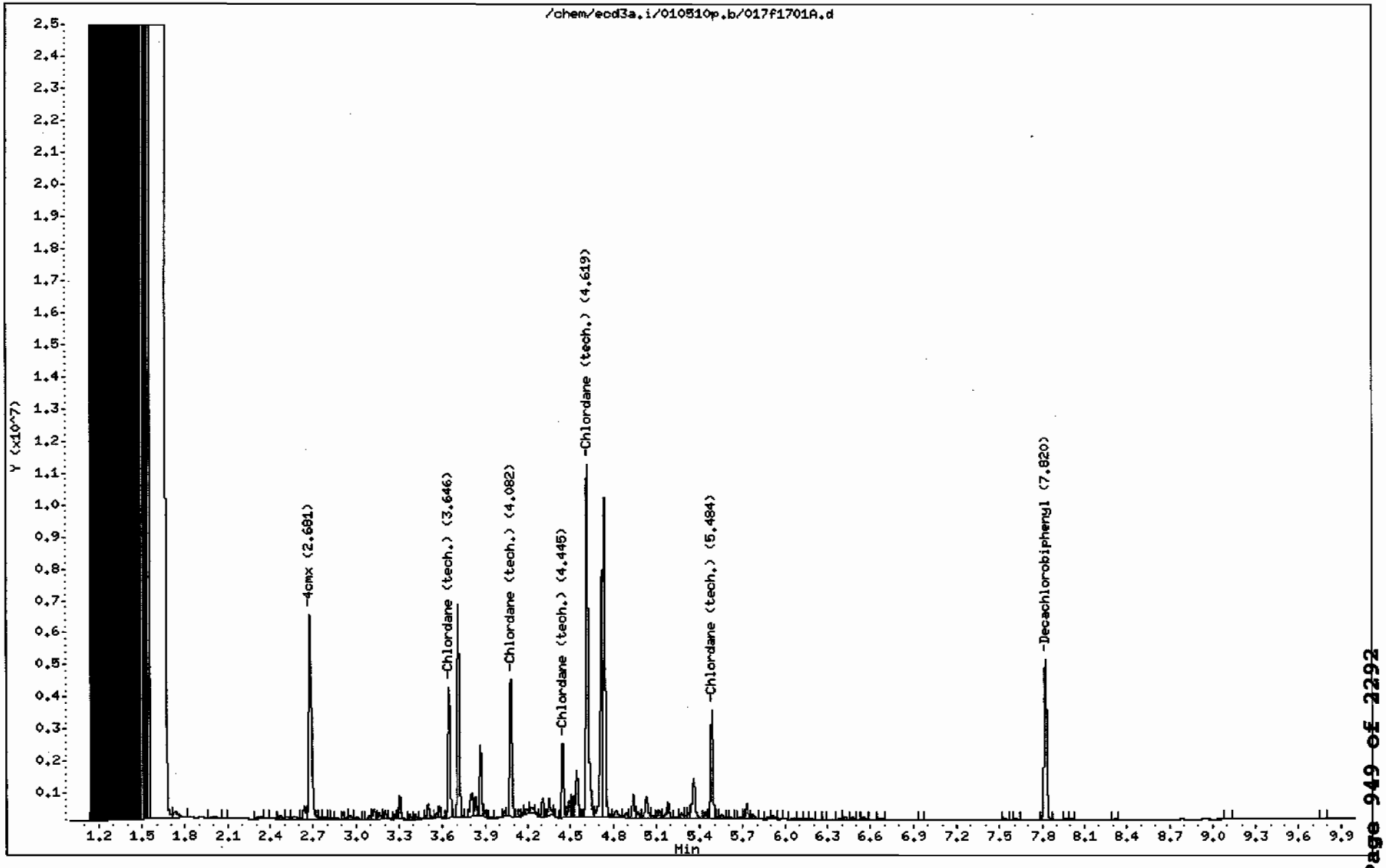

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CLP-2

Data file : /chem/ecd3a.i/010510p.b/017b1701A.d
Lab Smp Id: 1202006594 Client Smp ID: PBLK01CLCS
Inj Date : 05-JAN-2010 16:21
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |1202006594|1|
Misc Info : |ECDPTL_1L|937695|SVP|CLCSSOIL|CLCS|||
Comment :
Method : /chem/ecd3a.i/010510p.b/ECD3-B-8081-122909.m
Meth Date : 08-Jan-2010 17:26 jc Quant Type: ESTD
Cal Date : 05-JAN-2010 14:45 Cal File: 010b1001.d
Als bottle: 17 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1085-1.sub
Target Version: 3.50 Sample Matrix: Water
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	0.00100	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	20.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (mg/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.923	2.920	0.003	56650097	113.293	0.00566	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.856	8.856	0.000	47937257	121.614	0.00608	80.00- 120.00	100.00
8 Chlordane (tech.)					CAS #: 12789-03-6		
3.999	3.998	0.001	21519887	1347.83	0.0674	80.00- 120.00	100.00
4.576	4.575	0.001	19223094	1634.37	0.0817	59.79- 99.79	89.33
4.957	4.957	0.000	9372102	1376.56	0.0688	18.47- 58.47	43.55
5.334	5.333	0.001	44806136	1675.25	0.0838	162.52- 202.52	208.21
6.272	6.273	-0.001	27746199	2245.70	0.112	77.74- 117.74	128.93

Average of Peak Concentrations = 0.0827

Data File: /chem/ecd3a.i/010510p.b/017b1701A.d
Date : 05-JAN-2010 16:21
Client ID: PBLK01CLCS
Sample Info: |120200659|1|
Volume Injected (uL): 1.0
Column phase: CLP-2

Instrument: ecd3a.i

Operator: HXJ1
Column diameter: 0.25

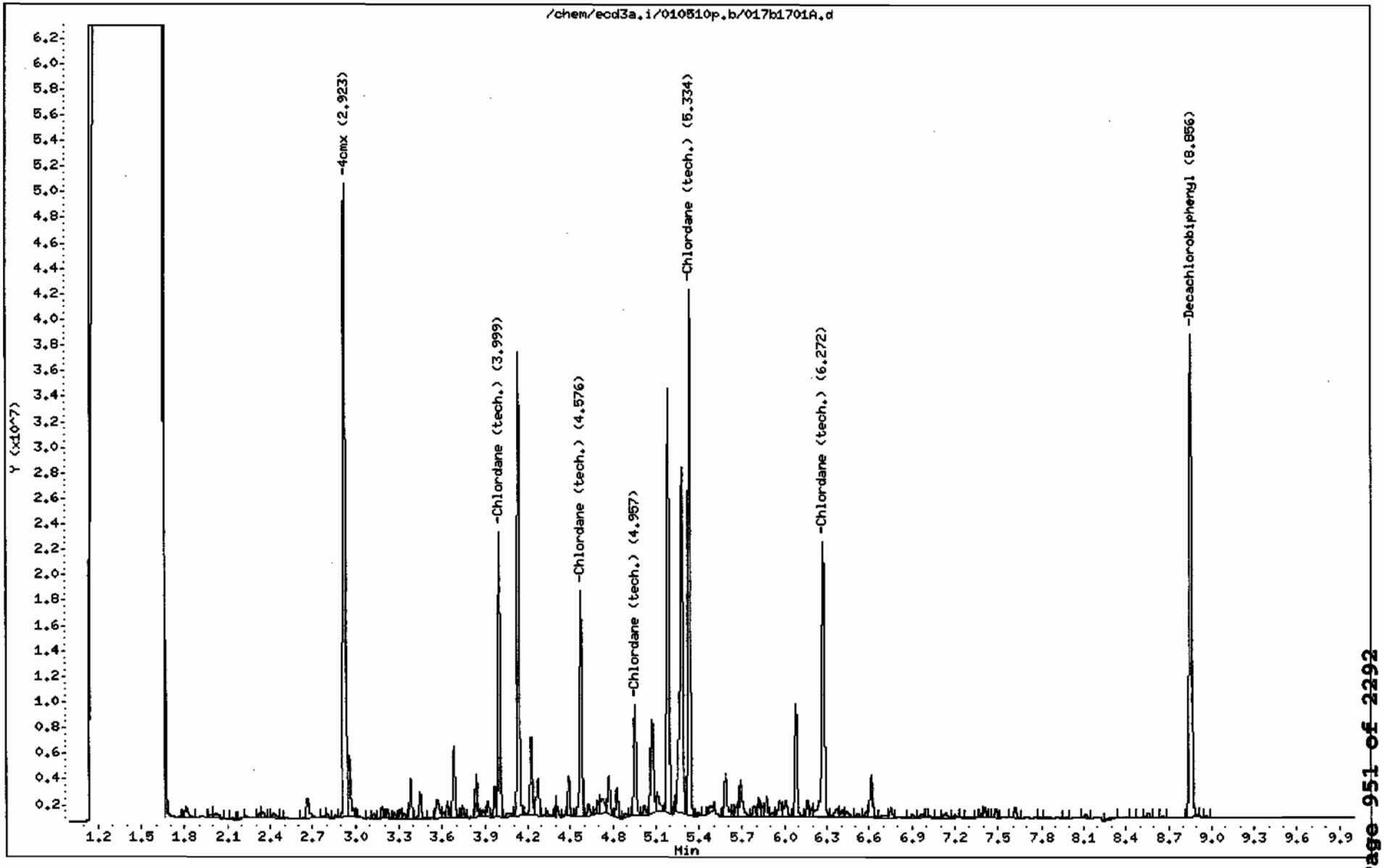

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	10-1085-1			**Matrix:**	TCLP SOIL
Lab Sample ID:	1202006592				
Client Sample:	QC for batch 937694	**Client:**	LANL010	**Project:**	QC
Client ID:	LCS for batch 937694	**Method:**	SW846 8081A	**SOP Ref:**	GL-OA-E-041
Batch ID:	937695	**Inst:**	ECD3A.I	**Dilution:**	1
Run Date:	01/05/2010 15:53	**Analyst:**	HXJ1	**Inj. Vol:**	1 uL
Prep Date:	01/04/2010 16:40	**Aliquot:**	20 mL	**Final Volume:**	1 mL
Data File:	015f1501.d	**Column:**	1 CLP-1	**Level:**	LOW
	015b1501.d		2 CLP-2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
58-89-9	gamma-BHC (Lindane)		0.00359	mg/L	0.00005	0.0002	2
76-44-8	Heptachlor		0.00234	mg/L	0.00005	0.0002	2
1024-57-3	Heptachlor epoxide		0.00333	mg/L	0.00005	0.0002	2
72-20-8	Endrin		0.00443	mg/L	0.0001	0.0004	1
72-43-5	Methoxychlor		0.0388	mg/L	0.0005	0.002	2
57-74-9	Chlordane (tech.)	U	0.0025	mg/L	0.000765	0.0025	1
8001-35-2	Toxaphene	U	0.005	mg/L	0.0015	0.005	1

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CLP-1

Data file : /chem/ecd3a.i/010510p.b/015f1501A.d
Lab Smp Id: 1202006592 Client Smp ID: PBLK01LCS
Inj Date : 05-JAN-2010 15:53
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |1202006592|1|
Misc Info : |ECDPTL_1L|937695|SVP|LCS|SOIL|LCS|||
Comment :
Method : /chem/ecd3a.i/010510p.b/ECD3-F-8081-122909.m
Meth Date : 08-Jan-2010 17:25 jc Quant Type: ESTD
Cal Date : 05-JAN-2010 14:45 Cal File: 010f1001.d
Als bottle: 15 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1085-1.sub
Target Version: 3.50 Sample Matrix: Water
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	0.00100	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	20.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (mg/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.681	2.677	0.004	2560466	37.7826	0.00189	80.00- 120.00	100.00(R)
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.821	7.821	0.000	6364904	122.738	0.00614	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.329	3.327	0.002	6286076	75.6794	0.00378	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
3.712	3.710	0.002	3377675	51.9228	0.00260	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (mg/L)	TARGET RANGE	RATIO
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.504	4.503	0.001	5177112	72.6793	0.00363	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.331	5.330	0.001	5046487	88.5916	0.00443	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
6.173	6.173	0.000	17966156	809.861	0.0405	80.00- 120.00	100.00

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: /chem/ecd3a.i/010510p.b/015f1501A.d
Date : 05-JAN-2010 15:53
Client ID: PBLK01LCS
Sample Info: |1202006592|1|
Volume Injected (uL): 1.0
Column phase: CLP-1

Instrument: ecd3a.i

Operator: HXJ1
Column diameter: 0.25

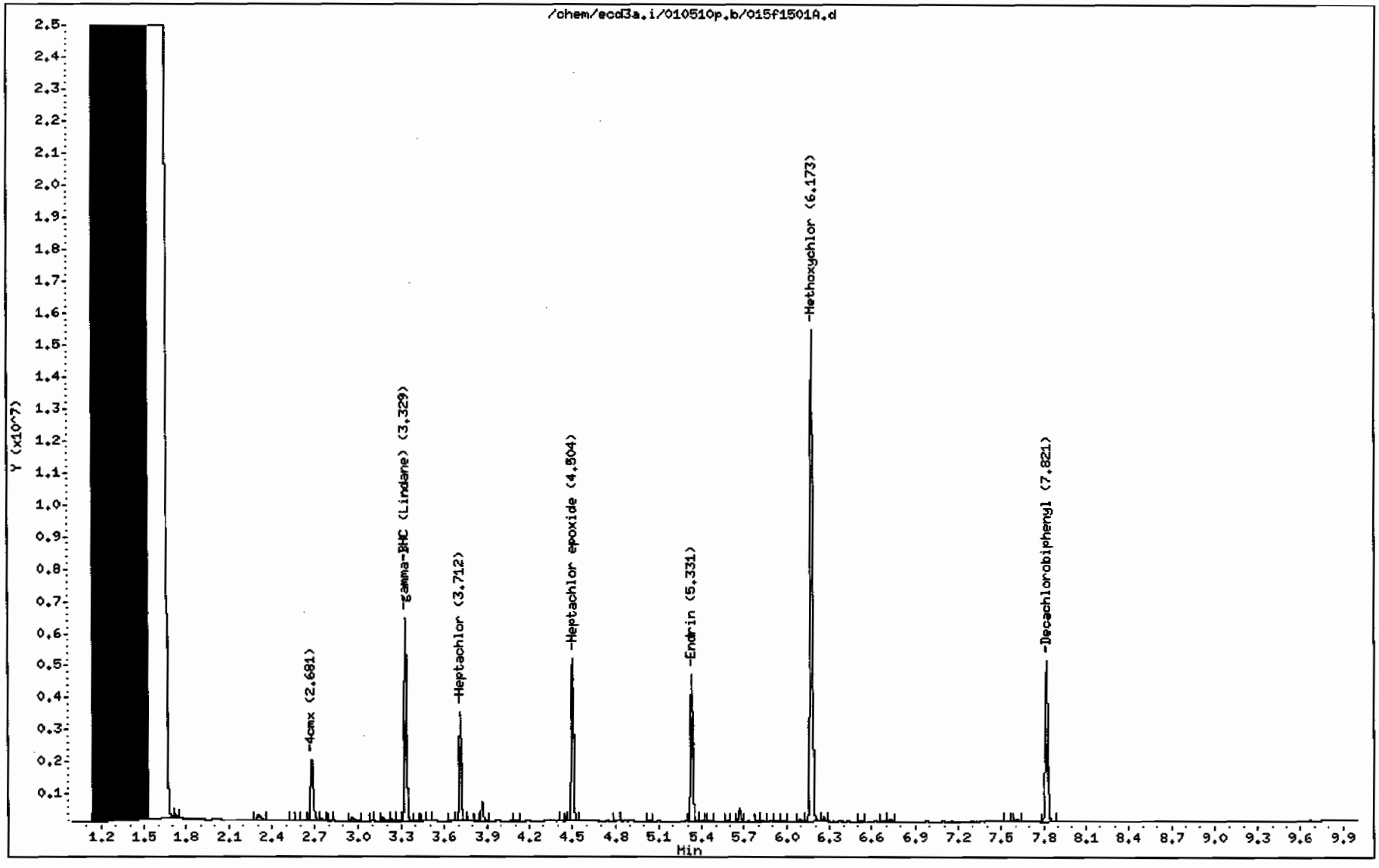

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CLP-2

Data file : /chem/ecd3a.i/010510p.b/015b1501A.d
Lab Smp Id: 1202006592 Client Smp ID: PBLK01LCS
Inj Date : 05-JAN-2010 15:53
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |1202006592|1|
Misc Info : |ECDPTL_1L|937695|SVP|LCS|SOIL|LCS|||
Comment :
Method : /chem/ecd3a.i/010510p.b/ECD3-B-8081-122909.m
Meth Date : 08-Jan-2010 17:26 jc Quant Type: ESTD
Cal Date : 05-JAN-2010 14:45 Cal File: 010b1001.d
Als bottle: 15 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1085-1.sub
Target Version: 3.50 Sample Matrix: Water
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	0.00100	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	20.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (mg/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.922	2.920	0.002	19314808	38.6272	0.00193	80.00- 120.00	100.00(R)
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.857	8.856	0.001	49511000	125.607	0.00628	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.722	3.721	0.001	41710281	71.7642	0.00359	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
4.135	4.134	0.001	19855331	46.8754	0.00234	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	CONCENTRATIONS FINAL (mg/L)	TARGET RANGE	RATIO
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.997	4.996	0.001	20395495	66.6288	0.00333	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.997	5.997	0.000	30157573	89.6385	0.00448	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
7.178	7.178	0.000	153744370	776.585	0.0388	80.00- 120.00	100.00

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: /chem/ecd3a.i/010510p.b/015b1501A.d
Date : 05-JAN-2010 15:53
Client ID: PBLK01LCS
Sample Info: |1202006592|1|
Volume Injected (uL): 1.0
Column phase: CLP-2

Instrument: ecd3a.i
Operator: HXJ1
Column diameter: 0.25

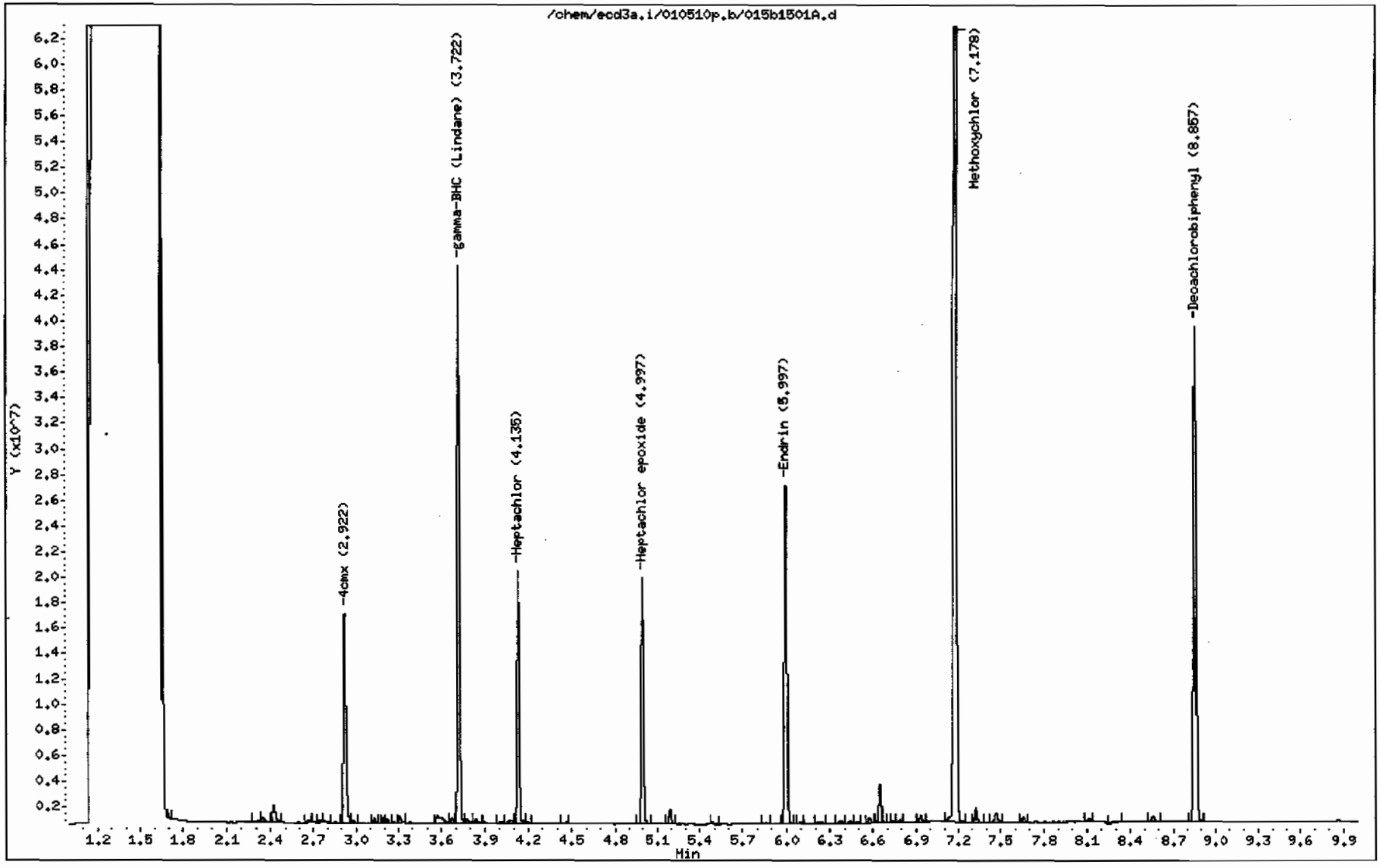

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	**10-1085-1**			**Matrix:**	**TCLP SOIL**
Lab Sample ID:	**1202006593**				
Client Sample:	**QC for batch 937694**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 937694**	**Method:**	**SW846 8081A**	**SOP Ref:**	**GL-OA-E-041**
Batch ID:	**937695**	**Inst:**	**ECD3A.I**	**Dilution:**	**1**
Run Date:	**01/05/2010 16:07**	**Analyst:**	**HXJ1**	**Inj. Vol:**	**1 uL**
Prep Date:	**01/04/2010 16:40**	**Aliquot:**	**20 mL**	**Final Volume:**	**1 mL**
Data File:	**016f1601.d**	**Column:**	**1 CLP-1**	**Level:**	**LOW**
	016b1601.d		**2 CLP-2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
58-89-9	gamma-BHC (Lindane)	U	0.0002	mg/L	0.00005	0.0002	1
76-44-8	Heptachlor	U	0.0002	mg/L	0.00005	0.0002	1
1024-57-3	Heptachlor epoxide	U	0.0002	mg/L	0.00005	0.0002	1
72-20-8	Endrin	U	0.0004	mg/L	0.0001	0.0004	1
72-43-5	Methoxychlor	U	0.002	mg/L	0.0005	0.002	1
57-74-9	Chlordane (tech.)	U	0.0025	mg/L	0.000765	0.0025	1
8001-35-2	Toxaphene		0.0815	mg/L	0.0015	0.005	1

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd3a.i/010510p.b/016f1601A.d
Lab Smp Id: 1202006593 Client Smp ID: PBLK01TLCS
Inj Date : 05-JAN-2010 16:07
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |1202006593|1|
Misc Info : |ECDPTL_1L|937695|SVP|TLCS|SOIL|TLCS|||
Comment :
Method : /chem/ecd3a.i/010510p.b/ECD3-F-8081-122909.m
Meth Date : 08-Jan-2010 17:25 jc Quant Type: ESTD
Cal Date : 05-JAN-2010 14:45 Cal File: 010f1001.d
Als bottle: 16 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1085-1.sub
Target Version: 3.50 Sample Matrix: Water
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	0.00100	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	20.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (mg/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.680	2.677	0.003	5442315	80.3076	0.00402	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.821	7.821	0.000	5759451	111.062	0.00555	80.00- 120.00	100.00
23 Toxaphene					CAS #: 8001-35-2		
5.002	5.002	0.000	813310	1676.03	0.0838	80.00- 120.00	100.00(M)
5.106	5.106	0.000	1192416	1581.20	0.0791	130.17- 170.17	146.61
5.193	5.193	0.000	1468662	1687.36	0.0844	164.36- 204.36	180.58
5.351	5.352	-0.001	1763736	1551.76	0.0776	205.31- 245.31	216.86
5.543	5.543	0.000	3330858	1647.66	0.0824	330.82- 370.82	409.54

Average of Peak Concentrations = 0.0815

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd3a.i/010510p.b/016f1601A.d

Date : 05-JAN-2010 16:07

Client ID: PBLK01TLCS

Sample Info: |1202006593|1|

Volume Injected (uL): 1.0

Column phase: CLP-1

Instrument: ecd3a.i

Operator: HXJ1

Column diameter: 0.25

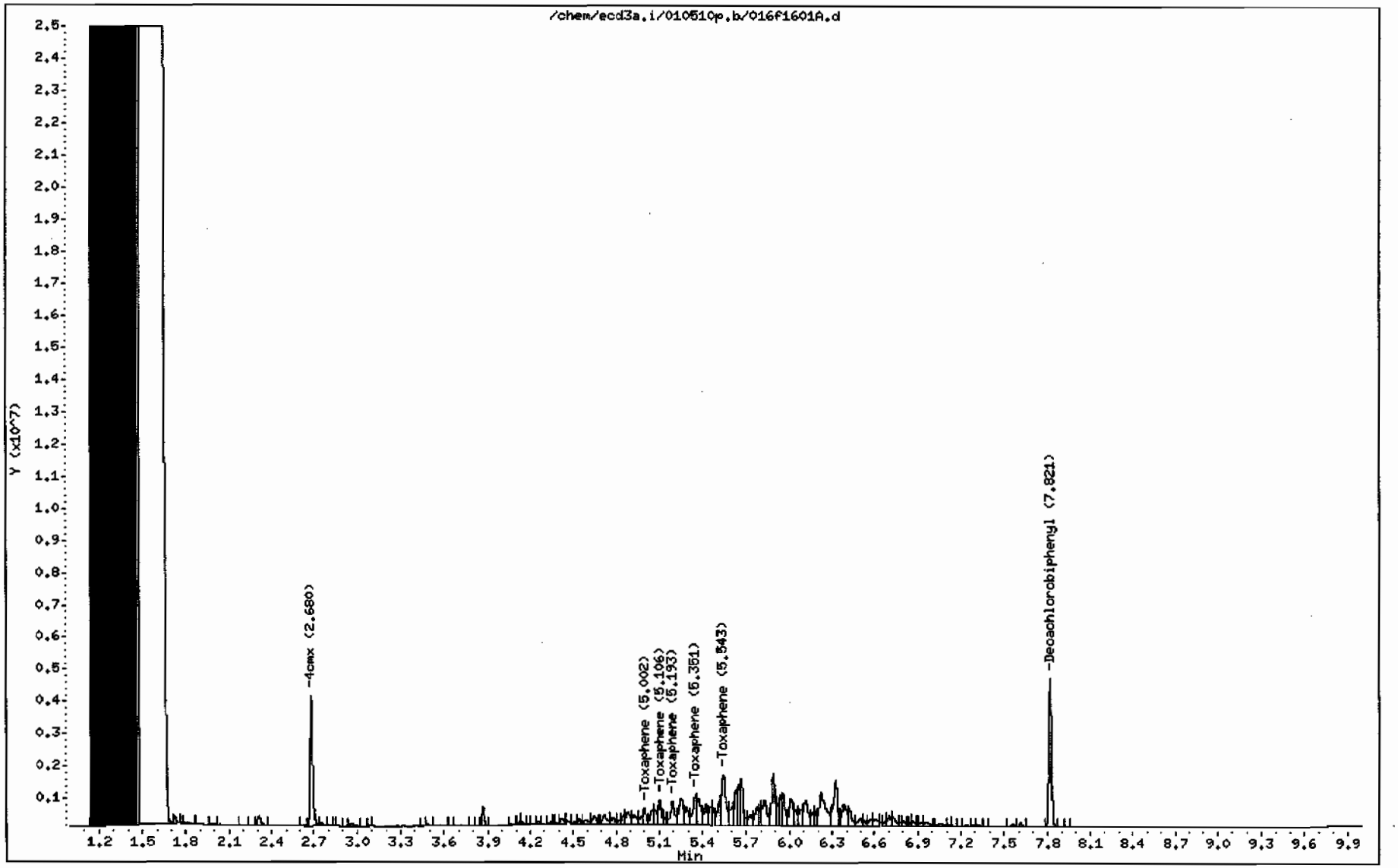

Comment: Manually Integrated
Data File: /chem/ecd3a.i/010510p.b/016f1601A.d
Operator: HXJ1
Injection Date: 05-JAN-2010 16:07
Instrument: ecd3a.i
Client Sample ID: PBLK01TLCS

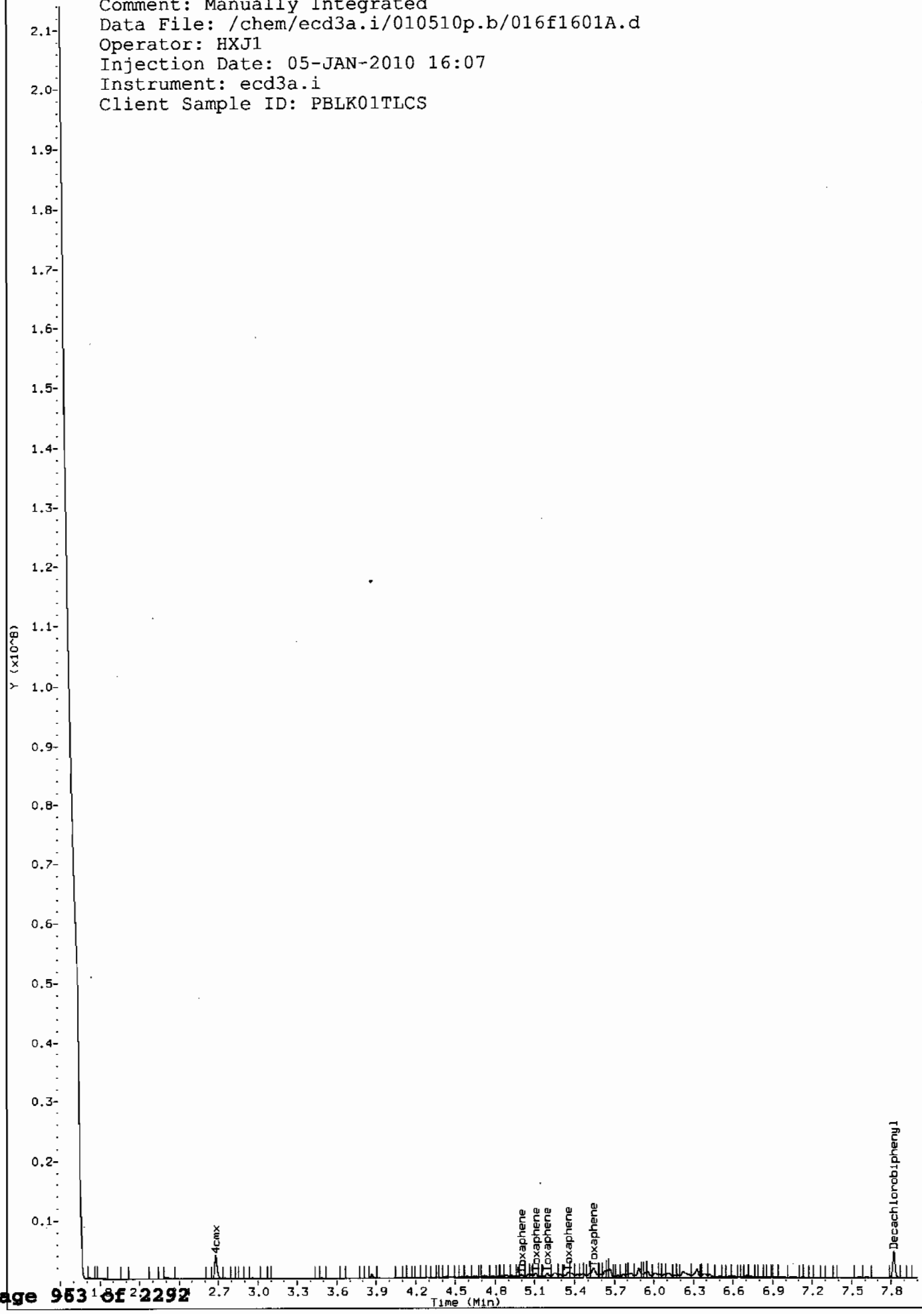

Comment: Before manual integration
Data File: /chem/ecd3a.i/010510p.b/orig-016f1601A.d
Operator: HXJ1
Injection Date: 05-JAN-2010 16:07
Instrument: ecd3a.i
Client Sample ID: PBLK01TLCS

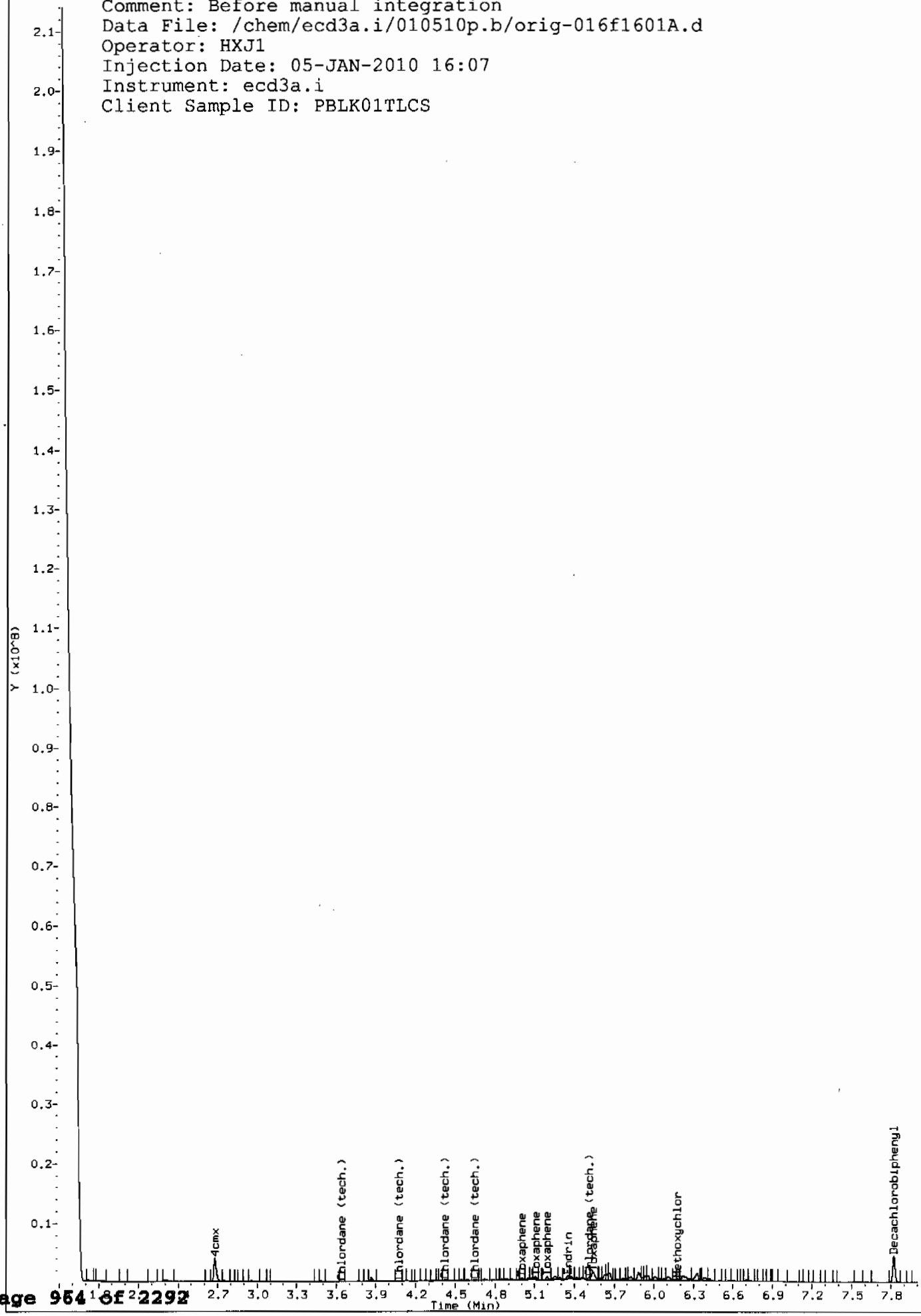

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd3a.i/010510p.b/016b1601A.d
Lab Smp Id: 1202006593 Client Smp ID: PBLK01TLCS
Inj Date : 05-JAN-2010 16:07
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |1202006593|1|
Misc Info : |ECDPTL_1L|937695|SVP|TLCS|SOIL|TLCS|||
Comment :
Method : /chem/ecd3a.i/010510p.b/ECD3-B-8081-122909.m
Meth Date : 08-Jan-2010 17:26 jc Quant Type: ESTD
Cal Date : 05-JAN-2010 14:45 Cal File: 010b1001.d
Als bottle: 16 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1085-1.sub
Target Version: 3.50 Sample Matrix: Water
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	0.00100	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	20.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (mg/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.922	2.920	0.002	40376734	80.7484	0.00404	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.857	8.856	0.001	45250969	114.799	0.00574	80.00- 120.00	100.00
23 Toxaphene					CAS #: 8001-35-2		
5.656	5.651	0.005	11193331	2209.57	0.110	80.00- 120.00	100.00
5.776	5.775	0.001	5985797	2001.58	0.100	37.42- 77.42	53.48
6.165	6.165	0.000	11520338	1915.86	0.0958	74.91- 114.91	102.92
6.208	6.208	0.000	19757144	1863.97	0.0932	154.59- 194.59	176.51
6.309	6.309	0.000	38107073	1990.15	0.0995	275.83- 315.83	340.44

Average of Peak Concentrations = 0.0997

Data File: /chem/ecd3a.i/010510p.b/016b1601A.d
Date : 05-JAN-2010 16:07
Client ID: PBLK01TLCS
Sample Info: |120200659311|
Volume Injected (uL): 1.0
Column phase: CLP-2

Instrument: ecd3a.i

Operator: HXJ1
Column diameter: 0.25

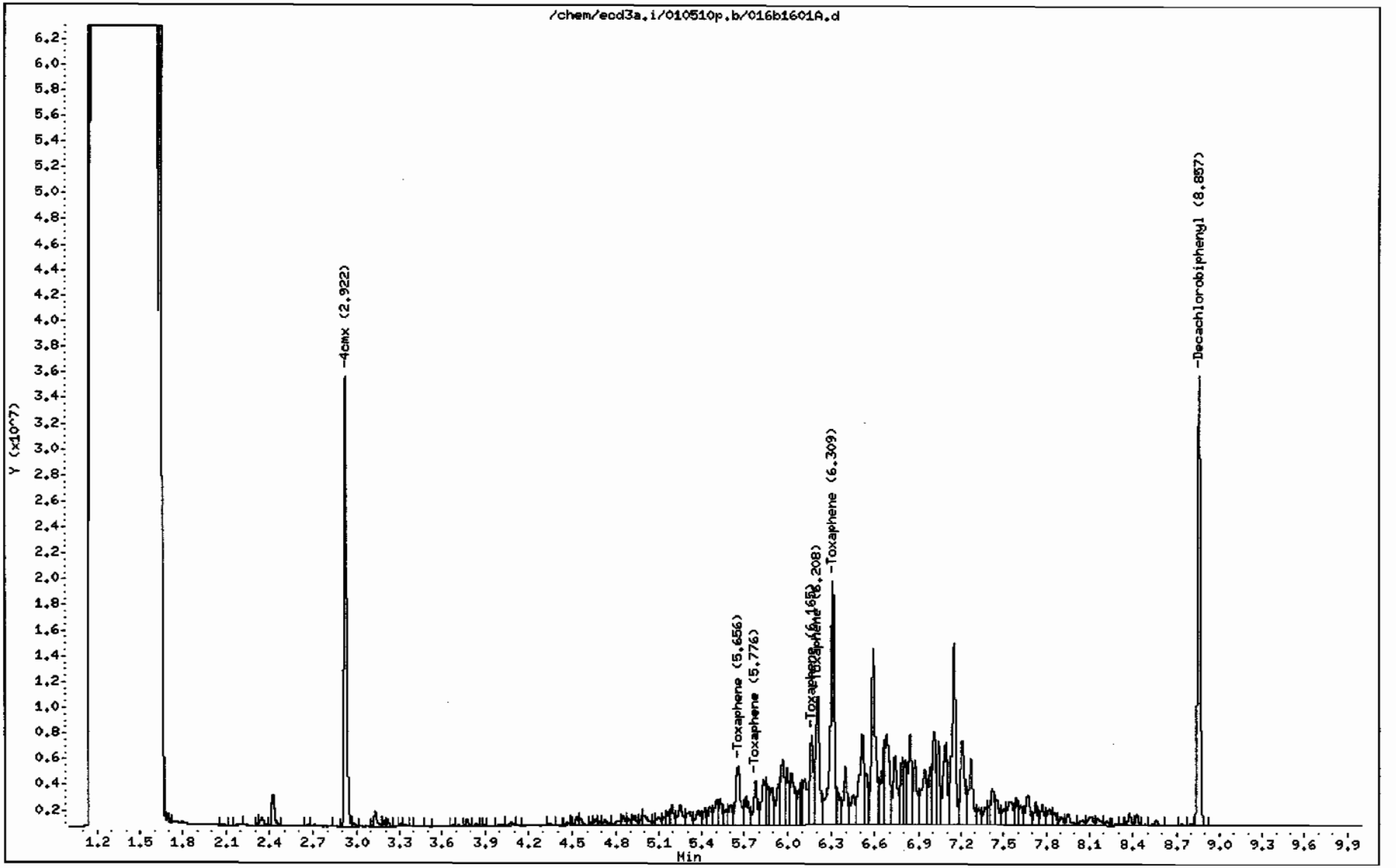

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	10–1085–1	**Date Collected:**	12/22/2009 12:00	**Matrix:**	TCLP R
Lab Sample ID:	1202006597	**Date Received:**	12/24/2009 09:30		
Client Sample:	QC for batch 937694	**Client:**	LANL010	**Project:**	QC
Client ID:	WST03–10–2148MS	**Method:**	SW846 8081A	**SOP Ref:**	GL–OA–E–041
Batch ID:	937695	**Inst:**	ECD3A.I	**Dilution:**	1
Run Date:	01/05/2010 18:37	**Analyst:**	HXJ1	**Inj. Vol:**	1 uL
Prep Date:	01/04/2010 16:40	**Aliquot:**	20 mL	**Final Volume:**	1 mL
Data File:	027f2701.d	**Column:**	1 CLP–1	**Level:**	LOW
	027b2701.d		2 CLP–2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
58–89–9	gamma–BHC (Lindane)	U	0.0002	mg/L	0.00005	0.0002	1
76–44–8	Heptachlor	U	0.0002	mg/L	0.00005	0.0002	1
1024–57–3	Heptachlor epoxide	U	0.0002	mg/L	0.00005	0.0002	1
72–20–8	Endrin	U	0.0004	mg/L	0.0001	0.0004	1
72–43–5	Methoxychlor	U	0.002	mg/L	0.0005	0.002	1
57–74–9	Chlordane (tech.)		0.0833	mg/L	0.000765	0.0025	1
8001–35–2	Toxaphene	U	0.005	mg/L	0.0015	0.005	1

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd3a.i/010510p.b/027f2701.d
Lab Smp Id: 1202006597 Client Smp ID: WST03-10-2148CMS
Inj Date : 05-JAN-2010 18:37
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |1202006597|1|
Misc Info : |ECDPTL_1L|937695|SVP|CMS|SOIL|CMS|||
Comment :
Method : /chem/ecd3a.i/010510p.b/ECD3-F-8081-122909.m
Meth Date : 11-Jan-2010 08:30 cla01575 Quant Type: ESTD
Cal Date : 05-JAN-2010 14:45 Cal File: 010f1001.d
Als bottle: 27 QC Sample: MS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1085-1.sub
Target Version: 3.50 Sample Matrix: Water
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	0.00100	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	20.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (mg/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.676	2.677	-0.001	7383127	108.946	0.00545	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.820	7.821	-0.001	5516754	106.382	0.00532	80.00- 120.00	100.00
8 Chlordane (tech.)					CAS #: 12789-03-6		
3.644	3.644	0.000	3598418	1433.45	0.0717	80.00- 120.00	100.00
4.081	4.081	0.000	4536229	1774.00	0.0887	97.79- 137.79	126.06
4.445	4.444	0.001	2267322	1611.70	0.0806	35.51- 75.51	63.01
4.619	4.618	0.001	12906174	1530.00	0.0765	320.22- 360.22	358.66
5.484	5.485	-0.001	3583011	1976.38	0.0988	64.36- 104.36	99.57

Average of Peak Concentrations = 0.0833

Data File: /chem/ecd3a.i/010510p.b/027f2701.d
Date : 05-JAN-2010 18:37
Client ID: WST03-10-2148CMS
Sample Info: |1202006597|1|
Volume Injected (uL): 1.0
Column phase: CLP-1

Instrument: ecd3a.i

Operator: HXJ1
Column diameter: 0.25

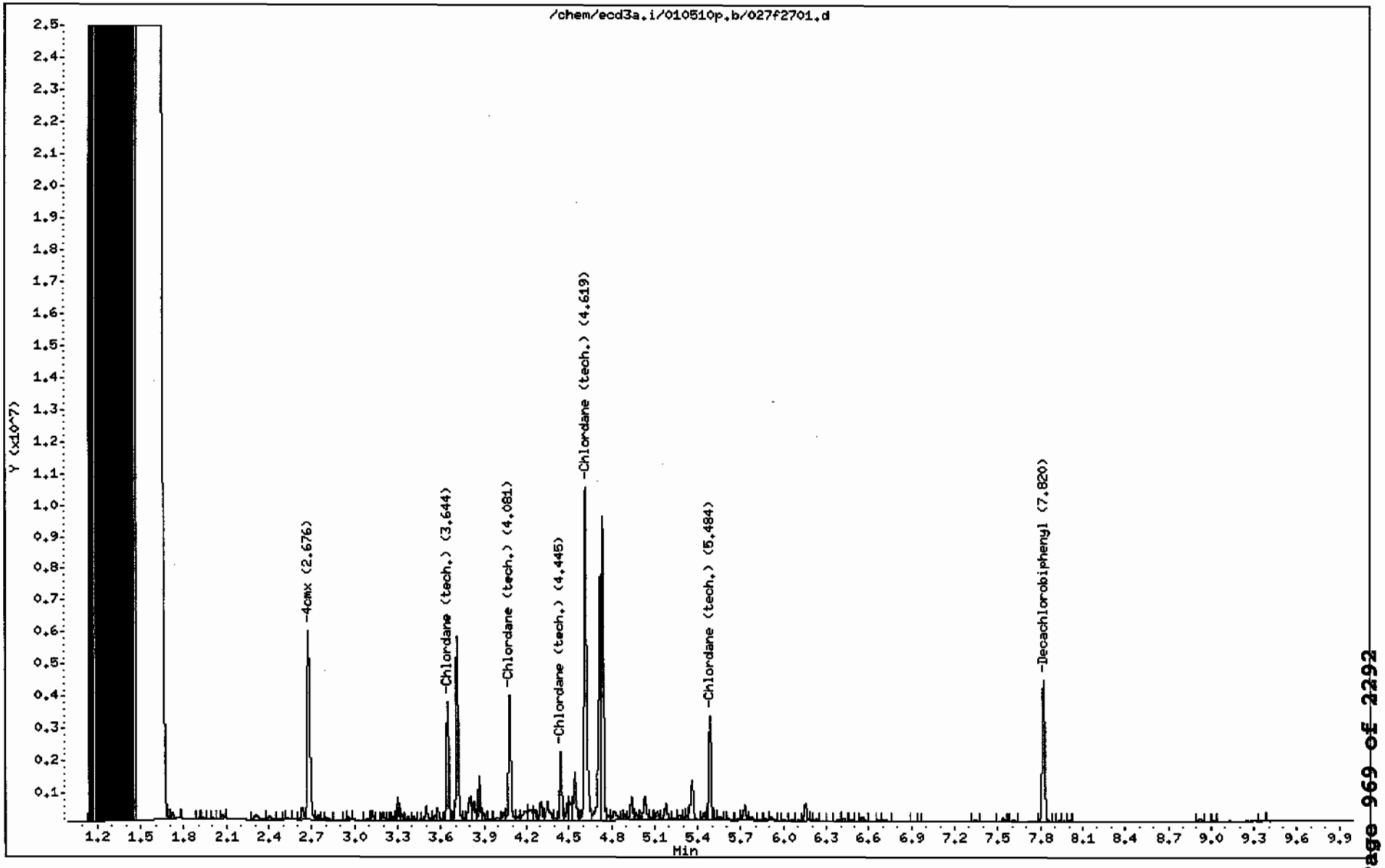

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd3a.i/010510p.b/027b2701.d
Lab Smp Id: 1202006597 Client Smp ID: WST03-10-2148CMS
Inj Date : 05-JAN-2010 18:37
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |1202006597|1|
Misc Info : |ECDPTL_1L|937695|SVP|CMS|SOIL|CMS|||
Comment :
Method : /chem/ecd3a.i/010510p.b/ECD3-B-8081-122909.m
Meth Date : 11-Jan-2010 08:29 cla01575 Quant Type: ESTD
Cal Date : 05-JAN-2010 14:45 Cal File: 010b1001.d
Als bottle: 27 QC Sample: MS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1085-1.sub
Target Version: 3.50 Sample Matrix: Water
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	0.00100	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	20.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (mg/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.920	2.920	0.000	49087494	98.1688	0.00491	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.857	8.856	0.001	42611114	108.102	0.00540	80.00- 120.00	100.00
8 Chlordane (tech.)					CAS #: 12789-03-6		
3.998	3.998	0.000	19298141	1208.68	0.0604	80.00- 120.00	100.00
4.575	4.575	0.000	16967202	1442.57	0.0721	59.79- 99.79	87.92
4.956	4.957	-0.001	8803223	1293.00	0.0646	18.47- 58.47	45.62
5.334	5.333	0.001	43128314	1612.52	0.0806	162.52- 202.52	223.48
6.273	6.273	0.000	26282021	2127.19	0.106	77.74- 117.74	136.19

Average of Peak Concentrations = 0.0767

Data File: /chem/ecd3a.i/010510p.b/027b2701.d
Date : 05-JAN-2010 18:37
Client ID: WST03-10-2148CMS
Sample Info: |120200659711|
Volume Injected (uL): 1.0
Column phase: CLP-2

Instrument: ecd3a.i
Operator: HXJ1
Column diameter: 0.25

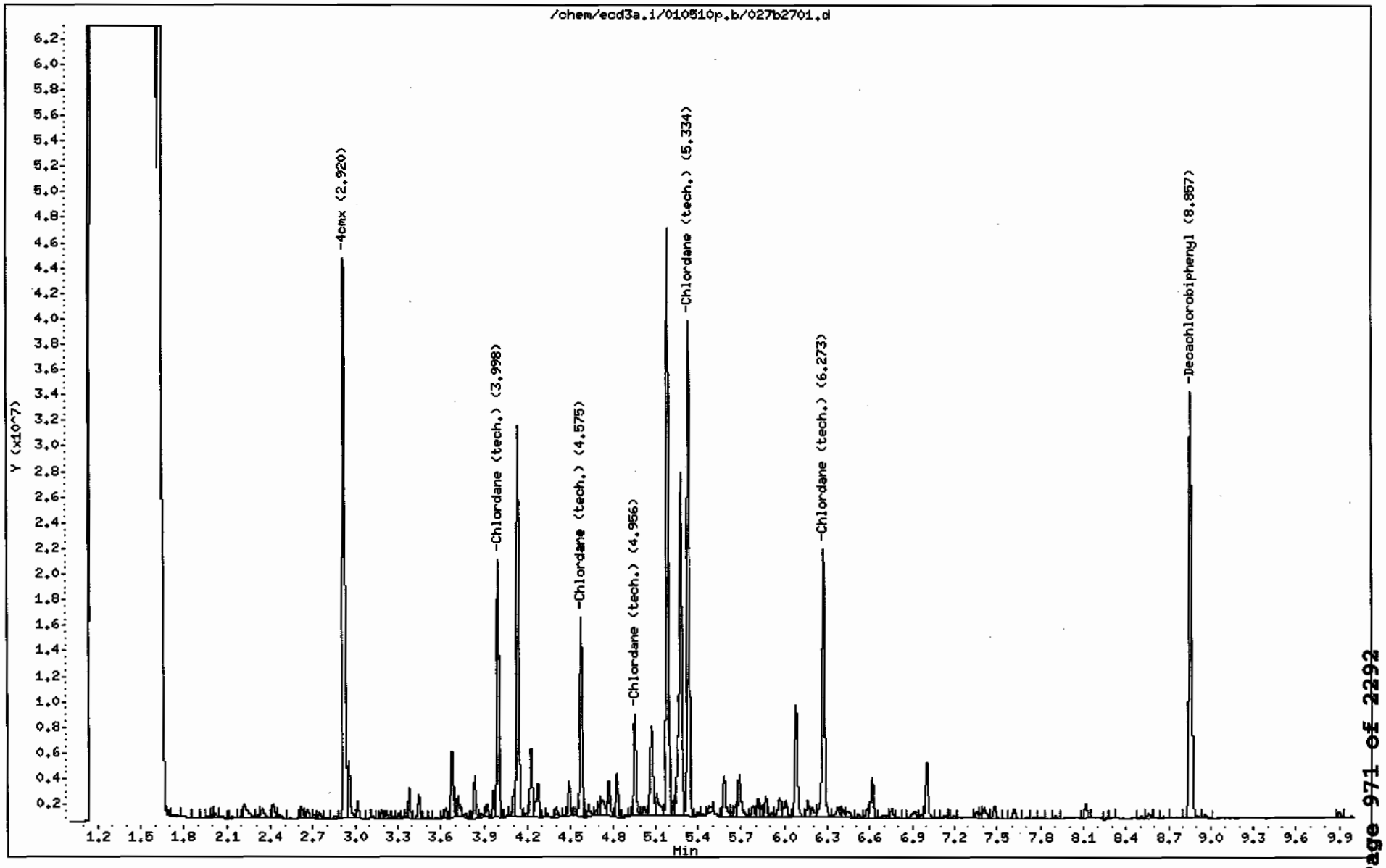

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	**10-1085-1**	**Date Collected:**	**12/22/2009 12:00**	**Matrix:**	**TCLP R**
Lab Sample ID:	**1202006595**	**Date Received:**	**12/24/2009 09:30**		
Client Sample:	**QC for batch 937694**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**WST03-10-2148MS**	**Method:**	**SW846 8081A**	**SOP Ref:**	**GL-OA-E-041**
Batch ID:	**937695**	**Inst:**	**ECD3A.I**	**Dilution:**	**1**
Run Date:	**01/05/2010 17:42**	**Analyst:**	**HXJ1**	**Inj. Vol:**	**1 uL**
Prep Date:	**01/04/2010 16:40**	**Aliquot:**	**20 mL**	**Final Volume:**	**1 mL**
Data File:	**023f2301.d**	**Column:**	**1 CLP-1**	**Level:**	**LOW**
	023b2301.d		**2 CLP-2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
58-89-9	gamma-BHC (Lindane)		0.00445	mg/L	0.00005	0.0002	1
76-44-8	Heptachlor		0.00391	mg/L	0.00005	0.0002	1
1024-57-3	Heptachlor epoxide		0.00396	mg/L	0.00005	0.0002	1
72-20-8	Endrin		0.00476	mg/L	0.0001	0.0004	1
72-43-5	Methoxychlor		0.043	mg/L	0.0005	0.002	1
57-74-9	Chlordane (tech.)	U	0.0025	mg/L	0.000765	0.0025	1
8001-35-2	Toxaphene	U	0.005	mg/L	0.0015	0.005	1

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd3a.i/010510p.b/023f2301.d
Lab Smp Id: 1202006595 Client Smp ID: WST03-10-2148MS
Inj Date : 05-JAN-2010 17:42
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |1202006595|1|
Misc Info : |ECDPTL_1L|937695|SVP|MS|SOIL|MS|||
Comment :
Method : /chem/ecd3a.i/010510p.b/ECD3-F-8081-122909.m
Meth Date : 11-Jan-2010 08:30 cla01575 Quant Type: ESTD
Cal Date : 05-JAN-2010 14:45 Cal File: 010f1001.d
Als bottle: 23 QC Sample: MS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1085-1.sub
Target Version: 3.50 Sample Matrix: Water
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	0.00100	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	20.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (mg/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.677	2.677	0.000	6595917	97.3303	0.00487	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.820	7.821	-0.001	4585164	88.4180	0.00442	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.328	3.327	0.001	7394342	89.0221	0.00445	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
3.711	3.710	0.001	5082637	78.1321	0.00391	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	CONCENTRATIONS FINAL (mg/L)	TARGET RANGE	RATIO
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.504	4.503	0.001	5634543	79.1010	0.00396	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.330	5.330	0.000	5420042	95.1494	0.00476	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
6.174	6.173	0.001	19066154	859.446	0.0430	80.00- 120.00	100.00

Data File: /chem/ecd3a.i/010510p.b/023f2301.d
Date : 05-JAN-2010 17:42
Client ID: WSTQ3-10-2148MS
Sample Info: 1120200659511
Volume Injected (uL): 1.0
Column phase: CLP-1

Instrument: ecd3a.i
Operator: HXJ1
Column diameter: 0.25

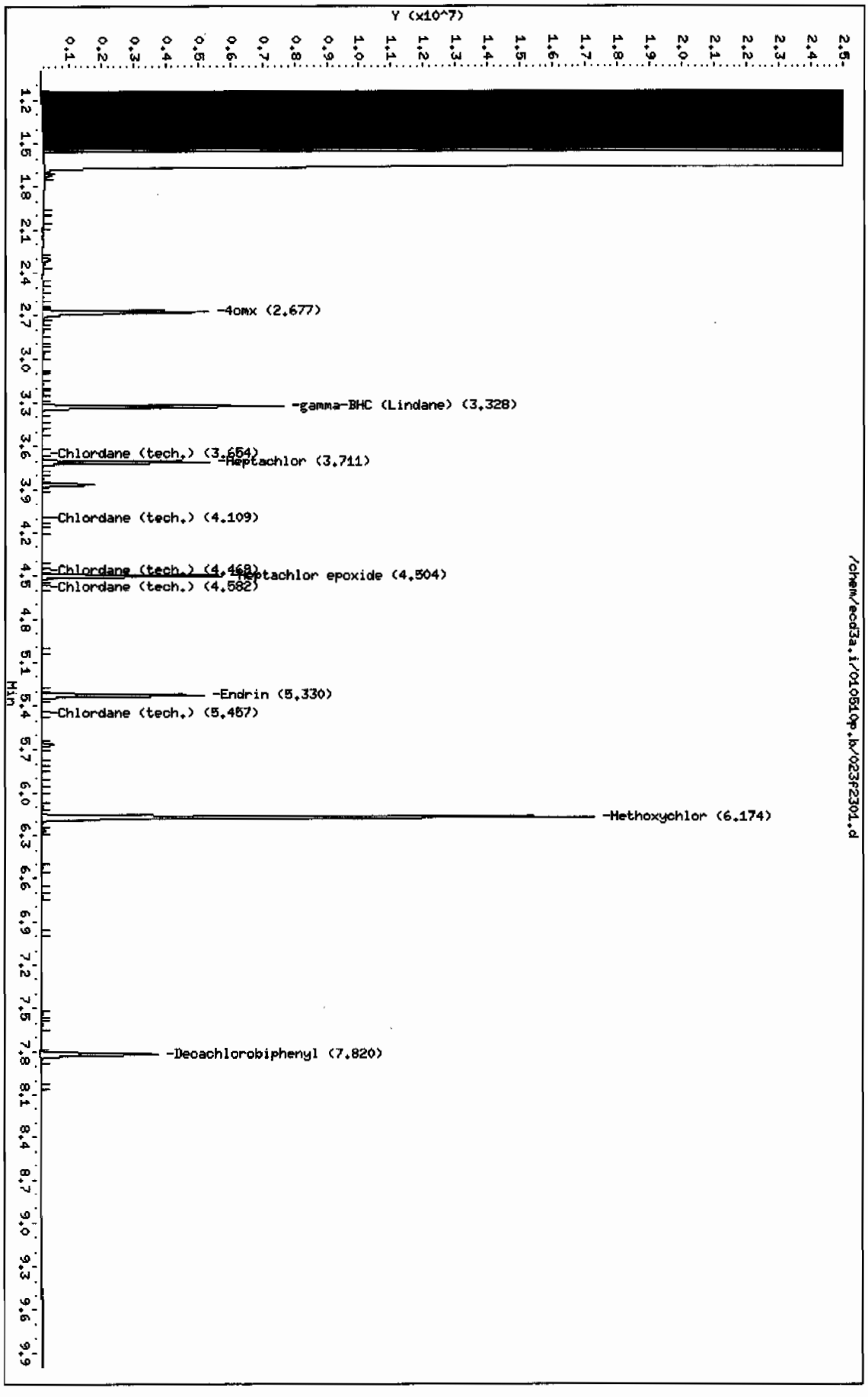

Page 1

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd3a.i/010510p.b/023b2301.d
Lab Smp Id: 1202006595 Client Smp ID: WST03-10-2148MS
Inj Date : 05-JAN-2010 17:42
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |1202006595|1|
Misc Info : |ECDPTL_1L|937695|SVP|MS|SOIL|MS|||
Comment :
Method : /chem/ecd3a.i/010510p.b/ECD3-B-8081-122909.m
Meth Date : 11-Jan-2010 08:29 cla01575 Quant Type: ESTD
Cal Date : 05-JAN-2010 14:45 Cal File: 010b1001.d
Als bottle: 23 QC Sample: MS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1085-1.sub
Target Version: 3.50 Sample Matrix: Water
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	0.00100	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	20.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (mg/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.921	2.920	0.001	44763562	89.5215	0.00448	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.856	8.856	0.000	34958739	88.6884	0.00443	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.721	3.721	0.000	46398266	79.8301	0.00399	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
4.134	4.134	0.000	27293734	64.4363	0.00322	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (mg/L)	TARGET RANGE	RATIO
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.995	4.996	-0.001	20774382	67.8665	0.00339	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.997	5.997	0.000	30732223	91.3466	0.00457	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
7.178	7.178	0.000	158730491	801.770	0.0401	80.00- 120.00	100.00

Data File: /chem/ecd3a.i/010510p.b/023b2301.d

Date : 05-JAN-2010 17:42

Client ID: WST03-10-2148MS

Sample Info: |1202006595|1|

Volume Injected (uL): 1.0

Column phase: CLP-2

Instrument: ecd3a.i

Operator: HXJ1

Column diameter: 0.25

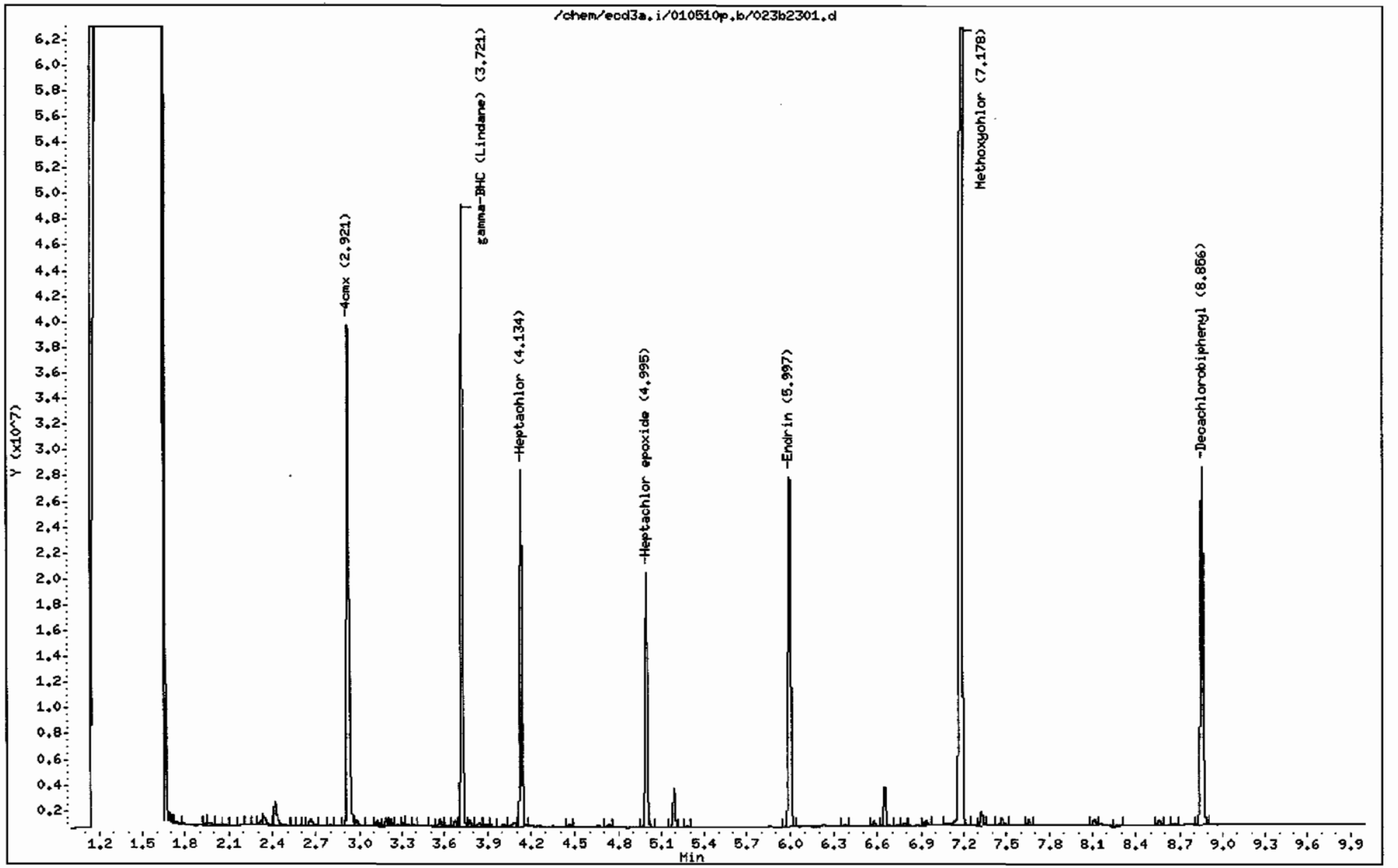

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	10-1085-1	**Date Collected:**	12/22/2009 12:00	**Matrix:**	TCLP R
Lab Sample ID:	1202006596	**Date Received:**	12/24/2009 09:30		
Client Sample:	QC for batch 937694	**Client:**	LANL010	**Project:**	QC
Client ID:	WST03-10-2148MS	**Method:**	SW846 8081A	**SOP Ref:**	GL-OA-E-041
Batch ID:	937695	**Inst:**	ECD3A.I	**Dilution:**	1
Run Date:	01/05/2010 18:23	**Analyst:**	HXJ1	**Inj. Vol:**	1 uL
Prep Date:	01/04/2010 16:40	**Aliquot:**	20 mL	**Final Volume:**	1 mL
Data File:	026f2601.d	**Column:**	1 CLP-1	**Level:**	LOW
	026b2601.d		2 CLP-2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
58-89-9	gamma-BHC (Lindane)	U	0.0002	mg/L	0.00005	0.0002	1
76-44-8	Heptachlor	U	0.0002	mg/L	0.00005	0.0002	1
1024-57-3	Heptachlor epoxide	U	0.0002	mg/L	0.00005	0.0002	1
72-20-8	Endrin	U	0.0004	mg/L	0.0001	0.0004	1
72-43-5	Methoxychlor	U	0.002	mg/L	0.0005	0.002	1
57-74-9	Chlordane (tech.)	U	0.0025	mg/L	0.000765	0.0025	1
8001-35-2	Toxaphene		0.0786	mg/L	0.0015	0.005	1

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CLP-1

Data file : /chem/ecd3a.i/010510p.b/026f2601.d
Lab Smp Id: 1202006596 Client Smp ID: WST03-10-2148TMS
Inj Date : 05-JAN-2010 18:23
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |1202006596|1|
Misc Info : |ECDPTL_1L|937695|SVP|TMSD|SOIL|TMS|||
Comment :
Method : /chem/ecd3a.i/010510p.b/ECD3-F-8081-122909.m
Meth Date : 11-Jan-2010 08:30 cla01575 Quant Type: ESTD
Cal Date : 05-JAN-2010 14:45 Cal File: 010f1001.d
Als bottle: 26 QC Sample: MS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1085-1.sub
Target Version: 3.50 Sample Matrix: Water
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	0.00100	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	20.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (mg/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.679	2.677	0.002	6629604	97.8274	0.00489	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.820	7.821	-0.001	4744821	91.4967	0.00457	80.00- 120.00	100.00
23 Toxaphene					CAS #: 8001-35-2		
5.000	5.002	-0.002	759238	1564.60	0.0782	80.00- 120.00	100.00(M)
5.107	5.106	0.001	1056244	1400.63	0.0700	130.17- 170.17	139.12
5.193	5.193	0.000	1345277	1545.60	0.0773	164.36- 204.36	177.19
5.351	5.352	-0.001	1668640	1468.09	0.0734	205.31- 245.31	219.78
5.543	5.543	0.000	3799053	1879.26	0.0940	330.82- 370.82	500.38

Average of Peak Concentrations = 0.0786

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd3a.i/010510p.b/026f2601.d
Date : 05-JAN-2010 18:23
Client ID: WST03-10-2148TMS
Sample Info: |120200659611|
Volume Injected (uL): 1.0
Column phase: CLP-1

Instrument: ecd3a.i
Operator: HXJ1
Column diameter: 0.25

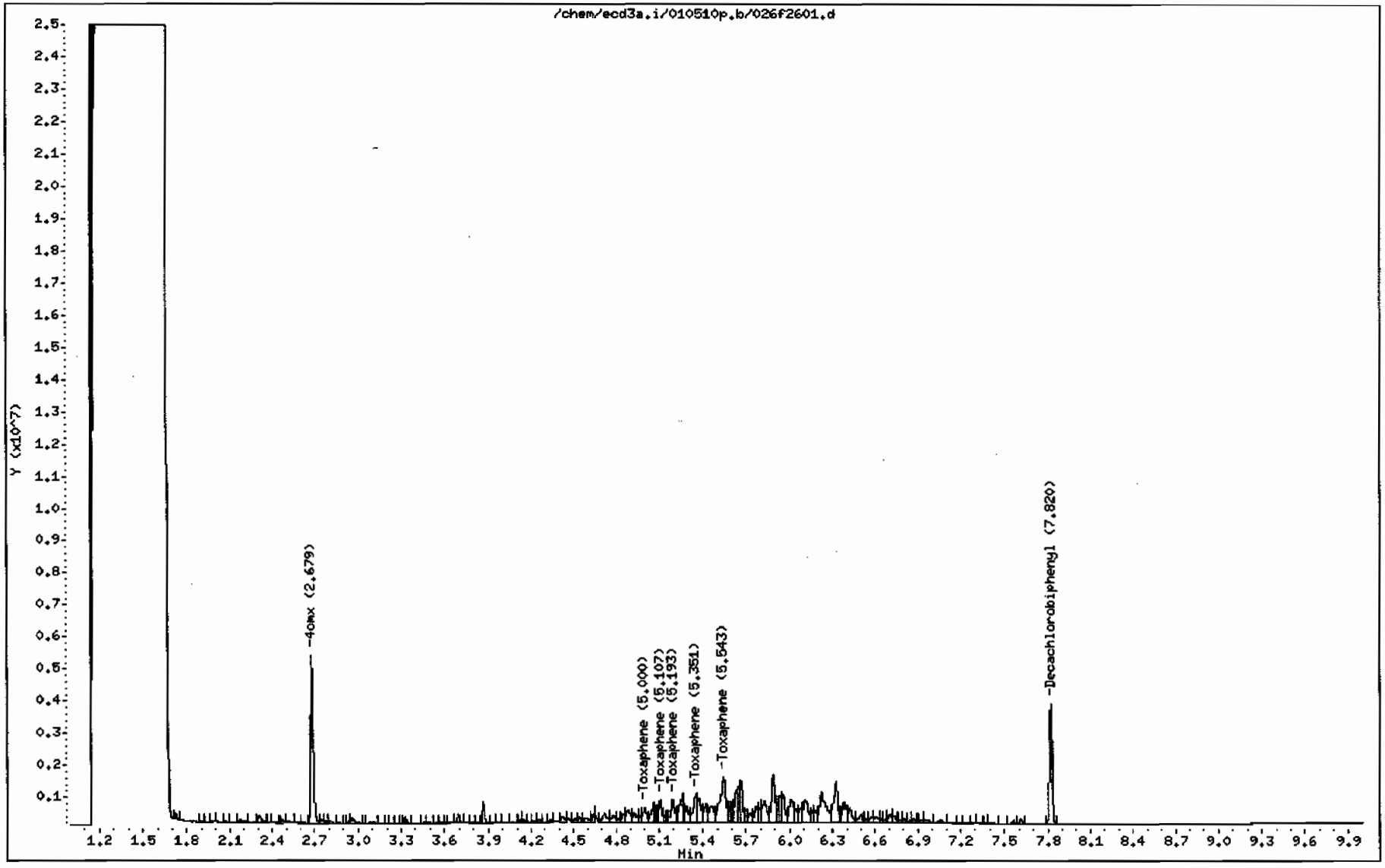

Comment: Manually Integrated
Data File: /chem/ecd3a.i/010510p.b/026f2601.d
Operator: HXJ1
Injection Date: 05-JAN-2010 18:23
Instrument: ecd3a.i
Client Sample ID: WST03-10-2148TMS

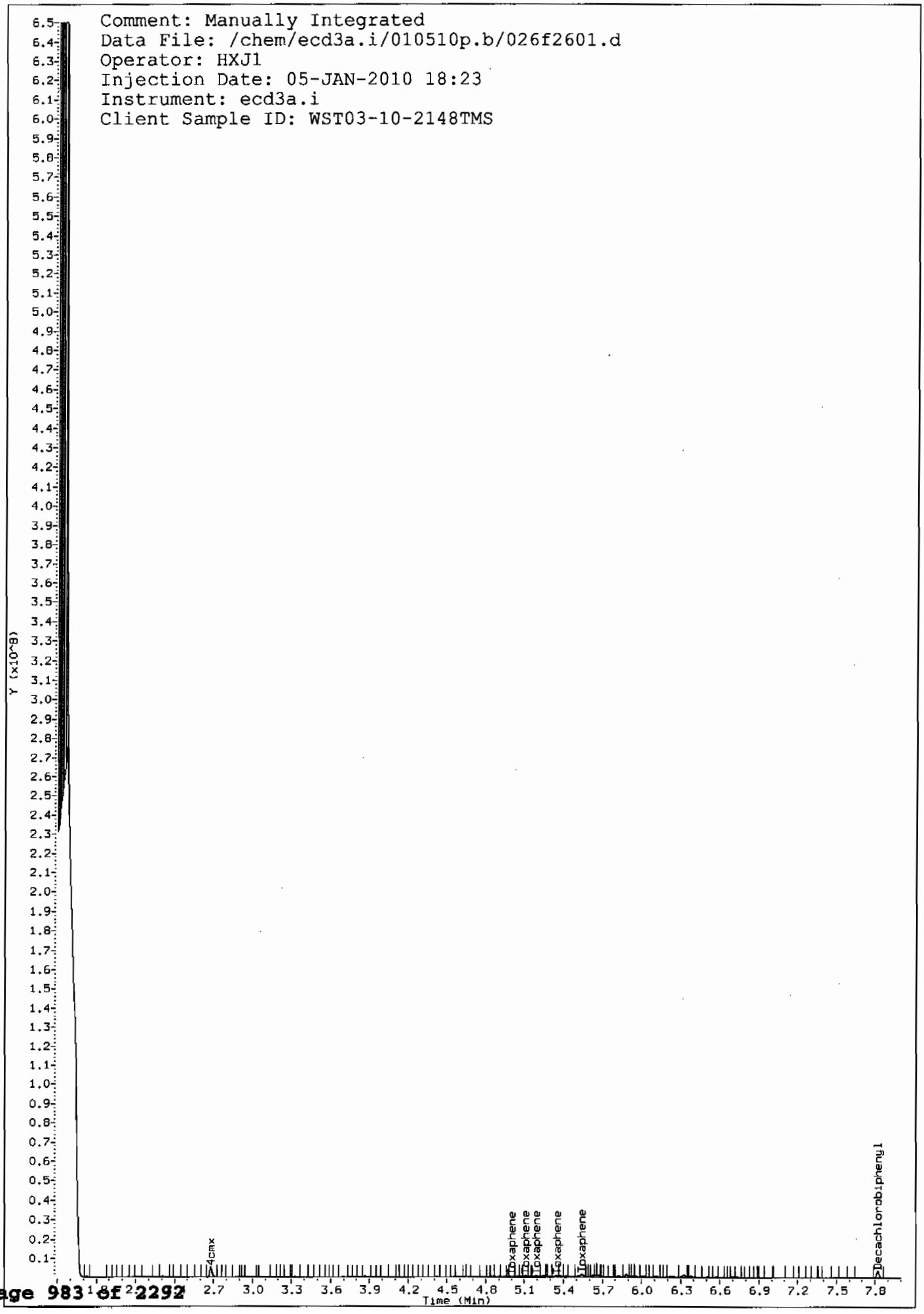

Comment: Before manual integration
Data File: /chem/ecd3a.i/010510p.b/orig-026f2601.d
Operator: HXJ1
Injection Date: 05-JAN-2010 18:23
Instrument: ecd3a.i
Client Sample ID: WST03-10-2148TMS

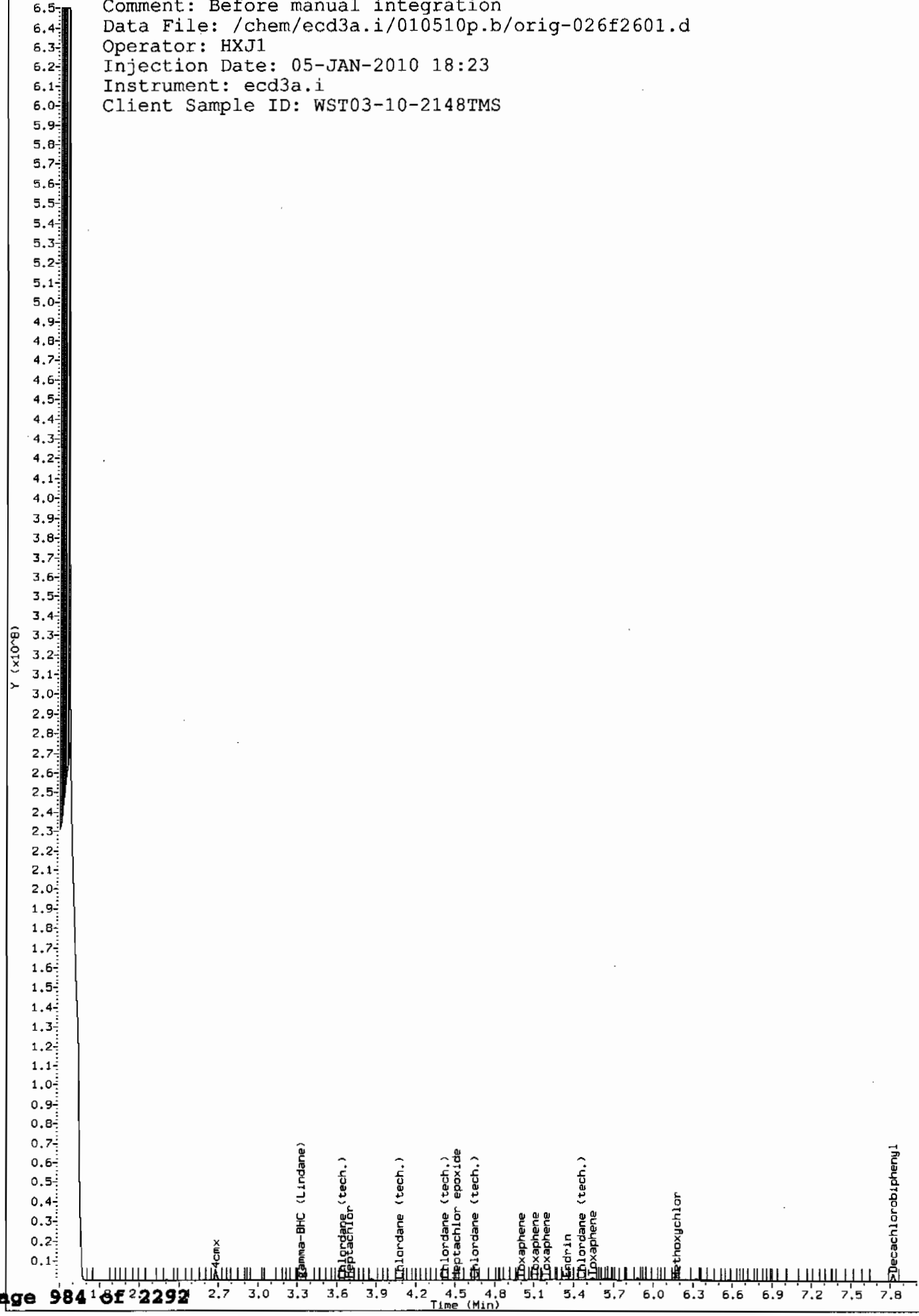

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd3a.i/010510p.b/026b2601.d
Lab Smp Id: 1202006596 Client Smp ID: WST03-10-2148TMS
Inj Date : 05-JAN-2010 18:23
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |1202006596|1|
Misc Info : |ECDPTL_1L|937695|SVP|TMSD|SOIL|TMS|||
Comment :
Method : /chem/ecd3a.i/010510p.b/ECD3-B-8081-122909.m
Meth Date : 11-Jan-2010 08:29 cla01575 Quant Type: ESTD
Cal Date : 05-JAN-2010 14:45 Cal File: 010b1001.d
Als bottle: 26 QC Sample: MS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1085-1.sub
Target Version: 3.50 Sample Matrix: Water
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	0.00100	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	20.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (mg/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.921	2.920	0.001	44650891	89.2962	0.00446	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.857	8.856	0.001	35887495	91.0446	0.00455	80.00- 120.00	100.00
23 Toxaphene					CAS #: 8001-35-2		
5.657	5.651	0.006	9929410	1960.07	0.0980	80.00- 120.00	100.00
5.775	5.775	0.000	4961830	1659.17	0.0830	37.42- 77.42	49.97
6.164	6.165	-0.001	9480157	1576.57	0.0788	74.91- 114.91	95.48
6.208	6.208	0.000	17148849	1617.90	0.0809	154.59- 194.59	172.71
6.310	6.309	0.001	34357406	1794.33	0.0897	275.83- 315.83	346.02
Average of Peak Concentrations =					0.0861		

Data File: /chem/ecd3a.i/010510p.b/026b2601.d
Date : 05-JAN-2010 18:23
Client ID: WST03-10-2148THS
Sample Info: |1202006596|1|
Volume Injected (uL): 1.0
Column phase: CLP-2

Instrument: ecd3a.i

Operator: HXJ1
Column diameter: 0.25

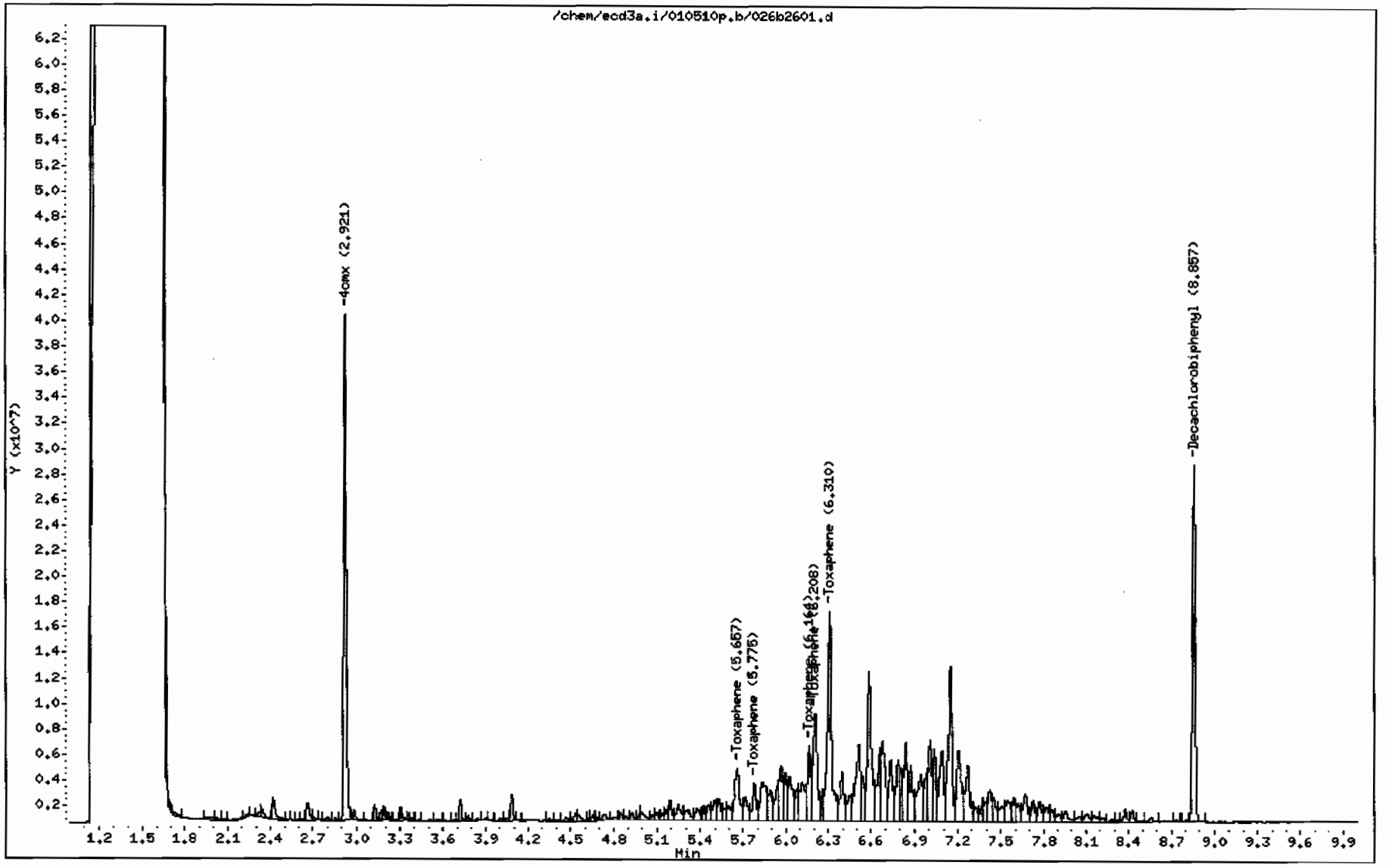

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	10–1085–1	**Date Collected:**	12/22/2009 12:00	**Matrix:**	TCLP R
Lab Sample ID:	1202006598	**Date Received:**	12/24/2009 09:30		
Client Sample:	QC for batch 937694	**Client:**	LANL010	**Project:**	QC
Client ID:	WST03–10–2148MSD	**Method:**	SW846 8081A	**SOP Ref:**	GL–OA–E–041
Batch ID:	937695	**Inst:**	ECD3A.I	**Dilution:**	1
Run Date:	01/05/2010 18:51	**Analyst:**	HXJ1	**Inj. Vol:**	1 uL
Prep Date:	01/04/2010 16:40	**Aliquot:**	20 mL	**Final Volume:**	1 mL
Data File:	028f2801.d	**Column:**	1 CLP–1	**Level:**	LOW
	028b2801.d		2 CLP–2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
58–89–9	gamma–BHC (Lindane)	U	0.0002	mg/L	0.00005	0.0002	1
76–44–8	Heptachlor	U	0.0002	mg/L	0.00005	0.0002	1
1024–57–3	Heptachlor epoxide	U	0.0002	mg/L	0.00005	0.0002	1
72–20–8	Endrin	U	0.0004	mg/L	0.0001	0.0004	1
72–43–5	Methoxychlor	U	0.002	mg/L	0.0005	0.002	1
57–74–9	Chlordane (tech.)		0.0905	mg/L	0.000765	0.0025	1
8001–35–2	Toxaphene	U	0.005	mg/L	0.0015	0.005	1

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CLP-1

Data file : /chem/ecd3a.i/010510p.b/028f2801.d
Lab Smp Id: 1202006598 Client Smp ID: WST03-10-2148CMSD
Inj Date : 05-JAN-2010 18:51
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |1202006598|1|
Misc Info : |ECDPTL_1L|937695|SVP|CMSD|SOIL|CMSD|||
Comment :
Method : /chem/ecd3a.i/010510p.b/ECD3-F-8081-122909.m
Meth Date : 11-Jan-2010 08:30 cla01575 Quant Type: ESTD
Cal Date : 05-JAN-2010 14:45 Cal File: 010f1001.d
Als bottle: 28 QC Sample: MSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1085-1.sub
Target Version: 3.50 Sample Matrix: Water
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	0.00100	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	20.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (mg/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.676	2.677	-0.001	9723088	143.475	0.00717	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.821	7.821	0.000	5388880	103.916	0.00520	80.00- 120.00	100.00
8 Chlordane (tech.)					CAS #: 12789-03-6		
3.644	3.644	0.000	4142123	1650.04	0.0825	80.00- 120.00	100.00
4.081	4.081	0.000	4738238	1853.00	0.0926	97.79- 137.79	114.39
4.444	4.444	0.000	2434180	1730.31	0.0865	35.51- 75.51	58.77
4.618	4.618	0.000	13981873	1657.52	0.0829	320.22- 360.22	337.55
5.484	5.485	-0.001	3933484	2169.70	0.108	64.36- 104.36	94.96

Average of Peak Concentrations = 0.0905

Data File: /chem/ecd3a.i/010510p.b/028f2801.d
Date : 05-JAN-2010 18:51
Client ID: WST03-10-2148CMSD
Sample Info: |120200659811|
Volume Injected (uL): 1.0
Column phase: CLP-1

Instrument: ecd3a.i
Operator: HXJ1
Column diameter: 0.25

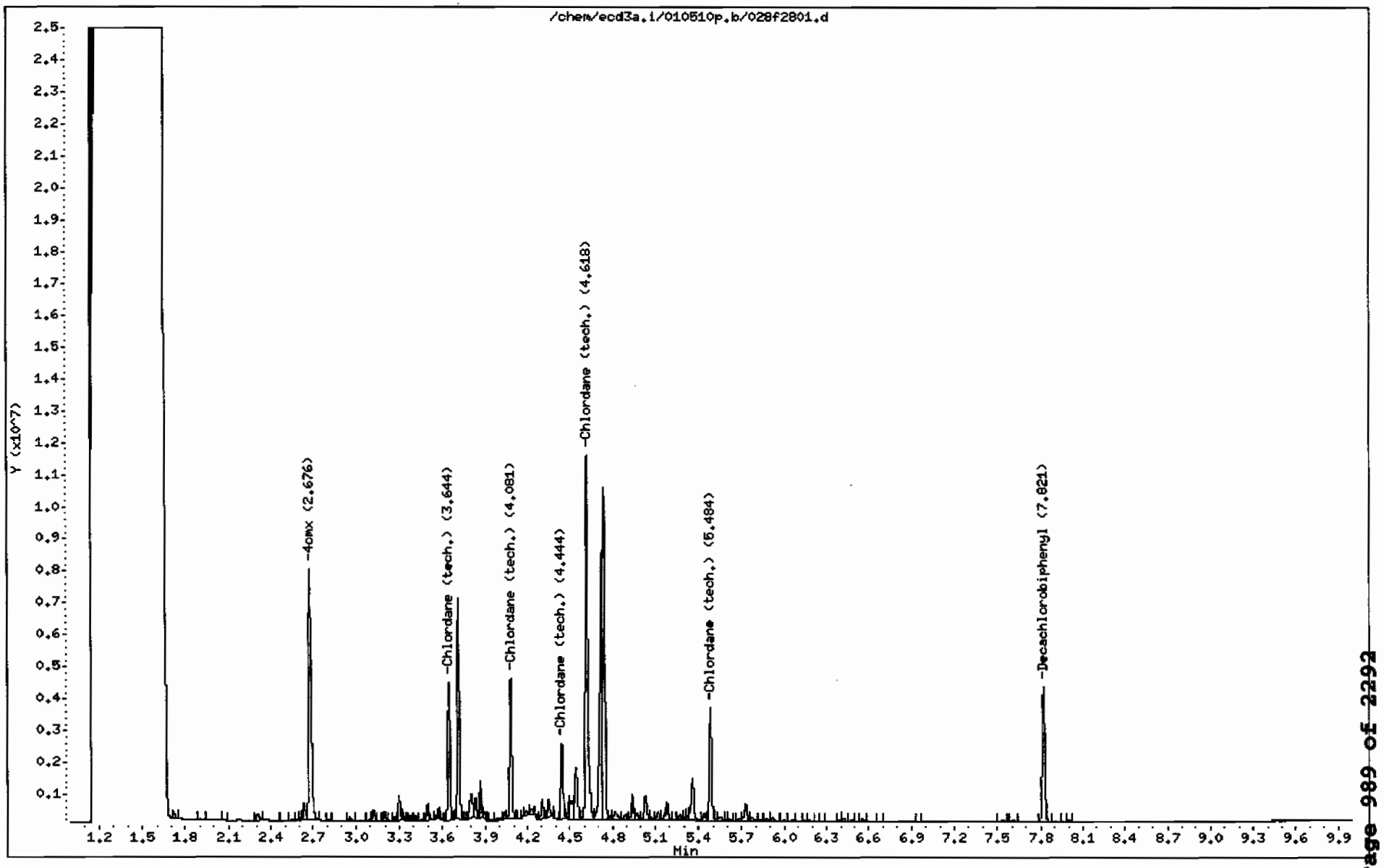

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd3a.i/010510p.b/028b2801.d
Lab Smp Id: 1202006598 Client Smp ID: WST03-10-2148CMSD
Inj Date : 05-JAN-2010 18:51
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |1202006598|1|
Misc Info : |ECDPTL_1L|937695|SVP|CMSD|SOIL|CMSD|||
Comment :
Method : /chem/ecd3a.i/010510p.b/ECD3-B-8081-122909.m
Meth Date : 11-Jan-2010 08:29 cla01575 Quant Type: ESTD
Cal Date : 05-JAN-2010 14:45 Cal File: 010b1001.d
Als bottle: 28 QC Sample: MSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1085-1.sub
Target Version: 3.50 Sample Matrix: Water
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	0.00100	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	20.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (mg/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.920	2.920	0.000	64085513	128.163	0.00641	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.857	8.856	0.001	40236389	102.077	0.00510	80.00- 120.00	100.00
8 Chlordane (tech.)					CAS #: 12789-03-6		
3.998	3.998	0.000	22473558	1407.56	0.0704	80.00- 120.00	100.00
4.575	4.575	0.000	19466269	1655.04	0.0828	59.79- 99.79	86.62
4.956	4.957	-0.001	9821622	1442.58	0.0721	18.47- 58.47	43.70
5.334	5.333	0.001	47262065	1767.08	0.0884	162.52- 202.52	210.30
6.272	6.273	-0.001	28677468	2321.08	0.116	77.74- 117.74	127.61

Average of Peak Concentrations = 0.0859

Data File: /chem/ecd3a.i/010510p.b/028b2801.d
Date : 05-JAN-2010 18:51
Client ID: WST03-10-2148CMSD
Sample Info: |1202006598|1|
Volume Injected (uL): 1.0
Column phase: CLP-2

Instrument: ecd3a.i
Operator: HXJ1
Column diameter: 0.25

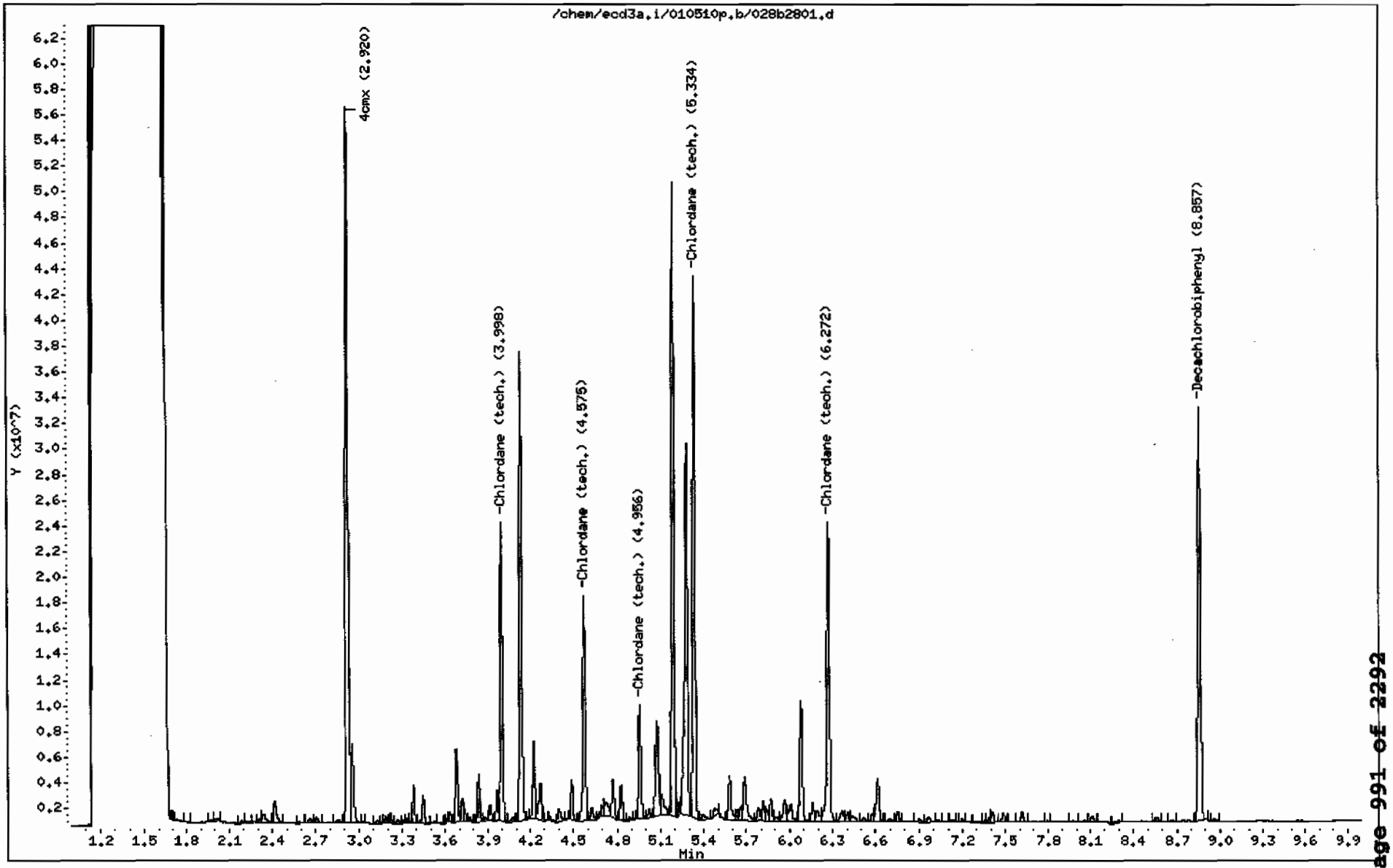

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	**10-1085-1**	**Date Collected:**	**12/22/2009 12:00**	**Matrix:**	**TCLP R**
Lab Sample ID:	**1202006599**	**Date Received:**	**12/24/2009 09:30**		
Client Sample:	**QC for batch 937694**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**WST03-10-2148MSD**	**Method:**	**SW846 8081A**	**SOP Ref:**	**GL-OA-E-041**
Batch ID:	**937695**	**Inst:**	**ECD3A.I**	**Dilution:**	**1**
Run Date:	**01/05/2010 17:56**	**Analyst:**	**HXJ1**	**Inj. Vol:**	**1 uL**
Prep Date:	**01/04/2010 16:40**	**Aliquot:**	**20 mL**	**Final Volume:**	**1 mL**
Data File:	**024f2401.d**	**Column:**	**1 CLP-1**	**Level:**	**LOW**
	024b2401.d		**2 CLP-2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
58-89-9	gamma-BHC (Lindane)		0.00519	mg/L	0.00005	0.0002	1
76-44-8	Heptachlor		0.00469	mg/L	0.00005	0.0002	1
1024-57-3	Heptachlor epoxide		0.00463	mg/L	0.00005	0.0002	1
72-20-8	Endrin		0.00564	mg/L	0.0001	0.0004	1
72-43-5	Methoxychlor		0.049	mg/L	0.0005	0.002	1
57-74-9	Chlordane (tech.)	U	0.0025	mg/L	0.000765	0.0025	1
8001-35-2	Toxaphene	U	0.005	mg/L	0.0015	0.005	1

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CLP-1

Data file : /chem/ecd3a.i/010510p.b/024f2401.d
Lab Smp Id: 1202006599 Client Smp ID: WST03-10-2148MSD
Inj Date : 05-JAN-2010 17:56
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |1202006599|1|
Misc Info : |ECDPTL_1L|937695|SVP|MSD|SOIL|MSD|||
Comment :
Method : /chem/ecd3a.i/010510p.b/ECD3-F-8081-122909.m
Meth Date : 11-Jan-2010 08:30 cla01575 Quant Type: ESTD
Cal Date : 05-JAN-2010 14:45 Cal File: 010f1001.d
Als bottle: 24 QC Sample: MSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1085-1.sub
Target Version: 3.50 Sample Matrix: Water
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	0.00100	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	20.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (mg/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.679	2.677	0.002	7695134	113.550	0.00568	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.820	7.821	-0.001	5802630	111.895	0.00559	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.329	3.327	0.002	8623934	103.825	0.00519	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
3.712	3.710	0.002	6096046	93.7105	0.00468	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	CONCENTRATIONS FINAL (mg/L)	TARGET RANGE	RATIO
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.505	4.503	0.002	6601749	92.6792	0.00463	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.330	5.330	0.000	6422575	112.749	0.00564	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
6.174	6.173	0.001	21720731	979.107	0.0490	80.00- 120.00	100.00

Data File: /chem/ecd3a.i/010510p.b/024f2401.d
Date : 05-JAN-2010 17:56
Client ID: WST03-10-2148MSD
Sample Info: |120200659|1|
Volume Injected (uL): 1.0
Column phase: CLP-1

Instrument: ecd3a.i

Operator: HXJ1
Column diameter: 0.25

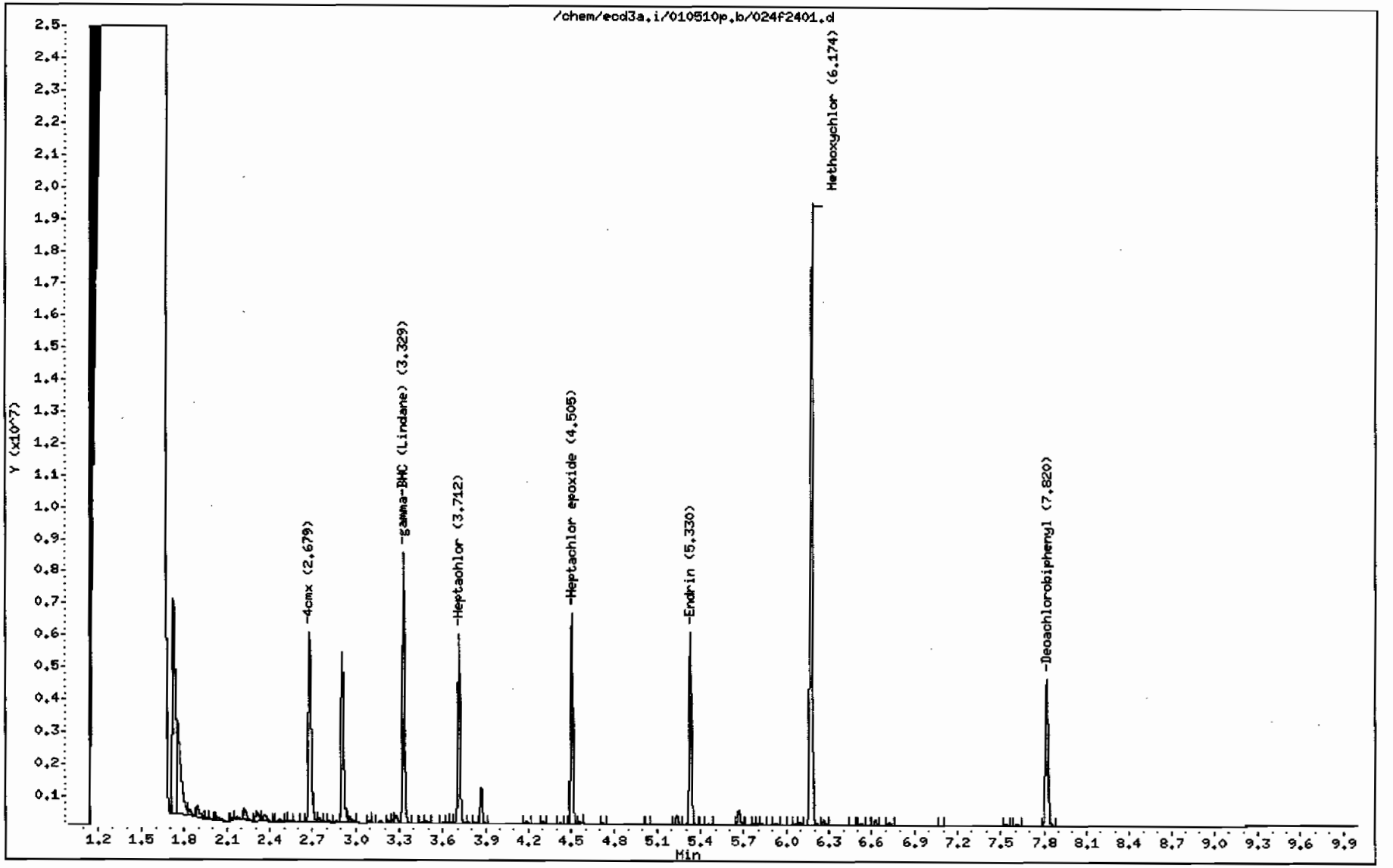

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd3a.i/010510p.b/024b2401.d
Lab Smp Id: 1202006599 Client Smp ID: WST03-10-2148MSD
Inj Date : 05-JAN-2010 17:56
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |1202006599|1|
Misc Info : |ECDPTL_1L|937695|SVP|MSD|SOIL|MSD|||
Comment :
Method : /chem/ecd3a.i/010510p.b/ECD3-B-8081-122909.m
Meth Date : 11-Jan-2010 08:29 cla01575 Quant Type: ESTD
Cal Date : 05-JAN-2010 14:45 Cal File: 010b1001.d
Als bottle: 24 QC Sample: MSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1085-1.sub
Target Version: 3.50 Sample Matrix: Water
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	0.00100	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	20.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (mg/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.922	2.920	0.002	49688294	99.3703	0.00497	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.856	8.856	0.000	43932671	111.455	0.00557	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.722	3.721	0.001	52651834	90.5896	0.00453	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
4.135	4.134	0.001	31792248	75.0566	0.00375	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	CONCENTRATIONS FINAL (mg/L)	TARGET RANGE	RATIO
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.996	4.996	0.000	24772673	80.9283	0.00405	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.997	5.997	0.000	35779416	106.349	0.00532	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
7.178	7.178	0.000	179110967	904.715	0.0452	80.00- 120.00	100.00

Data File: /chem/ecd3a.i/010510p.b/024b2401.d
Date : 05-JAN-2010 17:56
Client ID: WST03-10-2148MSD
Sample Info: |1202006599|1|
Volume Injected (uL): 1.0
Column phase: CLP-2

Instrument: ecd3a.i

Operator: HXJ1
Column diameter: 0.25

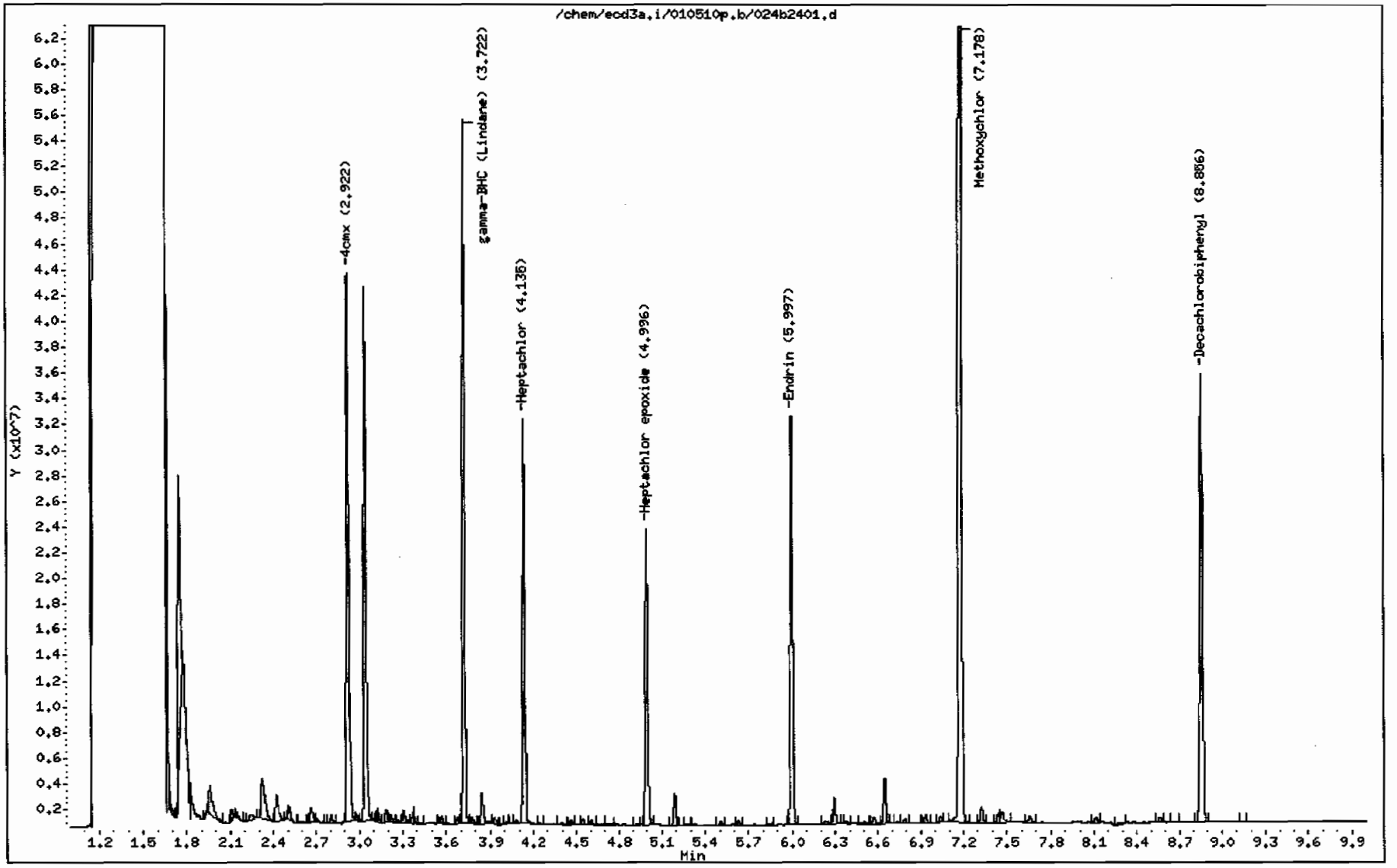

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	10–1085–1	**Date Collected:**	12/22/2009 12:00	**Matrix:**	TCLP R
Lab Sample ID:	1202006600	**Date Received:**	12/24/2009 09:30		
Client Sample:	QC for batch 937694	**Client:**	LANL010	**Project:**	QC
Client ID:	WST03–10–2148MSD	**Method:**	SW846 8081A	**SOP Ref:**	GL–OA–E–041
Batch ID:	937695	**Inst:**	ECD3A.I	**Dilution:**	1
Run Date:	01/05/2010 18:10	**Analyst:**	HXJ1	**Inj. Vol:**	1 uL
Prep Date:	01/04/2010 16:40	**Aliquot:**	20 mL	**Final Volume:**	1 mL
Data File:	025f2501.d	**Column:**	1 CLP–1	**Level:**	LOW
	025b2501.d		2 CLP–2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
58–89–9	gamma–BHC (Lindane)	U	0.0002	mg/L	0.00005	0.0002	1
76–44–8	Heptachlor	U	0.0002	mg/L	0.00005	0.0002	1
1024–57–3	Heptachlor epoxide	U	0.0002	mg/L	0.00005	0.0002	1
72–20–8	Endrin	U	0.0004	mg/L	0.0001	0.0004	1
72–43–5	Methoxychlor	U	0.002	mg/L	0.0005	0.002	1
57–74–9	Chlordane (tech.)	U	0.0025	mg/L	0.000765	0.0025	1
8001–35–2	Toxaphene		0.0875	mg/L	0.0015	0.005	1

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CLP-1

Data file : /chem/ecd3a.i/010510p.b/025f2501.d
Lab Smp Id: 1202006600 Client Smp ID: WST03-10-2148TMSD
Inj Date : 05-JAN-2010 18:10
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |1202006600|1|
Misc Info : |ECDPTL_1L|937695|SVP|TMS|SOIL|TMSD|||
Comment :
Method : /chem/ecd3a.i/010510p.b/ECD3-F-8081-122909.m
Meth Date : 11-Jan-2010 08:30 cla01575 Quant Type: ESTD
Cal Date : 05-JAN-2010 14:45 Cal File: 010f1001.d
Als bottle: 25 QC Sample: MSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1085-1.sub
Target Version: 3.50 Sample Matrix: Water
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	0.00100	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	20.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (mg/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.676	2.677	-0.001	7116074	105.006	0.00525	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.821	7.821	0.000	5916791	114.096	0.00570	80.00- 120.00	100.00
23 Toxaphene					CAS #: 8001-35-2		
5.000	5.002	-0.002	888859	1831.72	0.0916	80.00- 120.00	100.00(M)
5.107	5.106	0.001	1274405	1689.92	0.0845	130.17- 170.17	143.38
5.192	5.193	-0.001	1549606	1780.35	0.0890	164.36- 204.36	174.34
5.351	5.352	-0.001	1976166	1738.66	0.0869	205.31- 245.31	222.33
5.541	5.543	-0.002	3450774	1706.98	0.0853	330.82- 370.82	388.23

Average of Peak Concentrations = 0.0875

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd3a.i/010510p.b/025f2501.d
Date : 05-JAN-2010 18:10
Client ID: WST03-10-2148TMSD
Sample Info: |120200660011|
Volume Injected (uL): 1.0
Column phase: CLP-1

Instrument: ecd3a.i
Operator: HXJ1
Column diameter: 0.25

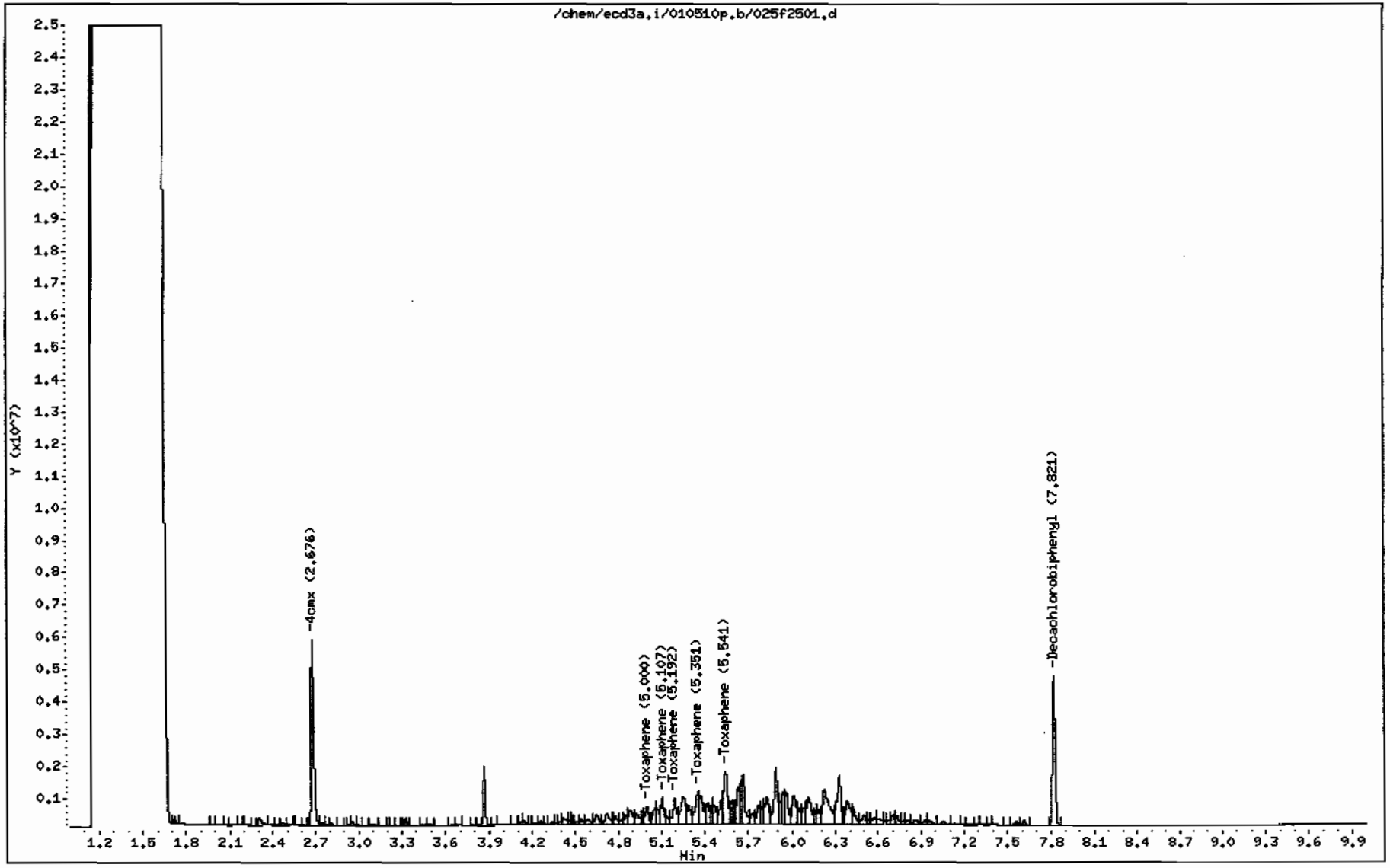

Comment: Manually Integrated
Data File: /chem/ecd3a.i/010510p.b/025f2501.d
Operator: HXJ1
Injection Date: 05-JAN-2010 18:10
Instrument: ecd3a.i
Client Sample ID: WST03-10-2148TMSD

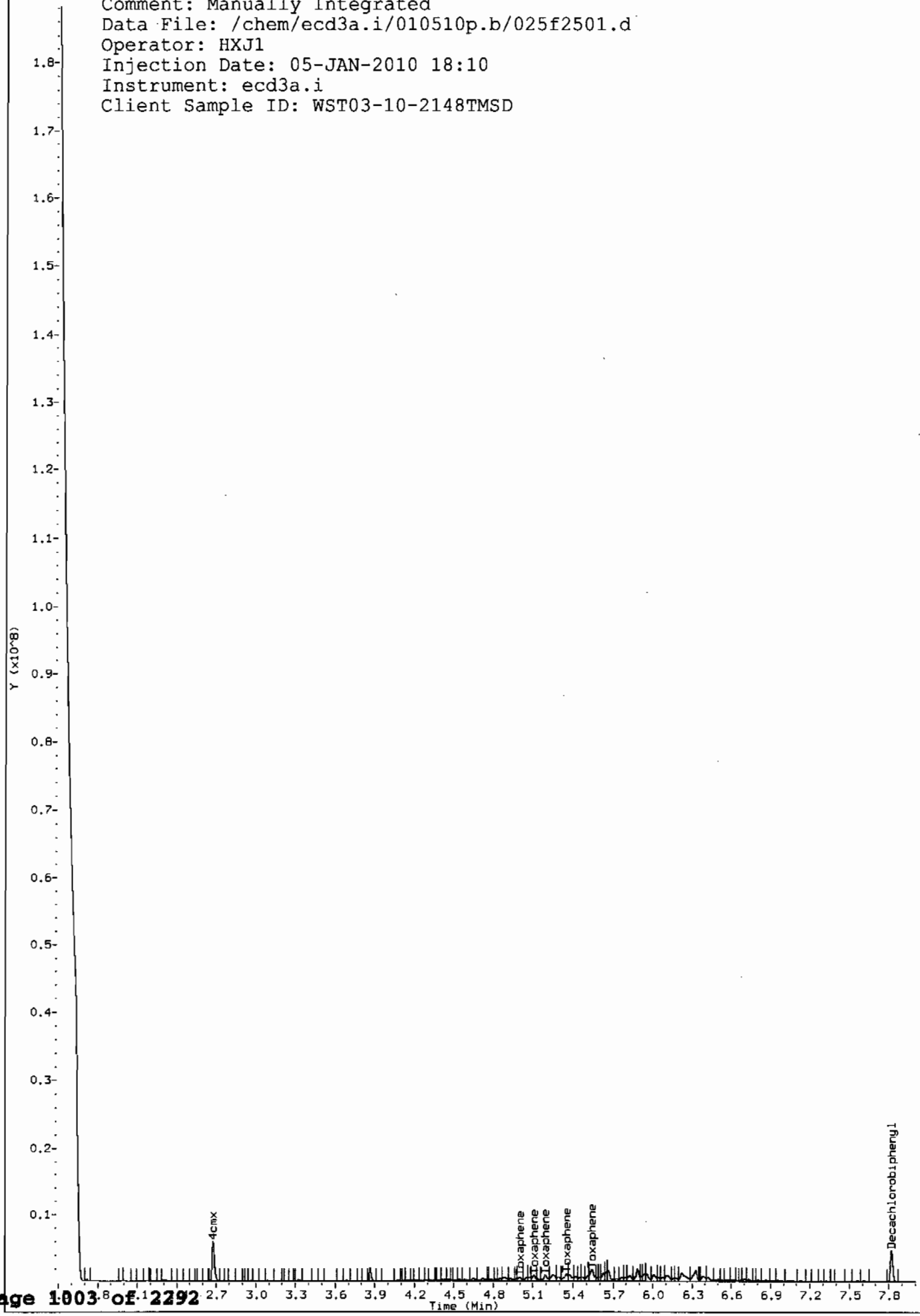

Comment: Before manual integration
Data File: /chem/ecd3a.i/010510p.b/orig-025f2501.d
Operator: HXJ1
Injection Date: 05-JAN-2010 18:10
Instrument: ecd3a.i
Client Sample ID: WST03-10-2148TMSD

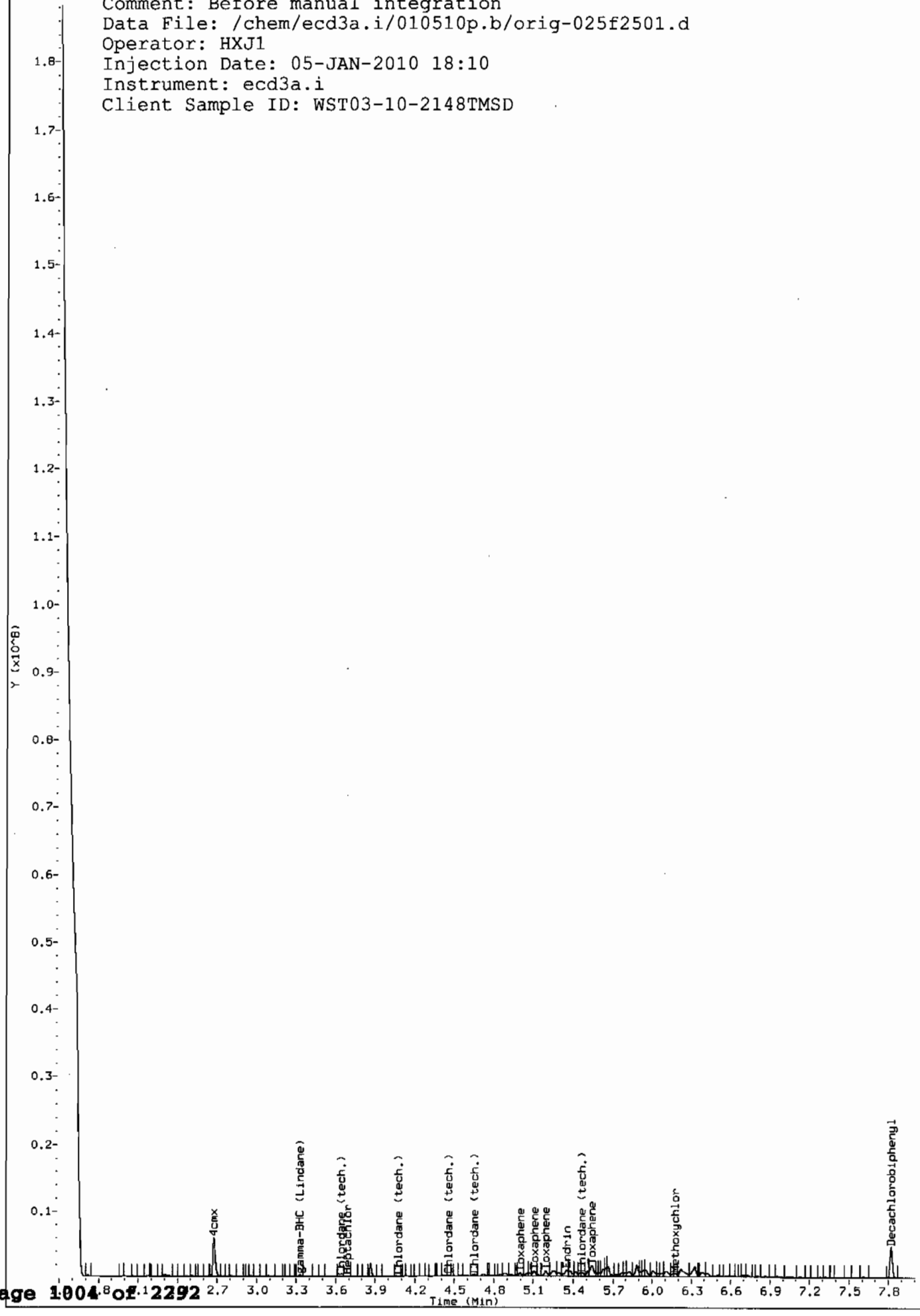

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd3a.i/010510p.b/025b2501.d
Lab Smp Id: 1202006600 Client Smp ID: WST03-10-2148TMSD
Inj Date : 05-JAN-2010 18:10
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |1202006600|1|
Misc Info : |ECDPTL_1L|937695|SVP|TMS|SOIL|TMSD|||
Comment :
Method : /chem/ecd3a.i/010510p.b/ECD3-B-8081-122909.m
Meth Date : 11-Jan-2010 08:29 cla01575 Quant Type: ESTD
Cal Date : 05-JAN-2010 14:45 Cal File: 010b1001.d
Als bottle: 25 QC Sample: MSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1085-1.sub
Target Version: 3.50 Sample Matrix: Water
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	0.00100	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	20.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (mg/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.919	2.920	-0.001	49224741	98.4433	0.00492	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.857	8.856	0.001	45468380	115.351	0.00577	80.00- 120.00	100.00
23 Toxaphene					CAS #: 8001-35-2		
5.656	5.651	0.005	11481129	2266.38	0.113	80.00- 120.00	100.00
5.775	5.775	0.000	5919387	1979.37	0.0990	37.42- 77.42	51.56
6.165	6.165	0.000	11469504	1907.40	0.0954	74.91- 114.91	99.90
6.207	6.208	-0.001	19876152	1875.20	0.0938	154.59- 194.59	173.12
6.309	6.309	0.000	38717200	2022.02	0.101	275.83- 315.83	337.22
Average of Peak Concentrations =					0.100		

Data File: /chem/ecd3a.i/010510p.b/025b2501.d

Date : 05-JAN-2010 19:10

Client ID: WST03-10-2148THSD

Sample Info: |1202006600|1|

Volume Injected (uL): 1.0

Column phase: CLP-2

Instrument: ecd3a.i

Operator: HXJ1

Column diameter: 0.25

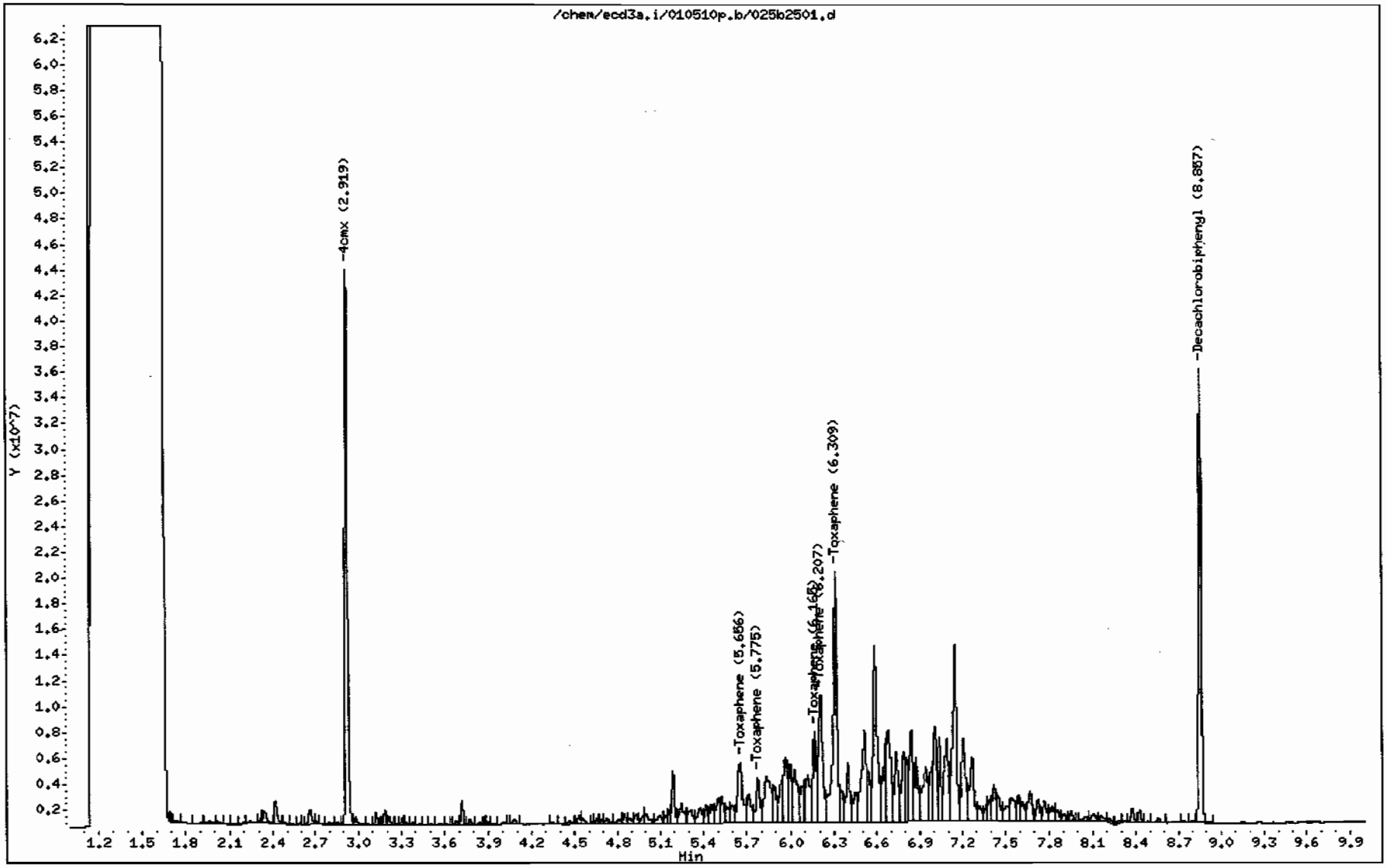

MISCELLANEOUS DATA

GEL ORGANIC RUN LOG INSTRUMENT ID: ECD3

DATE: 12/31/2009 METHOD: ECD3-B-8081-122909.m OPERATOR:CXC2 REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT DA385

Calibration & QC Information
Initial Calibration Dates: See Calibration History and Standards Log
Initial Calibration Std ID's: See Calibration History and Standards Log
GEL SOP GL-OA-E-041
EPA Method: 8081
8081A
Sequence Number:122909p.b Injection Volume: 1.0 uL

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001b0101.d	WAR091130-99IB	CXC2	29-DEC-2009 16:57		122909p	1.0		Clean
002b0201.d	WPE091219-99DG	CXC2	29-DEC-2009 17:10		122909p	1.0		(b) DDT 1.0%, Endrin 5.4%; (f) DDT 1.3%, Endrin 3.3%
003b0301.d	WPE091228-01AB	CXC2	29-DEC-2009 17:34		122909p	1.0		INDAB ICAL level 1
004b0401.d	WPE091228-02AB	CXC2	29-DEC-2009 17:47		122909p	1.0		INDAB ICAL level 2
005b0501.d	WPE091228-03AB	CXC2	29-DEC-2009 18:01		122909p	1.0		INDAB ICAL level 3
006b0601.d	WPE091228-04AB	CXC2	29-DEC-2009 18:15		122909p	1.0		INDAB ICAL level 4
007b0701.d	IPE091219-02AB	CXC2	29-DEC-2009 18:29		122909p	1.0		INDAB ICAL level 5
008b0801.d	WPE091218-10AB	CXC2	29-DEC-2009 18:43		122909p	1.0		(b) gamma-Chlordane elevated - NCR LANL batches; (f) All okay
009b0901.d	WPE091228-11TX	CXC2	29-DEC-2009 18:56		122909p	1.0		TOXAPH ICAL level 1
010b1001.d	WPE091228-12TX	CXC2	29-DEC-2009 19:10		122909p	1.0		TOXAPH ICAL level 2
011b1101.d	WPE091228-13TX	CXC2	29-DEC-2009 19:24		122909p	1.0		TOXAPH ICAL level 3
012b1201.d	WPE091228-14TX	CXC2	29-DEC-2009 19:37		122909p	1.0		DUSE - misinjection - see vial 13
013b1301.d	WPE091228-14TX	CXC2	29-DEC-2009 20:01		122909p	1.0		TOXAPH ICAL level 4
014b1401.d	IPE091121-40TX	CXC2	29-DEC-2009 20:14		122909p	1.0		TOXAPH ICAL level 5
015b1501.d	WPE091219-52TX	CXC2	29-DEC-2009 20:28		122909p	1.0		All okay

Instrument Batch: /chem/ecd3a.i/122909p.b Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
016b1601.d	WPE091228-21CL	CXC2	29-DEC-2009 20:42		122909p	1.0		CHLOR ICAL level 1

017b1701.d	WPE091228-22CL	CXC2	29-DEC-2009 21:14		122909p		1.0		CHLOR ICAL level 2
018b1801.d	WPE091228-23CL	CXC2	29-DEC-2009 21:28		122909p		1.0		CHLOR ICAL level 3
019b1901.d	WPE091228-24CL	CXC2	29-DEC-2009 21:41		122909p		1.0		CHLOR ICAL level 4
020b2001.d	IPE091029-06CL	CXC2	29-DEC-2009 21:55		122909p		1.0		CHLOR ICAL level 5
021b2101.d	WPE091206-60CL	CXC2	29-DEC-2009 22:09		122909p		1.0		All okay
022b2201.d	WPE091219-99DG	CXC2	29-DEC-2009 22:22		122909p		1.0		(b) DDT 2.9%, Endrin 8.6%; (f) DDT 3.3%, Endrin 5.7%
023b2301.d	WAR091130-99IB	CXC2	29-DEC-2009 22:36		122909p		1.0		Clean
024b2401.d	243434001	CXC2	29-DEC-2009 22:49	937138	243434		1.0	ENRG	USE, uploaded both columns, reporting higher result
025b2501.d	1202005324	CXC2	29-DEC-2009 23:03	937138	243434		1.0	MS	USE, uploaded both columns, reporting higher result
026b2601.d	1202005325	CXC2	29-DEC-2009 23:17	937138	243434		1.0	TMS	USE, uploaded both columns, reporting higher result
027b2701.d	1202005326	CXC2	29-DEC-2009 23:30	937138	243434		1.0	CMS	USE, uploaded both columns, reporting higher result
028b2801.d	WAR091130-99IB	CXC2	29-DEC-2009 23:44		122909p		1.0		Clean
029b2901.d	WPE091218-10AB	CXC2	29-DEC-2009 23:58		122909p		1.0		All okay
030b3001.d	WAR091130-99IB	CXC2	30-DEC-2009 00:11		122909p		1.0		Clean
031b3101.d	1202001156	CXC2	30-DEC-2009 00:25	937138	243434		1.0	TB	USE, uploaded both columns, reporting higher result
032b3201.d	1202003586	CXC2	30-DEC-2009 00:39	937138	243278		1.0	TB	USE, uploaded both columns, reporting higher result
033b3301.d	1202005320	CXC2	30-DEC-2009 00:52	937138	243434		1.0	MB	USE, uploaded both columns, reporting higher result
034b3401.d	1202005330	CXC2	30-DEC-2009 01:06	937138	243434		1.0	LCS	USE, uploaded both columns, reporting higher result
035b3501.d	1202005331	CXC2	30-DEC-2009 01:19	937138	243434		1.0	TLCS	USE, uploaded both columns, reporting higher result

Instrument Batch: /chem/ecd3a.i/122909p.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
036b3601.d	1202005332	CXC2	30-DEC-2009 01:33	937138	243434	1.0	CLCS	USE, uploaded both columns, reporting higher result
037b3701.d	WAR091130-99IB	CXC2	30-DEC-2009 01:47		122909p	1.0		Clean
038b3801.d	WPE091218-10AB	CXC2	30-DEC-2009 02:01		122909p	1.0		All okay
039b3901.d	WAR091130-99IB	CXC2	30-DEC-2009 02:14		122909p	1.0		Clean
040b4001.d	243278003	CXC2	30-DEC-2009 02:28	937138	243278	1.0	ECWS	USE, uploaded both columns, reporting higher result
041b4101.d	1202005321	CXC2	30-DEC-2009 02:42	937138	243278	1.0	MS	USE, uploaded both columns, reporting higher result

042b4201.d	1202005327	CXC2	30-DEC-2009 02:55	937138	243278	1.0	MSD	USE, uploaded both columns, reporting higher result
043b4301.d	1202005322	CXC2	30-DEC-2009 03:09	937138	243278	1.0	TMS	USE, uploaded both columns, reporting higher result
044b4401.d	1202005328	CXC2	30-DEC-2009 03:22	937138	243278	1.0	TMSD	USE, uploaded both columns, reporting higher result
045b4501.d	1202005323	CXC2	30-DEC-2009 03:36	937138	243278	1.0	CMS	USE, uploaded both columns, reporting higher result
046b4601.d	1202005329	CXC2	30-DEC-2009 03:50	937138	243278	1.0	CMSD	USE, uploaded both columns, reporting higher result
047b4701.d	WAR091130-99IB	CXC2	30-DEC-2009 04:03		122909p	1.0		Clean
048b4801.d	WPE091218-10AB	CXC2	30-DEC-2009 04:17		122909p	1.0		(b) Endrin elevated; (f) gamma-BHC, Endrin elevated
049b4901.d	WAR091130-99IB	CXC2	30-DEC-2009 04:31		122909p	1.0		Clean
050b5001.d	1202004566	CXC2	30-DEC-2009 04:44	936866	10-1044	1.0	MB	USE, uploaded both columns, reporting lower result
051b5101.d	1202004567	CXC2	30-DEC-2009 04:58	936866	10-1044	1.0	LCS	USE, uploaded both columns, reporting lower result
052b5201.d	1202004570	CXC2	30-DEC-2009 05:12	936866	10-1044	1.0	TLCS	USE, uploaded both columns, reporting lower result
053b5301.d	243458003	CXC2	30-DEC-2009 05:25	936866	10-1044	1.0	LANL	USE, uploaded both columns, reporting lower result
054b5401.d	243460001	CXC2	30-DEC-2009 05:39	936866	10-1049	1.0	LANL	USE, uploaded both columns, reporting lower result
055b5501.d	243467003	CXC2	30-DEC-2009 05:52	936866	10-1055	5.0	LANL	USE, uploaded both columns, reporting lower result NCR - DCB low - confirmed in MS/MSD - matrix and dilution

Instrument Batch: /chem/ecd3a.i/122909p.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
056b5601.d	1202004568	CXC2	30-DEC-2009 06:06	936866	10-1055	5.0	MS	USE, uploaded both columns, reporting lower result NCR - DCB low - confirmed in sample/MSD - matrix and dilution
057b5701.d	1202004569	CXC2	30-DEC-2009 06:20	936866	10-1055	5.0	MSD	USE, uploaded both columns, reporting lower result NCR - DCB low - confirmed in sample/MS - matrix and dilution
058b5801.d	243469002	CXC2	30-DEC-2009 06:33	936866	10-1052	1.0	LANL	USE, uploaded both columns, reporting lower result
059b5901.d	WPE091218-10AB	CXC2	30-DEC-2009 06:47		122909p	1.0		(b) Endrin elevated; (f) gamma-BHC, Endrin elevated
060b6001.d	WAR091130-99IB	CXC2	30-DEC-2009 07:01		122909p	1.0		Clean
061b6101.d	1202003313	CXC2	30-DEC-2009 07:14	936267	10-1020	1.0	MB	USE, uploaded both columns, reporting lower result
062b6201.d	1202003314	CXC2	30-DEC-2009 07:28	936267	10-1020	1.0	LCS	USE, uploaded both columns, reporting lower result
063b6301.d	1202003318	CXC2	30-DEC-2009 07:42	936267	10-1020	1.0	TLCS	USE, uploaded both columns, reporting lower result
064b6401.d	243401003	CXC2	30-DEC-2009 07:55	936267	10-1020	1.0	LANL	USE, uploaded both columns, reporting lower result

065b6501.d	1202003315	CXC2	30-DEC-2009 08:09	936267	10-1020	1.0	MS	USE, uploaded both columns, reporting lower result NCR - spikes and surrogates elevated - RPD fails? - no hits
066b6601.d	1202003316	CXC2	30-DEC-2009 08:23	936267	10-1020	1.0	MSD	USE, uploaded both columns, reporting lower result
067b6701.d	243401007	CXC2	30-DEC-2009 08:36	936267	10-1020	1.0	LANL	USE, uploaded both columns, reporting lower result
068b6801.d	WPE091218-10AB	CXC2	30-DEC-2009 08:50		122909p	1.0		{b} All okay; {f} gamma-BHC elevated
069b6901.d	WAR091130-99IB	CXC2	30-DEC-2009 09:04		122909p	1.0		Clean

Instrument Batch: /chem/ecd3a.i/122909p.b

Page: 4

GEL ORGANIC RUN LOG INSTRUMENT ID __ECD3__

DATE: 01/08/2010 METHOD: ECD3-F-8081-122909.m OPERATOR:HXJ1 REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No.__1__ on pg.__1__ SOLVENT LOT DA699

Calibration & QC Information
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.

Chromatogram Abbreviation Legend: AB-Assign Baseline, AP-Assign Peak, BD-Percent Endrin and 4,4'-DDT Breakdown, DNC-Do Not Call, DMP-Doesn't Match Pattern, NC-Not Confirmed, RT-Retention Time, BF-Before, AF-After.

Sequence Number: /chem/ecd3a.i/010410p.b Injection Volume:__0.5__ul

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001f0101.d	WAR091130-99IB	HXJ1	04-JAN-2010 12:10		010410p	1.0		Clean
002f0201.d	WPE091219-99DG	HXJ1	04-JAN-2010 12:24		010410p	1.0		(B) DDT 2.2% Endrin 6.1% (F) DDT 2.5% Endrin 3.8%
003f0301.d	WPE091218-10AB	HXJ1	04-JAN-2010 12:38		010410p	1.0		DUSE - several elevated on Back
004f0401.d	WPE091219-52TX	HXJ1	04-JAN-2010 13:10		010410p	1.0		(B) Passes on average (F) All OK
005f0501.d	WPE091021-00CL	HXJ1	04-JAN-2010 13:24		010410p	1.0		(B) Passes on average (F) All OK
006f0601.d	WPE100104-01AB	HXJ1	04-JAN-2010 13:40		010410p	1.0		INDAB ICAL level 1
007f0701.d	WPE100104-02AB	HXJ1	04-JAN-2010 13:53		010410p	1.0		INDAB ICAL level 2
008f0801.d	WPE100104-03AB	HXJ1	04-JAN-2010 14:07		010410p	1.0		INDAB ICAL level 3
009f0901.d	WPE100104-04AB	HXJ1	04-JAN-2010 14:21		010410p	1.0		INDAB ICAL level 4
010f1001.d	IPE091219-02AB	HXJ1	04-JAN-2010 14:34		010410p	1.0		INDAB ICAL level 5
011f1101.d	WPE100104-01AB	HXJ1	04-JAN-2010 14:48		010410p	1.0		DUSE
012f1201.d	WPE091218-10AB	HXJ1	04-JAN-2010 15:02		010410p	1.0		All OK
013f1301.d	WAR091130-99IB	HXJ1	04-JAN-2010 15:30		010410p	1.0		Clean
014f1401.d	1202001567	HXJ1	04-JAN-2010 15:43	935414	10-937	1.0	MB	USE - uploaded both columns, reporting Front result per Quality
015f1501.d	1202001568	HXJ1	04-JAN-2010 15:57	935414	10-937	1.0	LCS	USE - uploaded both columns, reporting Front result per Quality ** delta-BHC low on Back

Instrument Batch: /chem/ecd3a.i/010410p.b Page: 1

| Data File | GEL Lab Sample ID | Analyst | Injection Date/Time | Batch | SDG | Dilution | Client | Comments |

016f1601.d	1202001571	HXJ1	04-JAN-2010 16:11	935414	10-937	1.0	TLCS	USE - uploaded both columns, reporting Front result per Quality
017f1701.d	243012002	HXJ1	04-JAN-2010 16:24	935414	10-937	1.0	LANL	USE - uploaded both columns, reporting Front result per Quality
018f1801.d	243099001	HXJ1	04-JAN-2010 16:38	935414	10-952	1.0	LANL	USE - uploaded both columns, reporting Front result per Quality
019f1901.d	243254003	HXJ1	04-JAN-2010 16:52	935414	10-972	1.0	LANL	USE - uploaded both columns, reporting Front result per Quality
020f2001.d	243254008	HXJ1	04-JAN-2010 17:05	935414	10-972	1.0	LANL	USE - uploaded both columns, reporting Front result per Quality
021f2101.d	WPE091218-10AB	HXJ1	04-JAN-2010 17:23		010410p	1.0		(B) gamma-Chlordane elevated (F) gamma-Chlordane & EndoI high
022f2201.d	WAR091130-99IB	HXJ1	04-JAN-2010 17:37		010410p	1.0		Clean
023f2301.d	243283001	HXJ1	04-JAN-2010 17:50	935414	10-994	1.0	LANL	USE - uploaded both columns, reporting Front result per Quality
024f2401.d	243284002	HXJ1	04-JAN-2010 18:04	935414	10-997	1.0	LANL	USE - uploaded both columns, reporting Front result per Quality
025f2501.d	1202001569	HXJ1	04-JAN-2010 18:17	935414	10-997	1.0	MS	USE - uploaded both columns, reporting Front result per Quality
026f2601.d	1202001570	HXJ1	04-JAN-2010 18:31	935414	10-997	1.0	MSD	USE - uploaded both columns, reporting Front result per Quality
027f2701.d	243284006	HXJ1	04-JAN-2010 18:45	935414	10-997	1.0	LANL	USE - uploaded both columns, reporting Front result per Quality
028f2801.d	243284009	HXJ1	04-JAN-2010 18:58	935414	10-997	1.0	LANL	USE - uploaded both columns, reporting Front result per Quality
029f2901.d	WAR091130-99IB	HXJ1	04-JAN-2010 19:12		010410p	1.0		Clean
030f3001.d	WPE091218-10AB	HXJ1	04-JAN-2010 19:26		010410p	1.0		(B) All OK (F) gamma-Chlordane & Endosulfan I elevated
031f3101.d	WAR091130-99IB	HXJ1	04-JAN-2010 19:39		010410p	1.0		Clean
032f3201.d	1202006586	HXJ1	04-JAN-2010 19:53	937693	10-1090-1	1.0	MB	USE - uploaded both columns, reporting lower result
033f3301.d	1202006587	HXJ1	04-JAN-2010 20:07	937693	10-1090-1	1.0	LCS	USE - uploaded both columns, reporting lower result
034f3401.d	1202006721	HXJ1	04-JAN-2010 20:20	937693	10-1090-1	1.0	TLCS	USE - uploaded both columns, reporting lower result
035f3501.d	243596002	HXJ1	04-JAN-2010 20:34	937693	10-1090-1	1.0	LANL	USE - uploaded both columns, reporting lower result

Instrument Batch: /chem/ecd3a.i/010410p.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
036f3601.d	1202006588	HXJ1	04-JAN-2010 20:48	937693	10-1090-1	1.0	MS	USE - uploaded both columns, reporting lower result
037f3701.d	1202006589	HXJ1	04-JAN-2010 21:01	937693	10-1090-1	1.0	MSD	USE - uploaded both columns, reporting lower result
038f3801.d	243596003	HXJ1	04-JAN-2010 21:15	937693	10-1090-1	1.0	LANL	USE - uploaded both columns, reporting lower result
039f3901.d	243596004	HXJ1	04-JAN-2010 21:29	937693	10-1090-1	1.0	LANL	USE - uploaded both columns, reporting lower result

040f4001.d	243596005	HXJ1	04-JAN-2010 21:42	937693	10-1090-1	1.0	LANL	USE - uploaded both columns, reporting lower result
041f4101.d	243596006	HXJ1	04-JAN-2010 21:56	937693	10-1090-1	1.0	LANL	USE - uploaded both columns, reporting lower result
042f4201.d	WAR091130-99IB	HXJ1	04-JAN-2010 22:10		010410p	1.0		Clean
043f4301.d	WPE091218-10AB	HXJ1	04-JAN-2010 22:23		010410p	1.0		(B) DDD elevated (F) gamma-CHL, EndoI, Endrin, DDD elevated
044f4401.d	WPE091219-99DG	HXJ1	04-JAN-2010 22:37		010410p	1.0		(B) DDT 15.9% Endrin 9.1% (F) DDT 18.9% Endrin 6.3%
045f4501.d	WAR091130-99IB	HXJ1	04-JAN-2010 22:50		010410p	1.0		Clean
046f4601.d	1202006550	HXJ1	04-JAN-2010 23:04	938038	10-1090	1.0	TB	USE - uploaded both columns, reporting lower result
047f4701.d	1202007250	HXJ1	04-JAN-2010 23:18	938038	10-1090	1.0	MB	USE - uploaded both columns, reporting lower result
048f4801.d	1202007257	HXJ1	04-JAN-2010 23:31	938038	10-1090	1.0	LCS	USE - uploaded both columns, reporting lower result
049f4901.d	1202007258	HXJ1	04-JAN-2010 23:45	938038	10-1090	1.0	TLCS	USE - uploaded both columns, reporting lower result
050f5001.d	1202007259	HXJ1	04-JAN-2010 23:59	938038	10-1090	1.0	CLCS	USE - uploaded both columns, reporting lower result
051f5101.d	243593001	HXJ1	05-JAN-2010 00:12	938038	10-1090	1.0	LANL	USE - uploaded both columns, reporting lower result
052f5201.d	WAR091130-99IB	HXJ1	05-JAN-2010 00:26		010410p	1.0		Clean
053f5301.d	WPE091218-10AB	HXJ1	05-JAN-2010 00:40		010410p	1.0		(B) DDD elevated (F) gamma-BHC, gamma-CHL, EndoI, DDD elevated
054f5401.d	WAR091130-99IB	HXJ1	05-JAN-2010 00:53		010410p	1.0		Clean
055f5501.d	243593002	HXJ1	05-JAN-2010 01:07	938038	10-1090	1.0	LANL	USE - uploaded both columns, reporting lower result

Instrument Batch: /chem/ecd3a.i/010410p.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
056f5601.d	243593003	HXJ1	05-JAN-2010 01:21	938038	10-1090	1.0	LANL	USE - uploaded both columns, reporting lower result
057f5701.d	243593004	HXJ1	05-JAN-2010 01:34	938038	10-1090	1.0	LANL	USE - uploaded both columns, reporting lower result
058f5801.d	243593005	HXJ1	05-JAN-2010 01:48	938038	10-1090	1.0	LANL	USE - uploaded both columns, reporting lower result
059f5901.d	1202007251	HXJ1	05-JAN-2010 02:02	938038	10-1090	1.0	MS	USE - uploaded both columns, reporting lower result
060f6001.d	1202007254	HXJ1	05-JAN-2010 02:15	938038	10-1090	1.0	MSD	USE - uploaded both columns, reporting lower result
061f6101.d	1202007252	HXJ1	05-JAN-2010 02:29	938038	10-1090	1.0	TMS	USE - uploaded both columns, reporting lower result
062f6201.d	1202007255	HXJ1	05-JAN-2010 02:43	938038	10-1090	1.0	TMSD	USE - uploaded both columns, reporting lower result
063f6301.d	1202007253	HXJ1	05-JAN-2010 02:56	938038	10-1090	1.0	CMS	USE - uploaded both columns, reporting lower result
064f6401.d	1202007256	HXJ1	05-JAN-2010 03:10	938038	10-1090	1.0	CMSD	USE - uploaded both columns, reporting lower result

065f6501.d	WAR091130-99IB	HXJ1	05-JAN-2010 03:24	010410p	1.0	Clean
066f6601.d	WPE091218-10AB	HXJ1	05-JAN-2010 03:37	010410p	1.0	(B) DDD elevated, Methoxychlor low (F) gamma-BHC, gamma-CHL, Endosulfan I, Endrin, DDD, Endosulfan sulfate elevated
067f6701.d	WAR091130-99IB	HXJ1	05-JAN-2010 03:51	010410p	1.0	Clean

GEL ORGANIC RUN LOG INSTRUMENT ID: ECD3

DATE: 01/05/2010 METHOD: ECD3-B-8081-122909.m OPERATOR:HXJ1 REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT

Calibration & QC Information
Initial Calibration Dates: See Calibration History and Standards Log
Initial Calibration Std ID's: See Calibration History and Standards Log
GEL SOP GL-OA-E-041
EPA Method: 8081
8081A
Sequence Number: Injection Volume: 1.0 uL

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001b0101.d	WAR091130-99IB	HXJ1	05-JAN-2010 11:35		010510p	1.0		CLEAN
002b0201.d	WPE091219-99DG	HXJ1	05-JAN-2010 11:49		010510p	1.0		(B)DDT 2.5, ENDRIN 5.0 (F)DDT 3.2, ENDRIN 3.4
003b0301.d	WPE091218-10AB	HXJ1	05-JAN-2010 12:02		010510p	1.0		PASSES BOTH COLUMNS
004b0401.d	WPE091219-52TX	HXJ1	05-JAN-2010 12:16		010510p	1.0		PASSES AVERAGE FOR 8081A, PASSES FOR 8081B
005b0501.d	WPE091021-00CL	HXJ1	05-JAN-2010 12:30		010510p	1.0		PASSES AVERAGE FOR 8081A, PASSES FOR 8081B
006b0601.d	WPE100104-31GA	HXJ1	05-JAN-2010 13:49		010510p	1.0		DUSE
007b0701.d	WPE100104-32GA	HXJ1	05-JAN-2010 14:04		010510p	1.0		DUSE: MATRIX COELUTION
008b0801.d	WPE100104-33GA	HXJ1	05-JAN-2010 14:17		010510p	1.0		DUSE: MATRIX COELUTION
009b0901.d	WPE100104-34GA	HXJ1	05-JAN-2010 14:31		010510p	1.0		DUSE: MATRIX COELUTION
010b1001.d	IPE091110-01GA	HXJ1	05-JAN-2010 14:45		010510p	1.0		DUSE: MATRIX COELUTION
011b1101.d	WPE091021-05GA	HXJ1	05-JAN-2010 14:58		010510p	1.0		DUSE: MATRIX COELUTION
012b1201.d	WAR091130-99IB	HXJ1	05-JAN-2010 15:12		010510p	1.0		CLEAN
013b1301.d	1202004963	HXJ1	05-JAN-2010 15:26	937695	10-1005-1	1.0	TB	USE: LOWER
014b1401.d	1202006590	HXJ1	05-JAN-2010 15:40	937695	10-1005-1	1.0	MB	USE: LOWER
015b1501.d	1202006592	HXJ1	05-JAN-2010 15:53	937695	10-1005-1	1.0	LCS	USE: LOWER

Instrument Batch: /chem/ecd3a.i/010510p.b Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
016b1601.d	1202006593	HXJ1	05-JAN-2010 16:07	937695	10-1005-1	1.0	TLCS	USE: LOWER

017b1701.d	1202006594	HXJ1	05-JAN-2010 16:21	937695	10-1005-1	1.0	CLCSSOIL	USE: LOWER
018b1801.d	WAR091130-99IB	HXJ1	05-JAN-2010 16:34		010510p	1.0		CLEAN
019b1901.d	WPE091218-10AB	HXJ1	05-JAN-2010 16:48		010510p	1.0		G-CHLOR HIGH ON BACK
020b2001.d	WAR091130-99IB	HXJ1	05-JAN-2010 17:01		010510p	1.0		CLEAN
021b2101.d	243421001	HXJ1	05-JAN-2010 17:15	937695	10-1005-1	1.0	LANL	DUSE: OVERRANGE HIT OF GAMMA-BHC see re-analysis 010610p.b file17
022b2201.d	243551001	HXJ1	05-JAN-2010 17:29	937695	10-1085-1	1.0	LANL	USE: LOWER - genuine gamma-BHC hit <PQL, see 010609p.b file 16
023b2301.d	1202006595	HXJ1	05-JAN-2010 17:42	937695	10-1085-1	1.0	MS	USE: LOWER
024b2401.d	1202006599	HXJ1	05-JAN-2010 17:56	937695	10-1085-1	1.0	MSD	USE: LOWER
025b2501.d	1202006600	HXJ1	05-JAN-2010 18:10	937695	10-1085-1	1.0	TMSD	USE: LOWER
026b2601.d	1202006596	HXJ1	05-JAN-2010 18:23	937695	10-1085-1	1.0	TMS	USE: LOWER
027b2701.d	1202006597	HXJ1	05-JAN-2010 18:37	937695	10-1085-1	1.0	CMS	USE: LOWER
028b2801.d	1202006598	HXJ1	05-JAN-2010 18:51	937695	10-1085-1	1.0	CMSD	USE: LOWER
029b2901.d	WAR091130-99IB	HXJ1	05-JAN-2010 19:04		010510p	1.0		CLEAN
030b3001.d	WPE091218-10AB	HXJ1	05-JAN-2010 19:18		010510p	1.0		(B)ENDRIN HIGH (F)G-CHL.,G-BHC, ENDO.I,ENDRIN AND DDT HIGH
031b3101.d	WAR091130-99IB	HXJ1	05-JAN-2010 19:32		010510p	1.0		CLEAN
032b3201.d	1202007705	HXJ1	05-JAN-2010 19:45	938275	243657	1.0	MB	USE: HIGHER
033b3301.d	1202007706	HXJ1	05-JAN-2010 19:59	938275	243657	1.0	LCS	USE: HIGHER
034b3401.d	1202007707	HXJ1	05-JAN-2010 20:13	938275	243657	1.0	LCSD	USE: HIGHER
035b3501.d	243657001	HXJ1	05-JAN-2010 20:26	938275	243657	1.0	LAID	USE: HIGHER

Instrument Batch: /chem/ecd3a.i/010510p.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
036b3601.d	WAR091130-99IB	HXJ1	05-JAN-2010 20:40		010510p	1.0		CLEAN
037b3701.d	WPE091218-10AB	HXJ1	05-JAN-2010 20:54		010510p	1.0		ENDRIN HIGH ON BOTH COLUMNS
038b3801.d	WAR091130-99IB	HXJ1	05-JAN-2010 21:07		010510p	1.0		CLEAN

Prep Logbook

Extraction of Semivolatile and Nonvolatile Organic Compounds from Groundwater, Wastewater, and Other Aqueous Samples

Batch ID: 937694 **Verified by:** _____

Analyst: Alton Willis

Method: SW846 3510C

Lab SOP: GL–OA–E–013 REV# 21

Instrument: Semi–Volatiles Manual

Sample ID	Run Date	Initial Volume (mL)	Initial pH	Int Ext pH	Final Volume (mL)	Prepped Factor (mL/mL)
1202004963 TB	04–JAN–2010 16:40:56	20	5	7	1	0.05
1202006590 MB	04–JAN–2010 16:40:56	20	5	7	1	0.05
1202006592 LCS	04–JAN–2010 16:40:56	20	5	7	1	0.05
1202006593 LCS	04–JAN–2010 16:40:56	20	5	7	1	0.05
1202006594 LCS	04–JAN–2010 16:40:56	20	5	7	1	0.05
243421001	04–JAN–2010 16:40:56	20	5	7	1	0.05
243551001	04–JAN–2010 16:40:56	20	5	7	1	0.05
1202006595 MS (243551001)	04–JAN–2010 16:40:56	20	5	7	1	0.05
1202006599 MSD (243551001)	04–JAN–2010 16:40:56	20	5	7	1	0.05
1202006600 MSD (243551001)	04–JAN–2010 16:40:56	20	5	7	1	0.05
1202006596 MS (243551001)	04–JAN–2010 16:40:56	20	5	7	1	0.05
1202006597 MS (243551001)	04–JAN–2010 16:40:56	20	5	7	1	0.05
1202006598 MSD (243551001)	04–JAN–2010 16:40:56	20	5	7	1	0.05

Type	Sample Id	Description	Serial Number	Spike Amt	Units
LCS	1202006592	PESTICIDE TCLP LCS	UE091207–06A	1	mL
LCS	1202006593	Toxaphene TCLP LCS	WE091204–11	1	mL
LCS	1202006594	Chlordane TCLP LCS	WE091204–04	1	mL
MS	1202006595	PESTICIDE TCLP LCS	UE091207–06A	1	mL
MS	1202006596	Toxaphene TCLP LCS	WE091204–11	1	mL
MS	1202006597	Chlordane TCLP LCS	WE091204–04	1	mL
MSD	1202006598	Chlordane TCLP LCS	WE091204–04	1	mL
MSD	1202006599	PESTICIDE TCLP LCS	UE091207–06A	1	mL
MSD	1202006600	Toxaphene TCLP LCS	WE091204–11	1	mL
SURR	All	PEST LOW LEVEL SURROGATE 200 UG/L	UE091229–15	1	mL
REGNT	All	Hexane	1241300–B2	5	mL
REGNT	All	Methylene Chloride	1245410–D	180	mL
SOURC	All	SODIUM SULFATE	1248200	30	g

Comments:

Verified By: MJS

Final Solvent: Hexane

Clean Up SOP: GL–OA–E–036 REV.1

Prep Logbook

Toxicity Characteristic Leaching Procedure Preparation

Batch ID: 936980 **Verified by:** _____
Analyst: Richard Dollinger
Method: SW846 1311

Lab SOP: GL-LB-E-006 REV# 13
Instrument: TCLP Tumbler #105

Sample ID Analysis Start Date	1202004963 TB 28-DEC-2009 16:00:21	243421001 28-DEC-2009 16:00:21	243551001 28-DEC-2009 16:00:21	243553001 28-DEC-2009 16:00:21
100% Solid Y/N		y	y	y
(I) Sub Sample Aliquot I=G-H (g)		100	100	100
Initial pH (su)	4.95	7.08	5.03	8.76
pH Temperature (celsius)		50	50	50
Filtrate pH (su)	5	5	5	5
Final pH (su)	4.95	1.85	1.98	1.92
Tumbler Speed	28	28	28	28
Sample Properties <>/= Water	Solid	Solid	Solid	Solid
(J) 20X Wet Solid Weight 20XC (g)	2000	2000	2000	2000
Filtrate Volume (mL)	1000	1000	1000	1000

Type	Sample Id	Description	Spike Amt	Units

Comments:

Extration End Date: 29-DEC-09 9:00:18
Filtration End Date: 29-DEC-09 15:00:18
Bottle Lot Number: H931601DB
Filter Lot Number: 8335066
Extration Start Temperature: 23 C
Extration End Temperature: 23 C
Filtration End Temperature: 23 C

Prep Logbook

Toxicity Characteristic Leaching Procedure Preparation

Batch ID: 936980 **Verified by:** _____
Analyst: Richard Dollinger
Method: SW846 1311

Lab SOP: GL-LB-E-006 REV# 13
Instrument: TCLP Tumbler #105

Sample ID 243553002
Analysis Start Date 28-DEC-2009 16:00:21

100% Solid Y/N	y
(I) Sub Sample Aliquot I=G-H (g)	100
Initial pH (su)	7.37
pH Temperature (celsius)	50
Filtrate pH (su)	5
Final pH (su)	4.79
Tumbler Speed	28
Sample Properties <>/= Water	Solid
(J) 20X Wet Solid Weight 20XC (g)	2000
Filtrate Volume (mL)	1000

Type	Sample Id	Description	Serial Number	Spike Amt	Units

Comments:

Extration End Date: 29-DEC-09 9:00:18
Filtration End Date: 29-DEC-09 15:00:18
Bottle Lot Number: H931601DB
Filter Lot Number: 8335066
Extration Start Temperature: 23 C
Extration End Temperature: 23 C
Filtration End Temperature: 23 C

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
07-JAN-10	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
GC/ECD	SW846 8081A	Solid	LANL
Batch ID:	**Sample Numbers:**		
937695	See Below		

Potentially affected work order(s)(SDG): 243421(10-1005-1),243551(10-1085-1)

Application Issues:

Method Blank contamination

Failed RPD for MS/MSD, or PS/PSD

Failed Yield for Surrogates

Specification and Requirements Exception Description:	DER Disposition:
1. The LCS(1202006592) yielded below the acceptance range for the surrogate 4CMX.	1. All spiking analytes recovered within the acceptance range and surrogates yielded within the acceptance range in all other samples in this SDG; therefore, this non-conformance has no adverse effects on the reported data.

Originator's Name:

Clairette Campbell 07-JAN-10

Data Validator/Group Leader:

Cameron Bearden 08-JAN-10

GC SEMIVOLATILE PCB ANALYSIS

PCB Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-1085

Method/Analysis Information

Procedure:	**Analysis of Polychlorinated Biphenyls by ECD**
Analytical Method:	SW846 8082
Prep Method:	SW846 3550B
Analytical Batch Number:	937178
Prep Batch Number:	937176

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 8082:

Sample ID	Client ID
243549002	WST03-10-2148
1202005418	Method Blank (MB)
1202005419	Laboratory Control Sample (LCS)
1202005420	243552003(RE03-09-14239) Matrix Spike (MS)
1202005421	243552003(RE03-09-14239) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on a "dry weight" basis.

Preparation/Analytical Method Verification

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-040 REV# 14.

Raw data reports are processed and reviewed by the analyst using the Target software package. False positives have been removed from the Target quantitation reports per standard operating procedures (SOP) section 23.0.

Calibration Information

Please note that the 'Cal Date' indicated on each quantitation report reflects the date and time of the most recent calibrated analyte(s) in the Target processing method. Since the laboratory may calibrate with multiple solutions on different days using the same processing method, the Target software will update the 'Cal Date' to the last calibration file, date and time. The correct dates and times for all calibration files are located on the Calibration History report in the Standard Data section in the data package.

Due to software limitations, the Calibration Summary Form 6 may not indicate all the calibration files comprising the initial calibration. A complete list of the initial calibration data files are shown in the Calibration History report located in the Standard Data section of the data package.

Initial Calibration
All initial calibration requirements have been met for this sample delivery group (SDG).

The linear equation used in Target and indicated on the initial calibration summary form is not a conventional linear

equation (slope intercept formula) and does not match the equation found in SW-846 method 8000B. The x and y axes are inversed in Target, so that the instrument response is treated as the independent variable (x) and the concentration ratio is treated as the dependent variable (y). The equation used in Target to calculate sample results is adjusted to account for the linear equation inversion and reciprocal slope. The adjusted calculation has been independently verified to produce valid results.

Continuing Calibration Verification (CCV) Requirements
All associated calibration verification standard(s) (ICV or CCV) met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB(s) analyzed with this SDG met the acceptance criteria.

Surrogate Recoveries
All surrogate recoveries were within the established acceptance criteria for this SDG.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

QC Sample Designation
A LANL sample of similar matrix associated with another SDG (#10-1086) was selected for the matrix spike and matrix spike duplicate analysis. A Form III and QC raw data are included in the package summarizing the results.

Matrix Spike (MS) Recovery Statement
The MS recoveries for this SDG were within the established acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recoveries for this SDG were within the established acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD(s) between the MS and MSD met the acceptance limits.

Technical Information

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP. All sample extracts were cleaned using alumina. Additionally, copper was added to all sample extracts to remove sulfur.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-extraction/Re-analysis
Re-extractions or re-analyses were not required in this SDG.

Miscellaneous Information

Electronic Package Comment

The following package was generated using an electronic data processing program referred to as "virtual packaging". In an effort to increase quality and efficiency, the laboratory is developing systems to eventually generate all data packages electronically. The following change from "traditional" packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. An electronic signature page inserted after the case narrative of each electronic package will indicate the analyst, reviewer, and report specialist names associated with the generation of the data and package. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Data Exception (DER) Documentation
Data exception reports (DERs) are for documentation of any procedural anomalies that may deviate from referenced SOP or contractual document. A DER was not required for this SDG.

Manual Integrations
Certain standards and samples may have required manual integration to correctly position the baseline as set in the calibration standard injections. If manual integration was performed, copies of all manual integration peak profiles are included in the raw data section of this PCB fraction.

Additional Comments
The additional comments field is used to address special issues associated with each analysis, clarify method/contractual issues pertaining to the analysis, and to list any report documents generated as a result of sample analysis or review. The following additional comments were required:

The higher results from either column have been chosen and reported in the data package for the client samples, MB and LCS.

The data reported on the form I and III may differ slightly from the data reported on the form X. This is due to software limitations in rounding differences between the forms.

Aroclors quantitated on the raw data report by the Target data system do not necessarily represent positive Aroclor identification. In order for positive identification to be made, the Aroclor must match in pattern and retention time; as well as quantitate relatively close between the primary and confirmation columns, as specified in SW846 method 8000. When these conditions are not met, the Aroclor is reported as a non-detect on the data report. These situations will be noted on the raw data as DMP, representing does not match pattern, or DNC does not confirm.

Due to software limitation, the Form VIIs will display the results either in the % difference or % drift depending on the type of the calibration curve. If the curve of all analytes is generated using an average response factor (RF), the Form VII will display results using the %difference calculation (RF). If the curve of one or more analytes is generated using a linear curve, the Form VII will display results using the % drift calculation (by concentration) for all analytes.

System Configuration

The Semi-Volatiles-PCB analysis was performed on the following instrument configuration:

Instrument ID	Instrument	System Configuration	Column ID	Column Description
ECD1A.I_1	HP Gas Chromatograph	HP6890 Series ECD	Rtx-CLP I	30m x 0.25mm, 0.25um (Rtx-CLPesticide)
ECD1A.I_2	HP Gas Chromatograph	HP6890 Series ECD	Rtx-CLP II	30m x 0.25mm, 0.20um (Rtx-CLPesticideII)

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Andy Whatlock Date: 1-19-2010

Roadmap for LANL 10-1085 PCB

This roadmap was analyzed by jen01212 on 12-31-2009, 10:53.
This roadmap was reviewed by rob01090 on 01-04-2010, 16:30.
This roadmap was packaged by yml on 01-18-2010, 13:29.

Front Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd1a.i/123009.b/032f3201.d	243549002	sample	30-DEC-2009	13:06	10-1085.sub	WST03-10-2148	1.00000	937178	UPLOAD BOTH, USE HIGHER

Back Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd1a.i/123009.b/032b3201.d	243549002	sample	30-DEC-2009	13:06	10-1085.sub	WST03-10-2148	1.00000	937178	UPLOAD BOTH, USE HIGHER

Front QC Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd1a.i/123009.b/030f3001.d	1202005418	mb	30-DEC-2009	12:45	10-1085.sub	PBLK01	1.00000	937178	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd1a.i/123009.b/031f3101.d	1202005419	lcs	30-DEC-2009	12:55	10-1085.sub	PBLK01LCS	1.00000	937178	UPLOAD BOTH, USE HIGHER

Back QC Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd1a.i/123009.b/030b3001.d	1202005418	mb	30-DEC-2009	12:45	10-1085.sub	PBLK01	1.00000	937178	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd1a.i/123009.b/031b3101.d	1202005419	lcs	30-DEC-2009	12:55	10-1085.sub	PBLK01LCS	1.00000	937178	UPLOAD BOTH, USE HIGHER

SAMPLE DATA SUMMARY

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10–1085	**Date Collected:**	12/22/2009 12:00	**Matrix:**	R
Lab Sample ID:	243549002	**Date Received:**	12/24/2009 09:30	**%Moisture:**	7.2
		Client:	LANL010	**Project:**	LANL01004
Client ID:	WST03–10–2148	**Method:**	SW846 8082	**SOP Ref:**	GL–OA–E–040
Batch ID:	937178	**Inst:**	ECD1A.I	**Dilution:**	1
Run Date:	12/30/2009 13:06	**Analyst:**	JAOC	**Inj. Vol:**	1 uL
Prep Date:	12/29/2009 09:29	**Aliquot:**	30.04 g	**Final Volume:**	1 mL
Data File:	032f3201.d	**Column:**	1 CLP1	**Level:**	LOW
	032b3201.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	3.59	ug/kg	1.19	3.59	1
11104–28–2	Aroclor–1221	U	3.59	ug/kg	1.19	3.59	1
11141–16–5	Aroclor–1232	U	3.59	ug/kg	1.19	3.59	1
53469–21–9	Aroclor–1242	U	3.59	ug/kg	1.19	3.59	1
12672–29–6	Aroclor–1248	U	3.59	ug/kg	1.19	3.59	1
11097–69–1	Aroclor–1254	U	3.59	ug/kg	1.19	3.59	1
11096–82–5	Aroclor–1260	U	3.59	ug/kg	1.19	3.59	1

QUALITY CONTROL SUMMARY

PCB

Surrogate Recovery Report

SDG Number: 10-1085

Matrix Type: SOLID

CAP Column (1) : CLP1 **CAP Column (2) : CLP2**

Sample ID	Client ID	4CMX 1 %REC #	4CMX 2 %REC #	DCB 1 %REC #	DCB 2 %REC #
1202005418	MB for batch 937176	59	58	84	82
1202005419	LCS for batch 937176	60	59	77	75
243549002	WST03-10-2148	56	55	69	75

Surrogate	Acceptance Limits
4CMX = 4cmx	(34%-105%)
DCB = Decachlorobiphenyl	(33%-115%)

* Recovery outside Acceptance Limits

\# Column to be used to flag recovery values

D Sample Diluted

PCB

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1085
Client ID: LCS for batch 937176
Lab Sample ID: 1202005419
Instrument: ECD1A.I
Analyst: JAOC
Inj. Vol: 1 uL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 12/30/2009 12:55
Dilution: 1
Prep Batch ID: 937176
Batch ID: 937178

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
12674-11-2	LCS	Aroclor-1016	33.3	0.0	24.7	74	41-110
11096-82-5	LCS	Aroclor-1260	33.3	0.0	30.1	90	48-110

PCB

Quality Control Summary
Spike Recovery Report

SDG Number:	**10-1086**	**Sample Type:**	**Matrix Spike**
Client ID:	**RE03-09-14239MS**	**Matrix:**	**S**
Lab Sample ID:	**1202005420**	**%Moisture:**	**5.5**
Instrument:	**ECD1A.I**	**Analysis Date:**	**12/30/2009 13:48**
Analyst:	**JAOC**	**Prep Batch ID:**	**937176**
Inj. Vol:	**1 uL**	**Batch ID:**	**937178**

Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
12674-11-2	MS	Aroclor-1016	35.2	0.00	U	24.9	71	23-117
11096-82-5	MS	Aroclor-1260	35.2	0.00	U	30.5	87	27-116

PCB

Quality Control Summary
Spike Recovery Report

SDG Number:	**10–1086**	**Sample Type:**	**Matrix Spike Duplicate**
Client ID:	**RE03–09–14239MSD**	**Matrix:**	**S**
Lab Sample ID:	**1202005421**	**%Moisture:**	**5.5**
Instrument:	**ECD1A.I**	**Analysis Date:**	**12/30/2009 13:58**
Analyst:	**JAOC**	**Prep Batch ID**	**937176**
Inj. Vol:	**1 uL**	**Batch ID:**	**937178**

Dilution: 1

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
12674–11–2	MSD Aroclor–1016	35.2	0.00	U	23.8	68	23–117	5	0–30
11096–82–5	MSD Aroclor–1260	35.2	0.00	U	29.3	83	27–116	4	0–30

Method Blank Summary

SDG Number:	10-1085	Client:	LANL010	Matrix:	SOIL
Client ID:	MB for batch 937176	Instrument ID:	ECD1A.I_2 ECD1A.I_1	Data File:	030b3001-1.d 030f3001-1.d
Lab Sample ID:	1202005418				
Column:	CLP2 CLP1	Prep Date:	12/29/2009 09:29	Analyzed:	12/30/09 12:45
		Level:	LOW		

This method blank applies to the following samples and quality control samples:

Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01 LCS for batch 937176	1202005419	031f3101-1.d 031b3101-1.d	12/30/09	1255
02 WST03-10-2148	243549002	032f3201.d 032b3201.d	12/30/09	1306

SAMPLE
DATA

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10–1085	**Date Collected:**	12/22/2009 12:00	**Matrix:**	R
Lab Sample ID:	243549002	**Date Received:**	12/24/2009 09:30	**%Moisture:**	7.2
		Client:	LANL010	**Project:**	LANL01004
Client ID:	WST03–10–2148	**Method:**	SW846 8082	**SOP Ref:**	GL–OA–E–040
Batch ID:	937178	**Inst:**	ECD1A.I	**Dilution:**	1
Run Date:	12/30/2009 13:06	**Analyst:**	JAOC	**Inj. Vol:**	1 uL
Prep Date:	12/29/2009 09:29	**Aliquot:**	30.04 g	**Final Volume:**	1 mL
Data File:	032f3201.d	**Column:**	1 CLP1	**Level:**	LOW
	032b3201.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	3.59	ug/kg	1.19	3.59	1
11104–28–2	Aroclor–1221	U	3.59	ug/kg	1.19	3.59	1
11141–16–5	Aroclor–1232	U	3.59	ug/kg	1.19	3.59	1
53469–21–9	Aroclor–1242	U	3.59	ug/kg	1.19	3.59	1
12672–29–6	Aroclor–1248	U	3.59	ug/kg	1.19	3.59	1
11097–69–1	Aroclor–1254	U	3.59	ug/kg	1.19	3.59	1
11096–82–5	Aroclor–1260	U	3.59	ug/kg	1.19	3.59	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/123009.b/032f3201.d
Lab Smp Id: 243549002 Client Smp ID: WST03-10-2148
Inj Date : 30-DEC-2009 13:06
Operator : JAOC Inst ID: ecd1a.i
Smp Info : |243549002|1|
Misc Info : |ECD82P_1S|937178|SVA|LANL|SOIL|WST03-10-2148|||
Comment :
Method : /chem/ecd1a.i/123009.b/ECD1-F-8082-121409.m
Meth Date : 31-Dec-2009 08:24 jen01212 Quant Type: ESTD
Cal Date : 14-DEC-2009 11:34 Cal File: 040f4001.d
Als bottle: 32
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1085.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.04000	Weight of sample extracted (g)
M	7.18890	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.971	1.972	-0.001	42250723	112.468	4.0	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.285	5.287	-0.002	43996498	138.554	5.0	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/123009.b/032f3201.d

Date : 30-DEC-2009 13:06

Client ID: WST03-10-2148

Sample Info: |243549002|1|

Volume Injected (uL): 1.0

Column phase: CLP1

Instrument: ecd1a.i

Operator: JAOC

Column diameter: 0.25

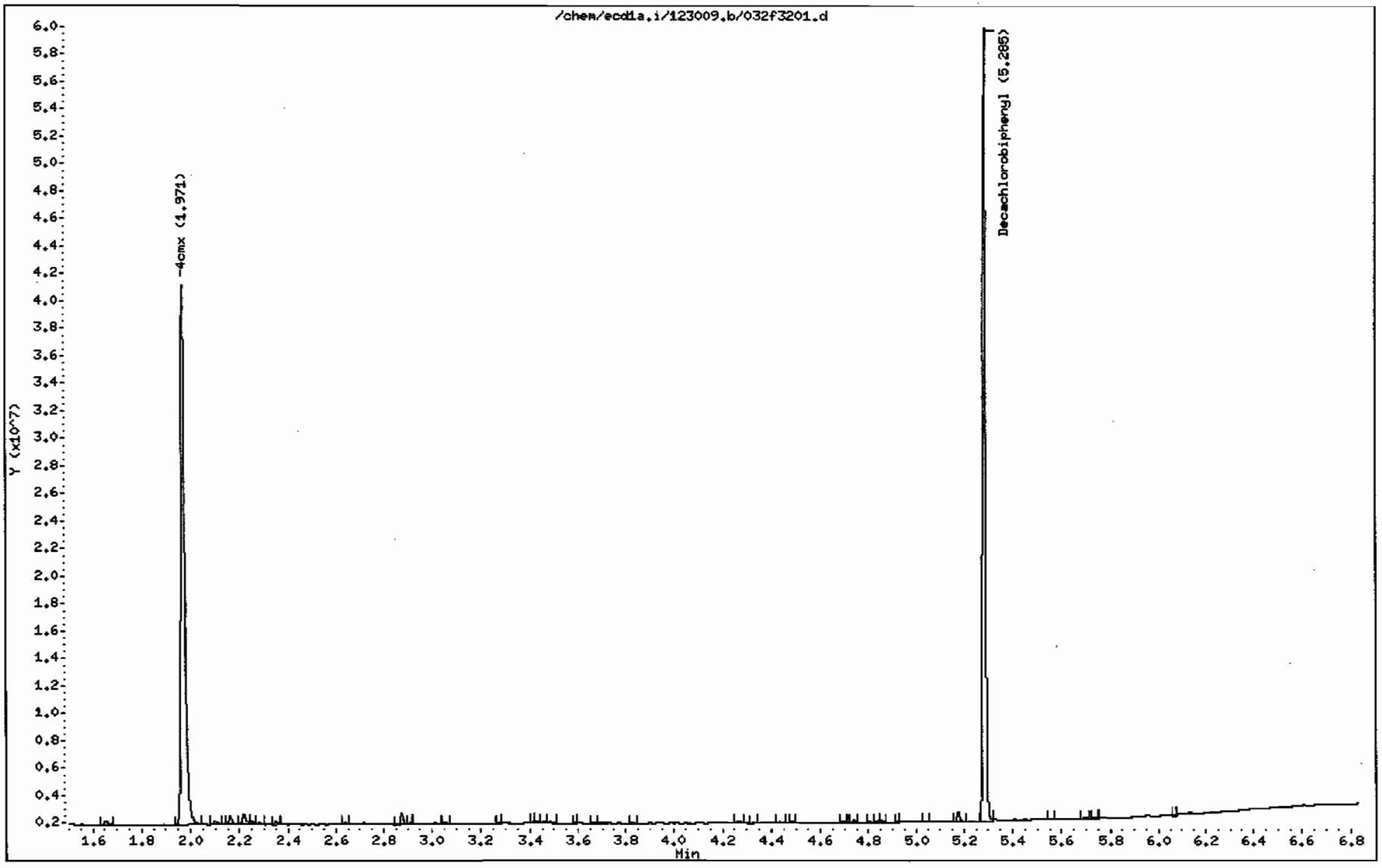

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/123009.b/032b3201.d
Lab Smp Id: 243549002 Client Smp ID: WST03-10-2148
Inj Date : 30-DEC-2009 13:06
Operator : JAOC Inst ID: ecd1a.i
Smp Info : |243549002|1|
Misc Info : |ECD82P_1S|937178|SVA|LANL|SOIL|WST03-10-2148|||
Comment :
Method : /chem/ecd1a.i/123009.b/ECD1-B-8082-121409.m
Meth Date : 31-Dec-2009 08:30 jen01212 Quant Type: ESTD
Cal Date : 14-DEC-2009 12:16 Cal File: 044b4401.d
Als bottle: 32
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1085.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.04000	Weight of sample extracted (g)
M	7.18890	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.302	2.303	-0.001	33055822	110.177	4.0	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.949	5.949	0.000	34866841	149.497	5.4	80.00- 120.00	100.00

Data File: /chem/ecdla.i/123009.b/032b3201.d
Date : 30-DEC-2009 13:06
Client ID: WST03-10-2148
Sample Info: 1243549002111
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecdla.i
Operator: JAOC
Column diameter: 0.25

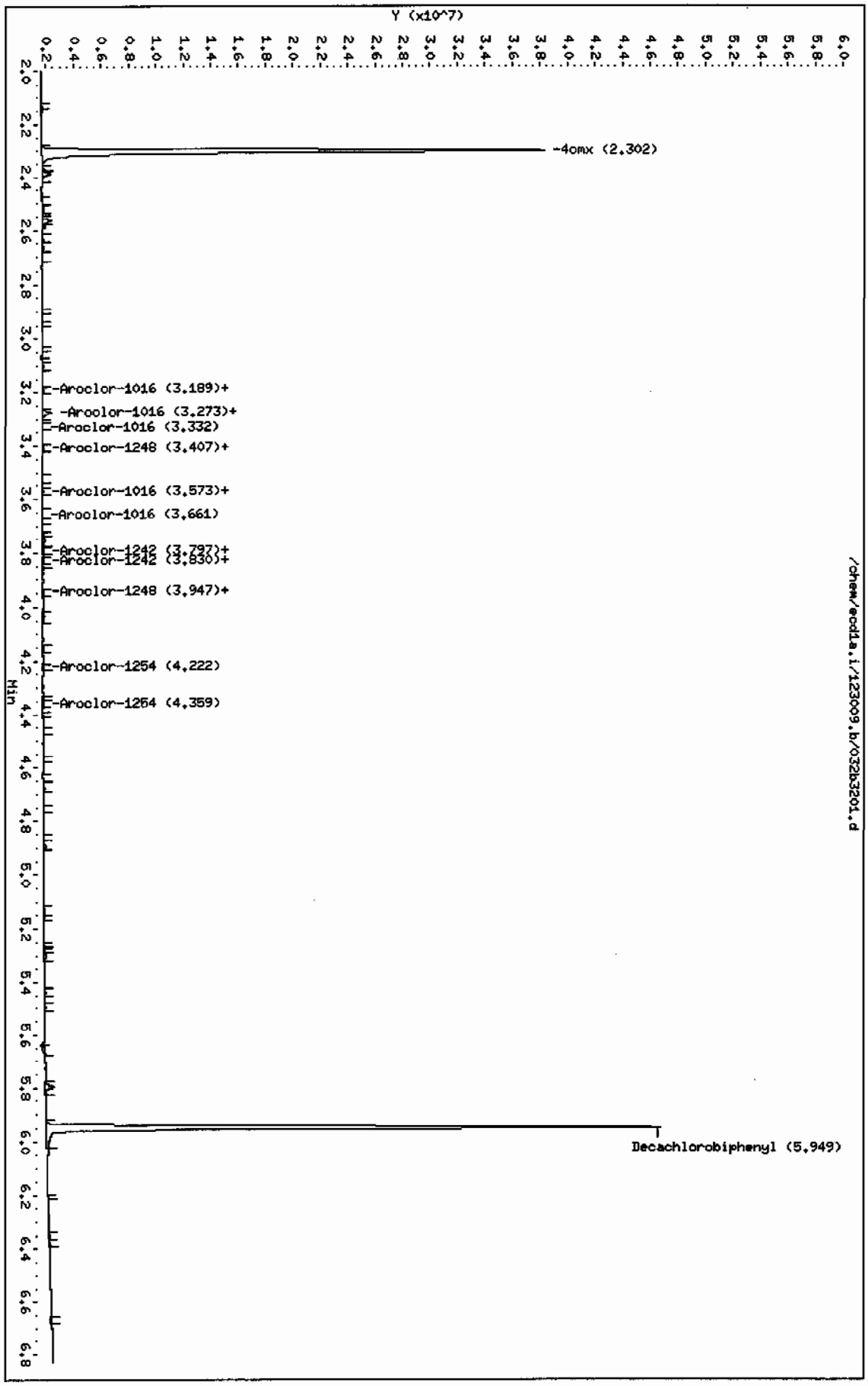

Page 1

STANDARDS DATA

Report Date: 31-Dec-2009 09:25

Calibration History

Method : /chem/ecd1a.i/123009.b/ECD1-F-8082-121409.m
Start Cal Date: 14-DEC-2009 05:36
End Cal Date : 14-DEC-2009 12:37

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 100.00000		
14-DEC-2009 11:34	AR1268	/chem/ecd1a.i/121409.b/040f4001.d
14-DEC-2009 09:28	AR1248	/chem/ecd1a.i/121409.b/028f2801.d
14-DEC-2009 08:25	AR1242	/chem/ecd1a.i/121409.b/022f2201.d
14-DEC-2009 07:22	AR1254	/chem/ecd1a.i/121409.b/016f1601.d
14-DEC-2009 10:31	AR1660	/chem/ecd1a.i/121409.b/034f3401.d
Cal Level: 2 , Cal Amount: 200.00000		
14-DEC-2009 11:44	AR1268	/chem/ecd1a.i/121409.b/041f4101.d
14-DEC-2009 09:38	AR1248	/chem/ecd1a.i/121409.b/029f2901.d
14-DEC-2009 08:35	AR1242	/chem/ecd1a.i/121409.b/023f2301.d
14-DEC-2009 07:32	AR1254	/chem/ecd1a.i/121409.b/017f1701.d
14-DEC-2009 10:41	AR1660	/chem/ecd1a.i/121409.b/035f3501.d
Cal Level: 3 , Cal Amount: 500.00000		
14-DEC-2009 11:55	AR1268	/chem/ecd1a.i/121409.b/042f4201.d
14-DEC-2009 09:49	AR1248	/chem/ecd1a.i/121409.b/030f3001.d
14-DEC-2009 08:46	AR1242	/chem/ecd1a.i/121409.b/024f2401.d
14-DEC-2009 07:43	AR1254	/chem/ecd1a.i/121409.b/018f1801.d
14-DEC-2009 10:52	AR1660	/chem/ecd1a.i/121409.b/036f3601.d
Cal Level: 4 , Cal Amount: 1000.00000		
14-DEC-2009 12:37	DDTANALOGSTD	/chem/ecd1a.i/121409.b/046f4601.d
14-DEC-2009 09:59	AR1248	/chem/ecd1a.i/121409.b/031f3101.d
14-DEC-2009 08:56	AR1242	/chem/ecd1a.i/121409.b/025f2501.d
14-DEC-2009 07:53	AR1254	/chem/ecd1a.i/121409.b/019f1901.d
14-DEC-2009 11:02	AR1660	/chem/ecd1a.i/121409.b/037f3701.d
14-DEC-2009 12:06	AR1268	/chem/ecd1a.i/121409.b/043f4301.d
14-DEC-2009 05:58	AR1262	/chem/ecd1a.i/121409.b/008f0801.d
14-DEC-2009 05:47	AR1221	/chem/ecd1a.i/121409.b/007f0701.d
14-DEC-2009 05:36	AR1232	/chem/ecd1a.i/121409.b/006f0601.d
Cal Level: 5 , Cal Amount: 4000.00000		
14-DEC-2009 12:16	AR1268	/chem/ecd1a.i/121409.b/044f4401.d
14-DEC-2009 10:10	AR1248	/chem/ecd1a.i/121409.b/032f3201.d
14-DEC-2009 09:07	AR1242	/chem/ecd1a.i/121409.b/026f2601.d
14-DEC-2009 08:04	AR1254	/chem/ecd1a.i/121409.b/020f2001.d
14-DEC-2009 11:13	AR1660	/chem/ecd1a.i/121409.b/038f3801.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 1000		
30-DEC-2009 16:15	AR1660	/chem/ecd1a.i/123009.b/050f5001.d
Ccal Level: 4 , Ccal Amount: 1000		
30-DEC-2009 14:30	AR1660	/chem/ecd1a.i/123009.b/040f4001.d
Ccal Level: 4 , Ccal Amount: 1000		
30-DEC-2009 12:24	AR1660	/chem/ecd1a.i/123009.b/028f2801.d
Ccal Level: 4 , Ccal Amount: 1000		
30-DEC-2009 11:21	AR1660	/chem/ecd1a.i/123009.b/022f2201.d
Ccal Level: 4 , Ccal Amount: 1000		
30-DEC-2009 09:04	AR1268	/chem/ecd1a.i/123009.b/009f0901.d
Ccal Level: 4 , Ccal Amount: 1000		
30-DEC-2009 08:54	AR1262	/chem/ecd1a.i/123009.b/008f0801.d
Ccal Level: 4 , Ccal Amount: 1000		
30-DEC-2009 08:43	AR1221	/chem/ecd1a.i/123009.b/007f0701.d
Ccal Level: 4 , Ccal Amount: 1000		
30-DEC-2009 08:33	AR1232	/chem/ecd1a.i/123009.b/006f0601.d
Ccal Level: 4 , Ccal Amount: 1000		
30-DEC-2009 08:22	AR1248	/chem/ecd1a.i/123009.b/005f0501.d
Ccal Level: 4 , Ccal Amount: 1000		
30-DEC-2009 08:12	AR1242	/chem/ecd1a.i/123009.b/004f0401.d
Ccal Level: 4 , Ccal Amount: 1000		
30-DEC-2009 08:01	AR1254	/chem/ecd1a.i/123009.b/003f0301.d
Ccal Level: 4 , Ccal Amount: 1000		
30-DEC-2009 07:51	AR1660	/chem/ecd1a.i/123009.b/002f0201.d

Report Date: 31-Dec-2009 09:25

Calibration History

Method : /chem/ecd1a.i/123009.b/ECD1-B-8082-121409.m
Start Cal Date: 11-DEC-2009 10:17
End Cal Date : 14-DEC-2009 12:37

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 100.00000		
14-DEC-2009 11:34	AR1268	/chem/ecd1a.i/121409.b/040b4001.d
14-DEC-2009 09:28	AR1248	/chem/ecd1a.i/121409.b/028b2801.d
14-DEC-2009 08:25	AR1242	/chem/ecd1a.i/121409.b/022b2201.d
14-DEC-2009 07:22	AR1254	/chem/ecd1a.i/121409.b/016b1601.d
14-DEC-2009 10:31	AR1660	/chem/ecd1a.i/121409.b/034b3401.d
Cal Level: 2 , Cal Amount: 200.00000		
14-DEC-2009 11:44	AR1268	/chem/ecd1a.i/121409.b/041b4101.d
14-DEC-2009 09:38	AR1248	/chem/ecd1a.i/121409.b/029b2901.d
14-DEC-2009 08:35	AR1242	/chem/ecd1a.i/121409.b/023b2301.d
14-DEC-2009 07:32	AR1254	/chem/ecd1a.i/121409.b/017b1701.d
14-DEC-2009 10:41	AR1660	/chem/ecd1a.i/121409.b/035b3501.d
Cal Level: 3 , Cal Amount: 500.00000		
14-DEC-2009 11:55	AR1268	/chem/ecd1a.i/121409.b/042b4201.d
14-DEC-2009 09:49	AR1248	/chem/ecd1a.i/121409.b/030b3001.d
14-DEC-2009 08:46	AR1242	/chem/ecd1a.i/121409.b/024b2401.d
14-DEC-2009 07:43	AR1254	/chem/ecd1a.i/121409.b/018b1801.d
14-DEC-2009 10:52	AR1660	/chem/ecd1a.i/121409.b/036b3601.d
Cal Level: 4 , Cal Amount: 1000.00000		
14-DEC-2009 12:37	DDTANALOGSTD	/chem/ecd1a.i/121409.b/046b4601.d
14-DEC-2009 12:06	AR1268	/chem/ecd1a.i/121409.b/043b4301.d
14-DEC-2009 05:58	AR1262	/chem/ecd1a.i/121409.b/008b0801.d
14-DEC-2009 05:47	AR1221	/chem/ecd1a.i/121409.b/007b0701.d
14-DEC-2009 05:36	AR1232	/chem/ecd1a.i/121409.b/006b0601.d
14-DEC-2009 09:59	AR1248	/chem/ecd1a.i/121409.b/031b3101.d
14-DEC-2009 08:56	AR1242	/chem/ecd1a.i/121409.b/025b2501.d
14-DEC-2009 07:53	AR1254	/chem/ecd1a.i/121409.b/019b1901.d
14-DEC-2009 11:02	AR1660	/chem/ecd1a.i/121409.b/037b3701.d
Cal Level: 5 , Cal Amount: 4000.00000		
14-DEC-2009 12:16	AR1268	/chem/ecd1a.i/121409.b/044b4401.d
14-DEC-2009 10:10	AR1248	/chem/ecd1a.i/121409.b/032b3201.d
14-DEC-2009 09:07	AR1242	/chem/ecd1a.i/121409.b/026b2601.d
14-DEC-2009 08:04	AR1254	/chem/ecd1a.i/121409.b/020b2001.d
14-DEC-2009 11:13	AR1660	/chem/ecd1a.i/121409.b/038b3801.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 1000		
30-DEC-2009 16:15	AR1660	/chem/ecd1a.i/123009.b/050b5001.d
Ccal Level: 4 , Ccal Amount: 1000		
30-DEC-2009 14:30	AR1660	/chem/ecd1a.i/123009.b/040b4001.d
Ccal Level: 4 , Ccal Amount: 1000		
30-DEC-2009 12:24	AR1660	/chem/ecd1a.i/123009.b/028b2801.d
Ccal Level: 4 , Ccal Amount: 1000		
30-DEC-2009 11:21	AR1660	/chem/ecd1a.i/123009.b/022b2201.d
Ccal Level: 4 , Ccal Amount: 1000		
30-DEC-2009 09:04	AR1268	/chem/ecd1a.i/123009.b/009b0901.d
Ccal Level: 4 , Ccal Amount: 1000		
30-DEC-2009 08:54	AR1262	/chem/ecd1a.i/123009.b/008b0801.d
Ccal Level: 4 , Ccal Amount: 1000		
30-DEC-2009 08:43	AR1221	/chem/ecd1a.i/123009.b/007b0701.d
Ccal Level: 4 , Ccal Amount: 1000		
30-DEC-2009 08:33	AR1232	/chem/ecd1a.i/123009.b/006b0601.d
Ccal Level: 4 , Ccal Amount: 1000		
30-DEC-2009 08:22	AR1248	/chem/ecd1a.i/123009.b/005b0501.d
Ccal Level: 4 , Ccal Amount: 1000		
30-DEC-2009 08:12	AR1242	/chem/ecd1a.i/123009.b/004b0401.d
Ccal Level: 4 , Ccal Amount: 1000		
30-DEC-2009 08:01	AR1254	/chem/ecd1a.i/123009.b/003b0301.d
Ccal Level: 4 , Ccal Amount: 1000		
30-DEC-2009 07:51	AR1660	/chem/ecd1a.i/123009.b/002b0201.d

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd1a.i/123009.b/ECD1-F-8082-121409.m
Quant Method : ESTD Target Version : 3.50
Last Update : 31-Dec-2009 08:24 Number of Cpnds : 15
Data Type : GC MULTI COMP

Global Integrator : Falcon

Chromat Events	Values
Initial:Start Threshold	12031.000000
Initial:End Threshold	6015.500000
Initial:Area Threshold	15489.000000
Initial:P-P Resolution	1.000000
Initial:Bunch Factor	2.000000
Initial:Negative Peaks	OFF
Initial:Tension	0.500000

Compound	RT	RT Window	RF
1 Aroclor-1016	2.428	2.398-2.458	1.387e+04
	2.705	2.675-2.735	1.010e+04
	2.798	2.768-2.828	1.176e+04
	2.835	2.805-2.865	6.599e+03
	3.046	3.016-3.076	8.673e+03
63 4,4-DDD	3.953	3.933-3.973	3.938e+05
64 4,4-DDE	3.603	3.583-3.623	4.795e+05
62 4,4-DDT	4.118	4.098-4.138	3.238e+05
2 Aroclor-1221	2.084	2.054-2.114	4.301e+03
	2.178	2.148-2.208	2.440e+03
	2.204	2.174-2.233	1.027e+04
3 Aroclor-1232	2.427	2.397-2.457	6.717e+03
	2.717	2.687-2.747	8.157e+03
	2.797	2.767-2.827	5.751e+03
	3.046	3.016-3.076	3.954e+03
	3.299	3.269-3.329	3.533e+03
4 Aroclor-1242	2.427	2.397-2.457	1.166e+04
	2.716	2.686-2.746	1.345e+04
	2.835	2.805-2.865	5.506e+03
	3.046	3.015-3.075	7.245e+03
	3.300	3.270-3.330	6.811e+03

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd1a.i/123009.b/ECD1-F-8082-121409.m

Compound	RT	RT Window	RF
5 Aroclor-1248	3.097	3.067-3.127	7.848e+03
	3.248	3.218-3.278	6.870e+03
	3.299	3.269-3.329	1.331e+04
	3.432	3.402-3.462	1.101e+04
	3.664	3.634-3.694	7.455e+03
6 Aroclor-1254	3.275	3.245-3.305	1.249e+04
	3.430	3.400-3.460	1.672e+04
	3.665	3.635-3.695	2.071e+04
	3.828	3.798-3.858	1.569e+04
	3.936	3.906-3.966	1.517e+04
7 Aroclor-1260	3.773	3.743-3.803	1.675e+04
	3.936	3.906-3.966	2.474e+04
	4.166	4.136-4.196	1.469e+04
	4.308	4.278-4.338	1.518e+04
	4.488	4.458-4.518	3.435e+04
8 Aroclor-1262	3.772	3.742-3.802	1.402e+04
	3.934	3.904-3.964	1.841e+04
	4.165	4.135-4.195	2.251e+04
	4.308	4.278-4.338	2.033e+04
	4.488	4.458-4.518	4.317e+04
9 Aroclor-1268	4.672	4.642-4.702	5.438e+04
	4.695	4.665-4.725	5.419e+04
	4.807	4.777-4.837	4.052e+04
	5.011	4.981-5.041	1.833e+04
	5.176	5.146-5.206	1.233e+05
M 10 Aroclor-Total	1.000	0.980-1.020	
$ 11 4cmx	1.972	1.942-2.002	3.757e+05
$ 12 Decachlorobiphenyl	5.287	5.257-5.317	3.175e+05

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd1a.i/123009.b/ECD1-B-8082-121409.m
Quant Method : ESTD Target Version : 3.50
Last Update : 31-Dec-2009 08:30 Number of Cpnds : 15
Data Type : GC MULTI COMP

Global Integrator : Falcon

Chromat Events	Values
Initial:Start Threshold	7222.000000
Initial:End Threshold	3611.000000
Initial:Area Threshold	6833.000000
Initial:P-P Resolution	0.000000
Initial:Bunch Factor	2.000000
Initial:Negative Peaks	OFF
Initial:Tension	0.500000

Compound	RT	RT Window	RF
1 Aroclor-1016	3.200	3.170-3.230	1.261e+04
	3.283	3.253-3.313	9.328e+03
	3.347	3.317-3.377	5.411e+03
	3.574	3.544-3.604	7.052e+03
	3.650	3.620-3.680	6.551e+03
62 4,4-DDT	4.670	4.650-4.690	2.436e+05
63 4,4-DDE	4.139	4.119-4.159	3.580e+05
64 4,4-DDD	4.483	4.463-4.503	2.893e+05
2 Aroclor-1221	2.499	2.469-2.529	3.640e+03
	2.594	2.564-2.624	2.329e+03
	2.635	2.605-2.665	8.119e+03
3 Aroclor-1232	2.634	2.604-2.664	6.156e+03
	3.200	3.170-3.230	6.302e+03
	3.283	3.253-3.313	4.701e+03
	3.573	3.543-3.603	3.243e+03
	3.808	3.778-3.838	3.151e+03
4 Aroclor-1242	3.200	3.170-3.230	1.059e+04
	3.283	3.253-3.313	8.054e+03
	3.574	3.544-3.604	5.962e+03
	3.807	3.777-3.837	6.057e+03
	3.836	3.805-3.865	6.701e+03

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd1a.i/123009.b/ECD1-B-8082-121409.m

Compound	RT	RT Window	RF
5 Aroclor-1248	3.408	3.378-3.438	8.054e+03
	3.573	3.543-3.603	9.874e+03
	3.807	3.777-3.837	1.122e+04
	3.834	3.804-3.864	1.248e+04
	3.972	3.942-4.002	1.210e+04
6 Aroclor-1254	3.409	3.379-3.439	6.435e+03
	3.832	3.802-3.862	1.156e+04
	3.948	3.918-3.978	1.243e+04
	4.225	4.195-4.255	1.688e+04
	4.360	4.330-4.390	1.244e+04
7 Aroclor-1260	4.340	4.310-4.370	1.368e+04
	4.464	4.434-4.494	1.603e+04
	4.731	4.701-4.761	1.256e+04
	4.905	4.875-4.935	1.281e+04
	5.051	5.021-5.081	2.790e+04
8 Aroclor-1262	4.463	4.433-4.493	1.292e+04
	4.730	4.700-4.760	1.831e+04
	4.904	4.874-4.934	1.658e+04
	5.051	5.021-5.081	3.329e+04
	5.264	5.234-5.294	2.297e+04
9 Aroclor-1268	5.262	5.232-5.292	4.358e+04
	5.290	5.260-5.320	4.039e+04
	5.440	5.410-5.470	3.144e+04
	5.604	5.574-5.634	1.427e+04
	5.796	5.766-5.826	8.886e+04
M 10 Aroclor-Total	1.000	0.980-1.020	
$ 11 4cmx	2.303	2.273-2.333	3.000e+05
$ 12 Decachlorobiphenyl	5.949	5.919-5.979	2.332e+05

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 14-DEC-2009 05:36
End Cal Date : 14-DEC-2009 12:37
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd1a.i/123009.b/ECD1-F-8082-121409.m
Cal Date : 31-Dec-2009 08:24 jen01212
Curve Type : Average

Calibration File Names:
Level 1: /chem/ecd1a.i/121409.b/040f4001.d
Level 2: /chem/ecd1a.i/121409.b/041f4101.d
Level 3: /chem/ecd1a.i/121409.b/042f4201.d
Level 4: /chem/ecd1a.i/121409.b/046f4601.d
Level 5: /chem/ecd1a.i/121409.b/044f4401.d

Compound	100.000 Level 1	200.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
1 Aroclor-1016(1)	15975	14641	13829	13236	11653	13867	11.596
(2)	10801	10349	9832	9922	9584	10098	4.757
(3)	13242	12280	11732	11291	10240	11757	9.507
(4)	7178	6867	6609	6421	5920	6599	7.183
(5)	9710	9021	8649	8224	7763	8673	8.604
63 4,4-DDD	+++++	+++++	+++++	393799	+++++	393799	0.000
64 4,4-DDE	+++++	+++++	+++++	479509	+++++	479509	0.000
62 4,4-DDT	+++++	+++++	+++++	323817	+++++	323817	0.000
2 Aroclor-1221(1)	+++++	+++++	+++++	4301	+++++	4301	0.000
(2)	+++++	+++++	+++++	2440	+++++	2440	0.000
(3)	+++++	+++++	+++++	10272	+++++	10272	0.000
3 Aroclor-1232(1)	+++++	+++++	+++++	6717	+++++	6717	0.000
(2)	+++++	+++++	+++++	8157	+++++	8157	0.000
(3)	+++++	+++++	+++++	5751	+++++	5751	0.000
(4)	+++++	+++++	+++++	3954	+++++	3954	0.000
(5)	+++++	+++++	+++++	3533	+++++	3533	0.000
4 Aroclor-1242(1)	13692	12467	11522	10819	9798	11660	12.846
(2)	14782	14429	13236	12555	12263	13453	8.301
(3)	6076	5890	5423	5191	4949	5506	8.563
(4)	8395	7578	7079	6747	6426	7245	10.645
(5)	7587	7189	6604	6378	6296	6811	8.178
5 Aroclor-1248(1)	9070	8103	7743	7247	7078	7848	10.119
(2)	7785	7181	6827	6444	6114	6870	9.456
(3)	15108	13267	13037	12915	12225	13310	8.094
(4)	12682	11331	10815	10392	9852	11015	9.799
(5)	8605	7806	7405	7124	6336	7455	11.244

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 14-DEC-2009 05:36
End Cal Date : 14-DEC-2009 12:37
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd1a.i/123009.b/ECD1-F-8082-121409.m
Cal Date : 31-Dec-2009 08:24 jen01212
Curve Type : Average

Compound	100.000 Level 1	200.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
6 Aroclor-1254 (1)	14281	12975	12313	11911	10947	12485	9.963
(2)	18803	17181	16666	15949	15010	16722	8.494
(3)	22492	20906	20786	20326	19059	20714	5.957
(4)	16753	15627	15809	15513	14770	15694	4.535
(5)	16595	15169	15433	15075	13591	15172	7.071
7 Aroclor-1260 (1)	18145	17177	16842	16407	15189	16752	6.464
(2)	26410	24871	24973	24571	22887	24743	5.081
(3)	16099	14386	14855	14472	13625	14687	6.171
(4)	16517	14719	15311	15032	14343	15185	5.451
(5)	35425	33953	34899	34487	32987	34350	2.719
8 Aroclor-1262 (1)	+++++	+++++	+++++	14019	+++++	14019	0.000
(2)	+++++	+++++	+++++	18406	+++++	18406	0.000
(3)	+++++	+++++	+++++	22511	+++++	22511	0.000
(4)	+++++	+++++	+++++	20327	+++++	20327	0.000
(5)	+++++	+++++	+++++	43170	+++++	43170	0.000
9 Aroclor-1268 (1)	56914	55996	53872	52565	52528	54375	3.680
(2)	57500	55307	54092	52376	51697	54194	4.300
(3)	43006	41368	40020	38976	39247	40524	4.120
(4)	19620	18932	18085	17425	17569	18326	5.094
(5)	128350	126812	122798	118830	119599	123278	3.436
M 10 Aroclor-Total	+++++	+++++	+++++	+++++	+++++	+++++	+++++
$ 11 4cmx	367897	454677	359986	359846	335942	375669	12.182
$ 12 Decachlorobiphenyl	316645	388263	307193	296602	278999	317541	13.206

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 11-DEC-2009 10:17
End Cal Date : 14-DEC-2009 12:37
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd1a.i/123009.b/ECD1-B-8082-121409.m
Cal Date : 31-Dec-2009 08:30 jen01212
Curve Type : Average

Calibration File Names:
Level 1: /chem/ecd1a.i/121409.b/040b4001.d
Level 2: /chem/ecd1a.i/121409.b/041b4101.d
Level 3: /chem/ecd1a.i/121409.b/042b4201.d
Level 4: /chem/ecd1a.i/121409.b/046b4601.d
Level 5: /chem/ecd1a.i/121409.b/044b4401.d

Compound	100.000 Level 1	200.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
1 Aroclor-1016(1)	14281	12734	12848	12156	11039	12612	9.333
(2)	10954	9913	9256	8806	7710	9328	13.003
(3)	6310	5679	5380	5089	4598	5411	11.852
(4)	8214	7430	6981	6696	5938	7052	12.003
(5)	7754	6843	6481	6115	5561	6551	12.561
62 4,4-DDT	+++++	+++++	+++++	243613	+++++	243613	0.000
63 4,4-DDE	+++++	+++++	+++++	357996	+++++	357996	0.000
64 4,4-DDD	+++++	+++++	+++++	289343	+++++	289343	0.000
2 Aroclor-1221(1)	+++++	+++++	+++++	3640	+++++	3640	0.000
(2)	+++++	+++++	+++++	2329	+++++	2329	0.000
(3)	+++++	+++++	+++++	8119	+++++	8119	0.000
3 Aroclor-1232(1)	+++++	+++++	+++++	6156	+++++	6156	0.000
(2)	+++++	+++++	+++++	6302	+++++	6302	0.000
(3)	+++++	+++++	+++++	4701	+++++	4701	0.000
(4)	+++++	+++++	+++++	3243	+++++	3243	0.000
(5)	+++++	+++++	+++++	3151	+++++	3151	0.000
4 Aroclor-1242(1)	12348	11309	9989	9755	9542	10589	11.338
(2)	9730	8628	7875	7358	6677	8054	14.627
(3)	7163	6326	5763	5452	5107	5962	13.534
(4)	7183	6468	5900	5548	5185	6057	12.997
(5)	7820	7123	6589	6229	5746	6701	11.977
5 Aroclor-1248(1)	9914	8542	7972	7289	6553	8054	15.880
(2)	11996	10356	9798	9046	8173	9874	14.605
(3)	13306	11756	11119	10365	9555	11220	12.723
(4)	14720	13121	12480	11577	10516	12483	12.732
(5)	14361	12633	11977	11210	10342	12104	12.596

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 11-DEC-2009 10:17
End Cal Date : 14-DEC-2009 12:37
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd1a.i/123009.b/ECD1-B-8082-121409.m
Cal Date : 31-Dec-2009 08:30 jen01212
Curve Type : Average

Compound	100.000 Level 1	200.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
6 Aroclor-1254(1)	7857	6938	6317	5878	5185	6435	15.850
(2)	13759	12316	11389	10708	9625	11559	13.615
(3)	14674	13172	12243	11576	10492	12431	12.786
(4)	19102	17554	16808	16165	14771	16880	9.533
(5)	14276	12708	12612	11843	10739	12435	10.425
7 Aroclor-1260(1)	15678	14232	13583	13177	11731	13680	10.567
(2)	18142	16574	16035	15527	13867	16029	9.709
(3)	14298	13064	12524	12030	10903	12564	9.989
(4)	14593	13310	12766	12230	11150	12810	9.970
(5)	30553	28626	28257	27276	24777	27898	7.569
8 Aroclor-1262(1)	+++++	+++++	+++++	12922	+++++	12922	0.000
(2)	+++++	+++++	+++++	18311	+++++	18311	0.000
(3)	+++++	+++++	+++++	16579	+++++	16579	0.000
(4)	+++++	+++++	+++++	33287	+++++	33287	0.000
(5)	+++++	+++++	+++++	22972	+++++	22972	0.000
9 Aroclor-1268(1)	48327	45655	43354	41349	39206	43578	8.193
(2)	44968	41865	39872	38249	36983	40388	7.790
(3)	35350	32573	30975	29630	28674	31440	8.372
(4)	16410	14977	13894	13214	12876	14274	10.077
(5)	96769	92419	87897	84047	83161	88859	6.460
M 10 Aroclor-Total	+++++	+++++	+++++	+++++	+++++	+++++	+++++
$ 11 4cmx	307069	367145	286931	282899	256086	300026	13.893
$ 12 Decachlorobiphenyl	248884	286011	224119	212175	194946	233227	15.194

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1085

Instrument ID: ECD1A Calibration Date: 12/30/09 Time: 0751

Lab File ID: 002F0201 Init. Calib. Date(s): 12/14/09 12/14/09

Heated Purge: (Y/N) N Init. Calib. Times: 1031 1113

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	13866.870	12048.649	0.01	-13.1	15.0
(2)	10097.726	10253.153	0.01	1.5	15.0
(3)	11757.020	10400.861	0.01	-11.5	15.0
(4)	6599.010	6229.744	0.01	-5.6	15.0
(5)	8673.402	8016.497	0.01	-7.6	15.0
Aroclor-1260	16752.150	16303.916	0.01	-2.7	15.0
(2)	24742.603	25139.543	0.01	1.6	15.0
(3)	14687.346	15017.211	0.01	2.2	15.0
(4)	15184.529	15730.807	0.01	3.6	15.0
(5)	34350.443	36419.593	0.01	6.0	15.0
4cmx	375669.41	364542.48	0.01	-3.0	15.0
Decachlorobiphenyl	317540.53	319061.34	0.01	0.5	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1085

Instrument ID: ECD1A Calibration Date: 12/30/09 Time: 0751

Lab File ID: 002B0201 Init. Calib. Date(s): 12/14/09 12/14/09

Heated Purge: (Y/N) N Init. Calib. Times: 1031 1113

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	12611.539	12595.442	0.01	-0.1	15.0
(2)	9327.875	8188.657	0.01	-12.2	15.0
(3)	5411.316	5082.283	0.01	-6.1	15.0
(4)	7051.879	6677.358	0.01	-5.3	15.0
(5)	6550.733	6209.576	0.01	-5.2	15.0
Aroclor-1260	13680.027	12787.983	0.01	-6.5	15.0
(2)	16029.019	15799.919	0.01	-1.4	15.0
(3)	12563.933	12092.518	0.01	-3.8	15.0
(4)	12810.076	12394.695	0.01	-3.2	15.0
(5)	27897.674	28137.110	0.01	0.8	15.0
4cmx	300025.77	290797.42	0.01	-3.1	15.0
Decachlorobiphenyl	233227.08	233521.61	0.01	0.1	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1085

Instrument ID: ECD1A Calibration Date: 12/30/09 Time: 1224

Lab File ID: 028F2801 Init. Calib. Date(s): 12/14/09 12/14/09

Heated Purge: (Y/N) N Init. Calib. Times: 1031 1113

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	13866.870	12218.879	0.01	-11.9	15.0
(2)	10097.726	10309.388	0.01	2.1	15.0
(3)	11757.020	10597.480	0.01	-9.9	15.0
(4)	6599.010	6375.826	0.01	-3.4	15.0
(5)	8673.402	8264.360	0.01	-4.7	15.0
Aroclor-1260	16752.150	16360.737	0.01	-2.3	15.0
(2)	24742.603	25324.946	0.01	2.4	15.0
(3)	14687.346	15115.198	0.01	2.9	15.0
(4)	15184.529	15867.070	0.01	4.5	15.0
(5)	34350.443	36779.998	0.01	7.1	15.0
4cmx	375669.41	369520.81	0.01	-1.6	15.0
Decachlorobiphenyl	317540.53	325719.30	0.01	2.6	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1085

Instrument ID: ECD1A Calibration Date: 12/30/09 Time: 1224

Lab File ID: 028B2801 Init. Calib. Date(s): 12/14/09 12/14/09

Heated Purge: (Y/N) N Init. Calib. Times: 1031 1113

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	12611.539	11986.954	0.01	-5.0	15.0
(2)	9327.875	8048.707	0.01	-13.7	15.0
(3)	5411.316	5002.513	0.01	-7.6	15.0
(4)	7051.879	6528.763	0.01	-7.4	15.0
(5)	6550.733	5996.959	0.01	-8.4	15.0
Aroclor-1260	13680.027	12544.559	0.01	-8.3	15.0
(2)	16029.019	15416.214	0.01	-3.8	15.0
(3)	12563.933	11870.025	0.01	-5.5	15.0
(4)	12810.076	12265.139	0.01	-4.2	15.0
(5)	27897.674	28017.847	0.01	0.4	15.0
4cmx	300025.77	286023.90	0.01	-4.7	15.0
Decachlorobiphenyl	233227.08	236704.26	0.01	1.5	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1085

Instrument ID: ECD1A Calibration Date: 12/30/09 Time: 1430

Lab File ID: 040F4001 Init. Calib. Date(s): 12/14/09 12/14/09

Heated Purge: (Y/N) N Init. Calib. Times: 1031 1113

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	13866.870	12628.616	0.01	-8.9	15.0
(2)	10097.726	10613.649	0.01	5.1	15.0
(3)	11757.020	10947.178	0.01	-6.9	15.0
(4)	6599.010	6556.315	0.01	-0.6	15.0
(5)	8673.402	8494.168	0.01	-2.1	15.0
Aroclor-1260	16752.150	17088.963	0.01	2.0	15.0
(2)	24742.603	26441.056	0.01	6.9	15.0
(3)	14687.346	15786.747	0.01	7.5	15.0
(4)	15184.529	16602.794	0.01	9.3	15.0
(5)	34350.443	38280.474	0.01	11.4	15.0
4cmx	375669.41	381781.16	0.01	1.6	15.0
Decachlorobiphenyl	317540.53	343819.47	0.01	8.3	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1085

Instrument ID: ECD1A Calibration Date: 12/30/09 Time: 1430

Lab File ID: 040B4001 Init. Calib. Date(s): 12/14/09 12/14/09

Heated Purge: (Y/N) N Init. Calib. Times: 1031 1113

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	12611.539	12840.175	0.01	1.8	15.0
(2)	9327.875	8476.812	0.01	-9.1	15.0
(3)	5411.316	5277.131	0.01	-2.5	15.0
(4)	7051.879	6897.786	0.01	-2.2	15.0
(5)	6550.733	6365.167	0.01	-2.8	15.0
Aroclor-1260	13680.027	13280.555	0.01	-2.9	15.0
(2)	16029.019	16433.880	0.01	2.5	15.0
(3)	12563.933	12607.227	0.01	0.3	15.0
(4)	12810.076	13050.459	0.01	1.9	15.0
(5)	27897.674	29709.618	0.01	6.5	15.0
4cmx	300025.77	298700.96	0.01	-0.4	15.0
Decachlorobiphenyl	233227.08	251137.11	0.01	7.7	15.0

FORM VII PEST

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/123009.b/002f0201.d
Lab Smp Id: WAR091211-60 01 Client Smp ID: AR166001
Inj Date : 30-DEC-2009 07:51
Operator : JAOC Inst ID: ecd1a.i
Smp Info : |WAR091211-60 01
Misc Info :
Comment :
Method : /chem/ecd1a.i/123009.b/ECD1-F-8082-121409.m
Meth Date : 30-Dec-2009 09:58 jen01212 Quant Type: ESTD
Cal Date : 14-DEC-2009 11:34 Cal File: 040f4001.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.972	1.972	0.000	36454248	100.000	97.0	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.287	5.287	0.000	31906134	100.000	100	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.428	2.428	0.000	12048649	1000.00	869	80.00- 120.00	100.00
2.705	2.705	0.000	10253152	1000.00	1020	65.10- 105.10	85.10
2.798	2.798	0.000	10400861	1000.00	885	66.32- 106.32	86.32
2.835	2.835	0.000	6229744	1000.00	944	31.70- 71.70	51.70
3.046	3.046	0.000	8016497	1000.00	924	46.53- 86.53	66.53
Average of Peak Amounts =					927		
7 Aroclor-1260					CAS #: 11096-82-5		
3.773	3.773	0.000	16303916	1000.00	973	80.00- 120.00	100.00
3.936	3.936	0.000	25139543	1000.00	1020	134.19- 174.19	154.19
4.166	4.166	0.000	15017211	1000.00	1020	72.11- 112.11	92.11
4.308	4.308	0.000	15730806	1000.00	1040	76.48- 116.48	96.48
4.488	4.488	0.000	36419592	1000.00	1060	203.38- 243.38	223.38
Average of Peak Amounts =					1.02e+03		

Data File: /chem/ecd1a.i/123009.b/002f0201.d
Date : 30-DEC-2009 07:51
Client ID: AR166001
Sample Info: IWAR091211-60 01

Column phase: CLP1

Instrument: ecd1a.i

Operator: JAOC
Column diameter: 0.25

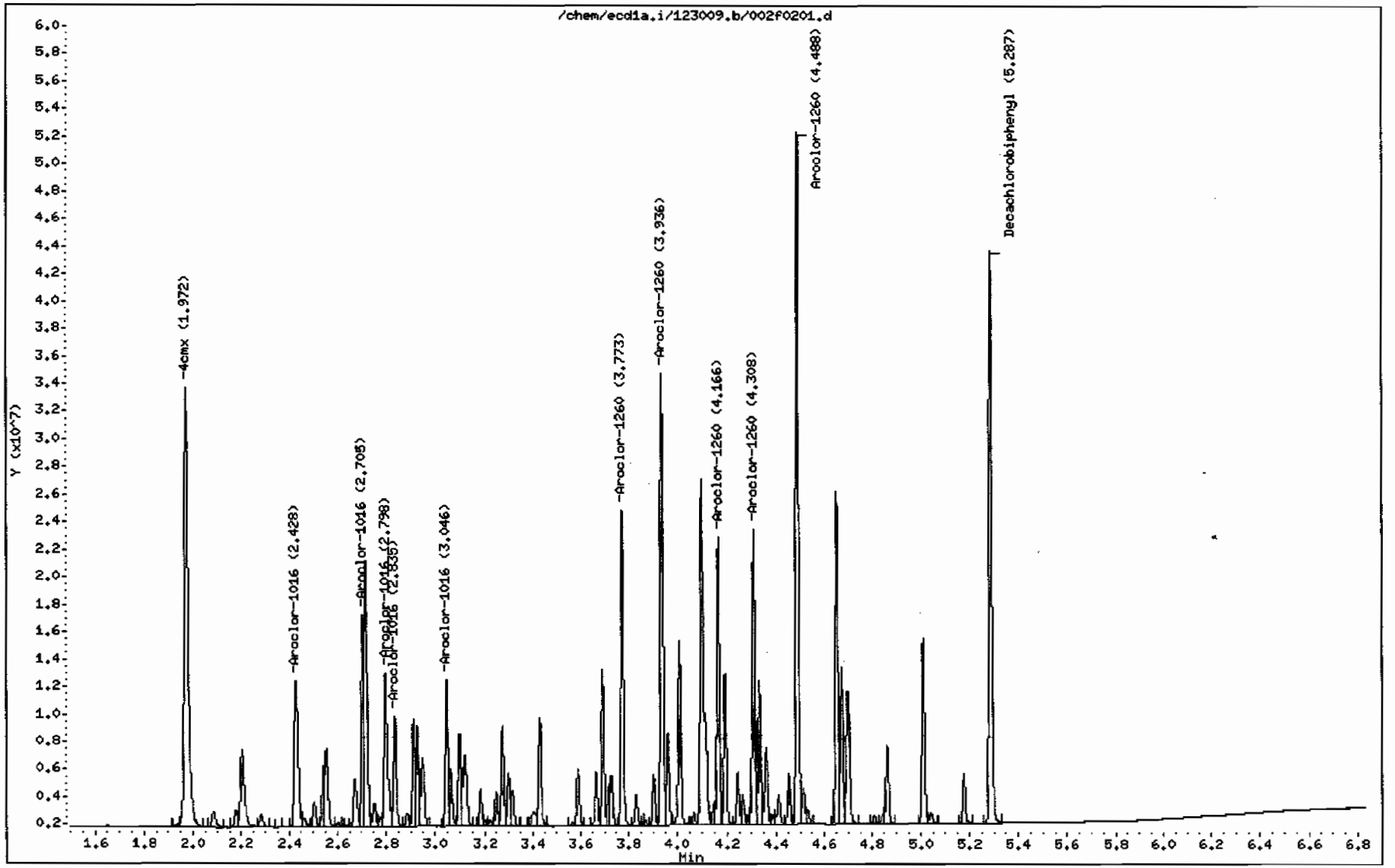

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/123009.b/002b0201.d
Lab Smp Id: WAR091211-60 01 Client Smp ID: AR166001
Inj Date : 30-DEC-2009 07:51
Operator : JAOC Inst ID: ecd1a.i
Smp Info : |WAR091211-60 01
Misc Info :
Comment :
Method : /chem/ecd1a.i/123009.b/ECD1-B-8082-121409.m
Meth Date : 30-Dec-2009 09:57 jen01212 Quant Type: ESTD
Cal Date : 14-DEC-2009 12:16 Cal File: 044b4401.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.303	2.303	0.000	29079742	100.000	96.9	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.949	5.949	0.000	23352161	100.000	100	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.200	3.200	0.000	12595442	1000.00	999	80.00- 120.00	100.00
3.283	3.283	0.000	8188656	1000.00	878	45.01- 85.01	65.01
3.347	3.347	0.000	5082282	1000.00	939	20.35- 60.35	40.35
3.574	3.574	0.000	6677358	1000.00	947	33.01- 73.01	53.01
3.650	3.650	0.000	6209575	1000.00	948	29.30- 69.30	49.30
Average of Peak Amounts =					942		
7 Aroclor-1260					CAS #: 11096-82-5		
4.340	4.340	0.000	12787983	1000.00	935	80.00- 120.00	100.00
4.464	4.464	0.000	15799918	1000.00	986	103.55- 143.55	123.55
4.731	4.731	0.000	12092518	1000.00	962	74.56- 114.56	94.56
4.905	4.905	0.000	12394695	1000.00	968	76.92- 116.92	96.92
5.051	5.051	0.000	28137110	1000.00	1010	200.03- 240.03	220.03
Average of Peak Amounts =					972		

Data File: /chem/ecd1a.i/123009.b/002b0201.d
Date : 30-DEC-2009 07:51
Client ID: AR166001
Sample Info: IWAR091211-60 01

Column phase: CLP2

Instrument: ecd1a.i

Operator: JAOC
Column diameter: 0.25

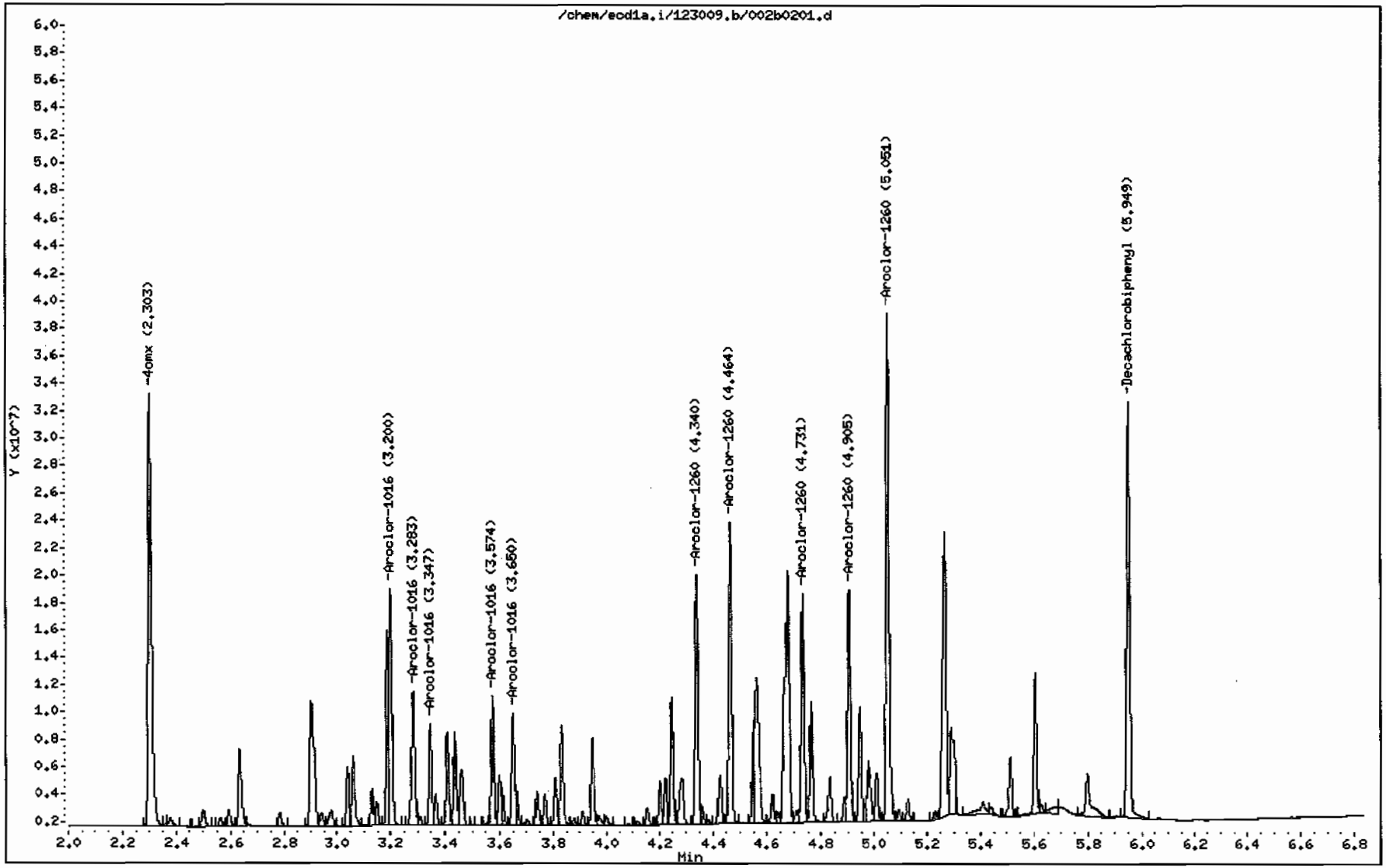

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/123009.b/003f0301.d
Lab Smp Id: WAR091216-54 Client Smp ID: AR125401
Inj Date : 30-DEC-2009 08:01
Operator : JAOC Inst ID: ecd1a.i
Smp Info : |WAR091216-54
Misc Info :
Comment :
Method : /chem/ecd1a.i/123009.b/ECD1-F-8082-121409.m
Meth Date : 30-Dec-2009 09:58 jen01212 Quant Type: ESTD
Cal Date : 14-DEC-2009 11:34 Cal File: 040f4001.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1254.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.972	1.972	0.000	37681835	100.000	100	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.286	5.287	-0.001	33281583	100.000	105	80.00- 120.00	100.00
6 Aroclor-1254					CAS #: 11097-69-1		
3.275	3.275	0.000	12004329	1000.00	961	80.00- 120.00	100.00
3.430	3.430	0.000	16482008	1000.00	986	117.30- 157.30	137.30
3.665	3.665	0.000	21819152	1000.00	1050	161.76- 201.76	181.76
3.828	3.828	0.000	16784132	1000.00	1070	119.82- 159.82	139.82
3.936	3.936	0.000	15814639	1000.00	1040	111.74- 151.74	131.74

Average of Peak Amounts = 1.02e+03

Data File: /chem/ecd1a.i/123009.b/003f0301.d
Date : 30-DEC-2009 08:01
Client ID: AR125401
Sample Info: IWAR091216-54

Column phase: CLP1

Instrument: ecd1a.i

Operator: JAOC
Column diameter: 0.25

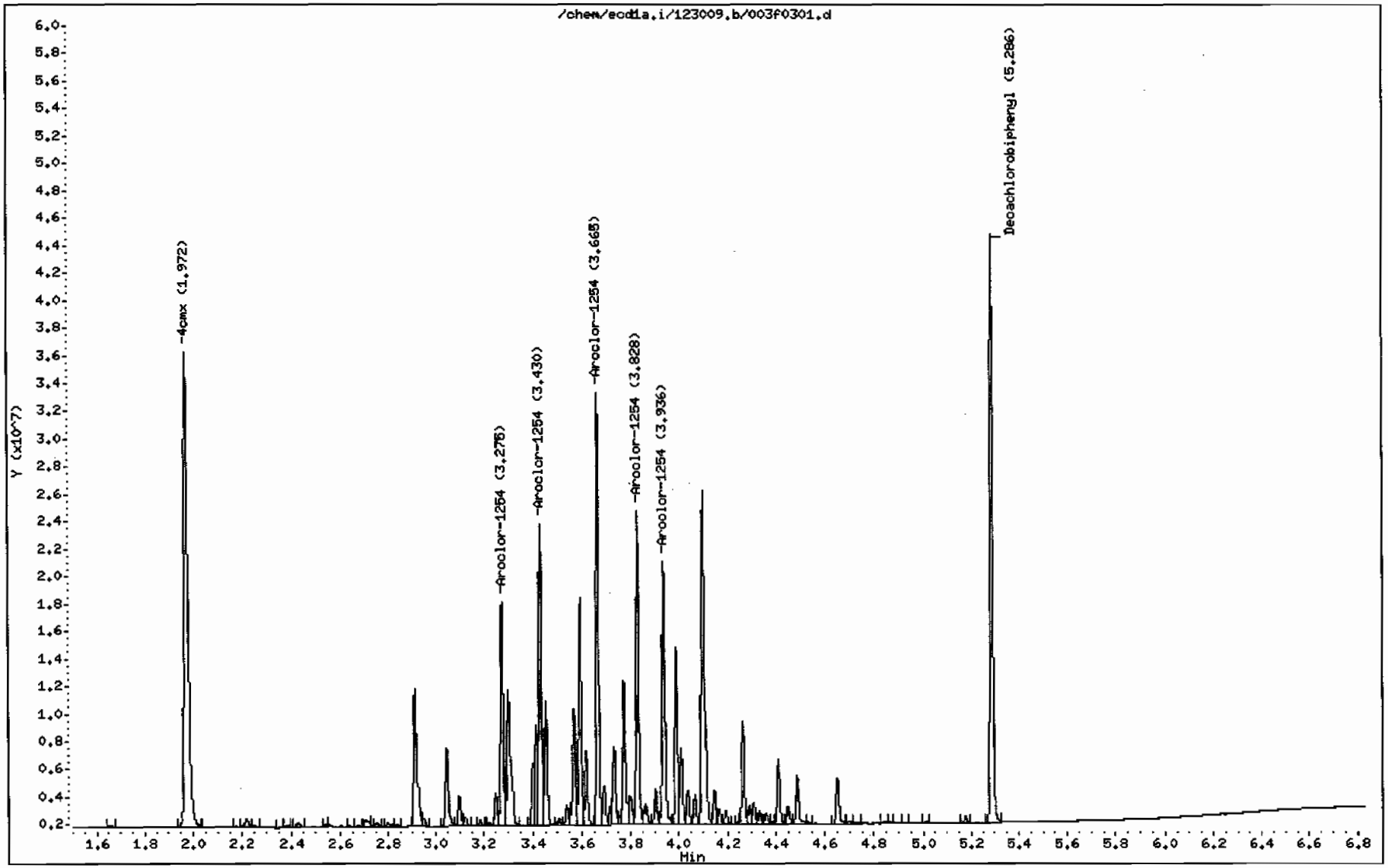

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/123009.b/003b0301.d
Lab Smp Id: WAR091216-54 Client Smp ID: AR125401
Inj Date : 30-DEC-2009 08:01
Operator : JAOC Inst ID: ecd1a.i
Smp Info : |WAR091216-54
Misc Info :
Comment :
Method : /chem/ecd1a.i/123009.b/ECD1-B-8082-121409.m
Meth Date : 30-Dec-2009 09:57 jen01212 Quant Type: ESTD
Cal Date : 14-DEC-2009 12:16 Cal File: 044b4401.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1254.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.304	2.303	0.001	30231134	100.000	101	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.950	5.949	0.001	24448255	100.000	105	80.00- 120.00	100.00
6 Aroclor-1254					CAS #: 11097-69-1		
3.409	3.409	0.000	6057470	1000.00	941	80.00- 120.00	100.00
3.832	3.832	0.000	11014699	1000.00	953	161.84- 201.84	181.84
3.948	3.948	0.000	12211951	1000.00	982	181.60- 221.60	201.60
4.225	4.225	0.000	17136945	1000.00	1020	262.91- 302.91	282.91
4.360	4.360	0.000	12696224	1000.00	1020	189.60- 229.60	209.60
			Average of Peak Amounts =		983		

Data File: /chem/ecd1a.i/123009.b/003b0301.d

Date : 30-DEC-2009 08:01

Client ID: AR125401

Sample Info: IWAR091216-54

Column phase: CLP2

Instrument: ecd1a.i

Operator: JAOC

Column diameter: 0.25

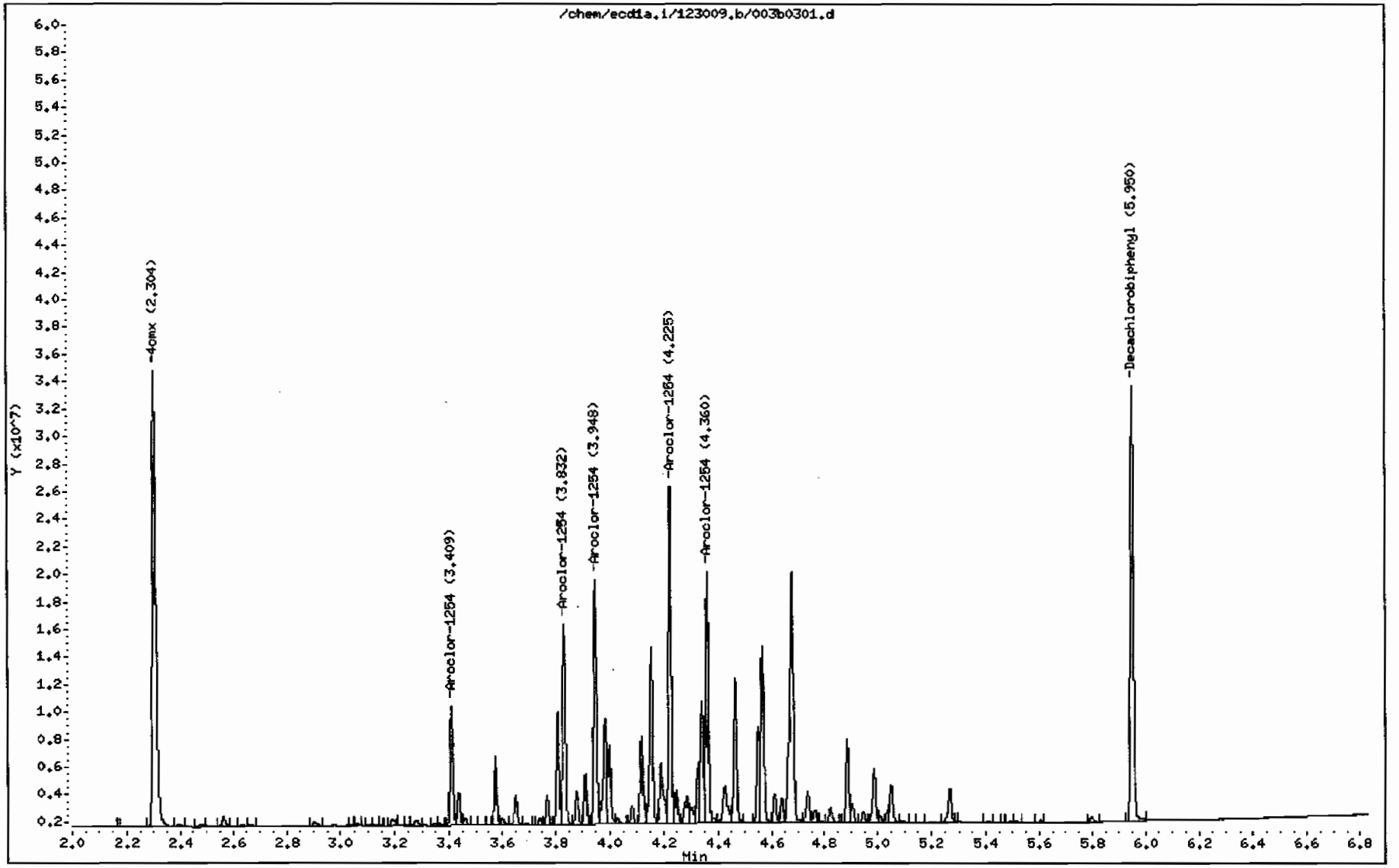

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdla.i/123009.b/004f0401.d
Lab Smp Id: WAR091102-42 Client Smp ID: AR124201
Inj Date : 30-DEC-2009 08:12
Operator : JAOC Inst ID: ecdla.i
Smp Info : |WAR091102-42
Misc Info :
Comment :
Method : /chem/ecdla.i/123009.b/ECD1-F-8082-121409.m
Meth Date : 30-Dec-2009 09:58 jen01212 Quant Type: ESTD
Cal Date : 14-DEC-2009 11:34 Cal File: 040f4001.d
Als bottle: 4 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1242.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.970	1.972	-0.002	38893120	100.000	104	80.00- 120.00	100.00
$ 12 Decachlorobipheny1					CAS #: 2051-24-3		
5.286	5.287	-0.001	32661004	100.000	103	80.00- 120.00	100.00
4 Aroclor-1242					CAS #: 53469-21-9		
2.427	2.427	0.000	10940190	1000.00	938	80.00- 120.00	100.00
2.716	2.716	0.000	13851499	1000.00	1030	106.61- 146.61	126.61
2.835	2.835	0.000	5570438	1000.00	1010	30.92- 70.92	50.92
3.046	3.046	0.000	7308038	1000.00	1010	46.80- 86.80	66.80
3.300	3.300	0.000	7443105	1000.00	1090	48.03- 88.03	68.03

Average of Peak Amounts = 1.02e+03

Data File: /chem/ecd1a.i/123009.b/004f0401.d
Date : 30-DEC-2009 08:12
Client ID: AR124201
Sample Info: IWAR091102-42

Column phase: CLP1

Instrument: ecd1a.i

Operator: JAOC
Column diameter: 0.25

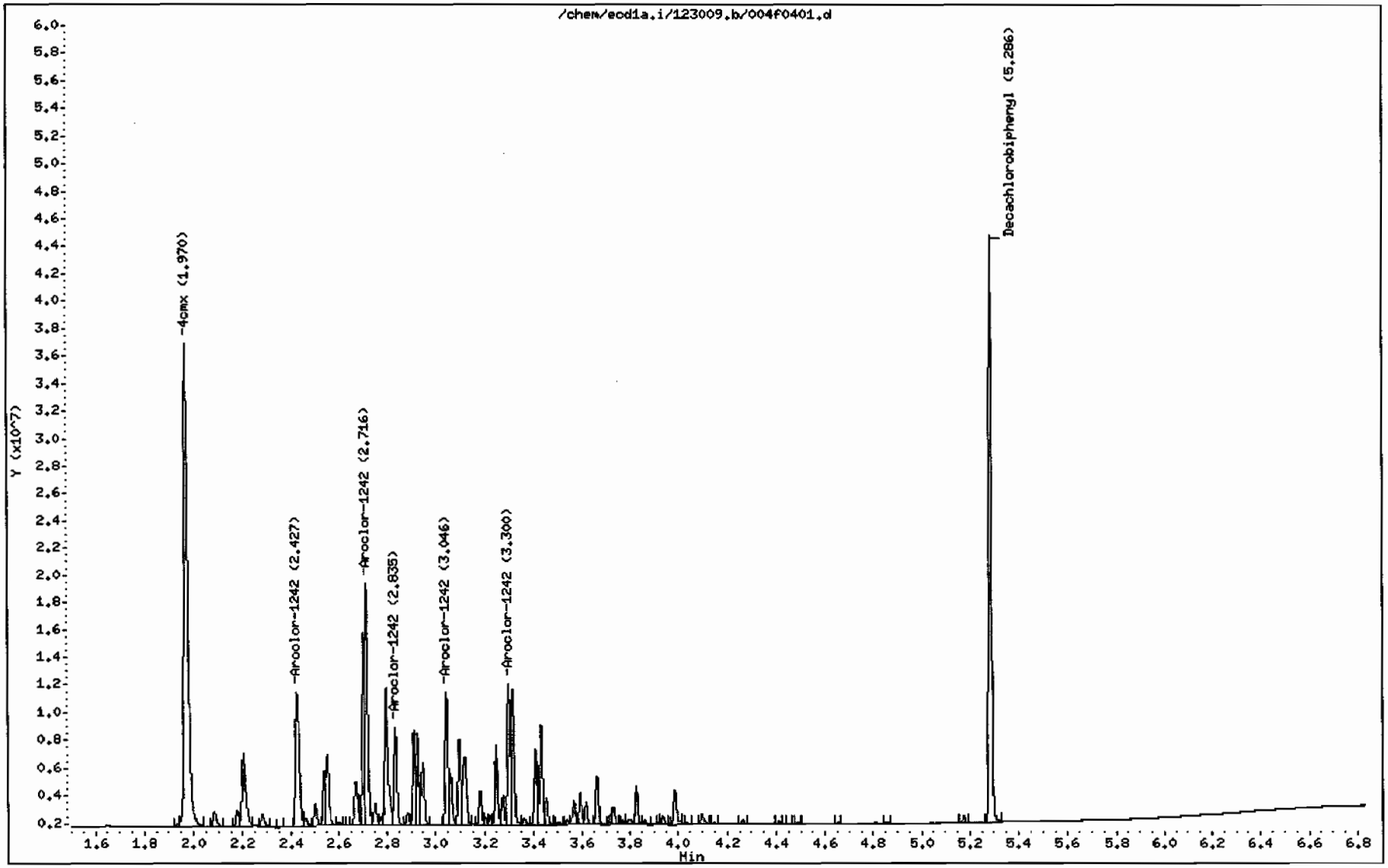

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/123009.b/004b0401.d
Lab Smp Id: WAR091102-42 Client Smp ID: AR124201
Inj Date : 30-DEC-2009 08:12
Operator : JAOC Inst ID: ecd1a.i
Smp Info : |WAR091102-42
Misc Info :
Comment :
Method : /chem/ecd1a.i/123009.b/ECD1-B-8082-121409.m
Meth Date : 30-Dec-2009 09:57 jen01212 Quant Type: ESTD
Cal Date : 14-DEC-2009 12:16 Cal File: 044b4401.d
Als bottle: 4 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1242.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.302	2.303	-0.001	30887650	100.000	103	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.949	5.949	0.000	25272245	100.000	108	80.00- 120.00	100.00
4 Aroclor-1242					CAS #: 53469-21-9		
3.200	3.200	0.000	11134541	1000.00	1050	80.00- 120.00	100.00
3.283	3.283	0.000	7295301	1000.00	906	45.52- 85.52	65.52
3.574	3.574	0.000	5822956	1000.00	977	32.30- 72.30	52.30
3.807	3.807	0.000	6140550	1000.00	1010	35.15- 75.15	55.15
3.836	3.836	0.000	6723494	1000.00	1000	40.38- 80.38	60.38
		Average of Peak Amounts =			990		

Data File: /chem/ecd1a.i/123009.b/004b0401.d

Date : 30-DEC-2009 08:12

Client ID: AR124201

Sample Info: IWAR091102-42

Column phase: CLP2

Instrument: ecd1a.i

Operator: JAOC

Column diameter: 0.25

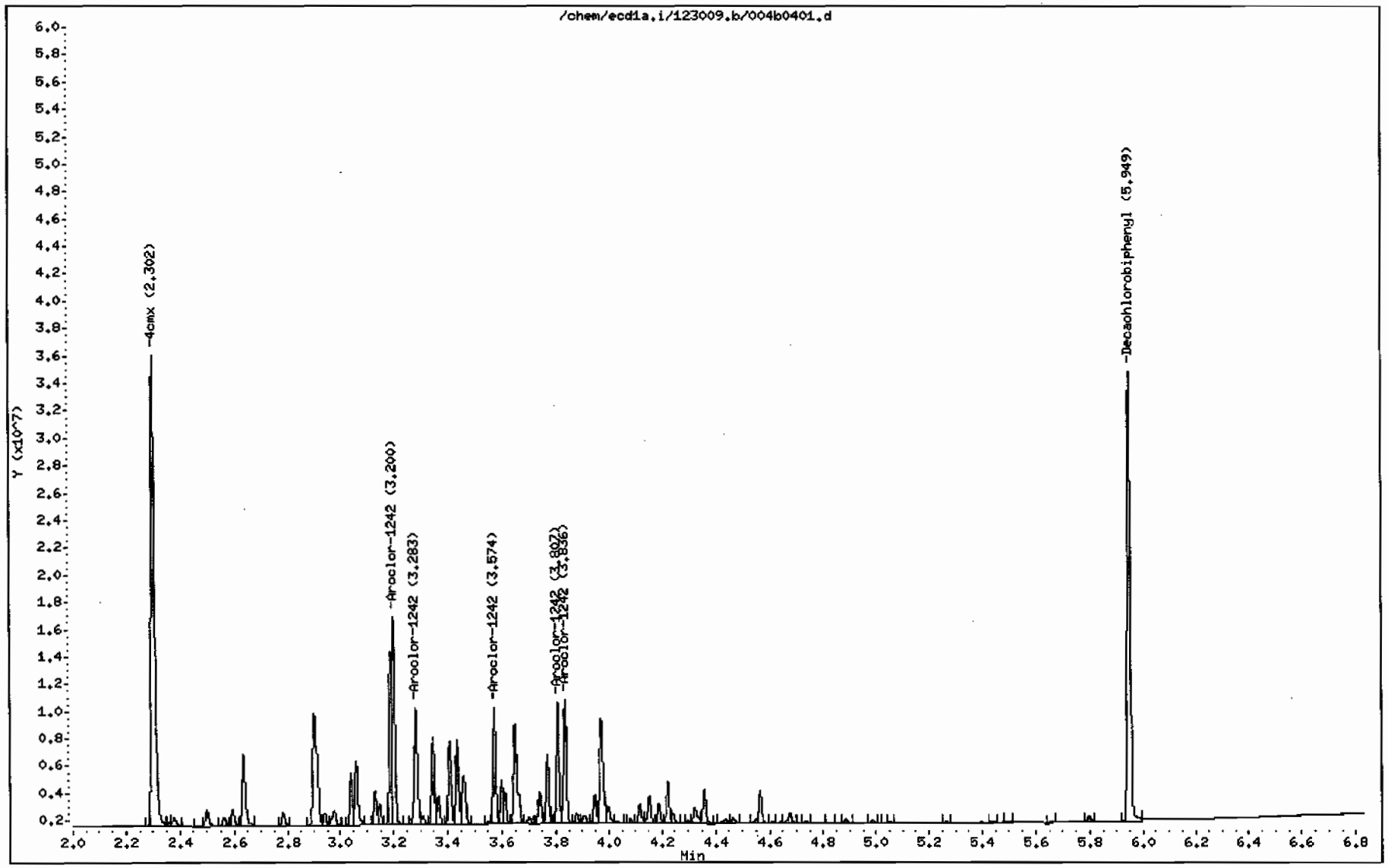

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/123009.b/005f0501.d
Lab Smp Id: WAR091027-48 Client Smp ID: AR124801
Inj Date : 30-DEC-2009 08:22
Operator : JAOC Inst ID: ecd1a.i
Smp Info : |WAR091027-48
Misc Info :
Comment :
Method : /chem/ecd1a.i/123009.b/ECD1-F-8082-121409.m
Meth Date : 30-Dec-2009 09:58 jen01212 Quant Type: ESTD
Cal Date : 14-DEC-2009 11:34 Cal File: 040f4001.d
Als bottle: 5 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1248.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.971	1.972	-0.001	41674173	100.000	111	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.287	5.287	0.000	37549891	100.000	118	80.00- 120.00	100.00
5 Aroclor-1248					CAS #: 12672-29-6		
3.097	3.097	0.000	8322623	1000.00	1060	80.00- 120.00	100.00
3.248	3.248	0.000	7450416	1000.00	1080	69.52- 109.52	89.52
3.299	3.299	0.000	14482982	1000.00	1090	154.02- 194.02	174.02
3.432	3.432	0.000	11719002	1000.00	1060	120.81- 160.81	140.81
3.664	3.664	0.000	7591500	1000.00	1020	71.22- 111.22	91.22

Average of Peak Amounts = 1.06e+03

Data File: /chem/ecd1a.i/123009.b/005f0501.d
Date : 30-DEC-2009 08:22
Client ID: AR124801
Sample Info: IWAR091027-48

Column phase: CLP1

Instrument: ecd1a.i

Operator: JADC
Column diameter: 0.25

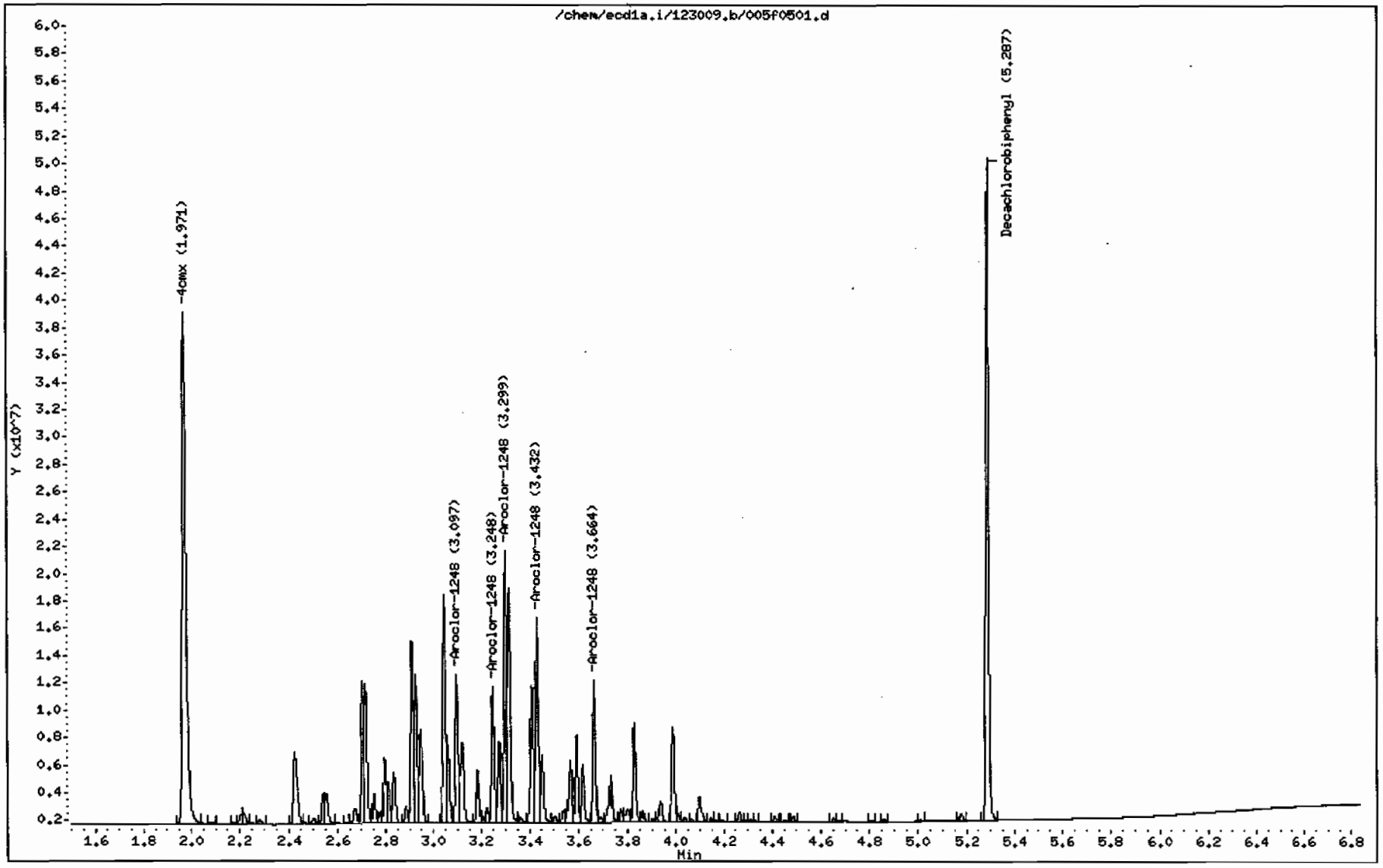

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/123009.b/005b0501.d
Lab Smp Id: WAR091027-48 Client Smp ID: AR124801
Inj Date : 30-DEC-2009 08:22
Operator : JAOC Inst ID: ecd1a.i
Smp Info : |WAR091027-48
Misc Info :
Comment :
Method : /chem/ecd1a.i/123009.b/ECD1-B-8082-121409.m
Meth Date : 30-Dec-2009 09:57 jen01212 Quant Type: ESTD
Cal Date : 14-DEC-2009 12:16 Cal File: 044b4401.d
Als bottle: 5 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1248.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.302	2.303	-0.001	33338528	100.000	111	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.949	5.949	0.000	27159019	100.000	116	80.00- 120.00	100.00
5 Aroclor-1248					CAS #: 12672-29-6		
3.408	3.408	0.000	8010397	1000.00	994	80.00- 120.00	100.00
3.573	3.573	0.000	10045586	1000.00	1020	105.41- 145.41	125.41
3.807	3.807	0.000	11628107	1000.00	1040	125.16- 165.16	145.16
3.834	3.834	0.000	12987066	1000.00	1040	142.13- 182.13	162.13
3.972	3.972	0.000	12440291	1000.00	1030	135.30- 175.30	155.30

Average of Peak Amounts = 1.02e+03

Data File: /chem/ecd1a.i/123009.b/005b0501.d

Date : 30-DEC-2009 08:22

Client ID: AR124801

Sample Info: IWAR091027-48

Column phase: CLP2

Instrument: ecd1a.i

Operator: JAOC

Column diameter: 0.25

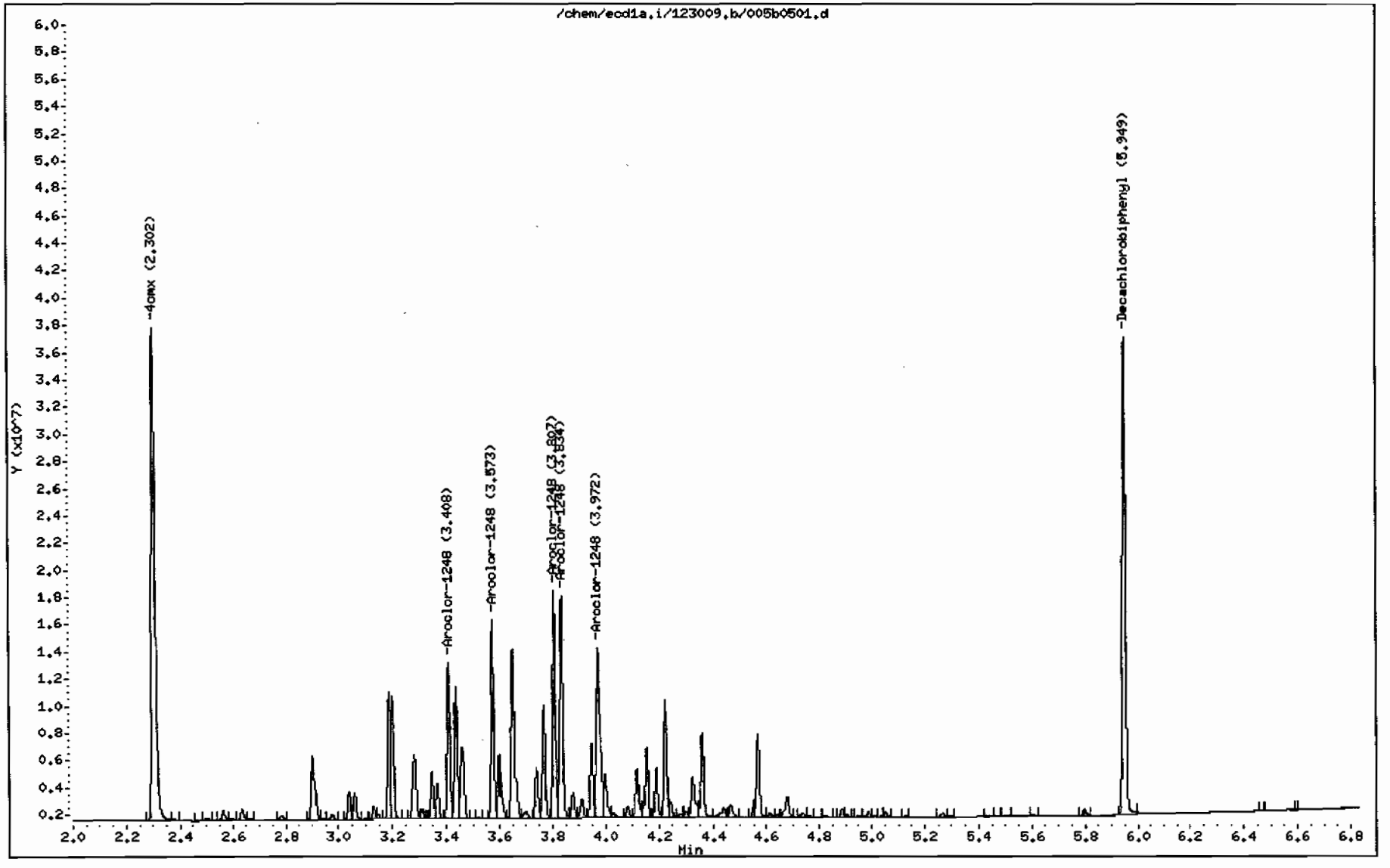

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/123009.b/006f0601.d
Lab Smp Id: WAR090930-32 Client Smp ID: AR123201
Inj Date : 30-DEC-2009 08:33
Operator : JAOC Inst ID: ecd1a.i
Smp Info : |WAR090930-32
Misc Info :
Comment :
Method : /chem/ecd1a.i/123009.b/ECD1-F-8082-121409.m
Meth Date : 30-Dec-2009 10:00 jen01212 Quant Type: ESTD
Cal Date : 14-DEC-2009 11:34 Cal File: 040f4001.d
Als bottle: 6 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1232.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.971	1.972	-0.001	58600459	100.000	156	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.286	5.287	-0.001	52414769	100.000	165	80.00- 120.00	100.00
3 Aroclor-1232					CAS #: 11141-16-5		
2.427	2.427	0.000	7844231	1000.00	1170	80.00- 120.00	100.00
2.717	2.717	0.000	10130742	1000.00	1240	109.15- 149.15	129.15
2.797	2.797	0.000	6739094	1000.00	1170	65.91- 105.91	85.91
3.046	3.046	0.000	4981077	1000.00	1260	43.50- 83.50	63.50
3.299	3.299	0.000	4743952	1000.00	1340	40.48- 80.48	60.48

Average of Peak Amounts = 1.24e+03

Data File: /chem/ecd1a.i/123009.b/006f0601.d

Date : 30-DEC-2009 08:33

Client ID: AR123201

Sample Info: IWAR090930-32

Column phase: CLP1

Instrument: ecd1a.i

Operator: JAOC

Column diameter: 0.25

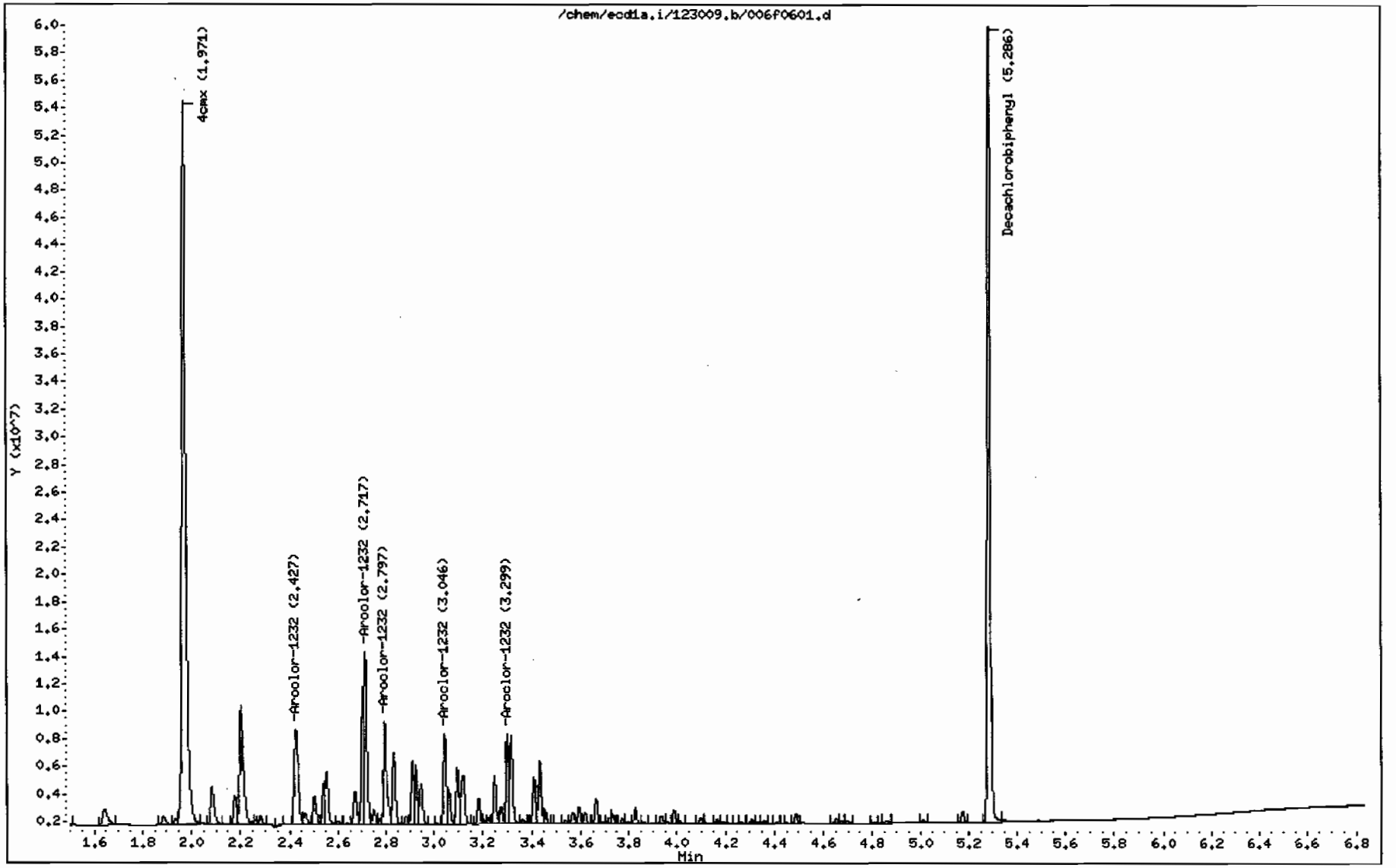

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/123009.b/006b0601.d
Lab Smp Id: WAR090930-32 Client Smp ID: AR123201
Inj Date : 30-DEC-2009 08:33
Operator : JAOC Inst ID: ecd1a.i
Smp Info : |WAR090930-32
Misc Info :
Comment :
Method : /chem/ecd1a.i/123009.b/ECD1-B-8082-121409.m
Meth Date : 30-Dec-2009 10:01 jen01212 Quant Type: ESTD
Cal Date : 14-DEC-2009 12:16 Cal File: 044b4401.d
Als bottle: 6 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1232.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.302	2.303	-0.001	46155454	100.000	154	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.949	5.949	0.000	38179251	100.000	164	80.00- 120.00	100.00
3 Aroclor-1232					CAS #: 11141-16-5		
2.634	2.634	0.000	7285869	1000.00	1180	80.00- 120.00	100.00
3.200	3.200	0.000	7940842	1000.00	1260	88.99- 128.99	108.99
3.283	3.283	0.000	5409821	1000.00	1150	54.25- 94.25	74.25
3.573	3.573	0.000	4034708	1000.00	1240	35.38- 75.38	55.38
3.808	3.808	0.000	4057347	1000.00	1290	35.69- 75.69	55.69

Average of Peak Amounts = 1.23e+03

Data File: /chem/ecd1a.i/123009.b/006b0601.d

Date : 30-DEC-2009 08:33

Client ID: AR123201

Sample Info: IWAR090930-32

Column phase: CLP2

Instrument: ecd1a.i

Operator: JAOC

Column diameter: 0.25

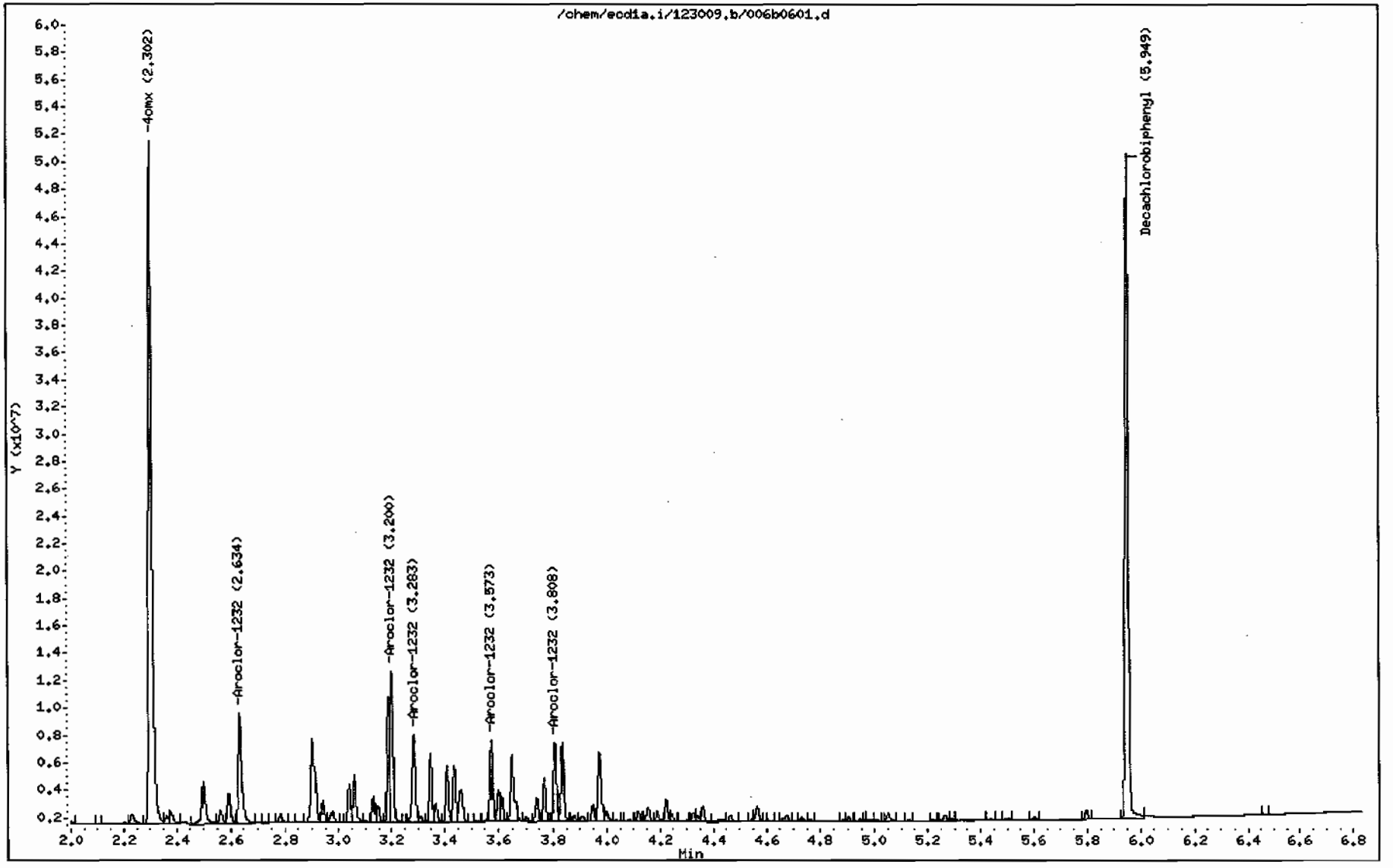

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/123009.b/007f0701.d
Lab Smp Id: WAR090803-21 Client Smp ID: AR122101
Inj Date : 30-DEC-2009 08:43
Operator : JAOC Inst ID: ecd1a.i
Smp Info : |WAR090803-21
Misc Info :
Comment :
Method : /chem/ecd1a.i/123009.b/ECD1-F-8082-121409.m
Meth Date : 30-Dec-2009 10:00 jen01212 Quant Type: ESTD
Cal Date : 14-DEC-2009 11:34 Cal File: 040f4001.d
Als bottle: 7 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1221.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.972	1.972	0.000	39017178	100.000	104	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.287	5.287	0.000	34895259	100.000	110	80.00- 120.00	100.00
2 Aroclor-1221					CAS #: 11104-28-2		
2.084	2.084	0.000	4465634	1000.00	1040	80.00- 120.00	100.00
2.178	2.178	0.000	2530803	1000.00	1040	36.67- 76.67	56.67
2.204	2.204	0.000	10714607	1000.00	1040	219.93- 259.93	239.93

Average of Peak Amounts = 1.04e+03

Data File: /chem/ecd1a.i/123009.b/007f0701.d
Date : 30-DEC-2009 08:43
Client ID: AR122101
Sample Info: IWAR090803-21

Column phase: CLP1

Instrument: ecd1a.i

Operator: JAOC
Column diameter: 0.25

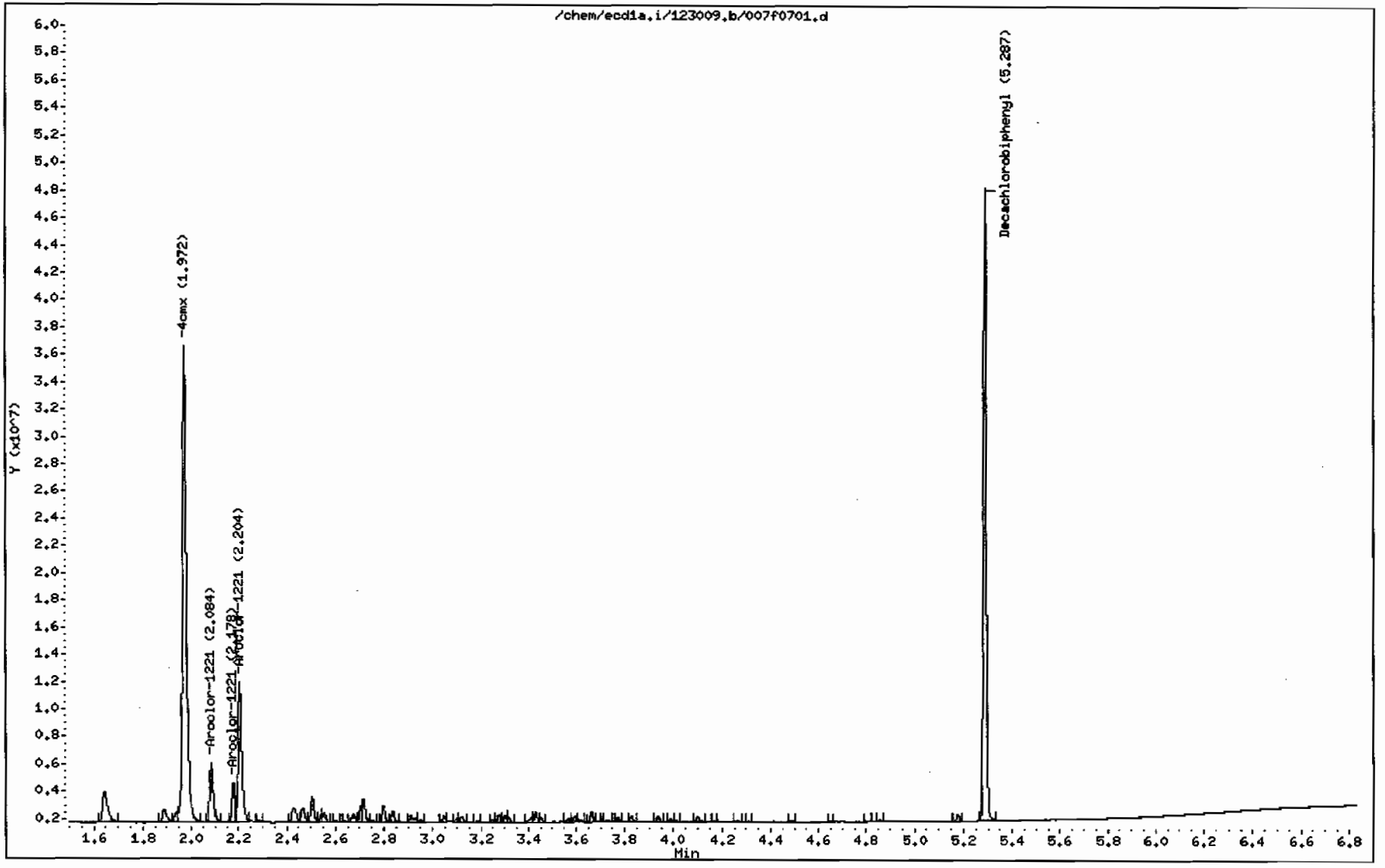

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/123009.b/007b0701.d
Lab Smp Id: WAR090803-21 Client Smp ID: AR122101
Inj Date : 30-DEC-2009 08:43
Operator : JAOC Inst ID: ecd1a.i
Smp Info : |WAR090803-21
Misc Info :
Comment :
Method : /chem/ecd1a.i/123009.b/ECD1-B-8082-121409.m
Meth Date : 30-Dec-2009 10:01 jen01212 Quant Type: ESTD
Cal Date : 14-DEC-2009 12:16 Cal File: 044b4401.d
Als bottle: 7 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1221.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.303	2.303	0.000	30753245	100.000	102	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.950	5.949	0.001	25608987	100.000	110	80.00- 120.00	100.00
2 Aroclor-1221					CAS #: 11104-28-2		
2.499	2.499	0.000	4087797	1000.00	1120	80.00- 120.00	100.00
2.594	2.594	0.000	2463313	1000.00	1060	40.26- 80.26	60.26
2.635	2.635	0.000	8554558	1000.00	1050	189.27- 229.27	209.27

Average of Peak Amounts = 1.08e+03

Data File: /chem/ecd1a.i/123009.b/007b0701.d
Date : 30-DEC-2009 08:43
Client ID: AR122101
Sample Info: IWAR090803-21

Column phase: CLP2

Instrument: ecd1a.i

Operator: JAOC
Column diameter: 0.25

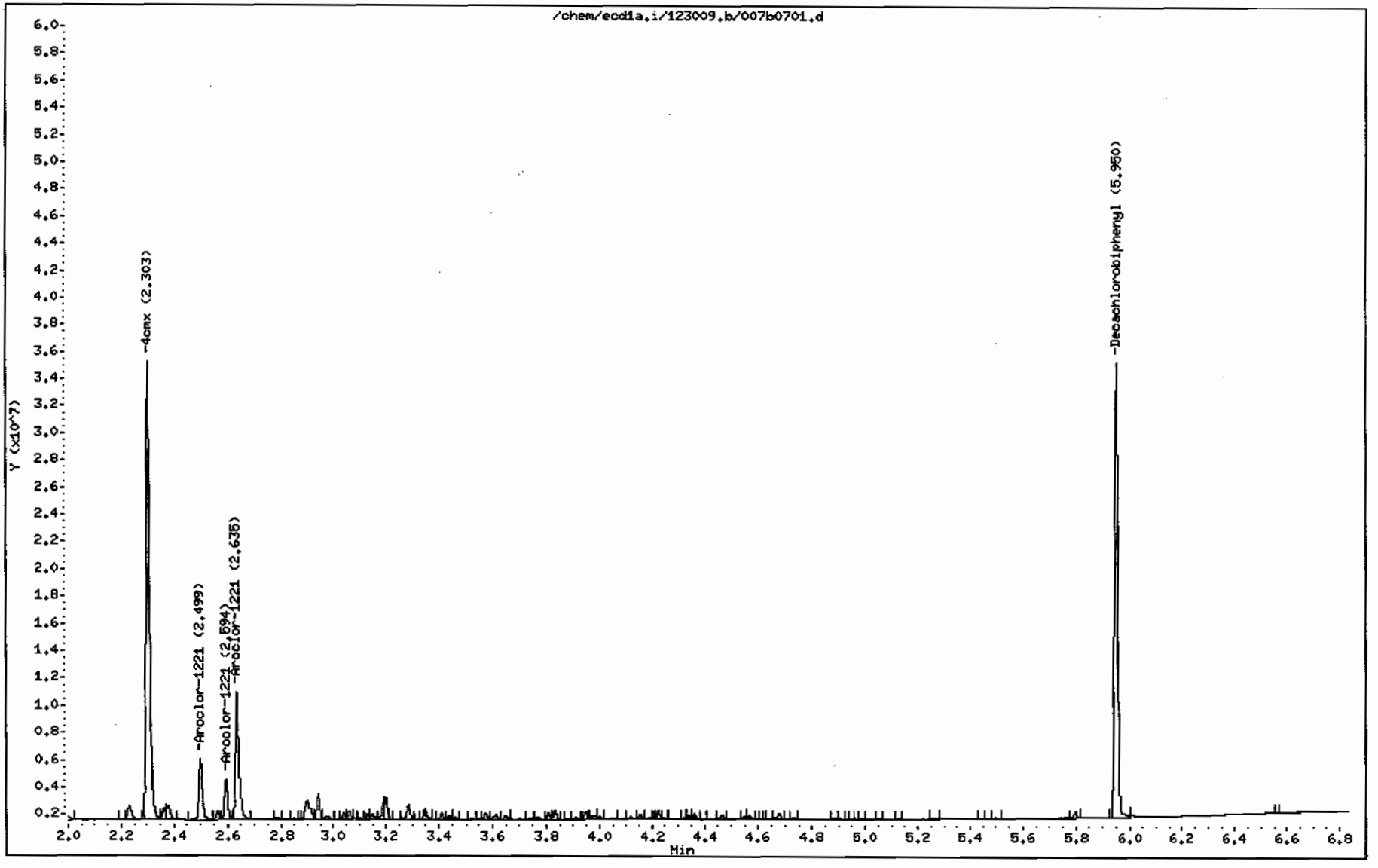

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/123009.b/028f2801.d
Lab Smp Id: WAR091211-60 03 Client Smp ID: AR166003
Inj Date : 30-DEC-2009 12:24
Operator : JAOC Inst ID: ecd1a.i
Smp Info : |WAR091211-60 03
Misc Info :
Comment :
Method : /chem/ecd1a.i/123009.b/ECD1-F-8082-121409.m
Meth Date : 30-Dec-2009 12:56 jen01212 Quant Type: ESTD
Cal Date : 14-DEC-2009 11:34 Cal File: 040f4001.d
Als bottle: 28 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.970	1.972	-0.002	36952081	100.000	98.4	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.285	5.287	-0.002	32571930	100.000	102	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.426	2.428	-0.002	12218879	1000.00	881	80.00- 120.00	100.00
2.704	2.705	-0.001	10309388	1000.00	1020	64.37- 104.37	84.37
2.796	2.798	-0.002	10597479	1000.00	901	66.73- 106.73	86.73
2.835	2.835	0.000	6375826	1000.00	966	32.18- 72.18	52.18
3.045	3.046	-0.001	8264359	1000.00	953	47.64- 87.64	67.64
Average of Peak Amounts =					945		
7 Aroclor-1260					CAS #: 11096-82-5		
3.772	3.773	-0.001	16360737	1000.00	977	80.00- 120.00	100.00
3.935	3.936	-0.001	25324946	1000.00	1020	134.79- 174.79	154.79
4.165	4.166	-0.001	15115197	1000.00	1030	72.39- 112.39	92.39
4.307	4.308	-0.001	15867070	1000.00	1040	76.98- 116.98	96.98
4.486	4.488	-0.002	36779997	1000.00	1070	204.81- 244.81	224.81
Average of Peak Amounts =					1.03e+03		

Data File: /chem/ecd1a.i/123009.b/028f2801.d
Date : 30-DEC-2009 12:24
Client ID: AR166003
Sample Info: IWAR091211-60 03

Column phase: CLP1

Instrument: ecd1a.i

Operator: JAOC
Column diameter: 0.25

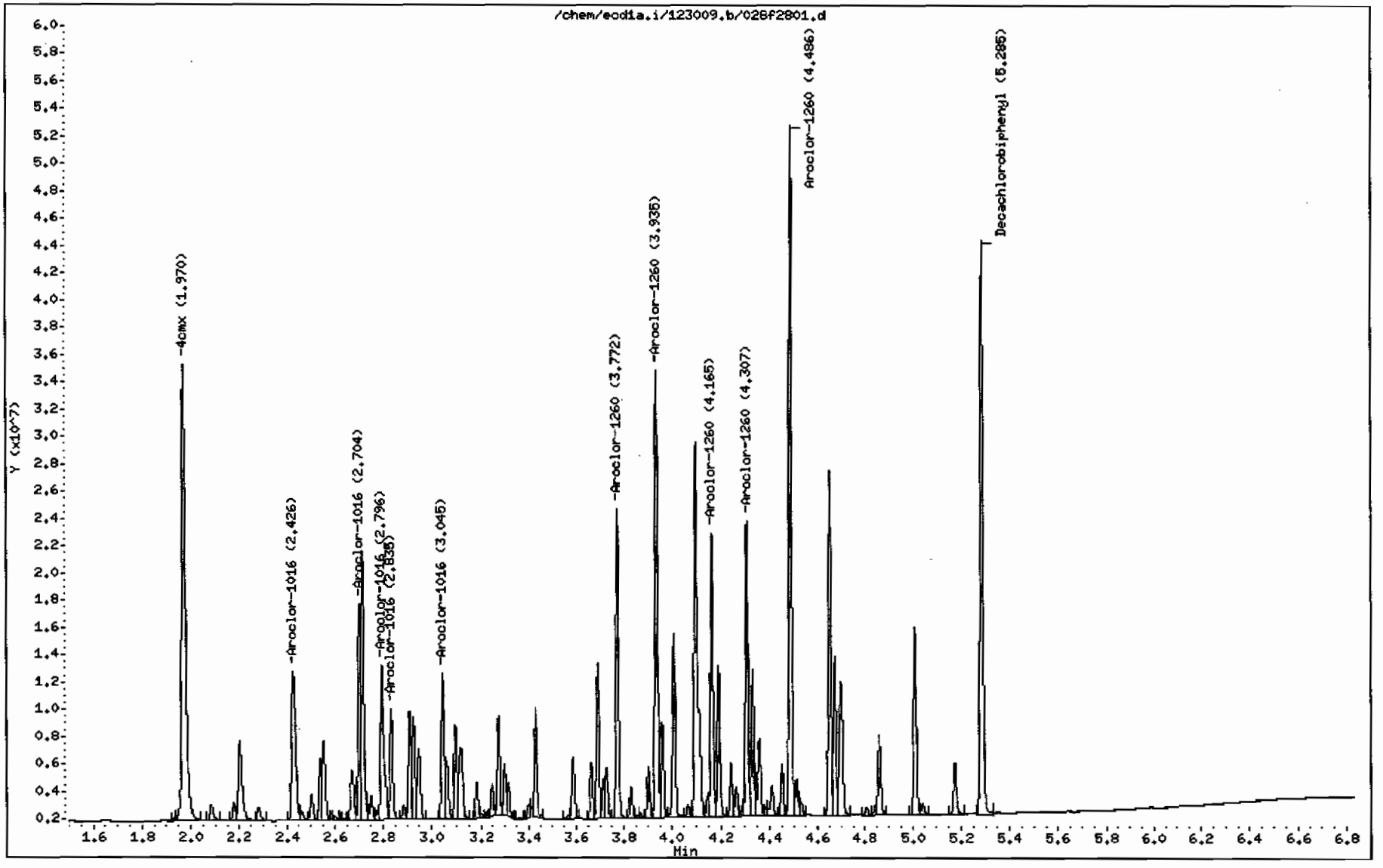

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/123009.b/028b2801.d
Lab Smp Id: WAR091211-60 03 Client Smp ID: AR166003
Inj Date : 30-DEC-2009 12:24
Operator : JAOC Inst ID: ecd1a.i
Smp Info : |WAR091211-60 03
Misc Info :
Comment :
Method : /chem/ecd1a.i/123009.b/ECD1-B-8082-121409.m
Meth Date : 30-Dec-2009 12:55 jen01212 Quant Type: ESTD
Cal Date : 14-DEC-2009 12:16 Cal File: 044b4401.d
Als bottle: 28 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.302	2.303	-0.001	28602390	100.000	95.3	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.948	5.949	-0.001	23670426	100.000	101	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.200	3.200	0.000	11986954	1000.00	950	80.00- 120.00	100.00
3.282	3.283	-0.001	8048707	1000.00	863	47.15- 87.15	67.15
3.346	3.347	-0.001	5002513	1000.00	924	21.73- 61.73	41.73
3.574	3.574	0.000	6528762	1000.00	926	34.47- 74.47	54.47
3.649	3.650	-0.001	5996959	1000.00	915	30.03- 70.03	50.03
Average of Peak Amounts =					916		
7 Aroclor-1260					CAS #: 11096-82-5		
4.339	4.340	-0.001	12544558	1000.00	917	80.00- 120.00	100.00
4.464	4.464	0.000	15416214	1000.00	962	102.89- 142.89	122.89
4.730	4.731	-0.001	11870024	1000.00	945	74.62- 114.62	94.62
4.904	4.905	-0.001	12265138	1000.00	957	77.77- 117.77	97.77
5.050	5.051	-0.001	28017847	1000.00	1000	203.35- 243.35	223.35
Average of Peak Amounts =					957		

Data File: /chem/ecd1a.i/123009.b/028b2801.d

Date : 30-DEC-2009 12:24

Client ID: AR166003

Sample Info: IWAR091211-60 03

Column phase: CLP2

Instrument: ecd1a.i

Operator: JADC

Column diameter: 0.25

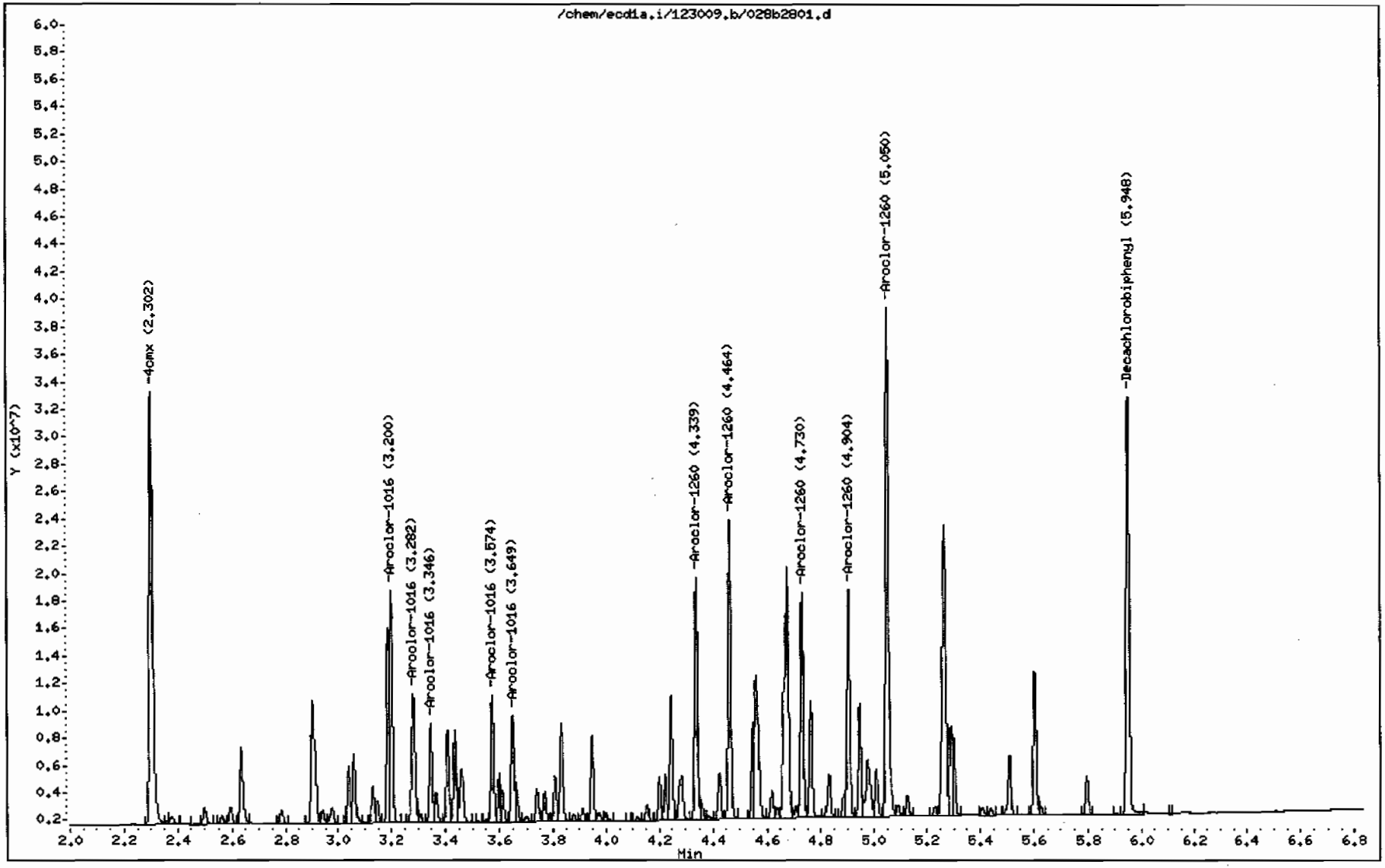

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/123009.b/040f4001.d
Lab Smp Id: WAR091211-60 04 Client Smp ID: AR166004
Inj Date : 30-DEC-2009 14:30
Operator : JAOC Inst ID: ecd1a.i
Smp Info : |WAR091211-60 04
Misc Info :
Comment :
Method : /chem/ecd1a.i/123009.b/ECD1-F-8082-121409.m
Meth Date : 31-Dec-2009 08:24 jen01212 Quant Type: ESTD
Cal Date : 14-DEC-2009 11:34 Cal File: 040f4001.d
Als bottle: 40 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.972	1.972	0.000	38178116	100.000	102	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.285	5.287	-0.002	34381947	100.000	108	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.427	2.428	-0.001	12628616	1000.00	911	80.00- 120.00	100.00
2.704	2.705	-0.001	10613649	1000.00	1050	62.52- 102.52	84.04
2.797	2.798	-0.001	10947178	1000.00	931	66.47- 106.47	86.69
2.834	2.835	-0.001	6556315	1000.00	994	32.13- 72.13	51.92
3.045	3.046	-0.001	8494168	1000.00	979	46.62- 86.62	67.26
Average of Peak Amounts =					973		
7 Aroclor-1260					CAS #: 11096-82-5		
3.771	3.773	-0.002	17088963	1000.00	1020	80.00- 120.00	100.00
3.934	3.936	-0.002	26441056	1000.00	1070	134.25- 174.25	154.73
4.164	4.166	-0.002	15786747	1000.00	1070	72.46- 112.46	92.38
4.308	4.308	0.000	16602793	1000.00	1090	76.84- 116.84	97.16
4.487	4.488	-0.001	38280473	1000.00	1110	203.73- 243.73	224.01
Average of Peak Amounts =					1.07e+03		

Data File: /chem/ecdia.i/123009.b/040f4001.d
Date : 30-DEC-2009 14:30
Client ID: AR166004
Sample Info: IWAR091211-60 04

Column phase: CLP1

Instrument: ecdia.i
Operator: JAOC
Column diameter: 0.25

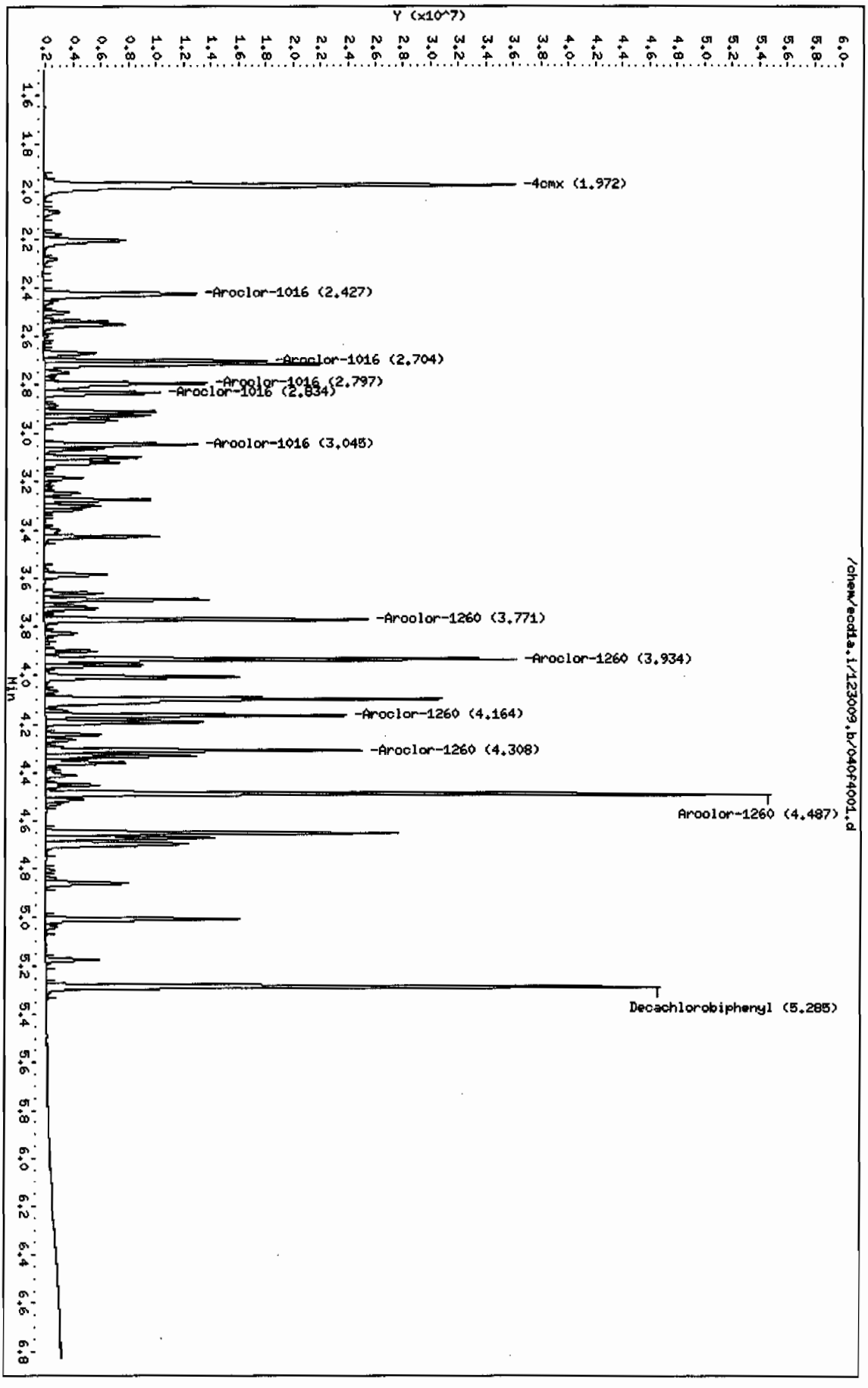

Page 1

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/123009.b/040b4001.d
Lab Smp Id: WAR091211-60 04 Client Smp ID: AR166004
Inj Date : 30-DEC-2009 14:30
Operator : JAOC Inst ID: ecd1a.i
Smp Info : |WAR091211-60 04
Misc Info :
Comment :
Method : /chem/ecd1a.i/123009.b/ECD1-B-8082-121409.m
Meth Date : 31-Dec-2009 08:30 jen01212 Quant Type: ESTD
Cal Date : 14-DEC-2009 12:16 Cal File: 044b4401.d
Als bottle: 40 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.303	2.303	0.000	29870096	100.000	99.6	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.949	5.949	0.000	25113711	100.000	108	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.199	3.200	-0.001	12840174	1000.00	1020	80.00- 120.00	100.00
3.283	3.283	0.000	8476812	1000.00	909	45.95- 85.95	66.02
3.346	3.347	-0.001	5277131	1000.00	975	21.30- 61.30	41.10
3.573	3.574	-0.001	6897786	1000.00	978	33.35- 73.35	53.72
3.648	3.650	-0.002	6365166	1000.00	972	29.00- 69.00	49.57
Average of Peak Amounts =					970		
7 Aroclor-1260					CAS #: 11096-82-5		
4.339	4.340	-0.001	13280554	1000.00	971	80.00- 120.00	100.00
4.464	4.464	0.000	16433880	1000.00	1020	103.77- 143.77	123.74
4.730	4.731	-0.001	12607227	1000.00	1000	74.68- 114.68	94.93
4.904	4.905	-0.001	13050459	1000.00	1020	77.13- 117.13	98.27
5.050	5.051	-0.001	29709618	1000.00	1060	200.92- 240.92	223.71
Average of Peak Amounts =					1.02e+03		

Data File: /chem/ecd1a.i/123009.b/040b4001.d
Date : 30-DEC-2009 14:30
Client ID: AR166004
Sample Info: IWAR091211-60 04

Column phase: CLP2

Instrument: ecd1a.i

Operator: JAOC
Column diameter: 0.25

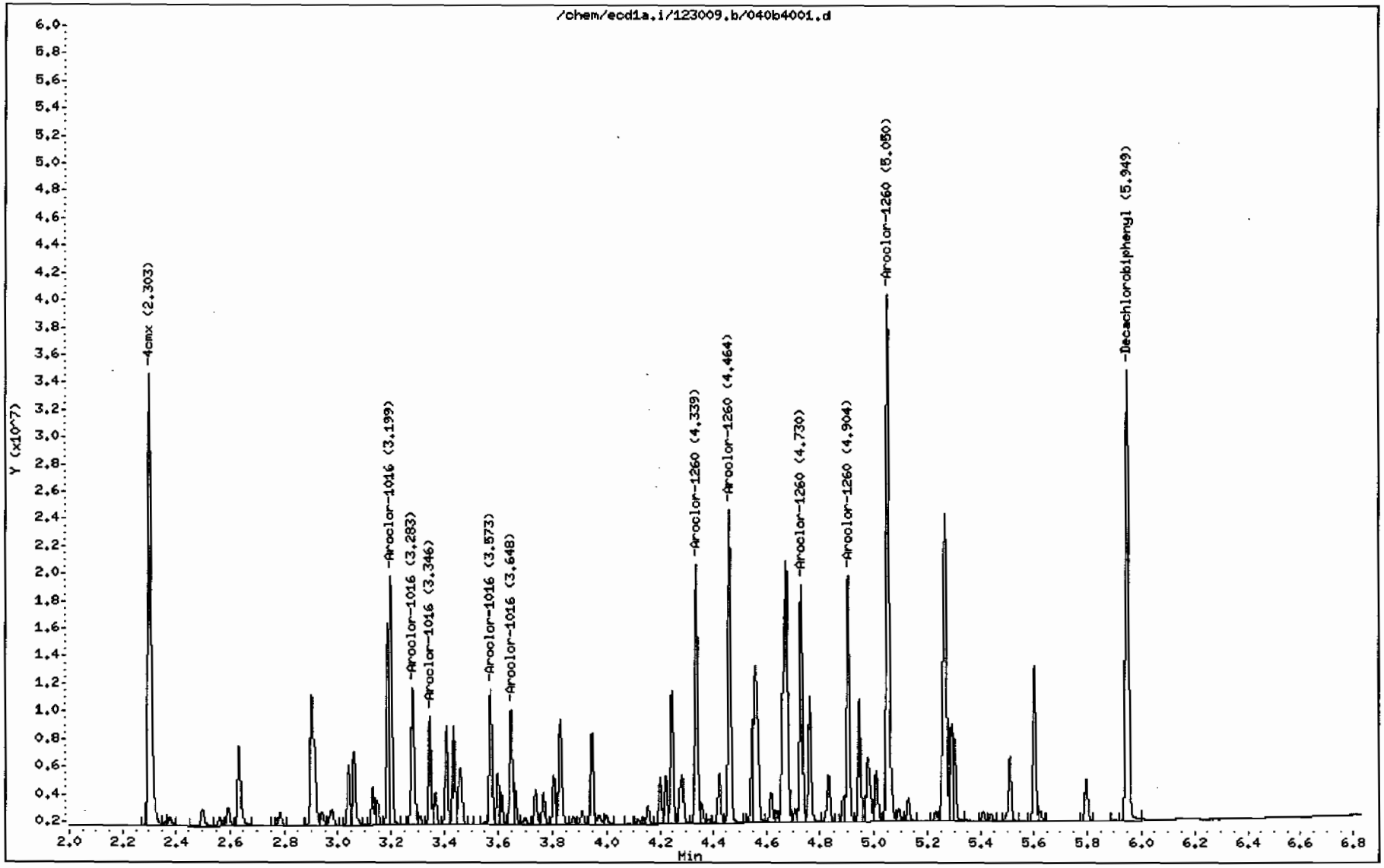

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1085

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 12/14/09 12/14/09

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 1.97 DCB: 5.29

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR091130-99	12/14/09	0444	1.97	5.29
02	ZZZZZ	ZZZZZ	12/14/09	0454	1.97	5.29
03	ZZZZZ	ZZZZZ	12/14/09	0505	1.97	5.29
04	ZZZZZ	ZZZZZ	12/14/09	0515	1.97	5.29
05	ZZZZZ	ZZZZZ	12/14/09	0526	1.97	5.29
06	AR123201	WAR090930-32	12/14/09	0536	1.97	5.29
07	AR122101	WAR090803-21	12/14/09	0547	1.97	5.29
08	AR126201	WAR090803-62	12/14/09	0558	1.97	5.29
09	ZZZZZ	ZZZZZ	12/14/09	0608	1.97	5.29
10	ZZZZZ	ZZZZZ	12/14/09	0619	1.97	5.29
11	ZZZZZ	ZZZZZ	12/14/09	0629	1.97	5.29
12	ZZZZZ	ZZZZZ	12/14/09	0640	1.97	5.29
13	ZZZZZ	ZZZZZ	12/14/09	0650	1.97	5.29
14	ZZZZZ	ZZZZZ	12/14/09	0701	1.97	5.29
15	ZZZZZ	ZZZZZ	12/14/09	0711	1.97	5.29
16	AR125401	WAR091214-05	12/14/09	0722	1.97	5.29
17	AR125402	WAR091214-06	12/14/09	0732	1.97	5.29
18	AR125403	WAR091214-07	12/14/09	0743	1.97	5.29
19	AR125404	WAR091214-08	12/14/09	0753	1.97	5.29
20	AR125405	IAR091027-01	12/14/09	0804	1.97	5.29
21	AR125401	WAR091102-54	12/14/09	0814	1.97	5.29
22	AR124201	WAR091214-09	12/14/09	0825	1.97	5.29
23	AR124202	WAR091214-10	12/14/09	0835	1.97	5.29
24	AR124203	WAR091214-11	12/14/09	0846	1.97	5.29
25	AR124204	WAR091214-12	12/14/09	0856	1.97	5.29
26	AR124205	IAR0911111-0	12/14/09	0907	1.97	5.29
27	AR124201	WAR091102-42	12/14/09	0917	1.97	5.29
28	AR124801	WAR091214-13	12/14/09	0928	1.97	5.29
29	AR124802	WAR091214-14	12/14/09	0938	1.97	5.29
30	AR124803	WAR091214-15	12/14/09	0949	1.97	5.29
31	AR124804	WAR091214-16	12/14/09	0959	1.97	5.29
32	AR124805	IAR091027-02	12/14/09	1010	1.97	5.29

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1085

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 12/14/09 12/14/09

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 1.97 DCB: 5.29

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	AR124801	WAR091027-48	12/14/09	1020	1.97	5.29
02	AR166001	WAR091214-01	12/14/09	1031	1.97	5.29
03	AR166002	WAR091214-02	12/14/09	1041	1.97	5.29
04	AR166003	WAR091214-03	12/14/09	1052	1.97	5.29
05	AR166004	WAR091214-04	12/14/09	1102	1.97	5.29
06	AR166005	IAR091102-01	12/14/09	1113	1.97	5.29
07	AR166001	WAR091211-60	12/14/09	1123	1.97	5.29
08	AR126801	WAR091214-17	12/14/09	1134	1.97	5.29
09	AR126802	WAR091214-18	12/14/09	1144	1.97	5.29
10	AR126803	WAR091214-19	12/14/09	1155	1.97	5.29
11	AR126804	WAR091214-20	12/14/09	1206	1.97	5.29
12	AR126805	IAR090817-02	12/14/09	1216	1.97	5.29
13	AR126801	WAR091106-68	12/14/09	1227	1.97	5.29
14	DDTANALOGSTD	WAR091020-DD	12/14/09	1237		
15	PIBLK02	WAR091130-99	12/14/09	1248	1.97	5.29
16	ZZZZZ	ZZZZZ	12/14/09	1258	1.97	5.29
17	ZZZZZ	ZZZZZ	12/14/09	1309	1.97	5.29
18	ZZZZZ	ZZZZZ	12/14/09	1319	1.97	5.29
19	ZZZZZ	ZZZZZ	12/14/09	1330	1.97	5.29
20	ZZZZZ	ZZZZZ	12/14/09	1340	1.97	5.29
21	ZZZZZ	ZZZZZ	12/14/09	1351	1.97	5.29
22	ZZZZZ	ZZZZZ	12/14/09	1403	1.97	5.29
23	ZZZZZ	ZZZZZ	12/14/09	1416	1.97	5.29
24	ZZZZZ	ZZZZZ	12/14/09	1429	1.97	5.29
25	ZZZZZ	ZZZZZ	12/14/09	1441	1.97	5.29
26	AR166002	WAR091211-60	12/14/09	1452	1.97	5.29
27	PIBLK03	WAR091130-99	12/14/09	1502	1.97	5.29
28	ZZZZZ	ZZZZZ	12/14/09	1513	1.97	5.29
29	ZZZZZ	ZZZZZ	12/14/09	1525	1.97	5.29
30	ZZZZZ	ZZZZZ	12/14/09	1538	1.97	5.29
31	ZZZZZ	ZZZZZ	12/14/09	1551	1.97	5.29
32	ZZZZZ	ZZZZZ	12/14/09	1603	1.97	5.27

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1085

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 12/14/09 12/14/09

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.30 DCB: 5.94

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR091130-99	12/14/09	0444	2.30	5.95
02	ZZZZZ	ZZZZZ	12/14/09	0454	2.30	5.94
03	ZZZZZ	ZZZZZ	12/14/09	0505	2.30	5.95
04	ZZZZZ	ZZZZZ	12/14/09	0515	2.30	5.95
05	ZZZZZ	ZZZZZ	12/14/09	0526	2.30	5.95
06	AR123201	WAR090930-32	12/14/09	0536	2.30	5.95
07	AR122101	WAR090803-21	12/14/09	0547	2.30	5.95
08	AR126201	WAR090803-62	12/14/09	0558	2.30	5.94
09	ZZZZZ	ZZZZZ	12/14/09	0608	2.30	5.94
10	ZZZZZ	ZZZZZ	12/14/09	0619	2.30	5.95
11	ZZZZZ	ZZZZZ	12/14/09	0629	2.30	5.94
12	ZZZZZ	ZZZZZ	12/14/09	0640	2.30	5.94
13	ZZZZZ	ZZZZZ	12/14/09	0650	2.30	5.95
14	ZZZZZ	ZZZZZ	12/14/09	0701	2.30	5.94
15	ZZZZZ	ZZZZZ	12/14/09	0711	2.30	5.95
16	AR125401	WAR091214-05	12/14/09	0722	2.30	5.94
17	AR125402	WAR091214-06	12/14/09	0732	2.30	5.94
18	AR125403	WAR091214-07	12/14/09	0743	2.30	5.94
19	AR125404	WAR091214-08	12/14/09	0753	2.30	5.94
20	AR125405	IAR091027-01	12/14/09	0804	2.30	5.95
21	AR125401	WAR091102-54	12/14/09	0814	2.30	5.94
22	AR124201	WAR091214-09	12/14/09	0825	2.30	5.94
23	AR124202	WAR091214-10	12/14/09	0835	2.30	5.94
24	AR124203	WAR091214-11	12/14/09	0846	2.30	5.94
25	AR124204	WAR091214-12	12/14/09	0856	2.30	5.94
26	AR124205	IAR0911111-0	12/14/09	0907	2.30	5.94
27	AR124201	WAR091102-42	12/14/09	0917	2.30	5.94
28	AR124801	WAR091214-13	12/14/09	0928	2.30	5.94
29	AR124802	WAR091214-14	12/14/09	0938	2.30	5.94
30	AR124803	WAR091214-15	12/14/09	0949	2.30	5.94
31	AR124804	WAR091214-16	12/14/09	0959	2.30	5.94
32	AR124805	IAR091027-02	12/14/09	1010	2.30	5.94

QC LIMITS
S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1085

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 12/14/09 12/14/09

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.30 DCB: 5.94

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	AR124801	WAR091027-48	12/14/09	1020	2.30	5.95
02	AR166001	WAR091214-01	12/14/09	1031	2.30	5.94
03	AR166002	WAR091214-02	12/14/09	1041	2.30	5.94
04	AR166003	WAR091214-03	12/14/09	1052	2.30	5.94
05	AR166004	WAR091214-04	12/14/09	1102	2.30	5.94
06	AR166005	IAR091102-01	12/14/09	1113	2.30	5.94
07	AR166001	WAR091211-60	12/14/09	1123	2.30	5.94
08	AR126801	WAR091214-17	12/14/09	1134	2.30	5.95
09	AR126802	WAR091214-18	12/14/09	1144	2.30	5.94
10	AR126803	WAR091214-19	12/14/09	1155	2.30	5.94
11	AR126804	WAR091214-20	12/14/09	1206	2.30	5.94
12	AR126805	IAR090817-02	12/14/09	1216	2.30	5.94
13	AR126801	WAR091106-68	12/14/09	1227	2.30	5.94
14	DDTANALOGSTD	WAR091020-DD	12/14/09	1237		
15	PIBLK02	WAR091130-99	12/14/09	1248	2.30	5.94
16	ZZZZZ	ZZZZZ	12/14/09	1258	2.30	5.94
17	ZZZZZ	ZZZZZ	12/14/09	1309	2.30	5.94
18	ZZZZZ	ZZZZZ	12/14/09	1319	2.30	5.94
19	ZZZZZ	ZZZZZ	12/14/09	1330	2.30	5.94
20	ZZZZZ	ZZZZZ	12/14/09	1340	2.30	5.94
21	ZZZZZ	ZZZZZ	12/14/09	1351	2.30	5.94
22	ZZZZZ	ZZZZZ	12/14/09	1403	2.30	5.94
23	ZZZZZ	ZZZZZ	12/14/09	1416	2.30	5.94
24	ZZZZZ	ZZZZZ	12/14/09	1429	2.30	5.94
25	ZZZZZ	ZZZZZ	12/14/09	1441	2.30	5.94
26	AR166002	WAR091211-60	12/14/09	1452	2.30	5.94
27	PIBLK03	WAR091130-99	12/14/09	1502	2.30	5.94
28	ZZZZZ	ZZZZZ	12/14/09	1513	2.30	5.94
29	ZZZZZ	ZZZZZ	12/14/09	1525	2.30	5.94
30	ZZZZZ	ZZZZZ	12/14/09	1538	2.30	5.94
31	ZZZZZ	ZZZZZ	12/14/09	1551	2.30	5.94
32	ZZZZZ	ZZZZZ	12/14/09	1603	2.30	5.94

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1085

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 12/14/09 12/14/09

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 1.97 DCB: 5.29

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR091130-99	12/30/09	0740	1.97	5.29
02	AR166001	WAR091211-60	12/30/09	0751	1.97	5.29
03	AR125401	WAR091216-54	12/30/09	0801	1.97	5.29
04	AR124201	WAR091102-42	12/30/09	0812	1.97	5.29
05	AR124801	WAR091027-48	12/30/09	0822	1.97	5.29
06	AR123201	WAR090930-32	12/30/09	0833	1.97	5.29
07	AR122101	WAR090803-21	12/30/09	0843	1.97	5.29
08	AR126201	WAR090803-62	12/30/09	0854	1.97	5.29
09	AR126801	WAR091106-68	12/30/09	0904	1.97	5.29
10	ZZZZZ	ZZZZZ	12/30/09	0915	1.97	5.29
11	DDTANALOGSTD	WAR091219-DD	12/30/09	0925		
12	PIBLK02	WAR091130-99	12/30/09	0936	1.97	5.29
13	ZZZZZ	ZZZZZ	12/30/09	0946	1.97	5.29
14	ZZZZZ	ZZZZZ	12/30/09	0957	1.97	5.29
15	ZZZZZ	ZZZZZ	12/30/09	1007	1.97	5.29
16	ZZZZZ	ZZZZZ	12/30/09	1018	1.97	5.29
17	ZZZZZ	ZZZZZ	12/30/09	1028	1.97	5.28
18	ZZZZZ	ZZZZZ	12/30/09	1039	1.97	5.29
19	ZZZZZ	ZZZZZ	12/30/09	1049	1.97	5.29
20	ZZZZZ	ZZZZZ	12/30/09	1100	1.97	5.29
21	ZZZZZ	ZZZZZ	12/30/09	1110	1.97	5.29
22	AR166002	WAR091211-60	12/30/09	1121	1.97	5.28
23	PIBLK03	WAR091130-99	12/30/09	1131	1.97	5.28
24	ZZZZZ	ZZZZZ	12/30/09	1142	1.97	5.28
25	ZZZZZ	ZZZZZ	12/30/09	1152	1.97	5.29
26	ZZZZZ	ZZZZZ	12/30/09	1203	1.97	5.28
27	ZZZZZ	ZZZZZ	12/30/09	1213	1.97	5.28
28	AR166003	WAR091211-60	12/30/09	1224	1.97	5.29
29	PIBLK04	WAR091130-99	12/30/09	1234	1.97	5.29
30	PBLK01	1202005418	12/30/09	1245	1.97	5.28
31	PBLK01LCS	1202005419	12/30/09	1255	1.97	5.29
32	WST03-10-2148	243549002	12/30/09	1306	1.97	5.28

QC LIMITS
S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1085

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 12/14/09 12/14/09

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 1.97 DCB: 5.29

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	ZZZZZ	ZZZZZ	12/30/09	1316	1.97	5.28
02	ZZZZZ	ZZZZZ	12/30/09	1327	1.97	5.28
03	ZZZZZ	ZZZZZ	12/30/09	1337	1.97	5.28
04	ZZZZZ	ZZZZZ	12/30/09	1348	1.97	5.28
05	ZZZZZ	ZZZZZ	12/30/09	1358	1.97	5.29
06	ZZZZZ	ZZZZZ	12/30/09	1409	1.97	5.28
07	ZZZZZ	ZZZZZ	12/30/09	1420	1.97	5.29
08	AR166004	WAR091211-60	12/30/09	1430	1.97	5.29
09	PIBLK05	WAR091130-99	12/30/09	1441	1.97	5.28
10	ZZZZZ	ZZZZZ	12/30/09	1451	1.97	5.29
11	ZZZZZ	ZZZZZ	12/30/09	1502	1.97	5.28
12	ZZZZZ	ZZZZZ	12/30/09	1512	1.97	5.28
13	ZZZZZ	ZZZZZ	12/30/09	1523	1.97	5.29
14	ZZZZZ	ZZZZZ	12/30/09	1533	1.97	5.29
15	ZZZZZ	ZZZZZ	12/30/09	1544	1.97	5.28
16	ZZZZZ	ZZZZZ	12/30/09	1554	1.97	5.28
17	ZZZZZ	ZZZZZ	12/30/09	1605	1.97	5.28
18	AR166005	WAR091211-60	12/30/09	1615	1.97	5.29
19	ZZZZZ	ZZZZZ	12/30/09	1626	1.97	5.29
20	PIBLK06	WAR091130-99	12/30/09	1636	1.97	5.28
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						
31						
32						

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1085

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 12/14/09 12/14/09

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.30 DCB: 5.95

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR091130-99	12/30/09	0740	2.30	5.95
02	AR166001	WAR091211-60	12/30/09	0751	2.30	5.95
03	AR125401	WAR091216-54	12/30/09	0801	2.30	5.95
04	AR124201	WAR091102-42	12/30/09	0812	2.30	5.95
05	AR124801	WAR091027-48	12/30/09	0822	2.30	5.95
06	AR123201	WAR090930-32	12/30/09	0833	2.30	5.95
07	AR122101	WAR090803-21	12/30/09	0843	2.30	5.95
08	AR126201	WAR090803-62	12/30/09	0854	2.30	5.95
09	AR126801	WAR091106-68	12/30/09	0904	2.30	5.95
10	ZZZZZ	ZZZZZ	12/30/09	0915	2.30	5.95
11	DDTANALOGSTD	WAR091219-DD	12/30/09	0925		
12	PIBLK02	WAR091130-99	12/30/09	0936	2.30	5.95
13	ZZZZZ	ZZZZZ	12/30/09	0946	2.30	5.95
14	ZZZZZ	ZZZZZ	12/30/09	0957	2.30	5.95
15	ZZZZZ	ZZZZZ	12/30/09	1007	2.30	5.95
16	ZZZZZ	ZZZZZ	12/30/09	1018	2.30	5.95
17	ZZZZZ	ZZZZZ	12/30/09	1028	2.30	5.95
18	ZZZZZ	ZZZZZ	12/30/09	1039	2.30	5.95
19	ZZZZZ	ZZZZZ	12/30/09	1049	2.30	5.95
20	ZZZZZ	ZZZZZ	12/30/09	1100	2.30	5.95
21	ZZZZZ	ZZZZZ	12/30/09	1110	2.30	5.95
22	AR166002	WAR091211-60	12/30/09	1121	2.30	5.95
23	PIBLK03	WAR091130-99	12/30/09	1131	2.30	5.95
24	ZZZZZ	ZZZZZ	12/30/09	1142	2.30	5.95
25	ZZZZZ	ZZZZZ	12/30/09	1152	2.30	5.95
26	ZZZZZ	ZZZZZ	12/30/09	1203	2.30	5.95
27	ZZZZZ	ZZZZZ	12/30/09	1213	2.30	5.95
28	AR166003	WAR091211-60	12/30/09	1224	2.30	5.95
29	PIBLK04	WAR091130-99	12/30/09	1234	2.30	5.95
30	PBLK01	1202005418	12/30/09	1245	2.30	5.95
31	PBLK01LCS	1202005419	12/30/09	1255	2.30	5.95
32	WST03-10-2148	243549002	12/30/09	1306	2.30	5.95

QC LIMITS
S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1085

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 12/14/09 12/14/09

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.30 DCB: 5.95

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	ZZZZZ	ZZZZZ	12/30/09	1316	2.30	5.95
02	ZZZZZ	ZZZZZ	12/30/09	1327	2.30	5.95
03	ZZZZZ	ZZZZZ	12/30/09	1337	2.30	5.95
04	ZZZZZ	ZZZZZ	12/30/09	1348	2.30	5.95
05	ZZZZZ	ZZZZZ	12/30/09	1358	2.30	5.95
06	ZZZZZ	ZZZZZ	12/30/09	1409	2.30	5.95
07	ZZZZZ	ZZZZZ	12/30/09	1420	2.30	5.95
08	AR166004	WAR091211-60	12/30/09	1430	2.30	5.95
09	PIBLK05	WAR091130-99	12/30/09	1441	2.30	5.95
10	ZZZZZ	ZZZZZ	12/30/09	1451	2.30	5.95
11	ZZZZZ	ZZZZZ	12/30/09	1502	2.30	5.95
12	ZZZZZ	ZZZZZ	12/30/09	1512	2.30	5.95
13	ZZZZZ	ZZZZZ	12/30/09	1523	2.30	5.95
14	ZZZZZ	ZZZZZ	12/30/09	1533	2.30	5.95
15	ZZZZZ	ZZZZZ	12/30/09	1544	2.30	5.95
16	ZZZZZ	ZZZZZ	12/30/09	1554	2.30	5.95
17	ZZZZZ	ZZZZZ	12/30/09	1605	2.30	5.95
18	AR166005	WAR091211-60	12/30/09	1615	2.30	5.95
19	ZZZZZ	ZZZZZ	12/30/09	1626	2.30	5.95
20	PIBLK06	WAR091130-99	12/30/09	1636	2.30	5.95
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						
31						
32						

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

Identification Summary

SDG Number: 10-1085 **Client ID:** LCS for batch 937176

Lab Sample ID: 1202005419

Data File:	031f3101.d	**Data File:**	031b3101.d
Inst:	ECD1A.I_1	**Inst:**	ECD1A.I_2
Column:	CLP1	**Column:**	CLP2
Analyzed:	30-DEC-09 12:55	**Analyzed:**	30-DEC-09 12:55

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor-1016							3.79
Column 1	1	2.43	2.4 – 2.46	21.9		ug/kg	
	2	2.7	2.68 – 2.74	25.6		ug/kg	
	3	2.8	2.77 – 2.83	22.9		ug/kg	
	4	2.83	2.81 – 2.87	24.3		ug/kg	
	5	3.04	3.02 – 3.08	24.3		ug/kg	
					23.8		
Column 2	1	3.2	3.17 – 3.23	24.5		ug/kg	
	2	3.28	3.25 – 3.31	22.6		ug/kg	
	3	3.35	3.32 – 3.38	23.7		ug/kg	
	4	3.57	3.54 – 3.6	23.8		ug/kg	
	5	3.65	3.62 – 3.68	28.9		ug/kg	
					24.7		
Aroclor-1260							5.81
Column 1	1	3.77	3.74 – 3.8	28.2		ug/kg	
	2	3.93	3.91 – 3.97	29.8		ug/kg	
	3	4.16	4.14 – 4.2	30.3		ug/kg	
	4	4.31	4.28 – 4.34	30.5		ug/kg	
	5	4.49	4.46 – 4.52	31.9		ug/kg	
					30.1		
Column 2	1	4.34	4.31 – 4.37	26.7		ug/kg	
	2	4.46	4.43 – 4.49	28.5		ug/kg	
	3	4.73	4.7 – 4.76	28.1		ug/kg	
	4	4.9	4.88 – 4.94	28.6		ug/kg	
	5	5.05	5.02 – 5.08	30.3		ug/kg	
					28.4		

QUALITY CONTROL DATA

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–1085**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202005418**				
Client Sample:	**QC for batch 937176**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 937176**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**937178**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**12/30/2009 12:45**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**12/29/2009 09:29**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**030f3001–1.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	030b3001–1.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	3.33	ug/kg	1.11	3.33	1
11104–28–2	Aroclor–1221	U	3.33	ug/kg	1.11	3.33	1
11141–16–5	Aroclor–1232	U	3.33	ug/kg	1.11	3.33	1
53469–21–9	Aroclor–1242	U	3.33	ug/kg	1.11	3.33	1
12672–29–6	Aroclor–1248	U	3.33	ug/kg	1.11	3.33	1
11097–69–1	Aroclor–1254	U	3.33	ug/kg	1.11	3.33	1
11096–82–5	Aroclor–1260	U	3.33	ug/kg	1.11	3.33	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/123009.b/030f3001.d
Lab Smp Id: 1202005418 Client Smp ID: PBLK01
Inj Date : 30-DEC-2009 12:45
Operator : JAOC Inst ID: ecd1a.i
Smp Info : |1202005418|1|
Misc Info : |ECD82P_1S|937178|SVA|QC A|SOIL|MB|||
Comment :
Method : /chem/ecd1a.i/123009.b/ECD1-F-8082-121409.m
Meth Date : 31-Dec-2009 08:24 jen01212 Quant Type: ESTD
Cal Date : 14-DEC-2009 11:34 Cal File: 040f4001.d
Als bottle: 30 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1085.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.971	1.972	-0.001	44427824	118.263	3.9	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.284	5.287	-0.003	53259838	167.726	5.6	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/123009.b/030f3001.d
Date : 30-DEC-2009 12:45
Client ID: PBLK01
Sample Info: |1202005418|1|
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecd1a.i
Operator: JAOC
Column diameter: 0.25

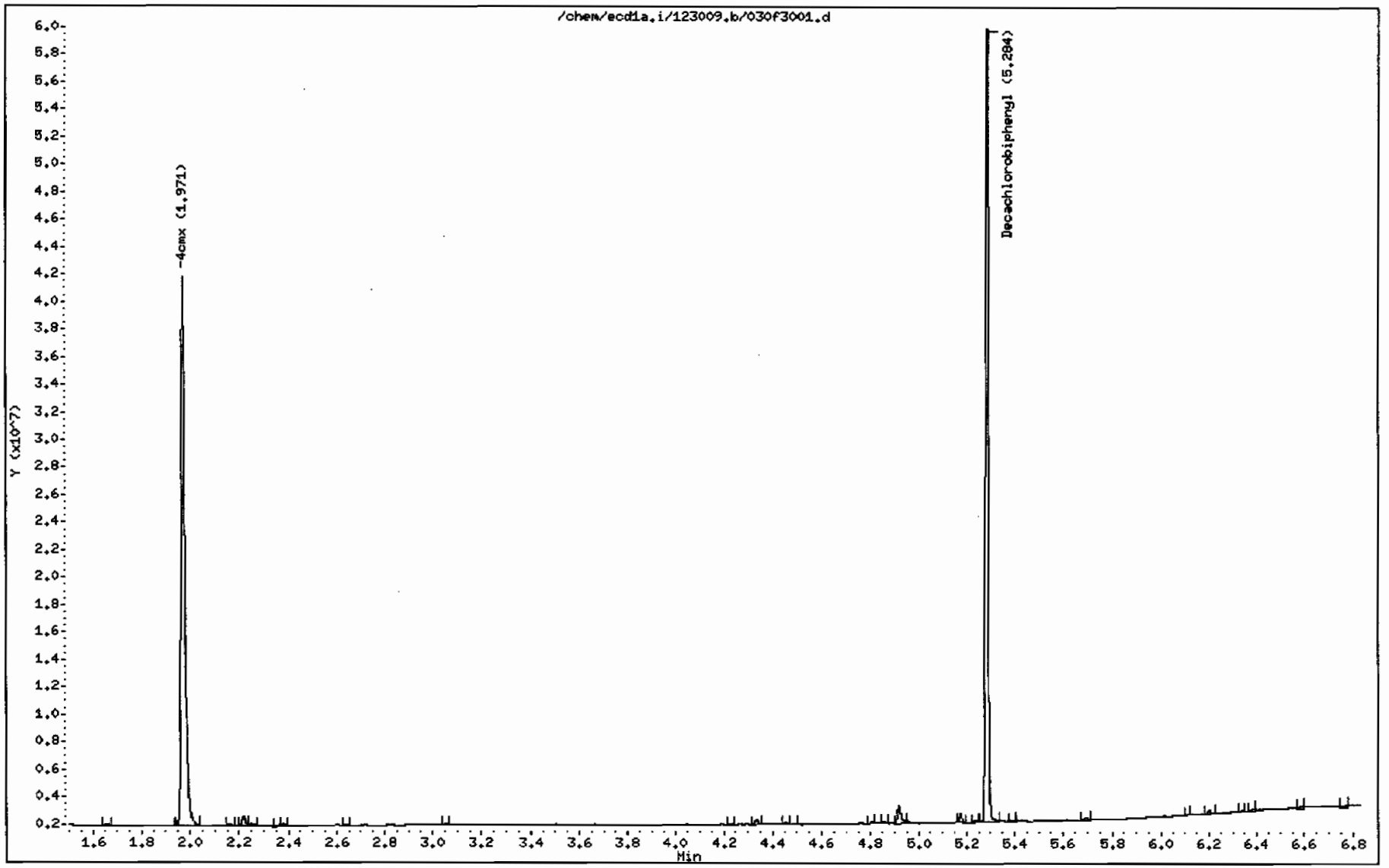

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/123009.b/030b3001.d
Lab Smp Id: 1202005418 Client Smp ID: PBLK01
Inj Date : 30-DEC-2009 12:45
Operator : JAOC Inst ID: ecd1a.i
Smp Info : |1202005418|1|
Misc Info : |ECD82P_1S|937178|SVA|QC A|SOIL|MB|||
Comment :
Method : /chem/ecd1a.i/123009.b/ECD1-B-8082-121409.m
Meth Date : 31-Dec-2009 08:30 jen01212 Quant Type: ESTD
Cal Date : 14-DEC-2009 12:16 Cal File: 044b4401.d
Als bottle: 30 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1085.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.302	2.303	-0.001	35030657	116.759	3.9	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.949	5.949	0.000	38290417	164.177	5.5	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/123009.b/030b3001.d

Date : 30-DEC-2009 12:45

Client ID: PBLK01

Sample Info: !1202005418!1!

Volume Injected (uL): 1.0

Column phase: CLP2

Instrument: ecd1a.i

Operator: JAOC

Column diameter: 0.25

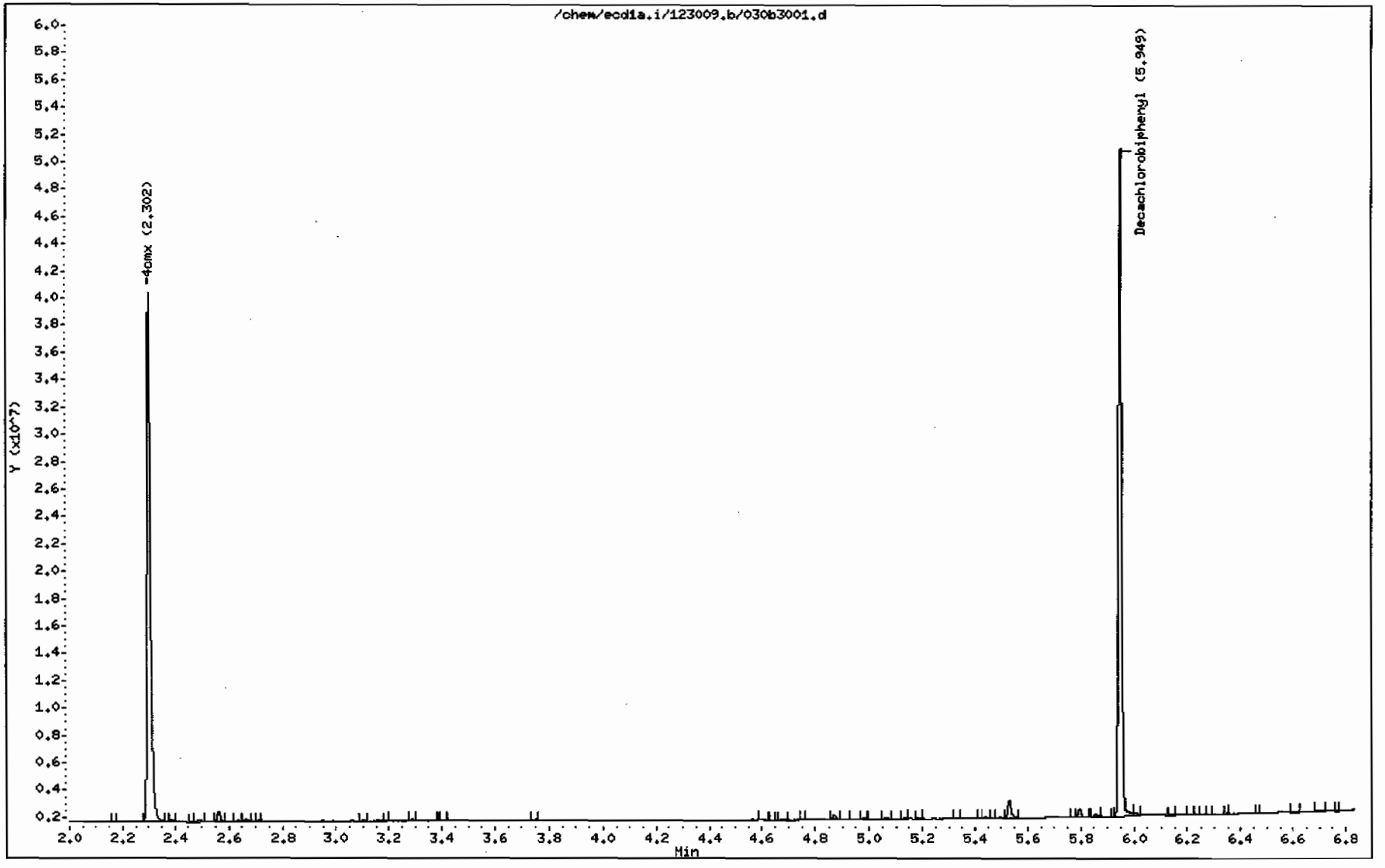

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–1085**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202005419**				
Client Sample:	**QC for batch 937176**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 937176**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**937178**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**12/30/2009 12:55**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**12/29/2009 09:29**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**031f3101–1.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	031b3101–1.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016		24.7	ug/kg	1.11	3.33	2
11104–28–2	Aroclor–1221	U	3.33	ug/kg	1.11	3.33	1
11141–16–5	Aroclor–1232	U	3.33	ug/kg	1.11	3.33	1
53469–21–9	Aroclor–1242	U	3.33	ug/kg	1.11	3.33	1
12672–29–6	Aroclor–1248	U	3.33	ug/kg	1.11	3.33	1
11097–69–1	Aroclor–1254	U	3.33	ug/kg	1.11	3.33	1
11096–82–5	Aroclor–1260		30.1	ug/kg	1.11	3.33	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/123009.b/031f3101.d
Lab Smp Id: 1202005419 Client Smp ID: PBLK01LCS
Inj Date : 30-DEC-2009 12:55
Operator : JAOC Inst ID: ecd1a.i
Smp Info : |1202005419|1|
Misc Info : |ECD82P_1S|937178|SVA|QC A|SOIL|LCS|||
Comment :
Method : /chem/ecd1a.i/123009.b/ECD1-F-8082-121409.m
Meth Date : 31-Dec-2009 08:24 jen01212 Quant Type: ESTD
Cal Date : 14-DEC-2009 11:34 Cal File: 040f4001.d
Als bottle: 31 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1085.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.969	1.972	-0.003	45076274	119.989	4.0	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.285	5.287	-0.002	49161103	154.818	5.2	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.425	2.428	-0.003	9118635	657.584	21.9	80.00- 120.00	100.00
2.703	2.705	-0.002	7746924	767.195	25.6	62.52- 102.52	84.96
2.795	2.798	-0.003	8072748	686.632	22.9	66.47- 106.47	88.53
2.834	2.835	-0.001	4808516	728.672	24.3	32.13- 72.13	52.73
3.044	3.046	-0.002	6310869	727.612	24.2	46.62- 86.62	69.21
			Average of Peak Concentrations =		23.8		

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
7 Aroclor-1260					CAS #: 11096-82-5		
3.771	3.773	-0.002	14179275	846.415	28.2	80.00- 120.00	100.00
3.934	3.936	-0.002	22087635	892.696	29.8	134.25- 174.25	155.77
4.164	4.166	-0.002	13342665	908.446	30.3	72.46- 112.46	94.10
4.307	4.308	-0.001	13875596	913.798	30.4	76.84- 116.84	97.86
4.486	4.488	-0.002	32859352	956.592	31.9	203.73- 243.73	231.74
			Average of Peak Concentrations =		30.1		

Data File: /chem/ecd1a.i/123009.b/031f3101.d
Date : 30-DEC-2009 12:55
Client ID: PBLK01LCS
Sample Info: !1202005419|1|
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecd1a.i

Operator: JAOC
Column diameter: 0.25

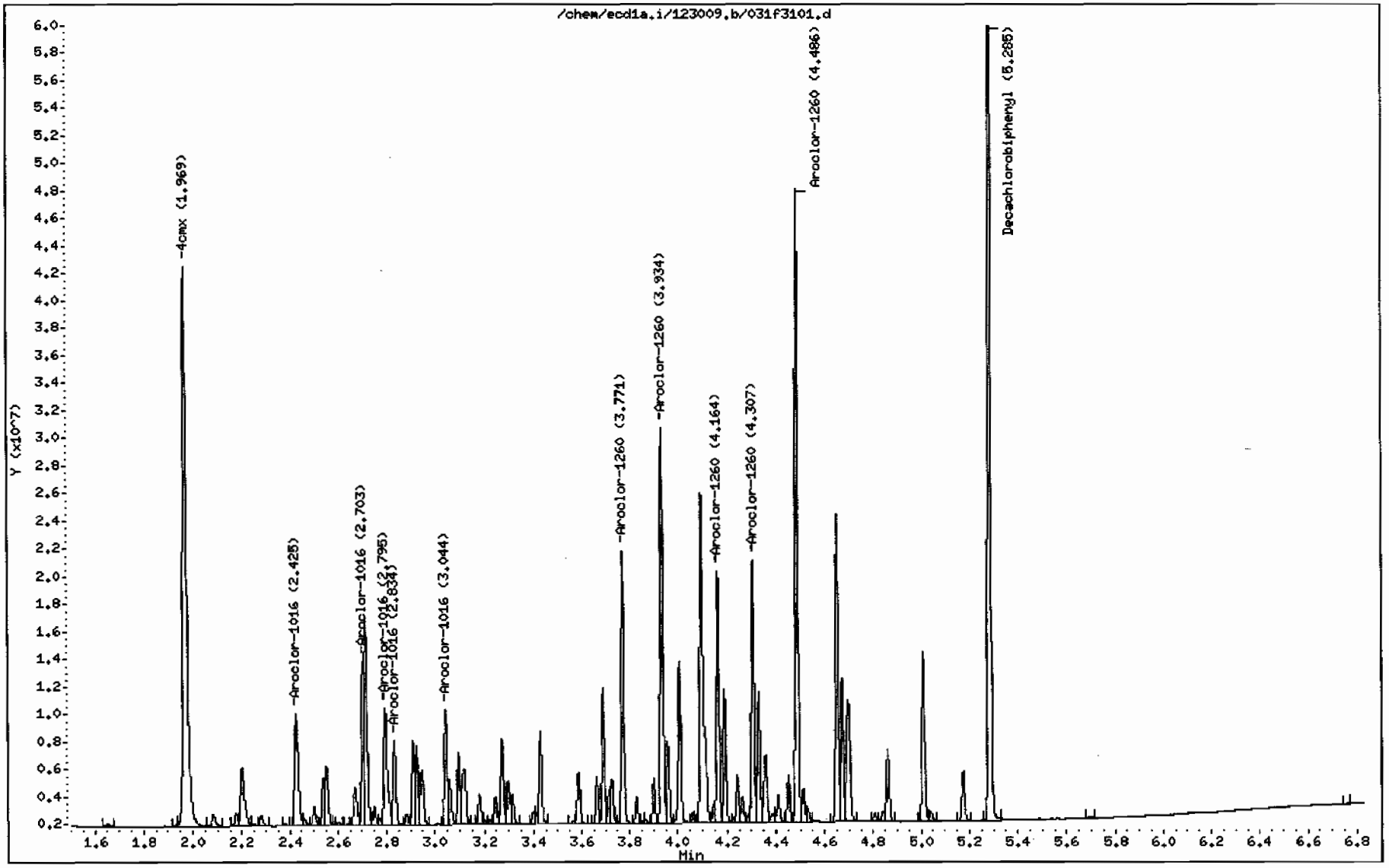

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/123009.b/031b3101.d
Lab Smp Id: 1202005419 Client Smp ID: PBLK01LCS
Inj Date : 30-DEC-2009 12:55
Operator : JAOC Inst ID: ecd1a.i
Smp Info : |1202005419|1|
Misc Info : |ECD82P_1S|937178|SVA|QC A|SOIL|LCS|||
Comment :
Method : /chem/ecd1a.i/123009.b/ECD1-B-8082-121409.m
Meth Date : 31-Dec-2009 08:30 jen01212 Quant Type: ESTD
Cal Date : 14-DEC-2009 12:16 Cal File: 044b4401.d
Als bottle: 31 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1085.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.301	2.303	-0.002	35108395	117.018	3.9	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.948	5.949	-0.001	35117919	150.574	5.0	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.199	3.200	-0.001	9275818	735.502	24.5	80.00- 120.00	100.00
3.282	3.283	-0.001	6336071	679.262	22.6	45.95- 85.95	68.31
3.345	3.347	-0.002	3841452	709.892	23.7	21.30- 61.30	41.41
3.572	3.574	-0.002	5029794	713.256	23.8	33.35- 73.35	54.22
3.649	3.650	-0.001	5682584	867.473	28.9	29.00- 69.00	61.26

Average of Peak Concentrations = 24.7

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
7 Aroclor-1260					CAS #: 11096-82-5		
4.339	4.340	-0.001	10957145	800.959	26.7	80.00- 120.00	100.00
4.463	4.464	-0.001	13682430	853.604	28.4	103.77- 143.77	124.87
4.729	4.731	-0.002	10595492	843.326	28.1	74.68- 114.68	96.70
4.903	4.905	-0.002	10975477	856.785	28.6	77.13- 117.13	100.17
5.049	5.051	-0.002	25340425	908.335	30.3	200.92- 240.92	231.27
			Average of Peak Concentrations =		28.4		

Data File: /chem/ecd1a.i/123009.b/031b3101.d
Date : 30-DEC-2009 12:55
Client ID: PBLK01LCS
Sample Info: |1202005419|1|
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd1a.i

Operator: JADC
Column diameter: 0.25

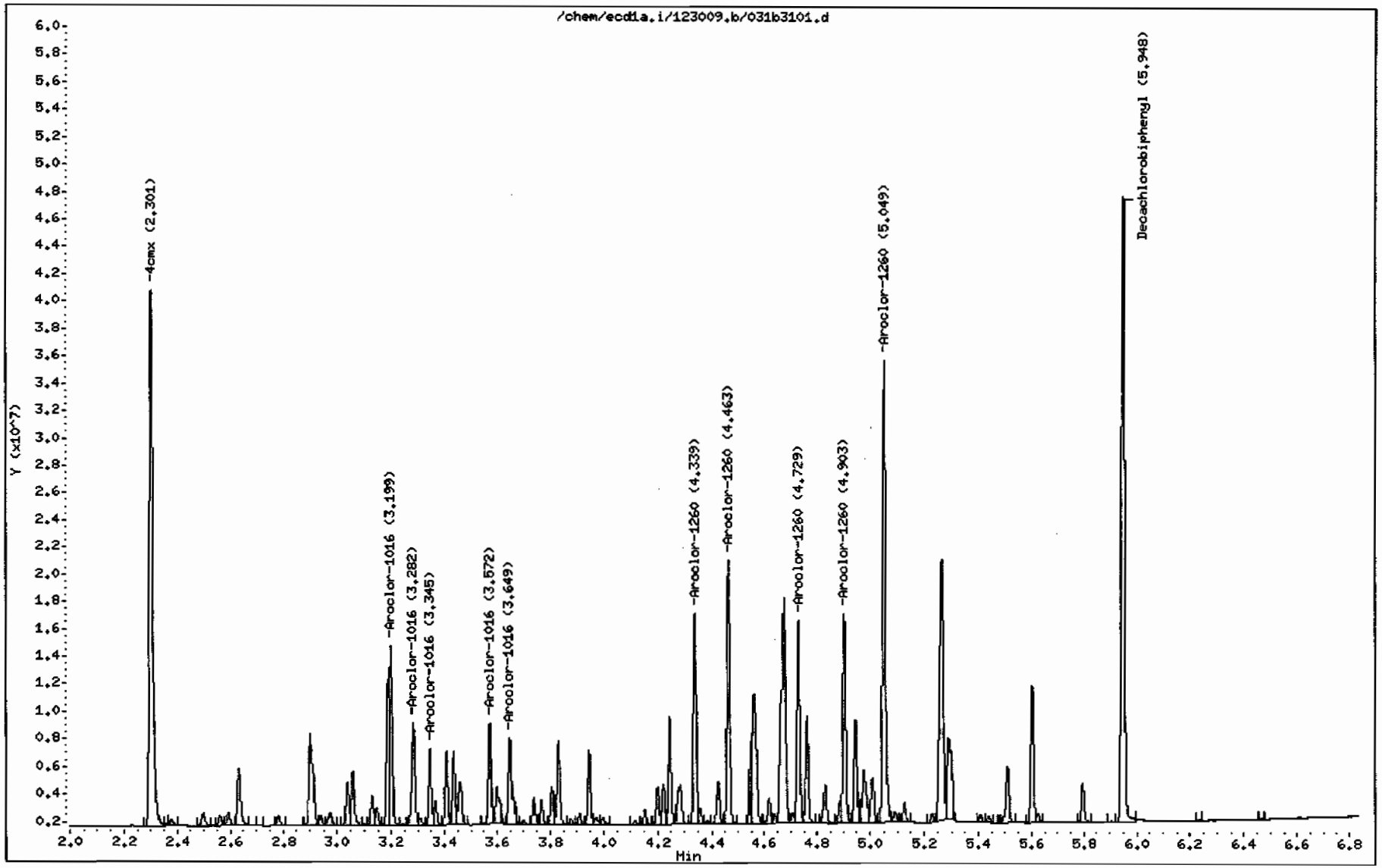

MISCELLANEOUS DATA

GEL ORGANIC RUN LOG INSTRUMENT ID: ECD1

DATE: 12/15/2009 METHOD: ECD1-F-8082-121409.m OPERATOR:YS1 REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1

SOLVENT LOT DA385
ALUMINA LOT 1230997-A
COPPER LOT 236547-A

Calibration & QC Information
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.
GEL SOP GL-OA-E-040 Polychlorinated Biphenyl: EPA 8082
Chromatogram Abbreviation Legend: AB-Assign Baseline, AP-Assign Peak,
DNC-Do Not Call, DMP-Doesn't Match Pattern, NC-Not Confirmed, RT-Retention Time,
BF-Before, AF-After.

Sequence Number: /chem/ecd1a.i/121409.b Injection Volume: 0.5 ul

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001f0101.d	WAR091130-99 01	YS1	14-DEC-2009 04:44		121409	1.0	CLEAN	
002f0201.d	WAR091211-60 01	YS1	14-DEC-2009 04:54		121409	1.0	DUSE RE-ICAL	
003f0301.d	WAR091102-54	YS1	14-DEC-2009 05:05		121409	1.0	DUSE RE-ICAL	
004f0401.d	WAR091102-42	YS1	14-DEC-2009 05:15		121409	1.0	DUSE RE-ICAL	
005f0501.d	WAR091027-48	YS1	14-DEC-2009 05:26		121409	1.0	DUSE RE-ICAL	
006f0601.d	WAR090930-32	YS1	14-DEC-2009 05:36		121409	1.0	PATTERN ONLY	
007f0701.d	WAR090803-21	YS1	14-DEC-2009 05:47		121409	1.0	PATTERN ONLY	
008f0801.d	WAR090803-62	YS1	14-DEC-2009 05:58		121409	1.0	PATTERN ONLY	
009f0901.d	WAR091106-68	YS1	14-DEC-2009 06:08		121409	1.0	DUSE RE-ICAL	
010f1001.d	1660-1	YS1	14-DEC-2009 06:19		121409	1.0	DUSE	
011f1101.d	1660-2	YS1	14-DEC-2009 06:29		121409	1.0	DUSE	
012f1201.d	1660-3	YS1	14-DEC-2009 06:40		121409	1.0	DUSE	
013f1301.d	1660-4	YS1	14-DEC-2009 06:50		121409	1.0	DUSE	
014f1401.d	IAR091102-01	YS1	14-DEC-2009 07:01		121409	1.0	DUSE	
015f1501.d	WAR091211-60 01	YS1	14-DEC-2009 07:11		121409	1.0	DUSE	

Instrument Batch: /chem/ecd1a.i/121409.b Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments

016f1601.d	WAR091214-05 54	YS1	14-DEC-2009 07:22		121409	1.0		AR1254 I-CAL LEVEL 1
017f1701.d	WAR091214-06 54	YS1	14-DEC-2009 07:32		121409	1.0		AR1254 I-CAL LEVEL 2
018f1801.d	WAR091214-07 54	YS1	14-DEC-2009 07:43		121409	1.0		AR1254 I-CAL LEVEL 3
019f1901.d	WAR091214-08 54	YS1	14-DEC-2009 07:53		121409	1.0		AR1254 I-CAL LEVEL 4
020f2001.d	IAR091027-01	YS1	14-DEC-2009 08:04		121409	1.0		AR1254 I-CAL LEVEL 5
021f2101.d	WAR091102-54	YS1	14-DEC-2009 08:14		121409	1.0		PASSED ON BOTH COLUMNS
022f2201.d	WAR091214-09 42	YS1	14-DEC-2009 08:25		121409	1.0		AR1242 I-CAL LEVEL 1
023f2301.d	WAR091214-10 42	YS1	14-DEC-2009 08:35		121409	1.0		AR1242 I-CAL LEVEL 2
024f2401.d	WAR091214-11 42	YS1	14-DEC-2009 08:46		121409	1.0		AR1242 I-CAL LEVEL 3
025f2501.d	WAR091214-12 42	YS1	14-DEC-2009 08:56		121409	1.0		AR1242 I-CAL LEVEL 4
026f2601.d	IAR0911111-01	YS1	14-DEC-2009 09:07		121409	1.0		AR1242 I-CAL LEVEL 5
027f2701.d	WAR091102-42	YS1	14-DEC-2009 09:17		121409	1.0		PASSED ON BOTH COLUMNS
028f2801.d	WAR091214-13 48	YS1	14-DEC-2009 09:28		121409	1.0		AR1248 I-CAL LEVEL 1
029f2901.d	WAR091214-14 48	YS1	14-DEC-2009 09:38		121409	1.0		AR1248 I-CAL LEVEL 2
030f3001.d	WAR091214-15 48	YS1	14-DEC-2009 09:49		121409	1.0		AR1248 I-CAL LEVEL 3
031f3101.d	WAR091214-16 48	YS1	14-DEC-2009 09:59		121409	1.0		AR1248 I-CAL LEVEL 4
032f3201.d	IAR091027-02	YS1	14-DEC-2009 10:10		121409	1.0		AR1248 I-CAL LEVEL 5
033f3301.d	WAR091027-48	YS1	14-DEC-2009 10:20		121409	1.0		PASSED ON BOTH COLUMNS
034f3401.d	WAR091214-01 60	YS1	14-DEC-2009 10:31		121409	1.0		AR1660 I-CAL LEVEL 1
035f3501.d	WAR091214-02 60	YS1	14-DEC-2009 10:41		121409	1.0		AR1660 I-CAL LEVEL 2

Instrument Batch: /chem/ecd1a.i/121409.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
036f3601.d	WAR091214-03 60	YS1	14-DEC-2009 10:52		121409	1.0		AR1660 I-CAL LEVEL 3
037f3701.d	WAR091214-04 60	YS1	14-DEC-2009 11:02		121409	1.0		AR1660 I-CAL LEVEL 4
038f3801.d	IAR091102-01	YS1	14-DEC-2009 11:13		121409	1.0		AR1660 I-CAL LEVEL 5
039f3901.d	WAR091211-60 01	YS1	14-DEC-2009 11:23		121409	1.0		PASSED ON BOTH COLUMNS
040f4001.d	WAR091214-17 68	YS1	14-DEC-2009 11:34		121409	1.0		AR1268 I-CAL LEVEL 1

041f4101.d	WAR091214-18 68	YS1	14-DEC-2009 11:44		121409		1.0		AR1268 I-CAL LEVEL 2
042f4201.d	WAR091214-19 68	YS1	14-DEC-2009 11:55		121409		1.0		AR1268 I-CAL LEVEL 3
043f4301.d	WAR091214-20 68	YS1	14-DEC-2009 12:06		121409		1.0		AR1268 I-CAL LEVEL 4
044f4401.d	IAR090817-02	YS1	14-DEC-2009 12:16		121409		1.0		AR1268 I-CAL LEVEL 5
045f4501.d	WAR091106-68	YS1	14-DEC-2009 12:27		121409		1.0		PASSED ON BOTH COLUMNS
046f4601.d	WAR091020-DDT	YS1	14-DEC-2009 12:37		121409		1.0		DDT ANALOG STANDARD
047f4701.d	WAR091130-99 02	YS1	14-DEC-2009 12:48		121409		1.0		CLEAN
048f4801.d	1201991693	YS1	14-DEC-2009 12:58	931140	10-782		1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
049f4901.d	1201991694	YS1	14-DEC-2009 13:09	931140	10-782		1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
050f5001.d	242297001	YS1	14-DEC-2009 13:19	931140	10-782		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
051f5101.d	242297002	YS1	14-DEC-2009 13:30	931140	10-782		10.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
052f5201.d	242297003	YS1	14-DEC-2009 13:40	931140	10-782		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
053f5301.d	242297004	YS1	14-DEC-2009 13:51	931140	10-782		5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
054f5401.d	242297005	YS1	14-DEC-2009 14:03	931140	10-782		5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
055f5501.d	242297006	YS1	14-DEC-2009 14:16	931140	10-782		10.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER

Instrument Batch: /chem/ecd1a.i/121409.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
056f5601.d	242297007	YS1	14-DEC-2009 14:29	931140	10-782	5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
057f5701.d	242297008	YS1	14-DEC-2009 14:41	931140	10-782	25.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
058f5801.d	WAR091211-60 02	YS1	14-DEC-2009 14:52		121409	1.0		PASSED ON BOTH COLUMNS
059f5901.d	WAR091130-99 03	YS1	14-DEC-2009 15:02		121409	1.0		CLEAN
060f6001.d	242297009	YS1	14-DEC-2009 15:13	931140	10-782	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
061f6101.d	242297010	YS1	14-DEC-2009 15:25	931140	10-782	1.0	LANL	DCB LOW RE
062f6201.d	242297011	YS1	14-DEC-2009 15:38	931140	10-782	5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
063f6301.d	242297012	YS1	14-DEC-2009 15:51	931140	10-782	5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
064f6401.d	242297013	YS1	14-DEC-2009 16:03	931140	10-782	10.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER

065f6501.d	242305004	YS1	14-DEC-2009 16:16	931140	10-786		5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
066f6601.d	1201991695	YS1	14-DEC-2009 16:28	931140	10-786		5.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
067f6701.d	1201991696	YS1	14-DEC-2009 16:41	931140	10-786		5.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
068f6801.d	242305005	YS1	14-DEC-2009 16:53	931140	10-786		5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
069f6901.d	242305006	YS1	14-DEC-2009 17:06	931140	10-786		5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
070f7001.d	WAR091211-60 03	YS1	14-DEC-2009 17:19		121409		1.0		PASSED ON BOTH COLUMNS
071f7101.d	WAR091130-99 04	YS1	14-DEC-2009 17:31		121409		1.0		CLEAN
072f7201.d	1201992645	YS1	14-DEC-2009 17:44	931553	242521		1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
073f7301.d	1201992646	YS1	14-DEC-2009 17:57	931553	242521		1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
074f7401.d	242264001	YS1	14-DEC-2009 18:09	931553	242264		5.0	ENRG	UPLOAD BOTH COLUMNS, USE HIGHER
075f7501.d	242521001	YS1	14-DEC-2009 18:22	931553	242521		5.0	EMSC	UPLOAD BOTH COLUMNS, USE HIGHER

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
076f7601.d	1201992647	YS1	14-DEC-2009 18:35	931553	242521	5.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
077f7701.d	1201992648	YS1	14-DEC-2009 18:47	931553	242521	5.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
078f7801.d	242521002	YS1	14-DEC-2009 19:00	931553	242521	5.0	EMSC	UPLOAD BOTH COLUMNS, USE HIGHER
079f7901.d	242521003	YS1	14-DEC-2009 19:12	931553	242521	5.0	EMSC	UPLOAD BOTH COLUMNS, USE HIGHER
080f8001.d	242521004	YS1	14-DEC-2009 19:25	931553	242521	5.0	EMSC	UPLOAD BOTH COLUMNS, USE HIGHER
081f8101.d	242521005	YS1	14-DEC-2009 19:38	931553	242521	5.0	EMSC	UPLOAD BOTH COLUMNS, USE HIGHER
082f8201.d	WAR091211-60 04	YS1	14-DEC-2009 19:50		121409	1.0		PASSED ON BOTH COLUMNS
083f8301.d	WAR091130-99 05	YS1	14-DEC-2009 20:03		121409	1.0		CLEAN
084f8401.d	242521006	YS1	14-DEC-2009 20:15	931553	242521	5.0	EMSC	UPLOAD BOTH COLUMNS, USE HIGHER
085f8501.d	242521007	YS1	14-DEC-2009 20:28	931553	242521	5.0	EMSC	UPLOAD BOTH COLUMNS, USE HIGHER
086f8601.d	242521008	YS1	14-DEC-2009 20:41	931553	242521	5.0	EMSC	UPLOAD BOTH COLUMNS, USE HIGHER
087f8701.d	WAR091211-60 05	YS1	14-DEC-2009 20:53		121409	1.0		PASSED ON BOTH COLUMNS
088f8801.d	WAR091130-99 06	YS1	14-DEC-2009 21:06		121409	1.0		CLEAN
089f8901.d	242297010	YS1	14-DEC-2009 21:19	931140	10-782	1.0	LANL	

090f9001.d	WAR091211-60 06	YS1	14-DEC-2009 21:31		121409	1.0	PASSED ON BOTH COLUMNS
091f9101.d	WAR091130-99 07	YS1	14-DEC-2009 21:44		121409	1.0	CLEAN
092f9201.d	1660	YS1	14-DEC-2009 21:56		121409	1.0	screen
093f9301.d	1660	YS1	14-DEC-2009 22:09		121409	1.0	screen
094f9401.d	1660	YS1	14-DEC-2009 22:22		121409	1.0	screen

GEL ORGANIC RUN LOG INSTRUMENT ID: ECD1

DATE: 12/31/2009 METHOD: ECD1-F-8082-121409.m OPERATOR:JAOC REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1

SOLVENT LOT DA385
ALUMINA LOT 1230997-A
COPPER LOT 236547-A

Calibration & QC Information
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.
GEL SOP GL-OA-E-040 Polychlorinated Biphenyl: EPA 8082
Chromatogram Abbreviation Legend: AB-Assign Baseline, AP-Assign Peak,
DNC-Do Not Call, DMP-Doesn't Match Pattern, NC-Not Confirmed, RT-Retention Time,
BF-Before, AF-After.

Sequence Number: /chem/ecd1a.i/123009.b Injection Volume: 0.5 ul

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001f0101.d	WAR091130-99 01	JAOC	30-DEC-2009 07:40		123009	1.0		CLEAN
002f0201.d	WAR091211-60 01	JAOC	30-DEC-2009 07:51		123009	1.0		PASSES BOTH COLUMNS
003f0301.d	WAR091216-54	JAOC	30-DEC-2009 08:01		123009	1.0		PASSES BOTH COLUMNS
004f0401.d	WAR091102-42	JAOC	30-DEC-2009 08:12		123009	1.0		PASSES BOTH COLUMNS
005f0501.d	WAR091027-48	JAOC	30-DEC-2009 08:22		123009	1.0		PASSES BOTH COLUMNS
006f0601.d	WAR090930-32	JAOC	30-DEC-2009 08:33		123009	1.0		PATTERN ONLY
007f0701.d	WAR090803-21	JAOC	30-DEC-2009 08:43		123009	1.0		PATTERN ONLY
008f0801.d	WAR090803-62	JAOC	30-DEC-2009 08:54		123009	1.0		PATTERN ONLY
009f0901.d	WAR091106-68	JAOC	30-DEC-2009 09:04		123009	1.0		PATTERN ONLY
010f1001.d	alumina screen	JAOC	30-DEC-2009 09:15		123009	1.0		DUSE
011f1101.d	WAR091219-DDT	JAOC	30-DEC-2009 09:25		123009	1.0		DDT
012f1201.d	WAR091130-99 02	JAOC	30-DEC-2009 09:36		123009	1.0		CLEAN
013f1301.d	1202003498	JAOC	30-DEC-2009 09:46	936355	123009	1.0	QC A	UPLOAD BOTH, USE HIGHER
014f1401.d	1202003499	JAOC	30-DEC-2009 09:57	936355	243281	1.0	QC A	UPLOAD BOTH, USE HIGHER
015f1501.d	243281002	JAOC	30-DEC-2009 10:07	936355	243281	1.0	LAID	UPLOAD BOTH, USE HIGHER

Instrument Batch: /chem/ecd1a.i/123009.b Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments

016f1601.d	243281003	JAOC	30-DEC-2009 10:18	936355	243281	1.0	LAID	UPLOAD BOTH, USE HIGHER
017f1701.d	243281004	JAOC	30-DEC-2009 10:28	936355	243281	1.0	LAID	UPLOAD BOTH, USE HIGHER
018f1801.d	243281005	JAOC	30-DEC-2009 10:39	936355	243281	1.0	LAID	UPLOAD BOTH, USE HIGHER
019f1901.d	1202003500	JAOC	30-DEC-2009 10:49	936355	243281	1.0	QC A	UPLOAD BOTH, USE HIGHER
020f2001.d	1202003501	JAOC	30-DEC-2009 11:00	936355	243281	1.0	QC A	UPLOAD BOTH, USE HIGHER
021f2101.d	243281006	JAOC	30-DEC-2009 11:10	936355	243281	1.0	LAID	UPLOAD BOTH, USE HIGHER
022f2201.d	WAR091211-60 02	JAOC	30-DEC-2009 11:21		123009	1.0		PASSES BOTH COLUMNS
023f2301.d	WAR091130-99 03	JAOC	30-DEC-2009 11:31		123009	1.0		CLEAN
024f2401.d	243436005	JAOC	30-DEC-2009 11:42	936355	243436	1.0	GEEL	UPLOAD BOTH, USE HIGHER
025f2501.d	243436006	JAOC	30-DEC-2009 11:52	936355	243436	1.0	GEEL	UPLOAD BOTH, USE HIGHER
026f2601.d	243436007	JAOC	30-DEC-2009 12:03	936355	243436	1.0	GEEL	UPLOAD BOTH, USE HIGHER
027f2701.d	243436008	JAOC	30-DEC-2009 12:13	936355	243436	1.0	GEEL	UPLOAD BOTH, USE HIGHER
028f2801.d	WAR091211-60 03	JAOC	30-DEC-2009 12:24		123009	1.0		PASSES BOTH COLUMNS
029f2901.d	WAR091130-99 04	JAOC	30-DEC-2009 12:34		123009	1.0		CLEAN
030f3001.d	1202005418	JAOC	30-DEC-2009 12:45	937178	10-1085	1.0	QC A	UPLOAD BOTH, USE HIGHER
031f3101.d	1202005419	JAOC	30-DEC-2009 12:55	937178	10-1085	1.0	QC A	UPLOAD BOTH, USE HIGHER
032f3201.d	243549002	JAOC	30-DEC-2009 13:06	937178	10-1085	1.0	LANL	UPLOAD BOTH, USE HIGHER
033f3301.d	243552001	JAOC	30-DEC-2009 13:16	937178	10-1086	1.0	LANL	UPLOAD BOTH, USE HIGHER
034f3401.d	243552002	JAOC	30-DEC-2009 13:27	937178	10-1086	1.0	LANL	UPLOAD BOTH, USE HIGHER
035f3501.d	243552003	JAOC	30-DEC-2009 13:37	937178	10-1086	1.0	LANL	UPLOAD BOTH, USE HIGHER

Instrument Batch: /chem/ecd1a.i/123009.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
036f3601.d	1202005420	JAOC	30-DEC-2009 13:48	937178	10-1086	1.0	QC A	UPLOAD BOTH, USE HIGHER
037f3701.d	1202005421	JAOC	30-DEC-2009 13:58	937178	10-1086	1.0	QC A	UPLOAD BOTH, USE HIGHER
038f3801.d	243552004	JAOC	30-DEC-2009 14:09	937178	10-1086	1.0	LANL	UPLOAD BOTH, USE HIGHER
039f3901.d	243552005	JAOC	30-DEC-2009 14:20	937178	10-1086	1.0	LANL	UPLOAD BOTH, USE HIGHER
040f4001.d	WAR091211-60 04	JAOC	30-DEC-2009 14:30		123009	1.0		PASSES BOTH COLUMNS

041f4101.d	WAR091130-99 05	JAOC	30-DEC-2009 14:41		123009		1.0		CLEAN
042f4201.d	243552006	JAOC	30-DEC-2009 14:51	937178	10-1086		1.0	LANL	UPLOAD BOTH, USE HIGHER
043f4301.d	243552007	JAOC	30-DEC-2009 15:02	937178	10-1086		1.0	LANL	UPLOAD BOTH, USE HIGHER
044f4401.d	243552008	JAOC	30-DEC-2009 15:12	937178	10-1086		1.0	LANL	UPLOAD BOTH, USE HIGHER
045f4501.d	243552009	JAOC	30-DEC-2009 15:23	937178	10-1086		1.0	LANL	UPLOAD BOTH, USE HIGHER
046f4601.d	243552010	JAOC	30-DEC-2009 15:33	937178	10-1086		1.0	LANL	UPLOAD BOTH, USE HIGHER
047f4701.d	243552011	JAOC	30-DEC-2009 15:44	937178	10-1086		1.0	LANL	UPLOAD BOTH, USE HIGHER
048f4801.d	243552012	JAOC	30-DEC-2009 15:54	937178	10-1086		1.0	LANL	UPLOAD BOTH, USE HIGHER
049f4901.d	243552014	JAOC	30-DEC-2009 16:05	937178	10-1086		1.0	LANL	UPLOAD BOTH, USE HIGHER
050f5001.d	WAR091211-60 05	JAOC	30-DEC-2009 16:15		123009		1.0		PASSES BOTH COLUMNS
051f5101.d	alumina screen	JAOC	30-DEC-2009 16:26		123009		1.0		ALUMINA SCREEN PASSES
052f5201.d	WAR091130-99 06	JAOC	30-DEC-2009 16:36		123009		1.0		CLEAN

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/123009.b/036b3601.d
Lab Smp Id: 1202005420 Client Smp ID: RE03-09-14239MS
Inj Date : 30-DEC-2009 13:48
Operator : JAOC Inst ID: ecd1a.i
Smp Info : |1202005420|1|
Misc Info : |ECD82P_1S|937178|SVA|QC A|SOIL|MS|||
Comment :
Method : /chem/ecd1a.i/123009.b/ECD1-B-8082-121409.m
Meth Date : 31-Dec-2009 08:30 jen01212 Quant Type: ESTD
Cal Date : 14-DEC-2009 12:16 Cal File: 044b4401.d
Als bottle: 36 QC Sample: MS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1086.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.02000	Weight of sample extracted (g)
M	5.46650	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.302	2.303	-0.001	34862214	116.197	4.1	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.948	5.949	-0.001	33782419	144.848	5.1	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.200	3.200	0.000	9562663	758.247	26.7	80.00- 120.00	100.00(M)
3.282	3.283	-0.001	6325623	678.142	23.9	45.95- 85.95	66.15
3.346	3.347	-0.001	3874820	716.059	25.2	21.30- 61.30	40.52
3.573	3.574	-0.001	5158856	731.558	25.8	33.35- 73.35	53.95
3.649	3.650	-0.001	5778802	882.161	31.1	29.00- 69.00	60.43
			Average of Peak Concentrations =		26.5		

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
7 Aroclor-1260					CAS #: 11096-82-5		
4.339	4.340	-0.001	10844322	792.712	27.9	80.00- 120.00	100.00
4.463	4.464	-0.001	13483033	841.164	29.6	103.77- 143.77	124.33
4.730	4.731	-0.001	10320435	821.433	28.9	74.68- 114.68	95.17
4.903	4.905	-0.002	10594306	827.029	29.1	77.13- 117.13	97.69
5.050	5.051	-0.001	24369098	873.517	30.8	200.92- 240.92	224.72
			Average of Peak Concentrations =		29.3		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/eod1a.i/123009.b/036b3601.d
Date : 30-DEC-2009 13:48
Client ID: RE03-09-14239MS
Sample Info: |1202005420|1|
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: eod1a.i
Operator: JAOC
Column diameter: 0.25

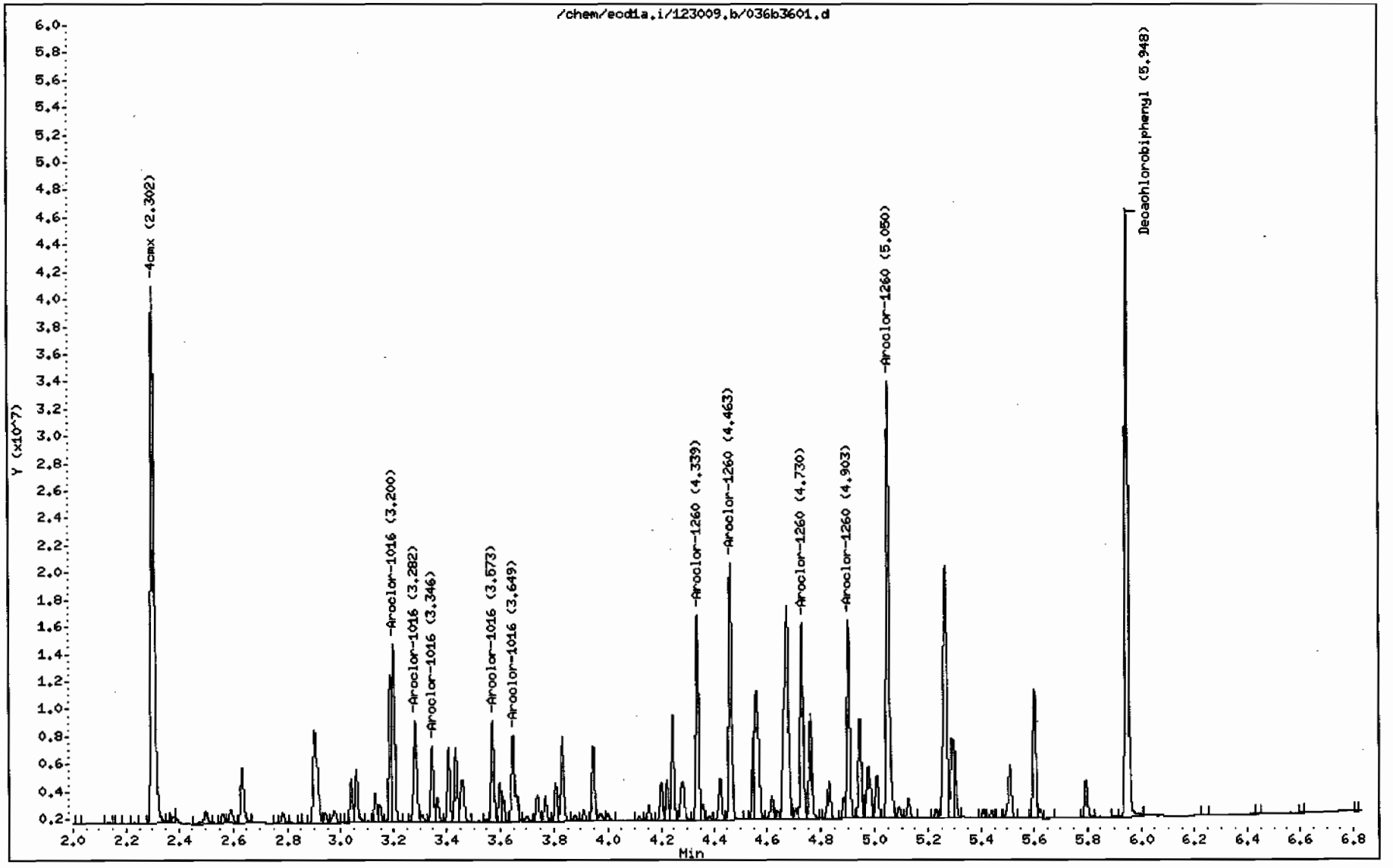

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/123009.b/036f3601.d
Lab Smp Id: 1202005420 Client Smp ID: RE03-09-14239MS
Inj Date : 30-DEC-2009 13:48
Operator : JAOC Inst ID: ecd1a.i
Smp Info : |1202005420|1|
Misc Info : |ECD82P_1S|937178|SVA|QC A|SOIL|MS|||
Comment :
Method : /chem/ecd1a.i/123009.b/ECD1-F-8082-121409.m
Meth Date : 31-Dec-2009 08:24 jen01212 Quant Type: ESTD
Cal Date : 14-DEC-2009 11:34 Cal File: 040f4001.d
Als bottle: 36 QC Sample: MS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1086.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.02000	Weight of sample extracted (g)
M	5.46650	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.971	1.972	-0.001	44948446	119.649	4.2	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.285	5.287	-0.002	43576403	137.231	4.8	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.427	2.428	-0.001	9274394	668.817	23.6	80.00- 120.00	100.00
2.705	2.705	0.000	7498573	742.600	26.2	62.52- 102.52	80.85
2.796	2.798	-0.002	7967584	677.687	23.9	66.47- 106.47	85.91
2.835	2.835	0.000	4718127	714.975	25.2	32.13- 72.13	50.87
3.045	3.046	-0.001	6250998	720.709	25.4	46.62- 86.62	67.40
Average of Peak Concentrations =					24.9		

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	CONCENTRATIONS FINAL (ug/Kg)	TARGET RANGE	RATIO
7 Aroclor-1260					CAS #: 11096-82-5		
3.771	3.773	-0.002	13899972	829.743	29.2	80.00- 120.00	100.00
3.934	3.936	-0.002	21593357	872.720	30.8	134.25- 174.25	155.35
4.164	4.166	-0.002	12903361	878.536	31.0	72.46- 112.46	92.83
4.306	4.308	-0.002	12679778	835.046	29.4	76.84- 116.84	91.22
4.486	4.488	-0.002	31409158	914.374	32.2	203.73- 243.73	225.97
			Average of Peak Concentrations =		30.5		

Data File: /chem/ecd1a.i/123009.b/036f3601.d
Date : 30-DEC-2009 13:48
Client ID: RE03-09-14239MS
Sample Info: |1202005420|1|
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecd1a.i

Operator: JAOC
Column diameter: 0.25

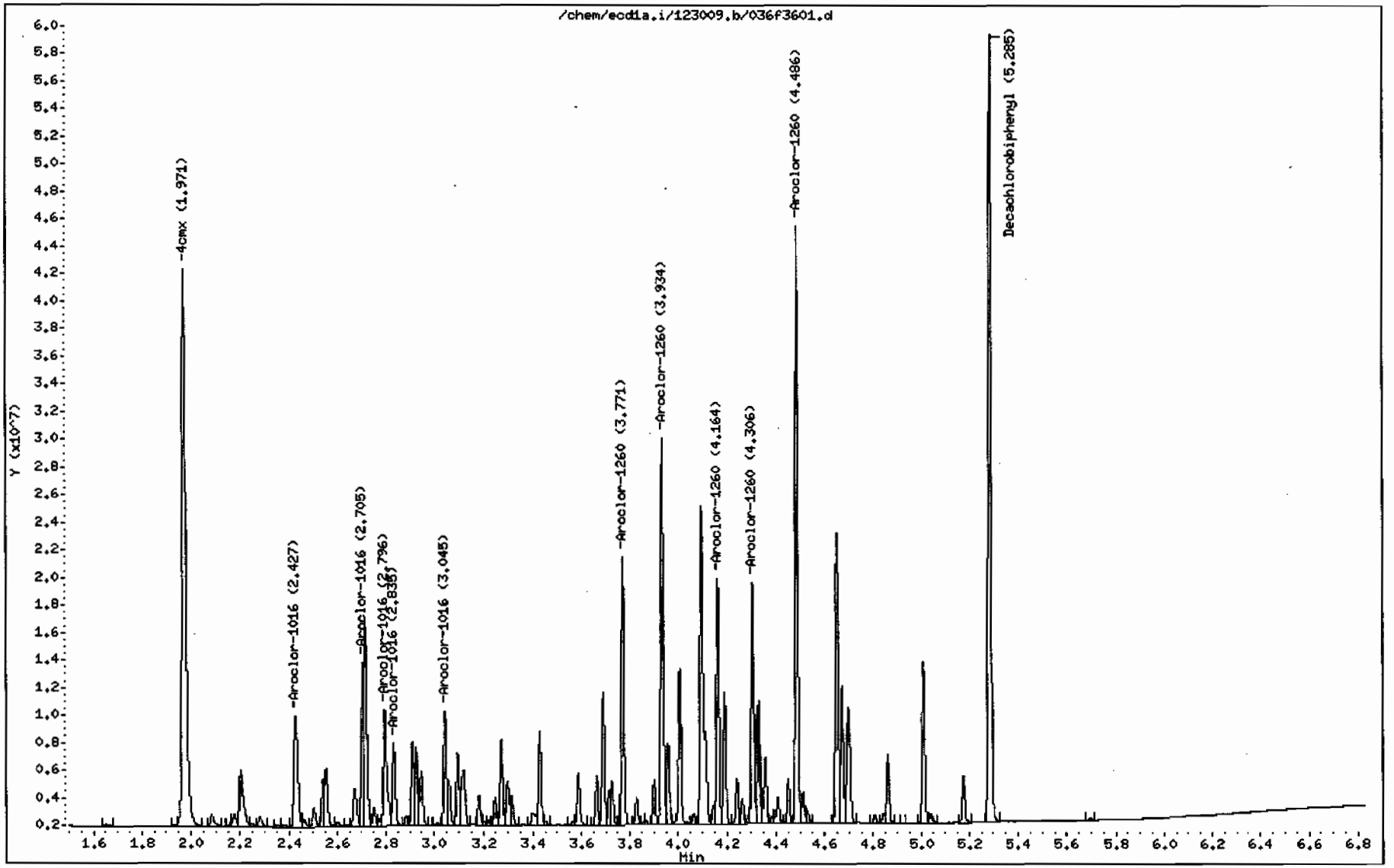

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/123009.b/037b3701.d
Lab Smp Id: 1202005421 Client Smp ID: RE03-09-14239MSD
Inj Date : 30-DEC-2009 13:58
Operator : JAOC Inst ID: ecd1a.i
Smp Info : |1202005421|1|
Misc Info : |ECD82P_1S|937178|SVA|QC A|SOIL|MSD|||
Comment :
Method : /chem/ecd1a.i/123009.b/ECD1-B-8082-121409.m
Meth Date : 31-Dec-2009 08:30 jen01212 Quant Type: ESTD
Cal Date : 14-DEC-2009 12:16 Cal File: 044b4401.d
Als bottle: 37 QC Sample: MSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1086.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.02000	Weight of sample extracted (g)
M	5.46650	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.302	2.303	-0.001	34063845	113.536	4.0	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.948	5.949	-0.001	33982979	145.708	5.1	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.200	3.200	0.000	8838375	700.817	24.7	80.00- 120.00	100.00
3.282	3.283	-0.001	6013586	644.690	22.7	45.95- 85.95	68.04
3.347	3.347	0.000	3684519	680.891	24.0	21.30- 61.30	41.69
3.573	3.574	-0.001	4918802	697.517	24.6	33.35- 73.35	55.65
3.649	3.650	-0.001	4569890	697.615	24.6	29.00- 69.00	51.71
Average of Peak Concentrations =					24.1		

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
7 Aroclor-1260					CAS #: 11096-82-5		
4.339	4.340	-0.001	10421596	761.811	26.8	80.00- 120.00	100.00
4.463	4.464	-0.001	13066111	815.154	28.7	103.77- 143.77	125.38
4.730	4.731	-0.001	10073965	801.816	28.2	74.68- 114.68	96.66
4.903	4.905	-0.002	10519488	821.189	28.9	77.13- 117.13	100.94
5.050	5.051	-0.001	23937644	858.052	30.2	200.92- 240.92	229.69
			Average of Peak Concentrations =		28.6		

Data File: /chem/ecd1a.i/123009.b/037b3701.d

Date : 30-DEC-2009 13:58

Client ID: RE03-09-14239MSD

Sample Info: |1202005421|1|

Volume Injected (uL): 1.0

Column phase: CLP2

Instrument: ecd1a.i

Operator: JAOC

Column diameter: 0.25

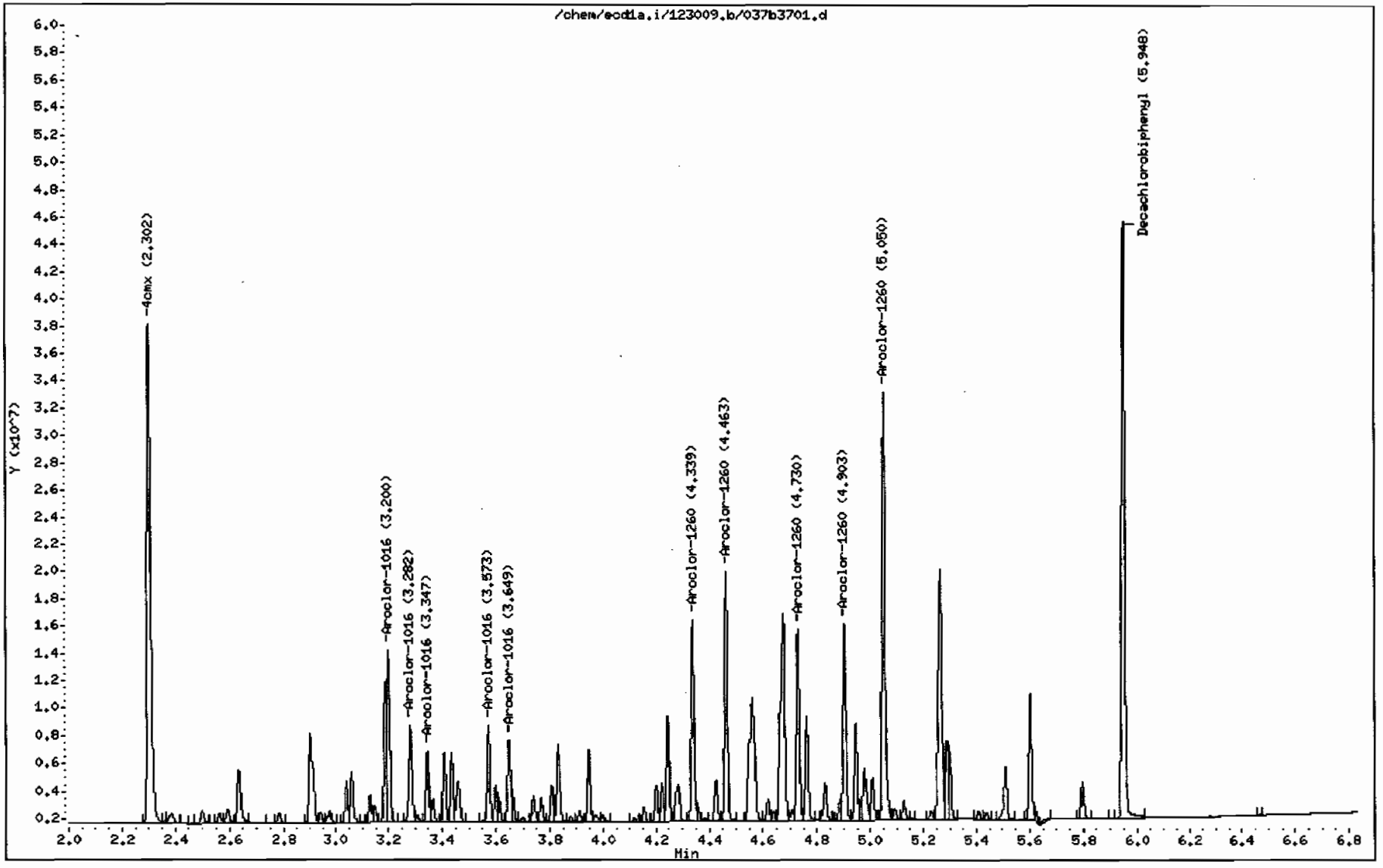

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/123009.b/037f3701.d
Lab Smp Id: 1202005421 Client Smp ID: RE03-09-14239MSD
Inj Date : 30-DEC-2009 13:58
Operator : JAOC Inst ID: ecd1a.i
Smp Info : |1202005421|1|
Misc Info : |ECD82P_1S|937178|SVA|QC A|SOIL|MSD|||
Comment :
Method : /chem/ecd1a.i/123009.b/ECD1-F-8082-121409.m
Meth Date : 31-Dec-2009 08:24 jen01212 Quant Type: ESTD
Cal Date : 14-DEC-2009 11:34 Cal File: 040f4001.d
Als bottle: 37 QC Sample: MSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1086.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.02000	Weight of sample extracted (g)
M	5.46650	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.971	1.972	-0.001	43263458	115.164	4.0	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.286	5.287	-0.001	38911712	122.541	4.3	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.427	2.428	-0.001	8682359	626.122	22.1	80.00- 120.00	100.00
2.704	2.705	-0.001	7409384	733.768	25.8	62.52- 102.52	85.34
2.797	2.798	-0.001	7613331	647.556	22.8	66.47- 106.47	87.69
2.834	2.835	-0.001	4517637	684.593	24.1	32.13- 72.13	52.03
3.045	3.046	-0.001	5973730	688.741	24.3	46.62- 86.62	68.80

Average of Peak Concentrations = 23.8

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
7 Aroclor-1260					CAS #: 11096-82-5		
3.772	3.773	-0.001	13407355	800.336	28.2	80.00- 120.00	100.00
3.934	3.936	-0.002	20881663	843.956	29.7	134.25- 174.25	155.75
4.164	4.166	-0.002	12509249	851.702	30.0	72.46- 112.46	93.30
4.307	4.308	-0.001	11741586	773.260	27.2	76.84- 116.84	87.58
4.487	4.488	-0.001	30585616	890.399	31.4	203.73- 243.73	228.13
			Average of Peak Concentrations =		29.3		

Data File: /chem/ecd1a.i/123009.b/037f3701.d
Date : 30-DEC-2009 13:58
Client ID: RE03-09-14239MSD
Sample Info: |120200542|1|1|
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecd1a.i

Operator: JAOC
Column diameter: 0.25

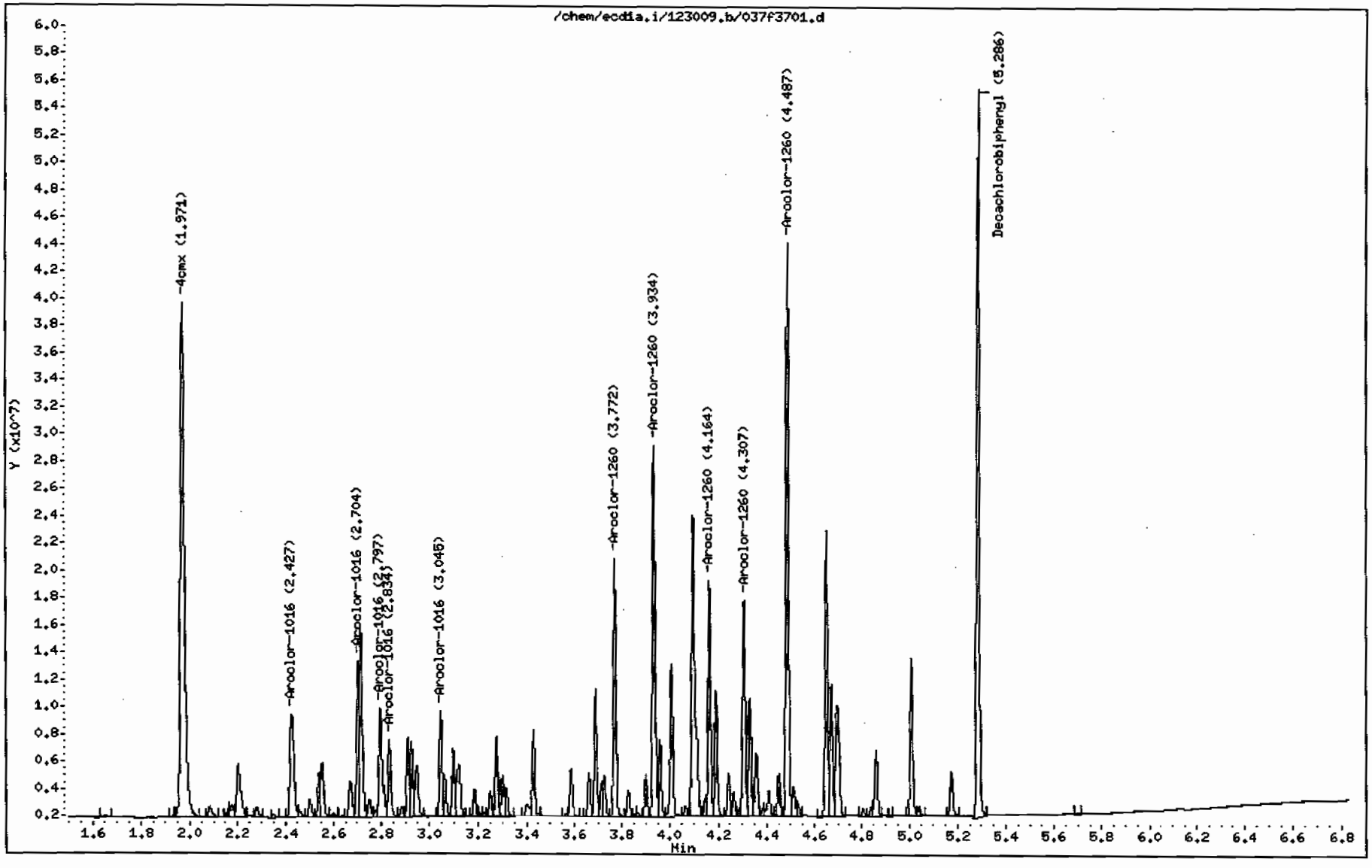

Prep Logbook

Extraction of Semivolatile and Nonvolatile Organic Compounds from Soil, Sludge, and Other Miscellaneous Solid Samples

Batch ID: 937176 **Verified by:** _____

Analyst: Robin Hunt

Method: SW846 3550B

Lab SOP: GL-OA-E-010 REV# 18

Instrument: Semi-Volatiles Manual

Sample ID	Run Date	Aliquot (g)	Clean Up	Prior to Clean up (mL)	Amount Cleaned (mL)	After Clean up (mL)	Prepped Aliquot (mL)	Prepped Factor (mL/g)
1202005418 MB	29-DEC-2009 09:29:52	30	H2SO4/KMnl		1	8	1	0.03333
1202005419 LCS	29-DEC-2009 09:29:52	30	H2SO4/KMnl		1	8	1	0.03333
243549002	29-DEC-2009 09:29:52	30.04	H2SO4/KMnl		1	8	1	0.03329
243552001	29-DEC-2009 09:29:52	30.05	H2SO4/KMnl		1	8	1	0.03328
243552002	29-DEC-2009 09:29:52	30	H2SO4/KMnl		1	8	1	0.03333
243552003	29-DEC-2009 09:29:52	30.01	H2SO4/KMnl		1	8	1	0.03332
1202005420 MS (243552003)	29-DEC-2009 09:29:52	30.02	H2SO4/KMnl		1	8	1	0.03331
1202005421 MSD (243552003)	29-DEC-2009 09:29:52	30.02	H2SO4/KMnl		1	8	1	0.03331
243552004	29-DEC-2009 09:29:52	30	H2SO4/KMnl		1	8	1	0.03333
243552005	29-DEC-2009 09:29:52	30.02	H2SO4/KMnl		1	8	1	0.03331
243552006	29-DEC-2009 09:29:52	30.09	H2SO4/KMnl		1	8	1	0.03323
243552007	29-DEC-2009 09:29:52	30.03	H2SO4/KMnl		1	8	1	0.0333
243552008	29-DEC-2009 09:29:52	30.01	H2SO4/KMnl		1	8	1	0.03332
243552009	29-DEC-2009 09:29:52	30.05	H2SO4/KMnl		1	8	1	0.03328
243552010	29-DEC-2009 09:29:52	30.03	H2SO4/KMnl		1	8	1	0.0333
243552011	29-DEC-2009 09:29:52	30.06	H2SO4/KMnl		1	8	1	0.03327
243552012	29-DEC-2009 09:29:52	30.09	H2SO4/KMnl		1	8	1	0.03323
243552014	29-DEC-2009 09:29:52	30.03	H2SO4/KMnl		1	8	1	0.0333

Type	Sample Id	Description	Serial Number	Spike Amt	Units
LCS	1202005419	PCB Laboratory Control	WE091210-07	1	mL
MS	1202005420	PCB Laboratory Control	WE091210-07	1	mL
MSD	1202005421	PCB Laboratory Control	WE091210-07	1	mL
SURR	All	PEST LOW LEVEL SURROGATE 200 UG/L	UE091130-15	1	mL
REGNT	All	1:1 sulfuric acid	1133264a	5	mL
REGNT	All	Acetone	1233927	150	mL
REGNT	All	Hexane	1241300-B2	150	mL
REGNT	All	5% Potassium Permanganate	B1202457-F	5	mL
SOURC	All	SODIUM SULFATE	1242582	30	g

Comments:

Clean up Date: 12/29/2009

Clean up Initials: RWH

Verified By: JAM

Final Solvent: Hexane

Clean Up SOP: GL-OA-E-037

HERBICIDE ANALYSIS

Herbicide Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-1085

Method/Analysis Information

Procedure:	**Analysis of Chlorophenoxy Acid Herbicides by ECD**
Analytical Method:	SW846 8151A
Prep Method:	SW846 8151A
Analytical Batch Number:	937099
Prep Batch Number:	937098

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 8151A:

Sample ID	Client ID
243549002	WST03-10-2148
1202005238	Method Blank (MB)
1202005239	Laboratory Control Sample (LCS)
1202005240	243549002(WST03-10-2148) Matrix Spike (MS)
1202005241	243549002(WST03-10-2148) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on a "dry weight" basis.

Preparation/Analytical Method Verification

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-011 REV# 18.

Raw data reports are processed and reviewed by the analyst using the Target software package. False positives have been removed from the Target quantitation reports per standard operating procedures (SOP) section 21.7.

Calibration Information

Initial Calibration
All initial calibration requirements have been met for this sample delivery group (SDG).

The linear equation used in Target and indicated on the initial calibration summary form is not a conventional linear equation (slope intercept formula) and does not match the equation found in SW-846 method 8000B. The x and y axes are inversed in Target, so that the instrument response is treated as the independent variable (x) and the concentration ratio is treated as the dependent variable (y). The equation used in Target to calculate sample results is adjusted to account for the linear equation inversion and reciprocal slope. The adjusted calculation has been independently verified to produce valid results.

Continuing Calibration Verification (CCV) Requirements
All associated calibration verification standard(s) (ICV or CCV) met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Surrogate Recoveries
All surrogate recoveries were within the established acceptance criteria for this SDG.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

QC Sample Designation
Sample 243549002 (WST03-10-2148) was selected for the matrix spike and matrix spike duplicate analysis.

Matrix Spike (MS) Recovery Statement
The MS recoveries for this SDG were within the established acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recoveries for this SDG were within the established acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD between the MS and MSD met the acceptance limits.

Technical Information

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-extraction/Re-analysis
Re-extractions or re-analyses were not required in this SDG.

Miscellaneous Information

Electronic Package Comment

This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. An electronic signature page inserted after the case narrative of each electronic package will indicate the analyst, reviewer, and report specialist names associated with the generation of the data and package. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Data Exception Report (DER) Documentation
Data exception report (DER) is for documentation of any procedural anomalies that may deviate from referenced SOP or contractual document. A DER was not generated for this SDG.

Manual Integration
Certain standards and QC samples may have required manual integration to correctly position the baseline as set in the calibration standard injections. If manual integration was performed, copies of all manual integration peak profiles are included in the raw data section of this Herbicide fraction.

Additional Comments
The additional comments field is used to address special issues associated with each analysis, clarify method/contractual issues pertaining to the analysis, and to list any report documents generated as a result of sample analysis or review. The following additional comments were required:

The higher results from either column have been chosen and reported in the data package for the client samples, MB and LCS. The data reported for the MS and MSD are from the same analytical column as the parent sample.

The data reported on the form I and III may differ slightly from the data reported on the form X. This is due to software limitations in rounding differences between the forms.

Due to software limitation, the Form VIIs will display the results either in the % difference or % drift depending on the type of the calibration curve. If the curve of all analytes is generated using an average response factor (RF), the Form VII will display results using the %difference calculation (RF). If the curve of one or more analytes is generated using a linear curve, the Form VII will display results using the % drift calculation (by concentration) for all analytes.

System Configuration

The Semi-Volatiles-HERB analysis was performed on the following instrument configuration:

Instrument ID	Instrument	System Configuration	Column ID	Column Description
ECD6A.I_1	HP Gas Chromatograph	HP6890 Series GC/ECD	Rtx-CLP I	30m x 0.25mm, 0.25um (Rtx-CLPesticide)
ECD6A.I_2	HP Gas Chromatograph	HP6890 Series GC/ECD	Rtx-CLP II	30m x 0.25mm, 0.20um (Rtx-CLPesticide II)

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Jimmi Cao Date: 1/20/10

Roadmap for LANL 10-1085 HERB

This roadmap was analyzed by reb01393 on 01-04-2010, 09:38.
This roadmap was reviewed by jim01140 on 01-04-2010, 16:12.
This roadmap was packaged by yml on 01-20-2010, 10:10.
This roadmap was validated by jim01140 on 01-20-2010, 13:35.

Front Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd6a.i/122909.b/027f2701.d	243549002	sample	30-DEC-2009	02:27	10-1085.sub	WST03-10-2148	1.00000	937099	USE. PASSING BOTH COLUMNS, UPLOAD HIGHER RESULT.

Back Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd6a.i/122909.b/027b2701.d	243549002	sample	30-DEC-2009	02:27	10-1085.sub	WST03-10-2148	1.00000	937099	USE. PASSING BOTH COLUMNS, UPLOAD HIGHER RESULT.

Front QC Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd6a.i/122909.b/021f2101.d	1202005238	mb	29-DEC-2009	23:38	10-1085.sub	HBLK01	1.00000	937099	USE. PASSING BOTH COLUMNS, UPLOAD HIGHER RESULT.
☐	N	/chem/ecd6a.i/122909.b/022f2201.d	1202005239	lcs	30-DEC-2009	00:06	10-1085.sub	HBLK01LCS	1.00000	937099	USE. PASSING BOTH COLUMNS, UPLOAD HIGHER RESULT.
☐	N	/chem/ecd6a.i/122909.b/028f2801.d	1202005240	ms	30-DEC-2009	02:55	10-1085.sub	WST03-10-2148MS	1.00000	937099	USE. PASSING BOTH COLUMNS, UPLOAD HIGHER RESULT.
☐	N	/chem/ecd6a.i/122909.b/029f2901.d	1202005241	msd	30-DEC-2009	03:23	10-1085.sub	WST03-10-2148MSD	1.00000	937099	USE. PASSING BOTH COLUMNS, UPLOAD HIGHER RESULT.

Back QC Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd6a.i/122909.b/021b2101.d	1202005238	mb	29-DEC-2009	23:38	10-1085.sub	HBLK01	1.00000	937099	USE. PASSING BOTH COLUMNS, UPLOAD HIGHER RESULT.
☐	N	/chem/ecd6a.i/122909.b/022b2201.d	1202005239	lcs	30-DEC-2009	00:06	10-1085.sub	HBLK01LCS	1.00000	937099	USE. PASSING BOTH COLUMNS, UPLOAD HIGHER RESULT.
☐	N	/chem/ecd6a.i/122909.b/028b2801.d	1202005240	ms	30-DEC-2009	02:55	10-1085.sub	WST03-10-2148MS	1.00000	937099	USE. PASSING BOTH COLUMNS, UPLOAD HIGHER RESULT.
☐	N	/chem/ecd6a.i/122909.b/029b2901.d	1202005241	msd	30-DEC-2009	03:23	10-1085.sub	WST03-10-2148MSD	1.00000	937099	USE. PASSING BOTH COLUMNS, UPLOAD HIGHER RESULT.

SAMPLE DATA SUMMARY

Herbicide
Certificate of Analysis
Sample Summary

SDG Number:	10–1085	**Date Collected:**	12/22/2009 12:00	**Matrix:**	R
Lab Sample ID:	243549002	**Date Received:**	12/24/2009 09:30	**%Moisture:**	7.2
		Client:	LANL010	**Project:**	LANL01004
Client ID:	WST03–10–2148	**Method:**	SW846 8151A	**SOP Ref:**	GL–OA–E–011
Batch ID:	937099	**Inst:**	ECD6A.I	**Dilution:**	1
Run Date:	12/30/2009 02:27	**Analyst:**	RXE1	**Inj. Vol:**	1 uL
Prep Date:	12/28/2009 20:19	**Aliquot:**	50.02 g	**Final Volume:**	10 mL
Data File:	027f2701.d	**Column:**	1 Rtx–CLP	**Level:**	LOW
	027b2701.d		2 Rtx–CLPII		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
75–99–0	Dalapon	U	108	ug/kg	21.5	108	1
1918–00–9	Dicamba	U	5.39	ug/kg	1.79	5.39	1
93–65–2	MCPP	U	1080	ug/kg	215	1080	1
94–74–6	MCPA	U	1080	ug/kg	248	1080	1
120–36–5	Dichlorprop	U	5.39	ug/kg	1.79	5.39	1
94–75–7	2,4–D	U	5.39	ug/kg	1.79	5.39	1
93–72–1	2,4,5–TP	U	5.39	ug/kg	1.79	5.39	1
93–76–5	2,4,5–T	U	5.39	ug/kg	1.79	5.39	1
94–82–6	2,4–DB	U	5.39	ug/kg	1.79	5.39	1
88–85–7	Dinoseb	U	5.39	ug/kg	1.79	5.39	1

QUALITY CONTROL SUMMARY

Herbicide

Surrogate Recovery Report

SDG Number: 10-1085

Matrix Type: SOLID

CAP Column (1) : Rtx-CLP **CAP Column (2) : Rtx-CLPII**

Sample ID	Client ID	DCAA 1 %REC #	DCAA 2 %REC #
1202005238	MB for batch 937098	75	70
1202005239	LCS for batch 937098	100	97
243549002	WST03-10-2148	67	63
1202005240	WST03-10-2148MS	99	95
1202005241	WST03-10-2148MSD	96	92

Surrogate	Acceptance Limits
DCAA = 2,4-Dichlorophenylacetic acid	(30%-126%)

* Recovery outside Acceptance Limits

\# Column to be used to flag recovery values

D Sample Diluted

Herbicide

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1085
Client ID: LCS for batch 937098
Lab Sample ID: 1202005239
Instrument: ECD6A.I
Analyst: RXE1
Inj. Vol: 1 uL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 12/30/2009 00:06
Dilution: 1
Prep Batch ID: 937098
Batch ID: 937099

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
75-99-0	LCS Dalapon	400	0.0	190	47	30-96
1918-00-9	LCS Dicamba	40.0	0.0	35.0	87	51-105
93-65-2	LCS MCPP	4000	0.0	3510	88	49-127
94-74-6	LCS MCPA	4000	0.0	3330	83	47-125
120-36-5	LCS Dichlorprop	40.0	0.0	37.5	94	56-109
94-75-7	LCS 2,4-D	40.0	0.0	38.6	97	39-125
93-72-1	LCS 2,4,5-TP	40.0	0.0	38.3	96	48-120
93-76-5	LCS 2,4,5-T	40.0	0.0	36.1	90	42-127
94-82-6	LCS 2,4-DB	40.0	0.0	40.6	102	56-128
88-85-7	LCS Dinoseb	40.0	0.0	36.9	92	30-121

Herbicide

Quality Control Summary
Spike Recovery Report

SDG Number: 10–1085
Client ID: WST03–10–2148MS
Lab Sample ID: 1202005240
Instrument: ECD6A.I
Analyst: RXE1
Inj. Vol: 1 uL

Sample Type: Matrix Spike
Matrix: R
%Moisture: 7.2
Analysis Date: 12/30/2009 02:55
Prep Batch ID: 937098
Batch ID: 937099

Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
75–99–0	MS	Dalapon	430	0.00	U	172	40	30–94
1918–00–9	MS	Dicamba	43.0	0.00	U	39.9	93	30–100
93–65–2	MS	MCPP	4300	0.00	U	3860	90	30–111
94–74–6	MS	MCPA	4300	0.00	U	3670	85	30–109
120–36–5	MS	Dichlorprop	43.0	0.00	U	44.5	104	30–111
94–75–7	MS	2,4–D	43.0	0.00	U	44.3	103	30–148
93–72–1	MS	2,4,5–TP	43.0	0.00	U	44.4	103	30–118
93–76–5	MS	2,4,5–T	43.0	0.00	U	42.5	99	30–123
94–82–6	MS	2,4–DB	43.0	0.00	U	47.8	111	30–119
88–85–7	MS	Dinoseb	43.0	0.00	U	40.5	94	30–140

Herbicide

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1085
Client ID: WST03-10-2148MSD
Lab Sample ID: 1202005241
Instrument: ECD6A.I
Analyst: RXE1
Inj. Vol: 1 uL

Sample Type: Matrix Spike Duplicate
Matrix: R
%Moisture: 7.2
Analysis Date: 12/30/2009 03:23
Prep Batch ID: 937098
Batch ID: 937099
Dilution: 1

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
75-99-0	MSD Dalapon	431	0.00	U	216	50	30-94	22	0-25
1918-00-9	MSD Dicamba	43.1	0.00	U	37.7	88	30-100	6	0-25
93-65-2	MSD MCPP	4310	0.00	U	3810	88	30-111	1	0-25
94-74-6	MSD MCPA	4310	0.00	U	3690	86	30-109	0	0-25
120-36-5	MSD Dichlorprop	43.1	0.00	U	42.0	98	30-111	6	0-25
94-75-7	MSD 2,4-D	43.1	0.00	U	42.8	99	30-148	3	0-25
93-72-1	MSD 2,4,5-TP	43.1	0.00	U	40.6	94	30-118	9	0-25
93-76-5	MSD 2,4,5-T	43.1	0.00	U	38.8	90	30-123	9	0-25
94-82-6	MSD 2,4-DB	43.1	0.00	U	42.5	99	30-119	12	0-25
88-85-7	MSD Dinoseb	43.1	0.00	U	40.5	94	30-140	0	0-25

Method Blank Summary

SDG Number:	10–1085	Client:	LANL010	Matrix:	SOIL
Client ID:	MB for batch 937098	Instrument ID:	ECD6A.I_2 ECD6A.I_1	Data File:	021b2101.d 021f2101.d
Lab Sample ID:	1202005238				
Column:	Rtx–CLPII Rtx–CLP	Prep Date:	12/28/2009 20:19	Analyzed:	12/29/09 23:38
		Level:	LOW		

This method blank applies to the following samples and quality control samples:

Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01 LCS for batch 937098	1202005239	022f2201.d 022b2201.d	12/30/09	0006
02 WST03–10–2148	243549002	027f2701.d 027b2701.d	12/30/09	0227
03 WST03–10–2148MS	1202005240	028f2801.d 028b2801.d	12/30/09	0255
04 WST03–10–2148MSD	1202005241	029f2901.d 029b2901.d	12/30/09	0323

SAMPLE
DATA

Herbicide
Certificate of Analysis
Sample Summary

SDG Number:	10–1085	Date Collected:	12/22/2009 12:00	Matrix:	R
Lab Sample ID:	243549002	Date Received:	12/24/2009 09:30	%Moisture:	7.2
		Client:	LANL010	Project:	LANL01004
Client ID:	WST03–10–2148	Method:	SW846 8151A	SOP Ref:	GL–OA–E–011
Batch ID:	937099	Inst:	ECD6A.I	Dilution:	1
Run Date:	12/30/2009 02:27	Analyst:	RXE1	Inj. Vol:	1 uL
Prep Date:	12/28/2009 20:19	Aliquot:	50.02 g	Final Volume:	10 mL
Data File:	027f2701.d	Column:	1 Rtx–CLP	Level:	LOW
	027b2701.d		2 Rtx–CLPII		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
75–99–0	Dalapon	U	108	ug/kg	21.5	108	1
1918–00–9	Dicamba	U	5.39	ug/kg	1.79	5.39	1
93–65–2	MCPP	U	1080	ug/kg	215	1080	1
94–74–6	MCPA	U	1080	ug/kg	248	1080	1
120–36–5	Dichlorprop	U	5.39	ug/kg	1.79	5.39	1
94–75–7	2,4–D	U	5.39	ug/kg	1.79	5.39	1
93–72–1	2,4,5–TP	U	5.39	ug/kg	1.79	5.39	1
93–76–5	2,4,5–T	U	5.39	ug/kg	1.79	5.39	1
94–82–6	2,4–DB	U	5.39	ug/kg	1.79	5.39	1
88–85–7	Dinoseb	U	5.39	ug/kg	1.79	5.39	1

GEL Laboratories LLC

Column: RtxCLP 0.25mm x 30 m Inj Vol: 2 ul

Data file : /chem/ecd6a.i/122909.b/027f2701.d
Lab Smp Id: 243549002 Client Smp ID: WST03-10-2148
Inj Date : 30-DEC-2009 02:27
Operator : RXE1 Inst ID: ecd6a.i
Smp Info : |243549002|1|
Misc Info : |ECD51H_1S|937099|SVH|LANL|SOIL|WST03-10-2148|||
Comment :
Method : /chem/ecd6a.i/122909.b/ECD6-F-8151A-122909.m
Meth Date : 31-Dec-2009 09:06 reb01393 Quant Type: ESTD
Cal Date : 29-DEC-2009 17:03 Cal File: 007f0701.d
Als bottle: 27
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1085.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	10.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	50.02000	Weight of sample extracted (g)
M	7.19000	% Moisture

Cpnd Variable Local Compound Variable

	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)
$ 2 2,4-Dichlorophenylacetic acid						CAS #: 19719-28-9
	9.752	9.741	0.011	49136860	336.033	72.4

Data File: /chem/ecd6a.i/122909.b/027f2701.d
Date : 30-DEC-2009 02:27
Client ID: WST03-10-2148
Sample Info: |243549002|1|
Volume Injected (uL): 1.0
Column phase: Rtx-CLP

Instrument: ecd6a.i

Operator: RXE1
Column diameter: 0.25

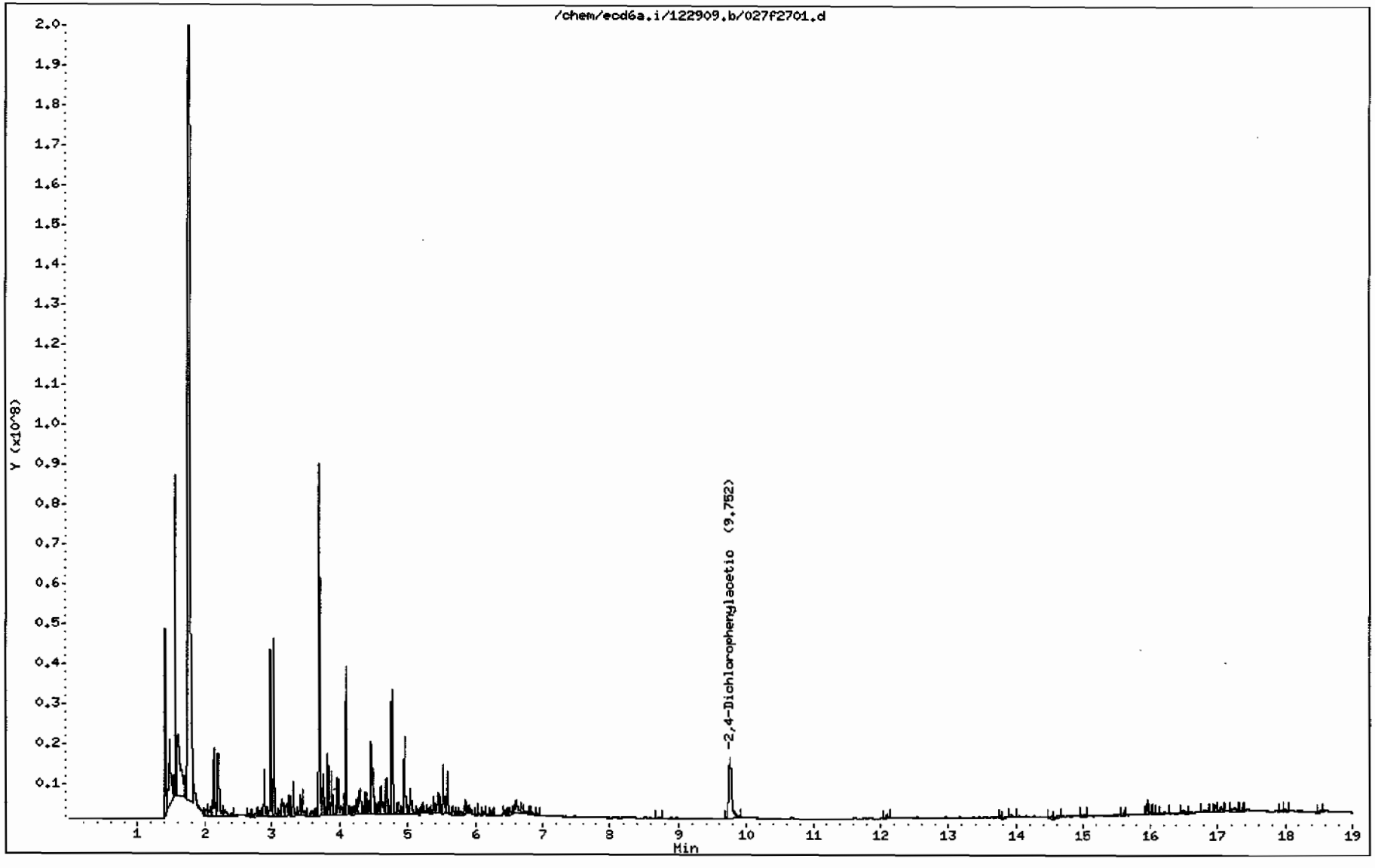

GEL Laboratories LLC

Column: RtxCLPII 0.25mm x 30 m Inj Vol: 2ul

Data file : /chem/ecd6a.i/122909.b/027b2701.d
Lab Smp Id: 243549002 Client Smp ID: WST03-10-2148
Inj Date : 30-DEC-2009 02:27
Operator : RXE1 Inst ID: ecd6a.i
Smp Info : |243549002|1|
Misc Info : |ECD51H_1S|937099|SVH|LANL|SOIL|WST03-10-2148|||
Comment : RtxCLPII
Method : /chem/ecd6a.i/122909.b/ECD6-B-8151A-122909.m
Meth Date : 31-Dec-2009 09:04 reb01393 Quant Type: ESTD
Cal Date : 29-DEC-2009 17:03 Cal File: 007b0701.d
Als bottle: 27
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1085.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	10.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	50.02000	Weight of sample extracted (g)
M	7.19000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)
$ 2 2,4-Dichlorophenylacetic acid					CAS #: 19719-28-9
10.805	10.801	0.004	66389312	315.481	68.0

Data File: /chem/ecd6a.i/122909.b/027b2701.d
Date : 30-DEC-2009 02:27
Client ID: WST03-10-2148
Sample Info: |2435490021|1|
Volume Injected (uL): 1.0
Column phase: Rtx-CLPII

Instrument: ecd6a.i

Operator: RXE1
Column diameter: 0.25

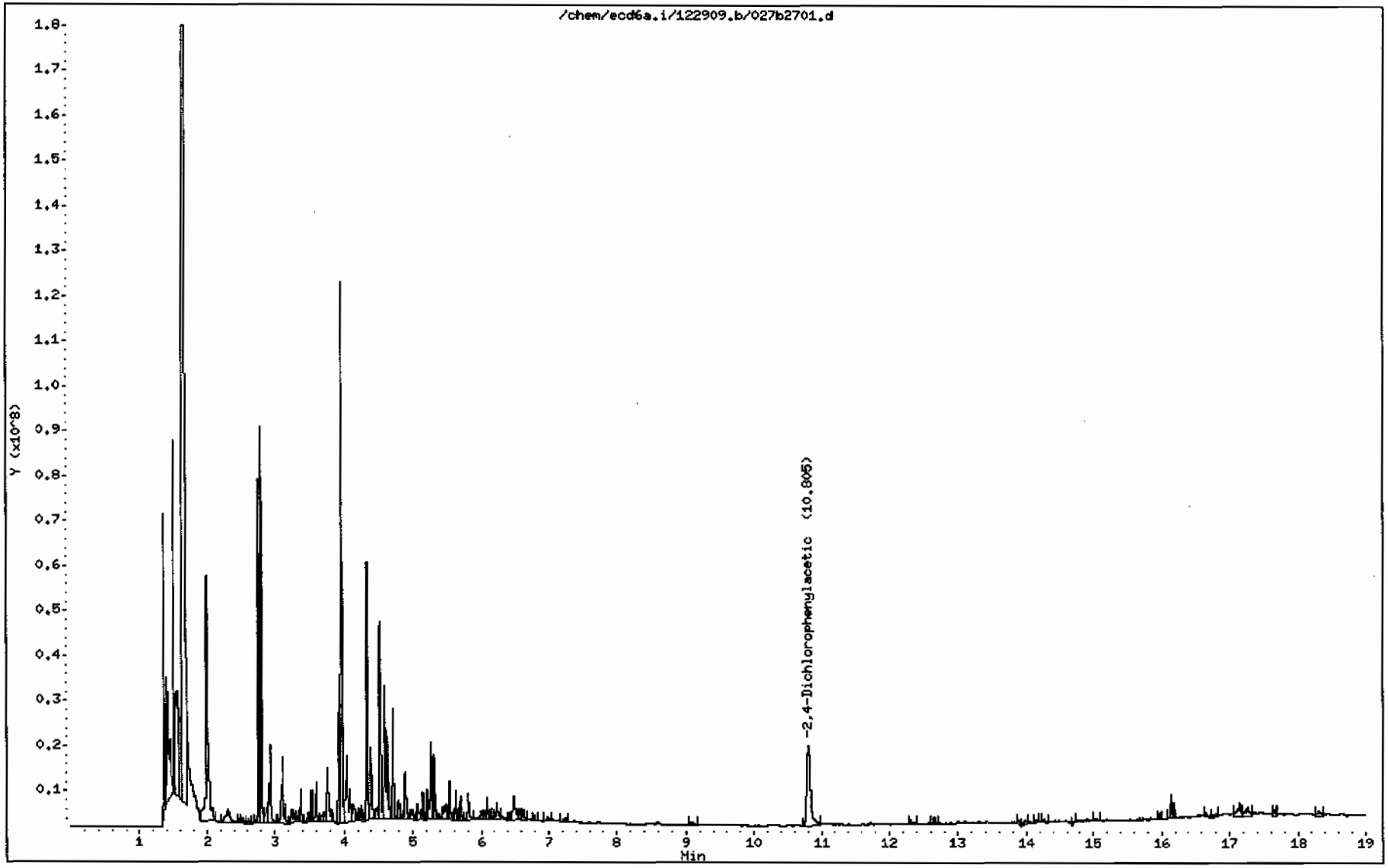

STANDARDS DATA

Report Date: 30-Dec-2009 10:11

Calibration History

Method : /chem/ecd6a.i/122909.b/ECD6-F-8151A-122909.m
Start Cal Date: 11-NOV-2009 16:39
End Cal Date : 29-DEC-2009 17:31

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 25.00000		
29-DEC-2009 14:41	all	/chem/ecd6a.i/122909.b/002f0201.d
Cal Level: 2 , Cal Amount: 50.00000		
29-DEC-2009 15:10	all	/chem/ecd6a.i/122909.b/003f0301.d
Cal Level: 3 , Cal Amount: 100.00000		
29-DEC-2009 15:38	all	/chem/ecd6a.i/122909.b/004f0401.d
Cal Level: 4 , Cal Amount: 150.00000		
29-DEC-2009 16:07	all	/chem/ecd6a.i/122909.b/005f0501.d
Cal Level: 5 , Cal Amount: 200.00000		
29-DEC-2009 16:35	all	/chem/ecd6a.i/122909.b/006f0601.d
Cal Level: 6 , Cal Amount: 300.00000		
29-DEC-2009 17:03	all	/chem/ecd6a.i/122909.b/007f0701.d
Cal Level: 7 , Cal Amount: 400.00000		
29-DEC-2009 17:31	all	/chem/ecd6a.i/122909.b/008f0801.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 5

Ccal Level: 5 , Ccal Amount: 200		
30-DEC-2009 07:35	all	/chem/ecd6a.i/122909.b/038f3801.d
Ccal Level: 5 , Ccal Amount: 200		
30-DEC-2009 03:51	all	/chem/ecd6a.i/122909.b/030f3001.d

Ccal Level: 5 , Ccal Amount: 200		
29-DEC-2009 22:42	all	/chem/ecd6a.i/122909.b/019f1901.d
Ccal Level: 5 , Ccal Amount: 200		
29-DEC-2009 18:00	all	/chem/ecd6a.i/122909.b/009f0901.d
Ccal Level: 5 , Ccal Amount: 200		
29-DEC-2009 16:35	all	/chem/ecd6a.i/122909.b/006f0601.d

Report Date: 30-Dec-2009 10:11

Calibration History

Method : /chem/ecd6a.i/122909.b/ECD6-B-8151A-122909.m
Start Cal Date: 11-NOV-2009 16:39
End Cal Date : 29-DEC-2009 17:31

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 25.00000		
29-DEC-2009 14:41	all	/chem/ecd6a.i/122909.b/002b0201.d
Cal Level: 2 , Cal Amount: 50.00000		
29-DEC-2009 15:10	all	/chem/ecd6a.i/122909.b/003b0301.d
Cal Level: 3 , Cal Amount: 100.00000		
29-DEC-2009 15:38	all	/chem/ecd6a.i/122909.b/004b0401.d
Cal Level: 4 , Cal Amount: 150.00000		
29-DEC-2009 16:07	all	/chem/ecd6a.i/122909.b/005b0501.d
Cal Level: 5 , Cal Amount: 200.00000		
29-DEC-2009 16:35	all	/chem/ecd6a.i/122909.b/006b0601.d
Cal Level: 6 , Cal Amount: 300.00000		
29-DEC-2009 17:03	all	/chem/ecd6a.i/122909.b/007b0701.d
Cal Level: 7 , Cal Amount: 400.00000		
29-DEC-2009 17:31	all	/chem/ecd6a.i/122909.b/008b0801.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 5

Ccal Level: 5 , Ccal Amount: 200		
30-DEC-2009 07:35	all	/chem/ecd6a.i/122909.b/038b3801.d
Ccal Level: 5 , Ccal Amount: 200		
30-DEC-2009 03:51	all	/chem/ecd6a.i/122909.b/030b3001.d
Ccal Level: 5 , Ccal Amount: 200		
29-DEC-2009 22:42	all	/chem/ecd6a.i/122909.b/019b1901.d

Ccal Level: 5 , Ccal Amount: 200		
29-DEC-2009 18:00	all	/chem/ecd6a.i/122909.b/009b0901.d
Ccal Level: 5 , Ccal Amount: 200		
29-DEC-2009 16:35	all	/chem/ecd6a.i/122909.b/006b0601.d
Ccal Level: 5 , Ccal Amount: 200		
29-DEC-2009 15:38	all	/chem/ecd6a.i/122909.b/004b0401.d

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd6a.i/122909.b/ECD6-F-8151A-122909.m
Quant Method : ESTD Target Version : 3.50
Last Update : 30-Dec-2009 09:50 Number of Cpnds : 12
Data Type : GC DATA

Global Integrator : Falcon

Chromat Events	Values
Initial:Start Threshold	72858.000000
Initial:End Threshold	36429.000000
Initial:Area Threshold	728580.000000
Initial:P-P Resolution	1.000000
Initial:Bunch Factor	20.000000
Initial:Negative Peaks	OFF
Initial:Tension	1.000000

	Compound	RT	RT Window	RF
	1 Dalapon	3.645	3.615-3.675	1.179e+05
$	2 2,4-Dichlorophenylacetic a	9.741	9.681-9.801	1.462e+05
	3 Dicamba	10.201	10.141-10.261	5.505e+05
	4 MCPP	10.952	10.892-11.012	5.451e+02
	5 MCPA	11.385	11.325-11.445	9.195e+02
	6 Dichlorprop	12.050	11.990-12.110	1.395e+05
	7 2,4-D	12.364	12.304-12.424	1.431e+05
	43 Pentachlorophenol	12.514	12.494-12.534	1.575e+06
	8 2,4,5-TP	13.180	13.150-13.210	6.113e+05
	9 2,4,5-T	13.398	13.358-13.438	5.393e+05
	10 2,4-DB	13.767	13.727-13.807	7.720e+04
	11 Dinoseb	14.356	14.326-14.386	2.951e+05

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd6a.i/122909.b/ECD6-B-8151A-122909.m
Quant Method : ESTD Target Version : 3.50
Last Update : 30-Dec-2009 09:48 Number of Cpnds : 12
Data Type : GC DATA

Global Integrator : Falcon

Chromat Events	Values
Initial:Start Threshold	105244.000000
Initial:End Threshold	52622.000000
Initial:Area Threshold	1052440.000000
Initial:P-P Resolution	1.000000
Initial:Bunch Factor	25.000000
Initial:Negative Peaks	OFF
Initial:Tension	2.000000

	Compound	RT	RT Window	RF
	1 Dalapon	3.596	3.566-3.626	1.907e+05
$	2 2,4-Dichlorophenylacetic a	10.801	10.741-10.861	2.104e+05
	3 MCPP	11.672	11.612-11.732	7.445e+02
	4 Dicamba	11.294	11.234-11.354	7.740e+05
	5 MCPA	12.069	12.009-12.129	1.235e+03
	6 Dichlorprop	12.508	12.448-12.568	1.964e+05
	7 2,4-D	12.838	12.778-12.898	2.194e+05
	43 Pentachlorophenol	13.115	13.095-13.135	2.536e+06
	8 2,4,5-TP	13.501	13.471-13.531	9.002e+05
	9 2,4,5-T	13.755	13.725-13.785	7.762e+05
	10 Dinoseb	14.226	14.196-14.256	4.527e+05
	11 2,4-DB	14.057	14.017-14.097	1.108e+05

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 11-NOV-2009 16:39
End Cal Date : 29-DEC-2009 17:31
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd6a.i/122909.b/ECD6-F-8151A-122909.m
Cal Date : 30-Dec-2009 09:50 reb01393
Curve Type : Average

Calibration File Names:
Level 1: /chem/ecd6a.i/122909.b/002f0201.d
Level 2: /chem/ecd6a.i/122909.b/003f0301.d
Level 3: /chem/ecd6a.i/122909.b/004f0401.d
Level 4: /chem/ecd6a.i/122909.b/005f0501.d
Level 5: /chem/ecd6a.i/122909.b/006f0601.d
Level 6: /chem/ecd6a.i/122909.b/007f0701.d
Level 7: /chem/ecd6a.i/122909.b/008f0801.d

Compound	25.000 Level 1 / 400.000 Level 7	50.000 Level 2	100.000 Level 3	150.000 Level 4	200.000 Level 5	300.000 Level 6	RRF	% RSD
1 Dalapon	+++++ / 124189	112914	102736	130254	114183	123240	117919	8.389
3 Dicamba	567027 / 517602	584817	540904	558443	557930	527011	550533	4.257
4 MCPP	+++++ / 550	538	520	554	564	546	545	2.761
5 MCPA	+++++ / 857	1027	907	946	917	864	920	6.780
6 Dichlorprop	159113 / 125206	155115	135188	137961	135593	128384	139509	9.220
7 2,4-D	143574 / 141197	144687	133047	152385	145714	141247	143122	4.073
43 Pentachlorophenol	1681918 / 1455410	1716221	1538900	1579875	1561747	1488517	1574655	6.061

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 11-NOV-2009 16:39
End Cal Date : 29-DEC-2009 17:31
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd6a.i/122909.b/ECD6-F-8151A-122909.m
Cal Date : 30-Dec-2009 09:50 reb01393
Curve Type : Average

Compound	25.000 Level 1	50.000 Level 2	100.000 Level 3	150.000 Level 4	200.000 Level 5	300.000 Level 6	400.000 Level 7	RRF	% RSD
8 2,4,5-TP	640121	661537	602594	617952	609989	578752	567961	611272	5.349
9 2,4,5-T	510369	545900	515102	573504	555702	541458	533280	539331	4.108
10 2,4-DB	62331	82394	76647	80406	81215	78656	78778	77204	8.839
11 Dinoseb	306551	315909	280181	291619	297508	290658	283502	295132	4.283
$ 2 2,4-Dichlorophenylacetic acid	156014	159778	145059	147894	144602	136457	133777	146226	6.468

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 11-NOV-2009 16:39
End Cal Date : 29-DEC-2009 17:31
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd6a.i/122909.b/ECD6-B-8151A-122909.m
Cal Date : 30-Dec-2009 09:48 reb01393
Curve Type : Average

Calibration File Names:
Level 1: /chem/ecd6a.i/122909.b/002b0201.d
Level 2: /chem/ecd6a.i/122909.b/003b0301.d
Level 3: /chem/ecd6a.i/122909.b/004b0401.d
Level 4: /chem/ecd6a.i/122909.b/005b0501.d
Level 5: /chem/ecd6a.i/122909.b/006b0601.d
Level 6: /chem/ecd6a.i/122909.b/007b0701.d
Level 7: /chem/ecd6a.i/122909.b/008b0801.d

Compound	25.000 Level 1 400.000 Level 7	50.000 Level 2	100.000 Level 3	150.000 Level 4	200.000 Level 5	300.000 Level 6	RRF	% RSD
1 Dalapon	+++++ 211738	166591	157098	214155	184925	209632	190690	13.047
3 MCPP	+++++ 777	720	703	737	757	773	745	3.993
4 Dicamba	753668 767825	796553	749176	787450	794267	769200	774020	2.469
5 MCPA	+++++ 1175	1369	1205	1234	1231	1198	1235	5.584
6 Dichlorprop	202198 190019	205644	189947	196711	198470	191672	196380	3.140
7 2,4-D	200613 223391	223071	205246	233681	225056	224691	219393	5.414
43 Pentachlorophenol	2462374 2561343	2602851	2442130	2536909	2597975	2545904	2535641	2.457

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 11-NOV-2009 16:39
End Cal Date : 29-DEC-2009 17:31
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd6a.i/122909.b/ECD6-B-8151A-122909.m
Cal Date : 30-Dec-2009 09:48 reb01393
Curve Type : Average

Compound	25.000 Level 1 / 400.000 Level 7	50.000 Level 2	100.000 Level 3	150.000 Level 4	200.000 Level 5	300.000 Level 6	RRF	% RSD
8 2,4,5-TP	860628	908562	860057	913542	939404	902408		
	917137						900248	3.287
9 2,4,5-T	743333	759650	711004	824810	794042	797718		
	802620						776168	5.112
10 Dinoseb	454192	460907	414217	453808	459728	464628		
	461615						452728	3.850
11 2,4-DB	117114	113949	106365	109981	111626	107692		
	108565						110756	3.407
$ 2 2,4-Dichlorophenylacetic acid	209331	218543	203433	213177	214374	207467		
	206743						210438	2.465

FORM 7
HERBICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1085

Instrument ID: ECD6A Calibration Date: 12/29/09 Time: 1800

Lab File ID: 009F0901 Init. Calib. Date(s): 12/29/09 12/29/09

Heated Purge: (Y/N) N Init. Calib. Times: 1441 1731

GC Column: RTX-CLP ID: 0.25 (mm)

COMPOUND	RRF	RRF200	MIN RRF	%D	MAX %D
Dalapon	117919.34	116762.63	0.005	-1.0	15.0
MCPA	919.544	886.723	0.005	-3.6	15.0
2,4-D	143121.52	137762.79	0.005	-3.7	15.0
2,4,5-T	539330.84	522561.40	0.005	-3.1	15.0
Dinoseb	295132.45	275645.30	0.005	-6.6	15.0
MCPP	545.134	527.460	0.01	-3.2	15.0
Dichlorprop	139508.58	127567.25	0.01	-8.6	15.0
2,4,5-TP	611272.23	577079.30	0.01	-5.6	15.0
Dicamba	550533.48	522801.13	0.01	-5.0	15.0
2,4-DB	77203.777	74881.461	0.01	-3.0	15.0
Pentachlorophenol	1574655.3	1467600.6	0.01	-6.8	15.0
2,4-Dichlorophenylacetic aci	146226.14	144625.10	0.01	-1.1	15.0

FORM VII HERBICIDE

FORM 7
HERBICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1085

Instrument ID: ECD6A Calibration Date: 12/29/09 Time: 1800

Lab File ID: 009B0901 Init. Calib. Date(s): 12/29/09 12/29/09

Heated Purge: (Y/N) N Init. Calib. Times: 1441 1731

GC Column: RTX-CLPII ID: 0.25 (mm)

COMPOUND	RRF	RRF200	MIN RRF	%D	MAX %D
Dalapon	190689.75	191722.14	0.005	0.5	15.0
MCPA	1235.425	1198.139	0.005	-3.0	15.0
2,4-D	219392.61	215541.87	0.005	-1.8	15.0
2,4,5-T	776168.18	755969.53	0.005	-2.6	15.0
Dinoseb	452727.70	425738.62	0.005	-6.0	15.0
MCPP	744.529	692.365	0.01	-7.0	15.0
Dichlorprop	196380.13	185740.23	0.01	-5.4	15.0
2,4,5-TP	900248.44	863712.76	0.01	-4.0	15.0
Dicamba	774019.98	743092.53	0.01	-4.0	15.0
2,4-DB	110756.05	101563.93	0.01	-8.3	15.0
Pentachlorophenol	2535640.7	2397642.3	0.01	-5.4	15.0
2,4-Dichlorophenylacetic aci	210438.46	213242.05	0.01	1.3	15.0

FORM VII HERBICIDE

FORM 7
HERBICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1085

Instrument ID: ECD6A Calibration Date: 12/29/09 Time: 2242

Lab File ID: 019F1901 Init. Calib. Date(s): 12/29/09 12/29/09

Heated Purge: (Y/N) N Init. Calib. Times: 1441 1731

GC Column: RTX-CLP ID: 0.25 (mm)

COMPOUND	RRF	RRF200	MIN RRF	%D	MAX %D
Dalapon	117919.34	125210.81	0.005	6.2	15.0
MCPA	919.544	852.827	0.005	-7.2	15.0
2,4-D	143121.52	161908.35	0.005	13.1	15.0
2,4,5-T	539330.84	579639.12	0.005	7.5	15.0
Dinoseb	295132.45	310511.99	0.005	5.2	15.0
MCPP	545.134	513.185	0.01	-5.9	15.0
Dichlorprop	139508.58	135880.61	0.01	-2.6	15.0
2,4,5-TP	611272.23	625868.97	0.01	2.4	15.0
Dicamba	550533.48	550094.19	0.01	-0.1	15.0
2,4-DB	77203.777	84161.730	0.01	9.0	15.0
Pentachlorophenol	1574655.3	1483943.5	0.01	-5.8	15.0
2,4-Dichlorophenylacetic aci	146226.14	154113.91	0.01	5.4	15.0

FORM VII HERBICIDE

FORM 7
HERBICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1085

Instrument ID: ECD6A Calibration Date: 12/29/09 Time: 2242

Lab File ID: 019B1901 Init. Calib. Date(s): 12/29/09 12/29/09

Heated Purge: (Y/N) N Init. Calib. Times: 1441 1731

GC Column: RTX-CLPII ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF200	MIN RRF	%D	MAX %D
Dalapon	190689.75	192071.26	0.005	0.7	15.0
MCPA	1235.425	1070.101	0.005	-13.4	15.0
2,4-D	219392.61	229270.40	0.005	4.5	15.0
2,4,5-T	776168.18	810313.26	0.005	4.4	15.0
Dinoseb	452727.70	473842.59	0.005	4.7	15.0
MCPP	744.529	660.247	0.01	-11.3	15.0
Dichlorprop	196380.13	191713.49	0.01	-2.4	15.0
2,4,5-TP	900248.44	900281.52	0.01	0.0	15.0
Dicamba	774019.98	762755.53	0.01	-1.4	15.0
2,4-DB	110756.05	107433.94	0.01	-3.0	15.0
Pentachlorophenol	2535640.7	2396521.2	0.01	-5.5	15.0
2,4-Dichlorophenylacetic aci	210438.46	214958.11	0.01	2.1	15.0

FORM VII HERBICIDE

FORM 7
HERBICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1085

Instrument ID: ECD6A Calibration Date: 12/30/09 Time: 0351

Lab File ID: 030F3001 Init. Calib. Date(s): 12/29/09 12/29/09

Heated Purge: (Y/N) N Init. Calib. Times: 1441 1731

GC Column: RTX-CLP ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF200	MIN RRF	%D	MAX %D
Dalapon	117919.34	131304.40	0.005	11.4	15.0
MCPA	919.544	915.449	0.005	-0.4	15.0
2,4-D	143121.52	158970.94	0.005	11.1	15.0
2,4,5-T	539330.84	596230.22	0.005	10.5	15.0
Dinoseb	295132.45	302079.18	0.005	2.4	15.0
MCPP	545.134	555.281	0.01	1.9	15.0
Dichlorprop	139508.58	140912.24	0.01	1.0	15.0
2,4,5-TP	611272.23	649238.51	0.01	6.2	15.0
Dicamba	550533.48	568893.77	0.01	3.3	15.0
2,4-DB	77203.777	84299.330	0.01	9.2	15.0
Pentachlorophenol	1574655.3	1602220.3	0.01	1.8	15.0
2,4-Dichlorophenylacetic aci	146226.14	159611.16	0.01	9.2	15.0

FORM VII HERBICIDE

FORM 7
HERBICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1085

Instrument ID: ECD6A Calibration Date: 12/30/09 Time: 0351

Lab File ID: 030B3001 Init. Calib. Date(s): 12/29/09 12/29/09

Heated Purge: (Y/N) N Init. Calib. Times: 1441 1731

GC Column: RTX-CLPII ID: 0.25 (mm)

COMPOUND	RRF	RRF200	MIN RRF	%D	MAX %D
Dalapon	190689.75	205711.38	0.005	7.9	15.0
MCPA	1235.425	1121.380	0.005	-9.2	15.0
2,4-D	219392.61	251394.49	0.005	14.6	15.0
2,4,5-T	776168.18	800186.94	0.005	3.1	15.0
Dinoseb	452727.70	461268.84	0.005	1.9	15.0
MCPP	744.529	747.528	0.01	0.4	15.0
Dichlorprop	196380.13	195839.61	0.01	-0.3	15.0
2,4,5-TP	900248.44	957431.68	0.01	6.4	15.0
Dicamba	774019.98	785577.07	0.01	1.5	15.0
2,4-DB	110756.05	111999.07	0.01	1.1	15.0
Pentachlorophenol	2535640.7	2375602.0	0.01	6.3	15.0
2,4-Dichlorophenylacetic aci	210438.46	221778.21	0.01	5.4	15.0

FORM VII HERBICIDE

GEL Laboratories LLC

Column: RtxCLP 0.25mm x 30 m Inj Vol: 2 ul

Data file : /chem/ecd6a.i/122909.b/009f0901.d
Lab Smp Id: WHB091222-08 Client Smp ID: HSTD01
Inj Date : 29-DEC-2009 18:00
Operator : RXE1 Inst ID: ecd6a.i
Smp Info : |WHB091222-08
Misc Info : CHECK
Comment :
Method : /chem/ecd6a.i/122909.b/ECD6-F-8151A-122909.m
Meth Date : 30-Dec-2009 08:58 reb01393 Quant Type: ESTD
Cal Date : 29-DEC-2009 17:03 Cal File: 007f0701.d
Als bottle: 9 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50 Sample Matrix: None

	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)		
	1 Dalapon					CAS #: 75-99-0		
	3.645	3.645	0.000	233525262	2000.00	1980		
$	2 2,4-Dichlorophenylacetic acid					CAS #: 19719-28-9		
	9.741	9.741	0.000	72312549	500.000	494		(M)
	3 Dicamba					CAS #: 6597-78-0		
	10.201	10.201	0.000	104560226	200.000	190		(M)
	4 MCPP					CAS #: 7085-19-0		
	10.952	10.952	0.000	10549190	20000.0	19400		(M)
	5 MCPA					CAS #: 94-74-6		
	11.385	11.385	0.000	17734453	20000.0	19300		(M)
	6 Dichlorprop					CAS #: 120-36-5		
	12.050	12.050	0.000	25513450	200.000	183		(M)
	7 2,4-D					CAS #: 94-75-7		
	12.364	12.364	0.000	27552557	200.000	192		(M)
	43 Pentachlorophenol					CAS #: 87-86-5		
	12.514	12.514	0.000	293520124	200.000	186		(M)
	8 2,4,5-TP					CAS #: 93-72-1		
	13.180	13.180	0.000	115415860	200.000	189		(M)

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)		
9 2,4,5-T					CAS #: 93-76-5		
13.398	13.398	0.000	104512279	200.000	194		(M)
10 2,4-DB					CAS #: 94-82-6		
13.767	13.767	0.000	14976292	200.000	194		(M)
11 Dinoseb					CAS #: 88-85-7		
14.356	14.356	0.000	55129060	200.000	187		(M)

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd6a.i/122909.b/009f0901.d
Date : 29-DEC-2009 18:00
Client ID: HSTD01
Sample Info: IWHB091222-08

Column phase: Rtx-CLP

Instrument: ecd6a.i

Operator: RXE1
Column diameter: 0.25

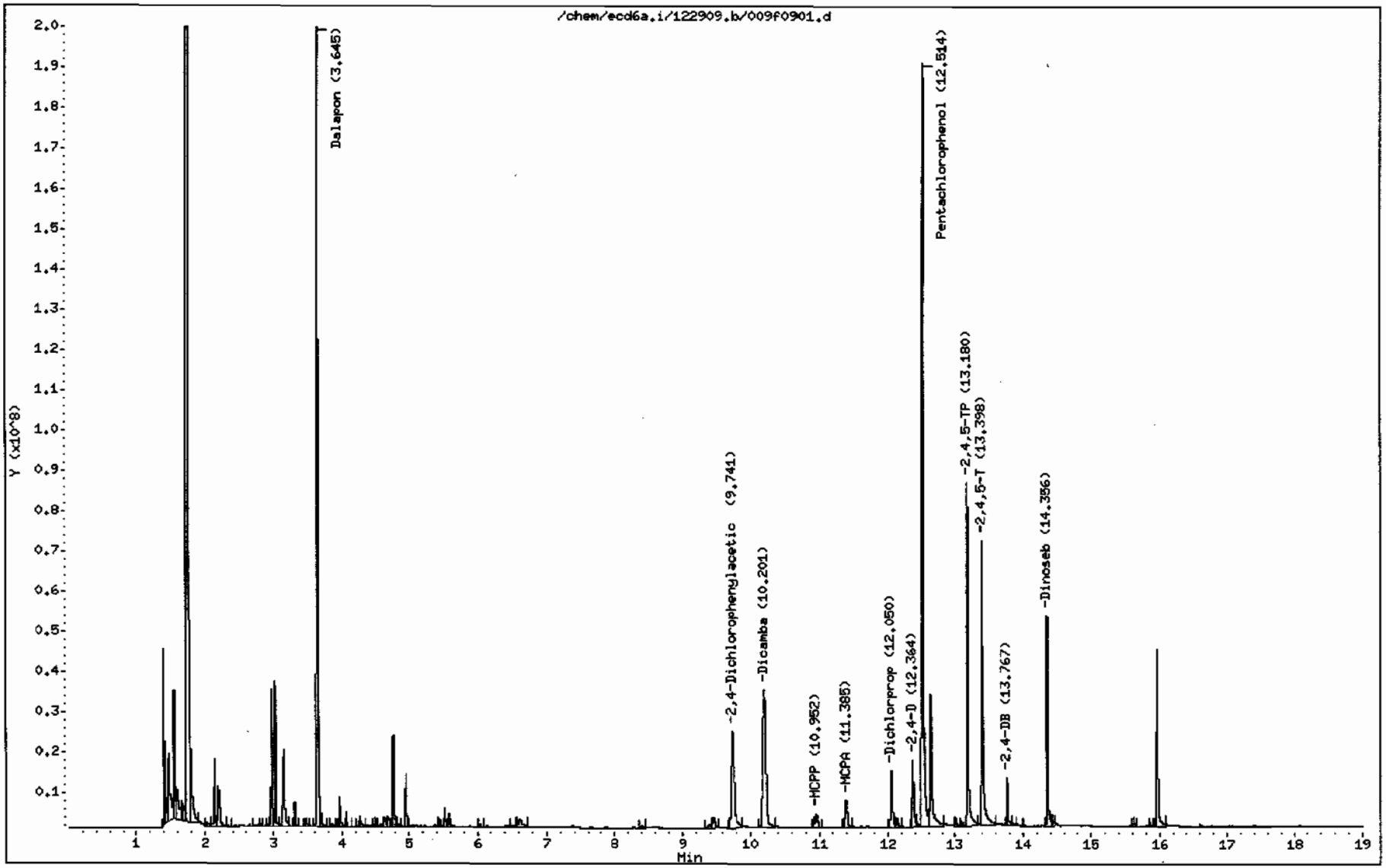

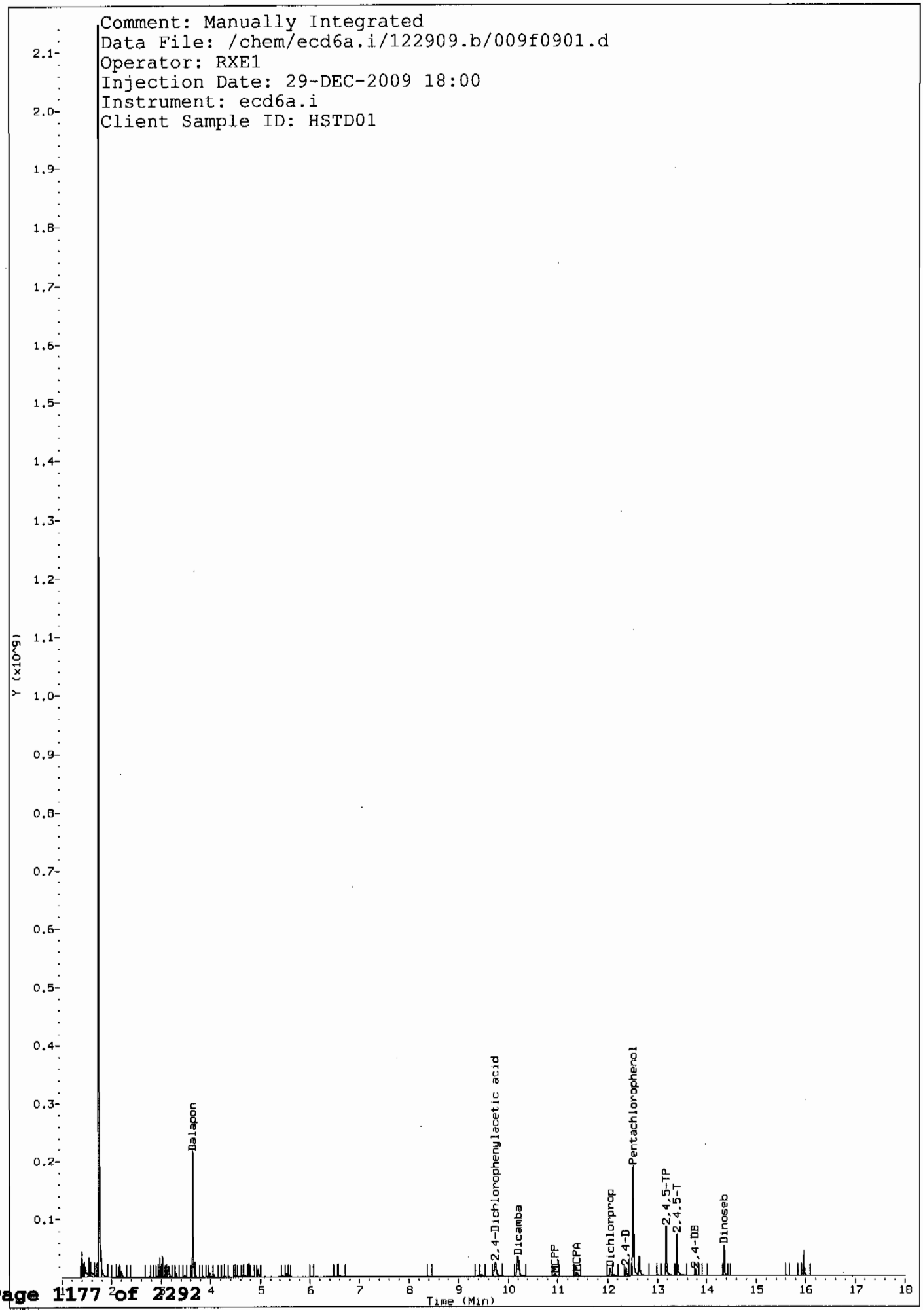
Comment: Manually Integrated
Data File: /chem/ecd6a.i/122909.b/009f0901.d
Operator: RXE1
Injection Date: 29-DEC-2009 18:00
Instrument: ecd6a.i
Client Sample ID: HSTD01
Y (x10^9)
Dalapon
2,4-Dichlorophenylacetic acid
Dicamba
MCPP
MCPA
Dichlorprop
2,4-D
Pentachlorophenol
2,4,5-TP
2,4,5-T
2,4-DB
Dinoseb
Time (Min)

Comment: Before manual integration
Data File: /chem/ecd6a.i/122909.b/orig-009f0901.d
Operator: RXE1
Injection Date: 29-DEC-2009 18:00
Instrument: ecd6a.i
Client Sample ID: HSTD01

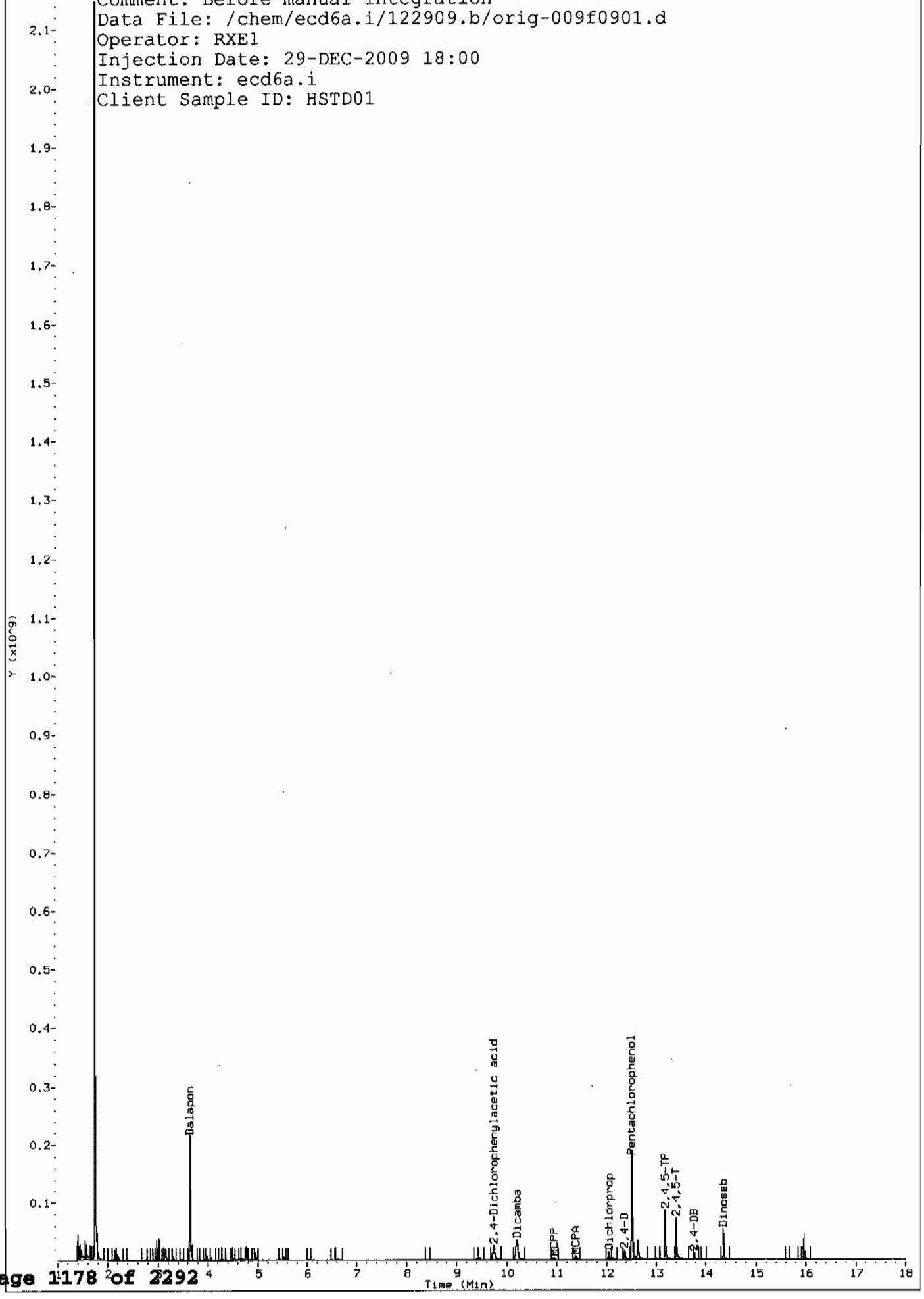

GEL Laboratories LLC

Column: RtxCLPII 0.25mm x 30 m Inj Vol: 2ul

Data file : /chem/ecd6a.i/122909.b/009b0901.d
Lab Smp Id: WHB091222-08 Client Smp ID: HSTD01
Inj Date : 29-DEC-2009 18:00
Operator : RXE1 Inst ID: ecd6a.i
Smp Info : |WHB091222-08
Misc Info : CHECK
Comment : RtxCLPII
Method : /chem/ecd6a.i/122909.b/ECD6-B-8151A-122909.m
Meth Date : 30-Dec-2009 08:58 reb01393 Quant Type: ESTD
Cal Date : 29-DEC-2009 17:03 Cal File: 007b0701.d
Als bottle: 9 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50 Sample Matrix: None

	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)		
	1 Dalapon					CAS #: 88-85-7		
	3.596	3.596	0.000	383444279	2000.00	2010		
$	2 2,4-Dichlorophenylacetic acid					CAS #: 19719-28-9		
	10.801	10.801	0.000	106621022	500.000	507		(M)
	3 MCPP					CAS #: 7085-19-0		
	11.672	11.672	0.000	13847305	20000.0	18600		(M)
	4 Dicamba					CAS #: 6597-78-0		
	11.294	11.294	0.000	148618505	200.000	192		(M)
	5 MCPA					CAS #: 94-74-6		
	12.069	12.069	0.000	23962785	20000.0	19400		(M)
	6 Dichlorprop					CAS #: 120-36-5		
	12.508	12.508	0.000	37148045	200.000	189		(M)
	7 2,4-D					CAS #: 94-75-7		
	12.838	12.838	0.000	43108374	200.000	196		(M)
	43 Pentachlorophenol					CAS #: 87-86-5		
	13.115	13.115	0.000	479528451	200.000	189		(M)
	8 2,4,5-TP					CAS #: 93-72-1		
	13.501	13.501	0.000	172742551	200.000	192		(M)

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)		
9 2,4,5-T					CAS #: 93-76-5		
13.755	13.755	0.000	151193905	200.000	195		(M)
10 Dinoseb					CAS #: 88-85-7		
14.226	14.226	0.000	85147723	200.000	188		(M)
11 2,4-DB					CAS #: 94-82-6		
14.057	14.057	0.000	20312785	200.000	183		(M)

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd6a.i/122909.b/009b0901.d

Date : 29-DEC-2009 18:00

Client ID: HSTD01

Sample Info: IWHB091222-08

Column phase: Rtx-CLPII

Instrument: ecd6a.i

Operator: RXE1

Column diameter: 0.25

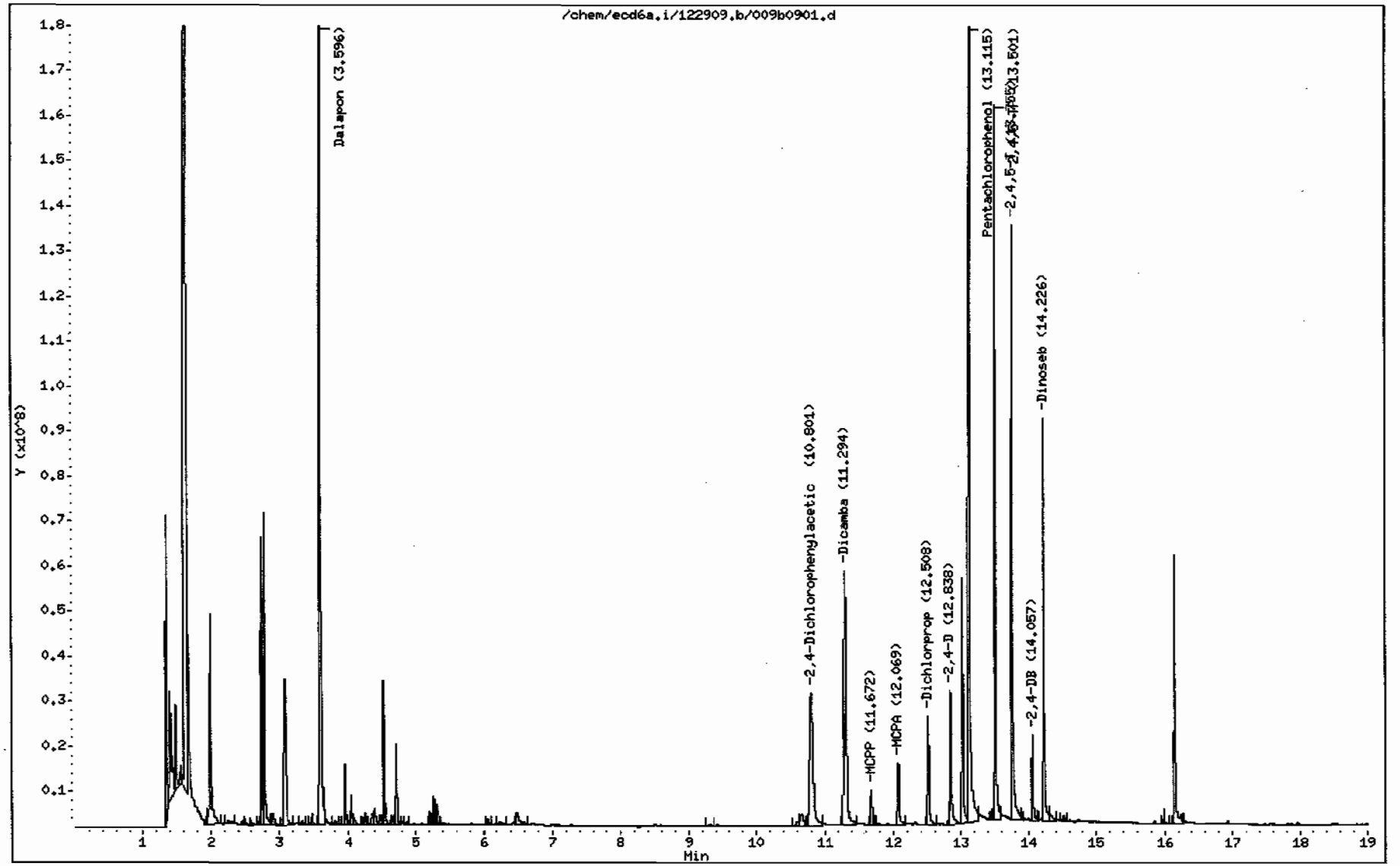

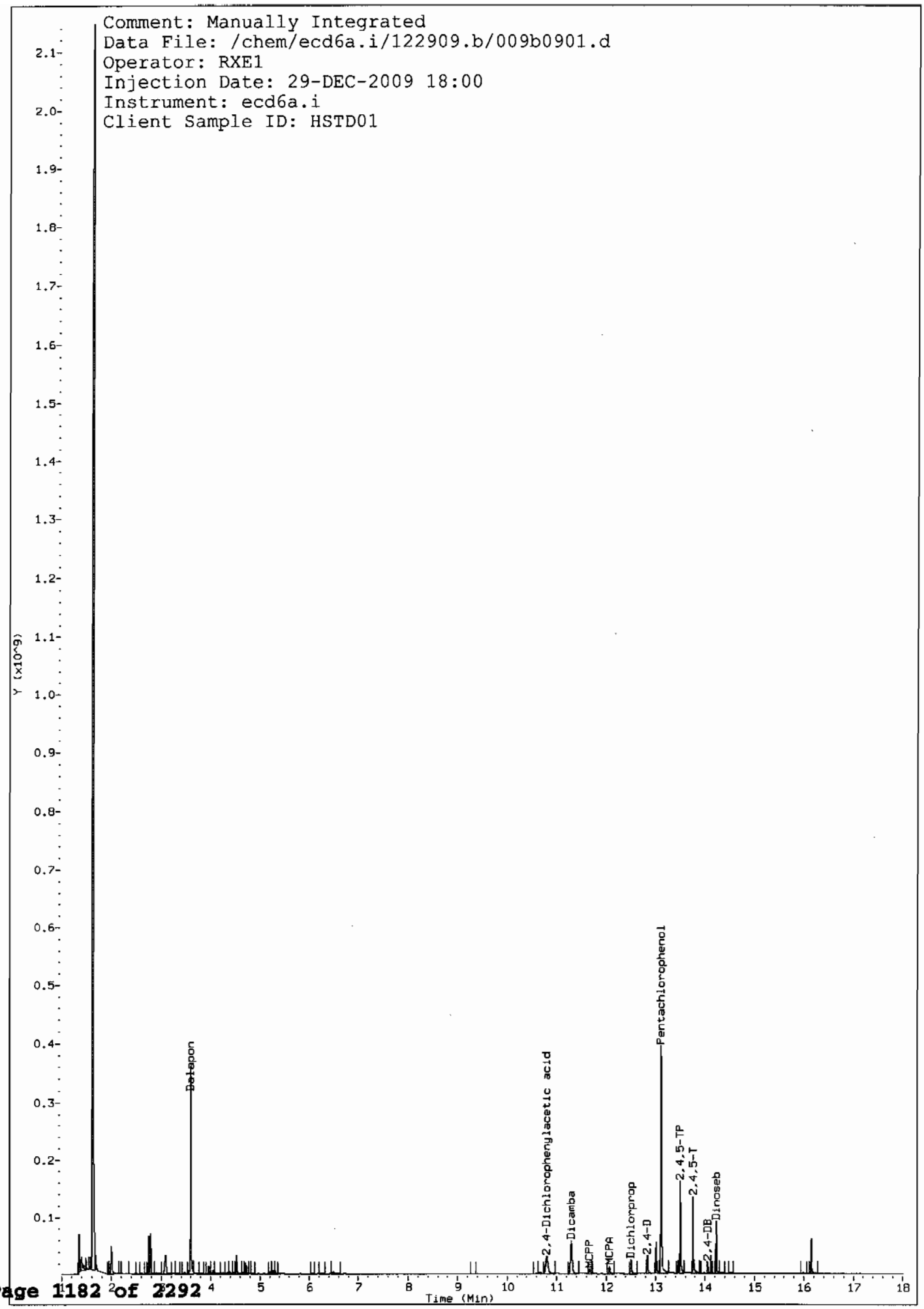
Comment: Manually Integrated
Data File: /chem/ecd6a.i/122909.b/009b0901.d
Operator: RXE1
Injection Date: 29-DEC-2009 18:00
Instrument: ecd6a.i
Client Sample ID: HSTD01
Y (x10^9)
Time (Min)
Bolapon
2,4-Dichlorophenylacetic acid
Dicamba
MCPP
MCPA
Dichlorprop
2,4-D
Pentachlorophenol
2,4,5-TP
2,4,5-T
2,4-DB
Dinoseb

Comment: Before manual integration
Data File: /chem/ecd6a.i/122909.b/orig-009b0901.d
Operator: RXE1
Injection Date: 29-DEC-2009 18:00
Instrument: ecd6a.i
Client Sample ID: HSTD01

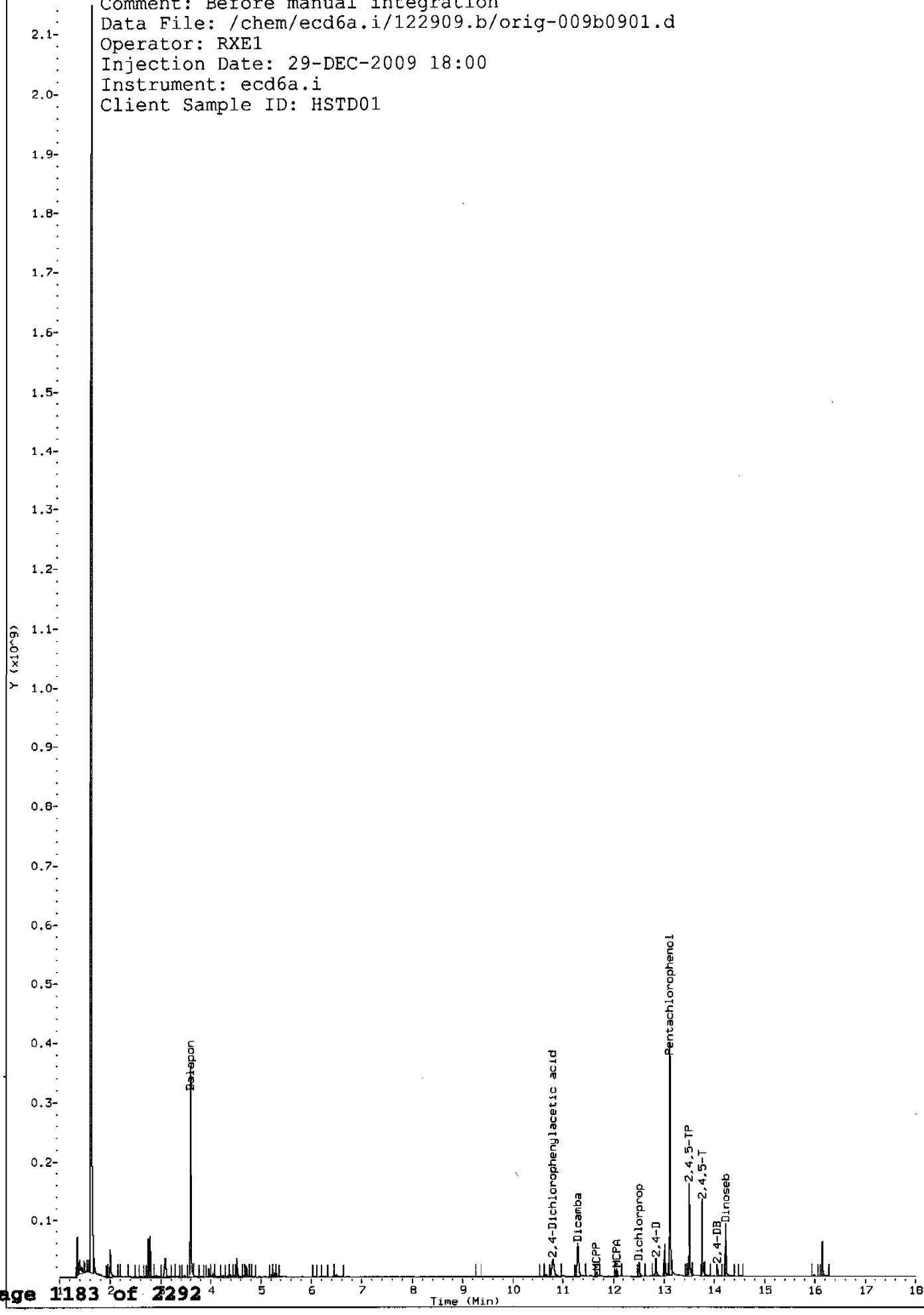

GEL Laboratories LLC

Column: RtxCLP 0.25mm x 30 m Inj Vol: 2 ul

Data file : /chem/ecd6a.i/122909.b/019f1901.d
Lab Smp Id: WHB091222-08 Client Smp ID: HSTD02
Inj Date : 29-DEC-2009 22:42
Operator : RXE1 Inst ID: ecd6a.i
Smp Info : |WHB091222-08
Misc Info : CHECK
Comment :
Method : /chem/ecd6a.i/122909.b/ECD6-F-8151A-122909.m
Meth Date : 31-Dec-2009 09:06 reb01393 Quant Type: ESTD
Cal Date : 29-DEC-2009 17:03 Cal File: 007f0701.d
Als bottle: 19 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50 Sample Matrix: None

	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	
	1 Dalapon						CAS #: 75-99-0
	3.642	3.645	-0.003	250421615	2000.00	2120	
$	2 2,4-Dichlorophenylacetic acid						CAS #: 19719-28-9
	9.734	9.741	-0.007	77056956	500.000	527	
	3 Dicamba						CAS #: 6597-78-0
	10.196	10.201	-0.005	110018839	200.000	200	
	4 MCPP						CAS #: 7085-19-0
	10.947	10.952	-0.005	10263708	20000.0	18800	
	5 MCPA						CAS #: 94-74-6
	11.381	11.385	-0.004	17056538	20000.0	18500	
	6 Dichlorprop						CAS #: 120-36-5
	12.047	12.050	-0.003	27176121	200.000	195	
	7 2,4-D						CAS #: 94-75-7
	12.362	12.364	-0.002	32381670	200.000	226	
	43 Pentachlorophenol						CAS #: 87-86-5
	12.506	12.514	-0.008	296788695	200.000	188	
	8 2,4,5-TP						CAS #: 93-72-1
	13.178	13.180	-0.002	125173795	200.000	205	

				AMOUNTS	
				CAL-AMT	ON-COL
RT	EXP RT	DLT RT	RESPONSE	(ug/L)	(ug/L)
==	======	========	========	=======	=======
9 2,4,5-T					CAS #: 93-76-5
13.396	13.398	-0.002	115927825	200.000	215
10 2,4-DB					CAS #: 94-82-6
13.764	13.767	-0.003	16832346	200.000	218
11 Dinoseb					CAS #: 88-85-7
14.355	14.356	-0.001	62102398	200.000	210

Data File: /chem/ecd6a.i/122909.b/019f1901.d
Date : 29-DEC-2009 22:42
Client ID: HSTD02
Sample Info: IWHB091222-08

Column phase: Rtx-CLP

Instrument: ecd6a.i

Operator: RXE1
Column diameter: 0.25

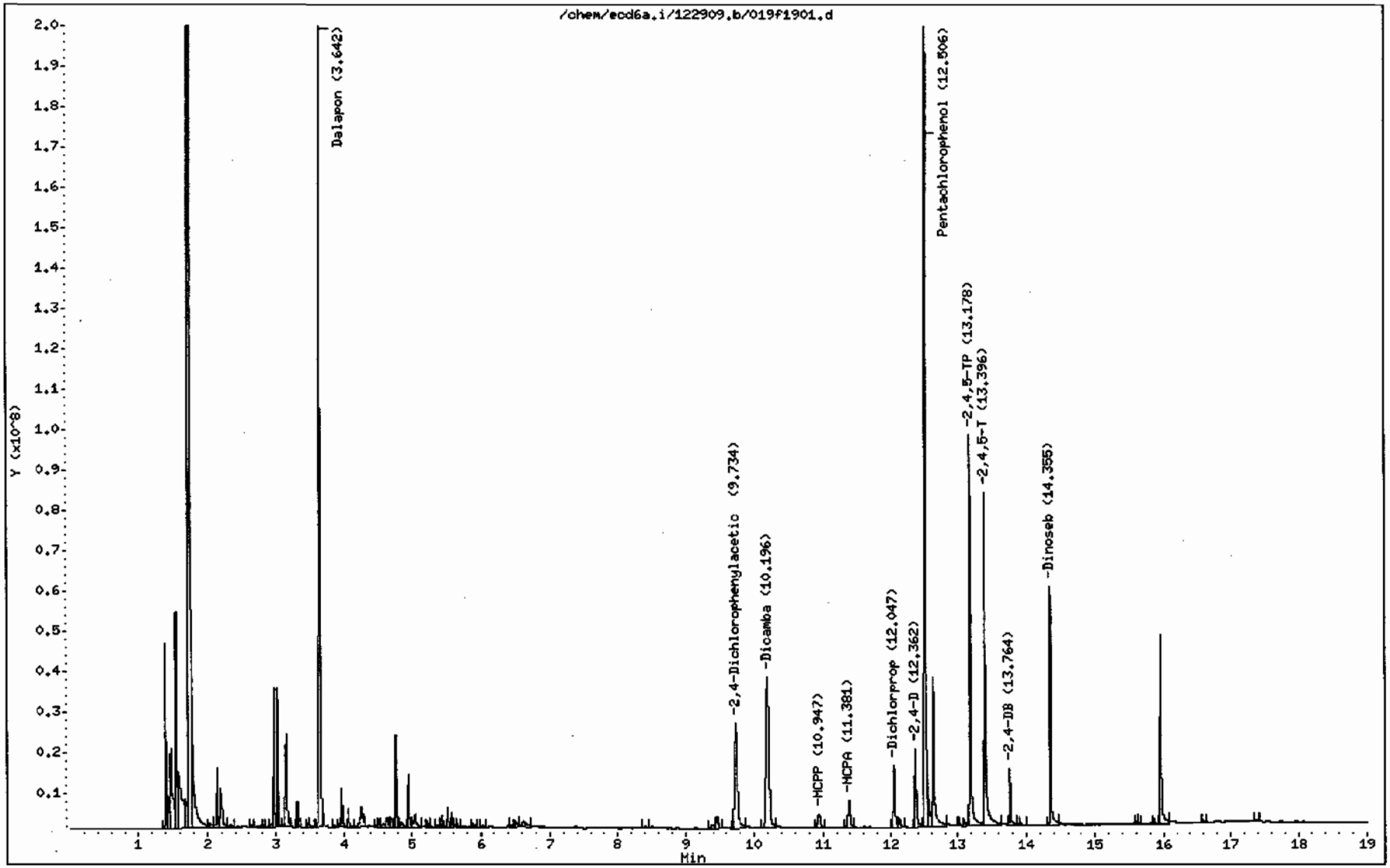

GEL Laboratories LLC

Column: RtxCLPII 0.25mm x 30 m Inj Vol: 2ul

Data file : /chem/ecd6a.i/122909.b/019b1901.d
Lab Smp Id: WHB091222-08 Client Smp ID: HSTD02
Inj Date : 29-DEC-2009 22:42
Operator : RXE1 Inst ID: ecd6a.i
Smp Info : |WHB091222-08
Misc Info : CHECK
Comment : RtxCLPII
Method : /chem/ecd6a.i/122909.b/ECD6-B-8151A-122909.m
Meth Date : 31-Dec-2009 09:04 reb01393 Quant Type: ESTD
Cal Date : 29-DEC-2009 17:03 Cal File: 007b0701.d
Als bottle: 19 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)		
1 Dalapon					CAS #: 88-85-7		
3.591	3.596	-0.005	384142522	2000.00	2010		
$ 2 2,4-Dichlorophenylacetic acid					CAS #: 19719-28-9		
10.791	10.801	-0.010	107479056	500.000	511		(M)
3 MCPP					CAS #: 7085-19-0		
11.668	11.672	-0.004	13204942	20000.0	17700		(M)
4 Dicamba					CAS #: 6597-78-0		
11.287	11.294	-0.007	152551105	200.000	197		(M)
5 MCPA					CAS #: 94-74-6		
12.065	12.069	-0.004	21402018	20000.0	17300		(M)
6 Dichlorprop					CAS #: 120-36-5		
12.505	12.508	-0.003	38342698	200.000	195		(M)
7 2,4-D					CAS #: 94-75-7		
12.835	12.838	-0.003	45854080	200.000	209		(M)
43 Pentachlorophenol					CAS #: 87-86-5		
13.113	13.115	-0.002	479304244	200.000	189		(M)
8 2,4,5-TP					CAS #: 93-72-1		
13.498	13.501	-0.003	180056303	200.000	200		(M)

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	
9 2,4,5-T					CAS #: 93-76-5	
13.753	13.755	-0.002	162062651	200.000	209	(M)
10 Dinoseb					CAS #: 88-85-7	
14.224	14.226	-0.002	94768517	200.000	209	(M)
11 2,4-DB					CAS #: 94-82-6	
14.055	14.057	-0.002	21486788	200.000	194	(M)

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd6a.i/122909.b/019b1901.d
Date : 29-DEC-2009 22:42
Client ID: HSTD02
Sample Info: IWHB091222-08

Column phase: Rtx-CLPII

Instrument: ecd6a.i

Operator: RXE1
Column diameter: 0.25

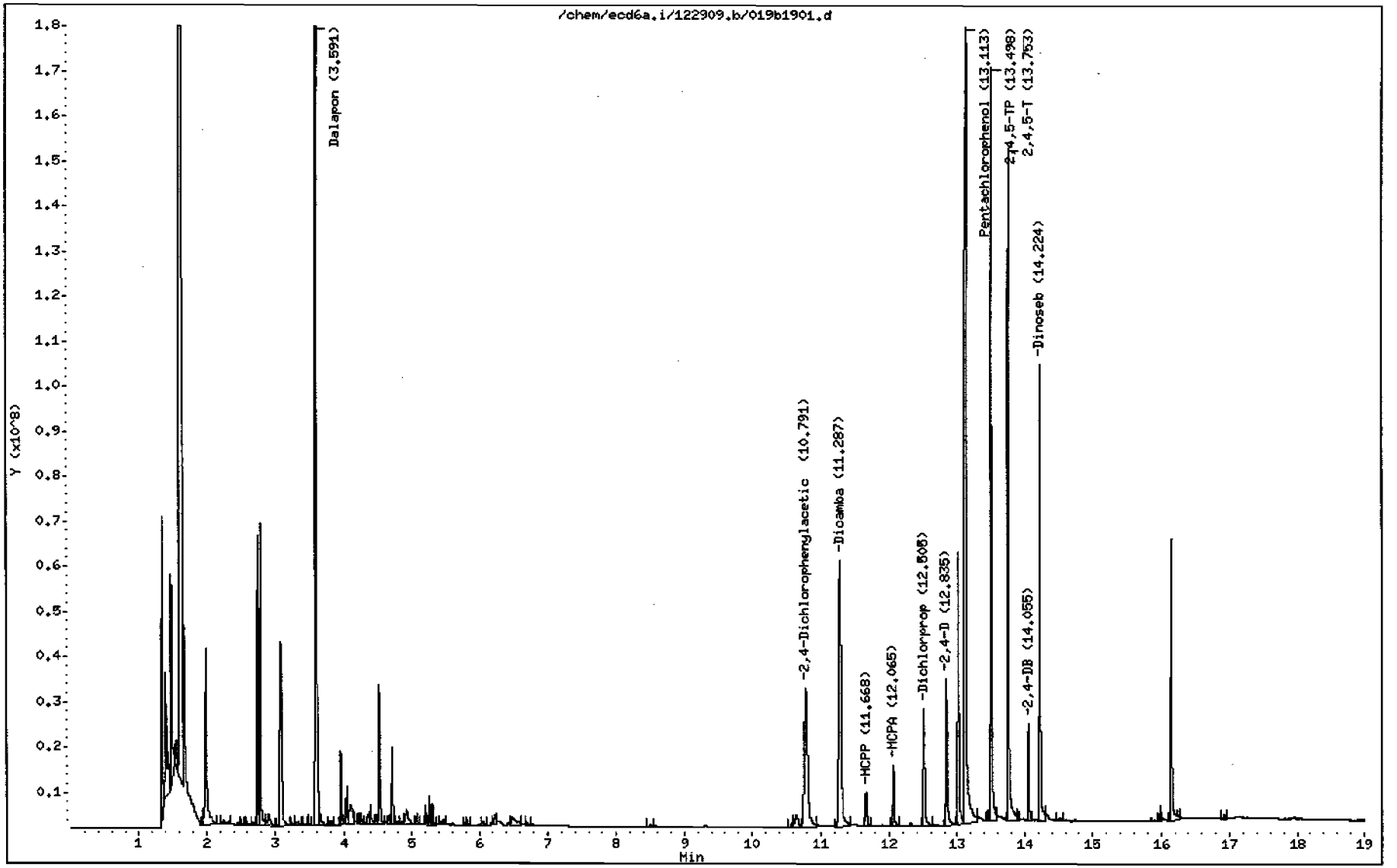

Comment: Manually Integrated
Data File: /chem/ecd6a.i/122909.b/019b1901.d
Operator: RXE1
Injection Date: 29-DEC-2009 22:42
Instrument: ecd6a.i
Client Sample ID: HSTD02

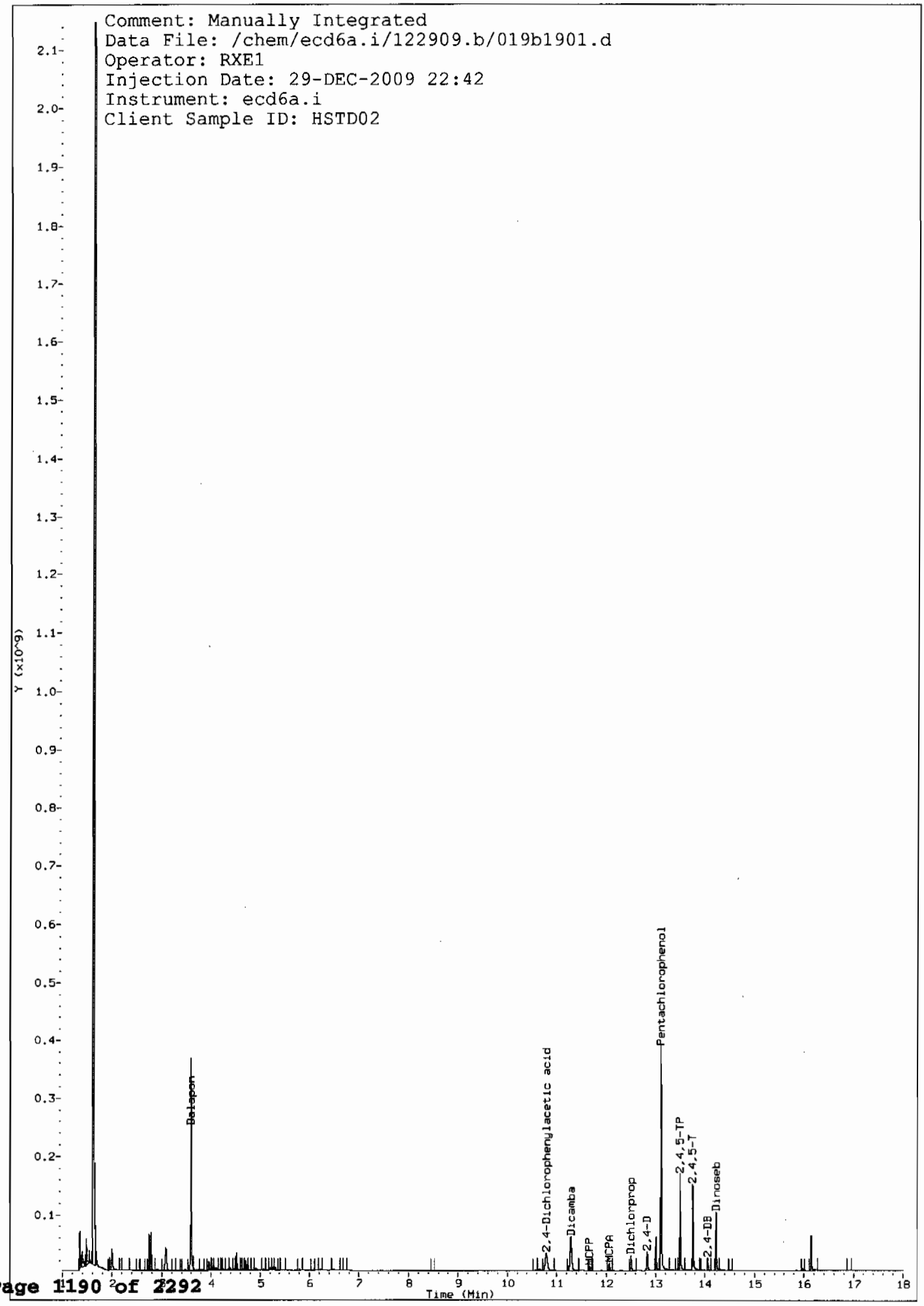

Comment: Before manual integration
Data File: /chem/ecd6a.i/122909.b/orig-019b1901.d
Operator: RXE1
Injection Date: 29-DEC-2009 22:42
Instrument: ecd6a.i
Client Sample ID: HSTD02

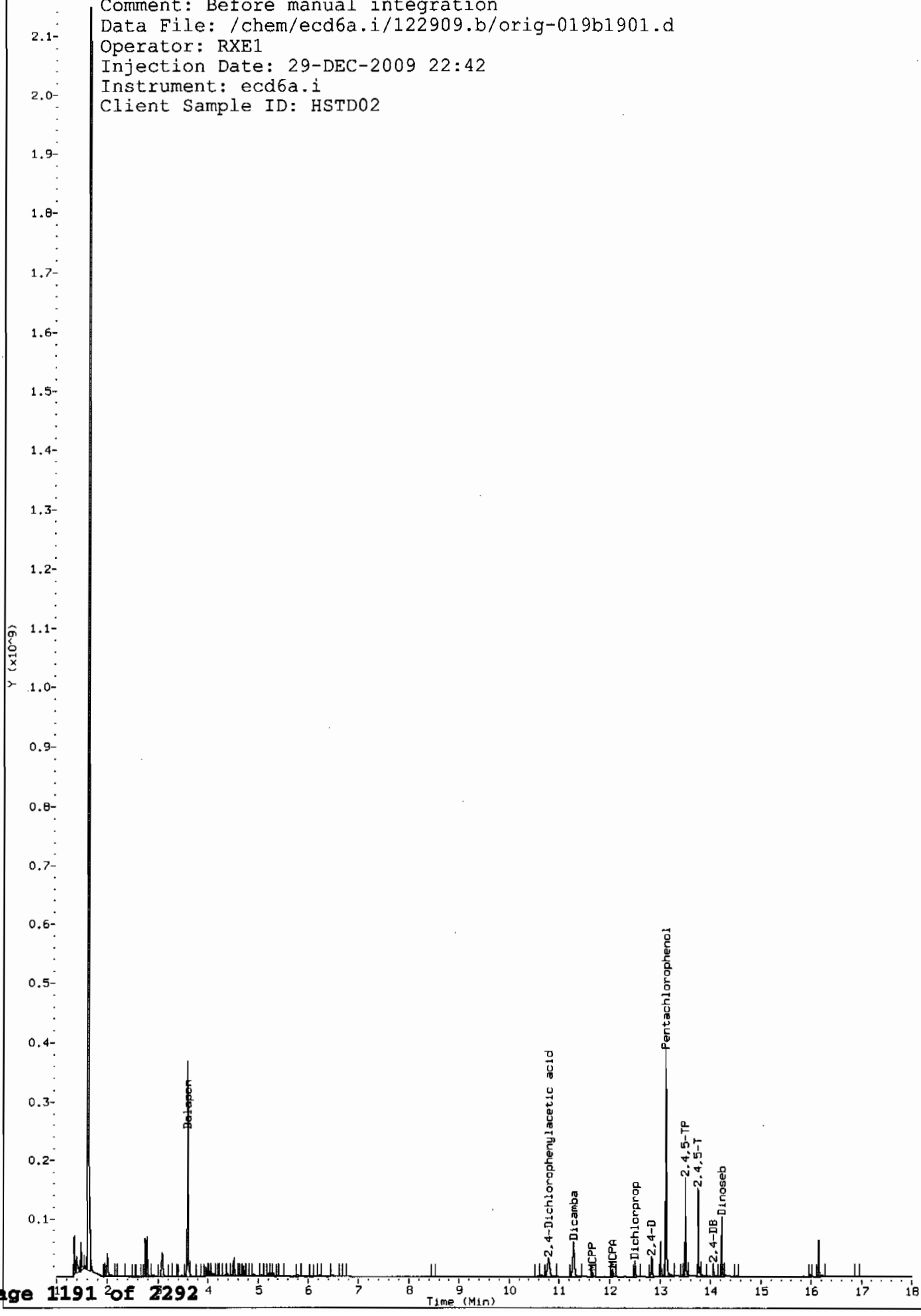

GEL Laboratories LLC

Column: RtxCLP 0.25mm x 30 m Inj Vol: 2 ul

Data file : /chem/ecd6a.i/122909.b/030f3001.d
Lab Smp Id: WHB091222-08 Client Smp ID: HSTD03
Inj Date : 30-DEC-2009 03:51
Operator : RXE1 Inst ID: ecd6a.i
Smp Info : |WHB091222-08
Misc Info : CHECK
Comment :
Method : /chem/ecd6a.i/122909.b/ECD6-F-8151A-122909.m
Meth Date : 30-Dec-2009 11:44 reb01393 Quant Type: ESTD
Cal Date : 29-DEC-2009 17:03 Cal File: 007f0701.d
Als bottle: 30 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50 Sample Matrix: None

	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)		
	1 Dalapon						CAS #: 75-99-0	
	3.644	3.645	-0.001	262608799	2000.00	2230		
$	2 2,4-Dichlorophenylacetic acid						CAS #: 19719-28-9	
	9.736	9.741	-0.005	79805579	500.000	546		
	3 Dicamba						CAS #: 6597-78-0	
	10.199	10.201	-0.002	113778753	200.000	207		
	4 MCPP						CAS #: 7085-19-0	
	10.948	10.952	-0.004	11105628	20000.0	20400		
	5 MCPA						CAS #: 94-74-6	
	11.386	11.385	0.001	18308975	20000.0	19900		
	6 Dichlorprop						CAS #: 120-36-5	
	12.048	12.050	-0.002	28182449	200.000	202		
	7 2,4-D						CAS #: 94-75-7	
	12.363	12.364	-0.001	31794188	200.000	222		(M)
	43 Pentachlorophenol						CAS #: 87-86-5	
	12.512	12.514	-0.002	320444053	200.000	204		(M)
	8 2,4,5-TP						CAS #: 93-72-1	
	13.179	13.180	-0.001	129847701	200.000	212		

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
9 2,4,5-T					CAS #: 93-76-5
13.398	13.398	0.000	119246044	200.000	221
10 2,4-DB					CAS #: 94-82-6
13.766	13.767	-0.001	16859866	200.000	218
11 Dinoseb					CAS #: 88-85-7
14.356	14.356	0.000	60415836	200.000	205

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd6a.i/122909.b/030f3001.d
Date : 30-DEC-2009 03:51
Client ID: HSTD03
Sample Info: IWHB091222-08

Column phase: Rtx-CLP

Instrument: ecd6a.i

Operator: RXE1
Column diameter: 0.25

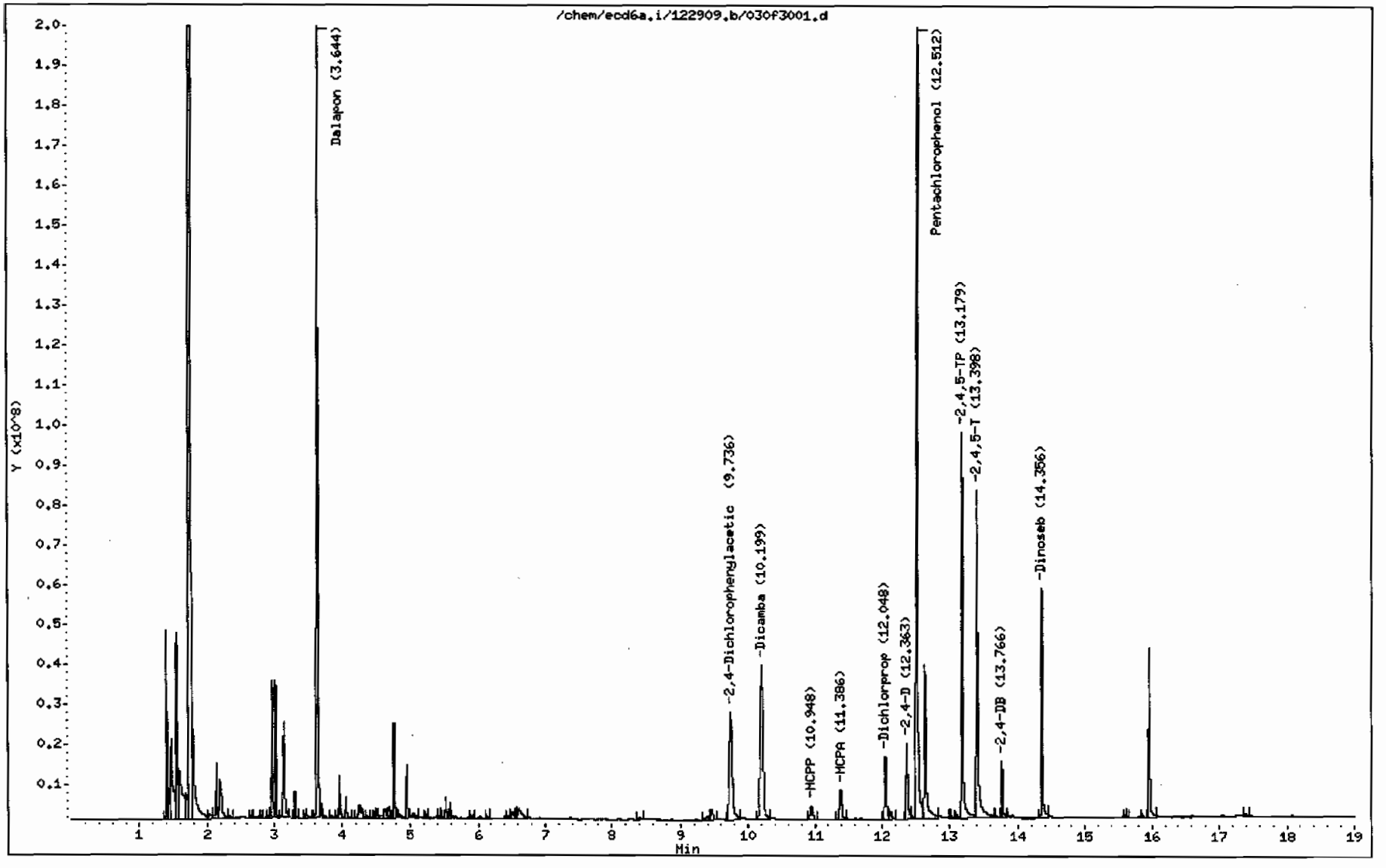

Comment: Manually Integrated
Data File: /chem/ecd6a.i/122909.b/030f3001.d
Operator: RXE1
Injection Date: 30-DEC-2009 03:51
Instrument: ecd6a.i
Client Sample ID: HSTD03

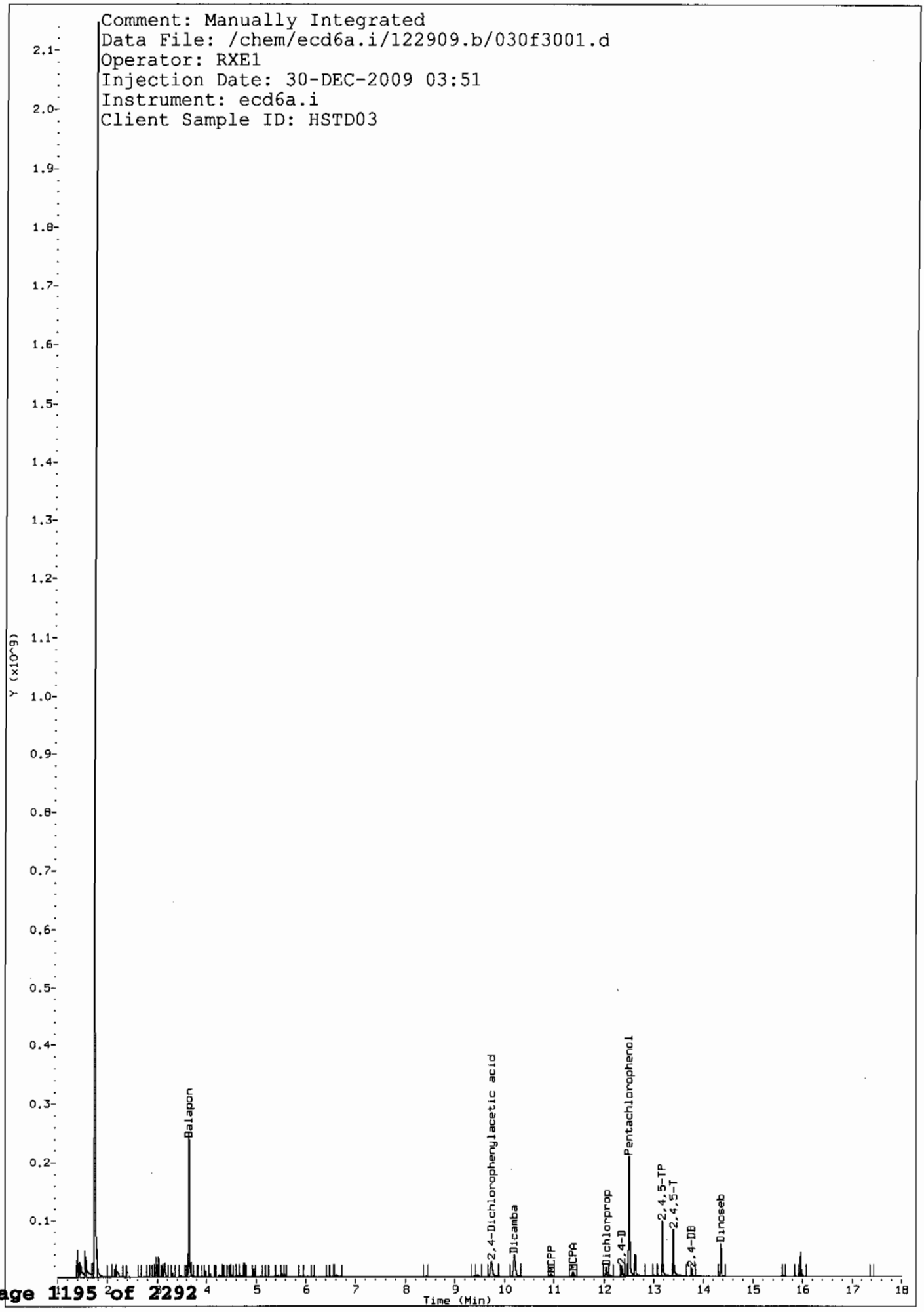

Comment: Before manual integration
Data File: /chem/ecd6a.i/122909.b/orig-030f3001.d
Operator: RXE1
Injection Date: 30-DEC-2009 03:51
Instrument: ecd6a.i
Client Sample ID: HSTD03

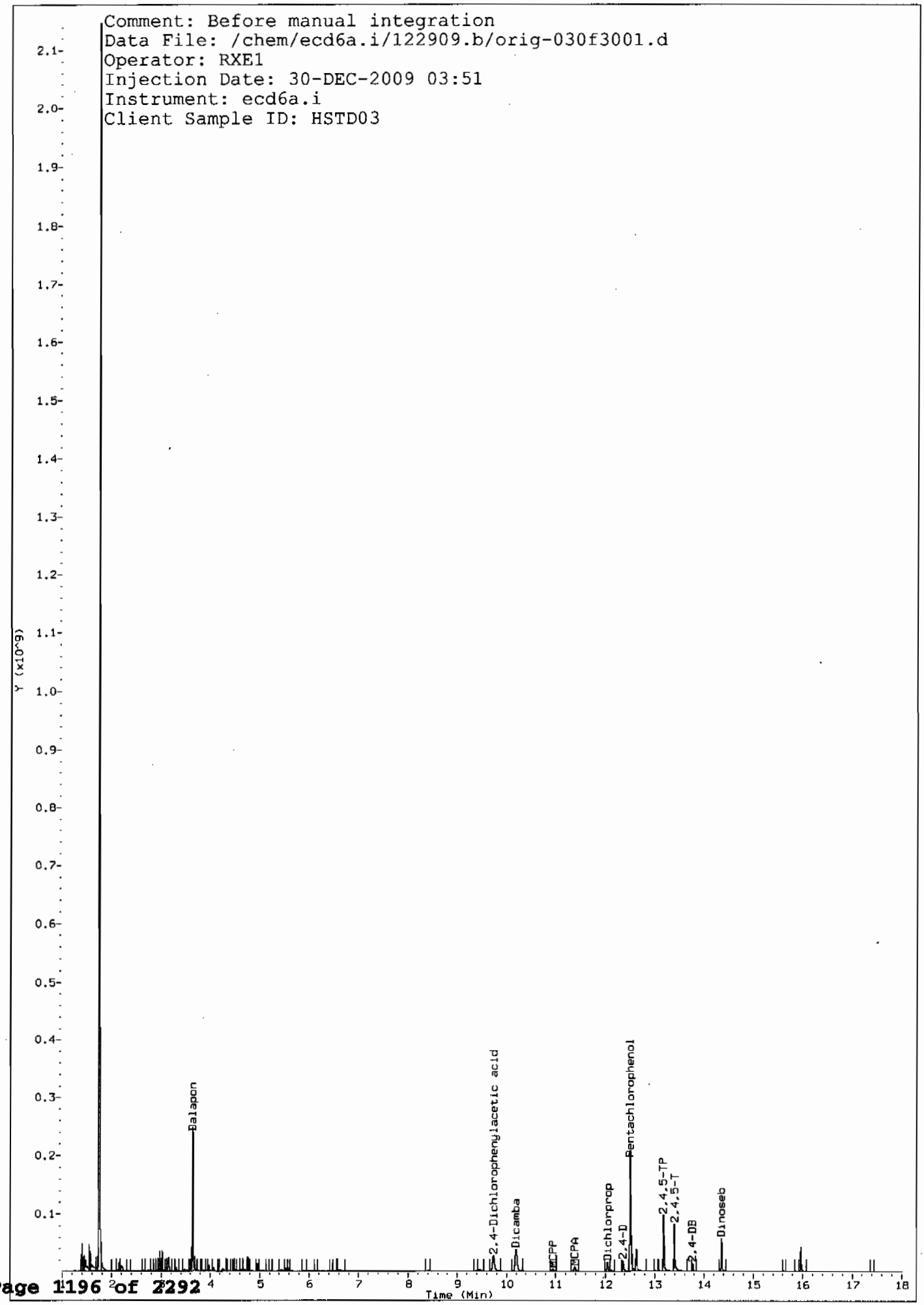

GEL Laboratories LLC

Column: RtxCLPII 0.25mm x 30 m Inj Vol: 2ul

Data file : /chem/ecd6a.i/122909.b/030b3001.d
Lab Smp Id: WHB091222-08 Client Smp ID: HSTD03
Inj Date : 30-DEC-2009 03:51
Operator : RXE1 Inst ID: ecd6a.i
Smp Info : |WHB091222-08
Misc Info : CHECK
Comment : RtxCLPII
Method : /chem/ecd6a.i/122909.b/ECD6-B-8151A-122909.m
Meth Date : 30-Dec-2009 11:44 reb01393 Quant Type: ESTD
Cal Date : 29-DEC-2009 17:03 Cal File: 007b0701.d
Als bottle: 30 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50 Sample Matrix: None

	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	
	1 Dalapon						CAS #: 88-85-7
	3.593	3.596	-0.003	411422755	2000.00	2160	
$	2 2,4-Dichlorophenylacetic acid						CAS #: 19719-28-9
	10.792	10.801	-0.009	110889104	500.000	527	
	3 MCPP						CAS #: 7085-19-0
	11.669	11.672	-0.003	14950568	20000.0	20100	
	4 Dicamba						CAS #: 6597-78-0
	11.289	11.294	-0.005	157115415	200.000	203	
	5 MCPA						CAS #: 94-74-6
	12.066	12.069	-0.003	22427607	20000.0	18200	
	6 Dichlorprop						CAS #: 120-36-5
	12.506	12.508	-0.002	39167923	200.000	199	
	7 2,4-D						CAS #: 94-75-7
	12.835	12.838	-0.003	50278898	200.000	229	
	43 Pentachlorophenol						CAS #: 87-86-5
	13.108	13.115	-0.007	475120405	200.000	187	
	8 2,4,5-TP						CAS #: 93-72-1
	13.499	13.501	-0.002	191486336	200.000	213	

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
9 2,4,5-T					CAS #: 93-76-5
13.753	13.755	-0.002	160037389	200.000	206
10 Dinoseb					CAS #: 88-85-7
14.224	14.226	-0.002	92253768	200.000	204
11 2,4-DB					CAS #: 94-82-6
14.056	14.057	-0.001	22399815	200.000	202

Data File: /chem/ecd6a.i/122909.b/030b3001.d
Date : 30-DEC-2009 03:51
Client ID: HSTD03
Sample Info: |WHB091222-08

Column phase: Rtx-CLPII

Instrument: ecd6a.i

Operator: RXE1
Column diameter: 0.25

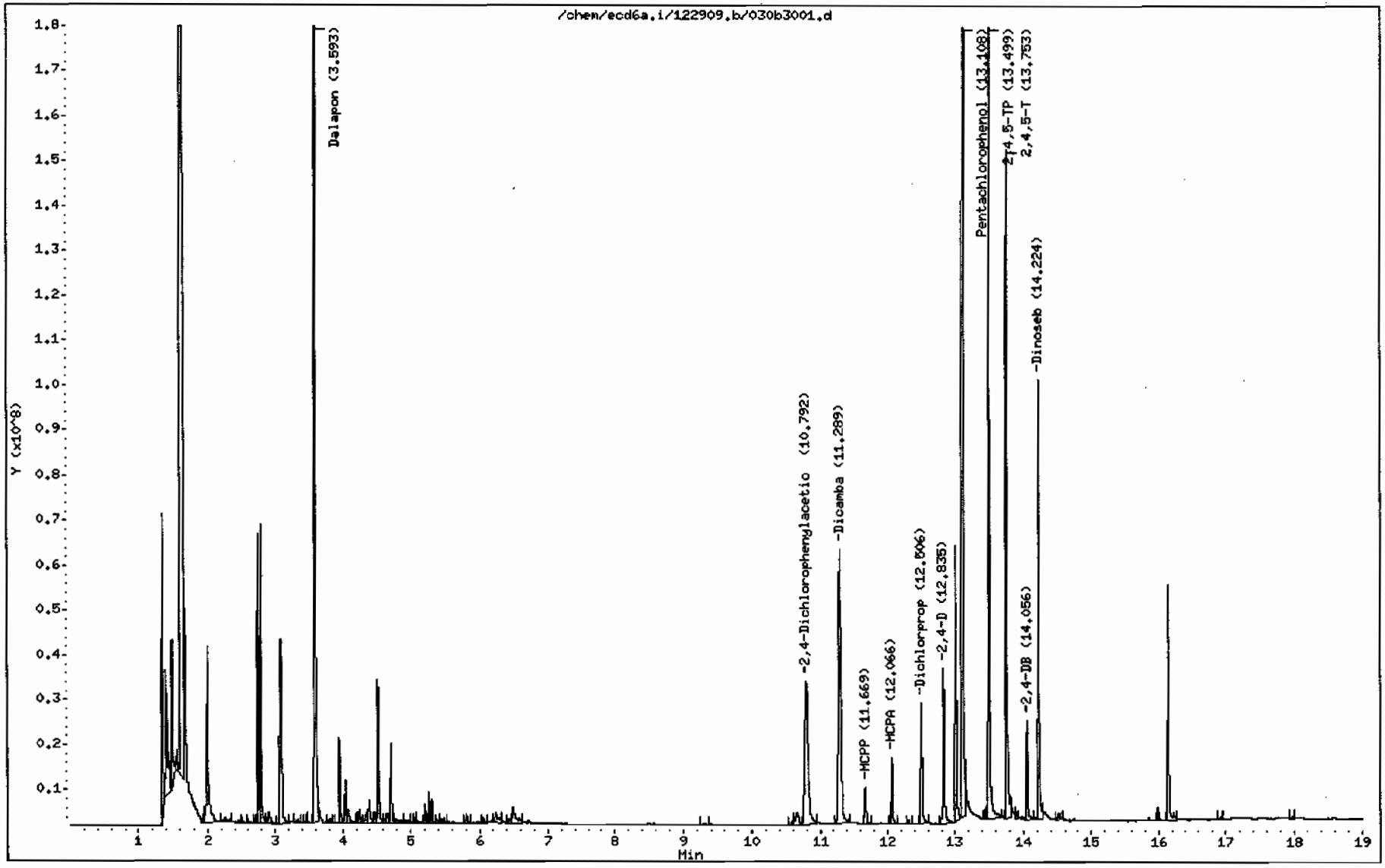

FORM 8
HERBICIDE ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1085

GC Column: RTX-CLP ID: 0.25 (mm) Init. Calib. Date(s): 12/29/09 12/29/09

Instrument ID: ECD6A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 9.74

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	RT #
01	HIBLK01	WHB091117-02	12/29/09	1413	9.76	
02	HSTD01	WHB091030-01	12/29/09	1441	9.76	
03	HSTD02	WHB091030-02	12/29/09	1510	9.75	
04	HSTD03	WHB091030-03	12/29/09	1538	9.75	
05	HSTD04	WHB091030-04	12/29/09	1607	9.74	
06	HSTD05	WHB091030-05	12/29/09	1635	9.74	
07	HSTD06	WHB091030-06	12/29/09	1703	9.74	
08	HSTD07	WHB091030-07	12/29/09	1731	9.73	
09	HSTD01	WHB091222-08	12/29/09	1800	9.74	
10	HIBLK02	WHB091117-02	12/29/09	1828	9.75	
11	ZZZZZ	ZZZZZ	12/29/09	1856	9.75	
12	ZZZZZ	ZZZZZ	12/29/09	1924	9.74	
13	ZZZZZ	ZZZZZ	12/29/09	1952	9.75	
14	ZZZZZ	ZZZZZ	12/29/09	2021	9.75	
15	ZZZZZ	ZZZZZ	12/29/09	2049	9.74	
16	ZZZZZ	ZZZZZ	12/29/09	2117	9.74	
17	ZZZZZ	ZZZZZ	12/29/09	2145	9.72	
18	ZZZZZ	ZZZZZ	12/29/09	2213	9.74	
19	HSTD02	WHB091222-08	12/29/09	2242	9.73	
20	HIBLK03	WHB091117-02	12/29/09	2310	9.75	
21	HBLK01	1202005238	12/29/09	2338	9.75	
22	HBLK01LCS	1202005239	12/30/09	0006	9.74	
23	ZZZZZ	ZZZZZ	12/30/09	0035	9.74	
24	ZZZZZ	ZZZZZ	12/30/09	0103	9.75	
25	ZZZZZ	ZZZZZ	12/30/09	0131	9.75	
26	ZZZZZ	ZZZZZ	12/30/09	0159	9.75	
27	WST03-10-2148	243549002	12/30/09	0227	9.75	
28	WST03-10-2148MS	1202005240	12/30/09	0255	9.74	
29	WST03-10-2148MSD	1202005241	12/30/09	0323	9.74	
30	HSTD03	WHB091222-08	12/30/09	0351	9.74	
31	HIBLK04	WHB091117-02	12/30/09	0419	9.76	
32	ZZZZZ	ZZZZZ	12/30/09	0447	9.75	

QC LIMITS
S1 = 2,4-Dichlorophenylacet (+/- 0.06 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

page 1 of 1

FORM VIII HERBICIDE

FORM 8
HERBICIDE ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1085

GC Column: RTX-CLPII ID: 0.25 (mm) Init. Calib. Date(s): 12/29/09 12/29/09

Instrument ID: ECD6A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 10.80

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	RT #
01	HIBLK01	WHB091117-02	12/29/09	1413	10.82	
02	HSTD01	WHB091030-01	12/29/09	1441	10.82	
03	HSTD02	WHB091030-02	12/29/09	1510	10.81	
04	HSTD03	WHB091030-03	12/29/09	1538	10.81	
05	HSTD04	WHB091030-04	12/29/09	1607	10.80	
06	HSTD05	WHB091030-05	12/29/09	1635	10.80	
07	HSTD06	WHB091030-06	12/29/09	1703	10.79	
08	HSTD07	WHB091030-07	12/29/09	1731	10.79	
09	HSTD01	WHB091222-08	12/29/09	1800	10.80	
10	HIBLK02	WHB091117-02	12/29/09	1828	10.81	
11	ZZZZZ	ZZZZZ	12/29/09	1856	10.81	
12	ZZZZZ	ZZZZZ	12/29/09	1924	10.80	
13	ZZZZZ	ZZZZZ	12/29/09	1952	10.81	
14	ZZZZZ	ZZZZZ	12/29/09	2021	10.80	
15	ZZZZZ	ZZZZZ	12/29/09	2049	10.79	
16	ZZZZZ	ZZZZZ	12/29/09	2117	10.79	
17	ZZZZZ	ZZZZZ	12/29/09	2145	10.79	
18	ZZZZZ	ZZZZZ	12/29/09	2213	10.79	
19	HSTD02	WHB091222-08	12/29/09	2242	10.79	
20	HIBLK03	WHB091117-02	12/29/09	2310	10.81	
21	HBLK01	1202005238	12/29/09	2338	10.81	
22	HBLK01LCS	1202005239	12/30/09	0006	10.79	
23	ZZZZZ	ZZZZZ	12/30/09	0035	10.80	
24	ZZZZZ	ZZZZZ	12/30/09	0103	10.80	
25	ZZZZZ	ZZZZZ	12/30/09	0131	10.80	
26	ZZZZZ	ZZZZZ	12/30/09	0159	10.80	
27	WST03-10-2148	243549002	12/30/09	0227	10.80	
28	WST03-10-2148MS	1202005240	12/30/09	0255	10.79	
29	WST03-10-2148MSD	1202005241	12/30/09	0323	10.79	
30	HSTD03	WHB091222-08	12/30/09	0351	10.79	
31	HIBLK04	WHB091117-02	12/30/09	0419	10.81	
32	ZZZZZ	ZZZZZ	12/30/09	0447	10.80	

QC LIMITS
S1 = 2,4-Dichlorophenylacet (+/- 0.06 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

page 1 of 1

FORM VIII HERBICIDE

Identification Summary

SDG Number: 10–1085 **Client ID:** LCS for batch 937098

Lab Sample ID: 1202005239

Data File:	022f2201.d	**Data File:**	022b2201.d
Inst:	ECD6A.I_1	**Inst:**	ECD6A.I_2
Column:	Rtx–CLP	**Column:**	Rtx–CLPII
Analyzed:	30–DEC–09 00:06	**Analyzed:**	30–DEC–09 00:06

Analyte		Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Dalapon								3.2
	Column 1	1	3.65	3.62 – 3.68	184		ug/kg	
	Column 2	1	3.6	3.57 – 3.63	190		ug/kg	
Dicamba								.139
	Column 1	1	10.2	10.14 – 10.26	35		ug/kg	
	Column 2	1	11.29	11.23 – 11.35	34.9		ug/kg	
MCPP								1.66
	Column 1	1	10.95	10.89 – 11.01	3450		ug/kg	
	Column 2	1	11.67	11.61 – 11.73	3510		ug/kg	
MCPA								10.5
	Column 1	1	11.38	11.32 – 11.44	3330		ug/kg	
	Column 2	1	12.07	12.01 – 12.13	3000		ug/kg	
Dichlorprop								1.96
	Column 1	1	12.05	11.99 – 12.11	36.8		ug/kg	
	Column 2	1	12.5	12.45 – 12.57	37.5		ug/kg	

Identification Summary

SDG Number: 10–1085 **Client ID:** LCS for batch 937098

Lab Sample ID: 1202005239

Data File:	022f2201.d	**Data File:**	022b2201.d
Inst:	ECD6A.I_1	**Inst:**	ECD6A.I_2
Column:	Rtx–CLP	**Column:**	Rtx–CLPII
Analyzed:	30–DEC–09 00:06	**Analyzed:**	30–DEC–09 00:06

Analyte		Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
2,4–D								6.13
	Column 1	1	12.36	12.3 – 12.42	38.6		ug/kg	
	Column 2	1	12.83	12.78 – 12.9	36.3		ug/kg	
2,4,5–TP								1.25
	Column 1	1	13.18	13.15 – 13.21	38.3		ug/kg	
	Column 2	1	13.5	13.47 – 13.53	37.8		ug/kg	
2,4,5–T								.604
	Column 1	1	13.4	13.36 – 13.44	36.1		ug/kg	
	Column 2	1	13.75	13.73 – 13.79	35.9		ug/kg	
2,4–DB								4.63
	Column 1	1	13.76	13.73 – 13.81	38.8		ug/kg	
	Column 2	1	14.05	14.02 – 14.1	40.6		ug/kg	
Dinoseb								6.84
	Column 1	1	14.36	14.33 – 14.39	34.4		ug/kg	
	Column 2	1	14.22	14.2 – 14.26	36.9		ug/kg	

Identification Summary

SDG Number: 10–1085 **Client ID:** WST03–10–2148MS

Lab Sample ID: 1202005240

Data File:	028f2801.d	**Data File:**	028b2801.d
Inst:	ECD6A.I_1	**Inst:**	ECD6A.I_2
Column:	Rtx–CLP	**Column:**	Rtx–CLPII
Analyzed:	30–DEC–09 02:55	**Analyzed:**	30–DEC–09 02:55

Analyte		Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Dalapon								.00993
	Column 1	1	3.65	3.62 – 3.68	172		ug/kg	
	Column 2	1	3.6	3.57 – 3.63	172		ug/kg	
Dicamba								1.29
	Column 1	1	10.2	10.14 – 10.26	39.9		ug/kg	
	Column 2	1	11.29	11.23 – 11.35	39.4		ug/kg	
MCPP								4.84
	Column 1	1	10.95	10.89 – 11.01	3860		ug/kg	
	Column 2	1	11.67	11.61 – 11.73	3680		ug/kg	
MCPA								9.15
	Column 1	1	11.38	11.32 – 11.44	3670		ug/kg	
	Column 2	1	12.07	12.01 – 12.13	3350		ug/kg	
Dichlorprop								8.34
	Column 1	1	12.05	11.99 – 12.11	44.5		ug/kg	
	Column 2	1	12.51	12.45 – 12.57	40.9		ug/kg	

Identification Summary

SDG Number: 10–1085 **Client ID:** WST03–10–2148MS

Lab Sample ID: 1202005240

Data File:	028f2801.d	**Data File:**	028b2801.d
Inst:	ECD6A.I_1	**Inst:**	ECD6A.I_2
Column:	Rtx–CLP	**Column:**	Rtx–CLPII
Analyzed:	30–DEC–09 02:55	**Analyzed:**	30–DEC–09 02:55

Analyte		Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
2,4–D								.879
	Column 1	1	12.36	12.3 – 12.42	44.3		ug/kg	
	Column 2	1	12.84	12.78 – 12.9	43.9		ug/kg	
2,4,5–TP								.716
	Column 1	1	13.18	13.15 – 13.21	44.4		ug/kg	
	Column 2	1	13.5	13.47 – 13.53	44.1		ug/kg	
2,4,5–T								.0996
	Column 1	1	13.4	13.36 – 13.44	42.5		ug/kg	
	Column 2	1	13.75	13.73 – 13.79	42.5		ug/kg	
2,4–DB								15.8
	Column 1	1	13.76	13.73 – 13.81	47.8		ug/kg	
	Column 2	1	14.06	14.02 – 14.1	40.8		ug/kg	
Dinoseb								.539
	Column 1	1	14.36	14.33 – 14.39	40.5		ug/kg	
	Column 2	1	14.22	14.2 – 14.26	40.7		ug/kg	

Identification Summary

SDG Number: 10-1085 **Client ID:** WST03-10-2148MSD

Lab Sample ID: 1202005241

Data File:	029f2901.d	**Data File:**	029b2901.d
Inst:	ECD6A.I_1	**Inst:**	ECD6A.I_2
Column:	Rtx-CLP	**Column:**	Rtx-CLPII
Analyzed:	30-DEC-09 03:23	**Analyzed:**	30-DEC-09 03:23

Analyte		Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Dalapon								5.16
	Column 1	1	3.65	3.62 – 3.68	216		ug/kg	
	Column 2	1	3.6	3.57 – 3.63	205		ug/kg	
Dicamba								2.49
	Column 1	1	10.2	10.14 – 10.26	37.7		ug/kg	
	Column 2	1	11.29	11.23 – 11.35	36.8		ug/kg	
MCPP								5.24
	Column 1	1	10.95	10.89 – 11.01	3810		ug/kg	
	Column 2	1	11.67	11.61 – 11.73	3610		ug/kg	
MCPA								8.54
	Column 1	1	11.38	11.32 – 11.44	3690		ug/kg	
	Column 2	1	12.06	12.01 – 12.13	3380		ug/kg	
Dichlorprop								7.21
	Column 1	1	12.05	11.99 – 12.11	42		ug/kg	
	Column 2	1	12.5	12.45 – 12.57	39.1		ug/kg	

Identification Summary

SDG Number: 10–1085 **Client ID:** WST03–10–2148MSD

Lab Sample ID: 1202005241

Data File:	029f2901.d	**Data File:**	029b2901.d
Inst:	ECD6A.I_1	**Inst:**	ECD6A.I_2
Column:	Rtx–CLP	**Column:**	Rtx–CLPII
Analyzed:	30–DEC–09 03:23	**Analyzed:**	30–DEC–09 03:23

Analyte		Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
2,4–D								2.36
	Column 1	1	12.36	12.3 – 12.42	42.8		ug/kg	
	Column 2	1	12.83	12.78 – 12.9	41.8		ug/kg	
2,4,5–TP								.0523
	Column 1	1	13.18	13.15 – 13.21	40.6		ug/kg	
	Column 2	1	13.5	13.47 – 13.53	40.6		ug/kg	
2,4,5–T								1.48
	Column 1	1	13.4	13.36 – 13.44	38.8		ug/kg	
	Column 2	1	13.75	13.73 – 13.79	39.4		ug/kg	
2,4–DB								6.7
	Column 1	1	13.76	13.73 – 13.81	42.5		ug/kg	
	Column 2	1	14.05	14.02 – 14.1	39.7		ug/kg	
Dinoseb								.364
	Column 1	1	14.36	14.33 – 14.39	40.5		ug/kg	
	Column 2	1	14.22	14.2 – 14.26	40.4		ug/kg	

QUALITY CONTROL DATA

Herbicide
Certificate of Analysis
Sample Summary

SDG Number:	**10-1085**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202005238**				
Client Sample:	**QC for batch 937098**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 937098**	**Method:**	**SW846 8151A**	**SOP Ref:**	**GL-OA-E-011**
Batch ID:	**937099**	**Inst:**	**ECD6A.I**	**Dilution:**	**1**
Run Date:	**12/29/2009 23:38**	**Analyst:**	**RXE1**	**Inj. Vol:**	**1 uL**
Prep Date:	**12/28/2009 20:19**	**Aliquot:**	**50 g**	**Final Volume:**	**10 mL**
Data File:	**021f2101.d**	**Column:**	**1 Rtx-CLP**	**Level:**	**LOW**
	021b2101.d		**2 Rtx-CLPII**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
75-99-0	Dalapon	U	100	ug/kg	20.0	100	1
1918-00-9	Dicamba	U	5.00	ug/kg	1.66	5.00	1
93-65-2	MCPP	U	1000	ug/kg	200	1000	1
94-74-6	MCPA	U	1000	ug/kg	230	1000	1
120-36-5	Dichlorprop	U	5.00	ug/kg	1.66	5.00	1
94-75-7	2,4-D	U	5.00	ug/kg	1.66	5.00	1
93-72-1	2,4,5-TP	U	5.00	ug/kg	1.66	5.00	1
93-76-5	2,4,5-T	U	5.00	ug/kg	1.66	5.00	1
94-82-6	2,4-DB	U	5.00	ug/kg	1.66	5.00	1
88-85-7	Dinoseb	U	5.00	ug/kg	1.66	5.00	1

GEL Laboratories LLC

Column: RtxCLP 0.25mm x 30 m Inj Vol: 2 ul

Data file : /chem/ecd6a.i/122909.b/021f2101.d
Lab Smp Id: 1202005238 Client Smp ID: HBLK01
Inj Date : 29-DEC-2009 23:38
Operator : RXE1 Inst ID: ecd6a.i
Smp Info : |1202005238|1|
Misc Info : |ECD51H_1S|937099|SVH|MB|SOIL|MB|||
Comment :
Method : /chem/ecd6a.i/122909.b/ECD6-F-8151A-122909.m
Meth Date : 31-Dec-2009 09:06 reb01393 Quant Type: ESTD
Cal Date : 29-DEC-2009 17:03 Cal File: 007f0701.d
Als bottle: 21 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1085.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	10.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	50.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)
$ 2 2,4-Dichlorophenylacetic acid					CAS #: 19719-28-9
9.750	9.741	0.009	54472342	372.521	74.5

Data File: /chem/ecd6a.i/122909.b/021f2101.d

Date : 29-DEC-2009 23:38

Client ID: HBLK01

Sample Info: !1202005238!1!

Volume Injected (uL): 1.0

Column phase: Rtx-CLP

Instrument: ecd6a.i

Operator: RXE1

Column diameter: 0.25

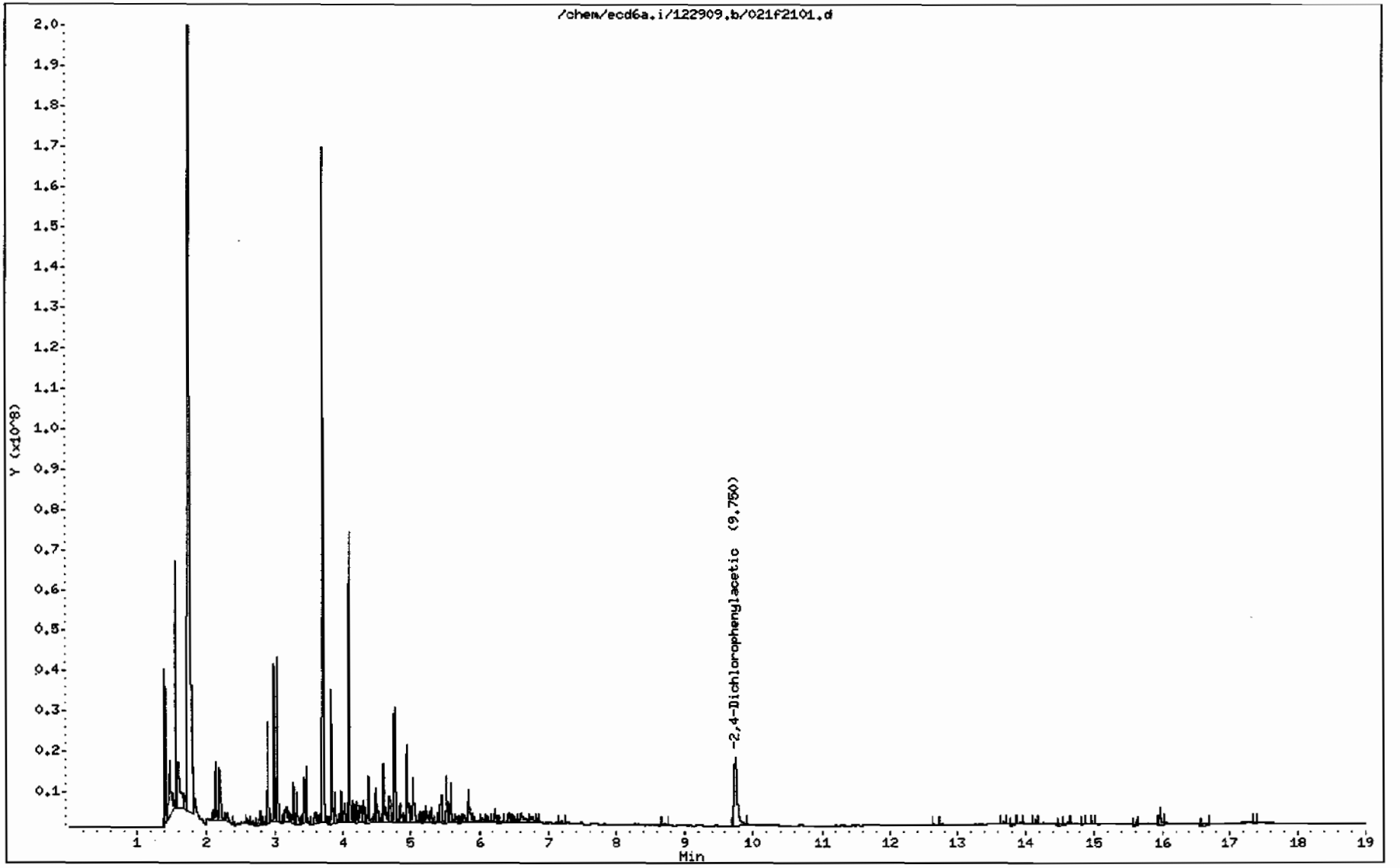

GEL Laboratories LLC

Column: RtxCLPII 0.25mm x 30 m Inj Vol: 2ul

Data file : /chem/ecd6a.i/122909.b/021b2101.d
Lab Smp Id: 1202005238 Client Smp ID: HBLK01
Inj Date : 29-DEC-2009 23:38
Operator : RXE1 Inst ID: ecd6a.i
Smp Info : |1202005238|1|
Misc Info : |ECD51H_1S|937099|SVH|MB|SOIL|MB|||
Comment : RtxCLPII
Method : /chem/ecd6a.i/122909.b/ECD6-B-8151A-122909.m
Meth Date : 31-Dec-2009 09:04 reb01393 Quant Type: ESTD
Cal Date : 29-DEC-2009 17:03 Cal File: 007b0701.d
Als bottle: 21 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1085.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	10.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	50.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)
$ 2 2,4-Dichlorophenylacetic acid					CAS #: 19719-28-9
10.805	10.801	0.004	73895939	351.152	70.2

Data File: /chem/ecd6a.i/122909.b/021b2101.d
Date : 29-DEC-2009 23:38
Client ID: HBLK01
Sample Info: |1202005238|1|
Volume Injected (uL): 1.0
Column phase: Rtx-CLPII

Instrument: ecd6a.i

Operator: RXE1
Column diameter: 0.25

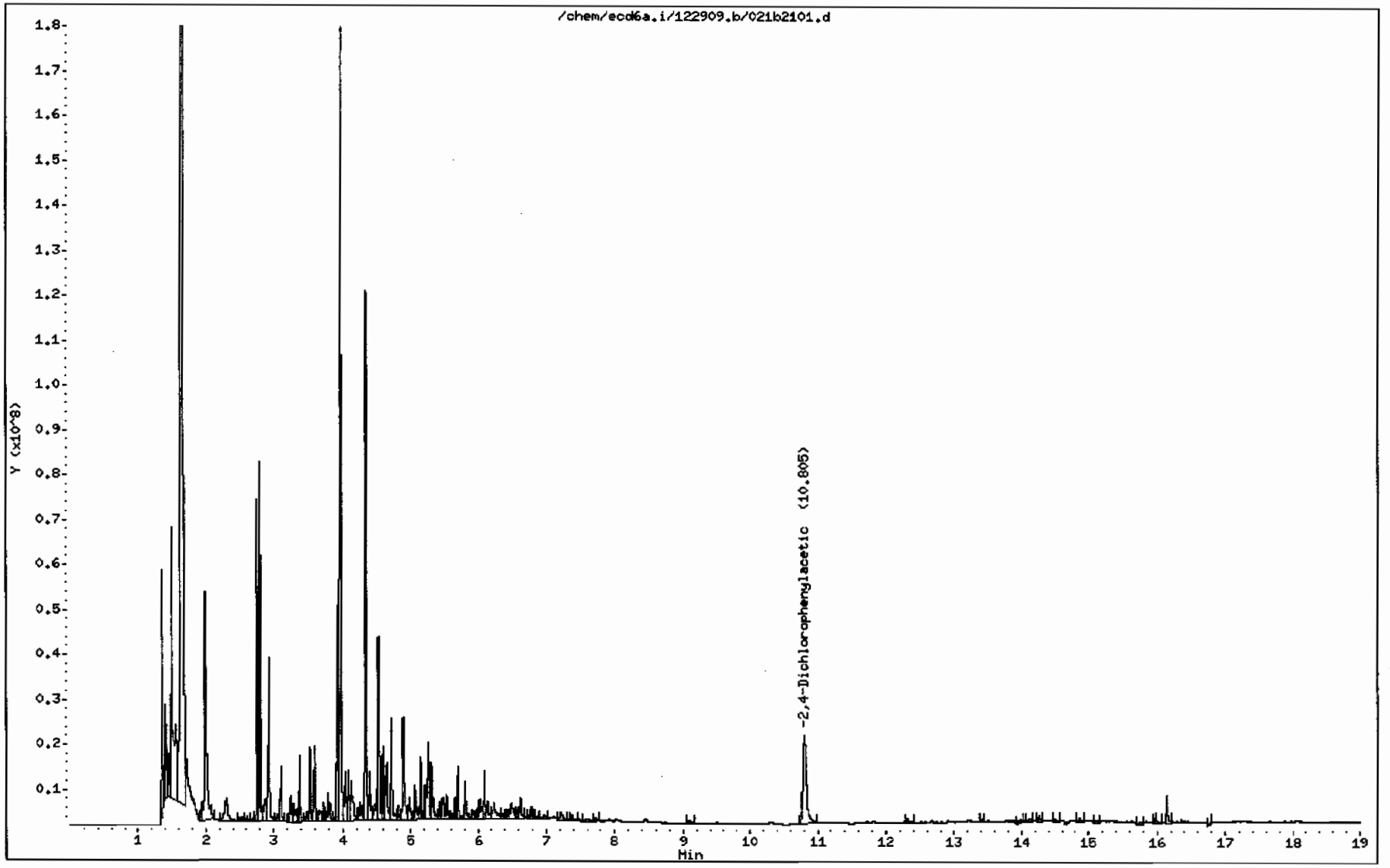

Herbicide
Certificate of Analysis
Sample Summary

SDG Number:	10–1085			**Matrix:**	SOIL
Lab Sample ID:	1202005239				
Client Sample:	QC for batch 937098	**Client:**	LANL010	**Project:**	QC
Client ID:	LCS for batch 937098	**Method:**	SW846 8151A	**SOP Ref:**	GL–OA–E–011
Batch ID:	937099	**Inst:**	ECD6A.I	**Dilution:**	1
Run Date:	12/30/2009 00:06	**Analyst:**	RXE1	**Inj. Vol:**	1 uL
Prep Date:	12/28/2009 20:19	**Aliquot:**	50 g	**Final Volume:**	10 mL
Data File:	022f2201.d	**Column:**	1 Rtx–CLP	**Level:**	LOW
	022b2201.d		2 Rtx–CLPII		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
75–99–0	Dalapon		190	ug/kg	20.0	100	2
1918–00–9	Dicamba		35.0	ug/kg	1.66	5.00	1
93–65–2	MCPP		3510	ug/kg	200	1000	2
94–74–6	MCPA		3330	ug/kg	230	1000	1
120–36–5	Dichlorprop		37.5	ug/kg	1.66	5.00	2
94–75–7	2,4–D		38.6	ug/kg	1.66	5.00	1
93–72–1	2,4,5–TP		38.3	ug/kg	1.66	5.00	1
93–76–5	2,4,5–T		36.1	ug/kg	1.66	5.00	1
94–82–6	2,4–DB		40.6	ug/kg	1.66	5.00	2
88–85–7	Dinoseb		36.9	ug/kg	1.66	5.00	2

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Column: RtxCLP 0.25mm x 30 m Inj Vol: 2 ul

Data file : /chem/ecd6a.i/122909.b/022f2201.d
Lab Smp Id: 1202005239 Client Smp ID: HBLK01LCS
Inj Date : 30-DEC-2009 00:06
Operator : RXE1 Inst ID: ecd6a.i
Smp Info : |1202005239|1|
Misc Info : |ECD51H_1S|937099|SVH|LCS|SOIL|LCS|||
Comment :
Method : /chem/ecd6a.i/122909.b/ECD6-F-8151A-122909.m
Meth Date : 31-Dec-2009 09:06 reb01393 Quant Type: ESTD
Cal Date : 29-DEC-2009 17:03 Cal File: 007f0701.d
Als bottle: 22 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1085.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	10.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	50.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)
$ 2 2,4-Dichlorophenylacetic acid					CAS #: 19719-28-9
9.736	9.741	-0.005	73045909	499.541	99.9
1 Dalapon					CAS #: 75-99-0
3.650	3.645	0.005	108485809	920.000	184
3 Dicamba					CAS #: 6597-78-0
10.196	10.201	-0.005	96242515	174.817	35.0
4 MCPP					CAS #: 7085-19-0
10.947	10.952	-0.005	9397380	17238.7	3450

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)
5 MCPA					CAS #: 94-74-6
11.384	11.385	-0.001	15305986	16645.2	3330
6 Dichlorprop					CAS #: 120-36-5
12.045	12.050	-0.005	25656056	183.903	36.8
7 2,4-D					CAS #: 94-75-7
12.361	12.364	-0.003	27634945	193.087	38.6
8 2,4,5-TP					CAS #: 93-72-1
13.178	13.180	-0.002	117087637	191.547	38.3
9 2,4,5-T					CAS #: 93-76-5
13.396	13.398	-0.002	97475444	180.734	36.1
10 2,4-DB					CAS #: 94-82-6
13.764	13.767	-0.003	14976615	193.988	38.8
11 Dinoseb					CAS #: 88-85-7
14.355	14.356	-0.001	50781097	172.062	34.4

Data File: /chem/ecd6a.i/122909.b/022f2201.d

Date : 30-DEC-2009 00:06

Client ID: HBLK01LCS

Sample Info: |120200523911|

Volume Injected (uL): 1.0

Column phase: Rtx-CLP

Instrument: ecd6a.i

Operator: RXE1

Column diameter: 0.25

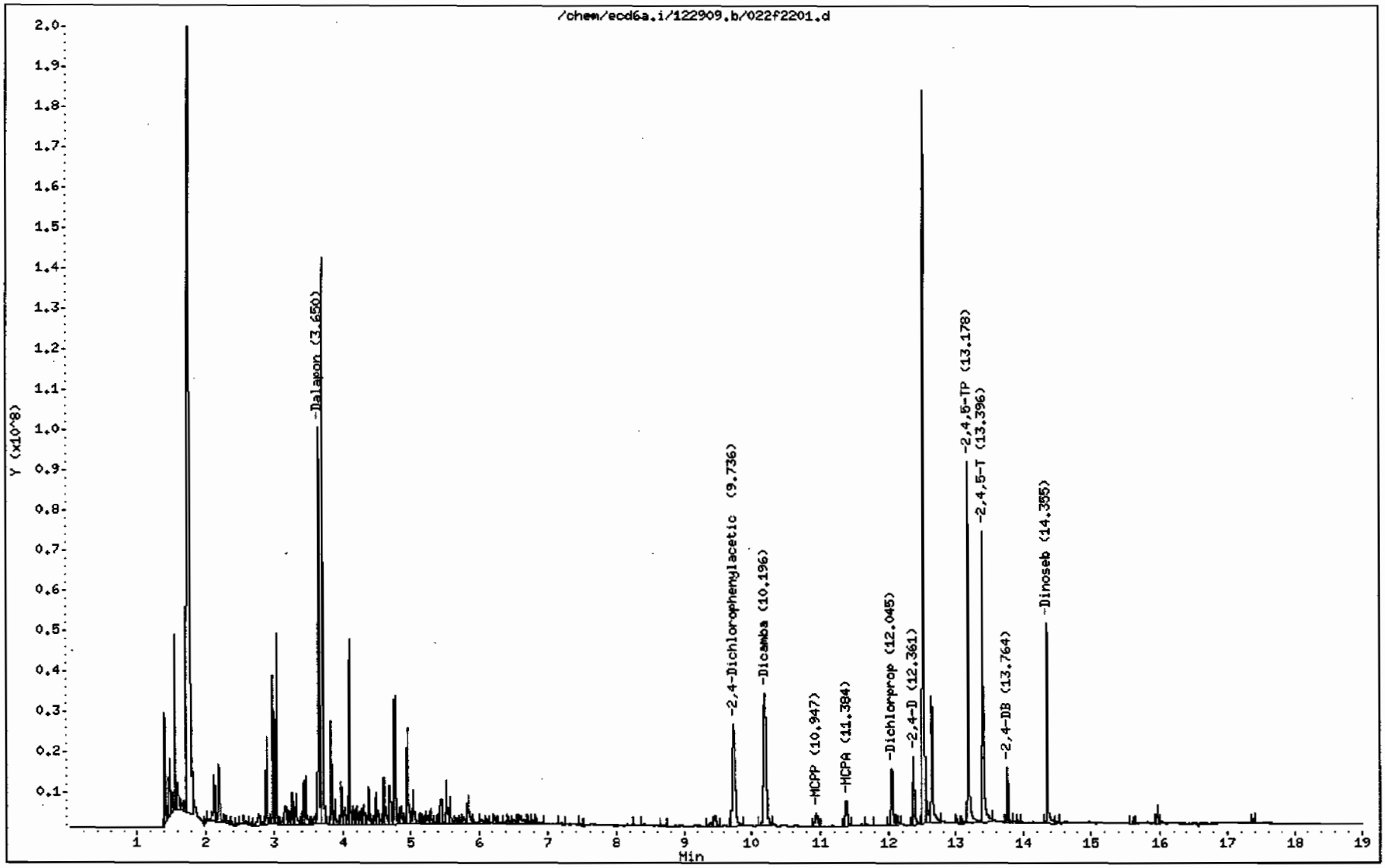

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Column: RtxCLPII 0.25mm x 30 m Inj Vol: 2ul

Data file : /chem/ecd6a.i/122909.b/022b2201.d
Lab Smp Id: 1202005239 Client Smp ID: HBLK01LCS
Inj Date : 30-DEC-2009 00:06
Operator : RXE1 Inst ID: ecd6a.i
Smp Info : |1202005239|1|
Misc Info : |ECD51H_1S|937099|SVH|LCS|SOIL|LCS|||
Comment : RtxCLPII
Method : /chem/ecd6a.i/122909.b/ECD6-B-8151A-122909.m
Meth Date : 31-Dec-2009 09:04 reb01393 Quant Type: ESTD
Cal Date : 29-DEC-2009 17:03 Cal File: 007b0701.d
Als bottle: 22 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1085.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	10.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	50.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)
$ 2 2,4-Dichlorophenylacetic acid					CAS #: 19719-28-9
10.790	10.801	-0.011	101612408	482.860	96.6
1 Dalapon					CAS #: 88-85-7
3.601	3.596	0.005	181147434	949.959	190
4 Dicamba					CAS #: 6597-78-0
11.287	11.294	-0.007	135123833	174.574	34.9
3 MCPP					CAS #: 7085-19-0
11.669	11.672	-0.003	13048980	17526.5	3500

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)
5 MCPA					CAS #: 94-74-6
12.065	12.069	-0.004	18516526	14988.0	3000
6 Dichlorprop					CAS #: 120-36-5
12.505	12.508	-0.003	36831240	187.551	37.5
7 2,4-D					CAS #: 94-75-7
12.834	12.838	-0.004	39840926	181.596	36.3
8 2,4,5-TP					CAS #: 93-72-1
13.497	13.501	-0.004	170289846	189.159	37.8
9 2,4,5-T					CAS #: 93-76-5
13.752	13.755	-0.003	139434731	179.645	35.9
11 2,4-DB					CAS #: 94-82-6
14.055	14.057	-0.002	22504452	203.189	40.6
10 Dinoseb					CAS #: 88-85-7
14.224	14.226	-0.002	83416154	184.252	36.8

Data File: /chem/ecd6a.i/122909.b/022b2201.d
Date : 30-DEC-2009 00:06
Client ID: HBLK01LCS
Sample Info: |1202005239|1|
Volume Injected (uL): 1.0
Column phase: Rtx-CLPII

Instrument: ecd6a.i

Operator: RXE1
Column diameter: 0.25

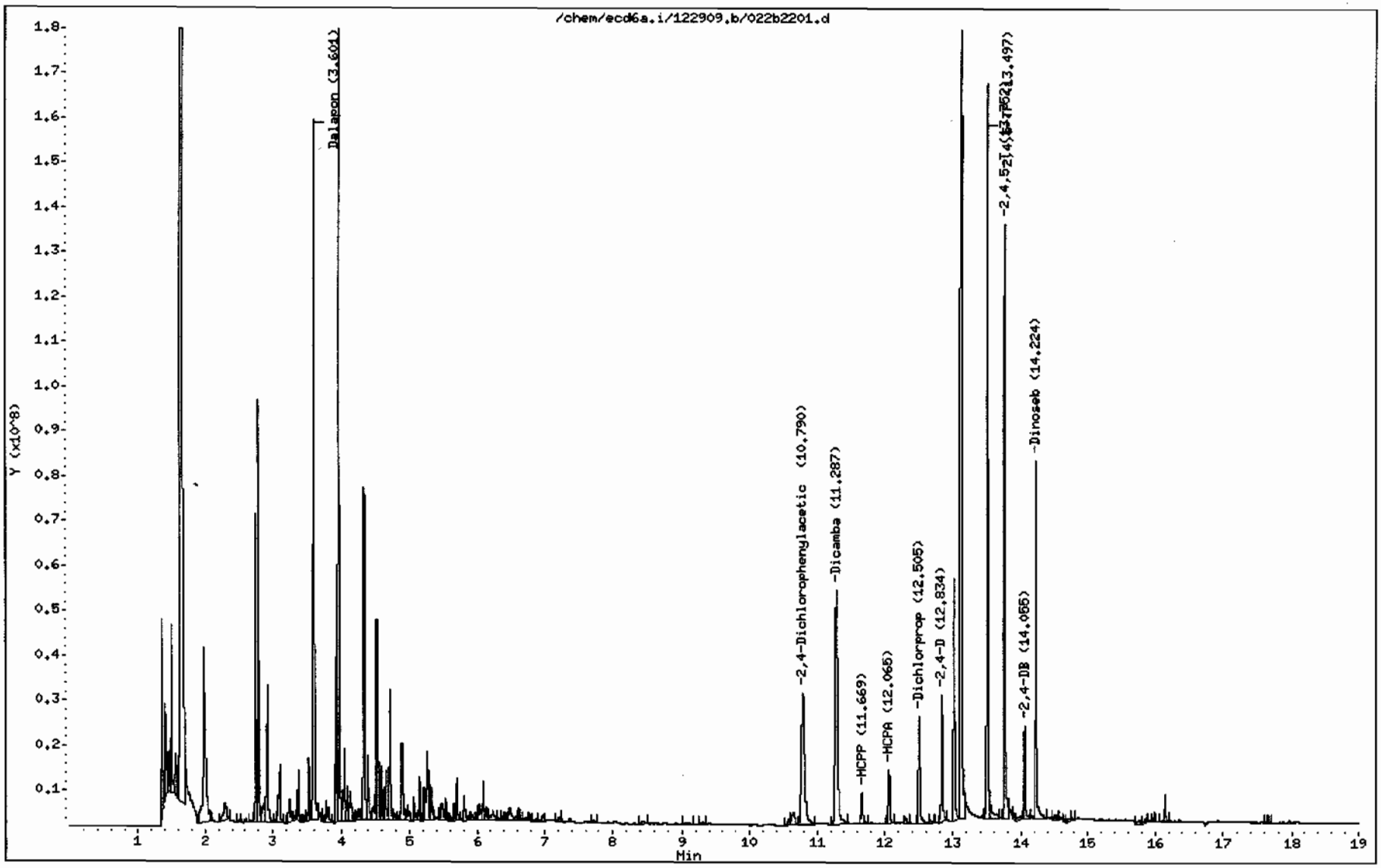

Herbicide
Certificate of Analysis
Sample Summary

SDG Number:	10-1085	Date Collected:	12/22/2009 12:00	Matrix:	R
Lab Sample ID:	1202005240	Date Received:	12/24/2009 09:30	%Moisture:	7.2
Client Sample:	QC for batch 937098	Client:	LANL010	Project:	QC
Client ID:	WST03-10-2148MS	Method:	SW846 8151A	SOP Ref:	GL-OA-E-011
Batch ID:	937099	Inst:	ECD6A.I	Dilution:	1
Run Date:	12/30/2009 02:55	Analyst:	RXE1	Inj. Vol:	1 uL
Prep Date:	12/28/2009 20:19	Aliquot:	50.14 g	Final Volume:	10 mL
Data File:	028f2801.d	Column:	1 Rtx-CLP	Level:	LOW
	028b2801.d		2 Rtx-CLPII		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
75-99-0	Dalapon		172	ug/kg	21.5	107	1
1918-00-9	Dicamba		39.9	ug/kg	1.78	5.37	1
93-65-2	MCPP		3860	ug/kg	215	1070	1
94-74-6	MCPA		3670	ug/kg	247	1070	1
120-36-5	Dichlorprop		44.5	ug/kg	1.78	5.37	1
94-75-7	2,4-D		44.3	ug/kg	1.78	5.37	1
93-72-1	2,4,5-TP		44.4	ug/kg	1.78	5.37	1
93-76-5	2,4,5-T		42.5	ug/kg	1.78	5.37	1
94-82-6	2,4-DB		47.8	ug/kg	1.78	5.37	1
88-85-7	Dinoseb		40.5	ug/kg	1.78	5.37	1

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Column: RtxCLP 0.25mm x 30 m Inj Vol: 2 ul

Data file : /chem/ecd6a.i/122909.b/028f2801.d
Lab Smp Id: 1202005240 Client Smp ID: WST03-10-2148MS
Inj Date : 30-DEC-2009 02:55
Operator : RXE1 Inst ID: ecd6a.i
Smp Info : |1202005240|1|
Misc Info : |ECD51H_1S|937099|SVH|MS|SOIL|MS|||
Comment :
Method : /chem/ecd6a.i/122909.b/ECD6-F-8151A-122909.m
Meth Date : 31-Dec-2009 09:06 reb01393 Quant Type: ESTD
Cal Date : 29-DEC-2009 17:03 Cal File: 007f0701.d
Als bottle: 28 QC Sample: MS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1085.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	10.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	50.14000	Weight of sample extracted (g)
M	7.19000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)
$ 2 2,4-Dichlorophenylacetic acid					CAS #: 19719-28-9
9.736	9.741	-0.005	72497295	495.789	106
1 Dalapon					CAS #: 75-99-0
3.652	3.645	0.007	94494518	801.349	172
3 Dicamba					CAS #: 6597-78-0
10.202	10.201	0.001	102300025	185.820	39.9
4 MCPP					CAS #: 7085-19-0
10.950	10.952	-0.002	9793764	17965.8	3860

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	CONCENTRATIONS FINAL (ug/Kg)	
5 MCPA					CAS #: 94-74-6	
11.385	11.385	0.000	15715246	17090.3	3670	
6 Dichlorprop					CAS #: 120-36-5	
12.046	12.050	-0.004	28885893	207.055	44.5	(M)
7 2,4-D					CAS #: 94-75-7	
12.362	12.364	-0.002	29484101	206.007	44.3	(M)
8 2,4,5-TP					CAS #: 93-72-1	
13.179	13.180	-0.001	126258245	206.550	44.4	(M)
9 2,4,5-T					CAS #: 93-76-5	
13.396	13.398	-0.002	106669274	197.781	42.5	
10 2,4-DB					CAS #: 94-82-6	
13.765	13.767	-0.002	17177086	222.490	47.8	
11 Dinoseb					CAS #: 88-85-7	
14.355	14.356	-0.001	55556798	188.244	40.4	

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd6a.i/122909.b/028f2801.d
Date : 30-DEC-2009 02:55
Client ID: WST03-10-2148MS
Sample Info: |1202005240|1|
Volume Injected (uL): 1.0
Column phase: Rtx-CLP

Instrument: ecd6a.i

Operator: RXE1
Column diameter: 0.25

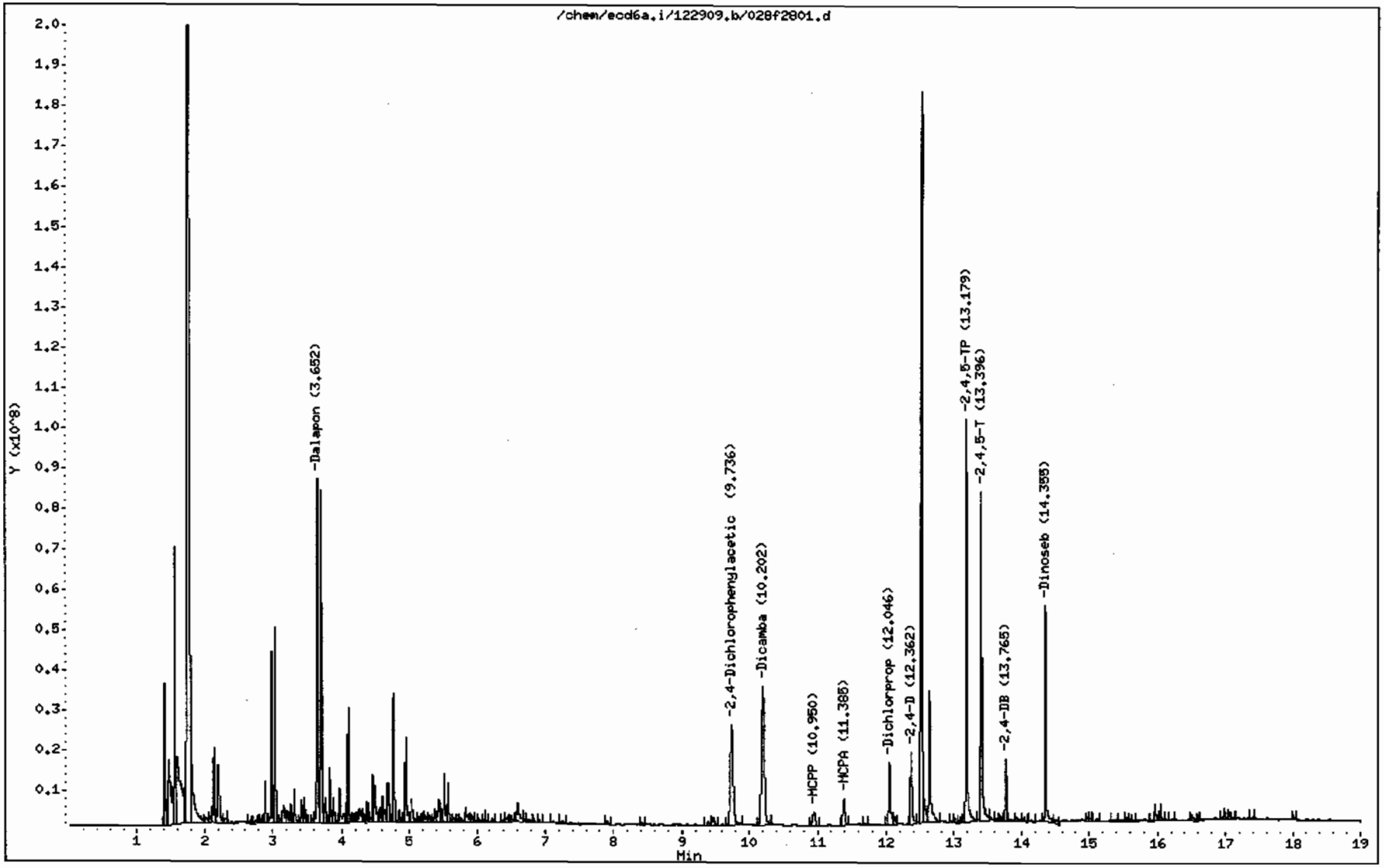

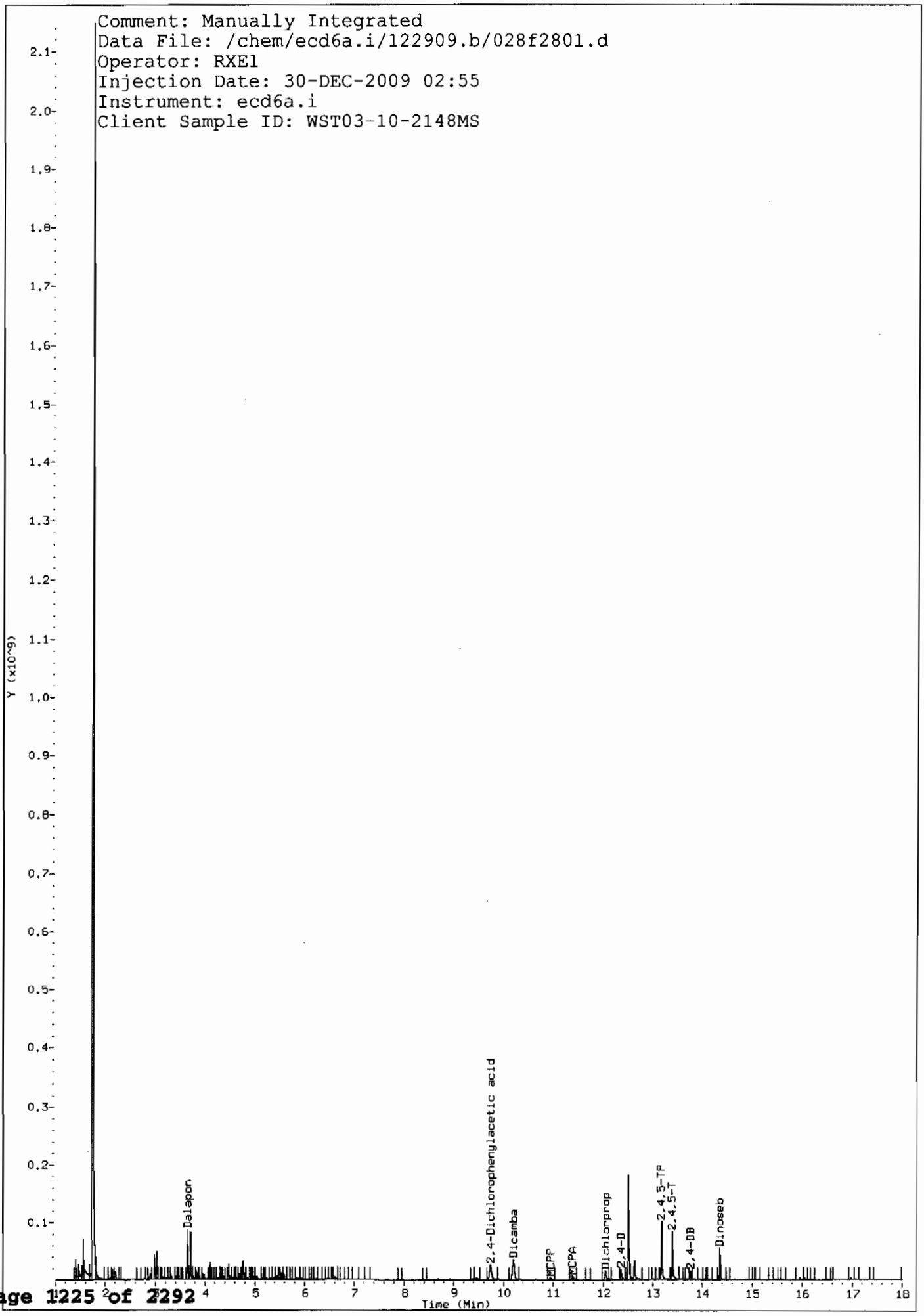
Comment: Manually Integrated
Data File: /chem/ecd6a.i/122909.b/028f2801.d
Operator: RXE1
Injection Date: 30-DEC-2009 02:55
Instrument: ecd6a.i
Client Sample ID: WST03-10-2148MS
Y (x10^9)
Dalapon
2,4-Dichlorophenylacetic acid
Dicamba
MCPP
MCPA
Dichlorprop
2,4-D
2,4,5-TP
2,4,5-T
2,4-DB
Dinoseb
Time (Min)

Comment: Before manual integration
Data File: /chem/ecd6a.i/122909.b/orig-028f2801.d
Operator: RXE1
Injection Date: 30-DEC-2009 02:55
Instrument: ecd6a.i
Client Sample ID: WST03-10-2148MS

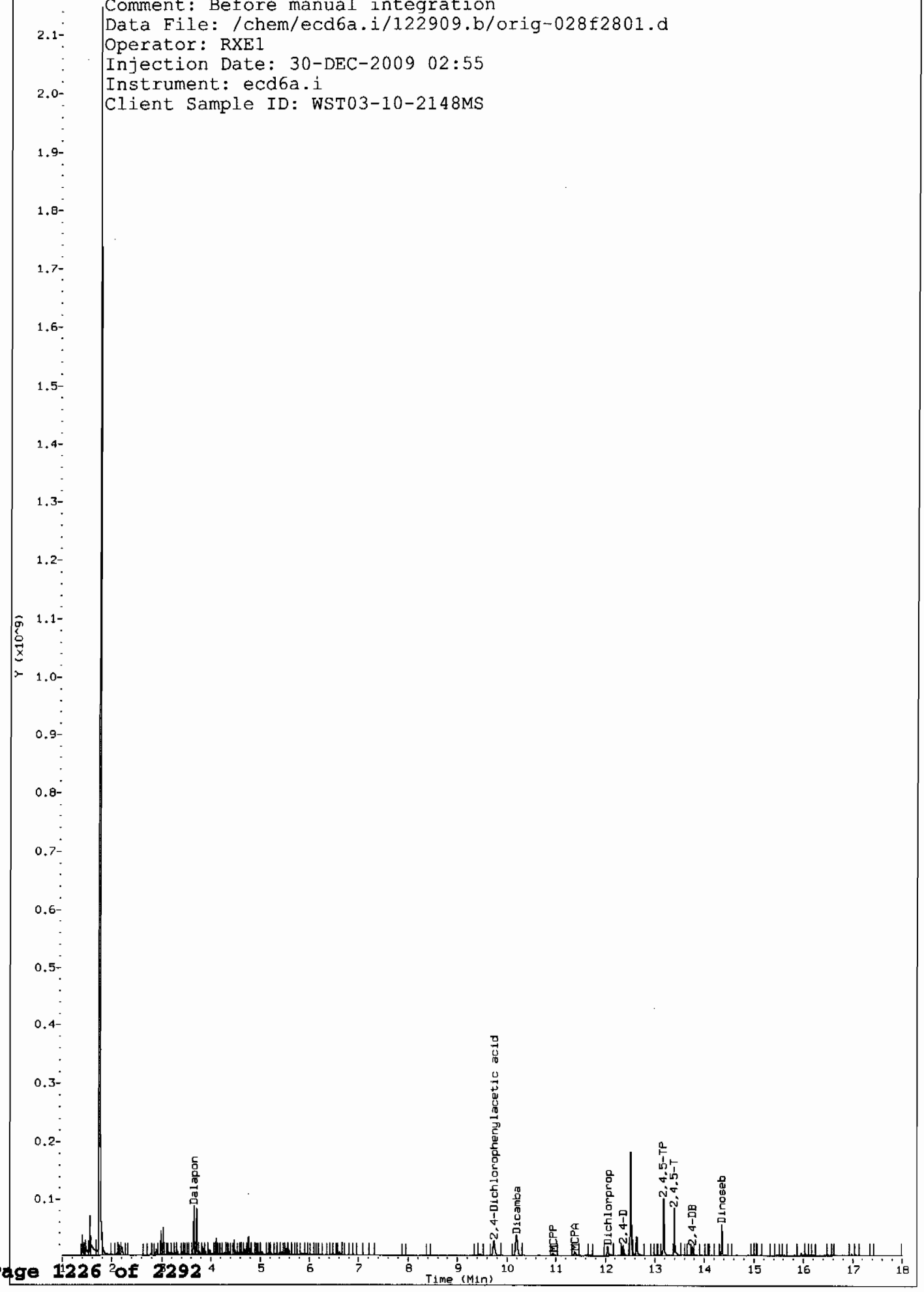

GEL Laboratories LLC

Column: RtxCLPII 0.25mm x 30 m Inj Vol: 2ul

Data file : /chem/ecd6a.i/122909.b/028b2801.d
Lab Smp Id: 1202005240 Client Smp ID: WST03-10-2148MS
Inj Date : 30-DEC-2009 02:55
Operator : RXE1 Inst ID: ecd6a.i
Smp Info : |1202005240|1|
Misc Info : |ECD51H_1S|937099|SVH|MS|SOIL|MS|||
Comment : RtxCLPII
Method : /chem/ecd6a.i/122909.b/ECD6-B-8151A-122909.m
Meth Date : 31-Dec-2009 09:04 reb01393 Quant Type: ESTD
Cal Date : 29-DEC-2009 17:03 Cal File: 007b0701.d
Als bottle: 28 QC Sample: MS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1085.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	10.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	50.14000	Weight of sample extracted (g)
M	7.19000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	
$ 2 2,4-Dichlorophenylacetic acid					CAS #: 19719-28-9	
10.793	10.801	-0.008	99862894	474.547	102	
1 Dalapon					CAS #: 88-85-7	
3.604	3.596	0.008	152824171	801.428	172	
4 Dicamba					CAS #: 6597-78-0	
11.288	11.294	-0.006	141986418	183.440	39.4	
3 MCPP					CAS #: 7085-19-0	
11.670	11.672	-0.002	12743969	17116.8	3680	(M)

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	
5 MCPA					CAS #: 94-74-6	
12.066	12.069	-0.003	19265462	15594.2	3350	(M)
6 Dichlorprop					CAS #: 120-36-5	
12.505	12.508	-0.003	37407726	190.486	40.9	
7 2,4-D					CAS #: 94-75-7	
12.835	12.838	-0.003	44800883	204.204	43.9	
8 2,4,5-TP					CAS #: 93-72-1	
13.497	13.501	-0.004	184619425	205.076	44.1	
9 2,4,5-T					CAS #: 93-76-5	
13.753	13.755	-0.002	153664133	197.978	42.5	
11 2,4-DB					CAS #: 94-82-6	
14.055	14.057	-0.002	21035794	189.929	40.8	(M)
10 Dinoseb					CAS #: 88-85-7	
14.224	14.226	-0.002	85683386	189.260	40.7	(M)

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd6a.i/122909.b/028b2801.d

Date : 30-DEC-2009 02:55

Client ID: WST03-10-2148MS

Sample Info: {1202005240|1}

Volume Injected (uL): 1.0

Column phase: Rtx-CLPII

Instrument: ecd6a.i

Operator: RXE1

Column diameter: 0.25

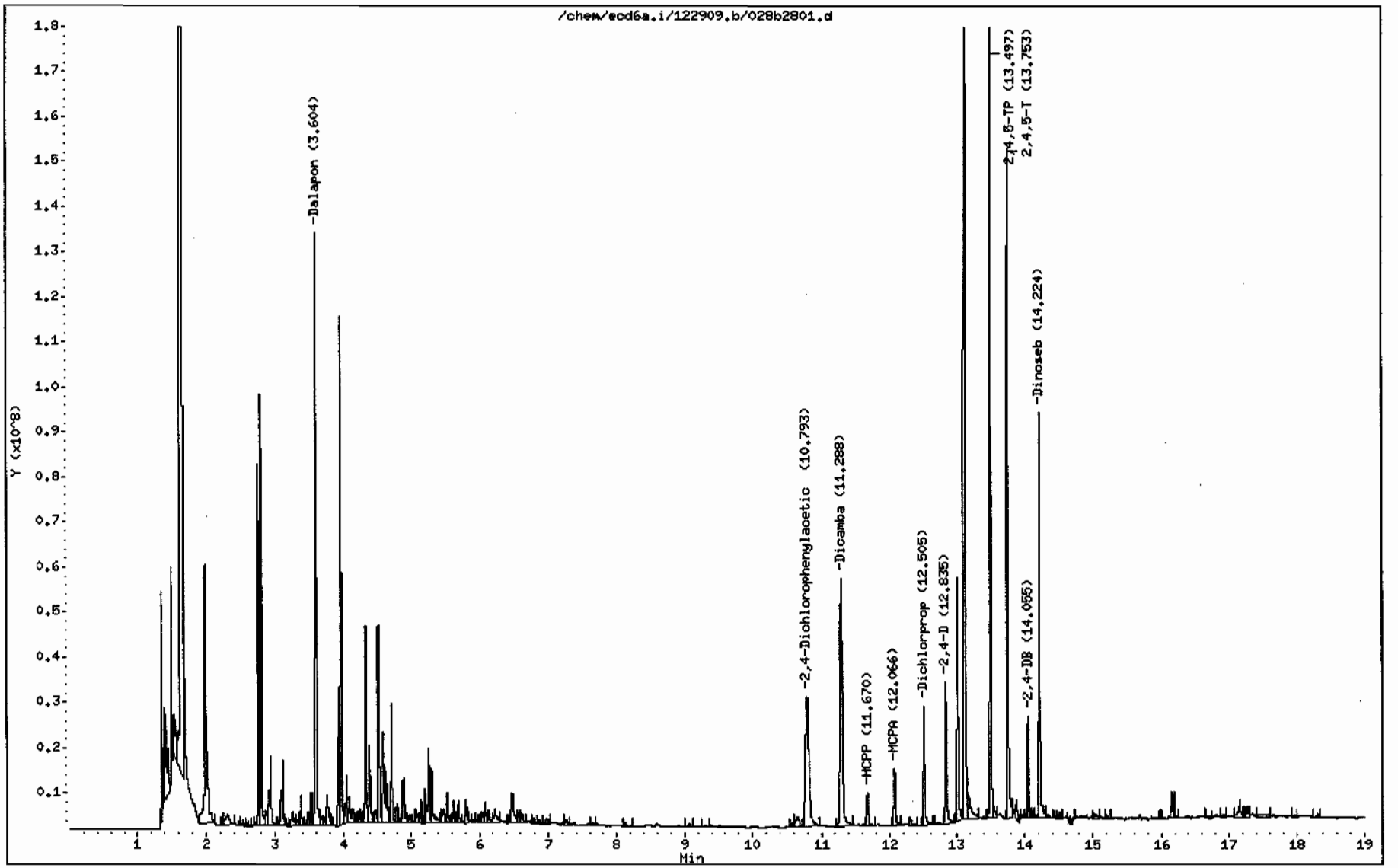

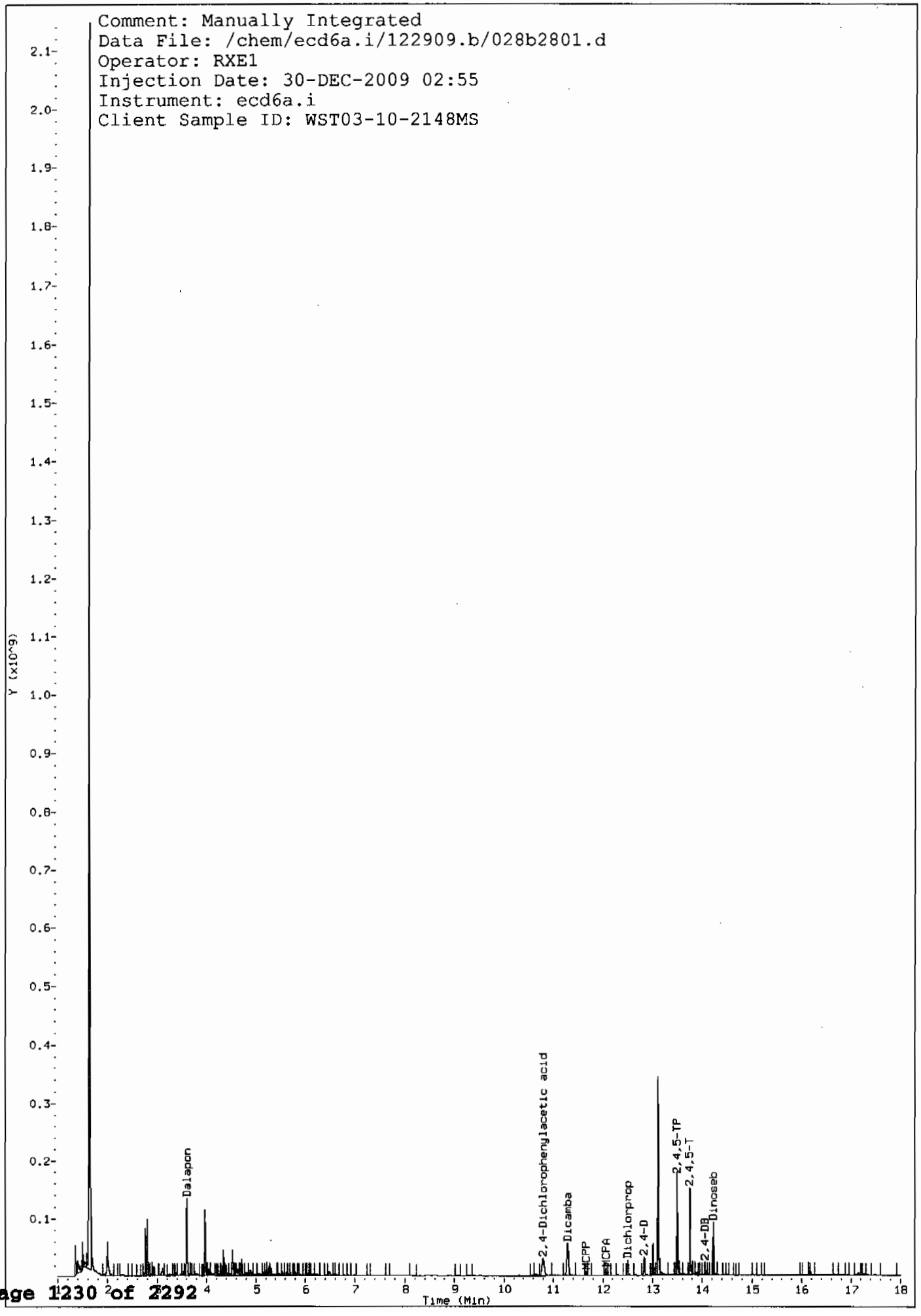
Comment: Manually Integrated
Data File: /chem/ecd6a.i/122909.b/028b2801.d
Operator: RXE1
Injection Date: 30-DEC-2009 02:55
Instrument: ecd6a.i
Client Sample ID: WST03-10-2148MS
Y (x10^9)
Time (Min)
Dalapon
2,4-Dichlorophenylacetic acid
Dicamba
MCPP
MCPA
Dichlorprop
2,4-D
2,4,5-TP
2,4,5-T
2,4-DB
Dinoseb

Comment: Before manual integration
Data File: /chem/ecd6a.i/122909.b/orig-028b2801.d
Operator: RXE1
Injection Date: 30-DEC-2009 02:55
Instrument: ecd6a.i
Client Sample ID: WST03-10-2148MS

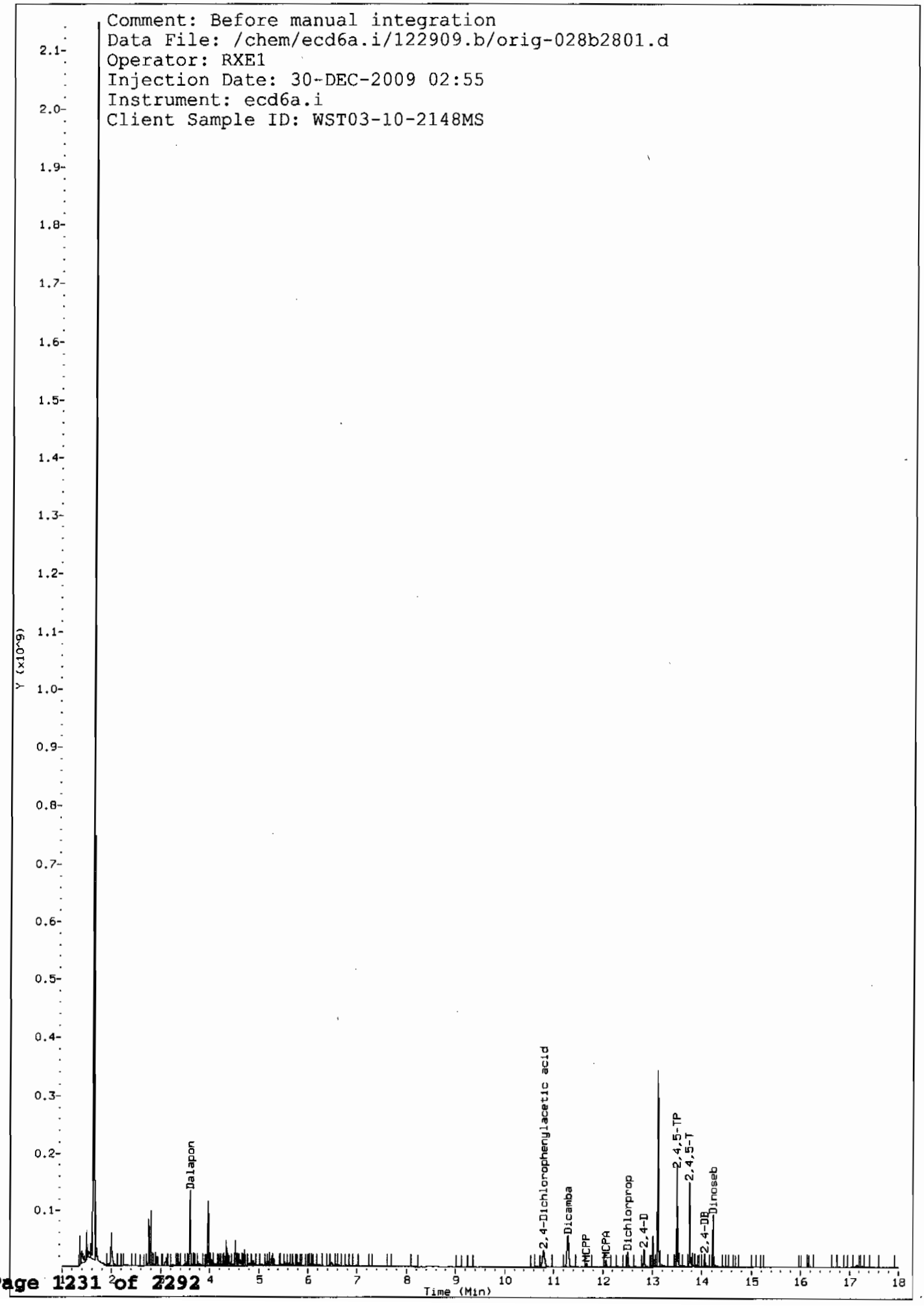

Herbicide
Certificate of Analysis
Sample Summary

SDG Number:	10–1085	**Date Collected:**	12/22/2009 12:00	**Matrix:**	R
Lab Sample ID:	1202005241	**Date Received:**	12/24/2009 09:30	**%Moisture:**	7.2
Client Sample:	QC for batch 937098	**Client:**	LANL010	**Project:**	QC
Client ID:	WST03–10–2148MSD	**Method:**	SW846 8151A	**SOP Ref:**	GL–OA–E–011
Batch ID:	937099	**Inst:**	ECD6A.I	**Dilution:**	1
Run Date:	12/30/2009 03:23	**Analyst:**	RXE1	**Inj. Vol:**	1 uL
Prep Date:	12/28/2009 20:19	**Aliquot:**	50.01 g	**Final Volume:**	10 mL
Data File:	029f2901.d	**Column:**	1 Rtx–CLP	**Level:**	LOW
	029b2901.d		2 Rtx–CLPII		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
75–99–0	Dalapon		216	ug/kg	21.5	108	1
1918–00–9	Dicamba		37.7	ug/kg	1.79	5.39	1
93–65–2	MCPP		3810	ug/kg	215	1080	1
94–74–6	MCPA		3690	ug/kg	248	1080	1
120–36–5	Dichlorprop		42.0	ug/kg	1.79	5.39	1
94–75–7	2,4–D		42.8	ug/kg	1.79	5.39	1
93–72–1	2,4,5–TP		40.6	ug/kg	1.79	5.39	1
93–76–5	2,4,5–T		38.8	ug/kg	1.79	5.39	1
94–82–6	2,4–DB		42.5	ug/kg	1.79	5.39	1
88–85–7	Dinoseb		40.5	ug/kg	1.79	5.39	1

GEL Laboratories LLC

Column: RtxCLP 0.25mm x 30 m Inj Vol: 2 ul

Data file : /chem/ecd6a.i/122909.b/029f2901.d
Lab Smp Id: 1202005241 Client Smp ID: WST03-10-2148MSD
Inj Date : 30-DEC-2009 03:23
Operator : RXE1 Inst ID: ecd6a.i
Smp Info : |1202005241|1|
Misc Info : |ECD51H_1S|937099|SVH|MSD|SOIL|MSD|||
Comment :
Method : /chem/ecd6a.i/122909.b/ECD6-F-8151A-122909.m
Meth Date : 31-Dec-2009 09:06 reb01393 Quant Type: ESTD
Cal Date : 29-DEC-2009 17:03 Cal File: 007f0701.d
Als bottle: 29 QC Sample: MSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1085.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	10.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	50.01000	Weight of sample extracted (g)
M	7.19000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)
$ 2 2,4-Dichlorophenylacetic acid					CAS #: 19719-28-9
9.736	9.741	-0.005	70147300	479.718	103
1 Dalapon					CAS #: 75-99-0
3.652	3.645	0.007	117985786	1000.56	216
3 Dicamba					CAS #: 6597-78-0
10.198	10.201	-0.003	96360461	175.031	37.7
4 MCPP					CAS #: 7085-19-0
10.946	10.952	-0.006	9633342	17671.5	3810

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	CONCENTRATIONS FINAL (ug/Kg)	
5 MCPA					CAS #: 94-74-6	
11.384	11.385	-0.001	15735937	17112.8	3690	
6 Dichlorprop					CAS #: 120-36-5	
12.047	12.050	-0.003	27224039	195.142	42.0	
7 2,4-D					CAS #: 94-75-7	
12.360	12.364	-0.004	28452407	198.799	42.8	(M)
8 2,4,5-TP					CAS #: 93-72-1	
13.179	13.180	-0.001	115172691	188.415	40.6	(M)
9 2,4,5-T					CAS #: 93-76-5	
13.396	13.398	-0.002	97178488	180.183	38.8	
10 2,4-DB					CAS #: 94-82-6	
13.764	13.767	-0.003	15221007	197.154	42.5	
11 Dinoseb					CAS #: 88-85-7	
14.356	14.356	0.000	55483129	187.994	40.5	

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd6a.i/122909.b/029f2901.d
Date : 30-DEC-2009 03:23
Client ID: WST03-10-2148MSD
Sample Info: 1120200524111
Volume Injected (uL): 1.0
Column phase: Rtx-CLP

Instrument: ecd6a.i
Operator: RXE1
Column diameter: 0.25

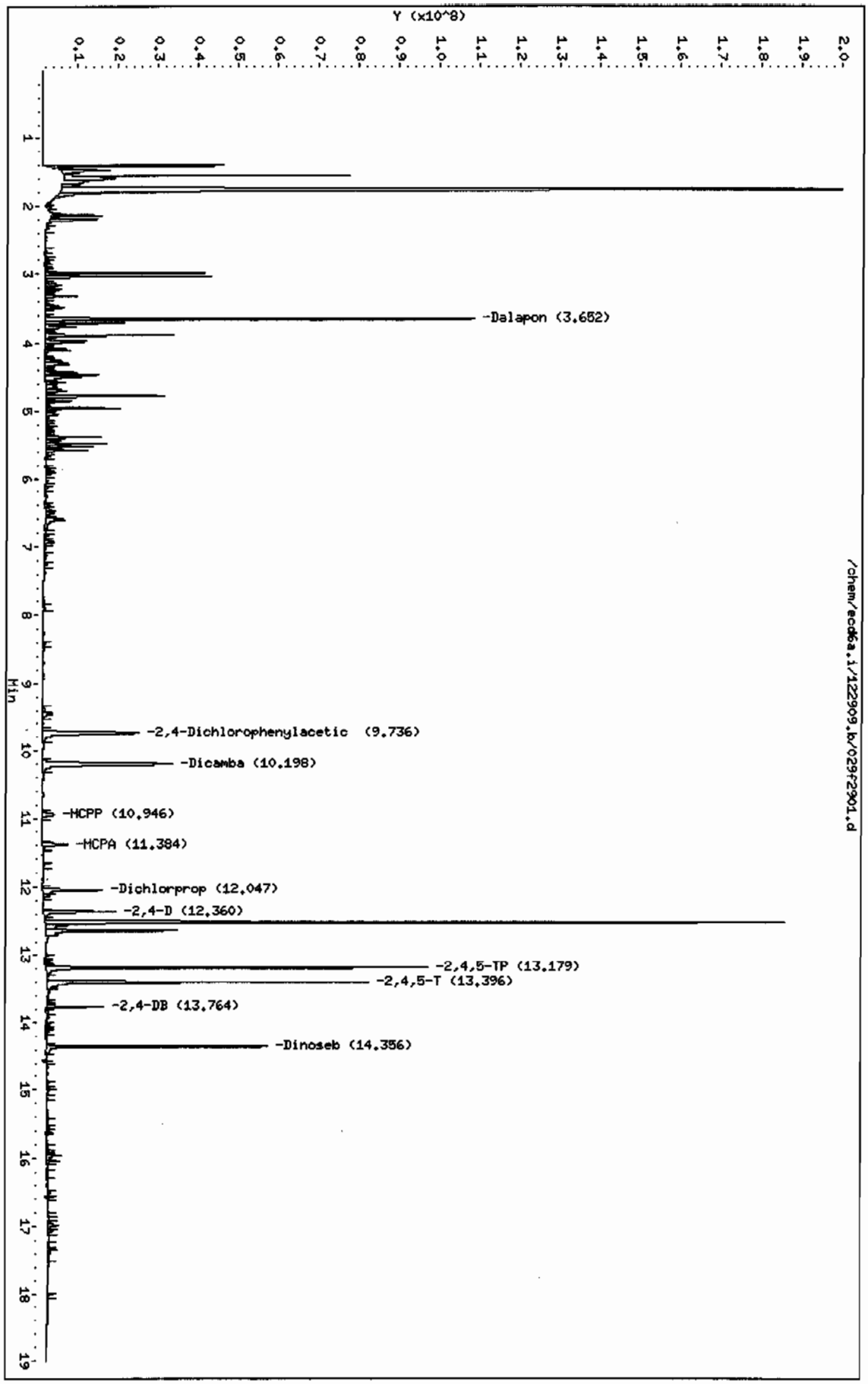

Page 1

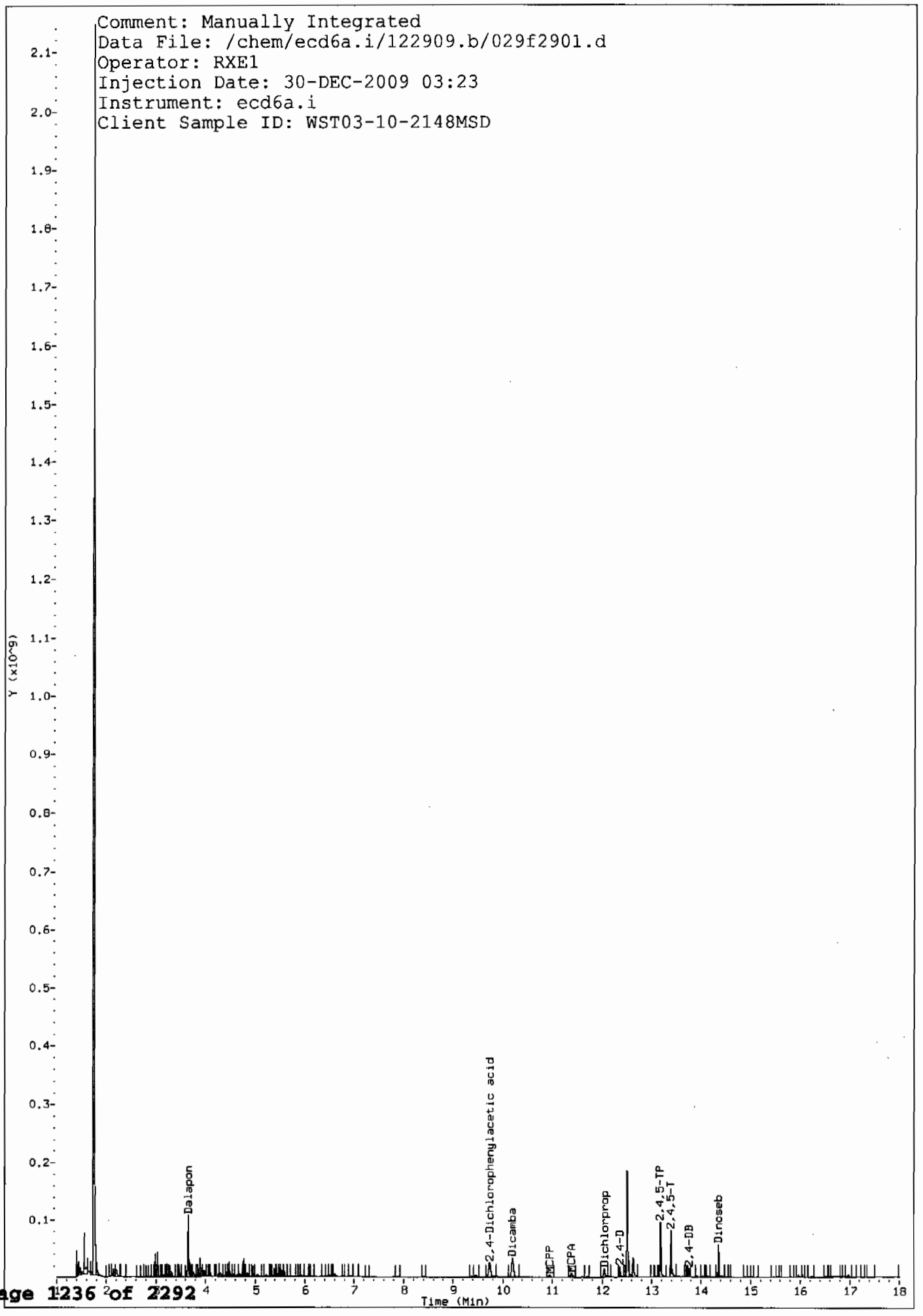
Comment: Manually Integrated
Data File: /chem/ecd6a.i/122909.b/029f2901.d
Operator: RXE1
Injection Date: 30-DEC-2009 03:23
Instrument: ecd6a.i
Client Sample ID: WST03-10-2148MSD
Y (x10^9)
Time (Min)
Dalapon
2,4-Dichlorophenylacetic acid
Dicamba
MCPP
MCPA
Dichlorprop
2,4-D
2,4,5-TP
2,4,5-T
2,4-DB
Dinoseb

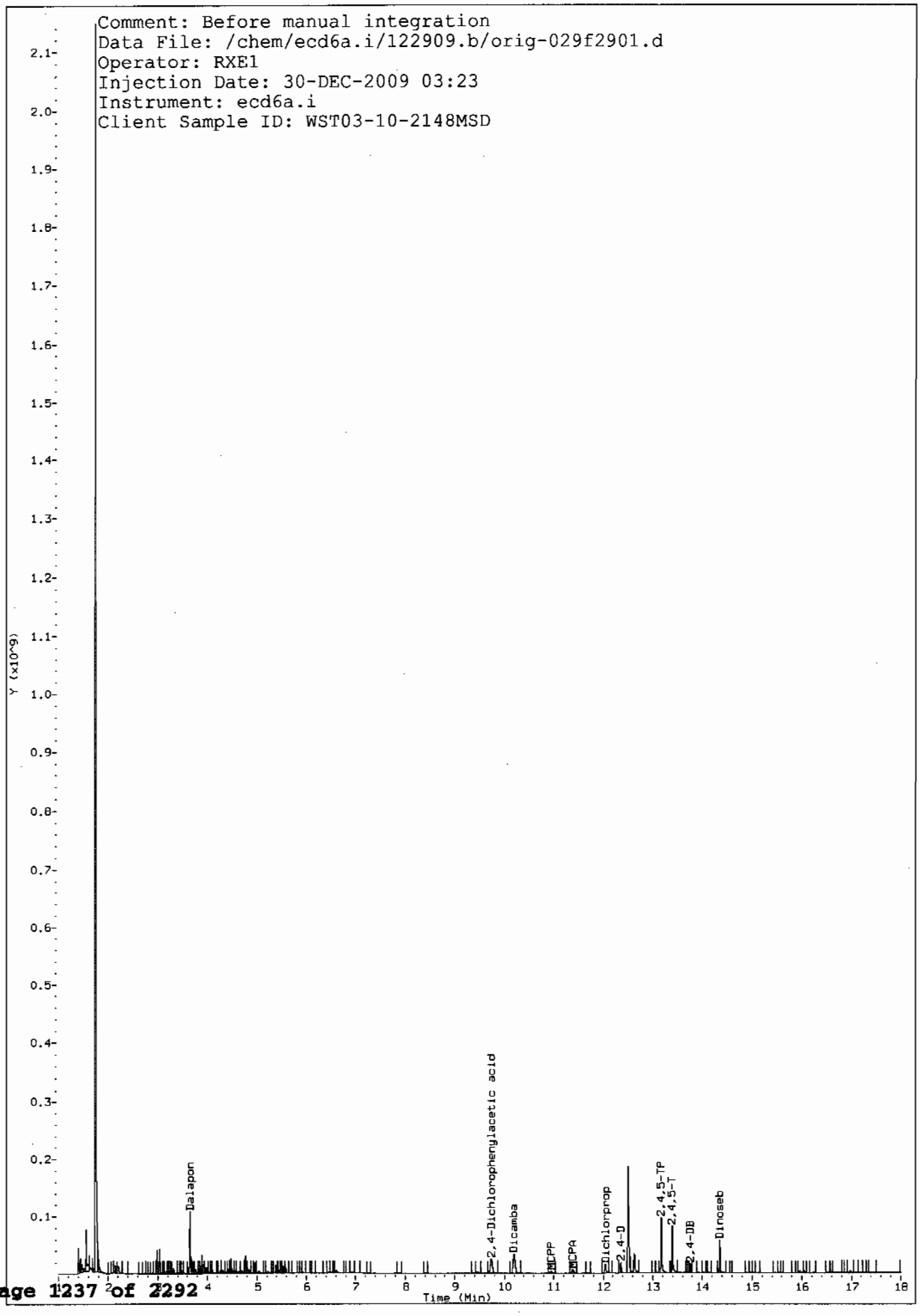
Comment: Before manual integration
Data File: /chem/ecd6a.i/122909.b/orig-029f2901.d
Operator: RXE1
Injection Date: 30-DEC-2009 03:23
Instrument: ecd6a.i
Client Sample ID: WST03-10-2148MSD
Y (x10^9)
Time (Min)
Dalapon
2,4-Dichlorophenylacetic acid
Dicamba
MCPP
MCPA
Dichlorprop
2,4-D
2,4,5-TP
2,4,5-T
2,4-DB
Dinoseb

GEL Laboratories LLC

Column: RtxCLPII 0.25mm x 30 m Inj Vol: 2ul

Data file : /chem/ecd6a.i/122909.b/029b2901.d
Lab Smp Id: 1202005241 Client Smp ID: WST03-10-2148MSD
Inj Date : 30-DEC-2009 03:23
Operator : RXE1 Inst ID: ecd6a.i
Smp Info : |1202005241|1|
Misc Info : |ECD51H_1S|937099|SVH|MSD|SOIL|MSD|||
Comment : RtxCLPII
Method : /chem/ecd6a.i/122909.b/ECD6-B-8151A-122909.m
Meth Date : 31-Dec-2009 09:04 reb01393 Quant Type: ESTD
Cal Date : 29-DEC-2009 17:03 Cal File: 007b0701.d
Als bottle: 29 QC Sample: MSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1085.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	10.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	50.01000	Weight of sample extracted (g)
M	7.19000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	
$ 2 2,4-Dichlorophenylacetic acid					CAS #: 19719-28-9	
10.792	10.801	-0.009	96994555	460.916	99.3	
1 Dalapon					CAS #: 88-85-7	
3.604	3.596	0.008	181202208	950.246	205	
4 Dicamba					CAS #: 6597-78-0	
11.289	11.294	-0.005	132142432	170.722	36.8	
3 MCPP					CAS #: 7085-19-0	
11.668	11.672	-0.004	12484840	16768.8	3610	(M)

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	
5 MCPA					CAS #: 94-74-6	
12.065	12.069	-0.004	19409073	15710.4	3380	(M)
6 Dichlorprop					CAS #: 120-36-5	
12.504	12.508	-0.004	35655171	181.562	39.1	
7 2,4-D					CAS #: 94-75-7	
12.834	12.838	-0.004	42597069	194.159	41.8	
8 2,4,5-TP					CAS #: 93-72-1	
13.498	13.501	-0.003	169708844	188.513	40.6	
9 2,4,5-T					CAS #: 93-76-5	
13.753	13.755	-0.002	141931375	182.862	39.4	
11 2,4-DB					CAS #: 94-82-6	
14.055	14.057	-0.002	20420870	184.377	39.7	
10 Dinoseb					CAS #: 88-85-7	
14.224	14.226	-0.002	84800878	187.311	40.4	

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd6a.i/122909.b/029b2901.d
Date : 30-DEC-2009 03:23
Client ID: WST03-10-2148MSD
Sample Info: |1202005241|1|
Volume Injected (uL): 1.0
Column phase: Rtx-CLPII

Instrument: ecd6a.i

Operator: RXE1
Column diameter: 0.25

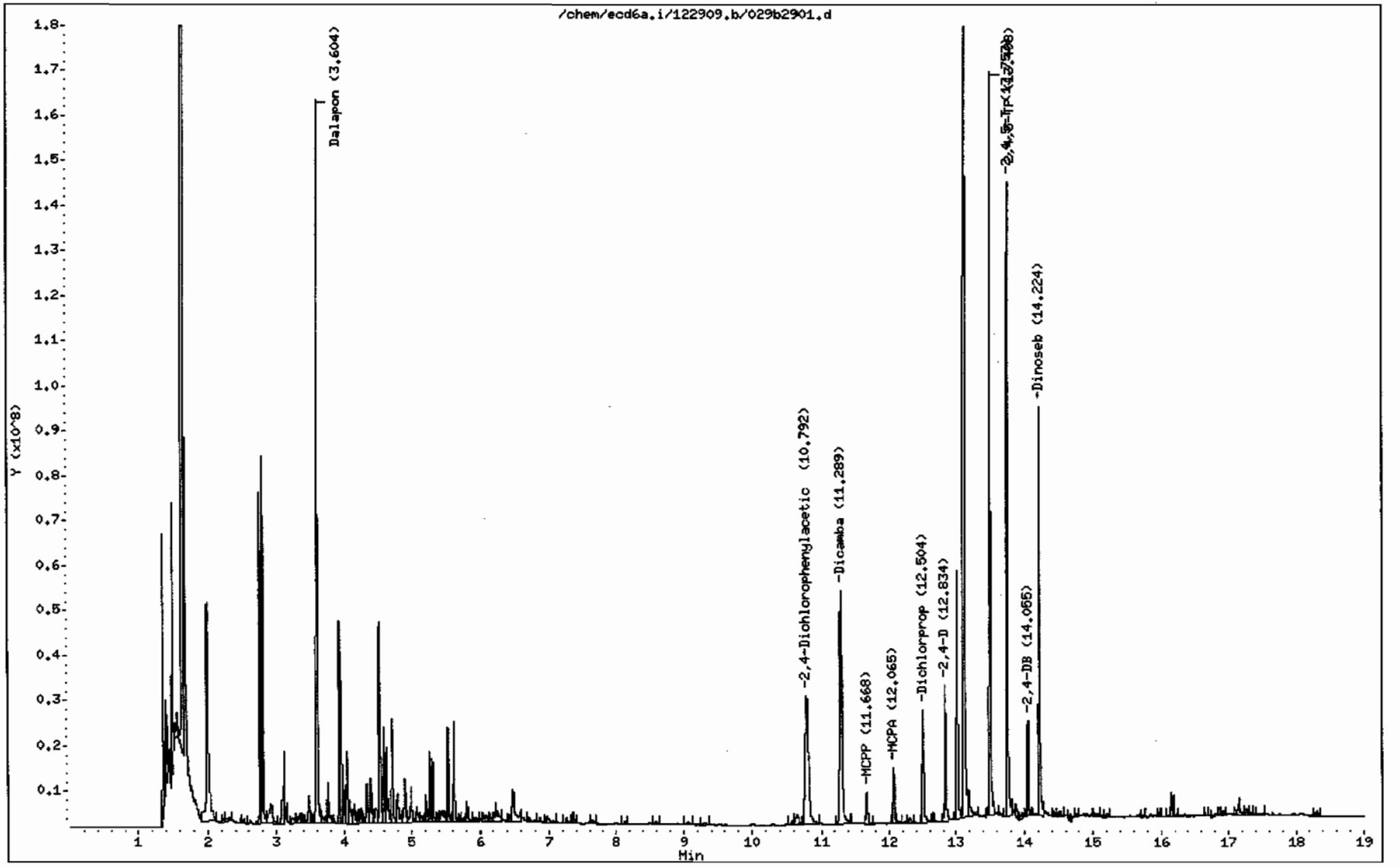

Comment: Manually Integrated
Data File: /chem/ecd6a.i/122909.b/029b2901.d
Operator: RXE1
Injection Date: 30-DEC-2009 03:23
Instrument: ecd6a.i
Client Sample ID: WST03-10-2148MSD

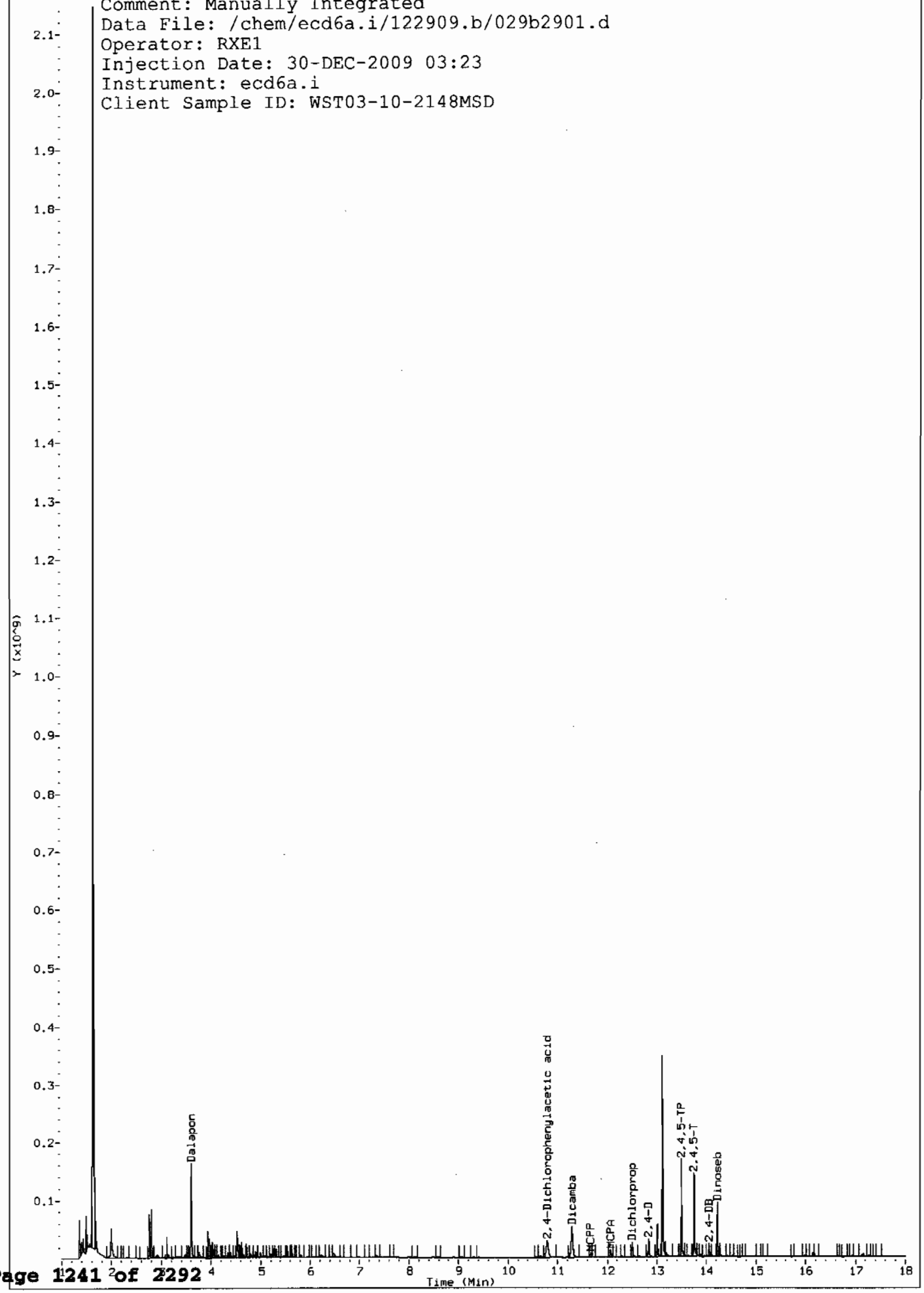

Comment: Before manual integration
Data File: /chem/ecd6a.i/122909.b/orig-029b2901.d
Operator: RXE1
Injection Date: 30-DEC-2009 03:23
Instrument: ecd6a.i
Client Sample ID: WST03-10-2148MSD

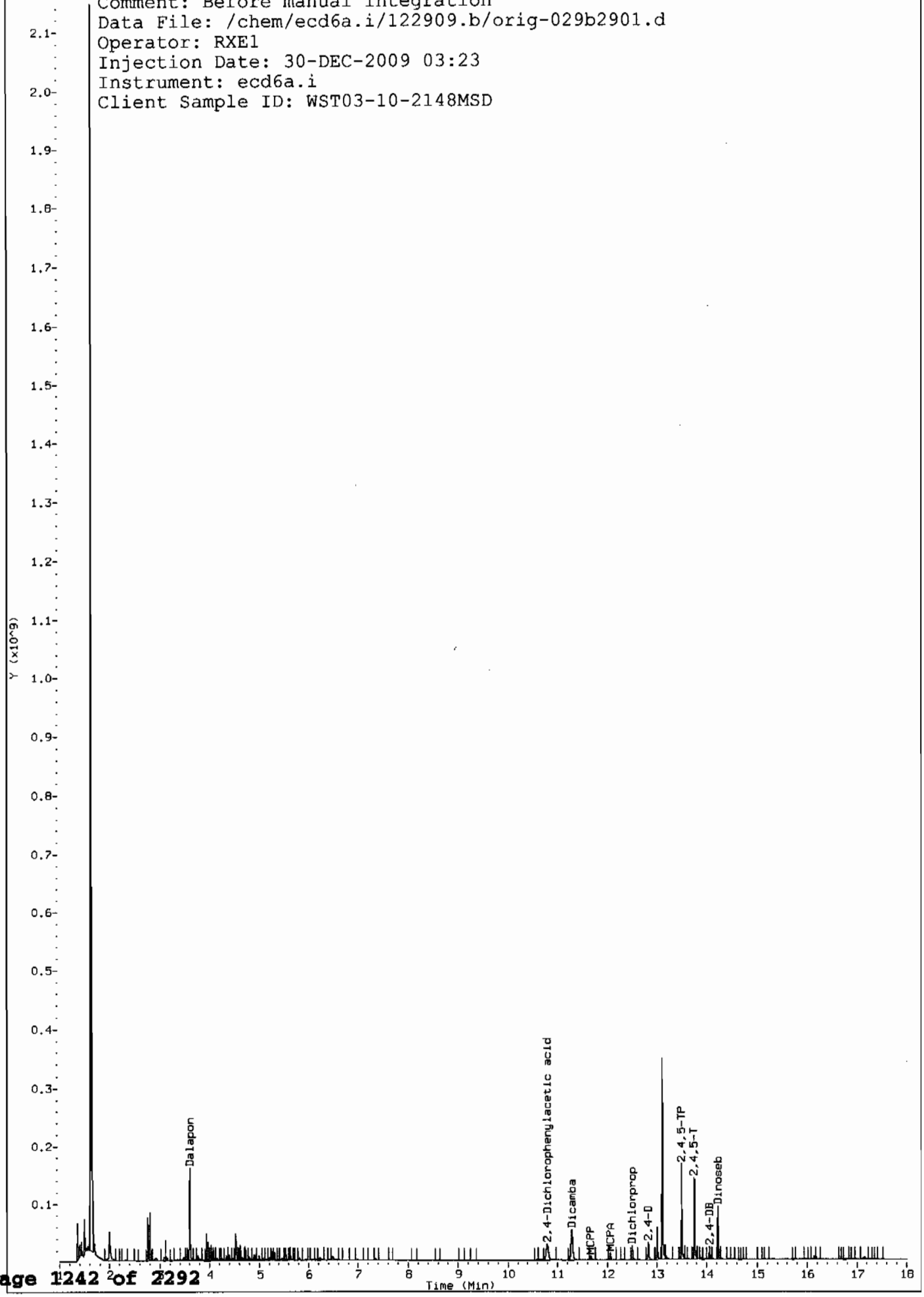

MISCELLANEOUS DATA

GEL ORGANIC RUN LOG INSTRUMENT ID: ECD6

DATE: 12/30/2009 METHOD: ECD6-F-8151A-122909.m OPERATOR:RXE1 REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT CZ454

Calibration & QC Information
Initial Calibration Dates: See Calibration History and Standards Log
Initial Calibration Std ID's: See Calibration History and Standards Log
GEL SOP GL-OA-E-011 Analysis of Chlorophenoxy Herbicides by ECD
EPA Method: 8151A Chlorinated Herbicides by GC Using Derivation
Sequence Number:122909 Injection Volume: 1.0 uL

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001f0101.d	WHB091117-02	RXE1	29-DEC-2009 14:13		122909	1.0	INSTBLK	CLEAN
002f0201.d	WHB091030-01	RXE1	29-DEC-2009 14:41		122909	1.0	HSTD01	ICAL LVL 1
003f0301.d	WHB091030-02	RXE1	29-DEC-2009 15:10		122909	1.0	HSTD02	ICAL LVL 2
004f0401.d	WHB091030-03	RXE1	29-DEC-2009 15:38		122909	1.0	HSTD03	ICAL LVL 3
005f0501.d	WHB091030-04	RXE1	29-DEC-2009 16:07		122909	1.0	HSTD04	ICAL LVL 4
006f0601.d	WHB091030-05	RXE1	29-DEC-2009 16:35		122909	1.0	HSTD05	ICAL LVL 5
007f0701.d	WHB091030-06	RXE1	29-DEC-2009 17:03		122909	1.0	HSTD06	ICAL LVL 6
008f0801.d	WHB091030-07	RXE1	29-DEC-2009 17:31		122909	1.0	HSTD07	ICAL LVL 7
009f0901.d	WHB091222-08	RXE1	29-DEC-2009 18:00		122909	1.0	HSTD01	USE. ICV. ALL ANALYTES PASSING BOTH COLUMNS.
010f1001.d	WHB091117-02	RXE1	29-DEC-2009 18:28		122909	1.0	INSTBLK	CLEAN
011f1101.d	1202004510	RXE1	29-DEC-2009 18:56	936848	10-1049	1.0	MB	DUSE - FAILING LCS.
012f1201.d	1202004511	RXE1	29-DEC-2009 19:24	936848	10-1049	1.0	LCS	DUSE - FAILING LCS.
013f1301.d	243458005	RXE1	29-DEC-2009 19:52	936848	10-1044	1.0	LANL	DUSE - FAILING LCS.
014f1401.d	243460005	RXE1	29-DEC-2009 20:21	936848	10-1049	1.0	LANL	DUSE - FAILING LCS.
015f1501.d	1202004512	RXE1	29-DEC-2009 20:49	936848	10-1049	1.0	MS	DUSE - FAILING LCS.

Instrument Batch: /chem/ecd6a.i/122909.b Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
016f1601.d	1202004513	RXE1	29-DEC-2009 21:17	936848	10-1049	1.0	MSD	DUSE - FAILING LCS.
017f1701.d	243467004	RXE1	29-DEC-2009 21:45	936848	10-1055	1.0	LANL	DUSE - FAILING LCS.

018f1801.d	243469004	RXE1	29-DEC-2009 22:13	936848	10-1052	1.0	LANL	DUSE - FAILING LCS.
019f1901.d	WHB091222-08	RXE1	29-DEC-2009 22:42		122909	1.0	HSTD02	USE. CCV. ALL ANALYTES PASSING BOTH COLUMNS.
020f2001.d	WHB091117-02	RXE1	29-DEC-2009 23:10		122909	1.0	INSTBLK	CLEAN
021f2101.d	1202005238	RXE1	29-DEC-2009 23:38	937099	10-1085	1.0	MB	USE. PASSING BOTH COLUMNS, UPLOAD HIGHER RESULT.
022f2201.d	1202005239	RXE1	30-DEC-2009 00:06	937099	10-1085	1.0	LCS	USE. PASSING BOTH COLUMNS, UPLOAD HIGHER RESULT.
023f2301.d	243393002	RXE1	30-DEC-2009 00:35	937099	10-1005	1.0	LANL	USE. PASSING BOTH COLUMNS, UPLOAD HIGHER RESULT.
024f2401.d	243421001	RXE1	30-DEC-2009 01:03	937099	10-1005-1	1.0	LANL	USE. PASSING BOTH COLUMNS, UPLOAD HIGHER RESULT.
025f2501.d	243547002	RXE1	30-DEC-2009 01:31	937099	10-1084	1.0	LANL	USE. PASSING BOTH COLUMNS, UPLOAD HIGHER RESULT.
026f2601.d	243547003	RXE1	30-DEC-2009 01:59	937099	10-1084	1.0	LANL	USE. PASSING BOTH COLUMNS, UPLOAD HIGHER RESULT.
027f2701.d	243549002	RXE1	30-DEC-2009 02:27	937099	10-1085	1.0	LANL	USE. PASSING BOTH COLUMNS, UPLOAD HIGHER RESULT.
028f2801.d	1202005240	RXE1	30-DEC-2009 02:55	937099	10-1085	1.0	MS	USE. PASSING BOTH COLUMNS, UPLOAD HIGHER RESULT.
029f2901.d	1202005241	RXE1	30-DEC-2009 03:23	937099	10-1085	1.0	MSD	USE. PASSING BOTH COLUMNS, UPLOAD HIGHER RESULT.
030f3001.d	WHB091222-08	RXE1	30-DEC-2009 03:51		122909	1.0	HSTD03	USE. CCV. ALL ANALYTES PASSING BOTH COLUMNS.
031f3101.d	WHB091117-02	RXE1	30-DEC-2009 04:19		122909	1.0	INSTBLK	CLEAN
032f3201.d	1202002504	RXE1	30-DEC-2009 04:47	935871	10-972	1.0	MB	USE. PASSING BOTH COLUMNS, UPLOAD HIGHER RESULT.
033f3301.d	1202002506	RXE1	30-DEC-2009 05:14	935871	10-972	1.0	LCS	USE. PASSING BOTH COLUMNS, UPLOAD HIGHER RESULT.
034f3401.d	1202002507	RXE1	30-DEC-2009 05:42	935871	10-972	1.0	LCSD	USE. PASSING BOTH COLUMNS, UPLOAD HIGHER RESULT.
035f3501.d	243254012	RXE1	30-DEC-2009 06:11	935871	10-972	1.0	LANL	USE. $ LOW, CONFIRMED BY MS.

Instrument Batch: /chem/ecd6a.i/122909.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
036f3601.d	1202002505	RXE1	30-DEC-2009 06:38	935871	10-972	1.0	MS	USE. $/SPIKES LOW, NO SAMPLE LEFT FOR MSD CONFIRMATION.
037f3701.d	243381004	RXE1	30-DEC-2009 07:06	935871	243381	1.0	BJCO	USE. PASSING BOTH COLUMNS, UPLOAD HIGHER RESULT.
038f3801.d	WHB091222-08	RXE1	30-DEC-2009 07:35		122909	1.0	HSTD04	USE. CCV. ALL ANALYTES PASSING BOTH COLUMNS.
039f3901.d	WHB091117-02	RXE1	30-DEC-2009 08:03		122909	1.0	INSTBLK	CLEAN
040f4001.d	1202001156	RXE1	30-DEC-2009 08:31	936607	243278	1.0	TB	USE. PASSING BOTH COLUMNS, UPLOAD HIGHER RESULT.
041f4101.d	1202001935	RXE1	30-DEC-2009 08:59	936607	243262	1.0	TB	USE. PASSING BOTH COLUMNS, UPLOAD HIGHER RESULT.

042f4201.d	1202002929	RXE1	30-DEC-2009 09:27	936607	243262		1.0	TB	USE. PASSING BOTH COLUMNS, UPLOAD HIGHER RESULT.
043f4301.d	1202003586	RXE1	30-DEC-2009 09:56	937141	243434		1.0	TB	USE. PASSING BOTH COLUMNS, UPLOAD HIGHER RESULT.
044f4401.d	1202005339	RXE1	30-DEC-2009 10:24	937141	243434		1.0	MB	USE. PASSING BOTH COLUMNS, UPLOAD HIGHER RESULT.
045f4501.d	1202005340	RXE1	30-DEC-2009 10:54	937141	243434		1.0	LCS	USE. PASSING BOTH COLUMNS, UPLOAD HIGHER RESULT.
046f4601.d	243434001	RXE1	30-DEC-2009 11:22	937141	243434		1.0	ENRG	USE. PASSING BOTH COLUMNS, UPLOAD HIGHER RESULT.
047f4701.d	1202005341	RXE1	30-DEC-2009 11:50	937141	243434		1.0	MS	USE. PASSING BOTH COLUMNS, UPLOAD HIGHER RESULT.
048f4801.d	1202005342	RXE1	30-DEC-2009 12:19	937141	243434		1.0	MSD	USE. PASSING BOTH COLUMNS, UPLOAD HIGHER RESULT.
049f4901.d	WHB091222-08	RXE1	30-DEC-2009 12:47		122909		1.0	HSTD05	USE. CCV. PASSING (B), MULTIPLE ANALYTES HI (F).
050f5001.d	WHB091117-02	RXE1	30-DEC-2009 13:16		122909		1.0	INSTBLK	CLEAN
051f5101.d	1202004035	RXE1	30-DEC-2009 13:45	936607	243278		1.0	MB	USE. PASSING BOTH COLUMNS, UPLOAD HIGHER RESULT.
052f5201.d	1202004036	RXE1	30-DEC-2009 14:13	936607	243278		1.0	LCS	USE. PASSING BOTH COLUMNS, UPLOAD HIGHER RESULT.

10H

Instrument Batch: /chem/ecd6a.i/122909.b

10H16.6H

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
053f5301.d	243262001	RXE1	30-DEC-2009 14:41	936607	243262	1.0	MECP	USE. PASSING BOTH COLUMNS, UPLOAD HIGHER RESULT.
054f5401.d	243262002	RXE1	30-DEC-2009 15:10	936607	243262	1.0	MECP	USE. PASSING BOTH COLUMNS, UPLOAD HIGHER RESULT.
055f5501.d	243278003	RXE1	30-DEC-2009 15:38	936607	243278	1.0	ECWS	USE. PASSING BOTH COLUMNS, UPLOAD HIGHER RESULT.
056f5601.d	1202004037	RXE1	30-DEC-2009 16:07	936607	243278	1.0	MS	USE. PASSING BOTH COLUMNS, UPLOAD HIGHER RESULT.
057f5701.d	1202004038	RXE1	30-DEC-2009 16:36	936607	243278	1.0	MSD	USE. PASSING BOTH COLUMNS, UPLOAD HIGHER RESULT.
058f5801.d	WHB091222-08	RXE1	30-DEC-2009 17:04		122909	1.0	HSTD06	USE. CCV. ALL ANALYTES PASSING BOTH COLUMNS.
059f5901.d	WHB091117-02	RXE1	30-DEC-2009 17:32		122909	1.0	INSTBLK	CLEAN
060f6001.d	1202004510	RXE1	30-DEC-2009 18:01	936848	10-1049	1.0	MB	USE. PASSING BOTH COLUMNS, UPLOAD HIGHER RESULT.
061f6101.d	1202004511	RXE1	30-DEC-2009 18:29	936848	10-1049	1.0	LCS	USE. DINO SLIGHTLY LOW (F), PASSING (B).
062f6201.d	243458005	RXE1	30-DEC-2009 18:58	936848	10-1044	1.0	LANL	USE. PASSING BOTH COLUMNS, UPLOAD HIGHER RESULT.
063f6301.d	243460005	RXE1	30-DEC-2009 19:26	936848	10-1049	1.0	LANL	USE. PASSING BOTH COLUMNS, UPLOAD HIGHER RESULT.
064f6401.d	1202004512	RXE1	30-DEC-2009 19:55	936848	10-1049	1.0	MS	USE. DINO SLIGHTLY LOW (F), PASSING (B).
065f6501.d	1202004513	RXE1	30-DEC-2009 20:23	936848	10-1049	1.0	MSD	USE. DINO SLIGHTLY LOW (F), PASSING (B).
066f6601.d	243467004	RXE1	30-DEC-2009 20:52	936848	10-1055	1.0	LANL	USE. $ HI (F), PASSING (B).

067f6701.d	243469004	RXE1	30-DEC-2009 21:20	936848	10-1052	1.0	LANL	USE. PASSING BOTH COLUMNS, UPLOAD HIGHER RESULT.
068f6801.d	WHB091222-08	RXE1	30-DEC-2009 21:48		122909	1.0	HSTD07	USE. CCV. PASSING (B), DAL/D/T HI (F).
069f6901.d	WHB091117-02	RXE1	30-DEC-2009 22:17		122909	1.0	INSTBLK	CLEAN

Prep Logbook

The Extraction of Herbicides from Soil and Sludge Samples

Batch ID: 937098 **Verified by:** _____

Analyst: Andrew Schwemin

Method: SW846 8151A

Lab SOP: GL-OA-E-027 REV# 8

Instrument: Semi-Volatiles Manual

Sample ID	Run Date	Aliquot (g)	Prepped Aliquot (mL)	Prepped Factor (mL/g)
1202005238 MB	28-DEC-2009 20:19:29	50	10	0.2
1202005239 LCS	28-DEC-2009 20:19:29	50	10	0.2
243393002	28-DEC-2009 20:19:29	50.17	10	0.19932
243421001	28-DEC-2009 20:19:29	50.11	10	0.19956
243547002	28-DEC-2009 20:19:29	50.01	10	0.19996
243547003	28-DEC-2009 20:19:29	50.06	10	0.19976
243549002	28-DEC-2009 20:19:29	50.02	10	0.19992
1202005240 MS (243549002)	28-DEC-2009 20:19:29	50.14	10	0.19944
1202005241 MSD (243549002)	28-DEC-2009 20:19:29	50.01	10	0.19996

Type	Sample Id	Description	Serial Number	Spike Amt	Units
LCS	1202005239	HERBICIDE LCS	WE091208-02	1	mL
MS	1202005240	HERBICIDE LCS	WE091208-02	1	mL
MSD	1202005241	HERBICIDE LCS	WE091208-02	1	mL
SURR	All	HERBICIDE SURROGATE	WE091215-03	.05	mL
REGNT	All	Iso-octane	1106542-A	1	mL
REGNT	All	Acetone	1233927	50	mL
REGNT	All	Methanol	1239758-C	.5	mL
REGNT	All	Hexane	1241300-B2	50	mL
REGNT	All	Methylene Chloride	1246976-D	250	mL
REGNT	All	N-METHYL-N-NITROSO-P-TOLUENESULFON-AMIDE	1247664A	2	mL
SOURC	All	SODIUM SULFATE	1242582	50	g

Comments:

Verified By: AV

Final Solvent: Hexane

HERBICIDE ANALYSIS

Herbicide Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-1085-1

Method/Analysis Information

Procedure:	**Analysis of Chlorophenoxy Acid Herbicides by ECD**
Analytical Method:	SW846 8151A
Prep Method:	SW846 8151A Prep
TCLP Prep Method :	SW846 1311
Analytical Batch Number:	937384
Prep Batch Number:	937383
TCLP Prep Batch Number:	936980

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 8151A:

Sample ID	Client ID
243551001	WST03-10-2148
1202004963	TCLP Blank (TB)
1202005852	Method Blank (MB)
1202005853	Laboratory Control Sample (LCS)
1202005854	243551001(WST03-10-2148) Matrix Spike (MS)
1202005855	243551001(WST03-10-2148) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on an "as received" basis.

Preparation/Analytical Method Verification

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-011 REV# 18.

Raw data reports are processed and reviewed by the analyst using the Target software package. False positives have been removed from the Target quantitation reports per standard operating procedures (SOP) section 21.7.

Calibration Information

Initial Calibration
All initial calibration requirements have been met for this sample delivery group (SDG).

The linear equation used in Target and indicated on the initial calibration summary form is not a conventional linear equation (slope intercept formula) and does not match the equation found in SW-846 method 8000B. The x and y axes are inversed in Target, so that the instrument response is treated as the independent variable (x) and the concentration ratio is treated as the dependent variable (y). The equation used in Target to calculate sample results is adjusted to account for the linear equation inversion and reciprocal slope. The adjusted calculation has been independently verified to produce valid results.

Continuing Calibration Verification (CCV) Requirements
The calibration verification standards (CVS, ICV, or CCV) requirements have not been met for this SDG.

The target analytes failed to meet the acceptance criteria with positive bias in the standards bracketing the sample in this SDG; however this had no adverse effects on the data as there were no target analytes detected in the associated samples.

Surrogate recovery did not meet the acceptance criteria in the standards bracketing the samples in this SDG; however, this had no adverse effects on the data as the sample in this SDG met surrogate recovery acceptance criteria very well.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Surrogate Recoveries
QC samples 1202005853 (LCS) and 1202005854 (WST03-10-2148MS) did not meet the surrogate recovery acceptance criteria on one column. This non-compliance had no adverse effects on the data as the sample in this SDG met surrogate recovery acceptance criteria and there were no target analytes detected in the sample. See DER #776648 located in the Miscellaneous Data section.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

QC Sample Designation
Sample 243551001 (WST03-10-2148) was selected for the matrix spike and matrix spike duplicate analysis.

Matrix Spike (MS) Recovery Statement
The MS recoveries for this SDG were not within the established acceptance limits for 2,4-D possibly due to sample matrix interference.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recoveries for this SDG were within the established acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD between the MS and MSD met the acceptance limits.

Technical Information

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-extraction/Re-analysis
Re-extractions or re-analyses were not required in this SDG.

Miscellaneous Information

Electronic Package Comment

This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. An electronic signature page inserted after the case narrative of each electronic package will indicate the analyst, reviewer, and report specialist names associated with the generation of the data and package. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Data Exception Report (DER) Documentation

Data exception report (DER) is for documentation of any procedural anomalies that may deviate from referenced SOP or contractual document. DER # 776648 was generated for this SDG. A copy is included in the Miscellaneous Data section of this package.

Manual Integration

Certain standards and QC samples may have required manual integration to correctly position the baseline as set in the calibration standard injections. If manual integration was performed, copies of all manual integration peak profiles are included in the raw data section of this Herbicide fraction.

Additional Comments

The additional comments field is used to address special issues associated with each analysis, clarify method/contractual issues pertaining to the analysis, and to list any report documents generated as a result of sample analysis or review. The following additional comments were required:

The higher results from either column have been chosen and reported in the data package for the client samples, MB and LCS. The data reported for the MS and MSD are from the same analytical column as the parent sample.

The data reported on the form I and III may differ slightly from the data reported on the form X. This is due to software limitations in rounding differences between the forms.

Due to software limitation, the Form VIIs will display the results either in the % difference or % drift depending on the type of the calibration curve. If the curve of all analytes is generated using an average response factor (RF), the Form VII will display results using the %difference calculation (RF). If the curve of one or more analytes is generated using a linear curve, the Form VII will display results using the % drift calculation (by concentration) for all analytes.

System Configuration

The Semi-Volatiles-HERB analysis was performed on the following instrument configuration:

Instrument ID	Instrument	System Configuration	Column ID	Column Description
ECD6A.I_1	HP Gas Chromatograph	HP6890 Series GC/ECD	Rtx-CLP I	30m x 0.25mm, 0.25um (Rtx-CLPesticide)
ECD6A.I_2	HP Gas Chromatograph	HP6890 Series GC/ECD	Rtx-CLP II	30m x 0.25mm, 0.20um (Rtx-CLPesticide II)

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Jimmi Cao Date: 1/20/10

Roadmap for LANL 10-1085-1 HERB

This roadmap was analyzed by reb01393 on 01-05-2010, 09:46.
This roadmap was reviewed by jcb on 01-06-2010, 10:25.
This roadmap was packaged by yml on 01-20-2010, 10:09.
This roadmap was validated by jim01140 on 01-20-2010, 13:54.

Front Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd6a.i/123109.b/029f2901.d	243551001	sample	01-JAN-2010	01:44	10-1085-1.sub	WST03-10-2148	1.00000	937384	USE. PASSES BOTH COLUMNS, UPLOAD HIGHER RESULTS.

Back Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd6a.i/123109.b/029b2901.d	243551001	sample	01-JAN-2010	01:44	10-1085-1.sub	WST03-10-2148	1.00000	937384	USE. PASSES BOTH COLUMNS, UPLOAD HIGHER RESULTS.

Front QC Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd6a.i/123109.b/025f2501.d	1202004963	tb	31-DEC-2009	23:51	10-1085-1.sub	TBLK01	1.00000	937384	USE. $ SLIGHTLY HI (F), PASSING (B).
☐	N	/chem/ecd6a.i/123109.b/026f2601.d	1202005852	mb	01-JAN-2010	00:20	10-1085-1.sub	HBLK01	1.00000	937384	USE. PASSES BOTH COLUMNS, UPLOAD HIGHER RESULTS.
☐	N	/chem/ecd6a.i/123109.b/027f2701.d	1202005853	lcs	01-JAN-2010	00:48	10-1085-1.sub	HBLK01LCS	1.00000	937384	USE. $ HI (F), PASSING (B).
☐	N	/chem/ecd6a.i/123109.b/030f3001.d	1202005854	ms	01-JAN-2010	02:13	10-1085-1.sub	WST03-10-2148MS	1.00000	937384	USE. $/D HI (F), PASSING (B).
☐	N	/chem/ecd6a.i/123109.b/031f3101.d	1202005855	msd	01-JAN-2010	02:41	10-1085-1.sub	WST03-10-2148MSD	1.00000	937384	USE. PASSES BOTH COLUMNS, UPLOAD HIGHER RESULTS.

Back QC Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd6a.i/123109.b/025b2501.d	1202004963	tb	31-DEC-2009	23:51	10-1085-1.sub	TBLK01	1.00000	937384	USE. $ SLIGHTLY HI (F), PASSING (B).
☐	N	/chem/ecd6a.i/123109.b/026b2601.d	1202005852	mb	01-JAN-2010	00:20	10-1085-1.sub	HBLK01	1.00000	937384	USE. PASSES BOTH COLUMNS, UPLOAD HIGHER RESULTS.
☐	N	/chem/ecd6a.i/123109.b/027b2701.d	1202005853	lcs	01-JAN-2010	00:48	10-1085-1.sub	HBLK01LCS	1.00000	937384	USE. $ HI (F), PASSING (B).
☐	N	/chem/ecd6a.i/123109.b/030b3001.d	1202005854	ms	01-JAN-2010	02:13	10-1085-1.sub	WST03-10-2148MS	1.00000	937384	USE. $/D HI (F), PASSING (B).
☐	N	/chem/ecd6a.i/123109.b/031b3101.d	1202005855	msd	01-JAN-2010	02:41	10-1085-1.sub	WST03-10-2148MSD	1.00000	937384	USE. PASSES BOTH COLUMNS, UPLOAD HIGHER RESULTS.

SAMPLE DATA SUMMARY

Herbicide
Certificate of Analysis
Sample Summary

SDG Number:	**10-1085-1**	**Date Collected:**	**12/22/2009 12:00**	**Matrix:**	**TCLP R**
Lab Sample ID:	**243551001**	**Date Received:**	**12/24/2009 09:30**		
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**WST03-10-2148**	**Method:**	**SW846 8151A**	**SOP Ref:**	**GL-OA-E-011**
Batch ID:	**937384**	**Inst:**	**ECD6A.I**	**Dilution:**	**1**
Run Date:	**01/01/2010 01:44**	**Analyst:**	**RXE1**	**Inj. Vol:**	**1 uL**
Prep Date:	**12/30/2009 15:06**	**Aliquot:**	**5 mL**	**Final Volume:**	**10 mL**
Data File:	**029f2901.d**	**Column:**	**1 Rtx-CLP**	**Level:**	**LOW**
	029b2901.d		**2 Rtx-CLPII**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
94-75-7	2,4-D	U	0.050	mg/L	0.0166	0.050	1
93-72-1	2,4,5-TP	U	0.050	mg/L	0.0166	0.050	1

QUALITY CONTROL SUMMARY

Herbicide

Surrogate Recovery Report

SDG Number: 10–1085–1

Matrix Type: TCLP SOLID

CAP Column (1) : Rtx–CLP **CAP Column (2) : Rtx–CLPII**

Sample ID	Client ID	DCAA 1 %REC #	DCAA 2 %REC #
1202004963	TB for batch 936980	122	114
1202005852	MB for batch 937383	113	106
1202005853	LCS for batch 937383	130 *	121
243551001	WST03–10–2148	115	106
1202005854	WST03–10–2148MS	133 *	120
1202005855	WST03–10–2148MSD	118	107

Surrogate	Acceptance Limits
DCAA = 2,4–Dichlorophenylacetic acid	(47%–122%)

* Recovery outside Acceptance Limits
\# Column to be used to flag recovery values
D Sample Diluted

Herbicide

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1085-1
Client ID: LCS for batch 937383
Lab Sample ID: 1202005853
Instrument: ECD6A.I
Analyst: RXE1
Inj. Vol: 1 uL

Sample Type: Laboratory Control Sample
Matrix: TCLP SOIL
Analysis Date: 01/01/2010 00:48
Dilution: 1
Prep Batch ID: 937383
Batch ID: 937384

CAS No	Parmname	Amount Added mg/L	Sample Conc. mg/L	Spike Conc. mg/L	Recovery %	Acceptance Limits
94-75-7	LCS 2,4-D	0.002	0.0	0.00262	131	43-131
93-72-1	LCS 2,4,5-TP	0.002	0.0	0.00226	113	41-122

Herbicide

Quality Control Summary
Spike Recovery Report

SDG Number: 10–1085–1
Client ID: WST03–10–2148MS
Lab Sample ID: 1202005854
Instrument: ECD6A.I
Analyst: RXE1
Inj. Vol: 1 uL

Sample Type: Matrix Spike
Matrix: TCLP R
Analysis Date: 01/01/2010 02:13
Dilution: 1
Prep Batch ID: 937383
Batch ID: 937384

CAS No		Parmname	Amount Added mg/L	Sample Conc. mg/L		Spike Conc. mg/L	Recovery %	Acceptance Limits
94–75–7	MS	2,4–D	0.400	0.00	U	0.529	132 *	48–125
93–72–1	MS	2,4,5–TP	0.400	0.00	U	0.452	113	24–131

Herbicide

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1085-1
Client ID: WST03-10-2148MSD
Lab Sample ID: 1202005855
Instrument: ECD6A.I
Analyst: RXE1
Inj. Vol: 1 uL

Sample Type: Matrix Spike Duplicate
Matrix: TCLP R
Analysis Date: 01/01/2010 02:41
Dilution: 1
Prep Batch ID: 937383
Batch ID: 937384

CAS No	Parmname	Amount Added mg/L	Sample Conc. mg/L		Spike Conc. mg/L	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
94-75-7	MSD 2,4-D	0.400	0.00	U	0.484	121	48-125	9	0-20
93-72-1	MSD 2,4,5-TP	0.400	0.00	U	0.436	109	24-131	4	0-20

Method Blank Summary

SDG Number:	10-1085-1	Client:	LANL010	Matrix:	TCLP SOIL
Client ID:	MB for batch 937383	Instrument ID:	ECD6A.I_2 ECD6A.I_1	Data File:	026b2601.d 026f2601.d
Lab Sample ID:	1202005852				
Column:	Rtx-CLPII Rtx-CLP	Prep Date:	12/30/2009 15:06	Analyzed:	01/01/10 00:20
		Level:	LOW		

This method blank applies to the following samples and quality control samples:

Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01 TB for batch 936980	1202004963	025f2501.d 025b2501.d	12/31/09	2351
02 LCS for batch 937383	1202005853	027f2701.d 027b2701.d	01/01/10	0048
03 WST03-10-2148	243551001	029f2901.d 029b2901.d	01/01/10	0144
04 WST03-10-2148MS	1202005854	030f3001.d 030b3001.d	01/01/10	0213
05 WST03-10-2148MSD	1202005855	031f3101.d 031b3101.d	01/01/10	0241

SAMPLE
DATA

Herbicide
Certificate of Analysis
Sample Summary

SDG Number:	10-1085-1	**Date Collected:**	12/22/2009 12:00	**Matrix:**	TCLP R
Lab Sample ID:	243551001	**Date Received:**	12/24/2009 09:30		
		Client:	LANL010	**Project:**	LANL01004
Client ID:	WST03-10-2148	**Method:**	SW846 8151A	**SOP Ref:**	GL-OA-E-011
Batch ID:	937384	**Inst:**	ECD6A.I	**Dilution:**	1
Run Date:	01/01/2010 01:44	**Analyst:**	RXE1	**Inj. Vol:**	1 uL
Prep Date:	12/30/2009 15:06	**Aliquot:**	5 mL	**Final Volume:**	10 mL
Data File:	029f2901.d	**Column:**	1 Rtx-CLP	**Level:**	LOW
	029b2901.d		2 Rtx-CLPII		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
94-75-7	2,4-D	U	0.050	mg/L	0.0166	0.050	1
93-72-1	2,4,5-TP	U	0.050	mg/L	0.0166	0.050	1

GEL Laboratories LLC

Column: RtxCLP 0.25mm x 30 m Inj Vol: 2 ul

Data file : /chem/ecd6a.i/123109.b/029f2901.d
Lab Smp Id: 243551001 Client Smp ID: WST03-10-2148
Inj Date : 01-JAN-2010 01:44
Operator : RXE1 Inst ID: ecd6a.i
Smp Info : |243551001|1|
Misc Info : |ECDTPH_1L|937384|SVH|LANL|SOIL|WST03-10-2148|||
Comment :
Method : /chem/ecd6a.i/123109.b/ECD6-F-8151A-122909.m
Meth Date : 04-Jan-2010 14:57 tif01533 Quant Type: ESTD
Cal Date : 29-DEC-2009 17:03 Cal File: 007f0701.d
Als bottle: 29
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1085-1.sub
Target Version: 3.50 Sample Matrix: Water
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	0.00100	Correction factor
Vt	10.00000	Volume of final extract (mL)
Vo	5.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (mg/L)
$ 2 2,4-Dichlorophenylacetic acid						CAS #: 19719-28-9
	9.753	9.749	0.004	83885634	573.671	1.1

Data File: /chem/ecd6a.i/123109.b/029f2901.d

Date : 01-JAN-2010 01:44

Client ID: WST03-10-2148

Sample Info: |243551001|1|

Volume Injected (uL): 1.0

Column phase: Rtx-CLP

Instrument: ecd6a.i

Operator: RXE1

Column diameter: 0.25

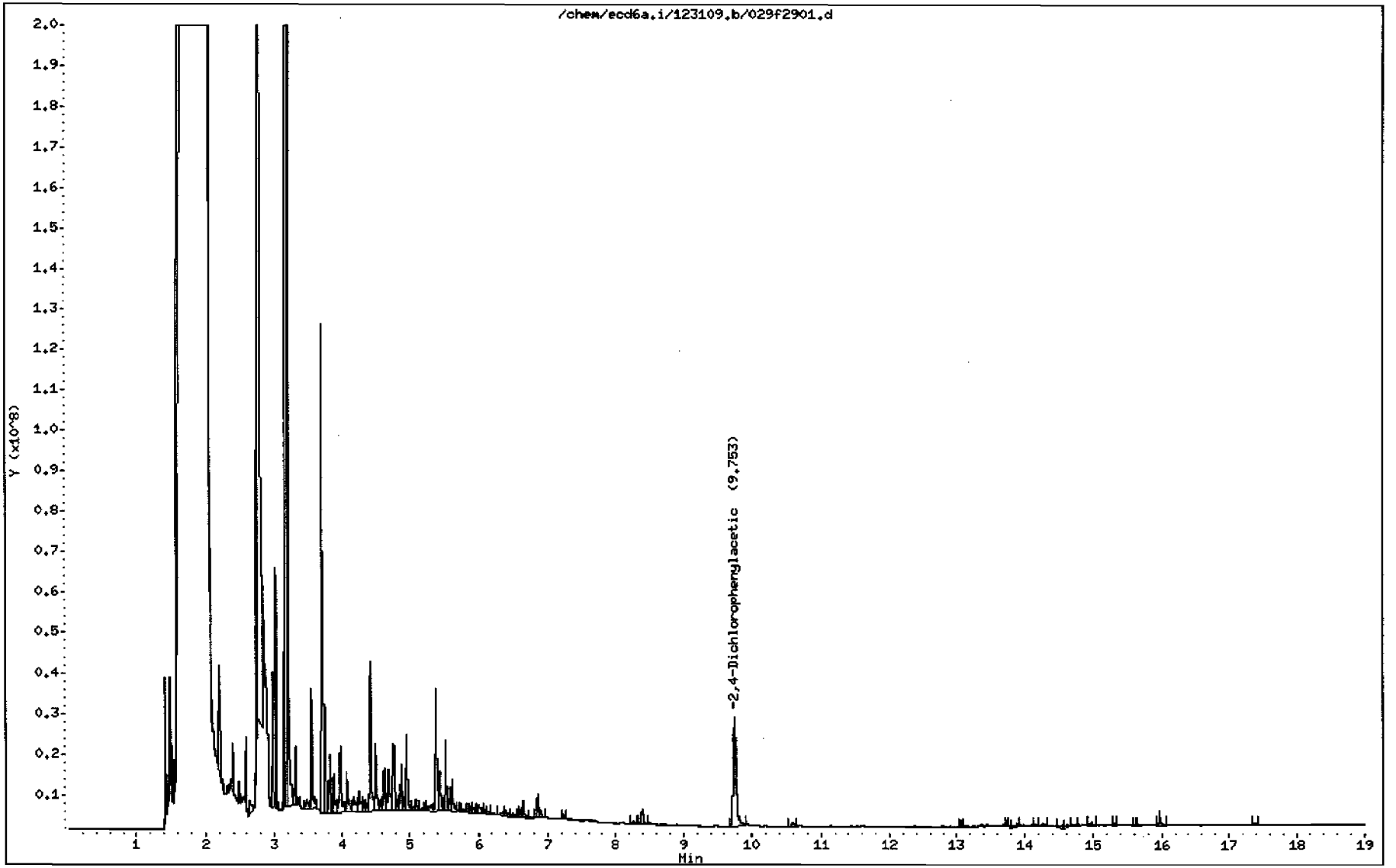

GEL Laboratories LLC

Column: RtxCLPII 0.25mm x 30 m Inj Vol: 2ul

Data file : /chem/ecd6a.i/123109.b/029b2901.d
Lab Smp Id: 243551001 Client Smp ID: WST03-10-2148
Inj Date : 01-JAN-2010 01:44
Operator : RXE1 Inst ID: ecd6a.i
Smp Info : |243551001|1|
Misc Info : |ECDTPH_1L|937384|SVH|LANL|SOIL|WST03-10-2148|||
Comment : RtxCLPII
Method : /chem/ecd6a.i/123109.b/ECD6-B-8151A-122909.m
Meth Date : 18-Jan-2010 14:26 jc Quant Type: ESTD
Cal Date : 29-DEC-2009 17:03 Cal File: 007b0701.d
Als bottle: 29
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1085-1.sub
Target Version: 3.50 Sample Matrix: Water
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	0.00100	Correction factor
Vt	10.00000	Volume of final extract (mL)
Vo	5.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

				CONCENTRATIONS ON-COL (ug/L)	FINAL (mg/L)
RT	EXP RT	DLT RT	RESPONSE		
$ 2 2,4-Dichlorophenylacetic acid					CAS #: 19719-28-9
10.798	10.800	-0.002	111104802	527.968	1.0

Data File: /chem/ecd6a.i/123109.b/029b2901.d
Date : 01-JAN-2010 01:44
Client ID: WST03-10-2148
Sample Info: |243551001|1|
Volume Injected (uL): 1.0
Column phase: Rtx-CLPII

Instrument: ecd6a.i

Operator: RXE1
Column diameter: 0.25

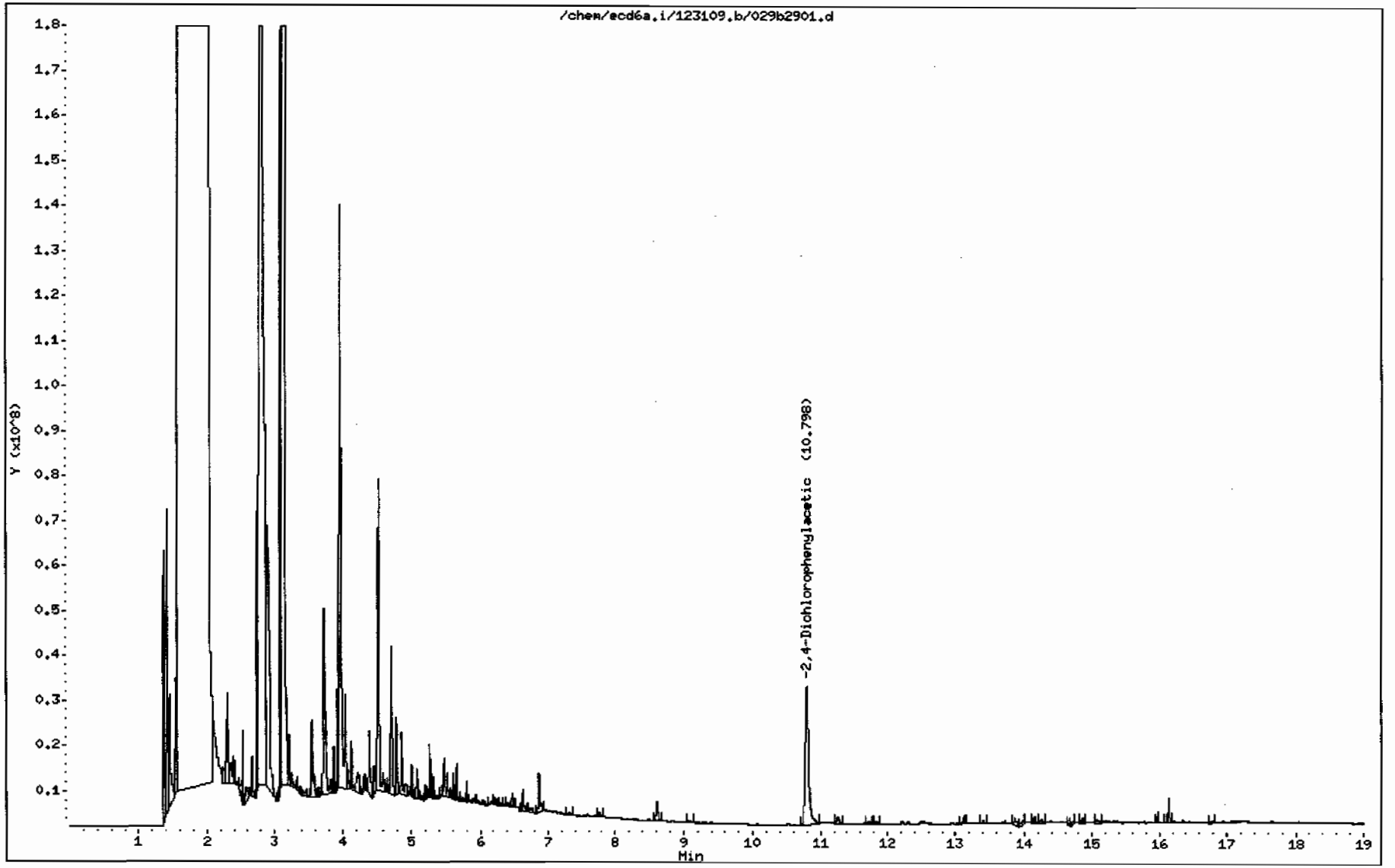

STANDARDS DATA

Report Date: 05-Jan-2010 09:37

Calibration History

Method : /chem/ecd6a.i/123109.b/ECD6-F-8151A-122909.m
Start Cal Date: 11-NOV-2009 16:39
End Cal Date : 29-DEC-2009 17:31

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 25.00000		
29-DEC-2009 14:41	all	/chem/ecd6a.i/122909.b/002f0201.d
Cal Level: 2 , Cal Amount: 50.00000		
29-DEC-2009 15:10	all	/chem/ecd6a.i/122909.b/003f0301.d
Cal Level: 3 , Cal Amount: 100.00000		
29-DEC-2009 15:38	all	/chem/ecd6a.i/122909.b/004f0401.d
Cal Level: 4 , Cal Amount: 150.00000		
29-DEC-2009 16:07	all	/chem/ecd6a.i/122909.b/005f0501.d
Cal Level: 5 , Cal Amount: 200.00000		
29-DEC-2009 16:35	all	/chem/ecd6a.i/122909.b/006f0601.d
Cal Level: 6 , Cal Amount: 300.00000		
29-DEC-2009 17:03	all	/chem/ecd6a.i/122909.b/007f0701.d
Cal Level: 7 , Cal Amount: 400.00000		
29-DEC-2009 17:31	all	/chem/ecd6a.i/122909.b/008f0801.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 5

Ccal Level: 5 , Ccal Amount: 200		
31-DEC-2009 17:13	all	/chem/ecd6a.i/123109.b/011f1101.d
Ccal Level: 5 , Ccal Amount: 200		
31-DEC-2009 22:27	all	/chem/ecd6a.i/123109.b/022f2201.d

Ccal Level: 5 , Ccal Amount: 200		
01-JAN-2010 06:55	all	/chem/ecd6a.i/123109.b/040f4001.d
Ccal Level: 5 , Ccal Amount: 200		
01-JAN-2010 03:09	all	/chem/ecd6a.i/123109.b/032f3201.d
Ccal Level: 5 , Ccal Amount: 200		
31-DEC-2009 12:23	all	/chem/ecd6a.i/123109.b/002f0201.d

Report Date: 05-Jan-2010 09:37

Calibration History

Method : /chem/ecd6a.i/123109.b/ECD6-B-8151A-122909.m
Start Cal Date: 11-NOV-2009 16:39
End Cal Date : 29-DEC-2009 17:31

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 25.00000		
29-DEC-2009 14:41	all	/chem/ecd6a.i/122909.b/002b0201.d
Cal Level: 2 , Cal Amount: 50.00000		
29-DEC-2009 15:10	all	/chem/ecd6a.i/122909.b/003b0301.d
Cal Level: 3 , Cal Amount: 100.00000		
29-DEC-2009 15:38	all	/chem/ecd6a.i/122909.b/004b0401.d
Cal Level: 4 , Cal Amount: 150.00000		
29-DEC-2009 16:07	all	/chem/ecd6a.i/122909.b/005b0501.d
Cal Level: 5 , Cal Amount: 200.00000		
29-DEC-2009 16:35	all	/chem/ecd6a.i/122909.b/006b0601.d
Cal Level: 6 , Cal Amount: 300.00000		
29-DEC-2009 17:03	all	/chem/ecd6a.i/122909.b/007b0701.d
Cal Level: 7 , Cal Amount: 400.00000		
29-DEC-2009 17:31	all	/chem/ecd6a.i/122909.b/008b0801.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 5

Ccal Level: 5 , Ccal Amount: 200		
31-DEC-2009 17:13	all	/chem/ecd6a.i/123109.b/011b1101.d
Ccal Level: 5 , Ccal Amount: 200		
31-DEC-2009 12:23	all	/chem/ecd6a.i/123109.b/002b0201.d
Ccal Level: 5 , Ccal Amount: 200		
01-JAN-2010 06:55	all	/chem/ecd6a.i/123109.b/040b4001.d

Ccal Level: 5 , Ccal Amount: 200		
01-JAN-2010 03:09	all	/chem/ecd6a.i/123109.b/032b3201.d
Ccal Level: 5 , Ccal Amount: 200		
31-DEC-2009 22:27	all	/chem/ecd6a.i/123109.b/022b2201.d

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd6a.i/123109.b/ECD6-F-8151A-122909.m
Quant Method : ESTD Target Version : 3.50
Last Update : 04-Jan-2010 14:57 Number of Cpnds : 12
Data Type : GC DATA

Global Integrator : Falcon

Chromat Events	Values
Initial:Start Threshold	72858.000000
Initial:End Threshold	36429.000000
Initial:Area Threshold	728580.000000
Initial:P-P Resolution	1.000000
Initial:Bunch Factor	20.000000
Initial:Negative Peaks	OFF
Initial:Tension	1.000000

	Compound	RT	RT Window	RF
	1 Dalapon	3.651	3.621-3.681	1.179e+05
$	2 2,4-Dichlorophenylacetic a	9.749	9.689-9.809	1.462e+05
	3 Dicamba	10.208	10.148-10.268	5.505e+05
	4 MCPP	10.962	10.902-11.022	5.451e+02
	5 MCPA	11.392	11.332-11.452	9.195e+02
	6 Dichlorprop	12.056	11.996-12.116	1.395e+05
	7 2,4-D	12.372	12.312-12.432	1.431e+05
	43 Pentachlorophenol	12.517	12.497-12.537	1.575e+06
	8 2,4,5-TP	13.185	13.155-13.215	6.113e+05
	9 2,4,5-T	13.404	13.364-13.444	5.393e+05
	10 2,4-DB	13.773	13.733-13.813	7.720e+04
	11 Dinoseb	14.359	14.329-14.389	2.951e+05

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd6a.i/123109.b/ECD6-B-8151A-122909.m
Quant Method : ESTD Target Version : 3.50
Last Update : 05-Jan-2010 09:36 Number of Cpnds : 12
Data Type : GC DATA

Global Integrator : Falcon

Chromat Events	Values
Initial:Start Threshold	105244.000000
Initial:End Threshold	52622.000000
Initial:Area Threshold	1052440.000000
Initial:P-P Resolution	1.000000
Initial:Bunch Factor	25.000000
Initial:Negative Peaks	OFF
Initial:Tension	2.000000

	Compound	RT	RT Window	RF
	1 Dalapon	3.603	3.573-3.633	1.907e+05
$	2 2,4-Dichlorophenylacetic a	10.800	10.740-10.860	2.104e+05
	3 MCPP	11.672	11.612-11.732	7.445e+02
	4 Dicamba	11.294	11.234-11.354	7.740e+05
	5 MCPA	12.068	12.008-12.128	1.235e+03
	6 Dichlorprop	12.509	12.449-12.569	1.964e+05
	7 2,4-D	12.840	12.780-12.900	2.194e+05
	43 Pentachlorophenol	13.115	13.095-13.135	2.536e+06
	8 2,4,5-TP	13.502	13.472-13.532	9.002e+05
	9 2,4,5-T	13.756	13.726-13.786	7.762e+05
	10 Dinoseb	14.226	14.196-14.256	4.527e+05
	11 2,4-DB	14.059	14.019-14.099	1.108e+05

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 11-NOV-2009 16:39
End Cal Date : 29-DEC-2009 17:31
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd6a.i/123109.b/ECD6-F-8151A-122909.m
Cal Date : 04-Jan-2010 14:57 tif01533
Curve Type : Average

Calibration File Names:
Level 1: /chem/ecd6a.i/122909.b/002f0201.d
Level 2: /chem/ecd6a.i/122909.b/003f0301.d
Level 3: /chem/ecd6a.i/122909.b/004f0401.d
Level 4: /chem/ecd6a.i/122909.b/005f0501.d
Level 5: /chem/ecd6a.i/122909.b/006f0601.d
Level 6: /chem/ecd6a.i/122909.b/007f0701.d
Level 7: /chem/ecd6a.i/122909.b/008f0801.d

Compound	25.000 Level 1	50.000 Level 2	100.000 Level 3	150.000 Level 4	200.000 Level 5	300.000 Level 6	RRF	% RSD
	400.000 Level 7							
1 Dalapon	+++++	112914	102736	130254	114183	123240		
	124189						117919	8.389
3 Dicamba	567027	584817	540904	558443	557930	527011		
	517602						550533	4.257
4 MCPP	+++++	538	520	554	564	546		
	550						545	2.761
5 MCPA	+++++	1027	907	946	917	864		
	857						920	6.780
6 Dichlorprop	159113	155115	135188	137961	135593	128384		
	125206						139509	9.220
7 2,4-D	143574	144687	133047	152385	145714	141247		
	141197						143122	4.073
43 Pentachlorophenol	1681918	1716221	1538900	1579875	1561747	1488517		
	1455410						1574655	6.061

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 11-NOV-2009 16:39
End Cal Date : 29-DEC-2009 17:31
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd6a.i/123109.b/ECD6-F-8151A-122909.m
Cal Date : 04-Jan-2010 14:57 tif01533
Curve Type : Average

Compound	25.000 Level 1	50.000 Level 2	100.000 Level 3	150.000 Level 4	200.000 Level 5	300.000 Level 6	RRF	% RSD
	400.000 Level 7							
8 2,4,5-TP	640121	661537	602594	617952	609989	578752		
	567961						611272	5.349
9 2,4,5-T	510369	545900	515102	573504	555702	541458		
	533280						539331	4.108
10 2,4-DB	62331	82394	76647	80406	81215	78656		
	78778						77204	8.839
11 Dinoseb	306551	315909	280181	291619	297508	290658		
	283502						295132	4.283
$ 2 2,4-Dichlorophenylacetic acid	156014	159778	145059	147894	144602	136457		
	133777						146226	6.468

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INITIAL CALIBRATION DATA

Start Cal Date : 11-NOV-2009 16:39
End Cal Date : 29-DEC-2009 17:31
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd6a.i/123109.b/ECD6-B-8151A-122909.m
Cal Date : 05-Jan-2010 09:36 jc
Curve Type : Average

Calibration File Names:
Level 1: /chem/ecd6a.i/122909.b/002b0201.d
Level 2: /chem/ecd6a.i/122909.b/003b0301.d
Level 3: /chem/ecd6a.i/122909.b/004b0401.d
Level 4: /chem/ecd6a.i/122909.b/005b0501.d
Level 5: /chem/ecd6a.i/122909.b/006b0601.d
Level 6: /chem/ecd6a.i/122909.b/007b0701.d
Level 7: /chem/ecd6a.i/122909.b/008b0801.d

Compound	25.000 Level 1 / 400.000 Level 7	50.000 Level 2	100.000 Level 3	150.000 Level 4	200.000 Level 5	300.000 Level 6	RRF	% RSD
1 Dalapon	+++++ / 211738	166591	157098	214155	184925	209632	190690	13.047
3 MCPP	+++++ / 777	720	703	737	757	773	745	3.993
4 Dicamba	753668 / 767825	796553	749176	787450	794267	769200	774020	2.469
5 MCPA	+++++ / 1175	1369	1205	1234	1231	1198	1235	5.584
6 Dichlorprop	202198 / 190019	205644	189947	196711	198470	191672	196380	3.140
7 2,4-D	200613 / 223391	223071	205246	233681	225056	224691	219393	5.414
43 Pentachlorophenol	2462374 / 2561343	2602851	2442130	2536909	2597975	2545904	2535641	2.457

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INITIAL CALIBRATION DATA

Start Cal Date : 11-NOV-2009 16:39
End Cal Date : 29-DEC-2009 17:31
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd6a.i/123109.b/ECD6-B-8151A-122909.m
Cal Date : 05-Jan-2010 09:36 jc
Curve Type : Average

Compound	25.000 Level 1	50.000 Level 2	100.000 Level 3	150.000 Level 4	200.000 Level 5	300.000 Level 6	RRF	% RSD
	400.000 Level 7							
8 2,4,5-TP	860628	908562	860057	913542	939404	902408		
	917137						900248	3.287
9 2,4,5-T	743333	759650	711004	824810	794042	797718		
	802620						776168	5.112
10 Dinoseb	454192	460907	414217	453808	459728	464628		
	461615						452728	3.850
11 2,4-DB	117114	113949	106365	109981	111626	107692		
	108565						110756	3.407
$ 2 2,4-Dichlorophenylacetic acid	209331	218543	203433	213177	214374	207467		
	206743						210438	2.465

FORM 7
HERBICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1085-1

Instrument ID: ECD6A Calibration Date: 12/31/09 Time: 1223

Lab File ID: 002F0201 Init. Calib. Date(s): 12/29/09 12/29/09

Heated Purge: (Y/N) N Init. Calib. Times: 1441 1731

GC Column: RTX-CLP ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF200	MIN RRF	%D	MAX %D
2,4-D	143121.52	156554.30	0.005	9.4	15.0
2,4,5-TP	611272.23	646894.64	0.01	5.8	15.0
2,4-Dichlorophenylacetic aci	146226.14	160043.55	0.01	9.4	15.0

FORM VII HERBICIDE

FORM 7
HERBICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1085-1

Instrument ID: ECD6A Calibration Date: 12/31/09 Time: 1223

Lab File ID: 002B0201 Init. Calib. Date(s): 12/29/09 12/29/09

Heated Purge: (Y/N) N Init. Calib. Times: 1441 1731

GC Column: RTX-CLPII ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF200	MIN RRF	%D	MAX %D
2,4-D	219392.61	218609.01	0.005	-0.4	15.0
2,4,5-TP	900248.44	868217.07	0.01	-3.6	15.0
2,4-Dichlorophenylacetic aci	210438.46	212011.29	0.01	0.7	15.0

FORM VII HERBICIDE

FORM 7
HERBICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1085-1

Instrument ID: ECD6A Calibration Date: 12/31/09 Time: 2227

Lab File ID: 022F2201 Init. Calib. Date(s): 12/29/09 12/29/09

Heated Purge: (Y/N) N Init. Calib. Times: 1441 1731

GC Column: RTX-CLP ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF200	MIN RRF	%D	MAX %D	
2,4-D	143121.52	175990.87	0.005	23.0	15.0	<-
2,4,5-TP	611272.23	696968.19	0.01	14.0	15.0	
2,4-Dichlorophenylacetic aci	146226.14	171788.71	0.01	17.5	15.0	<-

FORM VII HERBICIDE

FORM 7
HERBICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1085-1

Instrument ID: ECD6A Calibration Date: 12/31/09 Time: 2227

Lab File ID: 022B2201 Init. Calib. Date(s): 12/29/09 12/29/09

Heated Purge: (Y/N) N Init. Calib. Times: 1441 1731

GC Column: RTX-CLPII ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF200	MIN RRF	%D	MAX %D
2,4-D	219392.61	249425.63	0.005	13.7	15.0
2,4,5-TP	900248.44	976673.27	0.01	8.5	15.0
2,4-Dichlorophenylacetic aci	210438.46	228355.49	0.01	8.5	15.0

FORM VII HERBICIDE

FORM 7
HERBICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1085-1

Instrument ID: ECD6A Calibration Date: 01/01/10 Time: 0309

Lab File ID: 032F3201 Init. Calib. Date(s): 12/29/09 12/29/09

Heated Purge: (Y/N) N Init. Calib. Times: 1441 1731

GC Column: RTX-CLP ID: 0.25 (mm)

COMPOUND	RRF	RRF200	MIN RRF	%D	MAX %D	
2,4-D	143121.52	173904.27	0.005	21.5	15.0	<-
2,4,5-TP	611272.23	721042.11	0.01	18.0	15.0	<-
2,4-Dichlorophenylacetic aci	146226.14	175935.04	0.01	20.3	15.0	<-

FORM VII HERBICIDE

FORM 7
HERBICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1085-1

Instrument ID: ECD6A Calibration Date: 01/01/10 Time: 0309

Lab File ID: 032B3201 Init. Calib. Date(s): 12/29/09 12/29/09

Heated Purge: (Y/N) N Init. Calib. Times: 1441 1731

GC Column: RTX-CLPII ID: 0.25 (mm)

COMPOUND	RRF	RRF200	MIN RRF	%D	MAX %D
2,4-D	219392.61	243007.33	0.005	10.8	15.0
2,4,5-TP	900248.44	1000363.6	0.01	11.1	15.0
2,4-Dichlorophenylacetic aci	210438.46	230943.77	0.01	9.7	15.0

FORM VII HERBICIDE

GEL Laboratories LLC

Column: RtxCLP 0.25mm x 30 m Inj Vol: 2 ul

Data file : /chem/ecd6a.i/123109.b/002f0201.d
Lab Smp Id: WHB091222-08 Client Smp ID: HSTD01
Inj Date : 31-DEC-2009 12:23
Operator : RXE1 Inst ID: ecd6a.i
Smp Info : |WHB091222-08
Misc Info : CHECK
Comment :
Method : /chem/ecd6a.i/123109.b/ECD6-F-8151A-122909.m
Meth Date : 04-Jan-2010 11:29 tif01533 Quant Type: ESTD
Cal Date : 29-DEC-2009 17:03 Cal File: 007f0701.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50 Sample Matrix: None

	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	
	1 Dalapon					CAS #: 75-99-0	
	3.651	3.651	0.000	264865145	2000.00	2250	
$	2 2,4-Dichlorophenylacetic acid					CAS #: 19719-28-9	
	9.749	9.749	0.000	80021776	500.000	547	
	3 Dicamba					CAS #: 6597-78-0	
	10.208	10.208	0.000	116249963	200.000	211	
	4 MCPP					CAS #: 7085-19-0	
	10.962	10.962	0.000	11007664	20000.0	20200	
	5 MCPA					CAS #: 94-74-6	
	11.392	11.392	0.000	18244247	20000.0	19800	
	6 Dichlorprop					CAS #: 120-36-5	
	12.056	12.056	0.000	27859912	200.000	200	
	7 2,4-D					CAS #: 94-75-7	
	12.372	12.372	0.000	31310859	200.000	219	(M)
	43 Pentachlorophenol					CAS #: 87-86-5	
	12.517	12.517	0.000	325032226	200.000	206	(M)
	8 2,4,5-TP					CAS #: 93-72-1	
	13.185	13.185	0.000	129378928	200.000	212	

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
9 2,4,5-T					CAS #: 93-76-5
13.404	13.404	0.000	118364858	200.000	219
10 2,4-DB					CAS #: 94-82-6
13.773	13.773	0.000	16783206	200.000	217
11 Dinoseb					CAS #: 88-85-7
14.359	14.359	0.000	62474436	200.000	212

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd6a.i/123109.b/002f0201.d
Date : 31-DEC-2009 12:23
Client ID: HSTD01
Sample Info: IWHB091222-08

Instrument: ecd6a.i

Operator: RXE1
Column diameter: 0.25

Column phase: Rtx-CLP

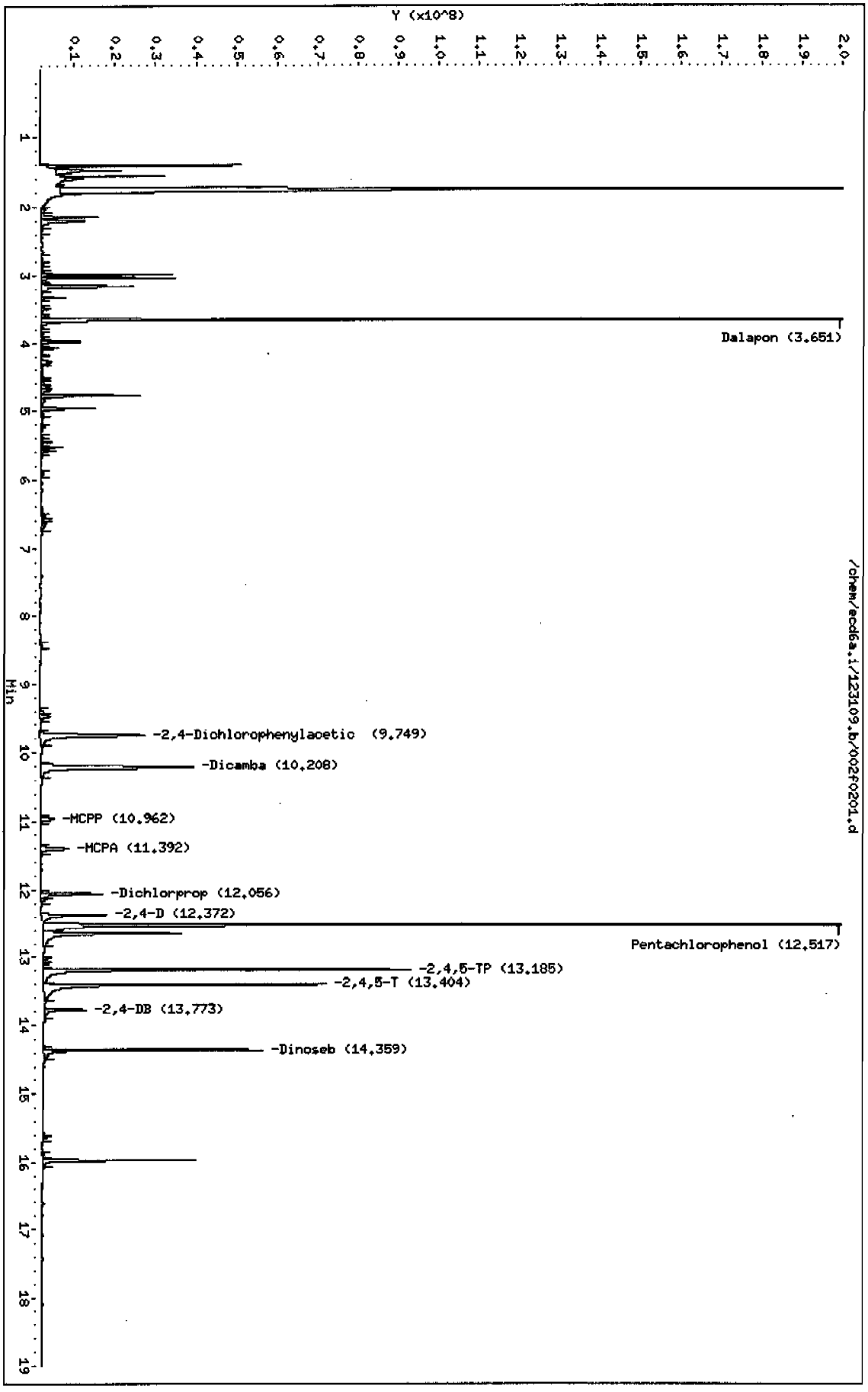

Page 1

Comment: Manually Integrated
Data File: /chem/ecd6a.i/123109.b/002f0201.d
Operator: RXE1
Injection Date: 31-DEC-2009 12:23
Instrument: ecd6a.i
Client Sample ID: HSTD01

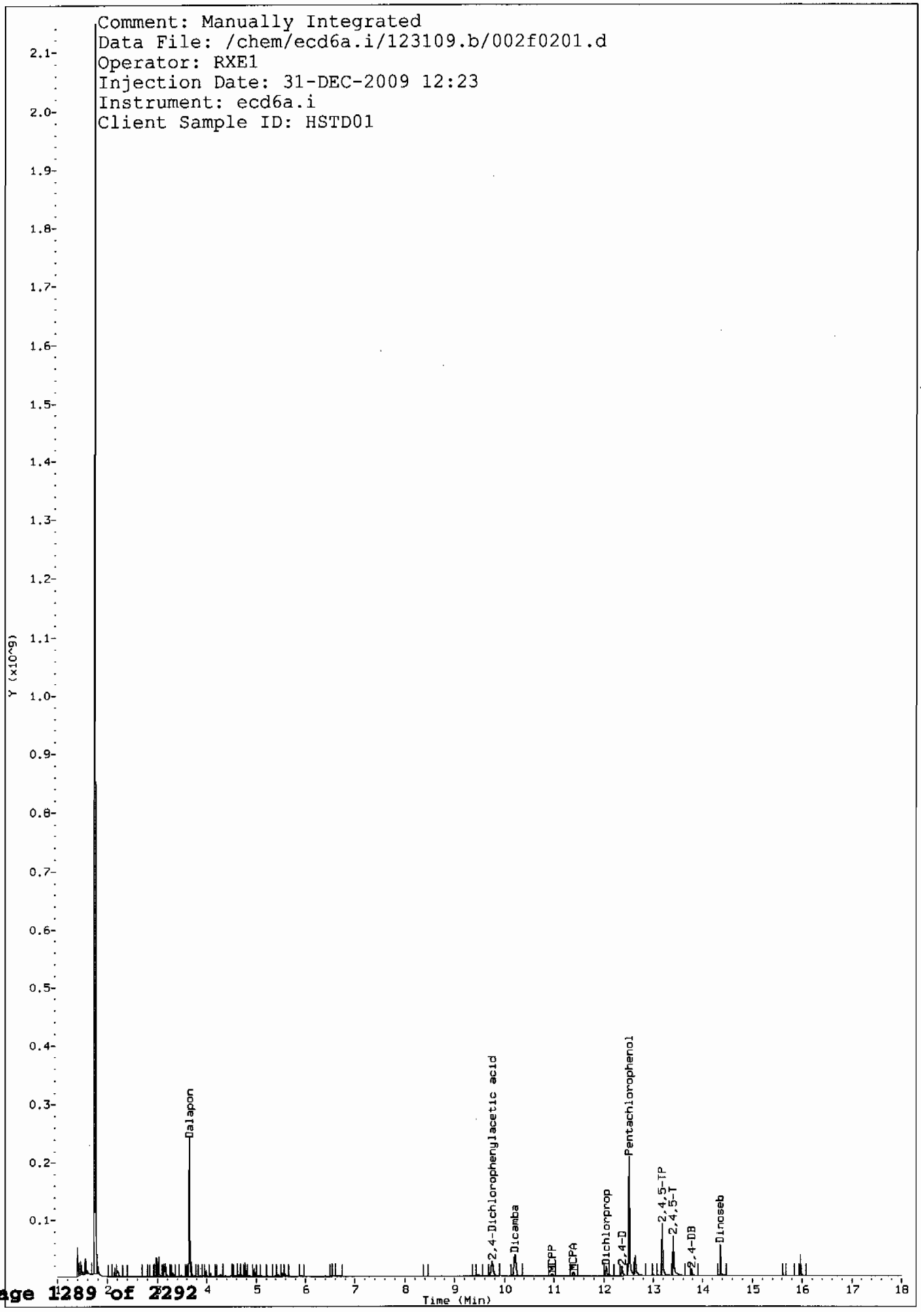

Comment: Before manual integration
Data File: /chem/ecd6a.i/123109.b/orig-002f0201.d
Operator: RXE1
Injection Date: 31-DEC-2009 12:23
Instrument: ecd6a.i
Client Sample ID: HSTD01

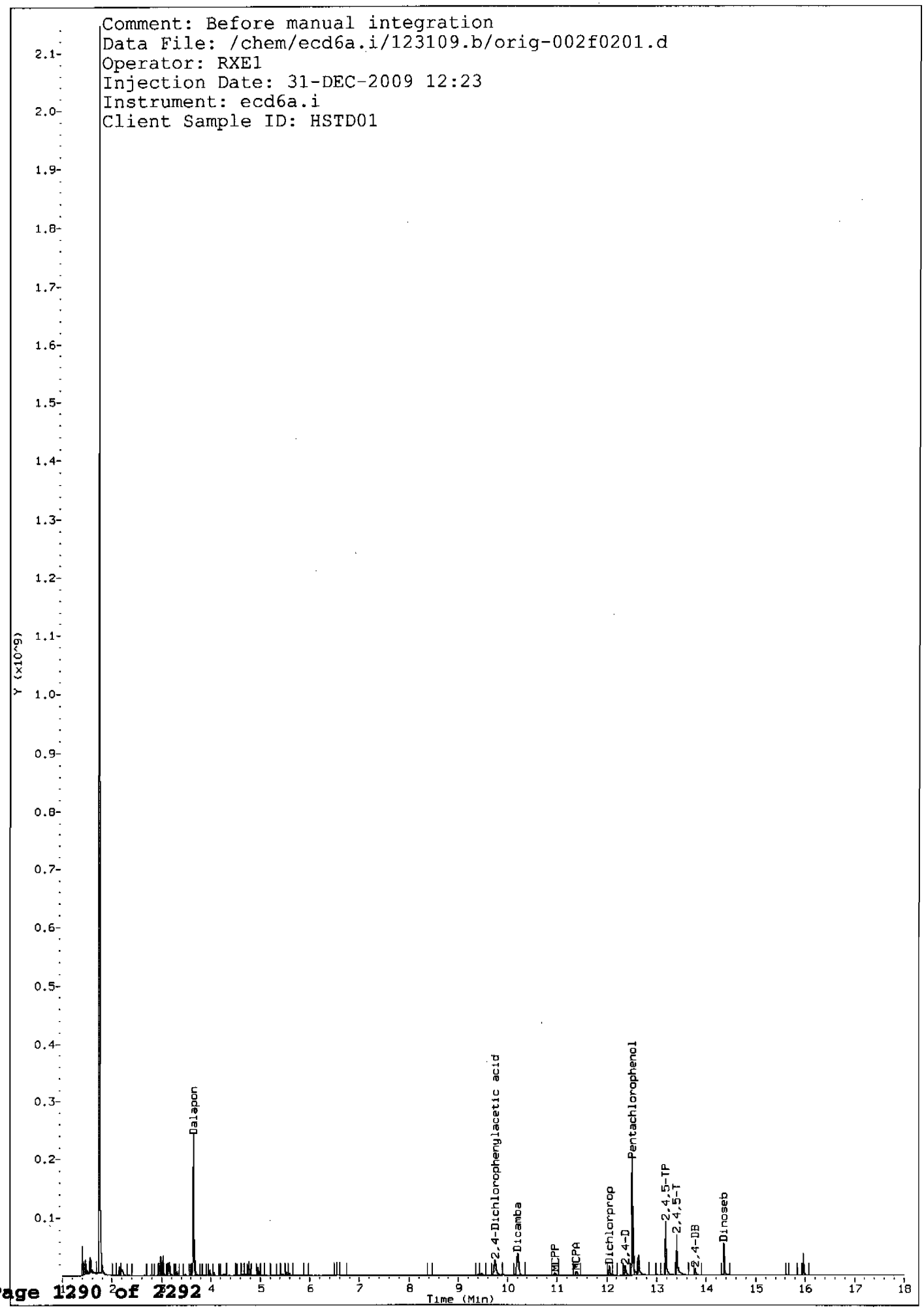

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Column: RtxCLPII 0.25mm x 30 m Inj Vol: 2ul

Data file : /chem/ecd6a.i/123109.b/002b0201.d
Lab Smp Id: WHB091222-08 Client Smp ID: HSTD01
Inj Date : 31-DEC-2009 12:23
Operator : RXE1 Inst ID: ecd6a.i
Smp Info : |WHB091222-08
Misc Info : CHECK
Comment : RtxCLPII
Method : /chem/ecd6a.i/123109.b/ECD6-B-8151A-122909.m
Meth Date : 05-Jan-2010 09:34 jc Quant Type: ESTD
Cal Date : 29-DEC-2009 17:03 Cal File: 007b0701.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50 Sample Matrix: None

	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	
	1 Dalapon					CAS #: 88-85-7	
	3.603	3.603	0.000	404488160	2000.00	2120	
$	2 2,4-Dichlorophenylacetic acid					CAS #: 19719-28-9	
	10.800	10.800	0.000	106005646	500.000	504	
	3 MCPP					CAS #: 7085-19-0	
	11.672	11.672	0.000	14127998	20000.0	19000	
	4 Dicamba					CAS #: 6597-78-0	
	11.294	11.294	0.000	152668156	200.000	197	
	5 MCPA					CAS #: 94-74-6	
	12.068	12.068	0.000	21205483	20000.0	17200	
	6 Dichlorprop					CAS #: 120-36-5	
	12.509	12.509	0.000	37215087	200.000	190	
	7 2,4-D					CAS #: 94-75-7	
	12.840	12.840	0.000	43721802	200.000	199	
	43 Pentachlorophenol					CAS #: 87-86-5	
	13.115	13.115	0.000	467854547	200.000	184	
	8 2,4,5-TP					CAS #: 93-72-1	
	13.502	13.502	0.000	173643415	200.000	193	(M)

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
9 2,4,5-T					CAS #: 93-76-5
13.756	13.756	0.000	145328296	200.000	187
10 Dinoseb					CAS #: 88-85-7
14.226	14.226	0.000	93324358	200.000	206
11 2,4-DB					CAS #: 94-82-6
14.059	14.059	0.000	21525585	200.000	194

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd6a.i/123109.b/002b0201.d
Date : 31-DEC-2009 12:23
Client ID: HSTD01
Sample Info: IWHB091222-08

Column phase: Rtx-CLPII

Instrument: ecd6a.i

Operator: RXE1
Column diameter: 0.25

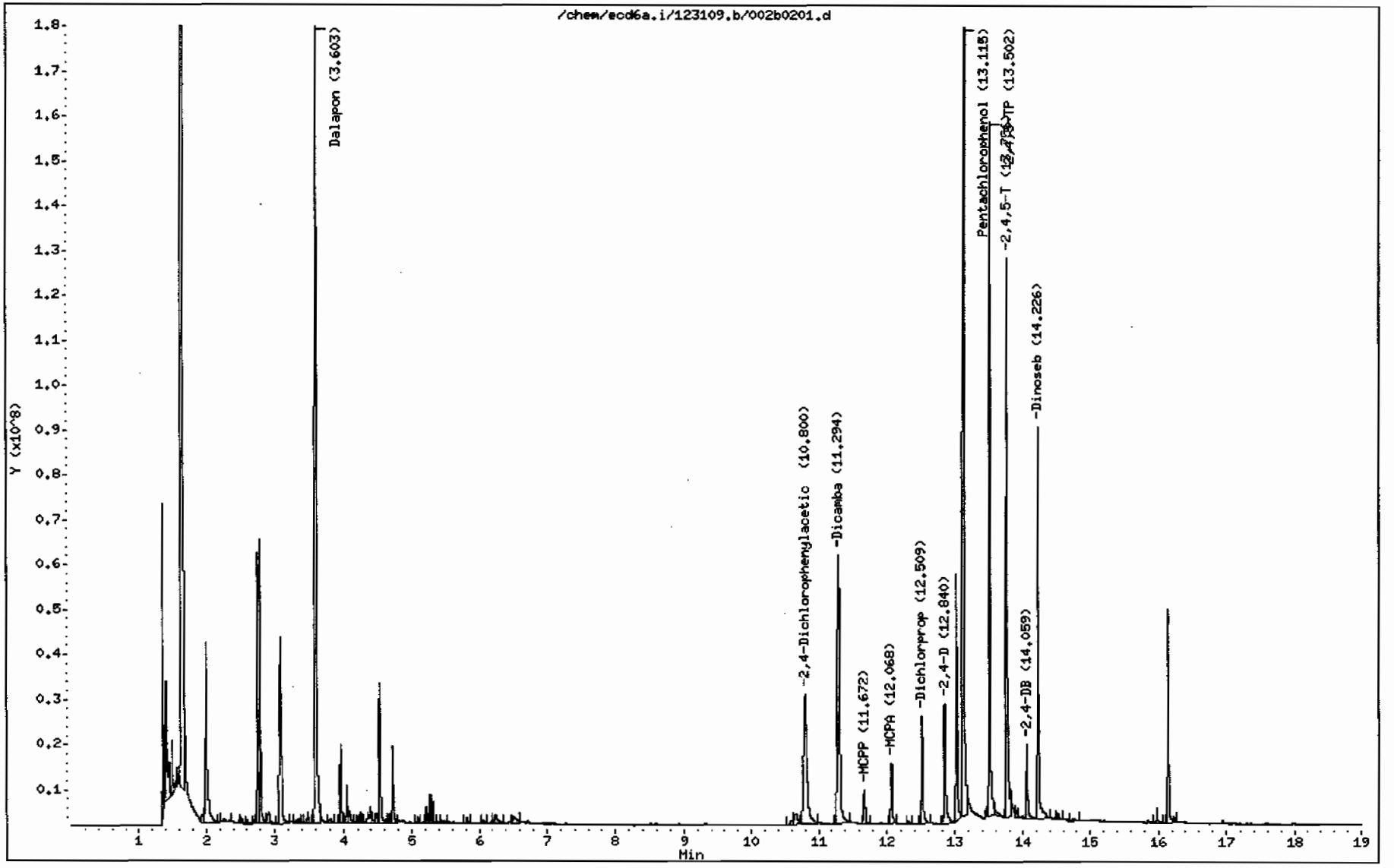

Comment: Manually Integrated
Data File: /chem/ecd6a.i/123109.b/002b0201.d
Operator: RXE1
Injection Date: 31-DEC-2009 12:23
Instrument: ecd6a.i
Client Sample ID: HSTD01

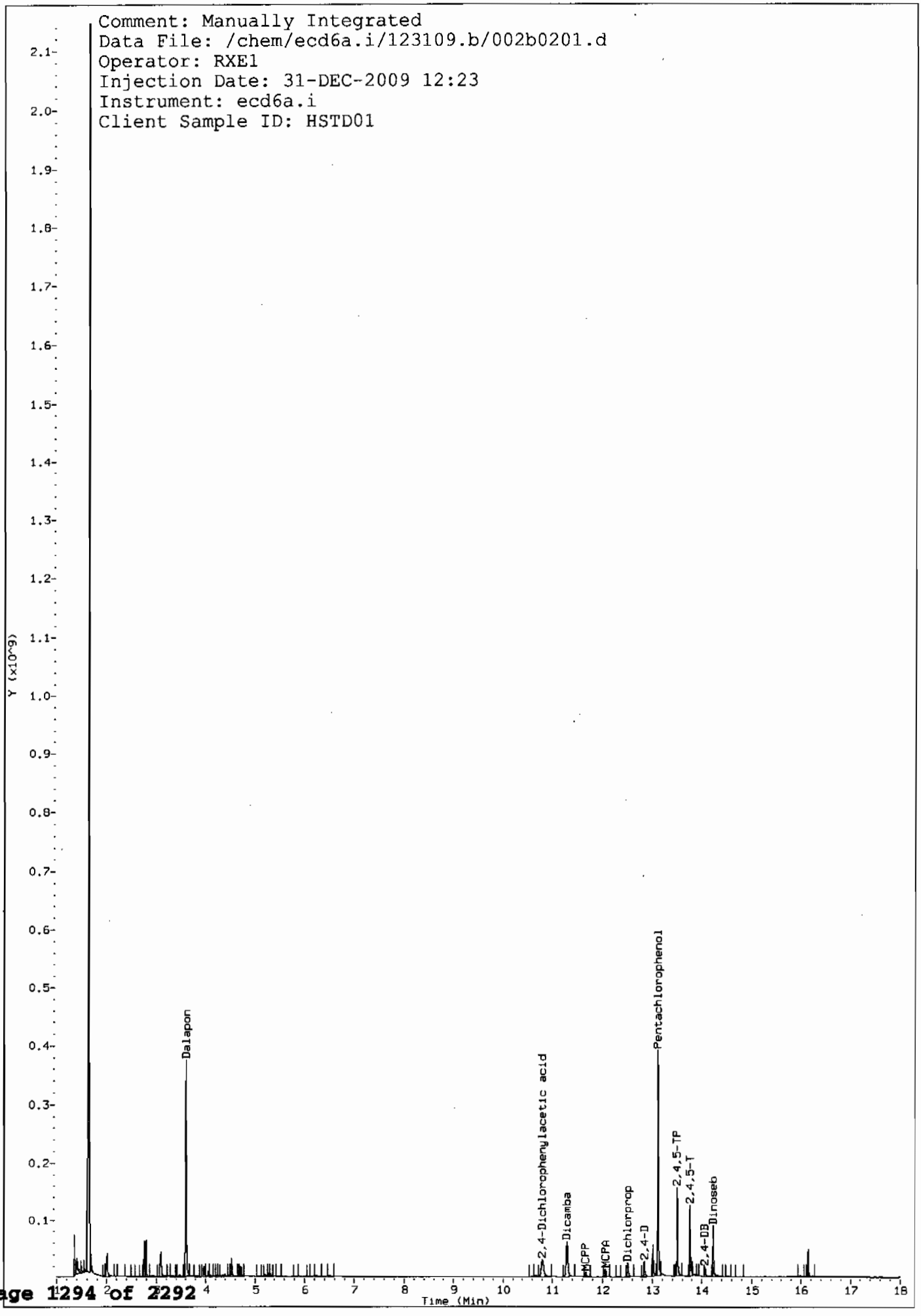

Comment: Before manual integration
Data File: /chem/ecd6a.i/123109.b/orig-002b0201.d
Operator: RXE1
Injection Date: 31-DEC-2009 12:23
Instrument: ecd6a.i
Client Sample ID: HSTD01

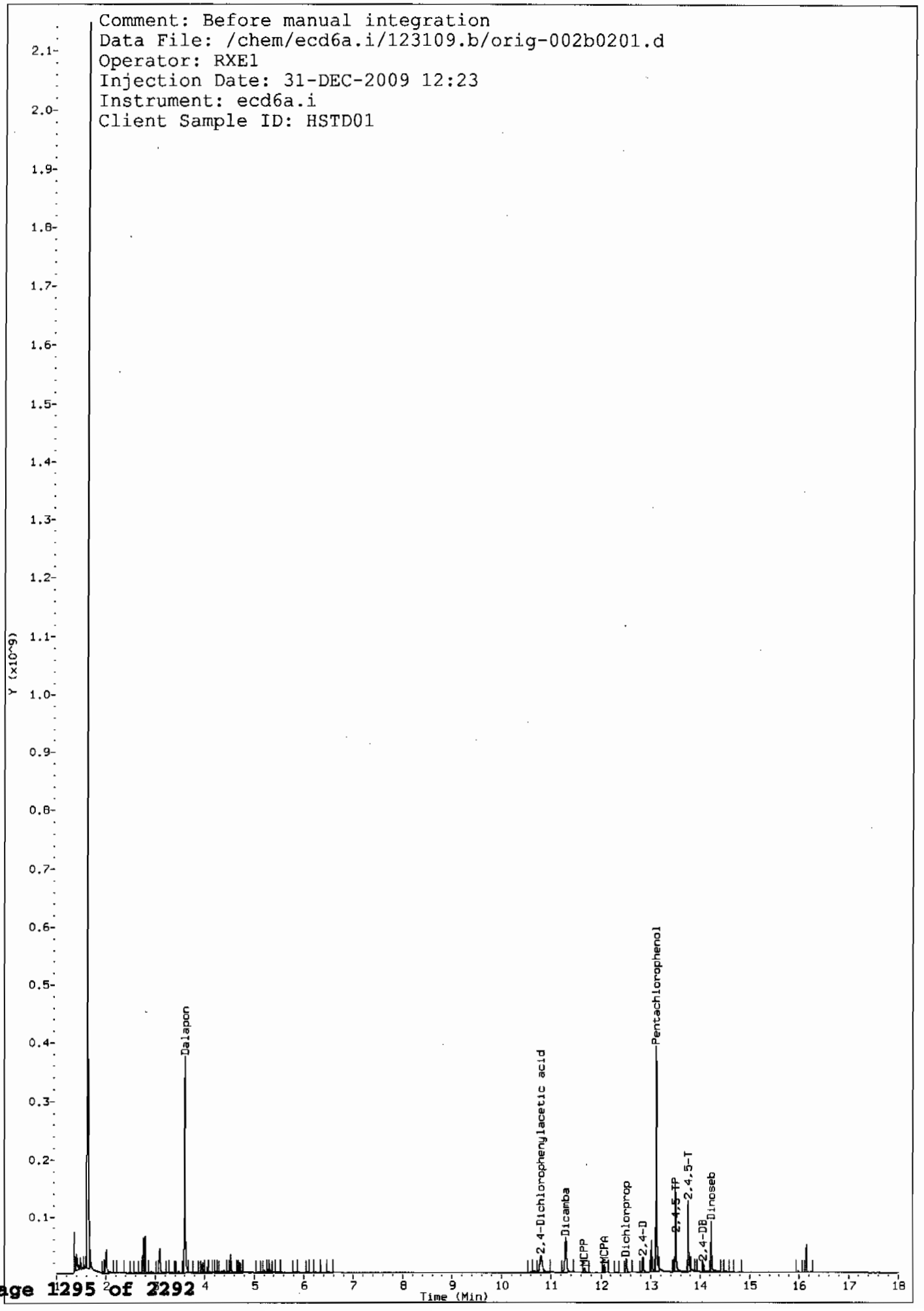

GEL Laboratories LLC

Column: RtxCLP 0.25mm x 30 m Inj Vol: 2 ul

Data file : /chem/ecd6a.i/123109.b/022f2201.d
Lab Smp Id: WHB091222-08 Client Smp ID: HSTD03
Inj Date : 31-DEC-2009 22:27
Operator : RXE1 Inst ID: ecd6a.i
Smp Info : |WHB091222-08
Misc Info : CHECK
Comment :
Method : /chem/ecd6a.i/123109.b/ECD6-F-8151A-122909.m
Meth Date : 04-Jan-2010 14:57 tif01533 Quant Type: ESTD
Cal Date : 29-DEC-2009 17:03 Cal File: 007f0701.d
Als bottle: 22 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)		
1 Dalapon						CAS #: 75-99-0	
3.645	3.651	-0.006	289002790	2000.00	2450		
$ 2 2,4-Dichlorophenylacetic acid						CAS #: 19719-28-9	
9.739	9.749	-0.010	85894353	500.000	587		
3 Dicamba						CAS #: 6597-78-0	
10.201	10.208	-0.007	122590562	200.000	223		
4 MCPP						CAS #: 7085-19-0	
10.954	10.962	-0.008	11898505	20000.0	21800		
5 MCPA						CAS #: 94-74-6	
11.388	11.392	-0.004	19565952	20000.0	21300		
6 Dichlorprop						CAS #: 120-36-5	
12.053	12.056	-0.003	30712538	200.000	220		
7 2,4-D						CAS #: 94-75-7	
12.368	12.372	-0.004	35198173	200.000	246		(M)
43 Pentachlorophenol						CAS #: 87-86-5	
12.513	12.517	-0.004	339926291	200.000	216		(M)
8 2,4,5-TP						CAS #: 93-72-1	
13.183	13.185	-0.002	139393638	200.000	228		(M)

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)		
9 2,4,5-T					CAS #: 93-76-5		
13.400	13.404	-0.004	127618441	200.000	237		(M)
10 2,4-DB					CAS #: 94-82-6		
13.770	13.773	-0.003	17963947	200.000	233		(M)
11 Dinoseb					CAS #: 88-85-7		
14.359	14.359	0.000	64083921	200.000	217		(M)

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd6a.i/123109.b/022F2201.d
Date : 31-DEC-2009 22:27
Client ID: HSTD03
Sample Info: IWHB091222-08
Column phase: Rtx-CLP

Instrument: ecd6a.i
Operator: RXE1
Column diameter: 0.25

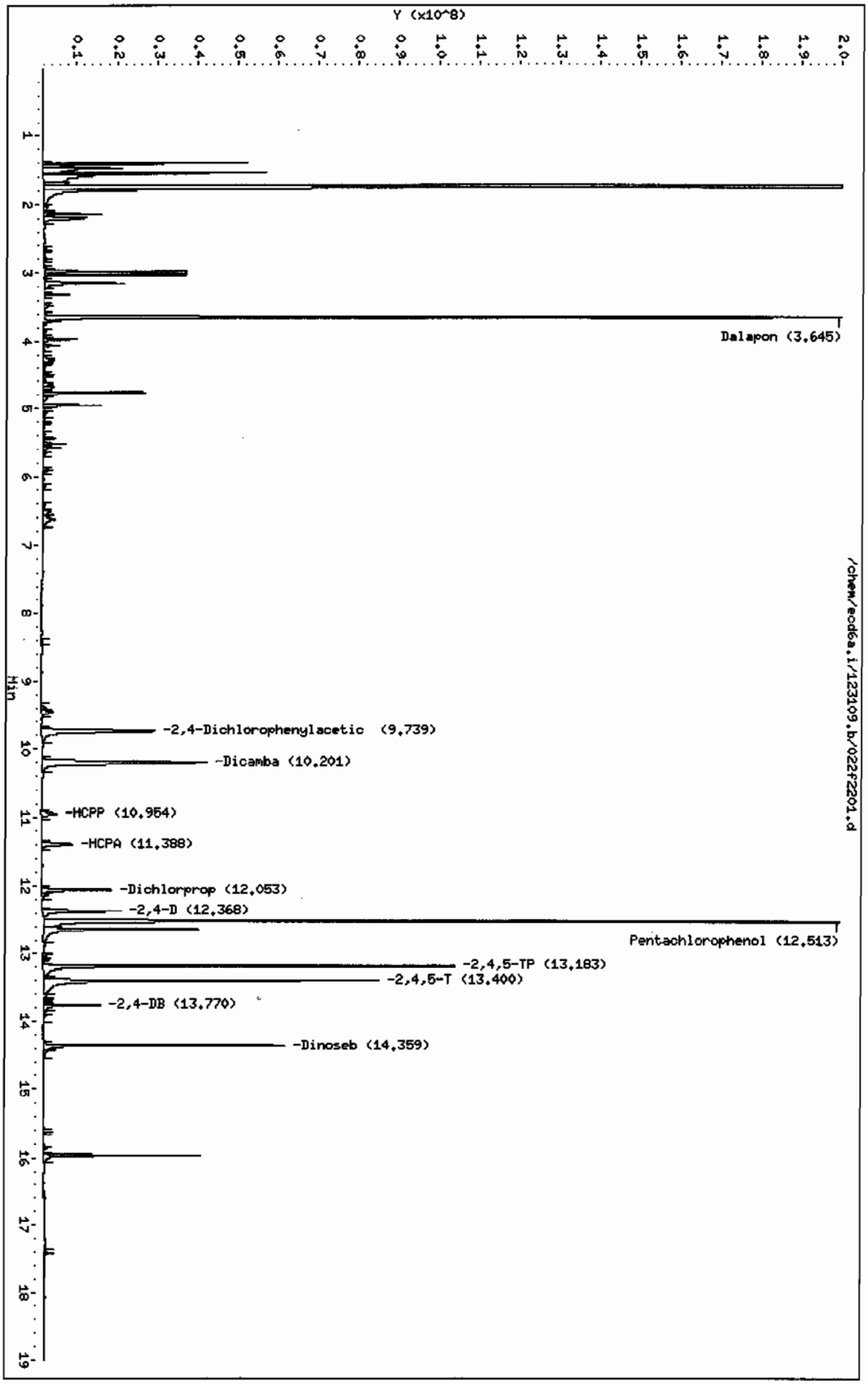

Page 1

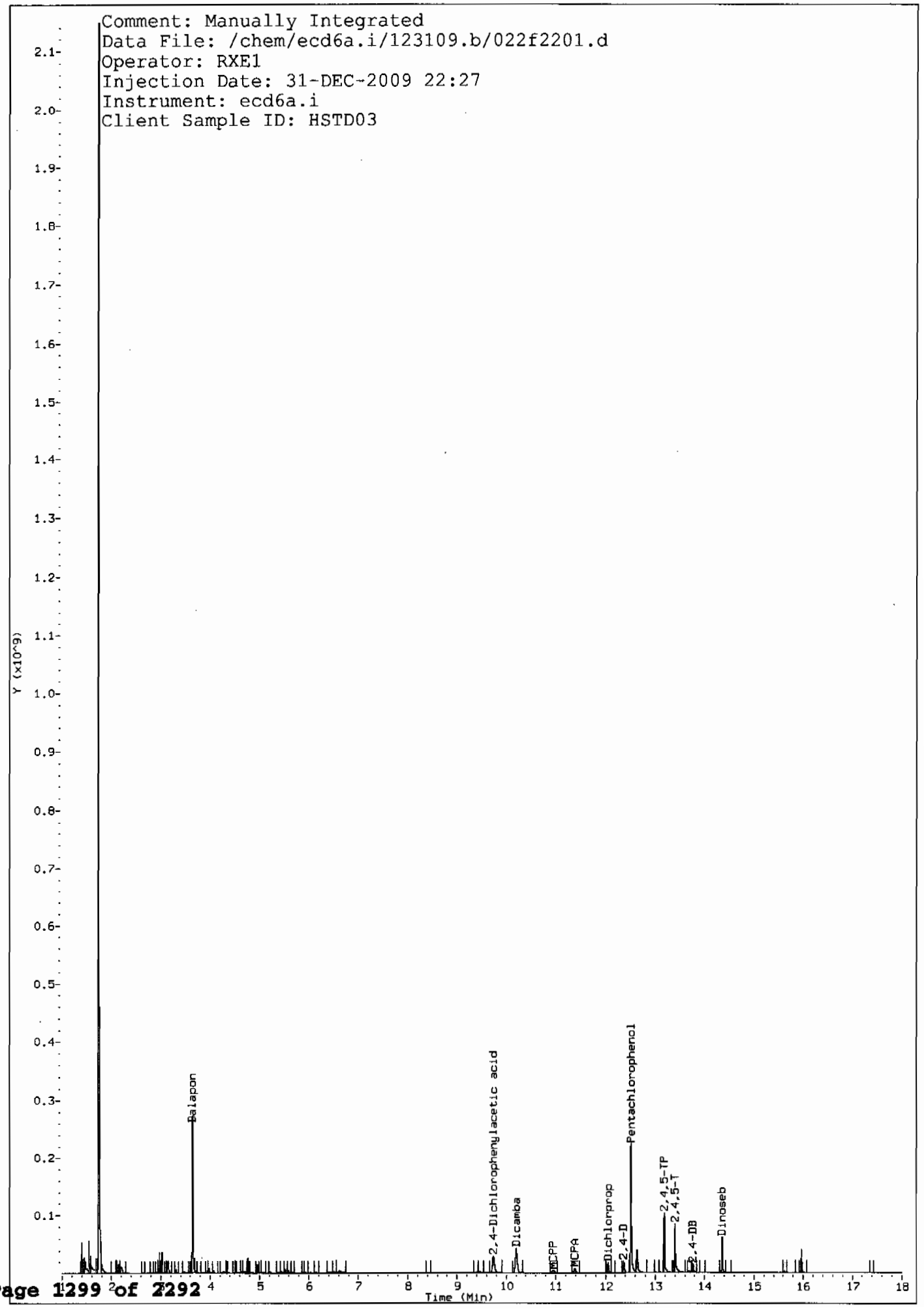
Comment: Manually Integrated
Data File: /chem/ecd6a.i/123109.b/022f2201.d
Operator: RXE1
Injection Date: 31-DEC-2009 22:27
Instrument: ecd6a.i
Client Sample ID: HSTD03
Y (x10^9)
Time (Min)
Dalapon
2,4-Dichlorophenylacetic acid
Dicamba
MCPP
MCPA
Dichlorprop
2,4-D
Pentachlorophenol
2,4,5-TP
2,4,5-T
2,4-DB
Dinoseb

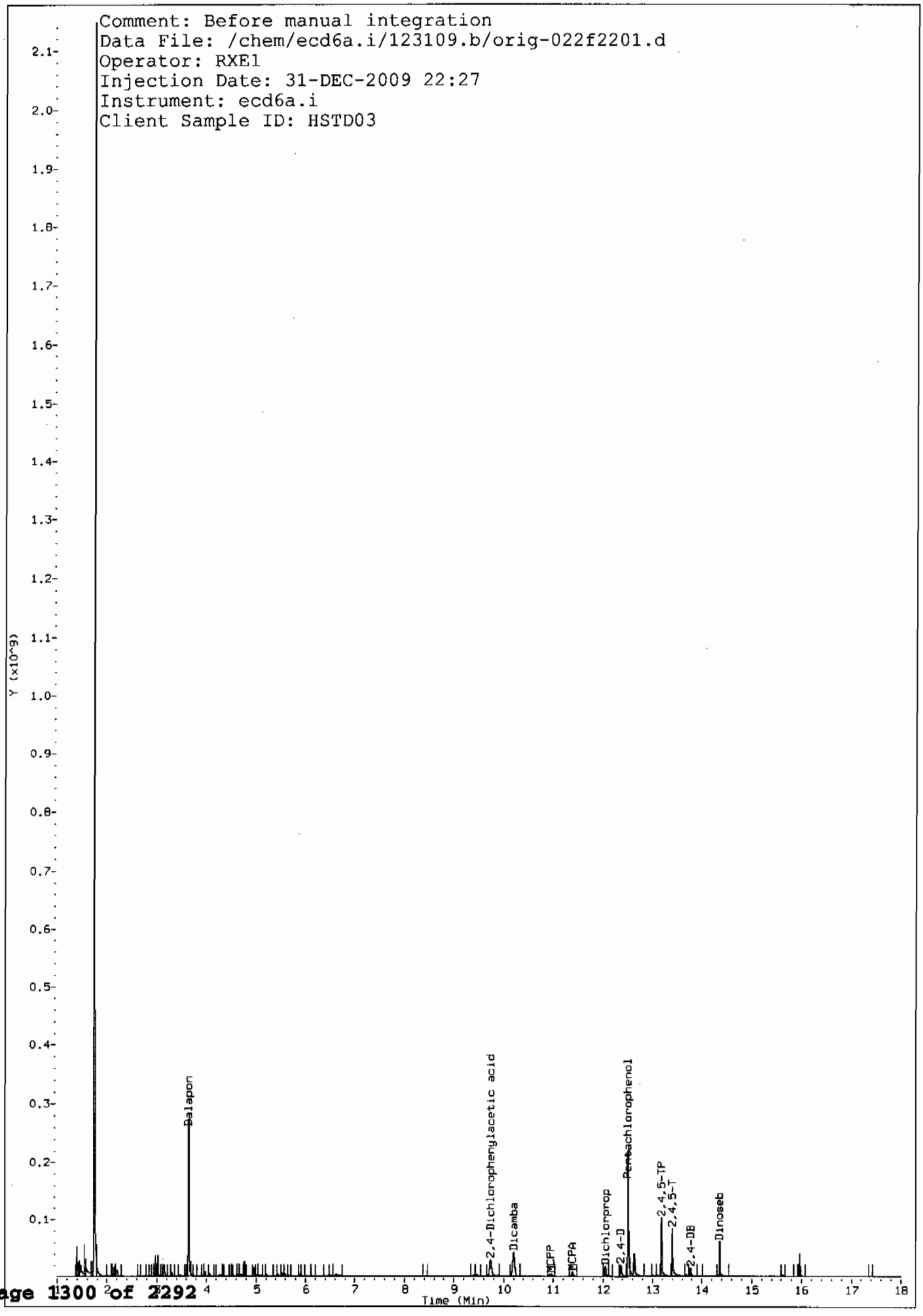
Comment: Before manual integration
Data File: /chem/ecd6a.i/123109.b/orig-022f2201.d
Operator: RXE1
Injection Date: 31-DEC-2009 22:27
Instrument: ecd6a.i
Client Sample ID: HSTD03
Y (x10^9)
Time (Min)
Balapon
2,4-Dichlorophenylacetic acid
Dicamba
MCPP
MCPA
Dichlorprop
2,4-D
Pentachlorophenol
2,4,5-TP
2,4,5-T
2,4-DB
Dinoseb

GEL Laboratories LLC

Column: RtxCLPII 0.25mm x 30 m Inj Vol: 2ul

Data file : /chem/ecd6a.i/123109.b/022b2201.d
Lab Smp Id: WHB091222-08 Client Smp ID: HSTD03
Inj Date : 31-DEC-2009 22:27
Operator : RXE1 Inst ID: ecd6a.i
Smp Info : |WHB091222-08
Misc Info : CHECK
Comment : RtxCLPII
Method : /chem/ecd6a.i/123109.b/ECD6-B-8151A-122909.m
Meth Date : 18-Jan-2010 14:26 jc Quant Type: ESTD
Cal Date : 29-DEC-2009 17:03 Cal File: 007b0701.d
Als bottle: 22 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: kilroy

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
1 Dalapon					CAS #: 88-85-7
3.596	3.603	-0.007	445704671	2000.00	2340
$ 2 2,4-Dichlorophenylacetic acid					CAS #: 19719-28-9
10.787	10.800	-0.013	114177742	500.000	542
3 MCPP					CAS #: 7085-19-0
11.666	11.672	-0.006	15124834	20000.0	20300
4 Dicamba					CAS #: 6597-78-0
11.286	11.294	-0.008	164024456	200.000	212
5 MCPA					CAS #: 94-74-6
12.064	12.068	-0.004	23534936	20000.0	19000
6 Dichlorprop					CAS #: 120-36-5
12.505	12.509	-0.004	41512596	200.000	211
7 2,4-D					CAS #: 94-75-7
12.835	12.840	-0.005	49885126	200.000	227
43 Pentachlorophenol					CAS #: 87-86-5
13.112	13.115	-0.003	499206675	200.000	197
8 2,4,5-TP					CAS #: 93-72-1
13.499	13.502	-0.003	195334653	200.000	217

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
9 2,4,5-T					CAS #: 93-76-5
13.752	13.756	-0.004	162518784	200.000	209
10 Dinoseb					CAS #: 88-85-7
14.224	14.226	-0.002	97155345	200.000	214
11 2,4-DB					CAS #: 94-82-6
14.056	14.059	-0.003	23106223	200.000	209

Data File: /chem/ecd6a.i/123109.b/022b2201.d

Date : 31-DEC-2009 22:27

Client ID: HSTD03

Sample Info: IWHB091222-08

Column phase: Rtx-CLPII

Instrument: ecd6a.i

Operator: RXE1

Column diameter: 0.25

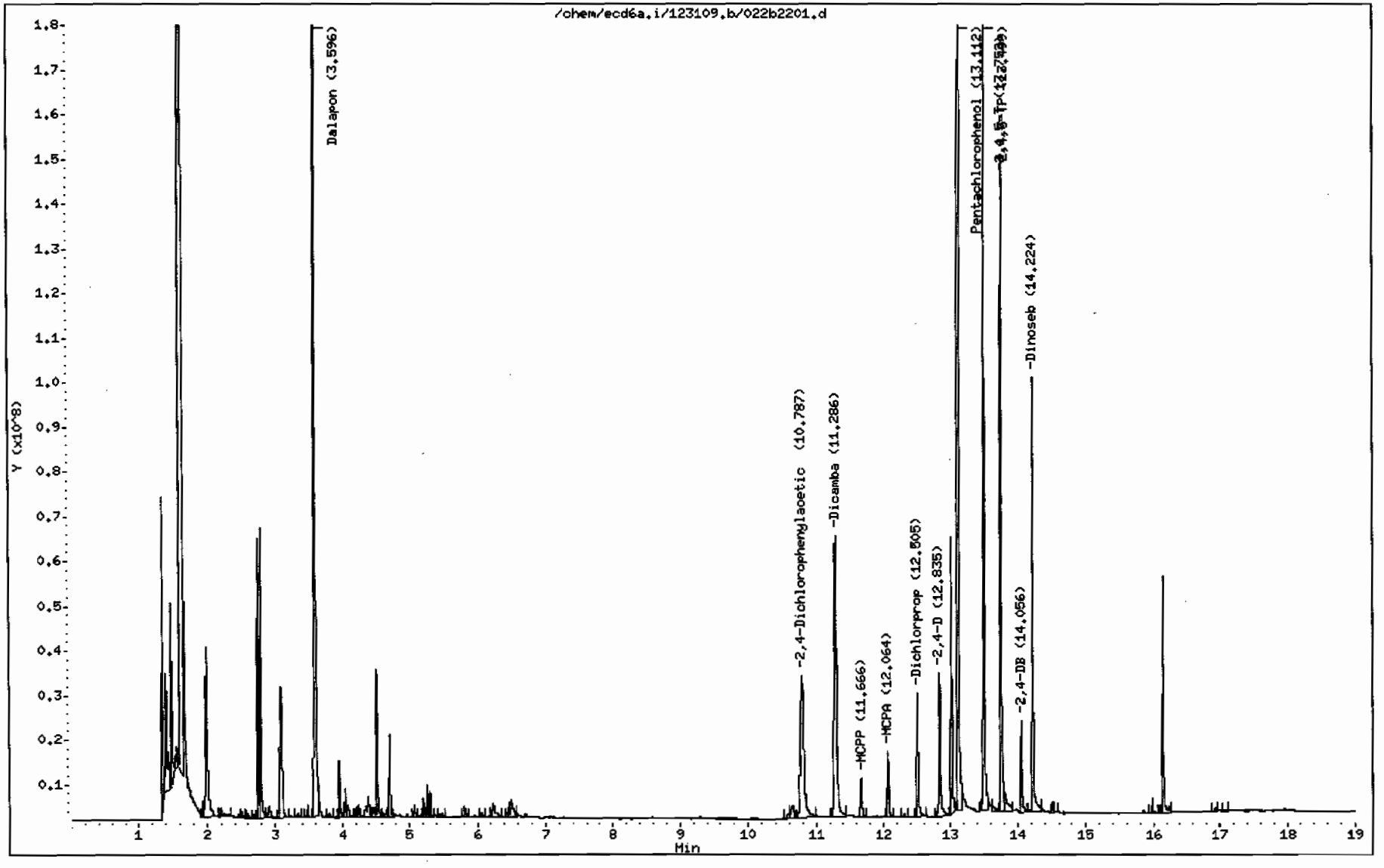

GEL Laboratories LLC

Column: RtxCLP 0.25mm x 30 m Inj Vol: 2 ul

Data file : /chem/ecd6a.i/123109.b/032f3201.d
Lab Smp Id: WHB091222-08 Client Smp ID: HSTD04
Inj Date : 01-JAN-2010 03:09
Operator : RXE1 Inst ID: ecd6a.i
Smp Info : |WHB091222-08
Misc Info : CHECK
Comment :
Method : /chem/ecd6a.i/123109.b/ECD6-F-8151A-122909.m
Meth Date : 04-Jan-2010 14:42 tif01533 Quant Type: ESTD
Cal Date : 29-DEC-2009 17:03 Cal File: 007f0701.d
Als bottle: 32 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50 Sample Matrix: None

	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	
	1 Dalapon					CAS #: 75-99-0	
	3.643	3.651	-0.008	286070593	2000.00	2420	
$	2 2,4-Dichlorophenylacetic acid					CAS #: 19719-28-9	
	9.738	9.749	-0.011	87967522	500.000	602	
	3 Dicamba					CAS #: 6597-78-0	
	10.199	10.208	-0.009	127553571	200.000	232	
	4 MCPP					CAS #: 7085-19-0	
	10.949	10.962	-0.013	11848463	20000.0	21700	
	5 MCPA					CAS #: 94-74-6	
	11.386	11.392	-0.006	19522241	20000.0	21200	
	6 Dichlorprop					CAS #: 120-36-5	
	12.051	12.056	-0.005	31568162	200.000	226	
	7 2,4-D					CAS #: 94-75-7	
	12.367	12.372	-0.005	34780854	200.000	243	(M)
	43 Pentachlorophenol					CAS #: 87-86-5	
	12.512	12.517	-0.005	350634744	200.000	223	(M)
	8 2,4,5-TP					CAS #: 93-72-1	
	13.183	13.185	-0.002	144208421	200.000	236	(M)

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)		
9 2,4,5-T					CAS #: 93-76-5		
13.400	13.404	-0.004	132663320	200.000	246		(M)
10 2,4-DB					CAS #: 94-82-6		
13.769	13.773	-0.004	18347597	200.000	238		(M)
11 Dinoseb					CAS #: 88-85-7		
14.357	14.359	-0.002	65549132	200.000	222		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd6a.i/123109.b/032f3201.d

Date : 01-JAN-2010 03:09

Client ID: HSTD04

Sample Info: IWHB091222-08

Column phase: Rtx-CLP

Instrument: ecd6a.i

Operator: RXE1

Column diameter: 0.25

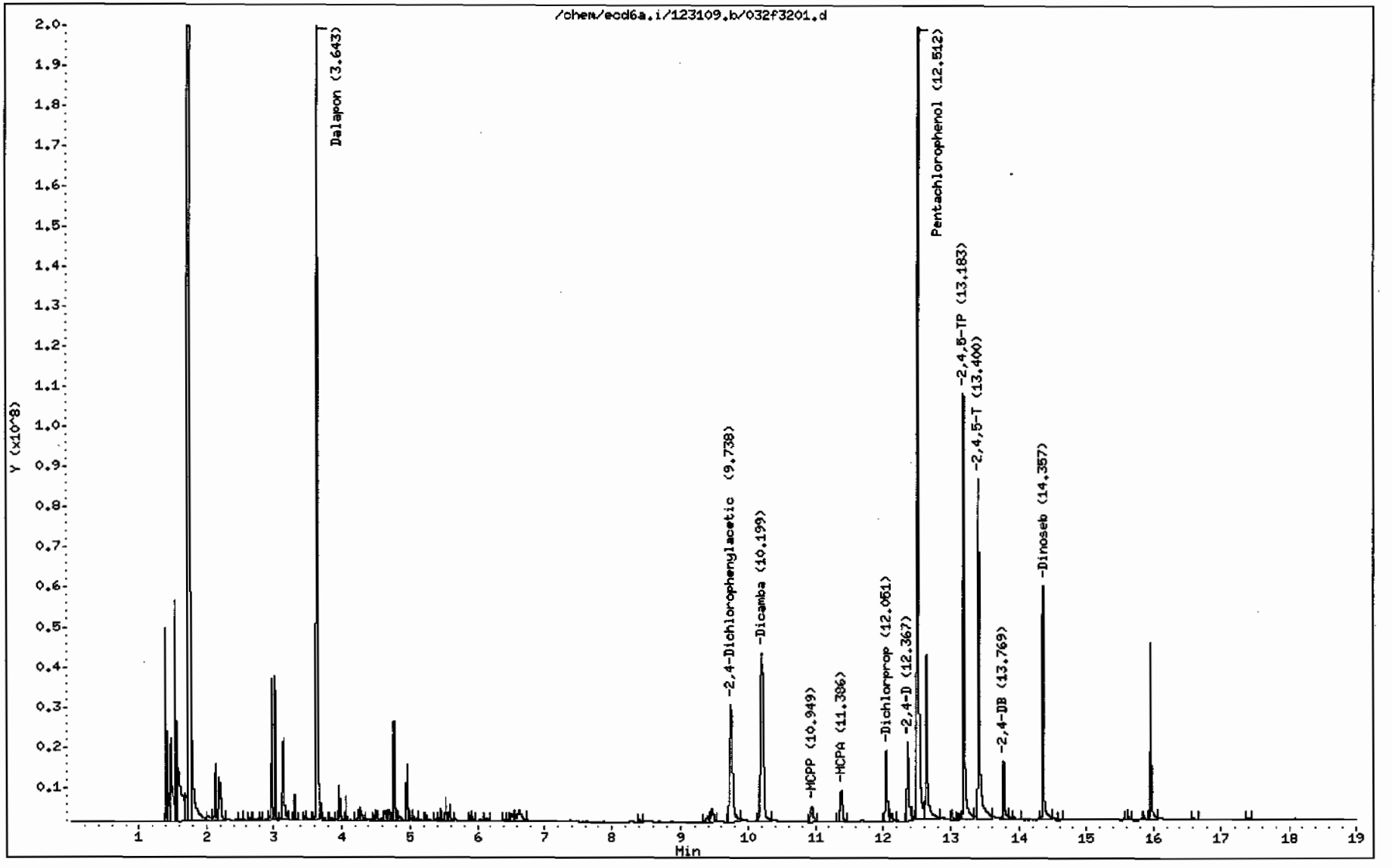

Comment: Manually Integrated
Data File: /chem/ecd6a.i/123109.b/032f3201.d
Operator: RXE1
Injection Date: 01-JAN-2010 03:09
Instrument: ecd6a.i
Client Sample ID: HSTD04

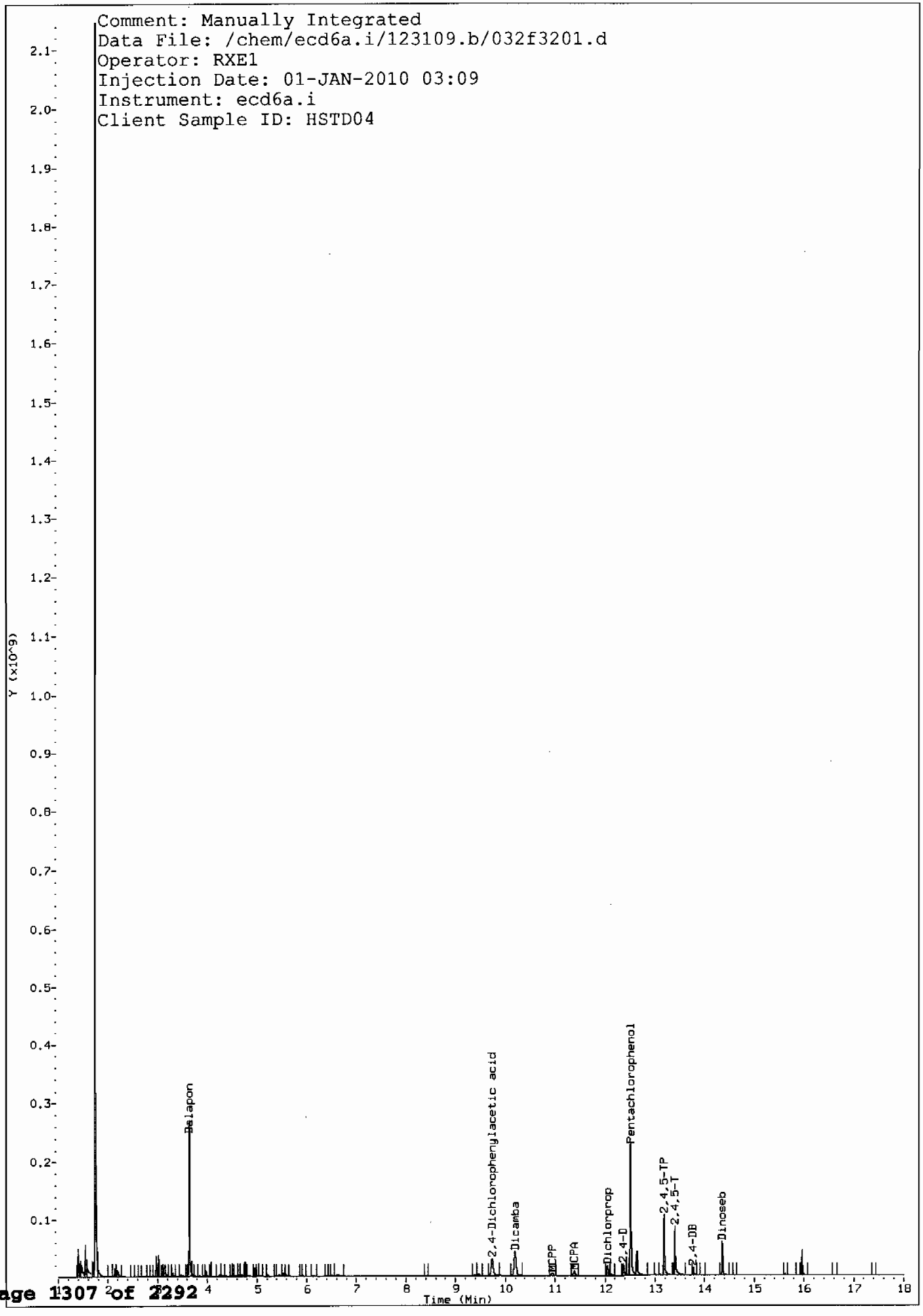

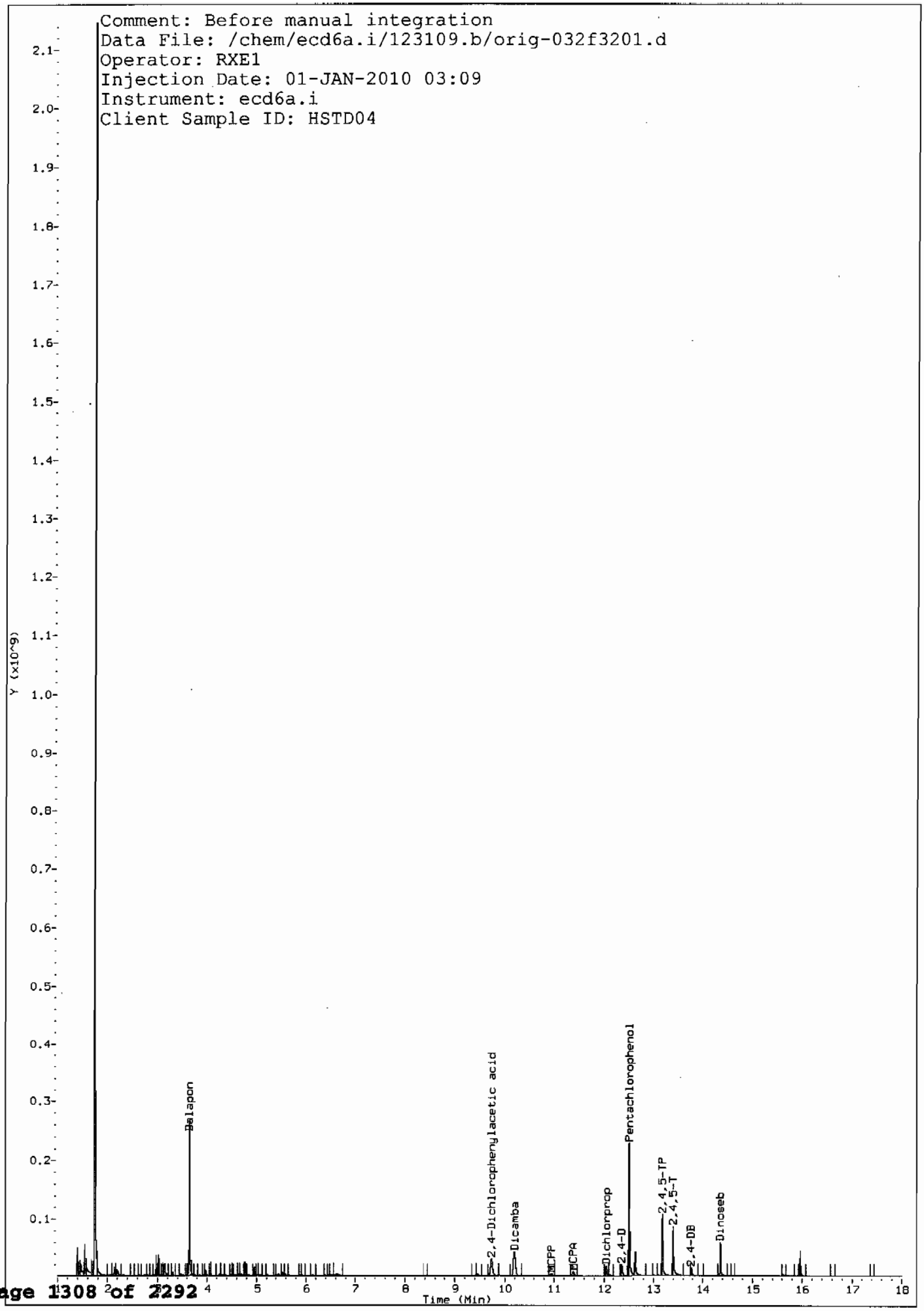
Comment: Before manual integration
Data File: /chem/ecd6a.i/123109.b/orig-032f3201.d
Operator: RXE1
Injection Date: 01-JAN-2010 03:09
Instrument: ecd6a.i
Client Sample ID: HSTD04
Y (x10^9)
Time (Min)
Balapon
2,4-Dichlorophenylacetic acid
Dicamba
MCPP
MCPA
Dichlorprop
2,4-D
Pentachlorophenol
2,4,5-TP
2,4,5-T
2,4-DB
Dinoseb

GEL Laboratories LLC

Column: RtxCLPII 0.25mm x 30 m Inj Vol: 2ul

Data file : /chem/ecd6a.i/123109.b/032b3201.d
Lab Smp Id: WHB091222-08 Client Smp ID: HSTD04
Inj Date : 01-JAN-2010 03:09
Operator : RXE1 Inst ID: ecd6a.i
Smp Info : |WHB091222-08
Misc Info : CHECK
Comment : RtxCLPII
Method : /chem/ecd6a.i/123109.b/ECD6-B-8151A-122909.m
Meth Date : 05-Jan-2010 09:37 jc Quant Type: ESTD
Cal Date : 29-DEC-2009 17:03 Cal File: 007b0701.d
Als bottle: 32 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: kilroy

	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	
	1 Dalapon					CAS #: 88-85-7	
	3.592	3.603	-0.011	436400426	2000.00	2290	
$	2 2,4-Dichlorophenylacetic acid					CAS #: 19719-28-9	
	10.783	10.800	-0.017	115471886	500.000	549	
	3 MCPP					CAS #: 7085-19-0	
	11.664	11.672	-0.008	15089569	20000.0	20300	
	4 Dicamba					CAS #: 6597-78-0	
	11.280	11.294	-0.014	167519154	200.000	216	
	5 MCPA					CAS #: 94-74-6	
	12.062	12.068	-0.006	23181617	20000.0	18800	
	6 Dichlorprop					CAS #: 120-36-5	
	12.503	12.509	-0.006	41914819	200.000	213	
	7 2,4-D					CAS #: 94-75-7	
	12.835	12.840	-0.005	48601466	200.000	222	(M)
	43 Pentachlorophenol					CAS #: 87-86-5	
	13.110	13.115	-0.005	506054064	200.000	200	
	8 2,4,5-TP					CAS #: 93-72-1	
	13.498	13.502	-0.004	200072718	200.000	222	

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	
9 2,4,5-T						CAS #: 93-76-5
13.751	13.756	-0.005	165852981	200.000	214	
10 Dinoseb						CAS #: 88-85-7
14.224	14.226	-0.002	98203047	200.000	217	
11 2,4-DB						CAS #: 94-82-6
14.055	14.059	-0.004	24096822	200.000	218	

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd6a.i/123109.b/032b3201.d
Date : 01-JAN-2010 03:09
Client ID: HSTD04
Sample Info: IWHB091222-08

Column phase: Rtx-CLPII

Instrument: ecd6a.i

Operator: RXE1
Column diameter: 0.25

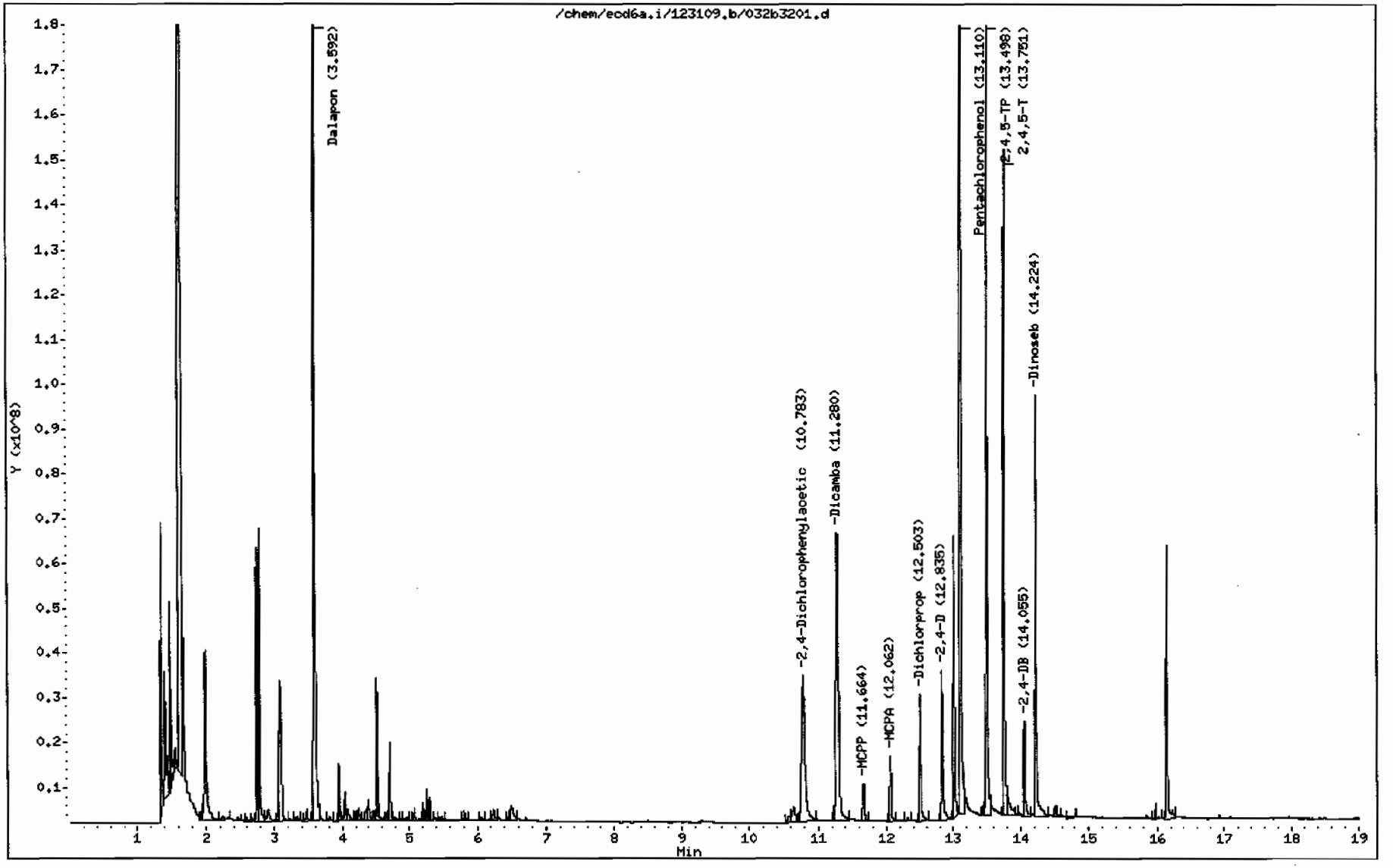

Comment: Manually Integrated
Data File: /chem/ecd6a.i/123109.b/032b3201.d
Operator: RXE1
Injection Date: 01-JAN-2010 03:09
Instrument: ecd6a.i
Client Sample ID: HSTD04

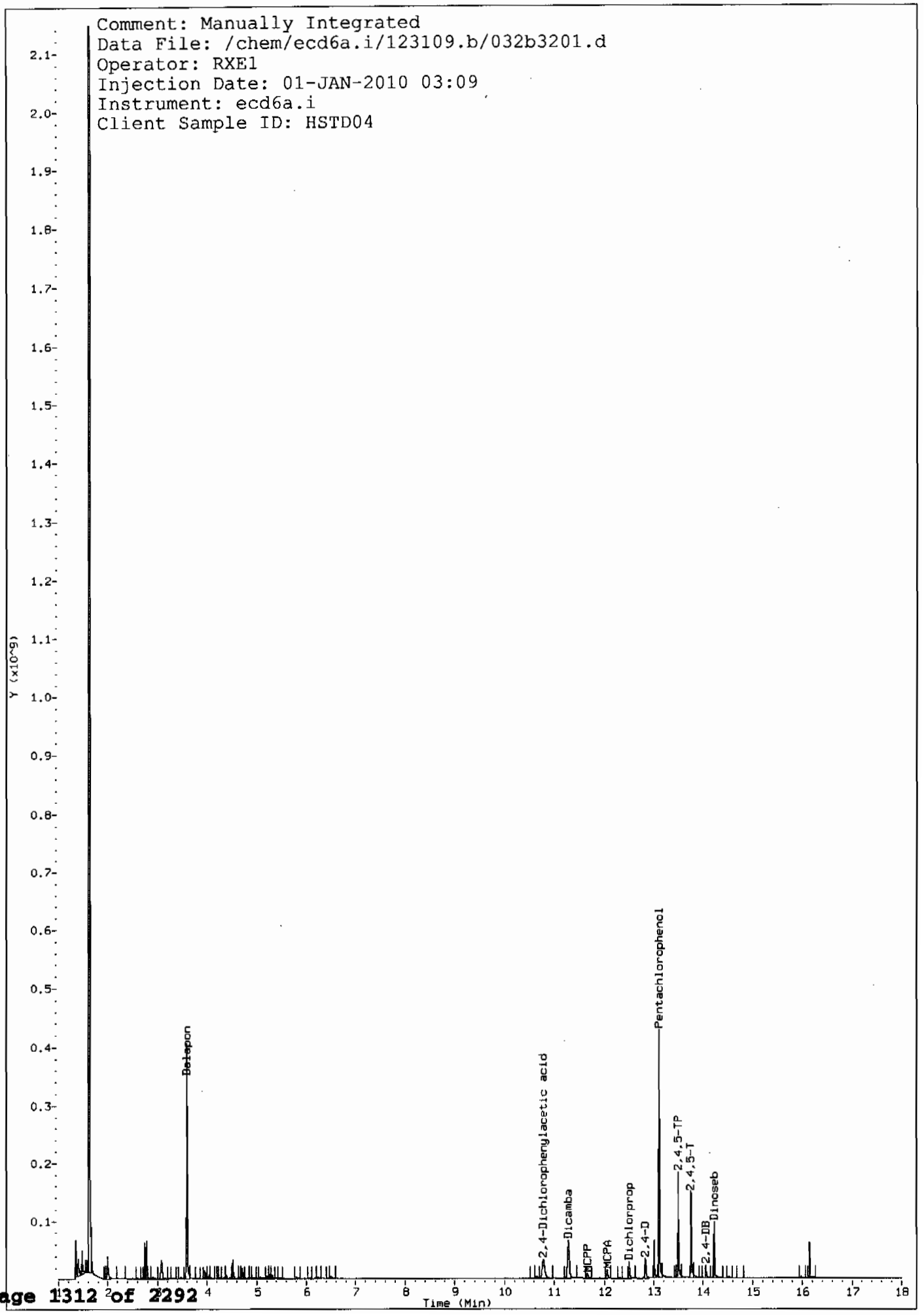

Comment: Before manual integration
Data File: /chem/ecd6a.i/123109.b/orig-032b3201.d
Operator: RXE1
Injection Date: 01-JAN-2010 03:09
Instrument: ecd6a.i
Client Sample ID: HSTD04

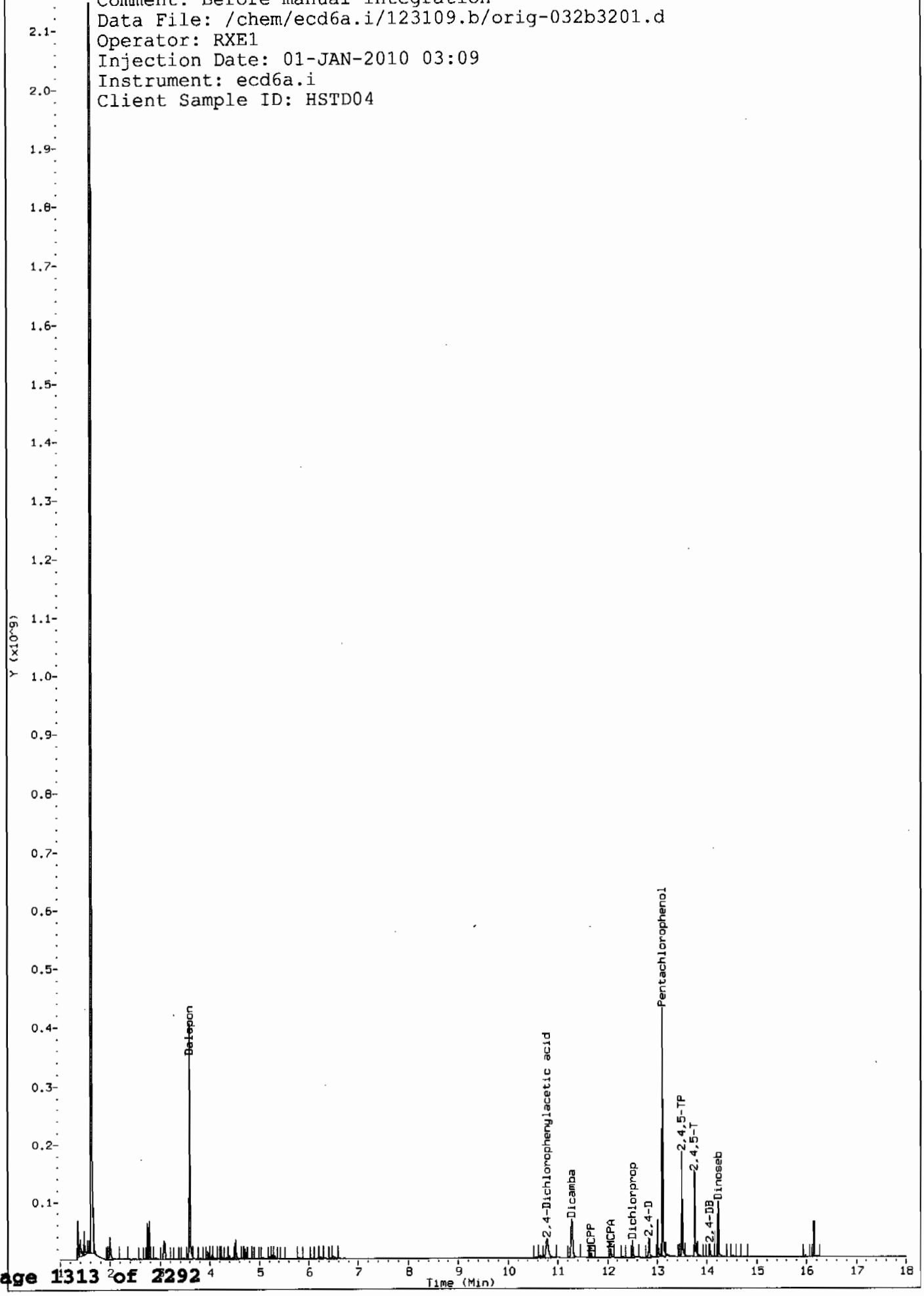

FORM 8
HERBICIDE ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1085-1

GC Column: RTX-CLP ID: 0.25 (mm) Init. Calib. Date(s): 12/29/09 12/29/09

Instrument ID: ECD6A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 9.74

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	RT #
01	HIBLK01	WHB091117-02	12/29/09	1413	9.76	
02	HSTD01	WHB091030-01	12/29/09	1441	9.76	
03	HSTD02	WHB091030-02	12/29/09	1510	9.75	
04	HSTD03	WHB091030-03	12/29/09	1538	9.75	
05	HSTD04	WHB091030-04	12/29/09	1607	9.74	
06	HSTD05	WHB091030-05	12/29/09	1635	9.74	
07	HSTD06	WHB091030-06	12/29/09	1703	9.74	
08	HSTD07	WHB091030-07	12/29/09	1731	9.73	
09	HSTD01	WHB091222-08	12/29/09	1800	9.74	
10	HIBLK02	WHB091117-02	12/29/09	1828	9.75	
11	ZZZZZ	ZZZZZ	12/29/09	1856	9.75	
12	ZZZZZ	ZZZZZ	12/29/09	1924	9.74	
13	ZZZZZ	ZZZZZ	12/29/09	1952	9.75	
14	ZZZZZ	ZZZZZ	12/29/09	2021	9.75	
15	ZZZZZ	ZZZZZ	12/29/09	2049	9.74	
16	ZZZZZ	ZZZZZ	12/29/09	2117	9.74	
17	ZZZZZ	ZZZZZ	12/29/09	2145	9.72	
18	ZZZZZ	ZZZZZ	12/29/09	2213	9.74	
19	HSTD02	WHB091222-08	12/29/09	2242	9.73	
20	HIBLK03	WHB091117-02	12/29/09	2310	9.75	
21	ZZZZZ	ZZZZZ	12/29/09	2338	9.75	
22	ZZZZZ	ZZZZZ	12/30/09	0006	9.74	
23	ZZZZZ	ZZZZZ	12/30/09	0035	9.74	
24	ZZZZZ	ZZZZZ	12/30/09	0103	9.75	
25	ZZZZZ	ZZZZZ	12/30/09	0131	9.75	
26	ZZZZZ	ZZZZZ	12/30/09	0159	9.75	
27	ZZZZZ	ZZZZZ	12/30/09	0227	9.75	
28	ZZZZZ	ZZZZZ	12/30/09	0255	9.74	
29	ZZZZZ	ZZZZZ	12/30/09	0323	9.74	
30	HSTD03	WHB091222-08	12/30/09	0351	9.74	
31	HIBLK04	WHB091117-02	12/30/09	0419	9.76	
32	ZZZZZ	ZZZZZ	12/30/09	0447	9.75	

QC LIMITS
S1 = 2,4-Dichlorophenylacet (+/- 0.06 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII HERBICIDE

FORM 8
HERBICIDE ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1085-1

GC Column: RTX-CLPII ID: 0.25 (mm) Init. Calib. Date(s): 12/29/09 12/29/09

Instrument ID: ECD6A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 10.80

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	RT #
01	HIBLK01	WHB091117-02	12/29/09	1413	10.82	
02	HSTD01	WHB091030-01	12/29/09	1441	10.82	
03	HSTD02	WHB091030-02	12/29/09	1510	10.81	
04	HSTD03	WHB091030-03	12/29/09	1538	10.81	
05	HSTD04	WHB091030-04	12/29/09	1607	10.80	
06	HSTD05	WHB091030-05	12/29/09	1635	10.80	
07	HSTD06	WHB091030-06	12/29/09	1703	10.79	
08	HSTD07	WHB091030-07	12/29/09	1731	10.79	
09	HSTD01	WHB091222-08	12/29/09	1800	10.80	
10	HIBLK02	WHB091117-02	12/29/09	1828	10.81	
11	ZZZZZ	ZZZZZ	12/29/09	1856	10.81	
12	ZZZZZ	ZZZZZ	12/29/09	1924	10.80	
13	ZZZZZ	ZZZZZ	12/29/09	1952	10.81	
14	ZZZZZ	ZZZZZ	12/29/09	2021	10.80	
15	ZZZZZ	ZZZZZ	12/29/09	2049	10.79	
16	ZZZZZ	ZZZZZ	12/29/09	2117	10.79	
17	ZZZZZ	ZZZZZ	12/29/09	2145	10.79	
18	ZZZZZ	ZZZZZ	12/29/09	2213	10.79	
19	HSTD02	WHB091222-08	12/29/09	2242	10.79	
20	HIBLK03	WHB091117-02	12/29/09	2310	10.81	
21	ZZZZZ	ZZZZZ	12/29/09	2338	10.81	
22	ZZZZZ	ZZZZZ	12/30/09	0006	10.79	
23	ZZZZZ	ZZZZZ	12/30/09	0035	10.80	
24	ZZZZZ	ZZZZZ	12/30/09	0103	10.80	
25	ZZZZZ	ZZZZZ	12/30/09	0131	10.80	
26	ZZZZZ	ZZZZZ	12/30/09	0159	10.80	
27	ZZZZZ	ZZZZZ	12/30/09	0227	10.80	
28	ZZZZZ	ZZZZZ	12/30/09	0255	10.79	
29	ZZZZZ	ZZZZZ	12/30/09	0323	10.79	
30	HSTD03	WHB091222-08	12/30/09	0351	10.79	
31	HIBLK04	WHB091117-02	12/30/09	0419	10.81	
32	ZZZZZ	ZZZZZ	12/30/09	0447	10.80	

QC LIMITS
S1 = 2,4-Dichlorophenylacet (+/- 0.06 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII HERBICIDE

FORM 8
HERBICIDE ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1085-1

GC Column: RTX-CLP ID: 0.25 (mm) Init. Calib. Date(s): 12/29/09 12/29/09

Instrument ID: ECD6A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 9.75

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	RT #
01	HIBLK01	WHB091117-02	12/31/09	1154	9.79	
02	HSTD01	WHB091222-08	12/31/09	1223	9.75	
03	HIBLK02	WHB091117-02	12/31/09	1251	9.77	
04	ZZZZZ	ZZZZZ	12/31/09	1352	9.75	
05	ZZZZZ	ZZZZZ	12/31/09	1421	9.74	
06	ZZZZZ	ZZZZZ	12/31/09	1449	9.74	
07	ZZZZZ	ZZZZZ	12/31/09	1518	9.74	
08	ZZZZZ	ZZZZZ	12/31/09	1547	9.74	
09	ZZZZZ	ZZZZZ	12/31/09	1615	9.74	
10	ZZZZZ	ZZZZZ	12/31/09	1644	9.75	
11	HSTD02	WHB091222-08	12/31/09	1713	9.74	
12	HIBLK03	WHB091117-02	12/31/09	1742	9.77	
13	ZZZZZ	ZZZZZ	12/31/09	1811	9.76	
14	ZZZZZ	ZZZZZ	12/31/09	1839	9.75	
15	ZZZZZ	ZZZZZ	12/31/09	1908	9.76	
16	ZZZZZ	ZZZZZ	12/31/09	1937	9.75	
17	ZZZZZ	ZZZZZ	12/31/09	2005	9.76	
18	ZZZZZ	ZZZZZ	12/31/09	2034	9.76	
19	ZZZZZ	ZZZZZ	12/31/09	2102	9.76	
20	ZZZZZ	ZZZZZ	12/31/09	2130	9.74	
21	ZZZZZ	ZZZZZ	12/31/09	2158	9.74	
22	HSTD03	WHB091222-08	12/31/09	2227	9.74	
23	HIBLK04	WHB091117-02	12/31/09	2255	9.77	
24	ZZZZZ	ZZZZZ	12/31/09	2323	9.75	
25	TBLK01	1202004963	12/31/09	2351	9.75	
26	HBLK01	1202005852	01/01/10	0020	9.75	
27	HBLK01LCS	1202005853	01/01/10	0048	9.74	
28	ZZZZZ	ZZZZZ	01/01/10	0116	9.75	
29	WST03-10-2148	243551001	01/01/10	0144	9.75	
30	WST03-10-2148MS	1202005854	01/01/10	0213	9.74	
31	WST03-10-2148MSD	1202005855	01/01/10	0241	9.74	
32	HSTD04	WHB091222-08	01/01/10	0309	9.74	

QC LIMITS
S1 = 2,4-Dichlorophenylacet (+/- 0.06 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

page 1 of 1

FORM VIII HERBICIDE

FORM 8
HERBICIDE ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1085-1

GC Column: RTX-CLPII ID: 0.25 (mm) Init. Calib. Date(s): 12/29/09 12/29/09

Instrument ID: ECD6A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 10.80

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	RT #
01	HIBLK01	WHB091117-02	12/31/09	1154	10.83	
02	HSTD01	WHB091222-08	12/31/09	1223	10.80	
03	HIBLK02	WHB091117-02	12/31/09	1251	10.82	
04	ZZZZZ	ZZZZZ	12/31/09	1352	10.79	
05	ZZZZZ	ZZZZZ	12/31/09	1421	10.78	
06	ZZZZZ	ZZZZZ	12/31/09	1449	10.79	
07	ZZZZZ	ZZZZZ	12/31/09	1518	10.79	
08	ZZZZZ	ZZZZZ	12/31/09	1547	10.79	
09	ZZZZZ	ZZZZZ	12/31/09	1615	10.79	
10	ZZZZZ	ZZZZZ	12/31/09	1644	10.80	
11	HSTD02	WHB091222-08	12/31/09	1713	10.79	
12	HIBLK03	WHB091117-02	12/31/09	1742	10.82	
13	ZZZZZ	ZZZZZ	12/31/09	1811	10.81	
14	ZZZZZ	ZZZZZ	12/31/09	1839	10.79	
15	ZZZZZ	ZZZZZ	12/31/09	1908	10.81	
16	ZZZZZ	ZZZZZ	12/31/09	1937	10.80	
17	ZZZZZ	ZZZZZ	12/31/09	2005	10.81	
18	ZZZZZ	ZZZZZ	12/31/09	2034	10.80	
19	ZZZZZ	ZZZZZ	12/31/09	2102	10.80	
20	ZZZZZ	ZZZZZ	12/31/09	2130	10.79	
21	ZZZZZ	ZZZZZ	12/31/09	2158	10.79	
22	HSTD03	WHB091222-08	12/31/09	2227	10.79	
23	HIBLK04	WHB091117-02	12/31/09	2255	10.80	
24	ZZZZZ	ZZZZZ	12/31/09	2323	10.80	
25	TBLK01	1202004963	12/31/09	2351	10.80	
26	HBLK01	1202005852	01/01/10	0020	10.79	
27	HBLK01LCS	1202005853	01/01/10	0048	10.79	
28	ZZZZZ	ZZZZZ	01/01/10	0116	10.80	
29	WST03-10-2148	243551001	01/01/10	0144	10.80	
30	WST03-10-2148MS	1202005854	01/01/10	0213	10.78	
31	WST03-10-2148MSD	1202005855	01/01/10	0241	10.79	
32	HSTD04	WHB091222-08	01/01/10	0309	10.78	

QC LIMITS
S1 = 2,4-Dichlorophenylacet (+/- 0.06 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

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FORM VIII HERBICIDE

Identification Summary

SDG Number: 10–1085–1 **Client ID:** LCS for batch 937383

Lab Sample ID: 1202005853

Data File:	027f2701.d	**Data File:**	027b2701.d
Inst:	ECD6A.I_1	**Inst:**	ECD6A.I_2
Column:	Rtx–CLP	**Column:**	Rtx–CLPII
Analyzed:	01–JAN–10 00:48	**Analyzed:**	01–JAN–10 00:48

Analyte		Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
2,4–D								6.73
	Column 1	1	12.36	12.31 – 12.43	.00262		mg/L	
	Column 2	1	12.83	12.78 – 12.9	.00245		mg/L	
2,4,5–TP								4.59
	Column 1	1	13.18	13.16 – 13.22	.00216		mg/L	
	Column 2	1	13.5	13.47 – 13.53	.00226		mg/L	

Identification Summary

SDG Number: 10–1085–1 **Client ID:** WST03–10–2148MS

Lab Sample ID: 1202005854

Data File:	030f3001.d	**Data File:**	030b3001.d
Inst:	ECD6A.I_1	**Inst:**	ECD6A.I_2
Column:	Rtx–CLP	**Column:**	Rtx–CLPII
Analyzed:	01–JAN–10 02:13	**Analyzed:**	01–JAN–10 02:13

Analyte		Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
2,4–D								10.6
	Column 1	1	12.36	12.31 – 12.43	.529		mg/L	
	Column 2	1	12.83	12.78 – 12.9	.476		mg/L	
2,4,5–TP								.293
	Column 1	1	13.18	13.16 – 13.22	.452		mg/L	
	Column 2	1	13.5	13.47 – 13.53	.453		mg/L	

Identification Summary

SDG Number: 10–1085–1 **Client ID:** WST03–10–2148MSD

Lab Sample ID: 1202005855

Data File:	031f3101.d	**Data File:**	031b3101.d
Inst:	ECD6A.I_1	**Inst:**	ECD6A.I_2
Column:	Rtx–CLP	**Column:**	Rtx–CLPII
Analyzed:	01–JAN–10 02:41	**Analyzed:**	01–JAN–10 02:41

Analyte		Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
2,4–D								13.1
	Column 1	1	12.36	12.31 – 12.43	.484		mg/L	
	Column 2	1	12.83	12.78 – 12.9	.425		mg/L	
2,4,5–TP								6.6
	Column 1	1	13.18	13.16 – 13.22	.436		mg/L	
	Column 2	1	13.5	13.47 – 13.53	.408		mg/L	

QUALITY CONTROL DATA

Herbicide
Certificate of Analysis
Sample Summary

SDG Number:	10–1085–1			**Matrix:**	TCLP SOIL
Lab Sample ID:	1202004963				
Client Sample:	QC for batch 936980	**Client:**	LANL010	**Project:**	QC
Client ID:	TB for batch 936980	**Method:**	SW846 8151A	**SOP Ref:**	GL–OA–E–011
Batch ID:	937384	**Inst:**	ECD6A.I	**Dilution:**	1
Run Date:	12/31/2009 23:51	**Analyst:**	RXE1	**Inj. Vol:**	1 uL
Prep Date:	12/30/2009 15:06	**Aliquot:**	5 mL	**Final Volume:**	10 mL
Data File:	025f2501.d	**Column:**	1 Rtx–CLP	**Level:**	LOW
	025b2501.d		2 Rtx–CLPII		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
94–75–7	2,4–D	U	0.050	mg/L	0.0166	0.050	1
93–72–1	2,4,5–TP	U	0.050	mg/L	0.0166	0.050	1

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Column: RtxCLP 0.25mm x 30 m Inj Vol: 2 ul

Data file : /chem/ecd6a.i/123109.b/025f2501.d
Lab Smp Id: 1202004963 Client Smp ID: TBLK01
Inj Date : 31-DEC-2009 23:51
Operator : RXE1 Inst ID: ecd6a.i
Smp Info : |1202004963|1|
Misc Info : |ECDTPH_1L|937384|SVH|TB|SOIL|TB|||
Comment :
Method : /chem/ecd6a.i/123109.b/ECD6-F-8151A-122909.m
Meth Date : 04-Jan-2010 14:57 tif01533 Quant Type: ESTD
Cal Date : 29-DEC-2009 17:03 Cal File: 007f0701.d
Als bottle: 25 QC Sample: TB
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1085-1.sub
Target Version: 3.50 Sample Matrix: Water
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	0.00100	Correction factor
Vt	10.00000	Volume of final extract (mL)
Vo	5.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (mg/L)	
$ 2 2,4-Dichlorophenylacetic acid					CAS #: 19719-28-9	
9.749	9.749	0.000	89381968	611.258	1.2	(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: /chem/ecd6a.i/123109.b/025f2501.d
Date : 31-DEC-2009 23:51
Client ID: TBLK01
Sample Info: !120200496311!
Volume Injected (uL): 1.0
Column phase: Rtx-CLP

Instrument: ecd6a.i

Operator: RXE1
Column diameter: 0.25

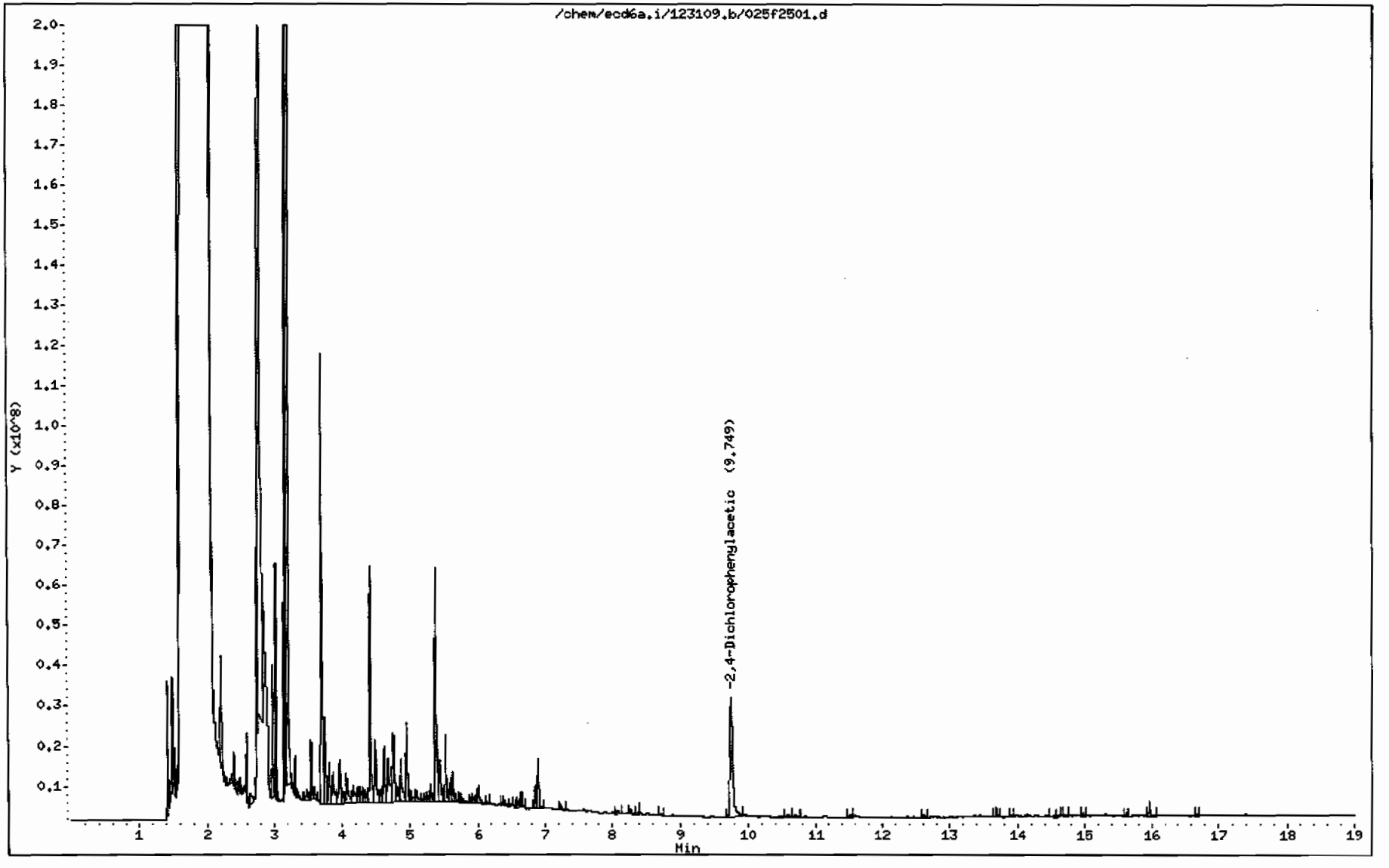

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Column: RtxCLPII 0.25mm x 30 m Inj Vol: 2ul

Data file : /chem/ecd6a.i/123109.b/025b2501.d
Lab Smp Id: 1202004963 Client Smp ID: TBLK01
Inj Date : 31-DEC-2009 23:51
Operator : RXE1 Inst ID: ecd6a.i
Smp Info : |1202004963|1|
Misc Info : |ECDTPH_1L|937384|SVH|TB|SOIL|TB|||
Comment : RtxCLPII
Method : /chem/ecd6a.i/123109.b/ECD6-B-8151A-122909.m
Meth Date : 18-Jan-2010 14:26 jc Quant Type: ESTD
Cal Date : 29-DEC-2009 17:03 Cal File: 007b0701.d
Als bottle: 25 QC Sample: TB
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1085-1.sub
Target Version: 3.50 Sample Matrix: Water
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	0.00100	Correction factor
Vt	10.00000	Volume of final extract (mL)
Vo	5.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (mg/L)
$ 2 2,4-Dichlorophenylacetic acid					CAS #: 19719-28-9
10.797	10.800	-0.003	120189360	571.138	1.1

Data File: /chem/ecd6a.i/123109.b/025b2501.d
Date : 31-DEC-2009 23:51
Client ID: TBLK01
Sample Info: |1202004963|1|
Volume Injected (uL): 1.0
Column phase: Rtx-CLPII

Instrument: ecd6a.i

Operator: RXE1
Column diameter: 0.25

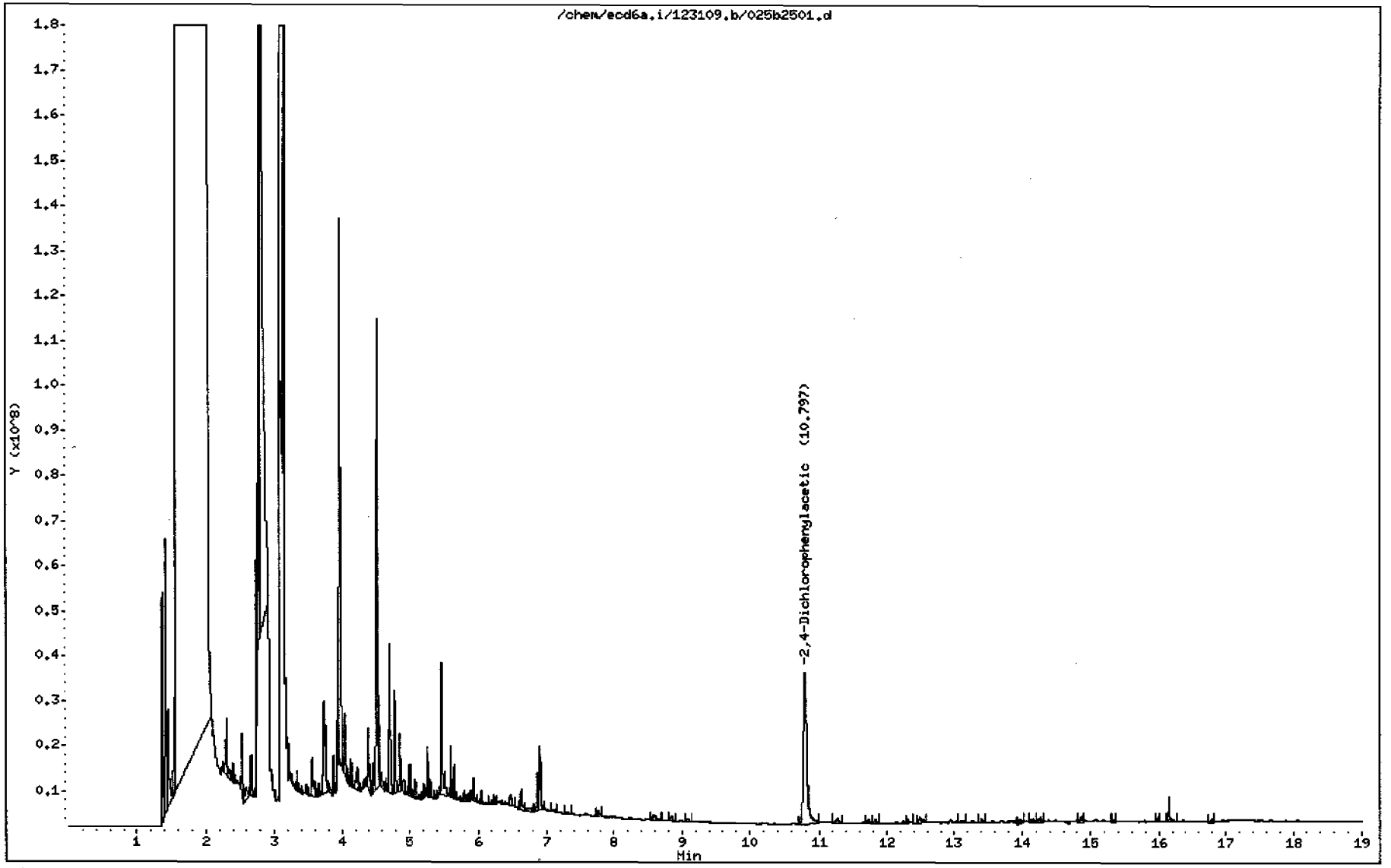

Herbicide
Certificate of Analysis
Sample Summary

SDG Number:	10-1085-1			**Matrix:**	TCLP SOIL
Lab Sample ID:	1202005852				
Client Sample:	QC for batch 937383	**Client:**	LANL010	**Project:**	QC
Client ID:	MB for batch 937383	**Method:**	SW846 8151A	**SOP Ref:**	GL-OA-E-011
Batch ID:	937384	**Inst:**	ECD6A.I	**Dilution:**	1
Run Date:	01/01/2010 00:20	**Analyst:**	RXE1	**Inj. Vol:**	1 uL
Prep Date:	12/30/2009 15:06	**Aliquot:**	1000 mL	**Final Volume:**	10 mL
Data File:	026f2601.d	**Column:**	1 Rtx-CLP	**Level:**	LOW
	026b2601.d		2 Rtx-CLPII		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
94-75-7	2,4-D	U	0.00025	mg/L	0.000083	0.00025	1
93-72-1	2,4,5-TP	U	0.00025	mg/L	0.000083	0.00025	1

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Column: RtxCLP 0.25mm x 30 m Inj Vol: 2 ul

Data file : /chem/ecd6a.i/123109.b/026f2601.d
Lab Smp Id: 1202005852 Client Smp ID: HBLK01
Inj Date : 01-JAN-2010 00:20
Operator : RXE1 Inst ID: ecd6a.i
Smp Info : |1202005852|1|
Misc Info : |ECDTPH_1L|937384|SVH|MB|SOIL|MB|||
Comment :
Method : /chem/ecd6a.i/123109.b/ECD6-F-8151A-122909.m
Meth Date : 04-Jan-2010 14:57 tif01533 Quant Type: ESTD
Cal Date : 29-DEC-2009 17:03 Cal File: 007f0701.d
Als bottle: 26 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1085-1.sub
Target Version: 3.50 Sample Matrix: Water
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	0.00100	Correction factor
Vt	10.00000	Volume of final extract (mL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (mg/L)
$ 2 2,4-Dichlorophenylacetic acid					CAS #: 19719-28-9
9.749	9.749	0.000	82747048	565.884	0.0056

Data File: /chem/ecd6a.i/123109.b/026f2601.d

Date : 01-JAN-2010 00:20

Client ID: HBLK01

Sample Info: |120200585211|

Volume Injected (uL): 1.0

Column phase: Rtx-CLP

Instrument: ecd6a.i

Operator: RXE1

Column diameter: 0.25

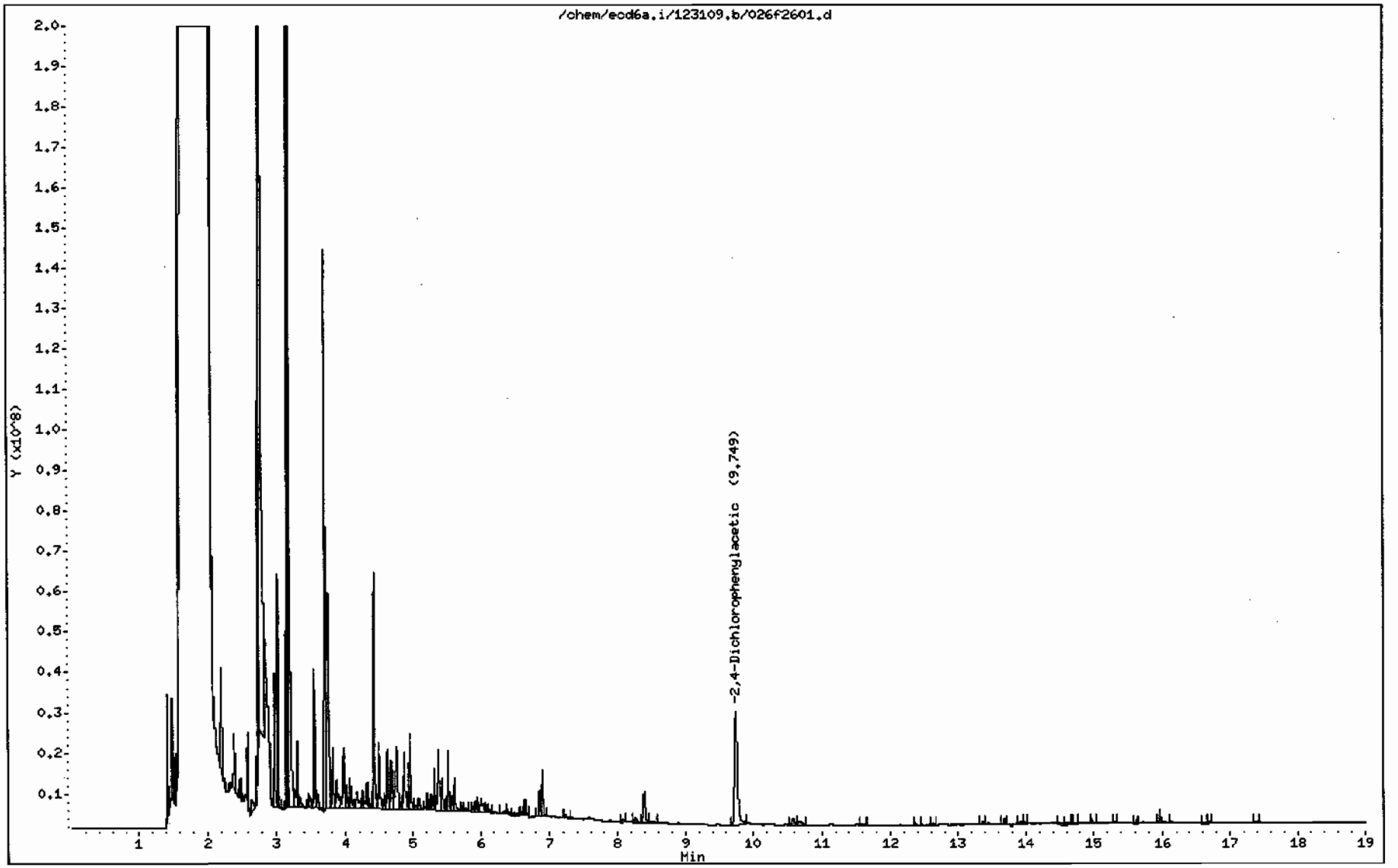

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Column: RtxCLPII 0.25mm x 30 m Inj Vol: 2ul

Data file : /chem/ecd6a.i/123109.b/026b2601.d
Lab Smp Id: 1202005852 Client Smp ID: HBLK01
Inj Date : 01-JAN-2010 00:20
Operator : RXE1 Inst ID: ecd6a.i
Smp Info : |1202005852|1|
Misc Info : |ECDTPH_1L|937384|SVH|MB|SOIL|MB|||
Comment : RtxCLPII
Method : /chem/ecd6a.i/123109.b/ECD6-B-8151A-122909.m
Meth Date : 18-Jan-2010 14:26 jc Quant Type: ESTD
Cal Date : 29-DEC-2009 17:03 Cal File: 007b0701.d
Als bottle: 26 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1085-1.sub
Target Version: 3.50 Sample Matrix: Water
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	0.00100	Correction factor
Vt	10.00000	Volume of final extract (mL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (mg/L)
$ 2 2,4-Dichlorophenylacetic acid					CAS #: 19719-28-9
10.794	10.800	-0.006	111290089	528.849	0.0053

Data File: /chem/ecd6a.i/123109.b/026b2601.d
Date : 01-JAN-2010 00:20
Client ID: HBLK01
Sample Info: |1202005852|1|
Volume Injected (uL): 1.0
Column phase: Rtx-CLPII

Instrument: ecd6a.i

Operator: RXE1
Column diameter: 0.25

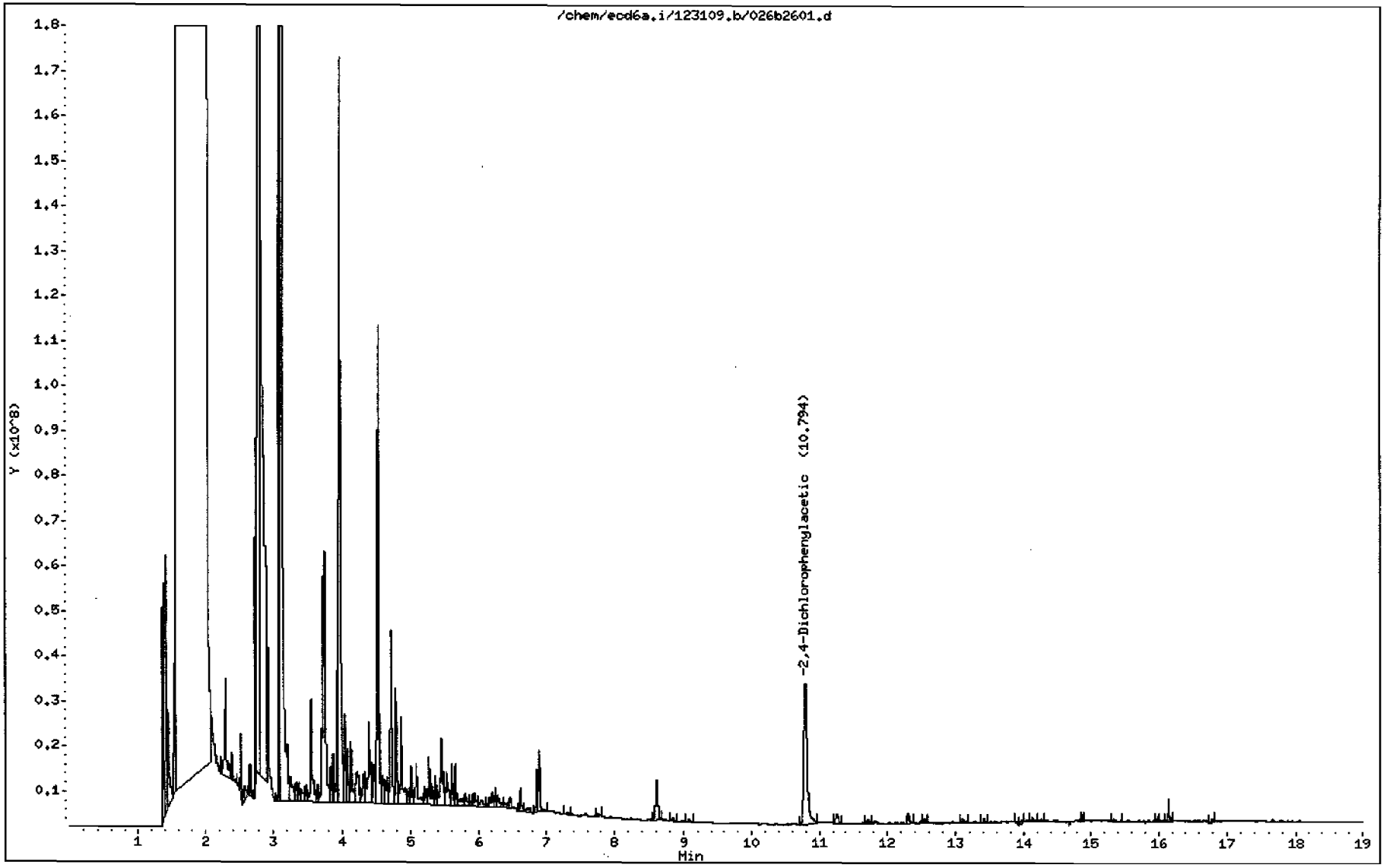

Herbicide
Certificate of Analysis
Sample Summary

SDG Number:	10-1085-1			**Matrix:**	TCLP SOIL
Lab Sample ID:	1202005853				
Client Sample:	QC for batch 937383	**Client:**	LANL010	**Project:**	QC
Client ID:	LCS for batch 937383	**Method:**	SW846 8151A	**SOP Ref:**	GL-OA-E-011
Batch ID:	937384	**Inst:**	ECD6A.I	**Dilution:**	1
Run Date:	01/01/2010 00:48	**Analyst:**	RXE1	**Inj. Vol:**	1 uL
Prep Date:	12/30/2009 15:06	**Aliquot:**	1000 mL	**Final Volume:**	10 mL
Data File:	027f2701.d	**Column:**	1 Rtx-CLP	**Level:**	LOW
	027b2701.d		2 Rtx-CLPII		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
94-75-7	2,4-D		0.00262	mg/L	0.000083	0.00025	1
93-72-1	2,4,5-TP		0.00226	mg/L	0.000083	0.00025	2

GEL Laboratories LLC

Column: RtxCLP 0.25mm x 30 m Inj Vol: 2 ul

Data file : /chem/ecd6a.i/123109.b/027f2701.d
Lab Smp Id: 1202005853 Client Smp ID: HBLK01LCS
Inj Date : 01-JAN-2010 00:48
Operator : RXE1 Inst ID: ecd6a.i
Smp Info : |1202005853|1|
Misc Info : |ECDTPH_1L|937384|SVH|LCS|SOIL|LCS|||
Comment :
Method : /chem/ecd6a.i/123109.b/ECD6-F-8151A-122909.m
Meth Date : 04-Jan-2010 14:57 tif01533 Quant Type: ESTD
Cal Date : 29-DEC-2009 17:03 Cal File: 007f0701.d
Als bottle: 27 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1085-1.sub
Target Version: 3.50 Sample Matrix: Water
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	0.00100	Correction factor
Vt	10.00000	Volume of final extract (mL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	CONCENTRATIONS FINAL (mg/L)	
$ 2 2,4-Dichlorophenylacetic acid					CAS #: 19719-28-9	
9.739	9.749	-0.010	95170596	650.845	0.0065	(R)
7 2,4-D					CAS #: 94-75-7	
12.363	12.372	-0.009	37460521	261.739	0.0026	
8 2,4,5-TP					CAS #: 93-72-1	
13.181	13.185	-0.004	131871486	215.733	0.0022	

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: /chem/ecd6a.i/123109.b/027f2701.d
Date : 01-JAN-2010 00:48
Client ID: HBLK01LCS
Sample Info: |1202005853|1|
Volume Injected (uL): 1.0
Column phase: Rtx-CLP

Instrument: ecd6a.i

Operator: RXE1
Column diameter: 0.25

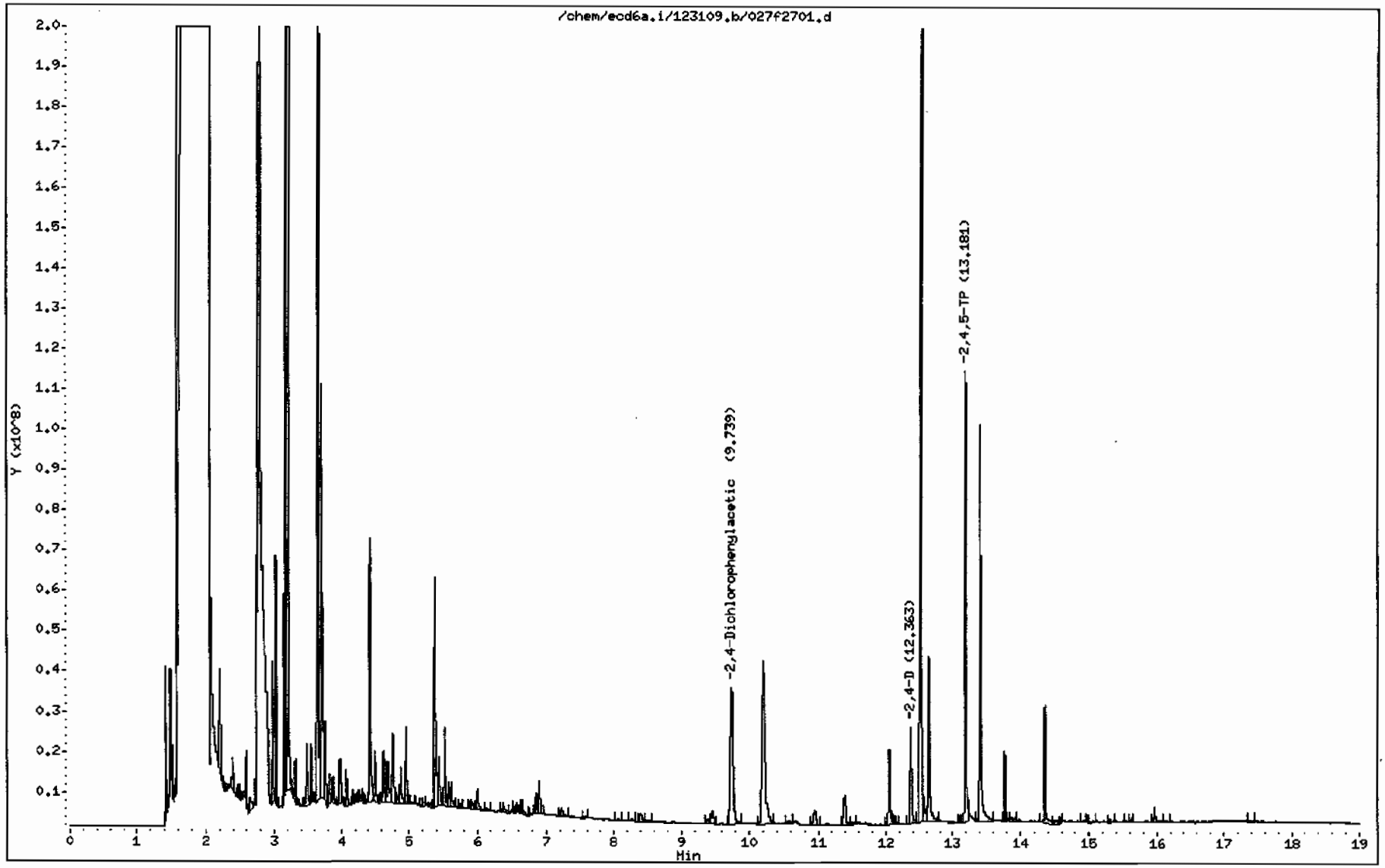

GEL Laboratories LLC

Column: RtxCLPII 0.25mm x 30 m Inj Vol: 2ul

Data file : /chem/ecd6a.i/123109.b/027b2701.d
Lab Smp Id: 1202005853 Client Smp ID: HBLK01LCS
Inj Date : 01-JAN-2010 00:48
Operator : RXE1 Inst ID: ecd6a.i
Smp Info : |1202005853|1|
Misc Info : |ECDTPH_1L|937384|SVH|LCS|SOIL|LCS|||
Comment : RtxCLPII
Method : /chem/ecd6a.i/123109.b/ECD6-B-8151A-122909.m
Meth Date : 18-Jan-2010 14:26 jc Quant Type: ESTD
Cal Date : 29-DEC-2009 17:03 Cal File: 007b0701.d
Als bottle: 27 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1085-1.sub
Target Version: 3.50 Sample Matrix: Water
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	0.00100	Correction factor
Vt	10.00000	Volume of final extract (mL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (mg/L)
$ 2 2,4-Dichlorophenylacetic acid						CAS #: 19719-28-9
	10.786	10.800	-0.014	127607597	606.389	0.0061
7 2,4-D						CAS #: 94-75-7
	12.833	12.840	-0.007	53686962	244.707	0.0024
8 2,4,5-TP						CAS #: 93-72-1
	13.498	13.502	-0.004	203332387	225.863	0.0022

Data File: /chem/ecd6a.i/123109.b/027b2701.d
Date : 01-JAN-2010 00:48
Client ID: HBLK01LCS
Sample Info: |1202005853|1|
Volume Injected (uL): 1.0
Column phase: Rtx-CLPII

Instrument: ecd6a.i

Operator: RXE1
Column diameter: 0.25

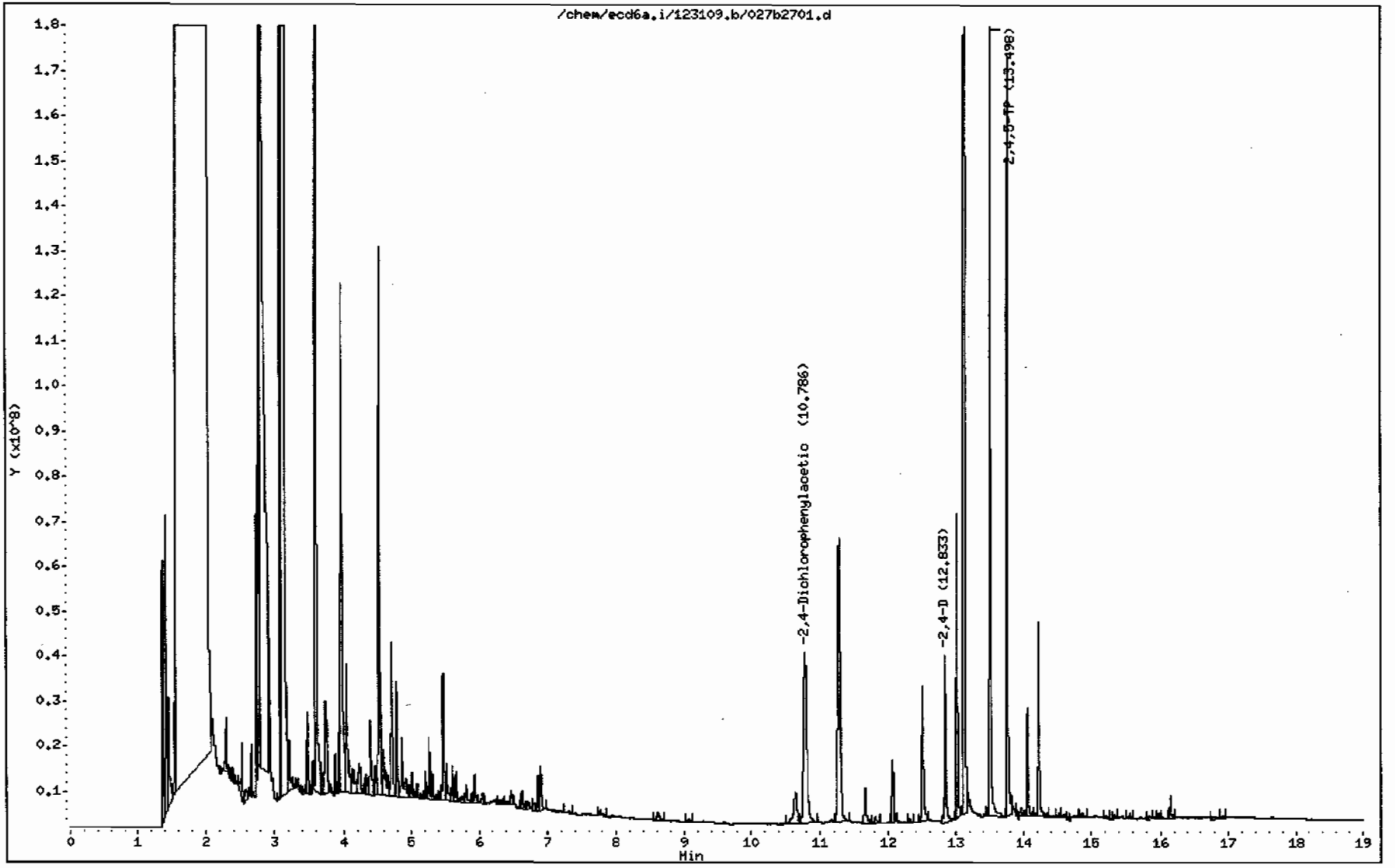

Herbicide
Certificate of Analysis
Sample Summary

SDG Number:	10–1085–1	**Date Collected:**	12/22/2009 12:00	**Matrix:**	TCLP R
Lab Sample ID:	1202005854	**Date Received:**	12/24/2009 09:30		
Client Sample:	QC for batch 937383	**Client:**	LANL010	**Project:**	QC
Client ID:	WST03–10–2148MS	**Method:**	SW846 8151A	**SOP Ref:**	GL–OA–E–011
Batch ID:	937384	**Inst:**	ECD6A.I	**Dilution:**	1
Run Date:	01/01/2010 02:13	**Analyst:**	RXE1	**Inj. Vol:**	1 uL
Prep Date:	12/30/2009 15:06	**Aliquot:**	5 mL	**Final Volume:**	10 mL
Data File:	030f3001.d	**Column:**	1 Rtx–CLP	**Level:**	LOW
	030b3001.d		2 Rtx–CLPII		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
94–75–7	2,4–D		0.529	mg/L	0.0166	0.050	1
93–72–1	2,4,5–TP		0.452	mg/L	0.0166	0.050	1

GEL Laboratories LLC

Column: RtxCLP 0.25mm x 30 m Inj Vol: 2 ul

Data file : /chem/ecd6a.i/123109.b/030f3001.d
Lab Smp Id: 1202005854 Client Smp ID: WST03-10-2148MS
Inj Date : 01-JAN-2010 02:13
Operator : RXE1 Inst ID: ecd6a.i
Smp Info : |1202005854|1|
Misc Info : |ECDTPH_1L|937384|SVH|MS|SOIL|MS|||
Comment :
Method : /chem/ecd6a.i/123109.b/ECD6-F-8151A-122909.m
Meth Date : 04-Jan-2010 14:57 tif01533 Quant Type: ESTD
Cal Date : 29-DEC-2009 17:03 Cal File: 007f0701.d
Als bottle: 30 QC Sample: MS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1085-1.sub
Target Version: 3.50 Sample Matrix: Water
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	0.00100	Correction factor
Vt	10.00000	Volume of final extract (mL)
Vo	5.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (mg/L)	
$ 2 2,4-Dichlorophenylacetic acid					CAS #: 19719-28-9	
9.738	9.749	-0.011	96993862	663.314	1.3	(R)
7 2,4-D					CAS #: 94-75-7	
12.362	12.372	-0.010	37887167	264.720	0.53	(RM)
8 2,4,5-TP					CAS #: 93-72-1	
13.180	13.185	-0.005	138108933	225.937	0.45	

QC Flag Legend

R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Data File: /chem/ecd6a.i/123109.b/030f3001.d
Date : 01-JAN-2010 02:13
Client ID: WST03-10-2148MS
Sample Info: |1202005854|1|
Volume Injected (uL): 1.0
Column phase: Rtx-CLP

Instrument: ecd6a.i

Operator: RXE1
Column diameter: 0.25

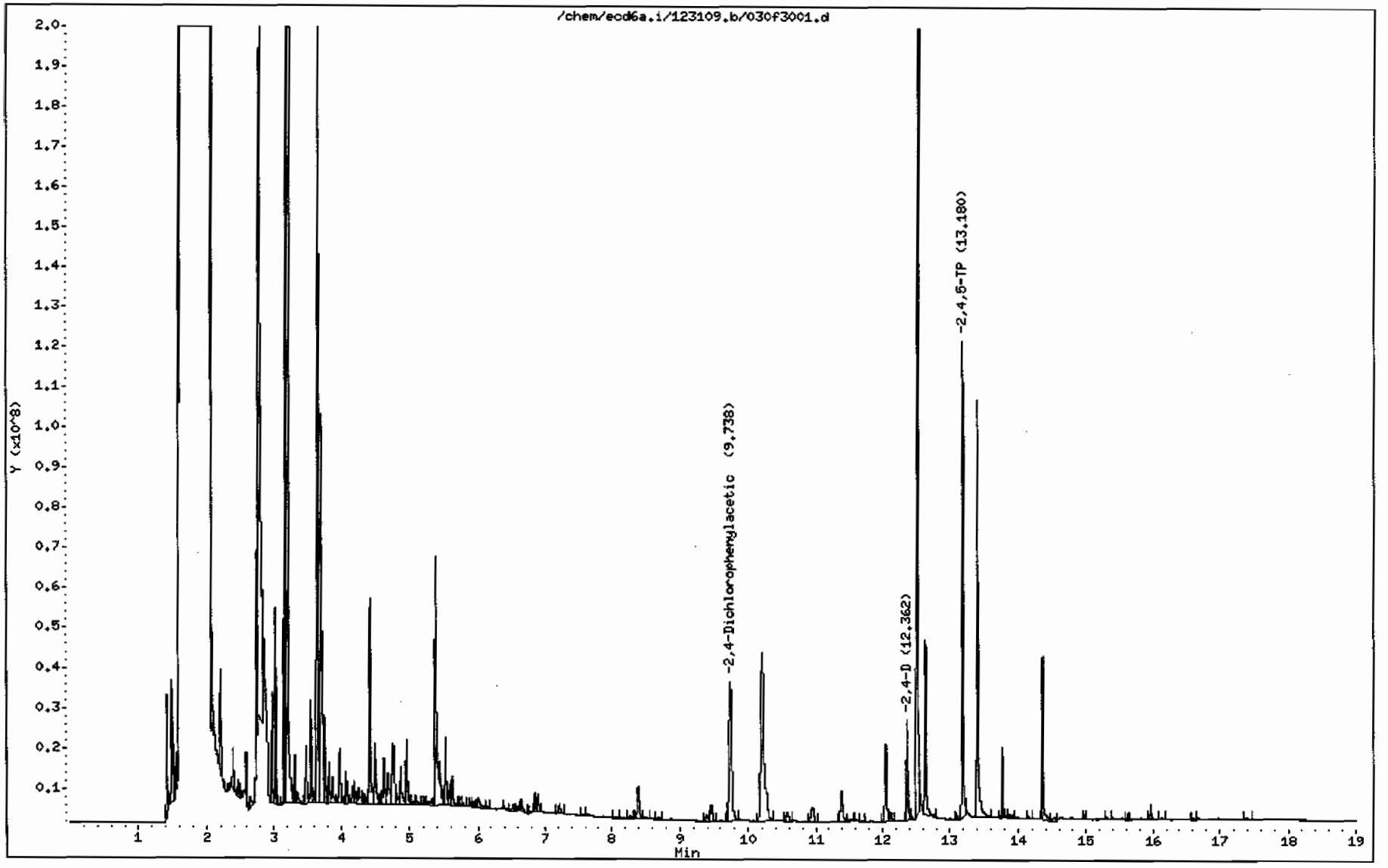

Comment: Manually Integrated
Data File: /chem/ecd6a.i/123109.b/030f3001.d
Operator: RXE1
Injection Date: 01-JAN-2010 02:13
Instrument: ecd6a.i
Client Sample ID: WST03-10-2148MS

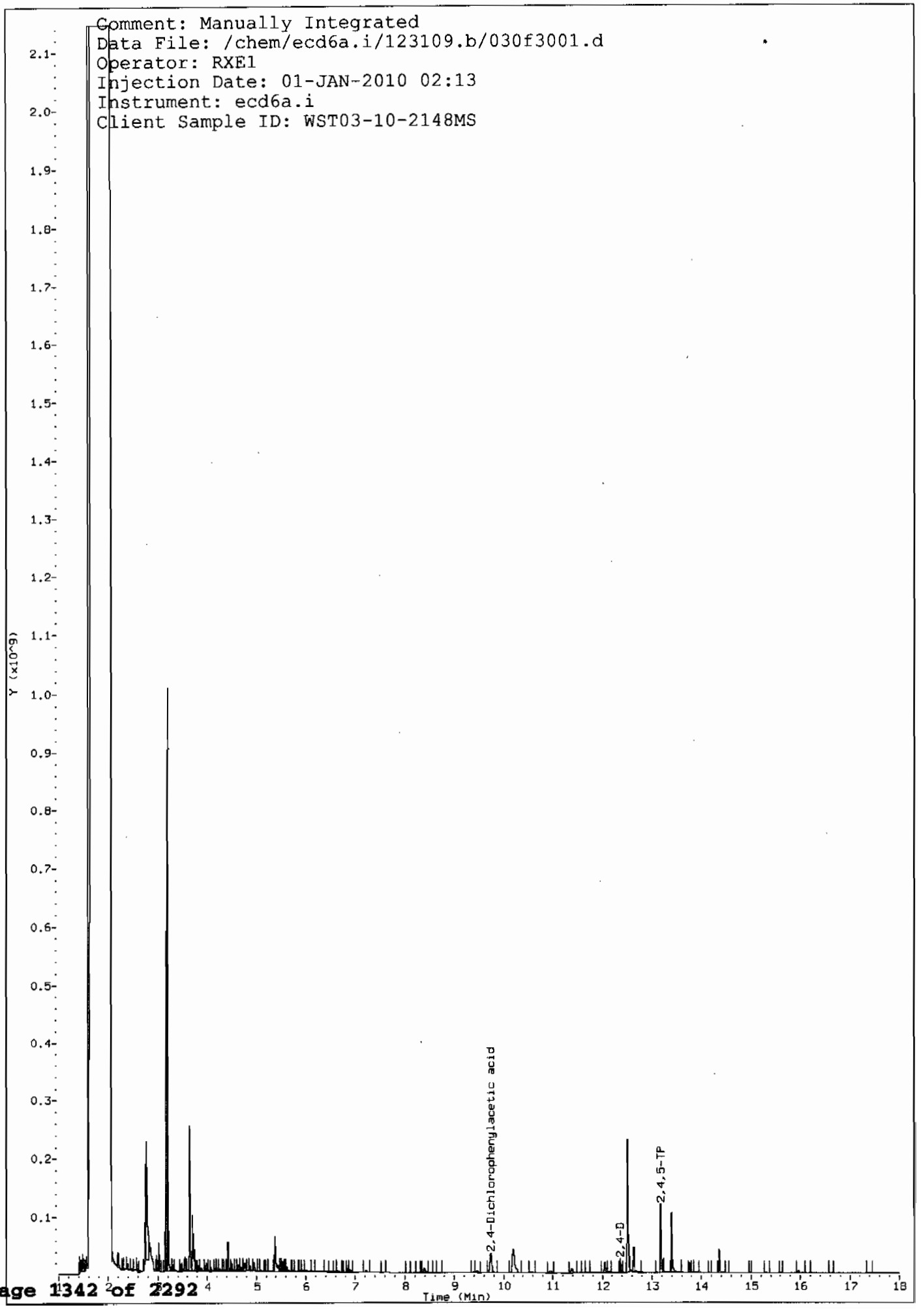

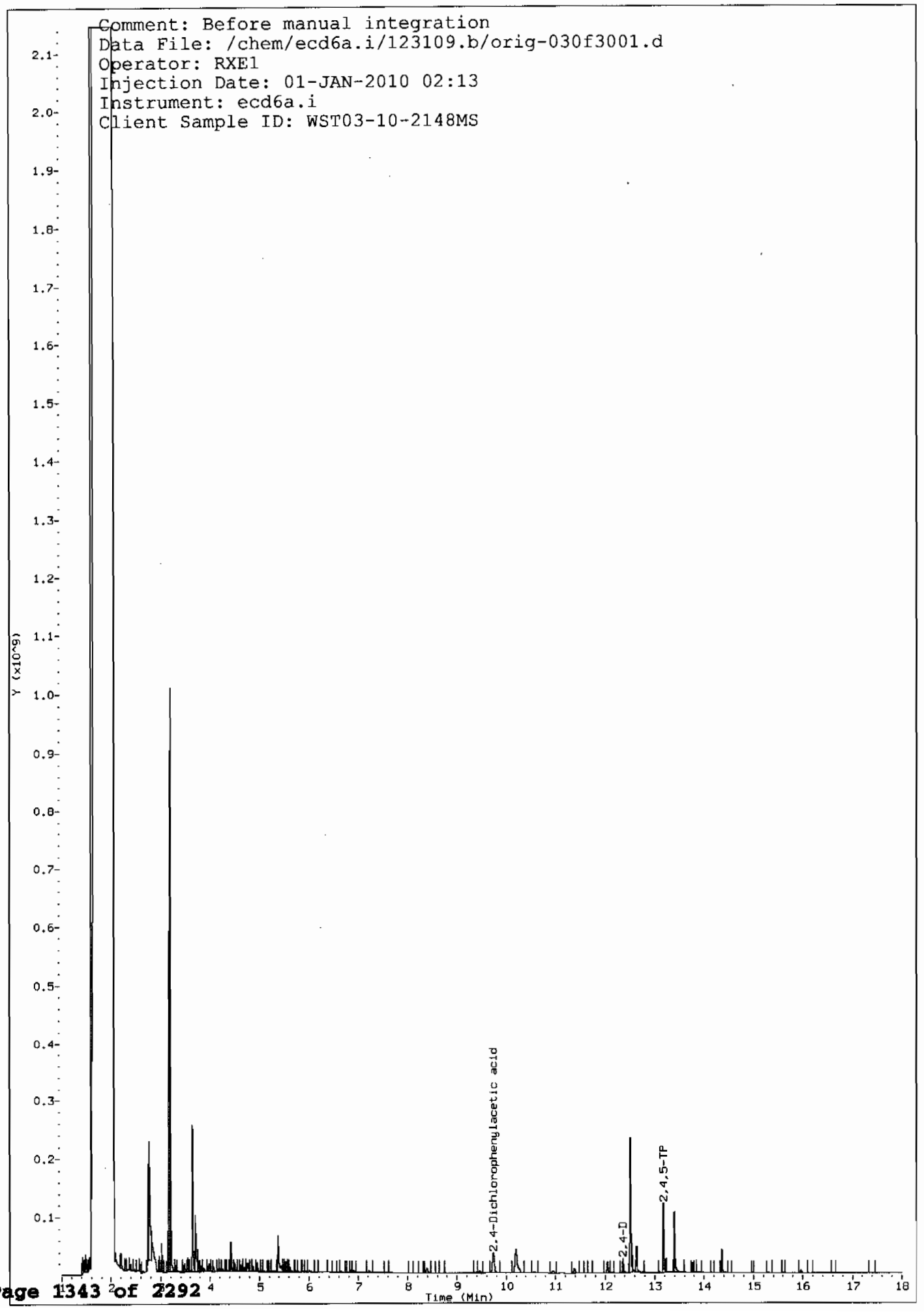
Comment: Before manual integration
Data File: /chem/ecd6a.i/123109.b/orig-030f3001.d
Operator: RXE1
Injection Date: 01-JAN-2010 02:13
Instrument: ecd6a.i
Client Sample ID: WST03-10-2148MS
Y (x10^9)
2.1
2.0
1.9
1.8
1.7
1.6
1.5
1.4
1.3
1.2
1.1
1.0
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
2,4-Dichlorophenylacetic acid
2,4-D
2,4,5-TP
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
Time (Min)

GEL Laboratories LLC

Column: RtxCLPII 0.25mm x 30 m Inj Vol: 2ul

Data file : /chem/ecd6a.i/123109.b/030b3001.d
Lab Smp Id: 1202005854 Client Smp ID: WST03-10-2148MS
Inj Date : 01-JAN-2010 02:13
Operator : RXE1 Inst ID: ecd6a.i
Smp Info : |1202005854|1|
Misc Info : |ECDTPH_1L|937384|SVH|MS|SOIL|MS|||
Comment : RtxCLPII
Method : /chem/ecd6a.i/123109.b/ECD6-B-8151A-122909.m
Meth Date : 18-Jan-2010 14:26 jc Quant Type: ESTD
Cal Date : 29-DEC-2009 17:03 Cal File: 007b0701.d
Als bottle: 30 QC Sample: MS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1085-1.sub
Target Version: 3.50 Sample Matrix: Water
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	0.00100	Correction factor
Vt	10.00000	Volume of final extract (mL)
Vo	5.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (mg/L)	
$ 2 2,4-Dichlorophenylacetic acid					CAS #: 19719-28-9	
10.782	10.800	-0.018	126651356	601.845	1.2	(M)
7 2,4-D					CAS #: 94-75-7	
12.832	12.840	-0.008	52238352	238.104	0.48	(M)
8 2,4,5-TP					CAS #: 93-72-1	
13.496	13.502	-0.006	203995343	226.599	0.45	

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd6a.i/123109.b/030b3001.d
Date : 01-JAN-2010 02:13
Client ID: WST03-10-2148MS
Sample Info: |1202005854|1|
Volume Injected (uL): 1.0
Column phase: Rtx-CLPII

Instrument: ecd6a.i

Operator: RXE1
Column diameter: 0.25

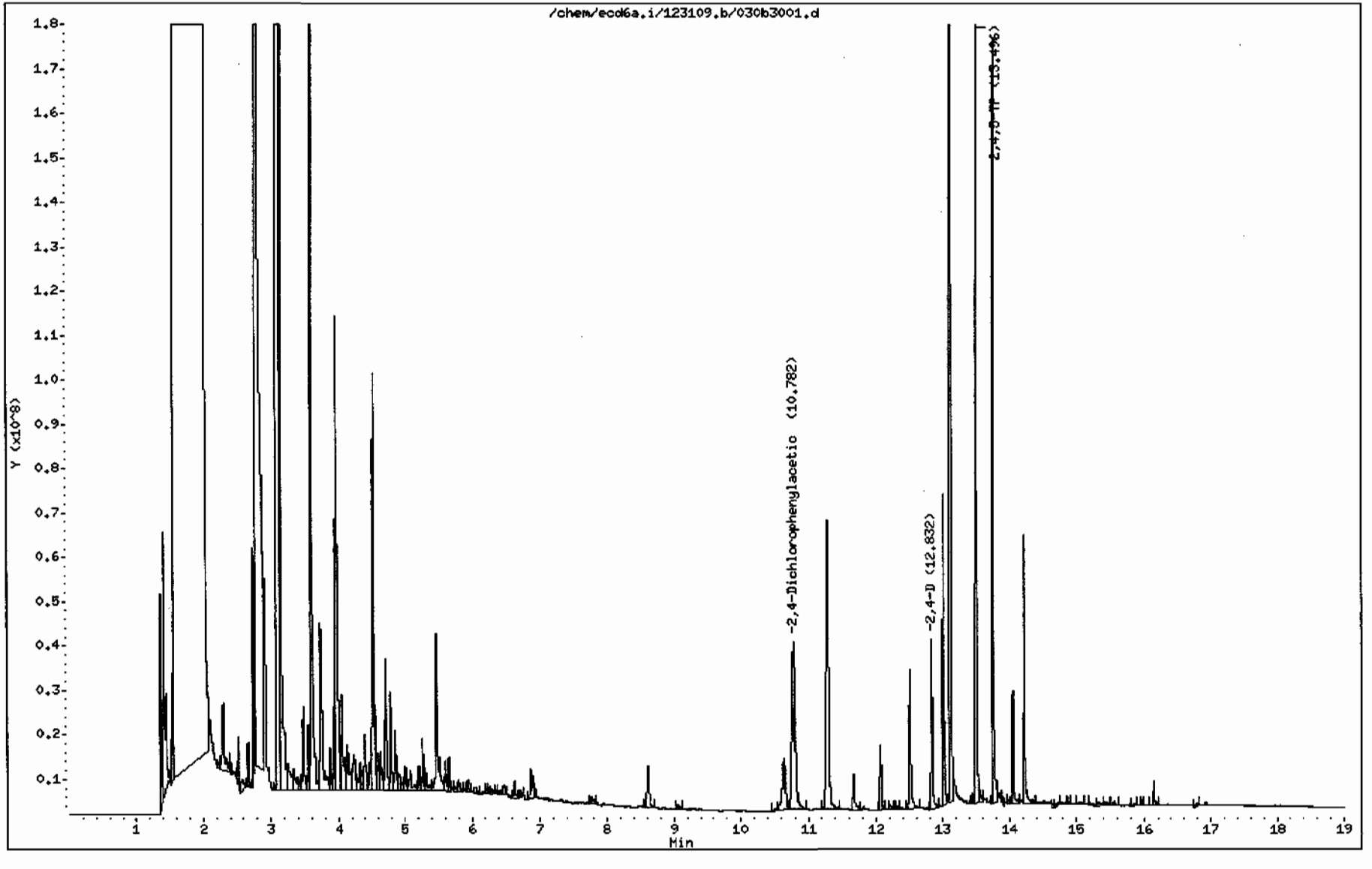

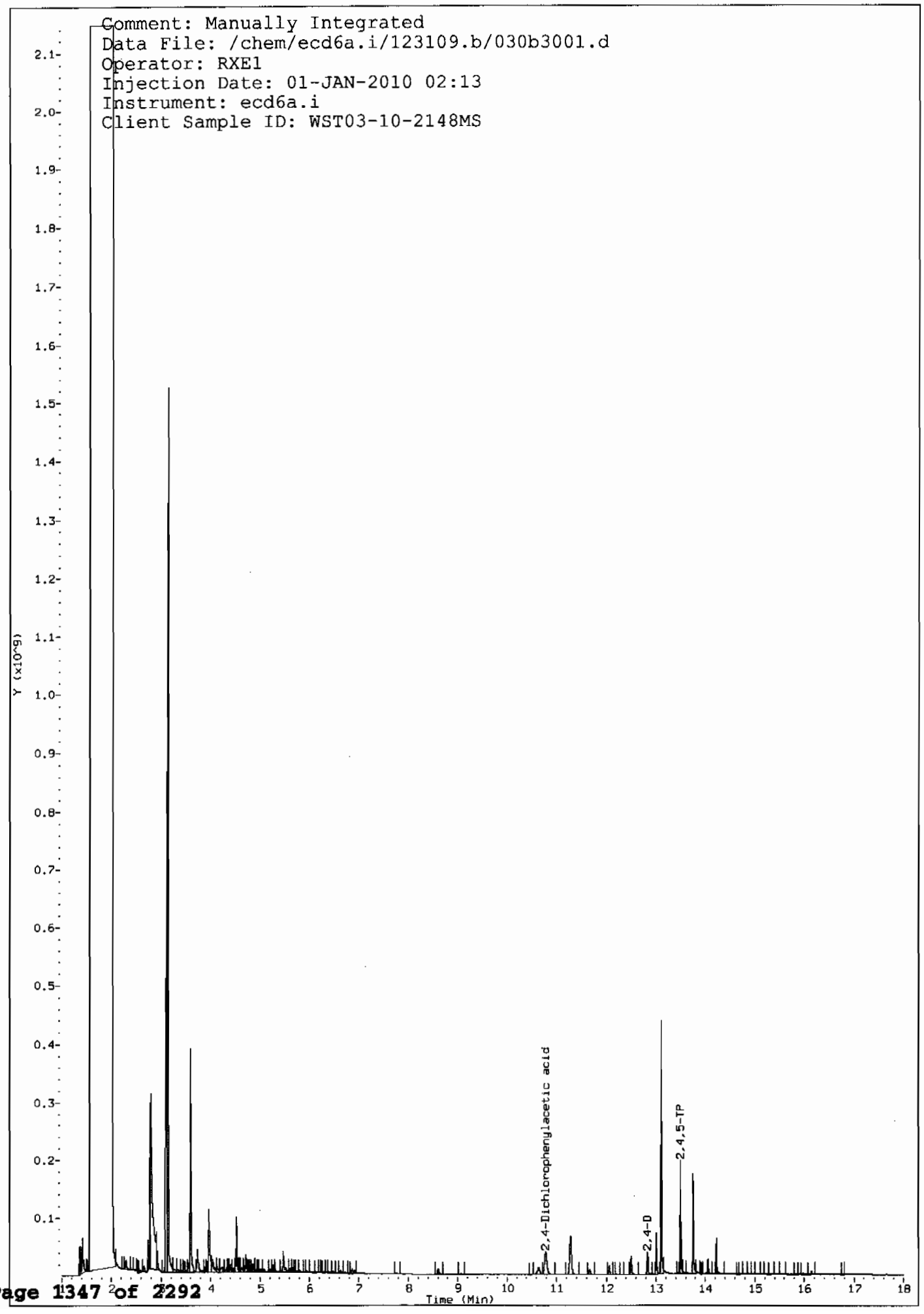
Comment: Manually Integrated
Data File: /chem/ecd6a.i/123109.b/030b3001.d
Operator: RXE1
Injection Date: 01-JAN-2010 02:13
Instrument: ecd6a.i
Client Sample ID: WST03-10-2148MS
Y (x10^-9)
2.1
2.0
1.9
1.8
1.7
1.6
1.5
1.4
1.3
1.2
1.1
1.0
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
2,4-Dichlorophenylacetic acid
2,4-D
2,4,5-TP
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
Time (Min)

Comment: Before manual integration
Data File: /chem/ecd6a.i/123109.b/orig-030b3001.d
Operator: RXE1
Injection Date: 01-JAN-2010 02:13
Instrument: ecd6a.i
Client Sample ID: WST03-10-2148MS

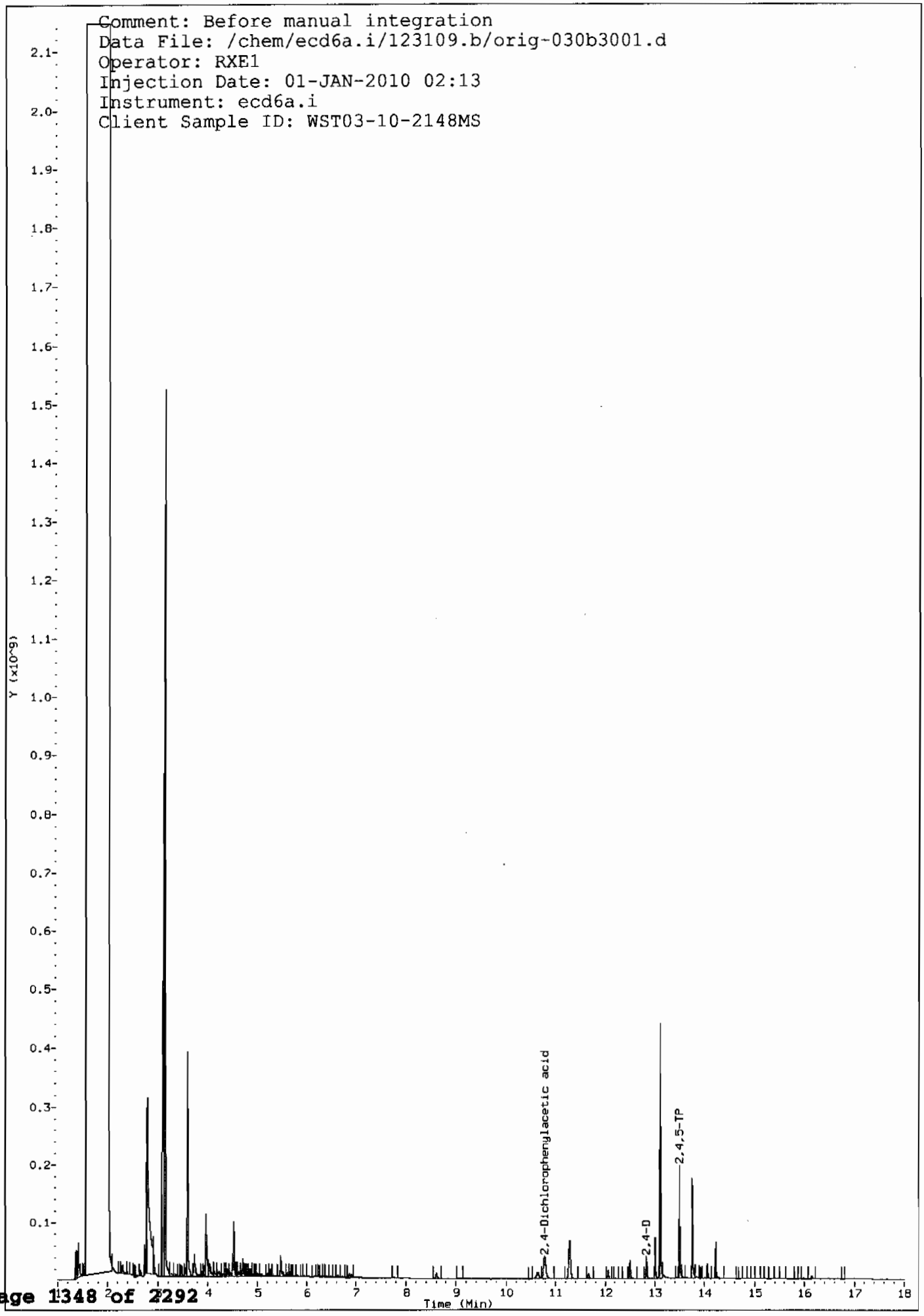

Herbicide
Certificate of Analysis
Sample Summary

SDG Number:	**10–1085–1**	**Date Collected:**	**12/22/2009 12:00**	**Matrix:**	**TCLP R**
Lab Sample ID:	**1202005855**	**Date Received:**	**12/24/2009 09:30**		
Client Sample:	**QC for batch 937383**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**WST03–10–2148MSD**	**Method:**	**SW846 8151A**	**SOP Ref:**	**GL–OA–E–011**
Batch ID:	**937384**	**Inst:**	**ECD6A.I**	**Dilution:**	**1**
Run Date:	**01/01/2010 02:41**	**Analyst:**	**RXE1**	**Inj. Vol:**	**1 uL**
Prep Date:	**12/30/2009 15:06**	**Aliquot:**	**5 mL**	**Final Volume:**	**10 mL**
Data File:	**031f3101.d**	**Column:**	**1 Rtx–CLP**	**Level:**	**LOW**
	031b3101.d		**2 Rtx–CLPII**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
94–75–7	2,4–D		0.484	mg/L	0.0166	0.050	1
93–72–1	2,4,5–TP		0.436	mg/L	0.0166	0.050	1

GEL Laboratories LLC

Column: RtxCLP 0.25mm x 30 m Inj Vol: 2 ul

Data file : /chem/ecd6a.i/123109.b/031f3101.d
Lab Smp Id: 1202005855 Client Smp ID: WST03-10-2148MSD
Inj Date : 01-JAN-2010 02:41
Operator : RXE1 Inst ID: ecd6a.i
Smp Info : |1202005855|1|
Misc Info : |ECDTPH_1L|937384|SVH|MSD|SOIL|MSD|||
Comment :
Method : /chem/ecd6a.i/123109.b/ECD6-F-8151A-122909.m
Meth Date : 04-Jan-2010 14:57 tif01533 Quant Type: ESTD
Cal Date : 29-DEC-2009 17:03 Cal File: 007f0701.d
Als bottle: 31 QC Sample: MSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1085-1.sub
Target Version: 3.50 Sample Matrix: Water
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	0.00100	Correction factor
Vt	10.00000	Volume of final extract (mL)
Vo	5.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (mg/L)	
$ 2 2,4-Dichlorophenylacetic acid						CAS #: 19719-28-9	
	9.741	9.749	-0.008	86525796	591.726	1.2	
7 2,4-D						CAS #: 94-75-7	
	12.364	12.372	-0.008	34657664	242.156	0.48	(M)
8 2,4,5-TP						CAS #: 93-72-1	
	13.182	13.185	-0.003	133326864	218.114	0.44	(M)

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd6a.i/123109.b/031f3101.d
Date : 01-JAN-2010 02:41
Client ID: WST03-10-2148MSD
Sample Info: |1202005855|1|
Volume Injected (uL): 1.0
Column phase: Rtx-CLP

Instrument: ecd6a.i

Operator: RXE1
Column diameter: 0.25

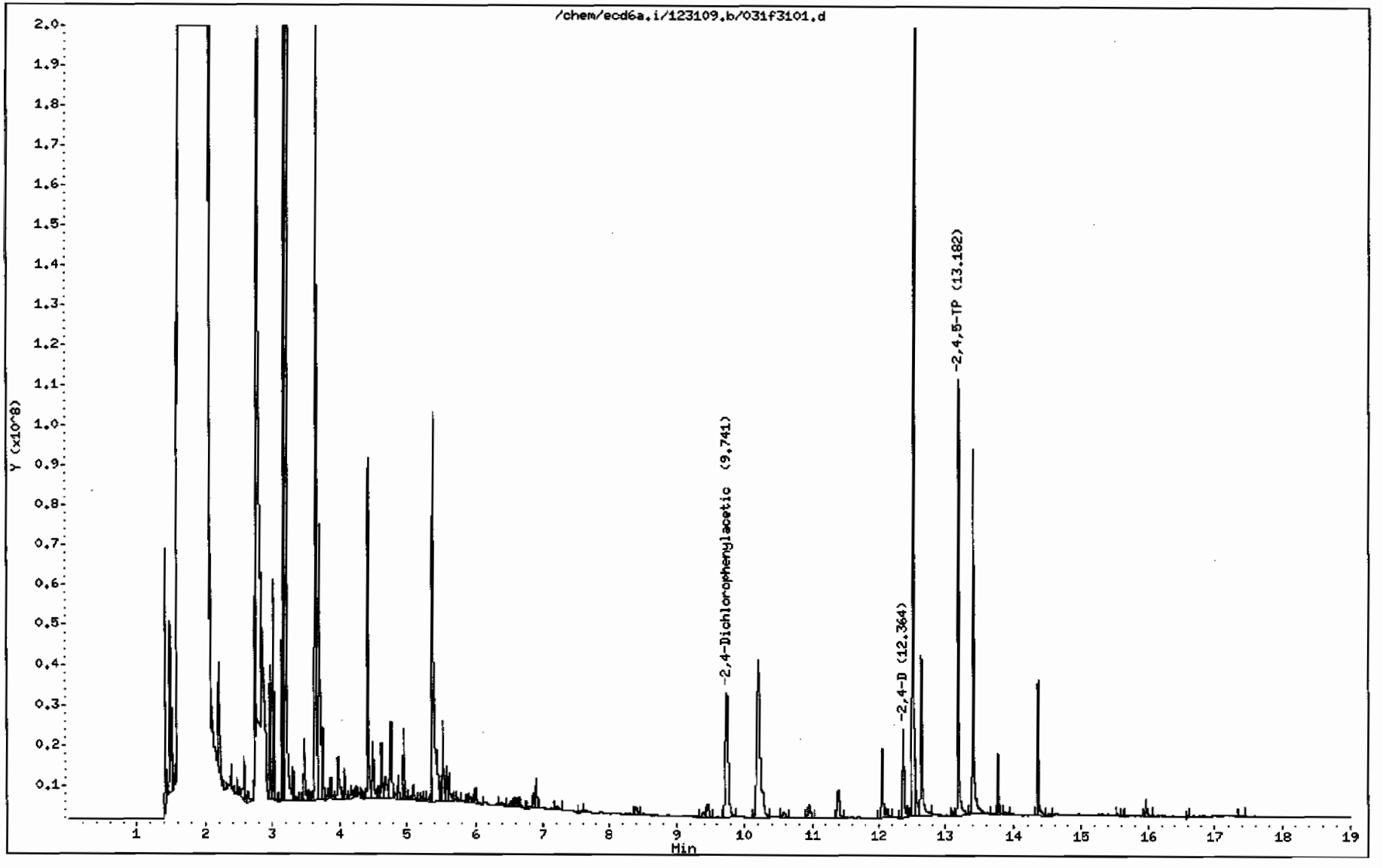

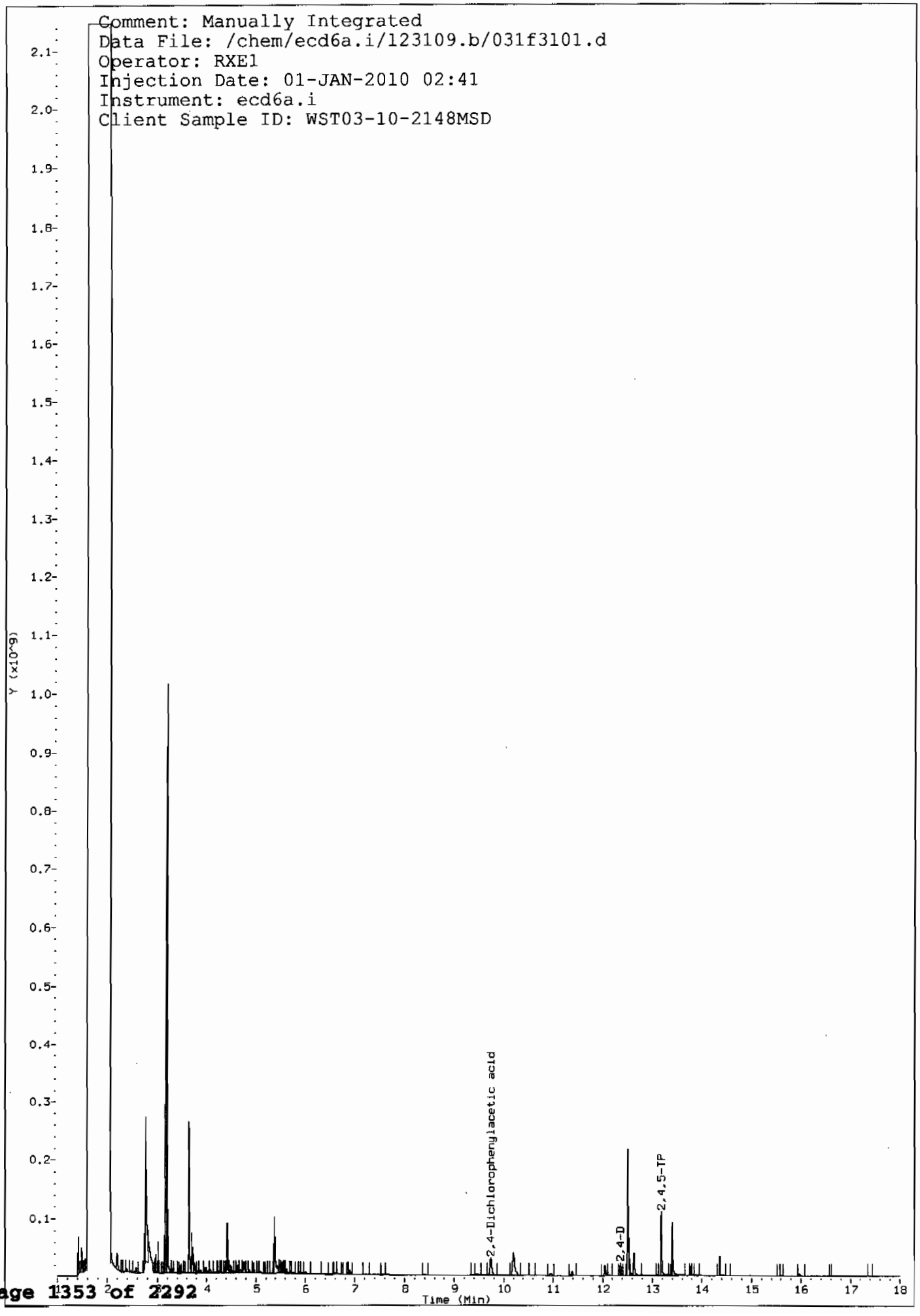
Comment: Manually Integrated
Data File: /chem/ecd6a.i/123109.b/031f3101.d
Operator: RXE1
Injection Date: 01-JAN-2010 02:41
Instrument: ecd6a.i
Client Sample ID: WST03-10-2148MSD
Y (x10^9)
2.1
2.0
1.9
1.8
1.7
1.6
1.5
1.4
1.3
1.2
1.1
1.0
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
2,4-Dichlorophenylacetic acid
2,4-D
2,4,5-TP
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
Time (Min)

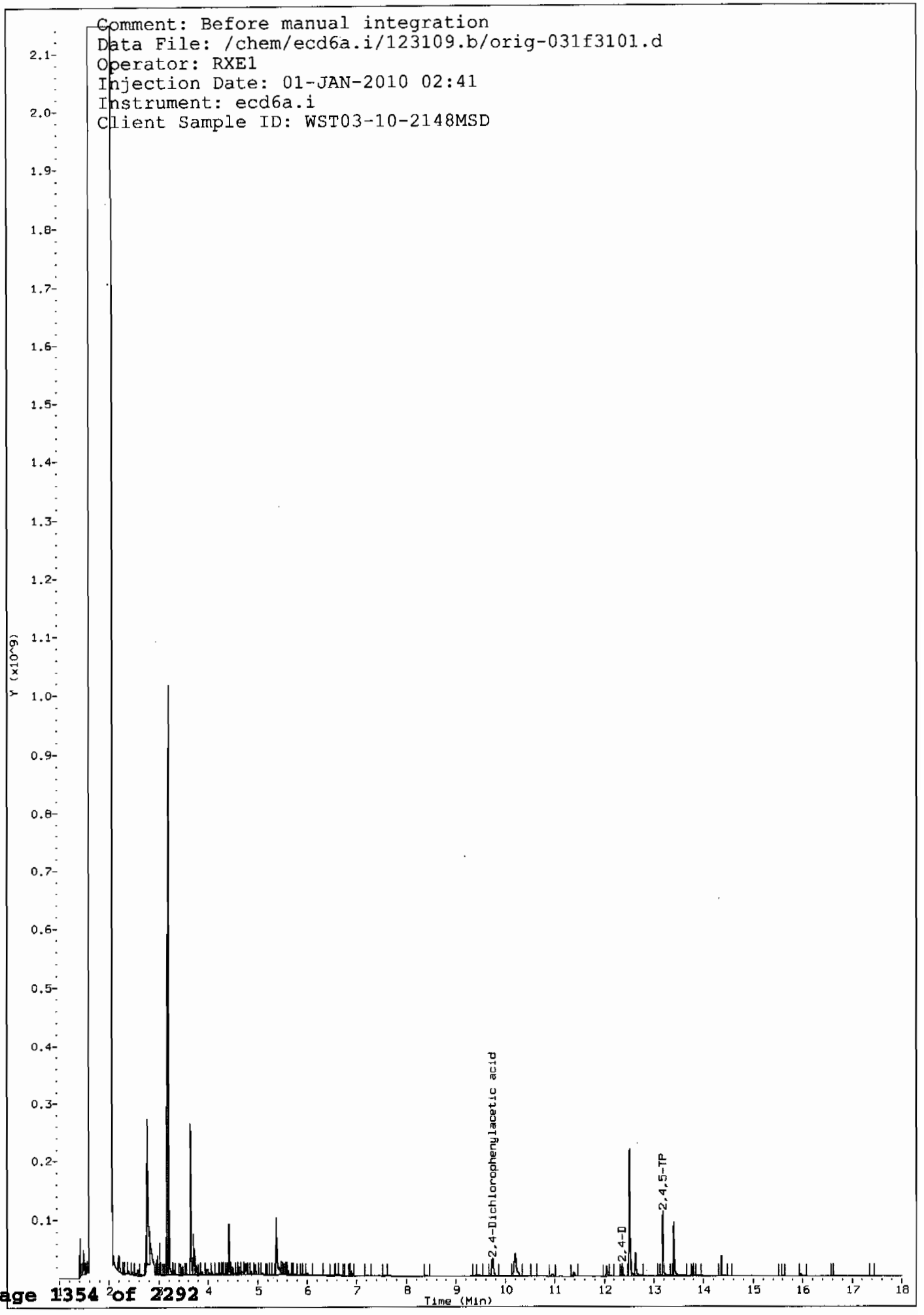
Comment: Before manual integration
Data File: /chem/ecd6a.i/123109.b/orig-031f3101.d
Operator: RXE1
Injection Date: 01-JAN-2010 02:41
Instrument: ecd6a.i
Client Sample ID: WST03-10-2148MSD
Y (x10^9)
2.1
2.0
1.9
1.8
1.7
1.6
1.5
1.4
1.3
1.2
1.1
1.0
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
2,4-Dichlorophenylacetic acid
2,4-D
2,4,5-TP
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
Time (Min)

GEL Laboratories LLC

Column: RtxCLPII 0.25mm x 30 m Inj Vol: 2ul

Data file : /chem/ecd6a.i/123109.b/031b3101.d
Lab Smp Id: 1202005855 Client Smp ID: WST03-10-2148MSD
Inj Date : 01-JAN-2010 02:41
Operator : RXE1 Inst ID: ecd6a.i
Smp Info : |1202005855|1|
Misc Info : |ECDTPH_1L|937384|SVH|MSD|SOIL|MSD|||
Comment : RtxCLPII
Method : /chem/ecd6a.i/123109.b/ECD6-B-8151A-122909.m
Meth Date : 18-Jan-2010 14:26 jc Quant Type: ESTD
Cal Date : 29-DEC-2009 17:03 Cal File: 007b0701.d
Als bottle: 31 QC Sample: MSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1085-1.sub
Target Version: 3.50 Sample Matrix: Water
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	0.00100	Correction factor
Vt	10.00000	Volume of final extract (mL)
Vo	5.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (mg/L)	
$ 2 2,4-Dichlorophenylacetic acid					CAS #: 19719-28-9	
10.785	10.800	-0.015	112320930	533.747	1.1	(M)
7 2,4-D					CAS #: 94-75-7	
12.833	12.840	-0.007	46580462	212.316	0.42	(M)
8 2,4,5-TP					CAS #: 93-72-1	
13.498	13.502	-0.004	183811676	204.179	0.41	

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd6a.i/123109.b/031b3101.d
Date : 01-JAN-2010 02:41
Client ID: WST03-10-2148MSD
Sample Info: |1202005855|1|
Volume Injected (uL): 1.0
Column phase: Rtx-CLPII

Instrument: ecd6a.i

Operator: RXE1
Column diameter: 0.25

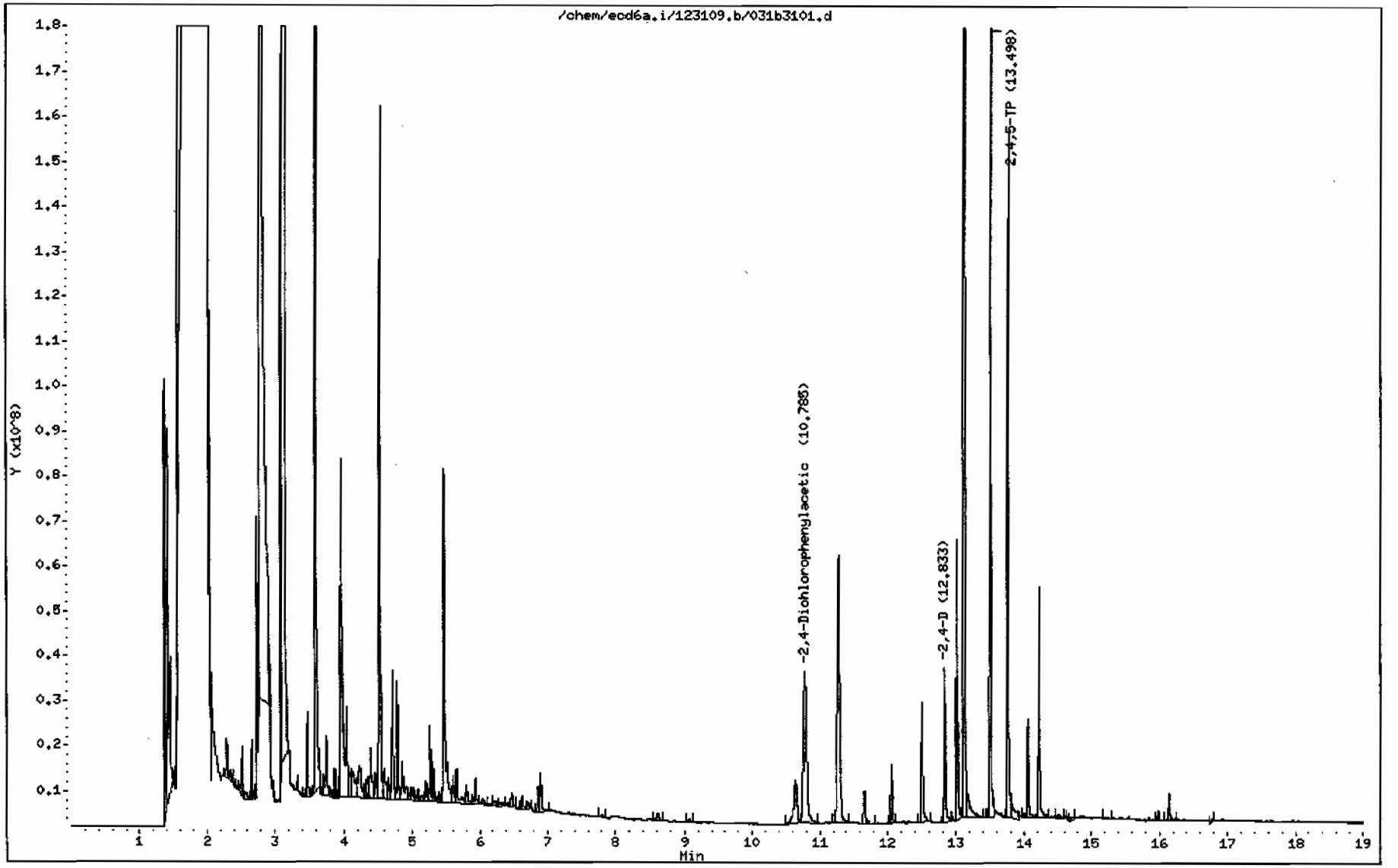

Comment: Manually Integrated
Data File: /chem/ecd6a.i/123109.b/031b3101.d
Operator: RXE1
Injection Date: 01-JAN-2010 02:41
Instrument: ecd6a.i
Client Sample ID: WST03-10-2148MSD

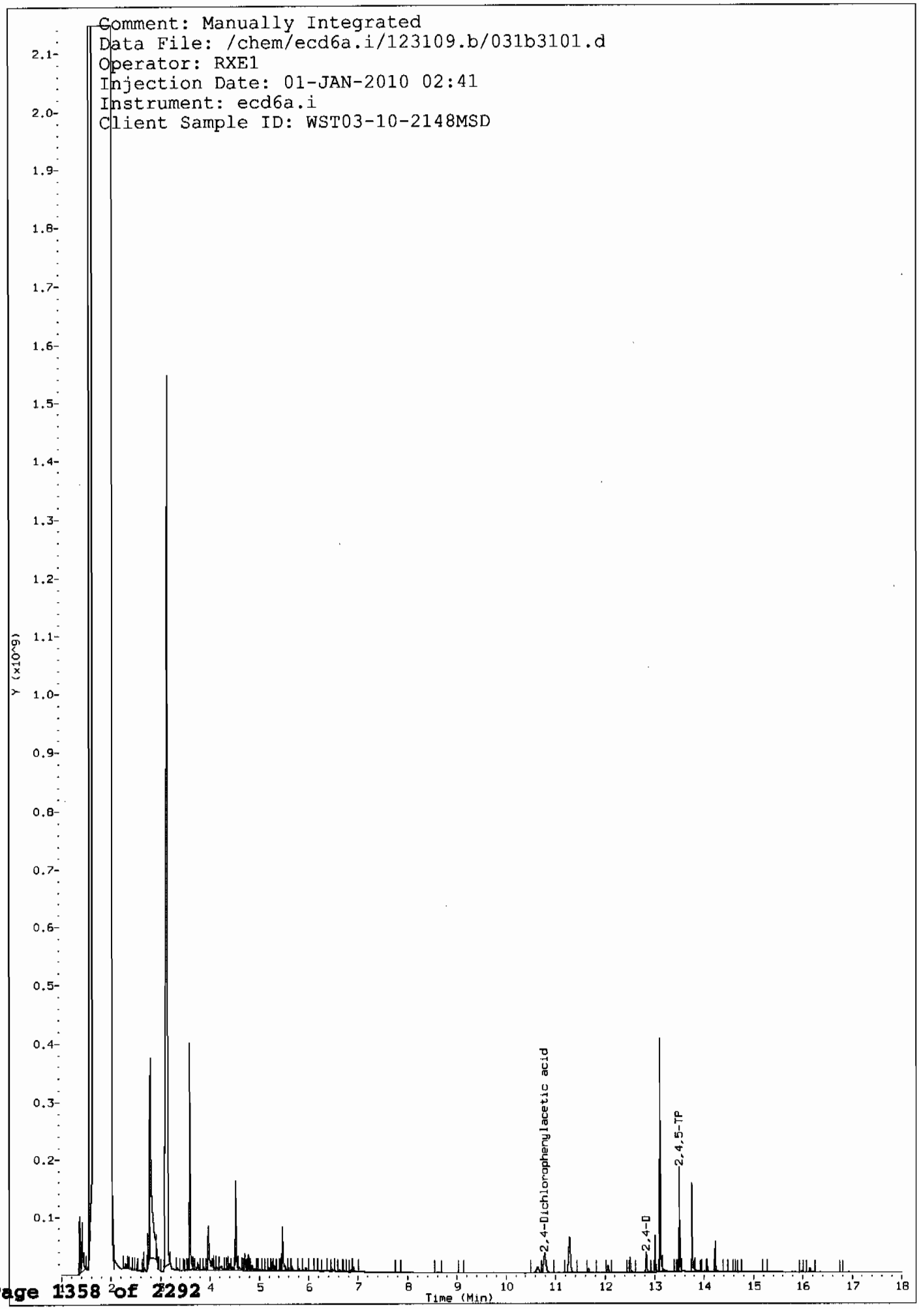

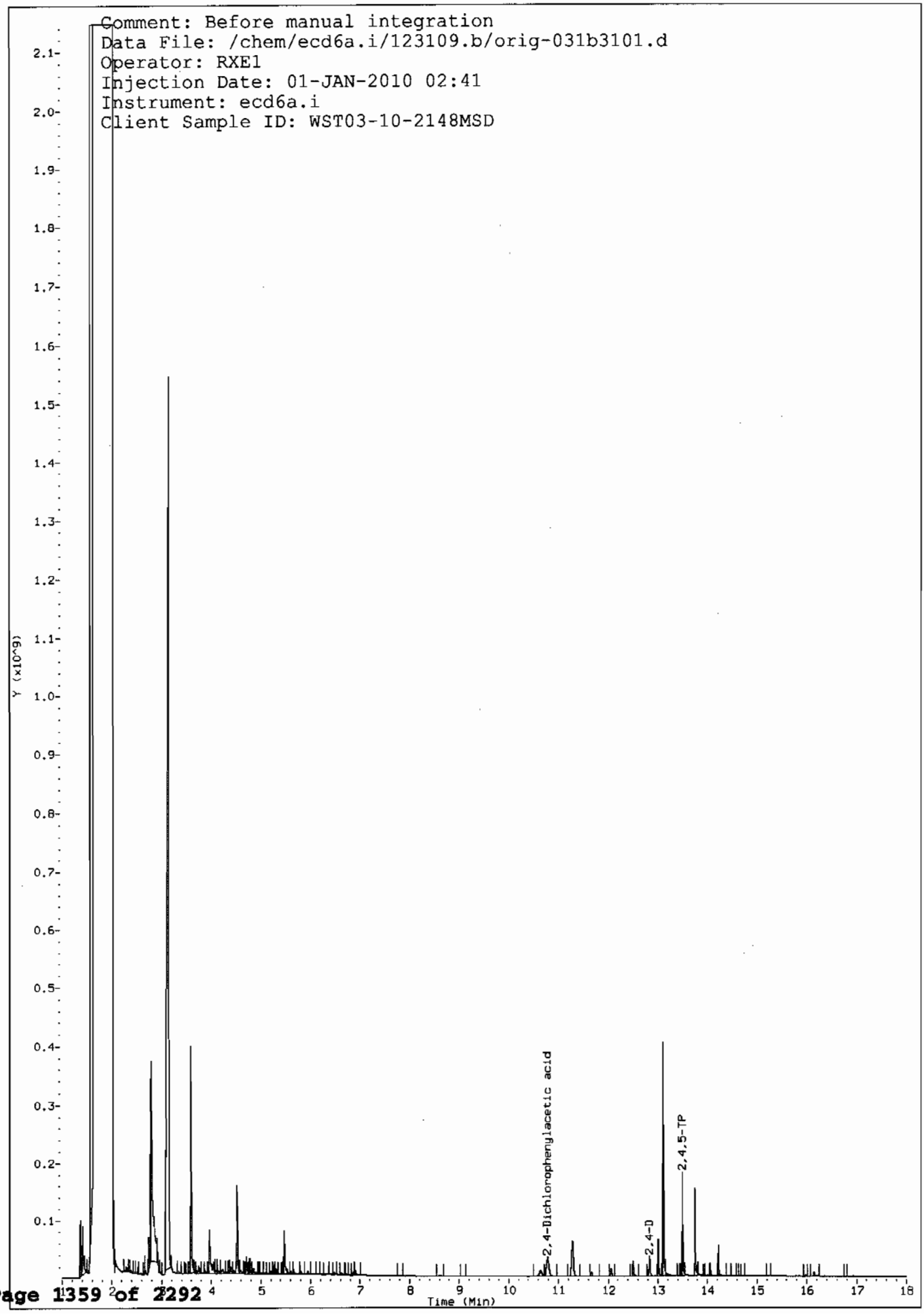
Comment: Before manual integration
Data File: /chem/ecd6a.i/123109.b/orig-031b3101.d
Operator: RXE1
Injection Date: 01-JAN-2010 02:41
Instrument: ecd6a.i
Client Sample ID: WST03-10-2148MSD
Y (x10^9)
Time (Min)
2,4-Dichlorophenylacetic acid
2,4-D
2,4,5-TP

MISCELLANEOUS DATA

GEL ORGANIC RUN LOG INSTRUMENT ID: ECD6

DATE: 12/30/2009 METHOD: ECD6-F-8151A-122909.m OPERATOR:RXE1 REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT CZ454

Calibration & QC Information
Initial Calibration Dates: See Calibration History and Standards Log
Initial Calibration Std ID's: See Calibration History and Standards Log
GEL SOP GL-OA-E-011 Analysis of Chlorophenoxy Herbicides by ECD
EPA Method: 8151A Chlorinated Herbicides by GC Using Derivation
Sequence Number:122909 Injection Volume: 1.0 uL

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001f0101.d	WHB091117-02	RXE1	29-DEC-2009 14:13		122909	1.0	INSTBLK	CLEAN
002f0201.d	WHB091030-01	RXE1	29-DEC-2009 14:41		122909	1.0	HSTD01	ICAL LVL 1
003f0301.d	WHB091030-02	RXE1	29-DEC-2009 15:10		122909	1.0	HSTD02	ICAL LVL 2
004f0401.d	WHB091030-03	RXE1	29-DEC-2009 15:38		122909	1.0	HSTD03	ICAL LVL 3
005f0501.d	WHB091030-04	RXE1	29-DEC-2009 16:07		122909	1.0	HSTD04	ICAL LVL 4
006f0601.d	WHB091030-05	RXE1	29-DEC-2009 16:35		122909	1.0	HSTD05	ICAL LVL 5
007f0701.d	WHB091030-06	RXE1	29-DEC-2009 17:03		122909	1.0	HSTD06	ICAL LVL 6
008f0801.d	WHB091030-07	RXE1	29-DEC-2009 17:31		122909	1.0	HSTD07	ICAL LVL 7
009f0901.d	WHB091222-08	RXE1	29-DEC-2009 18:00		122909	1.0	HSTD01	USE. ICV. ALL ANALYTES PASSING BOTH COLUMNS.
010f1001.d	WHB091117-02	RXE1	29-DEC-2009 18:28		122909	1.0	INSTBLK	CLEAN
011f1101.d	1202004510	RXE1	29-DEC-2009 18:56	936848	10-1049	1.0	MB	DUSE - FAILING LCS.
012f1201.d	1202004511	RXE1	29-DEC-2009 19:24	936848	10-1049	1.0	LCS	DUSE - FAILING LCS.
013f1301.d	243458005	RXE1	29-DEC-2009 19:52	936848	10-1044	1.0	LANL	DUSE - FAILING LCS.
014f1401.d	243460005	RXE1	29-DEC-2009 20:21	936848	10-1049	1.0	LANL	DUSE - FAILING LCS.
015f1501.d	1202004512	RXE1	29-DEC-2009 20:49	936848	10-1049	1.0	MS	DUSE - FAILING LCS.

Instrument Batch: /chem/ecd6a.i/122909.b Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
016f1601.d	1202004513	RXE1	29-DEC-2009 21:17	936848	10-1049	1.0	MSD	DUSE - FAILING LCS.
017f1701.d	243467004	RXE1	29-DEC-2009 21:45	936848	10-1055	1.0	LANL	DUSE - FAILING LCS.

018f1801.d	243469004	RXE1	29-DEC-2009 22:13	936848	10-1052	1.0	LANL	DUSE - FAILING LCS.
019f1901.d	WHB091222-08	RXE1	29-DEC-2009 22:42		122909	1.0	HSTD02	USE. CCV. ALL ANALYTES PASSING BOTH COLUMNS.
020f2001.d	WHB091117-02	RXE1	29-DEC-2009 23:10		122909	1.0	INSTBLK	CLEAN
021f2101.d	1202005238	RXE1	29-DEC-2009 23:38	937099	10-1085	1.0	MB	USE. PASSING BOTH COLUMNS, UPLOAD HIGHER RESULT.
022f2201.d	1202005239	RXE1	30-DEC-2009 00:06	937099	10-1085	1.0	LCS	USE. PASSING BOTH COLUMNS, UPLOAD HIGHER RESULT.
023f2301.d	243393002	RXE1	30-DEC-2009 00:35	937099	10-1005	1.0	LANL	USE. PASSING BOTH COLUMNS, UPLOAD HIGHER RESULT.
024f2401.d	243421001	RXE1	30-DEC-2009 01:03	937099	10-1005-1	1.0	LANL	USE. PASSING BOTH COLUMNS, UPLOAD HIGHER RESULT.
025f2501.d	243547002	RXE1	30-DEC-2009 01:31	937099	10-1084	1.0	LANL	USE. PASSING BOTH COLUMNS, UPLOAD HIGHER RESULT.
026f2601.d	243547003	RXE1	30-DEC-2009 01:59	937099	10-1084	1.0	LANL	USE. PASSING BOTH COLUMNS, UPLOAD HIGHER RESULT.
027f2701.d	243549002	RXE1	30-DEC-2009 02:27	937099	10-1085	1.0	LANL	USE. PASSING BOTH COLUMNS, UPLOAD HIGHER RESULT.
028f2801.d	1202005240	RXE1	30-DEC-2009 02:55	937099	10-1085	1.0	MS	USE. PASSING BOTH COLUMNS, UPLOAD HIGHER RESULT.
029f2901.d	1202005241	RXE1	30-DEC-2009 03:23	937099	10-1085	1.0	MSD	USE. PASSING BOTH COLUMNS, UPLOAD HIGHER RESULT.
030f3001.d	WHB091222-08	RXE1	30-DEC-2009 03:51		122909	1.0	HSTD03	USE. CCV. ALL ANALYTES PASSING BOTH COLUMNS.
031f3101.d	WHB091117-02	RXE1	30-DEC-2009 04:19		122909	1.0	INSTBLK	CLEAN
032f3201.d	1202002504	RXE1	30-DEC-2009 04:47	935871	10-972	1.0	MB	USE. PASSING BOTH COLUMNS, UPLOAD HIGHER RESULT.
033f3301.d	1202002506	RXE1	30-DEC-2009 05:14	935871	10-972	1.0	LCS	USE. PASSING BOTH COLUMNS, UPLOAD HIGHER RESULT.
034f3401.d	1202002507	RXE1	30-DEC-2009 05:42	935871	10-972	1.0	LCSD	USE. PASSING BOTH COLUMNS, UPLOAD HIGHER RESULT.
035f3501.d	243254012	RXE1	30-DEC-2009 06:11	935871	10-972	1.0	LANL	USE. $ LOW, CONFIRMED BY MS.

Instrument Batch: /chem/ecd6a.i/122909.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
036f3601.d	1202002505	RXE1	30-DEC-2009 06:38	935871	10-972	1.0	MS	USE. $/SPIKES LOW, NO SAMPLE LEFT FOR MSD CONFIRMATION.
037f3701.d	243381004	RXE1	30-DEC-2009 07:06	935871	243381	1.0	BJCO	USE. PASSING BOTH COLUMNS, UPLOAD HIGHER RESULT.
038f3801.d	WHB091222-08	RXE1	30-DEC-2009 07:35		122909	1.0	HSTD04	USE. CCV. ALL ANALYTES PASSING BOTH COLUMNS.
039f3901.d	WHB091117-02	RXE1	30-DEC-2009 08:03		122909	1.0	INSTBLK	CLEAN
040f4001.d	1202001156	RXE1	30-DEC-2009 08:31	936607	243278	1.0	TB	USE. PASSING BOTH COLUMNS, UPLOAD HIGHER RESULT.
041f4101.d	1202001935	RXE1	30-DEC-2009 08:59	936607	243262	1.0	TB	USE. PASSING BOTH COLUMNS, UPLOAD HIGHER RESULT.

042f4201.d	1202002929	RXE1	30-DEC-2009 09:27	936607	243262	1.0	TB	USE. PASSING BOTH COLUMNS, UPLOAD HIGHER RESULT.
043f4301.d	1202003586	RXE1	30-DEC-2009 09:56	937141	243434	1.0	TB	USE. PASSING BOTH COLUMNS, UPLOAD HIGHER RESULT.
044f4401.d	1202005339	RXE1	30-DEC-2009 10:24	937141	243434	1.0	MB	USE. PASSING BOTH COLUMNS, UPLOAD HIGHER RESULT.
045f4501.d	1202005340	RXE1	30-DEC-2009 10:54	937141	243434	1.0	LCS	USE. PASSING BOTH COLUMNS, UPLOAD HIGHER RESULT.
046f4601.d	243434001	RXE1	30-DEC-2009 11:22	937141	243434	1.0	ENRG	USE. PASSING BOTH COLUMNS, UPLOAD HIGHER RESULT.
047f4701.d	1202005341	RXE1	30-DEC-2009 11:50	937141	243434	1.0	MS	USE. PASSING BOTH COLUMNS, UPLOAD HIGHER RESULT.
048f4801.d	1202005342	RXE1	30-DEC-2009 12:19	937141	243434	1.0	MSD	USE. PASSING BOTH COLUMNS, UPLOAD HIGHER RESULT.
049f4901.d	WHB091222-08	RXE1	30-DEC-2009 12:47		122909	1.0	HSTD05	USE. CCV. PASSING (B), MULTIPLE ANALYTES HI (F).
050f5001.d	WHB091117-02	RXE1	30-DEC-2009 13:16		122909	1.0	INSTBLK	CLEAN
051f5101.d	1202004035	RXE1	30-DEC-2009 13:45	936607	243278	1.0	MB	USE. PASSING BOTH COLUMNS, UPLOAD HIGHER RESULT.
052f5201.d	1202004036	RXE1	30-DEC-2009 14:13	936607	243278	1.0	LCS	USE. PASSING BOTH COLUMNS, UPLOAD HIGHER RESULT.

10H

Instrument Batch: /chem/ecd6a.i/122909.b

10H16.6H

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
053f5301.d	243262001	RXE1	30-DEC-2009 14:41	936607	243262	1.0	MECP	USE. PASSING BOTH COLUMNS, UPLOAD HIGHER RESULT.
054f5401.d	243262002	RXE1	30-DEC-2009 15:10	936607	243262	1.0	MECP	USE. PASSING BOTH COLUMNS, UPLOAD HIGHER RESULT.
055f5501.d	243278003	RXE1	30-DEC-2009 15:38	936607	243278	1.0	ECWS	USE. PASSING BOTH COLUMNS, UPLOAD HIGHER RESULT.
056f5601.d	1202004037	RXE1	30-DEC-2009 16:07	936607	243278	1.0	MS	USE. PASSING BOTH COLUMNS, UPLOAD HIGHER RESULT.
057f5701.d	1202004038	RXE1	30-DEC-2009 16:36	936607	243278	1.0	MSD	USE. PASSING BOTH COLUMNS, UPLOAD HIGHER RESULT.
058f5801.d	WHB091222-08	RXE1	30-DEC-2009 17:04		122909	1.0	HSTD06	USE. CCV. ALL ANALYTES PASSING BOTH COLUMNS.
059f5901.d	WHB091117-02	RXE1	30-DEC-2009 17:32		122909	1.0	INSTBLK	CLEAN
060f6001.d	1202004510	RXE1	30-DEC-2009 18:01	936848	10-1049	1.0	MB	USE. PASSING BOTH COLUMNS, UPLOAD HIGHER RESULT.
061f6101.d	1202004511	RXE1	30-DEC-2009 18:29	936848	10-1049	1.0	LCS	USE. DINO SLIGHTLY LOW (F), PASSING (B).
062f6201.d	243458005	RXE1	30-DEC-2009 18:58	936848	10-1044	1.0	LANL	USE. PASSING BOTH COLUMNS, UPLOAD HIGHER RESULT.
063f6301.d	243460005	RXE1	30-DEC-2009 19:26	936848	10-1049	1.0	LANL	USE. PASSING BOTH COLUMNS, UPLOAD HIGHER RESULT.
064f6401.d	1202004512	RXE1	30-DEC-2009 19:55	936848	10-1049	1.0	MS	USE. DINO SLIGHTLY LOW (F), PASSING (B).
065f6501.d	1202004513	RXE1	30-DEC-2009 20:23	936848	10-1049	1.0	MSD	USE. DINO SLIGHTLY LOW (F), PASSING (B).
066f6601.d	243467004	RXE1	30-DEC-2009 20:52	936848	10-1055	1.0	LANL	USE. $ HI (F), PASSING (B).

067f6701.d	243469004	RXE1	30-DEC-2009 21:20	936848	10-1052		1.0	LANL	USE. PASSING BOTH COLUMNS, UPLOAD HIGHER RESULT.
068f6801.d	WHB091222-08	RXE1	30-DEC-2009 21:48		122909		1.0	HSTD07	USE. CCV. PASSING (B), DAL/D/T HI (F).
069f6901.d	WHB091117-02	RXE1	30-DEC-2009 22:17		122909		1.0	INSTBLK	CLEAN

GEL ORGANIC RUN LOG INSTRUMENT ID __ECD6__

DATE: 01/04/2010 METHOD: ECD6-F-8151A-122909.m OPERATOR:RXE1 REVIEWED BY:_____

DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT CZ454

Calibration & QC Information
Initial Calibration Dates: See Calibration History and Standards Log
Initial Calibration Std ID's: See Calibration History and Standards Log
GEL SOP GL-OA-E-011 Analysis of Chlorophenoxy Acid Herbicides by ECD
EPA Method: 8151A Chlorinated Herbicides by GC Using Derivatization
Sequence Number:123109 Injection Volume: 1.0 uL

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001f0101.d	WHB091117-02	RXE1	31-DEC-2009 11:54		123109	1.0	INSTBLK	CLEAN
002f0201.d	WHB091222-08	RXE1	31-DEC-2009 12:23		123109	1.0	HSTD01	ICV. USE. PASSES BOTH COLUMNS.
003f0301.d	WHB091117-02	RXE1	31-DEC-2009 12:51		123109	1.0	INSTBLK	CLEAN
004f0401.d	1202006848	RXE1	31-DEC-2009 13:52	937825	IDOC-JC-HERB-L	1.0	MB	USE. PASSES BOTH COLUMNS, UPLOAD HIGHER RESULTS.
005f0501.d	1202006849	RXE1	31-DEC-2009 14:21	937825	IDOC-JC-HERB-L	1.0	LCS	USE. PASSES BOTH COLUMNS, UPLOAD HIGHER RESULTS.
006f0601.d	1202006850	RXE1	31-DEC-2009 14:49	937825	IDOC-JC-HERB-L	1.0	LCS	USE. DICAMBA, DICHLOR HI (F) ALL OK (B)
007f0701.d	1202006851	RXE1	31-DEC-2009 15:18	937825	IDOC-JC-HERB-L	1.0	LCS	USE. PASSES BOTH COLUMNS, UPLOAD HIGHER RESULTS.
008f0801.d	1202006852	RXE1	31-DEC-2009 15:47	937825	IDOC-JC-HERB-L	1.0	LCS	USE. DICAMBA, DICHLOR HI (F) ALL OK (B)
009f0901.d	1202006853	RXE1	31-DEC-2009 16:15	937825	IDOC-JC-HERB-L	1.0	LCS	USE. PASSES BOTH COLUMNS, UPLOAD HIGHER RESULTS.
010f1001.d	241172001	RXE1	31-DEC-2009 16:44	937825	IDOC-JC-HERB-L	1.0	QCQA	USE. PASSES BOTH COLUMNS, UPLOAD HIGHER RESULTS.
011f1101.d	WHB091222-08	RXE1	31-DEC-2009 17:13		123109	1.0	HSTD02	CCV. USE. PASSES BOTH COLUMNS.
012f1201.d	WHB091117-02	RXE1	31-DEC-2009 17:42		123109	1.0	INSTBLK	CLEAN
013f1301.d	1202006607	RXE1	31-DEC-2009 18:11	937701	10-1090-1	1.0	MB	USE. PASSES BOTH COLUMNS, UPLOAD HIGHER RESULTS.
014f1401.d	1202006608	RXE1	31-DEC-2009 18:39	937701	10-1090-1	1.0	LCS	USE. PASSES BOTH COLUMNS, UPLOAD HIGHER RESULTS.
015f1501.d	243596002	RXE1	31-DEC-2009 19:08	937701	10-1090-1	1.0	LANL	USE. PASSES BOTH COLUMNS, UPLOAD HIGHER RESULTS.

Instrument Batch: /chem/ecd6a.i/123109.b Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
016f1601.d	243596003	RXE1	31-DEC-2009 19:37	937701	10-1090-1	1.0	LANL	USE. PASSES BOTH COLUMNS, UPLOAD HIGHER RESULTS.
017f1701.d	243596004	RXE1	31-DEC-2009 20:05	937701	10-1090-1	1.0	LANL	USE. PASSES BOTH COLUMNS, UPLOAD HIGHER RESULTS.

018f1801.d	243596005	RXE1	31-DEC-2009 20:34	937701	10-1090-1	1.0	LANL	USE. PASSES BOTH COLUMNS, UPLOAD HIGHER RESULTS.
019f1901.d	243596006	RXE1	31-DEC-2009 21:02	937701	10-1090-1	1.0	LANL	USE. PASSES BOTH COLUMNS, UPLOAD HIGHER RESULTS.
020f2001.d	1202006609	RXE1	31-DEC-2009 21:30	937701	10-1090-1	1.0	MS	USE. PASSES BOTH COLUMNS, UPLOAD HIGHER RESULTS.
021f2101.d	1202006610	RXE1	31-DEC-2009 21:58	937701	10-1090-1	1.0	MSD	USE. PASSES BOTH COLUMNS, UPLOAD HIGHER RESULTS.
022f2201.d	WHB091222-08	RXE1	31-DEC-2009 22:27		123109	1.0	HSTD03	CCV. USE. DALAPON HI(B) DALAPON,DCP,2,4-D, T,DB HI(F)
023f2301.d	WHB091117-02	RXE1	31-DEC-2009 22:55		123109	1.0	INSTBLK	CLEAN
024f2401.d	1202003597	RXE1	31-DEC-2009 23:23	937384	EUI-7448	1.0	TB	USE. PASSES BOTH COLUMNS, UPLOAD HIGHER RESULTS.
025f2501.d	1202004963	RXE1	31-DEC-2009 23:51	937384	10-1085-1	1.0	TB	USE. $ SLIGHTLY HI (F), PASSING (B).
026f2601.d	1202005852	RXE1	01-JAN-2010 00:20	937384	10-1085-1	1.0	MB	USE. PASSES BOTH COLUMNS, UPLOAD HIGHER RESULTS.
027f2701.d	1202005853	RXE1	01-JAN-2010 00:48	937384	10-1085-1	1.0	LCS	USE. $ HI (F), PASSING (B).
028f2801.d	243361001	RXE1	01-JAN-2010 01:16	937384	EUI-7448	1.0	CARE	USE. PASSES BOTH COLUMNS, UPLOAD HIGHER RESULTS.
029f2901.d	243551001	RXE1	01-JAN-2010 01:44	937384	10-1085-1	1.0	LANL	USE. PASSES BOTH COLUMNS, UPLOAD HIGHER RESULTS.
030f3001.d	1202005854	RXE1	01-JAN-2010 02:13	937384	10-1085-1	1.0	MS	USE. $/D HI (F), PASSING (B).
031f3101.d	1202005855	RXE1	01-JAN-2010 02:41	937384	10-1085-1	1.0	MSD	USE. PASSES BOTH COLUMNS, UPLOAD HIGHER RESULTS.
032f3201.d	WHB091222-08	RXE1	01-JAN-2010 03:09		123109	1.0	HSTD04	USE. CCV. MULTIPLE ANALYTES FAILING (F), PASSING (B).
033f3301.d	WHB091117-02	RXE1	01-JAN-2010 03:37		123109	1.0	INSTBLK	CLEAN
034f3401.d	1202006776	RXE1	01-JAN-2010 04:05	937784	EUI-7447	1.0	MB	DUSE.
035f3501.d	1202006777	RXE1	01-JAN-2010 04:34	937784	EUI-7447	1.0	LCS	DUSE.

Instrument Batch: /chem/ecd6a.i/123109.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
036f3601.d	1202006780	RXE1	01-JAN-2010 05:02	937784	EUI-7447	1.0	LCSD	DUSE.
037f3701.d	243358001	RXE1	01-JAN-2010 05:30	937784	EUI-7447	2.0	CARE	DUSE. RR @ DILUTION.
038f3801.d	1202006778	RXE1	01-JAN-2010 05:58	937784	EUI-7447	2.0	MS	DUSE.
039f3901.d	1202006779	RXE1	01-JAN-2010 06:27	937784	EUI-7447	2.0	MSD	DUSE.
040f4001.d	WHB091222-08	RXE1	01-JAN-2010 06:55		123109	1.0	HSTD05	USE. CCV. MULTIPLE ANALYTES FAILING BOTH.
041f4101.d	WHB091117-02	RXE1	01-JAN-2010 07:23		123109	1.0	INSTBLK	CLEAN

Prep Logbook

The Extraction of Herbicides from Groundwater, Wastewater and Other Aqueous Samples

Batch ID: 937383 **Verified by:** _____

Analyst: Sophia Cox

Method: SW846 8151A Prep

Lab SOP: GL-OA-E-015 REV# 12

Instrument: Semi-Volatiles Manual

Sample ID	Run Date	Initial Volume (mL)	Initial pH	Int Ext pH	Sec Ext pH	Final Volume (mL)	Prepped Factor (mL/mL)
1202003597 TB	30-DEC-2009 15:06:43	5	5	13	1	10	2
1202004963 TB	30-DEC-2009 15:06:43	5	5	13	1	10	2
1202005852 MB	30-DEC-2009 15:06:43	1000	5	13	1	10	0.01
1202005853 LCS	30-DEC-2009 15:06:43	1000	5	13	1	10	0.01
243361001	30-DEC-2009 15:06:43	5	5	13	1	10	2
243551001	30-DEC-2009 15:06:43	5	6	13	1	10	2
1202005854 MS (243551001)	30-DEC-2009 15:06:43	5	6	13	1	10	2
1202005855 MSD (243551001)	30-DEC-2009 15:06:43	5	6	13	1	10	2

Type	Sample Id	Description	Serial Number	Spike Amt	Units
LCS	1202005853	HERBICIDE LCS	WE091208-02	1	mL
MS	1202005854	HERBICIDE LCS	WE091208-02	1	mL
MSD	1202005855	HERBICIDE LCS	WE091208-02	1	mL
SURR	All	HERBICIDE SURROGATE	WE091215-03	.05	mL
REGNT	All	Iso-octane	1106542-A	1	mL
REGNT	All	Methanol	1239758-C	.5	mL
REGNT	All	Hexane	1241300-B2	4	mL
REGNT	All	Methylene Chloride	1245620-D	180	mL
REGNT	All	Sodium hydroxide sol., 6N	1246785	17	mL
REGNT	All	Sulfuric Acid Sol., 12N For Herbicides	1246787	17	mL
REGNT	All	N-METHYL-N-NITROSO-P-TOLUENESULFON-AMIDE	1248612A	2	mL
REGNT	All	Ethyl ether	UN1237018a	240	mL

Comments:

Verified By: JAC

Final Solvent: Hexane

Prep Logbook

Toxicity Characteristic Leaching Procedure Preparation

Batch ID: 936980 **Verified by:** _____
Analyst: Richard Dollinger
Method: SW846 1311

Lab SOP: GL-LB-E-006 REV# 13
Instrument: TCLP Tumbler #105

Sample ID Analysis Start Date	1202004963 TB 28-DEC-2009 16:00:21	243421001 28-DEC-2009 16:00:21	243551001 28-DEC-2009 16:00:21	243553001 28-DEC-2009 16:00:21
100% Solid Y/N		y	y	y
(I) Sub Sample Aliquot I=G-H (g)		100	100	100
Initial pH (su)	4.95	7.08	5.03	8.76
pH Temperature (celsius)		50	50	50
Filtrate pH (su)	5	5	5	5
Final pH (su)	4.95	1.85	1.98	1.92
Tumbler Speed	28	28	28	28
Sample Properties <>/= Water	Solid	Solid	Solid	Solid
(J) 20X Wet Solid Weight 20XC (g)	2000	2000	2000	2000
Filtrate Volume (mL)	1000	1000	1000	1000

Type	Sample Id	Description	Spike Amt	Units

Comments:

Extration End Date: 29-DEC-09 9:00:18
Filtration End Date: 29-DEC-09 15:00:18
Bottle Lot Number: H931601DB
Filter Lot Number: 8335066
Extration Start Temperature: 23 C
Extration End Temperature: 23 C
Filtration End Temperature: 23 C

Prep Logbook

Toxicity Characteristic Leaching Procedure Preparation

Batch ID: 936980 **Verified by:** _____
Analyst: Richard Dollinger
Method: SW846 1311

Lab SOP: GL-LB-E-006 REV# 13
Instrument: TCLP Tumbler #105

Sample ID	243553002
Analysis Start Date	28-DEC-2009 16:00:21

100% Solid Y/N	y
(I) Sub Sample Aliquot I=G-H (g)	100
Initial pH (su)	7.37
pH Temperature (celsius)	50
Filtrate pH (su)	5
Final pH (su)	4.79
Tumbler Speed	28
Sample Properties <>/= Water	Solid
(J) 20X Wet Solid Weight 20XC (g)	2000
Filtrate Volume (mL)	1000

Type	Sample Id	Description	Serial Number	Spike Amt	Units

Comments:

Extration End Date: 29-DEC-09 9:00:18
Filtration End Date: 29-DEC-09 15:00:18
Bottle Lot Number: H931601DB
Filter Lot Number: 8335066
Extration Start Temperature: 23 C
Extration End Temperature: 23 C
Filtration End Temperature: 23 C

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
04-JAN-10	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
GC/ECD	SW846 8151A	Solid	CARE, LANL
Batch ID:	**Sample Numbers:**		
937384	See Below		

Potentially affected work order(s)(SDG): 243361(EUI-7448),243551(10-1085-1)

Application Issues:

Failed Recovery for MS/PS

Failed Yield for Surrogates

Specification and Requirements Exception Description:	DER Disposition:
1. The MS(1202005854) did not meet the spike recovery acceptance limits with a positive bias.	1. The associated MSD recovered within the acceptance limits near the upper end of the range. Matrix interference has been demonstrated.
2. The TB(1202004963), LCS(1202005853), and MS(1202005854) did not meet surrogate recovery acceptance limits with a positive bias.	2. The surrogate failed to meet the acceptance limits with a positive bias on one analytical column. Target analytes were not detected in the sample. The data were not adversely affected by the surrogate failure.

Originator's Name:

Rebecca Enzor 04-JAN-10

Data Validator/Group Leader:

Cameron Bearden 06-JAN-10

Metals Analysis

Case Narrative

Metals Fractional Narrative
Los Alamos National Laboratory (LANL)
SDG 10-1085

Sample Analysis

Sample ID	Client ID
243549002	WST03-10-2148
1202004426	Method Blank (MB) **ICP**
1202014118	Method Blank (MB) **ICP**
1202004427	Laboratory Control Sample (LCS)
1202014119	Laboratory Control Sample (LCS)
1202004430	243549002(WST03-10-2148L) Serial Dilution (SD)
1202004428	243549002(WST03-10-2148D) Sample Duplicate (DUP)
1202004429	243549002(WST03-10-2148S) Matrix Spike (MS)
1202004431	243549002(WST03-10-2148SD) Matrix Spike Duplicate (MSD)
1202004420	Method Blank (MB) **ICP-MS**
1202004421	Laboratory Control Sample (LCS)
1202004424	243549002(WST03-10-2148L) Serial Dilution (SD)
1202004422	243549002(WST03-10-2148D) Sample Duplicate (DUP)
1202004423	243549002(WST03-10-2148S) Matrix Spike (MS)
1202004425	243549002(WST03-10-2148SD) Matrix Spike Duplicate (MSD)
1202010664	Method Blank (MB) **CVAA**
1202010665	Laboratory Control Sample (LCS)
1202010678	243555001(WST21-10-9933L) Serial Dilution (SD)
1202010666	243555001(WST21-10-9933D) Sample Duplicate (DUP)
1202010667	243555001(WST21-10-9933S) Matrix Spike (MS)
1202010679	243555001(WST21-10-9933SD) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on a "dry weight" basis.

Method/Analysis Information

Analytical Batch:	936808, 941050, 936805 and 939596
Prep Batch :	936807, 941049, 936804 and 939594
Standard Operating Procedures:	GL-MA-E-013 REV# 20, GL-MA-E-009 REV# 19, GL-MA-E-014 REV# 21 and GL-MA-E-010 REV# 23
Analytical Method:	SW846 3050B/6010B, SW846 3050B/6020 and SW846 7471A
Prep Method :	SW846 3050B and SW846 7471A Prep

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

System Configuration

The Metals analysis-ICP was performed on a P E 5300 Optima radial/axial-viewing inductively coupled plasma atomic emission spectrometer. The instrument is equipped with a Burgener nebulizer, cyclonic spray chamber, and yttrium or scandium internal standard. Operating conditions for the ICP are set at a power level of 1500 watts. The instrument has a peristaltic pump flow rate of 1.4L/min, argon gas flows of 15 L/min and 0.2 L/min for the torch and auxiliary gases, and a flow setting of 0.65L/min for the nebulizer.

The Metals analysis - ICPMS was performed on a Perkin Elmer ELAN 9000 inductively coupled plasma mass spectrometer (ICP-MS). The instrument is equipped with a cross-flow nebulizer, quadrupole mass spectrometer, and dual mode electron multiplier detector. Internal standards of scandium, germanium, indium, tantalum, and/or lutetium were utilized to cover the mass spectrum. Operating conditions are set at 1400W power and combined argon pressures of 360+/-7 kPa for the plasma and auxiliary gases, and 0.85 L/min carrier gas flow, and an initial lens voltage of 5.2.

The Metals analysis-Mercury was performed on a Perkin-Elmer Flow Injection Mercury System (FIMS-100) automated mercury analyzer. The instrument consists of a cold vapor atomic absorption spectrometer set to detect mercury at a wavelength of 253.7 nm. Sample introduction through the flow injection system is performed via a peristaltic pump at 9 mL/min and nitrogen carrier gas rate of 80 mL/min.

Calibration Information

Instrument Calibration
All initial calibration requirements have been met for this sample delivery group (SDG).

CRDL Requirements
All CRDL standard(s) met the referenced advisory control limits.

ICSA/ICSAB Statement
All interference check samples (ICSA and ICSAB) associated with this SDG met the established acceptance criteria.

Continuing Calibration Blank (CCB) Requirements
All continuing calibration blanks (CCB) bracketing this batch met the acceptance criteria.

Continuing Calibration Verification (CCV) Requirements
All continuing calibration verifications (CCV) bracketing this SDG met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MBs analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The laboratory control sample (LCS) met the recommended acceptance criteria.

Quality Control (QC) Sample Statement
The following samples were selected as the quality control (QC) samples for this SDG: 243549002 and 243555001.

Matrix Spike (MS) Recovery Statement
The percent recoveries (%R) obtained from the MS analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. The MS met the recommended quality control acceptance criteria for percent recoveries for all applicable analytes with the exception of calcium, magnesium and potassium, as indicated by the "N" qualifiers.

Matrix Spike Duplicate (MSD) Recovery Statement
The percent recovery (%R) obtained from the MSD analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. The MSD did not meet the recommended quality control acceptance criteria for percent recoveries for all applicable analytes with the exception of selenium, magnesium and potassium, as indicated by the "N" qualifiers.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD(s) between the MS and MSD met the acceptance limits.

Duplicate Relative Percent Difference (RPD) Statement
The relative percent difference (RPD) obtained from the designated sample duplicate (DUP) is evaluated based on acceptance criteria of 20% when the sample is 5X the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the contract required detection limit (RL), a control of +/-RL is used to evaluate the DUP results. All applicable analytes met these requirements with the exception of beryllium, nickel, cobalt and vanadium, as indicated by the "*" qualifiers.

Serial Dilution % Difference Statement
The serial dilution is used to assess matrix suppression or enhancement. Raw element concentrations that are 25X the IDL/MDL for CVAA, 50X the IDL/MDL for ICP, and 100X the IDL/MDL for ICP-MS analyses are applicable for serial dilution assessment. All applicable analytes met the acceptance criteria of less than 10% difference (%D) with the exception of iron, as indicated by the "E" qualifier.

Technical Information

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Sample Dilutions
Dilutions are performed to minimize matrix interferences resulting from elevated mineral element concentrations present in solid samples and/or to bring over range target analyte concentrations into the linear calibration range of the instrument. The samples in this SDG were diluted the standard 2x for solids on the ICPMS.

Preparation Information
The samples in this SDG were prepared exactly according to the cited SOP.

Miscellaneous Information

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. The following DERs were generated for this SDG: 779262 and 780714. A copy of each NCR is included in the Miscellaneous Data section of this package.

Additional Comments
Additional comments were not required for this SDG.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Kristen Larson **Date:** 1/20/10

Sample Data Summary

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1085 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 243549002 **BASIS:** Dry Weight **DATE COLLECTED** 22-DEC-09

CLIENT ID: WST03-10-2148 **LEVEL:** Low **DATE RECEIVED** 24-DEC-09

MATRIX: SOIL **%SOLIDS:** 92.8

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	3890000	ug/kg		7230	21300	21300	1	P	HSC	01/12/10 02:47	011110A-1	936808
7440-36-0	Antimony	1010	ug/kg	U	333	1010	1010	1	P	HSC	01/14/10 23:38	011410-2	941050
7440-38-2	Arsenic	864	ug/kg	J	214	1070	1070	2	MS	RMJ	01/13/10 23:26	100113-4	936805
7440-39-3	Barium	47200	ug/kg		106	531	531	1	P	HSC	01/12/10 02:47	011110A-1	936808
7440-41-7	Beryllium	542	ug/kg	*	21.4	107	107	2	MS	RMJ	01/12/10 14:47	100111-3	936805
7440-43-9	Cadmium	531	ug/kg	U	106	531	531	1	P	HSC	01/12/10 02:47	011110A-1	936808
7440-70-2	Calcium	816000	ug/kg	N	8500	26600	26600	1	P	HSC	01/12/10 02:47	011110A-1	936808
7440-47-3	Chromium	12200	ug/kg		159	531	531	1	P	HSC	01/12/10 02:47	011110A-1	936808
7440-48-4	Cobalt	2510	ug/kg	*	159	531	531	1	P	HSC	01/12/10 02:47	011110A-1	936808
7440-50-8	Copper	3480	ug/kg		319	1060	1060	1	P	HSC	01/12/10 02:47	011110A-1	936808
7439-89-6	Iron	8430000	ug/kg	E	8500	26600	26600	1	P	HSC	01/12/10 02:47	011110A-1	936808
7439-92-1	Lead	7570	ug/kg		266	1060	1060	1	P	HSC	01/12/10 02:47	011110A-1	936808
7439-95-4	Magnesium	750000	ug/kg	N	9030	31900	31900	1	P	HSC	01/12/10 02:47	011110A-1	936808
7439-96-5	Manganese	220000	ug/kg		213	1060	1060	1	P	HSC	01/12/10 02:47	011110A-1	936808
7439-97-6	Mercury	5.15	ug/kg	J	4.12	12.1	12.1	1	AV	JXL1	01/11/10 10:03	011110S1-7	939596
7440-02-0	Nickel	2950	ug/kg	*	107	428	428	2	MS	RMJ	01/12/10 14:47	100111-3	936805
7440-09-7	Potassium	581000	ug/kg	N	6800	26600	26600	1	P	HSC	01/12/10 02:47	011110A-1	936808
7782-49-2	Selenium	1070	ug/kg	UN	536	1070	1070	2	MS	RMJ	01/12/10 14:47	100111-3	936805
7440-22-4	Silver	531	ug/kg	U	106	531	531	1	P	HSC	01/12/10 02:47	011110A-1	936808
7440-23-5	Sodium	174000	ug/kg		7440	26600	26600	1	P	HSC	01/12/10 02:47	011110A-1	936808
7440-28-0	Thallium	214	ug/kg	U	64.3	214	214	2	MS	RMJ	01/13/10 23:26	100113-4	936805
7440-62-2	Vanadium	10700	ug/kg	*	106	531	531	1	P	HSC	01/12/10 02:47	011110A-1	936808
7440-66-6	Zinc	26200	ug/kg		351	1060	1060	1	P	HSC	01/12/10 02:47	011110A-1	936808

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
936805	936804	SW846 3050B	0.503	g	50	mL	12/29/09	FGA
936808	936807	SW846 3050B	0.507	g	50	mL	12/29/09	FGA
939596	939594	SW846 7471A Prep	0.534	g	30	mL	01/08/10	TXB3
941050	941049	SW846 3050B	0.534	g	50	mL	01/13/10	FGA

Quality Control Summary

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1085

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS6,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
ICV01										
	Mercury	5.23	ug/L	5	ug/L	104.5	90.0 – 110.0	AV	11-JAN-10 09:33	011110S1-7
	Aluminum	4810	ug/L	5000	ug/L	96.2	90.0 – 110.0	P	11-JAN-10 15:38	011110A-1
	Barium	499	ug/L	500	ug/L	99.8	90.0 – 110.0	P	11-JAN-10 15:38	011110A-1
	Cadmium	487	ug/L	500	ug/L	97.4	90.0 – 110.0	P	11-JAN-10 15:38	011110A-1
	Calcium	4790	ug/L	5000	ug/L	95.8	90.0 – 110.0	P	11-JAN-10 15:38	011110A-1
	Chromium	478	ug/L	500	ug/L	95.6	90.0 – 110.0	P	11-JAN-10 15:38	011110A-1
	Cobalt	494	ug/L	500	ug/L	98.8	90.0 – 110.0	P	11-JAN-10 15:38	011110A-1
	Copper	494	ug/L	500	ug/L	98.8	90.0 – 110.0	P	11-JAN-10 15:38	011110A-1
	Iron	4860	ug/L	5000	ug/L	97.2	90.0 – 110.0	P	11-JAN-10 15:38	011110A-1
	Lead	495	ug/L	500	ug/L	99	90.0 – 110.0	P	11-JAN-10 15:38	011110A-1
	Magnesium	5100	ug/L	5000	ug/L	102	90.0 – 110.0	P	11-JAN-10 15:38	011110A-1
	Manganese	503	ug/L	500	ug/L	100.7	90.0 – 110.0	P	11-JAN-10 15:38	011110A-1
	Potassium	2380	ug/L	2500	ug/L	95	90.0 – 110.0	P	11-JAN-10 15:38	011110A-1
	Silver	257	ug/L	250	ug/L	102.7	90.0 – 110.0	P	11-JAN-10 15:38	011110A-1
	Sodium	2290	ug/L	2500	ug/L	91.6	90.0 – 110.0	P	11-JAN-10 15:38	011110A-1
	Vanadium	503	ug/L	500	ug/L	100.7	90.0 – 110.0	P	11-JAN-10 15:38	011110A-1
	Zinc	494	ug/L	500	ug/L	98.9	90.0 – 110.0	P	11-JAN-10 15:38	011110A-1
	Beryllium	49.2	ug/L	50	ug/L	98.5	90.0 – 110.0	MS	12-JAN-10 11:37	100111-3
	Nickel	49.9	ug/L	50	ug/L	99.8	90.0 – 110.0	MS	12-JAN-10 11:37	100111-3
	Selenium	48	ug/L	50	ug/L	95.9	90.0 – 110.0	MS	12-JAN-10 11:37	100111-3
	Arsenic	46.4	ug/L	50	ug/L	92.9	90.0 – 110.0	MS	13-JAN-10 21:16	100113-4
	Thallium	49.5	ug/L	50	ug/L	98.9	90.0 – 110.0	MS	13-JAN-10 21:16	100113-4
	Antimony	519	ug/L	500	ug/L	103.7	90.0 – 110.0	P	14-JAN-10 10:32	011410-2
CCV01										
	Mercury	5.14	ug/L	5	ug/L	102.8	80.0 – 120.0	AV	11-JAN-10 09:38	011110S1-7
	Aluminum	4920	ug/L	5000	ug/L	98.4	90.0 – 110.0	P	11-JAN-10 16:24	011110A-1
	Barium	510	ug/L	500	ug/L	102	90.0 – 110.0	P	11-JAN-10 16:24	011110A-1
	Cadmium	511	ug/L	500	ug/L	102.1	90.0 – 110.0	P	11-JAN-10 16:24	011110A-1
	Calcium	5060	ug/L	5000	ug/L	101.3	90.0 – 110.0	P	11-JAN-10 16:24	011110A-1
	Chromium	512	ug/L	500	ug/L	102.3	90.0 – 110.0	P	11-JAN-10 16:24	011110A-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1085

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS6,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Cobalt	512	ug/L	500	ug/L	102.3	90.0 – 110.0	P	11-JAN-10 16:24	011110A-1
	Copper	504	ug/L	500	ug/L	100.9	90.0 – 110.0	P	11-JAN-10 16:24	011110A-1
	Iron	5200	ug/L	5000	ug/L	104.1	90.0 – 110.0	P	11-JAN-10 16:24	011110A-1
	Lead	512	ug/L	500	ug/L	102.5	90.0 – 110.0	P	11-JAN-10 16:24	011110A-1
	Magnesium	5250	ug/L	5000	ug/L	105	90.0 – 110.0	P	11-JAN-10 16:24	011110A-1
	Manganese	507	ug/L	500	ug/L	101.5	90.0 – 110.0	P	11-JAN-10 16:24	011110A-1
	Potassium	5250	ug/L	5000	ug/L	104.9	90.0 – 110.0	P	11-JAN-10 16:24	011110A-1
	Silver	517	ug/L	500	ug/L	103.5	90.0 – 110.0	P	11-JAN-10 16:24	011110A-1
	Sodium	10400	ug/L	10000	ug/L	104	90.0 – 110.0	P	11-JAN-10 16:24	011110A-1
	Vanadium	515	ug/L	500	ug/L	103	90.0 – 110.0	P	11-JAN-10 16:24	011110A-1
	Zinc	507	ug/L	500	ug/L	101.4	90.0 – 110.0	P	11-JAN-10 16:24	011110A-1
	Beryllium	46.6	ug/L	50	ug/L	93.2	90.0 – 110.0	MS	12-JAN-10 12:07	100111-3
	Nickel	50.2	ug/L	50	ug/L	100.3	90.0 – 110.0	MS	12-JAN-10 12:07	100111-3
	Selenium	47.6	ug/L	50	ug/L	95.1	90.0 – 110.0	MS	12-JAN-10 12:07	100111-3
	Arsenic	45.5	ug/L	50	ug/L	91	90.0 – 110.0	MS	13-JAN-10 21:36	100113-4
	Thallium	48.3	ug/L	50	ug/L	96.6	90.0 – 110.0	MS	13-JAN-10 21:36	100113-4
	Antimony	528	ug/L	500	ug/L	105.6	90.0 – 110.0	P	14-JAN-10 11:33	011410-2
CCV02										
	Mercury	5.18	ug/L	5	ug/L	103.6	80.0 – 120.0	AV	11-JAN-10 09:58	011110S1-7
	Aluminum	4990	ug/L	5000	ug/L	99.7	90.0 – 110.0	P	11-JAN-10 16:38	011110A-1
	Barium	503	ug/L	500	ug/L	100.5	90.0 – 110.0	P	11-JAN-10 16:38	011110A-1
	Cadmium	503	ug/L	500	ug/L	100.6	90.0 – 110.0	P	11-JAN-10 16:38	011110A-1
	Calcium	5080	ug/L	5000	ug/L	101.6	90.0 – 110.0	P	11-JAN-10 16:38	011110A-1
	Chromium	504	ug/L	500	ug/L	100.8	90.0 – 110.0	P	11-JAN-10 16:38	011110A-1
	Cobalt	505	ug/L	500	ug/L	100.9	90.0 – 110.0	P	11-JAN-10 16:38	011110A-1
	Copper	496	ug/L	500	ug/L	99.2	90.0 – 110.0	P	11-JAN-10 16:38	011110A-1
	Iron	5170	ug/L	5000	ug/L	103.5	90.0 – 110.0	P	11-JAN-10 16:38	011110A-1
	Lead	505	ug/L	500	ug/L	101	90.0 – 110.0	P	11-JAN-10 16:38	011110A-1
	Magnesium	5260	ug/L	5000	ug/L	105.1	90.0 – 110.0	P	11-JAN-10 16:38	011110A-1
	Manganese	506	ug/L	500	ug/L	101.1	90.0 – 110.0	P	11-JAN-10 16:38	011110A-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1085

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS6,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Potassium	5120	ug/L	5000	ug/L	102.4	90.0 – 110.0	P	11-JAN-10 16:38	011110A-1
	Silver	509	ug/L	500	ug/L	101.9	90.0 – 110.0	P	11-JAN-10 16:38	011110A-1
	Sodium	10100	ug/L	10000	ug/L	101	90.0 – 110.0	P	11-JAN-10 16:38	011110A-1
	Vanadium	508	ug/L	500	ug/L	101.5	90.0 – 110.0	P	11-JAN-10 16:38	011110A-1
	Zinc	499	ug/L	500	ug/L	99.8	90.0 – 110.0	P	11-JAN-10 16:38	011110A-1
	Beryllium	45.9	ug/L	50	ug/L	91.8	90.0 – 110.0	MS	12-JAN-10 12:36	100111-3
	Nickel	49.6	ug/L	50	ug/L	99.1	90.0 – 110.0	MS	12-JAN-10 12:36	100111-3
	Selenium	45.7	ug/L	50	ug/L	91.5	90.0 – 110.0	MS	12-JAN-10 12:36	100111-3
	Arsenic	47.6	ug/L	50	ug/L	95.2	90.0 – 110.0	MS	13-JAN-10 21:57	100113-4
	Thallium	50.1	ug/L	50	ug/L	100.1	90.0 – 110.0	MS	13-JAN-10 21:57	100113-4
	Antimony	535	ug/L	500	ug/L	107	90.0 – 110.0	P	14-JAN-10 11:54	011410-2
CCV03										
	Mercury	5.28	ug/L	5	ug/L	105.5	80.0 – 120.0	AV	11-JAN-10 10:18	011110S1-7
	Aluminum	4830	ug/L	5000	ug/L	96.7	90.0 – 110.0	P	11-JAN-10 16:59	011110A-1
	Barium	493	ug/L	500	ug/L	98.5	90.0 – 110.0	P	11-JAN-10 16:59	011110A-1
	Cadmium	493	ug/L	500	ug/L	98.6	90.0 – 110.0	P	11-JAN-10 16:59	011110A-1
	Calcium	4860	ug/L	5000	ug/L	97.3	90.0 – 110.0	P	11-JAN-10 16:59	011110A-1
	Chromium	494	ug/L	500	ug/L	98.8	90.0 – 110.0	P	11-JAN-10 16:59	011110A-1
	Cobalt	494	ug/L	500	ug/L	98.8	90.0 – 110.0	P	11-JAN-10 16:59	011110A-1
	Copper	486	ug/L	500	ug/L	97.2	90.0 – 110.0	P	11-JAN-10 16:59	011110A-1
	Iron	4900	ug/L	5000	ug/L	98	90.0 – 110.0	P	11-JAN-10 16:59	011110A-1
	Lead	497	ug/L	500	ug/L	99.5	90.0 – 110.0	P	11-JAN-10 16:59	011110A-1
	Magnesium	5000	ug/L	5000	ug/L	100.1	90.0 – 110.0	P	11-JAN-10 16:59	011110A-1
	Manganese	494	ug/L	500	ug/L	98.8	90.0 – 110.0	P	11-JAN-10 16:59	011110A-1
	Potassium	4910	ug/L	5000	ug/L	98.3	90.0 – 110.0	P	11-JAN-10 16:59	011110A-1
	Silver	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	11-JAN-10 16:59	011110A-1
	Sodium	9470	ug/L	10000	ug/L	94.7	90.0 – 110.0	P	11-JAN-10 16:59	011110A-1
	Vanadium	498	ug/L	500	ug/L	99.6	90.0 – 110.0	P	11-JAN-10 16:59	011110A-1
	Zinc	489	ug/L	500	ug/L	97.8	90.0 – 110.0	P	11-JAN-10 16:59	011110A-1
	Beryllium	49.8	ug/L	50	ug/L	99.6	90.0 – 110.0	MS	12-JAN-10 13:36	100111-3

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1085

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS6,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Nickel	50.8	ug/L	50	ug/L	101.7	90.0 – 110.0	MS	12-JAN-10 13:36	100111-3
	Selenium	46.8	ug/L	50	ug/L	93.5	90.0 – 110.0	MS	12-JAN-10 13:36	100111-3
	Arsenic	46.4	ug/L	50	ug/L	92.8	90.0 – 110.0	MS	13-JAN-10 22:37	100113-4
	Thallium	48.7	ug/L	50	ug/L	97.4	90.0 – 110.0	MS	13-JAN-10 22:37	100113-4
	Antimony	524	ug/L	500	ug/L	104.9	90.0 – 110.0	P	14-JAN-10 12:56	011410-2
CCV04										
	Mercury	5.09	ug/L	5	ug/L	101.8	80.0 – 120.0	AV	11-JAN-10 10:39	011110S1-7
	Aluminum	4830	ug/L	5000	ug/L	96.6	90.0 – 110.0	P	11-JAN-10 17:54	011110A-1
	Barium	500	ug/L	500	ug/L	99.9	90.0 – 110.0	P	11-JAN-10 17:54	011110A-1
	Cadmium	500	ug/L	500	ug/L	100	90.0 – 110.0	P	11-JAN-10 17:54	011110A-1
	Calcium	4940	ug/L	5000	ug/L	98.9	90.0 – 110.0	P	11-JAN-10 17:54	011110A-1
	Chromium	500	ug/L	500	ug/L	100.1	90.0 – 110.0	P	11-JAN-10 17:54	011110A-1
	Cobalt	502	ug/L	500	ug/L	100.4	90.0 – 110.0	P	11-JAN-10 17:54	011110A-1
	Copper	494	ug/L	500	ug/L	98.7	90.0 – 110.0	P	11-JAN-10 17:54	011110A-1
	Iron	5050	ug/L	5000	ug/L	101.1	90.0 – 110.0	P	11-JAN-10 17:54	011110A-1
	Lead	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	11-JAN-10 17:54	011110A-1
	Magnesium	5200	ug/L	5000	ug/L	104	90.0 – 110.0	P	11-JAN-10 17:54	011110A-1
	Manganese	498	ug/L	500	ug/L	99.7	90.0 – 110.0	P	11-JAN-10 17:54	011110A-1
	Potassium	4920	ug/L	5000	ug/L	98.4	90.0 – 110.0	P	11-JAN-10 17:54	011110A-1
	Silver	507	ug/L	500	ug/L	101.4	90.0 – 110.0	P	11-JAN-10 17:54	011110A-1
	Sodium	10100	ug/L	10000	ug/L	100.8	90.0 – 110.0	P	11-JAN-10 17:54	011110A-1
	Vanadium	505	ug/L	500	ug/L	100.9	90.0 – 110.0	P	11-JAN-10 17:54	011110A-1
	Zinc	496	ug/L	500	ug/L	99.3	90.0 – 110.0	P	11-JAN-10 17:54	011110A-1
	Beryllium	53.3	ug/L	50	ug/L	106.6	90.0 – 110.0	MS	12-JAN-10 14:35	100111-3
	Nickel	50.9	ug/L	50	ug/L	101.8	90.0 – 110.0	MS	12-JAN-10 14:35	100111-3
	Selenium	47.1	ug/L	50	ug/L	94.1	90.0 – 110.0	MS	12-JAN-10 14:35	100111-3
	Arsenic	47	ug/L	50	ug/L	94	90.0 – 110.0	MS	13-JAN-10 23:14	100113-4
	Thallium	48.5	ug/L	50	ug/L	97	90.0 – 110.0	MS	13-JAN-10 23:14	100113-4
	Antimony	508	ug/L	500	ug/L	101.6	90.0 – 110.0	P	14-JAN-10 14:19	011410-2

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1085

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS6,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
CCV05										
	Mercury	5.19	ug/L	5	ug/L	103.7	80.0 - 120.0	AV	11-JAN-10 10:59	011110S1-7
	Aluminum	4850	ug/L	5000	ug/L	97.1	90.0 - 110.0	P	11-JAN-10 18:58	011110A-1
	Barium	503	ug/L	500	ug/L	100.6	90.0 - 110.0	P	11-JAN-10 18:58	011110A-1
	Cadmium	504	ug/L	500	ug/L	100.9	90.0 - 110.0	P	11-JAN-10 18:58	011110A-1
	Calcium	4910	ug/L	5000	ug/L	98.2	90.0 - 110.0	P	11-JAN-10 18:58	011110A-1
	Chromium	504	ug/L	500	ug/L	100.8	90.0 - 110.0	P	11-JAN-10 18:58	011110A-1
	Cobalt	505	ug/L	500	ug/L	101.1	90.0 - 110.0	P	11-JAN-10 18:58	011110A-1
	Copper	500	ug/L	500	ug/L	99.9	90.0 - 110.0	P	11-JAN-10 18:58	011110A-1
	Iron	5030	ug/L	5000	ug/L	100.6	90.0 - 110.0	P	11-JAN-10 18:58	011110A-1
	Lead	505	ug/L	500	ug/L	100.9	90.0 - 110.0	P	11-JAN-10 18:58	011110A-1
	Magnesium	5110	ug/L	5000	ug/L	102.2	90.0 - 110.0	P	11-JAN-10 18:58	011110A-1
	Manganese	501	ug/L	500	ug/L	100.2	90.0 - 110.0	P	11-JAN-10 18:58	011110A-1
	Potassium	4900	ug/L	5000	ug/L	97.9	90.0 - 110.0	P	11-JAN-10 18:58	011110A-1
	Silver	511	ug/L	500	ug/L	102.2	90.0 - 110.0	P	11-JAN-10 18:58	011110A-1
	Sodium	10100	ug/L	10000	ug/L	100.7	90.0 - 110.0	P	11-JAN-10 18:58	011110A-1
	Vanadium	509	ug/L	500	ug/L	101.8	90.0 - 110.0	P	11-JAN-10 18:58	011110A-1
	Zinc	501	ug/L	500	ug/L	100.1	90.0 - 110.0	P	11-JAN-10 18:58	011110A-1
	Beryllium	53.1	ug/L	50	ug/L	106.3	90.0 - 110.0	MS	12-JAN-10 15:16	100111-3
	Nickel	49.4	ug/L	50	ug/L	98.7	90.0 - 110.0	MS	12-JAN-10 15:16	100111-3
	Selenium	46.2	ug/L	50	ug/L	92.4	90.0 - 110.0	MS	12-JAN-10 15:16	100111-3
	Arsenic	45.9	ug/L	50	ug/L	91.7	90.0 - 110.0	MS	13-JAN-10 23:46	100113-4
	Thallium	48.6	ug/L	50	ug/L	97.3	90.0 - 110.0	MS	13-JAN-10 23:46	100113-4
	Antimony	526	ug/L	500	ug/L	105.1	90.0 - 110.0	P	14-JAN-10 15:04	011410-2
CCV06										
	Aluminum	4820	ug/L	5000	ug/L	96.4	90.0 - 110.0	P	11-JAN-10 20:14	011110A-1
	Barium	500	ug/L	500	ug/L	100	90.0 - 110.0	P	11-JAN-10 20:14	011110A-1
	Cadmium	499	ug/L	500	ug/L	99.7	90.0 - 110.0	P	11-JAN-10 20:14	011110A-1
	Calcium	4930	ug/L	5000	ug/L	98.6	90.0 - 110.0	P	11-JAN-10 20:14	011110A-1
	Chromium	501	ug/L	500	ug/L	100.1	90.0 - 110.0	P	11-JAN-10 20:14	011110A-1
	Cobalt	501	ug/L	500	ug/L	100.2	90.0 - 110.0	P	11-JAN-10 20:14	011110A-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1085

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS6,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Copper	496	ug/L	500	ug/L	99.1	90.0 – 110.0	P	11-JAN-10 20:14	011110A-1
	Iron	5010	ug/L	5000	ug/L	100.2	90.0 – 110.0	P	11-JAN-10 20:14	011110A-1
	Lead	498	ug/L	500	ug/L	99.5	90.0 – 110.0	P	11-JAN-10 20:14	011110A-1
	Magnesium	5170	ug/L	5000	ug/L	103.5	90.0 – 110.0	P	11-JAN-10 20:14	011110A-1
	Manganese	500	ug/L	500	ug/L	100	90.0 – 110.0	P	11-JAN-10 20:14	011110A-1
	Potassium	4830	ug/L	5000	ug/L	96.6	90.0 – 110.0	P	11-JAN-10 20:14	011110A-1
	Silver	507	ug/L	500	ug/L	101.4	90.0 – 110.0	P	11-JAN-10 20:14	011110A-1
	Sodium	9780	ug/L	10000	ug/L	97.8	90.0 – 110.0	P	11-JAN-10 20:14	011110A-1
	Vanadium	506	ug/L	500	ug/L	101.3	90.0 – 110.0	P	11-JAN-10 20:14	011110A-1
	Zinc	497	ug/L	500	ug/L	99.3	90.0 – 110.0	P	11-JAN-10 20:14	011110A-1
	Antimony	505	ug/L	500	ug/L	101	90.0 – 110.0	P	14-JAN-10 15:45	011410-2
CCV07										
	Aluminum	4850	ug/L	5000	ug/L	96.9	90.0 – 110.0	P	11-JAN-10 21:31	011110A-1
	Barium	502	ug/L	500	ug/L	100.4	90.0 – 110.0	P	11-JAN-10 21:31	011110A-1
	Cadmium	501	ug/L	500	ug/L	100.1	90.0 – 110.0	P	11-JAN-10 21:31	011110A-1
	Calcium	4980	ug/L	5000	ug/L	99.7	90.0 – 110.0	P	11-JAN-10 21:31	011110A-1
	Chromium	503	ug/L	500	ug/L	100.6	90.0 – 110.0	P	11-JAN-10 21:31	011110A-1
	Cobalt	504	ug/L	500	ug/L	100.8	90.0 – 110.0	P	11-JAN-10 21:31	011110A-1
	Copper	497	ug/L	500	ug/L	99.5	90.0 – 110.0	P	11-JAN-10 21:31	011110A-1
	Iron	5100	ug/L	5000	ug/L	102	90.0 – 110.0	P	11-JAN-10 21:31	011110A-1
	Lead	504	ug/L	500	ug/L	100.8	90.0 – 110.0	P	11-JAN-10 21:31	011110A-1
	Magnesium	5180	ug/L	5000	ug/L	103.7	90.0 – 110.0	P	11-JAN-10 21:31	011110A-1
	Manganese	502	ug/L	500	ug/L	100.3	90.0 – 110.0	P	11-JAN-10 21:31	011110A-1
	Potassium	4860	ug/L	5000	ug/L	97.3	90.0 – 110.0	P	11-JAN-10 21:31	011110A-1
	Silver	509	ug/L	500	ug/L	101.8	90.0 – 110.0	P	11-JAN-10 21:31	011110A-1
	Sodium	9950	ug/L	10000	ug/L	99.5	90.0 – 110.0	P	11-JAN-10 21:31	011110A-1
	Vanadium	508	ug/L	500	ug/L	101.6	90.0 – 110.0	P	11-JAN-10 21:31	011110A-1
	Zinc	498	ug/L	500	ug/L	99.6	90.0 – 110.0	P	11-JAN-10 21:31	011110A-1
	Antimony	507	ug/L	500	ug/L	101.3	90.0 – 110.0	P	14-JAN-10 17:01	011410-2

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1085

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS6,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
CCV08										
	Aluminum	4890	ug/L	5000	ug/L	97.8	90.0 – 110.0	P	11-JAN-10 22:48	011110A-1
	Barium	506	ug/L	500	ug/L	101.2	90.0 – 110.0	P	11-JAN-10 22:48	011110A-1
	Cadmium	506	ug/L	500	ug/L	101.1	90.0 – 110.0	P	11-JAN-10 22:48	011110A-1
	Calcium	5070	ug/L	5000	ug/L	101.4	90.0 – 110.0	P	11-JAN-10 22:48	011110A-1
	Chromium	507	ug/L	500	ug/L	101.4	90.0 – 110.0	P	11-JAN-10 22:48	011110A-1
	Cobalt	508	ug/L	500	ug/L	101.5	90.0 – 110.0	P	11-JAN-10 22:48	011110A-1
	Copper	499	ug/L	500	ug/L	99.9	90.0 – 110.0	P	11-JAN-10 22:48	011110A-1
	Iron	5230	ug/L	5000	ug/L	104.6	90.0 – 110.0	P	11-JAN-10 22:48	011110A-1
	Lead	505	ug/L	500	ug/L	101.1	90.0 – 110.0	P	11-JAN-10 22:48	011110A-1
	Magnesium	5250	ug/L	5000	ug/L	105	90.0 – 110.0	P	11-JAN-10 22:48	011110A-1
	Manganese	504	ug/L	500	ug/L	100.8	90.0 – 110.0	P	11-JAN-10 22:48	011110A-1
	Potassium	4950	ug/L	5000	ug/L	99	90.0 – 110.0	P	11-JAN-10 22:48	011110A-1
	Silver	512	ug/L	500	ug/L	102.3	90.0 – 110.0	P	11-JAN-10 22:48	011110A-1
	Sodium	10200	ug/L	10000	ug/L	101.5	90.0 – 110.0	P	11-JAN-10 22:48	011110A-1
	Vanadium	512	ug/L	500	ug/L	102.4	90.0 – 110.0	P	11-JAN-10 22:48	011110A-1
	Zinc	502	ug/L	500	ug/L	100.4	90.0 – 110.0	P	11-JAN-10 22:48	011110A-1
	Antimony	508	ug/L	500	ug/L	101.7	90.0 – 110.0	P	14-JAN-10 18:23	011410-2
CCV09										
	Aluminum	4860	ug/L	5000	ug/L	97.3	90.0 – 110.0	P	11-JAN-10 23:59	011110A-1
	Barium	505	ug/L	500	ug/L	100.9	90.0 – 110.0	P	11-JAN-10 23:59	011110A-1
	Cadmium	506	ug/L	500	ug/L	101.2	90.0 – 110.0	P	11-JAN-10 23:59	011110A-1
	Calcium	5020	ug/L	5000	ug/L	100.4	90.0 – 110.0	P	11-JAN-10 23:59	011110A-1
	Chromium	506	ug/L	500	ug/L	101.1	90.0 – 110.0	P	11-JAN-10 23:59	011110A-1
	Cobalt	507	ug/L	500	ug/L	101.4	90.0 – 110.0	P	11-JAN-10 23:59	011110A-1
	Copper	497	ug/L	500	ug/L	99.4	90.0 – 110.0	P	11-JAN-10 23:59	011110A-1
	Iron	5200	ug/L	5000	ug/L	104.1	90.0 – 110.0	P	11-JAN-10 23:59	011110A-1
	Lead	506	ug/L	500	ug/L	101.2	90.0 – 110.0	P	11-JAN-10 23:59	011110A-1
	Magnesium	5290	ug/L	5000	ug/L	105.7	90.0 – 110.0	P	11-JAN-10 23:59	011110A-1
	Manganese	506	ug/L	500	ug/L	101.3	90.0 – 110.0	P	11-JAN-10 23:59	011110A-1
	Potassium	4920	ug/L	5000	ug/L	98.3	90.0 – 110.0	P	11-JAN-10 23:59	011110A-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1085

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS6,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Silver	510	ug/L	500	ug/L	101.9	90.0 - 110.0	P	11-JAN-10 23:59	011110A-1
	Sodium	10300	ug/L	10000	ug/L	103.1	90.0 - 110.0	P	11-JAN-10 23:59	011110A-1
	Vanadium	510	ug/L	500	ug/L	102.1	90.0 - 110.0	P	11-JAN-10 23:59	011110A-1
	Zinc	501	ug/L	500	ug/L	100.2	90.0 - 110.0	P	11-JAN-10 23:59	011110A-1
	Antimony	511	ug/L	500	ug/L	102.2	90.0 - 110.0	P	14-JAN-10 19:40	011410-2
CCV10										
	Aluminum	5010	ug/L	5000	ug/L	100.2	90.0 - 110.0	P	12-JAN-10 01:01	011110A-1
	Barium	518	ug/L	500	ug/L	103.6	90.0 - 110.0	P	12-JAN-10 01:01	011110A-1
	Cadmium	519	ug/L	500	ug/L	103.7	90.0 - 110.0	P	12-JAN-10 01:01	011110A-1
	Calcium	5080	ug/L	5000	ug/L	101.7	90.0 - 110.0	P	12-JAN-10 01:01	011110A-1
	Chromium	519	ug/L	500	ug/L	103.8	90.0 - 110.0	P	12-JAN-10 01:01	011110A-1
	Cobalt	520	ug/L	500	ug/L	104.1	90.0 - 110.0	P	12-JAN-10 01:01	011110A-1
	Copper	512	ug/L	500	ug/L	102.4	90.0 - 110.0	P	12-JAN-10 01:01	011110A-1
	Iron	5230	ug/L	5000	ug/L	104.6	90.0 - 110.0	P	12-JAN-10 01:01	011110A-1
	Lead	521	ug/L	500	ug/L	104.2	90.0 - 110.0	P	12-JAN-10 01:01	011110A-1
	Magnesium	5280	ug/L	5000	ug/L	105.7	90.0 - 110.0	P	12-JAN-10 01:01	011110A-1
	Manganese	520	ug/L	500	ug/L	104	90.0 - 110.0	P	12-JAN-10 01:01	011110A-1
	Potassium	5020	ug/L	5000	ug/L	100.5	90.0 - 110.0	P	12-JAN-10 01:01	011110A-1
	Silver	525	ug/L	500	ug/L	105	90.0 - 110.0	P	12-JAN-10 01:01	011110A-1
	Sodium	10200	ug/L	10000	ug/L	102.1	90.0 - 110.0	P	12-JAN-10 01:01	011110A-1
	Vanadium	524	ug/L	500	ug/L	104.8	90.0 - 110.0	P	12-JAN-10 01:01	011110A-1
	Zinc	514	ug/L	500	ug/L	102.8	90.0 - 110.0	P	12-JAN-10 01:01	011110A-1
	Antimony	527	ug/L	500	ug/L	105.4	90.0 - 110.0	P	14-JAN-10 20:50	011410-2
CCV11										
	Aluminum	5050	ug/L	5000	ug/L	100.9	90.0 - 110.0	P	12-JAN-10 02:12	011110A-1
	Barium	517	ug/L	500	ug/L	103.4	90.0 - 110.0	P	12-JAN-10 02:12	011110A-1
	Cadmium	517	ug/L	500	ug/L	103.5	90.0 - 110.0	P	12-JAN-10 02:12	011110A-1
	Calcium	5050	ug/L	5000	ug/L	101	90.0 - 110.0	P	12-JAN-10 02:12	011110A-1
	Chromium	518	ug/L	500	ug/L	103.6	90.0 - 110.0	P	12-JAN-10 02:12	011110A-1
	Cobalt	520	ug/L	500	ug/L	104	90.0 - 110.0	P	12-JAN-10 02:12	011110A-1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–1085

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS6,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Copper	510	ug/L	500	ug/L	102	90.0 – 110.0	P	12–JAN–10 02:12	011110A–1
	Iron	5180	ug/L	5000	ug/L	103.7	90.0 – 110.0	P	12–JAN–10 02:12	011110A–1
	Lead	517	ug/L	500	ug/L	103.4	90.0 – 110.0	P	12–JAN–10 02:12	011110A–1
	Magnesium	5220	ug/L	5000	ug/L	104.4	90.0 – 110.0	P	12–JAN–10 02:12	011110A–1
	Manganese	515	ug/L	500	ug/L	103	90.0 – 110.0	P	12–JAN–10 02:12	011110A–1
	Potassium	5040	ug/L	5000	ug/L	100.8	90.0 – 110.0	P	12–JAN–10 02:12	011110A–1
	Silver	524	ug/L	500	ug/L	104.9	90.0 – 110.0	P	12–JAN–10 02:12	011110A–1
	Sodium	10300	ug/L	10000	ug/L	102.8	90.0 – 110.0	P	12–JAN–10 02:12	011110A–1
	Vanadium	524	ug/L	500	ug/L	104.7	90.0 – 110.0	P	12–JAN–10 02:12	011110A–1
	Zinc	512	ug/L	500	ug/L	102.4	90.0 – 110.0	P	12–JAN–10 02:12	011110A–1
	Antimony	527	ug/L	500	ug/L	105.4	90.0 – 110.0	P	14–JAN–10 22:00	011410–2
CCV12										
	Aluminum	5080	ug/L	5000	ug/L	101.5	90.0 – 110.0	P	12–JAN–10 03:22	011110A–1
	Barium	525	ug/L	500	ug/L	105.1	90.0 – 110.0	P	12–JAN–10 03:22	011110A–1
	Cadmium	526	ug/L	500	ug/L	105.2	90.0 – 110.0	P	12–JAN–10 03:22	011110A–1
	Calcium	5170	ug/L	5000	ug/L	103.3	90.0 – 110.0	P	12–JAN–10 03:22	011110A–1
	Chromium	527	ug/L	500	ug/L	105.5	90.0 – 110.0	P	12–JAN–10 03:22	011110A–1
	Cobalt	527	ug/L	500	ug/L	105.5	90.0 – 110.0	P	12–JAN–10 03:22	011110A–1
	Copper	518	ug/L	500	ug/L	103.6	90.0 – 110.0	P	12–JAN–10 03:22	011110A–1
	Iron	5300	ug/L	5000	ug/L	105.9	90.0 – 110.0	P	12–JAN–10 03:22	011110A–1
	Lead	527	ug/L	500	ug/L	105.4	90.0 – 110.0	P	12–JAN–10 03:22	011110A–1
	Magnesium	5410	ug/L	5000	ug/L	108.3	90.0 – 110.0	P	12–JAN–10 03:22	011110A–1
	Manganese	522	ug/L	500	ug/L	104.5	90.0 – 110.0	P	12–JAN–10 03:22	011110A–1
	Potassium	5080	ug/L	5000	ug/L	101.6	90.0 – 110.0	P	12–JAN–10 03:22	011110A–1
	Silver	532	ug/L	500	ug/L	106.4	90.0 – 110.0	P	12–JAN–10 03:22	011110A–1
	Sodium	10300	ug/L	10000	ug/L	102.7	90.0 – 110.0	P	12–JAN–10 03:22	011110A–1
	Vanadium	532	ug/L	500	ug/L	106.4	90.0 – 110.0	P	12–JAN–10 03:22	011110A–1
	Zinc	521	ug/L	500	ug/L	104.3	90.0 – 110.0	P	12–JAN–10 03:22	011110A–1
	Antimony	532	ug/L	500	ug/L	106.5	90.0 – 110.0	P	14–JAN–10 23:10	011410–2

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–1085

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS6,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
CCV13										
	Antimony	529	ug/L	500	ug/L	105.9	90.0 – 110.0	P	15–JAN–10 00:13	011410–2

METALS
–2b–
CRDL Standard for AA & ICP

SDG No: 10–1085

Contract: LANL01004 **Lab Code:** GEL

AA CRDL Standard Source: SPEX

ICP CRDL Standard Source Solutions Plus

Instrument ID: HG3,ICPMS6,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Advisory Limits (%R)	M	Analysis Date/Time	Run Number
CRDL01										
	Mercury	.174	ug/L	.2	ug/L	87	70.0 – 130.0	AV	11–JAN–10 09:37	011110S1–7
	Nickel	2.28	ug/L	2	ug/L	113.9	70.0 – 130.0	MS	12–JAN–10 11:49	100111–3
	Beryllium	.528	ug/L	.5	ug/L	105.6	70.0 – 130.0	MS	12–JAN–10 11:49	100111–3
	Selenium	5.41	ug/L	5	ug/L	108.3	70.0 – 130.0	MS	12–JAN–10 11:49	100111–3
	Thallium	1.06	ug/L	1	ug/L	106.3	70.0 – 130.0	MS	13–JAN–10 21:24	100113–4
	Arsenic	5.57	ug/L	5	ug/L	111.5	70.0 – 130.0	MS	13–JAN–10 21:24	100113–4
PQL01										
	Aluminum	202	ug/L	200	ug/L	101	70.0 – 130.0	P	11–JAN–10 15:52	011110A–1
	Manganese	10.5	ug/L	10	ug/L	104.9	70.0 – 130.0	P	11–JAN–10 15:52	011110A–1
	Silver	4.78	ug/L	5	ug/L	95.5	70.0 – 130.0	P	11–JAN–10 15:52	011110A–1
	Barium	5.02	ug/L	5	ug/L	100.4	70.0 – 130.0	P	11–JAN–10 15:52	011110A–1
	Chromium	4.72	ug/L	5	ug/L	94.4	70.0 – 130.0	P	11–JAN–10 15:52	011110A–1
	Calcium	209	ug/L	200	ug/L	104.7	70.0 – 130.0	P	11–JAN–10 15:52	011110A–1
	Zinc	10.5	ug/L	10	ug/L	104.8	70.0 – 130.0	P	11–JAN–10 15:52	011110A–1
	Vanadium	4.95	ug/L	5	ug/L	99	70.0 – 130.0	P	11–JAN–10 15:52	011110A–1
	Copper	9.9	ug/L	10	ug/L	99	70.0 – 130.0	P	11–JAN–10 15:52	011110A–1
	Cobalt	4.96	ug/L	5	ug/L	99.2	70.0 – 130.0	P	11–JAN–10 15:52	011110A–1
	Cadmium	5.07	ug/L	5	ug/L	101.5	70.0 – 130.0	P	11–JAN–10 15:52	011110A–1
	Sodium	291	ug/L	300	ug/L	97	70.0 – 130.0	P	11–JAN–10 15:52	011110A–1
	Potassium	159	ug/L	150	ug/L	106.1	70.0 – 130.0	P	11–JAN–10 15:52	011110A–1
	Magnesium	343	ug/L	300	ug/L	114.4	70.0 – 130.0	P	11–JAN–10 15:52	011110A–1
	Iron	116	ug/L	100	ug/L	116.4	70.0 – 130.0	P	11–JAN–10 15:52	011110A–1
	Lead	10.6	ug/L	10	ug/L	106.1	70.0 – 130.0	P	11–JAN–10 15:52	011110A–1
	Antimony	9.49	ug/L	10	ug/L	94.9	70.0 – 130.0	P	14–JAN–10 10:46	011410–2
PQL02										
	Antimony	11.5	ug/L	10	ug/L	115	70.0 – 130.0	P	14–JAN–10 14:26	011410–2
PQL03										
	Antimony	11.7	ug/L	10	ug/L	117.1	70.0 – 130.0	P	14–JAN–10 15:52	011410–2

METALS
–2b–
CRDL Standard for AA & ICP

SDG No: 10–1085

Contract: LANL01004 **Lab Code:** GEL

AA CRDL Standard Source:

ICP CRDL Standard Source

Instrument ID: HG3,ICPMS6,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Advisory Limits (%R)	M	Analysis Date/Time	Run Number
PQL04										
	Antimony	10.2	ug/L	10	ug/L	102	70.0 – 130.0	P	14–JAN–10 17:08	011410–2

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–1085

Contract: LANL01004 **Lab Code: GEL**

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
ICB01										
	Mercury	0.068	+/–.2	U	0.068	0.2	SOL	AV	11–JAN–10 09:35	011110S1–7
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	11–JAN–10 15:45	011110A–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	11–JAN–10 15:45	011110A–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	11–JAN–10 15:45	011110A–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	11–JAN–10 15:45	011110A–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	11–JAN–10 15:45	011110A–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	11–JAN–10 15:45	011110A–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	11–JAN–10 15:45	011110A–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	11–JAN–10 15:45	011110A–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	11–JAN–10 15:45	011110A–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	11–JAN–10 15:45	011110A–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	11–JAN–10 15:45	011110A–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	11–JAN–10 15:45	011110A–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	11–JAN–10 15:45	011110A–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	11–JAN–10 15:45	011110A–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	11–JAN–10 15:45	011110A–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	11–JAN–10 15:45	011110A–1
	Beryllium	0.1	+/–.5	U	0.1	0.5	SOL	MS	12–JAN–10 11:43	100111–3
	Nickel	0.5	+/–2	U	0.5	2.0	SOL	MS	12–JAN–10 11:43	100111–3
	Selenium	2.5	+/–5	U	2.5	5.0	SOL	MS	12–JAN–10 11:43	100111–3
	Arsenic	1.0	+/–5	U	1.0	5.0	SOL	MS	13–JAN–10 21:20	100113–4
	Thallium	0.3	+/–1	U	0.3	1.0	SOL	MS	13–JAN–10 21:20	100113–4
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	14–JAN–10 10:39	011410–2
CCB01										
	Mercury	0.068	+/–.2	U	0.068	0.2	SOL	AV	11–JAN–10 09:40	011110S1–7
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	11–JAN–10 16:31	011110A–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	11–JAN–10 16:31	011110A–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	11–JAN–10 16:31	011110A–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	11–JAN–10 16:31	011110A–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	11–JAN–10 16:31	011110A–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	11–JAN–10 16:31	011110A–1

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-1085

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	11-JAN-10 16:31	011110A-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	11-JAN-10 16:31	011110A-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	11-JAN-10 16:31	011110A-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	11-JAN-10 16:31	011110A-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	11-JAN-10 16:31	011110A-1
	Potassium	128.97	+/-250	J	64.0	250	SOL	P	11-JAN-10 16:31	011110A-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	11-JAN-10 16:31	011110A-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	11-JAN-10 16:31	011110A-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	11-JAN-10 16:31	011110A-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	11-JAN-10 16:31	011110A-1
	Beryllium	0.1	+/-.5	U	0.1	0.5	SOL	MS	12-JAN-10 12:13	100111-3
	Nickel	0.5	+/-2	U	0.5	2.0	SOL	MS	12-JAN-10 12:13	100111-3
	Selenium	2.5	+/-5	U	2.5	5.0	SOL	MS	12-JAN-10 12:13	100111-3
	Arsenic	1.0	+/-5	U	1.0	5.0	SOL	MS	13-JAN-10 21:40	100113-4
	Thallium	0.3	+/-1	U	0.3	1.0	SOL	MS	13-JAN-10 21:40	100113-4
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	14-JAN-10 11:40	011410-2
CCB02										
	Mercury	0.068	+/-.2	U	0.068	0.2	SOL	AV	11-JAN-10 10:00	011110S1-7
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	11-JAN-10 16:45	011110A-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	11-JAN-10 16:45	011110A-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	11-JAN-10 16:45	011110A-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	11-JAN-10 16:45	011110A-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	11-JAN-10 16:45	011110A-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	11-JAN-10 16:45	011110A-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	11-JAN-10 16:45	011110A-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	11-JAN-10 16:45	011110A-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	11-JAN-10 16:45	011110A-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	11-JAN-10 16:45	011110A-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	11-JAN-10 16:45	011110A-1
	Potassium	84.9	+/-250	J	64.0	250	SOL	P	11-JAN-10 16:45	011110A-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	11-JAN-10 16:45	011110A-1

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-1085

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	11-JAN-10 16:45	011110A-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	11-JAN-10 16:45	011110A-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	11-JAN-10 16:45	011110A-1
	Beryllium	0.1	+/-.5	U	0.1	0.5	SOL	MS	12-JAN-10 12:42	100111-3
	Nickel	0.5	+/-2	U	0.5	2.0	SOL	MS	12-JAN-10 12:42	100111-3
	Selenium	2.5	+/-5	U	2.5	5.0	SOL	MS	12-JAN-10 12:42	100111-3
	Arsenic	1.0	+/-5	U	1.0	5.0	SOL	MS	13-JAN-10 22:01	100113-4
	Thallium	0.312	+/-1	J	0.3	1.0	SOL	MS	13-JAN-10 22:01	100113-4
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	14-JAN-10 12:01	011410-2
CCB03										
	Mercury	0.068	+/-.2	U	0.068	0.2	SOL	AV	11-JAN-10 10:20	011110S1-7
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	11-JAN-10 17:06	011110A-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	11-JAN-10 17:06	011110A-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	11-JAN-10 17:06	011110A-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	11-JAN-10 17:06	011110A-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	11-JAN-10 17:06	011110A-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	11-JAN-10 17:06	011110A-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	11-JAN-10 17:06	011110A-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	11-JAN-10 17:06	011110A-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	11-JAN-10 17:06	011110A-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	11-JAN-10 17:06	011110A-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	11-JAN-10 17:06	011110A-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	11-JAN-10 17:06	011110A-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	11-JAN-10 17:06	011110A-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	11-JAN-10 17:06	011110A-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	11-JAN-10 17:06	011110A-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	11-JAN-10 17:06	011110A-1
	Beryllium	0.1	+/-.5	U	0.1	0.5	SOL	MS	12-JAN-10 13:42	100111-3
	Nickel	0.5	+/-2	U	0.5	2.0	SOL	MS	12-JAN-10 13:42	100111-3
	Selenium	2.5	+/-5	U	2.5	5.0	SOL	MS	12-JAN-10 13:42	100111-3
	Arsenic	1.0	+/-5	U	1.0	5.0	SOL	MS	13-JAN-10 22:41	100113-4

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–1085

Contract: LANL01004 **Lab Code: GEL**

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Thallium	0.3	+/–1	U	0.3	1.0	SOL	MS	13–JAN–10 22:41	100113–4
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	14–JAN–10 13:03	011410–2
CCB04										
	Mercury	0.068	+/–.2	U	0.068	0.2	SOL	AV	11–JAN–10 10:40	011110S1–7
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	11–JAN–10 18:01	011110A–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	11–JAN–10 18:01	011110A–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	11–JAN–10 18:01	011110A–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	11–JAN–10 18:01	011110A–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	11–JAN–10 18:01	011110A–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	11–JAN–10 18:01	011110A–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	11–JAN–10 18:01	011110A–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	11–JAN–10 18:01	011110A–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	11–JAN–10 18:01	011110A–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	11–JAN–10 18:01	011110A–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	11–JAN–10 18:01	011110A–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	11–JAN–10 18:01	011110A–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	11–JAN–10 18:01	011110A–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	11–JAN–10 18:01	011110A–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	11–JAN–10 18:01	011110A–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	11–JAN–10 18:01	011110A–1
	Beryllium	0.1	+/–.5	U	0.1	0.5	SOL	MS	12–JAN–10 14:41	100111–3
	Nickel	0.5	+/–2	U	0.5	2.0	SOL	MS	12–JAN–10 14:41	100111–3
	Selenium	2.5	+/–5	U	2.5	5.0	SOL	MS	12–JAN–10 14:41	100111–3
	Arsenic	1.0	+/–5	U	1.0	5.0	SOL	MS	13–JAN–10 23:18	100113–4
	Thallium	0.3	+/–1	U	0.3	1.0	SOL	MS	13–JAN–10 23:18	100113–4
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	14–JAN–10 14:33	011410–2
CCB05										
	Mercury	0.068	+/–.2	U	0.068	0.2	SOL	AV	11–JAN–10 11:00	011110S1–7
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	11–JAN–10 19:05	011110A–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	11–JAN–10 19:05	011110A–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	11–JAN–10 19:05	011110A–1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10–1085

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	11–JAN–10 19:05	011110A–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	11–JAN–10 19:05	011110A–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	11–JAN–10 19:05	011110A–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	11–JAN–10 19:05	011110A–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	11–JAN–10 19:05	011110A–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	11–JAN–10 19:05	011110A–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	11–JAN–10 19:05	011110A–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	11–JAN–10 19:05	011110A–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	11–JAN–10 19:05	011110A–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	11–JAN–10 19:05	011110A–1
	Sodium	88.32	+/–250	J	70.0	250	SOL	P	11–JAN–10 19:05	011110A–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	11–JAN–10 19:05	011110A–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	11–JAN–10 19:05	011110A–1
	Beryllium	0.1	+/–.5	U	0.1	0.5	SOL	MS	12–JAN–10 15:22	100111–3
	Nickel	0.5	+/–2	U	0.5	2.0	SOL	MS	12–JAN–10 15:22	100111–3
	Selenium	2.5	+/–5	U	2.5	5.0	SOL	MS	12–JAN–10 15:22	100111–3
	Arsenic	1.0	+/–5	U	1.0	5.0	SOL	MS	13–JAN–10 23:50	100113–4
	Thallium	0.3	+/–1	U	0.3	1.0	SOL	MS	13–JAN–10 23:50	100113–4
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	14–JAN–10 15:11	011410–2
CCB06										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	11–JAN–10 20:21	011110A–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	11–JAN–10 20:21	011110A–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	11–JAN–10 20:21	011110A–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	11–JAN–10 20:21	011110A–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	11–JAN–10 20:21	011110A–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	11–JAN–10 20:21	011110A–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	11–JAN–10 20:21	011110A–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	11–JAN–10 20:21	011110A–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	11–JAN–10 20:21	011110A–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	11–JAN–10 20:21	011110A–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	11–JAN–10 20:21	011110A–1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10–1085

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	11–JAN–10 20:21	011110A–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	11–JAN–10 20:21	011110A–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	11–JAN–10 20:21	011110A–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	11–JAN–10 20:21	011110A–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	11–JAN–10 20:21	011110A–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	14–JAN–10 15:59	011410–2
CCB07										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	11–JAN–10 21:38	011110A–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	11–JAN–10 21:38	011110A–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	11–JAN–10 21:38	011110A–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	11–JAN–10 21:38	011110A–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	11–JAN–10 21:38	011110A–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	11–JAN–10 21:38	011110A–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	11–JAN–10 21:38	011110A–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	11–JAN–10 21:38	011110A–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	11–JAN–10 21:38	011110A–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	11–JAN–10 21:38	011110A–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	11–JAN–10 21:38	011110A–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	11–JAN–10 21:38	011110A–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	11–JAN–10 21:38	011110A–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	11–JAN–10 21:38	011110A–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	11–JAN–10 21:38	011110A–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	11–JAN–10 21:38	011110A–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	14–JAN–10 17:15	011410–2
CCB08										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	11–JAN–10 22:55	011110A–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	11–JAN–10 22:55	011110A–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	11–JAN–10 22:55	011110A–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	11–JAN–10 22:55	011110A–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	11–JAN–10 22:55	011110A–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	11–JAN–10 22:55	011110A–1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10–1085

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	11–JAN–10 22:55	011110A–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	11–JAN–10 22:55	011110A–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	11–JAN–10 22:55	011110A–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	11–JAN–10 22:55	011110A–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	11–JAN–10 22:55	011110A–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	11–JAN–10 22:55	011110A–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	11–JAN–10 22:55	011110A–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	11–JAN–10 22:55	011110A–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	11–JAN–10 22:55	011110A–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	11–JAN–10 22:55	011110A–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	14–JAN–10 18:30	011410–2
CCB09										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	12–JAN–10 00:06	011110A–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	12–JAN–10 00:06	011110A–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	12–JAN–10 00:06	011110A–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	12–JAN–10 00:06	011110A–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	12–JAN–10 00:06	011110A–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	12–JAN–10 00:06	011110A–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	12–JAN–10 00:06	011110A–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	12–JAN–10 00:06	011110A–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	12–JAN–10 00:06	011110A–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	12–JAN–10 00:06	011110A–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	12–JAN–10 00:06	011110A–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	12–JAN–10 00:06	011110A–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	12–JAN–10 00:06	011110A–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	12–JAN–10 00:06	011110A–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	12–JAN–10 00:06	011110A–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	12–JAN–10 00:06	011110A–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	14–JAN–10 19:47	011410–2
CCB10										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	12–JAN–10 01:08	011110A–1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10–1085

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	12–JAN–10 01:08	011110A–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	12–JAN–10 01:08	011110A–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	12–JAN–10 01:08	011110A–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	12–JAN–10 01:08	011110A–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	12–JAN–10 01:08	011110A–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	12–JAN–10 01:08	011110A–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	12–JAN–10 01:08	011110A–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	12–JAN–10 01:08	011110A–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	12–JAN–10 01:08	011110A–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	12–JAN–10 01:08	011110A–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	12–JAN–10 01:08	011110A–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	12–JAN–10 01:08	011110A–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	12–JAN–10 01:08	011110A–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	12–JAN–10 01:08	011110A–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	12–JAN–10 01:08	011110A–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	14–JAN–10 20:57	011410–2
CCB11										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	12–JAN–10 02:19	011110A–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	12–JAN–10 02:19	011110A–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	12–JAN–10 02:19	011110A–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	12–JAN–10 02:19	011110A–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	12–JAN–10 02:19	011110A–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	12–JAN–10 02:19	011110A–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	12–JAN–10 02:19	011110A–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	12–JAN–10 02:19	011110A–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	12–JAN–10 02:19	011110A–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	12–JAN–10 02:19	011110A–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	12–JAN–10 02:19	011110A–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	12–JAN–10 02:19	011110A–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	12–JAN–10 02:19	011110A–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	12–JAN–10 02:19	011110A–1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10–1085

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	12–JAN–10 02:19	011110A–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	12–JAN–10 02:19	011110A–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	14–JAN–10 22:07	011410–2
CCB12										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	12–JAN–10 03:29	011110A–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	12–JAN–10 03:29	011110A–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	12–JAN–10 03:29	011110A–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	12–JAN–10 03:29	011110A–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	12–JAN–10 03:29	011110A–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	12–JAN–10 03:29	011110A–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	12–JAN–10 03:29	011110A–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	12–JAN–10 03:29	011110A–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	12–JAN–10 03:29	011110A–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	12–JAN–10 03:29	011110A–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	12–JAN–10 03:29	011110A–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	12–JAN–10 03:29	011110A–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	12–JAN–10 03:29	011110A–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	12–JAN–10 03:29	011110A–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	12–JAN–10 03:29	011110A–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	12–JAN–10 03:29	011110A–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	14–JAN–10 23:17	011410–2
CCB13										
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	15–JAN–10 00:20	011410–2

METALS
–3b–
PREPARATION BLANK SUMMARY

SDG NO. 10–1085

Contract: LANL01004

Matrix: SOIL

Sample ID	Analyte	Result	Units	Acceptance Window	Conc Qual	M	MDL	RDL
1202004420								
	Arsenic	199	ug/kg	+/–994	U	MS	199	994
	Beryllium	19.9	ug/kg	+/–99.4	U	MS	19.9	99.4
	Selenium	497	ug/kg	+/–994	U	MS	497	994
	Nickel	99.4	ug/kg	+/–398	U	MS	99.4	398
	Thallium	59.6	ug/kg	+/–199	U	MS	59.6	199
1202004426								
	Zinc	327	ug/kg	+/–990	U	P	327	990
	Calcium	7920	ug/kg	+/–24800	U	P	7920	24800
	Cobalt	149	ug/kg	+/–495	U	P	149	495
	Iron	7920	ug/kg	+/–24800	U	P	7920	24800
	Vanadium	99	ug/kg	+/–495	U	P	99	495
	Sodium	6930	ug/kg	+/–24800	U	P	6930	24800
	Silver	99	ug/kg	+/–495	U	P	99	495
	Potassium	6340	ug/kg	+/–24800	U	P	6340	24800
	Manganese	198	ug/kg	+/–990	U	P	198	990
	Magnesium	8420	ug/kg	+/–29700	U	P	8420	29700
	Lead	866	ug/kg	+/–990	J	P	248	990
	Copper	297	ug/kg	+/–990	U	P	297	990
	Chromium	302	ug/kg	+/–495	J	P	149	495
	Cadmium	99	ug/kg	+/–495	U	P	99	495
	Aluminum	6730	ug/kg	+/–19800	U	P	6730	19800
	Barium	99	ug/kg	+/–495	U	P	99	495
1202010664								
	Mercury	3.97	ug/kg	+/–11.7	U	AV	3.97	11.7
1202014118								
	Antimony	330	ug/kg	+/–1000	U	P	330	1000

METALS
-4-
Interference Check Sample

SDG No: 10-1085

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Aluminum	514000	ug/L	500000	ug/L	103	80.0 – 120.0	11-JAN-10 15:59	011110A-1
	Barium	3.06	ug/L					11-JAN-10 15:59	011110A-1
	Cadmium	-0.409	ug/L					11-JAN-10 15:59	011110A-1
	Calcium	482000	ug/L	500000	ug/L	96.5	80.0 – 120.0	11-JAN-10 15:59	011110A-1
	Chromium	1.65	ug/L					11-JAN-10 15:59	011110A-1
	Cobalt	-1.58	ug/L					11-JAN-10 15:59	011110A-1
	Copper	4.62	ug/L					11-JAN-10 15:59	011110A-1
	Iron	189000	ug/L	200000	ug/L	94.5	80.0 – 120.0	11-JAN-10 15:59	011110A-1
	Lead	-0.0021	ug/L					11-JAN-10 15:59	011110A-1
	Magnesium	492000	ug/L	500000	ug/L	98.3	80.0 – 120.0	11-JAN-10 15:59	011110A-1
	Manganese	2.73	ug/L					11-JAN-10 15:59	011110A-1
	Potassium	-217.0	ug/L					11-JAN-10 15:59	011110A-1
	Silver	0.174	ug/L					11-JAN-10 15:59	011110A-1
	Sodium	8.11	ug/L					11-JAN-10 15:59	011110A-1
	Vanadium	-1.0	ug/L					11-JAN-10 15:59	011110A-1
	Zinc	7.89	ug/L					11-JAN-10 15:59	011110A-1
ICSAB01									
	Aluminum	509000	ug/L	500000	ug/L	102	80.0 – 120.0	11-JAN-10 16:05	011110A-1
	Barium	499	ug/L	500	ug/L	99.9	80.0 – 120.0	11-JAN-10 16:05	011110A-1
	Cadmium	470	ug/L	500	ug/L	94	80.0 – 120.0	11-JAN-10 16:05	011110A-1
	Calcium	476000	ug/L	500000	ug/L	95.1	80.0 – 120.0	11-JAN-10 16:05	011110A-1
	Chromium	485	ug/L	500	ug/L	97	80.0 – 120.0	11-JAN-10 16:05	011110A-1
	Cobalt	448	ug/L	500	ug/L	89.7	80.0 – 120.0	11-JAN-10 16:05	011110A-1
	Copper	558	ug/L	500	ug/L	112	80.0 – 120.0	11-JAN-10 16:05	011110A-1
	Iron	187000	ug/L	200000	ug/L	93.3	80.0 – 120.0	11-JAN-10 16:05	011110A-1
	Lead	466	ug/L	500	ug/L	93.2	80.0 – 120.0	11-JAN-10 16:05	011110A-1
	Magnesium	487000	ug/L	500000	ug/L	97.4	80.0 – 120.0	11-JAN-10 16:05	011110A-1
	Manganese	485	ug/L	500	ug/L	97.1	80.0 – 120.0	11-JAN-10 16:05	011110A-1
	Potassium	5310	ug/L	5000	ug/L	106	80.0 – 120.0	11-JAN-10 16:05	011110A-1

METALS
-4-
Interference Check Sample

SDG No: 10-1085

Contract: LANL01004 **Lab Code:** GEL

ICS:

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
	Silver	275	ug/L	250	ug/L	110	80.0 - 120.0	11-JAN-10 16:05	011110A-1
	Sodium	5540	ug/L	5000	ug/L	111	80.0 - 120.0	11-JAN-10 16:05	011110A-1
	Vanadium	512	ug/L	500	ug/L	102	80.0 - 120.0	11-JAN-10 16:05	011110A-1
	Zinc	504	ug/L	500	ug/L	101	80.0 - 120.0	11-JAN-10 16:05	011110A-1

METALS
–4–
Interference Check Sample

SDG No: 10–1085

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Antimony	4.44	ug/L					14–JAN–10 10:53	011410–2
ICSAB01									
	Antimony	550	ug/L	500	ug/L	110	80.0 – 120.0	14–JAN–10 10:59	011410–2

METALS
–4–
Interference Check Sample

SDG No: 10–1085

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: ICPMS6

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Beryllium	0.061	ug/L					12–JAN–10 11:55	100111–3
	Nickel	3.05	ug/L					12–JAN–10 11:55	100111–3
	Selenium	–1.46	ug/L					12–JAN–10 11:55	100111–3
ICSAB01									
	Beryllium	18.6	ug/L	20	ug/L	93.1	80.0 – 120.0	12–JAN–10 12:01	100111–3
	Nickel	22.5	ug/L	22.7	ug/L	98.9	80.0 – 120.0	12–JAN–10 12:01	100111–3
	Selenium	19.4	ug/L	20	ug/L	96.8	80.0 – 120.0	12–JAN–10 12:01	100111–3

METALS
–4–
Interference Check Sample

SDG No: 10–1085

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: ICPMS6

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Arsenic	–0.074	ug/L					13–JAN–10 21:28	100113–4
	Thallium	–0.001	ug/L					13–JAN–10 21:28	100113–4
ICSAB01									
	Arsenic	19.6	ug/L	20	ug/L	98.1	80.0 – 120.0	13–JAN–10 21:32	100113–4
	Thallium	17.9	ug/L	20	ug/L	89.5	80.0 – 120.0	13–JAN–10 21:32	100113–4

METALS
–5a–

Matrix Spike Summary

SDG NO. 10–1085 **Client ID** WST03–10–2148S

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 92.8

Sample ID: 243549002 **Spike ID:** 1202004423

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Arsenic	ug/kg	75–125	9380		864	J	8340	102		MS
Beryllium	ug/kg	75–125	6280		542		5210	110		MS
Nickel	ug/kg	75–125	8500		2950		5210	107		MS
Selenium	ug/kg	75–125	1720		536	U	2080	77.8		MS
Thallium	ug/kg	75–125	9870		64.3	U	10400	94.2		MS

METALS
–5a–

Matrix Spike Duplicate Summary

SDG NO. 10–1085 **Client ID** WST03–10–2148SD

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 92.8

Sample ID: 243549002 **Spike ID:** 1202004425

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Arsenic	ug/kg	75–125	8500		864	J	8500	89.9		MS
Beryllium	ug/kg	75–125	5780		542		5310	98.5		MS
Nickel	ug/kg	75–125	7930		2950		5310	93.7		MS
Selenium	ug/kg	75–125	1430		536	U	2130	62.8	N	MS
Thallium	ug/kg	75–125	9240		64.3	U	10600	86.4		MS

METALS
–5a–
Matrix Spike Summary

SDG NO. 10–1085 **Client ID** WST03–10–2148S

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 92.8

Sample ID: 243549002 **Spike ID:** 1202004429

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Antimony	ug/kg	75–125	49100		333	U	53300	91.9		P
Barium	ug/kg	75–125	94000		47200		52800	88.7		P
Cadmium	ug/kg	75–125	49900		106	U	52800	94.4		P
Calcium	ug/kg	75–125	1680000		816000		528000	164	N	P
Chromium	ug/kg	75–125	70300		12200		52800	110		P
Aluminum	ug/kg		10400000		3890000		528000	1230	N/A	P
Cobalt	ug/kg	75–125	51700		2510		52800	93.2		P
Copper	ug/kg	75–125	58200		3480		52800	104		P
Iron	ug/kg		11400000		8430000		528000	555	N/A	P
Lead	ug/kg	75–125	60600		7570		52800	100		P
Magnesium	ug/kg	75–125	1950000		750000		528000	227	N	P
Manganese	ug/kg		330000		220000		52800	209	N/A	P
Potassium	ug/kg	75–125	1500000		581000		528000	175	N	P
Silver	ug/kg	75–125	52300		106	U	52800	98.8		P
Sodium	ug/kg	75–125	743000		174000		528000	108		P
Vanadium	ug/kg	75–125	63500		10700		52800	100		P
Zinc	ug/kg	75–125	81400		26200		52800	105		P

METALS
–5a–
Matrix Spike Duplicate Summary

SDG NO. 10–1085 **Client ID** WST03–10–2148SD

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 92.8

Sample ID: 243549002 **Spike ID:** 1202004431

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Sodium	ug/kg	75–125	708000		174000		529000	101		P
Vanadium	ug/kg	75–125	62100		10700		52900	97.2		P
Zinc	ug/kg	75–125	79300		26200		52900	100		P
Aluminum	ug/kg		8640000		3890000		529000	897	N/A	P
Antimony	ug/kg	75–125	48800		333	U	52500	92.7		P
Barium	ug/kg	75–125	96500		47200		52900	93.2		P
Cadmium	ug/kg	75–125	50900		106	U	52900	96.1		P
Calcium	ug/kg	75–125	1430000		816000		529000	116		P
Chromium	ug/kg	75–125	74100		12200		52900	117		P
Cobalt	ug/kg	75–125	52100		2510		52900	93.7		P
Copper	ug/kg	75–125	58400		3480		52900	104		P
Iron	ug/kg		10200000		8430000		529000	337	N/A	P
Lead	ug/kg	75–125	58700		7570		52900	96.6		P
Magnesium	ug/kg	75–125	1670000		750000		529000	174	N	P
Manganese	ug/kg		273000		220000		52900	101	N/A	P
Potassium	ug/kg	75–125	1380000		581000		529000	150	N	P
Silver	ug/kg	75–125	53100		106	U	52900	100		P

METALS
–5a–
Matrix Spike Summary

SDG NO. 10–1085 **Client ID** WST21–10–9933S

Contract: LANL01006 **Level:** Low

Matrix: SOIL **% Solids:** 88

Sample ID: 243555001 **Spike ID:** 1202010667

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Mercury	ug/kg	75–125	132		3.9	U	131	98.8		AV

METALS
–5a–
Matrix Spike Duplicate Summary

SDG NO. 10–1085 **Client ID** WST21–10–9933SD

Contract: LANL01006 **Level:** Low

Matrix: SOIL **% Solids:** 88

Sample ID: 243555001 **Spike ID:** 1202010679

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Mercury	ug/kg	75–125	124		3.9	U	123	98.1		AV

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–1085

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** WST03–10–2148D

Sample ID: 243549002 **Duplicate ID:** 1202004422 **Percent Solids for Dup:** 92.8

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Arsenic	ug/kg	+/–1050	864	J	1030	J	17.7		MS
Beryllium	ug/kg	+/–20%	542		717		27.7	*	MS
Nickel	ug/kg	+/–20%	2950		3730		23.3	*	MS
Selenium	ug/kg		536	U	523	U			MS
Thallium	ug/kg		64.3	U	71.8	J	200		MS

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–1085

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** WST03–10–2148SD

Sample ID: 1202004423 **Duplicate ID:** 1202004425 **Percent Solids for Dup:** 92.8

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Arsenic	ug/kg	+/–20	9380		8500		9.85		MS
Beryllium	ug/kg	+/–20	6280		5780		8.41		MS
Nickel	ug/kg	+/–20	8500		7930		7		MS
Selenium	ug/kg	+/–20	1720		1430		18.2		MS
Thallium	ug/kg	+/–20	9870		9240		6.64		MS

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–1085

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** WST03–10–2148D

Sample ID: 243549002 **Duplicate ID:** 1202004428 **Percent Solids for Dup:** 92.8

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	ug/kg	+/–20%	3890000		3860000		.997		P
Antimony	ug/kg		333	U	356	U			P
Barium	ug/kg	+/–20%	47200		42200		11.1		P
Cadmium	ug/kg		106	U	108	U			P
Calcium	ug/kg	+/–20%	816000		889000		8.57		P
Chromium	ug/kg	+/–20%	12200		12500		2.15		P
Cobalt	ug/kg	+/–538	2510		1550		47.4	*	P
Copper	ug/kg	+/–1080	3480		3400		2.4		P
Iron	ug/kg	+/–20%	8430000		8190000		2.88		P
Lead	ug/kg	+/–20%	7570		6870		9.75		P
Magnesium	ug/kg	+/–20%	750000		715000		4.68		P
Manganese	ug/kg	+/–20%	220000		251000		13.1		P
Potassium	ug/kg	+/–20%	581000		532000		8.93		P
Silver	ug/kg		106	U	232	J	200		P
Sodium	ug/kg	+/–20%	174000		172000		1.21		P
Vanadium	ug/kg	+/–20%	10700		7980		29	*	P
Zinc	ug/kg	+/–20%	26200		25800		1.24		P

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–1085

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** WST03–10–2148SD

Sample ID: 1202004429 **Duplicate ID:** 1202004431 **Percent Solids for Dup:** 92.8

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	ug/kg	+/–20	10400000		8640000		18.5		P
Antimony	ug/kg	+/–20	49100		48800		.705		P
Barium	ug/kg	+/–20	94000		96500		2.58		P
Cadmium	ug/kg	+/–20	49900		50900		2		P
Calcium	ug/kg	+/–20	1680000		1430000		16.4		P
Chromium	ug/kg	+/–20	70300		74100		5.36		P
Cobalt	ug/kg	+/–20	51700		52100		.677		P
Copper	ug/kg	+/–20	58200		58400		.439		P
Iron	ug/kg	+/–20	11400000		10200000		10.6		P
Lead	ug/kg	+/–20	60600		58700		3.17		P
Magnesium	ug/kg	+/–20	1950000		1670000		15.4		P
Manganese	ug/kg	+/–20	330000		273000		18.8		P
Potassium	ug/kg	+/–20	1500000		1380000		8.81		P
Silver	ug/kg	+/–20	52300		53100		1.62		P
Sodium	ug/kg	+/–20	743000		708000		4.91		P
Vanadium	ug/kg	+/–20	63500		62100		2.24		P
Zinc	ug/kg	+/–20	81400		79300		2.6		P

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–1085

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** WST21–10–9933D

Sample ID: 243555001 **Duplicate ID:** 1202010666 **Percent Solids for Dup:** 88

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Mercury	ug/kg		3.9	U	5.55	J	200		AV

Metals
-6-
Duplicate Sample Summary

SDG No.: 10-1085

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** WST21-10-9933SD

Sample ID: 1202010667 **Duplicate ID:** 1202010679 **Percent Solids for Dup:** 88

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Mercury	ug/kg	+/-20	132		124		6.3		AV

METALS
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Laboratory Control Sample Summary

SDG NO. 10-1085

Contract: LANL01004

Aqueous LCS Source: **Solid LCS Source:** ERA

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202004421								
	Arsenic	ug/kg	104000	108000		104	83-120	MS
	Beryllium	ug/kg	77600	74900		96.5	81.2-126.8	MS
	Nickel	ug/kg	134000	144000		107	83.3-121.4	MS
	Selenium	ug/kg	286000	271000		94.7	80.2-125.9	MS
	Thallium	ug/kg	121000	120000		98.9	78-123.2	MS

METALS
-7-
Laboratory Control Sample Summary

SDG NO. 10-1085

Contract: LANL01004

Aqueous LCS Source: **Solid LCS Source:** ERA

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202004427								
	Barium	ug/kg	198000	194000		97.7	80-120	P
	Cadmium	ug/kg	60700	56100		92.4	81-120	P
	Calcium	ug/kg	9870000	9470000		96	83-117	P
	Chromium	ug/kg	236000	224000		95.1	80-120	P
	Cobalt	ug/kg	91200	86900		95.2	81-120	P
	Copper	ug/kg	174000	181000		104	81-118	P
	Iron	ug/kg	18000000	18700000		104	51-149	P
	Lead	ug/kg	86000	83200		96.7	79-121	P
	Magnesium	ug/kg	4000000	3810000		95.3	79-122	P
	Manganese	ug/kg	558000	524000		93.9	81-119	P
	Potassium	ug/kg	4300000	3970000		92.3	74-127	P
	Silver	ug/kg	30100	31700		105	66-134	P
	Sodium	ug/kg	1020000	1040000		102	74-127	P
	Vanadium	ug/kg	115000	119000		104	79-121	P
	Zinc	ug/kg	594000	598000		101	80-121	P
	Aluminum	ug/kg	10500000	8580000		81.7	56-144	P

METALS
–7–
Laboratory Control Sample Summary

SDG NO. 10–1085

Contract: LANL01004

Aqueous LCS Source: **Solid LCS Source:** ERA

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202010665								
	Mercury	ug/kg	5150	5700		111	71.6–128.3	AV

METALS
–7–
Laboratory Control Sample Summary

SDG NO. 10–1085

Contract: LANL01004

Aqueous LCS Source: **Solid LCS Source:** ERA

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202014119								
	Antimony	ug/kg	173000	174000		100	71–130	P

METALS
-9-
Serial Dilution Sample Summary

SDG NO. 10-1085 **Client ID** WST03-10-2148L

Contract: LANL01004

Matrix: SOLID **Level:** Low

Sample ID: 243549002 **Serial Dilution ID:** 1202004424

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Arsenic	4.03	J	5	U	100			MS
Beryllium	2.53		2.99		18.2			MS
Nickel	13.8		14.9		7.61			MS
Selenium	2.5	U	12.5	U				MS
Thallium	.3	U	2.91	J				MS

METALS
-9-
Serial Dilution Sample Summary

SDG NO. 10-1085 **Client ID** WST03-10-2148L

Contract: LANL01004

Matrix: SOLID **Level:** Low

Sample ID: 243549002 **Serial Dilution ID:** 1202004430

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Aluminum	36700		38700		5.31		10	P
Antimony	3.3	U	16.5	U				P
Barium	444		465		4.73		10	P
Cadmium	1	U	5	U				P
Calcium	7680		8350		8.72		10	P
Chromium	115		123		6.96		10	P
Cobalt	23.7		24.7	J	4.22			P
Copper	32.7		33.2	J	1.38			P
Iron	79300		87500		10.3	E	10	P
Lead	71.3		78.5		10.1			P
Magnesium	7060		7600		7.65		10	P
Manganese	2070		2200		6.04		10	P
Potassium	5470		5900		7.86		10	P
Silver	1	U	5	U				P
Sodium	1640		1710		4.27			P
Vanadium	101		103		1.49		10	P
Zinc	246		258		4.88		10	P

METALS
–9–
Serial Dilution Sample Summary

SDG NO. 10–1085 **Client ID** WST21–10–9933L

Contract: LANL01004

Matrix: SOLID **Level:** Low

Sample ID: 243555001 **Serial Dilution ID:** 1202010678

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Mercury	.068	U	.34	U				AV

METALS
-13-
SAMPLE PREPARATION SUMMARY

SDG No: 10-1085 **Method Type:** P

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number 936807							
1202004426	MB for batch 936807	MB	S	29-DEC-09	.505g	50mL	
1202004427	LCS for batch 936807	LCS	S	29-DEC-09	.503g	50mL	
1202004429	WST03-10-2148S	MS	S	29-DEC-09	.51g	50mL	
1202004431	WST03-10-2148SD	MSD	S	29-DEC-09	.509g	50mL	
1202004428	WST03-10-2148D	DUP	S	29-DEC-09	.501g	50mL	
243549002	WST03-10-2148	SAMPLE	S	29-DEC-09	.507g	50mL	
Batch Number 941049							
1202014118	MB for batch 941049	MB	S	13-JAN-10	.5g	50mL	
1202014119	LCS for batch 941049	LCS	S	13-JAN-10	.51g	50mL	
1202004429	WST03-10-2148S	MS	S	13-JAN-10	.505g	50mL	
1202004431	WST03-10-2148SD	MSD	S	13-JAN-10	.513g	50mL	
1202004428	WST03-10-2148D	DUP	S	13-JAN-10	.5g	50mL	
243549002	WST03-10-2148	SAMPLE	S	13-JAN-10	.534g	50mL	

METALS
-13-
SAMPLE PREPARATION SUMMARY

SDG No: 10-1085 **Method Type:** MS

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number	936804						
1202004420	MB for batch 936804	MB	S	29-DEC-09	.503g	50mL	
1202004421	LCS for batch 936804	LCS	S	29-DEC-09	.501g	50mL	
1202004423	WST03-10-2148S	MS	S	29-DEC-09	.517g	50mL	
1202004425	WST03-10-2148SD	MSD	S	29-DEC-09	.507g	50mL	
1202004422	WST03-10-2148D	DUP	S	29-DEC-09	.515g	50mL	
243549002	WST03-10-2148	SAMPLE	S	29-DEC-09	.503g	50mL	

METALS
-13-
SAMPLE PREPARATION SUMMARY

SDG No: 10-1085 **Method Type:** AV

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number 939594							
1202010664	MB for batch 939594	MB	S	08-JAN-10	.514g	30mL	
1202010665	LCS for batch 939594	LCS	S	08-JAN-10	.209g	30mL	
1202010667	WST21-10-9933S	MS	S	08-JAN-10	.523g	30mL	
1202010679	WST21-10-9933SD	MSD	S	08-JAN-10	.554g	30mL	
1202010666	WST21-10-9933D	DUP	S	08-JAN-10	.529g	30mL	
243549002	WST03-10-2148	SAMPLE	S	08-JAN-10	.534g	30mL	

Metals
-14-
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: ICPMS6
Start Date: 12-JAN-10 **End Date:** 12-JAN-10

Client Sdg: 10-1085
Method MS
Data File: 100111-3

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn
S0.0	1	11:19					X											X		X					
S10	1	11:25					X											X		X					
S100	1	11:31					X											X		X					
ICV01	1	11:37					X											X		X					
ICB01	1	11:43					X											X		X					
CRDL01	1	11:49					X											X		X					
ICSA01	1	11:55					X											X		X					
ICSAB01	1	12:01					X											X		X					
CCV01	1	12:07					X											X		X					
CCB01	1	12:13					X											X		X					
1202004420	2	12:18					X											X		X					
ZZZZZZ	20	12:24																							
1202004421	40	12:30					X											X		X					
CCV02	1	12:36					X											X		X					
CCB02	1	12:42					X											X		X					
ZZZZZZ	2	12:48																							
ZZZZZZ	2	12:54																							
ZZZZZZ	2	13:00																							
ZZZZZZ	2	13:06																							
ZZZZZZ	2	13:12																							
ZZZZZZ	2	13:18																							
ZZZZZZ	2	13:24																							
ZZZZZZ	2	13:30																							
CCV03	1	13:36					X											X		X					
CCB03	1	13:42					X											X		X					
ZZZZZZ	2	13:47																							
ZZZZZZ	2	13:53																							
ZZZZZZ	2	13:59																							
ZZZZZZ	2	14:05																							
ZZZZZZ	2	14:11																							
ZZZZZZ	2	14:17																							
ZZZZZZ	2	14:23																							
ZZZZZZ	2	14:29																							
CCV04	1	14:35					X											X		X					
CCB04	1	14:41					X											X		X					
243549002	2	14:47					X											X		X					
1202004422	2	14:53					X											X		X					
1202004423	2	14:58					X											X		X					
1202004425	2	15:04					X											X		X					
1202004424	10	15:10					X											X		X					

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time																							
CCV05	1	15:16					X											X		X					
CCB05	1	15:22					X											X		X					

Metals
–14–
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: ICPMS6
Start Date: 13–JAN–10 **End Date:** 13–JAN–10

Client Sdg: 10–1085
Method MS
Data File: 100113–4

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn
S0.0	1	21:04			X																		X		
S10	1	21:08			X																		X		
S100	1	21:12			X																		X		
ICV01	1	21:16			X																		X		
ICB01	1	21:20			X																		X		
CRDL01	1	21:24			X																		X		
ICSA01	1	21:28			X																		X		
ICSAB01	1	21:32			X																		X		
CCV01	1	21:36			X																		X		
CCB01	1	21:40			X																		X		
1202004420	2	21:44			X																		X		
ZZZZZZ	20	21:49																							
1202004421	40	21:53			X																		X		
CCV02	1	21:57			X																		X		
CCB02	1	22:01			X																		X		
ZZZZZZ	2	22:05																							
ZZZZZZ	2	22:09																							
ZZZZZZ	2	22:13																							
ZZZZZZ	2	22:17																							
ZZZZZZ	2	22:21																							
ZZZZZZ	2	22:25																							
ZZZZZZ	2	22:29																							
ZZZZZZ	2	22:33																							
CCV03	1	22:37			X																		X		
CCB03	1	22:41			X																		X		
ZZZZZZ	2	22:45																							
ZZZZZZ	2	22:50																							
ZZZZZZ	2	22:54																							
ZZZZZZ	2	22:58																							
ZZZZZZ	2	23:02																							
ZZZZZZ	2	23:06																							
ZZZZZZ	2	23:10																							
CCV04	1	23:14			X																		X		
CCB04	1	23:18			X																		X		
ZZZZZZ	2	23:22																							
243549002	2	23:26			X																		X		
1202004422	2	23:30			X																		X		
1202004423	2	23:34			X																		X		
1202004425	2	23:38			X																		X		
1202004424	10	23:42			X																		X		

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time																							
CCV05	1	23:46			X																		X		
CCB05	1	23:50			X																		X		

Metals
–14–
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: OPTIMA3
Start Date: 11–JAN–10 **End Date:** 12–JAN–10

Client Sdg: 10–1085
Method P
Data File: 011110A–1

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn
S0.0	1	15:06	X			X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
S0.1	1	15:13				X		X		X	X	X		X		X			X		X			X	X
S0.5	1	15:19	X			X		X	X	X	X	X		X	X	X			X		X			X	X
SCAL	1	15:26	X			X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
S10	1	15:33	X						X				X		X							X			
ICV01	1	15:38	X			X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
ICB01	1	15:45	X			X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
PQL01	1	15:52	X			X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
ICSA01	1	15:59	X			X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
ICSAB01	1	16:05	X			X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
LR01	1	16:11	X			X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
LR02	1	16:17	X			X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
CCV01	1	16:24	X			X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
CCB01	1	16:31	X			X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
CCV02	1	16:38	X			X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
CCB02	1	16:45	X			X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
LR03	1	16:52	X			X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
CCV03	1	16:59	X			X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
CCB03	1	17:06	X			X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
ZZZZZZ	1	17:13																							
ZZZZZZ	1	17:19																							
ZZZZZZ	1	17:26																							
ZZZZZZ	1	17:33																							
ZZZZZZ	1	17:40																							
ZZZZZZ	5	17:48																							
CCV04	1	17:54	X			X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
CCB04	1	18:01	X			X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
ZZZZZZ	1	18:08																							
ZZZZZZ	1	18:15																							
ZZZZZZ	1	18:22																							
ZZZZZZ	1	18:29																							
ZZZZZZ	1	18:36																							
ZZZZZZ	1	18:43																							
ZZZZZZ	1	18:51																							
CCV05	1	18:58	X			X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
CCB05	1	19:05	X			X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
ZZZZZZ	1	19:11																							
ZZZZZZ	1	19:18																							
ZZZZZZ	1	19:25																							
ZZZZZZ	1	19:32																							

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time																							
ZZZZZZ	1	19:39																							
ZZZZZZ	1	19:46																							
ZZZZZZ	1	19:53																							
ZZZZZZ	1	20:00																							
ZZZZZZ	1	20:07																							
CCV06	1	20:14	X			X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
CCB06	1	20:21	X			X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
ZZZZZZ	5	20:28																							
ZZZZZZ	1	20:35																							
ZZZZZZ	1	20:42																							
ZZZZZZ	1	20:49																							
ZZZZZZ	1	20:56																							
ZZZZZZ	1	21:03																							
ZZZZZZ	1	21:10																							
ZZZZZZ	1	21:17																							
ZZZZZZ	1	21:24																							
CCV07	1	21:31	X			X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
CCB07	1	21:38	X			X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
ZZZZZZ	1	21:45																							
ZZZZZZ	1	21:52																							
ZZZZZZ	1	21:58																							
ZZZZZZ	1	22:05																							
ZZZZZZ	1	22:12																							
ZZZZZZ	1	22:20																							
ZZZZZZ	5	22:27																							
ZZZZZZ	1	22:34																							
ZZZZZZ	1	22:41																							
CCV08	1	22:48	X			X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
CCB08	1	22:55	X			X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
ZZZZZZ	1	23:02																							
ZZZZZZ	1	23:09																							
ZZZZZZ	1	23:16																							
ZZZZZZ	1	23:23																							
ZZZZZZ	1	23:30																							
ZZZZZZ	1	23:37																							
ZZZZZZ	1	23:44																							
ZZZZZZ	1	23:51																							
CCV09	1	23:59	X			X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
CCB09	1	00:06	X			X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
1202004426	1	00:13	X			X		X	X	X	X	X	X	X	X	X			X		X	X		X	X

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn
1202004427	1	00:19	X			X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
ZZZZZZ	1	00:26																							
ZZZZZZ	1	00:33																							
ZZZZZZ	1	00:40																							
ZZZZZZ	1	00:47																							
ZZZZZZ	1	00:54																							
CCV10	1	01:01	X			X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
CCB10	1	01:08	X			X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
ZZZZZZ	1	01:15																							
ZZZZZZ	1	01:22																							
ZZZZZZ	1	01:29																							
ZZZZZZ	1	01:37																							
ZZZZZZ	1	01:44																							
ZZZZZZ	1	01:51																							
ZZZZZZ	1	01:58																							
ZZZZZZ	1	02:05																							
CCV11	1	02:12	X			X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
CCB11	1	02:19	X			X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
ZZZZZZ	1	02:26																							
ZZZZZZ	1	02:33																							
ZZZZZZ	1	02:40																							
243549002	1	02:47	X			X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
1202004428	1	02:54	X			X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
1202004429	1	03:01	X			X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
1202004431	1	03:08	X			X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
1202004430	5	03:15	X			X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
CCV12	1	03:22	X			X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
CCB12	1	03:29	X			X		X	X	X	X	X	X	X	X	X			X		X	X		X	X

Metals
–14–
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: OPTIMA3
Start Date: 14–JAN–10 **End Date:** 15–JAN–10

Client Sdg: 10–1085
Method P
Data File: 011410–2

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn
S0.0	1	10:00		X																					
S0.1	1	10:07		X																					
S0.5	1	10:13		X																					
SCAL	1	10:20		X																					
S10	1	10:27																							
ICV01	1	10:32		X																					
ICB01	1	10:39		X																					
PQL01	1	10:46		X																					
ICSA01	1	10:53		X																					
ICSAB01	1	10:59		X																					
LR01	1	11:05		X																					
LR02	1	11:11		X																					
ZZZZZZ	1	11:18																							
ZZZZZZ	1	11:25																							
CCV01	1	11:33		X																					
CCB01	1	11:40		X																					
LR03	1	11:47		X																					
CCV02	1	11:54		X																					
CCB02	1	12:01		X																					
ZZZZZZ	1	12:07																							
ZZZZZZ	1	12:14																							
ZZZZZZ	1	12:21																							
ZZZZZZ	1	12:28																							
ZZZZZZ	1	12:35																							
ZZZZZZ	1	12:42																							
ZZZZZZ	5	12:49																							
CCV03	1	12:56		X																					
CCB03	1	13:03		X																					
ZZZZZZ	1	13:15																							
ZZZZZZ	1	13:22																							
ZZZZZZ	1	13:28																							
ZZZZZZ	1	13:35																							
ZZZZZZ	1	13:42																							
ZZZZZZ	1	13:49																							
ZZZZZZ	5	13:56																							
ZZZZZZ	1	14:03																							
CCV04	1	14:19		X																					
PQL02	1	14:26		X																					
CCB04	1	14:33		X																					
CCV05	1	15:04		X																					

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time																							
CCB05	1	15:11		X																					
ZZZZZZ	1	15:18																							
ZZZZZZ	1	15:25																							
ZZZZZZ	1	15:32																							
ZZZZZZ	1	15:38																							
CCV06	1	15:45		X																					
PQL03	1	15:52		X																					
CCB06	1	15:59		X																					
ZZZZZZ	1	16:06																							
ZZZZZZ	1	16:13																							
ZZZZZZ	1	16:20																							
ZZZZZZ	1	16:27																							
ZZZZZZ	1	16:34																							
ZZZZZZ	1	16:40																							
ZZZZZZ	1	16:47																							
ZZZZZZ	5	16:54																							
CCV07	1	17:01		X																					
PQL04	1	17:08		X																					
CCB07	1	17:15		X																					
ZZZZZZ	1	17:21																							
ZZZZZZ	1	17:28																							
ZZZZZZ	1	17:35																							
ZZZZZZ	1	17:42																							
ZZZZZZ	1	17:49																							
ZZZZZZ	1	17:56																							
ZZZZZZ	5	18:03																							
ZZZZZZ	1	18:10																							
ZZZZZZ	1	18:16																							
CCV08	1	18:23		X																					
CCB08	1	18:30		X																					
ZZZZZZ	1	18:36																							
ZZZZZZ	1	18:43																							
ZZZZZZ	1	18:51																							
ZZZZZZ	1	18:58																							
ZZZZZZ	1	19:05																							
ZZZZZZ	1	19:12																							
ZZZZZZ	1	19:19																							
ZZZZZZ	1	19:26																							
ZZZZZZ	1	19:33																							
CCV09	1	19:40		X																					

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn
CCB09	1	19:47		X																					
ZZZZZZ	1	19:54																							
ZZZZZZ	1	20:01																							
ZZZZZZ	1	20:08																							
ZZZZZZ	1	20:15																							
ZZZZZZ	1	20:22																							
ZZZZZZ	1	20:29																							
ZZZZZZ	1	20:36																							
ZZZZZZ	1	20:44																							
CCV10	1	20:50		X																					
CCB10	1	20:57		X																					
1202014118	1	21:04		X																					
1202014119	1	21:11		X																					
ZZZZZZ	1	21:17																							
ZZZZZZ	1	21:24																							
ZZZZZZ	1	21:31																							
ZZZZZZ	1	21:38																							
ZZZZZZ	1	21:45																							
ZZZZZZ	1	21:53																							
CCV11	1	22:00		X																					
CCB11	1	22:07		X																					
ZZZZZZ	1	22:13																							
ZZZZZZ	1	22:20																							
ZZZZZZ	1	22:27																							
ZZZZZZ	1	22:34																							
ZZZZZZ	1	22:41																							
ZZZZZZ	1	22:49																							
ZZZZZZ	1	22:56																							
ZZZZZZ	1	23:03																							
CCV12	1	23:10		X																					
CCB12	1	23:17		X																					
ZZZZZZ	1	23:24																							
ZZZZZZ	1	23:31																							
243549002	1	23:38		X																					
1202004428	1	23:45		X																					
1202004429	1	23:52		X																					
1202004431	1	23:59		X																					
1202004430	5	00:06		X																					
CCV13	1	00:13		X																					
CCB13	1	00:20		X																					

Metals
–14–
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: HG3
Start Date: 11–JAN–10 **End Date:** 11–JAN–10

Client Sdg: 10–1085
Method AV
Data File: 011110S1–7

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn
S0.0	1	09:23															X								
S0.2	1	09:25															X								
S0.5	1	09:27															X								
S2.0	1	09:28															X								
S5.0	1	09:30															X								
S10.0	1	09:32															X								
ICV01	1	09:33															X								
ICB01	1	09:35															X								
CRDL01	1	09:37															X								
CCV01	1	09:38															X								
CCB01	1	09:40															X								
ZZZZZZ	1	09:42																							
ZZZZZZ	1	09:43																							
ZZZZZZ	1	09:45																							
ZZZZZZ	1	09:47																							
ZZZZZZ	1	09:48																							
ZZZZZZ	1	09:50																							
ZZZZZZ	1	09:52																							
1202010664	1	09:53															X								
1202010665	10	09:55															X								
ZZZZZZ	1	09:57																							
CCV02	1	09:58															X								
CCB02	1	10:00															X								
ZZZZZZ	1	10:02																							
243549002	1	10:03															X								
ZZZZZZ	1	10:05																							
ZZZZZZ	1	10:07																							
ZZZZZZ	1	10:08																							
ZZZZZZ	1	10:10																							
ZZZZZZ	1	10:12																							
ZZZZZZ	1	10:13																							
ZZZZZZ	1	10:15																							
ZZZZZZ	1	10:17																							
CCV03	1	10:18															X								
CCB03	1	10:20															X								
ZZZZZZ	1	10:22																							
ZZZZZZ	1	10:23																							
ZZZZZZ	1	10:25																							
ZZZZZZ	1	10:27																							
ZZZZZZ	1	10:29																							

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time																						
ZZZZZZ	1	10:30																						
ZZZZZZ	1	10:32																						
ZZZZZZ	1	10:34																						
1202010666	1	10:35													X									
1202010667	1	10:37													X									
CCV04	1	10:39													X									
CCB04	1	10:40													X									
1202010679	1	10:42													X									
1202010678	5	10:44													X									
ZZZZZZ	1	10:45																						
ZZZZZZ	1	10:47																						
ZZZZZZ	10	10:49																						
ZZZZZZ	1	10:50																						
ZZZZZZ	1	10:52																						
ZZZZZZ	1	10:54																						
ZZZZZZ	1	10:55																						
ZZZZZZ	1	10:57																						
CCV05	1	10:59													X									
CCB05	1	11:00													X									

Standards

METALS
-10-
Instrument Detection Limits

SDG NO. 10-1085

Contract: LANL01004 **Lab Code: GEL** **MDL Effective Date:** 01-JUL-09

ICP/MS	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
SOLID	Aluminum		15.0	50
	Antimony		0.5	3
	Arsenic		1.0	5
	Barium		0.5	2
	Beryllium		0.1	.5
	Cadmium		0.1	1
	Calcium		33.0	100
	Chromium		1.0	3
	Cobalt		0.3	1
	Copper		0.33	1
	Iron		25.0	100
	Lead		0.5	2
	Magnesium		7.5	25
	Manganese		1.0	5
	Nickel		0.5	2
	Potassium		80.0	300
	Selenium		2.5	5
	Silver		0.2	1
	Sodium		80.0	250
	Thallium		0.3	1
	Vanadium		2.0	10
	Zinc		2.0	10

METALS
-10-
Instrument Detection Limits

SDG NO. 10-1085

Contract: LANL01004 **Lab Code: GEL** **MDL Effective Date:** 15-JUN-09

MERCURY	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
SOLID	Mercury		0.068	.2

METALS
-10-
Instrument Detection Limits

SDG NO. 10-1085

Contract: LANL01004 **Lab Code: GEL** **MDL Effective Date:** 01-JUL-09

ICP	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
SOLID	Aluminum	396.153	68.0	200
	Antimony	206.836	3.3	10
	Arsenic	188.979	5.0	30
	Barium	233.527	1.0	5
	Beryllium	313.107	1.0	5
	Cadmium	226.502	1.0	5
	Calcium	317.933	80.0	250
	Chromium	267.716	1.5	5
	Cobalt	228.616	1.5	5
	Copper	324.752	3.0	10
	Iron	238.204	80.0	250
	Lead	220.353	2.5	10
	Magnesium	279.077	85.0	300
	Manganese	257.61	2.0	10
	Nickel	231.604	1.5	5
	Potassium	766.49	64.0	250
	Selenium	196.026	5.0	30
	Silver	328.068	1.0	5
	Sodium	589.592	70.0	250
	Thallium	190.801	5.0	20
	Vanadium	292.402	1.0	5
	Zinc	213.857	3.3	10

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
GEL Job No: 10-1085
Contract: LANL01004
Instrument: OPTIMA3
Effective Dates: 01-NOV-09
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Parmname	Wavelength	Aluminum	Antimony	Arsenic	Barium	Beryllium
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.02738	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	-0.44940	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	-0.22121	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	-0.33886	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	-0.13648	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	-0.05571	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.19671	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	-0.02739	0.00000	0.00000	0.00000	0.00000
Tin	189.927	-0.00058	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
GEL Job No: 10-1085
Contract: LANL01004
Instrument: OPTIMA3
Effective Dates: 01-NOV-09
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Parmname	Wavelength	Boron	Cadmium	Chromium	Cobalt	Copper
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	24.5549	0.00000	0.00000
Arsenic	188.979	0.52529	0.00000	-0.67113	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	2.54031	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.38952	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	-31.5465	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	0.78023
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.63859	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	160.41
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	5.22870	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.35099	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	1.93161	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.39273	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	1.19810

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA3
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-1085
Effective Dates: 01-NOV-09

Parmname	Wavelength	Iron	Lead	Magnesium	Manganese	Molybdenum
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	42.8126
Antimony	206.836	-0.01635	0.00000	0.00000	0.00000	-22.2146
Arsenic	188.979	-0.21271	0.00000	0.00000	0.00000	1.34645
Barium	233.527	-0.03709	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.13266	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.09998	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	-0.01788	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.01425	0.00000	0.00000	0.00000	-2.64232
Copper	324.752	-0.05101	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.09069	0.00000	0.00000	0.00000	-2.44485
Magnesium	279.077	0.85543	0.00000	0.00000	0.00000	-20.2401
Manganese	257.61	-0.09972	0.00000	0.01862	0.00000	0.00000
Molybdenum	202.031	-0.07094	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.80633	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	-0.03176	0.00000	0.01823	12.4291	-3.60863
Selenium	196.026	-3.00009	0.00000	0.00000	0.00000	-3.17982
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	17.4444
Silver	328.068	-0.31825	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	-5.85948	0.00000
Tin	189.927	-0.01337	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.12581	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.15211	0.00000	-0.02256	0.00000	-14.2921
Zinc	213.857	0.09548	0.00000	0.03423	0.00000	0.00000

METALS
–11–
Interelement Correction Factors

Lab Code: GEL
GEL Job No: 10–1085
Contract: LANL01004
Instrument: OPTIMA3
Effective Dates: 01–NOV–09
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Parmname	Wavelength	Nickel	Phosphorous	Potassium	Selenium	Silicon
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	–0.64279	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	0.44040	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.33191	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	6.38465	0.00000	0.00000	0.00000	0.00000

METALS
–11–
Interelement Correction Factors

Lab Code: GEL
GEL Job No: 10–1085
Contract: LANL01004
Instrument: OPTIMA3
Effective Dates: 01–NOV–09
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Parmname	Wavelength	Silver	Strontium	Sulfur	Thallium	Tin
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	0.00000	–17.4077
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	–13.8713
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	3.10491
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA3
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-1085
Effective Dates: 01-NOV-09

Parmname	Wavelength	Titanium	Uranium	Vanadium	Zinc
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	2.73145	0.00000	-2.31857	0.00000
Arsenic	188.979	-8.38419	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	-2.24883	0.00000
Beryllium	313.107	-1.96555	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.32181	-1.76281	0.00000
Cobalt	228.616	2.12623	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.85359	-3.92851	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	-7.67419	0.00000	2.18873	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.44145	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	1.10141	-1.94183	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000

METALS
–12–
Linear Ranges

SDG NO. 10–1085

Contract: LANL01004 **Lab Code: GEL**

Instrument ID ICPMS6

Analyte	Integration Time (msec)	LDR	Units	Effective Date
Cadmium	1000	1000	ug/L	01–NOV–09
Calcium	500	50000	ug/L	01–NOV–09
Chromium	1000	1000	ug/L	01–NOV–09
Cobalt	1000	1000	ug/L	01–NOV–09
Copper	1000	1000	ug/L	01–NOV–09
Iron	500	50000	ug/L	01–NOV–09
Lead	1000	5000	ug/L	01–NOV–09
Magnesium	1	50000	ug/L	01–NOV–09
Manganese	1000	1000	ug/L	01–NOV–09
Nickel	1000	1000	ug/L	01–NOV–09
Potassium	1	50000	ug/L	01–NOV–09
Selenium	1000	500	ug/L	01–NOV–09
Silver	1000	250	ug/L	01–NOV–09
Sodium	1	50000	ug/L	01–NOV–09
Thallium	1000	500	ug/L	01–NOV–09
Vanadium	1000	100	ug/L	01–NOV–09
Zinc	1000	2500	ug/L	01–NOV–09
Aluminum	1	50000	ug/L	01–NOV–09
Antimony	1000	250	ug/L	01–NOV–09
Arsenic	1000	1000	ug/L	01–NOV–09
Barium	1000	1000	ug/L	01–NOV–09
Beryllium	1000	1000	ug/L	01–NOV–09

METALS
–12–
Linear Ranges

SDG NO. 10–1085

Contract: LANL01004 **Lab Code: GEL**

Instrument ID OPTIMA3

Analyte	Integration Time (sec)	LDR	Units	Effective Date
Aluminum	20	500000	ug/L	01–NOV–09
Antimony	20	10000	ug/L	01–NOV–09
Arsenic	20	10000	ug/L	01–NOV–09
Barium	20	15000	ug/L	01–NOV–09
Beryllium	20	3000	ug/L	01–NOV–09
Cadmium	20	10000	ug/L	01–NOV–09
Calcium	20	500000	ug/L	01–NOV–09
Chromium	20	25000	ug/L	01–NOV–09
Cobalt	20	10000	ug/L	01–NOV–09
Copper	20	20000	ug/L	01–NOV–09
Iron	20	500000	ug/L	01–NOV–09
Lead	20	25000	ug/L	01–NOV–09
Magnesium	20	500000	ug/L	01–NOV–09
Manganese	20	10000	ug/L	01–NOV–09
Nickel	20	10000	ug/L	01–NOV–09
Potassium	20	300000	ug/L	01–NOV–09
Selenium	20	10000	ug/L	01–NOV–09
Silver	20	1000	ug/L	01–NOV–09
Sodium	20	500000	ug/L	01–NOV–09
Thallium	20	10000	ug/L	01–NOV–09
Vanadium	20	10000	ug/L	01–NOV–09
Zinc	20	15000	ug/L	01–NOV–09

Raw Data

Method: Hg_ReAlign
Result: 011810

Sample ID: Hg_ReAlign

Hg 253.652

Rep: 1

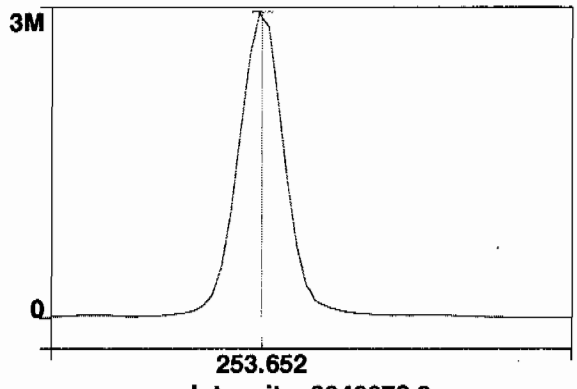

Intensity: 3346872.8 cps
Conc:

1

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Analysis Begun

Start Time: 1/11/2010 15:06:14 **Plasma On Time:** 1/11/2010 06:15:31
Logged In Analyst: Optima3 **Technique:** ICP Continuous
Spectrometer Model: Optima 5300 DV, S/N 077C7090601 **Autosampler Model:** S10

Sample Information File: C:\pe\Optima3\Sample Information\011110.sif
Batch ID:
Results Data Set: 011110A
Results Library: C:\pe\Optima3\Results\Results.mdb

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Method Loaded
Method Name: General Eng.2AX **Method Last Saved:** 1/11/2010 14:49:13
IEC File: 011110.iec **MSF File:**
Method Description:

Analyte	Calibration Equation	Processing	View	Internal Standard	IEC
Ag 328.068	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Al 396.153Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
As 188.979	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
B 249.677	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ba 233.527	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Be 313.107	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ca 317.933Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	No
Cd 226.502	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Co 228.616	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cr 267.716	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cu 324.752	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Fe 238.204 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
K 766.490 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Mg 279.077 IEC	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Mn 257.610	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Mo 202.031	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Na 589.592 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	No
Ni 231.604	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
P 214.914	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Pb 220.353	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
S 181.975 Axial	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sb 206.836	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sc 361.383	Lin Thru 0	Peak Area	Axial	n/a	n/a
Sc Radial	Lin, Calc Int	Peak Area	Radial	n/a	n/a
Se 196.026	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Si 251.611	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sn 189.927	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sr 421.552	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Ti 334.940	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Tl 190.801	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
U 409.014	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
V 292.402	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y 371.029	Lin, Calc Int	Peak Area	Axial	n/a	n/a
Zn 213.857	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y RADIAL	Lin, Calc Int	Peak Area	Radial	n/a	n/a
SiO2	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes

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Sequence No.: 1 **Autosampler Location:** 8
Sample ID: S0 **Date Collected:** 1/11/2010 15:06:16
Analyst: **Data Type:** Original
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: S0

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc Radial	5078.5	5078.5	101	%	15:08:08
1	Y RADIAL	5435.8	5435.8	100.1	%	15:08:08
1	Al 396.153Radial†	-7.1	-7.0	[0.00]	ug/L	15:08:08

1	Ca 317.933Radial†	21.6	21.4	[0.00]	ug/L	15:08:28
1	Fe 238.204 Radial†	8.3	8.2	[0.00]	ug/L	15:08:28
1	K 766.490 Radial†	2604.4	2582.2	[0.00]	ug/L	15:08:08
1	Mg 279.077 IEC†	-1.2	-1.2	[0.00]	ug/L	15:08:28
1	Na 589.592 Radial†	-1261.5	-1250.7	[0.00]	ug/L	15:08:08
1	Sr 421.552†	-42.5	-42.2	[0.00]	ug/L	15:08:08
1	Sc 361.383	853575.6	853575.6	100.14	%	15:09:25
1	Y 371.029	723166.7	723166.7	100.07	%	15:09:25
1	Ag 328.068†	394.2	393.7	[0.00]	ug/L	15:09:25
1	As 188.979†	-21.8	-21.8	[0.00]	ug/L	15:09:45
1	B 249.677†	-619.1	-618.3	[0.00]	ug/L	15:09:45
1	Ba 233.527†	-8.3	-8.3	[0.00]	ug/L	15:09:45
1	Be 313.107†	-4622.0	-4615.7	[0.00]	ug/L	15:09:25
1	Cd 226.502†	-216.8	-216.5	[0.00]	ug/L	15:09:45
1	Co 228.616†	-73.5	-73.4	[0.00]	ug/L	15:09:45
1	Cr 267.716†	79.7	79.6	[0.00]	ug/L	15:09:45
1	Cu 324.752†	6433.7	6424.8	[0.00]	ug/L	15:09:25
1	Mn 257.610†	428.4	427.8	[0.00]	ug/L	15:09:45
1	Mo 202.031†	21.2	21.1	[0.00]	ug/L	15:09:45
1	Ni 231.604†	67.3	67.2	[0.00]	ug/L	15:09:45
1	P 214.914†	236.7	236.4	[0.00]	ug/L	15:09:45
1	Pb 220.353†	-70.4	-70.3	[0.00]	ug/L	15:09:45
1	S 181.975 Axial†	43.2	43.1	[0.00]	ug/L	15:09:45
1	Sb 206.836†	24.2	24.2	[0.00]	ug/L	15:09:45
1	Se 196.026†	-31.0	-31.0	[0.00]	ug/L	15:09:45
1	Si 251.611†	564.6	563.8	[0.00]	ug/L	15:09:45
1	Sn 189.927†	12.1	12.0	[0.00]	ug/L	15:09:45
1	Ti 334.940†	-1400.5	-1398.6	[0.00]	ug/L	15:09:25
1	Tl 190.801†	-32.9	-32.8	[0.00]	ug/L	15:09:45
1	U 409.014†	-2104.8	-2101.9	[0.00]	ug/L	15:09:25
1	V 292.402†	-1333.9	-1332.0	[0.00]	ug/L	15:09:25
1	Zn 213.857†	621.9	621.0	[0.00]	ug/L	15:09:45
1	SiO2†	583.8	583.0	[0.00]	ug/L	15:10:41
2	Sc Radial	4968.4	4968.4	98.7	%	15:08:33
2	Y RADIAL	5382.3	5382.3	99.13	%	15:08:33
2	Al 396.153Radial†	-8.9	-9.0	[0.00]	ug/L	15:08:33
2	Ca 317.933Radial†	20.3	20.5	[0.00]	ug/L	15:08:53
2	Fe 238.204 Radial†	8.7	8.8	[0.00]	ug/L	15:08:53
2	K 766.490 Radial†	2613.0	2648.2	[0.00]	ug/L	15:08:33
2	Mg 279.077 IEC†	5.2	5.2	[0.00]	ug/L	15:08:53
2	Na 589.592 Radial†	-1304.4	-1322.0	[0.00]	ug/L	15:08:33
2	Sr 421.552†	-17.3	-17.5	[0.00]	ug/L	15:08:33
2	Sc 361.383	852244.3	852244.3	99.982	%	15:09:50
2	Y 371.029	722709.0	722709.0	100.01	%	15:09:50
2	Ag 328.068†	314.2	314.3	[0.00]	ug/L	15:09:50
2	As 188.979†	-24.8	-24.8	[0.00]	ug/L	15:10:10
2	B 249.677†	-645.8	-645.9	[0.00]	ug/L	15:10:10
2	Ba 233.527†	-16.3	-16.3	[0.00]	ug/L	15:10:10
2	Be 313.107†	-4532.1	-4532.9	[0.00]	ug/L	15:09:50
2	Cd 226.502†	-209.4	-209.5	[0.00]	ug/L	15:10:10
2	Co 228.616†	-74.6	-74.6	[0.00]	ug/L	15:10:10
2	Cr 267.716†	98.0	98.0	[0.00]	ug/L	15:10:10
2	Cu 324.752†	6405.3	6406.5	[0.00]	ug/L	15:09:50
2	Mn 257.610†	452.6	452.6	[0.00]	ug/L	15:10:10
2	Mo 202.031†	28.6	28.6	[0.00]	ug/L	15:10:10
2	Ni 231.604†	70.7	70.7	[0.00]	ug/L	15:10:10
2	P 214.914†	232.8	232.8	[0.00]	ug/L	15:10:10
2	Pb 220.353†	-68.5	-68.5	[0.00]	ug/L	15:10:10
2	S 181.975 Axial†	38.4	38.4	[0.00]	ug/L	15:10:10
2	Sb 206.836†	31.7	31.7	[0.00]	ug/L	15:10:10
2	Se 196.026†	-33.9	-33.9	[0.00]	ug/L	15:10:10
2	Si 251.611†	536.5	536.6	[0.00]	ug/L	15:10:10
2	Sn 189.927†	9.3	9.3	[0.00]	ug/L	15:10:10
2	Ti 334.940†	-1340.5	-1340.7	[0.00]	ug/L	15:09:50
2	Tl 190.801†	-38.1	-38.1	[0.00]	ug/L	15:10:10
2	U 409.014†	-2081.0	-2081.4	[0.00]	ug/L	15:09:50
2	V 292.402†	-1291.8	-1292.0	[0.00]	ug/L	15:09:50
2	Zn 213.857†	614.2	614.3	[0.00]	ug/L	15:10:10
2	SiO2†	567.0	567.1	[0.00]	ug/L	15:10:46
3	Sc Radial	5058.9	5058.9	100	%	15:08:58
3	Y RADIAL	5470.3	5470.3	100.8	%	15:08:58

3	Al 396.153Radial†	14.1	14.1	[0.00] ug/L	15:08:58
3	Ca 317.933Radial†	17.5	17.4	[0.00] ug/L	15:09:18
3	Fe 238.204 Radial†	9.7	9.6	[0.00] ug/L	15:09:18
3	K 766.490 Radial†	2552.0	2540.1	[0.00] ug/L	15:08:58
3	Mg 279.077 IEC†	1.7	1.7	[0.00] ug/L	15:09:18
3	Na 589.592 Radial†	-1274.6	-1268.7	[0.00] ug/L	15:08:58
3	Sr 421.552†	1.2	1.2	[0.00] ug/L	15:08:58
3	Sc 361.383	851374.2	851374.2	99.880 %	15:10:15
3	Y 371.029	722128.0	722128.0	99.925 %	15:10:15
3	Ag 328.068†	365.6	366.0	[0.00] ug/L	15:10:15
3	As 188.979†	-24.2	-24.3	[0.00] ug/L	15:10:35
3	B 249.677†	-630.6	-631.3	[0.00] ug/L	15:10:35
3	Ba 233.527†	-9.6	-9.6	[0.00] ug/L	15:10:35
3	Be 313.107†	-4602.0	-4607.5	[0.00] ug/L	15:10:15
3	Cd 226.502†	-186.1	-186.3	[0.00] ug/L	15:10:35
3	Co 228.616†	-75.9	-76.0	[0.00] ug/L	15:10:35
3	Cr 267.716†	72.0	72.1	[0.00] ug/L	15:10:35
3	Cu 324.752†	6397.6	6405.3	[0.00] ug/L	15:10:15
3	Mn 257.610†	453.6	454.2	[0.00] ug/L	15:10:35
3	Mo 202.031†	21.4	21.4	[0.00] ug/L	15:10:35
3	Ni 231.604†	65.9	66.0	[0.00] ug/L	15:10:35
3	P 214.914†	220.2	220.4	[0.00] ug/L	15:10:35
3	Pb 220.353†	-51.3	-51.3	[0.00] ug/L	15:10:35
3	S 181.975 Axial†	47.5	47.5	[0.00] ug/L	15:10:35
3	Sb 206.836†	27.8	27.9	[0.00] ug/L	15:10:35
3	Se 196.026†	-31.1	-31.1	[0.00] ug/L	15:10:35
3	Si 251.611†	550.3	551.0	[0.00] ug/L	15:10:35
3	Sn 189.927†	1.6	1.6	[0.00] ug/L	15:10:35
3	Ti 334.940†	-1382.6	-1384.2	[0.00] ug/L	15:10:15
3	Tl 190.801†	-27.6	-27.7	[0.00] ug/L	15:10:35
3	U 409.014†	-1849.4	-1851.6	[0.00] ug/L	15:10:15
3	V 292.402†	-1303.5	-1305.1	[0.00] ug/L	15:10:15
3	Zn 213.857†	624.7	625.4	[0.00] ug/L	15:10:35
3	SiO2†	564.2	564.9	[0.00] ug/L	15:10:51

Mean Data: S0

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	852398.0	1108.71	0.13%	100.00	%
Sc Radial	5035.3	58.75	1.17%	100	%
Y 371.029	722667.9	520.58	0.07%	100.00	%
Y RADIAL	5429.4	44.32	0.82%	100.0	%
Ag 328.068†	358.0	40.31	11.26%	[0.00]	ug/L
Al 396.153Radial†	-0.7	12.78	>999.9%	[0.00]	ug/L
As 188.979†	-23.6	1.58	6.71%	[0.00]	ug/L
B 249.677†	-631.8	13.81	2.19%	[0.00]	ug/L
Ba 233.527†	-11.4	4.27	37.44%	[0.00]	ug/L
Be 313.107†	-4585.4	45.60	0.99%	[0.00]	ug/L
Ca 317.933Radial†	19.8	2.07	10.48%	[0.00]	ug/L
Cd 226.502†	-204.1	15.84	7.76%	[0.00]	ug/L
Co 228.616†	-74.7	1.33	1.79%	[0.00]	ug/L
Cr 267.716†	83.3	13.36	16.05%	[0.00]	ug/L
Cu 324.752†	6412.2	10.95	0.17%	[0.00]	ug/L
Fe 238.204 Radial†	8.9	0.72	8.07%	[0.00]	ug/L
K 766.490 Radial†	2590.2	54.49	2.10%	[0.00]	ug/L
Mg 279.077 IEC†	1.9	3.20	167.84%	[0.00]	ug/L
Mn 257.610†	444.9	14.79	3.32%	[0.00]	ug/L
Mo 202.031†	23.7	4.26	17.95%	[0.00]	ug/L
Na 589.592 Radial†	-1280.5	37.06	2.89%	[0.00]	ug/L
Ni 231.604†	68.0	2.43	3.58%	[0.00]	ug/L
P 214.914†	229.9	8.38	3.65%	[0.00]	ug/L
Pb 220.353†	-63.4	10.47	16.52%	[0.00]	ug/L
S 181.975 Axial†	43.0	4.57	10.63%	[0.00]	ug/L
Sb 206.836†	27.9	3.75	13.44%	[0.00]	ug/L
Se 196.026†	-32.0	1.65	5.16%	[0.00]	ug/L
Si 251.611†	550.5	13.62	2.47%	[0.00]	ug/L
Sn 189.927†	7.7	5.41	70.56%	[0.00]	ug/L
Sr 421.552†	-19.5	21.77	111.63%	[0.00]	ug/L
Ti 334.940†	-1374.5	30.15	2.19%	[0.00]	ug/L
Tl 190.801†	-32.9	5.22	15.89%	[0.00]	ug/L

U 409.014†	-2011.6	138.95	6.91%	[0.00] ug/L
V 292.402†	-1309.7	20.42	1.56%	[0.00] ug/L
Zn 213.857†	620.2	5.60	0.90%	[0.00] ug/L
SiO2†	571.7	9.89	1.73%	[0.00] ug/L

Sequence No.: 2
Sample ID: S0.1
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 2
Date Collected: 1/11/2010 15:13:01
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc Radial	5243.2	5243.2	104	%	15:14:59
1	Y RADIAL	5645.1	5645.1	104.0	%	15:14:59
1	K 766.490 Radial†	7958.3	5052.6	[1000]	ug/L	15:14:54
1	Sr 421.552†	15487.3	14892.7	[100]	ug/L	15:14:59
1	Sc 361.383	845537.2	845537.2	99.195	%	15:15:26
1	Y 371.029	712913.9	712913.9	98.650	%	15:15:26
1	Ag 328.068†	22404.9	22228.7	[100]	ug/L	15:15:26
1	As 188.979†	211.9	237.2	[100]	ug/L	15:15:46
1	B 249.677†	3739.8	4402.0	[100]	ug/L	15:15:26
1	Ba 233.527†	13104.0	13221.7	[100]	ug/L	15:15:26
1	Be 313.107†	263804.1	270530.0	[100]	ug/L	15:15:26
1	Cd 226.502†	9050.9	9328.5	[100]	ug/L	15:15:26
1	Co 228.616†	4811.3	4925.0	[100]	ug/L	15:15:46
1	Cr 267.716†	9220.9	9212.4	[100]	ug/L	15:15:26
1	Cu 324.752†	40147.8	34061.4	[100]	ug/L	15:15:26
1	Mn 257.610†	94290.9	94611.1	[100]	ug/L	15:15:26
1	Mo 202.031†	1452.1	1440.2	[100]	ug/L	15:15:46
1	Ni 231.604†	4065.7	4030.8	[100]	ug/L	15:15:46
1	P 214.914†	1044.2	822.9	[500]	ug/L	15:15:46
1	Pb 220.353†	767.6	837.2	[100]	ug/L	15:15:46
1	S 181.975 Axial†	184.4	142.9	[200]	ug/L	15:15:46
1	Sb 206.836†	314.8	289.4	[100]	ug/L	15:15:46
1	Se 196.026†	126.2	159.2	[100]	ug/L	15:15:46
1	Si 251.611†	16243.9	15825.3	[500]	ug/L	15:15:26
1	Sn 189.927†	570.7	567.7	[100]	ug/L	15:15:46
1	Ti 334.940†	61446.1	63319.2	[100]	ug/L	15:15:26
1	Tl 190.801†	296.9	332.2	[100]	ug/L	15:15:46
1	U 409.014†	1614.3	3639.0	[100]	ug/L	15:15:26
1	V 292.402†	13401.7	14820.2	[100]	ug/L	15:15:26
1	Zn 213.857†	11462.0	10934.7	[100]	ug/L	15:15:26
1	SiO2†	16191.9	15751.6	[1069.5]	ug/L	15:16:42
2	Sc Radial	5112.2	5112.2	102	%	15:15:09
2	Y RADIAL	5479.8	5479.8	100.9	%	15:15:09
2	K 766.490 Radial†	8010.3	5299.7	[1000]	ug/L	15:15:04
2	Sr 421.552†	15649.1	15433.2	[100]	ug/L	15:15:09
2	Sc 361.383	847214.4	847214.4	99.392	%	15:15:51
2	Y 371.029	714501.8	714501.8	98.870	%	15:15:51
2	Ag 328.068†	22517.5	22297.3	[100]	ug/L	15:15:51
2	As 188.979†	209.8	234.7	[100]	ug/L	15:16:11
2	B 249.677†	3743.0	4397.7	[100]	ug/L	15:15:51
2	Ba 233.527†	13157.6	13249.5	[100]	ug/L	15:15:51
2	Be 313.107†	264189.7	270391.5	[100]	ug/L	15:15:51
2	Cd 226.502†	9051.7	9311.2	[100]	ug/L	15:15:51
2	Co 228.616†	4816.9	4921.0	[100]	ug/L	15:16:11
2	Cr 267.716†	9245.5	9218.8	[100]	ug/L	15:15:51
2	Cu 324.752†	40344.7	34179.3	[100]	ug/L	15:15:51
2	Mn 257.610†	94292.9	94425.0	[100]	ug/L	15:15:51
2	Mo 202.031†	1447.2	1432.4	[100]	ug/L	15:16:11
2	Ni 231.604†	4054.5	4011.3	[100]	ug/L	15:16:11
2	P 214.914†	1042.0	818.5	[500]	ug/L	15:16:11
2	Pb 220.353†	764.4	832.4	[100]	ug/L	15:16:11
2	S 181.975 Axial†	186.1	144.2	[200]	ug/L	15:16:11
2	Sb 206.836†	311.6	285.5	[100]	ug/L	15:16:11
2	Se 196.026†	132.2	165.0	[100]	ug/L	15:16:11
2	Si 251.611†	16303.3	15852.6	[500]	ug/L	15:15:51
2	Sn 189.927†	570.5	566.4	[100]	ug/L	15:16:11
2	Ti 334.940†	61535.5	63286.5	[100]	ug/L	15:15:51
2	Tl 190.801†	298.8	333.5	[100]	ug/L	15:16:11
2	U 409.014†	1553.2	3574.4	[100]	ug/L	15:15:51

2	V 292.402†	13469.4	14861.5	[100]	ug/L	15:15:51
2	Zn 213.857†	11447.6	10897.4	[100]	ug/L	15:15:51
2	SiO2†	16377.9	15906.4	[1069.5]	ug/L	15:16:47
3	Sc Radial	5061.1	5061.1	101	%	15:15:19
3	Y RADIAL	5441.4	5441.4	100.2	%	15:15:19
3	K 766.490 Radial†	8046.2	5415.0	[1000]	ug/L	15:15:14
3	Sr 421.552†	15488.2	15428.7	[100]	ug/L	15:15:19
3	Sc 361.383	845493.3	845493.3	99.190	%	15:16:17
3	Y 371.029	714409.7	714409.7	98.857	%	15:16:17
3	Ag 328.068†	22151.1	21974.0	[100]	ug/L	15:16:17
3	As 188.979†	209.1	234.4	[100]	ug/L	15:16:37
3	B 249.677†	3689.4	4351.4	[100]	ug/L	15:16:17
3	Ba 233.527†	13021.0	13138.8	[100]	ug/L	15:16:17
3	Be 313.107†	260785.0	267500.1	[100]	ug/L	15:16:17
3	Cd 226.502†	8950.7	9227.9	[100]	ug/L	15:16:17
3	Co 228.616†	4819.9	4934.0	[100]	ug/L	15:16:37
3	Cr 267.716†	9117.0	9108.2	[100]	ug/L	15:16:17
3	Cu 324.752†	39795.5	33708.3	[100]	ug/L	15:16:17
3	Mn 257.610†	93083.9	93399.2	[100]	ug/L	15:16:17
3	Mo 202.031†	1447.2	1435.3	[100]	ug/L	15:16:37
3	Ni 231.604†	4084.9	4050.3	[100]	ug/L	15:16:37
3	P 214.914†	1047.1	825.8	[500]	ug/L	15:16:37
3	Pb 220.353†	794.2	864.0	[100]	ug/L	15:16:37
3	S 181.975 Axial†	187.0	145.5	[200]	ug/L	15:16:37
3	Sb 206.836†	308.9	283.5	[100]	ug/L	15:16:37
3	Se 196.026†	124.3	157.3	[100]	ug/L	15:16:37
3	Si 251.611†	16035.6	15616.1	[500]	ug/L	15:16:17
3	Sn 189.927†	570.5	567.5	[100]	ug/L	15:16:37
3	Ti 334.940†	60707.1	62577.4	[100]	ug/L	15:16:17
3	Tl 190.801†	301.9	337.2	[100]	ug/L	15:16:37
3	U 409.014†	1766.5	3792.6	[100]	ug/L	15:16:17
3	V 292.402†	13290.2	14708.4	[100]	ug/L	15:16:17
3	Zn 213.857†	11272.7	10744.5	[100]	ug/L	15:16:17
3	SiO2†	16213.8	15774.5	[1069.5]	ug/L	15:16:52

Mean Data: S0.1

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	846081.6	981.27	0.12%	99.259	%
Sc Radial	5138.8	93.93	1.83%	102	%
Y 371.029	713941.8	891.40	0.12%	98.793	%
Y RADIAL	5522.1	108.23	1.96%	101.7	%
Ag 328.068†	22166.7	170.33	0.77%	[100]	ug/L
As 188.979†	235.5	1.53	0.65%	[100]	ug/L
B 249.677†	4383.7	28.07	0.64%	[100]	ug/L
Ba 233.527†	13203.3	57.62	0.44%	[100]	ug/L
Be 313.107†	269473.9	1710.73	0.63%	[100]	ug/L
Cd 226.502†	9289.2	53.79	0.58%	[100]	ug/L
Co 228.616†	4926.7	6.64	0.13%	[100]	ug/L
Cr 267.716†	9179.8	62.12	0.68%	[100]	ug/L
Cu 324.752†	33983.0	245.13	0.72%	[100]	ug/L
K 766.490 Radial†	5255.8	185.15	3.52%	[1000]	ug/L
Mn 257.610†	94145.1	652.63	0.69%	[100]	ug/L
Mo 202.031†	1435.9	3.97	0.28%	[100]	ug/L
Ni 231.604†	4030.8	19.51	0.48%	[100]	ug/L
P 214.914†	822.4	3.69	0.45%	[500]	ug/L
Pb 220.353†	844.6	17.03	2.02%	[100]	ug/L
S 181.975 Axial†	144.2	1.30	0.90%	[200]	ug/L
Sb 206.836†	286.1	3.00	1.05%	[100]	ug/L
Se 196.026†	160.5	4.03	2.51%	[100]	ug/L
Si 251.611†	15764.7	129.35	0.82%	[500]	ug/L
Sn 189.927†	567.2	0.71	0.12%	[100]	ug/L
Sr 421.552†	15251.5	310.76	2.04%	[100]	ug/L
Ti 334.940†	63061.0	419.17	0.66%	[100]	ug/L
Tl 190.801†	334.3	2.60	0.78%	[100]	ug/L
U 409.014†	3668.6	112.08	3.05%	[100]	ug/L
V 292.402†	14796.7	79.21	0.54%	[100]	ug/L
Zn 213.857†	10858.9	100.82	0.93%	[100]	ug/L
SiO2†	15810.8	83.57	0.53%	[1069.5]	ug/L

Sequence No.: 3
Sample ID: S0.5
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 3
Date Collected: 1/11/2010 15:19:03
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc Radial	4947.4	4947.4	98.3	%	15:20:56
1	Y RADIAL	5332.9	5332.9	98.22	%	15:20:56
1	Al 396.153Radial†	6169.6	6279.9	[5000]	ug/L	15:20:56
1	Ca 317.933Radial†	3073.1	3107.9	[5000]	ug/L	15:21:16
1	K 766.490 Radial†	28495.3	26411.6	[5000]	ug/L	15:20:56
1	Mg 279.077 IEC†	153.2	154.0	[5000]	ug/L	15:21:16
1	Sr 421.552†	72590.6	73900.2	[500]	ug/L	15:20:56
1	Sc 361.383	845959.4	845959.4	99.245	%	15:22:13
1	Y 371.029	704574.1	704574.1	97.496	%	15:22:13
1	Ag 328.068†	109304.6	109778.5	[500]	ug/L	15:22:18
1	As 188.979†	1133.6	1165.9	[500]	ug/L	15:22:38
1	B 249.677†	21532.1	22327.8	[500]	ug/L	15:22:18
1	Ba 233.527†	63524.4	64019.3	[500]	ug/L	15:22:18
1	Be 313.107†	1282691.0	1297038.9	[500]	ug/L	15:22:13
1	Cd 226.502†	44542.3	45085.4	[500]	ug/L	15:22:18
1	Co 228.616†	24275.9	24535.4	[500]	ug/L	15:22:18
1	Cr 267.716†	44493.6	44749.0	[500]	ug/L	15:22:18
1	Cu 324.752†	171233.9	166125.0	[500]	ug/L	15:22:18
1	Mn 257.610†	441107.2	444019.6	[500]	ug/L	15:22:13
1	Mo 202.031†	7141.6	7172.2	[500]	ug/L	15:22:38
1	Ni 231.604†	20051.1	20135.7	[500]	ug/L	15:22:18
1	P 214.914†	4289.0	4091.7	[2500]	ug/L	15:22:38
1	Pb 220.353†	4017.0	4110.9	[500]	ug/L	15:22:38
1	S 181.975 Axial†	756.8	719.6	[1000]	ug/L	15:22:38
1	Sb 206.836†	1495.2	1478.6	[500]	ug/L	15:22:38
1	Se 196.026†	743.5	781.2	[500]	ug/L	15:22:38
1	Si 251.611†	79663.0	79718.8	[2500]	ug/L	15:22:18
1	Sn 189.927†	2851.9	2865.9	[500]	ug/L	15:22:38
1	Ti 334.940†	303997.7	307685.9	[500]	ug/L	15:22:18
1	Tl 190.801†	1584.4	1629.3	[500]	ug/L	15:22:38
1	U 409.014†	15168.3	17295.4	[500]	ug/L	15:22:18
1	V 292.402†	71188.8	73040.4	[500]	ug/L	15:22:18
1	Zn 213.857†	53175.8	52960.3	[500]	ug/L	15:22:18
1	SiO2†	78555.7	78581.9	[5347.5]	ug/L	15:23:46
2	Sc Radial	4915.6	4915.6	97.6	%	15:21:21
2	Y RADIAL	5252.9	5252.9	96.75	%	15:21:21
2	Al 396.153Radial†	6150.5	6300.9	[5000]	ug/L	15:21:21
2	Ca 317.933Radial†	3080.9	3136.1	[5000]	ug/L	15:21:41
2	K 766.490 Radial†	28478.4	26581.6	[5000]	ug/L	15:21:21
2	Mg 279.077 IEC†	155.6	157.5	[5000]	ug/L	15:21:41
2	Sr 421.552†	72234.7	74012.7	[500]	ug/L	15:21:21
2	Sc 361.383	844486.1	844486.1	99.072	%	15:22:44
2	Y 371.029	704049.9	704049.9	97.424	%	15:22:44
2	Ag 328.068†	109991.6	110664.1	[500]	ug/L	15:22:49
2	As 188.979†	1109.8	1143.8	[500]	ug/L	15:23:09
2	B 249.677†	21612.8	22447.2	[500]	ug/L	15:22:49
2	Ba 233.527†	63964.4	64575.0	[500]	ug/L	15:22:49
2	Be 313.107†	1307265.4	1324098.4	[500]	ug/L	15:22:44
2	Cd 226.502†	44958.3	45583.6	[500]	ug/L	15:22:49
2	Co 228.616†	24453.8	24757.6	[500]	ug/L	15:22:49
2	Cr 267.716†	44830.8	45167.6	[500]	ug/L	15:22:49
2	Cu 324.752†	172172.7	167373.5	[500]	ug/L	15:22:49
2	Mn 257.610†	449086.2	452848.8	[500]	ug/L	15:22:44
2	Mo 202.031†	7069.3	7111.8	[500]	ug/L	15:23:09
2	Ni 231.604†	20231.9	20353.5	[500]	ug/L	15:22:49
2	P 214.914†	4232.0	4041.7	[2500]	ug/L	15:23:09
2	Pb 220.353†	3962.1	4062.6	[500]	ug/L	15:23:09
2	S 181.975 Axial†	747.6	711.6	[1000]	ug/L	15:23:09
2	Sb 206.836†	1483.9	1469.9	[500]	ug/L	15:23:09

2	Se 196.026†	737.9	776.8	[500]	ug/L	15:23:09
2	Si 251.611†	80223.3	80424.5	[2500]	ug/L	15:22:49
2	Sn 189.927†	2827.8	2846.6	[500]	ug/L	15:23:09
2	Ti 334.940†	305730.8	309969.7	[500]	ug/L	15:22:49
2	Tl 190.801†	1570.4	1618.0	[500]	ug/L	15:23:09
2	U 409.014†	15243.5	17398.0	[500]	ug/L	15:22:49
2	V 292.402†	71765.1	73747.1	[500]	ug/L	15:22:49
2	Zn 213.857†	53614.1	53496.1	[500]	ug/L	15:22:49
2	SiO2†	78964.2	79132.3	[5347.5]	ug/L	15:23:51
3	Sc Radial	4989.2	4989.2	99.1	%	15:21:46
3	Y RADIAL	5321.5	5321.5	98.01	%	15:21:46
3	Al 396.153Radial†	6212.5	6270.6	[5000]	ug/L	15:21:46
3	Ca 317.933Radial†	3013.5	3021.6	[5000]	ug/L	15:22:06
3	K 766.490 Radial†	28728.7	26404.2	[5000]	ug/L	15:21:46
3	Mg 279.077 IEC†	154.9	154.5	[5000]	ug/L	15:22:06
3	Sr 421.552†	72818.3	73511.1	[500]	ug/L	15:21:46
3	Sc 361.383	851201.0	851201.0	99.860	%	15:23:15
3	Y 371.029	708627.2	708627.2	98.057	%	15:23:15
3	Ag 328.068†	109131.6	108927.1	[500]	ug/L	15:23:20
3	As 188.979†	1112.6	1137.8	[500]	ug/L	15:23:40
3	B 249.677†	21585.1	22247.3	[500]	ug/L	15:23:20
3	Ba 233.527†	63372.4	63472.9	[500]	ug/L	15:23:20
3	Be 313.107†	1297867.8	1304278.4	[500]	ug/L	15:23:15
3	Cd 226.502†	44539.8	44806.5	[500]	ug/L	15:23:20
3	Co 228.616†	24287.3	24396.1	[500]	ug/L	15:23:20
3	Cr 267.716†	44423.6	44402.8	[500]	ug/L	15:23:20
3	Cu 324.752†	170756.3	164584.3	[500]	ug/L	15:23:20
3	Mn 257.610†	446804.6	446988.0	[500]	ug/L	15:23:15
3	Mo 202.031†	7101.1	7087.4	[500]	ug/L	15:23:40
3	Ni 231.604†	20021.1	19981.2	[500]	ug/L	15:23:20
3	P 214.914†	4263.6	4039.7	[2500]	ug/L	15:23:40
3	Pb 220.353†	3986.8	4055.8	[500]	ug/L	15:23:40
3	S 181.975 Axial†	742.0	700.0	[1000]	ug/L	15:23:40
3	Sb 206.836†	1490.0	1464.2	[500]	ug/L	15:23:40
3	Se 196.026†	727.7	760.7	[500]	ug/L	15:23:40
3	Si 251.611†	79709.5	79271.1	[2500]	ug/L	15:23:20
3	Sn 189.927†	2843.9	2840.2	[500]	ug/L	15:23:40
3	Ti 334.940†	303580.5	305381.9	[500]	ug/L	15:23:20
3	Tl 190.801†	1582.4	1617.5	[500]	ug/L	15:23:40
3	U 409.014†	14959.5	16992.1	[500]	ug/L	15:23:20
3	V 292.402†	71100.6	72510.3	[500]	ug/L	15:23:20
3	Zn 213.857†	53189.5	52644.1	[500]	ug/L	15:23:20
3	SiO2†	80285.2	79826.4	[5347.5]	ug/L	15:23:56

Mean Data: S0.5

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	847215.5	3529.26	0.42%	99.392	%
Sc Radial	4950.7	36.89	0.75%	98.3	%
Y 371.029	705750.4	2505.10	0.35%	97.659	%
Y RADIAL	5302.5	43.29	0.82%	97.66	%
Ag 328.068†	109789.9	868.57	0.79%	[500]	ug/L
Al 396.153Radial†	6283.8	15.52	0.25%	[5000]	ug/L
As 188.979†	1149.1	14.79	1.29%	[500]	ug/L
B 249.677†	22340.8	100.54	0.45%	[500]	ug/L
Ba 233.527†	64022.4	551.06	0.86%	[500]	ug/L
Be 313.107†	1308471.9	14008.70	1.07%	[500]	ug/L
Ca 317.933Radial†	3088.5	59.66	1.93%	[5000]	ug/L
Cd 226.502†	45158.5	393.66	0.87%	[500]	ug/L
Co 228.616†	24563.0	182.33	0.74%	[500]	ug/L
Cr 267.716†	44773.1	382.95	0.86%	[500]	ug/L
Cu 324.752†	166027.6	1397.18	0.84%	[500]	ug/L
K 766.490 Radial†	26465.8	100.35	0.38%	[5000]	ug/L
Mg 279.077 IEC†	155.3	1.89	1.22%	[5000]	ug/L
Mn 257.610†	447952.2	4492.87	1.00%	[500]	ug/L
Mo 202.031†	7123.8	43.67	0.61%	[500]	ug/L
Ni 231.604†	20156.8	187.02	0.93%	[500]	ug/L
P 214.914†	4057.7	29.48	0.73%	[2500]	ug/L
Pb 220.353†	4076.4	30.05	0.74%	[500]	ug/L
S 181.975 Axial†	710.4	9.83	1.38%	[1000]	ug/L

Sb 206.836†	1470.9	7.27	0.49%	[500]	ug/L
Se 196.026†	772.9	10.74	1.39%	[500]	ug/L
Si 251.611†	79804.8	581.46	0.73%	[2500]	ug/L
Sn 189.927†	2850.9	13.39	0.47%	[500]	ug/L
Sr 421.552†	73808.0	263.22	0.36%	[500]	ug/L
Ti 334.940†	307679.2	2293.91	0.75%	[500]	ug/L
Tl 190.801†	1621.6	6.70	0.41%	[500]	ug/L
U 409.014†	17228.5	211.03	1.22%	[500]	ug/L
V 292.402†	73099.3	620.51	0.85%	[500]	ug/L
Zn 213.857†	53033.5	430.73	0.81%	[500]	ug/L
SiO2†	79180.2	623.61	0.79%	[5347.5]	ug/L

Sequence No.: 4
Sample ID: SCAL
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 4
Date Collected: 1/11/2010 15:26:06
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: SCAL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc Radial	4991.6	4991.6	99.1	%	15:27:59
1	Y RADIAL	5328.6	5328.6	98.14	%	15:27:59
1	Al 396.153Radial†	12660.1	12771.6	[10000]	ug/L	15:27:59
1	Ca 317.933Radial†	6320.0	6355.6	[10000]	ug/L	15:27:59
1	Fe 238.204 Radial†	1191.2	1192.7	[10000]	ug/L	15:28:19
1	K 766.490 Radial†	56635.2	54541.3	[10000]	ug/L	15:27:59
1	Mg 279.077 IEC†	311.3	312.1	[10000]	ug/L	15:28:19
1	Na 589.592 Radial†	32605.3	34171.4	[10000]	ug/L	15:27:59
1	Sr 421.552†	153973.9	155342.4	[1000]	ug/L	15:27:59
1	Sc 361.383	853558.2	853558.2	100.14	%	15:29:18
1	Y 371.029	708914.2	708914.2	98.097	%	15:29:18
1	Ag 328.068†	216775.3	216122.6	[1000]	ug/L	15:29:18
1	As 188.979†	2299.9	2320.4	[1000]	ug/L	15:29:38
1	B 249.677†	44323.4	44895.0	[1000]	ug/L	15:29:18
1	Ba 233.527†	128248.6	128085.7	[1000]	ug/L	15:29:18
1	Be 313.107†	2619791.8	2620816.1	[1000]	ug/L	15:29:18
1	Cd 226.502†	89888.6	89970.5	[1000]	ug/L	15:29:18
1	Co 228.616†	48773.3	48781.7	[1000]	ug/L	15:29:18
1	Cr 267.716†	89442.2	89237.4	[1000]	ug/L	15:29:18
1	Cu 324.752†	341095.7	334219.8	[1000]	ug/L	15:29:18
1	Mn 257.610†	904877.2	903202.3	[1000]	ug/L	15:29:18
1	Mo 202.031†	14130.5	14087.5	[1000]	ug/L	15:29:38
1	Ni 231.604†	40183.6	40061.1	[1000]	ug/L	15:29:18
1	P 214.914†	8404.6	8163.3	[5000]	ug/L	15:29:38
1	Pb 220.353†	8100.8	8153.2	[1000]	ug/L	15:29:38
1	S 181.975 Axial†	1452.9	1407.9	[2000]	ug/L	15:29:38
1	Sb 206.836†	2946.6	2914.7	[1000]	ug/L	15:29:38
1	Se 196.026†	1515.4	1545.4	[1000]	ug/L	15:29:38
1	Si 251.611†	157018.3	156254.4	[5000]	ug/L	15:29:18
1	Sn 189.927†	5642.6	5627.3	[1000]	ug/L	15:29:38
1	Ti 334.940†	620768.4	621299.2	[1000]	ug/L	15:29:18
1	Tl 190.801†	3227.0	3255.4	[1000]	ug/L	15:29:38
1	U 409.014†	31729.0	33697.5	[1000]	ug/L	15:29:18
1	V 292.402†	145175.5	146287.8	[1000]	ug/L	15:29:18
1	Zn 213.857†	106205.1	105440.5	[1000]	ug/L	15:29:18
1	SiO2†	157949.1	157162.7	[10695]	ug/L	15:30:39
2	Sc Radial	4736.3	4736.3	94.1	%	15:28:24
2	Y RADIAL	5085.9	5085.9	93.67	%	15:28:24
2	Al 396.153Radial†	12468.6	13256.4	[10000]	ug/L	15:28:24
2	Ca 317.933Radial†	6199.0	6570.6	[10000]	ug/L	15:28:24
2	Fe 238.204 Radial†	1184.0	1249.9	[10000]	ug/L	15:28:44
2	K 766.490 Radial†	55376.3	56282.3	[10000]	ug/L	15:28:24
2	Mg 279.077 IEC†	313.7	331.6	[10000]	ug/L	15:28:44
2	Na 589.592 Radial†	31980.7	35280.2	[10000]	ug/L	15:28:24
2	Sr 421.552†	150876.6	160421.5	[1000]	ug/L	15:28:24
2	Sc 361.383	856770.6	856770.6	100.51	%	15:29:46
2	Y 371.029	713390.2	713390.2	98.716	%	15:29:46
2	Ag 328.068†	217597.7	216129.2	[1000]	ug/L	15:29:46
2	As 188.979†	2277.6	2289.6	[1000]	ug/L	15:30:06
2	B 249.677†	44372.2	44777.6	[1000]	ug/L	15:29:46
2	Ba 233.527†	128252.4	127609.2	[1000]	ug/L	15:29:46
2	Be 313.107†	2630936.8	2622095.0	[1000]	ug/L	15:29:46
2	Cd 226.502†	90039.5	89784.1	[1000]	ug/L	15:29:46
2	Co 228.616†	48826.6	48652.1	[1000]	ug/L	15:29:46
2	Cr 267.716†	89756.8	89215.5	[1000]	ug/L	15:29:46
2	Cu 324.752†	342472.0	334312.0	[1000]	ug/L	15:29:46
2	Mn 257.610†	905292.8	900227.7	[1000]	ug/L	15:29:46
2	Mo 202.031†	14136.2	14040.3	[1000]	ug/L	15:30:06
2	Ni 231.604†	40315.0	40041.3	[1000]	ug/L	15:29:46

2	P 214.914†	8424.5	8151.6	[5000]	ug/L	15:30:06
2	Pb 220.353†	8088.8	8110.8	[1000]	ug/L	15:30:06
2	S 181.975 Axial†	1450.9	1400.5	[2000]	ug/L	15:30:06
2	Sb 206.836†	2931.6	2888.7	[1000]	ug/L	15:30:06
2	Se 196.026†	1521.6	1545.8	[1000]	ug/L	15:30:06
2	Si 251.611†	157269.3	155916.2	[5000]	ug/L	15:29:46
2	Sn 189.927†	5628.2	5591.8	[1000]	ug/L	15:30:06
2	Ti 334.940†	622229.7	620428.6	[1000]	ug/L	15:29:46
2	Tl 190.801†	3223.5	3239.9	[1000]	ug/L	15:30:06
2	U 409.014†	31853.1	33702.1	[1000]	ug/L	15:29:46
2	V 292.402†	145673.8	146240.0	[1000]	ug/L	15:29:46
2	Zn 213.857†	106459.8	105296.2	[1000]	ug/L	15:29:46
2	SiO2†	157350.0	155975.2	[10695]	ug/L	15:30:44
3	Sc Radial	5063.8	5063.8	101	%	15:28:49
3	Y RADIAL	5371.0	5371.0	98.92	%	15:28:49
3	Al 396.153Radial†	12735.9	12664.9	[10000]	ug/L	15:28:49
3	Ca 317.933Radial†	6335.3	6279.9	[10000]	ug/L	15:28:49
3	Fe 238.204 Radial†	1169.2	1153.7	[10000]	ug/L	15:29:09
3	K 766.490 Radial†	56959.1	54048.2	[10000]	ug/L	15:28:49
3	Mg 279.077 IEC†	305.4	301.7	[10000]	ug/L	15:29:09
3	Na 589.592 Radial†	32787.3	33883.0	[10000]	ug/L	15:28:49
3	Sr 421.552†	155040.2	154186.5	[1000]	ug/L	15:28:49
3	Sc 361.383	848587.0	848587.0	99.553	%	15:30:14
3	Y 371.029	705534.4	705534.4	97.629	%	15:30:14
3	Ag 328.068†	216529.3	217143.7	[1000]	ug/L	15:30:14
3	As 188.979†	2285.4	2319.2	[1000]	ug/L	15:30:34
3	B 249.677†	44227.4	45057.9	[1000]	ug/L	15:30:14
3	Ba 233.527†	127929.5	128515.5	[1000]	ug/L	15:30:14
3	Be 313.107†	2617713.7	2634055.2	[1000]	ug/L	15:30:14
3	Cd 226.502†	89763.7	90371.0	[1000]	ug/L	15:30:14
3	Co 228.616†	48665.0	48958.3	[1000]	ug/L	15:30:14
3	Cr 267.716†	89514.0	89832.7	[1000]	ug/L	15:30:14
3	Cu 324.752†	341213.1	336333.3	[1000]	ug/L	15:30:14
3	Mn 257.610†	902472.6	906080.8	[1000]	ug/L	15:30:14
3	Mo 202.031†	14199.9	14240.0	[1000]	ug/L	15:30:34
3	Ni 231.604†	40146.9	40259.3	[1000]	ug/L	15:30:14
3	P 214.914†	8453.8	8261.9	[5000]	ug/L	15:30:34
3	Pb 220.353†	8136.4	8236.3	[1000]	ug/L	15:30:34
3	S 181.975 Axial†	1461.3	1424.9	[2000]	ug/L	15:30:34
3	Sb 206.836†	2945.8	2931.1	[1000]	ug/L	15:30:34
3	Se 196.026†	1527.9	1566.8	[1000]	ug/L	15:30:34
3	Si 251.611†	156676.0	156829.2	[5000]	ug/L	15:30:14
3	Sn 189.927†	5652.9	5670.7	[1000]	ug/L	15:30:34
3	Ti 334.940†	619875.3	624033.7	[1000]	ug/L	15:30:14
3	Tl 190.801†	3235.2	3282.6	[1000]	ug/L	15:30:34
3	U 409.014†	31640.7	33794.4	[1000]	ug/L	15:30:14
3	V 292.402†	145180.3	147142.0	[1000]	ug/L	15:30:14
3	Zn 213.857†	106254.1	106111.0	[1000]	ug/L	15:30:14
3	SiO2†	155719.3	155847.0	[10695]	ug/L	15:30:50

Mean Data: SCAL

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	852972.0	4123.17	0.48%	100.07	%
Sc Radial	4930.6	172.08	3.49%	97.9	%
Y 371.029	709279.6	3940.67	0.56%	98.147	%
Y RADIAL	5261.9	153.82	2.92%	96.91	%
Ag 328.068†	216465.2	587.67	0.27%	[1000]	ug/L
Al 396.153Radial†	12897.6	315.27	2.44%	[10000]	ug/L
As 188.979†	2309.7	17.47	0.76%	[1000]	ug/L
B 249.677†	44910.1	140.76	0.31%	[1000]	ug/L
Ba 233.527†	128070.1	453.32	0.35%	[1000]	ug/L
Be 313.107†	2625655.5	7302.44	0.28%	[1000]	ug/L
Ca 317.933Radial†	6402.0	150.81	2.36%	[10000]	ug/L
Cd 226.502†	90041.9	299.87	0.33%	[1000]	ug/L
Co 228.616†	48797.3	153.69	0.31%	[1000]	ug/L
Cr 267.716†	89428.5	350.22	0.39%	[1000]	ug/L
Cu 324.752†	334955.0	1194.48	0.36%	[1000]	ug/L
Fe 238.204 Radial†	1198.8	48.37	4.04%	[10000]	ug/L
K 766.490 Radial†	54957.3	1173.72	2.14%	[10000]	ug/L

Mg 279.077 IEC†	315.2	15.17	4.81%	[10000]	ug/L
Mn 257.610†	903170.3	2926.65	0.32%	[1000]	ug/L
Mo 202.031†	14122.6	104.35	0.74%	[1000]	ug/L
Na 589.592 Radial†	34444.9	737.64	2.14%	[10000]	ug/L
Ni 231.604†	40120.5	120.56	0.30%	[1000]	ug/L
P 214.914†	8192.3	60.61	0.74%	[5000]	ug/L
Pb 220.353†	8166.8	63.83	0.78%	[1000]	ug/L
S 181.975 Axial†	1411.1	12.50	0.89%	[2000]	ug/L
Sb 206.836†	2911.5	21.35	0.73%	[1000]	ug/L
Se 196.026†	1552.7	12.21	0.79%	[1000]	ug/L
Si 251.611†	156333.3	461.59	0.30%	[5000]	ug/L
Sn 189.927†	5629.9	39.50	0.70%	[1000]	ug/L
Sr 421.552†	156650.1	3316.87	2.12%	[1000]	ug/L
Ti 334.940†	621920.5	1881.15	0.30%	[1000]	ug/L
Tl 190.801†	3259.3	21.61	0.66%	[1000]	ug/L
U 409.014†	33731.3	54.70	0.16%	[1000]	ug/L
V 292.402†	146556.6	507.53	0.35%	[1000]	ug/L
Zn 213.857†	105615.9	434.83	0.41%	[1000]	ug/L
SiO2†	156328.3	725.47	0.46%	[10695]	ug/L

Sequence No.: 5
Sample ID: S10
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 5
Date Collected: 1/11/2010 15:33:00
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S10

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc Radial	4878.1	4878.1	96.9	%	15:35:14
1	Y RADIAL	5191.4	5191.4	95.62	%	15:35:14
1	Al 396.153Radial†	63564.9	65614.4	[50000]	ug/L	15:34:54
1	Ca 317.933Radial†	30640.8	31608.6	[50000]	ug/L	15:34:54
1	Fe 238.204 Radial†	2222.4	2285.2	[20000]	ug/L	15:35:14
1	Mg 279.077 IEC†	1446.9	1491.6	[50000]	ug/L	15:35:14
1	Na 589.592 Radial†	63708.9	67042.8	[20000]	ug/L	15:34:54
1	Sc 361.383	828781.4	828781.4	97.229	%	15:36:11
1	Y 371.029	685978.7	685978.7	94.923	%	15:36:11
2	Sc Radial	4868.6	4868.6	96.7	%	15:35:39
2	Y RADIAL	5182.0	5182.0	95.44	%	15:35:39
2	Al 396.153Radial†	62506.8	64647.7	[50000]	ug/L	15:35:19
2	Ca 317.933Radial†	30109.2	31120.4	[50000]	ug/L	15:35:19
2	Fe 238.204 Radial†	2222.3	2289.5	[20000]	ug/L	15:35:39
2	Mg 279.077 IEC†	1450.4	1498.2	[50000]	ug/L	15:35:39
2	Na 589.592 Radial†	62672.0	66098.4	[20000]	ug/L	15:35:19
2	Sc 361.383	832642.6	832642.6	97.682	%	15:36:16
2	Y 371.029	689630.1	689630.1	95.428	%	15:36:16
3	Sc Radial	4821.9	4821.9	95.8	%	15:36:04
3	Y RADIAL	5146.9	5146.9	94.80	%	15:36:04
3	Al 396.153Radial†	61540.7	64265.6	[50000]	ug/L	15:35:44
3	Ca 317.933Radial†	29642.4	30934.8	[50000]	ug/L	15:35:44
3	Fe 238.204 Radial†	2204.8	2293.6	[20000]	ug/L	15:36:04
3	Mg 279.077 IEC†	1427.2	1488.4	[50000]	ug/L	15:36:04
3	Na 589.592 Radial†	61672.1	65682.5	[20000]	ug/L	15:35:44
3	Sc 361.383	833640.6	833640.6	97.799	%	15:36:22
3	Y 371.029	690643.4	690643.4	95.569	%	15:36:22

Mean Data: S10

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	831688.2	2566.33	0.31%	97.570	%
Sc Radial	4856.2	30.10	0.62%	96.4	%
Y 371.029	688750.7	2453.51	0.36%	95.307	%
Y RADIAL	5173.5	23.45	0.45%	95.29	%
Al 396.153Radial†	64842.6	695.21	1.07%	[50000]	ug/L
Ca 317.933Radial†	31221.3	348.06	1.11%	[50000]	ug/L
Fe 238.204 Radial†	2289.4	4.19	0.18%	[20000]	ug/L
Mg 279.077 IEC†	1492.7	4.98	0.33%	[50000]	ug/L
Na 589.592 Radial†	66274.6	697.04	1.05%	[20000]	ug/L

Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 328.068	3	Lin Thru 0	0.0	217.1	0.00000	0.999982	
Al 396.153Radial	3	Lin Thru 0	0.0	1.296	0.00000	0.999995	
As 188.979	3	Lin Thru 0	0.0	2.308	0.00000	0.999996	
B 249.677	3	Lin Thru 0	0.0	44.86	0.00000	0.999996	
Ba 233.527	3	Lin Thru 0	0.0	128.1	0.00000	0.999996	
Be 313.107	3	Lin Thru 0	0.0	2624	0.00000	0.999996	
Ca 317.933Radial	3	Lin Thru 0	0.0	0.6250	0.00000	0.999988	
Cd 226.502	3	Lin Thru 0	0.0	90.12	0.00000	0.999995	
Co 228.616	3	Lin Thru 0	0.0	48.87	0.00000	0.999996	
Cr 267.716	3	Lin Thru 0	0.0	89.47	0.00000	0.999997	
Cu 324.752	3	Lin Thru 0	0.0	334.4	0.00000	0.999993	
Fe 238.204 Radia	2	Lin Thru 0	0.0	0.1156	0.00000	0.999825	
K 766.490 Radial	3	Lin Thru 0	0.0	5.454	0.00000	0.999885	

Mg 279.077 IEC	3	Lin Thru 0	0.0	0.0299	0.00000	0.999937
Mn 257.610	3	Lin Thru 0	0.0	902.0	0.00000	0.999987
Mo 202.031	3	Lin Thru 0	0.0	14.15	0.00000	0.999993
Na 589.592 Radia	2	Lin Thru 0	0.0	3.340	0.00000	0.999877
Ni 231.604	3	Lin Thru 0	0.0	40.16	0.00000	0.999998
P 214.914	3	Lin Thru 0	0.0	1.635	0.00000	0.999993
Pb 220.353	3	Lin Thru 0	0.0	8.166	0.00000	0.999995
S 181.975 Axial	3	Lin Thru 0	0.0	0.7066	0.00000	0.999995
Sb 206.836	3	Lin Thru 0	0.0	2.917	0.00000	0.999990
Se 196.026	3	Lin Thru 0	0.0	1.552	0.00000	0.999994
Si 251.611	3	Lin Thru 0	0.0	31.40	0.00000	0.999965
Sn 189.927	3	Lin Thru 0	0.0	5.645	0.00000	0.999987
Sr 421.552	3	Lin Thru 0	0.0	154.8	0.00000	0.999729
Ti 334.940	3	Lin Thru 0	0.0	620.7	0.00000	0.999990
Tl 190.801	3	Lin Thru 0	0.0	3.257	0.00000	0.999995
U 409.014	3	Lin Thru 0	0.0	33.90	0.00000	0.999937
V 292.402	3	Lin Thru 0	0.0	146.5	0.00000	0.999999
Zn 213.857	3	Lin Thru 0	0.0	105.7	0.00000	0.999996
SiO2	3	Lin Thru 0	0.0	14.66	0.00000	0.999986

Sequence No.: 6
Sample ID: ICV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 9
Date Collected: 1/11/2010 15:38:33
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5131.5	5131.5	102	%			15:40:26
1	Y RADIAL	5471.6	5471.6	100.8	%			15:40:26
1	Al 396.153Radial†	6248.8	6132.3	4705.2	ug/L	4705.2	ppb	15:40:26
1	Ca 317.933Radial†	2971.0	2895.6	4633.2	ug/L	4633.2	ppb	15:40:46
1	Fe 238.204 Radial†	561.3	541.9	4703.9	ug/L	4703.9	ppb	15:40:46
1	K 766.490 Radial†	15549.6	12668.0	2309.3	ug/L	2309.3	ppb	15:40:26
1	Mg 279.077 IEC†	151.4	146.6	4900.0	ug/L	4900.0	ppb	15:40:46
1	Na 589.592 Radial†	6369.4	7530.5	2254.7	ug/L	2254.7	ppb	15:40:26
1	Sr 421.552†	75677.1	74278.0	479.72	ug/L	479.72	ppb	15:40:26
1	Sc 361.383	854284.7	854284.7	100.22	%			15:41:43
1	Y 371.029	716450.9	716450.9	99.140	%			15:41:43
1	Ag 328.068†	55272.7	54792.6	255.27	ug/L	255.27	ppb	15:41:43
1	As 188.979†	1051.6	1072.9	466.86	ug/L	466.86	ppb	15:42:03
1	B 249.677†	21779.4	22363.2	496.68	ug/L	496.68	ppb	15:41:43
1	Ba 233.527†	63648.1	63519.0	497.13	ug/L	497.13	ppb	15:41:43
1	Be 313.107†	668692.5	671801.0	257.08	ug/L	257.08	ppb	15:41:43
1	Cd 226.502†	43550.6	43658.5	484.37	ug/L	484.37	ppb	15:41:43
1	Co 228.616†	23970.1	23991.9	491.30	ug/L	491.30	ppb	15:42:03
1	Cr 267.716†	42651.6	42474.1	475.47	ug/L	475.47	ppb	15:41:43
1	Cu 324.752†	171273.9	164483.5	491.83	ug/L	491.83	ppb	15:41:43
1	Mn 257.610†	453042.6	451597.2	500.97	ug/L	500.97	ppb	15:41:43
1	Mo 202.031†	7574.9	7534.4	532.87	ug/L	532.87	ppb	15:42:03
1	Ni 231.604†	19737.9	19626.4	488.40	ug/L	488.40	ppb	15:42:03
1	P 214.914†	4248.6	4009.3	2346.6	ug/L	2346.6	ppb	15:42:03
1	Pb 220.353†	3961.8	4016.4	493.52	ug/L	493.52	ppb	15:42:03
1	S 181.975 Axial†	1763.5	1716.6	2428.5	ug/L	2428.5	ppb	15:42:03
1	Sb 206.836†	1468.6	1437.4	511.46	ug/L	511.46	ppb	15:42:03
1	Se 196.026†	3858.8	3882.2	2518.7	ug/L	2518.7	ppb	15:42:03
1	Si 251.611†	147035.3	146160.2	4648.4	ug/L	4648.4	ppb	15:41:43
1	Sn 189.927†	3018.0	3003.7	532.88	ug/L	532.88	ppb	15:42:03
1	Ti 334.940†	301910.2	302618.0	487.29	ug/L	487.29	ppb	15:41:43
1	Tl 190.801†	1659.9	1689.1	521.27	ug/L	521.27	ppb	15:42:03
1	U 409.014†	14510.6	16490.2	484.86	ug/L	484.86	ppb	15:41:43
1	V 292.402†	71245.3	72397.7	501.73	ug/L	501.73	ppb	15:41:43
1	Zn 213.857†	53239.2	52501.4	492.33	ug/L	492.33	ppb	15:41:43
1	SiO2†	146051.2	145157.0	9889.8	ug/L	9889.8	ppb	15:43:01
2	Sc Radial	4910.6	4910.6	97.5	%			15:40:51
2	Y RADIAL	5267.0	5267.0	97.01	%			15:40:51
2	Al 396.153Radial†	6145.3	6302.1	4835.9	ug/L	4835.9	ppb	15:40:51
2	Ca 317.933Radial†	2989.4	3045.6	4873.2	ug/L	4873.2	ppb	15:41:11
2	Fe 238.204 Radial†	563.2	568.7	4936.2	ug/L	4936.2	ppb	15:41:11
2	K 766.490 Radial†	15451.2	13253.5	2416.5	ug/L	2416.5	ppb	15:40:51
2	Mg 279.077 IEC†	155.9	157.9	5277.3	ug/L	5277.3	ppb	15:41:11
2	Na 589.592 Radial†	6286.5	7726.6	2313.4	ug/L	2313.4	ppb	15:40:51
2	Sr 421.552†	75331.0	77263.9	499.00	ug/L	499.00	ppb	15:40:51
2	Sc 361.383	845183.0	845183.0	99.154	%			15:42:09
2	Y 371.029	707487.5	707487.5	97.899	%			15:42:09
2	Ag 328.068†	55142.7	55255.5	257.48	ug/L	257.48	ppb	15:42:09
2	As 188.979†	1047.5	1080.0	469.98	ug/L	469.98	ppb	15:42:29
2	B 249.677†	21710.0	22527.2	500.29	ug/L	500.29	ppb	15:42:09
2	Ba 233.527†	63434.9	63987.8	500.80	ug/L	500.80	ppb	15:42:09
2	Be 313.107†	664512.9	674771.0	258.22	ug/L	258.22	ppb	15:42:09
2	Cd 226.502†	43551.7	44127.6	489.56	ug/L	489.56	ppb	15:42:09
2	Co 228.616†	23990.6	24270.1	496.99	ug/L	496.99	ppb	15:42:29
2	Cr 267.716†	42601.0	42881.4	480.03	ug/L	480.03	ppb	15:42:09
2	Cu 324.752†	170507.0	165550.4	495.03	ug/L	495.03	ppb	15:42:09
2	Mn 257.610†	451993.5	455407.1	505.20	ug/L	505.20	ppb	15:42:09
2	Mo 202.031†	7556.1	7596.9	537.30	ug/L	537.30	ppb	15:42:29
2	Ni 231.604†	19743.9	19844.5	493.83	ug/L	493.83	ppb	15:42:29

2	P 214.914†	4250.6	4057.0	2375.0 ug/L	2375.0 ppb	15:42:29
2	Pb 220.353†	3961.9	4059.1	498.76 ug/L	498.76 ppb	15:42:29
2	S 181.975 Axial†	1772.3	1744.5	2467.8 ug/L	2467.8 ppb	15:42:29
2	Sb 206.836†	1463.0	1447.6	515.12 ug/L	515.12 ppb	15:42:29
2	Se 196.026†	3853.6	3918.5	2542.9 ug/L	2542.9 ppb	15:42:29
2	Si 251.611†	146609.1	147310.2	4685.0 ug/L	4685.0 ppb	15:42:09
2	Sn 189.927†	3020.8	3039.0	539.17 ug/L	539.17 ppb	15:42:29
2	Ti 334.940†	300787.7	304729.9	490.69 ug/L	490.69 ppb	15:42:09
2	Tl 190.801†	1666.8	1713.9	528.90 ug/L	528.90 ppb	15:42:29
2	U 409.014†	14533.5	16669.2	490.10 ug/L	490.10 ppb	15:42:09
2	V 292.402†	70947.9	72863.2	504.95 ug/L	504.95 ppb	15:42:09
2	Zn 213.857†	53089.4	52922.4	496.25 ug/L	496.25 ppb	15:42:09
2	SiO2†	148214.6	148908.2	10146 ug/L	10146 ppb	15:43:06
3	Sc Radial	4926.9	4926.9	97.8 %		15:41:16
3	Y RADIAL	5294.5	5294.5	97.51 %		15:41:16
3	Al 396.153Radial†	6239.9	6377.8	4894.5 ug/L	4894.5 ppb	15:41:16
3	Ca 317.933Radial†	2993.0	3039.1	4862.8 ug/L	4862.8 ppb	15:41:36
3	Fe 238.204 Radial†	565.3	568.9	4938.0 ug/L	4938.0 ppb	15:41:36
3	K 766.490 Radial†	15428.2	13177.5	2402.6 ug/L	2402.6 ppb	15:41:16
3	Mg 279.077 IEC†	151.7	153.1	5116.5 ug/L	5116.5 ppb	15:41:36
3	Na 589.592 Radial†	6269.0	7687.4	2301.7 ug/L	2301.7 ppb	15:41:16
3	Sr 421.552†	75643.4	77327.0	499.41 ug/L	499.41 ppb	15:41:16
3	Sc 361.383	847906.9	847906.9	99.473 %		15:42:35
3	Y 371.029	709674.4	709674.4	98.202 %		15:42:35
3	Ag 328.068†	55242.3	55176.9	257.11 ug/L	257.11 ppb	15:42:35
3	As 188.979†	1055.7	1085.0	472.12 ug/L	472.12 ppb	15:42:55
3	B 249.677†	21722.1	22469.0	499.00 ug/L	499.00 ppb	15:42:35
3	Ba 233.527†	63420.9	63768.2	499.09 ug/L	499.09 ppb	15:42:35
3	Be 313.107†	664984.9	673092.5	257.58 ug/L	257.58 ppb	15:42:35
3	Cd 226.502†	43466.3	43900.6	487.04 ug/L	487.04 ppb	15:42:35
3	Co 228.616†	23912.7	24114.1	493.79 ug/L	493.79 ppb	15:42:55
3	Cr 267.716†	42637.0	42779.6	478.90 ug/L	478.90 ppb	15:42:35
3	Cu 324.752†	170928.9	165422.1	494.64 ug/L	494.64 ppb	15:42:35
3	Mn 257.610†	452358.0	454309.2	503.99 ug/L	503.99 ppb	15:42:35
3	Mo 202.031†	7539.0	7555.2	534.36 ug/L	534.36 ppb	15:42:55
3	Ni 231.604†	19632.7	19668.7	489.46 ug/L	489.46 ppb	15:42:55
3	P 214.914†	4233.5	4026.0	2356.0 ug/L	2356.0 ppb	15:42:55
3	Pb 220.353†	3930.9	4015.1	493.38 ug/L	493.38 ppb	15:42:55
3	S 181.975 Axial†	1780.9	1747.4	2471.9 ug/L	2471.9 ppb	15:42:55
3	Sb 206.836†	1458.8	1438.6	511.86 ug/L	511.86 ppb	15:42:55
3	Se 196.026†	3836.9	3889.2	2524.0 ug/L	2524.0 ppb	15:42:55
3	Si 251.611†	146961.9	147189.8	4681.2 ug/L	4681.2 ppb	15:42:35
3	Sn 189.927†	2986.9	2995.0	531.38 ug/L	531.38 ppb	15:42:55
3	Ti 334.940†	301442.1	304413.3	490.19 ug/L	490.19 ppb	15:42:35
3	Tl 190.801†	1662.1	1703.7	525.78 ug/L	525.78 ppb	15:42:55
3	U 409.014†	14584.1	16673.0	490.22 ug/L	490.22 ppb	15:42:35
3	V 292.402†	70996.2	72682.0	503.67 ug/L	503.67 ppb	15:42:35
3	Zn 213.857†	53081.7	52742.6	494.58 ug/L	494.58 ppb	15:42:35
3	SiO2†	146987.9	147194.8	10029 ug/L	10029 ppb	15:43:11

Mean Data: ICV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	849124.9	99.616	%	0.5480				0.55%
Sc Radial	4989.7	99.1	%	2.44				2.47%
Y 371.029	711204.2	98.414	%	0.6467				0.66%
Y RADIAL	5344.4	98.43	%	2.046				2.08%
Ag 328.068†	55075.0	256.62	ug/L	1.185	256.62	ppb	1.185	0.46%
QC value within limits for Ag 328.068 Recovery = 102.65%								
Al 396.153Radial†	6270.7	4811.9	ug/L	96.94	4811.9	ppb	96.94	2.01%
QC value within limits for Al 396.153Radial Recovery = 96.24%								
As 188.979†	1079.3	469.65	ug/L	2.649	469.65	ppb	2.649	0.56%
QC value within limits for As 188.979 Recovery = 93.93%								
B 249.677†	22453.1	498.66	ug/L	1.833	498.66	ppb	1.833	0.37%
QC value within limits for B 249.677 Recovery = 99.73%								
Ba 233.527†	63758.3	499.01	ug/L	1.839	499.01	ppb	1.839	0.37%
QC value within limits for Ba 233.527 Recovery = 99.80%								
Be 313.107†	673221.5	257.63	ug/L	0.571	257.63	ppb	0.571	0.22%
QC value within limits for Be 313.107 Recovery = 103.05%								
Ca 317.933Radial†	2993.4	4789.7	ug/L	135.68	4789.7	ppb	135.68	2.83%

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   QC value within limits for Ca 317.933Radial  Recovery = 95.79%
Cd 226.502†            43895.6      486.99 ug/L         2.593      486.99 ppb          2.593   0.53%
   QC value within limits for Cd 226.502  Recovery = 97.40%
Co 228.616†            24125.3      494.03 ug/L         2.855      494.03 ppb          2.855   0.58%
   QC value within limits for Co 228.616  Recovery = 98.81%
Cr 267.716†            42711.7      478.13 ug/L         2.373      478.13 ppb          2.373   0.50%
   QC value within limits for Cr 267.716  Recovery = 95.63%
Cu 324.752†           165152.0      493.83 ug/L         1.747      493.83 ppb          1.747   0.35%
   QC value within limits for Cu 324.752  Recovery = 98.77%
Fe 238.204 Radial†       559.8      4859.4 ug/L        134.62      4859.4 ppb         134.62   2.77%
   QC value within limits for Fe 238.204 Radial  Recovery = 97.19%
K 766.490 Radial†      13033.0      2376.1 ug/L         58.28      2376.1 ppb          58.28   2.45%
   QC value within limits for K 766.490 Radial  Recovery = 95.04%
Mg 279.077 IEC†          152.6      5098.0 ug/L        189.35      5098.0 ppb         189.35   3.71%
   QC value within limits for Mg 279.077 IEC  Recovery = 101.96%
Mn 257.610†           453771.2      503.39 ug/L         2.181      503.39 ppb          2.181   0.43%
   QC value within limits for Mn 257.610  Recovery = 100.68%
Mo 202.031†            7562.2      534.84 ug/L         2.257      534.84 ppb          2.257   0.42%
   QC value within limits for Mo 202.031  Recovery = 106.97%
Na 589.592 Radial†     7648.2      2289.9 ug/L         31.07      2289.9 ppb          31.07   1.36%
   QC value within limits for Na 589.592 Radial  Recovery = 91.60%
Ni 231.604†           19713.2      490.56 ug/L         2.879      490.56 ppb          2.879   0.59%
   QC value within limits for Ni 231.604  Recovery = 98.11%
P 214.914†             4030.8      2359.2 ug/L         14.46      2359.2 ppb          14.46   0.61%
   QC value within limits for P 214.914  Recovery = 94.37%
Pb 220.353†            4030.2      495.22 ug/L         3.068      495.22 ppb          3.068   0.62%
   QC value within limits for Pb 220.353  Recovery = 99.04%
S 181.975 Axial†       1736.2      2456.1 ug/L         23.98      2456.1 ppb          23.98   0.98%
   QC value within limits for S 181.975 Axial  Recovery = 98.24%
Sb 206.836†            1441.2      512.81 ug/L         2.011      512.81 ppb          2.011   0.39%
   QC value within limits for Sb 206.836  Recovery = 102.56%
Se 196.026†            3896.7      2528.5 ug/L         12.70      2528.5 ppb          12.70   0.50%
   QC value within limits for Se 196.026  Recovery = 101.14%
Si 251.611†           146886.7      4671.5 ug/L         20.11      4671.5 ppb          20.11   0.43%
   QC value within limits for Si 251.611  Recovery = 93.43%
Sn 189.927†            3012.6      534.48 ug/L         4.133      534.48 ppb          4.133   0.77%
   QC value within limits for Sn 189.927  Recovery = 106.90%
Sr 421.552†           76289.6      492.71 ug/L        11.253      492.71 ppb         11.253   2.28%
   QC value within limits for Sr 421.552  Recovery = 98.54%
Ti 334.940†           303920.4      489.39 ug/L         1.833      489.39 ppb          1.833   0.37%
   QC value within limits for Ti 334.940  Recovery = 97.88%
Tl 190.801†            1702.2      525.32 ug/L         3.836      525.32 ppb          3.836   0.73%
   QC value within limits for Tl 190.801  Recovery = 105.06%
U 409.014†            16610.8      488.39 ug/L         3.060      488.39 ppb          3.060   0.63%
   QC value within limits for U 409.014  Recovery = 97.68%
V 292.402†            72647.6      503.45 ug/L         1.621      503.45 ppb          1.621   0.32%
   QC value within limits for V 292.402  Recovery = 100.69%
Zn 213.857†           52722.1      494.39 ug/L         1.967      494.39 ppb          1.967   0.40%
   QC value within limits for Zn 213.857  Recovery = 98.88%
SiO2†                147086.7       10021 ug/L         128.1       10021 ppb          128.1   1.28%
   QC value within limits for SiO2  Recovery = 93.70%
All analyte(s) passed QC.
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Sequence No.: 7
Sample ID: ICB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 10
Date Collected: 1/11/2010 15:45:22
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5012.3	5012.3	99.5	%			15:47:15
1	Y RADIAL	5401.5	5401.5	99.49	%			15:47:15
1	Al 396.153Radial†	-18.5	-17.9	-13.801	ug/L	-13.801	ppb	15:47:15
1	Ca 317.933Radial†	14.3	-5.4	-8.6742	ug/L	-8.6742	ppb	15:47:35
1	Fe 238.204 Radial†	8.8	-0.0	-0.3309	ug/L	-0.3309	ppb	15:47:35
1	K 766.490 Radial†	2514.4	-64.3	-11.763	ug/L	-11.763	ppb	15:47:15
1	Mg 279.077 IEC†	0.7	-1.2	-41.240	ug/L	-41.240	ppb	15:47:35
1	Na 589.592 Radial†	-1330.5	-56.2	-16.826	ug/L	-16.826	ppb	15:47:15
1	Sr 421.552†	7.3	26.8	0.1731	ug/L	0.1731	ppb	15:47:15
1	Sc 361.383	860881.3	860881.3	101.00	%			15:48:32
1	Y 371.029	730069.0	730069.0	101.02	%			15:48:32
1	Ag 328.068†	307.3	-53.7	-0.2488	ug/L	-0.2488	ppb	15:48:37
1	As 188.979†	-15.0	8.7	3.7893	ug/L	3.7893	ppb	15:48:57
1	B 249.677†	-477.6	159.0	3.5441	ug/L	3.5441	ppb	15:48:57
1	Ba 233.527†	-5.4	6.0	0.0472	ug/L	0.0472	ppb	15:48:57
1	Be 313.107†	-4520.9	109.1	0.0415	ug/L	0.0415	ppb	15:48:37
1	Cd 226.502†	-216.3	-10.0	-0.1106	ug/L	-0.1106	ppb	15:48:57
1	Co 228.616†	-68.2	7.2	0.1444	ug/L	0.1444	ppb	15:48:57
1	Cr 267.716†	76.2	-7.8	-0.0883	ug/L	-0.0883	ppb	15:48:57
1	Cu 324.752†	6381.6	-93.5	-0.2806	ug/L	-0.2806	ppb	15:48:37
1	Mn 257.610†	420.3	-28.7	-0.0302	ug/L	-0.0302	ppb	15:48:57
1	Mo 202.031†	12.2	-11.6	-0.8207	ug/L	-0.8207	ppb	15:48:57
1	Ni 231.604†	89.2	20.3	0.5064	ug/L	0.5064	ppb	15:48:57
1	P 214.914†	220.2	-11.8	-7.1766	ug/L	-7.1766	ppb	15:48:57
1	Pb 220.353†	-66.2	-2.1	-0.2669	ug/L	-0.2669	ppb	15:48:57
1	S 181.975 Axial†	48.4	4.9	6.9158	ug/L	6.9158	ppb	15:48:57
1	Sb 206.836†	40.3	11.9	4.0820	ug/L	4.0820	ppb	15:48:57
1	Se 196.026†	-23.8	8.5	5.4449	ug/L	5.4449	ppb	15:48:57
1	Si 251.611†	525.5	-30.2	-0.9507	ug/L	-0.9507	ppb	15:48:57
1	Sn 189.927†	9.1	1.4	0.2404	ug/L	0.2404	ppb	15:48:57
1	Ti 334.940†	-1410.9	-22.5	-0.0347	ug/L	-0.0347	ppb	15:48:37
1	Tl 190.801†	-34.8	-1.6	-0.4960	ug/L	-0.4960	ppb	15:48:57
1	U 409.014†	-1963.9	67.1	1.9784	ug/L	1.9784	ppb	15:48:32
1	V 292.402†	-1313.5	9.2	0.0535	ug/L	0.0535	ppb	15:48:37
1	Zn 213.857†	612.4	-13.9	-0.1345	ug/L	-0.1345	ppb	15:48:57
1	SiO2†	539.9	-37.1	-2.5110	ug/L	-2.5110	ppb	15:50:03
2	Sc Radial	5026.4	5026.4	99.8	%			15:47:40
2	Y RADIAL	5421.1	5421.1	99.85	%			15:47:40
2	Al 396.153Radial†	-32.0	-31.4	-24.228	ug/L	-24.228	ppb	15:47:40
2	Ca 317.933Radial†	24.0	4.2	6.7766	ug/L	6.7766	ppb	15:48:00
2	Fe 238.204 Radial†	8.8	-0.1	-0.9622	ug/L	-0.9622	ppb	15:48:00
2	K 766.490 Radial†	2560.4	-25.2	-4.6285	ug/L	-4.6285	ppb	15:47:40
2	Mg 279.077 IEC†	0.9	-1.0	-32.020	ug/L	-32.020	ppb	15:48:00
2	Na 589.592 Radial†	-1298.3	-20.1	-6.0150	ug/L	-6.0150	ppb	15:47:40
2	Sr 421.552†	6.9	26.5	0.1709	ug/L	0.1709	ppb	15:47:40
2	Sc 361.383	871702.6	871702.6	102.26	%			15:49:02
2	Y 371.029	737843.8	737843.8	102.10	%			15:49:02
2	Ag 328.068†	330.1	-35.2	-0.1664	ug/L	-0.1664	ppb	15:49:07
2	As 188.979†	-20.9	3.2	1.3860	ug/L	1.3860	ppb	15:49:28
2	B 249.677†	-477.7	164.7	3.6709	ug/L	3.6709	ppb	15:49:28
2	Ba 233.527†	-14.1	-2.4	-0.0187	ug/L	-0.0187	ppb	15:49:28
2	Be 313.107†	-4633.4	54.6	0.0211	ug/L	0.0211	ppb	15:49:07
2	Cd 226.502†	-213.1	-4.3	-0.0464	ug/L	-0.0464	ppb	15:49:28
2	Co 228.616†	-66.1	10.0	0.2050	ug/L	0.2050	ppb	15:49:28
2	Cr 267.716†	89.3	4.0	0.0433	ug/L	0.0433	ppb	15:49:28
2	Cu 324.752†	6462.1	-93.2	-0.2819	ug/L	-0.2819	ppb	15:49:07
2	Mn 257.610†	452.5	-2.4	-0.0014	ug/L	-0.0014	ppb	15:49:28
2	Mo 202.031†	24.8	0.5	0.0384	ug/L	0.0384	ppb	15:49:28
2	Ni 231.604†	51.6	-17.5	-0.4349	ug/L	-0.4349	ppb	15:49:28

2	P 214.914†	209.8	-24.7	-15.078 ug/L	-15.078 ppb	15:49:28
2	Pb 220.353†	-63.2	1.5	0.1811 ug/L	0.1811 ppb	15:49:28
2	S 181.975 Axial†	43.8	-0.2	-0.2084 ug/L	-0.2084 ppb	15:49:28
2	Sb 206.836†	49.6	20.5	7.0387 ug/L	7.0387 ppb	15:49:28
2	Se 196.026†	-31.7	1.0	0.6611 ug/L	0.6611 ppb	15:49:28
2	Si 251.611†	538.3	-24.1	-0.7684 ug/L	-0.7684 ppb	15:49:28
2	Sn 189.927†	6.1	-1.7	-0.2989 ug/L	-0.2989 ppb	15:49:28
2	Ti 334.940†	-1328.7	75.3	0.1222 ug/L	0.1222 ppb	15:49:07
2	Tl 190.801†	-39.1	-5.4	-1.6562 ug/L	-1.6562 ppb	15:49:28
2	U 409.014†	-1867.4	185.6	5.4738 ug/L	5.4738 ppb	15:49:02
2	V 292.402†	-1321.6	17.4	0.1290 ug/L	0.1290 ppb	15:49:07
2	Zn 213.857†	629.1	-5.1	-0.0446 ug/L	-0.0446 ppb	15:49:28
2	SiO2†	557.1	-26.9	-1.8357 ug/L	-1.8357 ppb	15:50:08
3	Sc Radial	5086.8	5086.8	101 %		15:48:06
3	Y RADIAL	5459.8	5459.8	100.6 %		15:48:06
3	Al 396.153Radial†	5.7	6.3	4.8594 ug/L	4.8594 ppb	15:48:06
3	Ca 317.933Radial†	16.8	-3.2	-5.0566 ug/L	-5.0566 ppb	15:48:26
3	Fe 238.204 Radial†	9.5	0.5	4.4449 ug/L	4.4449 ppb	15:48:26
3	K 766.490 Radial†	2570.3	-45.9	-8.4024 ug/L	-8.4024 ppb	15:48:06
3	Mg 279.077 IEC†	0.6	-1.3	-44.641 ug/L	-44.641 ppb	15:48:26
3	Na 589.592 Radial†	-1346.6	-52.5	-15.723 ug/L	-15.723 ppb	15:48:06
3	Sr 421.552†	-5.4	14.1	0.0913 ug/L	0.0913 ppb	15:48:06
3	Sc 361.383	858140.5	858140.5	100.67 %		15:49:33
3	Y 371.029	727477.4	727477.4	100.67 %		15:49:33
3	Ag 328.068†	415.2	54.5	0.2481 ug/L	0.2481 ppb	15:49:38
3	As 188.979†	-20.0	3.7	1.6152 ug/L	1.6152 ppb	15:49:58
3	B 249.677†	-492.4	142.8	3.1820 ug/L	3.1820 ppb	15:49:58
3	Ba 233.527†	0.4	11.8	0.0911 ug/L	0.0911 ppb	15:49:58
3	Be 313.107†	-4611.3	4.9	0.0018 ug/L	0.0018 ppb	15:49:38
3	Cd 226.502†	-202.6	2.8	0.0316 ug/L	0.0316 ppb	15:49:58
3	Co 228.616†	-73.5	1.6	0.0332 ug/L	0.0332 ppb	15:49:58
3	Cr 267.716†	83.5	-0.3	-0.0056 ug/L	-0.0056 ppb	15:49:58
3	Cu 324.752†	6483.5	27.9	0.0823 ug/L	0.0823 ppb	15:49:38
3	Mn 257.610†	433.0	-14.7	-0.0140 ug/L	-0.0140 ppb	15:49:58
3	Mo 202.031†	21.3	-2.6	-0.1819 ug/L	-0.1819 ppb	15:49:58
3	Ni 231.604†	69.9	1.5	0.0363 ug/L	0.0363 ppb	15:49:58
3	P 214.914†	233.2	1.8	1.0622 ug/L	1.0622 ppb	15:49:58
3	Pb 220.353†	-57.3	6.4	0.7884 ug/L	0.7884 ppb	15:49:58
3	S 181.975 Axial†	43.6	0.3	0.4175 ug/L	0.4175 ppb	15:49:58
3	Sb 206.836†	27.8	-0.3	-0.0892 ug/L	-0.0892 ppb	15:49:58
3	Se 196.026†	-29.2	3.0	1.9237 ug/L	1.9237 ppb	15:49:58
3	Si 251.611†	553.1	-1.0	-0.0305 ug/L	-0.0305 ppb	15:49:58
3	Sn 189.927†	11.3	3.6	0.6343 ug/L	0.6343 ppb	15:49:58
3	Ti 334.940†	-1395.2	-11.4	-0.0163 ug/L	-0.0163 ppb	15:49:38
3	Tl 190.801†	-27.8	5.2	1.5966 ug/L	1.5966 ppb	15:49:58
3	U 409.014†	-1948.4	76.2	2.2480 ug/L	2.2480 ppb	15:49:33
3	V 292.402†	-1418.3	-99.1	-0.6765 ug/L	-0.6765 ppb	15:49:38
3	Zn 213.857†	610.9	-13.4	-0.1277 ug/L	-0.1277 ppb	15:49:58
3	SiO2†	517.4	-57.7	-3.9333 ug/L	-3.9333 ppb	15:50:13

Mean Data: ICB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	863574.8	101.31	%	0.841				0.83%
Sc Radial	5041.9	100	%	0.8				0.78%
Y 371.029	731796.7	101.26	%	0.747				0.74%
Y RADIAL	5427.5	99.96	%	0.546				0.55%
Ag 328.068†	-11.5	-0.0557	ug/L	0.26628	-0.0557	ppb	0.26628	477.91%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-14.4	-11.057	ug/L	14.7368	-11.057	ppb	14.7368	133.29%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	5.2	2.2635	ug/L	1.32637	2.2635	ppb	1.32637	58.60%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	155.5	3.4657	ug/L	0.25373	3.4657	ppb	0.25373	7.32%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	5.1	0.0399	ug/L	0.05524	0.0399	ppb	0.05524	138.56%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	56.2	0.0215	ug/L	0.01982	0.0215	ppb	0.01982	92.33%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-1.4	-2.3180	ug/L	8.08125	-2.3180	ppb	8.08125	348.63%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                -3.8     -0.0418 ug/L       0.07123     -0.0418 ppb        0.07123 170.43%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                 6.3      0.1275 ug/L       0.08713      0.1275 ppb        0.08713  68.33%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                -1.4     -0.0169 ug/L       0.06653     -0.0169 ppb        0.06653 393.98%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               -52.9     -0.1600 ug/L       0.20991     -0.1600 ppb        0.20991 131.16%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          0.1      1.0506 ug/L       2.95646      1.0506 ppb        2.95646 281.40%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         -45.1     -8.2647 ug/L       3.56936     -8.2647 ppb        3.56936  43.19%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -1.2     -39.301 ug/L        6.5303     -39.301 ppb         6.5303  16.62%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               -15.3     -0.0152 ug/L       0.01441     -0.0152 ppb        0.01441  94.82%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                -4.5     -0.3214 ug/L       0.44625     -0.3214 ppb        0.44625 138.84%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        -42.9     -12.854 ug/L        5.9488     -12.854 ppb         5.9488  46.28%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                 1.4      0.0360 ug/L       0.47065      0.0360 ppb        0.47065 >999.9%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -11.6     -7.0640 ug/L       8.07047     -7.0640 ppb        8.07047 114.25%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                 1.9      0.2342 ug/L       0.52966      0.2342 ppb        0.52966 226.16%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            1.7      2.3750 ug/L       3.94493      2.3750 ppb        3.94493 166.10%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                10.7      3.6772 ug/L       3.58112      3.6772 ppb        3.58112  97.39%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 4.2      2.6766 ug/L       2.47915      2.6766 ppb        2.47915  92.62%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†               -18.4     -0.5832 ug/L       0.48727     -0.5832 ppb        0.48727  83.55%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 1.1      0.1919 ug/L       0.46846      0.1919 ppb        0.46846 244.09%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                22.5      0.1451 ug/L       0.04658      0.1451 ppb        0.04658  32.10%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                13.8      0.0237 ug/L       0.08580      0.0237 ppb        0.08580 361.38%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                -0.6     -0.1852 ug/L       1.64853     -0.1852 ppb        1.64853 890.01%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                109.6      3.2334 ug/L       1.94496      3.2334 ppb        1.94496  60.15%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                -24.2     -0.1647 ug/L       0.44484     -0.1647 ppb        0.44484 270.15%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               -10.8     -0.1022 ug/L       0.05003     -0.1022 ppb        0.05003  48.93%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                     -40.6     -2.7600 ug/L       1.07077     -2.7600 ppb        1.07077  38.80%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 8
Sample ID: PQL
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 11
Date Collected: 1/11/2010 15:52:25
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: PQL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5037.9	5037.9	100	%			15:54:18
1	Y RADIAL	5420.4	5420.4	99.83	%			15:54:18
1	Al 396.153Radial†	270.6	271.2	208.73	ug/L	208.73	ppb	15:54:18
1	Ca 317.933Radial†	149.7	129.9	207.82	ug/L	207.82	ppb	15:54:38
1	Fe 238.204 Radial†	23.6	14.7	127.71	ug/L	127.71	ppb	15:54:38
1	K 766.490 Radial†	3467.8	875.9	160.16	ug/L	160.16	ppb	15:54:18
1	Mg 279.077 IEC†	10.3	8.4	280.15	ug/L	280.15	ppb	15:54:38
1	Na 589.592 Radial†	-294.0	986.6	295.40	ug/L	295.40	ppb	15:54:18
1	Sr 421.552†	762.3	781.4	5.0453	ug/L	5.0453	ppb	15:54:18
1	Sc 361.383	860505.2	860505.2	100.95	%			15:55:34
1	Y 371.029	727613.9	727613.9	100.68	%			15:55:34
1	Ag 328.068†	1346.5	975.9	4.5059	ug/L	4.5059	ppb	15:55:39
1	As 188.979†	46.2	69.4	30.083	ug/L	30.083	ppb	15:55:59
1	B 249.677†	1593.6	2210.4	49.251	ug/L	49.251	ppb	15:55:39
1	Ba 233.527†	649.9	655.2	5.1295	ug/L	5.1295	ppb	15:55:59
1	Be 313.107†	8502.7	13007.9	4.9679	ug/L	4.9679	ppb	15:55:39
1	Cd 226.502†	243.6	445.4	4.9433	ug/L	4.9433	ppb	15:55:59
1	Co 228.616†	169.2	242.3	4.9701	ug/L	4.9701	ppb	15:55:59
1	Cr 267.716†	508.0	419.9	4.6825	ug/L	4.6825	ppb	15:55:59
1	Cu 324.752†	9837.7	3332.8	9.9426	ug/L	9.9426	ppb	15:55:39
1	Mn 257.610†	10001.8	9462.7	10.493	ug/L	10.493	ppb	15:55:39
1	Mo 202.031†	158.5	133.3	9.4306	ug/L	9.4306	ppb	15:55:59
1	Ni 231.604†	273.7	203.2	5.0568	ug/L	5.0568	ppb	15:55:59
1	P 214.914†	464.8	230.6	138.85	ug/L	138.85	ppb	15:55:59
1	Pb 220.353†	35.5	98.5	12.116	ug/L	12.116	ppb	15:55:59
1	S 181.975 Axial†	113.5	69.4	98.233	ug/L	98.233	ppb	15:55:59
1	Sb 206.836†	69.7	41.2	14.430	ug/L	14.430	ppb	15:55:59
1	Se 196.026†	13.1	45.0	29.445	ug/L	29.445	ppb	15:55:59
1	Si 251.611†	3647.5	3062.7	97.427	ug/L	97.427	ppb	15:55:39
1	Sn 189.927†	59.5	51.3	9.1131	ug/L	9.1131	ppb	15:55:59
1	Ti 334.940†	1779.2	3137.0	5.0291	ug/L	5.0291	ppb	15:55:39
1	Tl 190.801†	41.1	73.6	22.656	ug/L	22.656	ppb	15:55:59
1	U 409.014†	-169.6	1843.6	54.360	ug/L	54.360	ppb	15:55:34
1	V 292.402†	-641.0	674.8	4.8289	ug/L	4.8289	ppb	15:55:39
1	Zn 213.857†	1770.6	1133.7	10.665	ug/L	10.665	ppb	15:55:59
1	SiO2†	3695.3	3088.8	210.50	ug/L	210.50	ppb	15:57:05
2	Sc Radial	5010.4	5010.4	99.5	%			15:54:43
2	Y RADIAL	5391.1	5391.1	99.29	%			15:54:43
2	Al 396.153Radial†	259.0	261.0	200.90	ug/L	200.90	ppb	15:54:43
2	Ca 317.933Radial†	150.5	131.4	210.28	ug/L	210.28	ppb	15:55:03
2	Fe 238.204 Radial†	21.3	12.5	108.37	ug/L	108.37	ppb	15:55:03
2	K 766.490 Radial†	3431.6	858.5	156.97	ug/L	156.97	ppb	15:54:43
2	Mg 279.077 IEC†	12.2	10.3	344.37	ug/L	344.37	ppb	15:55:03
2	Na 589.592 Radial†	-298.5	980.4	293.56	ug/L	293.56	ppb	15:54:43
2	Sr 421.552†	763.2	786.5	5.0782	ug/L	5.0782	ppb	15:54:43
2	Sc 361.383	863273.7	863273.7	101.28	%			15:56:05
2	Y 371.029	729826.7	729826.7	100.99	%			15:56:05
2	Ag 328.068†	1491.5	1114.7	5.1419	ug/L	5.1419	ppb	15:56:10
2	As 188.979†	56.4	79.3	34.378	ug/L	34.378	ppb	15:56:30
2	B 249.677†	1532.7	2145.2	47.799	ug/L	47.799	ppb	15:56:10
2	Ba 233.527†	620.8	624.4	4.8885	ug/L	4.8885	ppb	15:56:30
2	Be 313.107†	8381.0	12860.8	4.9117	ug/L	4.9117	ppb	15:56:10
2	Cd 226.502†	267.7	468.4	5.1999	ug/L	5.1999	ppb	15:56:30
2	Co 228.616†	163.5	236.1	4.8445	ug/L	4.8445	ppb	15:56:30
2	Cr 267.716†	516.7	426.9	4.7615	ug/L	4.7615	ppb	15:56:30
2	Cu 324.752†	9777.8	3242.4	9.6727	ug/L	9.6727	ppb	15:56:10
2	Mn 257.610†	9961.1	9390.7	10.409	ug/L	10.409	ppb	15:56:10
2	Mo 202.031†	156.4	130.7	9.2479	ug/L	9.2479	ppb	15:56:30
2	Ni 231.604†	271.2	199.9	4.9735	ug/L	4.9735	ppb	15:56:30

2	P 214.914†	468.9	233.1	140.45	ug/L	140.45 ppb	15:56:30
2	Pb 220.353†	16.5	79.6	9.8040	ug/L	9.8040 ppb	15:56:30
2	S 181.975 Axial†	119.7	75.2	106.39	ug/L	106.39 ppb	15:56:30
2	Sb 206.836†	60.1	31.4	11.079	ug/L	11.079 ppb	15:56:30
2	Se 196.026†	16.9	48.7	31.777	ug/L	31.777 ppb	15:56:30
2	Si 251.611†	3636.4	3040.2	96.710	ug/L	96.710 ppb	15:56:10
2	Sn 189.927†	61.3	52.9	9.4050	ug/L	9.4050 ppb	15:56:30
2	Ti 334.940†	1760.6	3113.0	4.9865	ug/L	4.9865 ppb	15:56:10
2	Tl 190.801†	30.4	62.9	19.373	ug/L	19.373 ppb	15:56:30
2	U 409.014†	-258.3	1756.6	51.795	ug/L	51.795 ppb	15:56:05
2	V 292.402†	-620.8	696.8	4.9757	ug/L	4.9757 ppb	15:56:10
2	Zn 213.857†	1739.9	1097.8	10.327	ug/L	10.327 ppb	15:56:30
2	SiO2†	3663.0	3045.2	207.53	ug/L	207.53 ppb	15:57:11
3	Sc Radial	5096.0	5096.0	101	%		15:55:08
3	Y RADIAL	5494.9	5494.9	101.2	%		15:55:08
3	Al 396.153Radial†	257.4	255.0	196.26	ug/L	196.26 ppb	15:55:08
3	Ca 317.933Radial†	152.7	131.1	209.81	ug/L	209.81 ppb	15:55:28
3	Fe 238.204 Radial†	22.2	13.0	113.08	ug/L	113.08 ppb	15:55:28
3	K 766.490 Radial†	3509.4	877.4	160.45	ug/L	160.45 ppb	15:55:08
3	Mg 279.077 IEC†	14.2	12.1	405.35	ug/L	405.35 ppb	15:55:28
3	Na 589.592 Radial†	-336.1	948.3	283.95	ug/L	283.95 ppb	15:55:08
3	Sr 421.552†	768.2	778.5	5.0269	ug/L	5.0269 ppb	15:55:08
3	Sc 361.383	861164.6	861164.6	101.03	%		15:56:35
3	Y 371.029	729112.0	729112.0	100.89	%		15:56:35
3	Ag 328.068†	1387.3	1015.2	4.6835	ug/L	4.6835 ppb	15:56:40
3	As 188.979†	55.4	78.5	34.035	ug/L	34.035 ppb	15:57:00
3	B 249.677†	1643.5	2258.6	50.326	ug/L	50.326 ppb	15:56:40
3	Ba 233.527†	638.2	643.1	5.0353	ug/L	5.0353 ppb	15:57:00
3	Be 313.107†	8712.2	13208.9	5.0449	ug/L	5.0449 ppb	15:56:40
3	Cd 226.502†	255.5	457.0	5.0738	ug/L	5.0738 ppb	15:57:00
3	Co 228.616†	173.7	246.6	5.0596	ug/L	5.0596 ppb	15:57:00
3	Cr 267.716†	511.3	422.8	4.7150	ug/L	4.7150 ppb	15:57:00
3	Cu 324.752†	9895.0	3382.0	10.089	ug/L	10.089 ppb	15:56:40
3	Mn 257.610†	10072.8	9525.3	10.556	ug/L	10.556 ppb	15:56:40
3	Mo 202.031†	159.5	134.1	9.4889	ug/L	9.4889 ppb	15:57:00
3	Ni 231.604†	292.7	221.7	5.5183	ug/L	5.5183 ppb	15:57:00
3	P 214.914†	450.5	216.0	129.93	ug/L	129.93 ppb	15:57:00
3	Pb 220.353†	17.4	80.6	9.9220	ug/L	9.9220 ppb	15:57:00
3	S 181.975 Axial†	118.2	74.0	104.74	ug/L	104.74 ppb	15:57:00
3	Sb 206.836†	72.2	43.5	15.276	ug/L	15.276 ppb	15:57:00
3	Se 196.026†	25.2	56.9	37.088	ug/L	37.088 ppb	15:57:00
3	Si 251.611†	3690.4	3102.4	98.690	ug/L	98.690 ppb	15:56:40
3	Sn 189.927†	68.4	60.0	10.666	ug/L	10.666 ppb	15:57:00
3	Ti 334.940†	1925.1	3280.0	5.2497	ug/L	5.2497 ppb	15:56:40
3	Tl 190.801†	34.6	67.1	20.660	ug/L	20.660 ppb	15:57:00
3	U 409.014†	-183.2	1830.3	53.970	ug/L	53.970 ppb	15:56:35
3	V 292.402†	-609.9	706.0	5.0467	ug/L	5.0467 ppb	15:56:40
3	Zn 213.857†	1748.9	1110.8	10.447	ug/L	10.447 ppb	15:57:00
3	SiO2†	3709.4	3099.9	211.25	ug/L	211.25 ppb	15:57:16

Mean Data: PQL

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	861647.8	101.09	%	0.170				0.17%
Sc Radial	5048.1	100	%	0.9				0.87%
Y 371.029	728850.9	100.86	%	0.156				0.15%
Y RADIAL	5435.5	100.1	%	0.99				0.98%
Ag 328.068†	1035.3	4.7771	ug/L	0.32813	4.7771	ppb	0.32813	6.87%
QC value within limits for Ag 328.068 Recovery = 95.54%								
Al 396.153Radial†	262.4	201.97	ug/L	6.304	201.97	ppb	6.304	3.12%
QC value within limits for Al 396.153Radial Recovery = 100.98%								
As 188.979†	75.7	32.832	ug/L	2.3868	32.832	ppb	2.3868	7.27%
QC value within limits for As 188.979 Recovery = 109.44%								
B 249.677†	2204.7	49.125	ug/L	1.2678	49.125	ppb	1.2678	2.58%
QC value within limits for B 249.677 Recovery = 98.25%								
Ba 233.527†	640.9	5.0178	ug/L	0.12144	5.0178	ppb	0.12144	2.42%
QC value within limits for Ba 233.527 Recovery = 100.36%								
Be 313.107†	13025.9	4.9748	ug/L	0.06689	4.9748	ppb	0.06689	1.34%
QC value within limits for Be 313.107 Recovery = 99.50%								
Ca 317.933Radial†	130.8	209.31	ug/L	1.306	209.31	ppb	1.306	0.62%

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   QC value within limits for Ca 317.933Radial  Recovery = 104.65%
Cd 226.502†              457.0      5.0723 ug/L       0.12828      5.0723 ppb        0.12828   2.53%
   QC value within limits for Cd 226.502  Recovery = 101.45%
Co 228.616†              241.7      4.9581 ug/L       0.10803      4.9581 ppb        0.10803   2.18%
   QC value within limits for Co 228.616  Recovery = 99.16%
Cr 267.716†              423.2      4.7197 ug/L       0.03971      4.7197 ppb        0.03971   0.84%
   QC value within limits for Cr 267.716  Recovery = 94.39%
Cu 324.752†             3319.1      9.9015 ug/L       0.21130      9.9015 ppb        0.21130   2.13%
   QC value within limits for Cu 324.752  Recovery = 99.02%
Fe 238.204 Radial†        13.4      116.39 ug/L        10.087      116.39 ppb         10.087   8.67%
   QC value within limits for Fe 238.204 Radial  Recovery = 116.39%
K 766.490 Radial†        870.6      159.20 ug/L         1.930      159.20 ppb          1.930   1.21%
   QC value within limits for K 766.490 Radial  Recovery = 106.13%
Mg 279.077 IEC†           10.3      343.29 ug/L        62.606      343.29 ppb         62.606  18.24%
   QC value within limits for Mg 279.077 IEC  Recovery = 114.43%
Mn 257.610†             9459.6      10.486 ug/L        0.0739      10.486 ppb         0.0739   0.70%
   QC value within limits for Mn 257.610  Recovery = 104.86%
Mo 202.031†              132.7      9.3891 ug/L       0.12572      9.3891 ppb        0.12572   1.34%
   QC value within limits for Mo 202.031  Recovery = 93.89%
Na 589.592 Radial†       971.8      290.97 ug/L         6.150      290.97 ppb          6.150   2.11%
   QC value within limits for Na 589.592 Radial  Recovery = 96.99%
Ni 231.604†              208.3      5.1829 ug/L       0.29347      5.1829 ppb        0.29347   5.66%
   QC value within limits for Ni 231.604  Recovery = 103.66%
P 214.914†               226.6      136.41 ug/L         5.672      136.41 ppb          5.672   4.16%
   QC value within limits for P 214.914  Recovery = 90.94%
Pb 220.353†               86.2      10.614 ug/L        1.3021      10.614 ppb         1.3021  12.27%
   QC value within limits for Pb 220.353  Recovery = 106.14%
S 181.975 Axial†          72.9      103.12 ug/L         4.313      103.12 ppb          4.313   4.18%
   QC value within limits for S 181.975 Axial  Recovery = 103.12%
Sb 206.836†               38.7      13.595 ug/L        2.2199      13.595 ppb         2.2199  16.33%
   QC value greater than the upper limit for Sb 206.836  Recovery = 135.95%
Se 196.026†               50.2      32.770 ug/L        3.9170      32.770 ppb         3.9170  11.95%
   QC value within limits for Se 196.026  Recovery = 109.23%
Si 251.611†             3068.4      97.609 ug/L        1.0021      97.609 ppb         1.0021   1.03%
   QC value within limits for Si 251.611  Recovery = 97.61%
Sn 189.927†               54.7      9.7281 ug/L       0.82548      9.7281 ppb        0.82548   8.49%
   QC value within limits for Sn 189.927  Recovery = 97.28%
Sr 421.552†              782.1      5.0501 ug/L       0.02599      5.0501 ppb        0.02599   0.51%
   QC value within limits for Sr 421.552  Recovery = 101.00%
Ti 334.940†             3176.7      5.0884 ug/L       0.14130      5.0884 ppb        0.14130   2.78%
   QC value within limits for Ti 334.940  Recovery = 101.77%
Tl 190.801†               67.9      20.896 ug/L        1.6541      20.896 ppb         1.6541   7.92%
   QC value within limits for Tl 190.801  Recovery = 104.48%
U 409.014†              1810.1      53.375 ug/L        1.3821      53.375 ppb         1.3821   2.59%
   QC value within limits for U 409.014  Recovery = 106.75%
V 292.402†               692.5      4.9505 ug/L       0.11108      4.9505 ppb        0.11108   2.24%
   QC value within limits for V 292.402  Recovery = 99.01%
Zn 213.857†             1114.1      10.480 ug/L        0.1711      10.480 ppb         0.1711   1.63%
   QC value within limits for Zn 213.857  Recovery = 104.80%
SiO2†                   3078.0      209.76 ug/L         1.971      209.76 ppb          1.971   0.94%
   QC value within limits for SiO2  Recovery = 98.48%
QC Failed.  Continue with analysis.
```

Sequence No.: 9
Sample ID: ICSA
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 13
Date Collected: 1/11/2010 15:59:26
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSA

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4554.2	4554.2	90.4	%			16:01:25
1	Y RADIAL	4880.1	4880.1	89.88	%			16:01:25
1	Al 396.153Radial†	588273.1	650416.6	501790	ug/L	501790	ppb	16:01:20
1	Ca 317.933Radial†	266503.8	294636.4	471450	ug/L	471450	ppb	16:01:20
1	Fe 238.204 Radial†	19366.6	21403.5	185230	ug/L	185230	ppb	16:01:25
1	K 766.490 Radial†	1955.5	-428.1	-236.05	ug/L	-236.05	ppb	16:01:20
1	Mg 279.077 IEC†	13060.3	14438.0	482210	ug/L	482210	ppb	16:01:25
1	Na 589.592 Radial†	-1089.1	76.3	22.843	ug/L	22.843	ppb	16:01:25
1	Sr 421.552†	532.5	608.3	0.4087	ug/L	0.4087	ppb	16:01:25
1	Sc 361.383	713940.1	713940.1	83.757	%			16:01:52
1	Y 371.029	590028.4	590028.4	81.646	%			16:01:52
1	Ag 328.068†	-9732.7	-11978.2	-1.5459	ug/L	-1.5459	ppb	16:01:52
1	As 188.979†	-99.1	-94.7	-4.6533	ug/L	-4.6533	ppb	16:02:12
1	B 249.677†	290.9	979.1	3.0617	ug/L	3.0617	ppb	16:01:52
1	Ba 233.527†	-441.1	-515.2	2.7787	ug/L	2.7787	ppb	16:02:12
1	Be 313.107†	-4427.5	-700.8	-0.3201	ug/L	-0.3201	ppb	16:01:52
1	Cd 226.502†	1281.6	1734.3	0.1201	ug/L	0.1201	ppb	16:02:12
1	Co 228.616†	-24.7	45.2	-1.7518	ug/L	-1.7518	ppb	16:02:12
1	Cr 267.716†	-113.7	-219.0	1.1722	ug/L	1.1722	ppb	16:02:12
1	Cu 324.752†	3876.8	-1783.6	4.4537	ug/L	4.4537	ppb	16:01:52
1	Mn 257.610†	1798.9	1702.9	2.8489	ug/L	2.8489	ppb	16:01:52
1	Mo 202.031†	-203.7	-266.9	-0.5853	ug/L	-0.5853	ppb	16:02:12
1	Ni 231.604†	186.0	154.1	3.8375	ug/L	3.8375	ppb	16:02:12
1	P 214.914†	194.2	2.0	-22.430	ug/L	-22.430	ppb	16:02:12
1	Pb 220.353†	-739.6	-819.7	-2.6514	ug/L	-2.6514	ppb	16:02:12
1	S 181.975 Axial†	83.2	56.3	-14.356	ug/L	-14.356	ppb	16:02:12
1	Sb 206.836†	78.9	66.3	7.7109	ug/L	7.7109	ppb	16:02:12
1	Se 196.026†	-829.4	-958.3	-0.6276	ug/L	-0.6276	ppb	16:02:12
1	Si 251.611†	584.3	147.1	4.9185	ug/L	4.9185	ppb	16:02:12
1	Sn 189.927†	-363.0	-441.0	-7.6066	ug/L	-7.6066	ppb	16:02:12
1	Ti 334.940†	-13311.2	-14518.2	-9.4664	ug/L	-9.4664	ppb	16:01:52
1	Tl 190.801†	-92.5	-77.6	-24.029	ug/L	-24.029	ppb	16:02:12
1	U 409.014†	-806.7	1048.4	9.8177	ug/L	9.8177	ppb	16:01:52
1	V 292.402†	1193.8	2735.1	-0.5070	ug/L	-0.5070	ppb	16:02:12
1	Zn 213.857†	2889.7	2829.8	8.7795	ug/L	8.7795	ppb	16:02:12
1	SiO2†	582.1	123.3	8.9247	ug/L	8.9247	ppb	16:03:09
2	Sc Radial	4313.1	4313.1	85.7	%			16:01:35
2	Y RADIAL	4611.6	4611.6	84.94	%			16:01:35
2	Al 396.153Radial†	593425.0	692788.0	534480	ug/L	534480	ppb	16:01:30
2	Ca 317.933Radial†	268523.4	313464.8	501570	ug/L	501570	ppb	16:01:30
2	Fe 238.204 Radial†	19406.2	22646.7	195990	ug/L	195990	ppb	16:01:35
2	K 766.490 Radial†	1950.8	-312.8	-224.98	ug/L	-224.98	ppb	16:01:30
2	Mg 279.077 IEC†	13084.6	15273.5	510110	ug/L	510110	ppb	16:01:35
2	Na 589.592 Radial†	-1067.0	34.7	10.403	ug/L	10.403	ppb	16:01:35
2	Sr 421.552†	533.6	642.4	0.4040	ug/L	0.4040	ppb	16:01:35
2	Sc 361.383	737937.7	737937.7	86.572	%			16:02:18
2	Y 371.029	608079.9	608079.9	84.144	%			16:02:18
2	Ag 328.068†	-9892.3	-11784.6	2.4125	ug/L	2.4125	ppb	16:02:18
2	As 188.979†	-78.0	-66.5	9.6873	ug/L	9.6873	ppb	16:02:38
2	B 249.677†	338.9	1023.3	2.9566	ug/L	2.9566	ppb	16:02:18
2	Ba 233.527†	-429.0	-484.2	3.4139	ug/L	3.4139	ppb	16:02:38
2	Be 313.107†	-4496.9	-609.1	-0.2857	ug/L	-0.2857	ppb	16:02:18
2	Cd 226.502†	1277.3	1679.5	-1.5978	ug/L	-1.5978	ppb	16:02:38
2	Co 228.616†	-4.6	69.3	-1.4096	ug/L	-1.4096	ppb	16:02:38
2	Cr 267.716†	-75.1	-170.0	1.9249	ug/L	1.9249	ppb	16:02:38
2	Cu 324.752†	3960.7	-1837.1	4.8577	ug/L	4.8577	ppb	16:02:18
2	Mn 257.610†	1638.0	1447.2	2.6255	ug/L	2.6255	ppb	16:02:18
2	Mo 202.031†	-196.8	-251.0	1.6332	ug/L	1.6332	ppb	16:02:38
2	Ni 231.604†	182.7	143.0	3.5611	ug/L	3.5611	ppb	16:02:38

2	P 214.914†	149.2	-57.6	-59.270 ug/L	-59.270 ppb	16:02:38
2	Pb 220.353†	-766.6	-822.2	3.5310 ug/L	3.5310 ppb	16:02:38
2	S 181.975 Axial†	77.6	46.6	-34.230 ug/L	-34.230 ppb	16:02:38
2	Sb 206.836†	81.2	65.8	6.7812 ug/L	6.7812 ppb	16:02:38
2	Se 196.026†	-833.9	-931.2	52.847 ug/L	52.847 ppb	16:02:38
2	Si 251.611†	566.0	103.3	3.5085 ug/L	3.5085 ppb	16:02:38
2	Sn 189.927†	-349.6	-411.4	2.1266 ug/L	2.1266 ppb	16:02:38
2	Ti 334.940†	-13871.4	-14648.4	-8.5522 ug/L	-8.5522 ppb	16:02:18
2	Tl 190.801†	-88.7	-69.6	-21.566 ug/L	-21.566 ppb	16:02:38
2	U 409.014†	-550.7	1375.6	18.240 ug/L	18.240 ppb	16:02:18
2	V 292.402†	1235.3	2736.6	-1.5657 ug/L	-1.5657 ppb	16:02:38
2	Zn 213.857†	2899.2	2728.7	6.7812 ug/L	6.7812 ppb	16:02:38
2	SiO2†	581.9	100.4	7.3361 ug/L	7.3361 ppb	16:03:14
3	Sc Radial	4458.8	4458.8	88.6 %		16:01:46
3	Y RADIAL	4803.8	4803.8	88.48 %		16:01:46
3	Al 396.153Radial†	578946.6	653797.4	504400 ug/L	504400 ppb	16:01:41
3	Ca 317.933Radial†	262181.2	296058.0	473720 ug/L	473720 ppb	16:01:41
3	Fe 238.204 Radial†	19015.6	21465.1	185760 ug/L	185760 ppb	16:01:46
3	K 766.490 Radial†	2134.1	-180.1	-191.31 ug/L	-191.31 ppb	16:01:41
3	Mg 279.077 IEC†	12793.9	14446.1	482470 ug/L	482470 ppb	16:01:46
3	Na 589.592 Radial†	-1160.2	-29.7	-8.9041 ug/L	-8.9041 ppb	16:01:46
3	Sr 421.552†	507.6	592.7	0.2912 ug/L	0.2912 ppb	16:01:46
3	Sc 361.383	734225.6	734225.6	86.136 %		16:02:43
3	Y 371.029	605159.6	605159.6	83.740 %		16:02:43
3	Ag 328.068†	-9811.2	-11748.3	-0.3445 ug/L	-0.3445 ppb	16:02:43
3	As 188.979†	-59.0	-44.9	17.049 ug/L	17.049 ppb	16:03:03
3	B 249.677†	274.8	950.8	2.3769 ug/L	2.3769 ppb	16:02:43
3	Ba 233.527†	-432.5	-490.7	2.9891 ug/L	2.9891 ppb	16:03:03
3	Be 313.107†	-4458.8	-591.0	-0.2778 ug/L	-0.2778 ppb	16:02:43
3	Cd 226.502†	1332.5	1751.1	0.2507 ug/L	0.2507 ppb	16:03:03
3	Co 228.616†	-17.0	54.9	-1.5635 ug/L	-1.5635 ppb	16:03:03
3	Cr 267.716†	-65.1	-158.8	1.8559 ug/L	1.8559 ppb	16:03:03
3	Cu 324.752†	4004.3	-1763.4	4.5436 ug/L	4.5436 ppb	16:02:43
3	Mn 257.610†	1713.0	1543.9	2.7211 ug/L	2.7211 ppb	16:02:43
3	Mo 202.031†	-224.2	-284.0	-1.7335 ug/L	-1.7335 ppb	16:03:03
3	Ni 231.604†	181.0	142.1	3.5382 ug/L	3.5382 ppb	16:03:03
3	P 214.914†	146.4	-59.9	-60.032 ug/L	-60.032 ppb	16:03:03
3	Pb 220.353†	-752.0	-809.7	-0.8858 ug/L	-0.8858 ppb	16:03:03
3	S 181.975 Axial†	75.4	44.5	-31.507 ug/L	-31.507 ppb	16:03:03
3	Sb 206.836†	51.1	31.4	-4.2766 ug/L	-4.2766 ppb	16:03:03
3	Se 196.026†	-823.4	-923.9	23.370 ug/L	23.370 ppb	16:03:03
3	Si 251.611†	591.3	136.0	4.5784 ug/L	4.5784 ppb	16:03:03
3	Sn 189.927†	-357.4	-422.6	-4.0082 ug/L	-4.0082 ppb	16:03:03
3	Ti 334.940†	-13567.2	-14376.3	-9.0016 ug/L	-9.0016 ppb	16:02:43
3	Tl 190.801†	-92.5	-74.5	-23.072 ug/L	-23.072 ppb	16:03:03
3	U 409.014†	-897.2	970.0	7.4415 ug/L	7.4415 ppb	16:02:43
3	V 292.402†	1185.5	2686.0	-0.9411 ug/L	-0.9411 ppb	16:03:03
3	Zn 213.857†	2915.0	2763.9	8.1058 ug/L	8.1058 ppb	16:03:03
3	SiO2†	561.2	79.9	5.9978 ug/L	5.9978 ppb	16:03:19

Mean Data: ICSA

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	728701.1	85.488	%	1.5154				1.77%
Sc Radial	4442.1	88.2	%	2.41				2.73%
Y 371.029	601089.3	83.176	%	1.3408				1.61%
Y RADIAL	4765.2	87.77	%	2.548				2.90%
Ag 328.068†	-11837.0	0.1741	ug/L	2.02949	0.1741	ppb	2.02949	>999.9%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	665667.3	513550	ug/L	18166.9	513550	ppb	18166.9	3.54%
QC value within limits for Al 396.153Radial Recovery = 102.71%								
As 188.979†	-68.7	7.3611	ug/L	11.03681	7.3611	ppb	11.03681	149.93%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	984.4	2.7984	ug/L	0.36879	2.7984	ppb	0.36879	13.18%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-496.7	3.0606	ug/L	0.32361	3.0606	ppb	0.32361	10.57%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-633.6	-0.2945	ug/L	0.02251	-0.2945	ppb	0.02251	7.64%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	301386.4	482250	ug/L	16776.0	482250	ppb	16776.0	3.48%

```
   QC value within limits for Ca 317.933Radial  Recovery = 96.45%
Cd 226.502†            1721.6     -0.4090 ug/L       1.03158     -0.4090 ppb        1.03158 252.21%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†              56.5     -1.5750 ug/L       0.17142     -1.5750 ppb        0.17142  10.88%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†            -182.6      1.6510 ug/L       0.41608      1.6510 ppb        0.41608  25.20%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†           -1794.7      4.6183 ug/L       0.21212      4.6183 ppb        0.21212   4.59%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†    21838.5     188990 ug/L        6063.4     188990 ppb         6063.4   3.21%
   QC value within limits for Fe 238.204 Radial  Recovery = 94.50%
K 766.490 Radial†      -307.0     -217.45 ug/L        23.302     -217.45 ppb         23.302  10.72%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†       14719.2     491600 ug/L       16033.9     491600 ppb        16033.9   3.26%
   QC value within limits for Mg 279.077 IEC  Recovery = 98.32%
Mn 257.610†            1564.6      2.7318 ug/L       0.11211      2.7318 ppb        0.11211   4.10%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†            -267.3     -0.2285 ug/L       1.71148     -0.2285 ppb        1.71148 748.88%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       27.1      8.1139 ug/L      15.99672      8.1139 ppb       15.99672 197.15%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†             146.4      3.6456 ug/L       0.16660      3.6456 ppb        0.16660   4.57%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†              -38.5     -47.244 ug/L       21.4927     -47.244 ppb        21.4927  45.49%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†            -817.2     -0.0021 ug/L       3.18456     -0.0021 ppb        3.18456 >999.9%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         49.1     -26.698 ug/L       10.7748     -26.698 ppb        10.7748  40.36%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              54.5      3.4051 ug/L       6.66881      3.4051 ppb        6.66881 195.85%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†            -937.8      25.196 ug/L       26.7838      25.196 ppb        26.7838 106.30%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†             128.8      4.3352 ug/L       0.73581      4.3352 ppb        0.73581  16.97%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†            -425.0     -3.1627 ug/L       4.92134     -3.1627 ppb        4.92134 155.60%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             614.5      0.3680 ug/L       0.06654      0.3680 ppb        0.06654  18.08%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†          -14514.3     -9.0067 ug/L       0.45711     -9.0067 ppb        0.45711   5.08%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†             -73.9     -22.889 ug/L        1.2413     -22.889 ppb         1.2413   5.42%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†             1131.3      11.833 ug/L        5.6743      11.833 ppb         5.6743  47.95%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†             2719.2     -1.0046 ug/L       0.53220     -1.0046 ppb        0.53220  52.98%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†            2774.1      7.8888 ug/L       1.01667      7.8888 ppb        1.01667  12.89%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                   101.2      7.4195 ug/L       1.46525      7.4195 ppb        1.46525  19.75%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 10
Sample ID: ICSAB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 14
Date Collected: 1/11/2010 16:05:30
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSAB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4469.6	4469.6	88.8	%			16:07:27
1	Y RADIAL	4809.0	4809.0	88.57	%			16:07:27
1	Al 396.153Radial†	589484.3	664101.1	512320	ug/L	512320	ppb	16:07:22
1	Ca 317.933Radial†	265752.0	299370.7	479020	ug/L	479020	ppb	16:07:22
1	Fe 238.204 Radial†	19164.5	21581.4	186780	ug/L	186780	ppb	16:07:27
1	K 766.490 Radial†	29032.3	30117.0	5349.0	ug/L	5349.0	ppb	16:07:22
1	Mg 279.077 IEC†	12958.7	14597.1	487520	ug/L	487520	ppb	16:07:27
1	Na 589.592 Radial†	15352.0	18575.7	5561.8	ug/L	5561.8	ppb	16:07:27
1	Sr 421.552†	69848.9	78709.8	504.80	ug/L	504.80	ppb	16:07:22
1	Sc 361.383	733242.9	733242.9	86.021	%			16:07:55
1	Y 371.029	603990.2	603990.2	83.578	%			16:07:55
1	Ag 328.068†	41150.7	47479.9	274.18	ug/L	274.18	ppb	16:07:55
1	As 188.979†	942.0	1118.8	522.69	ug/L	522.69	ppb	16:08:15
1	B 249.677†	20042.0	23930.7	513.29	ug/L	513.29	ppb	16:07:55
1	Ba 233.527†	54223.8	63046.9	500.15	ug/L	500.15	ppb	16:07:55
1	Be 313.107†	552945.6	647387.0	247.79	ug/L	247.79	ppb	16:07:55
1	Cd 226.502†	37791.5	44136.9	470.86	ug/L	470.86	ppb	16:07:55
1	Co 228.616†	18898.2	22043.9	448.66	ug/L	448.66	ppb	16:08:15
1	Cr 267.716†	37112.9	43060.7	485.60	ug/L	485.60	ppb	16:07:55
1	Cu 324.752†	163461.5	183612.5	558.64	ug/L	558.64	ppb	16:07:55
1	Mn 257.610†	377253.8	438114.2	486.61	ug/L	486.61	ppb	16:07:55
1	Mo 202.031†	5893.7	6827.7	501.02	ug/L	501.02	ppb	16:08:15
1	Ni 231.604†	15601.4	18068.8	449.64	ug/L	449.64	ppb	16:08:15
1	P 214.914†	3772.2	4155.3	2402.3	ug/L	2402.3	ppb	16:08:15
1	Pb 220.353†	2538.3	3014.1	469.98	ug/L	469.98	ppb	16:08:15
1	S 181.975 Axial†	1708.1	1942.6	2653.1	ug/L	2653.1	ppb	16:08:15
1	Sb 206.836†	1381.1	1577.6	543.20	ug/L	543.20	ppb	16:08:15
1	Se 196.026†	2597.7	3051.8	2590.6	ug/L	2590.6	ppb	16:08:15
1	Si 251.611†	143466.2	166229.6	5288.2	ug/L	5288.2	ppb	16:07:55
1	Sn 189.927†	2072.9	2402.1	497.21	ug/L	497.21	ppb	16:08:15
1	Ti 334.940†	261822.7	305744.6	506.54	ug/L	506.54	ppb	16:07:55
1	Tl 190.801†	1235.3	1469.0	453.76	ug/L	453.76	ppb	16:08:15
1	U 409.014†	13895.2	18164.8	513.49	ug/L	513.49	ppb	16:07:55
1	V 292.402†	64913.2	76771.6	512.44	ug/L	512.44	ppb	16:07:55
1	Zn 213.857†	48411.3	55658.1	504.70	ug/L	504.70	ppb	16:07:55
1	SiO2†	146220.1	169409.8	11546	ug/L	11546	ppb	16:09:13
2	Sc Radial	4482.5	4482.5	89.0	%			16:07:37
2	Y RADIAL	4833.9	4833.9	89.03	%			16:07:37
2	Al 396.153Radial†	596758.8	670353.8	517150	ug/L	517150	ppb	16:07:32
2	Ca 317.933Radial†	268788.3	301916.4	483100	ug/L	483100	ppb	16:07:32
2	Fe 238.204 Radial†	19305.8	21677.7	187620	ug/L	187620	ppb	16:07:37
2	K 766.490 Radial†	29387.3	30421.3	5403.4	ug/L	5403.4	ppb	16:07:32
2	Mg 279.077 IEC†	13078.8	14689.8	490620	ug/L	490620	ppb	16:07:37
2	Na 589.592 Radial†	15393.1	18571.9	5560.7	ug/L	5560.7	ppb	16:07:37
2	Sr 421.552†	70603.2	79329.8	508.78	ug/L	508.78	ppb	16:07:32
2	Sc 361.383	737995.2	737995.2	86.579	%			16:08:21
2	Y 371.029	608619.5	608619.5	84.218	%			16:08:21
2	Ag 328.068†	41527.3	47606.8	274.98	ug/L	274.98	ppb	16:08:21
2	As 188.979†	945.9	1116.1	521.71	ug/L	521.71	ppb	16:08:41
2	B 249.677†	20299.3	24077.9	516.49	ug/L	516.49	ppb	16:08:21
2	Ba 233.527†	54397.7	62841.8	498.58	ug/L	498.58	ppb	16:08:21
2	Be 313.107†	555552.7	646258.9	247.36	ug/L	247.36	ppb	16:08:21
2	Cd 226.502†	37861.3	43934.5	468.53	ug/L	468.53	ppb	16:08:21
2	Co 228.616†	18993.1	22012.0	447.99	ug/L	447.99	ppb	16:08:41
2	Cr 267.716†	37212.9	42898.3	483.80	ug/L	483.80	ppb	16:08:21
2	Cu 324.752†	164184.5	183223.9	557.53	ug/L	557.53	ppb	16:08:21
2	Mn 257.610†	377987.3	436137.4	484.39	ug/L	484.39	ppb	16:08:21
2	Mo 202.031†	5898.1	6788.7	498.37	ug/L	498.37	ppb	16:08:41
2	Ni 231.604†	15639.9	17996.4	447.84	ug/L	447.84	ppb	16:08:41

2	P 214.914†	3764.0	4117.6	2380.0	ug/L	2380.0 ppb	16:08:41
2	Pb 220.353†	2527.3	2982.4	467.12	ug/L	467.12 ppb	16:08:41
2	S 181.975 Axial†	1734.4	1960.2	2677.1	ug/L	2677.1 ppb	16:08:41
2	Sb 206.836†	1373.1	1558.1	536.24	ug/L	536.24 ppb	16:08:41
2	Se 196.026†	2597.7	3032.4	2581.0	ug/L	2581.0 ppb	16:08:41
2	Si 251.611†	144086.2	165871.8	5276.8	ug/L	5276.8 ppb	16:08:21
2	Sn 189.927†	2066.7	2379.4	493.77	ug/L	493.77 ppb	16:08:41
2	Ti 334.940†	262922.7	305055.0	505.64	ug/L	505.64 ppb	16:08:21
2	Tl 190.801†	1230.9	1454.6	449.33	ug/L	449.33 ppb	16:08:41
2	U 409.014†	13731.9	17872.2	504.76	ug/L	504.76 ppb	16:08:21
2	V 292.402†	65177.6	76591.0	511.08	ug/L	511.08 ppb	16:08:21
2	Zn 213.857†	48545.6	55450.8	502.67	ug/L	502.67 ppb	16:08:21
2	SiO2†	145974.6	168031.6	11452	ug/L	11452 ppb	16:09:18
3	Sc Radial	4634.8	4634.8	92.0	%		16:07:48
3	Y RADIAL	4938.0	4938.0	90.95	%		16:07:48
3	Al 396.153Radial†	592956.6	644189.1	496960	ug/L	496960 ppb	16:07:43
3	Ca 317.933Radial†	267381.8	290463.9	464770	ug/L	464770 ppb	16:07:43
3	Fe 238.204 Radial†	19723.7	21419.0	185380	ug/L	185380 ppb	16:07:48
3	K 766.490 Radial†	29237.8	29173.8	5180.8	ug/L	5180.8 ppb	16:07:43
3	Mg 279.077 IEC†	13294.3	14441.1	482310	ug/L	482310 ppb	16:07:48
3	Na 589.592 Radial†	15764.7	18407.2	5511.3	ug/L	5511.3 ppb	16:07:48
3	Sr 421.552†	70214.2	76300.3	489.35	ug/L	489.35 ppb	16:07:43
3	Sc 361.383	739056.4	739056.4	86.703	%		16:08:47
3	Y 371.029	609358.3	609358.3	84.321	%		16:08:47
3	Ag 328.068†	41608.9	47632.1	274.62	ug/L	274.62 ppb	16:08:47
3	As 188.979†	929.1	1095.3	512.22	ug/L	512.22 ppb	16:09:07
3	B 249.677†	20332.9	24083.0	516.83	ug/L	516.83 ppb	16:08:47
3	Ba 233.527†	54550.3	62927.6	499.17	ug/L	499.17 ppb	16:08:47
3	Be 313.107†	558331.1	648542.1	248.23	ug/L	248.23 ppb	16:08:47
3	Cd 226.502†	38038.4	44076.1	470.33	ug/L	470.33 ppb	16:08:47
3	Co 228.616†	19038.4	22032.7	448.46	ug/L	448.46 ppb	16:09:07
3	Cr 267.716†	37415.7	43070.5	485.69	ug/L	485.69 ppb	16:08:47
3	Cu 324.752†	164933.9	183816.0	559.18	ug/L	559.18 ppb	16:08:47
3	Mn 257.610†	379307.2	437032.8	485.47	ug/L	485.47 ppb	16:08:47
3	Mo 202.031†	5959.2	6849.4	502.29	ug/L	502.29 ppb	16:09:07
3	Ni 231.604†	15702.5	18042.6	448.99	ug/L	448.99 ppb	16:09:07
3	P 214.914†	3787.4	4138.4	2389.1	ug/L	2389.1 ppb	16:09:07
3	Pb 220.353†	2520.7	2970.7	461.27	ug/L	461.27 ppb	16:09:07
3	S 181.975 Axial†	1738.7	1962.3	2683.9	ug/L	2683.9 ppb	16:09:07
3	Sb 206.836†	1379.5	1563.1	538.63	ug/L	538.63 ppb	16:09:07
3	Se 196.026†	2613.4	3046.2	2581.7	ug/L	2581.7 ppb	16:09:07
3	Si 251.611†	144664.3	166299.5	5290.4	ug/L	5290.4 ppb	16:08:47
3	Sn 189.927†	2078.2	2389.2	492.86	ug/L	492.86 ppb	16:09:07
3	Ti 334.940†	263667.7	305478.3	504.93	ug/L	504.93 ppb	16:08:47
3	Tl 190.801†	1247.7	1471.8	454.64	ug/L	454.64 ppb	16:09:07
3	U 409.014†	13855.3	17991.8	508.54	ug/L	508.54 ppb	16:08:47
3	V 292.402†	65506.8	76862.6	513.19	ug/L	513.19 ppb	16:08:47
3	Zn 213.857†	48718.7	55569.9	504.00	ug/L	504.00 ppb	16:08:47
3	SiO2†	143683.8	165147.4	11255	ug/L	11255 ppb	16:09:23

Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	736764.8	86.434	%	0.3632				0.42%
Sc Radial	4529.0	89.9	%	1.83				2.03%
Y 371.029	607322.6	84.039	%	0.4026				0.48%
Y RADIAL	4860.3	89.52	%	1.261				1.41%
Ag 328.068†	47572.9	274.59	ug/L	0.401	274.59	ppb	0.401	0.15%
QC value within limits for Ag 328.068 Recovery = 109.84%								
Al 396.153Radial†	659548.0	508810	ug/L	10541.4	508810	ppb	10541.4	2.07%
QC value within limits for Al 396.153Radial Recovery = 101.76%								
As 188.979†	1110.0	518.87	ug/L	5.780	518.87	ppb	5.780	1.11%
QC value within limits for As 188.979 Recovery = 103.77%								
B 249.677†	24030.5	515.54	ug/L	1.951	515.54	ppb	1.951	0.38%
QC value within limits for B 249.677 Recovery = 103.11%								
Ba 233.527†	62938.7	499.30	ug/L	0.795	499.30	ppb	0.795	0.16%
QC value within limits for Ba 233.527 Recovery = 99.86%								
Be 313.107†	647396.0	247.79	ug/L	0.436	247.79	ppb	0.436	0.18%
QC value within limits for Be 313.107 Recovery = 99.12%								
Ca 317.933Radial†	297250.3	475630	ug/L	9622.1	475630	ppb	9622.1	2.02%

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   QC value within limits for Ca 317.933Radial  Recovery = 95.13%
Cd 226.502†            44049.2      469.91 ug/L         1.224      469.91 ppb          1.224   0.26%
   QC value within limits for Cd 226.502  Recovery = 93.98%
Co 228.616†            22029.6      448.37 ug/L         0.343      448.37 ppb          0.343   0.08%
   QC value within limits for Co 228.616  Recovery = 89.67%
Cr 267.716†            43009.8      485.03 ug/L         1.063      485.03 ppb          1.063   0.22%
   QC value within limits for Cr 267.716  Recovery = 97.01%
Cu 324.752†           183550.8      558.45 ug/L         0.842      558.45 ppb          0.842   0.15%
   QC value within limits for Cu 324.752  Recovery = 111.69%
Fe 238.204 Radial†     21559.4      186590 ug/L        1131.9      186590 ppb         1131.9   0.61%
   QC value within limits for Fe 238.204 Radial  Recovery = 93.30%
K 766.490 Radial†      29904.0      5311.1 ug/L        116.05      5311.1 ppb         116.05   2.19%
   QC value within limits for K 766.490 Radial  Recovery = 106.22%
Mg 279.077 IEC†        14576.0      486820 ug/L        4198.7      486820 ppb         4198.7   0.86%
   QC value within limits for Mg 279.077 IEC  Recovery = 97.36%
Mn 257.610†           437094.8      485.49 ug/L         1.113      485.49 ppb          1.113   0.23%
   QC value within limits for Mn 257.610  Recovery = 97.10%
Mo 202.031†             6821.9      500.56 ug/L         2.000      500.56 ppb          2.000   0.40%
   QC value within limits for Mo 202.031  Recovery = 100.11%
Na 589.592 Radial†     18518.3      5544.6 ug/L         28.80      5544.6 ppb          28.80   0.52%
   QC value within limits for Na 589.592 Radial  Recovery = 110.89%
Ni 231.604†            18035.9      448.83 ug/L         0.913      448.83 ppb          0.913   0.20%
   QC value within limits for Ni 231.604  Recovery = 89.77%
P 214.914†              4137.1      2390.4 ug/L         11.21      2390.4 ppb          11.21   0.47%
   QC value within limits for P 214.914  Recovery = 95.62%
Pb 220.353†             2989.1      466.12 ug/L         4.440      466.12 ppb          4.440   0.95%
   QC value within limits for Pb 220.353  Recovery = 93.22%
S 181.975 Axial†        1955.1      2671.4 ug/L         16.16      2671.4 ppb          16.16   0.61%
   QC value within limits for S 181.975 Axial  Recovery = 106.86%
Sb 206.836†             1566.3      539.36 ug/L         3.534      539.36 ppb          3.534   0.66%
   QC value within limits for Sb 206.836  Recovery = 107.87%
Se 196.026†             3043.4      2584.5 ug/L          5.36      2584.5 ppb           5.36   0.21%
   QC value within limits for Se 196.026  Recovery = 103.38%
Si 251.611†           166133.6      5285.2 ug/L          7.28      5285.2 ppb           7.28   0.14%
   QC value within limits for Si 251.611  Recovery = 105.70%
Sn 189.927†             2390.2      494.61 ug/L         2.289      494.61 ppb          2.289   0.46%
   QC value within limits for Sn 189.927  Recovery = 98.92%
Sr 421.552†            78113.3      500.98 ug/L        10.265      500.98 ppb         10.265   2.05%
   QC value within limits for Sr 421.552  Recovery = 100.20%
Ti 334.940†           305426.0      505.70 ug/L         0.808      505.70 ppb          0.808   0.16%
   QC value within limits for Ti 334.940  Recovery = 101.14%
Tl 190.801†             1465.1      452.58 ug/L         2.842      452.58 ppb          2.842   0.63%
   QC value within limits for Tl 190.801  Recovery = 90.52%
U 409.014†             18009.6      508.93 ug/L         4.374      508.93 ppb          4.374   0.86%
   QC value within limits for U 409.014  Recovery = 101.79%
V 292.402†             76741.8      512.24 ug/L         1.067      512.24 ppb          1.067   0.21%
   QC value within limits for V 292.402  Recovery = 102.45%
Zn 213.857†            55559.6      503.79 ug/L         1.031      503.79 ppb          1.031   0.20%
   QC value within limits for Zn 213.857  Recovery = 100.76%
SiO2†                 167529.6       11418 ug/L         148.4       11418 ppb          148.4   1.30%
   QC value within limits for SiO2  Recovery = 106.76%
All analyte(s) passed QC.
```

Sequence No.: 11
Sample ID: LR1
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 15
Date Collected: 1/11/2010 16:11:34
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4437.1	4437.1	88.1	%			16:13:31
1	Y RADIAL	4779.6	4779.6	88.03	%			16:13:31
1	Al 396.153Radial†	570573.2	647502.8	499540	ug/L	499540	ppb	16:13:26
1	Ca 317.933Radial†	256964.9	291591.1	466570	ug/L	466570	ppb	16:13:26
1	Fe 238.204 Radial†	43538.9	49400.2	427520	ug/L	427520	ppb	16:13:31
1	K 766.490 Radial†	3585.3	1478.6	-161.78	ug/L	-161.78	ppb	16:13:26
1	Mg 279.077 IEC†	12496.5	14179.5	473320	ug/L	473320	ppb	16:13:31
1	Na 589.592 Radial†	1462340.2	1660784.5	497260	ug/L	497260	ppb	16:13:26
1	Sr 421.552†	705.4	820.0	1.8125	ug/L	1.8125	ppb	16:13:31
1	Sc 361.383	717381.5	717381.5	84.160	%			16:13:59
1	Y 371.029	593191.9	593191.9	82.084	%			16:13:59
1	Ag 328.068†	-22544.0	-27144.9	-4.8683	ug/L	-4.8683	ppb	16:13:59
1	As 188.979†	-182.6	-193.3	0.3508	ug/L	0.3508	ppb	16:14:19
1	B 249.677†	1714.1	2668.6	16.167	ug/L	16.167	ppb	16:13:59
1	Ba 233.527†	-1281.5	-1511.3	3.8804	ug/L	3.8804	ppb	16:14:19
1	Be 313.107†	-11195.4	-8717.1	-3.3744	ug/L	-3.3744	ppb	16:13:59
1	Cd 226.502†	3286.5	4109.1	4.3236	ug/L	4.3236	ppb	16:14:19
1	Co 228.616†	204.3	317.5	0.2605	ug/L	0.2605	ppb	16:14:19
1	Cr 267.716†	-58.9	-153.2	0.7866	ug/L	0.7866	ppb	16:14:19
1	Cu 324.752†	1322.8	-4840.4	-0.0414	ug/L	-0.0414	ppb	16:13:59
1	Mn 257.610†	-18590.9	-22534.8	3.3888	ug/L	3.3888	ppb	16:13:59
1	Mo 202.031†	-460.9	-571.3	-5.5879	ug/L	-5.5879	ppb	16:14:19
1	Ni 231.604†	239.7	216.9	5.3963	ug/L	5.3963	ppb	16:14:19
1	P 214.914†	545.7	418.6	38.508	ug/L	38.508	ppb	16:14:19
1	Pb 220.353†	-536.8	-574.5	3.6095	ug/L	3.6095	ppb	16:14:19
1	S 181.975 Axial†	110.4	88.2	31.183	ug/L	31.183	ppb	16:14:19
1	Sb 206.836†	59.5	42.8	-0.8075	ug/L	-0.8075	ppb	16:14:19
1	Se 196.026†	-1922.8	-2252.6	-61.956	ug/L	-61.956	ppb	16:14:19
1	Si 251.611†	-256.1	-854.8	-26.726	ug/L	-26.726	ppb	16:14:19
1	Sn 189.927†	-404.2	-488.0	-12.538	ug/L	-12.538	ppb	16:14:19
1	Ti 334.940†	-13335.9	-14471.3	-15.725	ug/L	-15.725	ppb	16:13:59
1	Tl 190.801†	-102.1	-88.5	-27.535	ug/L	-27.535	ppb	16:14:19
1	U 409.014†	420670.5	501855.4	14756	ug/L	14756	ppb	16:13:59
1	V 292.402†	3161.2	5065.9	6.1761	ug/L	6.1761	ppb	16:14:19
1	Zn 213.857†	5617.3	6054.3	15.776	ug/L	15.776	ppb	16:14:19
1	SiO2†	-255.6	-875.3	-58.627	ug/L	-58.627	ppb	16:15:16
2	Sc Radial	4444.7	4444.7	88.3	%			16:13:42
2	Y RADIAL	4767.1	4767.1	87.80	%			16:13:42
2	Al 396.153Radial†	570446.8	646252.1	498580	ug/L	498580	ppb	16:13:37
2	Ca 317.933Radial†	257026.3	291161.8	465890	ug/L	465890	ppb	16:13:37
2	Fe 238.204 Radial†	43407.6	49166.9	425500	ug/L	425500	ppb	16:13:42
2	K 766.490 Radial†	3497.9	1372.5	-179.48	ug/L	-179.48	ppb	16:13:37
2	Mg 279.077 IEC†	12459.3	14113.1	471100	ug/L	471100	ppb	16:13:42
2	Na 589.592 Radial†	1456824.9	1651697.6	494540	ug/L	494540	ppb	16:13:37
2	Sr 421.552†	676.9	786.3	1.6000	ug/L	1.6000	ppb	16:13:42
2	Sc 361.383	714481.0	714481.0	83.820	%			16:14:25
2	Y 371.029	589648.5	589648.5	81.593	%			16:14:25
2	Ag 328.068†	-22728.5	-27473.7	-7.0546	ug/L	-7.0546	ppb	16:14:25
2	As 188.979†	-198.6	-213.3	-8.7227	ug/L	-8.7227	ppb	16:14:45
2	B 249.677†	1700.9	2661.1	16.205	ug/L	16.205	ppb	16:14:25
2	Ba 233.527†	-1334.4	-1580.5	3.2659	ug/L	3.2659	ppb	16:14:45
2	Be 313.107†	-11238.0	-8821.9	-3.4141	ug/L	-3.4141	ppb	16:14:25
2	Cd 226.502†	3283.9	4121.8	4.6798	ug/L	4.6798	ppb	16:14:45
2	Co 228.616†	210.5	325.8	0.4624	ug/L	0.4624	ppb	16:14:45
2	Cr 267.716†	13.0	-67.7	1.6900	ug/L	1.6900	ppb	16:14:45
2	Cu 324.752†	1337.1	-4817.0	-0.0968	ug/L	-0.0968	ppb	16:14:25
2	Mn 257.610†	-18508.4	-22525.9	3.2638	ug/L	3.2638	ppb	16:14:25
2	Mo 202.031†	-444.3	-553.8	-4.4944	ug/L	-4.4944	ppb	16:14:45
2	Ni 231.604†	242.8	221.7	5.5161	ug/L	5.5161	ppb	16:14:45

2	P 214.914†	534.8	408.1	33.511 ug/L	33.511 ppb	16:14:45
2	Pb 220.353†	-534.5	-574.3	3.6051 ug/L	3.6051 ppb	16:14:45
2	S 181.975 Axial†	118.3	98.1	45.374 ug/L	45.374 ppb	16:14:45
2	Sb 206.836†	36.9	16.1	-9.8346 ug/L	-9.8346 ppb	16:14:45
2	Se 196.026†	-1916.7	-2254.7	-69.767 ug/L	-69.767 ppb	16:14:45
2	Si 251.611†	-296.1	-903.7	-28.300 ug/L	-28.300 ppb	16:14:45
2	Sn 189.927†	-389.6	-472.5	-9.9307 ug/L	-9.9307 ppb	16:14:45
2	Ti 334.940†	-13239.2	-14420.3	-15.554 ug/L	-15.554 ppb	16:14:25
2	Tl 190.801†	-90.9	-75.6	-23.594 ug/L	-23.594 ppb	16:14:45
2	U 409.014†	419923.4	502993.3	14790 ug/L	14790 ppb	16:14:25
2	V 292.402†	3152.1	5070.3	6.5539 ug/L	6.5539 ppb	16:14:45
2	Zn 213.857†	5598.1	6058.5	16.011 ug/L	16.011 ppb	16:14:45
2	SiO2†	-335.2	-971.6	-65.230 ug/L	-65.230 ppb	16:15:21
3	Sc Radial	4407.6	4407.6	87.5 %		16:13:52
3	Y RADIAL	4705.1	4705.1	86.66 %		16:13:52
3	Al 396.153Radial†	570884.8	652181.5	503150 ug/L	503150 ppb	16:13:47
3	Ca 317.933Radial†	256834.6	293388.9	469450 ug/L	469450 ppb	16:13:47
3	Fe 238.204 Radial†	43209.0	49353.2	427110 ug/L	427110 ppb	16:13:52
3	K 766.490 Radial†	3501.2	1409.6	-176.86 ug/L	-176.86 ppb	16:13:47
3	Mg 279.077 IEC†	12409.5	14174.7	473160 ug/L	473160 ppb	16:13:52
3	Na 589.592 Radial†	1460322.3	1669557.9	499890 ug/L	499890 ppb	16:13:47
3	Sr 421.552†	734.4	858.5	2.0393 ug/L	2.0393 ppb	16:13:52
3	Sc 361.383	723948.7	723948.7	84.931 %		16:14:51
3	Y 371.029	598389.1	598389.1	82.803 %		16:14:51
3	Ag 328.068†	-22796.8	-27199.6	-5.3293 ug/L	-5.3293 ppb	16:14:51
3	As 188.979†	-194.3	-205.2	-4.8896 ug/L	-4.8896 ppb	16:15:11
3	B 249.677†	1601.8	2517.9	12.848 ug/L	12.848 ppb	16:14:51
3	Ba 233.527†	-1246.6	-1456.4	4.2918 ug/L	4.2918 ppb	16:15:11
3	Be 313.107†	-11266.6	-8680.3	-3.3605 ug/L	-3.3605 ppb	16:14:51
3	Cd 226.502†	3248.9	4029.4	3.4892 ug/L	3.4892 ppb	16:15:11
3	Co 228.616†	215.4	328.3	0.4945 ug/L	0.4945 ppb	16:15:11
3	Cr 267.716†	-24.2	-111.8	1.2233 ug/L	1.2233 ppb	16:15:11
3	Cu 324.752†	1265.0	-4922.7	-0.3325 ug/L	-0.3325 ppb	16:14:51
3	Mn 257.610†	-19046.2	-22870.4	2.9777 ug/L	2.9777 ppb	16:14:51
3	Mo 202.031†	-438.9	-540.5	-3.3985 ug/L	-3.3985 ppb	16:15:11
3	Ni 231.604†	244.9	220.4	5.4827 ug/L	5.4827 ppb	16:15:11
3	P 214.914†	544.0	410.7	35.003 ug/L	35.003 ppb	16:15:11
3	Pb 220.353†	-504.4	-530.5	9.8610 ug/L	9.8610 ppb	16:15:11
3	S 181.975 Axial†	96.5	70.6	5.6681 ug/L	5.6681 ppb	16:15:11
3	Sb 206.836†	56.2	38.2	-2.3405 ug/L	-2.3405 ppb	16:15:11
3	Se 196.026†	-1905.6	-2211.7	-36.677 ug/L	-36.677 ppb	16:15:11
3	Si 251.611†	-249.7	-844.5	-26.425 ug/L	-26.425 ppb	16:15:11
3	Sn 189.927†	-384.9	-460.9	-7.3345 ug/L	-7.3345 ppb	16:15:11
3	Ti 334.940†	-13496.1	-14516.1	-15.477 ug/L	-15.477 ppb	16:14:51
3	Tl 190.801†	-114.1	-101.5	-31.527 ug/L	-31.527 ppb	16:15:11
3	U 409.014†	425739.2	503289.2	14798 ug/L	14798 ppb	16:14:51
3	V 292.402†	3062.1	4915.1	5.3194 ug/L	5.3194 ppb	16:15:11
3	Zn 213.857†	5542.5	5905.6	14.409 ug/L	14.409 ppb	16:15:11
3	SiO2†	-361.9	-997.7	-67.037 ug/L	-67.037 ppb	16:15:26

Mean Data: LR1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	718603.7	84.304	%	0.5691				0.68%
Sc Radial	4429.8	88.0	%	0.39				0.44%
Y 371.029	593743.2	82.160	%	0.6083				0.74%
Y RADIAL	4750.6	87.50	%	0.735				0.84%
Ag 328.068†	-27272.7	-5.7507	ug/L	1.15246	-5.7507	ppb	1.15246	20.04%
Al 396.153Radial†	648645.5	500420	ug/L	2411.2	500420	ppb	2411.2	0.48%
QC value within limits for Al 396.153Radial Recovery = 100.08%								
As 188.979†	-203.9	-4.4205	ug/L	4.55488	-4.4205	ppb	4.55488	103.04%
B 249.677†	2615.9	15.073	ug/L	1.9270	15.073	ppb	1.9270	12.78%
Ba 233.527†	-1516.1	3.8127	ug/L	0.51630	3.8127	ppb	0.51630	13.54%
Be 313.107†	-8739.8	-3.3830	ug/L	0.02783	-3.3830	ppb	0.02783	0.82%
Ca 317.933Radial†	292047.3	467300	ug/L	1890.6	467300	ppb	1890.6	0.40%
QC value within limits for Ca 317.933Radial Recovery = 93.46%								
Cd 226.502†	4086.8	4.1642	ug/L	0.61107	4.1642	ppb	0.61107	14.67%
Co 228.616†	323.9	0.4058	ug/L	0.12683	0.4058	ppb	0.12683	31.26%
Cr 267.716†	-110.9	1.2333	ug/L	0.45181	1.2333	ppb	0.45181	36.63%
Cu 324.752†	-4860.0	-0.1569	ug/L	0.15457	-0.1569	ppb	0.15457	98.52%

Fe 238.204 Radial†	49306.8	426710	ug/L	1067.6	426710	ppb	1067.6	0.25%
QC value less than the lower limit for Fe 238.204 Radial Recovery = 85.34%								
K 766.490 Radial†	1420.2	-172.71	ug/L	9.554	-172.71	ppb	9.554	5.53%
Mg 279.077 IEC†	14155.8	472520	ug/L	1236.3	472520	ppb	1236.3	0.26%
QC value within limits for Mg 279.077 IEC Recovery = 94.50%								
Mn 257.610†	-22643.7	3.2101	ug/L	0.21071	3.2101	ppb	0.21071	6.56%
Mo 202.031†	-555.2	-4.4936	ug/L	1.09466	-4.4936	ppb	1.09466	24.36%
Na 589.592 Radial†	1660680.0	497230	ug/L	2673.9	497230	ppb	2673.9	0.54%
QC value within limits for Na 589.592 Radial Recovery = 99.45%								
Ni 231.604†	219.6	5.4650	ug/L	0.06185	5.4650	ppb	0.06185	1.13%
P 214.914†	412.5	35.674	ug/L	2.5652	35.674	ppb	2.5652	7.19%
Pb 220.353†	-559.8	5.6918	ug/L	3.61057	5.6918	ppb	3.61057	63.43%
S 181.975 Axial†	85.6	27.408	ug/L	20.1201	27.408	ppb	20.1201	73.41%
Sb 206.836†	32.4	-4.3275	ug/L	4.83044	-4.3275	ppb	4.83044	111.62%
Se 196.026†	-2239.7	-56.133	ug/L	17.2963	-56.133	ppb	17.2963	30.81%
Si 251.611†	-867.7	-27.150	ug/L	1.0073	-27.150	ppb	1.0073	3.71%
Sn 189.927†	-473.8	-9.9342	ug/L	2.60154	-9.9342	ppb	2.60154	26.19%
Sr 421.552†	821.6	1.8172	ug/L	0.21969	1.8172	ppb	0.21969	12.09%
Ti 334.940†	-14469.2	-15.585	ug/L	0.1267	-15.585	ppb	0.1267	0.81%
Tl 190.801†	-88.5	-27.552	ug/L	3.9664	-27.552	ppb	3.9664	14.40%
U 409.014†	502712.6	14781	ug/L	22.4	14781	ppb	22.4	0.15%
QC value within limits for U 409.014 Recovery = 98.54%								
V 292.402†	5017.1	6.0165	ug/L	0.63254	6.0165	ppb	0.63254	10.51%
Zn 213.857†	6006.1	15.399	ug/L	0.8650	15.399	ppb	0.8650	5.62%
SiO2†	-948.2	-63.631	ug/L	4.4273	-63.631	ppb	4.4273	6.96%

QC Failed. Continue with analysis.

Sequence No.: 12
Sample ID: LR2
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 16
Date Collected: 1/11/2010 16:17:37
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR2

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4991.9	4991.9	99.1	%			16:19:35
1	Y RADIAL	5291.5	5291.5	97.46	%			16:19:35
1	Al 396.153Radial†	559.9	565.4	-47.303	ug/L	-47.303	ppb	16:19:35
1	Ca 317.933Radial†	23.2	3.6	5.7610	ug/L	5.7610	ppb	16:19:55
1	Fe 238.204 Radial†	-23.5	-32.6	2.9771	ug/L	2.9771	ppb	16:19:55
1	K 766.490 Radial†	1585008.6	1596183.6	292480	ug/L	292480	ppb	16:19:30
1	Mg 279.077 IEC†	-3.6	-5.5	-79.004	ug/L	-79.004	ppb	16:19:55
1	Na 589.592 Radial†	-332.2	945.4	283.07	ug/L	283.07	ppb	16:19:35
1	Sr 421.552†	1498984.9	1512022.4	9766.0	ug/L	9766.0	ppb	16:19:30
1	Sc 361.383	804787.1	804787.1	94.414	%			16:21:12
1	Y 371.029	663375.9	663375.9	91.795	%			16:21:12
1	Ag 328.068†	-8134.3	-8973.6	-3.5960	ug/L	-3.5960	ppb	16:21:17
1	As 188.979†	22123.2	23455.6	10186	ug/L	10186	ppb	16:21:17
1	B 249.677†	211371.7	224508.2	4977.9	ug/L	4977.9	ppb	16:21:12
1	Ba 233.527†	1722642.5	1824564.7	14266	ug/L	14266	ppb	16:21:12
1	Be 313.107†	7247660.3	7681014.3	2949.2	ug/L	2949.2	ppb	16:21:06
1	Cd 226.502†	828330.1	877537.9	9743.8	ug/L	9743.8	ppb	16:21:12
1	Co 228.616†	438981.9	465026.6	9517.6	ug/L	9517.6	ppb	16:21:17
1	Cr 267.716†	2044395.3	2165257.6	24218	ug/L	24218	ppb	16:21:12
1	Cu 324.752†	6362228.7	6732203.4	20131	ug/L	20131	ppb	16:21:06
1	Mn 257.610†	8086158.8	8564087.8	9494.2	ug/L	9494.2	ppb	16:21:06
1	Mo 202.031†	133209.9	141066.8	9969.9	ug/L	9969.9	ppb	16:21:17
1	Ni 231.604†	368642.8	390383.6	9714.9	ug/L	9714.9	ppb	16:21:17
1	P 214.914†	30105.1	31656.2	15065	ug/L	15065	ppb	16:21:17
1	Pb 220.353†	189546.2	200823.0	24605	ug/L	24605	ppb	16:21:17
1	S 181.975 Axial†	35159.1	37196.1	52639	ug/L	52639	ppb	16:21:17
1	Sb 206.836†	29097.2	30790.6	10918	ug/L	10918	ppb	16:21:17
1	Se 196.026†	15056.3	15979.1	10327	ug/L	10327	ppb	16:21:17
1	Si 251.611†	1437742.2	1522247.9	48358	ug/L	48358	ppb	16:21:12
1	Sn 189.927†	56894.3	60252.5	10675	ug/L	10675	ppb	16:21:17
1	Ti 334.940†	5821832.8	6167624.7	9928.0	ug/L	9928.0	ppb	16:21:06
1	Tl 190.801†	30033.0	31842.5	9829.6	ug/L	9829.6	ppb	16:21:17
1	U 409.014†	-809.1	1154.7	-20.062	ug/L	-20.062	ppb	16:21:17
1	V 292.402†	1394534.0	1478343.7	10220	ug/L	10220	ppb	16:21:12
1	Zn 213.857†	1422944.5	1506505.1	14160	ug/L	14160	ppb	16:21:12
1	SiO2†	1433580.2	1517818.5	103290	ug/L	103290	ppb	16:22:03
2	Sc Radial	4952.1	4952.1	98.3	%			16:20:06
2	Y RADIAL	5240.7	5240.7	96.52	%			16:20:06
2	Al 396.153Radial†	559.5	569.6	-39.470	ug/L	-39.470	ppb	16:20:06
2	Ca 317.933Radial†	29.7	10.4	16.707	ug/L	16.707	ppb	16:20:26
2	Fe 238.204 Radial†	-20.8	-30.1	22.078	ug/L	22.078	ppb	16:20:26
2	K 766.490 Radial†	1571896.7	1595728.8	292400	ug/L	292400	ppb	16:20:01
2	Mg 279.077 IEC†	-5.7	-7.7	-154.53	ug/L	-154.53	ppb	16:20:26
2	Na 589.592 Radial†	-419.6	853.8	255.63	ug/L	255.63	ppb	16:20:06
2	Sr 421.552†	1477909.3	1502771.2	9706.3	ug/L	9706.3	ppb	16:20:01
2	Sc 361.383	809144.9	809144.9	94.926	%			16:21:32
2	Y 371.029	667135.6	667135.6	92.316	%			16:21:32
2	Ag 328.068†	-8079.8	-8869.7	-3.1377	ug/L	-3.1377	ppb	16:21:37
2	As 188.979†	22074.5	23278.1	10109	ug/L	10109	ppb	16:21:37
2	B 249.677†	212628.4	224626.4	4980.8	ug/L	4980.8	ppb	16:21:32
2	Ba 233.527†	1730278.2	1822782.3	14252	ug/L	14252	ppb	16:21:32
2	Be 313.107†	7131078.4	7516858.6	2886.2	ug/L	2886.2	ppb	16:21:26
2	Cd 226.502†	830186.7	874768.8	9713.0	ug/L	9713.0	ppb	16:21:32
2	Co 228.616†	437441.8	460900.1	9433.4	ug/L	9433.4	ppb	16:21:37
2	Cr 267.716†	2051622.2	2161209.3	24173	ug/L	24173	ppb	16:21:32
2	Cu 324.752†	6253182.6	6581036.8	19679	ug/L	19679	ppb	16:21:26
2	Mn 257.610†	7968353.2	8393859.9	9305.5	ug/L	9305.5	ppb	16:21:26
2	Mo 202.031†	132663.8	139731.7	9875.5	ug/L	9875.5	ppb	16:21:37
2	Ni 231.604†	366974.4	386523.2	9618.8	ug/L	9618.8	ppb	16:21:37

2	P 214.914†	29796.6	31159.5	14858 ug/L	14858 ppb	16:21:37
2	Pb 220.353†	188596.1	198740.9	24350 ug/L	24350 ppb	16:21:37
2	S 181.975 Axial†	34924.4	36748.3	52005 ug/L	52005 ppb	16:21:37
2	Sb 206.836†	28910.9	30428.4	10791 ug/L	10791 ppb	16:21:37
2	Se 196.026†	14969.6	15801.8	10213 ug/L	10213 ppb	16:21:37
2	Si 251.611†	1445521.3	1522241.7	48359 ug/L	48359 ppb	16:21:32
2	Sn 189.927†	56563.6	59579.6	10555 ug/L	10555 ppb	16:21:37
2	Ti 334.940†	5736371.6	6044386.2	9729.5 ug/L	9729.5 ppb	16:21:26
2	Tl 190.801†	29934.8	31567.9	9743.4 ug/L	9743.4 ppb	16:21:37
2	U 409.014†	-856.1	1109.8	-21.289 ug/L	-21.289 ppb	16:21:37
2	V 292.402†	1401052.3	1477255.8	10212 ug/L	10212 ppb	16:21:32
2	Zn 213.857†	1427087.7	1502753.0	14125 ug/L	14125 ppb	16:21:32
2	SiO2†	1423108.9	1498610.0	101980 ug/L	101980 ppb	16:22:09
3	Sc Radial	5028.1	5028.1	99.9 %		16:20:36
3	Y RADIAL	5309.4	5309.4	97.79 %		16:20:36
3	Al 396.153Radial†	563.8	565.3	-41.381 ug/L	-41.381 ppb	16:20:36
3	Ca 317.933Radial†	25.5	5.8	9.2464 ug/L	9.2464 ppb	16:20:56
3	Fe 238.204 Radial†	-19.9	-28.8	32.277 ug/L	32.277 ppb	16:20:56
3	K 766.490 Radial†	1561237.2	1560882.2	286010 ug/L	286010 ppb	16:20:31
3	Mg 279.077 IEC†	-6.7	-8.7	-186.07 ug/L	-186.07 ppb	16:20:56
3	Na 589.592 Radial†	-439.1	840.7	251.71 ug/L	251.71 ppb	16:20:36
3	Sr 421.552†	1470891.5	1473016.8	9514.1 ug/L	9514.1 ppb	16:20:31
3	Sc 361.383	806505.5	806505.5	94.616 %		16:21:52
3	Y 371.029	665096.9	665096.9	92.034 %		16:21:52
3	Ag 328.068†	-8025.0	-8839.6	-2.9981 ug/L	-2.9981 ppb	16:21:57
3	As 188.979†	21983.3	23257.8	10101 ug/L	10101 ppb	16:21:57
3	B 249.677†	211338.3	223995.9	4966.8 ug/L	4966.8 ppb	16:21:52
3	Ba 233.527†	1725269.5	1823453.8	14257 ug/L	14257 ppb	16:21:52
3	Be 313.107†	7253487.4	7670817.6	2945.4 ug/L	2945.4 ppb	16:21:45
3	Cd 226.502†	827943.0	875259.5	9718.4 ug/L	9718.4 ppb	16:21:52
3	Co 228.616†	435486.3	460341.5	9421.4 ug/L	9421.4 ppb	16:21:57
3	Cr 267.716†	2045813.6	2162143.1	24183 ug/L	24183 ppb	16:21:52
3	Cu 324.752†	6387520.1	6744576.6	20168 ug/L	20168 ppb	16:21:45
3	Mn 257.610†	8097220.6	8557531.4	9486.9 ug/L	9486.9 ppb	16:21:45
3	Mo 202.031†	131837.6	139315.9	9846.1 ug/L	9846.1 ppb	16:21:57
3	Ni 231.604†	364839.7	385532.2	9594.1 ug/L	9594.1 ppb	16:21:57
3	P 214.914†	29558.0	31010.1	14660 ug/L	14660 ppb	16:21:57
3	Pb 220.353†	187687.5	198430.8	24312 ug/L	24312 ppb	16:21:57
3	S 181.975 Axial†	34653.1	36582.0	51770 ug/L	51770 ppb	16:21:57
3	Sb 206.836†	28792.3	30402.7	10781 ug/L	10781 ppb	16:21:57
3	Se 196.026†	14875.5	15754.0	10182 ug/L	10182 ppb	16:21:57
3	Si 251.611†	1439625.9	1520994.4	48320 ug/L	48320 ppb	16:21:52
3	Sn 189.927†	56292.5	59488.0	10539 ug/L	10539 ppb	16:21:57
3	Ti 334.940†	5842211.5	6176025.1	9941.6 ug/L	9941.6 ppb	16:21:45
3	Tl 190.801†	29753.9	31479.9	9718.8 ug/L	9718.8 ppb	16:21:57
3	U 409.014†	-809.0	1156.5	-19.934 ug/L	-19.934 ppb	16:21:57
3	V 292.402†	1396430.5	1477201.2	10211 ug/L	10211 ppb	16:21:52
3	Zn 213.857†	1423384.7	1503759.2	14134 ug/L	14134 ppb	16:21:52
3	SiO2†	1392777.2	1471458.7	100130 ug/L	100130 ppb	16:22:15

Mean Data: LR2

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	806812.5	94.652	%	0.2575				0.27%
Sc Radial	4990.7	99.1	%	0.76				0.76%
Y 371.029	665202.8	92.048	%	0.2604				0.28%
Y RADIAL	5280.5	97.26	%	0.656				0.67%
Ag 328.068†	-8894.3	-3.2439	ug/L	0.31278	-3.2439	ppb	0.31278	9.64%
Al 396.153Radial†	566.8	-42.718	ug/L	4.0836	-42.718	ppb	4.0836	9.56%
As 188.979†	23330.5	10132	ug/L	47.2	10132	ppb	47.2	0.47%
QC value within limits for As 188.979 Recovery = 101.32%								
B 249.677†	224376.8	4975.2	ug/L	7.41	4975.2	ppb	7.41	0.15%
QC value within limits for B 249.677 Recovery = 99.50%								
Ba 233.527†	1823600.3	14258	ug/L	7.0	14258	ppb	7.0	0.05%
QC value within limits for Ba 233.527 Recovery = 95.06%								
Be 313.107†	7622896.8	2927.0	ug/L	35.31	2927.0	ppb	35.31	1.21%
QC value within limits for Be 313.107 Recovery = 97.57%								
Ca 317.933Radial†	6.6	10.572	ug/L	5.5922	10.572	ppb	5.5922	52.90%
Cd 226.502†	875855.4	9725.0	ug/L	16.44	9725.0	ppb	16.44	0.17%
QC value within limits for Cd 226.502 Recovery = 97.25%								

Co 228.616†	462089.4	9457.5 ug/L	52.44	9457.5 ppb	52.44	0.55%
QC value within limits for Co 228.616 Recovery = 94.57%						
Cr 267.716†	2162870.0	24191 ug/L	23.7	24191 ppb	23.7	0.10%
QC value within limits for Cr 267.716 Recovery = 96.77%						
Cu 324.752†	6685938.9	19993 ug/L	272.3	19993 ppb	272.3	1.36%
QC value within limits for Cu 324.752 Recovery = 99.96%						
Fe 238.204 Radial†	-30.5	19.111 ug/L	14.8738	19.111 ppb	14.8738	77.83%
K 766.490 Radial†	1584264.9	290300 ug/L	3713.4	290300 ppb	3713.4	1.28%
QC value within limits for K 766.490 Radial Recovery = 96.77%						
Mg 279.077 IEC†	-7.3	-139.87 ug/L	55.018	-139.87 ppb	55.018	39.34%
Mn 257.610†	8505159.7	9428.9 ug/L	106.92	9428.9 ppb	106.92	1.13%
QC value within limits for Mn 257.610 Recovery = 94.29%						
Mo 202.031†	140038.1	9897.2 ug/L	64.65	9897.2 ppb	64.65	0.65%
QC value within limits for Mo 202.031 Recovery = 98.97%						
Na 589.592 Radial†	880.0	263.47 ug/L	17.085	263.47 ppb	17.085	6.48%
Ni 231.604†	387479.7	9642.6 ug/L	63.79	9642.6 ppb	63.79	0.66%
QC value within limits for Ni 231.604 Recovery = 96.43%						
P 214.914†	31275.3	14861 ug/L	202.2	14861 ppb	202.2	1.36%
QC value within limits for P 214.914 Recovery = 99.07%						
Pb 220.353†	199331.6	24422 ug/L	159.4	24422 ppb	159.4	0.65%
QC value within limits for Pb 220.353 Recovery = 97.69%						
S 181.975 Axial†	36842.1	52138 ug/L	449.5	52138 ppb	449.5	0.86%
QC value within limits for S 181.975 Axial Recovery = 104.28%						
Sb 206.836†	30540.6	10830 ug/L	76.7	10830 ppb	76.7	0.71%
QC value within limits for Sb 206.836 Recovery = 108.30%						
Se 196.026†	15844.9	10241 ug/L	76.6	10241 ppb	76.6	0.75%
QC value within limits for Se 196.026 Recovery = 102.41%						
Si 251.611†	1521828.0	48346 ug/L	22.5	48346 ppb	22.5	0.05%
QC value within limits for Si 251.611 Recovery = 96.69%						
Sn 189.927†	59773.4	10590 ug/L	74.0	10590 ppb	74.0	0.70%
QC value within limits for Sn 189.927 Recovery = 105.90%						
Sr 421.552†	1495936.8	9662.1 ug/L	131.64	9662.1 ppb	131.64	1.36%
QC value within limits for Sr 421.552 Recovery = 96.62%						
Ti 334.940†	6129345.3	9866.4 ug/L	118.73	9866.4 ppb	118.73	1.20%
QC value within limits for Ti 334.940 Recovery = 98.66%						
Tl 190.801†	31630.1	9764.0 ug/L	58.21	9764.0 ppb	58.21	0.60%
QC value within limits for Tl 190.801 Recovery = 97.64%						
U 409.014†	1140.3	-20.429 ug/L	0.7484	-20.429 ppb	0.7484	3.66%
V 292.402†	1477600.2	10214 ug/L	5.3	10214 ppb	5.3	0.05%
QC value within limits for V 292.402 Recovery = 102.14%						
Zn 213.857†	1504339.1	14140 ug/L	17.8	14140 ppb	17.8	0.13%
QC value within limits for Zn 213.857 Recovery = 94.27%						
SiO2†	1495962.4	101800 ug/L	1587.7	101800 ppb	1587.7	1.56%
QC value within limits for SiO2 Recovery = 95.14%						

All analyte(s) passed QC.

Sequence No.: 13
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 1/11/2010 16:24:25
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4845.6	4845.6	96.2	%			16:26:17
1	Y RADIAL	5193.6	5193.6	95.66	%			16:26:17
1	Al 396.153Radial†	6165.4	6407.5	4918.6	ug/L	4918.6	ppb	16:26:17
1	Ca 317.933Radial†	3100.6	3202.2	5123.9	ug/L	5123.9	ppb	16:26:37
1	Fe 238.204 Radial†	590.6	604.9	5249.7	ug/L	5249.7	ppb	16:26:37
1	K 766.490 Radial†	30409.6	29010.2	5301.3	ug/L	5301.3	ppb	16:26:17
1	Mg 279.077 IEC†	154.9	159.1	5315.7	ug/L	5315.7	ppb	16:26:37
1	Na 589.592 Radial†	32452.7	35003.8	10481	ug/L	10481	ppb	16:26:17
1	Sr 421.552†	74696.1	77640.3	501.43	ug/L	501.43	ppb	16:26:17
1	Sc 361.383	847993.6	847993.6	99.483	%			16:27:34
1	Y 371.029	707266.0	707266.0	97.869	%			16:27:34
1	Ag 328.068†	110454.8	110670.5	512.81	ug/L	512.81	ppb	16:27:39
1	As 188.979†	1203.5	1233.4	536.61	ug/L	536.61	ppb	16:27:59
1	B 249.677†	22887.1	23637.9	524.99	ug/L	524.99	ppb	16:27:39
1	Ba 233.527†	64157.9	64502.5	504.85	ug/L	504.85	ppb	16:27:39
1	Be 313.107†	1328475.5	1339960.8	511.70	ug/L	511.70	ppb	16:27:34
1	Cd 226.502†	45264.0	45703.2	507.02	ug/L	507.02	ppb	16:27:39
1	Co 228.616†	24528.7	24730.8	506.32	ug/L	506.32	ppb	16:27:39
1	Cr 267.716†	45211.9	45363.5	507.79	ug/L	507.79	ppb	16:27:39
1	Cu 324.752†	172347.3	166830.3	498.86	ug/L	498.86	ppb	16:27:39
1	Mn 257.610†	456024.6	457948.2	508.05	ug/L	508.05	ppb	16:27:34
1	Mo 202.031†	7195.0	7208.7	509.89	ug/L	509.89	ppb	16:27:59
1	Ni 231.604†	20385.6	20423.5	508.24	ug/L	508.24	ppb	16:27:39
1	P 214.914†	4304.6	4097.1	2398.2	ug/L	2398.2	ppb	16:27:59
1	Pb 220.353†	4045.2	4129.6	507.32	ug/L	507.32	ppb	16:27:59
1	S 181.975 Axial†	762.6	723.6	1023.1	ug/L	1023.1	ppb	16:27:59
1	Sb 206.836†	1541.9	1521.9	539.64	ug/L	539.64	ppb	16:27:59
1	Se 196.026†	743.6	779.5	520.86	ug/L	520.86	ppb	16:27:59
1	Si 251.611†	80888.8	80758.5	2565.8	ug/L	2565.8	ppb	16:27:39
1	Sn 189.927†	2878.7	2886.0	512.12	ug/L	512.12	ppb	16:27:59
1	Ti 334.940†	306785.6	309753.5	498.79	ug/L	498.79	ppb	16:27:39
1	Tl 190.801†	1616.3	1657.5	511.60	ug/L	511.60	ppb	16:27:59
1	U 409.014†	15342.7	17434.0	512.57	ug/L	512.57	ppb	16:27:39
1	V 292.402†	72166.7	73851.2	511.26	ug/L	511.26	ppb	16:27:39
1	Zn 213.857†	54020.2	53680.6	503.30	ug/L	503.30	ppb	16:27:39
1	SiO2†	80682.3	80529.6	5480.8	ug/L	5480.8	ppb	16:29:07
2	Sc Radial	4995.5	4995.5	99.2	%			16:26:42
2	Y RADIAL	5295.4	5295.4	97.53	%			16:26:42
2	Al 396.153Radial†	6349.7	6400.9	4913.2	ug/L	4913.2	ppb	16:26:42
2	Ca 317.933Radial†	3100.9	3105.8	4969.5	ug/L	4969.5	ppb	16:27:02
2	Fe 238.204 Radial†	587.8	583.6	5066.1	ug/L	5066.1	ppb	16:27:02
2	K 766.490 Radial†	30840.1	28495.6	5207.0	ug/L	5207.0	ppb	16:26:42
2	Mg 279.077 IEC†	155.1	154.5	5161.0	ug/L	5161.0	ppb	16:27:02
2	Na 589.592 Radial†	33113.8	34658.0	10377	ug/L	10377	ppb	16:26:42
2	Sr 421.552†	76746.9	77377.8	499.74	ug/L	499.74	ppb	16:26:42
2	Sc 361.383	840766.4	840766.4	98.635	%			16:28:05
2	Y 371.029	701355.4	701355.4	97.051	%			16:28:05
2	Ag 328.068†	111103.1	112282.2	520.19	ug/L	520.19	ppb	16:28:10
2	As 188.979†	1187.9	1227.9	534.21	ug/L	534.21	ppb	16:28:30
2	B 249.677†	23113.9	24065.6	534.52	ug/L	534.52	ppb	16:28:10
2	Ba 233.527†	64650.7	65556.6	513.08	ug/L	513.08	ppb	16:28:10
2	Be 313.107†	1314415.4	1337185.2	510.66	ug/L	510.66	ppb	16:28:05
2	Cd 226.502†	45475.1	46308.4	513.77	ug/L	513.77	ppb	16:28:10
2	Co 228.616†	24763.0	25180.3	515.52	ug/L	515.52	ppb	16:28:10
2	Cr 267.716†	45371.7	45916.1	513.96	ug/L	513.96	ppb	16:28:10
2	Cu 324.752†	173614.1	169603.8	507.14	ug/L	507.14	ppb	16:28:10
2	Mn 257.610†	451698.8	457503.0	507.54	ug/L	507.54	ppb	16:28:05
2	Mo 202.031†	7217.1	7293.2	515.85	ug/L	515.85	ppb	16:28:30
2	Ni 231.604†	20534.4	20750.6	516.38	ug/L	516.38	ppb	16:28:10

2	P 214.914†	4326.1	4156.0	2432.6 ug/L	2432.6 ppb	16:28:30
2	Pb 220.353†	4093.9	4213.9	517.67 ug/L	517.67 ppb	16:28:30
2	S 181.975 Axial†	770.8	738.5	1044.2 ug/L	1044.2 ppb	16:28:30
2	Sb 206.836†	1548.8	1542.3	546.88 ug/L	546.88 ppb	16:28:30
2	Se 196.026†	752.4	794.8	530.15 ug/L	530.15 ppb	16:28:30
2	Si 251.611†	81405.9	81981.6	2604.6 ug/L	2604.6 ppb	16:28:10
2	Sn 189.927†	2906.1	2938.6	521.41 ug/L	521.41 ppb	16:28:30
2	Ti 334.940†	309064.2	314714.5	506.77 ug/L	506.77 ppb	16:28:10
2	Tl 190.801†	1613.7	1668.9	515.09 ug/L	515.09 ppb	16:28:30
2	U 409.014†	15570.1	17797.1	523.28 ug/L	523.28 ppb	16:28:10
2	V 292.402†	72422.8	74734.4	517.41 ug/L	517.41 ppb	16:28:10
2	Zn 213.857†	54316.6	54447.8	510.51 ug/L	510.51 ppb	16:28:10
2	SiO2†	80842.8	81389.6	5539.3 ug/L	5539.3 ppb	16:29:12
3	Sc Radial	4867.2	4867.2	96.7 %		16:27:07
3	Y RADIAL	5186.1	5186.1	95.52 %		16:27:07
3	Al 396.153Radial†	6211.2	6426.4	4932.9 ug/L	4932.9 ppb	16:27:07
3	Ca 317.933Radial†	3097.6	3184.8	5096.0 ug/L	5096.0 ppb	16:27:27
3	Fe 238.204 Radial†	598.7	610.5	5298.4 ug/L	5298.4 ppb	16:27:27
3	K 766.490 Radial†	30160.6	28611.9	5228.3 ug/L	5228.3 ppb	16:27:07
3	Mg 279.077 IEC†	154.4	157.9	5274.8 ug/L	5274.8 ppb	16:27:27
3	Na 589.592 Radial†	32127.1	34516.9	10335 ug/L	10335 ppb	16:27:07
3	Sr 421.552†	74900.1	77506.1	500.57 ug/L	500.57 ppb	16:27:07
3	Sc 361.383	837940.2	837940.2	98.304 %		16:28:36
3	Y 371.029	699451.1	699451.1	96.787 %		16:28:36
3	Ag 328.068†	110448.3	111996.0	518.94 ug/L	518.94 ppb	16:28:41
3	As 188.979†	1184.4	1228.4	534.49 ug/L	534.49 ppb	16:29:01
3	B 249.677†	22973.9	24002.1	533.09 ug/L	533.09 ppb	16:28:41
3	Ba 233.527†	64324.5	65445.8	512.22 ug/L	512.22 ppb	16:28:41
3	Be 313.107†	1306491.0	1333618.5	509.30 ug/L	509.30 ppb	16:28:36
3	Cd 226.502†	45097.9	46080.1	511.21 ug/L	511.21 ppb	16:28:41
3	Co 228.616†	24563.8	25062.3	513.10 ug/L	513.10 ppb	16:28:41
3	Cr 267.716†	45147.3	45843.0	513.15 ug/L	513.15 ppb	16:28:41
3	Cu 324.752†	172911.7	169482.9	506.79 ug/L	506.79 ppb	16:28:41
3	Mn 257.610†	449517.1	456828.2	506.82 ug/L	506.82 ppb	16:28:36
3	Mo 202.031†	7164.5	7264.4	513.83 ug/L	513.83 ppb	16:29:01
3	Ni 231.604†	20294.3	20576.4	512.05 ug/L	512.05 ppb	16:28:41
3	P 214.914†	4263.9	4107.6	2402.8 ug/L	2402.8 ppb	16:29:01
3	Pb 220.353†	4036.0	4169.0	512.15 ug/L	512.15 ppb	16:29:01
3	S 181.975 Axial†	751.6	721.5	1020.2 ug/L	1020.2 ppb	16:29:01
3	Sb 206.836†	1536.8	1535.4	544.40 ug/L	544.40 ppb	16:29:01
3	Se 196.026†	749.9	794.8	530.91 ug/L	530.91 ppb	16:29:01
3	Si 251.611†	80849.5	81694.0	2595.5 ug/L	2595.5 ppb	16:28:41
3	Sn 189.927†	2867.3	2909.1	516.20 ug/L	516.20 ppb	16:29:01
3	Ti 334.940†	307295.1	313971.7	505.58 ug/L	505.58 ppb	16:28:41
3	Tl 190.801†	1599.9	1660.3	512.46 ug/L	512.46 ppb	16:29:01
3	U 409.014†	15506.0	17785.2	522.91 ug/L	522.91 ppb	16:28:41
3	V 292.402†	72025.9	74578.3	516.29 ug/L	516.29 ppb	16:28:41
3	Zn 213.857†	53817.0	54125.4	507.46 ug/L	507.46 ppb	16:28:41
3	SiO2†	81333.2	82164.9	5592.3 ug/L	5592.3 ppb	16:29:17

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	842233.4	98.808	%	0.6083				0.62%
Sc Radial	4902.8	97.4	%	1.61				1.65%
Y 371.029	702690.8	97.236	%	0.5639				0.58%
Y RADIAL	5225.0	96.24	%	1.125				1.17%
Ag 328.068†	111649.6	517.31	ug/L	3.950	517.31	ppb	3.950	0.76%
QC value within limits for Ag 328.068 Recovery = 103.46%								
Al 396.153Radial†	6411.6	4921.6	ug/L	10.20	4921.6	ppb	10.20	0.21%
QC value within limits for Al 396.153Radial Recovery = 98.43%								
As 188.979†	1229.9	535.11	ug/L	1.313	535.11	ppb	1.313	0.25%
QC value within limits for As 188.979 Recovery = 107.02%								
B 249.677†	23901.8	530.87	ug/L	5.138	530.87	ppb	5.138	0.97%
QC value within limits for B 249.677 Recovery = 106.17%								
Ba 233.527†	65168.3	510.05	ug/L	4.527	510.05	ppb	4.527	0.89%
QC value within limits for Ba 233.527 Recovery = 102.01%								
Be 313.107†	1336921.5	510.55	ug/L	1.204	510.55	ppb	1.204	0.24%
QC value within limits for Be 313.107 Recovery = 102.11%								
Ca 317.933Radial†	3164.3	5063.1	ug/L	82.24	5063.1	ppb	82.24	1.62%

QC value within limits for Ca 317.933Radial Recovery = 101.26%

Cd 226.502†	46030.6	510.67 ug/L	3.403	510.67 ppb	3.403	0.67%

QC value within limits for Cd 226.502 Recovery = 102.13%

Co 228.616†	24991.1	511.64 ug/L	4.770	511.64 ppb	4.770	0.93%

QC value within limits for Co 228.616 Recovery = 102.33%

Cr 267.716†	45707.5	511.63 ug/L	3.357	511.63 ppb	3.357	0.66%

QC value within limits for Cr 267.716 Recovery = 102.33%

Cu 324.752†	168639.0	504.26 ug/L	4.682	504.26 ppb	4.682	0.93%

QC value within limits for Cu 324.752 Recovery = 100.85%

Fe 238.204 Radial†	599.6	5204.7 ug/L	122.48	5204.7 ppb	122.48	2.35%

QC value within limits for Fe 238.204 Radial Recovery = 104.09%

K 766.490 Radial†	28705.9	5245.5 ug/L	49.45	5245.5 ppb	49.45	0.94%

QC value within limits for K 766.490 Radial Recovery = 104.91%

Mg 279.077 IEC†	157.1	5250.5 ug/L	80.16	5250.5 ppb	80.16	1.53%

QC value within limits for Mg 279.077 IEC Recovery = 105.01%

Mn 257.610†	457426.5	507.47 ug/L	0.621	507.47 ppb	0.621	0.12%

QC value within limits for Mn 257.610 Recovery = 101.49%

Mo 202.031†	7255.4	513.19 ug/L	3.030	513.19 ppb	3.030	0.59%

QC value within limits for Mo 202.031 Recovery = 102.64%

Na 589.592 Radial†	34726.2	10397 ug/L	75.0	10397 ppb	75.0	0.72%

QC value within limits for Na 589.592 Radial Recovery = 103.97%

Ni 231.604†	20583.5	512.22 ug/L	4.072	512.22 ppb	4.072	0.79%

QC value within limits for Ni 231.604 Recovery = 102.44%

P 214.914†	4120.3	2411.2 ug/L	18.68	2411.2 ppb	18.68	0.77%

QC value within limits for P 214.914 Recovery = 96.45%

Pb 220.353†	4170.8	512.38 ug/L	5.177	512.38 ppb	5.177	1.01%

QC value within limits for Pb 220.353 Recovery = 102.48%

S 181.975 Axial†	727.9	1029.1 ug/L	13.10	1029.1 ppb	13.10	1.27%

QC value within limits for S 181.975 Axial Recovery = 102.91%

Sb 206.836†	1533.2	543.64 ug/L	3.678	543.64 ppb	3.678	0.68%

QC value within limits for Sb 206.836 Recovery = 108.73%

Se 196.026†	789.7	527.31 ug/L	5.594	527.31 ppb	5.594	1.06%

QC value within limits for Se 196.026 Recovery = 105.46%

Si 251.611†	81478.0	2588.6 ug/L	20.33	2588.6 ppb	20.33	0.79%

QC value within limits for Si 251.611 Recovery = 103.55%

Sn 189.927†	2911.2	516.58 ug/L	4.655	516.58 ppb	4.655	0.90%

QC value within limits for Sn 189.927 Recovery = 103.32%

Sr 421.552†	77508.0	500.58 ug/L	0.847	500.58 ppb	0.847	0.17%

QC value within limits for Sr 421.552 Recovery = 100.12%

Ti 334.940†	312813.2	503.71 ug/L	4.305	503.71 ppb	4.305	0.85%

QC value within limits for Ti 334.940 Recovery = 100.74%

Tl 190.801†	1662.2	513.05 ug/L	1.814	513.05 ppb	1.814	0.35%

QC value within limits for Tl 190.801 Recovery = 102.61%

U 409.014†	17672.1	519.59 ug/L	6.082	519.59 ppb	6.082	1.17%

QC value within limits for U 409.014 Recovery = 103.92%

V 292.402†	74388.0	514.99 ug/L	3.275	514.99 ppb	3.275	0.64%

QC value within limits for V 292.402 Recovery = 103.00%

Zn 213.857†	54084.6	507.09 ug/L	3.620	507.09 ppb	3.620	0.71%

QC value within limits for Zn 213.857 Recovery = 101.42%

SiO2†	81361.4	5537.4 ug/L	55.76	5537.4 ppb	55.76	1.01%

QC value within limits for SiO2 Recovery = 103.55%

All analyte(s) passed QC.

Sequence No.: 14
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 1/11/2010 16:31:27
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4938.2	4938.2	98.1	%			16:33:19
1	Y RADIAL	5358.4	5358.4	98.69	%			16:33:19
1	Al 396.153Radial†	-7.9	-7.4	-5.7335	ug/L	-5.7335	ppb	16:33:19
1	Ca 317.933Radial†	10.0	-9.6	-15.283	ug/L	-15.283	ppb	16:33:39
1	Fe 238.204 Radial†	9.0	0.3	2.1671	ug/L	2.1671	ppb	16:33:39
1	K 766.490 Radial†	3304.7	779.5	142.91	ug/L	142.91	ppb	16:33:19
1	Mg 279.077 IEC†	1.5	-0.4	-13.724	ug/L	-13.724	ppb	16:33:39
1	Na 589.592 Radial†	-1067.3	192.1	57.530	ug/L	57.530	ppb	16:33:19
1	Sr 421.552†	12.7	32.4	0.2097	ug/L	0.2097	ppb	16:33:19
1	Sc 361.383	830550.2	830550.2	97.437	%			16:34:36
1	Y 371.029	705478.2	705478.2	97.621	%			16:34:36
1	Ag 328.068†	391.2	43.5	0.2013	ug/L	0.2013	ppb	16:34:36
1	As 188.979†	3.6	27.3	11.834	ug/L	11.834	ppb	16:34:56
1	B 249.677†	142.2	777.8	17.341	ug/L	17.341	ppb	16:34:56
1	Ba 233.527†	-10.2	0.9	0.0055	ug/L	0.0055	ppb	16:34:56
1	Be 313.107†	-4533.5	-67.4	-0.0260	ug/L	-0.0260	ppb	16:34:36
1	Cd 226.502†	-171.4	28.2	0.3122	ug/L	0.3122	ppb	16:34:56
1	Co 228.616†	-91.6	-19.3	-0.3939	ug/L	-0.3939	ppb	16:34:56
1	Cr 267.716†	79.4	-1.8	-0.0200	ug/L	-0.0200	ppb	16:34:56
1	Cu 324.752†	6362.6	117.8	0.3542	ug/L	0.3542	ppb	16:34:36
1	Mn 257.610†	432.1	-1.4	-0.0007	ug/L	-0.0007	ppb	16:34:56
1	Mo 202.031†	28.8	5.8	0.4111	ug/L	0.4111	ppb	16:34:56
1	Ni 231.604†	68.4	2.3	0.0570	ug/L	0.0570	ppb	16:34:56
1	P 214.914†	221.9	-2.1	-1.3602	ug/L	-1.3602	ppb	16:34:56
1	Pb 220.353†	-25.0	37.7	4.6186	ug/L	4.6186	ppb	16:34:56
1	S 181.975 Axial†	43.3	1.4	1.9669	ug/L	1.9669	ppb	16:34:56
1	Sb 206.836†	63.9	37.6	12.917	ug/L	12.917	ppb	16:34:56
1	Se 196.026†	-34.5	-3.4	-2.2073	ug/L	-2.2073	ppb	16:34:56
1	Si 251.611†	585.6	50.5	1.6034	ug/L	1.6034	ppb	16:34:56
1	Sn 189.927†	8.8	1.3	0.2337	ug/L	0.2337	ppb	16:34:56
1	Ti 334.940†	-1415.5	-78.3	-0.1252	ug/L	-0.1252	ppb	16:34:36
1	Tl 190.801†	-35.1	-3.1	-0.9555	ug/L	-0.9555	ppb	16:34:56
1	U 409.014†	-2070.6	-113.5	-3.3477	ug/L	-3.3477	ppb	16:34:36
1	V 292.402†	-1380.6	-107.2	-0.7326	ug/L	-0.7326	ppb	16:34:36
1	Zn 213.857†	695.8	93.8	0.8864	ug/L	0.8864	ppb	16:34:56
1	SiO2†	660.4	106.1	7.2291	ug/L	7.2291	ppb	16:35:52
2	Sc Radial	4977.1	4977.1	98.8	%			16:33:44
2	Y RADIAL	5379.5	5379.5	99.08	%			16:33:44
2	Al 396.153Radial†	16.4	17.3	13.346	ug/L	13.346	ppb	16:33:44
2	Ca 317.933Radial†	13.4	-6.2	-9.9695	ug/L	-9.9695	ppb	16:34:05
2	Fe 238.204 Radial†	9.2	0.4	3.5666	ug/L	3.5666	ppb	16:34:05
2	K 766.490 Radial†	3248.7	696.5	127.69	ug/L	127.69	ppb	16:33:44
2	Mg 279.077 IEC†	1.8	-0.1	-2.8814	ug/L	-2.8814	ppb	16:34:05
2	Na 589.592 Radial†	-1037.9	230.4	68.993	ug/L	68.993	ppb	16:33:44
2	Sr 421.552†	29.1	49.0	0.3163	ug/L	0.3163	ppb	16:33:44
2	Sc 361.383	846971.0	846971.0	99.363	%			16:35:02
2	Y 371.029	719409.4	719409.4	99.549	%			16:35:02
2	Ag 328.068†	221.3	-135.3	-0.6237	ug/L	-0.6237	ppb	16:35:02
2	As 188.979†	-11.7	11.8	5.1352	ug/L	5.1352	ppb	16:35:22
2	B 249.677†	108.6	741.1	16.522	ug/L	16.522	ppb	16:35:22
2	Ba 233.527†	-17.9	-6.6	-0.0524	ug/L	-0.0524	ppb	16:35:22
2	Be 313.107†	-4604.5	-48.6	-0.0186	ug/L	-0.0186	ppb	16:35:02
2	Cd 226.502†	-183.7	19.2	0.2130	ug/L	0.2130	ppb	16:35:22
2	Co 228.616†	-83.3	-9.2	-0.1902	ug/L	-0.1902	ppb	16:35:22
2	Cr 267.716†	104.3	21.7	0.2422	ug/L	0.2422	ppb	16:35:22
2	Cu 324.752†	6577.4	207.3	0.6197	ug/L	0.6197	ppb	16:35:02
2	Mn 257.610†	434.9	-7.1	-0.0074	ug/L	-0.0074	ppb	16:35:22
2	Mo 202.031†	13.5	-10.2	-0.7188	ug/L	-0.7188	ppb	16:35:22
2	Ni 231.604†	74.8	7.3	0.1816	ug/L	0.1816	ppb	16:35:22

2	P 214.914†	222.0	-6.4	-4.0468 ug/L	-4.0468 ppb	16:35:22
2	Pb 220.353†	-52.1	10.9	1.3325 ug/L	1.3325 ppb	16:35:22
2	S 181.975 Axial†	46.0	3.3	4.6311 ug/L	4.6311 ppb	16:35:22
2	Sb 206.836†	60.8	33.2	11.395 ug/L	11.395 ppb	16:35:22
2	Se 196.026†	-27.3	4.5	2.9119 ug/L	2.9119 ppb	16:35:22
2	Si 251.611†	593.5	46.8	1.5009 ug/L	1.5009 ppb	16:35:22
2	Sn 189.927†	12.7	5.1	0.9018 ug/L	0.9018 ppb	16:35:22
2	Ti 334.940†	-1383.5	-17.9	-0.0302 ug/L	-0.0302 ppb	16:35:02
2	Tl 190.801†	-42.6	-10.0	-3.0756 ug/L	-3.0756 ppb	16:35:22
2	U 409.014†	-1968.8	30.2	0.8911 ug/L	0.8911 ppb	16:35:02
2	V 292.402†	-1349.2	-48.1	-0.3383 ug/L	-0.3383 ppb	16:35:02
2	Zn 213.857†	694.8	79.0	0.7452 ug/L	0.7452 ppb	16:35:22
2	SiO2†	603.2	35.4	2.4352 ug/L	2.4352 ppb	16:35:57
3	Sc Radial	4936.5	4936.5	98.0 %		16:34:10
3	Y RADIAL	5325.3	5325.3	98.08 %		16:34:10
3	Al 396.153Radial†	2.6	3.3	2.5634 ug/L	2.5634 ppb	16:34:10
3	Ca 317.933Radial†	13.6	-5.9	-9.3960 ug/L	-9.3960 ppb	16:34:30
3	Fe 238.204 Radial†	8.6	-0.1	-1.1579 ug/L	-1.1579 ppb	16:34:30
3	K 766.490 Radial†	3161.3	634.5	116.32 ug/L	116.32 ppb	16:34:10
3	Mg 279.077 IEC†	-1.9	-3.9	-129.81 ug/L	-129.81 ppb	16:34:30
3	Na 589.592 Radial†	-1104.9	153.5	45.952 ug/L	45.952 ppb	16:34:10
3	Sr 421.552†	-31.9	-13.0	-0.0842 ug/L	-0.0842 ppb	16:34:10
3	Sc 361.383	840442.8	840442.8	98.597 %		16:35:27
3	Y 371.029	714287.5	714287.5	98.840 %		16:35:27
3	Ag 328.068†	305.1	-48.6	-0.2213 ug/L	-0.2213 ppb	16:35:27
3	As 188.979†	-10.0	13.5	5.8431 ug/L	5.8431 ppb	16:35:47
3	B 249.677†	74.6	707.5	15.773 ug/L	15.773 ppb	16:35:47
3	Ba 233.527†	-12.8	-1.6	-0.0126 ug/L	-0.0126 ppb	16:35:47
3	Be 313.107†	-4499.3	22.0	0.0083 ug/L	0.0083 ppb	16:35:27
3	Cd 226.502†	-176.2	25.4	0.2813 ug/L	0.2813 ppb	16:35:47
3	Co 228.616†	-88.4	-15.0	-0.3063 ug/L	-0.3063 ppb	16:35:47
3	Cr 267.716†	95.4	13.5	0.1525 ug/L	0.1525 ppb	16:35:47
3	Cu 324.752†	6418.3	97.4	0.2934 ug/L	0.2934 ppb	16:35:27
3	Mn 257.610†	440.8	2.2	0.0076 ug/L	0.0076 ppb	16:35:47
3	Mo 202.031†	23.3	-0.1	-0.0083 ug/L	-0.0083 ppb	16:35:47
3	Ni 231.604†	78.6	11.8	0.2929 ug/L	0.2929 ppb	16:35:47
3	P 214.914†	214.4	-12.4	-7.6292 ug/L	-7.6292 ppb	16:35:47
3	Pb 220.353†	-53.3	9.3	1.1359 ug/L	1.1359 ppb	16:35:47
3	S 181.975 Axial†	47.1	4.7	6.6920 ug/L	6.6920 ppb	16:35:47
3	Sb 206.836†	52.6	25.4	8.7048 ug/L	8.7048 ppb	16:35:47
3	Se 196.026†	-39.6	-8.2	-5.2896 ug/L	-5.2896 ppb	16:35:47
3	Si 251.611†	561.4	19.0	0.6040 ug/L	0.6040 ppb	16:35:47
3	Sn 189.927†	10.8	3.3	0.5891 ug/L	0.5891 ppb	16:35:47
3	Ti 334.940†	-1374.1	-19.1	-0.0195 ug/L	-0.0195 ppb	16:35:27
3	Tl 190.801†	-30.3	2.1	0.6498 ug/L	0.6498 ppb	16:35:47
3	U 409.014†	-2124.1	-142.7	-4.2104 ug/L	-4.2104 ppb	16:35:27
3	V 292.402†	-1316.1	-25.1	-0.1819 ug/L	-0.1819 ppb	16:35:27
3	Zn 213.857†	697.1	86.8	0.8190 ug/L	0.8190 ppb	16:35:47
3	SiO2†	583.7	20.4	1.3897 ug/L	1.3897 ppb	16:36:02

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	839321.3	98.466	%	0.9699				0.99%
Sc Radial	4950.6	98.3	%	0.46				0.46%
Y 371.029	713058.4	98.670	%	0.9751				0.99%
Y RADIAL	5354.4	98.62	%	0.504				0.51%
Ag 328.068†	-46.8	-0.2146	ug/L	0.41254	-0.2146	ppb	0.41254	192.26%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	4.4	3.3920	ug/L	9.56669	3.3920	ppb	9.56669	282.04%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	17.5	7.6040	ug/L	3.68017	7.6040	ppb	3.68017	48.40%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	742.1	16.545	ug/L	0.7845	16.545	ppb	0.7845	4.74%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-2.4	-0.0198	ug/L	0.02961	-0.0198	ppb	0.02961	149.50%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-31.3	-0.0121	ug/L	0.01804	-0.0121	ppb	0.01804	149.45%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-7.2	-11.549	ug/L	3.2460	-11.549	ppb	3.2460	28.10%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              24.3      0.2688 ug/L       0.05076      0.2688 ppb        0.05076  18.88%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†             -14.5     -0.2968 ug/L       0.10215     -0.2968 ppb        0.10215  34.42%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              11.2      0.1249 ug/L       0.13322      0.1249 ppb        0.13322 106.68%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             140.8      0.4225 ug/L       0.17351      0.4225 ppb        0.17351  41.07%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        0.2      1.5253 ug/L       2.42676      1.5253 ppb        2.42676 159.11%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       703.5      128.97 ug/L        13.341      128.97 ppb         13.341  10.34%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          -1.5     -48.807 ug/L       70.3643     -48.807 ppb        70.3643 144.17%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              -2.1     -0.0002 ug/L       0.00752     -0.0002 ppb        0.00752 >999.9%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              -1.5     -0.1053 ug/L       0.57117     -0.1053 ppb        0.57117 542.32%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      192.0      57.491 ug/L       11.5206      57.491 ppb        11.5206  20.04%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               7.1      0.1771 ug/L       0.11803      0.1771 ppb        0.11803  66.63%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -7.0     -4.3454 ug/L       3.14512     -4.3454 ppb        3.14512  72.38%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              19.3      2.3624 ug/L       1.95644      2.3624 ppb        1.95644  82.82%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          3.1      4.4300 ug/L       2.36900      4.4300 ppb        2.36900  53.48%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              32.1      11.006 ug/L        2.1330      11.006 ppb         2.1330  19.38%
   QC value greater than the upper limit for Sb 206.836  Recovery = Not calculated
Se 196.026†              -2.4     -1.5283 ug/L       4.14268     -1.5283 ppb        4.14268 271.06%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†              38.8      1.2361 ug/L       0.54983      1.2361 ppb        0.54983  44.48%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               3.3      0.5749 ug/L       0.33426      0.5749 ppb        0.33426  58.15%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              22.8      0.1473 ug/L       0.20740      0.1473 ppb        0.20740 140.84%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             -38.4     -0.0583 ug/L       0.05820     -0.0583 ppb        0.05820  99.84%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -3.7     -1.1271 ug/L       1.86864     -1.1271 ppb        1.86864 165.79%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              -75.3     -2.2223 ug/L       2.73056     -2.2223 ppb        2.73056 122.87%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              -60.2     -0.4176 ug/L       0.28376     -0.4176 ppb        0.28376  67.95%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              86.6      0.8169 ug/L       0.07064      0.8169 ppb        0.07064   8.65%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                    54.0      3.6847 ug/L       3.11377      3.6847 ppb        3.11377  84.51%
   QC value within limits for SiO2  Recovery = Not calculated
QC Failed.  Continue with analysis.
```

User canceled analysis.

==========

Analysis Begun

Start Time: 1/11/2010 16:38:46 **Plasma On Time: 1/11/2010 06:15:31**
Logged In Analyst: Optima3 **Technique: ICP Continuous**
Spectrometer Model: Optima 5300 DV, S/N 077C7090601Autosampler Model: S10

Sample Information File: C:\pe\Optima3\Sample Information\011110.sif
Batch ID:
Results Data Set: 011110A
Results Library: C:\pe\Optima3\Results\Results.mdb

==========

Sequence No.: 13 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 1/11/2010 16:38:48**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4882.6	4882.6	97.0	%			16:40:39
1	Y RADIAL	5223.2	5223.2	96.20	%			16:40:39
1	Al 396.153Radial†	6253.5	6449.7	4951.3	ug/L	4951.3	ppb	16:40:39
1	Ca 317.933Radial†	3059.0	3134.9	5016.2	ug/L	5016.2	ppb	16:40:59
1	Fe 238.204 Radial†	576.8	585.9	5085.4	ug/L	5085.4	ppb	16:40:59
1	K 766.490 Radial†	29412.0	27741.6	5069.0	ug/L	5069.0	ppb	16:40:39
1	Mg 279.077 IEC†	152.5	155.3	5189.7	ug/L	5189.7	ppb	16:40:59
1	Na 589.592 Radial†	31106.7	33359.8	9988.3	ug/L	9988.3	ppb	16:40:39
1	Sr 421.552†	73905.9	76236.5	492.37	ug/L	492.37	ppb	16:40:39
1	Sc 361.383	845780.1	845780.1	99.224	%			16:41:57
1	Y 371.029	705843.2	705843.2	97.672	%			16:41:57
1	Ag 328.068†	108502.2	108993.2	505.01	ug/L	505.01	ppb	16:42:02
1	As 188.979†	1129.0	1161.4	505.37	ug/L	505.37	ppb	16:42:22
1	B 249.677†	21566.4	22367.0	496.70	ug/L	496.70	ppb	16:42:02
1	Ba 233.527†	63263.6	63770.0	499.11	ug/L	499.11	ppb	16:42:02
1	Be 313.107†	1321061.2	1335983.3	510.17	ug/L	510.17	ppb	16:41:57
1	Cd 226.502†	44316.2	44867.1	497.76	ug/L	497.76	ppb	16:42:02
1	Co 228.616†	24190.7	24454.7	500.68	ug/L	500.68	ppb	16:42:02
1	Cr 267.716†	44404.7	44668.9	500.01	ug/L	500.01	ppb	16:42:02
1	Cu 324.752†	169480.5	164394.5	491.57	ug/L	491.57	ppb	16:42:02
1	Mn 257.610†	453830.1	456936.2	506.92	ug/L	506.92	ppb	16:41:57
1	Mo 202.031†	7137.7	7169.9	507.13	ug/L	507.13	ppb	16:42:22
1	Ni 231.604†	20031.9	20120.7	500.71	ug/L	500.71	ppb	16:42:02
1	P 214.914†	4274.5	4078.1	2388.2	ug/L	2388.2	ppb	16:42:22
1	Pb 220.353†	4005.5	4100.2	503.74	ug/L	503.74	ppb	16:42:22
1	S 181.975 Axial†	759.0	721.9	1020.7	ug/L	1020.7	ppb	16:42:22
1	Sb 206.836†	1494.6	1478.4	524.59	ug/L	524.59	ppb	16:42:22
1	Se 196.026†	743.3	781.1	521.36	ug/L	521.36	ppb	16:42:22
1	Si 251.611†	79232.2	79301.7	2519.4	ug/L	2519.4	ppb	16:42:02
1	Sn 189.927†	2850.0	2864.7	508.32	ug/L	508.32	ppb	16:42:22
1	Ti 334.940†	301952.2	305689.3	492.24	ug/L	492.24	ppb	16:42:02
1	Tl 190.801†	1587.5	1632.8	503.99	ug/L	503.99	ppb	16:42:22
1	U 409.014†	14919.9	17048.3	501.22	ug/L	501.22	ppb	16:42:02
1	V 292.402†	70898.2	72762.7	503.80	ug/L	503.80	ppb	16:42:02
1	Zn 213.857†	52974.0	52768.2	494.74	ug/L	494.74	ppb	16:42:02
1	SiO2†	80240.9	80297.0	5465.0	ug/L	5465.0	ppb	16:43:29
2	Sc Radial	4869.0	4869.0	96.7	%			16:41:04
2	Y RADIAL	5223.7	5223.7	96.21	%			16:41:04
2	Al 396.153Radial†	6219.1	6432.2	4937.9	ug/L	4937.9	ppb	16:41:04
2	Ca 317.933Radial†	3097.5	3183.6	5094.0	ug/L	5094.0	ppb	16:41:24
2	Fe 238.204 Radial†	583.9	595.0	5164.1	ug/L	5164.1	ppb	16:41:24
2	K 766.490 Radial†	29527.0	27945.4	5106.4	ug/L	5106.4	ppb	16:41:04
2	Mg 279.077 IEC†	150.3	153.5	5129.5	ug/L	5129.5	ppb	16:41:24
2	Na 589.592 Radial†	31283.3	33632.3	10070	ug/L	10070	ppb	16:41:04
2	Sr 421.552†	74177.7	76730.8	495.56	ug/L	495.56	ppb	16:41:04
2	Sc 361.383	857147.9	857147.9	100.56	%			16:42:28

2	Y 371.029	715084.0	715084.0	98.951 %		16:42:28
2	Ag 328.068†	110354.2	109384.7	506.84 ug/L	506.84 ppb	16:42:33
2	As 188.979†	1145.2	1162.5	505.84 ug/L	505.84 ppb	16:42:53
2	B 249.677†	21931.9	22442.2	498.36 ug/L	498.36 ppb	16:42:33
2	Ba 233.527†	64151.9	63807.8	499.41 ug/L	499.41 ppb	16:42:33
2	Be 313.107†	1333477.0	1330672.9	508.14 ug/L	508.14 ppb	16:42:28
2	Cd 226.502†	45190.4	45144.1	500.82 ug/L	500.82 ppb	16:42:33
2	Co 228.616†	24545.1	24483.7	501.26 ug/L	501.26 ppb	16:42:33
2	Cr 267.716†	45142.8	44809.4	501.58 ug/L	501.58 ppb	16:42:33
2	Cu 324.752†	172257.5	164890.7	493.06 ug/L	493.06 ppb	16:42:33
2	Mn 257.610†	457824.2	454842.3	504.61 ug/L	504.61 ppb	16:42:28
2	Mo 202.031†	7181.0	7117.5	503.44 ug/L	503.44 ppb	16:42:53
2	Ni 231.604†	20361.3	20180.5	502.20 ug/L	502.20 ppb	16:42:33
2	P 214.914†	4307.4	4053.6	2372.8 ug/L	2372.8 ppb	16:42:53
2	Pb 220.353†	4036.2	4077.2	500.90 ug/L	500.90 ppb	16:42:53
2	S 181.975 Axial†	759.0	711.8	1006.4 ug/L	1006.4 ppb	16:42:53
2	Sb 206.836†	1502.1	1465.8	520.15 ug/L	520.15 ppb	16:42:53
2	Se 196.026†	747.7	775.6	518.03 ug/L	518.03 ppb	16:42:53
2	Si 251.611†	80567.2	79570.2	2528.0 ug/L	2528.0 ppb	16:42:33
2	Sn 189.927†	2863.5	2839.9	503.95 ug/L	503.95 ppb	16:42:53
2	Ti 334.940†	306689.7	306364.7	493.34 ug/L	493.34 ppb	16:42:33
2	Tl 190.801†	1602.6	1626.5	502.07 ug/L	502.07 ppb	16:42:53
2	U 409.014†	15377.6	17304.0	508.75 ug/L	508.75 ppb	16:42:33
2	V 292.402†	71992.3	72903.1	504.70 ug/L	504.70 ppb	16:42:33
2	Zn 213.857†	53815.4	52897.0	495.94 ug/L	495.94 ppb	16:42:33
2	SiO2†	79728.2	78714.7	5357.1 ug/L	5357.1 ppb	16:43:34
3	Sc Radial	4810.3	4810.3	95.5 %		16:41:30
3	Y RADIAL	5124.6	5124.6	94.38 %		16:41:30
3	Al 396.153Radial†	6306.8	6602.6	5068.9 ug/L	5068.9 ppb	16:41:30
3	Ca 317.933Radial†	3080.5	3204.9	5128.1 ug/L	5128.1 ppb	16:41:50
3	Fe 238.204 Radial†	588.4	607.0	5268.5 ug/L	5268.5 ppb	16:41:50
3	K 766.490 Radial†	29544.2	28336.3	5177.8 ug/L	5177.8 ppb	16:41:30
3	Mg 279.077 IEC†	157.6	163.1	5449.4 ug/L	5449.4 ppb	16:41:50
3	Na 589.592 Radial†	31435.3	34186.5	10236 ug/L	10236 ppb	16:41:30
3	Sr 421.552†	74786.5	78305.0	505.73 ug/L	505.73 ppb	16:41:30
3	Sc 361.383	839569.1	839569.1	98.495 %		16:42:59
3	Y 371.029	700329.4	700329.4	96.909 %		16:42:59
3	Ag 328.068†	110088.2	111412.4	516.24 ug/L	516.24 ppb	16:43:04
3	As 188.979†	1138.0	1179.0	513.05 ug/L	513.05 ppb	16:43:24
3	B 249.677†	22005.5	22973.6	510.17 ug/L	510.17 ppb	16:43:04
3	Ba 233.527†	64098.3	65089.1	509.43 ug/L	509.43 ppb	16:43:04
3	Be 313.107†	1304992.4	1329518.6	507.73 ug/L	507.73 ppb	16:42:59
3	Cd 226.502†	45083.5	45976.5	510.06 ug/L	510.06 ppb	16:43:04
3	Co 228.616†	24559.1	25009.1	512.01 ug/L	512.01 ppb	16:43:04
3	Cr 267.716†	44972.2	45576.1	510.17 ug/L	510.17 ppb	16:43:04
3	Cu 324.752†	172089.4	168306.7	503.27 ug/L	503.27 ppb	16:43:04
3	Mn 257.610†	449125.2	455543.1	505.38 ug/L	505.38 ppb	16:42:59
3	Mo 202.031†	7174.4	7260.3	513.54 ug/L	513.54 ppb	16:43:24
3	Ni 231.604†	20313.7	20556.1	511.54 ug/L	511.54 ppb	16:43:04
3	P 214.914†	4293.6	4129.3	2416.9 ug/L	2416.9 ppb	16:43:24
3	Pb 220.353†	4030.2	4155.2	510.49 ug/L	510.49 ppb	16:43:24
3	S 181.975 Axial†	757.6	726.1	1026.6 ug/L	1026.6 ppb	16:43:24
3	Sb 206.836†	1500.4	1495.4	530.64 ug/L	530.64 ppb	16:43:24
3	Se 196.026†	746.7	790.1	527.77 ug/L	527.77 ppb	16:43:24
3	Si 251.611†	80487.4	81166.8	2578.7 ug/L	2578.7 ppb	16:43:04
3	Sn 189.927†	2857.0	2893.0	513.35 ug/L	513.35 ppb	16:43:24
3	Ti 334.940†	306093.6	312145.3	502.63 ug/L	502.63 ppb	16:43:04
3	Tl 190.801†	1601.4	1658.8	511.96 ug/L	511.96 ppb	16:43:24
3	U 409.014†	15311.6	17557.2	516.19 ug/L	516.19 ppb	16:43:04
3	V 292.402†	71844.9	74252.4	514.06 ug/L	514.06 ppb	16:43:04
3	Zn 213.857†	53742.9	53943.9	505.76 ug/L	505.76 ppb	16:43:04
3	SiO2†	80273.2	80928.1	5507.9 ug/L	5507.9 ppb	16:43:40

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	847499.0	99.425	%	1.0458				1.05%
Sc Radial	4854.0	96.4	%	0.76				0.79%
Y 371.029	707085.5	97.844	%	1.0316				1.05%
Y RADIAL	5190.5	95.60	%	1.052				1.10%

```
Ag 328.068†          109930.1      509.36 ug/L        6.024      509.36 ppb        6.024   1.18%
   QC value within limits for Ag 328.068  Recovery = 101.87%
Al 396.153Radial†      6494.8      4986.0 ug/L       72.07      4986.0 ppb       72.07   1.45%
   QC value within limits for Al 396.153Radial  Recovery = 99.72%
As 188.979†            1167.6      508.09 ug/L        4.305      508.09 ppb        4.305   0.85%
   QC value within limits for As 188.979  Recovery = 101.62%
B 249.677†            22594.3      501.74 ug/L        7.344      501.74 ppb        7.344   1.46%
   QC value within limits for B 249.677  Recovery = 100.35%
Ba 233.527†           64222.3      502.65 ug/L        5.877      502.65 ppb        5.877   1.17%
   QC value within limits for Ba 233.527  Recovery = 100.53%
Be 313.107†         1332058.3      508.68 ug/L        1.305      508.68 ppb        1.305   0.26%
   QC value within limits for Be 313.107  Recovery = 101.74%
Ca 317.933Radial†      3174.4      5079.4 ug/L       57.37      5079.4 ppb       57.37   1.13%
   QC value within limits for Ca 317.933Radial  Recovery = 101.59%
Cd 226.502†           45329.2      502.88 ug/L        6.403      502.88 ppb        6.403   1.27%
   QC value within limits for Cd 226.502  Recovery = 100.58%
Co 228.616†           24649.2      504.65 ug/L        6.385      504.65 ppb        6.385   1.27%
   QC value within limits for Co 228.616  Recovery = 100.93%
Cr 267.716†           45018.2      503.92 ug/L        5.466      503.92 ppb        5.466   1.08%
   QC value within limits for Cr 267.716  Recovery = 100.78%
Cu 324.752†          165864.0      495.97 ug/L        6.370      495.97 ppb        6.370   1.28%
   QC value within limits for Cu 324.752  Recovery = 99.19%
Fe 238.204 Radial†       596.0      5172.7 ug/L       91.84      5172.7 ppb       91.84   1.78%
   QC value within limits for Fe 238.204 Radial  Recovery = 103.45%
K 766.490 Radial†     28007.7      5117.7 ug/L       55.30      5117.7 ppb       55.30   1.08%
   QC value within limits for K 766.490 Radial  Recovery = 102.35%
Mg 279.077 IEC†         157.3      5256.2 ug/L      170.00      5256.2 ppb      170.00   3.23%
   QC value within limits for Mg 279.077 IEC  Recovery = 105.12%
Mn 257.610†          455773.9      505.64 ug/L        1.176      505.64 ppb        1.176   0.23%
   QC value within limits for Mn 257.610  Recovery = 101.13%
Mo 202.031†            7182.5      508.04 ug/L        5.112      508.04 ppb        5.112   1.01%
   QC value within limits for Mo 202.031  Recovery = 101.61%
Na 589.592 Radial†    33726.2       10098 ug/L      126.1        10098 ppb      126.1   1.25%
   QC value within limits for Na 589.592 Radial  Recovery = 100.98%
Ni 231.604†           20285.8      504.82 ug/L        5.873      504.82 ppb        5.873   1.16%
   QC value within limits for Ni 231.604  Recovery = 100.96%
P 214.914†             4087.0      2392.6 ug/L       22.36      2392.6 ppb       22.36   0.93%
   QC value within limits for P 214.914  Recovery = 95.71%
Pb 220.353†            4110.9      505.04 ug/L        4.924      505.04 ppb        4.924   0.98%
   QC value within limits for Pb 220.353  Recovery = 101.01%
S 181.975 Axial†        719.9      1017.9 ug/L       10.40      1017.9 ppb       10.40   1.02%
   QC value within limits for S 181.975 Axial  Recovery = 101.79%
Sb 206.836†            1479.9      525.12 ug/L        5.267      525.12 ppb        5.267   1.00%
   QC value within limits for Sb 206.836  Recovery = 105.02%
Se 196.026†             782.2      522.39 ug/L        4.947      522.39 ppb        4.947   0.95%
   QC value within limits for Se 196.026  Recovery = 104.48%
Si 251.611†           80012.9      2542.0 ug/L       32.06      2542.0 ppb       32.06   1.26%
   QC value within limits for Si 251.611  Recovery = 101.68%
Sn 189.927†            2865.9      508.54 ug/L        4.707      508.54 ppb        4.707   0.93%
   QC value within limits for Sn 189.927  Recovery = 101.71%
Sr 421.552†           77090.8      497.88 ug/L        6.976      497.88 ppb        6.976   1.40%
   QC value within limits for Sr 421.552  Recovery = 99.58%
Ti 334.940†          308066.5      496.07 ug/L        5.704      496.07 ppb        5.704   1.15%
   QC value within limits for Ti 334.940  Recovery = 99.21%
Tl 190.801†            1639.4      506.01 ug/L        5.246      506.01 ppb        5.246   1.04%
   QC value within limits for Tl 190.801  Recovery = 101.20%
U 409.014†            17303.2      508.72 ug/L        7.484      508.72 ppb        7.484   1.47%
   QC value within limits for U 409.014  Recovery = 101.74%
V 292.402†            73306.1      507.52 ug/L        5.678      507.52 ppb        5.678   1.12%
   QC value within limits for V 292.402  Recovery = 101.50%
Zn 213.857†           53203.0      498.81 ug/L        6.044      498.81 ppb        6.044   1.21%
   QC value within limits for Zn 213.857  Recovery = 99.76%
SiO2†                 79979.9      5443.3 ug/L       77.67      5443.3 ppb       77.67   1.43%
   QC value within limits for SiO2  Recovery = 101.79%
All analyte(s) passed QC.
```

Sequence No.: 14
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 1/11/2010 16:45:50
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4821.6	4821.6	95.8	%			16:47:42
1	Y RADIAL	5232.3	5232.3	96.37	%			16:47:42
1	Al 396.153Radial†	-11.8	-11.7	-8.9640	ug/L	-8.9640	ppb	16:47:42
1	Ca 317.933Radial†	17.7	-1.3	-2.0768	ug/L	-2.0768	ppb	16:48:02
1	Fe 238.204 Radial†	10.2	1.7	14.859	ug/L	14.859	ppb	16:48:02
1	K 766.490 Radial†	3051.9	597.0	109.49	ug/L	109.49	ppb	16:47:42
1	Mg 279.077 IEC†	1.3	-0.5	-18.276	ug/L	-18.276	ppb	16:48:02
1	Na 589.592 Radial†	-1271.9	-47.8	-14.311	ug/L	-14.311	ppb	16:47:42
1	Sr 421.552†	5.9	25.6	0.1655	ug/L	0.1655	ppb	16:47:42
1	Sc 361.383	841525.7	841525.7	98.724	%			16:48:59
1	Y 371.029	715554.7	715554.7	99.016	%			16:48:59
1	Ag 328.068†	323.2	-30.6	-0.1346	ug/L	-0.1346	ppb	16:48:59
1	As 188.979†	-18.8	4.6	2.0049	ug/L	2.0049	ppb	16:49:19
1	B 249.677†	-282.3	345.9	7.7098	ug/L	7.7098	ppb	16:49:19
1	Ba 233.527†	-12.7	-1.5	-0.0116	ug/L	-0.0116	ppb	16:49:19
1	Be 313.107†	-4552.1	-25.5	-0.0096	ug/L	-0.0096	ppb	16:48:59
1	Cd 226.502†	-186.4	15.3	0.1676	ug/L	0.1676	ppb	16:49:19
1	Co 228.616†	-84.8	-11.2	-0.2326	ug/L	-0.2326	ppb	16:49:19
1	Cr 267.716†	86.2	4.1	0.0467	ug/L	0.0467	ppb	16:49:19
1	Cu 324.752†	6436.7	107.6	0.3241	ug/L	0.3241	ppb	16:48:59
1	Mn 257.610†	416.7	-22.8	-0.0228	ug/L	-0.0228	ppb	16:49:19
1	Mo 202.031†	9.1	-14.5	-1.0240	ug/L	-1.0240	ppb	16:49:19
1	Ni 231.604†	63.7	-3.4	-0.0843	ug/L	-0.0843	ppb	16:49:19
1	P 214.914†	214.3	-12.8	-7.8928	ug/L	-7.8928	ppb	16:49:19
1	Pb 220.353†	-53.2	9.4	1.1493	ug/L	1.1493	ppb	16:49:19
1	S 181.975 Axial†	43.0	0.5	0.7238	ug/L	0.7238	ppb	16:49:19
1	Sb 206.836†	37.3	9.9	3.3534	ug/L	3.3534	ppb	16:49:19
1	Se 196.026†	-29.4	2.2	1.4795	ug/L	1.4795	ppb	16:49:19
1	Si 251.611†	537.7	-5.8	-0.1729	ug/L	-0.1729	ppb	16:49:19
1	Sn 189.927†	5.7	-1.9	-0.3300	ug/L	-0.3300	ppb	16:49:19
1	Ti 334.940†	-1328.3	29.0	0.0492	ug/L	0.0492	ppb	16:48:59
1	Tl 190.801†	-20.5	12.1	3.7103	ug/L	3.7103	ppb	16:49:19
1	U 409.014†	-2076.7	-91.9	-2.7131	ug/L	-2.7131	ppb	16:48:59
1	V 292.402†	-1322.2	-29.6	-0.2251	ug/L	-0.2251	ppb	16:48:59
1	Zn 213.857†	640.3	28.4	0.2671	ug/L	0.2671	ppb	16:49:19
1	SiO2†	524.6	-40.3	-2.7219	ug/L	-2.7219	ppb	16:50:15
2	Sc Radial	4944.4	4944.4	98.2	%			16:48:07
2	Y RADIAL	5363.5	5363.5	98.79	%			16:48:07
2	Al 396.153Radial†	-2.7	-2.1	-1.6010	ug/L	-1.6010	ppb	16:48:07
2	Ca 317.933Radial†	14.2	-5.3	-8.4304	ug/L	-8.4304	ppb	16:48:27
2	Fe 238.204 Radial†	9.3	0.6	4.8751	ug/L	4.8751	ppb	16:48:27
2	K 766.490 Radial†	2945.0	409.0	74.983	ug/L	74.983	ppb	16:48:07
2	Mg 279.077 IEC†	3.9	2.0	67.948	ug/L	67.948	ppb	16:48:27
2	Na 589.592 Radial†	-1212.0	46.2	13.819	ug/L	13.819	ppb	16:48:07
2	Sr 421.552†	0.7	20.2	0.1309	ug/L	0.1309	ppb	16:48:07
2	Sc 361.383	833346.4	833346.4	97.765	%			16:49:24
2	Y 371.029	708291.2	708291.2	98.011	%			16:49:24
2	Ag 328.068†	309.5	-41.5	-0.1903	ug/L	-0.1903	ppb	16:49:24
2	As 188.979†	-5.5	18.0	7.7871	ug/L	7.7871	ppb	16:49:44
2	B 249.677†	-299.8	325.2	7.2486	ug/L	7.2486	ppb	16:49:44
2	Ba 233.527†	-19.0	-8.0	-0.0637	ug/L	-0.0637	ppb	16:49:44
2	Be 313.107†	-4542.3	-60.8	-0.0233	ug/L	-0.0233	ppb	16:49:24
2	Cd 226.502†	-200.4	-0.9	-0.0103	ug/L	-0.0103	ppb	16:49:44
2	Co 228.616†	-78.0	-5.1	-0.1048	ug/L	-0.1048	ppb	16:49:44
2	Cr 267.716†	85.0	3.6	0.0404	ug/L	0.0404	ppb	16:49:44
2	Cu 324.752†	6402.2	136.4	0.4086	ug/L	0.4086	ppb	16:49:24
2	Mn 257.610†	421.6	-13.7	-0.0174	ug/L	-0.0174	ppb	16:49:44
2	Mo 202.031†	24.8	1.6	0.1158	ug/L	0.1158	ppb	16:49:44
2	Ni 231.604†	64.4	-2.1	-0.0527	ug/L	-0.0527	ppb	16:49:44

2	P 214.914†	234.2	9.7	5.8359 ug/L	5.8359 ppb	16:49:44
2	Pb 220.353†	-63.6	-1.7	-0.2065 ug/L	-0.2065 ppb	16:49:44
2	S 181.975 Axial†	53.0	11.2	15.884 ug/L	15.884 ppb	16:49:44
2	Sb 206.836†	37.6	10.5	3.6095 ug/L	3.6095 ppb	16:49:44
2	Se 196.026†	-27.3	4.1	2.6695 ug/L	2.6695 ppb	16:49:44
2	Si 251.611†	533.3	-4.9	-0.1584 ug/L	-0.1584 ppb	16:49:44
2	Sn 189.927†	9.7	2.2	0.3903 ug/L	0.3903 ppb	16:49:44
2	Ti 334.940†	-1379.2	-36.2	-0.0643 ug/L	-0.0643 ppb	16:49:24
2	Tl 190.801†	-43.6	-11.8	-3.6161 ug/L	-3.6161 ppb	16:49:44
2	U 409.014†	-2001.5	-35.7	-1.0528 ug/L	-1.0528 ppb	16:49:24
2	V 292.402†	-1354.0	-75.3	-0.5137 ug/L	-0.5137 ppb	16:49:24
2	Zn 213.857†	649.3	43.9	0.4145 ug/L	0.4145 ppb	16:49:44
2	SiO2†	532.3	-27.2	-1.8597 ug/L	-1.8597 ppb	16:50:20
3	Sc Radial	4889.1	4889.1	97.1 %		16:48:32
3	Y RADIAL	5263.1	5263.1	96.94 %		16:48:32
3	Al 396.153Radial†	2.7	3.5	2.6530 ug/L	2.6530 ppb	16:48:32
3	Ca 317.933Radial†	13.3	-6.1	-9.6929 ug/L	-9.6929 ppb	16:48:52
3	Fe 238.204 Radial†	10.5	1.9	16.443 ug/L	16.443 ppb	16:48:52
3	K 766.490 Radial†	2886.8	383.0	70.229 ug/L	70.229 ppb	16:48:32
3	Mg 279.077 IEC†	3.9	2.1	68.851 ug/L	68.851 ppb	16:48:52
3	Na 589.592 Radial†	-1260.2	-17.4	-5.2205 ug/L	-5.2205 ppb	16:48:32
3	Sr 421.552†	27.4	47.7	0.3082 ug/L	0.3082 ppb	16:48:32
3	Sc 361.383	840103.4	840103.4	98.558 %		16:49:50
3	Y 371.029	713031.9	713031.9	98.667 %		16:49:50
3	Ag 328.068†	251.5	-102.8	-0.4704 ug/L	-0.4704 ppb	16:49:50
3	As 188.979†	-20.0	3.4	1.4597 ug/L	1.4597 ppb	16:50:10
3	B 249.677†	-305.6	321.8	7.1715 ug/L	7.1715 ppb	16:50:10
3	Ba 233.527†	-15.5	-4.3	-0.0339 ug/L	-0.0339 ppb	16:50:10
3	Be 313.107†	-4547.9	-29.1	-0.0110 ug/L	-0.0110 ppb	16:49:50
3	Cd 226.502†	-184.4	17.0	0.1873 ug/L	0.1873 ppb	16:50:10
3	Co 228.616†	-66.0	7.7	0.1585 ug/L	0.1585 ppb	16:50:10
3	Cr 267.716†	75.0	-7.2	-0.0807 ug/L	-0.0807 ppb	16:50:10
3	Cu 324.752†	6412.0	93.7	0.2803 ug/L	0.2803 ppb	16:49:50
3	Mn 257.610†	417.7	-21.1	-0.0244 ug/L	-0.0244 ppb	16:50:10
3	Mo 202.031†	28.5	5.2	0.3676 ug/L	0.3676 ppb	16:50:10
3	Ni 231.604†	70.8	3.9	0.0977 ug/L	0.0977 ppb	16:50:10
3	P 214.914†	211.6	-15.2	-9.3652 ug/L	-9.3652 ppb	16:50:10
3	Pb 220.353†	-52.6	10.0	1.2274 ug/L	1.2274 ppb	16:50:10
3	S 181.975 Axial†	47.5	5.2	7.4133 ug/L	7.4133 ppb	16:50:10
3	Sb 206.836†	41.1	13.7	4.7078 ug/L	4.7078 ppb	16:50:10
3	Se 196.026†	-22.7	9.0	5.8487 ug/L	5.8487 ppb	16:50:10
3	Si 251.611†	539.2	-3.4	-0.1131 ug/L	-0.1131 ppb	16:50:10
3	Sn 189.927†	5.5	-2.1	-0.3663 ug/L	-0.3663 ppb	16:50:10
3	Ti 334.940†	-1325.3	29.8	0.0408 ug/L	0.0408 ppb	16:49:50
3	Tl 190.801†	-39.2	-6.9	-2.1238 ug/L	-2.1238 ppb	16:50:10
3	U 409.014†	-1943.8	39.4	1.1607 ug/L	1.1607 ppb	16:49:50
3	V 292.402†	-1337.5	-47.4	-0.3169 ug/L	-0.3169 ppb	16:49:50
3	Zn 213.857†	648.7	37.9	0.3562 ug/L	0.3562 ppb	16:50:10
3	SiO2†	528.8	-35.2	-2.4107 ug/L	-2.4107 ppb	16:50:25

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	838325.1	98.349	%	0.5127				0.52%
Sc Radial	4885.1	97.0	%	1.22				1.26%
Y 371.029	712292.6	98.564	%	0.5103				0.52%
Y RADIAL	5286.3	97.36	%	1.264				1.30%
Ag 328.068†	-58.3	-0.2651	ug/L	0.17994	-0.2651	ppb	0.17994	67.88%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-3.4	-2.6374	ug/L	5.87742	-2.6374	ppb	5.87742	222.85%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	8.6	3.7505	ug/L	3.50634	3.7505	ppb	3.50634	93.49%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	330.9	7.3766	ug/L	0.29109	7.3766	ppb	0.29109	3.95%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-4.6	-0.0364	ug/L	0.02618	-0.0364	ppb	0.02618	71.94%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-38.5	-0.0146	ug/L	0.00753	-0.0146	ppb	0.00753	51.48%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-4.2	-6.7334	ug/L	4.08178	-6.7334	ppb	4.08178	60.62%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              10.5      0.1149 ug/L       0.10883      0.1149 ppb        0.10883  94.73%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†              -2.9     -0.0596 ug/L       0.19944     -0.0596 ppb        0.19944 334.48%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†               0.2      0.0021 ug/L       0.07181      0.0021 ppb        0.07181 >999.9%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             112.5      0.3376 ug/L       0.06521      0.3376 ppb        0.06521  19.31%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        1.4      12.059 ug/L        6.2716      12.059 ppb         6.2716  52.01%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       463.0      84.900 ug/L       21.4263      84.900 ppb        21.4263  25.24%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           1.2      39.507 ug/L       50.0440      39.507 ppb        50.0440 126.67%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†             -19.2     -0.0215 ug/L       0.00367     -0.0215 ppb        0.00367  17.03%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              -2.6     -0.1802 ug/L       0.74151     -0.1802 ppb        0.74151 411.52%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       -6.4     -1.9044 ug/L      14.35517     -1.9044 ppb       14.35517 753.79%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              -0.5     -0.0131 ug/L       0.09724     -0.0131 ppb        0.09724 742.61%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -6.1     -3.8073 ug/L       8.38371     -3.8073 ppb        8.38371 220.20%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               5.9      0.7234 ug/L       0.80625      0.7234 ppb        0.80625 111.45%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          5.7      8.0070 ug/L       7.59738      8.0070 ppb        7.59738  94.88%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              11.4      3.8903 ug/L       0.71952      3.8903 ppb        0.71952  18.50%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               5.1      3.3326 ug/L       2.25879      3.3326 ppb        2.25879  67.78%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†              -4.7     -0.1481 ug/L       0.03119     -0.1481 ppb        0.03119  21.05%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†              -0.6     -0.1020 ug/L       0.42669     -0.1020 ppb        0.42669 418.38%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              31.2      0.2015 ug/L       0.09402      0.2015 ppb        0.09402  46.65%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               7.6      0.0086 ug/L       0.06327      0.0086 ppb        0.06327 738.97%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -2.2     -0.6765 ug/L       3.87170     -0.6765 ppb        3.87170 572.28%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              -29.4     -0.8684 ug/L       1.94345     -0.8684 ppb        1.94345 223.79%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              -50.8     -0.3519 ug/L       0.14743     -0.3519 ppb        0.14743  41.89%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              36.7      0.3459 ug/L       0.07426      0.3459 ppb        0.07426  21.47%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                   -34.2     -2.3307 ug/L       0.43664     -2.3307 ppb        0.43664  18.73%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
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Sequence No.: 15
Sample ID: LR1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 37
Date Collected: 1/11/2010 16:52:35
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4777.8	4777.8	94.9	%			16:54:28
1	Y RADIAL	5095.9	5095.9	93.86	%			16:54:28
1	Al 396.153Radial†	-50.3	-52.3	-39.092	ug/L	-39.092	ppb	16:54:28
1	Ca 317.933Radial†	4.9	-14.7	-23.455	ug/L	-23.455	ppb	16:54:48
1	Fe 238.204 Radial†	40364.7	42530.9	368070	ug/L	368070	ppb	16:54:28
1	K 766.490 Radial†	2544.8	91.8	17.484	ug/L	17.484	ppb	16:54:28
1	Mg 279.077 IEC†	12.9	11.7	6.7228	ug/L	6.7228	ppb	16:54:48
1	Na 589.592 Radial†	-1204.3	11.3	3.3701	ug/L	3.3701	ppb	16:54:28
1	Sr 421.552†	54.9	77.3	0.4997	ug/L	0.4997	ppb	16:54:28
1	Sc 361.383	818966.7	818966.7	96.078	%			16:55:46
1	Y 371.029	688939.7	688939.7	95.333	%			16:55:46
1	Ag 328.068†	-24130.4	-25473.5	2.0432	ug/L	2.0432	ppb	16:55:46
1	As 188.979†	-200.7	-185.3	-7.8085	ug/L	-7.8085	ppb	16:56:06
1	B 249.677†	2067.2	2783.4	24.753	ug/L	24.753	ppb	16:55:46
1	Ba 233.527†	-1499.2	-1549.0	1.4702	ug/L	1.4702	ppb	16:55:46
1	Be 313.107†	-4472.3	-69.5	-0.0263	ug/L	-0.0263	ppb	16:55:46
1	Cd 226.502†	3072.4	3402.0	-0.2547	ug/L	-0.2547	ppb	16:55:46
1	Co 228.616†	165.2	246.6	-0.3410	ug/L	-0.3410	ppb	16:56:06
1	Cr 267.716†	-480.4	-583.2	0.7094	ug/L	0.7094	ppb	16:55:46
1	Cu 324.752†	1109.3	-5257.7	3.7230	ug/L	3.7230	ppb	16:55:46
1	Mn 257.610†	-30280.6	-31961.6	5.6541	ug/L	5.6541	ppb	16:55:46
1	Mo 202.031†	-335.3	-372.7	-1.1646	ug/L	-1.1646	ppb	16:55:46
1	Ni 231.604†	153.8	92.2	2.2920	ug/L	2.2920	ppb	16:56:06
1	P 214.914†	659.6	456.6	-13.871	ug/L	-13.871	ppb	16:56:06
1	Pb 220.353†	194.2	265.5	-2.7177	ug/L	-2.7177	ppb	16:56:06
1	S 181.975 Axial†	61.1	20.6	29.174	ug/L	29.174	ppb	16:56:06
1	Sb 206.836†	16.3	-10.9	-4.2280	ug/L	-4.2280	ppb	16:56:06
1	Se 196.026†	-1598.4	-1631.7	122.69	ug/L	122.69	ppb	16:56:06
1	Si 251.611†	-541.9	-1114.4	-35.169	ug/L	-35.169	ppb	16:55:46
1	Sn 189.927†	-22.0	-30.5	0.7785	ug/L	0.7785	ppb	16:56:06
1	Ti 334.940†	-1274.2	48.3	0.0161	ug/L	0.0161	ppb	16:55:46
1	Tl 190.801†	-46.2	-15.3	-4.9887	ug/L	-4.9887	ppb	16:56:06
1	U 409.014†	253.7	2275.6	25.185	ug/L	25.185	ppb	16:55:46
1	V 292.402†	7032.4	8629.2	2.4205	ug/L	2.4205	ppb	16:55:46
1	Zn 213.857†	4281.9	3836.4	0.5878	ug/L	0.5878	ppb	16:56:06
1	SiO2†	-450.1	-1040.2	-70.254	ug/L	-70.254	ppb	16:57:03
2	Sc Radial	4866.8	4866.8	96.7	%			16:54:53
2	Y RADIAL	5221.8	5221.8	96.18	%			16:54:53
2	Al 396.153Radial†	-37.8	-38.4	-28.382	ug/L	-28.382	ppb	16:54:53
2	Ca 317.933Radial†	0.8	-18.9	-30.269	ug/L	-30.269	ppb	16:55:13
2	Fe 238.204 Radial†	40766.9	42169.0	364940	ug/L	364940	ppb	16:54:53
2	K 766.490 Radial†	2544.0	41.9	8.3168	ug/L	8.3168	ppb	16:54:53
2	Mg 279.077 IEC†	10.6	9.1	-78.311	ug/L	-78.311	ppb	16:55:13
2	Na 589.592 Radial†	-1155.7	84.8	25.380	ug/L	25.380	ppb	16:54:53
2	Sr 421.552†	68.4	90.3	0.5833	ug/L	0.5833	ppb	16:54:53
2	Sc 361.383	829182.3	829182.3	97.276	%			16:56:12
2	Y 371.029	697004.5	697004.5	96.449	%			16:56:12
2	Ag 328.068†	-24523.8	-25568.4	0.5944	ug/L	0.5944	ppb	16:56:12
2	As 188.979†	-195.6	-177.5	-5.0286	ug/L	-5.0286	ppb	16:56:32
2	B 249.677†	2120.2	2811.4	25.694	ug/L	25.694	ppb	16:56:12
2	Ba 233.527†	-1466.1	-1495.7	1.7714	ug/L	1.7714	ppb	16:56:12
2	Be 313.107†	-4499.1	-39.7	-0.0153	ug/L	-0.0153	ppb	16:56:12
2	Cd 226.502†	3152.6	3445.0	0.5456	ug/L	0.5456	ppb	16:56:12
2	Co 228.616†	175.5	255.1	-0.1209	ug/L	-0.1209	ppb	16:56:32
2	Cr 267.716†	-487.2	-584.1	0.6397	ug/L	0.6397	ppb	16:56:12
2	Cu 324.752†	1142.3	-5237.9	3.6181	ug/L	3.6181	ppb	16:56:12
2	Mn 257.610†	-30582.1	-31883.2	5.3949	ug/L	5.3949	ppb	16:56:12
2	Mo 202.031†	-336.1	-369.3	-1.1378	ug/L	-1.1378	ppb	16:56:12
2	Ni 231.604†	131.9	67.6	1.6811	ug/L	1.6811	ppb	16:56:32

2	P 214.914†	676.9	465.9	-5.6765 ug/L	-5.6765 ppb	16:56:32
2	Pb 220.353†	220.9	290.4	0.6332 ug/L	0.6332 ppb	16:56:32
2	S 181.975 Axial†	62.0	20.8	29.382 ug/L	29.382 ppb	16:56:32
2	Sb 206.836†	15.4	-12.1	-4.6329 ug/L	-4.6329 ppb	16:56:32
2	Se 196.026†	-1598.1	-1610.8	126.14 ug/L	126.14 ppb	16:56:32
2	Si 251.611†	-519.6	-1084.6	-34.221 ug/L	-34.221 ppb	16:56:12
2	Sn 189.927†	-26.0	-34.3	0.0507 ug/L	0.0507 ppb	16:56:32
2	Ti 334.940†	-1370.9	-34.7	-0.1098 ug/L	-0.1098 ppb	16:56:12
2	Tl 190.801†	-59.8	-28.6	-9.0942 ug/L	-9.0942 ppb	16:56:32
2	U 409.014†	145.7	2161.4	22.173 ug/L	22.173 ppb	16:56:12
2	V 292.402†	7100.9	8609.4	2.7594 ug/L	2.7594 ppb	16:56:12
2	Zn 213.857†	4292.4	3792.4	0.4787 ug/L	0.4787 ppb	16:56:32
2	SiO2†	-566.8	-1154.3	-78.052 ug/L	-78.052 ppb	16:57:08
3	Sc Radial	4800.8	4800.8	95.3 %		16:55:18
3	Y RADIAL	5158.3	5158.3	95.01 %		16:55:18
3	Al 396.153Radial†	-18.9	-19.1	-13.529 ug/L	-13.529 ppb	16:55:18
3	Ca 317.933Radial†	1.3	-18.5	-29.528 ug/L	-29.528 ppb	16:55:38
3	Fe 238.204 Radial†	40311.5	42271.3	365820 ug/L	365820 ppb	16:55:18
3	K 766.490 Radial†	2604.4	141.5	26.583 ug/L	26.583 ppb	16:55:18
3	Mg 279.077 IEC†	12.7	11.4	-3.2079 ug/L	-3.2079 ppb	16:55:38
3	Na 589.592 Radial†	-1206.3	15.3	4.5686 ug/L	4.5686 ppb	16:55:18
3	Sr 421.552†	41.7	63.2	0.4085 ug/L	0.4085 ppb	16:55:18
3	Sc 361.383	829219.1	829219.1	97.281 %		16:56:38
3	Y 371.029	697536.2	697536.2	96.522 %		16:56:38
3	Ag 328.068†	-24469.1	-25511.1	1.1485 ug/L	1.1485 ppb	16:56:38
3	As 188.979†	-203.4	-185.4	-8.2984 ug/L	-8.2984 ppb	16:56:58
3	B 249.677†	2104.4	2795.1	25.241 ug/L	25.241 ppb	16:56:38
3	Ba 233.527†	-1455.6	-1484.9	1.8902 ug/L	1.8902 ppb	16:56:38
3	Be 313.107†	-4451.5	9.5	0.0035 ug/L	0.0035 ppb	16:56:38
3	Cd 226.502†	3124.6	3416.1	0.1330 ug/L	0.1330 ppb	16:56:38
3	Co 228.616†	169.2	248.6	-0.2640 ug/L	-0.2640 ppb	16:56:58
3	Cr 267.716†	-505.9	-603.2	0.4449 ug/L	0.4449 ppb	16:56:38
3	Cu 324.752†	1105.3	-5276.0	3.5514 ug/L	3.5514 ppb	16:56:38
3	Mn 257.610†	-30493.2	-31790.4	5.5936 ug/L	5.5936 ppb	16:56:38
3	Mo 202.031†	-326.2	-359.0	-0.3506 ug/L	-0.3506 ppb	16:56:38
3	Ni 231.604†	150.8	87.0	2.1641 ug/L	2.1641 ppb	16:56:58
3	P 214.914†	651.3	439.6	-22.474 ug/L	-22.474 ppb	16:56:58
3	Pb 220.353†	225.1	294.8	1.0868 ug/L	1.0868 ppb	16:56:58
3	S 181.975 Axial†	67.3	26.1	36.983 ug/L	36.983 ppb	16:56:58
3	Sb 206.836†	27.2	-0.0	-0.4637 ug/L	-0.4637 ppb	16:56:58
3	Se 196.026†	-1612.5	-1625.5	119.47 ug/L	119.47 ppb	16:56:58
3	Si 251.611†	-573.4	-1139.9	-35.992 ug/L	-35.992 ppb	16:56:38
3	Sn 189.927†	-23.8	-32.1	0.4652 ug/L	0.4652 ppb	16:56:58
3	Ti 334.940†	-1374.2	-38.1	-0.1212 ug/L	-0.1212 ppb	16:56:38
3	Tl 190.801†	-52.5	-21.1	-6.7740 ug/L	-6.7740 ppb	16:56:58
3	U 409.014†	135.7	2151.1	21.769 ug/L	21.769 ppb	16:56:38
3	V 292.402†	7232.4	8744.3	3.5566 ug/L	3.5566 ppb	16:56:38
3	Zn 213.857†	4297.9	3797.8	0.4413 ug/L	0.4413 ppb	16:56:58
3	SiO2†	-544.4	-1131.3	-76.497 ug/L	-76.497 ppb	16:57:13

Mean Data: LR1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	825789.4	96.878	%	0.6932				0.72%
Sc Radial	4815.2	95.6	%	0.92				0.96%
Y 371.029	694493.5	96.101	%	0.6666				0.69%
Y RADIAL	5158.7	95.01	%	1.160				1.22%
Ag 328.068†	-25517.6	1.2620	ug/L	0.73104	1.2620	ppb	0.73104	57.93%
Al 396.153Radial†	-36.6	-27.001	ug/L	12.8374	-27.001	ppb	12.8374	47.54%
As 188.979†	-182.7	-7.0452	ug/L	1.76352	-7.0452	ppb	1.76352	25.03%
B 249.677†	2796.6	25.229	ug/L	0.4711	25.229	ppb	0.4711	1.87%
Ba 233.527†	-1509.8	1.7106	ug/L	0.21652	1.7106	ppb	0.21652	12.66%
Be 313.107†	-33.2	-0.0127	ug/L	0.01504	-0.0127	ppb	0.01504	118.51%
Ca 317.933Radial†	-17.3	-27.751	ug/L	3.7384	-27.751	ppb	3.7384	13.47%
Cd 226.502†	3421.0	0.1413	ug/L	0.40020	0.1413	ppb	0.40020	283.23%
Co 228.616†	250.1	-0.2420	ug/L	0.11167	-0.2420	ppb	0.11167	46.15%
Cr 267.716†	-590.2	0.5980	ug/L	0.13708	0.5980	ppb	0.13708	22.92%
Cu 324.752†	-5257.2	3.6308	ug/L	0.08649	3.6308	ppb	0.08649	2.38%
Fe 238.204 Radial†	42323.7	366280	ug/L	1614.1	366280	ppb	1614.1	0.44%
K 766.490 Radial†	91.7	17.461	ug/L	9.1333	17.461	ppb	9.1333	52.31%

Mg 279.077 IEC†	10.7	-24.932	ug/L	46.4932	-24.932	ppb	46.4932	186.48%
Mn 257.610†	-31878.4	5.5475	ug/L	0.13558	5.5475	ppb	0.13558	2.44%
Mo 202.031†	-367.0	-0.8843	ug/L	0.46241	-0.8843	ppb	0.46241	52.29%
Na 589.592 Radial†	37.1	11.106	ug/L	12.3761	11.106	ppb	12.3761	111.43%
Ni 231.604†	82.3	2.0457	ug/L	0.32221	2.0457	ppb	0.32221	15.75%
P 214.914†	454.1	-14.007	ug/L	8.3993	-14.007	ppb	8.3993	59.97%
Pb 220.353†	283.6	-0.3325	ug/L	2.07800	-0.3325	ppb	2.07800	624.92%
S 181.975 Axial†	22.5	31.847	ug/L	4.4497	31.847	ppb	4.4497	13.97%
Sb 206.836†	-7.7	-3.1082	ug/L	2.29916	-3.1082	ppb	2.29916	73.97%
Se 196.026†	-1622.7	122.77	ug/L	3.335	122.77	ppb	3.335	2.72%
Si 251.611†	-1113.0	-35.127	ug/L	0.8860	-35.127	ppb	0.8860	2.52%
Sn 189.927†	-32.3	0.4315	ug/L	0.36508	0.4315	ppb	0.36508	84.61%
Sr 421.552†	76.9	0.4972	ug/L	0.08744	0.4972	ppb	0.08744	17.59%
Ti 334.940†	-8.2	-0.0717	ug/L	0.07619	-0.0717	ppb	0.07619	106.30%
Tl 190.801†	-21.7	-6.9523	ug/L	2.05856	-6.9523	ppb	2.05856	29.61%
U 409.014†	2196.1	23.042	ug/L	1.8667	23.042	ppb	1.8667	8.10%
V 292.402†	8661.0	2.9122	ug/L	0.58327	2.9122	ppb	0.58327	20.03%
Zn 213.857†	3808.9	0.5026	ug/L	0.07610	0.5026	ppb	0.07610	15.14%
SiO2†	-1108.6	-74.934	ug/L	4.1270	-74.934	ppb	4.1270	5.51%

Sequence No.: 16
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 1/11/2010 16:59:25
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4917.0	4917.0	97.7	%			17:01:17
1	Y RADIAL	5235.9	5235.9	96.43	%			17:01:17
1	Al 396.153Radial†	6169.6	6318.6	4850.2	ug/L	4850.2	ppb	17:01:17
1	Ca 317.933Radial†	3017.0	3069.8	4911.9	ug/L	4911.9	ppb	17:01:37
1	Fe 238.204 Radial†	566.0	570.7	4954.4	ug/L	4954.4	ppb	17:01:37
1	K 766.490 Radial†	28759.1	26860.8	4908.0	ug/L	4908.0	ppb	17:01:17
1	Mg 279.077 IEC†	147.7	149.3	4989.0	ug/L	4989.0	ppb	17:01:37
1	Na 589.592 Radial†	29743.6	31739.6	9503.2	ug/L	9503.2	ppb	17:01:17
1	Sr 421.552†	71970.1	73720.9	476.12	ug/L	476.12	ppb	17:01:17
1	Sc 361.383	838361.1	838361.1	98.353	%			17:02:34
1	Y 371.029	700105.7	700105.7	96.878	%			17:02:34
1	Ag 328.068†	108759.4	110222.4	510.64	ug/L	510.64	ppb	17:02:39
1	As 188.979†	1120.4	1162.8	505.94	ug/L	505.94	ppb	17:02:59
1	B 249.677†	21434.1	22424.8	497.99	ug/L	497.99	ppb	17:02:39
1	Ba 233.527†	63114.9	64183.1	502.33	ug/L	502.33	ppb	17:02:39
1	Be 313.107†	1277275.1	1303246.3	497.70	ug/L	497.70	ppb	17:02:34
1	Cd 226.502†	44324.9	45271.2	502.26	ug/L	502.26	ppb	17:02:39
1	Co 228.616†	24105.9	24584.2	503.32	ug/L	503.32	ppb	17:02:39
1	Cr 267.716†	44273.4	44931.5	502.95	ug/L	502.95	ppb	17:02:39
1	Cu 324.752†	169720.3	166149.8	496.81	ug/L	496.81	ppb	17:02:39
1	Mn 257.610†	438566.0	445464.1	494.19	ug/L	494.19	ppb	17:02:34
1	Mo 202.031†	7074.4	7169.1	507.07	ug/L	507.07	ppb	17:02:59
1	Ni 231.604†	20045.4	20313.1	505.50	ug/L	505.50	ppb	17:02:39
1	P 214.914†	4239.4	4080.5	2388.6	ug/L	2388.6	ppb	17:02:59
1	Pb 220.353†	3987.5	4117.6	505.85	ug/L	505.85	ppb	17:02:59
1	S 181.975 Axial†	751.3	720.9	1019.3	ug/L	1019.3	ppb	17:02:59
1	Sb 206.836†	1455.6	1452.0	515.57	ug/L	515.57	ppb	17:02:59
1	Se 196.026†	738.2	782.6	521.90	ug/L	521.90	ppb	17:02:59
1	Si 251.611†	79252.1	80028.6	2542.5	ug/L	2542.5	ppb	17:02:39
1	Sn 189.927†	2830.9	2870.6	509.35	ug/L	509.35	ppb	17:02:59
1	Ti 334.940†	301641.2	308066.2	496.07	ug/L	496.07	ppb	17:02:39
1	Tl 190.801†	1572.2	1631.4	503.52	ug/L	503.52	ppb	17:02:59
1	U 409.014†	15002.9	17265.8	507.65	ug/L	507.65	ppb	17:02:39
1	V 292.402†	70723.5	73217.4	506.93	ug/L	506.93	ppb	17:02:39
1	Zn 213.857†	52923.1	53189.0	498.70	ug/L	498.70	ppb	17:02:39
1	SiO2†	78526.7	79269.8	5394.9	ug/L	5394.9	ppb	17:04:07
2	Sc Radial	4995.4	4995.4	99.2	%			17:01:42
2	Y RADIAL	5325.1	5325.1	98.08	%			17:01:42
2	Al 396.153Radial†	6217.2	6267.6	4811.3	ug/L	4811.3	ppb	17:01:42
2	Ca 317.933Radial†	2980.8	2984.8	4776.0	ug/L	4776.0	ppb	17:02:02
2	Fe 238.204 Radial†	559.0	554.6	4814.1	ug/L	4814.1	ppb	17:02:02
2	K 766.490 Radial†	29154.8	26797.8	4896.6	ug/L	4896.6	ppb	17:01:42
2	Mg 279.077 IEC†	149.7	149.0	4977.5	ug/L	4977.5	ppb	17:02:02
2	Na 589.592 Radial†	30095.6	31616.7	9466.4	ug/L	9466.4	ppb	17:01:42
2	Sr 421.552†	73036.4	73639.8	475.60	ug/L	475.60	ppb	17:01:42
2	Sc 361.383	849459.0	849459.0	99.655	%			17:03:05
2	Y 371.029	708280.0	708280.0	98.009	%			17:03:05
2	Ag 328.068†	106948.3	106960.3	495.53	ug/L	495.53	ppb	17:03:10
2	As 188.979†	1106.1	1133.5	493.19	ug/L	493.19	ppb	17:03:30
2	B 249.677†	20943.1	21647.4	480.71	ug/L	480.71	ppb	17:03:10
2	Ba 233.527†	62014.2	62240.2	487.13	ug/L	487.13	ppb	17:03:10
2	Be 313.107†	1291972.2	1301027.6	496.82	ug/L	496.82	ppb	17:03:05
2	Cd 226.502†	43636.6	43991.7	488.06	ug/L	488.06	ppb	17:03:10
2	Co 228.616†	23754.8	23911.6	489.56	ug/L	489.56	ppb	17:03:10
2	Cr 267.716†	43616.9	43684.5	488.99	ug/L	488.99	ppb	17:03:10
2	Cu 324.752†	166097.1	160259.5	479.20	ug/L	479.20	ppb	17:03:10
2	Mn 257.610†	444472.6	445565.5	494.29	ug/L	494.29	ppb	17:03:05
2	Mo 202.031†	7023.4	7024.0	496.80	ug/L	496.80	ppb	17:03:30
2	Ni 231.604†	19633.6	19633.6	488.58	ug/L	488.58	ppb	17:03:10

2	P 214.914†	4212.9	3997.6	2341.7 ug/L	2341.7 ppb	17:03:30
2	Pb 220.353†	3957.3	4034.3	495.64 ug/L	495.64 ppb	17:03:30
2	S 181.975 Axial†	739.1	698.7	987.85 ug/L	987.85 ppb	17:03:30
2	Sb 206.836†	1462.2	1439.4	510.86 ug/L	510.86 ppb	17:03:30
2	Se 196.026†	727.7	762.2	508.29 ug/L	508.29 ppb	17:03:30
2	Si 251.611†	77732.2	77450.7	2460.6 ug/L	2460.6 ppb	17:03:10
2	Sn 189.927†	2800.8	2802.8	497.31 ug/L	497.31 ppb	17:03:30
2	Ti 334.940†	296140.6	298539.7	480.72 ug/L	480.72 ppb	17:03:10
2	Tl 190.801†	1564.5	1602.8	494.71 ug/L	494.71 ppb	17:03:30
2	U 409.014†	14725.2	16787.8	493.59 ug/L	493.59 ppb	17:03:10
2	V 292.402†	69532.2	71082.5	492.22 ug/L	492.22 ppb	17:03:10
2	Zn 213.857†	52101.8	51661.8	484.40 ug/L	484.40 ppb	17:03:10
2	SiO2†	78941.9	78643.3	5352.4 ug/L	5352.4 ppb	17:04:12
3	Sc Radial	4857.7	4857.7	96.5 %		17:02:07
3	Y RADIAL	5177.7	5177.7	95.36 %		17:02:07
3	Al 396.153Radial†	6085.9	6309.0	4843.4 ug/L	4843.4 ppb	17:02:07
3	Ca 317.933Radial†	2976.8	3065.8	4905.5 ug/L	4905.5 ppb	17:02:27
3	Fe 238.204 Radial†	556.5	567.9	4929.7 ug/L	4929.7 ppb	17:02:27
3	K 766.490 Radial†	28539.9	26992.9	4932.4 ug/L	4932.4 ppb	17:02:07
3	Mg 279.077 IEC†	147.6	151.1	5047.1 ug/L	5047.1 ppb	17:02:27
3	Na 589.592 Radial†	29197.5	31545.2	9445.0 ug/L	9445.0 ppb	17:02:07
3	Sr 421.552†	71175.3	73796.3	476.61 ug/L	476.61 ppb	17:02:07
3	Sc 361.383	847741.7	847741.7	99.454 %		17:03:36
3	Y 371.029	706758.6	706758.6	97.799 %		17:03:36
3	Ag 328.068†	106910.9	107140.2	496.40 ug/L	496.40 ppb	17:03:41
3	As 188.979†	1100.5	1130.1	491.76 ug/L	491.76 ppb	17:04:01
3	B 249.677†	21005.1	21752.3	483.04 ug/L	483.04 ppb	17:03:41
3	Ba 233.527†	62001.9	62353.8	488.02 ug/L	488.02 ppb	17:03:41
3	Be 313.107†	1288634.6	1300297.9	496.55 ug/L	496.55 ppb	17:03:36
3	Cd 226.502†	43589.9	44033.5	488.51 ug/L	488.51 ppb	17:03:41
3	Co 228.616†	23702.8	23907.7	489.47 ug/L	489.47 ppb	17:03:41
3	Cr 267.716†	43578.7	43734.8	489.55 ug/L	489.55 ppb	17:03:41
3	Cu 324.752†	166861.5	161365.8	482.51 ug/L	482.51 ppb	17:03:41
3	Mn 257.610†	443145.9	445135.1	493.82 ug/L	493.82 ppb	17:03:36
3	Mo 202.031†	6957.0	6971.5	493.10 ug/L	493.10 ppb	17:04:01
3	Ni 231.604†	19601.1	19640.8	488.76 ug/L	488.76 ppb	17:03:41
3	P 214.914†	4162.6	3955.6	2315.2 ug/L	2315.2 ppb	17:04:01
3	Pb 220.353†	3910.9	3995.8	490.91 ug/L	490.91 ppb	17:04:01
3	S 181.975 Axial†	717.5	678.4	959.20 ug/L	959.20 ppb	17:04:01
3	Sb 206.836†	1444.3	1424.3	505.54 ug/L	505.54 ppb	17:04:01
3	Se 196.026†	720.1	756.1	504.72 ug/L	504.72 ppb	17:04:01
3	Si 251.611†	77743.9	77620.5	2466.0 ug/L	2466.0 ppb	17:03:41
3	Sn 189.927†	2768.1	2775.6	492.52 ug/L	492.52 ppb	17:04:01
3	Ti 334.940†	296778.4	299783.0	482.73 ug/L	482.73 ppb	17:03:41
3	Tl 190.801†	1557.1	1598.5	493.41 ug/L	493.41 ppb	17:04:01
3	U 409.014†	14832.8	16925.9	497.65 ug/L	497.65 ppb	17:03:41
3	V 292.402†	69675.9	71368.3	494.10 ug/L	494.10 ppb	17:03:41
3	Zn 213.857†	51990.8	51656.1	484.33 ug/L	484.33 ppb	17:03:41
3	SiO2†	78042.5	77899.5	5301.8 ug/L	5301.8 ppb	17:04:17

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	845187.3	99.154	%	0.7008				0.71%
Sc Radial	4923.4	97.8	%	1.37				1.40%
Y 371.029	705048.1	97.562	%	0.6016				0.62%
Y RADIAL	5246.2	96.63	%	1.367				1.42%
Ag 328.068†	108107.6	500.85	ug/L	8.485	500.85	ppb	8.485	1.69%
QC value within limits for Ag 328.068 Recovery = 100.17%								
Al 396.153Radial†	6298.4	4834.9	ug/L	20.78	4834.9	ppb	20.78	0.43%
QC value within limits for Al 396.153Radial Recovery = 96.70%								
As 188.979†	1142.1	496.96	ug/L	7.805	496.96	ppb	7.805	1.57%
QC value within limits for As 188.979 Recovery = 99.39%								
B 249.677†	21941.5	487.25	ug/L	9.376	487.25	ppb	9.376	1.92%
QC value within limits for B 249.677 Recovery = 97.45%								
Ba 233.527†	62925.7	492.50	ug/L	8.532	492.50	ppb	8.532	1.73%
QC value within limits for Ba 233.527 Recovery = 98.50%								
Be 313.107†	1301524.0	497.02	ug/L	0.603	497.02	ppb	0.603	0.12%
QC value within limits for Be 313.107 Recovery = 99.40%								
Ca 317.933Radial†	3040.1	4864.5	ug/L	76.69	4864.5	ppb	76.69	1.58%

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   QC value within limits for Ca 317.933Radial  Recovery = 97.29%
Cd 226.502†            44432.1      492.95 ug/L        8.069      492.95 ppb        8.069   1.64%
   QC value within limits for Cd 226.502  Recovery = 98.59%
Co 228.616†            24134.5      494.12 ug/L        7.970      494.12 ppb        7.970   1.61%
   QC value within limits for Co 228.616  Recovery = 98.82%
Cr 267.716†            44116.9      493.83 ug/L        7.901      493.83 ppb        7.901   1.60%
   QC value within limits for Cr 267.716  Recovery = 98.77%
Cu 324.752†           162591.7      486.17 ug/L        9.360      486.17 ppb        9.360   1.93%
   QC value within limits for Cu 324.752  Recovery = 97.23%
Fe 238.204 Radial†       564.4      4899.4 ug/L       74.92      4899.4 ppb       74.92   1.53%
   QC value within limits for Fe 238.204 Radial  Recovery = 97.99%
K 766.490 Radial†      26883.8      4912.3 ug/L       18.28      4912.3 ppb       18.28   0.37%
   QC value within limits for K 766.490 Radial  Recovery = 98.25%
Mg 279.077 IEC†          149.8      5004.5 ug/L       37.33      5004.5 ppb       37.33   0.75%
   QC value within limits for Mg 279.077 IEC  Recovery = 100.09%
Mn 257.610†           445388.2      494.10 ug/L        0.246      494.10 ppb        0.246   0.05%
   QC value within limits for Mn 257.610  Recovery = 98.82%
Mo 202.031†             7054.9      498.99 ug/L        7.237      498.99 ppb        7.237   1.45%
   QC value within limits for Mo 202.031  Recovery = 99.80%
Na 589.592 Radial†     31633.8      9471.5 ug/L       29.45      9471.5 ppb       29.45   0.31%
   QC value within limits for Na 589.592 Radial  Recovery = 94.72%
Ni 231.604†            19862.5      494.28 ug/L        9.712      494.28 ppb        9.712   1.96%
   QC value within limits for Ni 231.604  Recovery = 98.86%
P 214.914†              4011.2      2348.5 ug/L       37.17      2348.5 ppb       37.17   1.58%
   QC value within limits for P 214.914  Recovery = 93.94%
Pb 220.353†             4049.2      497.47 ug/L        7.639      497.47 ppb        7.639   1.54%
   QC value within limits for Pb 220.353  Recovery = 99.49%
S 181.975 Axial†         699.3      988.77 ug/L       30.042      988.77 ppb       30.042   3.04%
   QC value within limits for S 181.975 Axial  Recovery = 98.88%
Sb 206.836†             1438.6      510.66 ug/L        5.019      510.66 ppb        5.019   0.98%
   QC value within limits for Sb 206.836  Recovery = 102.13%
Se 196.026†              767.0      511.63 ug/L        9.063      511.63 ppb        9.063   1.77%
   QC value within limits for Se 196.026  Recovery = 102.33%
Si 251.611†            78366.6      2489.7 ug/L       45.84      2489.7 ppb       45.84   1.84%
   QC value within limits for Si 251.611  Recovery = 99.59%
Sn 189.927†             2816.3      499.73 ug/L        8.672      499.73 ppb        8.672   1.74%
   QC value within limits for Sn 189.927  Recovery = 99.95%
Sr 421.552†            73719.0      476.11 ug/L        0.505      476.11 ppb        0.505   0.11%
   QC value within limits for Sr 421.552  Recovery = 95.22%
Ti 334.940†           302129.6      486.51 ug/L        8.344      486.51 ppb        8.344   1.72%
   QC value within limits for Ti 334.940  Recovery = 97.30%
Tl 190.801†             1610.9      497.21 ug/L        5.504      497.21 ppb        5.504   1.11%
   QC value within limits for Tl 190.801  Recovery = 99.44%
U 409.014†             16993.1      499.63 ug/L        7.233      499.63 ppb        7.233   1.45%
   QC value within limits for U 409.014  Recovery = 99.93%
V 292.402†             71889.4      497.75 ug/L        8.004      497.75 ppb        8.004   1.61%
   QC value within limits for V 292.402  Recovery = 99.55%
Zn 213.857†            52169.0      489.14 ug/L        8.276      489.14 ppb        8.276   1.69%
   QC value within limits for Zn 213.857  Recovery = 97.83%
SiO2†                  78604.2      5349.7 ug/L       46.62      5349.7 ppb       46.62   0.87%
   QC value within limits for SiO2  Recovery = 100.04%
All analyte(s) passed QC.
```

Sequence No.: 17
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 1/11/2010 17:06:27
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4959.7	4959.7	98.5	%			17:08:18
1	Y RADIAL	5307.7	5307.7	97.76	%			17:08:18
1	Al 396.153Radial†	-4.9	-4.3	-3.3458	ug/L	-3.3458	ppb	17:08:18
1	Ca 317.933Radial†	19.8	0.3	0.4603	ug/L	0.4603	ppb	17:08:38
1	Fe 238.204 Radial†	9.5	0.7	6.1769	ug/L	6.1769	ppb	17:08:38
1	K 766.490 Radial†	2810.4	263.1	48.253	ug/L	48.253	ppb	17:08:18
1	Mg 279.077 IEC†	2.1	0.2	6.2400	ug/L	6.2400	ppb	17:08:38
1	Na 589.592 Radial†	-1295.3	-34.6	-10.370	ug/L	-10.370	ppb	17:08:18
1	Sr 421.552†	17.7	37.5	0.2423	ug/L	0.2423	ppb	17:08:18
1	Sc 361.383	837653.4	837653.4	98.270	%			17:09:35
1	Y 371.029	711362.6	711362.6	98.436	%			17:09:35
1	Ag 328.068†	346.0	-5.9	-0.0314	ug/L	-0.0314	ppb	17:09:35
1	As 188.979†	-19.8	3.5	1.5161	ug/L	1.5161	ppb	17:09:55
1	B 249.677†	-408.4	216.2	4.8206	ug/L	4.8206	ppb	17:09:55
1	Ba 233.527†	-26.8	-15.8	-0.1246	ug/L	-0.1246	ppb	17:09:55
1	Be 313.107†	-4542.8	-37.4	-0.0145	ug/L	-0.0145	ppb	17:09:35
1	Cd 226.502†	-183.5	17.4	0.1936	ug/L	0.1936	ppb	17:09:55
1	Co 228.616†	-86.9	-13.8	-0.2826	ug/L	-0.2826	ppb	17:09:55
1	Cr 267.716†	73.6	-8.4	-0.0963	ug/L	-0.0963	ppb	17:09:55
1	Cu 324.752†	6361.6	61.3	0.1808	ug/L	0.1808	ppb	17:09:35
1	Mn 257.610†	389.6	-48.4	-0.0533	ug/L	-0.0533	ppb	17:09:55
1	Mo 202.031†	22.1	-1.2	-0.0850	ug/L	-0.0850	ppb	17:09:55
1	Ni 231.604†	73.5	6.8	0.1706	ug/L	0.1706	ppb	17:09:55
1	P 214.914†	221.3	-4.7	-2.9009	ug/L	-2.9009	ppb	17:09:55
1	Pb 220.353†	-52.7	9.8	1.1934	ug/L	1.1934	ppb	17:09:55
1	S 181.975 Axial†	41.9	-0.4	-0.5198	ug/L	-0.5198	ppb	17:09:55
1	Sb 206.836†	32.4	5.1	1.7413	ug/L	1.7413	ppb	17:09:55
1	Se 196.026†	-31.4	0.0	0.0460	ug/L	0.0460	ppb	17:09:55
1	Si 251.611†	518.3	-23.0	-0.7330	ug/L	-0.7330	ppb	17:09:55
1	Sn 189.927†	11.8	4.4	0.7768	ug/L	0.7768	ppb	17:09:55
1	Ti 334.940†	-1421.1	-71.6	-0.1181	ug/L	-0.1181	ppb	17:09:35
1	Tl 190.801†	-34.6	-2.3	-0.7178	ug/L	-0.7178	ppb	17:09:55
1	U 409.014†	-1795.9	184.1	5.4311	ug/L	5.4311	ppb	17:09:35
1	V 292.402†	-1357.4	-71.5	-0.4799	ug/L	-0.4799	ppb	17:09:35
1	Zn 213.857†	621.8	12.5	0.1168	ug/L	0.1168	ppb	17:09:55
1	SiO2†	560.0	-1.9	-0.1242	ug/L	-0.1242	ppb	17:10:51
2	Sc Radial	4896.6	4896.6	97.2	%			17:08:43
2	Y RADIAL	5271.4	5271.4	97.09	%			17:08:43
2	Al 396.153Radial†	-10.4	-10.1	-7.7640	ug/L	-7.7640	ppb	17:08:43
2	Ca 317.933Radial†	15.3	-4.1	-6.5489	ug/L	-6.5489	ppb	17:09:03
2	Fe 238.204 Radial†	9.7	1.1	9.5272	ug/L	9.5272	ppb	17:09:03
2	K 766.490 Radial†	2927.0	419.8	76.971	ug/L	76.971	ppb	17:08:43
2	Mg 279.077 IEC†	2.3	0.5	16.572	ug/L	16.572	ppb	17:09:03
2	Na 589.592 Radial†	-1238.7	6.7	1.9955	ug/L	1.9955	ppb	17:08:43
2	Sr 421.552†	10.5	30.3	0.1958	ug/L	0.1958	ppb	17:08:43
2	Sc 361.383	843411.1	843411.1	98.946	%			17:10:00
2	Y 371.029	714722.4	714722.4	98.901	%			17:10:00
2	Ag 328.068†	311.8	-42.8	-0.1993	ug/L	-0.1993	ppb	17:10:00
2	As 188.979†	-15.2	8.2	3.5609	ug/L	3.5609	ppb	17:10:21
2	B 249.677†	-412.7	214.8	4.7872	ug/L	4.7872	ppb	17:10:21
2	Ba 233.527†	-17.4	-6.1	-0.0496	ug/L	-0.0496	ppb	17:10:21
2	Be 313.107†	-4553.8	-17.0	-0.0067	ug/L	-0.0067	ppb	17:10:00
2	Cd 226.502†	-193.1	8.9	0.0988	ug/L	0.0988	ppb	17:10:21
2	Co 228.616†	-73.3	0.6	0.0129	ug/L	0.0129	ppb	17:10:21
2	Cr 267.716†	74.6	-7.9	-0.0906	ug/L	-0.0906	ppb	17:10:21
2	Cu 324.752†	6431.1	87.4	0.2607	ug/L	0.2607	ppb	17:10:00
2	Mn 257.610†	398.2	-42.5	-0.0467	ug/L	-0.0467	ppb	17:10:21
2	Mo 202.031†	22.5	-1.0	-0.0689	ug/L	-0.0689	ppb	17:10:21
2	Ni 231.604†	83.4	16.4	0.4073	ug/L	0.4073	ppb	17:10:21

2	P 214.914†	224.9	-2.5	-1.6212 ug/L	-1.6212 ppb	17:10:21
2	Pb 220.353†	-60.9	1.8	0.2229 ug/L	0.2229 ppb	17:10:21
2	S 181.975 Axial†	44.0	1.5	2.0848 ug/L	2.0848 ppb	17:10:21
2	Sb 206.836†	38.1	10.6	3.6132 ug/L	3.6132 ppb	17:10:21
2	Se 196.026†	-33.3	-1.6	-1.0076 ug/L	-1.0076 ppb	17:10:21
2	Si 251.611†	524.7	-20.2	-0.6422 ug/L	-0.6422 ppb	17:10:21
2	Sn 189.927†	6.9	-0.7	-0.1207 ug/L	-0.1207 ppb	17:10:21
2	Ti 334.940†	-1414.5	-55.1	-0.0917 ug/L	-0.0917 ppb	17:10:00
2	Tl 190.801†	-31.9	0.6	0.1901 ug/L	0.1901 ppb	17:10:21
2	U 409.014†	-1916.5	74.7	2.2040 ug/L	2.2040 ppb	17:10:00
2	V 292.402†	-1430.0	-135.5	-0.9229 ug/L	-0.9229 ppb	17:10:00
2	Zn 213.857†	625.3	11.7	0.1068 ug/L	0.1068 ppb	17:10:21
2	SiO2†	536.0	-30.0	-2.0444 ug/L	-2.0444 ppb	17:10:56
3	Sc Radial	4974.8	4974.8	98.8 %		17:09:09
3	Y RADIAL	5378.8	5378.8	99.07 %		17:09:09
3	Al 396.153Radial†	-18.8	-18.4	-14.146 ug/L	-14.146 ppb	17:09:09
3	Ca 317.933Radial†	15.1	-4.5	-7.1798 ug/L	-7.1798 ppb	17:09:29
3	Fe 238.204 Radial†	9.7	1.0	8.2705 ug/L	8.2705 ppb	17:09:29
3	K 766.490 Radial†	2774.3	217.9	39.967 ug/L	39.967 ppb	17:09:09
3	Mg 279.077 IEC†	3.7	1.9	62.848 ug/L	62.848 ppb	17:09:29
3	Na 589.592 Radial†	-1258.0	7.2	2.1488 ug/L	2.1488 ppb	17:09:09
3	Sr 421.552†	-11.3	8.1	0.0522 ug/L	0.0522 ppb	17:09:09
3	Sc 361.383	844303.5	844303.5	99.050 %		17:10:26
3	Y 371.029	716237.9	716237.9	99.110 %		17:10:26
3	Ag 328.068†	314.4	-40.6	-0.1886 ug/L	-0.1886 ppb	17:10:26
3	As 188.979†	-17.9	5.5	2.3949 ug/L	2.3949 ppb	17:10:46
3	B 249.677†	-440.3	187.3	4.1753 ug/L	4.1753 ppb	17:10:46
3	Ba 233.527†	-21.7	-10.4	-0.0822 ug/L	-0.0822 ppb	17:10:46
3	Be 313.107†	-4533.0	8.9	0.0035 ug/L	0.0035 ppb	17:10:26
3	Cd 226.502†	-173.4	29.1	0.3224 ug/L	0.3224 ppb	17:10:46
3	Co 228.616†	-78.4	-4.4	-0.0930 ug/L	-0.0930 ppb	17:10:46
3	Cr 267.716†	76.4	-6.1	-0.0702 ug/L	-0.0702 ppb	17:10:46
3	Cu 324.752†	6457.0	106.7	0.3176 ug/L	0.3176 ppb	17:10:26
3	Mn 257.610†	394.1	-47.0	-0.0538 ug/L	-0.0538 ppb	17:10:46
3	Mo 202.031†	13.4	-10.1	-0.7159 ug/L	-0.7159 ppb	17:10:46
3	Ni 231.604†	73.8	6.5	0.1624 ug/L	0.1624 ppb	17:10:46
3	P 214.914†	212.3	-15.5	-9.5711 ug/L	-9.5711 ppb	17:10:46
3	Pb 220.353†	-51.4	11.5	1.3962 ug/L	1.3962 ppb	17:10:46
3	S 181.975 Axial†	45.6	3.0	4.3163 ug/L	4.3163 ppb	17:10:46
3	Sb 206.836†	32.2	4.6	1.5872 ug/L	1.5872 ppb	17:10:46
3	Se 196.026†	-37.1	-5.4	-3.4812 ug/L	-3.4812 ppb	17:10:46
3	Si 251.611†	531.5	-13.8	-0.4313 ug/L	-0.4313 ppb	17:10:46
3	Sn 189.927†	14.4	6.8	1.2111 ug/L	1.2111 ppb	17:10:46
3	Ti 334.940†	-1332.2	29.5	0.0401 ug/L	0.0401 ppb	17:10:26
3	Tl 190.801†	-43.1	-10.7	-3.2853 ug/L	-3.2853 ppb	17:10:46
3	U 409.014†	-1872.5	121.2	3.5749 ug/L	3.5749 ppb	17:10:26
3	V 292.402†	-1358.4	-61.7	-0.4250 ug/L	-0.4250 ppb	17:10:26
3	Zn 213.857†	635.8	21.7	0.2027 ug/L	0.2027 ppb	17:10:46
3	SiO2†	525.2	-41.4	-2.8052 ug/L	-2.8052 ppb	17:11:01

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	841789.4	98.755	%	0.4235				0.43%
Sc Radial	4943.7	98.2	%	0.82				0.84%
Y 371.029	714107.6	98.815	%	0.3453				0.35%
Y RADIAL	5319.3	97.97	%	1.006				1.03%
Ag 328.068†	-29.8	-0.1398	ug/L	0.09402	-0.1398	ppb	0.09402	67.27%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-10.9	-8.4184	ug/L	5.42955	-8.4184	ppb	5.42955	64.50%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	5.7	2.4906	ug/L	1.02573	2.4906	ppb	1.02573	41.18%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	206.1	4.5944	ug/L	0.36331	4.5944	ppb	0.36331	7.91%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-10.8	-0.0855	ug/L	0.03759	-0.0855	ppb	0.03759	43.98%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-15.2	-0.0059	ug/L	0.00903	-0.0059	ppb	0.00903	153.14%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-2.8	-4.4228	ug/L	4.24064	-4.4228	ppb	4.24064	95.88%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                18.5      0.2049 ug/L       0.11223      0.2049 ppb        0.11223  54.76%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                -5.9     -0.1209 ug/L       0.14974     -0.1209 ppb        0.14974 123.85%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                -7.5     -0.0857 ug/L       0.01374     -0.0857 ppb        0.01374  16.03%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†                85.2      0.2530 ug/L       0.06875      0.2530 ppb        0.06875  27.17%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          0.9      7.9915 ug/L       1.69250      7.9915 ppb        1.69250  21.18%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         300.3      55.064 ug/L       19.4196      55.064 ppb        19.4196  35.27%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             0.9      28.553 ug/L       30.1458      28.553 ppb        30.1458 105.58%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               -46.0     -0.0512 ug/L       0.00395     -0.0512 ppb        0.00395   7.72%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                -4.1     -0.2900 ug/L       0.36898     -0.2900 ppb        0.36898 127.25%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†         -6.9     -2.0753 ug/L       7.18399     -2.0753 ppb        7.18399 346.16%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                 9.9      0.2467 ug/L       0.13908      0.2467 ppb        0.13908  56.37%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -7.6     -4.6977 ug/L       4.26868     -4.6977 ppb        4.26868  90.87%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                 7.7      0.9375 ug/L       0.62714      0.9375 ppb        0.62714  66.90%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            1.4      1.9604 ug/L       2.42045      1.9604 ppb        2.42045 123.46%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 6.7      2.3139 ug/L       1.12789      2.3139 ppb        1.12789  48.74%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -2.3     -1.4809 ug/L       1.81058     -1.4809 ppb        1.81058 122.26%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†               -19.0     -0.6022 ug/L       0.15479     -0.6022 ppb        0.15479  25.71%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 3.5      0.6224 ug/L       0.67922      0.6224 ppb        0.67922 109.13%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                25.3      0.1634 ug/L       0.09908      0.1634 ppb        0.09908  60.62%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               -32.4     -0.0566 ug/L       0.08476     -0.0566 ppb        0.08476 149.73%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                -4.1     -1.2710 ug/L       1.80250     -1.2710 ppb        1.80250 141.82%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                126.7      3.7367 ug/L       1.61963      3.7367 ppb        1.61963  43.34%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                -89.6     -0.6093 ug/L       0.27299     -0.6093 ppb        0.27299  44.81%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                15.3      0.1421 ug/L       0.05274      0.1421 ppb        0.05274  37.12%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                     -24.4     -1.6579 ug/L       1.38166     -1.6579 ppb        1.38166  83.34%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 24
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 1/11/2010 17:54:51
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4943.4	4943.4	98.2	%			17:56:43
1	Y RADIAL	5326.3	5326.3	98.10	%			17:56:43
1	Al 396.153Radial†	6221.6	6337.9	4865.1	ug/L	4865.1	ppb	17:56:43
1	Ca 317.933Radial†	3084.4	3121.9	4995.4	ug/L	4995.4	ppb	17:57:03
1	Fe 238.204 Radial†	585.8	587.8	5102.0	ug/L	5102.0	ppb	17:57:03
1	K 766.490 Radial†	29082.8	27033.0	4939.2	ug/L	4939.2	ppb	17:56:43
1	Mg 279.077 IEC†	154.5	155.5	5194.4	ug/L	5194.4	ppb	17:57:03
1	Na 589.592 Radial†	31924.6	33798.2	10120	ug/L	10120	ppb	17:56:43
1	Sr 421.552†	74675.0	76082.0	491.37	ug/L	491.37	ppb	17:56:43
1	Sc 361.383	845530.9	845530.9	99.194	%			17:58:00
1	Y 371.029	705679.4	705679.4	97.649	%			17:58:00
1	Ag 328.068†	110106.0	110642.2	512.63	ug/L	512.63	ppb	17:58:05
1	As 188.979†	1110.7	1143.3	497.56	ug/L	497.56	ppb	17:58:25
1	B 249.677†	21674.1	22482.0	499.24	ug/L	499.24	ppb	17:58:05
1	Ba 233.527†	63973.4	64504.3	504.85	ug/L	504.85	ppb	17:58:05
1	Be 313.107†	1297233.9	1312354.9	501.18	ug/L	501.18	ppb	17:58:00
1	Cd 226.502†	45043.4	45613.3	506.04	ug/L	506.04	ppb	17:58:05
1	Co 228.616†	24493.4	24767.0	507.05	ug/L	507.05	ppb	17:58:05
1	Cr 267.716†	44813.9	45094.7	504.78	ug/L	504.78	ppb	17:58:05
1	Cu 324.752†	172335.0	167322.5	500.32	ug/L	500.32	ppb	17:58:05
1	Mn 257.610†	444721.0	447888.0	496.89	ug/L	496.89	ppb	17:58:00
1	Mo 202.031†	7106.9	7141.0	505.09	ug/L	505.09	ppb	17:58:25
1	Ni 231.604†	20226.5	20322.8	505.74	ug/L	505.74	ppb	17:58:05
1	P 214.914†	4247.0	4051.7	2370.1	ug/L	2370.1	ppb	17:58:25
1	Pb 220.353†	3993.6	4089.4	502.39	ug/L	502.39	ppb	17:58:25
1	S 181.975 Axial†	773.7	736.9	1042.0	ug/L	1042.0	ppb	17:58:25
1	Sb 206.836†	1472.3	1456.4	516.97	ug/L	516.97	ppb	17:58:25
1	Se 196.026†	733.8	771.8	515.41	ug/L	515.41	ppb	17:58:25
1	Si 251.611†	80324.8	80426.7	2555.2	ug/L	2555.2	ppb	17:58:05
1	Sn 189.927†	2834.6	2849.9	505.70	ug/L	505.70	ppb	17:58:25
1	Ti 334.940†	305739.2	309596.8	498.53	ug/L	498.53	ppb	17:58:05
1	Tl 190.801†	1589.9	1635.7	504.84	ug/L	504.84	ppb	17:58:25
1	U 409.014†	15255.7	17391.2	511.33	ug/L	511.33	ppb	17:58:05
1	V 292.402†	71801.3	73694.1	510.14	ug/L	510.14	ppb	17:58:05
1	Zn 213.857†	53681.6	53497.4	501.59	ug/L	501.59	ppb	17:58:05
1	SiO2†	79690.8	79766.3	5428.8	ug/L	5428.8	ppb	17:59:33
2	Sc Radial	4980.6	4980.6	98.9	%			17:57:08
2	Y RADIAL	5296.3	5296.3	97.55	%			17:57:08
2	Al 396.153Radial†	6157.6	6225.8	4778.7	ug/L	4778.7	ppb	17:57:08
2	Ca 317.933Radial†	3058.1	3071.9	4915.3	ug/L	4915.3	ppb	17:57:28
2	Fe 238.204 Radial†	585.6	583.2	5061.8	ug/L	5061.8	ppb	17:57:28
2	K 766.490 Radial†	28944.9	26672.5	4873.1	ug/L	4873.1	ppb	17:57:08
2	Mg 279.077 IEC†	156.7	156.5	5228.2	ug/L	5228.2	ppb	17:57:28
2	Na 589.592 Radial†	31804.4	33434.0	10011	ug/L	10011	ppb	17:57:08
2	Sr 421.552†	74078.2	74911.0	483.81	ug/L	483.81	ppb	17:57:08
2	Sc 361.383	846831.5	846831.5	99.347	%			17:58:31
2	Y 371.029	705456.9	705456.9	97.618	%			17:58:31
2	Ag 328.068†	108118.4	108471.1	502.59	ug/L	502.59	ppb	17:58:36
2	As 188.979†	1117.1	1148.0	499.55	ug/L	499.55	ppb	17:58:56
2	B 249.677†	21349.6	22121.8	491.23	ug/L	491.23	ppb	17:58:36
2	Ba 233.527†	62954.3	63379.5	496.05	ug/L	496.05	ppb	17:58:36
2	Be 313.107†	1301692.7	1314834.6	502.10	ug/L	502.10	ppb	17:58:31
2	Cd 226.502†	44261.0	44756.0	496.52	ug/L	496.52	ppb	17:58:36
2	Co 228.616†	24150.7	24384.1	499.23	ug/L	499.23	ppb	17:58:36
2	Cr 267.716†	44168.1	44375.1	496.72	ug/L	496.72	ppb	17:58:36
2	Cu 324.752†	168771.4	163468.6	488.81	ug/L	488.81	ppb	17:58:36
2	Mn 257.610†	447518.7	450015.5	499.24	ug/L	499.24	ppb	17:58:31
2	Mo 202.031†	7101.8	7124.8	503.95	ug/L	503.95	ppb	17:58:56
2	Ni 231.604†	19954.2	20017.4	498.14	ug/L	498.14	ppb	17:58:36

2	P 214.914†	4241.2	4039.2	2365.0 ug/L	2365.0 ppb	17:58:56
2	Pb 220.353†	3977.7	4067.2	499.66 ug/L	499.66 ppb	17:58:56
2	S 181.975 Axial†	769.5	731.6	1034.4 ug/L	1034.4 ppb	17:58:56
2	Sb 206.836†	1481.5	1463.3	519.36 ug/L	519.36 ppb	17:58:56
2	Se 196.026†	733.7	770.5	514.46 ug/L	514.46 ppb	17:58:56
2	Si 251.611†	79005.7	78974.6	2509.0 ug/L	2509.0 ppb	17:58:36
2	Sn 189.927†	2847.3	2858.3	507.18 ug/L	507.18 ppb	17:58:56
2	Ti 334.940†	300290.7	303639.2	488.93 ug/L	488.93 ppb	17:58:36
2	Tl 190.801†	1587.8	1631.1	503.44 ug/L	503.44 ppb	17:58:56
2	U 409.014†	14775.6	16884.3	496.40 ug/L	496.40 ppb	17:58:36
2	V 292.402†	70573.4	72347.0	500.92 ug/L	500.92 ppb	17:58:36
2	Zn 213.857†	52831.6	52558.6	492.78 ug/L	492.78 ppb	17:58:36
2	SiO2†	79443.8	79394.3	5403.5 ug/L	5403.5 ppb	17:59:38
3	Sc Radial	4940.6	4940.6	98.1 %		17:57:33
3	Y RADIAL	5244.0	5244.0	96.59 %		17:57:33
3	Al 396.153Radial†	6201.9	6321.4	4852.6 ug/L	4852.6 ppb	17:57:33
3	Ca 317.933Radial†	3035.5	3074.0	4918.6 ug/L	4918.6 ppb	17:57:53
3	Fe 238.204 Radial†	573.3	575.4	4994.1 ug/L	4994.1 ppb	17:57:53
3	K 766.490 Radial†	29108.4	27076.3	4947.1 ug/L	4947.1 ppb	17:57:33
3	Mg 279.077 IEC†	153.8	154.8	5173.0 ug/L	5173.0 ppb	17:57:53
3	Na 589.592 Radial†	31837.3	33728.2	10099 ug/L	10099 ppb	17:57:33
3	Sr 421.552†	74383.3	75828.9	489.74 ug/L	489.74 ppb	17:57:33
3	Sc 361.383	845532.3	845532.3	99.195 %		17:59:02
3	Y 371.029	703814.3	703814.3	97.391 %		17:59:02
3	Ag 328.068†	108607.2	109131.1	505.61 ug/L	505.61 ppb	17:59:07
3	As 188.979†	1114.9	1147.6	499.35 ug/L	499.35 ppb	17:59:27
3	B 249.677†	21384.0	22189.5	492.75 ug/L	492.75 ppb	17:59:07
3	Ba 233.527†	63066.7	63590.2	497.70 ug/L	497.70 ppb	17:59:07
3	Be 313.107†	1297232.3	1312351.2	501.16 ug/L	501.16 ppb	17:59:02
3	Cd 226.502†	44292.5	44856.3	497.65 ug/L	497.65 ppb	17:59:07
3	Co 228.616†	24132.8	24403.4	499.62 ug/L	499.62 ppb	17:59:07
3	Cr 267.716†	44341.5	44618.3	499.44 ug/L	499.44 ppb	17:59:07
3	Cu 324.752†	169422.0	164385.5	491.54 ug/L	491.54 ppb	17:59:07
3	Mn 257.610†	446325.3	449504.7	498.67 ug/L	498.67 ppb	17:59:02
3	Mo 202.031†	7055.8	7089.4	501.44 ug/L	501.44 ppb	17:59:27
3	Ni 231.604†	19961.1	20055.2	499.08 ug/L	499.08 ppb	17:59:07
3	P 214.914†	4227.3	4031.7	2359.9 ug/L	2359.9 ppb	17:59:27
3	Pb 220.353†	3982.2	4077.9	500.98 ug/L	500.98 ppb	17:59:27
3	S 181.975 Axial†	762.9	726.1	1026.7 ug/L	1026.7 ppb	17:59:27
3	Sb 206.836†	1468.4	1452.4	515.48 ug/L	515.48 ppb	17:59:27
3	Se 196.026†	733.4	771.3	514.75 ug/L	514.75 ppb	17:59:27
3	Si 251.611†	79182.1	79274.6	2518.6 ug/L	2518.6 ppb	17:59:07
3	Sn 189.927†	2818.8	2834.0	502.87 ug/L	502.87 ppb	17:59:27
3	Ti 334.940†	301118.4	304938.0	491.02 ug/L	491.02 ppb	17:59:07
3	Tl 190.801†	1587.9	1633.6	504.21 ug/L	504.21 ppb	17:59:27
3	U 409.014†	15084.2	17218.3	506.25 ug/L	506.25 ppb	17:59:07
3	V 292.402†	70750.3	72634.5	502.87 ug/L	502.87 ppb	17:59:07
3	Zn 213.857†	52945.3	52755.0	494.64 ug/L	494.64 ppb	17:59:07
3	SiO2†	79380.6	79453.5	5407.6 ug/L	5407.6 ppb	17:59:43

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	845964.9	99.245	%	0.0880				0.09%
Sc Radial	4954.9	98.4	%	0.44				0.45%
Y 371.029	704983.6	97.553	%	0.1410				0.14%
Y RADIAL	5288.9	97.41	%	0.767				0.79%
Ag 328.068†	109414.8	506.94	ug/L	5.148	506.94	ppb	5.148	1.02%
QC value within limits for Ag 328.068 Recovery = 101.39%								
Al 396.153Radial†	6295.0	4832.1	ug/L	46.69	4832.1	ppb	46.69	0.97%
QC value within limits for Al 396.153Radial Recovery = 96.64%								
As 188.979†	1146.3	498.82	ug/L	1.096	498.82	ppb	1.096	0.22%
QC value within limits for As 188.979 Recovery = 99.76%								
B 249.677†	22264.4	494.41	ug/L	4.252	494.41	ppb	4.252	0.86%
QC value within limits for B 249.677 Recovery = 98.88%								
Ba 233.527†	63824.7	499.53	ug/L	4.680	499.53	ppb	4.680	0.94%
QC value within limits for Ba 233.527 Recovery = 99.91%								
Be 313.107†	1313180.3	501.48	ug/L	0.538	501.48	ppb	0.538	0.11%
QC value within limits for Be 313.107 Recovery = 100.30%								
Ca 317.933Radial†	3089.3	4943.1	ug/L	45.31	4943.1	ppb	45.31	0.92%

QC value within limits for Ca 317.933Radial Recovery = 98.86%

Cd 226.502†	45075.2	500.07 ug/L	5.201	500.07 ppb	5.201	1.04%

QC value within limits for Cd 226.502 Recovery = 100.01%

Co 228.616†	24518.2	501.97 ug/L	4.407	501.97 ppb	4.407	0.88%

QC value within limits for Co 228.616 Recovery = 100.39%

Cr 267.716†	44696.0	500.31 ug/L	4.097	500.31 ppb	4.097	0.82%

QC value within limits for Cr 267.716 Recovery = 100.06%

Cu 324.752†	165058.9	493.56 ug/L	6.018	493.56 ppb	6.018	1.22%

QC value within limits for Cu 324.752 Recovery = 98.71%

Fe 238.204 Radial†	582.1	5052.6 ug/L	54.49	5052.6 ppb	54.49	1.08%

QC value within limits for Fe 238.204 Radial Recovery = 101.05%

K 766.490 Radial†	26927.3	4919.8 ug/L	40.63	4919.8 ppb	40.63	0.83%

QC value within limits for K 766.490 Radial Recovery = 98.40%

Mg 279.077 IEC†	155.6	5198.5 ug/L	27.82	5198.5 ppb	27.82	0.54%

QC value within limits for Mg 279.077 IEC Recovery = 103.97%

Mn 257.610†	449136.1	498.27 ug/L	1.227	498.27 ppb	1.227	0.25%

QC value within limits for Mn 257.610 Recovery = 99.65%

Mo 202.031†	7118.4	503.49 ug/L	1.868	503.49 ppb	1.868	0.37%

QC value within limits for Mo 202.031 Recovery = 100.70%

Na 589.592 Radial†	33653.5	10076 ug/L	57.9	10076 ppb	57.9	0.57%

QC value within limits for Na 589.592 Radial Recovery = 100.76%

Ni 231.604†	20131.8	500.98 ug/L	4.143	500.98 ppb	4.143	0.83%

QC value within limits for Ni 231.604 Recovery = 100.20%

P 214.914†	4040.9	2365.0 ug/L	5.11	2365.0 ppb	5.11	0.22%

QC value within limits for P 214.914 Recovery = 94.60%

Pb 220.353†	4078.2	501.01 ug/L	1.365	501.01 ppb	1.365	0.27%

QC value within limits for Pb 220.353 Recovery = 100.20%

S 181.975 Axial†	731.5	1034.4 ug/L	7.66	1034.4 ppb	7.66	0.74%

QC value within limits for S 181.975 Axial Recovery = 103.44%

Sb 206.836†	1457.3	517.27 ug/L	1.954	517.27 ppb	1.954	0.38%

QC value within limits for Sb 206.836 Recovery = 103.45%

Se 196.026†	771.2	514.87 ug/L	0.489	514.87 ppb	0.489	0.09%

QC value within limits for Se 196.026 Recovery = 102.97%

Si 251.611†	79558.6	2527.6 ug/L	24.40	2527.6 ppb	24.40	0.97%

QC value within limits for Si 251.611 Recovery = 101.10%

Sn 189.927†	2847.4	505.25 ug/L	2.188	505.25 ppb	2.188	0.43%

QC value within limits for Sn 189.927 Recovery = 101.05%

Sr 421.552†	75607.3	488.30 ug/L	3.980	488.30 ppb	3.980	0.81%

QC value within limits for Sr 421.552 Recovery = 97.66%

Ti 334.940†	306058.0	492.83 ug/L	5.049	492.83 ppb	5.049	1.02%

QC value within limits for Ti 334.940 Recovery = 98.57%

Tl 190.801†	1633.5	504.16 ug/L	0.698	504.16 ppb	0.698	0.14%

QC value within limits for Tl 190.801 Recovery = 100.83%

U 409.014†	17164.6	504.66 ug/L	7.591	504.66 ppb	7.591	1.50%

QC value within limits for U 409.014 Recovery = 100.93%

V 292.402†	72891.9	504.64 ug/L	4.860	504.64 ppb	4.860	0.96%

QC value within limits for V 292.402 Recovery = 100.93%

Zn 213.857†	52937.0	496.34 ug/L	4.645	496.34 ppb	4.645	0.94%

QC value within limits for Zn 213.857 Recovery = 99.27%

SiO2†	79538.0	5413.3 ug/L	13.61	5413.3 ppb	13.61	0.25%

QC value within limits for SiO2 Recovery = 101.23%

All analyte(s) passed QC.

Sequence No.: 25
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 1/11/2010 18:01:52
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5032.1	5032.1	99.9	%			18:03:44
1	Y RADIAL	5414.0	5414.0	99.72	%			18:03:44
1	Al 396.153Radial†	-15.3	-14.6	-11.291	ug/L	-11.291	ppb	18:03:44
1	Ca 317.933Radial†	17.7	-2.0	-3.2800	ug/L	-3.2800	ppb	18:04:04
1	Fe 238.204 Radial†	13.6	4.7	40.999	ug/L	40.999	ppb	18:04:04
1	K 766.490 Radial†	2764.5	176.1	32.254	ug/L	32.254	ppb	18:03:44
1	Mg 279.077 IEC†	0.7	-1.2	-39.898	ug/L	-39.898	ppb	18:04:04
1	Na 589.592 Radial†	-1075.7	204.0	61.089	ug/L	61.089	ppb	18:03:44
1	Sr 421.552†	41.1	60.7	0.3919	ug/L	0.3919	ppb	18:03:44
1	Sc 361.383	841942.6	841942.6	98.773	%			18:05:01
1	Y 371.029	716299.6	716299.6	99.119	%			18:05:01
1	Ag 328.068†	292.4	-62.0	-0.2711	ug/L	-0.2711	ppb	18:05:01
1	As 188.979†	-20.6	2.8	1.2194	ug/L	1.2194	ppb	18:05:21
1	B 249.677†	-432.2	194.3	4.3267	ug/L	4.3267	ppb	18:05:21
1	Ba 233.527†	-14.5	-3.3	-0.0244	ug/L	-0.0244	ppb	18:05:21
1	Be 313.107†	-4496.2	33.3	0.0129	ug/L	0.0129	ppb	18:05:01
1	Cd 226.502†	-196.1	5.5	0.0567	ug/L	0.0567	ppb	18:05:21
1	Co 228.616†	-79.0	-5.3	-0.1085	ug/L	-0.1085	ppb	18:05:21
1	Cr 267.716†	100.0	18.0	0.2021	ug/L	0.2021	ppb	18:05:21
1	Cu 324.752†	6346.0	12.6	0.0408	ug/L	0.0408	ppb	18:05:01
1	Mn 257.610†	417.3	-22.4	-0.0186	ug/L	-0.0186	ppb	18:05:21
1	Mo 202.031†	29.3	6.0	0.4237	ug/L	0.4237	ppb	18:05:21
1	Ni 231.604†	62.8	-4.4	-0.1101	ug/L	-0.1101	ppb	18:05:21
1	P 214.914†	215.4	-11.8	-7.2505	ug/L	-7.2505	ppb	18:05:21
1	Pb 220.353†	-64.2	-1.7	-0.2107	ug/L	-0.2107	ppb	18:05:21
1	S 181.975 Axial†	67.7	25.5	36.124	ug/L	36.124	ppb	18:05:21
1	Sb 206.836†	39.0	11.6	3.9684	ug/L	3.9684	ppb	18:05:21
1	Se 196.026†	-29.3	2.3	1.6428	ug/L	1.6428	ppb	18:05:21
1	Si 251.611†	551.3	7.7	0.2410	ug/L	0.2410	ppb	18:05:21
1	Sn 189.927†	5.1	-2.5	-0.4355	ug/L	-0.4355	ppb	18:05:21
1	Ti 334.940†	-1301.9	56.5	0.0945	ug/L	0.0945	ppb	18:05:01
1	Tl 190.801†	-29.2	3.3	1.0204	ug/L	1.0204	ppb	18:05:21
1	U 409.014†	-2040.2	-54.0	-1.5967	ug/L	-1.5967	ppb	18:05:01
1	V 292.402†	-1301.0	-7.4	-0.0547	ug/L	-0.0547	ppb	18:05:01
1	Zn 213.857†	634.9	22.6	0.2102	ug/L	0.2102	ppb	18:05:21
1	SiO2†	552.6	-12.2	-0.8472	ug/L	-0.8472	ppb	18:06:17
2	Sc Radial	5088.6	5088.6	101	%			18:04:09
2	Y RADIAL	5460.6	5460.6	100.6	%			18:04:09
2	Al 396.153Radial†	16.4	16.9	13.046	ug/L	13.046	ppb	18:04:09
2	Ca 317.933Radial†	18.1	-1.9	-3.0157	ug/L	-3.0157	ppb	18:04:30
2	Fe 238.204 Radial†	7.1	-1.9	-16.122	ug/L	-16.122	ppb	18:04:30
2	K 766.490 Radial†	2599.4	-18.0	-3.3445	ug/L	-3.3445	ppb	18:04:09
2	Mg 279.077 IEC†	5.9	3.9	131.67	ug/L	131.67	ppb	18:04:30
2	Na 589.592 Radial†	-1059.8	231.8	69.392	ug/L	69.392	ppb	18:04:09
2	Sr 421.552†	36.0	55.1	0.3561	ug/L	0.3561	ppb	18:04:09
2	Sc 361.383	827958.1	827958.1	97.133	%			18:05:27
2	Y 371.029	703295.6	703295.6	97.319	%			18:05:27
2	Ag 328.068†	285.1	-64.4	-0.3026	ug/L	-0.3026	ppb	18:05:27
2	As 188.979†	-19.3	3.8	1.6437	ug/L	1.6437	ppb	18:05:47
2	B 249.677†	-436.4	182.6	4.0715	ug/L	4.0715	ppb	18:05:47
2	Ba 233.527†	-12.6	-1.6	-0.0145	ug/L	-0.0145	ppb	18:05:47
2	Be 313.107†	-4441.1	13.2	0.0053	ug/L	0.0053	ppb	18:05:27
2	Cd 226.502†	-197.9	0.4	0.0053	ug/L	0.0053	ppb	18:05:47
2	Co 228.616†	-69.3	3.3	0.0670	ug/L	0.0670	ppb	18:05:47
2	Cr 267.716†	93.6	13.2	0.1465	ug/L	0.1465	ppb	18:05:47
2	Cu 324.752†	6334.7	109.4	0.3276	ug/L	0.3276	ppb	18:05:27
2	Mn 257.610†	419.5	-13.0	-0.0216	ug/L	-0.0216	ppb	18:05:47
2	Mo 202.031†	20.6	-2.5	-0.1779	ug/L	-0.1779	ppb	18:05:47
2	Ni 231.604†	67.7	1.7	0.0432	ug/L	0.0432	ppb	18:05:47

2	P 214.914†	220.5	-2.9	-1.8284	ug/L	-1.8284 ppb	18:05:47
2	Pb 220.353†	-48.4	13.5	1.6580	ug/L	1.6580 ppb	18:05:47
2	S 181.975 Axial†	55.3	13.9	19.705	ug/L	19.705 ppb	18:05:47
2	Sb 206.836†	41.8	15.1	5.1298	ug/L	5.1298 ppb	18:05:47
2	Se 196.026†	-37.8	-6.9	-4.4783	ug/L	-4.4783 ppb	18:05:47
2	Si 251.611†	528.5	-6.3	-0.1991	ug/L	-0.1991 ppb	18:05:47
2	Sn 189.927†	-2.9	-10.7	-1.8935	ug/L	-1.8935 ppb	18:05:47
2	Ti 334.940†	-1255.1	82.4	0.1225	ug/L	0.1225 ppb	18:05:27
2	Tl 190.801†	-31.5	0.4	0.1292	ug/L	0.1292 ppb	18:05:47
2	U 409.014†	-2026.4	-74.6	-2.2002	ug/L	-2.2002 ppb	18:05:27
2	V 292.402†	-1364.1	-94.7	-0.6482	ug/L	-0.6482 ppb	18:05:27
2	Zn 213.857†	617.7	15.7	0.1494	ug/L	0.1494 ppb	18:05:47
2	SiO2†	544.4	-11.2	-0.7600	ug/L	-0.7600 ppb	18:06:22
3	Sc Radial	4992.2	4992.2	99.1	%		18:04:35
3	Y RADIAL	5397.0	5397.0	99.40	%		18:04:35
3	Al 396.153Radial†	-1.3	-0.6	-0.4769	ug/L	-0.4769 ppb	18:04:35
3	Ca 317.933Radial†	15.3	-4.3	-6.9230	ug/L	-6.9230 ppb	18:04:55
3	Fe 238.204 Radial†	10.3	1.5	12.892	ug/L	12.892 ppb	18:04:55
3	K 766.490 Radial†	2660.8	93.6	17.140	ug/L	17.140 ppb	18:04:35
3	Mg 279.077 IEC†	-0.4	-2.4	-78.673	ug/L	-78.673 ppb	18:04:55
3	Na 589.592 Radial†	-1117.2	153.6	45.990	ug/L	45.990 ppb	18:04:35
3	Sr 421.552†	19.3	39.0	0.2517	ug/L	0.2517 ppb	18:04:35
3	Sc 361.383	835723.6	835723.6	98.044	%		18:05:52
3	Y 371.029	710110.9	710110.9	98.262	%		18:05:52
3	Ag 328.068†	317.7	-33.9	-0.1524	ug/L	-0.1524 ppb	18:05:52
3	As 188.979†	-23.8	-0.7	-0.2952	ug/L	-0.2952 ppb	18:06:12
3	B 249.677†	-447.7	175.3	3.9063	ug/L	3.9063 ppb	18:06:12
3	Ba 233.527†	-20.4	-9.4	-0.0743	ug/L	-0.0743 ppb	18:06:12
3	Be 313.107†	-4511.7	-16.3	-0.0064	ug/L	-0.0064 ppb	18:05:52
3	Cd 226.502†	-186.3	14.1	0.1550	ug/L	0.1550 ppb	18:06:12
3	Co 228.616†	-80.5	-7.4	-0.1528	ug/L	-0.1528 ppb	18:06:12
3	Cr 267.716†	99.4	18.1	0.2029	ug/L	0.2029 ppb	18:06:12
3	Cu 324.752†	6417.0	132.8	0.3989	ug/L	0.3989 ppb	18:05:52
3	Mn 257.610†	430.8	-5.4	-0.0014	ug/L	-0.0014 ppb	18:06:12
3	Mo 202.031†	17.9	-5.4	-0.3814	ug/L	-0.3814 ppb	18:06:12
3	Ni 231.604†	70.0	3.4	0.0845	ug/L	0.0845 ppb	18:06:12
3	P 214.914†	221.2	-4.3	-2.7203	ug/L	-2.7203 ppb	18:06:12
3	Pb 220.353†	-45.2	17.3	2.1165	ug/L	2.1165 ppb	18:06:12
3	S 181.975 Axial†	58.7	16.9	23.929	ug/L	23.929 ppb	18:06:12
3	Sb 206.836†	42.6	15.6	5.3268	ug/L	5.3268 ppb	18:06:12
3	Se 196.026†	-27.5	4.0	2.6010	ug/L	2.6010 ppb	18:06:12
3	Si 251.611†	541.0	1.3	0.0463	ug/L	0.0463 ppb	18:06:12
3	Sn 189.927†	7.3	-0.2	-0.0419	ug/L	-0.0419 ppb	18:06:12
3	Ti 334.940†	-1399.4	-52.8	-0.0785	ug/L	-0.0785 ppb	18:05:52
3	Tl 190.801†	-37.9	-5.8	-1.7945	ug/L	-1.7945 ppb	18:06:12
3	U 409.014†	-2040.8	-69.9	-2.0643	ug/L	-2.0643 ppb	18:05:52
3	V 292.402†	-1360.6	-78.1	-0.5460	ug/L	-0.5460 ppb	18:05:52
3	Zn 213.857†	617.9	10.0	0.0924	ug/L	0.0924 ppb	18:06:12
3	SiO2†	570.9	10.6	0.7314	ug/L	0.7314 ppb	18:06:27

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	835208.1	97.983	%	0.8220				0.84%
Sc Radial	5037.7	100	%	1.0				0.96%
Y 371.029	709902.0	98.234	%	0.9001				0.92%
Y RADIAL	5423.9	99.90	%	0.606				0.61%
Ag 328.068†	-53.5	-0.2420	ug/L	0.07922	-0.2420	ppb	0.07922	32.73%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	0.5	0.4259	ug/L	12.19337	0.4259	ppb	12.19337	>999.9%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	2.0	0.8560	ug/L	1.01923	0.8560	ppb	1.01923	119.07%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	184.0	4.1015	ug/L	0.21183	4.1015	ppb	0.21183	5.16%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-4.8	-0.0377	ug/L	0.03202	-0.0377	ppb	0.03202	84.87%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	10.0	0.0039	ug/L	0.00973	0.0039	ppb	0.00973	247.36%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-2.8	-4.4062	ug/L	2.18357	-4.4062	ppb	2.18357	49.56%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                 6.7      0.0723 ug/L       0.07602      0.0723 ppb        0.07602 105.10%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                -3.1     -0.0648 ug/L       0.11624     -0.0648 ppb        0.11624 179.45%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                16.4      0.1838 ug/L       0.03237      0.1838 ppb        0.03237  17.61%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†                84.9      0.2558 ug/L       0.18958      0.2558 ppb        0.18958  74.12%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          1.5     12.590 ug/L       28.5613     12.590 ppb        28.5613 226.86%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          83.9     15.350 ug/L       17.8665     15.350 ppb        17.8665 116.40%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             0.1      4.3650 ug/L      111.93789     4.3650 ppb       111.93789 >999.9%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               -13.6     -0.0139 ug/L       0.01092     -0.0139 ppb        0.01092  78.75%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                -0.7     -0.0452 ug/L       0.41864     -0.0452 ppb        0.41864 927.03%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        196.5     58.823 ug/L       11.8639     58.823 ppb        11.8639  20.17%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                 0.2      0.0059 ug/L       0.10255      0.0059 ppb        0.10255 >999.9%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -6.3     -3.9331 ug/L       2.90736     -3.9331 ppb        2.90736  73.92%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                 9.7      1.1879 ug/L       1.23277      1.1879 ppb        1.23277 103.77%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           18.8     26.586 ug/L        8.5259     26.586 ppb         8.5259  32.07%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                14.1      4.8083 ug/L       0.73402      4.8083 ppb        0.73402  15.27%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -0.2     -0.0782 ug/L       3.84063     -0.0782 ppb        3.84063 >999.9%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                 0.9      0.0294 ug/L       0.22052      0.0294 ppb        0.22052 750.90%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                -4.5     -0.7903 ug/L       0.97541     -0.7903 ppb        0.97541 123.42%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                51.6      0.3332 ug/L       0.07283      0.3332 ppb        0.07283  21.85%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                28.7      0.0462 ug/L       0.10890      0.0462 ppb        0.10890 235.88%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                -0.7     -0.2150 ug/L       1.43867     -0.2150 ppb        1.43867 669.30%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                -66.2     -1.9537 ug/L       0.31659     -1.9537 ppb        0.31659  16.20%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                -60.1     -0.4163 ug/L       0.31725     -0.4163 ppb        0.31725  76.21%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                16.1      0.1507 ug/L       0.05891      0.1507 ppb        0.05891  39.10%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                      -4.3     -0.2919 ug/L       0.88728     -0.2919 ppb        0.88728 303.95%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 33
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 1/11/2010 18:58:03
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5144.6	5144.6	102	%			18:59:55
1	Y RADIAL	5507.0	5507.0	101.4	%			18:59:55
1	Al 396.153Radial†	6406.2	6270.7	4813.1	ug/L	4813.1	ppb	18:59:55
1	Ca 317.933Radial†	3114.2	3028.3	4845.5	ug/L	4845.5	ppb	19:00:15
1	Fe 238.204 Radial†	592.9	571.4	4960.0	ug/L	4960.0	ppb	19:00:15
1	K 766.490 Radial†	29692.5	26471.4	4836.2	ug/L	4836.2	ppb	18:59:55
1	Mg 279.077 IEC†	157.5	152.2	5085.6	ug/L	5085.6	ppb	19:00:15
1	Na 589.592 Radial†	32930.9	33511.6	10034	ug/L	10034	ppb	18:59:55
1	Sr 421.552†	76540.8	74933.9	483.95	ug/L	483.95	ppb	18:59:55
1	Sc 361.383	849883.4	849883.4	99.705	%			19:01:12
1	Y 371.029	708700.0	708700.0	98.067	%			19:01:12
1	Ag 328.068†	109742.0	109708.7	508.27	ug/L	508.27	ppb	19:01:17
1	As 188.979†	1136.7	1163.7	506.32	ug/L	506.32	ppb	19:01:38
1	B 249.677†	21497.9	22193.3	492.83	ug/L	492.83	ppb	19:01:17
1	Ba 233.527†	63727.5	63927.5	500.34	ug/L	500.34	ppb	19:01:17
1	Be 313.107†	1322793.7	1331292.9	508.38	ug/L	508.38	ppb	19:01:12
1	Cd 226.502†	44865.2	45202.1	501.49	ug/L	501.49	ppb	19:01:17
1	Co 228.616†	24369.9	24516.6	501.95	ug/L	501.95	ppb	19:01:17
1	Cr 267.716†	44675.4	44724.3	500.63	ug/L	500.63	ppb	19:01:17
1	Cu 324.752†	171998.3	166095.0	496.65	ug/L	496.65	ppb	19:01:17
1	Mn 257.610†	451883.5	452775.7	502.29	ug/L	502.29	ppb	19:01:12
1	Mo 202.031†	7199.3	7196.9	509.04	ug/L	509.04	ppb	19:01:38
1	Ni 231.604†	20128.7	20120.3	500.70	ug/L	500.70	ppb	19:01:17
1	P 214.914†	4345.1	4128.1	2417.8	ug/L	2417.8	ppb	19:01:38
1	Pb 220.353†	4038.4	4113.7	505.38	ug/L	505.38	ppb	19:01:38
1	S 181.975 Axial†	822.5	781.9	1105.7	ug/L	1105.7	ppb	19:01:38
1	Sb 206.836†	1510.2	1486.8	527.58	ug/L	527.58	ppb	19:01:38
1	Se 196.026†	758.2	792.4	528.28	ug/L	528.28	ppb	19:01:38
1	Si 251.611†	80267.6	79954.6	2540.2	ug/L	2540.2	ppb	19:01:17
1	Sn 189.927†	2889.1	2890.0	512.77	ug/L	512.77	ppb	19:01:38
1	Ti 334.940†	304788.1	307064.4	494.45	ug/L	494.45	ppb	19:01:17
1	Tl 190.801†	1606.7	1644.3	507.52	ug/L	507.52	ppb	19:01:38
1	U 409.014†	15207.6	17264.2	507.60	ug/L	507.60	ppb	19:01:17
1	V 292.402†	71520.5	73041.8	505.76	ug/L	505.76	ppb	19:01:17
1	Zn 213.857†	53506.3	53044.3	497.36	ug/L	497.36	ppb	19:01:17
1	SiO2†	81243.4	80912.1	5506.9	ug/L	5506.9	ppb	19:02:45
2	Sc Radial	5054.1	5054.1	100	%			19:00:20
2	Y RADIAL	5400.1	5400.1	99.46	%			19:00:20
2	Al 396.153Radial†	6372.3	6349.2	4873.4	ug/L	4873.4	ppb	19:00:20
2	Ca 317.933Radial†	3116.2	3084.9	4936.1	ug/L	4936.1	ppb	19:00:40
2	Fe 238.204 Radial†	597.5	586.4	5090.1	ug/L	5090.1	ppb	19:00:40
2	K 766.490 Radial†	29643.8	26943.4	4922.6	ug/L	4922.6	ppb	19:00:20
2	Mg 279.077 IEC†	155.6	153.1	5115.5	ug/L	5115.5	ppb	19:00:40
2	Na 589.592 Radial†	32617.7	33776.9	10113	ug/L	10113	ppb	19:00:20
2	Sr 421.552†	76232.5	75968.6	490.64	ug/L	490.64	ppb	19:00:20
2	Sc 361.383	841500.4	841500.4	98.722	%			19:01:43
2	Y 371.029	701064.2	701064.2	97.011	%			19:01:43
2	Ag 328.068†	111194.9	112276.9	520.18	ug/L	520.18	ppb	19:01:48
2	As 188.979†	1140.0	1178.3	512.74	ug/L	512.74	ppb	19:02:08
2	B 249.677†	22053.5	22971.0	510.12	ug/L	510.12	ppb	19:01:48
2	Ba 233.527†	64584.2	65432.0	512.11	ug/L	512.11	ppb	19:01:48
2	Be 313.107†	1302730.2	1324186.3	505.70	ug/L	505.70	ppb	19:01:43
2	Cd 226.502†	45568.8	46363.0	514.37	ug/L	514.37	ppb	19:01:48
2	Co 228.616†	24775.4	25170.9	515.32	ug/L	515.32	ppb	19:01:48
2	Cr 267.716†	45418.1	45923.0	514.05	ug/L	514.05	ppb	19:01:48
2	Cu 324.752†	174409.6	170256.0	509.09	ug/L	509.09	ppb	19:01:48
2	Mn 257.610†	446399.5	451735.6	501.16	ug/L	501.16	ppb	19:01:43
2	Mo 202.031†	7199.9	7269.4	514.17	ug/L	514.17	ppb	19:02:08
2	Ni 231.604†	20501.0	20698.6	515.09	ug/L	515.09	ppb	19:01:48

2	P 214.914†	4332.4	4158.7	2433.7 ug/L	2433.7 ppb	19:02:08
2	Pb 220.353†	4018.7	4134.1	507.87 ug/L	507.87 ppb	19:02:08
2	S 181.975 Axial†	824.6	792.3	1120.3 ug/L	1120.3 ppb	19:02:08
2	Sb 206.836†	1507.9	1499.5	532.04 ug/L	532.04 ppb	19:02:08
2	Se 196.026†	748.5	790.2	527.29 ug/L	527.29 ppb	19:02:08
2	Si 251.611†	81375.3	81878.6	2601.4 ug/L	2601.4 ppb	19:01:48
2	Sn 189.927†	2860.0	2889.4	512.69 ug/L	512.69 ppb	19:02:08
2	Ti 334.940†	308906.0	314280.9	506.07 ug/L	506.07 ppb	19:01:48
2	Tl 190.801†	1603.9	1657.5	511.56 ug/L	511.56 ppb	19:02:08
2	U 409.014†	15380.3	17591.1	517.20 ug/L	517.20 ppb	19:01:48
2	V 292.402†	72630.9	74881.2	518.38 ug/L	518.38 ppb	19:01:48
2	Zn 213.857†	54302.8	54385.8	509.92 ug/L	509.92 ppb	19:01:48
2	SiO2†	81061.5	81539.5	5549.6 ug/L	5549.6 ppb	19:02:50
3	Sc Radial	5031.9	5031.9	99.9 %		19:00:45
3	Y RADIAL	5396.5	5396.5	99.39 %		19:00:45
3	Al 396.153Radial†	6345.2	6350.2	4874.7 ug/L	4874.7 ppb	19:00:45
3	Ca 317.933Radial†	3113.6	3095.9	4953.8 ug/L	4953.8 ppb	19:01:05
3	Fe 238.204 Radial†	589.4	580.9	5041.8 ug/L	5041.8 ppb	19:01:05
3	K 766.490 Radial†	29541.1	26971.1	4927.8 ug/L	4927.8 ppb	19:00:45
3	Mg 279.077 IEC†	155.5	153.7	5135.4 ug/L	5135.4 ppb	19:01:05
3	Na 589.592 Radial†	32332.6	33635.2	10071 ug/L	10071 ppb	19:00:45
3	Sr 421.552†	75829.5	75900.8	490.20 ug/L	490.20 ppb	19:00:45
3	Sc 361.383	857935.6	857935.6	100.65 %		19:02:14
3	Y 371.029	715236.9	715236.9	98.972 %		19:02:14
3	Ag 328.068†	110051.9	108983.5	504.95 ug/L	504.95 ppb	19:02:19
3	As 188.979†	1139.0	1155.2	502.68 ug/L	502.68 ppb	19:02:39
3	B 249.677†	21674.8	22166.7	492.24 ug/L	492.24 ppb	19:02:19
3	Ba 233.527†	63825.4	63424.9	496.41 ug/L	496.41 ppb	19:02:19
3	Be 313.107†	1327030.1	1323050.1	505.23 ug/L	505.23 ppb	19:02:14
3	Cd 226.502†	44870.2	44784.7	496.85 ug/L	496.85 ppb	19:02:19
3	Co 228.616†	24430.9	24347.8	498.48 ug/L	498.48 ppb	19:02:19
3	Cr 267.716†	44855.9	44483.1	497.93 ug/L	497.93 ppb	19:02:19
3	Cu 324.752†	172448.3	164923.0	493.15 ug/L	493.15 ppb	19:02:19
3	Mn 257.610†	453941.4	450566.5	499.85 ug/L	499.85 ppb	19:02:14
3	Mo 202.031†	7182.9	7112.8	503.10 ug/L	503.10 ppb	19:02:39
3	Ni 231.604†	20189.2	19991.0	497.48 ug/L	497.48 ppb	19:02:19
3	P 214.914†	4314.1	4056.4	2374.6 ug/L	2374.6 ppb	19:02:39
3	Pb 220.353†	4039.8	4077.1	500.88 ug/L	500.88 ppb	19:02:39
3	S 181.975 Axial†	823.9	775.6	1096.7 ug/L	1096.7 ppb	19:02:39
3	Sb 206.836†	1502.9	1465.3	519.99 ug/L	519.99 ppb	19:02:39
3	Se 196.026†	739.8	767.0	512.15 ug/L	512.15 ppb	19:02:39
3	Si 251.611†	80305.3	79236.5	2517.4 ug/L	2517.4 ppb	19:02:19
3	Sn 189.927†	2871.7	2845.5	504.91 ug/L	504.91 ppb	19:02:39
3	Ti 334.940†	305241.9	304646.2	490.56 ug/L	490.56 ppb	19:02:19
3	Tl 190.801†	1617.4	1639.8	506.11 ug/L	506.11 ppb	19:02:39
3	U 409.014†	15197.1	17110.6	503.07 ug/L	503.07 ppb	19:02:19
3	V 292.402†	71738.1	72584.8	502.54 ug/L	502.54 ppb	19:02:19
3	Zn 213.857†	53694.1	52727.3	494.38 ug/L	494.38 ppb	19:02:19
3	SiO2†	80175.4	79086.2	5382.5 ug/L	5382.5 ppb	19:02:55

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	849773.1	99.692	%	0.9641				0.97%
Sc Radial	5076.9	101	%	1.2				1.18%
Y 371.029	708333.7	98.016	%	0.9816				1.00%
Y RADIAL	5434.5	100.1	%	1.16				1.16%
Ag 328.068†	110323.1	511.13	ug/L	8.009	511.13	ppb	8.009	1.57%
QC value within limits for Ag 328.068 Recovery = 102.23%								
Al 396.153Radial†	6323.4	4853.7	ug/L	35.21	4853.7	ppb	35.21	0.73%
QC value within limits for Al 396.153Radial Recovery = 97.07%								
As 188.979†	1165.8	507.25	ug/L	5.095	507.25	ppb	5.095	1.00%
QC value within limits for As 188.979 Recovery = 101.45%								
B 249.677†	22443.7	498.40	ug/L	10.155	498.40	ppb	10.155	2.04%
QC value within limits for B 249.677 Recovery = 99.68%								
Ba 233.527†	64261.5	502.95	ug/L	8.173	502.95	ppb	8.173	1.63%
QC value within limits for Ba 233.527 Recovery = 100.59%								
Be 313.107†	1326176.4	506.44	ug/L	1.699	506.44	ppb	1.699	0.34%
QC value within limits for Be 313.107 Recovery = 101.29%								
Ca 317.933Radial†	3069.7	4911.8	ug/L	58.07	4911.8	ppb	58.07	1.18%

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   QC value within limits for Ca 317.933Radial  Recovery = 98.24%
Cd 226.502†            45449.9      504.23 ug/L         9.079      504.23 ppb          9.079   1.80%
   QC value within limits for Cd 226.502  Recovery = 100.85%
Co 228.616†            24678.5      505.25 ug/L         8.893      505.25 ppb          8.893   1.76%
   QC value within limits for Co 228.616  Recovery = 101.05%
Cr 267.716†            45043.5      504.20 ug/L         8.631      504.20 ppb          8.631   1.71%
   QC value within limits for Cr 267.716  Recovery = 100.84%
Cu 324.752†           167091.3      499.63 ug/L         8.379      499.63 ppb          8.379   1.68%
   QC value within limits for Cu 324.752  Recovery = 99.93%
Fe 238.204 Radial†       579.6      5030.6 ug/L        65.79      5030.6 ppb          65.79   1.31%
   QC value within limits for Fe 238.204 Radial  Recovery = 100.61%
K 766.490 Radial†      26795.3      4895.5 ug/L        51.48      4895.5 ppb          51.48   1.05%
   QC value within limits for K 766.490 Radial  Recovery = 97.91%
Mg 279.077 IEC†          153.0      5112.2 ug/L        25.03      5112.2 ppb          25.03   0.49%
   QC value within limits for Mg 279.077 IEC  Recovery = 102.24%
Mn 257.610†           451692.6      501.10 ug/L         1.222      501.10 ppb          1.222   0.24%
   QC value within limits for Mn 257.610  Recovery = 100.22%
Mo 202.031†             7193.0      508.77 ug/L         5.539      508.77 ppb          5.539   1.09%
   QC value within limits for Mo 202.031  Recovery = 101.75%
Na 589.592 Radial†     33641.2       10073 ug/L          39.7       10073 ppb           39.7   0.39%
   QC value within limits for Na 589.592 Radial  Recovery = 100.73%
Ni 231.604†            20269.9      504.42 ug/L         9.377      504.42 ppb          9.377   1.86%
   QC value within limits for Ni 231.604  Recovery = 100.88%
P 214.914†              4114.4      2408.7 ug/L        30.57      2408.7 ppb          30.57   1.27%
   QC value within limits for P 214.914  Recovery = 96.35%
Pb 220.353†             4108.3      504.71 ug/L         3.545      504.71 ppb          3.545   0.70%
   QC value within limits for Pb 220.353  Recovery = 100.94%
S 181.975 Axial†         783.3      1107.6 ug/L        11.91      1107.6 ppb          11.91   1.08%
   QC value greater than the upper limit for S 181.975 Axial  Recovery = 110.76%
Sb 206.836†             1483.9      526.54 ug/L         6.094      526.54 ppb          6.094   1.16%
   QC value within limits for Sb 206.836  Recovery = 105.31%
Se 196.026†              783.2      522.57 ug/L         9.039      522.57 ppb          9.039   1.73%
   QC value within limits for Se 196.026  Recovery = 104.51%
Si 251.611†            80356.6      2553.0 ug/L        43.45      2553.0 ppb          43.45   1.70%
   QC value within limits for Si 251.611  Recovery = 102.12%
Sn 189.927†             2875.0      510.13 ug/L         4.515      510.13 ppb          4.515   0.89%
   QC value within limits for Sn 189.927  Recovery = 102.03%
Sr 421.552†            75601.1      488.26 ug/L         3.738      488.26 ppb          3.738   0.77%
   QC value within limits for Sr 421.552  Recovery = 97.65%
Ti 334.940†           308663.8      497.03 ug/L         8.071      497.03 ppb          8.071   1.62%
   QC value within limits for Ti 334.940  Recovery = 99.41%
Tl 190.801†             1647.2      508.40 ug/L         2.826      508.40 ppb          2.826   0.56%
   QC value within limits for Tl 190.801  Recovery = 101.68%
U 409.014†             17322.0      509.29 ug/L         7.216      509.29 ppb          7.216   1.42%
   QC value within limits for U 409.014  Recovery = 101.86%
V 292.402†             73502.6      508.89 ug/L         8.370      508.89 ppb          8.370   1.64%
   QC value within limits for V 292.402  Recovery = 101.78%
Zn 213.857†            53385.8      500.55 ug/L         8.252      500.55 ppb          8.252   1.65%
   QC value within limits for Zn 213.857  Recovery = 100.11%
SiO2†                  80512.6      5479.7 ug/L        86.82      5479.7 ppb          86.82   1.58%
   QC value within limits for SiO2  Recovery = 102.47%
QC Failed.  Continue with analysis.
```

Sequence No.: 34
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 1/11/2010 19:05:04
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5140.9	5140.9	102	%			19:06:56
1	Y RADIAL	5525.1	5525.1	101.8	%			19:06:56
1	Al 396.153Radial†	-14.0	-13.1	-10.088	ug/L	-10.088	ppb	19:06:56
1	Ca 317.933Radial†	20.2	-0.0	-0.0067	ug/L	-0.0067	ppb	19:07:16
1	Fe 238.204 Radial†	8.6	-0.5	-4.3200	ug/L	-4.3200	ppb	19:07:16
1	K 766.490 Radial†	2641.6	-2.8	-0.5760	ug/L	-0.5760	ppb	19:06:56
1	Mg 279.077 IEC†	1.4	-0.6	-19.419	ug/L	-19.419	ppb	19:07:16
1	Na 589.592 Radial†	-966.2	334.1	100.04	ug/L	100.04	ppb	19:06:56
1	Sr 421.552†	9.0	28.3	0.1828	ug/L	0.1828	ppb	19:06:56
1	Sc 361.383	860728.5	860728.5	100.98	%			19:08:13
1	Y 371.029	729476.3	729476.3	100.94	%			19:08:13
1	Ag 328.068†	308.9	-52.1	-0.2434	ug/L	-0.2434	ppb	19:08:13
1	As 188.979†	-36.8	-12.9	-5.5758	ug/L	-5.5758	ppb	19:08:33
1	B 249.677†	-450.6	185.6	4.1364	ug/L	4.1364	ppb	19:08:33
1	Ba 233.527†	-23.0	-11.4	-0.0898	ug/L	-0.0898	ppb	19:08:33
1	Be 313.107†	-4540.4	88.9	0.0342	ug/L	0.0342	ppb	19:08:13
1	Cd 226.502†	-191.0	14.9	0.1665	ug/L	0.1665	ppb	19:08:33
1	Co 228.616†	-62.5	12.8	0.2617	ug/L	0.2617	ppb	19:08:33
1	Cr 267.716†	64.2	-19.7	-0.2208	ug/L	-0.2208	ppb	19:08:33
1	Cu 324.752†	6528.5	53.1	0.1579	ug/L	0.1579	ppb	19:08:13
1	Mn 257.610†	420.9	-28.0	-0.0308	ug/L	-0.0308	ppb	19:08:33
1	Mo 202.031†	24.0	0.1	0.0071	ug/L	0.0071	ppb	19:08:33
1	Ni 231.604†	72.4	3.7	0.0919	ug/L	0.0919	ppb	19:08:33
1	P 214.914†	227.2	-4.8	-2.9794	ug/L	-2.9794	ppb	19:08:33
1	Pb 220.353†	-63.9	0.1	0.0136	ug/L	0.0136	ppb	19:08:33
1	S 181.975 Axial†	93.5	49.6	70.188	ug/L	70.188	ppb	19:08:33
1	Sb 206.836†	42.4	14.1	4.8329	ug/L	4.8329	ppb	19:08:33
1	Se 196.026†	-31.3	1.0	0.6403	ug/L	0.6403	ppb	19:08:33
1	Si 251.611†	536.6	-19.1	-0.6071	ug/L	-0.6071	ppb	19:08:33
1	Sn 189.927†	10.7	2.9	0.5179	ug/L	0.5179	ppb	19:08:33
1	Ti 334.940†	-1306.8	80.4	0.1306	ug/L	0.1306	ppb	19:08:13
1	Tl 190.801†	-33.6	-0.4	-0.1358	ug/L	-0.1358	ppb	19:08:33
1	U 409.014†	-1988.7	42.1	1.2440	ug/L	1.2440	ppb	19:08:13
1	V 292.402†	-1366.9	-44.0	-0.2974	ug/L	-0.2974	ppb	19:08:13
1	Zn 213.857†	610.2	-15.9	-0.1509	ug/L	-0.1509	ppb	19:08:33
1	SiO2†	573.4	-3.8	-0.2598	ug/L	-0.2598	ppb	19:09:29
2	Sc Radial	5104.9	5104.9	101	%			19:07:21
2	Y RADIAL	5499.2	5499.2	101.3	%			19:07:21
2	Al 396.153Radial†	-21.9	-20.9	-16.126	ug/L	-16.126	ppb	19:07:21
2	Ca 317.933Radial†	18.2	-1.8	-2.9041	ug/L	-2.9041	ppb	19:07:41
2	Fe 238.204 Radial†	11.7	2.6	22.690	ug/L	22.690	ppb	19:07:41
2	K 766.490 Radial†	2658.0	31.6	5.7561	ug/L	5.7561	ppb	19:07:21
2	Mg 279.077 IEC†	5.0	3.0	100.96	ug/L	100.96	ppb	19:07:41
2	Na 589.592 Radial†	-1056.1	238.8	71.492	ug/L	71.492	ppb	19:07:21
2	Sr 421.552†	-9.0	10.6	0.0684	ug/L	0.0684	ppb	19:07:21
2	Sc 361.383	855326.4	855326.4	100.34	%			19:08:38
2	Y 371.029	724039.3	724039.3	100.19	%			19:08:38
2	Ag 328.068†	243.8	-115.0	-0.5270	ug/L	-0.5270	ppb	19:08:38
2	As 188.979†	-20.9	2.8	1.2258	ug/L	1.2258	ppb	19:08:58
2	B 249.677†	-448.2	185.2	4.1253	ug/L	4.1253	ppb	19:08:58
2	Ba 233.527†	-23.1	-11.6	-0.0913	ug/L	-0.0913	ppb	19:08:58
2	Be 313.107†	-4542.2	58.7	0.0224	ug/L	0.0224	ppb	19:08:38
2	Cd 226.502†	-202.2	2.6	0.0269	ug/L	0.0269	ppb	19:08:58
2	Co 228.616†	-64.2	10.7	0.2186	ug/L	0.2186	ppb	19:08:58
2	Cr 267.716†	72.9	-10.6	-0.1206	ug/L	-0.1206	ppb	19:08:58
2	Cu 324.752†	6447.0	12.7	0.0375	ug/L	0.0375	ppb	19:08:38
2	Mn 257.610†	408.7	-37.5	-0.0432	ug/L	-0.0432	ppb	19:08:58
2	Mo 202.031†	19.6	-4.2	-0.2942	ug/L	-0.2942	ppb	19:08:58
2	Ni 231.604†	84.0	15.8	0.3931	ug/L	0.3931	ppb	19:08:58

2	P 214.914†	225.8	-4.9	-3.0264 ug/L	-3.0264 ppb	19:08:58
2	Pb 220.353†	-77.8	-14.2	-1.7419 ug/L	-1.7419 ppb	19:08:58
2	S 181.975 Axial†	91.8	48.5	68.627 ug/L	68.627 ppb	19:08:58
2	Sb 206.836†	40.3	12.3	4.1838 ug/L	4.1838 ppb	19:08:58
2	Se 196.026†	-27.7	4.4	2.8931 ug/L	2.8931 ppb	19:08:58
2	Si 251.611†	508.7	-43.5	-1.3814 ug/L	-1.3814 ppb	19:08:58
2	Sn 189.927†	3.2	-4.5	-0.7906 ug/L	-0.7906 ppb	19:08:58
2	Ti 334.940†	-1386.3	-7.0	-0.0213 ug/L	-0.0213 ppb	19:08:38
2	Tl 190.801†	-34.3	-1.3	-0.4094 ug/L	-0.4094 ppb	19:08:58
2	U 409.014†	-1909.2	109.0	3.2133 ug/L	3.2133 ppb	19:08:38
2	V 292.402†	-1402.5	-88.0	-0.6001 ug/L	-0.6001 ppb	19:08:38
2	Zn 213.857†	610.6	-11.7	-0.1157 ug/L	-0.1157 ppb	19:08:58
2	SiO2†	574.0	0.3	0.0304 ug/L	0.0304 ppb	19:09:34
3	Sc Radial	5111.0	5111.0	102 %		19:07:46
3	Y RADIAL	5546.4	5546.4	102.2 %		19:07:46
3	Al 396.153Radial†	-15.3	-14.5	-11.128 ug/L	-11.128 ppb	19:07:46
3	Ca 317.933Radial†	14.0	-6.0	-9.6274 ug/L	-9.6274 ppb	19:08:06
3	Fe 238.204 Radial†	8.1	-1.0	-8.2299 ug/L	-8.2299 ppb	19:08:06
3	K 766.490 Radial†	2696.4	66.3	12.117 ug/L	12.117 ppb	19:07:46
3	Mg 279.077 IEC†	3.9	1.9	64.399 ug/L	64.399 ppb	19:08:06
3	Na 589.592 Radial†	-983.0	312.0	93.413 ug/L	93.413 ppb	19:07:46
3	Sr 421.552†	31.8	50.9	0.3287 ug/L	0.3287 ppb	19:07:46
3	Sc 361.383	844303.3	844303.3	99.050 %		19:09:03
3	Y 371.029	716469.9	716469.9	99.142 %		19:09:03
3	Ag 328.068†	416.8	62.8	0.2860 ug/L	0.2860 ppb	19:09:03
3	As 188.979†	-20.6	2.9	1.2376 ug/L	1.2376 ppb	19:09:23
3	B 249.677†	-487.9	139.3	3.1061 ug/L	3.1061 ppb	19:09:23
3	Ba 233.527†	-11.6	-0.3	-0.0033 ug/L	-0.0033 ppb	19:09:23
3	Be 313.107†	-4518.4	23.6	0.0094 ug/L	0.0094 ppb	19:09:03
3	Cd 226.502†	-187.4	14.9	0.1663 ug/L	0.1663 ppb	19:09:23
3	Co 228.616†	-74.8	-0.8	-0.0182 ug/L	-0.0182 ppb	19:09:23
3	Cr 267.716†	50.2	-32.6	-0.3646 ug/L	-0.3646 ppb	19:09:23
3	Cu 324.752†	6342.6	-8.8	-0.0264 ug/L	-0.0264 ppb	19:09:03
3	Mn 257.610†	421.8	-19.0	-0.0246 ug/L	-0.0246 ppb	19:09:23
3	Mo 202.031†	17.2	-6.3	-0.4465 ug/L	-0.4465 ppb	19:09:23
3	Ni 231.604†	78.5	11.3	0.2817 ug/L	0.2817 ppb	19:09:23
3	P 214.914†	201.2	-26.7	-16.326 ug/L	-16.326 ppb	19:09:23
3	Pb 220.353†	-43.1	19.8	2.4268 ug/L	2.4268 ppb	19:09:23
3	S 181.975 Axial†	86.7	44.6	63.063 ug/L	63.063 ppb	19:09:23
3	Sb 206.836†	41.3	13.8	4.7140 ug/L	4.7140 ppb	19:09:23
3	Se 196.026†	-35.7	-4.0	-2.6278 ug/L	-2.6278 ppb	19:09:23
3	Si 251.611†	527.6	-17.8	-0.5611 ug/L	-0.5611 ppb	19:09:23
3	Sn 189.927†	6.7	-0.9	-0.1535 ug/L	-0.1535 ppb	19:09:23
3	Ti 334.940†	-1253.1	109.4	0.1703 ug/L	0.1703 ppb	19:09:03
3	Tl 190.801†	-35.7	-3.2	-0.9833 ug/L	-0.9833 ppb	19:09:23
3	U 409.014†	-2013.6	-21.3	-0.6257 ug/L	-0.6257 ppb	19:09:03
3	V 292.402†	-1352.1	-55.3	-0.3831 ug/L	-0.3831 ppb	19:09:03
3	Zn 213.857†	607.1	-7.3	-0.0701 ug/L	-0.0701 ppb	19:09:23
3	SiO2†	563.6	-2.6	-0.1675 ug/L	-0.1675 ppb	19:09:39

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	853452.7	100.12	%	0.982				0.98%
Sc Radial	5118.9	102	%	0.4				0.38%
Y 371.029	723328.5	100.09	%	0.904				0.90%
Y RADIAL	5523.6	101.7	%	0.44				0.43%
Ag 328.068†	-34.7	-0.1615	ug/L	0.41266	-0.1615	ppb	0.41266	255.58%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-16.1	-12.447	ug/L	3.2278	-12.447	ppb	3.2278	25.93%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-2.4	-1.0375	ug/L	3.93034	-1.0375	ppb	3.93034	378.84%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	170.0	3.7893	ug/L	0.59168	3.7893	ppb	0.59168	15.61%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-7.8	-0.0615	ug/L	0.05038	-0.0615	ppb	0.05038	81.95%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	57.1	0.0220	ug/L	0.01238	0.0220	ppb	0.01238	56.33%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-2.6	-4.1794	ug/L	4.93552	-4.1794	ppb	4.93552	118.09%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                10.8      0.1199 ug/L       0.08057      0.1199 ppb        0.08057  67.20%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                 7.6      0.1540 ug/L       0.15071      0.1540 ppb        0.15071  97.85%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†               -20.9     -0.2353 ug/L       0.12266     -0.2353 ppb        0.12266  52.13%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†                19.0      0.0563 ug/L       0.09362      0.0563 ppb        0.09362 166.19%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          0.4      3.3800 ug/L      16.83669      3.3800 ppb       16.83669 498.13%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          31.7      5.7658 ug/L       6.34665      5.7658 ppb        6.34665 110.07%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             1.5     48.647 ug/L       61.7173      48.647 ppb        61.7173 126.87%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               -28.2     -0.0329 ug/L       0.00948     -0.0329 ppb        0.00948  28.85%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                -3.5     -0.2445 ug/L       0.23086     -0.2445 ppb        0.23086  94.41%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        295.0     88.317 ug/L       14.9431      88.317 ppb        14.9431  16.92%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                10.3      0.2556 ug/L       0.15228      0.2556 ppb        0.15228  59.59%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -12.1     -7.4439 ug/L       7.69203     -7.4439 ppb        7.69203 103.33%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                 1.9      0.2329 ug/L       2.09299      0.2329 ppb        2.09299 898.85%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           47.5     67.293 ug/L        3.7453      67.293 ppb         3.7453   5.57%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                13.4      4.5769 ug/L       0.34560      4.5769 ppb        0.34560   7.55%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 0.5      0.3019 ug/L       2.77596      0.3019 ppb        2.77596 919.57%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†               -26.8     -0.8499 ug/L       0.46092     -0.8499 ppb        0.46092  54.23%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                -0.8     -0.1421 ug/L       0.65432     -0.1421 ppb        0.65432 460.51%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                29.9      0.1933 ug/L       0.13045      0.1933 ppb        0.13045  67.49%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                60.9      0.0932 ug/L       0.10112      0.0932 ppb        0.10112 108.48%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                -1.7     -0.5095 ug/L       0.43252     -0.5095 ppb        0.43252  84.89%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 43.3      1.2772 ug/L       1.91972      1.2772 ppb        1.91972 150.31%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                -62.4     -0.4269 ug/L       0.15602     -0.4269 ppb        0.15602  36.55%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               -11.7     -0.1123 ug/L       0.04052     -0.1123 ppb        0.04052  36.09%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                      -2.0     -0.1323 ug/L       0.14825     -0.1323 ppb        0.14825 112.04%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 44
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 1/11/2010 20:14:46
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Rep1#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5237.6	5237.6	104	%			20:16:38
1	Y RADIAL	5568.0	5568.0	102.6	%			20:16:38
1	Al 396.153Radial†	6326.0	6082.2	4668.0	ug/L	4668.0	ppb	20:16:38
1	Ca 317.933Radial†	3176.9	3034.4	4855.3	ug/L	4855.3	ppb	20:16:58
1	Fe 238.204 Radial†	596.5	564.6	4901.0	ug/L	4901.0	ppb	20:16:58
1	K 766.490 Radial†	29542.8	25811.4	4715.5	ug/L	4715.5	ppb	20:16:38
1	Mg 279.077 IEC†	163.7	155.4	5193.6	ug/L	5193.6	ppb	20:16:58
1	Na 589.592 Radial†	32100.0	32140.5	9623.2	ug/L	9623.2	ppb	20:16:38
1	Sr 421.552†	76092.0	73172.2	472.58	ug/L	472.58	ppb	20:16:38
1	Sc 361.383	867661.4	867661.4	101.79	%			20:17:55
1	Y 371.029	722396.9	722396.9	99.963	%			20:17:55
1	Ag 328.068†	112559.6	110221.6	510.63	ug/L	510.63	ppb	20:18:01
1	As 188.979†	1153.6	1157.0	503.46	ug/L	503.46	ppb	20:18:21
1	B 249.677†	22332.3	22571.3	501.25	ug/L	501.25	ppb	20:18:01
1	Ba 233.527†	65622.0	64479.0	504.65	ug/L	504.65	ppb	20:18:01
1	Be 313.107†	1343717.7	1324665.2	505.88	ug/L	505.88	ppb	20:17:55
1	Cd 226.502†	46013.6	45408.3	503.79	ug/L	503.79	ppb	20:18:01
1	Co 228.616†	25080.3	24713.8	505.95	ug/L	505.95	ppb	20:18:01
1	Cr 267.716†	45949.9	45058.4	504.37	ug/L	504.37	ppb	20:18:01
1	Cu 324.752†	176616.6	167097.5	499.64	ug/L	499.64	ppb	20:18:01
1	Mn 257.610†	460294.6	451752.5	501.15	ug/L	501.15	ppb	20:17:55
1	Mo 202.031†	7267.3	7115.7	503.29	ug/L	503.29	ppb	20:18:21
1	Ni 231.604†	20697.9	20265.8	504.32	ug/L	504.32	ppb	20:18:01
1	P 214.914†	4345.6	4039.3	2362.8	ug/L	2362.8	ppb	20:18:21
1	Pb 220.353†	4069.5	4061.2	498.90	ug/L	498.90	ppb	20:18:21
1	S 181.975 Axial†	768.1	711.6	1006.2	ug/L	1006.2	ppb	20:18:21
1	Sb 206.836†	1505.7	1451.3	515.15	ug/L	515.15	ppb	20:18:21
1	Se 196.026†	758.4	777.1	518.17	ug/L	518.17	ppb	20:18:21
1	Si 251.611†	83045.4	81034.0	2574.6	ug/L	2574.6	ppb	20:18:01
1	Sn 189.927†	2903.5	2844.8	504.77	ug/L	504.77	ppb	20:18:21
1	Ti 334.940†	318042.2	313821.9	505.32	ug/L	505.32	ppb	20:17:55
1	Tl 190.801†	1622.6	1626.9	502.20	ug/L	502.20	ppb	20:18:21
1	U 409.014†	15598.2	17335.5	509.71	ug/L	509.71	ppb	20:18:01
1	V 292.402†	73736.4	73749.0	510.51	ug/L	510.51	ppb	20:18:01
1	Zn 213.857†	55050.9	53462.2	501.29	ug/L	501.29	ppb	20:18:01
1	SiO2†	80857.2	78863.2	5367.3	ug/L	5367.3	ppb	20:19:28
2	Sc Radial	5100.6	5100.6	101	%			20:17:03
2	Y RADIAL	5471.6	5471.6	100.8	%			20:17:03
2	Al 396.153Radial†	6444.4	6362.6	4884.3	ug/L	4884.3	ppb	20:17:03
2	Ca 317.933Radial†	3213.8	3152.9	5045.0	ug/L	5045.0	ppb	20:17:23
2	Fe 238.204 Radial†	607.2	590.6	5125.7	ug/L	5125.7	ppb	20:17:23
2	K 766.490 Radial†	29669.9	26700.1	4878.2	ug/L	4878.2	ppb	20:17:03
2	Mg 279.077 IEC†	159.9	156.0	5210.7	ug/L	5210.7	ppb	20:17:23
2	Na 589.592 Radial†	32097.4	32967.2	9870.8	ug/L	9870.8	ppb	20:17:03
2	Sr 421.552†	76711.0	75748.9	489.22	ug/L	489.22	ppb	20:17:03
2	Sc 361.383	870941.8	870941.8	102.18	%			20:18:27
2	Y 371.029	726536.0	726536.0	100.54	%			20:18:27
2	Ag 328.068†	112058.8	109314.9	506.51	ug/L	506.51	ppb	20:18:32
2	As 188.979†	1154.9	1153.9	502.18	ug/L	502.18	ppb	20:18:52
2	B 249.677†	22133.4	22294.0	495.07	ug/L	495.07	ppb	20:18:32
2	Ba 233.527†	65126.9	63751.7	498.97	ug/L	498.97	ppb	20:18:32
2	Be 313.107†	1343579.8	1319558.2	503.93	ug/L	503.93	ppb	20:18:27
2	Cd 226.502†	45566.2	44800.1	497.01	ug/L	497.01	ppb	20:18:32
2	Co 228.616†	24857.4	24402.8	499.58	ug/L	499.58	ppb	20:18:32
2	Cr 267.716†	45745.5	44688.2	500.23	ug/L	500.23	ppb	20:18:32
2	Cu 324.752†	175848.4	165692.1	495.45	ug/L	495.45	ppb	20:18:32
2	Mn 257.610†	459636.9	449405.7	498.57	ug/L	498.57	ppb	20:18:27
2	Mo 202.031†	7284.2	7105.4	502.58	ug/L	502.58	ppb	20:18:52
2	Ni 231.604†	20535.3	20030.1	498.45	ug/L	498.45	ppb	20:18:32

2	P 214.914†	4369.0	4046.1	2367.7 ug/L	2367.7 ppb	20:18:52
2	Pb 220.353†	4094.4	4070.6	500.08 ug/L	500.08 ppb	20:18:52
2	S 181.975 Axial†	764.3	705.0	996.83 ug/L	996.83 ppb	20:18:52
2	Sb 206.836†	1517.5	1457.2	517.15 ug/L	517.15 ppb	20:18:52
2	Se 196.026†	746.7	762.8	509.69 ug/L	509.69 ppb	20:18:52
2	Si 251.611†	82414.0	80108.8	2545.2 ug/L	2545.2 ppb	20:18:32
2	Sn 189.927†	2910.4	2840.8	504.09 ug/L	504.09 ppb	20:18:52
2	Ti 334.940†	318495.5	313088.7	504.17 ug/L	504.17 ppb	20:18:27
2	Tl 190.801†	1612.4	1610.9	497.33 ug/L	497.33 ppb	20:18:52
2	U 409.014†	15408.1	17091.7	502.50 ug/L	502.50 ppb	20:18:32
2	V 292.402†	73264.0	73013.8	505.43 ug/L	505.43 ppb	20:18:32
2	Zn 213.857†	54613.2	52830.2	495.33 ug/L	495.33 ppb	20:18:32
2	SiO2†	81830.8	79516.8	5411.9 ug/L	5411.9 ppb	20:19:34
3	Sc Radial	5163.6	5163.6	103 %		20:17:28
3	Y RADIAL	5511.9	5511.9	101.5 %		20:17:28
3	Al 396.153Radial†	6562.2	6399.8	4913.2 ug/L	4913.2 ppb	20:17:28
3	Ca 317.933Radial†	3156.0	3057.8	4892.7 ug/L	4892.7 ppb	20:17:48
3	Fe 238.204 Radial†	599.8	576.0	5000.0 ug/L	5000.0 ppb	20:17:48
3	K 766.490 Radial†	30113.7	26775.4	4892.1 ug/L	4892.1 ppb	20:17:28
3	Mg 279.077 IEC†	159.1	153.2	5119.7 ug/L	5119.7 ppb	20:17:48
3	Na 589.592 Radial†	32409.5	32884.7	9846.1 ug/L	9846.1 ppb	20:17:28
3	Sr 421.552†	77800.5	75887.1	490.11 ug/L	490.11 ppb	20:17:28
3	Sc 361.383	876143.8	876143.8	102.79 %		20:18:58
3	Y 371.029	730772.1	730772.1	101.12 %		20:18:58
3	Ag 328.068†	112227.5	108827.8	504.22 ug/L	504.22 ppb	20:19:03
3	As 188.979†	1153.1	1145.5	498.52 ug/L	498.52 ppb	20:19:23
3	B 249.677†	22316.8	22343.8	496.20 ug/L	496.20 ppb	20:19:03
3	Ba 233.527†	65218.5	63462.3	496.70 ug/L	496.70 ppb	20:19:03
3	Be 313.107†	1358883.1	1326639.2	506.64 ug/L	506.64 ppb	20:18:58
3	Cd 226.502†	45661.0	44627.5	495.11 ug/L	495.11 ppb	20:19:03
3	Co 228.616†	24868.4	24269.1	496.83 ug/L	496.83 ppb	20:19:03
3	Cr 267.716†	45734.4	44411.6	497.13 ug/L	497.13 ppb	20:19:03
3	Cu 324.752†	175653.1	164480.3	491.82 ug/L	491.82 ppb	20:19:03
3	Mn 257.610†	463730.4	450717.2	500.02 ug/L	500.02 ppb	20:18:58
3	Mo 202.031†	7277.1	7056.2	499.10 ug/L	499.10 ppb	20:19:23
3	Ni 231.604†	20556.1	19931.0	495.99 ug/L	495.99 ppb	20:19:03
3	P 214.914†	4334.9	3987.6	2332.8 ug/L	2332.8 ppb	20:19:23
3	Pb 220.353†	4067.2	4020.4	493.94 ug/L	493.94 ppb	20:19:23
3	S 181.975 Axial†	769.1	705.3	997.17 ug/L	997.17 ppb	20:19:23
3	Sb 206.836†	1520.9	1451.8	515.11 ug/L	515.11 ppb	20:19:23
3	Se 196.026†	758.7	770.1	513.99 ug/L	513.99 ppb	20:19:23
3	Si 251.611†	82320.0	79538.4	2527.0 ug/L	2527.0 ppb	20:19:03
3	Sn 189.927†	2894.4	2808.3	498.31 ug/L	498.31 ppb	20:19:23
3	Ti 334.940†	321187.4	313856.9	505.39 ug/L	505.39 ppb	20:18:58
3	Tl 190.801†	1626.9	1615.7	498.82 ug/L	498.82 ppb	20:19:23
3	U 409.014†	15782.8	17366.6	510.63 ug/L	510.63 ppb	20:19:03
3	V 292.402†	73404.6	72724.8	503.44 ug/L	503.44 ppb	20:19:03
3	Zn 213.857†	54674.9	52572.9	492.93 ug/L	492.93 ppb	20:19:03
3	SiO2†	81900.4	79109.0	5384.1 ug/L	5384.1 ppb	20:19:39

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	871582.3	102.25	%	0.502				0.49%
Sc Radial	5167.3	103	%	1.4				1.33%
Y 371.029	726568.3	100.54	%	0.579				0.58%
Y RADIAL	5517.2	101.6	%	0.89				0.88%
Ag 328.068†	109454.8	507.12	ug/L	3.250	507.12	ppb	3.250	0.64%
QC value within limits for Ag 328.068 Recovery = 101.42%								
Al 396.153Radial†	6281.5	4821.8	ug/L	134.00	4821.8	ppb	134.00	2.78%
QC value within limits for Al 396.153Radial Recovery = 96.44%								
As 188.979†	1152.1	501.39	ug/L	2.564	501.39	ppb	2.564	0.51%
QC value within limits for As 188.979 Recovery = 100.28%								
B 249.677†	22403.0	497.51	ug/L	3.295	497.51	ppb	3.295	0.66%
QC value within limits for B 249.677 Recovery = 99.50%								
Ba 233.527†	63897.7	500.11	ug/L	4.095	500.11	ppb	4.095	0.82%
QC value within limits for Ba 233.527 Recovery = 100.02%								
Be 313.107†	1323620.8	505.48	ug/L	1.394	505.48	ppb	1.394	0.28%
QC value within limits for Be 313.107 Recovery = 101.10%								
Ca 317.933Radial†	3081.7	4931.0	ug/L	100.47	4931.0	ppb	100.47	2.04%

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   QC value within limits for Ca 317.933Radial  Recovery = 98.62%
Cd 226.502†            44945.3      498.63 ug/L        4.562      498.63 ppb        4.562   0.91%
   QC value within limits for Cd 226.502  Recovery = 99.73%
Co 228.616†            24461.9      500.79 ug/L        4.675      500.79 ppb        4.675   0.93%
   QC value within limits for Co 228.616  Recovery = 100.16%
Cr 267.716†            44719.4      500.58 ug/L        3.632      500.58 ppb        3.632   0.73%
   QC value within limits for Cr 267.716  Recovery = 100.12%
Cu 324.752†           165756.6      495.64 ug/L        3.914      495.64 ppb        3.914   0.79%
   QC value within limits for Cu 324.752  Recovery = 99.13%
Fe 238.204 Radial†       577.1      5008.9 ug/L      112.62      5008.9 ppb      112.62   2.25%
   QC value within limits for Fe 238.204 Radial  Recovery = 100.18%
K 766.490 Radial†      26429.0      4828.6 ug/L       98.24      4828.6 ppb       98.24   2.03%
   QC value within limits for K 766.490 Radial  Recovery = 96.57%
Mg 279.077 IEC†          154.9      5174.6 ug/L       48.39      5174.6 ppb       48.39   0.94%
   QC value within limits for Mg 279.077 IEC  Recovery = 103.49%
Mn 257.610†           450625.1      499.91 ug/L        1.292      499.91 ppb        1.292   0.26%
   QC value within limits for Mn 257.610  Recovery = 99.98%
Mo 202.031†             7092.4      501.66 ug/L        2.247      501.66 ppb        2.247   0.45%
   QC value within limits for Mo 202.031  Recovery = 100.33%
Na 589.592 Radial†     32664.1      9780.0 ug/L      136.34      9780.0 ppb      136.34   1.39%
   QC value within limits for Na 589.592 Radial  Recovery = 97.80%
Ni 231.604†            20075.6      499.58 ug/L        4.280      499.58 ppb        4.280   0.86%
   QC value within limits for Ni 231.604  Recovery = 99.92%
P 214.914†              4024.3      2354.4 ug/L       18.92      2354.4 ppb       18.92   0.80%
   QC value within limits for P 214.914  Recovery = 94.18%
Pb 220.353†             4050.7      497.64 ug/L        3.260      497.64 ppb        3.260   0.66%
   QC value within limits for Pb 220.353  Recovery = 99.53%
S 181.975 Axial†         707.3      1000.1 ug/L        5.29      1000.1 ppb         5.29   0.53%
   QC value within limits for S 181.975 Axial  Recovery = 100.01%
Sb 206.836†             1453.4      515.81 ug/L        1.168      515.81 ppb        1.168   0.23%
   QC value within limits for Sb 206.836  Recovery = 103.16%
Se 196.026†              770.0      513.95 ug/L        4.241      513.95 ppb        4.241   0.83%
   QC value within limits for Se 196.026  Recovery = 102.79%
Si 251.611†            80227.1      2548.9 ug/L       24.01      2548.9 ppb       24.01   0.94%
   QC value within limits for Si 251.611  Recovery = 101.96%
Sn 189.927†             2831.3      502.39 ug/L        3.552      502.39 ppb        3.552   0.71%
   QC value within limits for Sn 189.927  Recovery = 100.48%
Sr 421.552†            74936.1      483.97 ug/L        9.876      483.97 ppb        9.876   2.04%
   QC value within limits for Sr 421.552  Recovery = 96.79%
Ti 334.940†           313589.2      504.96 ug/L        0.688      504.96 ppb        0.688   0.14%
   QC value within limits for Ti 334.940  Recovery = 100.99%
Tl 190.801†             1617.8      499.45 ug/L        2.496      499.45 ppb        2.496   0.50%
   QC value within limits for Tl 190.801  Recovery = 99.89%
U 409.014†             17264.6      507.61 ug/L        4.452      507.61 ppb        4.452   0.88%
   QC value within limits for U 409.014  Recovery = 101.52%
V 292.402†             73162.5      506.46 ug/L        3.643      506.46 ppb        3.643   0.72%
   QC value within limits for V 292.402  Recovery = 101.29%
Zn 213.857†            52955.1      496.52 ug/L        4.303      496.52 ppb        4.303   0.87%
   QC value within limits for Zn 213.857  Recovery = 99.30%
SiO2†                  79163.0     5387.8 ug/L       22.53      5387.8 ppb       22.53   0.42%
   QC value within limits for SiO2  Recovery = 100.75%
All analyte(s) passed QC.
```

Sequence No.: 45
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 1/11/2010 20:21:48
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4981.7	4981.7	98.9	%			20:23:40
1	Y RADIAL	5295.3	5295.3	97.53	%			20:23:40
1	Al 396.153Radial†	-4.9	-4.3	-3.2854	ug/L	-3.2854	ppb	20:23:40
1	Ca 317.933Radial†	19.6	0.1	0.0805	ug/L	0.0805	ppb	20:24:00
1	Fe 238.204 Radial†	13.4	4.7	40.430	ug/L	40.430	ppb	20:24:00
1	K 766.490 Radial†	2785.7	225.5	41.360	ug/L	41.360	ppb	20:23:40
1	Mg 279.077 IEC†	2.1	0.2	7.2814	ug/L	7.2814	ppb	20:24:00
1	Na 589.592 Radial†	-1289.9	-23.4	-6.9958	ug/L	-6.9958	ppb	20:23:40
1	Sr 421.552†	10.0	29.6	0.1915	ug/L	0.1915	ppb	20:23:40
1	Sc 361.383	853011.8	853011.8	100.07	%			20:24:57
1	Y 371.029	723886.8	723886.8	100.17	%			20:24:57
1	Ag 328.068†	282.6	-75.6	-0.3395	ug/L	-0.3395	ppb	20:24:57
1	As 188.979†	-21.7	1.9	0.8546	ug/L	0.8546	ppb	20:25:17
1	B 249.677†	-380.9	251.2	5.5967	ug/L	5.5967	ppb	20:25:17
1	Ba 233.527†	-25.7	-14.2	-0.1109	ug/L	-0.1109	ppb	20:25:17
1	Be 313.107†	-4509.8	78.8	0.0307	ug/L	0.0307	ppb	20:24:57
1	Cd 226.502†	-186.6	17.6	0.1918	ug/L	0.1918	ppb	20:25:17
1	Co 228.616†	-80.1	-5.3	-0.1117	ug/L	-0.1117	ppb	20:25:17
1	Cr 267.716†	87.4	4.1	0.0446	ug/L	0.0446	ppb	20:25:17
1	Cu 324.752†	6367.1	-49.7	-0.1478	ug/L	-0.1478	ppb	20:24:57
1	Mn 257.610†	476.5	31.3	0.0389	ug/L	0.0389	ppb	20:25:17
1	Mo 202.031†	16.0	-7.7	-0.5414	ug/L	-0.5414	ppb	20:25:17
1	Ni 231.604†	80.1	12.1	0.3006	ug/L	0.3006	ppb	20:25:17
1	P 214.914†	214.8	-15.2	-9.3120	ug/L	-9.3120	ppb	20:25:17
1	Pb 220.353†	-51.2	12.2	1.4860	ug/L	1.4860	ppb	20:25:17
1	S 181.975 Axial†	52.8	9.7	13.798	ug/L	13.798	ppb	20:25:17
1	Sb 206.836†	34.7	6.7	2.2837	ug/L	2.2837	ppb	20:25:17
1	Se 196.026†	-34.8	-2.8	-1.6559	ug/L	-1.6559	ppb	20:25:17
1	Si 251.611†	727.1	176.1	5.6142	ug/L	5.6142	ppb	20:25:17
1	Sn 189.927†	2.6	-5.1	-0.9025	ug/L	-0.9025	ppb	20:25:17
1	Ti 334.940†	-1201.4	174.0	0.2786	ug/L	0.2786	ppb	20:24:57
1	Tl 190.801†	-34.5	-1.6	-0.4844	ug/L	-0.4844	ppb	20:25:17
1	U 409.014†	-1933.6	79.4	2.3382	ug/L	2.3382	ppb	20:24:57
1	V 292.402†	-1403.3	-92.6	-0.6421	ug/L	-0.6421	ppb	20:24:57
1	Zn 213.857†	620.0	-0.7	-0.0121	ug/L	-0.0121	ppb	20:25:17
1	SiO2†	689.5	117.4	8.0227	ug/L	8.0227	ppb	20:26:13
2	Sc Radial	5227.5	5227.5	104	%			20:24:05
2	Y RADIAL	5639.0	5639.0	103.9	%			20:24:05
2	Al 396.153Radial†	-20.4	-19.0	-14.640	ug/L	-14.640	ppb	20:24:05
2	Ca 317.933Radial†	15.4	-4.9	-7.8400	ug/L	-7.8400	ppb	20:24:25
2	Fe 238.204 Radial†	9.4	0.1	1.2286	ug/L	1.2286	ppb	20:24:25
2	K 766.490 Radial†	2616.4	-70.0	-12.827	ug/L	-12.827	ppb	20:24:05
2	Mg 279.077 IEC†	-1.9	-3.8	-126.32	ug/L	-126.32	ppb	20:24:25
2	Na 589.592 Radial†	-1307.7	20.8	6.2401	ug/L	6.2401	ppb	20:24:05
2	Sr 421.552†	48.0	65.7	0.4245	ug/L	0.4245	ppb	20:24:05
2	Sc 361.383	864825.1	864825.1	101.46	%			20:25:22
2	Y 371.029	733859.7	733859.7	101.55	%			20:25:22
2	Ag 328.068†	374.8	11.4	0.0484	ug/L	0.0484	ppb	20:25:22
2	As 188.979†	-20.5	3.4	1.4687	ug/L	1.4687	ppb	20:25:42
2	B 249.677†	-382.8	254.6	5.6754	ug/L	5.6754	ppb	20:25:42
2	Ba 233.527†	0.6	12.0	0.0928	ug/L	0.0928	ppb	20:25:42
2	Be 313.107†	-4504.8	145.3	0.0557	ug/L	0.0557	ppb	20:25:22
2	Cd 226.502†	-187.1	19.7	0.2197	ug/L	0.2197	ppb	20:25:42
2	Co 228.616†	-78.9	-3.1	-0.0634	ug/L	-0.0634	ppb	20:25:42
2	Cr 267.716†	86.4	1.9	0.0190	ug/L	0.0190	ppb	20:25:42
2	Cu 324.752†	6350.3	-153.1	-0.4600	ug/L	-0.4600	ppb	20:25:22
2	Mn 257.610†	473.6	21.9	0.0296	ug/L	0.0296	ppb	20:25:42
2	Mo 202.031†	23.1	-0.9	-0.0637	ug/L	-0.0637	ppb	20:25:42
2	Ni 231.604†	77.5	8.5	0.2108	ug/L	0.2108	ppb	20:25:42

2	P 214.914†	218.5	-14.5	-8.7715	ug/L	-8.7715 ppb	20:25:42
2	Pb 220.353†	-60.3	3.9	0.4776	ug/L	0.4776 ppb	20:25:42
2	S 181.975 Axial†	51.2	7.5	10.617	ug/L	10.617 ppb	20:25:42
2	Sb 206.836†	30.5	2.1	0.7130	ug/L	0.7130 ppb	20:25:42
2	Se 196.026†	-27.5	4.9	3.1416	ug/L	3.1416 ppb	20:25:42
2	Si 251.611†	704.9	144.3	4.5957	ug/L	4.5957 ppb	20:25:42
2	Sn 189.927†	2.7	-5.0	-0.8897	ug/L	-0.8897 ppb	20:25:42
2	Ti 334.940†	-1294.8	98.3	0.1661	ug/L	0.1661 ppb	20:25:22
2	Tl 190.801†	-36.8	-3.4	-1.0369	ug/L	-1.0369 ppb	20:25:42
2	U 409.014†	-1905.9	133.1	3.9266	ug/L	3.9266 ppb	20:25:22
2	V 292.402†	-1383.5	-53.9	-0.3641	ug/L	-0.3641 ppb	20:25:22
2	Zn 213.857†	614.4	-14.7	-0.1399	ug/L	-0.1399 ppb	20:25:42
2	SiO2†	700.1	118.4	8.0796	ug/L	8.0796 ppb	20:26:18
3	Sc Radial	5262.0	5262.0	105	%		20:24:30
3	Y RADIAL	5649.7	5649.7	104.1	%		20:24:30
3	Al 396.153Radial†	-18.3	-16.9	-12.989	ug/L	-12.989 ppb	20:24:30
3	Ca 317.933Radial†	15.0	-5.5	-8.7462	ug/L	-8.7462 ppb	20:24:50
3	Fe 238.204 Radial†	8.9	-0.4	-3.1283	ug/L	-3.1283 ppb	20:24:50
3	K 766.490 Radial†	2725.7	18.1	3.3111	ug/L	3.3111 ppb	20:24:30
3	Mg 279.077 IEC†	-2.0	-3.8	-128.50	ug/L	-128.50 ppb	20:24:50
3	Na 589.592 Radial†	-1272.7	62.6	18.739	ug/L	18.739 ppb	20:24:30
3	Sr 421.552†	9.2	28.3	0.1832	ug/L	0.1832 ppb	20:24:30
3	Sc 361.383	855729.8	855729.8	100.39	%		20:25:47
3	Y 371.029	728817.4	728817.4	100.85	%		20:25:47
3	Ag 328.068†	295.2	-63.9	-0.2973	ug/L	-0.2973 ppb	20:25:47
3	As 188.979†	-13.8	9.9	4.2994	ug/L	4.2994 ppb	20:26:07
3	B 249.677†	-390.3	243.0	5.4171	ug/L	5.4171 ppb	20:26:07
3	Ba 233.527†	0.2	11.6	0.0898	ug/L	0.0898 ppb	20:26:07
3	Be 313.107†	-4415.2	187.3	0.0716	ug/L	0.0716 ppb	20:25:47
3	Cd 226.502†	-191.0	13.8	0.1541	ug/L	0.1541 ppb	20:26:07
3	Co 228.616†	-51.2	23.6	0.4829	ug/L	0.4829 ppb	20:26:07
3	Cr 267.716†	90.7	7.1	0.0785	ug/L	0.0785 ppb	20:26:07
3	Cu 324.752†	6404.0	-33.1	-0.0999	ug/L	-0.0999 ppb	20:25:47
3	Mn 257.610†	472.1	25.4	0.0330	ug/L	0.0330 ppb	20:26:07
3	Mo 202.031†	20.0	-3.7	-0.2653	ug/L	-0.2653 ppb	20:26:07
3	Ni 231.604†	90.0	21.7	0.5401	ug/L	0.5401 ppb	20:26:07
3	P 214.914†	221.6	-9.2	-5.5903	ug/L	-5.5903 ppb	20:26:07
3	Pb 220.353†	-58.9	4.7	0.5729	ug/L	0.5729 ppb	20:26:07
3	S 181.975 Axial†	49.2	6.0	8.4500	ug/L	8.4500 ppb	20:26:07
3	Sb 206.836†	40.1	12.0	4.1074	ug/L	4.1074 ppb	20:26:07
3	Se 196.026†	-28.5	3.6	2.2897	ug/L	2.2897 ppb	20:26:07
3	Si 251.611†	670.7	117.6	3.7486	ug/L	3.7486 ppb	20:26:07
3	Sn 189.927†	4.3	-3.4	-0.6029	ug/L	-0.6029 ppb	20:26:07
3	Ti 334.940†	-1330.3	49.4	0.0885	ug/L	0.0885 ppb	20:25:47
3	Tl 190.801†	-43.8	-10.8	-3.3221	ug/L	-3.3221 ppb	20:26:07
3	U 409.014†	-1976.6	42.7	1.2606	ug/L	1.2606 ppb	20:25:47
3	V 292.402†	-1350.4	-35.5	-0.2457	ug/L	-0.2457 ppb	20:25:47
3	Zn 213.857†	618.1	-4.6	-0.0463	ug/L	-0.0463 ppb	20:26:07
3	SiO2†	723.9	149.4	10.203	ug/L	10.203 ppb	20:26:23

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	857855.5	100.64	%	0.726				0.72%
Sc Radial	5157.1	102	%	3.0				2.96%
Y 371.029	728854.7	100.86	%	0.690				0.68%
Y RADIAL	5528.0	101.8	%	3.71				3.65%
Ag 328.068†	-42.7	-0.1961	ug/L	0.21281	-0.1961	ppb	0.21281	108.50%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-13.4	-10.305	ug/L	6.1349	-10.305	ppb	6.1349	59.53%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	5.1	2.2076	ug/L	1.83740	2.2076	ppb	1.83740	83.23%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	249.6	5.5631	ug/L	0.13240	5.5631	ppb	0.13240	2.38%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	3.1	0.0239	ug/L	0.11674	0.0239	ppb	0.11674	489.17%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	137.1	0.0526	ug/L	0.02061	0.0526	ppb	0.02061	39.15%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-3.4	-5.5019	ug/L	4.85568	-5.5019	ppb	4.85568	88.25%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              17.0      0.1885 ug/L       0.03294      0.1885 ppb        0.03294  17.47%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†               5.1      0.1026 ug/L       0.33023      0.1026 ppb        0.33023 321.83%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†               4.4      0.0474 ug/L       0.02986      0.0474 ppb        0.02986  63.03%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -78.7     -0.2359 ug/L       0.19558     -0.2359 ppb        0.19558  82.91%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        1.5      12.843 ug/L       23.9896      12.843 ppb        23.9896 186.79%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        57.9      10.615 ug/L       27.8222      10.615 ppb        27.8222 262.11%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          -2.5     -82.515 ug/L       77.7739     -82.515 ppb        77.7739  94.25%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              26.2      0.0338 ug/L       0.00474      0.0338 ppb        0.00474  14.01%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              -4.1     -0.2901 ug/L       0.23983     -0.2901 ppb        0.23983  82.66%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       20.0      5.9945 ug/L      12.86916      5.9945 ppb       12.86916 214.68%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              14.1      0.3505 ug/L       0.17027      0.3505 ppb        0.17027  48.58%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†              -13.0     -7.8912 ug/L       2.01093     -7.8912 ppb        2.01093  25.48%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               6.9      0.8455 ug/L       0.55672      0.8455 ppb        0.55672  65.84%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          7.7      10.955 ug/L        2.6900      10.955 ppb         2.6900  24.55%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               7.0      2.3680 ug/L       1.69880      2.3680 ppb        1.69880  71.74%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               1.9      1.2585 ug/L       2.55959      1.2585 ppb        2.55959 203.39%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†             146.0      4.6528 ug/L       0.93413      4.6528 ppb        0.93413  20.08%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†              -4.5     -0.7984 ug/L       0.16938     -0.7984 ppb        0.16938  21.22%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              41.2      0.2664 ug/L       0.13700      0.2664 ppb        0.13700  51.43%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             107.2      0.1777 ug/L       0.09559      0.1777 ppb        0.09559  53.78%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -5.3     -1.6145 ug/L       1.50442     -1.6145 ppb        1.50442  93.18%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               85.1      2.5085 ug/L       1.34114      2.5085 ppb        1.34114  53.46%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              -60.7     -0.4173 ug/L       0.20345     -0.4173 ppb        0.20345  48.75%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              -6.7     -0.0661 ug/L       0.06615     -0.0661 ppb        0.06615 100.13%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                   128.4      8.7686 ug/L       1.24294      8.7686 ppb        1.24294  14.17%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 55
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 1/11/2010 21:31:45
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5066.2	5066.2	101	%			21:33:37
1	Y RADIAL	5441.3	5441.3	100.2	%			21:33:37
1	Al 396.153Radial†	6383.7	6345.5	4871.0	ug/L	4871.0	ppb	21:33:37
1	Ca 317.933Radial†	3196.5	3157.3	5052.0	ug/L	5052.0	ppb	21:33:57
1	Fe 238.204 Radial†	606.4	593.8	5153.7	ug/L	5153.7	ppb	21:33:57
1	K 766.490 Radial†	29519.1	26749.0	4887.1	ug/L	4887.1	ppb	21:33:37
1	Mg 279.077 IEC†	159.7	156.8	5238.6	ug/L	5238.6	ppb	21:33:57
1	Na 589.592 Radial†	32360.9	33444.2	10014	ug/L	10014	ppb	21:33:37
1	Sr 421.552†	76677.6	76229.8	492.32	ug/L	492.32	ppb	21:33:37
1	Sc 361.383	875346.8	875346.8	102.69	%			21:34:55
1	Y 371.029	729099.0	729099.0	100.89	%			21:34:55
1	Ag 328.068†	112658.0	109346.5	506.66	ug/L	506.66	ppb	21:35:00
1	As 188.979†	1155.9	1149.2	500.10	ug/L	500.10	ppb	21:35:20
1	B 249.677†	22100.4	22152.9	491.91	ug/L	491.91	ppb	21:35:00
1	Ba 233.527†	65674.8	63964.4	500.63	ug/L	500.63	ppb	21:35:00
1	Be 313.107†	1358475.6	1327446.2	506.92	ug/L	506.92	ppb	21:34:55
1	Cd 226.502†	46031.0	45028.3	499.54	ug/L	499.54	ppb	21:35:00
1	Co 228.616†	25094.9	24511.7	501.83	ug/L	501.83	ppb	21:35:00
1	Cr 267.716†	46050.2	44759.7	501.03	ug/L	501.03	ppb	21:35:00
1	Cu 324.752†	176802.3	165754.9	495.64	ug/L	495.64	ppb	21:35:00
1	Mn 257.610†	464878.2	452245.7	501.72	ug/L	501.72	ppb	21:34:55
1	Mo 202.031†	7356.8	7140.2	505.04	ug/L	505.04	ppb	21:35:20
1	Ni 231.604†	20781.9	20169.1	501.91	ug/L	501.91	ppb	21:35:00
1	P 214.914†	4397.3	4052.2	2371.3	ug/L	2371.3	ppb	21:35:20
1	Pb 220.353†	4137.2	4092.1	502.72	ug/L	502.72	ppb	21:35:20
1	S 181.975 Axial†	783.5	720.0	1018.0	ug/L	1018.0	ppb	21:35:20
1	Sb 206.836†	1520.7	1452.9	515.75	ug/L	515.75	ppb	21:35:20
1	Se 196.026†	761.9	773.9	516.93	ug/L	516.93	ppb	21:35:20
1	Si 251.611†	82585.4	79869.8	2537.5	ug/L	2537.5	ppb	21:35:00
1	Sn 189.927†	2923.7	2839.3	503.84	ug/L	503.84	ppb	21:35:20
1	Ti 334.940†	314313.7	307447.9	495.07	ug/L	495.07	ppb	21:35:00
1	Tl 190.801†	1641.5	1631.3	503.54	ug/L	503.54	ppb	21:35:20
1	U 409.014†	15737.1	17336.2	509.70	ug/L	509.70	ppb	21:35:00
1	V 292.402†	73799.0	73174.0	506.58	ug/L	506.58	ppb	21:35:00
1	Zn 213.857†	54975.2	52913.7	496.10	ug/L	496.10	ppb	21:35:00
1	SiO2†	82106.4	79382.2	5402.6	ug/L	5402.6	ppb	21:36:27
2	Sc Radial	5209.2	5209.2	103	%			21:34:02
2	Y RADIAL	5586.2	5586.2	102.9	%			21:34:02
2	Al 396.153Radial†	6435.7	6221.5	4775.4	ug/L	4775.4	ppb	21:34:02
2	Ca 317.933Radial†	3194.7	3068.3	4909.6	ug/L	4909.6	ppb	21:34:22
2	Fe 238.204 Radial†	606.3	577.2	5009.9	ug/L	5009.9	ppb	21:34:22
2	K 766.490 Radial†	29846.0	26259.5	4797.5	ug/L	4797.5	ppb	21:34:02
2	Mg 279.077 IEC†	161.3	154.0	5145.9	ug/L	5145.9	ppb	21:34:22
2	Na 589.592 Radial†	32639.6	32830.4	9829.8	ug/L	9829.8	ppb	21:34:02
2	Sr 421.552†	77456.0	74889.6	483.67	ug/L	483.67	ppb	21:34:02
2	Sc 361.383	871437.5	871437.5	102.23	%			21:35:26
2	Y 371.029	726898.8	726898.8	100.59	%			21:35:26
2	Ag 328.068†	112636.2	109817.3	508.79	ug/L	508.79	ppb	21:35:31
2	As 188.979†	1165.3	1163.5	506.26	ug/L	506.26	ppb	21:35:51
2	B 249.677†	22161.1	22308.8	495.40	ug/L	495.40	ppb	21:35:31
2	Ba 233.527†	65521.6	64101.4	501.70	ug/L	501.70	ppb	21:35:31
2	Be 313.107†	1352406.9	1327444.5	506.92	ug/L	506.92	ppb	21:35:26
2	Cd 226.502†	45917.3	45118.2	500.55	ug/L	500.55	ppb	21:35:31
2	Co 228.616†	25042.2	24569.8	503.02	ug/L	503.02	ppb	21:35:31
2	Cr 267.716†	45965.9	44878.3	502.35	ug/L	502.35	ppb	21:35:31
2	Cu 324.752†	176633.0	166361.7	497.45	ug/L	497.45	ppb	21:35:31
2	Mn 257.610†	462563.7	452012.6	501.45	ug/L	501.45	ppb	21:35:26
2	Mo 202.031†	7318.1	7134.5	504.63	ug/L	504.63	ppb	21:35:51
2	Ni 231.604†	20700.4	20180.2	502.19	ug/L	502.19	ppb	21:35:31

2	P 214.914†	4371.4	4046.0	2367.3 ug/L	2367.3 ppb	21:35:51
2	Pb 220.353†	4092.2	4066.2	499.53 ug/L	499.53 ppb	21:35:51
2	S 181.975 Axial†	783.5	723.4	1022.8 ug/L	1022.8 ppb	21:35:51
2	Sb 206.836†	1502.5	1441.8	511.94 ug/L	511.94 ppb	21:35:51
2	Se 196.026†	760.7	776.1	517.90 ug/L	517.90 ppb	21:35:51
2	Si 251.611†	82471.6	80119.2	2545.5 ug/L	2545.5 ppb	21:35:31
2	Sn 189.927†	2912.3	2841.0	504.11 ug/L	504.11 ppb	21:35:51
2	Ti 334.940†	313626.5	308148.8	496.19 ug/L	496.19 ppb	21:35:31
2	Tl 190.801†	1627.1	1624.4	501.40 ug/L	501.40 ppb	21:35:51
2	U 409.014†	15756.8	17424.2	512.31 ug/L	512.31 ppb	21:35:31
2	V 292.402†	73580.2	73282.3	507.34 ug/L	507.34 ppb	21:35:31
2	Zn 213.857†	54868.9	53049.9	497.39 ug/L	497.39 ppb	21:35:31
2	SiO2†	81589.1	79234.8	5392.6 ug/L	5392.6 ppb	21:36:32
3	Sc Radial	5107.5	5107.5	101 %		21:34:27
3	Y RADIAL	5450.1	5450.1	100.4 %		21:34:27
3	Al 396.153Radial†	6461.6	6370.9	4890.3 ug/L	4890.3 ppb	21:34:27
3	Ca 317.933Radial†	3182.0	3117.3	4987.9 ug/L	4987.9 ppb	21:34:47
3	Fe 238.204 Radial†	609.7	592.2	5140.4 ug/L	5140.4 ppb	21:34:47
3	K 766.490 Radial†	29867.9	26855.4	4906.5 ug/L	4906.5 ppb	21:34:27
3	Mg 279.077 IEC†	158.8	154.6	5165.8 ug/L	5165.8 ppb	21:34:47
3	Na 589.592 Radial†	32598.1	33417.6	10006 ug/L	10006 ppb	21:34:27
3	Sr 421.552†	77241.7	76169.0	491.93 ug/L	491.93 ppb	21:34:27
3	Sc 361.383	862911.4	862911.4	101.23 %		21:35:57
3	Y 371.029	720012.6	720012.6	99.633 %		21:35:57
3	Ag 328.068†	111990.9	110268.5	510.92 ug/L	510.92 ppb	21:36:02
3	As 188.979†	1158.0	1167.5	508.03 ug/L	508.03 ppb	21:36:22
3	B 249.677†	22120.2	22482.5	499.25 ug/L	499.25 ppb	21:36:02
3	Ba 233.527†	65127.9	64345.8	503.62 ug/L	503.62 ppb	21:36:02
3	Be 313.107†	1339368.0	1327635.0	507.00 ug/L	507.00 ppb	21:35:57
3	Cd 226.502†	45605.2	45253.7	502.05 ug/L	502.05 ppb	21:36:02
3	Co 228.616†	24961.4	24732.0	506.35 ug/L	506.35 ppb	21:36:02
3	Cr 267.716†	45778.0	45137.0	505.25 ug/L	505.25 ppb	21:36:02
3	Cu 324.752†	175415.1	166865.7	498.96 ug/L	498.96 ppb	21:36:02
3	Mn 257.610†	458190.1	452162.8	501.63 ug/L	501.63 ppb	21:35:57
3	Mo 202.031†	7356.7	7243.3	512.33 ug/L	512.33 ppb	21:36:22
3	Ni 231.604†	20654.1	20334.5	506.03 ug/L	506.03 ppb	21:36:02
3	P 214.914†	4407.0	4123.4	2414.3 ug/L	2414.3 ppb	21:36:22
3	Pb 220.353†	4130.7	4143.7	509.06 ug/L	509.06 ppb	21:36:22
3	S 181.975 Axial†	778.8	726.3	1026.9 ug/L	1026.9 ppb	21:36:22
3	Sb 206.836†	1531.5	1484.9	527.05 ug/L	527.05 ppb	21:36:22
3	Se 196.026†	764.5	787.2	525.51 ug/L	525.51 ppb	21:36:22
3	Si 251.611†	81919.7	80371.2	2553.4 ug/L	2553.4 ppb	21:36:02
3	Sn 189.927†	2946.5	2903.0	515.10 ug/L	515.10 ppb	21:36:22
3	Ti 334.940†	311769.7	309345.7	498.13 ug/L	498.13 ppb	21:36:02
3	Tl 190.801†	1641.6	1654.5	510.64 ug/L	510.64 ppb	21:36:22
3	U 409.014†	15648.5	17469.4	513.63 ug/L	513.63 ppb	21:36:02
3	V 292.402†	73224.0	73641.5	509.89 ug/L	509.89 ppb	21:36:02
3	Zn 213.857†	54598.3	53312.9	499.84 ug/L	499.84 ppb	21:36:02
3	SiO2†	82326.4	80751.7	5495.9 ug/L	5495.9 ppb	21:36:37

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	869898.5	102.05	%	0.746				0.73%
Sc Radial	5127.6	102	%	1.5				1.44%
Y 371.029	725336.8	100.37	%	0.656				0.65%
Y RADIAL	5492.5	101.2	%	1.50				1.48%
Ag 328.068†	109810.7	508.79	ug/L	2.126	508.79	ppb	2.126	0.42%
QC value within limits for Ag 328.068 Recovery = 101.76%								
Al 396.153Radial†	6312.6	4845.5	ug/L	61.53	4845.5	ppb	61.53	1.27%
QC value within limits for Al 396.153Radial Recovery = 96.91%								
As 188.979†	1160.1	504.79	ug/L	4.162	504.79	ppb	4.162	0.82%
QC value within limits for As 188.979 Recovery = 100.96%								
B 249.677†	22314.7	495.52	ug/L	3.670	495.52	ppb	3.670	0.74%
QC value within limits for B 249.677 Recovery = 99.10%								
Ba 233.527†	64137.2	501.98	ug/L	1.512	501.98	ppb	1.512	0.30%
QC value within limits for Ba 233.527 Recovery = 100.40%								
Be 313.107†	1327508.5	506.95	ug/L	0.045	506.95	ppb	0.045	0.01%
QC value within limits for Be 313.107 Recovery = 101.39%								
Ca 317.933Radial†	3114.3	4983.1	ug/L	71.31	4983.1	ppb	71.31	1.43%

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   QC value within limits for Ca 317.933Radial  Recovery = 99.66%
Cd 226.502†            45133.4      500.71 ug/L         1.260      500.71 ppb          1.260   0.25%
   QC value within limits for Cd 226.502  Recovery = 100.14%
Co 228.616†            24604.5      503.73 ug/L         2.343      503.73 ppb          2.343   0.47%
   QC value within limits for Co 228.616  Recovery = 100.75%
Cr 267.716†            44925.0      502.88 ug/L         2.159      502.88 ppb          2.159   0.43%
   QC value within limits for Cr 267.716  Recovery = 100.58%
Cu 324.752†           166327.4      497.35 ug/L         1.661      497.35 ppb          1.661   0.33%
   QC value within limits for Cu 324.752  Recovery = 99.47%
Fe 238.204 Radial†       587.7      5101.3 ug/L        79.42      5101.3 ppb         79.42   1.56%
   QC value within limits for Fe 238.204 Radial  Recovery = 102.03%
K 766.490 Radial†      26621.3      4863.7 ug/L        58.18      4863.7 ppb         58.18   1.20%
   QC value within limits for K 766.490 Radial  Recovery = 97.27%
Mg 279.077 IEC†          155.1      5183.4 ug/L        48.79      5183.4 ppb         48.79   0.94%
   QC value within limits for Mg 279.077 IEC  Recovery = 103.67%
Mn 257.610†           452140.4      501.60 ug/L         0.138      501.60 ppb          0.138   0.03%
   QC value within limits for Mn 257.610  Recovery = 100.32%
Mo 202.031†             7172.7      507.34 ug/L         4.332      507.34 ppb          4.332   0.85%
   QC value within limits for Mo 202.031  Recovery = 101.47%
Na 589.592 Radial†     33230.7      9949.7 ug/L       103.88      9949.7 ppb        103.88   1.04%
   QC value within limits for Na 589.592 Radial  Recovery = 99.50%
Ni 231.604†            20227.9      503.37 ug/L         2.300      503.37 ppb          2.300   0.46%
   QC value within limits for Ni 231.604  Recovery = 100.67%
P 214.914†              4073.9      2384.3 ug/L        26.06      2384.3 ppb         26.06   1.09%
   QC value within limits for P 214.914  Recovery = 95.37%
Pb 220.353†             4100.7      503.77 ug/L         4.850      503.77 ppb          4.850   0.96%
   QC value within limits for Pb 220.353  Recovery = 100.75%
S 181.975 Axial†         723.2      1022.6 ug/L         4.48      1022.6 ppb          4.48   0.44%
   QC value within limits for S 181.975 Axial  Recovery = 102.26%
Sb 206.836†             1459.9      518.24 ug/L         7.859      518.24 ppb          7.859   1.52%
   QC value within limits for Sb 206.836  Recovery = 103.65%
Se 196.026†              779.1      520.11 ug/L         4.699      520.11 ppb          4.699   0.90%
   QC value within limits for Se 196.026  Recovery = 104.02%
Si 251.611†            80120.1      2545.5 ug/L         7.94      2545.5 ppb          7.94   0.31%
   QC value within limits for Si 251.611  Recovery = 101.82%
Sn 189.927†             2861.1      507.68 ug/L         6.424      507.68 ppb          6.424   1.27%
   QC value within limits for Sn 189.927  Recovery = 101.54%
Sr 421.552†            75762.8      489.31 ug/L         4.888      489.31 ppb          4.888   1.00%
   QC value within limits for Sr 421.552  Recovery = 97.86%
Ti 334.940†           308314.1      496.46 ug/L         1.545      496.46 ppb          1.545   0.31%
   QC value within limits for Ti 334.940  Recovery = 99.29%
Tl 190.801†             1636.7      505.19 ug/L         4.835      505.19 ppb          4.835   0.96%
   QC value within limits for Tl 190.801  Recovery = 101.04%
U 409.014†             17409.9      511.88 ug/L         1.997      511.88 ppb          1.997   0.39%
   QC value within limits for U 409.014  Recovery = 102.38%
V 292.402†             73366.0      507.94 ug/L         1.731      507.94 ppb          1.731   0.34%
   QC value within limits for V 292.402  Recovery = 101.59%
Zn 213.857†            53092.1      497.78 ug/L         1.902      497.78 ppb          1.902   0.38%
   QC value within limits for Zn 213.857  Recovery = 99.56%
SiO2†                  79789.6      5430.4 ug/L        56.96      5430.4 ppb         56.96   1.05%
   QC value within limits for SiO2  Recovery = 101.55%
All analyte(s) passed QC.
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Sequence No.: 56
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 1/11/2010 21:38:47
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5036.0	5036.0	100	%			21:40:39
1	Y RADIAL	5431.9	5431.9	100.0	%			21:40:39
1	Al 396.153Radial†	-25.1	-24.4	-18.838	ug/L	-18.838	ppb	21:40:39
1	Ca 317.933Radial†	14.8	-5.0	-7.9749	ug/L	-7.9749	ppb	21:40:59
1	Fe 238.204 Radial†	10.4	1.5	13.342	ug/L	13.342	ppb	21:40:59
1	K 766.490 Radial†	2643.8	53.3	9.7766	ug/L	9.7766	ppb	21:40:39
1	Mg 279.077 IEC†	0.2	-1.7	-55.846	ug/L	-55.846	ppb	21:40:59
1	Na 589.592 Radial†	-1324.6	-44.0	-13.176	ug/L	-13.176	ppb	21:40:39
1	Sr 421.552†	9.8	29.3	0.1892	ug/L	0.1892	ppb	21:40:39
1	Sc 361.383	858553.8	858553.8	100.72	%			21:41:56
1	Y 371.029	729508.5	729508.5	100.95	%			21:41:56
1	Ag 328.068†	269.3	-90.6	-0.4159	ug/L	-0.4159	ppb	21:41:56
1	As 188.979†	-17.3	6.4	2.7976	ug/L	2.7976	ppb	21:42:16
1	B 249.677†	-478.0	157.3	3.5058	ug/L	3.5058	ppb	21:42:16
1	Ba 233.527†	-11.0	0.4	0.0038	ug/L	0.0038	ppb	21:42:16
1	Be 313.107†	-4505.6	112.1	0.0431	ug/L	0.0431	ppb	21:41:56
1	Cd 226.502†	-182.1	23.3	0.2576	ug/L	0.2576	ppb	21:42:16
1	Co 228.616†	-77.9	-2.6	-0.0542	ug/L	-0.0542	ppb	21:42:16
1	Cr 267.716†	78.4	-5.4	-0.0617	ug/L	-0.0617	ppb	21:42:16
1	Cu 324.752†	6455.0	-3.5	-0.0115	ug/L	-0.0115	ppb	21:41:56
1	Mn 257.610†	416.7	-31.2	-0.0308	ug/L	-0.0308	ppb	21:42:16
1	Mo 202.031†	23.6	-0.3	-0.0213	ug/L	-0.0213	ppb	21:42:16
1	Ni 231.604†	76.2	7.7	0.1912	ug/L	0.1912	ppb	21:42:16
1	P 214.914†	219.4	-12.0	-7.3778	ug/L	-7.3778	ppb	21:42:16
1	Pb 220.353†	-52.5	11.2	1.3690	ug/L	1.3690	ppb	21:42:16
1	S 181.975 Axial†	46.6	3.3	4.6507	ug/L	4.6507	ppb	21:42:16
1	Sb 206.836†	35.8	7.6	2.6108	ug/L	2.6108	ppb	21:42:16
1	Se 196.026†	-31.9	0.3	0.2340	ug/L	0.2340	ppb	21:42:16
1	Si 251.611†	551.4	-3.1	-0.0972	ug/L	-0.0972	ppb	21:42:16
1	Sn 189.927†	5.8	-1.9	-0.3375	ug/L	-0.3375	ppb	21:42:16
1	Ti 334.940†	-1272.6	111.0	0.1811	ug/L	0.1811	ppb	21:41:56
1	Tl 190.801†	-32.4	0.7	0.2110	ug/L	0.2110	ppb	21:42:16
1	U 409.014†	-1913.0	112.3	3.3118	ug/L	3.3118	ppb	21:41:56
1	V 292.402†	-1329.0	-9.8	-0.0639	ug/L	-0.0639	ppb	21:41:56
1	Zn 213.857†	601.6	-23.0	-0.2196	ug/L	-0.2196	ppb	21:42:16
1	SiO2†	583.4	7.5	0.5136	ug/L	0.5136	ppb	21:43:12
2	Sc Radial	5141.4	5141.4	102	%			21:41:04
2	Y RADIAL	5519.8	5519.8	101.7	%			21:41:04
2	Al 396.153Radial†	-16.9	-15.9	-12.212	ug/L	-12.212	ppb	21:41:04
2	Ca 317.933Radial†	15.3	-4.8	-7.7466	ug/L	-7.7466	ppb	21:41:24
2	Fe 238.204 Radial†	9.1	-0.0	-0.0300	ug/L	-0.0300	ppb	21:41:24
2	K 766.490 Radial†	2551.3	-91.5	-16.772	ug/L	-16.772	ppb	21:41:04
2	Mg 279.077 IEC†	0.9	-1.0	-33.471	ug/L	-33.471	ppb	21:41:24
2	Na 589.592 Radial†	-1307.5	-0.1	-0.0182	ug/L	-0.0182	ppb	21:41:04
2	Sr 421.552†	13.1	32.4	0.2092	ug/L	0.2092	ppb	21:41:04
2	Sc 361.383	896670.4	896670.4	105.19	%			21:42:21
2	Y 371.029	762390.0	762390.0	105.50	%			21:42:21
2	Ag 328.068†	330.5	-43.8	-0.2068	ug/L	-0.2068	ppb	21:42:21
2	As 188.979†	-16.9	7.6	3.2850	ug/L	3.2850	ppb	21:42:41
2	B 249.677†	-488.9	167.1	3.7232	ug/L	3.7232	ppb	21:42:41
2	Ba 233.527†	-10.9	1.1	0.0081	ug/L	0.0081	ppb	21:42:41
2	Be 313.107†	-4505.2	302.6	0.1157	ug/L	0.1157	ppb	21:42:21
2	Cd 226.502†	-207.8	6.6	0.0743	ug/L	0.0743	ppb	21:42:41
2	Co 228.616†	-60.9	16.8	0.3409	ug/L	0.3409	ppb	21:42:41
2	Cr 267.716†	94.2	6.3	0.0682	ug/L	0.0682	ppb	21:42:41
2	Cu 324.752†	6372.1	-354.7	-1.0640	ug/L	-1.0640	ppb	21:42:21
2	Mn 257.610†	411.7	-53.5	-0.0580	ug/L	-0.0580	ppb	21:42:41
2	Mo 202.031†	10.6	-13.7	-0.9656	ug/L	-0.9656	ppb	21:42:41
2	Ni 231.604†	74.7	3.0	0.0754	ug/L	0.0754	ppb	21:42:41

2	P 214.914†	209.1	-31.1	-18.822 ug/L	-18.822 ppb	21:42:41
2	Pb 220.353†	-59.8	6.5	0.7931 ug/L	0.7931 ppb	21:42:41
2	S 181.975 Axial†	48.2	2.8	3.9710 ug/L	3.9710 ppb	21:42:41
2	Sb 206.836†	38.0	8.2	2.7546 ug/L	2.7546 ppb	21:42:41
2	Se 196.026†	-29.1	4.4	2.8147 ug/L	2.8147 ppb	21:42:41
2	Si 251.611†	579.5	0.5	0.0265 ug/L	0.0265 ppb	21:42:41
2	Sn 189.927†	-1.9	-9.4	-1.6725 ug/L	-1.6725 ppb	21:42:41
2	Ti 334.940†	-1333.2	107.1	0.1718 ug/L	0.1718 ppb	21:42:21
2	Tl 190.801†	-27.4	6.8	2.1005 ug/L	2.1005 ppb	21:42:41
2	U 409.014†	-1904.9	200.8	5.9222 ug/L	5.9222 ppb	21:42:21
2	V 292.402†	-1385.1	-7.0	-0.0518 ug/L	-0.0518 ppb	21:42:21
2	Zn 213.857†	615.9	-34.7	-0.3274 ug/L	-0.3274 ppb	21:42:41
2	SiO2†	587.0	-13.7	-0.9059 ug/L	-0.9059 ppb	21:43:17
3	Sc Radial	5157.0	5157.0	102 %		21:41:29
3	Y RADIAL	5520.8	5520.8	101.7 %		21:41:29
3	Al 396.153Radial†	-10.6	-9.7	-7.5096 ug/L	-7.5096 ppb	21:41:29
3	Ca 317.933Radial†	18.5	-1.7	-2.7649 ug/L	-2.7649 ppb	21:41:49
3	Fe 238.204 Radial†	11.2	2.1	17.749 ug/L	17.749 ppb	21:41:49
3	K 766.490 Radial†	2676.0	22.7	4.1773 ug/L	4.1773 ppb	21:41:29
3	Mg 279.077 IEC†	5.8	3.7	123.88 ug/L	123.88 ppb	21:41:49
3	Na 589.592 Radial†	-1401.1	-87.6	-26.223 ug/L	-26.223 ppb	21:41:29
3	Sr 421.552†	-16.2	3.7	0.0241 ug/L	0.0241 ppb	21:41:29
3	Sc 361.383	850118.4	850118.4	99.733 %		21:42:46
3	Y 371.029	721245.4	721245.4	99.803 %		21:42:46
3	Ag 328.068†	281.8	-75.4	-0.3458 ug/L	-0.3458 ppb	21:42:46
3	As 188.979†	-16.6	7.0	3.0346 ug/L	3.0346 ppb	21:43:06
3	B 249.677†	-490.9	139.7	3.1121 ug/L	3.1121 ppb	21:43:06
3	Ba 233.527†	4.0	15.4	0.1193 ug/L	0.1193 ppb	21:43:06
3	Be 313.107†	-4454.2	119.2	0.0456 ug/L	0.0456 ppb	21:42:46
3	Cd 226.502†	-185.5	18.1	0.1995 ug/L	0.1995 ppb	21:43:06
3	Co 228.616†	-76.9	-2.5	-0.0501 ug/L	-0.0501 ppb	21:43:06
3	Cr 267.716†	82.0	-1.0	-0.0132 ug/L	-0.0132 ppb	21:43:06
3	Cu 324.752†	6398.6	3.5	0.0104 ug/L	0.0104 ppb	21:42:46
3	Mn 257.610†	440.0	-3.7	-0.0071 ug/L	-0.0071 ppb	21:43:06
3	Mo 202.031†	28.8	5.1	0.3645 ug/L	0.3645 ppb	21:43:06
3	Ni 231.604†	77.2	9.4	0.2344 ug/L	0.2344 ppb	21:43:06
3	P 214.914†	215.4	-13.8	-8.4896 ug/L	-8.4896 ppb	21:43:06
3	Pb 220.353†	-69.1	-5.9	-0.7282 ug/L	-0.7282 ppb	21:43:06
3	S 181.975 Axial†	48.0	5.2	7.3212 ug/L	7.3212 ppb	21:43:06
3	Sb 206.836†	44.2	16.4	5.6220 ug/L	5.6220 ppb	21:43:06
3	Se 196.026†	-40.8	-8.9	-5.6819 ug/L	-5.6819 ppb	21:43:06
3	Si 251.611†	570.1	21.2	0.6694 ug/L	0.6694 ppb	21:43:06
3	Sn 189.927†	4.5	-3.1	-0.5560 ug/L	-0.5560 ppb	21:43:06
3	Ti 334.940†	-1325.8	45.2	0.0616 ug/L	0.0616 ppb	21:42:46
3	Tl 190.801†	-37.8	-5.0	-1.5435 ug/L	-1.5435 ppb	21:43:06
3	U 409.014†	-1942.5	63.9	1.8840 ug/L	1.8840 ppb	21:42:46
3	V 292.402†	-1407.9	-102.0	-0.6875 ug/L	-0.6875 ppb	21:42:46
3	Zn 213.857†	625.0	6.4	0.0577 ug/L	0.0577 ppb	21:43:06
3	SiO2†	555.9	-14.3	-0.9848 ug/L	-0.9848 ppb	21:43:22

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	868447.5	101.88	%	2.910				2.86%
Sc Radial	5111.5	102	%	1.3				1.29%
Y 371.029	737714.6	102.08	%	3.012				2.95%
Y RADIAL	5490.8	101.1	%	0.94				0.93%
Ag 328.068†	-70.0	-0.3228	ug/L	0.10644	-0.3228	ppb	0.10644	32.97%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-16.7	-12.853	ug/L	5.6914	-12.853	ppb	5.6914	44.28%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	7.0	3.0391	ug/L	0.24372	3.0391	ppb	0.24372	8.02%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	154.7	3.4470	ug/L	0.30976	3.4470	ppb	0.30976	8.99%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	5.6	0.0438	ug/L	0.06550	0.0438	ppb	0.06550	149.68%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	178.0	0.0681	ug/L	0.04121	0.0681	ppb	0.04121	60.49%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-3.9	-6.1622	ug/L	2.94432	-6.1622	ppb	2.94432	47.78%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                16.0      0.1771 ug/L       0.09368      0.1771 ppb        0.09368  52.89%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                 3.9      0.0789 ug/L       0.22693      0.0789 ppb        0.22693 287.67%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                -0.0     -0.0022 ug/L       0.06563     -0.0022 ppb        0.06563 >999.9%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -118.2     -0.3550 ug/L       0.61409     -0.3550 ppb        0.61409 172.97%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          1.2      10.354 ug/L        9.2586      10.354 ppb         9.2586  89.42%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          -5.2     -0.9394 ug/L      13.99436     -0.9394 ppb       13.99436 >999.9%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             0.3      11.521 ug/L       97.9465      11.521 ppb        97.9465 850.15%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               -29.4     -0.0320 ug/L       0.02543     -0.0320 ppb        0.02543  79.57%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                -2.9     -0.2075 ug/L       0.68432     -0.2075 ppb        0.68432 329.86%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        -43.9     -13.139 ug/L       13.1026     -13.139 ppb        13.1026  99.72%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                 6.7      0.1670 ug/L       0.08223      0.1670 ppb        0.08223  49.24%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -19.0     -11.563 ug/L        6.3108     -11.563 ppb         6.3108  54.58%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                 3.9      0.4780 ug/L       1.08353      0.4780 ppb        1.08353 226.69%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            3.8      5.3143 ug/L       1.77095      5.3143 ppb        1.77095  33.32%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                10.7      3.6625 ug/L       1.69854      3.6625 ppb        1.69854  46.38%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -1.4     -0.8777 ug/L       4.35607     -0.8777 ppb        4.35607 496.28%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                 6.2      0.1995 ug/L       0.41157      0.1995 ppb        0.41157 206.25%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                -4.8     -0.8553 ug/L       0.71607     -0.8553 ppb        0.71607  83.72%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                21.8      0.1408 ug/L       0.10158      0.1408 ppb        0.10158  72.14%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                87.8      0.1382 ug/L       0.06650      0.1382 ppb        0.06650  48.13%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 0.8      0.2560 ug/L       1.82240      0.2560 ppb        1.82240 711.87%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                125.7      3.7060 ug/L       2.04774      3.7060 ppb        2.04774  55.25%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                -39.6     -0.2677 ug/L       0.36359     -0.2677 ppb        0.36359 135.80%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               -17.1     -0.1631 ug/L       0.19868     -0.1631 ppb        0.19868 121.84%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                      -6.8     -0.4590 ug/L       0.84325     -0.4590 ppb        0.84325 183.71%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 66
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 1/11/2010 22:48:23
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5079.6	5079.6	101	%			22:50:15
1	Y RADIAL	5389.7	5389.7	99.27	%			22:50:15
1	Al 396.153Radial†	6424.9	6369.6	4889.6	ug/L	4889.6	ppb	22:50:15
1	Ca 317.933Radial†	3212.7	3165.0	5064.3	ug/L	5064.3	ppb	22:50:35
1	Fe 238.204 Radial†	616.0	601.8	5222.8	ug/L	5222.8	ppb	22:50:35
1	K 766.490 Radial†	29984.7	27133.3	4957.4	ug/L	4957.4	ppb	22:50:15
1	Mg 279.077 IEC†	159.7	156.4	5224.5	ug/L	5224.5	ppb	22:50:35
1	Na 589.592 Radial†	32827.0	33821.3	10127	ug/L	10127	ppb	22:50:15
1	Sr 421.552†	77561.5	76905.0	496.69	ug/L	496.69	ppb	22:50:15
1	Sc 361.383	869829.9	869829.9	102.05	%			22:51:33
1	Y 371.029	724813.4	724813.4	100.30	%			22:51:33
1	Ag 328.068†	112256.4	109648.7	508.08	ug/L	508.08	ppb	22:51:38
1	As 188.979†	1168.9	1169.1	508.75	ug/L	508.75	ppb	22:51:58
1	B 249.677†	21933.1	22125.4	491.29	ug/L	491.29	ppb	22:51:38
1	Ba 233.527†	65369.0	64070.4	501.47	ug/L	501.47	ppb	22:51:38
1	Be 313.107†	1354071.0	1331520.0	508.47	ug/L	508.47	ppb	22:51:33
1	Cd 226.502†	45934.7	45218.2	501.64	ug/L	501.64	ppb	22:51:38
1	Co 228.616†	25026.0	24599.2	503.62	ug/L	503.62	ppb	22:51:38
1	Cr 267.716†	45970.3	44965.7	503.33	ug/L	503.33	ppb	22:51:38
1	Cu 324.752†	175429.1	165501.2	494.88	ug/L	494.88	ppb	22:51:38
1	Mn 257.610†	463526.8	453792.6	503.45	ug/L	503.45	ppb	22:51:33
1	Mo 202.031†	7299.5	7129.5	504.29	ug/L	504.29	ppb	22:51:58
1	Ni 231.604†	20709.0	20226.1	503.33	ug/L	503.33	ppb	22:51:38
1	P 214.914†	4370.4	4053.0	2372.0	ug/L	2372.0	ppb	22:51:58
1	Pb 220.353†	4106.8	4087.9	502.19	ug/L	502.19	ppb	22:51:58
1	S 181.975 Axial†	768.6	710.2	1004.1	ug/L	1004.1	ppb	22:51:58
1	Sb 206.836†	1518.9	1460.5	518.37	ug/L	518.37	ppb	22:51:58
1	Se 196.026†	760.2	777.0	519.14	ug/L	519.14	ppb	22:51:58
1	Si 251.611†	82253.8	80054.9	2543.4	ug/L	2543.4	ppb	22:51:38
1	Sn 189.927†	2909.9	2843.9	504.65	ug/L	504.65	ppb	22:51:58
1	Ti 334.940†	312356.6	307471.3	495.11	ug/L	495.11	ppb	22:51:38
1	Tl 190.801†	1628.5	1628.7	502.72	ug/L	502.72	ppb	22:51:58
1	U 409.014†	15741.1	17437.2	512.67	ug/L	512.67	ppb	22:51:38
1	V 292.402†	73659.6	73493.1	508.74	ug/L	508.74	ppb	22:51:38
1	Zn 213.857†	54822.5	53103.5	497.88	ug/L	497.88	ppb	22:51:38
1	SiO2†	81679.8	79471.2	5408.7	ug/L	5408.7	ppb	22:53:05
2	Sc Radial	5126.2	5126.2	102	%			22:50:40
2	Y RADIAL	5453.9	5453.9	100.5	%			22:50:40
2	Al 396.153Radial†	6467.9	6353.8	4877.1	ug/L	4877.1	ppb	22:50:40
2	Ca 317.933Radial†	3210.7	3134.0	5014.6	ug/L	5014.6	ppb	22:51:00
2	Fe 238.204 Radial†	615.3	595.5	5168.6	ug/L	5168.6	ppb	22:51:00
2	K 766.490 Radial†	29977.3	26855.5	4906.5	ug/L	4906.5	ppb	22:50:40
2	Mg 279.077 IEC†	161.7	157.0	5244.3	ug/L	5244.3	ppb	22:51:00
2	Na 589.592 Radial†	33137.8	33830.6	10129	ug/L	10129	ppb	22:50:40
2	Sr 421.552†	77856.0	76494.8	494.04	ug/L	494.04	ppb	22:50:40
2	Sc 361.383	864920.1	864920.1	101.47	%			22:52:04
2	Y 371.029	721286.8	721286.8	99.809	%			22:52:04
2	Ag 328.068†	113153.8	111157.7	515.04	ug/L	515.04	ppb	22:52:09
2	As 188.979†	1176.2	1182.8	514.67	ug/L	514.67	ppb	22:52:29
2	B 249.677†	22081.8	22393.9	497.26	ug/L	497.26	ppb	22:52:09
2	Ba 233.527†	66001.5	65057.4	509.18	ug/L	509.18	ppb	22:52:09
2	Be 313.107†	1345862.7	1330963.1	508.28	ug/L	508.28	ppb	22:52:04
2	Cd 226.502†	46354.3	45887.3	509.08	ug/L	509.08	ppb	22:52:09
2	Co 228.616†	25269.5	24978.3	511.38	ug/L	511.38	ppb	22:52:09
2	Cr 267.716†	46342.6	45588.4	510.30	ug/L	510.30	ppb	22:52:09
2	Cu 324.752†	176991.5	168016.9	502.40	ug/L	502.40	ppb	22:52:09
2	Mn 257.610†	460670.0	453555.7	503.18	ug/L	503.18	ppb	22:52:04
2	Mo 202.031†	7347.9	7217.8	510.53	ug/L	510.53	ppb	22:52:29
2	Ni 231.604†	20861.9	20491.9	509.94	ug/L	509.94	ppb	22:52:09

2	P 214.914†	4411.4	4117.7	2410.0 ug/L	2410.0 ppb	22:52:29
2	Pb 220.353†	4134.5	4138.0	508.34 ug/L	508.34 ppb	22:52:29
2	S 181.975 Axial†	777.6	723.4	1022.8 ug/L	1022.8 ppb	22:52:29
2	Sb 206.836†	1524.0	1474.0	523.23 ug/L	523.23 ppb	22:52:29
2	Se 196.026†	772.7	793.5	529.65 ug/L	529.65 ppb	22:52:29
2	Si 251.611†	82963.5	81211.9	2580.2 ug/L	2580.2 ppb	22:52:09
2	Sn 189.927†	2939.7	2889.4	512.70 ug/L	512.70 ppb	22:52:29
2	Ti 334.940†	314944.4	311759.2	502.01 ug/L	502.01 ppb	22:52:09
2	Tl 190.801†	1647.8	1656.8	511.34 ug/L	511.34 ppb	22:52:29
2	U 409.014†	15606.3	17392.0	511.33 ug/L	511.33 ppb	22:52:09
2	V 292.402†	74135.2	74371.6	514.83 ug/L	514.83 ppb	22:52:09
2	Zn 213.857†	55314.7	53893.6	505.30 ug/L	505.30 ppb	22:52:09
2	SiO2†	82861.2	81089.9	5519.0 ug/L	5519.0 ppb	22:53:10
3	Sc Radial	4979.8	4979.8	98.9 %		22:51:05
3	Y RADIAL	5339.0	5339.0	98.33 %		22:51:05
3	Al 396.153Radial†	6320.0	6391.1	4906.0 ug/L	4906.0 ppb	22:51:05
3	Ca 317.933Radial†	3194.3	3210.1	5136.5 ug/L	5136.5 ppb	22:51:25
3	Fe 238.204 Radial†	611.6	609.6	5290.4 ug/L	5290.4 ppb	22:51:25
3	K 766.490 Radial†	29506.6	27245.4	4977.9 ug/L	4977.9 ppb	22:51:05
3	Mg 279.077 IEC†	158.4	158.2	5286.1 ug/L	5286.1 ppb	22:51:25
3	Na 589.592 Radial†	32402.2	34043.8	10193 ug/L	10193 ppb	22:51:05
3	Sr 421.552†	76218.3	77087.4	497.86 ug/L	497.86 ppb	22:51:05
3	Sc 361.383	869477.7	869477.7	102.00 %		22:52:35
3	Y 371.029	723745.4	723745.4	100.15 %		22:52:35
3	Ag 328.068†	113071.7	110492.6	512.00 ug/L	512.00 ppb	22:52:40
3	As 188.979†	1162.3	1163.1	506.17 ug/L	506.17 ppb	22:53:00
3	B 249.677†	22328.5	22521.7	500.10 ug/L	500.10 ppb	22:52:40
3	Ba 233.527†	66096.7	64809.7	507.25 ug/L	507.25 ppb	22:52:40
3	Be 313.107†	1354396.0	1332376.2	508.81 ug/L	508.81 ppb	22:52:35
3	Cd 226.502†	46314.7	45609.0	505.98 ug/L	505.98 ppb	22:52:40
3	Co 228.616†	25237.0	24815.9	508.05 ug/L	508.05 ppb	22:52:40
3	Cr 267.716†	46299.4	45306.6	507.15 ug/L	507.15 ppb	22:52:40
3	Cu 324.752†	177407.6	167510.5	500.89 ug/L	500.89 ppb	22:52:40
3	Mn 257.610†	464762.2	455187.8	505.00 ug/L	505.00 ppb	22:52:35
3	Mo 202.031†	7342.6	7174.7	507.49 ug/L	507.49 ppb	22:53:00
3	Ni 231.604†	20871.1	20393.2	507.49 ug/L	507.49 ppb	22:52:40
3	P 214.914†	4385.3	4069.3	2380.6 ug/L	2380.6 ppb	22:53:00
3	Pb 220.353†	4133.4	4115.5	505.58 ug/L	505.58 ppb	22:53:00
3	S 181.975 Axial†	777.3	719.0	1016.6 ug/L	1016.6 ppb	22:53:00
3	Sb 206.836†	1516.3	1458.6	517.85 ug/L	517.85 ppb	22:53:00
3	Se 196.026†	758.0	775.2	518.20 ug/L	518.20 ppb	22:53:00
3	Si 251.611†	83161.4	80977.3	2572.8 ug/L	2572.8 ppb	22:52:40
3	Sn 189.927†	2938.1	2872.7	509.76 ug/L	509.76 ppb	22:53:00
3	Ti 334.940†	315694.6	310867.8	500.58 ug/L	500.58 ppb	22:52:40
3	Tl 190.801†	1638.4	1639.1	505.94 ug/L	505.94 ppb	22:53:00
3	U 409.014†	15879.4	17579.0	516.84 ug/L	516.84 ppb	22:52:40
3	V 292.402†	74064.2	73919.0	511.69 ug/L	511.69 ppb	22:52:40
3	Zn 213.857†	55358.9	53651.2	503.02 ug/L	503.02 ppb	22:52:40
3	SiO2†	82943.0	80742.0	5495.3 ug/L	5495.3 ppb	22:53:15

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	868075.9	101.84	%	0.321				0.32%
Sc Radial	5061.9	101	%	1.5				1.48%
Y 371.029	723281.8	100.08	%	0.250				0.25%
Y RADIAL	5394.2	99.35	%	1.061				1.07%
Ag 328.068†	110433.0	511.71	ug/L	3.487	511.71	ppb	3.487	0.68%
QC value within limits for Ag 328.068 Recovery = 102.34%								
Al 396.153Radial†	6371.5	4890.9	ug/L	14.49	4890.9	ppb	14.49	0.30%
QC value within limits for Al 396.153Radial Recovery = 97.82%								
As 188.979†	1171.7	509.86	ug/L	4.360	509.86	ppb	4.360	0.86%
QC value within limits for As 188.979 Recovery = 101.97%								
B 249.677†	22347.0	496.21	ug/L	4.499	496.21	ppb	4.499	0.91%
QC value within limits for B 249.677 Recovery = 99.24%								
Ba 233.527†	64645.8	505.97	ug/L	4.014	505.97	ppb	4.014	0.79%
QC value within limits for Ba 233.527 Recovery = 101.19%								
Be 313.107†	1331619.7	508.52	ug/L	0.271	508.52	ppb	0.271	0.05%
QC value within limits for Be 313.107 Recovery = 101.70%								
Ca 317.933Radial†	3169.7	5071.8	ug/L	61.31	5071.8	ppb	61.31	1.21%

QC value within limits for Ca 317.933Radial Recovery = 101.44%

Cd 226.502†	45571.5	505.57 ug/L	3.734	505.57 ppb	3.734	0.74%

QC value within limits for Cd 226.502 Recovery = 101.11%

Co 228.616†	24797.8	507.68 ug/L	3.894	507.68 ppb	3.894	0.77%

QC value within limits for Co 228.616 Recovery = 101.54%

Cr 267.716†	45286.9	506.93 ug/L	3.490	506.93 ppb	3.490	0.69%

QC value within limits for Cr 267.716 Recovery = 101.39%

Cu 324.752†	167009.5	499.39 ug/L	3.978	499.39 ppb	3.978	0.80%

QC value within limits for Cu 324.752 Recovery = 99.88%

Fe 238.204 Radial†	602.3	5227.3 ug/L	61.00	5227.3 ppb	61.00	1.17%

QC value within limits for Fe 238.204 Radial Recovery = 104.55%

K 766.490 Radial†	27078.1	4947.3 ug/L	36.78	4947.3 ppb	36.78	0.74%

QC value within limits for K 766.490 Radial Recovery = 98.95%

Mg 279.077 IEC†	157.2	5251.6 ug/L	31.44	5251.6 ppb	31.44	0.60%

QC value within limits for Mg 279.077 IEC Recovery = 105.03%

Mn 257.610†	454178.7	503.87 ug/L	0.983	503.87 ppb	0.983	0.20%

QC value within limits for Mn 257.610 Recovery = 100.77%

Mo 202.031†	7174.0	507.44 ug/L	3.117	507.44 ppb	3.117	0.61%

QC value within limits for Mo 202.031 Recovery = 101.49%

Na 589.592 Radial†	33898.6	10150 ug/L	37.7	10150 ppb	37.7	0.37%

QC value within limits for Na 589.592 Radial Recovery = 101.50%

Ni 231.604†	20370.4	506.92 ug/L	3.344	506.92 ppb	3.344	0.66%

QC value within limits for Ni 231.604 Recovery = 101.38%

P 214.914†	4080.0	2387.5 ug/L	19.95	2387.5 ppb	19.95	0.84%

QC value within limits for P 214.914 Recovery = 95.50%

Pb 220.353†	4113.8	505.37 ug/L	3.079	505.37 ppb	3.079	0.61%

QC value within limits for Pb 220.353 Recovery = 101.07%

S 181.975 Axial†	717.5	1014.5 ug/L	9.50	1014.5 ppb	9.50	0.94%

QC value within limits for S 181.975 Axial Recovery = 101.45%

Sb 206.836†	1464.4	519.81 ug/L	2.969	519.81 ppb	2.969	0.57%

QC value within limits for Sb 206.836 Recovery = 103.96%

Se 196.026†	781.9	522.33 ug/L	6.358	522.33 ppb	6.358	1.22%

QC value within limits for Se 196.026 Recovery = 104.47%

Si 251.611†	80748.1	2565.5 ug/L	19.44	2565.5 ppb	19.44	0.76%

QC value within limits for Si 251.611 Recovery = 102.62%

Sn 189.927†	2868.7	509.04 ug/L	4.076	509.04 ppb	4.076	0.80%

QC value within limits for Sn 189.927 Recovery = 101.81%

Sr 421.552†	76829.1	496.19 ug/L	1.960	496.19 ppb	1.960	0.39%

QC value within limits for Sr 421.552 Recovery = 99.24%

Ti 334.940†	310032.7	499.23 ug/L	3.642	499.23 ppb	3.642	0.73%

QC value within limits for Ti 334.940 Recovery = 99.85%

Tl 190.801†	1641.5	506.67 ug/L	4.357	506.67 ppb	4.357	0.86%

QC value within limits for Tl 190.801 Recovery = 101.33%

U 409.014†	17469.4	513.61 ug/L	2.874	513.61 ppb	2.874	0.56%

QC value within limits for U 409.014 Recovery = 102.72%

V 292.402†	73927.9	511.75 ug/L	3.043	511.75 ppb	3.043	0.59%

QC value within limits for V 292.402 Recovery = 102.35%

Zn 213.857†	53549.4	502.07 ug/L	3.803	502.07 ppb	3.803	0.76%

QC value within limits for Zn 213.857 Recovery = 100.41%

SiO2†	80434.4	5474.4 ug/L	58.06	5474.4 ppb	58.06	1.06%

QC value within limits for SiO2 Recovery = 102.37%

All analyte(s) passed QC.

Sequence No.: 67
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 1/11/2010 22:55:25
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5176.0	5176.0	103	%			22:57:17
1	Y RADIAL	5549.0	5549.0	102.2	%			22:57:17
1	Al 396.153Radial†	-7.0	-6.1	-4.7088	ug/L	-4.7088	ppb	22:57:17
1	Ca 317.933Radial†	25.5	5.1	8.1193	ug/L	8.1193	ppb	22:57:37
1	Fe 238.204 Radial†	8.2	-0.9	-7.9800	ug/L	-7.9800	ppb	22:57:37
1	K 766.490 Radial†	2872.1	203.9	37.406	ug/L	37.406	ppb	22:57:17
1	Mg 279.077 IEC†	0.2	-1.7	-56.871	ug/L	-56.871	ppb	22:57:37
1	Na 589.592 Radial†	-1369.8	-52.1	-15.593	ug/L	-15.593	ppb	22:57:17
1	Sr 421.552†	25.8	44.6	0.2880	ug/L	0.2880	ppb	22:57:17
1	Sc 361.383	882577.1	882577.1	103.54	%			22:58:34
1	Y 371.029	747252.0	747252.0	103.40	%			22:58:34
1	Ag 328.068†	406.5	34.6	0.1559	ug/L	0.1559	ppb	22:58:39
1	As 188.979†	-18.0	6.2	2.6961	ug/L	2.6961	ppb	22:58:59
1	B 249.677†	-447.7	199.5	4.4490	ug/L	4.4490	ppb	22:58:59
1	Ba 233.527†	-0.4	11.0	0.0858	ug/L	0.0858	ppb	22:58:59
1	Be 313.107†	-4454.0	283.7	0.1085	ug/L	0.1085	ppb	22:58:39
1	Cd 226.502†	-177.9	32.3	0.3591	ug/L	0.3591	ppb	22:58:59
1	Co 228.616†	-88.7	-11.0	-0.2264	ug/L	-0.2264	ppb	22:58:59
1	Cr 267.716†	81.9	-4.2	-0.0473	ug/L	-0.0473	ppb	22:58:59
1	Cu 324.752†	6341.0	-288.0	-0.8625	ug/L	-0.8625	ppb	22:58:39
1	Mn 257.610†	490.3	28.6	0.0332	ug/L	0.0332	ppb	22:58:59
1	Mo 202.031†	15.3	-8.9	-0.6306	ug/L	-0.6306	ppb	22:58:59
1	Ni 231.604†	77.0	6.5	0.1608	ug/L	0.1608	ppb	22:58:59
1	P 214.914†	211.7	-25.4	-15.358	ug/L	-15.358	ppb	22:58:59
1	Pb 220.353†	-74.1	-8.2	-1.0056	ug/L	-1.0056	ppb	22:58:59
1	S 181.975 Axial†	46.6	2.0	2.8781	ug/L	2.8781	ppb	22:58:59
1	Sb 206.836†	33.2	4.1	1.3879	ug/L	1.3879	ppb	22:58:59
1	Se 196.026†	-30.6	2.4	1.5296	ug/L	1.5296	ppb	22:58:59
1	Si 251.611†	572.3	2.3	0.0814	ug/L	0.0814	ppb	22:58:59
1	Sn 189.927†	1.2	-6.5	-1.1515	ug/L	-1.1515	ppb	22:58:59
1	Ti 334.940†	-1307.4	111.8	0.1851	ug/L	0.1851	ppb	22:58:39
1	Tl 190.801†	-30.5	3.4	1.0374	ug/L	1.0374	ppb	22:58:59
1	U 409.014†	-2033.9	47.2	1.3945	ug/L	1.3945	ppb	22:58:34
1	V 292.402†	-1342.3	13.3	0.0837	ug/L	0.0837	ppb	22:58:39
1	Zn 213.857†	604.8	-36.2	-0.3412	ug/L	-0.3412	ppb	22:58:59
1	SiO2†	642.5	48.9	3.3509	ug/L	3.3509	ppb	23:00:05
2	Sc Radial	5278.9	5278.9	105	%			22:57:42
2	Y RADIAL	5667.0	5667.0	104.4	%			22:57:42
2	Al 396.153Radial†	-9.2	-8.1	-6.2517	ug/L	-6.2517	ppb	22:57:42
2	Ca 317.933Radial†	18.9	-1.8	-2.8339	ug/L	-2.8339	ppb	22:58:02
2	Fe 238.204 Radial†	14.4	4.9	42.006	ug/L	42.006	ppb	22:58:02
2	K 766.490 Radial†	2740.5	23.9	4.3928	ug/L	4.3928	ppb	22:57:42
2	Mg 279.077 IEC†	-2.0	-3.8	-127.27	ug/L	-127.27	ppb	22:58:02
2	Na 589.592 Radial†	-1361.1	-17.9	-5.3478	ug/L	-5.3478	ppb	22:57:42
2	Sr 421.552†	-9.2	10.8	0.0696	ug/L	0.0696	ppb	22:57:42
2	Sc 361.383	869443.9	869443.9	102.00	%			22:59:04
2	Y 371.029	736966.7	736966.7	101.98	%			22:59:04
2	Ag 328.068†	386.0	20.4	0.1054	ug/L	0.1054	ppb	22:59:09
2	As 188.979†	-12.8	11.1	4.8225	ug/L	4.8225	ppb	22:59:29
2	B 249.677†	-461.1	179.8	4.0034	ug/L	4.0034	ppb	22:59:29
2	Ba 233.527†	7.5	18.8	0.1480	ug/L	0.1480	ppb	22:59:29
2	Be 313.107†	-4488.7	184.7	0.0706	ug/L	0.0706	ppb	22:59:09
2	Cd 226.502†	-198.7	9.3	0.0990	ug/L	0.0990	ppb	22:59:29
2	Co 228.616†	-76.8	-0.6	-0.0142	ug/L	-0.0142	ppb	22:59:29
2	Cr 267.716†	98.6	13.4	0.1498	ug/L	0.1498	ppb	22:59:29
2	Cu 324.752†	6443.6	-94.9	-0.2827	ug/L	-0.2827	ppb	22:59:09
2	Mn 257.610†	492.6	38.1	0.0521	ug/L	0.0521	ppb	22:59:29
2	Mo 202.031†	20.2	-3.9	-0.2746	ug/L	-0.2746	ppb	22:59:29
2	Ni 231.604†	78.9	9.4	0.2348	ug/L	0.2348	ppb	22:59:29

2	P 214.914†	209.8	-24.2	-14.789	ug/L	-14.789 ppb	22:59:29
2	Pb 220.353†	-59.9	4.6	0.5563	ug/L	0.5563 ppb	22:59:29
2	S 181.975 Axial†	47.7	3.8	5.3736	ug/L	5.3736 ppb	22:59:29
2	Sb 206.836†	38.3	9.6	3.2680	ug/L	3.2680 ppb	22:59:29
2	Se 196.026†	-30.0	2.6	1.8303	ug/L	1.8303 ppb	22:59:29
2	Si 251.611†	581.4	19.5	0.6251	ug/L	0.6251 ppb	22:59:29
2	Sn 189.927†	4.4	-3.4	-0.5994	ug/L	-0.5994 ppb	22:59:29
2	Ti 334.940†	-1323.3	77.1	0.1334	ug/L	0.1334 ppb	22:59:09
2	Tl 190.801†	-39.1	-5.5	-1.6930	ug/L	-1.6930 ppb	22:59:29
2	U 409.014†	-1983.2	67.3	1.9794	ug/L	1.9794 ppb	22:59:04
2	V 292.402†	-1362.9	-26.5	-0.1900	ug/L	-0.1900 ppb	22:59:09
2	Zn 213.857†	618.2	-14.2	-0.1390	ug/L	-0.1390 ppb	22:59:29
2	SiO2†	596.3	12.9	0.8906	ug/L	0.8906 ppb	23:00:10
3	Sc Radial	5283.7	5283.7	105	%		22:58:07
3	Y RADIAL	5664.1	5664.1	104.3	%		22:58:07
3	Al 396.153Radial†	-26.5	-24.6	-18.945	ug/L	-18.945 ppb	22:58:07
3	Ca 317.933Radial†	11.0	-9.3	-14.855	ug/L	-14.855 ppb	22:58:27
3	Fe 238.204 Radial†	11.2	1.8	15.484	ug/L	15.484 ppb	22:58:27
3	K 766.490 Radial†	2750.3	30.9	5.6781	ug/L	5.6781 ppb	22:58:07
3	Mg 279.077 IEC†	5.4	3.2	107.93	ug/L	107.93 ppb	22:58:27
3	Na 589.592 Radial†	-1389.9	-44.1	-13.198	ug/L	-13.198 ppb	22:58:07
3	Sr 421.552†	-25.9	-5.2	-0.0334	ug/L	-0.0334 ppb	22:58:07
3	Sc 361.383	882211.9	882211.9	103.50	%		22:59:35
3	Y 371.029	746007.1	746007.1	103.23	%		22:59:35
3	Ag 328.068†	319.6	-49.2	-0.2222	ug/L	-0.2222 ppb	22:59:40
3	As 188.979†	-20.1	4.2	1.8464	ug/L	1.8464 ppb	23:00:00
3	B 249.677†	-468.9	178.8	3.9857	ug/L	3.9857 ppb	23:00:00
3	Ba 233.527†	-1.5	10.0	0.0792	ug/L	0.0792 ppb	23:00:00
3	Be 313.107†	-4449.7	286.0	0.1093	ug/L	0.1093 ppb	22:59:40
3	Cd 226.502†	-184.3	26.0	0.2875	ug/L	0.2875 ppb	23:00:00
3	Co 228.616†	-86.2	-8.6	-0.1781	ug/L	-0.1781 ppb	23:00:00
3	Cr 267.716†	108.9	22.0	0.2454	ug/L	0.2454 ppb	23:00:00
3	Cu 324.752†	6332.4	-293.9	-0.8793	ug/L	-0.8793 ppb	22:59:40
3	Mn 257.610†	502.4	40.5	0.0423	ug/L	0.0423 ppb	23:00:00
3	Mo 202.031†	13.0	-11.1	-0.7839	ug/L	-0.7839 ppb	23:00:00
3	Ni 231.604†	72.2	1.8	0.0441	ug/L	0.0441 ppb	23:00:00
3	P 214.914†	217.0	-20.3	-12.226	ug/L	-12.226 ppb	23:00:00
3	Pb 220.353†	-59.0	6.3	0.7700	ug/L	0.7700 ppb	23:00:00
3	S 181.975 Axial†	40.7	-3.6	-5.1486	ug/L	-5.1486 ppb	23:00:00
3	Sb 206.836†	38.5	9.3	3.1362	ug/L	3.1362 ppb	23:00:00
3	Se 196.026†	-24.7	8.1	5.2687	ug/L	5.2687 ppb	23:00:00
3	Si 251.611†	574.4	4.5	0.1531	ug/L	0.1531 ppb	23:00:00
3	Sn 189.927†	-2.3	-9.9	-1.7616	ug/L	-1.7616 ppb	23:00:00
3	Ti 334.940†	-1337.2	82.5	0.1212	ug/L	0.1212 ppb	22:59:40
3	Tl 190.801†	-40.6	-6.4	-1.9568	ug/L	-1.9568 ppb	23:00:00
3	U 409.014†	-1990.8	88.1	2.5956	ug/L	2.5956 ppb	22:59:35
3	V 292.402†	-1299.4	54.3	0.3632	ug/L	0.3632 ppb	22:59:40
3	Zn 213.857†	621.5	-19.8	-0.1877	ug/L	-0.1877 ppb	23:00:00
3	SiO2†	595.3	3.5	0.2626	ug/L	0.2626 ppb	23:00:15

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	878077.7	103.01	%	0.877				0.85%
Sc Radial	5246.2	104	%	1.2				1.16%
Y 371.029	743408.6	102.87	%	0.777				0.76%
Y RADIAL	5626.7	103.6	%	1.24				1.20%
Ag 328.068†	1.9	0.0130	ug/L	0.20529	0.0130	ppb	0.20529	>999.9%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-13.0	-9.9686	ug/L	7.81226	-9.9686	ppb	7.81226	78.37%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	7.2	3.1217	ug/L	1.53300	3.1217	ppb	1.53300	49.11%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	186.0	4.1460	ug/L	0.26249	4.1460	ppb	0.26249	6.33%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	13.3	0.1043	ug/L	0.03793	0.1043	ppb	0.03793	36.35%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	251.4	0.0961	ug/L	0.02208	0.0961	ppb	0.02208	22.97%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-2.0	-3.1898	ug/L	11.49121	-3.1898	ppb	11.49121	360.25%

```
   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                22.5      0.2485 ug/L       0.13437      0.2485 ppb        0.13437  54.07%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                -6.7     -0.1396 ug/L       0.11120     -0.1396 ppb        0.11120  79.68%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                10.4      0.1160 ug/L       0.14926      0.1160 ppb        0.14926 128.68%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -225.6     -0.6748 ug/L       0.33974     -0.6748 ppb        0.33974  50.34%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          1.9      16.503 ug/L       25.0087      16.503 ppb        25.0087 151.54%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          86.2      15.826 ug/L       18.7001      15.826 ppb        18.7001 118.16%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -0.8     -25.405 ug/L      120.7158     -25.405 ppb       120.7158 475.17%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                35.7      0.0425 ug/L       0.00947      0.0425 ppb        0.00947  22.27%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                -8.0     -0.5631 ug/L       0.26133     -0.5631 ppb        0.26133  46.41%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        -38.0     -11.380 ug/L        5.3591     -11.380 ppb         5.3591  47.09%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                 5.9      0.1466 ug/L       0.09618      0.1466 ppb        0.09618  65.61%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -23.3     -14.124 ug/L        1.6683     -14.124 ppb         1.6683  11.81%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                 0.9      0.1069 ug/L       0.96934      0.1069 ppb        0.96934 906.74%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            0.7      1.0344 ug/L       5.49808      1.0344 ppb        5.49808 531.54%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 7.7      2.5973 ug/L       1.04948      2.5973 ppb        1.04948  40.41%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 4.4      2.8762 ug/L       2.07738      2.8762 ppb        2.07738  72.23%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                 8.8      0.2865 ug/L       0.29536      0.2865 ppb        0.29536 103.08%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                -6.6     -1.1708 ug/L       0.58132     -1.1708 ppb        0.58132  49.65%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                16.7      0.1080 ug/L       0.16414      0.1080 ppb        0.16414 151.93%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                90.5      0.1466 ug/L       0.03396      0.1466 ppb        0.03396  23.17%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                -2.8     -0.8708 ug/L       1.65785     -0.8708 ppb        1.65785 190.38%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 67.5      1.9898 ug/L       0.60061      1.9898 ppb        0.60061  30.18%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 13.7      0.0857 ug/L       0.27657      0.0857 ppb        0.27657 322.90%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               -23.4     -0.2226 ug/L       0.10550     -0.2226 ppb        0.10550  47.39%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                      21.8      1.5014 ug/L       1.63225      1.5014 ppb        1.63225 108.72%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 76
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 1/11/2010 23:59:01
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5171.4	5171.4	103	%			00:00:53
1	Y RADIAL	5504.9	5504.9	101.4	%			00:00:53
1	Al 396.153Radial†	6468.8	6299.2	4835.4	ug/L	4835.4	ppb	00:00:53
1	Ca 317.933Radial†	3277.9	3171.9	5075.3	ug/L	5075.3	ppb	00:01:13
1	Fe 238.204 Radial†	630.7	605.2	5252.3	ug/L	5252.3	ppb	00:01:13
1	K 766.490 Radial†	30222.9	26837.2	4903.0	ug/L	4903.0	ppb	00:00:53
1	Mg 279.077 IEC†	163.6	157.4	5257.8	ug/L	5257.8	ppb	00:01:13
1	Na 589.592 Radial†	34025.6	34410.4	10303	ug/L	10303	ppb	00:00:53
1	Sr 421.552†	78867.7	76811.2	496.08	ug/L	496.08	ppb	00:00:53
1	Sc 361.383	885814.6	885814.6	103.92	%			00:02:11
1	Y 371.029	736563.1	736563.1	101.92	%			00:02:11
1	Ag 328.068†	112966.0	108346.5	502.08	ug/L	502.08	ppb	00:02:16
1	As 188.979†	1170.9	1150.3	500.69	ug/L	500.69	ppb	00:02:36
1	B 249.677†	21966.9	21770.1	483.38	ug/L	483.38	ppb	00:02:16
1	Ba 233.527†	66106.4	63624.0	497.97	ug/L	497.97	ppb	00:02:16
1	Be 313.107†	1384368.1	1336729.4	510.49	ug/L	510.49	ppb	00:02:11
1	Cd 226.502†	46498.1	44948.1	498.64	ug/L	498.64	ppb	00:02:16
1	Co 228.616†	25255.0	24376.9	499.03	ug/L	499.03	ppb	00:02:16
1	Cr 267.716†	46300.8	44470.9	497.80	ug/L	497.80	ppb	00:02:16
1	Cu 324.752†	176249.6	163188.5	487.98	ug/L	487.98	ppb	00:02:16
1	Mn 257.610†	475068.5	456702.0	506.67	ug/L	506.67	ppb	00:02:11
1	Mo 202.031†	7401.7	7098.8	502.12	ug/L	502.12	ppb	00:02:36
1	Ni 231.604†	20860.6	20005.7	497.84	ug/L	497.84	ppb	00:02:16
1	P 214.914†	4468.2	4069.7	2383.7	ug/L	2383.7	ppb	00:02:36
1	Pb 220.353†	4173.0	4078.9	501.08	ug/L	501.08	ppb	00:02:36
1	S 181.975 Axial†	798.9	725.8	1026.2	ug/L	1026.2	ppb	00:02:36
1	Sb 206.836†	1542.5	1456.4	516.87	ug/L	516.87	ppb	00:02:36
1	Se 196.026†	775.0	777.8	519.74	ug/L	519.74	ppb	00:02:36
1	Si 251.611†	83038.7	79355.7	2521.2	ug/L	2521.2	ppb	00:02:16
1	Sn 189.927†	2972.1	2852.4	506.15	ug/L	506.15	ppb	00:02:36
1	Ti 334.940†	328133.2	317129.2	510.68	ug/L	510.68	ppb	00:02:11
1	Tl 190.801†	1656.5	1626.8	502.30	ug/L	502.30	ppb	00:02:36
1	U 409.014†	15652.4	17073.6	501.95	ug/L	501.95	ppb	00:02:16
1	V 292.402†	74171.3	72682.9	503.14	ug/L	503.14	ppb	00:02:16
1	Zn 213.857†	55289.5	52583.5	493.00	ug/L	493.00	ppb	00:02:16
1	SiO2†	82534.3	78849.1	5366.3	ug/L	5366.3	ppb	00:03:44
2	Sc Radial	5097.9	5097.9	101	%			00:01:18
2	Y RADIAL	5437.9	5437.9	100.2	%			00:01:18
2	Al 396.153Radial†	6436.9	6358.5	4880.7	ug/L	4880.7	ppb	00:01:18
2	Ca 317.933Radial†	3244.0	3184.4	5095.3	ug/L	5095.3	ppb	00:01:38
2	Fe 238.204 Radial†	623.9	607.4	5271.6	ug/L	5271.6	ppb	00:01:38
2	K 766.490 Radial†	29994.1	27035.7	4939.3	ug/L	4939.3	ppb	00:01:18
2	Mg 279.077 IEC†	165.0	161.1	5382.1	ug/L	5382.1	ppb	00:01:38
2	Na 589.592 Radial†	33544.4	34413.1	10304	ug/L	10304	ppb	00:01:18
2	Sr 421.552†	78187.3	77247.1	498.89	ug/L	498.89	ppb	00:01:18
2	Sc 361.383	869801.0	869801.0	102.04	%			00:02:42
2	Y 371.029	724270.0	724270.0	100.22	%			00:02:42
2	Ag 328.068†	113175.2	110552.8	512.28	ug/L	512.28	ppb	00:02:47
2	As 188.979†	1175.5	1175.6	511.60	ug/L	511.60	ppb	00:03:07
2	B 249.677†	22113.2	22302.6	495.22	ug/L	495.22	ppb	00:02:47
2	Ba 233.527†	66099.5	64788.4	507.08	ug/L	507.08	ppb	00:02:47
2	Be 313.107†	1357609.0	1335031.4	509.84	ug/L	509.84	ppb	00:02:42
2	Cd 226.502†	46619.3	45890.6	509.10	ug/L	509.10	ppb	00:02:47
2	Co 228.616†	25319.2	24887.3	509.50	ug/L	509.50	ppb	00:02:47
2	Cr 267.716†	46458.5	45445.7	508.71	ug/L	508.71	ppb	00:02:47
2	Cu 324.752†	176893.0	166941.5	499.19	ug/L	499.19	ppb	00:02:47
2	Mn 257.610†	466029.2	456260.0	506.18	ug/L	506.18	ppb	00:02:42
2	Mo 202.031†	7416.1	7244.0	512.39	ug/L	512.39	ppb	00:03:07
2	Ni 231.604†	20974.0	20486.4	509.81	ug/L	509.81	ppb	00:02:47

2	P 214.914†	4450.5	4131.6	2419.2 ug/L	2419.2 ppb	00:03:07
2	Pb 220.353†	4167.5	4147.5	509.51 ug/L	509.51 ppb	00:03:07
2	S 181.975 Axial†	786.9	728.2	1029.5 ug/L	1029.5 ppb	00:03:07
2	Sb 206.836†	1547.7	1488.8	528.34 ug/L	528.34 ppb	00:03:07
2	Se 196.026†	776.4	792.9	529.57 ug/L	529.57 ppb	00:03:07
2	Si 251.611†	83070.1	80857.6	2568.9 ug/L	2568.9 ppb	00:02:47
2	Sn 189.927†	2969.6	2902.5	515.03 ug/L	515.03 ppb	00:03:07
2	Ti 334.940†	321752.0	316688.9	509.95 ug/L	509.95 ppb	00:02:42
2	Tl 190.801†	1670.1	1669.5	515.34 ug/L	515.34 ppb	00:03:07
2	U 409.014†	15898.9	17592.5	517.23 ug/L	517.23 ppb	00:02:47
2	V 292.402†	74312.2	74135.1	513.23 ug/L	513.23 ppb	00:02:47
2	Zn 213.857†	55432.8	53703.4	503.50 ug/L	503.50 ppb	00:02:47
2	SiO2†	82790.6	80562.5	5483.0 ug/L	5483.0 ppb	00:03:49
3	Sc Radial	5270.9	5270.9	105 %		00:01:43
3	Y RADIAL	5614.5	5614.5	103.4 %		00:01:43
3	Al 396.153Radial†	6648.6	6352.1	4875.9 ug/L	4875.9 ppb	00:01:43
3	Ca 317.933Radial†	3221.5	3057.7	4892.7 ug/L	4892.7 ppb	00:02:03
3	Fe 238.204 Radial†	623.0	586.3	5089.3 ug/L	5089.3 ppb	00:02:03
3	K 766.490 Radial†	30804.9	26837.9	4903.2 ug/L	4903.2 ppb	00:01:43
3	Mg 279.077 IEC†	165.6	156.2	5220.6 ug/L	5220.6 ppb	00:02:03
3	Na 589.592 Radial†	34698.7	34428.3	10308 ug/L	10308 ppb	00:01:43
3	Sr 421.552†	80835.6	77242.2	498.86 ug/L	498.86 ppb	00:01:43
3	Sc 361.383	871664.6	871664.6	102.26 %		00:03:13
3	Y 371.029	726041.6	726041.6	100.47 %		00:03:13
3	Ag 328.068†	113985.2	111107.7	514.78 ug/L	514.78 ppb	00:03:18
3	As 188.979†	1172.4	1170.1	509.21 ug/L	509.21 ppb	00:03:38
3	B 249.677†	22353.4	22491.2	499.43 ug/L	499.43 ppb	00:03:18
3	Ba 233.527†	66445.0	64987.7	508.64 ug/L	508.64 ppb	00:03:18
3	Be 313.107†	1362122.5	1336600.7	510.44 ug/L	510.44 ppb	00:03:13
3	Cd 226.502†	46771.9	45942.2	509.70 ug/L	509.70 ppb	00:03:18
3	Co 228.616†	25498.7	25009.8	512.00 ug/L	512.00 ppb	00:03:18
3	Cr 267.716†	46716.4	45600.6	510.43 ug/L	510.43 ppb	00:03:18
3	Cu 324.752†	178604.5	168244.6	503.07 ug/L	503.07 ppb	00:03:18
3	Mn 257.610†	467051.8	456283.6	506.19 ug/L	506.19 ppb	00:03:13
3	Mo 202.031†	7377.6	7190.8	508.61 ug/L	508.61 ppb	00:03:38
3	Ni 231.604†	21019.8	20487.2	509.83 ug/L	509.83 ppb	00:03:18
3	P 214.914†	4440.1	4112.1	2406.5 ug/L	2406.5 ppb	00:03:38
3	Pb 220.353†	4152.4	4123.9	506.62 ug/L	506.62 ppb	00:03:38
3	S 181.975 Axial†	777.0	716.8	1013.5 ug/L	1013.5 ppb	00:03:38
3	Sb 206.836†	1549.0	1486.9	527.57 ug/L	527.57 ppb	00:03:38
3	Se 196.026†	771.4	786.4	524.77 ug/L	524.77 ppb	00:03:38
3	Si 251.611†	83713.6	81312.8	2583.4 ug/L	2583.4 ppb	00:03:18
3	Sn 189.927†	2960.7	2887.6	512.37 ug/L	512.37 ppb	00:03:38
3	Ti 334.940†	322420.5	316668.5	509.90 ug/L	509.90 ppb	00:03:13
3	Tl 190.801†	1649.6	1646.0	508.11 ug/L	508.11 ppb	00:03:38
3	U 409.014†	16116.1	17771.5	522.53 ug/L	522.53 ppb	00:03:18
3	V 292.402†	74729.8	74387.7	514.93 ug/L	514.93 ppb	00:03:18
3	Zn 213.857†	55793.4	53939.9	505.75 ug/L	505.75 ppb	00:03:18
3	SiO2†	84213.5	81780.4	5566.2 ug/L	5566.2 ppb	00:03:54

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	875760.1	102.74	%	1.027				1.00%
Sc Radial	5180.1	103	%	1.7				1.68%
Y 371.029	728958.3	100.87	%	0.920				0.91%
Y RADIAL	5519.1	101.7	%	1.64				1.62%
Ag 328.068†	110002.3	509.71	ug/L	6.724	509.71	ppb	6.724	1.32%
QC value within limits for Ag 328.068 Recovery = 101.94%								
Al 396.153Radial†	6336.6	4864.0	ug/L	24.87	4864.0	ppb	24.87	0.51%
QC value within limits for Al 396.153Radial Recovery = 97.28%								
As 188.979†	1165.3	507.16	ug/L	5.735	507.16	ppb	5.735	1.13%
QC value within limits for As 188.979 Recovery = 101.43%								
B 249.677†	22188.0	492.67	ug/L	8.324	492.67	ppb	8.324	1.69%
QC value within limits for B 249.677 Recovery = 98.53%								
Ba 233.527†	64466.7	504.56	ug/L	5.762	504.56	ppb	5.762	1.14%
QC value within limits for Ba 233.527 Recovery = 100.91%								
Be 313.107†	1336120.5	510.26	ug/L	0.361	510.26	ppb	0.361	0.07%
QC value within limits for Be 313.107 Recovery = 102.05%								
Ca 317.933Radial†	3138.0	5021.1	ug/L	111.68	5021.1	ppb	111.68	2.22%

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   QC value within limits for Ca 317.933Radial  Recovery = 100.42%
Cd 226.502†            45593.7      505.81 ug/L         6.221      505.81 ppb          6.221   1.23%
   QC value within limits for Cd 226.502  Recovery = 101.16%
Co 228.616†            24758.0      506.85 ug/L         6.882      506.85 ppb          6.882   1.36%
   QC value within limits for Co 228.616  Recovery = 101.37%
Cr 267.716†            45172.4      505.65 ug/L         6.851      505.65 ppb          6.851   1.35%
   QC value within limits for Cr 267.716  Recovery = 101.13%
Cu 324.752†           166124.9      496.75 ug/L         7.840      496.75 ppb          7.840   1.58%
   QC value within limits for Cu 324.752  Recovery = 99.35%
Fe 238.204 Radial†       599.6      5204.4 ug/L        100.17      5204.4 ppb         100.17   1.92%
   QC value within limits for Fe 238.204 Radial  Recovery = 104.09%
K 766.490 Radial†      26903.6      4915.2 ug/L         20.92      4915.2 ppb          20.92   0.43%
   QC value within limits for K 766.490 Radial  Recovery = 98.30%
Mg 279.077 IEC†          158.2      5286.8 ug/L         84.58      5286.8 ppb          84.58   1.60%
   QC value within limits for Mg 279.077 IEC  Recovery = 105.74%
Mn 257.610†           456415.2      506.35 ug/L         0.281      506.35 ppb          0.281   0.06%
   QC value within limits for Mn 257.610  Recovery = 101.27%
Mo 202.031†             7177.8      507.71 ug/L         5.191      507.71 ppb          5.191   1.02%
   QC value within limits for Mo 202.031  Recovery = 101.54%
Na 589.592 Radial†     34417.2       10305 ug/L           2.9       10305 ppb            2.9   0.03%
   QC value within limits for Na 589.592 Radial  Recovery = 103.05%
Ni 231.604†            20326.4      505.83 ug/L         6.912      505.83 ppb          6.912   1.37%
   QC value within limits for Ni 231.604  Recovery = 101.17%
P 214.914†              4104.5      2403.1 ug/L         17.97      2403.1 ppb          17.97   0.75%
   QC value within limits for P 214.914  Recovery = 96.12%
Pb 220.353†             4116.8      505.74 ug/L         4.283      505.74 ppb          4.283   0.85%
   QC value within limits for Pb 220.353  Recovery = 101.15%
S 181.975 Axial†         723.6      1023.1 ug/L          8.46      1023.1 ppb           8.46   0.83%
   QC value within limits for S 181.975 Axial  Recovery = 102.31%
Sb 206.836†             1477.4      524.26 ug/L         6.409      524.26 ppb          6.409   1.22%
   QC value within limits for Sb 206.836  Recovery = 104.85%
Se 196.026†              785.7      524.69 ug/L         4.915      524.69 ppb          4.915   0.94%
   QC value within limits for Se 196.026  Recovery = 104.94%
Si 251.611†            80508.7      2557.8 ug/L         32.57      2557.8 ppb          32.57   1.27%
   QC value within limits for Si 251.611  Recovery = 102.31%
Sn 189.927†             2880.8      511.18 ug/L         4.560      511.18 ppb          4.560   0.89%
   QC value within limits for Sn 189.927  Recovery = 102.24%
Sr 421.552†            77100.1      497.95 ug/L         1.617      497.95 ppb          1.617   0.32%
   QC value within limits for Sr 421.552  Recovery = 99.59%
Ti 334.940†           316828.8      510.18 ug/L         0.434      510.18 ppb          0.434   0.09%
   QC value within limits for Ti 334.940  Recovery = 102.04%
Tl 190.801†             1647.5      508.58 ug/L         6.530      508.58 ppb          6.530   1.28%
   QC value within limits for Tl 190.801  Recovery = 101.72%
U 409.014†             17479.2      513.91 ug/L        10.685      513.91 ppb         10.685   2.08%
   QC value within limits for U 409.014  Recovery = 102.78%
V 292.402†             73735.2      510.44 ug/L         6.375      510.44 ppb          6.375   1.25%
   QC value within limits for V 292.402  Recovery = 102.09%
Zn 213.857†            53408.9      500.75 ug/L         6.805      500.75 ppb          6.805   1.36%
   QC value within limits for Zn 213.857  Recovery = 100.15%
SiO2†                  80397.3      5471.8 ug/L        100.38      5471.8 ppb         100.38   1.83%
   QC value within limits for SiO2  Recovery = 102.32%
All analyte(s) passed QC.
```

Sequence No.: 77
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 1/12/2010 00:06:03
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4856.1	4856.1	96.4	%			00:07:55
1	Y RADIAL	5198.1	5198.1	95.74	%			00:07:55
1	Al 396.153Radial†	2.4	3.2	2.4705	ug/L	2.4705	ppb	00:07:55
1	Ca 317.933Radial†	14.8	-4.5	-7.1219	ug/L	-7.1219	ppb	00:08:15
1	Fe 238.204 Radial†	14.5	6.1	53.223	ug/L	53.223	ppb	00:08:15
1	K 766.490 Radial†	2783.9	296.5	54.379	ug/L	54.379	ppb	00:07:55
1	Mg 279.077 IEC†	3.9	2.1	71.426	ug/L	71.426	ppb	00:08:15
1	Na 589.592 Radial†	-1291.8	-59.0	-17.677	ug/L	-17.677	ppb	00:07:55
1	Sr 421.552†	29.1	49.7	0.3209	ug/L	0.3209	ppb	00:07:55
1	Sc 361.383	894686.7	894686.7	104.96	%			00:09:12
1	Y 371.029	757293.5	757293.5	104.79	%			00:09:12
1	Ag 328.068†	396.2	19.5	0.1031	ug/L	0.1031	ppb	00:09:17
1	As 188.979†	-18.9	5.6	2.4376	ug/L	2.4376	ppb	00:09:37
1	B 249.677†	-498.0	157.4	3.5032	ug/L	3.5032	ppb	00:09:37
1	Ba 233.527†	-25.7	-13.1	-0.0999	ug/L	-0.0999	ppb	00:09:37
1	Be 313.107†	-4578.0	223.7	0.0858	ug/L	0.0858	ppb	00:09:17
1	Cd 226.502†	-185.3	27.6	0.3017	ug/L	0.3017	ppb	00:09:37
1	Co 228.616†	-61.7	15.9	0.3215	ug/L	0.3215	ppb	00:09:37
1	Cr 267.716†	95.8	8.0	0.0888	ug/L	0.0888	ppb	00:09:37
1	Cu 324.752†	6435.2	-281.2	-0.8414	ug/L	-0.8414	ppb	00:09:17
1	Mn 257.610†	471.8	4.6	0.0082	ug/L	0.0082	ppb	00:09:37
1	Mo 202.031†	14.8	-9.6	-0.6780	ug/L	-0.6780	ppb	00:09:37
1	Ni 231.604†	68.2	-3.0	-0.0741	ug/L	-0.0741	ppb	00:09:37
1	P 214.914†	215.3	-24.8	-15.019	ug/L	-15.019	ppb	00:09:37
1	Pb 220.353†	-60.4	5.8	0.7027	ug/L	0.7027	ppb	00:09:37
1	S 181.975 Axial†	47.9	2.6	3.7238	ug/L	3.7238	ppb	00:09:37
1	Sb 206.836†	37.4	7.7	2.6143	ug/L	2.6143	ppb	00:09:37
1	Se 196.026†	-33.3	0.3	0.3294	ug/L	0.3294	ppb	00:09:37
1	Si 251.611†	550.1	-26.4	-0.8309	ug/L	-0.8309	ppb	00:09:37
1	Sn 189.927†	3.2	-4.6	-0.8184	ug/L	-0.8184	ppb	00:09:37
1	Ti 334.940†	-1287.2	148.2	0.2293	ug/L	0.2293	ppb	00:09:17
1	Tl 190.801†	-31.9	2.4	0.7458	ug/L	0.7458	ppb	00:09:37
1	U 409.014†	-1889.2	211.7	6.2388	ug/L	6.2388	ppb	00:09:12
1	V 292.402†	-1336.2	36.7	0.2452	ug/L	0.2452	ppb	00:09:17
1	Zn 213.857†	625.3	-24.5	-0.2357	ug/L	-0.2357	ppb	00:09:37
1	SiO2†	554.3	-43.6	-2.9567	ug/L	-2.9567	ppb	00:10:43
2	Sc Radial	5145.7	5145.7	102	%			00:08:20
2	Y RADIAL	5534.4	5534.4	101.9	%			00:08:20
2	Al 396.153Radial†	-12.7	-11.8	-9.1278	ug/L	-9.1278	ppb	00:08:20
2	Ca 317.933Radial†	17.0	-3.2	-5.0466	ug/L	-5.0466	ppb	00:08:40
2	Fe 238.204 Radial†	13.0	3.8	33.312	ug/L	33.312	ppb	00:08:40
2	K 766.490 Radial†	2788.1	138.1	25.327	ug/L	25.327	ppb	00:08:20
2	Mg 279.077 IEC†	2.2	0.3	9.7783	ug/L	9.7783	ppb	00:08:40
2	Na 589.592 Radial†	-1375.4	-65.4	-19.594	ug/L	-19.594	ppb	00:08:20
2	Sr 421.552†	4.9	24.3	0.1570	ug/L	0.1570	ppb	00:08:20
2	Sc 361.383	877558.5	877558.5	102.95	%			00:09:42
2	Y 371.029	742412.1	742412.1	102.73	%			00:09:42
2	Ag 328.068†	416.9	47.0	0.2229	ug/L	0.2229	ppb	00:09:47
2	As 188.979†	-23.8	0.5	0.2213	ug/L	0.2213	ppb	00:10:07
2	B 249.677†	-511.3	135.2	3.0105	ug/L	3.0105	ppb	00:10:07
2	Ba 233.527†	-10.1	1.6	0.0131	ug/L	0.0131	ppb	00:10:07
2	Be 313.107†	-4609.7	107.8	0.0415	ug/L	0.0415	ppb	00:09:47
2	Cd 226.502†	-207.1	3.0	0.0302	ug/L	0.0302	ppb	00:10:07
2	Co 228.616†	-77.8	-0.9	-0.0188	ug/L	-0.0188	ppb	00:10:07
2	Cr 267.716†	70.6	-14.6	-0.1649	ug/L	-0.1649	ppb	00:10:07
2	Cu 324.752†	6486.9	-111.3	-0.3333	ug/L	-0.3333	ppb	00:09:47
2	Mn 257.610†	469.3	11.0	0.0155	ug/L	0.0155	ppb	00:10:07
2	Mo 202.031†	28.1	3.5	0.2527	ug/L	0.2527	ppb	00:10:07
2	Ni 231.604†	69.4	-0.6	-0.0146	ug/L	-0.0146	ppb	00:10:07

2	P 214.914†	213.5	-22.5	-13.714 ug/L	-13.714 ppb	00:10:07
2	Pb 220.353†	-64.0	1.2	0.1460 ug/L	0.1460 ppb	00:10:07
2	S 181.975 Axial†	53.1	8.5	12.086 ug/L	12.086 ppb	00:10:07
2	Sb 206.836†	38.8	9.7	3.3179 ug/L	3.3179 ppb	00:10:07
2	Se 196.026†	-31.2	1.8	1.2356 ug/L	1.2356 ppb	00:10:07
2	Si 251.611†	533.7	-32.1	-1.0244 ug/L	-1.0244 ppb	00:10:07
2	Sn 189.927†	1.2	-6.5	-1.1499 ug/L	-1.1499 ppb	00:10:07
2	Ti 334.940†	-1293.5	118.1	0.1871 ug/L	0.1871 ppb	00:09:47
2	Tl 190.801†	-37.2	-3.3	-1.0095 ug/L	-1.0095 ppb	00:10:07
2	U 409.014†	-1926.4	140.5	4.1407 ug/L	4.1407 ppb	00:09:42
2	V 292.402†	-1384.0	-34.6	-0.2296 ug/L	-0.2296 ppb	00:09:47
2	Zn 213.857†	622.6	-15.5	-0.1493 ug/L	-0.1493 ppb	00:10:07
2	SiO2†	560.9	-26.9	-1.8422 ug/L	-1.8422 ppb	00:10:48
3	Sc Radial	5153.8	5153.8	102 %		00:08:45
3	Y RADIAL	5526.8	5526.8	101.8 %		00:08:45
3	Al 396.153Radial†	-11.2	-10.3	-7.9427 ug/L	-7.9427 ppb	00:08:45
3	Ca 317.933Radial†	18.2	-2.0	-3.2424 ug/L	-3.2424 ppb	00:09:05
3	Fe 238.204 Radial†	9.6	0.5	4.5530 ug/L	4.5530 ppb	00:09:05
3	K 766.490 Radial†	2800.9	146.4	26.850 ug/L	26.850 ppb	00:08:45
3	Mg 279.077 IEC†	1.7	-0.2	-7.8287 ug/L	-7.8287 ppb	00:09:05
3	Na 589.592 Radial†	-1378.0	-65.8	-19.707 ug/L	-19.707 ppb	00:08:45
3	Sr 421.552†	25.4	44.3	0.2861 ug/L	0.2861 ppb	00:08:45
3	Sc 361.383	877479.9	877479.9	102.94 %		00:10:13
3	Y 371.029	743999.9	743999.9	102.95 %		00:10:13
3	Ag 328.068†	316.4	-50.6	-0.2330 ug/L	-0.2330 ppb	00:10:18
3	As 188.979†	-18.7	5.5	2.3747 ug/L	2.3747 ppb	00:10:38
3	B 249.677†	-524.9	121.9	2.7169 ug/L	2.7169 ppb	00:10:38
3	Ba 233.527†	-1.9	9.6	0.0752 ug/L	0.0752 ppb	00:10:38
3	Be 313.107†	-4567.3	148.6	0.0571 ug/L	0.0571 ppb	00:10:18
3	Cd 226.502†	-185.7	23.8	0.2633 ug/L	0.2633 ppb	00:10:38
3	Co 228.616†	-72.2	4.5	0.0925 ug/L	0.0925 ppb	00:10:38
3	Cr 267.716†	86.3	0.5	0.0054 ug/L	0.0054 ppb	00:10:38
3	Cu 324.752†	6508.6	-89.6	-0.2687 ug/L	-0.2687 ppb	00:10:18
3	Mn 257.610†	452.9	-4.9	-0.0047 ug/L	-0.0047 ppb	00:10:38
3	Mo 202.031†	25.2	0.8	0.0558 ug/L	0.0558 ppb	00:10:38
3	Ni 231.604†	63.6	-6.2	-0.1533 ug/L	-0.1533 ppb	00:10:38
3	P 214.914†	225.3	-11.0	-6.6683 ug/L	-6.6683 ppb	00:10:38
3	Pb 220.353†	-46.8	17.9	2.1910 ug/L	2.1910 ppb	00:10:38
3	S 181.975 Axial†	45.5	1.2	1.7422 ug/L	1.7422 ppb	00:10:38
3	Sb 206.836†	37.6	8.6	2.9519 ug/L	2.9519 ppb	00:10:38
3	Se 196.026†	-24.6	8.1	5.2503 ug/L	5.2503 ppb	00:10:38
3	Si 251.611†	550.7	-15.5	-0.4939 ug/L	-0.4939 ppb	00:10:38
3	Sn 189.927†	9.5	1.5	0.2723 ug/L	0.2723 ppb	00:10:38
3	Ti 334.940†	-1284.6	126.6	0.2035 ug/L	0.2035 ppb	00:10:18
3	Tl 190.801†	-34.4	-0.5	-0.1640 ug/L	-0.1640 ppb	00:10:38
3	U 409.014†	-2005.9	63.0	1.8583 ug/L	1.8583 ppb	00:10:13
3	V 292.402†	-1341.1	7.0	0.0510 ug/L	0.0510 ppb	00:10:18
3	Zn 213.857†	630.0	-8.2	-0.0767 ug/L	-0.0767 ppb	00:10:38
3	SiO2†	569.2	-18.7	-1.2790 ug/L	-1.2790 ppb	00:10:53

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	883241.7	103.62	%	1.163				1.12%
Sc Radial	5051.9	100	%	3.4				3.36%
Y 371.029	747901.8	103.49	%	1.131				1.09%
Y RADIAL	5419.7	99.82	%	3.536				3.54%
Ag 328.068†	5.3	0.0310	ug/L	0.23634	0.0310	ppb	0.23634	762.39%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-6.3	-4.8667	ug/L	6.38175	-4.8667	ppb	6.38175	131.13%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	3.9	1.6779	ug/L	1.26183	1.6779	ppb	1.26183	75.20%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	138.2	3.0769	ug/L	0.39729	3.0769	ppb	0.39729	12.91%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-0.6	-0.0039	ug/L	0.08877	-0.0039	ppb	0.08877	>999.9%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	160.1	0.0615	ug/L	0.02246	0.0615	ppb	0.02246	36.54%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-3.2	-5.1370	ug/L	1.94135	-5.1370	ppb	1.94135	37.79%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              18.1      0.1984 ug/L       0.14693      0.1984 ppb        0.14693  74.05%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†               6.5      0.1317 ug/L       0.17354      0.1317 ppb        0.17354 131.76%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -2.0     -0.0235 ug/L       0.12932     -0.0235 ppb        0.12932 549.13%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -160.7     -0.4811 ug/L       0.31364     -0.4811 ppb        0.31364  65.19%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        3.5      30.363 ug/L       24.4687      30.363 ppb        24.4687  80.59%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       193.6      35.519 ug/L       16.3513      35.519 ppb        16.3513  46.04%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           0.7      24.459 ug/L       41.6168      24.459 ppb        41.6168 170.15%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               3.6      0.0063 ug/L       0.01020      0.0063 ppb        0.01020 160.90%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              -1.8     -0.1232 ug/L       0.49044     -0.1232 ppb        0.49044 398.18%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      -63.4     -18.993 ug/L        1.1406     -18.993 ppb         1.1406   6.01%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              -3.2     -0.0807 ug/L       0.06957     -0.0807 ppb        0.06957  86.26%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†              -19.4     -11.800 ug/L        4.4921     -11.800 ppb         4.4921  38.07%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               8.3      1.0132 ug/L       1.05727      1.0132 ppb        1.05727 104.35%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          4.1      5.8506 ug/L       5.49002      5.8506 ppb        5.49002  93.84%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               8.7      2.9614 ug/L       0.35191      2.9614 ppb        0.35191  11.88%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               3.4      2.2718 ug/L       2.61899      2.2718 ppb        2.61899 115.28%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†             -24.6     -0.7831 ug/L       0.26849     -0.7831 ppb        0.26849  34.29%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†              -3.2     -0.5654 ug/L       0.74407     -0.5654 ppb        0.74407 131.61%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              39.4      0.2547 ug/L       0.08635      0.2547 ppb        0.08635  33.90%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             131.0      0.2066 ug/L       0.02128      0.2066 ppb        0.02128  10.30%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -0.5     -0.1426 ug/L       0.87784     -0.1426 ppb        0.87784 615.62%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              138.4      4.0793 ug/L       2.19090      4.0793 ppb        2.19090  53.71%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                3.0      0.0222 ug/L       0.23871      0.0222 ppb        0.23871 >999.9%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†             -16.1     -0.1539 ug/L       0.07959     -0.1539 ppb        0.07959  51.71%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                   -29.7     -2.0260 ug/L       0.85383     -2.0260 ppb        0.85383  42.14%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
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Sequence No.: 78
Sample ID: 1202004426|936808|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 86
Date Collected: 1/12/2010 00:13:03
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202004426|936808|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5219.3	5219.3	104	%			00:14:57
1	Y RADIAL	5648.7	5648.7	104.0	%			00:14:57
1	Al 396.153Radial†	25.3	25.1	19.297	ug/L	19.297	ppb	00:14:57
1	Ca 317.933Radial†	23.6	2.9	4.7061	ug/L	4.7061	ppb	00:15:17
1	Fe 238.204 Radial†	16.9	7.4	64.115	ug/L	64.115	ppb	00:15:17
1	K 766.490 Radial†	2598.3	-83.5	-15.334	ug/L	-15.334	ppb	00:14:57
1	Mg 279.077 IEC†	-0.2	-2.1	-70.998	ug/L	-70.998	ppb	00:15:17
1	Na 589.592 Radial†	-1234.1	89.8	26.902	ug/L	26.902	ppb	00:14:57
1	Sr 421.552†	17.4	36.3	0.2346	ug/L	0.2346	ppb	00:14:57
1	Sc 361.383	857634.7	857634.7	100.61	%			00:16:13
1	Y 371.029	725814.9	725814.9	100.44	%			00:16:13
1	Ag 328.068†	283.8	-75.9	-0.3363	ug/L	-0.3363	ppb	00:16:13
1	As 188.979†	-20.2	3.5	1.5277	ug/L	1.5277	ppb	00:16:33
1	B 249.677†	-543.0	92.1	2.0474	ug/L	2.0474	ppb	00:16:33
1	Ba 233.527†	17.0	28.3	0.2226	ug/L	0.2226	ppb	00:16:33
1	Be 313.107†	-4524.7	88.3	0.0346	ug/L	0.0346	ppb	00:16:13
1	Cd 226.502†	-211.7	-6.3	-0.0744	ug/L	-0.0744	ppb	00:16:33
1	Co 228.616†	-82.6	-7.5	-0.1536	ug/L	-0.1536	ppb	00:16:33
1	Cr 267.716†	344.9	259.5	2.8979	ug/L	2.8979	ppb	00:16:33
1	Cu 324.752†	6421.4	-30.0	-0.0909	ug/L	-0.0909	ppb	00:16:13
1	Mn 257.610†	860.3	410.2	0.4648	ug/L	0.4648	ppb	00:16:33
1	Mo 202.031†	34.4	10.5	0.7462	ug/L	0.7462	ppb	00:16:33
1	Ni 231.604†	86.2	17.7	0.4412	ug/L	0.4412	ppb	00:16:33
1	P 214.914†	236.5	5.2	3.1415	ug/L	3.1415	ppb	00:16:33
1	Pb 220.353†	18.4	81.6	9.9942	ug/L	9.9942	ppb	00:16:33
1	S 181.975 Axial†	50.6	7.3	10.313	ug/L	10.313	ppb	00:16:33
1	Sb 206.836†	38.5	10.3	3.5452	ug/L	3.5452	ppb	00:16:33
1	Se 196.026†	-31.3	0.9	0.8085	ug/L	0.8085	ppb	00:16:33
1	Si 251.611†	1030.9	474.1	15.091	ug/L	15.091	ppb	00:16:33
1	Sn 189.927†	8.2	0.5	0.0953	ug/L	0.0953	ppb	00:16:33
1	Ti 334.940†	-1114.1	267.2	0.4321	ug/L	0.4321	ppb	00:16:13
1	Tl 190.801†	-37.0	-3.9	-1.1998	ug/L	-1.1998	ppb	00:16:33
1	U 409.014†	-1744.0	278.3	8.1952	ug/L	8.1952	ppb	00:16:13
1	V 292.402†	-1350.9	-33.0	-0.2110	ug/L	-0.2110	ppb	00:16:13
1	Zn 213.857†	848.8	223.4	2.1036	ug/L	2.1036	ppb	00:16:33
1	SiO2†	1063.7	485.5	33.109	ug/L	33.109	ppb	00:17:29
2	Sc Radial	5165.9	5165.9	103	%			00:15:22
2	Y RADIAL	5555.7	5555.7	102.3	%			00:15:22
2	Al 396.153Radial†	9.8	10.2	7.8020	ug/L	7.8020	ppb	00:15:22
2	Ca 317.933Radial†	27.1	6.6	10.634	ug/L	10.634	ppb	00:15:42
2	Fe 238.204 Radial†	15.2	5.9	50.905	ug/L	50.905	ppb	00:15:42
2	K 766.490 Radial†	2742.3	82.8	15.156	ug/L	15.156	ppb	00:15:22
2	Mg 279.077 IEC†	0.4	-1.5	-51.277	ug/L	-51.277	ppb	00:15:42
2	Na 589.592 Radial†	-1233.6	78.0	23.353	ug/L	23.353	ppb	00:15:22
2	Sr 421.552†	20.4	39.4	0.2545	ug/L	0.2545	ppb	00:15:22
2	Sc 361.383	869808.2	869808.2	102.04	%			00:16:39
2	Y 371.029	736453.0	736453.0	101.91	%			00:16:39
2	Ag 328.068†	227.8	-134.7	-0.6079	ug/L	-0.6079	ppb	00:16:39
2	As 188.979†	-34.6	-10.3	-4.4348	ug/L	-4.4348	ppb	00:16:59
2	B 249.677†	-521.0	121.3	2.6998	ug/L	2.6998	ppb	00:16:59
2	Ba 233.527†	11.2	22.3	0.1768	ug/L	0.1768	ppb	00:16:59
2	Be 313.107†	-4539.8	136.4	0.0532	ug/L	0.0532	ppb	00:16:39
2	Cd 226.502†	-196.8	11.2	0.1206	ug/L	0.1206	ppb	00:16:59
2	Co 228.616†	-87.0	-10.5	-0.2168	ug/L	-0.2168	ppb	00:16:59
2	Cr 267.716†	378.3	287.5	3.2121	ug/L	3.2121	ppb	00:16:59
2	Cu 324.752†	6413.6	-127.0	-0.3801	ug/L	-0.3801	ppb	00:16:39
2	Mn 257.610†	848.3	386.5	0.4362	ug/L	0.4362	ppb	00:16:59
2	Mo 202.031†	36.9	12.4	0.8811	ug/L	0.8811	ppb	00:16:59
2	Ni 231.604†	73.8	4.4	0.1098	ug/L	0.1098	ppb	00:16:59

2	P 214.914†	235.6	1.0	0.6689 ug/L	0.6689 ppb	00:16:59
2	Pb 220.353†	2.9	66.2	8.1013 ug/L	8.1013 ppb	00:16:59
2	S 181.975 Axial†	46.1	2.2	3.0833 ug/L	3.0833 ppb	00:16:59
2	Sb 206.836†	35.5	6.9	2.3955 ug/L	2.3955 ppb	00:16:59
2	Se 196.026†	-24.0	8.5	5.6149 ug/L	5.6149 ppb	00:16:59
2	Si 251.611†	1040.2	468.9	14.923 ug/L	14.923 ppb	00:16:59
2	Sn 189.927†	16.2	8.2	1.4497 ug/L	1.4497 ppb	00:16:59
2	Ti 334.940†	-1051.8	343.7	0.5556 ug/L	0.5556 ppb	00:16:39
2	Tl 190.801†	-35.6	-2.0	-0.6106 ug/L	-0.6106 ppb	00:16:59
2	U 409.014†	-1860.6	188.2	5.5401 ug/L	5.5401 ppb	00:16:39
2	V 292.402†	-1303.9	31.9	0.2312 ug/L	0.2312 ppb	00:16:39
2	Zn 213.857†	839.1	202.0	1.9056 ug/L	1.9056 ppb	00:16:59
2	SiO2†	1056.2	463.4	31.595 ug/L	31.595 ppb	00:17:34
3	Sc Radial	5217.4	5217.4	104 %		00:15:47
3	Y RADIAL	5599.3	5599.3	103.1 %		00:15:47
3	Al 396.153Radial†	3.5	4.0	3.0957 ug/L	3.0957 ppb	00:15:47
3	Ca 317.933Radial†	24.1	3.4	5.5019 ug/L	5.5019 ppb	00:16:07
3	Fe 238.204 Radial†	16.4	6.9	59.968 ug/L	59.968 ppb	00:16:07
3	K 766.490 Radial†	2787.5	100.0	18.320 ug/L	18.320 ppb	00:15:47
3	Mg 279.077 IEC†	2.8	0.8	27.945 ug/L	27.945 ppb	00:16:07
3	Na 589.592 Radial†	-1255.0	69.2	20.727 ug/L	20.727 ppb	00:15:47
3	Sr 421.552†	0.0	19.5	0.1261 ug/L	0.1261 ppb	00:15:47
3	Sc 361.383	867539.0	867539.0	101.78 %		00:17:04
3	Y 371.029	734746.2	734746.2	101.67 %		00:17:04
3	Ag 328.068†	298.5	-64.7	-0.2820 ug/L	-0.2820 ppb	00:17:04
3	As 188.979†	-19.8	4.2	1.8209 ug/L	1.8209 ppb	00:17:24
3	B 249.677†	-543.7	97.6	2.1707 ug/L	2.1707 ppb	00:17:24
3	Ba 233.527†	0.6	12.0	0.0947 ug/L	0.0947 ppb	00:17:24
3	Be 313.107†	-4527.2	137.2	0.0536 ug/L	0.0536 ppb	00:17:04
3	Cd 226.502†	-195.6	11.9	0.1262 ug/L	0.1262 ppb	00:17:24
3	Co 228.616†	-87.3	-11.1	-0.2304 ug/L	-0.2304 ppb	00:17:24
3	Cr 267.716†	362.1	272.5	3.0452 ug/L	3.0452 ppb	00:17:24
3	Cu 324.752†	6445.7	-79.0	-0.2339 ug/L	-0.2339 ppb	00:17:04
3	Mn 257.610†	865.9	405.9	0.4555 ug/L	0.4555 ppb	00:17:24
3	Mo 202.031†	28.1	3.9	0.2811 ug/L	0.2811 ppb	00:17:24
3	Ni 231.604†	69.0	-0.2	-0.0044 ug/L	-0.0044 ppb	00:17:24
3	P 214.914†	231.1	-2.8	-1.6836 ug/L	-1.6836 ppb	00:17:24
3	Pb 220.353†	3.2	66.6	8.1458 ug/L	8.1458 ppb	00:17:24
3	S 181.975 Axial†	58.6	14.5	20.586 ug/L	20.586 ppb	00:17:24
3	Sb 206.836†	34.2	5.7	1.9651 ug/L	1.9651 ppb	00:17:24
3	Se 196.026†	-27.2	5.3	3.6231 ug/L	3.6231 ppb	00:17:24
3	Si 251.611†	1025.1	456.7	14.542 ug/L	14.542 ppb	00:17:24
3	Sn 189.927†	9.1	1.3	0.2345 ug/L	0.2345 ppb	00:17:24
3	Ti 334.940†	-1021.8	370.6	0.5935 ug/L	0.5935 ppb	00:17:04
3	Tl 190.801†	-39.5	-6.0	-1.8338 ug/L	-1.8338 ppb	00:17:24
3	U 409.014†	-1989.9	56.4	1.6511 ug/L	1.6511 ppb	00:17:04
3	V 292.402†	-1411.0	-76.7	-0.5265 ug/L	-0.5265 ppb	00:17:04
3	Zn 213.857†	840.6	205.7	1.9403 ug/L	1.9403 ppb	00:17:24
3	SiO2†	1054.7	464.6	31.691 ug/L	31.691 ppb	00:17:39

Mean Data: 1202004426|936808|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	864994.0	101.48	%	0.759				0.75%
Sc Radial	5200.9	103	%	0.6				0.58%
Y 371.029	732338.0	101.34	%	0.791				0.78%
Y RADIAL	5601.2	103.2	%	0.86				0.83%
Ag 328.068†	-91.8	-0.4087	ug/L	0.17458	-0.4087	ppb	0.17458	42.72%
Al 396.153Radial†	13.1	10.065	ug/L	8.3342	10.065	ppb	8.3342	82.81%
As 188.979†	-0.9	-0.3621	ug/L	3.53013	-0.3621	ppb	3.53013	974.99%
B 249.677†	103.7	2.3060	ug/L	0.34657	2.3060	ppb	0.34657	15.03%
Ba 233.527†	20.9	0.1647	ug/L	0.06480	0.1647	ppb	0.06480	39.34%
Be 313.107†	120.6	0.0472	ug/L	0.01086	0.0472	ppb	0.01086	23.02%
Ca 317.933Radial†	4.3	6.9474	ug/L	3.21761	6.9474	ppb	3.21761	46.31%
Cd 226.502†	5.6	0.0575	ug/L	0.11426	0.0575	ppb	0.11426	198.88%
Co 228.616†	-9.7	-0.2003	ug/L	0.04096	-0.2003	ppb	0.04096	20.45%
Cr 267.716†	273.2	3.0518	ug/L	0.15719	3.0518	ppb	0.15719	5.15%
Cu 324.752†	-78.7	-0.2350	ug/L	0.14457	-0.2350	ppb	0.14457	61.53%
Fe 238.204 Radial†	6.7	58.329	ug/L	6.7555	58.329	ppb	6.7555	11.58%
K 766.490 Radial†	33.1	6.0477	ug/L	18.58428	6.0477	ppb	18.58428	307.29%

Mg 279.077 IEC†	-0.9	-31.443	ug/L	52.3687	-31.443	ppb	52.3687 166.55%
Mn 257.610†	400.8	0.4522	ug/L	0.01457	0.4522	ppb	0.01457 3.22%
Mo 202.031†	8.9	0.6361	ug/L	0.31480	0.6361	ppb	0.31480 49.49%
Na 589.592 Radial†	79.0	23.661	ug/L	3.0990	23.661	ppb	3.0990 13.10%
Ni 231.604†	7.3	0.1822	ug/L	0.23144	0.1822	ppb	0.23144 127.00%
P 214.914†	1.1	0.7089	ug/L	2.41283	0.7089	ppb	2.41283 340.35%
Pb 220.353†	71.4	8.7471	ug/L	1.08023	8.7471	ppb	1.08023 12.35%
S 181.975 Axial†	8.0	11.327	ug/L	8.7951	11.327	ppb	8.7951 77.64%
Sb 206.836†	7.6	2.6353	ug/L	0.81689	2.6353	ppb	0.81689 31.00%
Se 196.026†	4.9	3.3488	ug/L	2.41488	3.3488	ppb	2.41488 72.11%
Si 251.611†	466.6	14.852	ug/L	0.2810	14.852	ppb	0.2810 1.89%
Sn 189.927†	3.3	0.5932	ug/L	0.74507	0.5932	ppb	0.74507 125.61%
Sr 421.552†	31.8	0.2051	ug/L	0.06910	0.2051	ppb	0.06910 33.69%
Ti 334.940†	327.2	0.5271	ug/L	0.08439	0.5271	ppb	0.08439 16.01%
Tl 190.801†	-4.0	-1.2147	ug/L	0.61175	-1.2147	ppb	0.61175 50.36%
U 409.014†	174.3	5.1288	ug/L	3.29140	5.1288	ppb	3.29140 64.17%
V 292.402†	-25.9	-0.1688	ug/L	0.38064	-0.1688	ppb	0.38064 225.53%
Zn 213.857†	210.4	1.9832	ug/L	0.10573	1.9832	ppb	0.10573 5.33%
SiO2†	471.2	32.132	ug/L	0.8477	32.132	ppb	0.8477 2.64%

Sequence No.: 79
Sample ID: 1202004427|936808|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 87
Date Collected: 1/12/2010 00:19:51
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202004427|936808|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5429.7	5429.7	108	%			00:22:05
1	Y RADIAL	6322.4	6322.4	116.4	%			00:22:05
1	Al 396.153Radial†	119799.4	111099.0	85688	ug/L	85688	ppb	00:21:45
1	Ca 317.933Radial†	63947.3	59283.0	94859	ug/L	94859	ppb	00:21:45
1	Fe 238.204 Radial†	23272.2	21573.1	186720	ug/L	186720	ppb	00:21:45
1	K 766.490 Radial†	236431.3	216669.2	39630	ug/L	39630	ppb	00:21:45
1	Mg 279.077 IEC†	1247.8	1155.3	38410	ug/L	38410	ppb	00:22:05
1	Na 589.592 Radial†	36207.0	34857.8	10437	ug/L	10437	ppb	00:21:45
1	Sr 421.552†	370861.9	343945.8	2220.8	ug/L	2220.8	ppb	00:21:45
1	Sc 361.383	889958.3	889958.3	104.41	%			00:23:07
1	Y 371.029	806857.2	806857.2	111.65	%			00:23:07
1	Ag 328.068†	58092.4	55282.7	318.52	ug/L	318.52	ppb	00:23:07
1	As 188.979†	2424.2	2345.5	1083.6	ug/L	1083.6	ppb	00:23:12
1	B 249.677†	67002.1	64806.2	1423.3	ug/L	1423.3	ppb	00:23:07
1	Ba 233.527†	259245.4	248315.5	1948.0	ug/L	1948.0	ppb	00:23:07
1	Be 313.107†	2096749.2	2012842.3	782.13	ug/L	782.13	ppb	00:23:07
1	Cd 226.502†	54999.8	52882.7	568.30	ug/L	568.30	ppb	00:23:12
1	Co 228.616†	45688.9	43835.2	881.54	ug/L	881.54	ppb	00:23:12
1	Cr 267.716†	210453.5	201488.2	2257.8	ug/L	2257.8	ppb	00:23:07
1	Cu 324.752†	639579.2	606173.8	1822.6	ug/L	1822.6	ppb	00:23:07
1	Mn 257.610†	4955476.6	4745888.3	5280.6	ug/L	5280.6	ppb	00:23:07
1	Mo 202.031†	7214.6	6886.4	500.59	ug/L	500.59	ppb	00:23:12
1	Ni 231.604†	52811.2	50514.4	1257.3	ug/L	1257.3	ppb	00:23:12
1	P 214.914†	14304.2	13470.6	7721.9	ug/L	7721.9	ppb	00:23:12
1	Pb 220.353†	7111.6	6874.8	844.18	ug/L	844.18	ppb	00:23:12
1	S 181.975 Axial†	3085.5	2912.3	4105.3	ug/L	4105.3	ppb	00:23:12
1	Sb 206.836†	3148.7	2987.9	1029.6	ug/L	1029.6	ppb	00:23:12
1	Se 196.026†	3959.2	3824.1	3066.0	ug/L	3066.0	ppb	00:23:12
1	Si 251.611†	1281765.8	1227119.1	39076	ug/L	39076	ppb	00:23:07
1	Sn 189.927†	6146.1	5879.1	1058.3	ug/L	1058.3	ppb	00:23:12
1	Ti 334.940†	4332928.2	4151433.7	6695.3	ug/L	6695.3	ppb	00:23:07
1	Tl 190.801†	3837.3	3708.2	1203.0	ug/L	1203.0	ppb	00:23:12
1	U 409.014†	-7344.3	-5022.7	-174.49	ug/L	-174.49	ppb	00:23:07
1	V 292.402†	186856.8	180280.3	1201.9	ug/L	1201.9	ppb	00:23:07
1	Zn 213.857†	668938.1	640085.6	6025.4	ug/L	6025.4	ppb	00:23:07
1	SiO2†	1283141.1	1228415.1	83803	ug/L	83803	ppb	00:23:46
2	Sc Radial	5472.1	5472.1	109	%			00:22:30
2	Y RADIAL	6379.5	6379.5	117.5	%			00:22:30
2	Al 396.153Radial†	120244.3	110646.9	85340	ug/L	85340	ppb	00:22:10
2	Ca 317.933Radial†	63998.6	58870.4	94198	ug/L	94198	ppb	00:22:10
2	Fe 238.204 Radial†	23335.1	21463.6	185770	ug/L	185770	ppb	00:22:10
2	K 766.490 Radial†	237092.7	215577.6	39430	ug/L	39430	ppb	00:22:10
2	Mg 279.077 IEC†	1252.9	1151.0	38267	ug/L	38267	ppb	00:22:30
2	Na 589.592 Radial†	36212.5	34602.5	10360	ug/L	10360	ppb	00:22:10
2	Sr 421.552†	371336.6	341715.7	2206.4	ug/L	2206.4	ppb	00:22:10
2	Sc 361.383	880514.5	880514.5	103.30	%			00:23:21
2	Y 371.029	800061.1	800061.1	110.71	%			00:23:21
2	Ag 328.068†	57440.1	55247.9	318.07	ug/L	318.07	ppb	00:23:21
2	As 188.979†	2282.1	2232.8	1034.6	ug/L	1034.6	ppb	00:23:26
2	B 249.677†	66193.0	64711.1	1421.3	ug/L	1421.3	ppb	00:23:21
2	Ba 233.527†	256349.3	248175.0	1946.9	ug/L	1946.9	ppb	00:23:21
2	Be 313.107†	2075918.1	2014215.5	782.64	ug/L	782.64	ppb	00:23:21
2	Cd 226.502†	53330.4	51831.5	556.71	ug/L	556.71	ppb	00:23:26
2	Co 228.616†	44122.1	42787.9	860.10	ug/L	860.10	ppb	00:23:26
2	Cr 267.716†	208382.3	201645.0	2259.5	ug/L	2259.5	ppb	00:23:21
2	Cu 324.752†	629941.4	603414.0	1814.3	ug/L	1814.3	ppb	00:23:21
2	Mn 257.610†	4896158.6	4739370.4	5273.3	ug/L	5273.3	ppb	00:23:21
2	Mo 202.031†	6948.5	6702.9	487.55	ug/L	487.55	ppb	00:23:26
2	Ni 231.604†	51046.4	49348.4	1228.3	ug/L	1228.3	ppb	00:23:26

2	P 214.914†	13756.9	13087.7	7490.0	ug/L	7490.0 ppb	00:23:26
2	Pb 220.353†	6858.2	6702.5	823.06	ug/L	823.06 ppb	00:23:26
2	S 181.975 Axial†	2975.1	2837.1	3999.0	ug/L	3999.0 ppb	00:23:26
2	Sb 206.836†	3012.3	2888.1	994.70	ug/L	994.70 ppb	00:23:26
2	Se 196.026†	3772.3	3683.8	2972.5	ug/L	2972.5 ppb	00:23:26
2	Si 251.611†	1265665.5	1224700.0	38999	ug/L	38999 ppb	00:23:21
2	Sn 189.927†	5917.4	5720.8	1030.1	ug/L	1030.1 ppb	00:23:26
2	Ti 334.940†	4280961.4	4145636.9	6685.9	ug/L	6685.9 ppb	00:23:21
2	Tl 190.801†	3722.9	3636.8	1181.1	ug/L	1181.1 ppb	00:23:26
2	U 409.014†	-7404.5	-5156.4	-178.33	ug/L	-178.33 ppb	00:23:21
2	V 292.402†	184898.9	180304.4	1202.0	ug/L	1202.0 ppb	00:23:21
2	Zn 213.857†	661207.4	639473.6	6019.9	ug/L	6019.9 ppb	00:23:21
2	SiO2†	1276274.8	1234949.3	84250	ug/L	84250 ppb	00:23:52
3	Sc Radial	5431.3	5431.3	108	%		00:22:56
3	Y RADIAL	6312.1	6312.1	116.3	%		00:22:56
3	Al 396.153Radial†	123015.6	114047.5	87963	ug/L	87963 ppb	00:22:36
3	Ca 317.933Radial†	65305.8	60524.8	96845	ug/L	96845 ppb	00:22:36
3	Fe 238.204 Radial†	23837.1	22090.3	191200	ug/L	191200 ppb	00:22:36
3	K 766.490 Radial†	242978.0	222672.9	40730	ug/L	40730 ppb	00:22:36
3	Mg 279.077 IEC†	1245.7	1152.9	38327	ug/L	38327 ppb	00:22:56
3	Na 589.592 Radial†	37207.0	35774.8	10711	ug/L	10711 ppb	00:22:36
3	Sr 421.552†	380979.8	353223.0	2280.7	ug/L	2280.7 ppb	00:22:36
3	Sc 361.383	891390.7	891390.7	104.57	%		00:23:35
3	Y 371.029	810302.3	810302.3	112.13	%		00:23:35
3	Ag 328.068†	58258.4	55352.0	320.27	ug/L	320.27 ppb	00:23:35
3	As 188.979†	2361.5	2281.8	1056.8	ug/L	1056.8 ppb	00:23:40
3	B 249.677†	67105.8	64802.2	1422.7	ug/L	1422.7 ppb	00:23:35
3	Ba 233.527†	259313.5	247981.5	1945.6	ug/L	1945.6 ppb	00:23:35
3	Be 313.107†	2102140.4	2014770.4	782.85	ug/L	782.85 ppb	00:23:35
3	Cd 226.502†	55035.2	52831.9	567.27	ug/L	567.27 ppb	00:23:40
3	Co 228.616†	45679.4	43755.9	879.86	ug/L	879.86 ppb	00:23:40
3	Cr 267.716†	210523.1	201230.8	2255.0	ug/L	2255.0 ppb	00:23:35
3	Cu 324.752†	639364.3	604983.9	1819.3	ug/L	1819.3 ppb	00:23:35
3	Mn 257.610†	4949901.4	4732929.6	5266.7	ug/L	5266.7 ppb	00:23:35
3	Mo 202.031†	7204.1	6865.2	499.43	ug/L	499.43 ppb	00:23:40
3	Ni 231.604†	52774.3	50397.8	1254.4	ug/L	1254.4 ppb	00:23:40
3	P 214.914†	14279.0	13424.5	7691.4	ug/L	7691.4 ppb	00:23:40
3	Pb 220.353†	7111.7	6863.9	842.94	ug/L	842.94 ppb	00:23:40
3	S 181.975 Axial†	3110.0	2930.9	4131.3	ug/L	4131.3 ppb	00:23:40
3	Sb 206.836†	3145.9	2980.4	1026.9	ug/L	1026.9 ppb	00:23:40
3	Se 196.026†	3933.3	3793.3	3060.6	ug/L	3060.6 ppb	00:23:40
3	Si 251.611†	1279134.5	1222630.0	38933	ug/L	38933 ppb	00:23:35
3	Sn 189.927†	6146.5	5870.0	1057.0	ug/L	1057.0 ppb	00:23:40
3	Ti 334.940†	4334466.3	4146235.3	6687.1	ug/L	6687.1 ppb	00:23:35
3	Tl 190.801†	3872.7	3736.1	1211.5	ug/L	1211.5 ppb	00:23:40
3	U 409.014†	-7325.3	-4993.2	-174.12	ug/L	-174.12 ppb	00:23:35
3	V 292.402†	187248.9	180367.7	1201.8	ug/L	1201.8 ppb	00:23:35
3	Zn 213.857†	667914.0	638076.8	6006.0	ug/L	6006.0 ppb	00:23:35
3	SiO2†	1285500.6	1228696.4	83823	ug/L	83823 ppb	00:23:58

Mean Data: 1202004427|936808|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	887287.8	104.09	%	0.693				0.67%
Sc Radial	5444.3	108	%	0.5				0.44%
Y 371.029	805740.2	111.50	%	0.721				0.65%
Y RADIAL	6338.0	116.7	%	0.67				0.57%
Ag 328.068†	55294.2	318.95	ug/L	1.160	318.95	ppb	1.160	0.36%
Al 396.153Radial†	111931.1	86330	ug/L	1424.5	86330	ppb	1424.5	1.65%
As 188.979†	2286.7	1058.3	ug/L	24.55	1058.3	ppb	24.55	2.32%
B 249.677†	64773.2	1422.4	ug/L	1.01	1422.4	ppb	1.01	0.07%
Ba 233.527†	248157.4	1946.8	ug/L	1.22	1946.8	ppb	1.22	0.06%
Be 313.107†	2013942.8	782.54	ug/L	0.367	782.54	ppb	0.367	0.05%
Ca 317.933Radial†	59559.4	95301	ug/L	1377.9	95301	ppb	1377.9	1.45%
Cd 226.502†	52515.4	564.09	ug/L	6.413	564.09	ppb	6.413	1.14%
Co 228.616†	43459.7	873.84	ug/L	11.921	873.84	ppb	11.921	1.36%
Cr 267.716†	201454.7	2257.5	ug/L	2.28	2257.5	ppb	2.28	0.10%
Cu 324.752†	604857.3	1818.7	ug/L	4.18	1818.7	ppb	4.18	0.23%
Fe 238.204 Radial†	21709.0	187900	ug/L	2897.1	187900	ppb	2897.1	1.54%
K 766.490 Radial†	218306.6	39930	ug/L	700.0	39930	ppb	700.0	1.75%

Mg 279.077 IEC†	1153.1	38335	ug/L	72.2	38335	ppb	72.2	0.19%
Mn 257.610†	4739396.1	5273.5	ug/L	6.94	5273.5	ppb	6.94	0.13%
Mo 202.031†	6818.2	495.86	ug/L	7.217	495.86	ppb	7.217	1.46%
Na 589.592 Radial†	35078.3	10503	ug/L	184.6	10503	ppb	184.6	1.76%
Ni 231.604†	50086.9	1246.6	ug/L	15.98	1246.6	ppb	15.98	1.28%
P 214.914†	13327.6	7634.4	ug/L	126.02	7634.4	ppb	126.02	1.65%
Pb 220.353†	6813.8	836.73	ug/L	11.853	836.73	ppb	11.853	1.42%
S 181.975 Axial†	2893.4	4078.5	ug/L	70.11	4078.5	ppb	70.11	1.72%
Sb 206.836†	2952.1	1017.1	ug/L	19.41	1017.1	ppb	19.41	1.91%
Se 196.026†	3767.1	3033.0	ug/L	52.46	3033.0	ppb	52.46	1.73%
Si 251.611†	1224816.3	39003	ug/L	71.5	39003	ppb	71.5	0.18%
Sn 189.927†	5823.3	1048.5	ug/L	15.90	1048.5	ppb	15.90	1.52%
Sr 421.552†	346294.8	2236.0	ug/L	39.41	2236.0	ppb	39.41	1.76%
Ti 334.940†	4147768.6	6689.4	ug/L	5.10	6689.4	ppb	5.10	0.08%
Tl 190.801†	3693.7	1198.5	ug/L	15.68	1198.5	ppb	15.68	1.31%
U 409.014†	-5057.4	-175.65	ug/L	2.331	-175.65	ppb	2.331	1.33%
V 292.402†	180317.5	1201.9	ug/L	0.11	1201.9	ppb	0.11	0.01%
Zn 213.857†	639212.0	6017.1	ug/L	10.00	6017.1	ppb	10.00	0.17%
SiO2†	1230686.9	83959	ug/L	252.2	83959	ppb	252.2	0.30%

Sequence No.: 85
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 1/12/2010 01:01:49
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5098.8	5098.8	101	%			01:03:42
1	Y RADIAL	5390.1	5390.1	99.28	%			01:03:42
1	Al 396.153Radial†	6567.4	6486.3	4978.6	ug/L	4978.6	ppb	01:03:42
1	Ca 317.933Radial†	3258.2	3197.8	5116.9	ug/L	5116.9	ppb	01:04:02
1	Fe 238.204 Radial†	624.2	607.6	5273.6	ug/L	5273.6	ppb	01:04:02
1	K 766.490 Radial†	30383.1	27414.4	5008.5	ug/L	5008.5	ppb	01:03:42
1	Mg 279.077 IEC†	161.6	157.7	5270.0	ug/L	5270.0	ppb	01:04:02
1	Na 589.592 Radial†	33325.7	34191.0	10237	ug/L	10237	ppb	01:03:42
1	Sr 421.552†	78757.5	77795.9	502.44	ug/L	502.44	ppb	01:03:42
1	Sc 361.383	861945.3	861945.3	101.12	%			01:04:59
1	Y 371.029	717319.5	717319.5	99.260	%			01:04:59
1	Ag 328.068†	115908.6	114266.8	529.42	ug/L	529.42	ppb	01:05:05
1	As 188.979†	1186.6	1197.0	520.93	ug/L	520.93	ppb	01:05:25
1	B 249.677†	22724.7	23104.8	513.05	ug/L	513.05	ppb	01:05:05
1	Ba 233.527†	67545.0	66808.2	522.88	ug/L	522.88	ppb	01:05:05
1	Be 313.107†	1377764.2	1367088.9	522.09	ug/L	522.09	ppb	01:04:59
1	Cd 226.502†	47488.6	47166.7	523.28	ug/L	523.28	ppb	01:05:05
1	Co 228.616†	25889.6	25677.5	525.68	ug/L	525.68	ppb	01:05:05
1	Cr 267.716†	47279.1	46672.2	522.43	ug/L	522.43	ppb	01:05:05
1	Cu 324.752†	181455.9	173033.8	517.40	ug/L	517.40	ppb	01:05:05
1	Mn 257.610†	474592.8	468891.1	520.19	ug/L	520.19	ppb	01:04:59
1	Mo 202.031†	7552.2	7444.9	526.59	ug/L	526.59	ppb	01:05:25
1	Ni 231.604†	21354.7	21050.2	523.84	ug/L	523.84	ppb	01:05:05
1	P 214.914†	4516.6	4236.7	2479.6	ug/L	2479.6	ppb	01:05:25
1	Pb 220.353†	4250.3	4266.6	524.14	ug/L	524.14	ppb	01:05:25
1	S 181.975 Axial†	807.0	755.1	1067.6	ug/L	1067.6	ppb	01:05:25
1	Sb 206.836†	1543.3	1498.3	532.07	ug/L	532.07	ppb	01:05:25
1	Se 196.026†	777.2	800.6	534.59	ug/L	534.59	ppb	01:05:25
1	Si 251.611†	85139.9	83646.4	2657.5	ug/L	2657.5	ppb	01:05:05
1	Sn 189.927†	3013.5	2972.4	527.42	ug/L	527.42	ppb	01:05:25
1	Ti 334.940†	327541.4	325287.9	523.80	ug/L	523.80	ppb	01:04:59
1	Tl 190.801†	1676.6	1690.9	521.97	ug/L	521.97	ppb	01:05:25
1	U 409.014†	16470.1	18299.3	538.06	ug/L	538.06	ppb	01:05:05
1	V 292.402†	75789.9	76260.2	527.97	ug/L	527.97	ppb	01:05:05
1	Zn 213.857†	56569.0	55322.2	518.70	ug/L	518.70	ppb	01:05:05
1	SiO2†	84309.7	82804.2	5635.5	ug/L	5635.5	ppb	01:06:32
2	Sc Radial	5118.7	5118.7	102	%			01:04:07
2	Y RADIAL	5463.1	5463.1	100.6	%			01:04:07
2	Al 396.153Radial†	6668.7	6560.7	5036.0	ug/L	5036.0	ppb	01:04:07
2	Ca 317.933Radial†	3278.9	3205.7	5129.4	ug/L	5129.4	ppb	01:04:27
2	Fe 238.204 Radial†	631.5	612.3	5314.8	ug/L	5314.8	ppb	01:04:27
2	K 766.490 Radial†	30706.8	27616.3	5045.5	ug/L	5045.5	ppb	01:04:07
2	Mg 279.077 IEC†	167.5	162.9	5443.0	ug/L	5443.0	ppb	01:04:27
2	Na 589.592 Radial†	33583.3	34316.5	10275	ug/L	10275	ppb	01:04:07
2	Sr 421.552†	79896.0	78613.5	507.72	ug/L	507.72	ppb	01:04:07
2	Sc 361.383	852215.9	852215.9	99.979	%			01:05:30
2	Y 371.029	708783.1	708783.1	98.079	%			01:05:30
2	Ag 328.068†	114006.4	113672.7	526.69	ug/L	526.69	ppb	01:05:36
2	As 188.979†	1180.2	1204.1	524.01	ug/L	524.01	ppb	01:05:56
2	B 249.677†	22310.5	22947.2	509.54	ug/L	509.54	ppb	01:05:36
2	Ba 233.527†	66411.8	66437.4	519.99	ug/L	519.99	ppb	01:05:36
2	Be 313.107†	1365750.7	1370628.0	523.44	ug/L	523.44	ppb	01:05:30
2	Cd 226.502†	46670.4	46884.5	520.14	ug/L	520.14	ppb	01:05:36
2	Co 228.616†	25433.1	25513.2	522.32	ug/L	522.32	ppb	01:05:36
2	Cr 267.716†	46589.2	46515.9	520.68	ug/L	520.68	ppb	01:05:36
2	Cu 324.752†	178160.9	171786.8	513.67	ug/L	513.67	ppb	01:05:36
2	Mn 257.610†	470958.8	470614.6	522.10	ug/L	522.10	ppb	01:05:30
2	Mo 202.031†	7469.1	7447.0	526.74	ug/L	526.74	ppb	01:05:56
2	Ni 231.604†	21007.7	20944.3	521.20	ug/L	521.20	ppb	01:05:36

2	P 214.914†	4498.5	4269.6	2500.5 ug/L	2500.5 ppb	01:05:56
2	Pb 220.353†	4205.7	4270.0	524.56 ug/L	524.56 ppb	01:05:56
2	S 181.975 Axial†	797.3	754.5	1066.7 ug/L	1066.7 ppb	01:05:56
2	Sb 206.836†	1528.8	1501.2	533.05 ug/L	533.05 ppb	01:05:56
2	Se 196.026†	780.8	813.0	542.71 ug/L	542.71 ppb	01:05:56
2	Si 251.611†	83531.4	82998.8	2636.9 ug/L	2636.9 ppb	01:05:36
2	Sn 189.927†	2975.7	2968.7	526.77 ug/L	526.77 ppb	01:05:56
2	Ti 334.940†	325116.6	326560.6	525.84 ug/L	525.84 ppb	01:05:30
2	Tl 190.801†	1675.0	1708.2	527.31 ug/L	527.31 ppb	01:05:56
2	U 409.014†	16151.4	18166.5	534.14 ug/L	534.14 ppb	01:05:36
2	V 292.402†	74626.6	75952.2	525.86 ug/L	525.86 ppb	01:05:36
2	Zn 213.857†	55618.5	55010.1	515.76 ug/L	515.76 ppb	01:05:36
2	SiO2†	83052.4	82498.4	5614.7 ug/L	5614.7 ppb	01:06:37
3	Sc Radial	5179.2	5179.2	103 %		01:04:32
3	Y RADIAL	5471.6	5471.6	100.8 %		01:04:32
3	Al 396.153Radial†	6718.8	6532.9	5015.0 ug/L	5015.0 ppb	01:04:32
3	Ca 317.933Radial†	3234.8	3125.2	5000.6 ug/L	5000.6 ppb	01:04:52
3	Fe 238.204 Radial†	613.9	587.9	5103.4 ug/L	5103.4 ppb	01:04:52
3	K 766.490 Radial†	30891.9	27443.7	5014.1 ug/L	5014.1 ppb	01:04:32
3	Mg 279.077 IEC†	160.1	153.7	5136.4 ug/L	5136.4 ppb	01:04:52
3	Na 589.592 Radial†	33482.3	33832.7	10130 ug/L	10130 ppb	01:04:32
3	Sr 421.552†	80010.0	77807.2	502.51 ug/L	502.51 ppb	01:04:32
3	Sc 361.383	870721.9	870721.9	102.15 %		01:06:02
3	Y 371.029	724682.4	724682.4	100.28 %		01:06:02
3	Ag 328.068†	114641.7	111871.1	518.30 ug/L	518.30 ppb	01:06:07
3	As 188.979†	1182.8	1181.5	514.19 ug/L	514.19 ppb	01:06:27
3	B 249.677†	22394.9	22555.4	500.86 ug/L	500.86 ppb	01:06:07
3	Ba 233.527†	66760.5	65367.0	511.61 ug/L	511.61 ppb	01:06:07
3	Be 313.107†	1389334.0	1364681.6	521.17 ug/L	521.17 ppb	01:06:02
3	Cd 226.502†	46969.1	46184.8	512.39 ug/L	512.39 ppb	01:06:07
3	Co 228.616†	25538.5	25075.7	513.35 ug/L	513.35 ppb	01:06:07
3	Cr 267.716†	47017.5	45944.8	514.29 ug/L	514.29 ppb	01:06:07
3	Cu 324.752†	179184.2	169001.2	505.34 ug/L	505.34 ppb	01:06:07
3	Mn 257.610†	477661.9	467164.9	518.26 ug/L	518.26 ppb	01:06:02
3	Mo 202.031†	7496.1	7314.6	517.37 ug/L	517.37 ppb	01:06:27
3	Ni 231.604†	21147.6	20634.6	513.50 ug/L	513.50 ppb	01:06:07
3	P 214.914†	4488.7	4164.3	2438.0 ug/L	2438.0 ppb	01:06:27
3	Pb 220.353†	4209.3	4184.1	514.04 ug/L	514.04 ppb	01:06:27
3	S 181.975 Axial†	796.9	737.1	1042.2 ug/L	1042.2 ppb	01:06:27
3	Sb 206.836†	1540.6	1480.2	525.53 ug/L	525.53 ppb	01:06:27
3	Se 196.026†	789.5	804.9	536.77 ug/L	536.77 ppb	01:06:27
3	Si 251.611†	84003.8	81685.5	2595.2 ug/L	2595.2 ppb	01:06:07
3	Sn 189.927†	2995.5	2924.8	518.96 ug/L	518.96 ppb	01:06:27
3	Ti 334.940†	330906.5	325317.3	523.85 ug/L	523.85 ppb	01:06:02
3	Tl 190.801†	1669.9	1667.6	514.86 ug/L	514.86 ppb	01:06:27
3	U 409.014†	16159.7	17831.2	524.28 ug/L	524.28 ppb	01:06:07
3	V 292.402†	75057.2	74787.3	517.78 ug/L	517.78 ppb	01:06:07
3	Zn 213.857†	55985.4	54186.9	508.06 ug/L	508.06 ppb	01:06:07
3	SiO2†	82319.9	80015.9	5445.5 ug/L	5445.5 ppb	01:06:43

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	861627.7	101.08	%	1.086				1.07%
Sc Radial	5132.2	102	%	0.8				0.82%
Y 371.029	716928.3	99.206	%	1.1010				1.11%
Y RADIAL	5441.6	100.2	%	0.82				0.82%
Ag 328.068†	113270.2	524.80	ug/L	5.792	524.80	ppb	5.792	1.10%
QC value within limits for Ag 328.068 Recovery = 104.96%								
Al 396.153Radial†	6526.6	5009.8	ug/L	29.05	5009.8	ppb	29.05	0.58%
QC value within limits for Al 396.153Radial Recovery = 100.20%								
As 188.979†	1194.2	519.71	ug/L	5.025	519.71	ppb	5.025	0.97%
QC value within limits for As 188.979 Recovery = 103.94%								
B 249.677†	22869.1	507.82	ug/L	6.278	507.82	ppb	6.278	1.24%
QC value within limits for B 249.677 Recovery = 101.56%								
Ba 233.527†	66204.2	518.16	ug/L	5.858	518.16	ppb	5.858	1.13%
QC value within limits for Ba 233.527 Recovery = 103.63%								
Be 313.107†	1367466.2	522.24	ug/L	1.142	522.24	ppb	1.142	0.22%
QC value within limits for Be 313.107 Recovery = 104.45%								
Ca 317.933Radial†	3176.2	5082.3	ug/L	71.04	5082.3	ppb	71.04	1.40%

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   QC value within limits for Ca 317.933Radial  Recovery = 101.65%
Cd 226.502†            46745.3      518.60 ug/L        5.604      518.60 ppb        5.604   1.08%
   QC value within limits for Cd 226.502  Recovery = 103.72%
Co 228.616†            25422.2      520.45 ug/L        6.378      520.45 ppb        6.378   1.23%
   QC value within limits for Co 228.616  Recovery = 104.09%
Cr 267.716†            46377.6      519.13 ug/L        4.288      519.13 ppb        4.288   0.83%
   QC value within limits for Cr 267.716  Recovery = 103.83%
Cu 324.752†           171273.9      512.14 ug/L        6.175      512.14 ppb        6.175   1.21%
   QC value within limits for Cu 324.752  Recovery = 102.43%
Fe 238.204 Radial†       602.6      5230.6 ug/L       112.07      5230.6 ppb       112.07   2.14%
   QC value within limits for Fe 238.204 Radial  Recovery = 104.61%
K 766.490 Radial†      27491.5      5022.7 ug/L        19.93      5022.7 ppb        19.93   0.40%
   QC value within limits for K 766.490 Radial  Recovery = 100.45%
Mg 279.077 IEC†          158.1      5283.1 ug/L       153.69      5283.1 ppb       153.69   2.91%
   QC value within limits for Mg 279.077 IEC  Recovery = 105.66%
Mn 257.610†           468890.2      520.18 ug/L        1.918      520.18 ppb        1.918   0.37%
   QC value within limits for Mn 257.610  Recovery = 104.04%
Mo 202.031†             7402.1      523.56 ug/L        5.367      523.56 ppb        5.367   1.03%
   QC value within limits for Mo 202.031  Recovery = 104.71%
Na 589.592 Radial†     34113.4       10214 ug/L         75.2       10214 ppb         75.2   0.74%
   QC value within limits for Na 589.592 Radial  Recovery = 102.14%
Ni 231.604†            20876.4      519.51 ug/L        5.374      519.51 ppb        5.374   1.03%
   QC value within limits for Ni 231.604  Recovery = 103.90%
P 214.914†              4223.5      2472.7 ug/L       31.78      2472.7 ppb        31.78   1.29%
   QC value within limits for P 214.914  Recovery = 98.91%
Pb 220.353†             4240.2      520.91 ug/L        5.955      520.91 ppb        5.955   1.14%
   QC value within limits for Pb 220.353  Recovery = 104.18%
S 181.975 Axial†         748.9      1058.9 ug/L       14.43      1058.9 ppb        14.43   1.36%
   QC value within limits for S 181.975 Axial  Recovery = 105.89%
Sb 206.836†             1493.2      530.22 ug/L        4.088      530.22 ppb        4.088   0.77%
   QC value within limits for Sb 206.836  Recovery = 106.04%
Se 196.026†              806.1      538.03 ug/L        4.201      538.03 ppb        4.201   0.78%
   QC value within limits for Se 196.026  Recovery = 107.61%
Si 251.611†            82776.9      2629.9 ug/L       31.76      2629.9 ppb        31.76   1.21%
   QC value within limits for Si 251.611  Recovery = 105.19%
Sn 189.927†             2955.3      524.38 ug/L        4.707      524.38 ppb        4.707   0.90%
   QC value within limits for Sn 189.927  Recovery = 104.88%
Sr 421.552†            78072.2      504.22 ug/L        3.028      504.22 ppb        3.028   0.60%
   QC value within limits for Sr 421.552  Recovery = 100.84%
Ti 334.940†           325721.9      524.50 ug/L        1.163      524.50 ppb        1.163   0.22%
   QC value within limits for Ti 334.940  Recovery = 104.90%
Tl 190.801†             1688.9      521.38 ug/L        6.246      521.38 ppb        6.246   1.20%
   QC value within limits for Tl 190.801  Recovery = 104.28%
U 409.014†             18099.0      532.16 ug/L        7.096      532.16 ppb        7.096   1.33%
   QC value within limits for U 409.014  Recovery = 106.43%
V 292.402†             75666.6      523.87 ug/L        5.379      523.87 ppb        5.379   1.03%
   QC value within limits for V 292.402  Recovery = 104.77%
Zn 213.857†            54839.8      514.17 ug/L        5.495      514.17 ppb        5.495   1.07%
   QC value within limits for Zn 213.857  Recovery = 102.83%
SiO2†                  81772.8      5565.2 ug/L       104.20      5565.2 ppb       104.20   1.87%
   QC value within limits for SiO2  Recovery = 104.07%
All analyte(s) passed QC.
```

Sequence No.: 86
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 1/12/2010 01:08:52
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5207.8	5207.8	103	%			01:10:45
1	Y RADIAL	5584.2	5584.2	102.9	%			01:10:45
1	Al 396.153Radial†	-26.1	-24.6	-18.985	ug/L	-18.985	ppb	01:10:45
1	Ca 317.933Radial†	16.2	-4.1	-6.6397	ug/L	-6.6397	ppb	01:11:05
1	Fe 238.204 Radial†	10.6	1.4	11.932	ug/L	11.932	ppb	01:11:05
1	K 766.490 Radial†	2825.0	141.3	25.912	ug/L	25.912	ppb	01:10:45
1	Mg 279.077 IEC†	3.2	1.1	38.325	ug/L	38.325	ppb	01:11:05
1	Na 589.592 Radial†	-1322.2	2.0	0.6057	ug/L	0.6057	ppb	01:10:45
1	Sr 421.552†	-22.9	-2.6	-0.0170	ug/L	-0.0170	ppb	01:10:45
1	Sc 361.383	853415.9	853415.9	100.12	%			01:12:02
1	Y 371.029	723372.1	723372.1	100.10	%			01:12:02
1	Ag 328.068†	217.9	-140.3	-0.6493	ug/L	-0.6493	ppb	01:12:02
1	As 188.979†	-31.3	-7.6	-3.2919	ug/L	-3.2919	ppb	01:12:22
1	B 249.677†	-466.5	165.9	3.6963	ug/L	3.6963	ppb	01:12:22
1	Ba 233.527†	-12.2	-0.8	-0.0060	ug/L	-0.0060	ppb	01:12:22
1	Be 313.107†	-4588.6	2.2	0.0008	ug/L	0.0008	ppb	01:12:02
1	Cd 226.502†	-186.8	17.6	0.1951	ug/L	0.1951	ppb	01:12:22
1	Co 228.616†	-73.5	1.3	0.0267	ug/L	0.0267	ppb	01:12:22
1	Cr 267.716†	77.3	-6.1	-0.0708	ug/L	-0.0708	ppb	01:12:22
1	Cu 324.752†	6420.1	0.2	-0.0032	ug/L	-0.0032	ppb	01:12:02
1	Mn 257.610†	445.9	0.5	0.0004	ug/L	0.0004	ppb	01:12:22
1	Mo 202.031†	24.4	0.7	0.0476	ug/L	0.0476	ppb	01:12:22
1	Ni 231.604†	66.5	-1.6	-0.0386	ug/L	-0.0386	ppb	01:12:22
1	P 214.914†	220.3	-9.8	-6.0089	ug/L	-6.0089	ppb	01:12:22
1	Pb 220.353†	-75.1	-11.7	-1.4354	ug/L	-1.4354	ppb	01:12:22
1	S 181.975 Axial†	45.4	2.4	3.3828	ug/L	3.3828	ppb	01:12:22
1	Sb 206.836†	40.5	12.5	4.2770	ug/L	4.2770	ppb	01:12:22
1	Se 196.026†	-32.0	0.1	0.0981	ug/L	0.0981	ppb	01:12:22
1	Si 251.611†	518.4	-32.6	-1.0399	ug/L	-1.0399	ppb	01:12:22
1	Sn 189.927†	4.3	-3.4	-0.6009	ug/L	-0.6009	ppb	01:12:22
1	Ti 334.940†	-1389.1	-12.9	-0.0281	ug/L	-0.0281	ppb	01:12:02
1	Tl 190.801†	-31.6	1.3	0.3840	ug/L	0.3840	ppb	01:12:22
1	U 409.014†	-1745.3	268.4	7.9161	ug/L	7.9161	ppb	01:12:02
1	V 292.402†	-1328.6	-17.3	-0.1033	ug/L	-0.1033	ppb	01:12:02
1	Zn 213.857†	611.9	-9.1	-0.0868	ug/L	-0.0868	ppb	01:12:22
1	SiO2†	541.0	-31.3	-2.1376	ug/L	-2.1376	ppb	01:13:18
2	Sc Radial	5095.7	5095.7	101	%			01:11:10
2	Y RADIAL	5489.5	5489.5	101.1	%			01:11:10
2	Al 396.153Radial†	-15.3	-14.5	-11.169	ug/L	-11.169	ppb	01:11:10
2	Ca 317.933Radial†	14.3	-5.7	-9.0539	ug/L	-9.0539	ppb	01:11:30
2	Fe 238.204 Radial†	10.9	1.8	15.932	ug/L	15.932	ppb	01:11:30
2	K 766.490 Radial†	2686.9	64.9	11.898	ug/L	11.898	ppb	01:11:10
2	Mg 279.077 IEC†	2.7	0.7	24.711	ug/L	24.711	ppb	01:11:30
2	Na 589.592 Radial†	-1291.2	4.5	1.3594	ug/L	1.3594	ppb	01:11:10
2	Sr 421.552†	2.8	22.3	0.1440	ug/L	0.1440	ppb	01:11:10
2	Sc 361.383	846618.4	846618.4	99.322	%			01:12:27
2	Y 371.029	719089.1	719089.1	99.505	%			01:12:27
2	Ag 328.068†	281.0	-75.1	-0.3392	ug/L	-0.3392	ppb	01:12:27
2	As 188.979†	-17.5	6.0	2.5986	ug/L	2.5986	ppb	01:12:47
2	B 249.677†	-471.5	157.2	3.5022	ug/L	3.5022	ppb	01:12:47
2	Ba 233.527†	-10.4	1.0	0.0079	ug/L	0.0079	ppb	01:12:47
2	Be 313.107†	-4476.6	78.2	0.0296	ug/L	0.0296	ppb	01:12:27
2	Cd 226.502†	-192.7	10.1	0.1093	ug/L	0.1093	ppb	01:12:47
2	Co 228.616†	-76.8	-2.7	-0.0539	ug/L	-0.0539	ppb	01:12:47
2	Cr 267.716†	100.5	17.9	0.2012	ug/L	0.2012	ppb	01:12:47
2	Cu 324.752†	6325.3	-43.7	-0.1285	ug/L	-0.1285	ppb	01:12:27
2	Mn 257.610†	446.6	4.8	0.0061	ug/L	0.0061	ppb	01:12:47
2	Mo 202.031†	27.7	4.2	0.2946	ug/L	0.2946	ppb	01:12:47
2	Ni 231.604†	59.1	-8.5	-0.2113	ug/L	-0.2113	ppb	01:12:47

2	P 214.914†	217.8	-10.6	-6.4877 ug/L	-6.4877 ppb	01:12:47
2	Pb 220.353†	-64.0	-1.0	-0.1306 ug/L	-0.1306 ppb	01:12:47
2	S 181.975 Axial†	44.4	1.7	2.3992 ug/L	2.3992 ppb	01:12:47
2	Sb 206.836†	35.5	7.8	2.6593 ug/L	2.6593 ppb	01:12:47
2	Se 196.026†	-31.5	0.3	0.2524 ug/L	0.2524 ppb	01:12:47
2	Si 251.611†	506.9	-40.1	-1.2794 ug/L	-1.2794 ppb	01:12:47
2	Sn 189.927†	0.1	-7.5	-1.3327 ug/L	-1.3327 ppb	01:12:47
2	Ti 334.940†	-1424.8	-60.0	-0.0986 ug/L	-0.0986 ppb	01:12:27
2	Tl 190.801†	-45.4	-12.8	-3.9386 ug/L	-3.9386 ppb	01:12:47
2	U 409.014†	-2086.8	-89.5	-2.6416 ug/L	-2.6416 ppb	01:12:27
2	V 292.402†	-1329.3	-28.7	-0.1984 ug/L	-0.1984 ppb	01:12:27
2	Zn 213.857†	622.5	6.5	0.0616 ug/L	0.0616 ppb	01:12:47
2	SiO2†	535.8	-32.2	-2.2041 ug/L	-2.2041 ppb	01:13:23
3	Sc Radial	5106.8	5106.8	101 %		01:11:35
3	Y RADIAL	5506.5	5506.5	101.4 %		01:11:35
3	Al 396.153Radial†	-7.2	-6.5	-4.9928 ug/L	-4.9928 ppb	01:11:35
3	Ca 317.933Radial†	11.5	-8.4	-13.501 ug/L	-13.501 ppb	01:11:55
3	Fe 238.204 Radial†	10.4	1.4	11.898 ug/L	11.898 ppb	01:11:55
3	K 766.490 Radial†	2748.8	120.2	22.042 ug/L	22.042 ppb	01:11:35
3	Mg 279.077 IEC†	2.7	0.7	24.638 ug/L	24.638 ppb	01:11:55
3	Na 589.592 Radial†	-1311.6	-12.7	-3.8156 ug/L	-3.8156 ppb	01:11:35
3	Sr 421.552†	-5.7	13.9	0.0900 ug/L	0.0900 ppb	01:11:35
3	Sc 361.383	850728.9	850728.9	99.804 %		01:12:53
3	Y 371.029	721907.6	721907.6	99.895 %		01:12:53
3	Ag 328.068†	302.4	-55.0	-0.2501 ug/L	-0.2501 ppb	01:12:53
3	As 188.979†	-18.4	5.2	2.2358 ug/L	2.2358 ppb	01:13:13
3	B 249.677†	-500.4	130.4	2.9058 ug/L	2.9058 ppb	01:13:13
3	Ba 233.527†	-39.9	-28.6	-0.2229 ug/L	-0.2229 ppb	01:13:13
3	Be 313.107†	-4505.8	70.7	0.0267 ug/L	0.0267 ppb	01:12:53
3	Cd 226.502†	-184.6	19.2	0.2117 ug/L	0.2117 ppb	01:13:13
3	Co 228.616†	-66.0	8.6	0.1754 ug/L	0.1754 ppb	01:13:13
3	Cr 267.716†	87.5	4.4	0.0495 ug/L	0.0495 ppb	01:13:13
3	Cu 324.752†	6286.8	-113.1	-0.3377 ug/L	-0.3377 ppb	01:12:53
3	Mn 257.610†	456.5	12.5	0.0142 ug/L	0.0142 ppb	01:13:13
3	Mo 202.031†	24.4	0.8	0.0550 ug/L	0.0550 ppb	01:13:13
3	Ni 231.604†	68.3	0.5	0.0126 ug/L	0.0126 ppb	01:13:13
3	P 214.914†	227.6	-1.9	-1.0697 ug/L	-1.0697 ppb	01:13:13
3	Pb 220.353†	-58.0	5.3	0.6455 ug/L	0.6455 ppb	01:13:13
3	S 181.975 Axial†	51.5	8.6	12.106 ug/L	12.106 ppb	01:13:13
3	Sb 206.836†	26.9	-1.0	-0.3141 ug/L	-0.3141 ppb	01:13:13
3	Se 196.026†	-29.8	2.2	1.4408 ug/L	1.4408 ppb	01:13:13
3	Si 251.611†	510.6	-38.9	-1.2393 ug/L	-1.2393 ppb	01:13:13
3	Sn 189.927†	12.3	4.7	0.8252 ug/L	0.8252 ppb	01:13:13
3	Ti 334.940†	-1429.3	-57.6	-0.0966 ug/L	-0.0966 ppb	01:12:53
3	Tl 190.801†	-38.3	-5.5	-1.6875 ug/L	-1.6875 ppb	01:13:13
3	U 409.014†	-1995.2	12.5	0.3680 ug/L	0.3680 ppb	01:12:53
3	V 292.402†	-1332.2	-25.1	-0.1713 ug/L	-0.1713 ppb	01:12:53
3	Zn 213.857†	633.2	14.2	0.1332 ug/L	0.1332 ppb	01:13:13
3	SiO2†	512.7	-58.0	-3.9599 ug/L	-3.9599 ppb	01:13:28

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	850254.4	99.749	%	0.4016				0.40%
Sc Radial	5136.8	102	%	1.2				1.20%
Y 371.029	721456.3	99.832	%	0.3012				0.30%
Y RADIAL	5526.7	101.8	%	0.93				0.91%
Ag 328.068†	-90.1	-0.4129	ug/L	0.20956	-0.4129	ppb	0.20956	50.76%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-15.2	-11.715	ug/L	7.0119	-11.715	ppb	7.0119	59.85%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	1.2	0.5142	ug/L	3.30113	0.5142	ppb	3.30113	641.99%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	151.1	3.3681	ug/L	0.41195	3.3681	ppb	0.41195	12.23%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-9.5	-0.0737	ug/L	0.12945	-0.0737	ppb	0.12945	175.72%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	50.4	0.0190	ug/L	0.01585	0.0190	ppb	0.01585	83.27%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-6.1	-9.7316	ug/L	3.48049	-9.7316	ppb	3.48049	35.76%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                15.6      0.1720 ug/L       0.05492      0.1720 ppb        0.05492  31.92%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                 2.4      0.0494 ug/L       0.11635      0.0494 ppb        0.11635 235.56%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                 5.4      0.0600 ug/L       0.13631      0.0600 ppb        0.13631 227.30%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               -52.2     -0.1565 ug/L       0.16902     -0.1565 ppb        0.16902 108.03%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          1.5      13.254 ug/L        2.3190      13.254 ppb         2.3190  17.50%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         108.8      19.951 ug/L        7.2371      19.951 ppb         7.2371  36.27%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             0.9      29.225 ug/L        7.8812      29.225 ppb         7.8812  26.97%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                 5.9      0.0069 ug/L       0.00694      0.0069 ppb        0.00694 101.11%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 1.9      0.1324 ug/L       0.14053      0.1324 ppb        0.14053 106.15%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†         -2.1     -0.6168 ug/L       2.79572     -0.6168 ppb        2.79572 453.25%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                -3.2     -0.0791 ug/L       0.11732     -0.0791 ppb        0.11732 148.29%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -7.4     -4.5221 ug/L       2.99940     -4.5221 ppb        2.99940  66.33%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -2.5     -0.3069 ug/L       1.05156     -0.3069 ppb        1.05156 342.70%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            4.2      5.9626 ug/L       5.34285      5.9626 ppb        5.34285  89.61%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 6.4      2.2074 ug/L       2.32868      2.2074 ppb        2.32868 105.49%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 0.9      0.5971 ug/L       0.73474      0.5971 ppb        0.73474 123.06%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†               -37.2     -1.1862 ug/L       0.12829     -1.1862 ppb        0.12829  10.82%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                -2.1     -0.3695 ug/L       1.09740     -0.3695 ppb        1.09740 297.02%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                11.2      0.0723 ug/L       0.08194      0.0723 ppb        0.08194 113.32%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               -43.5     -0.0744 ug/L       0.04012     -0.0744 ppb        0.04012  53.90%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                -5.7     -1.7474 ug/L       2.16194     -1.7474 ppb        2.16194 123.72%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 63.8      1.8808 ug/L       5.43897      1.8808 ppb        5.43897 289.18%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                -23.7     -0.1577 ug/L       0.04903     -0.1577 ppb        0.04903  31.10%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                 3.9      0.0360 ug/L       0.11225      0.0360 ppb        0.11225 311.83%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                     -40.5     -2.7672 ug/L       1.03341     -2.7672 ppb        1.03341  37.35%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 95
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 1/12/2010 02:12:15
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	5217.5	5217.5	104	%			02:14:08
1	Y RADIAL	5548.4	5548.4	102.2	%			02:14:08
1	Al 396.153Radial†	6559.5	6331.0	4859.5	ug/L	4859.5	ppb	02:14:08
1	Ca 317.933Radial†	3238.1	3105.2	4968.6	ug/L	4968.6	ppb	02:14:28
1	Fe 238.204 Radial†	616.8	586.4	5090.0	ug/L	5090.0	ppb	02:14:28
1	K 766.490 Radial†	30193.7	26548.9	4850.4	ug/L	4850.4	ppb	02:14:08
1	Mg 279.077 IEC†	156.9	149.5	4995.4	ug/L	4995.4	ppb	02:14:28
1	Na 589.592 Radial†	32991.0	33119.2	9916.3	ug/L	9916.3	ppb	02:14:08
1	Sr 421.552†	78341.8	75625.0	488.42	ug/L	488.42	ppb	02:14:08
1	Sc 361.383	870004.3	870004.3	102.07	%			02:15:26
1	Y 371.029	725150.7	725150.7	100.34	%			02:15:26
1	Ag 328.068†	114337.2	111665.3	517.35	ug/L	517.35	ppb	02:15:31
1	As 188.979†	1175.7	1175.6	511.55	ug/L	511.55	ppb	02:15:51
1	B 249.677†	22233.4	22415.3	497.73	ug/L	497.73	ppb	02:15:31
1	Ba 233.527†	66454.0	65120.6	509.68	ug/L	509.68	ppb	02:15:31
1	Be 313.107†	1344233.2	1321615.4	504.73	ug/L	504.73	ppb	02:15:26
1	Cd 226.502†	46689.4	45948.6	509.77	ug/L	509.77	ppb	02:15:31
1	Co 228.616†	25518.1	25076.3	513.38	ug/L	513.38	ppb	02:15:31
1	Cr 267.716†	46620.8	45594.1	510.36	ug/L	510.36	ppb	02:15:31
1	Cu 324.752†	178726.7	168697.6	504.43	ug/L	504.43	ppb	02:15:31
1	Mn 257.610†	462415.3	452612.5	502.13	ug/L	502.13	ppb	02:15:26
1	Mo 202.031†	7425.2	7251.2	512.89	ug/L	512.89	ppb	02:15:51
1	Ni 231.604†	20990.4	20497.6	510.08	ug/L	510.08	ppb	02:15:31
1	P 214.914†	4455.4	4135.3	2420.4	ug/L	2420.4	ppb	02:15:51
1	Pb 220.353†	4161.3	4140.5	508.66	ug/L	508.66	ppb	02:15:51
1	S 181.975 Axial†	781.9	723.0	1022.3	ug/L	1022.3	ppb	02:15:51
1	Sb 206.836†	1534.9	1475.9	523.89	ug/L	523.89	ppb	02:15:51
1	Se 196.026†	769.8	786.2	524.67	ug/L	524.67	ppb	02:15:51
1	Si 251.611†	83773.1	81527.3	2590.2	ug/L	2590.2	ppb	02:15:31
1	Sn 189.927†	2946.8	2879.5	510.93	ug/L	510.93	ppb	02:15:51
1	Ti 334.940†	320190.3	315085.1	507.38	ug/L	507.38	ppb	02:15:26
1	Tl 190.801†	1640.6	1640.2	506.28	ug/L	506.28	ppb	02:15:51
1	U 409.014†	16204.4	17888.1	525.97	ug/L	525.97	ppb	02:15:31
1	V 292.402†	74841.2	74636.3	516.70	ug/L	516.70	ppb	02:15:31
1	Zn 213.857†	55604.3	53858.8	504.98	ug/L	504.98	ppb	02:15:31
1	SiO2†	83440.0	81179.7	5525.1	ug/L	5525.1	ppb	02:16:59
2	Sc Radial	5194.5	5194.5	103	%			02:14:33
2	Y RADIAL	5534.8	5534.8	101.9	%			02:14:33
2	Al 396.153Radial†	6700.8	6496.1	4986.6	ug/L	4986.6	ppb	02:14:33
2	Ca 317.933Radial†	3181.4	3064.1	4902.9	ug/L	4902.9	ppb	02:14:53
2	Fe 238.204 Radial†	609.4	581.8	5050.6	ug/L	5050.6	ppb	02:14:53
2	K 766.490 Radial†	30908.5	27371.0	5000.9	ug/L	5000.9	ppb	02:14:33
2	Mg 279.077 IEC†	160.9	154.1	5148.6	ug/L	5148.6	ppb	02:14:53
2	Na 589.592 Radial†	33672.3	33920.7	10156	ug/L	10156	ppb	02:14:33
2	Sr 421.552†	80208.7	77769.7	502.27	ug/L	502.27	ppb	02:14:33
2	Sc 361.383	870542.7	870542.7	102.13	%			02:15:57
2	Y 371.029	726980.3	726980.3	100.60	%			02:15:57
2	Ag 328.068†	114273.0	111533.2	516.73	ug/L	516.73	ppb	02:16:02
2	As 188.979†	1177.7	1176.8	512.10	ug/L	512.10	ppb	02:16:22
2	B 249.677†	22239.6	22407.9	497.58	ug/L	497.58	ppb	02:16:02
2	Ba 233.527†	66481.7	65107.5	509.57	ug/L	509.57	ppb	02:16:02
2	Be 313.107†	1370431.8	1346453.3	514.21	ug/L	514.21	ppb	02:15:57
2	Cd 226.502†	46753.9	45983.5	510.16	ug/L	510.16	ppb	02:16:02
2	Co 228.616†	25466.6	25010.4	512.03	ug/L	512.03	ppb	02:16:02
2	Cr 267.716†	46675.8	45619.6	510.65	ug/L	510.65	ppb	02:16:02
2	Cu 324.752†	178036.8	167913.7	502.08	ug/L	502.08	ppb	02:16:02
2	Mn 257.610†	469977.1	459736.5	510.02	ug/L	510.02	ppb	02:15:57
2	Mo 202.031†	7479.0	7299.4	516.29	ug/L	516.29	ppb	02:16:22
2	Ni 231.604†	20970.6	20465.5	509.29	ug/L	509.29	ppb	02:16:02

2	P 214.914†	4474.8	4151.6	2431.0 ug/L	2431.0 ppb	02:16:22
2	Pb 220.353†	4197.0	4172.9	512.66 ug/L	512.66 ppb	02:16:22
2	S 181.975 Axial†	785.9	726.5	1027.2 ug/L	1027.2 ppb	02:16:22
2	Sb 206.836†	1539.8	1479.8	525.33 ug/L	525.33 ppb	02:16:22
2	Se 196.026†	777.9	793.7	529.41 ug/L	529.41 ppb	02:16:22
2	Si 251.611†	83533.7	81242.1	2581.1 ug/L	2581.1 ppb	02:16:02
2	Sn 189.927†	2976.5	2906.8	515.76 ug/L	515.76 ppb	02:16:22
2	Ti 334.940†	325361.3	319954.4	515.20 ug/L	515.20 ppb	02:15:57
2	Tl 190.801†	1671.7	1669.7	515.43 ug/L	515.43 ppb	02:16:22
2	U 409.014†	16083.0	17759.4	522.18 ug/L	522.18 ppb	02:16:02
2	V 292.402†	74826.0	74576.1	516.33 ug/L	516.33 ppb	02:16:02
2	Zn 213.857†	55571.8	53793.3	504.37 ug/L	504.37 ppb	02:16:02
2	SiO2†	82668.6	80373.9	5470.0 ug/L	5470.0 ppb	02:17:04
3	Sc Radial	4911.2	4911.2	97.5 %		02:14:58
3	Y RADIAL	5174.6	5174.6	95.31 %		02:14:58
3	Al 396.153Radial†	6727.0	6897.6	5295.4 ug/L	5295.4 ppb	02:14:58
3	Ca 317.933Radial†	3238.8	3300.8	5281.6 ug/L	5281.6 ppb	02:15:18
3	Fe 238.204 Radial†	616.5	623.2	5409.4 ug/L	5409.4 ppb	02:15:18
3	K 766.490 Radial†	30674.7	28859.4	5272.9 ug/L	5272.9 ppb	02:14:58
3	Mg 279.077 IEC†	162.8	165.0	5511.8 ug/L	5511.8 ppb	02:15:18
3	Na 589.592 Radial†	33811.6	35946.2	10763 ug/L	10763 ppb	02:14:58
3	Sr 421.552†	80177.5	82222.4	531.03 ug/L	531.03 ppb	02:14:58
3	Sc 361.383	831435.7	831435.7	97.541 %		02:16:28
3	Y 371.029	693115.3	693115.3	95.911 %		02:16:28
3	Ag 328.068†	113756.4	116266.4	538.71 ug/L	538.71 ppb	02:16:33
3	As 188.979†	1172.3	1225.5	533.34 ug/L	533.34 ppb	02:16:53
3	B 249.677†	22075.8	23264.3	516.57 ug/L	516.57 ppb	02:16:33
3	Ba 233.527†	66288.7	67971.4	531.99 ug/L	531.99 ppb	02:16:33
3	Be 313.107†	1363291.6	1402248.5	535.52 ug/L	535.52 ppb	02:16:28
3	Cd 226.502†	46573.1	47951.5	531.98 ug/L	531.98 ppb	02:16:33
3	Co 228.616†	25376.3	26090.8	534.14 ug/L	534.14 ppb	02:16:33
3	Cr 267.716†	46566.3	47657.0	533.46 ug/L	533.46 ppb	02:16:33
3	Cu 324.752†	177178.0	175232.8	523.98 ug/L	523.98 ppb	02:16:33
3	Mn 257.610†	469128.0	480510.9	533.07 ug/L	533.07 ppb	02:16:28
3	Mo 202.031†	7426.7	7590.3	536.87 ug/L	536.87 ppb	02:16:53
3	Ni 231.604†	20983.0	21444.0	533.64 ug/L	533.64 ppb	02:16:33
3	P 214.914†	4440.3	4322.4	2530.6 ug/L	2530.6 ppb	02:16:53
3	Pb 220.353†	4148.1	4316.0	530.27 ug/L	530.27 ppb	02:16:53
3	S 181.975 Axial†	786.5	763.3	1079.2 ug/L	1079.2 ppb	02:16:53
3	Sb 206.836†	1522.3	1532.8	544.24 ug/L	544.24 ppb	02:16:53
3	Se 196.026†	775.6	827.2	552.20 ug/L	552.20 ppb	02:16:53
3	Si 251.611†	83135.4	84680.9	2690.3 ug/L	2690.3 ppb	02:16:33
3	Sn 189.927†	2968.6	3035.8	538.67 ug/L	538.67 ppb	02:16:53
3	Ti 334.940†	324795.9	334359.3	538.41 ug/L	538.41 ppb	02:16:28
3	Tl 190.801†	1642.0	1716.2	529.84 ug/L	529.84 ppb	02:16:53
3	U 409.014†	15913.4	18326.2	538.81 ug/L	538.81 ppb	02:16:33
3	V 292.402†	74505.6	77693.7	537.87 ug/L	537.87 ppb	02:16:33
3	Zn 213.857†	55436.1	56213.6	527.04 ug/L	527.04 ppb	02:16:33
3	SiO2†	84519.2	86078.4	5858.7 ug/L	5858.7 ppb	02:17:09

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	857327.5	100.58	%	2.631				2.62%
Sc Radial	5107.8	101	%	3.4				3.34%
Y 371.029	715082.1	98.950	%	2.6355				2.66%
Y RADIAL	5419.3	99.81	%	3.904				3.91%
Ag 328.068†	113155.0	524.26	ug/L	12.513	524.26	ppb	12.513	2.39%
QC value within limits for Ag 328.068 Recovery = 104.85%								
Al 396.153Radial†	6574.9	5047.2	ug/L	224.18	5047.2	ppb	224.18	4.44%
QC value within limits for Al 396.153Radial Recovery = 100.94%								
As 188.979†	1192.6	519.00	ug/L	12.426	519.00	ppb	12.426	2.39%
QC value within limits for As 188.979 Recovery = 103.80%								
B 249.677†	22695.8	503.96	ug/L	10.920	503.96	ppb	10.920	2.17%
QC value within limits for B 249.677 Recovery = 100.79%								
Ba 233.527†	66066.5	517.08	ug/L	12.913	517.08	ppb	12.913	2.50%
QC value within limits for Ba 233.527 Recovery = 103.42%								
Be 313.107†	1356772.4	518.15	ug/L	15.771	518.15	ppb	15.771	3.04%
QC value within limits for Be 313.107 Recovery = 103.63%								
Ca 317.933Radial†	3156.7	5051.0	ug/L	202.40	5051.0	ppb	202.40	4.01%

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   QC value within limits for Ca 317.933Radial  Recovery = 101.02%
Cd 226.502†            46627.9      517.30 ug/L        12.711      517.30 ppb        12.711   2.46%
   QC value within limits for Cd 226.502  Recovery = 103.46%
Co 228.616†            25392.5      519.85 ug/L        12.392      519.85 ppb        12.392   2.38%
   QC value within limits for Co 228.616  Recovery = 103.97%
Cr 267.716†            46290.3      518.16 ug/L        13.252      518.16 ppb        13.252   2.56%
   QC value within limits for Cr 267.716  Recovery = 103.63%
Cu 324.752†           170614.7      510.16 ug/L        12.022      510.16 ppb        12.022   2.36%
   QC value within limits for Cu 324.752  Recovery = 102.03%
Fe 238.204 Radial†       597.1      5183.3 ug/L        196.78      5183.3 ppb        196.78   3.80%
   QC value within limits for Fe 238.204 Radial  Recovery = 103.67%
K 766.490 Radial†      27593.1      5041.4 ug/L        214.15      5041.4 ppb        214.15   4.25%
   QC value within limits for K 766.490 Radial  Recovery = 100.83%
Mg 279.077 IEC†          156.2      5218.6 ug/L        265.19      5218.6 ppb        265.19   5.08%
   QC value within limits for Mg 279.077 IEC  Recovery = 104.37%
Mn 257.610†           464286.6      515.08 ug/L        16.079      515.08 ppb        16.079   3.12%
   QC value within limits for Mn 257.610  Recovery = 103.02%
Mo 202.031†             7380.3      522.02 ug/L        12.979      522.02 ppb        12.979   2.49%
   QC value within limits for Mo 202.031  Recovery = 104.40%
Na 589.592 Radial†     34328.7       10278 ug/L         436.3       10278 ppb         436.3   4.24%
   QC value within limits for Na 589.592 Radial  Recovery = 102.78%
Ni 231.604†            20802.4      517.67 ug/L        13.835      517.67 ppb        13.835   2.67%
   QC value within limits for Ni 231.604  Recovery = 103.53%
P 214.914†              4203.1      2460.7 ug/L        60.80      2460.7 ppb         60.80   2.47%
   QC value within limits for P 214.914  Recovery = 98.43%
Pb 220.353†             4209.8      517.20 ug/L        11.495      517.20 ppb        11.495   2.22%
   QC value within limits for Pb 220.353  Recovery = 103.44%
S 181.975 Axial†         737.6      1042.9 ug/L        31.55      1042.9 ppb         31.55   3.03%
   QC value within limits for S 181.975 Axial  Recovery = 104.29%
Sb 206.836†             1496.1      531.15 ug/L        11.360      531.15 ppb        11.360   2.14%
   QC value within limits for Sb 206.836  Recovery = 106.23%
Se 196.026†              802.4      535.43 ug/L        14.717      535.43 ppb        14.717   2.75%
   QC value within limits for Se 196.026  Recovery = 107.09%
Si 251.611†            82483.5      2620.5 ug/L        60.62      2620.5 ppb         60.62   2.31%
   QC value within limits for Si 251.611  Recovery = 104.82%
Sn 189.927†             2940.7      521.79 ug/L        14.819      521.79 ppb        14.819   2.84%
   QC value within limits for Sn 189.927  Recovery = 104.36%
Sr 421.552†            78539.0      507.24 ug/L        21.735      507.24 ppb        21.735   4.28%
   QC value within limits for Sr 421.552  Recovery = 101.45%
Ti 334.940†           323132.9      520.33 ug/L        16.139      520.33 ppb        16.139   3.10%
   QC value within limits for Ti 334.940  Recovery = 104.07%
Tl 190.801†             1675.4      517.18 ug/L        11.880      517.18 ppb        11.880   2.30%
   QC value within limits for Tl 190.801  Recovery = 103.44%
U 409.014†             17991.2      528.99 ug/L         8.715      528.99 ppb         8.715   1.65%
   QC value within limits for U 409.014  Recovery = 105.80%
V 292.402†             75635.4      523.63 ug/L        12.330      523.63 ppb        12.330   2.35%
   QC value within limits for V 292.402  Recovery = 104.73%
Zn 213.857†            54621.9      512.13 ug/L        12.918      512.13 ppb        12.918   2.52%
   QC value within limits for Zn 213.857  Recovery = 102.43%
SiO2†                  82544.0      5617.9 ug/L        210.31      5617.9 ppb        210.31   3.74%
   QC value within limits for SiO2  Recovery = 105.06%
All analyte(s) passed QC.
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Sequence No.: 96
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 1/12/2010 02:19:19
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5083.1	5083.1	101	%			02:21:11
1	Y RADIAL	5456.5	5456.5	100.5	%			02:21:11
1	Al 396.153Radial†	-1.8	-1.2	-0.8923	ug/L	-0.8923	ppb	02:21:11
1	Ca 317.933Radial†	22.4	2.4	3.9101	ug/L	3.9101	ppb	02:21:31
1	Fe 238.204 Radial†	8.7	-0.2	-1.9018	ug/L	-1.9018	ppb	02:21:31
1	K 766.490 Radial†	2689.4	74.0	13.560	ug/L	13.560	ppb	02:21:11
1	Mg 279.077 IEC†	-1.2	-3.1	-104.58	ug/L	-104.58	ppb	02:21:31
1	Na 589.592 Radial†	-1285.9	6.6	1.9794	ug/L	1.9794	ppb	02:21:11
1	Sr 421.552†	17.3	36.7	0.2367	ug/L	0.2367	ppb	02:21:11
1	Sc 361.383	864412.7	864412.7	101.41	%			02:22:28
1	Y 371.029	732531.7	732531.7	101.36	%			02:22:28
1	Ag 328.068†	403.9	40.3	0.1765	ug/L	0.1765	ppb	02:22:33
1	As 188.979†	-20.7	3.2	1.3721	ug/L	1.3721	ppb	02:22:53
1	B 249.677†	-475.5	162.9	3.6319	ug/L	3.6319	ppb	02:22:53
1	Ba 233.527†	-14.0	-2.4	-0.0202	ug/L	-0.0202	ppb	02:22:53
1	Be 313.107†	-4469.5	178.0	0.0681	ug/L	0.0681	ppb	02:22:33
1	Cd 226.502†	-191.2	15.6	0.1748	ug/L	0.1748	ppb	02:22:53
1	Co 228.616†	-69.5	6.2	0.1259	ug/L	0.1259	ppb	02:22:53
1	Cr 267.716†	95.0	10.4	0.1127	ug/L	0.1127	ppb	02:22:53
1	Cu 324.752†	6260.9	-238.4	-0.7171	ug/L	-0.7171	ppb	02:22:33
1	Mn 257.610†	449.0	-2.1	0.0017	ug/L	0.0017	ppb	02:22:53
1	Mo 202.031†	23.8	-0.3	-0.0183	ug/L	-0.0183	ppb	02:22:53
1	Ni 231.604†	78.5	9.4	0.2342	ug/L	0.2342	ppb	02:22:53
1	P 214.914†	218.6	-14.4	-8.6190	ug/L	-8.6190	ppb	02:22:53
1	Pb 220.353†	-51.5	12.6	1.5434	ug/L	1.5434	ppb	02:22:53
1	S 181.975 Axial†	50.9	7.2	10.137	ug/L	10.137	ppb	02:22:53
1	Sb 206.836†	44.4	15.8	5.4221	ug/L	5.4221	ppb	02:22:53
1	Se 196.026†	-34.4	-1.9	-1.2107	ug/L	-1.2107	ppb	02:22:53
1	Si 251.611†	507.7	-49.8	-1.5855	ug/L	-1.5855	ppb	02:22:53
1	Sn 189.927†	7.9	0.1	0.0250	ug/L	0.0250	ppb	02:22:53
1	Ti 334.940†	-1316.6	76.2	0.1284	ug/L	0.1284	ppb	02:22:33
1	Tl 190.801†	-34.6	-1.3	-0.3832	ug/L	-0.3832	ppb	02:22:53
1	U 409.014†	-1779.3	257.1	7.5830	ug/L	7.5830	ppb	02:22:28
1	V 292.402†	-1415.6	-86.2	-0.5760	ug/L	-0.5760	ppb	02:22:33
1	Zn 213.857†	620.0	-8.8	-0.0837	ug/L	-0.0837	ppb	02:22:53
1	SiO2†	531.5	-47.6	-3.2465	ug/L	-3.2465	ppb	02:23:59
2	Sc Radial	4963.2	4963.2	98.6	%			02:21:36
2	Y RADIAL	5348.1	5348.1	98.50	%			02:21:36
2	Al 396.153Radial†	-22.7	-22.4	-17.290	ug/L	-17.290	ppb	02:21:36
2	Ca 317.933Radial†	13.3	-6.3	-10.104	ug/L	-10.104	ppb	02:21:57
2	Fe 238.204 Radial†	9.3	0.6	4.9482	ug/L	4.9482	ppb	02:21:57
2	K 766.490 Radial†	2746.9	196.7	36.073	ug/L	36.073	ppb	02:21:36
2	Mg 279.077 IEC†	1.7	-0.1	-4.9519	ug/L	-4.9519	ppb	02:21:57
2	Na 589.592 Radial†	-1288.3	-26.6	-7.9575	ug/L	-7.9575	ppb	02:21:36
2	Sr 421.552†	-3.4	16.1	0.1038	ug/L	0.1038	ppb	02:21:36
2	Sc 361.383	847934.4	847934.4	99.476	%			02:22:58
2	Y 371.029	719044.9	719044.9	99.499	%			02:22:58
2	Ag 328.068†	275.9	-80.6	-0.3736	ug/L	-0.3736	ppb	02:23:04
2	As 188.979†	-23.5	0.0	0.0053	ug/L	0.0053	ppb	02:23:24
2	B 249.677†	-500.8	128.4	2.8634	ug/L	2.8634	ppb	02:23:24
2	Ba 233.527†	-1.9	9.5	0.0726	ug/L	0.0726	ppb	02:23:24
2	Be 313.107†	-4554.8	6.6	0.0027	ug/L	0.0027	ppb	02:23:04
2	Cd 226.502†	-177.6	25.6	0.2840	ug/L	0.2840	ppb	02:23:24
2	Co 228.616†	-84.7	-10.5	-0.2151	ug/L	-0.2151	ppb	02:23:24
2	Cr 267.716†	88.0	5.2	0.0567	ug/L	0.0567	ppb	02:23:24
2	Cu 324.752†	6406.0	27.5	0.0813	ug/L	0.0813	ppb	02:23:04
2	Mn 257.610†	443.6	1.1	0.0020	ug/L	0.0020	ppb	02:23:24
2	Mo 202.031†	24.4	0.8	0.0579	ug/L	0.0579	ppb	02:23:24
2	Ni 231.604†	61.0	-6.6	-0.1649	ug/L	-0.1649	ppb	02:23:24

2	P 214.914†	221.0	-7.7	-4.7313	ug/L	-4.7313 ppb	02:23:24
2	Pb 220.353†	-42.5	20.7	2.5273	ug/L	2.5273 ppb	02:23:24
2	S 181.975 Axial†	48.4	5.6	7.9552	ug/L	7.9552 ppb	02:23:24
2	Sb 206.836†	46.7	19.0	6.5426	ug/L	6.5426 ppb	02:23:24
2	Se 196.026†	-21.7	10.2	6.5737	ug/L	6.5737 ppb	02:23:24
2	Si 251.611†	492.4	-55.5	-1.7668	ug/L	-1.7668 ppb	02:23:24
2	Sn 189.927†	14.9	7.3	1.2914	ug/L	1.2914 ppb	02:23:24
2	Ti 334.940†	-1314.5	53.1	0.0840	ug/L	0.0840 ppb	02:23:04
2	Tl 190.801†	-39.3	-6.7	-2.0436	ug/L	-2.0436 ppb	02:23:24
2	U 409.014†	-1933.1	68.4	2.0161	ug/L	2.0161 ppb	02:22:58
2	V 292.402†	-1393.0	-90.6	-0.6148	ug/L	-0.6148 ppb	02:23:04
2	Zn 213.857†	634.6	17.7	0.1674	ug/L	0.1674 ppb	02:23:24
2	SiO2†	526.7	-42.3	-2.8847	ug/L	-2.8847 ppb	02:24:04
3	Sc Radial	5196.4	5196.4	103	%		02:22:02
3	Y RADIAL	5564.7	5564.7	102.5	%		02:22:02
3	Al 396.153Radial†	-16.5	-15.3	-11.778	ug/L	-11.778 ppb	02:22:02
3	Ca 317.933Radial†	18.4	-2.0	-3.1831	ug/L	-3.1831 ppb	02:22:22
3	Fe 238.204 Radial†	7.6	-1.5	-12.841	ug/L	-12.841 ppb	02:22:22
3	K 766.490 Radial†	2747.7	72.4	13.271	ug/L	13.271 ppb	02:22:02
3	Mg 279.077 IEC†	1.9	-0.0	-0.6583	ug/L	-0.6583 ppb	02:22:22
3	Na 589.592 Radial†	-1281.5	38.7	11.593	ug/L	11.593 ppb	02:22:02
3	Sr 421.552†	-15.7	4.3	0.0278	ug/L	0.0278 ppb	02:22:02
3	Sc 361.383	867605.1	867605.1	101.78	%		02:23:29
3	Y 371.029	734643.5	734643.5	101.66	%		02:23:29
3	Ag 328.068†	364.4	-0.0	-0.0066	ug/L	-0.0066 ppb	02:23:34
3	As 188.979†	-21.8	2.2	0.9467	ug/L	0.9467 ppb	02:23:54
3	B 249.677†	-497.7	142.9	3.1875	ug/L	3.1875 ppb	02:23:54
3	Ba 233.527†	-18.6	-6.9	-0.0539	ug/L	-0.0539 ppb	02:23:54
3	Be 313.107†	-4545.5	119.6	0.0460	ug/L	0.0460 ppb	02:23:34
3	Cd 226.502†	-191.0	16.4	0.1843	ug/L	0.1843 ppb	02:23:54
3	Co 228.616†	-84.0	-7.8	-0.1610	ug/L	-0.1610 ppb	02:23:54
3	Cr 267.716†	60.7	-23.6	-0.2648	ug/L	-0.2648 ppb	02:23:54
3	Cu 324.752†	6397.7	-126.6	-0.3813	ug/L	-0.3813 ppb	02:23:34
3	Mn 257.610†	444.1	-8.5	-0.0109	ug/L	-0.0109 ppb	02:23:54
3	Mo 202.031†	19.2	-4.9	-0.3447	ug/L	-0.3447 ppb	02:23:54
3	Ni 231.604†	56.9	-12.1	-0.3004	ug/L	-0.3004 ppb	02:23:54
3	P 214.914†	219.7	-14.0	-8.4776	ug/L	-8.4776 ppb	02:23:54
3	Pb 220.353†	-68.4	-3.8	-0.4663	ug/L	-0.4663 ppb	02:23:54
3	S 181.975 Axial†	47.8	4.0	5.6180	ug/L	5.6180 ppb	02:23:54
3	Sb 206.836†	33.1	4.6	1.5856	ug/L	1.5856 ppb	02:23:54
3	Se 196.026†	-28.1	4.4	2.8237	ug/L	2.8237 ppb	02:23:54
3	Si 251.611†	508.0	-51.3	-1.6308	ug/L	-1.6308 ppb	02:23:54
3	Sn 189.927†	11.8	3.9	0.6988	ug/L	0.6988 ppb	02:23:54
3	Ti 334.940†	-1283.1	113.9	0.1817	ug/L	0.1817 ppb	02:23:34
3	Tl 190.801†	-43.0	-9.4	-2.8939	ug/L	-2.8939 ppb	02:23:54
3	U 409.014†	-1926.8	118.6	3.5004	ug/L	3.5004 ppb	02:23:29
3	V 292.402†	-1314.6	18.1	0.1272	ug/L	0.1272 ppb	02:23:34
3	Zn 213.857†	613.9	-17.1	-0.1585	ug/L	-0.1585 ppb	02:23:54
3	SiO2†	507.6	-73.0	-4.9717	ug/L	-4.9717 ppb	02:24:09

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	859984.0	100.89	%	1.238				1.23%
Sc Radial	5080.9	101	%	2.3				2.30%
Y 371.029	728740.0	100.84	%	1.171				1.16%
Y RADIAL	5456.4	100.5	%	2.00				1.99%
Ag 328.068†	-13.5	-0.0679	ug/L	0.28012	-0.0679	ppb	0.28012	412.50%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-13.0	-9.9868	ug/L	8.34448	-9.9868	ppb	8.34448	83.55%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	1.8	0.7747	ug/L	0.69945	0.7747	ppb	0.69945	90.29%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	144.8	3.2276	ug/L	0.38583	3.2276	ppb	0.38583	11.95%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	0.1	-0.0005	ug/L	0.06553	-0.0005	ppb	0.06553	>999.9%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	101.4	0.0389	ug/L	0.03326	0.0389	ppb	0.03326	85.43%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-2.0	-3.1258	ug/L	7.00741	-3.1258	ppb	7.00741	224.18%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                19.2      0.2144 ug/L       0.06046      0.2144 ppb        0.06046  28.20%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                -4.1     -0.0834 ug/L       0.18328     -0.0834 ppb        0.18328 219.65%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                -2.6     -0.0318 ug/L       0.20371     -0.0318 ppb        0.20371 639.92%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -112.5     -0.3390 ug/L       0.40088     -0.3390 ppb        0.40088 118.25%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -0.4     -3.2649 ug/L       8.97274     -3.2649 ppb        8.97274 274.82%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         114.3      20.968 ug/L       13.0823      20.968 ppb        13.0823  62.39%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -1.1     -36.730 ug/L       58.7988     -36.730 ppb        58.7988 160.08%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                -3.2     -0.0024 ug/L       0.00734     -0.0024 ppb        0.00734 308.89%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                -1.4     -0.1017 ug/L       0.21389     -0.1017 ppb        0.21389 210.32%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†          6.3      1.8715 ug/L       9.77557      1.8715 ppb        9.77557 522.33%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                -3.1     -0.0770 ug/L       0.27791     -0.0770 ppb        0.27791 360.75%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -12.0     -7.2760 ug/L       2.20486     -7.2760 ppb        2.20486  30.30%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                 9.8      1.2015 ug/L       1.52582      1.2015 ppb        1.52582 127.00%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            5.6      7.9035 ug/L       2.26015      7.9035 ppb        2.26015  28.60%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                13.2      4.5168 ug/L       2.59954      4.5168 ppb        2.59954  57.55%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 4.3      2.7289 ug/L       3.89304      2.7289 ppb        3.89304 142.66%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†               -52.2     -1.6610 ug/L       0.09436     -1.6610 ppb        0.09436   5.68%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 3.8      0.6717 ug/L       0.63363      0.6717 ppb        0.63363  94.33%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                19.0      0.1228 ug/L       0.10573      0.1228 ppb        0.10573  86.11%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                81.1      0.1314 ug/L       0.04894      0.1314 ppb        0.04894  37.26%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                -5.8     -1.7736 ug/L       1.27695     -1.7736 ppb        1.27695  72.00%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                148.0      4.3665 ug/L       2.88273      4.3665 ppb        2.88273  66.02%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                -52.9     -0.3546 ug/L       0.41763     -0.3546 ppb        0.41763 117.79%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                -2.8     -0.0249 ug/L       0.17071     -0.0249 ppb        0.17071 685.27%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                     -54.3     -3.7010 ug/L       1.11525     -3.7010 ppb        1.11525  30.13%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 100
Sample ID: 243549002|936808|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 104
Date Collected: 1/12/2010 02:47:41
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 243549002|936808|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5696.3	5696.3	113	%			02:49:34
1	Y RADIAL	7332.1	7332.1	135.0	%			02:49:34
1	Al 396.153Radial†	50599.5	44728.2	34507	ug/L	34507	ppb	02:49:34
1	Ca 317.933Radial†	5136.9	4521.0	7234.0	ug/L	7234.0	ppb	02:49:34
1	Fe 238.204 Radial†	9766.0	8623.8	74633	ug/L	74633	ppb	02:49:34
1	K 766.490 Radial†	34972.0	28323.4	5167.7	ug/L	5167.7	ppb	02:49:34
1	Mg 279.077 IEC†	231.2	202.5	6687.5	ug/L	6687.5	ppb	02:49:54
1	Na 589.592 Radial†	4469.7	5231.5	1566.4	ug/L	1566.4	ppb	02:49:34
1	Sr 421.552†	10909.5	9663.0	62.359	ug/L	62.359	ppb	02:49:34
1	Sc 361.383	888786.9	888786.9	104.27	%			02:50:52
1	Y 371.029	908533.0	908533.0	125.72	%			02:50:52
1	Ag 328.068†	-5258.1	-5400.8	-0.1608	ug/L	-0.1608	ppb	02:50:57
1	As 188.979†	-61.2	-35.1	13.207	ug/L	13.207	ppb	02:51:17
1	B 249.677†	313.2	932.2	13.134	ug/L	13.134	ppb	02:50:57
1	Ba 233.527†	57921.3	55561.3	436.72	ug/L	436.72	ppb	02:50:57
1	Be 313.107†	-11852.8	-6782.1	3.9905	ug/L	3.9905	ppb	02:50:57
1	Cd 226.502†	598.8	778.4	0.8990	ug/L	0.8990	ppb	02:51:17
1	Co 228.616†	1479.8	1493.9	23.604	ug/L	23.604	ppb	02:51:17
1	Cr 267.716†	10486.9	9974.3	113.23	ug/L	113.23	ppb	02:50:57
1	Cu 324.752†	16416.2	9331.9	32.000	ug/L	32.000	ppb	02:50:57
1	Mn 257.610†	1935705.0	1856008.1	2065.6	ug/L	2065.6	ppb	02:50:52
1	Mo 202.031†	128.1	99.1	12.195	ug/L	12.195	ppb	02:51:17
1	Ni 231.604†	1466.0	1338.0	33.297	ug/L	33.297	ppb	02:51:17
1	P 214.914†	1708.9	1409.0	803.86	ug/L	803.86	ppb	02:51:17
1	Pb 220.353†	539.3	580.6	71.427	ug/L	71.427	ppb	02:51:17
1	S 181.975 Axial†	356.6	299.0	416.73	ug/L	416.73	ppb	02:51:17
1	Sb 206.836†	53.2	23.1	-2.3110	ug/L	-2.3110	ppb	02:51:17
1	Se 196.026†	-373.8	-326.4	29.540	ug/L	29.540	ppb	02:51:17
1	Si 251.611†	868629.7	832515.6	26514	ug/L	26514	ppb	02:50:52
1	Sn 189.927†	-49.7	-55.4	-7.5169	ug/L	-7.5169	ppb	02:51:17
1	Ti 334.940†	1872827.9	1797524.6	2896.4	ug/L	2896.4	ppb	02:50:52
1	Tl 190.801†	-162.6	-123.1	-8.6072	ug/L	-8.6072	ppb	02:51:17
1	U 409.014†	-11328.7	-8853.3	-269.92	ug/L	-269.92	ppb	02:50:52
1	V 292.402†	16100.4	16751.0	99.568	ug/L	99.568	ppb	02:50:57
1	Zn 213.857†	28240.5	26464.0	242.81	ug/L	242.81	ppb	02:50:57
1	SiO2†	866770.4	830711.2	56681	ug/L	56681	ppb	02:52:25
2	Sc Radial	5232.6	5232.6	104	%			02:49:59
2	Y RADIAL	6814.3	6814.3	125.5	%			02:49:59
2	Al 396.153Radial†	50121.0	48232.0	37210	ug/L	37210	ppb	02:49:59
2	Ca 317.933Radial†	5082.2	4870.8	7793.7	ug/L	7793.7	ppb	02:49:59
2	Fe 238.204 Radial†	9692.9	9318.6	80645	ug/L	80645	ppb	02:49:59
2	K 766.490 Radial†	34420.9	30533.0	5572.5	ug/L	5572.5	ppb	02:49:59
2	Mg 279.077 IEC†	232.2	221.6	7318.5	ug/L	7318.5	ppb	02:50:19
2	Na 589.592 Radial†	4355.5	5471.7	1638.3	ug/L	1638.3	ppb	02:49:59
2	Sr 421.552†	10793.3	10405.9	67.152	ug/L	67.152	ppb	02:49:59
2	Sc 361.383	875079.9	875079.9	102.66	%			02:51:23
2	Y 371.029	894781.2	894781.2	123.82	%			02:51:23
2	Ag 328.068†	-5352.3	-5571.6	0.9994	ug/L	0.9994	ppb	02:51:28
2	As 188.979†	-68.1	-42.7	11.128	ug/L	11.128	ppb	02:51:48
2	B 249.677†	228.6	854.6	10.794	ug/L	10.794	ppb	02:51:28
2	Ba 233.527†	58544.2	57038.1	448.47	ug/L	448.47	ppb	02:51:28
2	Be 313.107†	-11947.6	-7052.5	3.9089	ug/L	3.9089	ppb	02:51:28
2	Cd 226.502†	616.1	804.2	0.5660	ug/L	0.5660	ppb	02:51:48
2	Co 228.616†	1473.8	1510.3	23.838	ug/L	23.838	ppb	02:51:48
2	Cr 267.716†	10559.2	10202.2	115.90	ug/L	115.90	ppb	02:51:28
2	Cu 324.752†	16474.1	9634.9	33.223	ug/L	33.223	ppb	02:51:28
2	Mn 257.610†	1912558.9	1862541.0	2073.5	ug/L	2073.5	ppb	02:51:23
2	Mo 202.031†	135.1	107.9	13.236	ug/L	13.236	ppb	02:51:48
2	Ni 231.604†	1519.8	1412.4	35.151	ug/L	35.151	ppb	02:51:48

2	P 214.914†	1732.8	1458.0	829.46	ug/L	829.46 ppb	02:51:48
2	Pb 220.353†	543.6	592.8	72.940	ug/L	72.940 ppb	02:51:48
2	S 181.975 Axial†	362.4	310.1	431.80	ug/L	431.80 ppb	02:51:48
2	Sb 206.836†	57.6	28.2	-0.6182	ug/L	-0.6182 ppb	02:51:48
2	Se 196.026†	-391.2	-349.0	34.314	ug/L	34.314 ppb	02:51:48
2	Si 251.611†	858469.2	835667.4	26615	ug/L	26615 ppb	02:51:23
2	Sn 189.927†	-37.4	-44.1	-5.3396	ug/L	-5.3396 ppb	02:51:48
2	Ti 334.940†	1849937.3	1803361.8	2905.8	ug/L	2905.8 ppb	02:51:23
2	Tl 190.801†	-159.9	-122.9	-8.4628	ug/L	-8.4628 ppb	02:51:48
2	U 409.014†	-11089.3	-8790.2	-268.76	ug/L	-268.76 ppb	02:51:23
2	V 292.402†	16211.9	17101.4	101.06	ug/L	101.06 ppb	02:51:28
2	Zn 213.857†	28414.3	27057.5	247.83	ug/L	247.83 ppb	02:51:28
2	SiO2†	862731.8	839798.3	57301	ug/L	57301 ppb	02:52:31
3	Sc Radial	5338.1	5338.1	106	%		02:50:24
3	Y RADIAL	6944.5	6944.5	127.9	%		02:50:24
3	Al 396.153Radial†	52542.7	49563.1	38237	ug/L	38237 ppb	02:50:24
3	Ca 317.933Radial†	5326.2	5004.3	8007.4	ug/L	8007.4 ppb	02:50:24
3	Fe 238.204 Radial†	10143.0	9558.8	82724	ug/L	82724 ppb	02:50:24
3	K 766.490 Radial†	35703.3	31088.0	5674.2	ug/L	5674.2 ppb	02:50:24
3	Mg 279.077 IEC†	231.9	216.9	7160.1	ug/L	7160.1 ppb	02:50:44
3	Na 589.592 Radial†	4739.6	5751.2	1722.0	ug/L	1722.0 ppb	02:50:24
3	Sr 421.552†	11286.6	10665.9	68.831	ug/L	68.831 ppb	02:50:24
3	Sc 361.383	881451.2	881451.2	103.41	%		02:51:54
3	Y 371.029	902227.3	902227.3	124.85	%		02:51:54
3	Ag 328.068†	-5347.6	-5529.4	1.8646	ug/L	1.8646 ppb	02:51:59
3	As 188.979†	-62.9	-37.2	13.919	ug/L	13.919 ppb	02:52:19
3	B 249.677†	274.2	897.0	11.530	ug/L	11.530 ppb	02:51:59
3	Ba 233.527†	58721.1	56797.1	446.67	ug/L	446.67 ppb	02:51:59
3	Be 313.107†	-11853.3	-6877.3	3.9726	ug/L	3.9726 ppb	02:51:59
3	Cd 226.502†	593.6	778.2	0.0618	ug/L	0.0618 ppb	02:52:19
3	Co 228.616†	1470.5	1496.7	23.533	ug/L	23.533 ppb	02:52:19
3	Cr 267.716†	10553.7	10122.6	115.05	ug/L	115.05 ppb	02:51:59
3	Cu 324.752†	16479.5	9524.2	33.001	ug/L	33.001 ppb	02:51:59
3	Mn 257.610†	1924372.7	1860499.2	2071.5	ug/L	2071.5 ppb	02:51:54
3	Mo 202.031†	137.0	108.8	13.444	ug/L	13.444 ppb	02:52:19
3	Ni 231.604†	1512.3	1394.5	34.705	ug/L	34.705 ppb	02:52:19
3	P 214.914†	1716.6	1430.2	811.09	ug/L	811.09 ppb	02:52:19
3	Pb 220.353†	518.1	564.4	69.477	ug/L	69.477 ppb	02:52:19
3	S 181.975 Axial†	354.6	299.9	417.30	ug/L	417.30 ppb	02:52:19
3	Sb 206.836†	56.2	26.5	-1.2723	ug/L	-1.2723 ppb	02:52:19
3	Se 196.026†	-377.0	-332.5	51.627	ug/L	51.627 ppb	02:52:19
3	Si 251.611†	864031.5	835002.0	26593	ug/L	26593 ppb	02:51:54
3	Sn 189.927†	-52.4	-58.3	-7.7989	ug/L	-7.7989 ppb	02:52:19
3	Ti 334.940†	1862545.1	1802528.9	2904.5	ug/L	2904.5 ppb	02:51:54
3	Tl 190.801†	-183.4	-144.5	-15.090	ug/L	-15.090 ppb	02:52:19
3	U 409.014†	-11136.7	-8758.0	-268.04	ug/L	-268.04 ppb	02:51:54
3	V 292.402†	16371.2	17141.3	101.01	ug/L	101.01 ppb	02:51:59
3	Zn 213.857†	28628.5	27064.7	247.70	ug/L	247.70 ppb	02:51:59
3	SiO2†	856699.0	827890.0	56488	ug/L	56488 ppb	02:52:37

Mean Data: 243549002|936808|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	881772.7	103.45	%	0.805				0.78%
Sc Radial	5422.3	108	%	4.8				4.48%
Y 371.029	901847.1	124.79	%	0.953				0.76%
Y RADIAL	7030.3	129.5	%	4.96				3.83%
Ag 328.068†	-5500.6	0.9010	ug/L	1.01626	0.9010	ppb	1.01626	112.79%
Al 396.153Radial†	47507.8	36651	ug/L	1926.8	36651	ppb	1926.8	5.26%
As 188.979†	-38.3	12.751	ug/L	1.4504	12.751	ppb	1.4504	11.37%
B 249.677†	894.6	11.820	ug/L	1.1968	11.820	ppb	1.1968	10.13%
Ba 233.527†	56465.5	443.96	ug/L	6.329	443.96	ppb	6.329	1.43%
Be 313.107†	-6904.0	3.9573	ug/L	0.04293	3.9573	ppb	0.04293	1.08%
Ca 317.933Radial†	4798.7	7678.4	ug/L	399.38	7678.4	ppb	399.38	5.20%
Cd 226.502†	786.9	0.5089	ug/L	0.42150	0.5089	ppb	0.42150	82.82%
Co 228.616†	1500.3	23.658	ug/L	0.1593	23.658	ppb	0.1593	0.67%
Cr 267.716†	10099.7	114.73	ug/L	1.363	114.73	ppb	1.363	1.19%
Cu 324.752†	9497.0	32.741	ug/L	0.6518	32.741	ppb	0.6518	1.99%
Fe 238.204 Radial†	9167.1	79334	ug/L	4202.1	79334	ppb	4202.1	5.30%
K 766.490 Radial†	29981.5	5471.4	ug/L	267.96	5471.4	ppb	267.96	4.90%

Mg 279.077 IEC†	213.6	7055.4	ug/L	328.30	7055.4	ppb	328.30	4.65%
Mn 257.610†	1859682.7	2070.2	ug/L	4.10	2070.2	ppb	4.10	0.20%
Mo 202.031†	105.3	12.958	ug/L	0.6696	12.958	ppb	0.6696	5.17%
Na 589.592 Radial†	5484.8	1642.2	ug/L	77.88	1642.2	ppb	77.88	4.74%
Ni 231.604†	1381.6	34.385	ug/L	0.9677	34.385	ppb	0.9677	2.81%
P 214.914†	1432.4	814.80	ug/L	13.196	814.80	ppb	13.196	1.62%
Pb 220.353†	579.2	71.281	ug/L	1.7360	71.281	ppb	1.7360	2.44%
S 181.975 Axial†	303.0	421.94	ug/L	8.543	421.94	ppb	8.543	2.02%
Sb 206.836†	25.9	-1.4005	ug/L	0.85363	-1.4005	ppb	0.85363	60.95%
Se 196.026†	-336.0	38.494	ug/L	11.6217	38.494	ppb	11.6217	30.19%
Si 251.611†	834395.0	26574	ug/L	52.9	26574	ppb	52.9	0.20%
Sn 189.927†	-52.6	-6.8851	ug/L	1.34589	-6.8851	ppb	1.34589	19.55%
Sr 421.552†	10244.9	66.114	ug/L	3.3587	66.114	ppb	3.3587	5.08%
Ti 334.940†	1801138.5	2902.2	ug/L	5.10	2902.2	ppb	5.10	0.18%
Tl 190.801†	-130.2	-10.720	ug/L	3.7849	-10.720	ppb	3.7849	35.31%
U 409.014†	-8800.5	-268.91	ug/L	0.951	-268.91	ppb	0.951	0.35%
V 292.402†	16997.9	100.55	ug/L	0.847	100.55	ppb	0.847	0.84%
Zn 213.857†	26862.1	246.11	ug/L	2.860	246.11	ppb	2.860	1.16%
SiO2†	832799.8	56823	ug/L	424.6	56823	ppb	424.6	0.75%

Sequence No.: 101
Sample ID: 1202004428|936808|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 105
Date Collected: 1/12/2010 02:54:49
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202004428|936808|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5237.4	5237.4	104	%			02:56:42
1	Y RADIAL	6924.7	6924.7	127.5	%			02:56:42
1	Al 396.153Radial†	48337.9	46473.6	35853	ug/L	35853	ppb	02:56:42
1	Ca 317.933Radial†	5382.7	5155.3	8248.9	ug/L	8248.9	ppb	02:56:42
1	Fe 238.204 Radial†	9157.2	8795.0	76114	ug/L	76114	ppb	02:56:42
1	K 766.490 Radial†	31005.4	27219.1	4961.9	ug/L	4961.9	ppb	02:56:42
1	Mg 279.077 IEC†	212.8	202.6	6691.0	ug/L	6691.0	ppb	02:57:02
1	Na 589.592 Radial†	4224.4	5341.8	1599.4	ug/L	1599.4	ppb	02:56:42
1	Sr 421.552†	9768.2	9410.8	60.722	ug/L	60.722	ppb	02:56:42
1	Sc 361.383	875178.5	875178.5	102.67	%			02:58:00
1	Y 371.029	907660.0	907660.0	125.60	%			02:58:00
1	Ag 328.068†	-4708.3	-4943.8	2.3156	ug/L	2.3156	ppb	02:58:05
1	As 188.979†	-27.4	-3.1	23.885	ug/L	23.885	ppb	02:58:25
1	B 249.677†	179.3	806.5	10.213	ug/L	10.213	ppb	02:58:05
1	Ba 233.527†	51151.9	49831.8	391.99	ug/L	391.99	ppb	02:58:05
1	Be 313.107†	-7631.5	-2847.5	3.8278	ug/L	3.8278	ppb	02:58:05
1	Cd 226.502†	515.2	705.9	-0.0614	ug/L	-0.0614	ppb	02:58:25
1	Co 228.616†	919.7	970.4	14.383	ug/L	14.383	ppb	02:58:25
1	Cr 267.716†	10595.2	10236.1	116.14	ug/L	116.14	ppb	02:58:05
1	Cu 324.752†	16116.0	9284.3	31.939	ug/L	31.939	ppb	02:58:05
1	Mn 257.610†	2152063.0	2095601.1	2331.4	ug/L	2331.4	ppb	02:58:00
1	Mo 202.031†	138.9	111.6	13.188	ug/L	13.188	ppb	02:58:25
1	Ni 231.604†	1366.5	1262.9	31.435	ug/L	31.435	ppb	02:58:25
1	P 214.914†	1243.0	980.7	541.17	ug/L	541.17	ppb	02:58:25
1	Pb 220.353†	469.9	521.1	64.306	ug/L	64.306	ppb	02:58:25
1	S 181.975 Axial†	243.5	194.1	267.99	ug/L	267.99	ppb	02:58:25
1	Sb 206.836†	43.4	14.3	-2.9726	ug/L	-2.9726	ppb	02:58:25
1	Se 196.026†	-353.8	-312.5	43.304	ug/L	43.304	ppb	02:58:25
1	Si 251.611†	867997.0	844853.1	26907	ug/L	26907	ppb	02:58:00
1	Sn 189.927†	-46.1	-52.5	-6.8477	ug/L	-6.8477	ppb	02:58:25
1	Ti 334.940†	1377639.5	1343154.8	2164.4	ug/L	2164.4	ppb	02:58:00
1	Tl 190.801†	-158.2	-121.2	-11.650	ug/L	-11.650	ppb	02:58:25
1	U 409.014†	-11377.5	-9069.7	-276.49	ug/L	-276.49	ppb	02:58:00
1	V 292.402†	11865.1	12866.0	73.598	ug/L	73.598	ppb	02:58:05
1	Zn 213.857†	27516.7	26180.2	240.00	ug/L	240.00	ppb	02:58:05
1	SiO2†	874925.1	851579.6	58104	ug/L	58104	ppb	02:59:34
2	Sc Radial	5259.1	5259.1	104	%			02:57:08
2	Y RADIAL	6945.2	6945.2	127.9	%			02:57:08
2	Al 396.153Radial†	48418.0	46358.1	35764	ug/L	35764	ppb	02:57:08
2	Ca 317.933Radial†	5395.1	5145.7	8233.7	ug/L	8233.7	ppb	02:57:08
2	Fe 238.204 Radial†	9172.2	8773.0	75924	ug/L	75924	ppb	02:57:08
2	K 766.490 Radial†	30907.9	27002.4	4922.2	ug/L	4922.2	ppb	02:57:08
2	Mg 279.077 IEC†	211.5	200.6	6623.8	ug/L	6623.8	ppb	02:57:28
2	Na 589.592 Radial†	4263.8	5362.8	1605.7	ug/L	1605.7	ppb	02:57:08
2	Sr 421.552†	9716.3	9322.3	60.151	ug/L	60.151	ppb	02:57:08
2	Sc 361.383	878051.5	878051.5	103.01	%			02:58:31
2	Y 371.029	909732.4	909732.4	125.89	%			02:58:31
2	Ag 328.068†	-4793.3	-5011.2	1.9460	ug/L	1.9460	ppb	02:58:36
2	As 188.979†	-41.3	-16.5	18.040	ug/L	18.040	ppb	02:58:56
2	B 249.677†	217.1	842.6	11.036	ug/L	11.036	ppb	02:58:36
2	Ba 233.527†	51611.5	50115.0	394.19	ug/L	394.19	ppb	02:58:36
2	Be 313.107†	-7584.6	-2777.6	3.8492	ug/L	3.8492	ppb	02:58:36
2	Cd 226.502†	515.4	704.5	-0.0568	ug/L	-0.0568	ppb	02:58:56
2	Co 228.616†	933.5	980.9	14.607	ug/L	14.607	ppb	02:58:56
2	Cr 267.716†	10638.1	10244.0	116.23	ug/L	116.23	ppb	02:58:36
2	Cu 324.752†	16025.0	9144.6	31.511	ug/L	31.511	ppb	02:58:36
2	Mn 257.610†	2156784.1	2093325.9	2328.9	ug/L	2328.9	ppb	02:58:31
2	Mo 202.031†	148.2	120.1	13.782	ug/L	13.782	ppb	02:58:56
2	Ni 231.604†	1391.8	1283.2	31.939	ug/L	31.939	ppb	02:58:56

2	P 214.914†	1265.2	998.3	552.17	ug/L	552.17 ppb	02:58:56
2	Pb 220.353†	468.4	518.1	63.946	ug/L	63.946 ppb	02:58:56
2	S 181.975 Axial†	248.6	198.3	273.97	ug/L	273.97 ppb	02:58:56
2	Sb 206.836†	65.5	35.7	4.3944	ug/L	4.3944 ppb	02:58:56
2	Se 196.026†	-362.1	-319.5	38.213	ug/L	38.213 ppb	02:58:56
2	Si 251.611†	870496.0	844512.8	26896	ug/L	26896 ppb	02:58:31
2	Sn 189.927†	-36.4	-43.0	-5.1621	ug/L	-5.1621 ppb	02:58:56
2	Ti 334.940†	1380670.8	1341707.1	2162.1	ug/L	2162.1 ppb	02:58:31
2	Tl 190.801†	-160.9	-123.3	-12.314	ug/L	-12.314 ppb	02:58:56
2	U 409.014†	-11375.2	-9031.2	-275.33	ug/L	-275.33 ppb	02:58:31
2	V 292.402†	12038.6	12996.6	74.531	ug/L	74.531 ppb	02:58:36
2	Zn 213.857†	27763.4	26332.0	241.45	ug/L	241.45 ppb	02:58:36
2	SiO2†	869717.1	843735.4	57569	ug/L	57569 ppb	02:59:39
3	Sc Radial	5181.2	5181.2	103	%		02:57:33
3	Y RADIAL	6905.4	6905.4	127.2	%		02:57:33
3	Al 396.153Radial†	47956.2	46606.8	35956	ug/L	35956 ppb	02:57:33
3	Ca 317.933Radial†	5369.2	5198.3	8317.8	ug/L	8317.8 ppb	02:57:33
3	Fe 238.204 Radial†	9102.6	8837.5	76481	ug/L	76481 ppb	02:57:33
3	K 766.490 Radial†	30602.2	27150.5	4949.3	ug/L	4949.3 ppb	02:57:33
3	Mg 279.077 IEC†	209.1	201.3	6644.7	ug/L	6644.7 ppb	02:57:53
3	Na 589.592 Radial†	4196.8	5359.1	1604.6	ug/L	1604.6 ppb	02:57:33
3	Sr 421.552†	9718.8	9464.7	61.070	ug/L	61.070 ppb	02:57:33
3	Sc 361.383	878093.9	878093.9	103.01	%		02:59:02
3	Y 371.029	907800.2	907800.2	125.62	%		02:59:02
3	Ag 328.068†	-4772.3	-4990.7	2.2224	ug/L	2.2224 ppb	02:59:07
3	As 188.979†	-35.8	-11.1	20.482	ug/L	20.482 ppb	02:59:27
3	B 249.677†	232.6	857.7	11.317	ug/L	11.317 ppb	02:59:07
3	Ba 233.527†	51285.7	49796.3	391.73	ug/L	391.73 ppb	02:59:07
3	Be 313.107†	-7484.8	-2680.4	3.8984	ug/L	3.8984 ppb	02:59:07
3	Cd 226.502†	533.3	721.8	0.0776	ug/L	0.0776 ppb	02:59:27
3	Co 228.616†	917.0	964.9	14.256	ug/L	14.256 ppb	02:59:27
3	Cr 267.716†	10537.8	10146.2	115.15	ug/L	115.15 ppb	02:59:07
3	Cu 324.752†	15943.7	9064.9	31.304	ug/L	31.304 ppb	02:59:07
3	Mn 257.610†	2161866.7	2098158.7	2334.3	ug/L	2334.3 ppb	02:59:02
3	Mo 202.031†	130.4	102.9	12.599	ug/L	12.599 ppb	02:59:27
3	Ni 231.604†	1375.3	1267.1	31.539	ug/L	31.539 ppb	02:59:27
3	P 214.914†	1257.4	990.7	547.16	ug/L	547.16 ppb	02:59:27
3	Pb 220.353†	464.1	513.9	63.411	ug/L	63.411 ppb	02:59:27
3	S 181.975 Axial†	246.3	196.1	270.73	ug/L	270.73 ppb	02:59:27
3	Sb 206.836†	47.0	17.7	-1.8440	ug/L	-1.8440 ppb	02:59:27
3	Se 196.026†	-343.5	-301.4	51.635	ug/L	51.635 ppb	02:59:27
3	Si 251.611†	873232.4	847128.3	26980	ug/L	26980 ppb	02:59:02
3	Sn 189.927†	-47.0	-53.3	-6.9704	ug/L	-6.9704 ppb	02:59:27
3	Ti 334.940†	1384177.8	1345046.8	2167.5	ug/L	2167.5 ppb	02:59:02
3	Tl 190.801†	-148.1	-110.9	-8.4398	ug/L	-8.4398 ppb	02:59:27
3	U 409.014†	-11466.9	-9119.7	-278.00	ug/L	-278.00 ppb	02:59:02
3	V 292.402†	12043.7	13001.0	74.447	ug/L	74.447 ppb	02:59:07
3	Zn 213.857†	27522.5	26096.9	239.17	ug/L	239.17 ppb	02:59:07
3	SiO2†	875122.9	848942.3	57924	ug/L	57924 ppb	02:59:45

Mean Data: 1202004428|936808|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	877107.9	102.90	%	0.196				0.19%
Sc Radial	5225.9	104	%	0.8				0.77%
Y 371.029	908397.5	125.70	%	0.160				0.13%
Y RADIAL	6925.1	127.5	%	0.37				0.29%
Ag 328.068†	-4981.9	2.1613	ug/L	0.19221	2.1613	ppb	0.19221	8.89%
Al 396.153Radial†	46479.5	35858	ug/L	96.0	35858	ppb	96.0	0.27%
As 188.979†	-10.2	20.802	ug/L	2.9357	20.802	ppb	2.9357	14.11%
B 249.677†	835.6	10.855	ug/L	0.5734	10.855	ppb	0.5734	5.28%
Ba 233.527†	49914.4	392.64	ug/L	1.355	392.64	ppb	1.355	0.35%
Be 313.107†	-2768.5	3.8585	ug/L	0.03620	3.8585	ppb	0.03620	0.94%
Ca 317.933Radial†	5166.4	8266.8	ug/L	44.80	8266.8	ppb	44.80	0.54%
Cd 226.502†	710.7	-0.0135	ug/L	0.07896	-0.0135	ppb	0.07896	584.37%
Co 228.616†	972.1	14.416	ug/L	0.1777	14.416	ppb	0.1777	1.23%
Cr 267.716†	10208.8	115.84	ug/L	0.601	115.84	ppb	0.601	0.52%
Cu 324.752†	9164.6	31.585	ug/L	0.3242	31.585	ppb	0.3242	1.03%
Fe 238.204 Radial†	8801.8	76173	ug/L	283.6	76173	ppb	283.6	0.37%
K 766.490 Radial†	27124.0	4944.5	ug/L	20.29	4944.5	ppb	20.29	0.41%

Mg 279.077 IEC†	201.5	6653.2	ug/L	34.41	6653.2	ppb	34.41	0.52%
Mn 257.610†	2095695.2	2331.5	ug/L	2.71	2331.5	ppb	2.71	0.12%
Mo 202.031†	111.5	13.190	ug/L	0.5913	13.190	ppb	0.5913	4.48%
Na 589.592 Radial†	5354.6	1603.2	ug/L	3.35	1603.2	ppb	3.35	0.21%
Ni 231.604†	1271.1	31.638	ug/L	0.2662	31.638	ppb	0.2662	0.84%
P 214.914†	989.9	546.83	ug/L	5.508	546.83	ppb	5.508	1.01%
Pb 220.353†	517.7	63.888	ug/L	0.4505	63.888	ppb	0.4505	0.71%
S 181.975 Axial†	196.2	270.90	ug/L	2.990	270.90	ppb	2.990	1.10%
Sb 206.836†	22.6	-0.1407	ug/L	3.96789	-0.1407	ppb	3.96789	>999.9%
Se 196.026†	-311.2	44.384	ug/L	6.7761	44.384	ppb	6.7761	15.27%
Si 251.611†	845498.1	26928	ug/L	45.3	26928	ppb	45.3	0.17%
Sn 189.927†	-49.6	-6.3268	ug/L	1.01048	-6.3268	ppb	1.01048	15.97%
Sr 421.552†	9399.3	60.647	ug/L	0.4641	60.647	ppb	0.4641	0.77%
Ti 334.940†	1343302.9	2164.7	ug/L	2.70	2164.7	ppb	2.70	0.12%
Tl 190.801†	-118.5	-10.802	ug/L	2.0721	-10.802	ppb	2.0721	19.18%
U 409.014†	-9073.6	-276.61	ug/L	1.340	-276.61	ppb	1.340	0.48%
V 292.402†	12954.5	74.192	ug/L	0.5164	74.192	ppb	0.5164	0.70%
Zn 213.857†	26203.0	240.20	ug/L	1.152	240.20	ppb	1.152	0.48%
SiO2†	848085.8	57866	ug/L	272.4	57866	ppb	272.4	0.47%

Sequence No.: 102
Sample ID: 1202004429|936808|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 106
Date Collected: 1/12/2010 03:01:57
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202004429|936808|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5211.6	5211.6	104	%			03:04:10
1	Y RADIAL	7006.6	7006.6	129.0	%			03:04:10
1	Al 396.153Radial†	131568.2	127119.0	98047	ug/L	98047	ppb	03:03:50
1	Ca 317.933Radial†	10312.3	9943.7	15911	ug/L	15911	ppb	03:03:50
1	Fe 238.204 Radial†	12848.1	12404.6	107370	ug/L	107370	ppb	03:03:50
1	K 766.490 Radial†	83187.3	77783.7	14215	ug/L	14215	ppb	03:03:50
1	Mg 279.077 IEC†	574.6	553.3	18378	ug/L	18378	ppb	03:04:10
1	Na 589.592 Radial†	23058.4	23559.0	7053.8	ug/L	7053.8	ppb	03:03:50
1	Sr 421.552†	90530.6	87488.2	564.96	ug/L	564.96	ppb	03:03:50
1	Sc 361.383	870685.3	870685.3	102.15	%			03:05:09
1	Y 371.029	923496.1	923496.1	127.79	%			03:05:09
1	Ag 328.068†	101990.7	99490.6	494.93	ug/L	494.93	ppb	03:05:09
1	As 188.979†	1071.1	1072.2	499.23	ug/L	499.23	ppb	03:05:30
1	B 249.677†	21633.5	21811.0	473.95	ug/L	473.95	ppb	03:05:09
1	Ba 233.527†	115748.9	113329.2	889.99	ug/L	889.99	ppb	03:05:09
1	Be 313.107†	1319653.5	1296521.9	501.03	ug/L	501.03	ppb	03:05:09
1	Cd 226.502†	44418.5	43689.7	474.08	ug/L	474.08	ppb	03:05:09
1	Co 228.616†	24737.8	24292.9	490.49	ug/L	490.49	ppb	03:05:30
1	Cr 267.716†	60581.9	59226.3	665.04	ug/L	665.04	ppb	03:05:09
1	Cu 324.752†	192475.5	182020.7	549.88	ug/L	549.88	ppb	03:05:09
1	Mn 257.610†	2870133.5	2809406.4	3125.8	ug/L	3125.8	ppb	03:05:09
1	Mo 202.031†	6993.3	6822.7	489.72	ug/L	489.72	ppb	03:05:30
1	Ni 231.604†	21392.8	20875.5	519.50	ug/L	519.50	ppb	03:05:30
1	P 214.914†	2407.6	2127.2	1124.4	ug/L	1124.4	ppb	03:05:30
1	Pb 220.353†	4613.2	4579.7	572.56	ug/L	572.56	ppb	03:05:30
1	S 181.975 Axial†	3867.2	3742.9	5278.5	ug/L	5278.5	ppb	03:05:30
1	Sb 206.836†	1114.9	1063.6	370.62	ug/L	370.62	ppb	03:05:30
1	Se 196.026†	285.2	311.2	549.61	ug/L	549.61	ppb	03:05:30
1	Si 251.611†	1084867.8	1061531.6	33802	ug/L	33802	ppb	03:05:09
1	Sn 189.927†	2761.2	2695.6	481.64	ug/L	481.64	ppb	03:05:30
1	Ti 334.940†	1959413.4	1919633.8	3092.7	ug/L	3092.7	ppb	03:05:09
1	Tl 190.801†	1405.7	1409.0	465.24	ug/L	465.24	ppb	03:05:30
1	U 409.014†	3970.9	5899.1	160.30	ug/L	160.30	ppb	03:05:09
1	V 292.402†	90545.5	89953.4	601.97	ug/L	601.97	ppb	03:05:09
1	Zn 213.857†	85448.4	83033.4	770.88	ug/L	770.88	ppb	03:05:09
1	SiO2†	1096667.1	1073061.8	73204	ug/L	73204	ppb	03:06:31
2	Sc Radial	5153.9	5153.9	102	%			03:04:35
2	Y RADIAL	6947.1	6947.1	128.0	%			03:04:35
2	Al 396.153Radial†	130906.7	127895.8	98646	ug/L	98646	ppb	03:04:15
2	Ca 317.933Radial†	10215.2	9960.5	15938	ug/L	15938	ppb	03:04:15
2	Fe 238.204 Radial†	12725.7	12424.1	107530	ug/L	107530	ppb	03:04:15
2	K 766.490 Radial†	82355.8	77871.0	14231	ug/L	14231	ppb	03:04:15
2	Mg 279.077 IEC†	572.4	557.3	18512	ug/L	18512	ppb	03:04:35
2	Na 589.592 Radial†	22714.5	23472.4	7027.9	ug/L	7027.9	ppb	03:04:15
2	Sr 421.552†	89804.1	87757.6	566.70	ug/L	566.70	ppb	03:04:15
2	Sc 361.383	873599.8	873599.8	102.49	%			03:05:37
2	Y 371.029	924304.0	924304.0	127.90	%			03:05:37
2	Ag 328.068†	102572.3	99724.9	496.06	ug/L	496.06	ppb	03:05:37
2	As 188.979†	1061.2	1059.1	493.59	ug/L	493.59	ppb	03:05:57
2	B 249.677†	21846.6	21948.2	477.00	ug/L	477.00	ppb	03:05:37
2	Ba 233.527†	116232.4	113422.9	890.72	ug/L	890.72	ppb	03:05:37
2	Be 313.107†	1323767.4	1296225.7	500.93	ug/L	500.93	ppb	03:05:37
2	Cd 226.502†	44368.9	43496.2	471.91	ug/L	471.91	ppb	03:05:37
2	Co 228.616†	24700.8	24176.0	488.09	ug/L	488.09	ppb	03:05:57
2	Cr 267.716†	60644.7	59089.7	663.51	ug/L	663.51	ppb	03:05:37
2	Cu 324.752†	193650.3	182538.3	551.43	ug/L	551.43	ppb	03:05:37
2	Mn 257.610†	2882390.3	2811991.5	3128.6	ug/L	3128.6	ppb	03:05:37
2	Mo 202.031†	7013.1	6819.1	489.49	ug/L	489.49	ppb	03:05:57
2	Ni 231.604†	21369.6	20783.0	517.20	ug/L	517.20	ppb	03:05:57

2	P 214.914†	2416.9	2128.4	1124.8	ug/L	1124.8 ppb	03:05:57
2	Pb 220.353†	4621.1	4572.3	571.76	ug/L	571.76 ppb	03:05:57
2	S 181.975 Axial†	3848.1	3711.7	5234.2	ug/L	5234.2 ppb	03:05:57
2	Sb 206.836†	1116.2	1061.2	369.70	ug/L	369.70 ppb	03:05:57
2	Se 196.026†	286.5	311.5	550.41	ug/L	550.41 ppb	03:05:57
2	Si 251.611†	1090145.4	1063137.7	33853	ug/L	33853 ppb	03:05:37
2	Sn 189.927†	2750.7	2676.3	478.23	ug/L	478.23 ppb	03:05:57
2	Ti 334.940†	1969275.9	1922857.2	3097.9	ug/L	3097.9 ppb	03:05:37
2	Tl 190.801†	1420.2	1418.6	468.24	ug/L	468.24 ppb	03:05:57
2	U 409.014†	3969.2	5884.5	159.85	ug/L	159.85 ppb	03:05:37
2	V 292.402†	90757.1	89864.2	601.33	ug/L	601.33 ppb	03:05:37
2	Zn 213.857†	85785.5	83083.3	771.35	ug/L	771.35 ppb	03:05:37
2	SiO2†	1086586.6	1059644.1	72288	ug/L	72288 ppb	03:06:37
3	Sc Radial	5133.7	5133.7	102	%		03:05:01
3	Y RADIAL	6905.5	6905.5	127.2	%		03:05:01
3	Al 396.153Radial†	130518.5	128017.8	98740	ug/L	98740 ppb	03:04:41
3	Ca 317.933Radial†	10211.5	9996.0	15995	ug/L	15995 ppb	03:04:41
3	Fe 238.204 Radial†	12699.6	12447.3	107740	ug/L	107740 ppb	03:04:41
3	K 766.490 Radial†	82295.8	78128.4	14278	ug/L	14278 ppb	03:04:41
3	Mg 279.077 IEC†	569.0	556.2	18477	ug/L	18477 ppb	03:05:01
3	Na 589.592 Radial†	22626.8	23473.6	7028.3	ug/L	7028.3 ppb	03:04:41
3	Sr 421.552†	89547.0	87850.3	567.30	ug/L	567.30 ppb	03:04:41
3	Sc 361.383	872773.1	872773.1	102.39	%		03:06:04
3	Y 371.029	924048.7	924048.7	127.87	%		03:06:04
3	Ag 328.068†	101996.9	99257.8	493.97	ug/L	493.97 ppb	03:06:04
3	As 188.979†	1072.5	1071.1	498.83	ug/L	498.83 ppb	03:06:24
3	B 249.677†	21662.0	21788.1	473.40	ug/L	473.40 ppb	03:06:04
3	Ba 233.527†	116050.0	113352.2	890.18	ug/L	890.18 ppb	03:06:04
3	Be 313.107†	1321071.7	1294816.3	500.39	ug/L	500.39 ppb	03:06:04
3	Cd 226.502†	44292.5	43462.6	471.52	ug/L	471.52 ppb	03:06:04
3	Co 228.616†	24802.3	24298.0	490.59	ug/L	490.59 ppb	03:06:24
3	Cr 267.716†	60873.9	59369.5	666.64	ug/L	666.64 ppb	03:06:04
3	Cu 324.752†	193151.5	182230.1	550.52	ug/L	550.52 ppb	03:06:04
3	Mn 257.610†	2875044.6	2807481.0	3123.7	ug/L	3123.7 ppb	03:06:04
3	Mo 202.031†	7036.4	6848.4	491.57	ug/L	491.57 ppb	03:06:24
3	Ni 231.604†	21436.3	20867.9	519.31	ug/L	519.31 ppb	03:06:24
3	P 214.914†	2425.0	2138.5	1131.0	ug/L	1131.0 ppb	03:06:24
3	Pb 220.353†	4652.4	4607.2	576.04	ug/L	576.04 ppb	03:06:24
3	S 181.975 Axial†	3885.3	3751.6	5290.7	ug/L	5290.7 ppb	03:06:24
3	Sb 206.836†	1114.4	1060.5	369.52	ug/L	369.52 ppb	03:06:24
3	Se 196.026†	291.0	316.2	554.06	ug/L	554.06 ppb	03:06:24
3	Si 251.611†	1086934.9	1061009.7	33785	ug/L	33785 ppb	03:06:04
3	Sn 189.927†	2754.2	2682.3	479.30	ug/L	479.30 ppb	03:06:24
3	Ti 334.940†	1965782.3	1921265.1	3095.4	ug/L	3095.4 ppb	03:06:04
3	Tl 190.801†	1427.5	1427.0	470.77	ug/L	470.77 ppb	03:06:24
3	U 409.014†	3995.4	5913.7	160.69	ug/L	160.69 ppb	03:06:04
3	V 292.402†	90551.1	89746.8	600.53	ug/L	600.53 ppb	03:06:04
3	Zn 213.857†	85419.5	82805.1	768.69	ug/L	768.69 ppb	03:06:04
3	SiO2†	1087775.7	1061809.6	72436	ug/L	72436 ppb	03:06:42

Mean Data: 1202004429|936808|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	872352.7	102.34	%	0.176				0.17%
Sc Radial	5166.4	103	%	0.8				0.78%
Y 371.029	923949.6	127.85	%	0.057				0.04%
Y RADIAL	6953.1	128.1	%	0.94				0.73%
Ag 328.068†	99491.1	494.99	ug/L	1.047	494.99	ppb	1.047	0.21%
Al 396.153Radial†	127677.6	98478	ug/L	376.1	98478	ppb	376.1	0.38%
As 188.979†	1067.5	497.22	ug/L	3.150	497.22	ppb	3.150	0.63%
B 249.677†	21849.1	474.78	ug/L	1.938	474.78	ppb	1.938	0.41%
Ba 233.527†	113368.1	890.30	ug/L	0.382	890.30	ppb	0.382	0.04%
Be 313.107†	1295854.6	500.78	ug/L	0.346	500.78	ppb	0.346	0.07%
Ca 317.933Radial†	9966.7	15948	ug/L	42.7	15948	ppb	42.7	0.27%
Cd 226.502†	43549.5	472.50	ug/L	1.378	472.50	ppb	1.378	0.29%
Co 228.616†	24255.6	489.72	ug/L	1.418	489.72	ppb	1.418	0.29%
Cr 267.716†	59228.5	665.06	ug/L	1.565	665.06	ppb	1.565	0.24%
Cu 324.752†	182263.0	550.61	ug/L	0.782	550.61	ppb	0.782	0.14%
Fe 238.204 Radial†	12425.3	107550	ug/L	184.9	107550	ppb	184.9	0.17%
K 766.490 Radial†	77927.7	14241	ug/L	32.9	14241	ppb	32.9	0.23%

Mg 279.077 IEC†	555.6	18456	ug/L	69.5	18456	ppb	69.5	0.38%
Mn 257.610†	2809626.3	3126.0	ug/L	2.50	3126.0	ppb	2.50	0.08%
Mo 202.031†	6830.1	490.26	ug/L	1.141	490.26	ppb	1.141	0.23%
Na 589.592 Radial†	23501.7	7036.7	ug/L	14.87	7036.7	ppb	14.87	0.21%
Ni 231.604†	20842.1	518.67	ug/L	1.278	518.67	ppb	1.278	0.25%
P 214.914†	2131.3	1126.7	ug/L	3.72	1126.7	ppb	3.72	0.33%
Pb 220.353†	4586.4	573.45	ug/L	2.275	573.45	ppb	2.275	0.40%
S 181.975 Axial†	3735.4	5267.8	ug/L	29.72	5267.8	ppb	29.72	0.56%
Sb 206.836†	1061.7	369.95	ug/L	0.592	369.95	ppb	0.592	0.16%
Se 196.026†	313.0	551.36	ug/L	2.372	551.36	ppb	2.372	0.43%
Si 251.611†	1061893.0	33814	ug/L	35.3	33814	ppb	35.3	0.10%
Sn 189.927†	2684.7	479.72	ug/L	1.740	479.72	ppb	1.740	0.36%
Sr 421.552†	87698.7	566.32	ug/L	1.214	566.32	ppb	1.214	0.21%
Ti 334.940†	1921252.0	3095.3	ug/L	2.59	3095.3	ppb	2.59	0.08%
Tl 190.801†	1418.2	468.08	ug/L	2.772	468.08	ppb	2.772	0.59%
U 409.014†	5899.1	160.28	ug/L	0.417	160.28	ppb	0.417	0.26%
V 292.402†	89854.8	601.28	ug/L	0.721	601.28	ppb	0.721	0.12%
Zn 213.857†	82973.9	770.31	ug/L	1.422	770.31	ppb	1.422	0.18%
SiO2†	1064838.5	72642	ug/L	491.5	72642	ppb	491.5	0.68%

Sequence No.: 103
Sample ID: 1202004431|936808|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 107
Date Collected: 1/12/2010 03:08:54
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202004431|936808|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4929.8	4929.8	97.9	%			03:11:07
1	Y RADIAL	6608.4	6608.4	121.7	%			03:11:07
1	Al 396.153Radial†	107553.2	109854.5	84728	ug/L	84728	ppb	03:10:47
1	Ca 317.933Radial†	8586.0	8749.9	14001	ug/L	14001	ppb	03:10:47
1	Fe 238.204 Radial†	11341.4	11575.1	100190	ug/L	100190	ppb	03:10:47
1	K 766.490 Radial†	74904.2	73916.3	13512	ug/L	13512	ppb	03:10:47
1	Mg 279.077 IEC†	476.1	484.4	16085	ug/L	16085	ppb	03:11:07
1	Na 589.592 Radial†	21457.1	23196.5	6945.3	ug/L	6945.3	ppb	03:10:47
1	Sr 421.552†	89705.4	91643.8	591.81	ug/L	591.81	ppb	03:10:47
1	Sc 361.383	876021.0	876021.0	102.77	%			03:12:06
1	Y 371.029	918427.8	918427.8	127.09	%			03:12:06
1	Ag 328.068†	104969.3	101780.6	503.09	ug/L	503.09	ppb	03:12:06
1	As 188.979†	1077.9	1072.5	497.91	ug/L	497.91	ppb	03:12:26
1	B 249.677†	22209.7	22242.7	484.29	ug/L	484.29	ppb	03:12:06
1	Ba 233.527†	119443.1	116233.5	912.36	ug/L	912.36	ppb	03:12:06
1	Be 313.107†	1344176.7	1312514.7	507.12	ug/L	507.12	ppb	03:12:06
1	Cd 226.502†	45301.0	44283.5	481.41	ug/L	481.41	ppb	03:12:06
1	Co 228.616†	24989.7	24390.4	492.60	ug/L	492.60	ppb	03:12:26
1	Cr 267.716†	64279.5	62462.9	701.03	ug/L	701.03	ppb	03:12:06
1	Cu 324.752†	194610.8	182950.6	552.26	ug/L	552.26	ppb	03:12:06
1	Mn 257.610†	2389111.1	2324240.9	2587.2	ug/L	2587.2	ppb	03:12:06
1	Mo 202.031†	7113.9	6898.3	494.56	ug/L	494.56	ppb	03:12:26
1	Ni 231.604†	21324.3	20681.3	514.67	ug/L	514.67	ppb	03:12:26
1	P 214.914†	2466.1	2169.8	1152.3	ug/L	1152.3	ppb	03:12:26
1	Pb 220.353†	4497.7	4439.8	553.26	ug/L	553.26	ppb	03:12:26
1	S 181.975 Axial†	3932.1	3783.1	5337.9	ug/L	5337.9	ppb	03:12:26
1	Sb 206.836†	1250.0	1188.3	413.94	ug/L	413.94	ppb	03:12:26
1	Se 196.026†	349.2	371.7	565.06	ug/L	565.06	ppb	03:12:26
1	Si 251.611†	1080747.5	1051053.4	33468	ug/L	33468	ppb	03:12:06
1	Sn 189.927†	2824.1	2740.3	489.17	ug/L	489.17	ppb	03:12:26
1	Ti 334.940†	1970308.2	1918550.9	3090.9	ug/L	3090.9	ppb	03:12:06
1	Tl 190.801†	1458.9	1452.4	476.01	ug/L	476.01	ppb	03:12:26
1	U 409.014†	5203.9	7075.2	195.73	ug/L	195.73	ppb	03:12:06
1	V 292.402†	88514.7	87437.5	585.98	ug/L	585.98	ppb	03:12:06
1	Zn 213.857†	83516.6	80644.2	749.01	ug/L	749.01	ppb	03:12:06
1	SiO2†	1074552.3	1045004.0	71289	ug/L	71289	ppb	03:13:28
2	Sc Radial	5185.2	5185.2	103	%			03:11:32
2	Y RADIAL	6908.9	6908.9	127.2	%			03:11:32
2	Al 396.153Radial†	108429.4	105296.0	81211	ug/L	81211	ppb	03:11:12
2	Ca 317.933Radial†	8647.3	8377.6	13405	ug/L	13405	ppb	03:11:12
2	Fe 238.204 Radial†	11450.9	11111.0	96171	ug/L	96171	ppb	03:11:12
2	K 766.490 Radial†	75598.9	70823.7	12945	ug/L	12945	ppb	03:11:12
2	Mg 279.077 IEC†	487.6	471.6	15660	ug/L	15660	ppb	03:11:32
2	Na 589.592 Radial†	21614.0	22269.7	6667.8	ug/L	6667.8	ppb	03:11:12
2	Sr 421.552†	90634.4	88034.2	568.51	ug/L	568.51	ppb	03:11:12
2	Sc 361.383	877623.1	877623.1	102.96	%			03:12:34
2	Y 371.029	921439.1	921439.1	127.51	%			03:12:34
2	Ag 328.068†	105252.9	101869.6	502.20	ug/L	502.20	ppb	03:12:34
2	As 188.979†	1076.2	1068.9	495.57	ug/L	495.57	ppb	03:12:54
2	B 249.677†	22302.6	22293.4	485.83	ug/L	485.83	ppb	03:12:34
2	Ba 233.527†	119776.2	116344.9	913.09	ug/L	913.09	ppb	03:12:34
2	Be 313.107†	1347180.6	1313044.6	507.32	ug/L	507.32	ppb	03:12:34
2	Cd 226.502†	45382.4	44282.1	481.81	ug/L	481.81	ppb	03:12:34
2	Co 228.616†	24960.5	24317.7	491.17	ug/L	491.17	ppb	03:12:54
2	Cr 267.716†	64351.7	62418.8	700.46	ug/L	700.46	ppb	03:12:34
2	Cu 324.752†	194739.1	182729.6	551.38	ug/L	551.38	ppb	03:12:34
2	Mn 257.610†	2390007.9	2320868.2	2583.0	ug/L	2583.0	ppb	03:12:34
2	Mo 202.031†	7123.1	6894.7	494.02	ug/L	494.02	ppb	03:12:54
2	Ni 231.604†	21335.5	20654.3	514.00	ug/L	514.00	ppb	03:12:54

2	P 214.914†	2460.0	2159.4	1148.5	ug/L	1148.5 ppb	03:12:54
2	Pb 220.353†	4528.4	4461.6	555.56	ug/L	555.56 ppb	03:12:54
2	S 181.975 Axial†	3946.4	3789.9	5348.2	ug/L	5348.2 ppb	03:12:54
2	Sb 206.836†	1246.3	1182.6	412.03	ug/L	412.03 ppb	03:12:54
2	Se 196.026†	352.9	374.7	553.99	ug/L	553.99 ppb	03:12:54
2	Si 251.611†	1081376.0	1049744.0	33427	ug/L	33427 ppb	03:12:34
2	Sn 189.927†	2818.9	2730.3	487.23	ug/L	487.23 ppb	03:12:54
2	Ti 334.940†	1973697.1	1918342.6	3090.6	ug/L	3090.6 ppb	03:12:34
2	Tl 190.801†	1451.6	1442.7	473.02	ug/L	473.02 ppb	03:12:54
2	U 409.014†	5370.4	7227.7	200.69	ug/L	200.69 ppb	03:12:34
2	V 292.402†	88794.0	87551.5	587.37	ug/L	587.37 ppb	03:12:34
2	Zn 213.857†	83754.9	80727.3	750.19	ug/L	750.19 ppb	03:12:34
2	SiO2†	1074074.8	1042631.5	71127	ug/L	71127 ppb	03:13:33
3	Sc Radial	5228.2	5228.2	104	%		03:11:58
3	Y RADIAL	6976.9	6976.9	128.5	%		03:11:58
3	Al 396.153Radial†	106359.4	102435.6	79004	ug/L	79004 ppb	03:11:38
3	Ca 317.933Radial†	8520.6	8186.4	13099	ug/L	13099 ppb	03:11:38
3	Fe 238.204 Radial†	11180.1	10758.7	93122	ug/L	93122 ppb	03:11:38
3	K 766.490 Radial†	74177.8	68850.7	12584	ug/L	12584 ppb	03:11:38
3	Mg 279.077 IEC†	490.2	470.2	15619	ug/L	15619 ppb	03:11:58
3	Na 589.592 Radial†	21025.2	21529.9	6446.3	ug/L	6446.3 ppb	03:11:38
3	Sr 421.552†	88336.9	85097.0	549.54	ug/L	549.54 ppb	03:11:38
3	Sc 361.383	873831.8	873831.8	102.51	%		03:13:01
3	Y 371.029	918411.9	918411.9	127.09	%		03:13:01
3	Ag 328.068†	104742.2	101815.0	500.97	ug/L	500.97 ppb	03:13:01
3	As 188.979†	1073.1	1070.4	495.63	ug/L	495.63 ppb	03:13:21
3	B 249.677†	22317.1	22401.6	488.55	ug/L	488.55 ppb	03:13:01
3	Ba 233.527†	118869.7	115965.4	910.01	ug/L	910.01 ppb	03:13:01
3	Be 313.107†	1342001.0	1313669.0	507.56	ug/L	507.56 ppb	03:13:01
3	Cd 226.502†	44998.1	44098.5	480.09	ug/L	480.09 ppb	03:13:01
3	Co 228.616†	24914.6	24378.1	492.45	ug/L	492.45 ppb	03:13:21
3	Cr 267.716†	63983.6	62330.9	699.42	ug/L	699.42 ppb	03:13:01
3	Cu 324.752†	194232.6	183056.2	552.20	ug/L	552.20 ppb	03:13:01
3	Mn 257.610†	2377485.4	2318724.3	2580.3	ug/L	2580.3 ppb	03:13:01
3	Mo 202.031†	7108.4	6910.3	494.91	ug/L	494.91 ppb	03:13:21
3	Ni 231.604†	21287.5	20697.4	515.07	ug/L	515.07 ppb	03:13:21
3	P 214.914†	2440.3	2150.6	1144.8	ug/L	1144.8 ppb	03:13:21
3	Pb 220.353†	4502.0	4455.0	554.57	ug/L	554.57 ppb	03:13:21
3	S 181.975 Axial†	3937.8	3798.2	5360.3	ug/L	5360.3 ppb	03:13:21
3	Sb 206.836†	1249.6	1191.0	415.01	ug/L	415.01 ppb	03:13:21
3	Se 196.026†	349.8	373.3	543.21	ug/L	543.21 ppb	03:13:21
3	Si 251.611†	1076503.0	1049547.5	33420	ug/L	33420 ppb	03:13:01
3	Sn 189.927†	2811.7	2735.1	488.00	ug/L	488.00 ppb	03:13:21
3	Ti 334.940†	1965386.8	1918553.2	3090.9	ug/L	3090.9 ppb	03:13:01
3	Tl 190.801†	1453.4	1450.6	475.43	ug/L	475.43 ppb	03:13:21
3	U 409.014†	5143.2	7028.6	195.17	ug/L	195.17 ppb	03:13:01
3	V 292.402†	88300.9	87444.7	587.11	ug/L	587.11 ppb	03:13:01
3	Zn 213.857†	83131.8	80472.4	748.06	ug/L	748.06 ppb	03:13:01
3	SiO2†	1077544.9	1050542.6	71667	ug/L	71667 ppb	03:13:39

Mean Data: 1202004431|936808|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	875825.3	102.75	%	0.223				0.22%
Sc Radial	5114.4	102	%	3.2				3.15%
Y 371.029	919426.3	127.23	%	0.241				0.19%
Y RADIAL	6831.4	125.8	%	3.61				2.87%
Ag 328.068†	101821.8	502.09	ug/L	1.063	502.09	ppb	1.063	0.21%
Al 396.153Radial†	105862.1	81647	ug/L	2886.7	81647	ppb	2886.7	3.54%
As 188.979†	1070.6	496.37	ug/L	1.332	496.37	ppb	1.332	0.27%
B 249.677†	22312.5	486.23	ug/L	2.157	486.23	ppb	2.157	0.44%
Ba 233.527†	116181.3	911.82	ug/L	1.608	911.82	ppb	1.608	0.18%
Be 313.107†	1313076.1	507.34	ug/L	0.220	507.34	ppb	0.220	0.04%
Ca 317.933Radial†	8438.0	13502	ug/L	458.5	13502	ppb	458.5	3.40%
Cd 226.502†	44221.4	481.10	ug/L	0.902	481.10	ppb	0.902	0.19%
Co 228.616†	24362.1	492.08	ug/L	0.786	492.08	ppb	0.786	0.16%
Cr 267.716†	62404.2	700.30	ug/L	0.817	700.30	ppb	0.817	0.12%
Cu 324.752†	182912.1	551.95	ug/L	0.490	551.95	ppb	0.490	0.09%
Fe 238.204 Radial†	11148.3	96493	ug/L	3543.6	96493	ppb	3543.6	3.67%
K 766.490 Radial†	71196.9	13014	ug/L	467.9	13014	ppb	467.9	3.60%

Mg 279.077 IEC†	475.4	15788	ug/L	257.9	15788	ppb	257.9	1.63%
Mn 257.610†	2321277.8	2583.5	ug/L	3.47	2583.5	ppb	3.47	0.13%
Mo 202.031†	6901.1	494.49	ug/L	0.448	494.49	ppb	0.448	0.09%
Na 589.592 Radial†	22332.0	6686.5	ug/L	250.03	6686.5	ppb	250.03	3.74%
Ni 231.604†	20677.7	514.58	ug/L	0.541	514.58	ppb	0.541	0.11%
P 214.914†	2159.9	1148.5	ug/L	3.77	1148.5	ppb	3.77	0.33%
Pb 220.353†	4452.1	554.46	ug/L	1.152	554.46	ppb	1.152	0.21%
S 181.975 Axial†	3790.4	5348.8	ug/L	11.21	5348.8	ppb	11.21	0.21%
Sb 206.836†	1187.3	413.66	ug/L	1.510	413.66	ppb	1.510	0.37%
Se 196.026†	373.3	554.09	ug/L	10.928	554.09	ppb	10.928	1.97%
Si 251.611†	1050115.0	33438	ug/L	26.1	33438	ppb	26.1	0.08%
Sn 189.927†	2735.2	488.13	ug/L	0.974	488.13	ppb	0.974	0.20%
Sr 421.552†	88258.3	569.95	ug/L	21.176	569.95	ppb	21.176	3.72%
Ti 334.940†	1918482.2	3090.8	ug/L	0.20	3090.8	ppb	0.20	0.01%
Tl 190.801†	1448.6	474.82	ug/L	1.587	474.82	ppb	1.587	0.33%
U 409.014†	7110.5	197.20	ug/L	3.038	197.20	ppb	3.038	1.54%
V 292.402†	87477.9	586.82	ug/L	0.739	586.82	ppb	0.739	0.13%
Zn 213.857†	80614.7	749.09	ug/L	1.064	749.09	ppb	1.064	0.14%
SiO2†	1046059.4	71361	ug/L	277.0	71361	ppb	277.0	0.39%

Sequence No.: 104
Sample ID: 1202004430|936808|5
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 108
Date Collected: 1/12/2010 03:15:51
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202004430|936808|5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5037.7	5037.7	100	%			03:17:45
1	Y RADIAL	5614.2	5614.2	103.4	%			03:17:45
1	Al 396.153Radial†	10082.1	10078.0	7775.0	ug/L	7775.0	ppb	03:17:45
1	Ca 317.933Radial†	1071.6	1051.3	1682.2	ug/L	1682.2	ppb	03:18:05
1	Fe 238.204 Radial†	2045.4	2035.6	17616	ug/L	17616	ppb	03:18:05
1	K 766.490 Radial†	9186.3	6591.8	1203.2	ug/L	1203.2	ppb	03:17:45
1	Mg 279.077 IEC†	48.8	46.8	1546.8	ug/L	1546.8	ppb	03:18:05
1	Na 589.592 Radial†	-136.8	1143.8	342.45	ug/L	342.45	ppb	03:17:45
1	Sr 421.552†	2238.4	2256.8	14.564	ug/L	14.564	ppb	03:17:45
1	Sc 361.383	851704.5	851704.5	99.919	%			03:19:02
1	Y 371.029	747861.5	747861.5	103.49	%			03:19:02
1	Ag 328.068†	-807.2	-1165.8	0.4456	ug/L	0.4456	ppb	03:19:02
1	As 188.979†	-28.4	-4.8	4.2131	ug/L	4.2131	ppb	03:19:22
1	B 249.677†	-267.2	364.4	6.3214	ug/L	6.3214	ppb	03:19:02
1	Ba 233.527†	11797.0	11818.0	92.954	ug/L	92.954	ppb	03:19:02
1	Be 313.107†	-6037.2	-1456.8	0.8073	ug/L	0.8073	ppb	03:19:02
1	Cd 226.502†	-27.4	176.6	0.1355	ug/L	0.1355	ppb	03:19:22
1	Co 228.616†	246.7	321.6	5.1066	ug/L	5.1066	ppb	03:19:22
1	Cr 267.716†	2217.2	2135.7	24.275	ug/L	24.275	ppb	03:19:02
1	Cu 324.752†	8348.8	1943.4	6.7729	ug/L	6.7729	ppb	03:19:02
1	Mn 257.610†	394869.8	394746.4	439.52	ug/L	439.52	ppb	03:19:02
1	Mo 202.031†	39.2	15.6	2.3252	ug/L	2.3252	ppb	03:19:22
1	Ni 231.604†	405.1	337.5	8.3996	ug/L	8.3996	ppb	03:19:22
1	P 214.914†	518.9	289.5	163.46	ug/L	163.46	ppb	03:19:22
1	Pb 220.353†	60.7	124.1	15.199	ug/L	15.199	ppb	03:19:22
1	S 181.975 Axial†	109.8	66.8	93.136	ug/L	93.136	ppb	03:19:22
1	Sb 206.836†	46.4	18.5	4.1972	ug/L	4.1972	ppb	03:19:22
1	Se 196.026†	-93.3	-61.4	17.066	ug/L	17.066	ppb	03:19:22
1	Si 251.611†	173297.6	172888.3	5506.2	ug/L	5506.2	ppb	03:19:02
1	Sn 189.927†	-4.4	-12.0	-1.5932	ug/L	-1.5932	ppb	03:19:22
1	Ti 334.940†	370807.6	372484.0	600.19	ug/L	600.19	ppb	03:19:02
1	Tl 190.801†	-65.8	-33.0	-4.0309	ug/L	-4.0309	ppb	03:19:22
1	U 409.014†	-3805.6	-1797.1	-55.075	ug/L	-55.075	ppb	03:19:02
1	V 292.402†	2196.7	3508.2	20.556	ug/L	20.556	ppb	03:19:02
1	Zn 213.857†	6239.0	5623.9	51.421	ug/L	51.421	ppb	03:19:02
1	SiO2†	174557.5	174128.0	11881	ug/L	11881	ppb	03:20:19
2	Sc Radial	5200.0	5200.0	103	%			03:18:10
2	Y RADIAL	5801.0	5801.0	106.8	%			03:18:10
2	Al 396.153Radial†	10294.2	9968.7	7690.7	ug/L	7690.7	ppb	03:18:10
2	Ca 317.933Radial†	1077.7	1023.8	1638.1	ug/L	1638.1	ppb	03:18:30
2	Fe 238.204 Radial†	2061.6	1987.4	17199	ug/L	17199	ppb	03:18:30
2	K 766.490 Radial†	9226.8	6344.4	1157.8	ug/L	1157.8	ppb	03:18:10
2	Mg 279.077 IEC†	48.5	45.0	1487.0	ug/L	1487.0	ppb	03:18:30
2	Na 589.592 Radial†	-113.5	1170.6	350.48	ug/L	350.48	ppb	03:18:10
2	Sr 421.552†	2265.8	2213.6	14.285	ug/L	14.285	ppb	03:18:10
2	Sc 361.383	855769.3	855769.3	100.40	%			03:19:28
2	Y 371.029	751894.0	751894.0	104.04	%			03:19:28
2	Ag 328.068†	-883.9	-1238.4	-0.0227	ug/L	-0.0227	ppb	03:19:28
2	As 188.979†	-26.3	-2.6	5.1108	ug/L	5.1108	ppb	03:19:48
2	B 249.677†	-362.1	271.2	4.2859	ug/L	4.2859	ppb	03:19:28
2	Ba 233.527†	11872.4	11837.0	93.087	ug/L	93.087	ppb	03:19:28
2	Be 313.107†	-5994.9	-1385.9	0.8330	ug/L	0.8330	ppb	03:19:28
2	Cd 226.502†	-25.1	179.1	0.2058	ug/L	0.2058	ppb	03:19:48
2	Co 228.616†	235.5	309.2	4.8610	ug/L	4.8610	ppb	03:19:48
2	Cr 267.716†	2245.9	2153.8	24.469	ug/L	24.469	ppb	03:19:28
2	Cu 324.752†	8302.0	1857.1	6.4932	ug/L	6.4932	ppb	03:19:28
2	Mn 257.610†	396440.3	394433.7	439.13	ug/L	439.13	ppb	03:19:28
2	Mo 202.031†	44.1	20.2	2.6218	ug/L	2.6218	ppb	03:19:48
2	Ni 231.604†	393.6	324.1	8.0651	ug/L	8.0651	ppb	03:19:48

2	P 214.914†	534.0	302.1	171.53 ug/L	171.53 ppb	03:19:48
2	Pb 220.353†	75.8	138.8	17.020 ug/L	17.020 ppb	03:19:48
2	S 181.975 Axial†	105.2	61.8	86.039 ug/L	86.039 ppb	03:19:48
2	Sb 206.836†	41.4	13.3	2.4145 ug/L	2.4145 ppb	03:19:48
2	Se 196.026†	-93.1	-60.7	16.133 ug/L	16.133 ppb	03:19:48
2	Si 251.611†	174077.6	172841.4	5504.7 ug/L	5504.7 ppb	03:19:28
2	Sn 189.927†	-5.1	-12.7	-1.7330 ug/L	-1.7330 ppb	03:19:48
2	Ti 334.940†	372211.9	372120.1	599.61 ug/L	599.61 ppb	03:19:28
2	Tl 190.801†	-61.1	-28.0	-2.5134 ug/L	-2.5134 ppb	03:19:48
2	U 409.014†	-3839.0	-1812.2	-55.474 ug/L	-55.474 ppb	03:19:28
2	V 292.402†	2198.2	3499.3	20.563 ug/L	20.563 ppb	03:19:28
2	Zn 213.857†	6310.6	5665.5	51.858 ug/L	51.858 ppb	03:19:28
2	SiO2†	172931.7	171678.8	11714 ug/L	11714 ppb	03:20:24
3	Sc Radial	4996.8	4996.8	99.2 %		03:18:35
3	Y RADIAL	5610.1	5610.1	103.3 %		03:18:35
3	Al 396.153Radial†	9942.2	10019.4	7729.8 ug/L	7729.8 ppb	03:18:35
3	Ca 317.933Radial†	1071.1	1059.6	1695.5 ug/L	1695.5 ppb	03:18:55
3	Fe 238.204 Radial†	2044.4	2051.2	17752 ug/L	17752 ppb	03:18:55
3	K 766.490 Radial†	9043.5	6523.0	1190.6 ug/L	1190.6 ppb	03:18:35
3	Mg 279.077 IEC†	47.4	45.8	1512.2 ug/L	1512.2 ppb	03:18:55
3	Na 589.592 Radial†	-171.3	1107.8	331.70 ug/L	331.70 ppb	03:18:35
3	Sr 421.552†	2187.1	2223.5	14.349 ug/L	14.349 ppb	03:18:35
3	Sc 361.383	858004.5	858004.5	100.66 %		03:19:53
3	Y 371.029	754877.1	754877.1	104.46 %		03:19:53
3	Ag 328.068†	-844.0	-1196.4	0.3426 ug/L	0.3426 ppb	03:19:53
3	As 188.979†	-32.3	-8.5	2.6425 ug/L	2.6425 ppb	03:20:13
3	B 249.677†	-374.7	259.5	3.9699 ug/L	3.9699 ppb	03:19:53
3	Ba 233.527†	11877.2	11811.0	92.904 ug/L	92.904 ppb	03:19:53
3	Be 313.107†	-6024.3	-1399.6	0.8270 ug/L	0.8270 ppb	03:19:53
3	Cd 226.502†	-33.9	170.4	0.0531 ug/L	0.0531 ppb	03:20:13
3	Co 228.616†	236.7	309.8	4.8655 ug/L	4.8655 ppb	03:20:13
3	Cr 267.716†	2316.6	2218.2	25.197 ug/L	25.197 ppb	03:19:53
3	Cu 324.752†	8362.8	1895.9	6.6345 ug/L	6.6345 ppb	03:19:53
3	Mn 257.610†	396861.5	393823.4	438.52 ug/L	438.52 ppb	03:19:53
3	Mo 202.031†	44.0	20.0	2.6478 ug/L	2.6478 ppb	03:20:13
3	Ni 231.604†	382.9	312.4	7.7750 ug/L	7.7750 ppb	03:20:13
3	P 214.914†	519.9	286.7	161.66 ug/L	161.66 ppb	03:20:13
3	Pb 220.353†	59.6	122.6	14.992 ug/L	14.992 ppb	03:20:13
3	S 181.975 Axial†	112.1	68.4	95.281 ug/L	95.281 ppb	03:20:13
3	Sb 206.836†	41.5	13.3	2.4198 ug/L	2.4198 ppb	03:20:13
3	Se 196.026†	-102.3	-69.6	12.168 ug/L	12.168 ppb	03:20:13
3	Si 251.611†	174193.1	172504.4	5494.0 ug/L	5494.0 ppb	03:19:53
3	Sn 189.927†	-3.6	-11.3	-1.4582 ug/L	-1.4582 ppb	03:20:13
3	Ti 334.940†	372954.3	371891.8	599.24 ug/L	599.24 ppb	03:19:53
3	Tl 190.801†	-60.3	-27.0	-2.2075 ug/L	-2.2075 ppb	03:20:13
3	U 409.014†	-3605.7	-1570.5	-48.408 ug/L	-48.408 ppb	03:19:53
3	V 292.402†	2192.7	3488.1	20.416 ug/L	20.416 ppb	03:19:53
3	Zn 213.857†	6292.2	5630.9	51.478 ug/L	51.478 ppb	03:19:53
3	SiO2†	172358.3	170660.3	11644 ug/L	11644 ppb	03:20:29

Mean Data: 1202004430|936808|5

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	855159.4	100.32	%	0.375				0.37%
Sc Radial	5078.2	101	%	2.1				2.12%
Y 371.029	751544.2	104.00	%	0.487				0.47%
Y RADIAL	5675.1	104.5	%	2.01				1.92%
Ag 328.068†	-1200.2	0.2552	ug/L	0.24611	0.2552	ppb	0.24611	96.44%
Al 396.153Radial†	10022.0	7731.8	ug/L	42.18	7731.8	ppb	42.18	0.55%
As 188.979†	-5.3	3.9888	ug/L	1.24935	3.9888	ppb	1.24935	31.32%
B 249.677†	298.4	4.8590	ug/L	1.27622	4.8590	ppb	1.27622	26.26%
Ba 233.527†	11822.0	92.982	ug/L	0.0946	92.982	ppb	0.0946	0.10%
Be 313.107†	-1414.1	0.8225	ug/L	0.01343	0.8225	ppb	0.01343	1.63%
Ca 317.933Radial†	1044.9	1671.9	ug/L	30.03	1671.9	ppb	30.03	1.80%
Cd 226.502†	175.4	0.1315	ug/L	0.07642	0.1315	ppb	0.07642	58.12%
Co 228.616†	313.6	4.9444	ug/L	0.14050	4.9444	ppb	0.14050	2.84%
Cr 267.716†	2169.2	24.647	ug/L	0.4860	24.647	ppb	0.4860	1.97%
Cu 324.752†	1898.8	6.6336	ug/L	0.13984	6.6336	ppb	0.13984	2.11%
Fe 238.204 Radial†	2024.7	17522	ug/L	288.0	17522	ppb	288.0	1.64%
K 766.490 Radial†	6486.4	1183.8	ug/L	23.41	1183.8	ppb	23.41	1.98%

Mg 279.077 IEC†	45.9	1515.3	ug/L	30.01	1515.3	ppb	30.01	1.98%
Mn 257.610†	394334.5	439.06	ug/L	0.508	439.06	ppb	0.508	0.12%
Mo 202.031†	18.6	2.5316	ug/L	0.17921	2.5316	ppb	0.17921	7.08%
Na 589.592 Radial†	1140.7	341.54	ug/L	9.423	341.54	ppb	9.423	2.76%
Ni 231.604†	324.6	8.0799	ug/L	0.31259	8.0799	ppb	0.31259	3.87%
P 214.914†	292.7	165.55	ug/L	5.257	165.55	ppb	5.257	3.18%
Pb 220.353†	128.5	15.737	ug/L	1.1160	15.737	ppb	1.1160	7.09%
S 181.975 Axial†	65.7	91.485	ug/L	4.8374	91.485	ppb	4.8374	5.29%
Sb 206.836†	15.0	3.0105	ug/L	1.02769	3.0105	ppb	1.02769	34.14%
Se 196.026†	-63.9	15.122	ug/L	2.6008	15.122	ppb	2.6008	17.20%
Si 251.611†	172744.7	5501.6	ug/L	6.67	5501.6	ppb	6.67	0.12%
Sn 189.927†	-12.0	-1.5948	ug/L	0.13738	-1.5948	ppb	0.13738	8.61%
Sr 421.552†	2231.3	14.399	ug/L	0.1463	14.399	ppb	0.1463	1.02%
Ti 334.940†	372165.3	599.68	ug/L	0.481	599.68	ppb	0.481	0.08%
Tl 190.801†	-29.4	-2.9173	ug/L	0.97652	-2.9173	ppb	0.97652	33.47%
U 409.014†	-1726.6	-52.986	ug/L	3.9696	-52.986	ppb	3.9696	7.49%
V 292.402†	3498.5	20.512	ug/L	0.0829	20.512	ppb	0.0829	0.40%
Zn 213.857†	5640.1	51.586	ug/L	0.2375	51.586	ppb	0.2375	0.46%
SiO2†	172155.7	11746	ug/L	121.6	11746	ppb	121.6	1.04%

Sequence No.: 105
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 1/12/2010 03:22:41
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5045.3	5045.3	100	%			03:24:33
1	Y RADIAL	5404.9	5404.9	99.55	%			03:24:33
1	Al 396.153Radial†	6601.7	6589.3	5057.7	ug/L	5057.7	ppb	03:24:33
1	Ca 317.933Radial†	3228.4	3202.2	5123.8	ug/L	5123.8	ppb	03:24:53
1	Fe 238.204 Radial†	615.0	604.9	5250.6	ug/L	5250.6	ppb	03:24:53
1	K 766.490 Radial†	30514.5	27863.8	5090.8	ug/L	5090.8	ppb	03:24:33
1	Mg 279.077 IEC†	162.4	160.2	5352.3	ug/L	5352.3	ppb	03:24:53
1	Na 589.592 Radial†	33213.8	34428.4	10308	ug/L	10308	ppb	03:24:33
1	Sr 421.552†	79031.3	78894.1	509.53	ug/L	509.53	ppb	03:24:33
1	Sc 361.383	844293.8	844293.8	99.049	%			03:25:51
1	Y 371.029	703084.9	703084.9	97.290	%			03:25:51
1	Ag 328.068†	114065.7	114802.6	531.89	ug/L	531.89	ppb	03:25:56
1	As 188.979†	1182.2	1217.2	529.62	ug/L	529.62	ppb	03:26:16
1	B 249.677†	22197.9	23042.8	511.67	ug/L	511.67	ppb	03:25:56
1	Ba 233.527†	66436.9	67086.1	525.06	ug/L	525.06	ppb	03:25:56
1	Be 313.107†	1357961.2	1375581.3	525.31	ug/L	525.31	ppb	03:25:51
1	Cd 226.502†	46737.3	47390.0	525.76	ug/L	525.76	ppb	03:25:56
1	Co 228.616†	25424.1	25742.9	527.05	ug/L	527.05	ppb	03:25:56
1	Cr 267.716†	46688.6	47053.5	526.70	ug/L	526.70	ppb	03:25:56
1	Cu 324.752†	177541.6	172833.6	516.80	ug/L	516.80	ppb	03:25:56
1	Mn 257.610†	467865.7	471911.7	523.53	ug/L	523.53	ppb	03:25:51
1	Mo 202.031†	7491.8	7540.0	533.31	ug/L	533.31	ppb	03:26:16
1	Ni 231.604†	21063.3	21197.5	527.50	ug/L	527.50	ppb	03:25:56
1	P 214.914†	4476.2	4289.3	2512.0	ug/L	2512.0	ppb	03:26:16
1	Pb 220.353†	4191.4	4295.0	527.65	ug/L	527.65	ppb	03:26:16
1	S 181.975 Axial†	796.9	761.6	1076.8	ug/L	1076.8	ppb	03:26:16
1	Sb 206.836†	1534.5	1521.3	540.20	ug/L	540.20	ppb	03:26:16
1	Se 196.026†	779.1	818.6	546.12	ug/L	546.12	ppb	03:26:16
1	Si 251.611†	83702.1	83955.1	2667.3	ug/L	2667.3	ppb	03:25:56
1	Sn 189.927†	2984.1	3005.1	533.22	ug/L	533.22	ppb	03:26:16
1	Ti 334.940†	317254.4	321674.2	517.97	ug/L	517.97	ppb	03:25:56
1	Tl 190.801†	1664.4	1713.2	528.78	ug/L	528.78	ppb	03:26:16
1	U 409.014†	15973.3	18138.2	533.30	ug/L	533.30	ppb	03:25:56
1	V 292.402†	74624.7	76650.7	530.73	ug/L	530.73	ppb	03:25:56
1	Zn 213.857†	55623.0	55536.7	520.70	ug/L	520.70	ppb	03:25:56
1	SiO2†	84458.4	84697.4	5764.5	ug/L	5764.5	ppb	03:27:23
2	Sc Radial	5011.9	5011.9	99.5	%			03:24:58
2	Y RADIAL	5374.7	5374.7	98.99	%			03:24:58
2	Al 396.153Radial†	6591.3	6622.6	5083.5	ug/L	5083.5	ppb	03:24:58
2	Ca 317.933Radial†	3244.9	3240.3	5184.7	ug/L	5184.7	ppb	03:25:18
2	Fe 238.204 Radial†	620.7	614.7	5335.5	ug/L	5335.5	ppb	03:25:18
2	K 766.490 Radial†	30246.6	27797.4	5078.6	ug/L	5078.6	ppb	03:24:58
2	Mg 279.077 IEC†	166.3	165.1	5517.3	ug/L	5517.3	ppb	03:25:18
2	Na 589.592 Radial†	32954.0	34388.0	10296	ug/L	10296	ppb	03:24:58
2	Sr 421.552†	78787.7	79174.3	511.34	ug/L	511.34	ppb	03:24:58
2	Sc 361.383	846990.3	846990.3	99.366	%			03:26:22
2	Y 371.029	706257.1	706257.1	97.729	%			03:26:22
2	Ag 328.068†	114761.2	115135.9	533.46	ug/L	533.46	ppb	03:26:27
2	As 188.979†	1176.2	1207.3	525.35	ug/L	525.35	ppb	03:26:47
2	B 249.677†	22471.2	23246.5	516.20	ug/L	516.20	ppb	03:26:27
2	Ba 233.527†	66784.3	67222.1	526.13	ug/L	526.13	ppb	03:26:27
2	Be 313.107†	1362260.1	1375543.0	525.30	ug/L	525.30	ppb	03:26:22
2	Cd 226.502†	46938.5	47442.3	526.33	ug/L	526.33	ppb	03:26:27
2	Co 228.616†	25567.0	25804.9	528.31	ug/L	528.31	ppb	03:26:27
2	Cr 267.716†	46930.5	47146.9	527.75	ug/L	527.75	ppb	03:26:27
2	Cu 324.752†	179084.2	173815.3	519.74	ug/L	519.74	ppb	03:26:27
2	Mn 257.610†	468520.5	471067.0	522.60	ug/L	522.60	ppb	03:26:22
2	Mo 202.031†	7487.9	7512.0	531.33	ug/L	531.33	ppb	03:26:47
2	Ni 231.604†	21100.2	21167.0	526.74	ug/L	526.74	ppb	03:26:27

2	P 214.914†	4482.2	4281.0	2506.2 ug/L	2506.2 ppb	03:26:47
2	Pb 220.353†	4196.1	4286.3	526.57 ug/L	526.57 ppb	03:26:47
2	S 181.975 Axial†	788.5	750.5	1061.1 ug/L	1061.1 ppb	03:26:47
2	Sb 206.836†	1533.0	1514.8	537.94 ug/L	537.94 ppb	03:26:47
2	Se 196.026†	785.4	822.4	548.87 ug/L	548.87 ppb	03:26:47
2	Si 251.611†	84198.0	84185.1	2674.6 ug/L	2674.6 ppb	03:26:27
2	Sn 189.927†	2988.9	3000.3	532.37 ug/L	532.37 ppb	03:26:47
2	Ti 334.940†	319431.3	322845.2	519.85 ug/L	519.85 ppb	03:26:27
2	Tl 190.801†	1677.0	1720.6	531.04 ug/L	531.04 ppb	03:26:47
2	U 409.014†	16221.5	18336.7	539.14 ug/L	539.14 ppb	03:26:27
2	V 292.402†	75200.3	76990.2	533.02 ug/L	533.02 ppb	03:26:27
2	Zn 213.857†	56062.3	55800.0	523.19 ug/L	523.19 ppb	03:26:27
2	SiO2†	84912.8	84883.3	5777.3 ug/L	5777.3 ppb	03:27:28
3	Sc Radial	4987.5	4987.5	99.1 %		03:25:24
3	Y RADIAL	5294.0	5294.0	97.51 %		03:25:24
3	Al 396.153Radial†	6560.7	6624.2	5084.9 ug/L	5084.9 ppb	03:25:24
3	Ca 317.933Radial†	3230.4	3241.6	5186.9 ug/L	5186.9 ppb	03:25:44
3	Fe 238.204 Radial†	613.6	610.6	5300.0 ug/L	5300.0 ppb	03:25:44
3	K 766.490 Radial†	30082.8	27780.9	5075.7 ug/L	5075.7 ppb	03:25:24
3	Mg 279.077 IEC†	161.2	160.8	5373.9 ug/L	5373.9 ppb	03:25:44
3	Na 589.592 Radial†	32527.3	34119.5	10216 ug/L	10216 ppb	03:25:24
3	Sr 421.552†	77652.9	78416.5	506.45 ug/L	506.45 ppb	03:25:24
3	Sc 361.383	849291.1	849291.1	99.636 %		03:26:53
3	Y 371.029	709062.9	709062.9	98.117 %		03:26:53
3	Ag 328.068†	114591.9	114653.1	531.22 ug/L	531.22 ppb	03:26:58
3	As 188.979†	1173.6	1201.6	522.87 ug/L	522.87 ppb	03:27:18
3	B 249.677†	22399.3	23113.1	513.23 ug/L	513.23 ppb	03:26:58
3	Ba 233.527†	66820.7	67076.5	524.99 ug/L	524.99 ppb	03:26:58
3	Be 313.107†	1367681.3	1377270.0	525.96 ug/L	525.96 ppb	03:26:53
3	Cd 226.502†	47009.7	47385.8	525.71 ug/L	525.71 ppb	03:26:58
3	Co 228.616†	25566.8	25735.0	526.87 ug/L	526.87 ppb	03:26:58
3	Cr 267.716†	47028.9	47117.7	527.42 ug/L	527.42 ppb	03:26:58
3	Cu 324.752†	178831.3	173073.3	517.52 ug/L	517.52 ppb	03:26:58
3	Mn 257.610†	468389.9	469658.5	521.04 ug/L	521.04 ppb	03:26:53
3	Mo 202.031†	7473.9	7477.5	528.89 ug/L	528.89 ppb	03:27:18
3	Ni 231.604†	21134.5	21143.9	526.17 ug/L	526.17 ppb	03:26:58
3	P 214.914†	4474.9	4261.4	2494.7 ug/L	2494.7 ppb	03:27:18
3	Pb 220.353†	4207.1	4285.9	526.52 ug/L	526.52 ppb	03:27:18
3	S 181.975 Axial†	788.6	748.5	1058.3 ug/L	1058.3 ppb	03:27:18
3	Sb 206.836†	1529.9	1507.5	535.37 ug/L	535.37 ppb	03:27:18
3	Se 196.026†	781.3	816.1	544.69 ug/L	544.69 ppb	03:27:18
3	Si 251.611†	84226.6	83984.3	2668.3 ug/L	2668.3 ppb	03:26:58
3	Sn 189.927†	2990.8	2994.0	531.26 ug/L	531.26 ppb	03:27:18
3	Ti 334.940†	319686.3	322230.3	518.87 ug/L	518.87 ppb	03:26:58
3	Tl 190.801†	1674.3	1713.3	528.80 ug/L	528.80 ppb	03:27:18
3	U 409.014†	16237.4	18308.4	538.31 ug/L	538.31 ppb	03:26:58
3	V 292.402†	75263.4	76848.4	532.02 ug/L	532.02 ppb	03:26:58
3	Zn 213.857†	55879.4	55463.6	520.02 ug/L	520.02 ppb	03:26:58
3	SiO2†	83080.1	82812.3	5636.0 ug/L	5636.0 ppb	03:27:34

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	846858.4	99.350	%	0.2934				0.30%
Sc Radial	5014.9	99.6	%	0.58				0.58%
Y 371.029	706135.0	97.712	%	0.4139				0.42%
Y RADIAL	5357.9	98.68	%	1.055				1.07%
Ag 328.068†	114863.9	532.19	ug/L	1.148	532.19	ppb	1.148	0.22%
QC value within limits for Ag 328.068 Recovery = 106.44%								
Al 396.153Radial†	6612.0	5075.4	ug/L	15.32	5075.4	ppb	15.32	0.30%
QC value within limits for Al 396.153Radial Recovery = 101.51%								
As 188.979†	1208.7	525.95	ug/L	3.417	525.95	ppb	3.417	0.65%
QC value within limits for As 188.979 Recovery = 105.19%								
B 249.677†	23134.1	513.70	ug/L	2.300	513.70	ppb	2.300	0.45%
QC value within limits for B 249.677 Recovery = 102.74%								
Ba 233.527†	67128.2	525.39	ug/L	0.639	525.39	ppb	0.639	0.12%
QC value within limits for Ba 233.527 Recovery = 105.08%								
Be 313.107†	1376131.4	525.52	ug/L	0.376	525.52	ppb	0.376	0.07%
QC value within limits for Be 313.107 Recovery = 105.10%								
Ca 317.933Radial†	3228.0	5165.1	ug/L	35.79	5165.1	ppb	35.79	0.69%

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   QC value within limits for Ca 317.933Radial  Recovery = 103.30%
Cd 226.502†            47406.0      525.93 ug/L         0.346      525.93 ppb          0.346   0.07%
   QC value within limits for Cd 226.502  Recovery = 105.19%
Co 228.616†            25760.9      527.41 ug/L         0.783      527.41 ppb          0.783   0.15%
   QC value within limits for Co 228.616  Recovery = 105.48%
Cr 267.716†            47106.0      527.29 ug/L         0.535      527.29 ppb          0.535   0.10%
   QC value within limits for Cr 267.716  Recovery = 105.46%
Cu 324.752†           173240.7      518.02 ug/L         1.531      518.02 ppb          1.531   0.30%
   QC value within limits for Cu 324.752  Recovery = 103.60%
Fe 238.204 Radial†       610.1      5295.4 ug/L        42.65      5295.4 ppb         42.65   0.81%
   QC value within limits for Fe 238.204 Radial  Recovery = 105.91%
K 766.490 Radial†      27814.0      5081.7 ug/L         8.01      5081.7 ppb          8.01   0.16%
   QC value within limits for K 766.490 Radial  Recovery = 101.63%
Mg 279.077 IEC†          162.1      5414.5 ug/L        89.69      5414.5 ppb         89.69   1.66%
   QC value within limits for Mg 279.077 IEC  Recovery = 108.29%
Mn 257.610†           470879.1      522.39 ug/L         1.260      522.39 ppb          1.260   0.24%
   QC value within limits for Mn 257.610  Recovery = 104.48%
Mo 202.031†             7509.8      531.18 ug/L         2.211      531.18 ppb          2.211   0.42%
   QC value within limits for Mo 202.031  Recovery = 106.24%
Na 589.592 Radial†     34311.9       10273 ug/L        50.3        10273 ppb         50.3   0.49%
   QC value within limits for Na 589.592 Radial  Recovery = 102.73%
Ni 231.604†            21169.4      526.80 ug/L         0.670      526.80 ppb          0.670   0.13%
   QC value within limits for Ni 231.604  Recovery = 105.36%
P 214.914†              4277.2      2504.3 ug/L         8.80      2504.3 ppb          8.80   0.35%
   QC value within limits for P 214.914  Recovery = 100.17%
Pb 220.353†             4289.1      526.92 ug/L         0.639      526.92 ppb          0.639   0.12%
   QC value within limits for Pb 220.353  Recovery = 105.38%
S 181.975 Axial†         753.5      1065.4 ug/L         9.95      1065.4 ppb          9.95   0.93%
   QC value within limits for S 181.975 Axial  Recovery = 106.54%
Sb 206.836†             1514.5      537.84 ug/L         2.416      537.84 ppb          2.416   0.45%
   QC value within limits for Sb 206.836  Recovery = 107.57%
Se 196.026†              819.0      546.56 ug/L         2.123      546.56 ppb          2.123   0.39%
   QC value within limits for Se 196.026  Recovery = 109.31%
Si 251.611†            84041.5      2670.1 ug/L         3.99      2670.1 ppb          3.99   0.15%
   QC value within limits for Si 251.611  Recovery = 106.80%
Sn 189.927†             2999.8      532.28 ug/L         0.980      532.28 ppb          0.980   0.18%
   QC value within limits for Sn 189.927  Recovery = 106.46%
Sr 421.552†            78828.3      509.11 ug/L         2.475      509.11 ppb          2.475   0.49%
   QC value within limits for Sr 421.552  Recovery = 101.82%
Ti 334.940†           322249.9      518.90 ug/L         0.939      518.90 ppb          0.939   0.18%
   QC value within limits for Ti 334.940  Recovery = 103.78%
Tl 190.801†             1715.7      529.54 ug/L         1.301      529.54 ppb          1.301   0.25%
   QC value within limits for Tl 190.801  Recovery = 105.91%
U 409.014†             18261.1      536.92 ug/L         3.161      536.92 ppb          3.161   0.59%
   QC value within limits for U 409.014  Recovery = 107.38%
V 292.402†             76829.7      531.92 ug/L         1.146      531.92 ppb          1.146   0.22%
   QC value within limits for V 292.402  Recovery = 106.38%
Zn 213.857†            55600.1      521.30 ug/L         1.668      521.30 ppb          1.668   0.32%
   QC value within limits for Zn 213.857  Recovery = 104.26%
SiO2†                  84131.0      5725.9 ug/L        78.13      5725.9 ppb         78.13   1.36%
   QC value within limits for SiO2  Recovery = 107.08%
All analyte(s) passed QC.
```

Sequence No.: 106
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 1/12/2010 03:29:43
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	5068.8	5068.8	101	%			03:31:36
1	Y RADIAL	5413.4	5413.4	99.70	%			03:31:36
1	Al 396.153Radial†	-16.4	-15.6	-12.006	ug/L	-12.006	ppb	03:31:36
1	Ca 317.933Radial†	12.5	-7.4	-11.831	ug/L	-11.831	ppb	03:31:56
1	Fe 238.204 Radial†	12.0	3.0	26.099	ug/L	26.099	ppb	03:31:56
1	K 766.490 Radial†	2793.1	184.5	33.844	ug/L	33.844	ppb	03:31:36
1	Mg 279.077 IEC†	2.9	1.0	34.003	ug/L	34.003	ppb	03:31:56
1	Na 589.592 Radial†	-1297.2	-8.1	-2.4374	ug/L	-2.4374	ppb	03:31:36
1	Sr 421.552†	32.4	51.7	0.3340	ug/L	0.3340	ppb	03:31:36
1	Sc 361.383	841433.7	841433.7	98.714	%			03:32:53
1	Y 371.029	713597.1	713597.1	98.745	%			03:32:53
1	Ag 328.068†	385.1	32.1	0.1548	ug/L	0.1548	ppb	03:32:53
1	As 188.979†	-19.2	4.2	1.8278	ug/L	1.8278	ppb	03:33:13
1	B 249.677†	-418.3	208.1	4.6370	ug/L	4.6370	ppb	03:33:13
1	Ba 233.527†	-6.5	4.8	0.0385	ug/L	0.0385	ppb	03:33:13
1	Be 313.107†	-4511.9	14.7	0.0057	ug/L	0.0057	ppb	03:32:53
1	Cd 226.502†	-195.3	6.3	0.0677	ug/L	0.0677	ppb	03:33:13
1	Co 228.616†	-76.2	-2.5	-0.0529	ug/L	-0.0529	ppb	03:33:13
1	Cr 267.716†	76.9	-5.3	-0.0597	ug/L	-0.0597	ppb	03:33:13
1	Cu 324.752†	6355.7	26.3	0.0787	ug/L	0.0787	ppb	03:32:53
1	Mn 257.610†	424.0	-15.3	-0.0155	ug/L	-0.0155	ppb	03:33:13
1	Mo 202.031†	13.9	-9.6	-0.6802	ug/L	-0.6802	ppb	03:33:13
1	Ni 231.604†	73.6	6.6	0.1636	ug/L	0.1636	ppb	03:33:13
1	P 214.914†	219.8	-7.2	-4.4456	ug/L	-4.4456	ppb	03:33:13
1	Pb 220.353†	-66.9	-4.4	-0.5464	ug/L	-0.5464	ppb	03:33:13
1	S 181.975 Axial†	43.7	1.2	1.7418	ug/L	1.7418	ppb	03:33:13
1	Sb 206.836†	39.0	11.6	3.9592	ug/L	3.9592	ppb	03:33:13
1	Se 196.026†	-19.9	11.8	7.7146	ug/L	7.7146	ppb	03:33:13
1	Si 251.611†	623.2	80.8	2.5823	ug/L	2.5823	ppb	03:33:13
1	Sn 189.927†	7.7	0.1	0.0161	ug/L	0.0161	ppb	03:33:13
1	Ti 334.940†	-1336.4	20.7	0.0283	ug/L	0.0283	ppb	03:32:53
1	Tl 190.801†	-43.2	-10.9	-3.3366	ug/L	-3.3366	ppb	03:33:13
1	U 409.014†	-1908.4	78.4	2.3100	ug/L	2.3100	ppb	03:32:53
1	V 292.402†	-1292.3	0.6	-0.0050	ug/L	-0.0050	ppb	03:32:53
1	Zn 213.857†	628.2	16.2	0.1492	ug/L	0.1492	ppb	03:33:13
1	SiO2†	618.9	55.3	3.7920	ug/L	3.7920	ppb	03:34:09
2	Sc Radial	5079.4	5079.4	101	%			03:32:01
2	Y RADIAL	5459.4	5459.4	100.6	%			03:32:01
2	Al 396.153Radial†	-12.5	-11.7	-9.0396	ug/L	-9.0396	ppb	03:32:01
2	Ca 317.933Radial†	15.5	-4.4	-7.0327	ug/L	-7.0327	ppb	03:32:21
2	Fe 238.204 Radial†	6.8	-2.1	-18.189	ug/L	-18.189	ppb	03:32:21
2	K 766.490 Radial†	2745.2	131.2	24.065	ug/L	24.065	ppb	03:32:01
2	Mg 279.077 IEC†	1.0	-0.9	-29.856	ug/L	-29.856	ppb	03:32:21
2	Na 589.592 Radial†	-1314.4	-22.6	-6.7659	ug/L	-6.7659	ppb	03:32:01
2	Sr 421.552†	-7.4	12.1	0.0785	ug/L	0.0785	ppb	03:32:01
2	Sc 361.383	843036.6	843036.6	98.902	%			03:33:18
2	Y 371.029	716130.9	716130.9	99.095	%			03:33:18
2	Ag 328.068†	297.8	-56.9	-0.2692	ug/L	-0.2692	ppb	03:33:18
2	As 188.979†	-28.9	-5.6	-2.4371	ug/L	-2.4371	ppb	03:33:38
2	B 249.677†	-421.8	205.4	4.5807	ug/L	4.5807	ppb	03:33:38
2	Ba 233.527†	-5.8	5.6	0.0426	ug/L	0.0426	ppb	03:33:38
2	Be 313.107†	-4522.1	13.0	0.0049	ug/L	0.0049	ppb	03:33:18
2	Cd 226.502†	-170.6	31.6	0.3531	ug/L	0.3531	ppb	03:33:38
2	Co 228.616†	-77.0	-3.2	-0.0654	ug/L	-0.0654	ppb	03:33:38
2	Cr 267.716†	94.4	12.2	0.1357	ug/L	0.1357	ppb	03:33:38
2	Cu 324.752†	6267.5	-75.1	-0.2262	ug/L	-0.2262	ppb	03:33:18
2	Mn 257.610†	421.3	-18.9	-0.0217	ug/L	-0.0217	ppb	03:33:38
2	Mo 202.031†	20.6	-2.9	-0.2031	ug/L	-0.2031	ppb	03:33:38
2	Ni 231.604†	61.0	-6.2	-0.1554	ug/L	-0.1554	ppb	03:33:38

2	P 214.914†	219.2	-8.2	-4.9482 ug/L	-4.9482 ppb	03:33:38
2	Pb 220.353†	-57.0	5.7	0.6952 ug/L	0.6952 ppb	03:33:38
2	S 181.975 Axial†	51.1	8.7	12.268 ug/L	12.268 ppb	03:33:38
2	Sb 206.836†	39.0	11.5	3.9219 ug/L	3.9219 ppb	03:33:38
2	Se 196.026†	-28.5	3.2	1.9967 ug/L	1.9967 ppb	03:33:38
2	Si 251.611†	619.0	75.4	2.4028 ug/L	2.4028 ppb	03:33:38
2	Sn 189.927†	6.7	-0.9	-0.1672 ug/L	-0.1672 ppb	03:33:38
2	Ti 334.940†	-1364.6	-5.3	-0.0075 ug/L	-0.0075 ppb	03:33:18
2	Tl 190.801†	-27.7	4.9	1.4898 ug/L	1.4898 ppb	03:33:38
2	U 409.014†	-1945.4	44.6	1.3181 ug/L	1.3181 ppb	03:33:18
2	V 292.402†	-1308.0	-12.8	-0.0858 ug/L	-0.0858 ppb	03:33:18
2	Zn 213.857†	620.3	6.9	0.0686 ug/L	0.0686 ppb	03:33:38
2	SiO2†	671.8	107.6	7.3477 ug/L	7.3477 ppb	03:34:14
3	Sc Radial	5032.9	5032.9	100.0 %		03:32:26
3	Y RADIAL	5432.7	5432.7	100.1 %		03:32:26
3	Al 396.153Radial†	14.3	15.0	11.534 ug/L	11.534 ppb	03:32:26
3	Ca 317.933Radial†	16.6	-3.2	-5.0511 ug/L	-5.0511 ppb	03:32:46
3	Fe 238.204 Radial†	9.0	0.1	1.2048 ug/L	1.2048 ppb	03:32:46
3	K 766.490 Radial†	2645.7	56.9	10.430 ug/L	10.430 ppb	03:32:26
3	Mg 279.077 IEC†	2.9	1.0	32.475 ug/L	32.475 ppb	03:32:46
3	Na 589.592 Radial†	-1321.2	-41.3	-12.379 ug/L	-12.379 ppb	03:32:26
3	Sr 421.552†	12.3	31.8	0.2053 ug/L	0.2053 ppb	03:32:26
3	Sc 361.383	841037.1	841037.1	98.667 %		03:33:44
3	Y 371.029	715401.7	715401.7	98.995 %		03:33:44
3	Ag 328.068†	314.3	-39.4	-0.1866 ug/L	-0.1866 ppb	03:33:44
3	As 188.979†	-18.9	4.5	1.9384 ug/L	1.9384 ppb	03:34:04
3	B 249.677†	-419.8	206.4	4.6014 ug/L	4.6014 ppb	03:34:04
3	Ba 233.527†	-17.5	-6.3	-0.0513 ug/L	-0.0513 ppb	03:34:04
3	Be 313.107†	-4437.9	87.5	0.0337 ug/L	0.0337 ppb	03:33:44
3	Cd 226.502†	-177.8	23.9	0.2661 ug/L	0.2661 ppb	03:34:04
3	Co 228.616†	-83.6	-10.1	-0.2052 ug/L	-0.2052 ppb	03:34:04
3	Cr 267.716†	96.4	14.4	0.1588 ug/L	0.1588 ppb	03:34:04
3	Cu 324.752†	6258.1	-69.6	-0.2094 ug/L	-0.2094 ppb	03:33:44
3	Mn 257.610†	435.1	-3.9	-0.0055 ug/L	-0.0055 ppb	03:34:04
3	Mo 202.031†	30.8	7.5	0.5310 ug/L	0.5310 ppb	03:34:04
3	Ni 231.604†	71.3	4.3	0.1080 ug/L	0.1080 ppb	03:34:04
3	P 214.914†	237.8	11.2	6.8783 ug/L	6.8783 ppb	03:34:04
3	Pb 220.353†	-63.0	-0.5	-0.0601 ug/L	-0.0601 ppb	03:34:04
3	S 181.975 Axial†	49.3	7.0	9.8506 ug/L	9.8506 ppb	03:34:04
3	Sb 206.836†	34.3	6.8	2.3337 ug/L	2.3337 ppb	03:34:04
3	Se 196.026†	-26.0	5.6	3.6377 ug/L	3.6377 ppb	03:34:04
3	Si 251.611†	617.7	75.6	2.4003 ug/L	2.4003 ppb	03:34:04
3	Sn 189.927†	7.1	-0.5	-0.0880 ug/L	-0.0880 ppb	03:34:04
3	Ti 334.940†	-1253.5	104.1	0.1634 ug/L	0.1634 ppb	03:33:44
3	Tl 190.801†	-35.1	-2.7	-0.8337 ug/L	-0.8337 ppb	03:34:04
3	U 409.014†	-1902.2	83.7	2.4698 ug/L	2.4698 ppb	03:33:44
3	V 292.402†	-1429.9	-139.5	-0.9393 ug/L	-0.9393 ppb	03:33:44
3	Zn 213.857†	634.8	23.2	0.2187 ug/L	0.2187 ppb	03:34:04
3	SiO2†	662.0	99.2	6.7554 ug/L	6.7554 ppb	03:34:19

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	841835.8	98.761	%	0.1242				0.13%
Sc Radial	5060.4	100	%	0.5				0.48%
Y 371.029	715043.2	98.945	%	0.1805				0.18%
Y RADIAL	5435.1	100.1	%	0.43				0.42%
Ag 328.068†	-21.4	-0.1003	ug/L	0.22477	-0.1003	ppb	0.22477	224.07%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-4.1	-3.1706	ug/L	12.82070	-3.1706	ppb	12.82070	404.37%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	1.0	0.4430	ug/L	2.49490	0.4430	ppb	2.49490	563.16%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	206.6	4.6064	ug/L	0.02847	4.6064	ppb	0.02847	0.62%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	1.4	0.0099	ug/L	0.05304	0.0099	ppb	0.05304	533.68%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	38.4	0.0148	ug/L	0.01642	0.0148	ppb	0.01642	111.10%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-5.0	-7.9715	ug/L	3.48585	-7.9715	ppb	3.48585	43.73%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                20.6      0.2290 ug/L       0.14627      0.2290 ppb        0.14627  63.88%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                -5.2     -0.1079 ug/L       0.08453     -0.1079 ppb        0.08453  78.38%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                 7.1      0.0783 ug/L       0.12002      0.0783 ppb        0.12002 153.34%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               -39.5     -0.1190 ug/L       0.17142     -0.1190 ppb        0.17142 144.10%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          0.4      3.0383 ug/L      22.20094      3.0383 ppb       22.20094 730.70%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         124.2     22.779 ug/L       11.7595      22.779 ppb        11.7595  51.62%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             0.4     12.207 ug/L       36.4361      12.207 ppb        36.4361 298.48%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               -12.7     -0.0142 ug/L       0.00820     -0.0142 ppb        0.00820  57.69%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                -1.7     -0.1175 ug/L       0.61014     -0.1175 ppb        0.61014 519.45%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        -24.0     -7.1942 ug/L       4.98484     -7.1942 ppb        4.98484  69.29%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                 1.6      0.0387 ug/L       0.17038      0.0387 ppb        0.17038 439.84%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -1.4     -0.8385 ug/L       6.68764     -0.8385 ppb        6.68764 797.57%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                 0.3      0.0296 ug/L       0.62564      0.0296 ppb        0.62564 >999.9%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            5.6      7.9535 ug/L       5.51358      7.9535 ppb        5.51358  69.32%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 9.9      3.4049 ug/L       0.92791      3.4049 ppb        0.92791  27.25%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 6.9      4.4497 ug/L       2.94418      4.4497 ppb        2.94418  66.17%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                77.3      2.4618 ug/L       0.10438      2.4618 ppb        0.10438   4.24%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                -0.4     -0.0797 ug/L       0.09195     -0.0797 ppb        0.09195 115.37%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                31.9      0.2060 ug/L       0.12777      0.2060 ppb        0.12777  62.04%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                39.9      0.0614 ug/L       0.09012      0.0614 ppb        0.09012 146.81%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                -2.9     -0.8935 ug/L       2.41377     -0.8935 ppb        2.41377 270.14%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 68.9      2.0326 ug/L       0.62393      2.0326 ppb        0.62393  30.70%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                -50.6     -0.3434 ug/L       0.51766     -0.3434 ppb        0.51766 150.75%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                15.4      0.1455 ug/L       0.07515      0.1455 ppb        0.07515  51.65%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                      87.4      5.9650 ug/L       1.90506      5.9650 ppb        1.90506  31.94%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

1/14/2010 09:58:48 Hg ReAlign... Actual peak offset (nm): -0.009
Drift (nm): -0.000 Slit adjustment: 5

Analysis Begun

Start Time: 1/14/2010 10:00:33 **Plasma On Time: 1/11/2010 06:15:31**
Logged In Analyst: Optima3 **Technique: ICP Continuous**
Spectrometer Model: Optima 5300 DV, S/N 077C7090601Autosampler Model: S10

Sample Information File: C:\pe\Optima3\Sample Information\011410.sif
Batch ID:
Results Data Set: 011410
Results Library: C:\pe\Optima3\Results\Results.mdb

Method Loaded
Method Name: General Eng.2AX **Method Last Saved: 1/13/2010 13:20:34**
IEC File: 011110.iec **MSF File:**
Method Description:

Analyte	Calibration Equation	Processing	View	Internal Standard	IEC
Ag 328.068	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Al 396.153Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
As 188.979	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
B 249.677	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ba 233.527	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Be 313.107	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ca 317.933Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	No
Cd 226.502	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Co 228.616	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cr 267.716	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cu 324.752	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Fe 238.204 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
K 766.490 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Mg 279.077 IEC	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Mn 257.610	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Mo 202.031	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Na 589.592 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	No
Ni 231.604	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
P 214.914	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Pb 220.353	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
S 181.975 Axial	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sb 206.836	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sc 361.383	Lin Thru 0	Peak Area	Axial	n/a	n/a
Sc Radial	Lin, Calc Int	Peak Area	Radial	n/a	n/a
Se 196.026	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Si 251.611	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sn 189.927	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sr 421.552	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Ti 334.940	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Tl 190.801	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
U 409.014	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
V 292.402	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y 371.029	Lin, Calc Int	Peak Area	Axial	n/a	n/a
Zn 213.857	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y RADIAL	Lin, Calc Int	Peak Area	Radial	n/a	n/a
SiO2	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes

Sequence No.: 1 **Autosampler Location: 8**
Sample ID: S0 **Date Collected: 1/14/2010 10:00:35**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: S0

	Net	Corrected	Calib.	Analysis

Repl#	Analyte	Intensity	Intensity	Conc.	Units	Time
1	Sc Radial	4932.2	4932.2	103	%	10:02:28
1	Y RADIAL	5261.2	5261.2	102.6	%	10:02:28
1	Al 396.153Radial†	-7.8	-7.6	[0.00]	ug/L	10:02:28
1	Ca 317.933Radial†	16.3	15.8	[0.00]	ug/L	10:02:48
1	Fe 238.204 Radial†	8.9	8.6	[0.00]	ug/L	10:02:48
1	K 766.490 Radial†	2718.4	2640.8	[0.00]	ug/L	10:02:28
1	Mg 279.077 IEC†	-0.9	-0.9	[0.00]	ug/L	10:02:48
1	Na 589.592 Radial†	-1571.2	-1526.4	[0.00]	ug/L	10:02:28
1	Sr 421.552†	12.7	12.4	[0.00]	ug/L	10:02:28
1	Sc 361.383	832827.7	832827.7	102.33	%	10:03:44
1	Y 371.029	701724.3	701724.3	102.30	%	10:03:44
1	Ag 328.068†	297.6	290.8	[0.00]	ug/L	10:03:44
1	As 188.979†	-17.5	-17.1	[0.00]	ug/L	10:04:04
1	B 249.677†	-522.9	-511.0	[0.00]	ug/L	10:04:04
1	Ba 233.527†	-2.6	-2.6	[0.00]	ug/L	10:04:04
1	Be 313.107†	-4305.8	-4207.8	[0.00]	ug/L	10:03:44
1	Cd 226.502†	-196.0	-191.6	[0.00]	ug/L	10:04:04
1	Co 228.616†	-70.4	-68.8	[0.00]	ug/L	10:04:04
1	Cr 267.716†	98.2	95.9	[0.00]	ug/L	10:04:04
1	Cu 324.752†	6282.2	6139.2	[0.00]	ug/L	10:03:44
1	Mn 257.610†	401.9	392.7	[0.00]	ug/L	10:04:04
1	Mo 202.031†	18.7	18.2	[0.00]	ug/L	10:04:04
1	Ni 231.604†	81.1	79.3	[0.00]	ug/L	10:04:04
1	P 214.914†	234.2	228.9	[0.00]	ug/L	10:04:04
1	Pb 220.353†	-63.3	-61.9	[0.00]	ug/L	10:04:04
1	S 181.975 Axial†	44.1	43.1	[0.00]	ug/L	10:04:04
1	Sb 206.836†	38.8	37.9	[0.00]	ug/L	10:04:04
1	Se 196.026†	-37.7	-36.8	[0.00]	ug/L	10:04:04
1	Si 251.611†	455.1	444.7	[0.00]	ug/L	10:04:04
1	Sn 189.927†	8.2	8.0	[0.00]	ug/L	10:04:04
1	Ti 334.940†	-1420.0	-1387.7	[0.00]	ug/L	10:03:44
1	Tl 190.801†	-42.9	-41.9	[0.00]	ug/L	10:04:04
1	U 409.014†	-1985.4	-1940.2	[0.00]	ug/L	10:03:44
1	V 292.402†	-1388.2	-1356.6	[0.00]	ug/L	10:03:44
1	Zn 213.857†	840.0	820.9	[0.00]	ug/L	10:04:04
1	SiO2†	437.7	427.7	[0.00]	ug/L	10:05:00
2	Sc Radial	4791.8	4791.8	100	%	10:02:53
2	Y RADIAL	5129.8	5129.8	100.0	%	10:02:53
2	Al 396.153Radial†	9.0	9.0	[0.00]	ug/L	10:02:53
2	Ca 317.933Radial†	16.0	16.0	[0.00]	ug/L	10:03:13
2	Fe 238.204 Radial†	9.4	9.4	[0.00]	ug/L	10:03:13
2	K 766.490 Radial†	2747.3	2747.0	[0.00]	ug/L	10:02:53
2	Mg 279.077 IEC†	2.9	2.9	[0.00]	ug/L	10:03:13
2	Na 589.592 Radial†	-1583.6	-1583.4	[0.00]	ug/L	10:02:53
2	Sr 421.552†	39.6	39.6	[0.00]	ug/L	10:02:53
2	Sc 361.383	807814.0	807814.0	99.256	%	10:04:10
2	Y 371.029	680196.8	680196.8	99.160	%	10:04:10
2	Ag 328.068†	231.7	233.4	[0.00]	ug/L	10:04:10
2	As 188.979†	-24.5	-24.7	[0.00]	ug/L	10:04:30
2	B 249.677†	-502.7	-506.4	[0.00]	ug/L	10:04:30
2	Ba 233.527†	17.5	17.6	[0.00]	ug/L	10:04:30
2	Be 313.107†	-4286.9	-4319.0	[0.00]	ug/L	10:04:10
2	Cd 226.502†	-195.2	-196.7	[0.00]	ug/L	10:04:30
2	Co 228.616†	-74.9	-75.5	[0.00]	ug/L	10:04:30
2	Cr 267.716†	93.2	93.9	[0.00]	ug/L	10:04:30
2	Cu 324.752†	6375.5	6423.2	[0.00]	ug/L	10:04:10
2	Mn 257.610†	403.8	406.9	[0.00]	ug/L	10:04:30
2	Mo 202.031†	21.5	21.7	[0.00]	ug/L	10:04:30
2	Ni 231.604†	65.5	66.0	[0.00]	ug/L	10:04:30
2	P 214.914†	226.7	228.4	[0.00]	ug/L	10:04:30
2	Pb 220.353†	-71.2	-71.7	[0.00]	ug/L	10:04:30
2	S 181.975 Axial†	46.3	46.6	[0.00]	ug/L	10:04:30
2	Sb 206.836†	31.8	32.0	[0.00]	ug/L	10:04:30
2	Se 196.026†	-27.8	-28.0	[0.00]	ug/L	10:04:30
2	Si 251.611†	443.7	447.0	[0.00]	ug/L	10:04:30
2	Sn 189.927†	3.7	3.7	[0.00]	ug/L	10:04:30
2	Ti 334.940†	-1403.0	-1413.5	[0.00]	ug/L	10:04:10
2	Tl 190.801†	-49.5	-49.8	[0.00]	ug/L	10:04:30
2	U 409.014†	-2107.3	-2123.1	[0.00]	ug/L	10:04:10
2	V 292.402†	-1387.8	-1398.2	[0.00]	ug/L	10:04:10

2	Zn 213.857†	866.0	872.4	[0.00]	ug/L	10:04:30
2	SiO2†	456.3	459.8	[0.00]	ug/L	10:05:05
3	Sc Radial	4649.9	4649.9	97.0	%	10:03:18
3	Y RADIAL	4997.5	4997.5	97.43	%	10:03:18
3	Al 396.153Radial†	-10.8	-11.1	[0.00]	ug/L	10:03:18
3	Ca 317.933Radial†	13.2	13.6	[0.00]	ug/L	10:03:38
3	Fe 238.204 Radial†	11.3	11.7	[0.00]	ug/L	10:03:38
3	K 766.490 Radial†	2886.7	2974.5	[0.00]	ug/L	10:03:18
3	Mg 279.077 IEC†	2.4	2.5	[0.00]	ug/L	10:03:38
3	Na 589.592 Radial†	-1544.0	-1591.0	[0.00]	ug/L	10:03:18
3	Sr 421.552†	-0.3	-0.3	[0.00]	ug/L	10:03:18
3	Sc 361.383	800955.3	800955.3	98.414	%	10:04:35
3	Y 371.029	675961.5	675961.5	98.542	%	10:04:35
3	Ag 328.068†	315.4	320.5	[0.00]	ug/L	10:04:35
3	As 188.979†	-14.5	-14.7	[0.00]	ug/L	10:04:55
3	B 249.677†	-529.6	-538.2	[0.00]	ug/L	10:04:55
3	Ba 233.527†	-10.4	-10.6	[0.00]	ug/L	10:04:55
3	Be 313.107†	-4340.0	-4410.0	[0.00]	ug/L	10:04:35
3	Cd 226.502†	-201.2	-204.4	[0.00]	ug/L	10:04:55
3	Co 228.616†	-72.6	-73.8	[0.00]	ug/L	10:04:55
3	Cr 267.716†	95.8	97.4	[0.00]	ug/L	10:04:55
3	Cu 324.752†	6231.4	6331.8	[0.00]	ug/L	10:04:35
3	Mn 257.610†	406.7	413.3	[0.00]	ug/L	10:04:55
3	Mo 202.031†	17.8	18.1	[0.00]	ug/L	10:04:55
3	Ni 231.604†	78.9	80.1	[0.00]	ug/L	10:04:55
3	P 214.914†	222.8	226.4	[0.00]	ug/L	10:04:55
3	Pb 220.353†	-59.2	-60.1	[0.00]	ug/L	10:04:55
3	S 181.975 Axial†	48.8	49.6	[0.00]	ug/L	10:04:55
3	Sb 206.836†	27.8	28.2	[0.00]	ug/L	10:04:55
3	Se 196.026†	-25.8	-26.3	[0.00]	ug/L	10:04:55
3	Si 251.611†	438.8	445.9	[0.00]	ug/L	10:04:55
3	Sn 189.927†	6.6	6.7	[0.00]	ug/L	10:04:55
3	Ti 334.940†	-1338.3	-1359.8	[0.00]	ug/L	10:04:35
3	Tl 190.801†	-39.3	-39.9	[0.00]	ug/L	10:04:55
3	U 409.014†	-2026.9	-2059.5	[0.00]	ug/L	10:04:35
3	V 292.402†	-1443.4	-1466.7	[0.00]	ug/L	10:04:35
3	Zn 213.857†	873.6	887.7	[0.00]	ug/L	10:04:55
3	SiO2†	473.6	481.2	[0.00]	ug/L	10:05:10

Mean Data: S0

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	813865.7	16775.85	2.06%	100.00	%
Sc Radial	4791.3	141.16	2.95%	100	%
Y 371.029	685960.9	13814.83	2.01%	100.00	%
Y RADIAL	5129.5	131.87	2.57%	100.0	%
Ag 328.068†	281.6	44.28	15.72%	[0.00]	ug/L
Al 396.153Radial†	-3.2	10.73	330.84%	[0.00]	ug/L
As 188.979†	-18.8	5.17	27.44%	[0.00]	ug/L
B 249.677†	-518.5	17.16	3.31%	[0.00]	ug/L
Ba 233.527†	1.5	14.54	984.68%	[0.00]	ug/L
Be 313.107†	-4312.2	101.26	2.35%	[0.00]	ug/L
Ca 317.933Radial†	15.1	1.36	8.95%	[0.00]	ug/L
Cd 226.502†	-197.6	6.48	3.28%	[0.00]	ug/L
Co 228.616†	-72.7	3.45	4.75%	[0.00]	ug/L
Cr 267.716†	95.7	1.76	1.83%	[0.00]	ug/L
Cu 324.752†	6298.1	145.00	2.30%	[0.00]	ug/L
Fe 238.204 Radial†	9.9	1.58	16.03%	[0.00]	ug/L
K 766.490 Radial†	2787.4	170.52	6.12%	[0.00]	ug/L
Mg 279.077 IEC†	1.5	2.09	138.88%	[0.00]	ug/L
Mn 257.610†	404.3	10.52	2.60%	[0.00]	ug/L
Mo 202.031†	19.3	2.03	10.49%	[0.00]	ug/L
Na 589.592 Radial†	-1566.9	35.34	2.26%	[0.00]	ug/L
Ni 231.604†	75.1	7.95	10.58%	[0.00]	ug/L
P 214.914†	227.9	1.33	0.58%	[0.00]	ug/L
Pb 220.353†	-64.6	6.25	9.67%	[0.00]	ug/L
S 181.975 Axial†	46.5	3.27	7.03%	[0.00]	ug/L
Sb 206.836†	32.7	4.88	14.92%	[0.00]	ug/L
Se 196.026†	-30.4	5.67	18.67%	[0.00]	ug/L
Si 251.611†	445.9	1.12	0.25%	[0.00]	ug/L

Sn 189.927†	6.1	2.19	35.85%	[0.00] ug/L
Sr 421.552†	17.2	20.42	118.60%	[0.00] ug/L
Ti 334.940†	-1387.0	26.86	1.94%	[0.00] ug/L
Tl 190.801†	-43.9	5.24	11.95%	[0.00] ug/L
U 409.014†	-2041.0	92.87	4.55%	[0.00] ug/L
V 292.402†	-1407.1	55.58	3.95%	[0.00] ug/L
Zn 213.857†	860.3	35.02	4.07%	[0.00] ug/L
SiO2†	456.2	26.92	5.90%	[0.00] ug/L

Sequence No.: 2
Sample ID: S0.1
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 2
Date Collected: 1/14/2010 10:07:21
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc Radial	4980.0	4980.0	104	%	10:09:19
1	Y RADIAL	5307.1	5307.1	103.5	%	10:09:19
1	K 766.490 Radial†	7918.1	4830.8	[1000]	ug/L	10:09:13
1	Sr 421.552†	14610.2	14039.5	[100]	ug/L	10:09:19
1	Sc 361.383	837270.7	837270.7	102.88	%	10:09:45
1	Y 371.029	701767.9	701767.9	102.30	%	10:09:45
1	Ag 328.068†	21370.5	20491.6	[100]	ug/L	10:09:45
1	As 188.979†	194.1	207.6	[100]	ug/L	10:10:06
1	B 249.677†	3466.3	3887.9	[100]	ug/L	10:09:45
1	Ba 233.527†	12482.1	12131.7	[100]	ug/L	10:09:45
1	Be 313.107†	252539.9	249792.7	[100]	ug/L	10:09:45
1	Cd 226.502†	8609.2	8566.1	[100]	ug/L	10:09:45
1	Co 228.616†	4577.8	4522.5	[100]	ug/L	10:10:06
1	Cr 267.716†	8714.4	8375.1	[100]	ug/L	10:09:45
1	Cu 324.752†	37947.5	30588.7	[100]	ug/L	10:09:45
1	Mn 257.610†	89195.1	86297.5	[100]	ug/L	10:09:45
1	Mo 202.031†	1376.9	1319.1	[100]	ug/L	10:10:06
1	Ni 231.604†	3914.8	3730.2	[100]	ug/L	10:10:06
1	P 214.914†	1011.4	755.2	[500]	ug/L	10:10:06
1	Pb 220.353†	733.9	778.0	[100]	ug/L	10:10:06
1	S 181.975 Axial†	175.5	124.2	[200]	ug/L	10:10:06
1	Sb 206.836†	305.9	264.6	[100]	ug/L	10:10:06
1	Se 196.026†	120.0	147.0	[100]	ug/L	10:10:06
1	Si 251.611†	15372.6	14497.0	[500]	ug/L	10:09:45
1	Sn 189.927†	556.5	534.8	[100]	ug/L	10:10:06
1	Ti 334.940†	57611.8	57388.3	[100]	ug/L	10:09:45
1	Tl 190.801†	289.2	325.0	[100]	ug/L	10:10:06
1	U 409.014†	1383.3	3385.6	[100]	ug/L	10:09:45
1	V 292.402†	12484.9	13543.0	[100]	ug/L	10:09:45
1	Zn 213.857†	11245.7	10071.0	[100]	ug/L	10:09:45
1	SiO2†	15354.0	14468.6	[1069.5]	ug/L	10:11:02
2	Sc Radial	5529.1	5529.1	115	%	10:09:29
2	Y RADIAL	5928.0	5928.0	115.6	%	10:09:29
2	K 766.490 Radial†	8050.8	4189.1	[1000]	ug/L	10:09:24
2	Sr 421.552†	14313.1	12385.9	[100]	ug/L	10:09:29
2	Sc 361.383	832734.2	832734.2	102.32	%	10:10:11
2	Y 371.029	698577.3	698577.3	101.84	%	10:10:11
2	Ag 328.068†	21291.7	20527.7	[100]	ug/L	10:10:11
2	As 188.979†	197.2	211.6	[100]	ug/L	10:10:31
2	B 249.677†	3455.5	3895.8	[100]	ug/L	10:10:11
2	Ba 233.527†	12395.8	12113.5	[100]	ug/L	10:10:11
2	Be 313.107†	251821.6	250427.9	[100]	ug/L	10:10:11
2	Cd 226.502†	8631.5	8633.5	[100]	ug/L	10:10:11
2	Co 228.616†	4599.0	4567.4	[100]	ug/L	10:10:31
2	Cr 267.716†	8700.5	8407.7	[100]	ug/L	10:10:11
2	Cu 324.752†	37968.5	30810.1	[100]	ug/L	10:10:11
2	Mn 257.610†	88708.7	86294.4	[100]	ug/L	10:10:11
2	Mo 202.031†	1391.7	1340.9	[100]	ug/L	10:10:31
2	Ni 231.604†	3938.1	3773.8	[100]	ug/L	10:10:31
2	P 214.914†	1007.6	756.9	[500]	ug/L	10:10:31
2	Pb 220.353†	742.9	790.6	[100]	ug/L	10:10:31
2	S 181.975 Axial†	176.2	125.8	[200]	ug/L	10:10:31
2	Sb 206.836†	312.7	272.9	[100]	ug/L	10:10:31
2	Se 196.026†	119.4	147.1	[100]	ug/L	10:10:31
2	Si 251.611†	15342.8	14549.2	[500]	ug/L	10:10:11
2	Sn 189.927†	551.0	532.4	[100]	ug/L	10:10:31
2	Ti 334.940†	57404.7	57491.0	[100]	ug/L	10:10:11
2	Tl 190.801†	283.1	320.6	[100]	ug/L	10:10:31
2	U 409.014†	1102.9	3118.9	[100]	ug/L	10:10:11

2	V 292.402†	12557.3	13679.9	[100]	ug/L	10:10:11
2	Zn 213.857†	11200.1	10086.0	[100]	ug/L	10:10:11
2	SiO2†	15330.9	14527.3	[1069.5]	ug/L	10:11:07
3	Sc Radial	5123.1	5123.1	107	%	10:09:39
3	Y RADIAL	5481.5	5481.5	106.9	%	10:09:39
3	K 766.490 Radial†	7885.8	4587.7	[1000]	ug/L	10:09:34
3	Sr 421.552†	14844.1	13865.4	[100]	ug/L	10:09:39
3	Sc 361.383	816241.6	816241.6	100.29	%	10:10:37
3	Y 371.029	685532.0	685532.0	99.937	%	10:10:37
3	Ag 328.068†	20944.5	20601.9	[100]	ug/L	10:10:37
3	As 188.979†	204.6	222.8	[100]	ug/L	10:10:57
3	B 249.677†	3451.3	3959.8	[100]	ug/L	10:10:37
3	Ba 233.527†	12220.9	12183.9	[100]	ug/L	10:10:37
3	Be 313.107†	247937.0	251527.5	[100]	ug/L	10:10:37
3	Cd 226.502†	8450.9	8623.9	[100]	ug/L	10:10:37
3	Co 228.616†	4528.4	4587.9	[100]	ug/L	10:10:57
3	Cr 267.716†	8574.0	8453.3	[100]	ug/L	10:10:37
3	Cu 324.752†	37299.3	30892.6	[100]	ug/L	10:10:37
3	Mn 257.610†	87464.8	86806.0	[100]	ug/L	10:10:37
3	Mo 202.031†	1376.5	1353.2	[100]	ug/L	10:10:57
3	Ni 231.604†	3869.5	3783.1	[100]	ug/L	10:10:57
3	P 214.914†	985.0	754.3	[500]	ug/L	10:10:57
3	Pb 220.353†	739.1	801.6	[100]	ug/L	10:10:57
3	S 181.975 Axial†	183.5	136.5	[200]	ug/L	10:10:57
3	Sb 206.836†	305.3	271.7	[100]	ug/L	10:10:57
3	Se 196.026†	122.2	152.3	[100]	ug/L	10:10:57
3	Si 251.611†	15075.9	14586.2	[500]	ug/L	10:10:37
3	Sn 189.927†	550.4	542.7	[100]	ug/L	10:10:57
3	Ti 334.940†	56613.6	57835.9	[100]	ug/L	10:10:37
3	Tl 190.801†	282.8	325.9	[100]	ug/L	10:10:57
3	U 409.014†	1143.5	3181.1	[100]	ug/L	10:10:37
3	V 292.402†	12363.5	13734.6	[100]	ug/L	10:10:37
3	Zn 213.857†	11042.7	10150.2	[100]	ug/L	10:10:37
3	SiO2†	15409.6	14908.5	[1069.5]	ug/L	10:11:12

Mean Data: S0.1

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	828748.8	11066.56	1.34%	101.83	%
Sc Radial	5210.7	284.87	5.47%	109	%
Y 371.029	695292.4	8602.01	1.24%	101.36	%
Y RADIAL	5572.2	320.23	5.75%	108.6	%
Ag 328.068†	20540.4	56.27	0.27%	[100]	ug/L
As 188.979†	214.0	7.90	3.69%	[100]	ug/L
B 249.677†	3914.5	39.44	1.01%	[100]	ug/L
Ba 233.527†	12143.0	36.54	0.30%	[100]	ug/L
Be 313.107†	250582.7	877.71	0.35%	[100]	ug/L
Cd 226.502†	8607.8	36.48	0.42%	[100]	ug/L
Co 228.616†	4559.3	33.47	0.73%	[100]	ug/L
Cr 267.716†	8412.0	39.30	0.47%	[100]	ug/L
Cu 324.752†	30763.8	157.19	0.51%	[100]	ug/L
K 766.490 Radial†	4535.8	323.96	7.14%	[1000]	ug/L
Mn 257.610†	86466.0	294.45	0.34%	[100]	ug/L
Mo 202.031†	1337.7	17.25	1.29%	[100]	ug/L
Ni 231.604†	3762.4	28.22	0.75%	[100]	ug/L
P 214.914†	755.5	1.32	0.18%	[500]	ug/L
Pb 220.353†	790.1	11.80	1.49%	[100]	ug/L
S 181.975 Axial†	128.8	6.71	5.21%	[200]	ug/L
Sb 206.836†	269.7	4.47	1.66%	[100]	ug/L
Se 196.026†	148.8	3.00	2.02%	[100]	ug/L
Si 251.611†	14544.1	44.82	0.31%	[500]	ug/L
Sn 189.927†	536.6	5.40	1.01%	[100]	ug/L
Sr 421.552†	13430.3	908.65	6.77%	[100]	ug/L
Ti 334.940†	57571.7	234.43	0.41%	[100]	ug/L
Tl 190.801†	323.9	2.85	0.88%	[100]	ug/L
U 409.014†	3228.5	139.51	4.32%	[100]	ug/L
V 292.402†	13652.5	98.69	0.72%	[100]	ug/L
Zn 213.857†	10102.4	42.08	0.42%	[100]	ug/L
SiO2†	14634.8	238.87	1.63%	[1069.5]	ug/L

Sequence No.: 3
Sample ID: S0.5
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 3
Date Collected: 1/14/2010 10:13:22
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc Radial	4929.8	4929.8	103	%	10:15:14
1	Y RADIAL	5190.6	5190.6	101.2	%	10:15:14
1	Al 396.153Radial†	6303.0	6129.1	[5000]	ug/L	10:15:14
1	Ca 317.933Radial†	2996.8	2897.4	[5000]	ug/L	10:15:34
1	K 766.490 Radial†	28647.2	25054.8	[5000]	ug/L	10:15:14
1	Mg 279.077 IEC†	152.8	147.0	[5000]	ug/L	10:15:34
1	Sr 421.552†	73885.3	71791.9	[500]	ug/L	10:15:14
1	Sc 361.383	830892.7	830892.7	102.09	%	10:16:32
1	Y 371.029	689236.5	689236.5	100.48	%	10:16:32
1	Ag 328.068†	104357.3	101937.2	[500]	ug/L	10:16:37
1	As 188.979†	1102.7	1099.0	[500]	ug/L	10:16:57
1	B 249.677†	20425.2	20525.2	[500]	ug/L	10:16:37
1	Ba 233.527†	61818.7	60550.4	[500]	ug/L	10:16:37
1	Be 313.107†	1294357.2	1272144.9	[500]	ug/L	10:16:32
1	Cd 226.502†	44022.9	43318.4	[500]	ug/L	10:16:37
1	Co 228.616†	23705.0	23291.9	[500]	ug/L	10:16:37
1	Cr 267.716†	43629.2	42639.4	[500]	ug/L	10:16:37
1	Cu 324.752†	165248.6	155564.2	[500]	ug/L	10:16:37
1	Mn 257.610†	438168.5	428785.1	[500]	ug/L	10:16:32
1	Mo 202.031†	6899.3	6738.6	[500]	ug/L	10:16:57
1	Ni 231.604†	19726.4	19247.0	[500]	ug/L	10:16:37
1	P 214.914†	4192.8	3879.0	[2500]	ug/L	10:16:57
1	Pb 220.353†	3922.4	3906.6	[500]	ug/L	10:16:57
1	S 181.975 Axial†	745.0	683.3	[1000]	ug/L	10:16:57
1	Sb 206.836†	1412.1	1350.4	[500]	ug/L	10:16:57
1	Se 196.026†	735.8	751.1	[500]	ug/L	10:16:57
1	Si 251.611†	77658.3	75621.0	[2500]	ug/L	10:16:37
1	Sn 189.927†	2793.3	2730.0	[500]	ug/L	10:16:57
1	Ti 334.940†	294381.6	289736.0	[500]	ug/L	10:16:37
1	Tl 190.801†	1567.8	1579.6	[500]	ug/L	10:16:57
1	U 409.014†	14121.0	15872.6	[500]	ug/L	10:16:37
1	V 292.402†	69514.8	69497.4	[500]	ug/L	10:16:37
1	Zn 213.857†	53133.5	51184.4	[500]	ug/L	10:16:37
1	SiO2†	77763.0	75713.2	[5347.5]	ug/L	10:18:04
2	Sc Radial	4777.1	4777.1	99.7	%	10:15:39
2	Y RADIAL	5100.6	5100.6	99.44	%	10:15:39
2	Al 396.153Radial†	6154.2	6175.7	[5000]	ug/L	10:15:39
2	Ca 317.933Radial†	3002.0	2995.8	[5000]	ug/L	10:15:59
2	K 766.490 Radial†	27999.5	25295.4	[5000]	ug/L	10:15:39
2	Mg 279.077 IEC†	150.9	149.8	[5000]	ug/L	10:15:59
2	Sr 421.552†	72148.4	72345.9	[500]	ug/L	10:15:39
2	Sc 361.383	813390.3	813390.3	99.942	%	10:17:03
2	Y 371.029	674675.2	674675.2	98.355	%	10:17:03
2	Ag 328.068†	101748.0	101525.9	[500]	ug/L	10:17:08
2	As 188.979†	1119.8	1139.3	[500]	ug/L	10:17:28
2	B 249.677†	20227.6	20757.9	[500]	ug/L	10:17:08
2	Ba 233.527†	61227.8	61262.1	[500]	ug/L	10:17:08
2	Be 313.107†	1262980.3	1268030.8	[500]	ug/L	10:17:03
2	Cd 226.502†	43477.3	43700.3	[500]	ug/L	10:17:08
2	Co 228.616†	23499.6	23586.0	[500]	ug/L	10:17:08
2	Cr 267.716†	43151.2	43080.7	[500]	ug/L	10:17:08
2	Cu 324.752†	163492.3	157289.8	[500]	ug/L	10:17:08
2	Mn 257.610†	428858.8	428705.2	[500]	ug/L	10:17:03
2	Mo 202.031†	6898.6	6883.3	[500]	ug/L	10:17:28
2	Ni 231.604†	19540.8	19477.1	[500]	ug/L	10:17:08
2	P 214.914†	4206.1	3980.7	[2500]	ug/L	10:17:28
2	Pb 220.353†	3897.2	3964.0	[500]	ug/L	10:17:28
2	S 181.975 Axial†	731.7	685.6	[1000]	ug/L	10:17:28
2	Sb 206.836†	1417.2	1385.3	[500]	ug/L	10:17:28

2	Se 196.026†	749.8	780.6	[500]	ug/L	10:17:28
2	Si 251.611†	76540.6	76139.4	[2500]	ug/L	10:17:08
2	Sn 189.927†	2789.8	2785.3	[500]	ug/L	10:17:28
2	Ti 334.940†	291309.0	292866.3	[500]	ug/L	10:17:08
2	Tl 190.801†	1556.7	1601.5	[500]	ug/L	10:17:28
2	U 409.014†	14027.3	16076.5	[500]	ug/L	10:17:08
2	V 292.402†	68775.6	70223.0	[500]	ug/L	10:17:08
2	Zn 213.857†	52288.1	51458.4	[500]	ug/L	10:17:08
2	SiO2†	77113.5	76702.4	[5347.5]	ug/L	10:18:09
3	Sc Radial	4874.5	4874.5	102	%	10:16:04
3	Y RADIAL	5184.3	5184.3	101.1	%	10:16:04
3	Al 396.153Radial†	6210.4	6107.7	[5000]	ug/L	10:16:04
3	Ca 317.933Radial†	3057.7	2990.4	[5000]	ug/L	10:16:24
3	K 766.490 Radial†	28049.8	24783.6	[5000]	ug/L	10:16:04
3	Mg 279.077 IEC†	155.0	150.9	[5000]	ug/L	10:16:24
3	Sr 421.552†	72713.9	71455.6	[500]	ug/L	10:16:04
3	Sc 361.383	826948.9	826948.9	101.61	%	10:17:33
3	Y 371.029	686247.5	686247.5	100.04	%	10:17:33
3	Ag 328.068†	102096.8	100200.0	[500]	ug/L	10:17:39
3	As 188.979†	1110.1	1111.4	[500]	ug/L	10:17:59
3	B 249.677†	20441.9	20637.0	[500]	ug/L	10:17:39
3	Ba 233.527†	61754.6	60776.1	[500]	ug/L	10:17:39
3	Be 313.107†	1286750.3	1270704.7	[500]	ug/L	10:17:33
3	Cd 226.502†	43825.7	43329.9	[500]	ug/L	10:17:39
3	Co 228.616†	23631.5	23330.3	[500]	ug/L	10:17:39
3	Cr 267.716†	43486.2	42702.4	[500]	ug/L	10:17:39
3	Cu 324.752†	165207.2	156295.4	[500]	ug/L	10:17:39
3	Mn 257.610†	435511.7	428217.1	[500]	ug/L	10:17:33
3	Mo 202.031†	6888.2	6759.9	[500]	ug/L	10:17:59
3	Ni 231.604†	19679.5	19293.0	[500]	ug/L	10:17:39
3	P 214.914†	4189.0	3894.9	[2500]	ug/L	10:17:59
3	Pb 220.353†	3901.8	3904.6	[500]	ug/L	10:17:59
3	S 181.975 Axial†	731.1	673.1	[1000]	ug/L	10:17:59
3	Sb 206.836†	1422.3	1367.1	[500]	ug/L	10:17:59
3	Se 196.026†	737.7	756.4	[500]	ug/L	10:17:59
3	Si 251.611†	77299.4	75630.6	[2500]	ug/L	10:17:39
3	Sn 189.927†	2784.4	2734.2	[500]	ug/L	10:17:59
3	Ti 334.940†	293777.6	290516.7	[500]	ug/L	10:17:39
3	Tl 190.801†	1550.5	1569.9	[500]	ug/L	10:17:59
3	U 409.014†	14287.5	16102.4	[500]	ug/L	10:17:39
3	V 292.402†	69478.9	69786.9	[500]	ug/L	10:17:39
3	Zn 213.857†	52806.6	51110.8	[500]	ug/L	10:17:39
3	SiO2†	76942.4	75268.9	[5347.5]	ug/L	10:18:14

Mean Data: S0.5

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	823744.0	9180.84	1.11%	101.21	%
Sc Radial	4860.5	77.33	1.59%	101	%
Y 371.029	683386.4	7690.73	1.13%	99.625	%
Y RADIAL	5158.5	50.27	0.97%	100.6	%
Ag 328.068†	101221.0	907.86	0.90%	[500]	ug/L
Al 396.153Radial†	6137.5	34.81	0.57%	[5000]	ug/L
As 188.979†	1116.6	20.66	1.85%	[500]	ug/L
B 249.677†	20640.0	116.42	0.56%	[500]	ug/L
Ba 233.527†	60862.9	363.69	0.60%	[500]	ug/L
Be 313.107†	1270293.5	2087.65	0.16%	[500]	ug/L
Ca 317.933Radial†	2961.2	55.30	1.87%	[5000]	ug/L
Cd 226.502†	43449.5	217.26	0.50%	[500]	ug/L
Co 228.616†	23402.8	159.89	0.68%	[500]	ug/L
Cr 267.716†	42807.5	238.67	0.56%	[500]	ug/L
Cu 324.752†	156383.1	866.17	0.55%	[500]	ug/L
K 766.490 Radial†	25044.6	256.04	1.02%	[5000]	ug/L
Mg 279.077 IEC†	149.2	2.01	1.35%	[5000]	ug/L
Mn 257.610†	428569.1	307.43	0.07%	[500]	ug/L
Mo 202.031†	6794.0	78.11	1.15%	[500]	ug/L
Ni 231.604†	19339.0	121.75	0.63%	[500]	ug/L
P 214.914†	3918.2	54.72	1.40%	[2500]	ug/L
Pb 220.353†	3925.1	33.72	0.86%	[500]	ug/L
S 181.975 Axial†	680.7	6.68	0.98%	[1000]	ug/L

Sb 206.836†	1367.6	17.44	1.27%	[500]	ug/L
Se 196.026†	762.7	15.73	2.06%	[500]	ug/L
Si 251.611†	75797.0	296.59	0.39%	[2500]	ug/L
Sn 189.927†	2749.8	30.78	1.12%	[500]	ug/L
Sr 421.552†	71864.4	449.59	0.63%	[500]	ug/L
Ti 334.940†	291039.6	1629.36	0.56%	[500]	ug/L
Tl 190.801†	1583.7	16.20	1.02%	[500]	ug/L
U 409.014†	16017.2	125.86	0.79%	[500]	ug/L
V 292.402†	69835.8	365.24	0.52%	[500]	ug/L
Zn 213.857†	51251.2	183.16	0.36%	[500]	ug/L
SiO2†	75894.8	733.81	0.97%	[5347.5]	ug/L

Sequence No.: 4
Sample ID: SCAL
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 4
Date Collected: 1/14/2010 10:20:25
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: SCAL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc Radial	4690.2	4690.2	97.9	%	10:22:18
1	Y RADIAL	4982.5	4982.5	97.13	%	10:22:18
1	Al 396.153Radial†	11982.9	12244.5	[10000]	ug/L	10:22:18
1	Ca 317.933Radial†	5870.5	5982.0	[10000]	ug/L	10:22:18
1	Fe 238.204 Radial†	1078.9	1092.3	[10000]	ug/L	10:22:38
1	K 766.490 Radial†	51623.6	49949.3	[10000]	ug/L	10:22:18
1	Mg 279.077 IEC†	297.8	302.7	[10000]	ug/L	10:22:38
1	Na 589.592 Radial†	27020.8	29170.4	[10000]	ug/L	10:22:18
1	Sr 421.552†	136168.3	139087.2	[1000]	ug/L	10:22:18
1	Sc 361.383	814439.6	814439.6	100.07	%	10:23:37
1	Y 371.029	673675.1	673675.1	98.209	%	10:23:37
1	Ag 328.068†	204177.8	203752.3	[1000]	ug/L	10:23:37
1	As 188.979†	2200.8	2218.1	[1000]	ug/L	10:23:57
1	B 249.677†	40456.6	40946.7	[1000]	ug/L	10:23:37
1	Ba 233.527†	120600.9	120514.5	[1000]	ug/L	10:23:37
1	Be 313.107†	2508196.4	2510741.4	[1000]	ug/L	10:23:37
1	Cd 226.502†	84759.2	84897.1	[1000]	ug/L	10:23:37
1	Co 228.616†	45819.2	45859.6	[1000]	ug/L	10:23:37
1	Cr 267.716†	84726.1	84570.6	[1000]	ug/L	10:23:37
1	Cu 324.752†	319831.2	313307.8	[1000]	ug/L	10:23:37
1	Mn 257.610†	852948.2	851942.9	[1000]	ug/L	10:23:37
1	Mo 202.031†	13413.0	13384.3	[1000]	ug/L	10:23:57
1	Ni 231.604†	37945.9	37844.1	[1000]	ug/L	10:23:37
1	P 214.914†	8055.5	7822.0	[5000]	ug/L	10:23:57
1	Pb 220.353†	7685.7	7744.8	[1000]	ug/L	10:23:57
1	S 181.975 Axial†	1371.1	1323.7	[2000]	ug/L	10:23:57
1	Sb 206.836†	2764.6	2729.9	[1000]	ug/L	10:23:57
1	Se 196.026†	1460.7	1490.0	[1000]	ug/L	10:23:57
1	Si 251.611†	148140.7	147590.4	[5000]	ug/L	10:23:37
1	Sn 189.927†	5374.6	5364.6	[1000]	ug/L	10:23:57
1	Ti 334.940†	582360.0	583336.7	[1000]	ug/L	10:23:37
1	Tl 190.801†	3076.8	3118.6	[1000]	ug/L	10:23:57
1	U 409.014†	29281.6	31301.9	[1000]	ug/L	10:23:37
1	V 292.402†	137033.4	138344.0	[1000]	ug/L	10:23:37
1	Zn 213.857†	100708.8	99777.5	[1000]	ug/L	10:23:37
1	SiO2†	148537.3	147976.4	[10695]	ug/L	10:24:58
2	Sc Radial	4873.3	4873.3	102	%	10:22:43
2	Y RADIAL	5174.4	5174.4	100.9	%	10:22:43
2	Al 396.153Radial†	12498.1	12291.1	[10000]	ug/L	10:22:43
2	Ca 317.933Radial†	6084.7	5967.1	[10000]	ug/L	10:22:43
2	Fe 238.204 Radial†	1069.3	1041.4	[10000]	ug/L	10:23:03
2	K 766.490 Radial†	53520.3	49832.4	[10000]	ug/L	10:22:43
2	Mg 279.077 IEC†	295.9	289.4	[10000]	ug/L	10:23:03
2	Na 589.592 Radial†	28231.5	29323.4	[10000]	ug/L	10:22:43
2	Sr 421.552†	142182.7	139773.2	[1000]	ug/L	10:22:43
2	Sc 361.383	813929.7	813929.7	100.01	%	10:24:05
2	Y 371.029	672867.5	672867.5	98.091	%	10:24:05
2	Ag 328.068†	204607.6	204309.9	[1000]	ug/L	10:24:05
2	As 188.979†	2208.4	2227.1	[1000]	ug/L	10:24:25
2	B 249.677†	40698.6	41214.0	[1000]	ug/L	10:24:05
2	Ba 233.527†	120544.6	120533.6	[1000]	ug/L	10:24:05
2	Be 313.107†	2508154.4	2512269.3	[1000]	ug/L	10:24:05
2	Cd 226.502†	84839.9	85030.8	[1000]	ug/L	10:24:05
2	Co 228.616†	45918.6	45987.7	[1000]	ug/L	10:24:05
2	Cr 267.716†	84754.0	84651.6	[1000]	ug/L	10:24:05
2	Cu 324.752†	320965.6	314642.3	[1000]	ug/L	10:24:05
2	Mn 257.610†	854103.8	853632.3	[1000]	ug/L	10:24:05
2	Mo 202.031†	13509.4	13489.0	[1000]	ug/L	10:24:25
2	Ni 231.604†	37906.7	37828.6	[1000]	ug/L	10:24:05

2	P 214.914†	8100.6	7872.1	[5000]	ug/L	10:24:25
2	Pb 220.353†	7779.2	7843.2	[1000]	ug/L	10:24:25
2	S 181.975 Axial†	1390.3	1343.8	[2000]	ug/L	10:24:25
2	Sb 206.836†	2780.7	2747.8	[1000]	ug/L	10:24:25
2	Se 196.026†	1464.7	1495.0	[1000]	ug/L	10:24:25
2	Si 251.611†	148405.5	147948.0	[5000]	ug/L	10:24:05
2	Sn 189.927†	5409.7	5403.1	[1000]	ug/L	10:24:25
2	Ti 334.940†	583495.0	584836.1	[1000]	ug/L	10:24:05
2	Tl 190.801†	3089.7	3133.3	[1000]	ug/L	10:24:25
2	U 409.014†	29091.9	31130.6	[1000]	ug/L	10:24:05
2	V 292.402†	137117.4	138513.7	[1000]	ug/L	10:24:05
2	Zn 213.857†	100718.8	99850.6	[1000]	ug/L	10:24:05
2	SiO2†	150196.0	149728.0	[10695]	ug/L	10:25:04
3	Sc Radial	4785.6	4785.6	99.9	%	10:23:08
3	Y RADIAL	5070.7	5070.7	98.85	%	10:23:08
3	Al 396.153Radial†	12308.5	12326.3	[10000]	ug/L	10:23:08
3	Ca 317.933Radial†	5970.0	5961.9	[10000]	ug/L	10:23:08
3	Fe 238.204 Radial†	1075.4	1066.8	[10000]	ug/L	10:23:28
3	K 766.490 Radial†	52691.3	49966.3	[10000]	ug/L	10:23:08
3	Mg 279.077 IEC†	296.6	295.5	[10000]	ug/L	10:23:28
3	Na 589.592 Radial†	27587.6	29187.2	[10000]	ug/L	10:23:08
3	Sr 421.552†	139476.2	139624.1	[1000]	ug/L	10:23:08
3	Sc 361.383	814815.0	814815.0	100.12	%	10:24:33
3	Y 371.029	675692.6	675692.6	98.503	%	10:24:33
3	Ag 328.068†	203870.0	203350.9	[1000]	ug/L	10:24:33
3	As 188.979†	2198.1	2214.4	[1000]	ug/L	10:24:53
3	B 249.677†	40542.1	41013.4	[1000]	ug/L	10:24:33
3	Ba 233.527†	120022.4	119881.1	[1000]	ug/L	10:24:33
3	Be 313.107†	2512305.1	2513690.1	[1000]	ug/L	10:24:33
3	Cd 226.502†	84731.6	84830.4	[1000]	ug/L	10:24:33
3	Co 228.616†	45717.8	45737.2	[1000]	ug/L	10:24:33
3	Cr 267.716†	84637.7	84443.3	[1000]	ug/L	10:24:33
3	Cu 324.752†	319021.3	312351.6	[1000]	ug/L	10:24:33
3	Mn 257.610†	850524.5	849129.2	[1000]	ug/L	10:24:33
3	Mo 202.031†	13491.7	13456.6	[1000]	ug/L	10:24:53
3	Ni 231.604†	37903.0	37783.7	[1000]	ug/L	10:24:33
3	P 214.914†	8053.5	7816.2	[5000]	ug/L	10:24:53
3	Pb 220.353†	7743.1	7798.6	[1000]	ug/L	10:24:53
3	S 181.975 Axial†	1386.7	1338.6	[2000]	ug/L	10:24:53
3	Sb 206.836†	2769.6	2733.7	[1000]	ug/L	10:24:53
3	Se 196.026†	1449.6	1478.3	[1000]	ug/L	10:24:53
3	Si 251.611†	147574.4	146956.5	[5000]	ug/L	10:24:33
3	Sn 189.927†	5398.5	5386.1	[1000]	ug/L	10:24:53
3	Ti 334.940†	580657.5	581368.0	[1000]	ug/L	10:24:33
3	Tl 190.801†	3051.7	3092.1	[1000]	ug/L	10:24:53
3	U 409.014†	28922.5	30929.8	[1000]	ug/L	10:24:33
3	V 292.402†	137028.9	138276.4	[1000]	ug/L	10:24:33
3	Zn 213.857†	100453.4	99476.1	[1000]	ug/L	10:24:33
3	SiO2†	148591.1	147961.7	[10695]	ug/L	10:25:09

Mean Data: SCAL

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	814394.8	444.37	0.05%	100.07	%
Sc Radial	4783.0	91.59	1.91%	99.8	%
Y 371.029	674078.4	1455.09	0.22%	98.268	%
Y RADIAL	5075.9	96.06	1.89%	98.95	%
Ag 328.068†	203804.4	481.64	0.24%	[1000]	ug/L
Al 396.153Radial†	12287.3	41.01	0.33%	[10000]	ug/L
As 188.979†	2219.9	6.54	0.29%	[1000]	ug/L
B 249.677†	41058.0	139.12	0.34%	[1000]	ug/L
Ba 233.527†	120309.7	371.35	0.31%	[1000]	ug/L
Be 313.107†	2512233.6	1474.72	0.06%	[1000]	ug/L
Ca 317.933Radial†	5970.3	10.42	0.17%	[10000]	ug/L
Cd 226.502†	84919.4	102.02	0.12%	[1000]	ug/L
Co 228.616†	45861.5	125.26	0.27%	[1000]	ug/L
Cr 267.716†	84555.2	104.97	0.12%	[1000]	ug/L
Cu 324.752†	313433.9	1150.59	0.37%	[1000]	ug/L
Fe 238.204 Radial†	1066.8	25.42	2.38%	[10000]	ug/L
K 766.490 Radial†	49916.0	72.91	0.15%	[10000]	ug/L

Mg 279.077 IEC†	295.8	6.68	2.26%	[10000]	ug/L
Mn 257.610†	851568.1	2274.80	0.27%	[1000]	ug/L
Mo 202.031†	13443.3	53.63	0.40%	[1000]	ug/L
Na 589.592 Radial†	29227.0	83.93	0.29%	[10000]	ug/L
Ni 231.604†	37818.8	31.32	0.08%	[1000]	ug/L
P 214.914†	7836.7	30.71	0.39%	[5000]	ug/L
Pb 220.353†	7795.5	49.25	0.63%	[1000]	ug/L
S 181.975 Axial†	1335.4	10.40	0.78%	[2000]	ug/L
Sb 206.836†	2737.1	9.40	0.34%	[1000]	ug/L
Se 196.026†	1487.8	8.58	0.58%	[1000]	ug/L
Si 251.611†	147498.3	502.08	0.34%	[5000]	ug/L
Sn 189.927†	5384.6	19.28	0.36%	[1000]	ug/L
Sr 421.552†	139494.8	360.84	0.26%	[1000]	ug/L
Ti 334.940†	583180.3	1739.35	0.30%	[1000]	ug/L
Tl 190.801†	3114.7	20.89	0.67%	[1000]	ug/L
U 409.014†	31120.8	186.24	0.60%	[1000]	ug/L
V 292.402†	138378.0	122.30	0.09%	[1000]	ug/L
Zn 213.857†	99701.4	198.51	0.20%	[1000]	ug/L
SiO2†	148555.4	1015.55	0.68%	[10695]	ug/L

Sequence No.: 5
Sample ID: S10
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 5
Date Collected: 1/14/2010 10:27:20
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S10

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc Radial	4711.4	4711.4	98.3	%	10:29:33
1	Y RADIAL	5017.2	5017.2	97.81	%	10:29:33
1	Al 396.153Radial†	61120.5	62159.8	[50000]	ug/L	10:29:13
1	Ca 317.933Radial†	29136.2	29615.0	[50000]	ug/L	10:29:13
1	Fe 238.204 Radial†	2111.7	2137.6	[20000]	ug/L	10:29:33
1	Mg 279.077 IEC†	1405.9	1428.2	[50000]	ug/L	10:29:33
1	Na 589.592 Radial†	60084.1	62669.5	[20000]	ug/L	10:29:13
1	Sc 361.383	788766.2	788766.2	96.916	%	10:30:30
1	Y 371.029	651054.6	651054.6	94.911	%	10:30:30
2	Sc Radial	4718.6	4718.6	98.5	%	10:29:58
2	Y RADIAL	4988.8	4988.8	97.26	%	10:29:58
2	Al 396.153Radial†	62059.7	63019.7	[50000]	ug/L	10:29:38
2	Ca 317.933Radial†	29491.9	29931.4	[50000]	ug/L	10:29:38
2	Fe 238.204 Radial†	2105.7	2128.3	[20000]	ug/L	10:29:58
2	Mg 279.077 IEC†	1402.5	1422.6	[50000]	ug/L	10:29:58
2	Na 589.592 Radial†	60640.6	63142.4	[20000]	ug/L	10:29:38
2	Sc 361.383	796056.9	796056.9	97.812	%	10:30:36
2	Y 371.029	656001.4	656001.4	95.632	%	10:30:36
3	Sc Radial	4726.9	4726.9	98.7	%	10:30:23
3	Y RADIAL	5015.9	5015.9	97.79	%	10:30:23
3	Al 396.153Radial†	61091.2	61927.3	[50000]	ug/L	10:30:03
3	Ca 317.933Radial†	29131.3	29513.3	[50000]	ug/L	10:30:03
3	Fe 238.204 Radial†	2093.3	2112.0	[20000]	ug/L	10:30:23
3	Mg 279.077 IEC†	1395.7	1413.3	[50000]	ug/L	10:30:23
3	Na 589.592 Radial†	59447.9	61825.3	[20000]	ug/L	10:30:03
3	Sc 361.383	821640.9	821640.9	100.96	%	10:30:42
3	Y 371.029	678212.4	678212.4	98.870	%	10:30:42

Mean Data: S10

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	802154.7	17264.79	2.15%	98.561	%
Sc Radial	4719.0	7.72	0.16%	98.5	%
Y 371.029	661756.2	14464.60	2.19%	96.471	%
Y RADIAL	5007.3	16.01	0.32%	97.62	%
Al 396.153Radial†	62368.9	575.46	0.92%	[50000]	ug/L
Ca 317.933Radial†	29686.5	218.08	0.73%	[50000]	ug/L
Fe 238.204 Radial†	2126.0	12.97	0.61%	[20000]	ug/L
Mg 279.077 IEC†	1421.3	7.54	0.53%	[50000]	ug/L
Na 589.592 Radial†	62545.7	667.22	1.07%	[20000]	ug/L

Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 328.068	3	Lin Thru 0	0.0	203.5	0.00000	0.999996	
Al 396.153Radial	3	Lin Thru 0	0.0	1.246	0.00000	0.999995	
As 188.979	3	Lin Thru 0	0.0	2.222	0.00000	0.999992	
B 249.677	3	Lin Thru 0	0.0	41.09	0.00000	0.999989	
Ba 233.527	3	Lin Thru 0	0.0	120.6	0.00000	0.999989	
Be 313.107	3	Lin Thru 0	0.0	2518	0.00000	0.999990	
Ca 317.933Radial	3	Lin Thru 0	0.0	0.5938	0.00000	0.999999	
Cd 226.502	3	Lin Thru 0	0.0	85.32	0.00000	0.999957	
Co 228.616	3	Lin Thru 0	0.0	46.05	0.00000	0.999966	
Cr 267.716	3	Lin Thru 0	0.0	84.76	0.00000	0.999987	
Cu 324.752	3	Lin Thru 0	0.0	313.3	0.00000	0.999998	
Fe 238.204 Radia	2	Lin Thru 0	0.0	0.1064	0.00000	0.999999	
K 766.490 Radial	3	Lin Thru 0	0.0	4.991	0.00000	0.999966	

Mg 279.077 IEC	3	Lin Thru 0	0.0	0.0285	0.00000	0.999959
Mn 257.610	3	Lin Thru 0	0.0	852.8	0.00000	0.999996
Mo 202.031	3	Lin Thru 0	0.0	13.47	0.00000	0.999991
Na 589.592 Radia	2	Lin Thru 0	0.0	3.086	0.00000	0.999649
Ni 231.604	3	Lin Thru 0	0.0	37.99	0.00000	0.999959
P 214.914	3	Lin Thru 0	0.0	1.567	0.00000	0.999995
Pb 220.353	3	Lin Thru 0	0.0	7.807	0.00000	0.999996
S 181.975 Axial	3	Lin Thru 0	0.0	0.6701	0.00000	0.999964
Sb 206.836	3	Lin Thru 0	0.0	2.736	0.00000	0.999999
Se 196.026	3	Lin Thru 0	0.0	1.495	0.00000	0.999950
Si 251.611	3	Lin Thru 0	0.0	29.66	0.00000	0.999938
Sn 189.927	3	Lin Thru 0	0.0	5.407	0.00000	0.999964
Sr 421.552	3	Lin Thru 0	0.0	140.3	0.00000	0.999920
Ti 334.940	3	Lin Thru 0	0.0	582.9	0.00000	0.999999
Tl 190.801	3	Lin Thru 0	0.0	3.126	0.00000	0.999972
U 409.014	3	Lin Thru 0	0.0	31.31	0.00000	0.999929
V 292.402	3	Lin Thru 0	0.0	138.6	0.00000	0.999992
Zn 213.857	3	Lin Thru 0	0.0	100.3	0.00000	0.999938
SiO2	3	Lin Thru 0	0.0	13.95	0.00000	0.999961

Sequence No.: 6
Sample ID: ICV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 9
Date Collected: 1/14/2010 10:32:53
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICV

Rep1#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4815.0	4815.0	100	%			10:34:46
1	Y RADIAL	5123.2	5123.2	99.88	%			10:34:46
1	Al 396.153Radial†	6201.2	6173.9	4927.0	ug/L	4927.0	ppb	10:34:46
1	Ca 317.933Radial†	2992.4	2962.6	4988.8	ug/L	4988.8	ppb	10:35:06
1	Fe 238.204 Radial†	563.9	551.3	5197.5	ug/L	5197.5	ppb	10:35:06
1	K 766.490 Radial†	15365.7	12502.7	2501.4	ug/L	2501.4	ppb	10:34:46
1	Mg 279.077 IEC†	155.1	152.8	5364.9	ug/L	5364.9	ppb	10:35:06
1	Na 589.592 Radial†	5981.5	7519.0	2436.2	ug/L	2436.2	ppb	10:34:46
1	Sr 421.552†	74307.3	73924.6	526.89	ug/L	526.89	ppb	10:34:46
1	Sc 361.383	821629.7	821629.7	100.95	%			10:36:03
1	Y 371.029	684525.5	684525.5	99.791	%			10:36:03
1	Ag 328.068†	53958.2	53166.7	264.45	ug/L	264.45	ppb	10:36:03
1	As 188.979†	1037.2	1046.3	475.17	ug/L	475.17	ppb	10:36:23
1	B 249.677†	21021.2	21341.1	517.13	ug/L	517.13	ppb	10:36:03
1	Ba 233.527†	62441.8	61850.3	514.13	ug/L	514.13	ppb	10:36:03
1	Be 313.107†	663319.7	661363.9	263.81	ug/L	263.81	ppb	10:36:03
1	Cd 226.502†	42106.2	41905.9	491.03	ug/L	491.03	ppb	10:36:23
1	Co 228.616†	23380.0	23231.8	504.68	ug/L	504.68	ppb	10:36:23
1	Cr 267.716†	42161.7	41667.6	492.20	ug/L	492.20	ppb	10:36:03
1	Cu 324.752†	167293.5	159414.6	508.89	ug/L	508.89	ppb	10:36:03
1	Mn 257.610†	443801.3	439203.3	515.32	ug/L	515.32	ppb	10:36:03
1	Mo 202.031†	7324.0	7235.4	537.56	ug/L	537.56	ppb	10:36:23
1	Ni 231.604†	19277.3	19020.0	500.38	ug/L	500.38	ppb	10:36:23
1	P 214.914†	4198.8	3931.2	2410.0	ug/L	2410.0	ppb	10:36:23
1	Pb 220.353†	3896.5	3924.3	504.35	ug/L	504.35	ppb	10:36:23
1	S 181.975 Axial†	1723.6	1660.9	2477.7	ug/L	2477.7	ppb	10:36:23
1	Sb 206.836†	1409.8	1363.7	517.88	ug/L	517.88	ppb	10:36:23
1	Se 196.026†	3835.0	3829.2	2579.8	ug/L	2579.8	ppb	10:36:23
1	Si 251.611†	146847.9	145014.4	4882.8	ug/L	4882.8	ppb	10:36:03
1	Sn 189.927†	2934.2	2900.4	537.23	ug/L	537.23	ppb	10:36:23
1	Ti 334.940†	293673.7	292285.6	501.26	ug/L	501.26	ppb	10:36:03
1	Tl 190.801†	1605.4	1634.2	526.20	ug/L	526.20	ppb	10:36:23
1	U 409.014†	13827.4	15737.6	500.93	ug/L	500.93	ppb	10:36:03
1	V 292.402†	69615.6	70364.9	514.80	ug/L	514.80	ppb	10:36:03
1	Zn 213.857†	53394.7	52029.8	514.53	ug/L	514.53	ppb	10:36:03
1	SiO2†	144889.8	143064.5	10242	ug/L	10242	ppb	10:37:21
2	Sc Radial	4796.4	4796.4	100	%			10:35:11
2	Y RADIAL	5108.2	5108.2	99.59	%			10:35:11
2	Al 396.153Radial†	6173.7	6170.4	4923.8	ug/L	4923.8	ppb	10:35:11
2	Ca 317.933Radial†	2983.3	2964.9	4992.8	ug/L	4992.8	ppb	10:35:31
2	Fe 238.204 Radial†	559.1	548.6	5172.3	ug/L	5172.3	ppb	10:35:31
2	K 766.490 Radial†	15422.2	12618.4	2524.6	ug/L	2524.6	ppb	10:35:11
2	Mg 279.077 IEC†	154.5	152.9	5366.6	ug/L	5366.6	ppb	10:35:31
2	Na 589.592 Radial†	5918.6	7479.2	2423.3	ug/L	2423.3	ppb	10:35:11
2	Sr 421.552†	74132.7	74036.6	527.69	ug/L	527.69	ppb	10:35:11
2	Sc 361.383	812833.2	812833.2	99.873	%			10:36:29
2	Y 371.029	678506.5	678506.5	98.913	%			10:36:29
2	Ag 328.068†	53088.5	52874.4	263.01	ug/L	263.01	ppb	10:36:29
2	As 188.979†	1049.4	1069.6	485.61	ug/L	485.61	ppb	10:36:49
2	B 249.677†	20678.3	21223.1	514.25	ug/L	514.25	ppb	10:36:29
2	Ba 233.527†	61481.3	61557.9	511.71	ug/L	511.71	ppb	10:36:29
2	Be 313.107†	654550.4	659694.1	263.15	ug/L	263.15	ppb	10:36:29
2	Cd 226.502†	42140.4	42391.5	496.73	ug/L	496.73	ppb	10:36:49
2	Co 228.616†	23395.2	23497.6	510.48	ug/L	510.48	ppb	10:36:49
2	Cr 267.716†	41649.1	41606.3	491.48	ug/L	491.48	ppb	10:36:29
2	Cu 324.752†	164944.5	158856.0	507.11	ug/L	507.11	ppb	10:36:29
2	Mn 257.610†	436789.7	436940.2	512.66	ug/L	512.66	ppb	10:36:29
2	Mo 202.031†	7363.5	7353.5	546.32	ug/L	546.32	ppb	10:36:49
2	Ni 231.604†	19297.8	19247.2	506.36	ug/L	506.36	ppb	10:36:49

2	P 214.914†	4179.6	3957.0	2426.8 ug/L	2426.8 ppb	10:36:49
2	Pb 220.353†	3868.1	3937.6	506.08 ug/L	506.08 ppb	10:36:49
2	S 181.975 Axial†	1731.6	1687.3	2517.2 ug/L	2517.2 ppb	10:36:49
2	Sb 206.836†	1407.8	1376.8	522.93 ug/L	522.93 ppb	10:36:49
2	Se 196.026†	3840.6	3875.8	2610.9 ug/L	2610.9 ppb	10:36:49
2	Si 251.611†	144552.0	144289.7	4858.2 ug/L	4858.2 ppb	10:36:29
2	Sn 189.927†	2928.3	2925.9	541.95 ug/L	541.95 ppb	10:36:49
2	Ti 334.940†	289483.7	291238.5	499.47 ug/L	499.47 ppb	10:36:29
2	Tl 190.801†	1615.7	1661.7	534.95 ug/L	534.95 ppb	10:36:49
2	U 409.014†	13556.5	15614.7	497.01 ug/L	497.01 ppb	10:36:29
2	V 292.402†	68818.7	70313.2	514.55 ug/L	514.55 ppb	10:36:29
2	Zn 213.857†	52539.5	51745.9	511.66 ug/L	511.66 ppb	10:36:29
2	SiO2†	148430.1	148162.4	10607 ug/L	10607 ppb	10:37:26
3	Sc Radial	4795.3	4795.3	100 %		10:35:36
3	Y RADIAL	5103.0	5103.0	99.48 %		10:35:36
3	Al 396.153Radial†	6222.3	6220.3	4964.3 ug/L	4964.3 ppb	10:35:36
3	Ca 317.933Radial†	2977.1	2959.5	4983.6 ug/L	4983.6 ppb	10:35:56
3	Fe 238.204 Radial†	560.6	550.3	5187.9 ug/L	5187.9 ppb	10:35:56
3	K 766.490 Radial†	15391.5	12591.3	2519.1 ug/L	2519.1 ppb	10:35:36
3	Mg 279.077 IEC†	153.3	151.7	5324.7 ug/L	5324.7 ppb	10:35:56
3	Na 589.592 Radial†	6003.2	7565.1	2451.1 ug/L	2451.1 ppb	10:35:36
3	Sr 421.552†	74362.8	74283.5	529.45 ug/L	529.45 ppb	10:35:36
3	Sc 361.383	822630.3	822630.3	101.08 %		10:36:55
3	Y 371.029	686689.9	686689.9	100.11 %		10:36:55
3	Ag 328.068†	53835.1	52979.9	263.53 ug/L	263.53 ppb	10:36:55
3	As 188.979†	1034.0	1041.9	473.16 ug/L	473.16 ppb	10:37:15
3	B 249.677†	21054.6	21348.8	517.33 ug/L	517.33 ppb	10:36:55
3	Ba 233.527†	62372.3	61706.3	512.94 ug/L	512.94 ppb	10:36:55
3	Be 313.107†	664062.4	661299.4	263.78 ug/L	263.78 ppb	10:36:55
3	Cd 226.502†	41973.5	41723.8	488.90 ug/L	488.90 ppb	10:37:15
3	Co 228.616†	23287.6	23112.2	502.09 ug/L	502.09 ppb	10:37:15
3	Cr 267.716†	42087.5	41543.4	490.74 ug/L	490.74 ppb	10:36:55
3	Cu 324.752†	167329.5	159248.6	508.36 ug/L	508.36 ppb	10:36:55
3	Mn 257.610†	442831.7	437709.3	513.57 ug/L	513.57 ppb	10:36:55
3	Mo 202.031†	7322.5	7225.2	536.80 ug/L	536.80 ppb	10:37:15
3	Ni 231.604†	19216.7	18936.9	498.20 ug/L	498.20 ppb	10:37:15
3	P 214.914†	4176.0	3903.7	2392.5 ug/L	2392.5 ppb	10:37:15
3	Pb 220.353†	3872.9	3896.2	500.76 ug/L	500.76 ppb	10:37:15
3	S 181.975 Axial†	1716.8	1652.0	2464.5 ug/L	2464.5 ppb	10:37:15
3	Sb 206.836†	1404.0	1356.3	515.12 ug/L	515.12 ppb	10:37:15
3	Se 196.026†	3813.7	3803.4	2562.5 ug/L	2562.5 ppb	10:37:15
3	Si 251.611†	146562.0	144554.6	4867.3 ug/L	4867.3 ppb	10:36:55
3	Sn 189.927†	2934.5	2897.1	536.62 ug/L	536.62 ppb	10:37:15
3	Ti 334.940†	293171.3	291434.7	499.81 ug/L	499.81 ppb	10:36:55
3	Tl 190.801†	1613.1	1639.8	528.00 ug/L	528.00 ppb	10:37:15
3	U 409.014†	13894.9	15787.8	502.53 ug/L	502.53 ppb	10:36:55
3	V 292.402†	69647.6	70312.7	514.42 ug/L	514.42 ppb	10:36:55
3	Zn 213.857†	53211.7	51784.4	512.10 ug/L	512.10 ppb	10:36:55
3	SiO2†	146388.9	144373.0	10336 ug/L	10336 ppb	10:37:31

Mean Data: ICV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	819031.1	100.63	%	0.662				0.66%
Sc Radial	4802.2	100	%	0.2				0.23%
Y 371.029	683240.6	99.603	%	0.6182				0.62%
Y RADIAL	5111.5	99.65	%	0.204				0.21%
Ag 328.068†	53007.0	263.67	ug/L	0.731	263.67	ppb	0.731	0.28%
QC value within limits for Ag 328.068 Recovery = 105.47%								
Al 396.153Radial†	6188.2	4938.4	ug/L	22.54	4938.4	ppb	22.54	0.46%
QC value within limits for Al 396.153Radial Recovery = 98.77%								
As 188.979†	1052.6	477.98	ug/L	6.682	477.98	ppb	6.682	1.40%
QC value within limits for As 188.979 Recovery = 95.60%								
B 249.677†	21304.3	516.23	ug/L	1.725	516.23	ppb	1.725	0.33%
QC value within limits for B 249.677 Recovery = 103.25%								
Ba 233.527†	61704.8	512.93	ug/L	1.213	512.93	ppb	1.213	0.24%
QC value within limits for Ba 233.527 Recovery = 102.59%								
Be 313.107†	660785.8	263.58	ug/L	0.377	263.58	ppb	0.377	0.14%
QC value within limits for Be 313.107 Recovery = 105.43%								
Ca 317.933Radial†	2962.3	4988.4	ug/L	4.60	4988.4	ppb	4.60	0.09%

```
   QC value within limits for Ca 317.933Radial  Recovery = 99.77%
Cd 226.502†            42007.1      492.22 ug/L        4.048      492.22 ppb        4.048   0.82%
   QC value within limits for Cd 226.502  Recovery = 98.44%
Co 228.616†            23280.5      505.75 ug/L        4.297      505.75 ppb        4.297   0.85%
   QC value within limits for Co 228.616  Recovery = 101.15%
Cr 267.716†            41605.7      491.47 ug/L        0.733      491.47 ppb        0.733   0.15%
   QC value within limits for Cr 267.716  Recovery = 98.29%
Cu 324.752†           159173.1      508.12 ug/L        0.915      508.12 ppb        0.915   0.18%
   QC value within limits for Cu 324.752  Recovery = 101.62%
Fe 238.204 Radial†       550.0      5185.9 ug/L        12.69      5185.9 ppb        12.69   0.24%
   QC value within limits for Fe 238.204 Radial  Recovery = 103.72%
K 766.490 Radial†      12570.8      2515.0 ug/L        12.12      2515.0 ppb        12.12   0.48%
   QC value within limits for K 766.490 Radial  Recovery = 100.60%
Mg 279.077 IEC†          152.4      5352.1 ug/L        23.70      5352.1 ppb        23.70   0.44%
   QC value within limits for Mg 279.077 IEC  Recovery = 107.04%
Mn 257.610†           437950.9      513.85 ug/L        1.350      513.85 ppb        1.350   0.26%
   QC value within limits for Mn 257.610  Recovery = 102.77%
Mo 202.031†             7271.4      540.22 ug/L        5.292      540.22 ppb        5.292   0.98%
   QC value within limits for Mo 202.031  Recovery = 108.04%
Na 589.592 Radial†      7521.1      2436.9 ug/L        13.92      2436.9 ppb        13.92   0.57%
   QC value within limits for Na 589.592 Radial  Recovery = 97.48%
Ni 231.604†            19068.0      501.65 ug/L        4.226      501.65 ppb        4.226   0.84%
   QC value within limits for Ni 231.604  Recovery = 100.33%
P 214.914†              3930.6      2409.8 ug/L        17.17      2409.8 ppb        17.17   0.71%
   QC value within limits for P 214.914  Recovery = 96.39%
Pb 220.353†             3919.4      503.73 ug/L        2.711      503.73 ppb        2.711   0.54%
   QC value within limits for Pb 220.353  Recovery = 100.75%
S 181.975 Axial†        1666.7      2486.5 ug/L        27.42      2486.5 ppb        27.42   1.10%
   QC value within limits for S 181.975 Axial  Recovery = 99.46%
Sb 206.836†             1365.6      518.65 ug/L        3.961      518.65 ppb        3.961   0.76%
   QC value within limits for Sb 206.836  Recovery = 103.73%
Se 196.026†             3836.1      2584.4 ug/L        24.52      2584.4 ppb        24.52   0.95%
   QC value within limits for Se 196.026  Recovery = 103.38%
Si 251.611†           144619.6      4869.4 ug/L        12.41      4869.4 ppb        12.41   0.25%
   QC value within limits for Si 251.611  Recovery = 97.39%
Sn 189.927†             2907.8      538.60 ug/L        2.920      538.60 ppb        2.920   0.54%
   QC value within limits for Sn 189.927  Recovery = 107.72%
Sr 421.552†            74081.6      528.01 ug/L        1.309      528.01 ppb        1.309   0.25%
   QC value within limits for Sr 421.552  Recovery = 105.60%
Ti 334.940†           291652.9      500.18 ug/L        0.954      500.18 ppb        0.954   0.19%
   QC value within limits for Ti 334.940  Recovery = 100.04%
Tl 190.801†             1645.2      529.72 ug/L        4.619      529.72 ppb        4.619   0.87%
   QC value within limits for Tl 190.801  Recovery = 105.94%
U 409.014†             15713.4      500.16 ug/L        2.843      500.16 ppb        2.843   0.57%
   QC value within limits for U 409.014  Recovery = 100.03%
V 292.402†             70330.3      514.59 ug/L        0.194      514.59 ppb        0.194   0.04%
   QC value within limits for V 292.402  Recovery = 102.92%
Zn 213.857†            51853.4      512.76 ug/L        1.544      512.76 ppb        1.544   0.30%
   QC value within limits for Zn 213.857  Recovery = 102.55%
SiO2†                 145200.0       10395 ug/L        189.7       10395 ppb        189.7   1.82%
   QC value within limits for SiO2  Recovery = 97.19%
All analyte(s) passed QC.
```

Sequence No.: 7
Sample ID: ICB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 10
Date Collected: 1/14/2010 10:39:42
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4602.3	4602.3	96.1	%			10:41:35
1	Y RADIAL	4941.5	4941.5	96.33	%			10:41:35
1	Al 396.153Radial†	6.0	9.5	7.5623	ug/L	7.5623	ppb	10:41:35
1	Ca 317.933Radial†	13.6	-1.0	-1.6550	ug/L	-1.6550	ppb	10:41:55
1	Fe 238.204 Radial†	9.6	0.1	0.8017	ug/L	0.8017	ppb	10:41:55
1	K 766.490 Radial†	2972.8	307.4	61.606	ug/L	61.606	ppb	10:41:35
1	Mg 279.077 IEC†	2.0	0.6	19.859	ug/L	19.859	ppb	10:41:55
1	Na 589.592 Radial†	-1615.1	-114.5	-37.113	ug/L	-37.113	ppb	10:41:35
1	Sr 421.552†	46.5	31.2	0.2221	ug/L	0.2221	ppb	10:41:35
1	Sc 361.383	806946.5	806946.5	99.150	%			10:42:52
1	Y 371.029	679464.3	679464.3	99.053	%			10:42:52
1	Ag 328.068†	417.5	139.6	0.6813	ug/L	0.6813	ppb	10:42:52
1	As 188.979†	-26.5	-7.9	-3.5520	ug/L	-3.5520	ppb	10:43:12
1	B 249.677†	-221.0	295.6	7.1947	ug/L	7.1947	ppb	10:43:12
1	Ba 233.527†	6.0	4.6	0.0379	ug/L	0.0379	ppb	10:43:12
1	Be 313.107†	-4255.5	20.2	0.0087	ug/L	0.0087	ppb	10:42:52
1	Cd 226.502†	-181.9	14.1	0.1661	ug/L	0.1661	ppb	10:43:12
1	Co 228.616†	-64.5	7.6	0.1671	ug/L	0.1671	ppb	10:43:12
1	Cr 267.716†	108.1	13.3	0.1547	ug/L	0.1547	ppb	10:43:12
1	Cu 324.752†	6348.0	104.4	0.3303	ug/L	0.3303	ppb	10:42:52
1	Mn 257.610†	485.8	85.6	0.0997	ug/L	0.0997	ppb	10:43:12
1	Mo 202.031†	34.6	15.5	1.1537	ug/L	1.1537	ppb	10:43:12
1	Ni 231.604†	94.1	19.8	0.5213	ug/L	0.5213	ppb	10:43:12
1	P 214.914†	227.4	1.5	0.8962	ug/L	0.8962	ppb	10:43:12
1	Pb 220.353†	-78.7	-14.8	-1.8947	ug/L	-1.8947	ppb	10:43:12
1	S 181.975 Axial†	45.4	-0.7	-0.9831	ug/L	-0.9831	ppb	10:43:12
1	Sb 206.836†	45.7	13.3	4.9037	ug/L	4.9037	ppb	10:43:12
1	Se 196.026†	-29.7	0.4	0.3016	ug/L	0.3016	ppb	10:43:12
1	Si 251.611†	488.3	46.6	1.5571	ug/L	1.5571	ppb	10:43:12
1	Sn 189.927†	8.3	2.3	0.4242	ug/L	0.4242	ppb	10:43:12
1	Ti 334.940†	-1207.0	169.7	0.2869	ug/L	0.2869	ppb	10:42:52
1	Tl 190.801†	-40.7	2.8	0.9053	ug/L	0.9053	ppb	10:43:12
1	U 409.014†	-1859.0	166.0	5.3014	ug/L	5.3014	ppb	10:42:52
1	V 292.402†	-1405.5	-10.4	-0.0489	ug/L	-0.0489	ppb	10:42:52
1	Zn 213.857†	936.6	84.3	0.8364	ug/L	0.8364	ppb	10:43:12
1	SiO2†	479.1	27.0	1.9051	ug/L	1.9051	ppb	10:44:08
2	Sc Radial	4831.4	4831.4	101	%			10:42:00
2	Y RADIAL	5186.3	5186.3	101.1	%			10:42:00
2	Al 396.153Radial†	7.7	10.9	8.6975	ug/L	8.6975	ppb	10:42:00
2	Ca 317.933Radial†	12.7	-2.6	-4.3546	ug/L	-4.3546	ppb	10:42:20
2	Fe 238.204 Radial†	9.2	-0.8	-7.0680	ug/L	-7.0680	ppb	10:42:20
2	K 766.490 Radial†	2722.7	-87.3	-17.483	ug/L	-17.483	ppb	10:42:00
2	Mg 279.077 IEC†	1.3	-0.2	-6.4266	ug/L	-6.4266	ppb	10:42:20
2	Na 589.592 Radial†	-1600.0	-19.8	-6.4098	ug/L	-6.4098	ppb	10:42:00
2	Sr 421.552†	-2.7	-19.8	-0.1415	ug/L	-0.1415	ppb	10:42:00
2	Sc 361.383	824688.3	824688.3	101.33	%			10:43:17
2	Y 371.029	694557.0	694557.0	101.25	%			10:43:17
2	Ag 328.068†	291.1	5.7	0.0301	ug/L	0.0301	ppb	10:43:17
2	As 188.979†	-21.7	-2.6	-1.1639	ug/L	-1.1639	ppb	10:43:37
2	B 249.677†	-232.9	288.7	7.0280	ug/L	7.0280	ppb	10:43:37
2	Ba 233.527†	7.4	5.9	0.0492	ug/L	0.0492	ppb	10:43:37
2	Be 313.107†	-4308.5	60.3	0.0246	ug/L	0.0246	ppb	10:43:17
2	Cd 226.502†	-186.8	13.2	0.1556	ug/L	0.1556	ppb	10:43:37
2	Co 228.616†	-71.6	2.0	0.0439	ug/L	0.0439	ppb	10:43:37
2	Cr 267.716†	94.2	-2.8	-0.0314	ug/L	-0.0314	ppb	10:43:37
2	Cu 324.752†	6393.4	11.5	0.0382	ug/L	0.0382	ppb	10:43:17
2	Mn 257.610†	479.8	69.2	0.0807	ug/L	0.0807	ppb	10:43:37
2	Mo 202.031†	24.4	4.7	0.3499	ug/L	0.3499	ppb	10:43:37
2	Ni 231.604†	115.9	39.3	1.0343	ug/L	1.0343	ppb	10:43:37

2	P 214.914†	209.3	-21.3	-13.587 ug/L	-13.587 ppb	10:43:37
2	Pb 220.353†	-63.2	2.2	0.2803 ug/L	0.2803 ppb	10:43:37
2	S 181.975 Axial†	51.5	4.4	6.5482 ug/L	6.5482 ppb	10:43:37
2	Sb 206.836†	35.6	2.4	0.8931 ug/L	0.8931 ppb	10:43:37
2	Se 196.026†	-30.1	0.6	0.4062 ug/L	0.4062 ppb	10:43:37
2	Si 251.611†	490.3	38.0	1.2772 ug/L	1.2772 ppb	10:43:37
2	Sn 189.927†	12.0	5.7	1.0617 ug/L	1.0617 ppb	10:43:37
2	Ti 334.940†	-1229.2	174.0	0.2999 ug/L	0.2999 ppb	10:43:17
2	Tl 190.801†	-35.2	9.1	2.9247 ug/L	2.9247 ppb	10:43:37
2	U 409.014†	-2176.7	-107.1	-3.4212 ug/L	-3.4212 ppb	10:43:17
2	V 292.402†	-1372.2	53.0	0.3811 ug/L	0.3811 ppb	10:43:17
2	Zn 213.857†	935.6	63.0	0.6222 ug/L	0.6222 ppb	10:43:37
2	SiO2†	483.7	21.1	1.5052 ug/L	1.5052 ppb	10:44:13
3	Sc Radial	4845.4	4845.4	101 %		10:42:25
3	Y RADIAL	5156.5	5156.5	100.5 %		10:42:25
3	Al 396.153Radial†	-4.6	-1.3	-1.0698 ug/L	-1.0698 ppb	10:42:25
3	Ca 317.933Radial†	18.5	3.1	5.2827 ug/L	5.2827 ppb	10:42:45
3	Fe 238.204 Radial†	7.5	-2.5	-23.449 ug/L	-23.449 ppb	10:42:45
3	K 766.490 Radial†	2823.8	4.9	0.9772 ug/L	0.9772 ppb	10:42:25
3	Mg 279.077 IEC†	1.8	0.3	10.499 ug/L	10.499 ppb	10:42:45
3	Na 589.592 Radial†	-1635.8	-50.6	-16.386 ug/L	-16.386 ppb	10:42:25
3	Sr 421.552†	19.4	1.9	0.0137 ug/L	0.0137 ppb	10:42:25
3	Sc 361.383	806645.9	806645.9	99.113 %		10:43:42
3	Y 371.029	680613.7	680613.7	99.220 %		10:43:42
3	Ag 328.068†	360.6	82.2	0.3989 ug/L	0.3989 ppb	10:43:42
3	As 188.979†	-17.6	1.1	0.4757 ug/L	0.4757 ppb	10:44:02
3	B 249.677†	-274.2	241.9	5.8920 ug/L	5.8920 ppb	10:44:02
3	Ba 233.527†	6.0	4.6	0.0376 ug/L	0.0376 ppb	10:44:02
3	Be 313.107†	-4173.3	101.6	0.0408 ug/L	0.0408 ppb	10:43:42
3	Cd 226.502†	-189.9	6.0	0.0722 ug/L	0.0722 ppb	10:44:02
3	Co 228.616†	-79.5	-7.5	-0.1616 ug/L	-0.1616 ppb	10:44:02
3	Cr 267.716†	95.2	0.3	0.0047 ug/L	0.0047 ppb	10:44:02
3	Cu 324.752†	6354.4	113.2	0.3615 ug/L	0.3615 ppb	10:43:42
3	Mn 257.610†	484.0	84.0	0.0958 ug/L	0.0958 ppb	10:44:02
3	Mo 202.031†	26.1	7.0	0.5168 ug/L	0.5168 ppb	10:44:02
3	Ni 231.604†	96.0	21.7	0.5713 ug/L	0.5713 ppb	10:44:02
3	P 214.914†	223.2	-2.7	-1.7710 ug/L	-1.7710 ppb	10:44:02
3	Pb 220.353†	-71.1	-7.1	-0.9086 ug/L	-0.9086 ppb	10:44:02
3	S 181.975 Axial†	44.3	-1.8	-2.6532 ug/L	-2.6532 ppb	10:44:02
3	Sb 206.836†	38.0	5.6	2.0666 ug/L	2.0666 ppb	10:44:02
3	Se 196.026†	-31.5	-1.4	-1.0284 ug/L	-1.0284 ppb	10:44:02
3	Si 251.611†	478.0	36.4	1.2221 ug/L	1.2221 ppb	10:44:02
3	Sn 189.927†	13.0	7.0	1.3021 ug/L	1.3021 ppb	10:44:02
3	Ti 334.940†	-1271.4	104.2	0.1797 ug/L	0.1797 ppb	10:43:42
3	Tl 190.801†	-34.9	8.7	2.7887 ug/L	2.7887 ppb	10:44:02
3	U 409.014†	-2100.1	-77.9	-2.4860 ug/L	-2.4860 ppb	10:43:42
3	V 292.402†	-1377.1	17.7	0.1337 ug/L	0.1337 ppb	10:43:42
3	Zn 213.857†	942.3	90.4	0.8999 ug/L	0.8999 ppb	10:44:02
3	SiO2†	468.3	16.2	1.1503 ug/L	1.1503 ppb	10:44:18

Mean Data: ICB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	812760.2	99.864	%	1.2694				1.27%
Sc Radial	4759.7	99.3	%	2.85				2.87%
Y 371.029	684878.3	99.842	%	1.2248				1.23%
Y RADIAL	5094.8	99.32	%	2.604				2.62%
Ag 328.068†	75.8	0.3701	ug/L	0.32653	0.3701	ppb	0.32653	88.23%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	6.4	5.0633	ug/L	5.34168	5.0633	ppb	5.34168	105.50%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-3.1	-1.4134	ug/L	2.02542	-1.4134	ppb	2.02542	143.30%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	275.4	6.7049	ug/L	0.70891	6.7049	ppb	0.70891	10.57%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	5.0	0.0415	ug/L	0.00663	0.0415	ppb	0.00663	15.96%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	60.7	0.0247	ug/L	0.01604	0.0247	ppb	0.01604	64.93%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-0.1	-0.2423	ug/L	4.97151	-0.2423	ppb	4.97151	>999.9%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                11.1      0.1313 ug/L       0.05146      0.1313 ppb        0.05146  39.20%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                 0.7      0.0165 ug/L       0.16611      0.0165 ppb        0.16611 >999.9%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                 3.6      0.0426 ug/L       0.09868      0.0426 ppb        0.09868 231.44%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†                76.4      0.2433 ug/L       0.17836      0.2433 ppb        0.17836  73.30%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -1.1     -9.9050 ug/L      12.37172     -9.9050 ppb       12.37172 124.90%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          75.0      15.033 ug/L       41.3757      15.033 ppb        41.3757 275.22%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             0.2      7.9770 ug/L      13.32295      7.9770 ppb       13.32295 167.02%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                79.6      0.0921 ug/L       0.01001      0.0921 ppb        0.01001  10.87%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 9.1      0.6735 ug/L       0.42418      0.6735 ppb        0.42418  62.98%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        -61.6     -19.970 ug/L       15.6622     -19.970 ppb        15.6622  78.43%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                26.9      0.7090 ug/L       0.28285      0.7090 ppb        0.28285  39.90%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -7.5     -4.8205 ug/L       7.70810     -4.8205 ppb        7.70810 159.90%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -6.6     -0.8410 ug/L       1.08907     -0.8410 ppb        1.08907 129.50%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            0.7      0.9706 ug/L       4.90199      0.9706 ppb        4.90199 505.03%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 7.1      2.6212 ug/L       2.06200      2.6212 ppb        2.06200  78.67%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -0.1     -0.1069 ug/L       0.79981     -0.1069 ppb        0.79981 748.33%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                40.3      1.3522 ug/L       0.17965      1.3522 ppb        0.17965  13.29%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 5.0      0.9293 ug/L       0.45364      0.9293 ppb        0.45364  48.81%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                 4.4      0.0315 ug/L       0.18244      0.0315 ppb        0.18244 579.65%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               149.3      0.2555 ug/L       0.06594      0.2555 ppb        0.06594  25.81%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 6.9      2.2062 ug/L       1.12868      2.2062 ppb        1.12868  51.16%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 -6.4     -0.2019 ug/L       4.78889     -0.2019 ppb        4.78889 >999.9%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 20.1      0.1553 ug/L       0.21582      0.1553 ppb        0.21582 139.00%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                79.2      0.7861 ug/L       0.14551      0.7861 ppb        0.14551  18.51%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                      21.5      1.5202 ug/L       0.37763      1.5202 ppb        0.37763  24.84%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 8
Sample ID: PQL
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 11
Date Collected: 1/14/2010 10:46:28
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: PQL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4881.8	4881.8	102	%			10:48:21
1	Y RADIAL	5210.0	5210.0	101.6	%			10:48:21
1	Al 396.153Radial†	256.4	254.9	203.98	ug/L	203.98	ppb	10:48:21
1	Ca 317.933Radial†	146.0	128.1	215.78	ug/L	215.78	ppb	10:48:41
1	Fe 238.204 Radial†	24.0	13.7	128.51	ug/L	128.51	ppb	10:48:41
1	K 766.490 Radial†	3515.7	663.1	132.64	ug/L	132.64	ppb	10:48:21
1	Mg 279.077 IEC†	8.5	6.8	239.93	ug/L	239.93	ppb	10:48:41
1	Na 589.592 Radial†	-641.7	937.2	303.64	ug/L	303.64	ppb	10:48:21
1	Sr 421.552†	763.9	732.5	5.2197	ug/L	5.2197	ppb	10:48:21
1	Sc 361.383	818126.7	818126.7	100.52	%			10:49:38
1	Y 371.029	689868.0	689868.0	100.57	%			10:49:38
1	Ag 328.068†	1399.9	1111.0	5.4695	ug/L	5.4695	ppb	10:49:38
1	As 188.979†	46.6	65.2	29.413	ug/L	29.413	ppb	10:49:58
1	B 249.677†	1643.7	2153.7	52.382	ug/L	52.382	ppb	10:49:38
1	Ba 233.527†	623.8	619.0	5.1469	ug/L	5.1469	ppb	10:49:58
1	Be 313.107†	8600.7	12868.2	5.1227	ug/L	5.1227	ppb	10:49:38
1	Cd 226.502†	244.8	441.1	5.1712	ug/L	5.1712	ppb	10:49:58
1	Co 228.616†	169.4	241.3	5.2500	ug/L	5.2500	ppb	10:49:58
1	Cr 267.716†	486.6	388.3	4.5682	ug/L	4.5682	ppb	10:49:58
1	Cu 324.752†	9634.5	3286.3	10.466	ug/L	10.466	ppb	10:49:38
1	Mn 257.610†	9544.9	9090.9	10.663	ug/L	10.663	ppb	10:49:38
1	Mo 202.031†	152.9	132.8	9.8720	ug/L	9.8720	ppb	10:49:58
1	Ni 231.604†	281.4	204.8	5.3891	ug/L	5.3891	ppb	10:49:58
1	P 214.914†	451.4	221.1	139.10	ug/L	139.10	ppb	10:49:58
1	Pb 220.353†	18.7	83.2	10.710	ug/L	10.710	ppb	10:49:58
1	S 181.975 Axial†	116.6	69.5	103.70	ug/L	103.70	ppb	10:49:58
1	Sb 206.836†	58.1	25.1	9.5169	ug/L	9.5169	ppb	10:49:58
1	Se 196.026†	27.1	57.3	38.804	ug/L	38.804	ppb	10:49:58
1	Si 251.611†	3398.0	2934.4	98.817	ug/L	98.817	ppb	10:49:58
1	Sn 189.927†	61.5	55.1	10.226	ug/L	10.226	ppb	10:49:58
1	Ti 334.940†	1649.6	3028.0	5.1778	ug/L	5.1778	ppb	10:49:38
1	Tl 190.801†	27.9	71.6	22.971	ug/L	22.971	ppb	10:49:58
1	U 409.014†	-282.7	1759.8	56.177	ug/L	56.177	ppb	10:49:38
1	V 292.402†	-782.2	629.0	4.7630	ug/L	4.7630	ppb	10:49:38
1	Zn 213.857†	1720.4	851.1	8.4274	ug/L	8.4274	ppb	10:49:58
1	SiO2†	3565.2	3090.4	221.29	ug/L	221.29	ppb	10:50:54
2	Sc Radial	4889.2	4889.2	102	%			10:48:46
2	Y RADIAL	5225.5	5225.5	101.9	%			10:48:46
2	Al 396.153Radial†	245.6	244.0	195.24	ug/L	195.24	ppb	10:48:46
2	Ca 317.933Radial†	142.8	124.7	210.06	ug/L	210.06	ppb	10:49:06
2	Fe 238.204 Radial†	21.4	11.1	104.51	ug/L	104.51	ppb	10:49:06
2	K 766.490 Radial†	3646.8	786.3	157.33	ug/L	157.33	ppb	10:48:46
2	Mg 279.077 IEC†	13.8	12.0	420.84	ug/L	420.84	ppb	10:49:06
2	Na 589.592 Radial†	-636.9	942.8	305.46	ug/L	305.46	ppb	10:48:46
2	Sr 421.552†	756.0	723.6	5.1564	ug/L	5.1564	ppb	10:48:46
2	Sc 361.383	817289.1	817289.1	100.42	%			10:50:04
2	Y 371.029	689757.6	689757.6	100.55	%			10:50:04
2	Ag 328.068†	1340.4	1053.3	5.1810	ug/L	5.1810	ppb	10:50:04
2	As 188.979†	39.6	58.3	26.276	ug/L	26.276	ppb	10:50:24
2	B 249.677†	1635.6	2147.2	52.229	ug/L	52.229	ppb	10:50:04
2	Ba 233.527†	625.8	621.7	5.1695	ug/L	5.1695	ppb	10:50:24
2	Be 313.107†	8674.3	12950.2	5.1553	ug/L	5.1553	ppb	10:50:04
2	Cd 226.502†	246.2	442.7	5.1923	ug/L	5.1923	ppb	10:50:24
2	Co 228.616†	166.5	238.5	5.1901	ug/L	5.1901	ppb	10:50:24
2	Cr 267.716†	507.0	409.2	4.8145	ug/L	4.8145	ppb	10:50:24
2	Cu 324.752†	9595.7	3257.5	10.374	ug/L	10.374	ppb	10:50:04
2	Mn 257.610†	9494.4	9050.3	10.606	ug/L	10.606	ppb	10:50:04
2	Mo 202.031†	153.0	133.0	9.8844	ug/L	9.8844	ppb	10:50:24
2	Ni 231.604†	281.6	205.3	5.4002	ug/L	5.4002	ppb	10:50:24

2	P 214.914†	437.5	207.8	130.58 ug/L	130.58 ppb	10:50:24
2	Pb 220.353†	19.2	83.7	10.778 ug/L	10.778 ppb	10:50:24
2	S 181.975 Axial†	109.7	62.7	93.602 ug/L	93.602 ppb	10:50:24
2	Sb 206.836†	58.5	25.5	9.6630 ug/L	9.6630 ppb	10:50:24
2	Se 196.026†	15.0	45.3	30.654 ug/L	30.654 ppb	10:50:24
2	Si 251.611†	3371.3	2911.3	98.038 ug/L	98.038 ppb	10:50:24
2	Sn 189.927†	54.1	47.8	8.8647 ug/L	8.8647 ppb	10:50:24
2	Ti 334.940†	1670.8	3050.8	5.2018 ug/L	5.2018 ppb	10:50:04
2	Tl 190.801†	30.1	73.9	23.699 ug/L	23.699 ppb	10:50:24
2	U 409.014†	-323.3	1719.0	54.878 ug/L	54.878 ppb	10:50:04
2	V 292.402†	-711.6	698.5	5.2694 ug/L	5.2694 ppb	10:50:04
2	Zn 213.857†	1689.6	822.2	8.1415 ug/L	8.1415 ppb	10:50:24
2	SiO2†	3521.6	3050.6	218.44 ug/L	218.44 ppb	10:50:59
3	Sc Radial	4955.8	4955.8	103 %		10:49:12
3	Y RADIAL	5308.9	5308.9	103.5 %		10:49:12
3	Al 396.153Radial†	240.4	235.6	188.54 ug/L	188.54 ppb	10:49:12
3	Ca 317.933Radial†	135.6	116.0	195.30 ug/L	195.30 ppb	10:49:32
3	Fe 238.204 Radial†	22.3	11.7	109.68 ug/L	109.68 ppb	10:49:32
3	K 766.490 Radial†	3467.9	565.4	113.06 ug/L	113.06 ppb	10:49:12
3	Mg 279.077 IEC†	11.2	9.4	328.53 ug/L	328.53 ppb	10:49:32
3	Na 589.592 Radial†	-600.8	986.0	319.48 ug/L	319.48 ppb	10:49:12
3	Sr 421.552†	765.0	722.4	5.1476 ug/L	5.1476 ppb	10:49:12
3	Sc 361.383	821831.7	821831.7	100.98 %		10:50:29
3	Y 371.029	694000.9	694000.9	101.17 %		10:50:29
3	Ag 328.068†	1461.9	1166.1	5.7418 ug/L	5.7418 ppb	10:50:29
3	As 188.979†	53.8	72.1	32.488 ug/L	32.488 ppb	10:50:49
3	B 249.677†	1682.9	2185.1	53.150 ug/L	53.150 ppb	10:50:29
3	Ba 233.527†	624.7	617.2	5.1324 ug/L	5.1324 ppb	10:50:49
3	Be 313.107†	8653.4	12881.7	5.1281 ug/L	5.1281 ppb	10:50:29
3	Cd 226.502†	250.1	445.2	5.2199 ug/L	5.2199 ppb	10:50:49
3	Co 228.616†	151.0	222.2	4.8365 ug/L	4.8365 ppb	10:50:49
3	Cr 267.716†	527.4	426.6	5.0222 ug/L	5.0222 ppb	10:50:49
3	Cu 324.752†	9733.0	3340.6	10.642 ug/L	10.642 ppb	10:50:29
3	Mn 257.610†	9529.7	9033.1	10.590 ug/L	10.590 ppb	10:50:29
3	Mo 202.031†	157.8	136.9	10.175 ug/L	10.175 ppb	10:50:49
3	Ni 231.604†	279.3	201.5	5.3013 ug/L	5.3013 ppb	10:50:49
3	P 214.914†	434.4	202.4	127.07 ug/L	127.07 ppb	10:50:49
3	Pb 220.353†	6.9	71.4	9.1949 ug/L	9.1949 ppb	10:50:49
3	S 181.975 Axial†	112.5	64.9	96.894 ug/L	96.894 ppb	10:50:49
3	Sb 206.836†	57.7	24.4	9.2859 ug/L	9.2859 ppb	10:50:49
3	Se 196.026†	21.4	51.6	34.891 ug/L	34.891 ppb	10:50:49
3	Si 251.611†	3381.6	2902.9	97.752 ug/L	97.752 ppb	10:50:49
3	Sn 189.927†	60.0	53.3	9.8883 ug/L	9.8883 ppb	10:50:49
3	Ti 334.940†	1665.6	3036.5	5.1845 ug/L	5.1845 ppb	10:50:29
3	Tl 190.801†	27.4	71.1	22.791 ug/L	22.791 ppb	10:50:49
3	U 409.014†	-454.0	1591.3	50.800 ug/L	50.800 ppb	10:50:29
3	V 292.402†	-677.6	736.1	5.5343 ug/L	5.5343 ppb	10:50:29
3	Zn 213.857†	1706.0	829.2	8.2108 ug/L	8.2108 ppb	10:50:49
3	SiO2†	3498.3	3008.2	215.39 ug/L	215.39 ppb	10:51:05

Mean Data: PQL

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	819082.5	100.64	%	0.297				0.30%
Sc Radial	4908.9	102	%	0.9				0.83%
Y 371.029	691208.9	100.77	%	0.353				0.35%
Y RADIAL	5248.1	102.3	%	1.04				1.01%
Ag 328.068†	1110.1	5.4641	ug/L	0.28046	5.4641	ppb	0.28046	5.13%
QC value within limits for Ag 328.068 Recovery = 109.28%								
Al 396.153Radial†	244.8	195.92	ug/L	7.742	195.92	ppb	7.742	3.95%
QC value within limits for Al 396.153Radial Recovery = 97.96%								
As 188.979†	65.2	29.392	ug/L	3.1061	29.392	ppb	3.1061	10.57%
QC value within limits for As 188.979 Recovery = 97.97%								
B 249.677†	2162.0	52.587	ug/L	0.4938	52.587	ppb	0.4938	0.94%
QC value within limits for B 249.677 Recovery = 105.17%								
Ba 233.527†	619.3	5.1496	ug/L	0.01869	5.1496	ppb	0.01869	0.36%
QC value within limits for Ba 233.527 Recovery = 102.99%								
Be 313.107†	12900.0	5.1354	ug/L	0.01750	5.1354	ppb	0.01750	0.34%
QC value within limits for Be 313.107 Recovery = 102.71%								
Ca 317.933Radial†	123.0	207.05	ug/L	10.567	207.05	ppb	10.567	5.10%

QC value within limits for Ca 317.933Radial Recovery = 103.52%

Cd 226.502†	443.0	5.1945 ug/L	0.02445	5.1945 ppb	0.02445	0.47%
QC value within limits for Cd 226.502 Recovery = 103.89%						
Co 228.616†	234.0	5.0922 ug/L	0.22346	5.0922 ppb	0.22346	4.39%
QC value within limits for Co 228.616 Recovery = 101.84%						
Cr 267.716†	408.0	4.8017 ug/L	0.22727	4.8017 ppb	0.22727	4.73%
QC value within limits for Cr 267.716 Recovery = 96.03%						
Cu 324.752†	3294.8	10.494 ug/L	0.1360	10.494 ppb	0.1360	1.30%
QC value within limits for Cu 324.752 Recovery = 104.94%						
Fe 238.204 Radial†	12.1	114.23 ug/L	12.635	114.23 ppb	12.635	11.06%
QC value within limits for Fe 238.204 Radial Recovery = 114.23%						
K 766.490 Radial†	671.6	134.35 ug/L	22.181	134.35 ppb	22.181	16.51%
QC value within limits for K 766.490 Radial Recovery = 89.56%						
Mg 279.077 IEC†	9.4	329.77 ug/L	90.465	329.77 ppb	90.465	27.43%
QC value within limits for Mg 279.077 IEC Recovery = 109.92%						
Mn 257.610†	9058.1	10.620 ug/L	0.0385	10.620 ppb	0.0385	0.36%
QC value within limits for Mn 257.610 Recovery = 106.20%						
Mo 202.031†	134.3	9.9772 ug/L	0.17155	9.9772 ppb	0.17155	1.72%
QC value within limits for Mo 202.031 Recovery = 99.77%						
Na 589.592 Radial†	955.3	309.53 ug/L	8.667	309.53 ppb	8.667	2.80%
QC value within limits for Na 589.592 Radial Recovery = 103.18%						
Ni 231.604†	203.9	5.3635 ug/L	0.05419	5.3635 ppb	0.05419	1.01%
QC value within limits for Ni 231.604 Recovery = 107.27%						
P 214.914†	210.4	132.25 ug/L	6.182	132.25 ppb	6.182	4.67%
QC value within limits for P 214.914 Recovery = 88.17%						
Pb 220.353†	79.4	10.228 ug/L	0.8952	10.228 ppb	0.8952	8.75%
QC value within limits for Pb 220.353 Recovery = 102.28%						
S 181.975 Axial†	65.7	98.065 ug/L	5.1497	98.065 ppb	5.1497	5.25%
QC value within limits for S 181.975 Axial Recovery = 98.07%						
Sb 206.836†	25.0	9.4886 ug/L	0.19010	9.4886 ppb	0.19010	2.00%
QC value within limits for Sb 206.836 Recovery = 94.89%						
Se 196.026†	51.4	34.783 ug/L	4.0762	34.783 ppb	4.0762	11.72%
QC value within limits for Se 196.026 Recovery = 115.94%						
Si 251.611†	2916.2	98.202 ug/L	0.5515	98.202 ppb	0.5515	0.56%
QC value within limits for Si 251.611 Recovery = 98.20%						
Sn 189.927†	52.1	9.6596 ug/L	0.70884	9.6596 ppb	0.70884	7.34%
QC value within limits for Sn 189.927 Recovery = 96.60%						
Sr 421.552†	726.2	5.1746 ug/L	0.03928	5.1746 ppb	0.03928	0.76%
QC value within limits for Sr 421.552 Recovery = 103.49%						
Ti 334.940†	3038.5	5.1880 ug/L	0.01240	5.1880 ppb	0.01240	0.24%
QC value within limits for Ti 334.940 Recovery = 103.76%						
Tl 190.801†	72.2	23.154 ug/L	0.4809	23.154 ppb	0.4809	2.08%
QC value within limits for Tl 190.801 Recovery = 115.77%						
U 409.014†	1690.0	53.952 ug/L	2.8057	53.952 ppb	2.8057	5.20%
QC value within limits for U 409.014 Recovery = 107.90%						
V 292.402†	687.9	5.1889 ug/L	0.39186	5.1889 ppb	0.39186	7.55%
QC value within limits for V 292.402 Recovery = 103.78%						
Zn 213.857†	834.2	8.2599 ug/L	0.14914	8.2599 ppb	0.14914	1.81%
QC value within limits for Zn 213.857 Recovery = 82.60%						
SiO2†	3049.7	218.37 ug/L	2.952	218.37 ppb	2.952	1.35%
QC value within limits for SiO2 Recovery = 102.52%						

All analyte(s) passed QC.

Sequence No.: 9
Sample ID: ICSA
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 13
Date Collected: 1/14/2010 10:53:16
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSA

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4366.7	4366.7	91.1	%			10:55:14
1	Y RADIAL	4625.6	4625.6	90.18	%			10:55:14
1	Al 396.153Radial†	574461.5	630327.7	505690	ug/L	505690	ppb	10:55:09
1	Ca 317.933Radial†	256832.4	281792.6	474520	ug/L	474520	ppb	10:55:09
1	Fe 238.204 Radial†	18550.9	20345.0	191260	ug/L	191260	ppb	10:55:14
1	K 766.490 Radial†	2355.5	-202.9	-199.36	ug/L	-199.36	ppb	10:55:09
1	Mg 279.077 IEC†	12742.9	13980.5	490610	ug/L	490610	ppb	10:55:14
1	Na 589.592 Radial†	-1387.6	44.4	14.384	ug/L	14.384	ppb	10:55:14
1	Sr 421.552†	506.2	538.2	0.2927	ug/L	0.2927	ppb	10:55:14
1	Sc 361.383	698776.5	698776.5	85.859	%			10:55:42
1	Y 371.029	575182.3	575182.3	83.851	%			10:55:42
1	Ag 328.068†	-9042.5	-10813.4	2.4098	ug/L	2.4098	ppb	10:55:42
1	As 188.979†	-82.7	-77.5	9.7499	ug/L	9.7499	ppb	10:56:02
1	B 249.677†	313.5	883.6	-9.5557	ug/L	-9.5557	ppb	10:55:42
1	Ba 233.527†	-474.0	-553.5	1.2676	ug/L	1.2676	ppb	10:56:02
1	Be 313.107†	-3983.9	-327.9	-0.1843	ug/L	-0.1843	ppb	10:55:42
1	Cd 226.502†	1230.3	1630.5	-0.6369	ug/L	-0.6369	ppb	10:56:02
1	Co 228.616†	-20.1	49.2	-1.6919	ug/L	-1.6919	ppb	10:56:02
1	Cr 267.716†	-58.6	-164.0	1.7952	ug/L	1.7952	ppb	10:56:02
1	Cu 324.752†	3675.8	-2016.8	3.6692	ug/L	3.6692	ppb	10:55:42
1	Mn 257.610†	848.2	583.6	-0.4937	ug/L	-0.4937	ppb	10:55:42
1	Mo 202.031†	-217.1	-272.2	0.2876	ug/L	0.2876	ppb	10:56:02
1	Ni 231.604†	207.8	166.9	4.3920	ug/L	4.3920	ppb	10:56:02
1	P 214.914†	160.8	-40.6	-53.371	ug/L	-53.371	ppb	10:56:02
1	Pb 220.353†	-756.7	-816.7	-5.9433	ug/L	-5.9433	ppb	10:56:02
1	S 181.975 Axial†	68.0	32.8	-45.830	ug/L	-45.830	ppb	10:56:02
1	Sb 206.836†	77.6	57.6	10.694	ug/L	10.694	ppb	10:56:02
1	Se 196.026†	-849.2	-958.7	11.376	ug/L	11.376	ppb	10:56:02
1	Si 251.611†	477.6	110.4	3.9716	ug/L	3.9716	ppb	10:56:02
1	Sn 189.927†	-367.5	-434.2	-4.9656	ug/L	-4.9656	ppb	10:56:02
1	Ti 334.940†	-13124.2	-13898.7	-0.2982	ug/L	-0.2982	ppb	10:55:42
1	Tl 190.801†	-79.4	-48.6	-15.780	ug/L	-15.780	ppb	10:56:02
1	U 409.014†	-983.1	895.9	6.8149	ug/L	6.8149	ppb	10:55:42
1	V 292.402†	874.5	2425.7	-1.0820	ug/L	-1.0820	ppb	10:56:02
1	Zn 213.857†	2891.5	2507.5	6.4355	ug/L	6.4355	ppb	10:56:02
1	SiO2†	475.5	97.5	7.5434	ug/L	7.5434	ppb	10:56:58
2	Sc Radial	4319.9	4319.9	90.2	%			10:55:25
2	Y RADIAL	4632.0	4632.0	90.30	%			10:55:25
2	Al 396.153Radial†	572941.8	635472.8	509820	ug/L	509820	ppb	10:55:20
2	Ca 317.933Radial†	256332.4	284291.9	478730	ug/L	478730	ppb	10:55:20
2	Fe 238.204 Radial†	18371.7	20366.8	191460	ug/L	191460	ppb	10:55:25
2	K 766.490 Radial†	2331.6	-201.3	-200.46	ug/L	-200.46	ppb	10:55:20
2	Mg 279.077 IEC†	12673.0	14054.5	493210	ug/L	493210	ppb	10:55:25
2	Na 589.592 Radial†	-1411.7	1.2	0.3903	ug/L	0.3903	ppb	10:55:25
2	Sr 421.552†	480.3	515.5	0.0999	ug/L	0.0999	ppb	10:55:25
2	Sc 361.383	703297.6	703297.6	86.414	%			10:56:07
2	Y 371.029	577230.9	577230.9	84.149	%			10:56:07
2	Ag 328.068†	-9262.6	-11000.4	1.5012	ug/L	1.5012	ppb	10:56:07
2	As 188.979†	-74.9	-67.8	14.163	ug/L	14.163	ppb	10:56:27
2	B 249.677†	215.8	768.2	-12.398	ug/L	-12.398	ppb	10:56:07
2	Ba 233.527†	-449.7	-521.9	1.5370	ug/L	1.5370	ppb	10:56:27
2	Be 313.107†	-4076.4	-405.0	-0.2146	ug/L	-0.2146	ppb	10:56:07
2	Cd 226.502†	1236.4	1628.4	-0.6835	ug/L	-0.6835	ppb	10:56:27
2	Co 228.616†	-12.5	58.3	-1.4914	ug/L	-1.4914	ppb	10:56:27
2	Cr 267.716†	-55.5	-159.9	1.8483	ug/L	1.8483	ppb	10:56:27
2	Cu 324.752†	3698.5	-2018.1	3.6759	ug/L	3.6759	ppb	10:56:07
2	Mn 257.610†	1064.3	827.3	-0.2938	ug/L	-0.2938	ppb	10:56:07
2	Mo 202.031†	-180.8	-228.6	3.5929	ug/L	3.5929	ppb	10:56:27
2	Ni 231.604†	185.5	139.5	3.6715	ug/L	3.6715	ppb	10:56:27

2	P 214.914†	185.9	-12.8	-34.707	ug/L	-34.707 ppb	10:56:27
2	Pb 220.353†	-766.8	-822.8	-5.7744	ug/L	-5.7744 ppb	10:56:27
2	S 181.975 Axial†	72.4	37.4	-39.791	ug/L	-39.791 ppb	10:56:27
2	Sb 206.836†	45.2	19.6	-3.2091	ug/L	-3.2091 ppb	10:56:27
2	Se 196.026†	-860.9	-965.9	7.4821	ug/L	7.4821 ppb	10:56:27
2	Si 251.611†	479.3	108.8	3.8760	ug/L	3.8760 ppb	10:56:27
2	Sn 189.927†	-362.3	-425.4	-2.6994	ug/L	-2.6994 ppb	10:56:27
2	Ti 334.940†	-13134.5	-13812.4	0.2021	ug/L	0.2021 ppb	10:56:07
2	Tl 190.801†	-85.9	-55.5	-17.994	ug/L	-17.994 ppb	10:56:27
2	U 409.014†	-985.7	900.3	6.9290	ug/L	6.9290 ppb	10:56:07
2	V 292.402†	916.7	2468.0	-0.7111	ug/L	-0.7111 ppb	10:56:27
2	Zn 213.857†	2867.9	2458.5	5.9318	ug/L	5.9318 ppb	10:56:27
2	SiO2†	444.3	58.0	4.6197	ug/L	4.6197 ppb	10:57:03
3	Sc Radial	4408.3	4408.3	92.0	%		10:55:35
3	Y RADIAL	4696.8	4696.8	91.57	%		10:55:35
3	Al 396.153Radial†	579777.9	630148.8	505540	ug/L	505540 ppb	10:55:30
3	Ca 317.933Radial†	258804.1	281272.3	473650	ug/L	473650 ppb	10:55:30
3	Fe 238.204 Radial†	18540.1	20140.9	189340	ug/L	189340 ppb	10:55:35
3	K 766.490 Radial†	2323.8	-261.8	-210.87	ug/L	-210.87 ppb	10:55:30
3	Mg 279.077 IEC†	12823.0	13935.5	489030	ug/L	489030 ppb	10:55:35
3	Na 589.592 Radial†	-1415.0	29.0	9.3941	ug/L	9.3941 ppb	10:55:35
3	Sr 421.552†	517.5	545.2	0.3495	ug/L	0.3495 ppb	10:55:35
3	Sc 361.383	705583.6	705583.6	86.695	%		10:56:33
3	Y 371.029	579570.7	579570.7	84.490	%		10:56:33
3	Ag 328.068†	-9249.1	-10950.1	1.1250	ug/L	1.1250 ppb	10:56:33
3	As 188.979†	-66.7	-58.1	18.048	ug/L	18.048 ppb	10:56:53
3	B 249.677†	403.6	984.1	-6.7994	ug/L	-6.7994 ppb	10:56:33
3	Ba 233.527†	-463.9	-536.6	1.3493	ug/L	1.3493 ppb	10:56:53
3	Be 313.107†	-4109.2	-427.6	-0.2238	ug/L	-0.2238 ppb	10:56:33
3	Cd 226.502†	1235.8	1623.1	-0.5265	ug/L	-0.5265 ppb	10:56:53
3	Co 228.616†	-7.6	63.9	-1.3446	ug/L	-1.3446 ppb	10:56:53
3	Cr 267.716†	-88.9	-198.3	1.3516	ug/L	1.3516 ppb	10:56:53
3	Cu 324.752†	3729.8	-1995.8	3.6328	ug/L	3.6328 ppb	10:56:33
3	Mn 257.610†	861.2	589.0	-0.6122	ug/L	-0.6122 ppb	10:56:33
3	Mo 202.031†	-214.2	-266.3	0.5636	ug/L	0.5636 ppb	10:56:53
3	Ni 231.604†	150.1	98.0	2.5785	ug/L	2.5785 ppb	10:56:53
3	P 214.914†	182.3	-17.5	-37.132	ug/L	-37.132 ppb	10:56:53
3	Pb 220.353†	-749.9	-800.4	-3.7086	ug/L	-3.7086 ppb	10:56:53
3	S 181.975 Axial†	62.5	25.6	-56.542	ug/L	-56.542 ppb	10:56:53
3	Sb 206.836†	66.9	44.4	5.8282	ug/L	5.8282 ppb	10:56:53
3	Se 196.026†	-883.0	-988.1	-14.597	ug/L	-14.597 ppb	10:56:53
3	Si 251.611†	504.3	135.8	4.8235	ug/L	4.8235 ppb	10:56:53
3	Sn 189.927†	-369.5	-432.3	-4.7871	ug/L	-4.7871 ppb	10:56:53
3	Ti 334.940†	-13209.7	-13849.9	-0.2044	ug/L	-0.2044 ppb	10:56:33
3	Tl 190.801†	-62.8	-28.6	-9.3744	ug/L	-9.3744 ppb	10:56:53
3	U 409.014†	-899.6	1003.3	10.462	ug/L	10.462 ppb	10:56:33
3	V 292.402†	852.2	2390.1	-1.0771	ug/L	-1.0771 ppb	10:56:53
3	Zn 213.857†	2896.0	2480.1	6.3604	ug/L	6.3604 ppb	10:56:53
3	SiO2†	480.4	97.9	7.5578	ug/L	7.5578 ppb	10:57:08

Mean Data: ICSA

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	702552.5	86.323	%	0.4256				0.49%
Sc Radial	4365.0	91.1	%	0.92				1.01%
Y 371.029	577328.0	84.163	%	0.3201				0.38%
Y RADIAL	4651.5	90.68	%	0.768				0.85%
Ag 328.068†	-10921.3	1.6787	ug/L	0.66053	1.6787	ppb	0.66053	39.35%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	631983.1	507020	ug/L	2425.5	507020	ppb	2425.5	0.48%
QC value within limits for Al 396.153Radial Recovery = 101.40%								
As 188.979†	-67.8	13.987	ug/L	4.1518	13.987	ppb	4.1518	29.68%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	878.7	-9.5844	ug/L	2.79937	-9.5844	ppb	2.79937	29.21%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-537.3	1.3847	ug/L	0.13812	1.3847	ppb	0.13812	9.98%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-386.8	-0.2076	ug/L	0.02063	-0.2076	ppb	0.02063	9.94%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	282452.3	475640	ug/L	2718.4	475640	ppb	2718.4	0.57%

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   QC value within limits for Ca 317.933Radial  Recovery = 95.13%
Cd 226.502†            1627.3     -0.6156 ug/L      0.08065     -0.6156 ppb       0.08065  13.10%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†              57.1     -1.5093 ug/L      0.17432     -1.5093 ppb       0.17432  11.55%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†            -174.1      1.6651 ug/L      0.27273      1.6651 ppb       0.27273  16.38%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†           -2010.2      3.6593 ug/L      0.02318      3.6593 ppb       0.02318   0.63%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†    20284.2      190690 ug/L       1171.5      190690 ppb        1171.5   0.61%
   QC value within limits for Fe 238.204 Radial  Recovery = 95.34%
K 766.490 Radial†      -222.0     -203.56 ug/L        6.355     -203.56 ppb         6.355   3.12%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†       13990.2      490950 ug/L       2108.6      490950 ppb        2108.6   0.43%
   QC value within limits for Mg 279.077 IEC  Recovery = 98.19%
Mn 257.610†             666.6     -0.4666 ug/L      0.16090     -0.4666 ppb       0.16090  34.48%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†            -255.7      1.4814 ug/L      1.83384      1.4814 ppb       1.83384 123.79%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       24.9      8.0560 ug/L      7.09195      8.0560 ppb       7.09195  88.03%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†             134.8      3.5473 ug/L      0.91310      3.5473 ppb       0.91310  25.74%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†              -23.7     -41.737 ug/L      10.1485     -41.737 ppb       10.1485  24.32%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†            -813.3     -5.1421 ug/L      1.24434     -5.1421 ppb       1.24434  24.20%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         31.9     -47.388 ug/L       8.4834     -47.388 ppb        8.4834  17.90%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              40.5      4.4378 ug/L      7.05519      4.4378 ppb       7.05519 158.98%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†            -970.9      1.4203 ug/L     14.00713      1.4203 ppb      14.00713 986.19%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†             118.3      4.2237 ug/L      0.52167      4.2237 ppb       0.52167  12.35%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†            -430.6     -4.1507 ug/L      1.26003     -4.1507 ppb       1.26003  30.36%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             533.0      0.2474 ug/L      0.13080      0.2474 ppb       0.13080  52.88%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†          -13853.7     -0.1002 ug/L      0.26592     -0.1002 ppb       0.26592 265.45%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†             -44.2     -14.383 ug/L       4.4765     -14.383 ppb        4.4765  31.12%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              933.2      8.0686 ug/L      2.07336      8.0686 ppb       2.07336  25.70%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†             2427.9     -0.9567 ug/L      0.21274     -0.9567 ppb       0.21274  22.24%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†            2482.0      6.2425 ug/L      0.27174      6.2425 ppb       0.27174   4.35%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                   84.5      6.5736 ug/L      1.69219      6.5736 ppb       1.69219  25.74%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 10
Sample ID: ICSAB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 14
Date Collected: 1/14/2010 10:59:19
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSAB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4460.9	4460.9	93.1	%			11:01:17
1	Y RADIAL	4775.6	4775.6	93.10	%			11:01:17
1	Al 396.153Radial†	585220.9	628572.4	504250	ug/L	504250	ppb	11:01:12
1	Ca 317.933Radial†	262712.9	282157.3	475140	ug/L	475140	ppb	11:01:12
1	Fe 238.204 Radial†	19382.3	20808.1	195620	ug/L	195620	ppb	11:01:17
1	K 766.490 Radial†	28032.5	27321.5	5311.7	ug/L	5311.7	ppb	11:01:12
1	Mg 279.077 IEC†	13268.2	14249.5	500050	ug/L	500050	ppb	11:01:17
1	Na 589.592 Radial†	15710.1	18440.7	5974.9	ug/L	5974.9	ppb	11:01:17
1	Sr 421.552†	69506.1	74637.3	528.46	ug/L	528.46	ppb	11:01:12
1	Sc 361.383	707414.6	707414.6	86.920	%			11:01:45
1	Y 371.029	579258.3	579258.3	84.445	%			11:01:45
1	Ag 328.068†	39878.4	45597.7	282.60	ug/L	282.60	ppb	11:01:45
1	As 188.979†	927.4	1085.8	537.65	ug/L	537.65	ppb	11:02:05
1	B 249.677†	19301.2	22724.1	520.00	ug/L	520.00	ppb	11:01:45
1	Ba 233.527†	52370.3	60249.5	506.70	ug/L	506.70	ppb	11:01:45
1	Be 313.107†	543489.6	629585.6	251.19	ug/L	251.19	ppb	11:01:45
1	Cd 226.502†	36003.4	41618.7	467.98	ug/L	467.98	ppb	11:02:05
1	Co 228.616†	18289.4	21114.3	455.83	ug/L	455.83	ppb	11:02:05
1	Cr 267.716†	36065.7	41397.1	492.73	ug/L	492.73	ppb	11:01:45
1	Cu 324.752†	156888.0	174198.3	566.15	ug/L	566.15	ppb	11:01:45
1	Mn 257.610†	364441.9	418878.5	490.06	ug/L	490.06	ppb	11:01:45
1	Mo 202.031†	5707.5	6547.1	506.83	ug/L	506.83	ppb	11:02:05
1	Ni 231.604†	15193.2	17404.4	457.88	ug/L	457.88	ppb	11:02:05
1	P 214.914†	3694.0	4022.0	2428.6	ug/L	2428.6	ppb	11:02:05
1	Pb 220.353†	2418.8	2847.4	463.61	ug/L	463.61	ppb	11:02:05
1	S 181.975 Axial†	1670.9	1875.8	2705.0	ug/L	2705.0	ppb	11:02:05
1	Sb 206.836†	1326.4	1493.3	553.76	ug/L	553.76	ppb	11:02:05
1	Se 196.026†	2481.9	2885.7	2598.2	ug/L	2598.2	ppb	11:02:05
1	Si 251.611†	138667.6	159088.3	5357.9	ug/L	5357.9	ppb	11:01:45
1	Sn 189.927†	1989.0	2282.1	497.54	ug/L	497.54	ppb	11:02:05
1	Ti 334.940†	251423.8	290644.8	521.07	ug/L	521.07	ppb	11:01:45
1	Tl 190.801†	1200.8	1425.4	459.43	ug/L	459.43	ppb	11:02:05
1	U 409.014†	12896.9	16878.5	515.66	ug/L	515.66	ppb	11:01:45
1	V 292.402†	62529.6	73346.2	517.48	ug/L	517.48	ppb	11:01:45
1	Zn 213.857†	46968.8	53176.3	507.70	ug/L	507.70	ppb	11:01:45
1	SiO2†	140558.6	161253.5	11547	ug/L	11547	ppb	11:03:02
2	Sc Radial	4360.5	4360.5	91.0	%			11:01:27
2	Y RADIAL	4660.4	4660.4	90.86	%			11:01:27
2	Al 396.153Radial†	589026.8	647223.0	519220	ug/L	519220	ppb	11:01:22
2	Ca 317.933Radial†	264513.5	290631.0	489410	ug/L	489410	ppb	11:01:22
2	Fe 238.204 Radial†	18934.4	20795.2	195500	ug/L	195500	ppb	11:01:27
2	K 766.490 Radial†	28175.2	28171.4	5477.2	ug/L	5477.2	ppb	11:01:22
2	Mg 279.077 IEC†	12927.9	14203.6	498440	ug/L	498440	ppb	11:01:27
2	Na 589.592 Radial†	15140.5	18203.2	5897.9	ug/L	5897.9	ppb	11:01:27
2	Sr 421.552†	69837.7	76720.1	543.20	ug/L	543.20	ppb	11:01:22
2	Sc 361.383	717232.5	717232.5	88.127	%			11:02:11
2	Y 371.029	587543.3	587543.3	85.653	%			11:02:11
2	Ag 328.068†	40543.4	45724.3	282.99	ug/L	282.99	ppb	11:02:11
2	As 188.979†	921.2	1064.2	527.92	ug/L	527.92	ppb	11:02:31
2	B 249.677†	19451.9	22591.3	516.80	ug/L	516.80	ppb	11:02:11
2	Ba 233.527†	53020.9	60163.0	505.98	ug/L	505.98	ppb	11:02:11
2	Be 313.107†	552046.9	630736.8	251.64	ug/L	251.64	ppb	11:02:11
2	Cd 226.502†	35940.8	40980.7	460.51	ug/L	460.51	ppb	11:02:31
2	Co 228.616†	18294.9	20832.4	449.69	ug/L	449.69	ppb	11:02:31
2	Cr 267.716†	36631.5	41471.1	493.60	ug/L	493.60	ppb	11:02:11
2	Cu 324.752†	159307.1	174472.6	567.01	ug/L	567.01	ppb	11:02:11
2	Mn 257.610†	369695.0	419099.9	490.37	ug/L	490.37	ppb	11:02:11
2	Mo 202.031†	5685.2	6431.8	498.44	ug/L	498.44	ppb	11:02:31
2	Ni 231.604†	15200.8	17173.7	451.81	ug/L	451.81	ppb	11:02:31

2	P 214.914†	3686.0	3954.8	2389.3	ug/L	2389.3 ppb	11:02:31
2	Pb 220.353†	2411.9	2801.5	461.18	ug/L	461.18 ppb	11:02:31
2	S 181.975 Axial†	1678.3	1857.9	2675.5	ug/L	2675.5 ppb	11:02:31
2	Sb 206.836†	1344.2	1492.6	552.84	ug/L	552.84 ppb	11:02:31
2	Se 196.026†	2474.0	2837.6	2566.4	ug/L	2566.4 ppb	11:02:31
2	Si 251.611†	140703.5	159214.6	5362.3	ug/L	5362.3 ppb	11:02:11
2	Sn 189.927†	1990.7	2252.8	494.29	ug/L	494.29 ppb	11:02:31
2	Ti 334.940†	255073.5	290826.7	523.43	ug/L	523.43 ppb	11:02:11
2	Tl 190.801†	1208.7	1415.4	456.28	ug/L	456.28 ppb	11:02:31
2	U 409.014†	13231.4	17055.0	521.31	ug/L	521.31 ppb	11:02:11
2	V 292.402†	63547.3	73516.2	518.58	ug/L	518.58 ppb	11:02:11
2	Zn 213.857†	47600.3	53153.2	507.52	ug/L	507.52 ppb	11:02:11
2	SiO2†	139548.6	157893.8	11307	ug/L	11307 ppb	11:03:07
3	Sc Radial	4483.3	4483.3	93.6	%		11:01:37
3	Y RADIAL	4768.3	4768.3	92.96	%		11:01:37
3	Al 396.153Radial†	578241.7	617976.6	495750	ug/L	495750 ppb	11:01:32
3	Ca 317.933Radial†	259443.2	277254.7	466880	ug/L	466880 ppb	11:01:32
3	Fe 238.204 Radial†	19333.8	20652.3	194160	ug/L	194160 ppb	11:01:37
3	K 766.490 Radial†	27684.1	26798.9	5209.8	ug/L	5209.8 ppb	11:01:32
3	Mg 279.077 IEC†	13193.1	14098.1	494740	ug/L	494740 ppb	11:01:37
3	Na 589.592 Radial†	15495.3	18126.9	5873.2	ug/L	5873.2 ppb	11:01:37
3	Sr 421.552†	68428.1	73112.7	517.65	ug/L	517.65 ppb	11:01:32
3	Sc 361.383	714085.4	714085.4	87.740	%		11:02:37
3	Y 371.029	586060.1	586060.1	85.436	%		11:02:37
3	Ag 328.068†	40371.8	45731.4	282.92	ug/L	282.92 ppb	11:02:37
3	As 188.979†	925.5	1073.6	531.85	ug/L	531.85 ppb	11:02:57
3	B 249.677†	19408.9	22639.4	518.18	ug/L	518.18 ppb	11:02:37
3	Ba 233.527†	52966.5	60366.1	507.63	ug/L	507.63 ppb	11:02:37
3	Be 313.107†	552868.3	634433.7	253.11	ug/L	253.11 ppb	11:02:37
3	Cd 226.502†	36232.3	41492.7	466.65	ug/L	466.65 ppb	11:02:57
3	Co 228.616†	18383.5	21025.0	453.90	ug/L	453.90 ppb	11:02:57
3	Cr 267.716†	36579.0	41594.5	495.03	ug/L	495.03 ppb	11:02:37
3	Cu 324.752†	158681.3	174556.0	567.21	ug/L	567.21 ppb	11:02:37
3	Mn 257.610†	369046.1	420209.2	491.69	ug/L	491.69 ppb	11:02:37
3	Mo 202.031†	5711.2	6489.9	502.38	ug/L	502.38 ppb	11:02:57
3	Ni 231.604†	15311.6	17376.0	457.13	ug/L	457.13 ppb	11:02:57
3	P 214.914†	3733.5	4027.3	2430.8	ug/L	2430.8 ppb	11:02:57
3	Pb 220.353†	2456.4	2864.2	463.92	ug/L	463.92 ppb	11:02:57
3	S 181.975 Axial†	1674.7	1862.2	2686.2	ug/L	2686.2 ppb	11:02:57
3	Sb 206.836†	1316.4	1467.6	544.54	ug/L	544.54 ppb	11:02:57
3	Se 196.026†	2505.0	2885.4	2592.7	ug/L	2592.7 ppb	11:02:57
3	Si 251.611†	140307.7	159467.2	5370.8	ug/L	5370.8 ppb	11:02:37
3	Sn 189.927†	2022.0	2298.4	499.27	ug/L	499.27 ppb	11:02:57
3	Ti 334.940†	254318.1	291241.3	521.42	ug/L	521.42 ppb	11:02:37
3	Tl 190.801†	1209.4	1422.3	458.46	ug/L	458.46 ppb	11:02:57
3	U 409.014†	12930.2	16777.9	512.61	ug/L	512.61 ppb	11:02:37
3	V 292.402†	63542.6	73828.6	521.00	ug/L	521.00 ppb	11:02:37
3	Zn 213.857†	47567.1	53353.4	509.61	ug/L	509.61 ppb	11:02:37
3	SiO2†	140776.2	159990.8	11457	ug/L	11457 ppb	11:03:13

Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	712910.8	87.596	%	0.6160				0.70%
Sc Radial	4434.9	92.6	%	1.36				1.47%
Y 371.029	584287.3	85.178	%	0.6440				0.76%
Y RADIAL	4734.8	92.31	%	1.257				1.36%
Ag 328.068†	45684.5	282.84	ug/L	0.206	282.84	ppb	0.206	0.07%
QC value within limits for Ag 328.068 Recovery = 113.14%								
Al 396.153Radial†	631257.3	506410	ug/L	11879.1	506410	ppb	11879.1	2.35%
QC value within limits for Al 396.153Radial Recovery = 101.28%								
As 188.979†	1074.5	532.48	ug/L	4.895	532.48	ppb	4.895	0.92%
QC value within limits for As 188.979 Recovery = 106.50%								
B 249.677†	22651.6	518.33	ug/L	1.603	518.33	ppb	1.603	0.31%
QC value within limits for B 249.677 Recovery = 103.67%								
Ba 233.527†	60259.5	506.77	ug/L	0.826	506.77	ppb	0.826	0.16%
QC value within limits for Ba 233.527 Recovery = 101.35%								
Be 313.107†	631585.4	251.98	ug/L	1.007	251.98	ppb	1.007	0.40%
QC value within limits for Be 313.107 Recovery = 100.79%								
Ca 317.933Radial†	283347.7	477140	ug/L	11395.5	477140	ppb	11395.5	2.39%

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   QC value within limits for Ca 317.933Radial  Recovery = 95.43%
Cd 226.502†            41364.0      465.05 ug/L        3.984      465.05 ppb        3.984   0.86%
   QC value within limits for Cd 226.502  Recovery = 93.01%
Co 228.616†            20990.6      453.14 ug/L        3.140      453.14 ppb        3.140   0.69%
   QC value within limits for Co 228.616  Recovery = 90.63%
Cr 267.716†            41487.6      493.79 ug/L        1.165      493.79 ppb        1.165   0.24%
   QC value within limits for Cr 267.716  Recovery = 98.76%
Cu 324.752†           174409.0      566.79 ug/L        0.567      566.79 ppb        0.567   0.10%
   QC value within limits for Cu 324.752  Recovery = 113.36%
Fe 238.204 Radial†     20751.9      195100 ug/L        812.5      195100 ppb        812.5   0.42%
   QC value within limits for Fe 238.204 Radial  Recovery = 97.55%
K 766.490 Radial†      27430.6      5332.9 ug/L       134.97      5332.9 ppb       134.97   2.53%
   QC value within limits for K 766.490 Radial  Recovery = 106.66%
Mg 279.077 IEC†        14183.7      497740 ug/L       2724.5      497740 ppb       2724.5   0.55%
   QC value within limits for Mg 279.077 IEC  Recovery = 99.55%
Mn 257.610†           419395.8      490.71 ug/L        0.867      490.71 ppb        0.867   0.18%
   QC value within limits for Mn 257.610  Recovery = 98.14%
Mo 202.031†             6489.6      502.55 ug/L        4.199      502.55 ppb        4.199   0.84%
   QC value within limits for Mo 202.031  Recovery = 100.51%
Na 589.592 Radial†     18257.0      5915.4 ug/L        53.02      5915.4 ppb        53.02   0.90%
   QC value within limits for Na 589.592 Radial  Recovery = 118.31%
Ni 231.604†            17318.0      455.61 ug/L        3.309      455.61 ppb        3.309   0.73%
   QC value within limits for Ni 231.604  Recovery = 91.12%
P 214.914†              4001.4      2416.2 ug/L        23.36      2416.2 ppb        23.36   0.97%
   QC value within limits for P 214.914  Recovery = 96.65%
Pb 220.353†             2837.7      462.91 ug/L        1.499      462.91 ppb        1.499   0.32%
   QC value within limits for Pb 220.353  Recovery = 92.58%
S 181.975 Axial†        1865.3      2688.9 ug/L        14.94      2688.9 ppb        14.94   0.56%
   QC value within limits for S 181.975 Axial  Recovery = 107.56%
Sb 206.836†             1484.5      550.38 ug/L        5.077      550.38 ppb        5.077   0.92%
   QC value within limits for Sb 206.836  Recovery = 110.08%
Se 196.026†             2869.6      2585.8 ug/L        17.00      2585.8 ppb        17.00   0.66%
   QC value within limits for Se 196.026  Recovery = 103.43%
Si 251.611†           159256.7      5363.7 ug/L         6.52      5363.7 ppb         6.52   0.12%
   QC value within limits for Si 251.611  Recovery = 107.27%
Sn 189.927†             2277.8      497.03 ug/L        2.533      497.03 ppb        2.533   0.51%
   QC value within limits for Sn 189.927  Recovery = 99.41%
Sr 421.552†            74823.4      529.77 ug/L       12.823      529.77 ppb       12.823   2.42%
   QC value within limits for Sr 421.552  Recovery = 105.95%
Ti 334.940†           290904.3      521.97 ug/L        1.270      521.97 ppb        1.270   0.24%
   QC value within limits for Ti 334.940  Recovery = 104.39%
Tl 190.801†             1421.0      458.06 ug/L        1.612      458.06 ppb        1.612   0.35%
   QC value within limits for Tl 190.801  Recovery = 91.61%
U 409.014†             16903.8      516.53 ug/L        4.414      516.53 ppb        4.414   0.85%
   QC value within limits for U 409.014  Recovery = 103.31%
V 292.402†             73563.7      519.02 ug/L        1.802      519.02 ppb        1.802   0.35%
   QC value within limits for V 292.402  Recovery = 103.80%
Zn 213.857†            53227.6      508.27 ug/L        1.159      508.27 ppb        1.159   0.23%
   QC value within limits for Zn 213.857  Recovery = 101.65%
SiO2†                 159712.7       11437 ug/L        121.5       11437 ppb        121.5   1.06%
   QC value within limits for SiO2  Recovery = 106.94%
All analyte(s) passed QC.
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Sequence No.: 11
Sample ID: LR1
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 15
Date Collected: 1/14/2010 11:05:22
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4325.4	4325.4	90.3	%			11:07:20
1	Y RADIAL	4609.2	4609.2	89.86	%			11:07:20
1	Al 396.153Radial†	559046.9	619270.0	496820	ug/L	496820	ppb	11:07:15
1	Ca 317.933Radial†	249788.9	276680.8	465920	ug/L	465920	ppb	11:07:15
1	Fe 238.204 Radial†	41978.5	46490.5	437040	ug/L	437040	ppb	11:07:20
1	K 766.490 Radial†	2824.3	341.1	-287.48	ug/L	-287.48	ppb	11:07:15
1	Mg 279.077 IEC†	12241.7	13558.9	475550	ug/L	475550	ppb	11:07:20
1	Na 589.592 Radial†	1427323.1	1582639.6	512780	ug/L	512780	ppb	11:07:15
1	Sr 421.552†	724.6	785.4	2.1193	ug/L	2.1193	ppb	11:07:20
1	Sc 361.383	690936.1	690936.1	84.896	%			11:07:48
1	Y 371.029	567787.9	567787.9	82.773	%			11:07:48
1	Ag 328.068†	-21540.8	-25654.9	-2.9059	ug/L	-2.9059	ppb	11:07:48
1	As 188.979†	-193.5	-209.1	8.1587	ug/L	8.1587	ppb	11:08:08
1	B 249.677†	1388.5	2154.1	-18.563	ug/L	-18.563	ppb	11:07:48
1	Ba 233.527†	-1359.0	-1602.3	0.0791	ug/L	0.0791	ppb	11:08:08
1	Be 313.107†	-10412.7	-7953.1	-3.2138	ug/L	-3.2138	ppb	11:07:48
1	Cd 226.502†	3121.5	3874.4	3.1787	ug/L	3.1787	ppb	11:08:08
1	Co 228.616†	175.4	279.3	-0.3000	ug/L	-0.3000	ppb	11:08:08
1	Cr 267.716†	24.7	-66.6	1.8297	ug/L	1.8297	ppb	11:08:08
1	Cu 324.752†	1105.4	-4996.0	-1.0854	ug/L	-1.0854	ppb	11:07:48
1	Mn 257.610†	-19920.2	-23868.6	-4.2867	ug/L	-4.2867	ppb	11:07:48
1	Mo 202.031†	-469.3	-572.1	-3.0002	ug/L	-3.0002	ppb	11:08:08
1	Ni 231.604†	277.5	251.7	6.6221	ug/L	6.6221	ppb	11:08:08
1	P 214.914†	517.5	381.6	17.781	ug/L	17.781	ppb	11:08:08
1	Pb 220.353†	-517.5	-545.0	3.2731	ug/L	3.2731	ppb	11:08:08
1	S 181.975 Axial†	94.8	65.3	4.2973	ug/L	4.2973	ppb	11:08:08
1	Sb 206.836†	41.5	16.1	1.4223	ug/L	1.4223	ppb	11:08:08
1	Se 196.026†	-1984.5	-2307.2	-86.069	ug/L	-86.069	ppb	11:08:08
1	Si 251.611†	-420.3	-941.0	-31.205	ug/L	-31.205	ppb	11:08:08
1	Sn 189.927†	-397.0	-473.7	-9.4483	ug/L	-9.4483	ppb	11:08:08
1	Ti 334.940†	-13182.8	-14141.2	-7.2072	ug/L	-7.2072	ppb	11:07:48
1	Tl 190.801†	-109.5	-85.1	-27.634	ug/L	-27.634	ppb	11:08:08
1	U 409.014†	395335.8	467713.8	14888	ug/L	14888	ppb	11:07:48
1	V 292.402†	2458.6	4303.2	4.5976	ug/L	4.5976	ppb	11:08:08
1	Zn 213.857†	5470.3	5583.2	13.267	ug/L	13.267	ppb	11:08:08
1	SiO2†	-339.0	-855.5	-60.175	ug/L	-60.175	ppb	11:09:05
2	Sc Radial	4318.7	4318.7	90.1	%			11:07:31
2	Y RADIAL	4643.3	4643.3	90.52	%			11:07:31
2	Al 396.153Radial†	553258.3	613799.2	492430	ug/L	492430	ppb	11:07:26
2	Ca 317.933Radial†	246625.0	273595.6	460720	ug/L	460720	ppb	11:07:26
2	Fe 238.204 Radial†	42397.6	47026.8	442090	ug/L	442090	ppb	11:07:31
2	K 766.490 Radial†	2838.6	361.8	-278.50	ug/L	-278.50	ppb	11:07:26
2	Mg 279.077 IEC†	12382.8	13736.2	481770	ug/L	481770	ppb	11:07:31
2	Na 589.592 Radial†	1402980.3	1558061.8	504820	ug/L	504820	ppb	11:07:26
2	Sr 421.552†	722.4	784.2	2.1494	ug/L	2.1494	ppb	11:07:31
2	Sc 361.383	699514.9	699514.9	85.950	%			11:08:14
2	Y 371.029	574789.6	574789.6	83.793	%			11:08:14
2	Ag 328.068†	-21766.2	-25605.9	-0.9759	ug/L	-0.9759	ppb	11:08:14
2	As 188.979†	-183.5	-194.6	15.858	ug/L	15.858	ppb	11:08:34
2	B 249.677†	1369.5	2111.9	-20.406	ug/L	-20.406	ppb	11:08:14
2	Ba 233.527†	-1327.8	-1546.3	0.6956	ug/L	0.6956	ppb	11:08:34
2	Be 313.107†	-10552.1	-7964.8	-3.2176	ug/L	-3.2176	ppb	11:08:14
2	Cd 226.502†	3113.3	3819.8	2.0207	ug/L	2.0207	ppb	11:08:34
2	Co 228.616†	155.1	253.2	-0.9391	ug/L	-0.9391	ppb	11:08:34
2	Cr 267.716†	20.2	-72.2	1.8556	ug/L	1.8556	ppb	11:08:34
2	Cu 324.752†	1029.4	-5100.4	-1.1593	ug/L	-1.1593	ppb	11:08:14
2	Mn 257.610†	-19969.7	-23638.4	-3.7733	ug/L	-3.7733	ppb	11:08:14
2	Mo 202.031†	-460.8	-555.5	-1.4325	ug/L	-1.4325	ppb	11:08:34
2	Ni 231.604†	265.1	233.3	6.1394	ug/L	6.1394	ppb	11:08:34

2	P 214.914†	521.1	378.4	10.605	ug/L	10.605 ppb	11:08:34
2	Pb 220.353†	-522.5	-543.4	1.9640	ug/L	1.9640 ppb	11:08:34
2	S 181.975 Axial†	80.2	46.9	-22.321	ug/L	-22.321 ppb	11:08:34
2	Sb 206.836†	62.0	39.4	10.219	ug/L	10.219 ppb	11:08:34
2	Se 196.026†	-1968.2	-2259.6	-37.933	ug/L	-37.933 ppb	11:08:34
2	Si 251.611†	-414.3	-927.9	-30.778	ug/L	-30.778 ppb	11:08:34
2	Sn 189.927†	-395.5	-466.3	-8.7798	ug/L	-8.7798 ppb	11:08:34
2	Ti 334.940†	-13153.0	-13916.1	-8.0325	ug/L	-8.0325 ppb	11:08:14
2	Tl 190.801†	-95.7	-67.5	-22.001	ug/L	-22.001 ppb	11:08:34
2	U 409.014†	400616.1	468146.5	14901	ug/L	14901 ppb	11:08:14
2	V 292.402†	2407.1	4207.8	3.3387	ug/L	3.3387 ppb	11:08:34
2	Zn 213.857†	5411.1	5435.3	11.306	ug/L	11.306 ppb	11:08:34
2	SiO2†	-427.2	-953.3	-67.222	ug/L	-67.222 ppb	11:09:10
3	Sc Radial	4365.1	4365.1	91.1	%		11:07:41
3	Y RADIAL	4692.6	4692.6	91.48	%		11:07:41
3	Al 396.153Radial†	557491.9	611933.7	490930	ug/L	490930 ppb	11:07:36
3	Ca 317.933Radial†	248919.6	273211.2	460070	ug/L	460070 ppb	11:07:36
3	Fe 238.204 Radial†	42954.3	47138.9	443140	ug/L	443140 ppb	11:07:41
3	K 766.490 Radial†	2995.6	500.7	-250.02	ug/L	-250.02 ppb	11:07:36
3	Mg 279.077 IEC†	12537.6	13760.4	482620	ug/L	482620 ppb	11:07:41
3	Na 589.592 Radial†	1414898.3	1554628.6	503710	ug/L	503710 ppb	11:07:36
3	Sr 421.552†	728.9	782.8	2.1444	ug/L	2.1444 ppb	11:07:41
3	Sc 361.383	693608.2	693608.2	85.224	%		11:08:40
3	Y 371.029	569680.0	569680.0	83.048	%		11:08:40
3	Ag 328.068†	-21486.9	-25493.9	-0.0219	ug/L	-0.0219 ppb	11:08:40
3	As 188.979†	-180.9	-193.5	16.620	ug/L	16.620 ppb	11:09:00
3	B 249.677†	1331.4	2080.7	-21.338	ug/L	-21.338 ppb	11:08:40
3	Ba 233.527†	-1333.0	-1565.6	0.5674	ug/L	0.5674 ppb	11:09:00
3	Be 313.107†	-10495.9	-8003.4	-3.2329	ug/L	-3.2329 ppb	11:08:40
3	Cd 226.502†	3110.9	3847.9	2.2279	ug/L	2.2279 ppb	11:09:00
3	Co 228.616†	161.1	261.7	-0.7697	ug/L	-0.7697 ppb	11:09:00
3	Cr 267.716†	64.9	-19.5	2.5236	ug/L	2.5236 ppb	11:09:00
3	Cu 324.752†	1112.1	-4993.2	-0.7250	ug/L	-0.7250 ppb	11:08:40
3	Mn 257.610†	-19946.5	-23809.1	-3.9041	ug/L	-3.9041 ppb	11:08:40
3	Mo 202.031†	-462.5	-562.0	-1.8397	ug/L	-1.8397 ppb	11:09:00
3	Ni 231.604†	258.9	228.7	6.0174	ug/L	6.0174 ppb	11:09:00
3	P 214.914†	507.1	367.1	2.1257	ug/L	2.1257 ppb	11:09:00
3	Pb 220.353†	-535.2	-563.4	-1.0297	ug/L	-1.0297 ppb	11:09:00
3	S 181.975 Axial†	79.4	46.7	-22.358	ug/L	-22.358 ppb	11:09:00
3	Sb 206.836†	69.5	48.8	13.661	ug/L	13.661 ppb	11:09:00
3	Se 196.026†	-1976.4	-2288.7	-53.994	ug/L	-53.994 ppb	11:09:00
3	Si 251.611†	-414.9	-932.7	-30.934	ug/L	-30.934 ppb	11:09:00
3	Sn 189.927†	-404.3	-480.5	-11.490	ug/L	-11.490 ppb	11:09:00
3	Ti 334.940†	-13027.3	-13898.9	-8.1307	ug/L	-8.1307 ppb	11:08:40
3	Tl 190.801†	-106.5	-81.1	-26.365	ug/L	-26.365 ppb	11:09:00
3	U 409.014†	395488.0	466098.4	14835	ug/L	14835 ppb	11:08:40
3	V 292.402†	2400.5	4223.9	3.1857	ug/L	3.1857 ppb	11:09:00
3	Zn 213.857†	5425.3	5505.6	11.906	ug/L	11.906 ppb	11:09:00
3	SiO2†	-431.3	-962.3	-67.854	ug/L	-67.854 ppb	11:09:15

Mean Data: LR1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	694686.4	85.356	%	0.5394				0.63%
Sc Radial	4336.4	90.5	%	0.52				0.58%
Y 371.029	570752.5	83.205	%	0.5280				0.63%
Y RADIAL	4648.4	90.62	%	0.818				0.90%
Ag 328.068†	-25584.9	-1.3012	ug/L	1.46931	-1.3012	ppb	1.46931	112.92%
Al 396.153Radial†	615001.0	493390	ug/L	3059.0	493390	ppb	3059.0	0.62%
QC value within limits for Al 396.153Radial Recovery = 98.68%								
As 188.979†	-199.1	13.545	ug/L	4.6806	13.545	ppb	4.6806	34.55%
B 249.677†	2115.6	-20.102	ug/L	1.4121	-20.102	ppb	1.4121	7.02%
Ba 233.527†	-1571.4	0.4474	ug/L	0.32531	0.4474	ppb	0.32531	72.71%
Be 313.107†	-7973.8	-3.2214	ug/L	0.01008	-3.2214	ppb	0.01008	0.31%
Ca 317.933Radial†	274495.9	462240	ug/L	3202.8	462240	ppb	3202.8	0.69%
QC value within limits for Ca 317.933Radial Recovery = 92.45%								
Cd 226.502†	3847.3	2.4758	ug/L	0.61749	2.4758	ppb	0.61749	24.94%
Co 228.616†	264.7	-0.6696	ug/L	0.33111	-0.6696	ppb	0.33111	49.45%
Cr 267.716†	-52.8	2.0696	ug/L	0.39339	2.0696	ppb	0.39339	19.01%
Cu 324.752†	-5029.9	-0.9899	ug/L	0.23234	-0.9899	ppb	0.23234	23.47%

Fe 238.204 Radial†	46885.4	440760 ug/L	3257.9	440760 ppb	3257.9	0.74%
QC value less than the lower limit for Fe 238.204 Radial Recovery = 88.15%						
K 766.490 Radial†	401.2	-272.00 ug/L	19.557	-272.00 ppb	19.557	7.19%
Mg 279.077 IEC†	13685.2	479980 ug/L	3859.9	479980 ppb	3859.9	0.80%
QC value within limits for Mg 279.077 IEC Recovery = 96.00%						
Mn 257.610†	-23772.0	-3.9880 ug/L	0.26676	-3.9880 ppb	0.26676	6.69%
Mo 202.031†	-563.2	-2.0908 ug/L	0.81349	-2.0908 ppb	0.81349	38.91%
Na 589.592 Radial†	1565110.0	507100 ug/L	4950.1	507100 ppb	4950.1	0.98%
QC value within limits for Na 589.592 Radial Recovery = 101.42%						
Ni 231.604†	237.9	6.2596 ug/L	0.31974	6.2596 ppb	0.31974	5.11%
P 214.914†	375.7	10.171 ug/L	7.8368	10.171 ppb	7.8368	77.05%
Pb 220.353†	-550.6	1.4024 ug/L	2.20569	1.4024 ppb	2.20569	157.27%
S 181.975 Axial†	52.9	-13.460 ug/L	15.3787	-13.460 ppb	15.3787	114.25%
Sb 206.836†	34.8	8.4341 ug/L	6.31147	8.4341 ppb	6.31147	74.83%
Se 196.026†	-2285.2	-59.332 ug/L	24.5082	-59.332 ppb	24.5082	41.31%
Si 251.611†	-933.9	-30.972 ug/L	0.2160	-30.972 ppb	0.2160	0.70%
Sn 189.927†	-473.5	-9.9059 ug/L	1.41175	-9.9059 ppb	1.41175	14.25%
Sr 421.552†	784.1	2.1377 ug/L	0.01615	2.1377 ppb	0.01615	0.76%
Ti 334.940†	-13985.4	-7.7901 ug/L	0.50720	-7.7901 ppb	0.50720	6.51%
Tl 190.801†	-77.9	-25.334 ug/L	2.9548	-25.334 ppb	2.9548	11.66%
U 409.014†	467319.6	14875 ug/L	34.6	14875 ppb	34.6	0.23%
QC value within limits for U 409.014 Recovery = 99.16%						
V 292.402†	4244.9	3.7073 ug/L	0.77478	3.7073 ppb	0.77478	20.90%
Zn 213.857†	5508.0	12.160 ug/L	1.0048	12.160 ppb	1.0048	8.26%
SiO2†	-923.7	-65.083 ug/L	4.2626	-65.083 ppb	4.2626	6.55%

QC Failed. Continue with analysis.

Sequence No.: 12
Sample ID: LR2
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 16
Date Collected: 1/14/2010 11:11:26
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR2

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4833.5	4833.5	101	%			11:13:24
1	Y RADIAL	5126.8	5126.8	99.95	%			11:13:24
1	Al 396.153Radial†	548.9	547.4	-42.692	ug/L	-42.692	ppb	11:13:24
1	Ca 317.933Radial†	26.7	11.4	19.131	ug/L	19.131	ppb	11:13:44
1	Fe 238.204 Radial†	-15.6	-25.4	50.089	ug/L	50.089	ppb	11:13:44
1	K 766.490 Radial†	1467235.0	1451652.4	290810	ug/L	290810	ppb	11:13:19
1	Mg 279.077 IEC†	-6.3	-7.8	-168.60	ug/L	-168.60	ppb	11:13:44
1	Na 589.592 Radial†	-679.2	893.6	289.54	ug/L	289.54	ppb	11:13:24
1	Sr 421.552†	1386069.3	1373964.8	9793.5	ug/L	9793.5	ppb	11:13:19
1	Sc 361.383	796153.9	796153.9	97.824	%			11:15:01
1	Y 371.029	651907.6	651907.6	95.036	%			11:15:01
1	Ag 328.068†	-7670.8	-8123.0	0.5984	ug/L	0.5984	ppb	11:15:06
1	As 188.979†	22203.8	22716.6	10286	ug/L	10286	ppb	11:15:06
1	B 249.677†	203325.9	208367.8	5043.9	ug/L	5043.9	ppb	11:15:01
1	Ba 233.527†	1697903.5	1735674.8	14414	ug/L	14414	ppb	11:15:01
1	Be 313.107†	7215609.0	7380444.5	2953.9	ug/L	2953.9	ppb	11:14:55
1	Cd 226.502†	810860.2	829096.7	9723.6	ug/L	9723.6	ppb	11:15:01
1	Co 228.616†	434202.7	443935.0	9639.4	ug/L	9639.4	ppb	11:15:06
1	Cr 267.716†	1998704.4	2043073.2	24118	ug/L	24118	ppb	11:15:01
1	Cu 324.752†	6226475.9	6358696.2	20299	ug/L	20299	ppb	11:14:55
1	Mn 257.610†	7962178.6	8138906.2	9544.0	ug/L	9544.0	ppb	11:14:55
1	Mo 202.031†	130960.8	133854.9	9936.2	ug/L	9936.2	ppb	11:15:06
1	Ni 231.604†	363867.2	371886.9	9783.8	ug/L	9783.8	ppb	11:15:06
1	P 214.914†	29181.4	29602.7	14960	ug/L	14960	ppb	11:15:06
1	Pb 220.353†	187396.7	191630.2	24558	ug/L	24558	ppb	11:15:06
1	S 181.975 Axial†	34708.0	35433.7	52881	ug/L	52881	ppb	11:15:06
1	Sb 206.836†	28463.5	29064.0	10993	ug/L	10993	ppb	11:15:06
1	Se 196.026†	15102.4	15468.7	10375	ug/L	10375	ppb	11:15:06
1	Si 251.611†	1410028.2	1440950.7	48462	ug/L	48462	ppb	11:15:01
1	Sn 189.927†	56050.8	57291.7	10595	ug/L	10595	ppb	11:15:06
1	Ti 334.940†	5687630.8	5815548.7	9968.2	ug/L	9968.2	ppb	11:14:55
1	Tl 190.801†	29649.5	30353.0	9776.8	ug/L	9776.8	ppb	11:15:06
1	U 409.014†	-1035.8	982.1	-22.548	ug/L	-22.548	ppb	11:15:06
1	V 292.402†	1360318.8	1391988.6	10163	ug/L	10163	ppb	11:15:01
1	Zn 213.857†	1401405.8	1431722.1	14189	ug/L	14189	ppb	11:15:01
1	SiO2†	1448559.9	1480329.4	105860	ug/L	105860	ppb	11:15:52
2	Sc Radial	4588.2	4588.2	95.8	%			11:13:54
2	Y RADIAL	4864.5	4864.5	94.83	%			11:13:54
2	Al 396.153Radial†	540.8	568.0	-17.243	ug/L	-17.243	ppb	11:13:54
2	Ca 317.933Radial†	24.7	10.7	17.993	ug/L	17.993	ppb	11:14:14
2	Fe 238.204 Radial†	-18.9	-29.6	5.1614	ug/L	5.1614	ppb	11:14:14
2	K 766.490 Radial†	1468925.8	1531153.5	306740	ug/L	306740	ppb	11:13:49
2	Mg 279.077 IEC†	-3.0	-4.7	-62.016	ug/L	-62.016	ppb	11:14:14
2	Na 589.592 Radial†	-709.9	825.6	267.51	ug/L	267.51	ppb	11:13:54
2	Sr 421.552†	1382801.8	1443987.9	10293	ug/L	10293	ppb	11:13:49
2	Sc 361.383	813805.6	813805.6	99.993	%			11:15:21
2	Y 371.029	665730.3	665730.3	97.051	%			11:15:21
2	Ag 328.068†	-7720.5	-8002.6	1.1554	ug/L	1.1554	ppb	11:15:26
2	As 188.979†	22291.8	22312.3	10103	ug/L	10103	ppb	11:15:26
2	B 249.677†	208484.5	209018.4	5060.2	ug/L	5060.2	ppb	11:15:21
2	Ba 233.527†	1732440.2	1732566.6	14388	ug/L	14388	ppb	11:15:21
2	Be 313.107†	7222926.3	7227771.7	2892.9	ug/L	2892.9	ppb	11:15:14
2	Cd 226.502†	828294.4	828553.1	9717.1	ug/L	9717.1	ppb	11:15:21
2	Co 228.616†	436065.1	436170.0	9470.8	ug/L	9470.8	ppb	11:15:26
2	Cr 267.716†	2039566.6	2039621.4	24077	ug/L	24077	ppb	11:15:21
2	Cu 324.752†	6241955.9	6236118.6	19907	ug/L	19907	ppb	11:15:14
2	Mn 257.610†	7969154.5	7969338.4	9345.1	ug/L	9345.1	ppb	11:15:14
2	Mo 202.031†	131385.1	131375.5	9752.1	ug/L	9752.1	ppb	11:15:26
2	Ni 231.604†	365837.9	365789.8	9623.4	ug/L	9623.4	ppb	11:15:26

2	P 214.914†	29367.9	29142.2	14743 ug/L	14743 ppb	11:15:26
2	Pb 220.353†	188598.2	188676.7	24180 ug/L	24180 ppb	11:15:26
2	S 181.975 Axial†	34984.4	34940.5	52145 ug/L	52145 ppb	11:15:26
2	Sb 206.836†	28586.7	28556.0	10801 ug/L	10801 ppb	11:15:26
2	Se 196.026†	15149.6	15181.0	10182 ug/L	10182 ppb	11:15:26
2	Si 251.611†	1443549.2	1443209.9	48540 ug/L	48540 ppb	11:15:21
2	Sn 189.927†	56442.9	56441.0	10438 ug/L	10438 ppb	11:15:26
2	Ti 334.940†	5699387.1	5701194.8	9772.0 ug/L	9772.0 ppb	11:15:14
2	Tl 190.801†	29827.4	29873.5	9621.6 ug/L	9621.6 ppb	11:15:26
2	U 409.014†	-967.2	1073.7	-19.525 ug/L	-19.525 ppb	11:15:26
2	V 292.402†	1389817.1	1391326.8	10156 ug/L	10156 ppb	11:15:21
2	Zn 213.857†	1427537.8	1426782.8	14142 ug/L	14142 ppb	11:15:21
2	SiO2†	1466183.4	1465835.4	104820 ug/L	104820 ppb	11:15:58
3	Sc Radial	4781.1	4781.1	99.8 %		11:14:25
3	Y RADIAL	5052.2	5052.2	98.49 %		11:14:25
3	Al 396.153Radial†	555.2	559.6	-30.859 ug/L	-30.859 ppb	11:14:25
3	Ca 317.933Radial†	25.3	10.2	17.197 ug/L	17.197 ppb	11:14:45
3	Fe 238.204 Radial†	-21.5	-31.4	-8.6483 ug/L	-8.6483 ppb	11:14:45
3	K 766.490 Radial†	1464717.0	1465046.9	293500 ug/L	293500 ppb	11:14:20
3	Mg 279.077 IEC†	-4.1	-5.6	-92.186 ug/L	-92.186 ppb	11:14:45
3	Na 589.592 Radial†	-715.7	849.7	275.30 ug/L	275.30 ppb	11:14:25
3	Sr 421.552†	1376656.2	1379568.9	9833.4 ug/L	9833.4 ppb	11:14:20
3	Sc 361.383	808471.7	808471.7	99.337 %		11:15:41
3	Y 371.029	662634.1	662634.1	96.599 %		11:15:41
3	Ag 328.068†	-7577.4	-7909.5	1.6246 ug/L	1.6246 ppb	11:15:46
3	As 188.979†	22420.3	22588.7	10228 ug/L	10228 ppb	11:15:46
3	B 249.677†	206693.8	208591.4	5049.5 ug/L	5049.5 ppb	11:15:41
3	Ba 233.527†	1719540.9	1731011.9	14375 ug/L	14375 ppb	11:15:41
3	Be 313.107†	7278978.3	7331855.0	2934.5 ug/L	2934.5 ppb	11:15:34
3	Cd 226.502†	821978.0	827659.7	9706.7 ug/L	9706.7 ppb	11:15:41
3	Co 228.616†	438152.9	441148.9	9579.0 ug/L	9579.0 ppb	11:15:46
3	Cr 267.716†	2026596.9	2040022.4	24082 ug/L	24082 ppb	11:15:41
3	Cu 324.752†	6277520.3	6313105.0	20153 ug/L	20153 ppb	11:15:34
3	Mn 257.610†	8010463.9	8063504.4	9455.6 ug/L	9455.6 ppb	11:15:34
3	Mo 202.031†	132428.4	133292.7	9894.4 ug/L	9894.4 ppb	11:15:46
3	Ni 231.604†	367354.5	369730.3	9727.1 ug/L	9727.1 ppb	11:15:46
3	P 214.914†	29388.7	29356.9	14832 ug/L	14832 ppb	11:15:46
3	Pb 220.353†	189199.8	190526.7	24417 ug/L	24417 ppb	11:15:46
3	S 181.975 Axial†	35264.6	35453.5	52910 ug/L	52910 ppb	11:15:46
3	Sb 206.836†	28749.5	28908.6	10934 ug/L	10934 ppb	11:15:46
3	Se 196.026†	15188.3	15320.0	10275 ug/L	10275 ppb	11:15:46
3	Si 251.611†	1429840.0	1438933.8	48394 ug/L	48394 ppb	11:15:41
3	Sn 189.927†	56596.7	56968.2	10535 ug/L	10535 ppb	11:15:46
3	Ti 334.940†	5728567.8	5768175.0	9886.9 ug/L	9886.9 ppb	11:15:34
3	Tl 190.801†	30059.5	30303.9	9760.3 ug/L	9760.3 ppb	11:15:46
3	U 409.014†	-841.9	1193.4	-15.712 ug/L	-15.712 ppb	11:15:46
3	V 292.402†	1381399.1	1392022.8	10163 ug/L	10163 ppb	11:15:41
3	Zn 213.857†	1417945.8	1426545.8	14138 ug/L	14138 ppb	11:15:41
3	SiO2†	1451848.1	1461078.4	104480 ug/L	104480 ppb	11:16:04

Mean Data: LR2

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	806143.7	99.051	%	1.1124				1.12%
Sc Radial	4734.3	98.8	%	2.70				2.73%
Y 371.029	660090.6	96.229	%	1.0575				1.10%
Y RADIAL	5014.5	97.76	%	2.634				2.69%
Ag 328.068†	-8011.7	1.1261	ug/L	0.51372	1.1261	ppb	0.51372	45.62%
Al 396.153Radial†	558.3	-30.265	ug/L	12.7351	-30.265	ppb	12.7351	42.08%
As 188.979†	22539.2	10206	ug/L	93.6	10206	ppb	93.6	0.92%
QC value within limits for As 188.979 Recovery = 102.06%								
B 249.677†	208659.2	5051.2	ug/L	8.29	5051.2	ppb	8.29	0.16%
QC value within limits for B 249.677 Recovery = 101.02%								
Ba 233.527†	1733084.4	14393	ug/L	19.7	14393	ppb	19.7	0.14%
QC value within limits for Ba 233.527 Recovery = 95.95%								
Be 313.107†	7313357.1	2927.1	ug/L	31.20	2927.1	ppb	31.20	1.07%
QC value within limits for Be 313.107 Recovery = 97.57%								
Ca 317.933Radial†	10.8	18.107	ug/L	0.9722	18.107	ppb	0.9722	5.37%
Cd 226.502†	828436.5	9715.8	ug/L	8.51	9715.8	ppb	8.51	0.09%
QC value within limits for Cd 226.502 Recovery = 97.16%								

Co 228.616†	440417.9	9563.1 ug/L	85.44	9563.1 ppb	85.44	0.89%
QC value within limits for Co 228.616 Recovery = 95.63%						
Cr 267.716†	2040905.7	24092 ug/L	22.3	24092 ppb	22.3	0.09%
QC value within limits for Cr 267.716 Recovery = 96.37%						
Cu 324.752†	6302639.9	20120 ug/L	197.8	20120 ppb	197.8	0.98%
QC value within limits for Cu 324.752 Recovery = 100.60%						
Fe 238.204 Radial†	-28.8	15.534 ug/L	30.7117	15.534 ppb	30.7117	197.71%
K 766.490 Radial†	1482617.6	297020 ug/L	8527.5	297020 ppb	8527.5	2.87%
QC value within limits for K 766.490 Radial Recovery = 99.01%						
Mg 279.077 IEC†	-6.0	-107.60 ug/L	54.938	-107.60 ppb	54.938	51.06%
Mn 257.610†	8057249.7	9448.2 ug/L	99.63	9448.2 ppb	99.63	1.05%
QC value within limits for Mn 257.610 Recovery = 94.48%						
Mo 202.031†	132841.0	9860.9 ug/L	96.50	9860.9 ppb	96.50	0.98%
QC value within limits for Mo 202.031 Recovery = 98.61%						
Na 589.592 Radial†	856.3	277.45 ug/L	11.175	277.45 ppb	11.175	4.03%
Ni 231.604†	369135.7	9711.5 ug/L	81.34	9711.5 ppb	81.34	0.84%
QC value within limits for Ni 231.604 Recovery = 97.11%						
P 214.914†	29367.2	14845 ug/L	109.4	14845 ppb	109.4	0.74%
QC value within limits for P 214.914 Recovery = 98.97%						
Pb 220.353†	190277.9	24385 ug/L	191.3	24385 ppb	191.3	0.78%
QC value within limits for Pb 220.353 Recovery = 97.54%						
S 181.975 Axial†	35275.9	52645 ug/L	433.7	52645 ppb	433.7	0.82%
QC value within limits for S 181.975 Axial Recovery = 105.29%						
Sb 206.836†	28842.9	10909 ug/L	98.1	10909 ppb	98.1	0.90%
QC value within limits for Sb 206.836 Recovery = 109.09%						
Se 196.026†	15323.3	10277 ug/L	96.6	10277 ppb	96.6	0.94%
QC value within limits for Se 196.026 Recovery = 102.77%						
Si 251.611†	1441031.5	48465 ug/L	73.0	48465 ppb	73.0	0.15%
QC value within limits for Si 251.611 Recovery = 96.93%						
Sn 189.927†	56900.3	10523 ug/L	79.4	10523 ppb	79.4	0.75%
QC value within limits for Sn 189.927 Recovery = 105.23%						
Sr 421.552†	1399173.8	9973.2 ug/L	277.35	9973.2 ppb	277.35	2.78%
QC value within limits for Sr 421.552 Recovery = 99.73%						
Ti 334.940†	5761639.5	9875.7 ug/L	98.57	9875.7 ppb	98.57	1.00%
QC value within limits for Ti 334.940 Recovery = 98.76%						
Tl 190.801†	30176.8	9719.6 ug/L	85.25	9719.6 ppb	85.25	0.88%
QC value within limits for Tl 190.801 Recovery = 97.20%						
U 409.014†	1083.1	-19.262 ug/L	3.4255	-19.262 ppb	3.4255	17.78%
V 292.402†	1391779.4	10160 ug/L	4.1	10160 ppb	4.1	0.04%
QC value within limits for V 292.402 Recovery = 101.60%						
Zn 213.857†	1428350.2	14156 ug/L	28.6	14156 ppb	28.6	0.20%
QC value within limits for Zn 213.857 Recovery = 94.38%						
SiO2†	1469081.1	105050 ug/L	717.6	105050 ppb	717.6	0.68%
QC value within limits for SiO2 Recovery = 98.18%						

All analyte(s) passed QC.

==========

Analysis Begun

Start Time: 1/14/2010 11:33:29 **Plasma On Time:** 1/11/2010 06:15:31
Logged In Analyst: Optima3 **Technique:** ICP Continuous
Spectrometer Model: Optima 5300 DV, S/N 077C7090601 **Autosampler Model:** S10

Sample Information File: C:\pe\Optima3\Sample Information\011410.sif
Batch ID:
Results Data Set: 011410
Results Library: C:\pe\Optima3\Results\Results.mdb

==========

Method Loaded
Method Name: General Eng.2AX **Method Last Saved:** 1/14/2010 10:05:12
IEC File: 011110.iec **MSF File:**
Method Description:

Analyte	Calibration Equation	Processing	View	Internal Standard	IEC
Ag 328.068	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Al 396.153Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
As 188.979	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
B 249.677	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ba 233.527	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Be 313.107	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ca 317.933Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	No
Cd 226.502	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Co 228.616	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cr 267.716	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cu 324.752	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Fe 238.204 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
K 766.490 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Mg 279.077 IEC	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Mn 257.610	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Mo 202.031	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Na 589.592 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	No
Ni 231.604	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
P 214.914	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Pb 220.353	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
S 181.975 Axial	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sb 206.836	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sc 361.383	Lin Thru 0	Peak Area	Axial	n/a	n/a
Sc Radial	Lin, Calc Int	Peak Area	Radial	n/a	n/a
Se 196.026	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Si 251.611	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sn 189.927	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sr 421.552	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Ti 334.940	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Tl 190.801	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
U 409.014	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
V 292.402	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y 371.029	Lin, Calc Int	Peak Area	Axial	n/a	n/a
Zn 213.857	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y RADIAL	Lin, Calc Int	Peak Area	Radial	n/a	n/a
SiO2	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes

==========

Sequence No.: 1 **Autosampler Location:** 7
Sample ID: CCV **Date Collected:** 1/14/2010 11:33:30
Analyst: **Data Type:** Original
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4918.2	4918.2	103	%			11:35:22
1	Y RADIAL	5241.8	5241.8	102.2	%			11:35:22
1	Al 396.153Radial†	6325.5	6165.5	4921.9	ug/L	4921.9	ppb	11:35:22

1	Ca 317.933Radial†	3138.9	3042.7	5123.8 ug/L	5123.8 ppb	11:35:42
1	Fe 238.204 Radial†	593.8	568.6	5360.5 ug/L	5360.5 ppb	11:35:42
1	K 766.490 Radial†	29392.8	25846.9	5171.7 ug/L	5171.7 ppb	11:35:22
1	Mg 279.077 IEC†	160.5	154.9	5436.4 ug/L	5436.4 ppb	11:35:42
1	Na 589.592 Radial†	31648.7	32398.9	10497 ug/L	10497 ppb	11:35:22
1	Sr 421.552†	74493.4	72553.9	517.12 ug/L	517.12 ppb	11:35:22
1	Sc 361.383	844802.9	844802.9	103.80 %		11:36:40
1	Y 371.029	699607.3	699607.3	101.99 %		11:36:40
1	Ag 328.068†	103672.1	99594.0	492.56 ug/L	492.56 ppb	11:36:45
1	As 188.979†	1157.0	1133.5	514.48 ug/L	514.48 ppb	11:37:05
1	B 249.677†	21404.9	21139.6	512.19 ug/L	512.19 ppb	11:36:45
1	Ba 233.527†	63034.7	60724.9	504.79 ug/L	504.79 ppb	11:36:45
1	Be 313.107†	1322500.6	1278382.0	508.86 ug/L	508.86 ppb	11:36:40
1	Cd 226.502†	44770.3	43328.4	507.69 ug/L	507.69 ppb	11:36:45
1	Co 228.616†	24163.1	23350.9	507.19 ug/L	507.19 ppb	11:36:45
1	Cr 267.716†	44245.7	42529.6	502.36 ug/L	502.36 ppb	11:36:45
1	Cu 324.752†	167986.8	155537.0	496.52 ug/L	496.52 ppb	11:36:45
1	Mn 257.610†	447547.4	430753.6	505.42 ug/L	505.42 ppb	11:36:40
1	Mo 202.031†	7075.6	6797.2	505.04 ug/L	505.04 ppb	11:37:05
1	Ni 231.604†	20015.1	19207.0	505.30 ug/L	505.30 ppb	11:36:45
1	P 214.914†	4340.4	3953.5	2426.3 ug/L	2426.3 ppb	11:37:05
1	Pb 220.353†	4008.2	3926.0	504.49 ug/L	504.49 ppb	11:37:05
1	S 181.975 Axial†	768.1	693.5	1034.0 ug/L	1034.0 ppb	11:37:05
1	Sb 206.836†	1468.8	1382.3	523.61 ug/L	523.61 ppb	11:37:05
1	Se 196.026†	769.5	771.7	535.43 ug/L	535.43 ppb	11:37:05
1	Si 251.611†	78797.2	75465.8	2538.2 ug/L	2538.2 ppb	11:36:45
1	Sn 189.927†	2875.2	2763.8	512.00 ug/L	512.00 ppb	11:37:05
1	Ti 334.940†	299002.1	289439.4	496.39 ug/L	496.39 ppb	11:36:45
1	Tl 190.801†	1595.7	1581.2	509.17 ug/L	509.17 ppb	11:37:05
1	U 409.014†	14455.8	15967.4	508.22 ug/L	508.22 ppb	11:36:45
1	V 292.402†	70575.4	69398.0	507.36 ug/L	507.36 ppb	11:36:45
1	Zn 213.857†	54075.5	51234.9	506.57 ug/L	506.57 ppb	11:36:45
1	SiO2†	79133.3	75779.2	5419.0 ug/L	5419.0 ppb	11:38:12
2	Sc Radial	5043.4	5043.4	105 %		11:35:47
2	Y RADIAL	5344.9	5344.9	104.2 %		11:35:47
2	Al 396.153Radial†	6382.8	6067.0	4842.5 ug/L	4842.5 ppb	11:35:47
2	Ca 317.933Radial†	3123.9	2952.6	4972.0 ug/L	4972.0 ppb	11:36:07
2	Fe 238.204 Radial†	587.6	548.4	5170.3 ug/L	5170.3 ppb	11:36:07
2	K 766.490 Radial†	29923.4	25640.1	5130.3 ug/L	5130.3 ppb	11:35:47
2	Mg 279.077 IEC†	159.1	149.7	5253.7 ug/L	5253.7 ppb	11:36:07
2	Na 589.592 Radial†	32154.8	32114.3	10405 ug/L	10405 ppb	11:35:47
2	Sr 421.552†	75781.2	71975.6	513.00 ug/L	513.00 ppb	11:35:47
2	Sc 361.383	829636.7	829636.7	101.94 %		11:37:11
2	Y 371.029	686474.6	686474.6	100.07 %		11:37:11
2	Ag 328.068†	103869.7	101613.6	502.43 ug/L	502.43 ppb	11:37:16
2	As 188.979†	1147.3	1144.3	519.35 ug/L	519.35 ppb	11:37:36
2	B 249.677†	21136.5	21253.2	514.98 ug/L	514.98 ppb	11:37:16
2	Ba 233.527†	62365.4	61178.4	508.55 ug/L	508.55 ppb	11:37:16
2	Be 313.107†	1294277.8	1273986.5	507.13 ug/L	507.13 ppb	11:37:11
2	Cd 226.502†	44300.5	43656.0	511.56 ug/L	511.56 ppb	11:37:16
2	Co 228.616†	23880.7	23499.5	510.43 ug/L	510.43 ppb	11:37:16
2	Cr 267.716†	43856.9	42927.5	507.05 ug/L	507.05 ppb	11:37:16
2	Cu 324.752†	166247.1	156788.8	500.50 ug/L	500.50 ppb	11:37:16
2	Mn 257.610†	439774.8	431010.6	505.71 ug/L	505.71 ppb	11:37:11
2	Mo 202.031†	7041.3	6888.1	511.77 ug/L	511.77 ppb	11:37:36
2	Ni 231.604†	19846.2	19393.8	510.22 ug/L	510.22 ppb	11:37:16
2	P 214.914†	4307.8	3998.1	2454.1 ug/L	2454.1 ppb	11:37:36
2	Pb 220.353†	4002.0	3990.5	512.75 ug/L	512.75 ppb	11:37:36
2	S 181.975 Axial†	755.2	694.4	1035.4 ug/L	1035.4 ppb	11:37:36
2	Sb 206.836†	1473.8	1413.1	535.01 ug/L	535.01 ppb	11:37:36
2	Se 196.026†	762.7	778.6	539.40 ug/L	539.40 ppb	11:37:36
2	Si 251.611†	78029.0	76099.8	2559.5 ug/L	2559.5 ppb	11:37:16
2	Sn 189.927†	2830.3	2770.4	513.19 ug/L	513.19 ppb	11:37:36
2	Ti 334.940†	296376.5	292129.5	500.99 ug/L	500.99 ppb	11:37:16
2	Tl 190.801†	1599.9	1613.4	519.50 ug/L	519.50 ppb	11:37:36
2	U 409.014†	14501.1	16266.4	517.78 ug/L	517.78 ppb	11:37:16
2	V 292.402†	69862.3	69941.4	511.41 ug/L	511.41 ppb	11:37:16
2	Zn 213.857†	53368.7	51493.9	509.14 ug/L	509.14 ppb	11:37:16
2	SiO2†	78809.6	76855.3	5496.0 ug/L	5496.0 ppb	11:38:17
3	Sc Radial	4885.7	4885.7	102 %		11:36:12
3	Y RADIAL	5228.6	5228.6	101.9 %		11:36:12

3	Al 396.153Radial†	6273.0	6155.1	4913.6 ug/L	4913.6 ppb	11:36:12
3	Ca 317.933Radial†	3131.5	3055.8	5145.9 ug/L	5145.9 ppb	11:36:32
3	Fe 238.204 Radial†	596.8	575.4	5424.1 ug/L	5424.1 ppb	11:36:32
3	K 766.490 Radial†	29306.7	25953.2	5193.0 ug/L	5193.0 ppb	11:36:12
3	Mg 279.077 IEC†	160.0	155.4	5455.6 ug/L	5455.6 ppb	11:36:32
3	Na 589.592 Radial†	31242.6	32206.0	10435 ug/L	10435 ppb	11:36:12
3	Sr 421.552†	73882.8	72438.4	516.30 ug/L	516.30 ppb	11:36:12
3	Sc 361.383	851135.9	851135.9	104.58 %		11:37:42
3	Y 371.029	704218.2	704218.2	102.66 %		11:37:42
3	Ag 328.068†	103264.1	98460.7	486.99 ug/L	486.99 ppb	11:37:47
3	As 188.979†	1148.8	1117.3	507.18 ug/L	507.18 ppb	11:38:07
3	B 249.677†	21215.1	20804.6	504.06 ug/L	504.06 ppb	11:37:47
3	Ba 233.527†	62428.3	59693.2	496.22 ug/L	496.22 ppb	11:37:47
3	Be 313.107†	1332401.1	1278369.0	508.84 ug/L	508.84 ppb	11:37:42
3	Cd 226.502†	44406.1	42659.2	499.84 ug/L	499.84 ppb	11:37:47
3	Co 228.616†	23893.4	22919.8	497.84 ug/L	497.84 ppb	11:37:47
3	Cr 267.716†	43954.7	41934.3	495.33 ug/L	495.33 ppb	11:37:47
3	Cu 324.752†	167040.1	153427.5	489.79 ug/L	489.79 ppb	11:37:47
3	Mn 257.610†	450850.9	430704.4	505.37 ug/L	505.37 ppb	11:37:42
3	Mo 202.031†	7105.1	6774.7	503.37 ug/L	503.37 ppb	11:38:07
3	Ni 231.604†	19870.1	18924.9	497.88 ug/L	497.88 ppb	11:37:47
3	P 214.914†	4323.5	3906.3	2397.4 ug/L	2397.4 ppb	11:38:07
3	Pb 220.353†	4024.1	3912.5	502.74 ug/L	502.74 ppb	11:38:07
3	S 181.975 Axial†	761.5	681.7	1016.4 ug/L	1016.4 ppb	11:38:07
3	Sb 206.836†	1483.5	1385.8	524.81 ug/L	524.81 ppb	11:38:07
3	Se 196.026†	771.4	768.0	533.16 ug/L	533.16 ppb	11:38:07
3	Si 251.611†	78231.6	74360.1	2501.0 ug/L	2501.0 ppb	11:37:47
3	Sn 189.927†	2880.3	2748.1	509.09 ug/L	509.09 ppb	11:38:07
3	Ti 334.940†	297363.4	285729.2	490.03 ug/L	490.03 ppb	11:37:47
3	Tl 190.801†	1595.3	1569.4	505.39 ug/L	505.39 ppb	11:38:07
3	U 409.014†	14445.7	15854.1	504.61 ug/L	504.61 ppb	11:37:47
3	V 292.402†	70178.9	68513.0	500.94 ug/L	500.94 ppb	11:37:47
3	Zn 213.857†	53539.4	50334.6	497.64 ug/L	497.64 ppb	11:37:47
3	SiO2†	78908.0	74996.5	5363.0 ug/L	5363.0 ppb	11:38:22

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	841858.5	103.44	%	1.357				1.31%
Sc Radial	4949.1	103	%	1.7				1.68%
Y 371.029	696766.7	101.58	%	1.342				1.32%
Y RADIAL	5271.8	102.8	%	1.24				1.21%
Ag 328.068†	99889.5	494.00	ug/L	7.820	494.00	ppb	7.820	1.58%
QC value within limits for Ag 328.068 Recovery = 98.80%								
Al 396.153Radial†	6129.2	4892.6	ug/L	43.63	4892.6	ppb	43.63	0.89%
QC value within limits for Al 396.153Radial Recovery = 97.85%								
As 188.979†	1131.7	513.67	ug/L	6.127	513.67	ppb	6.127	1.19%
QC value within limits for As 188.979 Recovery = 102.73%								
B 249.677†	21065.8	510.41	ug/L	5.675	510.41	ppb	5.675	1.11%
QC value within limits for B 249.677 Recovery = 102.08%								
Ba 233.527†	60532.1	503.19	ug/L	6.319	503.19	ppb	6.319	1.26%
QC value within limits for Ba 233.527 Recovery = 100.64%								
Be 313.107†	1276912.5	508.28	ug/L	0.996	508.28	ppb	0.996	0.20%
QC value within limits for Be 313.107 Recovery = 101.66%								
Ca 317.933Radial†	3017.0	5080.5	ug/L	94.65	5080.5	ppb	94.65	1.86%
QC value within limits for Ca 317.933Radial Recovery = 101.61%								
Cd 226.502†	43214.5	506.36	ug/L	5.972	506.36	ppb	5.972	1.18%
QC value within limits for Cd 226.502 Recovery = 101.27%								
Co 228.616†	23256.7	505.15	ug/L	6.537	505.15	ppb	6.537	1.29%
QC value within limits for Co 228.616 Recovery = 101.03%								
Cr 267.716†	42463.8	501.58	ug/L	5.900	501.58	ppb	5.900	1.18%
QC value within limits for Cr 267.716 Recovery = 100.32%								
Cu 324.752†	155251.1	495.60	ug/L	5.413	495.60	ppb	5.413	1.09%
QC value within limits for Cu 324.752 Recovery = 99.12%								
Fe 238.204 Radial†	564.1	5318.3	ug/L	132.08	5318.3	ppb	132.08	2.48%
QC value within limits for Fe 238.204 Radial Recovery = 106.37%								
K 766.490 Radial†	25813.4	5165.0	ug/L	31.86	5165.0	ppb	31.86	0.62%
QC value within limits for K 766.490 Radial Recovery = 103.30%								
Mg 279.077 IEC†	153.3	5381.9	ug/L	111.44	5381.9	ppb	111.44	2.07%
QC value within limits for Mg 279.077 IEC Recovery = 107.64%								

Mn 257.610†	430822.9	505.50 ug/L	0.184	505.50 ppb	0.184	0.04%
QC value within limits for Mn 257.610 Recovery = 101.10%						
Mo 202.031†	6820.0	506.73 ug/L	4.447	506.73 ppb	4.447	0.88%
QC value within limits for Mo 202.031 Recovery = 101.35%						
Na 589.592 Radial†	32239.7	10446 ug/L	47.1	10446 ppb	47.1	0.45%
QC value within limits for Na 589.592 Radial Recovery = 104.46%						
Ni 231.604†	19175.2	504.47 ug/L	6.211	504.47 ppb	6.211	1.23%
QC value within limits for Ni 231.604 Recovery = 100.89%						
P 214.914†	3952.6	2425.9 ug/L	28.34	2425.9 ppb	28.34	1.17%
QC value within limits for P 214.914 Recovery = 97.04%						
Pb 220.353†	3943.0	506.66 ug/L	5.348	506.66 ppb	5.348	1.06%
QC value within limits for Pb 220.353 Recovery = 101.33%						
S 181.975 Axial†	689.8	1028.6 ug/L	10.57	1028.6 ppb	10.57	1.03%
QC value within limits for S 181.975 Axial Recovery = 102.86%						
Sb 206.836†	1393.7	527.81 ug/L	6.263	527.81 ppb	6.263	1.19%
QC value within limits for Sb 206.836 Recovery = 105.56%						
Se 196.026†	772.8	536.00 ug/L	3.159	536.00 ppb	3.159	0.59%
QC value within limits for Se 196.026 Recovery = 107.20%						
Si 251.611†	75308.5	2532.9 ug/L	29.64	2532.9 ppb	29.64	1.17%
QC value within limits for Si 251.611 Recovery = 101.32%						
Sn 189.927†	2760.8	511.43 ug/L	2.109	511.43 ppb	2.109	0.41%
QC value within limits for Sn 189.927 Recovery = 102.29%						
Sr 421.552†	72322.6	515.47 ug/L	2.181	515.47 ppb	2.181	0.42%
QC value within limits for Sr 421.552 Recovery = 103.09%						
Ti 334.940†	289099.4	495.80 ug/L	5.505	495.80 ppb	5.505	1.11%
QC value within limits for Ti 334.940 Recovery = 99.16%						
Tl 190.801†	1588.0	511.35 ug/L	7.304	511.35 ppb	7.304	1.43%
QC value within limits for Tl 190.801 Recovery = 102.27%						
U 409.014†	16029.3	510.21 ug/L	6.806	510.21 ppb	6.806	1.33%
QC value within limits for U 409.014 Recovery = 102.04%						
V 292.402†	69284.1	506.57 ug/L	5.277	506.57 ppb	5.277	1.04%
QC value within limits for V 292.402 Recovery = 101.31%						
Zn 213.857†	51021.1	504.45 ug/L	6.033	504.45 ppb	6.033	1.20%
QC value within limits for Zn 213.857 Recovery = 100.89%						
SiO2†	75877.0	5426.0 ug/L	66.79	5426.0 ppb	66.79	1.23%
QC value within limits for SiO2 Recovery = 101.47%						

All analyte(s) passed QC.

Sequence No.: 2
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 1/14/2010 11:40:33
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5114.8	5114.8	107	%			11:42:25
1	Y RADIAL	5501.5	5501.5	107.3	%			11:42:25
1	Al 396.153Radial†	-4.3	-0.8	-0.6493	ug/L	-0.6493	ppb	11:42:25
1	Ca 317.933Radial†	12.0	-3.9	-6.5561	ug/L	-6.5561	ppb	11:42:45
1	Fe 238.204 Radial†	8.9	-1.5	-14.331	ug/L	-14.331	ppb	11:42:45
1	K 766.490 Radial†	3206.1	215.9	43.230	ug/L	43.230	ppb	11:42:25
1	Mg 279.077 IEC†	1.9	0.3	10.676	ug/L	10.676	ppb	11:42:45
1	Na 589.592 Radial†	-1467.1	192.6	62.393	ug/L	62.393	ppb	11:42:25
1	Sr 421.552†	-34.8	-49.8	-0.3550	ug/L	-0.3550	ppb	11:42:25
1	Sc 361.383	837733.1	837733.1	102.93	%			11:43:42
1	Y 371.029	704879.0	704879.0	102.76	%			11:43:42
1	Ag 328.068†	444.1	149.9	0.7307	ug/L	0.7307	ppb	11:43:42
1	As 188.979†	-11.5	7.7	3.4441	ug/L	3.4441	ppb	11:44:02
1	B 249.677†	25.9	543.7	13.234	ug/L	13.234	ppb	11:44:02
1	Ba 233.527†	-7.1	-8.4	-0.0685	ug/L	-0.0685	ppb	11:44:02
1	Be 313.107†	-4320.6	114.7	0.0460	ug/L	0.0460	ppb	11:43:42
1	Cd 226.502†	-163.4	38.8	0.4576	ug/L	0.4576	ppb	11:44:02
1	Co 228.616†	-68.0	6.6	0.1455	ug/L	0.1455	ppb	11:44:02
1	Cr 267.716†	72.0	-25.8	-0.3056	ug/L	-0.3056	ppb	11:44:02
1	Cu 324.752†	6404.5	-76.1	-0.2460	ug/L	-0.2460	ppb	11:43:42
1	Mn 257.610†	401.4	-14.3	-0.0187	ug/L	-0.0187	ppb	11:44:02
1	Mo 202.031†	32.0	11.7	0.8700	ug/L	0.8700	ppb	11:44:02
1	Ni 231.604†	87.5	9.9	0.2609	ug/L	0.2609	ppb	11:44:02
1	P 214.914†	217.4	-16.7	-10.579	ug/L	-10.579	ppb	11:44:02
1	Pb 220.353†	-61.0	5.3	0.6785	ug/L	0.6785	ppb	11:44:02
1	S 181.975 Axial†	45.0	-2.7	-4.0114	ug/L	-4.0114	ppb	11:44:02
1	Sb 206.836†	36.5	2.7	1.0110	ug/L	1.0110	ppb	11:44:02
1	Se 196.026†	-23.6	7.5	4.9609	ug/L	4.9609	ppb	11:44:02
1	Si 251.611†	485.5	25.8	0.8602	ug/L	0.8602	ppb	11:44:02
1	Sn 189.927†	8.7	2.3	0.4291	ug/L	0.4291	ppb	11:44:02
1	Ti 334.940†	-1310.7	113.6	0.1913	ug/L	0.1913	ppb	11:43:42
1	Tl 190.801†	-30.8	14.0	4.4715	ug/L	4.4715	ppb	11:44:02
1	U 409.014†	-1958.0	138.8	4.4347	ug/L	4.4347	ppb	11:43:42
1	V 292.402†	-1357.2	88.6	0.6624	ug/L	0.6624	ppb	11:43:42
1	Zn 213.857†	916.5	30.0	0.2995	ug/L	0.2995	ppb	11:44:02
1	SiO2†	477.0	7.2	0.4943	ug/L	0.4943	ppb	11:44:58
2	Sc Radial	5112.9	5112.9	107	%			11:42:51
2	Y RADIAL	5482.4	5482.4	106.9	%			11:42:51
2	Al 396.153Radial†	-16.1	-11.8	-9.5320	ug/L	-9.5320	ppb	11:42:51
2	Ca 317.933Radial†	14.3	-1.7	-2.8738	ug/L	-2.8738	ppb	11:43:11
2	Fe 238.204 Radial†	10.0	-0.5	-4.7665	ug/L	-4.7665	ppb	11:43:11
2	K 766.490 Radial†	3300.3	305.3	61.140	ug/L	61.140	ppb	11:42:51
2	Mg 279.077 IEC†	3.2	1.5	52.817	ug/L	52.817	ppb	11:43:11
2	Na 589.592 Radial†	-1484.4	175.9	56.996	ug/L	56.996	ppb	11:42:51
2	Sr 421.552†	-12.0	-28.5	-0.2029	ug/L	-0.2029	ppb	11:42:51
2	Sc 361.383	828673.0	828673.0	101.82	%			11:44:08
2	Y 371.029	698218.2	698218.2	101.79	%			11:44:08
2	Ag 328.068†	492.3	202.0	0.9890	ug/L	0.9890	ppb	11:44:08
2	As 188.979†	-18.9	0.3	0.1233	ug/L	0.1233	ppb	11:44:28
2	B 249.677†	46.9	564.6	13.743	ug/L	13.743	ppb	11:44:28
2	Ba 233.527†	-0.6	-2.1	-0.0170	ug/L	-0.0170	ppb	11:44:28
2	Be 313.107†	-4261.3	127.1	0.0504	ug/L	0.0504	ppb	11:44:08
2	Cd 226.502†	-158.8	41.6	0.4887	ug/L	0.4887	ppb	11:44:28
2	Co 228.616†	-78.6	-4.5	-0.0959	ug/L	-0.0959	ppb	11:44:28
2	Cr 267.716†	95.1	-2.4	-0.0289	ug/L	-0.0289	ppb	11:44:28
2	Cu 324.752†	6418.7	6.0	0.0175	ug/L	0.0175	ppb	11:44:08
2	Mn 257.610†	438.1	26.0	0.0278	ug/L	0.0278	ppb	11:44:28
2	Mo 202.031†	28.5	8.7	0.6432	ug/L	0.6432	ppb	11:44:28
2	Ni 231.604†	89.8	13.1	0.3452	ug/L	0.3452	ppb	11:44:28

2	P 214.914†	205.7	-25.9	-16.504 ug/L	-16.504 ppb	11:44:28
2	Pb 220.353†	-71.6	-5.7	-0.7326 ug/L	-0.7326 ppb	11:44:28
2	S 181.975 Axial†	47.2	-0.1	-0.0801 ug/L	-0.0801 ppb	11:44:28
2	Sb 206.836†	44.0	10.5	3.8510 ug/L	3.8510 ppb	11:44:28
2	Se 196.026†	-21.4	9.3	6.2301 ug/L	6.2301 ppb	11:44:28
2	Si 251.611†	467.4	13.1	0.4352 ug/L	0.4352 ppb	11:44:28
2	Sn 189.927†	8.3	2.1	0.3793 ug/L	0.3793 ppb	11:44:28
2	Ti 334.940†	-1444.6	-31.8	-0.0602 ug/L	-0.0602 ppb	11:44:08
2	Tl 190.801†	-21.9	22.3	7.1458 ug/L	7.1458 ppb	11:44:28
2	U 409.014†	-2001.4	75.3	2.4059 ug/L	2.4059 ppb	11:44:08
2	V 292.402†	-1423.0	9.5	0.0843 ug/L	0.0843 ppb	11:44:08
2	Zn 213.857†	908.8	32.3	0.3200 ug/L	0.3200 ppb	11:44:28
2	SiO2†	485.8	20.9	1.4797 ug/L	1.4797 ppb	11:45:03
3	Sc Radial	5028.6	5028.6	105 %		11:43:16
3	Y RADIAL	5399.2	5399.2	105.3 %		11:43:16
3	Al 396.153Radial†	-13.1	-9.2	-7.4088 ug/L	-7.4088 ppb	11:43:16
3	Ca 317.933Radial†	13.5	-2.3	-3.8875 ug/L	-3.8875 ppb	11:43:36
3	Fe 238.204 Radial†	10.4	0.1	0.5238 ug/L	0.5238 ppb	11:43:36
3	K 766.490 Radial†	3289.9	347.2	69.544 ug/L	69.544 ppb	11:43:16
3	Mg 279.077 IEC†	2.0	0.4	14.575 ug/L	14.575 ppb	11:43:36
3	Na 589.592 Radial†	-1440.1	194.8	63.122 ug/L	63.122 ppb	11:43:16
3	Sr 421.552†	-19.8	-36.0	-0.2569 ug/L	-0.2569 ppb	11:43:16
3	Sc 361.383	839676.6	839676.6	103.17 %		11:44:33
3	Y 371.029	706695.5	706695.5	103.02 %		11:44:33
3	Ag 328.068†	317.2	25.8	0.1293 ug/L	0.1293 ppb	11:44:33
3	As 188.979†	-7.2	11.8	5.3241 ug/L	5.3241 ppb	11:44:53
3	B 249.677†	1.5	520.0	12.655 ug/L	12.655 ppb	11:44:53
3	Ba 233.527†	-10.6	-11.8	-0.0957 ug/L	-0.0957 ppb	11:44:53
3	Be 313.107†	-4308.3	136.3	0.0543 ug/L	0.0543 ppb	11:44:33
3	Cd 226.502†	-173.3	29.6	0.3471 ug/L	0.3471 ppb	11:44:53
3	Co 228.616†	-82.5	-7.3	-0.1565 ug/L	-0.1565 ppb	11:44:53
3	Cr 267.716†	88.0	-10.4	-0.1225 ug/L	-0.1225 ppb	11:44:53
3	Cu 324.752†	6518.2	19.8	0.0623 ug/L	0.0623 ppb	11:44:33
3	Mn 257.610†	387.1	-29.1	-0.0347 ug/L	-0.0347 ppb	11:44:53
3	Mo 202.031†	29.3	9.1	0.6768 ug/L	0.6768 ppb	11:44:53
3	Ni 231.604†	79.0	1.4	0.0381 ug/L	0.0381 ppb	11:44:53
3	P 214.914†	220.4	-14.3	-9.1245 ug/L	-9.1245 ppb	11:44:53
3	Pb 220.353†	-49.8	16.3	2.0932 ug/L	2.0932 ppb	11:44:53
3	S 181.975 Axial†	46.7	-1.2	-1.8190 ug/L	-1.8190 ppb	11:44:53
3	Sb 206.836†	44.8	10.7	3.8832 ug/L	3.8832 ppb	11:44:53
3	Se 196.026†	-27.5	3.7	2.4623 ug/L	2.4623 ppb	11:44:53
3	Si 251.611†	504.5	43.1	1.4459 ug/L	1.4459 ppb	11:44:53
3	Sn 189.927†	-2.7	-8.8	-1.6205 ug/L	-1.6205 ppb	11:44:53
3	Ti 334.940†	-1383.3	46.2	0.0770 ug/L	0.0770 ppb	11:44:33
3	Tl 190.801†	-37.0	8.1	2.5833 ug/L	2.5833 ppb	11:44:53
3	U 409.014†	-2061.1	43.2	1.3801 ug/L	1.3801 ppb	11:44:33
3	V 292.402†	-1335.2	113.0	0.8276 ug/L	0.8276 ppb	11:44:33
3	Zn 213.857†	905.8	17.6	0.1754 ug/L	0.1754 ppb	11:44:53
3	SiO2†	514.6	42.5	3.0319 ug/L	3.0319 ppb	11:45:08

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	835360.9	102.64	%	0.722				0.70%
Sc Radial	5085.4	106	%	1.0				0.97%
Y 371.029	703264.2	102.52	%	0.651				0.63%
Y RADIAL	5461.0	106.5	%	1.06				1.00%
Ag 328.068†	125.9	0.6163	ug/L	0.44110	0.6163	ppb	0.44110	71.57%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-7.3	-5.8633	ug/L	4.63863	-5.8633	ppb	4.63863	79.11%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	6.6	2.9638	ug/L	2.63342	2.9638	ppb	2.63342	88.85%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	542.7	13.211	ug/L	0.5440	13.211	ppb	0.5440	4.12%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-7.4	-0.0604	ug/L	0.03995	-0.0604	ppb	0.03995	66.11%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	126.1	0.0502	ug/L	0.00416	0.0502	ppb	0.00416	8.28%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-2.6	-4.4391	ug/L	1.90215	-4.4391	ppb	1.90215	42.85%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              36.7      0.4311 ug/L       0.07444      0.4311 ppb        0.07444  17.27%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†              -1.7     -0.0356 ug/L       0.15973     -0.0356 ppb        0.15973 448.20%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†             -12.9     -0.1523 ug/L       0.14073     -0.1523 ppb        0.14073  92.39%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -16.8     -0.0554 ug/L       0.16661     -0.0554 ppb        0.16661 300.75%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       -0.7     -6.1911 ug/L       7.52903     -6.1911 ppb        7.52903 121.61%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       289.5      57.971 ug/L      13.4403      57.971 ppb       13.4403  23.18%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           0.7      26.023 ug/L      23.2864      26.023 ppb       23.2864  89.49%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              -5.8     -0.0085 ug/L       0.03248     -0.0085 ppb        0.03248 381.65%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               9.8      0.7300 ug/L       0.12243      0.7300 ppb        0.12243  16.77%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      187.8      60.837 ug/L       3.3460      60.837 ppb        3.3460   5.50%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               8.2      0.2147 ug/L       0.15866      0.2147 ppb        0.15866  73.89%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†              -18.9     -12.069 ug/L       3.9088     -12.069 ppb        3.9088  32.39%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               5.3      0.6797 ug/L       1.41289      0.6797 ppb        1.41289 207.87%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         -1.3     -1.9702 ug/L       1.96999     -1.9702 ppb        1.96999  99.99%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               7.9      2.9151 ug/L       1.64901      2.9151 ppb        1.64901  56.57%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               6.8      4.5511 ug/L       1.91699      4.5511 ppb        1.91699  42.12%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†              27.4      0.9138 ug/L       0.50744      0.9138 ppb        0.50744  55.53%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†              -1.5     -0.2707 ug/L       1.16922     -0.2707 ppb        1.16922 431.92%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             -38.1     -0.2716 ug/L       0.07710     -0.2716 ppb        0.07710  28.39%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              42.7      0.0694 ug/L       0.12596      0.0694 ppb        0.12596 181.56%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              14.8      4.7335 ug/L       2.29247      4.7335 ppb        2.29247  48.43%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               85.8      2.7403 ug/L       1.55453      2.7403 ppb        1.55453  56.73%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               70.4      0.5248 ug/L       0.39030      0.5248 ppb        0.39030  74.37%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              26.6      0.2650 ug/L       0.07826      0.2650 ppb        0.07826  29.53%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                    23.6      1.6686 ug/L       1.27928      1.6686 ppb        1.27928  76.67%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 3
Sample ID: LR1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 37
Date Collected: 1/14/2010 11:47:19
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR1

Rep1#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4966.1	4966.1	104	%			11:49:12
1	Y RADIAL	5321.4	5321.4	103.7	%			11:49:12
1	Al 396.153Radial†	-42.3	-37.5	-28.874	ug/L	-28.874	ppb	11:49:12
1	Ca 317.933Radial†	11.4	-4.2	-7.0398	ug/L	-7.0398	ppb	11:49:32
1	Fe 238.204 Radial†	41146.6	39688.1	373100	ug/L	373100	ppb	11:49:12
1	K 766.490 Radial†	2902.3	12.7	2.5651	ug/L	2.5651	ppb	11:49:12
1	Mg 279.077 IEC†	13.2	11.2	3.9784	ug/L	3.9784	ppb	11:49:32
1	Na 589.592 Radial†	-1371.4	243.9	79.009	ug/L	79.009	ppb	11:49:12
1	Sr 421.552†	32.2	13.8	0.0985	ug/L	0.0985	ppb	11:49:12
1	Sc 361.383	841285.3	841285.3	103.37	%			11:50:30
1	Y 371.029	700674.3	700674.3	102.14	%			11:50:30
1	Ag 328.068†	-25045.8	-24511.1	0.5890	ug/L	0.5890	ppb	11:50:30
1	As 188.979†	-200.0	-174.6	8.8681	ug/L	8.8681	ppb	11:50:50
1	B 249.677†	2257.2	2702.2	5.1608	ug/L	5.1608	ppb	11:50:30
1	Ba 233.527†	-1720.2	-1665.6	-2.3305	ug/L	-2.3305	ppb	11:50:30
1	Be 313.107†	-4217.1	232.6	0.0926	ug/L	0.0926	ppb	11:50:30
1	Cd 226.502†	3186.6	3280.3	-0.0773	ug/L	-0.0773	ppb	11:50:30
1	Co 228.616†	209.1	275.0	0.5197	ug/L	0.5197	ppb	11:50:50
1	Cr 267.716†	-551.2	-629.0	-0.1131	ug/L	-0.1131	ppb	11:50:30
1	Cu 324.752†	367.2	-5942.8	0.7397	ug/L	0.7397	ppb	11:50:30
1	Mn 257.610†	-33094.8	-32420.5	-1.1843	ug/L	-1.1843	ppb	11:50:30
1	Mo 202.031†	-333.9	-342.4	3.5484	ug/L	3.5484	ppb	11:50:30
1	Ni 231.604†	182.7	101.6	2.6707	ug/L	2.6707	ppb	11:50:50
1	P 214.914†	678.4	428.5	-23.357	ug/L	-23.357	ppb	11:50:50
1	Pb 220.353†	224.5	281.8	0.3842	ug/L	0.3842	ppb	11:50:50
1	S 181.975 Axial†	59.9	11.5	17.177	ug/L	17.177	ppb	11:50:50
1	Sb 206.836†	30.4	-3.3	7.7399	ug/L	7.7399	ppb	11:50:50
1	Se 196.026†	-1774.0	-1685.8	94.375	ug/L	94.375	ppb	11:50:50
1	Si 251.611†	-654.3	-1078.9	-36.064	ug/L	-36.064	ppb	11:50:30
1	Sn 189.927†	-26.3	-31.5	0.4478	ug/L	0.4478	ppb	11:50:50
1	Ti 334.940†	-1366.7	64.8	0.0513	ug/L	0.0513	ppb	11:50:30
1	Tl 190.801†	-40.6	4.6	1.1696	ug/L	1.1696	ppb	11:50:50
1	U 409.014†	60.9	2099.8	24.546	ug/L	24.546	ppb	11:50:30
1	V 292.402†	6929.4	8110.7	3.9513	ug/L	3.9513	ppb	11:50:30
1	Zn 213.857†	4503.8	3496.7	-1.3099	ug/L	-1.3099	ppb	11:50:50
1	SiO2†	-618.3	-1054.4	-74.900	ug/L	-74.900	ppb	11:51:47
2	Sc Radial	4950.1	4950.1	103	%			11:49:37
2	Y RADIAL	5306.0	5306.0	103.4	%			11:49:37
2	Al 396.153Radial†	0.9	4.1	4.5442	ug/L	4.5442	ppb	11:49:37
2	Ca 317.933Radial†	11.1	-4.4	-7.4159	ug/L	-7.4159	ppb	11:49:57
2	Fe 238.204 Radial†	40949.7	39626.4	372520	ug/L	372520	ppb	11:49:37
2	K 766.490 Radial†	2879.0	-0.8	-0.1406	ug/L	-0.1406	ppb	11:49:37
2	Mg 279.077 IEC†	11.5	9.6	-52.343	ug/L	-52.343	ppb	11:49:57
2	Na 589.592 Radial†	-1389.2	222.3	72.017	ug/L	72.017	ppb	11:49:37
2	Sr 421.552†	89.3	69.2	0.4936	ug/L	0.4936	ppb	11:49:37
2	Sc 361.383	829050.3	829050.3	101.87	%			11:50:56
2	Y 371.029	691272.5	691272.5	100.77	%			11:50:56
2	Ag 328.068†	-24770.8	-24598.7	-0.0302	ug/L	-0.0302	ppb	11:50:56
2	As 188.979†	-207.0	-184.4	4.3291	ug/L	4.3291	ppb	11:51:16
2	B 249.677†	2090.6	2570.8	2.0612	ug/L	2.0612	ppb	11:50:56
2	Ba 233.527†	-1650.0	-1621.3	-1.9797	ug/L	-1.9797	ppb	11:50:56
2	Be 313.107†	-4244.7	145.2	0.0577	ug/L	0.0577	ppb	11:50:56
2	Cd 226.502†	3109.4	3250.0	-0.3710	ug/L	-0.3710	ppb	11:50:56
2	Co 228.616†	165.0	234.6	-0.3497	ug/L	-0.3497	ppb	11:51:16
2	Cr 267.716†	-505.0	-591.5	0.3164	ug/L	0.3164	ppb	11:50:56
2	Cu 324.752†	297.5	-6006.0	0.5051	ug/L	0.5051	ppb	11:50:56
2	Mn 257.610†	-32936.4	-32737.5	-1.6110	ug/L	-1.6110	ppb	11:50:56
2	Mo 202.031†	-342.2	-355.3	2.5456	ug/L	2.5456	ppb	11:50:56
2	Ni 231.604†	187.6	109.0	2.8668	ug/L	2.8668	ppb	11:51:16

2	P 214.914†	666.9	426.8	-23.898 ug/L	-23.898 ppb	11:51:16
2	Pb 220.353†	229.9	290.2	1.5301 ug/L	1.5301 ppb	11:51:16
2	S 181.975 Axial†	68.0	20.3	30.347 ug/L	30.347 ppb	11:51:16
2	Sb 206.836†	38.6	5.2	10.750 ug/L	10.750 ppb	11:51:16
2	Se 196.026†	-1764.2	-1701.5	81.968 ug/L	81.968 ppb	11:51:16
2	Si 251.611†	-621.1	-1055.6	-35.268 ug/L	-35.268 ppb	11:50:56
2	Sn 189.927†	-40.0	-45.4	-2.1314 ug/L	-2.1314 ppb	11:51:16
2	Ti 334.940†	-1420.2	-7.1	-0.0696 ug/L	-0.0696 ppb	11:50:56
2	Tl 190.801†	-49.8	-5.0	-1.9241 ug/L	-1.9241 ppb	11:51:16
2	U 409.014†	196.5	2233.9	28.893 ug/L	28.893 ppb	11:50:56
2	V 292.402†	6910.1	8190.7	4.6062 ug/L	4.6062 ppb	11:50:56
2	Zn 213.857†	4489.8	3547.3	-0.7502 ug/L	-0.7502 ppb	11:51:16
2	SiO2†	-697.7	-1141.1	-81.091 ug/L	-81.091 ppb	11:51:52
3	Sc Radial	5015.9	5015.9	105 %		11:50:02
3	Y RADIAL	5373.2	5373.2	104.8 %		11:50:02
3	Al 396.153Radial†	-22.9	-18.6	-13.710 ug/L	-13.710 ppb	11:50:02
3	Ca 317.933Radial†	5.7	-9.7	-16.363 ug/L	-16.363 ppb	11:50:22
3	Fe 238.204 Radial†	41422.1	39557.6	371870 ug/L	371870 ppb	11:50:02
3	K 766.490 Radial†	2915.2	-2.7	-0.5205 ug/L	-0.5205 ppb	11:50:02
3	Mg 279.077 IEC†	11.5	9.5	-56.564 ug/L	-56.564 ppb	11:50:22
3	Na 589.592 Radial†	-1424.8	206.0	66.729 ug/L	66.729 ppb	11:50:02
3	Sr 421.552†	124.0	101.3	0.7220 ug/L	0.7220 ppb	11:50:02
3	Sc 361.383	825054.9	825054.9	101.37 %		11:51:22
3	Y 371.029	690074.2	690074.2	100.60 %		11:51:22
3	Ag 328.068†	-24681.2	-24628.1	-0.3821 ug/L	-0.3821 ppb	11:51:22
3	As 188.979†	-197.5	-176.0	7.9699 ug/L	7.9699 ppb	11:51:42
3	B 249.677†	2166.4	2655.5	4.2284 ug/L	4.2284 ppb	11:51:22
3	Ba 233.527†	-1598.1	-1577.9	-1.6418 ug/L	-1.6418 ppb	11:51:22
3	Be 313.107†	-4258.6	111.4	0.0443 ug/L	0.0443 ppb	11:51:22
3	Cd 226.502†	3165.4	3320.0	0.5146 ug/L	0.5146 ppb	11:51:22
3	Co 228.616†	154.3	224.9	-0.5484 ug/L	-0.5484 ppb	11:51:42
3	Cr 267.716†	-623.7	-711.0	-1.1038 ug/L	-1.1038 ppb	11:51:22
3	Cu 324.752†	275.5	-6026.3	0.4104 ug/L	0.4104 ppb	11:51:22
3	Mn 257.610†	-32921.8	-32879.6	-1.8414 ug/L	-1.8414 ppb	11:51:22
3	Mo 202.031†	-322.6	-337.5	3.8129 ug/L	3.8129 ppb	11:51:22
3	Ni 231.604†	193.4	115.7	3.0425 ug/L	3.0425 ppb	11:51:42
3	P 214.914†	696.4	459.1	-2.7333 ug/L	-2.7333 ppb	11:51:42
3	Pb 220.353†	199.3	261.2	-2.1312 ug/L	-2.1312 ppb	11:51:42
3	S 181.975 Axial†	65.3	18.0	26.824 ug/L	26.824 ppb	11:51:42
3	Sb 206.836†	17.5	-15.5	3.2538 ug/L	3.2538 ppb	11:51:42
3	Se 196.026†	-1765.8	-1711.4	73.232 ug/L	73.232 ppb	11:51:42
3	Si 251.611†	-693.7	-1130.2	-37.797 ug/L	-37.797 ppb	11:51:22
3	Sn 189.927†	-24.2	-30.0	0.7046 ug/L	0.7046 ppb	11:51:42
3	Ti 334.940†	-1388.5	17.3	-0.0244 ug/L	-0.0244 ppb	11:51:22
3	Tl 190.801†	-56.8	-12.1	-4.1884 ug/L	-4.1884 ppb	11:51:42
3	U 409.014†	-56.6	1985.1	21.025 ug/L	21.025 ppb	11:51:22
3	V 292.402†	6720.4	8036.4	3.5913 ug/L	3.5913 ppb	11:51:22
3	Zn 213.857†	4485.1	3564.0	-0.5221 ug/L	-0.5221 ppb	11:51:42
3	SiO2†	-653.8	-1101.1	-78.261 ug/L	-78.261 ppb	11:51:57

Mean Data: LR1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	831796.8	102.20	%	1.039				1.02%
Sc Radial	4977.4	104	%	0.7				0.69%
Y 371.029	694007.0	101.17	%	0.846				0.84%
Y RADIAL	5333.6	104.0	%	0.69				0.66%
Ag 328.068†	-24579.3	0.0589	ug/L	0.49165	0.0589	ppb	0.49165	834.52%
Al 396.153Radial†	-17.4	-12.680	ug/L	16.7329	-12.680	ppb	16.7329	131.96%
As 188.979†	-178.3	7.0557	ug/L	2.40359	7.0557	ppb	2.40359	34.07%
B 249.677†	2642.8	3.8168	ug/L	1.59028	3.8168	ppb	1.59028	41.67%
Ba 233.527†	-1621.6	-1.9840	ug/L	0.34438	-1.9840	ppb	0.34438	17.36%
Be 313.107†	163.1	0.0649	ug/L	0.02495	0.0649	ppb	0.02495	38.46%
Ca 317.933Radial†	-6.1	-10.273	ug/L	5.2774	-10.273	ppb	5.2774	51.37%
Cd 226.502†	3283.4	0.0221	ug/L	0.45108	0.0221	ppb	0.45108	>999.9%
Co 228.616†	244.8	-0.1262	ug/L	0.56807	-0.1262	ppb	0.56807	450.28%
Cr 267.716†	-643.8	-0.3002	ug/L	0.72835	-0.3002	ppb	0.72835	242.65%
Cu 324.752†	-5991.7	0.5518	ug/L	0.16951	0.5518	ppb	0.16951	30.72%
Fe 238.204 Radial†	39624.0	372490	ug/L	613.8	372490	ppb	613.8	0.16%
K 766.490 Radial†	3.1	0.6347	ug/L	1.68256	0.6347	ppb	1.68256	265.10%

Mg 279.077 IEC†	10.1	-34.976	ug/L	33.8016	-34.976	ppb	33.8016 96.64%
Mn 257.610†	-32679.2	-1.5456	ug/L	0.33339	-1.5456	ppb	0.33339 21.57%
Mo 202.031†	-345.1	3.3023	ug/L	0.66850	3.3023	ppb	0.66850 20.24%
Na 589.592 Radial†	224.0	72.585	ug/L	6.1595	72.585	ppb	6.1595 8.49%
Ni 231.604†	108.8	2.8600	ug/L	0.18602	2.8600	ppb	0.18602 6.50%
P 214.914†	438.1	-16.663	ug/L	12.0663	-16.663	ppb	12.0663 72.41%
Pb 220.353†	277.7	-0.0723	ug/L	1.87287	-0.0723	ppb	1.87287 >999.9%
S 181.975 Axial†	16.6	24.783	ug/L	6.8181	24.783	ppb	6.8181 27.51%
Sb 206.836†	-4.5	7.2479	ug/L	3.77233	7.2479	ppb	3.77233 52.05%
Se 196.026†	-1699.6	83.192	ug/L	10.6240	83.192	ppb	10.6240 12.77%
Si 251.611†	-1088.2	-36.376	ug/L	1.2930	-36.376	ppb	1.2930 3.55%
Sn 189.927†	-35.6	-0.3264	ug/L	1.56849	-0.3264	ppb	1.56849 480.60%
Sr 421.552†	61.4	0.4380	ug/L	0.31547	0.4380	ppb	0.31547 72.02%
Ti 334.940†	25.0	-0.0143	ug/L	0.06110	-0.0143	ppb	0.06110 428.68%
Tl 190.801†	-4.2	-1.6476	ug/L	2.68971	-1.6476	ppb	2.68971 163.25%
U 409.014†	2106.3	24.821	ug/L	3.9413	24.821	ppb	3.9413 15.88%
V 292.402†	8112.6	4.0496	ug/L	0.51453	4.0496	ppb	0.51453 12.71%
Zn 213.857†	3536.0	-0.8607	ug/L	0.40538	-0.8607	ppb	0.40538 47.10%
SiO2†	-1098.9	-78.084	ug/L	3.0992	-78.084	ppb	3.0992 3.97%

Sequence No.: 4
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 1/14/2010 11:54:10
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5063.6	5063.6	106	%			11:56:02
1	Y RADIAL	5366.5	5366.5	104.6	%			11:56:02
1	Al 396.153Radial†	6391.3	6050.9	4829.5	ug/L	4829.5	ppb	11:56:02
1	Ca 317.933Radial†	3109.2	2926.8	4928.6	ug/L	4928.6	ppb	11:56:22
1	Fe 238.204 Radial†	587.5	546.0	5148.7	ug/L	5148.7	ppb	11:56:22
1	K 766.490 Radial†	29400.0	25031.8	5008.6	ug/L	5008.6	ppb	11:56:02
1	Mg 279.077 IEC†	159.9	149.8	5258.6	ug/L	5258.6	ppb	11:56:22
1	Na 589.592 Radial†	31342.3	31224.0	10117	ug/L	10117	ppb	11:56:02
1	Sr 421.552†	75150.4	71092.5	506.70	ug/L	506.70	ppb	11:56:02
1	Sc 361.383	829412.1	829412.1	101.91	%			11:57:20
1	Y 371.029	686324.3	686324.3	100.05	%			11:57:20
1	Ag 328.068†	104712.6	102468.3	506.66	ug/L	506.66	ppb	11:57:25
1	As 188.979†	1143.1	1140.5	517.70	ug/L	517.70	ppb	11:57:45
1	B 249.677†	21543.9	21658.6	524.82	ug/L	524.82	ppb	11:57:25
1	Ba 233.527†	63387.8	62198.1	517.03	ug/L	517.03	ppb	11:57:25
1	Be 313.107†	1329417.5	1308811.2	520.98	ug/L	520.98	ppb	11:57:20
1	Cd 226.502†	45026.5	44380.1	520.05	ug/L	520.05	ppb	11:57:25
1	Co 228.616†	24316.1	23933.0	519.83	ug/L	519.83	ppb	11:57:25
1	Cr 267.716†	44647.4	43714.8	516.35	ug/L	516.35	ppb	11:57:25
1	Cu 324.752†	169781.3	160300.9	511.70	ug/L	511.70	ppb	11:57:25
1	Mn 257.610†	450884.7	442029.0	518.63	ug/L	518.63	ppb	11:57:20
1	Mo 202.031†	7064.0	6912.3	513.56	ug/L	513.56	ppb	11:57:45
1	Ni 231.604†	20174.0	19720.7	518.82	ug/L	518.82	ppb	11:57:25
1	P 214.914†	4328.6	4019.6	2465.7	ug/L	2465.7	ppb	11:57:45
1	Pb 220.353†	3989.0	3978.8	511.25	ug/L	511.25	ppb	11:57:45
1	S 181.975 Axial†	753.3	692.7	1032.9	ug/L	1032.9	ppb	11:57:45
1	Sb 206.836†	1461.3	1401.2	530.86	ug/L	530.86	ppb	11:57:45
1	Se 196.026†	770.0	785.9	544.26	ug/L	544.26	ppb	11:57:45
1	Si 251.611†	79580.9	77643.3	2611.6	ug/L	2611.6	ppb	11:57:25
1	Sn 189.927†	2880.2	2820.1	522.36	ug/L	522.36	ppb	11:57:45
1	Ti 334.940†	301886.2	297614.7	510.39	ug/L	510.39	ppb	11:57:25
1	Tl 190.801†	1591.3	1605.4	517.01	ug/L	517.01	ppb	11:57:45
1	U 409.014†	14801.7	16565.2	527.31	ug/L	527.31	ppb	11:57:25
1	V 292.402†	71289.6	71360.5	521.68	ug/L	521.68	ppb	11:57:25
1	Zn 213.857†	54385.9	52506.2	519.16	ug/L	519.16	ppb	11:57:25
1	SiO2†	79256.1	77314.3	5528.9	ug/L	5528.9	ppb	11:58:52
2	Sc Radial	5076.8	5076.8	106	%			11:56:28
2	Y RADIAL	5367.0	5367.0	104.6	%			11:56:28
2	Al 396.153Radial†	6432.4	6073.8	4847.4	ug/L	4847.4	ppb	11:56:28
2	Ca 317.933Radial†	3104.7	2915.0	4908.7	ug/L	4908.7	ppb	11:56:48
2	Fe 238.204 Radial†	585.1	542.3	5114.1	ug/L	5114.1	ppb	11:56:48
2	K 766.490 Radial†	29439.1	24995.9	5001.3	ug/L	5001.3	ppb	11:56:28
2	Mg 279.077 IEC†	157.2	146.8	5154.3	ug/L	5154.3	ppb	11:56:48
2	Na 589.592 Radial†	31544.3	31337.1	10153	ug/L	10153	ppb	11:56:28
2	Sr 421.552†	75470.2	71208.4	507.53	ug/L	507.53	ppb	11:56:28
2	Sc 361.383	816006.9	816006.9	100.26	%			11:57:51
2	Y 371.029	676270.6	676270.6	98.587	%			11:57:51
2	Ag 328.068†	105307.0	104749.1	517.89	ug/L	517.89	ppb	11:57:56
2	As 188.979†	1153.3	1169.2	530.67	ug/L	530.67	ppb	11:58:16
2	B 249.677†	21570.3	22032.3	533.88	ug/L	533.88	ppb	11:57:56
2	Ba 233.527†	63871.3	63702.3	529.53	ug/L	529.53	ppb	11:57:56
2	Be 313.107†	1317518.4	1318373.4	524.81	ug/L	524.81	ppb	11:57:51
2	Cd 226.502†	45359.6	45438.1	532.47	ug/L	532.47	ppb	11:57:56
2	Co 228.616†	24558.5	24566.7	533.59	ug/L	533.59	ppb	11:57:56
2	Cr 267.716†	44919.3	44705.7	528.05	ug/L	528.05	ppb	11:57:56
2	Cu 324.752†	171225.1	164477.7	525.03	ug/L	525.03	ppb	11:57:56
2	Mn 257.610†	446327.9	444752.5	521.83	ug/L	521.83	ppb	11:57:51
2	Mo 202.031†	7099.3	7061.4	524.63	ug/L	524.63	ppb	11:58:16
2	Ni 231.604†	20336.5	20208.0	531.64	ug/L	531.64	ppb	11:57:56

2	P 214.914†	4342.3	4103.0	2516.4 ug/L	2516.4 ppb	11:58:16
2	Pb 220.353†	4041.4	4095.3	526.21 ug/L	526.21 ppb	11:58:16
2	S 181.975 Axial†	766.8	718.4	1071.2 ug/L	1071.2 ppb	11:58:16
2	Sb 206.836†	1457.6	1421.0	538.43 ug/L	538.43 ppb	11:58:16
2	Se 196.026†	769.8	798.1	552.32 ug/L	552.32 ppb	11:58:16
2	Si 251.611†	80113.1	79457.0	2672.6 ug/L	2672.6 ppb	11:57:56
2	Sn 189.927†	2869.9	2856.2	529.05 ug/L	529.05 ppb	11:58:16
2	Ti 334.940†	304552.1	305140.0	523.29 ug/L	523.29 ppb	11:57:56
2	Tl 190.801†	1605.9	1645.6	529.92 ug/L	529.92 ppb	11:58:16
2	U 409.014†	14953.5	16955.3	539.75 ug/L	539.75 ppb	11:57:56
2	V 292.402†	71732.5	72951.4	533.32 ug/L	533.32 ppb	11:57:56
2	Zn 213.857†	54658.0	53654.3	530.52 ug/L	530.52 ppb	11:57:56
2	SiO2†	79169.7	78505.8	5614.0 ug/L	5614.0 ppb	11:58:58
3	Sc Radial	4980.1	4980.1	104 %		11:56:53
3	Y RADIAL	5323.0	5323.0	103.8 %		11:56:53
3	Al 396.153Radial†	6516.6	6272.8	5007.3 ug/L	5007.3 ppb	11:56:53
3	Ca 317.933Radial†	3120.0	2986.6	5029.2 ug/L	5029.2 ppb	11:57:13
3	Fe 238.204 Radial†	592.7	560.4	5283.7 ug/L	5283.7 ppb	11:57:13
3	K 766.490 Radial†	29329.6	25430.3	5088.3 ug/L	5088.3 ppb	11:56:53
3	Mg 279.077 IEC†	161.6	154.0	5405.7 ug/L	5405.7 ppb	11:57:13
3	Na 589.592 Radial†	31354.6	31732.9	10282 ug/L	10282 ppb	11:56:53
3	Sr 421.552†	75478.3	72599.8	517.45 ug/L	517.45 ppb	11:56:53
3	Sc 361.383	828986.7	828986.7	101.86 %		11:58:22
3	Y 371.029	686727.3	686727.3	100.11 %		11:58:22
3	Ag 328.068†	105256.9	103055.4	509.59 ug/L	509.59 ppb	11:58:27
3	As 188.979†	1153.3	1151.1	522.52 ug/L	522.52 ppb	11:58:47
3	B 249.677†	21536.4	21662.1	524.88 ug/L	524.88 ppb	11:58:27
3	Ba 233.527†	63394.3	62236.5	517.35 ug/L	517.35 ppb	11:58:27
3	Be 313.107†	1330915.8	1310951.7	521.83 ug/L	521.83 ppb	11:58:22
3	Cd 226.502†	45036.4	44412.5	520.42 ug/L	520.42 ppb	11:58:27
3	Co 228.616†	24372.8	24000.9	521.31 ug/L	521.31 ppb	11:58:27
3	Cr 267.716†	44643.7	43733.7	516.58 ug/L	516.58 ppb	11:58:27
3	Cu 324.752†	170254.1	160850.6	513.47 ug/L	513.47 ppb	11:58:27
3	Mn 257.610†	450413.7	441793.7	518.36 ug/L	518.36 ppb	11:58:22
3	Mo 202.031†	7125.0	6975.7	518.28 ug/L	518.28 ppb	11:58:47
3	Ni 231.604†	20224.9	19780.8	520.40 ug/L	520.40 ppb	11:58:27
3	P 214.914†	4365.6	4058.1	2489.8 ug/L	2489.8 ppb	11:58:47
3	Pb 220.353†	4024.3	4015.5	515.99 ug/L	515.99 ppb	11:58:47
3	S 181.975 Axial†	761.9	701.5	1046.0 ug/L	1046.0 ppb	11:58:47
3	Sb 206.836†	1472.5	1412.9	535.25 ug/L	535.25 ppb	11:58:47
3	Se 196.026†	782.8	798.9	553.39 ug/L	553.39 ppb	11:58:47
3	Si 251.611†	79617.4	77719.3	2614.1 ug/L	2614.1 ppb	11:58:27
3	Sn 189.927†	2886.8	2828.0	523.86 ug/L	523.86 ppb	11:58:47
3	Ti 334.940†	302504.8	298374.0	511.69 ug/L	511.69 ppb	11:58:27
3	Tl 190.801†	1589.5	1604.4	516.71 ug/L	516.71 ppb	11:58:47
3	U 409.014†	14741.2	16513.2	525.63 ug/L	525.63 ppb	11:58:27
3	V 292.402†	71354.7	71460.3	522.44 ug/L	522.44 ppb	11:58:27
3	Zn 213.857†	54398.7	52546.1	519.54 ug/L	519.54 ppb	11:58:27
3	SiO2†	80775.7	78846.1	5638.5 ug/L	5638.5 ppb	11:59:03

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	824801.9	101.34	%	0.936				0.92%
Sc Radial	5040.2	105	%	1.1				1.04%
Y 371.029	683107.4	99.584	%	0.8636				0.87%
Y RADIAL	5352.2	104.3	%	0.49				0.47%
Ag 328.068†	103424.3	511.38	ug/L	5.825	511.38	ppb	5.825	1.14%
QC value within limits for Ag 328.068 Recovery = 102.28%								
Al 396.153Radial†	6132.5	4894.7	ug/L	97.89	4894.7	ppb	97.89	2.00%
QC value within limits for Al 396.153Radial Recovery = 97.89%								
As 188.979†	1153.6	523.63	ug/L	6.553	523.63	ppb	6.553	1.25%
QC value within limits for As 188.979 Recovery = 104.73%								
B 249.677†	21784.3	527.86	ug/L	5.214	527.86	ppb	5.214	0.99%
QC value within limits for B 249.677 Recovery = 105.57%								
Ba 233.527†	62712.3	521.30	ug/L	7.123	521.30	ppb	7.123	1.37%
QC value within limits for Ba 233.527 Recovery = 104.26%								
Be 313.107†	1312712.1	522.54	ug/L	2.009	522.54	ppb	2.009	0.38%
QC value within limits for Be 313.107 Recovery = 104.51%								
Ca 317.933Radial†	2942.8	4955.5	ug/L	64.62	4955.5	ppb	64.62	1.30%

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   QC value within limits for Ca 317.933Radial  Recovery = 99.11%
Cd 226.502†            44743.6      524.31 ug/L        7.064      524.31 ppb          7.064   1.35%
   QC value within limits for Cd 226.502  Recovery = 104.86%
Co 228.616†            24166.9      524.91 ug/L        7.555      524.91 ppb          7.555   1.44%
   QC value within limits for Co 228.616  Recovery = 104.98%
Cr 267.716†            44051.4      520.33 ug/L        6.691      520.33 ppb          6.691   1.29%
   QC value within limits for Cr 267.716  Recovery = 104.07%
Cu 324.752†           161876.4      516.73 ug/L        7.238      516.73 ppb          7.238   1.40%
   QC value within limits for Cu 324.752  Recovery = 103.35%
Fe 238.204 Radial†       549.6      5182.1 ug/L       89.63      5182.1 ppb         89.63   1.73%
   QC value within limits for Fe 238.204 Radial  Recovery = 103.64%
K 766.490 Radial†      25152.7      5032.7 ug/L       48.25      5032.7 ppb         48.25   0.96%
   QC value within limits for K 766.490 Radial  Recovery = 100.65%
Mg 279.077 IEC†          150.2      5272.9 ug/L      126.32      5272.9 ppb        126.32   2.40%
   QC value within limits for Mg 279.077 IEC  Recovery = 105.46%
Mn 257.610†           442858.4      519.61 ug/L        1.927      519.61 ppb          1.927   0.37%
   QC value within limits for Mn 257.610  Recovery = 103.92%
Mo 202.031†             6983.1      518.82 ug/L        5.553      518.82 ppb          5.553   1.07%
   QC value within limits for Mo 202.031  Recovery = 103.76%
Na 589.592 Radial†     31431.3       10184 ug/L         86.6       10184 ppb           86.6   0.85%
   QC value within limits for Na 589.592 Radial  Recovery = 101.84%
Ni 231.604†            19903.2      523.62 ug/L        6.990      523.62 ppb          6.990   1.33%
   QC value within limits for Ni 231.604  Recovery = 104.72%
P 214.914†              4060.2      2490.6 ug/L       25.35      2490.6 ppb         25.35   1.02%
   QC value within limits for P 214.914  Recovery = 99.62%
Pb 220.353†             4029.9      517.82 ug/L        7.642      517.82 ppb          7.642   1.48%
   QC value within limits for Pb 220.353  Recovery = 103.56%
S 181.975 Axial†         704.2      1050.0 ug/L       19.44      1050.0 ppb         19.44   1.85%
   QC value within limits for S 181.975 Axial  Recovery = 105.00%
Sb 206.836†             1411.7      534.85 ug/L        3.802      534.85 ppb          3.802   0.71%
   QC value within limits for Sb 206.836  Recovery = 106.97%
Se 196.026†              794.3      549.99 ug/L        4.993      549.99 ppb          4.993   0.91%
   QC value within limits for Se 196.026  Recovery = 110.00%
Si 251.611†            78273.2      2632.7 ug/L       34.53      2632.7 ppb         34.53   1.31%
   QC value within limits for Si 251.611  Recovery = 105.31%
Sn 189.927†             2834.8      525.09 ug/L        3.510      525.09 ppb          3.510   0.67%
   QC value within limits for Sn 189.927  Recovery = 105.02%
Sr 421.552†            71633.5      510.56 ug/L        5.978      510.56 ppb          5.978   1.17%
   QC value within limits for Sr 421.552  Recovery = 102.11%
Ti 334.940†           300376.2      515.12 ug/L        7.105      515.12 ppb          7.105   1.38%
   QC value within limits for Ti 334.940  Recovery = 103.02%
Tl 190.801†             1618.5      521.22 ug/L        7.543      521.22 ppb          7.543   1.45%
   QC value within limits for Tl 190.801  Recovery = 104.24%
U 409.014†             16677.9      530.90 ug/L        7.709      530.90 ppb          7.709   1.45%
   QC value within limits for U 409.014  Recovery = 106.18%
V 292.402†             71924.1      525.81 ug/L        6.512      525.81 ppb          6.512   1.24%
   QC value within limits for V 292.402  Recovery = 105.16%
Zn 213.857†            52902.2      523.07 ug/L        6.450      523.07 ppb          6.450   1.23%
   QC value within limits for Zn 213.857  Recovery = 104.61%
SiO2†                  78222.1      5593.8 ug/L       57.56      5593.8 ppb         57.56   1.03%
   QC value within limits for SiO2  Recovery = 104.61%
All analyte(s) passed QC.
```

Sequence No.: 5
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 1/14/2010 12:01:12
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5039.4	5039.4	105	%			12:03:05
1	Y RADIAL	5419.9	5419.9	105.7	%			12:03:05
1	Al 396.153Radial†	-11.5	-7.7	-6.1915	ug/L	-6.1915	ppb	12:03:05
1	Ca 317.933Radial†	9.8	-5.8	-9.8013	ug/L	-9.8013	ppb	12:03:25
1	Fe 238.204 Radial†	9.2	-1.1	-10.382	ug/L	-10.382	ppb	12:03:25
1	K 766.490 Radial†	3143.6	201.4	40.348	ug/L	40.348	ppb	12:03:05
1	Mg 279.077 IEC†	3.0	1.4	47.818	ug/L	47.818	ppb	12:03:25
1	Na 589.592 Radial†	-1559.3	84.4	27.336	ug/L	27.336	ppb	12:03:05
1	Sr 421.552†	-14.7	-31.2	-0.2225	ug/L	-0.2225	ppb	12:03:05
1	Sc 361.383	845694.0	845694.0	103.91	%			12:04:22
1	Y 371.029	711161.0	711161.0	103.67	%			12:04:22
1	Ag 328.068†	460.5	161.6	0.7921	ug/L	0.7921	ppb	12:04:22
1	As 188.979†	-13.7	5.7	2.5626	ug/L	2.5626	ppb	12:04:42
1	B 249.677†	-146.1	378.0	9.2006	ug/L	9.2006	ppb	12:04:42
1	Ba 233.527†	-10.9	-11.9	-0.0975	ug/L	-0.0975	ppb	12:04:42
1	Be 313.107†	-4349.8	126.1	0.0504	ug/L	0.0504	ppb	12:04:22
1	Cd 226.502†	-191.2	13.6	0.1611	ug/L	0.1611	ppb	12:04:42
1	Co 228.616†	-75.8	-0.2	-0.0033	ug/L	-0.0033	ppb	12:04:42
1	Cr 267.716†	59.3	-38.7	-0.4567	ug/L	-0.4567	ppb	12:04:42
1	Cu 324.752†	6533.8	-10.2	-0.0345	ug/L	-0.0345	ppb	12:04:22
1	Mn 257.610†	400.8	-18.6	-0.0248	ug/L	-0.0248	ppb	12:04:42
1	Mo 202.031†	28.1	7.8	0.5762	ug/L	0.5762	ppb	12:04:42
1	Ni 231.604†	88.0	9.5	0.2505	ug/L	0.2505	ppb	12:04:42
1	P 214.914†	217.2	-18.9	-12.037	ug/L	-12.037	ppb	12:04:42
1	Pb 220.353†	-61.4	5.5	0.7057	ug/L	0.7057	ppb	12:04:42
1	S 181.975 Axial†	54.8	6.2	9.3139	ug/L	9.3139	ppb	12:04:42
1	Sb 206.836†	36.9	2.8	1.0282	ug/L	1.0282	ppb	12:04:42
1	Se 196.026†	-31.7	-0.2	-0.1402	ug/L	-0.1402	ppb	12:04:42
1	Si 251.611†	458.3	-4.8	-0.1684	ug/L	-0.1684	ppb	12:04:42
1	Sn 189.927†	7.3	0.9	0.1705	ug/L	0.1705	ppb	12:04:42
1	Ti 334.940†	-1362.7	75.6	0.1236	ug/L	0.1236	ppb	12:04:22
1	Tl 190.801†	-32.5	12.6	4.0332	ug/L	4.0332	ppb	12:04:42
1	U 409.014†	-2040.3	77.4	2.4755	ug/L	2.4755	ppb	12:04:22
1	V 292.402†	-1347.0	110.8	0.8147	ug/L	0.8147	ppb	12:04:22
1	Zn 213.857†	869.2	-23.9	-0.2385	ug/L	-0.2385	ppb	12:04:42
1	SiO2†	451.8	-21.4	-1.5516	ug/L	-1.5516	ppb	12:05:38
2	Sc Radial	5125.1	5125.1	107	%			12:03:30
2	Y RADIAL	5468.2	5468.2	106.6	%			12:03:30
2	Al 396.153Radial†	11.4	13.9	11.122	ug/L	11.122	ppb	12:03:30
2	Ca 317.933Radial†	17.8	1.5	2.5212	ug/L	2.5212	ppb	12:03:50
2	Fe 238.204 Radial†	9.3	-1.2	-11.076	ug/L	-11.076	ppb	12:03:50
2	K 766.490 Radial†	3017.8	33.8	6.7504	ug/L	6.7504	ppb	12:03:30
2	Mg 279.077 IEC†	2.6	0.9	31.858	ug/L	31.858	ppb	12:03:50
2	Na 589.592 Radial†	-1486.0	177.7	57.578	ug/L	57.578	ppb	12:03:30
2	Sr 421.552†	9.6	-8.3	-0.0589	ug/L	-0.0589	ppb	12:03:30
2	Sc 361.383	839886.4	839886.4	103.20	%			12:04:47
2	Y 371.029	707032.6	707032.6	103.07	%			12:04:47
2	Ag 328.068†	330.6	38.8	0.1871	ug/L	0.1871	ppb	12:04:47
2	As 188.979†	-18.1	1.3	0.5708	ug/L	0.5708	ppb	12:05:07
2	B 249.677†	-105.3	416.5	10.139	ug/L	10.139	ppb	12:05:07
2	Ba 233.527†	-6.6	-7.8	-0.0646	ug/L	-0.0646	ppb	12:05:07
2	Be 313.107†	-4336.2	110.4	0.0440	ug/L	0.0440	ppb	12:04:47
2	Cd 226.502†	-179.2	23.9	0.2816	ug/L	0.2816	ppb	12:05:07
2	Co 228.616†	-70.3	4.6	0.1011	ug/L	0.1011	ppb	12:05:07
2	Cr 267.716†	92.3	-6.3	-0.0752	ug/L	-0.0752	ppb	12:05:07
2	Cu 324.752†	6568.7	67.1	0.2127	ug/L	0.2127	ppb	12:04:47
2	Mn 257.610†	389.4	-27.0	-0.0340	ug/L	-0.0340	ppb	12:05:07
2	Mo 202.031†	25.5	5.4	0.4020	ug/L	0.4020	ppb	12:05:07
2	Ni 231.604†	94.2	16.1	0.4248	ug/L	0.4248	ppb	12:05:07

2	P 214.914†	224.8	-10.0	-6.4222 ug/L	-6.4222 ppb	12:05:07
2	Pb 220.353†	-53.2	13.1	1.6766 ug/L	1.6766 ppb	12:05:07
2	S 181.975 Axial†	43.6	-4.2	-6.2772 ug/L	-6.2772 ppb	12:05:07
2	Sb 206.836†	39.0	5.0	1.8512 ug/L	1.8512 ppb	12:05:07
2	Se 196.026†	-24.1	7.0	4.6470 ug/L	4.6470 ppb	12:05:07
2	Si 251.611†	448.7	-11.1	-0.3785 ug/L	-0.3785 ppb	12:05:07
2	Sn 189.927†	10.1	3.7	0.6831 ug/L	0.6831 ppb	12:05:07
2	Ti 334.940†	-1388.1	41.9	0.0689 ug/L	0.0689 ppb	12:04:47
2	Tl 190.801†	-39.4	5.7	1.8298 ug/L	1.8298 ppb	12:05:07
2	U 409.014†	-2053.7	50.9	1.6263 ug/L	1.6263 ppb	12:04:47
2	V 292.402†	-1406.4	44.3	0.3305 ug/L	0.3305 ppb	12:04:47
2	Zn 213.857†	886.0	-1.8	-0.0196 ug/L	-0.0196 ppb	12:05:07
2	SiO2†	440.4	-29.5	-2.1241 ug/L	-2.1241 ppb	12:05:43
3	Sc Radial	5037.6	5037.6	105 %		12:03:55
3	Y RADIAL	5418.8	5418.8	105.6 %		12:03:55
3	Al 396.153Radial†	-20.1	-15.8	-12.742 ug/L	-12.742 ppb	12:03:55
3	Ca 317.933Radial†	14.2	-1.6	-2.7610 ug/L	-2.7610 ppb	12:04:15
3	Fe 238.204 Radial†	10.5	0.1	1.4058 ug/L	1.4058 ppb	12:04:15
3	K 766.490 Radial†	3036.4	100.5	20.115 ug/L	20.115 ppb	12:03:55
3	Mg 279.077 IEC†	0.5	-1.0	-36.847 ug/L	-36.847 ppb	12:04:15
3	Na 589.592 Radial†	-1529.1	112.6	36.494 ug/L	36.494 ppb	12:03:55
3	Sr 421.552†	-4.6	-21.6	-0.1537 ug/L	-0.1537 ppb	12:03:55
3	Sc 361.383	837886.7	837886.7	102.95 %		12:05:12
3	Y 371.029	706163.9	706163.9	102.95 %		12:05:12
3	Ag 328.068†	480.5	185.1	0.9167 ug/L	0.9167 ppb	12:05:12
3	As 188.979†	-17.3	2.1	0.9314 ug/L	0.9314 ppb	12:05:32
3	B 249.677†	-84.3	436.6	10.627 ug/L	10.627 ppb	12:05:32
3	Ba 233.527†	3.5	1.9	0.0188 ug/L	0.0188 ppb	12:05:32
3	Be 313.107†	-4269.0	165.6	0.0656 ug/L	0.0656 ppb	12:05:12
3	Cd 226.502†	-190.1	13.0	0.1513 ug/L	0.1513 ppb	12:05:32
3	Co 228.616†	-72.4	2.4	0.0540 ug/L	0.0540 ppb	12:05:32
3	Cr 267.716†	66.2	-31.5	-0.3686 ug/L	-0.3686 ppb	12:05:32
3	Cu 324.752†	6403.3	-78.3	-0.2489 ug/L	-0.2489 ppb	12:05:12
3	Mn 257.610†	382.4	-32.9	-0.0369 ug/L	-0.0369 ppb	12:05:32
3	Mo 202.031†	31.6	11.4	0.8458 ug/L	0.8458 ppb	12:05:32
3	Ni 231.604†	80.2	2.8	0.0725 ug/L	0.0725 ppb	12:05:32
3	P 214.914†	227.9	-6.5	-4.1238 ug/L	-4.1238 ppb	12:05:32
3	Pb 220.353†	-83.5	-16.5	-2.1149 ug/L	-2.1149 ppb	12:05:32
3	S 181.975 Axial†	51.7	3.7	5.5824 ug/L	5.5824 ppb	12:05:32
3	Sb 206.836†	45.9	11.9	4.3542 ug/L	4.3542 ppb	12:05:32
3	Se 196.026†	-25.0	6.1	4.0962 ug/L	4.0962 ppb	12:05:32
3	Si 251.611†	459.1	0.1	-0.0076 ug/L	-0.0076 ppb	12:05:32
3	Sn 189.927†	3.2	-3.0	-0.5496 ug/L	-0.5496 ppb	12:05:32
3	Ti 334.940†	-1473.7	-44.4	-0.0725 ug/L	-0.0725 ppb	12:05:12
3	Tl 190.801†	-31.4	13.4	4.2913 ug/L	4.2913 ppb	12:05:32
3	U 409.014†	-2165.7	-62.6	-1.9994 ug/L	-1.9994 ppb	12:05:12
3	V 292.402†	-1273.2	170.5	1.2371 ug/L	1.2371 ppb	12:05:12
3	Zn 213.857†	884.9	-0.8	-0.0079 ug/L	-0.0079 ppb	12:05:32
3	SiO2†	460.7	-8.7	-0.6465 ug/L	-0.6465 ppb	12:05:48

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	841155.7	103.35	%	0.498				0.48%
Sc Radial	5067.4	106	%	1.0				0.99%
Y 371.029	708119.2	103.23	%	0.389				0.38%
Y RADIAL	5435.6	106.0	%	0.55				0.52%
Ag 328.068†	128.5	0.6319	ug/L	0.39026	0.6319	ppb	0.39026	61.76%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-3.2	-2.6040	ug/L	12.33005	-2.6040	ppb	12.33005	473.51%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	3.0	1.3549	ug/L	1.06130	1.3549	ppb	1.06130	78.33%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	410.4	9.9888	ug/L	0.72480	9.9888	ppb	0.72480	7.26%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-5.9	-0.0478	ug/L	0.05992	-0.0478	ppb	0.05992	125.44%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	134.0	0.0533	ug/L	0.01111	0.0533	ppb	0.01111	20.83%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-2.0	-3.3471	ug/L	6.18211	-3.3471	ppb	6.18211	184.70%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              16.8      0.1980 ug/L       0.07254      0.1980 ppb        0.07254  36.63%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†               2.3      0.0506 ug/L       0.05225      0.0506 ppb        0.05225 103.30%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†             -25.5     -0.3002 ug/L       0.19976     -0.3002 ppb        0.19976  66.55%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -7.1     -0.0235 ug/L       0.23099     -0.0235 ppb        0.23099 981.03%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       -0.7     -6.6840 ug/L       7.01461     -6.6840 ppb        7.01461 104.95%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       111.9      22.405 ug/L       16.9156      22.405 ppb        16.9156  75.50%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           0.4      14.276 ug/L       44.9872      14.276 ppb        44.9872 315.12%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†             -26.1     -0.0319 ug/L       0.00630     -0.0319 ppb        0.00630  19.76%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               8.2      0.6080 ug/L       0.22359      0.6080 ppb        0.22359  36.78%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      124.9      40.469 ug/L       15.5080      40.469 ppb        15.5080  38.32%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               9.5      0.2493 ug/L       0.17612      0.2493 ppb        0.17612  70.65%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†              -11.8     -7.5276 ug/L       4.07075     -7.5276 ppb        4.07075  54.08%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               0.7      0.0891 ug/L       1.96951      0.0891 ppb        1.96951 >999.9%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          1.9      2.8730 ug/L       8.14105      2.8730 ppb        8.14105 283.36%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               6.6      2.4112 ug/L       1.73227      2.4112 ppb        1.73227  71.84%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               4.3      2.8677 ug/L       2.61939      2.8677 ppb        2.61939  91.34%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†              -5.3     -0.1848 ug/L       0.18602     -0.1848 ppb        0.18602 100.65%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               0.6      0.1013 ug/L       0.61928      0.1013 ppb        0.61928 611.23%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             -20.4     -0.1450 ug/L       0.08214     -0.1450 ppb        0.08214  56.63%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              24.4      0.0400 ug/L       0.10118      0.0400 ppb        0.10118 253.00%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              10.6      3.3848 ug/L       1.35283      3.3848 ppb        1.35283  39.97%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               21.9      0.7008 ug/L       2.37669      0.7008 ppb        2.37669 339.14%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              108.5      0.7941 ug/L       0.45365      0.7941 ppb        0.45365  57.13%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              -8.8     -0.0886 ug/L       0.12988     -0.0886 ppb        0.12988 146.52%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                   -19.9     -1.4407 ug/L       0.74504     -1.4407 ppb        0.74504  51.71%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 13
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 1/14/2010 12:56:37
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5080.6	5080.6	106	%			12:58:29
1	Y RADIAL	5380.4	5380.4	104.9	%			12:58:29
1	Al 396.153Radial†	6507.0	6139.8	4901.0	ug/L	4901.0	ppb	12:58:29
1	Ca 317.933Radial†	3156.1	2961.3	4986.6	ug/L	4986.6	ppb	12:58:49
1	Fe 238.204 Radial†	597.4	553.5	5218.4	ug/L	5218.4	ppb	12:58:49
1	K 766.490 Radial†	29634.5	25159.8	5034.1	ug/L	5034.1	ppb	12:58:29
1	Mg 279.077 IEC†	159.2	148.6	5216.5	ug/L	5216.5	ppb	12:58:49
1	Na 589.592 Radial†	32363.8	32088.0	10397	ug/L	10397	ppb	12:58:29
1	Sr 421.552†	76641.7	72260.7	515.03	ug/L	515.03	ppb	12:58:29
1	Sc 361.383	849249.7	849249.7	104.35	%			12:59:46
1	Y 371.029	702077.5	702077.5	102.35	%			12:59:46
1	Ag 328.068†	105680.6	100995.8	499.42	ug/L	499.42	ppb	12:59:52
1	As 188.979†	1158.5	1129.1	512.54	ug/L	512.54	ppb	13:00:12
1	B 249.677†	21496.9	21119.8	511.71	ug/L	511.71	ppb	12:59:52
1	Ba 233.527†	64066.6	61395.8	510.36	ug/L	510.36	ppb	12:59:52
1	Be 313.107†	1328516.2	1277475.7	508.52	ug/L	508.52	ppb	12:59:46
1	Cd 226.502†	45474.6	43777.4	512.98	ug/L	512.98	ppb	12:59:52
1	Co 228.616†	24661.8	23707.0	514.92	ug/L	514.92	ppb	12:59:52
1	Cr 267.716†	44904.7	42938.0	507.18	ug/L	507.18	ppb	12:59:52
1	Cu 324.752†	172012.6	158547.6	506.11	ug/L	506.11	ppb	12:59:52
1	Mn 257.610†	451814.7	432585.5	507.57	ug/L	507.57	ppb	12:59:46
1	Mo 202.031†	7168.7	6850.7	509.00	ug/L	509.00	ppb	13:00:12
1	Ni 231.604†	20328.4	19406.3	510.55	ug/L	510.55	ppb	12:59:52
1	P 214.914†	4426.4	4014.1	2463.1	ug/L	2463.1	ppb	13:00:12
1	Pb 220.353†	4085.9	3980.2	511.43	ug/L	511.43	ppb	13:00:12
1	S 181.975 Axial†	760.9	682.7	1018.0	ug/L	1018.0	ppb	13:00:12
1	Sb 206.836†	1483.8	1389.2	526.22	ug/L	526.22	ppb	13:00:12
1	Se 196.026†	802.3	799.2	553.36	ug/L	553.36	ppb	13:00:12
1	Si 251.611†	80538.0	76736.5	2581.0	ug/L	2581.0	ppb	12:59:52
1	Sn 189.927†	2891.9	2765.3	512.24	ug/L	512.24	ppb	13:00:12
1	Ti 334.940†	305591.4	294245.9	504.62	ug/L	504.62	ppb	12:59:52
1	Tl 190.801†	1621.2	1597.5	514.42	ug/L	514.42	ppb	13:00:12
1	U 409.014†	14944.0	16362.3	520.84	ug/L	520.84	ppb	12:59:52
1	V 292.402†	71858.1	70271.3	513.74	ug/L	513.74	ppb	12:59:52
1	Zn 213.857†	54888.1	51740.8	511.58	ug/L	511.58	ppb	12:59:52
1	SiO2†	79966.4	76178.4	5447.5	ug/L	5447.5	ppb	13:01:19
2	Sc Radial	5092.3	5092.3	106	%			12:58:54
2	Y RADIAL	5383.9	5383.9	105.0	%			12:58:54
2	Al 396.153Radial†	6534.5	6151.5	4910.5	ug/L	4910.5	ppb	12:58:54
2	Ca 317.933Radial†	3190.1	2986.4	5028.9	ug/L	5028.9	ppb	12:59:14
2	Fe 238.204 Radial†	599.8	554.5	5228.2	ug/L	5228.2	ppb	12:59:14
2	K 766.490 Radial†	29776.8	25229.3	5048.0	ug/L	5048.0	ppb	12:58:54
2	Mg 279.077 IEC†	160.4	149.4	5244.6	ug/L	5244.6	ppb	12:59:14
2	Na 589.592 Radial†	32318.8	31975.4	10360	ug/L	10360	ppb	12:58:54
2	Sr 421.552†	76821.6	72263.4	515.05	ug/L	515.05	ppb	12:58:54
2	Sc 361.383	853746.4	853746.4	104.90	%			13:00:17
2	Y 371.029	704533.1	704533.1	102.71	%			13:00:17
2	Ag 328.068†	106314.8	101066.9	499.78	ug/L	499.78	ppb	13:00:23
2	As 188.979†	1162.7	1127.2	511.73	ug/L	511.73	ppb	13:00:43
2	B 249.677†	21883.9	21380.2	518.04	ug/L	518.04	ppb	13:00:23
2	Ba 233.527†	64755.6	61729.2	513.13	ug/L	513.13	ppb	13:00:23
2	Be 313.107†	1327782.3	1270070.3	505.59	ug/L	505.59	ppb	13:00:17
2	Cd 226.502†	45921.1	43973.6	515.28	ug/L	515.28	ppb	13:00:23
2	Co 228.616†	24876.5	23787.2	516.65	ug/L	516.65	ppb	13:00:23
2	Cr 267.716†	45315.6	43103.1	509.13	ug/L	509.13	ppb	13:00:23
2	Cu 324.752†	174499.0	160049.6	510.91	ug/L	510.91	ppb	13:00:23
2	Mn 257.610†	452811.9	431255.5	506.01	ug/L	506.01	ppb	13:00:17
2	Mo 202.031†	7169.8	6815.6	506.39	ug/L	506.39	ppb	13:00:43
2	Ni 231.604†	20527.6	19493.5	512.84	ug/L	512.84	ppb	13:00:23

2	P 214.914†	4389.3	3956.4	2425.3 ug/L	2425.3 ppb	13:00:43
2	Pb 220.353†	4045.7	3921.3	503.88 ug/L	503.88 ppb	13:00:43
2	S 181.975 Axial†	781.7	698.7	1041.9 ug/L	1041.9 ppb	13:00:43
2	Sb 206.836†	1482.1	1380.1	522.77 ug/L	522.77 ppb	13:00:43
2	Se 196.026†	782.4	776.3	538.04 ug/L	538.04 ppb	13:00:43
2	Si 251.611†	81597.1	77339.6	2601.4 ug/L	2601.4 ppb	13:00:23
2	Sn 189.927†	2887.0	2746.0	508.69 ug/L	508.69 ppb	13:00:43
2	Ti 334.940†	309321.3	296259.1	508.08 ug/L	508.08 ppb	13:00:23
2	Tl 190.801†	1621.9	1590.0	512.04 ug/L	512.04 ppb	13:00:43
2	U 409.014†	15111.5	16446.5	523.53 ug/L	523.53 ppb	13:00:23
2	V 292.402†	72592.8	70608.9	516.14 ug/L	516.14 ppb	13:00:23
2	Zn 213.857†	55389.3	51941.6	513.56 ug/L	513.56 ppb	13:00:23
2	SiO2†	80432.2	76218.8	5450.5 ug/L	5450.5 ppb	13:01:24
3	Sc Radial	5142.0	5142.0	107 %		12:59:19
3	Y RADIAL	5465.4	5465.4	106.5 %		12:59:19
3	Al 396.153Radial†	6633.0	6183.8	4936.6 ug/L	4936.6 ppb	12:59:19
3	Ca 317.933Radial†	3165.0	2934.0	4940.7 ug/L	4940.7 ppb	12:59:39
3	Fe 238.204 Radial†	594.2	543.8	5127.6 ug/L	5127.6 ppb	12:59:39
3	K 766.490 Radial†	30044.7	25208.2	5043.8 ug/L	5043.8 ppb	12:59:19
3	Mg 279.077 IEC†	163.3	150.7	5289.9 ug/L	5289.9 ppb	12:59:39
3	Na 589.592 Radial†	32594.9	31938.9	10348 ug/L	10348 ppb	12:59:19
3	Sr 421.552†	77620.7	72309.7	515.38 ug/L	515.38 ppb	12:59:19
3	Sc 361.383	856662.7	856662.7	105.26 %		13:00:48
3	Y 371.029	708557.2	708557.2	103.29 %		13:00:48
3	Ag 328.068†	107652.8	101993.2	504.30 ug/L	504.30 ppb	13:00:53
3	As 188.979†	1159.2	1120.1	508.50 ug/L	508.50 ppb	13:01:14
3	B 249.677†	21767.1	21198.2	513.63 ug/L	513.63 ppb	13:00:53
3	Ba 233.527†	64600.5	61371.7	510.16 ug/L	510.16 ppb	13:00:53
3	Be 313.107†	1335950.0	1273521.1	506.95 ug/L	506.95 ppb	13:00:48
3	Cd 226.502†	45973.1	43874.0	514.12 ug/L	514.12 ppb	13:00:53
3	Co 228.616†	24867.3	23697.7	514.71 ug/L	514.71 ppb	13:00:53
3	Cr 267.716†	45301.7	42942.8	507.24 ug/L	507.24 ppb	13:00:53
3	Cu 324.752†	173686.9	158711.8	506.64 ug/L	506.64 ppb	13:00:53
3	Mn 257.610†	453916.2	430835.3	505.50 ug/L	505.50 ppb	13:00:48
3	Mo 202.031†	7171.4	6793.8	504.77 ug/L	504.77 ppb	13:01:14
3	Ni 231.604†	20545.3	19443.8	511.53 ug/L	511.53 ppb	13:00:53
3	P 214.914†	4394.1	3946.7	2420.1 ug/L	2420.1 ppb	13:01:14
3	Pb 220.353†	4055.2	3917.2	503.37 ug/L	503.37 ppb	13:01:14
3	S 181.975 Axial†	770.4	685.5	1022.1 ug/L	1022.1 ppb	13:01:14
3	Sb 206.836†	1490.2	1383.0	523.78 ug/L	523.78 ppb	13:01:14
3	Se 196.026†	792.3	783.0	542.24 ug/L	542.24 ppb	13:01:14
3	Si 251.611†	81272.0	76765.9	2582.1 ug/L	2582.1 ppb	13:00:53
3	Sn 189.927†	2894.7	2743.9	508.29 ug/L	508.29 ppb	13:01:14
3	Ti 334.940†	308645.2	294613.0	505.24 ug/L	505.24 ppb	13:00:53
3	Tl 190.801†	1610.6	1574.1	506.92 ug/L	506.92 ppb	13:01:14
3	U 409.014†	14887.3	16184.6	515.18 ug/L	515.18 ppb	13:00:53
3	V 292.402†	72649.4	70427.2	514.81 ug/L	514.81 ppb	13:00:53
3	Zn 213.857†	55308.3	51684.9	511.03 ug/L	511.03 ppb	13:00:53
3	SiO2†	79701.5	75263.6	5382.1 ug/L	5382.1 ppb	13:01:29

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	853219.6	104.84	%	0.459				0.44%
Sc Radial	5105.0	107	%	0.7				0.64%
Y 371.029	705055.9	102.78	%	0.477				0.46%
Y RADIAL	5409.9	105.5	%	0.94				0.89%
Ag 328.068†	101352.0	501.17	ug/L	2.720	501.17	ppb	2.720	0.54%
QC value within limits for Ag 328.068 Recovery = 100.23%								
Al 396.153Radial†	6158.4	4916.1	ug/L	18.40	4916.1	ppb	18.40	0.37%
QC value within limits for Al 396.153Radial Recovery = 98.32%								
As 188.979†	1125.5	510.92	ug/L	2.139	510.92	ppb	2.139	0.42%
QC value within limits for As 188.979 Recovery = 102.18%								
B 249.677†	21232.7	514.46	ug/L	3.246	514.46	ppb	3.246	0.63%
QC value within limits for B 249.677 Recovery = 102.89%								
Ba 233.527†	61498.9	511.22	ug/L	1.660	511.22	ppb	1.660	0.32%
QC value within limits for Ba 233.527 Recovery = 102.24%								
Be 313.107†	1273689.0	507.02	ug/L	1.468	507.02	ppb	1.468	0.29%
QC value within limits for Be 313.107 Recovery = 101.40%								
Ca 317.933Radial†	2960.6	4985.4	ug/L	44.12	4985.4	ppb	44.12	0.89%

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   QC value within limits for Ca 317.933Radial  Recovery = 99.71%
Cd 226.502†            43875.0      514.12 ug/L         1.150      514.12 ppb          1.150   0.22%
   QC value within limits for Cd 226.502  Recovery = 102.82%
Co 228.616†            23730.6      515.42 ug/L         1.064      515.42 ppb          1.064   0.21%
   QC value within limits for Co 228.616  Recovery = 103.08%
Cr 267.716†            42994.6      507.85 ug/L         1.109      507.85 ppb          1.109   0.22%
   QC value within limits for Cr 267.716  Recovery = 101.57%
Cu 324.752†           159103.0      507.89 ug/L         2.630      507.89 ppb          2.630   0.52%
   QC value within limits for Cu 324.752  Recovery = 101.58%
Fe 238.204 Radial†       550.6      5191.4 ug/L        55.45      5191.4 ppb         55.45   1.07%
   QC value within limits for Fe 238.204 Radial  Recovery = 103.83%
K 766.490 Radial†      25199.1      5042.0 ug/L         7.15      5042.0 ppb          7.15   0.14%
   QC value within limits for K 766.490 Radial  Recovery = 100.84%
Mg 279.077 IEC†          149.6      5250.3 ug/L        37.00      5250.3 ppb         37.00   0.70%
   QC value within limits for Mg 279.077 IEC  Recovery = 105.01%
Mn 257.610†           431558.8      506.36 ug/L         1.076      506.36 ppb          1.076   0.21%
   QC value within limits for Mn 257.610  Recovery = 101.27%
Mo 202.031†             6820.0      506.72 ug/L         2.134      506.72 ppb          2.134   0.42%
   QC value within limits for Mo 202.031  Recovery = 101.34%
Na 589.592 Radial†     32000.8       10368 ug/L         25.2        10368 ppb         25.2   0.24%
   QC value within limits for Na 589.592 Radial  Recovery = 103.68%
Ni 231.604†            19447.9      511.64 ug/L         1.152      511.64 ppb          1.152   0.23%
   QC value within limits for Ni 231.604  Recovery = 102.33%
P 214.914†              3972.4      2436.2 ug/L        23.49      2436.2 ppb         23.49   0.96%
   QC value within limits for P 214.914  Recovery = 97.45%
Pb 220.353†             3939.5      506.22 ug/L         4.518      506.22 ppb          4.518   0.89%
   QC value within limits for Pb 220.353  Recovery = 101.24%
S 181.975 Axial†         689.0      1027.3 ug/L        12.78      1027.3 ppb         12.78   1.24%
   QC value within limits for S 181.975 Axial  Recovery = 102.73%
Sb 206.836†             1384.1      524.26 ug/L         1.769      524.26 ppb          1.769   0.34%
   QC value within limits for Sb 206.836  Recovery = 104.85%
Se 196.026†              786.2      544.55 ug/L         7.919      544.55 ppb          7.919   1.45%
   QC value within limits for Se 196.026  Recovery = 108.91%
Si 251.611†            76947.3      2588.2 ug/L        11.47      2588.2 ppb         11.47   0.44%
   QC value within limits for Si 251.611  Recovery = 103.53%
Sn 189.927†             2751.7      509.74 ug/L         2.174      509.74 ppb          2.174   0.43%
   QC value within limits for Sn 189.927  Recovery = 101.95%
Sr 421.552†            72277.9      515.15 ug/L         0.197      515.15 ppb          0.197   0.04%
   QC value within limits for Sr 421.552  Recovery = 103.03%
Ti 334.940†           295039.3      505.98 ug/L         1.842      505.98 ppb          1.842   0.36%
   QC value within limits for Ti 334.940  Recovery = 101.20%
Tl 190.801†             1587.2      511.13 ug/L         3.833      511.13 ppb          3.833   0.75%
   QC value within limits for Tl 190.801  Recovery = 102.23%
U 409.014†             16331.1      519.85 ug/L         4.263      519.85 ppb          4.263   0.82%
   QC value within limits for U 409.014  Recovery = 103.97%
V 292.402†             70435.8      514.90 ug/L         1.202      514.90 ppb          1.202   0.23%
   QC value within limits for V 292.402  Recovery = 102.98%
Zn 213.857†            51789.1      512.06 ug/L         1.333      512.06 ppb          1.333   0.26%
   QC value within limits for Zn 213.857  Recovery = 102.41%
SiO2†                  75886.9      5426.7 ug/L        38.68      5426.7 ppb         38.68   0.71%
   QC value within limits for SiO2  Recovery = 101.48%
All analyte(s) passed QC.
```

Sequence No.: 14
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 1/14/2010 13:03:39
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4987.0	4987.0	104	%			13:05:32
1	Y RADIAL	5370.5	5370.5	104.7	%			13:05:32
1	Al 396.153Radial†	8.8	11.7	9.3202	ug/L	9.3202	ppb	13:05:32
1	Ca 317.933Radial†	14.3	-1.4	-2.3378	ug/L	-2.3378	ppb	13:05:52
1	Fe 238.204 Radial†	10.0	-0.3	-2.9480	ug/L	-2.9480	ppb	13:05:52
1	K 766.490 Radial†	3048.2	141.1	28.234	ug/L	28.234	ppb	13:05:32
1	Mg 279.077 IEC†	2.6	0.9	33.258	ug/L	33.258	ppb	13:05:52
1	Na 589.592 Radial†	-1312.7	305.7	99.050	ug/L	99.050	ppb	13:05:32
1	Sr 421.552†	19.4	1.4	0.0101	ug/L	0.0101	ppb	13:05:32
1	Sc 361.383	827537.7	827537.7	101.68	%			13:06:49
1	Y 371.029	696029.9	696029.9	101.47	%			13:06:49
1	Ag 328.068†	481.6	192.1	0.9458	ug/L	0.9458	ppb	13:06:49
1	As 188.979†	-21.3	-2.1	-0.9391	ug/L	-0.9391	ppb	13:07:09
1	B 249.677†	-247.9	274.7	6.6860	ug/L	6.6860	ppb	13:07:09
1	Ba 233.527†	-7.7	-9.0	-0.0739	ug/L	-0.0739	ppb	13:07:09
1	Be 313.107†	-4347.7	36.4	0.0150	ug/L	0.0150	ppb	13:06:49
1	Cd 226.502†	-175.2	25.3	0.2965	ug/L	0.2965	ppb	13:07:09
1	Co 228.616†	-74.1	-0.2	-0.0022	ug/L	-0.0022	ppb	13:07:09
1	Cr 267.716†	69.8	-27.1	-0.3183	ug/L	-0.3183	ppb	13:07:09
1	Cu 324.752†	6445.9	41.4	0.1325	ug/L	0.1325	ppb	13:06:49
1	Mn 257.610†	380.2	-30.4	-0.0373	ug/L	-0.0373	ppb	13:07:09
1	Mo 202.031†	31.9	12.1	0.8965	ug/L	0.8965	ppb	13:07:09
1	Ni 231.604†	88.1	11.5	0.3039	ug/L	0.3039	ppb	13:07:09
1	P 214.914†	221.7	-9.8	-6.2871	ug/L	-6.2871	ppb	13:07:09
1	Pb 220.353†	-68.7	-3.0	-0.3809	ug/L	-0.3809	ppb	13:07:09
1	S 181.975 Axial†	43.7	-3.5	-5.1640	ug/L	-5.1640	ppb	13:07:09
1	Sb 206.836†	37.9	4.5	1.6848	ug/L	1.6848	ppb	13:07:09
1	Se 196.026†	-31.4	-0.5	-0.3561	ug/L	-0.3561	ppb	13:07:09
1	Si 251.611†	436.3	-16.8	-0.5763	ug/L	-0.5763	ppb	13:07:09
1	Sn 189.927†	7.7	1.5	0.2716	ug/L	0.2716	ppb	13:07:09
1	Ti 334.940†	-1259.2	148.6	0.2525	ug/L	0.2525	ppb	13:06:49
1	Tl 190.801†	-26.9	17.4	5.5829	ug/L	5.5829	ppb	13:07:09
1	U 409.014†	-2107.1	-31.4	-1.0007	ug/L	-1.0007	ppb	13:06:49
1	V 292.402†	-1352.1	77.4	0.5701	ug/L	0.5701	ppb	13:06:49
1	Zn 213.857†	852.9	-21.5	-0.2164	ug/L	-0.2164	ppb	13:07:09
1	SiO2†	447.0	-16.6	-1.2124	ug/L	-1.2124	ppb	13:08:05
2	Sc Radial	5127.0	5127.0	107	%			13:05:57
2	Y RADIAL	5537.0	5537.0	107.9	%			13:05:57
2	Al 396.153Radial†	10.7	13.3	10.608	ug/L	10.608	ppb	13:05:57
2	Ca 317.933Radial†	12.9	-3.1	-5.2095	ug/L	-5.2095	ppb	13:06:17
2	Fe 238.204 Radial†	11.9	1.2	11.585	ug/L	11.585	ppb	13:06:17
2	K 766.490 Radial†	2916.5	-61.9	-12.438	ug/L	-12.438	ppb	13:05:57
2	Mg 279.077 IEC†	4.1	2.3	81.643	ug/L	81.643	ppb	13:06:17
2	Na 589.592 Radial†	-1370.2	286.5	92.818	ug/L	92.818	ppb	13:05:57
2	Sr 421.552†	4.5	-13.0	-0.0924	ug/L	-0.0924	ppb	13:05:57
2	Sc 361.383	850529.5	850529.5	104.50	%			13:07:14
2	Y 371.029	714886.0	714886.0	104.22	%			13:07:14
2	Ag 328.068†	392.9	94.4	0.4665	ug/L	0.4665	ppb	13:07:14
2	As 188.979†	-22.0	-2.2	-0.9730	ug/L	-0.9730	ppb	13:07:34
2	B 249.677†	-232.7	295.9	7.1993	ug/L	7.1993	ppb	13:07:34
2	Ba 233.527†	-13.3	-14.2	-0.1155	ug/L	-0.1155	ppb	13:07:34
2	Be 313.107†	-4394.5	107.2	0.0429	ug/L	0.0429	ppb	13:07:14
2	Cd 226.502†	-170.2	34.7	0.4064	ug/L	0.4064	ppb	13:07:34
2	Co 228.616†	-77.6	-1.6	-0.0323	ug/L	-0.0323	ppb	13:07:34
2	Cr 267.716†	87.4	-12.1	-0.1431	ug/L	-0.1431	ppb	13:07:34
2	Cu 324.752†	6299.7	-269.9	-0.8644	ug/L	-0.8644	ppb	13:07:14
2	Mn 257.610†	436.2	13.1	0.0132	ug/L	0.0132	ppb	13:07:34
2	Mo 202.031†	32.6	11.9	0.8820	ug/L	0.8820	ppb	13:07:34
2	Ni 231.604†	82.1	3.4	0.0894	ug/L	0.0894	ppb	13:07:34

2	P 214.914†	231.5	-6.4	-3.9080 ug/L	-3.9080 ppb	13:07:34
2	Pb 220.353†	-64.5	2.8	0.3673 ug/L	0.3673 ppb	13:07:34
2	S 181.975 Axial†	51.0	2.4	3.5500 ug/L	3.5500 ppb	13:07:34
2	Sb 206.836†	45.1	10.4	3.8114 ug/L	3.8114 ppb	13:07:34
2	Se 196.026†	-32.6	-0.9	-0.5380 ug/L	-0.5380 ppb	13:07:34
2	Si 251.611†	454.4	-11.1	-0.3854 ug/L	-0.3854 ppb	13:07:34
2	Sn 189.927†	3.1	-3.2	-0.5836 ug/L	-0.5836 ppb	13:07:34
2	Ti 334.940†	-1368.4	77.6	0.1232 ug/L	0.1232 ppb	13:07:14
2	Tl 190.801†	-30.8	14.4	4.6029 ug/L	4.6029 ppb	13:07:34
2	U 409.014†	-1932.3	191.9	6.1290 ug/L	6.1290 ppb	13:07:14
2	V 292.402†	-1328.5	135.9	1.0044 ug/L	1.0044 ppb	13:07:14
2	Zn 213.857†	860.7	-36.7	-0.3666 ug/L	-0.3666 ppb	13:07:34
2	SiO2†	483.1	6.1	0.4101 ug/L	0.4101 ppb	13:08:10
3	Sc Radial	5101.5	5101.5	106 %		13:06:22
3	Y RADIAL	5480.6	5480.6	106.8 %		13:06:22
3	Al 396.153Radial†	-4.9	-1.4	-1.0971 ug/L	-1.0971 ppb	13:06:22
3	Ca 317.933Radial†	16.0	-0.1	-0.1339 ug/L	-0.1339 ppb	13:06:42
3	Fe 238.204 Radial†	9.7	-0.8	-7.4898 ug/L	-7.4898 ppb	13:06:42
3	K 766.490 Radial†	2946.3	-20.3	-4.1110 ug/L	-4.1110 ppb	13:06:22
3	Mg 279.077 IEC†	3.2	1.5	53.318 ug/L	53.318 ppb	13:06:42
3	Na 589.592 Radial†	-1243.5	399.1	129.30 ug/L	129.30 ppb	13:06:22
3	Sr 421.552†	16.0	-2.2	-0.0155 ug/L	-0.0155 ppb	13:06:22
3	Sc 361.383	854914.3	854914.3	105.04 %		13:07:39
3	Y 371.029	718778.0	718778.0	104.78 %		13:07:39
3	Ag 328.068†	370.7	71.3	0.3440 ug/L	0.3440 ppb	13:07:39
3	As 188.979†	-17.3	2.4	1.0608 ug/L	1.0608 ppb	13:07:59
3	B 249.677†	-237.0	292.9	7.1295 ug/L	7.1295 ppb	13:07:59
3	Ba 233.527†	-10.5	-11.5	-0.0946 ug/L	-0.0946 ppb	13:07:59
3	Be 313.107†	-4327.1	192.9	0.0773 ug/L	0.0773 ppb	13:07:39
3	Cd 226.502†	-179.8	26.4	0.3113 ug/L	0.3113 ppb	13:07:59
3	Co 228.616†	-76.0	0.3	0.0068 ug/L	0.0068 ppb	13:07:59
3	Cr 267.716†	83.6	-16.2	-0.1929 ug/L	-0.1929 ppb	13:07:59
3	Cu 324.752†	6412.3	-193.6	-0.6222 ug/L	-0.6222 ppb	13:07:39
3	Mn 257.610†	407.8	-16.0	-0.0217 ug/L	-0.0217 ppb	13:07:59
3	Mo 202.031†	18.8	-1.4	-0.1081 ug/L	-0.1081 ppb	13:07:59
3	Ni 231.604†	84.6	5.4	0.1431 ug/L	0.1431 ppb	13:07:59
3	P 214.914†	218.0	-20.4	-12.856 ug/L	-12.856 ppb	13:07:59
3	Pb 220.353†	-56.3	11.0	1.4107 ug/L	1.4107 ppb	13:07:59
3	S 181.975 Axial†	41.3	-7.1	-10.600 ug/L	-10.600 ppb	13:07:59
3	Sb 206.836†	39.9	5.3	1.9291 ug/L	1.9291 ppb	13:07:59
3	Se 196.026†	-25.8	5.8	3.8715 ug/L	3.8715 ppb	13:07:59
3	Si 251.611†	444.8	-22.4	-0.7545 ug/L	-0.7545 ppb	13:07:59
3	Sn 189.927†	9.8	3.2	0.5928 ug/L	0.5928 ppb	13:07:59
3	Ti 334.940†	-1283.1	165.5	0.2766 ug/L	0.2766 ppb	13:07:39
3	Tl 190.801†	-35.3	10.3	3.3075 ug/L	3.3075 ppb	13:07:59
3	U 409.014†	-1918.3	214.8	6.8610 ug/L	6.8610 ppb	13:07:39
3	V 292.402†	-1424.5	51.0	0.3814 ug/L	0.3814 ppb	13:07:39
3	Zn 213.857†	870.7	-31.4	-0.3126 ug/L	-0.3126 ppb	13:07:59
3	SiO2†	467.5	-11.2	-0.7987 ug/L	-0.7987 ppb	13:08:15

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	844327.2	103.74	%	1.807				1.74%
Sc Radial	5071.8	106	%	1.6				1.47%
Y 371.029	709898.0	103.49	%	1.774				1.71%
Y RADIAL	5462.7	106.5	%	1.65				1.55%
Ag 328.068†	119.3	0.5854	ug/L	0.31803	0.5854	ppb	0.31803	54.33%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	7.9	6.2771	ug/L	6.41864	6.2771	ppb	6.41864	102.26%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-0.6	-0.2838	ug/L	1.16453	-0.2838	ppb	1.16453	410.36%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	287.8	7.0049	ug/L	0.27842	7.0049	ppb	0.27842	3.97%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-11.6	-0.0947	ug/L	0.02083	-0.0947	ppb	0.02083	22.01%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	112.2	0.0451	ug/L	0.03118	0.0451	ppb	0.03118	69.19%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-1.5	-2.5604	ug/L	2.54515	-2.5604	ppb	2.54515	99.40%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                28.8      0.3381 ug/L       0.05966      0.3381 ppb        0.05966  17.65%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                -0.5     -0.0093 ug/L       0.02048     -0.0093 ppb        0.02048 220.99%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†               -18.4     -0.2181 ug/L       0.09028     -0.2181 ppb        0.09028  41.39%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -140.7     -0.4513 ug/L       0.51994     -0.4513 ppb        0.51994 115.20%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          0.0      0.3822 ug/L       9.96375      0.3822 ppb        9.96375 >999.9%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          19.6      3.8950 ug/L      21.48524      3.8950 ppb       21.48524 551.61%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             1.6      56.073 ug/L       24.3103      56.073 ppb        24.3103  43.35%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               -11.1     -0.0153 ug/L       0.02586     -0.0153 ppb        0.02586 169.23%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 7.5      0.5568 ug/L       0.57588      0.5568 ppb        0.57588 103.43%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        330.4      107.06 ug/L        19.514      107.06 ppb         19.514  18.23%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                 6.8      0.1788 ug/L       0.11161      0.1788 ppb        0.11161  62.42%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -12.2     -7.6838 ug/L       4.63482     -7.6838 ppb        4.63482  60.32%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                 3.6      0.4657 ug/L       0.89983      0.4657 ppb        0.89983 193.21%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -2.7     -4.0713 ug/L       7.13795     -4.0713 ppb        7.13795 175.32%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 6.7      2.4751 ug/L       1.16372      2.4751 ppb        1.16372  47.02%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 1.5      0.9925 ug/L       2.49497      0.9925 ppb        2.49497 251.38%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†               -16.8     -0.5721 ug/L       0.18458     -0.5721 ppb        0.18458  32.26%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 0.5      0.0936 ug/L       0.60806      0.0936 ppb        0.60806 649.65%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                -4.6     -0.0326 ug/L       0.05335     -0.0326 ppb        0.05335 163.58%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               130.6      0.2174 ug/L       0.08252      0.2174 ppb        0.08252  37.96%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                14.1      4.4978 ug/L       1.14135      4.4978 ppb        1.14135  25.38%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                125.1      3.9964 ug/L       4.34310      3.9964 ppb        4.34310 108.67%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 88.1      0.6520 ug/L       0.31950      0.6520 ppb        0.31950  49.01%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               -29.9     -0.2985 ug/L       0.07610     -0.2985 ppb        0.07610  25.49%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                      -7.2     -0.5336 ug/L       0.84312     -0.5336 ppb        0.84312 157.99%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

User canceled analysis.

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Analysis Begun

Start Time: 1/14/2010 14:19:45 **Plasma On Time: 1/11/2010 06:15:31**
Logged In Analyst: Optima3 **Technique: ICP Continuous**
Spectrometer Model: Optima 5300 DV, S/N 077C7090601Autosampler Model: S10

Sample Information File: C:\pe\Optima3\Sample Information\011410.sif
Batch ID:
Results Data Set: 011410
Results Library: C:\pe\Optima3\Results\Results.mdb

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Sequence No.: 8 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 1/14/2010 14:19:46**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5299.2	5299.2	111	%			14:21:38
1	Y RADIAL	5597.1	5597.1	109.1	%			14:21:38
1	Al 396.153Radial†	6499.8	5880.1	4693.7	ug/L	4693.7	ppb	14:21:38
1	Ca 317.933Radial†	3184.5	2864.2	4823.1	ug/L	4823.1	ppb	14:21:58
1	Fe 238.204 Radial†	593.9	527.1	4969.9	ug/L	4969.9	ppb	14:21:58
1	K 766.490 Radial†	29695.7	24062.2	4814.5	ug/L	4814.5	ppb	14:21:38
1	Mg 279.077 IEC†	157.3	140.7	4938.7	ug/L	4938.7	ppb	14:21:58
1	Na 589.592 Radial†	32039.0	30535.3	9893.6	ug/L	9893.6	ppb	14:21:38
1	Sr 421.552†	76899.3	69512.1	495.44	ug/L	495.44	ppb	14:21:38
1	Sc 361.383	884305.8	884305.8	108.66	%			14:22:56
1	Y 371.029	730225.6	730225.6	106.45	%			14:22:56
1	Ag 328.068†	107664.7	98807.0	488.53	ug/L	488.53	ppb	14:23:01
1	As 188.979†	1165.5	1091.5	495.49	ug/L	495.49	ppb	14:23:21
1	B 249.677†	21705.0	20494.6	496.58	ug/L	496.58	ppb	14:23:01
1	Ba 233.527†	64479.2	59341.5	493.29	ug/L	493.29	ppb	14:23:01
1	Be 313.107†	1339129.0	1236771.8	492.33	ug/L	492.33	ppb	14:22:56
1	Cd 226.502†	45442.1	42019.9	492.39	ug/L	492.39	ppb	14:23:01
1	Co 228.616†	24864.3	22956.4	498.60	ug/L	498.60	ppb	14:23:01
1	Cr 267.716†	45240.4	41541.0	490.67	ug/L	490.67	ppb	14:23:01
1	Cu 324.752†	174942.6	154709.3	493.85	ug/L	493.85	ppb	14:23:01
1	Mn 257.610†	455171.9	418510.5	491.05	ug/L	491.05	ppb	14:22:56
1	Mo 202.031†	7167.4	6577.1	488.67	ug/L	488.67	ppb	14:23:21
1	Ni 231.604†	20482.3	18775.6	493.95	ug/L	493.95	ppb	14:23:01
1	P 214.914†	4382.8	3805.8	2332.6	ug/L	2332.6	ppb	14:23:21
1	Pb 220.353†	4040.8	3783.5	486.17	ug/L	486.17	ppb	14:23:21
1	S 181.975 Axial†	773.6	665.6	992.41	ug/L	992.41	ppb	14:23:21
1	Sb 206.836†	1494.5	1342.7	508.43	ug/L	508.43	ppb	14:23:21
1	Se 196.026†	776.2	744.8	516.07	ug/L	516.07	ppb	14:23:21
1	Si 251.611†	81310.2	74387.5	2502.1	ug/L	2502.1	ppb	14:23:01
1	Sn 189.927†	2879.1	2643.6	489.72	ug/L	489.72	ppb	14:23:21
1	Ti 334.940†	309731.8	286446.9	491.25	ug/L	491.25	ppb	14:23:01
1	Tl 190.801†	1627.8	1542.0	496.58	ug/L	496.58	ppb	14:23:21
1	U 409.014†	15387.1	16202.4	515.80	ug/L	515.80	ppb	14:23:01
1	V 292.402†	72457.5	68093.0	497.78	ug/L	497.78	ppb	14:23:01
1	Zn 213.857†	55167.2	49912.5	493.50	ug/L	493.50	ppb	14:23:01
1	SiO2†	80213.4	73367.7	5246.6	ug/L	5246.6	ppb	14:24:28
2	Sc Radial	5320.4	5320.4	111	%			14:22:03
2	Y RADIAL	5674.7	5674.7	110.6	%			14:22:03
2	Al 396.153Radial†	6540.6	5893.4	4704.2	ug/L	4704.2	ppb	14:22:03
2	Ca 317.933Radial†	3169.2	2838.8	4780.4	ug/L	4780.4	ppb	14:22:23
2	Fe 238.204 Radial†	592.6	523.8	4939.0	ug/L	4939.0	ppb	14:22:23
2	K 766.490 Radial†	29566.9	23839.0	4769.8	ug/L	4769.8	ppb	14:22:03
2	Mg 279.077 IEC†	160.0	142.6	5006.0	ug/L	5006.0	ppb	14:22:23
2	Na 589.592 Radial†	31893.6	30288.7	9813.7	ug/L	9813.7	ppb	14:22:03
2	Sr 421.552†	76846.6	69186.9	493.12	ug/L	493.12	ppb	14:22:03
2	Sc 361.383	878170.1	878170.1	107.90	%			14:23:26

2	Y 371.029	725074.6	725074.6	105.70 %		14:23:26
2	Ag 328.068†	107229.6	99096.1	489.95 ug/L	489.95 ppb	14:23:32
2	As 188.979†	1144.6	1079.6	490.15 ug/L	490.15 ppb	14:23:52
2	B 249.677†	21655.4	20588.2	498.87 ug/L	498.87 ppb	14:23:32
2	Ba 233.527†	64349.9	59636.4	495.74 ug/L	495.74 ppb	14:23:32
2	Be 313.107†	1333400.6	1240074.0	493.64 ug/L	493.64 ppb	14:23:26
2	Cd 226.502†	45296.2	42176.9	494.24 ug/L	494.24 ppb	14:23:32
2	Co 228.616†	24699.3	22963.4	498.76 ug/L	498.76 ppb	14:23:32
2	Cr 267.716†	45139.9	41738.7	493.01 ug/L	493.01 ppb	14:23:32
2	Cu 324.752†	174556.7	155476.7	496.30 ug/L	496.30 ppb	14:23:32
2	Mn 257.610†	453256.0	419661.8	492.39 ug/L	492.39 ppb	14:23:26
2	Mo 202.031†	7167.5	6623.3	492.09 ug/L	492.09 ppb	14:23:52
2	Ni 231.604†	20442.3	18870.3	496.45 ug/L	496.45 ppb	14:23:32
2	P 214.914†	4363.0	3815.6	2338.4 ug/L	2338.4 ppb	14:23:52
2	Pb 220.353†	4028.9	3798.5	488.10 ug/L	488.10 ppb	14:23:52
2	S 181.975 Axial†	763.6	661.3	985.97 ug/L	985.97 ppb	14:23:52
2	Sb 206.836†	1487.5	1345.8	509.66 ug/L	509.66 ppb	14:23:52
2	Se 196.026†	782.5	755.6	523.23 ug/L	523.23 ppb	14:23:52
2	Si 251.611†	81051.1	74670.2	2511.6 ug/L	2511.6 ppb	14:23:32
2	Sn 189.927†	2868.8	2652.6	491.37 ug/L	491.37 ppb	14:23:52
2	Ti 334.940†	309374.9	288107.8	494.09 ug/L	494.09 ppb	14:23:32
2	Tl 190.801†	1614.0	1539.7	495.87 ug/L	495.87 ppb	14:23:52
2	U 409.014†	15395.7	16309.3	519.21 ug/L	519.21 ppb	14:23:32
2	V 292.402†	72461.6	68562.7	501.23 ug/L	501.23 ppb	14:23:32
2	Zn 213.857†	55040.1	50149.5	495.84 ug/L	495.84 ppb	14:23:32
2	SiO2†	81544.2	75116.9	5371.9 ug/L	5371.9 ppb	14:24:33
3	Sc Radial	5241.9	5241.9	109 %		14:22:28
3	Y RADIAL	5584.5	5584.5	108.9 %		14:22:28
3	Al 396.153Radial†	6452.4	5901.1	4710.6 ug/L	4710.6 ppb	14:22:28
3	Ca 317.933Radial†	3122.3	2838.7	4780.3 ug/L	4780.3 ppb	14:22:48
3	Fe 238.204 Radial†	583.8	523.8	4938.4 ug/L	4938.4 ppb	14:22:48
3	K 766.490 Radial†	29233.5	23933.3	4788.7 ug/L	4788.7 ppb	14:22:28
3	Mg 279.077 IEC†	157.3	142.3	4995.7 ug/L	4995.7 ppb	14:22:48
3	Na 589.592 Radial†	31557.7	30412.1	9853.7 ug/L	9853.7 ppb	14:22:28
3	Sr 421.552†	76113.8	69554.3	495.74 ug/L	495.74 ppb	14:22:28
3	Sc 361.383	883226.4	883226.4	108.52 %		14:23:57
3	Y 371.029	730246.7	730246.7	106.46 %		14:23:57
3	Ag 328.068†	104918.0	96397.1	476.66 ug/L	476.66 ppb	14:24:03
3	As 188.979†	1150.8	1079.3	489.92 ug/L	489.92 ppb	14:24:23
3	B 249.677†	21313.1	20157.9	488.42 ug/L	488.42 ppb	14:24:03
3	Ba 233.527†	63364.8	58387.2	485.36 ug/L	485.36 ppb	14:24:03
3	Be 313.107†	1343105.2	1241942.0	494.36 ug/L	494.36 ppb	14:23:57
3	Cd 226.502†	44641.6	41333.4	484.34 ug/L	484.34 ppb	14:24:03
3	Co 228.616†	24372.0	22530.7	489.37 ug/L	489.37 ppb	14:24:03
3	Cr 267.716†	44452.4	40865.7	482.70 ug/L	482.70 ppb	14:24:03
3	Cu 324.752†	170965.7	151241.5	482.78 ug/L	482.78 ppb	14:24:03
3	Mn 257.610†	454989.9	418854.8	491.45 ug/L	491.45 ppb	14:23:57
3	Mo 202.031†	7141.6	6561.5	487.50 ug/L	487.50 ppb	14:24:23
3	Ni 231.604†	20126.9	18471.2	485.95 ug/L	485.95 ppb	14:24:03
3	P 214.914†	4313.7	3747.1	2297.3 ug/L	2297.3 ppb	14:24:23
3	Pb 220.353†	4020.0	3768.9	484.31 ug/L	484.31 ppb	14:24:23
3	S 181.975 Axial†	766.0	659.4	983.17 ug/L	983.17 ppb	14:24:23
3	Sb 206.836†	1483.2	1334.0	505.15 ug/L	505.15 ppb	14:24:23
3	Se 196.026†	769.7	739.6	512.52 ug/L	512.52 ppb	14:24:23
3	Si 251.611†	79525.8	72834.7	2449.7 ug/L	2449.7 ppb	14:24:03
3	Sn 189.927†	2844.2	2614.7	484.36 ug/L	484.36 ppb	14:24:23
3	Ti 334.940†	303939.9	281458.2	482.69 ug/L	482.69 ppb	14:24:03
3	Tl 190.801†	1608.8	1526.3	491.56 ug/L	491.56 ppb	14:24:23
3	U 409.014†	15089.8	15945.7	507.62 ug/L	507.62 ppb	14:24:03
3	V 292.402†	71260.8	67071.8	490.40 ug/L	490.40 ppb	14:24:03
3	Zn 213.857†	54067.4	48961.1	484.08 ug/L	484.08 ppb	14:24:03
3	SiO2†	80978.6	74163.0	5303.6 ug/L	5303.6 ppb	14:24:38

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	881900.8	108.36	%	0.402				0.37%
Sc Radial	5287.2	110	%	0.8				0.77%
Y 371.029	728515.6	106.20	%	0.434				0.41%
Y RADIAL	5618.8	109.5	%	0.95				0.87%

Ag 328.068†	98100.1	485.05 ug/L	7.299	485.05 ppb	7.299	1.50%
QC value within limits for Ag 328.068 Recovery = 97.01%						
Al 396.153Radial†	5891.5	4702.8 ug/L	8.53	4702.8 ppb	8.53	0.18%
QC value within limits for Al 396.153Radial Recovery = 94.06%						
As 188.979†	1083.5	491.85 ug/L	3.152	491.85 ppb	3.152	0.64%
QC value within limits for As 188.979 Recovery = 98.37%						
B 249.677†	20413.6	494.62 ug/L	5.492	494.62 ppb	5.492	1.11%
QC value within limits for B 249.677 Recovery = 98.92%						
Ba 233.527†	59121.7	491.46 ug/L	5.426	491.46 ppb	5.426	1.10%
QC value within limits for Ba 233.527 Recovery = 98.29%						
Be 313.107†	1239595.9	493.44 ug/L	1.032	493.44 ppb	1.032	0.21%
QC value within limits for Be 313.107 Recovery = 98.69%						
Ca 317.933Radial†	2847.2	4794.6 ug/L	24.69	4794.6 ppb	24.69	0.51%
QC value within limits for Ca 317.933Radial Recovery = 95.89%						
Cd 226.502†	41843.4	490.32 ug/L	5.262	490.32 ppb	5.262	1.07%
QC value within limits for Cd 226.502 Recovery = 98.06%						
Co 228.616†	22816.9	495.58 ug/L	5.374	495.58 ppb	5.374	1.08%
QC value within limits for Co 228.616 Recovery = 99.12%						
Cr 267.716†	41381.8	488.80 ug/L	5.406	488.80 ppb	5.406	1.11%
QC value within limits for Cr 267.716 Recovery = 97.76%						
Cu 324.752†	153809.2	490.98 ug/L	7.200	490.98 ppb	7.200	1.47%
QC value within limits for Cu 324.752 Recovery = 98.20%						
Fe 238.204 Radial†	524.9	4949.1 ug/L	18.04	4949.1 ppb	18.04	0.36%
QC value within limits for Fe 238.204 Radial Recovery = 98.98%						
K 766.490 Radial†	23944.9	4791.0 ug/L	22.43	4791.0 ppb	22.43	0.47%
QC value within limits for K 766.490 Radial Recovery = 95.82%						
Mg 279.077 IEC†	141.9	4980.1 ug/L	36.25	4980.1 ppb	36.25	0.73%
QC value within limits for Mg 279.077 IEC Recovery = 99.60%						
Mn 257.610†	419009.0	491.63 ug/L	0.690	491.63 ppb	0.690	0.14%
QC value within limits for Mn 257.610 Recovery = 98.33%						
Mo 202.031†	6587.3	489.42 ug/L	2.387	489.42 ppb	2.387	0.49%
QC value within limits for Mo 202.031 Recovery = 97.88%						
Na 589.592 Radial†	30412.0	9853.7 ug/L	39.95	9853.7 ppb	39.95	0.41%
QC value within limits for Na 589.592 Radial Recovery = 98.54%						
Ni 231.604†	18705.7	492.12 ug/L	5.486	492.12 ppb	5.486	1.11%
QC value within limits for Ni 231.604 Recovery = 98.42%						
P 214.914†	3789.5	2322.8 ug/L	22.25	2322.8 ppb	22.25	0.96%
QC value within limits for P 214.914 Recovery = 92.91%						
Pb 220.353†	3783.6	486.20 ug/L	1.896	486.20 ppb	1.896	0.39%
QC value within limits for Pb 220.353 Recovery = 97.24%						
S 181.975 Axial†	662.1	987.18 ug/L	4.737	987.18 ppb	4.737	0.48%
QC value within limits for S 181.975 Axial Recovery = 98.72%						
Sb 206.836†	1340.8	507.75 ug/L	2.331	507.75 ppb	2.331	0.46%
QC value within limits for Sb 206.836 Recovery = 101.55%						
Se 196.026†	746.7	517.27 ug/L	5.455	517.27 ppb	5.455	1.05%
QC value within limits for Se 196.026 Recovery = 103.45%						
Si 251.611†	73964.1	2487.8 ug/L	33.30	2487.8 ppb	33.30	1.34%
QC value within limits for Si 251.611 Recovery = 99.51%						
Sn 189.927†	2637.0	488.48 ug/L	3.663	488.48 ppb	3.663	0.75%
QC value within limits for Sn 189.927 Recovery = 97.70%						
Sr 421.552†	69417.8	494.77 ug/L	1.433	494.77 ppb	1.433	0.29%
QC value within limits for Sr 421.552 Recovery = 98.95%						
Ti 334.940†	285337.6	489.34 ug/L	5.934	489.34 ppb	5.934	1.21%
QC value within limits for Ti 334.940 Recovery = 97.87%						
Tl 190.801†	1536.0	494.67 ug/L	2.721	494.67 ppb	2.721	0.55%
QC value within limits for Tl 190.801 Recovery = 98.93%						
U 409.014†	16152.5	514.21 ug/L	5.955	514.21 ppb	5.955	1.16%
QC value within limits for U 409.014 Recovery = 102.84%						
V 292.402†	67909.2	496.47 ug/L	5.531	496.47 ppb	5.531	1.11%
QC value within limits for V 292.402 Recovery = 99.29%						
Zn 213.857†	49674.4	491.14 ug/L	6.227	491.14 ppb	6.227	1.27%
QC value within limits for Zn 213.857 Recovery = 98.23%						
SiO2†	74215.9	5307.4 ug/L	62.74	5307.4 ppb	62.74	1.18%
QC value within limits for SiO2 Recovery = 99.25%						

All analyte(s) passed QC.

Sequence No.: 9
Sample ID: PQL
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 11
Date Collected: 1/14/2010 14:26:49
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: PQL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5329.2	5329.2	111	%			14:28:42
1	Y RADIAL	5698.1	5698.1	111.1	%			14:28:42
1	Al 396.153Radial†	240.3	219.3	175.46	ug/L	175.46	ppb	14:28:42
1	Ca 317.933Radial†	150.4	120.1	202.23	ug/L	202.23	ppb	14:29:02
1	Fe 238.204 Radial†	22.9	10.7	100.45	ug/L	100.45	ppb	14:29:02
1	K 766.490 Radial†	3645.3	490.0	97.913	ug/L	97.913	ppb	14:28:42
1	Mg 279.077 IEC†	11.0	8.4	293.54	ug/L	293.54	ppb	14:29:02
1	Na 589.592 Radial†	-282.0	1313.4	425.55	ug/L	425.55	ppb	14:28:42
1	Sr 421.552†	779.6	683.7	4.8717	ug/L	4.8717	ppb	14:28:42
1	Sc 361.383	895366.8	895366.8	110.01	%			14:29:59
1	Y 371.029	752624.5	752624.5	109.72	%			14:29:59
1	Ag 328.068†	1493.2	1075.7	5.2877	ug/L	5.2877	ppb	14:29:59
1	As 188.979†	49.4	63.8	28.757	ug/L	28.757	ppb	14:30:19
1	B 249.677†	1914.9	2259.1	54.953	ug/L	54.953	ppb	14:29:59
1	Ba 233.527†	646.5	586.2	4.8766	ug/L	4.8766	ppb	14:30:19
1	Be 313.107†	9192.6	12668.1	5.0435	ug/L	5.0435	ppb	14:29:59
1	Cd 226.502†	269.8	442.8	5.1954	ug/L	5.1954	ppb	14:30:19
1	Co 228.616†	175.9	232.5	5.0605	ug/L	5.0605	ppb	14:30:19
1	Cr 267.716†	537.4	392.7	4.6188	ug/L	4.6188	ppb	14:30:19
1	Cu 324.752†	9904.8	2705.1	8.6063	ug/L	8.6063	ppb	14:29:59
1	Mn 257.610†	9996.7	8682.5	10.179	ug/L	10.179	ppb	14:29:59
1	Mo 202.031†	165.9	131.5	9.7716	ug/L	9.7716	ppb	14:30:19
1	Ni 231.604†	300.9	198.4	5.2204	ug/L	5.2204	ppb	14:30:19
1	P 214.914†	452.5	183.5	115.42	ug/L	115.42	ppb	14:30:19
1	Pb 220.353†	17.0	80.0	10.298	ug/L	10.298	ppb	14:30:19
1	S 181.975 Axial†	119.1	61.8	92.150	ug/L	92.150	ppb	14:30:19
1	Sb 206.836†	66.5	27.7	10.481	ug/L	10.481	ppb	14:30:19
1	Se 196.026†	25.8	53.8	36.351	ug/L	36.351	ppb	14:30:19
1	Si 251.611†	3781.1	2991.0	100.73	ug/L	100.73	ppb	14:29:59
1	Sn 189.927†	65.5	53.5	9.9195	ug/L	9.9195	ppb	14:30:19
1	Ti 334.940†	1893.3	3108.0	5.3060	ug/L	5.3060	ppb	14:29:59
1	Tl 190.801†	36.6	77.2	24.757	ug/L	24.757	ppb	14:30:19
1	U 409.014†	-98.8	1951.1	62.292	ug/L	62.292	ppb	14:29:59
1	V 292.402†	-648.3	817.8	6.1406	ug/L	6.1406	ppb	14:29:59
1	Zn 213.857†	1763.3	742.5	7.3506	ug/L	7.3506	ppb	14:30:19
1	SiO2†	3717.7	2923.1	209.30	ug/L	209.30	ppb	14:31:15
2	Sc Radial	5330.3	5330.3	111	%			14:29:07
2	Y RADIAL	5708.1	5708.1	111.3	%			14:29:07
2	Al 396.153Radial†	279.2	254.2	203.47	ug/L	203.47	ppb	14:29:07
2	Ca 317.933Radial†	153.2	122.6	206.38	ug/L	206.38	ppb	14:29:27
2	Fe 238.204 Radial†	20.6	8.7	81.470	ug/L	81.470	ppb	14:29:27
2	K 766.490 Radial†	3635.8	480.7	96.065	ug/L	96.065	ppb	14:29:07
2	Mg 279.077 IEC†	11.7	9.0	316.87	ug/L	316.87	ppb	14:29:27
2	Na 589.592 Radial†	-354.0	1248.8	404.61	ug/L	404.61	ppb	14:29:07
2	Sr 421.552†	819.2	719.1	5.1243	ug/L	5.1243	ppb	14:29:07
2	Sc 361.383	901922.6	901922.6	110.82	%			14:30:24
2	Y 371.029	757947.1	757947.1	110.49	%			14:30:24
2	Ag 328.068†	1464.9	1040.3	5.1020	ug/L	5.1020	ppb	14:30:24
2	As 188.979†	50.8	64.7	29.150	ug/L	29.150	ppb	14:30:44
2	B 249.677†	1929.5	2259.6	54.970	ug/L	54.970	ppb	14:30:24
2	Ba 233.527†	643.9	579.6	4.8209	ug/L	4.8209	ppb	14:30:44
2	Be 313.107†	9291.8	12696.9	5.0548	ug/L	5.0548	ppb	14:30:24
2	Cd 226.502†	264.2	436.0	5.1176	ug/L	5.1176	ppb	14:30:44
2	Co 228.616†	165.7	222.2	4.8360	ug/L	4.8360	ppb	14:30:44
2	Cr 267.716†	525.9	378.9	4.4523	ug/L	4.4523	ppb	14:30:44
2	Cu 324.752†	9988.7	2715.5	8.6352	ug/L	8.6352	ppb	14:30:24
2	Mn 257.610†	10022.9	8640.1	10.127	ug/L	10.127	ppb	14:30:24
2	Mo 202.031†	168.7	132.9	9.8737	ug/L	9.8737	ppb	14:30:44
2	Ni 231.604†	285.7	182.7	4.8071	ug/L	4.8071	ppb	14:30:44

2	P 214.914†	464.3	191.1	120.33 ug/L	120.33 ppb	14:30:44
2	Pb 220.353†	31.8	93.2	12.001 ug/L	12.001 ppb	14:30:44
2	S 181.975 Axial†	121.1	62.8	93.711 ug/L	93.711 ppb	14:30:44
2	Sb 206.836†	72.3	32.5	12.225 ug/L	12.225 ppb	14:30:44
2	Se 196.026†	17.5	46.2	31.191 ug/L	31.191 ppb	14:30:44
2	Si 251.611†	3803.9	2986.6	100.58 ug/L	100.58 ppb	14:30:24
2	Sn 189.927†	62.7	50.4	9.3625 ug/L	9.3625 ppb	14:30:44
2	Ti 334.940†	1859.4	3064.9	5.2284 ug/L	5.2284 ppb	14:30:24
2	Tl 190.801†	35.6	76.0	24.375 ug/L	24.375 ppb	14:30:44
2	U 409.014†	96.2	2127.8	67.936 ug/L	67.936 ppb	14:30:24
2	V 292.402†	-681.6	792.1	5.9706 ug/L	5.9706 ppb	14:30:24
2	Zn 213.857†	1760.1	727.9	7.2096 ug/L	7.2096 ppb	14:30:44
2	SiO2†	3774.6	2949.8	211.21 ug/L	211.21 ppb	14:31:20
3	Sc Radial	5441.1	5441.1	114 %		14:29:32
3	Y RADIAL	5814.8	5814.8	113.4 %		14:29:32
3	Al 396.153Radial†	251.2	224.5	179.60 ug/L	179.60 ppb	14:29:32
3	Ca 317.933Radial†	153.3	119.9	201.87 ug/L	201.87 ppb	14:29:52
3	Fe 238.204 Radial†	24.1	11.3	106.61 ug/L	106.61 ppb	14:29:52
3	K 766.490 Radial†	3596.7	379.8	75.840 ug/L	75.840 ppb	14:29:32
3	Mg 279.077 IEC†	12.4	9.4	331.64 ug/L	331.64 ppb	14:29:52
3	Na 589.592 Radial†	-317.2	1287.6	417.19 ug/L	417.19 ppb	14:29:32
3	Sr 421.552†	825.9	710.0	5.0596 ug/L	5.0596 ppb	14:29:32
3	Sc 361.383	889612.0	889612.0	109.31 %		14:30:50
3	Y 371.029	749218.6	749218.6	109.22 %		14:30:50
3	Ag 328.068†	1511.4	1101.1	5.4175 ug/L	5.4175 ppb	14:30:50
3	As 188.979†	50.3	64.9	29.250 ug/L	29.250 ppb	14:31:10
3	B 249.677†	1941.2	2294.5	55.813 ug/L	55.813 ppb	14:30:50
3	Ba 233.527†	648.6	591.9	4.9251 ug/L	4.9251 ppb	14:31:10
3	Be 313.107†	9118.5	12654.3	5.0381 ug/L	5.0381 ppb	14:30:50
3	Cd 226.502†	260.7	436.0	5.1142 ug/L	5.1142 ppb	14:31:10
3	Co 228.616†	175.4	233.2	5.0759 ug/L	5.0759 ppb	14:31:10
3	Cr 267.716†	525.7	385.2	4.5316 ug/L	4.5316 ppb	14:31:10
3	Cu 324.752†	9952.2	2806.8	8.9319 ug/L	8.9319 ppb	14:30:50
3	Mn 257.610†	9864.1	8619.9	10.105 ug/L	10.105 ppb	14:30:50
3	Mo 202.031†	172.1	138.1	10.262 ug/L	10.262 ppb	14:31:10
3	Ni 231.604†	279.1	180.2	4.7410 ug/L	4.7410 ppb	14:31:10
3	P 214.914†	468.7	200.9	126.51 ug/L	126.51 ppb	14:31:10
3	Pb 220.353†	14.1	77.5	9.9782 ug/L	9.9782 ppb	14:31:10
3	S 181.975 Axial†	122.7	65.8	98.131 ug/L	98.131 ppb	14:31:10
3	Sb 206.836†	70.0	31.3	11.791 ug/L	11.791 ppb	14:31:10
3	Se 196.026†	18.5	47.3	32.048 ug/L	32.048 ppb	14:31:10
3	Si 251.611†	3726.9	2963.7	99.799 ug/L	99.799 ppb	14:30:50
3	Sn 189.927†	60.8	49.5	9.1832 ug/L	9.1832 ppb	14:31:10
3	Ti 334.940†	1891.6	3117.5	5.3198 ug/L	5.3198 ppb	14:30:50
3	Tl 190.801†	32.2	73.3	23.520 ug/L	23.520 ppb	14:31:10
3	U 409.014†	-139.6	1913.3	61.083 ug/L	61.083 ppb	14:30:50
3	V 292.402†	-560.1	894.7	6.6999 ug/L	6.6999 ppb	14:30:50
3	Zn 213.857†	1769.7	758.6	7.5135 ug/L	7.5135 ppb	14:31:10
3	SiO2†	3764.1	2987.3	213.89 ug/L	213.89 ppb	14:31:25

Mean Data: PQL

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	895633.8	110.05	%	0.757				0.69%
Sc Radial	5366.9	112	%	1.3				1.20%
Y 371.029	753263.4	109.81	%	0.641				0.58%
Y RADIAL	5740.4	111.9	%	1.26				1.13%
Ag 328.068†	1072.4	5.2691	ug/L	0.15855	5.2691	ppb	0.15855	3.01%
QC value within limits for Ag 328.068 Recovery = 105.38%								
Al 396.153Radial†	232.7	186.18	ug/L	15.116	186.18	ppb	15.116	8.12%
QC value within limits for Al 396.153Radial Recovery = 93.09%								
As 188.979†	64.5	29.052	ug/L	0.2608	29.052	ppb	0.2608	0.90%
QC value within limits for As 188.979 Recovery = 96.84%								
B 249.677†	2271.1	55.245	ug/L	0.4916	55.245	ppb	0.4916	0.89%
QC value within limits for B 249.677 Recovery = 110.49%								
Ba 233.527†	585.9	4.8742	ug/L	0.05214	4.8742	ppb	0.05214	1.07%
QC value within limits for Ba 233.527 Recovery = 97.48%								
Be 313.107†	12673.1	5.0455	ug/L	0.00851	5.0455	ppb	0.00851	0.17%
QC value within limits for Be 313.107 Recovery = 100.91%								
Ca 317.933Radial†	120.8	203.49	ug/L	2.507	203.49	ppb	2.507	1.23%

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   QC value within limits for Ca 317.933Radial  Recovery = 101.75%
Cd 226.502†              438.3      5.1424 ug/L       0.04591      5.1424 ppb        0.04591   0.89%
   QC value within limits for Cd 226.502  Recovery = 102.85%
Co 228.616†              229.3      4.9908 ug/L       0.13429      4.9908 ppb        0.13429   2.69%
   QC value within limits for Co 228.616  Recovery = 99.82%
Cr 267.716†              385.6      4.5342 ug/L       0.08326      4.5342 ppb        0.08326   1.84%
   QC value within limits for Cr 267.716  Recovery = 90.68%
Cu 324.752†             2742.5      8.7245 ug/L       0.18020      8.7245 ppb        0.18020   2.07%
   QC value within limits for Cu 324.752  Recovery = 87.24%
Fe 238.204 Radial†        10.2      96.175 ug/L       13.1019      96.175 ppb        13.1019  13.62%
   QC value within limits for Fe 238.204 Radial  Recovery = 96.18%
K 766.490 Radial†        450.2      89.939 ug/L       12.2455      89.939 ppb        12.2455  13.62%
   QC value less than the lower limit for K 766.490 Radial  Recovery = 59.96%
Mg 279.077 IEC†           8.9       314.01 ug/L        19.211      314.01 ppb         19.211   6.12%
   QC value within limits for Mg 279.077 IEC  Recovery = 104.67%
Mn 257.610†             8647.5      10.137 ug/L        0.0382      10.137 ppb         0.0382   0.38%
   QC value within limits for Mn 257.610  Recovery = 101.37%
Mo 202.031†              134.2      9.9690 ug/L       0.25857      9.9690 ppb        0.25857   2.59%
   QC value within limits for Mo 202.031  Recovery = 99.69%
Na 589.592 Radial†      1283.3      415.78 ug/L        10.542      415.78 ppb         10.542   2.54%
   QC value greater than the upper limit for Na 589.592 Radial  Recovery = 138.59%
Ni 231.604†              187.1      4.9228 ug/L       0.25981      4.9228 ppb        0.25981   5.28%
   QC value within limits for Ni 231.604  Recovery = 98.46%
P 214.914†               191.8      120.75 ug/L         5.558      120.75 ppb          5.558   4.60%
   QC value within limits for P 214.914  Recovery = 80.50%
Pb 220.353†               83.6      10.759 ug/L        1.0873      10.759 ppb         1.0873  10.11%
   QC value within limits for Pb 220.353  Recovery = 107.59%
S 181.975 Axial†          63.5      94.664 ug/L        3.1024      94.664 ppb         3.1024   3.28%
   QC value within limits for S 181.975 Axial  Recovery = 94.66%
Sb 206.836†               30.5      11.499 ug/L        0.9079      11.499 ppb         0.9079   7.90%
   QC value within limits for Sb 206.836  Recovery = 114.99%
Se 196.026†               49.1      33.197 ug/L        2.7652      33.197 ppb         2.7652   8.33%
   QC value within limits for Se 196.026  Recovery = 110.66%
Si 251.611†             2980.4      100.37 ug/L         0.498      100.37 ppb          0.498   0.50%
   QC value within limits for Si 251.611  Recovery = 100.37%
Sn 189.927†               51.1      9.4884 ug/L       0.38393      9.4884 ppb        0.38393   4.05%
   QC value within limits for Sn 189.927  Recovery = 94.88%
Sr 421.552†              704.3      5.0185 ug/L       0.13121      5.0185 ppb        0.13121   2.61%
   QC value within limits for Sr 421.552  Recovery = 100.37%
Ti 334.940†             3096.8      5.2847 ug/L       0.04929      5.2847 ppb        0.04929   0.93%
   QC value within limits for Ti 334.940  Recovery = 105.69%
Tl 190.801†               75.5      24.217 ug/L        0.6333      24.217 ppb         0.6333   2.61%
   QC value within limits for Tl 190.801  Recovery = 121.09%
U 409.014†              1997.4      63.770 ug/L        3.6579      63.770 ppb         3.6579   5.74%
   QC value within limits for U 409.014  Recovery = 127.54%
V 292.402†               834.9      6.2704 ug/L       0.38158      6.2704 ppb        0.38158   6.09%
   QC value within limits for V 292.402  Recovery = 125.41%
Zn 213.857†              743.0      7.3579 ug/L       0.15211      7.3579 ppb        0.15211   2.07%
   QC value within limits for Zn 213.857  Recovery = 73.58%
SiO2†                   2953.4      211.47 ug/L         2.306      211.47 ppb          2.306   1.09%
   QC value within limits for SiO2  Recovery = 99.28%
QC Failed.  Continue with analysis.
```

Sequence No.: 10
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 1/14/2010 14:33:36
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5495.7	5495.7	115	%			14:35:28
1	Y RADIAL	5892.5	5892.5	114.9	%			14:35:28
1	Al 396.153Radial†	6.9	9.2	7.4120	ug/L	7.4120	ppb	14:35:28
1	Ca 317.933Radial†	24.3	6.1	10.189	ug/L	10.189	ppb	14:35:48
1	Fe 238.204 Radial†	12.4	1.0	9.0056	ug/L	9.0056	ppb	14:35:48
1	K 766.490 Radial†	2767.1	-375.0	-75.179	ug/L	-75.179	ppb	14:35:28
1	Mg 279.077 IEC†	1.5	-0.2	-6.2703	ug/L	-6.2703	ppb	14:35:48
1	Na 589.592 Radial†	-1355.8	384.9	124.71	ug/L	124.71	ppb	14:35:28
1	Sr 421.552†	21.1	1.2	0.0085	ug/L	0.0085	ppb	14:35:28
1	Sc 361.383	888911.9	888911.9	109.22	%			14:36:45
1	Y 371.029	747538.3	747538.3	108.98	%			14:36:45
1	Ag 328.068†	341.1	30.7	0.1491	ug/L	0.1491	ppb	14:36:45
1	As 188.979†	-24.0	-3.1	-1.3881	ug/L	-1.3881	ppb	14:37:05
1	B 249.677†	-347.1	200.7	4.8832	ug/L	4.8832	ppb	14:37:05
1	Ba 233.527†	5.9	3.9	0.0348	ug/L	0.0348	ppb	14:37:05
1	Be 313.107†	-4319.9	357.1	0.1426	ug/L	0.1426	ppb	14:36:45
1	Cd 226.502†	-176.2	36.2	0.4258	ug/L	0.4258	ppb	14:37:05
1	Co 228.616†	-67.5	10.9	0.2358	ug/L	0.2358	ppb	14:37:05
1	Cr 267.716†	69.3	-32.2	-0.3829	ug/L	-0.3829	ppb	14:37:05
1	Cu 324.752†	6464.9	-379.0	-1.2151	ug/L	-1.2151	ppb	14:36:45
1	Mn 257.610†	414.4	-24.9	-0.0281	ug/L	-0.0281	ppb	14:37:05
1	Mo 202.031†	22.1	0.9	0.0681	ug/L	0.0681	ppb	14:37:05
1	Ni 231.604†	76.0	-5.6	-0.1469	ug/L	-0.1469	ppb	14:37:05
1	P 214.914†	215.0	-31.0	-19.547	ug/L	-19.547	ppb	14:37:05
1	Pb 220.353†	-73.5	-2.8	-0.3510	ug/L	-0.3510	ppb	14:37:05
1	S 181.975 Axial†	46.9	-3.5	-5.2386	ug/L	-5.2386	ppb	14:37:05
1	Sb 206.836†	50.4	13.4	4.9078	ug/L	4.9078	ppb	14:37:05
1	Se 196.026†	-29.0	3.8	2.5919	ug/L	2.5919	ppb	14:37:05
1	Si 251.611†	534.2	43.2	1.4572	ug/L	1.4572	ppb	14:37:05
1	Sn 189.927†	6.9	0.2	0.0315	ug/L	0.0315	ppb	14:37:05
1	Ti 334.940†	-1296.3	200.2	0.3409	ug/L	0.3409	ppb	14:36:45
1	Tl 190.801†	-38.1	9.0	2.8908	ug/L	2.8908	ppb	14:37:05
1	U 409.014†	-1875.5	323.8	10.342	ug/L	10.342	ppb	14:36:45
1	V 292.402†	-1385.6	138.6	1.0187	ug/L	1.0187	ppb	14:36:45
1	Zn 213.857†	818.8	-110.7	-1.1019	ug/L	-1.1019	ppb	14:37:05
1	SiO2†	544.1	42.0	3.0079	ug/L	3.0079	ppb	14:38:01
2	Sc Radial	5532.6	5532.6	115	%			14:35:53
2	Y RADIAL	5901.3	5901.3	115.0	%			14:35:53
2	Al 396.153Radial†	-0.9	2.5	1.9305	ug/L	1.9305	ppb	14:35:53
2	Ca 317.933Radial†	25.0	6.5	10.971	ug/L	10.971	ppb	14:36:13
2	Fe 238.204 Radial†	9.1	-2.0	-18.491	ug/L	-18.491	ppb	14:36:13
2	K 766.490 Radial†	2687.7	-459.8	-92.173	ug/L	-92.173	ppb	14:35:53
2	Mg 279.077 IEC†	3.4	1.4	50.720	ug/L	50.720	ppb	14:36:13
2	Na 589.592 Radial†	-1361.4	387.9	125.69	ug/L	125.69	ppb	14:35:53
2	Sr 421.552†	-14.1	-29.4	-0.2096	ug/L	-0.2096	ppb	14:35:53
2	Sc 361.383	899671.4	899671.4	110.54	%			14:37:11
2	Y 371.029	756888.9	756888.9	110.34	%			14:37:11
2	Ag 328.068†	359.7	43.8	0.2031	ug/L	0.2031	ppb	14:37:11
2	As 188.979†	-14.4	5.8	2.6007	ug/L	2.6007	ppb	14:37:31
2	B 249.677†	-325.5	224.1	5.4567	ug/L	5.4567	ppb	14:37:31
2	Ba 233.527†	-11.7	-12.1	-0.0978	ug/L	-0.0978	ppb	14:37:31
2	Be 313.107†	-4373.3	356.0	0.1423	ug/L	0.1423	ppb	14:37:11
2	Cd 226.502†	-181.3	33.6	0.3979	ug/L	0.3979	ppb	14:37:31
2	Co 228.616†	-78.7	1.5	0.0345	ug/L	0.0345	ppb	14:37:31
2	Cr 267.716†	74.2	-28.6	-0.3411	ug/L	-0.3411	ppb	14:37:31
2	Cu 324.752†	6494.7	-422.8	-1.3584	ug/L	-1.3584	ppb	14:37:11
2	Mn 257.610†	435.3	-10.5	-0.0162	ug/L	-0.0162	ppb	14:37:31
2	Mo 202.031†	32.7	10.3	0.7634	ug/L	0.7634	ppb	14:37:31
2	Ni 231.604†	84.3	1.1	0.0298	ug/L	0.0298	ppb	14:37:31

2	P 214.914†	210.3	-37.6	-23.739	ug/L	-23.739 ppb	14:37:31
2	Pb 220.353†	-59.6	10.7	1.3708	ug/L	1.3708 ppb	14:37:31
2	S 181.975 Axial†	50.5	-0.8	-1.1940	ug/L	-1.1940 ppb	14:37:31
2	Sb 206.836†	38.4	2.0	0.7503	ug/L	0.7503 ppb	14:37:31
2	Se 196.026†	-23.9	8.7	5.7643	ug/L	5.7643 ppb	14:37:31
2	Si 251.611†	513.2	18.4	0.6111	ug/L	0.6111 ppb	14:37:31
2	Sn 189.927†	10.1	3.0	0.5631	ug/L	0.5631 ppb	14:37:31
2	Ti 334.940†	-1275.3	233.3	0.3915	ug/L	0.3915 ppb	14:37:11
2	Tl 190.801†	-33.5	13.6	4.3422	ug/L	4.3422 ppb	14:37:31
2	U 409.014†	-1768.3	441.3	14.096	ug/L	14.096 ppb	14:37:11
2	V 292.402†	-1345.0	190.4	1.4147	ug/L	1.4147 ppb	14:37:11
2	Zn 213.857†	813.1	-124.8	-1.2410	ug/L	-1.2410 ppb	14:37:31
2	SiO2†	550.5	41.8	2.9755	ug/L	2.9755 ppb	14:38:06
3	Sc Radial	5506.7	5506.7	115	%		14:36:19
3	Y RADIAL	5927.1	5927.1	115.5	%		14:36:19
3	Al 396.153Radial†	0.5	3.7	2.9593	ug/L	2.9593 ppb	14:36:19
3	Ca 317.933Radial†	23.1	4.9	8.3156	ug/L	8.3156 ppb	14:36:39
3	Fe 238.204 Radial†	10.8	-0.5	-4.3327	ug/L	-4.3327 ppb	14:36:39
3	K 766.490 Radial†	2831.9	-323.4	-64.847	ug/L	-64.847 ppb	14:36:19
3	Mg 279.077 IEC†	0.7	-0.9	-30.126	ug/L	-30.126 ppb	14:36:39
3	Na 589.592 Radial†	-1387.6	359.6	116.52	ug/L	116.52 ppb	14:36:19
3	Sr 421.552†	-2.6	-19.4	-0.1387	ug/L	-0.1387 ppb	14:36:19
3	Sc 361.383	896520.6	896520.6	110.16	%		14:37:36
3	Y 371.029	755611.4	755611.4	110.15	%		14:37:36
3	Ag 328.068†	263.1	-42.8	-0.2154	ug/L	-0.2154 ppb	14:37:36
3	As 188.979†	-20.9	-0.1	-0.0519	ug/L	-0.0519 ppb	14:37:56
3	B 249.677†	-338.4	211.3	5.1430	ug/L	5.1430 ppb	14:37:56
3	Ba 233.527†	6.7	4.6	0.0410	ug/L	0.0410 ppb	14:37:56
3	Be 313.107†	-4401.6	316.4	0.1265	ug/L	0.1265 ppb	14:37:36
3	Cd 226.502†	-182.5	31.9	0.3762	ug/L	0.3762 ppb	14:37:56
3	Co 228.616†	-70.1	9.0	0.1956	ug/L	0.1956 ppb	14:37:56
3	Cr 267.716†	76.7	-26.1	-0.3106	ug/L	-0.3106 ppb	14:37:56
3	Cu 324.752†	6518.4	-380.6	-1.2210	ug/L	-1.2210 ppb	14:37:36
3	Mn 257.610†	429.5	-14.3	-0.0160	ug/L	-0.0160 ppb	14:37:56
3	Mo 202.031†	21.7	0.3	0.0251	ug/L	0.0251 ppb	14:37:56
3	Ni 231.604†	91.3	7.7	0.2036	ug/L	0.2036 ppb	14:37:56
3	P 214.914†	210.4	-36.9	-23.274	ug/L	-23.274 ppb	14:37:56
3	Pb 220.353†	-66.9	3.9	0.4972	ug/L	0.4972 ppb	14:37:56
3	S 181.975 Axial†	45.1	-5.5	-8.2040	ug/L	-8.2040 ppb	14:37:56
3	Sb 206.836†	35.3	-0.7	-0.2547	ug/L	-0.2547 ppb	14:37:56
3	Se 196.026†	-26.5	6.3	4.2218	ug/L	4.2218 ppb	14:37:56
3	Si 251.611†	512.6	19.5	0.6565	ug/L	0.6565 ppb	14:37:56
3	Sn 189.927†	8.8	1.8	0.3394	ug/L	0.3394 ppb	14:37:56
3	Ti 334.940†	-1301.2	205.8	0.3520	ug/L	0.3520 ppb	14:37:36
3	Tl 190.801†	-27.6	18.8	6.0197	ug/L	6.0197 ppb	14:37:56
3	U 409.014†	-1881.1	333.3	10.646	ug/L	10.646 ppb	14:37:36
3	V 292.402†	-1364.3	168.6	1.2370	ug/L	1.2370 ppb	14:37:36
3	Zn 213.857†	819.9	-116.0	-1.1561	ug/L	-1.1561 ppb	14:37:56
3	SiO2†	560.8	52.8	3.7878	ug/L	3.7878 ppb	14:38:11

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	895034.6	109.97	%	0.680				0.62%
Sc Radial	5511.7	115	%	0.4				0.34%
Y 371.029	753346.2	109.82	%	0.739				0.67%
Y RADIAL	5907.0	115.2	%	0.35				0.30%
Ag 328.068†	10.6	0.0456	ug/L	0.22763	0.0456	ppb	0.22763	498.93%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	5.1	4.1006	ug/L	2.91352	4.1006	ppb	2.91352	71.05%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	0.9	0.3869	ug/L	2.03028	0.3869	ppb	2.03028	524.74%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	212.0	5.1610	ug/L	0.28717	5.1610	ppb	0.28717	5.56%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-1.2	-0.0073	ug/L	0.07844	-0.0073	ppb	0.07844	>999.9%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	343.2	0.1371	ug/L	0.00923	0.1371	ppb	0.00923	6.73%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	5.8	9.8252	ug/L	1.36458	9.8252	ppb	1.36458	13.89%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                33.9      0.4000 ug/L       0.02484      0.4000 ppb        0.02484   6.21%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                 7.1      0.1553 ug/L       0.10654      0.1553 ppb        0.10654  68.60%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†               -29.0     -0.3448 ug/L       0.03626     -0.3448 ppb        0.03626  10.52%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -394.1     -1.2649 ug/L       0.08109     -1.2649 ppb        0.08109   6.41%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -0.5     -4.6061 ug/L      13.75039     -4.6061 ppb       13.75039 298.53%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        -386.1     -77.400 ug/L       13.7979     -77.400 ppb        13.7979  17.83%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            0.1      4.7744 ug/L      41.53913      4.7744 ppb       41.53913 870.03%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               -16.6     -0.0201 ug/L       0.00691     -0.0201 ppb        0.00691  34.38%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                3.9      0.2856 ug/L       0.41440      0.2856 ppb        0.41440 145.12%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       377.5      122.31 ug/L         5.034      122.31 ppb          5.034   4.12%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                1.1      0.0288 ug/L       0.17527      0.0288 ppb        0.17527 608.16%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -35.2     -22.187 ug/L        2.2975     -22.187 ppb         2.2975  10.36%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                3.9      0.5057 ug/L       0.86094      0.5057 ppb        0.86094 170.25%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          -3.3     -4.8788 ug/L       3.51881     -4.8788 ppb        3.51881  72.12%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                4.9      1.8011 ug/L       2.73701      1.8011 ppb        2.73701 151.96%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                6.3      4.1927 ug/L       1.58640      4.1927 ppb        1.58640  37.84%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†               27.0      0.9082 ug/L       0.47594      0.9082 ppb        0.47594  52.40%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                1.7      0.3113 ug/L       0.26688      0.3113 ppb        0.26688  85.73%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               -15.9     -0.1133 ug/L       0.11123     -0.1133 ppb        0.11123  98.20%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               213.1      0.3615 ug/L       0.02662      0.3615 ppb        0.02662   7.36%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                13.8      4.4176 ug/L       1.56582      4.4176 ppb        1.56582  35.45%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                366.1      11.694 ug/L        2.0851      11.694 ppb         2.0851  17.83%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                165.9      1.2234 ug/L       0.19835      1.2234 ppb        0.19835  16.21%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              -117.1     -1.1663 ug/L       0.07009     -1.1663 ppb        0.07009   6.01%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                      45.5      3.2571 ug/L       0.45991      3.2571 ppb        0.45991  14.12%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
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Analysis Begun

Start Time: 1/14/2010 15:04:17
Logged In Analyst: Optima3
Spectrometer Model: Optima 5300 DV, S/N 077C7090601
Plasma On Time: 1/11/2010 06:15:31
Technique: ICP Continuous
Autosampler Model: S10

Sample Information File: C:\pe\Optima3\Sample Information\011410A.sif
Batch ID:
Results Data Set: 011410
Results Library: C:\pe\Optima3\Results\Results.mdb

==========

Sequence No.: 1
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:
Autosampler Location: 7
Date Collected: 1/14/2010 15:04:18
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	5393.2	5393.2	113	%			15:06:10
1	Y RADIAL	5721.8	5721.8	111.5	%			15:06:10
1	Al 396.153Radial†	6562.4	5833.2	4653.8	ug/L	4653.8	ppb	15:06:10
1	Ca 317.933Radial†	3162.3	2794.2	4705.3	ug/L	4705.3	ppb	15:06:30
1	Fe 238.204 Radial†	587.8	512.3	4831.9	ug/L	4831.9	ppb	15:06:30
1	K 766.490 Radial†	29827.7	23711.4	4744.3	ug/L	4744.3	ppb	15:06:10
1	Mg 279.077 IEC†	161.7	142.2	4991.7	ug/L	4991.7	ppb	15:06:30
1	Na 589.592 Radial†	31619.5	29657.7	9609.2	ug/L	9609.2	ppb	15:06:10
1	Sr 421.552†	76700.1	68123.0	485.54	ug/L	485.54	ppb	15:06:10
1	Sc 361.383	808099.6	808099.6	99.292	%			15:07:28
1	Y 371.029	670449.2	670449.2	97.739	%			15:07:28
1	Ag 328.068†	105432.3	105903.0	523.49	ug/L	523.49	ppb	15:07:33
1	As 188.979†	1172.2	1199.4	544.26	ug/L	544.26	ppb	15:07:53
1	B 249.677†	20952.6	21620.6	523.90	ug/L	523.90	ppb	15:07:33
1	Ba 233.527†	64121.9	64578.0	536.79	ug/L	536.79	ppb	15:07:33
1	Be 313.107†	1226025.1	1239085.5	493.33	ug/L	493.33	ppb	15:07:28
1	Cd 226.502†	45122.5	45642.0	534.89	ug/L	534.89	ppb	15:07:33
1	Co 228.616†	24563.6	24811.6	538.92	ug/L	538.92	ppb	15:07:33
1	Cr 267.716†	44927.0	45151.8	533.32	ug/L	533.32	ppb	15:07:33
1	Cu 324.752†	172001.4	166930.6	532.84	ug/L	532.84	ppb	15:07:33
1	Mn 257.610†	418840.5	421424.8	494.45	ug/L	494.45	ppb	15:07:28
1	Mo 202.031†	7181.6	7213.6	535.90	ug/L	535.90	ppb	15:07:53
1	Ni 231.604†	20360.1	20430.3	537.49	ug/L	537.49	ppb	15:07:33
1	P 214.914†	4387.0	4190.4	2570.8	ug/L	2570.8	ppb	15:07:53
1	Pb 220.353†	4058.4	4151.9	533.46	ug/L	533.46	ppb	15:07:53
1	S 181.975 Axial†	760.2	719.1	1072.3	ug/L	1072.3	ppb	15:07:53
1	Sb 206.836†	1505.9	1484.0	561.80	ug/L	561.80	ppb	15:07:53
1	Se 196.026†	781.7	817.7	564.52	ug/L	564.52	ppb	15:07:53
1	Si 251.611†	79955.2	80079.8	2693.4	ug/L	2693.4	ppb	15:07:33
1	Sn 189.927†	2894.8	2909.3	538.84	ug/L	538.84	ppb	15:07:53
1	Ti 334.940†	306032.4	309603.1	530.93	ug/L	530.93	ppb	15:07:33
1	Tl 190.801†	1624.3	1679.8	540.74	ug/L	540.74	ppb	15:07:53
1	U 409.014†	14978.4	17126.3	545.23	ug/L	545.23	ppb	15:07:33
1	V 292.402†	71889.2	73809.4	539.71	ug/L	539.71	ppb	15:07:33
1	Zn 213.857†	54122.9	53648.8	530.44	ug/L	530.44	ppb	15:07:33
1	SiO2†	80124.7	80240.2	5738.0	ug/L	5738.0	ppb	15:09:01
2	Sc Radial	5242.8	5242.8	109	%			15:06:35
2	Y RADIAL	5583.5	5583.5	108.9	%			15:06:35
2	Al 396.153Radial†	6394.1	5846.7	4666.9	ug/L	4666.9	ppb	15:06:35
2	Ca 317.933Radial†	3166.7	2878.8	4847.8	ug/L	4847.8	ppb	15:06:55
2	Fe 238.204 Radial†	582.0	522.0	4922.1	ug/L	4922.1	ppb	15:06:55
2	K 766.490 Radial†	29139.7	23842.8	4770.6	ug/L	4770.6	ppb	15:06:35
2	Mg 279.077 IEC†	157.8	142.7	5010.2	ug/L	5010.2	ppb	15:06:55
2	Na 589.592 Radial†	30721.0	29642.3	9604.3	ug/L	9604.3	ppb	15:06:35
2	Sr 421.552†	74654.8	68208.4	486.15	ug/L	486.15	ppb	15:06:35
2	Sc 361.383	884833.7	884833.7	108.72	%			15:07:59
2	Y 371.029	732103.3	732103.3	106.73	%			15:07:59

2	Ag 328.068†	106254.5	97450.8	481.84 ug/L	481.84 ppb	15:08:04
2	As 188.979†	1153.6	1079.9	490.23 ug/L	490.23 ppb	15:08:24
2	B 249.677†	21428.1	20228.0	490.11 ug/L	490.11 ppb	15:08:04
2	Ba 233.527†	64131.9	58986.7	490.34 ug/L	490.34 ppb	15:08:04
2	Be 313.107†	1323294.0	1221471.6	486.24 ug/L	486.24 ppb	15:07:59
2	Cd 226.502†	45304.5	41868.4	490.62 ug/L	490.62 ppb	15:08:04
2	Co 228.616†	24637.7	22734.3	493.79 ug/L	493.79 ppb	15:08:04
2	Cr 267.716†	44882.9	41187.3	486.50 ug/L	486.50 ppb	15:08:04
2	Cu 324.752†	173248.5	153055.0	488.57 ug/L	488.57 ppb	15:08:04
2	Mn 257.610†	449754.3	413277.5	484.91 ug/L	484.91 ppb	15:07:59
2	Mo 202.031†	7168.9	6574.6	488.48 ug/L	488.48 ppb	15:08:24
2	Ni 231.604†	20325.1	18619.8	489.86 ug/L	489.86 ppb	15:08:04
2	P 214.914†	4362.2	3784.4	2320.0 ug/L	2320.0 ppb	15:08:24
2	Pb 220.353†	4015.6	3758.1	482.92 ug/L	482.92 ppb	15:08:24
2	S 181.975 Axial†	762.4	654.8	976.40 ug/L	976.40 ppb	15:08:24
2	Sb 206.836†	1496.8	1344.0	508.90 ug/L	508.90 ppb	15:08:24
2	Se 196.026†	787.7	754.9	522.70 ug/L	522.70 ppb	15:08:24
2	Si 251.611†	80602.5	73691.9	2478.6 ug/L	2478.6 ppb	15:08:04
2	Sn 189.927†	2880.3	2643.2	489.63 ug/L	489.63 ppb	15:08:24
2	Ti 334.940†	306954.2	283721.9	486.58 ug/L	486.58 ppb	15:08:04
2	Tl 190.801†	1619.7	1533.7	493.88 ug/L	493.88 ppb	15:08:24
2	U 409.014†	15055.0	15888.5	505.79 ug/L	505.79 ppb	15:08:04
2	V 292.402†	71936.1	67573.6	494.03 ug/L	494.03 ppb	15:08:04
2	Zn 213.857†	54877.4	49615.7	490.57 ug/L	490.57 ppb	15:08:04
2	SiO2†	80616.9	73694.9	5270.0 ug/L	5270.0 ppb	15:09:06
3	Sc Radial	5517.4	5517.4	115 %		15:07:01
3	Y RADIAL	5866.5	5866.5	114.4 %		15:07:01
3	Al 396.153Radial†	6573.8	5711.9	4559.0 ug/L	4559.0 ppb	15:07:01
3	Ca 317.933Radial†	3161.4	2730.2	4597.5 ug/L	4597.5 ppb	15:07:21
3	Fe 238.204 Radial†	581.8	495.4	4671.2 ug/L	4671.2 ppb	15:07:21
3	K 766.490 Radial†	30144.4	23390.1	4680.1 ug/L	4680.1 ppb	15:07:01
3	Mg 279.077 IEC†	159.7	137.1	4814.7 ug/L	4814.7 ppb	15:07:21
3	Na 589.592 Radial†	31672.7	29071.6	9419.4 ug/L	9419.4 ppb	15:07:01
3	Sr 421.552†	76866.2	66733.7	475.64 ug/L	475.64 ppb	15:07:01
3	Sc 361.383	894749.4	894749.4	109.94 %		15:08:30
3	Y 371.029	741475.5	741475.5	108.09 %		15:08:30
3	Ag 328.068†	106229.4	96344.9	476.31 ug/L	476.31 ppb	15:08:35
3	As 188.979†	1157.1	1071.3	486.23 ug/L	486.23 ppb	15:08:55
3	B 249.677†	21235.6	19834.4	480.60 ug/L	480.60 ppb	15:08:35
3	Ba 233.527†	63719.7	57958.0	481.78 ug/L	481.78 ppb	15:08:35
3	Be 313.107†	1337354.0	1220771.9	485.94 ug/L	485.94 ppb	15:08:30
3	Cd 226.502†	45133.7	41251.3	483.40 ug/L	483.40 ppb	15:08:35
3	Co 228.616†	24473.5	22333.8	485.10 ug/L	485.10 ppb	15:08:35
3	Cr 267.716†	44805.8	40659.7	480.26 ug/L	480.26 ppb	15:08:35
3	Cu 324.752†	171478.0	149678.7	477.79 ug/L	477.79 ppb	15:08:35
3	Mn 257.610†	452644.7	411322.2	482.60 ug/L	482.60 ppb	15:08:30
3	Mo 202.031†	7182.5	6513.9	483.95 ug/L	483.95 ppb	15:08:55
3	Ni 231.604†	20205.6	18303.9	481.54 ug/L	481.54 ppb	15:08:35
3	P 214.914†	4368.5	3745.7	2297.6 ug/L	2297.6 ppb	15:08:55
3	Pb 220.353†	4043.1	3742.2	480.87 ug/L	480.87 ppb	15:08:55
3	S 181.975 Axial†	774.7	658.2	981.41 ug/L	981.41 ppb	15:08:55
3	Sb 206.836†	1505.7	1336.9	506.13 ug/L	506.13 ppb	15:08:55
3	Se 196.026†	777.7	737.8	510.38 ug/L	510.38 ppb	15:08:55
3	Si 251.611†	80022.1	72342.3	2433.2 ug/L	2433.2 ppb	15:08:35
3	Sn 189.927†	2880.8	2614.3	484.24 ug/L	484.24 ppb	15:08:55
3	Ti 334.940†	304810.7	278643.4	477.86 ug/L	477.86 ppb	15:08:35
3	Tl 190.801†	1621.6	1518.9	489.12 ug/L	489.12 ppb	15:08:55
3	U 409.014†	15032.7	15714.7	500.28 ug/L	500.28 ppb	15:08:35
3	V 292.402†	71664.0	66592.9	486.92 ug/L	486.92 ppb	15:08:35
3	Zn 213.857†	54487.1	48701.2	481.54 ug/L	481.54 ppb	15:08:35
3	SiO2†	79818.6	72146.9	5159.2 ug/L	5159.2 ppb	15:09:11

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	862560.9	105.98	%	5.827				5.50%
Sc Radial	5384.5	112	%	2.9				2.55%
Y 371.029	714676.0	104.19	%	5.625				5.40%
Y RADIAL	5723.9	111.6	%	2.76				2.47%
Ag 328.068†	99899.6	493.88	ug/L	25.791	493.88	ppb	25.791	5.22%

```
   QC value within limits for Ag 328.068  Recovery = 98.78%
Al 396.153Radial†       5797.3      4626.6 ug/L        58.87      4626.6 ppb        58.87   1.27%
   QC value within limits for Al 396.153Radial  Recovery = 92.53%
As 188.979†             1116.9      506.91 ug/L       32.414      506.91 ppb       32.414   6.39%
   QC value within limits for As 188.979  Recovery = 101.38%
B 249.677†             20561.0      498.20 ug/L       22.752      498.20 ppb       22.752   4.57%
   QC value within limits for B 249.677  Recovery = 99.64%
Ba 233.527†            60507.6      502.97 ug/L       29.602      502.97 ppb       29.602   5.89%
   QC value within limits for Ba 233.527  Recovery = 100.59%
Be 313.107†          1227109.7      488.50 ug/L        4.186      488.50 ppb        4.186   0.86%
   QC value within limits for Be 313.107  Recovery = 97.70%
Ca 317.933Radial†       2801.1      4716.9 ug/L       125.53      4716.9 ppb       125.53   2.66%
   QC value within limits for Ca 317.933Radial  Recovery = 94.34%
Cd 226.502†            42920.5      502.97 ug/L       27.879      502.97 ppb       27.879   5.54%
   QC value within limits for Cd 226.502  Recovery = 100.59%
Co 228.616†            23293.3      505.94 ug/L       28.894      505.94 ppb       28.894   5.71%
   QC value within limits for Co 228.616  Recovery = 101.19%
Cr 267.716†            42333.0      500.03 ug/L       28.999      500.03 ppb       28.999   5.80%
   QC value within limits for Cr 267.716  Recovery = 100.01%
Cu 324.752†           156554.8      499.73 ug/L       29.175      499.73 ppb       29.175   5.84%
   QC value within limits for Cu 324.752  Recovery = 99.95%
Fe 238.204 Radial†       509.9      4808.4 ug/L       127.09      4808.4 ppb       127.09   2.64%
   QC value within limits for Fe 238.204 Radial  Recovery = 96.17%
K 766.490 Radial†      23648.1      4731.7 ug/L        46.57      4731.7 ppb        46.57   0.98%
   QC value within limits for K 766.490 Radial  Recovery = 94.63%
Mg 279.077 IEC†          140.7      4938.9 ug/L       107.94      4938.9 ppb       107.94   2.19%
   QC value within limits for Mg 279.077 IEC  Recovery = 98.78%
Mn 257.610†           415341.5      487.32 ug/L        6.285      487.32 ppb        6.285   1.29%
   QC value within limits for Mn 257.610  Recovery = 97.46%
Mo 202.031†            6767.4      502.78 ug/L       28.775      502.78 ppb       28.775   5.72%
   QC value within limits for Mo 202.031  Recovery = 100.56%
Na 589.592 Radial†     29457.2      9544.3 ug/L       108.21      9544.3 ppb       108.21   1.13%
   QC value within limits for Na 589.592 Radial  Recovery = 95.44%
Ni 231.604†            19118.0      502.96 ug/L       30.187      502.96 ppb       30.187   6.00%
   QC value within limits for Ni 231.604  Recovery = 100.59%
P 214.914†              3906.9      2396.1 ug/L       151.71      2396.1 ppb       151.71   6.33%
   QC value within limits for P 214.914  Recovery = 95.85%
Pb 220.353†             3884.1      499.08 ug/L       29.787      499.08 ppb       29.787   5.97%
   QC value within limits for Pb 220.353  Recovery = 99.82%
S 181.975 Axial†         677.4      1010.0 ug/L        54.00      1010.0 ppb        54.00   5.35%
   QC value within limits for S 181.975 Axial  Recovery = 101.00%
Sb 206.836†             1388.3      525.61 ug/L       31.376      525.61 ppb       31.376   5.97%
   QC value within limits for Sb 206.836  Recovery = 105.12%
Se 196.026†              770.1      532.53 ug/L       28.379      532.53 ppb       28.379   5.33%
   QC value within limits for Se 196.026  Recovery = 106.51%
Si 251.611†            75371.4      2535.1 ug/L       139.00      2535.1 ppb       139.00   5.48%
   QC value within limits for Si 251.611  Recovery = 101.40%
Sn 189.927†             2722.3      504.24 ug/L       30.084      504.24 ppb       30.084   5.97%
   QC value within limits for Sn 189.927  Recovery = 100.85%
Sr 421.552†            67688.4      482.44 ug/L        5.900      482.44 ppb        5.900   1.22%
   QC value within limits for Sr 421.552  Recovery = 96.49%
Ti 334.940†           290656.2      498.46 ug/L       28.460      498.46 ppb       28.460   5.71%
   QC value within limits for Ti 334.940  Recovery = 99.69%
Tl 190.801†             1577.5      507.92 ug/L       28.525      507.92 ppb       28.525   5.62%
   QC value within limits for Tl 190.801  Recovery = 101.58%
U 409.014†             16243.2      517.10 ug/L       24.514      517.10 ppb       24.514   4.74%
   QC value within limits for U 409.014  Recovery = 103.42%
V 292.402†             69325.3      506.89 ug/L       28.645      506.89 ppb       28.645   5.65%
   QC value within limits for V 292.402  Recovery = 101.38%
Zn 213.857†            50655.2      500.85 ug/L       26.019      500.85 ppb       26.019   5.19%
   QC value within limits for Zn 213.857  Recovery = 100.17%
SiO2†                  75360.7      5389.1 ug/L       307.22      5389.1 ppb       307.22   5.70%
   QC value within limits for SiO2  Recovery = 100.78%
All analyte(s) passed QC.
```

Sequence No.: 2
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 1/14/2010 15:11:20
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	5318.2	5318.2	111	%			15:13:13
1	Y RADIAL	5716.9	5716.9	111.5	%			15:13:13
1	Al 396.153Radial†	-11.2	-6.9	-5.5406	ug/L	-5.5406	ppb	15:13:13
1	Ca 317.933Radial†	21.4	4.1	6.9170	ug/L	6.9170	ppb	15:13:33
1	Fe 238.204 Radial†	7.0	-3.6	-33.607	ug/L	-33.607	ppb	15:13:33
1	K 766.490 Radial†	2747.4	-312.2	-62.601	ug/L	-62.601	ppb	15:13:13
1	Mg 279.077 IEC†	-0.6	-2.0	-70.813	ug/L	-70.813	ppb	15:13:33
1	Na 589.592 Radial†	-1368.4	334.1	108.27	ug/L	108.27	ppb	15:13:13
1	Sr 421.552†	-2.4	-19.4	-0.1380	ug/L	-0.1380	ppb	15:13:13
1	Sc 361.383	879394.6	879394.6	108.05	%			15:14:30
1	Y 371.029	738335.7	738335.7	107.64	%			15:14:30
1	Ag 328.068†	391.1	80.4	0.3801	ug/L	0.3801	ppb	15:14:30
1	As 188.979†	-27.2	-6.3	-2.8418	ug/L	-2.8418	ppb	15:14:50
1	B 249.677†	-394.9	153.0	3.7300	ug/L	3.7300	ppb	15:14:50
1	Ba 233.527†	-16.7	-16.9	-0.1391	ug/L	-0.1391	ppb	15:14:50
1	Be 313.107†	-4379.7	258.9	0.1038	ug/L	0.1038	ppb	15:14:30
1	Cd 226.502†	-192.8	19.2	0.2298	ug/L	0.2298	ppb	15:14:50
1	Co 228.616†	-79.2	-0.7	-0.0126	ug/L	-0.0126	ppb	15:14:50
1	Cr 267.716†	81.3	-20.5	-0.2447	ug/L	-0.2447	ppb	15:14:50
1	Cu 324.752†	6453.8	-325.2	-1.0451	ug/L	-1.0451	ppb	15:14:30
1	Mn 257.610†	395.4	-38.3	-0.0454	ug/L	-0.0454	ppb	15:14:50
1	Mo 202.031†	33.0	11.2	0.8283	ug/L	0.8283	ppb	15:14:50
1	Ni 231.604†	84.9	3.4	0.0897	ug/L	0.0897	ppb	15:14:50
1	P 214.914†	213.1	-30.7	-19.356	ug/L	-19.356	ppb	15:14:50
1	Pb 220.353†	-71.0	-1.1	-0.1369	ug/L	-0.1369	ppb	15:14:50
1	S 181.975 Axial†	48.7	-1.4	-2.0725	ug/L	-2.0725	ppb	15:14:50
1	Sb 206.836†	48.1	11.8	4.3197	ug/L	4.3197	ppb	15:14:50
1	Se 196.026†	-31.9	0.8	0.4529	ug/L	0.4529	ppb	15:14:50
1	Si 251.611†	477.5	-3.9	-0.1428	ug/L	-0.1428	ppb	15:14:50
1	Sn 189.927†	3.6	-2.7	-0.5074	ug/L	-0.5074	ppb	15:14:50
1	Ti 334.940†	-1227.9	250.6	0.4326	ug/L	0.4326	ppb	15:14:30
1	Tl 190.801†	-31.6	14.7	4.6887	ug/L	4.6887	ppb	15:14:50
1	U 409.014†	-1887.2	294.4	9.4068	ug/L	9.4068	ppb	15:14:30
1	V 292.402†	-1381.5	128.6	0.9607	ug/L	0.9607	ppb	15:14:30
1	Zn 213.857†	817.2	-104.0	-1.0331	ug/L	-1.0331	ppb	15:14:50
1	SiO2†	478.0	-13.8	-1.0118	ug/L	-1.0118	ppb	15:15:46
2	Sc Radial	5371.2	5371.2	112	%			15:13:38
2	Y RADIAL	5762.4	5762.4	112.3	%			15:13:38
2	Al 396.153Radial†	3.0	5.9	4.7564	ug/L	4.7564	ppb	15:13:38
2	Ca 317.933Radial†	23.7	6.0	10.076	ug/L	10.076	ppb	15:13:58
2	Fe 238.204 Radial†	9.1	-1.8	-16.554	ug/L	-16.554	ppb	15:13:58
2	K 766.490 Radial†	2756.1	-328.9	-65.938	ug/L	-65.938	ppb	15:13:38
2	Mg 279.077 IEC†	1.0	-0.6	-20.917	ug/L	-20.917	ppb	15:13:58
2	Na 589.592 Radial†	-1376.1	339.4	109.95	ug/L	109.95	ppb	15:13:38
2	Sr 421.552†	-12.0	-27.9	-0.1989	ug/L	-0.1989	ppb	15:13:38
2	Sc 361.383	885556.4	885556.4	108.81	%			15:14:55
2	Y 371.029	743465.9	743465.9	108.38	%			15:14:55
2	Ag 328.068†	343.8	34.4	0.1636	ug/L	0.1636	ppb	15:14:55
2	As 188.979†	-21.0	-0.5	-0.2131	ug/L	-0.2131	ppb	15:15:15
2	B 249.677†	-375.1	173.8	4.2313	ug/L	4.2313	ppb	15:15:15
2	Ba 233.527†	-1.5	-2.9	-0.0226	ug/L	-0.0226	ppb	15:15:15
2	Be 313.107†	-4524.5	154.0	0.0619	ug/L	0.0619	ppb	15:14:55
2	Cd 226.502†	-186.8	25.9	0.3057	ug/L	0.3057	ppb	15:15:15
2	Co 228.616†	-70.3	8.1	0.1757	ug/L	0.1757	ppb	15:15:15
2	Cr 267.716†	60.4	-40.2	-0.4748	ug/L	-0.4748	ppb	15:15:15
2	Cu 324.752†	6467.6	-354.1	-1.1337	ug/L	-1.1337	ppb	15:14:55
2	Mn 257.610†	415.9	-22.1	-0.0266	ug/L	-0.0266	ppb	15:15:15
2	Mo 202.031†	23.5	2.3	0.1666	ug/L	0.1666	ppb	15:15:15
2	Ni 231.604†	85.3	3.3	0.0870	ug/L	0.0870	ppb	15:15:15

2	P 214.914†	209.5	-35.4	-22.333 ug/L	-22.333 ppb	15:15:15
2	Pb 220.353†	-64.2	5.6	0.7169 ug/L	0.7169 ppb	15:15:15
2	S 181.975 Axial†	41.0	-8.8	-13.100 ug/L	-13.100 ppb	15:15:15
2	Sb 206.836†	37.9	2.1	0.7644 ug/L	0.7644 ppb	15:15:15
2	Se 196.026†	-23.7	8.6	5.7101 ug/L	5.7101 ppb	15:15:15
2	Si 251.611†	491.1	5.5	0.1837 ug/L	0.1837 ppb	15:15:15
2	Sn 189.927†	6.0	-0.6	-0.1129 ug/L	-0.1129 ppb	15:15:15
2	Ti 334.940†	-1313.1	180.2	0.3105 ug/L	0.3105 ppb	15:14:55
2	Tl 190.801†	-34.0	12.7	4.0549 ug/L	4.0549 ppb	15:15:15
2	U 409.014†	-2069.7	138.8	4.4371 ug/L	4.4371 ppb	15:14:55
2	V 292.402†	-1399.0	121.4	0.8887 ug/L	0.8887 ppb	15:14:55
2	Zn 213.857†	831.0	-96.6	-0.9611 ug/L	-0.9611 ppb	15:15:15
2	SiO2†	518.7	20.5	1.4672 ug/L	1.4672 ppb	15:15:51
3	Sc Radial	5368.5	5368.5	112 %		15:14:03
3	Y RADIAL	5754.2	5754.2	112.2 %		15:14:03
3	Al 396.153Radial†	-14.0	-9.2	-7.4208 ug/L	-7.4208 ppb	15:14:03
3	Ca 317.933Radial†	21.1	3.7	6.2056 ug/L	6.2056 ppb	15:14:23
3	Fe 238.204 Radial†	12.0	0.8	7.4565 ug/L	7.4565 ppb	15:14:23
3	K 766.490 Radial†	2746.9	-335.9	-67.340 ug/L	-67.340 ppb	15:14:03
3	Mg 279.077 IEC†	0.6	-1.0	-35.658 ug/L	-35.658 ppb	15:14:23
3	Na 589.592 Radial†	-1346.0	365.7	118.48 ug/L	118.48 ppb	15:14:03
3	Sr 421.552†	51.9	29.1	0.2076 ug/L	0.2076 ppb	15:14:03
3	Sc 361.383	875213.3	875213.3	107.54 %		15:15:20
3	Y 371.029	735677.8	735677.8	107.25 %		15:15:20
3	Ag 328.068†	340.9	35.5	0.1711 ug/L	0.1711 ppb	15:15:20
3	As 188.979†	-20.3	-0.0	-0.0177 ug/L	-0.0177 ppb	15:15:40
3	B 249.677†	-423.9	124.3	3.0243 ug/L	3.0243 ppb	15:15:40
3	Ba 233.527†	11.9	9.6	0.0818 ug/L	0.0818 ppb	15:15:40
3	Be 313.107†	-4427.3	195.3	0.0781 ug/L	0.0781 ppb	15:15:20
3	Cd 226.502†	-189.9	21.0	0.2477 ug/L	0.2477 ppb	15:15:40
3	Co 228.616†	-68.2	9.3	0.2020 ug/L	0.2020 ppb	15:15:40
3	Cr 267.716†	77.9	-23.3	-0.2779 ug/L	-0.2779 ppb	15:15:40
3	Cu 324.752†	6534.7	-221.4	-0.7128 ug/L	-0.7128 ppb	15:15:20
3	Mn 257.610†	436.5	1.6	0.0041 ug/L	0.0041 ppb	15:15:40
3	Mo 202.031†	29.9	8.5	0.6284 ug/L	0.6284 ppb	15:15:40
3	Ni 231.604†	79.9	-0.8	-0.0217 ug/L	-0.0217 ppb	15:15:40
3	P 214.914†	205.3	-37.0	-23.488 ug/L	-23.488 ppb	15:15:40
3	Pb 220.353†	-84.0	-13.5	-1.7296 ug/L	-1.7296 ppb	15:15:40
3	S 181.975 Axial†	46.2	-3.4	-5.1468 ug/L	-5.1468 ppb	15:15:40
3	Sb 206.836†	47.4	11.3	4.1576 ug/L	4.1576 ppb	15:15:40
3	Se 196.026†	-32.8	-0.1	-0.0402 ug/L	-0.0402 ppb	15:15:40
3	Si 251.611†	483.5	3.7	0.1183 ug/L	0.1183 ppb	15:15:40
3	Sn 189.927†	5.8	-0.7	-0.1280 ug/L	-0.1280 ppb	15:15:40
3	Ti 334.940†	-1334.2	146.3	0.2499 ug/L	0.2499 ppb	15:15:20
3	Tl 190.801†	-30.4	15.6	4.9983 ug/L	4.9983 ppb	15:15:40
3	U 409.014†	-1812.5	355.5	11.355 ug/L	11.355 ppb	15:15:20
3	V 292.402†	-1371.4	131.9	0.9802 ug/L	0.9802 ppb	15:15:20
3	Zn 213.857†	815.9	-101.7	-1.0135 ug/L	-1.0135 ppb	15:15:40
3	SiO2†	494.2	3.3	0.2216 ug/L	0.2216 ppb	15:15:56

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	880054.8	108.13	%	0.639				0.59%
Sc Radial	5352.6	112	%	0.6				0.56%
Y 371.029	739159.8	107.76	%	0.577				0.54%
Y RADIAL	5744.5	112.0	%	0.47				0.42%
Ag 328.068†	50.1	0.2382	ug/L	0.12289	0.2382	ppb	0.12289	51.58%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-3.4	-2.7350	ug/L	6.55551	-2.7350	ppb	6.55551	239.69%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-2.3	-1.0242	ug/L	1.57716	-1.0242	ppb	1.57716	153.99%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	150.4	3.6618	ug/L	0.60636	3.6618	ppb	0.60636	16.56%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-3.4	-0.0267	ug/L	0.11051	-0.0267	ppb	0.11051	414.48%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	202.7	0.0813	ug/L	0.02113	0.0813	ppb	0.02113	26.01%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	4.6	7.7329	ug/L	2.06014	7.7329	ppb	2.06014	26.64%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              22.0      0.2611 ug/L       0.03968      0.2611 ppb        0.03968  15.20%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†               5.6      0.1217 ug/L       0.11701      0.1217 ppb        0.11701  96.16%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†             -28.0     -0.3325 ug/L       0.12441     -0.3325 ppb        0.12441  37.42%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -300.2     -0.9638 ug/L       0.22190     -0.9638 ppb        0.22190  23.02%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       -1.5     -14.235 ug/L       20.6296     -14.235 ppb        20.6296 144.93%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†      -325.7     -65.293 ug/L        2.4345     -65.293 ppb         2.4345   3.73%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          -1.2     -42.462 ug/L       25.6345     -42.462 ppb        25.6345  60.37%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†             -19.6     -0.0226 ug/L       0.02498     -0.0226 ppb        0.02498 110.31%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               7.3      0.5411 ug/L       0.33939      0.5411 ppb        0.33939  62.72%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      346.4      112.23 ug/L         5.476      112.23 ppb          5.476   4.88%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               2.0      0.0516 ug/L       0.06356      0.0516 ppb        0.06356 123.09%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†              -34.4     -21.726 ug/L        2.1317     -21.726 ppb         2.1317   9.81%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -3.0     -0.3832 ug/L       1.24170     -0.3832 ppb        1.24170 324.05%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         -4.5     -6.7732 ug/L       5.69095     -6.7732 ppb        5.69095  84.02%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               8.4      3.0806 ug/L       2.00751      3.0806 ppb        2.00751  65.17%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               3.1      2.0409 ug/L       3.18715      2.0409 ppb        3.18715 156.16%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†               1.8      0.0531 ug/L       0.17273      0.0531 ppb        0.17273 325.44%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†              -1.4     -0.2494 ug/L       0.22351     -0.2494 ppb        0.22351  89.60%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              -6.0     -0.0431 ug/L       0.21922     -0.0431 ppb        0.21922 508.65%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             192.4      0.3310 ug/L       0.09307      0.3310 ppb        0.09307  28.12%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              14.3      4.5806 ug/L       0.48087      4.5806 ppb        0.48087  10.50%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              262.9      8.3995 ug/L       3.56711      8.3995 ppb        3.56711  42.47%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              127.3      0.9432 ug/L       0.04820      0.9432 ppb        0.04820   5.11%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†            -100.8     -1.0026 ug/L       0.03722     -1.0026 ppb        0.03722   3.71%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                     3.4      0.2257 ug/L       1.23948      0.2257 ppb        1.23948 549.25%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 7
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 1/14/2010 15:45:46
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5272.2	5272.2	110	%			15:47:38
1	Y RADIAL	5550.7	5550.7	108.2	%			15:47:38
1	Al 396.153Radial†	6480.8	5892.9	4703.9	ug/L	4703.9	ppb	15:47:38
1	Ca 317.933Radial†	3088.7	2791.8	4701.2	ug/L	4701.2	ppb	15:47:58
1	Fe 238.204 Radial†	576.6	514.1	4847.6	ug/L	4847.6	ppb	15:47:58
1	K 766.490 Radial†	29458.3	23983.9	4798.9	ug/L	4798.9	ppb	15:47:38
1	Mg 279.077 IEC†	155.1	139.4	4894.6	ug/L	4894.6	ppb	15:47:58
1	Na 589.592 Radial†	30855.3	29607.9	9593.1	ug/L	9593.1	ppb	15:47:38
1	Sr 421.552†	75525.1	68619.2	489.08	ug/L	489.08	ppb	15:47:38
1	Sc 361.383	877672.9	877672.9	107.84	%			15:48:55
1	Y 371.029	726579.4	726579.4	105.92	%			15:48:55
1	Ag 328.068†	105009.5	97093.7	480.06	ug/L	480.06	ppb	15:49:00
1	As 188.979†	1149.7	1084.9	492.47	ug/L	492.47	ppb	15:49:20
1	B 249.677†	21211.8	20188.2	489.16	ug/L	489.16	ppb	15:49:00
1	Ba 233.527†	63505.5	58887.2	489.51	ug/L	489.51	ppb	15:49:00
1	Be 313.107†	1320423.8	1228740.6	489.12	ug/L	489.12	ppb	15:48:55
1	Cd 226.502†	44725.9	41671.9	488.32	ug/L	488.32	ppb	15:49:00
1	Co 228.616†	24392.2	22691.6	492.87	ug/L	492.87	ppb	15:49:00
1	Cr 267.716†	44466.6	41138.1	485.92	ug/L	485.92	ppb	15:49:00
1	Cu 324.752†	171314.2	152561.5	486.99	ug/L	486.99	ppb	15:49:00
1	Mn 257.610†	450224.8	417089.0	489.37	ug/L	489.37	ppb	15:48:55
1	Mo 202.031†	7122.9	6585.7	489.30	ug/L	489.30	ppb	15:49:20
1	Ni 231.604†	20086.4	18551.0	488.04	ug/L	488.04	ppb	15:49:00
1	P 214.914†	4344.4	3800.7	2330.8	ug/L	2330.8	ppb	15:49:20
1	Pb 220.353†	4030.2	3801.8	488.53	ug/L	488.53	ppb	15:49:20
1	S 181.975 Axial†	759.1	657.5	980.36	ug/L	980.36	ppb	15:49:20
1	Sb 206.836†	1479.5	1339.2	507.23	ug/L	507.23	ppb	15:49:20
1	Se 196.026†	777.3	751.1	519.93	ug/L	519.93	ppb	15:49:20
1	Si 251.611†	79738.0	73495.1	2472.0	ug/L	2472.0	ppb	15:49:00
1	Sn 189.927†	2876.7	2661.5	493.00	ug/L	493.00	ppb	15:49:20
1	Ti 334.940†	304335.3	283597.0	486.36	ug/L	486.36	ppb	15:49:00
1	Tl 190.801†	1613.6	1540.2	495.98	ug/L	495.98	ppb	15:49:20
1	U 409.014†	15059.4	16005.5	509.54	ug/L	509.54	ppb	15:49:00
1	V 292.402†	71363.9	67582.9	494.12	ug/L	494.12	ppb	15:49:00
1	Zn 213.857†	54149.8	49352.8	487.97	ug/L	487.97	ppb	15:49:00
1	SiO2†	78960.5	72763.9	5203.3	ug/L	5203.3	ppb	15:50:28
2	Sc Radial	5184.5	5184.5	108	%			15:48:03
2	Y RADIAL	5528.7	5528.7	107.8	%			15:48:03
2	Al 396.153Radial†	6290.1	5816.4	4642.7	ug/L	4642.7	ppb	15:48:03
2	Ca 317.933Radial†	3112.1	2860.9	4817.7	ug/L	4817.7	ppb	15:48:23
2	Fe 238.204 Radial†	575.8	522.2	4924.0	ug/L	4924.0	ppb	15:48:23
2	K 766.490 Radial†	28705.0	23740.6	4750.2	ug/L	4750.2	ppb	15:48:03
2	Mg 279.077 IEC†	156.8	143.4	5033.6	ug/L	5033.6	ppb	15:48:23
2	Na 589.592 Radial†	29979.7	29273.0	9484.6	ug/L	9484.6	ppb	15:48:03
2	Sr 421.552†	73397.4	67813.7	483.33	ug/L	483.33	ppb	15:48:03
2	Sc 361.383	876326.5	876326.5	107.67	%			15:49:26
2	Y 371.029	726682.4	726682.4	105.94	%			15:49:26
2	Ag 328.068†	104067.0	96367.9	476.52	ug/L	476.52	ppb	15:49:31
2	As 188.979†	1127.9	1066.4	484.10	ug/L	484.10	ppb	15:49:51
2	B 249.677†	21078.3	20094.5	486.87	ug/L	486.87	ppb	15:49:31
2	Ba 233.527†	63232.7	58724.3	488.15	ug/L	488.15	ppb	15:49:31
2	Be 313.107†	1322048.1	1232130.4	490.46	ug/L	490.46	ppb	15:49:26
2	Cd 226.502†	44766.4	41773.2	489.50	ug/L	489.50	ppb	15:49:31
2	Co 228.616†	24254.1	22598.0	490.83	ug/L	490.83	ppb	15:49:31
2	Cr 267.716†	44305.7	41052.0	484.90	ug/L	484.90	ppb	15:49:31
2	Cu 324.752†	169384.0	151012.9	482.06	ug/L	482.06	ppb	15:49:31
2	Mn 257.610†	448400.1	416035.7	488.14	ug/L	488.14	ppb	15:49:26
2	Mo 202.031†	7067.8	6544.7	486.26	ug/L	486.26	ppb	15:49:51
2	Ni 231.604†	20032.7	18529.7	487.49	ug/L	487.49	ppb	15:49:31

2	P 214.914†	4312.8	3777.6	2316.9 ug/L	2316.9 ppb	15:49:51
2	Pb 220.353†	4004.6	3783.8	486.20 ug/L	486.20 ppb	15:49:51
2	S 181.975 Axial†	749.3	649.4	968.33 ug/L	968.33 ppb	15:49:51
2	Sb 206.836†	1470.6	1333.1	504.85 ug/L	504.85 ppb	15:49:51
2	Se 196.026†	775.6	750.7	519.84 ug/L	519.84 ppb	15:49:51
2	Si 251.611†	79033.3	72954.3	2453.8 ug/L	2453.8 ppb	15:49:31
2	Sn 189.927†	2843.7	2634.8	488.09 ug/L	488.09 ppb	15:49:51
2	Ti 334.940†	301938.5	281804.6	483.29 ug/L	483.29 ppb	15:49:31
2	Tl 190.801†	1586.9	1517.7	488.77 ug/L	488.77 ppb	15:49:51
2	U 409.014†	14835.5	15819.0	503.57 ug/L	503.57 ppb	15:49:31
2	V 292.402†	70966.2	67315.2	492.13 ug/L	492.13 ppb	15:49:31
2	Zn 213.857†	53937.1	49232.4	486.77 ug/L	486.77 ppb	15:49:31
2	SiO2†	79254.7	73149.5	5231.0 ug/L	5231.0 ppb	15:50:33
3	Sc Radial	5184.0	5184.0	108 %		15:48:28
3	Y RADIAL	5521.1	5521.1	107.6 %		15:48:28
3	Al 396.153Radial†	6410.0	5927.6	4732.0 ug/L	4732.0 ppb	15:48:28
3	Ca 317.933Radial†	3121.6	2870.0	4832.9 ug/L	4832.9 ppb	15:48:48
3	Fe 238.204 Radial†	579.8	526.0	4959.7 ug/L	4959.7 ppb	15:48:48
3	K 766.490 Radial†	29139.4	24144.3	4831.0 ug/L	4831.0 ppb	15:48:28
3	Mg 279.077 IEC†	158.8	145.3	5100.2 ug/L	5100.2 ppb	15:48:48
3	Na 589.592 Radial†	30320.3	29590.1	9587.4 ug/L	9587.4 ppb	15:48:28
3	Sr 421.552†	74504.0	68842.2	490.66 ug/L	490.66 ppb	15:48:28
3	Sc 361.383	876646.0	876646.0	107.71 %		15:49:57
3	Y 371.029	727449.0	727449.0	106.05 %		15:49:57
3	Ag 328.068†	105114.4	97305.1	481.14 ug/L	481.14 ppb	15:50:02
3	As 188.979†	1126.9	1065.1	483.57 ug/L	483.57 ppb	15:50:22
3	B 249.677†	21397.1	20383.3	493.88 ug/L	493.88 ppb	15:50:02
3	Ba 233.527†	63848.6	59274.6	492.73 ug/L	492.73 ppb	15:50:02
3	Be 313.107†	1317962.7	1227890.0	488.79 ug/L	488.79 ppb	15:49:57
3	Cd 226.502†	45198.9	42159.6	494.03 ug/L	494.03 ppb	15:50:02
3	Co 228.616†	24546.4	22861.3	496.54 ug/L	496.54 ppb	15:50:02
3	Cr 267.716†	44734.9	41435.6	489.43 ug/L	489.43 ppb	15:50:02
3	Cu 324.752†	171681.8	153088.8	488.68 ug/L	488.68 ppb	15:50:02
3	Mn 257.610†	447503.0	415051.1	486.99 ug/L	486.99 ppb	15:49:57
3	Mo 202.031†	7063.8	6538.6	485.81 ug/L	485.81 ppb	15:50:22
3	Ni 231.604†	20267.2	18740.7	493.04 ug/L	493.04 ppb	15:50:02
3	P 214.914†	4311.8	3775.1	2314.0 ug/L	2314.0 ppb	15:50:22
3	Pb 220.353†	3999.8	3778.0	485.47 ug/L	485.47 ppb	15:50:22
3	S 181.975 Axial†	756.8	656.1	978.34 ug/L	978.34 ppb	15:50:22
3	Sb 206.836†	1465.0	1327.4	502.76 ug/L	502.76 ppb	15:50:22
3	Se 196.026†	769.3	744.6	515.89 ug/L	515.89 ppb	15:50:22
3	Si 251.611†	80033.1	73855.7	2484.2 ug/L	2484.2 ppb	15:50:02
3	Sn 189.927†	2845.2	2635.4	488.19 ug/L	488.19 ppb	15:50:22
3	Ti 334.940†	305155.5	284689.1	488.23 ug/L	488.23 ppb	15:50:02
3	Tl 190.801†	1601.7	1530.9	492.98 ug/L	492.98 ppb	15:50:22
3	U 409.014†	15148.3	16104.5	512.68 ug/L	512.68 ppb	15:50:02
3	V 292.402†	71614.7	67893.2	496.30 ug/L	496.30 ppb	15:50:02
3	Zn 213.857†	54416.7	49659.3	490.98 ug/L	490.98 ppb	15:50:02
3	SiO2†	78801.3	72701.8	5198.9 ug/L	5198.9 ppb	15:50:38

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	876881.8	107.74	%	0.086				0.08%
Sc Radial	5213.6	109	%	1.1				0.97%
Y 371.029	726903.6	105.97	%	0.069				0.07%
Y RADIAL	5533.5	107.9	%	0.30				0.28%
Ag 328.068†	96922.2	479.24	ug/L	2.419	479.24	ppb	2.419	0.50%
QC value within limits for Ag 328.068 Recovery = 95.85%								
Al 396.153Radial†	5879.0	4692.9	ug/L	45.67	4692.9	ppb	45.67	0.97%
QC value within limits for Al 396.153Radial Recovery = 93.86%								
As 188.979†	1072.1	486.71	ug/L	4.988	486.71	ppb	4.988	1.02%
QC value within limits for As 188.979 Recovery = 97.34%								
B 249.677†	20222.0	489.97	ug/L	3.574	489.97	ppb	3.574	0.73%
QC value within limits for B 249.677 Recovery = 97.99%								
Ba 233.527†	58962.0	490.13	ug/L	2.350	490.13	ppb	2.350	0.48%
QC value within limits for Ba 233.527 Recovery = 98.03%								
Be 313.107†	1229587.0	489.46	ug/L	0.885	489.46	ppb	0.885	0.18%
QC value within limits for Be 313.107 Recovery = 97.89%								
Ca 317.933Radial†	2840.9	4783.9	ug/L	72.03	4783.9	ppb	72.03	1.51%

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   QC value within limits for Ca 317.933Radial  Recovery = 95.68%
Cd 226.502†            41868.2      490.62 ug/L        3.014      490.62 ppb        3.014   0.61%
   QC value within limits for Cd 226.502  Recovery = 98.12%
Co 228.616†            22717.0      493.41 ug/L        2.891      493.41 ppb        2.891   0.59%
   QC value within limits for Co 228.616  Recovery = 98.68%
Cr 267.716†            41208.6      486.75 ug/L        2.376      486.75 ppb        2.376   0.49%
   QC value within limits for Cr 267.716  Recovery = 97.35%
Cu 324.752†           152221.1      485.91 ug/L        3.442      485.91 ppb        3.442   0.71%
   QC value within limits for Cu 324.752  Recovery = 97.18%
Fe 238.204 Radial†       520.8      4910.4 ug/L       57.28      4910.4 ppb       57.28   1.17%
   QC value within limits for Fe 238.204 Radial  Recovery = 98.21%
K 766.490 Radial†      23956.3      4793.4 ug/L       40.71      4793.4 ppb       40.71   0.85%
   QC value within limits for K 766.490 Radial  Recovery = 95.87%
Mg 279.077 IEC†          142.7      5009.5 ug/L      104.86      5009.5 ppb      104.86   2.09%
   QC value within limits for Mg 279.077 IEC  Recovery = 100.19%
Mn 257.610†           416058.6      488.17 ug/L        1.194      488.17 ppb        1.194   0.24%
   QC value within limits for Mn 257.610  Recovery = 97.63%
Mo 202.031†             6556.4      487.12 ug/L        1.897      487.12 ppb        1.897   0.39%
   QC value within limits for Mo 202.031  Recovery = 97.42%
Na 589.592 Radial†     29490.3      9555.0 ug/L       61.04      9555.0 ppb       61.04   0.64%
   QC value within limits for Na 589.592 Radial  Recovery = 95.55%
Ni 231.604†            18607.1      489.52 ug/L        3.056      489.52 ppb        3.056   0.62%
   QC value within limits for Ni 231.604  Recovery = 97.90%
P 214.914†              3784.5      2320.6 ug/L        8.99      2320.6 ppb        8.99   0.39%
   QC value within limits for P 214.914  Recovery = 92.82%
Pb 220.353†             3787.8      486.73 ug/L        1.598      486.73 ppb        1.598   0.33%
   QC value within limits for Pb 220.353  Recovery = 97.35%
S 181.975 Axial†         654.4      975.68 ug/L        6.440      975.68 ppb        6.440   0.66%
   QC value within limits for S 181.975 Axial  Recovery = 97.57%
Sb 206.836†             1333.2      504.95 ug/L        2.237      504.95 ppb        2.237   0.44%
   QC value within limits for Sb 206.836  Recovery = 100.99%
Se 196.026†              748.8      518.56 ug/L        2.306      518.56 ppb        2.306   0.44%
   QC value within limits for Se 196.026  Recovery = 103.71%
Si 251.611†            73435.0      2470.0 ug/L       15.30      2470.0 ppb       15.30   0.62%
   QC value within limits for Si 251.611  Recovery = 98.80%
Sn 189.927†             2643.9      489.76 ug/L        2.803      489.76 ppb        2.803   0.57%
   QC value within limits for Sn 189.927  Recovery = 97.95%
Sr 421.552†            68425.1      487.69 ug/L        3.857      487.69 ppb        3.857   0.79%
   QC value within limits for Sr 421.552  Recovery = 97.54%
Ti 334.940†           283363.6      485.96 ug/L        2.494      485.96 ppb        2.494   0.51%
   QC value within limits for Ti 334.940  Recovery = 97.19%
Tl 190.801†             1529.6      492.58 ug/L        3.623      492.58 ppb        3.623   0.74%
   QC value within limits for Tl 190.801  Recovery = 98.52%
U 409.014†             15976.3      508.60 ug/L        4.623      508.60 ppb        4.623   0.91%
   QC value within limits for U 409.014  Recovery = 101.72%
V 292.402†             67597.1      494.19 ug/L        2.086      494.19 ppb        2.086   0.42%
   QC value within limits for V 292.402  Recovery = 98.84%
Zn 213.857†            49414.8      488.58 ug/L        2.169      488.58 ppb        2.169   0.44%
   QC value within limits for Zn 213.857  Recovery = 97.72%
SiO2†                  72871.7      5211.1 ug/L       17.40      5211.1 ppb       17.40   0.33%
   QC value within limits for SiO2  Recovery = 97.45%
All analyte(s) passed QC.
```

Sequence No.: 8
Sample ID: PQL
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 11
Date Collected: 1/14/2010 15:52:47
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: PQL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5145.5	5145.5	107	%			15:54:40
1	Y RADIAL	5509.8	5509.8	107.4	%			15:54:40
1	Al 396.153Radial†	247.8	233.9	187.24	ug/L	187.24	ppb	15:54:40
1	Ca 317.933Radial†	141.2	116.3	195.84	ug/L	195.84	ppb	15:55:01
1	Fe 238.204 Radial†	21.1	9.7	91.581	ug/L	91.581	ppb	15:55:01
1	K 766.490 Radial†	3478.4	451.6	90.232	ug/L	90.232	ppb	15:54:40
1	Mg 279.077 IEC†	13.2	10.8	379.23	ug/L	379.23	ppb	15:55:01
1	Na 589.592 Radial†	-342.4	1248.1	404.39	ug/L	404.39	ppb	15:54:40
1	Sr 421.552†	740.4	672.3	4.7903	ug/L	4.7903	ppb	15:54:40
1	Sc 361.383	860600.3	860600.3	105.74	%			15:55:57
1	Y 371.029	723958.9	723958.9	105.54	%			15:55:57
1	Ag 328.068†	1422.6	1063.8	5.2241	ug/L	5.2241	ppb	15:55:57
1	As 188.979†	53.5	69.4	31.286	ug/L	31.286	ppb	15:56:17
1	B 249.677†	1662.1	2090.4	50.849	ug/L	50.849	ppb	15:55:57
1	Ba 233.527†	636.6	600.6	4.9943	ug/L	4.9943	ppb	15:56:17
1	Be 313.107†	8564.5	12411.6	4.9413	ug/L	4.9413	ppb	15:55:57
1	Cd 226.502†	251.3	435.2	5.1069	ug/L	5.1069	ppb	15:56:17
1	Co 228.616†	153.8	218.2	4.7480	ug/L	4.7480	ppb	15:56:17
1	Cr 267.716†	484.5	362.5	4.2614	ug/L	4.2614	ppb	15:56:17
1	Cu 324.752†	9710.8	2885.4	9.1817	ug/L	9.1817	ppb	15:55:57
1	Mn 257.610†	9589.7	8664.6	10.154	ug/L	10.154	ppb	15:55:57
1	Mo 202.031†	151.9	124.3	9.2359	ug/L	9.2359	ppb	15:56:17
1	Ni 231.604†	272.1	182.2	4.7922	ug/L	4.7922	ppb	15:56:17
1	P 214.914†	459.9	207.0	130.36	ug/L	130.36	ppb	15:56:17
1	Pb 220.353†	39.6	102.0	13.115	ug/L	13.115	ppb	15:56:17
1	S 181.975 Axial†	114.8	62.1	92.662	ug/L	92.662	ppb	15:56:17
1	Sb 206.836†	67.6	31.2	11.722	ug/L	11.722	ppb	15:56:17
1	Se 196.026†	22.2	51.4	34.683	ug/L	34.683	ppb	15:56:17
1	Si 251.611†	3449.4	2816.2	94.840	ug/L	94.840	ppb	15:56:17
1	Sn 189.927†	61.6	52.1	9.6680	ug/L	9.6680	ppb	15:56:17
1	Ti 334.940†	1733.9	3026.8	5.1592	ug/L	5.1592	ppb	15:55:57
1	Tl 190.801†	27.6	70.0	22.462	ug/L	22.462	ppb	15:56:17
1	U 409.014†	-108.2	1938.7	61.896	ug/L	61.896	ppb	15:55:57
1	V 292.402†	-708.5	737.1	5.5532	ug/L	5.5532	ppb	15:55:57
1	Zn 213.857†	1722.3	768.4	7.6115	ug/L	7.6115	ppb	15:56:17
1	SiO2†	3581.7	2931.0	209.88	ug/L	209.88	ppb	15:57:14
2	Sc Radial	5275.4	5275.4	110	%			15:55:06
2	Y RADIAL	5650.5	5650.5	110.2	%			15:55:06
2	Al 396.153Radial†	260.8	240.1	192.14	ug/L	192.14	ppb	15:55:06
2	Ca 317.933Radial†	145.2	116.7	196.53	ug/L	196.53	ppb	15:55:26
2	Fe 238.204 Radial†	21.7	9.9	92.939	ug/L	92.939	ppb	15:55:26
2	K 766.490 Radial†	3509.6	400.1	79.917	ug/L	79.917	ppb	15:55:06
2	Mg 279.077 IEC†	11.1	8.6	302.17	ug/L	302.17	ppb	15:55:26
2	Na 589.592 Radial†	-389.6	1213.1	393.04	ug/L	393.04	ppb	15:55:06
2	Sr 421.552†	743.9	658.4	4.6916	ug/L	4.6916	ppb	15:55:06
2	Sc 361.383	884317.2	884317.2	108.66	%			15:56:23
2	Y 371.029	743753.6	743753.6	108.43	%			15:56:23
2	Ag 328.068†	1414.1	1019.9	5.0117	ug/L	5.0117	ppb	15:56:23
2	As 188.979†	39.0	54.7	24.674	ug/L	24.674	ppb	15:56:43
2	B 249.677†	1706.2	2088.8	50.810	ug/L	50.810	ppb	15:56:23
2	Ba 233.527†	631.2	579.5	4.8210	ug/L	4.8210	ppb	15:56:43
2	Be 313.107†	8669.1	12290.7	4.8934	ug/L	4.8934	ppb	15:56:23
2	Cd 226.502†	251.3	428.9	5.0321	ug/L	5.0321	ppb	15:56:43
2	Co 228.616†	157.7	217.9	4.7429	ug/L	4.7429	ppb	15:56:43
2	Cr 267.716†	498.2	362.8	4.2660	ug/L	4.2660	ppb	15:56:43
2	Cu 324.752†	9844.5	2762.1	8.7882	ug/L	8.7882	ppb	15:56:23
2	Mn 257.610†	9742.3	8561.9	10.037	ug/L	10.037	ppb	15:56:23
2	Mo 202.031†	168.8	136.0	10.106	ug/L	10.106	ppb	15:56:43
2	Ni 231.604†	285.8	187.9	4.9424	ug/L	4.9424	ppb	15:56:43

2	P 214.914†	450.8	187.0	117.66 ug/L	117.66 ppb	15:56:43
2	Pb 220.353†	20.4	83.4	10.735 ug/L	10.735 ppb	15:56:43
2	S 181.975 Axial†	113.9	58.4	87.087 ug/L	87.087 ppb	15:56:43
2	Sb 206.836†	66.6	28.5	10.774 ug/L	10.774 ppb	15:56:43
2	Se 196.026†	27.7	55.9	37.705 ug/L	37.705 ppb	15:56:43
2	Si 251.611†	3419.1	2700.9	90.940 ug/L	90.940 ppb	15:56:43
2	Sn 189.927†	57.3	46.6	8.6452 ug/L	8.6452 ppb	15:56:43
2	Ti 334.940†	1799.2	3042.9	5.1932 ug/L	5.1932 ppb	15:56:23
2	Tl 190.801†	32.6	73.9	23.695 ug/L	23.695 ppb	15:56:43
2	U 409.014†	-110.3	1939.5	61.921 ug/L	61.921 ppb	15:56:23
2	V 292.402†	-619.7	836.8	6.2833 ug/L	6.2833 ppb	15:56:23
2	Zn 213.857†	1688.9	694.0	6.8691 ug/L	6.8691 ppb	15:56:43
2	SiO2†	3529.5	2792.1	199.90 ug/L	199.90 ppb	15:57:19
3	Sc Radial	5273.9	5273.9	110 %		15:55:31
3	Y RADIAL	5677.7	5677.7	110.7 %		15:55:31
3	Al 396.153Radial†	258.3	238.0	190.39 ug/L	190.39 ppb	15:55:31
3	Ca 317.933Radial†	145.3	116.8	196.75 ug/L	196.75 ppb	15:55:51
3	Fe 238.204 Radial†	23.8	11.7	110.56 ug/L	110.56 ppb	15:55:51
3	K 766.490 Radial†	3552.8	440.3	87.971 ug/L	87.971 ppb	15:55:31
3	Mg 279.077 IEC†	11.9	9.3	326.13 ug/L	326.13 ppb	15:55:51
3	Na 589.592 Radial†	-343.9	1254.5	406.48 ug/L	406.48 ppb	15:55:31
3	Sr 421.552†	753.8	667.6	4.7568 ug/L	4.7568 ppb	15:55:31
3	Sc 361.383	869022.1	869022.1	106.78 %		15:56:48
3	Y 371.029	731616.2	731616.2	106.66 %		15:56:48
3	Ag 328.068†	1414.6	1043.2	5.1289 ug/L	5.1289 ppb	15:56:48
3	As 188.979†	52.2	67.8	30.552 ug/L	30.552 ppb	15:57:08
3	B 249.677†	1655.0	2068.5	50.312 ug/L	50.312 ppb	15:56:48
3	Ba 233.527†	615.4	574.9	4.7826 ug/L	4.7826 ppb	15:57:08
3	Be 313.107†	8597.2	12363.8	4.9225 ug/L	4.9225 ppb	15:56:48
3	Cd 226.502†	249.2	431.0	5.0551 ug/L	5.0551 ppb	15:57:08
3	Co 228.616†	160.8	223.3	4.8603 ug/L	4.8603 ppb	15:57:08
3	Cr 267.716†	525.9	396.8	4.6661 ug/L	4.6661 ppb	15:57:08
3	Cu 324.752†	9786.0	2866.8	9.1219 ug/L	9.1219 ppb	15:56:48
3	Mn 257.610†	9672.0	8653.8	10.145 ug/L	10.145 ppb	15:56:48
3	Mo 202.031†	170.9	140.8	10.461 ug/L	10.461 ppb	15:57:08
3	Ni 231.604†	277.7	185.0	4.8664 ug/L	4.8664 ppb	15:57:08
3	P 214.914†	459.9	202.8	127.68 ug/L	127.68 ppb	15:57:08
3	Pb 220.353†	18.9	82.3	10.591 ug/L	10.591 ppb	15:57:08
3	S 181.975 Axial†	114.8	61.1	91.099 ug/L	91.099 ppb	15:57:08
3	Sb 206.836†	70.8	33.6	12.627 ug/L	12.627 ppb	15:57:08
3	Se 196.026†	25.8	54.5	36.875 ug/L	36.875 ppb	15:57:08
3	Si 251.611†	3448.5	2783.8	93.731 ug/L	93.731 ppb	15:57:08
3	Sn 189.927†	61.6	51.5	9.5605 ug/L	9.5605 ppb	15:57:08
3	Ti 334.940†	1808.1	3080.4	5.2544 ug/L	5.2544 ppb	15:56:48
3	Tl 190.801†	38.5	80.0	25.636 ug/L	25.636 ppb	15:57:08
3	U 409.014†	-30.4	2012.5	64.252 ug/L	64.252 ppb	15:56:48
3	V 292.402†	-658.9	790.1	5.9533 ug/L	5.9533 ppb	15:56:48
3	Zn 213.857†	1719.7	750.2	7.4283 ug/L	7.4283 ppb	15:57:08
3	SiO2†	3550.8	2869.2	205.41 ug/L	205.41 ppb	15:57:24

Mean Data: PQL

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	871313.2	107.06	%	1.477				1.38%
Sc Radial	5231.6	109	%	1.6				1.43%
Y 371.029	733109.5	106.87	%	1.455				1.36%
Y RADIAL	5612.7	109.4	%	1.76				1.61%
Ag 328.068†	1042.3	5.1216	ug/L	0.10639	5.1216	ppb	0.10639	2.08%
QC value within limits for Ag 328.068 Recovery = 102.43%								
Al 396.153Radial†	237.3	189.92	ug/L	2.483	189.92	ppb	2.483	1.31%
QC value within limits for Al 396.153Radial Recovery = 94.96%								
As 188.979†	64.0	28.837	ug/L	3.6241	28.837	ppb	3.6241	12.57%
QC value within limits for As 188.979 Recovery = 96.12%								
B 249.677†	2082.6	50.657	ug/L	0.2992	50.657	ppb	0.2992	0.59%
QC value within limits for B 249.677 Recovery = 101.31%								
Ba 233.527†	585.0	4.8660	ug/L	0.11280	4.8660	ppb	0.11280	2.32%
QC value within limits for Ba 233.527 Recovery = 97.32%								
Be 313.107†	12355.4	4.9191	ug/L	0.02416	4.9191	ppb	0.02416	0.49%
QC value within limits for Be 313.107 Recovery = 98.38%								
Ca 317.933Radial†	116.6	196.37	ug/L	0.478	196.37	ppb	0.478	0.24%

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   QC value within limits for Ca 317.933Radial  Recovery = 98.19%
Cd 226.502†              431.7      5.0647 ug/L       0.03832      5.0647 ppb        0.03832   0.76%
   QC value within limits for Cd 226.502  Recovery = 101.29%
Co 228.616†              219.8      4.7837 ug/L       0.06633      4.7837 ppb        0.06633   1.39%
   QC value within limits for Co 228.616  Recovery = 95.67%
Cr 267.716†              374.0      4.3978 ug/L       0.23233      4.3978 ppb        0.23233   5.28%
   QC value within limits for Cr 267.716  Recovery = 87.96%
Cu 324.752†             2838.1      9.0306 ug/L       0.21204      9.0306 ppb        0.21204   2.35%
   QC value within limits for Cu 324.752  Recovery = 90.31%
Fe 238.204 Radial†        10.4      98.361 ug/L       10.5880      98.361 ppb        10.5880  10.76%
   QC value within limits for Fe 238.204 Radial  Recovery = 98.36%
K 766.490 Radial†        430.7      86.040 ug/L        5.4214      86.040 ppb         5.4214   6.30%
   QC value less than the lower limit for K 766.490 Radial  Recovery = 57.36%
Mg 279.077 IEC†           9.6      335.84 ug/L        39.435      335.84 ppb         39.435  11.74%
   QC value within limits for Mg 279.077 IEC  Recovery = 111.95%
Mn 257.610†             8626.8      10.112 ug/L        0.0653      10.112 ppb         0.0653   0.65%
   QC value within limits for Mn 257.610  Recovery = 101.12%
Mo 202.031†              133.7      9.9345 ug/L       0.63052      9.9345 ppb        0.63052   6.35%
   QC value within limits for Mo 202.031  Recovery = 99.34%
Na 589.592 Radial†      1238.6      401.30 ug/L         7.231      401.30 ppb          7.231   1.80%
   QC value greater than the upper limit for Na 589.592 Radial  Recovery = 133.77%
Ni 231.604†              185.0      4.8670 ug/L       0.07506      4.8670 ppb        0.07506   1.54%
   QC value within limits for Ni 231.604  Recovery = 97.34%
P 214.914†               199.0      125.24 ug/L         6.692      125.24 ppb          6.692   5.34%
   QC value within limits for P 214.914  Recovery = 83.49%
Pb 220.353†               89.2      11.480 ug/L        1.4178      11.480 ppb         1.4178  12.35%
   QC value within limits for Pb 220.353  Recovery = 114.80%
S 181.975 Axial†          60.5      90.283 ug/L        2.8758      90.283 ppb         2.8758   3.19%
   QC value within limits for S 181.975 Axial  Recovery = 90.28%
Sb 206.836†               31.1      11.708 ug/L        0.9266      11.708 ppb         0.9266   7.91%
   QC value within limits for Sb 206.836  Recovery = 117.08%
Se 196.026†               53.9      36.421 ug/L        1.5614      36.421 ppb         1.5614   4.29%
   QC value within limits for Se 196.026  Recovery = 121.40%
Si 251.611†             2767.0      93.170 ug/L        2.0097      93.170 ppb         2.0097   2.16%
   QC value within limits for Si 251.611  Recovery = 93.17%
Sn 189.927†               50.1      9.2912 ug/L       0.56207      9.2912 ppb        0.56207   6.05%
   QC value within limits for Sn 189.927  Recovery = 92.91%
Sr 421.552†              666.1      4.7462 ug/L       0.05021      4.7462 ppb        0.05021   1.06%
   QC value within limits for Sr 421.552  Recovery = 94.92%
Ti 334.940†             3050.0      5.2023 ug/L       0.04826      5.2023 ppb        0.04826   0.93%
   QC value within limits for Ti 334.940  Recovery = 104.05%
Tl 190.801†               74.6      23.931 ug/L        1.6002      23.931 ppb         1.6002   6.69%
   QC value within limits for Tl 190.801  Recovery = 119.66%
U 409.014†              1963.6      62.690 ug/L        1.3527      62.690 ppb         1.3527   2.16%
   QC value within limits for U 409.014  Recovery = 125.38%
V 292.402†               788.0      5.9300 ug/L       0.36561      5.9300 ppb        0.36561   6.17%
   QC value within limits for V 292.402  Recovery = 118.60%
Zn 213.857†              737.5      7.3030 ug/L       0.38678      7.3030 ppb        0.38678   5.30%
   QC value within limits for Zn 213.857  Recovery = 73.03%
SiO2†                   2864.1      205.06 ug/L         4.999      205.06 ppb          4.999   2.44%
   QC value within limits for SiO2  Recovery = 96.27%
QC Failed.  Continue with analysis.
```

Sequence No.: 9
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 1/14/2010 15:59:35
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4659.4	4659.4	97.2	%			16:01:27
1	Y RADIAL	5007.5	5007.5	97.62	%			16:01:27
1	Al 396.153Radial†	-10.2	-7.2	-5.8051	ug/L	-5.8051	ppb	16:01:27
1	Ca 317.933Radial†	18.9	4.3	7.2543	ug/L	7.2543	ppb	16:01:47
1	Fe 238.204 Radial†	8.0	-1.7	-15.719	ug/L	-15.719	ppb	16:01:47
1	K 766.490 Radial†	2779.1	70.3	14.065	ug/L	14.065	ppb	16:01:27
1	Mg 279.077 IEC†	0.7	-0.8	-29.417	ug/L	-29.417	ppb	16:01:47
1	Na 589.592 Radial†	-1362.2	166.1	53.833	ug/L	53.833	ppb	16:01:27
1	Sr 421.552†	11.4	-5.5	-0.0392	ug/L	-0.0392	ppb	16:01:27
1	Sc 361.383	866021.4	866021.4	106.41	%			16:02:44
1	Y 371.029	728495.4	728495.4	106.20	%			16:02:44
1	Ag 328.068†	339.5	37.5	0.1786	ug/L	0.1786	ppb	16:02:44
1	As 188.979†	-20.8	-0.7	-0.2960	ug/L	-0.2960	ppb	16:03:04
1	B 249.677†	-450.9	94.8	2.3095	ug/L	2.3095	ppb	16:03:04
1	Ba 233.527†	5.6	3.8	0.0326	ug/L	0.0326	ppb	16:03:04
1	Be 313.107†	-4421.1	157.4	0.0632	ug/L	0.0632	ppb	16:02:44
1	Cd 226.502†	-169.1	38.6	0.4554	ug/L	0.4554	ppb	16:03:04
1	Co 228.616†	-71.8	5.2	0.1147	ug/L	0.1147	ppb	16:03:04
1	Cr 267.716†	67.2	-32.6	-0.3853	ug/L	-0.3853	ppb	16:03:04
1	Cu 324.752†	6477.5	-210.7	-0.6758	ug/L	-0.6758	ppb	16:02:44
1	Mn 257.610†	415.1	-14.2	-0.0170	ug/L	-0.0170	ppb	16:03:04
1	Mo 202.031†	26.2	5.3	0.3956	ug/L	0.3956	ppb	16:03:04
1	Ni 231.604†	91.0	10.4	0.2745	ug/L	0.2745	ppb	16:03:04
1	P 214.914†	227.7	-13.9	-8.7010	ug/L	-8.7010	ppb	16:03:04
1	Pb 220.353†	-69.8	-1.0	-0.1272	ug/L	-0.1272	ppb	16:03:04
1	S 181.975 Axial†	45.0	-4.2	-6.2508	ug/L	-6.2508	ppb	16:03:04
1	Sb 206.836†	38.6	3.6	1.3250	ug/L	1.3250	ppb	16:03:04
1	Se 196.026†	-27.4	4.7	3.0652	ug/L	3.0652	ppb	16:03:04
1	Si 251.611†	475.4	0.9	0.0257	ug/L	0.0257	ppb	16:03:04
1	Sn 189.927†	10.4	3.6	0.6747	ug/L	0.6747	ppb	16:03:04
1	Ti 334.940†	-1301.9	163.5	0.2821	ug/L	0.2821	ppb	16:02:44
1	Tl 190.801†	-36.6	9.5	3.0463	ug/L	3.0463	ppb	16:03:04
1	U 409.014†	-2023.1	139.7	4.4642	ug/L	4.4642	ppb	16:02:44
1	V 292.402†	-1377.0	113.1	0.8317	ug/L	0.8317	ppb	16:02:44
1	Zn 213.857†	767.1	-139.4	-1.3898	ug/L	-1.3898	ppb	16:03:04
1	SiO2†	472.9	-11.8	-0.8576	ug/L	-0.8576	ppb	16:04:00
2	Sc Radial	5392.2	5392.2	113	%			16:01:52
2	Y RADIAL	5770.9	5770.9	112.5	%			16:01:52
2	Al 396.153Radial†	-1.0	2.3	1.8315	ug/L	1.8315	ppb	16:01:52
2	Ca 317.933Radial†	21.4	3.8	6.4600	ug/L	6.4600	ppb	16:02:12
2	Fe 238.204 Radial†	8.7	-2.1	-20.074	ug/L	-20.074	ppb	16:02:12
2	K 766.490 Radial†	2800.6	-298.9	-59.923	ug/L	-59.923	ppb	16:01:52
2	Mg 279.077 IEC†	1.8	0.1	2.9598	ug/L	2.9598	ppb	16:02:12
2	Na 589.592 Radial†	-1400.6	322.4	104.46	ug/L	104.46	ppb	16:01:52
2	Sr 421.552†	28.1	7.8	0.0552	ug/L	0.0552	ppb	16:01:52
2	Sc 361.383	861825.1	861825.1	105.89	%			16:03:09
2	Y 371.029	726215.3	726215.3	105.87	%			16:03:09
2	Ag 328.068†	319.1	19.8	0.0856	ug/L	0.0856	ppb	16:03:09
2	As 188.979†	-23.7	-3.6	-1.6058	ug/L	-1.6058	ppb	16:03:29
2	B 249.677†	-462.9	81.3	1.9827	ug/L	1.9827	ppb	16:03:29
2	Ba 233.527†	-16.6	-17.2	-0.1409	ug/L	-0.1409	ppb	16:03:29
2	Be 313.107†	-4400.2	156.9	0.0631	ug/L	0.0631	ppb	16:03:09
2	Cd 226.502†	-179.0	28.5	0.3387	ug/L	0.3387	ppb	16:03:29
2	Co 228.616†	-68.8	7.7	0.1694	ug/L	0.1694	ppb	16:03:29
2	Cr 267.716†	76.2	-23.8	-0.2841	ug/L	-0.2841	ppb	16:03:29
2	Cu 324.752†	6433.2	-222.9	-0.7188	ug/L	-0.7188	ppb	16:03:09
2	Mn 257.610†	418.4	-9.1	-0.0128	ug/L	-0.0128	ppb	16:03:29
2	Mo 202.031†	29.6	8.6	0.6392	ug/L	0.6392	ppb	16:03:29
2	Ni 231.604†	81.4	1.8	0.0462	ug/L	0.0462	ppb	16:03:29

2	P 214.914†	214.8	-25.0	-15.847 ug/L	-15.847 ppb	16:03:29
2	Pb 220.353†	-51.3	16.2	2.0754 ug/L	2.0754 ppb	16:03:29
2	S 181.975 Axial†	48.0	-1.2	-1.7421 ug/L	-1.7421 ppb	16:03:29
2	Sb 206.836†	31.6	-2.9	-1.0694 ug/L	-1.0694 ppb	16:03:29
2	Se 196.026†	-28.7	3.2	2.0994 ug/L	2.0994 ppb	16:03:29
2	Si 251.611†	479.3	6.7	0.2194 ug/L	0.2194 ppb	16:03:29
2	Sn 189.927†	-5.5	-11.4	-2.0993 ug/L	-2.0993 ppb	16:03:29
2	Ti 334.940†	-1264.5	192.9	0.3266 ug/L	0.3266 ppb	16:03:09
2	Tl 190.801†	-30.5	15.1	4.8186 ug/L	4.8186 ppb	16:03:29
2	U 409.014†	-1784.7	355.6	11.359 ug/L	11.359 ppb	16:03:09
2	V 292.402†	-1334.2	147.2	1.0953 ug/L	1.0953 ppb	16:03:09
2	Zn 213.857†	781.4	-122.4	-1.2179 ug/L	-1.2179 ppb	16:03:29
2	SiO2†	487.9	4.5	0.3057 ug/L	0.3057 ppb	16:04:05
3	Sc Radial	5260.1	5260.1	110 %		16:02:17
3	Y RADIAL	5637.3	5637.3	109.9 %		16:02:17
3	Al 396.153Radial†	-15.6	-10.9	-8.7458 ug/L	-8.7458 ppb	16:02:17
3	Ca 317.933Radial†	24.1	6.8	11.428 ug/L	11.428 ppb	16:02:37
3	Fe 238.204 Radial†	10.6	-0.2	-2.0976 ug/L	-2.0976 ppb	16:02:37
3	K 766.490 Radial†	2639.1	-383.5	-76.889 ug/L	-76.889 ppb	16:02:17
3	Mg 279.077 IEC†	-0.4	-1.9	-65.704 ug/L	-65.704 ppb	16:02:37
3	Na 589.592 Radial†	-1327.1	358.1	116.02 ug/L	116.02 ppb	16:02:17
3	Sr 421.552†	-6.5	-23.1	-0.1647 ug/L	-0.1647 ppb	16:02:17
3	Sc 361.383	868535.1	868535.1	106.72 %		16:03:34
3	Y 371.029	730952.8	730952.8	106.56 %		16:03:34
3	Ag 328.068†	391.0	84.8	0.4121 ug/L	0.4121 ppb	16:03:34
3	As 188.979†	-21.7	-1.5	-0.6640 ug/L	-0.6640 ppb	16:03:54
3	B 249.677†	-462.0	85.6	2.0843 ug/L	2.0843 ppb	16:03:54
3	Ba 233.527†	6.0	4.1	0.0359 ug/L	0.0359 ppb	16:03:54
3	Be 313.107†	-4385.5	202.8	0.0812 ug/L	0.0812 ppb	16:03:34
3	Cd 226.502†	-186.4	22.9	0.2699 ug/L	0.2699 ppb	16:03:54
3	Co 228.616†	-80.9	-3.1	-0.0688 ug/L	-0.0688 ppb	16:03:54
3	Cr 267.716†	68.6	-31.5	-0.3733 ug/L	-0.3733 ppb	16:03:54
3	Cu 324.752†	6325.9	-370.3	-1.1867 ug/L	-1.1867 ppb	16:03:34
3	Mn 257.610†	399.4	-30.1	-0.0328 ug/L	-0.0328 ppb	16:03:54
3	Mo 202.031†	13.9	-6.3	-0.4644 ug/L	-0.4644 ppb	16:03:54
3	Ni 231.604†	72.1	-7.6	-0.1992 ug/L	-0.1992 ppb	16:03:54
3	P 214.914†	235.3	-7.4	-4.4881 ug/L	-4.4881 ppb	16:03:54
3	Pb 220.353†	-51.9	15.9	2.0393 ug/L	2.0393 ppb	16:03:54
3	S 181.975 Axial†	39.9	-9.1	-13.569 ug/L	-13.569 ppb	16:03:54
3	Sb 206.836†	30.5	-4.1	-1.5002 ug/L	-1.5002 ppb	16:03:54
3	Se 196.026†	-37.4	-4.7	-3.1537 ug/L	-3.1537 ppb	16:03:54
3	Si 251.611†	490.4	13.6	0.4650 ug/L	0.4650 ppb	16:03:54
3	Sn 189.927†	14.8	7.8	1.4382 ug/L	1.4382 ppb	16:03:54
3	Ti 334.940†	-1308.7	160.6	0.2791 ug/L	0.2791 ppb	16:03:34
3	Tl 190.801†	-34.9	11.2	3.5679 ug/L	3.5679 ppb	16:03:54
3	U 409.014†	-1907.5	253.6	8.0989 ug/L	8.0989 ppb	16:03:34
3	V 292.402†	-1398.1	97.0	0.7078 ug/L	0.7078 ppb	16:03:34
3	Zn 213.857†	788.6	-121.3	-1.2070 ug/L	-1.2070 ppb	16:03:54
3	SiO2†	490.1	3.0	0.2286 ug/L	0.2286 ppb	16:04:10

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	865460.5	106.34	%	0.417				0.39%
Sc Radial	5103.9	107	%	8.2				7.65%
Y 371.029	728554.5	106.21	%	0.345				0.33%
Y RADIAL	5471.9	106.7	%	7.95				7.45%
Ag 328.068†	47.4	0.2254	ug/L	0.16820	0.2254	ppb	0.16820	74.62%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-5.3	-4.2398	ug/L	5.45962	-4.2398	ppb	5.45962	128.77%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-1.9	-0.8552	ug/L	0.67551	-0.8552	ppb	0.67551	78.99%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	87.3	2.1255	ug/L	0.16723	2.1255	ppb	0.16723	7.87%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-3.1	-0.0241	ug/L	0.10113	-0.0241	ppb	0.10113	418.94%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	172.4	0.0691	ug/L	0.01042	0.0691	ppb	0.01042	15.07%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	5.0	8.3806	ug/L	2.66843	8.3806	ppb	2.66843	31.84%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                30.0      0.3546 ug/L       0.09376      0.3546 ppb        0.09376  26.44%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                 3.3      0.0718 ug/L       0.12478      0.0718 ppb        0.12478 173.87%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†               -29.3     -0.3476 ug/L       0.05531     -0.3476 ppb        0.05531  15.91%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -267.9     -0.8604 ug/L       0.28339     -0.8604 ppb        0.28339  32.94%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -1.3     -12.630 ug/L        9.3780     -12.630 ppb         9.3780  74.25%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        -204.0     -40.916 ug/L       48.3645     -40.916 ppb        48.3645 118.21%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -0.9     -30.721 ug/L       34.3506     -30.721 ppb        34.3506 111.82%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               -17.8     -0.0209 ug/L       0.01053     -0.0209 ppb        0.01053  50.44%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 2.6      0.1901 ug/L       0.57975      0.1901 ppb        0.57975 304.91%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        282.2      91.438 ug/L       33.0764      91.438 ppb        33.0764  36.17%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                 1.5      0.0405 ug/L       0.23689      0.0405 ppb        0.23689 584.90%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -15.4     -9.6788 ug/L       5.74231     -9.6788 ppb        5.74231  59.33%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                10.4      1.3292 ug/L       1.26137      1.3292 ppb        1.26137  94.90%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -4.8     -7.1872 ug/L       5.96870     -7.1872 ppb        5.96870  83.05%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                -1.1     -0.4149 ug/L       1.52209     -0.4149 ppb        1.52209 366.85%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 1.1      0.6703 ug/L       3.34674      0.6703 ppb        3.34674 499.29%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                 7.1      0.2367 ug/L       0.22015      0.2367 ppb        0.22015  93.01%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 0.0      0.0045 ug/L       1.86154      0.0045 ppb        1.86154 >999.9%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                -6.9     -0.0496 ug/L       0.11033     -0.0496 ppb        0.11033 222.65%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               172.3      0.2959 ug/L       0.02661      0.2959 ppb        0.02661   8.99%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                11.9      3.8110 ug/L       0.91080      3.8110 ppb        0.91080  23.90%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                249.6      7.9740 ug/L       3.44894      7.9740 ppb        3.44894  43.25%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                119.1      0.8783 ug/L       0.19795      0.8783 ppb        0.19795  22.54%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              -127.7     -1.2716 ug/L       0.10252     -1.2716 ppb        0.10252   8.06%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                      -1.4     -0.1077 ug/L       0.65051     -0.1077 ppb        0.65051 603.75%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 18
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 1/14/2010 17:01:21
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5210.5	5210.5	109	%			17:03:13
1	Y RADIAL	5523.1	5523.1	107.7	%			17:03:13
1	Al 396.153Radial†	6451.1	5935.4	4737.9	ug/L	4737.9	ppb	17:03:13
1	Ca 317.933Radial†	3091.3	2827.4	4761.2	ug/L	4761.2	ppb	17:03:33
1	Fe 238.204 Radial†	568.7	513.0	4838.1	ug/L	4838.1	ppb	17:03:33
1	K 766.490 Radial†	29286.1	24142.5	4830.7	ug/L	4830.7	ppb	17:03:13
1	Mg 279.077 IEC†	153.7	139.9	4909.8	ug/L	4909.8	ppb	17:03:33
1	Na 589.592 Radial†	30090.7	29236.7	9472.8	ug/L	9472.8	ppb	17:03:13
1	Sr 421.552†	74178.7	68193.5	486.04	ug/L	486.04	ppb	17:03:13
1	Sc 361.383	863186.9	863186.9	106.06	%			17:04:30
1	Y 371.029	716352.1	716352.1	104.43	%			17:04:30
1	Ag 328.068†	105650.3	99332.0	491.10	ug/L	491.10	ppb	17:04:35
1	As 188.979†	1136.3	1090.2	494.92	ug/L	494.92	ppb	17:04:55
1	B 249.677†	21404.2	20699.7	501.58	ug/L	501.58	ppb	17:04:35
1	Ba 233.527†	64025.4	60365.6	501.80	ug/L	501.80	ppb	17:04:35
1	Be 313.107†	1311167.7	1240561.8	493.85	ug/L	493.85	ppb	17:04:30
1	Cd 226.502†	45211.3	42825.6	501.86	ug/L	501.86	ppb	17:04:35
1	Co 228.616†	24534.3	23205.1	504.00	ug/L	504.00	ppb	17:04:35
1	Cr 267.716†	44829.8	42172.6	498.13	ug/L	498.13	ppb	17:04:35
1	Cu 324.752†	172907.8	156730.1	500.29	ug/L	500.29	ppb	17:04:35
1	Mn 257.610†	445099.9	419263.3	491.92	ug/L	491.92	ppb	17:04:30
1	Mo 202.031†	7040.2	6618.6	491.74	ug/L	491.74	ppb	17:04:55
1	Ni 231.604†	20293.1	19058.4	501.40	ug/L	501.40	ppb	17:04:35
1	P 214.914†	4302.9	3829.2	2346.3	ug/L	2346.3	ppb	17:04:55
1	Pb 220.353†	3982.8	3819.8	490.85	ug/L	490.85	ppb	17:04:55
1	S 181.975 Axial†	749.4	660.1	984.21	ug/L	984.21	ppb	17:04:55
1	Sb 206.836†	1459.5	1343.4	508.80	ug/L	508.80	ppb	17:04:55
1	Se 196.026†	784.6	770.1	532.62	ug/L	532.62	ppb	17:04:55
1	Si 251.611†	80354.8	75317.6	2533.4	ug/L	2533.4	ppb	17:04:35
1	Sn 189.927†	2827.0	2659.3	492.61	ug/L	492.61	ppb	17:04:55
1	Ti 334.940†	306556.7	290427.5	498.07	ug/L	498.07	ppb	17:04:35
1	Tl 190.801†	1568.2	1522.5	490.37	ug/L	490.37	ppb	17:04:55
1	U 409.014†	15300.1	16466.9	524.25	ug/L	524.25	ppb	17:04:35
1	V 292.402†	72085.3	69373.6	507.09	ug/L	507.09	ppb	17:04:35
1	Zn 213.857†	54651.9	50668.8	501.00	ug/L	501.00	ppb	17:04:35
1	SiO2†	79267.8	74282.4	5312.1	ug/L	5312.1	ppb	17:06:03
2	Sc Radial	5329.7	5329.7	111	%			17:03:38
2	Y RADIAL	5727.5	5727.5	111.7	%			17:03:38
2	Al 396.153Radial†	6423.0	5777.5	4611.3	ug/L	4611.3	ppb	17:03:38
2	Ca 317.933Radial†	3033.4	2711.8	4566.6	ug/L	4566.6	ppb	17:03:58
2	Fe 238.204 Radial†	558.9	492.6	4645.6	ug/L	4645.6	ppb	17:03:58
2	K 766.490 Radial†	29412.1	23653.7	4732.9	ug/L	4732.9	ppb	17:03:38
2	Mg 279.077 IEC†	151.8	134.9	4737.4	ug/L	4737.4	ppb	17:03:58
2	Na 589.592 Radial†	30314.8	28819.5	9337.7	ug/L	9337.7	ppb	17:03:38
2	Sr 421.552†	74656.1	67097.6	478.23	ug/L	478.23	ppb	17:03:38
2	Sc 361.383	862358.1	862358.1	105.96	%			17:05:01
2	Y 371.029	714611.9	714611.9	104.18	%			17:05:01
2	Ag 328.068†	104039.6	97907.6	484.02	ug/L	484.02	ppb	17:05:06
2	As 188.979†	1128.0	1083.5	491.78	ug/L	491.78	ppb	17:05:26
2	B 249.677†	21027.9	20364.0	493.46	ug/L	493.46	ppb	17:05:06
2	Ba 233.527†	62788.0	59255.8	492.57	ug/L	492.57	ppb	17:05:06
2	Be 313.107†	1304703.2	1235648.9	491.88	ug/L	491.88	ppb	17:05:01
2	Cd 226.502†	44458.8	42156.3	494.02	ug/L	494.02	ppb	17:05:06
2	Co 228.616†	24131.3	22847.1	496.24	ug/L	496.24	ppb	17:05:06
2	Cr 267.716†	43932.3	41366.2	488.61	ug/L	488.61	ppb	17:05:06
2	Cu 324.752†	169255.3	153439.6	489.78	ug/L	489.78	ppb	17:05:06
2	Mn 257.610†	444607.9	419202.3	491.84	ug/L	491.84	ppb	17:05:01
2	Mo 202.031†	7020.1	6606.0	490.79	ug/L	490.79	ppb	17:05:26
2	Ni 231.604†	19936.4	18740.2	493.02	ug/L	493.02	ppb	17:05:06

2	P 214.914†	4270.3	3802.3	2331.4 ug/L	2331.4 ppb	17:05:26
2	Pb 220.353†	3957.8	3799.8	488.27 ug/L	488.27 ppb	17:05:26
2	S 181.975 Axial†	760.2	671.0	1000.6 ug/L	1000.6 ppb	17:05:26
2	Sb 206.836†	1451.4	1337.0	506.45 ug/L	506.45 ppb	17:05:26
2	Se 196.026†	752.5	740.5	512.18 ug/L	512.18 ppb	17:05:26
2	Si 251.611†	78888.5	74006.5	2489.2 ug/L	2489.2 ppb	17:05:06
2	Sn 189.927†	2828.0	2662.9	493.23 ug/L	493.23 ppb	17:05:26
2	Ti 334.940†	300878.0	285346.0	489.35 ug/L	489.35 ppb	17:05:06
2	Tl 190.801†	1576.9	1532.2	493.43 ug/L	493.43 ppb	17:05:26
2	U 409.014†	14883.9	16087.9	512.19 ug/L	512.19 ppb	17:05:06
2	V 292.402†	70748.8	68177.6	498.46 ug/L	498.46 ppb	17:05:06
2	Zn 213.857†	53625.7	49749.9	491.92 ug/L	491.92 ppb	17:05:06
2	SiO2†	78450.4	73582.7	5261.9 ug/L	5261.9 ppb	17:06:08
3	Sc Radial	5234.3	5234.3	109 %		17:04:03
3	Y RADIAL	5582.3	5582.3	108.8 %		17:04:03
3	Al 396.153Radial†	6348.8	5814.7	4641.4 ug/L	4641.4 ppb	17:04:03
3	Ca 317.933Radial†	3112.5	2833.9	4772.2 ug/L	4772.2 ppb	17:04:23
3	Fe 238.204 Radial†	573.8	515.4	4859.7 ug/L	4859.7 ppb	17:04:23
3	K 766.490 Radial†	29151.9	23897.0	4781.6 ug/L	4781.6 ppb	17:04:03
3	Mg 279.077 IEC†	159.0	144.0	5056.9 ug/L	5056.9 ppb	17:04:23
3	Na 589.592 Radial†	29562.5	28627.2	9275.4 ug/L	9275.4 ppb	17:04:03
3	Sr 421.552†	73455.8	67221.2	479.11 ug/L	479.11 ppb	17:04:03
3	Sc 361.383	870366.0	870366.0	106.94 %		17:05:32
3	Y 371.029	720440.4	720440.4	105.03 %		17:05:32
3	Ag 328.068†	102646.8	95701.8	473.22 ug/L	473.22 ppb	17:05:37
3	As 188.979†	1115.7	1062.1	482.16 ug/L	482.16 ppb	17:05:57
3	B 249.677†	20849.1	20014.2	484.94 ug/L	484.94 ppb	17:05:37
3	Ba 233.527†	62547.3	58485.5	486.17 ug/L	486.17 ppb	17:05:37
3	Be 313.107†	1311841.7	1230995.0	490.01 ug/L	490.01 ppb	17:05:32
3	Cd 226.502†	44165.8	41496.3	486.26 ug/L	486.26 ppb	17:05:37
3	Co 228.616†	23962.7	22479.8	488.27 ug/L	488.27 ppb	17:05:37
3	Cr 267.716†	43786.4	40848.2	482.49 ug/L	482.49 ppb	17:05:37
3	Cu 324.752†	168056.1	150848.6	481.52 ug/L	481.52 ppb	17:05:37
3	Mn 257.610†	446514.2	417124.2	489.41 ug/L	489.41 ppb	17:05:32
3	Mo 202.031†	7005.8	6531.7	485.29 ug/L	485.29 ppb	17:05:57
3	Ni 231.604†	19852.5	18488.6	486.41 ug/L	486.41 ppb	17:05:37
3	P 214.914†	4253.4	3749.4	2299.1 ug/L	2299.1 ppb	17:05:57
3	Pb 220.353†	3970.7	3777.5	485.41 ug/L	485.41 ppb	17:05:57
3	S 181.975 Axial†	753.7	658.3	981.58 ug/L	981.58 ppb	17:05:57
3	Sb 206.836†	1460.0	1332.5	504.60 ug/L	504.60 ppb	17:05:57
3	Se 196.026†	759.9	740.9	513.11 ug/L	513.11 ppb	17:05:57
3	Si 251.611†	78320.8	72790.7	2448.3 ug/L	2448.3 ppb	17:05:37
3	Sn 189.927†	2824.3	2634.8	488.08 ug/L	488.08 ppb	17:05:57
3	Ti 334.940†	299153.6	281120.9	482.11 ug/L	482.11 ppb	17:05:37
3	Tl 190.801†	1577.4	1518.9	489.17 ug/L	489.17 ppb	17:05:57
3	U 409.014†	14944.2	16015.0	509.85 ug/L	509.85 ppb	17:05:37
3	V 292.402†	70402.1	67239.1	491.59 ug/L	491.59 ppb	17:05:37
3	Zn 213.857†	53355.1	49031.2	484.78 ug/L	484.78 ppb	17:05:37
3	SiO2†	79182.0	73585.6	5262.3 ug/L	5262.3 ppb	17:06:13

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	865303.7	106.32	%	0.541				0.51%
Sc Radial	5258.2	110	%	1.3				1.20%
Y 371.029	717134.8	104.54	%	0.436				0.42%
Y RADIAL	5611.0	109.4	%	2.05				1.87%
Ag 328.068†	97647.1	482.78	ug/L	9.003	482.78	ppb	9.003	1.86%
QC value within limits for Ag 328.068 Recovery = 96.56%								
Al 396.153Radial†	5842.5	4663.5	ug/L	66.15	4663.5	ppb	66.15	1.42%
QC value within limits for Al 396.153Radial Recovery = 93.27%								
As 188.979†	1078.6	489.62	ug/L	6.648	489.62	ppb	6.648	1.36%
QC value within limits for As 188.979 Recovery = 97.92%								
B 249.677†	20359.3	493.33	ug/L	8.322	493.33	ppb	8.322	1.69%
QC value within limits for B 249.677 Recovery = 98.67%								
Ba 233.527†	59369.0	493.51	ug/L	7.854	493.51	ppb	7.854	1.59%
QC value within limits for Ba 233.527 Recovery = 98.70%								
Be 313.107†	1235735.2	491.91	ug/L	1.918	491.91	ppb	1.918	0.39%
QC value within limits for Be 313.107 Recovery = 98.38%								
Ca 317.933Radial†	2791.1	4700.0	ug/L	115.65	4700.0	ppb	115.65	2.46%

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   QC value within limits for Ca 317.933Radial  Recovery = 94.00%
Cd 226.502†            42159.4      494.05 ug/L         7.797      494.05 ppb          7.797   1.58%
   QC value within limits for Cd 226.502  Recovery = 98.81%
Co 228.616†            22844.0      496.17 ug/L         7.867      496.17 ppb          7.867   1.59%
   QC value within limits for Co 228.616  Recovery = 99.23%
Cr 267.716†            41462.3      489.75 ug/L         7.882      489.75 ppb          7.882   1.61%
   QC value within limits for Cr 267.716  Recovery = 97.95%
Cu 324.752†           153672.8      490.53 ug/L         9.406      490.53 ppb          9.406   1.92%
   QC value within limits for Cu 324.752  Recovery = 98.11%
Fe 238.204 Radial†       507.0      4781.1 ug/L       117.86      4781.1 ppb        117.86   2.47%
   QC value within limits for Fe 238.204 Radial  Recovery = 95.62%
K 766.490 Radial†      23897.7      4781.8 ug/L        48.90      4781.8 ppb         48.90   1.02%
   QC value within limits for K 766.490 Radial  Recovery = 95.64%
Mg 279.077 IEC†          139.6      4901.4 ug/L       159.93      4901.4 ppb        159.93   3.26%
   QC value within limits for Mg 279.077 IEC  Recovery = 98.03%
Mn 257.610†           418529.9      491.05 ug/L         1.427      491.05 ppb          1.427   0.29%
   QC value within limits for Mn 257.610  Recovery = 98.21%
Mo 202.031†             6585.4      489.27 ug/L         3.482      489.27 ppb          3.482   0.71%
   QC value within limits for Mo 202.031  Recovery = 97.85%
Na 589.592 Radial†     28894.5      9362.0 ug/L       100.95      9362.0 ppb        100.95   1.08%
   QC value within limits for Na 589.592 Radial  Recovery = 93.62%
Ni 231.604†            18762.4      493.61 ug/L         7.512      493.61 ppb          7.512   1.52%
   QC value within limits for Ni 231.604  Recovery = 98.72%
P 214.914†              3793.6      2325.6 ug/L        24.17      2325.6 ppb         24.17   1.04%
   QC value within limits for P 214.914  Recovery = 93.02%
Pb 220.353†             3799.0      488.18 ug/L         2.722      488.18 ppb          2.722   0.56%
   QC value within limits for Pb 220.353  Recovery = 97.64%
S 181.975 Axial†         663.1      988.79 ug/L        10.299      988.79 ppb         10.299   1.04%
   QC value within limits for S 181.975 Axial  Recovery = 98.88%
Sb 206.836†             1337.6      506.62 ug/L         2.104      506.62 ppb          2.104   0.42%
   QC value within limits for Sb 206.836  Recovery = 101.32%
Se 196.026†              750.5      519.30 ug/L        11.541      519.30 ppb         11.541   2.22%
   QC value within limits for Se 196.026  Recovery = 103.86%
Si 251.611†            74038.3      2490.3 ug/L        42.57      2490.3 ppb         42.57   1.71%
   QC value within limits for Si 251.611  Recovery = 99.61%
Sn 189.927†             2652.3      491.31 ug/L         2.810      491.31 ppb          2.810   0.57%
   QC value within limits for Sn 189.927  Recovery = 98.26%
Sr 421.552†            67504.1      481.13 ug/L         4.278      481.13 ppb          4.278   0.89%
   QC value within limits for Sr 421.552  Recovery = 96.23%
Ti 334.940†           285631.4      489.84 ug/L         7.994      489.84 ppb          7.994   1.63%
   QC value within limits for Ti 334.940  Recovery = 97.97%
Tl 190.801†             1524.5      490.99 ug/L         2.197      490.99 ppb          2.197   0.45%
   QC value within limits for Tl 190.801  Recovery = 98.20%
U 409.014†             16189.9      515.43 ug/L         7.726      515.43 ppb          7.726   1.50%
   QC value within limits for U 409.014  Recovery = 103.09%
V 292.402†             68263.4      499.05 ug/L         7.764      499.05 ppb          7.764   1.56%
   QC value within limits for V 292.402  Recovery = 99.81%
Zn 213.857†            49816.6      492.56 ug/L         8.126      492.56 ppb          8.126   1.65%
   QC value within limits for Zn 213.857  Recovery = 98.51%
SiO2†                  73816.9      5278.8 ug/L        28.84      5278.8 ppb         28.84   0.55%
   QC value within limits for SiO2  Recovery = 98.71%
All analyte(s) passed QC.
```

Sequence No.: 19
Sample ID: PQL
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 11
Date Collected: 1/14/2010 17:08:23
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: PQL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5205.9	5205.9	109	%			17:10:16
1	Y RADIAL	5551.4	5551.4	108.2	%			17:10:16
1	Al 396.153Radial†	244.4	228.1	182.53	ug/L	182.53	ppb	17:10:16
1	Ca 317.933Radial†	144.8	118.1	198.88	ug/L	198.88	ppb	17:10:36
1	Fe 238.204 Radial†	21.4	9.8	92.655	ug/L	92.655	ppb	17:10:36
1	K 766.490 Radial†	3578.2	505.8	101.09	ug/L	101.09	ppb	17:10:16
1	Mg 279.077 IEC†	12.6	10.1	354.07	ug/L	354.07	ppb	17:10:36
1	Na 589.592 Radial†	-309.7	1281.9	415.35	ug/L	415.35	ppb	17:10:16
1	Sr 421.552†	756.1	678.7	4.8361	ug/L	4.8361	ppb	17:10:16
1	Sc 361.383	864686.2	864686.2	106.24	%			17:11:33
1	Y 371.029	727912.6	727912.6	106.12	%			17:11:33
1	Ag 328.068†	1500.8	1131.0	5.5575	ug/L	5.5575	ppb	17:11:33
1	As 188.979†	46.5	62.6	28.239	ug/L	28.239	ppb	17:11:53
1	B 249.677†	1792.6	2205.8	53.656	ug/L	53.656	ppb	17:11:33
1	Ba 233.527†	622.8	584.7	4.8638	ug/L	4.8638	ppb	17:11:53
1	Be 313.107†	8726.9	12526.3	4.9869	ug/L	4.9869	ppb	17:11:33
1	Cd 226.502†	262.8	444.9	5.2201	ug/L	5.2201	ppb	17:11:53
1	Co 228.616†	165.0	228.0	4.9640	ug/L	4.9640	ppb	17:11:53
1	Cr 267.716†	517.9	391.7	4.6072	ug/L	4.6072	ppb	17:11:53
1	Cu 324.752†	9883.1	3004.1	9.5614	ug/L	9.5614	ppb	17:11:33
1	Mn 257.610†	9666.9	8694.4	10.190	ug/L	10.190	ppb	17:11:33
1	Mo 202.031†	166.7	137.6	10.222	ug/L	10.222	ppb	17:11:53
1	Ni 231.604†	283.1	191.4	5.0345	ug/L	5.0345	ppb	17:11:53
1	P 214.914†	456.6	201.9	126.99	ug/L	126.99	ppb	17:11:53
1	Pb 220.353†	14.1	77.8	10.022	ug/L	10.022	ppb	17:11:53
1	S 181.975 Axial†	120.5	66.9	99.862	ug/L	99.862	ppb	17:11:53
1	Sb 206.836†	66.4	29.8	11.223	ug/L	11.223	ppb	17:11:53
1	Se 196.026†	19.5	48.7	32.934	ug/L	32.934	ppb	17:11:53
1	Si 251.611†	3541.5	2887.5	97.231	ug/L	97.231	ppb	17:11:33
1	Sn 189.927†	53.9	44.6	8.2756	ug/L	8.2756	ppb	17:11:53
1	Ti 334.940†	1749.2	3033.5	5.1735	ug/L	5.1735	ppb	17:11:33
1	Tl 190.801†	38.2	79.9	25.608	ug/L	25.608	ppb	17:11:53
1	U 409.014†	-149.7	1900.0	60.661	ug/L	60.661	ppb	17:11:33
1	V 292.402†	-644.3	800.7	6.0232	ug/L	6.0232	ppb	17:11:33
1	Zn 213.857†	1740.1	777.5	7.7002	ug/L	7.7002	ppb	17:11:53
1	SiO2†	3553.7	2888.7	206.82	ug/L	206.82	ppb	17:12:49
2	Sc Radial	5301.1	5301.1	111	%			17:10:41
2	Y RADIAL	5651.3	5651.3	110.2	%			17:10:41
2	Al 396.153Radial†	274.6	251.4	201.20	ug/L	201.20	ppb	17:10:41
2	Ca 317.933Radial†	145.6	116.4	196.02	ug/L	196.02	ppb	17:11:01
2	Fe 238.204 Radial†	22.6	10.6	99.458	ug/L	99.458	ppb	17:11:01
2	K 766.490 Radial†	3616.5	481.3	96.185	ug/L	96.185	ppb	17:10:41
2	Mg 279.077 IEC†	15.5	12.5	437.73	ug/L	437.73	ppb	17:11:01
2	Na 589.592 Radial†	-340.9	1258.8	407.86	ug/L	407.86	ppb	17:10:41
2	Sr 421.552†	769.5	678.3	4.8335	ug/L	4.8335	ppb	17:10:41
2	Sc 361.383	866616.2	866616.2	106.48	%			17:11:58
2	Y 371.029	729585.0	729585.0	106.36	%			17:11:58
2	Ag 328.068†	1506.6	1133.3	5.5700	ug/L	5.5700	ppb	17:11:58
2	As 188.979†	41.6	57.9	26.107	ug/L	26.107	ppb	17:12:18
2	B 249.677†	1782.9	2192.9	53.344	ug/L	53.344	ppb	17:11:58
2	Ba 233.527†	636.2	596.0	4.9568	ug/L	4.9568	ppb	17:12:18
2	Be 313.107†	8730.1	12511.0	4.9809	ug/L	4.9809	ppb	17:11:58
2	Cd 226.502†	279.8	460.4	5.4003	ug/L	5.4003	ppb	17:12:18
2	Co 228.616†	145.5	209.3	4.5570	ug/L	4.5570	ppb	17:12:18
2	Cr 267.716†	507.6	380.9	4.4799	ug/L	4.4799	ppb	17:12:18
2	Cu 324.752†	9752.8	2861.1	9.1050	ug/L	9.1050	ppb	17:11:58
2	Mn 257.610†	9682.0	8688.4	10.180	ug/L	10.180	ppb	17:11:58
2	Mo 202.031†	166.6	137.2	10.191	ug/L	10.191	ppb	17:12:18
2	Ni 231.604†	282.7	190.4	5.0081	ug/L	5.0081	ppb	17:12:18

2	P 214.914†	460.1	204.2	128.58 ug/L	128.58 ppb	17:12:18
2	Pb 220.353†	14.8	78.5	10.109 ug/L	10.109 ppb	17:12:18
2	S 181.975 Axial†	122.5	68.6	102.29 ug/L	102.29 ppb	17:12:18
2	Sb 206.836†	65.1	28.4	10.737 ug/L	10.737 ppb	17:12:18
2	Se 196.026†	14.9	44.4	30.039 ug/L	30.039 ppb	17:12:18
2	Si 251.611†	3569.0	2905.9	97.852 ug/L	97.852 ppb	17:11:58
2	Sn 189.927†	65.0	54.9	10.191 ug/L	10.191 ppb	17:12:18
2	Ti 334.940†	1774.1	3053.1	5.2001 ug/L	5.2001 ppb	17:11:58
2	Tl 190.801†	36.5	78.1	25.057 ug/L	25.057 ppb	17:12:18
2	U 409.014†	-151.1	1899.1	60.629 ug/L	60.629 ppb	17:11:58
2	V 292.402†	-689.6	759.5	5.7257 ug/L	5.7257 ppb	17:11:58
2	Zn 213.857†	1740.0	773.8	7.6631 ug/L	7.6631 ppb	17:12:18
2	SiO2†	3596.2	2921.0	209.14 ug/L	209.14 ppb	17:12:54
3	Sc Radial	5246.6	5246.6	110 %		17:11:06
3	Y RADIAL	5626.2	5626.2	109.7 %		17:11:06
3	Al 396.153Radial†	246.0	227.9	182.35 ug/L	182.35 ppb	17:11:06
3	Ca 317.933Radial†	140.6	113.2	190.71 ug/L	190.71 ppb	17:11:26
3	Fe 238.204 Radial†	22.1	10.3	96.788 ug/L	96.788 ppb	17:11:26
3	K 766.490 Radial†	3554.9	458.9	91.713 ug/L	91.713 ppb	17:11:06
3	Mg 279.077 IEC†	9.2	6.9	241.60 ug/L	241.60 ppb	17:11:26
3	Na 589.592 Radial†	-394.7	1206.5	390.90 ug/L	390.90 ppb	17:11:06
3	Sr 421.552†	723.7	643.7	4.5866 ug/L	4.5866 ppb	17:11:06
3	Sc 361.383	875140.8	875140.8	107.53 %		17:12:24
3	Y 371.029	734809.4	734809.4	107.12 %		17:12:24
3	Ag 328.068†	1517.2	1129.4	5.5490 ug/L	5.5490 ppb	17:12:24
3	As 188.979†	50.0	65.3	29.450 ug/L	29.450 ppb	17:12:44
3	B 249.677†	1753.5	2149.2	52.280 ug/L	52.280 ppb	17:12:24
3	Ba 233.527†	632.5	586.8	4.8822 ug/L	4.8822 ppb	17:12:44
3	Be 313.107†	8655.0	12361.3	4.9213 ug/L	4.9213 ppb	17:12:24
3	Cd 226.502†	266.0	445.0	5.2211 ug/L	5.2211 ppb	17:12:44
3	Co 228.616†	157.5	219.2	4.7713 ug/L	4.7713 ppb	17:12:44
3	Cr 267.716†	508.2	376.9	4.4311 ug/L	4.4311 ppb	17:12:44
3	Cu 324.752†	9855.5	2867.4	9.1225 ug/L	9.1225 ppb	17:12:24
3	Mn 257.610†	9715.9	8631.4	10.121 ug/L	10.121 ppb	17:12:24
3	Mo 202.031†	168.0	136.9	10.172 ug/L	10.172 ppb	17:12:44
3	Ni 231.604†	293.1	197.4	5.1938 ug/L	5.1938 ppb	17:12:44
3	P 214.914†	452.8	193.2	121.55 ug/L	121.55 ppb	17:12:44
3	Pb 220.353†	17.5	80.9	10.411 ug/L	10.411 ppb	17:12:44
3	S 181.975 Axial†	114.7	60.2	89.840 ug/L	89.840 ppb	17:12:44
3	Sb 206.836†	59.6	22.7	8.6320 ug/L	8.6320 ppb	17:12:44
3	Se 196.026†	24.1	52.8	35.643 ug/L	35.643 ppb	17:12:44
3	Si 251.611†	3610.4	2911.7	98.049 ug/L	98.049 ppb	17:12:24
3	Sn 189.927†	58.5	48.3	8.9633 ug/L	8.9633 ppb	17:12:44
3	Ti 334.940†	1747.3	3012.0	5.1427 ug/L	5.1427 ppb	17:12:24
3	Tl 190.801†	23.3	65.5	21.018 ug/L	21.018 ppb	17:12:44
3	U 409.014†	10.2	2050.4	65.465 ug/L	65.465 ppb	17:12:24
3	V 292.402†	-577.3	870.3	6.5304 ug/L	6.5304 ppb	17:12:24
3	Zn 213.857†	1732.2	750.6	7.4313 ug/L	7.4313 ppb	17:12:44
3	SiO2†	3511.2	2809.1	201.12 ug/L	201.12 ppb	17:12:59

Mean Data: PQL

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	868814.4	106.75	%	0.684				0.64%
Sc Radial	5251.2	110	%	1.0				0.91%
Y 371.029	730769.0	106.53	%	0.524				0.49%
Y RADIAL	5609.7	109.4	%	1.01				0.93%
Ag 328.068†	1131.2	5.5589	ug/L	0.01055	5.5589	ppb	0.01055	0.19%
QC value within limits for Ag 328.068 Recovery = 111.18%								
Al 396.153Radial†	235.8	188.70	ug/L	10.831	188.70	ppb	10.831	5.74%
QC value within limits for Al 396.153Radial Recovery = 94.35%								
As 188.979†	62.0	27.932	ug/L	1.6925	27.932	ppb	1.6925	6.06%
QC value within limits for As 188.979 Recovery = 93.11%								
B 249.677†	2182.6	53.093	ug/L	0.7216	53.093	ppb	0.7216	1.36%
QC value within limits for B 249.677 Recovery = 106.19%								
Ba 233.527†	589.1	4.9009	ug/L	0.04927	4.9009	ppb	0.04927	1.01%
QC value within limits for Ba 233.527 Recovery = 98.02%								
Be 313.107†	12466.2	4.9630	ug/L	0.03627	4.9630	ppb	0.03627	0.73%
QC value within limits for Be 313.107 Recovery = 99.26%								
Ca 317.933Radial†	115.9	195.20	ug/L	4.149	195.20	ppb	4.149	2.13%

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   QC value within limits for Ca 317.933Radial  Recovery = 97.60%
Cd 226.502†              450.1      5.2805 ug/L       0.10375      5.2805 ppb        0.10375   1.96%
   QC value within limits for Cd 226.502  Recovery = 105.61%
Co 228.616†              218.8      4.7641 ug/L       0.20355      4.7641 ppb        0.20355   4.27%
   QC value within limits for Co 228.616  Recovery = 95.28%
Cr 267.716†              383.2      4.5061 ug/L       0.09090      4.5061 ppb        0.09090   2.02%
   QC value within limits for Cr 267.716  Recovery = 90.12%
Cu 324.752†             2910.9      9.2630 ug/L       0.25857      9.2630 ppb        0.25857   2.79%
   QC value within limits for Cu 324.752  Recovery = 92.63%
Fe 238.204 Radial†       10.2      96.300 ug/L        3.4275      96.300 ppb         3.4275   3.56%
   QC value within limits for Fe 238.204 Radial  Recovery = 96.30%
K 766.490 Radial†        482.0      96.329 ug/L        4.6887      96.329 ppb         4.6887   4.87%
   QC value less than the lower limit for K 766.490 Radial  Recovery = 64.22%
Mg 279.077 IEC†           9.8      344.47 ug/L        98.414      344.47 ppb         98.414  28.57%
   QC value within limits for Mg 279.077 IEC  Recovery = 114.82%
Mn 257.610†             8671.4      10.164 ug/L        0.0373      10.164 ppb         0.0373   0.37%
   QC value within limits for Mn 257.610  Recovery = 101.64%
Mo 202.031†              137.2      10.195 ug/L        0.0251      10.195 ppb         0.0251   0.25%
   QC value within limits for Mo 202.031  Recovery = 101.95%
Na 589.592 Radial†      1249.1      404.70 ug/L        12.526      404.70 ppb         12.526   3.10%
   QC value greater than the upper limit for Na 589.592 Radial  Recovery = 134.90%
Ni 231.604†              193.0      5.0788 ug/L       0.10046      5.0788 ppb        0.10046   1.98%
   QC value within limits for Ni 231.604  Recovery = 101.58%
P 214.914†               199.8      125.71 ug/L         3.690      125.71 ppb          3.690   2.94%
   QC value within limits for P 214.914  Recovery = 83.80%
Pb 220.353†               79.1      10.181 ug/L        0.2039      10.181 ppb         0.2039   2.00%
   QC value within limits for Pb 220.353  Recovery = 101.81%
S 181.975 Axial†          65.2      97.330 ug/L        6.5993      97.330 ppb         6.5993   6.78%
   QC value within limits for S 181.975 Axial  Recovery = 97.33%
Sb 206.836†               26.9      10.197 ug/L        1.3773      10.197 ppb         1.3773  13.51%
   QC value within limits for Sb 206.836  Recovery = 101.97%
Se 196.026†               48.6      32.872 ug/L        2.8025      32.872 ppb         2.8025   8.53%
   QC value within limits for Se 196.026  Recovery = 109.57%
Si 251.611†             2901.7      97.711 ug/L        0.4269      97.711 ppb         0.4269   0.44%
   QC value within limits for Si 251.611  Recovery = 97.71%
Sn 189.927†               49.3      9.1435 ug/L       0.97052      9.1435 ppb        0.97052  10.61%
   QC value within limits for Sn 189.927  Recovery = 91.43%
Sr 421.552†              666.9      4.7521 ug/L       0.14333      4.7521 ppb        0.14333   3.02%
   QC value within limits for Sr 421.552  Recovery = 95.04%
Ti 334.940†             3032.9      5.1721 ug/L       0.02872      5.1721 ppb        0.02872   0.56%
   QC value within limits for Ti 334.940  Recovery = 103.44%
Tl 190.801†               74.5      23.894 ug/L        2.5065      23.894 ppb         2.5065  10.49%
   QC value within limits for Tl 190.801  Recovery = 119.47%
U 409.014†              1949.8      62.252 ug/L        2.7827      62.252 ppb         2.7827   4.47%
   QC value within limits for U 409.014  Recovery = 124.50%
V 292.402†               810.2      6.0931 ug/L       0.40685      6.0931 ppb        0.40685   6.68%
   QC value within limits for V 292.402  Recovery = 121.86%
Zn 213.857†              767.3      7.5982 ug/L       0.14572      7.5982 ppb        0.14572   1.92%
   QC value within limits for Zn 213.857  Recovery = 75.98%
SiO2†                   2872.9      205.69 ug/L         4.128      205.69 ppb          4.128   2.01%
   QC value within limits for SiO2  Recovery = 96.57%
QC Failed.  Continue with analysis.
```

Sequence No.: 20
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 1/14/2010 17:15:09
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5426.6	5426.6	113	%			17:17:02
1	Y RADIAL	5825.5	5825.5	113.6	%			17:17:02
1	Al 396.153Radial†	9.2	11.3	9.0757	ug/L	9.0757	ppb	17:17:02
1	Ca 317.933Radial†	24.7	6.7	11.231	ug/L	11.231	ppb	17:17:22
1	Fe 238.204 Radial†	9.1	-1.8	-16.993	ug/L	-16.993	ppb	17:17:22
1	K 766.490 Radial†	2777.4	-335.2	-67.204	ug/L	-67.204	ppb	17:17:02
1	Mg 279.077 IEC†	3.4	1.5	52.155	ug/L	52.155	ppb	17:17:22
1	Na 589.592 Radial†	-1346.9	377.7	122.39	ug/L	122.39	ppb	17:17:02
1	Sr 421.552†	-33.6	-46.9	-0.3342	ug/L	-0.3342	ppb	17:17:02
1	Sc 361.383	863368.4	863368.4	106.08	%			17:18:19
1	Y 371.029	726742.2	726742.2	105.95	%			17:18:19
1	Ag 328.068†	426.4	120.4	0.5834	ug/L	0.5834	ppb	17:18:19
1	As 188.979†	-22.5	-2.3	-1.0546	ug/L	-1.0546	ppb	17:18:39
1	B 249.677†	-378.4	161.8	3.9412	ug/L	3.9412	ppb	17:18:39
1	Ba 233.527†	-13.9	-14.6	-0.1189	ug/L	-0.1189	ppb	17:18:39
1	Be 313.107†	-4316.1	243.6	0.0974	ug/L	0.0974	ppb	17:18:19
1	Cd 226.502†	-171.5	35.9	0.4239	ug/L	0.4239	ppb	17:18:39
1	Co 228.616†	-75.3	1.7	0.0373	ug/L	0.0373	ppb	17:18:39
1	Cr 267.716†	72.4	-27.5	-0.3268	ug/L	-0.3268	ppb	17:18:39
1	Cu 324.752†	6507.0	-164.2	-0.5296	ug/L	-0.5296	ppb	17:18:19
1	Mn 257.610†	421.3	-7.2	-0.0122	ug/L	-0.0122	ppb	17:18:39
1	Mo 202.031†	27.4	6.5	0.4841	ug/L	0.4841	ppb	17:18:39
1	Ni 231.604†	83.3	3.4	0.0882	ug/L	0.0882	ppb	17:18:39
1	P 214.914†	225.8	-15.0	-9.4595	ug/L	-9.4595	ppb	17:18:39
1	Pb 220.353†	-72.3	-3.5	-0.4474	ug/L	-0.4474	ppb	17:18:39
1	S 181.975 Axial†	51.2	1.9	2.7657	ug/L	2.7657	ppb	17:18:39
1	Sb 206.836†	38.8	3.8	1.4300	ug/L	1.4300	ppb	17:18:39
1	Se 196.026†	-28.3	3.7	2.3912	ug/L	2.3912	ppb	17:18:39
1	Si 251.611†	493.3	19.1	0.6381	ug/L	0.6381	ppb	17:18:39
1	Sn 189.927†	11.3	4.5	0.8328	ug/L	0.8328	ppb	17:18:39
1	Ti 334.940†	-1294.2	167.0	0.2801	ug/L	0.2801	ppb	17:18:19
1	Tl 190.801†	-35.2	10.7	3.4250	ug/L	3.4250	ppb	17:18:39
1	U 409.014†	-1885.9	263.1	8.4070	ug/L	8.4070	ppb	17:18:19
1	V 292.402†	-1325.6	157.5	1.1628	ug/L	1.1628	ppb	17:18:19
1	Zn 213.857†	791.4	-114.3	-1.1379	ug/L	-1.1379	ppb	17:18:39
1	SiO2†	492.9	8.5	0.5927	ug/L	0.5927	ppb	17:19:35
2	Sc Radial	5116.3	5116.3	107	%			17:17:27
2	Y RADIAL	5514.6	5514.6	107.5	%			17:17:27
2	Al 396.153Radial†	12.7	15.1	12.133	ug/L	12.133	ppb	17:17:27
2	Ca 317.933Radial†	16.8	0.6	1.0399	ug/L	1.0399	ppb	17:17:47
2	Fe 238.204 Radial†	12.8	2.1	19.640	ug/L	19.640	ppb	17:17:47
2	K 766.490 Radial†	2769.7	-193.7	-38.835	ug/L	-38.835	ppb	17:17:27
2	Mg 279.077 IEC†	5.0	3.2	111.73	ug/L	111.73	ppb	17:17:47
2	Na 589.592 Radial†	-1369.3	284.6	92.206	ug/L	92.206	ppb	17:17:27
2	Sr 421.552†	9.4	-8.4	-0.0597	ug/L	-0.0597	ppb	17:17:27
2	Sc 361.383	859149.6	859149.6	105.56	%			17:18:44
2	Y 371.029	723438.0	723438.0	105.46	%			17:18:44
2	Ag 328.068†	308.9	11.0	0.0602	ug/L	0.0602	ppb	17:18:44
2	As 188.979†	-23.8	-3.7	-1.6442	ug/L	-1.6442	ppb	17:19:04
2	B 249.677†	-404.9	135.0	3.2825	ug/L	3.2825	ppb	17:19:04
2	Ba 233.527†	12.0	9.9	0.0845	ug/L	0.0845	ppb	17:19:04
2	Be 313.107†	-4374.3	168.5	0.0671	ug/L	0.0671	ppb	17:18:44
2	Cd 226.502†	-189.5	18.0	0.2101	ug/L	0.2101	ppb	17:19:04
2	Co 228.616†	-74.9	1.7	0.0360	ug/L	0.0360	ppb	17:19:04
2	Cr 267.716†	80.2	-19.8	-0.2334	ug/L	-0.2334	ppb	17:19:04
2	Cu 324.752†	6455.2	-183.1	-0.5859	ug/L	-0.5859	ppb	17:18:44
2	Mn 257.610†	445.1	17.4	0.0177	ug/L	0.0177	ppb	17:19:04
2	Mo 202.031†	16.2	-3.9	-0.2906	ug/L	-0.2906	ppb	17:19:04
2	Ni 231.604†	83.6	4.0	0.1063	ug/L	0.1063	ppb	17:19:04

2	P 214.914†	222.0	-17.6	-11.135 ug/L	-11.135 ppb	17:19:04
2	Pb 220.353†	-64.8	3.2	0.4077 ug/L	0.4077 ppb	17:19:04
2	S 181.975 Axial†	42.0	-6.7	-9.9916 ug/L	-9.9916 ppb	17:19:04
2	Sb 206.836†	45.8	10.6	3.8791 ug/L	3.8791 ppb	17:19:04
2	Se 196.026†	-28.6	3.3	2.2567 ug/L	2.2567 ppb	17:19:04
2	Si 251.611†	470.1	-0.5	-0.0149 ug/L	-0.0149 ppb	17:19:04
2	Sn 189.927†	7.8	1.3	0.2349 ug/L	0.2349 ppb	17:19:04
2	Ti 334.940†	-1415.4	46.2	0.0685 ug/L	0.0685 ppb	17:18:44
2	Tl 190.801†	-38.7	7.2	2.3153 ug/L	2.3153 ppb	17:19:04
2	U 409.014†	-2015.3	131.9	4.2112 ug/L	4.2112 ppb	17:18:44
2	V 292.402†	-1370.8	108.6	0.7869 ug/L	0.7869 ppb	17:18:44
2	Zn 213.857†	807.3	-95.6	-0.9554 ug/L	-0.9554 ppb	17:19:04
2	SiO2†	502.5	19.8	1.4304 ug/L	1.4304 ppb	17:19:40
3	Sc Radial	5117.3	5117.3	107 %		17:17:52
3	Y RADIAL	5495.2	5495.2	107.1 %		17:17:52
3	Al 396.153Radial†	-4.8	-1.2	-0.9730 ug/L	-0.9730 ppb	17:17:52
3	Ca 317.933Radial†	23.0	6.3	10.679 ug/L	10.679 ppb	17:18:12
3	Fe 238.204 Radial†	11.6	1.0	9.1162 ug/L	9.1162 ppb	17:18:12
3	K 766.490 Radial†	2796.4	-169.2	-33.929 ug/L	-33.929 ppb	17:17:52
3	Mg 279.077 IEC†	4.4	2.7	93.131 ug/L	93.131 ppb	17:18:12
3	Na 589.592 Radial†	-1416.5	240.7	77.984 ug/L	77.984 ppb	17:17:52
3	Sr 421.552†	-13.0	-29.3	-0.2092 ug/L	-0.2092 ppb	17:17:52
3	Sc 361.383	851964.8	851964.8	104.68 %		17:19:09
3	Y 371.029	716804.3	716804.3	104.50 %		17:19:09
3	Ag 328.068†	318.6	22.7	0.1140 ug/L	0.1140 ppb	17:19:09
3	As 188.979†	-25.2	-5.3	-2.3686 ug/L	-2.3686 ppb	17:19:29
3	B 249.677†	-378.1	157.4	3.8273 ug/L	3.8273 ppb	17:19:29
3	Ba 233.527†	-4.1	-5.4	-0.0423 ug/L	-0.0423 ppb	17:19:29
3	Be 313.107†	-4376.5	131.4	0.0528 ug/L	0.0528 ppb	17:19:09
3	Cd 226.502†	-158.2	46.4	0.5439 ug/L	0.5439 ppb	17:19:29
3	Co 228.616†	-60.7	14.7	0.3183 ug/L	0.3183 ppb	17:19:29
3	Cr 267.716†	74.3	-24.8	-0.2931 ug/L	-0.2931 ppb	17:19:29
3	Cu 324.752†	6346.7	-235.2	-0.7531 ug/L	-0.7531 ppb	17:19:09
3	Mn 257.610†	423.6	0.3	-0.0025 ug/L	-0.0025 ppb	17:19:29
3	Mo 202.031†	20.7	0.5	0.0370 ug/L	0.0370 ppb	17:19:29
3	Ni 231.604†	76.4	-2.1	-0.0556 ug/L	-0.0556 ppb	17:19:29
3	P 214.914†	229.8	-8.3	-5.1628 ug/L	-5.1628 ppb	17:19:29
3	Pb 220.353†	-70.1	-2.4	-0.3094 ug/L	-0.3094 ppb	17:19:29
3	S 181.975 Axial†	45.4	-3.1	-4.6162 ug/L	-4.6162 ppb	17:19:29
3	Sb 206.836†	26.4	-7.5	-2.7281 ug/L	-2.7281 ppb	17:19:29
3	Se 196.026†	-31.2	0.5	0.3892 ug/L	0.3892 ppb	17:19:29
3	Si 251.611†	474.5	7.4	0.2506 ug/L	0.2506 ppb	17:19:29
3	Sn 189.927†	9.0	2.5	0.4627 ug/L	0.4627 ppb	17:19:29
3	Ti 334.940†	-1301.8	143.4	0.2377 ug/L	0.2377 ppb	17:19:09
3	Tl 190.801†	-36.2	9.3	2.9842 ug/L	2.9842 ppb	17:19:29
3	U 409.014†	-1967.4	161.5	5.1577 ug/L	5.1577 ppb	17:19:09
3	V 292.402†	-1342.8	124.4	0.9079 ug/L	0.9079 ppb	17:19:09
3	Zn 213.857†	791.5	-104.2	-1.0390 ug/L	-1.0390 ppb	17:19:29
3	SiO2†	523.4	43.8	3.1362 ug/L	3.1362 ppb	17:19:45

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	858161.0	105.44	%	0.708				0.67%
Sc Radial	5220.1	109	%	3.7				3.43%
Y 371.029	722328.2	105.30	%	0.738				0.70%
Y RADIAL	5611.7	109.4	%	3.61				3.30%
Ag 328.068†	51.4	0.2525	ug/L	0.28785	0.2525	ppb	0.28785	113.99%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	8.4	6.7452	ug/L	6.85671	6.7452	ppb	6.85671	101.65%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-3.8	-1.6891	ug/L	0.65811	-1.6891	ppb	0.65811	38.96%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	151.4	3.6837	ug/L	0.35208	3.6837	ppb	0.35208	9.56%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-3.3	-0.0256	ug/L	0.10272	-0.0256	ppb	0.10272	401.49%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	181.2	0.0724	ug/L	0.02280	0.0724	ppb	0.02280	31.47%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	4.5	7.6500	ug/L	5.73121	7.6500	ppb	5.73121	74.92%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              33.4      0.3926 ug/L       0.16907      0.3926 ppb        0.16907  43.06%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†               6.0      0.1305 ug/L       0.16264      0.1305 ppb        0.16264 124.60%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†             -24.0     -0.2845 ug/L       0.04731     -0.2845 ppb        0.04731  16.63%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -194.2     -0.6229 ug/L       0.11624     -0.6229 ppb        0.11624  18.66%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        0.4      3.9211 ug/L      18.86072      3.9211 ppb       18.86072 481.00%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       -232.7    -46.656 ug/L       17.9634     -46.656 ppb        17.9634  38.50%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           2.4      85.674 ug/L       30.4816      85.674 ppb        30.4816  35.58%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               3.5      0.0010 ug/L       0.01527      0.0010 ppb        0.01527 >999.9%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               1.0      0.0768 ug/L       0.38885      0.0768 ppb        0.38885 506.15%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      301.0      97.526 ug/L       22.6760      97.526 ppb        22.6760  23.25%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               1.8      0.0463 ug/L       0.08872      0.0463 ppb        0.08872 191.55%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†              -13.7     -8.5859 ug/L       3.08061     -8.5859 ppb        3.08061  35.88%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -0.9     -0.1164 ug/L       0.45907     -0.1164 ppb        0.45907 394.46%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         -2.6     -3.9474 ug/L       6.40491     -3.9474 ppb        6.40491 162.26%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               2.3      0.8603 ug/L       3.34021      0.8603 ppb        3.34021 388.24%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               2.5      1.6790 ug/L       1.11901      1.6790 ppb        1.11901  66.65%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†               8.7      0.2912 ug/L       0.32839      0.2912 ppb        0.32839 112.76%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               2.8      0.5101 ug/L       0.30174      0.5101 ppb        0.30174  59.15%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             -28.2     -0.2010 ug/L       0.13741     -0.2010 ppb        0.13741  68.35%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             118.9      0.1954 ug/L       0.11196      0.1954 ppb        0.11196  57.29%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               9.1      2.9082 ug/L       0.55875      2.9082 ppb        0.55875  19.21%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              185.5      5.9253 ug/L       2.20071      5.9253 ppb        2.20071  37.14%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              130.2      0.9525 ug/L       0.19186      0.9525 ppb        0.19186  20.14%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†            -104.7     -1.0441 ug/L       0.09132     -1.0441 ppb        0.09132   8.75%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                     24.0      1.7198 ug/L       1.29619      1.7198 ppb        1.29619  75.37%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 30
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 1/14/2010 18:23:01
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5122.8	5122.8	107	%			18:24:54
1	Y RADIAL	5442.9	5442.9	106.1	%			18:24:54
1	Al 396.153Radial†	6220.4	5821.2	4646.6	ug/L	4646.6	ppb	18:24:54
1	Ca 317.933Radial†	3149.3	2930.3	4934.5	ug/L	4934.5	ppb	18:25:14
1	Fe 238.204 Radial†	585.1	537.4	5066.5	ug/L	5066.5	ppb	18:25:14
1	K 766.490 Radial†	28535.2	23901.2	4782.3	ug/L	4782.3	ppb	18:24:54
1	Mg 279.077 IEC†	162.5	150.5	5282.3	ug/L	5282.3	ppb	18:25:14
1	Na 589.592 Radial†	29547.8	29202.6	9461.8	ug/L	9461.8	ppb	18:24:54
1	Sr 421.552†	72128.9	67444.1	480.70	ug/L	480.70	ppb	18:24:54
1	Sc 361.383	874426.5	874426.5	107.44	%			18:26:11
1	Y 371.029	725162.4	725162.4	105.71	%			18:26:11
1	Ag 328.068†	103788.6	96318.9	476.33	ug/L	476.33	ppb	18:26:16
1	As 188.979†	1136.1	1076.3	488.62	ug/L	488.62	ppb	18:26:36
1	B 249.677†	21126.1	20181.5	488.96	ug/L	488.96	ppb	18:26:16
1	Ba 233.527†	63441.8	59046.5	490.84	ug/L	490.84	ppb	18:26:16
1	Be 313.107†	1326970.9	1239380.0	493.35	ug/L	493.35	ppb	18:26:11
1	Cd 226.502†	44978.5	42060.9	492.86	ug/L	492.86	ppb	18:26:16
1	Co 228.616†	24276.3	22667.7	492.34	ug/L	492.34	ppb	18:26:16
1	Cr 267.716†	44415.0	41243.2	487.16	ug/L	487.16	ppb	18:26:16
1	Cu 324.752†	170304.9	152211.9	485.89	ug/L	485.89	ppb	18:26:16
1	Mn 257.610†	450103.7	418526.2	491.06	ug/L	491.06	ppb	18:26:11
1	Mo 202.031†	7043.7	6536.6	485.67	ug/L	485.67	ppb	18:26:36
1	Ni 231.604†	20093.6	18626.9	490.04	ug/L	490.04	ppb	18:26:16
1	P 214.914†	4309.0	3782.7	2319.3	ug/L	2319.3	ppb	18:26:36
1	Pb 220.353†	3967.8	3757.6	482.83	ug/L	482.83	ppb	18:26:36
1	S 181.975 Axial†	753.5	654.9	976.47	ug/L	976.47	ppb	18:26:36
1	Sb 206.836†	1457.9	1324.2	501.59	ug/L	501.59	ppb	18:26:36
1	Se 196.026†	773.0	749.9	519.77	ug/L	519.77	ppb	18:26:36
1	Si 251.611†	79497.0	73545.3	2473.7	ug/L	2473.7	ppb	18:26:16
1	Sn 189.927†	2836.8	2634.2	488.00	ug/L	488.00	ppb	18:26:36
1	Ti 334.940†	303027.9	283427.9	486.07	ug/L	486.07	ppb	18:26:16
1	Tl 190.801†	1584.3	1518.5	489.04	ug/L	489.04	ppb	18:26:36
1	U 409.014†	14884.7	15894.8	505.97	ug/L	505.97	ppb	18:26:16
1	V 292.402†	71330.9	67797.8	495.59	ug/L	495.59	ppb	18:26:16
1	Zn 213.857†	54153.2	49542.3	489.83	ug/L	489.83	ppb	18:26:16
1	SiO2†	78300.0	72420.9	5178.8	ug/L	5178.8	ppb	18:27:44
2	Sc Radial	5125.9	5125.9	107	%			18:25:19
2	Y RADIAL	5478.7	5478.7	106.8	%			18:25:19
2	Al 396.153Radial†	6458.8	6040.4	4822.0	ug/L	4822.0	ppb	18:25:19
2	Ca 317.933Radial†	3072.4	2856.7	4810.5	ug/L	4810.5	ppb	18:25:39
2	Fe 238.204 Radial†	572.6	525.3	4953.3	ug/L	4953.3	ppb	18:25:39
2	K 766.490 Radial†	29406.6	24699.4	4942.2	ug/L	4942.2	ppb	18:25:19
2	Mg 279.077 IEC†	153.5	142.0	4984.0	ug/L	4984.0	ppb	18:25:39
2	Na 589.592 Radial†	30667.9	30232.7	9795.6	ug/L	9795.6	ppb	18:25:19
2	Sr 421.552†	74897.8	69990.9	498.85	ug/L	498.85	ppb	18:25:19
2	Sc 361.383	862187.1	862187.1	105.94	%			18:26:42
2	Y 371.029	714944.2	714944.2	104.23	%			18:26:42
2	Ag 328.068†	106755.4	100490.7	496.83	ug/L	496.83	ppb	18:26:47
2	As 188.979†	1149.0	1103.4	500.92	ug/L	500.92	ppb	18:27:07
2	B 249.677†	21515.9	20828.6	504.69	ug/L	504.69	ppb	18:26:47
2	Ba 233.527†	64166.5	60568.8	503.49	ug/L	503.49	ppb	18:26:47
2	Be 313.107†	1306570.2	1237655.5	492.70	ug/L	492.70	ppb	18:26:42
2	Cd 226.502†	45517.2	43163.8	505.81	ug/L	505.81	ppb	18:26:47
2	Co 228.616†	24623.0	23315.7	506.40	ug/L	506.40	ppb	18:26:47
2	Cr 267.716†	44905.7	42293.2	499.56	ug/L	499.56	ppb	18:26:47
2	Cu 324.752†	173056.2	157059.2	501.35	ug/L	501.35	ppb	18:26:47
2	Mn 257.610†	444509.0	419192.2	491.85	ug/L	491.85	ppb	18:26:42
2	Mo 202.031†	7057.4	6642.5	493.52	ug/L	493.52	ppb	18:27:07
2	Ni 231.604†	20386.1	19168.4	504.29	ug/L	504.29	ppb	18:26:47

2	P 214.914†	4283.6	3815.6	2337.5 ug/L	2337.5 ppb	18:27:07
2	Pb 220.353†	3985.3	3826.5	491.72 ug/L	491.72 ppb	18:27:07
2	S 181.975 Axial†	759.5	670.5	999.77 ug/L	999.77 ppb	18:27:07
2	Sb 206.836†	1467.1	1352.2	512.12 ug/L	512.12 ppb	18:27:07
2	Se 196.026†	766.9	754.3	522.39 ug/L	522.39 ppb	18:27:07
2	Si 251.611†	80552.6	75592.1	2542.6 ug/L	2542.6 ppb	18:26:47
2	Sn 189.927†	2852.6	2686.6	497.66 ug/L	497.66 ppb	18:27:07
2	Ti 334.940†	307131.5	291305.3	499.58 ug/L	499.58 ppb	18:26:47
2	Tl 190.801†	1593.0	1547.6	498.39 ug/L	498.39 ppb	18:27:07
2	U 409.014†	15198.8	16387.9	521.71 ug/L	521.71 ppb	18:26:47
2	V 292.402†	72138.9	69503.0	508.02 ug/L	508.02 ppb	18:26:47
2	Zn 213.857†	54912.4	50974.5	504.01 ug/L	504.01 ppb	18:26:47
2	SiO2†	78752.0	73882.1	5283.3 ug/L	5283.3 ppb	18:27:49
3	Sc Radial	5017.1	5017.1	105 %		18:25:44
3	Y RADIAL	5313.9	5313.9	103.6 %		18:25:44
3	Al 396.153Radial†	6276.0	5996.7	4787.2 ug/L	4787.2 ppb	18:25:44
3	Ca 317.933Radial†	3084.4	2930.4	4934.6 ug/L	4934.6 ppb	18:26:04
3	Fe 238.204 Radial†	572.5	536.9	5062.1 ug/L	5062.1 ppb	18:26:04
3	K 766.490 Radial†	28753.5	24671.7	4936.6 ug/L	4936.6 ppb	18:25:44
3	Mg 279.077 IEC†	161.0	152.3	5346.2 ug/L	5346.2 ppb	18:26:04
3	Na 589.592 Radial†	29698.4	29928.5	9697.0 ug/L	9697.0 ppb	18:25:44
3	Sr 421.552†	72956.4	69655.1	496.46 ug/L	496.46 ppb	18:25:44
3	Sc 361.383	865484.7	865484.7	106.34 %		18:27:13
3	Y 371.029	717838.0	717838.0	104.65 %		18:27:13
3	Ag 328.068†	104635.4	98113.2	485.17 ug/L	485.17 ppb	18:27:18
3	As 188.979†	1126.7	1078.4	489.64 ug/L	489.64 ppb	18:27:38
3	B 249.677†	21378.1	20621.6	499.66 ug/L	499.66 ppb	18:27:18
3	Ba 233.527†	63663.2	59864.8	497.64 ug/L	497.64 ppb	18:27:18
3	Be 313.107†	1308976.4	1235219.1	491.72 ug/L	491.72 ppb	18:27:13
3	Cd 226.502†	45072.6	42581.9	498.97 ug/L	498.97 ppb	18:27:18
3	Co 228.616†	24380.1	22998.7	499.52 ug/L	499.52 ppb	18:27:18
3	Cr 267.716†	44641.0	41882.8	494.72 ug/L	494.72 ppb	18:27:18
3	Cu 324.752†	171861.3	155313.1	495.78 ug/L	495.78 ppb	18:27:18
3	Mn 257.610†	445285.0	418323.1	490.82 ug/L	490.82 ppb	18:27:13
3	Mo 202.031†	7038.4	6599.3	490.33 ug/L	490.33 ppb	18:27:38
3	Ni 231.604†	20265.0	18981.3	499.37 ug/L	499.37 ppb	18:27:18
3	P 214.914†	4305.8	3821.2	2341.9 ug/L	2341.9 ppb	18:27:38
3	Pb 220.353†	3964.9	3793.0	487.40 ug/L	487.40 ppb	18:27:38
3	S 181.975 Axial†	763.7	671.7	1001.6 ug/L	1001.6 ppb	18:27:38
3	Sb 206.836†	1470.7	1350.3	511.28 ug/L	511.28 ppb	18:27:38
3	Se 196.026†	757.5	742.7	514.97 ug/L	514.97 ppb	18:27:38
3	Si 251.611†	79948.4	74734.2	2513.8 ug/L	2513.8 ppb	18:27:18
3	Sn 189.927†	2831.2	2656.2	492.07 ug/L	492.07 ppb	18:27:38
3	Ti 334.940†	305279.9	288459.5	494.68 ug/L	494.68 ppb	18:27:18
3	Tl 190.801†	1581.8	1531.3	493.19 ug/L	493.19 ppb	18:27:38
3	U 409.014†	15203.6	16337.8	520.10 ug/L	520.10 ppb	18:27:18
3	V 292.402†	71689.1	68820.6	503.05 ug/L	503.05 ppb	18:27:18
3	Zn 213.857†	54416.5	50310.7	497.42 ug/L	497.42 ppb	18:27:18
3	SiO2†	77978.3	72871.4	5211.0 ug/L	5211.0 ppb	18:27:54

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	867366.1	106.57	%	0.778				0.73%
Sc Radial	5088.6	106	%	1.3				1.22%
Y 371.029	719314.8	104.86	%	0.768				0.73%
Y RADIAL	5411.8	105.5	%	1.69				1.60%
Ag 328.068†	98307.6	486.11	ug/L	10.281	486.11	ppb	10.281	2.12%
QC value within limits for Ag 328.068 Recovery = 97.22%								
Al 396.153Radial†	5952.7	4751.9	ug/L	92.90	4751.9	ppb	92.90	1.96%
QC value within limits for Al 396.153Radial Recovery = 95.04%								
As 188.979†	1086.0	493.06	ug/L	6.828	493.06	ppb	6.828	1.38%
QC value within limits for As 188.979 Recovery = 98.61%								
B 249.677†	20543.9	497.77	ug/L	8.031	497.77	ppb	8.031	1.61%
QC value within limits for B 249.677 Recovery = 99.55%								
Ba 233.527†	59826.7	497.32	ug/L	6.329	497.32	ppb	6.329	1.27%
QC value within limits for Ba 233.527 Recovery = 99.46%								
Be 313.107†	1237418.2	492.59	ug/L	0.822	492.59	ppb	0.822	0.17%
QC value within limits for Be 313.107 Recovery = 98.52%								
Ca 317.933Radial†	2905.8	4893.2	ug/L	71.63	4893.2	ppb	71.63	1.46%

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   QC value within limits for Ca 317.933Radial  Recovery = 97.86%
Cd 226.502†            42602.2      499.21 ug/L         6.478      499.21 ppb          6.478   1.30%
   QC value within limits for Cd 226.502  Recovery = 99.84%
Co 228.616†            22994.0      499.42 ug/L         7.033      499.42 ppb          7.033   1.41%
   QC value within limits for Co 228.616  Recovery = 99.88%
Cr 267.716†            41806.4      493.81 ug/L         6.247      493.81 ppb          6.247   1.27%
   QC value within limits for Cr 267.716  Recovery = 98.76%
Cu 324.752†           154861.4      494.34 ug/L         7.830      494.34 ppb          7.830   1.58%
   QC value within limits for Cu 324.752  Recovery = 98.87%
Fe 238.204 Radial†       533.2      5027.3 ug/L        64.11      5027.3 ppb         64.11   1.28%
   QC value within limits for Fe 238.204 Radial  Recovery = 100.55%
K 766.490 Radial†      24424.1      4887.0 ug/L        90.71      4887.0 ppb         90.71   1.86%
   QC value within limits for K 766.490 Radial  Recovery = 97.74%
Mg 279.077 IEC†          148.2      5204.2 ug/L       193.36      5204.2 ppb        193.36   3.72%
   QC value within limits for Mg 279.077 IEC  Recovery = 104.08%
Mn 257.610†           418680.5      491.24 ug/L         0.535      491.24 ppb          0.535   0.11%
   QC value within limits for Mn 257.610  Recovery = 98.25%
Mo 202.031†             6592.8      489.84 ug/L         3.950      489.84 ppb          3.950   0.81%
   QC value within limits for Mo 202.031  Recovery = 97.97%
Na 589.592 Radial†     29787.9      9651.4 ug/L       171.47      9651.4 ppb        171.47   1.78%
   QC value within limits for Na 589.592 Radial  Recovery = 96.51%
Ni 231.604†            18925.5      497.90 ug/L         7.236      497.90 ppb          7.236   1.45%
   QC value within limits for Ni 231.604  Recovery = 99.58%
P 214.914†              3806.5      2332.9 ug/L        12.00      2332.9 ppb         12.00   0.51%
   QC value within limits for P 214.914  Recovery = 93.32%
Pb 220.353†             3792.4      487.32 ug/L         4.446      487.32 ppb          4.446   0.91%
   QC value within limits for Pb 220.353  Recovery = 97.46%
S 181.975 Axial†         665.7      992.61 ug/L        14.000      992.61 ppb         14.000   1.41%
   QC value within limits for S 181.975 Axial  Recovery = 99.26%
Sb 206.836†             1342.2      508.33 ug/L         5.851      508.33 ppb          5.851   1.15%
   QC value within limits for Sb 206.836  Recovery = 101.67%
Se 196.026†              748.9      519.04 ug/L         3.767      519.04 ppb          3.767   0.73%
   QC value within limits for Se 196.026  Recovery = 103.81%
Si 251.611†            74623.9      2510.0 ug/L        34.61      2510.0 ppb         34.61   1.38%
   QC value within limits for Si 251.611  Recovery = 100.40%
Sn 189.927†             2659.0      492.57 ug/L         4.851      492.57 ppb          4.851   0.98%
   QC value within limits for Sn 189.927  Recovery = 98.51%
Sr 421.552†            69030.0      492.00 ug/L         9.863      492.00 ppb          9.863   2.00%
   QC value within limits for Sr 421.552  Recovery = 98.40%
Ti 334.940†           287730.9      493.44 ug/L         6.840      493.44 ppb          6.840   1.39%
   QC value within limits for Ti 334.940  Recovery = 98.69%
Tl 190.801†             1532.5      493.54 ug/L         4.686      493.54 ppb          4.686   0.95%
   QC value within limits for Tl 190.801  Recovery = 98.71%
U 409.014†             16206.8      515.93 ug/L         8.658      515.93 ppb          8.658   1.68%
   QC value within limits for U 409.014  Recovery = 103.19%
V 292.402†             68707.1      502.22 ug/L         6.258      502.22 ppb          6.258   1.25%
   QC value within limits for V 292.402  Recovery = 100.44%
Zn 213.857†            50275.8      497.09 ug/L         7.097      497.09 ppb          7.097   1.43%
   QC value within limits for Zn 213.857  Recovery = 99.42%
SiO2†                  73058.1      5224.4 ug/L        53.54      5224.4 ppb         53.54   1.02%
   QC value within limits for SiO2  Recovery = 97.70%
All analyte(s) passed QC.
```

Sequence No.: 31
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 1/14/2010 18:30:04
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5180.7	5180.7	108	%			18:31:56
1	Y RADIAL	5555.6	5555.6	108.3	%			18:31:56
1	Al 396.153Radial†	-2.6	0.8	0.6239	ug/L	0.6239	ppb	18:31:56
1	Ca 317.933Radial†	19.4	2.8	4.7177	ug/L	4.7177	ppb	18:32:16
1	Fe 238.204 Radial†	9.3	-1.3	-12.106	ug/L	-12.106	ppb	18:32:16
1	K 766.490 Radial†	2881.1	-122.9	-24.677	ug/L	-24.677	ppb	18:31:56
1	Mg 279.077 IEC†	0.2	-1.3	-45.550	ug/L	-45.550	ppb	18:32:16
1	Na 589.592 Radial†	-1277.6	385.4	124.87	ug/L	124.87	ppb	18:31:56
1	Sr 421.552†	23.3	4.3	0.0310	ug/L	0.0310	ppb	18:31:56
1	Sc 361.383	859008.3	859008.3	105.55	%			18:33:13
1	Y 371.029	724046.7	724046.7	105.55	%			18:33:13
1	Ag 328.068†	374.9	73.6	0.3547	ug/L	0.3547	ppb	18:33:13
1	As 188.979†	-18.9	1.0	0.4375	ug/L	0.4375	ppb	18:33:33
1	B 249.677†	-310.3	224.6	5.4667	ug/L	5.4667	ppb	18:33:33
1	Ba 233.527†	-13.2	-14.0	-0.1147	ug/L	-0.1147	ppb	18:33:33
1	Be 313.107†	-4302.2	236.2	0.0942	ug/L	0.0942	ppb	18:33:13
1	Cd 226.502†	-186.1	21.3	0.2518	ug/L	0.2518	ppb	18:33:33
1	Co 228.616†	-65.7	10.4	0.2278	ug/L	0.2278	ppb	18:33:33
1	Cr 267.716†	93.7	-6.9	-0.0839	ug/L	-0.0839	ppb	18:33:33
1	Cu 324.752†	6499.0	-140.6	-0.4540	ug/L	-0.4540	ppb	18:33:13
1	Mn 257.610†	420.9	-5.5	-0.0058	ug/L	-0.0058	ppb	18:33:33
1	Mo 202.031†	28.7	7.9	0.5855	ug/L	0.5855	ppb	18:33:33
1	Ni 231.604†	70.4	-8.4	-0.2212	ug/L	-0.2212	ppb	18:33:33
1	P 214.914†	215.7	-23.5	-14.886	ug/L	-14.886	ppb	18:33:33
1	Pb 220.353†	-79.1	-10.4	-1.3265	ug/L	-1.3265	ppb	18:33:33
1	S 181.975 Axial†	48.6	-0.4	-0.6586	ug/L	-0.6586	ppb	18:33:33
1	Sb 206.836†	47.5	12.3	4.5082	ug/L	4.5082	ppb	18:33:33
1	Se 196.026†	-26.8	5.0	3.2904	ug/L	3.2904	ppb	18:33:33
1	Si 251.611†	476.9	5.9	0.1923	ug/L	0.1923	ppb	18:33:33
1	Sn 189.927†	12.5	5.8	1.0647	ug/L	1.0647	ppb	18:33:33
1	Ti 334.940†	-1351.6	106.4	0.1834	ug/L	0.1834	ppb	18:33:13
1	Tl 190.801†	-26.1	19.1	6.1170	ug/L	6.1170	ppb	18:33:33
1	U 409.014†	-1887.1	253.1	8.0834	ug/L	8.0834	ppb	18:33:13
1	V 292.402†	-1354.1	124.2	0.9203	ug/L	0.9203	ppb	18:33:13
1	Zn 213.857†	832.9	-71.2	-0.7072	ug/L	-0.7072	ppb	18:33:33
1	SiO2†	492.5	10.4	0.7296	ug/L	0.7296	ppb	18:34:29
2	Sc Radial	4960.7	4960.7	104	%			18:32:21
2	Y RADIAL	5331.3	5331.3	103.9	%			18:32:21
2	Al 396.153Radial†	15.0	17.7	14.197	ug/L	14.197	ppb	18:32:21
2	Ca 317.933Radial†	27.0	10.9	18.384	ug/L	18.384	ppb	18:32:41
2	Fe 238.204 Radial†	8.1	-2.0	-19.001	ug/L	-19.001	ppb	18:32:41
2	K 766.490 Radial†	2885.8	-0.2	-0.0788	ug/L	-0.0788	ppb	18:32:21
2	Mg 279.077 IEC†	2.8	1.2	42.014	ug/L	42.014	ppb	18:32:41
2	Na 589.592 Radial†	-1289.7	321.3	104.09	ug/L	104.09	ppb	18:32:21
2	Sr 421.552†	4.2	-13.1	-0.0937	ug/L	-0.0937	ppb	18:32:21
2	Sc 361.383	858682.7	858682.7	105.51	%			18:33:38
2	Y 371.029	722636.1	722636.1	105.35	%			18:33:38
2	Ag 328.068†	399.3	96.9	0.4678	ug/L	0.4678	ppb	18:33:38
2	As 188.979†	-27.7	-7.4	-3.3175	ug/L	-3.3175	ppb	18:33:58
2	B 249.677†	-320.9	214.4	5.2217	ug/L	5.2217	ppb	18:33:58
2	Ba 233.527†	-5.1	-6.3	-0.0507	ug/L	-0.0507	ppb	18:33:58
2	Be 313.107†	-4351.1	188.2	0.0752	ug/L	0.0752	ppb	18:33:38
2	Cd 226.502†	-174.3	32.4	0.3829	ug/L	0.3829	ppb	18:33:58
2	Co 228.616†	-72.4	4.1	0.0900	ug/L	0.0900	ppb	18:33:58
2	Cr 267.716†	98.5	-2.4	-0.0295	ug/L	-0.0295	ppb	18:33:58
2	Cu 324.752†	6443.8	-190.6	-0.6129	ug/L	-0.6129	ppb	18:33:38
2	Mn 257.610†	437.2	10.1	0.0082	ug/L	0.0082	ppb	18:33:58
2	Mo 202.031†	27.7	7.0	0.5169	ug/L	0.5169	ppb	18:33:58
2	Ni 231.604†	84.8	5.2	0.1372	ug/L	0.1372	ppb	18:33:58

2	P 214.914†	213.2	-25.8	-16.304 ug/L	-16.304 ppb	18:33:58
2	Pb 220.353†	-68.7	-0.6	-0.0646 ug/L	-0.0646 ppb	18:33:58
2	S 181.975 Axial†	51.0	1.9	2.8228 ug/L	2.8228 ppb	18:33:58
2	Sb 206.836†	44.5	9.5	3.4732 ug/L	3.4732 ppb	18:33:58
2	Se 196.026†	-25.9	5.9	3.8569 ug/L	3.8569 ppb	18:33:58
2	Si 251.611†	483.7	12.6	0.4180 ug/L	0.4180 ppb	18:33:58
2	Sn 189.927†	5.7	-0.7	-0.1221 ug/L	-0.1221 ppb	18:33:58
2	Ti 334.940†	-1337.1	119.7	0.2015 ug/L	0.2015 ppb	18:33:38
2	Tl 190.801†	-27.2	18.1	5.7938 ug/L	5.7938 ppb	18:33:58
2	U 409.014†	-1942.8	199.6	6.3757 ug/L	6.3757 ppb	18:33:38
2	V 292.402†	-1360.8	117.4	0.8698 ug/L	0.8698 ppb	18:33:38
2	Zn 213.857†	833.3	-70.5	-0.7015 ug/L	-0.7015 ppb	18:33:58
2	SiO2†	493.8	11.9	0.8356 ug/L	0.8356 ppb	18:34:34
3	Sc Radial	5139.3	5139.3	107 %		18:32:46
3	Y RADIAL	5523.7	5523.7	107.7 %		18:32:46
3	Al 396.153Radial†	-3.8	-0.3	-0.2771 ug/L	-0.2771 ppb	18:32:46
3	Ca 317.933Radial†	19.8	3.3	5.6098 ug/L	5.6098 ppb	18:33:06
3	Fe 238.204 Radial†	9.1	-1.4	-13.220 ug/L	-13.220 ppb	18:33:06
3	K 766.490 Radial†	3015.8	24.2	4.8016 ug/L	4.8016 ppb	18:32:46
3	Mg 279.077 IEC†	2.3	0.7	23.752 ug/L	23.752 ppb	18:33:06
3	Na 589.592 Radial†	-1309.7	345.9	112.08 ug/L	112.08 ppb	18:32:46
3	Sr 421.552†	13.8	-4.4	-0.0314 ug/L	-0.0314 ppb	18:32:46
3	Sc 361.383	859526.1	859526.1	105.61 %		18:34:04
3	Y 371.029	723946.5	723946.5	105.54 %		18:34:04
3	Ag 328.068†	476.9	170.0	0.8295 ug/L	0.8295 ppb	18:34:04
3	As 188.979†	-33.4	-12.8	-5.7482 ug/L	-5.7482 ppb	18:34:24
3	B 249.677†	-354.2	183.1	4.4595 ug/L	4.4595 ppb	18:34:24
3	Ba 233.527†	-9.7	-10.7	-0.0864 ug/L	-0.0864 ppb	18:34:24
3	Be 313.107†	-4375.9	168.8	0.0676 ug/L	0.0676 ppb	18:34:04
3	Cd 226.502†	-164.3	42.0	0.4957 ug/L	0.4957 ppb	18:34:24
3	Co 228.616†	-74.1	2.5	0.0543 ug/L	0.0543 ppb	18:34:24
3	Cr 267.716†	80.8	-19.2	-0.2280 ug/L	-0.2280 ppb	18:34:24
3	Cu 324.752†	6429.6	-210.0	-0.6753 ug/L	-0.6753 ppb	18:34:04
3	Mn 257.610†	421.8	-4.9	-0.0080 ug/L	-0.0080 ppb	18:34:24
3	Mo 202.031†	24.3	3.7	0.2745 ug/L	0.2745 ppb	18:34:24
3	Ni 231.604†	89.8	9.9	0.2600 ug/L	0.2600 ppb	18:34:24
3	P 214.914†	221.0	-18.6	-11.716 ug/L	-11.716 ppb	18:34:24
3	Pb 220.353†	-66.4	1.7	0.2238 ug/L	0.2238 ppb	18:34:24
3	S 181.975 Axial†	45.8	-3.1	-4.5587 ug/L	-4.5587 ppb	18:34:24
3	Sb 206.836†	36.7	2.0	0.7688 ug/L	0.7688 ppb	18:34:24
3	Se 196.026†	-24.1	7.6	5.0223 ug/L	5.0223 ppb	18:34:24
3	Si 251.611†	465.7	-5.0	-0.1705 ug/L	-0.1705 ppb	18:34:24
3	Sn 189.927†	12.3	5.5	1.0191 ug/L	1.0191 ppb	18:34:24
3	Ti 334.940†	-1303.0	153.2	0.2583 ug/L	0.2583 ppb	18:34:04
3	Tl 190.801†	-36.6	9.3	2.9626 ug/L	2.9626 ppb	18:34:24
3	U 409.014†	-1901.3	240.7	7.6891 ug/L	7.6891 ppb	18:34:04
3	V 292.402†	-1312.5	164.4	1.2065 ug/L	1.2065 ppb	18:34:04
3	Zn 213.857†	811.4	-92.0	-0.9169 ug/L	-0.9169 ppb	18:34:24
3	SiO2†	506.8	23.6	1.6863 ug/L	1.6863 ppb	18:34:39

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	859072.4	105.55	%	0.052				0.05%
Sc Radial	5093.6	106	%	2.4				2.30%
Y 371.029	723543.1	105.48	%	0.115				0.11%
Y RADIAL	5470.2	106.6	%	2.37				2.22%
Ag 328.068†	113.5	0.5507	ug/L	0.24797	0.5507	ppb	0.24797	45.03%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	6.1	4.8478	ug/L	8.10883	4.8478	ppb	8.10883	167.27%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-6.4	-2.8761	ug/L	3.11637	-2.8761	ppb	3.11637	108.36%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	207.4	5.0493	ug/L	0.52530	5.0493	ppb	0.52530	10.40%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-10.3	-0.0839	ug/L	0.03204	-0.0839	ppb	0.03204	38.18%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	197.7	0.0790	ug/L	0.01369	0.0790	ppb	0.01369	17.32%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	5.7	9.5704	ug/L	7.64551	9.5704	ppb	7.64551	79.89%

```
   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              31.9      0.3768 ug/L       0.12205      0.3768 ppb        0.12205  32.39%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†               5.7      0.1240 ug/L       0.09161      0.1240 ppb        0.09161  73.85%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -9.5     -0.1138 ug/L       0.10261     -0.1138 ppb        0.10261  90.16%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -180.4     -0.5807 ug/L       0.11415     -0.5807 ppb        0.11415  19.66%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       -1.6     -14.776 ug/L        3.7011     -14.776 ppb         3.7011  25.05%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       -33.0     -6.6514 ug/L      15.80024     -6.6514 ppb       15.80024 237.55%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           0.2      6.7388 ug/L      46.19459      6.7388 ppb       46.19459 685.50%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              -0.1     -0.0019 ug/L       0.00880     -0.0019 ppb        0.00880 472.96%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               6.2      0.4590 ug/L       0.16340      0.4590 ppb        0.16340  35.60%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      350.9      113.68 ug/L        10.481      113.68 ppb         10.481   9.22%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               2.2      0.0587 ug/L       0.25003      0.0587 ppb        0.25003 425.96%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†              -22.6     -14.302 ug/L        2.3495     -14.302 ppb         2.3495  16.43%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -3.1     -0.3891 ug/L       0.82454     -0.3891 ppb        0.82454 211.90%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         -0.5     -0.7982 ug/L       3.69270     -0.7982 ppb        3.69270 462.63%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               7.9      2.9167 ug/L       1.93083      2.9167 ppb        1.93083  66.20%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               6.1      4.0565 ug/L       0.88305      4.0565 ppb        0.88305  21.77%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†               4.5      0.1466 ug/L       0.29691      0.1466 ppb        0.29691 202.54%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               3.5      0.6539 ug/L       0.67244      0.6539 ppb        0.67244 102.83%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              -4.4     -0.0314 ug/L       0.06235     -0.0314 ppb        0.06235 198.62%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             126.4      0.2144 ug/L       0.03910      0.2144 ppb        0.03910  18.23%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              15.5      4.9578 ug/L       1.73541      4.9578 ppb        1.73541  35.00%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              231.1      7.3827 ug/L       0.89411      7.3827 ppb        0.89411  12.11%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              135.3      0.9989 ug/L       0.18156      0.9989 ppb        0.18156  18.18%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†             -77.9     -0.7752 ug/L       0.12275     -0.7752 ppb        0.12275  15.83%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                    15.3      1.0838 ug/L       0.52444      1.0838 ppb        0.52444  48.39%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 41
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 1/14/2010 19:40:44
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5325.3	5325.3	111	%			19:42:36
1	Y RADIAL	5682.8	5682.8	110.8	%			19:42:36
1	Al 396.153Radial†	6403.7	5764.8	4601.4	ug/L	4601.4	ppb	19:42:36
1	Ca 317.933Radial†	3136.9	2807.2	4727.2	ug/L	4727.2	ppb	19:42:56
1	Fe 238.204 Radial†	584.2	515.8	4863.3	ug/L	4863.3	ppb	19:42:56
1	K 766.490 Radial†	29044.0	23344.2	4670.8	ug/L	4670.8	ppb	19:42:36
1	Mg 279.077 IEC†	155.8	138.7	4868.4	ug/L	4868.4	ppb	19:42:56
1	Na 589.592 Radial†	30595.6	29094.6	9426.8	ug/L	9426.8	ppb	19:42:36
1	Sr 421.552†	74527.5	67037.1	477.80	ug/L	477.80	ppb	19:42:36
1	Sc 361.383	884922.0	884922.0	108.73	%			19:43:54
1	Y 371.029	733826.4	733826.4	106.98	%			19:43:54
1	Ag 328.068†	107120.2	98237.2	485.71	ug/L	485.71	ppb	19:43:59
1	As 188.979†	1128.6	1056.9	479.90	ug/L	479.90	ppb	19:44:19
1	B 249.677†	21367.2	20170.0	488.70	ug/L	488.70	ppb	19:43:59
1	Ba 233.527†	64870.7	59660.3	495.94	ug/L	495.94	ppb	19:43:59
1	Be 313.107†	1331984.8	1229343.1	489.38	ug/L	489.38	ppb	19:43:54
1	Cd 226.502†	45805.4	42325.0	495.98	ug/L	495.98	ppb	19:43:59
1	Co 228.616†	24806.5	22887.3	497.09	ug/L	497.09	ppb	19:43:59
1	Cr 267.716†	45480.4	41732.8	492.94	ug/L	492.94	ppb	19:43:59
1	Cu 324.752†	175093.5	154736.0	493.93	ug/L	493.93	ppb	19:43:59
1	Mn 257.610†	451225.1	414588.9	486.44	ug/L	486.44	ppb	19:43:54
1	Mo 202.031†	7101.1	6511.6	483.80	ug/L	483.80	ppb	19:44:19
1	Ni 231.604†	20544.7	18819.9	495.12	ug/L	495.12	ppb	19:43:59
1	P 214.914†	4317.7	3743.1	2292.6	ug/L	2292.6	ppb	19:44:19
1	Pb 220.353†	3992.7	3736.7	480.15	ug/L	480.15	ppb	19:44:19
1	S 181.975 Axial†	764.5	656.6	979.10	ug/L	979.10	ppb	19:44:19
1	Sb 206.836†	1459.0	1309.2	495.98	ug/L	495.98	ppb	19:44:19
1	Se 196.026†	762.2	731.4	506.75	ug/L	506.75	ppb	19:44:19
1	Si 251.611†	81499.0	74509.0	2506.2	ug/L	2506.2	ppb	19:43:59
1	Sn 189.927†	2840.9	2606.7	482.87	ug/L	482.87	ppb	19:44:19
1	Ti 334.940†	311116.9	287522.2	493.09	ug/L	493.09	ppb	19:43:59
1	Tl 190.801†	1583.3	1500.0	483.15	ug/L	483.15	ppb	19:44:19
1	U 409.014†	15585.7	16375.2	521.33	ug/L	521.33	ppb	19:43:59
1	V 292.402†	73269.9	68793.7	502.79	ug/L	502.79	ppb	19:43:59
1	Zn 213.857†	55477.7	50162.7	495.99	ug/L	495.99	ppb	19:43:59
1	SiO2†	79319.4	72494.1	5184.1	ug/L	5184.1	ppb	19:45:26
2	Sc Radial	5097.2	5097.2	106	%			19:43:01
2	Y RADIAL	5456.3	5456.3	106.4	%			19:43:01
2	Al 396.153Radial†	6382.9	6003.1	4791.2	ug/L	4791.2	ppb	19:43:01
2	Ca 317.933Radial†	3125.1	2922.4	4921.2	ug/L	4921.2	ppb	19:43:21
2	Fe 238.204 Radial†	585.4	540.4	5095.6	ug/L	5095.6	ppb	19:43:21
2	K 766.490 Radial†	28938.3	24414.2	4884.9	ug/L	4884.9	ppb	19:43:01
2	Mg 279.077 IEC†	159.4	148.3	5206.1	ug/L	5206.1	ppb	19:43:21
2	Na 589.592 Radial†	30649.6	30377.2	9842.4	ug/L	9842.4	ppb	19:43:01
2	Sr 421.552†	74180.9	69712.0	496.86	ug/L	496.86	ppb	19:43:01
2	Sc 361.383	833860.0	833860.0	102.46	%			19:44:25
2	Y 371.029	692653.7	692653.7	100.98	%			19:44:25
2	Ag 328.068†	105357.2	102549.3	507.04	ug/L	507.04	ppb	19:44:30
2	As 188.979†	1140.8	1132.3	513.99	ug/L	513.99	ppb	19:44:50
2	B 249.677†	20989.0	21004.2	508.91	ug/L	508.91	ppb	19:44:30
2	Ba 233.527†	63713.7	62184.5	516.92	ug/L	516.92	ppb	19:44:30
2	Be 313.107†	1339709.7	1311898.3	522.21	ug/L	522.21	ppb	19:44:25
2	Cd 226.502†	44989.5	44108.3	516.87	ug/L	516.87	ppb	19:44:30
2	Co 228.616†	24408.7	23896.1	519.02	ug/L	519.02	ppb	19:44:30
2	Cr 267.716†	44826.7	43656.1	515.66	ug/L	515.66	ppb	19:44:30
2	Cu 324.752†	171028.1	160629.1	512.75	ug/L	512.75	ppb	19:44:30
2	Mn 257.610†	452904.7	441640.7	518.17	ug/L	518.17	ppb	19:44:25
2	Mo 202.031†	7096.6	6907.1	513.17	ug/L	513.17	ppb	19:44:50
2	Ni 231.604†	20193.9	19634.6	516.55	ug/L	516.55	ppb	19:44:30

2	P 214.914†	4317.3	3985.9	2443.9 ug/L	2443.9 ppb	19:44:50
2	Pb 220.353†	4014.9	3983.2	511.82 ug/L	511.82 ppb	19:44:50
2	S 181.975 Axial†	758.7	694.1	1035.0 ug/L	1035.0 ppb	19:44:50
2	Sb 206.836†	1456.7	1389.1	526.26 ug/L	526.26 ppb	19:44:50
2	Se 196.026†	764.5	776.5	537.81 ug/L	537.81 ppb	19:44:50
2	Si 251.611†	79775.4	77416.7	2603.9 ug/L	2603.9 ppb	19:44:30
2	Sn 189.927†	2844.6	2770.2	513.15 ug/L	513.15 ppb	19:44:50
2	Ti 334.940†	304307.6	298397.9	511.73 ug/L	511.73 ppb	19:44:30
2	Tl 190.801†	1597.1	1602.7	516.16 ug/L	516.16 ppb	19:44:50
2	U 409.014†	14953.5	16635.9	529.57 ug/L	529.57 ppb	19:44:30
2	V 292.402†	71712.9	71400.5	521.97 ug/L	521.97 ppb	19:44:30
2	Zn 213.857†	54462.1	52295.9	517.08 ug/L	517.08 ppb	19:44:30
2	SiO2†	79715.8	77348.2	5531.3 ug/L	5531.3 ppb	19:45:31
3	Sc Radial	4784.1	4784.1	99.8 %		19:43:26
3	Y RADIAL	5092.0	5092.0	99.27 %		19:43:26
3	Al 396.153Radial†	6504.9	6518.0	5205.2 ug/L	5205.2 ppb	19:43:26
3	Ca 317.933Radial†	3112.5	3102.1	5223.7 ug/L	5223.7 ppb	19:43:46
3	Fe 238.204 Radial†	578.9	569.9	5372.4 ug/L	5372.4 ppb	19:43:46
3	K 766.490 Radial†	29304.3	26561.1	5314.7 ug/L	5314.7 ppb	19:43:26
3	Mg 279.077 IEC†	157.2	155.9	5472.9 ug/L	5472.9 ppb	19:43:46
3	Na 589.592 Radial†	31229.5	32843.5	10641 ug/L	10641 ppb	19:43:26
3	Sr 421.552†	75847.4	75944.6	541.29 ug/L	541.29 ppb	19:43:26
3	Sc 361.383	866538.3	866538.3	106.47 %		19:44:55
3	Y 371.029	719364.3	719364.3	104.87 %		19:44:55
3	Ag 328.068†	104626.1	97984.9	484.64 ug/L	484.64 ppb	19:45:01
3	As 188.979†	1152.9	1101.6	500.17 ug/L	500.17 ppb	19:45:21
3	B 249.677†	21134.6	20368.4	493.44 ug/L	493.44 ppb	19:45:01
3	Ba 233.527†	63912.3	60025.9	498.99 ug/L	498.99 ppb	19:45:01
3	Be 313.107†	1345815.8	1268322.5	504.87 ug/L	504.87 ppb	19:44:55
3	Cd 226.502†	45244.4	42691.8	500.23 ug/L	500.23 ppb	19:45:01
3	Co 228.616†	24486.1	23070.4	501.08 ug/L	501.08 ppb	19:45:01
3	Cr 267.716†	44865.9	42043.0	496.61 ug/L	496.61 ppb	19:45:01
3	Cu 324.752†	172213.2	155447.1	496.23 ug/L	496.23 ppb	19:45:01
3	Mn 257.610†	455480.8	427390.1	501.48 ug/L	501.48 ppb	19:44:55
3	Mo 202.031†	7098.0	6647.2	493.91 ug/L	493.91 ppb	19:45:21
3	Ni 231.604†	20289.9	18981.5	499.37 ug/L	499.37 ppb	19:45:01
3	P 214.914†	4319.7	3829.2	2346.9 ug/L	2346.9 ppb	19:45:21
3	Pb 220.353†	4016.9	3837.3	493.15 ug/L	493.15 ppb	19:45:21
3	S 181.975 Axial†	761.3	668.6	996.86 ug/L	996.86 ppb	19:45:21
3	Sb 206.836†	1470.3	1348.2	510.66 ug/L	510.66 ppb	19:45:21
3	Se 196.026†	765.8	749.6	520.66 ug/L	520.66 ppb	19:45:21
3	Si 251.611†	80336.4	75007.3	2522.9 ug/L	2522.9 ppb	19:45:01
3	Sn 189.927†	2857.2	2677.4	496.03 ug/L	496.03 ppb	19:45:21
3	Ti 334.940†	306200.8	288975.4	495.60 ug/L	495.60 ppb	19:45:01
3	Tl 190.801†	1591.0	1538.2	495.42 ug/L	495.42 ppb	19:45:21
3	U 409.014†	15156.8	16276.5	518.11 ug/L	518.11 ppb	19:45:01
3	V 292.402†	72059.2	69086.2	504.97 ug/L	504.97 ppb	19:45:01
3	Zn 213.857†	54727.7	50540.7	499.68 ug/L	499.68 ppb	19:45:01
3	SiO2†	78655.1	73417.8	5250.0 ug/L	5250.0 ppb	19:45:36

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	861773.4	105.89	%	3.178				3.00%
Sc Radial	5068.9	106	%	5.7				5.36%
Y 371.029	715281.5	104.27	%	3.045				2.92%
Y RADIAL	5410.4	105.5	%	5.81				5.51%
Ag 328.068†	99590.5	492.47	ug/L	12.633	492.47	ppb	12.633	2.57%
QC value within limits for Ag 328.068 Recovery = 98.49%								
Al 396.153Radial†	6095.3	4865.9	ug/L	308.73	4865.9	ppb	308.73	6.34%
QC value within limits for Al 396.153Radial Recovery = 97.32%								
As 188.979†	1096.9	498.02	ug/L	17.143	498.02	ppb	17.143	3.44%
QC value within limits for As 188.979 Recovery = 99.60%								
B 249.677†	20514.2	497.02	ug/L	10.566	497.02	ppb	10.566	2.13%
QC value within limits for B 249.677 Recovery = 99.40%								
Ba 233.527†	60623.6	503.95	ug/L	11.334	503.95	ppb	11.334	2.25%
QC value within limits for Ba 233.527 Recovery = 100.79%								
Be 313.107†	1269854.6	505.49	ug/L	16.424	505.49	ppb	16.424	3.25%
QC value within limits for Be 313.107 Recovery = 101.10%								
Ca 317.933Radial†	2943.9	4957.4	ug/L	250.22	4957.4	ppb	250.22	5.05%

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   QC value within limits for Ca 317.933Radial  Recovery = 99.15%
Cd 226.502†            43041.7      504.36 ug/L        11.042      504.36 ppb        11.042   2.19%
   QC value within limits for Cd 226.502  Recovery = 100.87%
Co 228.616†            23284.6      505.73 ug/L        11.684      505.73 ppb        11.684   2.31%
   QC value within limits for Co 228.616  Recovery = 101.15%
Cr 267.716†            42477.3      501.74 ug/L        12.195      501.74 ppb        12.195   2.43%
   QC value within limits for Cr 267.716  Recovery = 100.35%
Cu 324.752†           156937.4      500.97 ug/L        10.267      500.97 ppb        10.267   2.05%
   QC value within limits for Cu 324.752  Recovery = 100.19%
Fe 238.204 Radial†       542.0      5110.5 ug/L        254.88      5110.5 ppb        254.88   4.99%
   QC value within limits for Fe 238.204 Radial  Recovery = 102.21%
K 766.490 Radial†      24773.2      4956.8 ug/L        327.87      4956.8 ppb        327.87   6.61%
   QC value within limits for K 766.490 Radial  Recovery = 99.14%
Mg 279.077 IEC†          147.6      5182.5 ug/L        302.97      5182.5 ppb        302.97   5.85%
   QC value within limits for Mg 279.077 IEC  Recovery = 103.65%
Mn 257.610†           427873.2      502.03 ug/L        15.873      502.03 ppb        15.873   3.16%
   QC value within limits for Mn 257.610  Recovery = 100.41%
Mo 202.031†            6688.7       496.96 ug/L        14.925      496.96 ppb        14.925   3.00%
   QC value within limits for Mo 202.031  Recovery = 99.39%
Na 589.592 Radial†     30771.8      9970.2 ug/L        617.34      9970.2 ppb        617.34   6.19%
   QC value within limits for Na 589.592 Radial  Recovery = 99.70%
Ni 231.604†            19145.3      503.68 ug/L        11.348      503.68 ppb        11.348   2.25%
   QC value within limits for Ni 231.604  Recovery = 100.74%
P 214.914†              3852.8      2361.1 ug/L         76.68      2361.1 ppb         76.68   3.25%
   QC value within limits for P 214.914  Recovery = 94.44%
Pb 220.353†             3852.4      495.04 ug/L        15.918      495.04 ppb        15.918   3.22%
   QC value within limits for Pb 220.353  Recovery = 99.01%
S 181.975 Axial†         673.1      1003.6 ug/L         28.55      1003.6 ppb         28.55   2.84%
   QC value within limits for S 181.975 Axial  Recovery = 100.36%
Sb 206.836†             1348.8      510.97 ug/L        15.143      510.97 ppb        15.143   2.96%
   QC value within limits for Sb 206.836  Recovery = 102.19%
Se 196.026†              752.5      521.74 ug/L        15.559      521.74 ppb        15.559   2.98%
   QC value within limits for Se 196.026  Recovery = 104.35%
Si 251.611†            75644.3      2544.4 ug/L         52.25      2544.4 ppb         52.25   2.05%
   QC value within limits for Si 251.611  Recovery = 101.77%
Sn 189.927†             2684.8      497.35 ug/L        15.183      497.35 ppb        15.183   3.05%
   QC value within limits for Sn 189.927  Recovery = 99.47%
Sr 421.552†            70897.9      505.32 ug/L        32.577      505.32 ppb        32.577   6.45%
   QC value within limits for Sr 421.552  Recovery = 101.06%
Ti 334.940†           291631.8      500.14 ug/L        10.118      500.14 ppb        10.118   2.02%
   QC value within limits for Ti 334.940  Recovery = 100.03%
Tl 190.801†             1547.0      498.24 ug/L        16.688      498.24 ppb        16.688   3.35%
   QC value within limits for Tl 190.801  Recovery = 99.65%
U 409.014†             16429.2      523.00 ug/L         5.915      523.00 ppb         5.915   1.13%
   QC value within limits for U 409.014  Recovery = 104.60%
V 292.402†             69760.1      509.91 ug/L        10.502      509.91 ppb        10.502   2.06%
   QC value within limits for V 292.402  Recovery = 101.98%
Zn 213.857†            50999.8      504.25 ug/L        11.264      504.25 ppb        11.264   2.23%
   QC value within limits for Zn 213.857  Recovery = 100.85%
SiO2†                  74420.0      5321.8 ug/L        184.39      5321.8 ppb        184.39   3.46%
   QC value within limits for SiO2  Recovery = 99.52%
All analyte(s) passed QC.
```

Sequence No.: 42
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 1/14/2010 19:47:47
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5077.1	5077.1	106	%			19:49:39
1	Y RADIAL	5453.2	5453.2	106.3	%			19:49:39
1	Al 396.153Radial†	-11.7	-7.8	-6.2491	ug/L	-6.2491	ppb	19:49:39
1	Ca 317.933Radial†	22.0	5.6	9.4228	ug/L	9.4228	ppb	19:50:00
1	Fe 238.204 Radial†	11.3	0.7	6.9516	ug/L	6.9516	ppb	19:50:00
1	K 766.490 Radial†	2811.1	-134.6	-26.994	ug/L	-26.994	ppb	19:49:39
1	Mg 279.077 IEC†	2.3	0.6	22.347	ug/L	22.347	ppb	19:50:00
1	Na 589.592 Radial†	-1437.5	210.3	68.154	ug/L	68.154	ppb	19:49:39
1	Sr 421.552†	-7.2	-24.0	-0.1711	ug/L	-0.1711	ppb	19:49:39
1	Sc 361.383	852089.0	852089.0	104.70	%			19:50:56
1	Y 371.029	722835.8	722835.8	105.38	%			19:50:56
1	Ag 328.068†	407.3	107.4	0.5246	ug/L	0.5246	ppb	19:50:56
1	As 188.979†	-24.0	-4.1	-1.8492	ug/L	-1.8492	ppb	19:51:16
1	B 249.677†	-458.6	80.5	1.9581	ug/L	1.9581	ppb	19:51:16
1	Ba 233.527†	6.2	4.4	0.0382	ug/L	0.0382	ppb	19:51:16
1	Be 313.107†	-4343.2	163.9	0.0657	ug/L	0.0657	ppb	19:50:56
1	Cd 226.502†	-191.2	15.0	0.1767	ug/L	0.1767	ppb	19:51:16
1	Co 228.616†	-88.3	-11.6	-0.2515	ug/L	-0.2515	ppb	19:51:16
1	Cr 267.716†	80.0	-19.3	-0.2308	ug/L	-0.2308	ppb	19:51:16
1	Cu 324.752†	6464.0	-124.0	-0.4011	ug/L	-0.4011	ppb	19:50:56
1	Mn 257.610†	469.9	44.5	0.0520	ug/L	0.0520	ppb	19:51:16
1	Mo 202.031†	28.0	7.4	0.5506	ug/L	0.5506	ppb	19:51:16
1	Ni 231.604†	93.5	14.2	0.3732	ug/L	0.3732	ppb	19:51:16
1	P 214.914†	217.3	-20.3	-12.899	ug/L	-12.899	ppb	19:51:16
1	Pb 220.353†	-73.0	-5.1	-0.6594	ug/L	-0.6594	ppb	19:51:16
1	S 181.975 Axial†	46.4	-2.2	-3.2184	ug/L	-3.2184	ppb	19:51:16
1	Sb 206.836†	35.8	1.4	0.5329	ug/L	0.5329	ppb	19:51:16
1	Se 196.026†	-24.2	7.2	4.8630	ug/L	4.8630	ppb	19:51:16
1	Si 251.611†	496.2	28.1	0.9403	ug/L	0.9403	ppb	19:51:16
1	Sn 189.927†	5.6	-0.8	-0.1491	ug/L	-0.1491	ppb	19:51:16
1	Ti 334.940†	-1285.3	159.3	0.2685	ug/L	0.2685	ppb	19:50:56
1	Tl 190.801†	-36.3	9.2	2.9503	ug/L	2.9503	ppb	19:51:16
1	U 409.014†	-1807.0	315.0	10.061	ug/L	10.061	ppb	19:50:56
1	V 292.402†	-1373.1	95.6	0.7159	ug/L	0.7159	ppb	19:50:56
1	Zn 213.857†	834.8	-62.9	-0.6302	ug/L	-0.6302	ppb	19:51:16
1	SiO2†	514.6	35.3	2.5180	ug/L	2.5180	ppb	19:52:12
2	Sc Radial	5109.3	5109.3	107	%			19:50:05
2	Y RADIAL	5477.6	5477.6	106.8	%			19:50:05
2	Al 396.153Radial†	-25.5	-20.7	-16.654	ug/L	-16.654	ppb	19:50:05
2	Ca 317.933Radial†	22.6	6.0	10.178	ug/L	10.178	ppb	19:50:25
2	Fe 238.204 Radial†	8.6	-1.8	-17.138	ug/L	-17.138	ppb	19:50:25
2	K 766.490 Radial†	2971.0	-1.4	-0.3101	ug/L	-0.3101	ppb	19:50:05
2	Mg 279.077 IEC†	3.6	1.9	66.641	ug/L	66.641	ppb	19:50:25
2	Na 589.592 Radial†	-1432.8	223.3	72.343	ug/L	72.343	ppb	19:50:05
2	Sr 421.552†	-12.4	-28.8	-0.2057	ug/L	-0.2057	ppb	19:50:05
2	Sc 361.383	854522.3	854522.3	105.00	%			19:51:22
2	Y 371.029	725851.8	725851.8	105.82	%			19:51:22
2	Ag 328.068†	423.0	121.3	0.5901	ug/L	0.5901	ppb	19:51:22
2	As 188.979†	-20.9	-1.0	-0.4669	ug/L	-0.4669	ppb	19:51:42
2	B 249.677†	-468.4	72.4	1.7655	ug/L	1.7655	ppb	19:51:42
2	Ba 233.527†	-11.4	-12.3	-0.1011	ug/L	-0.1011	ppb	19:51:42
2	Be 313.107†	-4353.4	165.9	0.0668	ug/L	0.0668	ppb	19:51:22
2	Cd 226.502†	-190.8	15.8	0.1880	ug/L	0.1880	ppb	19:51:42
2	Co 228.616†	-81.1	-4.5	-0.0966	ug/L	-0.0966	ppb	19:51:42
2	Cr 267.716†	89.4	-10.6	-0.1261	ug/L	-0.1261	ppb	19:51:42
2	Cu 324.752†	6509.1	-98.6	-0.3178	ug/L	-0.3178	ppb	19:51:22
2	Mn 257.610†	454.8	28.8	0.0294	ug/L	0.0294	ppb	19:51:42
2	Mo 202.031†	34.5	13.6	1.0074	ug/L	1.0074	ppb	19:51:42
2	Ni 231.604†	103.4	23.4	0.6148	ug/L	0.6148	ppb	19:51:42

2	P 214.914†	217.8	-20.4	-12.978 ug/L	-12.978 ppb	19:51:42
2	Pb 220.353†	-56.5	10.8	1.3797 ug/L	1.3797 ppb	19:51:42
2	S 181.975 Axial†	45.5	-3.2	-4.7150 ug/L	-4.7150 ppb	19:51:42
2	Sb 206.836†	39.9	5.2	1.9270 ug/L	1.9270 ppb	19:51:42
2	Se 196.026†	-25.1	6.4	4.2389 ug/L	4.2389 ppb	19:51:42
2	Si 251.611†	501.7	31.9	1.0635 ug/L	1.0635 ppb	19:51:42
2	Sn 189.927†	1.9	-4.3	-0.7913 ug/L	-0.7913 ppb	19:51:42
2	Ti 334.940†	-1208.7	235.8	0.3990 ug/L	0.3990 ppb	19:51:22
2	Tl 190.801†	-33.9	11.6	3.7009 ug/L	3.7009 ppb	19:51:42
2	U 409.014†	-2022.2	115.0	3.6739 ug/L	3.6739 ppb	19:51:22
2	V 292.402†	-1368.7	103.5	0.7716 ug/L	0.7716 ppb	19:51:22
2	Zn 213.857†	815.9	-83.2	-0.8317 ug/L	-0.8317 ppb	19:51:42
2	SiO2†	566.3	83.2	5.9364 ug/L	5.9364 ppb	19:52:17
3	Sc Radial	5086.3	5086.3	106 %		19:50:30
3	Y RADIAL	5471.4	5471.4	106.7 %		19:50:30
3	Al 396.153Radial†	20.6	22.6	18.154 ug/L	18.154 ppb	19:50:30
3	Ca 317.933Radial†	23.5	7.0	11.748 ug/L	11.748 ppb	19:50:50
3	Fe 238.204 Radial†	10.3	-0.2	-1.5915 ug/L	-1.5915 ppb	19:50:50
3	K 766.490 Radial†	2863.1	-90.4	-18.142 ug/L	-18.142 ppb	19:50:30
3	Mg 279.077 IEC†	3.3	1.6	56.683 ug/L	56.683 ppb	19:50:50
3	Na 589.592 Radial†	-1473.6	178.8	57.926 ug/L	57.926 ppb	19:50:30
3	Sr 421.552†	0.2	-17.0	-0.1216 ug/L	-0.1216 ppb	19:50:30
3	Sc 361.383	855272.4	855272.4	105.09 %		19:51:47
3	Y 371.029	725851.5	725851.5	105.82 %		19:51:47
3	Ag 328.068†	377.5	77.7	0.3801 ug/L	0.3801 ppb	19:51:47
3	As 188.979†	-28.4	-8.2	-3.6858 ug/L	-3.6858 ppb	19:52:07
3	B 249.677†	-467.1	74.0	1.8026 ug/L	1.8026 ppb	19:52:07
3	Ba 233.527†	-4.1	-5.3	-0.0430 ug/L	-0.0430 ppb	19:52:07
3	Be 313.107†	-4339.0	183.3	0.0737 ug/L	0.0737 ppb	19:51:47
3	Cd 226.502†	-180.8	25.5	0.3001 ug/L	0.3001 ppb	19:52:07
3	Co 228.616†	-92.1	-14.9	-0.3239 ug/L	-0.3239 ppb	19:52:07
3	Cr 267.716†	74.3	-25.0	-0.2963 ug/L	-0.2963 ppb	19:52:07
3	Cu 324.752†	6493.9	-118.6	-0.3809 ug/L	-0.3809 ppb	19:51:47
3	Mn 257.610†	463.2	36.5	0.0403 ug/L	0.0403 ppb	19:52:07
3	Mo 202.031†	25.3	4.7	0.3516 ug/L	0.3516 ppb	19:52:07
3	Ni 231.604†	83.1	3.9	0.1040 ug/L	0.1040 ppb	19:52:07
3	P 214.914†	214.2	-24.1	-15.281 ug/L	-15.281 ppb	19:52:07
3	Pb 220.353†	-69.1	-1.2	-0.1421 ug/L	-0.1421 ppb	19:52:07
3	S 181.975 Axial†	43.5	-5.1	-7.6003 ug/L	-7.6003 ppb	19:52:07
3	Sb 206.836†	32.8	-1.6	-0.5613 ug/L	-0.5613 ppb	19:52:07
3	Se 196.026†	-25.1	6.5	4.3567 ug/L	4.3567 ppb	19:52:07
3	Si 251.611†	505.4	35.0	1.1765 ug/L	1.1765 ppb	19:52:07
3	Sn 189.927†	7.7	1.2	0.2328 ug/L	0.2328 ppb	19:52:07
3	Ti 334.940†	-1216.4	229.5	0.3889 ug/L	0.3889 ppb	19:51:47
3	Tl 190.801†	-30.8	14.6	4.6700 ug/L	4.6700 ppb	19:52:07
3	U 409.014†	-2004.1	133.9	4.2774 ug/L	4.2774 ppb	19:51:47
3	V 292.402†	-1385.6	88.7	0.6538 ug/L	0.6538 ppb	19:51:47
3	Zn 213.857†	821.2	-78.9	-0.7870 ug/L	-0.7870 ppb	19:52:07
3	SiO2†	512.0	31.0	2.2102 ug/L	2.2102 ppb	19:52:22

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	853961.2	104.93	%	0.204				0.19%
Sc Radial	5090.9	106	%	0.3				0.33%
Y 371.029	724846.4	105.67	%	0.254				0.24%
Y RADIAL	5467.4	106.6	%	0.25				0.23%
Ag 328.068†	102.1	0.4983	ug/L	0.10744	0.4983	ppb	0.10744	21.56%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-1.9	-1.5832	ug/L	17.86686	-1.5832	ppb	17.86686	>999.9%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-4.4	-2.0006	ug/L	1.61474	-2.0006	ppb	1.61474	80.71%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	75.6	1.8420	ug/L	0.10218	1.8420	ppb	0.10218	5.55%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-4.4	-0.0353	ug/L	0.07000	-0.0353	ppb	0.07000	198.33%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	171.1	0.0688	ug/L	0.00433	0.0688	ppb	0.00433	6.29%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	6.2	10.450	ug/L	1.1864	10.450	ppb	1.1864	11.35%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              18.8      0.2216 ug/L       0.06819      0.2216 ppb        0.06819  30.77%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†             -10.4     -0.2240 ug/L       0.11615     -0.2240 ppb        0.11615  51.86%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†             -18.3     -0.2177 ug/L       0.08584     -0.2177 ppb        0.08584  39.43%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -113.7     -0.3666 ug/L       0.04344     -0.3666 ppb        0.04344  11.85%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       -0.4     -3.9258 ug/L      12.21303     -3.9258 ppb       12.21303 311.10%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       -75.5    -15.149 ug/L       13.5916     -15.149 ppb        13.5916  89.72%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          1.4      48.557 ug/L       23.2378      48.557 ppb        23.2378  47.86%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†             36.6      0.0406 ug/L       0.01127      0.0406 ppb        0.01127  27.79%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              8.6      0.6365 ug/L       0.33621      0.6365 ppb        0.33621  52.82%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      204.1      66.141 ug/L        7.4165      66.141 ppb         7.4165  11.21%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†             13.8      0.3640 ug/L       0.25554      0.3640 ppb        0.25554  70.21%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†              -21.6     -13.719 ug/L        1.3529     -13.719 ppb         1.3529   9.86%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              1.5      0.1927 ug/L       1.05998      0.1927 ppb        1.05998 549.98%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†        -3.5     -5.1779 ug/L       2.22732     -5.1779 ppb        2.22732  43.02%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              1.7      0.6329 ug/L       1.24716      0.6329 ppb        1.24716 197.07%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              6.7      4.4862 ug/L       0.33159      4.4862 ppb        0.33159   7.39%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†             31.7      1.0601 ug/L       0.11813      1.0601 ppb        0.11813  11.14%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†             -1.3     -0.2359 ug/L       0.51753     -0.2359 ppb        0.51753 219.40%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             -23.3     -0.1661 ug/L       0.04228     -0.1661 ppb        0.04228  25.46%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             208.2      0.3521 ug/L       0.07261      0.3521 ppb        0.07261  20.62%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†             11.8      3.7737 ug/L       0.86217      3.7737 ppb        0.86217  22.85%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              188.0      6.0040 ug/L       3.52617      6.0040 ppb        3.52617  58.73%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              95.9      0.7138 ug/L       0.05894      0.7138 ppb        0.05894   8.26%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†             -75.0     -0.7496 ug/L       0.10579     -0.7496 ppb        0.10579  14.11%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                   49.8      3.5549 ug/L       2.06818      3.5549 ppb        2.06818  58.18%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
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Sequence No.: 51
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 1/14/2010 20:50:52
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4980.6	4980.6	104	%			20:52:44
1	Y RADIAL	5319.8	5319.8	103.7	%			20:52:44
1	Al 396.153Radial†	6541.7	6296.2	5026.2	ug/L	5026.2	ppb	20:52:44
1	Ca 317.933Radial†	3177.7	3041.7	5122.1	ug/L	5122.1	ppb	20:53:04
1	Fe 238.204 Radial†	593.8	561.4	5292.9	ug/L	5292.9	ppb	20:53:04
1	K 766.490 Radial†	29562.9	25651.6	5132.6	ug/L	5132.6	ppb	20:52:44
1	Mg 279.077 IEC†	159.8	152.2	5344.2	ug/L	5344.2	ppb	20:53:04
1	Na 589.592 Radial†	31339.9	31715.4	10276	ug/L	10276	ppb	20:52:44
1	Sr 421.552†	76457.3	73533.4	524.10	ug/L	524.10	ppb	20:52:44
1	Sc 361.383	846924.0	846924.0	104.06	%			20:54:02
1	Y 371.029	703196.0	703196.0	102.51	%			20:54:02
1	Ag 328.068†	104645.2	100278.9	495.96	ug/L	495.96	ppb	20:54:07
1	As 188.979†	1160.4	1134.0	514.86	ug/L	514.86	ppb	20:54:27
1	B 249.677†	21417.1	21099.7	511.19	ug/L	511.19	ppb	20:54:07
1	Ba 233.527†	65082.9	62541.0	519.89	ug/L	519.89	ppb	20:54:07
1	Be 313.107†	1349422.3	1301061.9	517.92	ug/L	517.92	ppb	20:54:02
1	Cd 226.502†	46112.0	44509.7	521.56	ug/L	521.56	ppb	20:54:07
1	Co 228.616†	24926.0	24025.7	521.83	ug/L	521.83	ppb	20:54:07
1	Cr 267.716†	45729.5	43848.8	517.94	ug/L	517.94	ppb	20:54:07
1	Cu 324.752†	174383.4	161278.6	514.83	ug/L	514.83	ppb	20:54:07
1	Mn 257.610†	455789.5	437594.2	513.44	ug/L	513.44	ppb	20:54:02
1	Mo 202.031†	7257.0	6954.4	516.70	ug/L	516.70	ppb	20:54:27
1	Ni 231.604†	20629.9	19749.5	519.58	ug/L	519.58	ppb	20:54:07
1	P 214.914†	4416.9	4016.6	2463.1	ug/L	2463.1	ppb	20:54:27
1	Pb 220.353†	4102.9	4007.3	514.94	ug/L	514.94	ppb	20:54:27
1	S 181.975 Axial†	780.9	703.9	1049.6	ug/L	1049.6	ppb	20:54:27
1	Sb 206.836†	1507.3	1415.7	536.13	ug/L	536.13	ppb	20:54:27
1	Se 196.026†	787.9	787.5	545.79	ug/L	545.79	ppb	20:54:27
1	Si 251.611†	81527.3	77899.1	2620.1	ug/L	2620.1	ppb	20:54:07
1	Sn 189.927†	2920.1	2800.0	518.69	ug/L	518.69	ppb	20:54:27
1	Ti 334.940†	314065.7	303193.7	519.97	ug/L	519.97	ppb	20:54:02
1	Tl 190.801†	1628.9	1609.2	518.28	ug/L	518.28	ppb	20:54:27
1	U 409.014†	15381.1	16821.7	535.48	ug/L	535.48	ppb	20:54:07
1	V 292.402†	73454.6	71994.6	526.28	ug/L	526.28	ppb	20:54:07
1	Zn 213.857†	55622.5	52591.0	519.99	ug/L	519.99	ppb	20:54:07
1	SiO2†	81812.6	78163.0	5589.6	ug/L	5589.6	ppb	20:55:35
2	Sc Radial	5033.0	5033.0	105	%			20:53:09
2	Y RADIAL	5346.0	5346.0	104.2	%			20:53:09
2	Al 396.153Radial†	6561.5	6249.7	4989.3	ug/L	4989.3	ppb	20:53:09
2	Ca 317.933Radial†	3173.4	3005.9	5061.7	ug/L	5061.7	ppb	20:53:29
2	Fe 238.204 Radial†	591.2	552.9	5212.8	ug/L	5212.8	ppb	20:53:29
2	K 766.490 Radial†	29821.9	25602.6	5122.8	ug/L	5122.8	ppb	20:53:09
2	Mg 279.077 IEC†	159.7	150.5	5284.2	ug/L	5284.2	ppb	20:53:29
2	Na 589.592 Radial†	31459.4	31515.9	10211	ug/L	10211	ppb	20:53:09
2	Sr 421.552†	76746.4	73044.3	520.61	ug/L	520.61	ppb	20:53:09
2	Sc 361.383	857036.0	857036.0	105.30	%			20:54:33
2	Y 371.029	711389.6	711389.6	103.71	%			20:54:33
2	Ag 328.068†	103850.7	98337.9	486.35	ug/L	486.35	ppb	20:54:38
2	As 188.979†	1164.8	1124.9	510.79	ug/L	510.79	ppb	20:54:58
2	B 249.677†	20969.0	20431.3	494.99	ug/L	494.99	ppb	20:54:38
2	Ba 233.527†	63719.1	60508.0	502.99	ug/L	502.99	ppb	20:54:38
2	Be 313.107†	1361539.7	1297268.9	516.42	ug/L	516.42	ppb	20:54:33
2	Cd 226.502†	45161.9	43084.6	504.85	ug/L	504.85	ppb	20:54:38
2	Co 228.616†	24358.8	23204.5	503.97	ug/L	503.97	ppb	20:54:38
2	Cr 267.716†	44937.1	42577.8	502.93	ug/L	502.93	ppb	20:54:38
2	Cu 324.752†	171138.4	156219.8	498.69	ug/L	498.69	ppb	20:54:38
2	Mn 257.610†	459708.9	436148.3	511.74	ug/L	511.74	ppb	20:54:33
2	Mo 202.031†	7215.6	6832.8	507.67	ug/L	507.67	ppb	20:54:58
2	Ni 231.604†	20262.6	19166.8	504.25	ug/L	504.25	ppb	20:54:38

2	P 214.914†	4375.3	3927.0	2409.0 ug/L	2409.0 ppb	20:54:58
2	Pb 220.353†	4061.3	3921.3	503.91 ug/L	503.91 ppb	20:54:58
2	S 181.975 Axial†	766.3	681.2	1015.7 ug/L	1015.7 ppb	20:54:58
2	Sb 206.836†	1487.8	1380.2	522.70 ug/L	522.70 ppb	20:54:58
2	Se 196.026†	782.8	773.7	536.28 ug/L	536.28 ppb	20:54:58
2	Si 251.611†	79908.3	75437.3	2537.3 ug/L	2537.3 ppb	20:54:38
2	Sn 189.927†	2879.4	2728.3	505.41 ug/L	505.41 ppb	20:54:58
2	Ti 334.940†	317056.5	302472.9	518.75 ug/L	518.75 ppb	20:54:33
2	Tl 190.801†	1617.2	1579.6	508.90 ug/L	508.90 ppb	20:54:58
2	U 409.014†	14979.2	16265.7	517.77 ug/L	517.77 ppb	20:54:38
2	V 292.402†	71908.5	69693.5	509.54 ug/L	509.54 ppb	20:54:38
2	Zn 213.857†	54634.2	51021.9	504.46 ug/L	504.46 ppb	20:54:38
2	SiO2†	80185.5	75690.2	5412.6 ug/L	5412.6 ppb	20:55:40
3	Sc Radial	5008.4	5008.4	105 %		20:53:34
3	Y RADIAL	5353.9	5353.9	104.4 %		20:53:34
3	Al 396.153Radial†	6605.3	6322.2	5047.3 ug/L	5047.3 ppb	20:53:34
3	Ca 317.933Radial†	3184.2	3031.1	5104.2 ug/L	5104.2 ppb	20:53:54
3	Fe 238.204 Radial†	589.7	554.3	5225.9 ug/L	5225.9 ppb	20:53:54
3	K 766.490 Radial†	29638.1	25565.9	5115.5 ug/L	5115.5 ppb	20:53:34
3	Mg 279.077 IEC†	161.7	153.2	5378.0 ug/L	5378.0 ppb	20:53:54
3	Na 589.592 Radial†	31323.2	31532.3	10217 ug/L	10217 ppb	20:53:34
3	Sr 421.552†	76663.2	73322.6	522.60 ug/L	522.60 ppb	20:53:34
3	Sc 361.383	850254.0	850254.0	104.47 %		20:55:04
3	Y 371.029	705411.6	705411.6	102.84 %		20:55:04
3	Ag 328.068†	103502.0	98790.8	488.59 ug/L	488.59 ppb	20:55:09
3	As 188.979†	1145.1	1114.9	506.27 ug/L	506.27 ppb	20:55:29
3	B 249.677†	21045.8	20663.7	500.62 ug/L	500.62 ppb	20:55:09
3	Ba 233.527†	64084.3	61340.2	509.90 ug/L	509.90 ppb	20:55:09
3	Be 313.107†	1345388.5	1292122.1	514.37 ug/L	514.37 ppb	20:55:04
3	Cd 226.502†	45162.9	43427.6	508.88 ug/L	508.88 ppb	20:55:09
3	Co 228.616†	24455.8	23481.8	510.00 ug/L	510.00 ppb	20:55:09
3	Cr 267.716†	45068.5	43044.0	508.43 ug/L	508.43 ppb	20:55:09
3	Cu 324.752†	171419.4	157785.1	503.68 ug/L	503.68 ppb	20:55:09
3	Mn 257.610†	454861.0	434990.0	510.38 ug/L	510.38 ppb	20:55:04
3	Mo 202.031†	7190.2	6863.1	509.92 ug/L	509.92 ppb	20:55:29
3	Ni 231.604†	20316.5	19371.9	509.64 ug/L	509.64 ppb	20:55:09
3	P 214.914†	4360.2	3945.7	2420.0 ug/L	2420.0 ppb	20:55:29
3	Pb 220.353†	4065.0	3955.6	508.32 ug/L	508.32 ppb	20:55:29
3	S 181.975 Axial†	768.8	689.4	1027.9 ug/L	1027.9 ppb	20:55:29
3	Sb 206.836†	1474.6	1378.7	522.34 ug/L	522.34 ppb	20:55:29
3	Se 196.026†	778.3	775.4	537.45 ug/L	537.45 ppb	20:55:29
3	Si 251.611†	80109.5	76235.1	2564.1 ug/L	2564.1 ppb	20:55:09
3	Sn 189.927†	2887.0	2757.3	510.78 ug/L	510.78 ppb	20:55:29
3	Ti 334.940†	313861.7	301816.3	517.61 ug/L	517.61 ppb	20:55:04
3	Tl 190.801†	1603.7	1579.0	508.65 ug/L	508.65 ppb	20:55:29
3	U 409.014†	15019.7	16417.9	522.61 ug/L	522.61 ppb	20:55:09
3	V 292.402†	72107.1	70428.3	514.88 ug/L	514.88 ppb	20:55:09
3	Zn 213.857†	54625.3	51427.2	508.46 ug/L	508.46 ppb	20:55:09
3	SiO2†	81154.3	77224.9	5522.5 ug/L	5522.5 ppb	20:55:45

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	851404.7	104.61	%	0.633				0.61%
Sc Radial	5007.3	105	%	0.5				0.52%
Y 371.029	706665.7	103.02	%	0.618				0.60%
Y RADIAL	5339.9	104.1	%	0.35				0.33%
Ag 328.068†	99135.9	490.30	ug/L	5.029	490.30	ppb	5.029	1.03%
QC value within limits for Ag 328.068 Recovery = 98.06%								
Al 396.153Radial†	6289.4	5020.9	ug/L	29.38	5020.9	ppb	29.38	0.59%
QC value within limits for Al 396.153Radial Recovery = 100.42%								
As 188.979†	1124.6	510.64	ug/L	4.297	510.64	ppb	4.297	0.84%
QC value within limits for As 188.979 Recovery = 102.13%								
B 249.677†	20731.6	502.27	ug/L	8.226	502.27	ppb	8.226	1.64%
QC value within limits for B 249.677 Recovery = 100.45%								
Ba 233.527†	61463.1	510.93	ug/L	8.495	510.93	ppb	8.495	1.66%
QC value within limits for Ba 233.527 Recovery = 102.19%								
Be 313.107†	1296817.6	516.24	ug/L	1.785	516.24	ppb	1.785	0.35%
QC value within limits for Be 313.107 Recovery = 103.25%								
Ca 317.933Radial†	3026.2	5096.0	ug/L	30.99	5096.0	ppb	30.99	0.61%

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   QC value within limits for Ca 317.933Radial  Recovery = 101.92%
Cd 226.502†            43674.0      511.76 ug/L         8.720      511.76 ppb          8.720   1.70%
   QC value within limits for Cd 226.502  Recovery = 102.35%
Co 228.616†            23570.7      511.93 ug/L         9.081      511.93 ppb          9.081   1.77%
   QC value within limits for Co 228.616  Recovery = 102.39%
Cr 267.716†            43156.9      509.77 ug/L         7.594      509.77 ppb          7.594   1.49%
   QC value within limits for Cr 267.716  Recovery = 101.95%
Cu 324.752†           158427.8      505.73 ug/L         8.265      505.73 ppb          8.265   1.63%
   QC value within limits for Cu 324.752  Recovery = 101.15%
Fe 238.204 Radial†       556.2      5243.9 ug/L        42.96      5243.9 ppb         42.96   0.82%
   QC value within limits for Fe 238.204 Radial  Recovery = 104.88%
K 766.490 Radial†      25606.7      5123.6 ug/L         8.60      5123.6 ppb          8.60   0.17%
   QC value within limits for K 766.490 Radial  Recovery = 102.47%
Mg 279.077 IEC†          152.0      5335.4 ug/L        47.51      5335.4 ppb         47.51   0.89%
   QC value within limits for Mg 279.077 IEC  Recovery = 106.71%
Mn 257.610†           436244.1      511.86 ug/L         1.534      511.86 ppb          1.534   0.30%
   QC value within limits for Mn 257.610  Recovery = 102.37%
Mo 202.031†             6883.4      511.43 ug/L         4.701      511.43 ppb          4.701   0.92%
   QC value within limits for Mo 202.031  Recovery = 102.29%
Na 589.592 Radial†     31587.9       10235 ug/L        35.9        10235 ppb         35.9   0.35%
   QC value within limits for Na 589.592 Radial  Recovery = 102.35%
Ni 231.604†            19429.4      511.16 ug/L         7.776      511.16 ppb          7.776   1.52%
   QC value within limits for Ni 231.604  Recovery = 102.23%
P 214.914†              3963.1      2430.7 ug/L        28.57      2430.7 ppb         28.57   1.18%
   QC value within limits for P 214.914  Recovery = 97.23%
Pb 220.353†             3961.4      509.06 ug/L         5.552      509.06 ppb          5.552   1.09%
   QC value within limits for Pb 220.353  Recovery = 101.81%
S 181.975 Axial†         691.5      1031.1 ug/L        17.16      1031.1 ppb         17.16   1.66%
   QC value within limits for S 181.975 Axial  Recovery = 103.11%
Sb 206.836†             1391.5      527.06 ug/L         7.861      527.06 ppb          7.861   1.49%
   QC value within limits for Sb 206.836  Recovery = 105.41%
Se 196.026†              778.8      539.84 ug/L         5.184      539.84 ppb          5.184   0.96%
   QC value within limits for Se 196.026  Recovery = 107.97%
Si 251.611†            76523.9      2573.8 ug/L        42.29      2573.8 ppb         42.29   1.64%
   QC value within limits for Si 251.611  Recovery = 102.95%
Sn 189.927†             2761.9      511.63 ug/L         6.682      511.63 ppb          6.682   1.31%
   QC value within limits for Sn 189.927  Recovery = 102.33%
Sr 421.552†            73300.1      522.44 ug/L         1.749      522.44 ppb          1.749   0.33%
   QC value within limits for Sr 421.552  Recovery = 104.49%
Ti 334.940†           302494.3      518.78 ug/L         1.180      518.78 ppb          1.180   0.23%
   QC value within limits for Ti 334.940  Recovery = 103.76%
Tl 190.801†             1589.3      511.94 ug/L         5.489      511.94 ppb          5.489   1.07%
   QC value within limits for Tl 190.801  Recovery = 102.39%
U 409.014†             16501.8      525.29 ug/L         9.155      525.29 ppb          9.155   1.74%
   QC value within limits for U 409.014  Recovery = 105.06%
V 292.402†             70705.5      516.90 ug/L         8.553      516.90 ppb          8.553   1.65%
   QC value within limits for V 292.402  Recovery = 103.38%
Zn 213.857†            51680.0      510.97 ug/L         8.059      510.97 ppb          8.059   1.58%
   QC value within limits for Zn 213.857  Recovery = 102.19%
SiO2†                  77026.0      5508.2 ug/L        89.38      5508.2 ppb         89.38   1.62%
   QC value within limits for SiO2  Recovery = 103.01%
All analyte(s) passed QC.
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Sequence No.: 52
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 1/14/2010 20:57:54
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5110.9	5110.9	107	%			20:59:46
1	Y RADIAL	5467.2	5467.2	106.6	%			20:59:46
1	Al 396.153Radial†	-6.4	-2.7	-2.1821	ug/L	-2.1821	ppb	20:59:46
1	Ca 317.933Radial†	14.6	-1.5	-2.5042	ug/L	-2.5042	ppb	21:00:06
1	Fe 238.204 Radial†	12.6	1.9	17.784	ug/L	17.784	ppb	21:00:06
1	K 766.490 Radial†	2848.3	-117.2	-23.501	ug/L	-23.501	ppb	20:59:46
1	Mg 279.077 IEC†	1.5	-0.1	-4.8809	ug/L	-4.8809	ppb	21:00:06
1	Na 589.592 Radial†	-1544.9	118.6	38.443	ug/L	38.443	ppb	20:59:46
1	Sr 421.552†	-16.5	-32.7	-0.2331	ug/L	-0.2331	ppb	20:59:46
1	Sc 361.383	852111.4	852111.4	104.70	%			21:01:03
1	Y 371.029	717851.2	717851.2	104.65	%			21:01:03
1	Ag 328.068†	481.2	178.0	0.8822	ug/L	0.8822	ppb	21:01:03
1	As 188.979†	-23.5	-3.6	-1.6013	ug/L	-1.6013	ppb	21:01:23
1	B 249.677†	-447.9	90.7	2.2047	ug/L	2.2047	ppb	21:01:23
1	Ba 233.527†	8.5	6.7	0.0586	ug/L	0.0586	ppb	21:01:23
1	Be 313.107†	-4380.5	128.3	0.0514	ug/L	0.0514	ppb	21:01:03
1	Cd 226.502†	-181.6	24.1	0.2821	ug/L	0.2821	ppb	21:01:23
1	Co 228.616†	-80.1	-3.9	-0.0845	ug/L	-0.0845	ppb	21:01:23
1	Cr 267.716†	72.5	-26.5	-0.3117	ug/L	-0.3117	ppb	21:01:23
1	Cu 324.752†	6398.9	-186.4	-0.5964	ug/L	-0.5964	ppb	21:01:03
1	Mn 257.610†	423.0	-0.3	0.0016	ug/L	0.0016	ppb	21:01:23
1	Mo 202.031†	18.6	-1.5	-0.1113	ug/L	-0.1113	ppb	21:01:23
1	Ni 231.604†	90.1	11.0	0.2889	ug/L	0.2889	ppb	21:01:23
1	P 214.914†	221.7	-16.1	-10.179	ug/L	-10.179	ppb	21:01:23
1	Pb 220.353†	-73.0	-5.2	-0.6643	ug/L	-0.6643	ppb	21:01:23
1	S 181.975 Axial†	37.9	-10.3	-15.300	ug/L	-15.300	ppb	21:01:23
1	Sb 206.836†	44.0	9.3	3.3862	ug/L	3.3862	ppb	21:01:23
1	Se 196.026†	-23.3	8.1	5.4933	ug/L	5.4933	ppb	21:01:23
1	Si 251.611†	453.9	-12.4	-0.4154	ug/L	-0.4154	ppb	21:01:23
1	Sn 189.927†	6.4	-0.0	-0.0034	ug/L	-0.0034	ppb	21:01:23
1	Ti 334.940†	-1337.9	109.1	0.1856	ug/L	0.1856	ppb	21:01:03
1	Tl 190.801†	-29.0	16.2	5.1755	ug/L	5.1755	ppb	21:01:23
1	U 409.014†	-2000.0	130.7	4.1727	ug/L	4.1727	ppb	21:01:03
1	V 292.402†	-1281.3	183.4	1.3266	ug/L	1.3266	ppb	21:01:03
1	Zn 213.857†	853.8	-44.8	-0.4498	ug/L	-0.4498	ppb	21:01:23
1	SiO2†	486.0	8.0	0.5779	ug/L	0.5779	ppb	21:02:19
2	Sc Radial	5058.5	5058.5	106	%			21:00:11
2	Y RADIAL	5443.7	5443.7	106.1	%			21:00:11
2	Al 396.153Radial†	-10.3	-6.6	-5.3000	ug/L	-5.3000	ppb	21:00:11
2	Ca 317.933Radial†	19.3	3.2	5.3166	ug/L	5.3166	ppb	21:00:31
2	Fe 238.204 Radial†	9.3	-1.1	-10.389	ug/L	-10.389	ppb	21:00:31
2	K 766.490 Radial†	2857.1	-81.2	-16.300	ug/L	-16.300	ppb	21:00:11
2	Mg 279.077 IEC†	1.3	-0.3	-9.6980	ug/L	-9.6980	ppb	21:00:31
2	Na 589.592 Radial†	-1439.1	203.9	66.059	ug/L	66.059	ppb	21:00:11
2	Sr 421.552†	-5.2	-22.1	-0.1579	ug/L	-0.1579	ppb	21:00:11
2	Sc 361.383	847762.9	847762.9	104.16	%			21:01:28
2	Y 371.029	715284.0	715284.0	104.27	%			21:01:28
2	Ag 328.068†	443.2	143.9	0.7025	ug/L	0.7025	ppb	21:01:28
2	As 188.979†	-23.3	-3.6	-1.6086	ug/L	-1.6086	ppb	21:01:48
2	B 249.677†	-443.4	92.9	2.2623	ug/L	2.2623	ppb	21:01:48
2	Ba 233.527†	-8.4	-9.6	-0.0775	ug/L	-0.0775	ppb	21:01:48
2	Be 313.107†	-4319.1	165.9	0.0663	ug/L	0.0663	ppb	21:01:28
2	Cd 226.502†	-205.4	0.3	0.0067	ug/L	0.0067	ppb	21:01:48
2	Co 228.616†	-72.2	3.3	0.0746	ug/L	0.0746	ppb	21:01:48
2	Cr 267.716†	96.1	-3.5	-0.0422	ug/L	-0.0422	ppb	21:01:48
2	Cu 324.752†	6428.7	-126.4	-0.4075	ug/L	-0.4075	ppb	21:01:28
2	Mn 257.610†	418.9	-2.1	-0.0031	ug/L	-0.0031	ppb	21:01:48
2	Mo 202.031†	33.0	12.4	0.9191	ug/L	0.9191	ppb	21:01:48
2	Ni 231.604†	97.8	18.8	0.4946	ug/L	0.4946	ppb	21:01:48

2	P 214.914†	207.4	-28.8	-18.290	ug/L	-18.290 ppb	21:01:48
2	Pb 220.353†	-52.2	14.5	1.8548	ug/L	1.8548 ppb	21:01:48
2	S 181.975 Axial†	37.9	-10.1	-15.044	ug/L	-15.044 ppb	21:01:48
2	Sb 206.836†	41.6	7.2	2.6671	ug/L	2.6671 ppb	21:01:48
2	Se 196.026†	-26.3	5.1	3.4066	ug/L	3.4066 ppb	21:01:48
2	Si 251.611†	461.2	-3.1	-0.1154	ug/L	-0.1154 ppb	21:01:48
2	Sn 189.927†	5.9	-0.4	-0.0819	ug/L	-0.0819 ppb	21:01:48
2	Ti 334.940†	-1337.4	103.1	0.1756	ug/L	0.1756 ppb	21:01:28
2	Tl 190.801†	-38.3	7.1	2.2675	ug/L	2.2675 ppb	21:01:48
2	U 409.014†	-1916.5	201.1	6.4225	ug/L	6.4225 ppb	21:01:28
2	V 292.402†	-1320.5	139.4	1.0321	ug/L	1.0321 ppb	21:01:28
2	Zn 213.857†	853.0	-41.4	-0.4147	ug/L	-0.4147 ppb	21:01:48
2	SiO2†	496.9	20.8	1.4693	ug/L	1.4693 ppb	21:02:24
3	Sc Radial	5074.9	5074.9	106	%		21:00:36
3	Y RADIAL	5443.4	5443.4	106.1	%		21:00:36
3	Al 396.153Radial†	-15.2	-11.1	-8.9224	ug/L	-8.9224 ppb	21:00:36
3	Ca 317.933Radial†	15.1	-0.9	-1.4533	ug/L	-1.4533 ppb	21:00:56
3	Fe 238.204 Radial†	13.0	2.4	22.804	ug/L	22.804 ppb	21:00:56
3	K 766.490 Radial†	2940.9	-10.9	-2.1914	ug/L	-2.1914 ppb	21:00:36
3	Mg 279.077 IEC†	3.6	1.9	67.462	ug/L	67.462 ppb	21:00:56
3	Na 589.592 Radial†	-1588.0	67.7	21.923	ug/L	21.923 ppb	21:00:36
3	Sr 421.552†	35.5	16.3	0.1161	ug/L	0.1161 ppb	21:00:36
3	Sc 361.383	858263.2	858263.2	105.46	%		21:01:53
3	Y 371.029	724020.8	724020.8	105.55	%		21:01:53
3	Ag 328.068†	409.8	107.0	0.5337	ug/L	0.5337 ppb	21:01:53
3	As 188.979†	-26.4	-6.2	-2.8006	ug/L	-2.8006 ppb	21:02:14
3	B 249.677†	-454.3	87.7	2.1307	ug/L	2.1307 ppb	21:02:14
3	Ba 233.527†	-2.2	-3.5	-0.0259	ug/L	-0.0259 ppb	21:02:14
3	Be 313.107†	-4313.7	221.7	0.0885	ug/L	0.0885 ppb	21:01:53
3	Cd 226.502†	-191.2	16.3	0.1899	ug/L	0.1899 ppb	21:02:14
3	Co 228.616†	-79.3	-2.5	-0.0526	ug/L	-0.0526 ppb	21:02:14
3	Cr 267.716†	91.5	-9.0	-0.1057	ug/L	-0.1057 ppb	21:02:14
3	Cu 324.752†	6362.3	-264.9	-0.8473	ug/L	-0.8473 ppb	21:01:53
3	Mn 257.610†	411.5	-14.1	-0.0170	ug/L	-0.0170 ppb	21:02:14
3	Mo 202.031†	34.2	13.1	0.9738	ug/L	0.9738 ppb	21:02:14
3	Ni 231.604†	98.0	17.8	0.4697	ug/L	0.4697 ppb	21:02:14
3	P 214.914†	211.8	-27.1	-17.110	ug/L	-17.110 ppb	21:02:14
3	Pb 220.353†	-73.6	-5.2	-0.6723	ug/L	-0.6723 ppb	21:02:14
3	S 181.975 Axial†	41.4	-7.2	-10.744	ug/L	-10.744 ppb	21:02:14
3	Sb 206.836†	34.8	0.3	0.1390	ug/L	0.1390 ppb	21:02:14
3	Se 196.026†	-17.0	14.2	9.5829	ug/L	9.5829 ppb	21:02:14
3	Si 251.611†	460.0	-9.7	-0.3374	ug/L	-0.3374 ppb	21:02:14
3	Sn 189.927†	11.2	4.5	0.8322	ug/L	0.8322 ppb	21:02:14
3	Ti 334.940†	-1344.5	112.1	0.1843	ug/L	0.1843 ppb	21:01:53
3	Tl 190.801†	-40.3	5.6	1.8050	ug/L	1.8050 ppb	21:02:14
3	U 409.014†	-1980.9	162.5	5.1883	ug/L	5.1883 ppb	21:01:53
3	V 292.402†	-1311.7	163.3	1.1997	ug/L	1.1997 ppb	21:01:53
3	Zn 213.857†	849.0	-55.3	-0.5554	ug/L	-0.5554 ppb	21:02:14
3	SiO2†	438.0	-40.8	-2.9542	ug/L	-2.9542 ppb	21:02:29

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	852712.5	104.77	%	0.648				0.62%
Sc Radial	5081.4	106	%	0.6				0.53%
Y 371.029	719052.0	104.82	%	0.655				0.62%
Y RADIAL	5451.4	106.3	%	0.27				0.25%
Ag 328.068†	143.0	0.7061	ug/L	0.17428	0.7061	ppb	0.17428	24.68%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-6.8	-5.4682	ug/L	3.37329	-5.4682	ppb	3.37329	61.69%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-4.5	-2.0035	ug/L	0.69031	-2.0035	ppb	0.69031	34.46%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	90.4	2.1992	ug/L	0.06597	2.1992	ppb	0.06597	3.00%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-2.1	-0.0149	ug/L	0.06869	-0.0149	ppb	0.06869	460.16%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	172.0	0.0687	ug/L	0.01866	0.0687	ppb	0.01866	27.16%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	0.3	0.4530	ug/L	4.24461	0.4530	ppb	4.24461	937.00%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                13.6      0.1596 ug/L       0.14020      0.1596 ppb        0.14020  87.87%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                -1.0     -0.0208 ug/L       0.08421     -0.0208 ppb        0.08421 404.29%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†               -13.0     -0.1532 ug/L       0.14090     -0.1532 ppb        0.14090  91.98%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -192.6     -0.6171 ug/L       0.22066     -0.6171 ppb        0.22066  35.76%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         1.1      10.066 ug/L       17.8916      10.066 ppb        17.8916 177.74%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        -69.8     -13.997 ug/L       10.8397     -13.997 ppb        10.8397  77.44%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            0.5      17.628 ug/L       43.2247      17.628 ppb        43.2247 245.21%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                -5.5     -0.0062 ug/L       0.00969     -0.0062 ppb        0.00969 156.62%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                8.0      0.5939 ug/L       0.61130      0.5939 ppb        0.61130 102.94%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       130.1      42.142 ug/L       22.2996      42.142 ppb        22.2996  52.92%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               15.9      0.4177 ug/L       0.11229      0.4177 ppb        0.11229  26.88%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -24.0     -15.193 ug/L        4.3821     -15.193 ppb         4.3821  28.84%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                1.4      0.1727 ug/L       1.45671      0.1727 ppb        1.45671 843.44%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          -9.2     -13.696 ug/L        2.5594     -13.696 ppb         2.5594  18.69%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                5.6      2.0641 ug/L       1.70553      2.0641 ppb        1.70553  82.63%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                9.2      6.1610 ug/L       3.14181      6.1610 ppb        3.14181  51.00%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†               -8.4     -0.2894 ug/L       0.15567     -0.2894 ppb        0.15567  53.79%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                1.3      0.2490 ug/L       0.50663      0.2490 ppb        0.50663 203.48%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               -12.9     -0.0916 ug/L       0.18381     -0.0916 ppb        0.18381 200.61%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               108.1      0.1818 ug/L       0.00543      0.1818 ppb        0.00543   2.99%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                9.6      3.0827 ug/L       1.82713      3.0827 ppb        1.82713  59.27%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                164.8      5.2612 ug/L       1.12667      5.2612 ppb        1.12667  21.41%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                162.0      1.1861 ug/L       0.14771      1.1861 ppb        0.14771  12.45%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               -47.2     -0.4733 ug/L       0.07325     -0.4733 ppb        0.07325  15.47%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                      -4.0     -0.3023 ug/L       2.33945     -0.3023 ppb        2.33945 773.86%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 53
Sample ID: 1202014118|941050|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 64
Date Collected: 1/14/2010 21:04:38
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202014118|941050|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5075.2	5075.2	106	%			21:06:31
1	Y RADIAL	5459.8	5459.8	106.4	%			21:06:31
1	Al 396.153Radial†	42.1	43.0	34.475	ug/L	34.475	ppb	21:06:31
1	Ca 317.933Radial†	24.3	7.8	13.093	ug/L	13.093	ppb	21:06:51
1	Fe 238.204 Radial†	14.0	3.3	31.327	ug/L	31.327	ppb	21:06:51
1	K 766.490 Radial†	2794.8	-148.9	-29.870	ug/L	-29.870	ppb	21:06:31
1	Mg 279.077 IEC†	2.9	1.3	44.436	ug/L	44.436	ppb	21:06:51
1	Na 589.592 Radial†	-1430.5	216.4	70.128	ug/L	70.128	ppb	21:06:31
1	Sr 421.552†	40.4	20.9	0.1488	ug/L	0.1488	ppb	21:06:31
1	Sc 361.383	854683.9	854683.9	105.02	%			21:07:48
1	Y 371.029	720814.5	720814.5	105.08	%			21:07:48
1	Ag 328.068†	352.8	54.3	0.2756	ug/L	0.2756	ppb	21:07:48
1	As 188.979†	-19.1	0.6	0.2976	ug/L	0.2976	ppb	21:08:08
1	B 249.677†	-504.1	38.5	0.9332	ug/L	0.9332	ppb	21:08:08
1	Ba 233.527†	-5.0	-6.2	-0.0488	ug/L	-0.0488	ppb	21:08:08
1	Be 313.107†	-4391.6	130.4	0.0528	ug/L	0.0528	ppb	21:07:48
1	Cd 226.502†	-201.0	6.2	0.0706	ug/L	0.0706	ppb	21:08:08
1	Co 228.616†	-78.1	-1.7	-0.0379	ug/L	-0.0379	ppb	21:08:08
1	Cr 267.716†	128.6	26.7	0.3150	ug/L	0.3150	ppb	21:08:08
1	Cu 324.752†	6549.6	-61.2	-0.1970	ug/L	-0.1970	ppb	21:07:48
1	Mn 257.610†	938.9	489.7	0.5756	ug/L	0.5756	ppb	21:08:08
1	Mo 202.031†	21.3	1.0	0.0756	ug/L	0.0756	ppb	21:08:08
1	Ni 231.604†	81.2	2.2	0.0582	ug/L	0.0582	ppb	21:08:08
1	P 214.914†	208.9	-28.9	-18.455	ug/L	-18.455	ppb	21:08:08
1	Pb 220.353†	-54.5	12.7	1.6277	ug/L	1.6277	ppb	21:08:08
1	S 181.975 Axial†	52.8	3.8	5.7236	ug/L	5.7236	ppb	21:08:08
1	Sb 206.836†	27.2	-6.8	-2.5081	ug/L	-2.5081	ppb	21:08:08
1	Se 196.026†	-29.9	1.9	1.3884	ug/L	1.3884	ppb	21:08:08
1	Si 251.611†	691.2	212.3	7.1578	ug/L	7.1578	ppb	21:08:08
1	Sn 189.927†	3.3	-3.0	-0.5565	ug/L	-0.5565	ppb	21:08:08
1	Ti 334.940†	-1179.5	263.8	0.4481	ug/L	0.4481	ppb	21:07:48
1	Tl 190.801†	-46.8	-0.7	-0.2056	ug/L	-0.2056	ppb	21:08:08
1	U 409.014†	-1952.6	181.6	5.7968	ug/L	5.7968	ppb	21:07:48
1	V 292.402†	-1355.5	116.4	0.8475	ug/L	0.8475	ppb	21:07:48
1	Zn 213.857†	785.7	-112.2	-1.1218	ug/L	-1.1218	ppb	21:08:08
1	SiO2†	677.7	189.1	13.553	ug/L	13.553	ppb	21:09:04
2	Sc Radial	5084.4	5084.4	106	%			21:06:56
2	Y RADIAL	5449.7	5449.7	106.2	%			21:06:56
2	Al 396.153Radial†	64.0	63.5	50.952	ug/L	50.952	ppb	21:06:56
2	Ca 317.933Radial†	22.8	6.4	10.733	ug/L	10.733	ppb	21:07:16
2	Fe 238.204 Radial†	13.2	2.6	24.172	ug/L	24.172	ppb	21:07:16
2	K 766.490 Radial†	2836.9	-114.1	-22.882	ug/L	-22.882	ppb	21:06:56
2	Mg 279.077 IEC†	3.4	1.7	60.509	ug/L	60.509	ppb	21:07:16
2	Na 589.592 Radial†	-1472.4	179.4	58.127	ug/L	58.127	ppb	21:06:56
2	Sr 421.552†	25.6	6.9	0.0489	ug/L	0.0489	ppb	21:06:56
2	Sc 361.383	857305.8	857305.8	105.34	%			21:08:13
2	Y 371.029	723608.8	723608.8	105.49	%			21:08:13
2	Ag 328.068†	316.8	19.2	0.0970	ug/L	0.0970	ppb	21:08:13
2	As 188.979†	-25.3	-5.1	-2.2990	ug/L	-2.2990	ppb	21:08:33
2	B 249.677†	-494.0	49.5	1.2021	ug/L	1.2021	ppb	21:08:33
2	Ba 233.527†	-1.1	-2.6	-0.0180	ug/L	-0.0180	ppb	21:08:33
2	Be 313.107†	-4344.4	187.9	0.0760	ug/L	0.0760	ppb	21:08:13
2	Cd 226.502†	-200.7	7.1	0.0829	ug/L	0.0829	ppb	21:08:33
2	Co 228.616†	-88.4	-11.2	-0.2453	ug/L	-0.2453	ppb	21:08:33
2	Cr 267.716†	138.4	35.7	0.4182	ug/L	0.4182	ppb	21:08:33
2	Cu 324.752†	6574.9	-56.3	-0.1849	ug/L	-0.1849	ppb	21:08:13
2	Mn 257.610†	945.1	493.0	0.5780	ug/L	0.5780	ppb	21:08:33
2	Mo 202.031†	20.1	-0.2	-0.0155	ug/L	-0.0155	ppb	21:08:33
2	Ni 231.604†	102.7	22.4	0.5892	ug/L	0.5892	ppb	21:08:33

2	P 214.914†	223.7	-15.5	-9.8725	ug/L	-9.8725 ppb	21:08:33
2	Pb 220.353†	-59.7	7.9	1.0234	ug/L	1.0234 ppb	21:08:33
2	S 181.975 Axial†	49.4	0.5	0.6781	ug/L	0.6781 ppb	21:08:33
2	Sb 206.836†	38.7	4.0	1.4597	ug/L	1.4597 ppb	21:08:33
2	Se 196.026†	-30.0	1.9	1.3618	ug/L	1.3618 ppb	21:08:33
2	Si 251.611†	663.0	183.5	6.1870	ug/L	6.1870 ppb	21:08:33
2	Sn 189.927†	7.1	0.7	0.1246	ug/L	0.1246 ppb	21:08:33
2	Ti 334.940†	-1094.8	347.7	0.5877	ug/L	0.5877 ppb	21:08:13
2	Tl 190.801†	-42.1	4.0	1.2762	ug/L	1.2762 ppb	21:08:33
2	U 409.014†	-1764.0	366.4	11.697	ug/L	11.697 ppb	21:08:13
2	V 292.402†	-1317.6	156.3	1.1464	ug/L	1.1464 ppb	21:08:13
2	Zn 213.857†	779.4	-120.4	-1.2070	ug/L	-1.2070 ppb	21:08:33
2	SiO2†	677.0	186.4	13.366	ug/L	13.366 ppb	21:09:09
3	Sc Radial	5078.9	5078.9	106	%		21:07:21
3	Y RADIAL	5409.6	5409.6	105.5	%		21:07:21
3	Al 396.153Radial†	45.2	45.8	36.770	ug/L	36.770 ppb	21:07:21
3	Ca 317.933Radial†	28.7	12.0	20.132	ug/L	20.132 ppb	21:07:41
3	Fe 238.204 Radial†	14.2	3.5	33.055	ug/L	33.055 ppb	21:07:41
3	K 766.490 Radial†	2772.7	-171.7	-34.434	ug/L	-34.434 ppb	21:07:21
3	Mg 279.077 IEC†	-2.1	-3.4	-121.14	ug/L	-121.14 ppb	21:07:41
3	Na 589.592 Radial†	-1449.0	199.9	64.777	ug/L	64.777 ppb	21:07:21
3	Sr 421.552†	-7.5	-24.3	-0.1733	ug/L	-0.1733 ppb	21:07:21
3	Sc 361.383	843421.8	843421.8	103.63	%		21:08:38
3	Y 371.029	711890.5	711890.5	103.78	%		21:08:38
3	Ag 328.068†	317.0	24.4	0.1288	ug/L	0.1288 ppb	21:08:38
3	As 188.979†	-13.2	6.1	2.7702	ug/L	2.7702 ppb	21:08:58
3	B 249.677†	-517.4	19.2	0.4628	ug/L	0.4628 ppb	21:08:58
3	Ba 233.527†	12.0	10.1	0.0861	ug/L	0.0861 ppb	21:08:58
3	Be 313.107†	-4283.1	179.3	0.0725	ug/L	0.0725 ppb	21:08:38
3	Cd 226.502†	-184.3	19.7	0.2282	ug/L	0.2282 ppb	21:08:58
3	Co 228.616†	-70.2	4.9	0.1050	ug/L	0.1050 ppb	21:08:58
3	Cr 267.716†	151.6	50.5	0.5960	ug/L	0.5960 ppb	21:08:58
3	Cu 324.752†	6392.1	-129.9	-0.4152	ug/L	-0.4152 ppb	21:08:38
3	Mn 257.610†	957.3	519.5	0.6174	ug/L	0.6174 ppb	21:08:58
3	Mo 202.031†	21.9	1.8	0.1388	ug/L	0.1388 ppb	21:08:58
3	Ni 231.604†	97.4	18.9	0.4973	ug/L	0.4973 ppb	21:08:58
3	P 214.914†	228.5	-7.4	-4.6653	ug/L	-4.6653 ppb	21:08:58
3	Pb 220.353†	-57.9	8.7	1.1158	ug/L	1.1158 ppb	21:08:58
3	S 181.975 Axial†	45.1	-2.9	-4.3397	ug/L	-4.3397 ppb	21:08:58
3	Sb 206.836†	39.1	5.0	1.8541	ug/L	1.8541 ppb	21:08:58
3	Se 196.026†	-39.0	-7.2	-4.7177	ug/L	-4.7177 ppb	21:08:58
3	Si 251.611†	670.0	200.6	6.7631	ug/L	6.7631 ppb	21:08:58
3	Sn 189.927†	12.4	5.9	1.0862	ug/L	1.0862 ppb	21:08:58
3	Ti 334.940†	-1102.7	322.9	0.5647	ug/L	0.5647 ppb	21:08:38
3	Tl 190.801†	-39.0	6.3	2.0118	ug/L	2.0118 ppb	21:08:58
3	U 409.014†	-1989.3	121.4	3.8713	ug/L	3.8713 ppb	21:08:38
3	V 292.402†	-1390.8	65.1	0.4707	ug/L	0.4707 ppb	21:08:38
3	Zn 213.857†	767.6	-119.6	-1.1987	ug/L	-1.1987 ppb	21:08:58
3	SiO2†	706.4	225.4	16.159	ug/L	16.159 ppb	21:09:14

Mean Data: 1202014118|941050|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	851803.8	104.66	%	0.906				0.87%
Sc Radial	5079.5	106	%	0.1				0.09%
Y 371.029	718771.3	104.78	%	0.892				0.85%
Y RADIAL	5439.7	106.0	%	0.52				0.49%
Ag 328.068†	32.6	0.1671	ug/L	0.09527	0.1671	ppb	0.09527	57.00%
Al 396.153Radial†	50.8	40.732	ug/L	8.9244	40.732	ppb	8.9244	21.91%
As 188.979†	0.5	0.2563	ug/L	2.53485	0.2563	ppb	2.53485	989.05%
B 249.677†	35.8	0.8660	ug/L	0.37421	0.8660	ppb	0.37421	43.21%
Ba 233.527†	0.4	0.0064	ug/L	0.07070	0.0064	ppb	0.07070	>999.9%
Be 313.107†	165.9	0.0671	ug/L	0.01249	0.0671	ppb	0.01249	18.61%
Ca 317.933Radial†	8.7	14.652	ug/L	4.8897	14.652	ppb	4.8897	33.37%
Cd 226.502†	11.0	0.1273	ug/L	0.08766	0.1273	ppb	0.08766	68.88%
Co 228.616†	-2.7	-0.0594	ug/L	0.17612	-0.0594	ppb	0.17612	296.53%
Cr 267.716†	37.6	0.4431	ug/L	0.14216	0.4431	ppb	0.14216	32.08%
Cu 324.752†	-82.5	-0.2657	ug/L	0.12962	-0.2657	ppb	0.12962	48.79%
Fe 238.204 Radial†	3.1	29.518	ug/L	4.7098	29.518	ppb	4.7098	15.96%
K 766.490 Radial†	-144.9	-29.062	ug/L	5.8183	-29.062	ppb	5.8183	20.02%

Mg 279.077 IEC†	-0.2	-5.3974	ug/L	100.55483	-5.3974	ppb	100.55483	>999.9%
Mn 257.610†	500.7	0.5903	ug/L	0.02347	0.5903	ppb	0.02347	3.98%
Mo 202.031†	0.9	0.0663	ug/L	0.07756	0.0663	ppb	0.07756	116.97%
Na 589.592 Radial†	198.6	64.344	ug/L	6.0121	64.344	ppb	6.0121	9.34%
Ni 231.604†	14.5	0.3816	ug/L	0.28382	0.3816	ppb	0.28382	74.38%
P 214.914†	-17.3	-10.998	ug/L	6.9632	-10.998	ppb	6.9632	63.32%
Pb 220.353†	9.8	1.2557	ug/L	0.32551	1.2557	ppb	0.32551	25.92%
S 181.975 Axial†	0.5	0.6873	ug/L	5.03166	0.6873	ppb	5.03166	732.05%
Sb 206.836†	0.7	0.2686	ug/L	2.41278	0.2686	ppb	2.41278	898.41%
Se 196.026†	-1.1	-0.6558	ug/L	3.51768	-0.6558	ppb	3.51768	536.37%
Si 251.611†	198.8	6.7026	ug/L	0.48820	6.7026	ppb	0.48820	7.28%
Sn 189.927†	1.2	0.2181	ug/L	0.82531	0.2181	ppb	0.82531	378.36%
Sr 421.552†	1.2	0.0081	ug/L	0.16487	0.0081	ppb	0.16487	>999.9%
Ti 334.940†	311.5	0.5335	ug/L	0.07487	0.5335	ppb	0.07487	14.03%
Tl 190.801†	3.2	1.0275	ug/L	1.12943	1.0275	ppb	1.12943	109.92%
U 409.014†	223.1	7.1216	ug/L	4.07742	7.1216	ppb	4.07742	57.25%
V 292.402†	112.6	0.8215	ug/L	0.33861	0.8215	ppb	0.33861	41.22%
Zn 213.857†	-117.4	-1.1758	ug/L	0.04697	-1.1758	ppb	0.04697	3.99%
SiO2†	200.3	14.359	ug/L	1.5609	14.359	ppb	1.5609	10.87%

Sequence No.: 54
Sample ID: 1202014119|941050|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 65
Date Collected: 1/14/2010 21:11:24
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202014119|941050|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5237.7	5237.7	109	%			21:13:38
1	Y RADIAL	6136.5	6136.5	119.6	%			21:13:38
1	Al 396.153Radial†	111383.4	101894.1	81721	ug/L	81721	ppb	21:13:18
1	Ca 317.933Radial†	61963.0	56667.1	95425	ug/L	95425	ppb	21:13:18
1	Fe 238.204 Radial†	21270.0	19447.4	182850	ug/L	182850	ppb	21:13:18
1	K 766.490 Radial†	226924.7	204797.6	40992	ug/L	40992	ppb	21:13:18
1	Mg 279.077 IEC†	1164.1	1063.3	37144	ug/L	37144	ppb	21:13:38
1	Na 589.592 Radial†	31448.4	30335.2	9828.8	ug/L	9828.8	ppb	21:13:18
1	Sr 421.552†	348530.5	318809.8	2271.7	ug/L	2271.7	ppb	21:13:18
1	Sc 361.383	869683.0	869683.0	106.86	%			21:14:39
1	Y 371.029	788130.7	788130.7	114.89	%			21:14:39
1	Ag 328.068†	57235.6	53280.6	324.81	ug/L	324.81	ppb	21:14:39
1	As 188.979†	2382.2	2248.1	1102.6	ug/L	1102.6	ppb	21:14:44
1	B 249.677†	63788.6	60213.1	1433.2	ug/L	1433.2	ppb	21:14:39
1	Ba 233.527†	243251.6	227638.0	1895.8	ug/L	1895.8	ppb	21:14:39
1	Be 313.107†	2057959.6	1930189.5	779.49	ug/L	779.49	ppb	21:14:39
1	Cd 226.502†	52809.9	49618.0	563.43	ug/L	563.43	ppb	21:14:44
1	Co 228.616†	44681.1	41886.1	896.18	ug/L	896.18	ppb	21:14:44
1	Cr 267.716†	204463.7	191245.2	2261.6	ug/L	2261.6	ppb	21:14:39
1	Cu 324.752†	610809.2	565308.7	1814.4	ug/L	1814.4	ppb	21:14:39
1	Mn 257.610†	4821515.9	4511660.7	5307.1	ug/L	5307.1	ppb	21:14:39
1	Mo 202.031†	7155.9	6677.3	510.99	ug/L	510.99	ppb	21:14:44
1	Ni 231.604†	51171.0	47811.7	1258.1	ug/L	1258.1	ppb	21:14:44
1	P 214.914†	14431.2	13277.1	7998.1	ug/L	7998.1	ppb	21:14:44
1	Pb 220.353†	6860.3	6484.6	832.58	ug/L	832.58	ppb	21:14:44
1	S 181.975 Axial†	2788.7	2563.3	3810.1	ug/L	3810.1	ppb	21:14:44
1	Sb 206.836†	5198.7	4832.3	1780.6	ug/L	1780.6	ppb	21:14:44
1	Se 196.026†	3823.6	3608.5	3017.8	ug/L	3017.8	ppb	21:14:44
1	Si 251.611†	373545.4	349124.9	11765	ug/L	11765	ppb	21:14:39
1	Sn 189.927†	6090.2	5693.2	1070.5	ug/L	1070.5	ppb	21:14:44
1	Ti 334.940†	3530695.0	3305477.7	5679.7	ug/L	5679.7	ppb	21:14:39
1	Tl 190.801†	3747.2	3550.6	1201.8	ug/L	1201.8	ppb	21:14:44
1	U 409.014†	-7494.6	-4972.6	-184.70	ug/L	-184.70	ppb	21:14:39
1	V 292.402†	181986.3	171713.3	1212.7	ug/L	1212.7	ppb	21:14:39
1	Zn 213.857†	612102.3	571956.5	5676.1	ug/L	5676.1	ppb	21:14:39
1	SiO2†	375228.5	350689.6	25128	ug/L	25128	ppb	21:15:18
2	Sc Radial	5256.8	5256.8	110	%			21:14:03
2	Y RADIAL	6138.8	6138.8	119.7	%			21:14:03
2	Al 396.153Radial†	111063.7	101231.9	81191	ug/L	81191	ppb	21:13:43
2	Ca 317.933Radial†	61688.1	56210.3	94655	ug/L	94655	ppb	21:13:43
2	Fe 238.204 Radial†	21127.4	19246.7	180960	ug/L	180960	ppb	21:13:43
2	K 766.490 Radial†	226183.1	203366.6	40705	ug/L	40705	ppb	21:13:43
2	Mg 279.077 IEC†	1159.9	1055.7	36878	ug/L	36878	ppb	21:14:03
2	Na 589.592 Radial†	31149.4	29957.9	9706.5	ug/L	9706.5	ppb	21:13:43
2	Sr 421.552†	346069.6	315407.0	2247.5	ug/L	2247.5	ppb	21:13:43
2	Sc 361.383	875856.4	875856.4	107.62	%			21:14:53
2	Y 371.029	794170.2	794170.2	115.77	%			21:14:53
2	Ag 328.068†	57429.8	53083.5	323.22	ug/L	323.22	ppb	21:14:53
2	As 188.979†	2354.8	2207.0	1083.6	ug/L	1083.6	ppb	21:14:58
2	B 249.677†	64308.4	60275.4	1435.1	ug/L	1435.1	ppb	21:14:53
2	Ba 233.527†	244426.2	227124.9	1891.5	ug/L	1891.5	ppb	21:14:53
2	Be 313.107†	2070607.7	1928368.0	778.75	ug/L	778.75	ppb	21:14:53
2	Cd 226.502†	52250.6	48750.0	553.44	ug/L	553.44	ppb	21:14:58
2	Co 228.616†	44226.9	41169.3	880.64	ug/L	880.64	ppb	21:14:58
2	Cr 267.716†	205355.1	190724.9	2255.4	ug/L	2255.4	ppb	21:14:53
2	Cu 324.752†	614546.7	564752.7	1812.5	ug/L	1812.5	ppb	21:14:53
2	Mn 257.610†	4843439.9	4500230.2	5293.5	ug/L	5293.5	ppb	21:14:53
2	Mo 202.031†	7057.1	6538.3	500.52	ug/L	500.52	ppb	21:14:58
2	Ni 231.604†	50591.0	46935.2	1235.0	ug/L	1235.0	ppb	21:14:58

2	P 214.914†	14318.3	13077.1	7871.9	ug/L	7871.9 ppb	21:14:58
2	Pb 220.353†	6819.5	6401.4	821.96	ug/L	821.96 ppb	21:14:58
2	S 181.975 Axial†	2755.6	2514.1	3736.8	ug/L	3736.8 ppb	21:14:58
2	Sb 206.836†	5167.9	4769.4	1757.0	ug/L	1757.0 ppb	21:14:58
2	Se 196.026†	3792.4	3554.4	2975.4	ug/L	2975.4 ppb	21:14:58
2	Si 251.611†	374507.8	347555.3	11712	ug/L	11712 ppb	21:14:53
2	Sn 189.927†	5981.5	5552.0	1044.2	ug/L	1044.2 ppb	21:14:58
2	Ti 334.940†	3550846.0	3300913.9	5671.8	ug/L	5671.8 ppb	21:14:53
2	Tl 190.801†	3763.7	3541.2	1198.8	ug/L	1198.8 ppb	21:14:58
2	U 409.014†	-7339.2	-4778.8	-178.28	ug/L	-178.28 ppb	21:14:53
2	V 292.402†	182650.7	171130.3	1208.6	ug/L	1208.6 ppb	21:14:53
2	Zn 213.857†	614248.5	569913.4	5656.1	ug/L	5656.1 ppb	21:14:53
2	SiO2†	370819.6	344117.8	24657	ug/L	24657 ppb	21:15:24
3	Sc Radial	5269.7	5269.7	110	%		21:14:28
3	Y RADIAL	6155.7	6155.7	120.0	%		21:14:28
3	Al 396.153Radial†	110456.9	100432.9	80549	ug/L	80549 ppb	21:14:08
3	Ca 317.933Radial†	61418.5	55827.8	94011	ug/L	94011 ppb	21:14:08
3	Fe 238.204 Radial†	21112.6	19186.1	180390	ug/L	180390 ppb	21:14:08
3	K 766.490 Radial†	224571.2	201397.3	40311	ug/L	40311 ppb	21:14:08
3	Mg 279.077 IEC†	1170.1	1062.4	37114	ug/L	37114 ppb	21:14:28
3	Na 589.592 Radial†	31026.6	29777.0	9647.9	ug/L	9647.9 ppb	21:14:08
3	Sr 421.552†	344074.0	312821.9	2229.1	ug/L	2229.1 ppb	21:14:08
3	Sc 361.383	865899.0	865899.0	106.39	%		21:15:07
3	Y 371.029	787149.4	787149.4	114.75	%		21:15:07
3	Ag 328.068†	57081.6	53369.9	324.46	ug/L	324.46 ppb	21:15:07
3	As 188.979†	2367.7	2244.3	1100.3	ug/L	1100.3 ppb	21:15:12
3	B 249.677†	63504.8	60207.2	1433.5	ug/L	1433.5 ppb	21:15:07
3	Ba 233.527†	241800.5	227268.8	1892.7	ug/L	1892.7 ppb	21:15:07
3	Be 313.107†	2052866.2	1933818.3	780.93	ug/L	780.93 ppb	21:15:07
3	Cd 226.502†	52539.7	49580.0	563.24	ug/L	563.24 ppb	21:15:12
3	Co 228.616†	44357.7	41764.9	893.58	ug/L	893.58 ppb	21:15:12
3	Cr 267.716†	203591.2	191261.3	2261.8	ug/L	2261.8 ppb	21:15:07
3	Cu 324.752†	607980.4	565147.8	1813.7	ug/L	1813.7 ppb	21:15:07
3	Mn 257.610†	4794095.5	4505605.9	5299.7	ug/L	5299.7 ppb	21:15:07
3	Mo 202.031†	7073.2	6628.8	507.18	ug/L	507.18 ppb	21:15:12
3	Ni 231.604†	50979.4	47840.8	1258.8	ug/L	1258.8 ppb	21:15:12
3	P 214.914†	14337.2	13247.8	7981.2	ug/L	7981.2 ppb	21:15:12
3	Pb 220.353†	6869.1	6520.9	837.18	ug/L	837.18 ppb	21:15:12
3	S 181.975 Axial†	2757.1	2544.9	3782.9	ug/L	3782.9 ppb	21:15:12
3	Sb 206.836†	5167.1	4823.8	1777.4	ug/L	1777.4 ppb	21:15:12
3	Se 196.026†	3791.7	3594.2	3000.1	ug/L	3000.1 ppb	21:15:12
3	Si 251.611†	370785.0	348058.0	11729	ug/L	11729 ppb	21:15:07
3	Sn 189.927†	6052.8	5683.0	1068.3	ug/L	1068.3 ppb	21:15:12
3	Ti 334.940†	3514493.0	3304688.2	5678.2	ug/L	5678.2 ppb	21:15:07
3	Tl 190.801†	3740.1	3559.3	1204.6	ug/L	1204.6 ppb	21:15:12
3	U 409.014†	-7356.4	-4873.4	-181.25	ug/L	-181.25 ppb	21:15:07
3	V 292.402†	181032.5	171561.1	1211.9	ug/L	1211.9 ppb	21:15:07
3	Zn 213.857†	608490.3	571064.8	5667.4	ug/L	5667.4 ppb	21:15:07
3	SiO2†	374388.0	351434.2	25182	ug/L	25182 ppb	21:15:29

Mean Data: 1202014119|941050|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	870479.5	106.96	%	0.618				0.58%
Sc Radial	5254.7	110	%	0.3				0.31%
Y 371.029	789816.8	115.14	%	0.554				0.48%
Y RADIAL	6143.7	119.8	%	0.20				0.17%
Ag 328.068†	53244.7	324.16	ug/L	0.837	324.16	ppb	0.837	0.26%
Al 396.153Radial†	101186.3	81154	ug/L	586.9	81154	ppb	586.9	0.72%
As 188.979†	2233.1	1095.5	ug/L	10.37	1095.5	ppb	10.37	0.95%
B 249.677†	60231.9	1433.9	ug/L	1.01	1433.9	ppb	1.01	0.07%
Ba 233.527†	227343.9	1893.4	ug/L	2.23	1893.4	ppb	2.23	0.12%
Be 313.107†	1930791.9	779.72	ug/L	1.108	779.72	ppb	1.108	0.14%
Ca 317.933Radial†	56235.1	94697	ug/L	707.6	94697	ppb	707.6	0.75%
Cd 226.502†	49316.0	560.03	ug/L	5.715	560.03	ppb	5.715	1.02%
Co 228.616†	41606.8	890.13	ug/L	8.326	890.13	ppb	8.326	0.94%
Cr 267.716†	191077.1	2259.6	ug/L	3.61	2259.6	ppb	3.61	0.16%
Cu 324.752†	565069.7	1813.5	ug/L	0.95	1813.5	ppb	0.95	0.05%
Fe 238.204 Radial†	19293.4	181400	ug/L	1285.8	181400	ppb	1285.8	0.71%
K 766.490 Radial†	203187.2	40669	ug/L	341.8	40669	ppb	341.8	0.84%

Mg 279.077 IEC†	1060.5	37045	ug/L	145.7	37045	ppb	145.7	0.39%
Mn 257.610†	4505832.3	5300.1	ug/L	6.80	5300.1	ppb	6.80	0.13%
Mo 202.031†	6614.8	506.23	ug/L	5.300	506.23	ppb	5.300	1.05%
Na 589.592 Radial†	30023.4	9727.7	ug/L	92.28	9727.7	ppb	92.28	0.95%
Ni 231.604†	47529.2	1250.6	ug/L	13.54	1250.6	ppb	13.54	1.08%
P 214.914†	13200.7	7950.4	ug/L	68.49	7950.4	ppb	68.49	0.86%
Pb 220.353†	6469.0	830.57	ug/L	7.807	830.57	ppb	7.807	0.94%
S 181.975 Axial†	2540.8	3776.6	ug/L	37.08	3776.6	ppb	37.08	0.98%
Sb 206.836†	4808.5	1771.6	ug/L	12.82	1771.6	ppb	12.82	0.72%
Se 196.026†	3585.7	2997.8	ug/L	21.33	2997.8	ppb	21.33	0.71%
Si 251.611†	348246.1	11736	ug/L	27.0	11736	ppb	27.0	0.23%
Sn 189.927†	5642.7	1061.0	ug/L	14.58	1061.0	ppb	14.58	1.37%
Sr 421.552†	315679.6	2249.4	ug/L	21.40	2249.4	ppb	21.40	0.95%
Ti 334.940†	3303693.3	5676.6	ug/L	4.19	5676.6	ppb	4.19	0.07%
Tl 190.801†	3550.4	1201.7	ug/L	2.89	1201.7	ppb	2.89	0.24%
U 409.014†	-4874.9	-181.41	ug/L	3.213	-181.41	ppb	3.213	1.77%
V 292.402†	171468.2	1211.1	ug/L	2.15	1211.1	ppb	2.15	0.18%
Zn 213.857†	570978.2	5666.5	ug/L	10.05	5666.5	ppb	10.05	0.18%
SiO2†	348747.2	24989	ug/L	288.5	24989	ppb	288.5	1.15%

Sequence No.: 61
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 1/14/2010 22:00:06
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5011.8	5011.8	105	%			22:01:58
1	Y RADIAL	5315.2	5315.2	103.6	%			22:01:58
1	Al 396.153Radial†	6549.5	6264.6	5001.2	ug/L	5001.2	ppb	22:01:58
1	Ca 317.933Radial†	3178.6	3023.6	5091.6	ug/L	5091.6	ppb	22:02:18
1	Fe 238.204 Radial†	604.2	567.7	5352.5	ug/L	5352.5	ppb	22:02:18
1	K 766.490 Radial†	29719.9	25625.0	5127.0	ug/L	5127.0	ppb	22:01:58
1	Mg 279.077 IEC†	159.6	151.0	5301.9	ug/L	5301.9	ppb	22:02:18
1	Na 589.592 Radial†	33642.6	33729.6	10929	ug/L	10929	ppb	22:01:58
1	Sr 421.552†	78402.9	74936.7	534.10	ug/L	534.10	ppb	22:01:58
1	Sc 361.383	846375.7	846375.7	103.99	%			22:03:16
1	Y 371.029	702990.8	702990.8	102.48	%			22:03:16
1	Ag 328.068†	104725.2	100421.0	496.65	ug/L	496.65	ppb	22:03:21
1	As 188.979†	1151.0	1125.7	511.06	ug/L	511.06	ppb	22:03:41
1	B 249.677†	21206.0	20910.0	506.58	ug/L	506.58	ppb	22:03:21
1	Ba 233.527†	64286.9	61816.1	513.86	ug/L	513.86	ppb	22:03:21
1	Be 313.107†	1361620.9	1313632.0	522.89	ug/L	522.89	ppb	22:03:16
1	Cd 226.502†	45490.7	43940.9	514.88	ug/L	514.88	ppb	22:03:21
1	Co 228.616†	24626.5	23753.2	515.91	ug/L	515.91	ppb	22:03:21
1	Cr 267.716†	45144.2	43314.4	511.63	ug/L	511.63	ppb	22:03:21
1	Cu 324.752†	172541.3	159615.7	509.53	ug/L	509.53	ppb	22:03:21
1	Mn 257.610†	459954.1	441882.6	518.48	ug/L	518.48	ppb	22:03:16
1	Mo 202.031†	7139.2	6845.7	508.64	ug/L	508.64	ppb	22:03:41
1	Ni 231.604†	20390.5	19532.2	513.86	ug/L	513.86	ppb	22:03:21
1	P 214.914†	4368.4	3972.8	2436.0	ug/L	2436.0	ppb	22:03:41
1	Pb 220.353†	4044.9	3954.1	508.10	ug/L	508.10	ppb	22:03:41
1	S 181.975 Axial†	765.1	689.3	1027.7	ug/L	1027.7	ppb	22:03:41
1	Sb 206.836†	1464.8	1375.8	521.25	ug/L	521.25	ppb	22:03:41
1	Se 196.026†	776.2	776.8	538.81	ug/L	538.81	ppb	22:03:41
1	Si 251.611†	80580.1	77039.1	2591.2	ug/L	2591.2	ppb	22:03:21
1	Sn 189.927†	2859.3	2743.4	508.21	ug/L	508.21	ppb	22:03:41
1	Ti 334.940†	306829.2	296430.6	508.37	ug/L	508.37	ppb	22:03:21
1	Tl 190.801†	1608.9	1591.0	512.42	ug/L	512.42	ppb	22:03:41
1	U 409.014†	15113.0	16573.4	527.56	ug/L	527.56	ppb	22:03:21
1	V 292.402†	72394.1	71020.5	519.13	ug/L	519.13	ppb	22:03:21
1	Zn 213.857†	54988.8	52016.3	514.29	ug/L	514.29	ppb	22:03:21
1	SiO2†	80593.9	77042.0	5509.5	ug/L	5509.5	ppb	22:04:48
2	Sc Radial	5493.1	5493.1	115	%			22:02:23
2	Y RADIAL	5856.8	5856.8	114.2	%			22:02:23
2	Al 396.153Radial†	6445.5	5625.3	4487.8	ug/L	4487.8	ppb	22:02:23
2	Ca 317.933Radial†	3188.7	2766.2	4658.1	ug/L	4658.1	ppb	22:02:43
2	Fe 238.204 Radial†	605.3	518.1	4885.3	ug/L	4885.3	ppb	22:02:43
2	K 766.490 Radial†	29684.4	23104.6	4622.6	ug/L	4622.6	ppb	22:02:23
2	Mg 279.077 IEC†	164.0	141.5	4968.6	ug/L	4968.6	ppb	22:02:43
2	Na 589.592 Radial†	33565.0	30843.8	9993.6	ug/L	9993.6	ppb	22:02:23
2	Sr 421.552†	77885.4	67917.9	484.08	ug/L	484.08	ppb	22:02:23
2	Sc 361.383	843201.9	843201.9	103.60	%			22:03:47
2	Y 371.029	698608.9	698608.9	101.84	%			22:03:47
2	Ag 328.068†	102571.9	98721.7	488.13	ug/L	488.13	ppb	22:03:52
2	As 188.979†	1168.2	1146.4	520.17	ug/L	520.17	ppb	22:04:12
2	B 249.677†	20632.1	20432.8	495.07	ug/L	495.07	ppb	22:03:52
2	Ba 233.527†	62777.9	60592.3	503.68	ug/L	503.68	ppb	22:03:52
2	Be 313.107†	1358816.2	1315853.4	523.75	ug/L	523.75	ppb	22:03:47
2	Cd 226.502†	44659.7	43303.5	507.45	ug/L	507.45	ppb	22:03:52
2	Co 228.616†	24104.8	23338.9	506.96	ug/L	506.96	ppb	22:03:52
2	Cr 267.716†	44332.2	42694.0	504.29	ug/L	504.29	ppb	22:03:52
2	Cu 324.752†	167623.5	155493.6	496.35	ug/L	496.35	ppb	22:03:52
2	Mn 257.610†	460454.0	444029.9	520.96	ug/L	520.96	ppb	22:03:47
2	Mo 202.031†	7241.7	6970.4	517.85	ug/L	517.85	ppb	22:04:12
2	Ni 231.604†	20029.5	19257.5	506.63	ug/L	506.63	ppb	22:03:52

2	P 214.914†	4406.4	4025.2	2472.4 ug/L	2472.4 ppb	22:04:12
2	Pb 220.353†	4109.7	4031.3	517.95 ug/L	517.95 ppb	22:04:12
2	S 181.975 Axial†	758.6	685.8	1022.6 ug/L	1022.6 ppb	22:04:12
2	Sb 206.836†	1494.1	1409.4	533.89 ug/L	533.89 ppb	22:04:12
2	Se 196.026†	786.0	789.1	545.48 ug/L	545.48 ppb	22:04:12
2	Si 251.611†	78596.1	75415.8	2536.4 ug/L	2536.4 ppb	22:03:52
2	Sn 189.927†	2908.7	2801.4	518.87 ug/L	518.87 ppb	22:04:12
2	Ti 334.940†	299385.5	290356.5	497.93 ug/L	497.93 ppb	22:03:52
2	Tl 190.801†	1648.1	1634.6	526.36 ug/L	526.36 ppb	22:04:12
2	U 409.014†	14645.4	16176.8	514.96 ug/L	514.96 ppb	22:03:52
2	V 292.402†	70792.4	69736.5	510.05 ug/L	510.05 ppb	22:03:52
2	Zn 213.857†	53713.9	50984.8	504.11 ug/L	504.11 ppb	22:03:52
2	SiO2†	80853.1	77583.9	5548.1 ug/L	5548.1 ppb	22:04:53
3	Sc Radial	4958.4	4958.4	103 %		22:02:49
3	Y RADIAL	5273.9	5273.9	102.8 %		22:02:49
3	Al 396.153Radial†	6455.2	6240.9	4981.9 ug/L	4981.9 ppb	22:02:49
3	Ca 317.933Radial†	3182.2	3059.8	5152.6 ug/L	5152.6 ppb	22:03:09
3	Fe 238.204 Radial†	612.9	582.4	5490.7 ug/L	5490.7 ppb	22:03:09
3	K 766.490 Radial†	29324.1	25548.5	5111.7 ug/L	5111.7 ppb	22:02:49
3	Mg 279.077 IEC†	161.4	154.4	5420.9 ug/L	5420.9 ppb	22:03:09
3	Na 589.592 Radial†	32990.5	33445.8	10837 ug/L	10837 ppb	22:02:49
3	Sr 421.552†	77290.7	74669.0	532.20 ug/L	532.20 ppb	22:02:49
3	Sc 361.383	843191.6	843191.6	103.60 %		22:04:18
3	Y 371.029	700291.7	700291.7	102.09 %		22:04:18
3	Ag 328.068†	104923.2	100992.4	499.53 ug/L	499.53 ppb	22:04:23
3	As 188.979†	1155.9	1134.5	515.12 ug/L	515.12 ppb	22:04:43
3	B 249.677†	21567.6	21336.0	516.91 ug/L	516.91 ppb	22:04:23
3	Ba 233.527†	64889.9	62631.6	520.65 ug/L	520.65 ppb	22:04:23
3	Be 313.107†	1340082.2	1297786.8	516.61 ug/L	516.61 ppb	22:04:18
3	Cd 226.502†	45984.0	44582.2	522.39 ug/L	522.39 ppb	22:04:23
3	Co 228.616†	24866.3	24074.1	522.88 ug/L	522.88 ppb	22:04:23
3	Cr 267.716†	45718.9	44033.1	520.12 ug/L	520.12 ppb	22:04:23
3	Cu 324.752†	173978.8	161629.8	515.96 ug/L	515.96 ppb	22:04:23
3	Mn 257.610†	453135.1	436970.9	512.73 ug/L	512.73 ppb	22:04:18
3	Mo 202.031†	7179.6	6910.6	513.46 ug/L	513.46 ppb	22:04:43
3	Ni 231.604†	20612.4	19820.4	521.44 ug/L	521.44 ppb	22:04:23
3	P 214.914†	4348.0	3968.9	2432.1 ug/L	2432.1 ppb	22:04:43
3	Pb 220.353†	4088.7	4011.1	515.39 ug/L	515.39 ppb	22:04:43
3	S 181.975 Axial†	758.2	685.4	1021.9 ug/L	1021.9 ppb	22:04:43
3	Sb 206.836†	1473.1	1389.1	526.29 ug/L	526.29 ppb	22:04:43
3	Se 196.026†	783.4	786.5	545.77 ug/L	545.77 ppb	22:04:43
3	Si 251.611†	81480.9	78201.1	2630.4 ug/L	2630.4 ppb	22:04:23
3	Sn 189.927†	2872.3	2766.2	512.45 ug/L	512.45 ppb	22:04:43
3	Ti 334.940†	309809.3	300421.3	515.21 ug/L	515.21 ppb	22:04:23
3	Tl 190.801†	1611.2	1599.1	514.97 ug/L	514.97 ppb	22:04:43
3	U 409.014†	15413.7	16918.6	538.55 ug/L	538.55 ppb	22:04:23
3	V 292.402†	73247.5	72107.1	527.03 ug/L	527.03 ppb	22:04:23
3	Zn 213.857†	55464.2	52674.9	520.79 ug/L	520.79 ppb	22:04:23
3	SiO2†	81247.1	77965.1	5575.5 ug/L	5575.5 ppb	22:04:59

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	844256.4	103.73	%	0.226				0.22%
Sc Radial	5154.4	108	%	6.1				5.71%
Y 371.029	700630.5	102.14	%	0.322				0.32%
Y RADIAL	5482.0	106.9	%	6.34				5.93%
Ag 328.068†	100045.0	494.77	ug/L	5.926	494.77	ppb	5.926	1.20%
QC value within limits for Ag 328.068 Recovery = 98.95%								
Al 396.153Radial†	6043.6	4823.7	ug/L	290.99	4823.7	ppb	290.99	6.03%
QC value within limits for Al 396.153Radial Recovery = 96.47%								
As 188.979†	1135.5	515.45	ug/L	4.566	515.45	ppb	4.566	0.89%
QC value within limits for As 188.979 Recovery = 103.09%								
B 249.677†	20892.9	506.19	ug/L	10.924	506.19	ppb	10.924	2.16%
QC value within limits for B 249.677 Recovery = 101.24%								
Ba 233.527†	61680.0	512.73	ug/L	8.540	512.73	ppb	8.540	1.67%
QC value within limits for Ba 233.527 Recovery = 102.55%								
Be 313.107†	1309090.7	521.08	ug/L	3.896	521.08	ppb	3.896	0.75%
QC value within limits for Be 313.107 Recovery = 104.22%								
Ca 317.933Radial†	2949.9	4967.4	ug/L	269.60	4967.4	ppb	269.60	5.43%

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   QC value within limits for Ca 317.933Radial  Recovery = 99.35%
Cd 226.502†            43942.2      514.91 ug/L         7.469      514.91 ppb          7.469   1.45%
   QC value within limits for Cd 226.502  Recovery = 102.98%
Co 228.616†            23722.1      515.25 ug/L         7.977      515.25 ppb          7.977   1.55%
   QC value within limits for Co 228.616  Recovery = 103.05%
Cr 267.716†            43347.2      512.01 ug/L         7.919      512.01 ppb          7.919   1.55%
   QC value within limits for Cr 267.716  Recovery = 102.40%
Cu 324.752†           158913.0      507.28 ug/L         9.995      507.28 ppb          9.995   1.97%
   QC value within limits for Cu 324.752  Recovery = 101.46%
Fe 238.204 Radial†       556.1      5242.8 ug/L        317.28      5242.8 ppb         317.28   6.05%
   QC value within limits for Fe 238.204 Radial  Recovery = 104.86%
K 766.490 Radial†      24759.4      4953.8 ug/L        286.93      4953.8 ppb         286.93   5.79%
   QC value within limits for K 766.490 Radial  Recovery = 99.08%
Mg 279.077 IEC†          149.0      5230.5 ug/L        234.47      5230.5 ppb         234.47   4.48%
   QC value within limits for Mg 279.077 IEC  Recovery = 104.61%
Mn 257.610†           440961.1      517.39 ug/L         4.225      517.39 ppb          4.225   0.82%
   QC value within limits for Mn 257.610  Recovery = 103.48%
Mo 202.031†             6908.9      513.32 ug/L         4.610      513.32 ppb          4.610   0.90%
   QC value within limits for Mo 202.031  Recovery = 102.66%
Na 589.592 Radial†     32673.1       10586 ug/L         515.3       10586 ppb          515.3   4.87%
   QC value within limits for Na 589.592 Radial  Recovery = 105.86%
Ni 231.604†            19536.7      513.98 ug/L         7.405      513.98 ppb          7.405   1.44%
   QC value within limits for Ni 231.604  Recovery = 102.80%
P 214.914†              3988.9      2446.8 ug/L        22.22      2446.8 ppb         22.22   0.91%
   QC value within limits for P 214.914  Recovery = 97.87%
Pb 220.353†             3998.8      513.81 ug/L         5.113      513.81 ppb          5.113   1.00%
   QC value within limits for Pb 220.353  Recovery = 102.76%
S 181.975 Axial†         686.8      1024.1 ug/L          3.20      1024.1 ppb          3.20   0.31%
   QC value within limits for S 181.975 Axial  Recovery = 102.41%
Sb 206.836†             1391.5      527.14 ug/L         6.359      527.14 ppb          6.359   1.21%
   QC value within limits for Sb 206.836  Recovery = 105.43%
Se 196.026†              784.1      543.35 ug/L         3.939      543.35 ppb          3.939   0.73%
   QC value within limits for Se 196.026  Recovery = 108.67%
Si 251.611†            76885.3      2586.0 ug/L        47.20      2586.0 ppb         47.20   1.83%
   QC value within limits for Si 251.611  Recovery = 103.44%
Sn 189.927†             2770.3      513.18 ug/L         5.363      513.18 ppb          5.363   1.05%
   QC value within limits for Sn 189.927  Recovery = 102.64%
Sr 421.552†            72507.9      516.79 ug/L        28.348      516.79 ppb         28.348   5.49%
   QC value within limits for Sr 421.552  Recovery = 103.36%
Ti 334.940†           295736.1      507.17 ug/L         8.702      507.17 ppb          8.702   1.72%
   QC value within limits for Ti 334.940  Recovery = 101.43%
Tl 190.801†             1608.2      517.92 ug/L         7.419      517.92 ppb          7.419   1.43%
   QC value within limits for Tl 190.801  Recovery = 103.58%
U 409.014†             16556.3      527.02 ug/L        11.802      527.02 ppb         11.802   2.24%
   QC value within limits for U 409.014  Recovery = 105.40%
V 292.402†             70954.7      518.74 ug/L         8.497      518.74 ppb          8.497   1.64%
   QC value within limits for V 292.402  Recovery = 103.75%
Zn 213.857†            51892.0      513.07 ug/L         8.405      513.07 ppb          8.405   1.64%
   QC value within limits for Zn 213.857  Recovery = 102.61%
SiO2†                  77530.3      5544.3 ug/L        33.18      5544.3 ppb         33.18   0.60%
   QC value within limits for SiO2  Recovery = 103.68%
All analyte(s) passed QC.
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Sequence No.: 62
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 1/14/2010 22:07:09
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4710.9	4710.9	98.3	%			22:09:00
1	Y RADIAL	5083.1	5083.1	99.10	%			22:09:00
1	Al 396.153Radial†	-26.7	-23.9	-19.246	ug/L	-19.246	ppb	22:09:00
1	Ca 317.933Radial†	16.8	1.9	3.2821	ug/L	3.2821	ppb	22:09:20
1	Fe 238.204 Radial†	9.5	-0.2	-1.9292	ug/L	-1.9292	ppb	22:09:20
1	K 766.490 Radial†	2963.1	226.3	45.326	ug/L	45.326	ppb	22:09:00
1	Mg 279.077 IEC†	-0.0	-1.5	-54.203	ug/L	-54.203	ppb	22:09:20
1	Na 589.592 Radial†	-1492.0	49.5	16.024	ug/L	16.024	ppb	22:09:00
1	Sr 421.552†	18.0	1.1	0.0079	ug/L	0.0079	ppb	22:09:00
1	Sc 361.383	845770.8	845770.8	103.92	%			22:10:17
1	Y 371.029	713609.8	713609.8	104.03	%			22:10:17
1	Ag 328.068†	417.2	119.9	0.5877	ug/L	0.5877	ppb	22:10:17
1	As 188.979†	-25.3	-5.5	-2.4641	ug/L	-2.4641	ppb	22:10:37
1	B 249.677†	-425.6	109.0	2.6533	ug/L	2.6533	ppb	22:10:37
1	Ba 233.527†	3.6	2.0	0.0173	ug/L	0.0173	ppb	22:10:37
1	Be 313.107†	-4298.6	175.8	0.0701	ug/L	0.0701	ppb	22:10:17
1	Cd 226.502†	-194.7	10.2	0.1211	ug/L	0.1211	ppb	22:10:37
1	Co 228.616†	-72.1	3.3	0.0756	ug/L	0.0756	ppb	22:10:37
1	Cr 267.716†	68.1	-30.2	-0.3571	ug/L	-0.3571	ppb	22:10:37
1	Cu 324.752†	6308.8	-227.3	-0.7275	ug/L	-0.7275	ppb	22:10:17
1	Mn 257.610†	408.6	-11.1	-0.0110	ug/L	-0.0110	ppb	22:10:37
1	Mo 202.031†	37.4	16.7	1.2402	ug/L	1.2402	ppb	22:10:37
1	Ni 231.604†	96.2	17.5	0.4602	ug/L	0.4602	ppb	22:10:37
1	P 214.914†	206.4	-29.3	-18.543	ug/L	-18.543	ppb	22:10:37
1	Pb 220.353†	-72.2	-4.9	-0.6323	ug/L	-0.6323	ppb	22:10:37
1	S 181.975 Axial†	41.9	-6.2	-9.1888	ug/L	-9.1888	ppb	22:10:37
1	Sb 206.836†	50.4	15.7	5.7695	ug/L	5.7695	ppb	22:10:37
1	Se 196.026†	-25.7	5.6	3.7482	ug/L	3.7482	ppb	22:10:37
1	Si 251.611†	493.0	28.5	0.9464	ug/L	0.9464	ppb	22:10:37
1	Sn 189.927†	4.4	-1.9	-0.3477	ug/L	-0.3477	ppb	22:10:37
1	Ti 334.940†	-1372.7	66.1	0.1170	ug/L	0.1170	ppb	22:10:17
1	Tl 190.801†	-37.8	7.6	2.4173	ug/L	2.4173	ppb	22:10:37
1	U 409.014†	-2013.0	103.9	3.3197	ug/L	3.3197	ppb	22:10:17
1	V 292.402†	-1383.9	75.5	0.5677	ug/L	0.5677	ppb	22:10:17
1	Zn 213.857†	854.5	-38.0	-0.3810	ug/L	-0.3810	ppb	22:10:37
1	SiO2†	513.1	37.5	2.6557	ug/L	2.6557	ppb	22:11:33
2	Sc Radial	4868.0	4868.0	102	%			22:09:25
2	Y RADIAL	5211.9	5211.9	101.6	%			22:09:25
2	Al 396.153Radial†	7.9	11.0	8.7877	ug/L	8.7877	ppb	22:09:25
2	Ca 317.933Radial†	17.1	1.6	2.7493	ug/L	2.7493	ppb	22:09:45
2	Fe 238.204 Radial†	12.5	2.4	22.855	ug/L	22.855	ppb	22:09:45
2	K 766.490 Radial†	2913.0	79.6	15.939	ug/L	15.939	ppb	22:09:25
2	Mg 279.077 IEC†	1.5	-0.0	-0.3618	ug/L	-0.3618	ppb	22:09:45
2	Na 589.592 Radial†	-1498.2	92.3	29.912	ug/L	29.912	ppb	22:09:25
2	Sr 421.552†	-16.8	-33.8	-0.2410	ug/L	-0.2410	ppb	22:09:25
2	Sc 361.383	853964.1	853964.1	104.93	%			22:10:42
2	Y 371.029	720217.9	720217.9	104.99	%			22:10:42
2	Ag 328.068†	439.2	137.0	0.6820	ug/L	0.6820	ppb	22:10:42
2	As 188.979†	-24.4	-4.4	-1.9732	ug/L	-1.9732	ppb	22:11:02
2	B 249.677†	-411.1	126.7	3.0810	ug/L	3.0810	ppb	22:11:02
2	Ba 233.527†	-17.2	-17.9	-0.1467	ug/L	-0.1467	ppb	22:11:02
2	Be 313.107†	-4336.9	179.0	0.0717	ug/L	0.0717	ppb	22:10:42
2	Cd 226.502†	-195.6	11.1	0.1282	ug/L	0.1282	ppb	22:11:02
2	Co 228.616†	-76.2	0.0	0.0005	ug/L	0.0005	ppb	22:11:02
2	Cr 267.716†	89.6	-10.3	-0.1210	ug/L	-0.1210	ppb	22:11:02
2	Cu 324.752†	6274.6	-318.1	-1.0144	ug/L	-1.0144	ppb	22:10:42
2	Mn 257.610†	434.6	9.9	0.0139	ug/L	0.0139	ppb	22:11:02
2	Mo 202.031†	25.7	5.2	0.3865	ug/L	0.3865	ppb	22:11:02
2	Ni 231.604†	88.4	9.1	0.2404	ug/L	0.2404	ppb	22:11:02

2	P 214.914†	214.4	-23.5	-14.825	ug/L	-14.825 ppb	22:11:02
2	Pb 220.353†	-66.7	1.0	0.1252	ug/L	0.1252 ppb	22:11:02
2	S 181.975 Axial†	40.8	-7.5	-11.243	ug/L	-11.243 ppb	22:11:02
2	Sb 206.836†	41.3	6.6	2.4158	ug/L	2.4158 ppb	22:11:02
2	Se 196.026†	-24.9	6.7	4.5472	ug/L	4.5472 ppb	22:11:02
2	Si 251.611†	460.9	-6.6	-0.2272	ug/L	-0.2272 ppb	22:11:02
2	Sn 189.927†	4.5	-1.8	-0.3326	ug/L	-0.3326 ppb	22:11:02
2	Ti 334.940†	-1290.8	156.8	0.2693	ug/L	0.2693 ppb	22:10:42
2	Tl 190.801†	-26.6	18.5	5.9203	ug/L	5.9203 ppb	22:11:02
2	U 409.014†	-2127.4	13.4	0.4258	ug/L	0.4258 ppb	22:10:42
2	V 292.402†	-1413.8	59.7	0.4333	ug/L	0.4333 ppb	22:10:42
2	Zn 213.857†	865.5	-35.5	-0.3563	ug/L	-0.3563 ppb	22:11:02
2	SiO2†	482.2	3.3	0.2282	ug/L	0.2282 ppb	22:11:38
3	Sc Radial	5012.4	5012.4	105	%		22:09:50
3	Y RADIAL	5403.8	5403.8	105.3	%		22:09:50
3	Al 396.153Radial†	-11.9	-8.1	-6.5114	ug/L	-6.5114 ppb	22:09:50
3	Ca 317.933Radial†	16.6	0.7	1.2170	ug/L	1.2170 ppb	22:10:10
3	Fe 238.204 Radial†	11.6	1.2	11.179	ug/L	11.179 ppb	22:10:10
3	K 766.490 Radial†	2845.2	-67.7	-13.580	ug/L	-13.580 ppb	22:09:50
3	Mg 279.077 IEC†	2.7	1.1	38.420	ug/L	38.420 ppb	22:10:10
3	Na 589.592 Radial†	-1553.5	81.9	26.551	ug/L	26.551 ppb	22:09:50
3	Sr 421.552†	28.6	10.2	0.0723	ug/L	0.0723 ppb	22:09:50
3	Sc 361.383	871233.0	871233.0	107.05	%		22:11:08
3	Y 371.029	735842.2	735842.2	107.27	%		22:11:08
3	Ag 328.068†	369.7	63.8	0.3153	ug/L	0.3153 ppb	22:11:08
3	As 188.979†	-25.1	-4.6	-2.0669	ug/L	-2.0669 ppb	22:11:28
3	B 249.677†	-383.3	160.5	3.9040	ug/L	3.9040 ppb	22:11:28
3	Ba 233.527†	-11.1	-11.9	-0.0959	ug/L	-0.0959 ppb	22:11:28
3	Be 313.107†	-4314.1	282.2	0.1126	ug/L	0.1126 ppb	22:11:08
3	Cd 226.502†	-188.0	22.0	0.2577	ug/L	0.2577 ppb	22:11:28
3	Co 228.616†	-77.7	0.1	0.0032	ug/L	0.0032 ppb	22:11:28
3	Cr 267.716†	89.9	-11.8	-0.1398	ug/L	-0.1398 ppb	22:11:28
3	Cu 324.752†	6280.2	-431.3	-1.3804	ug/L	-1.3804 ppb	22:11:08
3	Mn 257.610†	435.0	2.1	0.0020	ug/L	0.0020 ppb	22:11:28
3	Mo 202.031†	27.2	6.1	0.4551	ug/L	0.4551 ppb	22:11:28
3	Ni 231.604†	78.1	-2.2	-0.0582	ug/L	-0.0582 ppb	22:11:28
3	P 214.914†	219.7	-22.6	-14.187	ug/L	-14.187 ppb	22:11:28
3	Pb 220.353†	-66.6	2.4	0.3059	ug/L	0.3059 ppb	22:11:28
3	S 181.975 Axial†	42.8	-6.5	-9.6372	ug/L	-9.6372 ppb	22:11:28
3	Sb 206.836†	29.9	-4.8	-1.7366	ug/L	-1.7366 ppb	22:11:28
3	Se 196.026†	-30.5	1.9	1.2903	ug/L	1.2903 ppb	22:11:28
3	Si 251.611†	466.0	-10.6	-0.3623	ug/L	-0.3623 ppb	22:11:28
3	Sn 189.927†	4.2	-2.2	-0.4057	ug/L	-0.4057 ppb	22:11:28
3	Ti 334.940†	-1334.5	140.4	0.2348	ug/L	0.2348 ppb	22:11:08
3	Tl 190.801†	-41.1	5.5	1.7465	ug/L	1.7465 ppb	22:11:28
3	U 409.014†	-1945.0	224.0	7.1540	ug/L	7.1540 ppb	22:11:08
3	V 292.402†	-1354.2	142.1	1.0445	ug/L	1.0445 ppb	22:11:08
3	Zn 213.857†	853.6	-63.0	-0.6268	ug/L	-0.6268 ppb	22:11:28
3	SiO2†	470.8	-16.4	-1.1862	ug/L	-1.1862 ppb	22:11:43

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	856989.3	105.30	%	1.597				1.52%
Sc Radial	4863.8	102	%	3.1				3.10%
Y 371.029	723223.3	105.43	%	1.664				1.58%
Y RADIAL	5232.9	102.0	%	3.15				3.08%
Ag 328.068†	106.9	0.5283	ug/L	0.19045	0.5283	ppb	0.19045	36.05%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-7.0	-5.6566	ug/L	14.03647	-5.6566	ppb	14.03647	248.14%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-4.8	-2.1681	ug/L	0.26059	-2.1681	ppb	0.26059	12.02%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	132.1	3.2128	ug/L	0.63566	3.2128	ppb	0.63566	19.79%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-9.3	-0.0751	ug/L	0.08398	-0.0751	ppb	0.08398	111.83%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	212.3	0.0848	ug/L	0.02412	0.0848	ppb	0.02412	28.44%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	1.4	2.4161	ug/L	1.07209	2.4161	ppb	1.07209	44.37%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              14.4      0.1690 ug/L       0.07693      0.1690 ppb        0.07693  45.52%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†               1.2      0.0264 ug/L       0.04261      0.0264 ppb        0.04261 161.33%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†             -17.4     -0.2060 ug/L       0.13123     -0.2060 ppb        0.13123  63.71%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -325.6     -1.0407 ug/L       0.32724     -1.0407 ppb        0.32724  31.44%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        1.1      10.702 ug/L       12.3989      10.702 ppb        12.3989 115.86%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        79.4      15.895 ug/L       29.4530      15.895 ppb        29.4530 185.30%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          -0.2     -5.3815 ug/L      46.51529     -5.3815 ppb       46.51529 864.36%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               0.3      0.0016 ug/L       0.01245      0.0016 ppb        0.01245 769.55%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               9.3      0.6940 ug/L       0.47430      0.6940 ppb        0.47430  68.35%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       74.6      24.163 ug/L        7.2455      24.163 ppb         7.2455  29.99%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               8.1      0.2142 ug/L       0.26022      0.2142 ppb        0.26022 121.51%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†              -25.1     -15.851 ug/L        2.3527     -15.851 ppb         2.3527  14.84%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -0.5     -0.0671 ug/L       0.49781     -0.0671 ppb        0.49781 742.29%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         -6.7     -10.023 ug/L        1.0801     -10.023 ppb         1.0801  10.78%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               5.9      2.1496 ug/L       3.76012      2.1496 ppb        3.76012 174.92%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               4.7      3.1953 ug/L       1.69741      3.1953 ppb        1.69741  53.12%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†               3.8      0.1190 ug/L       0.71978      0.1190 ppb        0.71978 604.99%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†              -2.0     -0.3620 ug/L       0.03857     -0.3620 ppb        0.03857  10.66%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              -7.5     -0.0536 ug/L       0.16545     -0.0536 ppb        0.16545 308.80%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             121.1      0.2071 ug/L       0.07986      0.2071 ppb        0.07986  38.57%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              10.5      3.3614 ug/L       2.24131      3.3614 ppb        2.24131  66.68%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              113.8      3.6332 ug/L       3.37502      3.6332 ppb        3.37502  92.90%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               92.4      0.6818 ug/L       0.32115      0.6818 ppb        0.32115  47.10%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†             -45.5     -0.4547 ug/L       0.14956     -0.4547 ppb        0.14956  32.90%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                     8.2      0.5659 ug/L       1.94307      0.5659 ppb        1.94307 343.37%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 71
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 1/14/2010 23:10:18
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Rep1#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5027.5	5027.5	105	%			23:12:10
1	Y RADIAL	5334.7	5334.7	104.0	%			23:12:10
1	Al 396.153Radial†	6615.1	6307.6	5035.1	ug/L	5035.1	ppb	23:12:10
1	Ca 317.933Radial†	3141.5	2978.8	5016.1	ug/L	5016.1	ppb	23:12:30
1	Fe 238.204 Radial†	572.7	535.9	5053.4	ug/L	5053.4	ppb	23:12:30
1	K 766.490 Radial†	29887.0	25695.6	5141.6	ug/L	5141.6	ppb	23:12:10
1	Mg 279.077 IEC†	157.6	148.7	5219.3	ug/L	5219.3	ppb	23:12:30
1	Na 589.592 Radial†	30035.5	30191.4	9782.2	ug/L	9782.2	ppb	23:12:10
1	Sr 421.552†	75282.2	71728.5	511.24	ug/L	511.24	ppb	23:12:10
1	Sc 361.383	844385.1	844385.1	103.75	%			23:13:28
1	Y 371.029	700071.8	700071.8	102.06	%			23:13:28
1	Ag 328.068†	106365.7	102239.7	505.52	ug/L	505.52	ppb	23:13:33
1	As 188.979†	1177.5	1153.8	523.72	ug/L	523.72	ppb	23:13:53
1	B 249.677†	21637.4	21373.9	517.89	ug/L	517.89	ppb	23:13:33
1	Ba 233.527†	65391.2	63026.2	523.91	ug/L	523.91	ppb	23:13:33
1	Be 313.107†	1349385.5	1304925.5	519.46	ug/L	519.46	ppb	23:13:28
1	Cd 226.502†	46320.6	44844.0	525.51	ug/L	525.51	ppb	23:13:33
1	Co 228.616†	25045.2	24212.7	525.90	ug/L	525.90	ppb	23:13:33
1	Cr 267.716†	45893.2	44138.7	521.36	ug/L	521.36	ppb	23:13:33
1	Cu 324.752†	175507.7	162866.1	519.88	ug/L	519.88	ppb	23:13:33
1	Mn 257.610†	457790.2	440839.5	517.23	ug/L	517.23	ppb	23:13:28
1	Mo 202.031†	7301.5	7018.3	521.42	ug/L	521.42	ppb	23:13:53
1	Ni 231.604†	20775.1	19949.1	524.83	ug/L	524.83	ppb	23:13:33
1	P 214.914†	4459.7	4070.7	2496.8	ug/L	2496.8	ppb	23:13:53
1	Pb 220.353†	4126.2	4041.7	519.37	ug/L	519.37	ppb	23:13:53
1	S 181.975 Axial†	773.0	698.6	1041.6	ug/L	1041.6	ppb	23:13:53
1	Sb 206.836†	1508.4	1421.1	538.26	ug/L	538.26	ppb	23:13:53
1	Se 196.026†	790.9	792.6	548.47	ug/L	548.47	ppb	23:13:53
1	Si 251.611†	82257.2	78838.2	2651.8	ug/L	2651.8	ppb	23:13:33
1	Sn 189.927†	2926.4	2814.5	521.35	ug/L	521.35	ppb	23:13:53
1	Ti 334.940†	314331.2	304357.0	521.96	ug/L	521.96	ppb	23:13:28
1	Tl 190.801†	1643.0	1627.5	524.13	ug/L	524.13	ppb	23:13:53
1	U 409.014†	15479.4	16960.9	539.95	ug/L	539.95	ppb	23:13:33
1	V 292.402†	73608.1	72354.7	528.98	ug/L	528.98	ppb	23:13:33
1	Zn 213.857†	55862.1	52982.7	523.88	ug/L	523.88	ppb	23:13:33
1	SiO2†	80952.7	77570.5	5547.0	ug/L	5547.0	ppb	23:15:01
2	Sc Radial	5019.4	5019.4	105	%			23:12:35
2	Y RADIAL	5351.5	5351.5	104.3	%			23:12:35
2	Al 396.153Radial†	6637.1	6338.8	5060.4	ug/L	5060.4	ppb	23:12:35
2	Ca 317.933Radial†	3145.2	2987.1	5030.2	ug/L	5030.2	ppb	23:12:55
2	Fe 238.204 Radial†	574.6	538.6	5078.8	ug/L	5078.8	ppb	23:12:55
2	K 766.490 Radial†	30089.9	25935.3	5189.6	ug/L	5189.6	ppb	23:12:35
2	Mg 279.077 IEC†	155.8	147.2	5167.7	ug/L	5167.7	ppb	23:12:55
2	Na 589.592 Radial†	30101.9	30301.1	9817.7	ug/L	9817.7	ppb	23:12:35
2	Sr 421.552†	75623.5	72170.0	514.38	ug/L	514.38	ppb	23:12:35
2	Sc 361.383	849923.7	849923.7	104.43	%			23:13:59
2	Y 371.029	704076.3	704076.3	102.64	%			23:13:59
2	Ag 328.068†	104758.5	100032.6	494.66	ug/L	494.66	ppb	23:14:04
2	As 188.979†	1159.7	1129.3	512.74	ug/L	512.74	ppb	23:14:24
2	B 249.677†	21455.7	21063.9	510.37	ug/L	510.37	ppb	23:14:04
2	Ba 233.527†	64573.2	61832.2	513.99	ug/L	513.99	ppb	23:14:04
2	Be 313.107†	1354705.8	1301544.6	518.12	ug/L	518.12	ppb	23:13:59
2	Cd 226.502†	45721.5	43979.4	515.36	ug/L	515.36	ppb	23:14:04
2	Co 228.616†	24775.2	23796.8	516.85	ug/L	516.85	ppb	23:14:04
2	Cr 267.716†	45437.0	43413.6	512.80	ug/L	512.80	ppb	23:14:04
2	Cu 324.752†	173991.5	160311.8	511.73	ug/L	511.73	ppb	23:14:04
2	Mn 257.610†	460251.1	440320.6	516.63	ug/L	516.63	ppb	23:13:59
2	Mo 202.031†	7245.9	6919.2	514.07	ug/L	514.07	ppb	23:14:24
2	Ni 231.604†	20490.5	19546.1	514.23	ug/L	514.23	ppb	23:14:04

2	P 214.914†	4405.2	3990.4	2447.1	ug/L	2447.1 ppb	23:14:24
2	Pb 220.353†	4093.6	3984.5	512.05	ug/L	512.05 ppb	23:14:24
2	S 181.975 Axial†	760.6	681.9	1016.7	ug/L	1016.7 ppb	23:14:24
2	Sb 206.836†	1485.5	1389.8	526.50	ug/L	526.50 ppb	23:14:24
2	Se 196.026†	789.9	786.8	544.62	ug/L	544.62 ppb	23:14:24
2	Si 251.611†	81310.7	77415.2	2603.9	ug/L	2603.9 ppb	23:14:04
2	Sn 189.927†	2905.1	2775.7	514.18	ug/L	514.18 ppb	23:14:24
2	Ti 334.940†	316446.1	304407.9	522.06	ug/L	522.06 ppb	23:13:59
2	Tl 190.801†	1641.9	1616.2	520.56	ug/L	520.56 ppb	23:14:24
2	U 409.014†	15244.3	16638.5	529.67	ug/L	529.67 ppb	23:14:04
2	V 292.402†	72841.7	71158.5	520.23	ug/L	520.23 ppb	23:14:04
2	Zn 213.857†	55284.5	52078.7	514.94	ug/L	514.94 ppb	23:14:04
2	SiO2†	81595.4	77677.5	5554.9	ug/L	5554.9 ppb	23:15:06
3	Sc Radial	4972.8	4972.8	104	%		23:13:00
3	Y RADIAL	5306.9	5306.9	103.5	%		23:13:00
3	Al 396.153Radial†	6586.9	6349.7	5069.1	ug/L	5069.1 ppb	23:13:00
3	Ca 317.933Radial†	3115.8	2987.0	5029.9	ug/L	5029.9 ppb	23:13:20
3	Fe 238.204 Radial†	571.9	541.1	5102.2	ug/L	5102.2 ppb	23:13:20
3	K 766.490 Radial†	29840.7	25964.3	5195.5	ug/L	5195.5 ppb	23:13:00
3	Mg 279.077 IEC†	157.5	150.3	5275.0	ug/L	5275.0 ppb	23:13:20
3	Na 589.592 Radial†	29604.6	30091.1	9749.7	ug/L	9749.7 ppb	23:13:00
3	Sr 421.552†	74628.5	71887.7	512.37	ug/L	512.37 ppb	23:13:00
3	Sc 361.383	850186.0	850186.0	104.46	%		23:14:30
3	Y 371.029	705312.6	705312.6	102.82	%		23:14:30
3	Ag 328.068†	104771.4	100014.0	494.57	ug/L	494.57 ppb	23:14:35
3	As 188.979†	1175.1	1143.7	519.23	ug/L	519.23 ppb	23:14:55
3	B 249.677†	21182.6	20796.2	503.86	ug/L	503.86 ppb	23:14:35
3	Ba 233.527†	64155.0	61412.8	510.51	ug/L	510.51 ppb	23:14:35
3	Be 313.107†	1354658.7	1301099.3	517.94	ug/L	517.94 ppb	23:14:30
3	Cd 226.502†	45532.8	43785.2	513.08	ug/L	513.08 ppb	23:14:35
3	Co 228.616†	24591.2	23613.4	512.87	ug/L	512.87 ppb	23:14:35
3	Cr 267.716†	45152.7	43128.0	509.42	ug/L	509.42 ppb	23:14:35
3	Cu 324.752†	171483.6	157859.7	503.91	ug/L	503.91 ppb	23:14:35
3	Mn 257.610†	459221.3	439198.9	515.31	ug/L	515.31 ppb	23:14:30
3	Mo 202.031†	7273.7	6943.6	515.89	ug/L	515.89 ppb	23:14:55
3	Ni 231.604†	20457.4	19508.3	513.23	ug/L	513.23 ppb	23:14:35
3	P 214.914†	4411.4	3995.1	2451.6	ug/L	2451.6 ppb	23:14:55
3	Pb 220.353†	4111.6	4000.5	514.10	ug/L	514.10 ppb	23:14:55
3	S 181.975 Axial†	771.6	692.2	1032.1	ug/L	1032.1 ppb	23:14:55
3	Sb 206.836†	1501.6	1404.7	532.05	ug/L	532.05 ppb	23:14:55
3	Se 196.026†	783.7	780.6	540.56	ug/L	540.56 ppb	23:14:55
3	Si 251.611†	80523.9	76638.0	2577.6	ug/L	2577.6 ppb	23:14:35
3	Sn 189.927†	2926.8	2795.6	517.86	ug/L	517.86 ppb	23:14:55
3	Ti 334.940†	316161.6	304042.0	521.43	ug/L	521.43 ppb	23:14:30
3	Tl 190.801†	1632.9	1607.1	517.67	ug/L	517.67 ppb	23:14:55
3	U 409.014†	15011.3	16411.0	522.41	ug/L	522.41 ppb	23:14:35
3	V 292.402†	72313.9	70631.7	516.44	ug/L	516.44 ppb	23:14:35
3	Zn 213.857†	54781.4	51580.8	509.98	ug/L	509.98 ppb	23:14:35
3	SiO2†	81202.6	77277.3	5526.1	ug/L	5526.1 ppb	23:15:11

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	848165.0	104.21	%	0.403				0.39%
Sc Radial	5006.5	104	%	0.6				0.59%
Y 371.029	703153.6	102.51	%	0.399				0.39%
Y RADIAL	5331.0	103.9	%	0.44				0.42%
Ag 328.068†	100762.1	498.25	ug/L	6.298	498.25	ppb	6.298	1.26%
QC value within limits for Ag 328.068 Recovery = 99.65%								
Al 396.153Radial†	6332.0	5054.9	ug/L	17.70	5054.9	ppb	17.70	0.35%
QC value within limits for Al 396.153Radial Recovery = 101.10%								
As 188.979†	1142.3	518.56	ug/L	5.523	518.56	ppb	5.523	1.07%
QC value within limits for As 188.979 Recovery = 103.71%								
B 249.677†	21078.0	510.71	ug/L	7.022	510.71	ppb	7.022	1.37%
QC value within limits for B 249.677 Recovery = 102.14%								
Ba 233.527†	62090.4	516.14	ug/L	6.955	516.14	ppb	6.955	1.35%
QC value within limits for Ba 233.527 Recovery = 103.23%								
Be 313.107†	1302523.1	518.51	ug/L	0.831	518.51	ppb	0.831	0.16%
QC value within limits for Be 313.107 Recovery = 103.70%								
Ca 317.933Radial†	2984.3	5025.4	ug/L	8.05	5025.4	ppb	8.05	0.16%

QC value within limits for Ca 317.933Radial Recovery = 100.51%

Cd 226.502†	44202.8	517.98 ug/L	6.615	517.98 ppb	6.615	1.28%

QC value within limits for Cd 226.502 Recovery = 103.60%

Co 228.616†	23874.3	518.54 ug/L	6.677	518.54 ppb	6.677	1.29%

QC value within limits for Co 228.616 Recovery = 103.71%

Cr 267.716†	43560.1	514.53 ug/L	6.152	514.53 ppb	6.152	1.20%

QC value within limits for Cr 267.716 Recovery = 102.91%

Cu 324.752†	160345.9	511.84 ug/L	7.985	511.84 ppb	7.985	1.56%

QC value within limits for Cu 324.752 Recovery = 102.37%

Fe 238.204 Radial†	538.5	5078.1 ug/L	24.43	5078.1 ppb	24.43	0.48%

QC value within limits for Fe 238.204 Radial Recovery = 101.56%

K 766.490 Radial†	25865.0	5175.6 ug/L	29.55	5175.6 ppb	29.55	0.57%

QC value within limits for K 766.490 Radial Recovery = 103.51%

Mg 279.077 IEC†	148.7	5220.6 ug/L	53.67	5220.6 ppb	53.67	1.03%

QC value within limits for Mg 279.077 IEC Recovery = 104.41%

Mn 257.610†	440119.7	516.39 ug/L	0.982	516.39 ppb	0.982	0.19%

QC value within limits for Mn 257.610 Recovery = 103.28%

Mo 202.031†	6960.4	517.13 ug/L	3.831	517.13 ppb	3.831	0.74%

QC value within limits for Mo 202.031 Recovery = 103.43%

Na 589.592 Radial†	30194.5	9783.2 ug/L	34.03	9783.2 ppb	34.03	0.35%

QC value within limits for Na 589.592 Radial Recovery = 97.83%

Ni 231.604†	19667.8	517.43 ug/L	6.428	517.43 ppb	6.428	1.24%

QC value within limits for Ni 231.604 Recovery = 103.49%

P 214.914†	4018.7	2465.2 ug/L	27.46	2465.2 ppb	27.46	1.11%

QC value within limits for P 214.914 Recovery = 98.61%

Pb 220.353†	4008.9	515.17 ug/L	3.779	515.17 ppb	3.779	0.73%

QC value within limits for Pb 220.353 Recovery = 103.03%

S 181.975 Axial†	690.9	1030.2 ug/L	12.58	1030.2 ppb	12.58	1.22%

QC value within limits for S 181.975 Axial Recovery = 103.02%

Sb 206.836†	1405.2	532.27 ug/L	5.884	532.27 ppb	5.884	1.11%

QC value within limits for Sb 206.836 Recovery = 106.45%

Se 196.026†	786.7	544.55 ug/L	3.958	544.55 ppb	3.958	0.73%

QC value within limits for Se 196.026 Recovery = 108.91%

Si 251.611†	77630.5	2611.1 ug/L	37.58	2611.1 ppb	37.58	1.44%

QC value within limits for Si 251.611 Recovery = 104.44%

Sn 189.927†	2795.3	517.79 ug/L	3.586	517.79 ppb	3.586	0.69%

QC value within limits for Sn 189.927 Recovery = 103.56%

Sr 421.552†	71928.7	512.66 ug/L	1.594	512.66 ppb	1.594	0.31%

QC value within limits for Sr 421.552 Recovery = 102.53%

Ti 334.940†	304269.0	521.82 ug/L	0.340	521.82 ppb	0.340	0.07%

QC value within limits for Ti 334.940 Recovery = 104.36%

Tl 190.801†	1616.9	520.79 ug/L	3.236	520.79 ppb	3.236	0.62%

QC value within limits for Tl 190.801 Recovery = 104.16%

U 409.014†	16670.1	530.67 ug/L	8.813	530.67 ppb	8.813	1.66%

QC value within limits for U 409.014 Recovery = 106.13%

V 292.402†	71381.7	521.89 ug/L	6.433	521.89 ppb	6.433	1.23%

QC value within limits for V 292.402 Recovery = 104.38%

Zn 213.857†	52214.1	516.27 ug/L	7.040	516.27 ppb	7.040	1.36%

QC value within limits for Zn 213.857 Recovery = 103.25%

SiO2†	77508.4	5542.7 ug/L	14.85	5542.7 ppb	14.85	0.27%

QC value within limits for SiO2 Recovery = 103.65%

All analyte(s) passed QC.

Sequence No.: 72
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 1/14/2010 23:17:20
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5102.1	5102.1	106	%			23:19:12
1	Y RADIAL	5459.0	5459.0	106.4	%			23:19:12
1	Al 396.153Radial†	-4.4	-0.9	-0.7835	ug/L	-0.7835	ppb	23:19:12
1	Ca 317.933Radial†	19.4	3.1	5.1661	ug/L	5.1661	ppb	23:19:32
1	Fe 238.204 Radial†	10.6	0.1	1.0961	ug/L	1.0961	ppb	23:19:32
1	K 766.490 Radial†	2757.6	-197.8	-39.647	ug/L	-39.647	ppb	23:19:12
1	Mg 279.077 IEC†	3.1	1.4	49.341	ug/L	49.341	ppb	23:19:32
1	Na 589.592 Radial†	-1504.7	153.9	49.871	ug/L	49.871	ppb	23:19:12
1	Sr 421.552†	-6.9	-23.7	-0.1691	ug/L	-0.1691	ppb	23:19:12
1	Sc 361.383	837691.9	837691.9	102.93	%			23:20:29
1	Y 371.029	707536.8	707536.8	103.15	%			23:20:29
1	Ag 328.068†	280.2	-9.3	-0.0463	ug/L	-0.0463	ppb	23:20:29
1	As 188.979†	-25.6	-6.0	-2.7001	ug/L	-2.7001	ppb	23:20:49
1	B 249.677†	-439.1	91.9	2.2379	ug/L	2.2379	ppb	23:20:49
1	Ba 233.527†	5.8	4.2	0.0367	ug/L	0.0367	ppb	23:20:49
1	Be 313.107†	-4428.1	10.1	0.0044	ug/L	0.0044	ppb	23:20:29
1	Cd 226.502†	-187.0	15.9	0.1868	ug/L	0.1868	ppb	23:20:49
1	Co 228.616†	-84.0	-8.9	-0.1926	ug/L	-0.1926	ppb	23:20:49
1	Cr 267.716†	96.2	-2.2	-0.0271	ug/L	-0.0271	ppb	23:20:49
1	Cu 324.752†	6232.0	-243.3	-0.7796	ug/L	-0.7796	ppb	23:20:29
1	Mn 257.610†	433.8	17.1	0.0182	ug/L	0.0182	ppb	23:20:49
1	Mo 202.031†	32.1	11.8	0.8782	ug/L	0.8782	ppb	23:20:49
1	Ni 231.604†	81.9	4.5	0.1182	ug/L	0.1182	ppb	23:20:49
1	P 214.914†	206.3	-27.4	-17.341	ug/L	-17.341	ppb	23:20:49
1	Pb 220.353†	-61.3	5.0	0.6450	ug/L	0.6450	ppb	23:20:49
1	S 181.975 Axial†	48.5	0.7	0.9899	ug/L	0.9899	ppb	23:20:49
1	Sb 206.836†	38.7	4.9	1.8363	ug/L	1.8363	ppb	23:20:49
1	Se 196.026†	-26.0	5.1	3.4053	ug/L	3.4053	ppb	23:20:49
1	Si 251.611†	470.7	11.4	0.3735	ug/L	0.3735	ppb	23:20:49
1	Sn 189.927†	15.4	8.8	1.6273	ug/L	1.6273	ppb	23:20:49
1	Ti 334.940†	-1320.1	104.5	0.1736	ug/L	0.1736	ppb	23:20:29
1	Tl 190.801†	-42.7	2.4	0.7617	ug/L	0.7617	ppb	23:20:49
1	U 409.014†	-1934.1	161.8	5.1681	ug/L	5.1681	ppb	23:20:29
1	V 292.402†	-1325.6	119.3	0.8833	ug/L	0.8833	ppb	23:20:29
1	Zn 213.857†	828.1	-55.8	-0.5563	ug/L	-0.5563	ppb	23:20:49
1	SiO2†	461.9	-7.5	-0.5590	ug/L	-0.5590	ppb	23:21:45
2	Sc Radial	4998.4	4998.4	104	%			23:19:37
2	Y RADIAL	5400.1	5400.1	105.3	%			23:19:37
2	Al 396.153Radial†	8.5	11.4	9.1402	ug/L	9.1402	ppb	23:19:37
2	Ca 317.933Radial†	15.9	0.1	0.1589	ug/L	0.1589	ppb	23:19:57
2	Fe 238.204 Radial†	9.7	-0.6	-5.3208	ug/L	-5.3208	ppb	23:19:57
2	K 766.490 Radial†	2849.6	-55.9	-11.224	ug/L	-11.224	ppb	23:19:37
2	Mg 279.077 IEC†	1.2	-0.3	-11.481	ug/L	-11.481	ppb	23:19:57
2	Na 589.592 Radial†	-1444.0	182.8	59.224	ug/L	59.224	ppb	23:19:37
2	Sr 421.552†	-10.3	-27.1	-0.1930	ug/L	-0.1930	ppb	23:19:37
2	Sc 361.383	838309.2	838309.2	103.00	%			23:20:54
2	Y 371.029	707533.6	707533.6	103.14	%			23:20:54
2	Ag 328.068†	392.3	99.3	0.4870	ug/L	0.4870	ppb	23:20:54
2	As 188.979†	-16.2	3.1	1.4072	ug/L	1.4072	ppb	23:21:14
2	B 249.677†	-441.6	89.8	2.1877	ug/L	2.1877	ppb	23:21:14
2	Ba 233.527†	-4.1	-5.4	-0.0430	ug/L	-0.0430	ppb	23:21:14
2	Be 313.107†	-4346.5	92.5	0.0372	ug/L	0.0372	ppb	23:20:54
2	Cd 226.502†	-179.4	23.4	0.2758	ug/L	0.2758	ppb	23:21:14
2	Co 228.616†	-78.2	-3.2	-0.0686	ug/L	-0.0686	ppb	23:21:14
2	Cr 267.716†	87.1	-11.1	-0.1315	ug/L	-0.1315	ppb	23:21:14
2	Cu 324.752†	6410.7	-74.3	-0.2395	ug/L	-0.2395	ppb	23:20:54
2	Mn 257.610†	414.7	-1.7	-0.0020	ug/L	-0.0020	ppb	23:21:14
2	Mo 202.031†	25.4	5.3	0.3939	ug/L	0.3939	ppb	23:21:14
2	Ni 231.604†	67.6	-9.5	-0.2513	ug/L	-0.2513	ppb	23:21:14

2	P 214.914†	222.3	-12.0	-7.6153	ug/L	-7.6153 ppb	23:21:14
2	Pb 220.353†	-66.2	0.4	0.0490	ug/L	0.0490 ppb	23:21:14
2	S 181.975 Axial†	49.1	1.3	1.8777	ug/L	1.8777 ppb	23:21:14
2	Sb 206.836†	39.3	5.4	1.9855	ug/L	1.9855 ppb	23:21:14
2	Se 196.026†	-32.5	-1.1	-0.7797	ug/L	-0.7797 ppb	23:21:14
2	Si 251.611†	483.9	23.9	0.8019	ug/L	0.8019 ppb	23:21:14
2	Sn 189.927†	7.1	0.8	0.1511	ug/L	0.1511 ppb	23:21:14
2	Ti 334.940†	-1308.4	116.8	0.1998	ug/L	0.1998 ppb	23:20:54
2	Tl 190.801†	-41.1	4.0	1.2645	ug/L	1.2645 ppb	23:21:14
2	U 409.014†	-1987.9	111.1	3.5477	ug/L	3.5477 ppb	23:20:54
2	V 292.402†	-1309.9	135.4	0.9897	ug/L	0.9897 ppb	23:20:54
2	Zn 213.857†	851.8	-33.3	-0.3300	ug/L	-0.3300 ppb	23:21:14
2	SiO2†	507.4	36.4	2.5957	ug/L	2.5957 ppb	23:21:50
3	Sc Radial	5045.7	5045.7	105	%		23:20:02
3	Y RADIAL	5431.7	5431.7	105.9	%		23:20:02
3	Al 396.153Radial†	-8.7	-5.0	-4.0522	ug/L	-4.0522 ppb	23:20:02
3	Ca 317.933Radial†	16.5	0.5	0.8831	ug/L	0.8831 ppb	23:20:22
3	Fe 238.204 Radial†	9.6	-0.8	-7.2634	ug/L	-7.2634 ppb	23:20:22
3	K 766.490 Radial†	2718.3	-206.2	-41.326	ug/L	-41.326 ppb	23:20:02
3	Mg 279.077 IEC†	0.8	-0.7	-24.992	ug/L	-24.992 ppb	23:20:22
3	Na 589.592 Radial†	-1469.3	171.7	55.631	ug/L	55.631 ppb	23:20:02
3	Sr 421.552†	23.1	4.8	0.0339	ug/L	0.0339 ppb	23:20:02
3	Sc 361.383	832681.4	832681.4	102.31	%		23:21:19
3	Y 371.029	702592.1	702592.1	102.42	%		23:21:19
3	Ag 328.068†	480.2	187.8	0.9196	ug/L	0.9196 ppb	23:21:19
3	As 188.979†	-21.9	-2.6	-1.1700	ug/L	-1.1700 ppb	23:21:40
3	B 249.677†	-439.5	88.9	2.1655	ug/L	2.1655 ppb	23:21:40
3	Ba 233.527†	1.4	-0.1	0.0006	ug/L	0.0006 ppb	23:21:40
3	Be 313.107†	-4355.3	55.4	0.0225	ug/L	0.0225 ppb	23:21:19
3	Cd 226.502†	-181.0	20.7	0.2436	ug/L	0.2436 ppb	23:21:40
3	Co 228.616†	-76.1	-1.7	-0.0357	ug/L	-0.0357 ppb	23:21:40
3	Cr 267.716†	77.2	-20.3	-0.2400	ug/L	-0.2400 ppb	23:21:40
3	Cu 324.752†	6388.5	-54.0	-0.1751	ug/L	-0.1751 ppb	23:21:19
3	Mn 257.610†	425.1	11.2	0.0135	ug/L	0.0135 ppb	23:21:40
3	Mo 202.031†	27.8	7.8	0.5817	ug/L	0.5817 ppb	23:21:40
3	Ni 231.604†	68.5	-8.2	-0.2153	ug/L	-0.2153 ppb	23:21:40
3	P 214.914†	227.8	-5.2	-3.2724	ug/L	-3.2724 ppb	23:21:40
3	Pb 220.353†	-74.8	-8.5	-1.0891	ug/L	-1.0891 ppb	23:21:40
3	S 181.975 Axial†	41.2	-6.2	-9.2224	ug/L	-9.2224 ppb	23:21:40
3	Sb 206.836†	36.2	2.6	0.9687	ug/L	0.9687 ppb	23:21:40
3	Se 196.026†	-28.0	3.0	1.9552	ug/L	1.9552 ppb	23:21:40
3	Si 251.611†	478.3	21.6	0.7223	ug/L	0.7223 ppb	23:21:40
3	Sn 189.927†	6.4	0.1	0.0267	ug/L	0.0267 ppb	23:21:40
3	Ti 334.940†	-1279.3	136.6	0.2347	ug/L	0.2347 ppb	23:21:19
3	Tl 190.801†	-34.7	9.9	3.1824	ug/L	3.1824 ppb	23:21:40
3	U 409.014†	-1947.2	137.7	4.4006	ug/L	4.4006 ppb	23:21:19
3	V 292.402†	-1334.6	102.7	0.7576	ug/L	0.7576 ppb	23:21:19
3	Zn 213.857†	844.1	-35.3	-0.3502	ug/L	-0.3502 ppb	23:21:40
3	SiO2†	516.5	48.6	3.4712	ug/L	3.4712 ppb	23:21:55

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	836227.5	102.75	%	0.379				0.37%
Sc Radial	5048.7	105	%	1.1				1.03%
Y 371.029	705887.5	102.90	%	0.416				0.40%
Y RADIAL	5430.3	105.9	%	0.57				0.54%
Ag 328.068†	92.6	0.4535	ug/L	0.48382	0.4535	ppb	0.48382	106.70%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	1.8	1.4348	ug/L	6.87028	1.4348	ppb	6.87028	478.82%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-1.8	-0.8210	ug/L	2.07573	-0.8210	ppb	2.07573	252.84%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	90.2	2.1971	ug/L	0.03709	2.1971	ppb	0.03709	1.69%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-0.4	-0.0019	ug/L	0.03991	-0.0019	ppb	0.03991	>999.9%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	52.6	0.0214	ug/L	0.01642	0.0214	ppb	0.01642	76.85%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	1.2	2.0694	ug/L	2.70621	2.0694	ppb	2.70621	130.77%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              20.0      0.2354 ug/L       0.04503      0.2354 ppb        0.04503  19.13%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†              -4.6     -0.0990 ug/L       0.08276     -0.0990 ppb        0.08276  83.61%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†             -11.2     -0.1328 ug/L       0.10646     -0.1328 ppb        0.10646  80.15%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -123.9     -0.3981 ug/L       0.33199     -0.3981 ppb        0.33199  83.40%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       -0.4     -3.8294 ug/L       4.37476     -3.8294 ppb        4.37476 114.24%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†      -153.3     -30.733 ug/L       16.9155     -30.733 ppb        16.9155  55.04%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           0.1      4.2893 ug/L      39.59659      4.2893 ppb       39.59659 923.15%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               8.9      0.0099 ug/L       0.01059      0.0099 ppb        0.01059 107.22%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               8.3      0.6179 ug/L       0.24418      0.6179 ppb        0.24418  39.52%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      169.5     54.909 ug/L        4.7179     54.909 ppb         4.7179   8.59%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              -4.4     -0.1161 ug/L       0.20372     -0.1161 ppb        0.20372 175.40%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†              -14.9     -9.4096 ug/L       7.20392     -9.4096 ppb        7.20392  76.56%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -1.0     -0.1317 ug/L       0.88104     -0.1317 ppb        0.88104 669.14%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         -1.4     -2.1183 ug/L       6.16833     -2.1183 ppb        6.16833 291.20%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               4.3      1.5968 ug/L       0.54906      1.5968 ppb        0.54906  34.38%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               2.3      1.5269 ug/L       2.12510      1.5269 ppb        2.12510 139.17%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†              19.0      0.6326 ug/L       0.22786      0.6326 ppb        0.22786  36.02%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               3.3      0.6017 ug/L       0.89040      0.6017 ppb        0.89040 147.98%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             -15.3     -0.1094 ug/L       0.12467     -0.1094 ppb        0.12467 113.98%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             119.3      0.2027 ug/L       0.03065      0.2027 ppb        0.03065  15.12%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               5.4      1.7362 ug/L       1.27741      1.7362 ppb        1.27741  73.57%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              136.9      4.3722 ug/L       0.81056      4.3722 ppb        0.81056  18.54%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              119.1      0.8769 ug/L       0.11618      0.8769 ppb        0.11618  13.25%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†             -41.5     -0.4121 ug/L       0.12523     -0.4121 ppb        0.12523  30.38%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                    25.8      1.8360 ug/L       2.11982      1.8360 ppb        2.11982 115.46%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 75
Sample ID: 243549002|941050|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 82
Date Collected: 1/14/2010 23:38:13
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 243549002|941050|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5159.5	5159.5	108	%			23:40:07
1	Y RADIAL	6721.0	6721.0	131.0	%			23:40:07
1	Al 396.153Radial†	42381.9	39360.7	31577	ug/L	31577	ppb	23:40:07
1	Ca 317.933Radial†	4916.5	4550.5	7662.8	ug/L	7662.8	ppb	23:40:07
1	Fe 238.204 Radial†	8009.8	7428.4	69832	ug/L	69832	ppb	23:40:07
1	K 766.490 Radial†	27712.5	22947.5	4593.5	ug/L	4593.5	ppb	23:40:07
1	Mg 279.077 IEC†	185.3	170.5	5913.7	ug/L	5913.7	ppb	23:40:27
1	Na 589.592 Radial†	3174.9	4515.2	1463.0	ug/L	1463.0	ppb	23:40:07
1	Sr 421.552†	8675.9	8039.6	57.248	ug/L	57.248	ppb	23:40:07
1	Sc 361.383	870316.5	870316.5	106.94	%			23:41:24
1	Y 371.029	883313.5	883313.5	128.77	%			23:41:24
1	Ag 328.068†	-4269.2	-4273.9	2.0588	ug/L	2.0588	ppb	23:41:29
1	As 188.979†	-25.5	-5.0	26.799	ug/L	26.799	ppb	23:41:49
1	B 249.677†	183.8	690.4	5.4092	ug/L	5.4092	ppb	23:41:29
1	Ba 233.527†	45182.9	42250.8	352.65	ug/L	352.65	ppb	23:41:29
1	Be 313.107†	-91.3	4226.9	5.0124	ug/L	5.0124	ppb	23:41:29
1	Cd 226.502†	428.7	598.4	-0.2294	ug/L	-0.2294	ppb	23:41:49
1	Co 228.616†	841.1	859.2	14.713	ug/L	14.713	ppb	23:41:49
1	Cr 267.716†	9056.0	8372.8	100.36	ug/L	100.36	ppb	23:41:29
1	Cu 324.752†	14552.3	7310.3	27.173	ug/L	27.173	ppb	23:41:29
1	Mn 257.610†	1741316.5	1627966.1	1915.7	ug/L	1915.7	ppb	23:41:24
1	Mo 202.031†	101.9	76.0	11.154	ug/L	11.154	ppb	23:41:49
1	Ni 231.604†	1289.8	1131.0	29.761	ug/L	29.761	ppb	23:41:49
1	P 214.914†	1318.1	1004.7	588.15	ug/L	588.15	ppb	23:41:49
1	Pb 220.353†	387.5	426.9	54.903	ug/L	54.903	ppb	23:41:49
1	S 181.975 Axial†	248.9	186.3	272.05	ug/L	272.05	ppb	23:41:49
1	Sb 206.836†	52.1	16.0	2.1699	ug/L	2.1699	ppb	23:41:49
1	Se 196.026†	-351.2	-298.1	31.007	ug/L	31.007	ppb	23:41:49
1	Si 251.611†	225315.8	210255.4	7089.0	ug/L	7089.0	ppb	23:41:29
1	Sn 189.927†	-28.9	-33.2	-3.7959	ug/L	-3.7959	ppb	23:41:49
1	Ti 334.940†	913805.6	855920.9	1469.0	ug/L	1469.0	ppb	23:41:24
1	Tl 190.801†	-121.9	-70.1	-1.3461	ug/L	-1.3461	ppb	23:41:49
1	U 409.014†	-10647.9	-7916.3	-261.01	ug/L	-261.01	ppb	23:41:24
1	V 292.402†	10912.5	11611.8	71.716	ug/L	71.716	ppb	23:41:29
1	Zn 213.857†	25500.4	22986.0	222.25	ug/L	222.25	ppb	23:41:29
1	SiO2†	228045.0	212797.2	15256	ug/L	15256	ppb	23:42:57
2	Sc Radial	5211.3	5211.3	109	%			23:40:32
2	Y RADIAL	6801.1	6801.1	132.6	%			23:40:32
2	Al 396.153Radial†	43040.0	39574.4	31749	ug/L	31749	ppb	23:40:32
2	Ca 317.933Radial†	4986.2	4569.2	7694.3	ug/L	7694.3	ppb	23:40:32
2	Fe 238.204 Radial†	8119.9	7455.6	70088	ug/L	70088	ppb	23:40:32
2	K 766.490 Radial†	28122.7	23068.7	4617.8	ug/L	4617.8	ppb	23:40:32
2	Mg 279.077 IEC†	188.4	171.7	5955.4	ug/L	5955.4	ppb	23:40:52
2	Na 589.592 Radial†	3228.3	4535.1	1469.4	ug/L	1469.4	ppb	23:40:32
2	Sr 421.552†	8864.6	8132.9	57.913	ug/L	57.913	ppb	23:40:32
2	Sc 361.383	878777.8	878777.8	107.98	%			23:41:55
2	Y 371.029	890955.3	890955.3	129.88	%			23:41:55
2	Ag 328.068†	-4388.1	-4345.5	1.7823	ug/L	1.7823	ppb	23:42:00
2	As 188.979†	-24.4	-3.8	27.246	ug/L	27.246	ppb	23:42:20
2	B 249.677†	72.2	585.4	2.8148	ug/L	2.8148	ppb	23:42:00
2	Ba 233.527†	45756.9	42375.5	353.69	ug/L	353.69	ppb	23:42:00
2	Be 313.107†	-26.7	4287.6	4.9870	ug/L	4.9870	ppb	23:42:00
2	Cd 226.502†	427.3	593.3	-0.3145	ug/L	-0.3145	ppb	23:42:20
2	Co 228.616†	829.9	841.3	14.367	ug/L	14.367	ppb	23:42:20
2	Cr 267.716†	9140.9	8370.0	100.32	ug/L	100.32	ppb	23:42:00
2	Cu 324.752†	14662.7	7281.6	27.089	ug/L	27.089	ppb	23:42:00
2	Mn 257.610†	1729385.7	1601237.9	1884.4	ug/L	1884.4	ppb	23:41:55
2	Mo 202.031†	112.2	84.6	11.815	ug/L	11.815	ppb	23:42:20
2	Ni 231.604†	1286.3	1116.1	29.370	ug/L	29.370	ppb	23:42:20

2	P 214.914†	1324.9	999.2	584.47 ug/L	584.47 ppb	23:42:20
2	Pb 220.353†	368.3	405.7	52.193 ug/L	52.193 ppb	23:42:20
2	S 181.975 Axial†	260.4	194.8	284.70 ug/L	284.70 ppb	23:42:20
2	Sb 206.836†	45.4	9.3	-0.1853 ug/L	-0.1853 ppb	23:42:20
2	Se 196.026†	-346.5	-290.6	36.873 ug/L	36.873 ppb	23:42:20
2	Si 251.611†	227410.1	210166.3	7086.0 ug/L	7086.0 ppb	23:42:00
2	Sn 189.927†	-32.9	-36.6	-4.4151 ug/L	-4.4151 ppb	23:42:20
2	Ti 334.940†	908965.2	843210.2	1447.2 ug/L	1447.2 ppb	23:41:55
2	Tl 190.801†	-132.2	-78.5	-4.3769 ug/L	-4.3769 ppb	23:42:20
2	U 409.014†	-10423.5	-7612.6	-251.34 ug/L	-251.34 ppb	23:41:55
2	V 292.402†	11050.3	11641.2	71.942 ug/L	71.942 ppb	23:42:00
2	Zn 213.857†	25825.6	23057.6	222.94 ug/L	222.94 ppb	23:42:00
2	SiO2†	227228.4	209987.6	15054 ug/L	15054 ppb	23:43:02
3	Sc Radial	4977.5	4977.5	104 %		23:40:57
3	Y RADIAL	6589.6	6589.6	128.5 %		23:40:57
3	Al 396.153Radial†	43693.7	42062.5	33745 ug/L	33745 ppb	23:40:57
3	Ca 317.933Radial†	5031.5	4828.1	8130.3 ug/L	8130.3 ppb	23:40:57
3	Fe 238.204 Radial†	8242.0	7923.8	74490 ug/L	74490 ppb	23:40:57
3	K 766.490 Radial†	28434.7	24583.6	4921.1 ug/L	4921.1 ppb	23:40:57
3	Mg 279.077 IEC†	187.1	178.6	6192.0 ug/L	6192.0 ppb	23:41:17
3	Na 589.592 Radial†	3337.4	4779.5	1548.6 ug/L	1548.6 ppb	23:40:57
3	Sr 421.552†	8931.2	8579.9	61.096 ug/L	61.096 ppb	23:40:57
3	Sc 361.383	872294.7	872294.7	107.18 %		23:42:26
3	Y 371.029	883551.9	883551.9	128.81 %		23:42:26
3	Ag 328.068†	-4326.8	-4318.5	3.3396 ug/L	3.3396 ppb	23:42:31
3	As 188.979†	-24.3	-3.9	28.184 ug/L	28.184 ppb	23:42:51
3	B 249.677†	34.3	550.5	1.2498 ug/L	1.2498 ppb	23:42:31
3	Ba 233.527†	46059.1	42972.5	358.78 ug/L	358.78 ppb	23:42:31
3	Be 313.107†	17.3	4328.4	4.9925 ug/L	4.9925 ppb	23:42:31
3	Cd 226.502†	421.4	590.8	-0.7996 ug/L	-0.7996 ppb	23:42:51
3	Co 228.616†	819.1	837.0	14.220 ug/L	14.220 ppb	23:42:51
3	Cr 267.716†	9195.9	8484.2	101.76 ug/L	101.76 ppb	23:42:31
3	Cu 324.752†	14979.9	7678.5	28.591 ug/L	28.591 ppb	23:42:31
3	Mn 257.610†	1717535.6	1602085.5	1885.8 ug/L	1885.8 ppb	23:42:26
3	Mo 202.031†	102.4	76.2	11.536 ug/L	11.536 ppb	23:42:51
3	Ni 231.604†	1267.1	1107.1	29.132 ug/L	29.132 ppb	23:42:51
3	P 214.914†	1324.5	1007.9	586.76 ug/L	586.76 ppb	23:42:51
3	Pb 220.353†	377.5	416.8	53.632 ug/L	53.632 ppb	23:42:51
3	S 181.975 Axial†	251.4	188.1	274.34 ug/L	274.34 ppb	23:42:51
3	Sb 206.836†	50.8	14.6	1.8289 ug/L	1.8289 ppb	23:42:51
3	Se 196.026†	-355.9	-301.7	43.967 ug/L	43.967 ppb	23:42:51
3	Si 251.611†	228320.9	212581.4	7167.5 ug/L	7167.5 ppb	23:42:31
3	Sn 189.927†	-31.5	-35.5	-4.0754 ug/L	-4.0754 ppb	23:42:51
3	Ti 334.940†	899308.3	840456.9	1442.5 ug/L	1442.5 ppb	23:42:26
3	Tl 190.801†	-123.2	-71.0	-2.0232 ug/L	-2.0232 ppb	23:42:51
3	U 409.014†	-10441.5	-7701.2	-254.67 ug/L	-254.67 ppb	23:42:26
3	V 292.402†	11070.2	11735.8	71.979 ug/L	71.979 ppb	23:42:31
3	Zn 213.857†	26028.9	23425.1	226.18 ug/L	226.18 ppb	23:42:31
3	SiO2†	230732.2	214820.8	15401 ug/L	15401 ppb	23:43:07

Mean Data: 243549002|941050|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	873796.3	107.36	%	0.544				0.51%
Sc Radial	5116.1	107	%	2.6				2.40%
Y 371.029	885940.2	129.15	%	0.633				0.49%
Y RADIAL	6703.9	130.7	%	2.08				1.59%
Ag 328.068†	-4312.7	2.3936	ug/L	0.83085	2.3936	ppb	0.83085	34.71%
Al 396.153Radial†	40332.6	32357	ug/L	1205.0	32357	ppb	1205.0	3.72%
As 188.979†	-4.2	27.410	ug/L	0.7065	27.410	ppb	0.7065	2.58%
B 249.677†	608.8	3.1579	ug/L	2.10082	3.1579	ppb	2.10082	66.52%
Ba 233.527†	42532.9	355.04	ug/L	3.279	355.04	ppb	3.279	0.92%
Be 313.107†	4280.9	4.9973	ug/L	0.01338	4.9973	ppb	0.01338	0.27%
Ca 317.933Radial†	4649.3	7829.1	ug/L	261.31	7829.1	ppb	261.31	3.34%
Cd 226.502†	594.2	-0.4478	ug/L	0.30755	-0.4478	ppb	0.30755	68.68%
Co 228.616†	845.8	14.433	ug/L	0.2532	14.433	ppb	0.2532	1.75%
Cr 267.716†	8409.0	100.81	ug/L	0.819	100.81	ppb	0.819	0.81%
Cu 324.752†	7423.5	27.618	ug/L	0.8438	27.618	ppb	0.8438	3.06%
Fe 238.204 Radial†	7602.6	71470	ug/L	2618.1	71470	ppb	2618.1	3.66%
K 766.490 Radial†	23533.3	4710.8	ug/L	182.54	4710.8	ppb	182.54	3.87%

Mg 279.077 IEC†	173.6	6020.4	ug/L	150.11	6020.4	ppb	150.11	2.49%
Mn 257.610†	1610429.8	1895.3	ug/L	17.69	1895.3	ppb	17.69	0.93%
Mo 202.031†	78.9	11.502	ug/L	0.3322	11.502	ppb	0.3322	2.89%
Na 589.592 Radial†	4609.9	1493.6	ug/L	47.68	1493.6	ppb	47.68	3.19%
Ni 231.604†	1118.1	29.421	ug/L	0.3177	29.421	ppb	0.3177	1.08%
P 214.914†	1003.9	586.46	ug/L	1.860	586.46	ppb	1.860	0.32%
Pb 220.353†	416.5	53.576	ug/L	1.3554	53.576	ppb	1.3554	2.53%
S 181.975 Axial†	189.7	277.03	ug/L	6.739	277.03	ppb	6.739	2.43%
Sb 206.836†	13.3	1.2712	ug/L	1.27281	1.2712	ppb	1.27281	100.13%
Se 196.026†	-296.8	37.282	ug/L	6.4898	37.282	ppb	6.4898	17.41%
Si 251.611†	211001.0	7114.2	ug/L	46.17	7114.2	ppb	46.17	0.65%
Sn 189.927†	-35.1	-4.0955	ug/L	0.31007	-4.0955	ppb	0.31007	7.57%
Sr 421.552†	8250.8	58.752	ug/L	2.0565	58.752	ppb	2.0565	3.50%
Ti 334.940†	846529.3	1452.9	ug/L	14.14	1452.9	ppb	14.14	0.97%
Tl 190.801†	-73.2	-2.5821	ug/L	1.59083	-2.5821	ppb	1.59083	61.61%
U 409.014†	-7743.3	-255.67	ug/L	4.912	-255.67	ppb	4.912	1.92%
V 292.402†	11662.9	71.879	ug/L	0.1422	71.879	ppb	0.1422	0.20%
Zn 213.857†	23156.2	223.79	ug/L	2.098	223.79	ppb	2.098	0.94%
SiO2†	212535.2	15237	ug/L	174.0	15237	ppb	174.0	1.14%

Sequence No.: 76
Sample ID: 1202004428|941050|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 83
Date Collected: 1/14/2010 23:45:18
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202004428|941050|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5170.1	5170.1	108	%			23:47:12
1	Y RADIAL	6693.0	6693.0	130.5	%			23:47:12
1	Al 396.153Radial†	40092.2	37157.8	29810	ug/L	29810	ppb	23:47:12
1	Ca 317.933Radial†	4646.0	4290.5	7224.9	ug/L	7224.9	ppb	23:47:12
1	Fe 238.204 Radial†	8133.6	7527.7	70767	ug/L	70767	ppb	23:47:12
1	K 766.490 Radial†	27096.7	22323.9	4468.7	ug/L	4468.7	ppb	23:47:12
1	Mg 279.077 IEC†	172.9	158.7	5498.8	ug/L	5498.8	ppb	23:47:32
1	Na 589.592 Radial†	3022.4	4367.9	1415.2	ug/L	1415.2	ppb	23:47:12
1	Sr 421.552†	8481.2	7842.6	55.847	ug/L	55.847	ppb	23:47:12
1	Sc 361.383	867783.1	867783.1	106.62	%			23:48:29
1	Y 371.029	875848.2	875848.2	127.68	%			23:48:29
1	Ag 328.068†	-4387.6	-4396.5	1.7732	ug/L	1.7732	ppb	23:48:34
1	As 188.979†	-25.3	-4.8	27.440	ug/L	27.440	ppb	23:48:54
1	B 249.677†	59.5	574.4	2.4313	ug/L	2.4313	ppb	23:48:34
1	Ba 233.527†	41392.0	38818.7	324.23	ug/L	324.23	ppb	23:48:34
1	Be 313.107†	-1107.5	3273.5	4.7248	ug/L	4.7248	ppb	23:48:34
1	Cd 226.502†	440.2	610.4	-0.1840	ug/L	-0.1840	ppb	23:48:54
1	Co 228.616†	882.9	900.7	15.489	ug/L	15.489	ppb	23:48:54
1	Cr 267.716†	13886.8	12928.2	154.12	ug/L	154.12	ppb	23:48:34
1	Cu 324.752†	14276.0	7091.0	26.516	ug/L	26.516	ppb	23:48:34
1	Mn 257.610†	1800130.0	1687879.3	1986.0	ug/L	1986.0	ppb	23:48:29
1	Mo 202.031†	163.7	134.2	15.545	ug/L	15.545	ppb	23:48:54
1	Ni 231.604†	1270.5	1116.4	29.377	ug/L	29.377	ppb	23:48:54
1	P 214.914†	1523.5	1201.0	712.36	ug/L	712.36	ppb	23:48:54
1	Pb 220.353†	395.8	435.8	55.574	ug/L	55.574	ppb	23:48:54
1	S 181.975 Axial†	246.3	184.5	269.79	ug/L	269.79	ppb	23:48:54
1	Sb 206.836†	50.6	14.7	1.7441	ug/L	1.7441	ppb	23:48:54
1	Se 196.026†	-335.1	-283.9	43.451	ug/L	43.451	ppb	23:48:54
1	Si 251.611†	224617.8	210215.9	7087.7	ug/L	7087.7	ppb	23:48:34
1	Sn 189.927†	-35.1	-39.0	-4.9278	ug/L	-4.9278	ppb	23:48:54
1	Ti 334.940†	936066.4	879293.3	1509.0	ug/L	1509.0	ppb	23:48:29
1	Tl 190.801†	-136.8	-84.4	-5.2678	ug/L	-5.2678	ppb	23:48:54
1	U 409.014†	-10232.6	-7555.9	-249.72	ug/L	-249.72	ppb	23:48:29
1	V 292.402†	11530.0	12220.7	75.986	ug/L	75.986	ppb	23:48:34
1	Zn 213.857†	24979.3	22567.0	217.99	ug/L	217.99	ppb	23:48:34
1	SiO2†	224182.6	209797.4	15041	ug/L	15041	ppb	23:50:02
2	Sc Radial	5016.7	5016.7	105	%			23:47:37
2	Y RADIAL	6523.9	6523.9	127.2	%			23:47:37
2	Al 396.153Radial†	39098.3	37344.7	29960	ug/L	29960	ppb	23:47:37
2	Ca 317.933Radial†	4542.9	4323.6	7280.8	ug/L	7280.8	ppb	23:47:37
2	Fe 238.204 Radial†	7861.7	7498.6	70493	ug/L	70493	ppb	23:47:37
2	K 766.490 Radial†	26245.4	22278.7	4459.6	ug/L	4459.6	ppb	23:47:37
2	Mg 279.077 IEC†	173.1	163.8	5678.1	ug/L	5678.1	ppb	23:47:57
2	Na 589.592 Radial†	2942.2	4376.9	1418.1	ug/L	1418.1	ppb	23:47:37
2	Sr 421.552†	8216.8	7830.4	55.760	ug/L	55.760	ppb	23:47:37
2	Sc 361.383	875496.9	875496.9	107.57	%			23:49:00
2	Y 371.029	880951.0	880951.0	128.43	%			23:49:00
2	Ag 328.068†	-4252.4	-4234.6	2.4803	ug/L	2.4803	ppb	23:49:05
2	As 188.979†	-17.6	2.5	30.686	ug/L	30.686	ppb	23:49:25
2	B 249.677†	56.6	571.2	2.3994	ug/L	2.3994	ppb	23:49:05
2	Ba 233.527†	41675.6	38740.4	323.57	ug/L	323.57	ppb	23:49:05
2	Be 313.107†	-1034.9	3350.2	4.7621	ug/L	4.7621	ppb	23:49:05
2	Cd 226.502†	437.0	603.8	-0.2335	ug/L	-0.2335	ppb	23:49:25
2	Co 228.616†	873.9	885.0	15.148	ug/L	15.148	ppb	23:49:25
2	Cr 267.716†	13943.8	12866.5	153.39	ug/L	153.39	ppb	23:49:05
2	Cu 324.752†	14378.6	7068.3	26.431	ug/L	26.431	ppb	23:49:05
2	Mn 257.610†	1819922.8	1691403.7	1990.1	ug/L	1990.1	ppb	23:49:00
2	Mo 202.031†	174.8	143.2	16.188	ug/L	16.188	ppb	23:49:25
2	Ni 231.604†	1302.5	1135.7	29.885	ug/L	29.885	ppb	23:49:25

2	P 214.914†	1527.2	1191.9	706.78	ug/L	706.78 ppb	23:49:25
2	Pb 220.353†	403.8	440.0	56.170	ug/L	56.170 ppb	23:49:25
2	S 181.975 Axial†	243.5	179.9	262.89	ug/L	262.89 ppb	23:49:25
2	Sb 206.836†	50.6	14.3	1.5679	ug/L	1.5679 ppb	23:49:25
2	Se 196.026†	-342.3	-287.8	39.976	ug/L	39.976 ppb	23:49:25
2	Si 251.611†	225808.5	209466.6	7062.4	ug/L	7062.4 ppb	23:49:05
2	Sn 189.927†	-40.3	-43.6	-5.7735	ug/L	-5.7735 ppb	23:49:25
2	Ti 334.940†	946270.5	881044.1	1512.0	ug/L	1512.0 ppb	23:49:00
2	Tl 190.801†	-122.3	-69.8	-0.5535	ug/L	-0.5535 ppb	23:49:25
2	U 409.014†	-10438.4	-7662.7	-253.10	ug/L	-253.10 ppb	23:49:00
2	V 292.402†	11577.3	12169.5	75.659	ug/L	75.659 ppb	23:49:05
2	Zn 213.857†	25286.7	22646.3	218.80	ug/L	218.80 ppb	23:49:05
2	SiO2†	225657.2	209315.6	15006	ug/L	15006 ppb	23:50:07
3	Sc Radial	5139.1	5139.1	107	%		23:48:02
3	Y RADIAL	6690.8	6690.8	130.4	%		23:48:02
3	Al 396.153Radial†	39938.9	37239.0	29875	ug/L	29875 ppb	23:48:02
3	Ca 317.933Radial†	4583.3	4258.0	7170.2	ug/L	7170.2 ppb	23:48:02
3	Fe 238.204 Radial†	8060.7	7505.3	70556	ug/L	70556 ppb	23:48:02
3	K 766.490 Radial†	26914.7	22305.6	4465.1	ug/L	4465.1 ppb	23:48:02
3	Mg 279.077 IEC†	169.1	156.2	5408.9	ug/L	5408.9 ppb	23:48:22
3	Na 589.592 Radial†	3013.7	4376.7	1418.1	ug/L	1418.1 ppb	23:48:02
3	Sr 421.552†	8396.9	7811.3	55.625	ug/L	55.625 ppb	23:48:02
3	Sc 361.383	865226.5	865226.5	106.31	%		23:49:31
3	Y 371.029	871649.7	871649.7	127.07	%		23:49:31
3	Ag 328.068†	-4323.8	-4348.7	1.9359	ug/L	1.9359 ppb	23:49:36
3	As 188.979†	-27.4	-7.0	26.438	ug/L	26.438 ppb	23:49:56
3	B 249.677†	79.6	593.4	2.9293	ug/L	2.9293 ppb	23:49:36
3	Ba 233.527†	41050.4	38612.2	322.51	ug/L	322.51 ppb	23:49:36
3	Be 313.107†	-1182.9	3199.5	4.6945	ug/L	4.6945 ppb	23:49:36
3	Cd 226.502†	442.0	613.3	-0.1273	ug/L	-0.1273 ppb	23:49:56
3	Co 228.616†	883.3	903.6	15.556	ug/L	15.556 ppb	23:49:56
3	Cr 267.716†	13763.2	12850.4	153.20	ug/L	153.20 ppb	23:49:36
3	Cu 324.752†	14206.8	7065.4	26.422	ug/L	26.422 ppb	23:49:36
3	Mn 257.610†	1794601.1	1687667.2	1985.8	ug/L	1985.8 ppb	23:49:31
3	Mo 202.031†	170.9	141.5	16.063	ug/L	16.063 ppb	23:49:56
3	Ni 231.604†	1296.1	1144.0	30.104	ug/L	30.104 ppb	23:49:56
3	P 214.914†	1528.1	1209.5	717.98	ug/L	717.98 ppb	23:49:56
3	Pb 220.353†	394.6	435.7	55.601	ug/L	55.601 ppb	23:49:56
3	S 181.975 Axial†	237.9	177.3	259.05	ug/L	259.05 ppb	23:49:56
3	Sb 206.836†	53.8	17.8	2.8905	ug/L	2.8905 ppb	23:49:56
3	Se 196.026†	-342.6	-291.9	37.448	ug/L	37.448 ppb	23:49:56
3	Si 251.611†	221428.7	207838.6	7007.5	ug/L	7007.5 ppb	23:49:36
3	Sn 189.927†	-30.8	-35.1	-4.2203	ug/L	-4.2203 ppb	23:49:56
3	Ti 334.940†	933063.6	879062.9	1508.6	ug/L	1508.6 ppb	23:49:31
3	Tl 190.801†	-120.5	-69.5	-0.4962	ug/L	-0.4962 ppb	23:49:56
3	U 409.014†	-10182.3	-7536.9	-249.09	ug/L	-249.09 ppb	23:49:31
3	V 292.402†	11348.5	12082.0	75.023	ug/L	75.023 ppb	23:49:36
3	Zn 213.857†	24830.6	22496.3	217.30	ug/L	217.30 ppb	23:49:36
3	SiO2†	225817.6	211956.6	15195	ug/L	15195 ppb	23:50:12

Mean Data: 1202004428|941050|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	869502.2	106.84	%	0.657				0.61%
Sc Radial	5108.7	107	%	1.7				1.59%
Y 371.029	876149.7	127.73	%	0.679				0.53%
Y RADIAL	6635.9	129.4	%	1.89				1.46%
Ag 328.068†	-4326.6	2.0631	ug/L	0.37035	2.0631	ppb	0.37035	17.95%
Al 396.153Radial†	37247.2	29881	ug/L	75.2	29881	ppb	75.2	0.25%
As 188.979†	-3.1	28.188	ug/L	2.2208	28.188	ppb	2.2208	7.88%
B 249.677†	579.7	2.5867	ug/L	0.29718	2.5867	ppb	0.29718	11.49%
Ba 233.527†	38723.8	323.43	ug/L	0.869	323.43	ppb	0.869	0.27%
Be 313.107†	3274.4	4.7271	ug/L	0.03384	4.7271	ppb	0.03384	0.72%
Ca 317.933Radial†	4290.7	7225.3	ug/L	55.28	7225.3	ppb	55.28	0.77%
Cd 226.502†	609.2	-0.1816	ug/L	0.05314	-0.1816	ppb	0.05314	29.26%
Co 228.616†	896.4	15.398	ug/L	0.2190	15.398	ppb	0.2190	1.42%
Cr 267.716†	12881.7	153.57	ug/L	0.488	153.57	ppb	0.488	0.32%
Cu 324.752†	7074.9	26.456	ug/L	0.0516	26.456	ppb	0.0516	0.19%
Fe 238.204 Radial†	7510.5	70605	ug/L	143.6	70605	ppb	143.6	0.20%
K 766.490 Radial†	22302.7	4464.5	ug/L	4.56	4464.5	ppb	4.56	0.10%

Mg 279.077 IEC†	159.6	5528.6	ug/L	137.06	5528.6	ppb	137.06	2.48%
Mn 257.610†	1688983.4	1987.3	ug/L	2.45	1987.3	ppb	2.45	0.12%
Mo 202.031†	139.6	15.932	ug/L	0.3412	15.932	ppb	0.3412	2.14%
Na 589.592 Radial†	4373.8	1417.1	ug/L	1.67	1417.1	ppb	1.67	0.12%
Ni 231.604†	1132.1	29.789	ug/L	0.3731	29.789	ppb	0.3731	1.25%
P 214.914†	1200.8	712.37	ug/L	5.596	712.37	ppb	5.596	0.79%
Pb 220.353†	437.2	55.782	ug/L	0.3363	55.782	ppb	0.3363	0.60%
S 181.975 Axial†	180.6	263.91	ug/L	5.446	263.91	ppb	5.446	2.06%
Sb 206.836†	15.6	2.0675	ug/L	0.71814	2.0675	ppb	0.71814	34.73%
Se 196.026†	-287.9	40.292	ug/L	3.0135	40.292	ppb	3.0135	7.48%
Si 251.611†	209173.7	7052.5	ug/L	40.98	7052.5	ppb	40.98	0.58%
Sn 189.927†	-39.3	-4.9739	ug/L	0.77761	-4.9739	ppb	0.77761	15.63%
Sr 421.552†	7828.1	55.744	ug/L	0.1120	55.744	ppb	0.1120	0.20%
Ti 334.940†	879800.1	1509.9	ug/L	1.86	1509.9	ppb	1.86	0.12%
Tl 190.801†	-74.5	-2.1058	ug/L	2.73847	-2.1058	ppb	2.73847	130.04%
U 409.014†	-7585.2	-250.64	ug/L	2.155	-250.64	ppb	2.155	0.86%
V 292.402†	12157.4	75.556	ug/L	0.4894	75.556	ppb	0.4894	0.65%
Zn 213.857†	22569.8	218.03	ug/L	0.753	218.03	ppb	0.753	0.35%
SiO2†	210356.5	15081	ug/L	100.8	15081	ppb	100.8	0.67%

Sequence No.: 77
Sample ID: 1202004429|941050|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 84
Date Collected: 1/14/2010 23:52:24
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202004429|941050|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5091.0	5091.0	106	%			23:54:37
1	Y RADIAL	6942.0	6942.0	135.3	%			23:54:37
1	Al 396.153Radial†	72448.0	68185.8	54680	ug/L	54680	ppb	23:54:17
1	Ca 317.933Radial†	6837.1	6419.4	10810	ug/L	10810	ppb	23:54:37
1	Fe 238.204 Radial†	8648.3	8129.2	76434	ug/L	76434	ppb	23:54:17
1	K 766.490 Radial†	57264.1	51105.1	10231	ug/L	10231	ppb	23:54:17
1	Mg 279.077 IEC†	366.1	343.0	11967	ug/L	11967	ppb	23:54:37
1	Na 589.592 Radial†	18429.6	18911.5	6127.4	ug/L	6127.4	ppb	23:54:17
1	Sr 421.552†	80807.4	76032.5	541.87	ug/L	541.87	ppb	23:54:17
1	Sc 361.383	883865.0	883865.0	108.60	%			23:55:36
1	Y 371.029	940381.8	940381.8	137.09	%			23:55:36
1	Ag 328.068†	100180.8	91965.2	478.40	ug/L	478.40	ppb	23:55:36
1	As 188.979†	1084.0	1017.0	491.19	ug/L	491.19	ppb	23:55:56
1	B 249.677†	20304.7	19215.2	453.93	ug/L	453.93	ppb	23:55:36
1	Ba 233.527†	98752.5	90930.2	757.49	ug/L	757.49	ppb	23:55:36
1	Be 313.107†	1294617.3	1196399.9	479.55	ug/L	479.55	ppb	23:55:36
1	Cd 226.502†	42210.9	39065.5	450.32	ug/L	450.32	ppb	23:55:56
1	Co 228.616†	23291.4	21519.5	463.38	ug/L	463.38	ppb	23:55:56
1	Cr 267.716†	52740.3	48467.7	573.96	ug/L	573.96	ppb	23:55:36
1	Cu 324.752†	179800.5	159262.8	512.33	ug/L	512.33	ppb	23:55:36
1	Mn 257.610†	2365377.1	2177642.3	2560.6	ug/L	2560.6	ppb	23:55:36
1	Mo 202.031†	6778.3	6222.2	467.94	ug/L	467.94	ppb	23:55:56
1	Ni 231.604†	20219.5	18543.1	487.85	ug/L	487.85	ppb	23:55:56
1	P 214.914†	2136.3	1739.3	965.50	ug/L	965.50	ppb	23:55:56
1	Pb 220.353†	4225.2	3955.2	512.05	ug/L	512.05	ppb	23:55:56
1	S 181.975 Axial†	3692.4	3353.5	4994.5	ug/L	4994.5	ppb	23:55:56
1	Sb 206.836†	1354.0	1214.1	456.38	ug/L	456.38	ppb	23:55:56
1	Se 196.026†	400.3	399.0	521.35	ug/L	521.35	ppb	23:55:56
1	Si 251.611†	302431.4	278033.9	9368.7	ug/L	9368.7	ppb	23:55:36
1	Sn 189.927†	2754.2	2530.0	470.81	ug/L	470.81	ppb	23:55:56
1	Ti 334.940†	1219007.5	1123852.9	1928.2	ug/L	1928.2	ppb	23:55:36
1	Tl 190.801†	1432.1	1362.6	461.01	ug/L	461.01	ppb	23:55:56
1	U 409.014†	5412.3	7024.6	214.36	ug/L	214.36	ppb	23:55:36
1	V 292.402†	79221.0	74354.1	530.19	ug/L	530.19	ppb	23:55:36
1	Zn 213.857†	77442.1	70448.6	691.40	ug/L	691.40	ppb	23:55:36
1	SiO2†	306793.3	282040.0	20207	ug/L	20207	ppb	23:56:56
2	Sc Radial	5050.4	5050.4	105	%			23:55:02
2	Y RADIAL	6886.2	6886.2	134.2	%			23:55:02
2	Al 396.153Radial†	70871.0	67238.5	53920	ug/L	53920	ppb	23:54:42
2	Ca 317.933Radial†	6758.3	6396.5	10771	ug/L	10771	ppb	23:55:02
2	Fe 238.204 Radial†	8456.8	8013.1	75343	ug/L	75343	ppb	23:54:42
2	K 766.490 Radial†	56222.2	50550.6	10120	ug/L	10120	ppb	23:54:42
2	Mg 279.077 IEC†	361.8	341.7	11922	ug/L	11922	ppb	23:55:02
2	Na 589.592 Radial†	18009.0	18652.0	6043.4	ug/L	6043.4	ppb	23:54:42
2	Sr 421.552†	79214.7	75133.7	535.47	ug/L	535.47	ppb	23:54:42
2	Sc 361.383	865610.1	865610.1	106.36	%			23:56:03
2	Y 371.029	924063.0	924063.0	134.71	%			23:56:03
2	Ag 328.068†	100371.8	94090.2	488.54	ug/L	488.54	ppb	23:56:03
2	As 188.979†	1084.0	1038.0	500.85	ug/L	500.85	ppb	23:56:23
2	B 249.677†	20322.1	19625.8	464.08	ug/L	464.08	ppb	23:56:03
2	Ba 233.527†	99299.5	93362.1	777.65	ug/L	777.65	ppb	23:56:03
2	Be 313.107†	1298853.1	1225522.6	491.23	ug/L	491.23	ppb	23:56:03
2	Cd 226.502†	41710.0	39414.2	454.53	ug/L	454.53	ppb	23:56:23
2	Co 228.616†	23076.1	21769.4	468.73	ug/L	468.73	ppb	23:56:23
2	Cr 267.716†	52981.2	49718.4	588.71	ug/L	588.71	ppb	23:56:03
2	Cu 324.752†	180332.3	163254.4	525.01	ug/L	525.01	ppb	23:56:03
2	Mn 257.610†	2379558.2	2236908.7	2630.0	ug/L	2630.0	ppb	23:56:03
2	Mo 202.031†	6707.3	6287.0	472.67	ug/L	472.67	ppb	23:56:23
2	Ni 231.604†	19992.5	18722.3	492.57	ug/L	492.57	ppb	23:56:23

2	P 214.914†	2116.2	1761.8	978.07 ug/L	978.07 ppb	23:56:23
2	Pb 220.353†	4192.2	4006.1	518.52 ug/L	518.52 ppb	23:56:23
2	S 181.975 Axial†	3651.5	3386.7	5044.2 ug/L	5044.2 ppb	23:56:23
2	Sb 206.836†	1339.7	1226.9	461.10 ug/L	461.10 ppb	23:56:23
2	Se 196.026†	391.0	398.0	517.08 ug/L	517.08 ppb	23:56:23
2	Si 251.611†	303486.6	284898.9	9600.1 ug/L	9600.1 ppb	23:56:03
2	Sn 189.927†	2717.2	2548.6	474.23 ug/L	474.23 ppb	23:56:23
2	Ti 334.940†	1225103.6	1153256.4	1978.6 ug/L	1978.6 ppb	23:56:03
2	Tl 190.801†	1413.7	1373.0	465.07 ug/L	465.07 ppb	23:56:23
2	U 409.014†	5499.5	7211.7	220.42 ug/L	220.42 ppb	23:56:03
2	V 292.402†	79596.4	76245.5	544.02 ug/L	544.02 ppb	23:56:03
2	Zn 213.857†	77756.2	72247.8	709.40 ug/L	709.40 ppb	23:56:03
2	SiO2†	305593.5	286869.5	20554 ug/L	20554 ppb	23:57:01
3	Sc Radial	5076.6	5076.6	106 %		23:55:27
3	Y RADIAL	6942.9	6942.9	135.4 %		23:55:27
3	Al 396.153Radial†	70978.7	66993.0	53723 ug/L	53723 ppb	23:55:07
3	Ca 317.933Radial†	6779.8	6383.7	10750 ug/L	10750 ppb	23:55:27
3	Fe 238.204 Radial†	8456.6	7971.4	74951 ug/L	74951 ppb	23:55:07
3	K 766.490 Radial†	56507.9	50544.8	10119 ug/L	10119 ppb	23:55:07
3	Mg 279.077 IEC†	367.2	345.1	12042 ug/L	12042 ppb	23:55:27
3	Na 589.592 Radial†	18071.1	18622.4	6033.8 ug/L	6033.8 ppb	23:55:07
3	Sr 421.552†	79420.9	74940.3	534.09 ug/L	534.09 ppb	23:55:07
3	Sc 361.383	866701.0	866701.0	106.49 %		23:56:30
3	Y 371.029	925522.6	925522.6	134.92 %		23:56:30
3	Ag 328.068†	100504.6	94096.2	488.43 ug/L	488.43 ppb	23:56:30
3	As 188.979†	1081.9	1034.8	499.28 ug/L	499.28 ppb	23:56:50
3	B 249.677†	20453.0	19724.7	466.55 ug/L	466.55 ppb	23:56:30
3	Ba 233.527†	99389.7	93329.3	777.37 ug/L	777.37 ppb	23:56:30
3	Be 313.107†	1300093.5	1225150.2	491.09 ug/L	491.09 ppb	23:56:30
3	Cd 226.502†	41962.7	39602.1	456.77 ug/L	456.77 ppb	23:56:50
3	Co 228.616†	23223.4	21880.3	471.16 ug/L	471.16 ppb	23:56:50
3	Cr 267.716†	52950.4	49626.7	587.62 ug/L	587.62 ppb	23:56:30
3	Cu 324.752†	180840.2	163517.9	525.83 ug/L	525.83 ppb	23:56:30
3	Mn 257.610†	2379966.3	2234476.0	2627.1 ug/L	2627.1 ppb	23:56:30
3	Mo 202.031†	6761.5	6330.0	475.83 ug/L	475.83 ppb	23:56:50
3	Ni 231.604†	20089.5	18789.7	494.34 ug/L	494.34 ppb	23:56:50
3	P 214.914†	2108.2	1751.8	971.85 ug/L	971.85 ppb	23:56:50
3	Pb 220.353†	4206.9	4015.0	519.66 ug/L	519.66 ppb	23:56:50
3	S 181.975 Axial†	3668.2	3398.1	5061.3 ug/L	5061.3 ppb	23:56:50
3	Sb 206.836†	1350.5	1235.5	464.36 ug/L	464.36 ppb	23:56:50
3	Se 196.026†	392.5	398.9	516.44 ug/L	516.44 ppb	23:56:50
3	Si 251.611†	305299.7	286242.3	9645.4 ug/L	9645.4 ppb	23:56:30
3	Sn 189.927†	2746.6	2573.1	478.75 ug/L	478.75 ppb	23:56:50
3	Ti 334.940†	1226856.4	1153452.6	1978.9 ug/L	1978.9 ppb	23:56:30
3	Tl 190.801†	1425.0	1382.0	467.93 ug/L	467.93 ppb	23:56:50
3	U 409.014†	5697.2	7390.8	226.19 ug/L	226.19 ppb	23:56:30
3	V 292.402†	79624.9	76178.0	543.64 ug/L	543.64 ppb	23:56:30
3	Zn 213.857†	77803.7	72200.4	708.95 ug/L	708.95 ppb	23:56:30
3	SiO2†	311054.1	291635.6	20895 ug/L	20895 ppb	23:57:06

Mean Data: 1202004429|941050|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	872058.7	107.15	%	1.258				1.17%
Sc Radial	5072.7	106	%	0.4				0.41%
Y 371.029	929989.1	135.57	%	1.316				0.97%
Y RADIAL	6923.7	135.0	%	0.63				0.47%
Ag 328.068†	93383.8	485.12	ug/L	5.823	485.12	ppb	5.823	1.20%
Al 396.153Radial†	67472.5	54108	ug/L	505.5	54108	ppb	505.5	0.93%
As 188.979†	1029.9	497.11	ug/L	5.183	497.11	ppb	5.183	1.04%
B 249.677†	19521.9	461.52	ug/L	6.689	461.52	ppb	6.689	1.45%
Ba 233.527†	92540.5	770.84	ug/L	11.559	770.84	ppb	11.559	1.50%
Be 313.107†	1215690.9	487.29	ug/L	6.702	487.29	ppb	6.702	1.38%
Ca 317.933Radial†	6399.8	10777	ug/L	30.5	10777	ppb	30.5	0.28%
Cd 226.502†	39360.6	453.87	ug/L	3.274	453.87	ppb	3.274	0.72%
Co 228.616†	21723.1	467.76	ug/L	3.978	467.76	ppb	3.978	0.85%
Cr 267.716†	49270.9	583.43	ug/L	8.219	583.43	ppb	8.219	1.41%
Cu 324.752†	162011.7	521.06	ug/L	7.568	521.06	ppb	7.568	1.45%
Fe 238.204 Radial†	8037.9	75576	ug/L	768.5	75576	ppb	768.5	1.02%
K 766.490 Radial†	50733.5	10157	ug/L	64.5	10157	ppb	64.5	0.63%

Mg 279.077 IEC†	343.3	11977	ug/L	60.7	11977	ppb	60.7	0.51%
Mn 257.610†	2216342.3	2605.9	ug/L	39.25	2605.9	ppb	39.25	1.51%
Mo 202.031†	6279.7	472.14	ug/L	3.971	472.14	ppb	3.971	0.84%
Na 589.592 Radial†	18728.7	6068.2	ug/L	51.53	6068.2	ppb	51.53	0.85%
Ni 231.604†	18685.0	491.59	ug/L	3.353	491.59	ppb	3.353	0.68%
P 214.914†	1751.0	971.80	ug/L	6.287	971.80	ppb	6.287	0.65%
Pb 220.353†	3992.1	516.74	ug/L	4.105	516.74	ppb	4.105	0.79%
S 181.975 Axial†	3379.5	5033.3	ug/L	34.68	5033.3	ppb	34.68	0.69%
Sb 206.836†	1225.5	460.61	ug/L	4.011	460.61	ppb	4.011	0.87%
Se 196.026†	398.6	518.29	ug/L	2.669	518.29	ppb	2.669	0.52%
Si 251.611†	283058.4	9538.0	ug/L	148.40	9538.0	ppb	148.40	1.56%
Sn 189.927†	2550.6	474.60	ug/L	3.981	474.60	ppb	3.981	0.84%
Sr 421.552†	75368.8	537.14	ug/L	4.154	537.14	ppb	4.154	0.77%
Ti 334.940†	1143520.6	1961.9	ug/L	29.21	1961.9	ppb	29.21	1.49%
Tl 190.801†	1372.5	464.67	ug/L	3.475	464.67	ppb	3.475	0.75%
U 409.014†	7209.1	220.32	ug/L	5.918	220.32	ppb	5.918	2.69%
V 292.402†	75592.5	539.28	ug/L	7.876	539.28	ppb	7.876	1.46%
Zn 213.857†	71632.2	703.25	ug/L	10.267	703.25	ppb	10.267	1.46%
SiO2†	286848.4	20552	ug/L	343.9	20552	ppb	343.9	1.67%

Sequence No.: 78
Sample ID: 1202004431|941050|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 85
Date Collected: 1/14/2010 23:59:18
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202004431|941050|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5056.1	5056.1	106	%			00:01:31
1	Y RADIAL	6699.3	6699.3	130.6	%			00:01:31
1	Al 396.153Radial†	83480.2	79111.5	63445	ug/L	63445	ppb	00:01:11
1	Ca 317.933Radial†	7676.7	7259.5	12225	ug/L	12225	ppb	00:01:31
1	Fe 238.204 Radial†	9455.7	8950.6	84157	ug/L	84157	ppb	00:01:11
1	K 766.490 Radial†	60992.0	55010.4	11013	ug/L	11013	ppb	00:01:11
1	Mg 279.077 IEC†	410.7	387.7	13526	ug/L	13526	ppb	00:01:31
1	Na 589.592 Radial†	18634.5	19225.5	6229.2	ug/L	6229.2	ppb	00:01:11
1	Sr 421.552†	80680.9	76438.4	544.75	ug/L	544.75	ppb	00:01:11
1	Sc 361.383	861826.7	861826.7	105.89	%			00:02:30
1	Y 371.029	894712.6	894712.6	130.43	%			00:02:30
1	Ag 328.068†	100886.9	94990.9	495.87	ug/L	495.87	ppb	00:02:30
1	As 188.979†	1079.7	1038.4	505.29	ug/L	505.29	ppb	00:02:51
1	B 249.677†	20697.2	20063.9	473.29	ug/L	473.29	ppb	00:02:30
1	Ba 233.527†	102652.4	96938.3	807.62	ug/L	807.62	ppb	00:02:30
1	Be 313.107†	1312767.6	1244023.7	499.16	ug/L	499.16	ppb	00:02:30
1	Cd 226.502†	43232.4	41024.1	472.49	ug/L	472.49	ppb	00:02:30
1	Co 228.616†	23386.7	22157.9	476.54	ug/L	476.54	ppb	00:02:51
1	Cr 267.716†	52533.1	49513.9	586.50	ug/L	586.50	ppb	00:02:30
1	Cu 324.752†	182788.0	166317.7	535.26	ug/L	535.26	ppb	00:02:30
1	Mn 257.610†	2213080.8	2089517.5	2458.0	ug/L	2458.0	ppb	00:02:30
1	Mo 202.031†	6736.5	6342.3	477.47	ug/L	477.47	ppb	00:02:51
1	Ni 231.604†	20244.2	19042.5	500.99	ug/L	500.99	ppb	00:02:51
1	P 214.914†	2304.1	1948.0	1090.3	ug/L	1090.3	ppb	00:02:51
1	Pb 220.353†	4240.2	4068.8	527.78	ug/L	527.78	ppb	00:02:51
1	S 181.975 Axial†	3688.7	3437.0	5117.4	ug/L	5117.4	ppb	00:02:51
1	Sb 206.836†	1344.2	1236.7	464.03	ug/L	464.03	ppb	00:02:51
1	Se 196.026†	372.5	382.1	535.88	ug/L	535.88	ppb	00:02:51
1	Si 251.611†	331822.7	312910.7	10545	ug/L	10545	ppb	00:02:30
1	Sn 189.927†	2745.6	2586.7	481.65	ug/L	481.65	ppb	00:02:51
1	Ti 334.940†	1377156.1	1301903.7	2233.7	ug/L	2233.7	ppb	00:02:30
1	Tl 190.801†	1421.8	1386.6	470.61	ug/L	470.61	ppb	00:02:51
1	U 409.014†	5598.3	7327.7	223.13	ug/L	223.13	ppb	00:02:30
1	V 292.402†	81936.0	78783.3	560.87	ug/L	560.87	ppb	00:02:30
1	Zn 213.857†	78686.3	73447.0	720.44	ug/L	720.44	ppb	00:02:30
1	SiO2†	332056.4	313121.1	22435	ug/L	22435	ppb	00:03:51
2	Sc Radial	5051.2	5051.2	105	%			00:01:56
2	Y RADIAL	6695.7	6695.7	130.5	%			00:01:56
2	Al 396.153Radial†	83472.7	79180.7	63501	ug/L	63501	ppb	00:01:36
2	Ca 317.933Radial†	7637.7	7229.6	12174	ug/L	12174	ppb	00:01:56
2	Fe 238.204 Radial†	9439.7	8944.1	84095	ug/L	84095	ppb	00:01:36
2	K 766.490 Radial†	60826.8	54909.4	10993	ug/L	10993	ppb	00:01:36
2	Mg 279.077 IEC†	407.4	385.0	13432	ug/L	13432	ppb	00:01:56
2	Na 589.592 Radial†	18463.3	19080.1	6182.1	ug/L	6182.1	ppb	00:01:36
2	Sr 421.552†	80633.3	76467.0	544.96	ug/L	544.96	ppb	00:01:36
2	Sc 361.383	870830.9	870830.9	107.00	%			00:02:58
2	Y 371.029	903023.0	903023.0	131.64	%			00:02:58
2	Ag 328.068†	101847.1	94903.3	495.42	ug/L	495.42	ppb	00:02:58
2	As 188.979†	1072.4	1021.1	497.51	ug/L	497.51	ppb	00:03:18
2	B 249.677†	20874.9	20027.9	472.45	ug/L	472.45	ppb	00:02:58
2	Ba 233.527†	103736.7	96949.3	807.71	ug/L	807.71	ppb	00:02:58
2	Be 313.107†	1326008.6	1243580.2	498.99	ug/L	498.99	ppb	00:02:58
2	Cd 226.502†	43611.0	40955.7	471.69	ug/L	471.69	ppb	00:02:58
2	Co 228.616†	23241.3	21793.7	468.60	ug/L	468.60	ppb	00:03:18
2	Cr 267.716†	52949.3	49389.9	585.03	ug/L	585.03	ppb	00:02:58
2	Cu 324.752†	184966.4	166568.8	536.06	ug/L	536.06	ppb	00:02:58
2	Mn 257.610†	2236771.4	2090049.1	2458.6	ug/L	2458.6	ppb	00:02:58
2	Mo 202.031†	6672.7	6216.9	468.16	ug/L	468.16	ppb	00:03:18
2	Ni 231.604†	20126.5	18734.8	492.89	ug/L	492.89	ppb	00:03:18

2	P 214.914†	2300.5	1922.1	1073.6 ug/L	1073.6 ppb	00:03:18
2	Pb 220.353†	4241.3	4028.4	522.59 ug/L	522.59 ppb	00:03:18
2	S 181.975 Axial†	3679.8	3392.6	5051.2 ug/L	5051.2 ppb	00:03:18
2	Sb 206.836†	1345.3	1224.6	459.25 ug/L	459.25 ppb	00:03:18
2	Se 196.026†	357.6	364.5	523.88 ug/L	523.88 ppb	00:03:18
2	Si 251.611†	336328.0	313881.3	10577 ug/L	10577 ppb	00:02:58
2	Sn 189.927†	2711.1	2527.6	470.71 ug/L	470.71 ppb	00:03:18
2	Ti 334.940†	1393765.1	1303979.2	2237.3 ug/L	2237.3 ppb	00:02:58
2	Tl 190.801†	1425.2	1375.8	467.24 ug/L	467.24 ppb	00:03:18
2	U 409.014†	5669.9	7340.0	223.53 ug/L	223.53 ppb	00:02:58
2	V 292.402†	82885.4	78870.6	561.37 ug/L	561.37 ppb	00:02:58
2	Zn 213.857†	79424.7	73368.8	719.71 ug/L	719.71 ppb	00:02:58
2	SiO2†	333913.0	311613.9	22328 ug/L	22328 ppb	00:03:56
3	Sc Radial	5046.0	5046.0	105 %		00:02:22
3	Y RADIAL	6702.4	6702.4	130.7 %		00:02:22
3	Al 396.153Radial†	83869.8	79639.7	63869 ug/L	63869 ppb	00:02:02
3	Ca 317.933Radial†	7663.4	7261.5	12228 ug/L	12228 ppb	00:02:22
3	Fe 238.204 Radial†	9427.2	8941.4	84070 ug/L	84070 ppb	00:02:02
3	K 766.490 Radial†	61254.1	55374.8	11086 ug/L	11086 ppb	00:02:02
3	Mg 279.077 IEC†	410.4	388.2	13546 ug/L	13546 ppb	00:02:22
3	Na 589.592 Radial†	18500.0	19133.2	6199.3 ug/L	6199.3 ppb	00:02:02
3	Sr 421.552†	80981.9	76877.1	547.88 ug/L	547.88 ppb	00:02:02
3	Sc 361.383	852288.7	852288.7	104.72 %		00:03:25
3	Y 371.029	884559.0	884559.0	128.95 %		00:03:25
3	Ag 328.068†	99617.3	94844.7	495.12 ug/L	495.12 ppb	00:03:25
3	As 188.979†	1063.1	1034.0	503.26 ug/L	503.26 ppb	00:03:45
3	B 249.677†	20427.2	20024.9	472.34 ug/L	472.34 ppb	00:03:25
3	Ba 233.527†	101416.5	96842.9	806.82 ug/L	806.82 ppb	00:03:25
3	Be 313.107†	1293867.4	1239849.4	497.50 ug/L	497.50 ppb	00:03:25
3	Cd 226.502†	42553.8	40832.9	470.26 ug/L	470.26 ppb	00:03:25
3	Co 228.616†	23323.6	22344.8	480.61 ug/L	480.61 ppb	00:03:45
3	Cr 267.716†	51778.1	49348.1	584.54 ug/L	584.54 ppb	00:03:25
3	Cu 324.752†	180609.8	166169.5	534.78 ug/L	534.78 ppb	00:03:25
3	Mn 257.610†	2184586.1	2085696.0	2453.5 ug/L	2453.5 ppb	00:03:25
3	Mo 202.031†	6732.2	6409.4	482.45 ug/L	482.45 ppb	00:03:45
3	Ni 231.604†	20248.2	19260.3	506.72 ug/L	506.72 ppb	00:03:45
3	P 214.914†	2284.8	1953.9	1094.4 ug/L	1094.4 ppb	00:03:45
3	Pb 220.353†	4210.2	4085.0	529.96 ug/L	529.96 ppb	00:03:45
3	S 181.975 Axial†	3693.1	3480.1	5181.7 ug/L	5181.7 ppb	00:03:45
3	Sb 206.836†	1347.7	1254.2	470.58 ug/L	470.58 ppb	00:03:45
3	Se 196.026†	352.9	367.4	525.75 ug/L	525.75 ppb	00:03:45
3	Si 251.611†	329320.5	314028.2	10582 ug/L	10582 ppb	00:03:25
3	Sn 189.927†	2724.8	2595.8	483.33 ug/L	483.33 ppb	00:03:45
3	Ti 334.940†	1360661.0	1300706.5	2231.6 ug/L	2231.6 ppb	00:03:25
3	Tl 190.801†	1418.4	1398.3	474.32 ug/L	474.32 ppb	00:03:45
3	U 409.014†	5474.4	7268.6	221.25 ug/L	221.25 ppb	00:03:25
3	V 292.402†	80896.0	78656.2	560.03 ug/L	560.03 ppb	00:03:25
3	Zn 213.857†	77516.3	73161.4	717.56 ug/L	717.56 ppb	00:03:25
3	SiO2†	332272.9	316837.1	22702 ug/L	22702 ppb	00:04:01

Mean Data: 1202004431|941050|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	861648.8	105.87	%	1.139				1.08%
Sc Radial	5051.1	105	%	0.1				0.10%
Y 371.029	894098.2	130.34	%	1.348				1.03%
Y RADIAL	6699.1	130.6	%	0.07				0.05%
Ag 328.068†	94913.0	495.47	ug/L	0.377	495.47	ppb	0.377	0.08%
Al 396.153Radial†	79310.7	63605	ug/L	230.1	63605	ppb	230.1	0.36%
As 188.979†	1031.2	502.02	ug/L	4.033	502.02	ppb	4.033	0.80%
B 249.677†	20038.9	472.69	ug/L	0.520	472.69	ppb	0.520	0.11%
Ba 233.527†	96910.2	807.38	ug/L	0.487	807.38	ppb	0.487	0.06%
Be 313.107†	1242484.4	498.55	ug/L	0.915	498.55	ppb	0.915	0.18%
Ca 317.933Radial†	7250.2	12209	ug/L	30.1	12209	ppb	30.1	0.25%
Cd 226.502†	40937.6	471.48	ug/L	1.129	471.48	ppb	1.129	0.24%
Co 228.616†	22098.8	475.25	ug/L	6.109	475.25	ppb	6.109	1.29%
Cr 267.716†	49417.3	585.36	ug/L	1.018	585.36	ppb	1.018	0.17%
Cu 324.752†	166352.0	535.36	ug/L	0.644	535.36	ppb	0.644	0.12%
Fe 238.204 Radial†	8945.4	84107	ug/L	44.4	84107	ppb	44.4	0.05%
K 766.490 Radial†	55098.2	11031	ug/L	49.0	11031	ppb	49.0	0.44%

Mg 279.077 IEC†	386.9	13501	ug/L	60.9	13501	ppb	60.9	0.45%
Mn 257.610†	2088420.8	2456.7	ug/L	2.79	2456.7	ppb	2.79	0.11%
Mo 202.031†	6322.9	476.03	ug/L	7.253	476.03	ppb	7.253	1.52%
Na 589.592 Radial†	19146.3	6203.5	ug/L	23.84	6203.5	ppb	23.84	0.38%
Ni 231.604†	19012.5	500.20	ug/L	6.947	500.20	ppb	6.947	1.39%
P 214.914†	1941.4	1086.1	ug/L	11.03	1086.1	ppb	11.03	1.02%
Pb 220.353†	4060.8	526.78	ug/L	3.781	526.78	ppb	3.781	0.72%
S 181.975 Axial†	3436.6	5116.8	ug/L	65.29	5116.8	ppb	65.29	1.28%
Sb 206.836†	1238.5	464.62	ug/L	5.689	464.62	ppb	5.689	1.22%
Se 196.026†	371.3	528.50	ug/L	6.453	528.50	ppb	6.453	1.22%
Si 251.611†	313606.7	10568	ug/L	20.5	10568	ppb	20.5	0.19%
Sn 189.927†	2570.0	478.56	ug/L	6.854	478.56	ppb	6.854	1.43%
Sr 421.552†	76594.1	545.86	ug/L	1.749	545.86	ppb	1.749	0.32%
Ti 334.940†	1302196.5	2234.2	ug/L	2.84	2234.2	ppb	2.84	0.13%
Tl 190.801†	1386.9	470.72	ug/L	3.538	470.72	ppb	3.538	0.75%
U 409.014†	7312.1	222.64	ug/L	1.215	222.64	ppb	1.215	0.55%
V 292.402†	78770.1	560.76	ug/L	0.675	560.76	ppb	0.675	0.12%
Zn 213.857†	73325.7	719.24	ug/L	1.496	719.24	ppb	1.496	0.21%
SiO2†	313857.4	22488	ug/L	192.5	22488	ppb	192.5	0.86%

Sequence No.: 79
Sample ID: 1202004430|941050|5
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 86
Date Collected: 1/15/2010 00:06:13
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202004430|941050|5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5071.1	5071.1	106	%			00:08:07
1	Y RADIAL	5677.8	5677.8	110.7	%			00:08:07
1	Al 396.153Radial†	8633.4	8160.4	6546.7	ug/L	6546.7	ppb	00:08:07
1	Ca 317.933Radial†	1031.0	959.0	1614.9	ug/L	1614.9	ppb	00:08:27
1	Fe 238.204 Radial†	1682.0	1579.4	14847	ug/L	14847	ppb	00:08:27
1	K 766.490 Radial†	8008.6	4779.4	956.68	ug/L	956.68	ppb	00:08:07
1	Mg 279.077 IEC†	41.6	37.8	1311.8	ug/L	1311.8	ppb	00:08:27
1	Na 589.592 Radial†	-471.0	1121.9	363.51	ug/L	363.51	ppb	00:08:07
1	Sr 421.552†	1796.9	1680.5	11.967	ug/L	11.967	ppb	00:08:07
1	Sc 361.383	856137.4	856137.4	105.19	%			00:09:24
1	Y 371.029	748163.1	748163.1	109.07	%			00:09:24
1	Ag 328.068†	-594.7	-847.0	0.7392	ug/L	0.7392	ppb	00:09:24
1	As 188.979†	-26.8	-6.6	3.1246	ug/L	3.1246	ppb	00:09:44
1	B 249.677†	-288.8	244.0	3.5156	ug/L	3.5156	ppb	00:09:24
1	Ba 233.527†	9504.3	9033.6	75.398	ug/L	75.398	ppb	00:09:24
1	Be 313.107†	-3582.2	906.9	1.0499	ug/L	1.0499	ppb	00:09:24
1	Cd 226.502†	-54.2	146.1	0.1728	ug/L	0.1728	ppb	00:09:44
1	Co 228.616†	126.0	192.5	3.3600	ug/L	3.3600	ppb	00:09:44
1	Cr 267.716†	1948.6	1756.7	21.058	ug/L	21.058	ppb	00:09:24
1	Cu 324.752†	8088.6	1391.1	5.2535	ug/L	5.2535	ppb	00:09:24
1	Mn 257.610†	363777.5	345411.7	406.46	ug/L	406.46	ppb	00:09:24
1	Mo 202.031†	41.0	19.7	2.6325	ug/L	2.6325	ppb	00:09:44
1	Ni 231.604†	330.2	238.8	6.2829	ug/L	6.2829	ppb	00:09:44
1	P 214.914†	446.6	196.7	114.31	ug/L	114.31	ppb	00:09:44
1	Pb 220.353†	34.3	97.1	12.455	ug/L	12.455	ppb	00:09:44
1	S 181.975 Axial†	88.5	37.7	55.000	ug/L	55.000	ppb	00:09:44
1	Sb 206.836†	34.6	0.1	-0.7050	ug/L	-0.7050	ppb	00:09:44
1	Se 196.026†	-93.1	-58.1	10.081	ug/L	10.081	ppb	00:09:44
1	Si 251.611†	47969.8	45155.4	1522.5	ug/L	1522.5	ppb	00:09:24
1	Sn 189.927†	-7.1	-12.8	-1.8782	ug/L	-1.8782	ppb	00:09:44
1	Ti 334.940†	184816.5	177078.2	303.91	ug/L	303.91	ppb	00:09:24
1	Tl 190.801†	-55.4	-8.8	1.5933	ug/L	1.5933	ppb	00:09:44
1	U 409.014†	-3739.3	-1513.8	-50.084	ug/L	-50.084	ppb	00:09:24
1	V 292.402†	1202.7	2550.4	15.861	ug/L	15.861	ppb	00:09:24
1	Zn 213.857†	6041.6	4883.0	47.213	ug/L	47.213	ppb	00:09:24
1	SiO2†	46572.7	43817.0	3141.3	ug/L	3141.3	ppb	00:10:40
2	Sc Radial	5093.4	5093.4	106	%			00:08:32
2	Y RADIAL	5691.1	5691.1	110.9	%			00:08:32
2	Al 396.153Radial†	8611.6	8104.1	6501.5	ug/L	6501.5	ppb	00:08:32
2	Ca 317.933Radial†	1034.0	957.5	1612.3	ug/L	1612.3	ppb	00:08:52
2	Fe 238.204 Radial†	1680.9	1571.3	14771	ug/L	14771	ppb	00:08:52
2	K 766.490 Radial†	7890.9	4635.4	927.84	ug/L	927.84	ppb	00:08:32
2	Mg 279.077 IEC†	41.9	37.9	1314.4	ug/L	1314.4	ppb	00:08:52
2	Na 589.592 Radial†	-467.9	1126.7	365.07	ug/L	365.07	ppb	00:08:32
2	Sr 421.552†	1821.9	1696.6	12.081	ug/L	12.081	ppb	00:08:32
2	Sc 361.383	852203.7	852203.7	104.71	%			00:09:49
2	Y 371.029	745007.4	745007.4	108.61	%			00:09:49
2	Ag 328.068†	-637.7	-890.6	0.4970	ug/L	0.4970	ppb	00:09:49
2	As 188.979†	-22.5	-2.6	4.9179	ug/L	4.9179	ppb	00:10:09
2	B 249.677†	-267.7	262.9	3.9878	ug/L	3.9878	ppb	00:09:49
2	Ba 233.527†	9485.1	9056.9	75.588	ug/L	75.588	ppb	00:09:49
2	Be 313.107†	-3646.1	830.2	1.0196	ug/L	1.0196	ppb	00:09:49
2	Cd 226.502†	-53.4	146.5	0.1868	ug/L	0.1868	ppb	00:10:09
2	Co 228.616†	110.8	178.5	3.0572	ug/L	3.0572	ppb	00:10:09
2	Cr 267.716†	1930.5	1747.9	20.952	ug/L	20.952	ppb	00:09:49
2	Cu 324.752†	8104.1	1441.5	5.4089	ug/L	5.4089	ppb	00:09:49
2	Mn 257.610†	362275.2	345573.3	406.64	ug/L	406.64	ppb	00:09:49
2	Mo 202.031†	38.4	17.4	2.4577	ug/L	2.4577	ppb	00:10:09
2	Ni 231.604†	329.5	239.5	6.3034	ug/L	6.3034	ppb	00:10:09

2	P 214.914†	452.7	204.4	119.27 ug/L	119.27 ppb	00:10:09
2	Pb 220.353†	21.4	85.0	10.893 ug/L	10.893 ppb	00:10:09
2	S 181.975 Axial†	94.2	43.5	63.672 ug/L	63.672 ppb	00:10:09
2	Sb 206.836†	37.8	3.4	0.4893 ug/L	0.4893 ppb	00:10:09
2	Se 196.026†	-97.3	-62.6	6.8540 ug/L	6.8540 ppb	00:10:09
2	Si 251.611†	47970.1	45366.1	1529.6 ug/L	1529.6 ppb	00:09:49
2	Sn 189.927†	-2.4	-8.4	-1.0679 ug/L	-1.0679 ppb	00:10:09
2	Ti 334.940†	184016.7	177125.4	303.99 ug/L	303.99 ppb	00:09:49
2	Tl 190.801†	-47.9	-1.8	3.8263 ug/L	3.8263 ppb	00:10:09
2	U 409.014†	-3650.6	-1445.4	-47.894 ug/L	-47.894 ppb	00:09:49
2	V 292.402†	1146.4	2502.0	15.524 ug/L	15.524 ppb	00:09:49
2	Zn 213.857†	6073.5	4939.9	47.788 ug/L	47.788 ppb	00:09:49
2	SiO2†	47582.4	44985.6	3225.1 ug/L	3225.1 ppb	00:10:45
3	Sc Radial	5145.6	5145.6	107 %		00:08:57
3	Y RADIAL	5766.6	5766.6	112.4 %		00:08:57
3	Al 396.153Radial†	8652.0	8059.5	6465.8 ug/L	6465.8 ppb	00:08:57
3	Ca 317.933Radial†	1037.5	950.9	1601.2 ug/L	1601.2 ppb	00:09:17
3	Fe 238.204 Radial†	1680.5	1554.9	14617 ug/L	14617 ppb	00:09:17
3	K 766.490 Radial†	7935.1	4601.3	921.01 ug/L	921.01 ppb	00:08:57
3	Mg 279.077 IEC†	39.1	34.9	1209.9 ug/L	1209.9 ppb	00:09:17
3	Na 589.592 Radial†	-496.3	1104.8	357.96 ug/L	357.96 ppb	00:08:57
3	Sr 421.552†	1752.6	1614.7	11.498 ug/L	11.498 ppb	00:08:57
3	Sc 361.383	844202.9	844202.9	103.73 %		00:10:15
3	Y 371.029	739351.6	739351.6	107.78 %		00:10:15
3	Ag 328.068†	-688.9	-945.7	0.1752 ug/L	0.1752 ppb	00:10:15
3	As 188.979†	-17.9	1.6	6.7572 ug/L	6.7572 ppb	00:10:35
3	B 249.677†	-308.8	220.8	2.9891 ug/L	2.9891 ppb	00:10:15
3	Ba 233.527†	9361.5	9023.6	75.308 ug/L	75.308 ppb	00:10:15
3	Be 313.107†	-3465.6	971.2	1.0736 ug/L	1.0736 ppb	00:10:15
3	Cd 226.502†	-42.9	156.2	0.3167 ug/L	0.3167 ppb	00:10:35
3	Co 228.616†	108.6	177.4	3.0351 ug/L	3.0351 ppb	00:10:35
3	Cr 267.716†	1934.7	1769.4	21.202 ug/L	21.202 ppb	00:10:15
3	Cu 324.752†	7932.5	1349.4	5.1056 ug/L	5.1056 ppb	00:10:15
3	Mn 257.610†	357677.4	344419.7	405.27 ug/L	405.27 ppb	00:10:15
3	Mo 202.031†	36.2	15.6	2.3134 ug/L	2.3134 ppb	00:10:35
3	Ni 231.604†	342.0	254.5	6.6984 ug/L	6.6984 ppb	00:10:35
3	P 214.914†	430.0	186.7	108.10 ug/L	108.10 ppb	00:10:35
3	Pb 220.353†	26.3	89.9	11.533 ug/L	11.533 ppb	00:10:35
3	S 181.975 Axial†	89.4	39.7	58.017 ug/L	58.017 ppb	00:10:35
3	Sb 206.836†	30.8	-3.0	-1.8723 ug/L	-1.8723 ppb	00:10:35
3	Se 196.026†	-101.3	-67.3	3.2103 ug/L	3.2103 ppb	00:10:35
3	Si 251.611†	46973.2	44839.3	1511.8 ug/L	1511.8 ppb	00:10:15
3	Sn 189.927†	-8.7	-14.5	-2.1928 ug/L	-2.1928 ppb	00:10:35
3	Ti 334.940†	181759.5	176614.8	303.12 ug/L	303.12 ppb	00:10:15
3	Tl 190.801†	-52.0	-6.2	2.3999 ug/L	2.3999 ppb	00:10:35
3	U 409.014†	-3536.4	-1368.4	-45.415 ug/L	-45.415 ppb	00:10:15
3	V 292.402†	1162.2	2527.6	15.733 ug/L	15.733 ppb	00:10:15
3	Zn 213.857†	5942.8	4868.9	47.093 ug/L	47.093 ppb	00:10:15
3	SiO2†	47080.6	44932.5	3221.3 ug/L	3221.3 ppb	00:10:50

Mean Data: 1202004430|941050|5

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	850848.0	104.54	%	0.747				0.71%
Sc Radial	5103.4	107	%	0.8				0.75%
Y 371.029	744174.0	108.49	%	0.651				0.60%
Y RADIAL	5711.8	111.4	%	0.93				0.84%
Ag 328.068†	-894.4	0.4705	ug/L	0.28292	0.4705	ppb	0.28292	60.14%
Al 396.153Radial†	8108.0	6504.7	ug/L	40.54	6504.7	ppb	40.54	0.62%
As 188.979†	-2.5	4.9332	ug/L	1.81636	4.9332	ppb	1.81636	36.82%
B 249.677†	242.6	3.4975	ug/L	0.49962	3.4975	ppb	0.49962	14.29%
Ba 233.527†	9038.0	75.431	ug/L	0.1430	75.431	ppb	0.1430	0.19%
Be 313.107†	902.8	1.0477	ug/L	0.02707	1.0477	ppb	0.02707	2.58%
Ca 317.933Radial†	955.8	1609.5	ug/L	7.27	1609.5	ppb	7.27	0.45%
Cd 226.502†	149.6	0.2254	ug/L	0.07932	0.2254	ppb	0.07932	35.19%
Co 228.616†	182.8	3.1508	ug/L	0.18152	3.1508	ppb	0.18152	5.76%
Cr 267.716†	1758.0	21.071	ug/L	0.1257	21.071	ppb	0.1257	0.60%
Cu 324.752†	1394.0	5.2560	ug/L	0.15170	5.2560	ppb	0.15170	2.89%
Fe 238.204 Radial†	1568.5	14745	ug/L	117.2	14745	ppb	117.2	0.80%
K 766.490 Radial†	4672.0	935.17	ug/L	18.935	935.17	ppb	18.935	2.02%

Mg 279.077 IEC†	36.9	1278.7	ug/L	59.62	1278.7	ppb	59.62	4.66%
Mn 257.610†	345134.9	406.12	ug/L	0.740	406.12	ppb	0.740	0.18%
Mo 202.031†	17.6	2.4679	ug/L	0.15976	2.4679	ppb	0.15976	6.47%
Na 589.592 Radial†	1117.8	362.18	ug/L	3.738	362.18	ppb	3.738	1.03%
Ni 231.604†	244.3	6.4282	ug/L	0.23419	6.4282	ppb	0.23419	3.64%
P 214.914†	195.9	113.89	ug/L	5.600	113.89	ppb	5.600	4.92%
Pb 220.353†	90.7	11.627	ug/L	0.7852	11.627	ppb	0.7852	6.75%
S 181.975 Axial†	40.3	58.896	ug/L	4.4021	58.896	ppb	4.4021	7.47%
Sb 206.836†	0.2	-0.6960	ug/L	1.18083	-0.6960	ppb	1.18083	169.66%
Se 196.026†	-62.7	6.7151	ug/L	3.43743	6.7151	ppb	3.43743	51.19%
Si 251.611†	45120.3	1521.3	ug/L	8.94	1521.3	ppb	8.94	0.59%
Sn 189.927†	-11.9	-1.7130	ug/L	0.58038	-1.7130	ppb	0.58038	33.88%
Sr 421.552†	1664.0	11.849	ug/L	0.3092	11.849	ppb	0.3092	2.61%
Ti 334.940†	176939.5	303.67	ug/L	0.481	303.67	ppb	0.481	0.16%
Tl 190.801†	-5.6	2.6065	ug/L	1.13070	2.6065	ppb	1.13070	43.38%
U 409.014†	-1442.5	-47.798	ug/L	2.3363	-47.798	ppb	2.3363	4.89%
V 292.402†	2526.7	15.706	ug/L	0.1699	15.706	ppb	0.1699	1.08%
Zn 213.857†	4897.3	47.365	ug/L	0.3717	47.365	ppb	0.3717	0.78%
SiO2†	44578.4	3195.9	ug/L	47.31	3195.9	ppb	47.31	1.48%

Sequence No.: 80
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 1/15/2010 00:13:02
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5001.0	5001.0	104	%			00:14:53
1	Y RADIAL	5344.0	5344.0	104.2	%			00:14:53
1	Al 396.153Radial†	6503.4	6234.0	4976.4	ug/L	4976.4	ppb	00:14:53
1	Ca 317.933Radial†	3177.6	3029.2	5101.1	ug/L	5101.1	ppb	00:15:13
1	Fe 238.204 Radial†	591.9	557.2	5253.9	ug/L	5253.9	ppb	00:15:13
1	K 766.490 Radial†	29677.3	25645.4	5131.4	ug/L	5131.4	ppb	00:14:53
1	Mg 279.077 IEC†	158.8	150.6	5286.7	ug/L	5286.7	ppb	00:15:13
1	Na 589.592 Radial†	31026.7	31292.7	10139	ug/L	10139	ppb	00:14:53
1	Sr 421.552†	75515.3	72331.7	515.53	ug/L	515.53	ppb	00:14:53
1	Sc 361.383	852356.1	852356.1	104.73	%			00:16:11
1	Y 371.029	708980.7	708980.7	103.36	%			00:16:11
1	Ag 328.068†	107431.3	102298.4	505.86	ug/L	505.86	ppb	00:16:16
1	As 188.979†	1171.1	1137.0	516.16	ug/L	516.16	ppb	00:16:36
1	B 249.677†	21641.3	21182.5	513.22	ug/L	513.22	ppb	00:16:16
1	Ba 233.527†	65122.3	62180.0	516.89	ug/L	516.89	ppb	00:16:16
1	Be 313.107†	1364223.1	1306930.1	520.24	ug/L	520.24	ppb	00:16:11
1	Cd 226.502†	46379.4	44482.6	521.25	ug/L	521.25	ppb	00:16:16
1	Co 228.616†	24971.7	23916.7	519.47	ug/L	519.47	ppb	00:16:16
1	Cr 267.716†	45866.1	43699.2	516.17	ug/L	516.17	ppb	00:16:16
1	Cu 324.752†	174525.9	160346.6	511.85	ug/L	511.85	ppb	00:16:16
1	Mn 257.610†	460004.1	438827.1	514.89	ug/L	514.89	ppb	00:16:11
1	Mo 202.031†	7272.6	6924.9	514.51	ug/L	514.51	ppb	00:16:36
1	Ni 231.604†	20809.4	19794.5	520.76	ug/L	520.76	ppb	00:16:16
1	P 214.914†	4439.1	4010.8	2459.9	ug/L	2459.9	ppb	00:16:36
1	Pb 220.353†	4117.7	3996.4	513.53	ug/L	513.53	ppb	00:16:36
1	S 181.975 Axial†	781.1	699.3	1042.7	ug/L	1042.7	ppb	00:16:36
1	Sb 206.836†	1497.9	1397.5	529.43	ug/L	529.43	ppb	00:16:36
1	Se 196.026†	786.2	781.1	541.38	ug/L	541.38	ppb	00:16:36
1	Si 251.611†	82660.1	78481.5	2639.8	ug/L	2639.8	ppb	00:16:16
1	Sn 189.927†	2928.7	2790.3	516.88	ug/L	516.88	ppb	00:16:36
1	Ti 334.940†	310814.3	298165.7	511.35	ug/L	511.35	ppb	00:16:16
1	Tl 190.801†	1632.3	1602.4	516.06	ug/L	516.06	ppb	00:16:36
1	U 409.014†	15279.7	16630.7	529.39	ug/L	529.39	ppb	00:16:16
1	V 292.402†	73628.8	71711.1	524.21	ug/L	524.21	ppb	00:16:16
1	Zn 213.857†	55801.0	52420.8	518.29	ug/L	518.29	ppb	00:16:16
1	SiO2†	81906.6	77751.7	5560.2	ug/L	5560.2	ppb	00:17:43
2	Sc Radial	5013.9	5013.9	105	%			00:15:18
2	Y RADIAL	5357.1	5357.1	104.4	%			00:15:18
2	Al 396.153Radial†	6568.3	6279.9	5013.3	ug/L	5013.3	ppb	00:15:18
2	Ca 317.933Radial†	3146.1	2991.3	5037.1	ug/L	5037.1	ppb	00:15:39
2	Fe 238.204 Radial†	581.9	546.2	5149.7	ug/L	5149.7	ppb	00:15:39
2	K 766.490 Radial†	29759.9	25651.0	5132.6	ug/L	5132.6	ppb	00:15:18
2	Mg 279.077 IEC†	156.6	148.2	5202.1	ug/L	5202.1	ppb	00:15:39
2	Na 589.592 Radial†	31176.4	31358.9	10160	ug/L	10160	ppb	00:15:18
2	Sr 421.552†	75895.1	72507.8	516.79	ug/L	516.79	ppb	00:15:18
2	Sc 361.383	854416.6	854416.6	104.98	%			00:16:42
2	Y 371.029	708353.8	708353.8	103.26	%			00:16:42
2	Ag 328.068†	104210.9	98983.5	489.52	ug/L	489.52	ppb	00:16:47
2	As 188.979†	1167.5	1130.9	513.32	ug/L	513.32	ppb	00:17:07
2	B 249.677†	21270.2	20779.2	503.44	ug/L	503.44	ppb	00:16:47
2	Ba 233.527†	64331.2	61276.5	509.37	ug/L	509.37	ppb	00:16:47
2	Be 313.107†	1361579.0	1301270.2	517.97	ug/L	517.97	ppb	00:16:42
2	Cd 226.502†	45659.1	43689.7	511.96	ug/L	511.96	ppb	00:16:47
2	Co 228.616†	24656.6	23559.1	511.71	ug/L	511.71	ppb	00:16:47
2	Cr 267.716†	45210.9	42969.5	507.55	ug/L	507.55	ppb	00:16:47
2	Cu 324.752†	171792.4	157341.0	502.26	ug/L	502.26	ppb	00:16:47
2	Mn 257.610†	461881.8	439556.4	515.74	ug/L	515.74	ppb	00:16:42
2	Mo 202.031†	7245.9	6882.7	511.36	ug/L	511.36	ppb	00:17:07
2	Ni 231.604†	20441.6	19396.3	510.29	ug/L	510.29	ppb	00:16:47

2	P 214.914†	4433.1	3994.8	2451.6 ug/L	2451.6 ppb	00:17:07
2	Pb 220.353†	4087.4	3958.0	508.62 ug/L	508.62 ppb	00:17:07
2	S 181.975 Axial†	778.9	695.5	1036.9 ug/L	1036.9 ppb	00:17:07
2	Sb 206.836†	1502.4	1398.3	529.56 ug/L	529.56 ppb	00:17:07
2	Se 196.026†	785.1	778.2	539.09 ug/L	539.09 ppb	00:17:07
2	Si 251.611†	81270.5	76967.5	2588.8 ug/L	2588.8 ppb	00:16:47
2	Sn 189.927†	2897.7	2754.1	510.17 ug/L	510.17 ppb	00:17:07
2	Ti 334.940†	306906.3	293727.4	503.74 ug/L	503.74 ppb	00:16:47
2	Tl 190.801†	1636.6	1602.8	516.17 ug/L	516.17 ppb	00:17:07
2	U 409.014†	15021.3	16349.3	520.43 ug/L	520.43 ppb	00:16:47
2	V 292.402†	72420.4	70390.4	514.64 ug/L	514.64 ppb	00:16:47
2	Zn 213.857†	55038.5	51566.0	509.85 ug/L	509.85 ppb	00:16:47
2	SiO2†	82668.2	78288.5	5598.8 ug/L	5598.8 ppb	00:17:49
3	Sc Radial	5039.0	5039.0	105 %		00:15:44
3	Y RADIAL	5393.4	5393.4	105.1 %		00:15:44
3	Al 396.153Radial†	6589.5	6268.8	5004.2 ug/L	5004.2 ppb	00:15:44
3	Ca 317.933Radial†	3181.6	3010.1	5068.8 ug/L	5068.8 ppb	00:16:04
3	Fe 238.204 Radial†	591.1	552.2	5206.2 ug/L	5206.2 ppb	00:16:04
3	K 766.490 Radial†	29863.9	25608.3	5124.0 ug/L	5124.0 ppb	00:15:44
3	Mg 279.077 IEC†	160.2	150.8	5293.3 ug/L	5293.3 ppb	00:16:04
3	Na 589.592 Radial†	31147.2	31182.9	10103 ug/L	10103 ppb	00:15:44
3	Sr 421.552†	76320.7	72551.5	517.10 ug/L	517.10 ppb	00:15:44
3	Sc 361.383	851042.9	851042.9	104.57 %		00:17:13
3	Y 371.029	706610.8	706610.8	103.01 %		00:17:13
3	Ag 328.068†	104238.6	99403.4	491.60 ug/L	491.60 ppb	00:17:18
3	As 188.979†	1171.9	1139.5	517.24 ug/L	517.24 ppb	00:17:38
3	B 249.677†	21316.1	20903.4	506.45 ug/L	506.45 ppb	00:17:18
3	Ba 233.527†	64522.7	61702.6	512.92 ug/L	512.92 ppb	00:17:18
3	Be 313.107†	1354547.6	1299687.4	517.35 ug/L	517.35 ppb	00:17:13
3	Cd 226.502†	45686.4	43888.2	514.28 ug/L	514.28 ppb	00:17:18
3	Co 228.616†	24668.1	23663.1	513.98 ug/L	513.98 ppb	00:17:18
3	Cr 267.716†	45378.1	43300.1	511.46 ug/L	511.46 ppb	00:17:18
3	Cu 324.752†	171904.9	158097.3	504.67 ug/L	504.67 ppb	00:17:18
3	Mn 257.610†	459202.2	438738.0	514.78 ug/L	514.78 ppb	00:17:13
3	Mo 202.031†	7276.9	6939.7	515.61 ug/L	515.61 ppb	00:17:38
3	Ni 231.604†	20511.8	19540.6	514.08 ug/L	514.08 ppb	00:17:18
3	P 214.914†	4434.1	4012.6	2462.5 ug/L	2462.5 ppb	00:17:38
3	Pb 220.353†	4122.4	4006.9	514.90 ug/L	514.90 ppb	00:17:38
3	S 181.975 Axial†	776.1	695.7	1037.4 ug/L	1037.4 ppb	00:17:38
3	Sb 206.836†	1494.1	1396.1	528.94 ug/L	528.94 ppb	00:17:38
3	Se 196.026†	787.7	783.7	542.97 ug/L	542.97 ppb	00:17:38
3	Si 251.611†	81327.6	77329.0	2600.9 ug/L	2600.9 ppb	00:17:18
3	Sn 189.927†	2925.3	2791.4	517.08 ug/L	517.08 ppb	00:17:38
3	Ti 334.940†	307297.2	295260.2	506.37 ug/L	506.37 ppb	00:17:18
3	Tl 190.801†	1641.9	1614.0	519.76 ug/L	519.76 ppb	00:17:38
3	U 409.014†	15107.6	16488.6	524.87 ug/L	524.87 ppb	00:17:18
3	V 292.402†	72574.5	70811.3	517.74 ug/L	517.74 ppb	00:17:18
3	Zn 213.857†	55071.2	51805.1	512.21 ug/L	512.21 ppb	00:17:18
3	SiO2†	81509.4	77492.5	5541.6 ug/L	5541.6 ppb	00:17:54

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	852605.2	104.76	%	0.209				0.20%
Sc Radial	5018.0	105	%	0.4				0.39%
Y 371.029	707981.8	103.21	%	0.179				0.17%
Y RADIAL	5364.8	104.6	%	0.50				0.48%
Ag 328.068†	100228.4	495.66	ug/L	8.898	495.66	ppb	8.898	1.80%
QC value within limits for Ag 328.068 Recovery = 99.13%								
Al 396.153Radial†	6260.9	4998.0	ug/L	19.27	4998.0	ppb	19.27	0.39%
QC value within limits for Al 396.153Radial Recovery = 99.96%								
As 188.979†	1135.8	515.57	ug/L	2.025	515.57	ppb	2.025	0.39%
QC value within limits for As 188.979 Recovery = 103.11%								
B 249.677†	20955.1	507.70	ug/L	5.008	507.70	ppb	5.008	0.99%
QC value within limits for B 249.677 Recovery = 101.54%								
Ba 233.527†	61719.7	513.06	ug/L	3.760	513.06	ppb	3.760	0.73%
QC value within limits for Ba 233.527 Recovery = 102.61%								
Be 313.107†	1302629.2	518.52	ug/L	1.520	518.52	ppb	1.520	0.29%
QC value within limits for Be 313.107 Recovery = 103.70%								
Ca 317.933Radial†	3010.2	5069.0	ug/L	31.96	5069.0	ppb	31.96	0.63%

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   QC value within limits for Ca 317.933Radial  Recovery = 101.38%
Cd 226.502†            44020.2      515.83 ug/L         4.835      515.83 ppb          4.835   0.94%
   QC value within limits for Cd 226.502  Recovery = 103.17%
Co 228.616†            23713.0      515.05 ug/L         3.989      515.05 ppb          3.989   0.77%
   QC value within limits for Co 228.616  Recovery = 103.01%
Cr 267.716†            43322.9      511.73 ug/L         4.317      511.73 ppb          4.317   0.84%
   QC value within limits for Cr 267.716  Recovery = 102.35%
Cu 324.752†           158595.0      506.26 ug/L         4.991      506.26 ppb          4.991   0.99%
   QC value within limits for Cu 324.752  Recovery = 101.25%
Fe 238.204 Radial†       551.9      5203.3 ug/L         52.13      5203.3 ppb          52.13   1.00%
   QC value within limits for Fe 238.204 Radial  Recovery = 104.07%
K 766.490 Radial†      25634.9      5129.3 ug/L          4.64      5129.3 ppb           4.64   0.09%
   QC value within limits for K 766.490 Radial  Recovery = 102.59%
Mg 279.077 IEC†          149.9      5260.7 ug/L         50.85      5260.7 ppb          50.85   0.97%
   QC value within limits for Mg 279.077 IEC  Recovery = 105.21%
Mn 257.610†           439040.5      515.13 ug/L         0.524      515.13 ppb          0.524   0.10%
   QC value within limits for Mn 257.610  Recovery = 103.03%
Mo 202.031†             6915.8      513.83 ug/L         2.201      513.83 ppb          2.201   0.43%
   QC value within limits for Mo 202.031  Recovery = 102.77%
Na 589.592 Radial†     31278.2       10134 ug/L          28.8       10134 ppb           28.8   0.28%
   QC value within limits for Na 589.592 Radial  Recovery = 101.34%
Ni 231.604†            19577.2      515.04 ug/L         5.305      515.04 ppb          5.305   1.03%
   QC value within limits for Ni 231.604  Recovery = 103.01%
P 214.914†              4006.0      2458.0 ug/L          5.68      2458.0 ppb           5.68   0.23%
   QC value within limits for P 214.914  Recovery = 98.32%
Pb 220.353†             3987.1      512.35 ug/L         3.299      512.35 ppb          3.299   0.64%
   QC value within limits for Pb 220.353  Recovery = 102.47%
S 181.975 Axial†         696.8      1039.0 ug/L          3.23      1039.0 ppb           3.23   0.31%
   QC value within limits for S 181.975 Axial  Recovery = 103.90%
Sb 206.836†             1397.3      529.31 ug/L         0.329      529.31 ppb          0.329   0.06%
   QC value within limits for Sb 206.836  Recovery = 105.86%
Se 196.026†              781.0      541.15 ug/L         1.952      541.15 ppb          1.952   0.36%
   QC value within limits for Se 196.026  Recovery = 108.23%
Si 251.611†            77592.7      2609.8 ug/L         26.65      2609.8 ppb          26.65   1.02%
   QC value within limits for Si 251.611  Recovery = 104.39%
Sn 189.927†             2778.6      514.71 ug/L         3.932      514.71 ppb          3.932   0.76%
   QC value within limits for Sn 189.927  Recovery = 102.94%
Sr 421.552†            72463.6      516.48 ug/L         0.830      516.48 ppb          0.830   0.16%
   QC value within limits for Sr 421.552  Recovery = 103.30%
Ti 334.940†           295717.8      507.15 ug/L         3.865      507.15 ppb          3.865   0.76%
   QC value within limits for Ti 334.940  Recovery = 101.43%
Tl 190.801†             1606.4      517.33 ug/L         2.107      517.33 ppb          2.107   0.41%
   QC value within limits for Tl 190.801  Recovery = 103.47%
U 409.014†             16489.5      524.90 ug/L         4.477      524.90 ppb          4.477   0.85%
   QC value within limits for U 409.014  Recovery = 104.98%
V 292.402†             70970.9      518.86 ug/L         4.880      518.86 ppb          4.880   0.94%
   QC value within limits for V 292.402  Recovery = 103.77%
Zn 213.857†            51930.6      513.45 ug/L         4.353      513.45 ppb          4.353   0.85%
   QC value within limits for Zn 213.857  Recovery = 102.69%
SiO2†                  77844.3      5566.8 ug/L         29.17      5566.8 ppb          29.17   0.52%
   QC value within limits for SiO2  Recovery = 104.10%
All analyte(s) passed QC.
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Sequence No.: 81
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 1/15/2010 00:20:04
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4957.9	4957.9	103	%			00:21:55
1	Y RADIAL	5303.2	5303.2	103.4	%			00:21:55
1	Al 396.153Radial†	-18.7	-14.9	-11.942	ug/L	-11.942	ppb	00:21:55
1	Ca 317.933Radial†	19.5	3.7	6.2363	ug/L	6.2363	ppb	00:22:15
1	Fe 238.204 Radial†	11.5	1.2	11.412	ug/L	11.412	ppb	00:22:15
1	K 766.490 Radial†	2826.4	-56.0	-11.240	ug/L	-11.240	ppb	00:21:55
1	Mg 279.077 IEC†	-0.0	-1.6	-54.605	ug/L	-54.605	ppb	00:22:15
1	Na 589.592 Radial†	-1511.8	106.0	34.335	ug/L	34.335	ppb	00:21:55
1	Sr 421.552†	65.2	45.8	0.3264	ug/L	0.3264	ppb	00:21:55
1	Sc 361.383	829467.5	829467.5	101.92	%			00:23:12
1	Y 371.029	700108.1	700108.1	102.06	%			00:23:12
1	Ag 328.068†	356.1	67.8	0.3375	ug/L	0.3375	ppb	00:23:12
1	As 188.979†	-28.6	-9.2	-4.1371	ug/L	-4.1371	ppb	00:23:32
1	B 249.677†	-386.5	139.3	3.3889	ug/L	3.3889	ppb	00:23:32
1	Ba 233.527†	-2.8	-4.3	-0.0334	ug/L	-0.0334	ppb	00:23:32
1	Be 313.107†	-4367.9	26.5	0.0108	ug/L	0.0108	ppb	00:23:12
1	Cd 226.502†	-173.7	27.2	0.3178	ug/L	0.3178	ppb	00:23:32
1	Co 228.616†	-77.1	-2.9	-0.0628	ug/L	-0.0628	ppb	00:23:32
1	Cr 267.716†	70.1	-26.9	-0.3177	ug/L	-0.3177	ppb	00:23:32
1	Cu 324.752†	6299.4	-117.1	-0.3747	ug/L	-0.3747	ppb	00:23:12
1	Mn 257.610†	425.5	13.2	0.0189	ug/L	0.0189	ppb	00:23:32
1	Mo 202.031†	25.4	5.6	0.4141	ug/L	0.4141	ppb	00:23:32
1	Ni 231.604†	88.6	11.8	0.3114	ug/L	0.3114	ppb	00:23:32
1	P 214.914†	220.2	-11.8	-7.5054	ug/L	-7.5054	ppb	00:23:32
1	Pb 220.353†	-50.8	14.7	1.8850	ug/L	1.8850	ppb	00:23:32
1	S 181.975 Axial†	34.7	-12.4	-18.481	ug/L	-18.481	ppb	00:23:32
1	Sb 206.836†	39.1	5.7	2.0635	ug/L	2.0635	ppb	00:23:32
1	Se 196.026†	-40.5	-9.4	-6.2467	ug/L	-6.2467	ppb	00:23:32
1	Si 251.611†	626.2	168.5	5.6776	ug/L	5.6776	ppb	00:23:32
1	Sn 189.927†	-1.8	-7.9	-1.4542	ug/L	-1.4542	ppb	00:23:32
1	Ti 334.940†	-1348.2	64.2	0.1143	ug/L	0.1143	ppb	00:23:12
1	Tl 190.801†	-42.3	2.4	0.7726	ug/L	0.7726	ppb	00:23:32
1	U 409.014†	-1994.7	83.7	2.6739	ug/L	2.6739	ppb	00:23:12
1	V 292.402†	-1337.4	94.9	0.6928	ug/L	0.6928	ppb	00:23:12
1	Zn 213.857†	856.6	-19.9	-0.2009	ug/L	-0.2009	ppb	00:23:32
1	SiO2†	640.3	172.0	12.319	ug/L	12.319	ppb	00:24:28
2	Sc Radial	5004.1	5004.1	104	%			00:22:21
2	Y RADIAL	5390.2	5390.2	105.1	%			00:22:21
2	Al 396.153Radial†	-6.2	-2.7	-2.2166	ug/L	-2.2166	ppb	00:22:21
2	Ca 317.933Radial†	19.3	3.3	5.6296	ug/L	5.6296	ppb	00:22:41
2	Fe 238.204 Radial†	13.5	3.1	29.028	ug/L	29.028	ppb	00:22:41
2	K 766.490 Radial†	2864.1	-45.1	-9.0552	ug/L	-9.0552	ppb	00:22:21
2	Mg 279.077 IEC†	2.5	0.9	30.757	ug/L	30.757	ppb	00:22:41
2	Na 589.592 Radial†	-1494.7	135.8	43.995	ug/L	43.995	ppb	00:22:21
2	Sr 421.552†	-9.7	-26.5	-0.1888	ug/L	-0.1888	ppb	00:22:21
2	Sc 361.383	819793.9	819793.9	100.73	%			00:23:38
2	Y 371.029	692279.2	692279.2	100.92	%			00:23:38
2	Ag 328.068†	310.1	26.3	0.1401	ug/L	0.1401	ppb	00:23:38
2	As 188.979†	-15.5	3.5	1.5716	ug/L	1.5716	ppb	00:23:58
2	B 249.677†	-371.3	149.9	3.6453	ug/L	3.6453	ppb	00:23:58
2	Ba 233.527†	-8.3	-9.7	-0.0785	ug/L	-0.0785	ppb	00:23:58
2	Be 313.107†	-4282.0	61.2	0.0251	ug/L	0.0251	ppb	00:23:38
2	Cd 226.502†	-170.0	28.8	0.3354	ug/L	0.3354	ppb	00:23:58
2	Co 228.616†	-80.6	-7.3	-0.1575	ug/L	-0.1575	ppb	00:23:58
2	Cr 267.716†	99.9	3.5	0.0422	ug/L	0.0422	ppb	00:23:58
2	Cu 324.752†	6194.4	-148.5	-0.4725	ug/L	-0.4725	ppb	00:23:38
2	Mn 257.610†	428.0	20.6	0.0258	ug/L	0.0258	ppb	00:23:58
2	Mo 202.031†	29.6	10.1	0.7535	ug/L	0.7535	ppb	00:23:58
2	Ni 231.604†	103.7	27.9	0.7338	ug/L	0.7338	ppb	00:23:58

2	P 214.914†	217.0	-12.4	-7.8387 ug/L	-7.8387 ppb	00:23:58
2	Pb 220.353†	-45.9	19.1	2.4401 ug/L	2.4401 ppb	00:23:58
2	S 181.975 Axial†	43.2	-3.6	-5.3403 ug/L	-5.3403 ppb	00:23:58
2	Sb 206.836†	30.4	-2.6	-0.9174 ug/L	-0.9174 ppb	00:23:58
2	Se 196.026†	-38.7	-8.0	-5.2777 ug/L	-5.2777 ppb	00:23:58
2	Si 251.611†	638.5	188.0	6.3312 ug/L	6.3312 ppb	00:23:58
2	Sn 189.927†	7.3	1.1	0.2110 ug/L	0.2110 ppb	00:23:58
2	Ti 334.940†	-1191.4	204.2	0.3486 ug/L	0.3486 ppb	00:23:38
2	Tl 190.801†	-33.4	10.8	3.4491 ug/L	3.4491 ppb	00:23:58
2	U 409.014†	-2054.6	1.2	0.0355 ug/L	0.0355 ppb	00:23:38
2	V 292.402†	-1357.8	59.2	0.4338 ug/L	0.4338 ppb	00:23:38
2	Zn 213.857†	829.8	-36.6	-0.3717 ug/L	-0.3717 ppb	00:23:58
2	SiO2†	636.4	175.5	12.564 ug/L	12.564 ppb	00:24:33
3	Sc Radial	4943.3	4943.3	103 %		00:22:46
3	Y RADIAL	5298.4	5298.4	103.3 %		00:22:46
3	Al 396.153Radial†	-22.4	-18.5	-14.822 ug/L	-14.822 ppb	00:22:46
3	Ca 317.933Radial†	12.7	-2.9	-4.8025 ug/L	-4.8025 ppb	00:23:06
3	Fe 238.204 Radial†	11.3	1.1	10.047 ug/L	10.047 ppb	00:23:06
3	K 766.490 Radial†	2875.5	-0.4	-0.0766 ug/L	-0.0766 ppb	00:22:46
3	Mg 279.077 IEC†	1.5	-0.1	-2.6843 ug/L	-2.6843 ppb	00:23:06
3	Na 589.592 Radial†	-1557.1	57.7	18.693 ug/L	18.693 ppb	00:22:46
3	Sr 421.552†	-10.7	-27.6	-0.1965 ug/L	-0.1965 ppb	00:22:46
3	Sc 361.383	830742.8	830742.8	102.07 %		00:24:03
3	Y 371.029	702703.1	702703.1	102.44 %		00:24:03
3	Ag 328.068†	355.9	67.1	0.3361 ug/L	0.3361 ppb	00:24:03
3	As 188.979†	-33.6	-14.1	-6.3221 ug/L	-6.3221 ppb	00:24:23
3	B 249.677†	-351.9	173.8	4.2296 ug/L	4.2296 ppb	00:24:23
3	Ba 233.527†	-8.0	-9.3	-0.0743 ug/L	-0.0743 ppb	00:24:23
3	Be 313.107†	-4294.5	104.9	0.0418 ug/L	0.0418 ppb	00:24:03
3	Cd 226.502†	-187.4	14.0	0.1637 ug/L	0.1637 ppb	00:24:23
3	Co 228.616†	-86.5	-12.1	-0.2626 ug/L	-0.2626 ppb	00:24:23
3	Cr 267.716†	83.1	-14.3	-0.1677 ug/L	-0.1677 ppb	00:24:23
3	Cu 324.752†	6274.0	-151.5	-0.4838 ug/L	-0.4838 ppb	00:24:03
3	Mn 257.610†	418.2	5.4	0.0074 ug/L	0.0074 ppb	00:24:23
3	Mo 202.031†	21.9	2.2	0.1633 ug/L	0.1633 ppb	00:24:23
3	Ni 231.604†	102.0	24.8	0.6536 ug/L	0.6536 ppb	00:24:23
3	P 214.914†	208.3	-23.8	-15.089 ug/L	-15.089 ppb	00:24:23
3	Pb 220.353†	-54.3	11.4	1.4562 ug/L	1.4562 ppb	00:24:23
3	S 181.975 Axial†	39.5	-7.8	-11.601 ug/L	-11.601 ppb	00:24:23
3	Sb 206.836†	40.9	7.4	2.7134 ug/L	2.7134 ppb	00:24:23
3	Se 196.026†	-24.7	6.2	4.1906 ug/L	4.1906 ppb	00:24:23
3	Si 251.611†	616.2	157.8	5.3182 ug/L	5.3182 ppb	00:24:23
3	Sn 189.927†	9.4	3.1	0.5669 ug/L	0.5669 ppb	00:24:23
3	Ti 334.940†	-1395.0	20.4	0.0340 ug/L	0.0340 ppb	00:24:03
3	Tl 190.801†	-36.8	7.8	2.5083 ug/L	2.5083 ppb	00:24:23
3	U 409.014†	-2039.7	42.7	1.3627 ug/L	1.3627 ppb	00:24:03
3	V 292.402†	-1292.3	141.1	1.0213 ug/L	1.0213 ppb	00:24:03
3	Zn 213.857†	866.3	-11.7	-0.1209 ug/L	-0.1209 ppb	00:24:23
3	SiO2†	634.5	165.4	11.856 ug/L	11.856 ppb	00:24:38

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	826668.1	101.57	%	0.736				0.72%
Sc Radial	4968.4	104	%	0.7				0.64%
Y 371.029	698363.5	101.81	%	0.791				0.78%
Y RADIAL	5330.6	103.9	%	1.01				0.97%
Ag 328.068†	53.8	0.2713	ug/L	0.11356	0.2713	ppb	0.11356	41.87%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-12.0	-9.6599	ug/L	6.60498	-9.6599	ppb	6.60498	68.38%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-6.6	-2.9625	ug/L	4.07581	-2.9625	ppb	4.07581	137.58%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	154.4	3.7546	ug/L	0.43087	3.7546	ppb	0.43087	11.48%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-7.7	-0.0621	ug/L	0.02490	-0.0621	ppb	0.02490	40.11%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	64.2	0.0259	ug/L	0.01550	0.0259	ppb	0.01550	59.89%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	1.4	2.3545	ug/L	6.20555	2.3545	ppb	6.20555	263.57%

QC value within limits for Ca 317.933Radial Recovery = Not calculated

Cd 226.502†	23.3	0.2723 ug/L	0.09447	0.2723 ppb	0.09447	34.69%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	-7.4	-0.1610 ug/L	0.09996	-0.1610 ppb	0.09996	62.09%
QC value within limits for Co 228.616 Recovery = Not calculated						
Cr 267.716†	-12.6	-0.1478 ug/L	0.18078	-0.1478 ppb	0.18078	122.35%
QC value within limits for Cr 267.716 Recovery = Not calculated						
Cu 324.752†	-139.0	-0.4437 ug/L	0.05998	-0.4437 ppb	0.05998	13.52%
QC value within limits for Cu 324.752 Recovery = Not calculated						
Fe 238.204 Radial†	1.8	16.829 ug/L	10.5866	16.829 ppb	10.5866	62.91%
QC value within limits for Fe 238.204 Radial Recovery = Not calculated						
K 766.490 Radial†	-33.8	-6.7905 ug/L	5.91615	-6.7905 ppb	5.91615	87.12%
QC value within limits for K 766.490 Radial Recovery = Not calculated						
Mg 279.077 IEC†	-0.3	-8.8438 ug/L	43.01307	-8.8438 ppb	43.01307	486.36%
QC value within limits for Mg 279.077 IEC Recovery = Not calculated						
Mn 257.610†	13.1	0.0174 ug/L	0.00927	0.0174 ppb	0.00927	53.38%
QC value within limits for Mn 257.610 Recovery = Not calculated						
Mo 202.031†	6.0	0.4436 ug/L	0.29622	0.4436 ppb	0.29622	66.78%
QC value within limits for Mo 202.031 Recovery = Not calculated						
Na 589.592 Radial†	99.8	32.341 ug/L	12.7684	32.341 ppb	12.7684	39.48%
QC value within limits for Na 589.592 Radial Recovery = Not calculated						
Ni 231.604†	21.5	0.5662 ug/L	0.22432	0.5662 ppb	0.22432	39.62%
QC value within limits for Ni 231.604 Recovery = Not calculated						
P 214.914†	-16.0	-10.144 ug/L	4.2855	-10.144 ppb	4.2855	42.24%
QC value within limits for P 214.914 Recovery = Not calculated						
Pb 220.353†	15.1	1.9271 ug/L	0.49332	1.9271 ppb	0.49332	25.60%
QC value within limits for Pb 220.353 Recovery = Not calculated						
S 181.975 Axial†	-7.9	-11.808 ug/L	6.5730	-11.808 ppb	6.5730	55.67%
QC value within limits for S 181.975 Axial Recovery = Not calculated						
Sb 206.836†	3.5	1.2865 ug/L	1.93610	1.2865 ppb	1.93610	150.50%
QC value within limits for Sb 206.836 Recovery = Not calculated						
Se 196.026†	-3.7	-2.4446 ug/L	5.76662	-2.4446 ppb	5.76662	235.89%
QC value within limits for Se 196.026 Recovery = Not calculated						
Si 251.611†	171.5	5.7757 ug/L	0.51355	5.7757 ppb	0.51355	8.89%
QC value within limits for Si 251.611 Recovery = Not calculated						
Sn 189.927†	-1.2	-0.2254 ug/L	1.07893	-0.2254 ppb	1.07893	478.61%
QC value within limits for Sn 189.927 Recovery = Not calculated						
Sr 421.552†	-2.7	-0.0196 ug/L	0.29969	-0.0196 ppb	0.29969	>999.9%
QC value within limits for Sr 421.552 Recovery = Not calculated						
Ti 334.940†	96.3	0.1656 ug/L	0.16346	0.1656 ppb	0.16346	98.68%
QC value within limits for Ti 334.940 Recovery = Not calculated						
Tl 190.801†	7.0	2.2433 ug/L	1.35777	2.2433 ppb	1.35777	60.52%
QC value within limits for Tl 190.801 Recovery = Not calculated						
U 409.014†	42.6	1.3574 ug/L	1.31918	1.3574 ppb	1.31918	97.19%
QC value within limits for U 409.014 Recovery = Not calculated						
V 292.402†	98.4	0.7160 ug/L	0.29444	0.7160 ppb	0.29444	41.12%
QC value within limits for V 292.402 Recovery = Not calculated						
Zn 213.857†	-22.7	-0.2312 ug/L	0.12809	-0.2312 ppb	0.12809	55.42%
QC value within limits for Zn 213.857 Recovery = Not calculated						
SiO2†	171.0	12.246 ug/L	0.3599	12.246 ppb	0.3599	2.94%
QC value within limits for SiO2 Recovery = Not calculated						

All analyte(s) passed QC.

ICPMS #6 Daily Performance Report

Sample ID: Sample
Sample Date/Time: Monday, January 11, 2010 23:20:35
Sample Description:
Method File: C:\elandata\Method\Daily2.mth
Dataset File: c:\elandata\Dataset\091212\Sample.251
Tuning File: c:\elandata\Tuning\default2.tun
Optimization File: c:\elandata\Optimize\default.dac
Dual Detector Mode: Pulse
Acq. Dead Time(ns): 35
Current Dead Time (ns): 35
Number of Replicates: 5

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Be	9.0	2768.1	2768.068	71.036	2.6
	Mg	24.0	69802.7	69802.742	915.546	1.3
	Co	58.9	48113.1	48113.089	408.939	0.8
	Rh	102.9	83606.7	83606.743	372.541	0.4
	In	114.9	99581.9	99581.885	627.615	0.6
	Pb	208.0	61853.2	61853.224	599.487	1.0
⌈>	Ba	137.9	96105.6	96105.580	872.981	0.9
⌊	Ba++	69.0	2358.6	0.025	0.000	1.1
⌈>	Ce	139.9	118452.7	118452.685	971.257	0.8
⌊	CeO	155.9	2554.5	0.022	0.000	1.6
	Bkgd	220.0	25.6	25.600	2.275	8.9

Current Optimization File Data

Current Value	Description
0.83	Nebulizer Gas Flow
13.25	Lens Voltage
1450.00	ICP RF Power
-1781.25	Analog Stage Voltage
900.00	Pulse Stage Voltage
30.00	Discriminator Threshold
-6.00	AC Rod Offset

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	17	9.8	4729.4
Co	59	17	10.5	70359.8
In	115	17	11.8	118105.5

ICPMS #6 Instrument Tuning Report

File Name: default2.tun
File Path: c:\elandata\Tuning

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Pk. Width
He	3.0	3.0	578	2080	0.651
Be	9.0	9.0	2028	2080	0.663
Mg	24.0	24.0	5686	2120	0.623
Mg	25.0	24.9	5905	2080	0.697
Mg	26.0	26.0	6162	2120	0.691
Co	58.9	59.0	14181	2170	0.632
Rh	102.9	102.8	24853	2230	0.695
In	114.9	114.8	27774	2260	0.682
Ce	139.9	139.9	33843	2280	0.733
Pb	206.0	206.0	49948	2430	0.679
Pb	207.0	207.0	50135	2385	0.643
Pb	208.0	208.0	50451	2430	0.689
U	238.1	238.0	57731	2470	0.673

Report Date/Time: Monday, January 11, 2010 23:19:39

ICPMS#6 - Summary Report

Sample ID: Blank
Sample Date/Time: Tuesday, January 12, 2010 11:19:58
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 noirs thtimozr.mth
Dataset File: C:\elandata\Dataset\100111\Blank.113

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7		ug/L		106	
	Be	9		ug/L		12	
	B	11		ug/L		791	
	Na	23		ug/L		20682	
	Mg	24		ug/L		3334	
	Al	27		ug/L		7335	
	P	31		ug/L		6990	
	K	39		ug/L		618456	
	Ca	43		ug/L		473	
>	Sc	45		ug/L		1187102	
	V	51		ug/L		1868	
	Cr	52		ug/L		2071	
	Cr	53		ug/L		115098	
	Mn	55		ug/L		1646	
	Fe	57		ug/L		4399	
	Co	59		ug/L		193	
	Ni	60		ug/L		73	
	Cu	63		ug/L		349	
	Cu	65		ug/L		96	
	Zn	66		ug/L		184	
	Zn	67		ug/L		10133	
	Zn	68		ug/L		924	
>	Ge	74		ug/L		260902	
	As	75		ug/L		366	
	Se	77		ug/L		5122	
	Se	82		ug/L		-23	
	Kr	83		ug/L		93	
	Sr	88		ug/L		162	
	Y	89		ug/L		84	
	Ag	107		ug/L		55	
	Cd	111		ug/L		22	
	Cd	114		ug/L		31	
>	In	115		ug/L		135688	
	Sn	120		ug/L		217	
	Sb	121		ug/L		360	
	Sb	123		ug/L		297	
	Ba	135		ug/L		32	
	Ba	137		ug/L		50	
	Ho	165		ug/L		17	
>	Lu	175		ug/L		195997	
	Tl	205		ug/L		649	
	Pb	208		ug/L		516	
	Bi	209		ug/L		18	
	U	238		ug/L		171	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	0.9999
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	0.9999
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115					
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175					
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Tuesday, January 12, 2010 11:25:52
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 noirs thtimozr.mth
Dataset File: C:\elandata\Dataset\100111\Standard 1.114

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	10.000	ug/L	0.957	13060	0.011
	Be	9	10.000	ug/L	1.492	4958	0.004
	B	11	20.000	ug/L	1.280	9061	0.007
	Na	23	1000.000	ug/L	5.635	4865431	4.058
	Mg	24	1000.000	ug/L	6.867	3173090	2.654
	Al	27	1000.000	ug/L	6.859	4307709	3.601
	P	31	1000.000	ug/L	0.972	219306	0.178
	K	39	1000.000	ug/L	2.975	5923646	4.440
	Ca	43	1000.000	ug/L	2.769	11198	0.009
>	Sc	45		ug/L		1194003	1194003.004
	V	51	10.000	ug/L	2.027	44708	0.036
	Cr	52	10.000	ug/L	0.806	40664	0.032
	Cr	53		ug/L		100158	-0.013
	Mn	55	10.000	ug/L	0.189	63469	0.052
	Fe	57	1000.000	ug/L	1.260	126731	0.102
	Co	59	10.000	ug/L	0.404	45240	0.038
	Ni	60	10.000	ug/L	0.673	9476	0.008
	Cu	63		ug/L		21996	0.018
	Cu	65	10.000	ug/L	1.331	10357	0.009
	Zn	66	10.000	ug/L	0.492	7181	0.027
	Zn	67		ug/L		8733	-0.005
	Zn	68		ug/L		5633	0.018
>	Ge	74		ug/L		257434	257434.138
	As	75	10.000	ug/L	3.745	7842	0.029
	Se	77		ug/L		4602	-0.002
	Se	82	10.000	ug/L	0.638	655	0.003
	Kr	83		ug/L		92	0.000
	Sr	88	10.000	ug/L	0.127	85888	0.628
	Y	89		ug/L		75	-0.000
	Ag	107	10.000	ug/L	2.072	31778	0.233
	Cd	111	10.000	ug/L	1.912	7582	0.055
	Cd	114		ug/L		17638	0.129
>	In	115		ug/L		136427	136427.297
	Sn	120	10.000	ug/L	1.172	31202	0.227
	Sb	121	10.000	ug/L	12.039	24313	0.176
	Sb	123		ug/L		19048	0.137
	Ba	135		ug/L		7675	0.039
	Ba	137	10.000	ug/L	0.744	13510	0.069
	Ho	165		ug/L		14	-0.000
>	Lu	175		ug/L		193768	193768.251
	Tl	205	10.000	ug/L	1.052	67358	0.344
	Pb	208	10.000	ug/L	0.162	102482	0.526
	Bi	209		ug/L		56	0.000
	U	238	10.000	ug/L	1.383	102749	0.529

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115					
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175					
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Tuesday, January 12, 2010 11:31:44
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 noirs thtimozr.mth
Dataset File: C:\elandata\Dataset\100111\Standard 2.115

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**99.964**	ug/L	2.001	120305	0.105
	Be	9	**99.993**	ug/L	0.337	47246	0.041
	B	11	**200.033**	ug/L	1.571	81615	0.070
	Na	23	**9999.518**	ug/L	2.151	46414989	40.385
	Mg	24	**9998.827**	ug/L	3.853	30136326	26.231
	Al	27	**9998.664**	ug/L	9.289	40830540	35.531
	P	31	**10002.139**	ug/L	4.136	2094378	1.817
	K	39	**10008.168**	ug/L	6.611	56178716	48.387
	Ca	43	**10001.746**	ug/L	0.613	105461	0.091
>	Sc	45		ug/L		1148663	1148663.372
	V	51	**100.059**	ug/L	0.406	439841	0.381
	Cr	52	**100.029**	ug/L	1.968	384134	0.333
	Cr	53		ug/L		139049	0.024
	Mn	55	**100.005**	ug/L	1.509	599497	0.521
	Fe	57	**9996.812**	ug/L	0.859	1144123	0.992
	Co	59	**99.996**	ug/L	0.928	431832	0.376
	Ni	60	**99.999**	ug/L	1.780	90392	0.079
	Cu	63		ug/L		208815	0.182
	Cu	65	**100.006**	ug/L	2.260	99428	0.086
	Zn	66	**100.004**	ug/L	0.642	68541	0.273
	Zn	67		ug/L		17900	0.033
	Zn	68		ug/L		49060	0.193
>	Ge	74		ug/L		250317	250316.774
	As	75	**100.012**	ug/L	2.660	74006	0.294
	Se	77		ug/L		9426	0.018
	Se	82	**100.053**	ug/L	3.528	6939	0.028
	Kr	83		ug/L		130	0.000
	Sr	88	**100.002**	ug/L	1.142	824533	6.296
	Y	89		ug/L		145	0.000
	Ag	107	**100.013**	ug/L	1.000	308784	2.358
	Cd	111	**100.020**	ug/L	1.314	74101	0.566
	Cd	114		ug/L		170540	1.302
>	In	115		ug/L		130947	130946.869
	Sn	120	**100.020**	ug/L	2.192	303771	2.319
	Sb	121	**100.129**	ug/L	4.869	264441	2.017
	Sb	123		ug/L		206304	1.574
	Ba	135		ug/L		75938	0.405
	Ba	137	**100.024**	ug/L	2.559	133524	0.712
	Ho	165		ug/L		26	0.000
>	Lu	175		ug/L		187561	187561.454
	Tl	205	**99.993**	ug/L	0.667	641814	3.419
	Pb	208	**99.988**	ug/L	1.910	975853	5.200
	Bi	209		ug/L		305	0.002
	U	238	**99.982**	ug/L	1.260	975913	5.202

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	0.9999
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈	Li	7					
|	Be	9					
|	B	11					
|	Na	23					
|	Mg	24					
|	Al	27					
|	P	31					
|	K	39					
|	Ca	43					
|>	Sc	45					
|	V	51					
|	Cr	52					
|	Cr	53					
|	Mn	55					
|	Fe	57					
|	Co	59					
|	Ni	60					
|	Cu	63					
⌊	Cu	65					
⌈	Zn	66					
|	Zn	67					
|	Zn	68					
|>	Ge	74					
|	As	75					
|	Se	77					
|	Se	82					
⌊	Kr	83					
⌈	Sr	88					
|	Y	89					
|	Ag	107					
|	Cd	111					
|	Cd	114					
|>	In	115					
|	Sn	120					
|	Sb	121					
⌊	Sb	123					
⌈	Ba	135					
|	Ba	137					
|	Ho	165					
|>	Lu	175					
|	Tl	205					
|	Pb	208					
|	Bi	209					
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

Sample ID: Standard 2

Report Date/Time: Tuesday, January 12, 2010 11:34:14

ICPMS#6 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Tuesday, January 12, 2010 11:37:37
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 nolrs thtimozr.mth
Dataset File: C:\elandata\Dataset\100111\QC Std 1.116

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**47.604**	**ug/L**	1.320	58259	0.050
	Be	9	**49.223**	**ug/L**	0.490	23634	0.020
	B	11	**100.125**	**ug/L**	3.189	41888	0.035
	Na	23	**4394.238**	**ug/L**	7.927	20723885	17.747
	Mg	24	**4996.178**	**ug/L**	4.524	15295577	13.107
	Al	27	**4744.259**	**ug/L**	4.539	19679142	16.859
	P	31	**4724.570**	**ug/L**	1.140	1008491	0.858
	K	39	**4178.677**	**ug/L**	1.680	24182891	20.203
	Ca	43	**4726.275**	**ug/L**	2.064	50875	0.043
>	Sc	45		**ug/L**		1166977	1166977.181
	V	51	**48.959**	**ug/L**	1.146	219601	0.187
	Cr	52	**49.841**	**ug/L**	1.113	195498	0.166
	Cr	53		**ug/L**		131387	0.016
	Mn	55	**49.571**	**ug/L**	0.650	302734	0.258
	Fe	57	**4908.803**	**ug/L**	1.670	572969	0.487
	Co	59	**48.139**	**ug/L**	0.373	211315	0.181
	Ni	60	**49.905**	**ug/L**	0.697	45871	0.039
	Cu	63		**ug/L**		105121	0.090
	Cu	65	**49.706**	**ug/L**	0.376	50259	0.043
	Zn	66	**49.511**	**ug/L**	2.109	34302	0.135
	Zn	67		**ug/L**		13766	0.016
	Zn	68		**ug/L**		24604	0.094
>	Ge	74		**ug/L**		252364	252364.128
	As	75	**46.175**	**ug/L**	1.274	34651	0.136
	Se	77		**ug/L**		8037	0.012
	Se	82	**47.956**	**ug/L**	3.879	3344	0.013
	Kr	83		**ug/L**		104	0.000
	Sr	88	**50.393**	**ug/L**	1.065	424337	3.173
	Y	89		**ug/L**		82	-0.000
	Ag	107	**48.002**	**ug/L**	0.889	151355	1.132
	Cd	111	**48.546**	**ug/L**	0.648	36735	0.275
	Cd	114		**ug/L**		85402	0.639
>	In	115		**ug/L**		133696	133696.149
	Sn	120	**49.171**	**ug/L**	0.368	152602	1.140
	Sb	121	**49.575**	**ug/L**	5.481	133878	0.999
	Sb	123		**ug/L**		104646	0.781
	Ba	135		**ug/L**		37895	0.199
	Ba	137	**49.212**	**ug/L**	2.616	66733	0.350
	Ho	165		**ug/L**		24	0.000
>	Lu	175		**ug/L**		190544	190544.372
	Tl	205	**46.805**	**ug/L**	2.603	305369	1.600
	Pb	208	**49.255**	**ug/L**	3.669	488278	2.562
	Bi	209		**ug/L**		115	0.001
	U	238	**52.168**	**ug/L**	2.814	517120	2.714

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	0.9999
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7	95.209				
	Be	9	98.446				
	B	11	100.125				
	Na	23	87.885				
	Mg	24	99.924				
	Al	27	93.946				
	P	31	94.491				
	K	39	83.574				
	Ca	43	94.526				
>	Sc	45		98.3			
	V	51	97.919				
	Cr	52	99.681				
	Cr	53					
	Mn	55	99.143				
	Fe	57	98.176				
	Co	59	96.278				
	Ni	60	99.810				
	Cu	63					
	Cu	65	99.413				
	Zn	66	99.022				
	Zn	67					
	Zn	68					
>	Ge	74		96.7			
	As	75	92.350				
	Se	77					
	Se	82	95.911				
	Kr	83					
	Sr	88	100.786				
	Y	89					
	Ag	107	96.003				
	Cd	111	97.093				
	Cd	114					
>	In	115		98.5			
	Sn	120	98.342				
	Sb	121	99.150				
	Sb	123					
	Ba	135					
	Ba	137	98.425				
	Ho	165					
>	Lu	175		97.2			
	Tl	205	93.610				
	Pb	208	98.511				
	Bi	209					
	U	238	104.336				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 1	Na	23	ICV is out of limits (+/- 10%)
QC Std 1	K	39	ICV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

Sample ID: QC Std 1

Report Date/Time: Tuesday, January 12, 2010 11:40:07

ICPMS#6 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Tuesday, January 12, 2010 11:43:32
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 noirs thtimozr.mth
Dataset File: C:\elandata\Dataset\100111\QC Std 2.117

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	-0.004	ug/L	60.170	103	-0.000
	Be	9	0.002	ug/L	108.179	13	0.000
	B	11	2.102	ug/L	22.384	1691	0.001
	Na	23	1.256	ug/L	91.902	27026	0.005
	Mg	24	0.624	ug/L	147.955	5335	0.002
	Al	27	-0.335	ug/L	251.151	6002	-0.001
	P	31	-1.015	ug/L	188.726	6859	-0.000
	K	39	-7.924	ug/L	98.297	580606	-0.038
	Ca	43	-2.690	ug/L	97.485	450	-0.000
>	Sc	45		ug/L		1203147	1203147.454
	V	51	-0.205	ug/L	172.463	943	-0.001
	Cr	52	0.589	ug/L	2.247	4456	0.002
	Cr	53		ug/L		123796	0.006
	Mn	55	-0.039	ug/L	22.408	1425	-0.000
	Fe	57	5.207	ug/L	41.551	5079	0.001
	Co	59	0.007	ug/L	47.631	226	0.000
	Ni	60	0.002	ug/L	281.268	76	0.000
	Cu	63		ug/L		362	0.000
	Cu	65	0.006	ug/L	41.419	104	0.000
	Zn	66	-0.001	ug/L	1118.168	186	-0.000
	Zn	67		ug/L		9742	-0.002
	Zn	68		ug/L		897	-0.000
>	Ge	74		ug/L		265322	265321.914
	As	75	-0.440	ug/L	26.493	28	-0.001
	Se	77		ug/L		6422	0.005
	Se	82	0.015	ug/L	998.557	-22	0.000
	Kr	83		ug/L		87	-0.000
	Sr	88	0.002	ug/L	71.523	186	0.000
	Y	89		ug/L		57	-0.000
	Ag	107	-0.001	ug/L	139.348	52	-0.000
	Cd	111	-0.001	ug/L	2781.754	22	-0.000
	Cd	114		ug/L		41	0.000
>	In	115		ug/L		140571	140570.953
	Sn	120	0.092	ug/L	11.819	524	0.002
	Sb	121	0.937	ug/L	21.441	3029	0.019
	Sb	123		ug/L		2443	0.015
	Ba	135		ug/L		28	-0.000
	Ba	137	-0.003	ug/L	87.758	47	-0.000
	Ho	165		ug/L		18	0.000
>	Lu	175		ug/L		199711	199711.060
	Tl	205	0.232	ug/L	15.049	2241	0.008
	Pb	208	-0.001	ug/L	195.980	512	-0.000
	Bi	209		ug/L		18	-0.000
	U	238	0.065	ug/L	26.405	847	0.003

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	0.9999
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45			101.4		
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74			101.7		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115			103.6		
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175			101.9		
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

Sample ID: QC Std 2

Report Date/Time: Tuesday, January 12, 2010 11:46:04

ICPMS#6 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Tuesday, January 12, 2010 11:49:27
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 noirs thtimozr.mth
Dataset File: C:\elandata\Dataset\100111\QC Std 3.118

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**10.917**	**ug/L**	1.548	13524	0.011
	Be	9	**0.528**	**ug/L**	6.214	267	0.000
	B	11	**16.601**	**ug/L**	1.217	7643	0.006
	Na	23	**269.611**	**ug/L**	6.294	1298940	1.089
	Mg	24	**17.689**	**ug/L**	11.268	57784	0.046
	Al	27	**32.774**	**ug/L**	16.031	144068	0.116
	P	31	**49.337**	**ug/L**	1.693	17439	0.009
	K	39	**298.743**	**ug/L**	4.575	2307838	1.444
	Ca	43	**209.698**	**ug/L**	1.419	2719	0.002
>	Sc	45		**ug/L**		1174276	1174276.068
	V	51	**10.888**	**ug/L**	0.553	50577	0.041
	Cr	52	**11.246**	**ug/L**	1.171	45974	0.037
	Cr	53		**ug/L**		105839	-0.007
	Mn	55	**5.697**	**ug/L**	0.843	36451	0.030
	Fe	57	**115.752**	**ug/L**	2.361	17846	0.011
	Co	59	**1.121**	**ug/L**	2.198	5136	0.004
	Ni	60	**2.277**	**ug/L**	3.738	2175	0.002
	Cu	63		**ug/L**		2861	0.002
	Cu	65	**1.232**	**ug/L**	2.405	1346	0.001
	Zn	66	**11.278**	**ug/L**	1.053	8075	0.031
	Zn	67		**ug/L**		8500	-0.006
	Zn	68		**ug/L**		6288	0.021
>	Ge	74		**ug/L**		256309	256309.466
	As	75	**5.339**	**ug/L**	10.027	4388	0.016
	Se	77		**ug/L**		4997	-0.000
	Se	82	**5.414**	**ug/L**	7.674	363	0.002
	Kr	83		**ug/L**		89	-0.000
	Sr	88	**11.513**	**ug/L**	1.484	99088	0.725
	Y	89		**ug/L**		53	-0.000
	Ag	107	**1.018**	**ug/L**	1.483	3330	0.024
	Cd	111	**1.119**	**ug/L**	3.824	886	0.006
	Cd	114		**ug/L**		1960	0.014
>	In	115		**ug/L**		136492	136491.799
	Sn	120	**5.133**	**ug/L**	1.481	16458	0.119
	Sb	121	**2.697**	**ug/L**	12.405	7776	0.054
	Sb	123		**ug/L**		5912	0.041
	Ba	135		**ug/L**		1721	0.009
	Ba	137	**2.162**	**ug/L**	2.782	3007	0.015
	Ho	165		**ug/L**		18	0.000
>	Lu	175		**ug/L**		192363	192363.071
	Tl	205	**1.134**	**ug/L**	0.966	8097	0.039
	Pb	208	**2.221**	**ug/L**	0.837	22727	0.116
	Bi	209		**ug/L**		26	0.000
	U	238	**0.237**	**ug/L**	2.102	2545	0.012

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	0.9999
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7	109.167				
	Be	9	105.514				
	B	11	110.675				
	Na	23	107.844				
	Mg	24	117.925				
	Al	27	109.245				
	P	31	98.673				
	K	39	99.581				
	Ca	43	104.849				
>	Sc	45		98.9			
	V	51	108.880				
	Cr	52	112.464				
	Cr	53					
	Mn	55	113.936				
	Fe	57	115.752				
	Co	59	112.051				
	Ni	60	113.852				
	Cu	63					
	Cu	65	123.205				
	Zn	66	112.777				
	Zn	67					
	Zn	68					
>	Ge	74		98.2			
	As	75	106.786				
	Se	77					
	Se	82	108.282				
	Kr	83					
	Sr	88	115.126				
	Y	89					
	Ag	107	101.777				
	Cd	111	111.927				
	Cd	114					
>	In	115		100.6			
	Sn	120	102.657				
	Sb	121	89.891				
	Sb	123					
	Ba	135					
	Ba	137	108.088				
	Ho	165					
>	Lu	175		98.1			
	Tl	205	113.433				
	Pb	208	111.050				
	Bi	209					
	U	238	118.720				

QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Tuesday, January 12, 2010 11:55:20
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 noirs thtimozr.mth
Dataset File: C:\elandata\Dataset\100111\QC Std 4.119

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.208**	ug/L	5.965	342	0.000
	Be	9	**0.061**	ug/L	17.987	39	0.000
	B	11	**0.843**	ug/L	9.726	1071	0.000
	Na	23	**89556.240**	ug/L	1.548	402100375	361.687
	Mg	24	**99503.451**	ug/L	2.238	290233366	261.039
	Al	27	**95157.848**	ug/L	5.522	375850355	338.152
	P	31	**95373.888**	ug/L	2.218	19267668	17.327
	K	39	**83428.559**	ug/L	5.774	448871661	403.353
	Ca	43	**88252.325**	ug/L	1.210	897191	0.807
>	Sc	45		ug/L		1111747	1111747.407
	V	51	**0.104**	ug/L	267.185	2190	0.000
	Cr	52	**2.760**	ug/L	1.833	12148	0.009
	Cr	53		ug/L		84601	-0.021
	Mn	55	**5.534**	ug/L	2.370	33569	0.029
	Fe	57	**92073.055**	ug/L	1.006	10165595	9.140
	Co	59	**0.295**	ug/L	3.424	1415	0.001
	Ni	60	**3.052**	ug/L	2.305	2736	0.002
	Cu	63		ug/L		5500	0.005
	Cu	65	**3.500**	ug/L	2.254	3455	0.003
	Zn	66	**4.053**	ug/L	2.732	2812	0.011
	Zn	67		ug/L		6811	-0.010
	Zn	68		ug/L		1119	0.001
>	Ge	74		ug/L		238791	238790.640
	As	75	**-0.611**	ug/L	54.335	-95	-0.002
	Se	77		ug/L		6166	0.006
	Se	82	**-1.463**	ug/L	8.887	-118	-0.000
	Kr	83		ug/L		236	0.001
	Sr	88	**1.121**	ug/L	2.059	9184	0.071
	Y	89		ug/L		300	0.002
	Ag	107	**0.256**	ug/L	36.396	825	0.006
	Cd	111	**1.071**	ug/L	36.936	798	0.006
	Cd	114		ug/L		5072	0.039
>	In	115		ug/L		127915	127915.499
	Sn	120	**0.115**	ug/L	1.827	546	0.003
	Sb	121	**0.226**	ug/L	26.507	922	0.005
	Sb	123		ug/L		726	0.003
	Ba	135		ug/L		611	0.003
	Ba	137	**0.757**	ug/L	4.512	1011	0.005
	Ho	165		ug/L		447	0.002
>	Lu	175		ug/L		179109	179108.758
	Tl	205	**0.024**	ug/L	11.065	737	0.001
	Pb	208	**0.176**	ug/L	3.918	2109	0.009
	Bi	209		ug/L		300	0.002
	U	238	**-0.005**	ug/L	23.332	112	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	0.9999
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23	89.556				
	Mg	24	99.503				
	Al	27	95.158				
	P	31	95.374				
	K	39	83.429				
	Ca	43	88.252				
>	Sc	45		93.7			
	V	51					
	Cr	52	74.607				
	Cr	53					
	Mn	55	95.420				
	Fe	57	92.073				
	Co	59	118.135				
	Ni	60	113.031				
	Cu	63					
	Cu	65	120.694				
	Zn	66	112.579				
	Zn	67					
	Zn	68					
>	Ge	74		91.5			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88	93.445				
	Y	89					
	Ag	107					
	Cd	111	267.862				
	Cd	114					
>	In	115		94.3			
	Sn	120					
	Sb	121	225.713				
	Sb	123					
	Ba	135					
	Ba	137	113.048				
	Ho	165					
>	Lu	175		91.4			
	Tl	205					
	Pb	208	87.893				
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

Sample ID: QC Std 4

Report Date/Time: Tuesday, January 12, 2010 11:57:51

ICPMS#6 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Tuesday, January 12, 2010 12:01:14
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 noirs thtimozr.mth
Dataset File: C:\elandata\Dataset\100111\QC Std 5.120

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**18.165**	ug/L	0.990	20795	0.019
	Be	9	**18.614**	ug/L	1.086	8344	0.008
	B	11	**18.637**	ug/L	2.805	7864	0.007
	Na	23	**88774.817**	ug/L	2.939	390374483	358.531
	Mg	24	**99736.947**	ug/L	4.762	284754034	261.651
	Al	27	**93618.042**	ug/L	3.835	362065686	332.680
	P	31	**97094.749**	ug/L	0.923	19207237	17.639
	K	39	**84186.030**	ug/L	6.794	443663039	407.015
	Ca	43	**89401.314**	ug/L	0.855	889872	0.817
>	Sc	45		ug/L		1088563	1088563.402
	V	51	**20.606**	ug/L	0.539	87200	0.079
	Cr	52	**22.716**	ug/L	0.622	84144	0.076
	Cr	53		ug/L		88587	-0.016
	Mn	55	**25.345**	ug/L	0.542	145118	0.132
	Fe	57	**94516.573**	ug/L	3.778	10215425	9.383
	Co	59	**19.867**	ug/L	2.303	81442	0.075
	Ni	60	**22.450**	ug/L	2.440	19283	0.018
	Cu	63		ug/L		41581	0.038
	Cu	65	**22.632**	ug/L	1.647	21393	0.020
	Zn	66	**22.987**	ug/L	1.471	14845	0.063
	Zn	67		ug/L		8619	-0.002
	Zn	68		ug/L		9644	0.038
>	Ge	74		ug/L		233841	233840.891
	As	75	**20.752**	ug/L	1.959	14613	0.061
	Se	77		ug/L		6772	0.009
	Se	82	**19.368**	ug/L	3.423	1239	0.005
	Kr	83		ug/L		218	0.001
	Sr	88	**21.524**	ug/L	0.821	170654	1.355
	Y	89		ug/L		287	0.002
	Ag	107	**19.066**	ug/L	1.237	56604	0.449
	Cd	111	**19.224**	ug/L	1.499	13703	0.109
	Cd	114		ug/L		35856	0.285
>	In	115		ug/L		125818	125818.331
	Sn	120	**19.984**	ug/L	0.459	58483	0.463
	Sb	121	**20.873**	ug/L	0.431	53243	0.421
	Sb	123		ug/L		41404	0.327
	Ba	135		ug/L		14822	0.083
	Ba	137	**20.563**	ug/L	1.506	25998	0.146
	Ho	165		ug/L		437	0.002
>	Lu	175		ug/L		177409	177408.986
	Tl	205	**17.325**	ug/L	2.489	105683	0.592
	Pb	208	**19.072**	ug/L	1.230	176432	0.992
	Bi	209		ug/L		416	0.002
	U	238	**21.448**	ug/L	1.566	198128	1.116

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	0.9999
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7	90.826				
	Be	9	93.070				
	B	11	93.184				
	Na	23	88.775				
	Mg	24	99.737				
	Al	27	93.618				
	P	31	97.095				
	K	39	84.186				
	Ca	43	89.401				
>	Sc	45		91.7			
	V	51	103.028				
	Cr	52	95.847				
	Cr	53					
	Mn	55	98.235				
	Fe	57	94.517				
	Co	59	98.107				
	Ni	60	98.899				
	Cu	63					
	Cu	65	98.832				
	Zn	66	97.404				
	Zn	67					
	Zn	68					
>	Ge	74		89.6			
	As	75	103.758				
	Se	77					
	Se	82	96.839				
	Kr	83					
	Sr	88	101.530				
	Y	89					
	Ag	107	95.328				
	Cd	111	94.237				
	Cd	114					
>	In	115		92.7			
	Sn	120	99.918				
	Sb	121	103.844				
	Sb	123					
	Ba	135					
	Ba	137	99.481				
	Ho	165					
>	Lu	175		90.5			
	Tl	205	86.624				
	Pb	208	94.417				
	Bi	209					
	U	238	107.241				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Tuesday, January 12, 2010 12:07:08
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 noirs thtimozr.mth
Dataset File: C:\elandata\Dataset\100111\QC Std 6.121

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**44.341**	**ug/L**	2.474	53670	0.046
	Be	9	**46.622**	**ug/L**	0.969	22138	0.019
	B	11	**91.597**	**ug/L**	0.266	37968	0.032
	Na	23	**4373.197**	**ug/L**	17.548	20400711	17.662
	Mg	24	**4850.085**	**ug/L**	2.351	14688248	12.724
	Al	27	**4620.320**	**ug/L**	2.805	18956647	16.419
	P	31	**4743.946**	**ug/L**	0.297	1001453	0.862
	K	39	**3997.264**	**ug/L**	6.337	22906895	19.326
	Ca	43	**4696.906**	**ug/L**	1.537	50005	0.043
>	Sc	45		**ug/L**		1154101	1154100.799
	V	51	**49.703**	**ug/L**	2.287	220441	0.189
	Cr	52	**50.181**	**ug/L**	1.432	194646	0.167
	Cr	53		**ug/L**		128807	0.015
	Mn	55	**49.351**	**ug/L**	0.687	298076	0.257
	Fe	57	**4949.525**	**ug/L**	1.774	571333	0.491
	Co	59	**48.731**	**ug/L**	0.768	211552	0.183
	Ni	60	**50.152**	**ug/L**	0.738	45588	0.039
	Cu	63		**ug/L**		104278	0.090
	Cu	65	**50.105**	**ug/L**	0.410	50103	0.043
	Zn	66	**48.744**	**ug/L**	0.643	33738	0.133
	Zn	67		**ug/L**		13297	0.014
	Zn	68		**ug/L**		24263	0.093
>	Ge	74		**ug/L**		252087	252086.897
	As	75	**46.240**	**ug/L**	1.921	34664	0.136
	Se	77		**ug/L**		8584	0.014
	Se	82	**47.547**	**ug/L**	2.123	3311	0.013
	Kr	83		**ug/L**		82	-0.000
	Sr	88	**50.151**	**ug/L**	2.190	418647	3.157
	Y	89		**ug/L**		84	0.000
	Ag	107	**48.923**	**ug/L**	0.196	152933	1.153
	Cd	111	**47.732**	**ug/L**	0.935	35809	0.270
	Cd	114		**ug/L**		83323	0.628
>	In	115		**ug/L**		132547	132547.343
	Sn	120	**49.187**	**ug/L**	1.968	151339	1.140
	Sb	121	**48.206**	**ug/L**	5.981	129069	0.971
	Sb	123		**ug/L**		101073	0.760
	Ba	135		**ug/L**		37637	0.203
	Ba	137	**50.639**	**ug/L**	2.260	66676	0.360
	Ho	165		**ug/L**		22	0.000
>	Lu	175		**ug/L**		184958	184957.589
	Tl	205	**47.616**	**ug/L**	1.657	301663	1.628
	Pb	208	**49.762**	**ug/L**	1.051	479133	2.588
	Bi	209		**ug/L**		107	0.000
	U	238	**52.564**	**ug/L**	1.838	505939	2.735

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	0.9999
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7	88.682				
	Be	9	93.243				
	B	11	91.597				
	Na	23	87.464				
	Mg	24	97.002				
	Al	27	91.491				
	P	31	94.879				
	K	39	79.945				
	Ca	43	93.938				
>	Sc	45		97.2			
	V	51	99.405				
	Cr	52	100.361				
	Cr	53					
	Mn	55	98.702				
	Fe	57	98.991				
	Co	59	97.463				
	Ni	60	100.303				
	Cu	63					
	Cu	65	100.210				
	Zn	66	97.488				
	Zn	67					
	Zn	68					
>	Ge	74		96.6			
	As	75	92.481				
	Se	77					
	Se	82	95.094				
	Kr	83					
	Sr	88	100.302				
	Y	89					
	Ag	107	97.846				
	Cd	111	95.465				
	Cd	114					
>	In	115		97.7			
	Sn	120	98.375				
	Sb	121	96.412				
	Sb	123					
	Ba	135					
	Ba	137	101.277				
	Ho	165					
>	Lu	175		94.4			
	Tl	205	95.233				
	Pb	208	99.525				
	Bi	209					
	U	238	105.128				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 6	Li	7	CCV is out of limits (+/- 10%)
QC Std 6	Na	23	CCV is out of limits (+/- 10%)
QC Std 6	K	39	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Tuesday, January 12, 2010 12:13:03
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 noirs thtimozr.mth
Dataset File: C:\elandata\Dataset\100111\QC Std 7.122

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	0.040	ug/L	35.888	157	0.000
	Be	9	0.004	ug/L	53.352	14	0.000
	B	11	1.256	ug/L	35.686	1330	0.000
	Na	23	2.921	ug/L	28.361	35043	0.012
	Mg	24	0.731	ug/L	50.411	5668	0.002
	Al	27	0.530	ug/L	128.137	9670	0.002
	P	31	-2.011	ug/L	53.828	6624	-0.000
	K	39	2.084	ug/L	367.027	636934	0.010
	Ca	43	-1.661	ug/L	69.219	460	-0.000
>	Sc	45		ug/L		1199294	1199293.648
	V	51	-0.353	ug/L	85.293	275	-0.001
	Cr	52	0.304	ug/L	8.229	3303	0.001
	Cr	53		ug/L		125572	0.008
	Mn	55	-0.068	ug/L	8.115	1238	-0.000
	Fe	57	10.980	ug/L	7.504	5752	0.001
	Co	59	0.002	ug/L	112.149	203	0.000
	Ni	60	0.009	ug/L	34.578	82	0.000
	Cu	63		ug/L		308	-0.000
	Cu	65	0.023	ug/L	10.954	121	0.000
	Zn	66	-0.016	ug/L	123.050	176	-0.000
	Zn	67		ug/L		8947	-0.005
	Zn	68		ug/L		824	-0.000
>	Ge	74		ug/L		267511	267511.234
	As	75	-0.417	ug/L	75.776	48	-0.001
	Se	77		ug/L		7417	0.008
	Se	82	0.070	ug/L	456.610	-18	0.000
	Kr	83		ug/L		86	-0.000
	Sr	88	-0.001	ug/L	102.113	156	-0.000
	Y	89		ug/L		50	-0.000
	Ag	107	0.003	ug/L	41.549	64	0.000
	Cd	111	-0.008	ug/L	72.653	16	-0.000
	Cd	114		ug/L		43	0.000
>	In	115		ug/L		138831	138831.097
	Sn	120	0.067	ug/L	9.240	438	0.002
	Sb	121	0.722	ug/L	26.006	2391	0.015
	Sb	123		ug/L		1946	0.012
	Ba	135		ug/L		39	0.000
	Ba	137	0.007	ug/L	100.712	59	0.000
	Ho	165		ug/L		20	0.000
>	Lu	175		ug/L		196177	196177.411
	Tl	205	0.253	ug/L	15.048	2347	0.009
	Pb	208	-0.003	ug/L	61.892	485	-0.000
	Bi	209		ug/L		26	0.000
	U	238	0.048	ug/L	17.027	665	0.003

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	0.9999
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		101.0			
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		102.5			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		102.3			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		100.1			
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202004420
Sample Date/Time: Tuesday, January 12, 2010 12:18:59
Sample Type:
Sample Description: LANL 6020 MB
Number of Replicates: 3
Batch ID: 936805|2|rmj
Method File: c:\elandata\Method\6020 nolrs thtimozr.mth
Dataset File: C:\elandata\Dataset\100111\1202004420.123

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	-0.019	ug/L	39.427	93	-0.000
	Be	9	-0.002	ug/L	324.920	12	-0.000
	B	11	0.012	ug/L	816.647	901	0.000
	Na	23	6.089	ug/L	8.330	56445	0.025
	Mg	24	1.581	ug/L	42.214	9337	0.004
	Al	27	2.037	ug/L	45.784	18012	0.007
	P	31	21.662	ug/L	10.508	13199	0.004
	K	39	-15.176	ug/L	39.565	601077	-0.073
	Ca	43	-0.651	ug/L	859.096	527	-0.000
>	Sc	45		ug/L		1343330	1343329.559
	V	51	0.204	ug/L	110.147	3160	0.001
	Cr	52	0.464	ug/L	9.081	4416	0.002
	Cr	53		ug/L		96320	-0.025
	Mn	55	0.127	ug/L	5.574	2750	0.001
	Fe	57	17.175	ug/L	11.723	7267	0.002
	Co	59	-0.004	ug/L	88.239	201	-0.000
	Ni	60	0.128	ug/L	9.842	218	0.000
	Cu	63		ug/L		592	0.000
	Cu	65	0.143	ug/L	3.861	275	0.000
	Zn	66	0.960	ug/L	3.653	966	0.003
	Zn	67		ug/L		7037	-0.015
	Zn	68		ug/L		1265	0.001
>	Ge	74		ug/L		290427	290427.104
	As	75	-0.646	ug/L	55.248	-146	-0.002
	Se	77		ug/L		5053	-0.002
	Se	82	0.216	ug/L	47.609	-8	0.000
	Kr	83		ug/L		73	-0.000
	Sr	88	0.021	ug/L	11.289	390	0.001
	Y	89		ug/L		69	-0.000
	Ag	107	0.023	ug/L	20.703	147	0.001
	Cd	111	0.086	ug/L	45.495	101	0.000
	Cd	114		ug/L		28	-0.000
>	In	115		ug/L		156316	156315.806
	Sn	120	0.088	ug/L	11.560	568	0.002
	Sb	121	0.071	ug/L	44.290	638	0.001
	Sb	123		ug/L		506	0.001
	Ba	135		ug/L		253	0.001
	Ba	137	0.248	ug/L	5.546	437	0.002
	Ho	165		ug/L		18	-0.000
>	Lu	175		ug/L		216644	216643.889
	Tl	205	0.171	ug/L	25.014	1983	0.006
	Pb	208	0.035	ug/L	5.918	965	0.002
	Bi	209		ug/L		46	0.000
	U	238	0.006	ug/L	32.283	252	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	0.9999
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		113.2			
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		111.3			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		115.2			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		110.5			
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202004421
Sample Date/Time: Tuesday, January 12, 2010 12:30:51
Sample Type:
Sample Description: LANL 6020 LCS
Number of Replicates: 3
Batch ID: 936805|40|rmj
Method File: c:\elandata\Method\6020 nolrs thtimozr.mth
Dataset File: C:\elandata\Dataset\100111\1202004421.125

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**2.272**	**ug/L**	1.163	2960	0.002
	Be	9	**18.754**	**ug/L**	0.659	9261	0.008
	B	11	**38.728**	**ug/L**	3.192	17144	0.014
	Na	23	**230.464**	**ug/L**	4.208	1137259	0.931
	Mg	24	**1113.832**	**ug/L**	3.056	3507522	2.922
	Al	27	**3014.261**	**ug/L**	5.387	12854968	10.711
	P	31	**197.526**	**ug/L**	1.574	50098	0.036
	K	39	**991.067**	**ug/L**	10.183	6371262	4.792
	Ca	43	**2455.795**	**ug/L**	0.928	27396	0.022
>	Sc	45		**ug/L**		1199238	1199238.300
	V	51	**27.739**	**ug/L**	0.093	128670	0.106
	Cr	52	**62.757**	**ug/L**	0.730	252417	0.209
	Cr	53		**ug/L**		148785	0.027
	Mn	55	**137.459**	**ug/L**	1.526	859713	0.716
	Fe	57	**4190.036**	**ug/L**	0.477	503262	0.416
	Co	59	**24.137**	**ug/L**	0.763	108979	0.091
	Ni	60	**35.955**	**ug/L**	2.358	33979	0.028
	Cu	63		**ug/L**		96579	0.080
	Cu	65	**44.238**	**ug/L**	2.585	45973	0.038
	Zn	66	**145.235**	**ug/L**	1.754	103991	0.397
	Zn	67		**ug/L**		24506	0.055
	Zn	68		**ug/L**		73503	0.277
>	Ge	74		**ug/L**		261698	261697.653
	As	75	**25.349**	**ug/L**	3.501	19892	0.075
	Se	77		**ug/L**		10469	0.020
	Se	82	**67.867**	**ug/L**	2.070	4916	0.019
	Kr	83		**ug/L**		88	-0.000
	Sr	88	**58.585**	**ug/L**	0.266	507781	3.688
	Y	89		**ug/L**		27976	0.203
	Ag	107	**5.149**	**ug/L**	1.834	16762	0.121
	Cd	111	**14.950**	**ug/L**	2.037	11660	0.085
	Cd	114		**ug/L**		27278	0.198
>	In	115		**ug/L**		137622	137622.306
	Sn	120	**8.141**	**ug/L**	0.373	26192	0.189
	Sb	121	**16.893**	**ug/L**	0.957	47204	0.340
	Sb	123		**ug/L**		36403	0.262
	Ba	135		**ug/L**		38621	0.196
	Ba	137	**48.856**	**ug/L**	1.732	68396	0.348
	Ho	165		**ug/L**		1397	0.007
>	Lu	175		**ug/L**		196609	196608.970
	Tl	205	**27.593**	**ug/L**	3.336	186114	0.943
	Pb	208	**20.517**	**ug/L**	0.692	210318	1.067
	Bi	209		**ug/L**		1729	0.009
	U	238	**0.500**	**ug/L**	3.102	5283	0.026

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	0.9999
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45			101.0		
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74			100.3		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115			101.4		
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175			100.3		
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Tuesday, January 12, 2010 12:36:46
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 noirs thtimozr.mth
Dataset File: C:\elandata\Dataset\100111\QC Std 6.126

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**43.431**	**ug/L**	1.219	54469	0.045
	Be	9	**45.882**	**ug/L**	2.211	22573	0.019
	B	11	**93.786**	**ug/L**	3.538	40254	0.033
	Na	23	**4471.712**	**ug/L**	10.354	21604345	18.060
	Mg	24	**4854.918**	**ug/L**	0.409	15234041	12.736
	Al	27	**4685.487**	**ug/L**	0.888	19919066	16.650
	P	31	**4579.902**	**ug/L**	0.868	1002030	0.832
	K	39	**4332.219**	**ug/L**	4.188	25671069	20.945
	Ca	43	**4547.905**	**ug/L**	1.495	50183	0.042
>	Sc	45		**ug/L**		1195851	1195850.933
	V	51	**47.984**	**ug/L**	0.378	220573	0.183
	Cr	52	**48.545**	**ug/L**	1.245	195166	0.161
	Cr	53		**ug/L**		133996	0.015
	Mn	55	**47.840**	**ug/L**	1.445	299464	0.249
	Fe	57	**4867.292**	**ug/L**	0.230	582248	0.483
	Co	59	**47.769**	**ug/L**	0.433	214875	0.180
	Ni	60	**49.549**	**ug/L**	1.509	46668	0.039
	Cu	63		**ug/L**		104615	0.087
	Cu	65	**47.953**	**ug/L**	1.467	49687	0.041
	Zn	66	**47.303**	**ug/L**	0.507	33754	0.129
	Zn	67		**ug/L**		13536	0.013
	Zn	68		**ug/L**		24344	0.090
>	Ge	74		**ug/L**		259847	259846.685
	As	75	**45.936**	**ug/L**	2.404	35491	0.135
	Se	77		**ug/L**		8697	0.014
	Se	82	**45.741**	**ug/L**	1.559	3282	0.013
	Kr	83		**ug/L**		91	-0.000
	Sr	88	**47.163**	**ug/L**	0.979	413526	2.969
	Y	89		**ug/L**		77	-0.000
	Ag	107	**46.500**	**ug/L**	2.037	152659	1.096
	Cd	111	**45.031**	**ug/L**	1.398	35482	0.255
	Cd	114		**ug/L**		83546	0.600
>	In	115		**ug/L**		139215	139215.046
	Sn	120	**46.448**	**ug/L**	1.270	150104	1.077
	Sb	121	**47.313**	**ug/L**	6.739	133075	0.953
	Sb	123		**ug/L**		102991	0.738
	Ba	135		**ug/L**		37347	0.191
	Ba	137	**47.108**	**ug/L**	1.322	65471	0.335
	Ho	165		**ug/L**		29	0.000
>	Lu	175		**ug/L**		195200	195199.981
	Tl	205	**45.700**	**ug/L**	1.627	305587	1.562
	Pb	208	**46.582**	**ug/L**	2.544	473338	2.423
	Bi	209		**ug/L**		104	0.000
	U	238	**49.267**	**ug/L**	1.988	500475	2.563

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	0.9999
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7	86.861				
	Be	9	91.765				
	B	11	93.786				
	Na	23	89.434				
	Mg	24	97.098				
	Al	27	92.782				
	P	31	91.598				
	K	39	86.644				
	Ca	43	90.958				
>	Sc	45		100.7			
	V	51	95.968				
	Cr	52	97.090				
	Cr	53					
	Mn	55	95.681				
	Fe	57	97.346				
	Co	59	95.538				
	Ni	60	99.099				
	Cu	63					
	Cu	65	95.907				
	Zn	66	94.606				
	Zn	67					
	Zn	68					
>	Ge	74		99.6			
	As	75	91.871				
	Se	77					
	Se	82	91.482				
	Kr	83					
	Sr	88	94.326				
	Y	89					
	Ag	107	93.001				
	Cd	111	90.062				
	Cd	114					
>	In	115		102.6			
	Sn	120	92.895				
	Sb	121	94.627				
	Sb	123					
	Ba	135					
	Ba	137	94.217				
	Ho	165					
>	Lu	175		99.6			
	Tl	205	91.400				
	Pb	208	93.164				
	Bi	209					
	U	238	98.534				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 6	Li	7	CCV is out of limits (+/- 10%)
QC Std 6	Na	23	CCV is out of limits (+/- 10%)
QC Std 6	K	39	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Tuesday, January 12, 2010 12:42:40
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 noirs thtlmozr.mth
Dataset File: C:\elandata\Dataset\100111\QC Std 7.127

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	-0.009	ug/L	72.532	99	-0.000
	Be	9	0.005	ug/L	165.642	15	0.000
	B	11	1.392	ug/L	37.685	1434	0.000
	Na	23	0.080	ug/L	882.628	22017	0.000
	Mg	24	0.876	ug/L	21.317	6335	0.002
	Al	27	0.981	ug/L	79.152	12005	0.003
	P	31	-2.568	ug/L	10.817	6729	-0.000
	K	39	-9.905	ug/L	8.736	587157	-0.048
	Ca	43	-4.350	ug/L	82.847	445	-0.000
>	Sc	45		ug/L		1241149	1241148.836
	V	51	0.022	ug/L	2279.535	2064	0.000
	Cr	52	0.537	ug/L	4.079	4383	0.002
	Cr	53		ug/L		126388	0.005
	Mn	55	-0.073	ug/L	2.883	1250	-0.000
	Fe	57	3.331	ug/L	55.403	5009	0.000
	Co	59	0.001	ug/L	173.836	207	0.000
	Ni	60	0.002	ug/L	341.058	78	0.000
	Cu	63		ug/L		256	-0.000
	Cu	65	0.009	ug/L	85.161	110	0.000
	Zn	66	-0.031	ug/L	6.778	167	-0.000
	Zn	67		ug/L		9032	-0.005
	Zn	68		ug/L		810	-0.001
>	Ge	74		ug/L		270038	270037.729
	As	75	-0.715	ug/L	23.637	-189	-0.002
	Se	77		ug/L		7516	0.008
	Se	82	0.435	ug/L	56.788	9	0.000
	Kr	83		ug/L		74	-0.000
	Sr	88	0.000	ug/L	181.507	171	0.000
	Y	89		ug/L		48	-0.000
	Ag	107	0.001	ug/L	706.899	59	0.000
	Cd	111	-0.003	ug/L	400.600	21	-0.000
	Cd	114		ug/L		39	0.000
>	In	115		ug/L		142231	142231.295
	Sn	120	0.053	ug/L	21.811	403	0.001
	Sb	121	0.477	ug/L	33.077	1741	0.010
	Sb	123		ug/L		1342	0.007
	Ba	135		ug/L		36	0.000
	Ba	137	0.001	ug/L	961.775	52	0.000
	Ho	165		ug/L		21	0.000
>	Lu	175		ug/L		196854	196853.554
	Tl	205	0.556	ug/L	10.915	4390	0.019
	Pb	208	-0.006	ug/L	48.816	457	-0.000
	Bi	209		ug/L		25	0.000
	U	238	0.046	ug/L	30.127	640	0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	0.9999
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		104.6			
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		103.5			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		104.8			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		100.4			
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Tuesday, January 12, 2010 13:36:07
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 noirs thtimozr.mth
Dataset File: C:\elandata\Dataset\100111\QC Std 6.136

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**49.379**	ug/L	3.202	60987	0.052
	Be	9	**49.803**	ug/L	1.097	24132	0.020
	B	11	**98.899**	ug/L	1.428	41767	0.035
	Na	23	**4865.003**	ug/L	8.386	23146422	19.648
	Mg	24	**5009.716**	ug/L	1.893	15480183	13.143
	Al	27	**5106.414**	ug/L	3.771	21374962	18.146
	P	31	**4735.820**	ug/L	0.989	1020103	0.860
	K	39	**4369.646**	ug/L	7.706	25485047	21.126
	Ca	43	**4693.277**	ug/L	0.234	50986	0.043
>	Sc	45		ug/L		1177638	1177638.214
	V	51	**49.684**	ug/L	0.754	224853	0.189
	Cr	52	**50.616**	ug/L	0.629	200317	0.168
	Cr	53		ug/L		123613	0.008
	Mn	55	**49.870**	ug/L	1.171	307342	0.260
	Fe	57	**4978.289**	ug/L	1.703	586297	0.494
	Co	59	**49.270**	ug/L	2.360	218218	0.185
	Ni	60	**50.844**	ug/L	1.519	47155	0.040
	Cu	63		ug/L		105735	0.089
	Cu	65	**49.065**	ug/L	1.142	50065	0.042
	Zn	66	**49.025**	ug/L	2.045	34714	0.134
	Zn	67		ug/L		13736	0.014
	Zn	68		ug/L		25000	0.093
>	Ge	74		ug/L		257922	257922.150
	As	75	**47.309**	ug/L	1.297	36275	0.139
	Se	77		ug/L		7351	0.009
	Se	82	**46.751**	ug/L	1.313	3331	0.013
	Kr	83		ug/L		128	0.000
	Sr	88	**49.885**	ug/L	2.231	419510	3.141
	Y	89		ug/L		152	0.001
	Ag	107	**48.445**	ug/L	0.466	152569	1.142
	Cd	111	**48.101**	ug/L	0.539	36357	0.272
	Cd	114		ug/L		84610	0.633
>	In	115		ug/L		133542	133542.476
	Sn	120	**48.653**	ug/L	1.232	150814	1.128
	Sb	121	**50.360**	ug/L	6.596	135777	1.015
	Sb	123		ug/L		104947	0.784
	Ba	135		ug/L		37441	0.199
	Ba	137	**49.297**	ug/L	1.947	65856	0.351
	Ho	165		ug/L		28	0.000
>	Lu	175		ug/L		187651	187651.440
	Tl	205	**46.862**	ug/L	1.984	301240	1.602
	Pb	208	**48.739**	ug/L	1.121	476160	2.535
	Bi	209		ug/L		124	0.001
	U	238	**51.816**	ug/L	1.969	506047	2.696

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	0.9999
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7	98.758				
	Be	9	99.605				
	B	11	98.899				
	Na	23	97.300				
	Mg	24	100.194				
	Al	27	101.117				
	P	31	94.716				
	K	39	87.393				
	Ca	43	93.866				
>	Sc	45		99.2			
	V	51	99.367				
	Cr	52	101.232				
	Cr	53					
	Mn	55	99.739				
	Fe	57	99.566				
	Co	59	98.540				
	Ni	60	101.688				
	Cu	63					
	Cu	65	98.131				
	Zn	66	98.050				
	Zn	67					
	Zn	68					
>	Ge	74		98.9			
	As	75	94.619				
	Se	77					
	Se	82	93.503				
	Kr	83					
	Sr	88	99.770				
	Y	89					
	Ag	107	96.890				
	Cd	111	96.202				
	Cd	114					
>	In	115		98.4			
	Sn	120	97.307				
	Sb	121	100.720				
	Sb	123					
	Ba	135					
	Ba	137	98.593				
	Ho	165					
>	Lu	175		95.7			
	Tl	205	93.724				
	Pb	208	97.477				
	Bi	209					
	U	238	103.632				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 6	K	39	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Tuesday, January 12, 2010 13:42:02
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 noirs thtimozr.mth
Dataset File: C:\elandata\Dataset\100111\QC Std 7.137

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	0.046	ug/L	11.846	164	0.000
	Be	9	0.005	ug/L	160.812	14	0.000
	B	11	1.312	ug/L	26.396	1344	0.000
	Na	23	0.675	ug/L	129.417	24021	0.003
	Mg	24	0.322	ug/L	256.163	4334	0.001
	Al	27	0.777	ug/L	73.031	10671	0.003
	P	31	-0.154	ug/L	331.001	6982	-0.000
	K	39	5.562	ug/L	79.536	652579	0.027
	Ca	43	0.876	ug/L	442.494	485	0.000
>	Sc	45		ug/L		1191505	1191504.696
	V	51	-0.547	ug/L	16.610	-612	-0.002
	Cr	52	0.432	ug/L	4.551	3790	0.001
	Cr	53		ug/L		116972	0.001
	Mn	55	0.080	ug/L	15.976	2150	0.000
	Fe	57	9.380	ug/L	17.224	5524	0.001
	Co	59	0.001	ug/L	312.559	200	0.000
	Ni	60	0.001	ug/L	2000.622	74	0.000
	Cu	63		ug/L		501	0.000
	Cu	65	0.008	ug/L	197.842	105	0.000
	Zn	66	0.022	ug/L	191.846	198	0.000
	Zn	67		ug/L		9761	-0.001
	Zn	68		ug/L		881	-0.000
>	Ge	74		ug/L		259668	259668.102
	As	75	-0.436	ug/L	140.194	33	-0.001
	Se	77		ug/L		5690	0.002
	Se	82	0.200	ug/L	109.614	-9	0.000
	Kr	83		ug/L		98	0.000
	Sr	88	0.004	ug/L	40.476	194	0.000
	Y	89		ug/L		84	0.000
	Ag	107	0.003	ug/L	126.507	65	0.000
	Cd	111	0.024	ug/L	21.935	40	0.000
	Cd	114		ug/L		32	0.000
>	In	115		ug/L		134374	134373.566
	Sn	120	0.057	ug/L	26.183	392	0.001
	Sb	121	0.471	ug/L	29.314	1630	0.009
	Sb	123		ug/L		1247	0.007
	Ba	135		ug/L		34	0.000
	Ba	137	-0.001	ug/L	193.934	46	-0.000
	Ho	165		ug/L		20	0.000
>	Lu	175		ug/L		188692	188691.594
	Tl	205	0.206	ug/L	20.750	1952	0.007
	Pb	208	-0.000	ug/L	634.842	496	-0.000
	Bi	209		ug/L		23	0.000
	U	238	0.043	ug/L	38.046	588	0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	0.9999
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		100.4			
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		99.5			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		99.0			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		96.3			
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Tuesday, January 12, 2010 14:35:22
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 noirs thtimozr.mth
Dataset File: C:\elandata\Dataset\100111\QC Std 6.146

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**54.503**	**ug/L**	1.583	65615	0.057
	Be	9	**53.312**	**ug/L**	1.923	25185	0.022
	B	11	**103.791**	**ug/L**	1.735	42703	0.037
	Na	23	**4701.779**	**ug/L**	3.002	21823188	18.989
	Mg	24	**5306.178**	**ug/L**	1.288	15988519	13.920
	Al	27	**5103.325**	**ug/L**	6.101	20832409	18.135
	P	31	**4769.153**	**ug/L**	0.231	1001678	0.866
	K	39	**5152.109**	**ug/L**	7.598	29205491	24.909
	Ca	43	**4926.888**	**ug/L**	0.814	52166	0.045
>	Sc	45		**ug/L**		1148303	1148303.429
	V	51	**50.018**	**ug/L**	1.463	220712	0.191
	Cr	52	**50.788**	**ug/L**	0.899	195985	0.169
	Cr	53		**ug/L**		115769	0.004
	Mn	55	**51.703**	**ug/L**	1.097	310630	0.269
	Fe	57	**5137.370**	**ug/L**	1.462	589865	0.510
	Co	59	**49.943**	**ug/L**	0.610	215711	0.188
	Ni	60	**50.875**	**ug/L**	1.594	46010	0.040
	Cu	63		**ug/L**		103247	0.090
	Cu	65	**49.676**	**ug/L**	1.028	49426	0.043
	Zn	66	**49.520**	**ug/L**	1.140	33950	0.135
	Zn	67		**ug/L**		13291	0.014
	Zn	68		**ug/L**		24779	0.096
>	Ge	74		**ug/L**		249715	249715.222
	As	75	**47.421**	**ug/L**	1.132	35203	0.140
	Se	77		**ug/L**		6833	0.008
	Se	82	**47.055**	**ug/L**	2.909	3245	0.013
	Kr	83		**ug/L**		120	0.000
	Sr	88	**51.189**	**ug/L**	1.017	419770	3.223
	Y	89		**ug/L**		238	0.001
	Ag	107	**48.946**	**ug/L**	0.489	150300	1.154
	Cd	111	**49.587**	**ug/L**	1.608	36540	0.280
	Cd	114		**ug/L**		84116	0.646
>	In	115		**ug/L**		130205	130204.635
	Sn	120	**50.272**	**ug/L**	1.645	151930	1.165
	Sb	121	**50.654**	**ug/L**	6.241	133185	1.021
	Sb	123		**ug/L**		104633	0.802
	Ba	135		**ug/L**		36728	0.196
	Ba	137	**48.625**	**ug/L**	1.264	64715	0.346
	Ho	165		**ug/L**		40	0.000
>	Lu	175		**ug/L**		186929	186929.024
	Tl	205	**46.753**	**ug/L**	0.276	299406	1.598
	Pb	208	**49.410**	**ug/L**	0.879	480834	2.570
	Bi	209		**ug/L**		102	0.000
	U	238	**51.969**	**ug/L**	2.368	505551	2.704

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	0.9999
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7	109.007				
	Be	9	106.623				
	B	11	103.791				
	Na	23	94.036				
	Mg	24	106.124				
	Al	27	101.056				
	P	31	95.383				
	K	39	103.042				
	Ca	43	98.538				
>	Sc	45		96.7			
	V	51	100.036				
	Cr	52	101.576				
	Cr	53					
	Mn	55	103.406				
	Fe	57	102.747				
	Co	59	99.885				
	Ni	60	101.749				
	Cu	63					
	Cu	65	99.352				
	Zn	66	99.041				
	Zn	67					
	Zn	68					
>	Ge	74		95.7			
	As	75	94.842				
	Se	77					
	Se	82	94.110				
	Kr	83					
	Sr	88	102.377				
	Y	89					
	Ag	107	97.893				
	Cd	111	99.174				
	Cd	114					
>	In	115		96.0			
	Sn	120	100.544				
	Sb	121	101.308				
	Sb	123					
	Ba	135					
	Ba	137	97.250				
	Ho	165					
>	Lu	175		95.4			
	Tl	205	93.506				
	Pb	208	98.821				
	Bi	209					
	U	238	103.939				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Tuesday, January 12, 2010 14:41:17
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 noirs thtimozr.mth
Dataset File: C:\elandata\Dataset\100111\QC Std 7.147

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.070**	ug/L	20.607	197	0.000
	Be	9	**0.007**	ug/L	84.124	16	0.000
	B	11	**1.151**	ug/L	34.736	1300	0.000
	Na	23	**0.248**	ug/L	263.258	22351	0.001
	Mg	24	**1.336**	ug/L	118.021	7669	0.004
	Al	27	**1.511**	ug/L	41.060	14007	0.005
	P	31	**-1.959**	ug/L	73.505	6712	-0.000
	K	39	**-14.607**	ug/L	51.307	546290	-0.071
	Ca	43	**-7.553**	ug/L	38.579	400	-0.000
>	Sc	45		ug/L		1213114	1213113.997
	V	51	**-0.705**	ug/L	70.672	-1345	-0.003
	Cr	52	**0.224**	ug/L	17.159	3019	0.001
	Cr	53		ug/L		107970	-0.008
	Mn	55	**0.033**	ug/L	22.532	1889	0.000
	Fe	57	**3.370**	ug/L	38.969	4902	0.000
	Co	59	**0.002**	ug/L	154.231	207	0.000
	Ni	60	**0.001**	ug/L	397.783	76	0.000
	Cu	63		ug/L		391	0.000
	Cu	65	**0.007**	ug/L	214.310	106	0.000
	Zn	66	**-0.008**	ug/L	159.912	181	-0.000
	Zn	67		ug/L		9435	-0.003
	Zn	68		ug/L		813	-0.000
>	Ge	74		ug/L		265000	265000.058
	As	75	**-0.295**	ug/L	131.579	142	-0.001
	Se	77		ug/L		5265	0.000
	Se	82	**0.156**	ug/L	142.244	-12	0.000
	Kr	83		ug/L		84	-0.000
	Sr	88	**0.002**	ug/L	21.382	182	0.000
	Y	89		ug/L		91	0.000
	Ag	107	**-0.001**	ug/L	228.838	53	-0.000
	Cd	111	**-0.006**	ug/L	274.898	18	-0.000
	Cd	114		ug/L		36	0.000
>	In	115		ug/L		138382	138381.719
	Sn	120	**0.048**	ug/L	23.840	376	0.001
	Sb	121	**0.523**	ug/L	37.170	1819	0.011
	Sb	123		ug/L		1403	0.008
	Ba	135		ug/L		36	0.000
	Ba	137	**0.001**	ug/L	205.115	51	0.000
	Ho	165		ug/L		17	0.000
>	Lu	175		ug/L		196655	196655.142
	Tl	205	**0.142**	ug/L	28.106	1600	0.005
	Pb	208	**-0.003**	ug/L	109.445	486	-0.000
	Bi	209		ug/L		27	0.000
	U	238	**0.042**	ug/L	21.767	606	0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	0.9999
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		102.2			
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		101.6			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		102.0			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		100.3			
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

Sample ID: QC Std 7

Report Date/Time: Thursday, January 12, 2010 14:43:49

ICPMS#6 - Summary Report

Sample ID: 243549002
Sample Date/Time: Tuesday, January 12, 2010 14:47:12
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 936805|2|rm|
Method File: c:\elandata\Method\6020 noirs thtimozr.mth
Dataset File: C:\elandata\Dataset\100111\243549002.148

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**37.379**	ug/L	4.344	51615	0.039
	Be	9	**2.532**	ug/L	2.693	1384	0.001
	B	11	**6.391**	ug/L	0.589	3838	0.002
	Na	23	**827.992**	ug/L	3.816	4425201	3.344
	Mg	24	**3891.957**	ug/L	5.348	13444162	10.210
	Al	27	**24802.395**	ug/L	2.757	116035509	88.137
	P	31	**274.590**	ug/L	1.200	73432	0.050
	K	39	**2928.363**	ug/L	5.312	19323060	14.158
	Ca	43	**2836.713**	ug/L	1.778	34655	0.026
>	Sc	45		ug/L		1316538	1316538.315
	V	51	**27.266**	ug/L	1.911	138865	0.104
	Cr	52	**36.282**	ug/L	1.481	161165	0.121
	Cr	53		ug/L		87641	-0.030
	Mn	55	**843.255**	ug/L	1.500	5780438	4.389
	Fe	57	**20151.187**	ug/L	2.455	2638251	2.000
	Co	59	**5.291**	ug/L	0.141	26392	0.020
	Ni	60	**13.762**	ug/L	1.333	14328	0.011
	Cu	63		ug/L		29064	0.022
	Cu	65	**12.057**	ug/L	0.703	13834	0.010
	Zn	66	**93.247**	ug/L	2.072	68207	0.255
	Zn	67		ug/L		17457	0.027
	Zn	68		ug/L		50134	0.184
>	Ge	74		ug/L		267150	267149.839
	As	75	**3.862**	ug/L	6.329	3408	0.011
	Se	77		ug/L		2866	-0.009
	Se	82	**0.460**	ug/L	8.072	10	0.000
	Kr	83		ug/L		173	0.000
	Sr	88	**22.521**	ug/L	1.515	208939	1.418
	Y	89		ug/L		828689	5.628
	Ag	107	**0.151**	ug/L	3.760	582	0.004
	Cd	111	**0.834**	ug/L	3.925	718	0.005
	Cd	114		ug/L		185	0.001
>	In	115		ug/L		147227	147227.477
	Sn	120	**0.851**	ug/L	0.278	3141	0.020
	Sb	121	**0.271**	ug/L	7.529	1194	0.005
	Sb	123		ug/L		942	0.004
	Ba	135		ug/L		107851	0.480
	Ba	137	**118.330**	ug/L	1.444	189153	0.842
	Ho	165		ug/L		42212	0.188
>	Lu	175		ug/L		224609	224609.243
	Tl	205	**0.327**	ug/L	6.554	3252	0.011
	Pb	208	**19.798**	ug/L	1.058	231856	1.030
	Bi	209		ug/L		2047	0.009
	U	238	**2.278**	ug/L	1.190	26821	0.119

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	0.9999
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		110.9			
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		102.4			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		108.5			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		114.6			
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202004422
Sample Date/Time: Tuesday, January 12, 2010 14:53:05
Sample Type:
Sample Description: LANL 6020 DUP
Number of Replicates: 3
Batch ID: 936805|2|rmj
Method File: c:\elandata\Method\6020 noirs thtimozr.mth
Dataset File: C:\elandata\Dataset\100111\1202004422.149

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**37.134**	**ug/L**	1.314	51030	0.039
	Be	9	**3.426**	**ug/L**	1.697	1858	0.001
	B	11	**8.635**	**ug/L**	2.812	4853	0.003
	Na	23	**994.257**	**ug/L**	7.007	5282759	4.015
	Mg	24	**5529.701**	**ug/L**	5.551	19003757	14.507
	Al	27	**37181.088**	**ug/L**	5.109	173093571	132.126
	P	31	**272.217**	**ug/L**	1.960	72487	0.049
	K	39	**3652.546**	**ug/L**	13.405	23810847	17.659
	Ca	43	**4080.599**	**ug/L**	1.276	49373	0.037
>	Sc	45		**ug/L**		1309834	1309834.483
	V	51	**38.365**	**ug/L**	1.410	193581	0.146
	Cr	52	**37.539**	**ug/L**	1.521	165830	0.125
	Cr	53		**ug/L**		83840	-0.033
	Mn	55	**771.846**	**ug/L**	0.476	5264394	4.018
	Fe	57	**26342.833**	**ug/L**	0.878	3430176	2.615
	Co	59	**8.169**	**ug/L**	0.498	40425	0.031
	Ni	60	**17.813**	**ug/L**	0.864	18429	0.014
	Cu	63		**ug/L**		35320	0.027
	Cu	65	**15.061**	**ug/L**	1.146	17167	0.013
	Zn	66	**98.003**	**ug/L**	2.569	70250	0.268
	Zn	67		**ug/L**		17432	0.028
	Zn	68		**ug/L**		51609	0.194
>	Ge	74		**ug/L**		261809	261809.416
	As	75	**4.989**	**ug/L**	4.979	4213	0.015
	Se	77		**ug/L**		2681	-0.009
	Se	82	**-0.183**	**ug/L**	71.066	-36	-0.000
	Kr	83		**ug/L**		209	0.000
	Sr	88	**31.986**	**ug/L**	1.027	290279	2.014
	Y	89		**ug/L**		808559	5.612
	Ag	107	**0.186**	**ug/L**	4.829	688	0.004
	Cd	111	**0.858**	**ug/L**	6.822	722	0.005
	Cd	114		**ug/L**		192	0.001
>	In	115		**ug/L**		144061	144060.647
	Sn	120	**0.733**	**ug/L**	3.250	2680	0.017
	Sb	121	**0.181**	**ug/L**	3.756	908	0.004
	Sb	123		**ug/L**		738	0.003
	Ba	135		**ug/L**		150358	0.678
	Ba	137	**166.448**	**ug/L**	1.825	262619	1.184
	Ho	165		**ug/L**		41390	0.187
>	Lu	175		**ug/L**		221737	221736.675
	Tl	205	**0.344**	**ug/L**	1.672	3343	0.012
	Pb	208	**23.558**	**ug/L**	0.836	272246	1.225
	Bi	209		**ug/L**		2895	0.013
	U	238	**2.594**	**ug/L**	1.389	30113	0.135

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	0.9999
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		110.3			
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		100.3			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		106.2			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		113.1			
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202004423
Sample Date/Time: Tuesday, January 12, 2010 14:58:59
Sample Type:
Sample Description: LANL 6020 MS
Number of Replicates: 3
Batch ID: 936805|2|rmj
Method File: c:\elandata\Method\6020 noirs thtimozr.mth
Dataset File: C:\elandata\Dataset\100111\1202004423.150

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**72.047**	ug/L	2.445	98485	0.075
	Be	9	**30.147**	ug/L	0.604	16186	0.012
	B	11	**64.013**	ug/L	2.090	30251	0.023
	Na	23	**1904.537**	ug/L	0.805	10056581	7.692
	Mg	24	**6077.558**	ug/L	5.023	20809690	15.944
	Al	27	**38201.254**	ug/L	2.185	177106829	135.751
	P	31	**1281.651**	ug/L	0.491	311429	0.233
	K	39	**5173.842**	ug/L	7.347	33297981	25.014
	Ca	43	**4614.193**	ug/L	1.162	55533	0.042
>	Sc	45		ug/L		1304542	1304541.998
	V	51	**65.794**	ug/L	1.039	329198	0.251
	Cr	52	**70.154**	ug/L	0.375	306687	0.233
	Cr	53		ug/L		98460	-0.021
	Mn	55	**1008.028**	ug/L	1.385	6846522	5.247
	Fe	57	**26479.419**	ug/L	1.109	3433781	2.629
	Co	59	**33.097**	ug/L	0.524	162471	0.124
	Ni	60	**40.797**	ug/L	0.316	41933	0.032
	Cu	63		ug/L		87134	0.067
	Cu	65	**36.801**	ug/L	0.597	41623	0.032
	Zn	66	**125.654**	ug/L	0.461	89059	0.343
	Zn	67		ug/L		21035	0.042
	Zn	68		ug/L		66776	0.254
>	Ge	74		ug/L		258968	258968.101
	As	75	**41.660**	ug/L	1.581	32118	0.123
	Se	77		ug/L		2959	-0.008
	Se	82	**8.257**	ug/L	3.657	572	0.002
	Kr	83		ug/L		225	0.001
	Sr	88	**59.171**	ug/L	0.920	537994	3.725
	Y	89		ug/L		843912	5.845
	Ag	107	**23.510**	ug/L	1.728	80074	0.554
	Cd	111	**6.490**	ug/L	4.274	5325	0.037
	Cd	114		ug/L		9297	0.064
>	In	115		ug/L		144375	144374.777
	Sn	120	**13.592**	ug/L	1.065	45717	0.315
	Sb	121	**54.327**	ug/L	0.654	158402	1.095
	Sb	123		ug/L		124310	0.859
	Ba	135		ug/L		280666	1.266
	Ba	137	**306.479**	ug/L	0.877	483294	2.181
	Ho	165		ug/L		43326	0.195
>	Lu	175		ug/L		221603	221602.764
	Tl	205	**42.510**	ug/L	3.175	322767	1.453
	Pb	208	**115.484**	ug/L	0.722	1331564	6.006
	Bi	209		ug/L		2942	0.013
	U	238	**27.519**	ug/L	1.627	317483	1.432

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	0.9999
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		109.9			
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		99.3			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		106.4			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		113.1			
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Mn 55 Upper, S, EEtMn		55	Sample is out of limits (over linear range)

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: 1202004425
Sample Date/Time: Tuesday, January 12, 2010 15:04:53
Sample Type:
Sample Description: LANL 6020 MSD
Number of Replicates: 3
Batch ID: 936805|2|rmj
Method File: c:\elandata\Method\6020 noirs thtimozr.mth
Dataset File: C:\elandata\Dataset\100111\1202004425.151

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**62.920**	**ug/L**	1.656	84026	0.066
	Be	9	**27.178**	**ug/L**	0.924	14253	0.011
	B	11	**60.368**	**ug/L**	3.322	27916	0.021
	Na	23	**1552.832**	**ug/L**	14.095	8013202	6.271
	Mg	24	**5962.483**	**ug/L**	1.557	19932140	15.642
	Al	27	**40112.278**	**ug/L**	7.675	181643556	142.542
	P	31	**1175.728**	**ug/L**	0.978	279648	0.214
	K	39	**4784.133**	**ug/L**	3.418	30135603	23.130
	Ca	43	**4093.572**	**ug/L**	1.247	48178	0.037
>	Sc	45		**ug/L**		1274083	1274083.328
	V	51	**63.611**	**ug/L**	1.195	310885	0.242
	Cr	52	**55.157**	**ug/L**	1.379	235968	0.183
	Cr	53		**ug/L**		91236	-0.025
	Mn	55	**632.497**	**ug/L**	0.256	4196570	3.292
	Fe	57	**24383.478**	**ug/L**	0.287	3088752	2.421
	Co	59	**31.883**	**ug/L**	1.399	152875	0.120
	Ni	60	**37.303**	**ug/L**	0.456	37454	0.029
	Cu	63		**ug/L**		78466	0.061
	Cu	65	**33.693**	**ug/L**	1.629	37226	0.029
	Zn	66	**103.952**	**ug/L**	0.658	74179	0.284
	Zn	67		**ug/L**		18292	0.031
	Zn	68		**ug/L**		54698	0.206
>	Ge	74		**ug/L**		260628	260627.911
	As	75	**36.653**	**ug/L**	0.976	28482	0.108
	Se	77		**ug/L**		3013	-0.008
	Se	82	**6.744**	**ug/L**	2.003	466	0.002
	Kr	83		**ug/L**		227	0.001
	Sr	88	**55.927**	**ug/L**	0.405	498099	3.521
	Y	89		**ug/L**		663039	4.688
	Ag	107	**21.854**	**ug/L**	2.214	72905	0.515
	Cd	111	**5.560**	**ug/L**	1.613	4470	0.031
	Cd	114		**ug/L**		8421	0.059
>	In	115		**ug/L**		141413	141413.454
	Sn	120	**12.221**	**ug/L**	0.541	40286	0.283
	Sb	121	**46.691**	**ug/L**	1.423	133384	0.941
	Sb	123		**ug/L**		105400	0.743
	Ba	135		**ug/L**		182419	0.833
	Ba	137	**204.117**	**ug/L**	0.697	318003	1.452
	Ho	165		**ug/L**		34572	0.158
>	Lu	175		**ug/L**		218923	218923.212
	Tl	205	**38.814**	**ug/L**	2.564	291234	1.327
	Pb	208	**105.814**	**ug/L**	1.268	1205396	5.503
	Bi	209		**ug/L**		2889	0.013
	U	238	**24.883**	**ug/L**	0.167	283630	1.295

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	0.9999
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		107.3			
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		99.9			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		104.2			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		111.7			
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202004424
Sample Date/Time: Tuesday, January 12, 2010 15:10:47
Sample Type:
Sample Description: LANL 6020 SDILT
Number of Replicates: 3
Batch ID: 936805|10|rmj
Method File: c:\elandata\Method\6020 noirs thtimozr.mth
Dataset File: C:\elandata\Dataset\100111\1202004424.152

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**8.044**	**ug/L**	0.605	9876	0.008
	Be	9	**0.598**	**ug/L**	11.021	297	0.000
	B	11	**2.135**	**ug/L**	9.534	1646	0.001
	Na	23	**168.420**	**ug/L**	2.021	809653	0.680
	Mg	24	**912.761**	**ug/L**	4.096	2782473	2.395
	Al	27	**5258.253**	**ug/L**	8.426	21702130	18.686
	P	31	**64.774**	**ug/L**	1.067	20491	0.012
	K	39	**612.941**	**ug/L**	4.336	4043077	2.963
	Ca	43	**602.717**	**ug/L**	3.286	6855	0.006
>	Sc	45		**ug/L**		1160567	1160567.441
	V	51	**5.844**	**ug/L**	12.344	27665	0.022
	Cr	52	**7.913**	**ug/L**	0.339	32570	0.026
	Cr	53		**ug/L**		87052	-0.022
	Mn	55	**186.201**	**ug/L**	0.139	1126496	0.969
	Fe	57	**4498.015**	**ug/L**	0.932	522536	0.447
	Co	59	**1.130**	**ug/L**	1.393	5118	0.004
	Ni	60	**2.968**	**ug/L**	2.794	2780	0.002
	Cu	63		**ug/L**		5906	0.005
	Cu	65	**2.676**	**ug/L**	1.436	2781	0.002
	Zn	66	**26.417**	**ug/L**	0.585	18275	0.072
	Zn	67		**ug/L**		10984	0.005
	Zn	68		**ug/L**		13642	0.051
>	Ge	74		**ug/L**		250829	250828.686
	As	75	**0.705**	**ug/L**	33.659	872	0.002
	Se	77		**ug/L**		3406	-0.006
	Se	82	**-0.144**	**ug/L**	165.701	-32	-0.000
	Kr	83		**ug/L**		111	0.000
	Sr	88	**4.635**	**ug/L**	0.792	39670	0.292
	Y	89		**ug/L**		159753	1.179
	Ag	107	**0.026**	**ug/L**	15.305	138	0.001
	Cd	111	**0.111**	**ug/L**	17.139	106	0.001
	Cd	114		**ug/L**		42	0.000
>	In	115		**ug/L**		135384	135384.182
	Sn	120	**0.185**	**ug/L**	8.413	798	0.004
	Sb	121	**0.025**	**ug/L**	30.280	427	0.001
	Sb	123		**ug/L**		360	0.000
	Ba	135		**ug/L**		20769	0.105
	Ba	137	**25.513**	**ug/L**	2.139	36056	0.182
	Ho	165		**ug/L**		7977	0.040
>	Lu	175		**ug/L**		198385	198385.098
	Tl	205	**0.786**	**ug/L**	16.562	5990	0.027
	Pb	208	**4.301**	**ug/L**	1.611	44896	0.224
	Bi	209		**ug/L**		376	0.002
	U	238	**0.483**	**ug/L**	2.139	5163	0.025

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	0.9999
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45			97.8		
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74			96.1		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115			99.8		
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175			101.2		
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Tuesday, January 12, 2010 15:16:38
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 nolrs thtimozr.mth
Dataset File: C:\elandata\Dataset\100111\QC Std 6.153

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**54.688**	ug/L	1.883	64367	0.057
	Be	9	**53.142**	ug/L	1.417	24546	0.022
	B	11	**102.116**	ug/L	0.580	41095	0.036
	Na	23	**4813.144**	ug/L	1.571	21843545	19.439
	Mg	24	**5257.160**	ug/L	1.474	15488209	13.792
	Al	27	**4719.780**	ug/L	4.604	18844865	16.772
	P	31	**4641.138**	ug/L	1.283	953230	0.843
	K	39	**4210.019**	ug/L	2.139	23438802	20.354
	Ca	43	**4732.492**	ug/L	1.147	49010	0.043
>	Sc	45		ug/L		1122801	1122800.715
	V	51	**48.172**	ug/L	0.369	207912	0.184
	Cr	52	**48.744**	ug/L	0.422	184004	0.162
	Cr	53		ug/L		108582	-0.000
	Mn	55	**48.918**	ug/L	0.633	287456	0.255
	Fe	57	**4901.436**	ug/L	1.226	550461	0.487
	Co	59	**48.086**	ug/L	1.056	203081	0.181
	Ni	60	**49.348**	ug/L	0.545	43643	0.039
	Cu	63		ug/L		99116	0.088
	Cu	65	**47.651**	ug/L	0.644	46362	0.041
	Zn	66	**46.799**	ug/L	1.553	31958	0.128
	Zn	67		ug/L		12909	0.013
	Zn	68		ug/L		23551	0.091
>	Ge	74		ug/L		248659	248659.066
	As	75	**44.591**	ug/L	1.676	32982	0.131
	Se	77		ug/L		6057	0.005
	Se	82	**46.184**	ug/L	3.006	3171	0.013
	Kr	83		ug/L		115	0.000
	Sr	88	**49.081**	ug/L	1.098	397526	3.090
	Y	89		ug/L		187	0.001
	Ag	107	**47.630**	ug/L	0.788	144451	1.123
	Cd	111	**48.221**	ug/L	0.836	35098	0.273
	Cd	114		ug/L		80487	0.626
>	In	115		ug/L		128597	128596.775
	Sn	120	**48.778**	ug/L	1.405	145602	1.131
	Sb	121	**48.492**	ug/L	6.246	125943	0.977
	Sb	123		ug/L		97471	0.756
	Ba	135		ug/L		36377	0.194
	Ba	137	**47.543**	ug/L	1.469	63483	0.338
	Ho	165		ug/L		31	0.000
>	Lu	175		ug/L		187535	187535.464
	Tl	205	**45.581**	ug/L	1.878	292848	1.558
	Pb	208	**48.484**	ug/L	0.913	473373	2.522
	Bi	209		ug/L		96	0.000
	U	238	**50.732**	ug/L	0.748	495181	2.640

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	0.9999
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7	109.375				
	Be	9	106.284				
	B	11	102.116				
	Na	23	96.263				
	Mg	24	105.143				
	Al	27	93.461				
	P	31	92.823				
	K	39	84.200				
	Ca	43	94.650				
>	Sc	45			94.6		
	V	51	96.344				
	Cr	52	97.488				
	Cr	53					
	Mn	55	97.837				
	Fe	57	98.029				
	Co	59	96.173				
	Ni	60	98.696				
	Cu	63					
	Cu	65	95.301				
	Zn	66	93.598				
	Zn	67					
	Zn	68					
>	Ge	74			95.3		
	As	75	89.181				
	Se	77					
	Se	82	92.369				
	Kr	83					
	Sr	88	98.163				
	Y	89					
	Ag	107	95.259				
	Cd	111	96.443				
	Cd	114					
>	In	115			94.8		
	Sn	120	97.557				
	Sb	121	96.985				
	Sb	123					
	Ba	135					
	Ba	137	95.086				
	Ho	165					
>	Lu	175			95.7		
	Tl	205	91.161				
	Pb	208	96.968				
	Bi	209					
	U	238	101.464				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 6	K	39	CCV is out of limits (+/- 10%)
QC Std 6	As	75	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Tuesday, January 12, 2010 15:22:33
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 nolrs thtimozr.mth
Dataset File: C:\elandata\Dataset\100111\QC Std 7.154

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.033**	**ug/L**	34.671	142	0.000
	Be	9	**0.011**	**ug/L**	40.946	17	0.000
	B	11	**1.467**	**ug/L**	28.855	1357	0.001
	Na	23	**-0.065**	**ug/L**	2213.643	19681	-0.000
	Mg	24	**0.812**	**ug/L**	46.530	5668	0.002
	Al	27	**0.388**	**ug/L**	71.488	8669	0.001
	P	31	**0.284**	**ug/L**	693.680	6812	0.000
	K	39	**-6.677**	**ug/L**	189.224	560563	-0.032
	Ca	43	**-7.062**	**ug/L**	33.276	383	-0.000
>	Sc	45		**ug/L**		1146956	1146955.730
	V	51	**0.115**	**ug/L**	358.140	2305	0.000
	Cr	52	**0.199**	**ug/L**	38.236	2762	0.001
	Cr	53		**ug/L**		97981	-0.012
	Mn	55	**0.010**	**ug/L**	82.259	1648	0.000
	Fe	57	**1.641**	**ug/L**	56.923	4437	0.000
	Co	59	**0.003**	**ug/L**	73.573	200	0.000
	Ni	60	**-0.004**	**ug/L**	207.311	67	-0.000
	Cu	63		**ug/L**		351	0.000
	Cu	65	**-0.004**	**ug/L**	181.222	89	-0.000
	Zn	66	**-0.007**	**ug/L**	50.876	171	-0.000
	Zn	67		**ug/L**		9208	-0.002
	Zn	68		**ug/L**		815	-0.000
>	Ge	74		**ug/L**		249258	249257.916
	As	75	**0.073**	**ug/L**	698.456	402	0.000
	Se	77		**ug/L**		4408	-0.002
	Se	82	**0.059**	**ug/L**	308.016	-18	0.000
	Kr	83		**ug/L**		84	-0.000
	Sr	88	**0.004**	**ug/L**	31.638	194	0.000
	Y	89		**ug/L**		76	-0.000
	Ag	107	**0.000**	**ug/L**	810.754	54	0.000
	Cd	111	**-0.001**	**ug/L**	2722.216	21	-0.000
	Cd	114		**ug/L**		38	0.000
>	In	115		**ug/L**		132035	132035.497
	Sn	120	**0.053**	**ug/L**	28.320	373	0.001
	Sb	121	**0.595**	**ug/L**	22.792	1937	0.012
	Sb	123		**ug/L**		1514	0.009
	Ba	135		**ug/L**		34	0.000
	Ba	137	**0.005**	**ug/L**	165.824	56	0.000
	Ho	165		**ug/L**		13	-0.000
>	Lu	175		**ug/L**		193171	193170.996
	Tl	205	**0.306**	**ug/L**	11.274	2661	0.010
	Pb	208	**-0.002**	**ug/L**	75.434	492	-0.000
	Bi	209		**ug/L**		24	0.000
	U	238	**0.041**	**ug/L**	31.020	580	0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	0.9999
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		96.6			
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		95.5			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		97.3			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		98.6			
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS #6 Daily Performance Report

Sample ID: Sample
Sample Date/Time: Wednesday, January 13, 2010 20:57:07
Sample Description:
Method File: C:\elandata\Method\Daily2.mth
Dataset File: c:\elandata\Dataset\091212\Sample.253
Tuning File: c:\elandata\Tuning\default2.tun
Optimization File: c:\elandata\Optimize\default.dac
Dual Detector Mode: Pulse

Acq. Dead Time(ns): 35
Current Dead Time (ns): 35

Number of Replicates: 5

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Be	9.0	1350.3	1350.264	59.715	4.4
	Mg	24.0	21710.1	21710.085	198.441	0.9
	Co	58.9	35532.9	35532.939	346.878	1.0
	Rh	102.9	71212.3	71212.257	487.557	0.7
	In	114.9	79251.2	79251.233	730.355	0.9
	Pb	208.0	47871.9	47871.877	217.644	0.5
⌈>	Ba	137.9	74019.4	74019.382	314.317	0.4
⌊	Ba++	69.0	2339.2	0.032	0.000	1.0
⌈>	Ce	139.9	94879.4	94879.437	473.097	0.5
⌊	CeO	155.9	1513.3	0.016	0.000	1.5
	Bkgd	220.0	23.1	23.100	1.517	6.6

Current Optimization File Data

Current Value	Description
0.84	Nebulizer Gas Flow
13.25	Lens Voltage
1450.00	ICP RF Power
-1781.25	Analog Stage Voltage
900.00	Pulse Stage Voltage
30.00	Discriminator Threshold
-6.00	AC Rod Offset

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	25	11.3	2876.6
Co	59	25	12.5	34989.5
In	115	25	14.0	76766.4

ICPMS #6 Instrument Tuning Report

File Name: default2.tun
File Path: c:\elandata\Tuning

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Pk. Width
He	3.0	3.0	588	2080	0.658
Be	9.0	9.0	2039	2080	0.673
Mg	24.0	24.0	5686	2120	0.635
Mg	25.0	25.0	5929	2080	0.698
Mg	26.0	26.0	6162	2120	0.689
Co	58.9	59.0	14181	2170	0.640
Rh	102.9	102.8	24853	2230	0.702
In	114.9	114.9	27786	2260	0.690
Ce	139.9	139.9	33855	2280	0.747
Pb	206.0	206.0	49948	2430	0.693
Pb	207.0	207.0	50135	2385	0.676
Pb	208.0	208.0	50463	2430	0.715
U	238.1	238.0	57731	2470	0.711

Report Date/Time: Wednesday, January 13, 2010 20:56:04

ICPMS#6 - Summary Report

Sample ID: Blank
Sample Date/Time: Wednesday, January 13, 2010 21:04:36
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\936805.mth
Dataset File: C:\elandata\Dataset\100113\Blank.001

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7		ug/L		107	
>	Sc	45		ug/L		1244138	
>	Ge	74		ug/L		311061	
	As	75		ug/L		900	
	Se	77		ug/L		6448	
	Se	82		ug/L		-20	
	Kr	83		ug/L		114	
>	Lu	175		ug/L		213630	
	Tl	205		ug/L		740	
	U	238		ug/L		977	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Simple Linear	
Sc	45	Simple Linear	
Ge	74	Simple Linear	
As	75	Simple Linear	
Se	77	Simple Linear	
Se	82	Simple Linear	
Kr	83	Simple Linear	
Lu	175	Simple Linear	
Tl	205	Simple Linear	
U	238	Simple Linear	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
>	Sc	45					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175					
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Wednesday, January 13, 2010 21:08:38
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\936805.mth
Dataset File: C:\elandata\Dataset\100113\Standard 1.002

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	10.000	ug/L	6.334	7134	0.006
>	Sc	45		ug/L		1269930	1269929.783
>	Ge	74		ug/L		327042	327042.387
	As	75	10.000	ug/L	4.522	9644	0.027
	Se	77		ug/L		6905	0.000
	Se	82	10.000	ug/L	2.762	703	0.002
	Kr	83		ug/L		113	-0.000
>	Lu	175		ug/L		221759	221758.845
	Tl	205	10.000	ug/L	0.981	66470	0.296
	U	238	10.000	ug/L	1.403	114801	0.513

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
>	Sc	45					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175					
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Wednesday, January 13, 2010 21:12:38
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\936805.mth
Dataset File: C:\elandata\Dataset\100113\Standard 2.003

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**99.978**	**ug/L**	4.404	72714	0.054
>	Sc	45		**ug/L**		1340170	1340169.764
>	Ge	74		**ug/L**		327000	326999.807
	As	75	**99.981**	**ug/L**	1.312	86311	0.261
	Se	77		**ug/L**		11689	0.015
	Se	82	**99.994**	**ug/L**	1.050	7176	0.022
	Kr	83		**ug/L**		135	0.000
>	Lu	175		**ug/L**		220314	220313.691
	Tl	205	**99.979**	**ug/L**	1.056	639922	2.901
	U	238	**99.943**	**ug/L**	1.875	1070038	4.853

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
>	Sc	45					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175					
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Wednesday, January 13, 2010 21:16:39
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\936805.mth
Dataset File: C:\elandata\Dataset\100113\QC Std 1.004

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**51.970**	**ug/L**	6.913	37733	0.028
>	Sc	45		**ug/L**		1337586	1337585.616
>	Ge	74		**ug/L**		326070	326069.928
	As	75	**46.431**	**ug/L**	0.289	40474	0.121
	Se	77		**ug/L**		9208	0.008
	Se	82	**50.393**	**ug/L**	1.102	3595	0.011
	Kr	83		**ug/L**		125	0.000
>	Lu	175		**ug/L**		219508	219508.438
	Tl	205	**49.446**	**ug/L**	1.338	315737	1.435
	U	238	**54.095**	**ug/L**	3.403	577542	2.627

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7	103.940				
>	Sc	45		107.5			
>	Ge	74		104.8			
	As	75	92.862				
	Se	77					
	Se	82	100.785				
	Kr	83					
>	Lu	175		102.8			
	Tl	205	98.893				
	U	238	108.191				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Wednesday, January 13, 2010 21:20:42
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\936805.mth
Dataset File: C:\elandata\Dataset\100113\QC Std 2.005

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	-0.043	ug/L	30.644	87	-0.000
>	Sc	45		ug/L		1385670	1385669.946
>	Ge	74		ug/L		332328	332328.334
	As	75	0.214	ug/L	253.235	1149	0.001
	Se	77		ug/L		7346	0.001
	Se	82	-0.257	ug/L	58.493	-41	-0.000
	Kr	83		ug/L		134	0.000
>	Lu	175		ug/L		224163	224163.432
	Tl	205	0.096	ug/L	5.380	1398	0.003
	U	238	-0.000	ug/L	1681.503	1022	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
>	Sc	45		111.4			
>	Ge	74		106.8			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		104.9			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Wednesday, January 13, 2010 21:24:45
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\936805.mth
Dataset File: C:\elandata\Dataset\100113\QC Std 3.006

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**10.960**	**ug/L**	4.821	8289	0.006
>	Sc	45		**ug/L**		1376511	1376510.611
>	Ge	74		**ug/L**		329375	329374.593
	As	75	**5.574**	**ug/L**	5.628	5749	0.015
	Se	77		**ug/L**		7314	0.001
	Se	82	**5.440**	**ug/L**	6.303	373	0.001
	Kr	83		**ug/L**		127	0.000
>	Lu	175		**ug/L**		218470	218469.827
	Tl	205	**1.063**	**ug/L**	3.792	7499	0.031
	U	238	**0.175**	**ug/L**	4.822	2853	0.008

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7	109.604				
>	Sc	45		110.6			
>	Ge	74		105.9			
	As	75	111.479				
	Se	77					
	Se	82	108.796				
	Kr	83					
>	Lu	175		102.3			
	Tl	205	106.339				
	U	238	87.417				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Wednesday, January 13, 2010 21:28:46
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\936805.mth
Dataset File: C:\elandata\Dataset\100113\QC Std 4.007

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.367**	**ug/L**	3.747	397	0.000
>	Sc	45		**ug/L**		1396175	1396175.131
>	Ge	74		**ug/L**		315800	315800.414
	As	75	**-0.074**	**ug/L**	418.489	854	-0.000
	Se	77		**ug/L**		6837	0.001
	Se	82	**-1.489**	**ug/L**	12.412	-124	-0.000
	Kr	83		**ug/L**		254	0.000
>	Lu	175		**ug/L**		217203	217203.050
	Tl	205	**-0.001**	**ug/L**	54.328	743	-0.000
	U	238	**-0.067**	**ug/L**	3.176	286	-0.003

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
>	Sc	45		112.2			
>	Ge	74		101.5			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		101.7			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

Sample ID: QC Std 4

Report Date/Time: Wednesday, January 13, 2010 21:29:25

ICPMS#6 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Wednesday, January 13, 2010 21:32:48
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\936805.mth
Dataset File: C:\elandata\Dataset\100113\QC Std 5.008

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**22.634**	**ug/L**	2.036	17206	0.012
>	Sc	45		**ug/L**		1394265	1394265.362
>	Ge	74		**ug/L**		313041	313040.732
	As	75	**19.627**	**ug/L**	3.664	16948	0.051
	Se	77		**ug/L**		7718	0.004
	Se	82	**18.417**	**ug/L**	3.823	1249	0.004
	Kr	83		**ug/L**		249	0.000
>	Lu	175		**ug/L**		215632	215632.092
	Tl	205	**17.901**	**ug/L**	0.384	112765	0.519
	U	238	**20.879**	**ug/L**	2.307	219572	1.014

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7	113.171				
>	Sc	45		112.1			
>	Ge	74		100.6			
	As	75	98.134				
	Se	77					
	Se	82	92.084				
	Kr	83					
>	Lu	175		100.9			
	Tl	205	89.505				
	U	238	104.394				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Wednesday, January 13, 2010 21:36:49
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\936805.mth
Dataset File: C:\elandata\Dataset\100113\QC Std 6.009

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	52.050	ug/L	3.890	41178	0.028
>	Sc	45		ug/L		1456247	1456247.116
>	Ge	74		ug/L		327225	327225.208
	As	75	45.481	ug/L	2.725	39800	0.119
	Se	77		ug/L		8932	0.007
	Se	82	50.525	ug/L	0.224	3618	0.011
	Kr	83		ug/L		121	0.000
>	Lu	175		ug/L		215715	215714.607
	Tl	205	48.286	ug/L	1.795	302965	1.401
	U	238	52.917	ug/L	3.195	555042	2.569

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7	104.100				
>	Sc	45		117.0			
>	Ge	74		105.2			
	As	75	90.962				
	Se	77					
	Se	82	101.051				
	Kr	83					
>	Lu	175		101.0			
	Tl	205	96.573				
	U	238	105.834				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Wednesday, January 13, 2010 21:40:52
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\936805.mth
Dataset File: C:\elandata\Dataset\100113\QC Std 7.010

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	-0.048	ug/L	22.569	90	-0.000
>	Sc	45		ug/L		1512322	1512322.247
>	Ge	74		ug/L		335466	335466.258
	As	75	0.029	ug/L	2037.103	994	0.000
	Se	77		ug/L		7348	0.001
	Se	82	-0.663	ug/L	160.386	-71	-0.000
	Kr	83		ug/L		160	0.000
>	Lu	175		ug/L		221381	221381.360
	Tl	205	0.061	ug/L	3.924	1156	0.002
	U	238	-0.025	ug/L	17.641	745	-0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
>	Sc	45		121.6			
>	Ge	74		107.8			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		103.6			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Sc 45 Int Std for QC Sc		45	

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: 1202004420
Sample Date/Time: Wednesday, January 13, 2010 21:44:56
Sample Type:
Sample Description: LANL 6020 MB
Number of Replicates: 3
Batch ID: 936805|2|rm|
Method File: c:\elandata\Method\936805.mth
Dataset File: C:\elandata\Dataset\100113\1202004420.011

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	-0.076	ug/L	11.877	72	-0.000
>	Sc	45		ug/L		1628251	1628251.353
>	Ge	74		ug/L		351418	351417.913
	As	75	-0.377	ug/L	93.174	673	-0.001
	Se	77		ug/L		5551	-0.005
	Se	82	0.041	ug/L	600.561	-20	0.000
	Kr	83		ug/L		113	-0.000
>	Lu	175		ug/L		237573	237572.511
	Tl	205	0.075	ug/L	11.457	1340	0.002
	U	238	-0.031	ug/L	3.668	734	-0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
>	Sc	45		130.9			
>	Ge	74		113.0			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		111.2			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Sc 45 Int Std for sam	Sc	45	

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: 1202004421
Sample Date/Time: Wednesday, January 13, 2010 21:53:05
Sample Type:
Sample Description: LANL 6020 LCS
Number of Replicates: 3
Batch ID: 936805|40|rmj
Method File: c:\elandata\Method\936805.mth
Dataset File: C:\elandata\Dataset\100113\1202004421.013

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**2.631**	**ug/L**	5.112	2341	0.001
>	Sc	45		**ug/L**		1550093	1550093.242
>	Ge	74		**ug/L**		334221	334221.204
	As	75	**27.172**	**ug/L**	0.429	24678	0.071
	Se	77		**ug/L**		11786	0.015
	Se	82	**75.970**	**ug/L**	2.537	5566	0.017
	Kr	83		**ug/L**		128	0.000
>	Lu	175		**ug/L**		219829	219828.991
	Tl	205	**29.974**	**ug/L**	3.374	191910	0.870
	U	238	**0.495**	**ug/L**	1.993	6286	0.024

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
>	Sc	45		124.6			
>	Ge	74		107.4			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		102.9			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Sc 45 Int Std for sam	Sc	45	

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Wednesday, January 13, 2010 21:57:07
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\936805.mth
Dataset File: C:\elandata\Dataset\100113\QC Std 6.014

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**52.667**	**ug/L**	3.758	43105	0.029
>	Sc	45		**ug/L**		1506154	1506154.012
>	Ge	74		**ug/L**		326972	326971.559
	As	75	**47.609**	**ug/L**	1.956	41593	0.124
	Se	77		**ug/L**		9489	0.008
	Se	82	**51.358**	**ug/L**	2.834	3675	0.011
	Kr	83		**ug/L**		111	-0.000
>	Lu	175		**ug/L**		215418	215418.100
	Tl	205	**50.045**	**ug/L**	1.664	313572	1.452
	U	238	**53.971**	**ug/L**	1.349	565446	2.621

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7	105.334				
>	Sc	45		121.1			
>	Ge	74		105.1			
	As	75	95.217				
	Se	77					
	Se	82	102.716				
	Kr	83					
>	Lu	175		100.8			
	Tl	205	100.089				
	U	238	107.941				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Sc 45 Int Std for QC Sc		45	

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Wednesday, January 13, 2010 22:01:10
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\936805.mth
Dataset File: C:\elandata\Dataset\100113\QC Std 7.015

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	-0.071	ug/L	4.147	75	-0.000
>	Sc	45		ug/L		1574534	1574533.639
>	Ge	74		ug/L		336734	336733.777
	As	75	-0.430	ug/L	27.183	597	-0.001
	Se	77		ug/L		7716	0.002
	Se	82	-0.062	ug/L	357.047	-27	-0.000
	Kr	83		ug/L		123	-0.000
>	Lu	175		ug/L		221932	221931.725
	Tl	205	0.312	ug/L	2.673	2778	0.009
	U	238	-0.031	ug/L	17.127	676	-0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
>	Sc	45		126.6			
>	Ge	74		108.3			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		103.9			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Sc 45 Int Std for QC Sc		45	

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Wednesday, January 13, 2010 22:37:50
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\936805.mth
Dataset File: C:\elandata\Dataset\100113\QC Std 6.024

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**56.829**	**ug/L**	1.873	48166	0.031
>	Sc	45		**ug/L**		1560264	1560264.145
>	Ge	74		**ug/L**		323821	323820.851
	As	75	**46.388**	**ug/L**	2.707	40158	0.121
	Se	77		**ug/L**		8477	0.005
	Se	82	**51.039**	**ug/L**	3.875	3617	0.011
	Kr	83		**ug/L**		131	0.000
>	Lu	175		**ug/L**		211394	211393.508
	Tl	205	**48.718**	**ug/L**	0.940	299567	1.414
	U	238	**53.835**	**ug/L**	1.870	553404	2.614

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7	113.659				
>	Sc	45		125.4			
>	Ge	74		104.1			
	As	75	92.775				
	Se	77					
	Se	82	102.078				
	Kr	83					
>	Lu	175		99.0			
	Tl	205	97.435				
	U	238	107.670				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 6	Li	7	CCV is out of limits (+/- 10%)
Sc 45 Int Std for QC	Sc	45	

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Wednesday, January 13, 2010 22:41:53
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\936805.mth
Dataset File: C:\elandata\Dataset\100113\QC Std 7.025

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	-0.003	ug/L	352.396	133	-0.000
>	Sc	45		ug/L		1586082	1586082.366
>	Ge	74		ug/L		334249	334249.273
	As	75	-0.565	ug/L	50.820	473	-0.001
	Se	77		ug/L		6641	-0.001
	Se	82	-0.017	ug/L	954.753	-23	-0.000
	Kr	83		ug/L		119	-0.000
>	Lu	175		ug/L		218570	218569.540
	Tl	205	0.024	ug/L	1.700	907	0.001
	U	238	-0.044	ug/L	11.214	537	-0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
>	Sc	45		127.5			
>	Ge	74		107.5			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		102.3			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Sc 45 Int Std for QC Sc		45	

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Wednesday, January 13, 2010 23:14:26
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\936805.mth
Dataset File: C:\elandata\Dataset\100113\QC Std 6.033

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**61.350**	**ug/L**	5.999	50740	0.033
>	Sc	45		**ug/L**		1523592	1523591.922
>	Ge	74		**ug/L**		311484	311484.123
	As	75	**47.020**	**ug/L**	1.338	39139	0.123
	Se	77		**ug/L**		8002	0.005
	Se	82	**51.325**	**ug/L**	3.599	3500	0.011
	Kr	83		**ug/L**		126	0.000
>	Lu	175		**ug/L**		207084	207084.416
	Tl	205	**48.479**	**ug/L**	1.529	292020	1.407
	U	238	**53.303**	**ug/L**	2.228	536803	2.588

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

Sample ID: QC Std 6

Report Date/Time: Wednesday, January 13, 2010 23:15:04

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7	122.699				
>	Sc	45		122.5			
>	Ge	74		100.1			
	As	75	94.041				
	Se	77					
	Se	82	102.650				
	Kr	83					
>	Lu	175		96.9			
	Tl	205	96.957				
	U	238	106.605				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 6	Li	7	CCV is out of limits (+/- 10%)
Sc 45 Int Std for QC	Sc	45	

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Wednesday, January 13, 2010 23:18:29
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\936805.mth
Dataset File: C:\elandata\Dataset\100113\QC Std 7.034

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	0.013	ug/L	125.113	145	0.000
>	Sc	45		ug/L		1568889	1568888.628
>	Ge	74		ug/L		322341	322340.982
	As	75	-0.468	ug/L	56.145	539	-0.001
	Se	77		ug/L		5958	-0.002
	Se	82	0.071	ug/L	280.400	-16	0.000
	Kr	83		ug/L		110	-0.000
>	Lu	175		ug/L		209245	209244.769
	Tl	205	0.019	ug/L	28.032	842	0.001
	U	238	-0.038	ug/L	5.315	566	-0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
>	Sc	45		126.1			
>	Ge	74		103.6			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		97.9			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Sc 45 Int Std for QC Sc		45	

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: 243549002
Sample Date/Time: Wednesday, January 13, 2010 23:26:33
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 936805|2|rm|
Method File: c:\elandata\Method\936805.mth
Dataset File: C:\elandata\Dataset\100113\243549002.036

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**45.748**	**ug/L**	5.512	42229	0.025
>	Sc	45		**ug/L**		1698419	1698418.664
>	Ge	74		**ug/L**		321314	321314.115
	As	75	**4.034**	**ug/L**	12.733	4310	0.011
	Se	77		**ug/L**		3961	-0.008
	Se	82	**0.327**	**ug/L**	34.433	2	0.000
	Kr	83		**ug/L**		215	0.000
>	Lu	175		**ug/L**		228521	228521.338
	Tl	205	**0.261**	**ug/L**	2.299	2525	0.008
	U	238	**2.483**	**ug/L**	2.657	28594	0.121

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
>	Sc	45		136.5			
>	Ge	74		103.3			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		107.0			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Sc 45 Int Std for sam	Sc	45	

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: 1202004422
Sample Date/Time: Wednesday, January 13, 2010 23:30:35
Sample Type:
Sample Description: LANL 6020 DUP
Number of Replicates: 3
Batch ID: 936805|2|rmj
Method File: c:\elandata\Method\936805.mth
Dataset File: C:\elandata\Dataset\100113\1202004422.037

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**42.117**	**ug/L**	4.341	39625	0.023
>	Sc	45		**ug/L**		1731289	1731288.789
>	Ge	74		**ug/L**		321355	321354.936
	As	75	**4.933**	**ug/L**	5.903	5068	0.013
	Se	77		**ug/L**		3705	-0.009
	Se	82	**0.294**	**ug/L**	150.007	-0	0.000
	Kr	83		**ug/L**		225	0.000
>	Lu	175		**ug/L**		226928	226927.515
	Tl	205	**0.343**	**ug/L**	1.274	3041	0.010
	U	238	**2.780**	**ug/L**	2.871	31669	0.135

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
>	Sc	45		139.2			
>	Ge	74		103.3			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		106.2			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Sc 45 Int Std for sam	Sc	45	

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: 1202004423
Sample Date/Time: Wednesday, January 13, 2010 23:34:37
Sample Type:
Sample Description: LANL 6020 MS
Number of Replicates: 3
Batch ID: 936805|2|rmj
Method File: c:\elandata\Method\936805.mth
Dataset File: C:\elandata\Dataset\100113\1202004423.038

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**83.154**	**ug/L**	3.670	77330	0.045
>	Sc	45		**ug/L**		1713168	1713167.781
>	Ge	74		**ug/L**		317769	317769.020
	As	75	**45.030**	**ug/L**	1.111	38279	0.118
	Se	77		**ug/L**		4062	-0.008
	Se	82	**9.754**	**ug/L**	5.910	661	0.002
	Kr	83		**ug/L**		241	0.000
>	Lu	175		**ug/L**		226977	226977.096
	Tl	205	**47.368**	**ug/L**	0.960	312808	1.375
	U	238	**30.047**	**ug/L**	1.695	332163	1.459

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
>	Sc	45		137.7			
>	Ge	74		102.2			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		106.2			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Sc 45 Int Std for sam	Sc	45	

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: 1202004425
Sample Date/Time: Wednesday, January 13, 2010 23:38:39
Sample Type:
Sample Description: LANL 6020 MSD
Number of Replicates: 3
Batch ID: 936805|2|rm|
Method File: c:\elandata\Method\936805.mth
Dataset File: C:\elandata\Dataset\100113\1202004425.039

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**76.414**	**ug/L**	3.730	70035	0.041
>	Sc	45		**ug/L**		1688538	1688538.442
>	Ge	74		**ug/L**		317704	317704.044
	As	75	**40.013**	**ug/L**	0.687	34111	0.104
	Se	77		**ug/L**		4189	-0.008
	Se	82	**8.923**	**ug/L**	3.421	603	0.002
	Kr	83		**ug/L**		214	0.000
>	Lu	175		**ug/L**		224292	224292.476
	Tl	205	**43.465**	**ug/L**	2.194	283682	1.261
	U	238	**27.859**	**ug/L**	2.881	304359	1.353

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
>	Sc	45		135.7			
>	Ge	74		102.1			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		105.0			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Sc 45 Int Std for sam	Sc	45	

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: 1202004424
Sample Date/Time: Wednesday, January 13, 2010 23:42:41
Sample Type:
Sample Description: LANL 6020 SDILT
Number of Replicates: 3
Batch ID: 936805|10|rmj
Method File: c:\elandata\Method\936805.mth
Dataset File: C:\elandata\Dataset\100113\1202004424.040

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**9.330**	**ug/L**	5.475	7968	0.005
>	Sc	45		**ug/L**		1551347	1551347.211
>	Ge	74		**ug/L**		310211	310210.808
	As	75	**0.271**	**ug/L**	113.490	1120	0.001
	Se	77		**ug/L**		5028	-0.005
	Se	82	**-0.004**	**ug/L**	7078.913	-20	-0.000
	Kr	83		**ug/L**		131	0.000
>	Lu	175		**ug/L**		209282	209282.407
	Tl	205	**0.581**	**ug/L**	8.345	4256	0.017
	U	238	**0.455**	**ug/L**	3.262	5577	0.022

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
>	Sc	45		124.7			
>	Ge	74		99.7			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		98.0			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Sc 45 Int Std for sam	Sc	45	

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Wednesday, January 13, 2010 23:46:42
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\936805.mth
Dataset File: C:\elandata\Dataset\100113\QC Std 6.041

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**64.921**	**ug/L**	5.851	52900	0.035
>	Sc	45		**ug/L**		1501387	1501386.856
>	Ge	74		**ug/L**		304339	304338.929
	As	75	**45.871**	**ug/L**	0.843	37334	0.120
	Se	77		**ug/L**		7450	0.004
	Se	82	**51.487**	**ug/L**	3.481	3428	0.011
	Kr	83		**ug/L**		115	0.000
>	Lu	175		**ug/L**		200410	200410.067
	Tl	205	**48.623**	**ug/L**	1.088	283471	1.411
	U	238	**52.903**	**ug/L**	2.436	515636	2.569

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7	129.841				
>	Sc	45		120.7			
>	Ge	74		97.8			
	As	75	91.741				
	Se	77					
	Se	82	102.973				
	Kr	83					
>	Lu	175		93.8			
	Tl	205	97.247				
	U	238	105.805				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 6	Li	7	CCV is out of limits (+/- 10%)
Sc 45 Int Std for QC	Sc	45	

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Wednesday, January 13, 2010 23:50:44
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\936805.mth
Dataset File: C:\elandata\Dataset\100113\QC Std 7.042

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	0.010	ug/L	46.713	140	0.000
>	Sc	45		ug/L		1534583	1534582.543
>	Ge	74		ug/L		311057	311056.993
	As	75	-0.384	ug/L	84.094	587	-0.001
	Se	77		ug/L		5528	-0.003
	Se	82	-0.131	ug/L	32.782	-29	-0.000
	Kr	83		ug/L		111	-0.000
>	Lu	175		ug/L		204010	204009.854
	Tl	205	0.128	ug/L	3.132	1465	0.004
	U	238	-0.035	ug/L	16.701	585	-0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
>	Sc	45		123.3			
>	Ge	74		100.0			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		95.5			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Sc 45 Int Std for QC Sc		45	

QC Action

QC Action Line: Continue

==========

Analysis Begun

Logged In Analyst: Administrator **Technique: AA FIMS-MHS**
Spectrometer Model: FIMS-100, S/N B050-9550 **Autosampler Model: S10**

Sample Information File: C:\data-AA\Administrator\Sample Information\011110S1.SIF
Batch ID:
Results Data Set: 011110S1
Results Library: C:\data-AA\Administrator\Results\Results.mdb

==========

Method Loaded
Method Name: SOIL **Method Last Saved: 1/4/2010 13:53:20**
Method Description: 7471A, ILM04 ANALYST JXL

==========

Sequence No.: 1 **Autosampler Location: 1**
Sample ID: Calib Blank **Date Collected: 1/11/2010 09:22:27**
Analyst: **Data Type: Original**

Replicate Data: Calib Blank

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.00]	0.0001	-0.0004	0.0001	09:23:19	Yes
2		[0.00]	0.0000	-0.0012	0.0000	09:23:48	Yes
Mean:		[0.00]	0.0000				
SD:		0.00	0.0000				
%RSD:		0.00	48.93				

Auto-zero performed.

==========

Sequence No.: 2 **Autosampler Location: 2**
Sample ID: S0.2 **Date Collected: 1/11/2010 09:24:07**
Analyst: **Data Type: Original**

Replicate Data: S0.2

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.2]	0.0023	0.0091	0.0023	09:24:58	Yes
2		[0.2]	0.0023	0.0094	0.0023	09:25:28	Yes
Mean:		[0.2]	0.0023				
SD:		0.0	0.0000				
%RSD:		0.0	0.38				

Standard number 1 applied. [0.2]
Correlation Coef.: 1.000000 Slope: 0.01133 Intercept: 0.00000

==========

Sequence No.: 3 **Autosampler Location: 3**
Sample ID: S0.5 **Date Collected: 1/11/2010 09:25:47**
Analyst: **Data Type: Original**

Replicate Data: S0.5

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.5]	0.0057	0.0239	0.0057	09:26:38	Yes
2		[0.5]	0.0057	0.0244	0.0058	09:27:08	Yes
Mean:		[0.5]	0.0057				
SD:		0.0	0.0000				
%RSD:		0.0	0.58				

Standard number 2 applied. [0.5]
Correlation Coef.: 0.999992 Slope: 0.01144 Intercept: -0.00001

==========

Sequence No.: 4 **Autosampler Location: 4**
Sample ID: S2.0 **Date Collected: 1/11/2010 09:27:28**
Analyst: **Data Type: Original**

Replicate Data: S2.0

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[2.0]	0.0226	0.0984	0.0227	09:28:19	Yes
2		[2.0]	0.0225	0.0979	0.0226	09:28:49	Yes
Mean:		[2.0]	0.0226				
SD:		0.0	0.0001				
%RSD:		0.0	0.33				

Standard number 3 applied. [2.0]
Correlation Coef.: 0.999994 Slope: 0.01128 Intercept: 0.00002

Sequence No.: 5 **Autosampler Location: 5**
Sample ID: S5.0 **Date Collected: 1/11/2010 09:29:09**
Analyst: **Data Type: Original**

Replicate Data: S5.0

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[5.0]	0.0574	0.2521	0.0574	09:30:00	Yes
2		[5.0]	0.0567	0.2493	0.0568	09:30:30	Yes
Mean:		[5.0]	0.0570				
SD:		0.0	0.0005				
%RSD:		0.0	0.80				

Standard number 4 applied. [5.0]
Correlation Coef.: 0.999990 Slope: 0.01140 Intercept: -0.00004

Sequence No.: 6 **Autosampler Location: 6**
Sample ID: S10.0 **Date Collected: 1/11/2010 09:30:50**
Analyst: **Data Type: Original**

Replicate Data: S10.0

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[10.0]	0.1087	0.4815	0.1087	09:31:40	Yes
2		[10.0]	0.1085	0.4779	0.1085	09:32:10	Yes
Mean:		[10.0]	0.1086				
SD:		0.0	0.0001				
%RSD:		0.0	0.13				

Standard number 5 applied. [10.0]
Correlation Coef.: 0.999696 Slope: 0.01091 Intercept: 0.00052

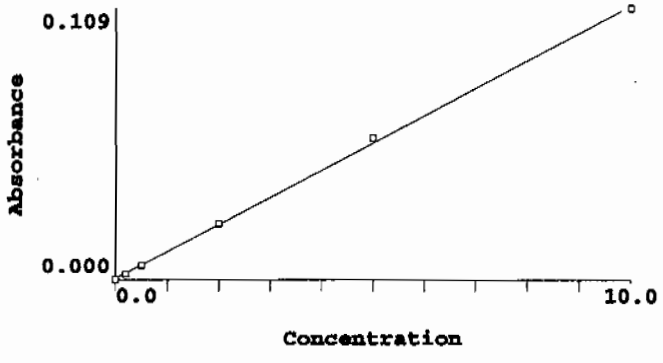

Calibration data for Hg 253.7 **Equation: Linear, Calculated Intercept**

ID	Mean Signal (Abs)	Entered Conc. ug/L	Calculated Conc. ug/L	Standard Deviation	%RSD
Calib Blank	0.0000	0	-0.048	0.00	48.9
S0.2	0.0023	0.2	0.160	0.00	0.4
S0.5	0.0057	0.5	0.477	0.00	0.6
S2.0	0.0226	2.0	2.022	0.00	0.3

S5.0	0.0570	5.0	5.182	0.00	0.8
S10.0	0.1086	10.0	9.906	0.00	0.1

Correlation Coef.: 0.999696 Slope: 0.01091 Intercept: 0.00052

Sequence No.: 7 **Autosampler Location: 9**
Sample ID: ICV **Date Collected: 1/11/2010 09:32:29**
Analyst: **Data Type: Original**

Replicate Data: ICV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.216	5.216	0.0574	0.2525	0.0574	09:33:19	Yes
2	5.235	5.235	0.0576	0.2524	0.0577	09:33:49	Yes
Mean:	5.226	5.226	0.0575				
SD:	0.014	0.014	0.0001				
%RSD:	0.259	0.259	0.26				

QC value within limits for Hg 253.7 Recovery = 104.52%
All analyte(s) passed QC.

Sequence No.: 8 **Autosampler Location: 10**
Sample ID: ICB **Date Collected: 1/11/2010 09:34:09**
Analyst: **Data Type: Original**

Replicate Data: ICB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.039	-0.039	0.0001	-0.0004	0.0001	09:35:01	Yes
2	-0.035	-0.035	0.0001	-0.0004	0.0002	09:35:30	Yes
Mean:	-0.037	-0.037	0.0001				
SD:	0.003	0.003	0.0000				
%RSD:	7.949	7.949	28.67				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 9 **Autosampler Location: 11**
Sample ID: CRDL **Date Collected: 1/11/2010 09:35:50**
Analyst: **Data Type: Original**

Replicate Data: CRDL

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.177	0.177	0.0024	0.0102	0.0025	09:36:42	Yes
2	0.170	0.170	0.0024	0.0094	0.0024	09:37:12	Yes
Mean:	0.174	0.174	0.0024				
SD:	0.005	0.005	0.0001				
%RSD:	2.819	2.819	2.21				

QC value within limits for Hg 253.7 Recovery = 86.81%
All analyte(s) passed QC.

Sequence No.: 10 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 1/11/2010 09:37:32**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.171	5.171	0.0569	0.2500	0.0570	09:38:23	Yes
2	5.113	5.113	0.0563	0.2462	0.0563	09:38:53	Yes
Mean:	5.142	5.142	0.0566				
SD:	0.041	0.041	0.0004				
%RSD:	0.800	0.800	0.79				

QC value within limits for Hg 253.7 Recovery = 102.83%
All analyte(s) passed QC.

Sequence No.: 11
Sample ID: CCB
Analyst:
Autosampler Location: 8
Date Collected: 1/11/2010 09:39:12
Data Type: Original

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.045	-0.045	0.0000	-0.0006	0.0001	09:40:02	Yes
2	-0.041	-0.041	0.0001	-0.0002	0.0001	09:40:32	Yes
Mean:	-0.043	-0.043	0.0001				
SD:	0.003	0.003	0.0000				
%RSD:	6.269	6.269	54.71				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 12
Sample ID: IDL1
Analyst: JXL
Autosampler Location: 12
Date Collected: 1/11/2010 09:40:51
Data Type: Original

Replicate Data: IDL1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.044	-0.044	0.0000	-0.0005	0.0001	09:41:43	Yes
2	-0.042	-0.042	0.0001	-0.0002	0.0001	09:42:13	Yes
Mean:	-0.043	-0.043	0.0001				
SD:	0.001	0.001	0.0000				
%RSD:	2.437	2.437	21.94				

Sequence No.: 13
Sample ID: IDL2
Analyst: JXL
Autosampler Location: 13
Date Collected: 1/11/2010 09:42:33
Data Type: Original

Replicate Data: IDL2

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.043	-0.043	0.0000	-0.0004	0.0001	09:43:25	Yes
2	-0.044	-0.044	0.0000	-0.0004	0.0001	09:43:55	Yes
Mean:	-0.044	-0.044	0.0000				
SD:	0.001	0.001	0.0000				
%RSD:	1.555	1.555	17.40				

Sequence No.: 14
Sample ID: IDL3
Analyst: JXL
Autosampler Location: 14
Date Collected: 1/11/2010 09:44:16
Data Type: Original

Replicate Data: IDL3

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.044	-0.044	0.0000	-0.0005	0.0001	09:45:06	Yes
2	-0.042	-0.042	0.0001	-0.0004	0.0001	09:45:36	Yes
Mean:	-0.043	-0.043	0.0001				
SD:	0.002	0.002	0.0000				
%RSD:	3.620	3.620	33.84				

Sequence No.: 15
Sample ID: IDL4
Analyst: JXL
Autosampler Location: 15
Date Collected: 1/11/2010 09:45:55
Data Type: Original

Replicate Data: IDL4

Repl	SampleConc	StndConc	BlnkCorr	Peak	Peak	Time	Peak

#	ug/L	ug/L	Signal	Area	Height		Stored
1	-0.038	-0.038	0.0001	-0.0001	0.0001	09:46:46	Yes
2	-0.044	-0.044	0.0000	-0.0014	0.0001	09:47:16	Yes
Mean:	-0.041	-0.041	0.0001				
SD:	0.004	0.004	0.0000				
%RSD:	10.10	10.10	65.94				

==========

Sequence No.: 16 **Autosampler Location: 16**
Sample ID: IDL5 **Date Collected: 1/11/2010 09:47:35**
Analyst: JXL **Data Type: Original**

Replicate Data: IDL5

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.032	-0.032	0.0002	0.0000	0.0002	09:48:25	Yes
2	-0.036	-0.036	0.0001	-0.0001	0.0002	09:48:55	Yes
Mean:	-0.034	-0.034	0.0002				
SD:	0.003	0.003	0.0000				
%RSD:	8.117	8.117	19.60				

==========

Sequence No.: 17 **Autosampler Location: 17**
Sample ID: IDL6 **Date Collected: 1/11/2010 09:49:14**
Analyst: JXL **Data Type: Original**

Replicate Data: IDL6

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.040	-0.040	0.0001	-0.0008	0.0001	09:50:04	Yes
2	-0.032	-0.032	0.0002	-0.0003	0.0002	09:50:34	Yes
Mean:	-0.036	-0.036	0.0001				
SD:	0.006	0.006	0.0001				
%RSD:	15.19	15.19	48.82				

==========

Sequence No.: 18 **Autosampler Location: 18**
Sample ID: IDL7 **Date Collected: 1/11/2010 09:50:53**
Analyst: JXL **Data Type: Original**

Replicate Data: IDL7

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.038	-0.038	0.0001	-0.0003	0.0001	09:51:44	Yes
2	-0.035	-0.035	0.0001	-0.0002	0.0002	09:52:14	Yes
Mean:	-0.037	-0.037	0.0001				
SD:	0.002	0.002	0.0000				
%RSD:	4.475	4.475	14.96				

==========

Sequence No.: 19 **Autosampler Location: 19**
Sample ID: 1202010664|939596|1 **Date Collected: 1/11/2010 09:52:33**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202010664|939596|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.036	-0.036	0.0001	-0.0003	0.0002	09:53:24	Yes
2	-0.035	-0.035	0.0001	0.0003	0.0002	09:53:54	Yes
Mean:	-0.036	-0.036	0.0001				
SD:	0.001	0.001	0.0000				
%RSD:	2.138	2.138	6.41				

==========

Sequence No.: 20 **Autosampler Location: 20**
Sample ID: 1202010665|939596|10 **Date Collected: 1/11/2010 09:54:13**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202010665|939596|10

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	3.981	3.981	0.0439	0.1898	0.0440	09:55:04	Yes
2	3.968	3.968	0.0438	0.1888	0.0438	09:55:34	Yes
Mean:	3.974	3.974	0.0439				
SD:	0.009	0.009	0.0001				
%RSD:	0.221	0.221	0.22				

Sequence No.: 21 **Autosampler Location: 21**
Sample ID: 243547002|939596|1 **Date Collected: 1/11/2010 09:55:54**
Analyst: JXL **Data Type: Original**

Replicate Data: 243547002|939596|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.029	-0.029	0.0002	0.0004	0.0002	09:56:44	Yes
2	-0.030	-0.030	0.0002	0.0006	0.0002	09:57:14	Yes
Mean:	-0.030	-0.030	0.0002				
SD:	0.001	0.001	0.0000				
%RSD:	1.793	1.793	3.00				

Sequence No.: 22 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 1/11/2010 09:57:34**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.204	5.204	0.0573	0.2479	0.0573	09:58:24	Yes
2	5.153	5.153	0.0567	0.2457	0.0568	09:58:54	Yes
Mean:	5.178	5.178	0.0570				
SD:	0.036	0.036	0.0004				
%RSD:	0.701	0.701	0.69				

QC value within limits for Hg 253.7 Recovery = 103.57%
All analyte(s) passed QC.

Sequence No.: 23 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 1/11/2010 09:59:13**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.040	-0.040	0.0001	0.0000	0.0001	10:00:04	Yes
2	-0.041	-0.041	0.0001	-0.0001	0.0001	10:00:34	Yes
Mean:	-0.041	-0.041	0.0001				
SD:	0.000	0.000	0.0000				
%RSD:	0.267	0.267	1.55				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 24 **Autosampler Location: 22**
Sample ID: 243547003|939596|1 **Date Collected: 1/11/2010 10:00:53**
Analyst: JXL **Data Type: Original**

Replicate Data: 243547003|939596|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.031	-0.031	0.0002	0.0004	0.0002	10:01:45	Yes
2	-0.028	-0.028	0.0002	0.0007	0.0003	10:02:14	Yes

Mean:	-0.029	-0.029	0.0002
SD:	0.002	0.002	0.0000
%RSD:	8.471	8.471	13.74

==========

Sequence No.: 25 **Autosampler Location: 23**
Sample ID: 243549002|939596|1 **Date Collected: 1/11/2010 10:02:34**
Analyst: JXL **Data Type: Original**

Replicate Data: 243549002|939596|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.088	0.088	0.0015	0.0060	0.0015	10:03:25	Yes
2	0.081	0.081	0.0014	0.0058	0.0014	10:03:55	Yes
Mean:	0.085	0.085	0.0014				
SD:	0.005	0.005	0.0001				
%RSD:	5.600	5.600	3.59				

==========

Sequence No.: 26 **Autosampler Location: 24**
Sample ID: 243550001|939596|1 **Date Collected: 1/11/2010 10:04:15**
Analyst: JXL **Data Type: Original**

Replicate Data: 243550001|939596|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.017	0.017	0.0007	0.0028	0.0007	10:05:07	Yes
2	0.014	0.014	0.0007	0.0028	0.0007	10:05:37	Yes
Mean:	0.015	0.015	0.0007				
SD:	0.002	0.002	0.0000				
%RSD:	15.12	15.12	3.68				

==========

Sequence No.: 27 **Autosampler Location: 25**
Sample ID: 243550002|939596|1 **Date Collected: 1/11/2010 10:05:57**
Analyst: JXL **Data Type: Original**

Replicate Data: 243550002|939596|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.394	0.394	0.0048	0.0205	0.0049	10:06:48	Yes
2	0.394	0.394	0.0048	0.0203	0.0049	10:07:18	Yes
Mean:	0.394	0.394	0.0048				
SD:	0.000	0.000	0.0000				
%RSD:	0.010	0.010	0.01				

==========

Sequence No.: 28 **Autosampler Location: 26**
Sample ID: 243550003|939596|1 **Date Collected: 1/11/2010 10:07:38**
Analyst: JXL **Data Type: Original**

Replicate Data: 243550003|939596|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.068	0.068	0.0013	0.0058	0.0013	10:08:29	Yes
2	0.063	0.063	0.0012	0.0047	0.0012	10:08:59	Yes
Mean:	0.066	0.066	0.0012				
SD:	0.004	0.004	0.0000				
%RSD:	6.294	6.294	3.65				

==========

Sequence No.: 29 **Autosampler Location: 27**
Sample ID: 243550004|939596|1 **Date Collected: 1/11/2010 10:09:18**
Analyst: JXL **Data Type: Original**

Replicate Data: 243550004|939596|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.106	0.106	0.0017	0.0071	0.0017	10:10:09	Yes
2	0.110	0.110	0.0017	0.0072	0.0018	10:10:39	Yes
Mean:	0.108	0.108	0.0017				
SD:	0.003	0.003	0.0000				
%RSD:	2.835	2.835	1.97				

Sequence No.: 30 **Autosampler Location: 28**
Sample ID: 243550005|939596|1 **Date Collected: 1/11/2010 10:10:58**
Analyst: JXL **Data Type: Original**

Replicate Data: 243550005|939596|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.023	-0.023	0.0003	0.0011	0.0003	10:11:49	Yes
2	-0.024	-0.024	0.0003	0.0011	0.0003	10:12:19	Yes
Mean:	-0.024	-0.024	0.0003				
SD:	0.001	0.001	0.0000				
%RSD:	3.308	3.308	3.33				

Sequence No.: 31 **Autosampler Location: 29**
Sample ID: 243550006|939596|1 **Date Collected: 1/11/2010 10:12:38**
Analyst: JXL **Data Type: Original**

Replicate Data: 243550006|939596|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.021	-0.021	0.0003	0.0013	0.0003	10:13:28	Yes
2	-0.023	-0.023	0.0003	0.0012	0.0003	10:13:58	Yes
Mean:	-0.022	-0.022	0.0003				
SD:	0.001	0.001	0.0000				
%RSD:	4.018	4.018	3.48				

Sequence No.: 32 **Autosampler Location: 30**
Sample ID: 243550007|939596|1 **Date Collected: 1/11/2010 10:14:17**
Analyst: JXL **Data Type: Original**

Replicate Data: 243550007|939596|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.578	0.578	0.0068	0.0297	0.0069	10:15:08	Yes
2	0.573	0.573	0.0068	0.0295	0.0068	10:15:38	Yes
Mean:	0.575	0.575	0.0068				
SD:	0.004	0.004	0.0000				
%RSD:	0.663	0.663	0.61				

Sequence No.: 33 **Autosampler Location: 31**
Sample ID: 243550008|939596|1 **Date Collected: 1/11/2010 10:15:57**
Analyst: JXL **Data Type: Original**

Replicate Data: 243550008|939596|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.105	0.105	0.0017	0.0077	0.0017	10:16:47	Yes
2	0.104	0.104	0.0017	0.0079	0.0017	10:17:17	Yes
Mean:	0.104	0.104	0.0017				
SD:	0.000	0.000	0.0000				
%RSD:	0.377	0.377	0.26				

Sequence No.: 34 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 1/11/2010 10:17:37**

Analyst: Data Type: Original

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.283	5.283	0.0581	0.2521	0.0582	10:18:27	Yes
2	5.269	5.269	0.0580	0.2503	0.0580	10:18:57	Yes
Mean:	5.276	5.276	0.0581				
SD:	0.010	0.010	0.0001				
%RSD:	0.187	0.187	0.19				

QC value within limits for Hg 253.7 Recovery = 105.52%
All analyte(s) passed QC.

Sequence No.: 35 Autosampler Location: 8
Sample ID: CCB Date Collected: 1/11/2010 10:19:16
Analyst: Data Type: Original

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.034	-0.034	0.0001	0.0012	0.0002	10:20:07	Yes
2	-0.015	-0.015	0.0004	0.0027	0.0004	10:20:37	Yes
Mean:	-0.025	-0.025	0.0003				
SD:	0.014	0.014	0.0001				
%RSD:	55.66	55.66	59.72				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 36 Autosampler Location: 32
Sample ID: 243550009|939596|1 Date Collected: 1/11/2010 10:20:56
Analyst: JXL Data Type: Original

Replicate Data: 243550009|939596|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.010	-0.010	0.0004	0.0015	0.0004	10:21:47	Yes
2	-0.008	-0.008	0.0004	0.0018	0.0005	10:22:17	Yes
Mean:	-0.009	-0.009	0.0004				
SD:	0.002	0.002	0.0000				
%RSD:	17.42	17.42	4.15				

Sequence No.: 37 Autosampler Location: 33
Sample ID: 243550010|939596|1 Date Collected: 1/11/2010 10:22:37
Analyst: JXL Data Type: Original

Replicate Data: 243550010|939596|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.006	0.006	0.0006	0.0026	0.0006	10:23:28	Yes
2	0.008	0.008	0.0006	0.0026	0.0006	10:23:57	Yes
Mean:	0.007	0.007	0.0006				
SD:	0.001	0.001	0.0000				
%RSD:	16.74	16.74	2.10				

Sequence No.: 38 Autosampler Location: 34
Sample ID: 243550011|939596|1 Date Collected: 1/11/2010 10:24:17
Analyst: JXL Data Type: Original

Replicate Data: 243550011|939596|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.037	0.037	0.0009	0.0041	0.0010	10:25:08	Yes

Replicate Data: 243555001|939596|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.056	0.056	0.0011	0.0058	0.0012	10:33:35	Yes
2	0.055	0.055	0.0011	0.0054	0.0012	10:34:05	Yes
Mean:	0.056	0.056	0.0011				
SD:	0.001	0.001	0.0000				
%RSD:	1.351	1.351	0.73				

==========

Sequence No.: 44 Autosampler Location: 40
Sample ID: 1202010666|939596|1 Date Collected: 1/11/2010 10:34:24
Analyst: JXL Data Type: Original

Replicate Data: 1202010666|939596|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.087	0.087	0.0015	0.0067	0.0015	10:35:15	Yes
2	0.085	0.085	0.0014	0.0065	0.0015	10:35:45	Yes
Mean:	0.086	0.086	0.0015				
SD:	0.002	0.002	0.0000				
%RSD:	1.814	1.814	1.17				

==========

Sequence No.: 45 Autosampler Location: 41
Sample ID: 1202010667|939596|1 Date Collected: 1/11/2010 10:36:05
Analyst: JXL Data Type: Original

Replicate Data: 1202010667|939596|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.031	2.031	0.0227	0.0980	0.0227	10:36:55	Yes
2	2.019	2.019	0.0225	0.0970	0.0226	10:37:25	Yes
Mean:	2.025	2.025	0.0226				
SD:	0.009	0.009	0.0001				
%RSD:	0.422	0.422	0.41				

==========

Sequence No.: 46 Autosampler Location: 7
Sample ID: CCV Date Collected: 1/11/2010 10:37:45
Analyst: Data Type: Original

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.100	5.100	0.0561	0.2421	0.0562	10:38:35	Yes
2	5.084	5.084	0.0560	0.2394	0.0560	10:39:05	Yes
Mean:	5.092	5.092	0.0561				
SD:	0.011	0.011	0.0001				
%RSD:	0.223	0.223	0.22				

QC value within limits for Hg 253.7 Recovery = 101.84%
All analyte(s) passed QC.

==========

Sequence No.: 47 Autosampler Location: 8
Sample ID: CCB Date Collected: 1/11/2010 10:39:24
Analyst: Data Type: Original

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.031	-0.031	0.0002	0.0007	0.0002	10:40:14	Yes
2	-0.031	-0.031	0.0002	0.0007	0.0002	10:40:44	Yes
Mean:	-0.031	-0.031	0.0002				
SD:	0.000	0.000	0.0000				
%RSD:	0.792	0.792	1.47				

QC value within limits for Hg 253.7 Recovery = Not calculated

All analyte(s) passed QC.

Sequence No.: 48 Autosampler Location: 42
Sample ID: 1202010679|939596|1 Date Collected: 1/11/2010 10:41:04
Analyst: JXL Data Type: Original

Replicate Data: 1202010679|939596|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.025	2.025	0.0226	0.0972	0.0226	10:41:55	Yes
2	2.003	2.003	0.0224	0.0958	0.0224	10:42:25	Yes
Mean:	2.014	2.014	0.0225				
SD:	0.015	0.015	0.0002				
%RSD:	0.746	0.746	0.73				

Sequence No.: 49 Autosampler Location: 43
Sample ID: 1202010678|939596|5 Date Collected: 1/11/2010 10:42:44
Analyst: JXL Data Type: Original

Replicate Data: 1202010678|939596|5

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.019	-0.019	0.0003	0.0012	0.0004	10:43:35	Yes
2	-0.023	-0.023	0.0003	0.0009	0.0003	10:44:05	Yes
Mean:	-0.021	-0.021	0.0003				
SD:	0.003	0.003	0.0000				
%RSD:	15.78	15.78	12.39				

Sequence No.: 50 Autosampler Location: 44
Sample ID: 243555002|939596|1 Date Collected: 1/11/2010 10:44:25
Analyst: JXL Data Type: Original

Replicate Data: 243555002|939596|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	1.096	1.096	0.0125	0.0543	0.0125	10:45:15	Yes
2	1.099	1.099	0.0125	0.0540	0.0125	10:45:45	Yes
Mean:	1.097	1.097	0.0125				
SD:	0.002	0.002	0.0000				
%RSD:	0.185	0.185	0.18				

Sequence No.: 51 Autosampler Location: 45
Sample ID: 1202010629|939579|1 Date Collected: 1/11/2010 10:46:05
Analyst: JXL Data Type: Original

Replicate Data: 1202010629|939579|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.038	-0.038	0.0001	0.0006	0.0001	10:46:56	Yes
2	-0.040	-0.040	0.0001	0.0004	0.0001	10:47:26	Yes
Mean:	-0.039	-0.039	0.0001				
SD:	0.001	0.001	0.0000				
%RSD:	3.619	3.619	16.20				

Sequence No.: 52 Autosampler Location: 46
Sample ID: 1202010630|939579|10 Date Collected: 1/11/2010 10:47:46
Analyst: JXL Data Type: Original

Replicate Data: 1202010630|939579|10

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored

Replicate Data: 243602005|939579|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.003	0.003	0.0006	0.0025	0.0006	10:57:04	Yes
2	0.006	0.006	0.0006	0.0029	0.0006	10:57:34	Yes
Mean:	0.005	0.005	0.0006				
SD:	0.002	0.002	0.0000				
%RSD:	44.02	44.02	4.04				

Sequence No.: 58 Autosampler Location: 7
Sample ID: CCV Date Collected: 1/11/2010 10:57:54
Analyst: Data Type: Original

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.206	5.206	0.0573	0.2443	0.0573	10:58:44	Yes
2	5.166	5.166	0.0569	0.2433	0.0569	10:59:14	Yes
Mean:	5.186	5.186	0.0571				
SD:	0.028	0.028	0.0003				
%RSD:	0.547	0.547	0.54				

QC value within limits for Hg 253.7 Recovery = 103.73%
All analyte(s) passed QC.

Sequence No.: 59 Autosampler Location: 8
Sample ID: CCB Date Collected: 1/11/2010 10:59:32
Analyst: Data Type: Original

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.034	-0.034	0.0002	0.0006	0.0002	11:00:24	Yes
2	-0.030	-0.030	0.0002	0.0009	0.0002	11:00:53	Yes
Mean:	-0.032	-0.032	0.0002				
SD:	0.003	0.003	0.0000				
%RSD:	9.053	9.053	18.19				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 60 Autosampler Location: 52
Sample ID: 243623001|939579|1 Date Collected: 1/11/2010 11:01:13
Analyst: JXL Data Type: Original

Replicate Data: 243623001|939579|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.282	0.282	0.0036	0.0159	0.0036	11:02:04	Yes
2	0.287	0.287	0.0036	0.0159	0.0037	11:02:34	Yes
Mean:	0.284	0.284	0.0036				
SD:	0.003	0.003	0.0000				
%RSD:	1.129	1.129	0.97				

Sequence No.: 61 Autosampler Location: 53
Sample ID: 1202010631|939579|1 Date Collected: 1/11/2010 11:02:54
Analyst: JXL Data Type: Original

Replicate Data: 1202010631|939579|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.346	0.346	0.0043	0.0184	0.0043	11:03:45	Yes
2	0.346	0.346	0.0043	0.0188	0.0043	11:04:15	Yes
Mean:	0.346	0.346	0.0043				

Miscellaneous

Prep LogBook

Analyst: FGA Verified by:_____

Batch: 936804

Lab SOP: GL-MA-E-009 REV# 19

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1202004421	UI062540-MS	.501	g
MS	1202004423	UI091015-A	.5	mL
MS	1202004423	UI091015-B	.5	mL
MSD	1202004425	UI091015-A	.5	mL
MSD	1202004425	UI091015-B	.5	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1202004420		SW846 3050B	29-DEC-2009 13:00	0.503 g	50 mL	99.40358	SOIL
LCS	1202004421		SW846 3050B	29-DEC-2009 13:00	0.501 g	50 mL	99.8004	SOIL
SAMPLE	243457001		SW846 3050B	29-DEC-2009 13:00	0.5 g	50 mL	100	SOIL
SAMPLE	243457002		SW846 3050B	29-DEC-2009 13:00	0.51 g	50 mL	98.03922	SOIL
SAMPLE	243457003		SW846 3050B	29-DEC-2009 13:00	0.506 g	50 mL	98.81423	SOIL
SAMPLE	243457004		SW846 3050B	29-DEC-2009 13:00	0.51 g	50 mL	98.03922	SOIL
SAMPLE	243472001		SW846 3050B	29-DEC-2009 13:00	0.509 g	50 mL	98.23183	SOIL
SAMPLE	243472002		SW846 3050B	29-DEC-2009 13:00	0.513 g	50 mL	97.46589	SOIL
SAMPLE	243472003		SW846 3050B	29-DEC-2009 13:00	0.507 g	50 mL	98.61933	SOIL
SAMPLE	243492001		SW846 3050B	29-DEC-2009 13:00	0.509 g	50 mL	98.23183	SOIL
SAMPLE	243492002		SW846 3050B	29-DEC-2009 13:00	0.5 g	50 mL	100	SOIL
SAMPLE	243492003		SW846 3050B	29-DEC-2009 13:00	0.507 g	50 mL	98.61933	SOIL
SAMPLE	243492004		SW846 3050B	29-DEC-2009 13:00	0.5 g	50 mL	100	SOIL
SAMPLE	243492005		SW846 3050B	29-DEC-2009 13:00	0.516 g	50 mL	96.89922	SOIL
SAMPLE	243492006		SW846 3050B	29-DEC-2009 13:00	0.507 g	50 mL	98.61933	SOIL
SAMPLE	243492007		SW846 3050B	29-DEC-2009 13:00	0.509 g	50 mL	98.23183	SOIL
SAMPLE	243547002		SW846 3050B	29-DEC-2009 13:00	0.521 g	50 mL	95.96929	SOIL
SAMPLE	243547003		SW846 3050B	29-DEC-2009 13:00	0.507 g	50 mL	98.61933	SOIL
SAMPLE	243549002		SW846 3050B	29-DEC-2009 13:00	0.503 g	50 mL	99.40358	SOIL
DUP	1202004422	243549002	SW846 3050B	29-DEC-2009 13:00	0.515 g	50 mL	97.08738	SOIL
MS	1202004423	243549002	SW846 3050B	29-DEC-2009 13:00	0.517 g	50 mL	96.7118	SOIL
MSD	1202004425	243549002	SW846 3050B	29-DEC-2009 13:00	0.507 g	50 mL	98.61933	SOIL
SDILT	1202004424	243549002	SW846 3050B	29-DEC-2009 13:00	0.503 g	50 mL	99.40358	SOIL

Reagent/Solvent Lot ID	Amount	Description
1203655-02	1.5 mL	Hydrogen Peroxide 30%
1234886	5 mL	Nitric Acid CONC.

Comments: Clumpy,gray soil.

Prep LogBook

Analyst: FGA Verified by:_____

Batch: 936807

Lab SOP: GL-MA-E-009 REV# 19

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1202004427	UI062540-I	.503	g
MS	1202004429	UI091124-01	.25	mL
MS	1202004429	UI091124-06	.25	mL
MSD	1202004431	UI091124-01	.25	mL
MSD	1202004431	UI091124-06	.25	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1202004426		SW846 3050B	29-DEC-2009 13:00	0.505 g	50 mL	99.0099	SOIL
LCS	1202004427		SW846 3050B	29-DEC-2009 13:00	0.503 g	50 mL	99.40358	SOIL
SAMPLE	243457001		SW846 3050B	29-DEC-2009 13:00	0.503 g	50 mL	99.40358	SOIL
SAMPLE	243457002		SW846 3050B	29-DEC-2009 13:00	0.501 g	50 mL	99.8004	SOIL
SAMPLE	243457003		SW846 3050B	29-DEC-2009 13:00	0.501 g	50 mL	99.8004	SOIL
SAMPLE	243457004		SW846 3050B	29-DEC-2009 13:00	0.505 g	50 mL	99.0099	SOIL
SAMPLE	243472001		SW846 3050B	29-DEC-2009 13:00	0.507 g	50 mL	98.61933	SOIL
SAMPLE	243472002		SW846 3050B	29-DEC-2009 13:00	0.508 g	50 mL	98.4252	SOIL
SAMPLE	243472003		SW846 3050B	29-DEC-2009 13:00	0.511 g	50 mL	97.84736	SOIL
SAMPLE	243492001		SW846 3050B	29-DEC-2009 13:00	0.525 g	50 mL	95.2381	SOIL
SAMPLE	243492002		SW846 3050B	29-DEC-2009 13:00	0.5 g	50 mL	100	SOIL
SAMPLE	243492003		SW846 3050B	29-DEC-2009 13:00	0.521 g	50 mL	95.96929	SOIL
SAMPLE	243492004		SW846 3050B	29-DEC-2009 13:00	0.501 g	50 mL	99.8004	SOIL
SAMPLE	243492005		SW846 3050B	29-DEC-2009 13:00	0.503 g	50 mL	99.40358	SOIL
SAMPLE	243492006		SW846 3050B	29-DEC-2009 13:00	0.516 g	50 mL	96.89922	SOIL
SAMPLE	243492007		SW846 3050B	29-DEC-2009 13:00	0.503 g	50 mL	99.40358	SOIL
SAMPLE	243547002		SW846 3050B	29-DEC-2009 13:00	0.512 g	50 mL	97.65625	SOIL
SAMPLE	243547003		SW846 3050B	29-DEC-2009 13:00	0.5 g	50 mL	100	SOIL
SAMPLE	243549002		SW846 3050B	29-DEC-2009 13:00	0.507 g	50 mL	98.61933	SOIL
DUP	1202004428	243549002	SW846 3050B	29-DEC-2009 13:00	0.501 g	50 mL	99.8004	SOIL
MS	1202004429	243549002	SW846 3050B	29-DEC-2009 13:00	0.51 g	50 mL	98.03922	SOIL
MSD	1202004431	243549002	SW846 3050B	29-DEC-2009 13:00	0.509 g	50 mL	98.23183	SOIL
SDILT	1202004430	243549002	SW846 3050B	29-DEC-2009 13:00	0.507 g	50 mL	98.61933	SOIL

Reagent/Solvent Lot ID	Amount	Description
1244970	10 mL	HYDROCHLORIC ACID
1234886	1.25 mL	Nitric Acid CONC.

Comments Clumpy,gray soil.

Prep LogBook

Analyst: TXB3 Verified by:_____

Batch: 939594

Lab SOP: GL-MA-E-010 REV# 23

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1202010665	UI031809A	.209	g
MS	1202010667	WHG100108-14	.3	mL
MSD	1202010679	WHG100108-14	.3	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1202010664		SW846 7471A Prep	08-JAN-2010 14:10	0.514 g	30 mL	58.36576	SOIL
LCS	1202010665		SW846 7471A Prep	08-JAN-2010 14:10	0.209 g	30 mL	143.54067	SOIL
SAMPLE	243547002		SW846 7471A Prep	08-JAN-2010 14:10	0.565 g	30 mL	53.09735	SOIL
SAMPLE	243547003		SW846 7471A Prep	08-JAN-2010 14:10	0.549 g	30 mL	54.64481	SOIL
SAMPLE	243549002		SW846 7471A Prep	08-JAN-2010 14:10	0.534 g	30 mL	56.17978	SOIL
SAMPLE	243550001		SW846 7471A Prep	08-JAN-2010 14:10	0.522 g	30 mL	57.47126	SOIL
SAMPLE	243550002		SW846 7471A Prep	08-JAN-2010 14:10	0.572 g	30 mL	52.44755	SOIL
SAMPLE	243550003		SW846 7471A Prep	08-JAN-2010 14:10	0.506 g	30 mL	59.28854	SOIL
SAMPLE	243550004		SW846 7471A Prep	08-JAN-2010 14:10	0.534 g	30 mL	56.17978	SOIL
SAMPLE	243550005		SW846 7471A Prep	08-JAN-2010 14:10	0.516 g	30 mL	58.13953	SOIL
SAMPLE	243550006		SW846 7471A Prep	08-JAN-2010 14:10	0.533 g	30 mL	56.28518	SOIL
SAMPLE	243550007		SW846 7471A Prep	08-JAN-2010 14:10	0.529 g	30 mL	56.71078	SOIL
SAMPLE	243550008		SW846 7471A Prep	08-JAN-2010 14:10	0.581 g	30 mL	51.63511	SOIL
SAMPLE	243550009		SW846 7471A Prep	08-JAN-2010 14:10	0.51 g	30 mL	58.82353	SOIL
SAMPLE	243550010		SW846 7471A Prep	08-JAN-2010 14:10	0.573 g	30 mL	52.35602	SOIL
SAMPLE	243550011		SW846 7471A Prep	08-JAN-2010 14:10	0.527 g	30 mL	56.926	SOIL
SAMPLE	243550012		SW846 7471A Prep	08-JAN-2010 14:10	0.581 g	30 mL	51.63511	SOIL
SAMPLE	243550013		SW846 7471A Prep	08-JAN-2010 14:10	0.526 g	30 mL	57.03422	SOIL
SAMPLE	243550014		SW846 7471A Prep	08-JAN-2010 14:10	0.505 g	30 mL	59.40594	SOIL
SAMPLE	243550015		SW846 7471A Prep	08-JAN-2010 14:10	0.559 g	30 mL	53.66726	SOIL
SAMPLE	243555001		SW846 7471A Prep	08-JAN-2010 14:10	0.596 g	30 mL	50.33557	SOIL
DUP	1202010666	243555001	SW846 7471A Prep	08-JAN-2010 14:10	0.529 g	30 mL	56.71078	SOIL
MS	1202010667	243555001	SW846 7471A Prep	08-JAN-2010 14:10	0.523 g	30 mL	57.36138	SOIL
MSD	1202010679	243555001	SW846 7471A Prep	08-JAN-2010 14:10	0.554 g	30 mL	54.15162	SOIL
SDILT	1202010678	243555001	SW846 7471A Prep	08-JAN-2010 14:10	0.596 g	30 mL	50.33557	SOIL
SAMPLE	243555002		SW846 7471A Prep	08-JAN-2010 14:10	0.533 g	30 mL	56.28518	SOIL

Reagent/Solvent Lot ID	Amount	Description
1236355-A	1.125 mL	Hydrochloric Acid Conc.
1240182-1	.375 mL	NITRIC ACID
1244904-C	7.5 mL	5% KMnO4 solution

Comments: Sample 243555001 is pieces of wood.
Digestion Start Date: 08-JAN-10 14:10
Digestion End Date: 08-JAN-10 14:40

Prep LogBook

1206350-C	2 mL	Hg reducing agent
WHG100108-07	30 uL	Mercury Working Standard 1st Source CAL S 0.2/CRA
WHG100108-08	75 uL	Mercury Working Standard 1st Source CAL S 0.5
WHG100108-11	1.5 mL	Mercury Working 1st Source CAL S 10.0
WHG100108-09	300 uL	Mercury Working 1st Source CAL S 2.0
WHG100108-10	750 uL	Mercury Working 1st Source CAL S 5.0/CCV
WHG100108-12	750 uL	Mercury Working 2nd Source S 5.0/ICV

Prep LogBook

Analyst: FGA Verified by:_____

Batch: 941049

Lab SOP: GL-MA-E-009 REV# 19

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1202014119	UI062540-I	.51	g
MS	1202004429	UI091216-01	.25	mL
MS	1202004429	UI091216-06	.25	mL
MSD	1202004431	UI091216-01	.25	mL
MSD	1202004431	UI091216-06	.25	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1202014118		SW846 3050B	13-JAN-2010 12:45	0.5 g	50 mL	100	SOIL
LCS	1202014119		SW846 3050B	13-JAN-2010 12:45	0.51 g	50 mL	98.03922	SOIL
SAMPLE	243457001		SW846 3050B	13-JAN-2010 12:45	0.505 g	50 mL	99.0099	SOIL
SAMPLE	243457002		SW846 3050B	13-JAN-2010 12:45	0.503 g	50 mL	99.40358	SOIL
SAMPLE	243457003		SW846 3050B	13-JAN-2010 12:45	0.523 g	50 mL	95.60229	SOIL
SAMPLE	243457004		SW846 3050B	13-JAN-2010 12:45	0.504 g	50 mL	99.20635	SOIL
SAMPLE	243472001		SW846 3050B	13-JAN-2010 12:45	0.502 g	50 mL	99.60159	SOIL
SAMPLE	243472002		SW846 3050B	13-JAN-2010 12:45	0.545 g	50 mL	91.74312	SOIL
SAMPLE	243472003		SW846 3050B	13-JAN-2010 12:45	0.516 g	50 mL	96.89922	SOIL
SAMPLE	243492001		SW846 3050B	13-JAN-2010 12:45	0.525 g	50 mL	95.2381	SOIL
SAMPLE	243492002		SW846 3050B	13-JAN-2010 12:45	0.516 g	50 mL	96.89922	SOIL
SAMPLE	243492003		SW846 3050B	13-JAN-2010 12:45	0.542 g	50 mL	92.25092	SOIL
SAMPLE	243492004		SW846 3050B	13-JAN-2010 12:45	0.52 g	50 mL	96.15385	SOIL
SAMPLE	243492005		SW846 3050B	13-JAN-2010 12:45	0.52 g	50 mL	96.15385	SOIL
SAMPLE	243492006		SW846 3050B	13-JAN-2010 12:45	0.546 g	50 mL	91.57509	SOIL
SAMPLE	243492007		SW846 3050B	13-JAN-2010 12:45	0.509 g	50 mL	98.23183	SOIL
SAMPLE	243547002		SW846 3050B	13-JAN-2010 12:45	0.517 g	50 mL	96.7118	SOIL
SAMPLE	243547003		SW846 3050B	13-JAN-2010 12:45	0.53 g	50 mL	94.33962	SOIL
SAMPLE	243549002		SW846 3050B	13-JAN-2010 12:45	0.534 g	50 mL	93.63296	SOIL
DUP	1202004428	243549002	SW846 3050B	13-JAN-2010 12:45	0.5 g	50 mL	100	SOIL
MS	1202004429	243549002	SW846 3050B	13-JAN-2010 12:45	0.505 g	50 mL	99.0099	SOIL
MSD	1202004431	243549002	SW846 3050B	13-JAN-2010 12:45	0.513 g	50 mL	97.46589	SOIL
SDILT	1202004430	243549002	SW846 3050B	13-JAN-2010 12:45	0.534 g	50 mL	93.63296	SOIL

Reagent/Solvent Lot ID	Amount	Description
1252838	10 mL	HYDROCHLORIC ACID
1252836	1.25 mL	Nitric Acid CONC.

Comments: Brown,medium soil.

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
12-JAN-10	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
ICP	SW846 3050B/6010B	Solid	LANL
Batch ID:	**Sample Numbers:**		
936808	See Below		

Potentially affected work order(s)(SDG): 243457(10-1038),243472(10-1057),243492(10-1037),243547(10-1084),243549(10-1085)

Application Issues:

Failed Recovery for MS/PS

Failed RPD for DUP

Failed Recovery for MSD/PSD

Specification and Requirements Exception Description:	DER Disposition:
1. Failed Recovery for MS/PS: QC 1202004429MS 2. Failed RPD for DUP: QC 1202004428DUP 3. Failed Recovery for MSD/PSD: QC 1202004431MSD	1. The matrix spike recovery failed outside of the control limits for calcium,magnesium and potassium due to possible matrix interferences and/or non-homogeneity. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported. 2. The sample and sample duplicate % RPD failed outside the control limits for cobalt,titanium and vanadium due to possible sample non-homogeneity and/or matrix interference. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported. 3. The matrix spike duplicate recovery failed outside of the control limits for magnesium and potassium due to possible matrix interferences and/or non-homogeneity. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported.

Originator's Name:

Helen Camello 13-JAN-10

Data Validator/Group Leader:

Bryan Davis 14-JAN-10

DER Report No.: 780714
Revision No.:

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
16-JAN-10	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
ICP/MS	SW846 3050B/6020	Solid	LANL
Batch ID:	**Sample Numbers:**		
936805	See Below		

Potentially affected work order(s)(SDG): 243457(10-1038),243472(10-1057),243492(10-1037),243547(10-1084),243549(10-1085)

Application Issues:

Failed RPD for DUP

Failed Recovery for MSD/PSD

Specification and Requirements Exception Description:	DER Disposition:
1. Failed RPD for DUP: QC 1202004422DUP 2. Failed Recovery for MSD/PSD: QC 1202004425MSD	The matrix spike duplicate failed outside of the control limits for Se due to possible matrix interferences and/or sample non-homogeneity. Per GEL's accredited methods and SOP's, a corrective action is not required and the data is qualified and reported. The sample and sample duplicate %RPD failed outside the control limits for Be and Ni due to possible sample homogeneity and/or matrix interference. Per GEL's accredited methods and SOP's, a corrective action is not required and the data is qualified and reported.

Originator's Name:

Rose Jenkins 16-JAN-10

Data Validator/Group Leader:

Samantha Jacobs 18-JAN-10

Standard Logbook

Serial ID: UHG1167639-01 **Opened:** 13-AUG-09 **Amount :** 125 mL
Name: MHGSTOCK1 **Received:** 13-AUG-09 **Catalog Number :** PLHG4-2Y
Type: Source Material **Expires:** 13-AUG-10 **Lot Number :** 15-37HG
Employee: Bryan Davis **Solvent :** 10% HNO3
Supplier: Spex
Description: Mercury Source Standard #1 1,000 mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Mercury	1000 mg/L		

Serial ID: UHG1167641-02 **Opened:** 13-AUG-09 **Amount :** 100 mL
Name: MHGSTOCK2 **Received:** 13-AUG-09 **Catalog Number :** AHG1KN-100
Type: Source Material **Expires:** 13-AUG-10 **Lot Number :** 4905530
Employee: Bryan Davis **Solvent :** 3% HNO3
Supplier: Ricca Chemical Company
Description: Mercury Source Standard #2 1,000 mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Mercury	999.7 mg/L		

Serial ID: UI031809A **Opened:** 18-MAR-09 **Catalog Number :** 540
Name: METALSOILSRM **Received:** 18-MAR-09 **Lot Number :** D061-540
Type: Source Material **Expires:** 10-OCT-10
Employee: Jamie Johnson
Supplier: ERA
Description: Metals LCS Soil SRM
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	10600 mg/kg	Antimony	126 mg/kg
Arsenic	225 mg/kg	Barium	565 mg/kg
Beryllium	162 mg/kg	Boron	107 mg/kg
Cadmium	69.1 mg/kg	Calcium	10000 mg/kg
Chromium	124 mg/kg	Cobalt	115 mg/kg
Copper	66.7 mg/kg	Iron	17600 mg/kg
Lead	223 mg/kg	Magnesium	4260 mg/kg
Manganese	368 mg/kg	Mercury	5.15 mg/kg
Molybdenum	107 mg/kg	Nickel	172 mg/kg
Potassium	4090 mg/kg	Selenium	147 mg/kg
Silver	35.2 mg/kg	Sodium	538 mg/kg
Strontium	117 mg/kg	Thallium	173 mg/kg
Tin	164 mg/kg	Titanium	381 mg/kg
Vanadium	93.9 mg/kg	Zinc	349 mg/kg

Standard Logbook

Serial ID: UI062540-I **Opened:** 12-JUN-09 **Amount :** 80 g
Name: ICP SOIL SRM **Received:** 12-JUN-09 **Lot Number :** D062-540
Type: Source Material **Expires:** 31-JAN-12
Employee: Bryan Davis
Supplier: ERA
Description: Metals Soil LCS SRM ICP/Hg
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	10500 mg/kg	Antimony	173 mg/kg
Arsenic	104 mg/kg	Barium	198 mg/kg
Beryllium	77.6 mg/kg	Boron	141 mg/kg
Cadmium	60.7 mg/kg	Calcium	9870 mg/kg
Chromium	236 mg/kg	Cobalt	91.2 mg/kg
Copper	174 mg/kg	Iron	18000 mg/kg
Lead	86 mg/kg	Magnesium	4000 mg/kg
Manganese	558 mg/kg	Mercury	8.46 mg/kg
Molybdenum	48.6 mg/kg	Nickel	134 mg/kg
Phosphorous	736 mg/kg	Potassium	4300 mg/kg
Selenium	286 mg/kg	Silica	2591 mg/kg
Silicon	1211 mg/kg	Silver	30.1 mg/kg
Sodium	1020 mg/kg	Strontium	227 mg/kg
Sulfur	385 mg/kg	Thallium	121 mg/kg
Tin	104 mg/kg	Titanium	462 mg/kg
Vanadium	115 mg/kg	Zinc	594 mg/kg

Serial ID: UI062540-MS **Opened:** 12-JUN-09 **Lot Number :** D062-540
Name: ICPMS SOIL SRM **Received:** 12-JUN-09
Type: Source Material **Expires:** 31-JAN-12
Employee: Bryan Davis
Supplier: ERA
Description: Metals Soil LCS SRM ICPMS
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	10500 mg/kg	Antimony	67.4 mg/kg
Arsenic	104 mg/kg	Barium	198 mg/kg
Beryllium	77.6 mg/kg	Boron	141 mg/kg
Cadmium	60.6 mg/kg	Calcium	9870 mg/kg
Chromium	236 mg/kg	Cobalt	91.2 mg/kg
Copper	174 mg/kg	Iron	18000 mg/kg
Lead	86 mg/kg	Lithium	10.6 mg/kg
Magnesium	4000 mg/kg	Manganese	558 mg/kg
Mercury	8.46 mg/kg	Molybdenum	48.6 mg/kg
Nickel	134 mg/kg	Phosphorous	755 mg/kg
Potassium	4300 mg/kg	Selenium	286 mg/kg
Silver	30.1 mg/kg	Sodium	1020 mg/kg

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Strontium	227 mg/kg	Thallium	121 mg/kg
Thorium	9.84 mg/kg	Tin	104 mg/kg
Titanium	462 mg/kg	Uranium	2.13 mg/kg
Uranium-235	.0153 mg/kg	Uranium-238	2.11 mg/kg
Vanadium	92.4 mg/kg	Zinc	594 mg/kg
Zirconium	10.6 mg/kg		

Serial ID: UI090422-40 **Opened:** 04-MAY-09 **Amount :** 500 mL
Name: TRACE ICP ICSA SOLN A **Received:** 22-APR-09 **Catalog Number :** 160005-01-03
Type: Source Material **Expires:** 04-MAY-10 **Lot Number :** 1013357
Employee: Helen Camello **Solvent :** 5%HNO3
Supplier: o2si
Description: TRACE ICP ICSA SOLN A mg/L+/-0.5%IN5%HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	5000 mg/L	Calcium	5000 mg/L
Iron	2000 mg/L	Magnesium	5000 mg/L

Serial ID: UI090610-03 **Opened:** 10-JUN-09 **Catalog Number :** 060074-06-01
Name: ICPMS Tungsten - 10mg/L S **Received:** 10-JUN-09 **Lot Number :** 1016338
Type: Source Material **Expires:** 10-JUN-10 **Solvent :** 2% HNO3
Employee: Paul Boyd
Supplier: O2SI
Description: ICPMS Tungsten standard SPIKE - 10mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Tungsten	10 mg/L		

Serial ID: UI090701-09 **Opened:** 01-JUL-09 **Amount :** 250 mL
Name: ICP-MS CRDL Master #1 **Received:** 01-JUL-09 **Catalog Number :** 160044-09-02
Type: Source Material **Expires:** 01-JUL-10 **Lot Number :** 1016477
Employee: Paul Boyd **Solvent :** +/- 0.5% IN 2% HNO3
Supplier: 02SI
Description: ICPMS CRDL Master Soln #1
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	15 mg/L	Arsenic	5 mg/L
Barium	2 mg/L	Beryllium	.5 mg/L
Boron	15 mg/L	Cadmium	1 mg/L
Calcium	100 mg/L	Chromium	3 mg/L
Cobalt	1 mg/L	Copper	1 mg/L

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Iron	25 mg/L	Lead	2 mg/L
Lithium	10 mg/L	Magnesium	15 mg/L
Manganese	5 mg/L	Nickel	2 mg/L
Phosphorous	50 mg/L	Potassium	300 mg/L
Selenium	5 mg/L	Sodium	250 mg/L
Strontium	10 mg/L	Thallium	1 mg/L
Thorium	1 mg/L	Uranium	.2 mg/L
Vanadium	10 mg/L	Zinc	10 mg/L

Serial ID: UI090701-10 **Opened:** 01-JUL-09 **Amount :** 250 mL
Name: ICP-MS CRDL Master #2 **Received:** 01-JUL-09 **Catalog Number :** 160044-08-02
Type: Source Material **Expires:** 01-JUL-10 **Lot Number :** 1016476
Employee: Paul Boyd **Solvent :** +/- 0.5% IN 2% HNO3
Supplier: 02SI
Description: ICPMS CRDL Soln #2
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	2 mg/L	Molybdenum	.5 mg/L
Silver	1 mg/L	Tin	2 mg/L
Titanium	10 mg/L	Tungsten	5 mg/L
Zirconium	2 mg/L		

Serial ID: UI090701-40 **Opened:** 01-JUL-09 **Amount :** 500 mL
Name: TRACE ICP Stock PQL St **Received:** 30-JUN-09 **Catalog Number :** 160543-01-03
Type: Source Material **Expires:** 01-JUL-10 **Lot Number :** 1016475
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3+TrHF
Supplier: 02si
Description: TRACE ICP Stock PQL Standard
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	100 mg/L	Antimony	5 mg/L
Arsenic	15 mg/L	Barium	2.5 mg/L
Beryllium	2.5 mg/L	Boron	25 mg/L
Cadmium	2.5 mg/L	Calcium	100 mg/L
Chromium	2.5 mg/L	Cobalt	2.5 mg/L
Copper	5 mg/L	Iron	50 mg/L
Lead	5 mg/L	Magnesium	150 mg/L
Manganese	5 mg/L	Molybdenum	5 mg/L
Nickel	2.5 mg/L	Phosphorous	75 mg/L
Potassium	75 mg/L	Selenium	15 mg/L
Silicon	50 mg/L	Silver	2.5 mg/L
Sodium	150 mg/L	Strontium	2.5 mg/L
Sulfur	50 mg/L	Thallium	10 mg/L

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Tin	5 mg/L	Titanium	2.5 mg/L
Uranium	25 mg/L	Vanadium	2.5 mg/L
Zinc	5 mg/L		

Serial ID: UI090828-42 **Opened:** 16-SEP-09 **Amount :** 500 mL
Name: TRACE ICP Na-1000SOUR **Received:** 27-AUG-09 **Catalog Number :** 060011-02-03
Type: Source Material **Expires:** 16-SEP-10 **Lot Number :** 1017098
Employee: Helen Camello **Solvent :** 1%HNO3
Supplier: 02SI
Description: Sodium 1000 +/- 3 ug/mL in 1% HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Sodium	1000 ug/mL		

Serial ID: UI090925-40 **Opened:** 23-OCT-09 **Amount :** 500 mL
Name: SECOND SOURCE STD -1 **Received:** 25-SEP-09 **Catalog Number :** SGELMX38-500N
Type: Source Material **Expires:** 30-SEP-10 **Lot Number :** 4909129
Employee: Helen Camello **Solvent :** 5%HNO3
Supplier: SPECTRO PURE
Description: SECOND SOURCE STD #1A 5%HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Arsenic	100 mg/L
Barium	100 mg/L	Boron	100 mg/L
Cadmium	100 mg/L	Calcium	1000 mg/L
Chromium	100 mg/L	Cobalt	100 mg/L
Copper	100 mg/L	Iron	1000 mg/L
Lead	100 mg/L	Phosphorous	500 mg/L
Potassium	500 mg/L	Selenium	500 mg/L
Sodium	500 mg/L	Strontium	100 mg/L

Serial ID: UI090925-41 **Opened:** 23-OCT-09 **Amount :** 500 mL
Name: SECOND SOURCE STD -1 **Received:** 25-SEP-09 **Catalog Number :** SGELMX39-500B
Type: Source Material **Expires:** 30-SEP-10 **Lot Number :** 4909130
Employee: Helen Camello **Solvent :** 5%HNO3,TR.HF
Supplier: SPECTRO PURE
Description: SECOND SOURCE STD #1B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	100 mg/L	Beryllium	50 mg/L
Magnesium	1000 mg/L	Manganese	100 mg/L

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Molybdenum	100 mg/L	Nickel	100 mg/L
Silver	50 mg/L	Sulfur	500 mg/L
Thallium	100 mg/L	Tin	100 mg/L
Titanium	100 mg/L	Uranium	100 mg/L
Vanadium	100 mg/L	Zinc	100 mg/L

Serial ID: UI091015-42 **Opened:** 28-OCT-09 **Amount :** 500 mL
Name: SI 1000mg/L **Received:** 15-OCT-09 **Catalog Number :** 060014-02-03
Type: Source Material **Expires:** 28-OCT-10 **Lot Number :** 1017581
Employee: Helen Camello **Solvent :** 0.3%H2O(NH4)2SiF6
Supplier: o2si
Description: Silicon 1000mg/L+/-0.3%in H2O(NH4)2SiF6
Comments: None

Analyte	Concentration	Analyte	Concentration
Silica	2139 mg/L	Silicon	1000 mg/L

Serial ID: UI091015-A **Opened:** 15-OCT-09 **Catalog Number :** 160067-03
Name: ICP-MS DOE SOIL SPIKE **Received:** 15-OCT-09 **Lot Number :** 1017142
Type: Source Material **Expires:** 15-OCT-10
Employee: Francena Armstrong
Supplier: 02si
Description: ICP-MS Spike for soil products.
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	200 mg/L	Arsenic	8 mg/L
Barium	5 mg/L	Beryllium	5 mg/L
Boron	10 mg/L	Cadmium	1 mg/L
Calcium	200 mg/L	Chromium	5 mg/L
Cobalt	5 mg/L	Copper	5 mg/L
Iron	200 mg/L	Lead	20 mg/L
Lithium	5 mg/L	Magnesium	200 mg/L
Manganese	5 mg/L	Nickel	5 mg/L
Phosphorus, Total as P	200 mg/L	Potassium	200 mg/L
Selenium	2 mg/L	Sodium	200 mg/L
Strontium	5 mg/L	Thallium	10 mg/L
Thorium	5 mg/L	Uranium	5 mg/L
Uranium-235	.036 mg/L	Uranium-238	4.964 mg/L
Vanadium	5 mg/L	Zinc	5 mg/L

Standard Logbook

Serial ID: UI091015-B **Opened:** 15-OCT-09 **Catalog Number :** 160067-03
Name: ICP-MS DOE SOIL SPIKE **Received:** 15-OCT-09 **Lot Number :** 1017142
Type: Source Material **Expires:** 15-OCT-10
Employee: Francena Armstrong
Supplier: 02si
Description: ICP-MS Spike for Soil Products
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	20 mg/L	Molybdenum	5 mg/L
Silicon	200 mg/L	Silver	5 mg/L
Tin	5 mg/L	Zirconium	5 mg/L

Serial ID: UI091102-40 **Opened:** 16-NOV-09 **Amount :** 500 mL
Name: TRACE CALSTD#1A SOUF **Received:** 02-NOV-09 **Catalog Number :** HP2270-1-500
Type: Source Material **Expires:** 31-OCT-10 **Lot Number :** 0930215
Employee: Helen Camello **Solvent :** HNO3
Supplier: Environmental Express
Description: Trace Calibration Std #1A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	2000 mg/L	Arsenic	200 mg/L
Barium	200 mg/L	Beryllium	200 mg/L
Boron	200 mg/L	Cadmium	200 mg/L
Calcium	2000 mg/L	Chromium	200 mg/L
Cobalt	200 mg/L	Copper	200 mg/L
Iron	2000 mg/L	Lead	200 mg/L
Magnesium	2000 mg/L	Manganese	200 mg/L
Nickel	200 mg/L	Phosphorous	1000 mg/L
Potassium	2000 mg/L	Selenium	200 mg/L
Sodium	2000 mg/L	Strontium	200 mg/L
Thallium	200 mg/L	Uranium	200 mg/L
Vanadium	200 mg/L	Zinc	200 mg/L

Serial ID: UI091102-41 **Opened:** 16-NOV-09 **Amount :** 500 mL
Name: TRACE CALSTD#1B SOUF **Received:** 02-NOV-09 **Catalog Number :** HP2270-2-500
Type: Source Material **Expires:** 31-OCT-10 **Lot Number :** 0930216
Employee: Helen Camello **Solvent :** HNO3
Supplier: Environmental Express
Description: Trace Calibration Standard #1B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	200 mg/L	Molybdenum	200 mg/L
Silver	200 mg/L	Sulfur	400 mg/L

Analyte	Concentration	Analyte	Concentration
Tin	200 mg/L	Titanium	200 mg/L

Serial ID: UI091102-42 **Opened:** 17-NOV-09 **Amount :** 200 mL
Name: SILICON **Received:** 02-NOV-09 **Catalog Number :** HP100050-4F
Type: Source Material **Expires:** 17-NOV-10 **Lot Number :** 0921924
Employee: Helen Camello **Solvent :** H20/tr HF
Supplier: ENVIRNMENTAL EXPRESS
Description: SILICON 1000mg/L H20/tr HF
Comments: None

Analyte	Concentration	Analyte	Concentration
Silica	2139 mg/L	Silicon	1000 mg/L

Serial ID: UI091124-01 **Opened:** 24-NOV-09 **Lot Number :** 1017642
Name: METALSPIKE-1 **Received:** 24-NOV-09
Type: Source Material **Expires:** 24-NOV-10
Employee: Francena Armstrong
Supplier: OS2I
Description: Metals Spike Mix I
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 ug/mL	Arsenic	100 ug/mL
Barium	100 ug/mL	Beryllium	100 ug/mL
Boron	100 ug/mL	Cadmium	100 ug/mL
Calcium	1000 ug/mL	Cobalt	100 ug/mL
Iron	1000 ug/mL	Lead	100 ug/mL
Magnesium	1000 ug/mL	Phosphorous	100 ug/mL
Potassium	1000 ug/mL	Silver	100 ug/mL
Sodium	1000 ug/mL	Strontium	100 ug/mL

Serial ID: UI091124-06 **Opened:** 24-NOV-09 **Lot Number :** 1017643
Name: METALSPIKE-2 **Received:** 24-NOV-09
Type: Source Material **Expires:** 24-NOV-10
Employee: Francena Armstrong
Supplier: OS2I
Description: Metals Spike Mix II
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	100 ug/mL	Chromium	100 ug/mL
Copper	100 ug/mL	Manganese	100 ug/mL
Molybdenum	100 ug/mL	Nickel	100 ug/mL
Selenium	100 ug/mL	Silica	2141 ug/mL

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Silicon	1000 ug/mL	Sulfur	1000 ug/mL
Thallium	100 ug/mL	Tin	100 ug/mL
Titanium	100 ug/mL	Uranium	100 ug/mL
Vanadium	100 ug/mL	Zinc	100 ug/mL

Serial ID: UI091212-11 **Opened:** 12-DEC-09 **Amount :** 1000 mL
Name: ICP-MS ICSA Master A **Received:** 12-DEC-09 **Catalog Number :** 160013-01-01L
Type: Source Material **Expires:** 12-DEC-10 **Lot Number :** 1015303
Employee: Paul Boyd **Solvent :** 2% HNO3
Supplier: 02SI
Description: ICP-MS ICSA Master A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Calcium	1000 mg/L
Carbon	2000 mg/L	Chloride	10000 mg/L
Iron	1000 mg/L	Magnesium	1000 mg/L
Molybdenum	20 mg/L	Phosphorous	1000 mg/L
Potassium	1000 mg/L	Sodium	1000 mg/L
Sulfur	1000 mg/L	Titanium	20 mg/L

Serial ID: UI091215-48 **Opened:** 04-JAN-10 **Amount :** 1000 mL
Name: Trace ICP ICSA **Received:** 18-DEC-09 **Catalog Number :** 160005-02
Type: Source Material **Expires:** 04-JAN-11 **Lot Number :** 1018219
Employee: Helen Camello **Solvent :** 3% HCl + 1% HNO3
Supplier: o2si
Description: Trace ICP Interferent Check Standard A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 UG/L	Calcium	500000 UG/L
Iron	200000 UG/L	Magnesium	500000 UG/L

Serial ID: UI091216-01 **Opened:** 16-DEC-09 **Lot Number :** 1018095
Name: METALSPIKE-1 **Received:** 16-DEC-09
Type: Source Material **Expires:** 16-DEC-10
Employee: Francena Armstrong
Supplier: OS2I
Description: Metals Spike Mix I
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 ug/mL	Arsenic	100 ug/mL
Barium	100 ug/mL	Beryllium	100 ug/mL

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Boron	100 ug/mL	Cadmium	100 ug/mL
Calcium	1000 ug/mL	Cobalt	100 ug/mL
Iron	1000 ug/mL	Lead	100 ug/mL
Magnesium	1000 ug/mL	Phosphorous	100 ug/mL
Potassium	1000 ug/mL	Silver	100 ug/mL
Sodium	1000 ug/mL	Strontium	100 ug/mL

Serial ID: UI091216-06 **Opened:** 16-DEC-09 **Lot Number :** 1018096
Name: METALSPIKE-2 **Received:** 16-DEC-09
Type: Source Material **Expires:** 16-DEC-10
Employee: Francena Armstrong
Supplier: OS2I
Description: Metals Spike Mix II
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	100 ug/mL	Chromium	100 ug/mL
Copper	100 ug/mL	Manganese	100 ug/mL
Molybdenum	100 ug/mL	Nickel	100 ug/mL
Selenium	100 ug/mL	Silica	2141 ug/mL
Silicon	1000 ug/mL	Sulfur	1000 ug/mL
Thallium	100 ug/mL	Tin	100 ug/mL
Titanium	100 ug/mL	Uranium	100 ug/mL
Vanadium	100 ug/mL	Zinc	100 ug/mL

Serial ID: UI091217-06 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master A **Received:** 17-DEC-09 **Catalog Number :** 160055-01
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018209
Employee: Paul Boyd **Solvent :** +/- 0.5% in 5% HNO3 100 cm2
Supplier: 02SI
Description: ICPMS ICV/CCV SOLN A - 10ppm
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	2020 mg/L	Calcium	2000 mg/L
Iron	2000 mg/L	Magnesium	2000 mg/L
Phosphorous	2000 mg/L	Potassium	2000 mg/L
Sodium	2000 mg/L		

Serial ID: UI091217-07 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master B **Received:** 17-DEC-09 **Catalog Number :** 160054-02
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018210
Employee: Paul Boyd **Solvent :** +/- 0.5% in 5% HNO3 100 cm2
Supplier: 02SI

Standard Logbook

Description: ICPMS ICV/CCV Soln B - 10ppm
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	20 mg/L	Barium	20 mg/L
Beryllium	20 mg/L	Boron	40 mg/L
Cadmium	20 mg/L	Chromium	20 mg/L
Cobalt	20 mg/L	Copper	20 mg/L
Lead	20 mg/L	Lithium	20 mg/L
Manganese	20 mg/L	Nickel	20 mg/L
Selenium	20 mg/L	Strontium	20 mg/L
Thallium	20 mg/L	Thorium	20 mg/L
Uranium	20 mg/L	Vanadium	20 mg/L
Zinc	20 mg/L		

Serial ID: UI091217-08 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master C **Received:** 17-DEC-09 **Catalog Number :** 160054-03
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018211
Employee: Paul Boyd **Solvent :** +/- 0.5% in 5% HNO3 100 cm2
Supplier: 02SI
Description: ICPMS ICV/CCV Soln C - 10ppm
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	20 mg/L	Molybdenum	20 mg/L
Silver	20 mg/L	Tin	20 mg/L
Titanium	20 mg/L	Tungsten	20 mg/L
Zirconium	20 mg/L		

Serial ID: UI091217-12 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICSAB Master B **Received:** 17-DEC-09 **Catalog Number :** 160033-02
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018212
Employee: Paul Boyd **Solvent :** +/- 0.5% in 2% HNO3
Supplier: 02SI
Description: ICPMS ICSAB Master B
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	2 mg/L	Barium	2 mg/L
Beryllium	2 mg/L	Boron	2 mg/L
Cadmium	2 mg/L	Chromium	2 mg/L
Cobalt	2 mg/L	Copper	2 mg/L
Lead	2 mg/L	Lithium	2 mg/L
Manganese	2 mg/L	Nickel	2 mg/L
Selenium	2 mg/L	Strontium	2 mg/L
Thallium	2 mg/L	Thorium	2 mg/L

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Uranium	2 mg/L	Vanadium	2 mg/L
Zinc	2 mg/L		

Serial ID: UI091217-13 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICSAB Master C **Received:** 17-DEC-09 **Catalog Number :** 160033-03
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1016926
Employee: Paul Boyd **Solvent :** +/- 0.5% in 2% HNO3
Supplier: 02SI
Description: ICPMS ICSAB Master C
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	2 mg/L	Silver	2 mg/L
Tin	2 mg/L	Tungsten	2 mg/L
Zirconium	2 mg/L		

Serial ID: UI091228-40 **Opened:** 28-DEC-09 **Amount :** 500 mL
Name: ICP HIGH RANGE STD-A **Received:** 21-DEC-09 **Catalog Number :** 160211-05-03
Type: Source Material **Expires:** 28-DEC-10 **Lot Number :** 1018160
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3
Supplier: 02SI
Description: ICP HIGH RANGE STD SOLUTION A
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	10000 ug/L	Arsenic	10000 ug/L
Barium	15000 ug/L	Beryllium	3000 ug/L
Boron	5000 ug/L	Cadmium	10000 ug/L
Chromium	25000 ug/L	Cobalt	10000 ug/L
Copper	20000 ug/L	Lead	25000 ug/L
Manganese	10000 ug/L	Molybdenum	10000 ug/L
Nickel	10000 ug/L	Phosphorous	15000 ug/L
Potassium	300000 ug/L	Selenium	10000 ug/L
Silica	107000 ug/L	Silicon	50000 ug/L
Silver	1000 ug/L	Strontium	10000 ug/L
Sulfur	50000 ug/L	Thallium	10000 ug/L
Tin	10000 ug/L	Titanium	10000 ug/L
Vanadium	10000 ug/L	Zinc	15000 ug/L

Serial ID: UI091228-41 **Opened:** 28-DEC-09 **Amount :** 500 mL
Name: ICP HIGH RANGE STD B **Received:** 21-DEC-09 **Catalog Number :** 160211-05-03
Type: Source Material **Expires:** 28-DEC-10 **Lot Number :** 1018160
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3
Supplier: 02SI

Description: ICP HIGH RANGE STD SOLUTION B
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 ug/L	Calcium	500000 ug/L
Iron	500000 ug/L	Magnesium	500000 ug/L
Sodium	500000 ug/L	Uranium	15000 ug/L

Serial ID: UI100114-40 **Opened:** 14-JAN-10 **Amount :** 500 mL
Name: ICP HIGH RANGE STD-A **Received:** 14-JAN-10 **Catalog Number :** 160211-05-03
Type: Source Material **Expires:** 14-JAN-11 **Lot Number :** 1018160
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3
Supplier: 02SI
Description: ICP HIGH RANGE STD SOLUTION A
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	10000 ug/L	Arsenic	10000 ug/L
Barium	15000 ug/L	Beryllium	3000 ug/L
Boron	5000 ug/L	Cadmium	10000 ug/L
Chromium	25000 ug/L	Cobalt	10000 ug/L
Copper	20000 ug/L	Lead	25000 ug/L
Manganese	10000 ug/L	Molybdenum	10000 ug/L
Nickel	10000 ug/L	Phosphorous	15000 ug/L
Potassium	300000 ug/L	Selenium	10000 ug/L
Silica	107000 ug/L	Silicon	50000 ug/L
Silver	1000 ug/L	Strontium	10000 ug/L
Sulfur	50000 ug/L	Thallium	10000 ug/L
Tin	10000 ug/L	Titanium	10000 ug/L
Vanadium	10000 ug/L	Zinc	15000 ug/L

Serial ID: UI100114-41 **Opened:** 14-JAN-10 **Amount :** 500 mL
Name: ICP HIGH RANGE STD B **Received:** 14-JAN-10 **Catalog Number :** 160211-05-03
Type: Source Material **Expires:** 14-JAN-11 **Lot Number :** 1018160
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3
Supplier: 02SI
Description: ICP HIGH RANGE STD SOLUTION B
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 ug/L	Calcium	500000 ug/L
Iron	500000 ug/L	Magnesium	500000 ug/L
Sodium	500000 ug/L	Uranium	15000 ug/L

Standard Logbook

Serial ID: UMS090303-01 **Opened:** 03-MAR-09 **Amount :** 250 mL
Name: ICPMSCalSPIKEB **Received:** 03-MAR-09 **Catalog Number :** ZGEL-100-250
Type: Source Material **Expires:** 28-FEB-10 **Lot Number :** 14-81JB
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution B
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	10 mg/L	Barium	10 mg/L
Beryllium	10 mg/L	Boron	20 mg/L
Cadmium	10 mg/L	Chromium	10 mg/L
Cobalt	10 mg/L	Copper	10 mg/L
Lead	10 mg/L	Lithium	10 mg/L
Manganese	10 mg/L	Nickel	10 mg/L
Selenium	10 mg/L	Silver	10 mg/L
Strontium	10 mg/L	Thallium	10 mg/L
Thorium	10 mg/L	Uranium	10 mg/L
Vanadium	10 mg/L	Zinc	10 mg/L

Serial ID: UMS090303-02 **Opened:** 03-MAR-09 **Catalog Number :** ZGEL-102-250
Name: ICPMSCalSPIKEA **Received:** 03-MAR-09 **Lot Number :** 14-83JB
Type: Source Material **Expires:** 28-FEB-10
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Calcium	1000 mg/L
Iron	1000 mg/L	Magnesium	1000 mg/L
Phosphorous	1000 mg/L	Potassium	1000 mg/L
Sodium	1000 mg/L		

Serial ID: UMS090303-03 **Opened:** 03-MAR-09 **Amount :** 250 ml
Name: ICPMSCalSPIKEC **Received:** 03-MAR-09 **Catalog Number :** ZGEL-101-250
Type: Source Material **Expires:** 28-FEB-10 **Lot Number :** 15-199JB
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution C
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	10 mg/L	Molybdenum	10 mg/L
Tin	10 mg/L	Titanium	10 mg/L
Zirconium	10 mg/L		

Standard Logbook

Serial ID: IHG100108-01 **Opened:** 08-JAN-10 **Instrument Id :** Mercury
Name: MHGINTER1 **Received:** 08-JAN-10 **Pipet Id :** Minou1
Type: Intermediate **Expires:** 09-JAN-10 **Solvent :** 1mL HNO3 + Typel H2O
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Intermediate 1st Source 200 ug/L
Comments: Prepare fresh daily

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167639-01	Mercury	1000 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: IHG100108-02 **Opened:** 08-JAN-10 **Pipet Id :** Minou1
Name: MHGINTER2 **Received:** 08-JAN-10 **Solvent :** 2% HNO3-1240182
Type: Intermediate **Expires:** 09-JAN-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Intermediate 2nd Source 200 ug/L
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167641-02	Mercury	999.7 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: WHG100108-07 **Opened:** 08-JAN-10 **Pipet Id :** Hg1289245
Name: MHGWORKCALS0.2CRA **Received:** 08-JAN-10 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 15-JAN-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working Standard 1st Source CAL S 0.2/CRA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100108-01	Mercury	200 ug/L	30 uL	30 mL	.2 ug/L

Serial ID: WHG100108-08 **Opened:** 08-JAN-10 **Pipet Id :** Hg1289245
Name: MHGWORKCALS0.5 **Received:** 08-JAN-10 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 15-JAN-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working Standard 1st Source CAL S 0.5
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100108-01	Mercury	200 ug/L	75 uL	30 mL	.5 ug/L

Standard Logbook

Serial ID: WHG100108-09 **Opened:** 08-JAN-10 **Pipet Id :** Hg1289245
Name: MHGWORKCALS2.0 **Received:** 08-JAN-10 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 15-JAN-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL S 2.0
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100108-01	Mercury	200 ug/L	300 uL	30 mL	2 ug/L

Serial ID: WHG100108-10 **Opened:** 08-JAN-10 **Pipet Id :** Hg1289245
Name: MHGWORKCALS5.0CCV **Received:** 08-JAN-10 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 15-JAN-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL S 5.0/CCV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100108-01	Mercury	200 ug/L	750 uL	30 mL	5 ug/L

Serial ID: WHG100108-11 **Opened:** 08-JAN-10 **Pipet Id :** Hg1289245
Name: MHGWORKCALS10.0 **Received:** 08-JAN-10 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 15-JAN-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working 1st Source CAL S 10.0
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100108-01	Mercury	200 ug/L	1.5 mL	30 mL	10 ug/L

Serial ID: WHG100108-12 **Opened:** 08-JAN-10 **Pipet Id :** Hg1289245
Name: MHGWORKS5.0ICV **Received:** 08-JAN-10 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 15-JAN-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 2nd Source S 5.0/ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100108-02	Mercury	200 ug/L	750 uL	30 mL	5 ug/L

Standard Logbook

Serial ID: WHG100108-14 **Opened:** 08-JAN-10 **Pipet Id :** Hg1289245
Name: MHGSOILMSSPIKE **Received:** 08-JAN-10 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 15-JAN-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury soil working intermediate standard for MS
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167639-01	Mercury	1000 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: WI100111-42 **Opened:** 11-JAN-10 **Balance Id :** 216
Name: TRACE ICP 0.1 PPM STD. **Received:** 02-NOV-09 **Pipet Id :** 1099667
Type: Working **Expires:** 12-JAN-10 **Solvent :** 3%HCL and 1%HNO3 -1253514
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP 0.1 PPM CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WI100111-44	Aluminum	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100111-44	Antimony	1000 ug/L	10 mL	100 mL	100 ug/L
WI100111-44	Arsenic	1000 ug/L	10 mL	100 mL	100 ug/L
WI100111-44	Barium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100111-44	Beryllium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100111-44	Boron	1000 ug/L	10 mL	100 mL	100 ug/L
WI100111-44	Cadmium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100111-44	Calcium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100111-44	Chromium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100111-44	Cobalt	1000 ug/L	10 mL	100 mL	100 ug/L
WI100111-44	Copper	1000 ug/L	10 mL	100 mL	100 ug/L
WI100111-44	Iron	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100111-44	Lead	1000 ug/L	10 mL	100 mL	100 ug/L
WI100111-44	Magnesium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100111-44	Manganese	1000 ug/L	10 mL	100 mL	100 ug/L
WI100111-44	Molybdenum	1000 ug/L	10 mL	100 mL	100 ug/L
WI100111-44	Nickel	1000 ug/L	10 mL	100 mL	100 ug/L
WI100111-44	Phosphorous	5000 ug/L	10 mL	100 mL	500 ug/L
WI100111-44	Potassium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100111-44	Selenium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100111-44	Silica	10698 ug/L	10 mL	100 mL	1069 ug/L
WI100111-44	Silicon	5000 ug/L	10 mL	100 mL	500 ug/L
WI100111-44	Silver	1000 ug/L	10 mL	100 mL	100 ug/L
WI100111-44	Sodium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100111-44	Strontium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100111-44	Sulfur	2000 ug/L	10 mL	100 mL	200 ug/L
WI100111-44	Thallium	1000 ug/L	10 mL	100 mL	100 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WI100111-44	Tin	1000 ug/L	10 mL	100 mL	100 ug/L
WI100111-44	Titanium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100111-44	Uranium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100111-44	Vanadium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100111-44	Zinc	1000 ug/L	10 mL	100 mL	100 ug/L

Serial ID: WI100111-43 **Opened:** 11-JAN-10 **Balance Id :** 216

Name: TRACE ICP 0.5/CCV STD. **Received:** 02-NOV-09 **Pipet Id :** 1099667

Type: Working **Expires:** 12-JAN-10 **Solvent :** 3%HCL and 1%HNO3 -1253514

Employee: Helen Camello

Supplier: GEL

Description: TRACE ICP 0.5/CCV CALIBRATION STD.

Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090828-42	Sodium	1000 ug/mL	5 mL	1000 mL	5000 UG/L
UI091015-42	Silica	2139 mg/L	2.5 mL	1000 mL	5348.25 UG/L
UI091015-42	Silicon	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI091102-40	Aluminum	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Arsenic	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Barium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Beryllium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Boron	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Cadmium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Calcium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Chromium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Cobalt	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Copper	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Iron	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Lead	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Magnesium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Manganese	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Nickel	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Phosphorous	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI091102-40	Potassium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Selenium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Sodium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Strontium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Thallium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Uranium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Vanadium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Zinc	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Antimony	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Molybdenum	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Silver	200 mg/L	2.5 mL	1000 mL	500 UG/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091102-41	Sulfur	400 mg/L	2.5 mL	1000 mL	1000 UG/L
UI091102-41	Tin	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Titanium	200 mg/L	2.5 mL	1000 mL	500 UG/L

Serial ID: WI100111-44 **Opened:** 11-JAN-10 **Balance Id :** 216

Name: TRACE ICP SCAL 1.0 **Received:** 02-NOV-09 **Pipet Id :** 1099667

Type: Working **Expires:** 12-JAN-10 **Solvent :** 3%HCL and 1 %HNO3-1253514

Employee: Helen Camello

Supplier: o2si

Description: Trace ICP Calibration Standard 1.0ppm

Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091015-42	Silica	2139 mg/L	2.5 mL	500 mL	10698 ug/L
UI091015-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI091102-40	Aluminum	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Arsenic	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Barium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Beryllium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Boron	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Cadmium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Calcium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Chromium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Cobalt	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Copper	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Iron	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Lead	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Magnesium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Manganese	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Nickel	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Phosphorous	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI091102-40	Potassium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Selenium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Sodium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Strontium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Thallium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Uranium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Vanadium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Zinc	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Antimony	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Molybdenum	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Silver	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Sulfur	400 mg/L	2.5 mL	500 mL	2000 ug/L
UI091102-41	Tin	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Titanium	200 mg/L	2.5 mL	500 mL	1000 ug/L

Standard Logbook

Serial ID: WI100111-45 **Opened:** 11-JAN-10 **Balance Id :** 216
Name: TRACE ICP S-10 STD **Received:** 22-APR-09 **Pipet Id :** 1099667
Type: Working **Expires:** 12-JAN-10 **Solvent :** 3%HCL and 1%HNO3 -1253514
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP S-10 CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090422-40	Aluminum	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Calcium	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Iron	2000 mg/L	5 mL	500 mL	20000 UG/L
UI090422-40	Magnesium	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090828-42	Sodium	1000 ug/mL	10 mL	500 mL	20000 UG/L

Serial ID: WI100111-46 **Opened:** 11-JAN-10 **Balance Id :** 216
Name: ICP TRACE ICV **Received:** 25-SEP-09 **Pipet Id :** 1099667
Type: Working **Expires:** 12-JAN-10 **Solvent :** 3%HCL AND 1%HNO3-1253514
Employee: Helen Camello
Supplier: GEL
Description: Initial Calibration Verification ICP Trace Metals
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090925-40	Aluminum	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Arsenic	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Barium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Boron	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cadmium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Calcium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Chromium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cobalt	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Copper	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Iron	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Lead	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Phosphorous	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Potassium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Selenium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Sodium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Strontium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Antimony	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Beryllium	50 mg/L	2.5 mL	500 mL	250 ug/L
UI090925-41	Magnesium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-41	Manganese	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Molybdenum	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Nickel	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Silver	50 mg/L	2.5 mL	500 mL	250 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090925-41	Sulfur	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-41	Thallium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Tin	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Titanium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Uranium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Vanadium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Zinc	100 mg/L	2.5 mL	500 mL	500 ug/L
UI091102-42	Silica	2139 mg/L	2.5 mL	500 mL	10695 ug/L
UI091102-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L

Serial ID: WI100111-47 **Opened:** 11-JAN-10 **Balance Id :** 216
Name: PQL Working Standard **Received:** 30-JUN-09 **Pipet Id :** 1099667
Type: Working **Expires:** 12-JAN-10 **Solvent :** 3%HCL &1%HNO3-1253514
Employee: Helen Camello
Supplier: 02sl
Description: PQL Working Standard
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-40	Aluminum	100 mg/L	2 mL	1000 mL	200 ug/L
UI090701-40	Antimony	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Arsenic	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Barium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Beryllium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Boron	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Cadmium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Calcium	100 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Chromium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Cobalt	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Copper	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Iron	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Lead	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Magnesium	150 mg/L	2 mL	1000 mL	300 ug/L
UI090701-40	Manganese	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Molybdenum	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Nickel	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Phosphorous	75 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Potassium	75 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Selenium	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Silicon	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Silver	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sodium	150 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Strontium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sulfur	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Thallium	10 mg/L	2 mL	1000 mL	20 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-40	Tin	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Titanium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Uranium	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Vanadium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Zinc	5 mg/L	2 mL	1000 mL	10 ug/L

Serial ID: WI100114-42 **Opened:** 14-JAN-10 **Balance Id :** 216
Name: TRACE ICP 0.1 PPM STD. **Received:** 02-NOV-09 **Pipet Id :** 1099667
Type: Working **Expires:** 15-JAN-10 **Solvent :** 3%HCL and 1%HNO3 -1253514
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP 0.1 PPM CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WI100114-44	Aluminum	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100114-44	Antimony	1000 ug/L	10 mL	100 mL	100 ug/L
WI100114-44	Arsenic	1000 ug/L	10 mL	100 mL	100 ug/L
WI100114-44	Barium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100114-44	Beryllium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100114-44	Boron	1000 ug/L	10 mL	100 mL	100 ug/L
WI100114-44	Cadmium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100114-44	Calcium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100114-44	Chromium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100114-44	Cobalt	1000 ug/L	10 mL	100 mL	100 ug/L
WI100114-44	Copper	1000 ug/L	10 mL	100 mL	100 ug/L
WI100114-44	Iron	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100114-44	Lead	1000 ug/L	10 mL	100 mL	100 ug/L
WI100114-44	Magnesium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100114-44	Manganese	1000 ug/L	10 mL	100 mL	100 ug/L
WI100114-44	Molybdenum	1000 ug/L	10 mL	100 mL	100 ug/L
WI100114-44	Nickel	1000 ug/L	10 mL	100 mL	100 ug/L
WI100114-44	Phosphorous	5000 ug/L	10 mL	100 mL	500 ug/L
WI100114-44	Potassium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100114-44	Selenium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100114-44	Silica	10698 ug/L	10 mL	100 mL	1069 ug/L
WI100114-44	Silicon	5000 ug/L	10 mL	100 mL	500 ug/L
WI100114-44	Silver	1000 ug/L	10 mL	100 mL	100 ug/L
WI100114-44	Sodium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100114-44	Strontium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100114-44	Sulfur	2000 ug/L	10 mL	100 mL	200 ug/L
WI100114-44	Thallium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100114-44	Tin	1000 ug/L	10 mL	100 mL	100 ug/L
WI100114-44	Titanium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100114-44	Uranium	1000 ug/L	10 mL	100 mL	100 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WI100114-44	Vanadium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100114-44	Zinc	1000 ug/L	10 mL	100 mL	100 ug/L

Serial ID: WI100114-43 **Opened:** 14-JAN-10 **Balance Id :** 216
Name: TRACE ICP 0.5/CCV STD. **Received:** 02-NOV-09 **Pipet Id :** 1099667
Type: Working **Expires:** 15-JAN-10 **Solvent :** 3%HCL and 1%HNO3 -1253514
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP 0.5/CCV CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090828-42	Sodium	1000 ug/mL	5 mL	1000 mL	5000 UG/L
UI091015-42	Silica	2139 mg/L	2.5 mL	1000 mL	5348.25 UG/L
UI091015-42	Silicon	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI091102-40	Aluminum	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Arsenic	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Barium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Beryllium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Boron	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Cadmium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Calcium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Chromium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Cobalt	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Copper	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Iron	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Lead	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Magnesium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Manganese	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Nickel	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Phosphorous	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI091102-40	Potassium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Selenium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Sodium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Strontium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Thallium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Uranium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Vanadium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Zinc	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Antimony	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Molybdenum	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Silver	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Sulfur	400 mg/L	2.5 mL	1000 mL	1000 UG/L
UI091102-41	Tin	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Titanium	200 mg/L	2.5 mL	1000 mL	500 UG/L

Standard Logbook

Serial ID: WI100114-44 **Opened:** 14-JAN-10 **Balance Id :** 216
Name: TRACE ICP SCAL 1.0 **Received:** 02-NOV-09 **Pipet Id :** 1099667
Type: Working **Expires:** 15-JAN-10 **Solvent :** 3%HCL and 1 %HNO3-1253514
Employee: Helen Camello
Supplier: o2si
Description: Trace ICP Calibration Standard 1.0ppm
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091015-42	Silica	2139 mg/L	2.5 mL	500 mL	10698 ug/L
UI091015-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI091102-40	Aluminum	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Arsenic	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Barium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Beryllium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Boron	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Cadmium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Calcium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Chromium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Cobalt	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Copper	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Iron	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Lead	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Magnesium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Manganese	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Nickel	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Phosphorous	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI091102-40	Potassium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Selenium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Sodium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Strontium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Thallium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Uranium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Vanadium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Zinc	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Antimony	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Molybdenum	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Silver	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Sulfur	400 mg/L	2.5 mL	500 mL	2000 ug/L
UI091102-41	Tin	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Titanium	200 mg/L	2.5 mL	500 mL	1000 ug/L

Standard Logbook

Serial ID: WI100114-45 **Opened:** 14-JAN-10 **Balance Id :** 216
Name: TRACE ICP S-10 STD **Received:** 22-APR-09 **Pipet Id :** 1099667
Type: Working **Expires:** 15-JAN-10 **Solvent :** 3%HCL and 1%HNO3 -1253514
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP S-10 CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090422-40	Aluminum	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Calcium	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Iron	2000 mg/L	5 mL	500 mL	20000 UG/L
UI090422-40	Magnesium	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090828-42	Sodium	1000 ug/mL	10 mL	500 mL	20000 UG/L

Serial ID: WI100114-46 **Opened:** 14-JAN-10 **Balance Id :** 216
Name: ICP TRACE ICV **Received:** 25-SEP-09 **Pipet Id :** 1099667
Type: Working **Expires:** 15-JAN-10 **Solvent :** 3%HCL AND 1%HNO3-1253514
Employee: Helen Camello
Supplier: GEL
Description: Initial Calibration Verification ICP Trace Metals
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090925-40	Aluminum	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Arsenic	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Barium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Boron	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cadmium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Calcium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Chromium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cobalt	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Copper	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Iron	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Lead	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Phosphorous	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Potassium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Selenium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Sodium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Strontium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Antimony	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Beryllium	50 mg/L	2.5 mL	500 mL	250 ug/L
UI090925-41	Magnesium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-41	Manganese	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Molybdenum	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Nickel	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Silver	50 mg/L	2.5 mL	500 mL	250 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090925-41	Sulfur	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-41	Thallium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Tin	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Titanium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Uranium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Vanadium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Zinc	100 mg/L	2.5 mL	500 mL	500 ug/L
UI091102-42	Silica	2139 mg/L	2.5 mL	500 mL	10695 ug/L
UI091102-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L

Serial ID: WI100114-47 **Opened:** 14-JAN-10 **Balance Id :** 216
Name: PQL Working Standard **Received:** 30-JUN-09 **Pipet Id :** 1099667
Type: Working **Expires:** 15-JAN-10 **Solvent :** 3%HCL &1%HNO3-1253514
Employee: Helen Camello
Supplier: 02si
Description: PQL Working Standard
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-40	Aluminum	100 mg/L	2 mL	1000 mL	200 ug/L
UI090701-40	Antimony	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Arsenic	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Barium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Beryllium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Boron	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Cadmium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Calcium	100 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Chromium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Cobalt	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Copper	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Iron	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Lead	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Magnesium	150 mg/L	2 mL	1000 mL	300 ug/L
UI090701-40	Manganese	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Molybdenum	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Nickel	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Phosphorous	75 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Potassium	75 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Selenium	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Silicon	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Silver	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sodium	150 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Strontium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sulfur	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Thallium	10 mg/L	2 mL	1000 mL	20 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-40	Tin	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Titanium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Uranium	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Vanadium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Zinc	5 mg/L	2 mL	1000 mL	10 ug/L

Serial ID: WMS100111-04AB **Opened:** 11-JAN-10 **Balance Id :** 40245216
Name: ICPMS Cal Standard 10 **Received:** 11-JAN-10 **Pipet Id :** 3541598
Type: Working **Expires:** 12-JAN-10 **Solvent :** 2%HNO3/1%HCl - 1238829
Employee: Rose Jenkins
Supplier: GEL
Description: ICPMS Calibration Standard (10 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100111-04B	Aluminum	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100111-04B	Antimony	100 ug/l	5 mL	50 mL	10 ug/l
WMS100111-04B	Arsenic	100 ug/l	5 mL	50 mL	10 ug/l
WMS100111-04B	Barium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100111-04B	Beryllium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100111-04B	Boron	200 ug/l	5 mL	50 mL	20 ug/l
WMS100111-04B	Cadmium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100111-04B	Calcium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100111-04B	Chromium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100111-04B	Cobalt	100 ug/l	5 mL	50 mL	10 ug/l
WMS100111-04B	Copper	100 ug/l	5 mL	50 mL	10 ug/l
WMS100111-04B	Iron	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100111-04B	Lead	100 ug/l	5 mL	50 mL	10 ug/l
WMS100111-04B	Lithium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100111-04B	Magnesium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100111-04B	Manganese	100 ug/l	5 mL	50 mL	10 ug/l
WMS100111-04B	Molybdenum	100 ug/l	5 mL	50 mL	10 ug/l
WMS100111-04B	Nickel	100 ug/l	5 mL	50 mL	10 ug/l
WMS100111-04B	Phosphorous	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100111-04B	Potassium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100111-04B	Selenium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100111-04B	Silver	100 ug/l	5 mL	50 mL	10 ug/l
WMS100111-04B	Sodium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100111-04B	Strontium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100111-04B	Thallium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100111-04B	Thorium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100111-04B	Tin	100 ug/l	5 mL	50 mL	10 ug/l
WMS100111-04B	Titanium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100111-04B	Tungsten	100 ug/L	5 mL	50 mL	10 ug/L
WMS100111-04B	Uranium	100 ug/l	5 mL	50 mL	10 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100111-04B	Vanadium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100111-04B	Zinc	100 ug/l	5 mL	50 mL	10 ug/l
WMS100111-04B	Zirconium	100 ug/l	5 mL	50 mL	10 ug/l

Serial ID: WMS100111-04B **Opened:** 11-JAN-10 **Amount :** 50 mL
Name: ICPMS Cal Standard 100 **Received:** 11-JAN-10 **Balance Id :** 40245216
Type: Working **Expires:** 12-JAN-10 **Pipet Id :** 1758088
Employee: Rose Jenkins **Solvent :** 2%HNO3/1%HCl- 1238829
Supplier: GEL
Description: ICPMS Calibration Standard (100 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090610-03	Tungsten	10 mg/L	.5 mL	50 mL	100 ug/L
UMS090303-01	Arsenic	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Barium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Beryllium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Boron	20 mg/L	.5	50 mL	200 ug/l
UMS090303-01	Cadmium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Chromium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Cobalt	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Copper	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Lead	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Lithium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Manganese	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Nickel	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Selenium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Silver	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Strontium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Thallium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Thorium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Uranium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Vanadium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Zinc	10 mg/L	.5	50 mL	100 ug/l
UMS090303-02	Aluminum	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Calcium	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Iron	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Magnesium	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Phosphorous	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Potassium	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Sodium	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-03	Antimony	10 mg/L	.5	50 mL	100 ug/l
UMS090303-03	Molybdenum	10 mg/L	.5	50 mL	100 ug/l
UMS090303-03	Tin	10 mg/L	.5	50 mL	100 ug/l
UMS090303-03	Titanium	10 mg/L	.5	50 mL	100 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UMS090303-03	Zirconium	10 mg/L	.5	50 mL	100 ug/l

Serial ID: WMS100111-05B **Opened:** 11-JAN-10 **Balance Id :** 40245216
Name: ICPMS ICV **Received:** 11-JAN-10 **Pipet Id :** 1758088
Type: Working **Expires:** 12-JAN-10 **Solvent :** 2%HNO3/1%HCl - 1238829
Employee: Rose Jenkins
Supplier: GEL
Description: ICPMS ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-06	Aluminum	2020 mg/L	.125 mL	50 mL	5050 ug/L
UI091217-06	Calcium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Iron	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Magnesium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Phosphorous	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Potassium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Sodium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-07	Arsenic	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Barium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Beryllium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Boron	40 mg/L	.125 mL	50 mL	100 ug/L
UI091217-07	Cadmium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Chromium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Cobalt	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Copper	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lead	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lithium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Manganese	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Nickel	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Selenium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Strontium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thallium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thorium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Uranium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Vanadium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Zinc	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Antimony	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Molybdenum	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Silver	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tin	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Titanium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tungsten	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Zirconium	20 mg/L	.125 mL	50 mL	50 ug/L

Standard Logbook

Serial ID: WMS100111-06B
Name: ICPMS CRDL
Type: Working
Employee: Rose Jenkins
Supplier: GEL
Description: ICPMS CRDL
Comments: None

Opened: 11-JAN-10
Received: 11-JAN-10
Expires: 12-JAN-10

Balance Id : 40245216
Pipet Id : 3820544
Solvent : 2%HNO3/1%HCl - 1238829

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Aluminum	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Arsenic	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Barium	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Beryllium	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-09	Boron	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Cadmium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Calcium	100 mg/L	.05 mL	50 mL	100 ug/L
UI090701-09	Chromium	3 mg/L	.05 mL	50 mL	3 ug/L
UI090701-09	Cobalt	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Copper	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Iron	25 mg/L	.05 mL	50 mL	25 ug/L
UI090701-09	Lead	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Lithium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Magnesium	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Manganese	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Nickel	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Phosphorous	50 mg/L	.05 mL	50 mL	50 ug/L
UI090701-09	Potassium	300 mg/L	.05 mL	50 mL	300 ug/L
UI090701-09	Selenium	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Sodium	250 mg/L	.05 mL	50 mL	250 ug/L
UI090701-09	Strontium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Thallium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Thorium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Uranium	.2 mg/L	.05 mL	50 mL	.2 ug/L
UI090701-09	Vanadium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Zinc	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Antimony	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-10	Molybdenum	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-10	Silver	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-10	Tin	2 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Titanium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Tungsten	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Zirconium	2 mg/L	.05 mL	50 mL	2 ug/L

Standard Logbook

Serial ID: WMS100111-07B **Opened:** 11-JAN-10 **Balance Id :** 40245216
Name: ICPMS ICSA **Received:** 11-JAN-10 **Lot Number :** 1010773
Type: Working **Expires:** 12-JAN-10 **Pipet Id :** 3541598
Employee: Rose Jenkins **Solvent :** 2%HNO3/1%HCl - 1238829
Supplier: GEL
Description: ICPMS ICSA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI091212-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI091212-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: WMS100111-08B **Opened:** 11-JAN-10 **Balance Id :** 40245216
Name: ICPMS ICSAB **Received:** 11-JAN-10 **Pipet Id :** 3541598/1758088
Type: Working **Expires:** 12-JAN-10 **Solvent :** 2%HNO3/1%HCl - 1238829
Employee: Rose Jenkins
Supplier: GEL
Description: ICPMS ICSAB
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI091212-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI091212-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L
UI091217-12	Arsenic	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Barium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Beryllium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Boron	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Cadmium	2 mg/L	.5 mL	50 mL	20.2 ug/L
UI091217-12	Chromium	2 mg/L	.5 mL	50 mL	22.2 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-12	Cobalt	2 mg/L	.5 mL	50 mL	20.4 ug/L
UI091217-12	Copper	2 mg/L	.5 mL	50 mL	23.4 ug/L
UI091217-12	Lead	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Lithium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Manganese	2 mg/L	.5 mL	50 mL	22.7 ug/L
UI091217-12	Nickel	2 mg/L	.5 mL	50 mL	22.4 ug/L
UI091217-12	Selenium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Strontium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thallium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thorium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Uranium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Vanadium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Zinc	2 mg/L	.5 mL	50 mL	27 ug/L
UI091217-13	Antimony	2 mg/L	.5 mL	50 mL	20.5 ug/L
UI091217-13	Silver	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tin	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tungsten	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Zirconium	2 mg/L	.5 mL	50 mL	20 ug/L

Serial ID: WMS100113-04AB **Opened:** 13-JAN-10 **Balance Id :** 40245216
Name: ICPMS Cal Standard 10 **Received:** 13-JAN-10 **Pipet Id :** 3541598
Type: Working **Expires:** 14-JAN-10 **Solvent :** 2%HNO3/1%HCl - 1238829
Employee: Rose Jenkins
Supplier: GEL
Description: ICPMS Calibration Standard (10 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100113-04B	Aluminum	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100113-04B	Antimony	100 ug/l	5 mL	50 mL	10 ug/l
WMS100113-04B	Arsenic	100 ug/l	5 mL	50 mL	10 ug/l
WMS100113-04B	Barium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100113-04B	Beryllium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100113-04B	Boron	200 ug/l	5 mL	50 mL	20 ug/l
WMS100113-04B	Cadmium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100113-04B	Calcium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100113-04B	Chromium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100113-04B	Cobalt	100 ug/l	5 mL	50 mL	10 ug/l
WMS100113-04B	Copper	100 ug/l	5 mL	50 mL	10 ug/l
WMS100113-04B	Iron	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100113-04B	Lead	100 ug/l	5 mL	50 mL	10 ug/l
WMS100113-04B	Lithium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100113-04B	Magnesium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100113-04B	Manganese	100 ug/l	5 mL	50 mL	10 ug/l
WMS100113-04B	Molybdenum	100 ug/l	5 mL	50 mL	10 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100113-04B	Nickel	100 ug/l	5 mL	50 mL	10 ug/l
WMS100113-04B	Phosphorous	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100113-04B	Potassium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100113-04B	Selenium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100113-04B	Silver	100 ug/l	5 mL	50 mL	10 ug/l
WMS100113-04B	Sodium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100113-04B	Strontium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100113-04B	Thallium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100113-04B	Thorium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100113-04B	Tin	100 ug/l	5 mL	50 mL	10 ug/l
WMS100113-04B	Titanium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100113-04B	Tungsten	100 ug/L	5 mL	50 mL	10 ug/L
WMS100113-04B	Uranium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100113-04B	Vanadium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100113-04B	Zinc	100 ug/l	5 mL	50 mL	10 ug/l
WMS100113-04B	Zirconium	100 ug/l	5 mL	50 mL	10 ug/l

Serial ID: WMS100113-04B **Opened:** 13-JAN-10 **Amount :** 50 mL
Name: ICPMS Cal Standard 100 **Received:** 13-JAN-10 **Balance Id :** 40245216
Type: Working **Expires:** 14-JAN-10 **Pipet Id :** 1758088
Employee: Rose Jenkins **Solvent :** 2%HNO3/1%HCl- 1238829
Supplier: GEL
Description: ICPMS Calibration Standard (100 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090610-03	Tungsten	10 mg/L	.5 mL	50 mL	100 ug/L
UMS090303-01	Arsenic	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Barium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Beryllium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Boron	20 mg/L	.5	50 mL	200 ug/l
UMS090303-01	Cadmium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Chromium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Cobalt	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Copper	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Lead	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Lithium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Manganese	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Nickel	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Selenium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Silver	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Strontium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Thallium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Thorium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Uranium	10 mg/L	.5	50 mL	100 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UMS090303-01	Vanadium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Zinc	10 mg/L	.5	50 mL	100 ug/l
UMS090303-02	Aluminum	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Calcium	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Iron	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Magnesium	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Phosphorous	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Potassium	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Sodium	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-03	Antimony	10 mg/L	.5	50 mL	100 ug/l
UMS090303-03	Molybdenum	10 mg/L	.5	50 mL	100 ug/l
UMS090303-03	Tin	10 mg/L	.5	50 mL	100 ug/l
UMS090303-03	Titanium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-03	Zirconium	10 mg/L	.5	50 mL	100 ug/l

Serial ID: WMS100113-05B **Opened:** 13-JAN-10 **Balance Id :** 40245216
Name: ICPMS ICV **Received:** 13-JAN-10 **Pipet Id :** 1758088
Type: Working **Expires:** 14-JAN-10 **Solvent :** 2%HNO3/1%HCl - 1238829
Employee: Rose Jenkins
Supplier: GEL
Description: ICPMS ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-06	Aluminum	2020 mg/L	.125 mL	50 mL	5050 ug/L
UI091217-06	Calcium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Iron	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Magnesium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Phosphorous	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Potassium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Sodium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-07	Arsenic	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Barium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Beryllium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Boron	40 mg/L	.125 mL	50 mL	100 ug/L
UI091217-07	Cadmium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Chromium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Cobalt	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Copper	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lead	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lithium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Manganese	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Nickel	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Selenium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Strontium	20 mg/L	.125 mL	50 mL	50 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-07	Thallium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thorium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Uranium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Vanadium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Zinc	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Antimony	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Molybdenum	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Silver	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tin	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Titanium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tungsten	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Zirconium	20 mg/L	.125 mL	50 mL	50 ug/L

Serial ID: WMS100113-06B **Opened:** 13-JAN-10 **Balance Id :** 40245216
Name: ICPMS CRDL **Received:** 13-JAN-10 **Pipet Id :** 3820544
Type: Working **Expires:** 14-JAN-10 **Solvent :** 2%HNO3/1%HCl - 1238829
Employee: Rose Jenkins
Supplier: GEL
Description: ICPMS CRDL
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Aluminum	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Arsenic	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Barium	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Beryllium	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-09	Boron	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Cadmium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Calcium	100 mg/L	.05 mL	50 mL	100 ug/L
UI090701-09	Chromium	3 mg/L	.05 mL	50 mL	3 ug/L
UI090701-09	Cobalt	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Copper	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Iron	25 mg/L	.05 mL	50 mL	25 ug/L
UI090701-09	Lead	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Lithium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Magnesium	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Manganese	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Nickel	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Phosphorous	50 mg/L	.05 mL	50 mL	50 ug/L
UI090701-09	Potassium	300 mg/L	.05 mL	50 mL	300 ug/L
UI090701-09	Selenium	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Sodium	250 mg/L	.05 mL	50 mL	250 ug/L
UI090701-09	Strontium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Thallium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Thorium	1 mg/L	.05 mL	50 mL	1 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Uranium	.2 mg/L	.05 mL	50 mL	.2 ug/L
UI090701-09	Vanadium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Zinc	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Antimony	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-10	Molybdenum	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-10	Silver	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-10	Tin	2 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Titanium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Tungsten	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Zirconium	2 mg/L	.05 mL	50 mL	2 ug/L

Serial ID: WMS100113-07B **Opened:** 13-JAN-10 **Balance Id :** 40245216
Name: ICPMS ICSA **Received:** 13-JAN-10 **Lot Number :** 1010773
Type: Working **Expires:** 14-JAN-10 **Pipet Id :** 3541598
Employee: Rose Jenkins **Solvent :** 2%HNO3/1%HCl - 1238829
Supplier: GEL
Description: ICPMS ICSA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI091212-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI091212-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: WMS100113-08B **Opened:** 13-JAN-10 **Balance Id :** 40245216
Name: ICPMS ICSAB **Received:** 13-JAN-10 **Pipet Id :** 3541598/1758088
Type: Working **Expires:** 14-JAN-10 **Solvent :** 2%HNO3/1%HCl - 1238829
Employee: Rose Jenkins
Supplier: GEL
Description: ICPMS ICSAB
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI091212-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI091212-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L
UI091217-12	Arsenic	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Barium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Beryllium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Boron	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Cadmium	2 mg/L	.5 mL	50 mL	20.2 ug/L
UI091217-12	Chromium	2 mg/L	.5 mL	50 mL	22.2 ug/L
UI091217-12	Cobalt	2 mg/L	.5 mL	50 mL	20.4 ug/L
UI091217-12	Copper	2 mg/L	.5 mL	50 mL	23.4 ug/L
UI091217-12	Lead	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Lithium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Manganese	2 mg/L	.5 mL	50 mL	22.7 ug/L
UI091217-12	Nickel	2 mg/L	.5 mL	50 mL	22.4 ug/L
UI091217-12	Selenium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Strontium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thallium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thorium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Uranium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Vanadium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Zinc	2 mg/L	.5 mL	50 mL	27 ug/L
UI091217-13	Antimony	2 mg/L	.5 mL	50 mL	20.5 ug/L
UI091217-13	Silver	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tin	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tungsten	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Zirconium	2 mg/L	.5 mL	50 mL	20 ug/L

Serial ID: 1156689-A **Opened:** 20-JUL-09 **Lot Number :** 41226920
Name: B-KMnO4(VWR)-MER **Received:** 20-JUL-09
Type: Reagent/Solvent **Expires:** 20-JUL-10
Employee: Tara Griffin **Verified:** 07-AUG-07
Supplier: VWR
Description: Potassium Permanganate
Comments: None

Standard Logbook

Serial ID: 1164796-A **Opened:** 06-AUG-09 **Lot Number :** 49149927
Name: B-NH2OH.HCl-MER **Received:** 06-AUG-09
Type: Reagent/Solvent **Expires:** 06-AUG-10
Employee: Tara Griffin
Supplier: Fisher Scientific
Description: Hydroxlyamine Hydrochloride
Comments: None

Serial ID: 1203655-02 **Opened:** 15-OCT-09 **Lot Number :** ZU74081198 mL
Name: B-H2O2 **Received:** 15-OCT-09
Type: Reagent/Solvent **Expires:** 15-OCT-10
Employee: Francena Armstrong
Supplier: EM SCIENCE
Description: Hydrogen Peroxide 30%
Comments: None

Serial ID: 1206350-C **Opened:** 22-OCT-09 **Balance Id :** BAL-002
Name: B-NaCl.NH2OH.HCl-MER **Received:** 22-OCT-09
Type: Reagent/Solvent **Expires:** 15-JAN-10
Employee: Tara Griffin
Supplier: GEL
Description: Hg reducing agent
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1164796-A	B-NH2OH.HCl-MER	N/A	120 g	1000 mL	N/A

Serial ID: 1234886 **Opened:** 27-NOV-09 **Lot Number :** H20053 L
Name: I-HNO3 **Received:** 27-NOV-09
Type: Reagent/Solvent **Expires:** 27-NOV-10
Employee: Bryan Davis
Supplier: BAKER
Description: Nitric Acid CONC.
Comments: None

Serial ID: 1236355-A **Opened:** 01-DEC-09 **Lot Number :** 200930201
Name: B-HCl-MER **Received:** 01-DEC-09
Type: Reagent/Solvent **Expires:** 01-DEC-10
Employee: Tara Griffin
Supplier: Aristar
Description: Hydrochloric Acid Conc.
Comments: None

Standard Logbook

Serial ID: 1238345 **Opened:** 04-DEC-09 **Lot Number :** H20053 L
Name: I-HNO3 **Received:** 04-DEC-09
Type: Reagent/Solvent **Expires:** 04-DEC-10
Employee: Francena Armstrong
Supplier: BAKER
Description: Nitric Acid CONC.
Comments: None

Serial ID: 1240182-1 **Opened:** 09-DEC-09 **Instrument Id :** MERCURY
Name: B-HNO3-MER **Received:** 09-DEC-09 **Lot Number :** H34040
Type: Reagent/Solvent **Expires:** 09-DEC-10
Employee: Tara Griffin
Supplier: Mallinckrodt Chemicals
Description: NITRIC ACID
Comments: None

Serial ID: 1244904-C **Opened:** 18-DEC-09 **Balance Id :** BAL-002
Name: B-KMnO4-MER **Received:** 18-DEC-09
Type: Reagent/Solvent **Expires:** 18-JUN-10
Employee: Tara Griffin
Supplier: GEL
Description: 5% KMnO4 solution
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1156689-A	B-KMnO4(VWR)-MER	Crystals	50 g	1000 mL	3%

Serial ID: 1244970 **Opened:** 18-DEC-09 **Lot Number :** H41032
Name: I-HCL **Received:** 18-DEC-09 **Preservative_Id :** 5 none
Type: Reagent/Solvent **Expires:** 18-DEC-10
Employee: Francena Armstrong
Supplier: J.T. BAKER
Description: HYDROCHLORIC ACID
Comments: None

Serial ID: 1252836 **Opened:** 08-JAN-10 **Lot Number :** H20053 L
Name: I-HNO3 **Received:** 08-JAN-10
Type: Reagent/Solvent **Expires:** 08-JAN-11
Employee: Francena Armstrong
Supplier: BAKER
Description: Nitric Acid CONC.
Comments: None

Standard Logbook

Serial ID: 1252838 **Opened:** 08-JAN-10 **Lot Number :** H41032
Name: I-HCL **Received:** 08-JAN-10 **Preservative_Id :** 5 none
Type: Reagent/Solvent **Expires:** 08-JAN-11
Employee: Francena Armstrong
Supplier: J.T. BAKER
Description: HYDROCHLORIC ACID
Comments: None

Serial ID: 1253206 **Opened:** 11-JAN-10 **Solvent :** Type I Water
Name: B-2%HNO3/1%HCl-ICPMS **Received:** 11-JAN-10
Type: Reagent/Solvent **Expires:** 18-JAN-10
Employee: Paul Boyd
Supplier: GEL
Description: 2%HNO3/1%HCl Solution (Type I Water)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1238345	I-HNO3	69.0-70.0	180 mL	9 l	N/A
1244970	I-HCL	36.5-38.0	90 mL	9 l	N/A

Serial ID: 1253514 **Opened:** 11-JAN-10 **Amount :** 20 L
Name: B-ICP-RINSE SOLN **Received:** 11-JAN-10 **Lot Number :** H04040+G34050
Type: Reagent/Solvent **Expires:** 17-JAN-10 **Solvent :** 3%HCL+1%HNO3
Employee: Helen Camello
Supplier: GEL
Description: 3%HCL+1%HNO3 RINSE SOLN.
Comments: None

Metals Analysis

Case Narrative

Metals Fractional Narrative
Los Alamos National Laboratory (LANL)
SDG 10-1085-1

Sample Analysis

Sample ID	Client ID
243551001	WST03-10-2148
1202004872	Tumbling Blank (TB)
1202005971	Method Blank (MB) **ICP-MS**
1202005972	Laboratory Control Sample (LCS)
1202005975	243421001(WST12-10-8879L) Serial Dilution (SD)
1202005973	243421001(WST12-10-8879D) Sample Duplicate (DUP)
1202004870	243421001(WST12-10-8879S) Matrix Spike (MS)
1202004920	Tumbling Blank (TB)
1202006485	Method Blank (MB) **CVAA**
1202006486	Laboratory Control Sample (LCS)
1202006494	243421001(WST12-10-8879L) Serial Dilution (SD)
1202006487	243421001(WST12-10-8879D) Sample Duplicate (DUP)
1202004918	243421001(WST12-10-8879S) Matrix Spike (MS)

The samples in this SDG were analyzed on an "as received" basis.

Method/Analysis Information

Analytical Batch:	937458 and 937652
Prep Batch :	937457 and 937650
TCLP Prep Batch :	936940 and 936973
Standard Operating Procedures:	GL-MA-E-014 REV# 21, GL-MA-E-008 REV# 13, GL-LB-E-006 REV# 13 and GL-MA-E-010 REV# 23
Analytical Method:	SW846 3010/6020 and SW846 7470A
Prep Method :	SW846 3010A and SW846 7470A Prep
TCLP Prep Method :	SW846 1311

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

System Configuration

The Metals analysis - ICPMS was performed on a Perkin Elmer ELAN 9000 inductively coupled plasma mass spectrometer (ICP-MS). The instrument is equipped with a cross-flow nebulizer, quadrupole mass spectrometer, and dual mode electron multiplier detector. Internal standards of scandium, germanium, indium, tantalum, and/or lutetium were utilized to cover the mass spectrum. Operating conditions are set at 1400W power and combined argon pressures of 360+/-7 kPa for the plasma and auxiliary gases, and 0.85 L/min carrier gas flow, and an initial lens voltage of 5.2.

The Metals analysis-Mercury was performed on a Perkin-Elmer Flow Injection Mercury System (FIMS-100) automated mercury analyzer. The instrument consists of a cold vapor atomic absorption spectrometer set to detect mercury at a wavelength of 253.7 nm. Sample introduction through the flow injection system is performed via a peristaltic pump at 9 mL/min and nitrogen carrier gas rate of 80 mL/min.

Calibration Information

Instrument Calibration
All initial calibration requirements have been met for this sample delivery group (SDG).

CRDL Requirements
All CRDL standard(s) met the referenced advisory control limits.

ICSA/ICSAB Statement
All interference check samples (ICSA and ICSAB) associated with this SDG met the established acceptance criteria.

Continuing Calibration Blank (CCB) Requirements
All continuing calibration blanks (CCB) bracketing this batch met the established acceptance criteria.

Continuing Calibration Verification (CCV) Requirements
All continuing calibration verifications (CCV) bracketing this SDG met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MBs analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

Quality Control (QC) Sample Statement
The following sample was selected as the quality control (QC) sample for this SDG: 243421001 (WST12-10-8879)-ICP-MS and CVAA.

Matrix Spike (MS) Recovery Statement
The percent recoveries (%R) obtained from the MS analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. The MS met the recommended quality control acceptance criteria for percent recoveries for all applicable analytes with the exception of mercury as indicated by the "N" qualifier.

Duplicate Relative Percent Difference (RPD) Statement
The RPD obtained from the designated sample duplicate (DUP) is evaluated based on acceptance criteria of 20% when the sample is >5X the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control of +/-RL is used to evaluate the DUP results. All applicable analytes met these requirements.

Serial Dilution % Difference Statement
The serial dilution is used to assess matrix suppression or enhancement. Raw element concentrations that are 25X the IDL/MDL for CVAA, 50X the IDL/MDL for ICP, and 100X the IDL/MDL for ICP-MS analyses are applicable for serial dilution assessment. All applicable analytes met the acceptance criteria of less than 10% difference (%D).

Technical Information

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Sample Dilutions
Dilutions are performed to minimize matrix interferences resulting from elevated mineral element concentrations present in solid samples and/or to bring over range target analyte concentrations into the linear calibration range of the instrument. The samples in this SDG did not require dilutions.

Preparation Information
The samples and associated matrix QC were prepared at a 10x factor for ICP/ICPMS to minimize potential interferences arising from the high sodium content in the TCLP leaching solution. The samples and associated matrix QC were prepared at a 10x factor for CVAA analysis because larger volumes of this matrix consume excessive amounts of potassium permanganate.

Miscellaneous Information

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. The following DER was generated for this SDG: DER ID 776905. A copy is included in the Miscellaneous Data section of this package.

Additional Comments
Additional comments were not required for this SDG.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Nik-Cole A. Elmore **Date:** 1-20-10

Sample Data Summary

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1085-1 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 243551001 **BASIS:** As Received **DATE COLLECTED** 22-DEC-09

CLIENT ID: WST03-10-2148 **LEVEL:** Low **DATE RECEIVED** 24-DEC-09

MATRIX: TCLP **%SOLIDS:** 0

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7440-38-2	Arsenic	0.050	mg/L	U	0.016	0.05	0.05	1	MS	BAJ	01/02/10 19:12	100102-1	937458
7440-39-3	Barium	0.394	mg/L		0.006	0.02	0.02	1	MS	BAJ	01/02/10 19:12	100102-1	937458
7440-43-9	Cadmium	0.010	mg/L	U	0.0011	0.01	0.01	1	MS	BAJ	01/02/10 19:12	100102-1	937458
7440-47-3	Chromium	0.0442	mg/L	J	0.02	0.1	0.1	1	MS	BAJ	01/02/10 19:12	100102-1	937458
7439-92-1	Lead	0.020	mg/L	U	0.005	0.02	0.02	1	MS	BAJ	01/02/10 19:12	100102-1	937458
7439-97-6	Mercury	0.002	mg/L	U	0.00066	0.002	0.002	1	AV	JXL1	01/05/10 09:46	010510W1-2	937652
7782-49-2	Selenium	0.050	mg/L	U	0.01	0.05	0.05	1	MS	BAJ	01/02/10 19:12	100102-1	937458
7440-22-4	Silver	0.010	mg/L	U	0.002	0.01	0.01	1	MS	BAJ	01/02/10 19:12	100102-1	937458

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
937458	937457	SW846 3010A	5	mL	50	mL	12/30/09	AXG2
937652	937650	SW846 7470A Prep	2	mL	20	mL	01/04/10	TXB3

Quality Control Summary

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–1085–1

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
ICV01										
	Arsenic	49.4	ug/L	50	ug/L	98.8	90.0 – 110.0	MS	02–JAN–10 15:13	100102–1
	Barium	51	ug/L	50	ug/L	101.9	90.0 – 110.0	MS	02–JAN–10 15:13	100102–1
	Cadmium	51	ug/L	50	ug/L	102	90.0 – 110.0	MS	02–JAN–10 15:13	100102–1
	Chromium	52.4	ug/L	50	ug/L	104.7	90.0 – 110.0	MS	02–JAN–10 15:13	100102–1
	Lead	53	ug/L	50	ug/L	106	90.0 – 110.0	MS	02–JAN–10 15:13	100102–1
	Selenium	51	ug/L	50	ug/L	101.9	90.0 – 110.0	MS	02–JAN–10 15:13	100102–1
	Silver	51	ug/L	50	ug/L	102	90.0 – 110.0	MS	02–JAN–10 15:13	100102–1
	Mercury	5.05	ug/L	5	ug/L	101	90.0 – 110.0	AV	05–JAN–10 09:19	010510W1–2
CCV01										
	Arsenic	48	ug/L	50	ug/L	96	90.0 – 110.0	MS	02–JAN–10 15:44	100102–1
	Barium	49.8	ug/L	50	ug/L	99.5	90.0 – 110.0	MS	02–JAN–10 15:44	100102–1
	Cadmium	49.3	ug/L	50	ug/L	98.6	90.0 – 110.0	MS	02–JAN–10 15:44	100102–1
	Chromium	51.1	ug/L	50	ug/L	102.2	90.0 – 110.0	MS	02–JAN–10 15:44	100102–1
	Lead	52.2	ug/L	50	ug/L	104.3	90.0 – 110.0	MS	02–JAN–10 15:44	100102–1
	Selenium	49.8	ug/L	50	ug/L	99.5	90.0 – 110.0	MS	02–JAN–10 15:44	100102–1
	Silver	49.9	ug/L	50	ug/L	99.8	90.0 – 110.0	MS	02–JAN–10 15:44	100102–1
	Mercury	5.01	ug/L	5	ug/L	100.2	80.0 – 120.0	AV	05–JAN–10 09:25	010510W1–2
CCV02										
	Arsenic	49.4	ug/L	50	ug/L	98.7	90.0 – 110.0	MS	02–JAN–10 16:02	100102–1
	Barium	50.2	ug/L	50	ug/L	100.5	90.0 – 110.0	MS	02–JAN–10 16:02	100102–1
	Cadmium	50.9	ug/L	50	ug/L	101.7	90.0 – 110.0	MS	02–JAN–10 16:02	100102–1
	Chromium	51.9	ug/L	50	ug/L	103.8	90.0 – 110.0	MS	02–JAN–10 16:02	100102–1
	Lead	53.7	ug/L	50	ug/L	107.4	90.0 – 110.0	MS	02–JAN–10 16:02	100102–1
	Selenium	52.3	ug/L	50	ug/L	104.5	90.0 – 110.0	MS	02–JAN–10 16:02	100102–1
	Silver	51.3	ug/L	50	ug/L	102.6	90.0 – 110.0	MS	02–JAN–10 16:02	100102–1
	Mercury	5	ug/L	5	ug/L	100	80.0 – 120.0	AV	05–JAN–10 09:48	010510W1–2
CCV03										
	Arsenic	47.9	ug/L	50	ug/L	95.8	90.0 – 110.0	MS	02–JAN–10 16:57	100102–1
	Barium	48.8	ug/L	50	ug/L	97.6	90.0 – 110.0	MS	02–JAN–10 16:57	100102–1
	Cadmium	50.8	ug/L	50	ug/L	101.6	90.0 – 110.0	MS	02–JAN–10 16:57	100102–1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1085-1

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Chromium	50.5	ug/L	50	ug/L	101	90.0 – 110.0	MS	02-JAN-10 16:57	100102-1
	Lead	52.4	ug/L	50	ug/L	104.7	90.0 – 110.0	MS	02-JAN-10 16:57	100102-1
	Selenium	49.7	ug/L	50	ug/L	99.4	90.0 – 110.0	MS	02-JAN-10 16:57	100102-1
	Silver	50.1	ug/L	50	ug/L	100.3	90.0 – 110.0	MS	02-JAN-10 16:57	100102-1
CCV04										
	Arsenic	47.9	ug/L	50	ug/L	95.7	90.0 – 110.0	MS	02-JAN-10 17:52	100102-1
	Barium	49.2	ug/L	50	ug/L	98.4	90.0 – 110.0	MS	02-JAN-10 17:52	100102-1
	Cadmium	51.1	ug/L	50	ug/L	102.2	90.0 – 110.0	MS	02-JAN-10 17:52	100102-1
	Chromium	50.9	ug/L	50	ug/L	101.8	90.0 – 110.0	MS	02-JAN-10 17:52	100102-1
	Lead	53	ug/L	50	ug/L	105.9	90.0 – 110.0	MS	02-JAN-10 17:52	100102-1
	Selenium	49.9	ug/L	50	ug/L	99.9	90.0 – 110.0	MS	02-JAN-10 17:52	100102-1
	Silver	49.8	ug/L	50	ug/L	99.5	90.0 – 110.0	MS	02-JAN-10 17:52	100102-1
CCV05										
	Arsenic	48.3	ug/L	50	ug/L	96.5	90.0 – 110.0	MS	02-JAN-10 18:47	100102-1
	Barium	49.6	ug/L	50	ug/L	99.2	90.0 – 110.0	MS	02-JAN-10 18:47	100102-1
	Cadmium	51.1	ug/L	50	ug/L	102.3	90.0 – 110.0	MS	02-JAN-10 18:47	100102-1
	Chromium	50.8	ug/L	50	ug/L	101.6	90.0 – 110.0	MS	02-JAN-10 18:47	100102-1
	Lead	52.7	ug/L	50	ug/L	105.3	90.0 – 110.0	MS	02-JAN-10 18:47	100102-1
	Selenium	50.6	ug/L	50	ug/L	101.3	90.0 – 110.0	MS	02-JAN-10 18:47	100102-1
	Silver	50.3	ug/L	50	ug/L	100.5	90.0 – 110.0	MS	02-JAN-10 18:47	100102-1
CCV06										
	Arsenic	48.6	ug/L	50	ug/L	97.1	90.0 – 110.0	MS	02-JAN-10 19:31	100102-1
	Barium	49.4	ug/L	50	ug/L	98.9	90.0 – 110.0	MS	02-JAN-10 19:31	100102-1
	Cadmium	50.4	ug/L	50	ug/L	100.8	90.0 – 110.0	MS	02-JAN-10 19:31	100102-1
	Chromium	51	ug/L	50	ug/L	102	90.0 – 110.0	MS	02-JAN-10 19:31	100102-1
	Lead	52.5	ug/L	50	ug/L	105.1	90.0 – 110.0	MS	02-JAN-10 19:31	100102-1
	Selenium	50.9	ug/L	50	ug/L	101.7	90.0 – 110.0	MS	02-JAN-10 19:31	100102-1
	Silver	49.8	ug/L	50	ug/L	99.5	90.0 – 110.0	MS	02-JAN-10 19:31	100102-1

METALS
–2b–
CRDL Standard for AA & ICP

SDG No: 10–1085–1

Contract: LANL01004 **Lab Code:** GEL

AA CRDL Standard Source: SPEX

ICP CRDL Standard Source Solutions Plus

Instrument ID: HG3,ICPMS5

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Advisory Limits (%R)	M	Analysis Date/Time	Run Number
CRDL01										
	Lead	2.36	ug/L	2	ug/L	118	70.0 – 130.0	MS	02–JAN–10 15:25	100102–1
	Silver	1.04	ug/L	1	ug/L	103.6	70.0 – 130.0	MS	02–JAN–10 15:25	100102–1
	Arsenic	5.35	ug/L	5	ug/L	107	70.0 – 130.0	MS	02–JAN–10 15:25	100102–1
	Barium	2.13	ug/L	2	ug/L	106.6	70.0 – 130.0	MS	02–JAN–10 15:25	100102–1
	Cadmium	1.09	ug/L	1	ug/L	109	70.0 – 130.0	MS	02–JAN–10 15:25	100102–1
	Chromium	11.1	ug/L	10	ug/L	111.3	70.0 – 130.0	MS	02–JAN–10 15:25	100102–1
	Selenium	5.49	ug/L	5	ug/L	109.7	70.0 – 130.0	MS	02–JAN–10 15:25	100102–1
	Mercury	.193	ug/L	.2	ug/L	96.5	70.0 – 130.0	AV	05–JAN–10 09:23	010510W1–2

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-1085-1

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
ICB01										
	Arsenic	1.6	+/-5	U	1.6	5.0	LIQ	MS	02-JAN-10 15:19	100102-1
	Barium	0.6	+/-2	U	0.6	2.0	LIQ	MS	02-JAN-10 15:19	100102-1
	Cadmium	0.11	+/-1	U	0.11	1.0	LIQ	MS	02-JAN-10 15:19	100102-1
	Chromium	2.0	+/-10	U	2.0	10.0	LIQ	MS	02-JAN-10 15:19	100102-1
	Lead	0.5	+/-2	U	0.5	2.0	LIQ	MS	02-JAN-10 15:19	100102-1
	Selenium	1.0	+/-5	U	1.0	5.0	LIQ	MS	02-JAN-10 15:19	100102-1
	Silver	0.2	+/-1	U	0.2	1.0	LIQ	MS	02-JAN-10 15:19	100102-1
	Mercury	0.066	+/-.2	U	0.066	0.2	LIQ	AV	05-JAN-10 09:21	010510W1-2
CCB01										
	Arsenic	1.6	+/-5	U	1.6	5.0	LIQ	MS	02-JAN-10 15:50	100102-1
	Barium	0.6	+/-2	U	0.6	2.0	LIQ	MS	02-JAN-10 15:50	100102-1
	Cadmium	0.11	+/-1	U	0.11	1.0	LIQ	MS	02-JAN-10 15:50	100102-1
	Chromium	2.0	+/-10	U	2.0	10.0	LIQ	MS	02-JAN-10 15:50	100102-1
	Lead	0.5	+/-2	U	0.5	2.0	LIQ	MS	02-JAN-10 15:50	100102-1
	Selenium	1.0	+/-5	U	1.0	5.0	LIQ	MS	02-JAN-10 15:50	100102-1
	Silver	0.2	+/-1	U	0.2	1.0	LIQ	MS	02-JAN-10 15:50	100102-1
	Mercury	0.066	+/-.2	U	0.066	0.2	LIQ	AV	05-JAN-10 09:27	010510W1-2
CCB02										
	Arsenic	1.6	+/-5	U	1.6	5.0	LIQ	MS	02-JAN-10 16:08	100102-1
	Barium	0.6	+/-2	U	0.6	2.0	LIQ	MS	02-JAN-10 16:08	100102-1
	Cadmium	0.11	+/-1	U	0.11	1.0	LIQ	MS	02-JAN-10 16:08	100102-1
	Chromium	2.0	+/-10	U	2.0	10.0	LIQ	MS	02-JAN-10 16:08	100102-1
	Lead	0.5	+/-2	U	0.5	2.0	LIQ	MS	02-JAN-10 16:08	100102-1
	Selenium	1.0	+/-5	U	1.0	5.0	LIQ	MS	02-JAN-10 16:08	100102-1
	Silver	0.2	+/-1	U	0.2	1.0	LIQ	MS	02-JAN-10 16:08	100102-1
	Mercury	0.066	+/-.2	U	0.066	0.2	LIQ	AV	05-JAN-10 09:50	010510W1-2
CCB03										
	Arsenic	1.6	+/-5	U	1.6	5.0	LIQ	MS	02-JAN-10 17:03	100102-1
	Barium	0.6	+/-2	U	0.6	2.0	LIQ	MS	02-JAN-10 17:03	100102-1
	Cadmium	0.11	+/-1	U	0.11	1.0	LIQ	MS	02-JAN-10 17:03	100102-1
	Chromium	2.0	+/-10	U	2.0	10.0	LIQ	MS	02-JAN-10 17:03	100102-1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–1085–1

Contract: LANL01004 **Lab Code: GEL**

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Lead	0.5	+/–2	U	0.5	2.0	LIQ	MS	02–JAN–10 17:03	100102–1
	Selenium	1.0	+/–5	U	1.0	5.0	LIQ	MS	02–JAN–10 17:03	100102–1
	Silver	0.2	+/–1	U	0.2	1.0	LIQ	MS	02–JAN–10 17:03	100102–1
CCB04										
	Arsenic	1.6	+/–5	U	1.6	5.0	LIQ	MS	02–JAN–10 17:58	100102–1
	Barium	0.6	+/–2	U	0.6	2.0	LIQ	MS	02–JAN–10 17:58	100102–1
	Cadmium	0.11	+/–1	U	0.11	1.0	LIQ	MS	02–JAN–10 17:58	100102–1
	Chromium	2.0	+/–10	U	2.0	10.0	LIQ	MS	02–JAN–10 17:58	100102–1
	Lead	0.5	+/–2	U	0.5	2.0	LIQ	MS	02–JAN–10 17:58	100102–1
	Selenium	1.0	+/–5	U	1.0	5.0	LIQ	MS	02–JAN–10 17:58	100102–1
	Silver	0.2	+/–1	U	0.2	1.0	LIQ	MS	02–JAN–10 17:58	100102–1
CCB05										
	Arsenic	1.6	+/–5	U	1.6	5.0	LIQ	MS	02–JAN–10 18:54	100102–1
	Barium	0.6	+/–2	U	0.6	2.0	LIQ	MS	02–JAN–10 18:54	100102–1
	Cadmium	0.11	+/–1	U	0.11	1.0	LIQ	MS	02–JAN–10 18:54	100102–1
	Chromium	2.0	+/–10	U	2.0	10.0	LIQ	MS	02–JAN–10 18:54	100102–1
	Lead	0.5	+/–2	U	0.5	2.0	LIQ	MS	02–JAN–10 18:54	100102–1
	Selenium	1.0	+/–5	U	1.0	5.0	LIQ	MS	02–JAN–10 18:54	100102–1
	Silver	0.2	+/–1	U	0.2	1.0	LIQ	MS	02–JAN–10 18:54	100102–1
CCB06										
	Arsenic	1.6	+/–5	U	1.6	5.0	LIQ	MS	02–JAN–10 19:37	100102–1
	Barium	0.6	+/–2	U	0.6	2.0	LIQ	MS	02–JAN–10 19:37	100102–1
	Cadmium	0.11	+/–1	U	0.11	1.0	LIQ	MS	02–JAN–10 19:37	100102–1
	Chromium	2.0	+/–10	U	2.0	10.0	LIQ	MS	02–JAN–10 19:37	100102–1
	Lead	0.5	+/–2	U	0.5	2.0	LIQ	MS	02–JAN–10 19:37	100102–1
	Selenium	1.0	+/–5	U	1.0	5.0	LIQ	MS	02–JAN–10 19:37	100102–1
	Silver	0.2	+/–1	U	0.2	1.0	LIQ	MS	02–JAN–10 19:37	100102–1

METALS
–3b–
PREPARATION BLANK SUMMARY

SDG NO. 10–1085–1

Contract: LANL01004

Matrix: TCLP

Sample ID	Analyte	Result	Units	Acceptance Window	Conc Qual	M	MDL	RDL
1202004872								
	Arsenic	0.016	mg/L	+/–0.05	U	MS	0.016	0.05
	Barium	0.006	mg/L	+/–0.02	U	MS	0.006	0.02
	Cadmium	0.0011	mg/L	+/–0.01	U	MS	0.0011	0.01
	Chromium	0.02	mg/L	+/–0.1	U	MS	0.02	0.1
	Lead	0.005	mg/L	+/–0.02	U	MS	0.005	0.02
	Selenium	0.01	mg/L	+/–0.05	U	MS	0.01	0.05
	Silver	0.002	mg/L	+/–0.01	U	MS	0.002	0.01
1202004920								
	Mercury	0.00066	mg/L	+/–0.002	U	AV	0.00066	0.002
1202005971								
	Arsenic	0.016	mg/L	+/–0.05	U	MS	0.016	0.05
	Barium	0.006	mg/L	+/–0.02	U	MS	0.006	0.02
	Cadmium	0.0011	mg/L	+/–0.01	U	MS	0.0011	0.01
	Chromium	0.02	mg/L	+/–0.1	U	MS	0.02	0.1
	Lead	0.005	mg/L	+/–0.02	U	MS	0.005	0.02
	Selenium	0.01	mg/L	+/–0.05	U	MS	0.01	0.05
	Silver	0.002	mg/L	+/–0.01	U	MS	0.002	0.01
1202006485								
	Mercury	0.00066	mg/L	+/–0.002	U	AV	0.00066	0.002

METALS
–4–
Interference Check Sample

SDG No: 10–1085–1

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: ICPMS5

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Arsenic	–0.126	ug/L					02–JAN–10 15:31	100102–1
	Barium	0.688	ug/L					02–JAN–10 15:31	100102–1
	Cadmium	0.509	ug/L					02–JAN–10 15:31	100102–1
	Chromium	2.82	ug/L					02–JAN–10 15:31	100102–1
	Lead	0.195	ug/L					02–JAN–10 15:31	100102–1
	Selenium	–1.15	ug/L					02–JAN–10 15:31	100102–1
	Silver	0.063	ug/L					02–JAN–10 15:31	100102–1
ICSAB01									
	Arsenic	20.3	ug/L	20	ug/L	101	80.0 – 120.0	02–JAN–10 15:37	100102–1
	Barium	20.3	ug/L	20.67	ug/L	98.1	80.0 – 120.0	02–JAN–10 15:37	100102–1
	Cadmium	19.9	ug/L	20.4	ug/L	97.7	80.0 – 120.0	02–JAN–10 15:37	100102–1
	Chromium	23.2	ug/L	23.7	ug/L	97.8	80.0 – 120.0	02–JAN–10 15:37	100102–1
	Lead	21.6	ug/L	20.5	ug/L	105	80.0 – 120.0	02–JAN–10 15:37	100102–1
	Selenium	19.7	ug/L	20	ug/L	98.3	80.0 – 120.0	02–JAN–10 15:37	100102–1
	Silver	19.4	ug/L	20	ug/L	97	80.0 – 120.0	02–JAN–10 15:37	100102–1

METALS
–5a–
Matrix Spike Summary

SDG NO. 10–1085–1 **Client ID** WST12–10–8879S

Contract: LANL01004 **Level:** Low

Matrix: TCLP **% Solids:** 88

Sample ID: 243421001 **Spike ID:** 1202004870

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Silver	mg/L	75–125	.465		0.002	U	.526	88.4		MS
Arsenic	mg/L	75–125	4.38		0.016	U	5.26	83.3		MS
Barium	mg/L	75–125	9.96		0.99		10.5	85.2		MS
Cadmium	mg/L	75–125	.942		0.0011	U	1.05	89.5		MS
Chromium	mg/L	75–125	4.19		0.0292	J	5.26	79		MS
Lead	mg/L	75–125	4.46		0.00581	J	5.26	84.7		MS
Selenium	mg/L	75–125	.917		0.01	U	1.05	87.1		MS

METALS
-5a-
Matrix Spike Summary

SDG NO. 10-1085-1 **Client ID** WST12-10-8879S

Contract: LANL01004 **Level:** Low

Matrix: TCLP **% Solids:** 88

Sample ID: 243421001 **Spike ID:** 1202004918

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Mercury	mg/L	75-125	.0144		0.00066	U	.02	72.1	N	AV

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–1085–1

Contract: LANL01004 **Lab Code:** GEL

Matrix: TCLP **Level:** Low **Client ID:** WST12–10–8879D

Sample ID: 243421001 **Duplicate ID:** 1202005973 **Percent Solids for Dup:** 88

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Arsenic	mg/L		0.016	U	0.016	U			MS
Barium	mg/L	+/–20%	0.99		0.981		.939		MS
Cadmium	mg/L		0.0011	U	0.0011	U			MS
Chromium	mg/L	+/–.1	0.0292	J	0.0351	J	18.3		MS
Lead	mg/L	+/–.02	0.00581	J	0.00572	J	1.56		MS
Selenium	mg/L		0.01	U	0.01	U			MS
Silver	mg/L		0.002	U	0.002	U			MS

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–1085–1

Contract: LANL01004 **Lab Code:** GEL

Matrix: TCLP **Level:** Low **Client ID:** WST12–10–8879D

Sample ID: 243421001 **Duplicate ID:** 1202006487 **Percent Solids for Dup:** 88

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Mercury	mg/L		0.00066	U	0.00066	U			AV

METALS
-7-
Laboratory Control Sample Summary

SDG NO. 10--1085-1

Contract: LANL01004

Aqueous LCS Source: O2si **Solid LCS Source:**

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202005972								
	Arsenic	mg/L	.5	.462		92.4	80--120	MS
	Barium	mg/L	.5	.484		96.8	80-120	MS
	Cadmium	mg/L	.5	.486		97.1	80-120	MS
	Chromium	mg/L	.5	.51		102	80-120	MS
	Lead	mg/L	.5	.52		104	80-120	MS
	Selenium	mg/L	.5	.469		93.8	80-120	MS
	Silver	mg/L	.5	.492		98.4	80-120	MS

METALS
-7-
Laboratory Control Sample Summary

SDG NO. 10-1085-1

Contract: LANL01004

Aqueous LCS Source: GEL **Solid LCS Source:**

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202006486								
	Mercury	mg/L	.02	.0202		101	80-120	AV

METALS
-9-
Serial Dilution Sample Summary

SDG NO. 10-1085-1 **Client ID** WST12-10-8879L

Contract: LANL01004

Matrix: TCLP **Level:** Low

Sample ID: 243421001 **Serial Dilution ID:** 1202005975

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Arsenic	1.6	U	8	U				MS
Barium	99		97		2.02		10	MS
Cadmium	.11	U	.55	U				MS
Chromium	2.92	J	10	U	100			MS
Lead	.581	J	2.5	U	100			MS
Selenium	1	U	5	U				MS
Silver	.2	U	1	U				MS

METALS
-9-
Serial Dilution Sample Summary

SDG NO. 10-1085-1 **Client ID** WST12-10-8879L

Contract: LANL01004

Matrix: TCLP **Level:** Low

Sample ID: 243421001 **Serial Dilution ID:** 1202006494

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Mercury	.066	U	.33	U				AV

METALS
–13–
SAMPLE PREPARATION SUMMARY

SDG No: 10–1085–1 **Method Type**: MS

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number 937457							
1202005971	MB for batch 937457	MB	TCLP	30–DEC–09	5mL	50mL	
1202004872	TB for batch 936940	TB	TCLP	30–DEC–09	5mL	50mL	
1202005972	LCS for batch 937457	LCS	TCLP	30–DEC–09	5mL	50mL	
1202004870	WST12–10–8879S	MS	TCLP	30–DEC–09	5mL	50mL	
1202005973	WST12–10–8879D	DUP	TCLP	30–DEC–09	5mL	50mL	
243551001	WST03–10–2148	SAMPLE	TCLP	30–DEC–09	5mL	50mL	

METALS
-13-
SAMPLE PREPARATION SUMMARY

SDG No: 10-1085-1 **Method Type:** AV

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number	937650						
1202006485	MB for batch 937650	MB	TCLP	04-JAN-10	2mL	20mL	
1202004920	TB for batch 936973	TB	TCLP	04-JAN-10	2mL	20mL	
1202006486	LCS for batch 937650	LCS	TCLP	04-JAN-10	2mL	20mL	
1202004918	WST12-10-8879S	MS	TCLP	04-JAN-10	2mL	20mL	
1202006487	WST12-10-8879D	DUP	TCLP	04-JAN-10	2mL	20mL	
243551001	WST03-10-2148	SAMPLE	TCLP	04-JAN-10	2mL	20mL	

Metals
–14–
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: ICPMS5
Start Date: 02–JAN–10 **End Date:** 02–JAN–10

Client Sdg: 10–1085–1
Method MS
Data File: 100102–1

Samp No.	D/F	Run Time	As	Ba	Cd	Cr	Pb	Hg	Se	Ag
S0.0	1	14:55	X	X	X	X	X		X	X
S10	1	15:01	X	X	X	X	X		X	X
S100	1	15:07	X	X	X	X	X		X	X
ICV01	1	15:13	X	X	X	X	X		X	X
ICB01	1	15:19	X	X	X	X	X		X	X
CRDL01	1	15:25	X	X	X	X	X		X	X
ICSA01	1	15:31	X	X	X	X	X		X	X
ICSAB01	1	15:37	X	X	X	X	X		X	X
CCV01	1	15:44	X	X	X	X	X		X	X
CCB01	1	15:50	X	X	X	X	X		X	X
LR01	1	15:56	X	X	X	X	X		X	X
CCV02	1	16:02	X	X	X	X	X		X	X
CCB02	1	16:08	X	X	X	X	X		X	X
ZZZZZZ	1	16:14								
ZZZZZZ	1	16:20								
ZZZZZZ	1	16:26								
ZZZZZZ	1	16:32								
ZZZZZZ	1	16:38								
ZZZZZZ	1	16:45								
ZZZZZZ	5	16:51								
CCV03	1	16:57	X	X	X	X	X		X	X
CCB03	1	17:03	X	X	X	X	X		X	X
ZZZZZZ	1	17:09								
ZZZZZZ	1	17:15								
ZZZZZZ	1	17:21								
ZZZZZZ	1	17:27								
ZZZZZZ	1	17:34								
ZZZZZZ	1	17:40								
ZZZZZZ	1	17:46								
CCV04	1	17:52	X	X	X	X	X		X	X
CCB04	1	17:58	X	X	X	X	X		X	X
1202004872	1	18:04	X	X	X	X	X		X	X
1202005971	1	18:10	X	X	X	X	X		X	X
1202005972	1	18:17	X	X	X	X	X		X	X
ZZZZZZ	1	18:23								
1202005973	1	18:29	X	X	X	X	X		X	X
1202004870	1	18:35	X	X	X	X	X		X	X
1202005975	5	18:41	X	X	X	X	X		X	X
CCV05	1	18:47	X	X	X	X	X		X	X
CCB05	1	18:54	X	X	X	X	X		X	X

Metals
-14-
Analysis Run Log

Samp No.	D/F	Run Time								
ZZZZZZ	1	19:00								
ZZZZZZ	1	19:06								
243551001	1	19:12	X	X	X	X	X		X	X
ZZZZZZ	1	19:18								
ZZZZZZ	1	19:24								
CCV06	1	19:31	X	X	X	X	X		X	X
CCB06	1	19:37	X	X	X	X	X		X	X

Metals
–14–
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: HG3
Start Date: 05–JAN–10 **End Date:** 05–JAN–10

Client Sdg: 10–1085–1
Method AV
Data File: 010510W1–2

Samp No.	D/F	Run Time	As	Ba	Cd	Cr	Pb	Hg	Se	Ag
S0.0	1	09:07						X		
S0.2	1	09:09						X		
S0.5	1	09:11						X		
S2.0	1	09:13						X		
S5.0	1	09:15						X		
S10.0	1	09:17						X		
ICV01	1	09:19						X		
ICB01	1	09:21						X		
CRDL01	1	09:23						X		
CCV01	1	09:25						X		
CCB01	1	09:27						X		
1202004920	1	09:28						X		
1202006485	1	09:30						X		
1202006486	1	09:32						X		
ZZZZZZ	1	09:34								
1202004918	1	09:36						X		
1202006487	1	09:38						X		
1202006494	5	09:40						X		
ZZZZZZ	1	09:42								
ZZZZZZ	1	09:44								
243551001	1	09:46						X		
CCV02	1	09:48						X		
CCB02	1	09:50						X		

Standards

METALS
-10-
Instrument Detection Limits

SDG NO. 10-1085-1

Contract: LANL01004 **Lab Code: GEL** **MDL Effective Date:** 01-JUL-09

ICP/MS	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
LIQUID	Arsenic		1.6	5
	Barium		0.6	2
	Cadmium		0.11	1
	Chromium		2.0	10
	Lead		0.5	2
	Selenium		1.0	5
	Silver		0.2	1

METALS
-10-
Instrument Detection Limits

SDG NO. 10-1085-1

Contract: LANL01004 **Lab Code: GEL** **MDL Effective Date:** 01-JUL-09

	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
MERCURY				
LIQUID	Mercury		0.066	.2

METALS
-12-
Linear Ranges

SDG NO. 10-1085-1

Contract: LANL01004 **Lab Code: GEL**

Instrument ID ICPMS5

Analyte	Integration Time (msec)	LDR	Units	Effective Date
Barium	1000	1000	ug/L	01-NOV-09
Cadmium	1000	1000	ug/L	01-NOV-09
Chromium	1000	1000	ug/L	01-NOV-09
Lead	1000	5000	ug/L	01-NOV-09
Selenium	1000	500	ug/L	01-NOV-09
Silver	1000	250	ug/L	01-NOV-09
Arsenic	1000	1000	ug/L	01-NOV-09

Raw Data

ICPMS #5 Daily Performance Report

Sample ID: Sample
Sample Date/Time: Saturday, January 02, 2010 10:01:38
Sample Description:
Method File: c:\elandata\Method\Daily2.mth
Dataset File: c:\elandata\Dataset\default2\Sample.1640
Tuning File: c:\elandata\Tuning\default2.tun
Optimization File: c:\elandata\Optimize\default.dac
Dual Detector Mode: Pulse
Acq. Dead Time(ns): 35
Current Dead Time (ns): 35
Number of Replicates: 5

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Be	9.0	2774.7	2774.670	53.164	1.9
	Mg	24.0	33555.0	33554.967	439.026	1.3
	Co	58.9	66371.0	66371.028	492.122	0.7
	Rh	102.9	121090.9	121090.869	1031.789	0.9
	In	114.9	177125.2	177125.168	1566.392	0.9
	Pb	208.0	225591.2	225591.211	2462.552	1.1
⌈>	Ba	137.9	169302.1	169302.105	1085.335	0.6
⌊	Ba++	69.0	2528.2	0.015	0.000	1.3
⌈>	Ce	139.9	202158.4	202158.363	1080.855	0.5
⌊	CeO	155.9	5290.9	0.026	0.001	2.1
	Bkgd	220.0	14.8	14.800	2.992	20.2

Current Optimization File Data

Current Value	Description
0.85	Nebulizer Gas Flow
7.00	Lens Voltage
1450.00	ICP RF Power
-1687.50	Analog Stage Voltage
1200.00	Pulse Stage Voltage
275.00	Discriminator Threshold
-6.00	AC Rod Offset

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	17	6.5	4167.9
Co	59	17	7.5	62005.9
In	115	17	8.8	166525.6

ICPMS #5 Instrument Tuning Report

File Name: default2.tun
File Path: c:\elandata\Tuning

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Pk. Width
He	3.0	3.0	602	2065	0.553
Be	9.0	9.0	2053	2070	0.584
Mg	24.0	24.0	5699	2070	0.614
Mg	25.0	25.0	5927	2070	0.592
Mg	26.0	26.0	6198	2070	0.593
Co	58.9	58.9	14192	2105	0.575
Rh	102.9	102.9	24886	2165	0.573
In	114.9	114.9	27800	2185	0.576
Ce	139.9	139.9	33872	2200	0.598
Pb	206.0	206.0	49948	2270	0.621
Pb	207.0	207.0	50171	2235	0.629
Pb	208.0	208.0	50451	2260	0.671
U	238.1	238.1	57737	2275	0.676

ICPMS#5 - Summary Report

Sample ID: Blank
Sample Date/Time: Saturday, January 02, 2010 14:55:11
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100102\Blank.001

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7		ug/L		45	
	Be	9		ug/L		16	
	B	11		ug/L		335	
	Na	23		ug/L		12339	
	Mg	24		ug/L		3000	
	Al	27		ug/L		3667	
	P	31		ug/L		4540	
	K	39		ug/L		443114	
	Ca	43		ug/L		168	
>	Sc	45		ug/L		1544770	
	Ti	47		ug/L		380	
	V	51		ug/L		-708	
	Cr	52		ug/L		-1107	
	Cr	53		ug/L		57038	
	Mn	55		ug/L		1074	
	Fe	57		ug/L		4213	
	Co	59		ug/L		153	
	Ni	60		ug/L		114	
	Cu	63		ug/L		493	
	Cu	65		ug/L		110	
	Zn	66		ug/L		178	
	Zn	67		ug/L		6773	
	Zn	68		ug/L		754	
>	Ge	74		ug/L		322284	
	As	75		ug/L		-63	
	Se	77		ug/L		2899	
	Se	82		ug/L		-23	
	Kr	83		ug/L		85	
	Sr	88		ug/L		147	
	Y	89		ug/L		64	
	Mo	98		ug/L		53	
	Ag	107		ug/L		45	
	Cd	111		ug/L		10	
	Cd	114		ug/L		29	
>	In	115		ug/L		225555	
	Sn	120		ug/L		284	
	Sb	121		ug/L		272	
	Sb	123		ug/L		227	
	Ba	135		ug/L		56	
	Ba	137		ug/L		73	
	Ho	165		ug/L		31	
>	Lu	175		ug/L		503141	
	Tl	205		ug/L		376	
	Pb	208		ug/L		297	
	Bi	209		ug/L		212	
	Th	232		ug/L		690	
	U	238		ug/L		220	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Simple Linear	
Be	9	Simple Linear	
B	11	Simple Linear	
Na	23	Simple Linear	
Mg	24	Simple Linear	
Al	27	Simple Linear	
P	31	Simple Linear	
K	39	Simple Linear	
Ca	43	Simple Linear	
Sc	45	Simple Linear	
Ti	47	Simple Linear	
V	51	Simple Linear	
Cr	52	Simple Linear	
Cr	53	Simple Linear	
Mn	55	Simple Linear	
Fe	57	Simple Linear	
Co	59	Simple Linear	
Ni	60	Simple Linear	
Cu	63	Simple Linear	
Cu	65	Simple Linear	
Zn	66	Simple Linear	
Zn	67	Simple Linear	
Zn	68	Simple Linear	
Ge	74	Simple Linear	
As	75	Simple Linear	
Se	77	Simple Linear	
Se	82	Simple Linear	
Kr	83	Simple Linear	
Sr	88	Simple Linear	
Y	89	Simple Linear	
Mo	98	Simple Linear	
Ag	107	Simple Linear	
Cd	111	Simple Linear	
Cd	114	Simple Linear	
In	115	Simple Linear	
Sn	120	Simple Linear	
Sb	121	Simple Linear	
Sb	123	Simple Linear	
Ba	135	Simple Linear	
Ba	137	Simple Linear	
Ho	165	Simple Linear	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	
Pb	208	Simple Linear	
Bi	209	Simple Linear	
Th	232	Simple Linear	
U	238	Simple Linear	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45					
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115					
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175					
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Saturday, January 02, 2010 15:01:18
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100102\Standard 1.002

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	10.000	ug/L	5.079	12899	0.008
	Be	9	10.000	ug/L	3.244	3697	0.002
	B	11	20.000	ug/L	3.061	7436	0.005
	Na	23	1000.000	ug/L	3.131	3890149	2.504
	Mg	24	1000.000	ug/L	4.758	2666253	1.719
	Al	27	1000.000	ug/L	10.124	3889741	2.509
	P	31	1000.000	ug/L	0.575	202095	0.128
	K	39	1000.000	ug/L	7.559	5207940	3.076
	Ca	43	1000.000	ug/L	3.978	11268	0.007
>	Sc	45		ug/L		1548912	1548911.891
	Ti	47	10.000	ug/L	2.551	5162	0.003
	V	51	10.000	ug/L	2.834	53984	0.035
	Cr	52	10.000	ug/L	2.260	41999	0.028
	Cr	53		ug/L		64358	0.005
	Mn	55	10.000	ug/L	2.520	76751	0.049
	Fe	57	1000.000	ug/L	0.472	159392	0.100
	Co	59	10.000	ug/L	1.018	56992	0.037
	Ni	60	10.000	ug/L	0.949	12286	0.008
	Cu	63		ug/L		29201	0.019
	Cu	65	10.000	ug/L	2.776	14001	0.009
	Zn	66	10.000	ug/L	1.423	10144	0.031
	Zn	67		ug/L		8457	0.005
	Zn	68		ug/L		7543	0.021
>	Ge	74		ug/L		321537	321536.789
	As	75	10.000	ug/L	2.797	9277	0.029
	Se	77		ug/L		3832	0.003
	Se	82	10.000	ug/L	5.468	957	0.003
	Kr	83		ug/L		82	-0.000
	Sr	88	10.000	ug/L	1.126	115875	0.509
	Y	89		ug/L		80	0.000
	Mo	98	10.000	ug/L	2.221	26825	0.118
	Ag	107	10.000	ug/L	0.550	49501	0.218
	Cd	111	10.000	ug/L	2.514	12761	0.056
	Cd	114		ug/L		30680	0.135
>	In	115		ug/L		227353	227353.466
	Sn	120	10.000	ug/L	2.155	55793	0.244
	Sb	121	10.000	ug/L	6.254	44009	0.192
	Sb	123		ug/L		35165	0.154
	Ba	135		ug/L		13608	0.026
	Ba	137	10.000	ug/L	2.127	23848	0.046
	Ho	165		ug/L		28	-0.000
>	Lu	175		ug/L		513859	513859.242
	Tl	205	10.000	ug/L	2.382	249480	0.485
	Pb	208	10.000	ug/L	1.237	377440	0.734
	Bi	209		ug/L		183	-0.000
	Th	232	10.000	ug/L	3.692	492443	0.957
	U	238	10.000	ug/L	2.104	527022	1.025

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45					
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115					
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175					
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Saturday, January 02, 2010 15:07:22
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100102\Standard 2.003

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**99.897**	ug/L	4.010	120890	0.075
	Be	9	**99.946**	ug/L	4.350	36224	0.023
	B	11	**199.968**	ug/L	2.284	72857	0.045
	Na	23	**10000.089**	ug/L	10.833	40232399	25.058
	Mg	24	**9999.819**	ug/L	7.875	27570684	17.163
	Al	27	**9993.198**	ug/L	8.226	37796654	23.477
	P	31	**9988.952**	ug/L	1.681	1849141	1.147
	K	39	**9994.106**	ug/L	3.044	47168097	29.036
	Ca	43	**9996.242**	ug/L	1.254	111228	0.069
>	Sc	45		ug/L		1608130	1608129.676
	Ti	47	**100.015**	ug/L	1.295	50770	0.031
	V	51	**99.982**	ug/L	2.059	556771	0.347
	Cr	52	**99.958**	ug/L	2.001	427985	0.267
	Cr	53		ug/L		112748	0.033
	Mn	55	**99.940**	ug/L	3.050	741279	0.461
	Fe	57	**9988.166**	ug/L	3.642	1442218	0.895
	Co	59	**99.948**	ug/L	2.571	560406	0.349
	Ni	60	**99.960**	ug/L	2.401	121525	0.076
	Cu	63		ug/L		286248	0.178
	Cu	65	**99.958**	ug/L	1.074	138482	0.086
	Zn	66	**99.964**	ug/L	2.395	99811	0.299
	Zn	67		ug/L		21925	0.045
	Zn	68		ug/L		68721	0.204
>	Ge	74		ug/L		333328	333328.360
	As	75	**99.973**	ug/L	0.932	94159	0.283
	Se	77		ug/L		11206	0.025
	Se	82	**99.951**	ug/L	2.181	9648	0.029
	Kr	83		ug/L		133	0.000
	Sr	88	**99.957**	ug/L	1.656	1096396	4.878
	Y	89		ug/L		161	0.000
	Mo	98	**100.019**	ug/L	2.319	270031	1.201
	Ag	107	**99.987**	ug/L	0.394	482455	2.146
	Cd	111	**99.997**	ug/L	3.338	125679	0.559
	Cd	114		ug/L		299698	1.333
>	In	115		ug/L		224772	224771.991
	Sn	120	**99.989**	ug/L	1.086	543265	2.416
	Sb	121	**100.052**	ug/L	5.020	456392	2.030
	Sb	123		ug/L		360723	1.604
	Ba	135		ug/L		135516	0.270
	Ba	137	**100.022**	ug/L	1.135	237491	0.473
	Ho	165		ug/L		38	0.000
>	Lu	175		ug/L		501665	501665.248
	Tl	205	**99.794**	ug/L	1.102	2013031	4.012
	Pb	208	**99.903**	ug/L	0.764	3353912	6.685
	Bi	209		ug/L		448	0.000
	Th	232	**99.815**	ug/L	0.837	4043881	8.060
	U	238	**99.850**	ug/L	2.523	4466669	8.904

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	0.9999
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	0.9999
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9998
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45					
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115					
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175					
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Saturday, January 02, 2010 15:13:26
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100102\QC Std 1.004

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**49.284**	ug/L	4.426	60682	0.037
	Be	9	**50.605**	ug/L	2.572	18664	0.011
	B	11	**102.938**	ug/L	4.433	38299	0.023
	Na	23	**4957.979**	ug/L	14.180	20310838	12.424
	Mg	24	**5226.650**	ug/L	2.400	14664390	8.971
	Al	27	**4969.130**	ug/L	1.684	19083847	11.674
	P	31	**5265.437**	ug/L	1.760	993122	0.605
	K	39	**4930.722**	ug/L	4.466	23877626	14.325
	Ca	43	**4997.472**	ug/L	0.909	56594	0.035
>	Sc	45		ug/L		1634420	1634419.726
	Ti	47	**49.992**	ug/L	1.731	25998	0.016
	V	51	**50.315**	ug/L	2.957	284453	0.175
	Cr	52	**52.355**	ug/L	1.534	227315	0.140
	Cr	53		ug/L		92234	0.020
	Mn	55	**52.366**	ug/L	0.688	395517	0.241
	Fe	57	**5331.186**	ug/L	0.977	784941	0.478
	Co	59	**50.915**	ug/L	2.327	290301	0.178
	Ni	60	**52.269**	ug/L	1.249	64671	0.039
	Cu	63		ug/L		149848	0.091
	Cu	65	**51.127**	ug/L	1.382	72057	0.044
	Zn	66	**52.910**	ug/L	0.858	53485	0.158
	Zn	67		ug/L		15077	0.024
	Zn	68		ug/L		37131	0.108
>	Ge	74		ug/L		336764	336763.893
	As	75	**49.406**	ug/L	2.508	46979	0.140
	Se	77		ug/L		8059	0.015
	Se	82	**50.968**	ug/L	2.580	4961	0.015
	Kr	83		ug/L		122	0.000
	Sr	88	**52.863**	ug/L	0.802	590740	2.580
	Y	89		ug/L		87	0.000
	Mo	98	**49.893**	ug/L	1.271	137225	0.599
	Ag	107	**51.003**	ug/L	1.921	250636	1.095
	Cd	111	**50.997**	ug/L	0.852	65294	0.285
	Cd	114		ug/L		156720	0.684
>	In	115		ug/L		228947	228946.731
	Sn	120	**51.875**	ug/L	1.115	287220	1.253
	Sb	121	**51.080**	ug/L	5.574	237376	1.036
	Sb	123		ug/L		188142	0.821
	Ba	135		ug/L		70280	0.139
	Ba	137	**50.964**	ug/L	2.402	121526	0.241
	Ho	165		ug/L		49	0.000
>	Lu	175		ug/L		503707	503706.750
	Tl	205	**54.790**	ug/L	2.120	1109703	2.203
	Pb	208	**52.998**	ug/L	1.271	1786514	3.546
	Bi	209		ug/L		489	0.001
	Th	232	**51.144**	ug/L	0.783	2080901	4.130
	U	238	**52.145**	ug/L	1.393	2342338	4.650

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	0.9999
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	0.9999
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9998
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7	98.567				
	Be	9	101.210				
	B	11	102.938				
	Na	23	99.160				
	Mg	24	104.533				
	Al	27	98.399				
	P	31	105.309				
	K	39	98.614				
	Ca	43	99.949				
>	Sc	45		105.8			
	Ti	47	99.983				
	V	51	100.630				
	Cr	52	104.710				
	Cr	53					
	Mn	55	104.732				
	Fe	57	106.624				
	Co	59	101.831				
	Ni	60	104.539				
	Cu	63					
	Cu	65	102.254				
	Zn	66	105.820				
	Zn	67					
	Zn	68					
>	Ge	74		104.5			
	As	75	98.811				
	Se	77					
	Se	82	101.936				
	Kr	83					
	Sr	88	105.727				
	Y	89					
	Mo	98	99.786				
	Ag	107	102.006				
	Cd	111	101.993				
	Cd	114					
>	In	115		101.5			
	Sn	120	103.750				
	Sb	121	102.161				
	Sb	123					
	Ba	135					
	Ba	137	101.928				
	Ho	165					
>	Lu	175		100.1			
	Tl	205	109.580				
	Pb	208	105.995				
	Bi	209					
	Th	232	102.287				
	U	238	104.291				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Saturday, January 02, 2010 15:19:34
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100102\QC Std 2.005

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	0.026	ug/L	10.745	80	0.000
	Be	9	-0.008	ug/L	173.078	14	-0.000
	B	11	2.530	ug/L	19.253	1284	0.001
	Na	23	1.449	ug/L	115.292	19014	0.004
	Mg	24	0.529	ug/L	200.411	4668	0.001
	Al	27	0.725	ug/L	105.793	6668	0.002
	P	31	0.207	ug/L	1121.093	4829	0.000
	K	39	-1.973	ug/L	214.325	457900	-0.006
	Ca	43	1.289	ug/L	227.807	192	0.000
>	Sc	45		ug/L		1628915	1628915.141
	Ti	47	-0.107	ug/L	53.172	346	-0.000
	V	51	0.316	ug/L	55.946	1048	0.001
	Cr	52	0.406	ug/L	3.698	599	0.001
	Cr	53		ug/L		67216	0.004
	Mn	55	-0.011	ug/L	50.204	1053	-0.000
	Fe	57	4.553	ug/L	17.654	5106	0.000
	Co	59	0.006	ug/L	49.910	196	0.000
	Ni	60	-0.000	ug/L	1331.044	120	-0.000
	Cu	63		ug/L		431	-0.000
	Cu	65	0.004	ug/L	229.973	122	0.000
	Zn	66	0.006	ug/L	323.110	193	0.000
	Zn	67		ug/L		7134	0.000
	Zn	68		ug/L		757	-0.000
>	Ge	74		ug/L		339356	339355.945
	As	75	-0.058	ug/L	259.094	-121	-0.000
	Se	77		ug/L		4019	0.003
	Se	82	0.093	ug/L	48.105	-15	0.000
	Kr	83		ug/L		98	0.000
	Sr	88	0.008	ug/L	87.920	240	0.000
	Y	89		ug/L		56	-0.000
	Mo	98	0.046	ug/L	35.473	185	0.001
	Ag	107	0.008	ug/L	87.297	87	0.000
	Cd	111	0.012	ug/L	35.976	26	0.000
	Cd	114		ug/L		54	0.000
>	In	115		ug/L		233522	233521.686
	Sn	120	0.149	ug/L	19.060	1136	0.004
	Sb	121	0.791	ug/L	19.859	4033	0.016
	Sb	123		ug/L		3275	0.013
	Ba	135		ug/L		62	0.000
	Ba	137	0.005	ug/L	108.951	88	0.000
	Ho	165		ug/L		32	0.000
>	Lu	175		ug/L		516528	516528.328
	Tl	205	0.044	ug/L	30.588	1301	0.002
	Pb	208	0.007	ug/L	71.468	539	0.000
	Bi	209		ug/L		194	-0.000
	Th	232	0.060	ug/L	22.573	3214	0.005
	U	238	0.011	ug/L	46.886	746	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	0.9999
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	0.9999
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9998
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		105.4			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		105.3			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		103.5			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		102.7			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Saturday, January 02, 2010 15:25:41
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100102\QC Std 3.006

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**10.313**	ug/L	3.232	12837	0.008
	Be	9	**0.499**	ug/L	9.459	202	0.000
	B	11	**16.355**	ug/L	5.022	6428	0.004
	Na	23	**246.088**	ug/L	4.926	1028463	0.617
	Mg	24	**15.628**	ug/L	22.802	47414	0.027
	Al	27	**35.513**	ug/L	9.605	141368	0.083
	P	31	**59.087**	ug/L	5.122	16005	0.007
	K	39	**314.105**	ug/L	8.576	1973794	0.913
	Ca	43	**213.545**	ug/L	1.937	2608	0.001
>	Sc	45		ug/L		1646634	1646633.897
	Ti	47	**8.840**	ug/L	5.901	4961	0.003
	V	51	**11.238**	ug/L	4.221	63387	0.039
	Cr	52	**11.125**	ug/L	2.694	47717	0.030
	Cr	53		ug/L		73743	0.008
	Mn	55	**5.817**	ug/L	3.193	45263	0.027
	Fe	57	**121.225**	ug/L	4.909	22359	0.011
	Co	59	**1.088**	ug/L	3.575	6405	0.004
	Ni	60	**2.224**	ug/L	3.653	2887	0.002
	Cu	63		ug/L		3799	0.002
	Cu	65	**1.124**	ug/L	5.833	1709	0.001
	Zn	66	**10.829**	ug/L	1.650	11170	0.032
	Zn	67		ug/L		9062	0.006
	Zn	68		ug/L		8322	0.022
>	Ge	74		ug/L		339077	339077.151
	As	75	**5.350**	ug/L	3.117	5062	0.015
	Se	77		ug/L		4389	0.004
	Se	82	**5.487**	ug/L	2.275	516	0.002
	Kr	83		ug/L		99	0.000
	Sr	88	**11.402**	ug/L	0.864	129630	0.556
	Y	89		ug/L		51	-0.000
	Mo	98	**0.543**	ug/L	0.417	1571	0.007
	Ag	107	**1.036**	ug/L	0.809	5222	0.022
	Cd	111	**1.090**	ug/L	3.346	1429	0.006
	Cd	114		ug/L		3426	0.015
>	In	115		ug/L		232708	232707.855
	Sn	120	**5.447**	ug/L	3.429	30905	0.132
	Sb	121	**3.165**	ug/L	6.167	15221	0.064
	Sb	123		ug/L		12073	0.051
	Ba	135		ug/L		3011	0.006
	Ba	137	**2.132**	ug/L	3.714	5217	0.010
	Ho	165		ug/L		32	0.000
>	Lu	175		ug/L		510052	510052.074
	Tl	205	**1.279**	ug/L	2.863	26608	0.051
	Pb	208	**2.360**	ug/L	2.282	80836	0.158
	Bi	209		ug/L		164	-0.000
	Th	232	**1.322**	ug/L	3.547	55115	0.107
	U	238	**0.269**	ug/L	1.477	12476	0.024

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	0.9999
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	0.9999
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	1.0000
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9998
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7	103.126				
	Be	9	99.714				
	B	11	109.034				
	Na	23	98.435				
	Mg	24	104.183				
	Al	27	118.377				
	P	31	118.174				
	K	39	104.702				
	Ca	43	106.772				
>	Sc	45		106.6			
	Ti	47	88.404				
	V	51	112.383				
	Cr	52	111.251				
	Cr	53					
	Mn	55	116.340				
	Fe	57	121.225				
	Co	59	108.784				
	Ni	60	111.190				
	Cu	63					
	Cu	65	112.362				
	Zn	66	108.294				
	Zn	67					
	Zn	68					
>	Ge	74		105.2			
	As	75	106.994				
	Se	77					
	Se	82	109.748				
	Kr	83					
	Sr	88	114.021				
	Y	89					
	Mo	98	108.546				
	Ag	107	103.607				
	Cd	111	108.992				
	Cd	114					
>	In	115		103.2			
	Sn	120	108.936				
	Sb	121	105.500				
	Sb	123					
	Ba	135					
	Ba	137	106.589				
	Ho	165					
>	Lu	175		101.4			
	Tl	205	127.946				
	Pb	208	118.008				
	Bi	209					
	Th	232	132.159				
	U	238	134.713				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 3	Th	232	CRDL is out of limits
QC Std 3	U	238	CRDL is out of limits

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Saturday, January 02, 2010 15:31:47
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100102\QC Std 4.007

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.174**	ug/L	2.383	242	0.000
	Be	9	**0.064**	ug/L	16.773	37	0.000
	B	11	**1.193**	ug/L	9.314	733	0.000
	Na	23	**96184.181**	ug/L	7.816	363438283	241.017
	Mg	24	**104506.986**	ug/L	2.209	270490764	179.371
	Al	27	**103528.356**	ug/L	5.477	366686910	243.219
	P	31	**101033.716**	ug/L	2.090	17500666	11.604
	K	39	**97151.309**	ug/L	2.532	426078620	282.251
	Ca	43	**94223.157**	ug/L	2.141	981484	0.651
>	Sc	45		ug/L		1507924	1507924.256
	Ti	47	**1428.661**	ug/L	0.774	675208	0.448
	V	51	**0.792**	ug/L	62.497	3445	0.003
	Cr	52	**2.821**	ug/L	1.983	10278	0.008
	Cr	53		ug/L		52114	-0.002
	Mn	55	**5.928**	ug/L	0.798	42237	0.027
	Fe	57	**103220.658**	ug/L	2.403	13946112	9.246
	Co	59	**0.311**	ug/L	4.782	1787	0.001
	Ni	60	**2.995**	ug/L	4.116	3523	0.002
	Cu	63		ug/L		6451	0.004
	Cu	65	**2.895**	ug/L	1.098	3866	0.002
	Zn	66	**3.428**	ug/L	3.420	3317	0.010
	Zn	67		ug/L		5996	-0.001
	Zn	68		ug/L		1270	0.002
>	Ge	74		ug/L		307015	307014.711
	As	75	**-0.126**	ug/L	361.829	-170	-0.000
	Se	77		ug/L		5341	0.008
	Se	82	**-1.146**	ug/L	23.778	-124	-0.000
	Kr	83		ug/L		246	0.001
	Sr	88	**1.260**	ug/L	3.903	12589	0.061
	Y	89		ug/L		374	0.002
	Mo	98	**1984.763**	ug/L	3.590	4828933	23.837
	Ag	107	**0.063**	ug/L	16.126	315	0.001
	Cd	111	**0.509**	ug/L	27.054	588	0.003
	Cd	114		ug/L		7435	0.037
>	In	115		ug/L		202686	202686.470
	Sn	120	**0.156**	ug/L	5.031	1018	0.004
	Sb	121	**0.241**	ug/L	24.882	1234	0.005
	Sb	123		ug/L		972	0.004
	Ba	135		ug/L		847	0.002
	Ba	137	**0.688**	ug/L	2.234	1494	0.003
	Ho	165		ug/L		1027	0.002
>	Lu	175		ug/L		439313	439312.940
	Tl	205	**0.022**	ug/L	4.050	725	0.001
	Pb	208	**0.195**	ug/L	0.708	5986	0.013
	Bi	209		ug/L		1269	0.002
	Th	232	**0.055**	ug/L	31.918	2543	0.004
	U	238	**-0.001**	ug/L	29.379	164	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	0.9999
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	0.9999
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9998
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23	96.184				
	Mg	24	104.507				
	Al	27	103.528				
	P	31	101.034				
	K	39	97.151				
	Ca	43	94.223				
>	Sc	45		97.6			
	Ti	47	71.433				
	V	51					
	Cr	52	76.244				
	Cr	53					
	Mn	55	102.203				
	Fe	57	103.221				
	Co	59	124.591				
	Ni	60	110.935				
	Cu	63					
	Cu	65	99.826				
	Zn	66	95.217				
	Zn	67					
	Zn	68					
>	Ge	74		95.3			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88	105.019				
	Y	89					
	Mo	98	99.238				
	Ag	107					
	Cd	111	127.358				
	Cd	114					
>	In	115		89.9			
	Sn	120					
	Sb	121	240.716				
	Sb	123					
	Ba	135					
	Ba	137	102.698				
	Ho	165					
>	Lu	175		87.3			
	Tl	205					
	Pb	208	97.388				
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
QC Std 4	Ti	47ICSA is out of limits

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Saturday, January 02, 2010 15:37:53
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100102\QC Std 5.008

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**19.259**	ug/L	5.491	21692	0.014
	Be	9	**18.742**	ug/L	1.940	6323	0.004
	B	11	**18.895**	ug/L	3.276	6685	0.004
	Na	23	**97097.835**	ug/L	3.612	363101610	243.306
	Mg	24	**103771.661**	ug/L	7.260	265833554	178.109
	Al	27	**101178.426**	ug/L	2.472	354813615	237.698
	P	31	**101636.206**	ug/L	2.559	17426121	11.673
	K	39	**97470.947**	ug/L	3.286	423142846	283.179
	Ca	43	**93085.255**	ug/L	1.125	959922	0.643
>	Sc	45		ug/L		1492716	1492715.664
	Ti	47	**1434.733**	ug/L	1.448	671216	0.449
	V	51	**21.309**	ug/L	1.749	109635	0.074
	Cr	52	**23.177**	ug/L	2.288	91300	0.062
	Cr	53		ug/L		60265	0.003
	Mn	55	**26.241**	ug/L	2.101	181505	0.121
	Fe	57	**103297.821**	ug/L	1.749	13814272	9.253
	Co	59	**19.878**	ug/L	1.422	103605	0.069
	Ni	60	**21.700**	ug/L	3.056	24581	0.016
	Cu	63		ug/L		54586	0.036
	Cu	65	**21.394**	ug/L	1.354	27599	0.018
	Zn	66	**21.728**	ug/L	1.060	20027	0.065
	Zn	67		ug/L		8812	0.008
	Zn	68		ug/L		13028	0.040
>	Ge	74		ug/L		305552	305552.140
	As	75	**20.251**	ug/L	5.864	17443	0.057
	Se	77		ug/L		6302	0.012
	Se	82	**19.659**	ug/L	0.529	1723	0.006
	Kr	83		ug/L		216	0.000
	Sr	88	**22.949**	ug/L	1.790	228102	1.120
	Y	89		ug/L		384	0.002
	Mo	98	**1975.673**	ug/L	2.482	4830191	23.728
	Ag	107	**19.396**	ug/L	0.833	84801	0.416
	Cd	111	**19.927**	ug/L	1.556	22694	0.111
	Cd	114		ug/L		59797	0.294
>	In	115		ug/L		203591	203590.903
	Sn	120	**20.416**	ug/L	1.173	100677	0.493
	Sb	121	**21.137**	ug/L	2.712	87529	0.429
	Sb	123		ug/L		69149	0.339
	Ba	135		ug/L		24332	0.055
	Ba	137	**20.281**	ug/L	1.699	42225	0.096
	Ho	165		ug/L		1015	0.002
>	Lu	175		ug/L		439392	439391.971
	Tl	205	**23.085**	ug/L	1.176	408067	0.928
	Pb	208	**21.601**	ug/L	0.692	635346	1.445
	Bi	209		ug/L		1714	0.003
	Th	232	**25.050**	ug/L	0.814	889342	2.023
	U	238	**25.007**	ug/L	0.382	980030	2.230

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	0.9999
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	0.9999
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	1.0000
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9998
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7	96.293				
	Be	9	93.710				
	B	11	94.474				
	Na	23	97.098				
	Mg	24	103.772				
	Al	27	101.178				
	P	31	101.636				
	K	39	97.471				
	Ca	43	93.085				
>	Sc	45		96.6			
	Ti	47	71.737				
	V	51	106.547				
	Cr	52	97.794				
	Cr	53					
	Mn	55	101.708				
	Fe	57	103.298				
	Co	59	98.162				
	Ni	60	95.595				
	Cu	63					
	Cu	65	93.422				
	Zn	66	92.068				
	Zn	67					
	Zn	68					
>	Ge	74		94.8			
	As	75	101.253				
	Se	77					
	Se	82	98.297				
	Kr	83					
	Sr	88	108.248				
	Y	89					
	Mo	98	98.784				
	Ag	107	96.978				
	Cd	111	97.681				
	Cd	114					
>	In	115		90.3			
	Sn	120	102.082				
	Sb	121	105.160				
	Sb	123					
	Ba	135					
	Ba	137	98.117				
	Ho	165					
>	Lu	175		87.3			
	Tl	205	115.423				
	Pb	208	106.934				
	Bi	209					
	Th	232	125.252				
	U	238	125.035				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 5	Ti	47	ICSAB is out of limits
QC Std 5	Th	232	ICSAB is out of limits
QC Std 5	U	238	ICSAB is out of limits

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Saturday, January 02, 2010 15:44:00
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100102\QC Std 6.009

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**46.390**	**ug/L**	3.752	56912	0.035
	Be	9	**48.138**	**ug/L**	0.955	17690	0.011
	B	11	**95.574**	**ug/L**	3.390	35459	0.022
	Na	23	**4970.861**	**ug/L**	6.173	20287166	12.456
	Mg	24	**5109.949**	**ug/L**	5.232	14280171	8.770
	Al	27	**4740.206**	**ug/L**	2.957	18143878	11.136
	P	31	**5280.172**	**ug/L**	3.345	992103	0.606
	K	39	**5083.163**	**ug/L**	15.024	24489245	14.768
	Ca	43	**4952.773**	**ug/L**	3.507	55874	0.034
>	Sc	45		**ug/L**		1628586	1628586.386
	Ti	47	**51.933**	**ug/L**	1.609	26893	0.016
	V	51	**50.429**	**ug/L**	4.647	284022	0.175
	Cr	52	**51.106**	**ug/L**	1.917	221050	0.136
	Cr	53		**ug/L**		91698	0.019
	Mn	55	**51.620**	**ug/L**	1.841	388466	0.238
	Fe	57	**5307.014**	**ug/L**	2.758	778444	0.475
	Co	59	**51.040**	**ug/L**	1.718	289967	0.178
	Ni	60	**51.822**	**ug/L**	2.377	63879	0.039
	Cu	63		**ug/L**		148853	0.091
	Cu	65	**50.864**	**ug/L**	0.764	71430	0.044
	Zn	66	**52.092**	**ug/L**	3.046	52801	0.156
	Zn	67		**ug/L**		15041	0.024
	Zn	68		**ug/L**		36883	0.107
>	Ge	74		**ug/L**		337771	337771.375
	As	75	**48.006**	**ug/L**	2.009	45779	0.136
	Se	77		**ug/L**		8016	0.015
	Se	82	**49.759**	**ug/L**	2.758	4856	0.014
	Kr	83		**ug/L**		103	0.000
	Sr	88	**50.815**	**ug/L**	0.511	574629	2.480
	Y	89		**ug/L**		85	0.000
	Mo	98	**50.400**	**ug/L**	1.341	140292	0.605
	Ag	107	**49.913**	**ug/L**	0.658	248259	1.071
	Cd	111	**49.273**	**ug/L**	1.262	63845	0.276
	Cd	114		**ug/L**		156096	0.674
>	In	115		**ug/L**		231681	231681.132
	Sn	120	**51.027**	**ug/L**	1.323	285910	1.233
	Sb	121	**49.057**	**ug/L**	2.935	230839	0.995
	Sb	123		**ug/L**		183062	0.789
	Ba	135		**ug/L**		68681	0.134
	Ba	137	**49.754**	**ug/L**	3.267	120962	0.235
	Ho	165		**ug/L**		51	0.000
>	Lu	175		**ug/L**		513660	513659.903
	Tl	205	**53.631**	**ug/L**	1.057	1107710	2.156
	Pb	208	**52.160**	**ug/L**	1.740	1792831	3.490
	Bi	209		**ug/L**		460	0.000
	Th	232	**50.984**	**ug/L**	1.867	2114912	4.117
	U	238	**52.341**	**ug/L**	3.556	2396902	4.668

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	0.9999
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	0.9999
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	1.0000
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9998
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7	92.779				
	Be	9	96.276				
	B	11	95.574				
	Na	23	99.417				
	Mg	24	102.199				
	Al	27	93.865				
	P	31	105.603				
	K	39	101.663				
	Ca	43	99.055				
>	Sc	45		105.4			
	Ti	47	103.867				
	V	51	100.858				
	Cr	52	102.211				
	Cr	53					
	Mn	55	103.240				
	Fe	57	106.140				
	Co	59	102.081				
	Ni	60	103.645				
	Cu	63					
	Cu	65	101.728				
	Zn	66	104.184				
	Zn	67					
	Zn	68					
>	Ge	74		104.8			
	As	75	96.011				
	Se	77					
	Se	82	99.519				
	Kr	83					
	Sr	88	101.630				
	Y	89					
	Mo	98	100.800				
	Ag	107	99.826				
	Cd	111	98.547				
	Cd	114					
>	In	115		102.7			
	Sn	120	102.053				
	Sb	121	98.115				
	Sb	123					
	Ba	135					
	Ba	137	99.507				
	Ho	165					
>	Lu	175		102.1			
	Tl	205	107.262				
	Pb	208	104.319				
	Bi	209					
	Th	232	101.968				
	U	238	104.681				

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Saturday, January 02, 2010 15:50:09
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100102\QC Std 7.010

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.027**	ug/L	25.543	82	0.000
	Be	9	**0.004**	ug/L	504.741	18	0.000
	B	11	**1.721**	ug/L	28.425	997	0.000
	Na	23	**5.802**	ug/L	12.071	37048	0.015
	Mg	24	**2.068**	ug/L	32.083	9003	0.004
	Al	27	**2.607**	ug/L	32.079	14007	0.006
	P	31	**1.141**	ug/L	103.812	5045	0.000
	K	39	**7.525**	ug/L	86.681	506844	0.022
	Ca	43	**2.740**	ug/L	55.266	210	0.000
>	Sc	45		ug/L		1643134	1643134.231
	Ti	47	**0.107**	ug/L	21.828	459	0.000
	V	51	**0.078**	ug/L	686.952	-344	0.000
	Cr	52	**0.134**	ug/L	72.775	-596	0.000
	Cr	53		ug/L		68886	0.005
	Mn	55	**-0.021**	ug/L	26.910	981	-0.000
	Fe	57	**4.663**	ug/L	29.903	5165	0.000
	Co	59	**0.005**	ug/L	18.068	191	0.000
	Ni	60	**-0.020**	ug/L	58.725	97	-0.000
	Cu	63		ug/L		473	-0.000
	Cu	65	**0.022**	ug/L	22.864	149	0.000
	Zn	66	**0.011**	ug/L	103.269	198	0.000
	Zn	67		ug/L		7060	-0.000
	Zn	68		ug/L		753	-0.000
>	Ge	74		ug/L		337057	337057.446
	As	75	**-0.053**	ug/L	755.668	-117	-0.000
	Se	77		ug/L		4513	0.004
	Se	82	**0.156**	ug/L	124.829	-8	0.000
	Kr	83		ug/L		85	-0.000
	Sr	88	**0.009**	ug/L	9.832	249	0.000
	Y	89		ug/L		63	-0.000
	Mo	98	**0.138**	ug/L	9.221	440	0.002
	Ag	107	**0.009**	ug/L	9.162	90	0.000
	Cd	111	**0.017**	ug/L	52.609	33	0.000
	Cd	114		ug/L		59	0.000
>	In	115		ug/L		232561	232561.426
	Sn	120	**0.123**	ug/L	12.907	982	0.003
	Sb	121	**0.601**	ug/L	19.807	3122	0.012
	Sb	123		ug/L		2452	0.010
	Ba	135		ug/L		60	0.000
	Ba	137	**0.009**	ug/L	37.716	96	0.000
	Ho	165		ug/L		33	0.000
>	Lu	175		ug/L		508675	508675.461
	Tl	205	**0.057**	ug/L	17.186	1556	0.002
	Pb	208	**0.008**	ug/L	23.874	577	0.001
	Bi	209		ug/L		217	0.000
	Th	232	**0.071**	ug/L	16.704	3600	0.006
	U	238	**0.013**	ug/L	8.692	821	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	0.9999
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	0.9999
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9998
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		106.4			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		104.6			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		103.1			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		101.1			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 10
Sample Date/Time: Saturday, January 02, 2010 15:56:15
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100102\QC Std 10.011

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**865.865**	ug/L	5.993	986283	0.652
	Be	9	**901.023**	ug/L	4.591	307384	0.203
	B	11	**0.885**	ug/L	14.025	630	0.000
	Na	23	**51271.551**	ug/L	14.080	194260203	128.476
	Mg	24	**51020.756**	ug/L	6.899	132451056	87.570
	Al	27	**52870.289**	ug/L	3.196	187993828	124.208
	P	31	**25832.992**	ug/L	3.508	4494254	2.967
	K	39	**51587.435**	ug/L	5.016	227228883	149.875
	Ca	43	**47814.214**	ug/L	4.882	499826	0.330
>	Sc	45		ug/L		1514345	1514344.604
	Ti	47	**44.442**	ug/L	4.489	21436	0.014
	V	51	**923.492**	ug/L	3.014	4847402	3.203
	Cr	52	**924.302**	ug/L	2.605	3734845	2.468
	Cr	53		ug/L		528290	0.312
	Mn	55	**917.921**	ug/L	3.215	6402107	4.230
	Fe	57	**53097.104**	ug/L	2.505	7203382	4.756
	Co	59	**880.518**	ug/L	1.955	4647749	3.070
	Ni	60	**875.489**	ug/L	4.227	1001091	0.662
	Cu	63		ug/L		2391389	1.579
	Cu	65	**856.797**	ug/L	2.939	1116545	0.738
	Zn	66	**2011.785**	ug/L	1.143	1867980	6.018
	Zn	67		ug/L		326526	1.031
	Zn	68		ug/L		1363774	4.391
>	Ge	74		ug/L		310389	310388.518
	As	75	**894.026**	ug/L	0.384	784668	2.528
	Se	77		ug/L		35852	0.107
	Se	82	**473.395**	ug/L	0.889	42647	0.137
	Kr	83		ug/L		308	0.001
	Sr	88	**1004.928**	ug/L	1.767	9763280	49.037
	Y	89		ug/L		397	0.002
	Mo	98	**1056.404**	ug/L	1.004	2526402	12.688
	Ag	107	**235.057**	ug/L	2.089	1004560	5.045
	Cd	111	**924.277**	ug/L	2.485	1028996	5.169
	Cd	114		ug/L		2670438	13.413
>	In	115		ug/L		199136	199135.894
	Sn	120	**986.874**	ug/L	1.920	4747441	23.844
	Sb	121	**239.825**	ug/L	2.686	968840	4.865
	Sb	123		ug/L		782334	3.928
	Ba	135		ug/L		1140504	2.532
	Ba	137	**869.406**	ug/L	0.637	1853216	4.114
	Ho	165		ug/L		365	0.001
>	Lu	175		ug/L		450486	450485.806
	Tl	205	**497.473**	ug/L	2.281	9007663	19.999
	Pb	208	**5002.133**	ug/L	1.973	150763172	334.724
	Bi	209		ug/L		4090	0.009
	Th	232	**2695.366**	ug/L	3.398	98014953	217.639
	U	238	**5578.047**	ug/L	2.883	224029211	497.428

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	0.9999
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	0.9999
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	1.0000
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9998
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7	86.586				
	Be	9	90.102				
	B	11					
	Na	23	102.543				
	Mg	24	102.042				
	Al	27	105.741				
	P	31	103.332				
	K	39	103.175				
	Ca	43	95.628				
>	Sc	45		98.0			
	Ti	47					
	V	51	92.349				
	Cr	52	92.430				
	Cr	53					
	Mn	55	91.792				
	Fe	57	106.194				
	Co	59	88.052				
	Ni	60	87.549				
	Cu	63					
	Cu	65	85.680				
	Zn	66	80.471				
	Zn	67					
	Zn	68					
>	Ge	74		96.3			
	As	75	89.403				
	Se	77					
	Se	82	94.679				
	Kr	83					
	Sr	88	100.493				
	Y	89					
	Mo	98	105.640				
	Ag	107	94.023				
	Cd	111	92.428				
	Cd	114					
>	In	115		88.3			
	Sn	120	98.687				
	Sb	121	95.930				
	Sb	123					
	Ba	135					
	Ba	137	86.941				
	Ho	165					
>	Lu	175		89.5			
	Tl	205	99.495				
	Pb	208	100.043				
	Bi	209					
	Th	232	107.815				
	U	238	111.561				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 10	Li	7	LRS is out of limits (+/- 10%)
QC Std 10	Co	59	LRS is out of limits (+/- 10%)
QC Std 10	Ni	60	LRS is out of limits (+/- 10%)
QC Std 10	Cu	65	LRS is out of limits (+/- 10%)
QC Std 10	Zn	66	LRS is out of limits (+/- 10%)
QC Std 10	As	75	LRS is out of limits (+/- 10%)
QC Std 10	Ba	137	LRS is out of limits (+/- 10%)

QC Std 10	U	238LRS is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 11
Sample Date/Time: Saturday, January 02, 2010 16:02:20
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100102\QC Std 11.012

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**44.276**	**ug/L**	6.140	53297	0.033
	Be	9	**46.765**	**ug/L**	1.684	16870	0.011
	B	11	**92.546**	**ug/L**	1.003	33718	0.021
	Na	23	**5007.945**	**ug/L**	2.641	20074115	12.549
	Mg	24	**5080.550**	**ug/L**	3.541	13939612	8.720
	Al	27	**5263.511**	**ug/L**	4.156	19770272	12.366
	P	31	**5400.199**	**ug/L**	1.365	996080	0.620
	K	39	**5051.386**	**ug/L**	7.422	23905149	14.676
	Ca	43	**5009.597**	**ug/L**	3.104	55497	0.035
>	Sc	45		**ug/L**		1598688	1598687.758
	Ti	47	**51.361**	**ug/L**	0.900	26116	0.016
	V	51	**51.080**	**ug/L**	1.981	282451	0.177
	Cr	52	**51.909**	**ug/L**	1.696	220415	0.139
	Cr	53		**ug/L**		89053	0.019
	Mn	55	**52.242**	**ug/L**	1.067	385923	0.241
	Fe	57	**5305.431**	**ug/L**	1.567	764012	0.475
	Co	59	**50.930**	**ug/L**	1.785	284018	0.178
	Ni	60	**51.939**	**ug/L**	1.164	62852	0.039
	Cu	63		**ug/L**		148136	0.092
	Cu	65	**51.561**	**ug/L**	2.100	71081	0.044
	Zn	66	**52.111**	**ug/L**	0.368	51849	0.156
	Zn	67		**ug/L**		15312	0.025
	Zn	68		**ug/L**		36964	0.109
>	Ge	74		**ug/L**		331438	331438.347
	As	75	**49.365**	**ug/L**	1.892	46204	0.140
	Se	77		**ug/L**		7052	0.012
	Se	82	**52.248**	**ug/L**	3.093	5005	0.015
	Kr	83		**ug/L**		118	0.000
	Sr	88	**52.556**	**ug/L**	0.805	584990	2.565
	Y	89		**ug/L**		83	0.000
	Mo	98	**50.358**	**ug/L**	2.089	137964	0.605
	Ag	107	**51.278**	**ug/L**	1.506	251052	1.101
	Cd	111	**50.862**	**ug/L**	1.567	64868	0.284
	Cd	114		**ug/L**		154659	0.678
>	In	115		**ug/L**		228065	228064.868
	Sn	120	**53.277**	**ug/L**	2.202	293813	1.287
	Sb	121	**52.404**	**ug/L**	1.727	242739	1.063
	Sb	123		**ug/L**		191032	0.837
	Ba	135		**ug/L**		68375	0.136
	Ba	137	**50.233**	**ug/L**	2.065	119077	0.238
	Ho	165		**ug/L**		57	0.000
>	Lu	175		**ug/L**		500756	500755.801
	Tl	205	**55.361**	**ug/L**	1.860	1114633	2.226
	Pb	208	**53.708**	**ug/L**	2.040	1799762	3.594
	Bi	209		**ug/L**		485	0.001
	Th	232	**54.709**	**ug/L**	2.572	2212242	4.418
	U	238	**55.154**	**ug/L**	2.950	2462479	4.918

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	0.9999
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	0.9999
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	1.0000
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9998
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7	88.552				
	Be	9	93.530				
	B	11	92.546				
	Na	23	100.159				
	Mg	24	101.611				
	Al	27	104.228				
	P	31	108.004				
	K	39	101.028				
	Ca	43	100.192				
>	Sc	45		103.5			
	Ti	47	102.721				
	V	51	102.160				
	Cr	52	103.817				
	Cr	53					
	Mn	55	104.484				
	Fe	57	106.109				
	Co	59	101.859				
	Ni	60	103.878				
	Cu	63					
	Cu	65	103.121				
	Zn	66	104.223				
	Zn	67					
	Zn	68					
>	Ge	74		102.8			
	As	75	98.730				
	Se	77					
	Se	82	104.496				
	Kr	83					
	Sr	88	105.111				
	Y	89					
	Mo	98	100.716				
	Ag	107	102.556				
	Cd	111	101.724				
	Cd	114					
>	In	115		101.1			
	Sn	120	106.555				
	Sb	121	104.809				
	Sb	123					
	Ba	135					
	Ba	137	100.466				
	Ho	165					
>	Lu	175		99.5			
	Tl	205	110.723				
	Pb	208	107.416				
	Bi	209					
	Th	232	109.418				
	U	238	110.308				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 11	Li	7	CCV is out of limits (+/- 10%)
QC Std 11	Tl	205	CCV is out of limits (+/- 10%)
QC Std 11	U	238	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 12
Sample Date/Time: Saturday, January 02, 2010 16:08:27
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100102\QC Std 12.013

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.107**	**ug/L**	9.314	177	0.000
	Be	9	**0.013**	**ug/L**	156.126	21	0.000
	B	11	**1.657**	**ug/L**	21.806	950	0.000
	Na	23	**2.960**	**ug/L**	18.138	24688	0.007
	Mg	24	**0.434**	**ug/L**	118.270	4334	0.001
	Al	27	**1.812**	**ug/L**	26.543	10671	0.004
	P	31	**0.210**	**ug/L**	519.615	4753	0.000
	K	39	**6.810**	**ug/L**	85.633	492368	0.020
	Ca	43	**0.904**	**ug/L**	132.495	185	0.000
>	Sc	45		**ug/L**		1604971	1604970.815
	Ti	47	**-0.095**	**ug/L**	39.508	346	-0.000
	V	51	**0.292**	**ug/L**	169.531	876	0.001
	Cr	52	**0.083**	**ug/L**	20.183	-794	0.000
	Cr	53		**ug/L**		63724	0.003
	Mn	55	**-0.004**	**ug/L**	59.705	1087	-0.000
	Fe	57	**0.166**	**ug/L**	978.696	4397	0.000
	Co	59	**0.039**	**ug/L**	10.961	375	0.000
	Ni	60	**0.030**	**ug/L**	77.701	155	0.000
	Cu	63		**ug/L**		593	0.000
	Cu	65	**0.047**	**ug/L**	27.311	179	0.000
	Zn	66	**0.034**	**ug/L**	15.429	219	0.000
	Zn	67		**ug/L**		7286	0.001
	Zn	68		**ug/L**		882	0.000
>	Ge	74		**ug/L**		334996	334995.905
	As	75	**0.132**	**ug/L**	97.360	60	0.000
	Se	77		**ug/L**		3756	0.002
	Se	82	**-0.052**	**ug/L**	430.026	-29	-0.000
	Kr	83		**ug/L**		102	0.000
	Sr	88	**0.019**	**ug/L**	12.578	355	0.001
	Y	89		**ug/L**		66	0.000
	Mo	98	**0.153**	**ug/L**	6.540	471	0.002
	Ag	107	**0.014**	**ug/L**	10.967	114	0.000
	Cd	111	**0.029**	**ug/L**	52.599	48	0.000
	Cd	114		**ug/L**		88	0.000
>	In	115		**ug/L**		227948	227947.922
	Sn	120	**0.672**	**ug/L**	5.368	3989	0.016
	Sb	121	**1.360**	**ug/L**	13.228	6564	0.028
	Sb	123		**ug/L**		5168	0.022
	Ba	135		**ug/L**		85	0.000
	Ba	137	**0.030**	**ug/L**	28.988	145	0.000
	Ho	165		**ug/L**		29	-0.000
>	Lu	175		**ug/L**		504385	504385.415
	Tl	205	**0.078**	**ug/L**	9.989	1950	0.003
	Pb	208	**0.083**	**ug/L**	26.038	3117	0.006
	Bi	209		**ug/L**		224	0.000
	Th	232	**0.159**	**ug/L**	7.399	7156	0.013
	U	238	**0.117**	**ug/L**	20.443	5471	0.010

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	0.9999
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	0.9999
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	1.0000
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9998
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		103.9			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		103.9			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		101.1			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		100.2			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 8
Sample Date/Time: Saturday, January 02, 2010 16:57:20
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100102\QC Std 8.021

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**52.793**	ug/L	3.409	60340	0.040
	Be	9	**53.695**	ug/L	2.361	18382	0.012
	B	11	**103.737**	ug/L	0.982	35830	0.023
	Na	23	**5451.384**	ug/L	13.613	20731679	13.660
	Mg	24	**5282.809**	ug/L	2.312	13759145	9.067
	Al	27	**5038.161**	ug/L	4.780	17958358	11.836
	P	31	**5257.749**	ug/L	0.215	920575	0.604
	K	39	**5119.544**	ug/L	4.473	22999952	14.874
	Ca	43	**5050.621**	ug/L	1.195	53091	0.035
>	Sc	45		ug/L		1517135	1517135.291
	Ti	47	**50.073**	ug/L	2.578	24170	0.016
	V	51	**49.876**	ug/L	3.131	261740	0.173
	Cr	52	**50.505**	ug/L	1.031	203518	0.135
	Cr	53		ug/L		88015	0.021
	Mn	55	**52.532**	ug/L	0.254	368297	0.242
	Fe	57	**5320.211**	ug/L	0.869	727127	0.477
	Co	59	**50.491**	ug/L	2.290	267237	0.176
	Ni	60	**51.221**	ug/L	0.210	58828	0.039
	Cu	63		ug/L		135664	0.089
	Cu	65	**49.541**	ug/L	0.663	64819	0.043
	Zn	66	**51.706**	ug/L	3.104	48547	0.155
	Zn	67		ug/L		14575	0.026
	Zn	68		ug/L		34291	0.107
>	Ge	74		ug/L		312894	312894.284
	As	75	**47.921**	ug/L	3.760	42322	0.136
	Se	77		ug/L		7344	0.014
	Se	82	**49.688**	ug/L	0.374	4493	0.014
	Kr	83		ug/L		105	0.000
	Sr	88	**52.976**	ug/L	0.209	557403	2.585
	Y	89		ug/L		83	0.000
	Mo	98	**48.897**	ug/L	1.699	126647	0.587
	Ag	107	**50.132**	ug/L	1.735	232010	1.076
	Cd	111	**50.814**	ug/L	0.416	61266	0.284
	Cd	114		ug/L		147966	0.686
>	In	115		ug/L		215573	215572.900
	Sn	120	**52.180**	ug/L	0.552	272051	1.261
	Sb	121	**49.878**	ug/L	5.534	218394	1.012
	Sb	123		ug/L		173475	0.804
	Ba	135		ug/L		66177	0.133
	Ba	137	**48.789**	ug/L	1.072	115085	0.231
	Ho	165		ug/L		56	0.000
>	Lu	175		ug/L		498208	498208.470
	Tl	205	**54.379**	ug/L	1.395	1089471	2.186
	Pb	208	**52.353**	ug/L	0.649	1745628	3.503
	Bi	209		ug/L		447	0.000
	Th	232	**51.056**	ug/L	0.192	2054552	4.123
	U	238	**52.614**	ug/L	0.469	2337765	4.692

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	0.9999
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	0.9999
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9998
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7	105.586				
	Be	9	107.390				
	B	11	103.737				
	Na	23	109.028				
	Mg	24	105.656				
	Al	27	99.766				
	P	31	105.155				
	K	39	102.391				
	Ca	43	101.012				
>	Sc	45		98.2			
	Ti	47	100.147				
	V	51	99.752				
	Cr	52	101.010				
	Cr	53					
	Mn	55	105.064				
	Fe	57	106.404				
	Co	59	100.983				
	Ni	60	102.442				
	Cu	63					
	Cu	65	99.083				
	Zn	66	103.412				
	Zn	67					
	Zn	68					
>	Ge	74		97.1			
	As	75	95.843				
	Se	77					
	Se	82	99.376				
	Kr	83					
	Sr	88	105.952				
	Y	89					
	Mo	98	97.794				
	Ag	107	100.265				
	Cd	111	101.628				
	Cd	114					
>	In	115		95.6			
	Sn	120	104.361				
	Sb	121	99.755				
	Sb	123					
	Ba	135					
	Ba	137	97.577				
	Ho	165					
>	Lu	175		99.0			
	Tl	205	108.758				
	Pb	208	104.706				
	Bi	209					
	Th	232	102.111				
	U	238	105.228				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 9
Sample Date/Time: Saturday, January 02, 2010 17:03:28
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100102\QC Std 9.022

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.030**	**ug/L**	22.350	78	0.000
	Be	9	**0.010**	**ug/L**	99.601	19	0.000
	B	11	**2.013**	**ug/L**	16.644	1005	0.000
	Na	23	**2.684**	**ug/L**	45.052	22017	0.007
	Mg	24	**0.166**	**ug/L**	140.790	3334	0.000
	Al	27	**0.506**	**ug/L**	87.004	5334	0.001
	P	31	**-0.862**	**ug/L**	49.664	4255	-0.000
	K	39	**-0.203**	**ug/L**	3023.952	429037	-0.001
	Ca	43	**0.630**	**ug/L**	322.472	169	0.000
>	Sc	45		**ug/L**		1498050	1498050.183
	Ti	47	**-0.103**	**ug/L**	15.460	320	-0.000
	V	51	**0.051**	**ug/L**	186.548	-419	0.000
	Cr	52	**0.475**	**ug/L**	4.366	825	0.001
	Cr	53		**ug/L**		61146	0.004
	Mn	55	**-0.014**	**ug/L**	14.142	942	-0.000
	Fe	57	**0.319**	**ug/L**	394.486	4128	0.000
	Co	59	**0.009**	**ug/L**	62.505	194	0.000
	Ni	60	**-0.014**	**ug/L**	41.930	94	-0.000
	Cu	63		**ug/L**		401	-0.000
	Cu	65	**0.010**	**ug/L**	25.809	119	0.000
	Zn	66	**0.002**	**ug/L**	587.706	170	0.000
	Zn	67		**ug/L**		6759	0.001
	Zn	68		**ug/L**		746	0.000
>	Ge	74		**ug/L**		305409	305408.670
	As	75	**-0.014**	**ug/L**	1748.489	-69	-0.000
	Se	77		**ug/L**		3792	0.003
	Se	82	**0.160**	**ug/L**	59.744	-7	0.000
	Kr	83		**ug/L**		82	0.000
	Sr	88	**0.012**	**ug/L**	41.246	266	0.001
	Y	89		**ug/L**		51	-0.000
	Mo	98	**0.054**	**ug/L**	9.371	191	0.001
	Ag	107	**0.010**	**ug/L**	18.431	90	0.000
	Cd	111	**0.019**	**ug/L**	56.647	33	0.000
	Cd	114		**ug/L**		56	0.000
>	In	115		**ug/L**		214850	214849.540
	Sn	120	**0.128**	**ug/L**	12.069	933	0.003
	Sb	121	**0.686**	**ug/L**	13.902	3249	0.014
	Sb	123		**ug/L**		2638	0.011
	Ba	135		**ug/L**		166	0.000
	Ba	137	**0.002**	**ug/L**	293.714	77	0.000
	Ho	165		**ug/L**		30	-0.000
>	Lu	175		**ug/L**		498274	498273.976
	Tl	205	**0.313**	**ug/L**	10.292	6641	0.013
	Pb	208	**0.011**	**ug/L**	31.333	679	0.001
	Bi	209		**ug/L**		211	0.000
	Th	232	**0.071**	**ug/L**	15.076	3540	0.006
	U	238	**0.018**	**ug/L**	26.109	1026	0.002

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	0.9999
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	0.9999
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	1.0000
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9998
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		97.0			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		94.8			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		95.3			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		99.0			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 8
Sample Date/Time: Saturday, January 02, 2010 17:52:25
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100102\QC Std 8.030

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**49.580**	**ug/L**	4.321	56019	0.037
	Be	9	**52.674**	**ug/L**	1.466	17823	0.012
	B	11	**101.394**	**ug/L**	1.400	34621	0.023
	Na	23	**4850.193**	**ug/L**	9.671	18222415	12.154
	Mg	24	**5127.880**	**ug/L**	4.315	13197369	8.801
	Al	27	**5141.052**	**ug/L**	3.845	18109866	12.078
	P	31	**5251.557**	**ug/L**	2.558	908684	0.603
	K	39	**4921.043**	**ug/L**	4.203	21877630	14.297
	Ca	43	**4983.397**	**ug/L**	2.683	51770	0.034
>	Sc	45		**ug/L**		1499610	1499609.630
	Ti	47	**49.395**	**ug/L**	1.129	23574	0.015
	V	51	**49.619**	**ug/L**	1.178	257394	0.172
	Cr	52	**50.910**	**ug/L**	2.009	202758	0.136
	Cr	53		**ug/L**		84841	0.020
	Mn	55	**52.162**	**ug/L**	1.851	361425	0.240
	Fe	57	**5207.091**	**ug/L**	2.134	703444	0.466
	Co	59	**49.921**	**ug/L**	2.370	261128	0.174
	Ni	60	**50.209**	**ug/L**	3.408	56986	0.038
	Cu	63		**ug/L**		132513	0.088
	Cu	65	**49.370**	**ug/L**	0.354	63850	0.043
	Zn	66	**52.356**	**ug/L**	3.219	48084	0.157
	Zn	67		**ug/L**		15421	0.029
	Zn	68		**ug/L**		34012	0.109
>	Ge	74		**ug/L**		306051	306051.005
	As	75	**47.846**	**ug/L**	1.780	41342	0.135
	Se	77		**ug/L**		6180	0.011
	Se	82	**49.927**	**ug/L**	2.163	4415	0.014
	Kr	83		**ug/L**		126	0.000
	Sr	88	**53.070**	**ug/L**	1.703	543367	2.590
	Y	89		**ug/L**		87	0.000
	Mo	98	**50.229**	**ug/L**	3.364	126574	0.603
	Ag	107	**49.764**	**ug/L**	2.451	224098	1.068
	Cd	111	**51.101**	**ug/L**	1.597	59957	0.286
	Cd	114		**ug/L**		143142	0.682
>	In	115		**ug/L**		209813	209813.258
	Sn	120	**51.739**	**ug/L**	3.069	262450	1.250
	Sb	121	**50.004**	**ug/L**	8.193	212883	1.014
	Sb	123		**ug/L**		167987	0.800
	Ba	135		**ug/L**		64082	0.132
	Ba	137	**49.210**	**ug/L**	1.708	113261	0.233
	Ho	165		**ug/L**		50	0.000
>	Lu	175		**ug/L**		486117	486116.626
	Tl	205	**55.070**	**ug/L**	0.602	1076533	2.214
	Pb	208	**52.947**	**ug/L**	1.455	1722565	3.543
	Bi	209		**ug/L**		425	0.000
	Th	232	**51.285**	**ug/L**	0.627	2013665	4.141
	U	238	**51.779**	**ug/L**	1.305	2244797	4.617

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	0.9999
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	0.9999
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	1.0000
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9998
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈	Li	7	99.161				
|	Be	9	105.347				
|	B	11	101.394				
|	Na	23	97.004				
|	Mg	24	102.558				
|	Al	27	101.803				
|	P	31	105.031				
|	K	39	98.421				
|	Ca	43	99.668				
|>	Sc	45		97.1			
|	Ti	47	98.790				
|	V	51	99.238				
|	Cr	52	101.820				
|	Cr	53					
|	Mn	55	104.324				
|	Fe	57	104.142				
|	Co	59	99.841				
|	Ni	60	100.418				
|	Cu	63					
⌊	Cu	65	98.740				
⌈	Zn	66	104.713				
|	Zn	67					
|	Zn	68					
|>	Ge	74		95.0			
|	As	75	95.692				
|	Se	77					
|	Se	82	99.854				
⌊	Kr	83					
⌈	Sr	88	106.139				
|	Y	89					
|	Mo	98	100.458				
|	Ag	107	99.529				
|	Cd	111	102.202				
|	Cd	114					
|>	In	115		93.0			
|	Sn	120	103.478				
|	Sb	121	100.008				
⌊	Sb	123					
⌈	Ba	135					
|	Ba	137	98.421				
|	Ho	165					
|>	Lu	175		96.6			
|	Tl	205	110.140				
|	Pb	208	105.894				
|	Bi	209					
|	Th	232	102.569				
⌊	U	238	103.559				

QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
QC Std 8	Tl	205CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 9
Sample Date/Time: Saturday, January 02, 2010 17:58:33
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100102\QC Std 9.031

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	0.023	ug/L	13.866	69	0.000
	Be	9	0.010	ug/L	172.530	19	0.000
	B	11	1.849	ug/L	28.555	938	0.000
	Na	23	2.943	ug/L	68.301	22686	0.007
	Mg	24	0.047	ug/L	1440.191	3000	0.000
	Al	27	0.813	ug/L	22.411	6335	0.002
	P	31	0.115	ug/L	905.020	4369	0.000
	K	39	-4.534	ug/L	128.379	405013	-0.013
	Ca	43	0.122	ug/L	1073.961	162	0.000
>	Sc	45		ug/L		1479345	1479344.513
	Ti	47	-0.087	ug/L	124.751	323	-0.000
	V	51	-0.038	ug/L	1321.282	-851	-0.000
	Cr	52	0.138	ug/L	13.064	-517	0.000
	Cr	53		ug/L		55963	0.001
	Mn	55	-0.016	ug/L	16.687	920	-0.000
	Fe	57	-0.163	ug/L	361.060	4013	-0.000
	Co	59	0.007	ug/L	80.547	180	0.000
	Ni	60	-0.015	ug/L	33.696	92	-0.000
	Cu	63		ug/L		366	-0.000
	Cu	65	0.008	ug/L	93.634	116	0.000
	Zn	66	0.004	ug/L	51.866	171	0.000
	Zn	67		ug/L		7005	0.002
	Zn	68		ug/L		742	0.000
>	Ge	74		ug/L		304208	304208.187
	As	75	-0.069	ug/L	377.608	-117	-0.000
	Se	77		ug/L		2747	0.000
	Se	82	-0.060	ug/L	92.636	-27	-0.000
	Kr	83		ug/L		86	0.000
	Sr	88	0.010	ug/L	17.442	242	0.001
	Y	89		ug/L		57	-0.000
	Mo	98	0.045	ug/L	25.138	162	0.001
	Ag	107	0.007	ug/L	13.617	74	0.000
	Cd	111	0.012	ug/L	51.885	23	0.000
	Cd	114		ug/L		49	0.000
>	In	115		ug/L		209153	209153.333
	Sn	120	0.133	ug/L	2.707	936	0.003
	Sb	121	0.644	ug/L	18.464	2989	0.013
	Sb	123		ug/L		2301	0.010
	Ba	135		ug/L		42	-0.000
	Ba	137	-0.001	ug/L	295.105	69	-0.000
	Ho	165		ug/L		29	-0.000
>	Lu	175		ug/L		493146	493146.291
	Tl	205	0.087	ug/L	10.978	2089	0.003
	Pb	208	0.011	ug/L	6.374	643	0.001
	Bi	209		ug/L		201	-0.000
	Th	232	0.067	ug/L	17.488	3329	0.005
	U	238	0.015	ug/L	9.828	877	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	0.9999
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	0.9999
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9998
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		95.8			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		94.4			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		92.7			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		98.0			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202004872
Sample Date/Time: Saturday, January 02, 2010 18:04:44
Sample Type:
Sample Description: LANL 6020 TB
Number of Replicates: 3
Batch ID: 937458|1|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100102\1202004872.032

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	0.065	ug/L	11.180	122	0.000
	Be	9	-0.012	ug/L	174.208	12	-0.000
	B	11	0.804	ug/L	13.810	622	0.000
	Na	23	136071.677	ug/L	3.874	532616362	340.966
	Mg	24	0.113	ug/L	195.436	3334	0.000
	Al	27	1.080	ug/L	29.869	7669	0.003
	P	31	21.271	ug/L	4.377	8404	0.002
	K	39	31.484	ug/L	7.630	590985	0.091
	Ca	43	21.559	ug/L	9.239	403	0.000
>	Sc	45		ug/L		1561866	1561865.635
	Ti	47	1.511	ug/L	5.389	1123	0.000
	V	51	-1.407	ug/L	125.530	-8392	-0.005
	Cr	52	1.847	ug/L	17.316	6583	0.005
	Cr	53		ug/L		129122	0.046
	Mn	55	0.155	ug/L	3.188	2199	0.001
	Fe	57	8.243	ug/L	18.485	5411	0.001
	Co	59	0.014	ug/L	11.687	232	0.000
	Ni	60	0.991	ug/L	3.623	1284	0.001
	Cu	63		ug/L		3346	0.002
	Cu	65	0.363	ug/L	6.538	600	0.000
	Zn	66	1.026	ug/L	2.879	1102	0.003
	Zn	67		ug/L		27705	0.070
	Zn	68		ug/L		2308	0.005
>	Ge	74		ug/L		304355	304355.047
	As	75	-0.288	ug/L	88.216	-309	-0.001
	Se	77		ug/L		9139	0.021
	Se	82	0.155	ug/L	128.599	-8	0.000
	Kr	83		ug/L		90	0.000
	Sr	88	0.215	ug/L	4.147	2372	0.010
	Y	89		ug/L		80	0.000
	Mo	98	0.028	ug/L	20.155	122	0.000
	Ag	107	0.008	ug/L	16.068	77	0.000
	Cd	111	-0.030	ug/L	20.820	-26	-0.000
	Cd	114		ug/L		21	-0.000
>	In	115		ug/L		213273	213272.667
	Sn	120	0.346	ug/L	15.110	2050	0.008
	Sb	121	0.264	ug/L	38.946	1400	0.005
	Sb	123		ug/L		1143	0.004
	Ba	135		ug/L		247	0.000
	Ba	137	0.136	ug/L	9.450	398	0.001
	Ho	165		ug/L		31	0.000
>	Lu	175		ug/L		506567	506567.255
	Tl	205	0.039	ug/L	4.176	1170	0.002
	Pb	208	0.046	ug/L	5.071	1852	0.003
	Bi	209		ug/L		231	0.000
	Th	232	0.070	ug/L	48.909	3556	0.006
	U	238	0.069	ug/L	1.161	3346	0.006

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	0.9999
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	0.9999
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9998
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		101.1			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		94.4			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		94.6			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		100.7			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Na 23 Upper, S, EE	Na	23	Sample is out of limits (over linear range)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: 1202005971
Sample Date/Time: Saturday, January 02, 2010 18:10:54
Sample Type:
Sample Description: LANL 6020 MB
Number of Replicates: 3
Batch ID: 937458|1|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100102\1202005971.033

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.082**	ug/L	11.171	139	0.000
	Be	9	**-0.004**	ug/L	416.327	14	-0.000
	B	11	**0.405**	ug/L	19.567	471	0.000
	Na	23	**13.204**	ug/L	29.984	62810	0.033
	Mg	24	**-0.238**	ug/L	248.860	2334	-0.000
	Al	27	**0.568**	ug/L	73.677	5668	0.001
	P	31	**17.255**	ug/L	8.632	7512	0.002
	K	39	**-1.407**	ug/L	517.301	431791	-0.004
	Ca	43	**11.818**	ug/L	9.780	291	0.000
>	Sc	45		ug/L		1526424	1526423.551
	Ti	47	**0.074**	ug/L	32.717	410	0.000
	V	51	**-1.171**	ug/L	117.040	-6933	-0.004
	Cr	52	**0.902**	ug/L	8.537	2580	0.002
	Cr	53		ug/L		134267	0.051
	Mn	55	**0.122**	ug/L	12.499	1920	0.001
	Fe	57	**5.921**	ug/L	19.111	4972	0.001
	Co	59	**-0.001**	ug/L	497.292	148	-0.000
	Ni	60	**0.008**	ug/L	152.741	122	0.000
	Cu	63		ug/L		844	0.000
	Cu	65	**0.204**	ug/L	9.545	377	0.000
	Zn	66	**0.975**	ug/L	4.339	1070	0.003
	Zn	67		ug/L		28751	0.072
	Zn	68		ug/L		2329	0.005
>	Ge	74		ug/L		308713	308712.672
	As	75	**-0.299**	ug/L	328.308	-321	-0.001
	Se	77		ug/L		9244	0.021
	Se	82	**0.165**	ug/L	70.895	-7	0.000
	Kr	83		ug/L		82	0.000
	Sr	88	**0.024**	ug/L	4.084	394	0.001
	Y	89		ug/L		72	0.000
	Mo	98	**0.003**	ug/L	24.903	60	0.000
	Ag	107	**0.003**	ug/L	44.058	56	0.000
	Cd	111	**0.005**	ug/L	92.176	16	0.000
	Cd	114		ug/L		14	-0.000
>	In	115		ug/L		218101	218101.288
	Sn	120	**0.373**	ug/L	6.737	2240	0.009
	Sb	121	**0.045**	ug/L	20.169	464	0.001
	Sb	123		ug/L		374	0.001
	Ba	135		ug/L		44	-0.000
	Ba	137	**0.002**	ug/L	220.086	78	0.000
	Ho	165		ug/L		28	-0.000
>	Lu	175		ug/L		510679	510678.528
	Tl	205	**0.028**	ug/L	8.012	961	0.001
	Pb	208	**0.002**	ug/L	33.074	377	0.000
	Bi	209		ug/L		114	-0.000
	Th	232	**0.011**	ug/L	25.895	1143	0.001
	U	238	**0.001**	ug/L	24.759	263	0.000

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	0.9999
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	0.9999
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	1.0000
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9998
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		98.8			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		95.8			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		96.7			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		101.5			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202005972
Sample Date/Time: Saturday, January 02, 2010 18:17:03
Sample Type:
Sample Description: LANL 6020 LCS
Number of Replicates: 3
Batch ID: 937458|1|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100102\1202005972.034

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**53.611**	ug/L	5.724	61932	0.040
	Be	9	**55.010**	ug/L	1.226	19038	0.012
	B	11	**108.451**	ug/L	0.737	37856	0.024
	Na	23	**1983.541**	ug/L	16.230	7633004	4.970
	Mg	24	**1929.158**	ug/L	7.524	5079270	3.311
	Al	27	**2034.073**	ug/L	4.879	7331141	4.779
	P	31	**2016.924**	ug/L	1.101	359794	0.232
	K	39	**1971.641**	ug/L	5.276	9229338	5.728
	Ca	43	**2063.090**	ug/L	2.455	22027	0.014
>	Sc	45		ug/L		1533885	1533884.605
	Ti	47	**43.993**	ug/L	1.448	21515	0.014
	V	51	**47.975**	ug/L	3.585	254498	0.166
	Cr	52	**50.987**	ug/L	0.371	207736	0.136
	Cr	53		ug/L		166571	0.072
	Mn	55	**52.815**	ug/L	2.677	374343	0.243
	Fe	57	**2184.198**	ug/L	3.381	304231	0.196
	Co	59	**49.787**	ug/L	1.576	266405	0.174
	Ni	60	**50.269**	ug/L	0.699	58377	0.038
	Cu	63		ug/L		132132	0.086
	Cu	65	**48.451**	ug/L	1.353	64091	0.042
	Zn	66	**47.593**	ug/L	0.375	43874	0.142
	Zn	67		ug/L		38506	0.104
	Zn	68		ug/L		32283	0.103
>	Ge	74		ug/L		306975	306975.482
	As	75	**46.206**	ug/L	1.357	40054	0.131
	Se	77		ug/L		12771	0.033
	Se	82	**46.909**	ug/L	2.142	4159	0.014
	Kr	83		ug/L		106	0.000
	Sr	88	**52.994**	ug/L	0.684	563629	2.586
	Y	89		ug/L		81	0.000
	Mo	98	**49.455**	ug/L	2.428	129457	0.594
	Ag	107	**49.219**	ug/L	2.255	230256	1.056
	Cd	111	**48.560**	ug/L	1.943	59174	0.272
	Cd	114		ug/L		141418	0.649
>	In	115		ug/L		217906	217906.253
	Sn	120	**51.919**	ug/L	0.967	273603	1.254
	Sb	121	**52.843**	ug/L	0.340	233845	1.072
	Sb	123		ug/L		186423	0.855
	Ba	135		ug/L		66448	0.131
	Ba	137	**48.415**	ug/L	1.361	115850	0.229
	Ho	165		ug/L		61	0.000
>	Lu	175		ug/L		505405	505405.250
	Tl	205	**50.905**	ug/L	1.489	1034625	2.046
	Pb	208	**51.994**	ug/L	0.687	1758690	3.479
	Bi	209		ug/L		1353421	2.677
	Th	232	**48.706**	ug/L	1.289	1988249	3.933
	U	238	**49.955**	ug/L	1.548	2251603	4.455

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	0.9999
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	0.9999
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9998
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		99.3			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		95.3			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		96.6			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		100.4			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202005973
Sample Date/Time: Saturday, January 02, 2010 18:29:23
Sample Type:
Sample Description: LANL 6020 DUP
Number of Replicates: 3
Batch ID: 937458|1|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100102\1202005973.036

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**1.232**	**ug/L**	3.990	1533	0.001
	Be	9	**0.095**	**ug/L**	15.330	51	0.000
	B	11	**15.460**	**ug/L**	6.493	5930	0.003
	Na	23	**116409.047**	**ug/L**	2.534	467301840	291.696
	Mg	24	**1203.221**	**ug/L**	4.493	3309530	2.065
	Al	27	**656.721**	**ug/L**	4.037	2473603	1.543
	P	31	**23.329**	**ug/L**	12.563	8992	0.003
	K	39	**1179.687**	**ug/L**	5.767	5944942	3.427
	Ca	43	**4396.618**	**ug/L**	0.612	48808	0.030
>	Sc	45		**ug/L**		1601581	1601580.562
	Ti	47	**16.068**	**ug/L**	1.678	8455	0.005
	V	51	**-1.088**	**ug/L**	158.722	-6885	-0.004
	Cr	52	**3.506**	**ug/L**	6.992	13837	0.009
	Cr	53		**ug/L**		147275	0.055
	Mn	55	**203.547**	**ug/L**	2.845	1502761	0.938
	Fe	57	**433.150**	**ug/L**	2.810	66488	0.039
	Co	59	**3.719**	**ug/L**	3.576	20919	0.013
	Ni	60	**1.729**	**ug/L**	6.626	2209	0.001
	Cu	63		**ug/L**		3416	0.002
	Cu	65	**0.423**	**ug/L**	3.008	698	0.000
	Zn	66	**5.795**	**ug/L**	4.108	5584	0.017
	Zn	67		**ug/L**		30400	0.076
	Zn	68		**ug/L**		6643	0.019
>	Ge	74		**ug/L**		312266	312265.805
	As	75	**-0.779**	**ug/L**	83.070	-744	-0.002
	Se	77		**ug/L**		12246	0.030
	Se	82	**0.013**	**ug/L**	370.620	-21	0.000
	Kr	83		**ug/L**		103	0.000
	Sr	88	**40.096**	**ug/L**	1.409	421764	1.957
	Y	89		**ug/L**		3527	0.016
	Mo	98	**0.040**	**ug/L**	16.581	154	0.000
	Ag	107	**0.005**	**ug/L**	34.977	66	0.000
	Cd	111	**-0.045**	**ug/L**	14.549	-44	-0.000
	Cd	114		**ug/L**		183	0.001
>	In	115		**ug/L**		215521	215521.226
	Sn	120	**0.283**	**ug/L**	9.245	1741	0.007
	Sb	121	**0.046**	**ug/L**	16.417	460	0.001
	Sb	123		**ug/L**		389	0.001
	Ba	135		**ug/L**		138869	0.268
	Ba	137	**98.096**	**ug/L**	1.559	240957	0.464
	Ho	165		**ug/L**		309	0.001
>	Lu	175		**ug/L**		519020	519020.278
	Tl	205	**0.173**	**ug/L**	6.996	3991	0.007
	Pb	208	**0.572**	**ug/L**	2.429	20161	0.038
	Bi	209		**ug/L**		255	0.000
	Th	232	**0.239**	**ug/L**	2.983	10721	0.019
	U	238	**0.128**	**ug/L**	3.747	6151	0.011

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	0.9999
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	0.9999
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	1.0000
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9998
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		103.7			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		96.9			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		95.6			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		103.2			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Na 23 Upper, S, EE	Na	23	Sample is out of limits (over linear range)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: 1202004870
Sample Date/Time: Saturday, January 02, 2010 18:35:34
Sample Type:
Sample Description: LANL 6020 MS
Number of Replicates: 3
Batch ID: 937458|1|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100102\1202004870.037

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**97.871**	**ug/L**	5.477	115806	0.074
	Be	9	**202.167**	**ug/L**	0.803	71611	0.046
	B	11	**216.299**	**ug/L**	3.753	76970	0.049
	Na	23	**128130.664**	**ug/L**	3.621	504335847	321.068
	Mg	24	**1360.644**	**ug/L**	4.790	3670464	2.335
	Al	27	**1746.448**	**ug/L**	8.785	6446828	4.103
	P	31	**26.469**	**ug/L**	7.996	9390	0.003
	K	39	**1766.266**	**ug/L**	1.476	8510686	5.131
	Ca	43	**4850.687**	**ug/L**	2.923	52791	0.034
>	Sc	45		**ug/L**		1570771	1570770.934
	Ti	47	**16.042**	**ug/L**	3.083	8279	0.005
	V	51	**186.105**	**ug/L**	2.035	1013108	0.646
	Cr	52	**418.808**	**ug/L**	1.236	1755466	1.118
	Cr	53		**ug/L**		373632	0.201
	Mn	55	**370.766**	**ug/L**	0.756	2684617	1.708
	Fe	57	**736.465**	**ug/L**	2.452	107897	0.066
	Co	59	**180.164**	**ug/L**	1.370	986860	0.628
	Ni	60	**185.347**	**ug/L**	2.782	220064	0.140
	Cu	63		**ug/L**		498374	0.317
	Cu	65	**179.669**	**ug/L**	1.872	243077	0.155
	Zn	66	**183.007**	**ug/L**	0.798	170662	0.547
	Zn	67		**ug/L**		58438	0.167
	Zn	68		**ug/L**		128735	0.411
>	Ge	74		**ug/L**		311442	311442.451
	As	75	**438.377**	**ug/L**	2.733	385983	1.240
	Se	77		**ug/L**		16618	0.044
	Se	82	**91.687**	**ug/L**	1.409	8271	0.027
	Kr	83		**ug/L**		189	0.000
	Sr	88	**218.561**	**ug/L**	1.520	2269952	10.665
	Y	89		**ug/L**		4182	0.019
	Mo	98	**193.706**	**ug/L**	3.219	495052	2.326
	Ag	107	**46.532**	**ug/L**	3.635	212556	0.999
	Cd	111	**94.245**	**ug/L**	3.342	112143	0.527
	Cd	114		**ug/L**		266670	1.253
>	In	115		**ug/L**		212877	212877.247
	Sn	120	**194.174**	**ug/L**	3.439	998580	4.691
	Sb	121	**198.453**	**ug/L**	3.241	856822	4.026
	Sb	123		**ug/L**		688191	3.233
	Ba	135		**ug/L**		1277246	2.497
	Ba	137	**996.378**	**ug/L**	1.229	2411471	4.715
	Ho	165		**ug/L**		392	0.001
>	Lu	175		**ug/L**		511455	511454.640
	Tl	205	**167.180**	**ug/L**	0.451	3437756	6.721
	Pb	208	**446.284**	**ug/L**	1.016	15274565	29.864
	Bi	209		**ug/L**		638	0.001
	Th	232	**183.422**	**ug/L**	0.883	7575454	14.810
	U	238	**94.241**	**ug/L**	1.767	4298673	8.404

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	0.9999
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	0.9999
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9998
U	238	Linear Thru Zero	0.9999

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
Li	7					
Be	9					
B	11					
Na	23					
Mg	24					
Al	27					
P	31					
K	39					
Ca	43					
Sc	45		101.7			
Ti	47					
V	51					
Cr	52					
Cr	53					
Mn	55					
Fe	57					
Co	59					
Ni	60					
Cu	63					
Cu	65					
Zn	66					
Zn	67					
Zn	68					
Ge	74		96.6			
As	75					
Se	77					
Se	82					
Kr	83					
Sr	88					
Y	89					
Mo	98					
Ag	107					
Cd	111					
Cd	114					
In	115		94.4			
Sn	120					
Sb	121					
Sb	123					
Ba	135					
Ba	137					
Ho	165					
Lu	175		101.7			
Tl	205					
Pb	208					
Bi	209					
Th	232					
U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
B 11 Upper, S, EEE	B	11	Sample is out of limits (over linear range)
Na 23 Upper, S, EEE	Na	23	Sample is out of limits (over linear range)
V 51 Upper, S, EEE	V	51	Sample is out of limits (over linear range)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: 1202005975
Sample Date/Time: Saturday, January 02, 2010 18:41:45
Sample Type:
Sample Description: LANL 6020 SDILT
Number of Replicates: 3
Batch ID: 937458|5|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100102\1202005975.038

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.281**	ug/L	10.126	369	0.000
	Be	9	**0.026**	ug/L	49.770	25	0.000
	B	11	**5.927**	ug/L	14.991	2382	0.001
	Na	23	**25103.560**	ug/L	1.031	96456756	62.904
	Mg	24	**210.823**	ug/L	8.077	557721	0.362
	Al	27	**128.486**	ug/L	9.213	466183	0.302
	P	31	**5.788**	ug/L	29.686	5525	0.001
	K	39	**236.344**	ug/L	9.905	1492260	0.687
	Ca	43	**866.795**	ug/L	3.903	9344	0.006
>	Sc	45		ug/L		1533306	1533306.114
	Ti	47	**2.624**	ug/L	5.167	1637	0.001
	V	51	**-0.056**	ug/L	1296.585	-1027	-0.000
	Cr	52	**0.920**	ug/L	2.342	2669	0.002
	Cr	53		ug/L		75695	0.012
	Mn	55	**44.334**	ug/L	1.030	314280	0.204
	Fe	57	**82.043**	ug/L	4.904	15447	0.007
	Co	59	**0.743**	ug/L	4.679	4123	0.003
	Ni	60	**0.334**	ug/L	6.401	500	0.000
	Cu	63		ug/L		850	0.000
	Cu	65	**0.081**	ug/L	7.416	216	0.000
	Zn	66	**1.154**	ug/L	4.912	1231	0.003
	Zn	67		ug/L		10799	0.014
	Zn	68		ug/L		1966	0.004
>	Ge	74		ug/L		307538	307537.869
	As	75	**-0.095**	ug/L	401.493	-142	-0.000
	Se	77		ug/L		4808	0.007
	Se	82	**0.134**	ug/L	115.504	-10	0.000
	Kr	83		ug/L		87	0.000
	Sr	88	**7.741**	ug/L	0.732	81573	0.378
	Y	89		ug/L		701	0.003
	Mo	98	**0.052**	ug/L	29.660	185	0.001
	Ag	107	**0.002**	ug/L	93.890	52	0.000
	Cd	111	**-0.004**	ug/L	277.583	6	-0.000
	Cd	114		ug/L		56	0.000
>	In	115		ug/L		215589	215589.032
	Sn	120	**0.077**	ug/L	3.982	674	0.002
	Sb	121	**0.367**	ug/L	25.145	1863	0.007
	Sb	123		ug/L		1518	0.006
	Ba	135		ug/L		26501	0.052
	Ba	137	**19.398**	ug/L	2.027	46374	0.092
	Ho	165		ug/L		76	0.000
>	Lu	175		ug/L		504453	504453.055
	Tl	205	**1.547**	ug/L	18.885	31790	0.062
	Pb	208	**0.130**	ug/L	2.789	4676	0.009
	Bi	209		ug/L		172	-0.000
	Th	232	**0.098**	ug/L	16.856	4699	0.008
	U	238	**0.028**	ug/L	1.221	1490	0.003

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	0.9999
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	0.9999
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9998
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		99.3			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		95.4			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		95.6			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		100.3			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 8
Sample Date/Time: Saturday, January 02, 2010 18:47:54
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100102\QC Std 8.039

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**50.378**	ug/L	4.771	58307	0.038
	Be	9	**52.611**	ug/L	3.025	18239	0.012
	B	11	**100.095**	ug/L	2.891	35031	0.023
	Na	23	**5015.928**	ug/L	5.196	19319232	12.569
	Mg	24	**5221.459**	ug/L	1.742	13773699	8.962
	Al	27	**5120.792**	ug/L	5.165	18487090	12.030
	P	31	**5236.104**	ug/L	1.244	928581	0.601
	K	39	**4861.858**	ug/L	6.250	22140626	14.125
	Ca	43	**5009.566**	ug/L	0.751	53344	0.035
>	Sc	45		ug/L		1536778	1536778.332
	Ti	47	**49.010**	ug/L	1.149	23969	0.015
	V	51	**49.469**	ug/L	2.016	262933	0.172
	Cr	52	**50.795**	ug/L	1.969	207311	0.136
	Cr	53		ug/L		86939	0.020
	Mn	55	**52.271**	ug/L	3.061	371192	0.241
	Fe	57	**5211.019**	ug/L	3.400	721430	0.467
	Co	59	**48.985**	ug/L	2.839	262587	0.171
	Ni	60	**50.022**	ug/L	1.512	58190	0.038
	Cu	63		ug/L		135823	0.088
	Cu	65	**49.467**	ug/L	1.399	65551	0.043
	Zn	66	**53.079**	ug/L	1.512	49745	0.159
	Zn	67		ug/L		14630	0.026
	Zn	68		ug/L		34658	0.109
>	Ge	74		ug/L		312231	312231.175
	As	75	**48.271**	ug/L	2.391	42559	0.137
	Se	77		ug/L		7214	0.014
	Se	82	**50.632**	ug/L	3.336	4568	0.015
	Kr	83		ug/L		122	0.000
	Sr	88	**52.917**	ug/L	1.986	557218	2.582
	Y	89		ug/L		86	0.000
	Mo	98	**49.838**	ug/L	1.637	129179	0.599
	Ag	107	**50.246**	ug/L	2.641	232705	1.079
	Cd	111	**51.132**	ug/L	1.767	61694	0.286
	Cd	114		ug/L		146843	0.680
>	In	115		ug/L		215750	215750.281
	Sn	120	**52.031**	ug/L	1.287	271480	1.257
	Sb	121	**49.675**	ug/L	4.629	217675	1.008
	Sb	123		ug/L		167460	0.775
	Ba	135		ug/L		66699	0.134
	Ba	137	**49.609**	ug/L	2.158	116548	0.235
	Ho	165		ug/L		63	0.000
>	Lu	175		ug/L		496353	496353.234
	Tl	205	**54.915**	ug/L	2.643	1095686	2.208
	Pb	208	**52.653**	ug/L	2.609	1748441	3.523
	Bi	209		ug/L		475	0.001
	Th	232	**51.185**	ug/L	3.208	2051245	4.133
	U	238	**52.621**	ug/L	3.691	2328380	4.692

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	0.9999
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	0.9999
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9998
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈	Li	7	100.755				
|	Be	9	105.223				
|	B	11	100.095				
|	Na	23	100.319				
|	Mg	24	104.429				
|	Al	27	101.402				
|	P	31	104.722				
|	K	39	97.237				
|	Ca	43	100.191				
|>	Sc	45		99.5			
|	Ti	47	98.020				
|	V	51	98.937				
|	Cr	52	101.590				
|	Cr	53					
|	Mn	55	104.542				
|	Fe	57	104.220				
|	Co	59	97.969				
|	Ni	60	100.044				
|	Cu	63					
⌊	Cu	65	98.934				
⌈	Zn	66	106.158				
|	Zn	67					
|	Zn	68					
|>	Ge	74		96.9			
|	As	75	96.542				
|	Se	77					
|	Se	82	101.264				
⌊	Kr	83					
⌈	Sr	88	105.833				
|	Y	89					
|	Mo	98	99.675				
|	Ag	107	100.492				
|	Cd	111	102.263				
|	Cd	114					
|>	In	115		95.7			
|	Sn	120	104.061				
|	Sb	121	99.350				
⌊	Sb	123					
⌈	Ba	135					
|	Ba	137	99.218				
|	Ho	165					
|>	Lu	175		98.7			
|	Tl	205	109.830				
|	Pb	208	105.306				
|	Bi	209					
|	Th	232	102.371				
⌊	U	238	105.241				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 9
Sample Date/Time: Saturday, January 02, 2010 18:54:03
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100102\QC Std 9.040

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.038**	**ug/L**	21.003	88	0.000
	Be	9	**0.015**	**ug/L**	71.041	21	0.000
	B	11	**2.043**	**ug/L**	22.296	1031	0.000
	Na	23	**3.908**	**ug/L**	25.415	27026	0.010
	Mg	24	**0.271**	**ug/L**	290.969	3667	0.000
	Al	27	**0.481**	**ug/L**	65.320	5334	0.001
	P	31	**0.779**	**ug/L**	314.007	4607	0.000
	K	39	**-1.523**	**ug/L**	539.493	429382	-0.004
	Ca	43	**2.970**	**ug/L**	147.186	197	0.000
>	Sc	45		**ug/L**		1520928	1520928.334
	Ti	47	**-0.268**	**ug/L**	17.286	246	-0.000
	V	51	**0.268**	**ug/L**	66.956	712	0.001
	Cr	52	**0.474**	**ug/L**	8.473	837	0.001
	Cr	53		**ug/L**		59743	0.002
	Mn	55	**-0.026**	**ug/L**	17.181	874	-0.000
	Fe	57	**0.535**	**ug/L**	111.385	4221	0.000
	Co	59	**0.004**	**ug/L**	58.259	170	0.000
	Ni	60	**-0.019**	**ug/L**	43.175	91	-0.000
	Cu	63		**ug/L**		331	-0.000
	Cu	65	**0.011**	**ug/L**	71.236	123	0.000
	Zn	66	**0.005**	**ug/L**	196.583	174	0.000
	Zn	67		**ug/L**		6849	0.001
	Zn	68		**ug/L**		761	0.000
>	Ge	74		**ug/L**		306775	306774.508
	As	75	**0.049**	**ug/L**	448.527	-19	0.000
	Se	77		**ug/L**		3476	0.002
	Se	82	**0.049**	**ug/L**	403.710	-17	0.000
	Kr	83		**ug/L**		88	0.000
	Sr	88	**0.006**	**ug/L**	22.978	204	0.000
	Y	89		**ug/L**		55	-0.000
	Mo	98	**0.044**	**ug/L**	29.027	163	0.001
	Ag	107	**0.005**	**ug/L**	13.298	64	0.000
	Cd	111	**0.008**	**ug/L**	63.554	19	0.000
	Cd	114		**ug/L**		42	0.000
>	In	115		**ug/L**		213849	213849.387
	Sn	120	**0.122**	**ug/L**	19.136	897	0.003
	Sb	121	**0.637**	**ug/L**	22.780	3016	0.013
	Sb	123		**ug/L**		2410	0.010
	Ba	135		**ug/L**		44	-0.000
	Ba	137	**-0.003**	**ug/L**	119.119	64	-0.000
	Ho	165		**ug/L**		32	0.000
>	Lu	175		**ug/L**		501288	501287.790
	Tl	205	**0.394**	**ug/L**	3.206	8318	0.016
	Pb	208	**0.008**	**ug/L**	19.335	569	0.001
	Bi	209		**ug/L**		192	-0.000
	Th	232	**0.056**	**ug/L**	19.137	2943	0.004
	U	238	**0.011**	**ug/L**	9.240	721	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	0.9999
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	0.9999
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9998
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		98.5			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		95.2			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		94.8			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		99.6			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 243551001
Sample Date/Time: Saturday, January 02, 2010 19:12:34
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 937458|1|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100102\243551001.043

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.579**	ug/L	7.805	751	0.000
	Be	9	**0.235**	ug/L	3.998	102	0.000
	B	11	**12.762**	ug/L	3.952	4992	0.003
	Na	23	**129129.614**	ug/L	5.004	521506160	323.571
	Mg	24	**353.846**	ug/L	4.389	981985	0.607
	Al	27	**244.342**	ug/L	0.386	929273	0.574
	P	31	**23.452**	ug/L	10.297	9079	0.003
	K	39	**388.946**	ug/L	1.683	2284399	1.130
	Ca	43	**2204.681**	ug/L	0.243	24727	0.015
>	Sc	45		ug/L		1612230	1612229.974
	Ti	47	**5.164**	ug/L	6.808	3004	0.002
	V	51	**-0.527**	ug/L	138.143	-3689	-0.002
	Cr	52	**4.424**	ug/L	2.559	17885	0.012
	Cr	53		ug/L		153672	0.058
	Mn	55	**74.227**	ug/L	2.118	552502	0.342
	Fe	57	**200.007**	ug/L	1.594	33279	0.018
	Co	59	**0.408**	ug/L	3.042	2454	0.001
	Ni	60	**1.174**	ug/L	3.672	1549	0.001
	Cu	63		ug/L		4022	0.002
	Cu	65	**0.503**	ug/L	6.468	814	0.000
	Zn	66	**6.980**	ug/L	0.223	6755	0.021
	Zn	67		ug/L		31741	0.080
	Zn	68		ug/L		6669	0.019
>	Ge	74		ug/L		315213	315212.942
	As	75	**-0.432**	ug/L	99.639	-446	-0.001
	Se	77		ug/L		13186	0.033
	Se	82	**0.109**	ug/L	137.357	-12	0.000
	Kr	83		ug/L		98	0.000
	Sr	88	**13.382**	ug/L	2.447	145102	0.653
	Y	89		ug/L		11923	0.053
	Mo	98	**0.036**	ug/L	10.428	147	0.000
	Ag	107	**-0.000**	ug/L	2762.736	44	-0.000
	Cd	111	**-0.055**	ug/L	10.765	-58	-0.000
	Cd	114		ug/L		74	0.000
>	In	115		ug/L		222013	222012.747
	Sn	120	**0.304**	ug/L	4.785	1912	0.007
	Sb	121	**0.037**	ug/L	9.164	434	0.001
	Sb	123		ug/L		358	0.001
	Ba	135		ug/L		56986	0.107
	Ba	137	**39.415**	ug/L	0.276	99218	0.187
	Ho	165		ug/L		1171	0.002
>	Lu	175		ug/L		531585	531585.004
	Tl	205	**0.134**	ug/L	4.655	3268	0.005
	Pb	208	**0.232**	ug/L	1.974	8559	0.016
	Bi	209		ug/L		170	-0.000
	Th	232	**0.092**	ug/L	5.191	4688	0.007
	U	238	**0.166**	ug/L	0.520	8101	0.015

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	0.9999
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	0.9999
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9998
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		104.4			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		97.8			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		98.4			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		105.7			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Na 23 Upper, S, EE	Na	23	Sample is out of limits (over linear range)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Saturday, January 02, 2010 19:31:05
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100102\QC Std 6.046

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**51.138**	ug/L	4.688	59095	0.038
	Be	9	**53.097**	ug/L	0.882	18376	0.012
	B	11	**100.136**	ug/L	4.032	34967	0.023
	Na	23	**4564.006**	ug/L	13.555	17535918	11.436
	Mg	24	**5240.995**	ug/L	6.797	13794074	8.995
	Al	27	**4897.108**	ug/L	0.940	17649157	11.505
	P	31	**5202.708**	ug/L	2.579	920826	0.598
	K	39	**5266.807**	ug/L	3.902	23902091	15.301
	Ca	43	**5046.262**	ug/L	2.918	53620	0.035
>	Sc	45		ug/L		1533747	1533746.959
	Ti	47	**50.028**	ug/L	1.665	24413	0.016
	V	51	**49.281**	ug/L	4.009	261395	0.171
	Cr	52	**51.016**	ug/L	1.171	207827	0.136
	Cr	53		ug/L		100528	0.029
	Mn	55	**52.501**	ug/L	0.199	372112	0.242
	Fe	57	**5268.082**	ug/L	2.430	727818	0.472
	Co	59	**49.947**	ug/L	2.074	267234	0.174
	Ni	60	**50.963**	ug/L	1.094	59172	0.039
	Cu	63		ug/L		136381	0.089
	Cu	65	**49.981**	ug/L	1.368	66114	0.043
	Zn	66	**51.775**	ug/L	2.443	49113	0.155
	Zn	67		ug/L		15034	0.027
	Zn	68		ug/L		34477	0.107
>	Ge	74		ug/L		316035	316034.932
	As	75	**48.557**	ug/L	1.261	43334	0.137
	Se	77		ug/L		9382	0.021
	Se	82	**50.865**	ug/L	1.087	4646	0.015
	Kr	83		ug/L		89	0.000
	Sr	88	**51.807**	ug/L	0.370	561083	2.528
	Y	89		ug/L		84	0.000
	Mo	98	**49.351**	ug/L	1.465	131552	0.593
	Ag	107	**49.751**	ug/L	1.485	236999	1.068
	Cd	111	**50.410**	ug/L	1.602	62560	0.282
	Cd	114		ug/L		149567	0.674
>	In	115		ug/L		221892	221891.723
	Sn	120	**51.884**	ug/L	2.741	278366	1.254
	Sb	121	**49.345**	ug/L	6.921	222248	1.001
	Sb	123		ug/L		176321	0.794
	Ba	135		ug/L		67550	0.134
	Ba	137	**49.437**	ug/L	0.775	118055	0.234
	Ho	165		ug/L		52	0.000
>	Lu	175		ug/L		504361	504360.521
	Tl	205	**54.130**	ug/L	2.574	1097846	2.176
	Pb	208	**52.539**	ug/L	1.303	1773436	3.516
	Bi	209		ug/L		467	0.001
	Th	232	**51.092**	ug/L	0.674	2081391	4.125
	U	238	**52.297**	ug/L	0.864	2352395	4.664

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	0.9999
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	0.9999
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	1.0000
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9998
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7	102.276				
	Be	9	106.194				
	B	11	100.136				
	Na	23	91.280				
	Mg	24	104.820				
	Al	27	96.972				
	P	31	104.054				
	K	39	105.336				
	Ca	43	100.925				
>	Sc	45		99.3			
	Ti	47	100.056				
	V	51	98.561				
	Cr	52	102.033				
	Cr	53					
	Mn	55	105.002				
	Fe	57	105.362				
	Co	59	99.894				
	Ni	60	101.925				
	Cu	63					
	Cu	65	99.962				
	Zn	66	103.550				
	Zn	67					
	Zn	68					
>	Ge	74		98.1			
	As	75	97.113				
	Se	77					
	Se	82	101.731				
	Kr	83					
	Sr	88	103.614				
	Y	89					
	Mo	98	98.702				
	Ag	107	99.502				
	Cd	111	100.820				
	Cd	114					
>	In	115		98.4			
	Sn	120	103.768				
	Sb	121	98.690				
	Sb	123					
	Ba	135					
	Ba	137	98.875				
	Ho	165					
>	Lu	175		100.2			
	Tl	205	108.261				
	Pb	208	105.077				
	Bi	209					
	Th	232	102.185				
	U	238	104.595				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Saturday, January 02, 2010 19:37:12
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100102\QC Std 7.047

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	0.034	ug/L	14.665	83	0.000
	Be	9	0.013	ug/L	98.283	20	0.000
	B	11	2.094	ug/L	22.257	1040	0.000
	Na	23	4.581	ug/L	18.077	29364	0.011
	Mg	24	-0.103	ug/L	215.248	2667	-0.000
	Al	27	0.498	ug/L	184.503	5335	0.001
	P	31	-1.443	ug/L	107.454	4184	-0.000
	K	39	-1.703	ug/L	244.885	425591	-0.005
	Ca	43	0.938	ug/L	264.014	174	0.000
>	Sc	45		ug/L		1509333	1509332.517
	Ti	47	-0.276	ug/L	20.339	240	-0.000
	V	51	0.393	ug/L	108.530	1356	0.001
	Cr	52	0.648	ug/L	5.784	1531	0.002
	Cr	53		ug/L		71485	0.010
	Mn	55	-0.018	ug/L	29.916	925	-0.000
	Fe	57	2.450	ug/L	34.436	4447	0.000
	Co	59	0.001	ug/L	212.483	155	0.000
	Ni	60	-0.018	ug/L	15.591	91	-0.000
	Cu	63		ug/L		535	0.000
	Cu	65	0.021	ug/L	40.762	135	0.000
	Zn	66	-0.004	ug/L	437.854	167	-0.000
	Zn	67		ug/L		7136	0.002
	Zn	68		ug/L		815	0.000
>	Ge	74		ug/L		310050	310049.990
	As	75	-0.207	ug/L	119.897	-240	-0.001
	Se	77		ug/L		5508	0.009
	Se	82	0.176	ug/L	70.158	-6	0.000
	Kr	83		ug/L		82	0.000
	Sr	88	0.009	ug/L	33.650	240	0.000
	Y	89		ug/L		45	-0.000
	Mo	98	0.060	ug/L	26.565	208	0.001
	Ag	107	0.004	ug/L	44.540	63	0.000
	Cd	111	0.006	ug/L	118.200	18	0.000
	Cd	114		ug/L		50	0.000
>	In	115		ug/L		217449	217449.296
	Sn	120	0.115	ug/L	20.418	878	0.003
	Sb	121	0.582	ug/L	26.110	2825	0.012
	Sb	123		ug/L		2186	0.009
	Ba	135		ug/L		46	-0.000
	Ba	137	-0.005	ug/L	69.981	61	-0.000
	Ho	165		ug/L		26	-0.000
>	Lu	175		ug/L		508458	508457.883
	Tl	205	0.116	ug/L	9.503	2747	0.005
	Pb	208	0.006	ug/L	25.933	494	0.000
	Bi	209		ug/L		220	0.000
	Th	232	0.068	ug/L	21.338	3503	0.006
	U	238	0.011	ug/L	25.502	715	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	0.9999
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	0.9999
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9998
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		97.7			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		96.2			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		96.4			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		101.1			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

==========

Analysis Begun

Logged In Analyst: Administrator **Technique: AA FIMS-MHS**
Spectrometer Model: FIMS-100, S/N B050-9550 **Autosampler Model: S10**

Sample Information File: C:\data-AA\Administrator\Sample Information\010510W1.SIF
Batch ID:
Results Data Set: 010510W1
Results Library: C:\data-AA\Administrator\Results\Results.mdb

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Method Loaded
Method Name: WATER **Method Last Saved: 12/28/2009 15:47:50**
Method Description: 7470A, 245.2, ILM04 ANALYST JXL

==========

Sequence No.: 1 **Autosampler Location: 1**
Sample ID: Calib Blank **Date Collected: 1/5/2010 09:06:11**
Analyst: **Data Type: Original**

Replicate Data: Calib Blank

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.00]	0.0002	-0.0003	0.0002	09:07:14	Yes
2		[0.00]	0.0002	-0.0001	0.0002	09:07:48	Yes
Mean:		[0.00]	0.0002				
SD:		0.00	0.0000				
%RSD:		0.00	2.04				

Auto-zero performed.

==========

Sequence No.: 2 **Autosampler Location: 2**
Sample ID: S0.2 **Date Collected: 1/5/2010 09:08:07**
Analyst: **Data Type: Original**

Replicate Data: S0.2

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.2]	0.0021	0.0092	0.0023	09:09:08	Yes
2		[0.2]	0.0020	0.0087	0.0022	09:09:43	Yes
Mean:		[0.2]	0.0020				
SD:		0.0	0.0001				
%RSD:		0.0	2.78				

Standard number 1 applied. [0.2]
Correlation Coef.: 1.000000 Slope: 0.01017 Intercept: 0.00000

==========

Sequence No.: 3 **Autosampler Location: 3**
Sample ID: S0.5 **Date Collected: 1/5/2010 09:10:02**
Analyst: **Data Type: Original**

Replicate Data: S0.5

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.5]	0.0052	0.0236	0.0054	09:11:03	Yes
2		[0.5]	0.0052	0.0230	0.0054	09:11:37	Yes
Mean:		[0.5]	0.0052				
SD:		0.0	0.0000				
%RSD:		0.0	0.31				

Standard number 2 applied. [0.5]
Correlation Coef.: 0.999931 Slope: 0.01046 Intercept: -0.00002

==========

Sequence No.: 4 **Autosampler Location: 4**
Sample ID: S2.0 **Date Collected: 1/5/2010 09:11:57**
Analyst: **Data Type: Original**

Replicate Data: S2.0

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[2.0]	0.0217	0.0986	0.0219	09:12:59	Yes
2		[2.0]	0.0216	0.0978	0.0218	09:13:33	Yes
Mean:		[2.0]	0.0216				
SD:		0.0	0.0001				
%RSD:		0.0	0.40				

Standard number 3 applied. [2.0]
Correlation Coef.: 0.999959 Slope: 0.01086 Intercept: -0.00011

Sequence No.: 5 **Autosampler Location: 5**
Sample ID: S5.0 **Date Collected: 1/5/2010 09:13:53**
Analyst: **Data Type: Original**

Replicate Data: S5.0

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[5.0]	0.0540	0.2457	0.0542	09:14:55	Yes
2		[5.0]	0.0534	0.2428	0.0536	09:15:30	Yes
Mean:		[5.0]	0.0537				
SD:		0.0	0.0004				
%RSD:		0.0	0.82				

Standard number 4 applied. [5.0]
Correlation Coef.: 0.999987 Slope: 0.01076 Intercept: -0.00005

Sequence No.: 6 **Autosampler Location: 6**
Sample ID: S10.0 **Date Collected: 1/5/2010 09:15:50**
Analyst: **Data Type: Original**

Replicate Data: S10.0

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[10.0]	0.1069	0.4906	0.1071	09:16:50	Yes
2		[10.0]	0.1061	0.4835	0.1063	09:17:26	Yes
Mean:		[10.0]	0.1065				
SD:		0.0	0.0006				
%RSD:		0.0	0.53				

Standard number 5 applied. [10.0]
Correlation Coef.: 0.999984 Slope: 0.01066 Intercept: 0.00006

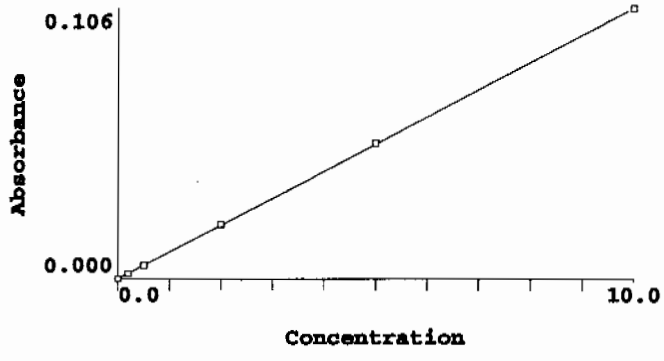

Calibration data for Hg 253.7 **Equation: Linear, Calculated Intercept**

ID	Mean Signal (Abs)	Entered Conc. ug/L	Calculated Conc. ug/L	Standard Deviation	%RSD
Calib Blank	0.0000	0	-0.006	0.00	2.0
S0.2	0.0020	0.2	0.185	0.00	2.8
S0.5	0.0052	0.5	0.484	0.00	0.3
S2.0	0.0216	2.0	2.025	0.00	0.4

S5.0	0.0537	5.0	5.030	0.00	0.8
S10.0	0.1065	10.0	9.981	0.00	0.5

Correlation Coef.: 0.999984 Slope: 0.01066 Intercept: 0.00006

==========

Sequence No.: 7 **Autosampler Location: 9**
Sample ID: ICV **Date Collected: 1/5/2010 09:17:45**
Analyst: **Data Type: Original**

Replicate Data: ICV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.055	5.055	0.0539	0.2459	0.0541	09:18:46	Yes
2	5.047	5.047	0.0539	0.2439	0.0541	09:19:21	Yes
Mean:	5.051	5.051	0.0539				
SD:	0.005	0.005	0.0001				
%RSD:	0.107	0.107	0.11				

QC value within limits for Hg 253.7 Recovery = 101.02%
All analyte(s) passed QC.

==========

Sequence No.: 8 **Autosampler Location: 10**
Sample ID: ICB **Date Collected: 1/5/2010 09:19:40**
Analyst: **Data Type: Original**

Replicate Data: ICB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.005	-0.005	0.0000	-0.0008	0.0002	09:20:42	Yes
2	0.001	0.001	0.0001	-0.0002	0.0003	09:21:16	Yes
Mean:	-0.002	-0.002	0.0000				
SD:	0.004	0.004	0.0000				
%RSD:	174.6	174.6	125.36				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

==========

Sequence No.: 9 **Autosampler Location: 11**
Sample ID: CRDL **Date Collected: 1/5/2010 09:21:36**
Analyst: **Data Type: Original**

Replicate Data: CRDL

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.190	0.190	0.0021	0.0097	0.0023	09:22:38	Yes
2	0.196	0.196	0.0022	0.0095	0.0024	09:23:12	Yes
Mean:	0.193	0.193	0.0021				
SD:	0.004	0.004	0.0000				
%RSD:	2.136	2.136	2.08				

QC value within limits for Hg 253.7 Recovery = 96.69%
All analyte(s) passed QC.

==========

Sequence No.: 10 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 1/5/2010 09:23:32**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.025	5.025	0.0536	0.2440	0.0538	09:24:33	Yes
2	4.992	4.992	0.0533	0.2416	0.0535	09:25:08	Yes
Mean:	5.008	5.008	0.0535				
SD:	0.024	0.024	0.0003				
%RSD:	0.470	0.470	0.47				

QC value within limits for Hg 253.7 Recovery = 100.17%
All analyte(s) passed QC.

Sequence No.: 11
Sample ID: CCB
Analyst:
Autosampler Location: 8
Date Collected: 1/5/2010 09:25:27
Data Type: Original

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.007	-0.007	-0.0000	-0.0002	0.0002	09:26:27	Yes
2	-0.012	-0.012	-0.0001	-0.0003	0.0001	09:27:02	Yes
Mean:	-0.010	-0.010	-0.0000				
SD:	0.004	0.004	0.0000				
%RSD:	37.03	37.03	86.54				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 12
Sample ID: 1202004920|937652|1
Analyst: JXL
Autosampler Location: 12
Date Collected: 1/5/2010 09:27:22
Data Type: Original

Replicate Data: 1202004920|937652|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.013	-0.013	-0.0001	-0.0005	0.0001	09:28:23	Yes
2	-0.012	-0.012	-0.0001	-0.0004	0.0001	09:28:58	Yes
Mean:	-0.012	-0.012	-0.0001				
SD:	0.001	0.001	0.0000				
%RSD:	7.585	7.585	13.79				

Sequence No.: 13
Sample ID: 1202006485|937652|1
Analyst: JXL
Autosampler Location: 13
Date Collected: 1/5/2010 09:29:18
Data Type: Original

Replicate Data: 1202006485|937652|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.014	-0.014	-0.0001	-0.0002	0.0001	09:30:20	Yes
2	-0.014	-0.014	-0.0001	-0.0001	0.0001	09:30:56	Yes
Mean:	-0.014	-0.014	-0.0001				
SD:	0.000	0.000	0.0000				
%RSD:	2.328	2.328	3.87				

Sequence No.: 14
Sample ID: 1202006486|937652|1
Analyst: JXL
Autosampler Location: 14
Date Collected: 1/5/2010 09:31:16
Data Type: Original

Replicate Data: 1202006486|937652|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.022	2.022	0.0216	0.0984	0.0218	09:32:17	Yes
2	2.012	2.012	0.0215	0.0977	0.0217	09:32:51	Yes
Mean:	2.017	2.017	0.0216				
SD:	0.007	0.007	0.0001				
%RSD:	0.356	0.356	0.35				

Sequence No.: 15
Sample ID: 243421001|937652|1
Analyst: JXL
Autosampler Location: 15
Date Collected: 1/5/2010 09:33:10
Data Type: Original

Replicate Data: 243421001|937652|1

Repl	SampleConc	StndConc	BlnkCorr	Peak	Peak	Time	Peak

#	ug/L	ug/L	Signal	Area	Height		Stored
1	-0.009	-0.009	-0.0000	0.0003	0.0002	09:34:11	Yes
2	-0.010	-0.010	-0.0000	0.0002	0.0002	09:34:46	Yes
Mean:	-0.010	-0.010	-0.0000				
SD:	0.001	0.001	0.0000				
%RSD:	5.356	5.356	12.56				

==========

Sequence No.: 16 **Autosampler Location: 16**
Sample ID: 1202004918|937652|1 **Date Collected: 1/5/2010 09:35:05**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202004918|937652|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	1.443	1.443	0.0154	0.0711	0.0156	09:36:05	Yes
2	1.442	1.442	0.0154	0.0702	0.0156	09:36:40	Yes
Mean:	1.442	1.442	0.0154				
SD:	0.001	0.001	0.0000				
%RSD:	0.041	0.041	0.04				

==========

Sequence No.: 17 **Autosampler Location: 17**
Sample ID: 1202006487|937652|1 **Date Collected: 1/5/2010 09:36:59**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202006487|937652|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.008	-0.008	-0.0000	0.0002	0.0002	09:37:59	Yes
2	-0.010	-0.010	-0.0000	0.0001	0.0002	09:38:34	Yes
Mean:	-0.009	-0.009	-0.0000				
SD:	0.002	0.002	0.0000				
%RSD:	18.85	18.85	49.59				

==========

Sequence No.: 18 **Autosampler Location: 18**
Sample ID: 1202006494|937652|5 **Date Collected: 1/5/2010 09:38:53**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202006494|937652|5

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.006	-0.006	-0.0000	0.0005	0.0002	09:39:54	Yes
2	-0.007	-0.007	-0.0000	0.0005	0.0002	09:40:29	Yes
Mean:	-0.007	-0.007	-0.0000				
SD:	0.001	0.001	0.0000				
%RSD:	13.27	13.27	77.36				

==========

Sequence No.: 19 **Autosampler Location: 19**
Sample ID: 243548001|937652|1 **Date Collected: 1/5/2010 09:40:48**
Analyst: JXL **Data Type: Original**

Replicate Data: 243548001|937652|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.011	-0.011	-0.0001	0.0002	0.0001	09:41:48	Yes
2	-0.006	-0.006	-0.0000	0.0007	0.0002	09:42:23	Yes
Mean:	-0.008	-0.008	-0.0000				
SD:	0.003	0.003	0.0000				
%RSD:	35.66	35.66	107.07				

==========

Sequence No.: 20 **Autosampler Location: 20**
Sample ID: 243548002|937652|1 **Date Collected: 1/5/2010 09:42:42**
Analyst: JXL **Data Type: Original**

Replicate Data: 243548002|937652|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.012	-0.012	-0.0001	-0.0001	0.0001	09:43:43	Yes
2	-0.010	-0.010	-0.0000	0.0003	0.0002	09:44:18	Yes
Mean:	-0.011	-0.011	-0.0001				
SD:	0.002	0.002	0.0000				
%RSD:	15.93	15.93	32.21				

Sequence No.: 21 Autosampler Location: 21
Sample ID: 243551001|937652|1 Date Collected: 1/5/2010 09:44:38
Analyst: JXL Data Type: Original

Replicate Data: 243551001|937652|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.007	-0.007	-0.0000	0.0009	0.0002	09:45:39	Yes
2	-0.006	-0.006	-0.0000	0.0011	0.0002	09:46:14	Yes
Mean:	-0.007	-0.007	-0.0000				
SD:	0.000	0.000	0.0000				
%RSD:	6.133	6.133	35.54				

Sequence No.: 22 Autosampler Location: 7
Sample ID: CCV Date Collected: 1/5/2010 09:46:33
Analyst: Data Type: Original

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.013	5.013	0.0535	0.2440	0.0537	09:47:34	Yes
2	4.987	4.987	0.0532	0.2416	0.0534	09:48:08	Yes
Mean:	5.000	5.000	0.0534				
SD:	0.018	0.018	0.0002				
%RSD:	0.364	0.364	0.36				

QC value within limits for Hg 253.7 Recovery = 100.01%
All analyte(s) passed QC.

Sequence No.: 23 Autosampler Location: 8
Sample ID: CCB Date Collected: 1/5/2010 09:48:27
Analyst: Data Type: Original

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.006	-0.006	-0.0000	0.0008	0.0002	09:49:29	Yes
2	-0.006	-0.006	0.0000	0.0011	0.0002	09:50:04	Yes
Mean:	-0.006	-0.006	-0.0000				
SD:	0.001	0.001	0.0000				
%RSD:	10.82	10.82	166.35				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 24 Autosampler Location: 22
Sample ID: 243553001|937652|1 Date Collected: 1/5/2010 09:50:23
Analyst: JXL Data Type: Original

Replicate Data: 243553001|937652|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.000	0.000	0.0001	0.0015	0.0003	09:51:24	Yes
2	0.006	0.006	0.0001	0.0024	0.0003	09:51:59	Yes

Miscellaneous

Prep LogBook

Analyst: TXB3 Verified by:_____

Batch: 937650

Lab SOP: GL-MA-E-010 REV# 23

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1202006486	WHG100104-13	.2	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Ph	Initial Wt.	Final Volume	Prep Factor	Matrix
TB	1202004920		SW846 7470A Prep	04-JAN-2010 12:20	<2	2 mL	20 mL	10	SOIL
MB	1202006485		SW846 7470A Prep	04-JAN-2010 12:20	<2	2 mL	20 mL	10	SOIL
LCS	1202006486		SW846 7470A Prep	04-JAN-2010 12:20	<2	2 mL	20 mL	10	SOIL
SAMPLE	243421001		SW846 7470A Prep	04-JAN-2010 12:20	<2	2 mL	20 mL	10	SOIL
MS	1202004918	243421001	SW846 7470A Prep	04-JAN-2010 12:20	<2	2 mL	20 mL	10	SOIL
DUP	1202006487	243421001	SW846 7470A Prep	04-JAN-2010 12:20	<2	2 mL	20 mL	10	SOIL
SDILT	1202006494	243421001	SW846 7470A Prep	04-JAN-2010 12:20	<2	2 mL	20 mL	10	SOIL
SAMPLE	243548001		SW846 7470A Prep	04-JAN-2010 12:20	<2	2 mL	20 mL	10	SOIL
SAMPLE	243548002		SW846 7470A Prep	04-JAN-2010 12:20	<2	2 mL	20 mL	10	SOIL
SAMPLE	243551001		SW846 7470A Prep	04-JAN-2010 12:20	<2	2 mL	20 mL	10	SOIL
SAMPLE	243553001		SW846 7470A Prep	04-JAN-2010 12:20	<2	2 mL	20 mL	10	SOIL
SAMPLE	243553002		SW846 7470A Prep	04-JAN-2010 12:20	<2	2 mL	20 mL	10	SOIL

Reagent/Solvent Lot ID	Amount	Description
1176183	1 mL	Sulfuric Acid, Concentrated
1240182-1	.5 mL	NITRIC ACID
1234385-C	1.5 mL	5% Potassium Persulfate
1244904-C	3 mL	5% KMnO4 solution
1206350-C	1 mL	Hg reducing agent
WHG100104-06	500 uL	Mercury Working 2nd Source 5.0/ICV
WHG100104-01a	20 uL	Mercury Working 1st Source CAL 0.2/CRA
WHG100104-02	50 uL	Mercury Working 1st Source CAL 0.5
WHG100104-05	1 mL	Mercury Working 1st Source CAL 10.0
WHG100104-03	200 uL	Mercury Working 1st Source CAL 2.0
WHG100104-04	500 uL	Mercury Working 1st Source CAL 5.0/CCV

Comments: Digestion Start Date: 04-JAN-10 12:20
Digestion End Date: 04-JAN-10 14:20

Prep LogBook

Analyst: AXG2 Verified by:_____

Batch: 937457

Lab SOP: GL-MA-E-008 REV# 13

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1202005972	UI091124-A00	.5	mL
LCS	1202005972	UI091124-B	.5	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Ph	Initial Wt.	Final Volume	Prep Factor	Matrix
TB	1202004872		SW846 3010A	30-DEC-2009 06:30	<2	5 mL	50 mL	10	SOIL
MB	1202005971		SW846 3010A	30-DEC-2009 06:30	<2	5 mL	50 mL	10	SOIL
LCS	1202005972		SW846 3010A	30-DEC-2009 06:30	<2	5 mL	50 mL	10	SOIL
SAMPLE	243421001		SW846 3010A	30-DEC-2009 06:30	<2	5 mL	50 mL	10	SOIL
MS	1202004870	243421001	SW846 3010A	30-DEC-2009 06:30	<2	5 mL	50 mL	10	SOIL
DUP	1202005973	243421001	SW846 3010A	30-DEC-2009 06:30	<2	5 mL	50 mL	10	SOIL
SDILT	1202005975	243421001	SW846 3010A	30-DEC-2009 06:30	<2	5 mL	50 mL	10	SOIL
SAMPLE	243548001		SW846 3010A	30-DEC-2009 06:30	<2	5 mL	50 mL	10	SOIL
SAMPLE	243548002		SW846 3010A	30-DEC-2009 06:30	<2	5 mL	50 mL	10	SOIL
SAMPLE	243551001		SW846 3010A	30-DEC-2009 06:30	<2	5 mL	50 mL	10	SOIL
SAMPLE	243553001		SW846 3010A	30-DEC-2009 06:30	<2	5 mL	50 mL	10	SOIL
SAMPLE	243553002		SW846 3010A	30-DEC-2009 06:30	<2	5 mL	50 mL	10	SOIL

Reagent/Solvent Lot ID	Amount	Description
1244970	2.5 mL	HYDROCHLORIC ACID
1234886	3 mL	Nitric Acid CONC.

Comments

Prep Logbook

Toxicity Characteristic Leaching Procedure Preparation

Batch ID: 936997.0 **Verified by:** _____
Analyst: Richard Dollinger
Method: SW846 1311

Lab SOP: GL-LB-E-006 REV# 13
Instrument: TCLP Tumbler #105

Sample ID Analysis Start Date	1202005010 TB 28-DEC-2009 16:00:02	243421001 28-DEC-2009 16:00:02	243551001 28-DEC-2009 16:00:02	243553001 28-DEC-2009 16:00:02
100% Solid Y/N		y	y	y
(I) Sub Sample Aliquot I=G-H (g)		25	25	25
pH Temperature (celsius)	4.95			
Filtrate pH (su)	4.95			
Final pH (su)	4.95			
Tumbler Speed	28	28	28	28
Sample Properties <>/= Water	tclp#1	Solid	Solid	Solid
(J) 20X Wet Solid Weight 20XC (g)	500	500	500	500
Filtrate Volume (mL)	5	5	5	5
VOA Positive Pressure Y/N	y	y	y	y
ZHE Vessle ID	2	3	4	5

Type	Sample Id	Description		Spike Amt	Units
RGNT	All	TCLP EXTRACTION FLUID 1	1018208ZHE	2000	mL

Comments:

Extration End Date: 29-DEC-09 09:00:47
Filtration End Date: 29-DEC-09 15:00:47
Bottle Lot Number: B-9-195-01VB
Filter Lot Number: 521112
Extration Start Temperature: 23 C
Extration End Temperature: 23 C
Filtration End Temperature: 23 C

Prep Logbook

Toxicity Characteristic Leaching Procedure Preparation

Batch ID: 936997.0 **Verified by:** _____

Analyst: Richard Dollinger

Method: SW846 1311

Lab SOP: GL-LB-E-006 REV# 13

Instrument: TCLP Tumbler #105

Sample ID	243553002
Analysis Start Date	28-DEC-2009 16:00:02

100% Solid Y/N	y
(I) Sub Sample Aliquot I=G-H (g)	25
pH Temperature (celsius)	
Filtrate pH (su)	
Final pH (su)	
Tumbler Speed	28
Sample Properties <>/= Water	Solid
(J) 20X Wet Solid Weight 20XC (g)	500
Filtrate Volume (mL)	5
VOA Positive Pressure Y/N	y
ZHE Vessle ID	6

Type	Sample Id	Description	Serial Number	Spike Amt	Units
RGNT	All	TCLP EXTRACTION FLUID 1	1018208ZHE	2000	mL

Comments:

Extration End Date: 29-DEC-09 09:00:47
Filtration End Date: 29-DEC-09 15:00:47
Bottle Lot Number: B-9-195-01VB
Filter Lot Number: 521112
Extration Start Temperature: 23 C
Extration End Temperature: 23 C
Filtration End Temperature: 23 C

Prep Logbook

Toxicity Characteristic Leaching Procedure Preparation

Batch ID: 936973.0 **Verified by:** _____
Analyst: Richard Dollinger
Method: SW846 1311

Lab SOP: GL-LB-E-006 REV# 13
Instrument: TCLP Tumbler #105

Sample ID Analysis Start Date	1202004920 TB 28-DEC-2009 16:00:04	243421001 28-DEC-2009 16:00:04	1202004918 MS (243421001) 28-DEC-2009 16:00:04	1202004919 MSD (243421001) 28-DEC-2009 16:00:04
100% Solid Y/N		y	y	y
(I) Sub Sample Aliquot I=G-H (g)		100	100	100
Initial pH (su)	4.95	7.08	7.08	7.08
pH Temperature (celsius)		50	50	50
Filtrate pH (su)	4.95	5	5	5
Final pH (su)	4.95	1.85	1.85	1.85
Tumbler Speed	28	28	28	28
Sample Properties <>/= Water	tclp#1	Solid	Solid	Solid
(J) 20X Wet Solid Weight 20XC (g)	2000	2000	2000	2000
Filtrate Volume (mL)	500	250	50	50

Type	Sample Id	Description		Spike Amt	Units
MS	1202004918	TCLP PREP MERCURY SPIKE	1017820	1	mL
MSD	1202004919	TCLP PREP MERCURY SPIKE	1017820	1	mL
RGNT	All	TCLP EXTRACTION FLUID 1	1018204	2000	mL
RGNT	All	1N HCl for pH testing	1202901	3.5	mL
REGNT	All	Nitric Acid CONC.	1100721TCLP	2.5	mL

Comments:

Extration End Date: 27-DEC-09 9:00:15
Filtration End Date: 27-DEC-09 15:00:15
Bottle Lot Number: C901201R
Filter Lot Number: 8335066
Extration Start Temperature: 23 C
Extration End Temperature: 23 C
Filtration End Temperature: 23 C

Prep Logbook

Toxicity Characteristic Leaching Procedure Preparation

Batch ID: 936973.0 **Verified by:** _____
Analyst: Richard Dollinger
Method: SW846 1311

Lab SOP: GL-LB-E-006 REV# 13
Instrument: TCLP Tumbler #105

Sample ID Analysis Start Date	243548001 28-DEC-2009 16:00:04	243548002 28-DEC-2009 16:00:04	243551001 28-DEC-2009 16:00:04	243553001 28-DEC-2009 16:00:04
100% Solid Y/N	y	y	y	y
(I) Sub Sample Aliquot I=G-H (g)	100	100	100	100
Initial pH (su)	6.34	5.4	5.03	8.76
pH Temperature (celsius)	50	50	50	50
Filtrate pH (su)	5	5	5	5
Final pH (su)	1.71	1.72	1.98	1.92
Tumbler Speed	28	28	28	28
Sample Properties <>/= Water	Solid	Solid	Solid	Solid
(J) 20X Wet Solid Weight 20XC (g)	2000	2000	2000	2000
Filtrate Volume (mL)	250	250	250	250

Type	Sample Id	Description		Spike Amt	Units
MS	1202004918	TCLP PREP MERCURY SPIKE	1017820	1	mL
MSD	1202004919	TCLP PREP MERCURY SPIKE	1017820	1	mL
RGNT	All	TCLP EXTRACTION FLUID 1	1018204	2000	mL
RGNT	All	1N HCl for pH testing	1202901	3.5	mL
REGNT	All	Nitric Acid CONC.	1100721TCLP	2.5	mL

Comments:

Extration End Date: 27-DEC-09 9:00:15
Filtration End Date: 27-DEC-09 15:00:15
Bottle Lot Number: C901201R
Filter Lot Number: 8335066
Extration Start Temperature: 23 C
Extration End Temperature: 23 C
Filtration End Temperature: 23 C

Prep Logbook

Toxicity Characteristic Leaching Procedure Preparation

Batch ID: 936973.0 **Verified by:** _____
Analyst: Richard Dollinger
Method: SW846 1311

Lab SOP: GL-LB-E-006 REV# 13
Instrument: TCLP Tumbler #105

Sample ID 243553002
Analysis Start Date 28-DEC-2009 16:00:04

100% Solid Y/N	y
(I) Sub Sample Aliquot I=G-H (g)	100
Initial pH (su)	7.37
pH Temperature (celsius)	50
Filtrate pH (su)	5
Final pH (su)	4.79
Tumbler Speed	28
Sample Properties <>/= Water	Solid
(J) 20X Wet Solid Weight 20XC (g)	2000
Filtrate Volume (mL)	250

Type	Sample Id	Description	Serial Number	Spike Amt	Units
MS	1202004918	TCLP PREP MERCURY SPIKE	1017820	1	mL
MSD	1202004919	TCLP PREP MERCURY SPIKE	1017820	1	mL
RGNT	All	TCLP EXTRACTION FLUID 1	1018204	2000	mL
RGNT	All	1N HCl for pH testing	1202901	3.5	mL
REGNT	All	Nitric Acid CONC.	1100721TCLP	2.5	mL

Comments:

Extration End Date: 27-DEC-09 9:00:15
Filtration End Date: 27-DEC-09 15:00:15
Bottle Lot Number: C901201R
Filter Lot Number: 8335066
Extration Start Temperature: 23 C
Extration End Temperature: 23 C
Filtration End Temperature: 23 C

Prep Logbook

Toxicity Characteristic Leaching Procedure Preparation

Batch ID: 936980.0 **Verified by:** _____
Analyst: Richard Dollinger
Method: SW846 1311

Lab SOP: GL-LB-E-006 REV# 13
Instrument: TCLP Tumbler #105

Sample ID Analysis Start Date	1202004963 TB 28-DEC-2009 16:00:21	243421001 28-DEC-2009 16:00:21	243551001 28-DEC-2009 16:00:21	243553001 28-DEC-2009 16:00:21
100% Solid Y/N		y	y	y
(I) Sub Sample Aliquot I=G-H (g)		100	100	100
Initial pH (su)	4.95	7.08	5.03	8.76
pH Temperature (celsius)		50	50	50
Filtrate pH (su)	5	5	5	5
Final pH (su)	4.95	1.85	1.98	1.92
Tumbler Speed	28	28	28	28
Sample Properties <>/= Water	Solid	Solid	Solid	Solid
(J) 20X Wet Solid Weight 20XC (g)	2000	2000	2000	2000
Filtrate Volume (mL)	1000	1000	1000	1000

Type	Sample Id	Description	Spike Amt	Units

Comments:

Extration End Date: 29-DEC-09 9:00:18
Filtration End Date: 29-DEC-09 15:00:18
Bottle Lot Number: H931601DB
Filter Lot Number: 8335066
Extration Start Temperature: 23 C
Extration End Temperature: 23 C
Filtration End Temperature: 23 C

Prep Logbook

Toxicity Characteristic Leaching Procedure Preparation

Batch ID: 936980.0 **Verified by:** _____
Analyst: Richard Dollinger
Method: SW846 1311

Lab SOP: GL-LB-E-006 REV# 13
Instrument: TCLP Tumbler #105

Sample ID 243553002
Analysis Start Date 28-DEC-2009 16:00:21

100% Solid Y/N	y
(I) Sub Sample Aliquot I=G-H (g)	100
Initial pH (su)	7.37
pH Temperature (celsius)	50
Filtrate pH (su)	5
Final pH (su)	4.79
Tumbler Speed	28
Sample Properties <>/= Water	Solid
(J) 20X Wet Solid Weight 20XC (g)	2000
Filtrate Volume (mL)	1000

Type	Sample Id	Description	Serial Number	Spike Amt	Units

Comments:

Extration End Date: 29-DEC-09 9:00:18
Filtration End Date: 29-DEC-09 15:00:18
Bottle Lot Number: H931601DB
Filter Lot Number: 8335066
Extration Start Temperature: 23 C
Extration End Temperature: 23 C
Filtration End Temperature: 23 C

Prep Logbook

Toxicity Characteristic Leaching Procedure Preparation

Batch ID: 936940.0 **Verified by:** _____
Analyst: Richard Dollinger
Method: SW846 1311

Lab SOP: GL-LB-E-006 REV# 13
Instrument: TCLP Tumbler #105

Sample ID Analysis Start Date	1202004872 TB 28-DEC-2009 16:00:55	243421001 28-DEC-2009 16:00:55	1202004870 MS (243421001) 28-DEC-2009 16:00:55	1202004871 MSD (243421001) 28-DEC-2009 16:00:55
100% Solid Y/N		y	y	y
(I) Sub Sample Aliquot I=G-H (g)		100	100	100
Initial pH (su)	4.95	7.08	7.08	7.08
pH Temperature (celsius)		50	50	50
Filtrate pH (su)	4.95	5	5	5
Final pH (su)	4.95	1.85	1.85	1.85
Tumbler Speed	28	28	28	28.
Sample Properties <>/= Water	tclp#1	Solid	Solid	Solid
(J) 20X Wet Solid Weight 20XC (g)	2000	2000	2000	2000
Filtrate Volume (mL)	500	250	95	95

Type	Sample Id	Description		Spike Amt	Units
MS	1202004870	TCLP PREP SPIKE REG METALS	1017626	5	mL
MSD	1202004871	TCLP PREP SPIKE REG METALS	1017626	5	mL
RGNT	All	TCLP EXTRACTION FLUID 1	1018204	2000	mL
RGNT	All	1N HCl for pH testing	1202901	3.5	mL
REGNT	All	Nitric Acid CONC.	1100721TCLP	2.5	mL

Comments:

Extration End Date: 29-DEC-09 9:00:45
Filtration End Date: 28-DEC-09 15:00:45
Bottle Lot Number: C901201R
Filter Lot Number: 8335066
Extration Start Temperature: 23 C
Extration End Temperature: 23 C
Filtration End Temperature: 23 C

Prep Logbook

Toxicity Characteristic Leaching Procedure Preparation

Batch ID: 936940.0 **Verified by:** _____
Analyst: Richard Dollinger
Method: SW846 1311

Lab SOP: GL-LB-E-006 REV# 13
Instrument: TCLP Tumbler #105

Sample ID Analysis Start Date	243548001 28-DEC-2009 16:00:55	243548002 28-DEC-2009 16:00:55	243551001 28-DEC-2009 16:00:55	243553001 28-DEC-2009 16:00:55
100% Solid Y/N	y	y	y	y
(I) Sub Sample Aliquot I=G-H (g)	100	100	100	100
Initial pH (su)	6.34	5.4	5.03	8.76
pH Temperature (celsius)	50	50	50	50
Filtrate pH (su)	5	5	5	5
Final pH (su)	1.71	1.72	1.98	1.92
Tumbler Speed	28	28	28	28
Sample Properties <>/= Water	Solid	Solid	Solid	Solid
(J) 20X Wet Solid Weight 20XC (g)	2000	2000	2000	2000
Filtrate Volume (mL)	250	250	250	250

Type	Sample Id	Description		Spike Amt	Units
MS	1202004870	TCLP PREP SPIKE REG METALS	1017626	5	mL
MSD	1202004871	TCLP PREP SPIKE REG METALS	1017626	5	mL
RGNT	All	TCLP EXTRACTION FLUID 1	1018204	2000	mL
RGNT	All	1N HCl for pH testing	1202901	3.5	mL
REGNT	All	Nitric Acid CONC.	1100721TCLP	2.5	mL

Comments:

Extration End Date: 29-DEC-09 9:00:45
Filtration End Date: 28-DEC-09 15:00:45
Bottle Lot Number: C901201R
Filter Lot Number: 8335066
Extration Start Temperature: 23 C
Extration End Temperature: 23 C
Filtration End Temperature: 23 C

Prep Logbook

Toxicity Characteristic Leaching Procedure Preparation

Batch ID: 936940.0 **Verified by:** _____
Analyst: Richard Dollinger
Method: SW846 1311

Lab SOP: GL-LB-E-006 REV# 13
Instrument: TCLP Tumbler #105

Sample ID 243553002
Analysis Start Date 28-DEC-2009 16:00:55

100% Solid Y/N	y
(I) Sub Sample Aliquot I=G-H (g)	100
Initial pH (su)	7.37
pH Temperature (celsius)	50
Filtrate pH (su)	5
Final pH (su)	4.79
Tumbler Speed	28
Sample Properties <>/= Water	Solid
(J) 20X Wet Solid Weight 20XC (g)	2000
Filtrate Volume (mL)	250

Type	Sample Id	Description	Serial Number	Spike Amt	Units
MS	1202004870	TCLP PREP SPIKE REG METALS	1017626	5	mL
MSD	1202004871	TCLP PREP SPIKE REG METALS	1017626	5	mL
RGNT	All	TCLP EXTRACTION FLUID 1	1018204	2000	mL
RGNT	All	1N HCl for pH testing	1202901	3.5	mL
REGNT	All	Nitric Acid CONC.	1100721TCLP	2.5	mL

Comments:

Extration End Date: 29-DEC-09 9:00:45
Filtration End Date: 28-DEC-09 15:00:45
Bottle Lot Number: C901201R
Filter Lot Number: 8335066
Extration Start Temperature: 23 C
Extration End Temperature: 23 C
Filtration End Temperature: 23 C

GEL Laboratories LLC
Form GEL-NCR

NCR Report No.: 776905
Revision No.:

COMPANY - WIDE NONCONFORMANCE REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
05-JAN-10	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
MERCURY	SW846 7470A	Solid	LANL
Batch ID:	**Sample Numbers:**		
937652	See Below		

Potentially affected work order(s)(SDG): 243421(10-1005-1),243548(10-1084-1),243551(10-1085-1),243553(10-1089)

Application Issues:

Failed Recovery for MS/PS

Specification and Requirements Nonconformance Description:	NRG Disposition:
1. Failed Recovery for MS/PS: QC 1202004918MS	1. The matrix spike recovery failed outside of the control limits for Hg due to possible matrix interferences and/or non-homogeneity. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported.

Originator's Name:

Jason Loy 05-JAN-10

Data Validator/Group Leader:

Eric Lawson 06-JAN-10

Standard Logbook

Serial ID:	1017626	**Opened:**	21-OCT-09	**Amount :**	5 mL
Name:	TCLP PREP SPIKE	**Received:**	20-OCT-09	**Catalog Number :**	160062-01
Type:	Source Material	**Expires:**	21-OCT-10	**Lot Number :**	1017626
Employee:	Richard Dollinger	**Verified:**	02-AUG-08		
Supplier:	O2SI				

Description: TCLP PREP SPIKE REG METALS

Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	200 mg/L	Antimony	40 mg/L
Arsenic	100 mg/L	Barium	200 mg/L
Beryllium	40 mg/L	Boron	40 mg/L
Cadmium	20 mg/L	Calcium	100 mg/L
Chromium	100 mg/L	Cobalt	40 mg/L
Copper	40 mg/L	Iron	40 mg/L
Lead	100 mg/L	Lithium	20 mg/L
Magnesium	40 mg/L	Manganese	40 mg/L
Molybdenum	40 mg/L	Nickel	40 mg/L
Potassium	100 mg/L	Selenium	20 mg/L
Silver	10 mg/L	Sodium	100 mg/L
Strontium	40 mg/L	Thallium	40 mg/L
Thorium	40 mg/L	Tin	40 mg/L
Total Uranium	20 mg/L	Uranium	20 mg/L
Uranium-235	.144 mg/L	Uranium-238	19.856 mg/L
Vanadium	40 mg/L	Zinc	40 mg/L
Zirconium	40 mg/L		

Serial ID:	1017820	**Opened:**	10-NOV-09	**Amount :**	1 mg/L
Name:	TCLP PREP Hg SPIKE	**Received:**	10-NOV-09	**Catalog Number :**	160060-02
Type:	Source Material	**Expires:**	10-NOV-10	**Lot Number :**	1017820
Employee:	Monifa Morant-Basdeo	**Verified:**	10-NOV-09	**Solvent :**	mercury
Supplier:	O2S1				

Description: TCLP PREP MERCURY SPIKE

Comments: None

Analyte	Concentration	Analyte	Concentration
Mercury	1 mg/L		

Serial ID:	UHG1167639-01	**Opened:**	13-AUG-09	**Amount :**	125 mL
Name:	MHGSTOCK1	**Received:**	13-AUG-09	**Catalog Number :**	PLHG4-2Y
Type:	Source Material	**Expires:**	13-AUG-10	**Lot Number :**	15-37HG
Employee:	Bryan Davis			**Solvent :**	10% HNO3
Supplier:	Spex				

Description: Mercury Source Standard #1 1,000 mg/L

Comments: None

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Mercury	1000 mg/L		

Serial ID: UHG1167641-02 **Opened:** 13-AUG-09 **Amount :** 100 mL
Name: MHGSTOCK2 **Received:** 13-AUG-09 **Catalog Number :** AHG1KN-100
Type: Source Material **Expires:** 13-AUG-10 **Lot Number :** 4905530
Employee: Bryan Davis **Solvent :** 3% HNO3
Supplier: Ricca Chemical Company
Description: Mercury Source Standard #2 1,000 mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Mercury	999.7 mg/L		

Serial ID: UI090610-03 **Opened:** 10-JUN-09 **Catalog Number :** 060074-06-01
Name: ICPMS Tungsten - 10mg/L S **Received:** 10-JUN-09 **Lot Number :** 1016338
Type: Source Material **Expires:** 10-JUN-10 **Solvent :** 2% HNO3
Employee: Paul Boyd
Supplier: O2SI
Description: ICPMS Tungsten standard SPIKE - 10mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Tungsten	10 mg/L		

Serial ID: UI090701-09 **Opened:** 01-JUL-09 **Amount :** 250 mL
Name: ICP-MS CRDL Master #1 **Received:** 01-JUL-09 **Catalog Number :** 160044-09-02
Type: Source Material **Expires:** 01-JUL-10 **Lot Number :** 1016477
Employee: Paul Boyd **Solvent :** +/- 0.5% IN 2% HNO3
Supplier: 02SI
Description: ICPMS CRDL Master Soln #1
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	15 mg/L	Arsenic	5 mg/L
Barium	2 mg/L	Beryllium	.5 mg/L
Boron	15 mg/L	Cadmium	1 mg/L
Calcium	100 mg/L	Chromium	3 mg/L
Cobalt	1 mg/L	Copper	1 mg/L
Iron	25 mg/L	Lead	2 mg/L
Lithium	10 mg/L	Magnesium	15 mg/L
Manganese	5 mg/L	Nickel	2 mg/L
Phosphorous	50 mg/L	Potassium	300 mg/L
Selenium	5 mg/L	Sodium	250 mg/L
Strontium	10 mg/L	Thallium	1 mg/L

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Thorium	1 mg/L	Uranium	.2 mg/L
Vanadium	10 mg/L	Zinc	10 mg/L

Serial ID: UI090701-10 **Opened:** 01-JUL-09 **Amount :** 250 mL
Name: ICP-MS CRDL Master #2 **Received:** 01-JUL-09 **Catalog Number :** 160044-08-02
Type: Source Material **Expires:** 01-JUL-10 **Lot Number :** 1016476
Employee: Paul Boyd **Solvent :** +/- 0.5% IN 2% HNO3
Supplier: 02SI
Description: ICPMS CRDL Soln #2
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	2 mg/L	Molybdenum	.5 mg/L
Silver	1 mg/L	Tin	2 mg/L
Titanium	10 mg/L	Tungsten	5 mg/L
Zirconium	2 mg/L		

Serial ID: UI091124-A00 **Opened:** 24-NOV-09 **Catalog Number :** 160067-05
Name: ICP-MS ALL OTHER SPIKE **Received:** 24-NOV-09 **Lot Number :** 1017644
Type: Source Material **Expires:** 24-NOV-10
Employee: Francena Armstrong
Supplier: O2si
Description: ICP-MS SPIKE FOR ALL CLIENTS EXCEPT DOE CLIENTS (Solution A).
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	200 mg/L	Arsenic	5 mg/L
Barium	5 mg/L	Beryllium	5 mg/L
Bismuth	5 mg/L	Boron	10 mg/L
Cadmium	5 mg/L	Calcium	200 mg/L
Cesium	5 mg/L	Chromium	5 mg/L
Cobalt	5 mg/L	Copper	5 mg/L
Iron	200 mg/L	Lead	5 mg/L
Lithium	5 mg/L	Magnesium	200 mg/L
Manganese	5 mg/L	Nickel	5 mg/L
Phosphorous	200 mg/L	Potassium	200 mg/L
Selenium	5 mg/L	Sodium	200 mg/L
Strontium	5 mg/L	Thallium	5 mg/L
Thorium	5 mg/L	Uranium	5 mg/L
Uranium-235	.036 mg/L	Uranium-238	4.964 mg/L
Vanadium	5 mg/L	Zinc	5 mg/L

Standard Logbook

Serial ID: UI091124-B **Opened:** 24-NOV-09 **Catalog Number :** 160067-05
Name: ICP-MS ALL OTHER SPIKE **Received:** 24-NOV-09 **Lot Number :** 1017644
Type: Source Material **Expires:** 24-NOV-10
Employee: Francena Armstrong
Supplier: O2si
Description: MS SPIKE FOR ALL CLIENTS EXCEPT DOE CLIENTS (Solution B).
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	5 mg/L	Molybdenum	5 mg/L
Silver	5 mg/L	Tin	5 mg/L
Titanium	5 mg/L	Zirconium	5 mg/L

Serial ID: UI091212-11 **Opened:** 12-DEC-09 **Amount :** 1000 mL
Name: ICP-MS ICSA Master A **Received:** 12-DEC-09 **Catalog Number :** 160013-01-01L
Type: Source Material **Expires:** 12-DEC-10 **Lot Number :** 1015303
Employee: Paul Boyd **Solvent :** 2% HNO3
Supplier: 02SI
Description: ICP-MS ICSA Master A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Calcium	1000 mg/L
Carbon	2000 mg/L	Chloride	10000 mg/L
Iron	1000 mg/L	Magnesium	1000 mg/L
Molybdenum	20 mg/L	Phosphorous	1000 mg/L
Potassium	1000 mg/L	Sodium	1000 mg/L
Sulfur	1000 mg/L	Titanium	20 mg/L

Serial ID: UI091212-60 **Opened:** 12-DEC-09 **Amount :** .5 mL
Name: ICPMS High Range Standa **Received:** 12-DEC-09 **Catalog Number :** 160212-02-01
Type: Source Material **Expires:** 12-DEC-10 **Lot Number :** 1018064
Employee: Paul Boyd **Solvent :** 2%HNO3 + Tr HF
Supplier: O2SI
Description: Linear Range Standard A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	5000 mg/L	Arsenic	100 mg/L
Barium	250 mg/L	Beryllium	100 mg/L
Cadmium	100 mg/L	Calcium	5000 mg/L
Chromium	100 mg/L	Cobalt	100 mg/L
Copper	100 mg/L	Iron	5000 mg/L
Lead	500 mg/L	Lithium	100 mg/L
Magnesium	5000 mg/L	Manganese	100 mg/L
Nickel	100 mg/L	Phosphorous	2500 mg/L

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Potassium	5000 mg/L	Selenium	50 mg/L
Sodium	5000 mg/L	Strontium	100 mg/L
Thallium	50 mg/L	Thorium	250 mg/L
Uranium	500 mg/L	Vanadium	100 mg/L
Zinc	250 mg/L		

Serial ID: UI091212-61 **Opened:** 12-DEC-09 **Amount :** .5 mL
Name: ICPMS High Range Standa **Received:** 12-DEC-09 **Catalog Number :** 160212-02-01
Type: Source Material **Expires:** 12-DEC-10 **Lot Number :** 1018064
Employee: Paul Boyd **Solvent :** 2%HNO3 + Tr HF
Supplier: O2SI
Description: Linear Range Standard B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	25 mg/L	Molybdenum	100 mg/L
Silver	25 mg/L	Tin	100 mg/L
Tungsten	100 mg/L	Zirconium	50 mg/L

Serial ID: UI091217-06 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master A **Received:** 17-DEC-09 **Catalog Number :** 160055-01
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018209
Employee: Paul Boyd **Solvent :** +/- 0.5% in 5% HNO3 100 cm2
Supplier: 02SI
Description: ICPMS ICV/CCV SOLN A - 10ppm
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	2020 mg/L	Calcium	2000 mg/L
Iron	2000 mg/L	Magnesium	2000 mg/L
Phosphorous	2000 mg/L	Potassium	2000 mg/L
Sodium	2000 mg/L		

Serial ID: UI091217-07 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master B **Received:** 17-DEC-09 **Catalog Number :** 160054-02
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018210
Employee: Paul Boyd **Solvent :** +/- 0.5% in 5% HNO3 100 cm2
Supplier: 02SI
Description: ICPMS ICV/CCV Soln B - 10ppm
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	20 mg/L	Barium	20 mg/L
Beryllium	20 mg/L	Boron	40 mg/L

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Cadmium	20 mg/L	Chromium	20 mg/L
Cobalt	20 mg/L	Copper	20 mg/L
Lead	20 mg/L	Lithium	20 mg/L
Manganese	20 mg/L	Nickel	20 mg/L
Selenium	20 mg/L	Strontium	20 mg/L
Thallium	20 mg/L	Thorium	20 mg/L
Uranium	20 mg/L	Vanadium	20 mg/L
Zinc	20 mg/L		

Serial ID: UI091217-08 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master C **Received:** 17-DEC-09 **Catalog Number :** 160054-03
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018211
Employee: Paul Boyd **Solvent :** +/- 0.5% in 5% HNO3 100 cm2
Supplier: 02SI
Description: ICPMS ICV/CCV Soln C - 10ppm
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	20 mg/L	Molybdenum	20 mg/L
Silver	20 mg/L	Tin	20 mg/L
Titanium	20 mg/L	Tungsten	20 mg/L
Zirconium	20 mg/L		

Serial ID: UI091217-12 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICSAB Master B **Received:** 17-DEC-09 **Catalog Number :** 160033-02
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018212
Employee: Paul Boyd **Solvent :** +/- 0.5% in 2% HNO3
Supplier: 02SI
Description: ICPMS ICSAB Master B
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	2 mg/L	Barium	2 mg/L
Beryllium	2 mg/L	Boron	2 mg/L
Cadmium	2 mg/L	Chromium	2 mg/L
Cobalt	2 mg/L	Copper	2 mg/L
Lead	2 mg/L	Lithium	2 mg/L
Manganese	2 mg/L	Nickel	2 mg/L
Selenium	2 mg/L	Strontium	2 mg/L
Thallium	2 mg/L	Thorium	2 mg/L
Uranium	2 mg/L	Vanadium	2 mg/L
Zinc	2 mg/L		

Standard Logbook

Serial ID: UI091217-13 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICSAB Master C **Received:** 17-DEC-09 **Catalog Number :** 160033-03
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1016926
Employee: Paul Boyd **Solvent :** +/- 0.5% in 2% HNO3
Supplier: 02SI
Description: ICPMS ICSAB Master C
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	2 mg/L	Silver	2 mg/L
Tin	2 mg/L	Tungsten	2 mg/L
Zirconium	2 mg/L		

Serial ID: UMS090303-01 **Opened:** 03-MAR-09 **Amount :** 250 mL
Name: ICPMSCalSPIKEB **Received:** 03-MAR-09 **Catalog Number :** ZGEL-100-250
Type: Source Material **Expires:** 28-FEB-10 **Lot Number :** 14-81JB
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution B
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	10 mg/L	Barium	10 mg/L
Beryllium	10 mg/L	Boron	20 mg/L
Cadmium	10 mg/L	Chromium	10 mg/L
Cobalt	10 mg/L	Copper	10 mg/L
Lead	10 mg/L	Lithium	10 mg/L
Manganese	10 mg/L	Nickel	10 mg/L
Selenium	10 mg/L	Silver	10 mg/L
Strontium	10 mg/L	Thallium	10 mg/L
Thorium	10 mg/L	Uranium	10 mg/L
Vanadium	10 mg/L	Zinc	10 mg/L

Serial ID: UMS090303-02 **Opened:** 03-MAR-09 **Catalog Number :** ZGEL-102-250
Name: ICPMSCalSPIKEA **Received:** 03-MAR-09 **Lot Number :** 14-83JB
Type: Source Material **Expires:** 28-FEB-10
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Calcium	1000 mg/L
Iron	1000 mg/L	Magnesium	1000 mg/L
Phosphorous	1000 mg/L	Potassium	1000 mg/L
Sodium	1000 mg/L		

Standard Logbook

Serial ID: UMS090303-03 **Opened:** 03-MAR-09 **Amount :** 250 ml
Name: ICPMSCalSPIKEC **Received:** 03-MAR-09 **Catalog Number :** ZGEL-101-250
Type: Source Material **Expires:** 28-FEB-10 **Lot Number :** 15-199JB
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution C
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	10 mg/L	Molybdenum	10 mg/L
Tin	10 mg/L	Titanium	10 mg/L
Zirconium	10 mg/L		

Serial ID: IHG100104-01 **Opened:** 04-JAN-10 **Instrument Id :** Mercury
Name: MHGINTER1 **Received:** 04-JAN-10 **Pipet Id :** Minou1
Type: Intermediate **Expires:** 05-JAN-10 **Solvent :** 1mL HNO3 + Typel H2O
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Intermediate 1st Source 200 ug/L
Comments: Prepare fresh daily

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167639-01	Mercury	1000 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: IHG100104-02 **Opened:** 04-JAN-10 **Pipet Id :** Minou1
Name: MHGINTER2 **Received:** 04-JAN-10 **Solvent :** 2% HNO3-1240182
Type: Intermediate **Expires:** 05-JAN-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Intermediate 2nd Source 200 ug/L
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167641-02	Mercury	999.7 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: WHG100104-01a **Opened:** 04-JAN-10 **Pipet Id :** Hg1289245
Name: MHGWORKCAL0.2CRA **Received:** 04-JAN-10 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 09-JAN-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working 1st Source CAL 0.2/CRA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100104-01	Mercury	200 ug/L	20 uL	20 mL	.2 ug/L

Standard Logbook

Serial ID: WHG100104-02 **Opened:** 04-JAN-10 **Pipet Id :** Hg1289245
Name: MHGWORKCAL0.5 **Received:** 04-JAN-10 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 09-JAN-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working 1st Source CAL 0.5
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100104-01	Mercury	200 ug/L	50 uL	20 mL	.5 ug/L

Serial ID: WHG100104-03 **Opened:** 04-JAN-10 **Pipet Id :** Hg1289245
Name: MHGWORKCAL2.0 **Received:** 04-JAN-10 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 09-JAN-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL 2.0
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100104-01	Mercury	200 ug/L	200 uL	20 mL	2 ug/L

Serial ID: WHG100104-04 **Opened:** 04-JAN-10 **Pipet Id :** Hg1289245
Name: MHGWORKCAL5.0CCV **Received:** 04-JAN-10 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 09-JAN-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL 5.0/CCV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100104-01	Mercury	200 ug/L	500 uL	20 mL	5 ug/L

Serial ID: WHG100104-05 **Opened:** 04-JAN-10 **Pipet Id :** Hg1289245
Name: MHGWORKCAL10.0 **Received:** 04-JAN-10 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 09-JAN-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL 10.0
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100104-01	Mercury	200 ug/L	1 mL	20 mL	10 ug/L

Standard Logbook

Serial ID: WHG100104-06 **Opened:** 04-JAN-10 **Pipet Id :** Hg1289245
Name: MHGWORK5.0ICV **Received:** 04-JAN-10 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 09-JAN-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working 2nd Source 5.0/ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100104-02	Mercury	200 ug/L	500 uL	20 mL	5 ug/L

Serial ID: WHG100104-13 **Opened:** 04-JAN-10 **Pipet Id :** Hg1289245
Name: MHGLIQLCSMSSPIKE **Received:** 04-JAN-10 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 09-JAN-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury working intermediate standard for LCS/MS
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167639-01	Mercury	1000 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: WMS100102-04 **Opened:** 02-JAN-10 **Amount :** 50 mL
Name: ICPMS Cal Standard 100 **Received:** 02-JAN-10 **Balance Id :** 4025216
Type: Working **Expires:** 03-JAN-10 **Pipet Id :** 3541598
Employee: Elizabeth Janssen **Solvent :** 2%HNO3/1%HCl-1247304
Supplier: GEL
Description: ICPMS Calibration Standard (100 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090610-03	Tungsten	10 mg/L	.5 mL	50 mL	100 ug/L
UMS090303-01	Arsenic	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Barium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Beryllium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Boron	20 mg/L	.5 mL	50 mL	200 ug/l
UMS090303-01	Cadmium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Chromium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Cobalt	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Copper	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Lead	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Lithium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Manganese	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Nickel	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Selenium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Silver	10 mg/L	.5 mL	50 mL	100 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UMS090303-01	Strontium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Thallium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Thorium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Uranium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Vanadium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Zinc	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-02	Aluminum	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Calcium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Iron	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Magnesium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Phosphorous	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Potassium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Sodium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-03	Antimony	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Molybdenum	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Tin	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Titanium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Zirconium	10 mg/L	.5 mL	50 mL	100 ug/l

Serial ID: WMS100102-04A **Opened:** 02-JAN-10 **Balance Id :** 4025216
Name: ICPMS Cal Standard 10 **Received:** 02-JAN-10 **Pipet Id :** 3541598
Type: Working **Expires:** 03-JAN-10 **Solvent :** 2%HNO3/1%HCl - 1247304
Employee: Elizabeth Janssen
Supplier: GEL
Description: ICPMS Calibration Standard (10 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100102-04	Aluminum	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100102-04	Antimony	100 ug/l	5 mL	50 mL	10 ug/l
WMS100102-04	Arsenic	100 ug/l	5 mL	50 mL	10 ug/l
WMS100102-04	Barium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100102-04	Beryllium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100102-04	Boron	200 ug/l	5 mL	50 mL	20 ug/l
WMS100102-04	Cadmium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100102-04	Calcium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100102-04	Chromium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100102-04	Cobalt	100 ug/l	5 mL	50 mL	10 ug/l
WMS100102-04	Copper	100 ug/l	5 mL	50 mL	10 ug/l
WMS100102-04	Iron	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100102-04	Lead	100 ug/l	5 mL	50 mL	10 ug/l
WMS100102-04	Lithium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100102-04	Magnesium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100102-04	Manganese	100 ug/l	5 mL	50 mL	10 ug/l
WMS100102-04	Molybdenum	100 ug/l	5 mL	50 mL	10 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100102-04	Nickel	100 ug/l	5 mL	50 mL	10 ug/l
WMS100102-04	Phosphorous	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100102-04	Potassium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100102-04	Selenium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100102-04	Silver	100 ug/l	5 mL	50 mL	10 ug/l
WMS100102-04	Sodium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100102-04	Strontium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100102-04	Thallium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100102-04	Thorium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100102-04	Tin	100 ug/l	5 mL	50 mL	10 ug/l
WMS100102-04	Titanium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100102-04	Tungsten	100 ug/L	5 mL	50 mL	10 ug/L
WMS100102-04	Uranium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100102-04	Vanadium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100102-04	Zinc	100 ug/l	5 mL	50 mL	10 ug/l
WMS100102-04	Zirconium	100 ug/l	5 mL	50 mL	10 ug/l

Serial ID: WMS100102-05 **Opened:** 02-JAN-10 **Balance Id :** 40245216
Name: ICPMS ICV **Received:** 02-JAN-10 **Pipet Id :** 3541598
Type: Working **Expires:** 03-JAN-10 **Solvent :** 2%HNO3/1%HCl - 1247304
Employee: Elizabeth Janssen
Supplier: GEL
Description: ICPMS ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-06	Aluminum	2020 mg/L	.125 mL	50 mL	5050 ug/L
UI091217-06	Calcium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Iron	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Magnesium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Phosphorous	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Potassium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Sodium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-07	Arsenic	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Barium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Beryllium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Boron	40 mg/L	.125 mL	50 mL	100 ug/L
UI091217-07	Cadmium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Chromium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Cobalt	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Copper	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lead	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lithium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Manganese	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Nickel	20 mg/L	.125 mL	50 mL	50 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-07	Selenium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Strontium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thallium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thorium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Uranium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Vanadium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Zinc	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Antimony	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Molybdenum	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Silver	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tin	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Titanium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tungsten	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Zirconium	20 mg/L	.125 mL	50 mL	50 ug/L

Serial ID: WMS100102-06 **Opened:** 02-JAN-10 **Balance Id :** 40245216
Name: ICPMS CRDL **Received:** 02-JAN-10 **Pipet Id :** 3820544
Type: Working **Expires:** 03-JAN-10 **Solvent :** 2%HNO3/1%HCl - 1247304
Employee: Elizabeth Janssen
Supplier: GEL
Description: ICPMS CRDL
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Aluminum	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Arsenic	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Barium	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Beryllium	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-09	Boron	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Cadmium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Calcium	100 mg/L	.05 mL	50 mL	100 ug/L
UI090701-09	Chromium	3 mg/L	.05 mL	50 mL	3 ug/L
UI090701-09	Cobalt	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Copper	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Iron	25 mg/L	.05 mL	50 mL	25 ug/L
UI090701-09	Lead	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Lithium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Magnesium	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Manganese	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Nickel	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Phosphorous	50 mg/L	.05 mL	50 mL	50 ug/L
UI090701-09	Potassium	300 mg/L	.05 mL	50 mL	300 ug/L
UI090701-09	Selenium	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Sodium	250 mg/L	.05 mL	50 mL	250 ug/L
UI090701-09	Strontium	10 mg/L	.05 mL	50 mL	10 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Thallium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Thorium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Uranium	.2 mg/L	.05 mL	50 mL	.2 ug/L
UI090701-09	Vanadium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Zinc	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Antimony	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-10	Molybdenum	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-10	Silver	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-10	Tin	2 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Titanium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Tungsten	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Zirconium	2 mg/L	.05 mL	50 mL	2 ug/L

Serial ID: WMS100102-07 **Opened:** 02-JAN-10 **Balance Id :** 40245216
Name: ICPMS ICSA **Received:** 02-JAN-10 **Lot Number :** 1010773
Type: Working **Expires:** 03-JAN-10 **Pipet Id :** 3541598
Employee: Elizabeth Janssen **Solvent :** 2%HNO3/1%HCl - 1247304
Supplier: GEL
Description: ICPMS ICSA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI091212-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI091212-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: WMS100102-08 **Opened:** 02-JAN-10 **Balance Id :** 40245216
Name: ICPMS ICSAB **Received:** 02-JAN-10 **Pipet Id :** 1758088
Type: Working **Expires:** 03-JAN-10 **Solvent :** 2%HNO3/1%HCl - 1247304
Employee: Elizabeth Janssen
Supplier: GEL
Description: ICPMS ICSAB
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI091212-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI091212-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L
UI091217-12	Arsenic	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Barium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Beryllium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Boron	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Cadmium	2 mg/L	.5 mL	50 mL	20.2 ug/L
UI091217-12	Chromium	2 mg/L	.5 mL	50 mL	22.2 ug/L
UI091217-12	Cobalt	2 mg/L	.5 mL	50 mL	20.4 ug/L
UI091217-12	Copper	2 mg/L	.5 mL	50 mL	23.4 ug/L
UI091217-12	Lead	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Lithium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Manganese	2 mg/L	.5 mL	50 mL	22.7 ug/L
UI091217-12	Nickel	2 mg/L	.5 mL	50 mL	22.4 ug/L
UI091217-12	Selenium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Strontium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thallium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thorium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Uranium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Vanadium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Zinc	2 mg/L	.5 mL	50 mL	27 ug/L
UI091217-13	Antimony	2 mg/L	.5 mL	50 mL	20.5 ug/L
UI091217-13	Silver	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tin	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tungsten	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Zirconium	2 mg/L	.5 mL	50 mL	20 ug/L

Serial ID: WMS100102-70 **Opened:** 02-JAN-10 **Balance Id :** 40245216
Name: ICPMS LINEAR RANGE ST **Received:** 02-JAN-10 **Pipet Id :** 1758088
Type: Working **Expires:** 03-JAN-10 **Solvent :** 2%HNO3/1%HCl - 1247304
Employee: Elizabeth Janssen
Supplier: 02SI
Description: ICPMS LINEAR RANGE STANDARD
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-60	Aluminum	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Arsenic	100 mg/L	.5 mL	50 mL	1000 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-60	Barium	250 mg/L	.5 mL	50 mL	2500 ug/L
UI091212-60	Beryllium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Cadmium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Calcium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Chromium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Cobalt	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Copper	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Iron	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Lead	500 mg/L	.5 mL	50 mL	5000 ug/L
UI091212-60	Lithium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Magnesium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Manganese	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Nickel	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Phosphorous	2500 mg/L	.5 mL	50 mL	25000 ug/L
UI091212-60	Potassium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Selenium	50 mg/L	.5 mL	50 mL	500 ug/L
UI091212-60	Sodium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Strontium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Thallium	50 mg/L	.5 mL	50 mL	500 ug/L
UI091212-60	Thorium	250 mg/L	.5 mL	50 mL	2500 ug/L
UI091212-60	Uranium	500 mg/L	.5 mL	50 mL	5000 ug/L
UI091212-60	Vanadium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Zinc	250 mg/L	.5 mL	50 mL	2500 ug/L
UI091212-61	Antimony	25 mg/L	.5 mL	50 mL	250 ug/L
UI091212-61	Molybdenum	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-61	Silver	25 mg/L	.5 mL	50 mL	250 ug/L
UI091212-61	Tin	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-61	Tungsten	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-61	Zirconium	50 mg/L	.5 mL	50 mL	500 ug/L

Serial ID: 1018204 **Opened:** 15-DEC-09 **Lot Number :** 1018204
Name: TCLP1 **Received:** 14-DEC-09
Type: Reagent/Solvent **Expires:** 14-DEC-10
Employee: Clifford Postell **Verified:** 08-AUG-07
Supplier: O2SI
Description: TCLP EXTRACTION FLUID 1
Comments: None

Serial ID: 1018208ZHE **Opened:** 21-DEC-09 **Lot Number :** 1018208
Name: TCLP1 **Received:** 17-DEC-09
Type: Reagent/Solvent **Expires:** 17-DEC-10
Employee: Clifford Postell **Verified:** 08-AUG-07
Supplier: O2SI
Description: TCLP EXTRACTION FLUID 1

Standard Logbook

Comments: None

Serial ID: 1100721TCLP **Opened:** 16-APR-09 **Lot Number :** H02026 L
Name: I-HNO3 **Received:** 02-APR-09
Type: Reagent/Solvent **Expires:** 02-APR-10
Employee: Clifford Postell
Supplier: BAKER
Description: Nitric Acid CONC.
Comments: None

Serial ID: 1156689-A **Opened:** 20-JUL-09 **Lot Number :** 41226920
Name: B-KMnO4(VWR)-MER **Received:** 20-JUL-09
Type: Reagent/Solvent **Expires:** 20-JUL-10
Employee: Tara Griffin **Verified:** 07-AUG-07
Supplier: VWR
Description: Potassium Permanganate
Comments: None

Serial ID: 1164796-A **Opened:** 06-AUG-09 **Lot Number :** 49149927
Name: B-NH2OH.HCl-MER **Received:** 06-AUG-09
Type: Reagent/Solvent **Expires:** 06-AUG-10
Employee: Tara Griffin
Supplier: Fisher Scientific
Description: Hydroxlyamine Hydrochloride
Comments: None

Serial ID: 1176183 **Opened:** 24-AUG-09 **Lot Number :** H20001
Name: B-H2SO4-MER **Received:** 24-AUG-09
Type: Reagent/Solvent **Expires:** 24-AUG-10
Employee: Tara Griffin
Supplier: Mallinckrodt
Description: Sulfuric Acid, Concentrated
Comments: None

Serial ID: 1202901 **Opened:** 14-OCT-09
Name: 1N HCl- TCLP **Received:** 14-OCT-09
Type: Reagent/Solvent **Expires:** 14-OCT-10
Employee: Monifa Morant-Basdeo
Supplier: GEL
Description: 1N HCl for pH testing
Comments: None

Standard Logbook

Serial ID: 1206350-C **Opened:** 22-OCT-09 **Balance Id :** BAL-002
Name: B-NaCl.NH2OH.HCl-MER **Received:** 22-OCT-09
Type: Reagent/Solvent **Expires:** 06-AUG-10
Employee: Tara Griffin
Supplier: GEL
Description: Hg reducing agent
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1164796-A	B-NH2OH.HCl-MER	N/A	120 g	1000 mL	N/A

Serial ID: 1215906 **Opened:** 06-NOV-09 **Lot Number :** H44465
Name: B-K2S2O8S-MER **Received:** 06-NOV-09
Type: Reagent/Solvent **Expires:** 06-NOV-10
Employee: Tara Griffin
Supplier: J.T BAKER
Description: Potassium Persulfate Concentrate.
Comments: None

Serial ID: 1234385-C **Opened:** 25-NOV-09 **Balance Id :** BAL-002
Name: B-K2S2O8-MER **Received:** 25-NOV-09
Type: Reagent/Solvent **Expires:** 25-MAY-10
Employee: Tara Griffin
Supplier: GEL
Description: 5% Potassium Persulfate
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1215906	B-K2S2O8S-MER	N/A	50 g	1000 mL	N/A

Serial ID: 1234886 **Opened:** 27-NOV-09 **Lot Number :** H20053 L
Name: I-HNO3 **Received:** 27-NOV-09
Type: Reagent/Solvent **Expires:** 27-NOV-10
Employee: Bryan Davis
Supplier: BAKER
Description: Nitric Acid CONC.
Comments: None

Serial ID: 1238345 **Opened:** 04-DEC-09 **Lot Number :** H20053 L
Name: I-HNO3 **Received:** 04-DEC-09
Type: Reagent/Solvent **Expires:** 04-DEC-10
Employee: Francena Armstrong
Supplier: BAKER
Description: Nitric Acid CONC.

Standard Logbook

Comments: None

Serial ID: 1240182-1 **Opened:** 09-DEC-09 **Instrument Id :** MERCURY
Name: B-HNO3-MER **Received:** 09-DEC-09 **Lot Number :** H34040
Type: Reagent/Solvent **Expires:** 09-DEC-10
Employee: Tara Griffin
Supplier: Mallinckrodt Chemicals
Description: NITRIC ACID
Comments: None

Serial ID: 1244904-C **Opened:** 18-DEC-09 **Balance Id :** BAL-002
Name: B-KMnO4-MER **Received:** 18-DEC-09
Type: Reagent/Solvent **Expires:** 18-JUN-10
Employee: Tara Griffin
Supplier: GEL
Description: 5% KMnO4 solution
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1156689-A	B-KMnO4(VWR)-MER	Crystals	50 g	1000 mL	3%

Serial ID: 1244970 **Opened:** 18-DEC-09 **Lot Number :** H41032
Name: I-HCL **Received:** 18-DEC-09 **Preservative_Id :** 5 none
Type: Reagent/Solvent **Expires:** 18-DEC-10
Employee: Francena Armstrong
Supplier: J.T. BAKER
Description: HYDROCHLORIC ACID
Comments: None

Serial ID: 1247304 **Opened:** 28-DEC-09 **Solvent :** Type I Water
Name: B-2%HNO3/1%HCl-ICPMS **Received:** 28-DEC-09
Type: Reagent/Solvent **Expires:** 04-JAN-10
Employee: Elizabeth Janssen
Supplier: GEL
Description: 2%HNO3/1%HCl Solution (Type I Water)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1238345	I-HNO3	69.0-70.0	180 mL	9 l	N/A
1244970	I-HCL	36.5-38.0	90 mL	9 l	N/A

General Chemistry Analysis

Case Narrative

General Chemistry Narrative
Los Alamos National Laboratory (LANL)
SDG 10-1085

Method/Analysis Information

Product:	**Cyanide, Total**		
Analytical Batch:	936843	**Method:**	SW846 9012A
Prep Batch :	936841	**Method:**	SW846 9010B Prep

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 9012A:

Sample ID	Client ID
243549002	WST03-10-2148
1202004497	Method Blank (MB)
1202004498	243517008(RE12-10-7561) Sample Duplicate (DUP)
1202004499	243517009(RE12-10-7563) Sample Duplicate (DUP)
1202004500	243517008(RE12-10-7561) Matrix Spike (MS)
1202004501	243517009(RE12-10-7563) Matrix Spike (MS)
1202004502	243517008(RE12-10-7561) Matrix Spike Duplicate (MSD)
1202004503	243517009(RE12-10-7563) Matrix Spike Duplicate (MSD)
1202004504	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on a "dry weight" basis.

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-095 REV# 12.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

The Flow Injection analysis was performed on a Lachat QuickChem FIA+ 8000 Series.

Initial Calibration

All initial calibration requirements have been met for this SDG.

Continuing Calibration Blanks

All continuing calibration blanks (CCBs) associated with reported data from this batch were within

acceptance limits.

Calibration Verification Information (CCV)
All continuing calibration verification standards (CCVs) associated with reported data from this batch were within acceptance limits.

Y Intercept Rule
The absolute value of the intercept is less than 3 times the MDL.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recovery met the acceptance limits.

Quality Control (QC) Designation
The following samples were selected for QC analysis: 243517008 (RE12-10-7561) and 243517009 (RE12-10-7563).

Matrix Spike (MS)/Post Spike (PS) Recovery Statement
The MS/PS recoveries for this sample set were within the required acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recoveries for this sample set were within the required acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPDs between the spike and spike duplicate met the acceptance limits.

Duplicate Relative Percent Difference (RPD) Statement
The values for the sample and duplicate are less than the Practical Quantitation Limit (PQL); therefore, the RPD is not applicable. 1202004498 (RE12-10-7561) and 1202004499 (RE12-10-7563).

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times
All samples in this SDG met the specified holding time.

Sample Preservation/Integrity
All the samples from this sample group met the preservation and integrity requirements of the method.

Sample Dilutions
The following sample in this sample group was diluted due to high concentration: 1202004504 (LCS).

Sample Re-analysis
The samples in this SDG did not require re-analysis.

Miscellaneous Information

Nonconformance (NCR) Documentation
An NCR was not required for this SDG.

Additional Comments
Additional comments were not required for this SDG.

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:
Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Tom Lewis, Jr. **Date:** 20Jan10

Sample Data Summary

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis Report
for

LANL010 Los Alamos National Laboratory (72733-001-09)

Client SDG: 10-1085 GEL Work Order: 243549

The Qualifiers in this report are defined as follows:

* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.

** Indicates the analyte is a surrogate compound.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the detection limit.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Valerie Davis.

Reviewed by Tom Lewis, Jr.

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: January 6, 2010

Client SDG: 10-1085

Client Sample ID:	WST03-10-2148	Project:	LANL01004
Sample ID:	243549002	Client ID:	LANL010
Matrix:	R		
Collect Date:	22-DEC-09 12:00		
Receive Date:	24-DEC-09		
Collector:	Client		
Moisture:	7.19%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total Federal "Dry Weight Corrected"										
Cyanide, Total	J	76.5	65.4	241	ug/kg	1	AXC2 01/04/10	1133	936843	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	12/31/09	1509	936841

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

Quality Control Summary

GEL LABORATORIES LLC

2040 Savage Road Charleston, SC 29407 - (843) 556-8171 - www.gel.com

QC Summary

Report Date: January 6, 2010
Page 1 of 2

Los Alamos National Laboratory
PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico

Contact: Ms. Joylene Valdez

Workorder: 243549

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Flow Injection Analysis										
Batch 936843										
QC1202004498 243517008 DUP										
Cyanide, Total	U	ND	U	ND	ug/kg	N/A			AXC2	01/04/10 11:08
QC1202004499 243517009 DUP										
Cyanide, Total	U	ND	J	96.0	ug/kg	200		(+/-264)		01/04/10 11:12
QC1202004504 LCS										
Cyanide, Total	67900			75500	ug/kg		111	(46%-145%)		01/04/10 11:07
QC1202004497 MB										
Cyanide, Total			U	250	ug/kg					01/04/10 11:02
QC1202004500 243517008 MS										
Cyanide, Total	5340 U	ND		4890	ug/kg		91.7	(50%-130%)		01/04/10 11:09
QC1202004501 243517009 MS										
Cyanide, Total	5590 U	ND		5160	ug/kg		92.2	(50%-130%)		01/04/10 11:13
QC1202004502 243517008 MSD										
Cyanide, Total	5660 U	ND		5230	ug/kg	6.58	92.4	(0%-30%)		01/04/10 11:10
QC1202004503 243517009 MSD										
Cyanide, Total	5480 U	ND		4360	ug/kg	16.9	79.3	(0%-30%)		01/04/10 11:14

Notes:
RER is calculated at the 95% confidence level (2-sigma).
The Qualifiers in this report are defined as follows:

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
- E Organics--Concentration of the target analyte exceeds the instrument calibration range
- F Estimated Value
- H Analytical holding time was exceeded
- J Value is estimated
- M M if above MDC and less than LLD
- M Matrix Related Failure
- N Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor

QC Summary

Workorder: 243549

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time

N/A	RPD or %Recovery limits do not apply.
ND	Analyte concentration is not detected above the detection limit
NJ	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
P	Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%
R	Sample results are rejected
U	Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI	Gamma Spectroscopy--Uncertain identification
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
Z	Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d	5-day BOD--The 2:1 depletion requirement was not met for this sample
h	Preparation or preservation holding time was exceeded

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more.
^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.
* Indicates that a Quality Control parameter was not within specifications.
For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

Instrument QC Data Summary

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Report Run On: 06-JAN-2010 08:56

GEL Laboratories LLC

Contract: LANL01004

SDG #: 10-1085

Flow Injection Analysis

Method: SW846 9012A Concentration Units:ug/L

Instrument: Lachat QuickChem FIA+ 8000 Series

Parmname: Cyanide, Total

Sample Type	Run Date	Data File	Result	Nominal	Recovery	Limits	Within Limits
ICV	**04-JAN-2010 10:36:47**	**OM_1-4-2010_10-26-17**	**137**	**150**	**91**	**(90%-110%)**	**Yes**
CCV	04-JAN-2010 10:51:04	OM_1-4-2010_10-26-17	109	100	109	(90%-110%)	Yes
CCV	04-JAN-2010 11:03:30	OM_1-4-2010_10-26-17	103	100	103	(90%-110%)	Yes
CCV	04-JAN-2010 11:15:55	OM_1-4-2010_10-26-17	103	100	103	(90%-110%)	Yes
CCV	04-JAN-2010 11:28:25	OM_1-4-2010_10-26-17	103	100	103	(90%-110%)	Yes
CCV	04-JAN-2010 11:38:11	OM_1-4-2010_10-26-17	104	100	104	(90%-110%)	Yes

Sample Type	Run Date	Data File	Result	Limits	Within Limits
ICB	**04-JAN-2010 10:38:37**	**OM_1-4-2010_10-26-17**	**-3.1**	**5**	**Yes**
CCB	04-JAN-2010 10:52:55	OM_1-4-2010_10-26-17	-2.04	5	Yes
CCB	04-JAN-2010 11:05:20	OM_1-4-2010_10-26-17	-2.7	5	Yes
CCB	04-JAN-2010 11:17:45	OM_1-4-2010_10-26-17	-1.79	5	Yes
CCB	04-JAN-2010 11:30:15	OM_1-4-2010_10-26-17	-2.53	5	Yes
CCB	04-JAN-2010 11:40:02	OM_1-4-2010_10-26-17	-2.65	5	Yes

Cyanide, Total

Prep LogBook

Analyst: AXS5 Verified by:_____

Batch: 936841

Lab SOP: GL-GC-E-067 REV# 13

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1202004504	URF1200957-01	.25	g
MS	1202004500	URF1184831-02	.025	mL
MS	1202004501	URF1184831-02	.025	mL
MSD	1202004502	URF1184831-02	.025	mL
MSD	1202004503	URF1184831-02	.025	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Ph	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1202004497		SW846 9010B Prep	31-DEC-2009 15:09	>12	0.5 g	25 mL	50	SOIL
LCS	1202004504		SW846 9010B Prep	31-DEC-2009 15:09	>12	0.25 g	25 mL	100	SOIL
SAMPLE	243517008		SW846 9010B Prep	31-DEC-2009 15:09	>12	0.52 g	25 mL	48.07692	SOIL
DUP	1202004498	243517008	SW846 9010B Prep	31-DEC-2009 15:09	>12	0.57 g	25 mL	43.85965	SOIL
MS	1202004500	243517008	SW846 9010B Prep	31-DEC-2009 15:09	>12	0.53 g	25 mL	47.16981	SOIL
MSD	1202004502	243517008	SW846 9010B Prep	31-DEC-2009 15:09	>12	0.5 g	25 mL	50	SOIL
SAMPLE	243517009		SW846 9010B Prep	31-DEC-2009 15:09	>12	0.51 g	25 mL	49.01961	SOIL
DUP	1202004499	243517009	SW846 9010B Prep	31-DEC-2009 15:09	>12	0.54 g	25 mL	46.2963	SOIL
MS	1202004501	243517009	SW846 9010B Prep	31-DEC-2009 15:09	>12	0.51 g	25 mL	49.01961	SOIL
MSD	1202004503	243517009	SW846 9010B Prep	31-DEC-2009 15:09	>12	0.52 g	25 mL	48.07692	SOIL
SAMPLE	243521001		SW846 9010B Prep	31-DEC-2009 15:09	>12	0.54 g	25 mL	46.2963	SOIL
SAMPLE	243521002		SW846 9010B Prep	31-DEC-2009 15:09	>12	0.52 g	25 mL	48.07692	SOIL
SAMPLE	243521003		SW846 9010B Prep	31-DEC-2009 15:09	>12	0.55 g	25 mL	45.45455	SOIL
SAMPLE	243521004		SW846 9010B Prep	31-DEC-2009 15:09	>12	0.56 g	25 mL	44.64286	SOIL
SAMPLE	243521005		SW846 9010B Prep	31-DEC-2009 15:09	>12	0.52 g	25 mL	48.07692	SOIL
SAMPLE	243521006		SW846 9010B Prep	31-DEC-2009 15:09	>12	0.57 g	25 mL	43.85965	SOIL
SAMPLE	243521007		SW846 9010B Prep	31-DEC-2009 15:09	>12	0.53 g	25 mL	47.16981	SOIL
SAMPLE	243521008		SW846 9010B Prep	31-DEC-2009 15:09	>12	0.57 g	25 mL	43.85965	SOIL
SAMPLE	243521009		SW846 9010B Prep	31-DEC-2009 15:09	>12	0.5 g	25 mL	50	SOIL
SAMPLE	243521010		SW846 9010B Prep	31-DEC-2009 15:09	>12	0.52 g	25 mL	48.07692	SOIL
SAMPLE	243521011		SW846 9010B Prep	31-DEC-2009 15:09	>12	0.5 g	25 mL	50	SOIL
SAMPLE	243547002		SW846 9010B Prep	31-DEC-2009 15:09	>12	0.51 g	25 mL	49.01961	SOIL
SAMPLE	243547003		SW846 9010B Prep	31-DEC-2009 15:09	>12	0.53 g	25 mL	47.16981	SOIL
SAMPLE	243549002		SW846 9010B Prep	31-DEC-2009 15:09	>12	0.56 g	25 mL	44.64286	SOIL
SAMPLE	243550001		SW846 9010B Prep	31-DEC-2009 15:09	>12	0.5 g	25 mL	50	SOIL
SAMPLE	243550002		SW846 9010B Prep	31-DEC-2009 15:09	>12	0.58 g	25 mL	43.10345	SOIL
SAMPLE	243550003		SW846 9010B Prep	31-DEC-2009 15:09	>12	0.55 g	25 mL	45.45455	SOIL
SAMPLE	243550004		SW846 9010B Prep	31-DEC-2009 15:09	>12	0.5 g	25 mL	50	SOIL

Prep LogBook

Reagent/Solvent Lot ID	Amount	Description
091211-C	25 mL	0.25N Sodium Hydroxide Solution
WCN091231-07	.0375 mL	150 ppb CN Distilled ICV Standard
1176724-C	1.25 mL	0.8N H3NO3S
1238146-C	2.5 mL	50% H2SO4 CN Prep
1176778-C	1 mL	51% MgCl2 Soln
1238142-C	1.25 mL	Bismuth Nitrate Solution

Comments:

This is runlog Lachat1

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
200 ppb		1	axc2	1/4/2010 10:29:37	OM_1-4-2010_10-26-17
150 ppb		1	axc2	1/4/2010 10:30:29	OM_1-4-2010_10-26-17
100 ppb		1	axc2	1/4/2010 10:31:22	OM_1-4-2010_10-26-17
50 ppb		1	axc2	1/4/2010 10:32:15	OM_1-4-2010_10-26-17
10 ppb		1	axc2	1/4/2010 10:33:08	OM_1-4-2010_10-26-17
CRDL 5.0 ppb		1	axc2	1/4/2010 10:34:02	OM_1-4-2010_10-26-17
ICAL-00		1	axc2	1/4/2010 10:34:56	OM_1-4-2010_10-26-17
ICV		1	axc2	1/4/2010 10:36:47	OM_1-4-2010_10-26-17
ICB		1	axc2	1/4/2010 10:38:37	OM_1-4-2010_10-26-17
CRDL		1	axc2	1/4/2010 10:40:27	OM_1-4-2010_10-26-17
1202005554	937245	1	axc2	1/4/2010 10:42:17	OM_1-4-2010_10-26-17
1202005558*	937245	1	axc2	1/4/2010 10:43:10	OM_1-4-2010_10-26-17
243585002	937245	1	axc2	1/4/2010 10:44:03	OM_1-4-2010_10-26-17
243608001	937245	1	axc2	1/4/2010 10:44:56	OM_1-4-2010_10-26-17
1202005555	937245	1	axc2	1/4/2010 10:45:49	OM_1-4-2010_10-26-17
1202005556	937245	1	axc2	1/4/2010 10:46:42	OM_1-4-2010_10-26-17
1202005557	937245	1	axc2	1/4/2010 10:47:34	OM_1-4-2010_10-26-17
243627001	937245	1	axc2	1/4/2010 10:48:27	OM_1-4-2010_10-26-17
243629001	937245	1	axc2	1/4/2010 10:49:19	OM_1-4-2010_10-26-17
243631001	937245	1	axc2	1/4/2010 10:50:12	OM_1-4-2010_10-26-17
CCV		1	axc2	1/4/2010 10:51:04	OM_1-4-2010_10-26-17
CCB		1	axc2	1/4/2010 10:52:55	OM_1-4-2010_10-26-17
1202005558	937245	1	axc2	1/4/2010 10:54:44	OM_1-4-2010_10-26-17
243632001	937245	1	axc2	1/4/2010 10:55:36	OM_1-4-2010_10-26-17
243633001	937245	1	axc2	1/4/2010 10:56:28	OM_1-4-2010_10-26-17
243633002	937245	1	axc2	1/4/2010 10:57:20	OM_1-4-2010_10-26-17
243633006	937245	1	axc2	1/4/2010 10:58:12	OM_1-4-2010_10-26-17
1202006217	937245	1	axc2	1/4/2010 10:59:04	OM_1-4-2010_10-26-17
1202006218	937245	1	axc2	1/4/2010 10:59:57	OM_1-4-2010_10-26-17
1202006219	937245	1	axc2	1/4/2010 11:00:51	OM_1-4-2010_10-26-17
243633009	937245	1	axc2	1/4/2010 11:01:44	OM_1-4-2010_10-26-17
1202004497	936843	1	axc2	1/4/2010 11:02:37	OM_1-4-2010_10-26-17
CCV		1	axc2	1/4/2010 11:03:30	OM_1-4-2010_10-26-17
CCB		1	axc2	1/4/2010 11:05:20	OM_1-4-2010_10-26-17
1202004504	936843	25	axc2	1/4/2010 11:07:10	OM_1-4-2010_10-26-17
243517008	936843	1	axc2	1/4/2010 11:08:03	OM_1-4-2010_10-26-17
1202004498	936843	1	axc2	1/4/2010 11:08:56	OM_1-4-2010_10-26-17
1202004500	936843	1	axc2	1/4/2010 11:09:48	OM_1-4-2010_10-26-17
1202004502	936843	1	axc2	1/4/2010 11:10:41	OM_1-4-2010_10-26-17
243517009	936843	1	axc2	1/4/2010 11:11:34	OM_1-4-2010_10-26-17
1202004499	936843	1	axc2	1/4/2010 11:12:26	OM_1-4-2010_10-26-17
1202004501	936843	1	axc2	1/4/2010 11:13:18	OM_1-4-2010_10-26-17
1202004503	936843	1	axc2	1/4/2010 11:14:10	OM_1-4-2010_10-26-17
243521001	936843	1	axc2	1/4/2010 11:15:02	OM_1-4-2010_10-26-17
CCV		1	axc2	1/4/2010 11:15:55	OM_1-4-2010_10-26-17
CCB		1	axc2	1/4/2010 11:17:45	OM_1-4-2010_10-26-17
243521002	936843	1	axc2	1/4/2010 11:19:33	OM_1-4-2010_10-26-17
243521003	936843	1	axc2	1/4/2010 11:20:27	OM_1-4-2010_10-26-17
243521004	936843	1	axc2	1/4/2010 11:21:21	OM_1-4-2010_10-26-17
243521005	936843	1	axc2	1/4/2010 11:22:14	OM_1-4-2010_10-26-17
243521006	936843	1	axc2	1/4/2010 11:23:08	OM_1-4-2010_10-26-17
243521007	936843	1	axc2	1/4/2010 11:24:01	OM_1-4-2010_10-26-17
243521008	936843	1	axc2	1/4/2010 11:24:54	OM_1-4-2010_10-26-17
243521009	936843	1	axc2	1/4/2010 11:25:47	OM_1-4-2010_10-26-17
243521010	936843	1	axc2	1/4/2010 11:26:40	OM_1-4-2010_10-26-17
243521011	936843	1	axc2	1/4/2010 11:27:33	OM_1-4-2010_10-26-17
CCV		1	axc2	1/4/2010 11:28:25	OM_1-4-2010_10-26-17
CCB		1	axc2	1/4/2010 11:30:15	OM_1-4-2010_10-26-17

243547002	936843	1	axc2	1/4/2010	11:32:04	OM_1-4-2010_10-26-17
243547003	936843	1	axc2	1/4/2010	11:32:56	OM_1-4-2010_10-26-17
243549002	936843	1	axc2	1/4/2010	11:33:49	OM_1-4-2010_10-26-17
243550001	936843	1	axc2	1/4/2010	11:34:41	OM_1-4-2010_10-26-17
243550002	936843	1	axc2	1/4/2010	11:35:33	OM_1-4-2010_10-26-17
243550003	936843	1	axc2	1/4/2010	11:36:25	OM_1-4-2010_10-26-17
243550004	936843	1	axc2	1/4/2010	11:37:19	OM_1-4-2010_10-26-17
CCV		1	axc2	1/4/2010	11:38:11	OM_1-4-2010_10-26-17
CCB		1	axc2	1/4/2010	11:40:02	OM_1-4-2010_10-26-17

Author: axc2 Date : 1/4/2010

Original Run Filename: OM_1-4-2010_10-26-17.OMN created 1/4/2010 10:26:17
Original Run Author's Signature: [axc2]
Current Run Filename: OM_1-4-2010_10-26-17.OMN last modified 1/4/2010 11:41:07
Current Run Author's Signature: [axc2]
Description: GL-GC-E-095 EPA 335.1, 335.3, 335.4, 9012A, CLP335.2-M
Liquid LCS nominal 50 ug/L

Sample	Rep.	Cup No.	Channel 1 TCYANIDE Conc. (ug/L)	Area (Vs)	Detection Time	ADF	MDF	Description
WCN100104-01	1	S1	200	7.63	1/4/2010@10:29:37			200 ppb
WCN100104-02	1	S2	150	5.81	1/4/2010@10:30:29			150 ppb
WCN100104-03	1	S3	100	3.99	1/4/2010@10:31:22			100 ppb
WCN100104-04	1	S4	50.0	2.09	1/4/2010@10:32:15			50 ppb
WCN100104-05	1	S5	10.0	0.463	1/4/2010@10:33:08			10 ppb
WCN100104-06	1	S6	5.00	0.277	1/4/2010@10:34:02			CRDL 5.0 ppb
WCN100104-08	1	S7	0.00	0.0108	1/4/2010@10:34:56			0.0 ppb
DQM Test: Minimum Correlation Coefficient								
		Result:	0.99973 > 0.99500					
		Message	Pass					
		Action	Continue					
WCN100104-07	1	S8	137	5.30	1/4/2010@10:36:47			ICV
		Known Conc:	150					
DQM Test: > + Percent Relative Difference								
		Result:	-8.9 < 10.0					
		Message	ICV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	-8.9 < 10.0					
		Message	ICV Passed					
		Action	Continue					
		Calibration:	Table/Fig. 1					
WCN100104-08	1	S7	-3.10	-0.0205	1/4/2010@10:38:37			ICB/CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-3.10 < 5.01					
		Message	ICB/CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-3.10 > -5.01					
		Message	ICB/CCB Passed					
		Action	Continue					
WCN100104-06	1	S6	5.20	0.295	1/4/2010@10:40:27			CRDL
		Known Conc:	5.00					
DQM Test: > + Concentration Limit								
		Result:	5.20 < 7.50					
		Message	CRDL Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	5.20 > 2.50					
		Message	Pass					
		Action	None					
1202005554|937245|MB	1	1	-1.46	0.0418	1/4/2010@10:42:17			
1202005558||LCS	1	2	44.5	1.79	1/4/2010@10:43:10			
243585002	1	3	-0.484	0.0790	1/4/2010@10:44:03			
243608001	1	4	-2.24	0.0123	1/4/2010@10:44:56			
1202005555||DUP	1	5	-1.58	0.0374	1/4/2010@10:45:49			
1202005556||MS	1	6	94.9	3.71	1/4/2010@10:46:42			
1202005557||MSD	1	7	100	3.91	1/4/2010@10:47:34			
243627001	1	8	-1.51	0.0399	1/4/2010@10:48:27			
243629001	1	9	-1.99	0.0217	1/4/2010@10:49:19			
243631001	1	10	-2.35	0.00803	1/4/2010@10:50:12			
WCN100104-03	1	S3	109	4.23	1/4/2010@10:51:04			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	8.6 < 10.0					

		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	8.6 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100104-08	1	S7	-2.04	0.0199	1/4/2010@10:52:55			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-2.04 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-2.04 > -5.00					
		Message	CCB Passed					
		Action	Continue					
1202005558||LCS	1	2	45.4	1.83	1/4/2010@10:54:44			
243632001	1	11	-1.49	0.0405	1/4/2010@10:55:36			
243633001	1	12	-1.66	0.0344	1/4/2010@10:56:28			
243633002	1	13	-1.45	0.0422	1/4/2010@10:57:20			
243633006	1	14	-2.75	-0.00712	1/4/2010@10:58:12			
1202006217||DUP	1	15	-1.99	0.0215	1/4/2010@10:59:04			
1202006218||MS	1	16	96.0	3.75	1/4/2010@10:59:57			
1202006219||MSD	1	17	100	3.91	1/4/2010@11:00:51			
243633009	1	18	-1.26	0.0496	1/4/2010@11:01:44			
1202004497|936843|MB	1	19	-1.90	0.0251	1/4/2010@11:02:37			
WCN100104-03	1	S3	103	4.01	1/4/2010@11:03:30			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	2.9 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	2.9 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100104-08	1	S7	-2.70	-0.00550	1/4/2010@11:05:20			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-2.70 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-2.70 > -5.00					
		Message	CCB Passed					
		Action	Continue					
1202004504||LCS	1	20	30.2	1.25	1/4/2010@11:07:10		25.00	
243517008	1	21	-0.543	0.0767	1/4/2010@11:08:03			
1202004498||DUP	1	22	0.103	0.101	1/4/2010@11:08:56			
1202004500||MS	1	23	91.7	3.59	1/4/2010@11:09:48			
1202004502||MSD	1	24	92.4	3.61	1/4/2010@11:10:41			
243517009	1	25	0.220	0.106	1/4/2010@11:11:34			
1202004499||DUP	1	26	1.82	0.166	1/4/2010@11:12:26			
1202004501||MS	1	27	92.4	3.61	1/4/2010@11:13:18			
1202004503||MSD	1	28	79.5	3.12	1/4/2010@11:14:10			
243521001	1	29	-0.679	0.0715	1/4/2010@11:15:02			
WCN100104-03	1	S3	103	4.02	1/4/2010@11:15:55			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	3.0 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	3.0 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100104-08	1	S7	-1.79	0.0294	1/4/2010@11:17:45			CCB
		Known Conc:	0.00					

DQM Test: > + Concentration Limit								
		Result:	-1.79 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.79 > -5.00					
		Message	CCB Passed					
		Action	Continue					
243521002	1	30	-1.46	0.0420	1/4/2010@11:19:33			
243521003	1	31	-0.362	0.0836	1/4/2010@11:20:27			
243521004	1	32	1.22	0.144	1/4/2010@11:21:21			
243521005	1	33	-0.936	0.0618	1/4/2010@11:22:14			
243521006	1	34	3.33	0.224	1/4/2010@11:23:08			
243521007	1	35	-1.34	0.0463	1/4/2010@11:24:01			
243521008	1	36	-0.707	0.0705	1/4/2010@11:24:54			
243521009	1	37	-1.63	0.0352	1/4/2010@11:25:47			
243521010	1	38	0.857	0.130	1/4/2010@11:26:40			
243521011	1	39	-1.68	0.0334	1/4/2010@11:27:33			
WCN100104-03	1	S3	103	4.01	1/4/2010@11:28:25			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	2.7 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	2.7 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100104-08	1	S7	-2.53	9.28e-4	1/4/2010@11:30:15			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-2.53 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-2.53 > -5.00					
		Message	CCB Passed					
		Action	Continue					
243547002	1	40	-1.86	0.0265	1/4/2010@11:32:04			
243547003	1	41	-1.82	0.0282	1/4/2010@11:32:56			
243549002	1	42	1.59	0.158	1/4/2010@11:33:49			
243550001	1	43	-1.68	0.0335	1/4/2010@11:34:41			
243550002	1	44	-1.41	0.0438	1/4/2010@11:35:33			
243550003	1	45	-1.87	0.0261	1/4/2010@11:36:25			
243550004	1	46	-1.49	0.0406	1/4/2010@11:37:19			
WCN100104-03	1	S3	104	4.04	1/4/2010@11:38:11			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	3.5 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	3.5 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100104-08	1	S7	-2.65	-0.00342	1/4/2010@11:40:02			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-2.65 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-2.65 > -5.00					
		Message	CCB Passed					
		Action	Continue					

Analyte Properties Table for OM_1-4-2010_10-26-17.OMN

Author: axc2

Date : 1/4/2010

Property	Channel 1
	TCYANIDE
Concentration Units	ug/L
Callibration Fit Type	First Order
Clear Calibration	True
Force Through Zero	False
Calibration Weighting	None
Auto Dilution Trigger	True
% of High Standard	100
Quik Chem Method	10-204-00-1-A
Chemistry	Direct/Bipolar
Calibration by Height	False
Inject to Peak Start	22
Peak Base Width	39

Channel 1: Current View

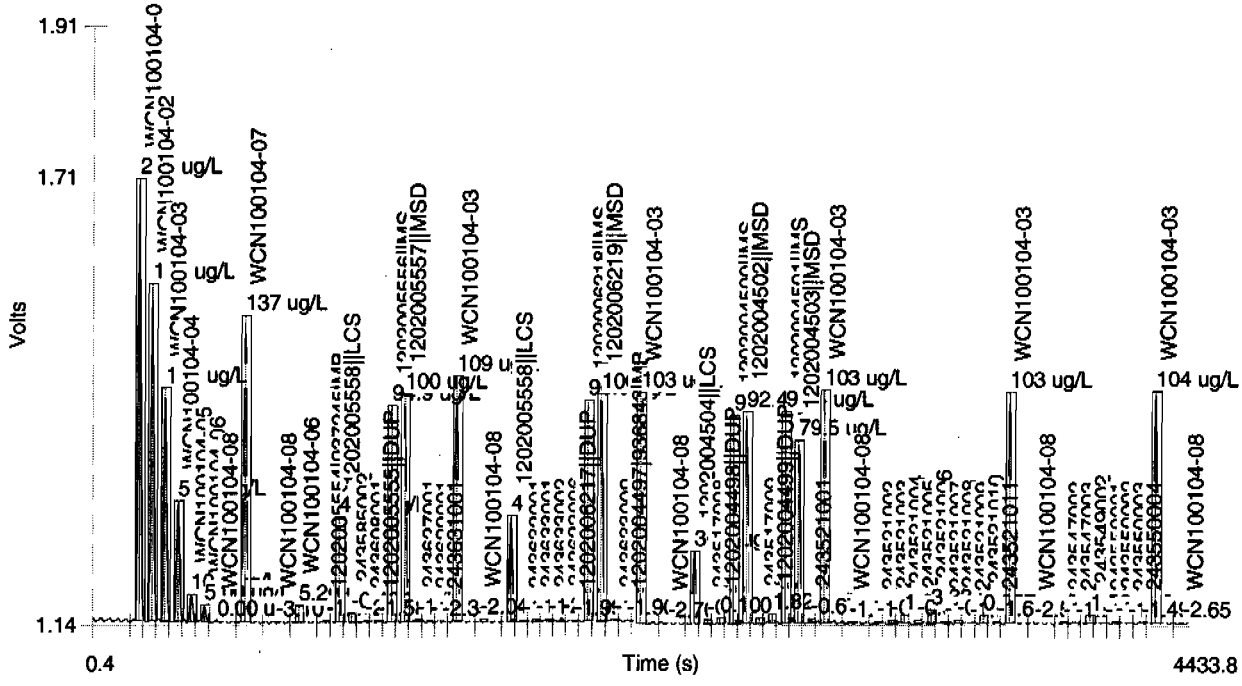

Table 1: TCYANIDE

	Conc. (ug/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	200	1	7.63	0.565	0.9	1/4/2010	10:30:40
2	150	1	5.81	0.432	-0.2	1/4/2010	10:31:33
3	100	1	3.99	0.297	-2.2	1/4/2010	10:32:25
4	50.0	1	2.09	0.153	-4.6	1/4/2010	10:33:18
5	10.0	1	0.463	0.0341	3.3	1/4/2010	10:34:11
6	5.00	1	0.277	0.0211	4.2	1/4/2010	10:35:05
7	0.00	1	0.0108	7.90e-4		1/4/2010	10:35:59

Author: axc2

Date : 1/4/2010

Figure 1: TCYANIDE

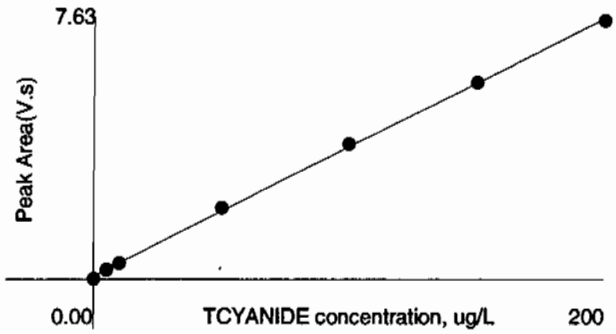

Area = 0.0380 * Conc + 0.0989
Conc = 26.3 * Area - 2.56
Correlation Coefficient (r) = 0.99973

No Weighting

RADIOLOGICAL ANALYSIS

Radiochemistry Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-1085

Method/Analysis Information

Procedure: **Dry Weight-Percent Moisture**

Analytical Method:

Analytical Batch Number: 937073

Sample ID	Client ID
243549002	WST03-10-2148
1202005191	243549002(WST03-10-2148) Sample Duplicate (DUP)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-020 REV# 9.

Calibration Information:

Quality Control (QC) Information:

Designated QC
The following sample was used for QC: 243549002 (WST03-10-2148). The QC was from LANL work order 243549.

QC Information
All of the QC samples met the required acceptance limits.

CSU
Not Applicable. The blank result is less than 1.65 times the CSU.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Additional Comments
Additional comments were not required for this sample set.

Blank Decision Level
Not Applicable. The blank result is less than the decision level.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**AM241**
Analytical Method:	DOE EML HASL-300, Am-05-RC Modified
Prep Method:	Dry Soil Prep
Analytical Batch Number:	937614
Prep Batch Number:	937078

Sample ID	Client ID
243549002	WST03-10-2148
1202006377	Method Blank (MB)
1202006378	243549002(WST03-10-2148) Sample Duplicate (DUP)
1202006379	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on a "dry weight" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-011 REV# 18.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. Calibrations are performed monthly using mixed alpha standards comprised of the following: Gd-148, Np-237, and Cm-244.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
Aliquot for sample 1202006377 (MB) was changed to 1.0 per client request.

Designated QC
The following sample was used for QC: 243549002 (WST03-10-2148). The QC was from LANL work order 243549.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The blank result is less than 1.65 times the CSU.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Manual Integration
No manual integrations were performed on data in this batch.

Additional Comments
The MDCs are calculated using a blank population.

Blank Decision Level
The blank result is less than the decision level.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**ISOPU**
Analytical Method:	DOE EML HASL-300, Pu-11-RC Modified
Prep Method:	Dry Soil Prep
Analytical Batch Number:	937615
Prep Batch Number:	937078

Sample ID	Client ID
243549002	WST03-10-2148
1202006380	Method Blank (MB)
1202006381	243549002(WST03-10-2148) Sample Duplicate (DUP)
1202006382	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on a "dry weight" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-011 REV# 18.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. Calibrations are performed monthly using mixed alpha standards comprised of the following: Gd-148, Np-237, and Cm-244.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
Aliquot for sample 1202006380 (MB) was changed to 1.0 per client request.

Designated QC
The following sample was used for QC: 243549002 (WST03-10-2148). The QC was from LANL work order 243549.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The blank result is less than 1.65 times the CSU.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Manual Integration
No manual integrations were performed on data in this batch.

Additional Comments
The MDCs are calculated using a blank population.

Blank Decision Level
The blank result is less than the decision level.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**ISOU**
Analytical Method:	DOE EML HASL-300, U-02-RC Modified
Prep Method:	Dry Soil Prep
Analytical Batch Number:	937616
Prep Batch Number:	937078

Sample ID	Client ID
243549002	WST03-10-2148
1202006383	Method Blank (MB)
1202006384	243549002(WST03-10-2148) Sample Duplicate (DUP)
1202006385	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on a "dry weight" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-011 REV# 18.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. Calibrations are performed monthly using mixed alpha standards comprised of the following: Gd-148, Np-237, and Cm-244.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
Aliquot for sample 1202006383 (MB) was changed to 1.0 per client request.

Designated QC
The following sample was used for QC: 243549002 (WST03-10-2148). The QC was from LANL work order 243549.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The U235 blank result is greater than 1.65 times the CSU but less than the MDC.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Manual Integration
No manual integrations were performed on data in this batch.

Additional Comments
The MDCs are calculated using a blank population.

Blank Decision Level
The blank result is less than the decision level.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**SR90**
Analytical Method:	EPA 905.0 Modified
Prep Method:	Dry Soil Prep
Analytical Batch Number:	938289
Prep Batch Number:	937078

Sample ID	Client ID
243549002	WST03-10-2148
1202007740	Method Blank (MB)
1202007741	243599001(WST16-10-9900) Sample Duplicate (DUP)
1202007742	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on a "dry weight" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-004 REV# 13.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. The initial Calibration was performed in January 2009.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
Aliquots for samples 1202007740 (MB) and 1202007742 (LCS) were changed to 1.0 per client request.

Designated QC
The following sample was used for QC: 243599001 (WST16-10-9900). The QC was from LANL work order 243599.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The blank result is less than 1.65 times the CSU.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Chemical Recoveries
All chemical recoveries meet the required acceptance limits for this sample set.

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Additional Comments
Additional comments were not required for this sample set.

Blank Decision Level
The blank result is less than the decision level.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**H3**
Analytical Method:	GL-RAD-A-002
Analytical Batch Number:	936900

Sample ID	Client ID
243549002	WST03-10-2148
1202004654	Method Blank (MB)
1202004655	243555001(WST21-10-9933) Sample Duplicate (DUP)
1202004656	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-002 REV# 18.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. The initial Calibration was performed in August 2009.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
The blank volume is representative of the sample volume in this batch.

Designated QC
The following sample was used for QC: 243555001 (WST21-10-9933). The QC was from LANL work order 243555.

QC Information

All of the QC samples met the required acceptance limits.

CSU
The blank result is less than 1.65 times the CSU.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Additional Comments
Additional comments were not required for this sample set.

Blank Decision Level
The blank result is less than the decision level.

Qualifier information

Manual qualifiers were not required.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer/Date: 1/12/06

SAMPLE DATA SUMMARY

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis Report
for

LANL010 Los Alamos National Laboratory (72733-001-09)

Client SDG: 10-1085 GEL Work Order: 243549

The Qualifiers in this report are defined as follows:

* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.

** Indicates the analyte is a surrogate compound.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the detection limit.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Valerie Davis.

Reviewed by _____ 1/12/10

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: January 12, 2010

Client Sample ID:	WST03-10-2148	Project:	LANL01004
Sample ID:	243549002	Client ID:	LANL010
Matrix:	R		
Collect Date:	22-DEC-09		
Receive Date:	24-DEC-09		
Collector:	Client		
Moisture:	7.19%		

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids												
"As Received"												
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	-0.00298	0.0196	+/-0.00422	0.050	pCi/g		HAKB	01/06/10	1345	937614	2
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	0.000965	0.0159	+/-0.000966	0.050	pCi/g		HAKB	01/05/10	1430	937615	3
Plutonium-239/240	U	0.00193	0.0182	+/-0.00137	0.050	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		0.968	0.147	+/-0.0978	0.100	pCi/g		HAKB	01/08/10	1601	937616	4
Uranium-235/236	U	0.0352	0.0912	+/-0.0146	0.100	pCi/g						
Uranium-238		0.977	0.0853	+/-0.0982	0.100	pCi/g						
Rad Gas Flow Proportional Counting												
SR90 "Dry Weight Corrected"												
Strontium-90	U	-0.0771	0.332	+/-0.0874	0.500	pCi/g		MXB1	01/07/10	0659	938289	5
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium	U	84.5	218	+/-65.4	250	pCi/L		KXK2	01/06/10	0836	936900	6

The following Analytical Methods were performed

Method	Description
1	ASTM D 2216 (Modified)
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, U-02-RC Modified
5	EPA 905.0 Modified
6	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	88.2	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	97.8	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	76.1	(50%-105%)

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: January 12, 2010

Client Sample ID: WST03-10-2148 Project: LANL01004
Sample ID: 243549002 Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Strontium Carrier		SR90 "Dry Weight Corrected"		73.9	(50%-105%)							

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
E Organics--Concentration of the target analyte exceeds the instrument calibration range
F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
P Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
Z Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d 5-day BOD--The 2:1 depletion requirement was not met for this sample
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

QUALITY CONTROL DATA

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

QC Summary

Client : Los Alamos National Laboratory
PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico

Contact: Ms. Joylene Valdez

Workorder: 243549

Report Date: January 12, 2010

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Alpha Spec										
Batch 937614										
QC1202006378 243549002 DUP										
Americium-241	U	-0.00298	U	0.000491	pCi/g	0.288		(0-1)	HAKB	01/06/1010:25
	TPU:	+/-0.00422		+/-0.0018						
	Yield:	88.2		87.3						
QC1202006379 LCS										
Americium-241	33.2			33.4	pCi/g		101	(75%-125%)		
	TPU:			+/-2.34						
	Yield:			95.1						
QC1202006377 MB										
Americium-241			U	-0.00228	pCi/g					
	TPU:			+/-0.00267						
	Yield:			95.5						
Batch 937615										
QC1202006381 243549002 DUP										
Plutonium-238	U	0.000965	U	0.00	pCi/g	0.149		(0-1)	HAKB	01/05/1014:30
	TPU:	+/-0.000966		+/-0.00227						
	Yield:	97.8		94.4						
Plutonium-239/240	U	0.00193	U	0.00	pCi/g	0.324		(0-1)		
	TPU:	+/-0.00137		+/-0.00161						
	Yield:	97.8		94.4						
QC1202006382 LCS										
Plutonium-238				6.83	pCi/g			(75%-125%)		
	TPU:			+/-0.492						
	Yield:			96.4						
Plutonium-239/240	41.8			35.6	pCi/g		85.3	(75%-125%)		
	TPU:			+/-2.17						
	Yield:			96.4						
QC1202006380 MB										
Plutonium-238			U	-0.00307	pCi/g					
	TPU:			+/-0.00266						
	Yield:			96.2						
Plutonium-239/240			U	0.0046	pCi/g					
	TPU:			+/-0.00406						
	Yield:			96.2						
Batch 937616										
QC1202006384 243549002 DUP										
Uranium-233/234		0.968		0.834	pCi/g	0.370		(0-1)	HAKB	01/06/1013:51
	TPU:	+/-0.0978		+/-0.0827						
	Yield:	76.1		89.4						
Uranium-235/236	U	0.0352		0.0786	pCi/g	0.620		(0-1)		
	TPU:	+/-0.0146		+/-0.0204						
	Yield:	76.1		89.4						
Uranium-238		0.977		0.739	pCi/g	0.685		(0-1)		
	TPU:	+/-0.0982		+/-0.0755						

QC Summary

Workorder: 243549

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Alpha Spec										
Batch 937616										
	Yield:	76.1		89.4						
QC1202006385 LCS										
Uranium-233/234				6.05	pCi/g			(75%-125%)		01/06/1013:51
	TPU:			+/-0.566						
	Yield:			95.0						
Uranium-235/236				0.414	pCi/g			(75%-125%)		
	TPU:			+/-0.100						
	Yield:			95.0						
Uranium-238	5.75			5.96	pCi/g		104	(75%-125%)		
	TPU:			+/-0.559						
	Yield:			95.0						
QC1202006383 MB										
Uranium-233/234			U	0.00927	pCi/g					01/06/1013:51
	TPU:			+/-0.00567						
	Yield:			92.3						
Uranium-235/236			U	0.007	pCi/g					
	TPU:			+/-0.00407						
	Yield:			92.3						
Uranium-238			U	0.00566	pCi/g					
	TPU:			+/-0.00424						
	Yield:			92.3						
Rad Gas Flow										
Batch 938289										
QC1202007741 243599001 DUP										
Strontium-90	U	0.027	U	0.177	pCi/g	0.409		(0-1)	MXB1	01/07/1007:00
	TPU:	+/-0.0992		+/-0.0842						
	Yield:	70.6		72.8						
QC1202007742 LCS										
Strontium-90	19.3			20.3	pCi/g		105	(75%-125%)		01/07/1007:58
	TPU:			+/-2.15						
	Yield:			81.8						
QC1202007740 MB										
Strontium-90			U	-0.0421	pCi/g					01/07/1007:00
	TPU:			+/-0.0765						
	Yield:			88.5						
Rad Liquid Scintillation										
Batch 936900										
QC1202004655 243555001 DUP										
Tritium		60500	U	67.2	pCi/L	0.132		(0-1)	KXK2	01/06/1012:05
	TPU:	+/-4250		+/-64.7						
QC1202004656 LCS										
Tritium	5600			5930	pCi/L		106	(75%-125%)		01/05/1008:04
	TPU:			+/-516						
QC1202004654 MB										
Tritium			U	28.1	pCi/L					01/06/1011:13
	TPU:			+/-63.2						

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

QC Summary

Workorder: 243549

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time

Notes:
The Qualifiers in this report are defined as follows:

**	Analyte is a surrogate compound
<	Result is less than value reported
>	Result is greater than value reported
A	The TIC is a suspected aldol-condensation product
B	For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD	Results are either below the MDC or tracer recovery is low
C	Analyte has been confirmed by GC/MS analysis
D	Results are reported from a diluted aliquot of the sample
E	Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
E	Organics--Concentration of the target analyte exceeds the instrument calibration range
F	Estimated Value
H	Analytical holding time was exceeded
J	Value is estimated
M	M if above MDC and less than LLD
M	Matrix Related Failure
N	Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A	RPD or %Recovery limits do not apply.
ND	Analyte concentration is not detected above the detection limit
NJ	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
P	Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%
R	Sample results are rejected
U	Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI	Gamma Spectroscopy--Uncertain identification
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
Z	Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d	5-day BOD--The 2:1 depletion requirement was not met for this sample
h	Preparation or preservation holding time was exceeded

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more.
** Indicates analyte is a surrogate compound.
^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptence criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.
For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

RAW DATA

Radiochemistry Batch Checklist, Rev 9

Batch# 937614 Product: Am Date: 1/11/10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			N/A
Samples have been blank corrected (if required)	✓		
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument blg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yeild is 15-125% . Carrier yeild 25-125%. Or meets the client's contract acceptance criteria.	✓		
Method blank is less than the RDL/ LLD. (If rad samples. < 5% of lowest activity)	✓		
Sample was run within hold time.	✓		
Sample was correctly preserved if required.	✓		
Smears Taken for Radioactive batches.			N/A
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initiated and dated. No transcription errors are apparent.	✓		
Aux data is correct.	✓		
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)			N/A
Batch entered into Case Narrative.	✓		
Batch non-conformances completed, if applicable.			N/A
Batch non-conformances second reviewed and disposition verified to be completed.			
Aliquot Correction completed if required.			N/A
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

GEL Laboratories, LLC

revised 8/1/08

Primary Review Performed By: [signature] 1/11/10

Secondary Review Performed By: [signature] 1/12/10

1/10/10 1/21/10

✓ P

Am/Cm Que Sheet

30-DEC-09

Batch #: 937614 | Analyst: HAKB | First Client Due Date: 21-JAN-10 | Internal Due Date10-JAN-10 | Comments:

Tracer(s): Am243/Cm244 | Tracer Code: 445-96-2-SS | Expiration Date: 5/11/10 | Vol: ϕ.1

LCS Isotope(s): Am241/Cm244 | LCS Code(s): SRM 0244-B / NA | Expiration Date: 4/30/20 / NA | Vol(s): 0.1062 / NA

Spike Isotope(s): Am241/Cm244 | Spike Code(s): NA / NA | Expiration Date: NA / NA | Vol(s): NA / NA

Prep Date: 1/4/10 | Initials: HAKB | Pipet ID: 2971058 | Balance ID: 50410272 | Witness: KM 1-4-10

Sample ID	Client Description	Type	Hazard Code	Min CRDL	Matrix	Client	Collection Date	Pos.	Label #	Wet/Dry Aliquot (g) 1/f	Am/Cm Det #
243515001-1	RE16-10-936	SAMPLE		.05 pCi/g	SOIL	LANL010	19-DEC-09	1	1	1.260	255
243515002-1	RE16-10-946	SAMPLE		.05 pCi/g	SOIL	LANL010	19-DEC-09	2	2	1.253	256
243515003-1	RE16-10-950	SAMPLE		.05 pCi/g	SOIL	LANL010	19-DEC-09	3	3	1.260	1
243515004-1	RE16-10-938	SAMPLE		.05 pCi/g	SOIL	LANL010	19-DEC-09	4	4	1.255	2
243515005-1	RE16-10-956	SAMPLE		.05 pCi/g	SOIL	LANL010	19-DEC-09	5	5	1.279	3
243515006-1	RE16-10-970	SAMPLE		.05 pCi/g	SOIL	LANL010	19-DEC-09	6	6	1.266	~~4~~ 255
243515007-1	RE16-10-940	SAMPLE		.05 pCi/g	SOIL	LANL010	19-DEC-09	7	7	1.263	5
243515008-1	RE16-10-944	SAMPLE		.05 pCi/g	SOIL	LANL010	19-DEC-09	8	8	1.253	6
243515009-1	RE16-10-948	SAMPLE		.05 pCi/g	SOIL	LANL010	19-DEC-09	9	9	1.251	256 ~~37~~
243515010-1	RE16-10-958	SAMPLE		.05 pCi/g	SOIL	LANL010	19-DEC-09	10	10	1.264	38
243515011-1	RE16-10-966	SAMPLE		.05 pCi/g	SOIL	LANL010	19-DEC-09	11	11	1.264	39
243515012-1	RE16-10-954	SAMPLE		.05 pCi/g	SOIL	LANL010	19-DEC-09	12	12	1.253	40
243515013-1	RE16-10-942	SAMPLE		.05 pCi/g	SOIL	LANL010	19-DEC-09	13	13	1.255	41
243515014-1	RE16-10-952	SAMPLE		.05 pCi/g	SOIL	LANL010	19-DEC-09	14	14	1.253	42
243515015-1	RE16-10-964	SAMPLE		.05 pCi/g	SOIL	LANL010	19-DEC-09	15	15	1.266	65
243515016-1	RE16-10-1003	SAMPLE		.05 pCi/g	SOIL	LANL010	19-DEC-09	16	16	1.260	66
243515017-1	RE16-10-1004	SAMPLE		.05 pCi/g	SOIL	LANL010	19-DEC-09	17	17	1.272	67
243547002-1	WST54-10-9921	SAMPLE		.05 pCi/g	SOIL	LANL010	22-DEC-09	18	18	1.255	68
243547003-1	WST54-10-9922	SAMPLE		.05 pCi/g	SOIL	LANL010	22-DEC-09	19	19	1.268	69
243549002-1	WST03-10-2148	SAMPLE		.05 pCi/g	SOIL	LANL010	22-DEC-09	20	20	1.252	70
1202006377-1	MB for batch 937614	MB		.05 pCi/g	SOIL	QC ACCOUNT		21	21	1.0	107
1202006378-1	WST03-10-2148(243549002DUP)	DUP		.05 pCi/g	SOIL	QC ACCOUNT	22-DEC-09	22	22	1.254	109
1202006379-1	LCS for batch 937614	LCS		.05 pCi/g	SOIL	QC ACCOUNT		23	23	0.106	110

Choose SOP Used: GL-RAD-A-011 / GL-RAD-A-036

Solid Sample Dissolution by: LEACH or DIGESTION (Circle One)

Data Reviewed By: [signature] 1/11/10

GEL Laboratories LLC, Radiochemistry Division

1/12/10

Blank Correction Report

Batch ID 937614

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
1202006378	DUP	Americium-241	1.25 g	0.000491	0.0018	0.0196	-.001824	pCi/g	NO
1202006379	LCS	Americium-241	0.106 g	33.4	2.34	0.237	-.02150943	pCi/g	NO
1202006377	MB	Americium-241	1.00 g	-0.00228	0.00267	0.0262	-.00228	pCi/g	NO
243515001	RE16-10-936	Americium-241	1.26 g	0.00126	0.00114	0.0174	-.00180952	pCi/g	NO
243515002	RE16-10-946	Americium-241	1.25 g	0.00531	0.00253	0.0202	-.001824	pCi/g	NO
243515003	RE16-10-950	Americium-241	1.26 g	0.000646	0.00195	0.0209	-.00180952	pCi/g	NO
243515004	RE16-10-938	Americium-241	1.26 g	0.0117	0.00474	0.0254	-.00180952	pCi/g	NO
243515005	RE16-10-956	Americium-241	1.28 g	0.00728	0.0048	0.022	-.00178125	pCi/g	NO
243515006	RE16-10-970	Americium-241	1.27 g	0.0105	0.00333	0.0174	-.00179528	pCi/g	NO
243515007	RE16-10-940	Americium-241	1.26 g	0.000668	0.00124	0.021	-.00180952	pCi/g	NO
243515008	RE16-10-944	Americium-241	1.25 g	0.00439	0.00235	0.0211	-.001824	pCi/g	NO
243515009	RE16-10-948	Americium-241	1.25 g	0.0116	0.00341	0.0163	-.001824	pCi/g	NO
243515010	RE16-10-958	Americium-241	1.26 g	0.0118	0.00581	0.0211	-.00180952	pCi/g	NO
243515011	RE16-10-966	Americium-241	1.26 g	0.0138	0.0064	0.0177	-.00180952	pCi/g	NO
243515012	RE16-10-954	Americium-241	1.25 g	0.00573	0.00271	0.0214	-.001824	pCi/g	NO
243515013	RE16-10-942	Americium-241	1.26 g	-0.00182	0.00231	0.0188	-.00180952	pCi/g	NO
243515014	RE16-10-952	Americium-241	1.25 g	0.000576	0.00424	0.0204	-.001824	pCi/g	NO
243515015	RE16-10-964	Americium-241	1.27 g	0.00638	0.00717	0.0199	-.00179528	pCi/g	NO
243515016	RE16-10-1003	Americium-241	1.26 g	0.0129	0.00598	0.0227	-.00180952	pCi/g	NO
243515017	RE16-10-1004	Americium-241	1.27 g	0.000655	0.00467	0.0208	-.00179528	pCi/g	NO
243547002	WST54-10-9921	Americium-241	1.26 g	0.00367	0.00297	0.0233	-.00180952	pCi/g	NO
243547003	WST54-10-9922	Americium-241	1.27 g	0.000951	0.00226	0.0234	-.00179528	pCi/g	NO
243549002	WST03-10-2148	Americium-241	1.25 g	-0.00298	0.00422	0.0196	-.001824	pCi/g	NO

11/12/10

Alpha Spectroscopy Software Version 2.0
effective date: 03-Mar-1997

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 937614 SAMPLE DATE : 22-DEC-2009 00:00:00	SAMPLE ID : S0243549002_AM SAMPLE QTY: 1.252 G
DETECTOR NUMBER :46-089B2 AVERAGE %EFFICIENCY :35.4129 % YIELD : 88.203	COUNT DATE: 6-JAN-2010 13:45:49 ELAPSED LIVE TIME(SEC): 59999.99 ANALYST :HAKB

MS/MSD	LCS/LCSD	TRACER	
ID : 0244-B ISOTOPE : AM-241 PCI/G : 3.316E+01	ID : 0244-B ISOTOPE : AM-241 PCI/G : 3.316E+01	ID : 445-96-2-SS ISOTOPE : AM243 NOMINAL : 2.91659 dpm RESULTS : 2.57253 dpm	LIB FILE : ENV_ALPHA_AM.N BKG FILE : B070.CNF;1096 BKG DATE : 5-JAN-2010 EFF FILE : W070.CNF;288 CAL DATE : 10-DEC-2009

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
CM-3/4	5795.020	7.000	-2.000	9.000	5.2338	100.0000	-2.31E-03	4.62E-03	1.40E-02	3.12E-02	4.62E-03
CM-5/6	5386.000	23.000	23.000	0.000	19.8463	86.09000	3.08E-02	6.67E-03	6.18E-02	1.27E-01	6.42E-03
AM-241	5479.150	7.000	-2.582	8.000	3.0704	99.94000	-2.98E-03	4.22E-03	8.23E-03	1.96E-02	4.22E-03
CM-242	6102.000	2.000	1.000	1.000	4.3186	100.0000	1.23E-03	2.14E-03	1.16E-02	2.63E-02	2.13E-03
AM243	5270.000	912.000	909.000	3.000	1.7321	99.78000	1.05E+00	7.15E-02	4.65E-03	1.24E-02	3.49E-02
CM-247	4946.000	9.000	5.000	4.000	15.3366	79.30000	7.26E-03	5.25E-03	5.18E-02	1.08E-01	5.24E-03
CM-248	5078.600	6.000	6.000	0.000	22.1555	91.00000	7.59E-03	3.13E-03	6.52E-02	1.34E-01	3.10E-03

NOTE: Sg calculated via blank population (updated 5-JAN-2010)
NOTE: Sg of AM243 calculated as sqrt(BKG AREA)
NOTE: Corrections made to AM-241 net area due to tracer impurity

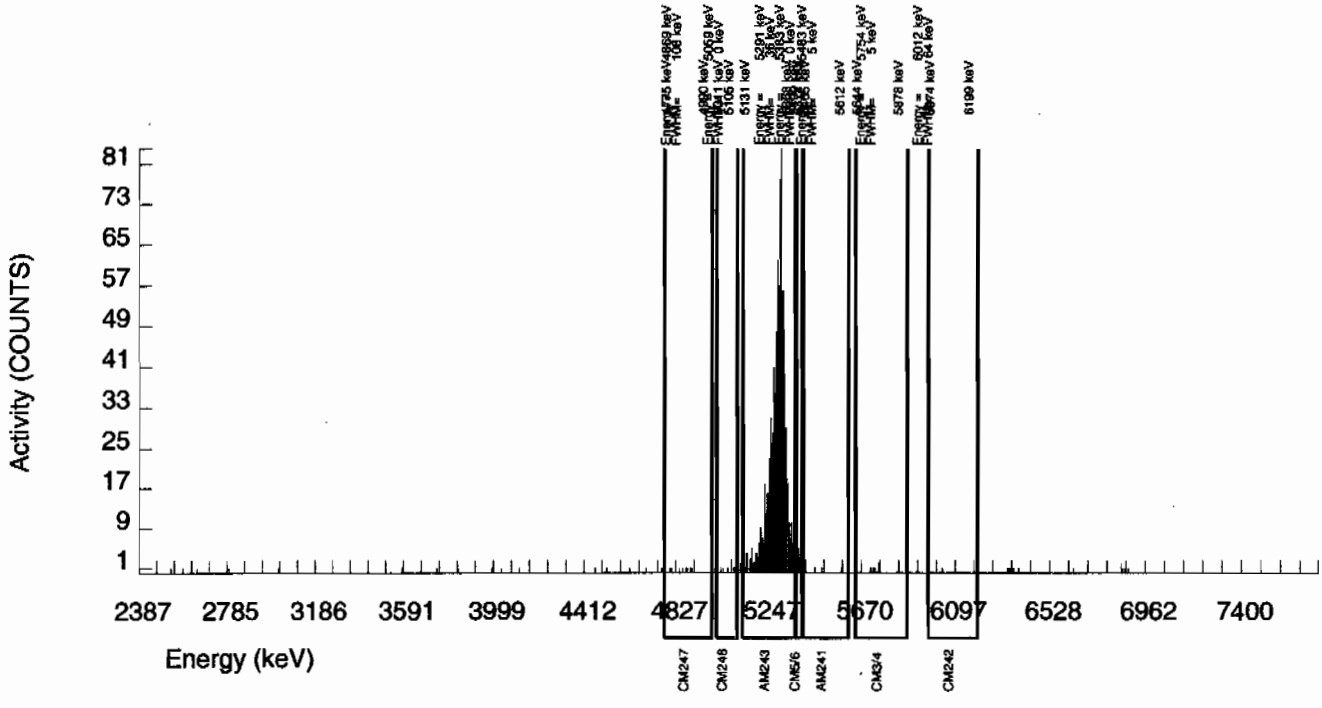

Alpha Spectroscopy Software Version 2.0
effective date: 09-Mar-1997

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 937614 SAMPLE DATE : 4-JAN-2010 00:00:00.	SAMPLE ID : S1202006377_AM SAMPLE QTY: 1.000 G
DETECTOR NUMBER :67578 AVERAGE %EFFICIENCY :30.5972 % YIELD : 95.459	COUNT DATE: 6-JAN-2010 10:25:32 ELAPSED LIVE TIME(SEC): 59999.99 ANALYST :HAKB

MS/MSD	LCS/LCSD	TRACER	
ID : 0244-B	ID : 0244-B	ID : 445-96-2-SS	LIB FILE : ENV_ALPHA_AM.N
ISOTOPE : AM-241	ISOTOPE : AM-241	ISOTOPE : AM243	BKG FILE : B107.CNF;670
PCI/G : 3.316E+01	PCI/G : 3.316E+01	NOMINAL : 2.91659 dpm	BKG DATE : 3-JAN-2010
		RESULTS : 2.78416 dpm	EFF FILE : W107.CNF;228
			CAL DATE : 10-DEC-2009

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
CM-3/4	5795.020	9.000	9.000	0.000	5.2338	100.0000	1.39E-02	4.70E-03	1.88E-02	4.17E-02	4.63E-03
CM-5/6	5386.000	4.000	4.000	0.000	19.8463	86.09000	7.17E-03	3.61E-03	8.27E-02	1.70E-01	3.58E-03
AM-241	5479.150	2.000	-1.479	2.000	3.0704	99.94000	-2.28E-03	2.67E-03	1.10E-02	2.62E-02	2.67E-03
CM-242	6102.000	6.000	6.000	0.000	4.3186	100.0000	9.36E-03	3.86E-03	1.55E-02	3.52E-02	3.82E-03
AM243	5270.000	854.000	850.000	4.000	2.0000	99.78000	1.31E+00	9.12E-02	7.19E-03	1.86E-02	4.53E-02
CM-247	4946.000	8.000	8.000	0.000	15.3366	79.30000	1.56E-02	5.58E-03	6.94E-02	1.44E-01	5.50E-03
CM-248	5078.600	7.000	7.000	0.000	22.1555	91.00000	1.19E-02	4.54E-03	8.74E-02	1.79E-01	4.48E-03

NOTE: Sg calculated via blank population (updated 5-JAN-2010)
NOTE: Sg of AM243 calculated as sqrt(BKG AREA)
NOTE: Corrections made to AM-241 net area due to tracer impurity

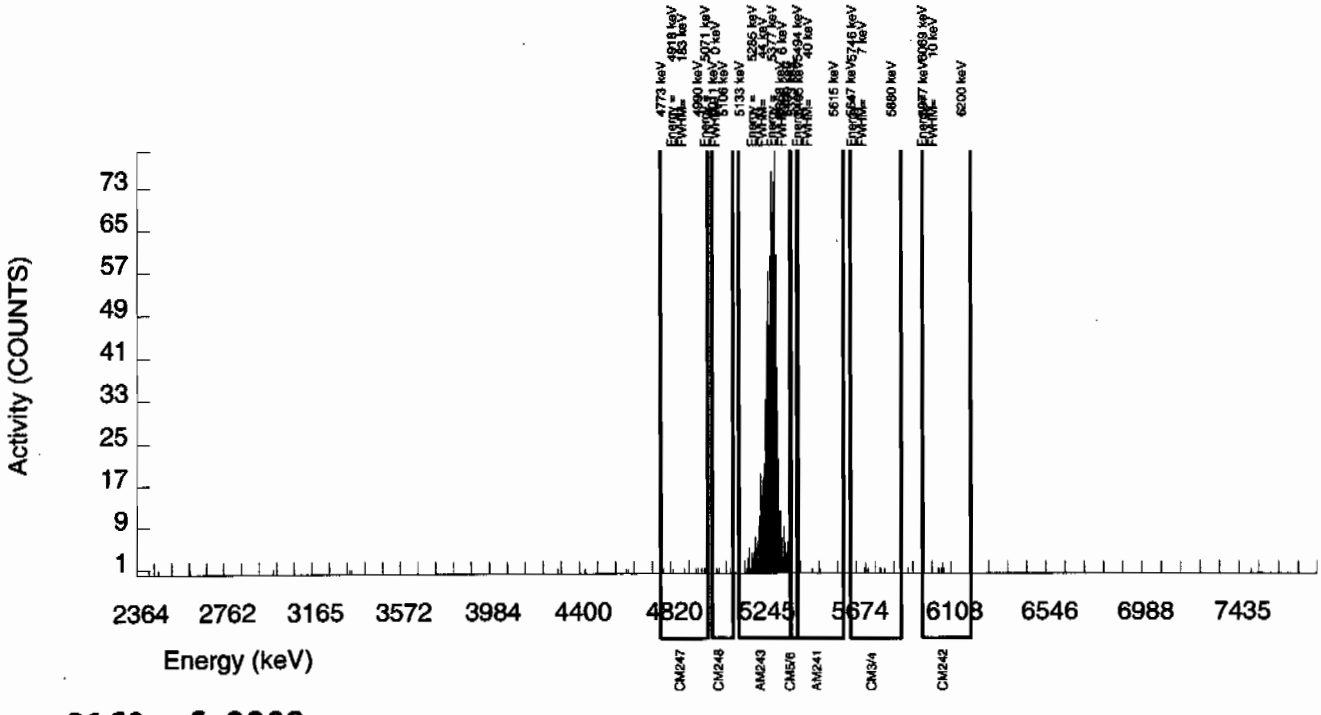

Alpha Spectroscopy Software Version 2.0
effective date: 09-Mar-1997

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 937614 SAMPLE DATE : 22-DEC-2009 00:00:00	SAMPLE ID : S1202006378_AM SAMPLE QTY: 1.254 G
DETECTOR NUMBER :79463 AVERAGE %EFFICIENCY :35.6057 % YIELD : 87.340	COUNT DATE: 6-JAN-2010 10:25:32 ELAPSED LIVE TIME(SEC): 59999.99 ANALYST :HAKB

MS/MSD	LCS/LCSD	TRACER	
ID : 0244-B ISOTOPE : AM-241 PCI/G : 3.316E+01	ID : 0244-B ISOTOPE : AM-241 PCI/G : 3.316E+01	ID : 445-96-2-SS ISOTOPE : AM243 NOMINAL : 2.91659 dpm RESULTS : 2.54734 dpm	LIB FILE : ENV_ALPHA_AM.N BKG FILE : B109.CNF;666 BKG DATE : 3-JAN-2010 EFF FILE : W109.CNF;190 CAL DATE : 10-DEC-2009

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
CM-3/4	5795.020	2.000	1.000	1.000	5.2338	100.0000	1.16E-03	2.01E-03	1.41E-02	3.13E-02	2.00E-03
CM-5/6	5386.000	5.000	4.000	1.000	19.8463	86.09000	5.37E-03	3.30E-03	6.19E-02	1.28E-01	3.29E-03
AM-241	5479.150	3.000	0.425	1.000	3.0704	99.94000	4.91E-04	1.80E-03	8.26E-03	1.96E-02	1.80E-03
CM-242	6102.000	2.000	2.000	0.000	4.3186	100.0000	2.47E-03	1.75E-03	1.16E-02	2.63E-02	1.75E-03
AM243	5270.000	905.000	905.000	0.000	0.0000	99.78000	1.05E+00	7.14E-02	0.00E+00	3.14E-03	3.48E-02
CM-247	4946.000	7.000	6.000	1.000	15.3366	79.30000	8.74E-03	4.15E-03	5.20E-02	1.08E-01	4.12E-03
CM-248	5078.600	8.000	8.000	0.000	22.1555	91.00000	1.02E-02	3.64E-03	6.54E-02	1.34E-01	3.59E-03

NOTE: Sg calculated via blank population (updated 5-JAN-2010)
NOTE: Sg of AM243 calculated as sqrt(BKG AREA)
NOTE: Corrections made to AM-241 net area due to tracer impurity

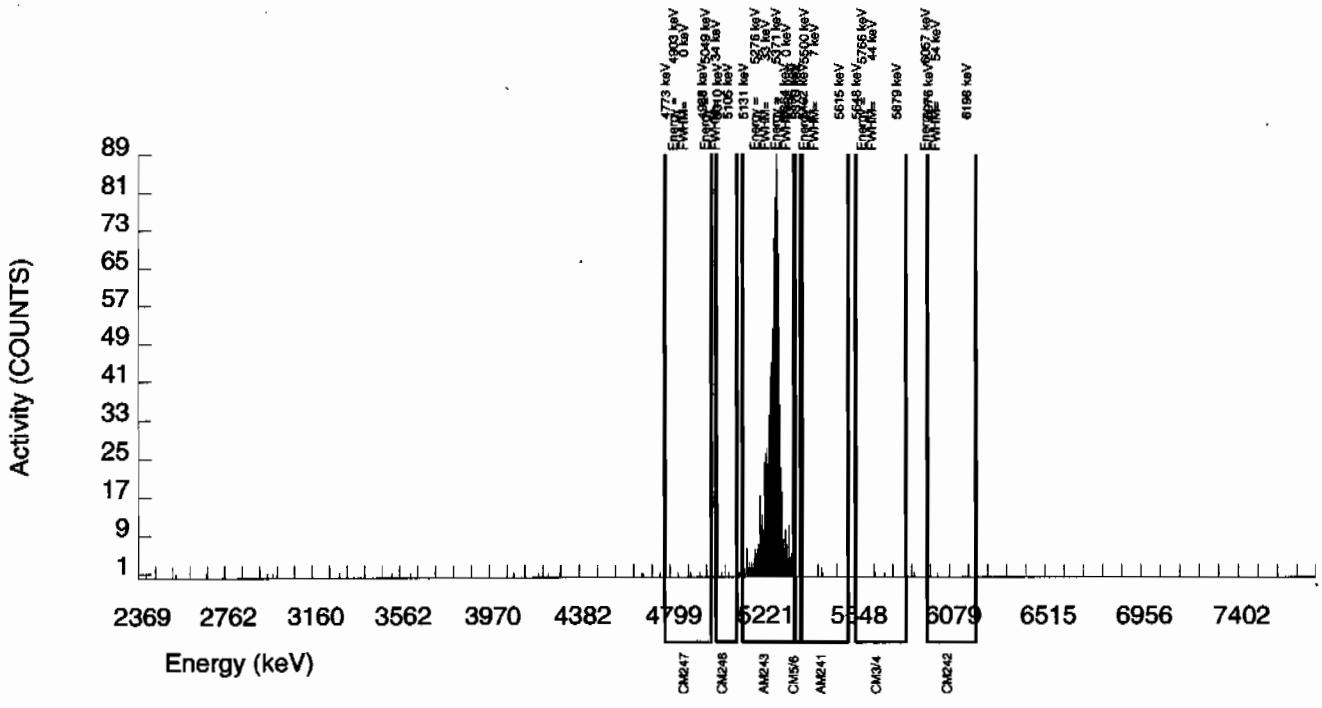

Alpha Spectroscopy Software Version 2.0
effective date: 09-Mar-1997

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 937614 SAMPLE DATE : 4-JAN-2010 00:00:00.	SAMPLE ID : S1202006379_AM SAMPLE QTY: 0.106 G
DETECTOR NUMBER :67602 AVERAGE %EFFICIENCY :32.0568 % YIELD : 95.079	COUNT DATE: 6-JAN-2010 10:25:32 ELAPSED LIVE TIME(SEC): 59999.99 ANALYST :HAKB

MS/MSD	LCS/LCSD	TRACER	
ID : 0244-B ISOTOPE : AM-241 PCI/G : 3.316E+01	ID : 0244-B ISOTOPE : AM-241 PCI/G : 3.316E+01	ID : 445-96-2-SS ISOTOPE : AM243 NOMINAL : 2.91659 dpm RESULTS : 2.77306 dpm	LIB FILE : ENV_ALPHA_AM.N BKG FILE : B110.CNF;670 BKG DATE : 3-JAN-2010 EFF FILE : W110.CNF;209 CAL DATE : 10-DEC-2009

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
CM-3/4	5795.020	12.000	1.000	11.000	5.2338	100.0000	1.39E-02	6.69E-02	1.70E-01	3.77E-01	6.69E-02
CM-5/6	5386.000	50.000	48.000	2.000	19.8463	86.09000	7.77E-01	1.28E-01	7.48E-01	1.54E+00	1.17E-01
AM-241	5479.150	2409.000	2393.456	14.000	3.0704	99.94000	3.34E+01	2.34E+00	9.96E-02	2.37E-01	6.86E-01
CM-242	6102.000	10.000	7.000	3.000	4.3186	100.0000	9.88E-02	5.13E-02	1.40E-01	3.18E-01	5.09E-02
AM243	5270.000	893.000	887.000	6.000	2.4495	99.78000	1.24E+01	9.31E-01	7.96E-02	1.97E-01	4.19E-01
CM-247	4946.000	4.000	3.000	1.000	15.3366	79.30000	5.27E-02	3.95E-02	6.27E-01	1.30E+00	3.93E-02
CM-248	5078.600	8.000	7.000	1.000	22.1555	91.00000	1.07E-01	4.65E-02	7.90E-01	1.62E+00	4.60E-02

NOTE: Sg calculated via blank population (updated 5-JAN-2010)
NOTE: Sg of AM243 calculated as sqrt(BKG AREA)
NOTE: Corrections made to AM-241 net area due to tracer impurity

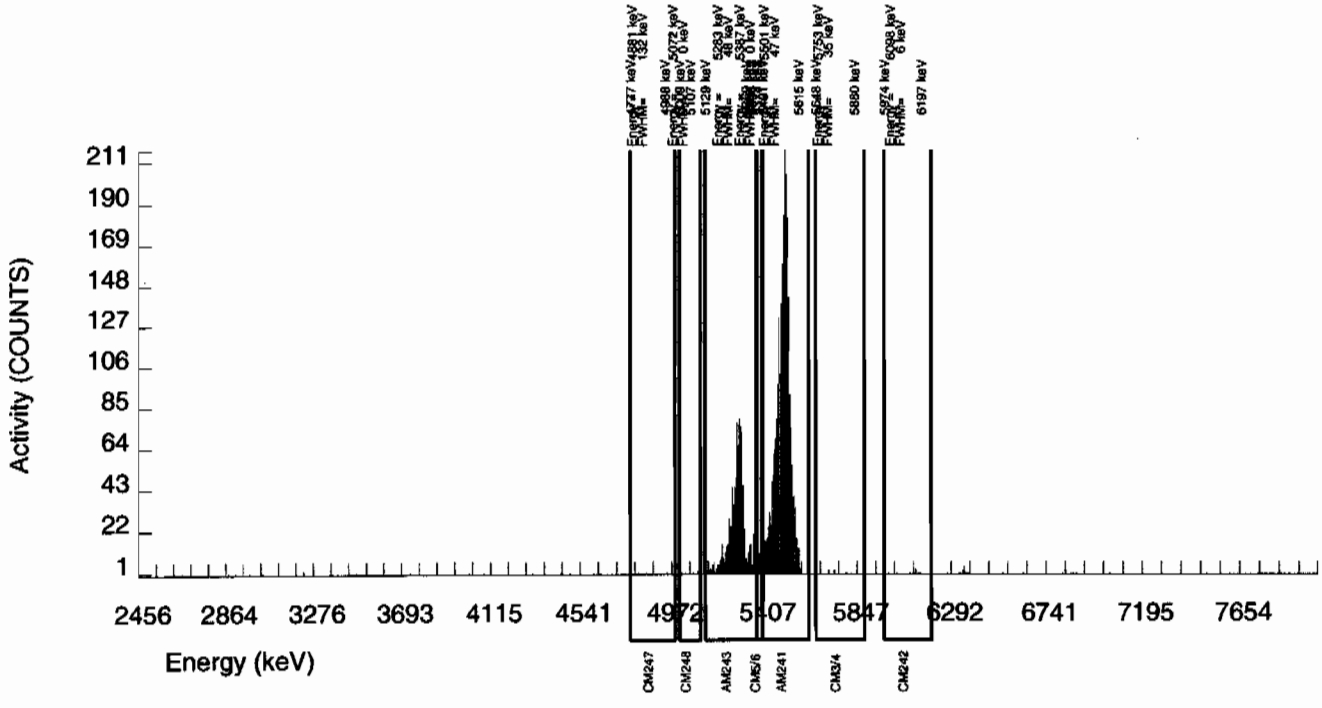

Radiochemistry Batch Checklist, Rev 9

Batch# 937615 Product: Pu Date: 1/8/10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			N/A
Samples have been blank corrected (if required)	✓		
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.	✓		
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	✓		
Sample was run within hold time.	✓		
Sample was correctly preserved if required.	✓		
Smears Taken for Radioactive batches.			N/A
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initiated and dated. No transcription errors are apparent.	✓		
Aux data is correct.			N/A
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)			N/A
Batch entered into Case Narrative.	✓		
Batch non-conformances completed. if applicable.			N/A
Batch non-conformances second reviewed and disposition verified to be completed.			N/A
Aliquot Correction completed if required.			N/A
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

GEL Laboratories, LLC

revised 8/1/08

Primary Review Performed By: JsLM 1/8/10

Secondary Review Performed By: 1/12/10

1/10 1/21

✓P

Plutonium Que Sheet

30-DEC-09

Batch #: 937615 **Analyst:** HAKB **First Client Due Date:** 21-JAN-10 **Internal Due Date:** 10-JAN-10

Tracer Isotope(s): Pu-242/Pu-238 **Tracer Code:** 1374 - A **Expiration Date:** 12/8/10 **Vol:** Ø.1

LCS Isotope(s): Pu-239/Pu-238 **LCS Code:** SRM 0244-B **Expiration Date:** 4/30/20 **Vol:** 0.1069

Spike Isotope(s): Pu-239/Pu-238 **Spike Code:** NA **Expiration Date:** NA **Vol:** NA

Prep Date: 1/4/10 **Initials:** HAKB **Pipet ID:** 2971058 **Balance ID:** 50410272 **Witness:** KM 1-4-10

Sample ID	Client Description	Type	Hazard Code	Min CRDL	Matrix	Client	Collection Date	Pos.	Label #	Wet/Dry Aliquot (g) (1/f)	Pu Det #
243515001-1	RE16-10-936	SAMPLE		.05 pCi/g	SOIL	LANL010	19-DEC-09	1	1	1.260	8
243515002-1	RE16-10-946	SAMPLE		.05 pCi/g	SOIL	LANL010	19-DEC-09	2	2	1.253	65 ~~9~~ *
243515003-1	RE16-10-950	SAMPLE		.05 pCi/g	SOIL	LANL010	19-DEC-09	3	3	1.260	10
243515004-1	RE16-10-938	SAMPLE		.05 pCi/g	SOIL	LANL010	19-DEC-09	4	4	1.255	66 12
243515005-1	RE16-10-956	SAMPLE		.05 pCi/g	SOIL	LANL010	19-DEC-09	5	5	1.279	67 13 *
243515006-1	RE16-10-970	SAMPLE		.05 pCi/g	SOIL	LANL010	19-DEC-09	6	6	1.266	68. 14
243515007-1	RE16-10-940	SAMPLE		.05 pCi/g	SOIL	LANL010	19-DEC-09	7	7	1.263	16
243515008-1	RE16-10-944	SAMPLE		.05 pCi/g	SOIL	LANL010	19-DEC-09	8	8	1.253	17
243515009-1	RE16-10-948	SAMPLE		.05 pCi/g	SOIL	LANL010	19-DEC-09	9	9	1.251	69 ~~18~~ *
243515010-1	RE16-10-958	SAMPLE		.05 pCi/g	SOIL	LANL010	19-DEC-09	10	10	1.264	19
243515011-1	RE16-10-966	SAMPLE		.05 pCi/g	SOIL	LANL010	19-DEC-09	11	11	1.264	20
243515012-1	RE16-10-954	SAMPLE		.05 pCi/g	SOIL	LANL010	19-DEC-09	12	12	1.253	21
243515013-1	RE16-10-942	SAMPLE		.05 pCi/g	SOIL	LANL010	19-DEC-09	13	13	1.255	22
243515014-1	RE16-10-952	SAMPLE		.05 pCi/g	SOIL	LANL010	19-DEC-09	14	14	1.253	70 ~~23~~ *
243515015-1	RE16-10-964	SAMPLE		.05 pCi/g	SOIL	LANL010	19-DEC-09	15	15	1.266	24
243515016-1	RE16-10-1003	SAMPLE		.05 pCi/g	SOIL	LANL010	19-DEC-09	16	16	1.260	218 ~~25~~ *
243515017-1	RE16-10-1004	SAMPLE		.05 pCi/g	SOIL	LANL010	19-DEC-09	17	17	1.272	26
243547002-1	WST54-10-9921	SAMPLE		.05 pCi/g	SOIL	LANL010	22-DEC-09	18	18	1.255	27
243547003-1	WST54-10-9922	SAMPLE		.05 pCi/g	SOIL	LANL010	22-DEC-09	19	19	1.268	28
243549002-1	WST03-10-2148	SAMPLE		.05 pCi/g	SOIL	LANL010	22-DEC-09	20	20	1.252	210
1202006380-1	MB for batch 937615	MB		.05 pCi/g	SOIL	QC ACCOUNT		21	21	1.0	107
1202006381-1	WST03-10-2148(243549002DUP)	DUP		.05 pCi/g	SOIL	QC ACCOUNT	22-DEC-09	22	22	1.254	68
1202006382-1	LCS for batch 937615	LCS		.05 pCi/g	SOIL	QC ACCOUNT		23	23	0.106	109

* KM 1/8/10

Choose SOP Used: GL-RAD-A-011, GL-RAD-A-036, GL-RAD-A-045, GL-RAD-A-043

Solid Sample Dissolution by: LEACH or DIGESTION (Circle One)

Data Reviewed By: [signature] 1/8/10

GEL Laboratories LLC, , Radiochemistry Division

Blank Correction Report

Batch ID 937615

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
1202006381	DUP	Plutonium-238	1.25 g	0.00	0.00227	0.0187	-.002456	pCi/g	NO
		Plutonium-239/240	1.25 g	0.00	0.00161	0.0214	.00368	pCi/g	YES
1202006382	LCS	Plutonium-238	0.106 g	6.83	0.492	0.205	-.02896226	pCi/g	NO
		Plutonium-239/240	0.106 g	35.6	2.17	0.234	.043396226	pCi/g	NO
1202006380	MB	Plutonium-238	1.00 g	-0.00307	0.00266	0.0253	-.00307	pCi/g	NO
		Plutonium-239/240	1.00 g	0.0046	0.00406	0.029	.0046	pCi/g	YES
243515001	RE16-10-936	Plutonium-238	1.26 g	0.00382	0.00612	0.021	-.00243651	pCi/g	NO
		Plutonium-239/240	1.26 g	0.00127	0.00221	0.0241	.003650794	pCi/g	YES
243515002	RE16-10-946	Plutonium-238	1.25 g	-0.00388	0.00593	0.0214	-.002456	pCi/g	NO
		Plutonium-239/240	1.25 g	0.0246	0.00633	0.0244	.00368	pCi/g	NO
243515003	RE16-10-950	Plutonium-238	1.26 g	-0.0139	0.00786	0.023	-.00243651	pCi/g	YES
		Plutonium-239/240	1.26 g	0.0181	0.00673	0.0263	.003650794	pCi/g	YES
243515004	RE16-10-938	Plutonium-238	1.26 g	0.00453	0.00624	0.025	-.00243651	pCi/g	NO
		Plutonium-239/240	1.26 g	0.0348	0.00861	0.0286	.003650794	pCi/g	NO
243515005	RE16-10-956	Plutonium-238	1.28 g	0.00	0.00522	0.023	-.00239844	pCi/g	NO
		Plutonium-239/240	1.28 g	0.039	0.00791	0.0264	.00359375	pCi/g	NO
243515006	RE16-10-970	Plutonium-238	1.27 g	0.00851	0.00451	0.0234	-.00241732	pCi/g	NO
		Plutonium-239/240	1.27 g	0.0496	0.00924	0.0268	.003622047	pCi/g	NO
243515007	RE16-10-940	Plutonium-238	1.26 g	0.00	0.0056	0.0189	-.00243651	pCi/g	NO
		Plutonium-239/240	1.26 g	0.00343	0.00199	0.0216	.003650794	pCi/g	YES
243515008	RE16-10-944	Plutonium-238	1.25 g	-0.00556	0.00622	0.0229	-.002456	pCi/g	NO
		Plutonium-239/240	1.25 g	0.00278	0.00278	0.0263	.00368	pCi/g	YES
243515009	RE16-10-948	Plutonium-238	1.25 g	-0.00144	0.0025	0.0238	-.002456	pCi/g	NO
		Plutonium-239/240	1.25 g	0.0505	0.00894	0.0273	.00368	pCi/g	NO
243515010	RE16-10-958	Plutonium-238	1.26 g	-0.00623	0.00483	0.0206	-.00243651	pCi/g	NO
		Plutonium-239/240	1.26 g	0.00499	0.00251	0.0236	.003650794	pCi/g	YES
243515011	RE16-10-966	Plutonium-238	1.26 g	0.00548	0.00503	0.0181	-.00243651	pCi/g	NO
		Plutonium-239/240	1.26 g	0.0186	0.00486	0.0207	.003650794	pCi/g	NO
243515012	RE16-10-954	Plutonium-238	1.25 g	0.00655	0.00775	0.0216	-.002456	pCi/g	NO
		Plutonium-239/240	1.25 g	0.00785	0.00372	0.0247	.00368	pCi/g	YES
243515013	RE16-10-942	Plutonium-238	1.26 g	0.0012	0.00771	0.0199	-.00243651	pCi/g	NO
		Plutonium-239/240	1.26 g	0.00361	0.00319	0.0228	.003650794	pCi/g	YES
243515014	RE16-10-952	Plutonium-238	1.25 g	0.00365	0.00502	0.0201	-.002456	pCi/g	NO
		Plutonium-239/240	1.25 g	0.0158	0.00478	0.023	.00368	pCi/g	YES
243515015	RE16-10-964	Plutonium-238	1.27 g	-0.0107	0.00519	0.0196	-.00241732	pCi/g	NO
		Plutonium-239/240	1.27 g	0.0143	0.00481	0.0225	.003622047	pCi/g	YES
243515016	RE16-10-1003	Plutonium-238	1.26 g	0.00	0.00208	0.0172	-.00243651	pCi/g	NO
		Plutonium-239/240	1.26 g	0.0374	0.00666	0.0196	.003650794	pCi/g	NO
243515017	RE16-10-1004	Plutonium-238	1.27 g	0.00247	0.00247	0.0204	-.00241732	pCi/g	NO

Blank Correction Report

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
243515017	RE16-10-1004	Plutonium-239/240	1.27 g	0.0037	0.00371	0.0233	.003622047	pCi/g	YES
243547002	WST54-10-9921	Plutonium-238	1.26 g	0.00114	0.00198	0.0189	-.00243651	pCi/g	NO
		Plutonium-239/240	1.26 g	-2.73E-10	0.00229	0.0216	.003650794	pCi/g	YES
243547003	WST54-10-9922	Plutonium-238	1.27 g	-0.0062	0.00372	0.0205	-.00241732	pCi/g	NO
		Plutonium-239/240	1.27 g	0.00124	0.00215	0.0234	.003622047	pCi/g	YES
243549002	WST03-10-2148	Plutonium-238	1.25 g	0.000965	0.000966	0.0159	-.002456	pCi/g	NO
		Plutonium-239/240	1.25 g	0.00193	0.00137	0.0182	.00368	pCi/g	YES

Alpha Spectroscopy Software Version 2.0
effective date: 03-Mar-1997

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 937615 SAMPLE DATE : 22-DEC-2009 00:00:00	SAMPLE ID : S0243549002_PU SAMPLE QTY: 1.252 G
DETECTOR NUMBER :79189 AVERAGE %EFFICIENCY :38.1693 % YIELD : 97.818	COUNT DATE: 5-JAN-2010 14:30:28 ELAPSED LIVE TIME(SEC): 60000.00 ANALYST :HAKB

MS/MSD	LCS/LCSD	TRACER	
ID : 0244-B ISOTOPE : PU-9/0 PCI/G : 4.178E+01	ID : 0244-B ISOTOPE : PU-9/0 PCI/G : 4.178E+01	ID : 1374-A ISOTOPE : PU242 NOMINAL : 3.38543 dpm RESULTS : 3.31156 dpm	LIB FILE : ENV_ALPHA_PU.N BKG FILE : B210.CNF;66 BKG DATE : 3-JAN-2010 EFF FILE : W210.CNF;25 CAL DATE : 28-DEC-2009

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-9/0	5155.000	2.000	2.000	0.000	3.4797	99.90000	1.93E-03	1.37E-03	7.81E-03	1.82E-02	1.36E-03
PU-236	5749.000	0.000	0.000	0.000	2.1286	100.0000	0.00E+00	9.74E-04	4.77E-03	1.22E-02	9.73E-04
PU-238	5499.000	1.000	1.000	0.000	2.9680	99.90000	9.65E-04	9.66E-04	6.66E-03	1.59E-02	9.65E-04
PU242	4890.000	1265.000	1264.000	1.000	1.0000	100.0000	1.22E+00	6.83E-02	2.24E-03	7.09E-03	3.43E-02
PU-244	4589.000	6.000	6.000	0.000	5.2050	99.90000	5.79E-03	2.38E-03	1.17E-02	2.60E-02	2.36E-03

NOTE: Sg calculated via blank population (updated 5-JAN-2010)
NOTE: Sg of PU242 calculated as sqrt(BKG AREA)

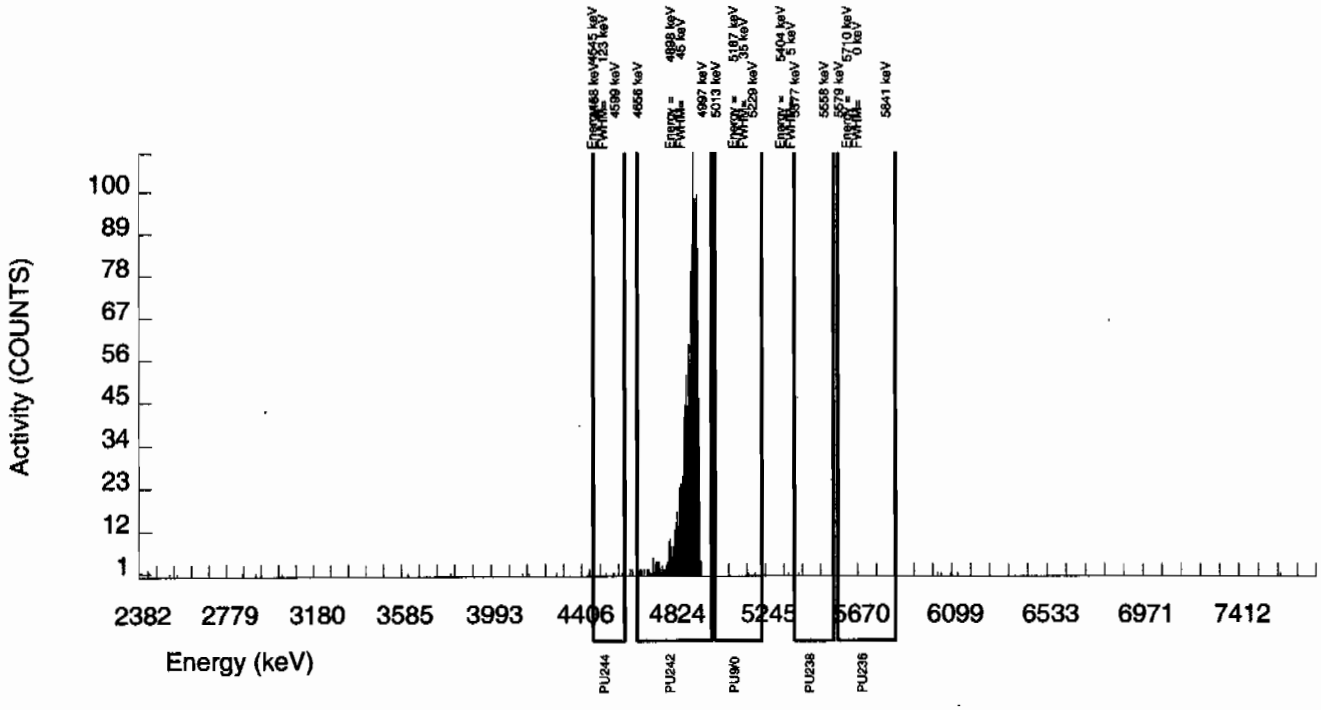

Alpha Spectroscopy Software Version 2.0
effective date: 09-Mar-1997

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 937615 SAMPLE DATE : 4-JAN-2010 00:00:00.	SAMPLE ID : S1202006380_PU SAMPLE QTY: 1.000 G
DETECTOR NUMBER :67578 AVERAGE %EFFICIENCY :30.5972 % YIELD : 96.153	COUNT DATE: 5-JAN-2010 14:30:18 ELAPSED LIVE TIME(SEC): 60000.00 ANALYST :HAKB

MS/MSD	LCS/LCSD	TRACER	
ID : 0244-B ISOTOPE : PU-9/0 PCI/G : 4.178E+01	ID : 0244-B ISOTOPE : PU-9/0 PCI/G : 4.178E+01	ID : 1374-A ISOTOPE : PU242 NOMINAL : 3.38543 dpm RESULTS : 3.25520 dpm	LIB FILE : ENV_ALPHA_PU.N BKG FILE : B107.CNF;670 BKG DATE : 3-JAN-2010 EFF FILE : W107.CNF;228 CAL DATE : 10-DEC-2009

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-9/0	5155.000	5.000	3.000	2.000	3.4797	99.90000	4.60E-03	4.06E-03	1.24E-02	2.90E-02	4.05E-03
PU-236	5749.000	0.000	0.000	0.000	2.1286	100.0000	0.00E+00	1.54E-03	7.58E-03	1.93E-02	1.53E-03
PU-238	5499.000	0.000	-2.000	2.000	2.9680	99.90000	-3.07E-03	2.66E-03	1.06E-02	2.53E-02	2.65E-03
PU242	4890.000	998.000	996.000	2.000	1.4142	100.0000	1.52E+00	9.16E-02	5.04E-03	1.42E-02	4.84E-02
PU-244	4589.000	2.000	1.000	1.000	5.2050	99.90000	1.53E-03	2.66E-03	1.86E-02	4.13E-02	2.65E-03

NOTE: Sg calculated via blank population (updated 5-JAN-2010)
NOTE: Sg of PU242 calculated as sqrt(BKG AREA)

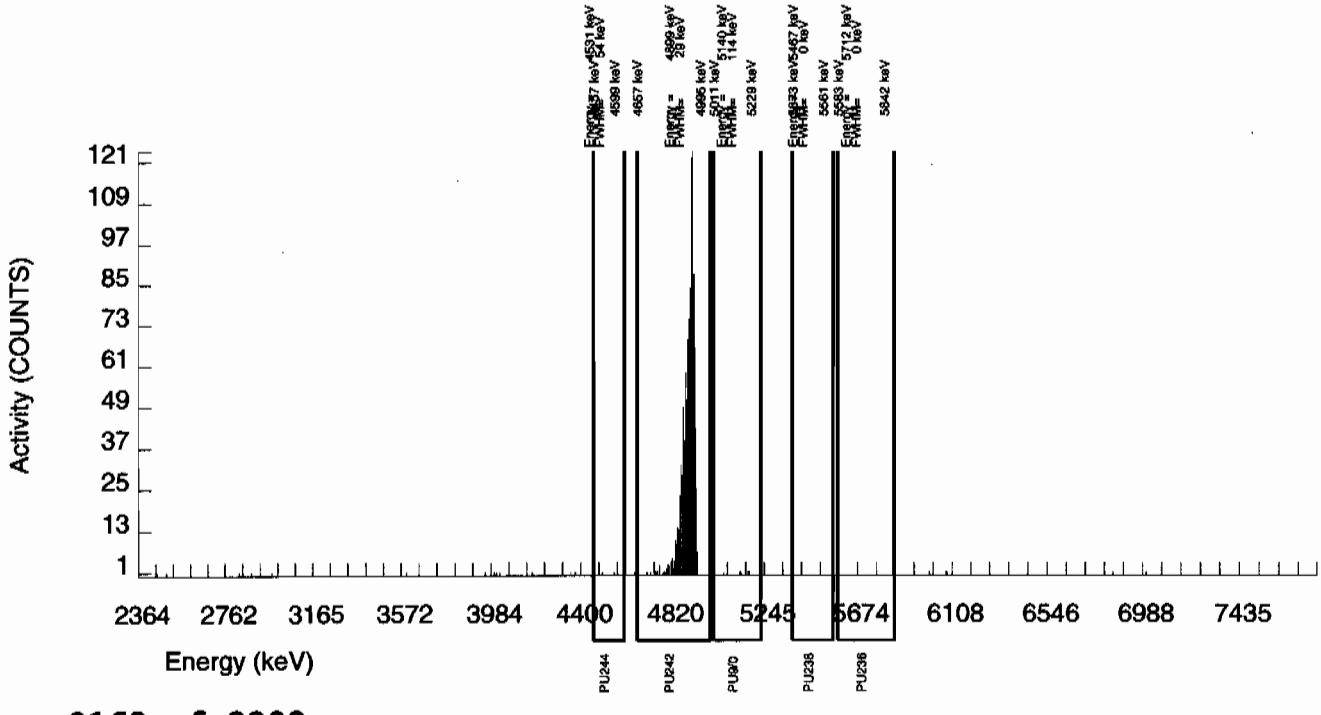

Alpha Spectroscopy Software Version 2.0
effective date: 09-Mar-1997

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 937615 SAMPLE DATE : 22-DEC-2009 00:00:00	SAMPLE ID : S1202006381_PU SAMPLE QTY: 1.254 G
DETECTOR NUMBER :78778 AVERAGE %EFFICIENCY :33.5822 % YIELD : 94.379	COUNT DATE: 5-JAN-2010 14:30:18 ELAPSED LIVE TIME(SEC): 60000.00 ANALYST :HAKB

MS/MSD	LCS/LCSD	TRACER	
ID : 0244-B	ID : 0244-B	ID : 1374-A	LIB FILE : ENV_ALPHA_PU.N
ISOTOPE : PU-9/0	ISOTOPE : PU-9/0	ISOTOPE : PU242	BKG FILE : B108.CNF;668
PCI/G : 4.178E+01	PCI/G : 4.178E+01	NOMINAL : 3.38543 dpm	BKG DATE : 3-JAN-2010
		RESULTS : 3.19514 dpm	EFF FILE : W108.CNF;209
			CAL DATE : 10-DEC-2009

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-9/0	5155.000	1.000	0.000	1.000	3.4797	99.90000	0.00E+00	1.61E-03	9.18E-03	2.14E-02	1.60E-03
PU-236	5749.000	1.000	1.000	0.000	2.1286	100.0000	1.14E-03	1.15E-03	5.61E-03	1.43E-02	1.14E-03
PU-238	5499.000	2.000	0.000	2.000	2.9680	99.90000	0.00E+00	2.27E-03	7.83E-03	1.87E-02	2.27E-03
PU242	4890.000	1077.000	1073.000	4.000	2.0000	100.0000	1.22E+00	7.15E-02	5.27E-03	1.36E-02	3.73E-02
PU-244	4589.000	2.000	2.000	0.000	5.2050	99.90000	2.27E-03	1.61E-03	1.37E-02	3.05E-02	1.60E-03

NOTE: Sg calculated via blank population (updated 5-JAN-2010)
NOTE: Sg of PU242 calculated as sqrt(BKG AREA)

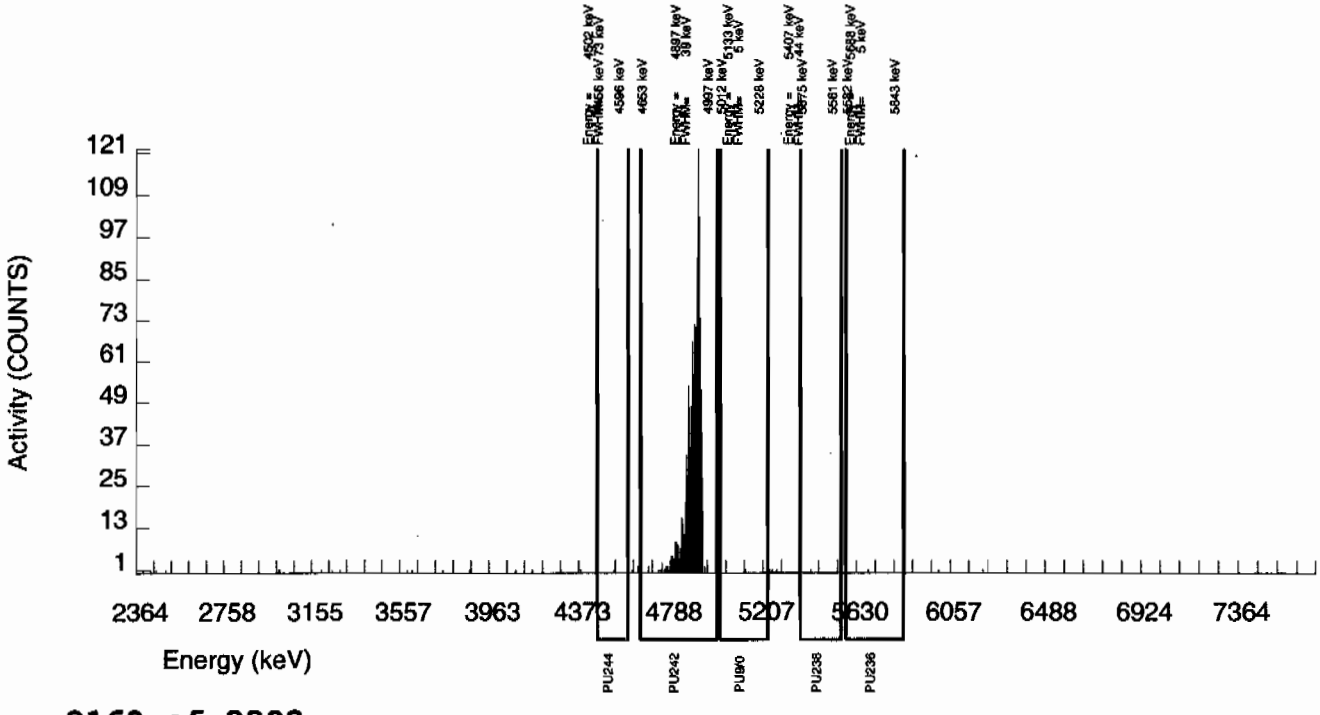

Alpha Spectroscopy Software Version 2.0
effective date: 09-Mar-1997

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 937615 SAMPLE DATE : 4-JAN-2010 00:00:00.	SAMPLE ID : S1202006382_PU SAMPLE QTY: 0.106 G
DETECTOR NUMBER :79463 AVERAGE %EFFICIENCY :35.6057 % YIELD : 96.399	COUNT DATE: 5-JAN-2010 14:30:18 ELAPSED LIVE TIME(SEC): 60000.00 ANALYST :HAKB

MS/MSD	LCS/LCSD	TRACER	
ID : 0244-B ISOTOPE : PU-9/0 PCI/G : 4.178E+01	ID : 0244-B ISOTOPE : PU-9/0 PCI/G : 4.178E+01	ID : 1374-A ISOTOPE : PU242 NOMINAL : 3.38543 dpm RESULTS : 3.26352 dpm	LIB FILE : ENV_ALPHA_PU.N BKG FILE : B109.CNF;666 BKG DATE : 3-JAN-2010 EFF FILE : W109.CNF;190 CAL DATE : 10-DEC-2009

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-9/0	5155.000	2874.000	2874.000	0.000	3.4797	99.90000	3.56E+01	2.17E+00	1.00E-01	2.34E-01	6.64E-01
PU-236	5749.000	0.000	-1.000	1.000	2.1286	100.0000	-1.24E-02	1.75E-02	6.13E-02	1.56E-01	1.75E-02
PU-238	5499.000	553.000	551.000	2.000	2.9680	99.90000	6.83E+00	4.92E-01	8.56E-02	2.05E-01	2.92E-01
PU242	4890.000	1163.000	1162.000	1.000	1.0000	100.0000	1.44E+01	9.35E-01	2.88E-02	9.12E-02	4.22E-01
PU-244	4589.000	6.000	6.000	0.000	5.2050	99.90000	7.44E-02	3.07E-02	1.50E-01	3.34E-01	3.04E-02

NOTE: Sg calculated via blank population (updated 5-JAN-2010)
NOTE: Sg of PU242 calculated as sqrt(BKG AREA)

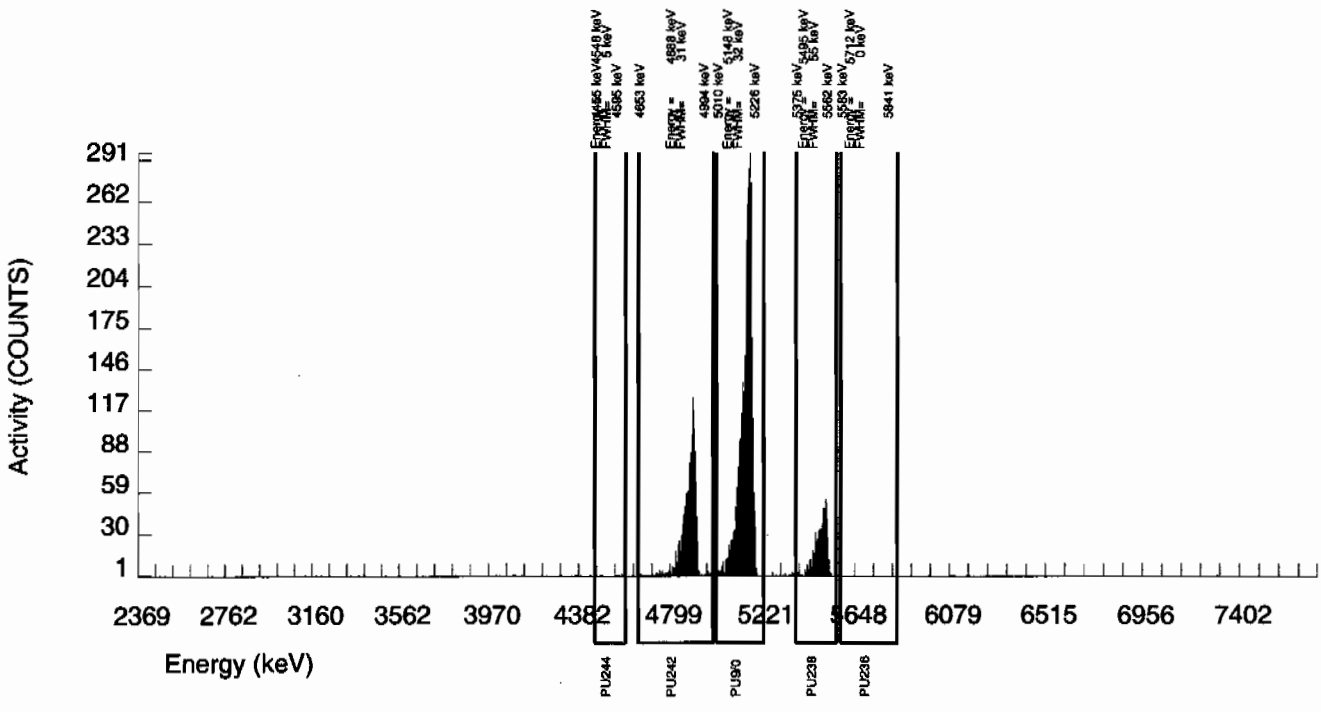

Radiochemistry Batch Checklist, Rev 9

Batch# 937616 Product: U Date: 1/12/10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			N/A
Samples have been blank corrected (if required)	✓		
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.	✓		
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	✓		Case narrative
Sample was run within hold time.	✓		
Sample was correctly preserved if required.	✓		
Smears Taken for Radioactive batches.			N/A
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initiated and dated. No transcription errors are apparent.	✓		
Aux data is correct.			N/A
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)			N/A
Batch entered into Case Narrative.	✓		
Batch non-conformances completed, if applicable.			N/A
Batch non-conformances second reviewed and disposition verified to be completed.			N/A
Aliquot Correction completed if required.			N/A
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analyses.)	✓		

GEL Laboratories, LLC

revised 8/1/08

Primary Review Performed By: [illegible] 1/12/10

Secondary Review Performed By: [illegible] 1/12/10

1/21

✓ P

Uranium Que Sheet

30-DEC-09

Batch #: 937616 **Analyst:** HAKB **First Client Due Date:** 21-JAN-10 **Internal Due Date:** 10-JAN-10

Tracer Isotope: U-232/U-236 **Tracer Code:** 1283-H **Expiration Date:** 12/9/10 **Vol:** 0.1
LCS Isotope: U-238 **LCS Code:** SPM 0244-A **Expiration Date:** 10/21/20 **Vol:** 0.109g
Spike Isotope: U-238 **Spike Code:** NA **Expiration Date:** NA **Vol:** NA
Prep Date: 1/4/10 **Initials:** HAKB **Pipet ID:** 297105R **Balance ID:** 50410272 **Witness:** KM 1-4-10

Sample ID	Client Description	Type	Hazard Code	Min CRDL	Matrix	Client	Collection Date	Pos.	Label #	Wet/Dry Aliquot (g)	U Det #
243515001-1	RE16-10-936	SAMPLE		.1 pCi/g	SOIL	LANL010	19-DEC-09	1	1	0.506	167
243515002-1	RE16-10-946	SAMPLE		.1 pCi/g	SOIL	LANL010	19-DEC-09	2	2	0.503	169
243515003-1	RE16-10-950	SAMPLE		.1 pCi/g	SOIL	LANL010	19-DEC-09	3	3	0.511	121
243515004-1	RE16-10-938	SAMPLE		.1 pCi/g	SOIL	LANL010	19-DEC-09	4	4	0.510	122
243515005-1	RE16-10-956	SAMPLE		.1 pCi/g	SOIL	LANL010	19-DEC-09	5	5	0.511	125
243515006-1	RE16-10-970	SAMPLE		.1 pCi/g	SOIL	LANL010	19-DEC-09	6	6	0.503	126
243515007-1	RE16-10-940	SAMPLE		.1 pCi/g	SOIL	LANL010	19-DEC-09	7	7	0.505	127
243515008-1	RE16-10-944	SAMPLE		.1 pCi/g	SOIL	LANL010	19-DEC-09	8	8	0.505	128
243515009-1	RE16-10-948	SAMPLE		.1 pCi/g	SOIL	LANL010	19-DEC-09	9	9	0.510	129
243515010-1	RE16-10-958	SAMPLE		.1 pCi/g	SOIL	LANL010	19-DEC-09	10	10	0.519	130
243515011-1	RE16-10-966	SAMPLE		.1 pCi/g	SOIL	LANL010	19-DEC-09	11	11	0.504	133
243515012-1	RE16-10-954	SAMPLE		.1 pCi/g	SOIL	LANL010	19-DEC-09	12	12	0.509	134
243515013-1	RE16-10-942	SAMPLE		.1 pCi/g	SOIL	LANL010	19-DEC-09	13	13	0.511	129 ~~135~~
243515014-1	RE16-10-952	SAMPLE		.1 pCi/g	SOIL	LANL010	19-DEC-09	14	14	0.510	130 ~~136~~
243515015-1	RE16-10-964	SAMPLE		.1 pCi/g	SOIL	LANL010	19-DEC-09	15	15	0.523	137
243515016-1	RE16-10-1003	SAMPLE		.1 pCi/g	SOIL	LANL010	19-DEC-09	16	16	0.501	138
243515017-1	RE16-10-1004	SAMPLE		.1 pCi/g	SOIL	LANL010	19-DEC-09	17	17	0.506	145
243547002-1	WST54-10-9921	SAMPLE		.1 pCi/g	SOIL	LANL010	22-DEC-09	18	18	0.519	146
243547003-1	WST54-10-9922	SAMPLE		.1 pCi/g	SOIL	LANL010	22-DEC-09	19	19	0.504	147
243549002-1	WST03-10-2148	SAMPLE		.1 pCi/g	SOIL	LANL010	22-DEC-09	20	20	0.502	148
1202006383-1	MB for batch 937616	MB		.1 pCi/g	SOIL	QC ACCOUNT		21	21	1.00	125
1202006384-1	WST03-10-2148(243549002DUP)	DUP		.1 pCi/g	SOIL	QC ACCOUNT	22-DEC-09	22	22	0.507	126
1202006385-1	LCS for batch 937616	LCS		.1 pCi/g	SOIL	QC ACCOUNT		23	23	0.109	127

Bm 1/12/10

Choose SOP used: GL-RAD-A-011 Solid Sample Dissolution by: LEACH or DIGESTION (Circle One) **Data Reviewed By:** [signature] 1/12/10

Blank Correction Report

Batch ID 937616

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
1202006384	DUP	Uranium-233/234	0.507 g	0.834	0.0827	0.123	.018284024	pCi/g	NO
		Uranium-235/236	0.507 g	0.0786	0.0204	0.0765	.013806706	pCi/g	NO
		Uranium-238	0.507 g	0.739	0.0755	0.0714	.011163708	pCi/g	NO
1202006385	LCS	Uranium-233/234	0.109 g	6.05	0.566	0.546	.085045872	pCi/g	NO
		Uranium-235/236	0.109 g	0.414	0.100	0.339	.064220183	pCi/g	NO
		Uranium-238	0.109 g	5.96	0.559	0.317	.051926606	pCi/g	NO
1202006383	MB	Uranium-233/234	1.00 g	0.00927	0.00567	0.0585	.00927	pCi/g	YES
		Uranium-235/236	1.00 g	0.007	0.00407	0.0363	.007	pCi/g	YES
		Uranium-238	1.00 g	0.00566	0.00424	0.0339	.00566	pCi/g	YES
243515001	RE16-10-936	Uranium-233/234	0.506 g	0.776	0.0728	0.0959	.018320158	pCi/g	NO
		Uranium-235/236	0.506 g	0.0383	0.0124	0.0595	.013833992	pCi/g	YES
		Uranium-238	0.506 g	0.709	0.0683	0.0556	.011185771	pCi/g	NO
243515002	RE16-10-946	Uranium-233/234	0.503 g	1.11	0.103	0.125	.018429423	pCi/g	NO
		Uranium-235/236	0.503 g	0.065	0.0186	0.0778	.013916501	pCi/g	YES
		Uranium-238	0.503 g	1.36	0.122	0.0727	.011252485	pCi/g	NO
243515003	RE16-10-950	Uranium-233/234	0.511 g	0.937	0.0906	0.124	.018140900	pCi/g	NO
		Uranium-235/236	0.511 g	0.0345	0.0165	0.0767	.013698630	pCi/g	YES
		Uranium-238	0.511 g	1.00	0.0956	0.0717	.011076321	pCi/g	NO
243515004	RE16-10-938	Uranium-233/234	0.510 g	1.06	0.0992	0.122	.018176471	pCi/g	NO
		Uranium-235/236	0.510 g	0.039	0.0141	0.0759	.013725490	pCi/g	YES
		Uranium-238	0.510 g	1.03	0.097	0.0709	.011098039	pCi/g	NO
243515005	RE16-10-956	Uranium-233/234	0.511 g	1.04	0.0964	0.114	.018140900	pCi/g	NO
		Uranium-235/236	0.511 g	0.050	0.0155	0.0708	.013698630	pCi/g	YES
		Uranium-238	0.511 g	1.18	0.106	0.0661	.011076321	pCi/g	NO
243515006	RE16-10-970	Uranium-233/234	0.503 g	1.07	0.104	0.142	.018429423	pCi/g	NO
		Uranium-235/236	0.503 g	0.107	0.0258	0.0879	.013916501	pCi/g	NO
		Uranium-238	0.503 g	1.19	0.113	0.0821	.011252485	pCi/g	NO
243515007	RE16-10-940	Uranium-233/234	0.505 g	0.855	0.0848	0.126	.018356436	pCi/g	NO
		Uranium-235/236	0.505 g	0.0501	0.0162	0.0779	.013861386	pCi/g	YES
		Uranium-238	0.505 g	0.887	0.0871	0.0728	.011207921	pCi/g	NO
243515008	RE16-10-944	Uranium-233/234	0.505 g	0.687	0.0716	0.122	.018356436	pCi/g	NO
		Uranium-235/236	0.505 g	0.0342	0.0131	0.076	.013861386	pCi/g	YES
		Uranium-238	0.505 g	0.600	0.065	0.071	.011207921	pCi/g	NO
243515009	RE16-10-948	Uranium-233/234	0.510 g	1.22	0.117	0.145	.018176471	pCi/g	NO
		Uranium-235/236	0.510 g	0.0522	0.0178	0.0902	.013725490	pCi/g	YES
		Uranium-238	0.510 g	1.32	0.124	0.0843	.011098039	pCi/g	NO
243515010	RE16-10-958	Uranium-233/234	0.519 g	1.26	0.116	0.131	.017861272	pCi/g	NO
		Uranium-235/236	0.519 g	0.0366	0.0141	0.0813	.013487476	pCi/g	YES
		Uranium-238	0.519 g	1.15	0.108	0.076	.010905588	pCi/g	NO
243515011	RE16-10-966	Uranium-233/234	0.504 g	1.06	0.103	0.139	.018392857	pCi/g	NO
		Uranium-235/236	0.504 g	0.0553	0.0179	0.086	.013888889	pCi/g	YES

Blank Correction Report

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
243515011	RE16-10-966	Uranium-238	0.504 g	1.19	0.113	0.0804	.011230159	pCi/g	NO
243515012	RE16-10-954	Uranium-233/234	0.509 g	1.14	0.109	0.141	.018212181	pCi/g	NO
		Uranium-235/236	0.509 g	0.0393	0.0171	0.0873	.013752456	pCi/g	YES
		Uranium-238	0.509 g	0.990	0.0984	0.0816	.011119843	pCi/g	NO
243515013	RE16-10-942	Uranium-233/234	0.511 g	0.736	0.0763	0.129	.018140900	pCi/g	NO
		Uranium-235/236	0.511 g	0.00514	0.00515	0.080	.013698630	pCi/g	YES
		Uranium-238	0.511 g	0.661	0.0706	0.0747	.011076321	pCi/g	NO
243515014	RE16-10-952	Uranium-233/234	0.510 g	1.07	0.111	0.174	.018176471	pCi/g	NO
		Uranium-235/236	0.510 g	0.0833	0.0248	0.108	.013725490	pCi/g	NO
		Uranium-238	0.510 g	1.16	0.118	0.101	.011098039	pCi/g	NO
243515015	RE16-10-964	Uranium-233/234	0.523 g	1.15	0.109	0.135	.017724665	pCi/g	NO
		Uranium-235/236	0.523 g	0.0216	0.0109	0.0839	.013384321	pCi/g	YES
		Uranium-238	0.523 g	1.11	0.106	0.0784	.010822180	pCi/g	NO
243515016	RE16-10-1003	Uranium-233/234	0.501 g	1.04	0.100	0.135	.018502994	pCi/g	NO
		Uranium-235/236	0.501 g	0.0323	0.0202	0.0837	.013972056	pCi/g	YES
		Uranium-238	0.501 g	1.18	0.111	0.0782	.011297405	pCi/g	NO
243515017	RE16-10-1004	Uranium-233/234	0.506 g	1.03	0.0982	0.123	.018320158	pCi/g	NO
		Uranium-235/236	0.506 g	0.0492	0.016	0.0765	.013833992	pCi/g	YES
		Uranium-238	0.506 g	1.06	0.101	0.0715	.011185771	pCi/g	NO
243547002	WST54-10-9921	Uranium-233/234	0.519 g	2.46	0.205	0.132	.017861272	pCi/g	NO
		Uranium-235/236	0.519 g	0.153	0.0305	0.0821	.013487476	pCi/g	NO
		Uranium-238	0.519 g	2.45	0.203	0.0767	.010905588	pCi/g	NO
243547003	WST54-10-9922	Uranium-233/234	0.504 g	2.29	0.187	0.107	.018392857	pCi/g	NO
		Uranium-235/236	0.504 g	0.0812	0.0195	0.0665	.013888889	pCi/g	NO
		Uranium-238	0.504 g	2.40	0.194	0.0622	.011230159	pCi/g	NO
243549002	WST03-10-2148	Uranium-233/234	0.502 g	0.968	0.0978	0.147	.018466135	pCi/g	NO
		Uranium-235/236	0.502 g	0.0352	0.0146	0.0912	.013944223	pCi/g	YES
		Uranium-238	0.502 g	0.977	0.0982	0.0853	.011274900	pCi/g	NO

Alpha Spectroscopy Software Version 2.0
effective date: 09-Mar-1997

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 937616 SAMPLE DATE : 22-DEC-2009 00:00:00	SAMPLE ID : S0243549002_UU SAMPLE QTY: 0.502 G
DETECTOR NUMBER :74429 AVERAGE %EFFICIENCY :24.8504 % YIELD : 76.134	COUNT DATE: 8-JAN-2010 16:01:29 ELAPSED LIVE TIME(SEC): 60000.00 ANALYST :HAKB

MS/MSD	LCS/LCSD	TRACER	
ID : 0244-A ISOTOPE : U-238 PCI/G : 5.750E+00	ID : 0244-A ISOTOPE : U-238 PCI/G : 5.750E+00	ID : 1283-H ISOTOPE : U232 NOMINAL : 4.51076 dpm RESULTS : 3.43424 dpm	LIB FILE : ENV_ALPHA_UU.N BKG FILE : B148.CNF;383 BKG DATE : 3-JAN-2010 EFF FILE : W148.CNF;125 CAL DATE : 15-DEC-2009

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U-3/4	4763.020	206.000	204.138	1.000	6.0782	100.0000	9.68E-01	9.78E-02	6.71E-02	1.47E-01	6.81E-02
U232	5302.100	856.000	853.000	3.000	1.7321	100.0000	4.05E+00	3.25E-01	1.91E-02	5.11E-02	1.39E-01
U-235	4391.000	6.000	6.000	0.000	2.7628	80.90000	3.52E-02	1.46E-02	3.77E-02	9.12E-02	1.44E-02
U-238	4184.730	206.000	206.000	0.000	3.2810	100.0000	9.77E-01	9.82E-02	3.62E-02	8.53E-02	6.81E-02

NOTE: Sg calculated via blank population (updated 5-JAN-2010)
NOTE: Sg of U232 calculated as sqrt(BKG AREA)
NOTE: Corrections made to U-3/4 net area due to tracer impurity

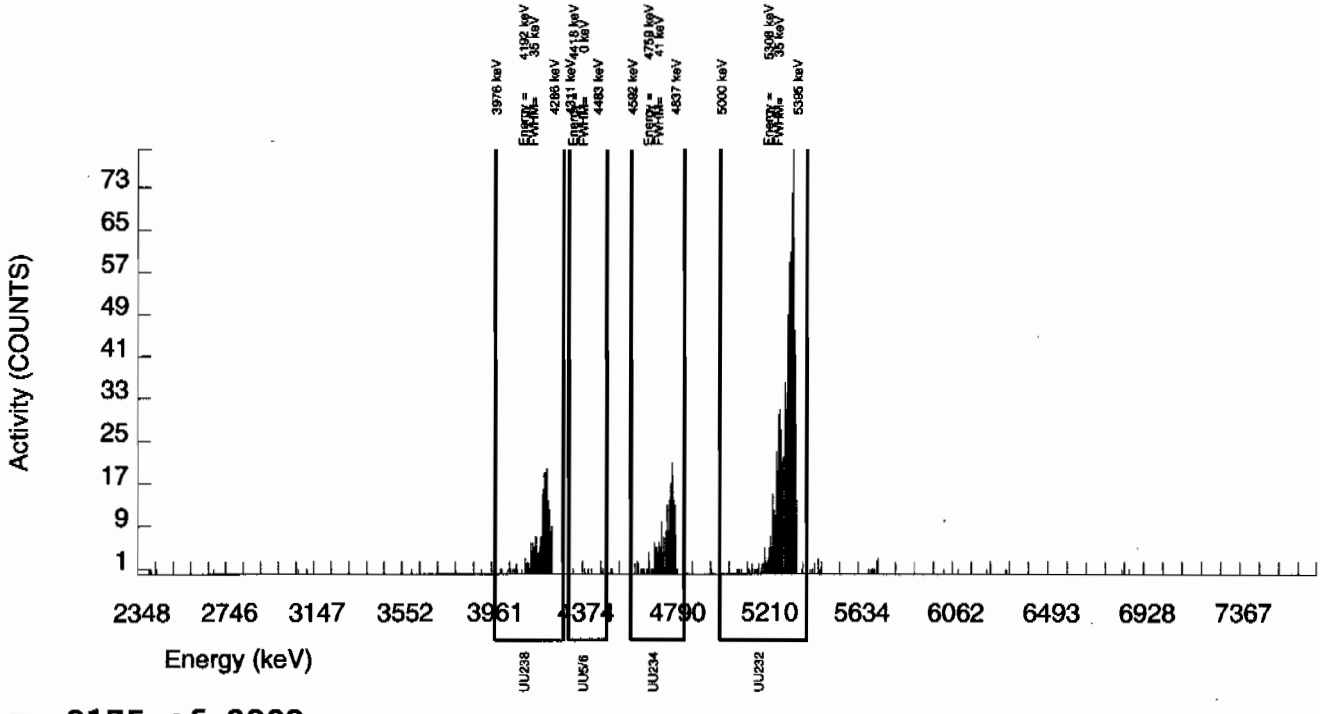

Alpha Spectroscopy Software Version 2.0
effective date: 09-Mar-1997

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 937616 SAMPLE DATE : 4-JAN-2010 00:00:00.	SAMPLE ID : S1202006383_UU SAMPLE QTY: 1.000 G
DETECTOR NUMBER :75547 AVERAGE %EFFICIENCY :25.8475 % YIELD : 92.328	COUNT DATE: 6-JAN-2010 13:51:51 ELAPSED LIVE TIME(SEC): 60000.00 ANALYST :HAKB

MS/MSD	LCS/LCSD	TRACER	
ID : 0244-A ISOTOPE : U-238 PCI/G : 5.750E+00	ID : 0244-A ISOTOPE : U-238 PCI/G : 5.750E+00	ID : 1283-H ISOTOPE : U232 NOMINAL : 4.50915 dpm RESULTS : 4.16320 dpm	LIB FILE : ENV_ALPHA_UU.N BKG FILE : B125.CNF;433 BKG DATE : 3-JAN-2010 EFF FILE : W125.CNF;128 CAL DATE : 15-DEC-2009

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U-3/4	4763.020	8.000	4.912	2.000	6.0782	100.0000	9.27E-03	5.67E-03	2.67E-02	5.85E-02	5.63E-03
U232	5302.100	1080.000	1076.000	4.000	2.0000	100.0000	2.03E+00	1.56E-01	8.78E-03	2.27E-02	6.22E-02
U-235	4391.000	3.000	3.000	0.000	2.7628	80.90000	7.00E-03	4.07E-03	1.50E-02	3.63E-02	4.04E-03
U-238	4184.730	4.000	3.000	1.000	3.2810	100.0000	5.66E-03	4.24E-03	1.44E-02	3.39E-02	4.22E-03

NOTE: Sg calculated via blank population (updated 5-JAN-2010)
NOTE: Sg of U232 calculated as sqrt(BKG AREA)
NOTE: Corrections made to U-3/4 net area due to tracer impurity

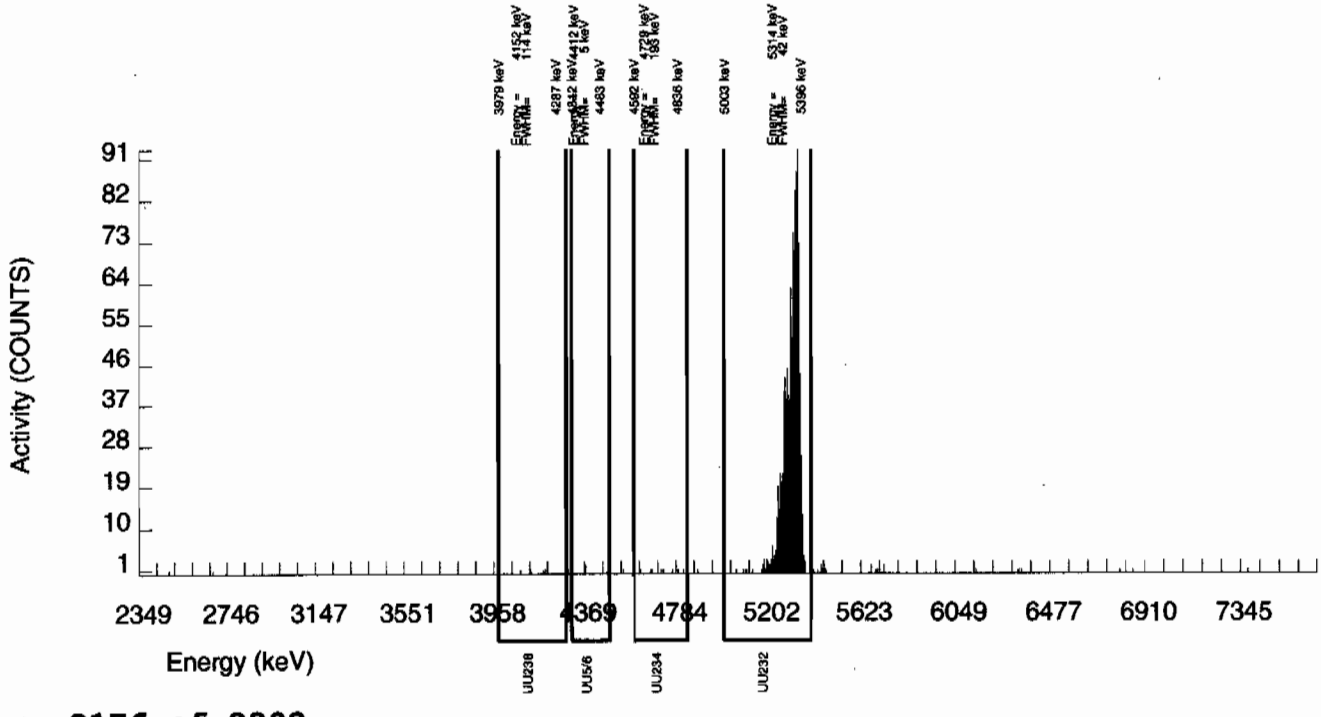

Alpha Spectroscopy Software Version 2.0
effective date: 09-Mar-1997

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 937616 SAMPLE DATE : 22-DEC-2009 00:00:00	SAMPLE ID : S1202006384_UU SAMPLE QTY: 0.507 G
DETECTOR NUMBER :75548 AVERAGE %EFFICIENCY :25.0198 % YIELD : 89.355	COUNT DATE: 6-JAN-2010 13:51:54 ELAPSED LIVE TIME(SEC): 60000.00 ANALYST :HAKB

MS/MSD	LCS/LCSD	TRACER	
ID : 0244-A ISOTOPE : U-238 PCI/G : 5.750E+00	ID : 0244-A ISOTOPE : U-238 PCI/G : 5.750E+00	ID : 1283-H ISOTOPE : U232 NOMINAL : 4.51076 dpm RESULTS : 4.03057 dpm	LIB FILE : ENV_ALPHA_UU.N BKG FILE : B126.CNF;432 BKG DATE : 3-JAN-2010 EFF FILE : W126.CNF;130 CAL DATE : 15-DEC-2009

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U-3/4	4763.020	211.000	209.981	0.000	6.0782	100.0000	8.34E-01	8.27E-02	5.62E-02	1.23E-01	5.76E-02
U232	5302.100	1009.000	1008.000	1.000	1.0000	100.0000	4.01E+00	3.12E-01	9.25E-03	2.93E-02	1.26E-01
U-235	4391.000	16.000	16.000	0.000	2.7628	80.90000	7.86E-02	2.04E-02	3.16E-02	7.65E-02	1.96E-02
U-238	4184.730	186.000	186.000	0.000	3.2810	100.0000	7.39E-01	7.55E-02	3.03E-02	7.14E-02	5.42E-02

NOTE: Sg calculated via blank population (updated 5-JAN-2010)
NOTE: Sg of U232 calculated as sqrt(BKG AREA)
NOTE: Corrections made to U-3/4 net area due to tracer impurity

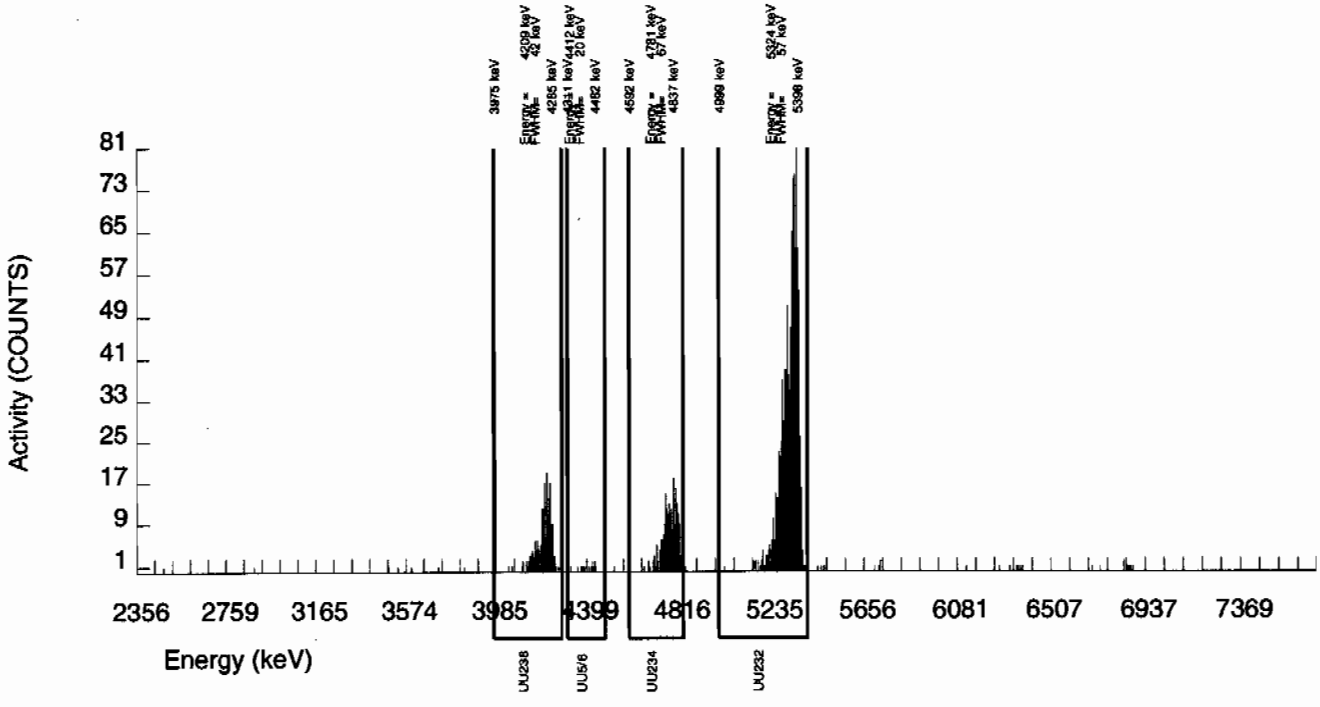

Alpha Spectroscopy Software Version 2.0
effective date: 09-Mar-1997

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 937616 SAMPLE DATE : 4-JAN-2010 00:00:00.	SAMPLE ID : S1202006385_UU SAMPLE QTY: 0.109 G
DETECTOR NUMBER :78770 AVERAGE %EFFICIENCY :24.6888 % YIELD : 94.954	COUNT DATE: 6-JAN-2010 13:51:55 ELAPSED LIVE TIME(SEC): 60000.00 ANALYST :HAKB

MS/MSD	LCS/LCSD	TRACER	
ID : 0244-A	ID : 0244-A	ID : 1283-H	LIB FILE : ENV_ALPHA_UU.N
ISOTOPE : U-238	ISOTOPE : U-238	ISOTOPE : U232	BKG FILE : B127.CNF;436
PCI/G : 5.750E+00	PCI/G : 5.750E+00	NOMINAL : 4.50916 dpm	BKG DATE : 3-JAN-2010
		RESULTS : 4.28163 dpm	EFF FILE : W127.CNF;121
			CAL DATE : 15-DEC-2009

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U-3/4	4763.020	345.000	342.931	1.000	6.0782	100.0000	6.05E+00	5.66E-01	2.49E-01	5.46E-01	3.27E-01
U232	5302.100	1058.000	1057.000	1.000	1.0000	100.0000	1.86E+01	1.54E+00	4.10E-02	1.30E-01	5.74E-01
U-235	4391.000	19.000	19.000	0.000	2.7628	80.90000	4.14E-01	1.00E-01	1.40E-01	3.39E-01	9.50E-02
U-238	4184.730	338.000	338.000	0.000	3.2810	100.0000	5.96E+00	5.59E-01	1.35E-01	3.17E-01	3.24E-01

NOTE: Sg calculated via blank population (updated 5-JAN-2010)
NOTE: Sg of U232 calculated as sqrt(BKG AREA)
NOTE: Corrections made to U-3/4 net area due to tracer impurity

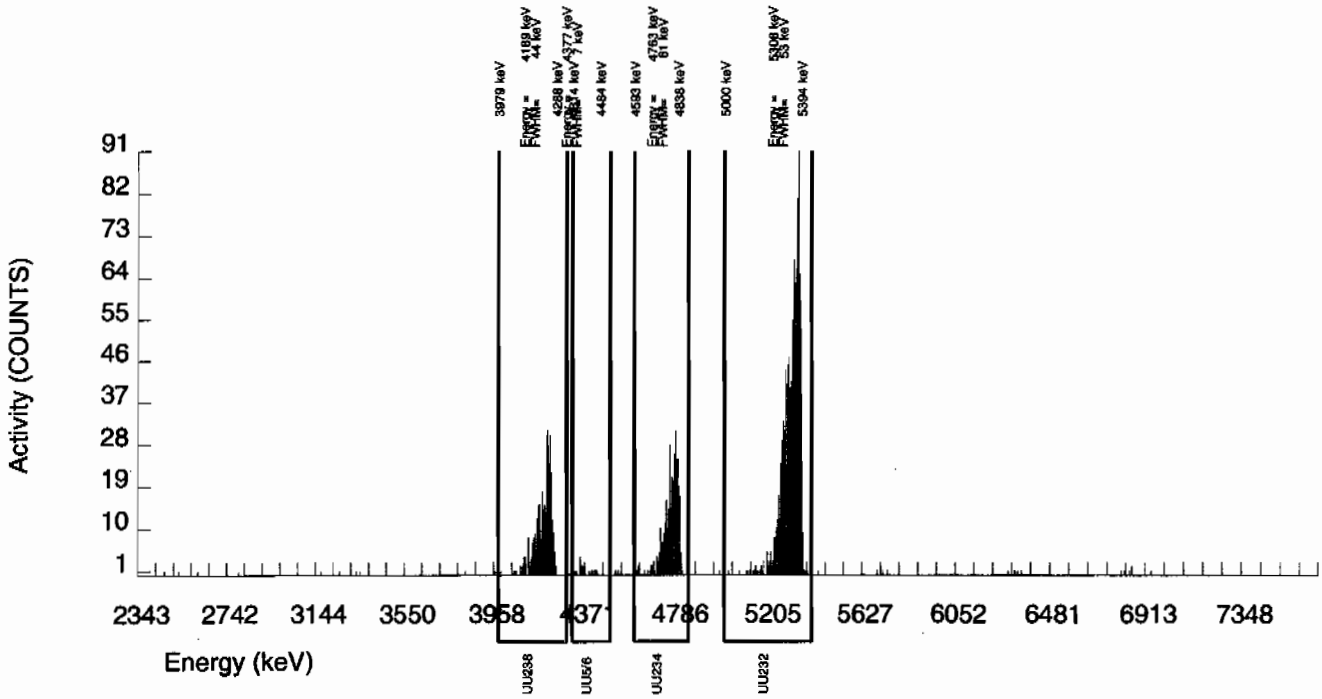

Radiochemistry Batch Checklist, Rev 9

Batch# 938289 Product: SR-90 Date: 1/7/10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			N/A
Samples have been blank corrected (if required)		✓	
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.	✓		
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	✓		
Sample was run within hold time.	✓		
Sample was correctly preserved if required.			N/A
Smears Taken for Radioactive batches.			N/A
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	✓		
Aux data is correct.			N/A
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)			N/A
Batch entered into Case Narrative.	✓		
Batch non-conformances completed, if applicable.			N/A
Batch non-conformances second reviewed and disposition verified to be completed.			N/A
Aliquot Correction completed if required.			N/A
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)			N/A

GEL Laboratories, LLC

revised 8/1/08

Primary Review Performed By: Charles Sample 1/7/10

Secondary Review Performed By: [signature]

LANL 1/19

Strontium 90 Que Sheet

01/05/10

Batch #: 938289 **Analyst:** MXB1 **First Client Due Date:** 01/19/2010 **Internal Due Date** 01/09/2010 **Comments**

Sr-90 Spike Code: ~~1067C~~ 9C 1-5-10 **Expiration Date:** — 1/7/10 **Vol:** — 1/7/10 **Sr Sep. Date/time:** 1-6-10/1443

Sr-90 LCS Code: 1067C **Expiration Date:** 6-17-10 **Vol:** 0.1mL

Sr Carrier Code: 1194590 **Exp Date:** 3-19-10 **Vol:** 0.5 **Sdt Wt:** 8.93

Prep Date: 1-5-10 **Initials:** JLC **Pipet ID:** 1795419 **Balance #:** 50410272 **Analytical Scale #:** 38110047 **Witness:** BF 1-6-10

Sample ID	Client Description	Type	RDL	Collection Date	Matrix	Client	Rad	Pos. #	Wet/Dry Aliquot (mL) or (g)	Det # 1 & 2		Initial Sr wt (g)	Final Sr wt (g)	Net Sr wt (mg)
243547002-1	WST54-10-9921	SAMPLE	.5 pCi/g	DEC-22-09 12:00 PM	SOIL	LANL010		1	2.006	1C		0.0256	0.0320	6.4
243547003-1	WST54-10-9922	SAMPLE	.5 pCi/g	DEC-22-09 12:00 PM	SOIL	LANL010		2	2.002	4A		0.0259	0.0323	6.4
243549002-1	WST03-10-2148	SAMPLE	.5 pCi/g	DEC-22-09 12:00 PM	SOIL	LANL010		3	2.021	4D		0.0255	0.0321	6.6
243555001-1	WST21-10-9933	SAMPLE	.5 pCi/g	DEC-23-09 12:00 PM	SOIL	LANL010		4	2.004	5A		0.0259	0.0332	7.3
243555002-1	WST21-10-9931	SAMPLE	.5 pCi/g	DEC-23-09 12:00 PM	SOIL	LANL010		5	2.019	5D		0.0255	0.0318	6.3
243599001-1	WST16-10-9900	SAMPLE	.5 pCi/g	DEC-23-09 12:00 PM	SOIL	LANL010		6	2.014	6A		0.0248	0.0311	6.3
243599002-1	WST16-10-9904	SAMPLE	.5 pCi/g	DEC-23-09 12:00 PM	SOIL	LANL010		7	2.010	7A		0.0249	0.0322	7.3
243599003-1	WST16-10-9902	SAMPLE	.5 pCi/g	DEC-23-09 12:00 PM	SOIL	LANL010		8	2.032	7D		0.0245	0.0309	6.4
243599004-1	WST16-10-9901	SAMPLE	.5 pCi/g	DEC-23-09 12:00 PM	SOIL	LANL010		9	2.011	9C		0.0246	0.0311	6.5
243599005-1	WST16-10-9903	SAMPLE	.5 pCi/g	DEC-23-09 12:00 PM	SOIL	LANL010		10	2.014	10A		0.0254	0.0314	6.0
1202007740-1	MB for batch 938289	MB	.5 pCi/g		SOIL	QC ACCOUNT		11 10	~~2.032~~	10C		0.0250	0.0329	7.9
1202007741-1	WST16-10-9900(243599001DUP)	DUP	.5 pCi/g	DEC-23-09 12:00 PM	SOIL	QC ACCOUNT		12	2.017	10D		0.0249	0.0314	6.5
1202007742-1	LCS for batch 938289	LCS	.5 pCi/g		SOIL	QC ACCOUNT		13 10	~~2.032~~	1D		0.0247	0.0326	7.3

KN 1/7/10

daily ✓
wtr ✓

Solid Sample Dissolution by: **LEACH or DIGESTION** (Circle One) **Data Reviewed By:** Charles Sorg 1/7/10

Blank Correction Report

Batch ID 938289

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
1202007741	DUP	Strontium-90	2.02 g	0.177	0.0842	0.262	-.02084158	pCi/g	NO
1202007742	LCS	Strontium-90	1.00 g	20.3	2.15	0.476	-.0421	pCi/g	NO
1202007740	MB	Strontium-90	1.00 g	-0.0421	0.0765	0.318	-.0421	pCi/g	NO
243547002	WST54-10-9921	Strontium-90	2.01 g	0.0676	0.0951	0.331	-.02094527	pCi/g	NO
243547003	WST54-10-9922	Strontium-90	2.00 g	-0.0159	0.112	0.414	-.02105	pCi/g	NO
243549002	WST03-10-2148	Strontium-90	2.02 g	-0.0771	0.0874	0.332	-.02084158	pCi/g	NO
243555001	WST21-10-9933	Strontium-90	2.00 g	0.0015	0.0549	0.207	-.02105	pCi/g	NO
243555002	WST21-10-9931	Strontium-90	2.02 g	0.0147	0.109	0.386	-.02084158	pCi/g	NO
243599001	WST16-10-9900	Strontium-90	2.01 g	0.027	0.0992	0.353	-.02094527	pCi/g	NO
243599002	WST16-10-9904	Strontium-90	2.01 g	0.00496	0.0496	0.190	-.02094527	pCi/g	NO
243599003	WST16-10-9902	Strontium-90	2.03 g	-0.128	0.0436	0.216	-.02073892	pCi/g	YES
243599004	WST16-10-9901	Strontium-90	2.01 g	0.0511	0.0603	0.213	-.02094527	pCi/g	NO
243599005	WST16-10-9903	Strontium-90	2.01 g	0.0281	0.0565	0.209	-.02094527	pCi/g	NO

Strontium-90 Solid

Filename : SR90.XLS
File type : Excel
Version # : 1.2.9

Spike S/N : N/A
Spike Exp Date : N/A
Spike Activity (dpm/ml): N/A
Spike Volume Added: N/A

Batch : 938289
Analyst : MXB1
Prep Date : 1/5/2010

LCS S/N : 1067-C
LCS Exp Date : 6/17/2010
LCS Activity (dpm/ml): 428.42
LCS Volume Added: 0.10

Pipet, 0.1 ml Stdev : +/- 0.000701 ml
Pipet, 0.5 ml Stdev : +/- 0.002564 ml
Pipet, 1 ml Stdev : +/- 0.005480 ml

Sr-90 Abundance : 1
Method Uncertainty : 0.1005

Carrier S/N : 1194590
Carrier Exp Date : 3/19/2010
Carrier Volume Added: 0.50
Carrier Weight (mg/ml): 17.85
Carrier Weight StDev.: 0.06

Procedure Code : GFC90SRS
Parmname : Strontium-90
Required MDC : 0.5 pCi/G
Halflife of Sr-90 : 28.90 years
Halflife of Y-90 : 64.053 hours

Geometry: Tuffryn Filter

Sample Characteristics					Carrier Calculations				
Pos.	Sample ID	Sample Aliquot G	Sample Aliquot StDev. G	Sample Date/Time	Carrier Weight (mg) (Standard)	Net Weight (mg) (Sample)	Net Weight StDev. (mg)	Carrier Aliquot (mL)	Carrier Aliquot StDev. (mL)
1	243547002.1	2.0060	3.4278E-03	12/22/2009 12:00	17.85	6.40	0.034837	0.5	0.002564
2	243547003.1	2.0020	3.4274E-03	12/22/2009 12:00	17.85	6.40	0.034837	0.5	0.002564
3	243549002.1	2.0210	3.4293E-03	12/22/2009 12:00	17.85	6.60	0.035697	0.5	0.002564
4	243555001.1	2.0040	3.4276E-03	12/23/2009 12:00	17.85	7.30	0.038705	0.5	0.002564
5	243555002.1	2.0190	3.4291E-03	12/23/2009 12:00	17.85	6.30	0.034407	0.5	0.002564
6	243599001.1	2.0140	3.4286E-03	12/23/2009 12:00	17.85	6.30	0.034407	0.5	0.002564
7	243599002.1	2.0100	3.4282E-03	12/23/2009 12:00	17.85	7.30	0.038705	0.5	0.002564
8	243599003.1	2.0320	3.4305E-03	12/23/2009 12:00	17.85	6.40	0.034837	0.5	0.002564
9	243599004.1	2.0110	3.4283E-03	12/23/2009 12:00	17.85	6.50	0.035267	0.5	0.002564
10	243599005.1	2.0140	3.4286E-03	12/23/2009 12:00	17.85	6.00	0.033118	0.5	0.002564
11	1202007740.1	1.0000	3.3233E-03	1/5/2010 0:00	17.85	7.90	0.041284	0.5	0.002564
12	1202007741.1	2.0170	3.4289E-03	12/23/2009 12:00	17.85	6.50	0.035267	0.5	0.002564
13	1202007742.1	1.0000	3.3233E-03	1/5/2010 0:00	17.85	7.30	0.038705	0.5	0.002564

Count Raw Data

Pos.	Detector ID	Counting Time (min.)	Gross Counts Alpha	Gross Counts Beta	Gross Beta CPM	Count Start Date/Time	Strontium Separation Date/Time	Yttrium Ingrowth	Sr-90 Decay	Calculated Sample Recovery %	Sample Recovery Error %
1	1C	60	0	77	1.283	1/7/2010 6:58	1/6/2010 14:43	0.166	0.999	71.71%	0.98%
2	4A	60	13	66	1.088	1/7/2010 6:59	1/6/2010 14:43	0.166	0.999	71.71%	0.98%
3	4D	60	11	70	1.160	1/7/2010 6:59	1/6/2010 14:43	0.166	0.999	73.95%	0.98%
4	5A	60	12	36	0.591	1/7/2010 6:59	1/6/2010 14:43	0.166	0.999	81.79%	0.97%
5	5D	60	13	106	1.758	1/7/2010 6:59	1/6/2010 14:43	0.166	0.999	70.59%	0.99%
6	6A	60	14	87	1.438	1/7/2010 6:59	1/6/2010 14:43	0.166	0.999	70.59%	0.99%
7	7A	60	9	29	0.474	1/7/2010 6:59	1/6/2010 14:43	0.166	0.999	81.79%	0.97%
8	7D	60	5	17	0.280	1/7/2010 6:59	1/6/2010 14:43	0.166	0.999	71.71%	0.98%
9	9C	60	3	34	0.561	1/7/2010 6:59	1/6/2010 14:43	0.166	0.999	72.83%	0.98%
10	10A	60	2	26	0.430	1/7/2010 7:00	1/6/2010 14:43	0.166	0.999	67.23%	0.99%
11	10C	60	0	19	0.317	1/7/2010 7:00	1/6/2010 14:43	0.166	1.000	88.52%	0.96%
12	10D	60	22	66	1.062	1/7/2010 7:00	1/6/2010 14:43	0.166	0.999	72.83%	0.98%
13	1D	60	23	1189	19.466	1/7/2010 7:58	1/6/2010 14:43	0.175	1.000	81.79%	0.97%

Calibration Data								Weekly Bkg	
Pos.	Counted on	Calibration Date	Calibration Due Date	Detector Efficiency (cpm/dpm) Sr-90	Detector Efficiency (cpm/dpm) Y-90	Detector Efficiency Error (cpm/dpm)	Alpha X-Talk	CPM	Count Time (min.)
1	PIC	1/1/2009	1/31/2010	0.4070	0.5385	0.00344	0.07375	1.176	1000
2	PIC	1/1/2009	1/31/2010	0.3073	0.4828	0.00744	0.05360	1.108	1000
3	PIC	1/1/2009	1/31/2010	0.4054	0.5440	0.00816	0.03448	1.287	1000
4	PIC	1/1/2009	1/31/2010	0.4195	0.5575	0.00816	0.04603	0.588	1000
5	PIC	1/1/2009	1/31/2010	0.4194	0.5621	0.00816	0.04067	1.734	1000
6	PIC	1/1/2009	1/31/2010	0.4179	0.5508	0.00816	0.05005	1.395	1000
7	PIC	1/1/2009	1/31/2010	0.4117	0.5546	0.00816	0.06145	0.465	1000
8	PIC	1/1/2009	1/31/2010	0.4175	0.5551	0.00816	0.04580	0.491	1000
9	PIC	1/1/2009	1/31/2010	0.4175	0.5437	0.00816	0.10812	0.477	1000
10	PIC	1/1/2009	1/31/2010	0.4221	0.5489	0.00816	0.09008	0.387	1000
11	PIC	1/1/2009	1/31/2010	0.4085	0.5468	0.00816	0.09939	0.358	1000
12	PIC	1/1/2009	1/31/2010	0.4161	0.5478	0.00816	0.10497	0.769	1000
13	PIC	1/1/2009	1/31/2010	0.4102	0.5474	0.00511	0.04612	0.783	1000

Notes:
1 - Results are decay corrected to Sample Date/Time
2 - Reference date for Spike Activity (dpm/ml) is the batch Prep Date
3 - Spike Nominals are decay corrected to Sample Date/Time

* - RPD changed to 0% due to activity below MDC for 1202007741.1

Results Pos.	Decision Level pCi/G	Critical Level pCi/G	Required MDC pCi/G	MDC pCi/G	Sample Act. Conc. pCi/G	Sample Act. Error pCi/G	Net Count Rate CPM	Net Count Rate Error CPM	1 SIGMA Counting Uncertainty pCi/G	1 SIGMA Total Prop. Uncertainty pCi/G	Sample QC	Sample Type	RPD	RER	Nominal pCi/G	Recovery
1	0.2121	0.1497	0.5	0.3311	0.0678	1.3996	0.1073	0.1502	0.0949	0.0951		SAMPLE				
2	0.2643	0.1866	0.5	0.4137	-0.0159	7.0739	-0.0196	0.1387	0.1125	0.1125		SAMPLE				
3	0.2138	0.1510	0.5	0.3324	-0.0771	1.1340	-0.1267	0.1436	0.0874	0.0874		SAMPLE				
4	0.1276	0.0901	0.5	0.2070	1.501E-03	36.5517	0.0028	0.1021	0.0549	0.0549		SAMPLE				
5	0.2516	0.1776	0.5	0.3862	0.0147	7.3843	0.0239	0.1762	0.1087	0.1087		SAMPLE				
6	0.2278	0.1608	0.5	0.3526	0.0270	3.6765	0.0433	0.1593	0.0992	0.0992		SAMPLE				
7	0.1150	0.0812	0.5	0.1895	4.962E-03	10.0351	0.0091	0.0915	0.0498	0.0498		SAMPLE				
8	0.1318	0.0930	0.5	0.2164	-0.1284	0.3396	-0.2115	0.0718	0.0436	0.0436		SAMPLE				
9	0.1297	0.0915	0.5	0.2134	0.0511	1.1768	0.0843	0.0992	0.0601	0.0603		SAMPLE				
10	0.1250	0.0882	0.5	0.2069	0.0281	2.0066	0.0433	0.0869	0.0564	0.0565		SAMPLE				
11	0.1889	0.1333	0.5	0.3176	-0.0421	1.8163	-0.0413	0.0751	0.0765	0.0765		MB				
12	0.1644	0.1161	0.5	0.2624	0.1771	0.4647	0.2925	0.1359	0.0822	0.0842	243599001.1	DUP	0.0%	0.4091		
13	0.2984	0.2106	0.5	0.4757	20.3401	0.0326	18.6827	0.5703	0.6209	2.1515		LCS			19.2984	105.4%

938289.xls

SampleID	Instr	Time (min.)	Alpha Counts	Beta Counts	Count Start Time	Count End Time	Machine
243547002	1C	60	0	77	1/7/2010 6:58	1/7/2010 7:58	PIC
243547003	4A	60	13	66	1/7/2010 6:59	1/7/2010 7:59	PIC
243549002	4D	60	11	70	1/7/2010 6:59	1/7/2010 7:59	PIC
243555001	5A	60	12	36	1/7/2010 6:59	1/7/2010 7:59	PIC
243555002	5D	60	13	106	1/7/2010 6:59	1/7/2010 7:59	PIC
243599001	6A	60	14	87	1/7/2010 6:59	1/7/2010 7:59	PIC
243599002	7A	60	9	29	1/7/2010 6:59	1/7/2010 7:59	PIC
243599003	7D	60	5	17	1/7/2010 6:59	1/7/2010 7:59	PIC
243599004	9C	60	3	34	1/7/2010 6:59	1/7/2010 7:59	PIC
243599005	10A	60	2	26	1/7/2010 7:00	1/7/2010 8:00	PIC
1202007740	10C	60	0	19	1/7/2010 7:00	1/7/2010 8:00	PIC
1202007741	10D	60	22	66	1/7/2010 7:00	1/7/2010 8:00	PIC
1202007742	1D	60	23	1169	1/7/2010 7:58	1/7/2010 8:58	PIC

Radiochemistry Batch Checklist, Rev 9

Batch# 930900 Product: H3 Date: 1/7/2010

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			N/A
Samples have been blank corrected (if required)			N/A
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.	✓		
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	✓		
Sample was run within hold time.	✓		
Sample was correctly preserved if required.	✓		
Smears Taken for Radioactive batches.			N/A
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	✓		
Aux data is correct.			N/A
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)			N/A
Batch entered into Case Narrative.	✓		
Batch non-conformances completed, if applicable.			N/A
Batch non-conformances second reviewed and disposition verified to be completed.			N/A
Aliquot Correction completed if required.			N/A
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

GEL Laboratories, LLC

revised 8/1/08

Primary Review Performed By: Nana Manieffnet

Secondary Review Performed By: L Lind 1/7/10

Tritium Que Sheet

Vacuum

28-DEC-09

Batch #: 936900 **Analyst:** KXK2 **First Client Due Date** 11-JAN-10 **Internal Due Date:** 01-JAN-10

Spike Isotope: Hydrogen-3 **Spike Code:** ——— **Expiration Date:** ——— **Vol:** ———

LCS Isotope: Hydrogen-3 **LCS Code:** 0134-K **Expiration Date:** 3/27/10 **Vol:** 0.1

Prep Date: 12/30/09 **Initials:** KKW **Pipet ID:** 29709168 **Witness:** SL 12/31/09

Sample ID	Client Samp ID	Type	Hazard Code	Min CRDL	Matrix	Client	Sample Date	Aliquot in vial (g/mL)	LSC Rack #	Dist Rig #	Vol added for Dist (mL)	Initial Sample Aliquot (g/mL)	Final Wt (g)	Total Moisture Diff Vol (mL) KKW 12/30/09
243393002-1	WST12-10-8879	SAMPLE		.25 pCi/mL	SOIL	LANL010	18-DEC-09	10	28-2	1		520.57	457.58	62.99
243472001-1	RE03-09-14228	SAMPLE		.25 pCi/mL	SOIL	LANL010	21-DEC-09	10	28-3	2		533.99	480.06	53.93
243472002-1	RE03-09-14230	SAMPLE		.25 pCi/mL	SOIL	LANL010	21-DEC-09	10	28-4	3		537.88	500.23	37.65
243472003-1	RE03-09-14229	SAMPLE		.25 pCi/mL	SOIL	LANL010	21-DEC-09	10	28-2	4		503.98	460.64	43.34
243547002-1	WST54-10-9921	SAMPLE		.25 pCi/mL	SOIL	LANL010	22-DEC-09	10	28-6	5		437.08	389.09	48.08
243547003-1	WST54-10-9922	SAMPLE		.25 pCi/mL	SOIL	LANL010	22-DEC-09	10	28-7	6		431.92	384.84	47.08
243549002-1	WST03-10-2148	SAMPLE		.25 pCi/mL	SOIL	LANL010	22-DEC-09	10	28-8	7		489.07	454.35	34.72
243555001-1	WST21-10-9933	SAMPLE		.25 pCi/mL	SOIL	LANL010	23-DEC-09	9	28-9	8		69.93	61.40	8.53
243555002-1	WST21-10-9931	SAMPLE		.25 pCi/mL	SOIL	LANL010	23-DEC-09	10	28-10	9		141.56	122.45	19.11
1202004654-1	MB for batch 936900	MB		.25 pCi/mL	SOIL	QC ACCOUNT		10	28-11	10		20.00	0	20.00
1202004655-1	~~WST21-10-9933(243555001DUP)~~ WST12-10-8879(243393002DUP)	DUP		.25 pCi/mL	SOIL	QC ACCOUNT	23-DEC-09	10	28-12	1		520.57	457.58	62.99
1202004656-1	LCS for batch 936900	LCS		.25 pCi/mL	SOIL	QC ACCOUNT		10	61-1	11		20.00	0	20.00

Bkg Rack #: 28-1

Comments:

Instrument Used (circle as appropriate): *LS6000 (Red) 7065155, LS6500 (Blue) 7067083, LS6500 (Gold) 7070506, LS6500 (Green) 7067404, Wallac (Yellow) 4040127, LS6000 (Brown) 7060655, Wallac (Pink) 2200082, Wallac (White) 4140299, Purple 7069123, Silver 7060656*

Bkg prepared with dead water? Yes/No

Calibration Used : *Ultima Gold LLT (10 mL sample/13 mL LLT) poly vial; Ecoscint Ultra (10 mL sample/13 mL Ecoscint Ultra)*

Data Reviewed By: Nana Manetty

GEL Laboratories LLC, Radiochemistry Division

DATE	12/30/2009	INITIALS	KXK2		BATCH NUMBER	936900

Sample #	Sample Wet (g)	% Moisture of Sample (Balance Interface using % Moisture Batch)	Total Moisture in Sample (mL)	Sample Dry (g)	mLs aliquoted into LSC vial	Collection Tube Number
243393002	520.57	0.121	62.99	457.58	10	11
243472001	533.99	0.101	53.93	480.06	10	55
243472002	537.88	0.070	37.65	500.23	10	151
243472003	503.98	0.086	43.34	460.64	10	602
243547002	437.08	0.110	48.08	389.00	10	408
243547003	431.92	0.109	47.08	384.84	10	601
243549002	489.07	0.071	34.72	454.35	10	701
243555001	69.93	0.122	8.53	61.40	10	801
243555002	141.56	0.135	19.11	122.45	10	912
MB	20.00	1.000	20.00	0.00	10	
LCS	20.00	1.000	20.00	0.00	10	

T936900R

Tritium Solid

Filename : H3VAC.XLS
File type : Excel
Version # : 1.2.5

Batch : 936900
Analyst : KXK2
Prep Date : 12/30/2009

Spike S/N : N/A
Spike Exp Date : N/A
Spike Activity (dpm/ml): N/A
Spike Volume Added: N/A

LCS S/N : 0134-K
LCS Exp Date : 3/27/2010
LCS Activity (dpm/ml): 2484.60
LCS Volume Added: 0.10

H-3 Abundance : 1
Method Uncertainty : 0.0691
Geometry: 10mL DW/13mL Ecoscint Ultra

Pipet, 0.1 ml Stdev : +/- 0.000701 ml
Pipet, 0.5 ml Stdev : +/- 0.002564 ml
Pipet, 1.0 ml Stdev : +/- 0.005480 ml
Pipet, 5.0 ml Stdev : +/- 0.025729 ml

Procedure Code : LSC_VH3S
Parmname : Tritium
Required MDC : 250 pCi/L
Halflife of Tritium : 12.28 years

Sample Characteristics

Pos.	Sample ID	Wet Sample Weight (g)	Total Moisture L	Sample Aliquot in Vial L	Sample Aliquot Stdev. L	Dry Sample Weight (g)	% Moisture of Sample	Rig number	Sample Date/Time
1	243393002.1	520.57	0.0630	0.0100	2.5729E-05	457.58	12.10%	1	12/18/2009 12:00
2	243472001.1	533.99	0.0539	0.0100	2.5729E-05	480.06	10.10%	2	12/21/2009 12:00
3	243472002.1	537.88	0.0377	0.0100	2.5729E-05	500.23	7.00%	3	12/21/2009 12:00
4	243472003.1	503.98	0.0433	0.0100	2.5729E-05	460.64	8.60%	4	12/21/2009 12:00
5	243547002.1	437.08	0.0481	0.0100	2.5729E-05	389.00	11.00%	5	12/22/2009 12:00
6	243547003.1	431.92	0.0471	0.0100	2.5729E-05	384.84	10.90%	6	12/22/2009 12:00
7	243549002.1	489.07	0.0347	0.0100	2.5729E-05	454.35	7.10%	7	12/22/2009 12:00
8	243555001.1	69.93	0.0085	0.0090	2.5729E-05	61.40	12.20%	8	12/23/2009 12:00
9	243555002.1	141.56	0.0191	0.0100	2.5729E-05	122.45	13.50%	9	12/23/2009 12:00
10	1202004654.1	20.00	0.0200	0.0100	2.5729E-05	0.00	100.00%	10	12/30/2009 0:00
11	1202004655.1	520.57	0.0630	0.0100	2.5729E-05	457.58	12.10%	1	12/23/2009 12:00
12	1202004656.1	20.00	0.0200	0.0100	2.5729E-05	0.00	100.00%	11	12/30/2009 0:00

Count raw Data					Background				Calibration Data					Backgrounds	
Pos.	Rack Position #	Counting Time (min.)	Quench#	Gross cpm	cpm	Count Time (min.)	Count Start Date/Time	Sample Decay	Counted on	Calibration Date	Calibration Due Date	Detector Efficiency (cpm/dpm)	Detector Efficiency Error (cpm/dpm)	Rack Position #	Count Start Date/Time
1	28-2	50	113.5	3.38	2.91	120	1/5/2010 9:31	0.997	LSCRED	8/21/2009	8/31/2010	0.2084	0.00792	28-1	1/5/2010 5:49
2	28-3	50	127.4	3.54	2.91	120	1/5/2010 10:23	0.998	LSCRED	8/21/2009	8/31/2010	0.1996	0.00792	28-1	1/5/2010 5:49
3	28-4	50	114.6	3.7	2.91	120	1/5/2010 11:16	0.998	LSCRED	8/21/2009	8/31/2010	0.2079	0.00792	28-1	1/5/2010 5:49
4	29-2	50	110	3.96	3.42	50	1/7/2010 2:40	0.997	LSCBROWN	9/9/2009	9/30/2010	0.2366	0.00792	29-1	1/7/2010 1:48
5	28-6	50	117.7	3.7	2.91	120	1/6/2010 6:52	0.998	LSCRED	8/21/2009	8/31/2010	0.2064	0.00792	28-1	1/5/2010 5:49
6	28-7	50	113.3	3.56	2.91	120	1/6/2010 7:44	0.998	LSCRED	8/21/2009	8/31/2010	0.2084	0.00792	28-1	1/5/2010 5:49
7	28-8	50	113.6	3.3	2.91	120	1/6/2010 8:36	0.998	LSCRED	8/21/2009	8/31/2010	0.2083	0.00792	28-1	1/5/2010 5:49
8	28-9	50	113.6	254	2.91	120	1/6/2010 9:28	0.998	LSCRED	8/21/2009	8/31/2010	0.2063	0.00792	28-1	1/5/2010 5:49
9	28-10	50	125.3	323.42	2.91	120	1/6/2010 10:21	0.998	LSCRED	8/21/2009	8/31/2010	0.2013	0.00792	28-1	1/5/2010 5:49
10	28-11	50	113.6	3.04	2.91	120	1/6/2010 11:13	0.999	LSCRED	8/21/2009	8/31/2010	0.2083	0.00792	28-1	1/5/2010 5:49
11	28-12	50	114	3.22	2.91	120	1/6/2010 12:05	0.998	LSCRED	8/21/2009	8/31/2010	0.2082	0.00792	28-1	1/5/2010 5:49
12	61-1	15	113	30.33	2.91	120	1/5/2010 8:04	0.999	LSCRED	8/21/2009	8/31/2010	0.2086	0.00792	28-1	1/5/2010 5:49

Notes:
1 - Results are decay corrected to Sample Date/Time
2 - Reference date for Spike Activity (dpm/ml) is the batch Prep Date
3 - Spike Nominals are decay corrected to Sample Date/Time

* - RPD changed to 0% due to activity below MDC for 1202004655.1

Results Pos.	Decision Level pCi/L	Critical Level pCi/L	Required MDC pCi/L	MDC pCi/L	Sample Act. Conc. pCi/L	Sample Act. Error pCi/L	Net Count Rate CPM	Net Count Rate Error CPM	1 SIGMA Counting Uncertainty pCi/L	1 SIGMA Total Prop. Uncertainty pCi/L	Sample QC	Sample Type	RPD	RER	Nominal pCi/L	Recovery
1	145.0369	102.3973	250	217.8017	**101.8885**	0.645	0.470	0.303	65.7002	66.0824		SAMPLE				
2	151.3021	106.8206	250	227.2101	**142.4736**	0.489	0.630	0.308	69.7220	70.4246		SAMPLE				
3	145.2850	102.5725	250	218.1743	**171.5524**	0.397	0.790	0.313	68.0669	69.1076		SAMPLE				
4	164.5131	116.1477	250	243.7492	**103.0850**	0.712	0.540	0.384	73.3406	73.6912		SAMPLE				
5	146.3433	103.3196	250	219.7634	**172.8019**	0.397	0.790	0.313	68.5627	69.6110		SAMPLE				
6	144.9146	102.3110	250	217.6180	**140.7908**	0.475	0.650	0.309	66.9189	67.6335		SAMPLE				
7	144.9960	102.3684	250	217.7402	**84.5219**	0.770	0.390	0.300	65.1071	65.3727		SAMPLE				
8	161.0826	113.7257	250	241.8975	**60454.2585**	0.013	251.090	2.259	543.9556	4246.8168		SAMPLE				
9	150.0011	105.9021	250	225.2564	**71859.5964**	0.012	320.510	2.548	571.2868	5037.3419		SAMPLE				
10	144.8304	102.2515	250	217.4916	**28.1418**	2.243	0.130	0.292	63.1315	63.1619		MB				
11	145.0881	102.4334	250	217.8785	**67.2268**	0.960	0.310	0.298	64.5684	64.7379	243393002.1	DUP	0.0%	0.1325		
12	235.3367	166.1498	250	375.5396	**5928.2175**	0.053	27.420	1.430	309.2687	515.8898		LCS			5595.9550	105.9%

USER:13 COMMENT:BROWN 7 Jan. 2010

PRESET TIME :	50.00						
DATA CALC :	CPM	H#	:YES	SAMPLE REPEATS:	1	PRINTER	: STD
COUNT BLANK :	NO	IC#	: NO	REPLICATES :	1	RS232	:EDIT
TWO PHASE :	NO	AQC	: NO	CYCLE REPEATS :	1	DISK	: OFF
SCINTILLATOR:	LIQUID	LUMEX	:YES	LOW SAMPLE REJ:	0		
LOW LEVEL :	NO	HALF LIFE CORRECTION DATE:				none	

CHAN: 0.0 - 240.0 %ERROR: 2.00 FACTOR: 1.000000 BKG. SUB: 0
CHAN: 0.0 - 900.0 %ERROR: 2.00 FACTOR: 1.000000 BKG. SUB: 0

SAM NO	POS	TIME MIN	H#	WIND1 CPM	WIND1 %ERROR	LUMEX %	ELAPSED TIME
BKG 1	29-1	50.00	108.5	**3.42**	15.69	0.45	51.54
2	29-2	50.00	110.0	**3.96**	14.53	0.47	103.59

Sample Count Start Time:	7 Jan 2010 01:48:06		
Data Capture Date	07 Jan 2010 02:38:29		
User Filename	S13010729-1A.XLS		
	U13010729-1A.XLS		
Spectrum Type	Log Counts		
User Number	13		
User Id	TRITIUM		
User Comment	BROWN		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	1	29-1	50.00
H#, Total Counts:	108.5	1784	
Win1: Tritium - Start, End, Counts:	0	240	171
Win2: - Start, End, Counts:	0	990	1784

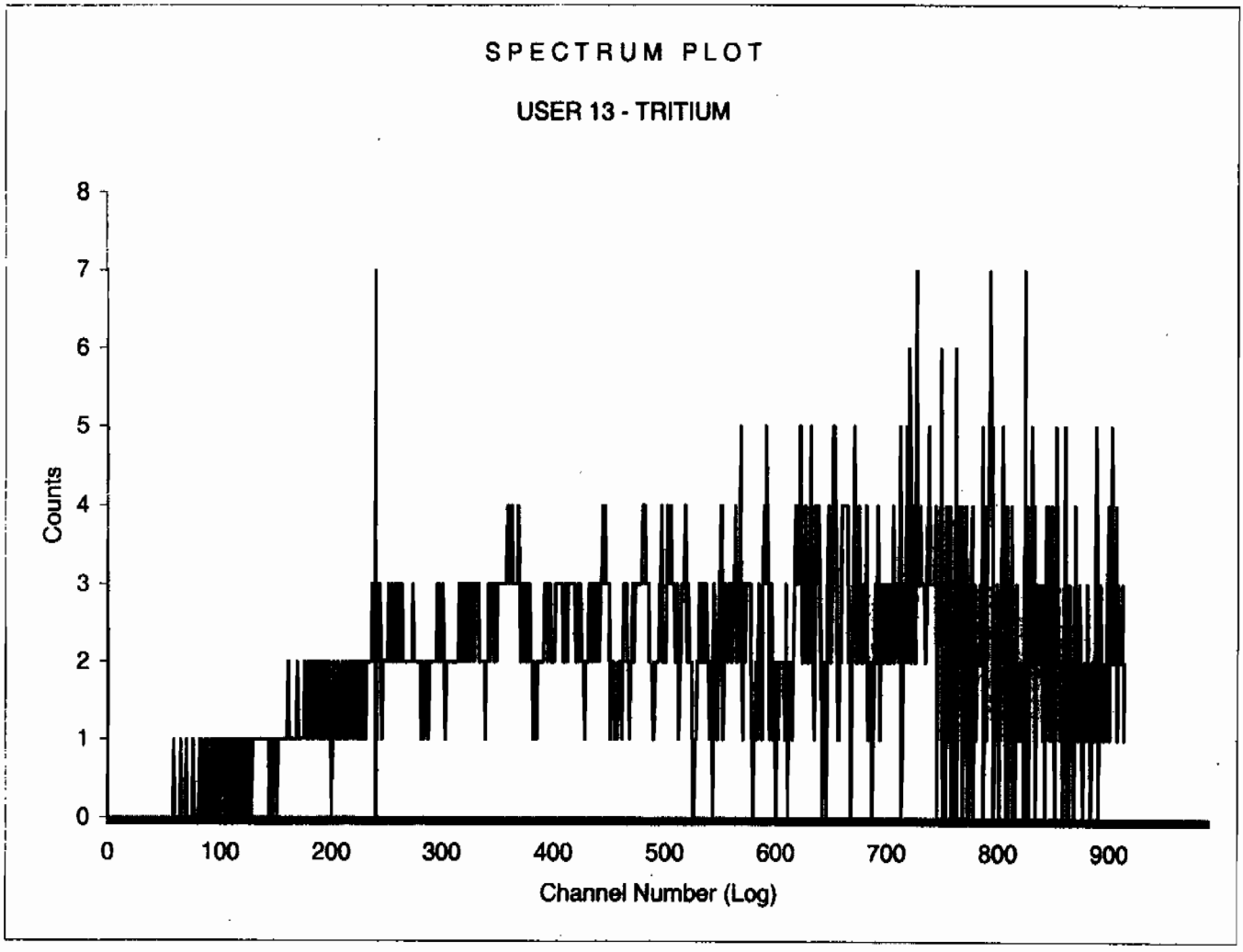

Sample Count Start Time:	7 Jan 2010 02:40:09		
Data Capture Date	07 Jan 2010 03:30:31		
User Filename	S13010729-2A.XLS		
	U13010729-1A.XLS		
Spectrum Type	Log Counts		
User Number	13		
User Id	TRITIUM		
User Comment	BROWN		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	2	29-2	50.00
H#, Total Counts:	110.0	1843	
Win1: Tritium - Start, End, Counts:	0	240	198
Win2: - Start, End, Counts:	0	990	1843

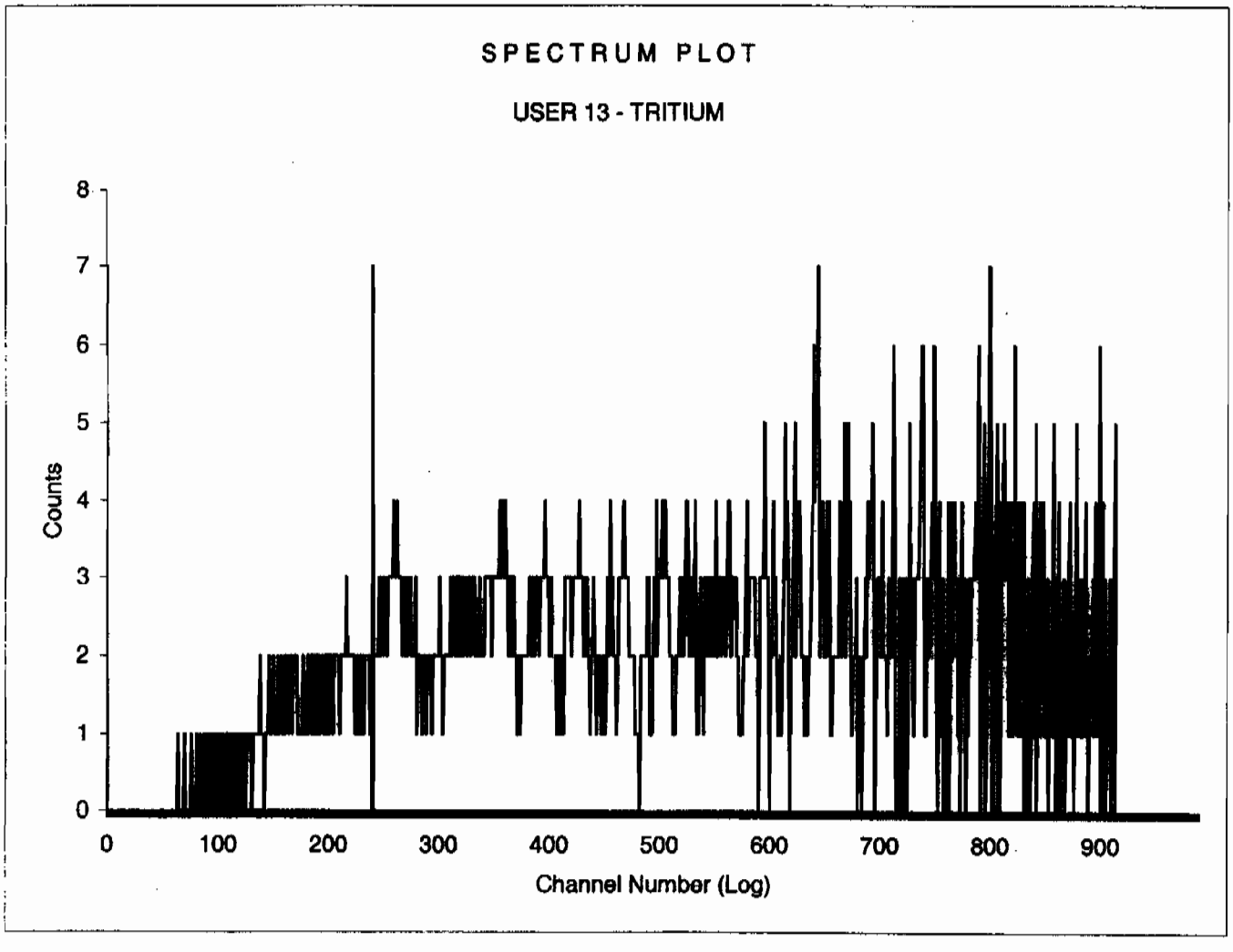

Filename: 3:37 PMab

Instrument Type	LS 6000
Data Capture Date	05 Jan 2010 05:45:59
User Filename	C:\LSCCAPTURE\RED\USER02\UN010501.BSF

User Number	2
User Id	TRITIUM
User Comments	RED

Scintillator Choice:	LIQUID

Sam	Rack	Time	H#	Raw CPM1	Raw CPM2	CPM Iso1	%Err1	CPM Iso2	%Err2	LumEx	ElTime
1	28-1	120.00	112.4	3.33	43.33	2.91	11.45	42.91	2.80	0.94	123.32
~~2~~	~~28-2~~	~~3.35~~	~~113.3~~	~~2.39~~	~~43.28~~	~~2.09~~	~~80.81~~	~~42.99~~	~~16.72~~	~~1.30~~	~~127.75~~
3	28-3	0.05	112.2	20.00	20.00	20.00	200.00	20.00	200.00	6.81	128.53
4	28-4	0.05	114.8	0.00	60.00	0.00	0.00	60.00	115.47	2.58	129.47
5	28-5	0.05	113.4	40.00	80.00	40.00	141.42	80.00	100.00	2.36	130.37
6	28-6	0.05	117.6	0.00	40.00	0.00	0.00	40.00	141.42	6.18	131.28
7	28-7	0.05	114.6	20.00	40.00	20.00	200.00	40.00	141.42	5.58	132.18
8	28-8	0.05	113.3	0.00	20.00	0.00	0.00	20.00	200.00	7.34	133.08
9	28-9	0.05	113.7	180.00	320.00	180.00	66.67	320.00	50.00	0.95	133.98
10	28-10	0.05	123.3	320.00	540.00	320.00	50.00	540.00	38.49	0.83	134.93
11	28-11	0.05	113.7	0.00	140.00	0.00	0.00	140.00	75.59	1.67	135.85
~~12~~	~~28-12~~	~~0.05~~	~~114.3~~	~~0.00~~	~~20.00~~	~~0.00~~	~~0.00~~	~~20.00~~	~~200.00~~	~~14.50~~	~~136.77~~

1-6-10

USER: 2 COMMENT:RED

PRESET TIME :	50.00						
DATA CALC :	CPM	H#	:YES	SAMPLE REPEATS:	1	PRINTER	:EDIT
COUNT BLANK :	NO	IC#	: NO	REPLICATES :	1	RS232	:EDIT
TWO PHASE :	NO	AQC	: NO	CYCLE REPEATS :	1	DISK	: OFF
SCINTILLATOR:	LIQUID	LUMEX	:YES	LOW SAMPLE REJ:	0		
LOW LEVEL :	NO	HALF LIFE CORRECTION DATE:				none	

CHAN: 65.0 - 225.0 %ERROR: 0.00 FACTOR: 1.000000 BKG. SUB: 0
CHAN: 0.0 - 990.0 %ERROR: 0.00 FACTOR: 1.000000 BKG. SUB: 0

ALPHA-BETA DISCRIMINATION: NO

SAM NO	POS	TIME MIN	H#	WIND1 CPM	WIND1 %ERROR	WIND2 CPM	WIND2 %ERROR	LUMEX %	ELAPSED TIME
MISSING SAMPLE									
2	28-2	50.00	113.5	3.38	16.57	44.40	4.27	1.17	51.72
3	28-3	50.00	127.4	3.54	15.98	44.14	4.28	1.04	103.93
4	28-4	50.00	114.6	3.70	15.89	44.88	4.25	1.33	156.19
~~5~~	~~28-5~~	~~50.00~~	~~112.7~~	~~3.56~~	~~16.09~~	~~43.68~~	~~4.31~~	~~1.23~~	~~208.43~~
6	28-6	SAMPLE TERMINATED:							
7	28-7	SAMPLE TERMINATED:							
8	28-8	SAMPLE TERMINATED:							
9	28-9	SAMPLE TERMINATED:							
10	28-10	SAMPLE TERMINATED:							
11	28-11	SAMPLE TERMINATED:							
12	28-12	SAMPLE TERMINATED:							

dell 1/7/2010

ID: TRITIUM 6 JAN 2010 06:58

USER: 2 COMMENT:RED

PRESET TIME :	50.00						
DATA CALC :	CPM	H#	:YES	SAMPLE REPEATS:	1	PRINTER	:EDIT
COUNT BLANK :	NO	IC#	: NO	REPLICATES :	1	RS232	:EDIT
TWO PHASE :	NO	AQC	: NO	CYCLE REPEATS :	1	DISK	: OFF
SCINTILLATOR:	LIQUID	LUMEX	:YES	LOW SAMPLE REJ:	0		
LOW LEVEL :	NO	HALF LIFE CORRECTION DATE:				none	

CHAN: 65.0 - 225.0 %ERROR: 0.00 FACTOR: 1.000000 BKG. SUB: 0
CHAN: 0.0 - 990.0 %ERROR: 0.00 FACTOR: 1.000000 BKG. SUB: 0

ALPHA-BETA DISCRIMINATION: NO

SAM NO	POS	TIME MIN	H#	WIND1 CPM	WIND1 %ERROR	WIND2 CPM	WIND2 %ERROR	LUMEX %	ELAPSED TIME
MISSING SAMPLE									
6	28-6	50.00	117.7	3.70	15.44	45.64	4.20	0.85	51.72
7	28-7	50.00	113.3	3.56	15.69	45.14	4.23	0.74	103.88
8	28-8	50.00	113.6	3.30	16.66	42.76	4.35	1.13	156.11
9	28-9	50.00	113.6	254.00	1.78	407.24	1.40	0.15	208.35
10	28-10	50.00	125.3	323.42	1.58	487.40	1.28	0.21	260.69
11	28-11	50.00	113.6	3.04	17.56	42.68	4.36	1.20	312.93
12	28-12	50.00	114.0	3.22	17.03	43.84	4.30	1.24	365.17

Filename: 2:37 PMab

Instrument Type	LS 6000
Data Capture Date	05 Jan 2010 08:03:46
User Filename	C:\LSCCAPTURE\RED\USER03\UN010501.BSF
User Number	3
User Id	TRITIUM
User Comments	RED
Scintillator Choice:	LIQUID

Sam	Rack	Time	H#	Raw CPM1	Raw CPM2	CPM Iso1	%Err1	CPM Iso2	%Err2	LumEx	ElTime
1	61-1	15.00	113.0	30.87	82.40	30.33	9.46	81.87	5.73	0.82	15.86

Sample Count Start Time:	5 Jan 2010 05:49:18		
Data Capture Date	05 Jan 2010 07:49:40		
User Filename	S02010528-1A.XLS		
	U02010528-1A.XLS		
Spectrum Type	Log Counts		
User Number	02		
User Id	TRITIUM		
User Comment	RED		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	1	28-1	120.00
H#, Total Counts:	112.4	6014	
Win1: Tritium - Start, End, Counts:	65	225	349
Win2: - Start, End, Counts:	0	990	5149

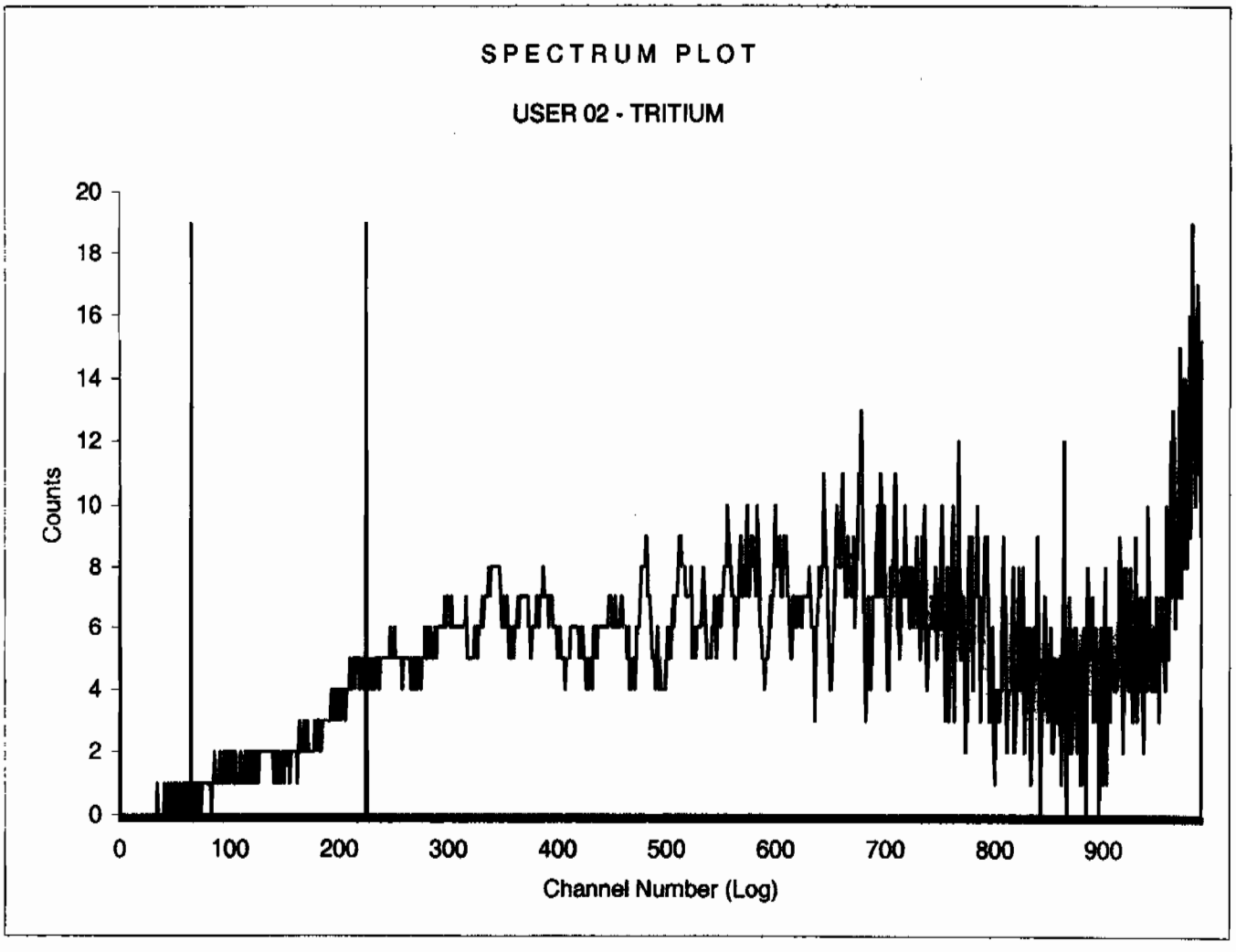

Sample Count Start Time:	5 Jan 2010 09:31:36		
Data Capture Date	05 Jan 2010 10:21:46		
User Filename	S02010528-2B.XLS		
	U02010528-2A.XLS		
Spectrum Type	Log Counts		
User Number	02		
User Id	TRITIUM		
User Comment	RED		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	2	28-2	50.00
H#, Total Counts:	113.5	2581	
Win1: Tritium - Start, End, Counts:	65	225	169
Win2: - Start, End, Counts:	0	990	2220

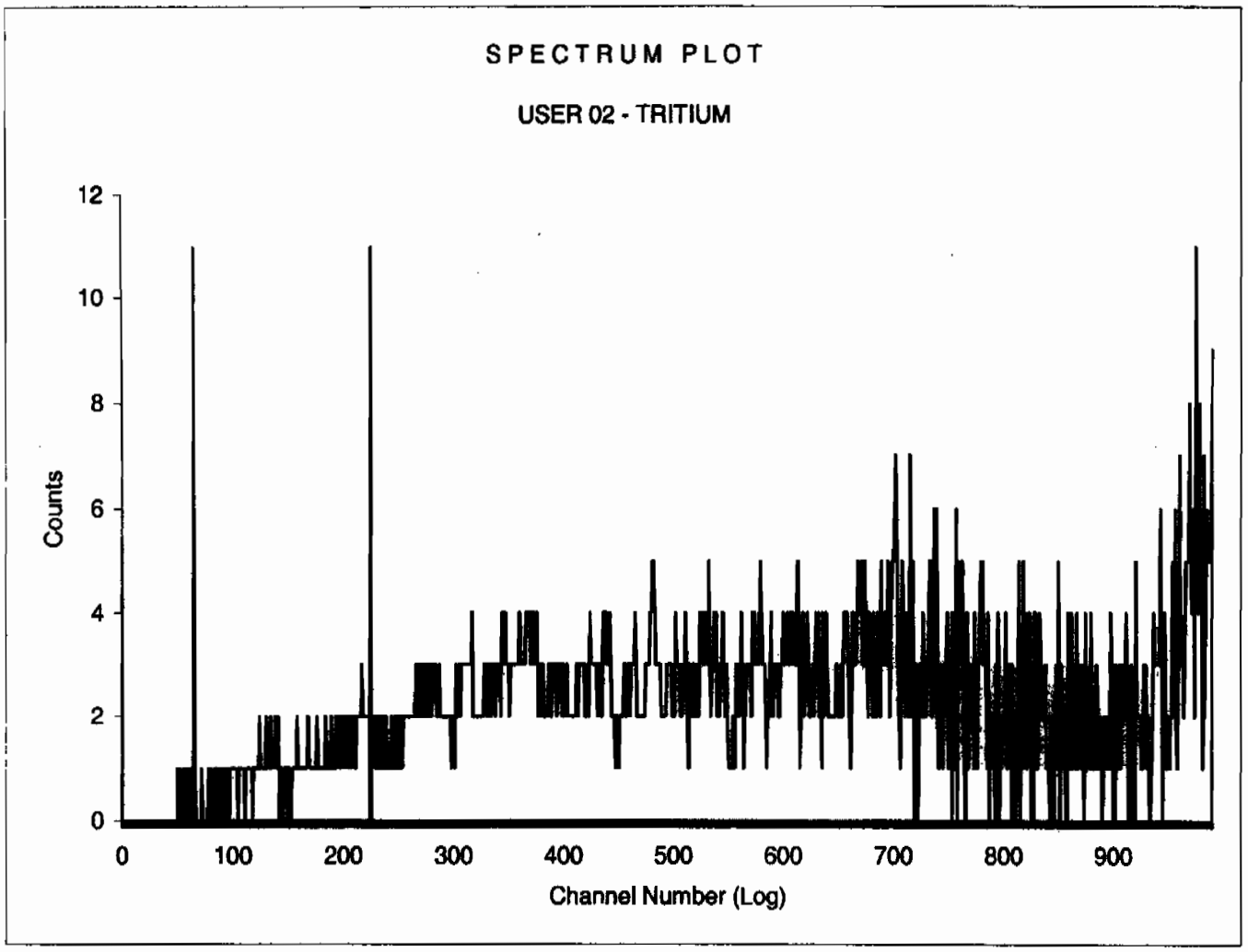

Sample Count Start Time:	5 Jan 2010 10:23:49		
Data Capture Date	05 Jan 2010 11:13:59		
User Filename	S02010528-3B.XLS		
	U02010528-2A.XLS		
Spectrum Type	Log Counts		
User Number	02		
User Id	TRITIUM		
User Comment	RED		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	3	28-3	50.00
H#, Total Counts:	127.4	2619	
Win1: Tritium - Start, End, Counts:	65	225	177
Win2: - Start, End, Counts:	0	990	2207

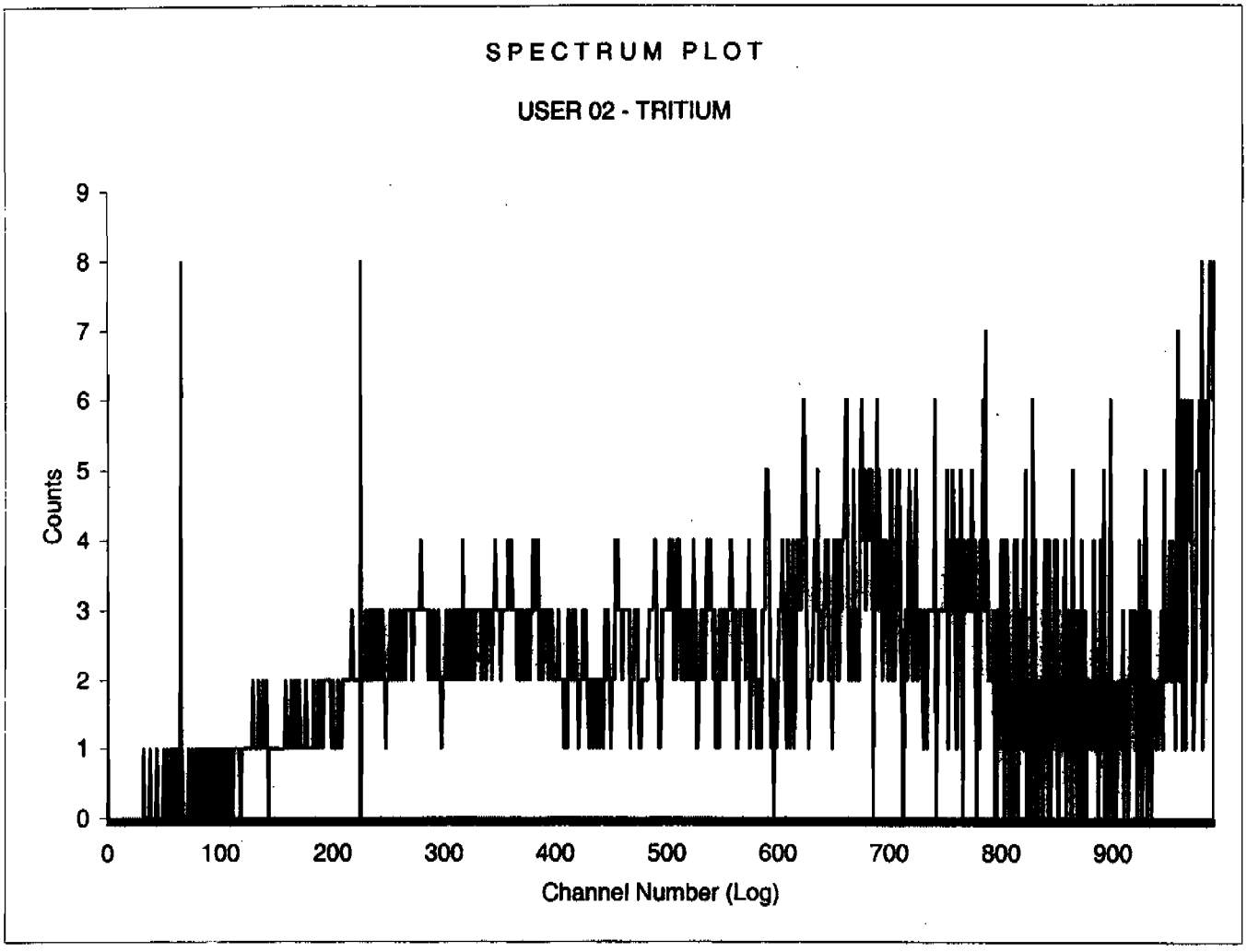

Sample Count Start Time:	5 Jan 2010 11:16:04		
Data Capture Date	05 Jan 2010 12:06:14		
User Filename	S02010528-4B.XLS		
	U02010528-2A.XLS		
Spectrum Type	Log Counts		
User Number	02		
User Id	TRITIUM		
User Comment	RED		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	4	28-4	50.00
H#, Total Counts:	114.6	2651	
Win1: Tritium - Start, End, Counts:	65	225	185
Win2: - Start, End, Counts:	0	990	2244

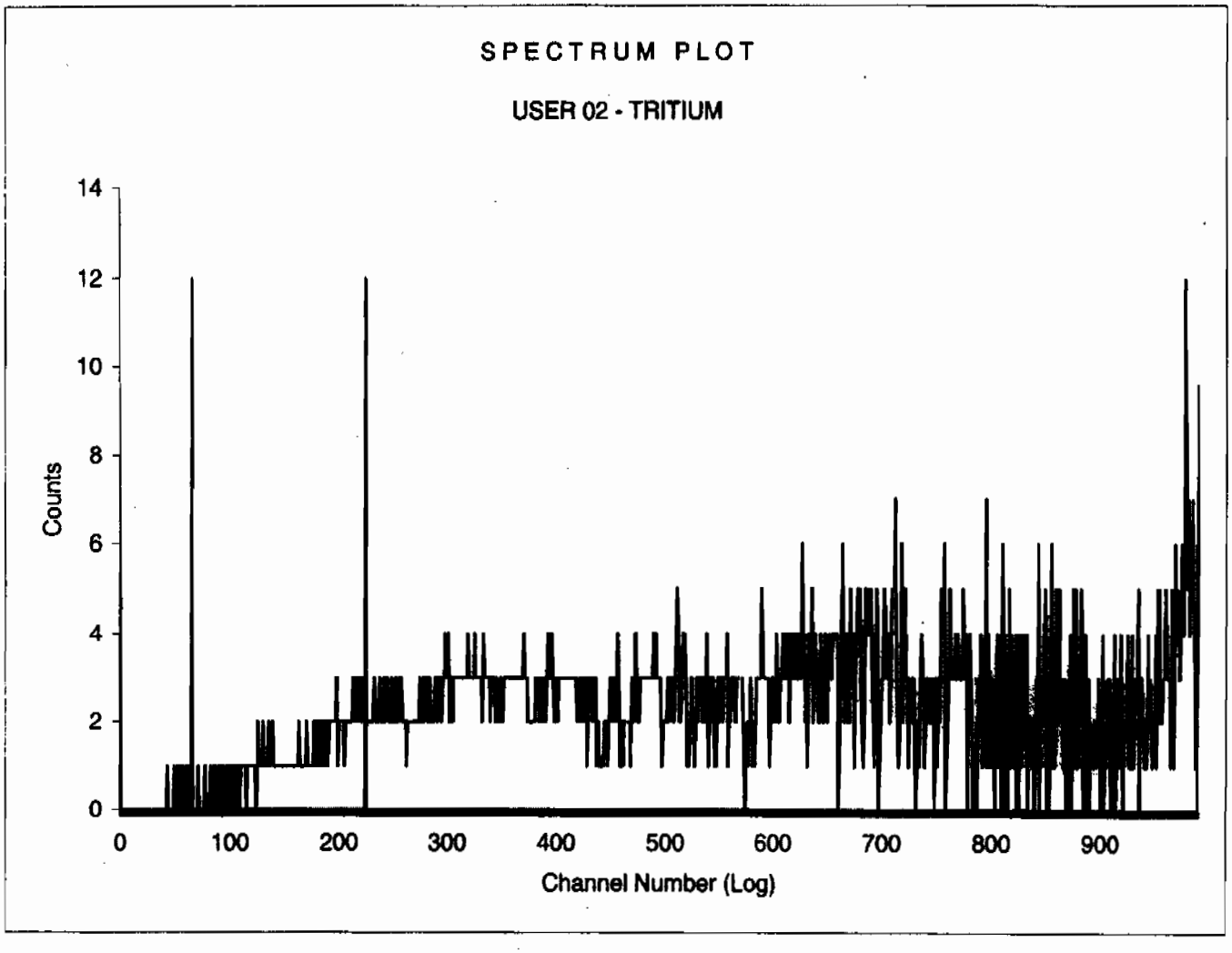

Sample Count Start Time:	6 Jan 2010 06:52:12		
Data Capture Date	06 Jan 2010 07:42:38		
User Filename	S02010628-6A.XLS		
	U02010628-6A.XLS		
Spectrum Type	Log Counts		
User Number	02		
User Id	TRITIUM		
User Comment	RED		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	6	28-6	50.00
H#, Total Counts:	117.7	2672	
Win1: Tritium - Start, End, Counts:	65	225	185
Win2: - Start, End, Counts:	0	990	2282

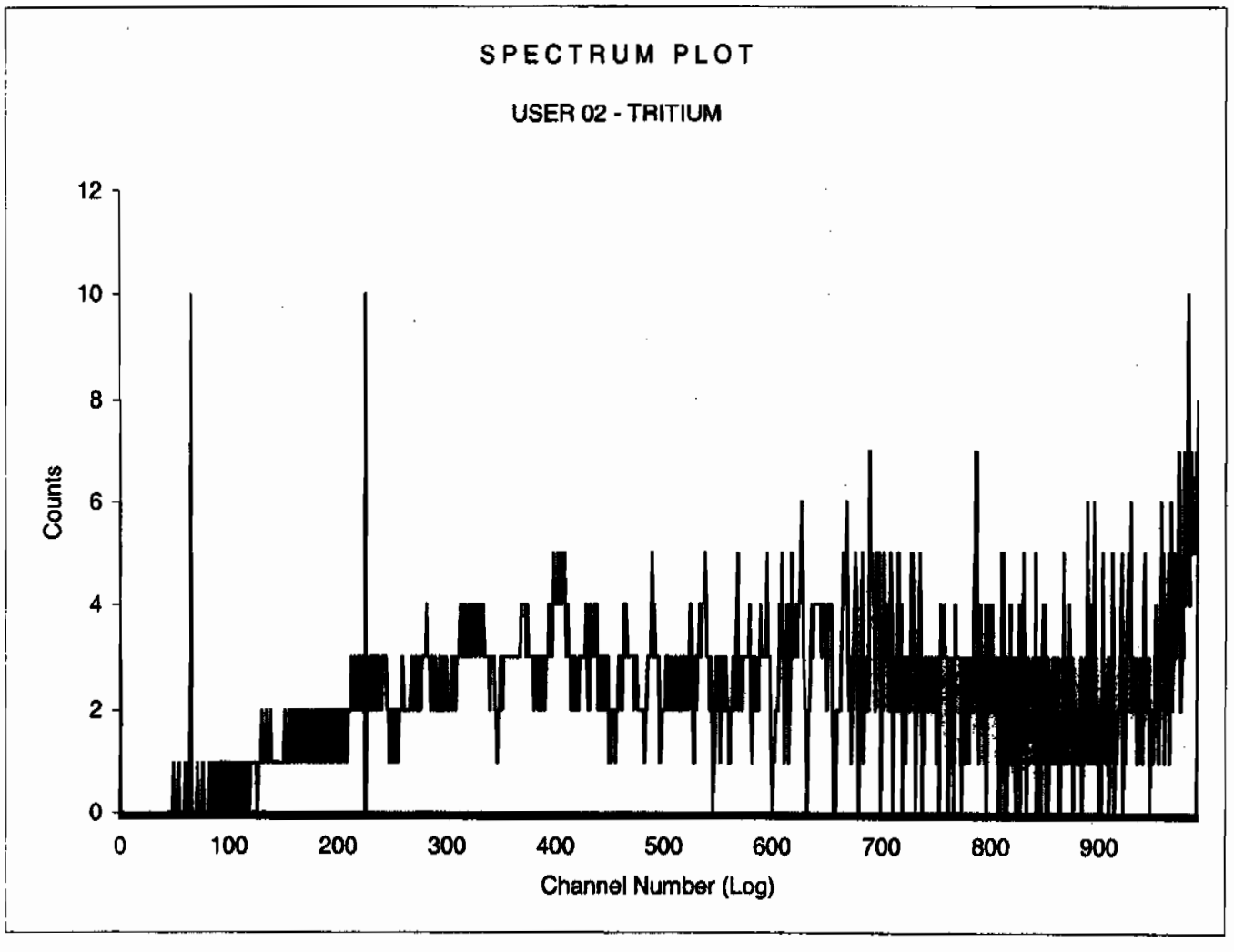

Sample Count Start Time:	6 Jan 2010 07:44:22		
Data Capture Date	06 Jan 2010 08:34:48		
User Filename	S02010628-7A.XLS		
	U02010628-6A.XLS		
Spectrum Type	Log Counts		
User Number	02		
User Id	TRITIUM		
User Comment	RED		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	7	28-7	50.00
H#, Total Counts:	113.3	2629	
Win1: Tritium - Start, End, Counts:	65	225	178
Win2: - Start, End, Counts:	0	990	2257

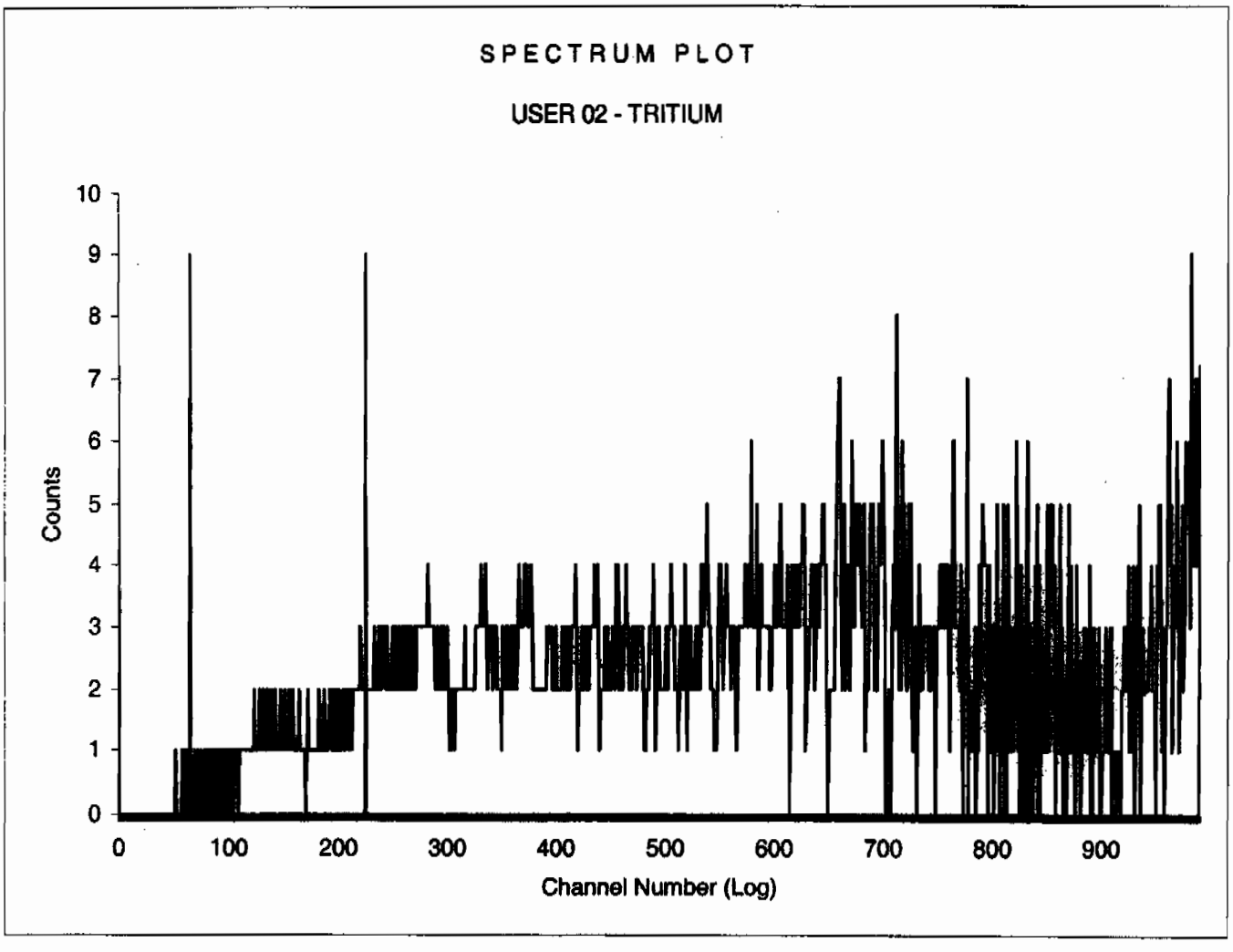

Sample Count Start Time:	6 Jan 2010 08:36:36		
Data Capture Date	06 Jan 2010 09:27:01		
User Filename	S02010628-8A.XLS		
	U02010628-6A.XLS		
Spectrum Type	Log Counts		
User Number	02		
User Id	TRITIUM		
User Comment	RED		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	8	28-8	50.00
H#, Total Counts:	113.6	2555	
Win1: Tritium - Start, End, Counts:	65	225	165
Win2: - Start, End, Counts:	0	990	2138

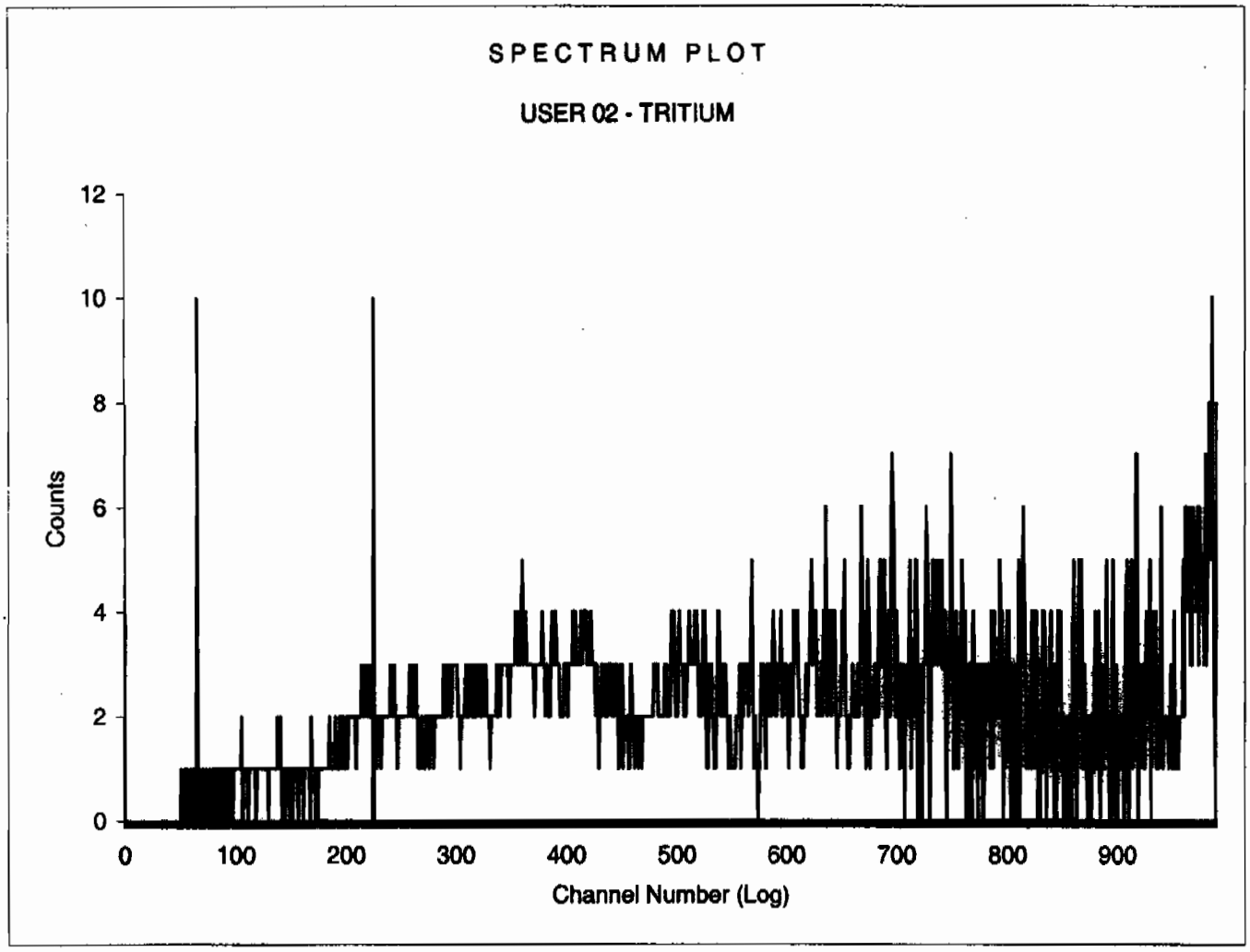

Sample Count Start Time:	6 Jan 2010 09:28:50		
Data Capture Date	06 Jan 2010 10:19:16		
User Filename	S02010628-9A.XLS		
	U02010628-6A.XLS		
Spectrum Type	Log Counts		
User Number	02		
User Id	TRITIUM		
User Comment	RED		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	9	28-9	50.00
H#, Total Counts:	113.6	20720	
Win1: Tritium - Start, End, Counts:	65	225	12700
Win2: - Start, End, Counts:	0	990	20362

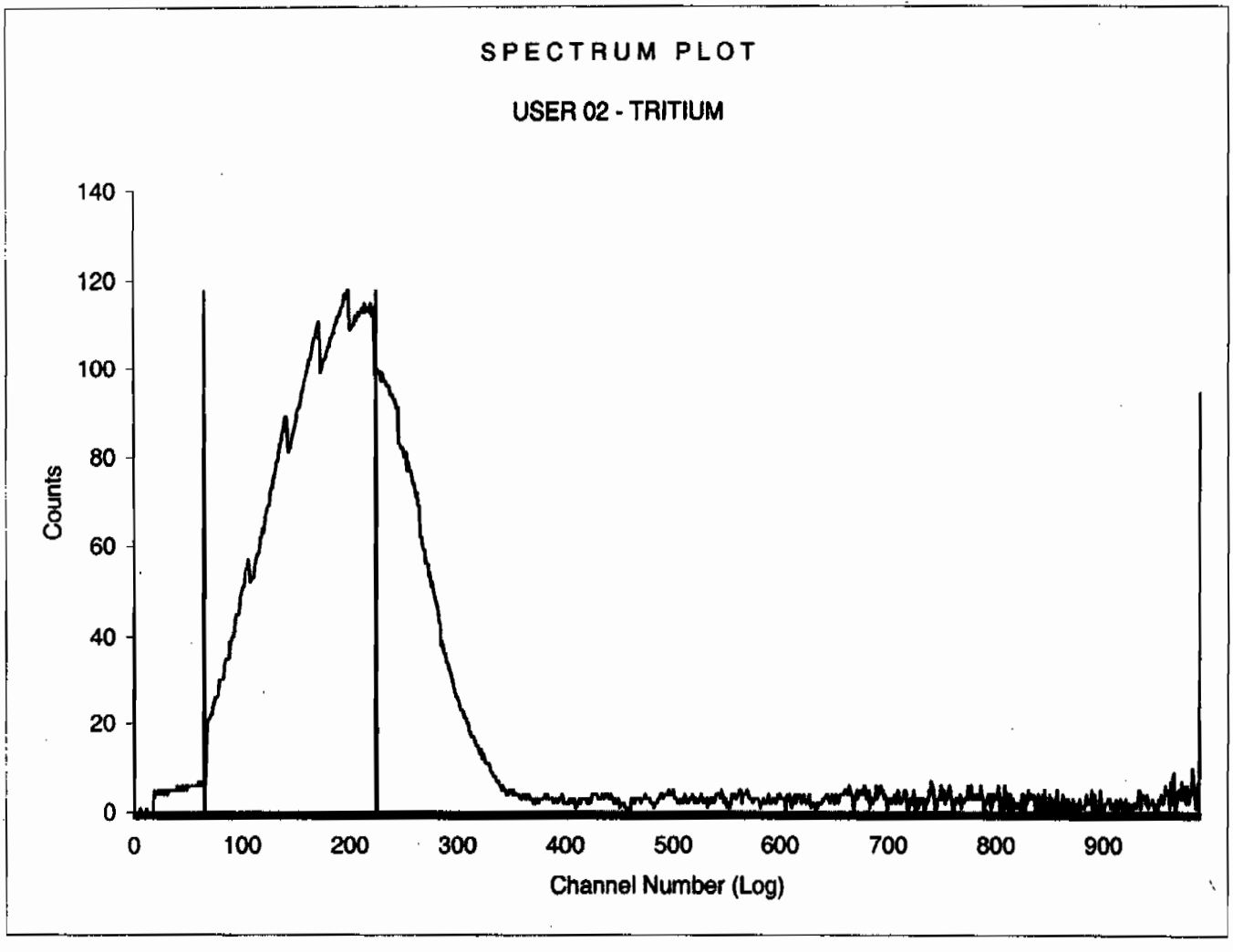

Sample Count Start Time:	6 Jan 2010 10:21:10		
Data Capture Date	06 Jan 2010 11:11:37		
User Filename	S02010628-10A.XLS		
	U02010628-6A.XLS		
Spectrum Type	Log Counts		
User Number	02		
User Id	TRITIUM		
User Comment	RED		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	10	28-10	50.00
H#, Total Counts:	125.3	24654	
Win1: Tritium - Start, End, Counts:	65	225	16171
Win2: - Start, End, Counts:	0	990	24370

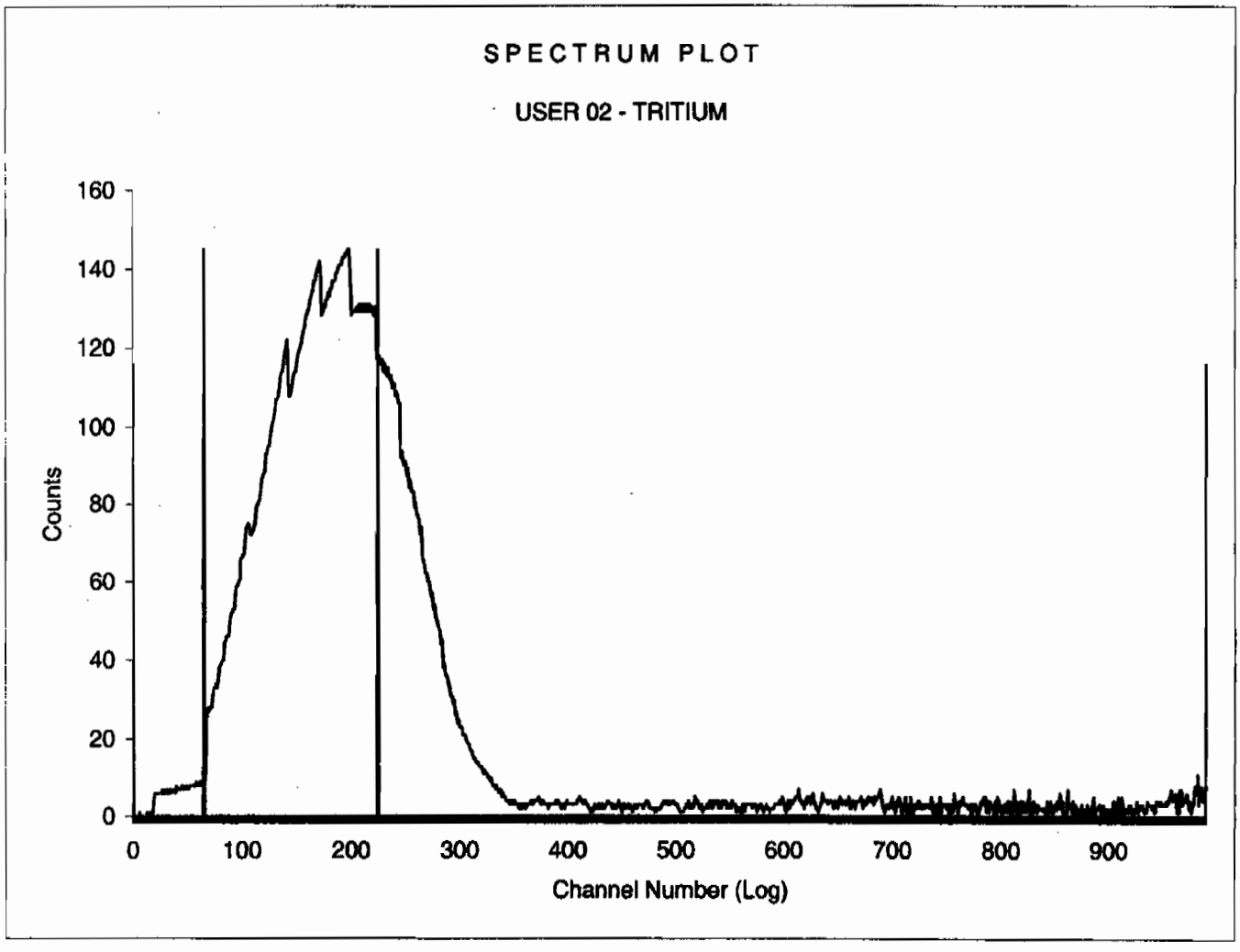

Sample Count Start Time:	6 Jan 2010 11:13:25		
Data Capture Date	06 Jan 2010 12:03:51		
User Filename	S02010628-11A.XLS		
	U02010628-6A.XLS		
Spectrum Type	Log Counts		
User Number	02		
User Id	TRITIUM		
User Comment	RED		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	11	28-11	50.00
H#, Total Counts:	113.6	2498	
Win1: Tritium - Start, End, Counts:	65	225	152
Win2: - Start, End, Counts:	0	990	2134

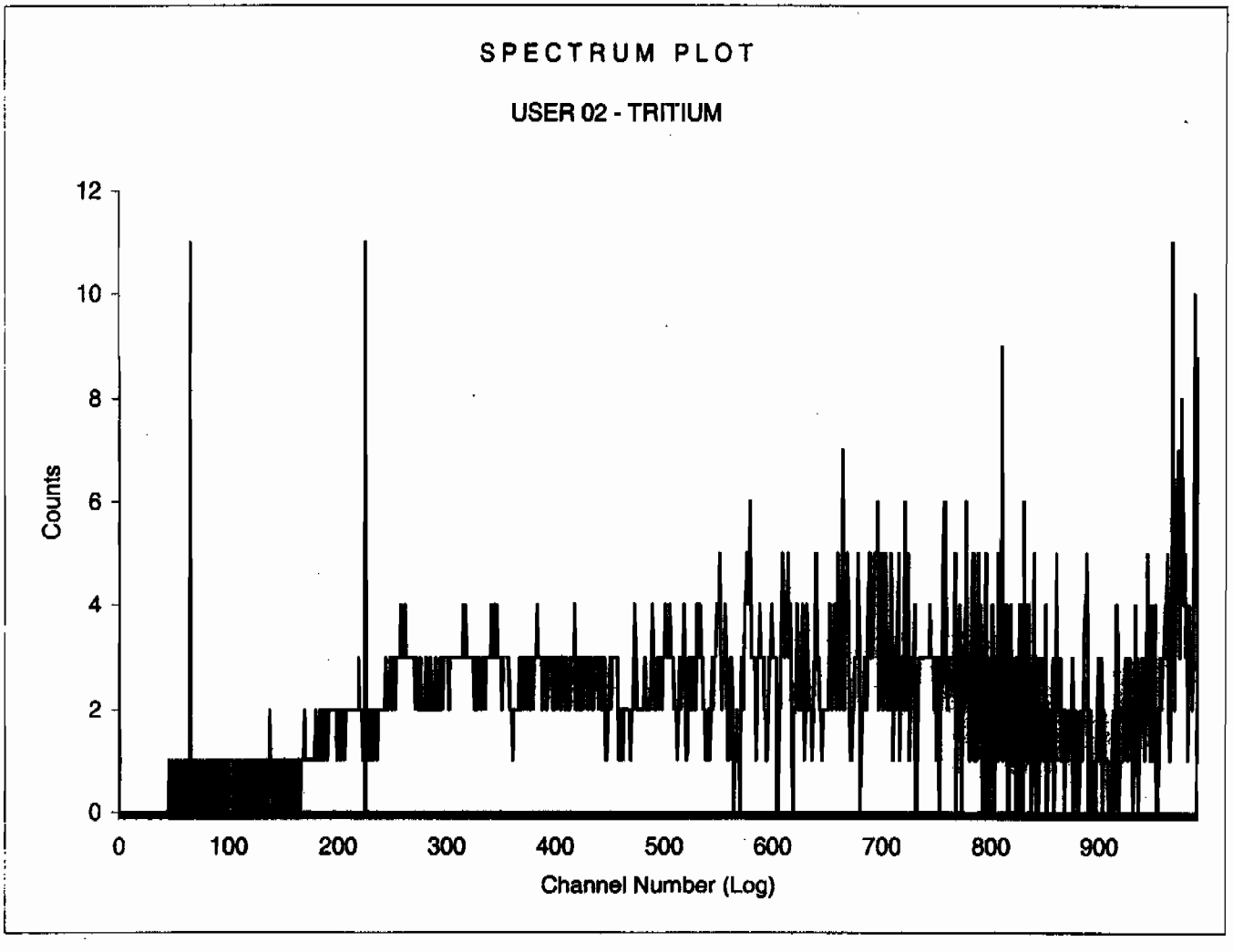

Sample Count Start Time:	6 Jan 2010 12:05:39		
Data Capture Date	06 Jan 2010 12:56:05		
User Filename	S02010628-12A.XLS		
	U02010628-6A.XLS		
Spectrum Type	Log Counts		
User Number	02		
User Id	TRITIUM		
User Comment	RED		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	12	28-12	50.00
H#, Total Counts:	114.0	2620	
Win1: Tritium - Start, End, Counts:	65	225	161
Win2: - Start, End, Counts:	0	990	2192

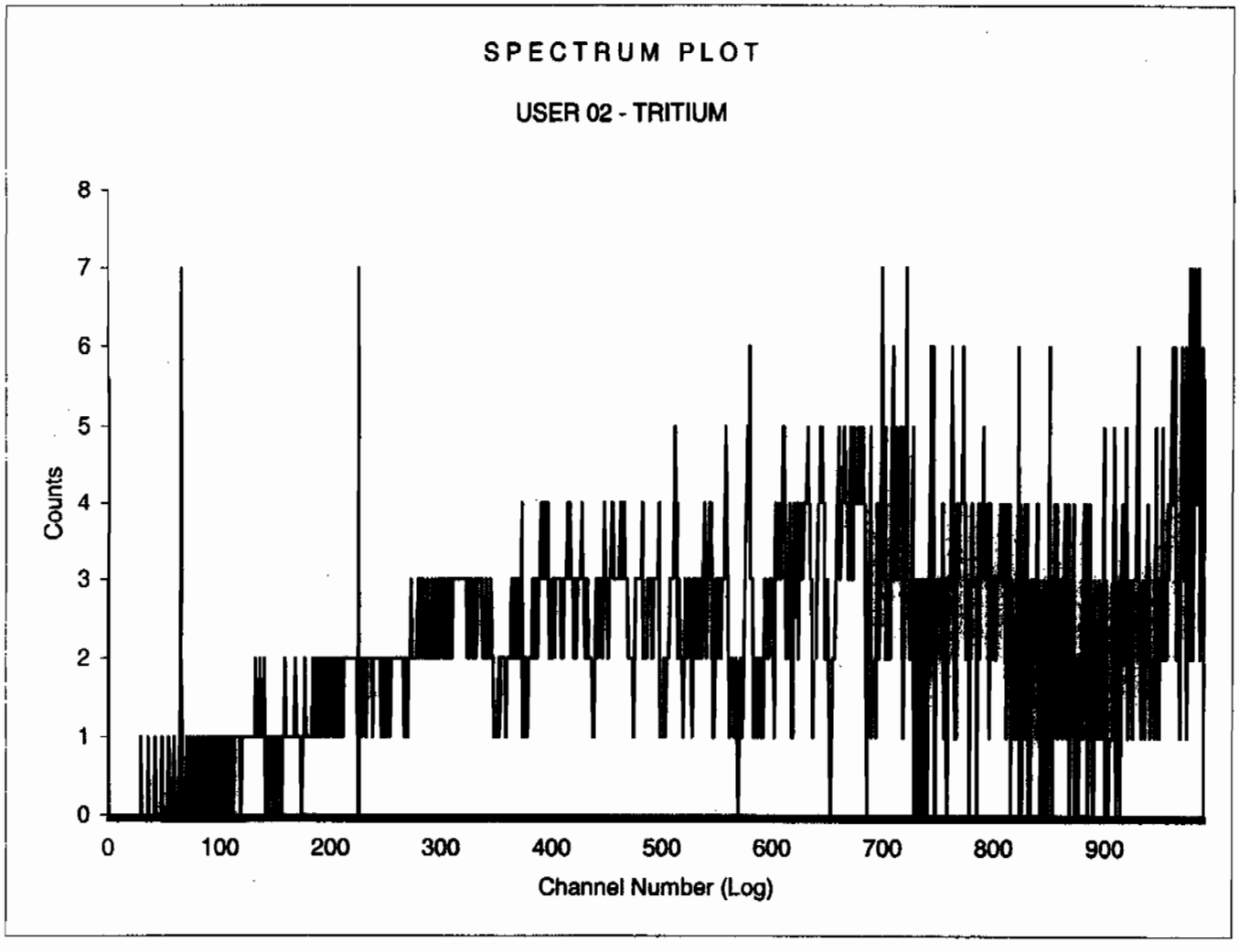

Sample Count Start Time:	5 Jan 2010 08:04:38		
Data Capture Date	05 Jan 2010 08:19:41		
User Filename	S03010561-1A.XLS		
	U03010561-1A.XLS		
Spectrum Type	Log Counts		
User Number	03		
User Id	TRITIUM		
User Comment	RED		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	1	61-1	15.00
H#, Total Counts:	113.0	1319	
Win1: Tritium - Start, End, Counts:	65	225	455
Win2: - Start, End, Counts:	0	990	1228

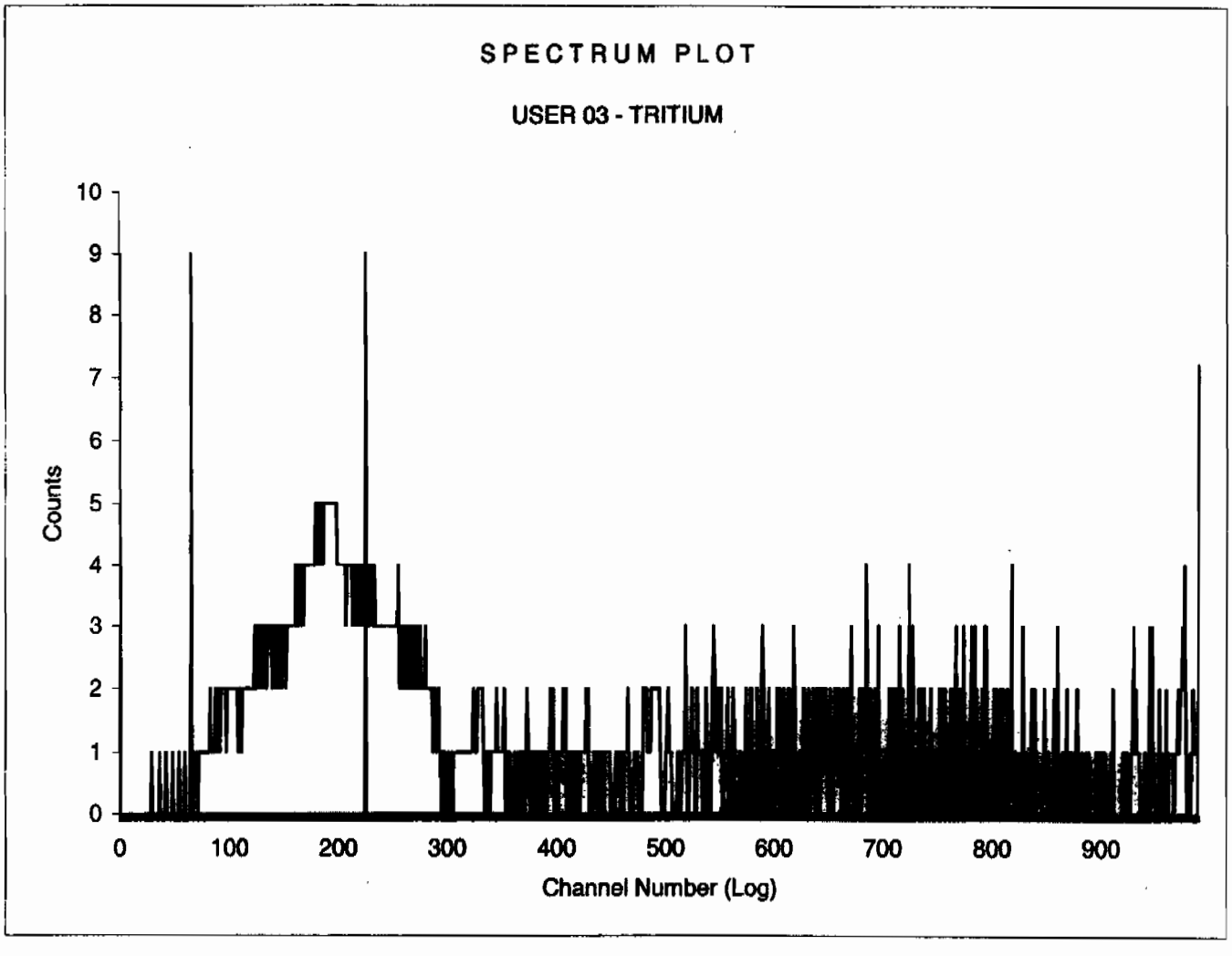

BACKGROUND AND EFFICIENCY DATA

QA filename : DKA100:[ENV_ALPHA.QA.W]W070.QAF;3
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 9-JUL-2009 08:08:10 through 12-JAN-2010 12:00:00
Lower/Upper Lmts: 0.342785 through 0.362785

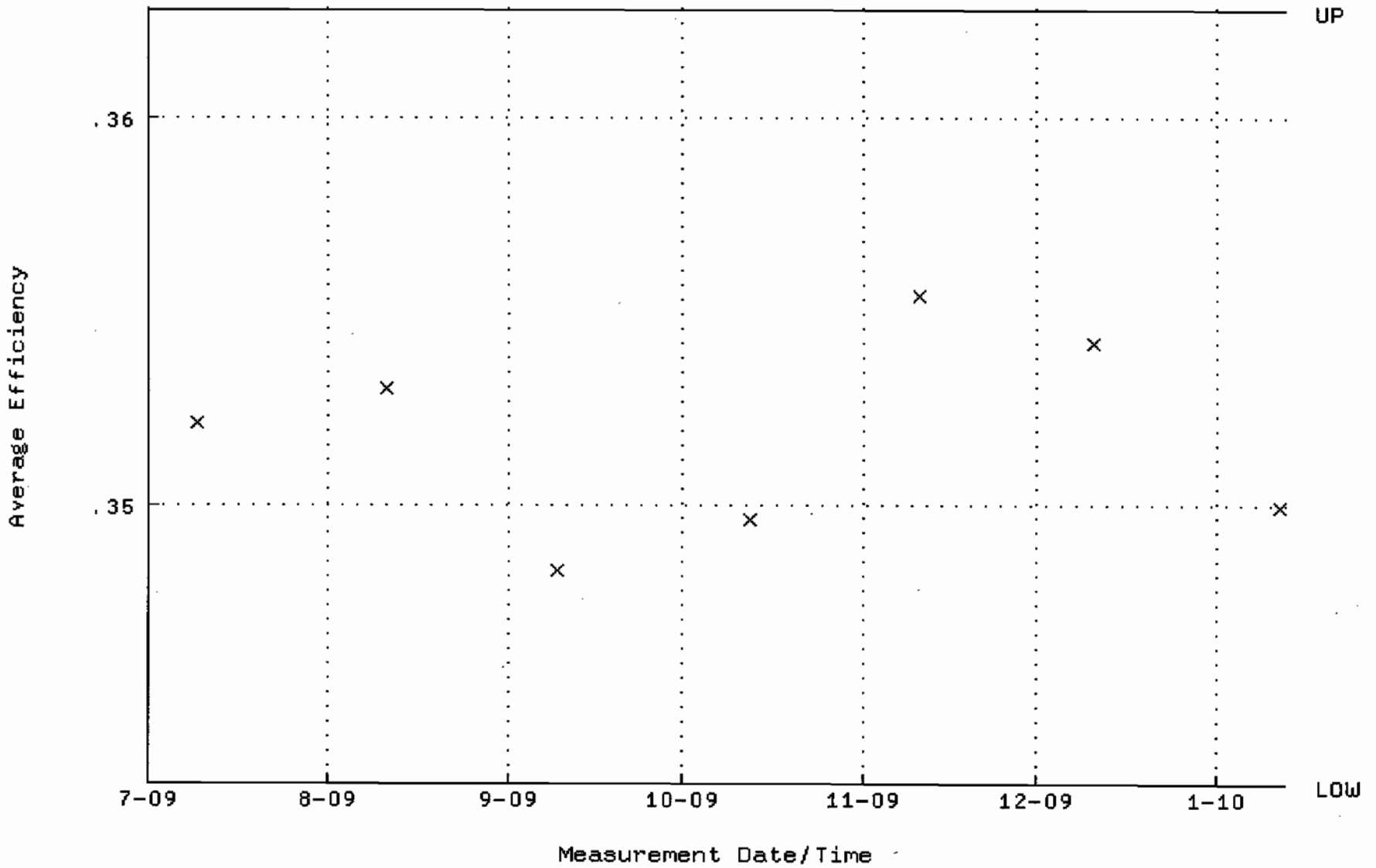

QA filename : DKA100:[ENV_ALPHA.QA.W]W070.QAF;3
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 9-JUL-2009 08:08:10 through 12-JAN-2010 12:00:00
Lower/Upper Lmts: 85.5293 through 94.5323

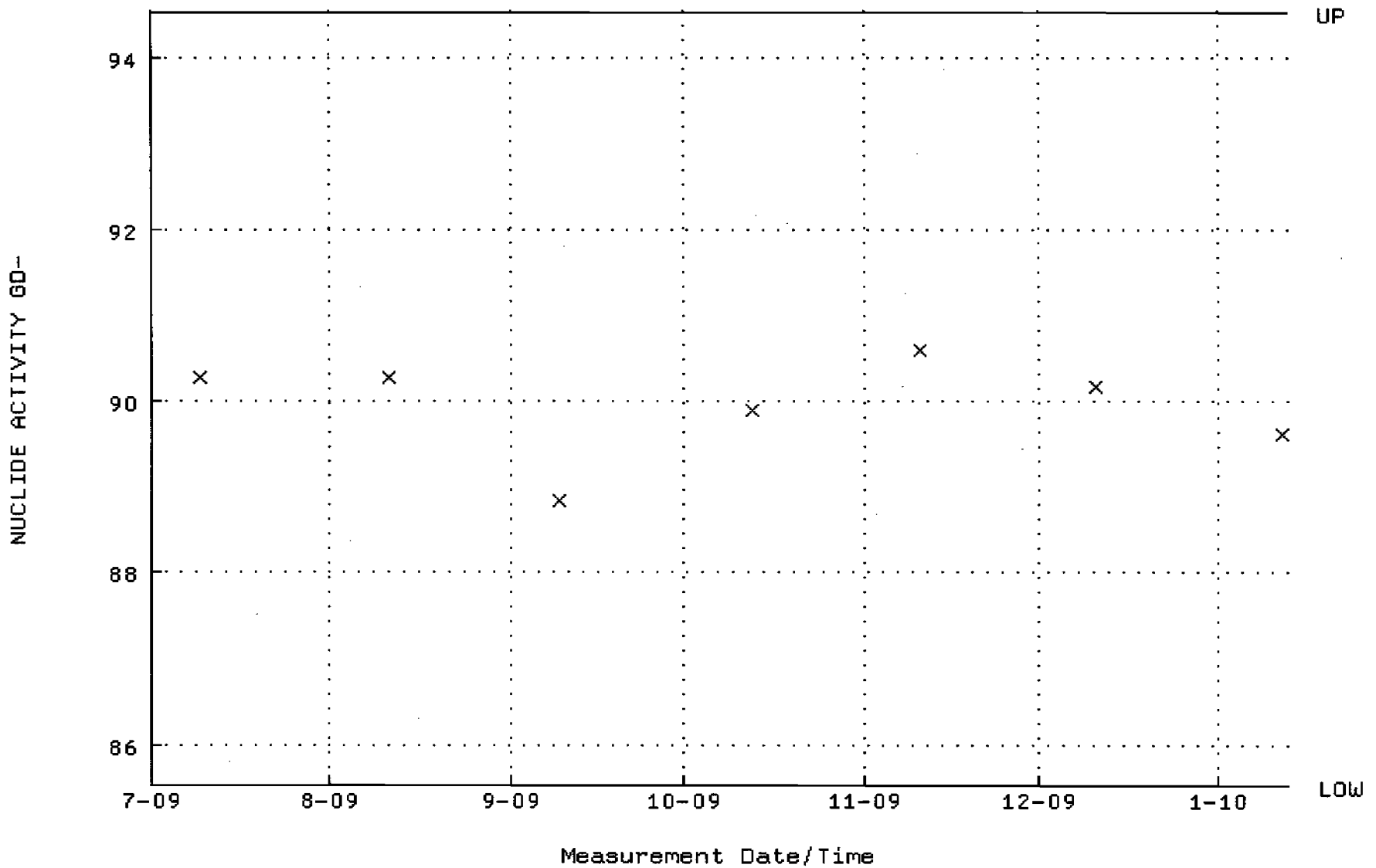

QA filename : DKA100:[ENV_ALPHA.QA.B]B070.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 5-JUL-2009 15:12:01 through 12-JAN-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

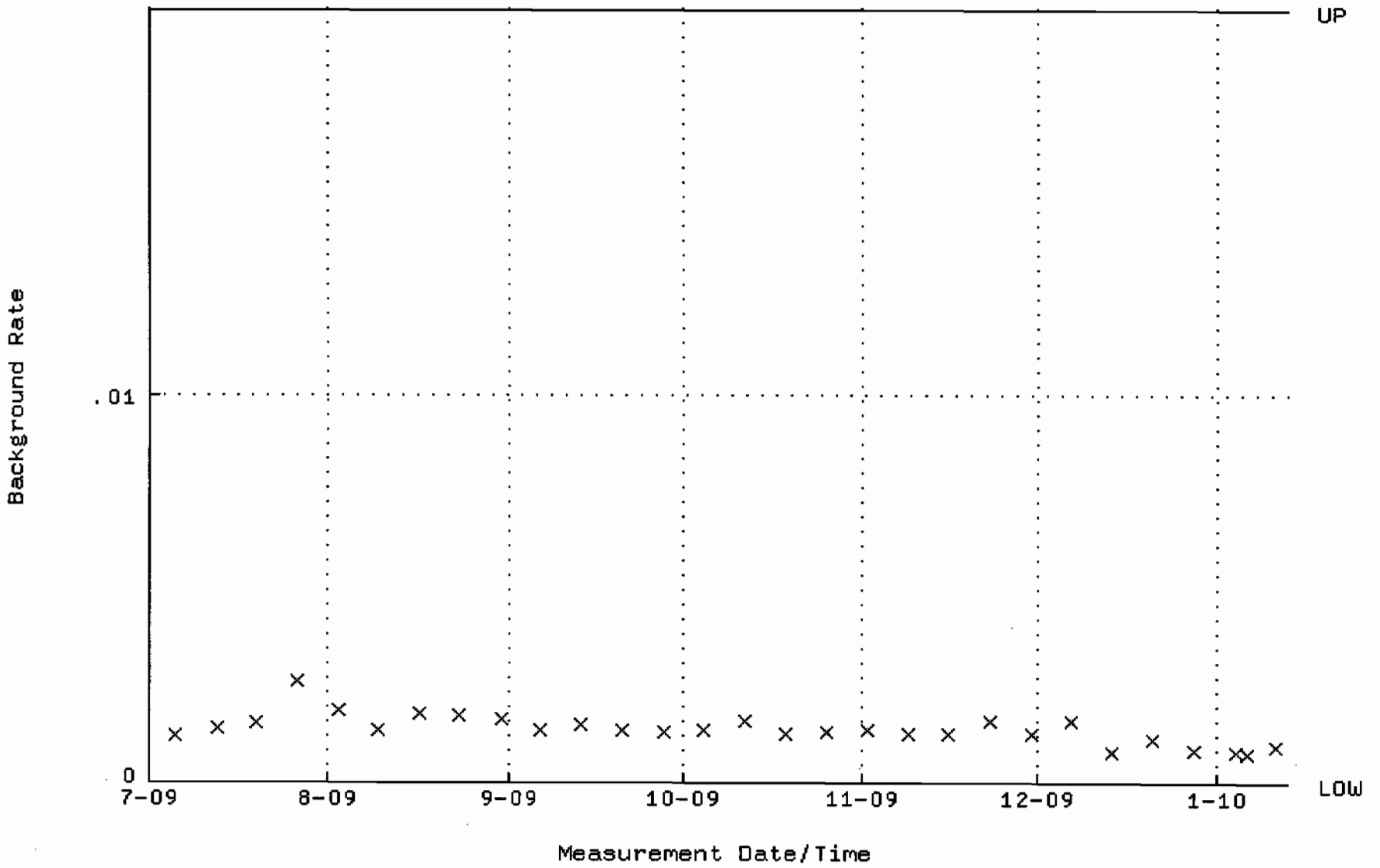

QA filename : DKA100:[ENV_ALPHA.QA.W]W107.QAF;4
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 9-JUL-2009 08:08:16 through 12-JAN-2010 12:00:00
Lower/Upper Lmts: 0.303231 through 0.317703

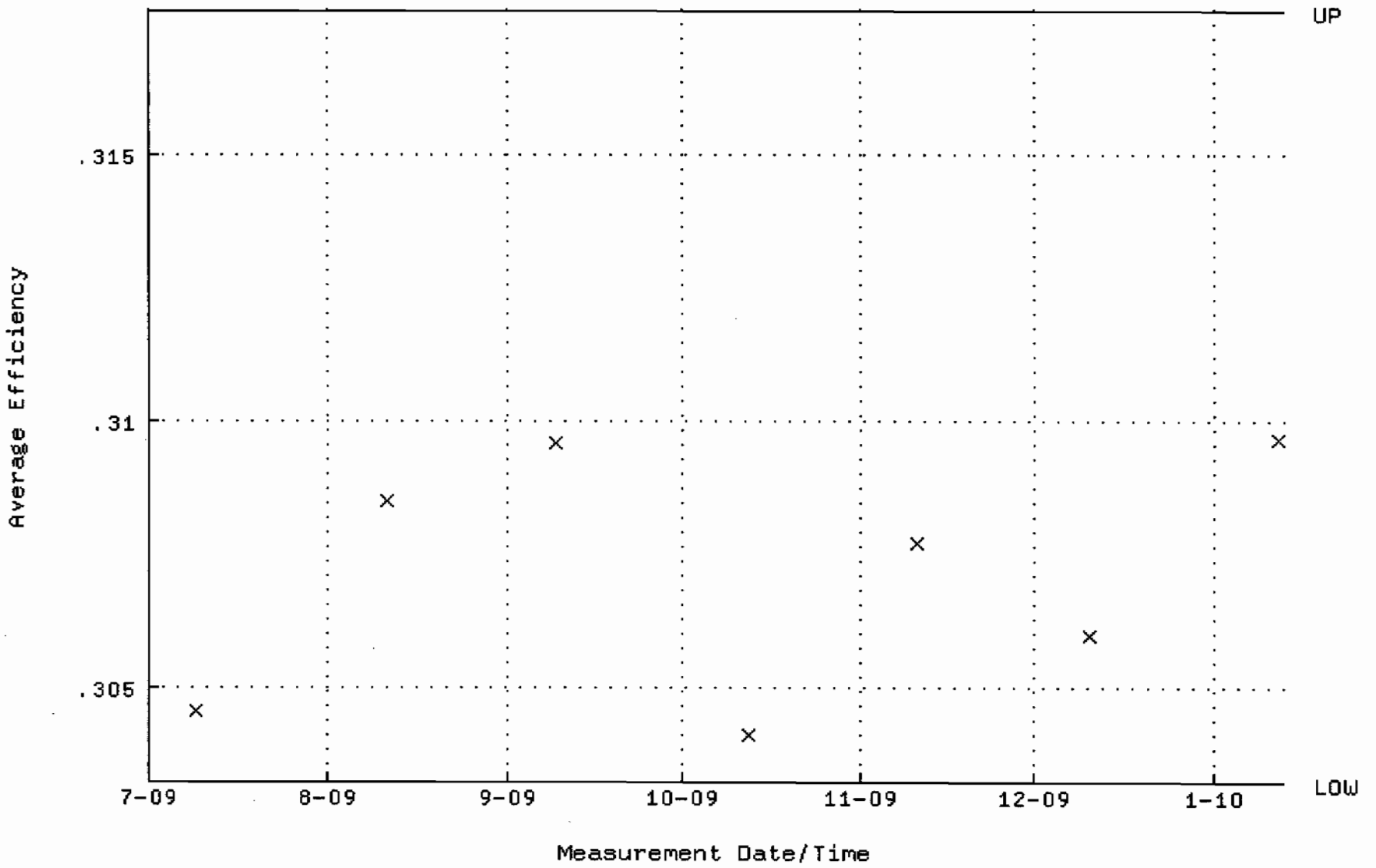

QA filename : DKA100:[ENV_ALPHA.QA.W]W107.QAF;4
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 9-JUL-2009 08:08:16 through 12-JAN-2010 12:00:00
Lower/Upper Lmts: 69.1572 through 72.0358

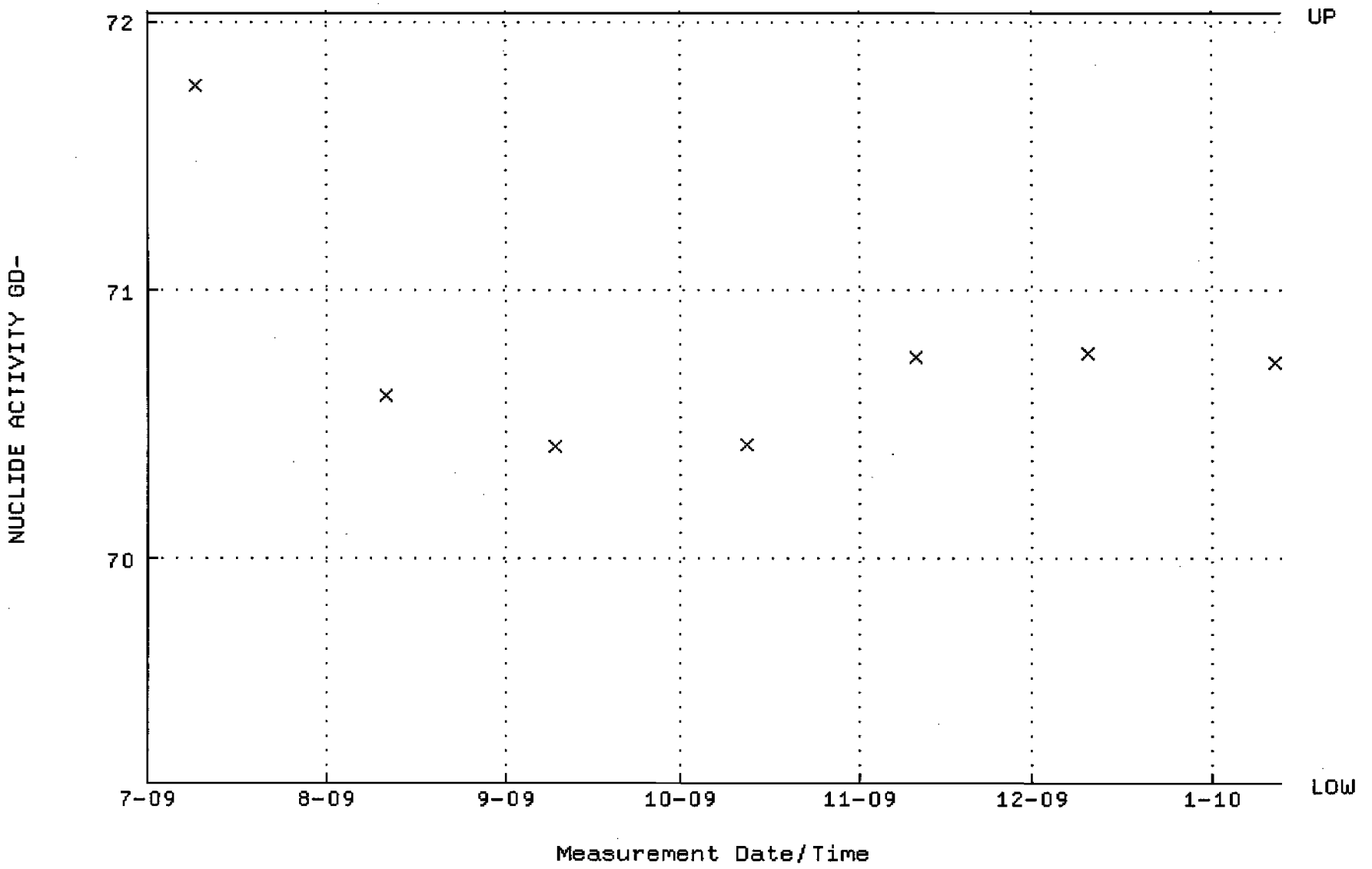

QA filename : DKA100:[ENV_ALPHA.QA.B]B107.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 5-JUL-2009 15:12:07 through 12-JAN-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

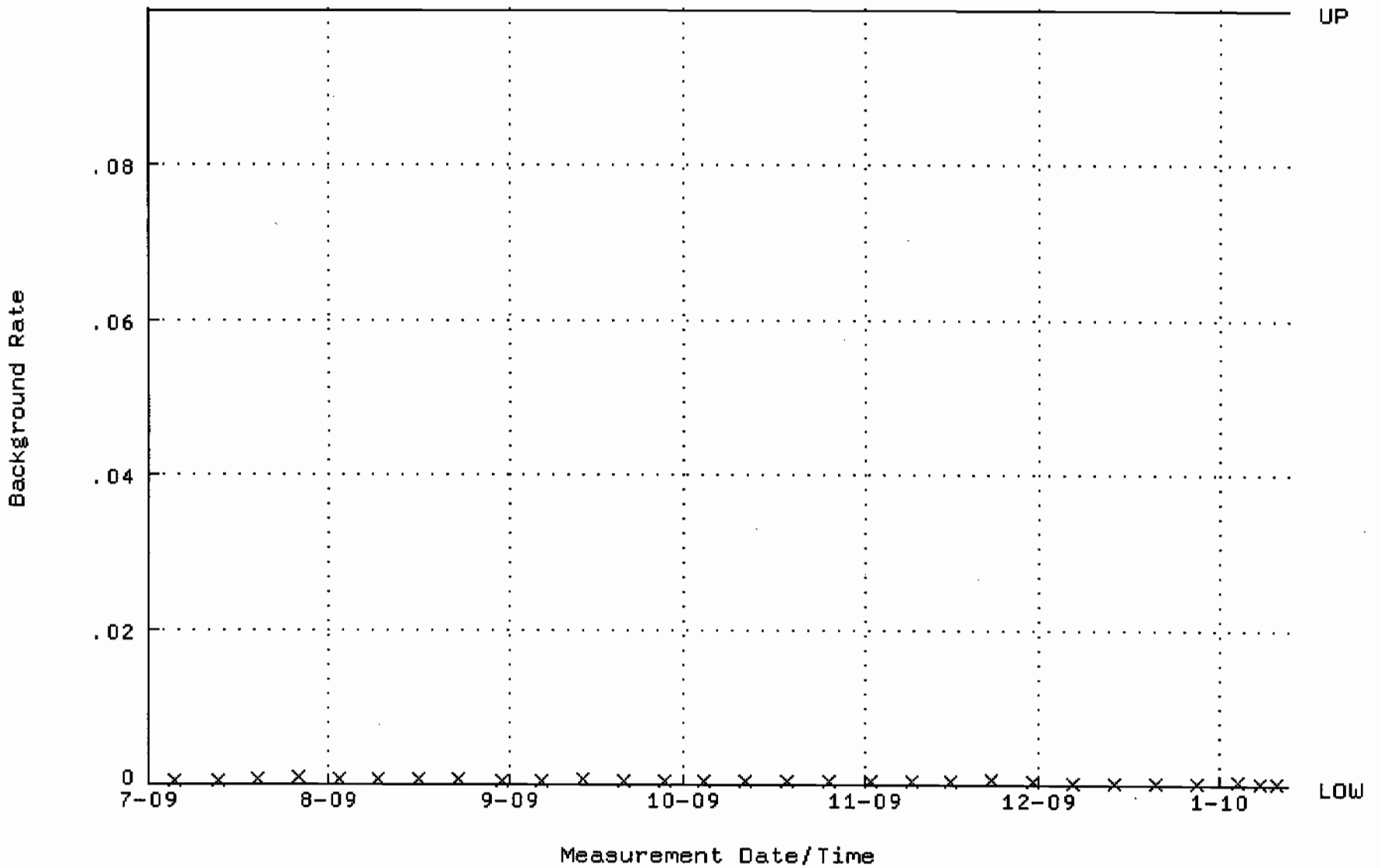

QA filename : DKA100:[ENV_ALPHA.QA.W]W108.QAF;3
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 9-JUL-2009 08:08:16 through 12-JAN-2010 12:00:00
Lower/Upper Lmts: 0.330641 through 0.360561

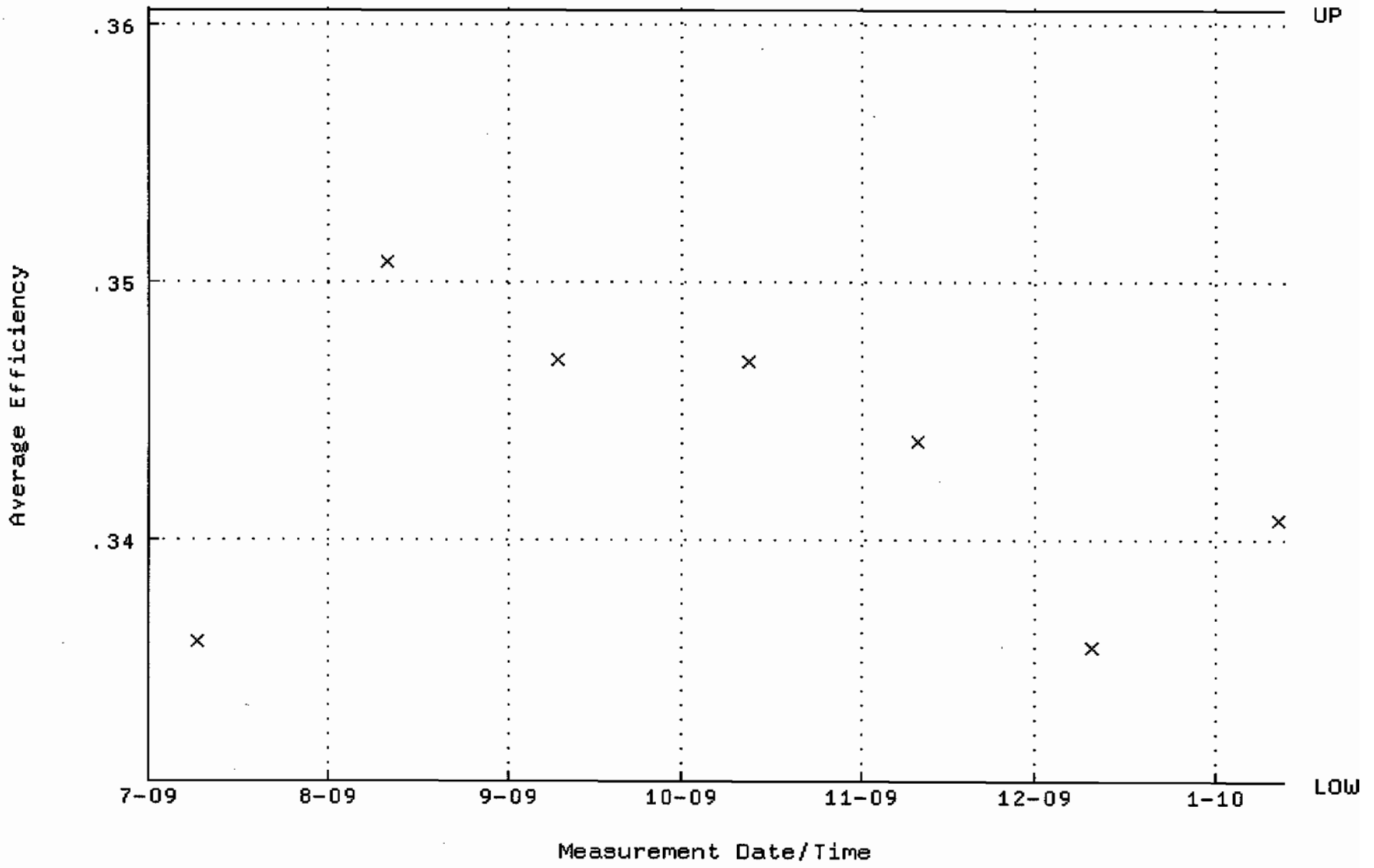

QA filename : DKA100:[ENV_ALPHA.QA.W]W108.QAF;3
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 9-JUL-2009 08:08:16 through 12-JAN-2010 12:00:00
Lower/Upper Lmts: 68.0460 through 72.0402

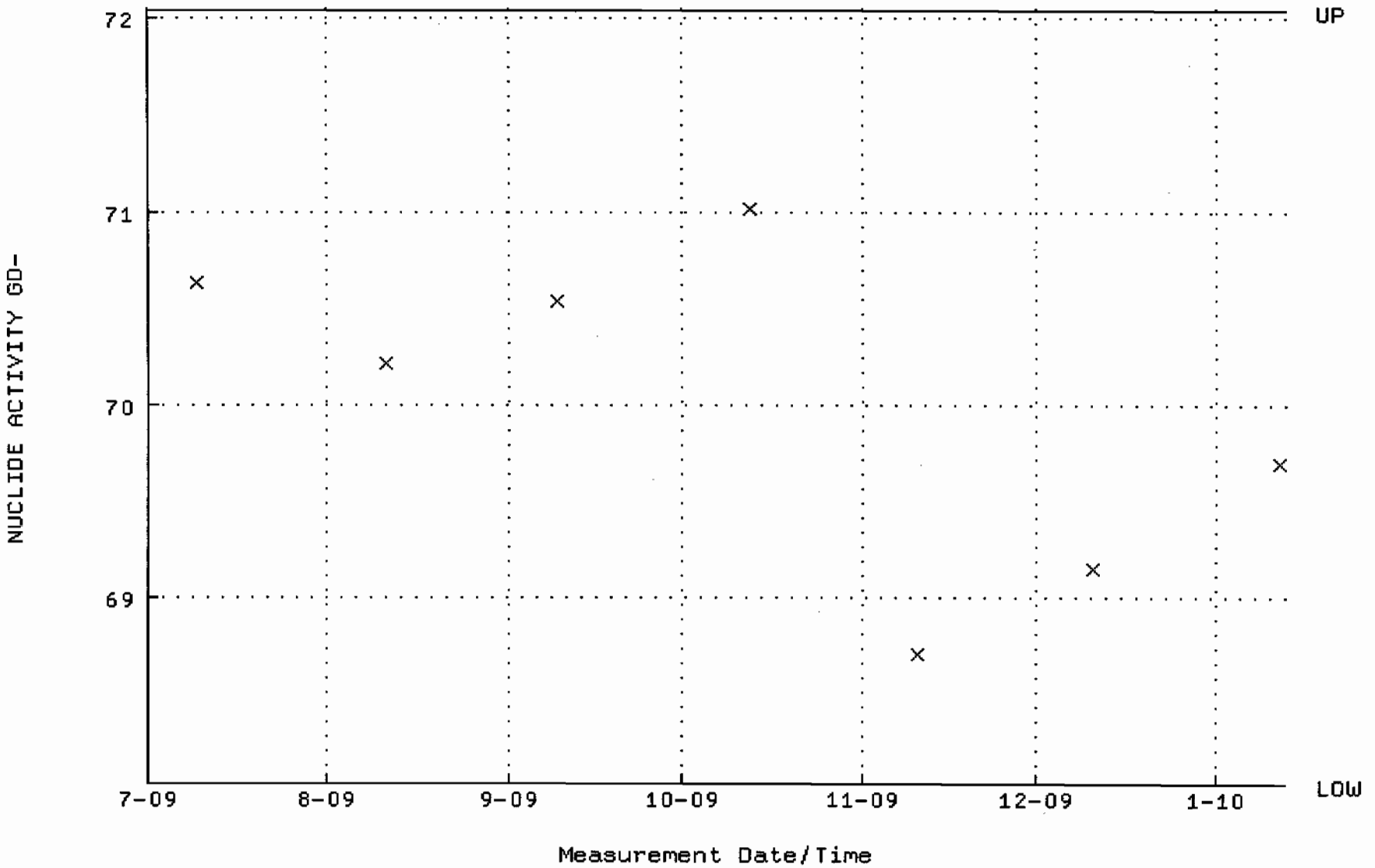

QA filename : DKA100:[ENV_ALPHA.QA.B]B108.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 5-JUL-2009 15:12:07 through 12-JAN-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

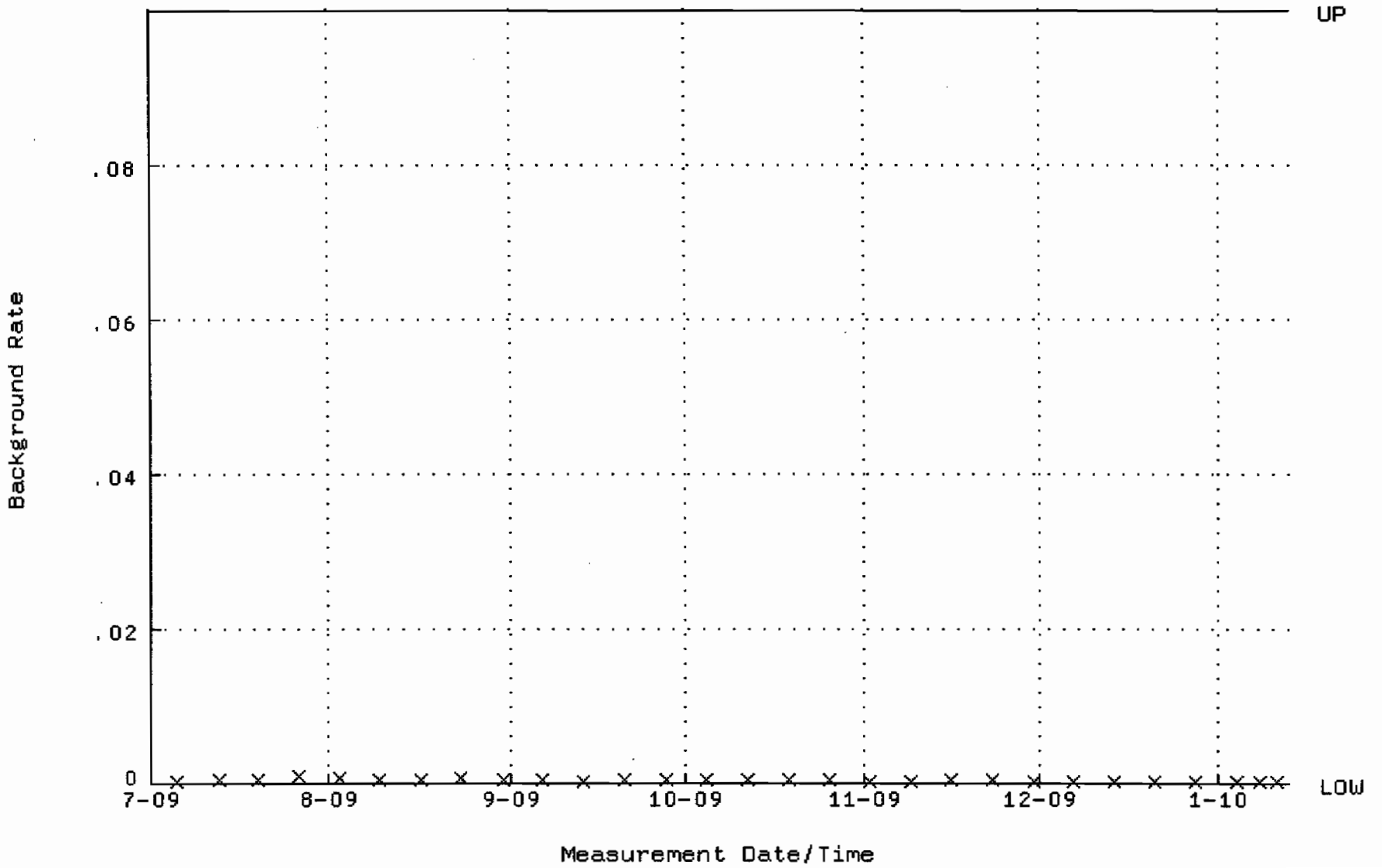

QA filename : DKA100:[ENV_ALPHA.QA.W]W109.QAF;2
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 2-JUL-2009 15:04:17 through 12-JAN-2010 12:00:00
Lower/Upper Lmts: 0.344397 through 0.364397

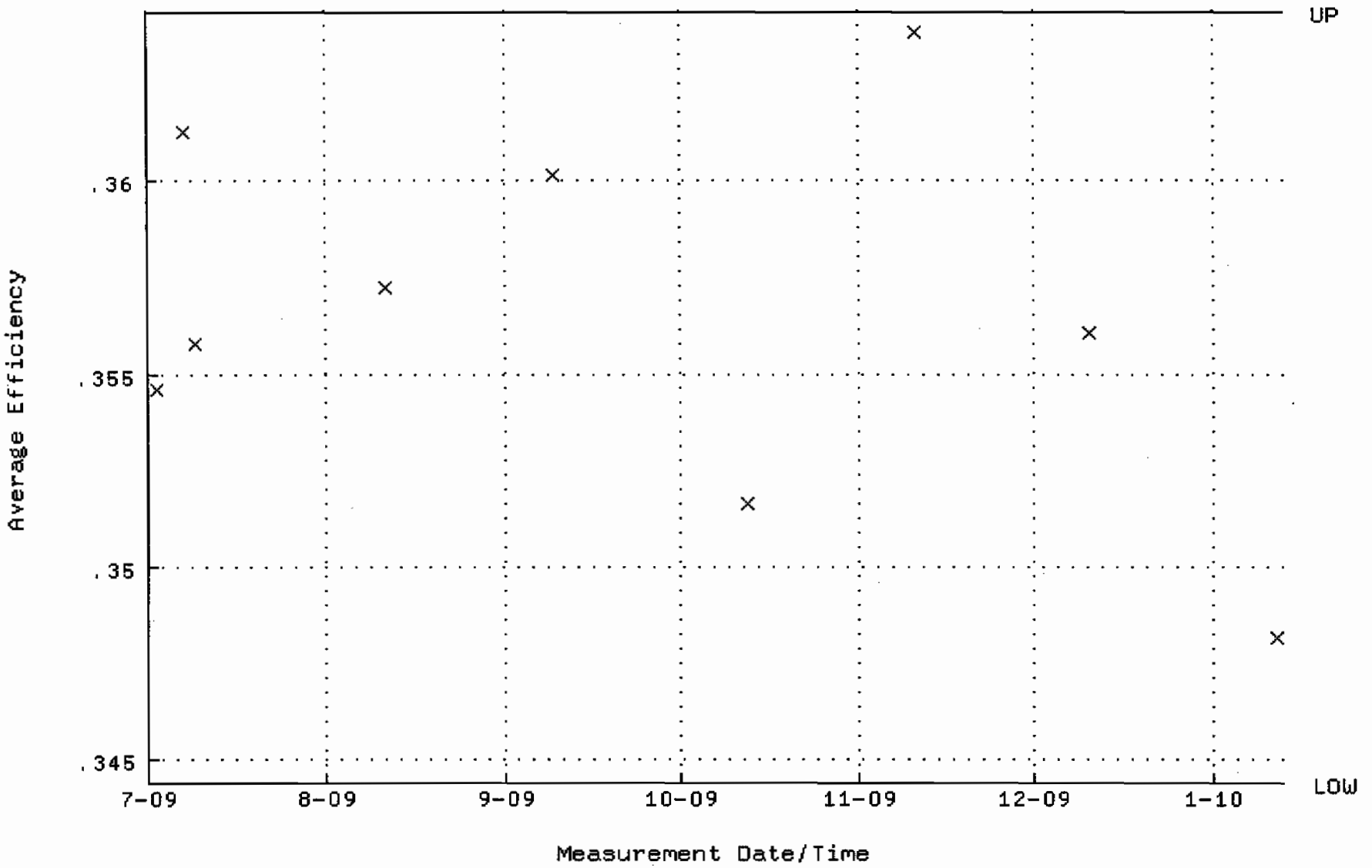

QA filename : DKA100:[ENV_ALPHA.QA.W]W109.QAF;2
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 2-JUL-2009 15:04:17 through 12-JAN-2010 12:00:00
Lower/Upper Lmts: 63.4194 through 70.0952

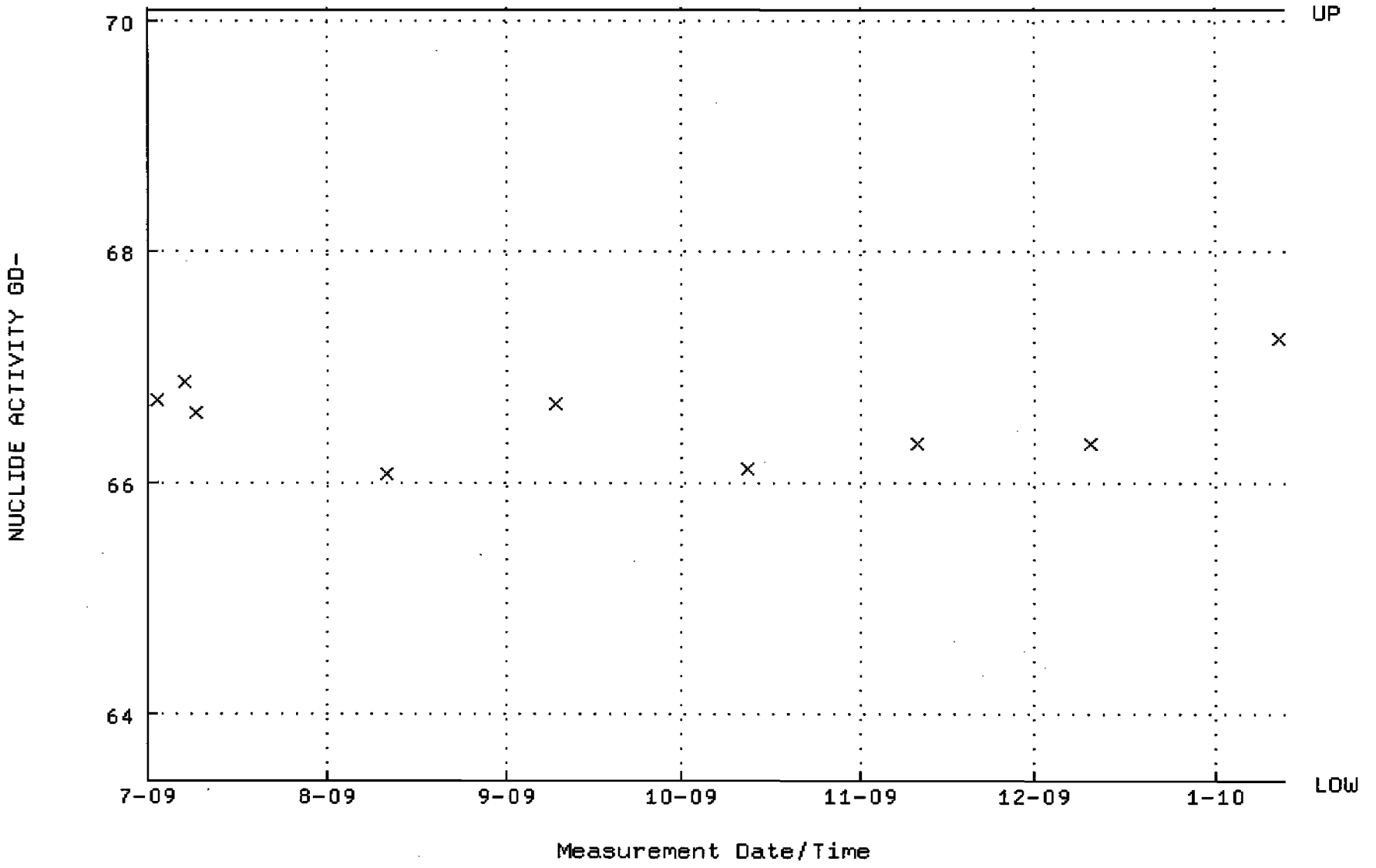

QA filename : DKA100:[ENV_ALPHA.QA.B]B109.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 1-JUL-2009 21:40:02 through 12-JAN-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

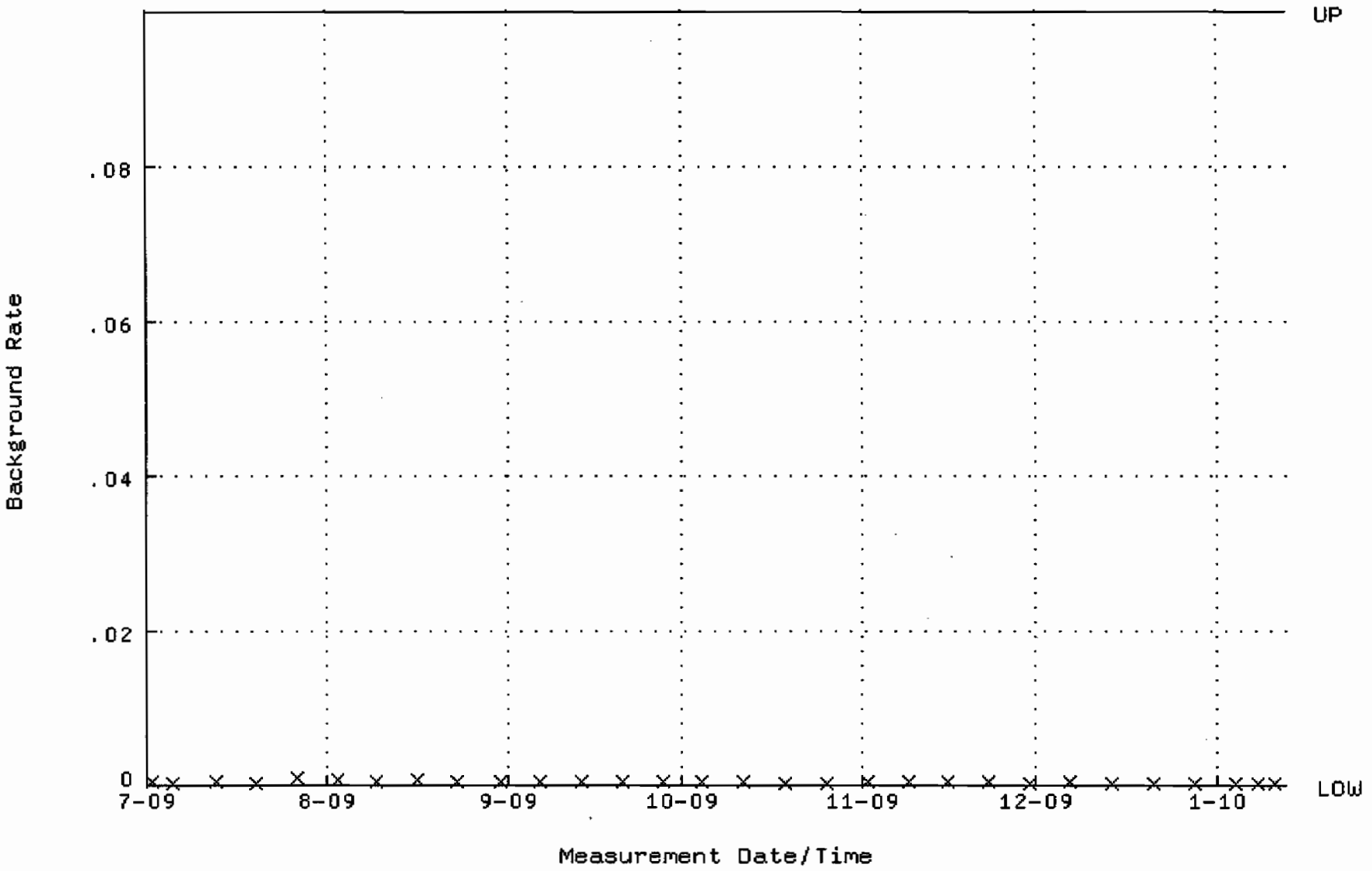

QA filename : DKA100:[ENV_ALPHA.QA.W]W110.QAF;3
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 9-JUL-2009 08:08:16 through 12-JAN-2010 12:00:00
Lower/Upper Lmts: 0.312683 through 0.335479

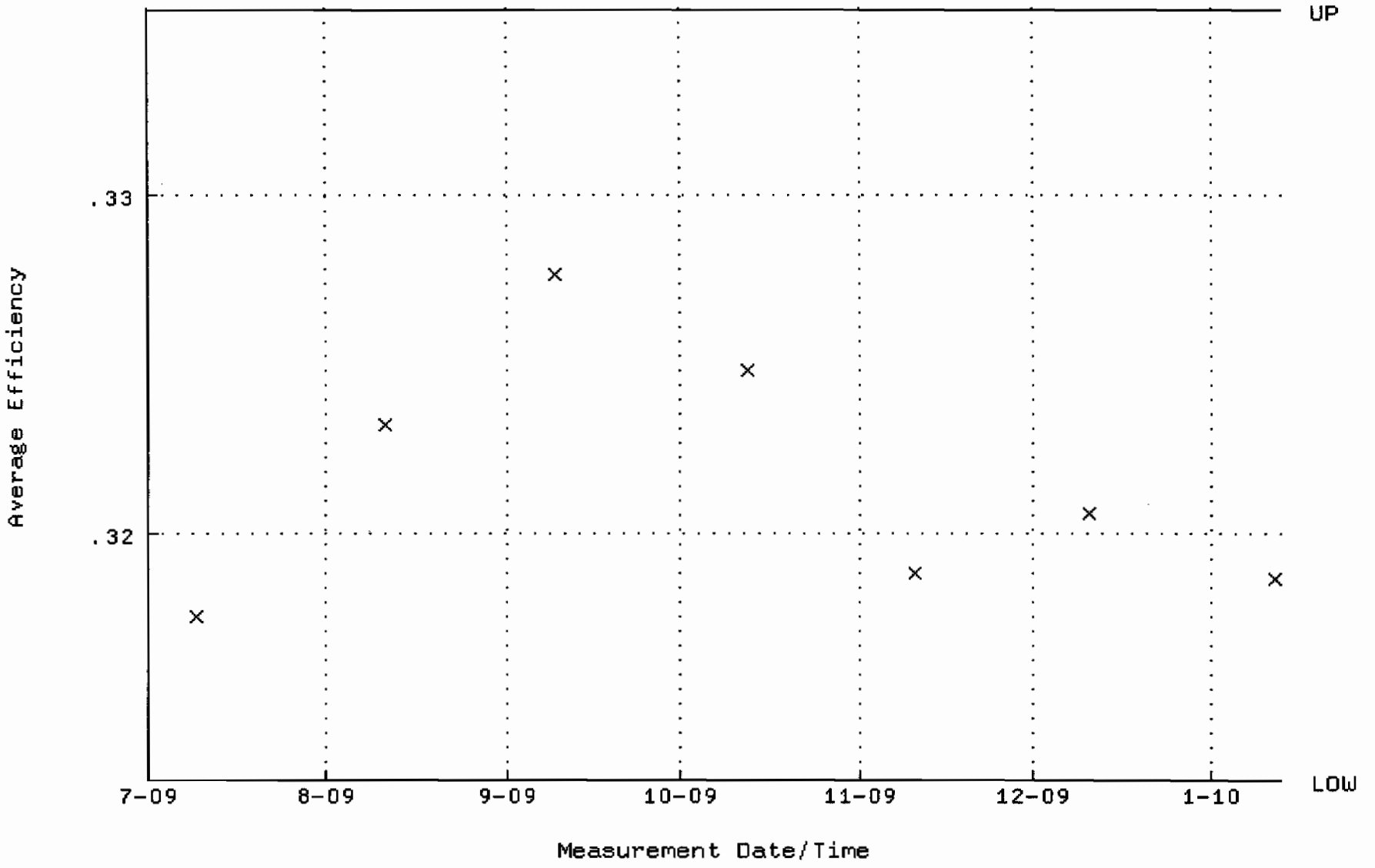

QA filename : DKA100:[ENV_ALPHA.QA.W]W110.QAF;3
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 9-JUL-2009 08:08:16 through 12-JAN-2010 12:00:00
Lower/Upper Lmts: 70.7404 through 73.7542

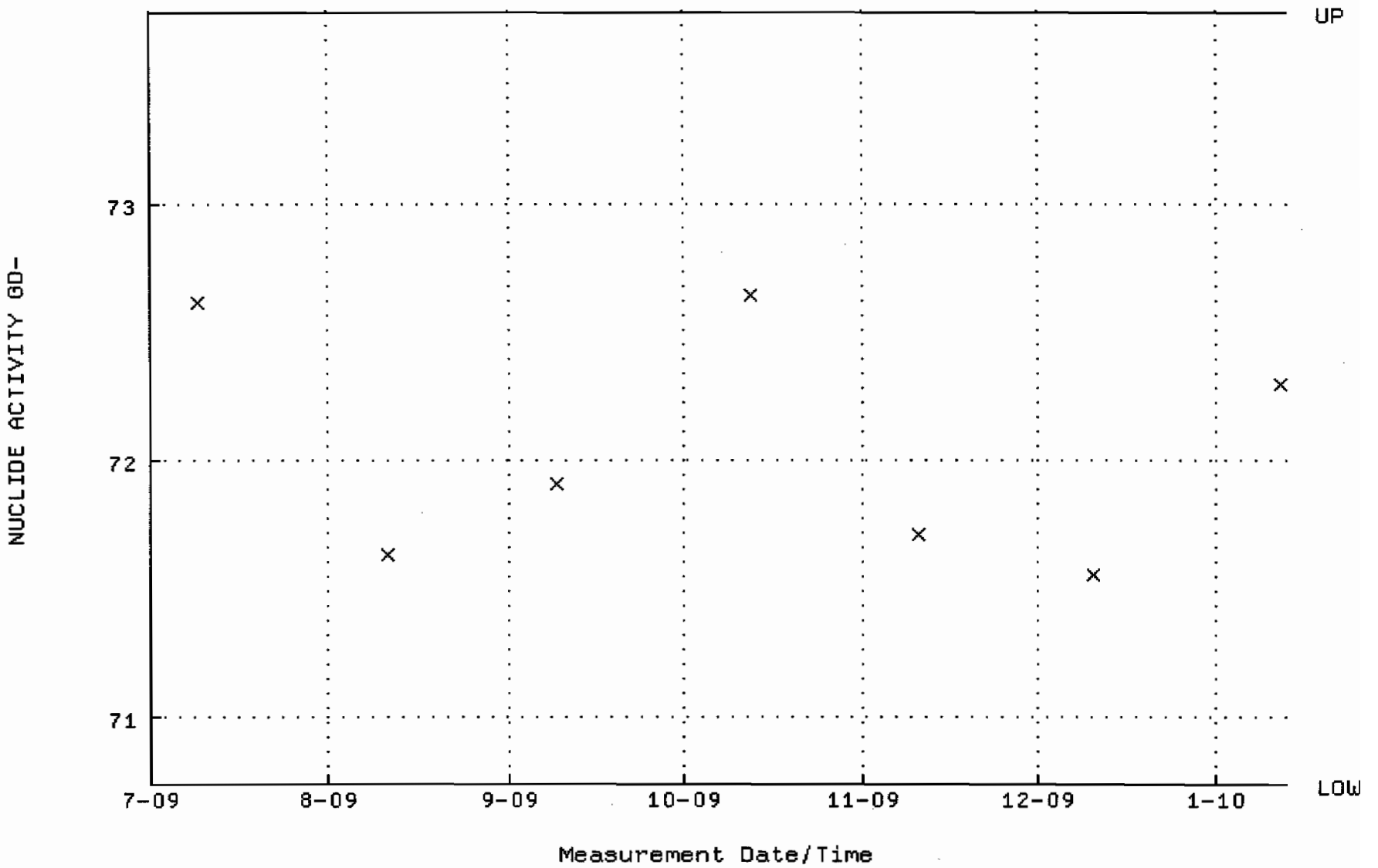

QA filename : DKA100:[ENV_ALPHA.QA.B]B110.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 5-JUL-2009 15:12:07 through 12-JAN-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

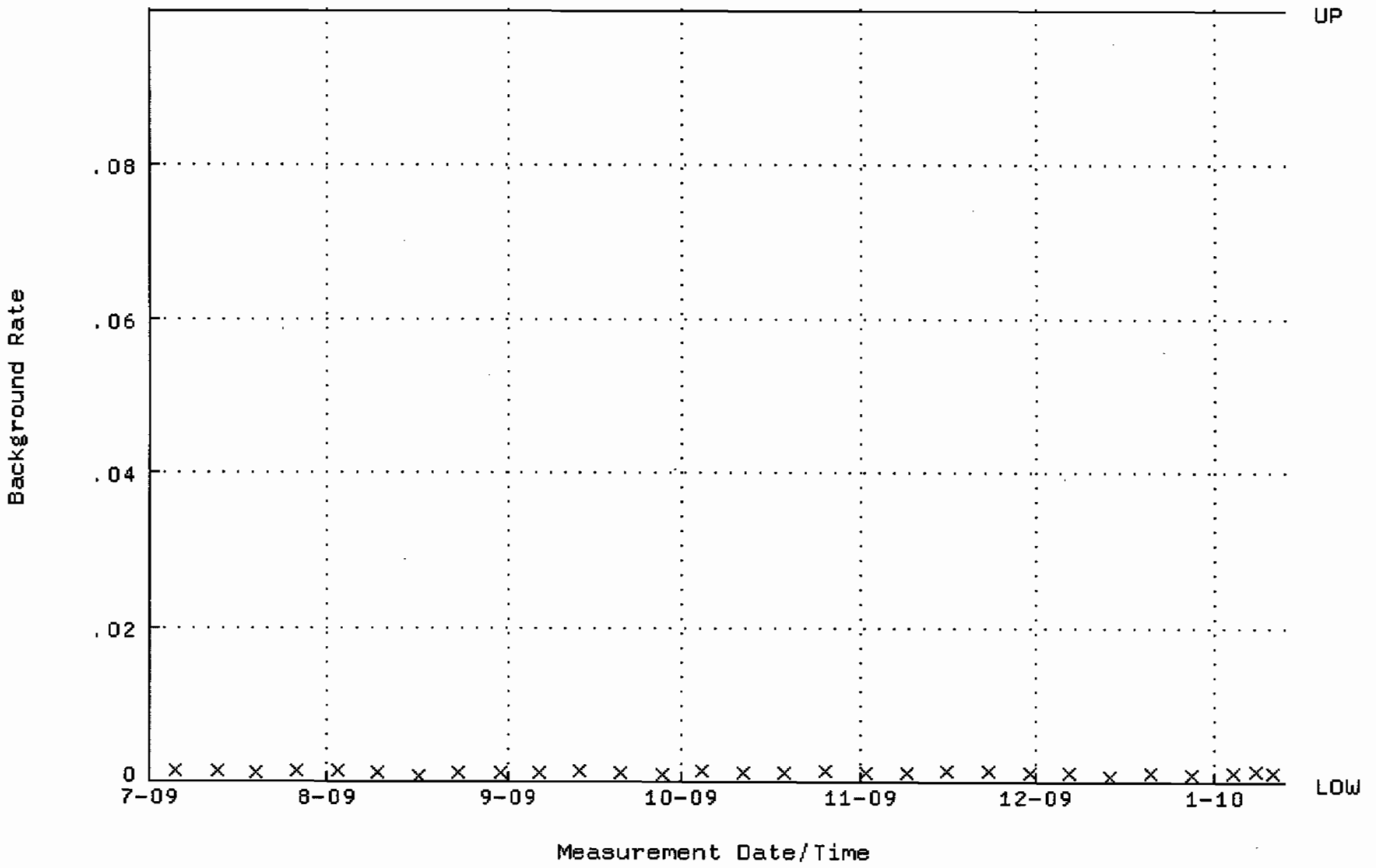

QA filename : DKA100:[ENV_ALPHA.QA.W]W125.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 15-JUN-2009 10:35:14 through 16-DEC-2009 12:00:00
Lower/Upper Lmts: 0.247512 through 0.267512

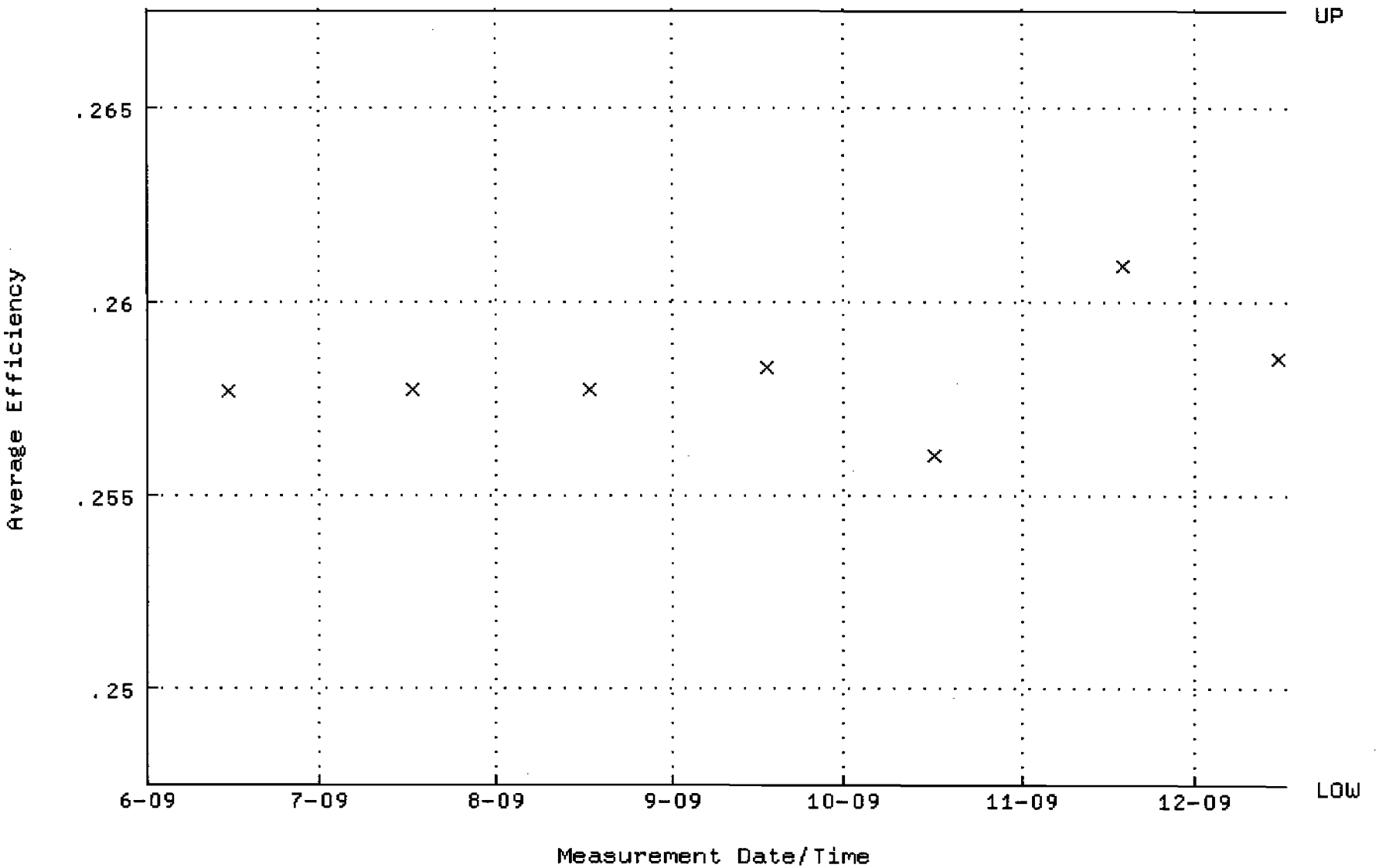

QA filename : DKA100:[ENV_ALPHA.QA.W]W125.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 15-JUN-2009 10:35:14 through 16-DEC-2009 12:00:00
Lower/Upper Lmts: 87.6956 through 96.9268

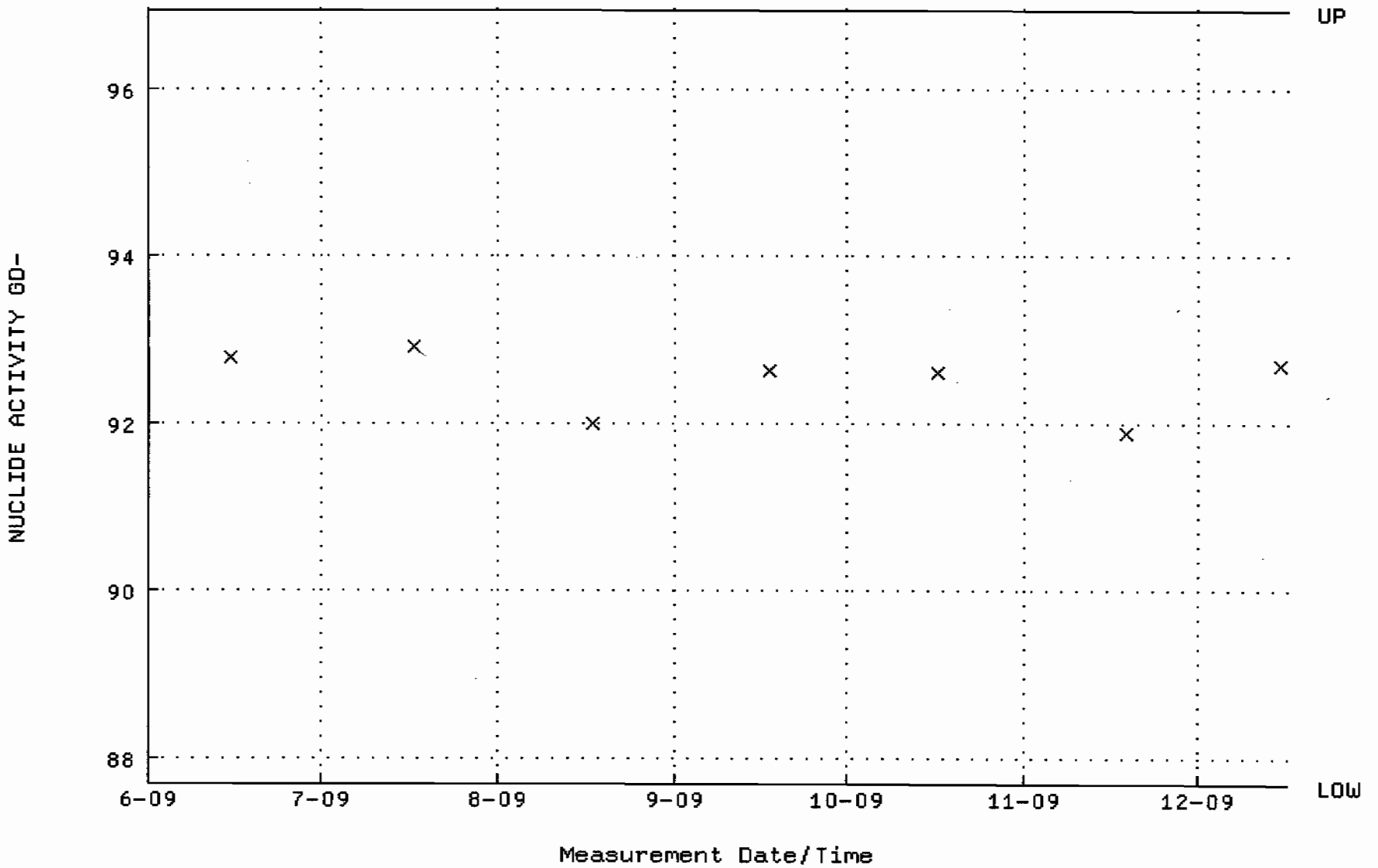

QA filename : DKA100:[ENV_ALPHA.QA.B]B125.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 7-JUN-2009 17:09:31 through 16-DEC-2009 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

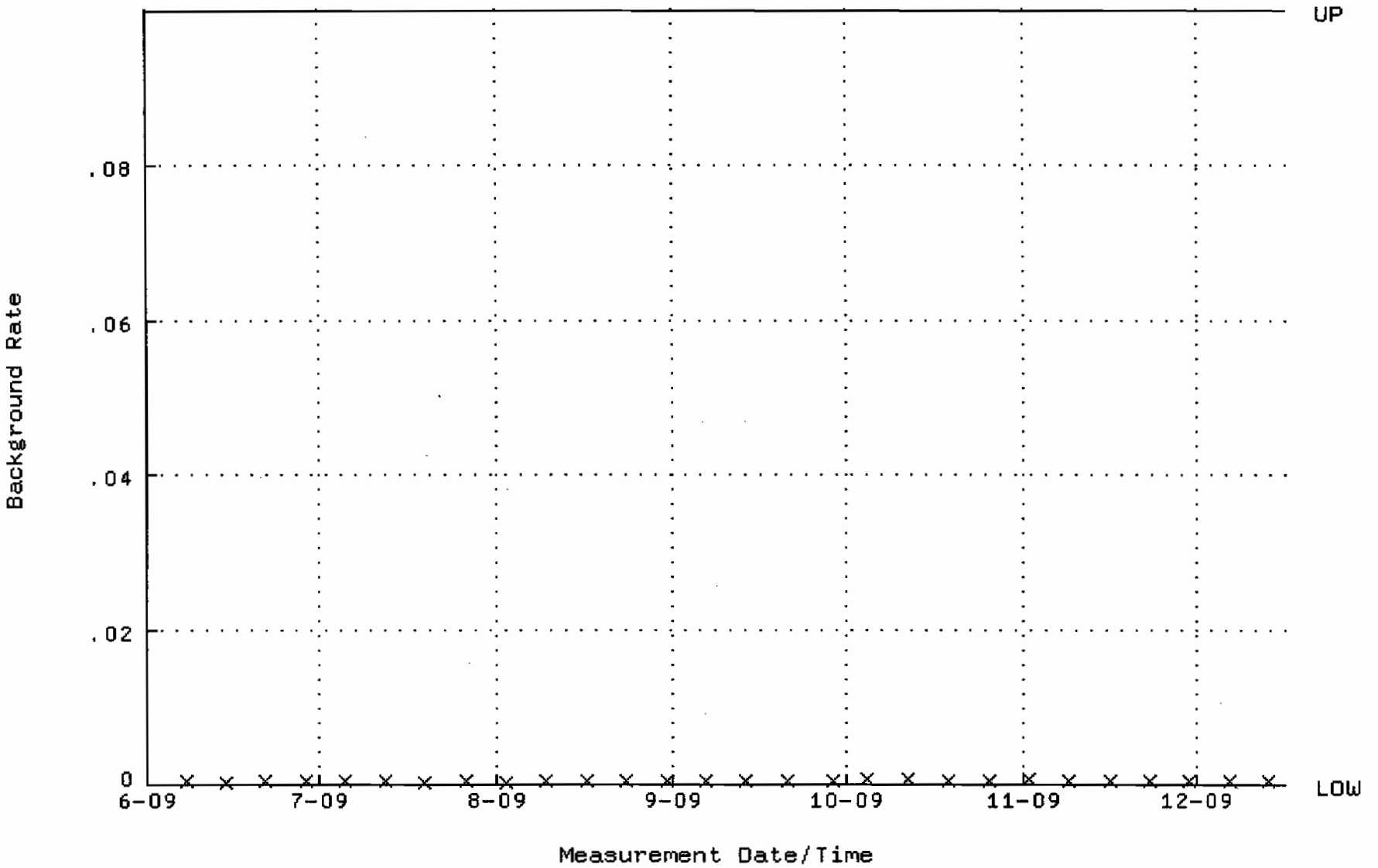

QA filename : DKA100:[ENV_ALPHA.QA.W]W126.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 15-JUN-2009 10:35:19 through 16-DEC-2009 12:00:00
Lower/Upper Lmts: 0.243156 through 0.263156

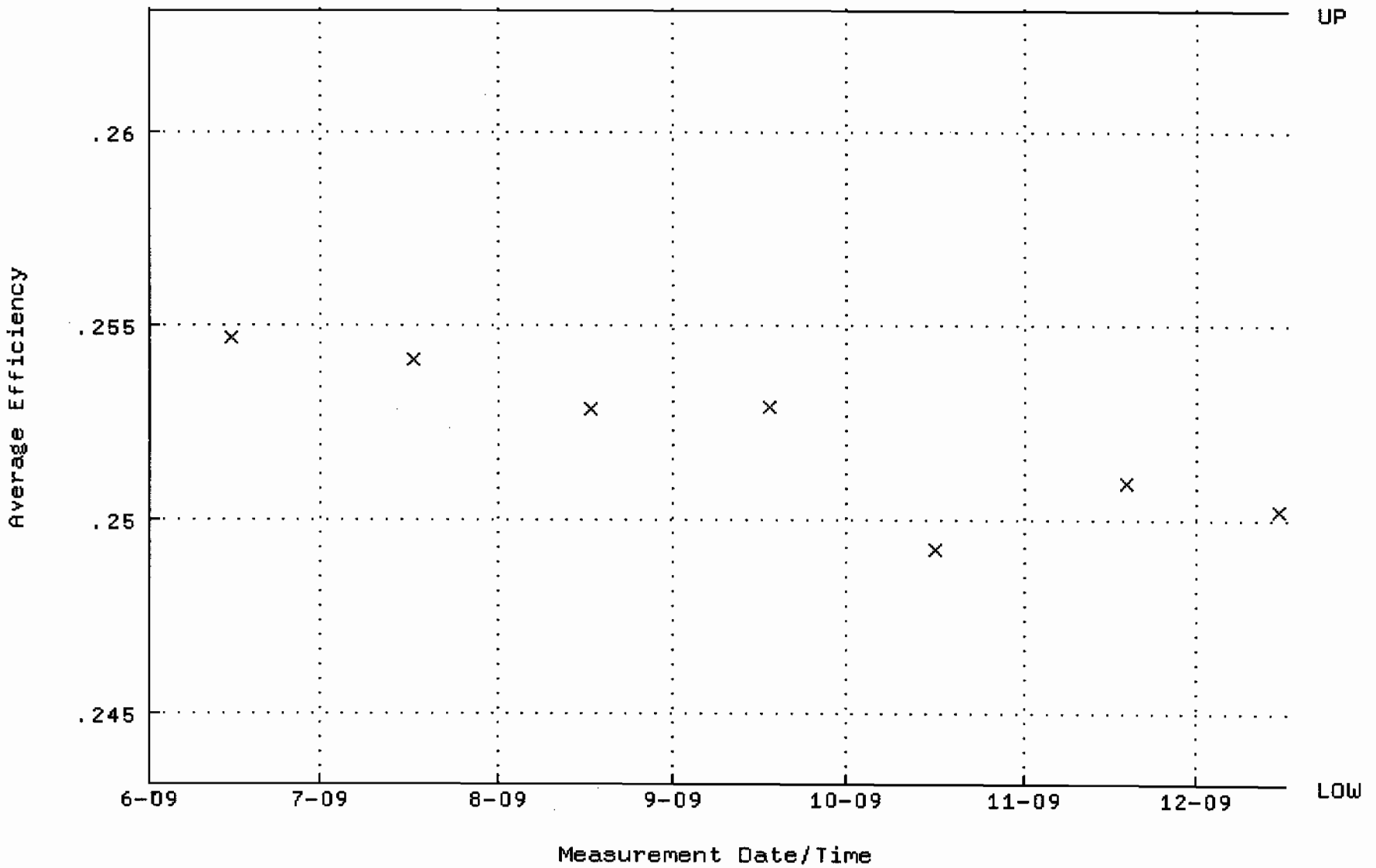

QA filename : DKA100:[ENV_ALPHA.QA.W]W126.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 15-JUN-2009 10:35:19 through 16-DEC-2009 12:00:00
Lower/Upper Lmts: 85.7449 through 94.7707

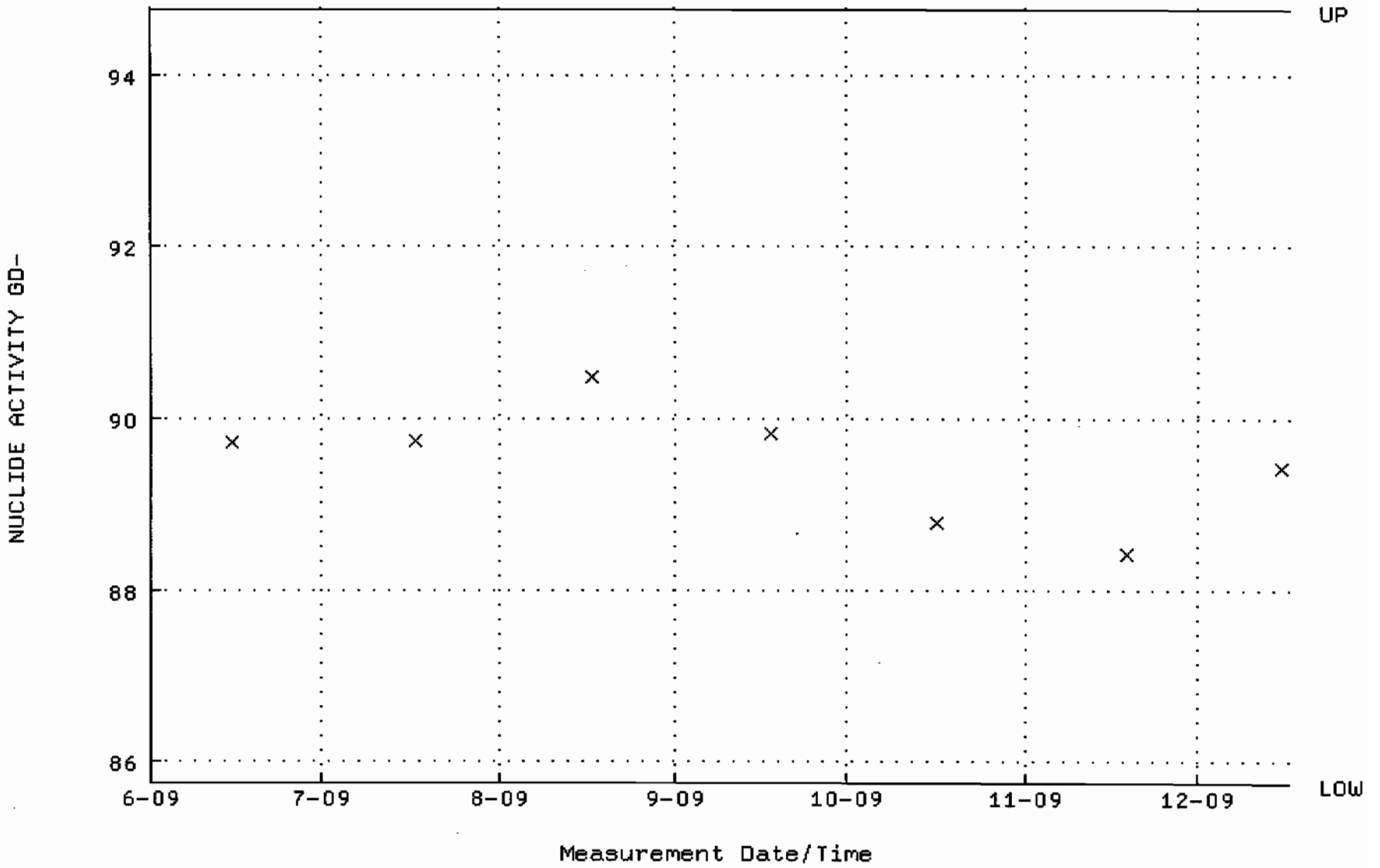

QA filename : DKA100:[ENV_ALPHA.QA.B]B126.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 7-JUN-2009 17:09:35 through 16-DEC-2009 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

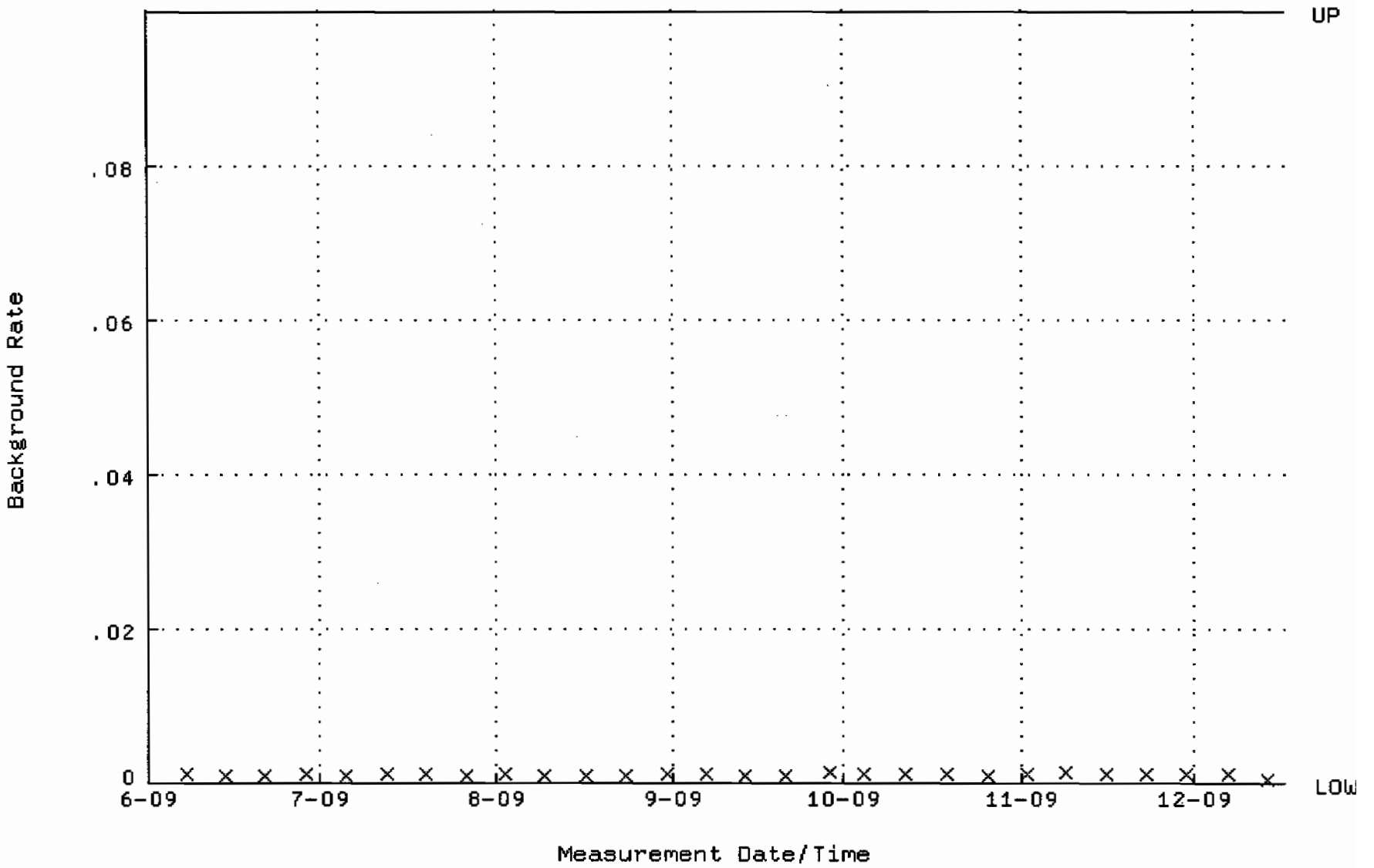

QA filename : DKA100:[ENV_ALPHA.QA.W]W127.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 15-JUN-2009 10:35:25 through 16-DEC-2009 12:00:00
Lower/Upper Lmts: 0.237773 through 0.257773

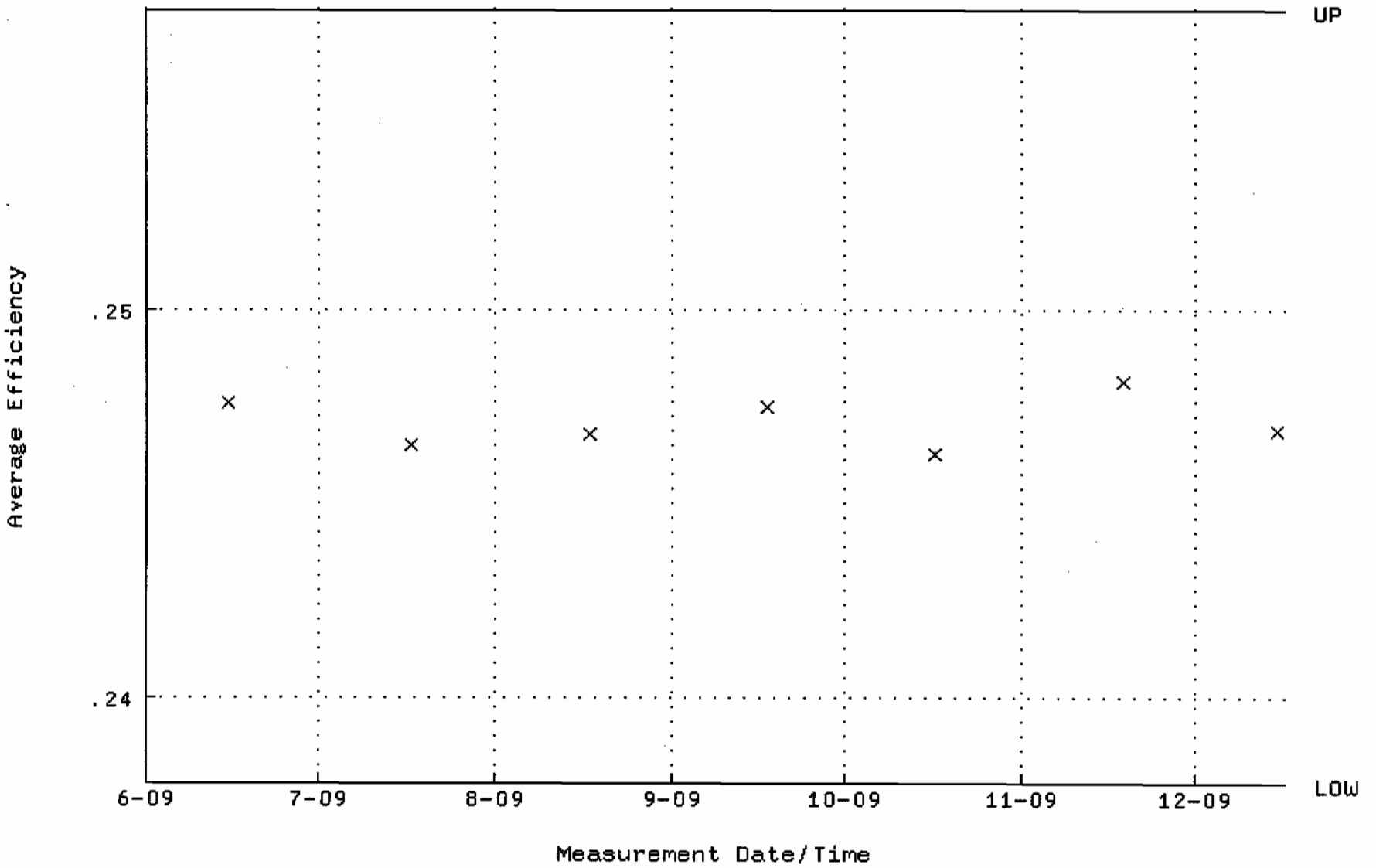

QA filename : DKA100:[ENV_ALPHA.QA.W]W127.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 15-JUN-2009 10:35:25 through 16-DEC-2009 12:00:00
Lower/Upper Lmts: 90.4503 through 99.9713

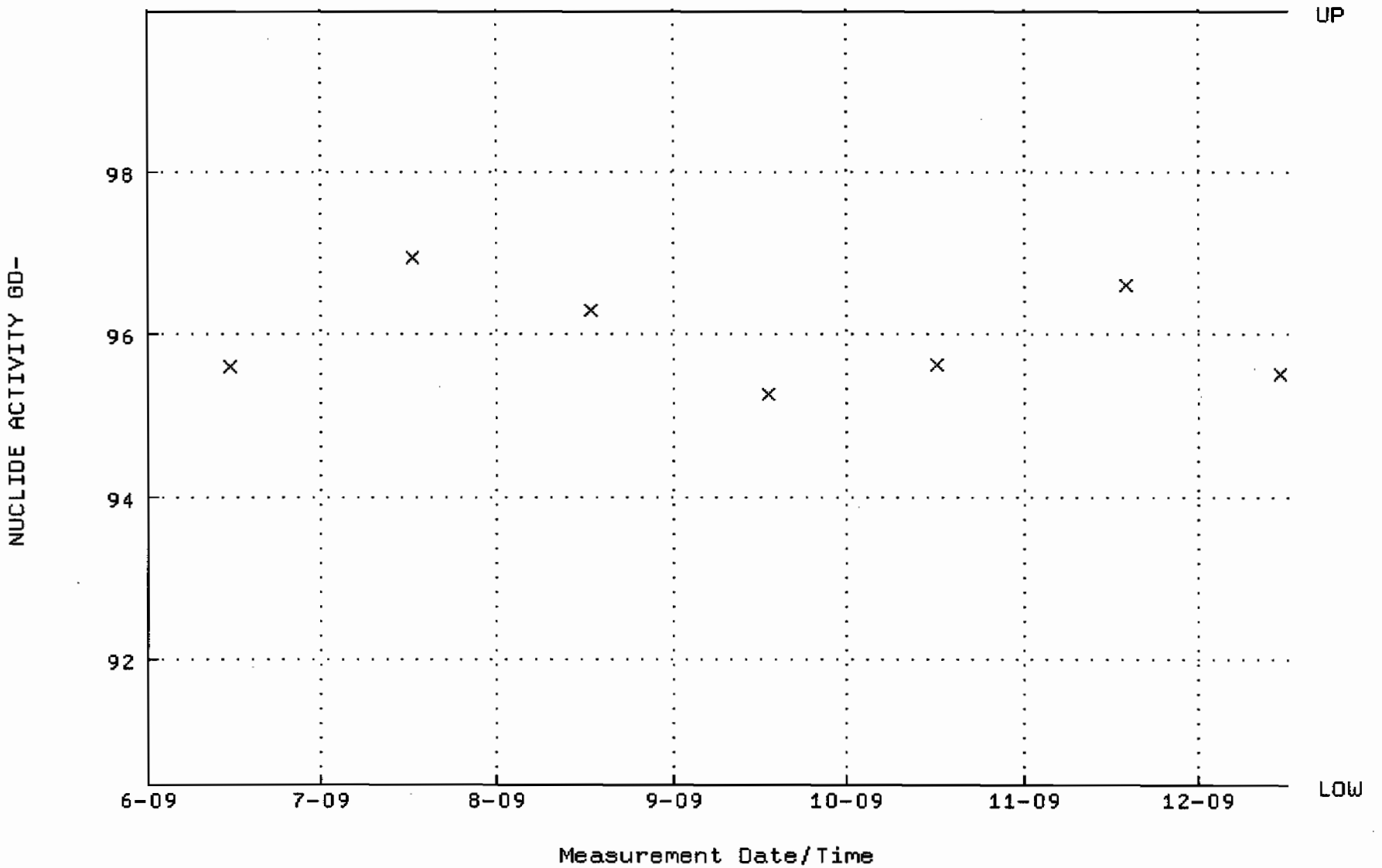

QA filename : DKA100:[ENV_ALPHA.QA.B]B127.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 7-JUN-2009 17:09:40 through 16-DEC-2009 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

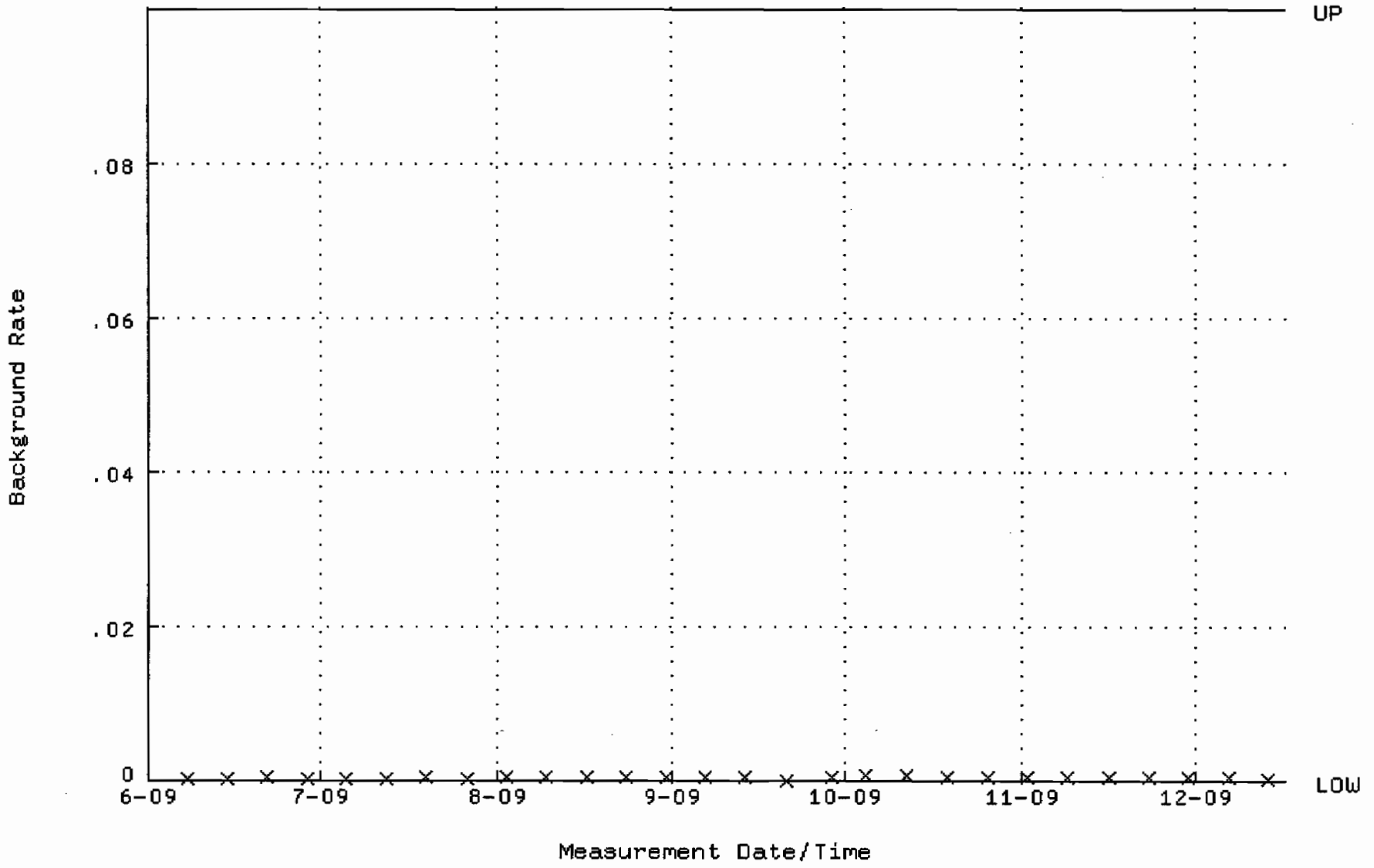

QA filename : DKA100:[ENV_ALPHA.QA.W]W148.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 15-JUN-2009 10:37:19 through 16-DEC-2009 12:00:00
Lower/Upper Lmts: 0.237934 through 0.257934

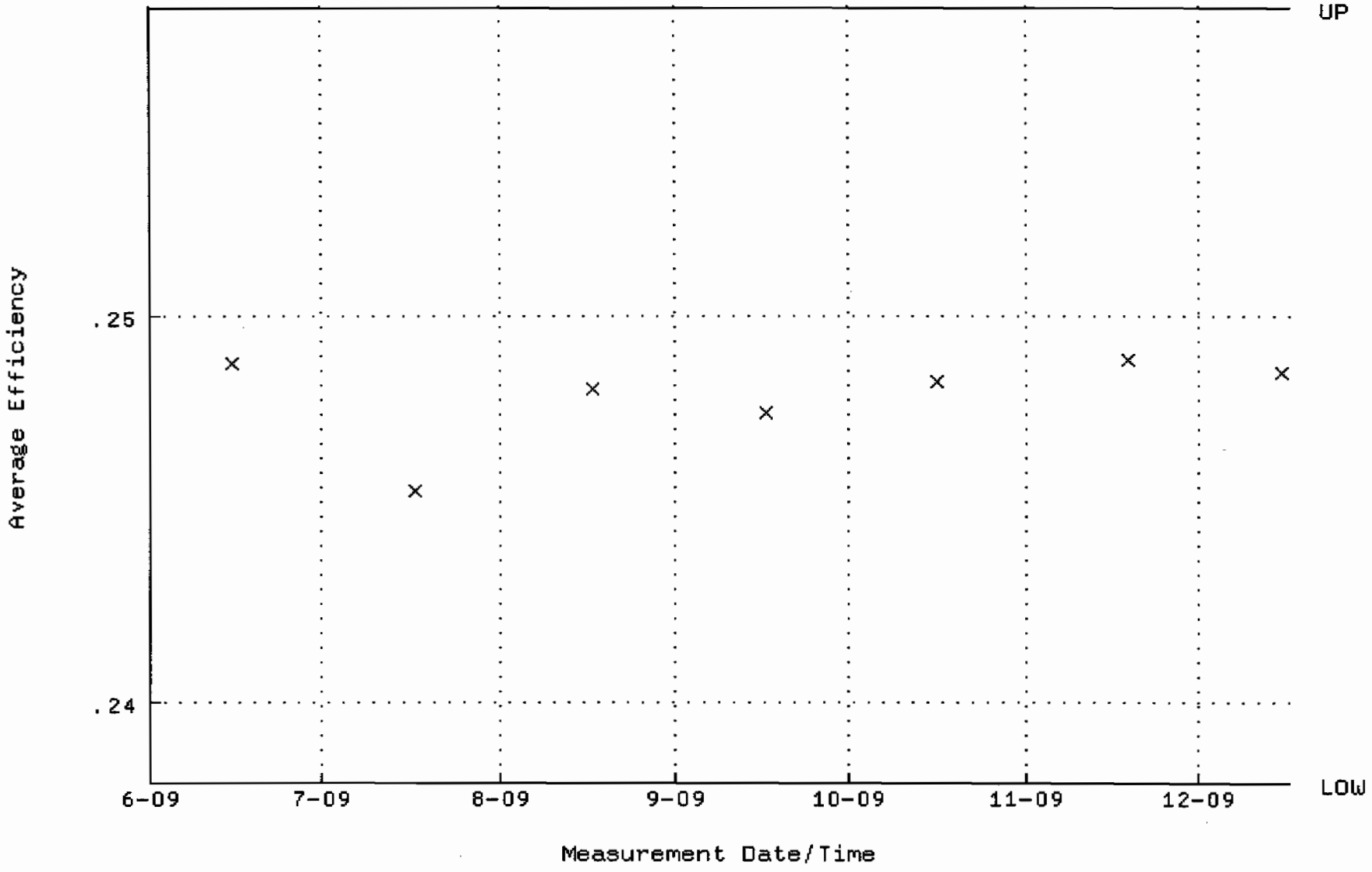

QA filename : DKA100:[ENV_ALPHA.QA.W]W148.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 15-JUN-2009 10:37:19 through 16-DEC-2009 12:00:00
Lower/Upper Lmts: 85.0831 through 94.0393

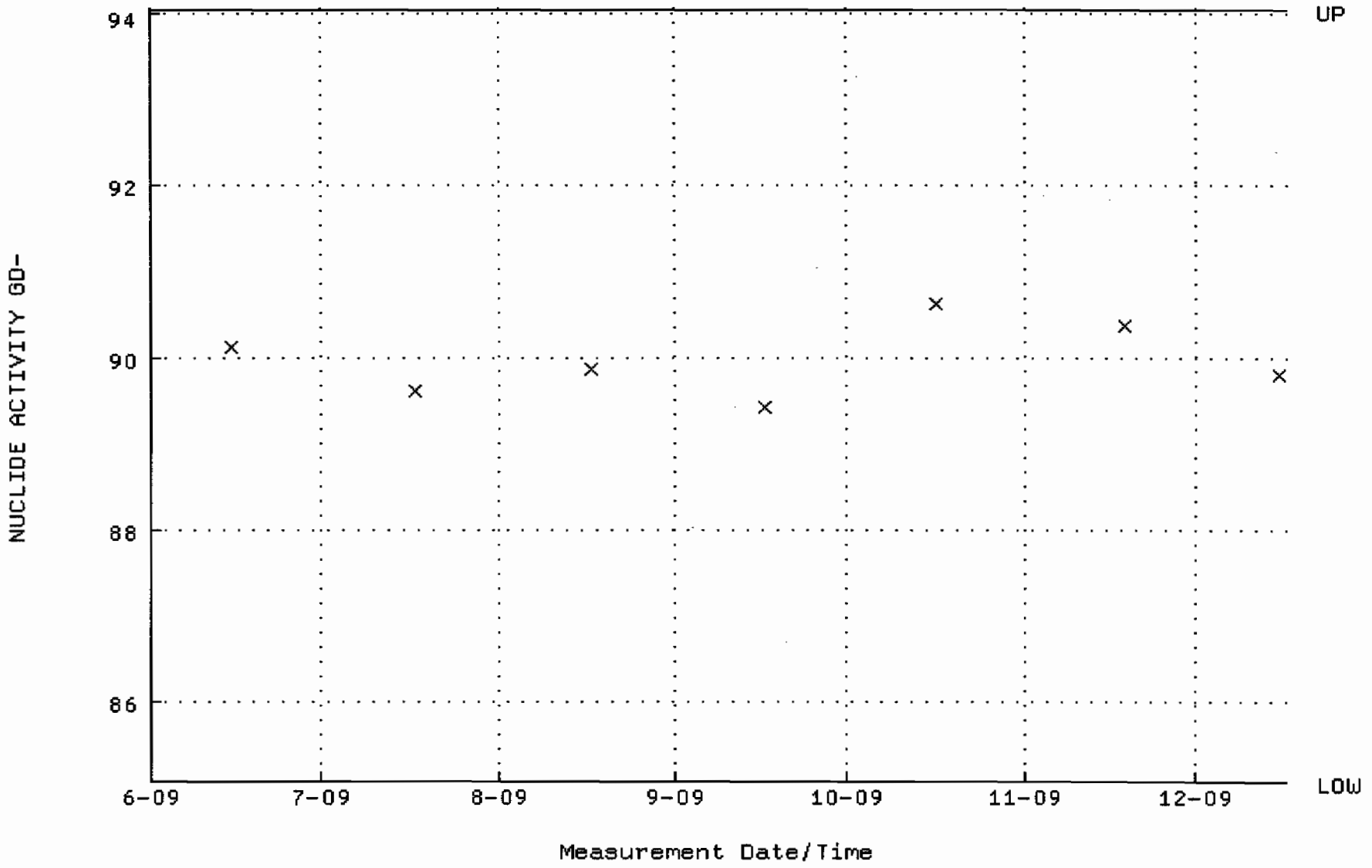

QA filename : DKA100:[ENV_ALPHA.QA.B]B148.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 8-JUN-2009 12:40:23 through 16-DEC-2009 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

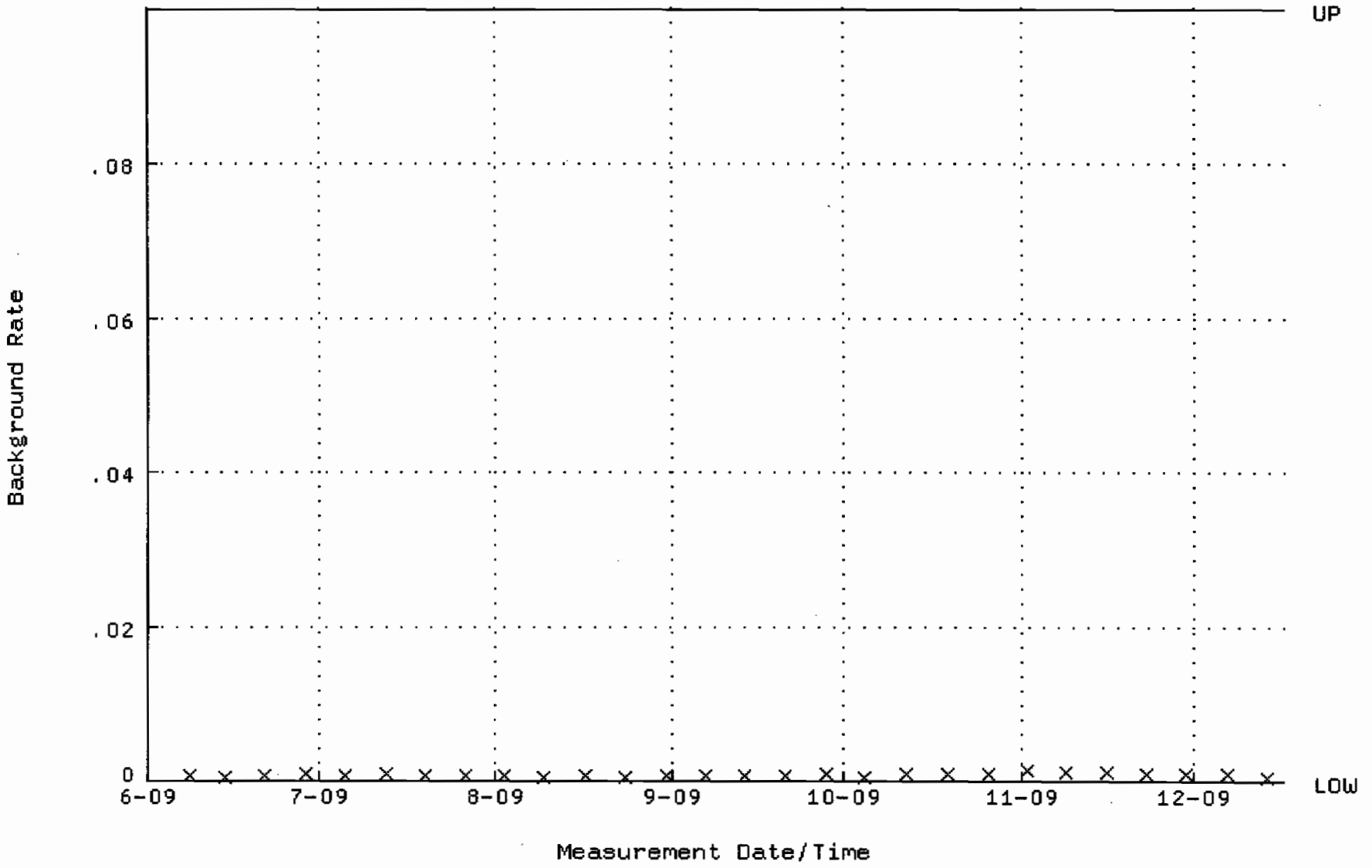

QA filename : DKA100:[ENV_ALPHA.QA.W]W210.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 2-JUN-2009 11:17:12 through 29-DEC-2009 12:00:00
Lower/Upper Lmts: 0.374526 through 0.394526

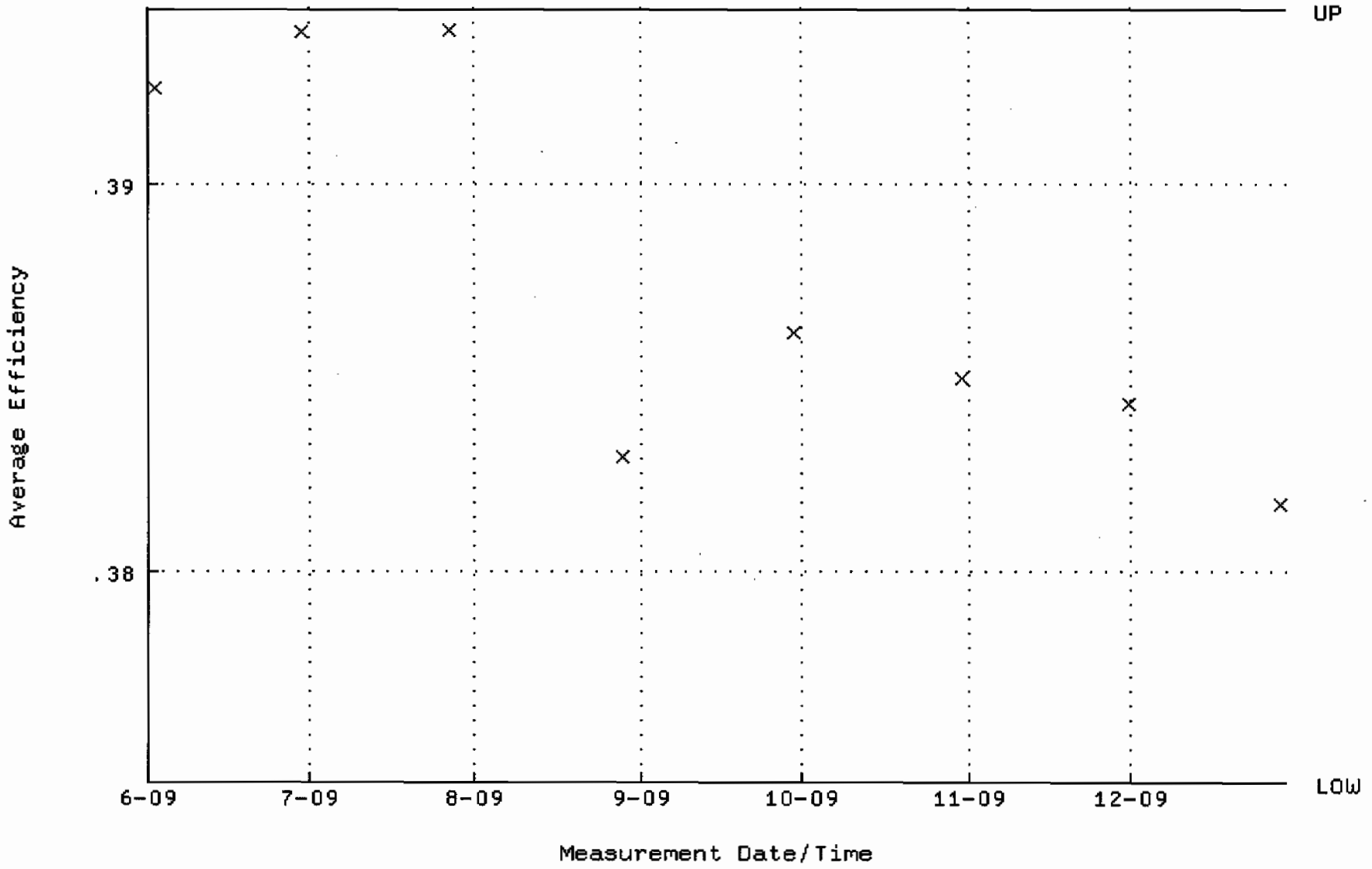

QA filename : DKA100:[ENV_ALPHA.QA.W]W210.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 2-JUN-2009 11:17:12 through 29-DEC-2009 12:00:00
Lower/Upper Lmts: 85.5688 through 94.5760

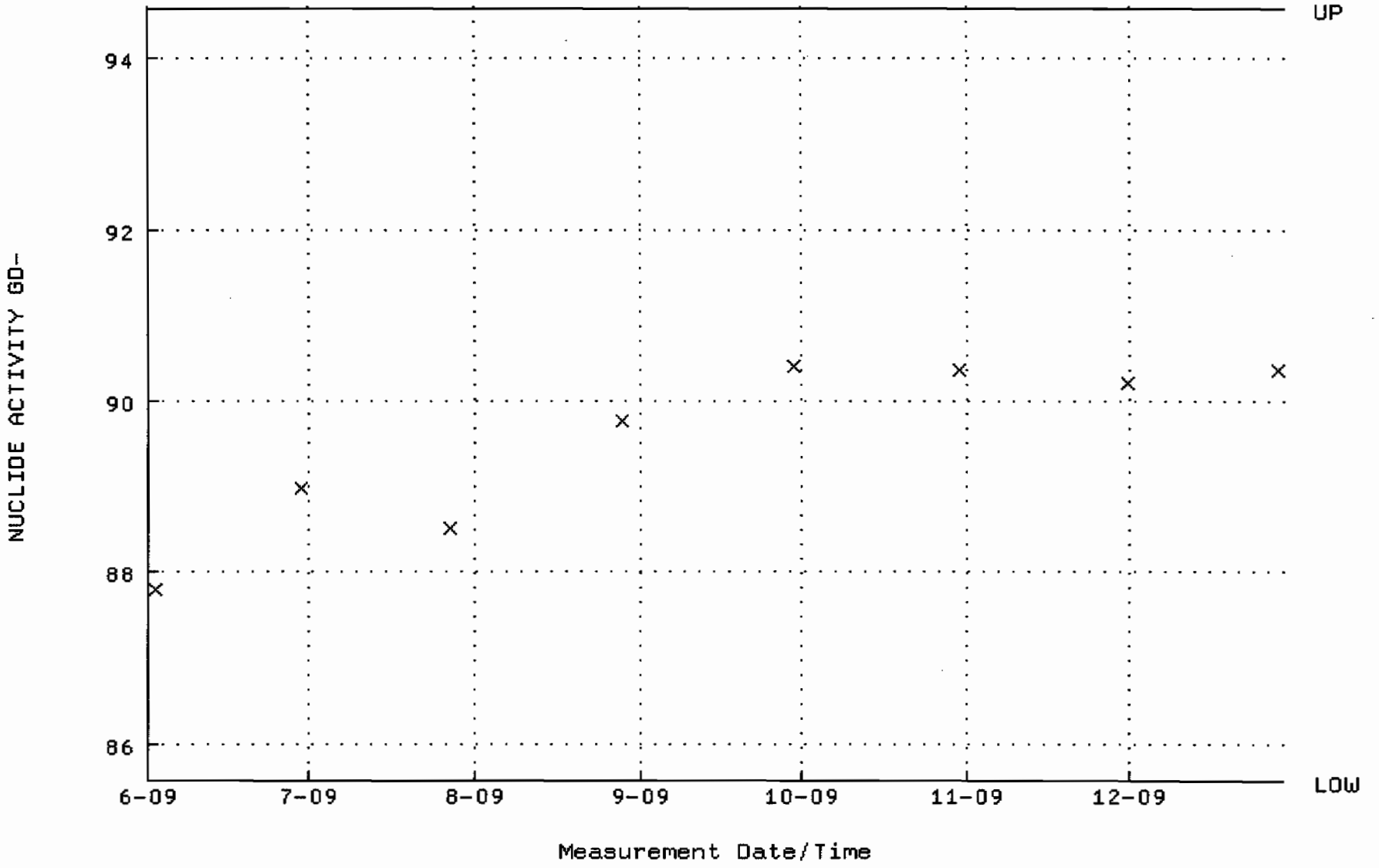

QA filename : DKA100:[ENV_ALPHA.QA.B]B210.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 1-JUN-2009 17:43:35 through 29-DEC-2009 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

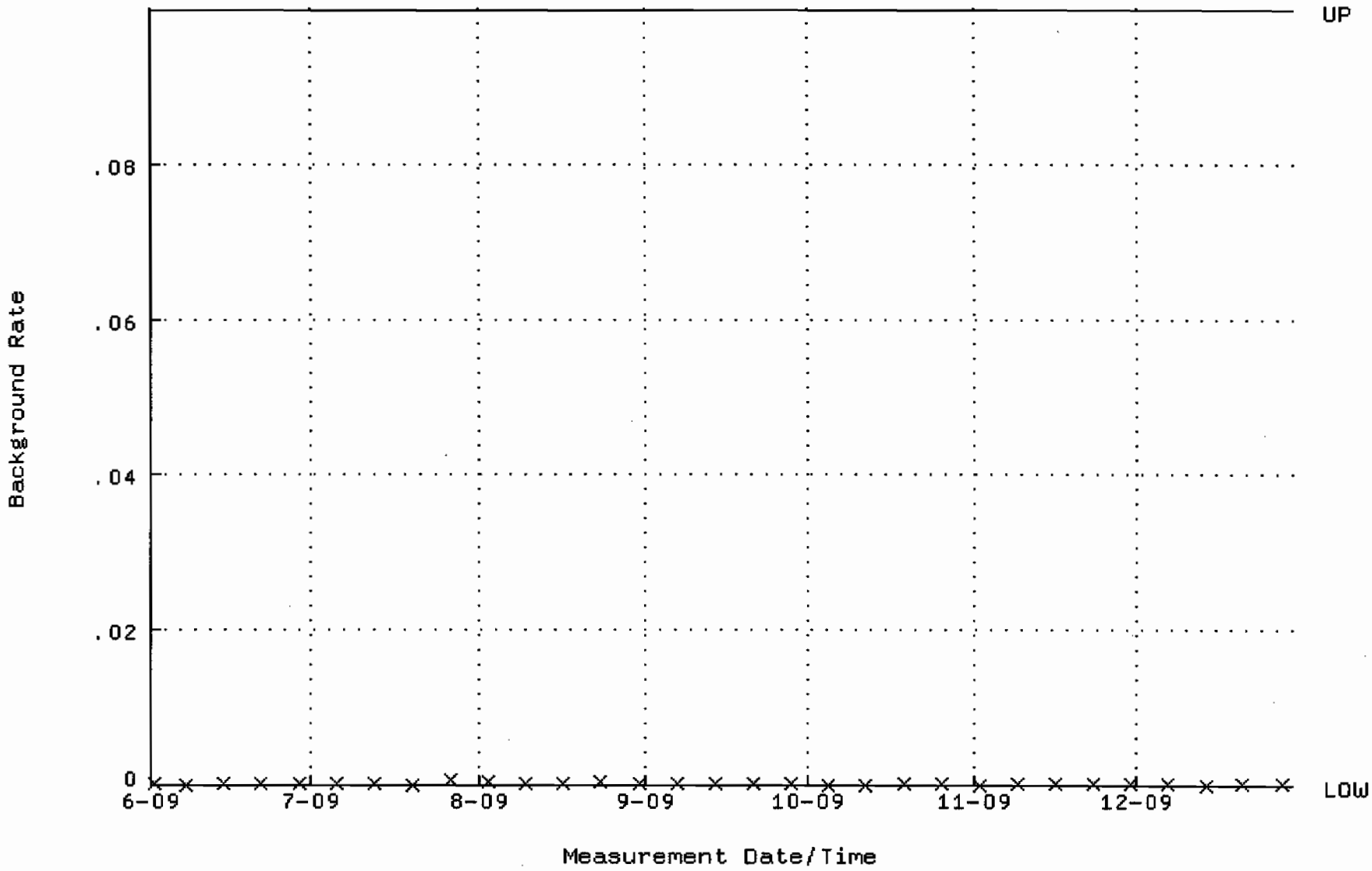

LSCRED BKG

Generated 01/06/2010

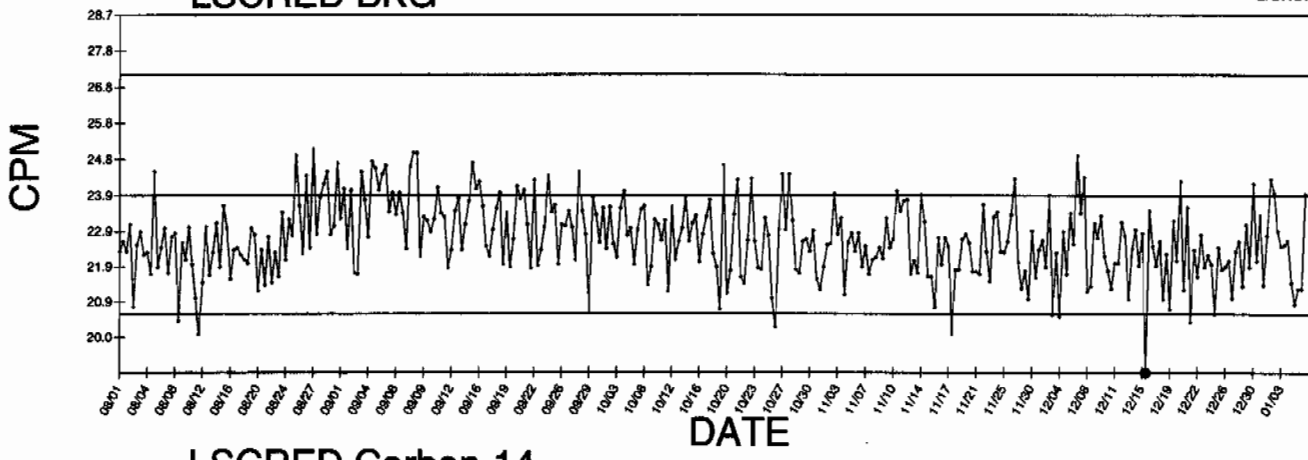

LSCRED Carbon-14

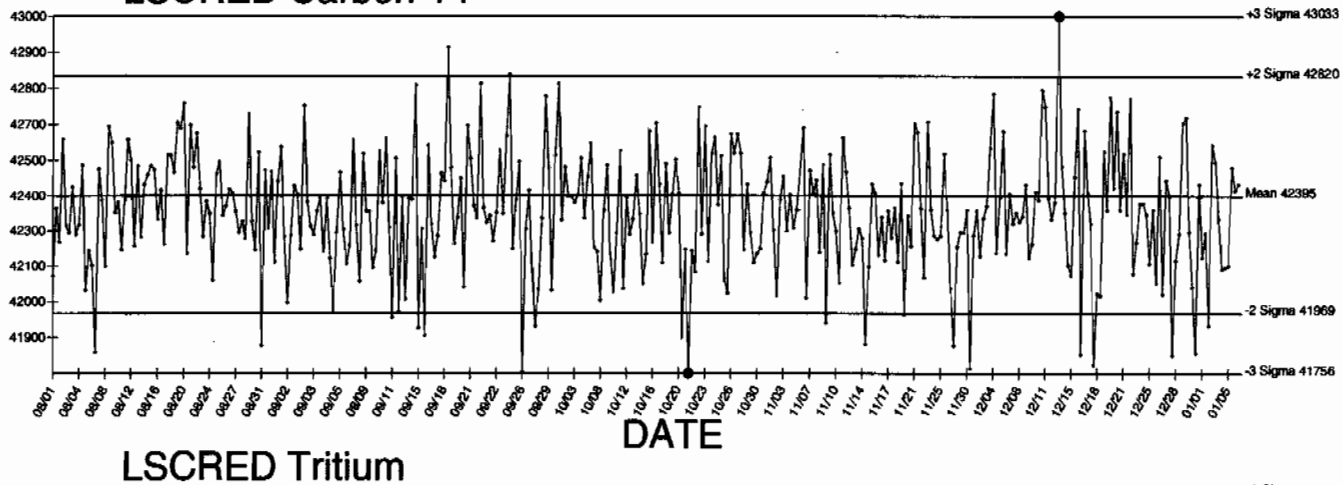

LSCRED Tritium

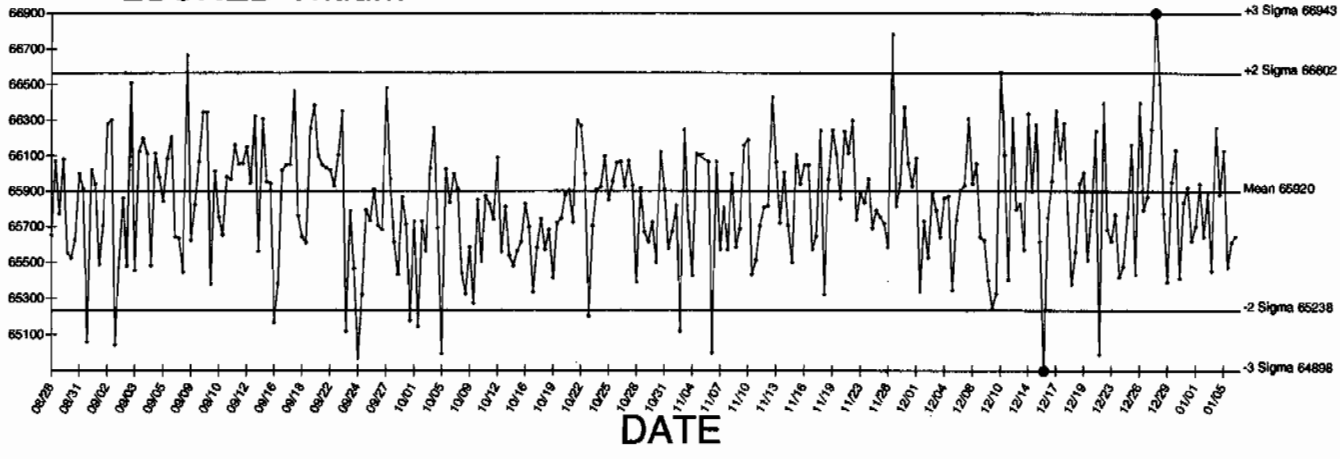

● Denotes Outlier

Generated 01/07/2010

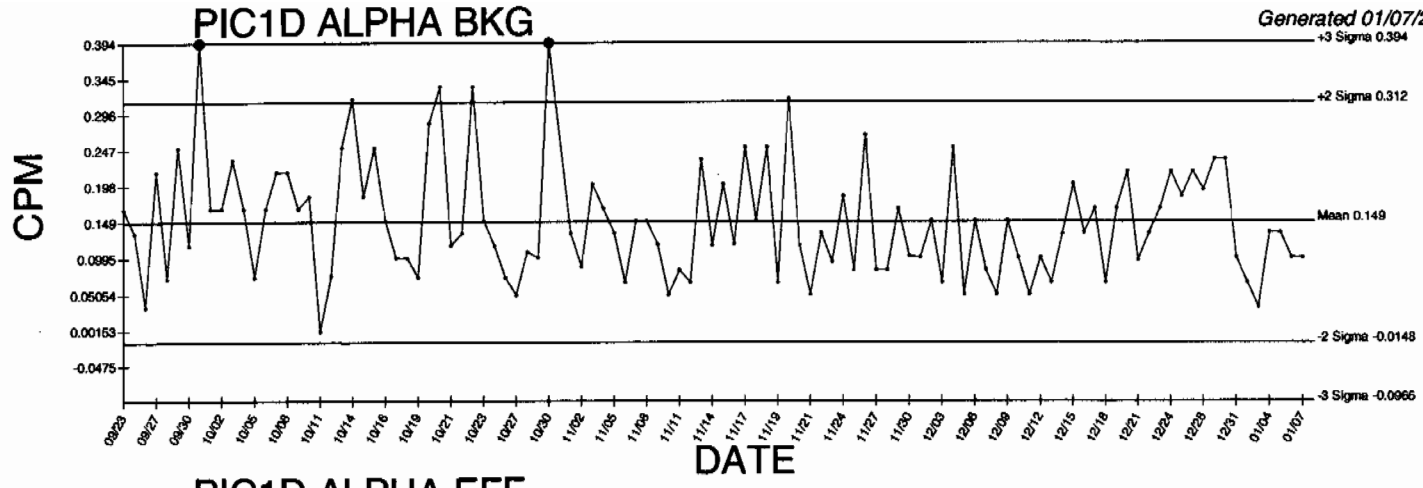

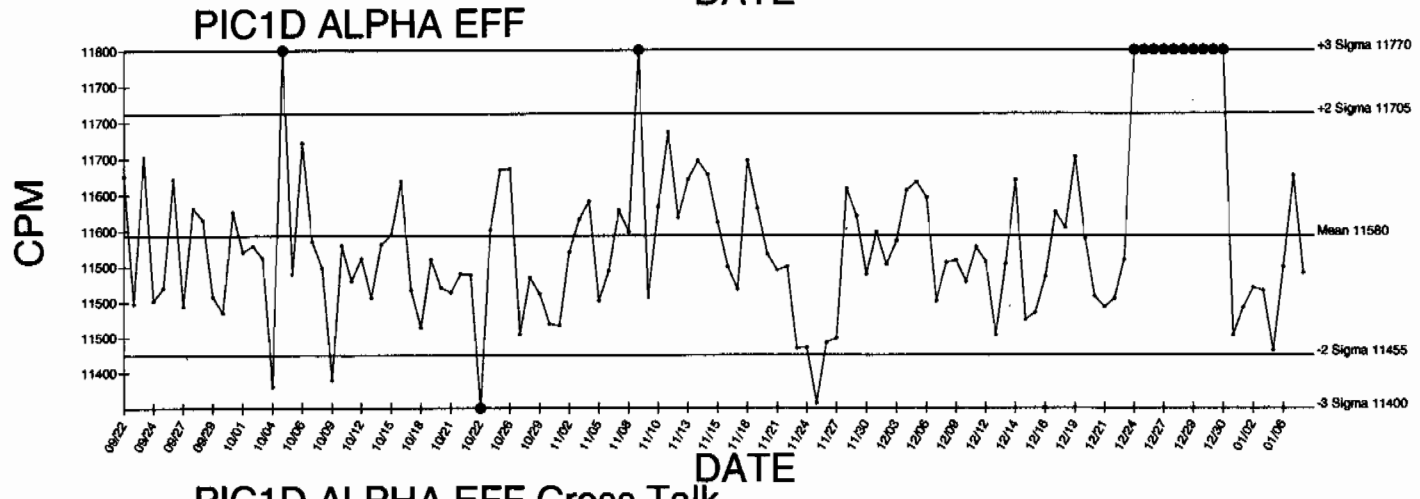

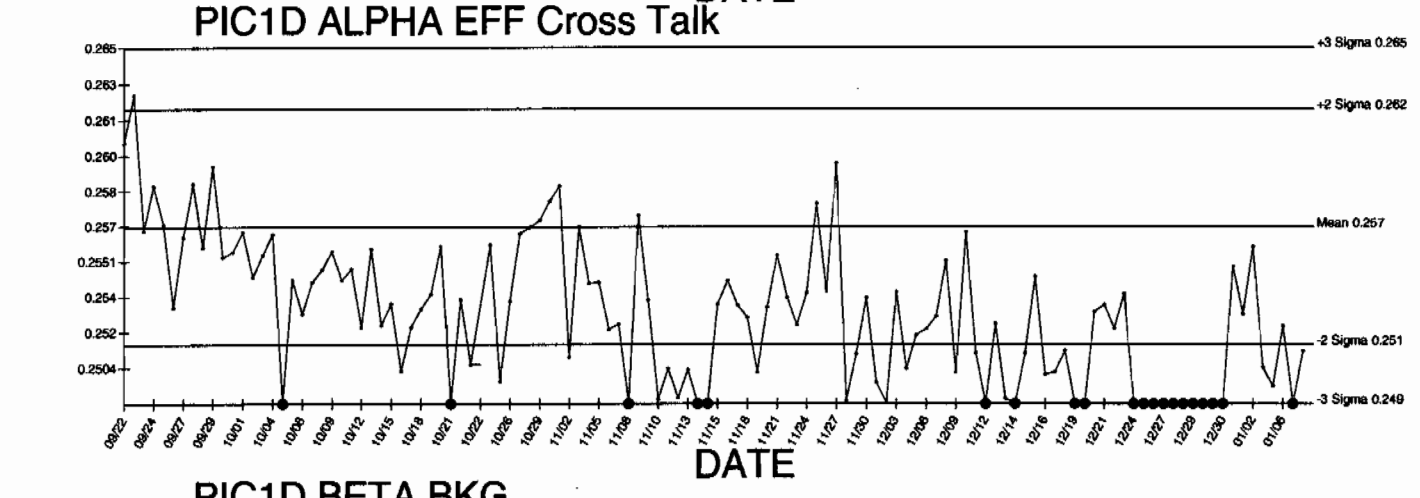

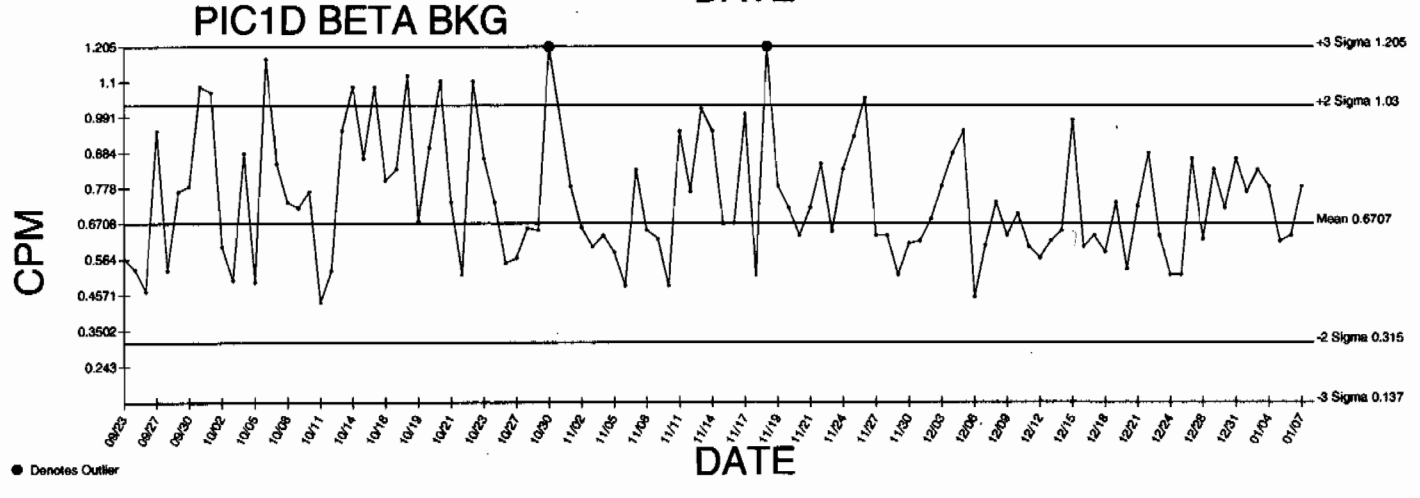

● Denotes Outlier

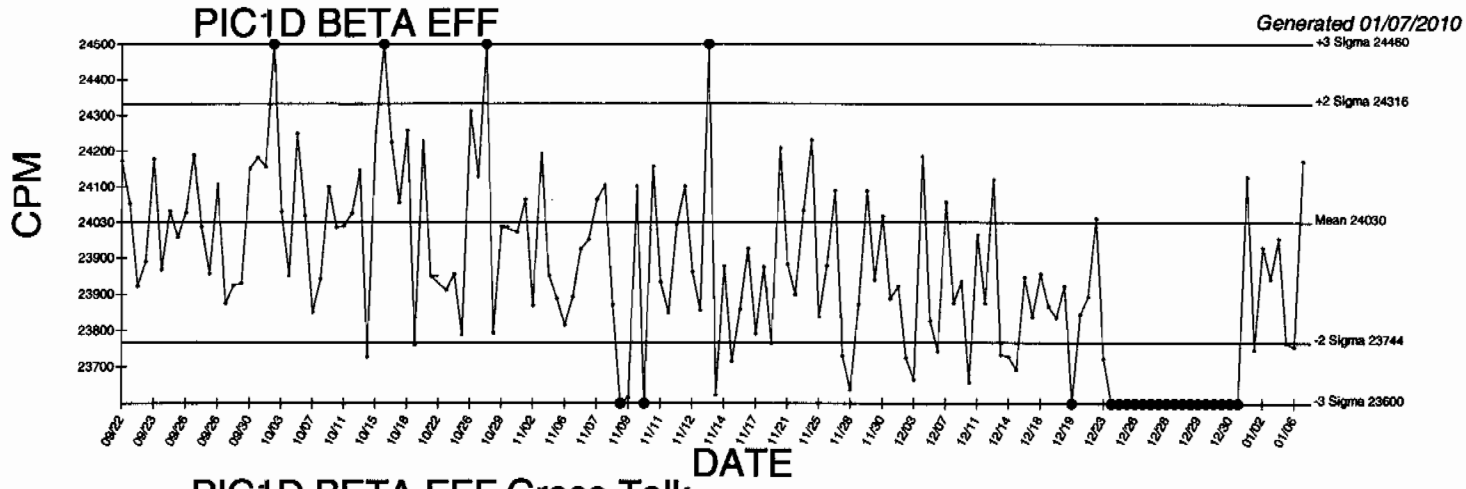

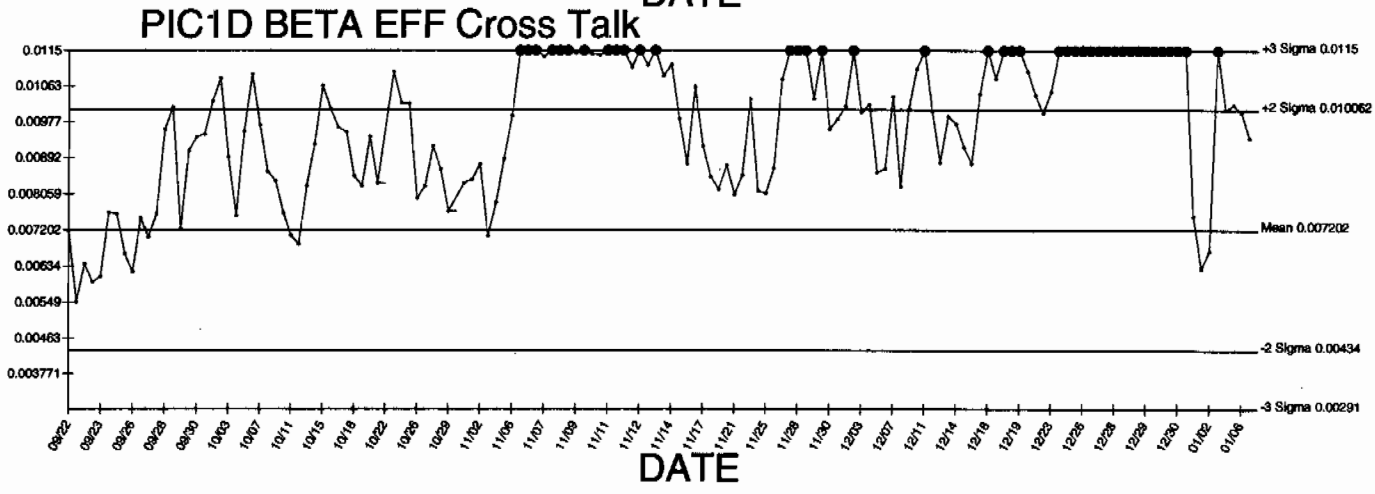

● Denotes Outlier

PIC4D ALPHA BKG

Generated 01/07/2010

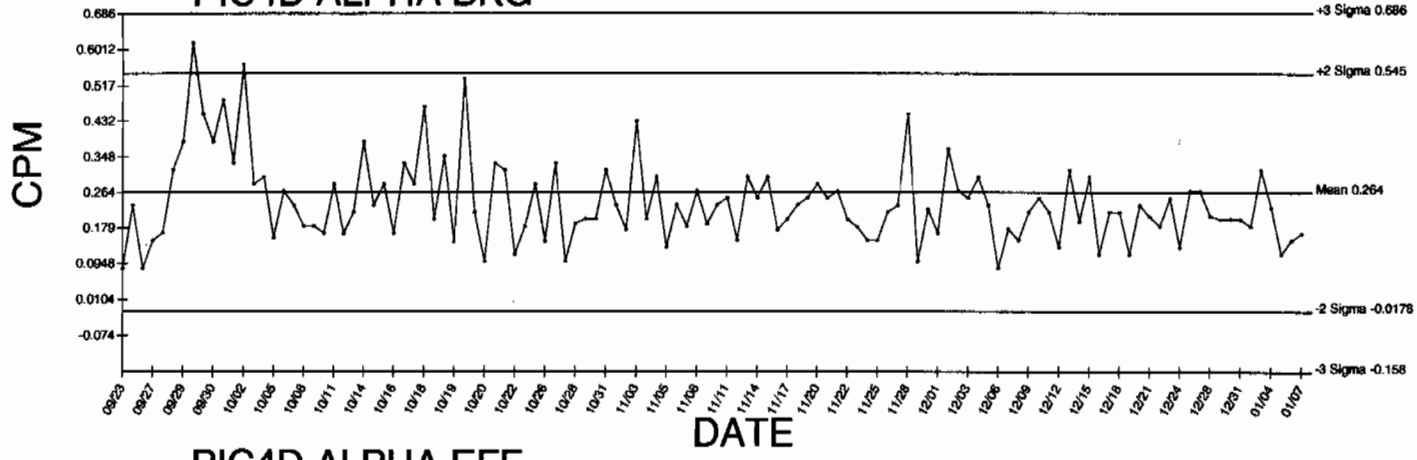

PIC4D ALPHA EFF

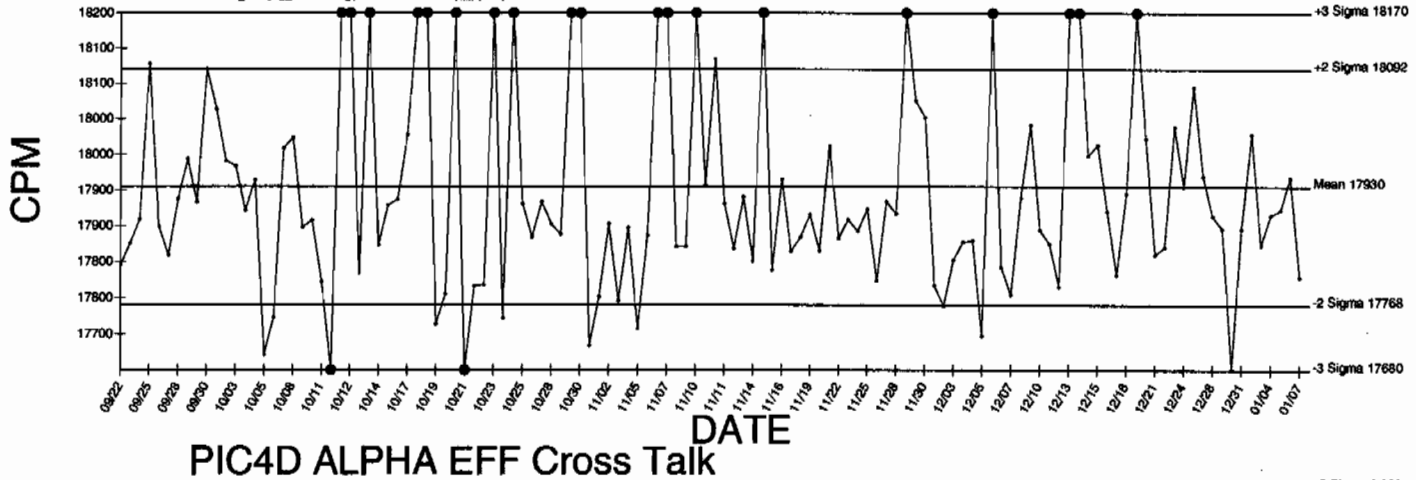

PIC4D ALPHA EFF Cross Talk

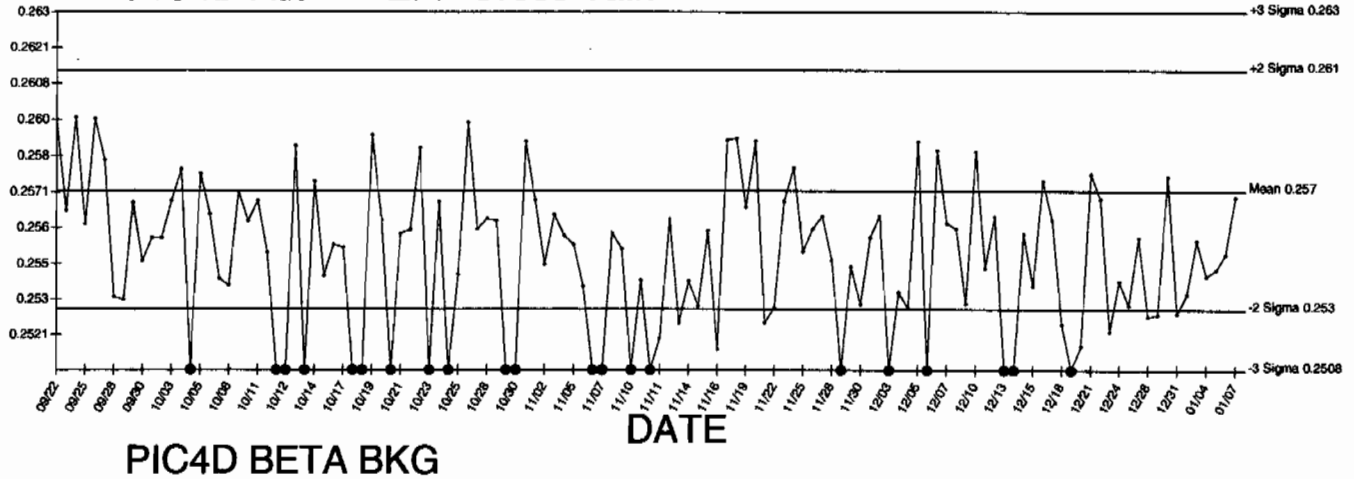

PIC4D BETA BKG

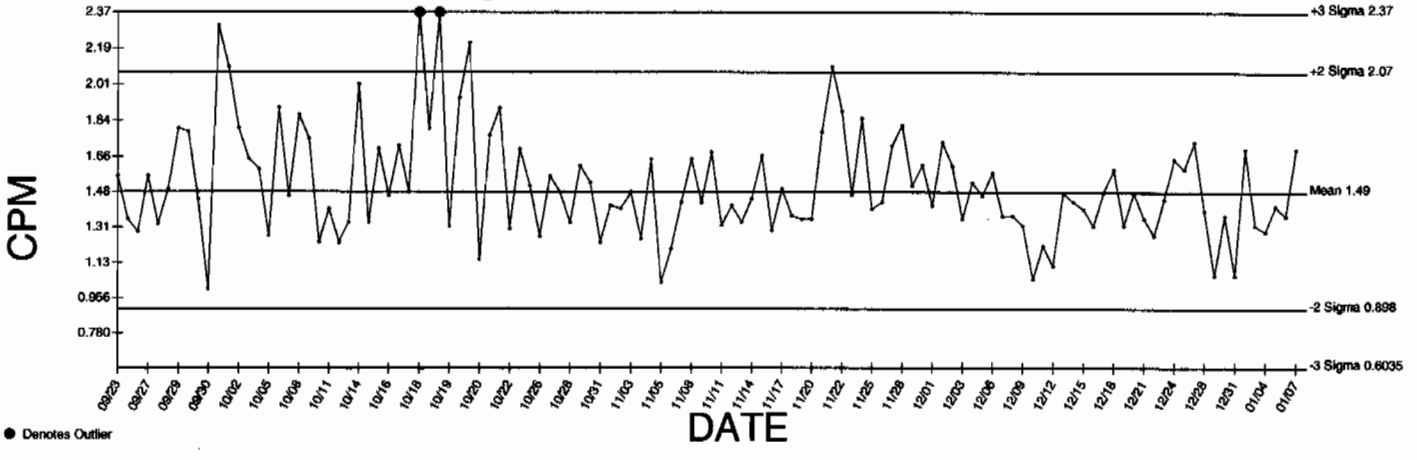

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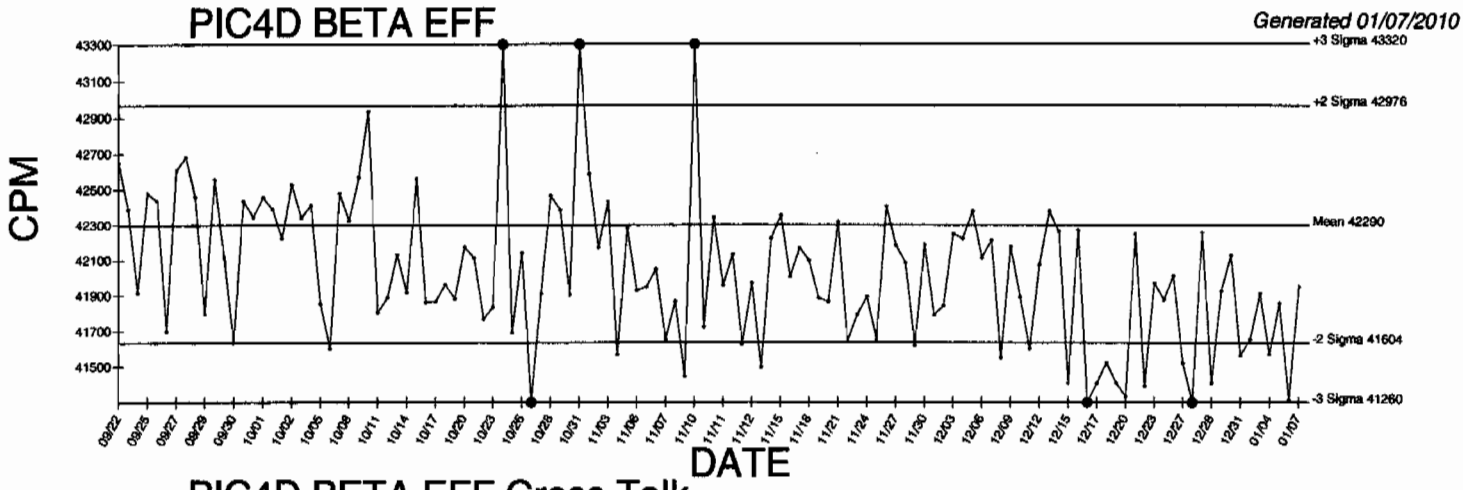

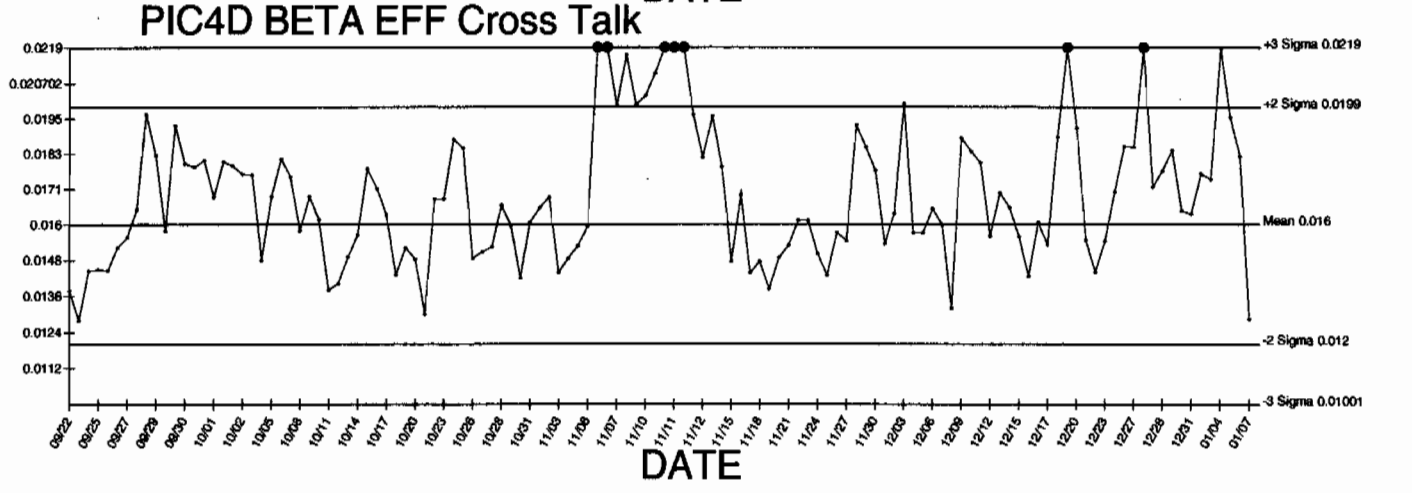

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Generated 01/12/2010

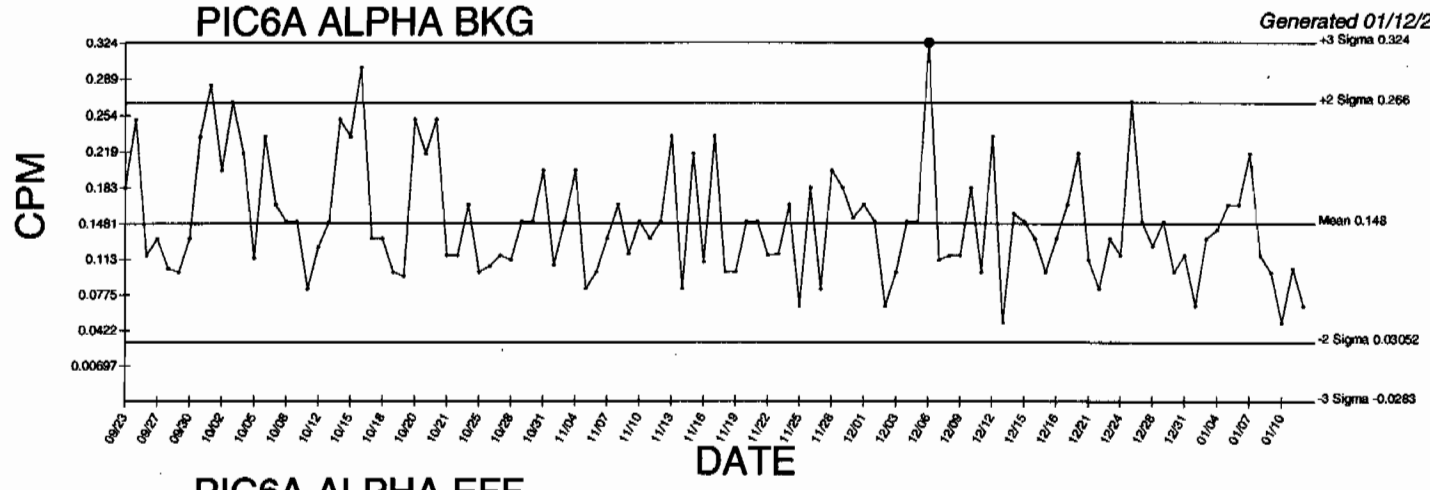

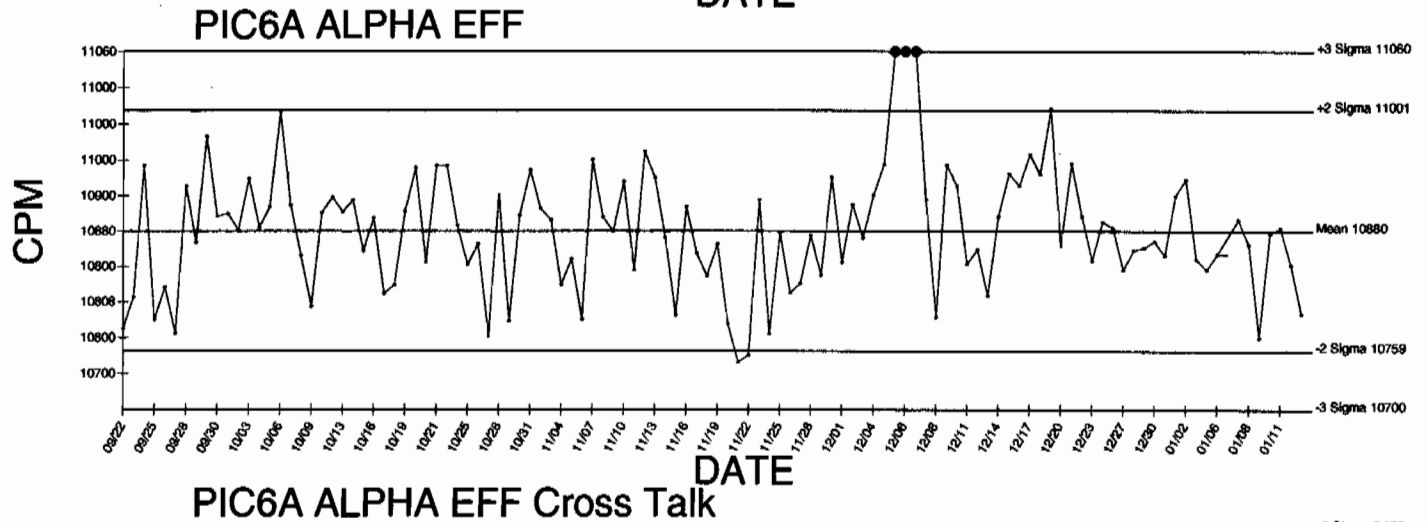

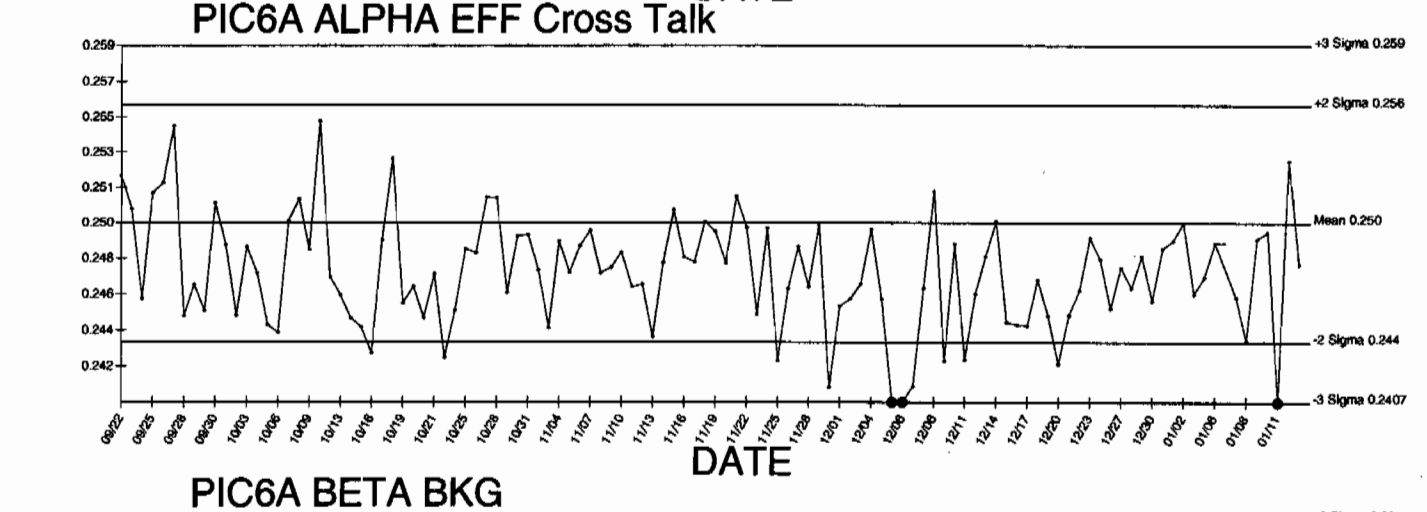

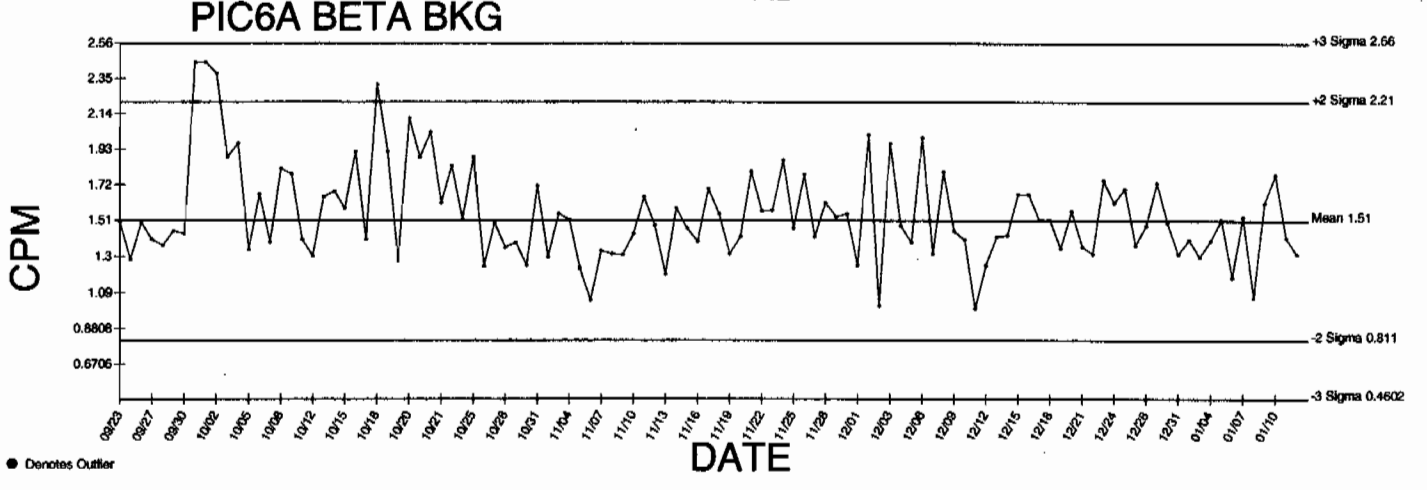

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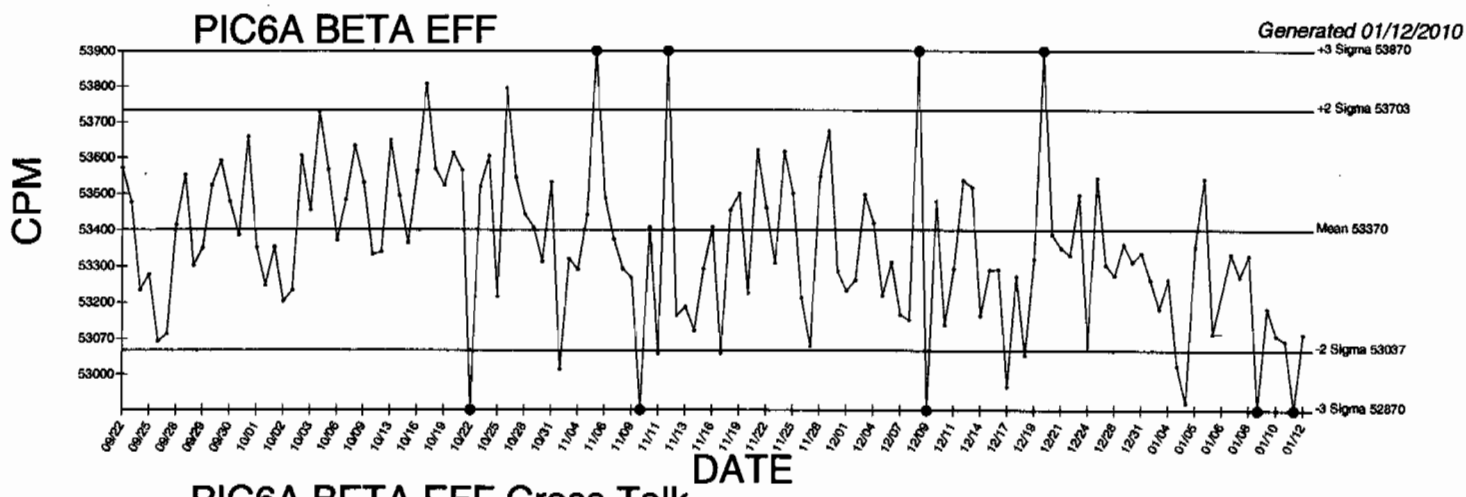

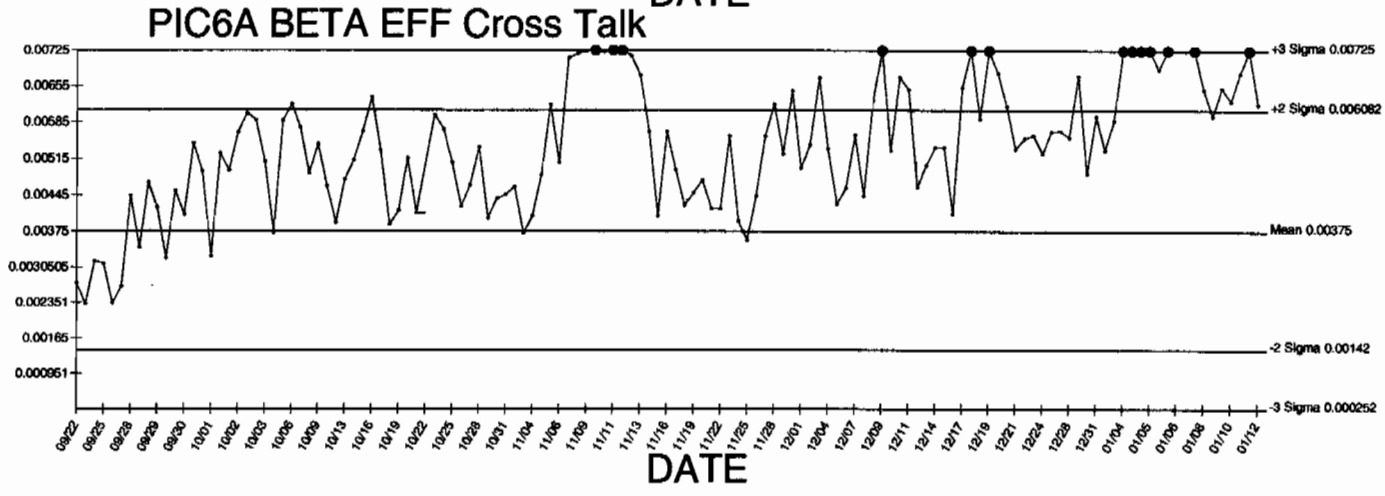

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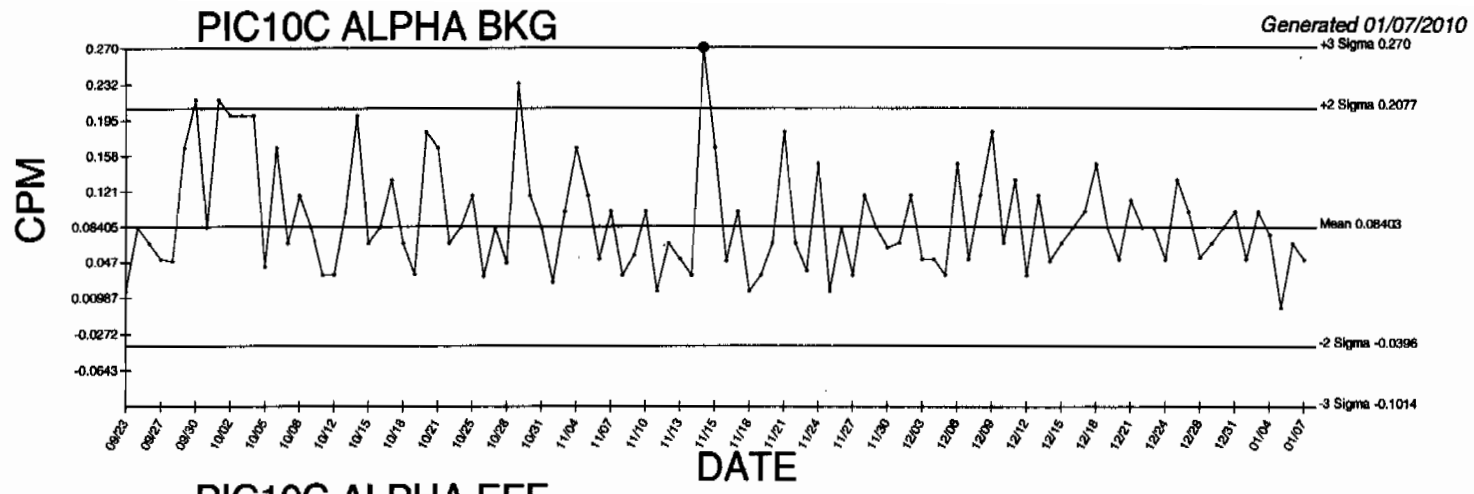

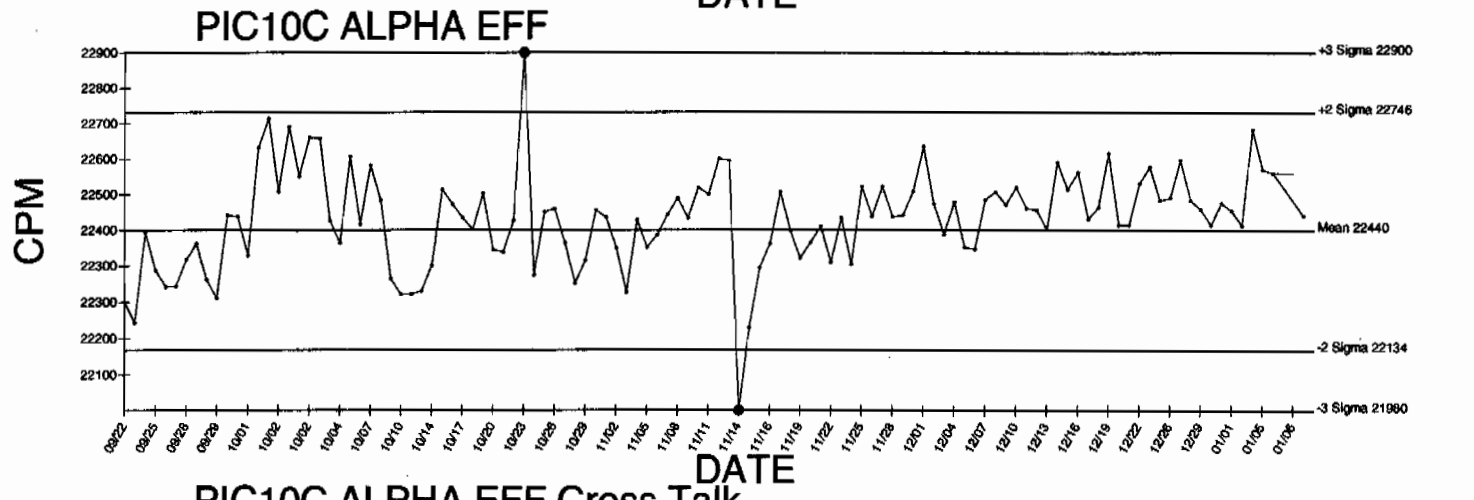

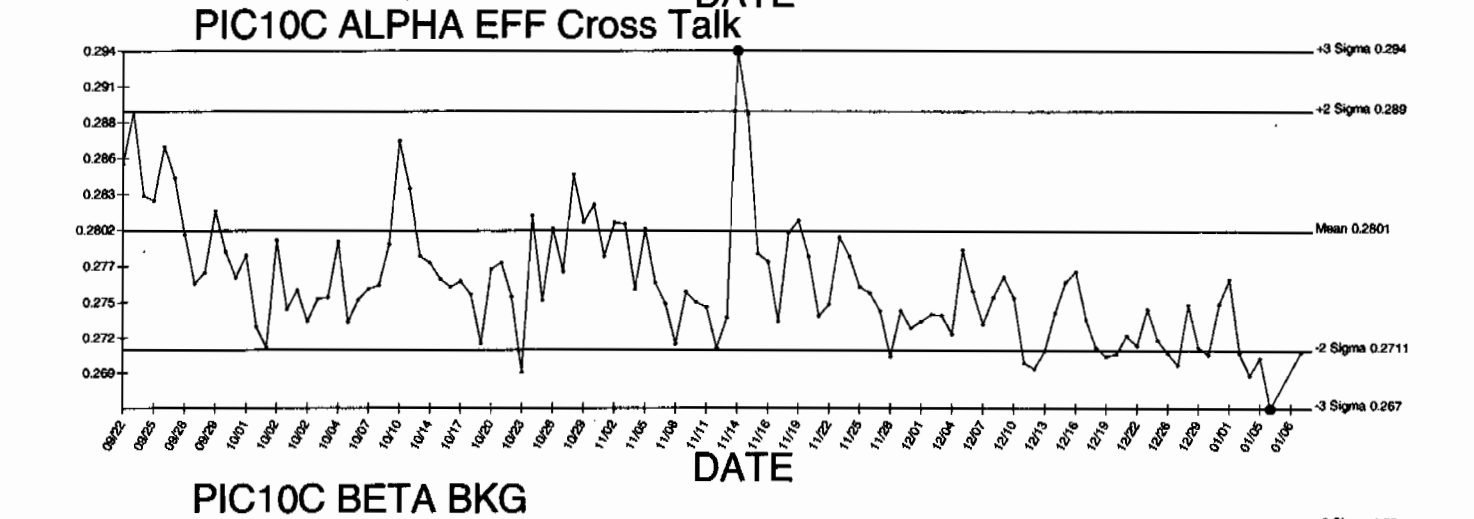

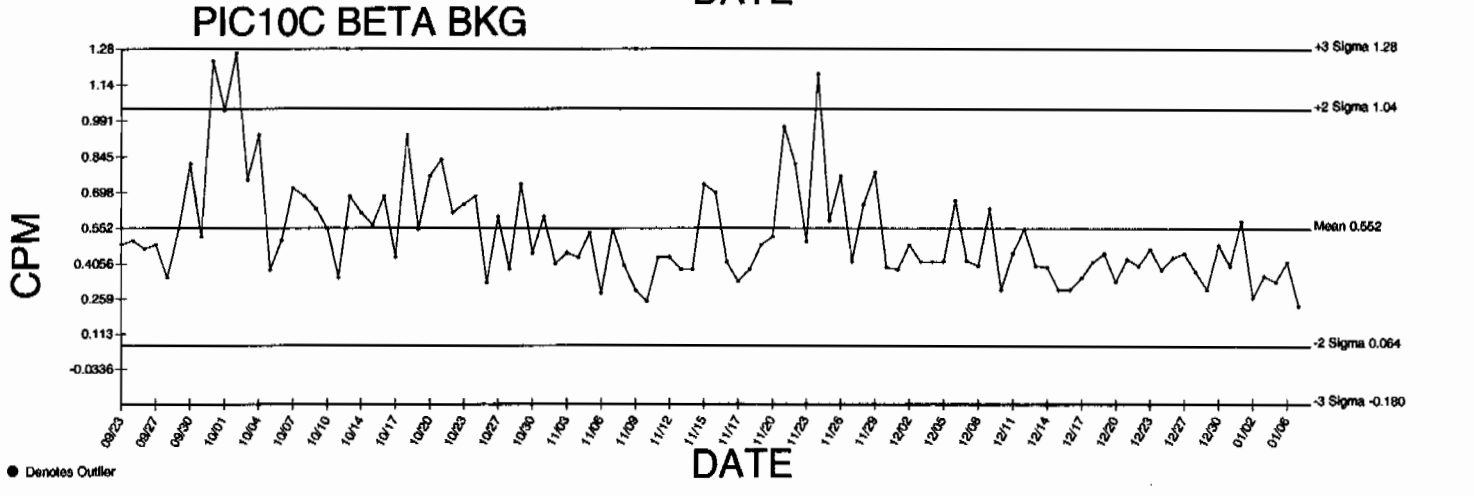

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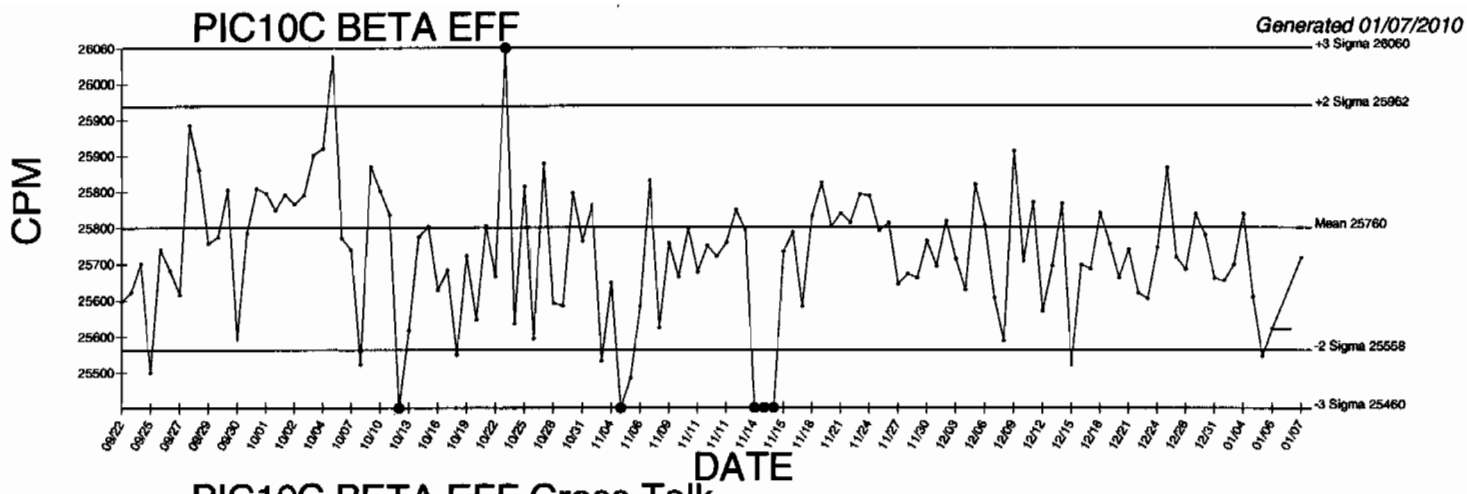

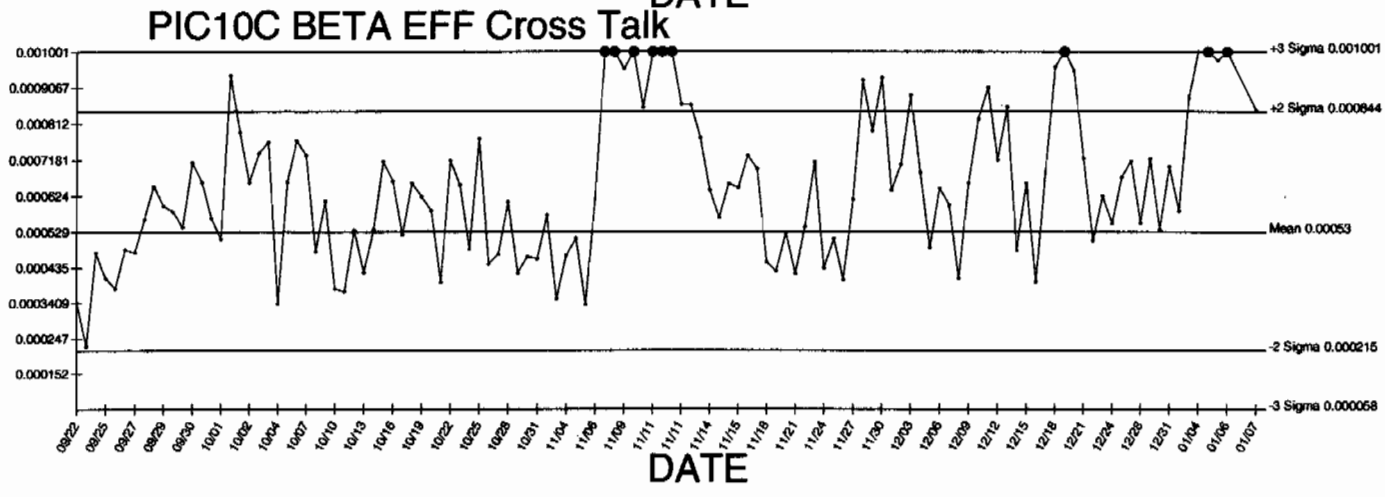

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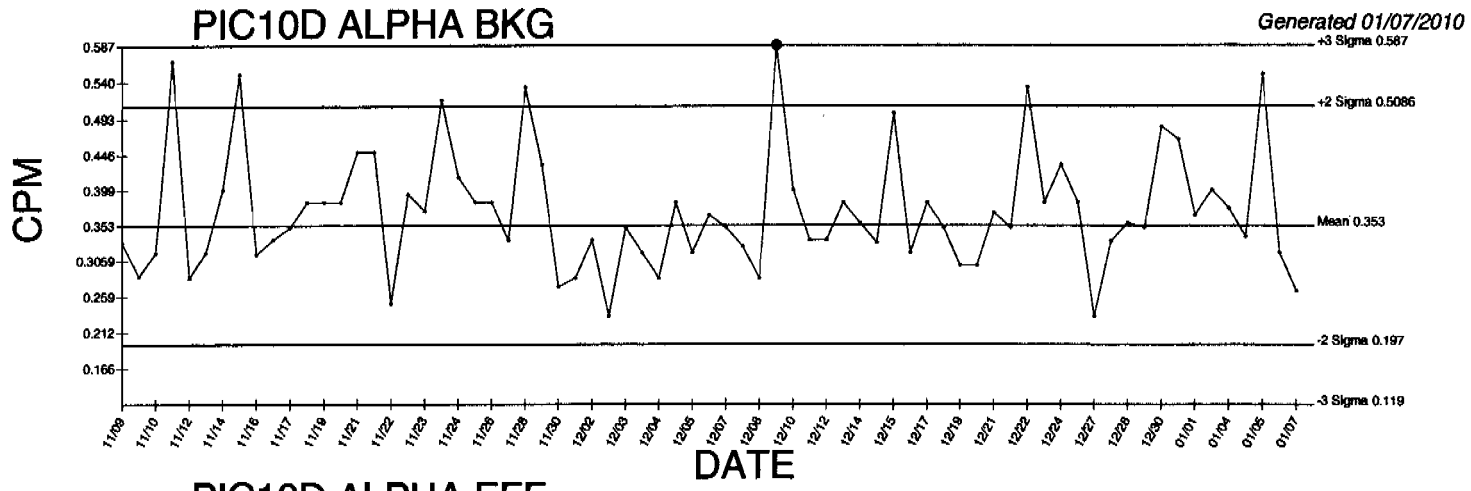

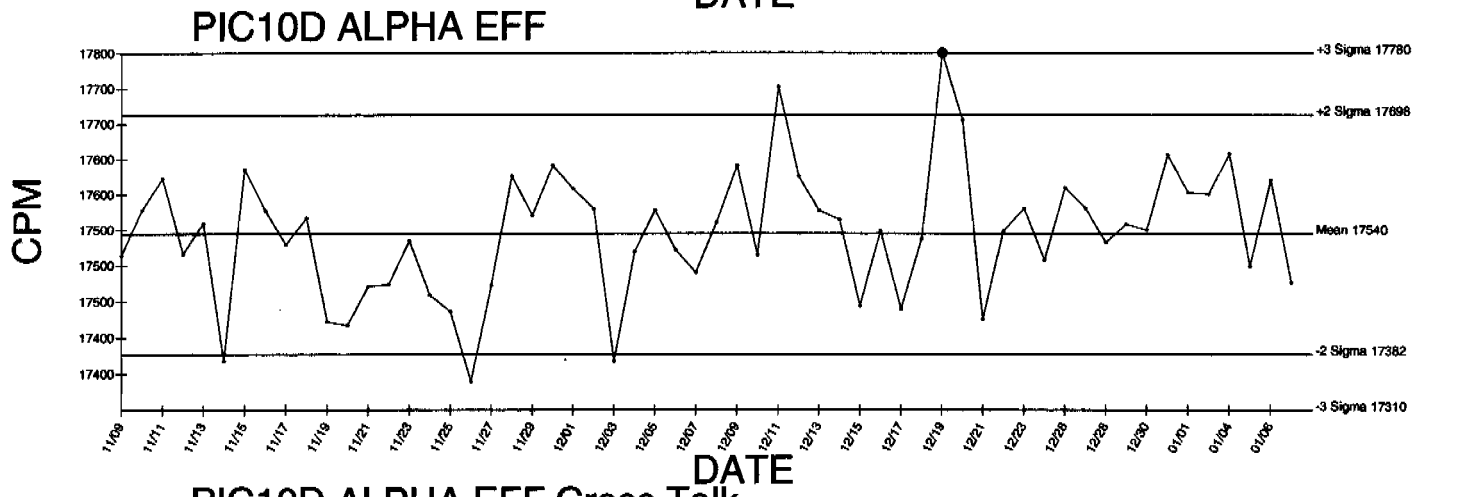

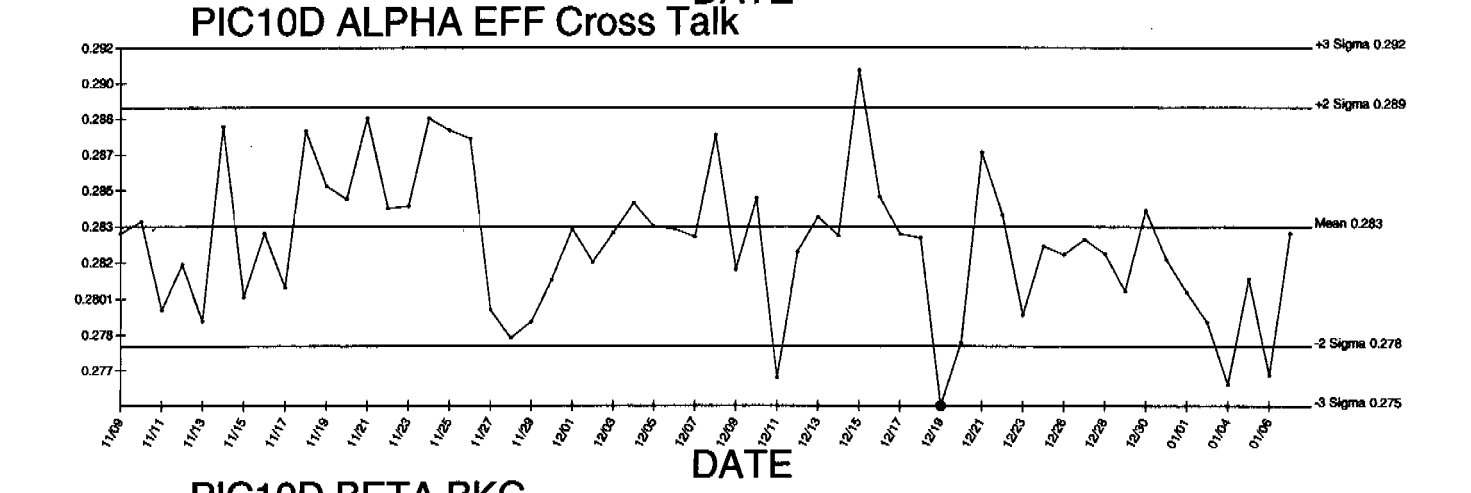

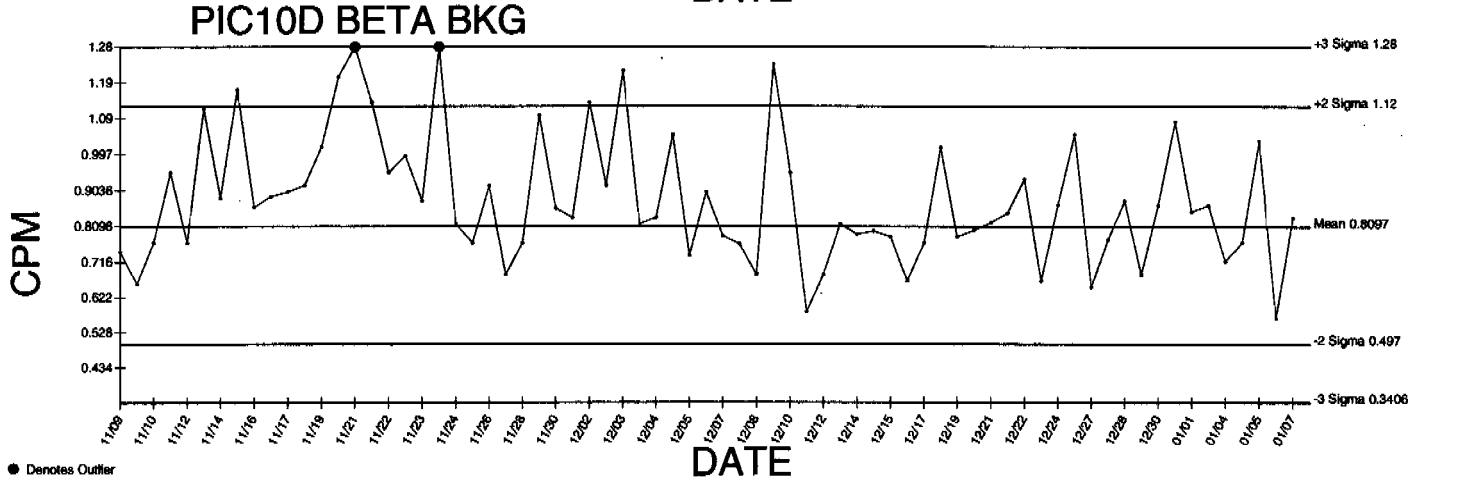

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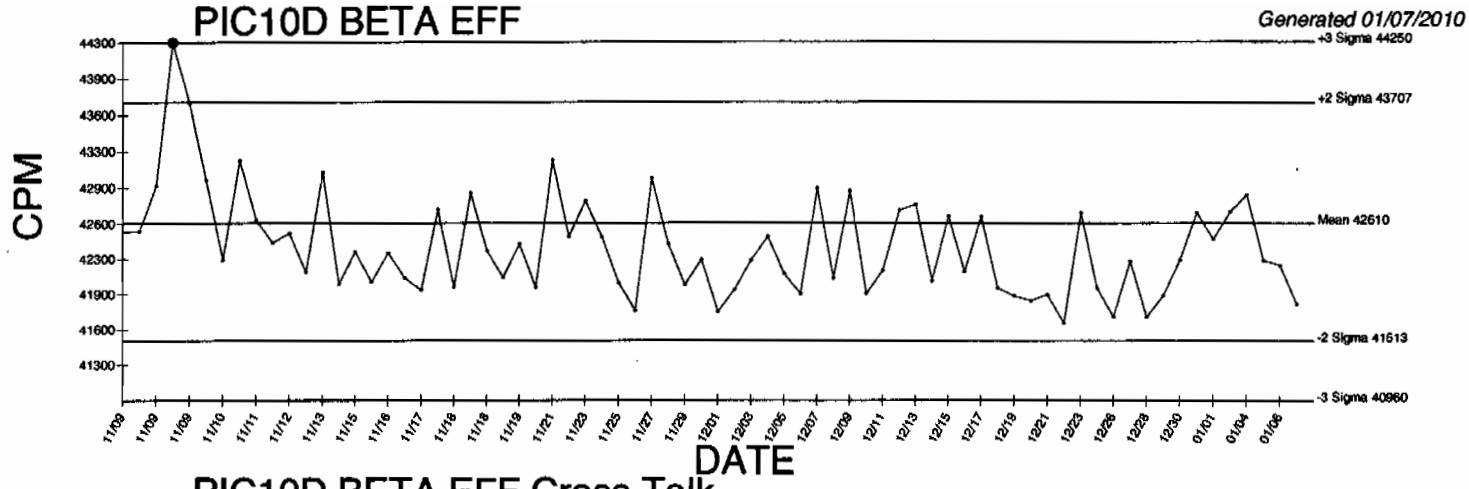

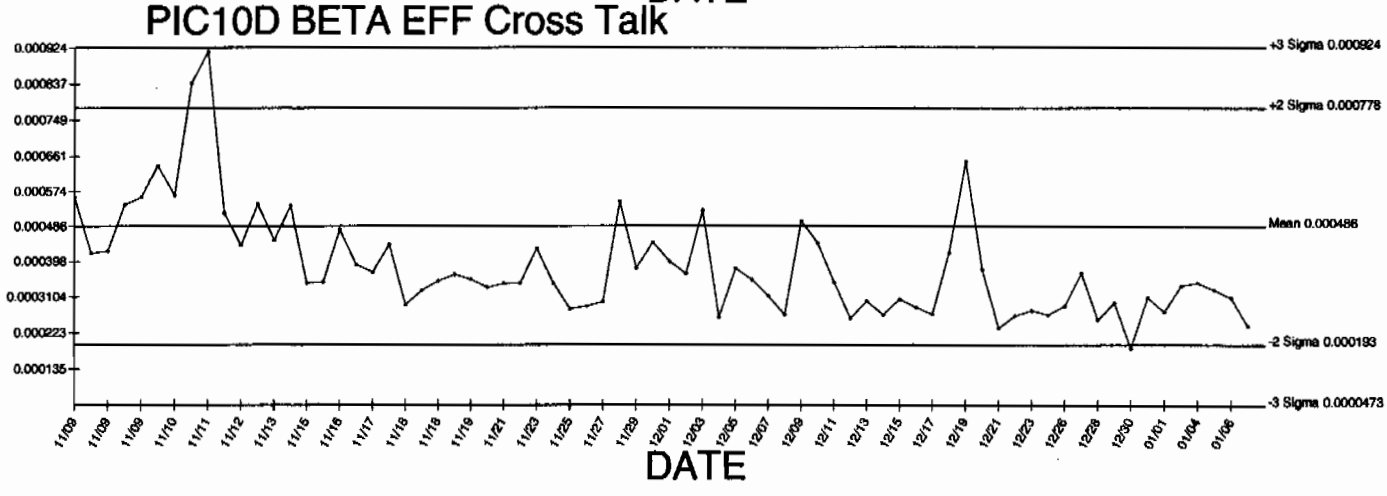

● Denotes Outlier

STANDARDS DATA

Amersham International plc
Amersham Laboratories

0134

NAMAS
CALIBRATION No. 0146

[redacted]

Description Radionuclide: TRITIUM (HYDROGEN-3) Product code: TRY·64

Chemical form: water Batch: 111

Measurement Reference time: 1200 GMT on 1 March 1996

Radioactive concentration of tritium: 488.0 kilobecquerels per gram of water

which is equivalent to: 13.19 microcuries per gram of water

or: 2.93×10^7 disintegrations per minute per gram of water

Method of Measurement
This reference material was calibrated by direct comparison with a standard of tritium-labelled water obtained from the National Institute of Standards and Technology, USA.

Accuracy The OVERALL UNCERTAINTY of the result quoted above is estimated to be less than ±2.5%

This estimate of uncertainty was calculated in accordance with the recommendations of the International Commission on Radiation Units and Measurements (ICRU Report 12). The limits of uncertainty were taken as the arithmetic sum of the uncertainty due to random variations, calculated at the 99·7% confidence level, and the estimated systematic uncertainties.

Purity No radioactive impurities were detected. (Impurities with total activity greater than 0.001% of the activity of the tritium would have been detected).

Physical Data Half-life of tritium: 12·43 ± 0·11 years

Maximum beta energy of tritium: 18·6 keV

Remarks: The S.I. unit of radioactivity is the becquerel.

1 becquerel (Bq) = 1 nuclear transformation per second, therefore
1 curie (Ci) = $3{\cdot}7 \times 10^{10}$ becquerels exactly.

Useful conversion factors are:

1 microcurie (μCi) = $3{\cdot}7 \times 10^4$ Bq = 37 kilobecquerels (kBq)

1 kilobecquerel (kBq) = 27·027 nanocuries (nCi)

This product meets the quality assurance requirements of NRC Regulatory Guide 4.15 for achieving implicit NIST (NBS) traceability as defined in NCRP58 (1985).

Approved signatory

W. F. Case

RC-5-024-061

W.F. Case

Amersham
The Health Science Group

Standard Traceability Log Rad

Source Material Info	
Parent Code:	0134
Prepared By:	Angela Johnson
Carrier Conc:	DI WATER
Reference Date:	03/01/1996
Ampoule Mass (g):	5 g
Uncertainty:	+/- 2.5 %
LogBook No:	RC S 023 061

A Solution Material Info	
Isotope:	Tritium
Prepared By:	Angela Johnson
Prep Date:	02/21/2001
Verification Date:	09/10/2008
Expiration Date:	03/27/2010
Primary Code:	0134-A
Dilution(mL):	100 mL
Mass of Parent(g):	3.3659 g
Density(g/mL):	1.0004
Balance ID:	38080204

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (kBq/g)) * (conversion dpm to kBq) / (Dilution Vol) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (kBq/g)) * (conversion dpm to kBq) / Density (g/mL)/ (Dilution Vol) = Parent Activity (dpm/g)
(3.3659 g) * (488 kBq/g) * (60000 dpm/kBq) / (100 mL) = 985535.5200 dpm/mL
(3.3659 g) * (488 kBq/g) * (60000 dpm/kBq) / (1.0004 g/mL) / (100 mL) = 985180.3116 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date
07/20/2004	Amanda Fehr	5.86	1000	0134-H	5773.1566 dpm/mL	07/25/2006	07/25/2007
12/20/2005	Amanda Fehr	5.5451	1000	0134-I	5462.92 dpm/mL	12/20/2006	12/20/2007
07/11/2007	Daniel Roy	5.5863	1000	0134-J	5503.5128 dpm/ml	07/29/2008	07/29/2009
03/25/2009	Mary Aders	5.4917	1000	0134-K	5410.3147 dpm/ml	03/27/2009	03/27/2010

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for H-3 Standard 0134-K

M. Aders	Isotope	Detector CPM	BKG CPM	NET CPM	Detector Eff	Standard Mass. Used (mL)	Source DPM/mL
4/9/2009	0134-K N1	1097.2000	54.0000	1043.2000	0.380548	1.0000	2741.3099
	0134-K N2	1073.2000	54.0000	1019.2000	0.380548	1.0000	2678.242955
	0134-K N3	1085.2000	54.0000	1031.2000	0.380548	1.0000	2709.776428
						Average =	2709.776428
Mean Value (Counting) =	2709.776428		**104.954429**	**Pass**			
Stdev =	31.53347278		0.01163693	**Rule 3 (Pass/Fail)**			

Certificate Value =	2581.86	dpm/mL
Lower Limit =	2646.709482	dpm/mL
Upper Limit =	2772.843373	dpm/mL
Rule 1 Pass/Fail	**Fail**	***exception taken due to full recovery of standard**
Two sigma =	63.06694556	dpm/mL
10 % of Mean =	270.9776428	dpm/mL
Rule 2 (Pass/Fail)	**Pass**	

Verification Rules

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 10% of the certificate value.

The analyst prepared three standard verification sources for H-3 source 0134-K by transferring 0.1 mL portions of the standard into glass liquid scintillation vials. Ten mL of Ecoscint Ultra liquid scintillation cocktail was added to each vial and the vials were shaken to mix. A Blank vial was prepared in a similar fashion using 1 mL of DI water and 10 mL of Ecoscint Ultra liquid scintillation cocktail. The standard verification vials and Background source were dark adapted for two hours and counted on Silver for H-3 source standard verification. The H-3 efficiency calibration which was used for verification calculations was performed on 4/9/09 using 0020-A (H-3). Calibration data is recorded in this logbook under H-3 0020. Each verification source calculation was performed as follows:

Source dpm/g = (A - B)/(C)(D)
where:
A = Ver. source cpm,
B = BKG cpm,
C = System efficiency, (cpm/dpm), and
D = mass used for standard verification.

Reference RAD SOP M-001

Mary L. Adams 4/9/09
Amanda L. Teh 4/9/09

0244-A Characterization

Sample #	Uranium-233/234 Result (pCi/g)	Uranium-238 Result (pCi/g)	Thorium-230 Result (pCi/g)
0244-A 1	6.59	6.12	25.3
0244-A 2	6.36	6.07	28.5
0244-A 3	5.78	5.53	26.5
0244-A 4	6.48	5.97	25.5
0244-A 5	5.65	5.59	26.2
0244-A 6	6.96	5.78	27.0
0244-A 7	5.95	5.75	24.2
0244-A 8	5.29	5.67	27.2
0244-A 9	5.51	6.05	24.3
0244-A 10	6.37	5.57	25.6
0244-A 11	6.50	5.80	25.8
0244-A 12	6.13	5.42	22.4
0244-A 13	5.49	5.24	24.7
0244-A 14	6.19	5.21	26.9
0244-A 15	6.50	6.27	27.6
0244-A 16	6.50	5.24	24.9
0244-A 17	6.25	6.05	24.7
0244-A 18	6.14	6.00	25.4
0244-A 19	6.19	6.14	26.4
0244-A 20	5.67	5.61	23.2
Mean Value	6.13	5.75	25.62
1 sigma	0.439	0.325	1.493
2 sigma	0.878	0.650	2.986
75% Limit	4.60	4.31	19.22
125% Limit	7.66	7.19	32.03
Expected Result	6.2 +/- 4.0	6.0 +/- 4.0	24.5 +/- 0.6
Achieved Results	6.13 +/- 0.439	5.75 +/- 0.325	25.62 +/- 1.493

REFERENCE DATE 4/14/2000 Jeff C Neff 12/14/04

Angela L. Johnson 12/13/04

TRM

Invoice:

5 bottles of TRM-1
10 " " TRM-2 and 3
5 " each of NRM-1 through 6
7 " baghouse dirt

Use 1/4 gm x 10 Samples WITH Together for TRM-2

Table 7. Recommended Concentrations of Tailings Reference Materials (pCi/g)

	TRM–1	TRM–2	TRM–3	TRM–4
U–238	99 ± 6	6.0 ± 4.0	19.6 ± 1.4	44.9 ± 1.6
U–234	105 ± 6	6.2 ± 4.0	19.6 ± 1.9	44.6 ± 1.2
Th–230	471 ± 11	24.5 ± 0.6	58.5 ± 2.1	44.0 ± 1.6
Ra–225	489 ± 17	25.4 ± 0.9	60.3 ± 2.3	42.9 ± 1.2
Pb–210	425 ± 24	22.1 ± 1.2	56.0 ± 2.1	38.9 ± 2.0

Attention Nancy Slater At GEL
Not For Log-In

9911627-01 -> 0

SF 2001-COC (10-97)
Supersedes (5-97) issue

Internal Lab Batch No.

ANALYSIS REQUEST AND CHAIN OF CUSTODY

SAR/WR No. N/A

Press F1 for instructions for each field.

AR/COC- 602945

Dept. No./Mail Stop: 7132 / 1042
Project/Task Manager: PAM PUISSANT
Project Name:
Record Center Code: N/A
Logbook Ref. No.: N/A
Service Order No.:

Date Samples Shipped: 11-16-99 SMO USE
Carrier/AWB No.: [illegible]
Lab Contact: EDIE KENT
Lab Destination: G.E.L.
SMO Contact/Phone: Doug Salmi / 844-3110
Send Report to SMO: Suzi Jensen/844-3184

Contract No.: AJ-2480A
Case No.: 10204 1.3
SMO Authorization: [signature]
Bill to: Sandia National Laboratories
Supplier Services, Dept. _____
P.O. Box 5800 MS 0154

Location — Tech Area VI — Building N/A — Room N/A

Reference LOV (available at SMO)

Sample No. - Fraction	ER Sample ID or Sample Location Detail	Beginning Depth in Ft.	ER Site No.	Date/Time Collected	Sample Matrix	Container Type	Container Volume	Preservative	Sample Collection Method	Sample Type	Parameter & Method Requested	LAB USE Lab Sample ID
050484 - 001	PEM-1	N/A	N/A	11/15/9 1100	S	P	1 L	4 C	G	SA	See Special Instructions Below	
050485 - 001	TRM-2	N/A	N/A	11/15/9 1100	S	G	1 L	4 C	G	SA		
050486 - 001	~~NRM-2~~ NBHD	N/A	N/A	11/15/9 1100	S	G	1 L	4 C	G	SA		
-												
-												
-												
-												
-												
-												
-												

RMMA ☐ Yes ☒ No Ref. No.
Sample Disposal ☐ Return to Client ☒ Disposal by lab

Sample Tracking (SMO USE) Date Entered (mm/dd/yy) Entered by

Turnaround Time ☒ Normal ☐ Rush Required Report Date

QC Inits

Sample Team Members	Name	Signature	Init	Company/Organization/Phone
	Douglas E. Perry	[signature]	DEP	Weston / 7577 / 845-0867

Special Instructions/QC Requirements
EDD ☐ Yes ☒ No
Raw data package ☐ Yes ☒ No
These "samples" are well characterized and materials being sent to GEL on behalf of Hank Hinton
Please list as separate report.

Abnormal Conditions on Receipt (LAB USE)

1. Relinquished by	[signature] GMW	Org. SAIC	Date 11-16-99	Time 0900	4. Relinquished by	Org.	Date
1. Received by		Org.	Date	Time	4. Received by	Org.	Date
2. Relinquished by		Org.	Date	Time	5. Relinquished by	Org.	Date
2. Received by		Org.	Date	Time	5. Received by	Org.	Date
3. Relinquished by		Org.	Date	Time	6. Relinquished by	Org.	Date
3. Received by		Org.	Date	Time	6. Received by	Org.	Date

Original — To Accompany Samples, Laboratory Copy (White)
1st Copy — To Accompany Samples, Return to SMO (Blue)
2nd Copy — SMO Suspense Copy (Yellow)
3rd Copy — Field Copy (Pink)

0244-B Characterization

Sample #	Plutonium-239 Result (pCi/g)	Plutonium-238 Result (pCi/g)	Americium-241 Result (pCi/g)
0244-B 1	39.9	7.88	38.4
0244-B 2	44.1	7.97	40.6
0244-B 3	45.8	6.56	31.8
0244-B 4	43.6	7.69	31.5
0244-B 5	43	7.9	40.2
0244-B 6	43.5	7.84	29.4
0244-B 7	41.3	7.67	36
0244-B 8	44.3	6.95	33.2
0244-B 9	42.7	7.2	29.2
0244-B 10	44.9	7.69	30
0244-B 11	41.4	7.22	30.2
0244-B 12	41.3	7.74	36
0244-B 13	39.2	6.65	33.8
0244-B 14	39.6	7.78	31.1
0244-B 15	45.3	8.41	37.3
0244-B 16	38.1	6.74	33.6
0244-B 17	48.5	8.51	30.5
0244-B 18	36.5	7.23	38.6
0244-B 19	35.3	6.98	30.9
0244-B 20	37.4	8.55	31.3
Mean Value	41.79	7.56	33.68
1 sigma	3.418	0.596	3.724
2 sigma	6.835	1.193	7.448
75% Limit	30.75	6.02	24.38
125% Limit	51.25	10.04	40.63
Expected Result	41.0 +/- 3.0	8.03 +/- 0.37	32.5 +/- 1.1
Achieved Results	41.79 +/- 3.418	7.56 +/- .596	33.68 +/- 3.724

REFERENCE DATE 4/14/2000

Amanda L. Fehr 4/30/04
Matt L. Kalel 5/1/04

PEM-1

PREPARATION AND CHARACTERIZATION OF THE PERFORMANCE EVALUATION SOIL SAMPLE PEM-1

INTRODUCTION

Rust Geotech (Rust) was contracted by Los Alamos National Laboratory (LANL) to prepare and characterize a soil performance evaluation sample designated PEM-1. This report describes sample preparation, homogeneity assessment, and determination of the concentrations of 28 elements and radioactive isotopes in the sample.

SAMPLE PREPARATION

Rust received nine five-gallon buckets of soil from LANL. The soils were dried overnight in ovens at 103 °C. The large pieces of leaves and sticks were removed and the soils were ground with ceramic-plate grinders to a particle size that passed through a 325 mesh screen. The samples were blended at the proportions specified by LANL for 48 hours in a 3-cubic-foot cross-flow blender. The sample identifications and the amounts used are listed in Table 1.

Table 1. Sample Identifications and Amounts Used to Prepare PEM-1

LANL Sample ID	Amount Used (kg)
AAA 1592	1.7
AAA 2505-1	10.9
AAA 2505-2	12.8
AAA 2750-1	8.4
AAA 2750-2	8.4
AAA 3205	12.6
AAA 8581	4.2
AAB 3417	12.8
AAB 3475	12.6

The blended sample was transferred to three five-gallon plastic containers. While the sample was being transferred, 10 samples were taken at pre-determined time intervals to be used for homogeneity assessment and sample characterization. These samples are believed to be representative of the bulk material.

Attention Nancy Slater At GEL
Not For Log In

9911627-01 -> 0

SF 2001-COC (10-97)
Supersedes (5-97) issue

Internal Lab Batch No.

ANALYSIS REQUEST AND CHAIN OF CUSTODY

SAR/WR No. N/A

Press F1 for instructions for each field.

AR/COC- 602945

Dept. No./Mail Stop: 7132 / 1042
Project/Task Manager: PAM PUISSANT
Project Name:
Record Center Code: N/A
Logbook Ref. No.: N/A
Service Order No.:

Date Samples Shipped: 11-16-99 SMO USE
Carrier/Waybill No.: [illegible]
Lab Contact: EDIE KENT
Lab Destination: G.E.L.
SMO Contact/Phone: Doug Salmi / 844-3110
Send Report to SMO: Suzi Jensen/844-3184

Contract No.: AJ-2480A
Case No.: 10204 1/3
SMO Authorization: Doug Salmi
Bill to: Sandia National Laboratories
Supplier Services, Dept. _____
P.O. Box 5800 MS 0154

Location — Tech Area VI — Building N/A — Room N/A

Sample No. - Fraction	ER Sample ID or Sample Location Detail	Beginning Depth in Ft.	ER Site No.	Date/Time Collected	Sample Matrix	Container Type	Container Volume	Preservative	Sample Collection Method	Sample Type	Parameter & Method Requested	LAB USE Lab Sample ID
050484 - 001	PEM-1	N/A	N/A	11/15/9 1100	S	P	1 L	4 C	G	SA	See Special	
050485 - 001	TRM-2	N/A	N/A	11/15/9 1100	S	G	1 L	4 C	G	SA	Instructions	
050486 - 001	~~NRM-2~~ NBHQ	N/A	N/A	11/15/9 1100	S	G	1 L	4 C	G	SA	Below	
-												
-												
-												
-												
-												
-												
-												

Reference LOV (available at SMO)

RMMA ☐ Yes ☒ No Ref. No.
Sample Disposal ☐ Return to Client ☒ Disposal by lab
Turnaround Time ☒ Normal ☐ Rush Required Report Date

Sample Tracking — SMO USE — Date Entered (mm/dd/yy) — Entered By — QC Initials

Sample Team Members	Name	Signature	Init	Company/Organization/Phone
	Douglas E. Perry	[signature]	DEP	Weston / 7577 / 845-0867

Special Instructions/QC Requirements
EDD ☐ Yes ☒ No
Raw data package ☐ Yes ☒ No
These "samples" are well decontamination rinsate materials being sent to GEL on behalf of Hank Mistaer
Please list as separate report.

Abnormal Conditions on Receipt (LAB USE)

1. Relinquished by	[signature] Org. 7577	Date 11-16-99	Time 0900	4. Relinquished by	Org.	Date
1. Received by	Org.	Date	Time	4. Received by	Org.	Date
2. Relinquished by	Org.	Date	Time	5. Relinquished by	Org.	Date
2. Received by	Org.	Date	Time	5. Received by	Org.	Date
3. Relinquished by	Org.	Date	Time	6. Relinquished by	Org.	Date
3. Received by	Org.	Date	Time	6. Received by	Org.	Date

Original — To Accompany Samples, Laboratory Copy (White)
1st Copy — To Accompany Samples, Return to SMO (Blue)
2nd Copy — SMO Suspense Copy (Yellow)
3rd Copy — Field Copy (Pink)

CERTIFICATE OF CALIBRATION
ALPHA STANDARD SOLUTION

Radionuclide	Am-243	Customer:	GENERAL ENGINEERING LABS
Half Life:	7380 ± 40 years	P.O.No.:	9290-RAD
Catalog No.:	7243	Reference Date:	January 1 1994 12:00 PST.
Source No.:	445-96-2	Contained Radioactivity:	(Am-243) 101.2 μCi
		Contained Radioactivity:	(Am-243) 3750 kBq

Description of Solution

a. Mass of solution: 5.3739 g (in a 5 ml Flame Sealed Ampoule)

b. Chemical form: Am(NO3)3 in 2N HNO3

c. Carrier content: None added

d. Density: 1.0651 g/ml @ 20°C.

Radioimpurities None detected

Radioactive Daughters

Np-239 (beta active) in equilibrium

Radionuclide Concentration

(Am-243) 18.84 μCi/g

Method of Calibration

Weighed aliquots of the solution were assayed using gamma spectrometry for Np-239:

Energy peak(s) intergrated under: 228, 278 keV.

Branching ratio(s) used: 0.108, 0.1420 gamma rays per decay.

Uncertainty of Measurement

a. Systematic uncertainty in instrument calibration: ±3.0%

b. Random uncertainty in assay: ±0.4%

c. Random uncertainty in weighing(s): ±0.0%

d. Total uncertainty at the 99% confidence level: ±3.0%

NIST Traceability

This calibration is implicitly traceable to the National Institute of Standards and Technology.

Leak Test(s)

See reverse side for Leak Test(s) applied to this source.

Notes

1. Nuclear data were taken from "Table of Radioactive Isotopes", edited by Virginia S. Shirley, 1986.
2. IPL participates in an NIST measurement assurance program to establish and maintain implicit traceability for a number of nuclides, based on the blind assay (and later NIST certification) of Standard Reference Materials (As in NRC Regulatory Guide 4.15).

Anna U. Khan
QUALITY CONTROL

Jan 3, 1994
Date Signed

ISOTOPE PRODUCTS LABORATORIES
1800 North Keystone Street
Burbank, California 91504
(818) 843 - 7000

RC-S-005-32

THE LEAK TEST(S) INDICATED BY THE CHECKED BOX(ES) WAS(WERE) APPLIED TO DETERMINE THE INTEGRITY OF THE SOURCE DESCRIBED ON THE FRONT SIDE

☑ 1. STANDARD WIPE TEST

The source is wiped over its entire surface with a moistened filter paper disk. After drying, the disk is checked for activity using a windowless proportional counter or end-window G.M. tube. Activity levels exceeding 0.001 μCi beta-gamma or 0.0001 μCi alpha are cause for rejection of the source.

☐ 2. SOAK TEST

The source is immersed in distilled water and maintained at 50 ± 10° C for a minimum of four hours. After removal of the source, the liquid is a) checked for activity using a liquid scintillation counter, or b) evaporated in a planchet and the residue is checked for activity using a windowless proportional counter or end-window G.M. tube. Activity levels exceeding 0.001 μCi beta-gamma or 0.0001 μCi alpha are cause for rejection of the source.

☐ 3. SOAK TEST – BERYLLIUM WINDOW

The source is immersed in distilled water and maintained at 50 ± 10° C for 20 minutes. The entire surface of the source is then wiped with a moistened cotton swab or filter paper disk. After drying, the swab or disk is checked for activity using a windowless proportional counter or end-window G.M. tube. Activity levels exceeding 0.001 μCi beta-gamma or 0.0001 μCi alpha are cause for rejection of the source.

☐ 4. GAS SOURCE TEST (Radioactive Gas)

The source is placed in a vacuum desiccator and maintained at a pressure of less than 1 mm Hg for not less than 12 hours. The activity is checked by introducing air into the desiccator and monitoring the air with an end-window G.M. tube. Activity levels exceeding 1000 cpm are cause for rejection of the source.

☑ 5. OTHER LEAK TEST

The ampoule is kept in an inverted position on a filter paper disk for a minimum of 16 hours. The filter paper disk is then checked for activity using a windowless proportional counter or end-window G.M. tube. Activity levels exceeding 0.001 μCi beta-gamma or 0.0001 μCi alpha are cause for rejection of the source.

☐ 6. LEAK TEST NOT APPLICABLE

The active area of this source is uncovered or is protected by a very thin coating. Although the deposit is adherent, it is not designed or certified to pass a standard leak test. The inactive portions of the source have been checked using the standard wipe test. Levels of removable activity did not exceed 0.001 μCi beta-gamma or 0.0001 μCi alpha at the time of shipment.

Standard Traceability Log Rad

Source Material Info	
Parent Code:	445-96-2
Prepared By:	Genie Bost
Carrier Conc:	2M HNO3
Reference Date:	01/01/1994
Ampoule Mass (g):	5.3739 g
Uncertainty:	+/- 3 %
LogBook No:	RC S 005 032

A Solution Material Info	
Isotope:	Americium-243
Prepared By:	Angela Johnson
Prep Date:	01/05/1994
Verification Date:	05/11/2009
Expiration Date:	05/11/2010
Primary Code:	445-96-2-A
Dilution(mL):	100 mL
Mass of Parent(g):	5.3419 g
Density(g/mL):	1.0785
Balance ID:	38080204

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (uCi/g)) * (conversion dpm to uCi) / (Dilution Vol) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (uCi/g)) * (conversion dpm to uCi) / Density (g/mL)/ (Dilution Vol) = Parent Activity (dpm/g)
(5.3419 g) * (18.84 uCi/g) * (2220000 dpm/uCi) / (100 mL) = 2234238.9912 dpm/mL
(5.3419 g) * (18.84 uCi/g) * (2220000 dpm/uCi) / (1.0785 g/mL) / (100 mL) = 2071617.0528 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date
01/05/1994	Genie Bost	.0058	100	445-96-2-B	120.1 dpm/ml	01/05/1995	01/05/1996
09/10/2004	Amanda Fehr	.0325	1000	445-96-2-BB	67.328 dpm/mL	09/10/2005	09/10/2006
01/05/1994	Genie Bost	.0025	100	445-96-2-C	51.77 dpm/ml	01/05/1995	01/05/1996
05/27/2005	Brenda Burke	.000246	100	445-96-2-CC	5.10613 dpm/mL	05/31/2005	05/31/2006
03/25/1994	Genie Bost	.0064	100	445-96-2-D	132.53 dpm/ml	01/05/1995	01/05/1996
08/16/2005	Brenda Burke	.001224	500	445-96-2-DD	5.07144 dpm/mL	08/18/2007	08/18/2008
08/04/1994	Genie Bost	.0094	100	445-96-2-E	194.65 dpm/ml	01/05/1995	01/05/1996
10/13/2005	Brenda Burke	.0017	500	445-96-2-EE	7.0435 dpm/mL	11/15/2005	11/15/2006
08/04/1994	Genie Bost	.0046	100	445-96-2-F	95.25 dpm/ml	01/05/1995	01/05/1996
10/14/2005	Mary Aders	.0141	500	445-96-2-FF	58.4196 dpm/mL	10/14/2005	10/14/2006
09/01/1994	Genie Bost	.0031	100	445-96-2-G	64.19 dpm/ml	01/05/1995	01/05/1996
05/10/2006	Mary Aders	2.0753	1000	445-96-2-GG	4299.227 dpm/mL	09/30/2008	09/30/2009
10/17/1994	Genie Bost	.0969	100	445-96-2-H	2006.52 dpm/ml	01/05/1995	01/05/1996
06/07/2006	Mary Aders	.0365	1000	445-96-2-HH	75.614 dpm/mL	06/19/2006	06/19/2007
02/06/1995	Genie Bost	.0043	100	445-96-2-I	89.04 dpm/ml	01/05/1995	01/05/1996
05/11/2006	Brenda Burke	.000009739	100	445-96-2-II	.201761 dpm/mL	07/26/2006	07/26/2007
07/20/1995	Theresa Austin	.0041	100	445-96-2-J	84.9 dpm/ml	01/05/1995	01/05/1996
05/01/2007	Daniel Roy	.0352	1000	445-96-2-JJ	72.9209 dpm/ml	04/30/2008	04/30/2009
08/10/1995	Garret Ray	.0952	100	445-96-2-K	1971.32 dpm/ml	01/05/1995	01/05/1996
06/12/2007	Julie Strock	.01038	250	445-96-2-KK	22.1496 dpm/mL	05/28/2008	05/28/2009

09/11/1995	Theresa Austin	1.0525	100	445-96-2-L	21794.23 dpm/ml	01/05/1995	01/05/1996
09/11/1995	Theresa Austin	.5107	100	445-96-2-L-1	111.3 dpm/ml	01/05/1995	01/05/1996
04/28/1998	Richard Kinney	.1264	100	445-96-2-M	2617.4 dpm/ml	04/28/1998	04/28/1999
11/01/2007	Eric Williamson	.001274	500	445-96-2-MM	5.27945 dpm/mL	04/06/2008	04/06/2010
10/12/1998	Gregory Smith	.1348	100	445-96-2-N	2791.32 dpm/mL	01/05/1995	01/05/1996
01/25/1999	Gregory Smith	1.9382	100	445-96-2-N-1	50.16 dpm/ml	01/05/1995	01/05/1996
04/19/2008	Daniel Roy	.0424	1000	445-96-2-NN	87.8366 dpm/ml	04/16/2009	04/16/2010
04/21/1999	Greg Smith	.1645	100	445-96-2-O	3406.32 dpm/mL	04/21/1999	04/21/2000
07/27/1999	Gregory Smith	1.567	100	445-96-2-O-2	50.56 dpm/ml	05/13/1999	05/13/2000
10/12/1999	Richard Kinney	1.5589	100	445-96-2-O-3	50.31 dpm/mL	05/13/1999	05/13/2000
04/21/1999	Greg Smith	1.5309	100	445-96-2-O-1	49.4 dpm/mL	04/21/1999	04/21/2000
11/10/1999	Joe Davis	.1809	100	445-96-2-P	3745.92 dpm/mL	05/13/1999	05/13/2000
01/04/2008	Julie Strock	.00001005	100	445-96-2-PP	.20819 dpm/mL	12/29/2008	12/29/2009
01/28/2000	Angela Johnson	.0354	1000	445-96-2-Q	73.3 dpm/mL	02/08/2001	02/08/2002
09/29/2008	Julie Strock	.0025219	250	445-96-2-QQ	20.8977 dpm/mL	09/30/2008	09/29/2009
04/18/2000	Robert Timm	.429	250	445-96-2-R	3553.34 dpm/mL	04/18/2000	04/18/2001
04/23/2009	Tina Schoneman	.001251	500	445-96-2-RR	4.8075 dpm/mL	04/23/2009	04/23/2010
04/13/2001	Angela Johnson	.1869	100	445-96-2-S	3870.16 dpm/mL	04/13/2001	04/13/2002
05/08/2009	Mary Aders	.0141	1000	445-96-2-SS	29.2098 dpm/ml	05/11/2009	05/11/2010
07/03/2001	Lonnie Morris	2.0057	1000	445-96-2-T-103	4153.225 dpm/mL	07/03/2002	07/03/2003
07/03/2001	Lonnie Morris	2.0057	1000	445-96-2-T-203	4153.225 dpm/mL	07/03/2002	07/03/2003

07/03/2001	Lonnie Morris	2.0057	1000	445-96-2-T-303	4153.225 dpm/mL	07/03/2002	07/03/2003
06/03/2009	Julie Strock	.00000927	100	445-96-2-TT	.1923 dpm/mL	06/05/2009	06/03/2010
08/23/2001	Angela Johnson	.0194	500	445-96-2-U-103	80.34 dpm/mL	08/23/2001	08/23/2002
08/23/2001	Angela Johnson	.0194	500	445-96-2-U-203	80.34 dpm/mL	08/23/2001	08/23/2002
08/23/2001	Angela Johnson	.0194	500	445-96-2-U-303	80.34 dpm/ml	08/23/2001	08/23/2002
06/02/2009	Mary Aders	2.1177	1000	445-96-2-UU	4385.1449 dpm/ml	06/04/2009	06/04/2010
08/27/2001	Angela Johnson	.0394	1000	445-96-2-V-103	81.586 dpm/mL	08/27/2002	08/27/2003
08/27/2001	Angela Johnson	.0394	1000	445-96-2-V-203	81.586 dpm/mL	08/27/2002	08/27/2003
08/27/2001	Angela Johnson	.0394	1000	445-96-2-V-303	81.586 dpm/mL	08/27/2002	08/27/2003
03/17/2003	Angela Johnson	2.1108	1000	445-96-2-W	4370.857 dpm/mL	03/14/2006	03/14/2007
04/14/2003	Lonnie Morris	.0315	1000	445-96-2-X	65.2559 dpm/mL	04/14/2004	04/14/2005
05/03/2003	Tim Chandler	.0103	1000	445-96-2-Y	21.3376 dpm/mL	05/05/2003	05/05/2004
05/05/2003	Eric Williamson	.011	1000	445-96-2-Z	22.7877 dpm/mL	04/03/2007	04/03/2008

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for Am-243 Standard *445-96-2-SS*

M. Aders	Isotope	Value	Uncertainty
5/15/2009	445-96-2-SS #1	1.360	0.1690
	445-96-2-SS #2	1.370	0.1690
	445-96-2-SS #3	1.290	0.1590

Mean Value (Counting) =	1.340	101.99	Pass
Stdev =	0.043588989		Rule 3 (Pass/Fail)

Target =	1.314
Lower Limit =	1.252822021
Upper Limit =	1.427177979
Rule 1 Pass/Fail	Pass
Two sigma =	0.087177979
10 % of Mean =	0.134
Rule 2 (Pass/Fail)	Pass

The analyst prepared three standard verification sources for standard ***445-96-2-SS*** using 0.1 mL for each source. Each standard was combined with 0.1 mL of ***Cm-244*** standard ***0533-O*** and 50 micrograms of neodymium carrier in a disposable centrifuge tube. Each standard was diluted with 4 mL of 2 M HCl and 6 mL of DI Water. Two mL of 48% HF was added to precipitate Nd(and Americium) fluoride. After 30 minutes, each sample was filtered following routine procedures for alpha spectroscopy source preparation. Each source was counted using routine alpha spec procedures. DPM values for Am-243 were calculated by comparison to Am-241certified values.

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 5% of the certificate value.

Mary Fridaers 5/15/09
Rob Robin 007509

1374

National Institute of Standards & Technology

Certificate

Standard Reference Material 4334H
Plutonium-242 Radioactivity Standard

This Standard Reference Material (SRM) consists of radioactive plutonium-242 nitrate and nitric acid dissolved in 5 mL of distilled water. The solution is contained in a flame-sealed NIST borosilicate-glass ampoule. The SRM is intended for the calibration of alpha-particle counting instruments and for the monitoring of radiochemical procedures.

Radiological Hazard: The SRM ampoule contains plutonium-242 with a total activity of approximately 150 Bq. Plutonium-242 decays by alpha-particle emission. None of the alpha particles escape from the SRM ampoule. During the decay process, X-rays and gamma rays with energies from 10 keV to 160 keV are also emitted. Most of these photons escape from the SRM ampoule but their intensities are so small that they do not represent a radiation hazard. Approximate unshielded dose rates at several distances (as of the reference time) are given in note [a]*. The SRM should be used only by persons qualified to handle radioactive material.

Chemical Hazard: The SRM ampoule contains nitric acid (HNO_3) with a concentration of 3 moles per liter of water. The solution is corrosive and represents a health hazard if it comes in contact with eyes or skin. If the ampoule is to be opened to transfer the solution, the recommended procedure is given on page 2. The ampoule should be opened only by persons qualified to handle both radioactive material and strong acid solution.

Storage and Handling: The SRM should be stored and used at a temperature between 5 °C and 65 °C. The solution in an unopened ampoule should remain stable and homogeneous until at least January 2015. The ampoule (or any subsequent container) should always be clearly marked as containing radioactive material. If the ampoule is transported it should be packed, marked, labeled, and shipped in accordance with the applicable national, international, and carrier regulations. The solution in the ampoule is a dangerous good (hazardous material) both because of the radioactivity and because of the strong acid.

Preparation: This Standard Reference Material was prepared in the Physics Laboratory, Ionizing Radiation Division, Radioactivity Group, M.P. Unterweger, Acting Group Leader. The overall technical direction and physical measurements leading to certification were provided by L.L. Lucas of the Radioactivity Group. The support aspects involved in the preparation, certification, and issuance of this SRM were coordinated through the Standard Reference Materials Program.

RECEIVED 12/2/04

Lisa R. Karam, Acting Chief
Ionizing Radiation Division

Gaithersburg, Maryland 20899
January 2005

Robert L. Watters, Jr., Chief
Measurement Services Division

*Notes and references are on pages 5 to 7.

DC-5-051-C913

Recommended Procedure for Opening the SRM Ampoule

1) If the SRM solution is to be diluted, it is recommended that the diluting solution have a composition comparable to that of the SRM solution.

2) Wear eye protection, gloves, and protective clothing and work over a tray with absorbent paper in it. Work in a fume hood. In addition to the radioactive material, the solution contains strong acid and is corrosive.

3) Shake the ampoule to wet all of the inside surface of the ampoule. Return the ampoule to the upright position.

4) Check that all of the liquid has drained out of the neck of the ampoule. If necessary, gently tap the neck to speed the process.

5) Holding the ampoule upright, score the narrowest part of the neck with a scribe or diamond pencil.

6) Lightly wet the scored line. This reduces the crack propagation velocity and makes for a cleaner break.

7) Hold the ampoule upright with a paper towel, a wiper, or a support jig. Position the scored line away from you. Using a paper towel or wiper to avoid contamination, snap off the top of the ampoule by pressing the narrowest part of the neck away from you while pulling the tip of the ampoule towards you.

8) Transfer the solution from the ampoule using a pycnometer or a pipet with dispenser handle. NEVER PIPETTE BY MOUTH.

9) Seal any unused SRM solution in a flame-sealed glass ampoule, if possible, to minimize the evaporation loss.

See also reference [4]*.

*Notes and references are on pages 5 to 7.

PROPERTIES OF SRM 4334H

Certified values

Radionuclide	**Plutonium-242**
Reference time	**1200 EST, 07 June 1994 [b]***
Massic activity of the solution [c]	**26.31 Bq·g^{-1}**
Relative expanded uncertainty (k=2)	**0.72% [d] [e]**
Solution density	**(1.105 ± 0.002) g·mL^{-1} at 20 °C [f]**

Uncertified values

Physical Properties:			
Source description	Liquid in flame-sealed NIST borosilicate-glass ampoule		
Ampoule specifications	Body outside diameter Wall thickness Barium content Lead-oxide content Other heavy elements	(16.5 ± 0.5) mm (0.60 ± 0.04) mm Less than 2.5% Less than 0.02% Trace quantities	
Solution mass	Approximately 5.5 g		
Chemical Properties:			
Solution composition	Chemical Formula	Concentration (mol·L^{-1})	Mass Fraction (g·g^{-1})
	H_2O HNO_3 $^{242}Pu^{+6}$	50 3.2 8×10^{-7}	0.81 0.19 2×10^{-7}
Radiological Properties:			
Alpha-particle-emitting impurities	None detected [g] [h]. See table on page 5.		
Beta-particle-emitting impurities	Plutonium-241: (0.092 ± 0.018) Bq·g^{-1} [f] [h]		
Photon-emitting impurities	None detected [i]		
Half lives used	Plutonium-242: (373 500 ± 1100) a [j] [5] Plutonium-241: (14.35 ± 0.10) a [j] [5] Americium-241: (432.2 ± 0.7) a [j] [5]		
Calibration method and measuring instrument(s)	Three 4πα liquid-scintillation counters, a calibrated germanium detector system, and a silicon surface-barrier detector		

*Notes and references are on pages 5 to 7.

EVALUATION OF THE UNCERTAINTY OF THE MASSIC ACTIVITY [d] [e]*

Input Quantity x_i, the source of uncertainty (and individual uncertainty components where appropriate)	Method Used To Evaluate $u(x_i)$, the standard uncertainty of x_i (A) denotes evaluation by statistical methods (B) denotes evaluation by other methods	Relative Uncertainty Of Input Quantity, $u(x_i)/x_i$, (%) [k]	Relative Sensitivity Factor, $\lvert\partial y/\partial x_i\rvert \cdot (x_i/y)$ [m]	Relative Uncertainty Of Output Quantity, $u_i(y)/y$, (%) [n]
Massic alpha-particle emission rate, corrected for background and decay	Standard deviation of the mean for 80 sets of $4\pi\alpha$ liquid-scintillation measurements (A)	0.05	1.0	0.05
Half life of Pu-242	Standard uncertainty of the half life (A)	0.32 [p]	0.00001 [q]	0.000003
Decay-scheme data	Standard uncertainty of the probability of decay by alpha-particle emission (A)	0.001	1.0	0.001
Extrapolation of alpha-particle-count-rate-versus-energy to zero energy	Estimated (B)	0.25	1.0	0.25
Gravimetric measurements	Estimated (B)	0.10	1.0	0.10
Live time [r]	Estimated (B)	0.10	1.0	0.10
Alpha-particle detection efficiency of scintillators	Estimated (B)	0.15	1.0	0.15
Alpha-particle-emitting impurities	Limit of detection (B) [s]	100.	0.001	0.10
Photon-emitting impurities	Limit of detection (B) [s]	100.	0.001	0.10
Relative Combined Standard Uncertainty of the Output Quantity, $u_c(y)/y$, (%)				0.36
Coverage Factor, k				x 2
Relative Expanded Uncertainty of the Output Quantity, U/y, (%)				0.72

*Notes and references are on pages 5 to 7.

RELATIVE ACTIVITIES OF RADIONUCLIDIC IMPURITIES AT THE REFERENCE TIME [b]

Radionuclide	Half Life (years) [j] [5]	Relative Activity As Determined By	
		LLNL	NIST
Plutonium-242	373 500 ± 1100	1.000 000	1.000 000
Plutonium-241	14.35 ± 0.10	- -	0.0035 ± 0.0004 [t]
Plutonium-240	6 564 ± 11	^{239}Pu + ^{240}Pu <0.000 001 [u]	^{239}Pu + ^{240}Pu 0.000 020 ± 0.000 021 [v]
Plutonium-239	24 110 ± 30		
Plutonium-238	87.7 ± 0.1	^{238}Pu + ^{241}Am <0.000 016 [u]	0.000 009 ± 0.000 016 [v]
Americium-241	432.2 ± 0.7		0.000 000 assumed [t]

NOTES

[a] The Sievert is the SI unit for dose equivalent. See reference [1]. One µSv is equal to 0.1 mrem.

Distance from Ampoule (cm):	1	30	100
Approximate Dose Rate (µSv/h):	<0.1	-	-

[b] The plutonium-242 master solution was chemically purified at 1200 EST, 07 June 1994.

[c] **Massic activity** is the preferred name for the quantity activity divided by the total mass of the sample. See reference [1].

[d] The reported value, y, of massic activity (activity per unit mass) at the reference time was not measured directly but was derived from measurements and calculations of other quantities. This can be expressed as $y = f(x_1, x_2, x_3, \ldots x_n)$, where f is a mathematical function derived from the assumed model of the measurement process. The value, x_i, used for each input quantity i has a **standard uncertainty**, $u(x_i)$, that generates a corresponding uncertainty in y, $u_i(y) \equiv |\partial y/\partial x_i| \cdot u(x_i)$, called a **component of combined standard uncertainty** of y. The **combined standard uncertainty** of y, $u_c(y)$, is the positive square root of the sum of the squares of the components of combined standard uncertainty. The combined standard uncertainty is multiplied by a **coverage factor** of $k = 2$ to obtain U, the **expanded uncertainty** of y.

Since it can be assumed that the possible estimated values of the massic activity are approximately normally distributed with approximate standard deviation $u_c(y)$, the unknown value of the massic activity is believed to lie in the interval $y \pm U$ with a level of confidence of approximately 95 percent.

For further information on the expression of uncertainties, see references [2] and [3].

[e] The value of each component of combined standard uncertainty, and hence the value of the expanded uncertainty itself, is a best estimate based upon all available information, but is only approximately known. That is to say, the "uncertainty of the uncertainty" is large and not well known. This is true for uncertainties evaluated by statistical methods (e.g., the relative standard deviation of the standard deviation of the mean for the massic response is approximately 50%) and for uncertainties evaluated by other methods (which could easily be over estimated or under estimated by substantial amounts). The unknown value of the expanded uncertainty is believed to lie in the interval $U/2$ to $2U$ (i.e., within a factor of 2 of the estimated value).

[f] The stated uncertainty is two times the standard uncertainty.

[g] Estimated limits of detection for alpha-particle-emitting impurities, expressed as massic alpha-particle emission rates (numbers of alpha particles per second per gram), are:
0.003 $s^{-1} \cdot g^{-1}$ for energies less than 3.1 MeV,
0.03 $s^{-1} \cdot g^{-1}$ for energies between 3.1 and 4.4 MeV, and
0.003 $s^{-1} \cdot g^{-1}$ for energies greater than 5.0 MeV.

[h] The plutonium-242 master solution was chemically purified at 1200 EST, 07 June 1994. Americium-241, the daughter of plutonium-241, was removed but has been growing in since that time.

[i] Estimated limits of detection for photon-emitting impurities, expressed as massic photon emission rates (numbers of photons per second per gram), are:
5×10^{-5} $s^{-1} \cdot g^{-1}$ for energies between 19 and 39 keV,
7×10^{-5} $s^{-1} \cdot g^{-1}$ for energies between 49 and 92 keV,
2×10^{-5} $s^{-1} \cdot g^{-1}$ for energies between 106 and 507 keV,
1×10^{-5} $s^{-1} \cdot g^{-1}$ for energies between 515 and 1456 keV, and
5×10^{-6} $s^{-1} \cdot g^{-1}$ for energies between 1465 and 2750 keV,
provided that the photons are separated in energy by 4 keV or more from photons emitted in the decay of plutonium-242, plutonium-241, or americium-241.

[j] The stated uncertainty is the standard uncertainty.

[k] Relative standard uncertainty of the input quantity x_i.

[m] The relative change in the output quantity y divided by the relative change in the input quantity x_i. If $|\partial y/\partial x_i| \cdot (x_i/y) = 1.0$, then a 1% change in x_i results in a 1% change in y. If $|\partial y/\partial x_i| \cdot (x_i/y) = 0.05$, then a 1% change in x_i results in a 0.05% change in y.

[n] Relative component of combined standard uncertainty of output quantity y, rounded to two significant figures or less. The relative component of combined standard uncertainty of y is given by $u_i(y)/y \equiv |\partial y/\partial x_i| \cdot u(x_i)/y = |\partial y/\partial x_i| \cdot (x_i/y) \cdot u(x_i)/x_i$. The numerical values of $u(x_i)/x_i$, $|\partial y/\partial x_i| \cdot (x_i/y)$, and $u_i(y)/y$, all dimensionless quantities, are listed in columns 3, 4, and 5, respectively. Thus, the value in column 5 is equal to the value in column 4 multiplied by the value in column 3. The input quantities are independent, or very nearly so. Hence the covariances are zero or negligible.

[p] The relative standard uncertainty of $\lambda \cdot t$ is determined by the relative standard uncertainty of λ (i.e., of the half life). The relative standard uncertainty of t is negligible.

[q] $|\partial y/\partial x_i| \cdot (x_i/y) = |\lambda \cdot t|$

[r] The live time is determined by counting the pulses from a gated crystal-controlled oscillator.

[s] The standard uncertainty for each undetected impurity that might reasonably be expected to be present is estimated to be equal to the estimated limit of detection for that impurity, i.e. $u(x_i)/x_i$ = 100%. $|\partial y/\partial x_i| \cdot (x_i/y)$ = {(response per Bq of impurity)/(response per Bq of Pu-242)}•{(Bq of impurity)/(Bq of Pu-242)}. Thus $u_i(y)/y$ is the relative change in y if the impurity were present with a massic activity equal to the estimated limit of detection.

[t] The stated uncertainty is the standard uncertainty. The plutonium-241 activity was calculated from a gamma-ray measurement of the americium-241 ingrowth as of 25 November 1998, assuming that americium-241 was completely removed at the time of chemical purification.

[u] Using alpha-particle spectrometry, no alpha-particle emission was detected that could reliably be ascribed to these radionuclides. The value shown is an estimated upper limit based upon background and counting statistics. Measurements were made at the Lawrence Livermore National Laboratory (LLNL) in July of 1994.

[v] Using alpha-particle spectrometry, no alpha-particle emission was detected that could reliably be ascribed to these radionuclides. The stated uncertainty is the standard uncertainty. Measurements were made at the National Institute of Standards and Technology (NIST) in June and July of 1999.

REFERENCES

[1] International Organization for Standardization (ISO), *ISO Standards Handbook - Quantities and Units*, 1993. Available from Global Engineering Documents, 12 Inverness Way East, Englewood, CO 80112, U.S.A. Telephone 1-800-854-7179.

[2] International Organization for Standardization (ISO), *Guide to the Expression of Uncertainty in Measurement*, 1993 (corrected and reprinted, 1995). Available from Global Engineering Documents, 12 Inverness Way East, Englewood, CO 80112, U.S.A. Telephone 1-800-854-7179.

[3] B.N. Taylor and C.E. Kuyatt, *Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Results*, NIST Technical Note 1297, 1994. Available from the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20407, U.S.A.

[4] National Council on Radiation Protection and Measurements Report No. 58, *A Handbook of Radioactivity Measurements Procedures*, Second Edition, 1985. Available from the National Council on Radiation Protection and Measurements, 7910 Woodmont Avenue, Bethesda, MD 20814 U.S.A.

[5] Evaluated Nuclear Structure Data File (ENSDF), January 2005.

Standard Traceability Log Rad

Source Material Info	
Parent Code:	1374
Prepared By:	Mary Aders
Carrier Conc:	0.5M HNO3
Reference Date:	06/07/1994
Ampoule Mass (g):	5.5 g
Uncertainty:	+/- .72 %
LogBook No:	RC-S-051-093

A Solution Material Info	
Isotope:	Plutonium-242
Prepared By:	Ashley Drochter
Prep Date:	12/02/2009
Verification Date:	12/08/2009
Expiration Date:	12/08/2010
Primary Code:	1374-A
Dilution(mL):	250 mL
Mass of Parent(g):	5.3616 g
Density(g/mL):	1.0136
Balance ID:	38080204

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (Bq/g)) * (conversion dpm to Bq) / (Dilution Vol) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (Bq/g)) * (conversion dpm to Bq) / Density (g/mL)/ (Dilution Vol) = Parent Activity (dpm/g)
(5.3616 g) * (26.31 Bq/g) * (60 dpm/Bq) / (250 mL) = 33.8553 dpm/mL
(5.3616 g) * (26.31 Bq/g) * (60 dpm/Bq) / (1.0136 g/mL) / (250 mL) = 33.4010 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for Pu-242 Standard 1374-*A*

A.Drochter	Isotope	Value	Uncertainty
12/8/2009	1374-A	1.610	0.2480
	1374-A	1.580	0.2510
	1374-A	1.530	0.2440

Mean Value (Counting) =	1.573	103.17	**Pass**
Stdev =	0.040414519		**Rule 3 (Pass/Fail)**

Target =	1.52
Lower Limit =	1.492504296
Upper Limit =	1.654162371
Rule 1 Pass/Fail	**Pass**
Two sigma =	0.080829038
10 % of Mean =	0.157333333
Rule 2 (Pass/Fail)	**Pass**

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 5% of the certificate value.

The analyst prepared three standard verification sources for standard 1374-A using 0.1 mL for each source. Each standard was combined with 0.1 mL of Pu239 standard 0338-BB and 50 micrograms of neodymium carrier in a disposable centrifuge tube containing 4 mL of 2 M HCl and 6 mL of DI water. Four drops of 25% Hydrazine dihydrochloride were added to each centrifuge tube and swirled. Two mL of 49% HF was added to precipitate neodymium(and plutonium) fluoride. After 30 minutes, each sample was filtered following routine procedures for alpha spectroscopy source preparation. Each source was counted using routine alpha spec procedures. DPM values for Pu-242 were calculated by comparison to Pu-239 certified values.

not called
12/9/09

Eckert & Ziegler
Analytics

1380 Seaboard Industrial Blvd.
Atlanta, Georgia 30318
Tel 404-352-8677
Fax 404-352-2837
www.analyticsinc.com

CERTIFICATE OF CALIBRATION
Standard Radionuclide Source

1067

74463-278

Sr-90 5 mL Liquid in Flame Sealed Vial

This standard radionuclide source was prepared gravimetrically from a calibrated master solution. The master solution was calibrated by liquid scintillation counting.

Radionuclide purity and calibration were checked by germanium gamma-ray spectrometry and liquid scintillation counting. The nuclear decay rate and assay date for this source are given below.

ANALYTICS maintains traceability to the National Institute of Standards and Technology through Measurements Assurance Programs as described in USNRC Reg. Guide 4.15, Revision 1.

ISOTOPE:	Sr-90
ACTIVITY (Bq):	3.835 E4
HALF-LIFE:	28.79 years
CALIBRATION DATE:	February 7, 2007 12:00 EST
RELATIVE EXPANDED UNCERTAINTY (k=2):	1.7%

Impurities: γ-impurities <0.1%

5.01066 grams 0.1M HCl solution with 30 µg/g Sr carrier.

NOTE: This source also contains Y-90 in secular equilibrium with Sr-90. The Y-90 activity is equal to the Sr-90 activity. Since Sr-90 and Y-90 both decay 100% by beta emission, the total beta emission rate for the source is twice the certified Sr-90 activity. The half-life for Y-90 is 64.08 hours.

P O NUMBER 2739 RD, Item 1

RECEIVED 2/8/07

SOURCE PREPARED BY: M. Dimitrova
M. Dimitrova, Radiochemist

Q A APPROVED: 2-7-07

RC-S-045-108-A

Standard Traceability Log Rad

Source Material Info	
Parent Code:	1067
Prepared By:	Daniel Roy
Carrier Conc:	0.1M HCl
Reference Date:	02/07/2007
Ampoule Mass (g):	5.01066 g
Uncertainty:	+/- 1.7 %
LogBook No:	RC-S-045-108

A Solution Material Info	
Isotope:	Strontium-90
Prepared By:	Julie Strock
Prep Date:	10/12/2007
Verification Date:	06/17/2009
Expiration Date:	06/23/2010
Primary Code:	1067-A
Dilution(mL):	100 mL
Mass of Parent(g):	4.9657 g
Density(g/mL):	0.9962
Balance ID:	

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (bq)) * (conversion dpm to bq) / (Ampoule Mass(g) *(Dilution Vol)) = Parent Activity (dpm/mL)

(Mass of parent(g)) * (Parm Activity (bq)) * (conversion dpm to bq) / Density / (Ampoule Mass (g) * (Dilution Vol)) = Parent Activity (dpm/g)

(4.9657 g) * (38350 bq) * (60 dpm/bq) / (5.01066 g * 100 mL) = 22803.5343 dpm/mL

(4.9657 g) * (38350 bq) * (60 dpm/bq) / (0.9962 g/mL)/ (5.01066 g * 100 mL) = 22889.8293 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date
07/23/2008	Daniel Roy	20.0611	1000	1067-B	459.1952 dpm/ml	07/23/2008	07/23/2009
06/16/2009	Mary Aders	20.0693	1000	1067-C	459.3829 dpm/mL	06/17/2009	06/17/2010

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for Sr-90 Standard 1067-C

6/18/2009	Isotope	Detector CPM	BKG CPM	NET CPM	Detector Eff	Standard Vol. Used (mL)	Source DPM/mL
M. Aders	1067-C N1	922.6000	45.1300	877.4700	2.030242	1.0000	432.1997062
	1067-C N2	905.2700	45.1300	860.1400	2.030242	1.0000	423.66378
	1067-C N3	918.2700	45.1300	873.1400	2.030242	1.0000	430.0669575
						Average =	428.6434819
Mean Value (Counting) =	428.6434819		98.7965109	% of known	Pass		
Stdev =	4.442435123		0.01036394				
Certificate Value =	433.865	dpm/mL					
Lower Limit =	419.7586117	dpm/mL					
Upper Limit =	437.5283522	dpm/mL					
Rule 1 Pass/Fail	Pass	Pass	Pass				
Two sigma =	8.884870247						
10 % of Mean =	42.86434819						
Rule 2 (Pass/Fail)	Pass						

Verification Rules

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 5% of the certificate value.

The analyst prepared three standard verification sources for Sr-90 source 1067-C by transferring 1 mL portions of the standard into glass liquid scintillation vials. Thirteen mL of Ecoscint Ultra liqiuid scintillation coctail was prepared in a similar fashion using 1 mL of DI water and 13 mL of Ecoscint Ultra liqiuid scintillation coctail. The standard verification vials and Background source were dark adapted for two hours and counted on LSC Green for Sr-90 source standard verification. The Sr-90 efficiency calibration which was used for verification calculations was performed on 6/17/09 using source 0133-A (Sr-90). Calibration data is recorded in this logbook under Sr-90 0133-A. Each verification source calculation was performed as follows:

Source dpm/g = (A - B)/(C)(D)
where:
A = Ver. source cpm,
B = BKG cpm,
C = System efficiency, (cpm/dpm), and
D = mass used for standard verification.
RAD SOP M-001

6/18/09
6/27/09

STANDARDIZATION OF STRONTIUM CARRIER

DATE: [redacted] EXP. DATE: [redacted]

LOT NUMBER [redacted]

STRONTIUM PRECIPITATES

	1	2	3	4
Weight of carrier added	[redacted]			
Aliquot (5.00 mL)				
Crucible + ppt.	[redacted]			
Crucible				
Wt. of ppt., g	0.0178	0.0179	0.0179	0.0178
mg Sr/mL	17.80	17.90	17.90	17.80
mg Sr/g	17.28	17.72	17.55	17.28

Must weigh carrier added

Jennifer L. Robb
9-24-09

Average	Std. Dev.	
17.85	± 0.06	0.00323446
17.46	± 0.22	0.0124023
mg Sr/ 0.5 mL		**8.93**
mg Sr/g		17.46

0.5% of Mean Value = 0.08925 Pass

A satisfactory standardization is obtained when results give a standard deviation of less than 0.5% of the mean value.

Eckert & Ziegler
Analytics

1380 Seaboard Industrial Blvd.
Atlanta, Georgia 30318
Tel 404-352-8677
Fax 404-352-2837
www.analyticsinc.com

CERTIFICATE OF CALIBRATION
Standard Radionuclide Source

1283

78747-278

U-232 5 mL Liquid in Flame Sealed Vial

Customer: GEL Laboratories, LLC
P.O. No.: 7319 RD, Item 1

This standard radionuclide source was prepared gravimetrically from a calibrated master solution. The master solution was calibrated using a germanium gamma spectrometer system.

Radionuclide purity and calibration were checked using a germanium gamma spectrometer system. The nuclear decay rate and assay date for this source are given below.

ANALYTICS maintains traceability to the National Institute of Standards and Technology through Measurements Assurance Programs as described in USNRC Reg. Guide 4.15, Revision 1.

Isotope:	U-232
Activity (Bq):	3.754 E3
Half-Life:	68.9 years
Calibration Date:	December 9, 2008 12:00 EST
Relative Expanded Uncertainty (k=2):	5.0%

Comments:
Impurities: U-233 <0.3%, Am-241 <0.15%
5.20453 grams 1M HNO_3 solution.

Source Prepared By: W. Mao, Radiochemist

QA Approved: D. M. Montgomery, QA Manager Date: 12-11-08

End of Certificate

RECEIVED 12/15/08
RC-S-OE

Standard Traceability Log Rad

Source Material Info	
Parent Code:	1283
Prepared By:	Daniel Roy
Carrier Conc:	1M HNO3
Reference Date:	12/09/2008
Ampoule Mass (g):	5.20453 g
Uncertainty:	+/- 5 %
LogBook No:	RC-S-051-002

A Solution Material Info	
Isotope:	Uranium-232
Prepared By:	Daniel Roy
Prep Date:	12/16/2008
Verification Date:	12/30/2008
Expiration Date:	12/30/2009
Primary Code:	1283-A
Dilution(mL):	100 mL
Mass of Parent(g):	5.0245 g
Density(g/mL):	1.0285
Balance ID:	

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (Bq)) * (conversion dpm to Bq) / (Ampoule Mass(g) *(Dilution Vol)) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (Bq)) * (conversion dpm to Bq) / Density / (Ampoule Mass (g) * (Dilution Vol)) = Parent Activity (dpm/g)
(5.0245 g) * (3754 Bq) * (60 dpm/Bq) / (5.20453 g * 100 mL) = 2174.4872 dpm/mL
(5.0245 g) * (3754 Bq) * (60 dpm/Bq) / (1.0285 g/mL)/ (5.20453 g * 100 mL) = 2114.1700 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date
12/16/2008	Daniel Roy	25.1813	1000	1283-B	53.2375 dpm/ml	12/16/2008	12/16/2009
12/30/2008	Tina Schoneman	2.05	250	1283-C	17.336 dpm/mL	12/30/2008	12/30/2009
12/30/2008	Tina Schoneman	.49	250	1283-D	4.1438 dpm/mL	01/09/2009	01/09/2010
01/14/2009	Mary Aders	25.0528	1000	1283-E	52.9659 dpm/ml	01/15/2009	01/15/2010
12/02/2009	Julie Strock	2.076	250	1283-F	17.5561 dpm/mL	01/09/2009	12/30/2009
12/02/2009	Julie Strock	.517	250	1283-G	4.3721 dpm/mL	01/09/2009	12/30/2009
12/09/2009	Ashley Drochter	21.56	1000	1283-H	45.58 dpm/mL	12/09/2009	12/09/2010

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for Uranium-232 Standard *1283-H*

Analyst: A. Drochter	Serial #	Value		Uncertainty	
Date: 12/10/09	1283-H N1	2.020	pCi/L	0.238	pCi/L
	1283-H N2	2.000	pCi/L	0.234	pCi/L
	1283-H N3	2.060	pCi/L	0.242	pCi/L
Mean Value (Counting) =	2.027	pCi/L		99.66904	Pass
Stdev =	0.030550505	pCi/L			Rule 3 (Pass/Fail)
Target =	2.033	pCi/L			
Lower Limit =	1.965565657	pCi/L			
Upper Limit =	2.087767676	pCi/L			
Rule 1 Pass/Fail	Pass				
Two sigma =	0.061101009				
10 % of Mean =	0.202666667				
Rule 2 (Pass/Fail)	Pass				

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 10% of the certificate value.

The analyst prepared three standard verification sources for standard **1283-H** using 0.1 mL for each source. Each standard was combined with 0.1 mL of **U-238** standard **1163-G** and was diluted to 10 mL with DI water. 50 micrograms of neodymium carrier and 1ml of Titanium Chloride were added. The solution was allowed to sit for 30 seconds. One mL of 49% HF was then added to precipitate neodymium (and uranium) fluoride. After 30 minutes, each sample was filtered following routine procedures for alpha spectroscopy source preparation. Each source was counted using routine alpha spec procedures. DPM values for U-238 were calculated by comparison to U-232 certified values.

A. Drochter 12/14/09

RUNLOGS

Instrument Run Log

Instrument Type: LSC **Batch ID: 936900**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
1202004656	LCS	KXK2	LSCRED	05-JAN-10 08:04	DONE	10mL DW/13mL Ecoscint Ultra	21-AUG-09 00:00
243393002	SAMPLE	KXK2	LSCRED	05-JAN-10 09:31	DONE	10mL DW/13mL Ecoscint Ultra	21-AUG-09 00:00
243472001	SAMPLE	KXK2	LSCRED	05-JAN-10 10:23	DONE	10mL DW/13mL Ecoscint Ultra	21-AUG-09 00:00
243472002	SAMPLE	KXK2	LSCRED	05-JAN-10 11:16	DONE	10mL DW/13mL Ecoscint Ultra	21-AUG-09 00:00
243547002	SAMPLE	KXK2	LSCRED	06-JAN-10 06:52	DONE	10mL DW/13mL Ecoscint Ultra	21-AUG-09 00:00
243547003	SAMPLE	KXK2	LSCRED	06-JAN-10 07:44	DONE	10mL DW/13mL Ecoscint Ultra	21-AUG-09 00:00
243549002	SAMPLE	KXK2	LSCRED	06-JAN-10 08:36	DONE	10mL DW/13mL Ecoscint Ultra	21-AUG-09 00:00
243555001	SAMPLE	KXK2	LSCRED	06-JAN-10 09:28	DONE	10mL DW/13mL Ecoscint Ultra	21-AUG-09 00:00
243555002	SAMPLE	KXK2	LSCRED	06-JAN-10 10:21	DONE	10mL DW/13mL Ecoscint Ultra	21-AUG-09 00:00
1202004654	MB	KXK2	LSCRED	06-JAN-10 11:13	DONE	10mL DW/13mL Ecoscint Ultra	21-AUG-09 00:00
1202004655	DUP	KXK2	LSCRED	06-JAN-10 12:05	DONE	10mL DW/13mL Ecoscint Ultra	21-AUG-09 00:00
243472003	SAMPLE	KXK2	LSCBROWN	07-JAN-10 02:40	DONE	10mL DW/13mL Ecoscint Ultra	09-SEP-09 00:00

Instrument Run Log

Instrument Type: ALPHA SPECTROMETER **Batch ID: 937614**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
1202006377	MB	HAKB	1107	06-JAN-10 10:25	DONE		
1202006378	DUP	HAKB	1109	06-JAN-10 10:25	DONE		
1202006379	LCS	HAKB	1110	06-JAN-10 10:25	DONE		
243515009	SAMPLE	HAKB	1037	06-JAN-10 13:45	DUSE		
243515010	SAMPLE	HAKB	1038	06-JAN-10 13:45	DONE		
243515011	SAMPLE	HAKB	1039	06-JAN-10 13:45	DONE		
243515012	SAMPLE	HAKB	1040	06-JAN-10 13:45	DONE		
243515013	SAMPLE	HAKB	1041	06-JAN-10 13:45	DONE		
243515014	SAMPLE	HAKB	1042	06-JAN-10 13:45	DONE		
243515015	SAMPLE	HAKB	1065	06-JAN-10 13:45	DONE		
243515016	SAMPLE	HAKB	1066	06-JAN-10 13:45	DONE		
243515017	SAMPLE	HAKB	1067	06-JAN-10 13:45	DONE		
243547002	SAMPLE	HAKB	1068	06-JAN-10 13:45	DONE		
243547003	SAMPLE	HAKB	1069	06-JAN-10 13:45	DONE		
243549002	SAMPLE	HAKB	1070	06-JAN-10 13:45	DONE		
243515001	SAMPLE	HAKB	1255	06-JAN-10 15:10	DONE		
243515002	SAMPLE	HAKB	1256	06-JAN-10 15:11	DONE		
243515003	SAMPLE	HAKB	1001	06-JAN-10 15:12	DONE		
243515004	SAMPLE	HAKB	1002	06-JAN-10 15:12	DONE		
243515005	SAMPLE	HAKB	1003	06-JAN-10 15:12	DONE		
243515006	SAMPLE	HAKB	1004	06-JAN-10 15:12	DUSE		
243515007	SAMPLE	HAKB	1005	06-JAN-10 15:12	DONE		
243515008	SAMPLE	HAKB	1006	06-JAN-10 15:12	DONE		
243515006	SAMPLE	HAKB	1255	08-JAN-10 06:56	DONE		
243515009	SAMPLE	HAKB	1256	08-JAN-10 06:56	DONE		

Instrument Run Log

Instrument Type: ALPHA SPECTROMETER **Batch ID: 937615**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
1202006380	MB	HAKB	1107	05-JAN-10 14:30	DONE		
1202006381	DUP	HAKB	1108	05-JAN-10 14:30	DONE		
1202006382	LCS	HAKB	1109	05-JAN-10 14:30	DONE		
243549002	SAMPLE	HAKB	1210	05-JAN-10 14:30	DONE		
243515001	SAMPLE	HAKB	1008	05-JAN-10 15:09	DONE		
243515002	SAMPLE	HAKB	1009	05-JAN-10 15:09	DUSE		
243515003	SAMPLE	HAKB	1010	05-JAN-10 15:09	DONE		
243515004	SAMPLE	HAKB	1012	05-JAN-10 15:09	DUSE		
243515005	SAMPLE	HAKB	1013	05-JAN-10 15:09	DUSE		
243515006	SAMPLE	HAKB	1014	05-JAN-10 15:09	DUSE		
243515007	SAMPLE	HAKB	1016	05-JAN-10 15:09	DONE		
243515008	SAMPLE	HAKB	1017	05-JAN-10 15:09	DONE		
243515009	SAMPLE	HAKB	1018	05-JAN-10 15:09	DUSE		
243515010	SAMPLE	HAKB	1019	05-JAN-10 15:09	DONE		
243515011	SAMPLE	HAKB	1020	05-JAN-10 15:09	DONE		
243515012	SAMPLE	HAKB	1021	05-JAN-10 15:09	DONE		
243515013	SAMPLE	HAKB	1022	05-JAN-10 15:09	DONE		
243515014	SAMPLE	HAKB	1023	05-JAN-10 15:09	DUSE		
243515015	SAMPLE	HAKB	1024	05-JAN-10 15:09	DONE		
243515016	SAMPLE	HAKB	1025	05-JAN-10 15:09	DUSE		
243515017	SAMPLE	HAKB	1026	05-JAN-10 15:09	DONE		
243547002	SAMPLE	HAKB	1027	05-JAN-10 15:09	DONE		
243547003	SAMPLE	HAKB	1028	05-JAN-10 15:09	DONE		
243515016	SAMPLE	HAKB	1218	07-JAN-10 07:59	DONE		
243515002	SAMPLE	HAKB	1065	07-JAN-10 08:30	DONE		
243515004	SAMPLE	HAKB	1066	07-JAN-10 08:30	DONE		
243515005	SAMPLE	HAKB	1067	07-JAN-10 08:30	DONE		
243515006	SAMPLE	HAKB	1068	07-JAN-10 08:30	DONE		
243515009	SAMPLE	HAKB	1069	07-JAN-10 08:30	DONE		
243515014	SAMPLE	HAKB	1070	07-JAN-10 08:30	DONE		

Instrument Run Log

Instrument Type: ALPHA SPECTROMETER **Batch ID: 937616**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
1202006383	MB	HAKB	1125	06-JAN-10 13:51	DONE		
1202006384	DUP	HAKB	1126	06-JAN-10 13:51	DONE		
1202006385	LCS	HAKB	1127	06-JAN-10 13:51	DONE		
243515003	SAMPLE	HAKB	1121	08-JAN-10 16:00	DONE		
243515004	SAMPLE	HAKB	1122	08-JAN-10 16:00	DONE		
243515005	SAMPLE	HAKB	1125	08-JAN-10 16:00	DONE		
243515006	SAMPLE	HAKB	1126	08-JAN-10 16:00	DONE		
243515007	SAMPLE	HAKB	1127	08-JAN-10 16:00	DONE		
243515008	SAMPLE	HAKB	1128	08-JAN-10 16:00	DONE		
243515009	SAMPLE	HAKB	1129	08-JAN-10 16:01	DONE		
243515010	SAMPLE	HAKB	1130	08-JAN-10 16:01	DONE		
243515011	SAMPLE	HAKB	1133	08-JAN-10 16:01	DONE		
243515012	SAMPLE	HAKB	1134	08-JAN-10 16:01	DONE		
243515013	SAMPLE	HAKB	1135	08-JAN-10 16:01	DUSE		
243515014	SAMPLE	HAKB	1136	08-JAN-10 16:01	DUSE		
243515015	SAMPLE	HAKB	1137	08-JAN-10 16:01	DONE		
243515016	SAMPLE	HAKB	1138	08-JAN-10 16:01	DONE		
243515017	SAMPLE	HAKB	1145	08-JAN-10 16:01	DONE		
243547002	SAMPLE	HAKB	1146	08-JAN-10 16:01	DONE		
243547003	SAMPLE	HAKB	1147	08-JAN-10 16:01	DONE		
243549002	SAMPLE	HAKB	1148	08-JAN-10 16:01	DONE		
243515001	SAMPLE	HAKB	1167	09-JAN-10 10:49	DONE		
243515002	SAMPLE	HAKB	1169	09-JAN-10 10:49	DONE		
243515013	SAMPLE	HAKB	1129	11-JAN-10 11:56	DONE		
243515014	SAMPLE	HAKB	1130	11-JAN-10 11:56	DONE		

Instrument Run Log

Instrument Type: GFPC **Batch ID: 938289**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
243547002	SAMPLE	MXB1	PIC1C	07-JAN-10 06:58	DONE	Tuffryn Filter	01-JAN-09 00:00
243547003	SAMPLE	MXB1	PIC4A	07-JAN-10 06:59	DONE	Tuffryn Filter	01-JAN-09 00:00
243549002	SAMPLE	MXB1	PIC4D	07-JAN-10 06:59	DONE	Tuffryn Filter	01-JAN-09 00:00
243555001	SAMPLE	MXB1	PIC5A	07-JAN-10 06:59	DONE	Tuffryn Filter	01-JAN-09 00:00
243555002	SAMPLE	MXB1	PIC5D	07-JAN-10 06:59	DONE	Tuffryn Filter	01-JAN-09 00:00
243599001	SAMPLE	MXB1	PIC6A	07-JAN-10 06:59	DONE	Tuffryn Filter	01-JAN-09 00:00
243599002	SAMPLE	MXB1	PIC7A	07-JAN-10 06:59	DONE	Tuffryn Filter	01-JAN-09 00:00
243599003	SAMPLE	MXB1	PIC7D	07-JAN-10 06:59	DONE	Tuffryn Filter	01-JAN-09 00:00
243599004	SAMPLE	MXB1	PIC9C	07-JAN-10 06:59	DONE	Tuffryn Filter	01-JAN-09 00:00
243599005	SAMPLE	MXB1	PIC10A	07-JAN-10 07:00	DONE	Tuffryn Filter	01-JAN-09 00:00
1202007740	MB	MXB1	PIC10C	07-JAN-10 07:00	DONE	Tuffryn Filter	01-JAN-09 00:00
1202007741	DUP	MXB1	PIC10D	07-JAN-10 07:00	DONE	Tuffryn Filter	01-JAN-09 00:00
1202007742	LCS	MXB1	PIC1D	07-JAN-10 07:58	DONE	Tuffryn Filter	01-JAN-09 00:00

Tuesday, May 3, 2005

REQUEST NUMBER: 3195S

ANALYSIS TYPE: INORGANIC

Los Alamos
NATIONAL LABORATORY

ATTN: Stacy Griffin
General Engineering Laboratories, Inc., Historical
2040 Savage Road
Charleston, SC 29407

Please analyze the enclosed samples according to the schedule indicated:

SHIP DATE: 05/03/2005
REPORT DUE: 05/13/2005
TURN AROUND REQ'D: 10

RAD SCREENING: NOT REQ
COMMENTS:

These samples are on:

LANL Request Number: 3195S
Per Agreement Number: 126310011
Project Cost Code: MR0R00FC6800

LANL ER SMO CONTACT:
Signature:

METHOD CODE	SAMPLE ID	CONT ID	SAMPLE MATRIX	DATE SAMPLED	COMMENTS
SW-846:6010B	RE03-05-59531	5	S	05/02/2005	
SW-846:6020	RE03-05-59531	5	S	05/02/2005	
SW-846:7471A	RE03-05-59531	5	S	05/02/2005	
SW-846:6010B	RE03-05-59532	5	S	05/03/2005	
SW-846:6020	RE03-05-59532	5	S	05/03/2005	
SW-846:7471A	RE03-05-59532	5	S	05/03/2005	
SW-846:6010B	RE03-05-59541	5	S	05/03/2005	
SW-846:6020	RE03-05-59541	5	S	05/03/2005	
SW-846:7471A	RE03-05-59541	5	S	05/03/2005	
SW-846:6010B	RE03-05-59542	5	S	05/03/2005	
SW-846:6020	RE03-05-59542	5	S	05/03/2005	
SW-846:7471A	RE03-05-59542	5	S	05/03/2005	
SW-846:6010B	RE03-05-59548	1	W	05/03/2005	
SW-846:6020	RE03-05-59548	1	W	05/03/2005	
SW-846:7470A	RE03-05-59548	1	W	05/03/2005	

Final Page of REQUEST NUMBER 3195S

Tuesday, May 3, 2005

CHAIN OF CUSTODY DOCUMENT NUMBER: 3195SC

Los Alamos
NATIONAL LABORATORY

REQUEST NUMBER: 3195S

ANALYSIS TYPE: INORGANIC

ATTN: Stacy Griffin
General Engineering Laboratories, Inc., Historical
2040 Savage Road
Charleston, SC 29407

SAMPLE ID	CONT ID	CONTAINER DESCRIPTION	ORDER TEMPLATE CODE	PRESERVATIVE	MATRIX
RE03-05-59531	5	125 ML POLY	METALS-GEL	ICE	S
RE03-05-59532	5	125 ML POLY	METALS-GEL	ICE	S
RE03-05-59541	5	125 ML POLY	METALS-GEL	ICE	S
RE03-05-59542	5	125 ML POLY	METALS-GEL	ICE	S
RE03-05-59548	1	1 L POLY	METALS-GEL	HNO3	W

Final Page of CHAIN OF CUSTODY DOCUMENT FOR REQUEST NUMBER 3195S

Relinquished By:		Date	Time	Received By:		Date	Time
APadilla	APadilla	5/2/05	1400				
PRINTED NAME	SIGNATURE			PRINTED NAME	SIGNATURE		
PRINTED NAME	SIGNATURE			PRINTED NAME	SIGNATURE		
PRINTED NAME	SIGNATURE			PRINTED NAME	SIGNATURE		

Received for DISPOSAL By:		Date	Time	Remarks:
PRINTED NAME	SIGNATURE			

Los Alamos National Laboratory
Environmental Restoration Project
Los Alamos, NM 87545

FIELD CHAIN OF CUSTODY

EVENT NAME: TA-3 03-013(i)

COC ID: 226702 Event ID:4932

SAMPLE ID: RE03-05-59541

SAMPLE ORDER MATRIX: Soil

ER TEAM LEADER: Roy Bohn

FIELD TEAM LEADER: Daniel Thompson

DESTINATION: SMO

DEST. POC:

ANALYSES REQUESTED

CONT. ID	ORDER	CONTAINER DESCRIPTION	PRESERVATIVE	COLLECTED Y / N	REASON	SPECIAL INSTRUCTIONS
1	8260BENCORE	5 G ENCORE	Ice	N	Not req	
2	8260BENCORE	5 G ENCORE	Ice	N	Not req	
3	8270C+8082+TPH-DRO	500 ML GLASS	Ice	Y		
5	METALS-GEL	125 ML POLY	Ice	Y		
4	TPH-GRO	125 SEPTUM AMBER GLASS	Ice	Y		

RELINQUISHED BY (printed name): (signature):	Date/Time: 5/3/05 1305	RELINQUISHED BY (printed name): (signature):	Date/Time:
RECEIVED BY (printed name): (signature):	Date/Time: 5/3/05 1305	RECEIVED BY (printed name): (signature):	Date/Time:

Los Alamos National Laboratory
Environmental Restoration Project
Los Alamos, NM 87545

FIELD CHAIN OF CUSTODY

EVENT NAME: TA-3 03-013(i)

COC ID: 226772 Event ID:4932

SAMPLE ID: RE03-05-59548

SAMPLE ORDER MATRIX: Water

ER TEAM LEADER: Roy Bohn

FIELD TEAM LEADER: Daniel Thompson

DESTINATION: SMO

DEST. POC:

ANALYSES REQUESTED

CONT. ID	ORDER	CONTAINER DESCRIPTION	PRESERVATIVE	COLLECTED Y / N	REASON	SPECIAL INSTRUCTIONS
1	METALS-GEL	~~1 L~~ POLY 500mL.	Nitric Acid	Y		

RELINQUISHED BY (printed name): (signature):	Date/Time: 5/3/05 1305	RELINQUISHED BY (printed name): (signature):	Date/Time:
RECEIVED BY (printed name): (signature):	Date/Time: 5-3-05 1305	RECEIVED BY (printed name): (signature):	Date/Time:

Los Alamos National Laboratory
Environmental Restoration Project
Los Alamos, NM 87545

EVENT NAME: TA-3 03-013(i)

FIELD CHAIN OF CUSTODY

COC ID: 226612 Event ID:4932

SAMPLE ID: RE03-05-59532
SAMPLE ORDER MATRIX: Soil
ER TEAM LEADER: Roy Bohn
FIELD TEAM LEADER: Daniel Thompson
DESTINATION: SMO
DEST. POC:

ANALYSES REQUESTED

CONT. ID	ORDER	CONTAINER DESCRIPTION	PRESERVATIVE	COLLECTED Y / N	REASON	SPECIAL INSTRUCTIONS
1	8260BENCORE	5 G ENCORE	Ice	Y		
2	8260BENCORE	5 G ENCORE	Ice	Y		
3	8270C+8082+TPH-DRO	500 ML GLASS	Ice	Y		
5	METALS-GEL	125 ML POLY	Ice	Y		
4	TPH-GRO	125 SEPTUM AMBER GLASS	Ice	Y		

RELINQUISHED BY (printed name): (signature):	Date/Time: 5/3/05 1305	RELINQUISHED BY (printed name): (signature):	Date/Time:
RECEIVED BY (printed name): (signature):	Date/Time: 5/3/05 1305	RECEIVED BY (printed name): (signature):	Date/Time:

Los Alamos National Laboratory
Environmental Restoration Project
Los Alamos, NM 87545

FIELD CHAIN OF CUSTODY

EVENT NAME: TA-3 03-013(i)

COC ID: 226712 Event ID:4932

SAMPLE ID: RE03-05-59542

SAMPLE ORDER MATRIX: Soil

ER TEAM LEADER: Roy Bohn

FIELD TEAM LEADER: Daniel Thompson

DESTINATION: SMO

DEST. POC:

ANALYSES REQUESTED

CONT. ID	ORDER	CONTAINER DESCRIPTION	PRESERVATIVE	COLLECTED Y / N	REASON	SPECIAL INSTRUCTIONS
1	8260BENCORE	5 G ENCORE	Ice	Y		
2	8260BENCORE	5 G ENCORE	Ice	Y		
3	8270C+8082+TPH-DRO	500 ML GLASS	Ice	Y		
5	METALS-GEL	125 ML POLY	Ice	Y		
4	TPH-GRO	125 SEPTUM AMBER GLASS	Ice	Y		

RELINQUISHED BY (printed name): (signature): Paul Alari	Date/Time: 5/3/05 1305	RELINQUISHED BY (printed name): (signature):	Date/Time:
RECEIVED BY (printed name): (signature): Jennifer Vega	Date/Time: 5-3-05 1305	RECEIVED BY (printed name): (signature):	Date/Time:

Los Alamos National Laboratory
Environmental Restoration Project
Los Alamos, NM 87545

FIELD CHAIN OF CUSTODY

EVENT NAME: TA-3 03-013(i)

COC ID: 226752 Event ID:4932

SAMPLE ID: RE03-05-59546

SAMPLE ORDER MATRIX: Soil

ER TEAM LEADER: Roy Bohn

FIELD TEAM LEADER: Daniel Thompson

DESTINATION: SMO

DEST. POC:

ANALYSES REQUESTED

CONT. ID	ORDER	CONTAINER DESCRIPTION	PRESERVATIVE	COLLECTED Y / N	REASON	SPECIAL INSTRUCTIONS
1	8260B	125 SEPTUM AMBER GLASS	Ice	Y		

RELINQUISHED BY (printed name): (signature):	Date/Time: 5/3/05 1305	RELINQUISHED BY (printed name): (signature):	Date/Time:
RECEIVED BY (printed name): (signature):	Date/Time: 5-3-05 1305	RECEIVED BY (printed name): (signature):	Date/Time:

Los Alamos National Laboratory
Environmental Restoration Project
Los Alamos, NM 87545

FIELD CHAIN OF CUSTODY

EVENT NAME: TA-3 03-013(i)

COC ID: 226602 Event ID:4932

SAMPLE ID: RE03-05-59531
SAMPLE ORDER MATRIX: Soil
ER TEAM LEADER: Roy Bohn
FIELD TEAM LEADER: Daniel Thompson
DESTINATION: SMO
DEST. POC:

ANALYSES REQUESTED

CONT. ID	ORDER	CONTAINER DESCRIPTION	PRESERVATIVE	COLLECTED Y/N	REASON	SPECIAL INSTRUCTIONS
1	8260BENCORE	5 G ENCORE	Ice	N	Not required	
2	8260BENCORE	5 G ENCORE	Ice	N	Not required	
3	8270C+8082+TPH-DRO	500 ML GLASS	Ice	Y		
5	METALS-GEL	125 ML POLY	Ice	Y		
4	TPH-GRO	125 SEPTUM AMBER GLASS	Ice	Y		

RELINQUISHED BY (printed name): (signature):	Date/Time: 5/2/05 1634	RELINQUISHED BY (printed name): (signature):	Date/Time
RECEIVED BY (printed name): (signature):	Date/Time: 5/2/05 16:34	RECEIVED BY (printed name): (signature):	Date/Time

Data-Validation Cover Sheet

☒ Rejected Data

Section I

Request Number: 3195S Validation Date: 09-Jun-05 Lab Code: GEL

Contract Laboratory Name: _____

Validator: Clifford Deiner Organization: ENV-ECR

Analytical Suite (check all that apply):
- ☐ Volatile Organics
- ☐ Semivolatile Organics
- ☐ Organochlorine Pesticides/Polychlorinated Biphenyls
- ☐ High Explosives
- ☒ Inorganics
- ☐ Radiochemistry

Other (describe): _____

Section II—Completeness Check

Yes	No	n/a	(check one)	Yes	No	n/a	(check one)
☒	☐	☐	1. Chain-of-custody form(s)	☒	☐	☐	6. Raw/BSS data
☒	☐	☐	2. Case narrative	☒	☐	☐	7. Quality control forms
☒	☐	☐	3. Sample result forms	☒	☐	☐	8. Quantitation reports
☐	☐	☒	4. Sample chromatograms	☐	☐	☒	9. TICs forms
☐	☐	☒	5. Standard chromatograms	☐	☐	☒	10. TICs mass spectra

Identify any samples in the assigned Request Number that are missing:

_____ _____ _____ _____ _____ _____ _____ _____

_____ _____ _____ _____ _____ _____ _____ _____

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

Metals

Blank contamination was present for Cr in soil. The 5x rule was applied and no sample results were qualified. The matrix spike recoveries for Sb(20%), Ba(311%), Ca(233%), Mg(186%), Mn(475%), K(170%), and Zn(163%) did not meet acceptance limits. Sb results were qualified R,I3f; while Ba, Ca, Mg, Mn, K, and Zn results were qualified J+,I3c. The duplicate RPDs for Ba, Cr, Co, Cu, and Mn did not meet acceptance limits and sample results were qualfied J,I10c. The serial dilution for Zn for RE03-05-59531 did not meet acceptance limits and the sample result was qualified J,I18b. All other QCs met acceptance limits. Some analytes were B-flagged and sample results were qualified J,I1.

Blank contamination was present for Ni in water. The 5x rule was applied and no sample results were qualified. All other QCs met acceptance limits.

Validator's signature: Cliff Deiner Date: 6-9-05

(Attach additional comment sheets as necessary.)

Inorganic Data-Validation Checklist

Yes	No	(check one)	Assign qualifier listed below if criteria = Yes: Detected analyte	Undetected analyte
☐	☒	1. The preparation Blank (PB), ICB, or CCB was not analyzed with the samples.	R, I4	R, I4
☒	☐	2. The analyte detected in PB <u>and</u> the sample result for the analyte ≤5x the amount in PB.	U, I4a	N/A
☐	☒	3. The initial or continuing calibration verification (ICV or CCV) was not analyzed with the samples.	R, I16	R, I16
☐	☒	4. The ICV or CCV recovery is >UAL.	R, I16a	N/A
☐	☒	5. The ICV or CCV recovery is >UWL and ≤UAL.	J+, I16b	N/A
☐	☒	6. The ICV or CCV recovery is <LWL but ≥LAL.	J-, I16c	UJ, I16c
☐	☒	7. The ICV or CCV recovery is <LAL.	R, I16d	R, I16d
☐	☒	8. For ICPMS and CN analyses: The correlation coefficient is <0.995?	R, I16e	R,I16e
☐	☒	9. The interference check sample (ICS) was not analyzed with the samples.	R, I7	R, I7
☐	☒	10. The ICS recovery is >120%.	J+, I7a	N/A
☐	☒	11. The ICS recovery is ≥50% and <80%.	J-, I7b	UJ, I7b
☐	☒	12. The ICS recovery is <50%.	R, I7c	R, I7d
☐	☒	13. The MS was not analyzed with the sample without explanation.	R, I3	R, I3
☐	☒	14. Insufficient sample volume for MS analyses was provided.	J, I3a	UJ, I3a
☐	☒	15. An MS analyses was performed on a non-LANL sample.	J, I3b	UJ, I3b
☒	☐	16. The MS recovery was > 150%*.	J+, I3c	UJ, I3c
☐	☒	17. The MS recovery was >125% and ≤150%.	J+, I3d	N/A
☐	☒	18. The MS recovery was ≥30% and <75%.	J-, I3e	UJ, I3e
☒	☐	19. The MS recovery was <30%.	R, I3f	R, I3f
☐	☒	20. A duplicate sample was not analyzed without explanation.	J, I10	UJ, I10
☐	☒	21. Insufficient sample volume for duplicate sample analysis was provided.	J, I10a	UJ, I10a
☐	☒	22. A duplicate sample was performed on a non-LANL sample.	J, I10b	UJ, I10b
☒	☐	23. Both the sample and the duplicate are ≥5x RL, and the RPD is >20 for water samples or >35 for soil samples	J, I10c	UJ, I10c
☐	☒	24. Either the sample or Dup is ≥5x the RL and the sample and Dup results are not within ±1x the RL for water or ±2x the RL for soil.	J, I10d	UJ, I10d
☐	☒	25. The LCS was not analyzed with the samples.	R, I6	R, I6
☐	☒	26. The LCS recovery was >the UWL.	J+, I6a	N/A
☐	☒	27. The LCS recovery was ≥LAL and <LWL.	J-, I6b	UJ, I6b
☐	☒	28. The LCS recovery was <the LAL.	R, I6c	R, I6c
☐	☒	29. The serial dilution sample was not analyzed with the samples.	J, I18	UJ, I18
☐	☒	30. The serial dilution sample was performed on a non-LANL sample.	J, I18a	UJ, I18a
☒	☐	31. The RPD between the sample and the serial dilution sample is >10, and the undiluted sample result is >50x the RL(>100x for ICPMS).	J, I18b	UJ, I18b
☐	☒	32. The sample was analyzed past the appropriate hold time.	J-, I9	UJ, I9
☐	☒	33. The sample was analyzed past double the hold time.	J-, I9a	R, I9a
☒	☐	34. B-flagged sample results are present.	J, I1	N/A
☐	☒	35. Other obvious data quality issues are identified.	__, I19	__, I19

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 3195S

METHOD TYPE: SW846

SAMPLE ID: 135803001

CLIENT ID: RE03-05-59531

CONTRACT: LANL00101

MATRIX: S

DATE RECEIVED 04-MAY-05

LEVEL: Low **%SOLIDS:** 84

CAS No	Analyte	Result	Units	C	Qual	M	MDL	Instrument ID	Analytical Run
7429-90-5	Aluminum	10100000	ug/kg			P	7970	TRACE2	050905-1
7440-36-0	Antimony	158	ug/kg	B R, Z3f	N	MS	119	ICPMS3	050509-3
7440-38-2	Arsenic	1620	ug/kg	B		P	703	TRACE2	050905-1
7440-39-3	Barium	55900	ug/kg	J+, Z3c J, I10c	*N	P	117	TRACE2	050905-1
7440-41-7	Beryllium	736	ug/kg			MS	23.8	ICPMS3	050509-3
7440-43-9	Cadmium	225	ug/kg	B J, Z1		P	117	TRACE2	050905-1
7440-70-2	Calcium	1770000	ug/kg	J+, Z3c	*N	P	4220	TRACE2	050905-1
7440-47-3	Chromium	6260	ug/kg	J, I10c	*	P	117	TRACE2	050905-1
7440-48-4	Cobalt	897	ug/kg	J, I10c	*	P	234	TRACE2	050905-1
7440-50-8	Copper	6270	ug/kg	J, I10c	*	P	351	TRACE2	050905-1
7439-89-6	Iron	8110000	ug/kg		*	P	2110	TRACE2	050905-1
7439-92-1	Lead	20300	ug/kg		*	P	293	TRACE2	050905-1
7439-95-4	Magnesium	1060000	ug/kg	J+, Z3c	N	P	9960	TRACE2	050905-1
7439-96-5	Manganese	127000	ug/kg	J+, Z3c J, I10c	*N	P	234	TRACE2	050905-1
7439-97-6	Mercury	12.1	ug/kg			AV	2.96	MER179	051005S2
7440-02-0	Nickel	7070	ug/kg		*	MS	119	ICPMS3	050509-3
7440-09-7	Potassium	1050000	ug/kg	J+, Z3c	N	P	5860	TRACE2	050905-1
7782-49-2	Selenium	703	ug/kg	U		P	703	TRACE2	050905-1
7440-22-4	Silver	77.4	ug/kg	B J, Z1		MS	47.5	ICPMS3	050509-3
7440-23-5	Sodium	156000	ug/kg			P	5270	TRACE2	050905-1
7440-28-0	Thallium	124	ug/kg	B J, Z1		MS	95	ICPMS3	050509-3
7440-62-2	Vanadium	7840	ug/kg		*	P	117	TRACE2	050905-1
7440-66-6	Zinc	41300	ug/kg ~~J, Z1~~		EN	P	234	TRACE2	050905-1

6-9-05 J+, Z3c J, I18b

Comments:

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 3195S

METHOD TYPE: SW846

SAMPLE ID: 135803002

CLIENT ID: RE03-05-59532

CONTRACT: LANL00101

MATRIX: S

DATE RECEIVED 04-MAY-05

LEVEL: Low **%SOLIDS:** 87

CAS No	Analyte	Result	Units	C	Qual	M	MDL	Instrument ID	Analytical Run
7429-90-5	Aluminum	8170000	ug/kg			P	7750	TRACE2	050905-1
7440-36-0	Antimony	113	ug/kg	U R, E3f	N	MS	113	ICPMS3	050509-3
7440-38-2	Arsenic	977	ug/kg	B J, E1		P	684	TRACE2	050905-1
7440-39-3	Barium	40800	ug/kg	J, E3c J, E10c	*N	P	114	TRACE2	050905-1
7440-41-7	Beryllium	694	ug/kg			MS	22.6	ICPMS3	050509-3
7440-43-9	Cadmium	114	ug/kg	U		P	114	TRACE2	050905-1
7440-70-2	Calcium	1120000	ug/kg	J, E3c	*N	P	4100	TRACE2	050905-1
7440-47-3	Chromium	3170	ug/kg	J, E10c	*	P	114	TRACE2	050905-1
7440-48-4	Cobalt	826	ug/kg	J, E10c	*	P	228	TRACE2	050905-1
7440-50-8	Copper	3260	ug/kg	J, E10c	*	P	342	TRACE2	050905-1
7439-89-6	Iron	5830000	ug/kg		*	P	2050	TRACE2	050905-1
7439-92-1	Lead	8030	ug/kg		*	P	285	TRACE2	050905-1
7439-95-4	Magnesium	955000	ug/kg	J, E3c	N	P	9680	TRACE2	050905-1
7439-96-5	Manganese	120000	ug/kg	J, E3c J, E10c	*N	P	228	TRACE2	050905-1
7439-97-6	Mercury	21	ug/kg			AV	2.66	MER179	051005S2
7440-02-0	Nickel	4840	ug/kg		*	MS	113	ICPMS3	050509-3
7440-09-7	Potassium	914000	ug/kg	J, E3c	N	P	5700	TRACE2	050905-1
7782-49-2	Selenium	684	ug/kg	U		P	684	TRACE2	050905-1
7440-22-4	Silver	47	ug/kg	B J, E1		MS	45.2	ICPMS3	050509-3
7440-23-5	Sodium	128000	ug/kg			P	5130	TRACE2	050905-1
7440-28-0	Thallium	90.4	ug/kg	U		MS	90.4	ICPMS3	050509-3
7440-62-2	Vanadium	6990	ug/kg		*	P	114	TRACE2	050905-1
7440-66-6	Zinc	20200	ug/kg	J, E3c	EN	P	228	TRACE2	050905-1

CD

Comments:

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 3195S **METHOD TYPE:** SW846

SAMPLE ID: 135803003 **CLIENT ID:** RE03-05-59541

CONTRACT: LANL00101

MATRIX: S **DATE RECEIVED** 04-MAY-05 **LEVEL:** Low **%SOLIDS:** 87

CAS No	Analyte	Result	Units	C	Qual	M	MDL	Instrument ID	Analytical Run
7429-90-5	Aluminum	6310000	ug/kg			P	7730	TRACE2	050905-1
7440-36-0	Antimony	112	ug/kg	U R, Z3f	N	MS	112	ICPMS3	050509-3
7440-38-2	Arsenic	682	ug/kg	U		P	682	TRACE2	050905-1
7440-39-3	Barium	44700	ug/kg	J+, Z3c J, Z10c	*N	P	114	TRACE2	050905-1
7440-41-7	Beryllium	591	ug/kg			MS	22.4	ICPMS3	050509-3
7440-43-9	Cadmium	114	ug/kg	U		P	114	TRACE2	050905-1
7440-70-2	Calcium	967000	ug/kg	~~J, Z10c~~ J+, Z3c	*N	P	4090	TRACE2	050905-1
7440-47-3	Chromium	2320	ug/kg	J, Z10c	*	P	114	TRACE2	050905-1
7440-48-4	Cobalt	623	ug/kg	J, Z10c	*	P	227	TRACE2	050905-1
7440-50-8	Copper	3050	ug/kg	J, Z10c	*	P	341	TRACE2	050905-1
7439-89-6	Iron	4580000	ug/kg		*	P	2050	TRACE2	050905-1
7439-92-1	Lead	10700	ug/kg		*	P	284	TRACE2	050905-1
7439-95-4	Magnesium	680000	ug/kg	J+, Z3c	N	P	9660	TRACE2	050905-1
7439-96-5	Manganese	101000	ug/kg	J+, Z3c J, Z10c	*N	P	227	TRACE2	050905-1
7439-97-6	Mercury	10.7	ug/kg	B J, Z1		AV	2.79	MER179	051005S2
7440-02-0	Nickel	4460	ug/kg		*	MS	112	ICPMS3	050509-3
7440-09-7	Potassium	732000	ug/kg	J+, Z3c	N	P	5680	TRACE2	050905-1
7782-49-2	Selenium	682	ug/kg	U		P	682	TRACE2	050905-1
7440-22-4	Silver	48.2	ug/kg	B J, Z1		MS	44.8	ICPMS3	050509-3
7440-23-5	Sodium	138000	ug/kg			P	5110	TRACE2	050905-1
7440-28-0	Thallium	89.6	ug/kg	U		MS	89.6	ICPMS3	050509-3
7440-62-2	Vanadium	5080	ug/kg		*	P	114	TRACE2	050905-1
7440-66-6	Zinc	26500	ug/kg	J+, Z3c	EN	P	227	TRACE2	050905-1

CAD 6.9.05

Comments:

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 3195S **METHOD TYPE:** SW846

SAMPLE ID: 135803004 **CLIENT ID:** RE03-05-59542

CONTRACT: LANL00101

MATRIX: S **DATE RECEIVED** 04-MAY-05 **LEVEL:** Low **%SOLIDS:** 86

CAS No	Analyte	Result	Units	C	Qual	M	MDL	Instrument ID	Analytical Run
7429-90-5	Aluminum	7300000	ug/kg			P	7720	TRACE2	050905-1
7440-36-0	Antimony	114	ug/kg	U R, E3f	N	MS	114	ICPMS3	050509-3
7440-38-2	Arsenic	865	ug/kg	B J, E1		P	681	TRACE2	050905-1
7440-39-3	Barium	47000	ug/kg	J+, E3c J, E10c	*N	P	114	TRACE2	050905-1
7440-41-7	Beryllium	528	ug/kg			MS	22.7	ICPMS3	050509-3
7440-43-9	Cadmium	274	ug/kg	B J, E1		P	114	TRACE2	050905-1
7440-70-2	Calcium	1040000	ug/kg	J+, E3c	*N	P	4090	TRACE2	050905-1
7440-47-3	Chromium	3230	ug/kg	J, E10c	*	P	114	TRACE2	050905-1
7440-48-4	Cobalt	895	ug/kg	J, E10c	*	P	227	TRACE2	050905-1
7440-50-8	Copper	3810	ug/kg	J, E10c	*	P	341	TRACE2	050905-1
7439-89-6	Iron	5690000	ug/kg		*	P	2040	TRACE2	050905-1
7439-92-1	Lead	17000	ug/kg		*	P	284	TRACE2	050905-1
7439-95-4	Magnesium	758000	ug/kg	J+, E3c	N	P	9650	TRACE2	050905-1
7439-96-5	Manganese	150000	ug/kg	J+, E3c J, E10c	*N	P	227	TRACE2	050905-1
7439-97-6	Mercury	17.5	ug/kg			AV	2.89	MER179	051005S2
7440-02-0	Nickel	5220	ug/kg		*	MS	114	ICPMS3	050509-3
7440-09-7	Potassium	761000	ug/kg	J+, E3c	N	P	5680	TRACE2	050905-1
7782-49-2	Selenium	681	ug/kg	U		P	681	TRACE2	050905-1
7440-22-4	Silver	53.5	ug/kg	B J, E1		MS	45.5	ICPMS3	050509-3
7440-23-5	Sodium	161000	ug/kg			P	5110	TRACE2	050905-1
7440-28-0	Thallium	91	ug/kg	U		MS	91	ICPMS3	050509-3
7440-62-2	Vanadium	6240	ug/kg		*	P	114	TRACE2	050905-1
7440-66-6	Zinc	39400	ug/kg	J+, E3c	EN	P	227	TRACE2	050905-1

CD

Comments:

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 3195S-1 **METHOD TYPE:** SW846

SAMPLE ID: 135804001 **CLIENT ID:** RE03-05-59548

CONTRACT: LANL00101

MATRIX: W **DATE RECEIVED** 04-MAY-05 **LEVEL:** Low **%SOLIDS:**

CAS No	Analyte	Result	Units	C	Qual	M	MDL	Instrument ID	Analytical Run
7429-90-5	Aluminum	68	ug/L	U		P	68	TRACE2	050905-1
7440-36-0	Antimony	0.50	ug/L	U		MS	0.5	ICPMS5	050506-4
7440-38-2	Arsenic	6	ug/L	U		P	6	TRACE2	050905-1
7440-39-3	Barium	1.5	ug/L	B	J, I1	P	1	TRACE2	050905-1
7440-41-7	Beryllium	0.10	ug/L	U		MS	0.1	ICPMS5	050506-4
7440-43-9	Cadmium	0.10	ug/L	U		MS	0.1	ICPMS5	050506-4
7440-70-2	Calcium	789	ug/L			P	36	TRACE2	050905-1
7440-47-3	Chromium	1	ug/L	U		P	1	TRACE2	050905-1
7440-48-4	Cobalt	1	ug/L	U		P	1	TRACE2	050905-1
7440-50-8	Copper	3	ug/L	U		P	3	TRACE2	050905-1
7439-89-6	Iron	35.2	ug/L	B	J, I1	P	18	TRACE2	051005
7439-92-1	Lead	0.50	ug/L	U		MS	0.5	ICPMS5	050506-5
7439-95-4	Magnesium	234	ug/L	B	J, I1	P	85	TRACE2	050905-1
7439-96-5	Manganese	1	ug/L	U		MS	1	ICPMS5	050506-4
7439-97-6	Mercury	0.050	ug/L	U		AV	0.05	MER536	050905W1-3
7440-02-0	Nickel	1	ug/L	U		P	1	TRACE2	050905-1
7440-09-7	Potassium	91	ug/L	B	J, I1	P	50	TRACE2	050905-1
7782-49-2	Selenium	6	ug/L	U		P	6	TRACE2	050905-1
7440-22-4	Silver	1	ug/L	U		P	1	TRACE2	050905-1
7440-23-5	Sodium	1220	ug/L			P	45	TRACE2	050905-1
7440-28-0	Thallium	0.40	ug/L	U		MS	0.4	ICPMS5	050506-4
7440-62-2	Vanadium	1	ug/L	U		P	1	TRACE2	050905-1
7440-66-6	Zinc	2.2	ug/L	B	J, I1	P	2	TRACE2	050905-1

Comments:

Tuesday, May 3, 2005

Los Alamos
NATIONAL LABORATORY

CHAIN OF CUSTODY DOCUMENT NUMBER: 3195SC

REQUEST NUMBER: 3195S

ANALYSIS TYPE: INORGANIC

ATTN: Stacy Griffin
General Engineering Laboratories, Inc., Historical
2040 Savage Road
Charleston, SC 29407

1358037

SAMPLE ID	CONT ID	CONTAINER DESCRIPTION	ORDER TEMPLATE CODE	PRESERVATIVE	MATRIX
RE03-05-59531 1311	5	125 ML POLY	METALS-GEL -1	ICE	S
RE03-05-59532 1038	5	125 ML POLY	METALS-GEL	ICE	S
RE03-05-59541 ↓	5	125 ML POLY	METALS-GEL	ICE	S
RE03-05-59542 1045	5	125 ML POLY	METALS-GEL	ICE	S
RE03-05-59548 1114	1	1 L POLY	METALS-GEL -2	HNO3	W

Final Page of CHAIN OF CUSTODY DOCUMENT FOR REQUEST NUMBER 3195S

Relinquished By: PRINTED NAME	SIGNATURE	Date	Time	Received By: PRINTED NAME	SIGNATURE	Date	Time
A Padilla	A Padilla	5/3/05	1400	C Grose	C Grose	5/4/05	9:45
PRINTED NAME	SIGNATURE			PRINTED NAME	SIGNATURE		
PRINTED NAME	SIGNATURE			PRINTED NAME	SIGNATURE		

Received for DISPOSAL By:	Date	Time	Remarks:
PRINTED NAME SIGNATURE			

6

Tuesday, May 3, 2005

REQUEST NUMBER: 3195S

ANALYSIS TYPE: INORGANIC

Los Alamos
NATIONAL LABORATORY

ATTN: Stacy Griffin
General Engineering Laboratories, Inc., Historical
2040 Savage Road
Charleston, SC 29407

Please analyze the enclosed samples according to the schedule indicated:

SHIP DATE: 05/03/2005
REPORT DUE: 05/13/2005
TURN AROUND REQ'D: 10

RAD SCREENING: NOT REQ
COMMENTS:

These samples are on:

LANL Request Number: 3195S
Per Agreement Number: 126310011
Project Cost Code: MR0R00FC6800

LANL ER SMO CONTACT:
Signature:

METHOD CODE	SAMPLE ID	CONT ID	SAMPLE MATRIX	DATE SAMPLED	COMMENTS
SW-846:6010B	RE03-05-59531	5	S	05/02/2005	
SW-846:6020	RE03-05-59531	5	S	05/02/2005	
SW-846:7471A	RE03-05-59531	5	S	05/02/2005	
SW-846:6010B	RE03-05-59532	5	S	05/03/2005	
SW-846:6020	RE03-05-59532	5	S	05/03/2005	
SW-846:7471A	RE03-05-59532	5	S	05/03/2005	
SW-846:6010B	RE03-05-59541	5	S	05/03/2005	
SW-846:6020	RE03-05-59541	5	S	05/03/2005	
SW-846:7471A	RE03-05-59541	5	S	05/03/2005	
SW-846:6010B	RE03-05-59542	5	S	05/03/2005	
SW-846:6020	RE03-05-59542	5	S	05/03/2005	
SW-846:7471A	RE03-05-59542	5	S	05/03/2005	
SW-846:6010B	RE03-05-59548	1	W	05/03/2005	
SW-846:6020	RE03-05-59548	1	W	05/03/2005	
SW-846:7470A	RE03-05-59548	1	W	05/03/2005	

Final Page of REQUEST NUMBER 3195S

DATA VALIDATION COVER SHEET (Example)

SECTION I.

REQUEST NUMBER: 31955 COST CODE: _____

VALIDATION DATE: _____

LAB NAME: _____ LAB CODE: _____

VALIDATOR: _____ ORGANIZATION: _____

ANALYTICAL SUITE: ___ VOLATILES ___ HIGH EXPLOSIVES

___ SEMIVOLATILES ___ INORGANICS

___ PESTICIDES/AROCLORS ___ RADIOCHEMISTRY

OTHER (describe) _____

SECTION II. COMPLETENESS CHECKLIST

Item	Present? (Y/N/NA)	Item	Present? (Y/N/NA)
1. COC form(s)		2. Case Narrative	
3. Sample Results		4. Sample Chromatograms	
5. Standard Chromatograms		6. Quantitation Reports	
7. QC Forms			

Identify any samples in the assigned Request Number that are missing:

_____ _____ _____ _____ _____ _____

_____ _____ _____ _____ _____ _____

Comments: include information about requests to the laboratory and agreed upon date of resolution and lab contact: (Attach additional comment sheets as necessary)

_____

_____

_____

Signature/1st validation: _____ Date/1st validation: _____

Signature/2nd validation: _____ Date/2nd validation: _____

GENERAL ENGINEERING LABORATORIES, LLC
a Member of THE GEL GROUP, INC.
Meeting Today's Needs with a Vision for Tomorrow

May 30, 2005

Ms. Joylene Valdez, MS-M707
Los Alamos National Laboratory
TA-3, Bldg. 1237, Drop Pt. 03U
Los Alamos, NM 87544

Re: Contract No. 12631-0011 2P

Dear Ms. Valdez:

I am sending you the data package for the soil samples for release # 3195S that were analyzed for Metals parameters.

General Engineering Laboratories appreciates this opportunity to provide you with analytical results, and trusts that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 769-7391.

Yours very truly,

Valerie S. Davis
Project Manager

enclosure

P.O. Box 30712 • Charleston, SC 29417 • 2040 Savage Road (29407)
Phone (843) 556-8171 • Fax (843) 766-1178 • www.gel.com

LOS ALAMOS NATIONAL LABORATORY
Contract No. 12631-0011 2P
Release # 3195S

General Narrative **1**

Chain of Custody **4**

Cooler Receipt Checklist **7**

Data Review Qualifier Flag Definition Sheet **9**

Inorganic Analysis **11**
- Sample Data Summary 17
- Quality Control Data 22
- Standards Data 60
- Raw Data 72
- Miscellaneous Data 218

Inorganic Analysis **225**
- Sample Data Summary 230
- Quality Control Data 232
- Standards Data 273
- Raw Data 285
- Miscellaneous Data 532

GENERAL NARRATIVE

CASE NARRATIVE
for
Los Alamos National Laboratory
Contract No. 12631-0011 2P
Release# 3195S

May 30, 2005

Laboratory Identification:

General Engineering Laboratories, LLC.

Mailing Address:

P.O. Box 30712
Charleston, South Carolina 29417

Express Mail Delivery and Shipping Address:

2040 Savage Road
Charleston, South Carolina 29407

Telephone Number:

(843) 556-8171

Summary:

Sample receipt

The samples for Los Alamos National Laboratory SMO release #3195S arrived at General Engineering Laboratories, LLC., (GEL) Charleston, South Carolina on May 4, 2005 for environmental analyses. The sample containers arrived without any visible signs of tampering or breakage. The sample containers were received at 6°C temperature.

The laboratory received the following samples:

Laboratory Identification	Sample Description
135803001	RE03-05-59531
135803002	RE03-05-59532
135803003	RE03-05-59541
135803004	RE03-05-59542
135804001	RE03-05-59548

3

Internal Chain of Custody:

Custody was maintained for the samples.

Data Package:

The enclosed data package contains the following sections: Case Narrative, Chain of Custody, Cooler Receipt Checklist, Data Qualifier Review Sheet, and Metals Analysis.

I certify that this data report is in compliance with the terms and conditions of the subcontract and task order, both technically and for completeness, for other than the conditions detailed in the attached case narrative.

Valerie S. Davis

Project Manager

CHAIN OF CUSTODY

Tuesday, May 3, 2005

Los Alamos
NATIONAL LABORATORY

CHAIN OF CUSTODY DOCUMENT NUMBER: 3195SC

REQUEST NUMBER: 3195S

ANALYSIS TYPE: INORGANIC

ATTN: Stacy Griffin
General Engineering Laboratories, Inc., Historical
2040 Savage Road
Charleston, SC 29407

135803%

SAMPLE ID	CONT ID	CONTAINER DESCRIPTION	ORDER TEMPLATE CODE	PRESERVATIVE	MATRIX
RE03-05-59531 1311	5	125 ML POLY	METALS-GEL .1	ICE	S
RE03-05-59532 1038	5	125 ML POLY	METALS-GEL	ICE	S
RE03-05-59541 ↓	5	125 ML POLY	METALS-GEL	ICE	S
RE03-05-59542 1045	5	125 ML POLY	METALS-GEL	ICE	S
RE03-05-59548 1114	1	1 L POLY	METALS-GEL .2	HNO3	W

Final Page of CHAIN OF CUSTODY DOCUMENT FOR REQUEST NUMBER 3195S

Relinquished By: PRINTED NAME	SIGNATURE	Date	Time	Received By: PRINTED NAME	SIGNATURE	Date	Time
A Padilla	A Padilla	5/3/05	1400	C Gause	C Gause	5/4/05	9:45
PRINTED NAME	SIGNATURE			PRINTED NAME	SIGNATURE		
PRINTED NAME	SIGNATURE			PRINTED NAME	SIGNATURE		

Received for DISPOSAL By: PRINTED NAME	SIGNATURE	Date	Time	Remarks:

6

Tuesday, May 3, 2005

REQUEST NUMBER: 3195S

Los Alamos
NATIONAL LABORATORY

ANALYSIS TYPE: INORGANIC

ATTN: Stacy Griffin
General Engineering Laboratories, Inc., Historical
2040 Savage Road
Charleston, SC 29407

Please analyze the enclosed samples according to the schedule indicated:

SHIP DATE: 05/03/2005
REPORT DUE: 05/13/2005
TURN AROUND REQ'D: 10

RAD SCREENING: NOT REQ
COMMENTS:

These samples are on:

LANL Request Number: 3195S
Per Agreement Number: 126310011
Project Cost Code: MR0R00FC6800

LANL ER SMO CONTACT:
Signature:

METHOD CODE	SAMPLE ID	CONT ID	SAMPLE MATRIX	DATE SAMPLED	COMMENTS
SW-846:6010B	RE03-05-59531	5	S	05/02/2005	
SW-846:6020	RE03-05-59531	5	S	05/02/2005	
SW-846:7471A	RE03-05-59531	5	S	05/02/2005	
SW-846:6010B	RE03-05-59532	5	S	05/03/2005	
SW-846:6020	RE03-05-59532	5	S	05/03/2005	
SW-846:7471A	RE03-05-59532	5	S	05/03/2005	
SW-846:6010B	RE03-05-59541	5	S	05/03/2005	
SW-846:6020	RE03-05-59541	5	S	05/03/2005	
SW-846:7471A	RE03-05-59541	5	S	05/03/2005	
SW-846:6010B	RE03-05-59542	5	S	05/03/2005	
SW-846:6020	RE03-05-59542	5	S	05/03/2005	
SW-846:7471A	RE03-05-59542	5	S	05/03/2005	
SW-846:6010B	RE03-05-59548	1	W	05/03/2005	
SW-846:6020	RE03-05-59548	1	W	05/03/2005	
SW-846:7470A	RE03-05-59548	1	W	05/03/2005	

Final Page of REQUEST NUMBER 3195S

COOLER RECEIPT CHECKLIST

SAMPLE RECEIPT & REVIEW FORM

GENERAL ENGINEERING LABORATORIES, LLC

PM use only

Client: Los Alamos	**SDG/ARCOC/Work Order:** 31955
Date Received: 5/4/05	**PM(A) Review (ensure non-conforming items are resolved prior to signing):** Valerie Dini
Received By: CJ	

	Sample Receipt Criteria	Conforming	NA	Non-Conforming	Comments/Qualifiers (Required for Non-Conforming Items).
1	Shipping containers received intact and sealed?	✓			Circle Applicable: seals broken damaged container leaking container other (describe)
2	Samples requiring cold preservation within (4 +/- 2 C): Record preservation method.	✓			Circle Coolant # ice bags blue ice dry ice none other(describe) 6
3	Chain of custody documents included with shipment?	✓			
4	Sample containers intact and sealed?	~~✓~~ ✗		✓	Circle Applicable: seals broken damaged container leaking container other (describe) Broken 59535 - 500 amber 59529 - 500 amber loss
5	Samples requiring chemical preservation at proper pH?		✓		Sample ID's, containers affected and observed pH:
6	VOA vials free of headspace (defined as < 6mm bubble)?		✓		Sample ID's and containers affected:
7	Samples received within holding time?	✓			Id's and tests affected:
8	Sample ID's on COC match ID's on bottles?	✓			Sample ID's and containers affected:
9	Date & time on COC match date & time on bottles?			✓	Sample ID's affected: no date + time on samples
10	Number of containers received match number indicated on COC?	~~✓~~ ✗		✓	Sample ID's affected: 59529-1+2 missing 59537-1+2 - Encore
11	COC form is properly signed in relinquished/received sections?	✓			
12	Air Bill ,Tracking #'s, & Additional Comments	Fed Ex 6954 7789 4081 6954 7789 4107			

Radiological Information	Non-RAD	RAD	RADI	RSO RAD Receipt #
What is the radiological classification of the samples?	✓			Comments:
Radioactivity Screening Results (maximum observed CPM)	30 CPM			*If > x2 area background is observed on a non-radioactive sample, contact the RSO to investigate.

PM (or PMA) review of Receiving Rad classification: USO Initials 5/4/05 Date:

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DATA REVIEW QUALIFIER FLAG DEFINITION SHEET

General Engineering Laboratories, LLC.

DATA QUALIFIERS FOR INORGANIC ANALYSES

Data Qualifiers used on Form 1s or Certificates of Analysis (COA) follow the specifications set forth in the technical specifications of the most current CLP Statement of Work and are defined as follows:

Section	Explanation	Location
E	The qualifier that is used when the percent difference between the parent sample and its serial dilution's concentration exceeds 10%. The sample's concentration must be greater than 50 times the IDL/MDL for ICP or 100 times the absolute value of the preparation blank's concentration for ICP-MS. However, if analyzing ILMO 4.0 (ICP-MS), the parent sample's concentration must be 20 times the CRDL before the "E" flag is applied.	Form 1 and EDD
*	The qualifier that is used to indicate the duplicate sample analysis for an analyte is out of control.	Form 1 and EDD
J	The qualifier is used to indicate that the reported result fell above the IDL/MDL but below the CRDL.	Form 1 and EDD
N	This qualifier is used to indicate that the matrix or pre-digested spike sample recovery for an analyte is not within the specified control limit.	Form 1 and EDD
U	Analyte analyzed for but not detected above the PQL/CRDL.	COA, Form 1, and EDD
X	Other reporting flag as defined in report narrative.	Form 1 and EDD
**	Laboratory Control Sample (LCS) recovery for an analyte is outside of specified acceptance limit.	QC Summary Report

All surrogate recoveries and acceptance ranges are reported at the bottom of Form 2 or COA.
Any recoveries falling outside the acceptance range will be flagged with a **.
All flags do not apply to QC Summary and Certificate of Analysis packages.

INORGANIC ANALYSIS

Metals Fractional Narrative
Los Alamos National Laboratory (LANL)
SDG 3195S

Method/Analysis Information

Analytical Batch:	422821, 422817, 422745
Prep Batch:	422815, 422820, 422744
Standard Operating Procedures:	GL-MA-E-013 REV# 12, GL-MA-E-014 REV# 9, GL-MA-E-010 REV# 15, GL-MA-E-009 REV# 13
Analytical Method:	SW846 6010B, SW846 6020, SW846 7471A
Prep Method:	SW846 3050B, SW846 7471A

Sample Analysis

Sample ID	Client ID
135803001	RE03-05-59531
135803002	RE03-05-59532
135803003	RE03-05-59541
135803004	RE03-05-59542
1200839943	Method Blank (MB) **ICP**
1200839944	Laboratory Control Sample (LCS)
1200839947	135803001(RE03-05-59531L) Serial Dilution (SD)
1200839945	135803001(RE03-05-59531D) Sample Duplicate (DUP)
1200839946	135803001(RE03-05-59531S) Matrix Spike (MS)
1200839948	135803001(RE03-05-59531SD) Matrix Spike Duplicate (MSD)
1200839930	Method Blank (MB) **ICP-MS**
1200839931	Laboratory Control Sample (LCS)
1200839934	135803001(RE03-05-59531L) Serial Dilution (SD)
1200839932	135803001(RE03-05-59531D) Sample Duplicate (DUP)
1200839933	135803001(RE03-05-59531S) Matrix Spike (MS)
1200839949	135803001(RE03-05-59531SD) Matrix Spike Duplicate (MSD)
1200839770	Method Blank (MB) **CVAA**
1200839771	Laboratory Control Sample (LCS)

1200839774	135803001(RE03-05-59531L) Serial Dilution (SD)
1200839772	135803001(RE03-05-59531D) Sample Duplicate (DUP)
1200839773	135803001(RE03-05-59531S) Matrix Spike (MS)
1200839775	135803001(RE03-05-59531SD) Matrix Spike Duplicate (MSD)

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by General Engineering Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

System Configuration

The ICP analysis was performed on a Thermo Jarrell Ash 61E Trace axial-viewing inductively coupled plasma atomic emission spectrometer. The instrument is equipped with a Burgener nebulizer, cyclonic spray chamber, and yttrium internal standard. Operating conditions for the Trace ICP are set at a power level of 950 watts. The instrument has a peristaltic pump flow rate of 140 RPM (2.0 mL/min sample uptake rate), argon gas flows of 15 L/min and 0.5 L/min for the torch and auxiliary gases, and a pressure setting of 26 PSI for the nebulizer.

The ICP-MS analysis was performed on a Perkin Elmer Elan 6100E inductively coupled plasma mass spectrometer (ICP-MS). The instrument is equipped with a cross-flow nebulizer, quadrupole mass spectrometer, and dual mode electron multiplier detector. Internal standards of scandium, germanium, indium, and tantalum were utilized to cover the mass spectrum. Operating conditions are set at 1400W power and combined argon pressures of 3607 kPa for the plasma and auxiliary gases, and 0.85 L/min carrier gas flow, and an initial lens voltage of 5.2.

The Mercury analysis was performed on a Perkin-Elmer Flow Injection Mercury System (FIMS-400) automated mercury analyzer. The instrument consists of a cold vapor atomic absorption spectrometer set to detect mercury at a wavelength of 254 nm. Sample introduction through the flow injection system is performed via a peristaltic pump at 9 mL/min and nitrogen carrier gas rate of 80mL/min.

Calibration Information

Instrument Calibration
All initial calibration requirements have been met for this sample delivery group (SDG).

CRDL Requirements
All CRDL standard(s) met the referenced advisory control limits.

Continuing Calibration Blank (CCB) Requirements

All continuing calibration blanks (CCB) bracketing this batch met the established acceptance criteria.

Continuing Calibration Verification (CCV) Requirements
All continuing calibration verifications (CCV) bracketing this SDG met the acceptance criteria.

ICSA/ICSAB statement
All interference check samples (ICSA and ICSAB) associated with this SDG met the established acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MBs analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

Quality Control (QC) Sample Statement
The following sample was selected as the quality control (QC) sample for this SDG: 135803001 (RE03-05-59531).

Matrix Spike (MS) Recovery Statement
The percent recoveries (%R) obtained from the MS analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. The MS did not meet the recommended quality control acceptance criteria for percent recoveries for antimony, barium, calcium, magnesium, manganese, potassium, and zinc, as indicated by the "N" qualifiers.

Matrix Spike Duplicate (MSD) Recovery Statement
The percent recovery (%R) obtained from the MSD analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. The MSD did not meet the recommended quality control acceptance criteria for percent recoveries for antimony, magnesium, manganese, potassium and zinc, as indicated by the "N" qualifiers. The very low recovery of antimony in the MS was confirmed in the MSD.

MS/MSD Relative Percent Difference (RPD) Statement
The relative percent difference (RPD) obtained from the designated matrix spike duplicate (MSD) is evaluated based on acceptance criteria of 20%. The RPD between qualifying elements results in the MS and MSD were within the acceptance limits of 20% except barium, calcium, iron and manganese, as indicated by the "*" qualifiers.

Duplicate Relative Percent Difference (RPD) Statement
The relative percent difference (RPD) obtained from the designated sample duplicate (DUP) is evaluated based on acceptance criteria of 20% when the sample is >5X the

contract required detection limit (RL). In cases were either the sample or duplicate value is less than 5X the contract required detection limit (RL), a control of RL is used to evaluate the DUP results. Barium, chromium, cobalt, copper, iron, lead, manganese, nickel, and vanadium did not meet these requirements, as indicated by the "*" qualifiers.

Serial Dilution % Difference Statement
The serial dilution is used to assess matrix suppression or enhancement. Raw element concentrations that are 25X the IDL for CVAA, 50X the IDL for ICP, and 100X the IDL for ICP-MS analyses are applicable for serial dilution assessment. All applicable analytes met the acceptance criteria of less than 10% difference (%D) except zinc, as indicated by the "E" qualifier.

Technical Information

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

Sample Dilutions

Dilutions are performed to minimize matrix interferences resulting from elevated mineral element concentrations present in soil samples and/or to bring over range target analyte concentrations into the linear calibration range of the instrument. The samples in this SDG were diluted the standard 2x for soils on the ICPMS.

Preparation Information
The samples in this SDG were prepared exactly according to the cited SOP.

Miscellaneous Information

Nonconformance Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. NCR ID 200491 and NCR ID 200446 were generated for this SDG. A copy is included in the Miscellaneous Data section of this package.

Additional Comments
Additional comments were not required for this SDG.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Allison M. C. **Date:** 6/1/05

SAMPLE DATA SUMMARY

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 3195S **METHOD TYPE:** SW846

SAMPLE ID: 135803001 **CLIENT ID:** RE03-05-59531

CONTRACT: LANL00101

MATRIX: S **DATE RECEIVED** 04-MAY-05 **LEVEL:** Low **%SOLIDS:** 84

CAS No	Analyte	Result	Units	C	Qual	M	MDL	Instrument ID	Analytical Run
7429-90-5	Aluminum	10100000	ug/kg			P	7970	TRACE2	050905-1
7440-36-0	Antimony	158	ug/kg	B	N	MS	119	ICPMS3	050509-3
7440-38-2	Arsenic	1620	ug/kg	B		P	703	TRACE2	050905-1
7440-39-3	Barium	55900	ug/kg		*N	P	117	TRACE2	050905-1
7440-41-7	Beryllium	736	ug/kg			MS	23.8	ICPMS3	050509-3
7440-43-9	Cadmium	225	ug/kg	B		P	117	TRACE2	050905-1
7440-70-2	Calcium	1770000	ug/kg		*N	P	4220	TRACE2	050905-1
7440-47-3	Chromium	6260	ug/kg		*	P	117	TRACE2	050905-1
7440-48-4	Cobalt	897	ug/kg		*	P	234	TRACE2	050905-1
7440-50-8	Copper	6270	ug/kg		*	P	351	TRACE2	050905-1
7439-89-6	Iron	8110000	ug/kg		*	P	2110	TRACE2	050905-1
7439-92-1	Lead	20300	ug/kg		*	P	293	TRACE2	050905-1
7439-95-4	Magnesium	1060000	ug/kg		N	P	9960	TRACE2	050905-1
7439-96-5	Manganese	127000	ug/kg		*N	P	234	TRACE2	050905-1
7439-97-6	Mercury	12.1	ug/kg			AV	2.96	MER179	051005S2
7440-02-0	Nickel	7070	ug/kg		*	MS	119	ICPMS3	050509-3
7440-09-7	Potassium	1050000	ug/kg		N	P	5860	TRACE2	050905-1
7782-49-2	Selenium	703	ug/kg	U		P	703	TRACE2	050905-1
7440-22-4	Silver	77.4	ug/kg	B		MS	47.5	ICPMS3	050509-3
7440-23-5	Sodium	156000	ug/kg			P	5270	TRACE2	050905-1
7440-28-0	Thallium	124	ug/kg	B		MS	95	ICPMS3	050509-3
7440-62-2	Vanadium	7840	ug/kg		*	P	117	TRACE2	050905-1
7440-66-6	Zinc	41300	ug/kg		EN	P	234	TRACE2	050905-1

Comments:

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 3195S **METHOD TYPE:** SW846

SAMPLE ID: 135803002 **CLIENT ID:** RE03-05-59532

CONTRACT: LANL00101

MATRIX: S **DATE RECEIVED** 04-MAY-05 **LEVEL:** Low **%SOLIDS:** 87

CAS No	Analyte	Result	Units	C	Qual	M	MDL	Instrument ID	Analytical Run
7429-90-5	Aluminum	8170000	ug/kg			P	7750	TRACE2	050905-1
7440-36-0	Antimony	113	ug/kg	U	N	MS	113	ICPMS3	050509-3
7440-38-2	Arsenic	977	ug/kg	B		P	684	TRACE2	050905-1
7440-39-3	Barium	40800	ug/kg		*N	P	114	TRACE2	050905-1
7440-41-7	Beryllium	694	ug/kg			MS	22.6	ICPMS3	050509-3
7440-43-9	Cadmium	114	ug/kg	U		P	114	TRACE2	050905-1
7440-70-2	Calcium	1120000	ug/kg		*N	P	4100	TRACE2	050905-1
7440-47-3	Chromium	3170	ug/kg		*	P	114	TRACE2	050905-1
7440-48-4	Cobalt	826	ug/kg		*	P	228	TRACE2	050905-1
7440-50-8	Copper	3260	ug/kg		*	P	342	TRACE2	050905-1
7439-89-6	Iron	5830000	ug/kg		*	P	2050	TRACE2	050905-1
7439-92-1	Lead	8030	ug/kg		*	P	285	TRACE2	050905-1
7439-95-4	Magnesium	955000	ug/kg		N	P	9680	TRACE2	050905-1
7439-96-5	Manganese	120000	ug/kg		*N	P	228	TRACE2	050905-1
7439-97-6	Mercury	21	ug/kg			AV	2.66	MER179	051005S2
7440-02-0	Nickel	4840	ug/kg		*	MS	113	ICPMS3	050509-3
7440-09-7	Potassium	914000	ug/kg		N	P	5700	TRACE2	050905-1
7782-49-2	Selenium	684	ug/kg	U		P	684	TRACE2	050905-1
7440-22-4	Silver	47	ug/kg	B		MS	45.2	ICPMS3	050509-3
7440-23-5	Sodium	128000	ug/kg			P	5130	TRACE2	050905-1
7440-28-0	Thallium	90.4	ug/kg	U		MS	90.4	ICPMS3	050509-3
7440-62-2	Vanadium	6990	ug/kg		*	P	114	TRACE2	050905-1
7440-66-6	Zinc	20200	ug/kg		EN	P	228	TRACE2	050905-1

Comments:

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 3195S **METHOD TYPE:** SW846

SAMPLE ID: 135803003 **CLIENT ID:** RE03-05-59541

CONTRACT: LANL00101

MATRIX: S **DATE RECEIVED** 04-MAY-05 **LEVEL:** Low **%SOLIDS:** 87

CAS No	Analyte	Result	Units	C	Qual	M	MDL	Instrument ID	Analytical Run
7429-90-5	Aluminum	6310000	ug/kg			P	7730	TRACE2	050905-1
7440-36-0	Antimony	112	ug/kg	U	N	MS	112	ICPMS3	050509-3
7440-38-2	Arsenic	682	ug/kg	U		P	682	TRACE2	050905-1
7440-39-3	Barium	44700	ug/kg		*N	P	114	TRACE2	050905-1
7440-41-7	Beryllium	591	ug/kg			MS	22.4	ICPMS3	050509-3
7440-43-9	Cadmium	114	ug/kg	U		P	114	TRACE2	050905-1
7440-70-2	Calcium	967000	ug/kg		*N	P	4090	TRACE2	050905-1
7440-47-3	Chromium	2320	ug/kg		*	P	114	TRACE2	050905-1
7440-48-4	Cobalt	623	ug/kg		*	P	227	TRACE2	050905-1
7440-50-8	Copper	3050	ug/kg		*	P	341	TRACE2	050905-1
7439-89-6	Iron	4580000	ug/kg		*	P	2050	TRACE2	050905-1
7439-92-1	Lead	10700	ug/kg		*	P	284	TRACE2	050905-1
7439-95-4	Magnesium	680000	ug/kg		N	P	9660	TRACE2	050905-1
7439-96-5	Manganese	101000	ug/kg		*N	P	227	TRACE2	050905-1
7439-97-6	Mercury	10.7	ug/kg	B		AV	2.79	MER179	051005S2
7440-02-0	Nickel	4460	ug/kg		*	MS	112	ICPMS3	050509-3
7440-09-7	Potassium	732000	ug/kg		N	P	5680	TRACE2	050905-1
7782-49-2	Selenium	682	ug/kg	U		P	682	TRACE2	050905-1
7440-22-4	Silver	48.2	ug/kg	B		MS	44.8	ICPMS3	050509-3
7440-23-5	Sodium	138000	ug/kg			P	5110	TRACE2	050905-1
7440-28-0	Thallium	89.6	ug/kg	U		MS	89.6	ICPMS3	050509-3
7440-62-2	Vanadium	5080	ug/kg		*	P	114	TRACE2	050905-1
7440-66-6	Zinc	26500	ug/kg		EN	P	227	TRACE2	050905-1

Comments:

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 3195S **METHOD TYPE:** SW846

SAMPLE ID: 135803004 **CLIENT ID:** RE03-05-59542

CONTRACT: LANL00101

MATRIX: S **DATE RECEIVED** 04-MAY-05 **LEVEL:** Low **%SOLIDS:** 86

CAS No	Analyte	Result	Units	C	Qual	M	MDL	Instrument ID	Analytical Run
7429-90-5	Aluminum	7300000	ug/kg			P	7720	TRACE2	050905-1
7440-36-0	Antimony	114	ug/kg	U	N	MS	114	ICPMS3	050509-3
7440-38-2	Arsenic	865	ug/kg	B		P	681	TRACE2	050905-1
7440-39-3	Barium	47000	ug/kg		*N	P	114	TRACE2	050905-1
7440-41-7	Beryllium	528	ug/kg			MS	22.7	ICPMS3	050509-3
7440-43-9	Cadmium	274	ug/kg	B		P	114	TRACE2	050905-1
7440-70-2	Calcium	1040000	ug/kg		*N	P	4090	TRACE2	050905-1
7440-47-3	Chromium	3230	ug/kg		*	P	114	TRACE2	050905-1
7440-48-4	Cobalt	895	ug/kg		*	P	227	TRACE2	050905-1
7440-50-8	Copper	3810	ug/kg		*	P	341	TRACE2	050905-1
7439-89-6	Iron	5690000	ug/kg		*	P	2040	TRACE2	050905-1
7439-92-1	Lead	17000	ug/kg		*	P	284	TRACE2	050905-1
7439-95-4	Magnesium	758000	ug/kg		N	P	9650	TRACE2	050905-1
7439-96-5	Manganese	150000	ug/kg		*N	P	227	TRACE2	050905-1
7439-97-6	Mercury	17.5	ug/kg			AV	2.89	MER179	051005S2
7440-02-0	Nickel	5220	ug/kg		*	MS	114	ICPMS3	050509-3
7440-09-7	Potassium	761000	ug/kg		N	P	5680	TRACE2	050905-1
7782-49-2	Selenium	681	ug/kg	U		P	681	TRACE2	050905-1
7440-22-4	Silver	53.5	ug/kg	B		MS	45.5	ICPMS3	050509-3
7440-23-5	Sodium	161000	ug/kg			P	5110	TRACE2	050905-1
7440-28-0	Thallium	91	ug/kg	U		MS	91	ICPMS3	050509-3
7440-62-2	Vanadium	6240	ug/kg		*	P	114	TRACE2	050905-1
7440-66-6	Zinc	39400	ug/kg		EN	P	227	TRACE2	050905-1

Comments:

QUALITY CONTROL DATA

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 3195S

Contract: LANL00101 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS3,MER179,TRACE2

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
ICV01										
	Aluminum	4965.8	ug/L	5000	ug/L	99.3	90.0 – 110.0	P	09-MAY-05 08:29	050905-1
	Arsenic	501.29	ug/L	500	ug/L	100.3	90.0 – 110.0	P	09-MAY-05 08:29	050905-1
	Barium	499.56	ug/L	500	ug/L	99.9	90.0 – 110.0	P	09-MAY-05 08:29	050905-1
	Cadmium	489.68	ug/L	500	ug/L	97.9	90.0 – 110.0	P	09-MAY-05 08:29	050905-1
	Calcium	4974.96	ug/L	5000	ug/L	99.5	90.0 – 110.0	P	09-MAY-05 08:29	050905-1
	Chromium	500.26	ug/L	500	ug/L	100.1	90.0 – 110.0	P	09-MAY-05 08:29	050905-1
	Cobalt	496.26	ug/L	500	ug/L	99.3	90.0 – 110.0	P	09-MAY-05 08:29	050905-1
	Copper	496.75	ug/L	500	ug/L	99.4	90.0 – 110.0	P	09-MAY-05 08:29	050905-1
	Iron	4794.77	ug/L	5000	ug/L	95.9	90.0 – 110.0	P	09-MAY-05 08:29	050905-1
	Lead	489.17	ug/L	500	ug/L	97.8	90.0 – 110.0	P	09-MAY-05 08:29	050905-1
	Magnesium	4893.92	ug/L	5000	ug/L	97.9	90.0 – 110.0	P	09-MAY-05 08:29	050905-1
	Manganese	490	ug/L	500	ug/L	98	90.0 – 110.0	P	09-MAY-05 08:29	050905-1
	Potassium	2518.64	ug/L	2500	ug/L	100.8	90.0 – 110.0	P	09-MAY-05 08:29	050905-1
	Selenium	2509.87	ug/L	2500	ug/L	100.4	90.0 – 110.0	P	09-MAY-05 08:29	050905-1
	Sodium	2532.73	ug/L	2500	ug/L	101.3	90.0 – 110.0	P	09-MAY-05 08:29	050905-1
	Vanadium	489.68	ug/L	500	ug/L	97.9	90.0 – 110.0	P	09-MAY-05 08:29	050905-1
	Zinc	493.63	ug/L	500	ug/L	98.7	90.0 – 110.0	P	09-MAY-05 08:29	050905-1
	Antimony	47.36	ug/L	50	ug/L	94.7	90.0 – 110.0	MS	09-MAY-05 15:41	050509-3
	Beryllium	48.34	ug/L	50	ug/L	96.7	90.0 – 110.0	MS	09-MAY-05 15:41	050509-3
	Nickel	48.74	ug/L	50	ug/L	97.5	90.0 – 110.0	MS	09-MAY-05 15:41	050509-3
	Silver	48.84	ug/L	50	ug/L	97.7	90.0 – 110.0	MS	09-MAY-05 15:41	050509-3
	Thallium	48.31	ug/L	50	ug/L	96.6	90.0 – 110.0	MS	09-MAY-05 15:41	050509-3
	Mercury	5.05	ug/L	5	ug/L	100.9	90.0 – 110.0	AV	10-MAY-05 18:23	051005S2-2
CCV01										
	Aluminum	5095.57	ug/L	5000	ug/L	101.9	90.0 – 110.0	P	09-MAY-05 09:07	050905-1
	Arsenic	506.52	ug/L	500	ug/L	101.3	90.0 – 110.0	P	09-MAY-05 09:07	050905-1
	Barium	504.02	ug/L	500	ug/L	100.8	90.0 – 110.0	P	09-MAY-05 09:07	050905-1
	Cadmium	505.22	ug/L	500	ug/L	101	90.0 – 110.0	P	09-MAY-05 09:07	050905-1
	Calcium	5010.73	ug/L	5000	ug/L	100.2	90.0 – 110.0	P	09-MAY-05 09:07	050905-1
	Chromium	504.16	ug/L	500	ug/L	100.8	90.0 – 110.0	P	09-MAY-05 09:07	050905-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 3195S

Contract: LANL00101 **Lab Code:** GEL

Initial Calibration Source:

Continuing Calibration Source:

Instrument ID: ICPMS3,MER179,TRACE2

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Cobalt	509.98	ug/L	500	ug/L	102	90.0 – 110.0	P	09-MAY-05 09:07	050905-1
	Copper	505.81	ug/L	500	ug/L	101.2	90.0 – 110.0	P	09-MAY-05 09:07	050905-1
	Iron	4954.71	ug/L	5000	ug/L	99.1	90.0 – 110.0	P	09-MAY-05 09:07	050905-1
	Lead	498.48	ug/L	500	ug/L	99.7	90.0 – 110.0	P	09-MAY-05 09:07	050905-1
	Magnesium	5087.66	ug/L	5000	ug/L	101.8	90.0 – 110.0	P	09-MAY-05 09:07	050905-1
	Manganese	498.63	ug/L	500	ug/L	99.7	90.0 – 110.0	P	09-MAY-05 09:07	050905-1
	Potassium	5161.44	ug/L	5000	ug/L	103.2	90.0 – 110.0	P	09-MAY-05 09:07	050905-1
	Selenium	509.23	ug/L	500	ug/L	101.9	90.0 – 110.0	P	09-MAY-05 09:07	050905-1
	Sodium	10211.93	ug/L	10000	ug/L	102.1	90.0 – 110.0	P	09-MAY-05 09:07	050905-1
	Vanadium	499.79	ug/L	500	ug/L	100	90.0 – 110.0	P	09-MAY-05 09:07	050905-1
	Zinc	504.23	ug/L	500	ug/L	100.9	90.0 – 110.0	P	09-MAY-05 09:07	050905-1
	Antimony	48.84	ug/L	50	ug/L	97.7	90.0 – 110.0	MS	09-MAY-05 16:07	050509-3
	Beryllium	53.15	ug/L	50	ug/L	106.3	90.0 – 110.0	MS	09-MAY-05 16:07	050509-3
	Nickel	49.78	ug/L	50	ug/L	99.6	90.0 – 110.0	MS	09-MAY-05 16:07	050509-3
	Silver	49.31	ug/L	50	ug/L	98.6	90.0 – 110.0	MS	09-MAY-05 16:07	050509-3
	Thallium	48.5	ug/L	50	ug/L	97	90.0 – 110.0	MS	09-MAY-05 16:07	050509-3
	Mercury	5.14	ug/L	5	ug/L	102.9	80.0 – 120.0	AV	10-MAY-05 18:29	051005S2-2
CCV02										
	Aluminum	5101.81	ug/L	5000	ug/L	102	90.0 – 110.0	P	09-MAY-05 10:28	050905-1
	Arsenic	511.31	ug/L	500	ug/L	102.3	90.0 – 110.0	P	09-MAY-05 10:28	050905-1
	Barium	501.4	ug/L	500	ug/L	100.3	90.0 – 110.0	P	09-MAY-05 10:28	050905-1
	Cadmium	506.57	ug/L	500	ug/L	101.3	90.0 – 110.0	P	09-MAY-05 10:28	050905-1
	Calcium	5032.6	ug/L	5000	ug/L	100.7	90.0 – 110.0	P	09-MAY-05 10:28	050905-1
	Chromium	507.51	ug/L	500	ug/L	101.5	90.0 – 110.0	P	09-MAY-05 10:28	050905-1
	Cobalt	512.83	ug/L	500	ug/L	102.6	90.0 – 110.0	P	09-MAY-05 10:28	050905-1
	Copper	505.71	ug/L	500	ug/L	101.1	90.0 – 110.0	P	09-MAY-05 10:28	050905-1
	Iron	5019.34	ug/L	5000	ug/L	100.4	90.0 – 110.0	P	09-MAY-05 10:28	050905-1
	Lead	508.23	ug/L	500	ug/L	101.7	90.0 – 110.0	P	09-MAY-05 10:28	050905-1
	Magnesium	5126.76	ug/L	5000	ug/L	102.5	90.0 – 110.0	P	09-MAY-05 10:28	050905-1
	Manganese	502.75	ug/L	500	ug/L	100.6	90.0 – 110.0	P	09-MAY-05 10:28	050905-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 3195S

Contract: LANL00101 **Lab Code:** GEL

Initial Calibration Source:

Continuing Calibration Source:

Instrument ID: ICPMS3,MER179,TRACE2

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Potassium	5255.51	ug/L	5000	ug/L	105.1	90.0 – 110.0	P	09-MAY-05 10:28	050905-1
	Selenium	517.88	ug/L	500	ug/L	103.6	90.0 – 110.0	P	09-MAY-05 10:28	050905-1
	Sodium	10323.67	ug/L	10000	ug/L	103.2	90.0 – 110.0	P	09-MAY-05 10:28	050905-1
	Vanadium	501.08	ug/L	500	ug/L	100.2	90.0 – 110.0	P	09-MAY-05 10:28	050905-1
	Zinc	502.2	ug/L	500	ug/L	100.4	90.0 – 110.0	P	09-MAY-05 10:28	050905-1
	Antimony	47.23	ug/L	50	ug/L	94.5	90.0 – 110.0	MS	09-MAY-05 16:56	050509-3
	Beryllium	50.23	ug/L	50	ug/L	100.5	90.0 – 110.0	MS	09-MAY-05 16:56	050509-3
	Nickel	49.32	ug/L	50	ug/L	98.6	90.0 – 110.0	MS	09-MAY-05 16:56	050509-3
	Silver	49.4	ug/L	50	ug/L	98.8	90.0 – 110.0	MS	09-MAY-05 16:56	050509-3
	Thallium	48.37	ug/L	50	ug/L	96.8	90.0 – 110.0	MS	09-MAY-05 16:56	050509-3
	Mercury	5.15	ug/L	5	ug/L	103	80.0 – 120.0	AV	10-MAY-05 18:53	051005S2-2
CCV03										
	Aluminum	5231.9	ug/L	5000	ug/L	104.6	90.0 – 110.0	P	09-MAY-05 11:39	050905-1
	Arsenic	482.64	ug/L	500	ug/L	96.5	90.0 – 110.0	P	09-MAY-05 11:39	050905-1
	Barium	498.19	ug/L	500	ug/L	99.6	90.0 – 110.0	P	09-MAY-05 11:39	050905-1
	Cadmium	498.29	ug/L	500	ug/L	99.7	90.0 – 110.0	P	09-MAY-05 11:39	050905-1
	Calcium	5038.98	ug/L	5000	ug/L	100.8	90.0 – 110.0	P	09-MAY-05 11:39	050905-1
	Chromium	513.65	ug/L	500	ug/L	102.7	90.0 – 110.0	P	09-MAY-05 11:39	050905-1
	Cobalt	507.24	ug/L	500	ug/L	101.5	90.0 – 110.0	P	09-MAY-05 11:39	050905-1
	Copper	509.15	ug/L	500	ug/L	101.8	90.0 – 110.0	P	09-MAY-05 11:39	050905-1
	Iron	5314.4	ug/L	5000	ug/L	106.3	90.0 – 110.0	P	09-MAY-05 11:39	050905-1
	Lead	499.42	ug/L	500	ug/L	99.9	90.0 – 110.0	P	09-MAY-05 11:39	050905-1
	Magnesium	5180.69	ug/L	5000	ug/L	103.6	90.0 – 110.0	P	09-MAY-05 11:39	050905-1
	Manganese	520.29	ug/L	500	ug/L	104.1	90.0 – 110.0	P	09-MAY-05 11:39	050905-1
	Potassium	5132.14	ug/L	5000	ug/L	102.6	90.0 – 110.0	P	09-MAY-05 11:39	050905-1
	Selenium	497.75	ug/L	500	ug/L	99.6	90.0 – 110.0	P	09-MAY-05 11:39	050905-1
	Sodium	10154.79	ug/L	10000	ug/L	101.6	90.0 – 110.0	P	09-MAY-05 11:39	050905-1
	Vanadium	516.83	ug/L	500	ug/L	103.4	90.0 – 110.0	P	09-MAY-05 11:39	050905-1
	Zinc	498.93	ug/L	500	ug/L	99.8	90.0 – 110.0	P	09-MAY-05 11:39	050905-1
	Antimony	47.92	ug/L	50	ug/L	95.8	90.0 – 110.0	MS	09-MAY-05 17:39	050509-3

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 3195S

Contract: LANL00101 **Lab Code:** GEL

Initial Calibration Source:

Continuing Calibration Source:

Instrument ID: ICPMS3,MER179,TRACE2

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Beryllium	51.5	ug/L	50	ug/L	103	90.0 – 110.0	MS	09-MAY-05 17:39	050509-3
	Nickel	49.2	ug/L	50	ug/L	98.4	90.0 – 110.0	MS	09-MAY-05 17:39	050509-3
	Silver	49.02	ug/L	50	ug/L	98	90.0 – 110.0	MS	09-MAY-05 17:39	050509-3
	Thallium	48.72	ug/L	50	ug/L	97.4	90.0 – 110.0	MS	09-MAY-05 17:39	050509-3
CCV04										
	Antimony	47.38	ug/L	50	ug/L	94.8	90.0 – 110.0	MS	09-MAY-05 18:42	050509-3
	Beryllium	54.58	ug/L	50	ug/L	109.2	90.0 – 110.0	MS	09-MAY-05 18:42	050509-3
	Nickel	49.74	ug/L	50	ug/L	99.5	90.0 – 110.0	MS	09-MAY-05 18:42	050509-3
	Silver	48.72	ug/L	50	ug/L	97.4	90.0 – 110.0	MS	09-MAY-05 18:42	050509-3
	Thallium	47.94	ug/L	50	ug/L	95.9	90.0 – 110.0	MS	09-MAY-05 18:42	050509-3

METALS
-2b-
CRDL Standard for AA & ICP

SDG No: 3195S

Contract: LANL00101 **Lab Code:** GEL

AA CRDL Standard Source: SPEX

ICP CRDL Standard Source Solutions Plus

Instrument ID: ICPMS3,MER179,TRACE2

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Advisory Limits (%R)	M	Analysis Date/Time	Run Number
CRDL01										
	Nickel	4.05	ug/L	4	ug/L	101.13	70.0 – 130.0	MS	09-MAY-05 15:52	050509-3
	Silver	2.04	ug/L	2	ug/L	101.8	70.0 – 130.0	MS	09-MAY-05 15:52	050509-3
	Thallium	1.02	ug/L	1	ug/L	102.1	70.0 – 130.0	MS	09-MAY-05 15:52	050509-3
	Antimony	3.53	ug/L	4	ug/L	88.35	70.0 – 130.0	MS	09-MAY-05 15:52	050509-3
	Beryllium	.361	ug/L	.4	ug/L	90.25	70.0 – 130.0	MS	09-MAY-05 15:52	050509-3
	Mercury	.2248	ug/L	.2	ug/L	112.4	70.0 – 130.0	AV	10-MAY-05 18:27	051005S2-2
PQL01										
	Aluminum	175.87	ug/L	200	ug/L	87.94	70.0 – 130.0	P	09-MAY-05 08:41	050905-1
	Iron	187.27	ug/L	200	ug/L	93.63	70.0 – 130.0	P	09-MAY-05 08:41	050905-1
	Lead	12.02	ug/L	10	ug/L	120.19	70.0 – 130.0	P	09-MAY-05 08:41	050905-1
	Magnesium	177.55	ug/L	200	ug/L	88.78	70.0 – 130.0	P	09-MAY-05 08:41	050905-1
	Manganese	19.69	ug/L	20	ug/L	98.45	70.0 – 130.0	P	09-MAY-05 08:41	050905-1
	Potassium	205.37	ug/L	200	ug/L	102.69	70.0 – 130.0	P	09-MAY-05 08:41	050905-1
	Sodium	192.95	ug/L	200	ug/L	96.48	70.0 – 130.0	P	09-MAY-05 08:41	050905-1
	Arsenic	8.85	ug/L	10	ug/L	88.49	70.0 – 130.0	P	09-MAY-05 08:41	050905-1
	Barium	9.98	ug/L	10	ug/L	99.79	70.0 – 130.0	P	09-MAY-05 08:41	050905-1
	Cadmium	10.88	ug/L	10	ug/L	108.82	70.0 – 130.0	P	09-MAY-05 08:41	050905-1
	Chromium	9.3	ug/L	10	ug/L	92.97	70.0 – 130.0	P	09-MAY-05 08:41	050905-1
	Cobalt	9.63	ug/L	10	ug/L	96.29	70.0 – 130.0	P	09-MAY-05 08:41	050905-1
	Copper	10.21	ug/L	10	ug/L	102.1	70.0 – 130.0	P	09-MAY-05 08:41	050905-1
	Vanadium	10.01	ug/L	10	ug/L	100.08	70.0 – 130.0	P	09-MAY-05 08:41	050905-1
	Zinc	9.75	ug/L	10	ug/L	97.49	70.0 – 130.0	P	09-MAY-05 08:41	050905-1
	Calcium	179.87	ug/L	200	ug/L	89.93	70.0 – 130.0	P	09-MAY-05 08:41	050905-1
	Selenium	10.92	ug/L	10	ug/L	109.18	70.0 – 130.0	P	09-MAY-05 08:41	050905-1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 3195S

Contract: LANL00101

Lab Code: GEL

Sample ID	Analyte	Result	Acceptance ug/L	Conc Qual	MDL	RDL	M	Analysis Date/Time	Run
ICB01									
	Aluminum	68.0	+/–200	U	68.0	200	P	09–MAY–05 08:36	050905–1
	Arsenic	6.0	+/–15	U	6.0	15.0	P	09–MAY–05 08:36	050905–1
	Barium	1.0	+/–5	U	1.0	5.0	P	09–MAY–05 08:36	050905–1
	Cadmium	1.0	+/–5	U	1.0	5.0	P	09–MAY–05 08:36	050905–1
	Calcium	36.0	+/–100	U	36.0	100	P	09–MAY–05 08:36	050905–1
	Chromium	–1.47	+/–5	B	1.0	5.0	P	09–MAY–05 08:36	050905–1
	Cobalt	2.0	+/–5	U	2.0	5.0	P	09–MAY–05 08:36	050905–1
	Copper	3.0	+/–10	U	3.0	10.0	P	09–MAY–05 08:36	050905–1
	Iron	18.0	+/–100	U	18.0	100	P	09–MAY–05 08:36	050905–1
	Lead	2.61	+/–10	B	2.5	10.0	P	09–MAY–05 08:36	050905–1
	Magnesium	85.0	+/–300	U	85.0	300	P	09–MAY–05 08:36	050905–1
	Manganese	2.0	+/–10	U	2.0	10.0	P	09–MAY–05 08:36	050905–1
	Potassium	50.0	+/–150	U	50.0	150	P	09–MAY–05 08:36	050905–1
	Selenium	6.0	+/–15	U	6.0	15.0	P	09–MAY–05 08:36	050905–1
	Sodium	45.0	+/–150	U	45.0	150	P	09–MAY–05 08:36	050905–1
	Vanadium	1.0	+/–5	U	1.0	5.0	P	09–MAY–05 08:36	050905–1
	Zinc	2.0	+/–10	U	2.0	10.0	P	09–MAY–05 08:36	050905–1
	Antimony	0.5	+/–2	U	0.5	2.0	MS	09–MAY–05 15:46	050509–3
	Beryllium	0.1	+/–.5	U	0.1	0.5	MS	09–MAY–05 15:46	050509–3
	Nickel	0.5	+/–2	U	0.5	2.0	MS	09–MAY–05 15:46	050509–3
	Silver	0.2	+/–1	U	0.2	1.0	MS	09–MAY–05 15:46	050509–3
	Thallium	0.4	+/–1	U	0.4	1.0	MS	09–MAY–05 15:46	050509–3
	Mercury	0.05	+/–.2	U	0.05	0.2	AV	10–MAY–05 18:25	051005S2–2
CCB01									
	Aluminum	68.0	+/–200	U	68.0	200	P	09–MAY–05 09:13	050905–1
	Arsenic	6.0	+/–15	U	6.0	15.0	P	09–MAY–05 09:13	050905–1
	Barium	1.0	+/–5	U	1.0	5.0	P	09–MAY–05 09:13	050905–1
	Cadmium	1.0	+/–5	U	1.0	5.0	P	09–MAY–05 09:13	050905–1
	Calcium	36.0	+/–100	U	36.0	100	P	09–MAY–05 09:13	050905–1
	Chromium	1.0	+/–5	U	1.0	5.0	P	09–MAY–05 09:13	050905–1
	Cobalt	2.0	+/–5	U	2.0	5.0	P	09–MAY–05 09:13	050905–1

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 3195S

Contract: LANL00101

Lab Code: GEL

Sample ID	Analyte	Result	Acceptance ug/L	Conc Qual	MDL	RDL	M	Analysis Date/Time	Run
	Copper	3.0	+/-10	U	3.0	10.0	P	09-MAY-05 09:13	050905-1
	Iron	18.0	+/-100	U	18.0	100	P	09-MAY-05 09:13	050905-1
	Lead	2.89	+/-10	B	2.5	10.0	P	09-MAY-05 09:13	050905-1
	Magnesium	85.0	+/-300	U	85.0	300	P	09-MAY-05 09:13	050905-1
	Manganese	2.0	+/-10	U	2.0	10.0	P	09-MAY-05 09:13	050905-1
	Potassium	50.0	+/-150	U	50.0	150	P	09-MAY-05 09:13	050905-1
	Selenium	6.0	+/-15	U	6.0	15.0	P	09-MAY-05 09:13	050905-1
	Sodium	45.0	+/-150	U	45.0	150	P	09-MAY-05 09:13	050905-1
	Vanadium	1.0	+/-5	U	1.0	5.0	P	09-MAY-05 09:13	050905-1
	Zinc	2.0	+/-10	U	2.0	10.0	P	09-MAY-05 09:13	050905-1
	Antimony	0.5	+/-2	U	0.5	2.0	MS	09-MAY-05 16:12	050509-3
	Beryllium	0.1	+/-.5	U	0.1	0.5	MS	09-MAY-05 16:12	050509-3
	Nickel	0.5	+/-2	U	0.5	2.0	MS	09-MAY-05 16:12	050509-3
	Silver	0.2	+/-1	U	0.2	1.0	MS	09-MAY-05 16:12	050509-3
	Thallium	0.4	+/-1	U	0.4	1.0	MS	09-MAY-05 16:12	050509-3
	Mercury	0.05	+/-.2	U	0.05	0.2	AV	10-MAY-05 18:31	051005S2-2
CCB02									
	Aluminum	68.0	+/-200	U	68.0	200	P	09-MAY-05 10:34	050905-1
	Arsenic	6.0	+/-15	U	6.0	15.0	P	09-MAY-05 10:34	050905-1
	Barium	1.0	+/-5	U	1.0	5.0	P	09-MAY-05 10:34	050905-1
	Cadmium	1.0	+/-5	U	1.0	5.0	P	09-MAY-05 10:34	050905-1
	Calcium	36.0	+/-100	U	36.0	100	P	09-MAY-05 10:34	050905-1
	Chromium	1.0	+/-5	U	1.0	5.0	P	09-MAY-05 10:34	050905-1
	Cobalt	2.0	+/-5	U	2.0	5.0	P	09-MAY-05 10:34	050905-1
	Copper	3.0	+/-10	U	3.0	10.0	P	09-MAY-05 10:34	050905-1
	Iron	18.0	+/-100	U	18.0	100	P	09-MAY-05 10:34	050905-1
	Lead	2.5	+/-10	U	2.5	10.0	P	09-MAY-05 10:34	050905-1
	Magnesium	85.0	+/-300	U	85.0	300	P	09-MAY-05 10:34	050905-1
	Manganese	2.0	+/-10	U	2.0	10.0	P	09-MAY-05 10:34	050905-1
	Potassium	50.0	+/-150	U	50.0	150	P	09-MAY-05 10:34	050905-1
	Selenium	6.0	+/-15	U	6.0	15.0	P	09-MAY-05 10:34	050905-1

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 3195S

Contract: LANL00101

Lab Code: GEL

Sample ID	Analyte	Result	Acceptance ug/L	Conc Qual	MDL	RDL	M	Analysis Date/Time	Run
	Sodium	45.0	+/-150	U	45.0	150	P	09-MAY-05 10:34	050905-1
	Vanadium	1.0	+/-5	U	1.0	5.0	P	09-MAY-05 10:34	050905-1
	Zinc	2.0	+/-10	U	2.0	10.0	P	09-MAY-05 10:34	050905-1
	Antimony	0.5	+/-2	U	0.5	2.0	MS	09-MAY-05 17:01	050509-3
	Beryllium	0.1	+/-.5	U	0.1	0.5	MS	09-MAY-05 17:01	050509-3
	Nickel	0.5	+/-2	U	0.5	2.0	MS	09-MAY-05 17:01	050509-3
	Silver	0.2	+/-1	U	0.2	1.0	MS	09-MAY-05 17:01	050509-3
	Thallium	0.4	+/-1	U	0.4	1.0	MS	09-MAY-05 17:01	050509-3
	Mercury	0.05	+/-.2	U	0.05	0.2	AV	10-MAY-05 18:55	051005S2-2
CCB03									
	Aluminum	68.0	+/-200	U	68.0	200	P	09-MAY-05 11:45	050905-1
	Arsenic	6.0	+/-15	U	6.0	15.0	P	09-MAY-05 11:45	050905-1
	Barium	1.0	+/-5	U	1.0	5.0	P	09-MAY-05 11:45	050905-1
	Cadmium	1.0	+/-5	U	1.0	5.0	P	09-MAY-05 11:45	050905-1
	Calcium	36.0	+/-100	U	36.0	100	P	09-MAY-05 11:45	050905-1
	Chromium	1.0	+/-5	U	1.0	5.0	P	09-MAY-05 11:45	050905-1
	Cobalt	2.0	+/-5	U	2.0	5.0	P	09-MAY-05 11:45	050905-1
	Copper	3.0	+/-10	U	3.0	10.0	P	09-MAY-05 11:45	050905-1
	Iron	18.0	+/-100	U	18.0	100	P	09-MAY-05 11:45	050905-1
	Lead	5.64	+/-10	B	2.5	10.0	P	09-MAY-05 11:45	050905-1
	Magnesium	85.0	+/-300	U	85.0	300	P	09-MAY-05 11:45	050905-1
	Manganese	2.0	+/-10	U	2.0	10.0	P	09-MAY-05 11:45	050905-1
	Potassium	50.0	+/-150	U	50.0	150	P	09-MAY-05 11:45	050905-1
	Selenium	6.0	+/-15	U	6.0	15.0	P	09-MAY-05 11:45	050905-1
	Sodium	45.0	+/-150	U	45.0	150	P	09-MAY-05 11:45	050905-1
	Vanadium	1.0	+/-5	U	1.0	5.0	P	09-MAY-05 11:45	050905-1
	Zinc	2.0	+/-10	U	2.0	10.0	P	09-MAY-05 11:45	050905-1
	Antimony	0.5	+/-2	U	0.5	2.0	MS	09-MAY-05 17:44	050509-3
	Beryllium	0.1	+/-.5	U	0.1	0.5	MS	09-MAY-05 17:44	050509-3
	Nickel	0.5	+/-2	U	0.5	2.0	MS	09-MAY-05 17:44	050509-3
	Silver	0.2	+/-1	U	0.2	1.0	MS	09-MAY-05 17:44	050509-3

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 3195S

Contract: LANL00101

Lab Code: GEL

Sample ID	Analyte	Result	Acceptance ug/L	Conc Qual	MDL	RDL	M	Analysis Date/Time	Run
	Thallium	0.4	+/–1	U	0.4	1.0	MS	09–MAY–05 17:44	050509–3
CCB04									
	Antimony	0.5	+/–2	U	0.5	2.0	MS	09–MAY–05 18:47	050509–3
	Beryllium	0.1	+/–.5	U	0.1	0.5	MS	09–MAY–05 18:47	050509–3
	Nickel	0.5	+/–2	U	0.5	2.0	MS	09–MAY–05 18:47	050509–3
	Silver	0.2	+/–1	U	0.2	1.0	MS	09–MAY–05 18:47	050509–3
	Thallium	0.4	+/–1	U	0.4	1.0	MS	09–MAY–05 18:47	050509–3

METALS
-3b-
PREPARATION BLANK SUMMARY

SDG NO. 3195S

Contract: LANL00101

Matrix: SOIL

Sample ID	Analyte	Result	Units	Acceptance Window	Conc Qual	M	MDL	RDL
1200839770								
	Mercury	2.5	ug/kg	+/-10.0	U	AV	2.5	10
1200839930								
	Antimony	100	ug/kg	+/-400	U	MS	100	400
	Beryllium	20	ug/kg	+/-100	U	MS	20	100
	Nickel	100	ug/kg	+/-400	U	MS	100	400
	Silver	40	ug/kg	+/-200	U	MS	40	200
	Thallium	80	ug/kg	+/-200	U	MS	80	200
1200839943								
	Aluminum	6800	ug/kg	+/-20000	U	P	6800	20000
	Arsenic	600	ug/kg	+/-1500	U	P	600	1500
	Barium	100	ug/kg	+/-500	U	P	100	500
	Cadmium	100	ug/kg	+/-500	U	P	100	500
	Calcium	3600	ug/kg	+/-10000	U	P	3600	10000
	Chromium	170.456	ug/kg	+/-500	B	P	100	500
	Cobalt	200	ug/kg	+/-500	U	P	200	500
	Copper	300	ug/kg	+/-1000	U	P	300	1000
	Iron	1800	ug/kg	+/-10000	U	P	1800	10000
	Lead	250	ug/kg	+/-1000	U	P	250	1000
	Magnesium	8500	ug/kg	+/-30000	U	P	8500	30000
	Manganese	200	ug/kg	+/-1000	U	P	200	1000
	Potassium	5000	ug/kg	+/-15000	U	P	5000	15000
	Selenium	600	ug/kg	+/-1500	U	P	600	1500
	Sodium	4500	ug/kg	+/-15000	U	P	4500	15000
	Vanadium	100	ug/kg	+/-500	U	P	100	500
	Zinc	200	ug/kg	+/-1000	U	P	200	1000

METALS
-4-
Interference Check Sample

SDG No: 3195S

Contract: LANL00101 **Lab Code:** GEL

ICS: O2Si

Instrument: TRACE2

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Aluminum	471213.88	ug/L	500000	ug/L	94.2	80.0 – 120.0	09-MAY-05 08:47	050905-1
	Arsenic	-0.674	ug/L					09-MAY-05 08:47	050905-1
	Barium	1.2	ug/L					09-MAY-05 08:47	050905-1
	Cadmium	-0.932	ug/L					09-MAY-05 08:47	050905-1
	Calcium	457999.03	ug/L	500000	ug/L	91.6	80.0 – 120.0	09-MAY-05 08:47	050905-1
	Chromium	-0.09	ug/L					09-MAY-05 08:47	050905-1
	Cobalt	-1.52	ug/L					09-MAY-05 08:47	050905-1
	Copper	4.56	ug/L					09-MAY-05 08:47	050905-1
	Iron	192284.59	ug/L	200000	ug/L	96.1	80.0 – 120.0	09-MAY-05 08:47	050905-1
	Lead	2.52	ug/L					09-MAY-05 08:47	050905-1
	Magnesium	496666.34	ug/L	500000	ug/L	99.3	80.0 – 120.0	09-MAY-05 08:47	050905-1
	Manganese	2.3	ug/L					09-MAY-05 08:47	050905-1
	Potassium	9.35	ug/L					09-MAY-05 08:47	050905-1
	Selenium	3.67	ug/L					09-MAY-05 08:47	050905-1
	Sodium	15.79	ug/L					09-MAY-05 08:47	050905-1
	Vanadium	0.678	ug/L					09-MAY-05 08:47	050905-1
	Zinc	3.54	ug/L					09-MAY-05 08:47	050905-1
ICSAB01									
	Aluminum	469512.47	ug/L	500000	ug/L	93.9	80.0 – 120.0	09-MAY-05 08:53	050905-1
	Arsenic	504.08	ug/L	500	ug/L	101	80.0 – 120.0	09-MAY-05 08:53	050905-1
	Barium	506.25	ug/L	500	ug/L	101	80.0 – 120.0	09-MAY-05 08:53	050905-1
	Cadmium	466.33	ug/L	500	ug/L	93.3	80.0 – 120.0	09-MAY-05 08:53	050905-1
	Calcium	452561.81	ug/L	500000	ug/L	90.5	80.0 – 120.0	09-MAY-05 08:53	050905-1
	Chromium	479.27	ug/L	500	ug/L	95.9	80.0 – 120.0	09-MAY-05 08:53	050905-1
	Cobalt	465.76	ug/L	500	ug/L	93.2	80.0 – 120.0	09-MAY-05 08:53	050905-1
	Copper	500.34	ug/L	500	ug/L	100	80.0 – 120.0	09-MAY-05 08:53	050905-1
	Iron	192249.25	ug/L	200000	ug/L	96.1	80.0 – 120.0	09-MAY-05 08:53	050905-1
	Lead	473.83	ug/L	500	ug/L	94.8	80.0 – 120.0	09-MAY-05 08:53	050905-1
	Magnesium	494311.16	ug/L	500000	ug/L	98.9	80.0 – 120.0	09-MAY-05 08:53	050905-1

METALS
-4-
Interference Check Sample

SDG No: 3195S

Contract: LANL00101 **Lab Code:** GEL

ICS:

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
	Manganese	474.4	ug/L	500	ug/L	94.9	80.0 – 120.0	09-MAY-05 08:53	050905-1
	Potassium	5728.94	ug/L	5000	ug/L	115	80.0 – 120.0	09-MAY-05 08:53	050905-1
	Selenium	2477.77	ug/L	2500	ug/L	99.1	80.0 – 120.0	09-MAY-05 08:53	050905-1
	Sodium	5226.06	ug/L	5000	ug/L	105	80.0 – 120.0	09-MAY-05 08:53	050905-1
	Vanadium	477.97	ug/L	500	ug/L	95.6	80.0 – 120.0	09-MAY-05 08:53	050905-1
	Zinc	490.72	ug/L	500	ug/L	98.1	80.0 – 120.0	09-MAY-05 08:53	050905-1

METALS
-4-
Interference Check Sample

SDG No: 3195S

Contract: LANL00101 **Lab Code:** GEL

ICS: O2Si

Instrument: ICPMS3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Antimony	0.686	ug/L					09-MAY-05 15:57	050509-3
	Beryllium	0.006	ug/L					09-MAY-05 15:57	050509-3
	Nickel	1.4	ug/L					09-MAY-05 15:57	050509-3
	Silver	0.053	ug/L					09-MAY-05 15:57	050509-3
	Thallium	0.024	ug/L					09-MAY-05 15:57	050509-3
ICSAB01									
	Antimony	20.95	ug/L	22.3	ug/L	93.9	80.0 - 120.0	09-MAY-05 16:02	050509-3
	Beryllium	21.43	ug/L	20	ug/L	107	80.0 - 120.0	09-MAY-05 16:02	050509-3
	Nickel	21.35	ug/L	21.4	ug/L	99.8	80.0 - 120.0	09-MAY-05 16:02	050509-3
	Silver	19.24	ug/L	20.2	ug/L	95.2	80.0 - 120.0	09-MAY-05 16:02	050509-3
	Thallium	18.55	ug/L	20	ug/L	92.8	80.0 - 120.0	09-MAY-05 16:02	050509-3

METALS
–5a–

Matrix Spike Summary

SDG NO. 3195S **Client ID** RE03–05–59531S

Contract: LANL00101 **Level:** Low

Matrix: SOIL **% Solids:** 84

Sample ID: 135803001 **Spike ID:** 1200839946

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Aluminum	ug/kg		15300000		10100000		593000	886	N/A	P
Arsenic	ug/kg	75–125	62000		1620	B	59300	102		P
Barium	ug/kg	75–125	240000		55900		59300	311	N	P
Cadmium	ug/kg	75–125	60100		225	B	59300	101		P
Calcium	ug/kg	75–125	3150000		1770000		593000	233	N	P
Chromium	ug/kg	75–125	72000		6260		59300	111		P
Cobalt	ug/kg	75–125	63100		897		59300	105		P
Copper	ug/kg	75–125	71500		6270		59300	110		P
Iron	ug/kg		9840000		8110000		593000	292	N/A	P
Lead	ug/kg	75–125	84000		20300		59300	107		P
Magnesium	ug/kg	75–125	2170000		1060000		593000	186	N	P
Manganese	ug/kg	75–125	409000		127000		59300	475	N	P
Potassium	ug/kg	75–125	2060000		1050000		593000	170	N	P
Selenium	ug/kg	75–125	59300		703	U	59300	99.2		P
Sodium	ug/kg	75–125	795000		156000		593000	108		P
Vanadium	ug/kg	75–125	75200		7840		59300	114		P
Zinc	ug/kg	75–125	138000		41300		59300	163	N	P

METALS
–5a–
Matrix Spike Duplicate Summary

SDG NO. 3195S **Client ID** RE03–05–59531SD

Contract: LANL00101 **Level:** Low

Matrix: SOIL **% Solids:** 84

Sample ID: 135803001 **Spike ID:** 1200839948

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Aluminum	ug/kg		13000000		10100000		589000	503	N/A	P
Arsenic	ug/kg	75–125	60400		1620	B	58900	99.8		P
Barium	ug/kg	75–125	124000		55900		58900	115		P
Cadmium	ug/kg	75–125	59200		225	B	58900	100		P
Calcium	ug/kg	75–125	2400000		1770000		589000	106		P
Chromium	ug/kg	75–125	69900		6260		58900	108		P
Cobalt	ug/kg	75–125	61500		897		58900	103		P
Copper	ug/kg	75–125	67400		6270		58900	104		P
Iron	ug/kg		7540000		8110000		589000	–96.7	N/A	P
Lead	ug/kg	75–125	77400		20300		58900	96.9		P
Magnesium	ug/kg	75–125	1950000		1060000		589000	150	N	P
Manganese	ug/kg	75–125	281000		127000		58900	262	N	P
Potassium	ug/kg	75–125	1870000		1050000		589000	139	N	P
Selenium	ug/kg	75–125	59900		703	U	58900	101		P
Sodium	ug/kg	75–125	764000		156000		589000	103		P
Vanadium	ug/kg	75–125	72300		7840		58900	109		P
Zinc	ug/kg	75–125	148000		41300		58900	181	N	P

METALS
-5a-
Matrix Spike Summary

SDG NO. 3195S **Client ID** RE03-05-59531S

Contract: LANL00101 **Level:** Low

Matrix: SOIL **% Solids:** 84

Sample ID: 135803001 **Spike ID:** 1200839933

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Antimony	ug/kg	75-125	2500		158	B	11700	20	N	MS
Beryllium	ug/kg	75-125	6330		736		5850	95.7		MS
Nickel	ug/kg	75-125	12600		7070		5850	94.9		MS
Silver	ug/kg	75-125	5450		77.4	B	5850	91.9		MS
Thallium	ug/kg	75-125	5400		124	B	5850	90.2		MS

METALS
–5a–
Matrix Spike Duplicate Summary

SDG NO. 3195S **Client ID** RE03–05–59531SD

Contract: LANL00101 **Level:** Low

Matrix: SOIL **% Solids:** 84

Sample ID: 135803001 **Spike ID:** 1200839949

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Antimony	ug/kg	75–125	2480		158	B	11800	19.7	N	MS
Beryllium	ug/kg	75–125	6150		736		5880	92		MS
Nickel	ug/kg	75–125	11700		7070		5880	78.4		MS
Silver	ug/kg	75–125	5430		77.4	B	5880	91.1		MS
Thallium	ug/kg	75–125	5320		124	B	5880	88.4		MS

METALS
–5a–
Matrix Spike Summary

SDG NO. 3195S **Client ID** RE03–05–59531S

Contract: LANL00101 **Level:** Low

Matrix: SOIL **% Solids:** 84

Sample ID: 135803001 **Spike ID:** 1200839773

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Mercury	ug/kg	75–125	136		12.1		113	110		AV

METALS
-5a-
Matrix Spike Duplicate Summary

SDG NO. 3195S **Client ID** RE03-05-59531SD

Contract: LANL00101 **Level:** Low

Matrix: SOIL **% Solids:** 84

Sample ID: 135803001 **Spike ID:** 1200839775

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Mercury	ug/kg	75-125	134		12.1		113	108		AV

Metals
-6-
Duplicate Sample Summary

SDG No.: 3195S

Contract: LANL00101 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE03-05-59531D

Sample ID: 135803001 **Duplicate ID:** 1200839945 **Percent Solids for Dup:** 84

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	ug/kg	+/-20%	10100000		8540000		16.6		P
Arsenic	ug/kg	+/-1760	1620	B	3180		65.1		P
Barium	ug/kg	+/-20%	55900		96900		53.7	*	P
Cadmium	ug/kg	+/-587	225	B	170	B	28		P
Calcium	ug/kg	+/-20%	1770000		1460000		19.4		P
Chromium	ug/kg	+/-20%	6260		3820		48.5	*	P
Cobalt	ug/kg	+/-587	897		2230		85.3	*	P
Copper	ug/kg	+/-20%	6270		3580		54.4	*	P
Iron	ug/kg	+/-20%	8110000		6560000		21.1	*	P
Lead	ug/kg	+/-20%	20300		15400		27.5	*	P
Magnesium	ug/kg	+/-20%	1060000		914000		15.3		P
Manganese	ug/kg	+/-20%	127000		275000		73.7	*	P
Potassium	ug/kg	+/-20%	1050000		921000		13.5		P
Selenium	ug/kg		703	U	704	U			P
Sodium	ug/kg	+/-20%	156000		136000		13.7		P
Vanadium	ug/kg	+/-20%	7840		11000		33.1	*	P
Zinc	ug/kg	+/-20%	41300		38300		7.55		P

Metals
–6–
Duplicate Sample Summary

SDG No.: 3195S

Contract: LANL00101 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE03–05–59531SD

Sample ID: 1200839946 **Duplicate ID:** 1200839948 **Percent Solids for Dup:** 84

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	ug/kg	+/–20	15300000		13000000		16.1		P
Arsenic	ug/kg	+/–20	62000		60400		2.66		P
Barium	ug/kg	+/–20	240000		124000		64.2	*	P
Cadmium	ug/kg	+/–20	60100		59200		1.62		P
Calcium	ug/kg	+/–20	3150000		2400000		27.2	*	P
Chromium	ug/kg	+/–20	72000		69900		3.07		P
Cobalt	ug/kg	+/–20	63100		61500		2.46		P
Copper	ug/kg	+/–20	71500		67400		5.94		P
Iron	ug/kg	+/–20	9840000		7540000		26.5	*	P
Lead	ug/kg	+/–20	84000		77400		8.2		P
Magnesium	ug/kg	+/–20	2170000		1950000		10.7		P
Manganese	ug/kg	+/–20	409000		281000		37	*	P
Potassium	ug/kg	+/–20	2060000		1870000		9.51		P
Selenium	ug/kg	+/–20	59300		59900		.969		P
Sodium	ug/kg	+/–20	795000		764000		3.99		P
Vanadium	ug/kg	+/–20	75200		72300		3.94		P
Zinc	ug/kg	+/–20	138000		148000		7.34		P

Metals
–6–
Duplicate Sample Summary

SDG No.: 3195S

Contract: LANL00101 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE03-05-59531D

Sample ID: 135803001 **Duplicate ID:** 1200839932 **Percent Solids for Dup:** 84

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Antimony	ug/kg	+/–472	158	B	122	B	25.9		MS
Beryllium	ug/kg	+/–20%	736		713		3.21		MS
Nickel	ug/kg	+/–20%	7070		10000		34.4	*	MS
Silver	ug/kg	+/–236	77.4	B	66.1	B	15.8		MS
Thallium	ug/kg	+/–236	124	B	159	B	25.2		MS

Metals
–6–
Duplicate Sample Summary

SDG No.: 3195S

Contract: LANL00101 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE03–05–59531SD

Sample ID: 1200839933 **Duplicate ID:** 1200839949 **Percent Solids for Dup:** 84

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Antimony	ug/kg	+/–20	2500		2480		.73		MS
Beryllium	ug/kg	+/–20	6330		6150		2.9		MS
Nickel	ug/kg	+/–20	12600		11700		7.7		MS
Silver	ug/kg	+/–20	5450		5430		.293		MS
Thallium	ug/kg	+/–20	5400		5320		1.46		MS

Metals
-6-
Duplicate Sample Summary

SDG No.: 3195S

Contract: LANL00101 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE03-05-59531D

Sample ID: 135803001 **Duplicate ID:** 1200839772 **Percent Solids for Dup:** 84

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Mercury	ug/kg	+/-11.7	12.1		13.7		11.9		AV

Metals
-6-
Duplicate Sample Summary

SDG No.: 3195S

Contract: LANL00101 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE03-05-59531SD

Sample ID: 1200839773 **Duplicate ID:** 1200839775 **Percent Solids for Dup:** 84

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Mercury	ug/kg	+/-20	136		134		1.24		AV

METALS
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Laboratory Control Sample Summary

SDG NO. 3195S

Contract: LANL00101

Aqueous LCS Source: **Solid LCS Source:**

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1200839944								
	Aluminum	ug/kg	6640000	7710000		116	43.7–156.6	P
	Arsenic	ug/kg	197000	205000		104	79.2–120.8	P
	Barium	ug/kg	392000	414000		106	79.6–120.4	P
	Cadmium	ug/kg	69100	73300		106	80.5–119.5	P
	Calcium	ug/kg	3380000	3640000		108	75.7–124.3	P
	Chromium	ug/kg	82600	88300		107	77.2–122.8	P
	Cobalt	ug/kg	81500	87800		108	84.5–115.2	P
	Copper	ug/kg	127000	141000		111	80.3–119.7	P
	Iron	ug/kg	12200000	11800000		96.7	47.4–152.5	P
	Lead	ug/kg	95000	102000		107	77.2–123.3	P
	Magnesium	ug/kg	2050000	2260000		110	70.7–129.3	P
	Manganese	ug/kg	452000	479000		106	75.7–124.3	P
	Potassium	ug/kg	1910000	2030000		106	63.9–136.1	P
	Selenium	ug/kg	117000	119000		102	74–125.6	P
	Sodium	ug/kg	352000	347000		98.4	50.9–149.1	P
	Vanadium	ug/kg	158000	161000		102	69.6–129.1	P
	Zinc	ug/kg	275000	299000		109	76.7–122.5	P

METALS
-7-
Laboratory Control Sample Summary

SDG NO. 3195S

Contract: LANL00101

Aqueous LCS Source: **Solid LCS Source:**

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1200839931								
	Antimony	ug/kg	57200	24500		42.9	.7–267.5	MS
	Beryllium	ug/kg	73400	82400		112	80.4–119.6	MS
	Nickel	ug/kg	82300	90000		109	78.3–121.5	MS
	Silver	ug/kg	127000	67400		53	24.8–174.8	MS
	Thallium	ug/kg	103000	110000		106	73.8–126.2	MS

METALS
-7-
Laboratory Control Sample Summary

SDG NO. 3195S

Contract: LANL00101

Aqueous LCS Source: **Solid LCS Source:**

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1200839771								
	Mercury	ug/kg	9410	9750		104	65.8–133.9	AV

METALS
-9-
Serial Dilution Sample Summary

SDG NO. 3195S **Client ID** RE03-05-59531L

Contract: LANL00101

Matrix: SOLID **Level:** Low

Sample ID: 135803001 **Serial Dilution ID:** 1200839947

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Aluminum	86100		86000		.116		10	P
Arsenic	13.8	B	30	U	100			P
Barium	477		474.5		.524		10	P
Cadmium	1.92	B	5	U	100			P
Calcium	15100		15100		0		10	P
Chromium	53.4		49.25		7.77		10	P
Cobalt	7.66		10	U	100			P
Copper	53.5		52.5		1.87			P
Iron	69200		69000		.289		10	P
Lead	174		189.5		8.91		10	P
Magnesium	9090		9050		.44		10	P
Manganese	1080		1085		.463		10	P
Potassium	9000		9500		5.56		10	P
Selenium	6	U	30	U				P
Sodium	1330		1300		2.26			P
Vanadium	66.9		65.5		2.09		10	P
Zinc	353		392.5		11.2	E	10	P

METALS
-9-
Serial Dilution Sample Summary

SDG NO. 3195S **Client ID** RE03-05-59531L

Contract: LANL00101

Matrix: SOLID **Level:** Low

Sample ID: 135803001 **Serial Dilution ID:** 1200839934

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Antimony	.667	B	2.5	U	100			MS
Beryllium	3.1		3.055		1.45			MS
Nickel	29.8		31.25		4.87			MS
Silver	.326	B	1	U	100			MS
Thallium	.521	B	2	U	100			MS

METALS
-9-
Serial Dilution Sample Summary

SDG NO. 3195S **Client ID** RE03-05-59531L

Contract: LANL00101

Matrix: SOLID **Level:** Low

Sample ID: 135803001 **Serial Dilution ID:** 1200839774

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Mercury	.205		.25	U	100			AV

METALS
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SAMPLE PREPARATION SUMMARY

SDG No: 3195S **Method Type:** P

Contract: LANL00101 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number	422820						
1200839948	RE03–05–59531SD	MSD	SOIL	05–MAY–05	.506g	50mL	84
1200839943	MB for batch 422820	MB	SOIL	05–MAY–05	.5g	50mL	
1200839944	LCS for batch 422820	LCS	SOIL	05–MAY–05	.5g	50mL	
1200839945	RE03–05–59531D	DUP	SOIL	05–MAY–05	.508g	50mL	84
1200839946	RE03–05–59531S	MS	SOIL	05–MAY–05	.503g	50mL	84
135803001	RE03–05–59531	SAMPLE	SOIL	05–MAY–05	.509g	50mL	84
135803002	RE03–05–59532	SAMPLE	SOIL	05–MAY–05	.504g	50mL	87
135803003	RE03–05–59541	SAMPLE	SOIL	05–MAY–05	.503g	50mL	87
135803004	RE03–05–59542	SAMPLE	SOIL	05–MAY–05	.51g	50mL	86

METALS
-13-
SAMPLE PREPARATION SUMMARY

SDG No: 3195S **Method Type:** MS

Contract: LANL00101 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number	422815						
1200839930	MB for batch 422815	MB	SOIL	05-MAY-05	.5g	50mL	
1200839931	LCS for batch 422815	LCS	SOIL	05-MAY-05	.506g	50mL	
1200839932	RE03-05-59531D	DUP	SOIL	05-MAY-05	.505g	50mL	84
1200839933	RE03-05-59531S	MS	SOIL	05-MAY-05	.51g	50mL	84
1200839949	RE03-05-59531SD	MSD	SOIL	05-MAY-05	.507g	50mL	84
135803001	RE03-05-59531	SAMPLE	SOIL	05-MAY-05	.502g	50mL	84
135803002	RE03-05-59532	SAMPLE	SOIL	05-MAY-05	.508g	50mL	87
135803003	RE03-05-59541	SAMPLE	SOIL	05-MAY-05	.51g	50mL	87
135803004	RE03-05-59542	SAMPLE	SOIL	05-MAY-05	.509g	50mL	86

METALS
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SAMPLE PREPARATION SUMMARY

SDG No: 3195S **Method Type:** AV

Contract: LANL00101 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number	422744						
135803001	RE03-05-59531	SAMPLE	SOIL	09-MAY-05	.605g	30mL	84
135803002	RE03-05-59532	SAMPLE	SOIL	09-MAY-05	.647g	30mL	87
135803003	RE03-05-59541	SAMPLE	SOIL	09-MAY-05	.614g	30mL	87
135803004	RE03-05-59542	SAMPLE	SOIL	09-MAY-05	.601g	30mL	86
1200839770	MB for batch 422744	MB	SOIL	09-MAY-05	.6g	30mL	
1200839771	LCS for batch 422744	LCS	SOIL	09-MAY-05	.201g	30mL	
1200839772	RE03-05-59531D	DUP	SOIL	09-MAY-05	.614g	30mL	84
1200839773	RE03-05-59531S	MS	SOIL	09-MAY-05	.636g	30mL	84
1200839775	RE03-05-59531SD	MSD	SOIL	09-MAY-05	.631g	30mL	84

Metals
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Analysis Run Log

Contract: LANL00101
Lab Code: GEL
Inst Name: TRACE2
Start Date: 09-MAY-05 **End Date:** 09-MAY-05

Client Sdg: 3195S
Method P
Data File: 050905-1

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn
S0	1	07:57	X		X	X		X	X	X	X	X	X	X	X	X			X	X		X		X	X
S0.1	1	08:03	X		X	X		X	X	X	X	X	X	X	X	X			X	X		X		X	X
S0.5	1	08:09	X		X	X		X	X	X	X	X	X	X	X	X			X	X		X		X	X
SCAL	1	08:15	X		X	X		X	X	X	X	X	X	X	X	X			X	X		X		X	X
S10	1	08:21	X		X	X		X	X	X	X	X	X	X	X	X			X	X		X		X	X
ICV01	1	08:29	X		X	X		X	X	X	X	X	X	X	X	X			X	X		X		X	X
ICB01	1	08:36	X		X	X		X	X	X	X	X	X	X	X	X			X	X		X		X	X
PQL01	1	08:41	X		X	X		X	X	X	X	X	X	X	X	X			X	X		X		X	X
ICSA01	1	08:47	X		X	X		X	X	X	X	X	X	X	X	X			X	X		X		X	X
ICSAB01	1	08:53	X		X	X		X	X	X	X	X	X	X	X	X			X	X		X		X	X
CCV01	1	09:07	X		X	X		X	X	X	X	X	X	X	X	X			X	X		X		X	X
CCB01	1	09:13	X		X	X		X	X	X	X	X	X	X	X	X			X	X		X		X	X
ZZZZZZ	1	09:47																							
ZZZZZZ	1	09:53																							
ZZZZZZ	1	09:59																							
ZZZZZZ	1	10:05																							
ZZZZZZ	1	10:11																							
ZZZZZZ	5	10:17																							
ZZZZZZ	1	10:22																							
CCV02	1	10:28	X		X	X		X	X	X	X	X	X	X	X	X			X	X		X		X	X
CCB02	1	10:34	X		X	X		X	X	X	X	X	X	X	X	X			X	X		X		X	X
1200839943	1	10:40	X		X	X		X	X	X	X	X	X	X	X	X			X	X		X		X	X
1200839944	1	10:46	X		X	X		X	X	X	X	X	X	X	X	X			X	X		X		X	X
135803001	1	10:52	X		X	X		X	X	X	X	X	X	X	X	X			X	X		X		X	X
1200839945	1	10:58	X		X	X		X	X	X	X	X	X	X	X	X			X	X		X		X	X
1200839946	1	11:04	X		X	X		X	X	X	X	X	X	X	X	X			X	X		X		X	X
1200839948	1	11:10	X		X	X		X	X	X	X	X	X	X	X	X			X	X		X		X	X
1200839947	5	11:16	X		X	X		X	X	X	X	X	X	X	X	X			X	X		X		X	X
135803002	1	11:21	X		X	X		X	X	X	X	X	X	X	X	X			X	X		X		X	X
135803003	1	11:27	X		X	X		X	X	X	X	X	X	X	X	X			X	X		X		X	X
135803004	1	11:33	X		X	X		X	X	X	X	X	X	X	X	X			X	X		X		X	X
CCV03	1	11:39	X		X	X		X	X	X	X	X	X	X	X	X			X	X		X		X	X
CCB03	1	11:45	X		X	X		X	X	X	X	X	X	X	X	X			X	X		X		X	X

Metals
-14-
Analysis Run Log

Contract: LANL00101
Lab Code: GEL
Inst Name: ICPMS3
Start Date: 09-MAY-05 **End Date:** 09-MAY-05

Client Sdg: 3195S
Method MS
Data File: 050509-3

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn
Blank	1	15:22:00		X			X											X			X		X		
Standard 1	1	15:29:00		X			X											X			X		X		
Standard 2	1	15:35:00		X			X											X			X		X		
ICV01	1	15:41:00		X			X											X			X		X		
ICB01	1	15:46:00		X			X											X			X		X		
CRDIL01	1	15:52:00		X			X											X			X		X		
ICSA01	1	15:57:00		X			X											X			X		X		
ICSAB01	1	16:02:00		X			X											X			X		X		
CCV01	1	16:07:00		X			X											X			X		X		
CCB01	1	16:12:00		X			X											X			X		X		
ZZZZZZ	1	16:20:00																							
ZZZZZZ	1	16:25:00																							
ZZZZZZ	1	16:30:00																							
ZZZZZZ	1	16:35:00																							
ZZZZZZ	1	16:41:00																							
ZZZZZZ	1	16:46:00																							
ZZZZZZ	5	16:51:00																							
CCV02	1	16:56:00		X			X											X			X		X		
CCB02	1	17:01:00		X			X											X			X		X		
ZZZZZZ	1	17:07:00																							
ZZZZZZ	1	17:12:00																							
ZZZZZZ	1	17:17:00																							
ZZZZZZ	1	17:23:00																							
ZZZZZZ	5	17:33:00																							
CCV03	1	17:39:00		X			X											X			X		X		
CCB03	1	17:44:00		X			X											X			X		X		
1200839930	2	17:49:00		X			X											X			X		X		
1200839931	5	17:54:00		X			X											X			X		X		
135803001	2	18:00:00		X			X											X			X		X		
1200839932	2	18:05:00		X			X											X			X		X		
1200839933	2	18:10:00		X			X											X			X		X		
1200839949	2	18:15:00		X			X											X			X		X		
1200839934	10	18:21:00		X			X											X			X		X		
135803002	2	18:26:00		X			X											X			X		X		
135803003	2	18:31:00		X			X											X			X		X		
135803004	2	18:36:00		X			X											X			X		X		
CCV04	1	18:42:00		X			X											X			X		X		
CCB04	1	18:47:00		X			X											X			X		X		

Metals
-14-
Analysis Run Log

Contract: LANL00101
Lab Code: GEL
Inst Name: MER179
Start Date: 10-MAY-05 **End Date:** 10-MAY-05

Client Sdg: 3195S
Method AV
Data File: 051005S2-2

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn
SCalib Blank	1	18:11															X								
S0.2	1	18:13															X								
S0.5	1	18:15															X								
S2.0	1	18:17															X								
S5.0	1	18:19															X								
S10.0	1	18:21															X								
ICV01	1	18:23															X								
ICB01	1	18:25															X								
CRDL01	1	18:27															X								
CCV01	1	18:29															X								
CCB01	1	18:31															X								
1200839770	1	18:33															X								
1200839771	10	18:35															X								
135803001	1	18:37															X								
1200839772	1	18:39															X								
1200839773	1	18:41															X								
1200839775	1	18:43															X								
1200839774	5	18:45															X								
135803002	1	18:47															X								
135803003	1	18:49															X								
135803004	1	18:51															X								
CCV02	1	18:53															X								
CCB02	1	18:55															X								

STANDARDS DATA

METALS
-10-
Instrument Detection Limits

SDG NO. 3195S

Contract: LANL00101 **Lab Code: GEL** **MDL Effective Date:** 01-APR-05

ICP	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
	Aluminum	308.215	68.0	200
	Antimony	206.838	4.0	10
	Arsenic	193.696	6.0	15
	Barium	493.409	1.0	5
	Beryllium	313.042	1.0	5
	Cadmium	226.502	1.0	5
	Calcium	317.933	36.0	100
	Chromium	267.716	1.0	5
	Cobalt	228.616	2.0	5
	Copper	324.754	3.0	10
	Iron	259.94	18.0	100
	Lead	220.353	2.5	10
	Magnesium	279.078	85.0	300
	Manganese	257.61	2.0	10
	Nickel	231.604	1.0	5
	Potassium	766.491	50.0	150
	Selenium	196.026	6.0	15
	Silver	328.068	1.0	5
	Sodium	588.995	45.0	150
	Thallium	190.864	5.0	20
	Vanadium	292.402	1.0	5
	Zinc	213.856	2.0	10

METALS
-10-
Instrument Detection Limits

SDG NO. 3195S

Contract: LANL00101 **Lab Code: GEL** **MDL Effective Date:** 01-APR-05

ICP/MS	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
	Aluminum		5.0	15
	Antimony		0.5	2
	Arsenic		1.5	5
	Barium		0.5	2
	Beryllium		0.1	.5
	Cadmium		0.1	1
	Calcium		40.0	100
	Chromium		1.0	3
	Cobalt		0.1	1
	Copper		0.2	1
	Iron		10.0	25
	Lead		0.5	2
	Magnesium		5.0	15
	Manganese		1.0	5
	Nickel		0.5	2
	Potassium		80.0	300
	Selenium		2.5	5
	Silver		0.2	1
	Sodium		80.0	250
	Thallium		0.4	1
	Vanadium		2.0	10
	Zinc		2.0	10

METALS
-10-
Instrument Detection Limits

SDG NO. 3195S

Contract: LANL00101 **Lab Code: GEL** **MDL Effective Date:** 01-APR-05

	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
MERCURY	Mercury		0.05	.2

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL00101
Instrument: TRACE2
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 3195S
Effective Dates: 31-OCT-04,31-JAN-05

Parmname	Wavelength	Aluminum	Antimony	Arsenic	Barium	Beryllium
Aluminum	308.215	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.838	0.00000	0.00000	0.00000	0.00000	0.00000
Arsenic	189.042	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	493.409	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.042	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.678	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Calcium	317.933	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.753	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	259.94	0.00000	0.00000	0.00000	0.00000	0.00000
	271.441	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.351	0.00000	0.00000	0.00000	0.00000	0.00000
	220.352	0.00000	0.00000	0.00000	0.00000	0.00000
Magnesium	279.078	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.03	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	178.287	0.00000	0.00000	0.00000	0.00000	0.00000
Potassium	766.491	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.022	0.00002	0.00000	0.00000	0.00000	0.00000
Silicon	288.158	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Sodium	330.232	0.00120	0.00000	0.00000	0.00092	0.00000
	588.95	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.864	0.00000	0.00000	0.00000	0.00000	0.00000
Tin	189.989	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.941	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	385.958	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	-0.00040	0.00000
Zinc	213.858	0.00000	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL **GEL Job No:** 3195S
Contract: LANL00101
Instrument: TRACE2 **Effective Dates:** 31-OCT-04,31-JAN-05
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Parmname	Wavelength	Boron	Cadmium	Calcium	Chromium	Cobalt
Aluminum	308.215	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.838	0.00000	0.00000	0.00000	0.00307	0.00000
Arsenic	189.042	0.00000	0.00000	0.00000	0.00013	0.00013
Barium	493.409	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.042	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.678	0.00000	0.00000	0.00000	0.00000	0.00106
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Calcium	317.933	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	-0.00051	0.00000
Copper	324.753	0.00000	0.00000	0.00000	0.00000	-0.00135
Iron	259.94	0.00000	0.00000	0.00000	0.00000	0.00000
	271.441	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.351	0.00000	0.00000	0.00000	0.00000	0.00000
	220.352	0.00000	0.00000	0.00000	0.00000	0.00000
Magnesium	279.078	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.03	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	-0.00065
Phosphorous	178.287	0.00000	0.00000	0.00000	0.00000	0.00000
Potassium	766.491	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.022	0.00000	0.00000	0.00000	-0.00014	-0.00044
Silicon	288.158	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Sodium	330.232	0.00000	0.00000	0.00000	0.00000	0.00000
	588.95	0.00000	0.00000	0.00003	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00001	0.00000	0.00000
Thallium	190.864	0.00000	0.00000	0.00000	0.00000	-0.00252
Tin	189.989	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.941	0.00000	0.00000	0.00000	0.00029	0.00000
Uranium	385.958	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.858	0.00000	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL00101
Instrument: TRACE2
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 3195S
Effective Dates: 31-OCT-04,31-JAN-05

Parmname	Wavelength	Copper	Iron	Lead	Magnesium	Manganese
Aluminum	308.215	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.838	0.00000	0.00008	0.00000	0.00000	0.00000
Arsenic	189.042	0.00021	-0.00001	0.00000	0.00000	0.00000
Barium	493.409	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.042	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.678	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00002	0.00000	0.00000	0.00000
Calcium	317.933	0.00000	0.00000	0.00000	0.00004	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	-0.00093
Cobalt	228.616	0.00000	0.00002	0.00000	0.00000	0.00000
Copper	324.753	0.00000	-0.00025	0.00000	0.00000	0.00000
Iron	259.94	0.00000	0.00000	0.00000	0.00010	0.00000
	271.441	0.00000	0.00000	0.00000	0.00010	0.00000
Lead	220.351	0.00000	0.00023	0.00000	0.00000	0.00000
	220.352	0.00000	0.00004	0.00000	0.00000	0.00000
Magnesium	279.078	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00002	0.00000	0.00001	0.00000
Molybdenum	202.03	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00002	0.00000	0.00000	0.00000
Phosphorous	178.287	0.00000	0.00010	0.00000	0.00000	0.00000
Potassium	766.491	0.00000	0.00000	0.00000	0.00012	0.00000
Selenium	196.022	0.00000	-0.00025	0.00000	0.00000	0.00103
Silicon	288.158	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Sodium	330.232	0.00000	0.00000	0.00000	0.00000	0.00000
	588.95	0.00000	0.00000	0.00000	0.00010	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.864	0.00000	-0.00002	0.00000	0.00000	0.00000
Tin	189.989	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.941	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	385.958	0.00000	0.00101	0.00000	0.00000	0.00725
Vanadium	292.402	0.00000	0.00003	0.00000	0.00000	0.00000
Zinc	213.858	0.00000	0.00005	0.00000	0.00003	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL00101
Instrument: TRACE2
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 3195S
Effective Dates: 31-OCT-04,31-JAN-05

Parmname	Wavelength	Molybdenum	Nickel	Phosphorous	Potassium	Selenium
Aluminum	308.215	-0.01269	0.00000	0.00000	0.00000	0.00000
Antimony	206.838	-0.00708	0.00000	0.00000	0.00000	0.00000
Arsenic	189.042	0.00026	0.00000	0.00000	0.00000	0.00000
Barium	493.409	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.042	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.678	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Calcium	317.933	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.753	0.00020	0.00000	0.00000	0.00000	0.00000
Iron	259.94	0.00000	0.00000	0.00000	0.00000	0.00000
	271.441	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.351	-0.00108	0.00000	0.00000	0.00000	0.00000
	220.352	-0.00112	0.00000	0.00000	0.00000	0.00000
Magnesium	279.078	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.03	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	178.287	0.00000	0.00000	0.00000	0.00000	0.00000
Potassium	766.491	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.022	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	288.158	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	-0.00051	0.00000	0.00000	0.00000	0.00000
Sodium	330.232	0.00000	0.00000	0.00000	0.00000	0.00000
	588.95	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.864	0.00000	0.00000	0.00000	0.00000	0.00000
Tin	189.989	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.941	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	385.958	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	-0.00064	0.00000	0.00000	0.00000	0.00000
Zinc	213.858	0.00000	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL00101
Instrument: TRACE2
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 3195S
Effective Dates: 31-OCT-04,31-JAN-05

Parmname	Wavelength	Silicon	Silver	Sodium	Strontium	Thallium
Aluminum	308.215	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.838	0.00000	0.00000	0.00000	0.00000	0.00000
Arsenic	189.042	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	493.409	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.042	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.678	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Calcium	317.933	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.753	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	259.94	0.00000	0.00000	0.00000	0.00000	0.00000
	271.441	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.351	0.00000	0.00000	0.00000	0.00000	0.00000
	220.352	0.00000	0.00000	0.00000	0.00000	0.00000
Magnesium	279.078	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.03	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	178.287	0.00000	0.00000	0.00000	0.00000	0.00000
Potassium	766.491	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.022	-0.00013	0.00000	0.00000	0.00000	0.00000
Silicon	288.158	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Sodium	330.232	0.00000	0.00000	0.00000	0.00000	0.00000
	588.95	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.864	0.00000	0.00000	0.00000	0.00000	0.00000
Tin	189.989	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.941	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	385.958	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.858	0.00000	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL00101
Instrument: TRACE2
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 3195S

Effective Dates: 31-OCT-04,31-JAN-05

Parmname	Wavelength	Tin	Titanium	Uranium	Vanadium	Zinc
Aluminum	308.215	0.00000	0.00000	0.00000	0.02412	0.00000
Antimony	206.838	0.00000	0.00000	0.00000	0.00000	0.00000
Arsenic	189.042	0.00000	0.00000	-0.00018	0.00000	0.00000
Barium	493.409	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.042	0.00000	0.00000	0.00000	0.00017	0.00000
Boron	249.678	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Calcium	317.933	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00104	0.00000	0.00000
Cobalt	228.616	0.00000	0.00181	0.00012	0.00000	0.00000
Copper	324.753	0.00000	0.00000	0.00089	0.00000	0.00000
Iron	259.94	0.00000	0.00000	0.00000	0.00000	0.00000
	271.441	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.351	0.00000	-0.00580	0.00050	0.00000	0.00000
	220.352	0.00000	-0.00006	0.00059	0.00000	0.00000
Magnesium	279.078	0.00000	0.00000	0.00424	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.03	0.00000	0.00000	0.00000	-0.00001	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	178.287	0.00000	0.00000	0.00000	0.00000	0.00000
Potassium	766.491	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.022	0.00000	-0.00057	-0.00025	-0.00030	0.00000
Silicon	288.158	0.01260	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00025	0.00000	0.00000
Sodium	330.232	0.00000	0.00000	0.00000	0.00254	0.02000
	588.95	0.00000	0.00000	0.00000	0.00017	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.864	0.00000	-0.00144	0.00000	-0.00240	0.00000
Tin	189.989	0.00000	-0.00604	0.00000	0.00000	0.00000
Titanium	334.941	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	385.958	0.00000	0.00000	0.00000	-0.00581	0.00000
Vanadium	292.402	0.00000	0.00180	0.00020	0.00000	0.00000
Zinc	213.858	0.00000	0.00000	0.00000	0.00000	0.00000

METALS
-12-
Linear Ranges

SDG NO. 3195S

Contract: LANL00101 **Lab Code: GEL**

Instrument ID TRACE2

Analyte	Integration Time	LDR	Units	Effective Date
Aluminum		500000	ug/L	01-MAY-05
Antimony		50000	ug/L	01-MAY-05
Arsenic		50000	ug/L	01-MAY-05
Barium		15000	ug/L	01-MAY-05
Beryllium		10000	ug/L	01-MAY-05
Cadmium		25000	ug/L	01-MAY-05
Calcium		500000	ug/L	01-MAY-05
Chromium		50000	ug/L	01-MAY-05
Cobalt		50000	ug/L	01-MAY-05
Copper		25000	ug/L	01-MAY-05
Iron		500000	ug/L	01-MAY-05
Lead		50000	ug/L	01-MAY-05
Magnesium		500000	ug/L	01-MAY-05
Manganese		10000	ug/L	01-MAY-05
Nickel		50000	ug/L	01-MAY-05
Potassium		30000	ug/L	01-MAY-05
Selenium		50000	ug/L	01-MAY-05
Silver		2000	ug/L	01-MAY-05
Sodium		200000	ug/L	01-MAY-05
Thallium		50000	ug/L	01-MAY-05
Vanadium		50000	ug/L	01-MAY-05
Zinc		5000	ug/L	01-MAY-05

METALS
-12-
Linear Ranges

SDG NO. 3195S

Contract: LANL00101 **Lab Code: GEL**

Instrument ID ICPMS3

Analyte	Integration Time	LDR	Units	Effective Date
Arsenic		5000	ug/L	01-MAY-05
Barium		5000	ug/L	01-MAY-05
Beryllium		10000	ug/L	01-MAY-05
Cadmium		5000	ug/L	01-MAY-05
Calcium		200000	ug/L	01-MAY-05
Chromium		10000	ug/L	01-MAY-05
Antimony		1000	ug/L	01-MAY-05
Cobalt		10000	ug/L	01-MAY-05
Copper		10000	ug/L	01-MAY-05
Iron		200000	ug/L	01-MAY-05
Lead		10000	ug/L	01-MAY-05
Magnesium		200000	ug/L	01-MAY-05
Manganese		10000	ug/L	01-MAY-05
Nickel		10000	ug/L	01-MAY-05
Potassium		100000	ug/L	01-MAY-05
Selenium		2000	ug/L	01-MAY-05
Silver		1000	ug/L	01-MAY-05
Sodium		200000	ug/L	01-MAY-05
Thallium		1000	ug/L	01-MAY-05
Vanadium		10000	ug/L	01-MAY-05
Zinc		10000	ug/L	01-MAY-05

RAW DATA

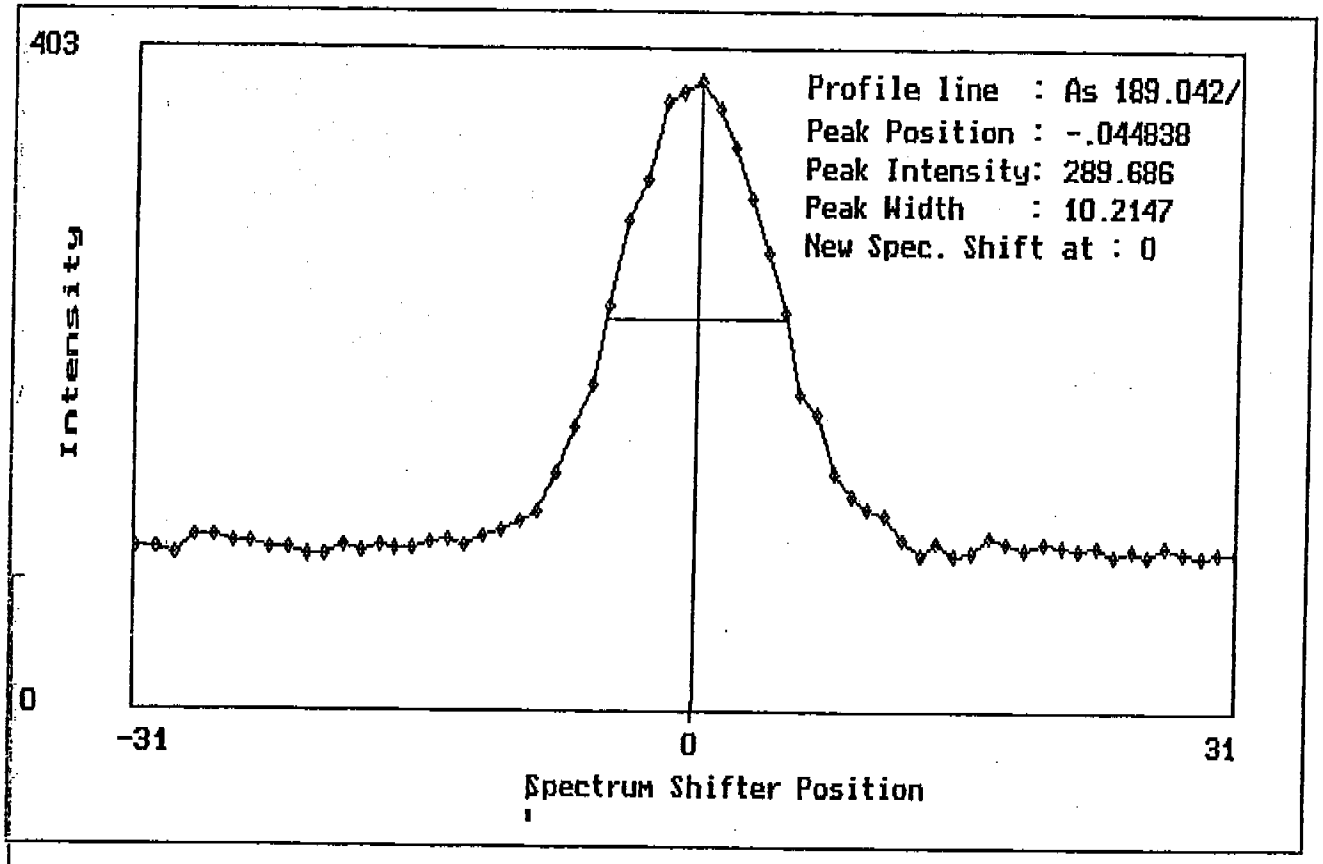
403
Intensity
0
-31
0
31
Spectrum Shifter Position
Profile line : As 189.042/
Peak Position : -.044838
Peak Intensity: 289.686
Peak Width : 10.2147
New Spec. Shift at : 0

HK
5/09/05

Standardization Rpt. 05/09/05 08:03:45 AM

Method: TRACE2 Standard: S0
Run Time: 05/09/05 07:57:54

Elem	Ag_328	Al_308	As_189	B_2496	Ba_493	Be_313	Ca_317
Avge	-.0000	.0055	.0014	.0004	.0011	.0004	.0046
SDev	.0006	.0005	.0022	.0003	.0003	.0001	.0011
%RSD	1629.	9.866	155.0	69.94	26.15	14.70	24.21
#1	.0007	.0060	-.0001	.0008	.0015	.0005	.0058
#2	-.0005	.0055	.0004	.0003	.0011	.0004	.0044
#3	-.0003	.0049	.0040	.0002	.0009	.0004	.0036

Elem	Cd_226	Co_228	Cr_267	Cu_324	Fe_	Fe_	K_7664
Avge	-.0000	.0003	.0006	.0009	.0002	.0027	.0573
SDev	.0005	.0003	.0002	.0002	.0001	.0008	.0048
%RSD	2236.	96.21	32.91	25.87	45.18	30.17	8.394
#1	-.0003	.0003	.0006	.0008	.0001	.0035	.0518
#2	-.0004	.0000	.0004	.0012	.0002	.0026	.0608
#3	.0006	.0006	.0007	.0007	.0003	.0019	.0592

Elem	Mg_279	Mn_257	Mo_202	Na_	Na_	Ni_231	Sb_206
Avge	.0005	-.0000	-.0001	-.0007	-2.183	-.0000	.0005
SDev	.0003	.0001	.0005	.0016	.024	.0006	.0001
%RSD	49.02	352.0	440.7	228.7	1.112	1577.	30.83
#1	.0008	.0001	.0001	.0008	-2.210	.0002	.0004
#2	.0006	-.0001	.0003	-.0024	-2.174	.0004	.0004
#3	.0002	-.0001	-.0007	-.0004	-2.164	-.0007	.0006

Elem	Sn_189	Ti_334	Tl_190	U_3859	V_2924	Zn_213	P_1782
Avge	.0002	-.0003	-.0019	.0183	.0000	.0002	.0250
SDev	.0026	.0006	.0026	.0008	.0002	.0001	.0027
%RSD	1094.	183.6	136.0	4.342	905.7	62.22	10.99
#1	.0031	-.0006	-.0049	.0179	.0002	.0003	.0240
#2	-.0020	-.0008	-.0009	.0178	-.0002	.0001	.0229
#3	-.0004	.0004	.0001	.0192	.0001	.0003	.0281

Elem	Si_288	Si02_	Sr_421	Pb1st	Pb2nd	Se1st	Se2nd
Avge	.0033	.0033	.0028	-.0018	-.0014	.0039	-.0012
SDev	.0001	.0001	.0002	.0016	.0005	.0029	.0013
%RSD	4.405	4.405	7.347	90.23	36.53	75.32	108.0
#1	.0034	.0034	.0030	-.0035	-.0009	.0022	-.0003
#2	.0034	.0034	.0026	-.0017	-.0013	.0022	-.0028
#3	.0032	.0032	.0027	-.0002	-.0019	.0073	-.0006

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	15957	--	--	--	--	--	--
SDev	110.5926	--	--	--	--	--	--
%RSD	.6930871	--	--	--	--	--	--
#1	15845	--	--	--	--	--	--
#2	15958	--	--	--	--	--	--
#3	16066	--	--	--	--	--	--

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	15361	--	--	--	--	--	--
SDev	345.7846	--	--	--	--	--	--
%RSD	2.251079	--	--	--	--	--	--
#1	15116	--	--	--	--	--	--
#2	15210	--	--	--	--	--	--
#3	15756	--	--	--	--	--	--

Standardization Rpt. 05/09/05 08:09:40 AM

Method: TRACE2 Standard: S0.1
Run Time: 05/09/05 08:03:49

Elem	Ag_328	As_189	B_2496	Ba_493	Be_313	Cd_226	Co_228
Avge	.0875	.0569	.0125	.2686	.2631	.2624	.0537
SDev	.0012	.0003	.0002	.0006	.0001	.0034	.0006
%RSD	1.385	.5738	1.537	.2153	.0220	1.305	1.129
#1	.0867	.0570	.0124	.2692	.2632	.2654	.0532
#2	.0869	.0573	.0127	.2682	.2631	.2632	.0536
#3	.0889	.0566	.0123	.2683	.2631	.2587	.0544

Elem	Cr_267	Cu_324	K_7664	Mn_257	Mo_202	Ni_231	Sb_206
Avge	.0461	.0580	1.660	.0326	.0449	.0433	.0177
SDev	.0004	.0003	.014	.0003	.0007	.0006	.0006
%RSD	.8245	.4652	.8535	.8101	1.574	1.467	3.379
#1	.0465	.0583	1.665	.0329	.0456	.0429	.0183
#2	.0458	.0579	1.671	.0324	.0442	.0440	.0176
#3	.0460	.0578	1.644	.0324	.0451	.0429	.0171

Elem	Sn_189	Ti_334	Tl_190	U_3859	V_2924	Zn_213	P_1782
Avge	.0733	.5141	.0367	.0226	.0159	.0275	.3215
SDev	.0031	.0019	.0012	.0009	.0003	.0000	.0042
%RSD	4.237	.3617	3.164	3.968	1.687	.1221	1.300
#1	.0709	.5138	.0371	.0236	.0159	.0275	.3169
#2	.0723	.5124	.0354	.0225	.0156	.0275	.3225
#3	.0768	.5160	.0376	.0218	.0162	.0275	.3251

Elem	Si_288	Si02_	Sr_421	Pb1st	Pb2nd	Se1st	Se2nd
Avge	.0364	.0364	1.004	.1037	.0417	.0697	.0306
SDev	.0006	.0006	.003	.0055	.0018	.0062	.0024
%RSD	1.699	1.699	.2919	5.328	4.190	8.871	7.953
#1	.0371	.0371	1.008	.1100	.0413	.0706	.0301
#2	.0362	.0362	1.004	.1011	.0402	.0753	.0285
#3	.0359	.0359	1.002	.0999	.0437	.0631	.0333

Method: TRACE2 Standard: S0.5
Run Time: 05/09/05 08:09:43

Elem	Ag_328	As_189	B_2496	Ba_493	Be_313	Cd_226	Co_228
Avge	.4310	.2680	.0601	1.314	1.294	1.275	.2658
SDev	.0016	.0014	.0005	.003	.003	.006	.0012
%RSD	.3812	.5328	.7601	.2309	.2032	.4890	.4677
#1	.4328	.2692	.0605	1.317	1.293	1.268	.2644
#2	.4295	.2684	.0603	1.315	1.292	1.281	.2660
#3	.4308	.2664	.0596	1.311	1.297	1.276	.2669

Elem	Cr_267	Cu_324	Fe_	K_7664	Mn_257	Mo_202	Ni_231
Avge	.2264	.2793	1.087	8.028	.1618	.2208	.2101
SDev	.0008	.0008	.007	.024	.0006	.0009	.0012
%RSD	.3708	.2776	.6657	.2959	.3636	.4174	.5531
#1	.2269	.2801	1.086	8.018	.1619	.2218	.2112
#2	.2269	.2786	1.095	8.012	.1623	.2204	.2089
#3	.2255	.2790	1.080	8.056	.1612	.2201	.2103

Elem	Sb_206	Sn_189	Ti_334	Tl_190	U_3859	V_2924	Zn_213
Avge	.0832	.3486	2.534	.1927	.0404	.0792	.1338
SDev	.0008	.0016	.004	.0022	.0004	.0006	.0004
%RSD	.9329	.4653	.1475	1.117	1.049	.8135	.2897
#1	.0830	.3482	2.535	.1938	.0403	.0790	.1340
#2	.0826	.3472	2.531	.1902	.0408	.0799	.1340
#3	.0841	.3504	2.538	.1940	.0400	.0787	.1333

Elem	P_1782	Si_288	Si02_	Sr_421	Pb1st	Pb2nd	Se1st
Avge	1.482	.1679	.1679	4.925	.5102	.2058	.3347
SDev	.006	.0003	.0003	.014	.0043	.0013	.0056
%RSD	.4240	.1787	.1787	.2888	.8464	.6417	1.666
#1	1.486	.1677	.1677	4.938	.5149	.2067	.3390
#2	1.475	.1683	.1683	4.927	.5093	.2064	.3284
#3	1.486	.1678	.1678	4.909	.5064	.2043	.3367

Elem	Se2nd
Avge	.1595
SDev	.0022
%RSD	1.396
#1	.1580
#2	.1621
#3	.1585

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	16050	--	--	--	--	--	--
SDev	165.8126	--	--	--	--	--	--
%RSD	1.033072	--	--	--	--	--	--
#1	15860	--	--	--	--	--	--
#2	16164	--	--	--	--	--	--
#3	16127	--	--	--	--	--	--

Standardization Rpt. 05/09/05 08:21:29 AM

Method: TRACE2 Standard: SCAL
Run Time: 05/09/05 08:15:38

Elem	Ag_328	Al_308	As_189	B_2496	Ba_493	Be_313	Ca_317
Avge	.8708	.5405	.5383	.1205	2.642	2.614	1.816
SDev	.0020	.0018	.0032	.0011	.006	.005	.001
%RSD	.2291	.3359	.5847	.9322	.2220	.1904	.0750
#1	.8731	.5388	.5420	.1208	2.638	2.619	1.817
#2	.8694	.5424	.5364	.1215	2.649	2.609	1.816
#3	.8698	.5403	.5366	.1193	2.640	2.612	1.814

Elem	Cd_226	Co_228	Cr_267	Cu_324	Fe_	Fe_	K_7664
Avge	2.542	.5339	.4562	.5639	.1251	2.160	15.72
SDev	.004	.0015	.0005	.0006	.0008	.020	.01
%RSD	.1511	.2812	.1004	.1084	.6458	.9346	.0691
#1	2.544	.5350	.4563	.5634	.1260	2.137	15.73
#2	2.544	.5345	.4566	.5646	.1248	2.174	15.71
#3	2.538	.5322	.4557	.5638	.1245	2.170	15.71

Elem	Mg_279	Mn_257	Mo_202	Na_	Ni_231	Sb_206	Sn_189
Avge	.2026	.3248	.4409	53.40	.4195	.1693	.6982
SDev	.0005	.0011	.0034	.13	.0019	.0013	.0069
%RSD	.2309	.3395	.7714	.2388	.4444	.7414	.9853
#1	.2025	.3235	.4371	53.27	.4174	.1707	.7061
#2	.2031	.3253	.4436	53.52	.4209	.1685	.6939
#3	.2022	.3255	.4420	53.42	.4202	.1687	.6946

Elem	Ti_334	Tl_190	U_3859	V_2924	Zn_213	P_1782	Si_288
Avge	5.106	.3866	.0624	.1591	.2667	2.916	.3341
SDev	.006	.0017	.0008	.0005	.0006	.038	.0006
%RSD	.1251	.4506	1.197	.3286	.2279	1.315	.1871
#1	5.112	.3878	.0618	.1588	.2661	2.952	.3334
#2	5.105	.3874	.0621	.1597	.2673	2.921	.3347
#3	5.100	.3846	.0632	.1589	.2666	2.875	.3343

Elem	Si02_	Sr_421	Pb1st	Pb2nd	Se1st	Se2nd
Avge	.3341	9.908	1.012	.4152	.6617	.3157
SDev	.0006	.015	.022	.0032	.0114	.0020
%RSD	.1871	.1509	2.170	.7803	1.717	.6272
#1	.3334	9.906	.9955	.4162	.6530	.3136
#2	.3347	9.924	1.004	.4178	.6576	.3176
#3	.3343	9.895	1.037	.4116	.6746	.3158

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	16315	--	--	--	--	--	--
SDev	181.3359	--	--	--	--	--	--
%RSD	1.111443	--	--	--	--	--	--
#1	16510	--	--	--	--	--	--
#2	16285	--	--	--	--	--	--
#3	16151	--	--	--	--	--	--

Standardization Rpt. 05/09/05 08:26:38 AM page 1

Method: TRACE2 Standard: S10
Run Time: 05/09/05 08:21:34

Elem	Al_308	Ca_317	Fe_	Mg_279	Na_
Avge	2.634	9.061	.2423	.9975	.1904
SDev	.012	.022	.0019	.0003	.0018
%RSD	.4628	.2408	.8012	.0268	.9396
#1	2.631	9.046	.2406	.9973	.1897
#2	2.624	9.050	.2417	.9974	.1891
#3	2.648	9.086	.2444	.9978	.1925

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	15644	--	--	--	--	--	--
SDev	150.6374	--	--	--	--	--	--
%RSD	.9629232	--	--	--	--	--	--
#1	15816	--	--	--	--	--	--
#2	15575	--	--	--	--	--	--
#3	15540	--	--	--	--	--	--

Standardization Report 05/09/05 08:26:38 AM page 1

Method: TRACE2 Slope = Conc(SIR)/IR

Element	Wavelen	High std	Low std	Slope	Y-intercept	Date Standardized
Ag_328	328.068	Multiple	Standards	1149.80	.039911	05/09/05 08:15:38
Al_308	308.215	Multiple	Standards	18865.8	-103.956	05/09/05 08:21:34
As_189	189.042	Multiple	Standards	1847.23	-2.66612	05/09/05 08:15:38
B_2496	249.678	Multiple	Standards	8340.14	-3.49815	05/09/05 08:15:38
Ba_493	493.409	Multiple	Standards	377.754	-.435070	05/09/05 08:15:38
Be_313	313.042	Multiple	Standards	383.397	-.173581	05/09/05 08:15:38
Ca_317	317.933	Multiple	Standards	5521.45	-25.3994	05/09/05 08:21:34
Cd_226	226.502	Multiple	Standards	388.837	-.008589	05/09/05 08:15:38
Co_228	228.616	Multiple	Standards	1879.03	-.550745	05/09/05 08:15:38
Cr_267	267.716	Multiple	Standards	2201.82	-1.24258	05/09/05 08:15:38
Cu_324	324.753	Multiple	Standards	1772.00	-1.63816	05/09/05 08:15:38
Fe_	271.441	Multiple	Standards	81322.8	-17.7454	05/09/05 08:21:34
Fe_	259.940	Multiple	Standards	4623.09	-12.4438	05/09/05 08:15:38
K_7664	766.491	Multiple	Standards	629.861	-36.1700	05/09/05 08:15:38
Mg_279	279.078	Multiple	Standards	49828.1	-26.5999	05/09/05 08:21:34
Mn_257	257.610	Multiple	Standards	3079.52	.060433	05/09/05 08:15:38
Mo_202	202.030	Multiple	Standards	2249.93	.265707	05/09/05 08:15:38
Na_	330.232	S10	S0	104635.	74.0193	05/09/05 08:21:34
Na_	588.950	SCAL	S0	179.905	392.714	05/09/05 08:21:34
Ni_231	231.604	Multiple	Standards	2356.10	.075926	05/09/05 08:15:38
Sb_206	206.838	Multiple	Standards	5899.51	-2.72455	05/09/05 08:15:38
Pb_220	220.353	NONE	NONE	.000000	.000000	*NOT STANDARDIZED
Se_196	196.026	NONE	NONE	.000000	.000000	*NOT STANDARDIZED
Sn_189	189.989	Multiple	Standards	1403.24	-.360151	05/09/05 08:15:38
Ti_334	334.941	Multiple	Standards	195.835	.060059	05/09/05 08:15:38
Tl_190	190.864	Multiple	Standards	2561.56	4.90289	05/09/05 08:15:38
U_3859	385.958	Multiple	Standards	23062.9	-422.446	05/09/05 08:15:38
V_2924	292.402	Multiple	Standards	6303.29	-.134637	05/09/05 08:15:38
Zn_213	213.858	Multiple	Standards	3721.00	-.790564	05/09/05 08:15:38
B_1782	178.287	Multiple	Standards	1710.52	-42.8545	05/09/05 08:15:38
Si_288	288.158	Multiple	Standards	15140.5	-50.6195	05/09/05 08:15:38
SiO2_	288.158	Multiple	Standards	32385.5	-108.275	05/09/05 08:15:38
Sr_421	421.552	Multiple	Standards	100.798	-.289985	05/09/05 08:15:38
Pb1st	220.351	Multiple	Standards	970.422	1.75064	05/09/05 08:15:38
Pb2nd	220.352	Multiple	Standards	2372.89	3.24528	05/09/05 08:15:38
Se1st	196.021	Multiple	Standards	1521.15	-5.92276	05/09/05 08:15:38
Se2nd	196.022	Multiple	Standards	3115.61	3.84056	05/09/05 08:15:38

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Method: TRACE2

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Ag_328	328.068	S0	.000000	-.005425	.005425
		S0.1	100.000	100.671	-.671112
		S0.5	500.000	495.636	4.36420
		SCAL	1000.00	1001.24	-1.24323
CorCoef:	0.99998				

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Al_308	308.215	S0	.000000	-.652353	.652353
		SCAL	10000.0	10093.0	-92.9971
		S10	50000.0	49592.6	407.371
CorCoef:	0.99999				

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
As_189	189.042	S0	.000000	-.020643	.020643
		S0.1	100.000	102.525	-2.52473
		S0.5	500.000	492.342	7.65759
		SCAL	1000.00	991.781	8.21851
CorCoef:	0.99998				

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
B_2496	249.678	S0	.000000	-.003742	.003742
		S0.1	100.000	100.583	-.582764
		S0.5	500.000	497.779	2.22150
		SCAL	1000.00	1001.79	-1.79230
CorCoef:	0.99999				

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Ba_493	493.409	S0	.000000	-.008431	.008431
		S0.1	100.000	101.025	-1.02499
		S0.5	500.000	496.033	3.96674
		SCAL	1000.00	997.684	2.31628
CorCoef:	0.99999				

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Be_313	313.042	S0	.000000	-.005325	.005325
		S0.1	100.000	100.704	-.703896
		S0.5	500.000	495.815	4.18542
		SCAL	1000.00	1001.85	-1.85077
CorCoef:	0.99998				

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Ca_317	317.933	S0	.000000	.004323	-.004323
		SCAL	10000.0	9999.46	.541016
		S10	50000.0	50002.7	-2.70313
CorCoef:	1.00000				

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Cd_226	226.502	S0	.000000	-.017433	.017433
		S0.1	100.000	102.033	-2.03306
		S0.5	500.000	495.752	4.24844
		SCAL	1000.00	988.463	11.5367
CorCoef:	1.00000				

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Co_228	228.616	S0	.000000	-.002229	.002229
		S0.1	100.000	100.433	-.433304
		S0.5	500.000	498.857	1.14255
		SCAL	1000.00	1002.63	-2.63452

CorCoef: 1.00000

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Cr_267	267.716	S0	.000000	-.001570	.001570
		S0.1	100.000	100.246	-.245941
		S0.5	500.000	497.325	2.67502
		SCAL	1000.00	1003.21	-3.21478

CorCoef: 0.99999

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Cu_324	324.753	S0	.000000	-.009127	.009127
		S0.1	100.000	101.113	-1.11349
		S0.5	500.000	493.229	6.77072
		SCAL	1000.00	997.679	2.32098

CorCoef: 0.99998

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Fe_	271.441	S0	.000000	-.791640	.791640
		SCAL	10000.0	10158.3	-158.328
		S10	20000.0	19683.3	316.656

CorCoef: 0.99983

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Fe_	259.940	S0	.000000	-.064784	.064784
		S0.5	5000.00	5012.96	-12.9570
		SCAL	10000.0	9974.09	25.9131

CorCoef: 1.00000

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
K_7664	766.491	S0	.000000	-.088876	.088876
		S0.1	1000.00	1009.42	-9.41699
		S0.5	5000.00	5020.61	-20.6147
		SCAL	10000.0	9864.60	135.398

CorCoef: 0.99996

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Mg_279	279.078	S0	.000000	-.518618	.518618
		SCAL	10000.0	10069.1	-69.0771
		S10	50000.0	49676.0	324.035

CorCoef: 1.00000

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Mn_257	257.610	S0	.000000	-.002999	.002999
		S0.1	100.000	100.374	-.373558
		S0.5	500.000	498.269	1.73062
		SCAL	1000.00	1000.20	-.204956

CorCoef: 1.00000

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Mo_202	202.030	S0	.000000	-.011813	.011813
		S0.1	100.000	101.380	-1.37975
		S0.5	500.000	496.979	3.02106
		SCAL	1000.00	992.245	7.75531
CorCoef:	1.00000				

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Na_	330.232	S0	.000000	.000000	-.000000
		S10	20000.0	20000.0	.000000

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Na_	588.950	S0	.000000	.000005	-.000005
		SCAL	10000.0	10000.0	.000000

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Ni_231	231.604	S0	.000000	-.017484	.017484
		S0.1	100.000	101.982	-1.98162
		S0.5	500.000	495.080	4.92032
		SCAL	1000.00	988.445	11.5555
CorCoef:	1.00000				

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Sb_206	206.838	S0	.000000	-.016531	.016531
		S0.1	100.000	101.659	-1.65887
		S0.5	500.000	488.209	11.7908
		SCAL	1000.00	996.065	3.93481
CorCoef:	0.99993				

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Pb_220	220.353	NONE	.000000	.000000	.000000
		NONE	10.0000	.000000	10.0000

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Se_196	196.026	NONE	.000000	.000000	.000000
		NONE	10.0000	.000000	10.0000

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Sn_189	189.989	S0	.000000	-.026275	.026275
		S0.1	100.000	102.498	-2.49787
		S0.5	500.000	488.763	11.2367
		SCAL	1000.00	979.372	20.6284
CorCoef:	0.99999				

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Ti_334	334.941	S0	.000000	-.005847	.005847
		S0.1	100.000	100.730	-.729897
		S0.5	500.000	496.391	3.60895
		SCAL	1000.00	999.919	.080933
CorCoef:	0.99999				

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Tl_190	190.864	S0	.000000	.004092	-.004092
		S0.1	100.000	98.8747	1.12527
		S0.5	500.000	498.389	1.61069
		SCAL	1000.00	995.249	4.75061
CorCoef:	1.00000				

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
U_3859	385.958	S0	.000000	.011254	-.011254
		S0.1	100.000	98.8147	1.18527
		S0.5	500.000	508.646	-8.64624
		SCAL	1000.00	1016.21	-16.2114
CorCoef:	1.00000				

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
V_2924	292.402	S0	.000000	-.001031	.001031
		S0.1	100.000	100.245	-.244675
		S0.5	500.000	499.129	.870575
		SCAL	1000.00	1002.81	-2.81207
CorCoef:	1.00000				

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Zn_213	213.858	S0	.000000	-.013716	.013716
		S0.1	100.000	101.597	-1.59747
		S0.5	500.000	496.956	3.04449
		SCAL	1000.00	991.463	8.53699
CorCoef:	1.00000				

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
P_1782	178.287	S0	.000000	-.062549	.062549
		S0.1	500.000	507.118	-7.11823
		S0.5	2500.00	2492.93	7.07446
		SCAL	5000.00	4944.95	55.0474
CorCoef:	0.99999				

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Si_288	288.158	S0	.000000	-.005586	.005586
		S0.1	500.000	500.801	-.801117
		S0.5	2500.00	2491.89	8.11450
		SCAL	5000.00	5008.22	-8.21826
CorCoef:	1.00000				

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
SiO2_	288.158	S0	.000000	-.011953	.011953
		S0.1	1069.50	1071.21	-1.71362
		S0.5	5347.50	5330.14	17.3574
		SCAL	10695.0	10712.6	-17.5781
CorCoef:	1.00000				

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Cr_421	421.552	S0	.000000	-.007755	.007755
		S0.1	100.000	100.948	-.948242
		S0.5	500.000	496.103	3.89664
		SCAL	1000.00	998.451	1.54944
CorCoef:	0.99999				

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Pb1st	220.351	S0	.000000	-.020411	.020411
		S0.1	100.000	102.360	-2.36027
		S0.5	500.000	496.849	3.15079
		SCAL	1000.00	984.029	15.9712

CorCoef: 0.99998

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Pb2nd	220.352	S0	.000000	-.020963	.020963
		S0.1	100.000	102.312	-2.31184
		S0.5	500.000	491.668	8.33163
		SCAL	1000.00	988.414	11.5860

CorCoef: 0.99999

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Se1st	196.021	S0	.000000	.001872	-.001872
		S0.1	100.000	100.060	-.059799
		S0.5	500.000	503.180	-3.17972
		SCAL	1000.00	1000.66	-.657227

CorCoef: 1.00000

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Se2nd	196.022	S0	.000000	.003008	-.003008
		S0.1	100.000	99.2040	.795975
		S0.5	500.000	500.869	-.868958
		SCAL	1000.00	987.325	12.6754

CorCoef: 0.99997

Analysis Report QC Standard 05/09/05 08:34:51 AM page 1

Method: TRACE2 Sample Name: ICV Operator: HSC
Run Time: 05/09/05 08:29:00
Comment: CALIBRATION CURVE
Mode: CONC Corr. Factor: 1

Elem	Ag_328	Al_308	As_189	B_2496	Ba_493	Be_313	Ca_317
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	252.5	4966.	501.3	489.7	499.6	247.6	4975.
SDev	2.3	35.	10.8	7.3	1.3	1.5	20.
%RSD	.8994	.6970	2.146	1.497	.2535	.5910	.4090
#1	253.6	4938.	499.2	481.3	498.3	247.4	4957.
#2	253.9	5004.	512.9	494.4	500.8	249.2	4997.
#3	249.9	4955.	491.7	493.5	499.6	246.3	4971.
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	250.0	5000.	500.0	500.0	500.0	250.0	5000.
Range	10.00	10.00	10.00	10.00	10.00	10.00	10.00

Elem	Cd_226	Co_228	Cr_267	Cu_324	Fe_	K_7664	Mg_279
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	489.7	496.3	500.3	496.8	4795.	2519.	4894.
SDev	.5	3.4	1.4	3.0	78.	17.	5.
%RSD	.0942	.6858	.2877	.6109	1.621	.6643	.1076
#1	489.3	495.3	498.9	494.9	4738.	2505.	4888.
#2	490.2	500.0	501.7	500.3	4763.	2537.	4898.
#3	489.6	493.4	500.2	495.1	4883.	2513.	4896.
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	500.0	500.0	500.0	500.0	5000.	2500.	5000.
Range	10.00	10.00	10.00	10.00	10.00	10.00	10.00

Elem	Mn_257	Mo_202	Na_	Ni_231	Sb_206	Pb_220	Se_196
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	490.0	496.2	2533.	485.0	501.0	489.2	2510.
SDev	4.6	3.0	19.	1.4	5.9	5.1	25.
%RSD	.9475	.5987	.7478	.2922	1.186	1.038	.9974
#1	485.3	497.1	2528.	484.8	494.8	485.8	2493.
#2	490.2	492.9	2554.	486.5	506.7	495.0	2539.
#3	494.6	498.6	2517.	483.6	501.4	486.6	2498.
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	500.0	500.0	2500.	500.0	500.0	500.0	2500.
Range	10.00	10.00	10.00	10.00	10.00	10.00	10.00

Elem	Sn_189	Ti_334	Tl_190	U_3859	V_2924	Zn_213	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	484.1	498.1	505.2	501.0	489.7	493.6	2534.
SDev	2.9	2.6	7.4	5.9	1.0	.7	30.
%RSD	.5994	.5200	1.463	1.181	.2075	.1322	1.189
#1	483.0	497.1	500.9	497.8	489.5	493.7	2521.
#2	487.4	501.0	513.7	507.8	488.8	494.2	2568.
#3	481.9	496.1	500.9	497.3	490.8	492.9	2513.
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass

Value	500.0	500.0	500.0	500.0	500.0	500.0	2500.
Range	10.00	10.00	10.00	10.00	10.00	10.00	10.00
Elem	Si_288	Si02_	Sr_421	Pb1st	Pb2nd	Se1st	Se2nd
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	4927.	10540.	500.5	494.8	486.4	2537.	2496.
SDev	28.	59.	1.4	5.0	5.9	30.	37.
%RSD	.5621	.5621	.2817	1.002	1.215	1.188	1.489
#1	4916.	10520.	499.0	495.3	481.1	2560.	2459.
#2	4958.	10610.	501.7	499.5	492.8	2549.	2534.
#3	4906.	10490.	501.0	489.6	485.2	2503.	2496.
Errors	QC Pass	NOCHECK	QC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK
Value	5000.		500.0				
Range	10.00		10.00				
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	16108	--	--	--	--	--	--
SDev	191.2021	--	--	--	--	--	--
%RSD	1.187022	--	--	--	--	--	--
#1	15931	--	--	--	--	--	--
#2	16081	--	--	--	--	--	--
#3	16311	--	--	--	--	--	--

Analysis Report QC Standard 05/09/05 08:41:54 AM

Method: TRACE2 Sample Name: ICB Operator: HSC
Run Time: 05/09/05 08:36:03
Comment: CALIBRATION CURVE
Mode: CONC Corr. Factor: 1

Elem	Ag_328	Al_308	As_189	B_2496	Ba_493	Be_313	Ca_317
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	.2359	-16.12	-3.839	2.778	.1879	.0829	-20.68
SDev	1.083	6.62	.885	1.092	.2265	.0569	1.58
%RSD	459.3	41.07	23.05	39.33	120.5	68.66	7.649
#1	-.2406	-17.28	-3.213	2.973	.1962	.1466	-20.46
#2	1.476	-8.997	-4.852	3.759	.4102	.0647	-19.22
#3	-.5275	-22.08	-3.452	1.601	-.0426	.0373	-22.36
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.0000	.0000	.0000	.0000	.0000	.0000	.0000
Range	5.000	200.0	15.00	50.00	5.000	5.000	100.0

Elem	Cd_226	Co_228	Cr_267	Cu_324	Fe	K_7664	Mg_279
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	.3753	-.4401	-1.473	-.0106	-10.58	-1.886	-20.48
SDev	.4379	.6048	.637	1.6120	1.29	14.402	5.39
%RSD	116.7	137.4	43.22	15160.	12.16	763.8	26.31
#1	.4789	.0064	-1.135	1.829	-9.133	14.73	-26.70
#2	-.1051	-.1983	-1.076	-1.175	-11.01	-9.628	-17.19
#3	.7521	-1.128	-2.207	-.6865	-11.60	-10.76	-17.55
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.0000	.0000	.0000	.0000	.0000	.0000	.0000
Range	5.000	5.000	5.000	10.00	100.0	150.0	300.0

Elem	Mn_257	Mo_202	Na	Ni_231	Sb_206	Pb_220	Se_196
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	.4350	-.2870	10.78	1.211	3.543	2.609	-1.892
SDev	.1818	.6982	20.95	2.947	6.727	3.630	2.691
%RSD	41.79	243.2	194.5	243.3	189.9	139.2	142.3
#1	.6124	-.2714	32.89	3.592	9.954	2.829	-.8823
#2	.4437	-.9928	-8.783	2.126	-3.461	6.124	-4.942
#3	.2491	.4032	8.220	-2.085	4.137	-1.127	.1491
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.0000	.0000	.0000	.0000	.0000	.0000	.0000
Range	10.00	10.00	150.0	5.000	10.00	10.00	15.00

Elem	Sn_189	Ti_334	Tl_190	U_3859	V_2924	Zn_213	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	.9350	.2523	6.835	5.638	.4993	-.1839	-6.606
SDev	1.183	.2249	7.293	29.36	.4243	.2636	2.644
%RSD	126.5	89.17	106.7	520.8	84.99	143.3	40.03
#1	.5627	.2588	14.23	23.56	.9891	-.3451	-7.529
#2	2.259	.4739	-.3503	-28.25	.2617	-.3269	-3.624
#3	-.0169	.0241	6.623	21.61	.2470	.1203	-8.665
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass

Value	.0000	.0000	.0000	.0000	.0000	.0000	.0000
Range	10.00	5.000	20.00	50.00	5.000	10.00	150.0
Elem	Si_288	Si02_	Sr_421	Pb1st	Pb2nd	Se1st	Se2nd
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	-.2578	-.5513	.1139	-1.991	4.905	-5.584	-.0481
SDev	8.0337	17.184	.0673	7.314	8.238	13.710	3.1602
%RSD	3117.	3117.	59.10	367.2	167.9	245.5	6565.
#1	6.312	13.50	.1435	4.303	2.093	3.446	-3.043
#2	-9.215	-19.71	.1614	-10.01	14.18	-21.36	3.255
#3	2.130	4.555	.0369	-.2624	-1.558	1.161	-.3559
Errors	QC Pass	NOCHECK	QC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK
Value	.0000		.0000				
Range	100.0		5.000				
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	16402	--	--	--	--	--	--
SDev	334.3989	--	--	--	--	--	--
%RSD	2.038831	--	--	--	--	--	--
#1	16754	--	--	--	--	--	--
#2	16089	--	--	--	--	--	--
#3	16361	--	--	--	--	--	--

Analysis Report QC Standard 05/09/05 08:47:48 AM

Method: TRACE2 Sample Name: PQL Operator: HSC
Run Time: 05/09/05 08:41:57
Comment: CALIBRATION CURVE
Mode: CONC Corr. Factor: 1

Elem	Ag_328	Al_308	As_189	B_2496	Ba_493	Be_313	Ca_317
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	11.00	175.9	8.849	98.96	9.979	9.861	179.9
SDev	.77	8.8	3.721	1.11	.202	.027	1.1
%RSD	7.001	4.977	42.04	1.119	2.027	.2733	.5939
#1	11.70	185.8	Q5.639	100.2	10.14	9.831	180.5
#2	11.13	169.4	12.93	97.99	10.05	9.873	180.5
#3	10.17	172.4	7.982	98.71	9.751	9.881	178.6
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	10.00	200.0	10.00	100.0	10.00	10.00	200.0
Range	30.00	30.00	30.00	30.00	30.00	30.00	30.00

Elem	Cd_226	Co_228	Cr_267	Cu_324	Fe_	K_7664	Mg_279
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	10.88	9.629	9.297	10.21	187.3	205.4	177.6
SDev	.32	1.078	1.205	.75	2.6	12.8	5.3
%RSD	2.936	11.19	12.96	7.373	1.408	6.248	3.005
#1	11.22	10.67	10.55	9.722	187.6	206.9	174.0
#2	10.83	9.701	8.145	11.08	189.7	217.4	175.0
#3	10.59	8.518	9.199	9.830	184.5	191.8	183.7
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	10.00	10.00	10.00	10.00	200.0	200.0	200.0
Range	30.00	30.00	30.00	30.00	30.00	30.00	30.00

Elem	Mn_257	Mo_202	Na_	Ni_231	Sb_206	Pb_220	Se_196
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	19.69	20.60	193.0	10.49	21.07	12.02	10.92
SDev	.40	1.53	13.7	1.19	3.94	2.85	2.43
%RSD	2.052	7.409	7.118	11.35	18.69	23.70	22.25
#1	20.10	21.79	178.9	9.127	21.96	9.902	11.77
#2	19.29	21.13	193.6	11.31	16.76	10.90	12.81
#3	19.68	18.88	206.4	11.05	24.49	Q15.26	8.178
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	20.00	20.00	200.0	10.00	20.00	10.00	10.00
Range	30.00	30.00	30.00	30.00	30.00	30.00	30.00

Elem	Sn_189	Ti_334	Tl_190	U_3859	V_2924	Zn_213	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	23.44	10.12	21.74	113.5	10.01	9.749	97.11
SDev	3.23	.32	1.84	14.4	1.14	.450	10.14
%RSD	13.79	3.142	8.451	12.70	11.42	4.612	10.45
#1	Q26.83	10.49	23.64	117.7	10.91	9.850	85.49
#2	20.39	9.896	19.98	125.3	10.39	9.258	101.6
#3	23.09	9.985	21.60	97.41	8.723	10.14	104.2
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass

Value	20.00	10.00	20.00	100.0	10.00	10.00	100.0
Range	30.00	30.00	30.00	30.00	30.00	30.00	30.00
Elem	Si_288	Si02_	Sr_421	Pb1st	Pb2nd	Se1st	Se2nd
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	197.0	421.4	9.861	12.56	11.75	8.783	11.98
SDev	3.6	7.8	.077	9.46	4.25	8.951	4.94
%RSD	1.841	1.841	.7853	75.35	36.16	101.9	41.24
#1	200.7	429.2	9.948	1.695	14.00	.1525	17.57
#2	197.0	421.4	9.833	19.01	6.848	18.02	10.20
#3	193.4	413.7	9.801	16.98	14.40	8.174	8.180
Errors	QC Pass	NOCHECK	QC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK
Value	200.0		10.00				
Range	30.00		30.00				
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	15738	--	--	--	--	--	--
SDev	509.4133	--	--	--	--	--	--
%RSD	3.236939	--	--	--	--	--	--
#1	15365	--	--	--	--	--	--
#2	15530	--	--	--	--	--	--
#3	16318	--	--	--	--	--	--

Method: TRACE2 Sample Name: ICS-A Operator: HSC
Run Time: 05/09/05 08:47:51
Comment: CALIBRATION CURVE
Mode: CONC Corr. Factor: 1

Elem	Ag_328	Al_308	As_189	B_2496	Ba_493	Be_313	Ca_317
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	.0214	471200.	-.6740	-2.206	1.204	.0663	458000.
SDev	1.027	298.	.5729	5.087	.149	.0152	851.
%RSD	4793.	.0632	85.00	230.6	12.38	22.96	.1858
#1	1.205	471300.	-1.322	-7.996	1.374	.0589	458100.
#2	-.4952	471500.	-.4638	1.544	1.138	.0838	458800.
#3	-.6451	470900.	-.2359	-.1661	1.099	.0562	457100.
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.0000	500000.	.0000	.0000	.0000	.0000	500000.
Range	10.00	100000.	30.00	100.0	10.00	10.00	100000.

Elem	Cd_226	Co_228	Cr_267	Cu_324	Fe_	K_7664	Mg_279
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	-.9316	-1.522	-.0895	4.562	192300.	9.351	496700.
SDev	.8948	1.032	1.8703	4.391	1141.	3.263	363.
%RSD	96.05	67.80	2089.	96.26	.5934	34.89	.0730
#1	-1.964	-2.705	1.588	1.785	193300.	8.443	496900.
#2	-.4406	-1.054	.2504	9.625	192400.	6.638	496900.
#3	-.3897	-.8072	-2.107	2.276	191100.	12.97	496200.
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.0000	.0000	.0000	.0000	200000.	.0000	500000.
Range	10.00	10.00	10.00	20.00	40000.	300.0	100000.

Elem	Mn_257	Mo_202	Na_	Ni_231	Sb_206	Pb_220	Se_196
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	2.298	1.974	15.79	-1.691	3.762	2.522	3.671
SDev	.235	2.559	4.48	2.066	11.79	.609	4.495
%RSD	10.25	129.6	28.40	122.2	313.3	24.13	122.5
#1	2.489	-.1896	11.62	-2.646	3.555	2.313	5.233
#2	2.035	4.799	15.21	-3.107	-7.921	3.208	7.177
#3	2.370	1.314	20.53	.6798	15.65	2.046	-1.398
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.0000	.0000	.0000	.0000	.0000	.0000	.0000
Range	20.00	20.00	300.0	10.00	20.00	20.00	30.00

Elem	Sn_189	Ti_334	Tl_190	U_3859	V_2924	Zn_213	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	3.047	-1.642	2.463	-10.09	.6783	3.536	15.22
SDev	1.696	.125	9.802	3.99	.8532	3.774	2.98
%RSD	55.68	7.624	398.0	39.54	125.8	106.7	19.55
#1	1.429	-1.499	-7.359	-5.506	1.530	1.463	15.81
#2	4.813	-1.729	2.503	-11.97	.6816	7.892	12.00
#3	2.899	-1.700	12.24	-12.78	-.1766	1.253	17.86
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass

Value	.0000	.0000	.0000	.0000	.0000	.0000	.0000
Range	20.00	10.00	40.00	100.0	10.00	20.00	300.0
Elem	Si_288	Si02_	Sr_421	Pb1st	Pb2nd	Se1st	Se2nd
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	-1.215	-2.600	4.819	233.3	-112.7	3.188	3.912
SDev	3.373	7.215	.053	8.9	3.8	15.29	1.452
%RSD	277.5	277.5	1.099	3.798	3.404	479.8	37.13
#1	-.5738	-1.227	4.870	238.1	-115.4	5.761	4.969
#2	-4.863	-10.40	4.822	238.7	-114.4	17.03	2.256
#3	1.791	3.831	4.764	223.1	-108.3	-13.23	4.510
Errors	QC Pass	NOCHECK	QC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK
Value	.0000		.0000				
Range	200.0		10.00				
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	14912	--	--	--	--	--	--
SDev	100.7186	--	--	--	--	--	--
%RSD	.6754165	--	--	--	--	--	--
#1	14824	--	--	--	--	--	--
#2	14890	--	--	--	--	--	--
#3	15022	--	--	--	--	--	--

Analysis Report QC Standard 05/09/05 08:59:35 AM page 1

Method: TRACE2 Sample Name: ICS-AB Operator: HSC
Run Time: 05/09/05 08:53:45
Comment: CALIBRATION CURVE
Mode: CONC Corr. Factor: 1

Elem	Ag_328	Al_308	As_189	B_2496	Ba_493	Be_313	Ca_317
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	259.0	469500.	504.1	491.8	506.3	247.4	452600.
SDev	.9	1918.	2.6	3.9	2.3	.7	856.
%RSD	.3300	.4084	.5108	.7847	.4516	.2899	.1892
#1	258.6	471600.	507.0	489.8	508.8	247.1	453500.
#2	258.4	467900.	502.2	489.3	504.5	247.0	451700.
#3	260.0	469000.	503.0	496.2	505.5	248.2	452500.
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	250.0	500000.	500.0	500.0	500.0	250.0	500000.
Range	20.00	20.00	20.00	20.00	20.00	20.00	20.00

Elem	Cd_226	Co_228	Cr_267	Cu_324	Fe_	K_7664	Mg_279
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	466.3	465.8	479.3	500.3	192200.	5729.	494300.
SDev	1.1	2.2	1.2	.9	1145.	18.	1405.
%RSD	.2336	.4694	.2439	.1751	.5953	.3126	.2842
#1	466.1	463.2	480.4	499.4	191400.	5717.	495600.
#2	465.4	466.9	478.1	501.2	191800.	5720.	492800.
#3	467.5	467.2	479.3	500.4	193500.	5750.	494600.
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	500.0	500.0	500.0	500.0	200000.	5000.	500000.
Range	20.00	20.00	20.00	20.00	20.00	20.00	20.00

Elem	Mn_257	Mo_202	Na_	Ni_231	Sb_206	Pb_220	Se_196
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	474.4	487.7	5226.	450.8	506.8	473.8	2478.
SDev	3.2	2.3	24.	.6	8.0	3.3	6.
%RSD	.6821	.4687	.4557	.1397	1.574	.7047	.2480
#1	478.1	490.2	5215.	450.2	516.0	476.3	2475.
#2	473.2	485.7	5209.	451.5	502.7	470.0	2485.
#3	471.9	487.1	5253.	450.8	501.8	475.1	2474.
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	500.0	500.0	5000.	500.0	500.0	500.0	2500.
Range	20.00	20.00	20.00	20.00	20.00	20.00	20.00

Elem	Sn_189	Ti_334	Tl_190	U_3859	V_2924	Zn_213	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	482.2	491.9	474.4	496.5	478.0	490.7	2562.
SDev	5.5	1.8	8.7	4.3	3.6	2.4	17.
%RSD	1.139	.3682	1.832	.8701	.7630	.4959	.6454
#1	485.8	491.7	474.4	498.4	482.0	492.6	2547.
#2	475.9	490.1	465.7	499.6	474.8	488.0	2559.
#3	485.0	493.7	483.0	491.5	477.1	491.6	2580.
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass

Value	500.0	500.0	500.0	500.0	500.0	500.0	2500.
Range	20.00	20.00	20.00	20.00	20.00	20.00	20.00
Elem	Si_288	Si02_	Sr_421	Pb1st	Pb2nd	Se1st	Se2nd
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	4857.	10390.	505.8	694.0	363.9	2485.	2474.
SDev	13.	27.	2.4	1.4	4.4	23.	20.
%RSD	.2580	.2580	.4745	.2079	1.219	.9075	.8035
#1	4867.	10410.	508.6	695.6	366.9	2484.	2470.
#2	4843.	10360.	504.3	692.9	358.8	2462.	2496.
#3	4861.	10400.	504.6	693.6	366.0	2507.	2457.
Errors	QC Pass	NOCHECK	QC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK
Value	5000.		500.0				
Range	20.00		20.00				
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	15012	--	--	--	--	--	--
SDev	33.87921	--	--	--	--	--	--
%RSD	.2256790	--	--	--	--	--	--
#1	15032	--	--	--	--	--	--
#2	15032	--	--	--	--	--	--
#3	14973	--	--	--	--	--	--

Analysis Report QC Standard 05/09/05 09:13:31 AM

Method: TRACE2 Sample Name: CCV1 Operator: HSC
Run Time: 05/09/05 09:07:40
Comment: CALIBRATION CURVE
Mode: CONC Corr. Factor: 1

Elem	Ag_328	Al_308	As_189	B_2496	Ba_493	Be_313	Ca_317
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	508.5	5096.	506.5	499.9	504.0	505.5	5011.
SDev	1.3	21.	7.0	2.7	.4	3.2	2.
%RSD	.2515	.4064	1.387	.5364	.0770	.6317	.0361
#1	507.2	5072.	499.6	497.7	504.2	502.1	5011.
#2	508.6	5111.	506.4	502.9	504.3	505.9	5012.
#3	509.8	5104.	513.6	499.3	503.6	508.5	5009.
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	500.0	5000.	500.0	500.0	500.0	500.0	5000.
Range	10.00	10.00	10.00	10.00	10.00	10.00	10.00

Elem	Cd_226	Co_228	Cr_267	Cu_324	Fe_	K_7664	Mg_279
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	505.2	510.0	504.2	505.8	4955.	5161.	5088.
SDev	2.1	4.1	2.3	4.4	55.	51.	13.
%RSD	.4239	.7971	.4620	.8653	1.105	.9975	.2512
#1	504.0	507.9	502.3	500.8	5018.	5113.	5094.
#2	504.0	507.4	503.4	509.0	4928.	5157.	5073.
#3	507.7	514.7	506.8	507.6	4919.	5215.	5096.
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	500.0	500.0	500.0	500.0	5000.	5000.	5000.
Range	10.00	10.00	10.00	10.00	10.00	10.00	10.00

Elem	Mn_257	Mo_202	Na_	Ni_231	Sb_206	Pb_220	Se_196
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	498.6	503.1	10210.	506.3	506.4	498.5	509.2
SDev	1.1	5.0	58.	5.0	4.1	7.7	8.5
%RSD	.2210	.9914	.5700	.9854	.8033	1.544	1.669
#1	499.5	507.8	10280.	502.4	502.0	490.5	499.5
#2	497.4	503.7	10180.	504.7	510.0	499.2	515.0
#3	499.0	497.8	10180.	511.9	507.1	505.8	513.2
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	500.0	500.0	10000.	500.0	500.0	500.0	500.0
Range	10.00	10.00	10.00	10.00	10.00	10.00	10.00

Elem	Sn_189	Ti_334	Tl_190	U_3859	V_2924	Zn_213	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	500.1	506.1	513.8	505.4	499.8	504.2	2546.
SDev	3.7	1.7	5.4	12.6	3.4	.3	26.
%RSD	.7462	.3393	1.052	2.491	.6715	.0538	1.031
#1	498.5	504.3	509.7	500.3	502.9	504.1	2527.
#2	497.4	506.2	511.8	496.1	500.2	504.0	2537.
#3	504.3	507.7	519.9	519.7	496.2	504.5	2576.
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass

Value	500.0	500.0	500.0	500.0	500.0	500.0	2500.
Range	10.00	10.00	10.00	10.00	10.00	10.00	10.00
Elem	Si_288	Si02_	Sr_421	Pb1st	Pb2nd	Se1st	Se2nd
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	2557.	5470.	503.6	499.0	498.2	506.6	510.6
SDev	16.	34.	.7	6.0	9.4	15.2	5.2
%RSD	.6159	.6160	.1348	1.201	1.878	2.994	1.028
#1	2540.	5433.	504.0	492.2	489.6	489.4	504.5
#2	2561.	5477.	502.9	503.6	496.9	518.2	513.5
#3	2571.	5500.	504.1	501.1	508.1	512.1	513.7
Errors	QC Pass	NOCHECK	QC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK
Value	2500.		500.0				
Range	10.00		10.00				

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	16631	--	--	--	--	--	--
SDev	154.6970	--	--	--	--	--	--
%RSD	.9301826	--	--	--	--	--	--
#1	16457	--	--	--	--	--	--
#2	16682	--	--	--	--	--	--
#3	16753	--	--	--	--	--	--

Analysis Report QC Standard 05/09/05 09:19:27 AM page 1

Method: TRACE2 Sample Name: CCB1 Operator: HSC
Run Time: 05/09/05 09:13:35
Comment: CALIBRATION CURVE
Mode: CONC Corr. Factor: 1

Elem	Ag_328	Al_308	As_189	B_2496	Ba_493	Be_313	Ca_317
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	-.1981	-18.87	-1.636	-1.263	.1022	.2089	-14.51
SDev	1.0767	9.74	4.992	1.002	.0298	.1104	3.33
%RSD	543.4	51.62	305.2	79.34	29.17	52.85	22.94
#1	.4180	-11.10	.2421	-1.855	.1350	.3294	-11.27
#2	.4289	-15.71	2.145	-1.827	.0951	.1851	-14.33
#3	-1.441	-29.80	-7.294	-.1061	.0767	.1124	-17.92
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.0000	.0000	.0000	.0000	.0000	.0000	.0000
Range	5.000	200.0	15.00	50.00	5.000	5.000	100.0

Elem	Cd_226	Co_228	Cr_267	Cu_324	Fe	K_7664	Mg_279
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	.4164	-.9747	-.6651	.9539	-7.722	19.45	-18.88
SDev	.1113	1.5224	1.3138	.8736	1.509	9.75	4.93
%RSD	26.72	156.2	197.5	91.58	19.55	50.15	26.11
#1	.2977	-1.044	.6331	1.960	-6.377	28.92	-13.53
#2	.4333	.5814	-.6344	.5088	-9.354	19.98	-19.86
#3	.5183	-2.461	-1.994	.3926	-7.434	9.437	-23.25
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.0000	.0000	.0000	.0000	.0000	.0000	.0000
Range	5.000	5.000	5.000	10.00	100.0	150.0	300.0

Elem	Mn_257	Mo_202	Na	Ni_231	Sb_206	Pb_220	Se_196
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	.2641	1.048	-34.26	.8525	-2.482	2.894	1.210
SDev	.2020	1.793	16.05	1.448	5.578	.989	9.053
%RSD	76.47	171.1	46.86	169.8	224.8	34.17	747.9
#1	.4648	3.071	-17.96	1.158	-1.930	2.487	-1.725
#2	.2667	.4161	-34.77	2.123	2.800	2.173	11.37
#3	.0609	-.3439	-50.05	-.7235	-8.315	4.022	-6.011
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.0000	.0000	.0000	.0000	.0000	.0000	.0000
Range	10.00	10.00	150.0	5.000	10.00	10.00	15.00

Elem	Sn_189	Ti_334	Tl_190	U_3859	V_2924	Zn_213	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	.3453	.0834	5.049	-3.427	-.1484	.1233	3.921
SDev	2.297	.2638	3.323	13.251	1.5234	.3010	5.414
%RSD	665.2	316.4	65.81	386.7	1026.	244.2	138.1
#1	-2.199	.3684	1.374	2.785	1.107	-.0574	7.539
#2	2.266	.0339	5.932	-18.64	.2908	-.0435	6.527
#3	.9696	-.1522	7.842	5.577	-1.843	.4707	-2.302
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass

Value	.0000	.0000	.0000	.0000	.0000	.0000	.0000
Range	10.00	5.000	20.00	50.00	5.000	10.00	150.0
Elem	Si_288	Si02_	Sr_421	Pb1st	Pb2nd	Se1st	Se2nd
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	-3.486	-7.456	.1501	7.285	.7021	1.723	.9547
SDev	.572	1.224	.1586	5.194	1.440	3.788	13.36
%RSD	16.42	16.42	105.6	71.30	205.1	219.9	1399.
#1	-2.935	-6.278	.3186	2.834	2.314	-2.628	-1.273
#2	-4.078	-8.722	.1278	6.029	.2488	3.513	15.29
#3	-3.445	-7.369	.0038	12.99	-.4566	4.283	-11.15
Errors	QC Pass	NOCHECK	QC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK
Value	.0000		.0000				
Range	100.0		5.000				
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	14989	--	--	--	--	--	--
SDev	239.5340	--	--	--	--	--	--
%RSD	1.598014	--	--	--	--	--	--
#1	15241	--	--	--	--	--	--
#2	14964	--	--	--	--	--	--
#3	14764	--	--	--	--	--	--

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Method: TRACE2 Sample Name: CCV1 Operator: HSC
Run Time: 05/09/05 10:28:49
Comment: 423484||6010 WATER
Mode: CONC Corr. Factor: 1

Elem	Ag_328	Al_308	As_189	B_2496	Ba_493	Be_313	Ca_317
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	508.4	5102.	511.3	497.6	501.4	505.0	5033.
SDev	1.7	5.	5.3	6.1	2.6	1.1	20.
%RSD	.3278	.0925	1.036	1.233	.5281	.2135	.3920
#1	507.3	5099.	506.0	499.9	502.2	505.1	5034.
#2	507.7	5099.	511.3	490.6	498.4	503.9	5012.
#3	510.3	5107.	516.6	502.2	503.5	506.1	5052.
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	500.0	5000.	500.0	500.0	500.0	500.0	5000.
Range	10.00	10.00	10.00	10.00	10.00	10.00	10.00

Elem	Cd_226	Co_228	Cr_267	Cu_324	Fe_	K_7664	Mg_279
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	506.6	512.8	507.5	505.7	5019.	5256.	5127.
SDev	1.6	2.8	1.8	.6	38.	19.	50.
%RSD	.3237	.5490	.3493	.1238	.7592	.3606	.9824
#1	508.0	512.1	508.7	505.9	5046.	5252.	5169.
#2	504.8	510.5	505.5	505.0	4976.	5239.	5071.
#3	506.9	515.9	508.3	506.2	5037.	5276.	5140.
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	500.0	500.0	500.0	500.0	5000.	5000.	5000.
Range	10.00	10.00	10.00	10.00	10.00	10.00	10.00

Elem	Mn_257	Mo_202	Na_	Ni_231	Sb_206	Pb_220	Se_196
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	502.7	500.6	10320.	506.9	505.6	508.2	517.9
SDev	1.6	2.9	31.	1.4	2.1	2.4	9.5
%RSD	.3250	.5881	.2978	.2832	.4095	.4730	1.828
#1	503.0	501.3	10290.	506.2	503.5	510.8	515.7
#2	501.0	497.3	10320.	505.9	507.6	507.8	509.7
#3	504.3	503.0	10350.	508.5	505.9	506.1	528.2
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	500.0	500.0	10000.	500.0	500.0	500.0	500.0
Range	10.00	10.00	10.00	10.00	10.00	10.00	10.00

Elem	Sn_189	Ti_334	Tl_190	U_3859	V_2924	Zn_213	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	506.4	506.2	512.0	506.4	501.1	502.2	2504.
SDev	1.3	1.4	4.5	4.8	3.3	4.3	17.
%RSD	.2597	.2697	.8777	.9420	.6575	.8564	.6629
#1	507.9	505.8	511.5	503.0	503.1	506.2	2486.
#2	505.4	505.1	507.8	511.8	497.3	497.7	2509.
#3	506.0	507.7	516.8	504.2	502.9	502.7	2518.
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass

Value	500.0	500.0	500.0	500.0	500.0	500.0	2500.
Range	10.00	10.00	10.00	10.00	10.00	10.00	10.00
Elem	Si_288	Si02_	Sr_421	Pb1st	Pb2nd	Se1st	Se2nd
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	2550.	5455.	500.3	505.8	509.4	515.4	519.1
SDev	7.	14.	3.0	2.4	4.2	6.4	11.2
%RSD	.2572	.2572	.6022	.4690	.8337	1.233	2.164
#1	2553.	5461.	501.5	505.6	513.4	511.7	517.7
#2	2543.	5439.	496.9	503.6	509.8	511.8	508.7
#3	2555.	5465.	502.6	508.3	505.0	522.8	531.0
Errors	QC Pass	NOCHECK	QC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK
Value	2500.		500.0				
Range	10.00		10.00				

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	15797	--	--	--	--	--	--
SDev	182.9333	--	--	--	--	--	--
%RSD	1.158048	--	--	--	--	--	--
#1	15788	--	--	--	--	--	--
#2	15984	--	--	--	--	--	--
#3	15619	--	--	--	--	--	--

Analysis Report QC Standard 05/09/05 10:40:36 AM page 1

Method: TRACE2 Sample Name: CCB1 Operator: HSC
Run Time: 05/09/05 10:34:44
Comment: 423484||6010 WATER
Mode: CONC Corr. Factor: 1

Elem	Ag_328	Al_308	As_189	B_2496	Ba_493	Be_313	Ca_317
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	.0053	-19.26	-2.544	.2739	-.0078	.1875	-21.61
SDev	.4754	1.44	2.331	2.391	.1278	.0391	1.27
%RSD	9025.	7.502	91.63	872.9	1629.	20.83	5.856
#1	-.3489	-20.73	-1.922	2.072	-.0819	.2108	-21.34
#2	-.1808	-19.19	-.5869	1.188	-.0814	.2092	-22.99
#3	.5455	-17.85	-5.122	-2.439	.1398	.1424	-20.50
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.0000	.0000	.0000	.0000	.0000	.0000	.0000
Range	5.000	200.0	15.00	50.00	5.000	5.000	100.0

Elem	Cd_226	Co_228	Cr_267	Cu_324	Fe_	K_7664	Mg_279
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	.4395	-1.242	-.5710	.5277	-10.18	13.81	-25.67
SDev	.5639	.292	.9225	.8042	1.60	6.85	7.34
%RSD	128.3	23.53	161.5	152.4	15.71	49.61	28.60
#1	.6666	-1.432	-1.414	.2290	-11.21	16.40	-30.03
#2	-.2026	-.9052	-.7129	1.438	-11.00	18.99	-29.79
#3	.8544	-1.387	.4142	-.0844	-8.340	6.042	-17.20
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.0000	.0000	.0000	.0000	.0000	.0000	.0000
Range	5.000	5.000	5.000	10.00	100.0	150.0	300.0

Elem	Mn_257	Mo_202	Na_	Ni_231	Sb_206	Pb_220	Se_196
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	.1285	.1600	-8.742	2.567	3.856	-.8730	-.9729
SDev	.2278	1.665	17.504	1.082	1.836	1.5332	3.1704
%RSD	177.3	1041.	200.2	42.16	47.61	175.6	325.9
#1	.2667	2.069	-25.78	3.536	5.174	-.1644	-.4980
#2	.2533	-.9983	9.193	1.399	4.636	-2.632	1.933
#3	-.1344	-.5902	-9.636	2.764	1.759	.1777	-4.354
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.0000	.0000	.0000	.0000	.0000	.0000	.0000
Range	10.00	10.00	150.0	5.000	10.00	10.00	15.00

Elem	Sn_189	Ti_334	Tl_190	U_3859	V_2924	Zn_213	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	2.208	.1707	4.273	20.46	-.4445	-.0738	-1.529
SDev	4.581	.2100	4.050	3.32	1.5689	.2304	2.956
%RSD	207.5	123.0	94.79	16.21	353.0	311.9	193.3
#1	5.074	.0078	7.973	24.15	-2.242	-.0437	1.577
#2	-3.075	.0967	-.0547	19.54	.6480	.1400	-4.307
#3	4.625	.4077	4.901	17.71	.2608	-.3178	-1.858
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass

Value	.0000	.0000	.0000	.0000	.0000	.0000	.0000
Range	10.00	5.000	20.00	50.00	5.000	10.00	150.0
Elem	Si_288	Si02_	Sr_421	Pb1st	Pb2nd	Se1st	Se2nd
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	3.081	6.590	.1113	2.207	-2.411	.7745	-1.845
SDev	3.525	7.540	.0040	4.972	3.657	8.950	.797
%RSD	114.4	114.4	3.574	225.2	151.7	1156.	43.17
#1	1.952	4.175	.1142	7.004	-3.743	3.747	-2.617
#2	7.032	15.04	.1067	2.541	-5.215	7.860	-1.026
#3	.2589	.5538	.1129	-2.923	1.726	-9.283	-1.893
Errors	QC Pass	NOCHECK	QC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK
Value	.0000		.0000				
Range	100.0		5.000				
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	15589	--	--	--	--	--	--
SDev	545.3801	--	--	--	--	--	--
%RSD	3.498448	--	--	--	--	--	--
#1	14976	--	--	--	--	--	--
#2	16020	--	--	--	--	--	--
#3	15772	--	--	--	--	--	--

Analysis Report 05/09/05 10:46:29 AM

Method: TRACE2 Sample Name: 1200839943 Operator: HSC
Run Time: 05/09/05 10:40:39
Comment: 422821||6010 SOIL
Mode: CONC Corr. Factor: 1

Elem	Ag_328	Al_308	As_189	B_2496	Ba_493	Be_313	Ca_317
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	.0645	-13.55	-1.904	1.905	-.0353	.0418	-8.114
SDev	.2983	5.39	2.906	1.630	.0868	.0163	.401
%RSD	462.4	39.80	152.6	85.55	245.7	39.09	4.942
#1	-.2551	-19.17	-4.353	3.563	-.1153	.0513	-8.503
#2	.3356	-13.05	1.306	.3040	.0570	.0512	-8.139
#3	.1131	-8.423	-2.666	1.849	-.0476	.0229	-7.702
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	5.000	200.0	15.00	50.00	5.000	5.000	100.0
Low	-5.000	-200.0	-15.00	-50.00	-5.000	-5.000	-100.0

Elem	Cd_226	Co_228	Cr_267	Cu_324	Fe	K_7664	Mg_279
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	-.4429	-.7513	1.705	.4259	-6.655	2.758	-22.29
SDev	.5794	.7137	.331	.2440	.910	5.439	4.90
%RSD	130.8	95.00	19.39	57.29	13.68	197.2	22.00
#1	-.6921	-1.282	1.929	.6815	-5.821	-.2036	-26.53
#2	.2194	.0602	1.325	.1955	-7.626	9.035	-16.92
#3	-.8560	-1.032	1.859	.4008	-6.517	-.5573	-23.42
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	5.000	5.000	5.000	10.00	100.0	150.0	300.0
Low	-5.000	-5.000	-5.000	-10.00	-100.0	-150.0	-300.0

Elem	Mn_257	Mo_202	Na	Ni_231	Sb_206	Pb_220	Se_196
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	.1935	-.0777	-6.568	.6894	-6.950	2.491	-1.667
SDev	.1149	.9741	1.869	1.199	3.797	2.869	1.108
%RSD	59.40	1253.	28.46	173.9	54.64	115.2	66.44
#1	.2614	.4122	-8.002	-.0782	-5.800	2.646	-1.036
#2	.0608	-1.200	-7.247	2.071	L-11.19	5.279	-1.019
#3	.2583	.5542	-4.454	.0754	-3.861	-.4530	-2.946
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.00	10.00	150.0	5.000	10.00	10.00	15.00
Low	-10.00	-10.00	-150.0	-5.000	-10.00	-10.00	-15.00

Elem	Sn_189	Ti_334	Tl_190	U_3859	V_2924	Zn_213	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	1.847	.1269	-2.173	-.1687	-.1389	.6555	2.786
SDev	1.040	.1642	1.189	15.380	.8123	.2293	4.317
%RSD	56.29	129.4	54.73	9116.	584.7	34.98	154.9
#1	.9187	-.0419	-2.274	-17.00	-.9517	.4219	5.705
#2	1.651	.1366	-.9361	13.14	-.1380	.6643	4.826
#3	2.970	.2860	-3.308	3.354	.6729	.8802	-2.173
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	NOCHECK

High	10.00	5.000	20.00	50.00	10.00	10.00	
Low	-10.00	-5.000	-20.00	-50.00	-10.00	-10.00	
Elem	Si_288	Si02_	Sr_421	Pb1st	Pb2nd	Se1st	Se2nd
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	6.278	13.43	.0190	.8505	3.309	-9.076	2.032
SDev	2.411	5.16	.0464	3.644	3.073	1.466	1.704
%RSD	38.41	38.41	243.9	428.5	92.85	16.16	83.86
#1	8.529	18.24	-.0339	3.581	2.179	-10.40	3.637
#2	6.572	14.06	.0384	2.258	6.787	-7.498	2.215
#3	3.733	7.985	.0526	-3.288	.9621	-9.335	.2439
Errors	LC Pass	NOCHECK	LC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK
High	100.0		10.00				
Low	-100.0		-10.00				
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	15437	--	--	--	--	--	--
SDev	140.2399	--	--	--	--	--	--
%RSD	.9084378	--	--	--	--	--	--
#1	15358	--	--	--	--	--	--
#2	15355	--	--	--	--	--	--
#3	15599	--	--	--	--	--	--

Analysis Report 05/09/05 10:52:23 AM

Method: TRACE2 Sample Name: 1200839944 Operator: HSC
Run Time: 05/09/05 10:46:32
Comment: 422821||6010 SOIL
Mode: CONC Corr. Factor: 1

Elem	Ag_328	Al_308	As_189	B_2496	Ba_493	Be_313	Ca_317
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	1774.	77130.	2048.	539.6	4141.	810.7	36350.
SDev	10.	51.	17.	10.6	20.	3.0	125.
%RSD	.5369	.0663	.8409	1.969	.4712	.3732	.3448
#1	1783.	77180.	2062.	528.5	4121.	810.1	36230.
#2	1764.	77070.	2029.	549.7	4143.	808.0	36350.
#3	1774.	77130.	2054.	540.7	4160.	813.9	36480.
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2000.	500000.	50000.	50000.	15000.	10000.	500000.
Low	-5.000	-200.0	-15.00	-50.00	-5.000	-5.000	-100.0

Elem	Cd_226	Co_228	Cr_267	Cu_324	Fe_	K_7664	Mg_279
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	732.8	878.5	883.1	1407.	117900.	20320.	22610.
SDev	2.2	3.7	4.6	6.	834.	78.	54.
%RSD	.3065	.4191	.5224	.4017	.7069	.3828	.2371
#1	730.3	878.4	881.4	1413.	118600.	20330.	22560.
#2	733.5	874.8	879.5	1403.	117000.	20240.	22610.
#3	734.7	882.2	888.3	1405.	118300.	20390.	22670.
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	25000.	50000.	50000.	25000.	500000.	30000.	500000.
Low	-5.000	-5.000	-5.000	-10.00	-100.0	-150.0	-300.0

Elem	Mn_257	Mo_202	Na_	Ni_231	Sb_206	Pb_220	Se_196
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	4788.	851.5	3465.	913.2	431.3	1019.	1189.
SDev	33.	6.3	25.	6.9	5.7	6.	2.
%RSD	.6889	.7347	.7260	.7551	1.332	.5858	.2063
#1	4751.	845.2	3484.	906.0	431.0	1022.	1186.
#2	4802.	857.7	3437.	919.8	425.6	1012.	1190.
#3	4812.	851.6	3476.	913.7	437.1	1024.	1190.
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10000.	50000.	200000.	50000.	50000.	50000.	50000.
Low	-10.00	-10.00	-150.0	-5.000	-10.00	-10.00	-15.00

Elem	Sn_189	Ti_334	Tl_190	U_3859	V_2924	Zn_213	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	981.9	3580.	1107.	L-56.47	1614.	2989.	4511.
SDev	4.4	13.	9.	8.13	7.	10.	18.
%RSD	.4470	.3677	.7843	14.40	.4159	.3318	.3888
#1	983.7	3577.	1113.	L-61.87	1606.	2978.	4531.
#2	976.8	3568.	1097.	-47.12	1619.	2997.	4498.
#3	985.0	3594.	1110.	L-60.42	1617.	2992.	4504.
Errors	LC Pass	LC Pass	LC Pass	LC Low	LC Pass	LC Pass	LC Pass

High	50000.	10000.	50000.	50000.	50000.	5000.	50000.
Low	-10.00	-5.000	-20.00	-50.00	-5.000	-10.00	-150.0
Elem	Si_288	Si02_	Sr_421	Pb1st	Pb2nd	Se1st	Se2nd
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	11000.	23540.	858.9	1046.	1006.	1172.	1197.
SDev	42.	89.	3.5	9.	5.	12.	5.
%RSD	.3787	.3787	.4054	.8327	.5268	1.032	.3836
#1	11050.	23630.	854.9	1053.	1006.	1162.	1198.
#2	10960.	23450.	860.7	1036.	1000.	1169.	1201.
#3	11000.	23530.	861.1	1048.	1011.	1185.	1192.
Errors	LC Pass	NOCHECK	LC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK
High	50000.		10000.				
Low	-100.0		-5.000				
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	14991	--	--	--	--	--	--
SDev	386.8435	--	--	--	--	--	--
%RSD	2.580543	--	--	--	--	--	--
#1	15415	--	--	--	--	--	--
#2	14901	--	--	--	--	--	--
#3	14657	--	--	--	--	--	--

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Method: TRACE2 Sample Name: 135803001 Operator: HSC
Run Time: 05/09/05 10:52:26
Comment: 422821||6010 SOIL
Mode: CONC Corr. Factor: 1

Elem	Ag_328	Al_308	As_189	B_2496	Ba_493	Be_313	Ca_317
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	.1267	86060.	13.81	15.21	476.9	6.470	15110.
SDev	.3184	119.	2.54	1.88	.8	.061	6.
%RSD	251.3	.1383	18.41	12.33	.1603	.9448	.0408
#1	-.2389	86070.	16.18	13.26	477.1	6.463	15110.
#2	.2755	86170.	11.13	15.37	476.1	6.535	15110.
#3	.3435	85940.	14.13	17.00	477.6	6.413	15100.
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2000.	500000.	50000.	50000.	15000.	10000.	500000.
Low	-5.000	-200.0	-15.00	-50.00	-5.000	-5.000	-100.0

Elem	Cd_226	Co_228	Cr_267	Cu_324	Fe	K_7664	Mg_279
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	1.920	7.659	53.43	53.49	69190.	9001.	9089.
SDev	.449	.668	.17	.27	722.	47.	21.
%RSD	23.36	8.726	.3184	.5082	1.044	.5214	.2359
#1	1.689	8.411	53.32	53.22	69240.	8997.	9073.
#2	1.634	7.437	53.34	53.77	69890.	9050.	9081.
#3	2.437	7.130	53.62	53.48	68450.	8956.	9114.
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	25000.	50000.	50000.	25000.	500000.	30000.	500000.
Low	-5.000	-5.000	-5.000	-10.00	-100.0	-150.0	-300.0

Elem	Mn_257	Mo_202	Na	Ni_231	Sb_206	Pb_220	Se_196
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	1082.	8.728	1332.	54.11	6.107	173.6	4.262
SDev	3.	.782	13.	1.59	7.156	9.6	1.413
%RSD	.3081	8.964	.9968	2.943	117.2	5.505	33.15
#1	1085.	8.040	1340.	53.09	10.34	184.6	3.194
#2	1078.	9.579	1340.	53.31	-2.155	167.2	5.864
#3	1083.	8.564	1317.	55.95	10.13	169.0	3.729
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10000.	50000.	200000.	50000.	50000.	50000.	50000.
Low	-10.00	-10.00	-150.0	-5.000	-10.00	-10.00	-15.00

Elem	Sn_189	Ti_334	Tl_190	U_3859	V_2924	Zn_213	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	11.75	1433.	2.457	-20.63	66.94	352.8	374.0
SDev	.79	7.	4.836	12.35	1.48	1.3	7.4
%RSD	6.691	.4919	196.8	59.88	2.206	.3675	1.982
#1	11.04	1435.	-2.850	-24.43	67.01	353.8	369.0
#2	12.59	1438.	6.616	-30.64	65.43	353.3	382.5
#3	11.61	1425.	3.606	-6.822	68.38	351.4	370.4
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass

High	50000.	10000.	50000.	50000.	50000.	5000.	50000.
Low	-10.00	-5.000	-20.00	-50.00	-5.000	-10.00	-150.0
Elem	Si_288	Si02_	Sr_421	Pb1st	Pb2nd	Se1st	Se2nd
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	11280.	24130.	116.7	225.1	147.9	-10.21	11.49
SDev	57.	122.	.1	32.4	2.5	4.28	1.61
%RSD	.5063	.5063	.0898	14.40	1.666	41.91	14.00
#1	11320.	24210.	116.7	262.5	145.7	-15.13	12.34
#2	11310.	24190.	116.9	206.8	147.5	-7.399	12.49
#3	11210.	23990.	116.7	205.9	150.6	-8.095	9.632
Errors	LC Pass	NOCHECK	LC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK
High	50000.		10000.				
Low	-100.0		-5.000				

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	15611	--	--	--	--	--	--
SDev	265.1474	--	--	--	--	--	--
%RSD	1.698437	--	--	--	--	--	--
#1	15917	--	--	--	--	--	--
#2	15462	--	--	--	--	--	--
#3	15455	--	--	--	--	--	--

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Method: TRACE2 Sample Name: 1200839945 Operator: HSC
Run Time: 05/09/05 10:58:20
Comment: 422821||6010 SOIL
Mode: CONC Corr. Factor: 1

Elem	Ag_328	Al_308	As_189	B_2496	Ba_493	Be_313	Ca_317
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	-.1203	72750.	27.08	14.24	825.8	6.622	12400.
SDev	.3126	143.	1.63	2.30	2.4	.026	22.
%RSD	259.7	.1965	6.034	16.17	.2897	.3871	.1807
#1	.1314	72720.	25.83	15.33	827.7	6.593	12410.
#2	-.4702	72900.	26.49	11.59	826.6	6.632	12420.
#3	-.0222	72620.	28.93	15.79	823.1	6.641	12380.
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2000.	500000.	50000.	50000.	15000.	10000.	500000.
Low	-5.000	-200.0	-15.00	-50.00	-5.000	-5.000	-100.0

Elem	Cd_226	Co_228	Cr_267	Cu_324	Fe_	K_7664	Mg_279
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	1.445	19.00	32.51	30.54	55880.	7844.	7785.
SDev	.254	.82	.62	.08	293.	15.	28.
%RSD	17.55	4.292	1.907	.2625	.5242	.1914	.3532
#1	1.684	19.77	31.83	30.55	56180.	7861.	7794.
#2	1.472	18.15	33.03	30.46	55590.	7833.	7808.
#3	1.179	19.09	32.68	30.62	55870.	7839.	7755.
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	25000.	50000.	50000.	25000.	500000.	30000.	500000.
Low	-5.000	-5.000	-5.000	-10.00	-100.0	-150.0	-300.0

Elem	Mn_257	Mo_202	Na_	Ni_231	Sb_206	Pb_220	Se_196
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	2341.	8.879	1159.	57.46	4.264	131.3	3.110
SDev	16.	1.457	2.	1.69	3.457	1.3	3.653
%RSD	.6768	16.41	.1726	2.933	81.07	1.017	117.5
#1	2336.	10.43	1158.	56.37	.9613	132.8	7.093
#2	2358.	7.545	1158.	59.40	7.856	130.1	2.323
#3	2328.	8.659	1161.	56.61	3.973	131.1	-.0850
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10000.	50000.	200000.	50000.	50000.	50000.	50000.
Low	-10.00	-10.00	-150.0	-5.000	-10.00	-10.00	-15.00

Elem	Sn_189	Ti_334	Tl_190	U_3859	V_2924	Zn_213	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	8.048	1397.	-1.184	-35.08	93.30	326.5	302.7
SDev	.142	4.	2.103	11.26	1.50	.9	1.1
%RSD	1.765	.3091	177.6	32.10	1.606	.2649	.3542
#1	8.107	1402.	1.244	-47.99	91.57	326.0	301.7
#2	8.150	1394.	-2.431	-27.25	94.26	327.5	302.5
#3	7.885	1395.	-2.365	-30.01	94.07	326.0	303.8
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass

High	50000.	10000.	50000.	50000.	50000.	5000.	50000.
Low	-10.00	-5.000	-20.00	-50.00	-5.000	-10.00	-150.0
Elem	Si_288	Si02_	Sr_421	Pb1st	Pb2nd	Se1st	Se2nd
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	10400.	22240.	110.6	166.4	113.8	-12.03	10.67
SDev	22.	47.	.4	5.1	4.4	6.27	6.36
%RSD	.2118	.2118	.3391	3.036	3.888	52.11	59.59
#1	10390.	22230.	111.0	162.3	118.0	-14.53	17.89
#2	10420.	22290.	110.4	172.0	109.2	-4.893	5.926
#3	10380.	22200.	110.4	164.9	114.2	-16.65	8.185
Errors	LC Pass	NOCHECK	LC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK
High	50000.		10000.				
Low	-100.0		-5.000				

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	15498	--	--	--	--	--	--
SDev	46.83505	--	--	--	--	--	--
%RSD	.3022096	--	--	--	--	--	--
#1	15490	--	--	--	--	--	--
#2	15455	--	--	--	--	--	--
#3	15548	--	--	--	--	--	--

Analysis Report

05/09/05 11:10:06 AM

Method: TRACE2 Sample Name: 1200839946 Operator: HSC
Run Time: 05/09/05 11:04:15
Comment: 422821||6010 SOIL
Mode: CONC Corr. Factor: 1

Elem	Ag_328	Al_308	As_189	B_2496	Ba_493	Be_313	Ca_317
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	520.3	129300.	523.2	527.8	2029.	526.6	26570.
SDev	2.1	106.	6.3	4.4	3.	2.6	14.
%RSD	.3941	.0818	1.202	.8403	.1639	.4985	.0545
#1	520.6	129400.	527.0	532.4	2029.	527.7	26580.
#2	522.1	129200.	526.7	523.6	2025.	528.6	26580.
#3	518.1	129400.	515.9	527.6	2032.	523.6	26560.
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2000.	500000.	50000.	50000.	15000.	10000.	500000.
Low	-5.000	-200.0	-15.00	-50.00	-5.000	-5.000	-100.0

Elem	Cd_226	Co_228	Cr_267	Cu_324	Fe_	K_7664	Mg_279
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	507.1	531.9	607.7	602.9	82970.	17370.	18300.
SDev	.7	3.2	.7	2.6	643.	44.	52.
%RSD	.1300	.6034	.1133	.4318	.7750	.2548	.2847
#1	506.9	531.0	607.1	604.5	83090.	17380.	18240.
#2	507.9	535.5	608.5	604.4	83540.	17420.	18340.
#3	506.6	529.2	607.7	599.9	82270.	17330.	18310.
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	25000.	50000.	50000.	25000.	500000.	30000.	500000.
Low	-5.000	-5.000	-5.000	-10.00	-100.0	-150.0	-300.0

Elem	Mn_257	Mo_202	Na_	Ni_231	Sb_206	Pb_220	Se_196
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	3446.	524.9	6708.	610.5	259.3	708.8	500.3
SDev	20.	3.7	18.	2.2	6.6	6.6	6.5
%RSD	.5910	.6960	.2758	.3537	2.526	.9319	1.300
#1	3442.	528.1	6710.	610.8	255.9	706.5	504.6
#2	3429.	521.0	6726.	608.2	255.2	716.2	503.5
#3	3468.	525.7	6689.	612.5	266.9	703.6	492.9
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10000.	50000.	200000.	50000.	50000.	50000.	50000.
Low	-10.00	-10.00	-150.0	-5.000	-10.00	-10.00	-15.00

Elem	Sn_189	Ti_334	Tl_190	U_3859	V_2924	Zn_213	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	520.5	2563.	508.6	492.2	634.1	1162.	963.5
SDev	4.7	9.	9.8	12.6	2.6	6.	11.5
%RSD	.9038	.3580	1.919	2.563	.4083	.4928	1.197
#1	521.5	2569.	510.7	504.0	634.9	1166.	976.8
#2	524.7	2569.	517.2	493.8	631.2	1156.	956.5
#3	515.4	2553.	498.0	478.9	636.1	1164.	957.2
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass

High	50000.	10000.	50000.	50000.	50000.	5000.	50000.
Low	-10.00	-5.000	-20.00	-50.00	-5.000	-10.00	-150.0
Elem	Si_288	Si02_	Sr_421	Pb1st	Pb2nd	Se1st	Se2nd
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	5788.	12380.	674.7	760.2	683.1	489.3	505.9
SDev	20.	43.	.7	3.0	10.7	9.3	7.0
%RSD	.3441	.3441	.0964	.3926	1.560	1.891	1.391
#1	5797.	12400.	674.3	763.6	678.0	499.7	507.1
#2	5803.	12410.	674.4	758.0	695.4	486.1	512.2
#3	5766.	12330.	675.5	759.0	676.0	482.0	498.3
Errors	LC Pass	NOCHECK	LC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK
High	50000.		10000.				
Low	-100.0		-5.000				

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	15956	--	--	--	--	--	--
SDev	83.69775	--	--	--	--	--	--
%RSD	.5245397	--	--	--	--	--	--
#1	16044	--	--	--	--	--	--
#2	15949	--	--	--	--	--	--
#3	15877	--	--	--	--	--	--

Analysis Report 05/09/05 11:16:00 AM

Method: TRACE2 Sample Name: 1200839948 Operator: HSC
Run Time: 05/09/05 11:10:09
Comment: 422821||6010 SOIL
Mode: CONC Corr. Factor: 1

Elem	Ag_328	Al_308	As_189	B_2496	Ba_493	Be_313	Ca_317
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	510.6	110700.	512.5	510.2	1049.	525.9	20340.
SDev	.6	746.	5.8	5.4	2.	2.1	13.
%RSD	.1097	.6740	1.138	1.062	.2359	.3910	.0645
#1	510.8	111400.	507.2	516.3	1052.	523.8	20350.
#2	510.0	110900.	511.7	506.1	1049.	526.0	20330.
#3	511.0	109900.	518.7	508.1	1047.	528.0	20330.
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2000.	500000.	50000.	50000.	15000.	10000.	500000.
Low	-5.000	-200.0	-15.00	-50.00	-5.000	-5.000	-100.0

Elem	Cd_226	Co_228	Cr_267	Cu_324	Fe_	K_7664	Mg_279
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	502.0	522.1	592.9	571.6	63950.	15890.	16530.
SDev	2.2	1.0	.9	1.8	557.	26.	27.
%RSD	.4454	.2006	.1552	.3126	.8705	.1662	.1626
#1	500.0	522.2	592.1	573.6	63390.	15870.	16560.
#2	504.4	520.9	593.9	570.8	63950.	15890.	16510.
#3	501.5	523.0	592.7	570.3	64510.	15920.	16530.
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	25000.	50000.	50000.	25000.	500000.	30000.	500000.
Low	-5.000	-5.000	-5.000	-10.00	-100.0	-150.0	-300.0

Elem	Mn_257	Mo_202	Na_	Ni_231	Sb_206	Pb_220	Se_196
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	2384.	513.5	6484.	579.1	274.3	656.9	508.2
SDev	8.	2.3	86.	6.0	2.8	12.0	8.5
%RSD	.3204	.4559	1.332	1.037	1.034	1.828	1.675
#1	2392.	516.0	6384.	574.4	272.1	670.0	517.7
#2	2384.	513.3	6535.	577.1	277.5	646.4	505.8
#3	2377.	511.3	6533.	585.9	273.2	654.2	501.2
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10000.	50000.	200000.	50000.	50000.	50000.	50000.
Low	-10.00	-10.00	-150.0	-5.000	-10.00	-10.00	-15.00

Elem	Sn_189	Ti_334	Tl_190	U_3859	V_2924	Zn_213	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	521.5	2219.	514.6	523.5	613.2	1258.	838.1
SDev	3.2	4.	11.5	7.3	5.2	5.	10.9
%RSD	.6192	.1859	2.244	1.399	.8413	.3693	1.301
#1	518.8	2215.	504.1	529.0	619.2	1256.	825.5
#2	520.6	2219.	512.7	515.2	610.2	1263.	844.1
#3	525.1	2223.	526.9	526.5	610.3	1255.	844.7
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass

High	50000.	10000.	50000.	50000.	50000.	5000.	50000.
Low	-10.00	-5.000	-20.00	-50.00	-5.000	-10.00	-150.0
Elem	Si_288	Si02_	Sr_421	Pb1st	Pb2nd	Se1st	Se2nd
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	9769.	20900.	630.1	694.7	638.0	486.8	519.0
SDev	8.	17.	2.3	10.9	22.5	20.9	21.1
%RSD	.0830	.0830	.3665	1.564	3.524	4.294	4.065
#1	9769.	20890.	631.2	682.9	663.5	466.7	543.2
#2	9777.	20910.	631.7	696.9	621.2	508.4	504.5
#3	9761.	20880.	627.5	704.3	629.2	485.2	509.2
Errors	LC Pass	NOCHECK	LC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK
High	50000.		10000.				
Low	-100.0		-5.000				
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	14477	--	--	--	--	--	--
SDev	140.1497	--	--	--	--	--	--
%RSD	.9680823	--	--	--	--	--	--
#1	14633	--	--	--	--	--	--
#2	14437	--	--	--	--	--	--
#3	14362	--	--	--	--	--	--

Analysis Report 05/09/05 11:21:54 AM

Method: TRACE2 Sample Name: 1200839947|5| Operator: HSC
Run Time: 05/09/05 11:16:04
Comment: 422821||6010 SOIL
Mode: CONC Corr. Factor: 1

Elem	Ag_328	Al_308	As_189	B_2496	Ba_493	Be_313	Ca_317
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	-.2737	17230.	3.578	3.402	94.95	1.427	3016.
SDev	.4239	395.	2.850	1.019	1.57	.069	59.
%RSD	154.9	2.293	79.65	29.94	1.652	4.836	1.959
#1	.0427	17590.	.5711	2.352	96.34	1.487	3071.
#2	-.7554	17290.	6.240	4.387	95.26	1.443	3024.
#3	-.1084	16810.	3.925	3.468	93.25	1.352	2954.
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2000.	500000.	50000.	50000.	15000.	10000.	500000.
Low	-5.000	-200.0	-15.00	-50.00	-5.000	-5.000	-100.0

Elem	Cd_226	Co_228	Cr_267	Cu_324	Fe_	K_7664	Mg_279
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	.8335	1.200	9.850	10.49	13820.	1900.	1812.
SDev	.3702	.491	.769	.19	335.	45.	26.
%RSD	44.41	40.92	7.804	1.778	2.424	2.370	1.443
#1	.4731	1.623	10.49	10.43	14190.	1949.	1833.
#2	.8146	.6616	10.07	10.34	13750.	1891.	1820.
#3	1.213	1.316	8.996	10.70	13530.	1860.	1783.
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	25000.	50000.	50000.	25000.	500000.	30000.	500000.
Low	-5.000	-5.000	-5.000	-10.00	-100.0	-150.0	-300.0

Elem	Mn_257	Mo_202	Na_	Ni_231	Sb_206	Pb_220	Se_196
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	217.4	2.034	259.6	11.02	-5.146	37.92	-1.408
SDev	3.7	.226	11.0	.85	.964	1.46	4.363
%RSD	1.681	11.14	4.247	7.719	18.73	3.843	310.0
#1	220.8	2.275	268.8	11.68	-6.169	36.40	.0159
#2	218.0	1.826	262.5	10.06	-4.256	38.05	-6.305
#3	213.5	2.001	247.4	11.33	-5.012	39.31	2.066
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10000.	50000.	200000.	50000.	50000.	50000.	50000.
Low	-10.00	-10.00	-150.0	-5.000	-10.00	-10.00	-15.00

Elem	Sn_189	Ti_334	Tl_190	U_3859	V_2924	Zn_213	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	1.573	286.7	2.246	-1.504	13.14	78.52	71.38
SDev	1.105	5.9	3.511	6.717	.87	3.90	6.00
%RSD	70.23	2.069	156.4	446.6	6.589	4.963	8.412
#1	1.320	292.9	3.853	-6.595	13.01	82.89	77.06
#2	2.782	285.9	4.666	-4.026	14.06	77.22	65.10
#3	.6167	281.1	-1.781	6.109	12.34	75.43	71.99
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass

High	50000.	10000.	50000.	50000.	50000.	5000.	50000.
Low	-10.00	-5.000	-20.00	-50.00	-5.000	-10.00	-150.0
Elem	Si_288	Si02_	Sr_421	Pb1st	Pb2nd	Se1st	Se2nd
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	2521.	5392.	23.29	43.08	35.34	-8.531	2.149
SDev	134.	287.	.44	2.20	1.21	7.549	3.360
%RSD	5.319	5.319	1.880	5.115	3.430	88.49	156.4
#1	2647.	5662.	23.72	40.55	34.33	-3.111	1.577
#2	2536.	5424.	23.30	44.14	35.01	-17.15	-.8884
#3	2380.	5091.	22.84	44.56	36.69	-5.329	5.758
Errors	LC Pass	NOCHECK	LC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK
High	50000.		10000.				
Low	-100.0		-5.000				

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	15700	--	--	--	--	--	--
SDev	153.6009	--	--	--	--	--	--
%RSD	.9783187	--	--	--	--	--	--
#1	15676	--	--	--	--	--	--
#2	15865	--	--	--	--	--	--
#3	15560	--	--	--	--	--	--

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Method: TRACE2 Sample Name: 135803002 Operator: HSC
Run Time: 05/09/05 11:21:58
Comment: 422821||6010 SOIL
Mode: CONC Corr. Factor: 1

Elem	Ag_328	Al_308	As_189	B_2496	Ba_493	Be_313	Ca_317
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	-.2839	71750.	8.572	9.623	358.3	6.147	9804.
SDev	.6692	804.	3.138	4.987	1.1	.050	11.
%RSD	235.7	1.120	36.61	51.82	.3032	.8131	.1076
#1	.2828	71270.	4.983	15.11	359.2	6.142	9814.
#2	-.1124	71300.	10.80	8.397	358.7	6.199	9806.
#3	-1.022	72680.	9.933	5.363	357.1	6.100	9793.
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2000.	500000.	50000.	50000.	15000.	10000.	500000.
Low	-5.000	-200.0	-15.00	-50.00	-5.000	-5.000	-100.0

Elem	Cd_226	Co_228	Cr_267	Cu_324	Fe_	K_7664	Mg_279
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	.2586	7.252	27.81	28.65	51180.	8025.	8381.
SDev	.4814	.732	.87	.69	298.	27.	17.
%RSD	186.1	10.09	3.114	2.423	.5821	.3404	.2058
#1	.8057	6.748	28.81	29.16	50900.	7996.	8391.
#2	.0700	6.916	27.28	28.93	51140.	8050.	8392.
#3	-.0999	8.091	27.34	27.86	51490.	8029.	8361.
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	25000.	50000.	50000.	25000.	500000.	30000.	500000.
Low	-5.000	-5.000	-5.000	-10.00	-100.0	-150.0	-300.0

Elem	Mn_257	Mo_202	Na_	Ni_231	Sb_206	Pb_220	Se_196
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	1050.	3.065	1127.	46.05	3.015	70.44	2.597
SDev	4.	.770	31.	.76	4.262	2.08	7.031
%RSD	.3974	25.11	2.726	1.642	141.3	2.949	270.7
#1	1055.	3.157	1106.	46.92	2.339	68.40	8.815
#2	1049.	2.253	1112.	45.54	7.575	70.39	-5.033
#3	1046.	3.784	1162.	45.68	-.8674	72.55	4.010
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10000.	50000.	200000.	50000.	50000.	50000.	50000.
Low	-10.00	-10.00	-150.0	-5.000	-10.00	-10.00	-15.00

Elem	Sn_189	Ti_334	Tl_190	U_3859	V_2924	Zn_213	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	7.478	1003.	-2.882	-34.49	61.35	176.9	310.7
SDev	1.268		8.586	24.38	.70	1.0	4.6
%RSD	16.96	.0396	297.9	70.70	1.146	.5560	1.474
#1	6.740	1002.	-12.44	-32.16	61.00	176.7	306.0
#2	8.943	1003.	4.187	-11.35	62.16	178.0	315.2
#3	6.752	1003.	-.3965	L-59.94	60.89	176.1	311.0
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass

High	50000.	10000.	50000.	50000.	50000.	5000.	50000.
Low	-10.00	-5.000	-20.00	-50.00	-5.000	-10.00	-150.0
Elem	Si_288	Si02_	Sr_421	Pb1st	Pb2nd	Se1st	Se2nd
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	3482.	7448.	98.65	102.7	54.35	-13.70	10.74
SDev	39.	83.	.31	5.5	2.08	3.04	9.07
%RSD	1.112	1.112	.3156	5.383	3.834	22.20	84.50
#1	3457.	7395.	98.78	96.38	54.42	-10.56	18.49
#2	3462.	7406.	98.87	106.7	52.23	-16.63	.7580
#3	3527.	7544.	98.29	104.9	56.40	-13.93	12.96
Errors	LC Pass	NOCHECK	LC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK
High	50000.		10000.				
Low	-100.0		-5.000				
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	15162	--	--	--	--	--	--
SDev	713.9116	--	--	--	--	--	--
%RSD	4.708496	--	--	--	--	--	--
#1	14787	--	--	--	--	--	--
#2	14714	--	--	--	--	--	--
#3	15986	--	--	--	--	--	--

Analysis Report

05/09/05 11:33:42 AM

Method: TRACE2 Sample Name: 135803003 Operator: HSC
Run Time: 05/09/05 11:27:51
Comment: 422821||6010 SOIL
Mode: CONC Corr. Factor: 1

Elem	Ag_328	Al_308	As_189	B_2496	Ba_493	Be_313	Ca_317
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	-.3849	55570.	5.318	11.10	393.1	4.152	8508.
SDev	.4381	57.	3.373	2.63	1.6	.045	4.
%RSD	113.8	.1029	63.44	23.67	.3943	1.072	.0500
#1	.1210	55540.	1.473	12.73	391.7	4.197	8506.
#2	-.6399	55640.	7.783	8.072	394.8	4.152	8513.
#3	-.6357	55540.	6.698	12.51	392.7	4.108	8506.
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2000.	500000.	50000.	50000.	15000.	10000.	500000.
Low	-5.000	-200.0	-15.00	-50.00	-5.000	-5.000	-100.0

Elem	Cd_226	Co_228	Cr_267	Cu_324	Fe_	K_7664	Mg_279
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	.5974	5.483	20.44	26.81	40270.	6440.	5984.
SDev	.0765	.547	.40	.44	288.	26.	12.
%RSD	12.80	9.982	1.976	1.642	.7162	.4108	.1945
#1	.5188	5.927	20.89	27.30	40530.	6468.	5980.
#2	.6715	4.871	20.11	26.69	40320.	6434.	5996.
#3	.6019	5.650	20.31	26.44	39960.	6416.	5974.
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	25000.	50000.	50000.	25000.	500000.	30000.	500000.
Low	-5.000	-5.000	-5.000	-10.00	-100.0	-150.0	-300.0

Elem	Mn_257	Mo_202	Na_	Ni_231	Sb_206	Pb_220	Se_196
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	887.9	4.418	1210.	28.17	.9547	94.24	.8963
SDev	3.8	1.602	14.	1.92	2.926	3.97	1.714
%RSD	.4250	36.26	1.197	6.825	306.5	4.217	191.3
#1	883.7	2.601	1227.	28.05	-2.361	92.45	-1.083
#2	889.3	5.024	1205.	30.14	3.179	98.79	1.899
#3	890.8	5.628	1199.	26.30	2.045	91.47	1.873
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10000.	50000.	200000.	50000.	50000.	50000.	50000.
Low	-10.00	-10.00	-150.0	-5.000	-10.00	-10.00	-15.00

Elem	Sn_189	Ti_334	Tl_190	U_3859	V_2924	Zn_213	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	6.630	1275.	.6514	-17.67	44.68	233.5	215.2
SDev	3.700	4.	.7633	10.45	.72	.4	11.5
%RSD	55.81	.2770	117.2	59.15	1.601	.1606	5.348
#1	2.535	1278.	1.076	-20.55	43.91	233.2	228.5
#2	7.622	1275.	-.2297	-6.078	44.80	233.9	207.5
#3	9.733	1271.	1.108	-26.38	45.32	233.4	209.8
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass

High	50000.	10000.	50000.	50000.	50000.	5000.	50000.
Low	-10.00	-5.000	-20.00	-50.00	-5.000	-10.00	-150.0
Elem	Si_288	Si02_	Sr_421	Pb1st	Pb2nd	Se1st	Se2nd
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	10840.	23180.	72.30	119.9	81.42	-8.847	5.761
SDev	46.	99.	.14	4.7	3.76	2.440	1.624
%RSD	.4285	.4285	.1912	3.946	4.617	27.58	28.19
#1	10880.	23270.	72.21	119.3	79.04	-11.31	4.023
#2	10840.	23180.	72.46	124.9	85.76	-8.799	7.240
#3	10790.	23070.	72.22	115.5	79.48	-6.432	6.019
Errors	LC Pass	NOCHECK	LC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK
High	50000.		10000.				
Low	-100.0		-5.000				
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	15216	--	--	--	--	--	--
SDev	170.1419	--	--	--	--	--	--
%RSD	1.118182	--	--	--	--	--	--
#1	15412	--	--	--	--	--	--
#2	15131	--	--	--	--	--	--
#3	15105	--	--	--	--	--	--

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Method: TRACE2 Sample Name: 135803004 Operator: HSC
Run Time: 05/09/05 11:33:45
Comment: 422821||6010 SOIL
Mode: CONC Corr. Factor: 1

Elem	Ag_328	Al_308	As_189	B_2496	Ba_493	Be_313	Ca_317
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	-.8978	64270.	7.623	10.58	414.2	5.002	9143.
SDev	.7676	118.	4.680	3.02	.9	.026	18.
%RSD	85.49	.1842	61.39	28.60	.2242	.5103	.1962
#1	-.6704	64150.	2.677	8.178	415.0	4.973	9123.
#2	-1.753	64390.	11.98	9.576	414.5	5.020	9147.
#3	-.2697	64260.	8.212	13.97	413.2	5.013	9158.
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2000.	500000.	50000.	50000.	15000.	10000.	500000.
Low	-5.000	-200.0	-15.00	-50.00	-5.000	-5.000	-100.0

Elem	Cd_226	Co_228	Cr_267	Cu_324	Fe	K_7664	Mg_279
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	2.413	7.884	28.42	33.60	50140.	6703.	6675.
SDev	.190	.160	.83	.82	196.	19.	24.
%RSD	7.884	2.023	2.930	2.443	.3905	.2881	.3659
#1	2.293	7.709	27.64	32.70	49920.	6681.	6650.
#2	2.314	8.020	29.30	33.79	50220.	6710.	6675.
#3	2.633	7.924	28.33	34.31	50290.	6717.	6699.
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	25000.	50000.	50000.	25000.	500000.	30000.	500000.
Low	-5.000	-5.000	-5.000	-10.00	-100.0	-150.0	-300.0

Elem	Mn_257	Mo_202	Na	Ni_231	Sb_206	Pb_220	Se_196
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	1321.	5.314	1422.	47.05	4.445	149.4	-1.490
SDev	2.	.529	10.	2.06	8.394	1.1	3.472
%RSD	.1765	9.961	.7332	4.389	188.8	.7557	233.1
#1	1321.	4.994	1412.	45.18	-4.743	150.7	-3.841
#2	1320.	5.023	1433.	49.26	11.71	148.9	-3.125
#3	1324.	5.925	1421.	46.70	6.367	148.7	2.498
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10000.	50000.	200000.	50000.	50000.	50000.	50000.
Low	-10.00	-10.00	-150.0	-5.000	-10.00	-10.00	-15.00

Elem	Sn_189	Ti_334	Tl_190	U_3859	V_2924	Zn_213	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	6.215	1487.	2.420	-38.23	54.97	347.5	393.3
SDev	3.071	2.	4.876	8.84	.16	.6	6.5
%RSD	49.41	.1559	201.5	23.11	.2898	.1787	1.649
#1	3.003	1484.	4.767	-48.20	54.98	348.2	392.4
#2	6.522	1488.	-3.185	-31.35	55.13	347.3	387.3
#3	9.122	1488.	5.678	-35.14	54.81	347.0	400.1
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass

High	50000.	10000.	50000.	50000.	50000.	5000.	50000.
Low	-10.00	-5.000	-20.00	-50.00	-5.000	-10.00	-150.0
Elem	Si_288	Si02_	Sr_421	Pb1st	Pb2nd	Se1st	Se2nd
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	12020.	25710.	85.13	180.6	133.8	-12.34	3.926
SDev	54.	116.	.09	2.7	3.0	7.43	6.696
%RSD	.4504	.4504	.1101	1.520	2.234	60.23	170.6
#1	11980.	25620.	85.23	177.6	137.3	-18.73	3.591
#2	12080.	25840.	85.12	183.0	131.8	-4.184	-2.597
#3	12000.	25670.	85.04	181.2	132.4	-14.10	10.78
Errors	LC Pass	NOCHECK	LC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK
High	50000.		10000.				
Low	-100.0		-5.000				
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	14417	--	--	--	--	--	--
SDev	212.9449	--	--	--	--	--	--
%RSD	1.477022	--	--	--	--	--	--
#1	14276	--	--	--	--	--	--
#2	14662	--	--	--	--	--	--
#3	14313	--	--	--	--	--	--

Analysis Report QC Standard 05/09/05 11:45:30 AM page 1

Method: TRACE2 Sample Name: CCV1 Operator: HSC
Run Time: 05/09/05 11:39:39
Comment: 422821||6010 SOIL
Mode: CONC Corr. Factor: 1

Elem	Ag_328	Al_308	As_189	B_2496	Ba_493	Be_313	Ca_317
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	506.3	5232.	482.6	497.2	498.2	504.3	5039.
SDev	2.4	4.	3.9	5.0	.7	2.1	10.
%RSD	.4669	.0824	.8051	1.001	.1409	.4105	.2076
#1	508.9	5228.	484.9	491.5	499.0	506.2	5050.
#2	504.3	5236.	478.2	499.3	497.6	502.1	5029.
#3	505.8	5232.	484.9	500.7	498.1	504.6	5038.
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	500.0	5000.	500.0	500.0	500.0	500.0	5000.
Range	10.00	10.00	10.00	10.00	10.00	10.00	10.00

Elem	Cd_226	Co_228	Cr_267	Cu_324	Fe_	K_7664	Mg_279
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	498.3	507.2	513.7	509.2	5314.	5132.	5181.
SDev	1.9	3.0	1.2	.2	25.	33.	9.
%RSD	.3741	.5840	.2323	.0385	.4620	.6411	.1656
#1	499.3	510.4	515.0	508.9	5291.	5156.	5172.
#2	496.1	504.5	513.0	509.3	5340.	5095.	5189.
#3	499.5	506.8	512.9	509.3	5312.	5145.	5181.
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	500.0	500.0	500.0	500.0	5000.	5000.	5000.
Range	10.00	10.00	10.00	10.00	10.00	10.00	10.00

Elem	Mn_257	Mo_202	Na_	Ni_231	Sb_206	Pb_220	Se_196
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	520.3	493.3	10150.	501.5	497.8	499.4	497.7
SDev	.2	3.9	108.	.2	4.9	2.4	4.5
%RSD	.0339	.7862	1.068	.0428	.9802	.4823	.9136
#1	520.4	490.7	10280.	501.7	498.9	497.5	494.7
#2	520.4	497.7	10070.	501.3	492.5	502.1	503.0
#3	520.1	491.4	10110.	501.6	502.1	498.6	495.6
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	500.0	500.0	10000.	500.0	500.0	500.0	500.0
Range	10.00	10.00	10.00	10.00	10.00	10.00	10.00

Elem	Sn_189	Ti_334	Tl_190	U_3859	V_2924	Zn_213	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	491.6	503.9	496.9	501.8	516.8	498.9	2400.
SDev	.7	1.8	5.8	8.7	1.3	2.0	17.
%RSD	.1360	.3596	1.172	1.740	.2491	.3970	.6996
#1	490.9	505.9	503.6	493.2	516.4	498.5	2414.
#2	492.2	502.3	493.0	501.5	518.3	501.1	2381.
#3	491.9	503.5	494.1	510.6	515.8	497.2	2404.
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass

Value	500.0	500.0	500.0	500.0	500.0	500.0	2500.
Range	10.00	10.00	10.00	10.00	10.00	10.00	10.00
Elem	Si_288	Si02_	Sr_421	Pb1st	Pb2nd	Se1st	Se2nd
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	2587.	5533.	499.1	501.0	498.6	499.0	497.1
SDev	2.	5.	.3	4.3	4.1	3.6	8.5
%RSD	.0941	.0941	.0627	.8558	.8288	.7301	1.713
#1	2589.	5539.	499.4	504.6	494.0	499.9	492.0
#2	2586.	5532.	498.8	502.3	502.1	495.0	506.9
#3	2585.	5528.	499.0	496.3	499.7	502.1	492.4
Errors	QC Pass	NOCHECK	QC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK
Value	2500.		500.0				
Range	10.00		10.00				
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	15680	--	--	--	--	--	--
SDev	242.9674	--	--	--	--	--	--
%RSD	1.549541	--	--	--	--	--	--
#1	15502	--	--	--	--	--	--
#2	15957	--	--	--	--	--	--
#3	15582	--	--	--	--	--	--

Analysis Report QC Standard 05/09/05 11:51:26 AM

Method: TRACE2 Sample Name: CCB1 Operator: HSC
Run Time: 05/09/05 11:45:35
Comment: 422821||6010 SOIL
Mode: CONC Corr. Factor: 1

Elem	Ag_328	Al_308	As_189	B_2496	Ba_493	Be_313	Ca_317
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	.1876	-10.81	2.620	1.908	.2158	.2897	-18.39
SDev	.3937	6.82	2.354	1.006	.1574	.1188	2.33
%RSD	209.9	63.16	89.84	52.71	72.94	41.02	12.65
#1	.4840	-5.743	4.550	1.388	.3271	.4252	-16.78
#2	.3379	-8.106	3.313	1.269	.2846	.2403	-17.33
#3	-.2592	-18.57	-.0024	3.067	.0357	.2035	-21.05
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.0000	.0000	.0000	.0000	.0000	.0000	.0000
Range	5.000	200.0	15.00	50.00	5.000	5.000	100.0

Elem	Cd_226	Co_228	Cr_267	Cu_324	Fe_	K_7664	Mg_279
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	.4087	-.6778	-.7147	1.163	.5391	13.45	-25.52
SDev	.1942	.4212	.6640	.753	3.662	11.99	8.12
%RSD	47.52	62.14	92.91	64.72	679.3	89.19	31.83
#1	.3962	-.9215	-1.405	1.574	4.706	19.54	-16.95
#2	.6088	-.1915	-.6590	.2942	-2.168	-.3695	-26.50
#3	.2210	-.9205	-.0803	1.620	-.9210	21.17	-33.11
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.0000	.0000	.0000	.0000	.0000	.0000	.0000
Range	5.000	5.000	5.000	10.00	100.0	150.0	300.0

Elem	Mn_257	Mo_202	Na_	Ni_231	Sb_206	Pb_220	Se_196
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	.5893	.6580	-13.47	.6455	-.2872	5.639	-.8056
SDev	.2968	1.181	3.29	1.294	1.9724	4.723	8.1710
%RSD	50.37	179.5	24.45	200.5	686.7	83.75	1014.
#1	.6618	-.4664	-10.15	1.915	1.884	8.980	4.796
#2	.8431	.5515	-13.51	-.6723	-1.969	.2358	-10.18
#3	.2629	1.889	-16.74	.6935	-.7761	7.702	2.969
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.0000	.0000	.0000	.0000	.0000	.0000	.0000
Range	10.00	10.00	150.0	5.000	10.00	10.00	15.00

Elem	Sn_189	Ti_334	Tl_190	U_3859	V_2924	Zn_213	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	.4071	.5068	1.659	-3.405	.4114	.0922	3.178
SDev	2.671	.1002	3.540	20.881	.2447	.1300	5.382
%RSD	656.0	19.77	213.4	613.3	59.49	141.1	169.3
#1	1.652	.5061	1.234	18.83	.2707	.1783	3.010
#2	2.228	.6073	5.392	-22.60	.2695	.1555	-2.118
#3	-2.659	.4069	-1.650	-6.448	.6940	-.0574	8.643
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass

Value	.0000	.0000	.0000	.0000	.0000	.0000	.0000
Range	10.00	5.000	20.00	50.00	5.000	10.00	150.0
Elem	Si_288	Si02_	Sr_421	Pb1st	Pb2nd	Se1st	Se2nd
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	4.988	10.67	.2580	1.626	7.643	-3.064	.3218
SDev	7.553	16.16	.0868	6.912	3.800	7.280	9.711
%RSD	151.4	151.4	33.64	425.1	49.73	237.6	3018.
#1	7.517	16.08	.3466	7.816	9.561	5.080	4.654
#2	-3.505	-7.496	.2544	-5.833	3.266	-8.940	-10.80
#3	10.95	23.42	.1731	2.896	10.10	-5.332	7.113
Errors	QC Pass	NOCHECK	QC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK
Value	.0000		.0000				
Range	100.0		5.000				
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	15453	--	--	--	--	--	--
SDev	261.2669	--	--	--	--	--	--
%RSD	1.690768	--	--	--	--	--	--
#1	15365	--	--	--	--	--	--
#2	15746	--	--	--	--	--	--
#3	15246	--	--	--	--	--	--

Instrument Tuning Report

File Name: 050509.tun
File Path: C:\elandata\Tuning

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas Peak W
He	3.0	3.0	606	2080	0.638
Be	9.0	9.0	2045	2080	0.665
Mg	24.0	24.0	5689	2100	0.624
Mg	25.0	25.0	5902	2080	0.609
Mg	26.0	26.0	6189	2080	0.649
Co	58.9	58.9	14188	2110	0.653
Rh	102.9	103.0	24909	2145	0.656
In	114.9	114.9	27824	2150	0.672
Ce	139.9	139.9	33920	2175	0.656
Pb	206.0	206.0	50041	2260	0.594
Pb	207.0	207.0	50286	2240	0.645
Pb	208.0	208.0	50505	2250	0.653
U	238.1	238.0	57823	2440	0.620

PJB 5/9/05

Daily Performance Report

Sample ID: Sample
Sample Date/Time: Monday, May 09, 2005 09:56:04
Sample Description:
Method File: c:\elandata\Method\daily2.mth
Dataset File: c:\elandata\Dataset\default\Sample.1432
Tuning File: c:\elandata\Tuning\default2.tun
Optimization File: c:\elandata\Optimize\default.dac
Dual Detector Mode: Pulse
Acq. Dead Time(ns): 35
Current Dead Time (ns): 35

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Be	9.0	2472.2	2472.214	39.199	1.6
	Mg	24.0	26697.1	26697.125	311.559	1.2
	Co	58.9	56277.4	56277.440	517.331	0.9
	Rh	102.9	115068.2	115068.180	726.687	0.6
	In	114.9	160838.6	160838.579	1056.408	0.7
	Pb	208.0	109046.0	109046.012	555.455	0.5
[>	Ba	137.9	140749.3	140749.297	966.032	0.7
[	Ba++	69.0	2794.3	0.020	0.000	1.3
[>	Ce	139.9	175394.4	175394.401	1461.664	0.8
[	CeO	155.9	2856.6	0.016	0.000	1.5
	Bkgd	220.0	2.5	2.500	1.414	56.6

Current Optimization File Data

Current Value	Description
0.90	Nebulizer Gas Flow
7.50	Lens Voltage
1450.00	ICP RF Power
-1812.50	Analog Stage Voltage
1500.00	Pulse Stage Voltage
70.00	Discriminator Threshold
-7.00	AC Rod Offset
60.00	Service DAC 1
0.00	Quadrupole Rod Offset

RJB 5/9/05

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	21	7.0	3812.8
Co	59	21	7.5	58849.3
In	115	21	8.8	166859.5

Li/Th/U - ICV
CRDL Al, U
P - ICSA
P/V/U - ICSAB
Th/U - CCV

ICPMS#3 - Summary Report

Sample ID: Blank
Sample Date/Time: Monday, May 09, 2005 15:22:47
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\050509\Blank.035

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7		ug/L		23	
	Be	9		ug/L		5	
	B	11		ug/L		321	
	Na	23		ug/L		13006	
	Mg	24		ug/L		667	
	Al	27		ug/L		2000	
	P	31		ug/L		4837	
	K	39		ug/L		636975	
	Ca	43		ug/L		223	
>	Sc	45		ug/L		734166	
	Ti	47		ug/L		158	
	V	51		ug/L		29379	
	Cr	52		ug/L		4556	
	Cr	53		ug/L		86676	
	Mn	55		ug/L		1214	
	Fe	57		ug/L		5403	
	Co	59		ug/L		38	
	Ni	60		ug/L		170	
	Cu	63		ug/L		107	
	Cu	65		ug/L		58	
	Zn	66		ug/L		713	
	Zn	67		ug/L		7949	
	Zn	68		ug/L		1414	
>	Ge	74		ug/L		251861	
	As	75		ug/L		652	
	Se	77		ug/L		6066	
	Se	82		ug/L		31	
	Kr	83		ug/L		87	
	Sr	88		ug/L		102	
	Y	89		ug/L		26	
	Zr	90		ug/L		170	
	Mo	98		ug/L		22	
	Ag	107		ug/L		13	
	Cd	111		ug/L		12	
	Cd	114		ug/L		24	
>	In	115		ug/L		164855	
	Sn	120		ug/L		156	
	Sb	121		ug/L		42	
	Sb	123		ug/L		33	
	Ba	135		ug/L		10	
	Ba	137		ug/L		18	
	Ho	165		ug/L		5	
>	Ta	181		ug/L		236219	
	Tl	205		ug/L		185	
	Pb	208		ug/L		693	
	Bi	209		ug/L		35	
	Th	232		ug/L		7	
	U	238		ug/L		4	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	
Be	9	Linear Thru Zero	
B	11	Linear Thru Zero	
Na	23	Linear Thru Zero	
Mg	24	Linear Thru Zero	
Al	27	Linear Thru Zero	
P	31	Linear Thru Zero	
K	39	Linear Thru Zero	
Ca	43	Linear Thru Zero	
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	
V	51	Linear Thru Zero	
Cr	52	Linear Thru Zero	
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	
Fe	57	Linear Thru Zero	
Co	59	Linear Thru Zero	
Ni	60	Linear Thru Zero	
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	
Zn	66	Linear Thru Zero	
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	
Mo	98	Linear Thru Zero	
Ag	107	Linear Thru Zero	
Cd	111	Linear Thru Zero	
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	
Sb	121	Linear Thru Zero	
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	
Ho	165	Linear Thru Zero	
Ta	181	Linear Thru Zero	
Tl	205	Linear Thru Zero	
Pb	208	Linear Thru Zero	
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	
U	238	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Li	7					
Be	9					
B	11					
Na	23					
Mg	24					
Al	27					
P	31					
K	39					
Ca	43					
> Sc	45					
Ti	47					
V	51					
Cr	52					
Cr	53					
Mn	55					
Fe	57					
Co	59					
Ni	60					
Cu	63					
Cu	65					
Zn	66					
Zn	67					
Zn	68					
> Ge	74					
As	75					
Se	77					
Se	82					
Kr	83					
Sr	88					
Y	89					
Zr	90					
Mo	98					
Ag	107					
Cd	111					
Cd	114					
> In	115					
Sn	120					
Sb	121					
Sb	123					
Ba	135					
Ba	137					
Ho	165					
> Ta	181					
Tl	205					
Pb	208					
Bi	209					
Th	232					
U	238					

QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Monday, May 09, 2005 15:29:24
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\050509\Standard 1.036

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	10.000	ug/L	1.777	9378	0.013
	Be	9	10.000	ug/L	3.023	3143	0.004
	B	11	20.000	ug/L	3.675	6173	0.008
	Na	23	1000.000	ug/L	8.272	2748548	3.750
	Mg	24	1000.000	ug/L	1.393	1889169	2.589
	Al	27	1000.000	ug/L	4.085	3037690	4.163
	P	31	1000.000	ug/L	0.326	190213	0.254
	K	39	1000.000	ug/L	3.554	4864727	5.799
	Ca	43	1000.000	ug/L	0.507	8708	0.012
>	Sc	45		ug/L		729588	729588.077
	Ti	47	10.000	ug/L	3.040	4306	0.006
	V	51	10.000	ug/L	4.298	70563	0.057
	Cr	52	10.000	ug/L	0.462	43060	0.053
	Cr	53		ug/L		89371	0.004
	Mn	55	10.000	ug/L	1.523	66258	0.089
	Fe	57	1000.000	ug/L	2.467	128689	0.169
	Co	59	10.000	ug/L	2.836	42777	0.059
	Ni	60	10.000	ug/L	3.134	8873	0.012
	Cu	63		ug/L		20223	0.028
	Cu	65	10.000	ug/L	0.670	9560	0.013
	Zn	66	10.000	ug/L	0.440	7677	0.027
	Zn	67		ug/L		9250	0.004
	Zn	68		ug/L		6591	0.020
>	Ge	74		ug/L		258065	258065.295
	As	75	10.000	ug/L	1.652	8900	0.032
	Se	77		ug/L		6406	0.001
	Se	82	10.000	ug/L	2.451	795	0.003
	Kr	83		ug/L		81	-0.000
	Sr	88	10.000	ug/L	0.613	95054	0.564
	Y	89		ug/L		48	0.000
	Zr	90	10.000	ug/L	1.299	52064	0.308
	Mo	98	10.000	ug/L	1.228	23213	0.138
	Ag	107	10.000	ug/L	1.878	38385	0.228
	Cd	111	10.000	ug/L	3.464	9804	0.058
	Cd	114		ug/L		23429	0.139
>	In	115		ug/L		168232	168231.867
	Sn	120	10.000	ug/L	2.305	41219	0.244
	Sb	121	10.000	ug/L	2.691	38433	0.228
	Sb	123		ug/L		29605	0.176
	Ba	135		ug/L		9829	0.040
	Ba	137	10.000	ug/L	0.382	17248	0.070
	Ho	165		ug/L		3	-0.000
>	Ta	181		ug/L		245528	245527.646
	Tl	205	10.000	ug/L	2.430	116102	0.472
	Pb	208	10.000	ug/L	0.439	168852	0.685
	Bi	209		ug/L		47	0.000
	Th	232	10.000	ug/L	88.365	11070	0.045
	U	238	10.000	ug/L	42.872	14435	0.059

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Ta	181	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45					
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115					
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Ta	181					
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Monday, May 09, 2005 15:35:58
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\050509\Standard 2.037

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	100.017	ug/L	1.971	95122	0.131
	Be	9	99.978	ug/L	1.212	30649	0.042
	B	11	199.974	ug/L	2.932	58031	0.079
	Na	23	9994.017	ug/L	6.750	25770886	35.360
	Mg	24	9999.460	ug/L	5.234	18756841	25.748
	Al	27	9989.235	ug/L	3.549	27347934	37.540
	P	31	9994.770	ug/L	1.473	1763096	2.414
	K	39	9996.949	ug/L	5.790	41613215	56.259
	Ca	43	9998.237	ug/L	1.594	83462	0.114
>	Sc	45		ug/L		728443	728442.717
	Ti	47	99.977	ug/L	0.987	40638	0.056
	V	51	99.986	ug/L	1.009	436258	0.559
	Cr	52	99.964	ug/L	1.024	375755	0.510
	Cr	53		ug/L		119726	0.046
	Mn	55	99.966	ug/L	0.328	629363	0.862
	Fe	57	9995.293	ug/L	1.633	1180982	1.614
	Co	59	99.968	ug/L	1.304	413438	0.568
	Ni	60	99.979	ug/L	1.190	85308	0.117
	Cu	63		ug/L		192451	0.264
	Cu	65	99.968	ug/L	0.202	91945	0.126
	Zn	66	100.005	ug/L	0.536	69796	0.271
	Zn	67		ug/L		18686	0.042
	Zn	68		ug/L		53122	0.203
>	Ge	74		ug/L		255214	255213.562
	As	75	99.980	ug/L	0.425	80493	0.313
	Se	77		ug/L		10397	0.017
	Se	82	100.014	ug/L	2.365	7691	0.030
	Kr	83		ug/L		95	0.000
	Sr	88	99.977	ug/L	0.580	927350	5.513
	Y	89		ug/L		210	0.001
	Zr	90	99.959	ug/L	0.862	498329	2.962
	Mo	98	99.969	ug/L	2.013	224756	1.336
	Ag	107	99.990	ug/L	1.015	379738	2.258
	Cd	111	100.012	ug/L	1.561	99161	0.590
	Cd	114		ug/L		232516	1.382
>	In	115		ug/L		168188	168188.344
	Sn	120	99.994	ug/L	1.124	408461	2.428
	Sb	121	99.985	ug/L	1.101	378094	2.248
	Sb	123		ug/L		292145	1.737
	Ba	135		ug/L		95954	0.377
	Ba	137	99.942	ug/L	4.906	168805	0.663
	Ho	165		ug/L		6	0.000
>	Ta	181		ug/L		255131	255131.230
	Tl	205	99.947	ug/L	4.566	1142156	4.483
	Pb	208	99.941	ug/L	4.767	1646305	6.460
	Bi	209		ug/L		177	0.001
	Th	232	100.182	ug/L	91.862	145241	0.556
	U	238	99.109	ug/L	82.790	78326	0.309

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	0.9999
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Ta	181	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9998
U	238	Linear Thru Zero	0.9961

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Li	7					
Be	9					
B	11					
Na	23					
Mg	24					
Al	27					
P	31					
K	39					
Ca	43					
> Sc	45					
Ti	47					
V	51					
Cr	52					
Cr	53					
Mn	55					
Fe	57					
Co	59					
Ni	60					
Cu	63					
Cu	65					
Zn	66					
Zn	67					
Zn	68					
> Ge	74					
As	75					
Se	77					
Se	82					
Kr	83					
Sr	88					
Y	89					
Zr	90					
Mo	98					
Ag	107					
Cd	111					
Cd	114					
> In	115					
Sn	120					
Sb	121					
Sb	123					
Ba	135					
Ba	137					
Ho	165					
> Ta	181					
Tl	205					
Pb	208					
Bi	209					
Th	232					
U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Monday, May 09, 2005 15:41:37
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\050509\QC Std 1.038

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	44.359	ug/L	0.628	43209	0.058
	Be	9	48.340	ug/L	1.244	15177	0.020
	B	11	102.793	ug/L	2.448	30699	0.041
	Na	23	5065.232	ug/L	1.978	13379039	17.921
	Mg	24	4959.692	ug/L	6.991	9529977	12.771
	Al	27	5522.432	ug/L	2.116	15482047	20.754
	P	31	5012.474	ug/L	1.375	907800	1.211
	K	39	5213.883	ug/L	0.912	22532610	29.342
	Ca	43	5050.037	ug/L	0.886	43279	0.058
>	Sc	45		ug/L		745877	745877.474
	Ti	47	48.049	ug/L	0.442	20082	0.027
	V	51	46.313	ug/L	2.122	222909	0.259
	Cr	52	47.796	ug/L	2.113	186352	0.244
	Cr	53		ug/L		74698	-0.018
	Mn	55	48.303	ug/L	0.564	312013	0.417
	Fe	57	4933.791	ug/L	1.238	599634	0.797
	Co	59	49.013	ug/L	1.016	207561	0.278
	Ni	60	48.743	ug/L	1.416	42671	0.057
	Cu	63		ug/L		97783	0.131
	Cu	65	48.785	ug/L	0.785	45972	0.062
	Zn	66	51.539	ug/L	1.826	36154	0.139
	Zn	67		ug/L		11142	0.012
	Zn	68		ug/L		26757	0.100
>	Ge	74		ug/L		254091	254090.729
	As	75	47.812	ug/L	0.571	38667	0.150
	Se	77		ug/L		5013	-0.004
	Se	82	50.624	ug/L	3.445	3891	0.015
	Kr	83		ug/L		84	-0.000
	Sr	88	49.573	ug/L	0.859	472813	2.734
	Y	89		ug/L		196	0.001
	Zr	90	47.135	ug/L	3.247	241672	1.397
	Mo	98	49.280	ug/L	0.591	113932	0.659
	Ag	107	48.838	ug/L	0.725	190699	1.103
	Cd	111	48.199	ug/L	0.409	49142	0.284
	Cd	114		ug/L		117947	0.682
>	In	115		ug/L		172918	172918.094
	Sn	120	48.062	ug/L	1.325	201923	1.167
	Sb	121	47.355	ug/L	1.951	184125	1.065
	Sb	123		ug/L		140972	0.815
	Ba	135		ug/L		47509	0.187
	Ba	137	50.206	ug/L	1.503	84461	0.333
	Ho	165		ug/L		14	0.000
>	Ta	181		ug/L		253728	253727.613
	Tl	205	48.314	ug/L	1.117	549941	2.167
	Pb	208	50.269	ug/L	1.840	825034	3.249
	Bi	209		ug/L		84	0.000
	Th	232	69.542	ug/L	29.287	98185	0.386
	U	238	57.925	ug/L	90.936	45554	0.180

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	0.9999
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Ta	181	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9998
U	238	Linear Thru Zero	0.9961

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Li	7	88.718				
Be	9	96.681				
B	11	102.793				
Na	23	101.305				
Mg	24	99.194				
Al	27	109.355				
P	31	100.249				
K	39	104.278				
Ca	43	101.001				
> Sc	45		101.6			
Ti	47	96.097				
V	51	92.627				
Cr	52	95.591				
Cr	53					
Mn	55	96.607				
Fe	57	98.676				
Co	59	98.025				
Ni	60	97.485				
Cu	63					
Cu	65	97.569				
Zn	66	103.078				
Zn	67					
Zn	68					
> Ge	74		100.9			
As	75	95.623				
Se	77					
Se	82	101.248				
Kr	83					
Sr	88	99.146				
Y	89					
Zr	90	94.269				
Mo	98	98.561				
Ag	107	97.677				
Cd	111	96.397				
Cd	114					
> In	115		104.9			
Sn	120	96.125				
Sb	121	94.709				
Sb	123					
Ba	135					
Ba	137	100.413				
Ho	165					
> Ta	181		107.4			
Tl	205	96.627				
Pb	208	100.537				
Bi	209					
Th	232	139.084				
U	238	115.850				

QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
QC Std 1	Li	7ICV is out of limits (+/- 10%)
QC Std 1	Th	232ICV is out of limits (+/- 10%)
QC Std 1	U	238ICV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#3 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Monday, May 09, 2005 15:46:49
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\050509\QC Std 2.039

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	0.025	ug/L	28.608	44	0.000
	Be	9	-0.003	ug/L	220.504	4	-0.000
	B	11	8.416	ug/L	20.600	2650	0.003
	Na	23	0.744	ug/L	75.310	14341	0.003
	Mg	24	0.197	ug/L	274.520	1000	0.001
	Al	27	0.682	ug/L	176.673	3667	0.003
	P	31	-1.219	ug/L	104.137	4431	-0.000
	K	39	1.808	ug/L	411.593	618098	0.010
	Ca	43	0.377	ug/L	400.380	217	0.000
>	Sc	45		ug/L		704594	704594.025
	Ti	47	0.006	ug/L	348.022	154	0.000
	V	51	-0.889	ug/L	34.777	24673	-0.005
	Cr	52	-0.143	ug/L	16.158	3858	-0.001
	Cr	53		ug/L		67359	-0.022
	Mn	55	0.010	ug/L	97.002	1228	0.000
	Fe	57	0.835	ug/L	232.241	5276	0.000
	Co	59	0.013	ug/L	29.115	88	0.000
	Ni	60	-0.020	ug/L	11.577	147	-0.000
	Cu	63		ug/L		122	0.000
	Cu	65	0.011	ug/L	105.912	65	0.000
	Zn	66	-0.420	ug/L	9.685	412	-0.001
	Zn	67		ug/L		6431	-0.005
	Zn	68		ug/L		1038	-0.001
>	Ge	74		ug/L		243540	243540.102
	As	75	-0.124	ug/L	274.667	538	-0.000
	Se	77		ug/L		4429	-0.006
	Se	82	-0.320	ug/L	102.599	6	-0.000
	Kr	83		ug/L		81	-0.000
	Sr	88	0.003	ug/L	84.192	130	0.000
	Y	89		ug/L		23	-0.000
	Zr	90	0.629	ug/L	16.024	3209	0.019
	Mo	98	0.074	ug/L	21.775	184	0.001
	Ag	107	0.018	ug/L	28.644	80	0.000
	Cd	111	0.005	ug/L	82.105	16	0.000
	Cd	114		ug/L		21	-0.000
>	In	115		ug/L		163393	163393.459
	Sn	120	0.130	ug/L	16.837	667	0.003
	Sb	121	0.301	ug/L	29.223	1144	0.007
	Sb	123		ug/L		916	0.005
	Ba	135		ug/L		17	0.000
	Ba	137	0.007	ug/L	28.097	29	0.000
	Ho	165		ug/L		2	-0.000
>	Ta	181		ug/L		237476	237476.292
	Tl	205	0.028	ug/L	23.667	488	0.001
	Pb	208	0.020	ug/L	36.334	1000	0.001
	Bi	209		ug/L		23	-0.000
	Th	232	0.129	ug/L	35.849	177	0.001
	U	238	0.008	ug/L	135.683	10	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	0.9999
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Ta	181	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9998
U	238	Linear Thru Zero	0.9961

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		96.0			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		96.7			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		99.1			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Ta	181		100.5			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Monday, May 09, 2005 15:52:00
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\050509\QC Std 3.040

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	18.491	ug/L	2.142	17497	0.024
	Be	9	0.361	ug/L	23.799	115	0.000
	B	11	32.538	ug/L	3.301	9649	0.013
	Na	23	497.748	ug/L	1.620	1287882	1.761
	Mg	24	23.663	ug/L	9.594	44737	0.061
	Al	27	40.169	ug/L	16.084	111103	0.151
	P	31	100.101	ug/L	1.467	22275	0.024
	K	39	612.672	ug/L	4.029	3123947	3.448
	Ca	43	210.792	ug/L	6.682	1966	0.002
>	Sc	45		ug/L		724159	724158.740
	Ti	47	15.892	ug/L	1.989	6551	0.009
	V	51	17.755	ug/L	5.244	100823	0.099
	Cr	52	5.267	ug/L	2.234	23938	0.027
	Cr	53		ug/L		50827	-0.048
	Mn	55	10.070	ug/L	3.834	64076	0.087
	Fe	57	53.843	ug/L	7.119	11621	0.009
	Co	59	2.019	ug/L	2.799	8335	0.011
	Ni	60	4.045	ug/L	3.870	3592	0.005
	Cu	63		ug/L		4266	0.006
	Cu	65	2.164	ug/L	1.536	2034	0.003
	Zn	66	19.829	ug/L	1.714	14270	0.054
	Zn	67		ug/L		7148	-0.003
	Zn	68		ug/L		11022	0.038
>	Ge	74		ug/L		252606	252605.644
	As	75	5.657	ug/L	4.648	5126	0.018
	Se	77		ug/L		2647	-0.014
	Se	82	9.705	ug/L	3.418	767	0.003
	Kr	83		ug/L		90	0.000
	Sr	88	20.169	ug/L	1.084	187212	1.112
	Y	89		ug/L		226	0.001
	Zr	90	2.052	ug/L	2.567	10399	0.061
	Mo	98	0.980	ug/L	2.371	2226	0.013
	Ag	107	2.036	ug/L	2.919	7745	0.046
	Cd	111	1.948	ug/L	1.561	1944	0.011
	Cd	114		ug/L		4650	0.027
>	In	115		ug/L		168244	168244.448
	Sn	120	3.728	ug/L	1.279	15385	0.091
	Sb	121	3.534	ug/L	1.336	13413	0.079
	Sb	123		ug/L		10176	0.060
	Ba	135		ug/L		3745	0.015
	Ba	137	4.088	ug/L	1.938	6552	0.027
	Ho	165		ug/L		14	0.000
>	Ta	181		ug/L		241110	241110.116
	Tl	205	1.021	ug/L	1.189	11227	0.046
	Pb	208	4.197	ug/L	1.528	66106	0.271
	Bi	209		ug/L		93	0.000
	Th	232	2.243	ug/L	67.108	3032	0.012
	U	238	0.560	ug/L	57.882	423	0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	0.9999
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Ta	181	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9998
U	238	Linear Thru Zero	0.9961

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7	92.455				
	Be	9	90.282				
	B	11	108.460				
	Na	23	99.550				
	Mg	24	118.317				
	Al	27	133.896				
	P	31	100.101				
	K	39	102.112				
	Ca	43	105.396				
>	Sc	45		98.6			
	Ti	47	79.458				
	V	51	88.777				
	Cr	52	87.785				
	Cr	53					
	Mn	55	100.697				
	Fe	57	107.686				
	Co	59	100.941				
	Ni	60	101.134				
	Cu	63					
	Cu	65	108.193				
	Zn	66	99.145				
	Zn	67					
	Zn	68					
>	Ge	74		100.3			
	As	75	94.286				
	Se	77					
	Se	82	97.052				
	Kr	83					
	Sr	88	100.847				
	Y	89					
	Zr	90	102.584				
	Mo	98	97.996				
	Ag	107	101.799				
	Cd	111	97.405				
	Cd	114					
>	In	115		102.1			
	Sn	120	93.211				
	Sb	121	88.359				
	Sb	123					
	Ba	135					
	Ba	137	102.203				
	Ho	165					
>	Ta	181		102.1			
	Tl	205	102.084				
	Pb	208	104.928				
	Bi	209					
	Th	232	112.144				
	U	238	139.904				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 3	Al	27	CRDL is out of limits
QC Std 3	U	238	CRDL is out of limits

QC Action

ICPMS#3 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Monday, May 09, 2005 15:57:10
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\050509\QC Std 4.041

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	0.588	ug/L	2.798	543	0.001
	Be	9	0.006	ug/L	146.842	7	0.000
	B	11	6.348	ug/L	6.464	2007	0.003
	Na	23	95591.058	ug/L	3.079	229942810	338.208
	Mg	24	99515.141	ug/L	3.797	174237007	256.244
	Al	27	98355.010	ug/L	2.816	251340535	369.627
	P	31	72973.920	ug/L	1.669	11986499	17.623
	K	39	96837.217	ug/L	1.439	371114219	544.965
	Ca	43	98649.446	ug/L	0.763	766821	1.127
>	Sc	45		ug/L		679980	679979.702
	Ti	47	1757.319	ug/L	0.295	664374	0.977
	V	51	-3.502	ug/L	5.824	13903	-0.020
	Cr	52	1.174	ug/L	5.471	8288	0.006
	Cr	53		ug/L		37018	-0.064
	Mn	55	2.963	ug/L	1.132	18508	0.026
	Fe	57	96270.802	ug/L	0.635	10574207	15.544
	Co	59	0.301	ug/L	6.264	1196	0.002
	Ni	60	1.395	ug/L	0.747	1266	0.002
	Cu	63		ug/L		3415	0.005
	Cu	65	2.708	ug/L	2.124	2378	0.003
	Zn	66	7.909	ug/L	0.883	6015	0.021
	Zn	67		ug/L		4600	-0.013
	Zn	68		ug/L		3743	0.009
>	Ge	74		ug/L		248196	248196.443
	As	75	-0.051	ug/L	339.541	602	-0.000
	Se	77		ug/L		2711	-0.013
	Se	82	-0.875	ug/L	49.689	-35	-0.000
	Kr	83		ug/L		144	0.000
	Sr	88	1.986	ug/L	0.915	17878	0.110
	Y	89		ug/L		515	0.003
	Zr	90	1.288	ug/L	39.156	6362	0.038
	Mo	98	2008.460	ug/L	1.449	4358390	26.848
	Ag	107	0.053	ug/L	7.721	208	0.001
	Cd	111	0.240	ug/L	14.907	241	0.001
	Cd	114		ug/L		4113	0.025
>	In	115		ug/L		162344	162343.851
	Sn	120	0.210	ug/L	3.958	981	0.005
	Sb	121	0.686	ug/L	2.568	2545	0.015
	Sb	123		ug/L		1949	0.012
	Ba	135		ug/L		434	0.002
	Ba	137	0.410	ug/L	4.453	683	0.003
	Ho	165		ug/L		37	0.000
>	Ta	181		ug/L		244910	244910.138
	Tl	205	0.024	ug/L	12.838	454	0.001
	Pb	208	0.509	ug/L	3.465	8774	0.033
	Bi	209		ug/L		2778	0.011
	Th	232	0.068	ug/L	55.458	100	0.000
	U	238	0.026	ug/L	45.125	25	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	0.9999
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Ta	181	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9998
U	238	Linear Thru Zero	0.9961

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11	317.404				
	Na	23	95.591				
	Mg	24	99.535				
	Al	27	98.355				
	P	31	72.981				
	K	39	96.837				
	Ca	43	98.649				
>	Sc	45		92.6			
	Ti	47	87.866				
	V	51	-175.105				
	Cr	52	27.947				
	Cr	53					
	Mn	55	155.968				
	Fe	57	96.271				
	Co	59					
	Ni	60	99.608				
	Cu	63					
	Cu	65	142.536				
	Zn	66	141.241				
	Zn	67					
	Zn	68					
>	Ge	74		98.5			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88	68.474				
	Y	89					
	Zr	90					
	Mo	98	100.423				
	Ag	107	17.752				
	Cd	111					
	Cd	114					
>	In	115		98.5			
	Sn	120	6.564				
	Sb	121	29.833				
	Sb	123					
	Ba	135					
	Ba	137	204.768				
	Ho	165					
>	Ta	181		103.7			
	Tl	205					
	Pb	208	63.619				
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
QC Std 4	P	31ICSA is out of limits

QC Action

QC Action Line: Continue

ICPMS#3 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Monday, May 09, 2005 16:02:21
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\050509\QC Std 5.042

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	22.314	ug/L	3.583	19253	0.029
	Be	9	21.433	ug/L	3.308	5961	0.009
	B	11	25.423	ug/L	1.627	6942	0.010
	Na	23	96863.285	ug/L	2.318	226451270	342.709
	Mg	24	102931.446	ug/L	1.696	175126879	265.041
	Al	27	106763.307	ug/L	2.375	265107522	401.226
	P	31	74055.927	ug/L	0.841	11818903	17.885
	K	39	99586.054	ug/L	1.848	370735917	560.434
	Ca	43	98027.809	ug/L	1.077	740264	1.120
>	Sc	45		ug/L		660634	660633.745
	Ti	47	1756.922	ug/L	0.581	645305	0.977
	V	51	16.784	ug/L	5.439	88370	0.094
	Cr	52	21.205	ug/L	2.187	75498	0.108
	Cr	53		ug/L		41532	-0.055
	Mn	55	23.287	ug/L	3.679	133741	0.201
	Fe	57	99780.348	ug/L	2.869	10644562	16.111
	Co	59	21.010	ug/L	2.713	78805	0.119
	Ni	60	21.348	ug/L	1.978	16640	0.025
	Cu	63		ug/L		38523	0.058
	Cu	65	22.710	ug/L	1.047	18984	0.029
	Zn	66	25.086	ug/L	1.468	17465	0.068
	Zn	67		ug/L		5983	-0.007
	Zn	68		ug/L		12088	0.043
>	Ge	74		ug/L		246946	246945.917
	As	75	20.488	ug/L	1.838	16465	0.064
	Se	77		ug/L		3750	-0.009
	Se	82	18.746	ug/L	5.841	1418	0.006
	Kr	83		ug/L		148	0.000
	Sr	88	22.263	ug/L	1.281	198791	1.228
	Y	89		ug/L		519	0.003
	Zr	90	21.548	ug/L	2.302	103498	0.639
	Mo	98	2017.327	ug/L	1.786	4363984	26.967
	Ag	107	19.237	ug/L	0.998	70312	0.434
	Cd	111	19.317	ug/L	1.649	18440	0.114
	Cd	114		ug/L		47249	0.292
>	In	115		ug/L		161858	161857.680
	Sn	120	20.263	ug/L	3.086	79752	0.492
	Sb	121	20.946	ug/L	2.007	76243	0.471
	Sb	123		ug/L		58823	0.363
	Ba	135		ug/L		19258	0.078
	Ba	137	20.873	ug/L	1.277	34140	0.138
	Ho	165		ug/L		33	0.000
>	Ta	181		ug/L		246609	246608.792
	Tl	205	18.549	ug/L	0.997	205325	0.832
	Pb	208	19.860	ug/L	1.075	317239	1.284
	Bi	209		ug/L		2702	0.011
	Th	232	17.249	ug/L	97.016	23289	0.096
	U	238	38.321	ug/L	28.912	29372	0.119

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	0.9999
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Ta	181	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9998
U	238	Linear Thru Zero	0.9961

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7	111.568				
	Be	9	107.165				
	B	11	115.559				
	Na	23	96.863				
	Mg	24	102.952				
	Al	27	106.763				
	P	31	74.063				
	K	39	99.586				
	Ca	43	98.028				
>	Sc	45			90.0		
	Ti	47	87.846				
	V	51	76.289				
	Cr	52	87.623				
	Cr	53					
	Mn	55	106.333				
	Fe	57	99.780				
	Co	59	105.051				
	Ni	60	99.756				
	Cu	63					
	Cu	65	103.697				
	Zn	66	97.991				
	Zn	67					
	Zn	68					
>	Ge	74			98.0		
	As	75	102.442				
	Se	77					
	Se	82	93.728				
	Kr	83					
	Sr	88	97.219				
	Y	89					
	Zr	90	107.742				
	Mo	98	100.866				
	Ag	107	95.233				
	Cd	111	96.585				
	Cd	114					
>	In	115			98.2		
	Sn	120	87.341				
	Sb	121	93.927				
	Sb	123					
	Ba	135					
	Ba	137	103.333				
	Ho	165					
>	Ta	181			104.4		
	Tl	205	92.747				
	Pb	208	95.481				
	Bi	209					
	Th	232	86.246				
	U	238	191.607				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 5	P	31	ICSAB is out of limits
QC Std 5	V	51	ICSAB is out of limits
QC Std 5	U	238	ICSAB is out of limits

ICPMS#3 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Monday, May 09, 2005 16:07:31
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\050509\QC Std 6.043

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	51.497	ug/L	4.110	46516	0.067
	Be	9	53.151	ug/L	1.748	15478	0.022
	B	11	99.395	ug/L	1.901	27549	0.039
	Na	23	5240.048	ug/L	4.764	12833486	18.540
	Mg	24	5306.524	ug/L	6.162	9454894	13.664
	Al	27	5309.370	ug/L	4.869	13819311	19.953
	P	31	4948.904	ug/L	2.033	831493	1.195
	K	39	5285.182	ug/L	1.698	21181954	29.743
	Ca	43	4956.641	ug/L	0.988	39409	0.057
>	Sc	45		ug/L		692035	692034.907
	Ti	47	49.097	ug/L	2.334	19030	0.027
	V	51	46.032	ug/L	3.728	205656	0.257
	Cr	52	49.291	ug/L	2.463	178134	0.251
	Cr	53		ug/L		54779	-0.039
	Mn	55	48.983	ug/L	1.036	293514	0.423
	Fe	57	5021.759	ug/L	1.344	566107	0.811
	Co	59	49.791	ug/L	1.642	195608	0.283
	Ni	60	49.778	ug/L	2.052	40423	0.058
	Cu	63		ug/L		92456	0.133
	Cu	65	50.232	ug/L	0.611	43915	0.063
	Zn	66	49.103	ug/L	1.964	33839	0.133
	Zn	67		ug/L		8791	0.004
	Zn	68		ug/L		25472	0.097
>	Ge	74		ug/L		249404	249403.921
	As	75	48.663	ug/L	2.303	38616	0.152
	Se	77		ug/L		4367	-0.007
	Se	82	50.175	ug/L	1.261	3786	0.015
	Kr	83		ug/L		80	-0.000
	Sr	88	49.181	ug/L	1.645	454155	2.712
	Y	89		ug/L		183	0.001
	Zr	90	47.514	ug/L	2.593	235922	1.408
	Mo	98	51.172	ug/L	1.011	114548	0.684
	Ag	107	49.312	ug/L	1.048	186427	1.113
	Cd	111	47.999	ug/L	2.868	47383	0.283
	Cd	114		ug/L		112779	0.673
>	In	115		ug/L		167423	167422.519
	Sn	120	48.740	ug/L	0.701	198264	1.183
	Sb	121	48.837	ug/L	0.622	183861	1.098
	Sb	123		ug/L		140868	0.841
	Ba	135		ug/L		46959	0.192
	Ba	137	51.247	ug/L	2.350	82970	0.340
	Ho	165		ug/L		18	0.000
>	Ta	181		ug/L		244187	244186.712
	Tl	205	48.500	ug/L	2.001	531243	2.175
	Pb	208	51.337	ug/L	1.365	810861	3.318
	Bi	209		ug/L		75	0.000
	Th	232	67.599	ug/L	42.115	91954	0.375
	U	238	77.978	ug/L	61.977	59337	0.243

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	0.9999
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Ta	181	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9998
U	238	Linear Thru Zero	0.9961

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Li	7	102.994				
Be	9	106.302				
B	11	99.395				
Na	23	104.801				
Mg	24	106.130				
Al	27	105.136				
P	31	98.978				
K	39	105.704				
Ca	43	99.133				
> Sc	45		94.3			
Ti	47	98.194				
V	51	92.065				
Cr	52	98.582				
Cr	53					
Mn	55	97.965				
Fe	57	100.435				
Co	59	99.582				
Ni	60	99.556				
Cu	63					
Cu	65	100.464				
Zn	66	98.206				
Zn	67					
Zn	68					
> Ge	74		99.0			
As	75	97.325				
Se	77					
Se	82	100.350				
Kr	83					
Sr	88	98.362				
Y	89					
Zr	90	95.028				
Mo	98	102.345				
Ag	107	98.624				
Cd	111	95.997				
Cd	114					
> In	115		101.6			
Sn	120	97.481				
Sb	121	97.675				
Sb	123					
Ba	135					
Ba	137	102.495				
Ho	165					
> Ta	181		103.4			
Tl	205	97.000				
Pb	208	102.674				
Bi	209					
Th	232	135.198				
U	238	155.956				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 6	Th	232	CCV is out of limits (+/- 10%)
QC Std 6	U	238	CCV is out of limits (+/- 10%)

QC Action

ICPMS#3 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Monday, May 09, 2005 16:12:43
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\050509\QC Std 7.044

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	0.035	ug/L	34.932	52	0.000
	Be	9	0.003	ug/L	285.640	6	0.000
	B	11	5.658	ug/L	16.781	1815	0.002
	Na	23	7.773	ug/L	26.207	30700	0.028
	Mg	24	1.168	ug/L	54.271	2667	0.003
	Al	27	2.403	ug/L	57.376	8003	0.009
	P	31	-1.414	ug/L	123.417	4239	-0.000
	K	39	3.907	ug/L	110.888	603490	0.022
	Ca	43	4.035	ug/L	106.284	237	0.000
>	Sc	45		ug/L		678413	678412.732
	Ti	47	0.012	ug/L	170.266	150	0.000
	V	51	-1.832	ug/L	8.157	20197	-0.010
	Cr	52	-0.202	ug/L	5.592	3511	-0.001
	Cr	53		ug/L		57341	-0.034
	Mn	55	0.011	ug/L	146.775	1185	0.000
	Fe	57	2.299	ug/L	69.617	5243	0.000
	Co	59	0.010	ug/L	30.725	74	0.000
	Ni	60	-0.047	ug/L	46.071	119	-0.000
	Cu	63		ug/L		114	0.000
	Cu	65	0.046	ug/L	25.215	93	0.000
	Zn	66	-0.467	ug/L	0.599	376	-0.001
	Zn	67		ug/L		5098	-0.010
	Zn	68		ug/L		794	-0.002
>	Ge	74		ug/L		240181	240181.293
	As	75	0.035	ug/L	498.406	650	0.000
	Se	77		ug/L		3918	-0.008
	Se	82	0.227	ug/L	73.847	46	0.000
	Kr	83		ug/L		83	0.000
	Sr	88	0.004	ug/L	91.614	134	0.000
	Y	89		ug/L		19	-0.000
	Zr	90	0.621	ug/L	13.121	3098	0.018
	Mo	98	0.281	ug/L	11.567	619	0.004
	Ag	107	0.017	ug/L	38.249	73	0.000
	Cd	111	0.016	ug/L	32.867	27	0.000
	Cd	114		ug/L		29	0.000
>	In	115		ug/L		159463	159463.109
	Sn	120	0.138	ug/L	26.764	685	0.003
	Sb	121	0.254	ug/L	26.326	951	0.006
	Sb	123		ug/L		724	0.004
	Ba	135		ug/L		23	0.000
	Ba	137	0.004	ug/L	97.398	24	0.000
	Ho	165		ug/L		3	-0.000
>	Ta	181		ug/L		233713	233713.076
	Tl	205	0.011	ug/L	25.504	299	0.000
	Pb	208	0.028	ug/L	44.297	1107	0.002
	Bi	209		ug/L		25	-0.000
	Th	232	0.092	ug/L	28.144	127	0.001
	U	238	0.010	ug/L	78.939	11	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	0.9999
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Ta	181	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9998
U	238	Linear Thru Zero	0.9961

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Li	7					
Be	9					
B	11					
Na	23					
Mg	24					
Al	27					
P	31					
K	39					
Ca	43					
> Sc	45		92.4			
Ti	47					
V	51					
Cr	52					
Cr	53					
Mn	55					
Fe	57					
Co	59					
Ni	60					
Cu	63					
Cu	65					
Zn	66					
Zn	67					
Zn	68					
> Ge	74		95.4			
As	75					
Se	77					
Se	82					
Kr	83					
Sr	88					
Y	89					
Zr	90					
Mo	98					
Ag	107					
Cd	111					
Cd	114					
> In	115		96.7			
Sn	120					
Sb	121					
Sb	123					
Ba	135					
Ba	137					
Ho	165					
> Ta	181		98.9			
Tl	205					
Pb	208					
Bi	209					
Th	232					
U	238					

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

U

Sample ID: QC Std 6
Sample Date/Time: Monday, May 09, 2005 16:56:48
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\050509\QC Std 6.052

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	47.326	ug/L	3.766	44675	0.062
	Be	9	50.230	ug/L	2.986	15284	0.021
	B	11	99.536	ug/L	2.435	28825	0.039
	Na	23	4947.002	ug/L	3.595	12664624	17.503
	Mg	24	5376.718	ug/L	4.013	10011064	13.845
	Al	27	5385.704	ug/L	7.172	14627424	20.240
	P	31	4945.483	ug/L	0.827	868340	1.194
	K	39	5099.790	ug/L	9.780	21385882	28.700
	Ca	43	4958.693	ug/L	0.632	41201	0.057
>	Sc	45		ug/L		723129	723128.861
	Ti	47	48.121	ug/L	0.982	19496	0.027
	V	51	47.959	ug/L	4.005	222685	0.268
	Cr	52	48.736	ug/L	2.519	184098	0.248
	Cr	53		ug/L		89666	0.006
	Mn	55	48.834	ug/L	3.036	305698	0.421
	Fe	57	4967.886	ug/L	3.519	585105	0.802
	Co	59	49.238	ug/L	2.200	202108	0.280
	Ni	60	49.315	ug/L	1.130	41851	0.058
	Cu	63		ug/L		94489	0.131
	Cu	65	49.550	ug/L	2.429	45256	0.063
	Zn	66	49.992	ug/L	1.511	35136	0.135
	Zn	67		ug/L		12182	0.016
	Zn	68		ug/L		26582	0.099
>	Ge	74		ug/L		254385	254385.203
	As	75	48.059	ug/L	0.758	38907	0.150
	Se	77		ug/L		6564	0.002
	Se	82	48.943	ug/L	1.635	3767	0.015
	Kr	83		ug/L		90	0.000
	Sr	88	49.879	ug/L	1.609	460942	2.751
	Y	89		ug/L		180	0.001
	Zr	90	47.569	ug/L	3.760	236281	1.410
	Mo	98	49.770	ug/L	1.544	111484	0.665
	Ag	107	49.404	ug/L	0.914	186929	1.116
	Cd	111	48.275	ug/L	1.307	47690	0.285
	Cd	114		ug/L		114272	0.682
>	In	115		ug/L		167556	167556.166
	Sn	120	48.795	ug/L	2.146	198612	1.185
	Sb	121	47.227	ug/L	3.756	177890	1.062
	Sb	123		ug/L		137368	0.820
	Ba	135		ug/L		46352	0.190
	Ba	137	50.585	ug/L	1.347	81638	0.335
	Ho	165		ug/L		16	0.000
>	Ta	181		ug/L		243389	243388.668
	Tl	205	48.373	ug/L	1.720	528172	2.170
	Pb	208	50.700	ug/L	1.544	798246	3.277
	Bi	209		ug/L		83	0.000
	Th	232	49.496	ug/L	63.141	66678	0.275
	U	238	87.308	ug/L	50.127	66370	0.272

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	0.9999
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Ta	181	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9998
U	238	Linear Thru Zero	0.9961

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Li	7	94.651				
Be	9	100.459				
B	11	99.536				
Na	23	98.940				
Mg	24	107.534				
Al	27	106.648				
P	31	98.910				
K	39	101.996				
Ca	43	99.174				
> Sc	45		98.5			
Ti	47	96.241				
V	51	95.918				
Cr	52	97.471				
Cr	53					
Mn	55	97.668				
Fe	57	99.358				
Co	59	98.475				
Ni	60	98.629				
Cu	63					
Cu	65	99.101				
Zn	66	99.983				
Zn	67					
Zn	68					
> Ge	74		101.0			
As	75	96.119				
Se	77					
Se	82	97.886				
Kr	83					
Sr	88	99.758				
Y	89					
Zr	90	95.137				
Mo	98	99.540				
Ag	107	98.809				
Cd	111	96.551				
Cd	114					
> In	115		101.6			
Sn	120	97.590				
Sb	121	94.455				
Sb	123					
Ba	135					
Ba	137	101.170				
Ho	165					
> Ta	181		103.0			
Tl	205	96.746				
Pb	208	101.399				
Bi	209					
Th	232	98.991				
U	238	174.615				

QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
QC Std 6	U	238CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#3 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Monday, May 09, 2005 17:01:59
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\050509\QC Std 7.053

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	0.025	ug/L	17.287	44	0.000
	Be	9	-0.001	ug/L	563.852	5	-0.000
	B	11	6.937	ug/L	14.415	2196	0.003
	Na	23	6.896	ug/L	9.741	29030	0.024
	Mg	24	0.214	ug/L	458.663	1000	0.001
	Al	27	1.334	ug/L	60.363	5334	0.005
	P	31	-1.730	ug/L	59.399	4254	-0.000
	K	39	3.329	ug/L	164.058	610790	0.019
	Ca	43	1.908	ug/L	54.003	225	0.000
>	Sc	45		ug/L		689252	689251.700
	Ti	47	-0.010	ug/L	378.057	144	-0.000
	V	51	-0.888	ug/L	80.155	24149	-0.005
	Cr	52	0.248	ug/L	18.043	5148	0.001
	Cr	53		ug/L		80005	-0.002
	Mn	55	-0.008	ug/L	26.467	1093	-0.000
	Fe	57	4.137	ug/L	30.381	5532	0.001
	Co	59	0.011	ug/L	9.543	77	0.000
	Ni	60	-0.041	ug/L	5.962	126	-0.000
	Cu	63		ug/L		105	0.000
	Cu	65	0.015	ug/L	26.997	67	0.000
	Zn	66	-0.420	ug/L	12.759	412	-0.001
	Zn	67		ug/L		7193	-0.002
	Zn	68		ug/L		1073	-0.001
>	Ge	74		ug/L		243133	243132.931
	As	75	-0.335	ug/L	59.634	374	-0.001
	Se	77		ug/L		6074	0.001
	Se	82	-0.323	ug/L	32.221	6	-0.000
	Kr	83		ug/L		86	0.000
	Sr	88	0.004	ug/L	55.088	138	0.000
	Y	89		ug/L		25	-0.000
	Zr	90	0.639	ug/L	11.606	3209	0.019
	Mo	98	0.082	ug/L	21.652	197	0.001
	Ag	107	0.015	ug/L	50.073	68	0.000
	Cd	111	0.007	ug/L	75.398	18	0.000
	Cd	114		ug/L		22	-0.000
>	In	115		ug/L		160939	160939.406
	Sn	120	0.130	ug/L	24.150	659	0.003
	Sb	121	0.250	ug/L	24.435	943	0.006
	Sb	123		ug/L		715	0.004
	Ba	135		ug/L		18	0.000
	Ba	137	0.006	ug/L	69.019	26	0.000
	Ho	165		ug/L		3	-0.000
>	Ta	181		ug/L		230961	230960.585
	Tl	205	0.050	ug/L	4.243	695	0.002
	Pb	208	-0.007	ug/L	46.300	573	-0.000
	Bi	209		ug/L		25	-0.000
	Th	232	0.082	ug/L	68.264	113	0.000
	U	238	0.003	ug/L	137.219	6	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	0.9999
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Ta	181	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9998
U	238	Linear Thru Zero	0.9961

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45					
	Ti	47		93.9			
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74					
	As	75		96.5			
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115					
	Sn	120		97.6			
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Ta	181					
	Tl	205		97.8			
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Monday, May 09, 2005 17:39:07
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\050509\QC Std 6.060

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	49.779	ug/L	4.307	46013	0.065
	Be	9	51.498	ug/L	3.275	15344	0.022
	B	11	100.276	ug/L	2.005	28437	0.040
	Na	23	5019.276	ug/L	1.112	12586688	17.759
	Mg	24	5244.907	ug/L	1.379	9563347	13.505
	Al	27	5507.673	ug/L	3.010	14656493	20.698
	P	31	5011.310	ug/L	0.662	861490	1.210
	K	39	5423.241	ug/L	12.824	22204552	30.520
	Ca	43	4987.976	ug/L	0.738	40578	0.057
>	Sc	45		ug/L		708009	708008.767
	Ti	47	48.311	ug/L	0.544	19166	0.027
	V	51	48.366	ug/L	1.965	219716	0.270
	Cr	52	49.427	ug/L	2.382	182778	0.252
	Cr	53		ug/L		84744	0.002
	Mn	55	49.557	ug/L	2.775	303780	0.427
	Fe	57	5016.662	ug/L	1.678	578645	0.810
	Co	59	49.437	ug/L	1.765	198720	0.281
	Ni	60	49.200	ug/L	1.414	40883	0.058
	Cu	63		ug/L		93226	0.132
	Cu	65	49.549	ug/L	0.621	44320	0.063
	Zn	66	49.208	ug/L	0.993	34354	0.133
	Zn	67		ug/L		11486	0.014
	Zn	68		ug/L		26281	0.098
>	Ge	74		ug/L		252597	252597.171
	As	75	47.699	ug/L	1.208	38347	0.149
	Se	77		ug/L		6408	0.001
	Se	82	49.019	ug/L	4.998	3747	0.015
	Kr	83		ug/L		104	0.000
	Sr	88	49.596	ug/L	0.674	456717	2.735
	Y	89		ug/L		192	0.001
	Zr	90	47.186	ug/L	1.746	233649	1.398
	Mo	98	49.689	ug/L	0.891	110912	0.664
	Ag	107	49.022	ug/L	2.543	184785	1.107
	Cd	111	47.646	ug/L	1.626	46899	0.281
	Cd	114		ug/L		114044	0.683
>	In	115		ug/L		166961	166960.526
	Sn	120	48.330	ug/L	0.604	196049	1.173
	Sb	121	47.920	ug/L	1.030	179904	1.077
	Sb	123		ug/L		138481	0.829
	Ba	135		ug/L		46587	0.193
	Ba	137	51.279	ug/L	0.932	82135	0.340
	Ho	165		ug/L		15	0.000
>	Ta	181		ug/L		241545	241544.995
	Tl	205	48.722	ug/L	1.643	527991	2.185
	Pb	208	50.796	ug/L	0.968	793745	3.283
	Bi	209		ug/L		73	0.000
	Th	232	50.838	ug/L	58.991	68172	0.282
	U	238	86.335	ug/L	64.837	65040	0.269

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	0.9999
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Ta	181	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9998
U	238	Linear Thru Zero	0.9961

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7	99.559				
	Be	9	102.995				
	B	11	100.276				
	Na	23	100.386				
	Mg	24	104.898				
	Al	27	109.063				
	P	31	100.226				
	K	39	108.465				
	Ca	43	99.760				
>	Sc	45			96.4		
	Ti	47	96.623				
	V	51	96.732				
	Cr	52	98.853				
	Cr	53					
	Mn	55	99.113				
	Fe	57	100.333				
	Co	59	98.874				
	Ni	60	98.400				
	Cu	63					
	Cu	65	99.097				
	Zn	66	98.416				
	Zn	67					
	Zn	68					
>	Ge	74			100.3		
	As	75	95.398				
	Se	77					
	Se	82	98.038				
	Kr	83					
	Sr	88	99.193				
	Y	89					
	Zr	90	94.372				
	Mo	98	99.377				
	Ag	107	98.044				
	Cd	111	95.293				
	Cd	114					
>	In	115			101.3		
	Sn	120	96.661				
	Sb	121	95.840				
	Sb	123					
	Ba	135					
	Ba	137	102.558				
	Ho	165					
>	Ta	181			102.3		
	Tl	205	97.444				
	Pb	208	101.592				
	Bi	209					
	Th	232	101.676				
	U	238	172.670				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 6	U	238	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#3 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Monday, May 09, 2005 17:44:18
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\050509\QC Std 7.061

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	0.024	ug/L	16.110	43	0.000
	Be	9	-0.002	ug/L	99.392	4	-0.000
	B	11	6.275	ug/L	14.012	1993	0.002
	Na	23	3.155	ug/L	98.996	19682	0.011
	Mg	24	0.601	ug/L	145.778	1667	0.002
	Al	27	1.352	ug/L	71.437	5334	0.005
	P	31	-2.492	ug/L	46.886	4082	-0.001
	K	39	0.773	ug/L	258.489	594451	0.004
	Ca	43	0.183	ug/L	3332.413	209	0.000
>	Sc	45		ug/L		681747	681747.494
	Ti	47	0.029	ug/L	179.145	157	0.000
	V	51	-0.063	ug/L	1617.697	27037	-0.000
	Cr	52	0.267	ug/L	5.629	5157	0.001
	Cr	53		ug/L		79584	-0.001
	Mn	55	-0.007	ug/L	127.291	1084	-0.000
	Fe	57	3.051	ug/L	34.671	5353	0.000
	Co	59	0.007	ug/L	3.245	64	0.000
	Ni	60	-0.033	ug/L	43.566	131	-0.000
	Cu	63		ug/L		127	0.000
	Cu	65	0.006	ug/L	229.596	59	0.000
	Zn	66	-0.470	ug/L	9.843	382	-0.001
	Zn	67		ug/L		6714	-0.004
	Zn	68		ug/L		1029	-0.001
>	Ge	74		ug/L		245037	245036.847
	As	75	0.437	ug/L	100.160	972	0.001
	Se	77		ug/L		6181	0.001
	Se	82	-0.237	ug/L	51.786	12	-0.000
	Kr	83		ug/L		85	0.000
	Sr	88	0.003	ug/L	87.228	120	0.000
	Y	89		ug/L		26	0.000
	Zr	90	0.654	ug/L	13.122	3200	0.019
	Mo	98	0.068	ug/L	18.642	163	0.001
	Ag	107	0.015	ug/L	26.158	64	0.000
	Cd	111	-0.001	ug/L	280.273	10	-0.000
	Cd	114		ug/L		17	-0.000
>	In	115		ug/L		156942	156941.670
	Sn	120	0.127	ug/L	22.005	633	0.003
	Sb	121	0.250	ug/L	27.839	921	0.006
	Sb	123		ug/L		702	0.004
	Ba	135		ug/L		14	0.000
	Ba	137	0.006	ug/L	88.954	27	0.000
	Ho	165		ug/L		4	-0.000
>	Ta	181		ug/L		235313	235312.705
	Tl	205	0.030	ug/L	3.921	497	0.001
	Pb	208	-0.004	ug/L	91.997	625	-0.000
	Bi	209		ug/L		23	-0.000
	Th	232	0.098	ug/L	51.063	135	0.001
	U	238	0.007	ug/L	66.168	10	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	0.9999
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Ta	181	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9998
U	238	Linear Thru Zero	0.9961

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45			92.9		
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74			97.3		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115			95.2		
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Ta	181			99.6		
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: 1200839930
Sample Date/Time: Monday, May 09, 2005 17:49:33
Sample Type:
Sample Description: LANL 6020 SOIL MB
Number of Replicates: 3
Batch ID: 422817|2|prb
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\050509\1200839930.062

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	0.021	ug/L	19.009	40	0.000
	Be	9	-0.005	ug/L	227.377	4	-0.000
	B	11	3.209	ug/L	12.260	1181	0.001
	Na	23	6.179	ug/L	55.464	27361	0.022
	Mg	24	1.148	ug/L	113.219	2667	0.003
	Al	27	1.711	ug/L	84.960	6335	0.006
	P	31	20.495	ug/L	13.460	7975	0.005
	K	39	-5.383	ug/L	241.960	578889	-0.030
	Ca	43	15.148	ug/L	22.999	330	0.000
>	Sc	45		ug/L		691245	691245.156
	Ti	47	0.219	ug/L	44.539	233	0.000
	V	51	-0.486	ug/L	248.462	25777	-0.003
	Cr	52	1.879	ug/L	5.448	10911	0.010
	Cr	53		ug/L		70862	-0.016
	Mn	55	0.251	ug/L	8.061	2641	0.002
	Fe	57	15.381	ug/L	7.648	6804	0.002
	Co	59	0.012	ug/L	10.981	83	0.000
	Ni	60	0.159	ug/L	27.637	288	0.000
	Cu	63		ug/L		902	0.001
	Cu	65	0.449	ug/L	0.650	447	0.001
	Zn	66	0.276	ug/L	25.765	885	0.001
	Zn	67		ug/L		6404	-0.006
	Zn	68		ug/L		1382	-0.000
>	Ge	74		ug/L		247264	247263.985
	As	75	0.189	ug/L	33.925	786	0.001
	Se	77		ug/L		5062	-0.004
	Se	82	-0.410	ug/L	77.490	-0	-0.000
	Kr	83		ug/L		89	0.000
	Sr	88	0.021	ug/L	4.517	287	0.001
	Y	89		ug/L		34	0.000
	Zr	90	1.214	ug/L	32.840	5892	0.036
	Mo	98	0.046	ug/L	18.051	120	0.001
	Ag	107	0.011	ug/L	27.713	50	0.000
	Cd	111	0.012	ug/L	69.513	23	0.000
	Cd	114		ug/L		23	-0.000
>	In	115		ug/L		160094	160093.890
	Sn	120	0.072	ug/L	18.357	429	0.002
	Sb	121	0.071	ug/L	14.991	294	0.002
	Sb	123		ug/L		236	0.001
	Ba	135		ug/L		35	0.000
	Ba	137	0.032	ug/L	30.092	67	0.000
	Ho	165		ug/L		2	-0.000
>	Ta	181		ug/L		236545	236544.678
	Tl	205	0.035	ug/L	5.172	554	0.002
	Pb	208	0.057	ug/L	18.092	1564	0.004
	Bi	209		ug/L		71	0.000
	Th	232	0.064	ug/L	28.567	91	0.000
	U	238	0.018	ug/L	88.299	18	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	0.9999
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Ta	181	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9998
U	238	Linear Thru Zero	0.9961

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45			94.2		
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74			98.2		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115			97.1		
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Ta	181			100.1		
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: 1200839931
Sample Date/Time: Monday, May 09, 2005 17:54:48
Sample Type:
Sample Description: LANL 6020 SOIL LCS
Number of Replicates: 3
Batch ID: 422817|5|prb
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\050509\1200839931.063

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	15.576	ug/L	1.204	14807	0.020
	Be	9	166.876	ug/L	0.690	51068	0.070
	B	11	117.693	ug/L	3.048	34224	0.047
	Na	23	652.059	ug/L	4.839	1690577	2.307
	Mg	24	4419.443	ug/L	5.038	8275813	11.380
	Al	27	15727.121	ug/L	9.348	42975325	59.104
	P	31	878.003	ug/L	1.632	158981	0.212
	K	39	4002.241	ug/L	2.987	17008811	22.523
	Ca	43	6932.095	ug/L	2.294	57834	0.079
>	Sc	45		ug/L		727196	727195.950
	Ti	47	501.194	ug/L	0.562	202749	0.279
	V	51	323.136	ug/L	0.953	1342564	1.806
	Cr	52	171.304	ug/L	0.682	639593	0.873
	Cr	53		ug/L		143018	0.079
	Mn	55	910.470	ug/L	0.473	5712571	7.854
	Fe	57	21368.461	ug/L	1.097	2514302	3.450
	Co	59	170.205	ug/L	0.952	702673	0.966
	Ni	60	182.116	ug/L	1.948	154983	0.213
	Cu	63		ug/L		519483	0.714
	Cu	65	273.319	ug/L	0.400	250854	0.345
	Zn	66	590.082	ug/L	1.006	399025	1.597
	Zn	67		ug/L		70243	0.250
	Zn	68		ug/L		300394	1.199
>	Ge	74		ug/L		249430	249429.547
	As	75	407.931	ug/L	1.198	318978	1.276
	Se	77		ug/L		18297	0.049
	Se	82	245.180	ug/L	1.136	18385	0.074
	Kr	83		ug/L		147	0.000
	Sr	88	171.680	ug/L	0.670	1561973	9.467
	Y	89		ug/L		261524	1.585
	Zr	90	14.541	ug/L	1.778	71242	0.431
	Mo	98	171.374	ug/L	2.439	377860	2.291
	Ag	107	136.343	ug/L	2.116	507822	3.079
	Cd	111	145.131	ug/L	1.907	141126	0.856
	Cd	114		ug/L		338975	2.055
>	In	115		ug/L		164966	164966.292
	Sn	120	63.440	ug/L	1.689	254221	1.540
	Sb	121	49.638	ug/L	1.232	184124	1.116
	Sb	123		ug/L		143757	0.871
	Ba	135		ug/L		782402	3.224
	Ba	137	837.543	ug/L	1.901	1347589	5.553
	Ho	165		ug/L		17855	0.074
>	Ta	181		ug/L		242678	242678.310
	Tl	205	221.827	ug/L	1.054	2414505	9.949
	Pb	208	210.344	ug/L	0.926	3300082	13.596
	Bi	209		ug/L		7451	0.031
	Th	232	30.820	ug/L	24.432	41554	0.171
	U	238	5.136	ug/L	62.278	3882	0.016

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	0.9999
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Ta	181	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9998
U	238	Linear Thru Zero	0.9961

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		99.1			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		99.0			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		100.1			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Ta	181		102.7			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type Analyte	Mass	Out of Limits Message
Ti 47 Upper, S, EEE Ti	47	Sample is out of limits (over linear range)

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: 135803001
Sample Date/Time: Monday, May 09, 2005 18:00:04
Sample Type:
Sample Description: LANL 6020 SOIL
Number of Replicates: 3
Batch ID: 422817|2|prb
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\050509\135803001.064

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	33.652	ug/L	1.486	32276	0.044
	Be	9	3.099	ug/L	2.052	963	0.001
	B	11	14.649	ug/L	4.469	4582	0.006
	Na	23	595.317	ug/L	6.565	1559597	2.106
	Mg	24	4326.664	ug/L	1.609	8181264	11.141
	Al	27	42341.212	ug/L	5.925	116833350	159.122
	P	31	207.576	ug/L	2.397	41648	0.050
	K	39	4198.682	ug/L	5.487	17990031	23.629
	Ca	43	6850.894	ug/L	1.319	57718	0.078
>	Sc	45		ug/L		734281	734281.496
	Ti	47	386.829	ug/L	1.073	158047	0.215
	V	51	32.575	ug/L	6.478	163081	0.182
	Cr	52	24.456	ug/L	4.588	96103	0.125
	Cr	53		ug/L		69090	-0.024
	Mn	55	635.359	ug/L	1.837	4025461	5.481
	Fe	57	26554.102	ug/L	0.483	3153605	4.288
	Co	59	6.505	ug/L	1.222	27153	0.037
	Ni	60	29.763	ug/L	1.511	25718	0.035
	Cu	63		ug/L		40905	0.056
	Cu	65	21.180	ug/L	2.495	19682	0.027
	Zn	66	232.906	ug/L	0.540	158999	0.630
	Zn	67		ug/L		30508	0.090
	Zn	68		ug/L		120012	0.472
>	Ge	74		ug/L		251120	251119.509
	As	75	5.746	ug/L	6.203	5164	0.018
	Se	77		ug/L		3906	-0.009
	Se	82	0.551	ug/L	38.543	72	0.000
	Kr	83		ug/L		159	0.000
	Sr	88	59.610	ug/L	1.414	545397	3.287
	Y	89		ug/L		509860	3.073
	Zr	90	66.991	ug/L	1.063	329464	1.985
	Mo	98	3.142	ug/L	1.162	6988	0.042
	Ag	107	0.326	ug/L	1.745	1233	0.007
	Cd	111	10.362	ug/L	2.026	10144	0.061
	Cd	114		ug/L		22289	0.134
>	In	115		ug/L		165889	165889.304
	Sn	120	0.331	ug/L	1.357	1488	0.008
	Sb	121	0.667	ug/L	3.139	2530	0.015
	Sb	123		ug/L		1963	0.012
	Ba	135		ug/L		256777	1.069
	Ba	137	282.862	ug/L	0.221	450244	1.875
	Ho	165		ug/L		36882	0.154
>	Ta	181		ug/L		240084	240083.545
	Tl	205	0.521	ug/L	4.219	5793	0.023
	Pb	208	125.769	ug/L	1.677	1952130	8.129
	Bi	209		ug/L		6880	0.029
	Th	232	25.445	ug/L	51.313	33774	0.141
	U	238	2.969	ug/L	71.656	2238	0.009

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	0.9999
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Ta	181	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9998
U	238	Linear Thru Zero	0.9961

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		100.0			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		99.7			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		100.6			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Ta	181		101.6			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type Analyte	Mass	Out of Limits Message
Ti 47 Upper, S, EEETI	47	Sample is out of limits (over linear range)_

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: 1200839932
Sample Date/Time: Monday, May 09, 2005 18:05:19
Sample Type:
Sample Description: LANL 6020 SOIL DUP
Number of Replicates: 3
Batch ID: 422817|2|prb
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\050509\1200839932.065

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	32.609	ug/L	3.370	31246	0.043
	Be	9	3.019	ug/L	2.103	937	0.001
	B	11	11.102	ug/L	1.899	3548	0.004
	Na	23	588.250	ug/L	7.425	1539182	2.081
	Mg	24	4254.859	ug/L	6.876	8039441	10.956
	Al	27	40924.130	ug/L	9.578	112926502	153.796
	P	31	209.115	ug/L	1.721	41889	0.051
	K	39	4057.860	ug/L	4.615	17390068	22.836
	Ca	43	8220.131	ug/L	0.618	69158	0.094
>	Sc	45		ug/L		733775	733775.123
	Ti	47	409.105	ug/L	1.336	167004	0.227
	V	51	37.471	ug/L	3.237	183005	0.209
	Cr	52	19.795	ug/L	3.260	78581	0.101
	Cr	53		ug/L		63602	-0.031
	Mn	55	1567.460	ug/L	1.938	9920989	13.521
	Fe	57	28036.123	ug/L	2.456	3326656	4.527
	Co	59	11.629	ug/L	1.166	48477	0.066
	Ni	60	42.364	ug/L	1.836	36515	0.050
	Cu	63		ug/L		40863	0.056
	Cu	65	21.562	ug/L	0.685	20022	0.027
	Zn	66	214.245	ug/L	1.064	147865	0.580
	Zn	67		ug/L		29102	0.083
	Zn	68		ug/L		112236	0.437
>	Ge	74		ug/L		253793	253793.288
	As	75	8.008	ug/L	9.086	7011	0.025
	Se	77		ug/L		3582	-0.010
	Se	82	0.953	ug/L	62.920	103	0.000
	Kr	83		ug/L		152	0.000
	Sr	88	60.692	ug/L	0.931	557118	3.347
	Y	89		ug/L		484148	2.909
	Zr	90	67.508	ug/L	0.486	333072	2.000
	Mo	98	3.157	ug/L	2.891	7043	0.042
	Ag	107	0.280	ug/L	2.110	1065	0.006
	Cd	111	2.682	ug/L	2.626	2643	0.016
	Cd	114		ug/L		3981	0.024
>	In	115		ug/L		166426	166425.535
	Sn	120	0.319	ug/L	5.510	1445	0.008
	Sb	121	0.517	ug/L	1.433	1977	0.012
	Sb	123		ug/L		1519	0.009
	Ba	135		ug/L		363066	1.488
	Ba	137	392.035	ug/L	0.321	634074	2.599
	Ho	165		ug/L		36338	0.149
>	Ta	181		ug/L		243956	243955.628
	Tl	205	0.675	ug/L	0.231	7578	0.030
	Pb	208	104.048	ug/L	0.832	1641467	6.725
	Bi	209		ug/L		7175	0.029
	Th	232	20.976	ug/L	67.211	28561	0.116
	U	238	2.751	ug/L	57.830	2087	0.009

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	0.9999
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Ta	181	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9998
U	238	Linear Thru Zero	0.9961

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		99.9			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		100.8			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		101.0			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Ta	181		103.3			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Ti 47 Upper, S, EEE	Ti	47	Sample is out of limits (over linear range)_

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: 1200839933
Sample Date/Time: Monday, May 09, 2005 18:10:33
Sample Type:
Sample Description: LANL 6020 SOIL MS
Number of Replicates: 3
Batch ID: 422817|2|prb
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\050509\1200839933.066

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	63.261	ug/L	4.681	61192	0.083
	Be	9	27.065	ug/L	4.016	8442	0.011
	B	11	61.847	ug/L	2.411	18484	0.025
	Na	23	1635.965	ug/L	3.090	4302075	5.788
	Mg	24	5982.303	ug/L	7.668	11432079	15.404
	Al	27	55296.534	ug/L	2.541	154041423	207.809
	P	31	1062.276	ug/L	0.749	195060	0.257
	K	39	6193.078	ug/L	8.756	26481137	34.852
	Ca	43	7869.516	ug/L	0.853	66903	0.090
>	Sc	45		ug/L		741407	741407.170
	Ti	47	462.248	ug/L	2.042	190584	0.257
	V	51	56.864	ug/L	3.045	265198	0.318
	Cr	52	44.553	ug/L	3.151	172909	0.227
	Cr	53		ug/L		75165	-0.017
	Mn	55	552.123	ug/L	2.908	3530486	4.763
	Fe	57	26679.666	ug/L	3.362	3197328	4.308
	Co	59	28.517	ug/L	3.298	119989	0.162
	Ni	60	53.965	ug/L	1.740	46938	0.063
	Cu	63		ug/L		85891	0.116
	Cu	65	43.380	ug/L	1.975	40629	0.055
	Zn	66	293.435	ug/L	0.945	199722	0.794
	Zn	67		ug/L		36704	0.115
	Zn	68		ug/L		149994	0.593
>	Ge	74		ug/L		250614	250613.848
	As	75	22.970	ug/L	0.764	18660	0.072
	Se	77		ug/L		3829	-0.009
	Se	82	5.102	ug/L	3.826	414	0.002
	Kr	83		ug/L		143	0.000
	Sr	88	83.241	ug/L	1.196	764072	4.590
	Y	89		ug/L		353848	2.126
	Zr	90	99.749	ug/L	0.734	492125	2.956
	Mo	98	24.755	ug/L	2.043	55091	0.331
	Ag	107	23.310	ug/L	1.382	87610	0.526
	Cd	111	5.265	ug/L	5.142	5178	0.031
	Cd	114		ug/L		9873	0.059
>	In	115		ug/L		166452	166452.220
	Sn	120	7.365	ug/L	1.653	29915	0.179
	Sb	121	10.679	ug/L	1.486	39997	0.240
	Sb	123		ug/L		30830	0.185
	Ba	135		ug/L		224270	0.929
	Ba	137	245.079	ug/L	0.955	392331	1.625
	Ho	165		ug/L		24321	0.101
>	Ta	181		ug/L		241476	241476.276
	Tl	205	23.091	ug/L	1.805	250238	1.036
	Pb	208	154.462	ug/L	1.600	2411233	9.984
	Bi	209		ug/L		6853	0.028
	Th	232	33.025	ug/L	85.287	44279	0.183
	U	238	33.174	ug/L	95.948	24784	0.103

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	0.9999
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Ta	181	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9998
U	238	Linear Thru Zero	0.9961

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		101.0			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		99.5			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		101.0			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Ta	181		102.2			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type Analyte	MassOut of Limits Message
Ti 47 Upper, S, EEETI	47Sample is out of limits (over linear range)_

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID:1200839949
Sample Date/Time: Monday, May 09, 2005 18:15:48
Sample Type:
Sample Description: LANL 6020 SOIL MSD
Number of Replicates: 3
Batch ID: 422817|2|prb
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\050509\1200839949.067

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	64.121	ug/L	3.183	62049	0.084
	Be	9	26.137	ug/L	2.892	8156	0.011
	B	11	64.320	ug/L	0.100	19215	0.025
	Na	23	1623.031	ug/L	7.247	4273499	5.742
	Mg	24	6399.848	ug/L	4.497	12216279	16.479
	Al	27	57166.161	ug/L	2.251	159250554	214.835
	P	31	1084.757	ug/L	0.599	199081	0.262
	K	39	6056.813	ug/L	1.367	25913684	34.086
	Ca	43	13681.573	ug/L	0.478	116142	0.156
>	Sc	45		ug/L		741337	741336.928
	Ti	47	509.462	ug/L	1.082	210082	0.283
	V	51	55.891	ug/L	3.926	261195	0.312
	Cr	52	46.436	ug/L	2.434	180074	0.237
	Cr	53		ug/L		75693	-0.016
	Mn	55	532.916	ug/L	2.281	3408354	4.597
	Fe	57	26534.476	ug/L	1.980	3180959	4.284
	Co	59	28.445	ug/L	1.169	119739	0.161
	Ni	60	49.669	ug/L	0.729	43218	0.058
	Cu	63		ug/L		123532	0.166
	Cu	65	62.846	ug/L	2.074	58834	0.079
	Zn	66	346.926	ug/L	1.736	240041	0.939
	Zn	67		ug/L		43126	0.138
	Zn	68		ug/L		182055	0.709
>	Ge	74		ug/L		254914	254914.211
	As	75	22.400	ug/L	1.185	18524	0.070
	Se	77		ug/L		3923	-0.009
	Se	82	4.807	ug/L	17.368	399	0.001
	Kr	83		ug/L		146	0.000
	Sr	88	88.397	ug/L	1.207	809244	4.875
	Y	89		ug/L		366779	2.210
	Zr	90	101.635	ug/L	1.459	500056	3.012
	Mo	98	23.231	ug/L	1.531	51569	0.311
	Ag	107	23.105	ug/L	0.435	86615	0.522
	Cd	111	4.898	ug/L	1.197	4804	0.029
	Cd	114		ug/L		8972	0.054
>	In	115		ug/L		166006	166006.351
	Sn	120	7.354	ug/L	0.958	29794	0.179
	Sb	121	10.539	ug/L	1.053	39372	0.237
	Sb	123		ug/L		30641	0.184
	Ba	135		ug/L		277389	1.150
	Ba	137	303.378	ug/L	0.553	485275	2.011
	Ho	165		ug/L		25883	0.107
>	Ta	181		ug/L		241262	241262.368
	Tl	205	22.623	ug/L	0.211	244980	1.015
	Pb	208	154.180	ug/L	1.628	2404975	9.966
	Bi	209		ug/L		6510	0.027
	Th	232	37.699	ug/L	91.596	50742	0.209
	U	238	27.296	ug/L	86.435	20466	0.085

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	0.9999
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Ta	181	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9998
U	238	Linear Thru Zero	0.9961

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45			101.0		
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74			101.2		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115			100.7		
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Ta	181			102.1		
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Ti 47 Upper, S, EEETi		47	Sample is out of limits (over linear range)

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: 1200839934
Sample Date/Time: Monday, May 09, 2005 18:21:03
Sample Type:
Sample Description: LANL 6020 SOIL SDILT
Number of Replicates: 3
Batch ID: 422817|10|prb
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\050509\1200839934.068

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	6.876	ug/L	3.830	6359	0.009
	Be	9	0.611	ug/L	2.615	187	0.000
	B	11	5.686	ug/L	10.673	1898	0.002
	Na	23	114.787	ug/L	8.193	299107	0.406
	Mg	24	869.731	ug/L	5.312	1582155	2.239
	Al	27	8149.515	ug/L	1.347	21630099	30.627
	P	31	44.100	ug/L	3.141	12174	0.011
	K	39	915.205	ug/L	9.084	4252942	5.150
	Ca	43	1407.320	ug/L	0.408	11574	0.016
>	Sc	45		ug/L		706232	706231.697
	Ti	47	78.458	ug/L	1.463	30948	0.044
	V	51	5.601	ug/L	4.316	50366	0.031
	Cr	52	4.841	ug/L	1.364	21809	0.025
	Cr	53		ug/L		68104	-0.022
	Mn	55	125.662	ug/L	1.823	766637	1.084
	Fe	57	5214.432	ug/L	1.713	599743	0.842
	Co	59	1.265	ug/L	1.545	5109	0.007
	Ni	60	6.251	ug/L	1.770	5323	0.007
	Cu	63		ug/L		9225	0.013
	Cu	65	4.981	ug/L	0.588	4494	0.006
	Zn	66	46.702	ug/L	0.731	31841	0.126
	Zn	67		ug/L		11203	0.014
	Zn	68		ug/L		24643	0.094
>	Ge	74		ug/L		246396	246396.263
	As	75	1.627	ug/L	10.234	1892	0.005
	Se	77		ug/L		4644	-0.005
	Se	82	1.537	ug/L	28.106	144	0.000
	Kr	83		ug/L		76	-0.000
	Sr	88	11.439	ug/L	1.314	101854	0.631
	Y	89		ug/L		97518	0.605
	Zr	90	13.006	ug/L	2.350	62323	0.385
	Mo	98	0.617	ug/L	6.395	1352	0.008
	Ag	107	0.058	ug/L	15.682	224	0.001
	Cd	111	2.044	ug/L	4.376	1955	0.012
	Cd	114		ug/L		4320	0.027
>	In	115		ug/L		161334	161333.696
	Sn	120	0.063	ug/L	8.686	398	0.002
	Sb	121	0.130	ug/L	3.638	511	0.003
	Sb	123		ug/L		393	0.002
	Ba	135		ug/L		49027	0.209
	Ba	137	55.264	ug/L	1.335	86062	0.366
	Ho	165		ug/L		6942	0.030
>	Ta	181		ug/L		234865	234864.689
	Tl	205	0.115	ug/L	4.649	1394	0.005
	Pb	208	24.774	ug/L	0.180	376777	1.601
	Bi	209		ug/L		1310	0.005
	Th	232	3.491	ug/L	85.736	4583	0.019
	U	238	0.395	ug/L	94.081	292	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	0.9999
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Ta	181	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9998
U	238	Linear Thru Zero	0.9961

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		96.2			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		97.8			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		97.9			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Ta	181		99.4			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

iCPMS#3 - Summary Report

Sample ID: 135803002
Sample Date/Time: Monday, May 09, 2005 18:26:19
Sample Type:
Sample Description: LANL 6020 SOIL
Number of Replicates: 3
Batch ID: 422817|2|prb
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\050509\135803002.069

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	31.032	ug/L	2.810	29076	0.041
	Be	9	3.070	ug/L	5.695	932	0.001
	B	11	8.565	ug/L	2.192	2748	0.003
	Na	23	612.698	ug/L	3.772	1567590	2.168
	Mg	24	4121.597	ug/L	2.133	7613970	10.613
	Al	27	36303.381	ug/L	3.829	97857233	136.431
	P	31	83.982	ug/L	1.558	19276	0.020
	K	39	3862.530	ug/L	2.941	16213785	21.737
	Ca	43	4318.308	ug/L	1.635	35620	0.049
>	Sc	45		ug/L		717341	717340.830
	Ti	47	323.571	ug/L	1.694	129170	0.180
	V	51	21.995	ug/L	2.303	116901	0.123
	Cr	52	12.869	ug/L	2.037	51517	0.066
	Cr	53		ug/L		61051	-0.033
	Mn	55	225.728	ug/L	2.014	1397948	1.947
	Fe	57	17617.443	ug/L	2.296	2045811	2.845
	Co	59	3.183	ug/L	1.289	12998	0.018
	Ni	60	21.420	ug/L	0.752	18129	0.025
	Cu	63		ug/L		23075	0.032
	Cu	65	12.339	ug/L	2.455	11224	0.016
	Zn	66	73.753	ug/L	1.164	50921	0.200
	Zn	67		ug/L		13644	0.023
	Zn	68		ug/L		39840	0.153
>	Ge	74		ug/L		251553	251553.378
	As	75	3.370	ug/L	17.366	3304	0.011
	Se	77		ug/L		3564	-0.010
	Se	82	0.684	ug/L	41.020	82	0.000
	Kr	83		ug/L		131	0.000
	Sr	88	45.451	ug/L	1.664	408565	2.506
	Y	89		ug/L		318753	1.956
	Zr	90	57.466	ug/L	0.453	277703	1.703
	Mo	98	0.801	ug/L	3.674	1766	0.011
	Ag	107	0.208	ug/L	2.834	777	0.005
	Cd	111	0.791	ug/L	7.083	771	0.005
	Cd	114		ug/L		324	0.002
>	In	115		ug/L		162980	162980.492
	Sn	120	0.236	ug/L	0.650	1086	0.006
	Sb	121	0.075	ug/L	2.806	315	0.002
	Sb	123		ug/L		248	0.001
	Ba	135		ug/L		145380	0.613
	Ba	137	161.404	ug/L	0.633	253927	1.070
	Ho	165		ug/L		21635	0.091
>	Ta	181		ug/L		237300	237300.158
	Tl	205	0.371	ug/L	3.446	4138	0.017
	Pb	208	23.358	ug/L	2.184	358869	1.510
	Bi	209		ug/L		6005	0.025
	Th	232	21.518	ug/L	35.167	28378	0.119
	U	238	1.346	ug/L	92.728	1011	0.004

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	0.9999
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Ta	181	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9998
U	238	Linear Thru Zero	0.9961

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		97.7			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		99.9			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		98.9			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Ta	181		100.5			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type Analyte	Mass	Out of Limits Message
Ti 47 Upper, S, EEETi	47	Sample is out of limits (over linear range)_

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: 135803003
Sample Date/Time: Monday, May 09, 2005 18:31:35
Sample Type:
Sample Description: LANL 6020 SOIL
Number of Replicates: 3
Batch ID: 422817|2|prb
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\050509\135803003.070

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	34.791	ug/L	3.294	32510	0.045
	Be	9	2.635	ug/L	9.576	797	0.001
	B	11	7.867	ug/L	5.171	2542	0.003
	Na	23	652.668	ug/L	7.498	1666686	2.309
	Mg	24	3402.531	ug/L	6.463	6265258	8.761
	Al	27	35618.105	ug/L	5.587	95810789	133.856
	P	31	176.381	ug/L	2.536	35190	0.043
	K	39	3507.169	ug/L	5.945	14747865	19.737
	Ca	43	4383.899	ug/L	1.524	36072	0.050
>	Sc	45		ug/L		715634	715633.700
	Ti	47	376.390	ug/L	0.849	149858	0.209
	V	51	20.341	ug/L	5.741	109928	0.114
	Cr	52	13.135	ug/L	2.733	52340	0.067
	Cr	53		ug/L		56668	-0.039
	Mn	55	474.893	ug/L	2.614	2931548	4.097
	Fe	57	18862.794	ug/L	3.059	2183742	3.046
	Co	59	4.268	ug/L	2.713	17368	0.024
	Ni	60	19.887	ug/L	2.459	16797	0.023
	Cu	63		ug/L		36983	0.052
	Cu	65	19.882	ug/L	0.816	18009	0.025
	Zn	66	164.706	ug/L	2.306	112527	0.446
	Zn	67		ug/L		22803	0.059
	Zn	68		ug/L		86082	0.338
>	Ge	74		ug/L		250869	250869.162
	As	75	3.309	ug/L	0.307	3247	0.010
	Se	77		ug/L		3336	-0.011
	Se	82	0.712	ug/L	19.783	84	0.000
	Kr	83		ug/L		139	0.000
	Sr	88	37.091	ug/L	0.934	336561	2.045
	Y	89		ug/L		432801	2.631
	Zr	90	57.859	ug/L	0.603	282188	1.714
	Mo	98	1.804	ug/L	1.101	3989	0.024
	Ag	107	0.215	ug/L	2.144	810	0.005
	Cd	111	2.130	ug/L	1.295	2076	0.013
	Cd	114		ug/L		3241	0.020
>	In	115		ug/L		164495	164494.922
	Sn	120	0.319	ug/L	2.705	1431	0.008
	Sb	121	0.372	ug/L	3.321	1417	0.008
	Sb	123		ug/L		1109	0.007
	Ba	135		ug/L		182674	0.754
	Ba	137	198.732	ug/L	1.240	319129	1.318
	Ho	165		ug/L		28430	0.117
>	Ta	181		ug/L		242205	242205.041
	Tl	205	0.345	ug/L	2.201	3939	0.015
	Pb	208	46.463	ug/L	1.328	727973	3.003
	Bi	209		ug/L		6659	0.027
	Th	232	11.991	ug/L	93.965	15919	0.067
	U	238	2.445	ug/L	36.191	1843	0.008

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	0.9999
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Ta	181	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9998
U	238	Linear Thru Zero	0.9961

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		97.5			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		99.6			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		99.8			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Ta	181		102.5			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Tl 47 Upper, S, EEETI		47	Sample is out of limits (over linear range)_

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: 135803004
Sample Date/Time: Monday, May 09, 2005 18:36:52
Sample Type:
Sample Description: LANL 6020 SOIL
Number of Replicates: 3
Batch ID: 422817|2|prb
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\050509\135803004.071

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	31.110	ug/L	1.186	28666	0.041
	Be	9	2.322	ug/L	2.722	694	0.001
	B	11	7.657	ug/L	4.378	2448	0.003
	Na	23	615.340	ug/L	0.475	1548254	2.177
	Mg	24	3344.782	ug/L	8.406	6078941	8.613
	Al	27	30103.284	ug/L	2.816	79811317	113.131
	P	31	132.981	ug/L	2.497	27304	0.032
	K	39	3157.394	ug/L	3.429	13148948	17.769
	Ca	43	3648.716	ug/L	0.366	29633	0.042
>	Sc	45		ug/L		705426	705426.139
	Ti	47	383.698	ug/L	1.362	150593	0.213
	V	51	21.120	ug/L	3.351	111486	0.118
	Cr	52	12.035	ug/L	0.342	47661	0.061
	Cr	53		ug/L		55494	-0.039
	Mn	55	565.818	ug/L	2.289	3443763	4.881
	Fe	57	17109.505	ug/L	2.114	1953764	2.763
	Co	59	4.734	ug/L	2.108	18994	0.027
	Ni	60	22.961	ug/L	2.004	19100	0.027
	Cu	63		ug/L		28687	0.041
	Cu	65	15.646	ug/L	2.243	13981	0.020
	Zn	66	572.223	ug/L	3.166	381905	1.549
	Zn	67		ug/L		62341	0.222
	Zn	68		ug/L		282479	1.142
>	Ge	74		ug/L		246227	246226.569
	As	75	3.781	ug/L	7.800	3551	0.012
	Se	77		ug/L		3246	-0.011
	Se	82	0.921	ug/L	33.167	98	0.000
	Kr	83		ug/L		131	0.000
	Sr	88	35.345	ug/L	0.975	318744	1.949
	Y	89		ug/L		437871	2.678
	Zr	90	50.901	ug/L	2.052	246768	1.508
	Mo	98	1.881	ug/L	2.689	4133	0.025
	Ag	107	0.235	ug/L	1.889	882	0.005
	Cd	111	1.874	ug/L	2.919	1818	0.011
	Cd	114		ug/L		2832	0.017
>	In	115		ug/L		163494	163494.394
	Sn	120	0.347	ug/L	4.520	1531	0.008
	Sb	121	0.366	ug/L	3.623	1386	0.008
	Sb	123		ug/L		1108	0.007
	Ba	135		ug/L		158144	0.650
	Ba	137	171.776	ug/L	0.849	277099	1.139
	Ho	165		ug/L		28696	0.118
>	Ta	181		ug/L		243306	243305.893
	Tl	205	0.347	ug/L	1.514	3978	0.016
	Pb	208	60.318	ug/L	0.160	949289	3.899
	Bi	209		ug/L		5378	0.022
	Th	232	15.290	ug/L	58.894	20616	0.085
	U	238	2.168	ug/L	62.243	1652	0.007

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	0.9999
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Ta	181	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9998
U	238	Linear Thru Zero	0.9961

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45			96.1		
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74			97.8		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115			99.2		
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Ta	181			103.0		
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type Analyte	Mass	Out of Limits Message
Ti 47 Upper, S, EEETi	47	Sample is out of limits (over linear range)

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Mg/u

Sample ID: QC Std 6
Sample Date/Time: Monday, May 09, 2005 18:42:06
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\050509\QC Std 6.072

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	54.369	ug/L	1.893	48388	0.071
	Be	9	54.582	ug/L	0.313	15660	0.023
	B	11	103.360	ug/L	2.920	28212	0.041
	Na	23	5263.579	ug/L	0.824	12706190	18.623
	Mg	24	5688.235	ug/L	6.252	9980475	14.647
	Al	27	5359.765	ug/L	2.323	13732105	20.142
	P	31	5055.123	ug/L	1.527	836659	1.221
	K	39	4882.280	ug/L	8.390	19325910	27.476
	Ca	43	4985.811	ug/L	1.602	39049	0.057
>	Sc	45		ug/L		681611	681611.020
	Ti	47	47.224	ug/L	0.754	18038	0.026
	V	51	46.585	ug/L	3.858	204719	0.260
	Cr	52	48.913	ug/L	1.743	174182	0.249
	Cr	53		ug/L		61430	-0.028
	Mn	55	49.269	ug/L	0.738	290805	0.425
	Fe	57	5066.887	ug/L	1.127	562617	0.818
	Co	59	49.869	ug/L	0.190	193000	0.283
	Ni	60	49.744	ug/L	1.234	39797	0.058
	Cu	63		ug/L		92358	0.135
	Cu	65	51.054	ug/L	0.617	43965	0.064
	Zn	66	49.471	ug/L	0.919	33923	0.134
	Zn	67		ug/L		9356	0.006
	Zn	68		ug/L		25546	0.097
>	Ge	74		ug/L		248127	248126.782
	As	75	47.905	ug/L	2.177	37829	0.150
	Se	77		ug/L		4719	-0.005
	Se	82	47.769	ug/L	2.872	3588	0.014
	Kr	83		ug/L		86	0.000
	Sr	88	48.673	ug/L	0.858	441875	2.684
	Y	89		ug/L		213	0.001
	Zr	90	46.853	ug/L	2.980	228638	1.388
	Mo	98	48.857	ug/L	1.498	107502	0.653
	Ag	107	48.721	ug/L	2.110	181038	1.100
	Cd	111	47.316	ug/L	1.201	45913	0.279
	Cd	114		ug/L		110805	0.673
>	In	115		ug/L		164586	164585.954
	Sn	120	48.044	ug/L	0.832	192120	1.166
	Sb	121	47.380	ug/L	0.851	175338	1.065
	Sb	123		ug/L		136077	0.827
	Ba	135		ug/L		46445	0.190
	Ba	137	50.194	ug/L	2.423	81353	0.333
	Ho	165		ug/L		19	0.000
>	Ta	181		ug/L		244446	244446.183
	Tl	205	47.940	ug/L	1.285	525739	2.150
	Pb	208	50.083	ug/L	0.553	791997	3.237
	Bi	209		ug/L		84	0.000
	Th	232	53.522	ug/L	56.285	72645	0.297
	U	238	97.302	ug/L	19.228	74167	0.303

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	0.9999
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Ta	181	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9998
U	238	Linear Thru Zero	0.9961

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Li	7	108.738				
Be	9	109.165				
B	11	103.360				
Na	23	105.272				
Mg	24	113.765				
Al	27	106.134				
P	31	101.102				
K	39	97.646				
Ca	43	99.716				
> Sc	45		92.8			
Ti	47	94.449				
V	51	93.170				
Cr	52	97.826				
Cr	53					
Mn	55	98.538				
Fe	57	101.338				
Co	59	99.738				
Ni	60	99.487				
Cu	63					
Cu	65	102.108				
Zn	66	98.942				
Zn	67					
Zn	68					
> Ge	74		98.5			
As	75	95.810				
Se	77					
Se	82	95.537				
Kr	83					
Sr	88	97.345				
Y	89					
Zr	90	93.707				
Mo	98	97.715				
Ag	107	97.441				
Cd	111	94.631				
Cd	114					
> In	115		99.8			
Sn	120	96.088				
Sb	121	94.759				
Sb	123					
Ba	135					
Ba	137	100.388				
Ho	165					
> Ta	181		103.5			
Tl	205	95.880				
Pb	208	100.165				
Bi	209					
Th	232	107.044				
U	238	194.604				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 6	Mg	24	CCV is out of limits (+/- 10%)
QC Std 6	U	238	CCV is out of limits (+/- 10%)

QC Action

ICPMS#3 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Monday, May 09, 2005 18:47:17
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\050509\QC Std 7.073

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	0.056	ug/L	3.219	70	0.000
	Be	9	0.004	ug/L	229.452	6	0.000
	B	11	5.340	ug/L	15.101	1700	0.002
	Na	23	1.082	ug/L	48.879	14341	0.004
	Mg	24	0.619	ug/L	108.715	1667	0.002
	Al	27	0.474	ug/L	1.917	3000	0.002
	P	31	-2.761	ug/L	20.193	3943	-0.001
	K	39	1.366	ug/L	986.575	582695	0.008
	Ca	43	-1.301	ug/L	94.817	193	-0.000
>	Sc	45		ug/L		665946	665945.782
	Ti	47	-0.053	ug/L	30.779	123	-0.000
	V	51	-0.985	ug/L	84.669	22968	-0.006
	Cr	52	0.119	ug/L	21.919	4538	0.001
	Cr	53		ug/L		59546	-0.029
	Mn	55	0.087	ug/L	1.535	1601	0.001
	Fe	57	2.833	ug/L	65.625	5206	0.000
	Co	59	0.012	ug/L	45.131	79	0.000
	Ni	60	-0.085	ug/L	9.779	87	-0.000
	Cu	63		ug/L		101	0.000
	Cu	65	-0.008	ug/L	41.164	46	-0.000
	Zn	66	-0.311	ug/L	11.085	473	-0.001
	Zn	67		ug/L		5354	-0.009
	Zn	68		ug/L		905	-0.002
>	Ge	74		ug/L		237630	237629.797
	As	75	0.050	ug/L	143.586	653	0.000
	Se	77		ug/L		4328	-0.006
	Se	82	-0.293	ug/L	100.772	8	-0.000
	Kr	83		ug/L		75	-0.000
	Sr	88	0.003	ug/L	85.581	120	0.000
	Y	89		ug/L		36	0.000
	Zr	90	0.645	ug/L	12.925	3169	0.019
	Mo	98	0.061	ug/L	39.478	150	0.001
	Ag	107	0.017	ug/L	44.072	72	0.000
	Cd	111	0.008	ug/L	86.989	19	0.000
	Cd	114		ug/L		25	0.000
>	In	115		ug/L		157413	157413.053
	Sn	120	0.124	ug/L	32.010	622	0.003
	Sb	121	0.255	ug/L	26.185	942	0.006
	Sb	123		ug/L		700	0.004
	Ba	135		ug/L		23	0.000
	Ba	137	0.011	ug/L	25.232	34	0.000
	Ho	165		ug/L		4	-0.000
>	Ta	181		ug/L		228220	228219.703
	Tl	205	0.010	ug/L	38.863	280	0.000
	Pb	208	0.033	ug/L	34.238	1151	0.002
	Bi	209		ug/L		39	0.000
	Th	232	0.058	ug/L	43.830	81	0.000
	U	238	0.017	ug/L	109.627	16	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	0.9999
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Ta	181	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9998
U	238	Linear Thru Zero	0.9961

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Li	7					
Be	9					
B	11					
Na	23					
Mg	24					
Al	27					
P	31					
K	39					
Ca	43					
> Sc	45			90.7		
Ti	47					
V	51					
Cr	52					
Cr	53					
Mn	55					
Fe	57					
Co	59					
Ni	60					
Cu	63					
Cu	65					
Zn	66					
Zn	67					
Zn	68					
> Ge	74			94.3		
As	75					
Se	77					
Se	82					
Kr	83					
Sr	88					
Y	89					
Zr	90					
Mo	98					
Ag	107					
Cd	111					
Cd	114					
> In	115			95.5		
Sn	120					
Sb	121					
Sb	123					
Ba	135					
Ba	137					
Ho	165					
> Ta	181			96.6		
Tl	205					
Pb	208					
Bi	209					
Th	232					
U	238					

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

==========

Method Name: Soil1

Method Description: 7471A ILMO4.0/ANALYST NOR1

Element: Hg

Date: 05/10/2005
Technique:FI-MHS
Calibration Type:
Hg, Zero Intercept: Linear
Wavelength: 253.7 nm
Sample Info Name: 051005S1.SIF Results Data Set Name: 051005S2

==========

Element: Hg Seq. No.: 1 AS Loc.: 1 Date: 05/10/2005
Sample ID: Calib Blank

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1			0.0012	0.0012	18:10:58	No
2			0.0011	0.0011	18:11:32	No
Mean:			0.0011			
SD :			0.0001			
%RSD:			6.9982			

Auto-zero performed.

==========

Element: Hg Seq. No.: 2 AS Loc.: 2 Date: 05/10/2005
Sample ID: 0.2

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1			0.0028	0.0039	18:12:55	No
2			0.0030	0.0042	18:13:30	No
Mean:			0.0029			
SD :			0.0002			
%RSD:			5.6452			

[Hg] Standard number 1 applied. [0.200]
Correlation Coefficient: 1.00000 Slope: 0.01452

==========

Element: Hg Seq. No.: 3 AS Loc.: 3 Date: 05/10/2005
Sample ID: 0.5

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1			0.0070	0.0081	18:14:55	No
2			0.0063	0.0074	18:15:29	No
Mean:			0.0066			
SD :			0.0005			
%RSD:			7.4036			

[Hg] Standard number 2 applied. [0.500]
Correlation Coefficient: 0.99665 Slope: 0.01345

==========

Element: Hg Seq. No.: 4 AS Loc.: 4 Date: 05/10/2005
Sample ID: 2.0

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1			0.0268	0.0279	18:16:54	No
2			0.0256	0.0267	18:17:28	No
Mean:			0.0262			
SD :			0.0008			
%RSD:			3.2177			

[Hg] Standard number 3 applied. [2.000]
Correlation Coefficient: 0.99986 Slope: 0.01312

Element: Hg Seq. No.: 5 AS Loc.: 5 Date: 05/10/2005
Sample ID: 5.0

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1			0.0665	0.0677	18:18:55	No
2			0.0640	0.0651	18:19:30	No
Mean:			0.0652			
SD :			0.0018			
%RSD:			2.7858			

[Hg] Standard number 4 applied. [5.000]
Correlation Coefficient: 0.99998 Slope: 0.01306

Element: Hg Seq. No.: 6 AS Loc.: 6 Date: 05/10/2005
Sample ID: 10.0

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1			0.1258	0.1270	18:20:56	No
2			0.1209	0.1221	18:21:31	No
Mean:			0.1234			
SD :			0.0035			
%RSD:			2.8063			

[Hg] Standard number 5 applied. [10.00]
Correlation Coefficient: 0.99943 Slope: 0.01251

Calibration data for Hg

Standard ID	Mean Signal (Pk Height)	Entered Concentration (µg/L)	Calculated Concentration (µg/L)	Standard Deviation	%RSD
Calib Blank	0.0011	---	----	----	----
0.2	0.0029	0.200	0.232	0.0002	5.6
0.5	0.0066	0.500	0.530	0.0005	7.4
2.0	0.0262	2.000	2.093	0.0008	3.2
5.0	0.0652	5.000	5.215	0.0018	2.8
10.0	0.1234	10.000	9.864	0.0035	2.8

Correlation Coefficient: 0.99943 Slope: 0.01251 ----

✓ NJG 5/10/05

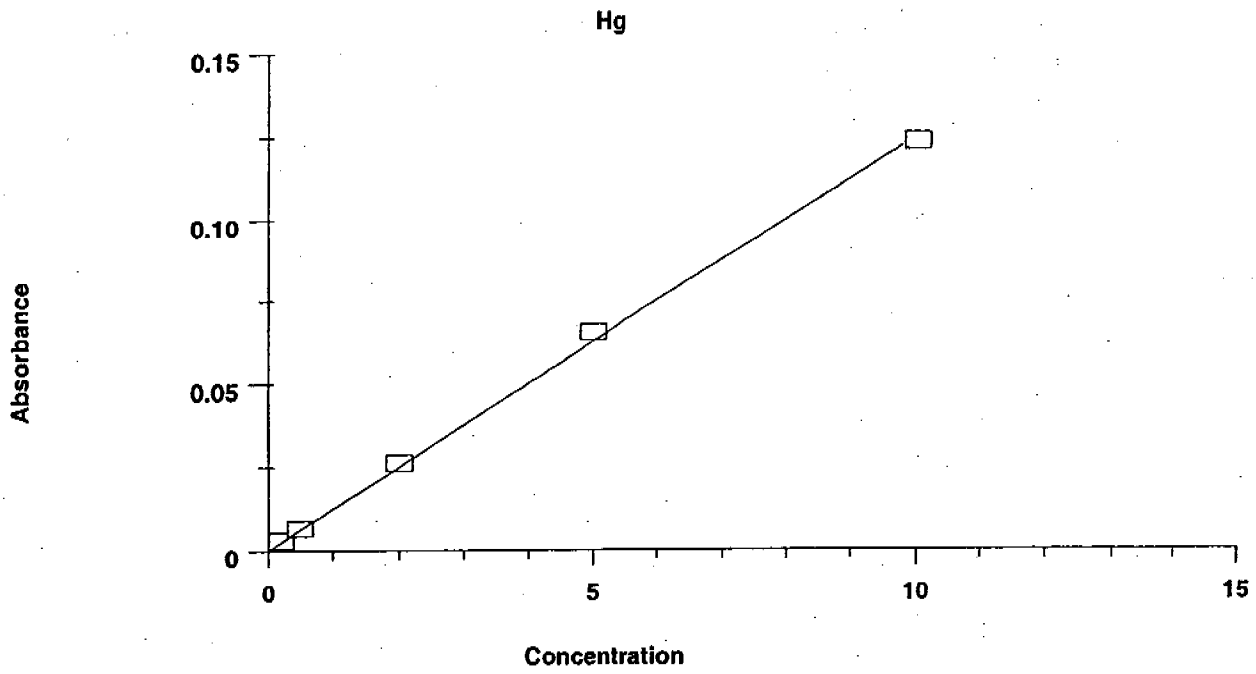

==========

Element: Hg Seq. No.: 7 AS Loc.: 9 Date: 05/10/2005
Sample ID: ICV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	5.137	5.137	0.0643	0.0654	18:23:02	No
2	4.955	4.955	0.0620	0.0631	18:23:37	No
Mean:	5.046	5.046	0.0631			
SD :	0.1290	0.1290	0.0016			
%RSD:	2.6	2.6	2.5571			

QC value within specified limits.

==========

Element: Hg Seq. No.: 8 AS Loc.: 10 Date: 05/10/2005
Sample ID: ICB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.037	0.037	0.0005	0.0016	18:24:59	No
2	0.003	0.003	0.0000	0.0012	18:25:34	No
Mean:	0.020	0.020	0.0003			
SD :	0.0237	0.0237	0.0003			
%RSD:	118.4	118.4	118.4400			

QC value within specified limits.

==========

Element: Hg Seq. No.: 9 AS Loc.: 11 Date: 05/10/2005
Sample ID: CRDL

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.225	0.225	0.0028	0.0040	18:26:58	No
2	0.224	0.224	0.0028	0.0039	18:27:32	No
Mean:	0.225	0.225	0.0028			
SD :	0.0010	0.0010	0.0000			
%RSD:	0.4	0.4	0.4353			

QC value within specified limits.

==========

Element: Hg Seq. No.: 10 AS Loc.: 7 Date: 05/10/2005
Sample ID: CCV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	5.266	5.266	0.0659	0.0670	18:28:57	No
2	5.023	5.023	0.0628	0.0640	18:29:32	No
Mean:	5.145	5.145	0.0644			
SD :	0.1714	0.1714	0.0021			
%RSD:	3.3	3.3	3.3320			

QC value within specified limits.

==========

Element: Hg Seq. No.: 11 AS Loc.: 8 Date: 05/10/2005
Sample ID: CCB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.004	0.004	0.0001	0.0012	18:31:01	No
2	-0.027	-0.027	-0.0003	0.0008	18:31:35	No
Mean:	-0.011	-0.011	-0.0001			
SD :	0.0217	0.0217	0.0003			
%RSD:	192.8	192.8	192.8320			

QC value within specified limits.

==========

Element: Hg Seq. No.: 12 AS Loc.: 12 Date: 05/10/2005
Sample ID: 1200839770|i||422745|MB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.018	0.018	0.0002	0.0014	18:33:01	No
2	0.008	0.008	0.0001	0.0012	18:33:37	No
Mean:	0.013	0.013	0.0002			
SD :	0.0066	0.0066	0.0001			
%RSD:	50.6	50.6	50.6039			

==========

Element: Hg Seq. No.: 13 AS Loc.: 13 Date: 05/10/2005
Sample ID: 1200839771|i|10||LCS

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	6.692	6.692	0.0837	0.0848	18:35:01	No
2	6.369	6.369	0.0797	0.0808	18:35:36	No
Mean:	6.530	6.530	0.0817			
SD :	0.2285	0.2285	0.0029			
%RSD:	3.5	3.5	3.4991			

==========

Element: Hg Seq. No.: 14 AS Loc.: 14 Date: 05/10/2005
Sample ID: 135803001|i|

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.236	0.236	0.0029	0.0041	18:37:02	No
2	0.175	0.175	0.0022	0.0033	18:37:38	No
Mean:	0.205	0.205	0.0026			
SD :	0.0431	0.0431	0.0005			
%RSD:	21.0	21.0	20.9951			

==========

Element: Hg Seq. No.: 15 AS Loc.: 15 Date: 05/10/2005
Sample ID: 1200839772|i|||DUP

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.245	0.245	0.0031	0.0042	18:39:06	No
2	0.225	0.225	0.0028	0.0039	18:39:41	No
Mean:	0.235	0.235	0.0029			
SD :	0.0141	0.0141	0.0002			
%RSD:	6.0	6.0	5.9878			

Element: Hg Seq. No.: 16 AS Loc.: 16 Date: 05/10/2005
Sample ID: 1200839773|i|||MS

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	2.440	2.440	0.0305	0.0317	18:41:09	No
2	2.397	2.397	0.0300	0.0311	18:41:45	No
Mean:	2.418	2.418	0.0302			
SD :	0.0306	0.0306	0.0004			
%RSD:	1.3	1.3	1.2644			

Element: Hg Seq. No.: 17 AS Loc.: 17 Date: 05/10/2005
Sample ID: 1200839775|i|||MSD

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	2.413	2.413	0.0302	0.0313	18:43:10	No
2	2.326	2.326	0.0291	0.0302	18:43:44	No
Mean:	2.370	2.370	0.0296			
SD :	0.0617	0.0617	0.0008			
%RSD:	2.6	2.6	2.6040			

Element: Hg Seq. No.: 18 AS Loc.: 18 Date: 05/10/2005
Sample ID: 1200839774|i|5||SDILT

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.051	0.051	0.0006	0.0018	18:45:05	No
2	-0.082	-0.082	-0.0010	0.0001	18:45:40	No
Mean:	-0.015	-0.015	-0.0002			
SD :	0.0943	0.0943	0.0012			
%RSD:	614.2	614.2	614.2019			

Element: Hg Seq. No.: 19 AS Loc.: 19 Date: 05/10/2005
Sample ID: 135803002|i|

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.401	0.401	0.0050	0.0061	18:47:02	No
2	0.388	0.388	0.0048	0.0060	18:47:36	No
Mean:	0.394	0.394	0.0049			
SD :	0.0096	0.0096	0.0001			
%RSD:	2.4	2.4	2.4299			

Element: Hg Seq. No.: 20 AS Loc.: 20 Date: 05/10/2005
Sample ID: 135803003|i|

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.194	0.194	0.0024	0.0036	18:48:58	No
2	0.189	0.189	0.0024	0.0035	18:49:32	No
Mean:	0.192	0.192	0.0024			
SD :	0.0033	0.0033	0.0000			

%RSD: 1.7 1.7 1.7472

==========

Element: Hg Seq. No.: 21 AS Loc.: 21 Date: 05/10/2005
Sample ID: 135803004|i|

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.310	0.310	0.0039	0.0050	18:50:55	No
2	0.297	0.297	0.0037	0.0048	18:51:30	No
Mean:	0.303	0.303	0.0038			
SD :	0.0091	0.0091	0.0001			
%RSD:	3.0	3.0	2.9893			

==========

Element: Hg Seq. No.: 22 AS Loc.: 7 Date: 05/10/2005
Sample ID: CCV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	5.241	5.241	0.0656	0.0667	18:52:55	No
2	5.062	5.062	0.0633	0.0645	18:53:29	No
Mean:	5.151	5.151	0.0644			
SD :	0.1261	0.1261	0.0016			
%RSD:	2.4	2.4	2.4474			

QC value within specified limits.

==========

Element: Hg Seq. No.: 23 AS Loc.: 8 Date: 05/10/2005
Sample ID: CCB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.047	0.047	0.0006	0.0017	18:54:57	No
2	-0.005	-0.005	-0.0001	0.0011	18:55:33	No
Mean:	0.021	0.021	0.0003			
SD :	0.0366	0.0366	0.0005			
%RSD:	171.8	171.8	171.8079			

QC value within specified limits.

==========

Element: Hg Seq. No.: 24 AS Loc.: 22 Date: 05/10/2005
Sample ID: 135806001|i|

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.475	0.475	0.0059	0.0071	18:56:59	No
2	0.430	0.430	0.0054	0.0065	18:57:33	No
Mean:	0.453	0.453	0.0057			
SD :	0.0317	0.0317	0.0004			
%RSD:	7.0	7.0	7.0128			

==========

Element: Hg Seq. No.: 25 AS Loc.: 23 Date: 05/10/2005
Sample ID: 135806002|i|

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.232	0.232	0.0029	0.0040	18:58:57	No
2	0.229	0.229	0.0029	0.0040	18:59:31	No
Mean:	0.230	0.230	0.0029			
SD :	0.0017	0.0017	0.0000			
%RSD:	0.7	0.7	0.7284			

==========

Element: Hg Seq. No.: 26 AS Loc.: 24 Date: 05/10/2005
Sample ID: 135806003|i|

MISCELLANEOUS DATA

SML 5/5/05

Prep LogBook

Analyst: SXL2 Verified by: Shauna Mland 5/5/05

Batch: 422815

Lab SOP: GL-MA-E-009 REV# 13

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1200839931	UI041001-01	.506	g
MS	1200839933	UI050119-01	.5	mL
MSD	1200839949	UI050119-01	.5	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1200839930		SW846 3050B	05-MAY-2005 17:00	0.5 g	50 mL	100	SOIL
LCS	1200839931		SW846 3050B	05-MAY-2005 17:00	0.506 g	50 mL	98.81423	SOIL
SAMPLE	135803001		SW846 3050B	05-MAY-2005 17:00	0.502 g	50 mL	99.60159	SOIL
DUP	1200839932	135803001	SW846 3050B	05-MAY-2005 17:00	0.505 g	50 mL	99.0099	SOIL
MS	1200839933	135803001	SW846 3050B	05-MAY-2005 17:00	0.51 g	50 mL	98.03922	SOIL
MSD	1200839949	135803001	SW846 3050B	05-MAY-2005 17:00	0.507 g	50 mL	98.61933	SOIL
SDILT	1200839934	135803001	SW846 3050B	05-MAY-2005 17:00	0.502 g	50 mL	99.60159	SOIL
SAMPLE	135803002		SW846 3050B	05-MAY-2005 17:00	0.508 g	50 mL	98.4252	SOIL
SAMPLE	135803003		SW846 3050B	05-MAY-2005 17:00	0.51 g	50 mL	98.03922	SOIL
SAMPLE	135803004		SW846 3050B	05-MAY-2005 17:00	0.509 g	50 mL	98.23183	SOIL

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Reagent/Solvent Lot ID	Amount	Description
050503-05	1.5 mL	Hydrogen Peroxide 30%
300383	5 mL	Nitric Acid CONC.

Comments: QC consists of a medium brown, slightly moist soil with rocks.

SML 5/5/05

Prep LogBook

Shauna Mard 5/5/05

Analyst: SXL2 Verified by:

Batch: 422820

Lab SOP: GL-MA-E-009 REV# 13

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1200839944	UI041001	.5	g
MS	1200839946	UI050503-01	.25	mL
MS	1200839946	UI050503-06	.25	mL
MSD	1200839948	UI050503-01	.25	mL
MSD	1200839948	UI050503-06	.25	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1200839943		SW846 3050B	05-MAY-2005 17:00	0.5 g	50 mL	100	SOIL
LCS	1200839944		SW846 3050B	05-MAY-2005 17:00	0.5 g	50 mL	100	SOIL
SAMPLE	135803001		SW846 3050B	05-MAY-2005 17:00	0.509 g	50 mL	98.23183	SOIL
DUP	1200839945	135803001	SW846 3050B	05-MAY-2005 17:00	0.508 g	50 mL	98.4252	SOIL
MS	1200839946	135803001	SW846 3050B	05-MAY-2005 17:00	0.503 g	50 mL	99.40358	SOIL
MSD	1200839948	135803001	SW846 3050B	05-MAY-2005 17:00	0.506 g	50 mL	98.81423	SOIL
SDILT	1200839947	135803001	SW846 3050B	05-MAY-2005 17:00	0.509 g	50 mL	98.23183	SOIL
SAMPLE	135803002		SW846 3050B	05-MAY-2005 17:00	0.504 g	50 mL	99.20635	SOIL
SAMPLE	135803003		SW846 3050B	05-MAY-2005 17:00	0.503 g	50 mL	99.40358	SOIL
SAMPLE	135803004		SW846 3050B	05-MAY-2005 17:00	0.51 g	50 mL	98.03922	SOIL

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Reagent/Solvent Lot ID	Amount	Description
050503-05	1.5 mL	Hydrogen Peroxide 30%
300385	5 mL	HYDROCHLORIC ACID
300383	5 mL	Nitric Acid CONC.

Comments: QC consists of a medium brown, slightly moist soil with rocks.

Prep LogBook

Analyst: ETL EQ Verified by: Nte 5/9/05
Batch: 422744 5/9/05
Lab SOP: GL-MA-E-010 REV# 15

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1200839771	UI041001	.201	g
MS	1200839773	WHG050509-14	.3	mL
MSD	1200839775	WHG050509-14	.3	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1200839770		SW846 7471A Prep	09-MAY-2005 14:15	0.6 g	30 mL	50	SOIL
LCS	1200839771		SW846 7471A Prep	09-MAY-2005 14:15	0.201 g	30 mL	149.25373	SOIL
SAMPLE	135803001		SW846 7471A Prep	09-MAY-2005 14:15	0.605 g	30 mL	49.58678	SOIL
DUP	1200839772	135803001	SW846 7471A Prep	09-MAY-2005 14:15	0.614 g	30 mL	48.85993	SOIL
MS	1200839773	135803001	SW846 7471A Prep	09-MAY-2005 14:15	0.636 g	30 mL	47.16981	SOIL
MSD	1200839775	135803001	SW846 7471A Prep	09-MAY-2005 14:15	0.631 g	30 mL	47.54358	SOIL
SDILT	1200839774	135803001	SW846 7471A Prep	09-MAY-2005 14:15	0.605 g	30 mL	49.58678	SOIL
SAMPLE	135803002		SW846 7471A Prep	09-MAY-2005 14:15	0.647 g	30 mL	46.36785	SOIL
SAMPLE	135803003		SW846 7471A Prep	09-MAY-2005 14:15	0.614 g	30 mL	48.85993	SOIL
SAMPLE	135803004		SW846 7471A Prep	09-MAY-2005 14:15	0.601 g	30 mL	49.91681	SOIL
SAMPLE	135806001		SW846 7471A Prep	09-MAY-2005 14:15	0.622 g	30 mL	48.23151	SOIL
SAMPLE	135806002		SW846 7471A Prep	09-MAY-2005 14:15	0.639 g	30 mL	46.94836	SOIL
SAMPLE	135806003		SW846 7471A Prep	09-MAY-2005 14:15	0.642 g	30 mL	46.72897	SOIL
SAMPLE	135806004		SW846 7471A Prep	09-MAY-2005 14:15	0.628 g	30 mL	47.7707	SOIL
SAMPLE	135806005		SW846 7471A Prep	09-MAY-2005 14:15	0.601 g	30 mL	49.91681	SOIL
SAMPLE	135806006		SW846 7471A Prep	09-MAY-2005 14:15	0.606 g	30 mL	49.50495	SOIL
SAMPLE	135806007		SW846 7471A Prep	09-MAY-2005 14:15	0.649 g	30 mL	46.22496	SOIL
SAMPLE	135806008		SW846 7471A Prep	09-MAY-2005 14:15	0.632 g	30 mL	47.46835	SOIL
SAMPLE	135806009		SW846 7471A Prep	09-MAY-2005 14:15	0.638 g	30 mL	47.02194	SOIL
SAMPLE	135806010		SW846 7471A Prep	09-MAY-2005 14:15	0.632 g	30 mL	47.46835	SOIL
SAMPLE	135806011		SW846 7471A Prep	09-MAY-2005 14:15	0.6 g	30 mL	50	SOIL
SAMPLE	135806012		SW846 7471A Prep	09-MAY-2005 14:15	0.646 g	30 mL	46.43963	SOIL
SAMPLE	135806013		SW846 7471A Prep	09-MAY-2005 14:15	0.612 g	30 mL	49.01961	SOIL
SAMPLE	135806014		SW846 7471A Prep	09-MAY-2005 14:15	0.622 g	30 mL	48.23151	SOIL

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Reagent/Solvent Lot ID	Amount	Description
302187-A	1.125 mL	Hydrochloric Acid Conc.
302189-1	.375 mL	NITRIC ACID
301012-C	7.5 mL	5% KMnO4 solution
301014-C	2 mL	Hg reducing agent
WHG050509-07	30 uL	Mercury Working Standard 1st Source CAL S 0.2/CRA
WHG050509-08	75 uL	Mercury Working Standard 1st Source CAL S 0.5

Comments: Sample 135803001 is a black and dark brown soil and clay mix.
Digestion Start Date: 09-MAY-05 14:15
Digestion End Date: 09-MAY-05 14:45

Prep LogBook

WHG050509-11	1.5 mL	Mercury Working 1st Source CAL S 10.0
WHG050509-09	300 uL	Mercury Working 1st Source CAL S 2.0
WHG050509-10	750 uL	Mercury Working 1st Source CAL S 5.0/CCV
WHG050509-12	750 uL	Mercury Working 2nd Source S 5.0/ICV

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General Engineering Laboratories
Form GEL-XXX
Rev. 06/02

NCR Report No.: 200491
Revision No.:

COMPANY - WIDE NONCONFORMANCE REPORT

Mo.Day Yr. 10-MAY-05	**Division:** Federal	**Quality Criteria:** Specifications	**Type:** Process
Instrument Type: ICP	**Test / Method:** SW846 3050B/6010B	**Matrix Type:** Solid	**Client Code:** LANL
Batch ID: 422821	**Sample Numbers:** See Below		

Potentially affected work order(s)(SDG): 135803(3195S)

Application Issues:

Failed Recovery for LCS/MS/PS

Failed RPD for LCS/LCSD, MS/MSD, or PS/PSD

Failed RPD for DUP

Specification and Requirements Nonconformance Description:	**NRG Disposition:**
1. Failed Recovery for LCS/MS/PS: QC 1200839946MS 2. Failed RPD for DUP: QC 1200839945DUP 3. Failed RPD for LCS/LCSD, MS/MSD, or PS/PSD: QC 1200839948MSD	1. The matrix spike and matrix spike duplicate recovery failed for magnesium,potassium,zinc,barium and calcium due to possible matrix interference. The RPD failed on duplicate and matrix spike duplicate for barium,chromium,cobalt,copper,iron,lead,manganese,vanadium and calcium due to sample not homogeneous. Sample #135803001 consists of a medium brown,slightly moist soil with rocks. Data are qualified and reported.

Originator's Name:
Helen Camello 10-MAY-05

Data Validator/Group Leader:
[illegible] 6/1/05

Quality Review:

Director:

General Engineering Laboratories
Form GEL-XXX
Rev. 06/02

NCR Report No.: 200446
Revision No.:

COMPANY - WIDE NONCONFORMANCE REPORT

Mo.Day Yr.: 10-MAY-05	**Division:** Federal	**Quality Criteria:** Specifications	**Type:** Process
Instrument Type: ICP/MS	**Test / Method:** SW846 3050B/6020	**Matrix Type:** Solid	**Client Code:** LANL
Batch ID: 422817	**Sample Numbers:** See Below		

Potentially affected work order(s)(SDG): 135803(3195S)

Application Issues:

Failed Recovery for LCS/MS/PS

Failed RPD for DUP

Specification and Requirements Nonconformance Description:	**NRG Disposition:**
1. Failed Recovery for LCS/MS/PS: QC 1200839933MS 2. Failed RPD for DUP: QC 1200839932DUP	Both the MS and MSD failed for Sb, confirming matrix interference. The duplicate sample failed for Ni due to either sample non-homogeneity and/or matrix interference. The data is qualified and reported as is.

Originator's Name:

Paul Boyd 10-MAY-05

Quality Review:

Beth Janssen

Director:

Data Validator/Group Leader:

Alison M. C 6/1/05

INORGANIC ANALYSIS

Metals Fractional Narrative
Los Alamos National Laboratory (LANL)
SDG 3195S-1

Method/Analysis Information

Analytical Batch:	423067, 423104, 422841
Prep Batch:	423065, 423103, 422838
Standard Operating Procedures:	GL-MA-E-013 REV# 12, GL-MA-E-014 REV# 9, GL-MA-E-010 REV# 15, GL-MA-E-006 REV# 9
Analytical Method:	SW846 6010B, SW846 6020, SW846 7470A
Prep Method:	SW846 3005A, SW846 7470A

Sample Analysis

Sample ID	Client ID
135804001	RE03-05-59548
1200840490	Method Blank (MB) **ICP**
1200840491	Laboratory Control Sample (LCS)
1200840494	135804001(RE03-05-59548L) Serial Dilution (SD)
1200840492	135804001(RE03-05-59548D) Sample Duplicate (DUP)
1200840493	135804001(RE03-05-59548S) Matrix Spike (MS)
1200840566	Method Blank (MB) **ICP-MS**
1200840567	Laboratory Control Sample (LCS)
1200840570	135804001(RE03-05-59548L) Serial Dilution (SD)
1200840568	135804001(RE03-05-59548D) Sample Duplicate (DUP)
1200840569	135804001(RE03-05-59548S) Matrix Spike (MS)
1200839978	Method Blank (MB) **CVAA**
1200839979	Laboratory Control Sample (LCS)
1200840114	135804001(RE03-05-59548L) Serial Dilution (SD)
1200840112	135804001(RE03-05-59548D) Sample Duplicate (DUP)
1200840116	135804001(RE03-05-59548S) Matrix Spike (MS)

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by General Engineering Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

System Configuration

The ICP analysis was performed on a Thermo Jarrell Ash 61E Trace axial-viewing inductively coupled plasma atomic emission spectrometer. The instrument is equipped with a Burgener nebulizer, cyclonic spray chamber, and yttrium internal standard. Operating conditions for the Trace ICP are set at a power level of 950 watts. The instrument has a peristaltic pump flow rate of 140 RPM (2.0 mL/min sample uptake rate), argon gas flows of 15 L/min and 0.5 L/min for the torch and auxiliary gases, and a pressure setting of 26 PSI for the nebulizer.

The ICP-MS analysis was performed on a Perkin Elmer ICP-MS ELAN 9000. The instrument is equipped with a cross-flow nebulizer, quadrupole mass spectrometer, and dual mode electron multiplier detector. Internal standards of scandium, germanium, indium, and tantalum were utilized to cover the mass spectrum. Operating conditions are set at 1400W power and combined argon pressures of 3607 kPa for the plasma and auxiliary gases, and 0.85 L/min carrier gas flow, and an initial lens voltage of 5.2.

The Mercury analysis was performed on a Perkin-Elmer Flow Injection Mercury System (FIMS-100) automated mercury analyzer. The instrument consists of a cold vapor atomic absorption spectrometer set to detect mercury at a wavelength of 254 nm. Sample introduction through the flow injection system is performed via a peristaltic pump at 9 mL/min and nitrogen carrier gas rate of 80mL/min.

Calibration Information

Instrument Calibration
All initial calibration requirements have been met for this sample delivery group (SDG).

CRDL Requirements
All CRDL standard(s) met the referenced advisory control limits.

Continuing Calibration Blank (CCB) Requirements
All continuing calibration blanks (CCB) bracketing this batch met the established acceptance criteria.

Continuing Calibration Verification (CCV) Requirements
All continuing calibration verification (CCV) bracketing this SDG met the established acceptance criteria for all analytes.

ICSA/ICSAB statement
All interference check samples (ICSA and ICSAB) associated with this SDG met the

established acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MBs analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

Quality Control (QC) Sample Statement
The following sample was selected as the quality control (QC) sample for this SDG: 135804001 (RE03-05-59548).

Matrix Spike (MS) Recovery Statement
The percent recoveries (%R) obtained from the MS analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. All applicable elements met the acceptance criteria.

Duplicate Relative Percent Difference (RPD) Statement
The RPD obtained from the designated sample duplicate (DUP) is evaluated based on acceptance criteria of 20% when the sample is >5X the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control of RL is used to evaluate the DUP results. All applicable analytes met these requirements.

Serial Dilution % Difference Statement
The serial dilution is used to assess matrix suppression or enhancement. Raw element concentrations that are 25X the IDL for CVAA, 50X the IDL for ICP, and 100X the IDL for ICP-MS analyses are applicable for serial dilution assessment. All applicable analytes met the acceptance criteria of less than 10% difference (%D).

Technical Information

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

Sample Dilutions
Dilutions are performed to minimize matrix interferences resulting from elevated mineral element concentrations present in soil samples and/or to bring over range target analyte

concentrations into the linear calibration range of the instrument. The samples in this SDG did not require dilutions.

Preparation Information
The samples in this SDG were prepared exactly according to the cited SOP.

Miscellaneous Information

Nonconformance Documentation
Nonconformance reports (NCRs) are generated to document procedural anomalies that may deviate from referenced SOP or contractual documents. A NCR was not required for this SDG.

Additional Comments
Additional comments were not required for this SDG.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative

Reviewer: Allison M. C **Date:** 6/1/05

SAMPLE DATA SUMMARY

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 3195S-1 **METHOD TYPE:** SW846

SAMPLE ID: 135804001 **CLIENT ID:** RE03-05-59548

CONTRACT: LANL00101

MATRIX: W **DATE RECEIVED** 04-MAY-05 **LEVEL:** Low **%SOLIDS:**

CAS No	Analyte	Result	Units	C	Qual	M	MDL	Instrument ID	Analytical Run
7429-90-5	Aluminum	68	ug/L	U		P	68	TRACE2	050905-1
7440-36-0	Antimony	0.50	ug/L	U		MS	0.5	ICPMS5	050506-4
7440-38-2	Arsenic	6	ug/L	U		P	6	TRACE2	050905-1
7440-39-3	Barium	1.5	ug/L	B		P	1	TRACE2	050905-1
7440-41-7	Beryllium	0.10	ug/L	U		MS	0.1	ICPMS5	050506-4
7440-43-9	Cadmium	0.10	ug/L	U		MS	0.1	ICPMS5	050506-4
7440-70-2	Calcium	789	ug/L			P	36	TRACE2	050905-1
7440-47-3	Chromium	1	ug/L	U		P	1	TRACE2	050905-1
7440-48-4	Cobalt	1	ug/L	U		P	1	TRACE2	050905-1
7440-50-8	Copper	3	ug/L	U		P	3	TRACE2	050905-1
7439-89-6	Iron	35.2	ug/L	B		P	18	TRACE2	051005
7439-92-1	Lead	0.50	ug/L	U		MS	0.5	ICPMS5	050506-5
7439-95-4	Magnesium	234	ug/L	B		P	85	TRACE2	050905-1
7439-96-5	Manganese	1	ug/L	U		MS	1	ICPMS5	050506-4
7439-97-6	Mercury	0.050	ug/L	U		AV	0.05	MER536	050905W1-3
7440-02-0	Nickel	1	ug/L	U		P	1	TRACE2	050905-1
7440-09-7	Potassium	91	ug/L	B		P	50	TRACE2	050905-1
7782-49-2	Selenium	6	ug/L	U		P	6	TRACE2	050905-1
7440-22-4	Silver	1	ug/L	U		P	1	TRACE2	050905-1
7440-23-5	Sodium	1220	ug/L			P	45	TRACE2	050905-1
7440-28-0	Thallium	0.40	ug/L	U		MS	0.4	ICPMS5	050506-4
7440-62-2	Vanadium	1	ug/L	U		P	1	TRACE2	050905-1
7440-66-6	Zinc	2.2	ug/L	B		P	2	TRACE2	050905-1

Comments:

QUALITY CONTROL DATA

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 3195S-1

Contract: LANL00101 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS5,MER536,TRACE2

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
ICV01										
	Antimony	50.34	ug/L	50	ug/L	100.7	90.0 - 110.0	MS	06-MAY-05 23:54	050506-4
	Beryllium	51.5	ug/L	50	ug/L	103	90.0 - 110.0	MS	06-MAY-05 23:54	050506-4
	Cadmium	48.69	ug/L	50	ug/L	97.4	90.0 - 110.0	MS	06-MAY-05 23:54	050506-4
	Manganese	52.78	ug/L	50	ug/L	105.6	90.0 - 110.0	MS	06-MAY-05 23:54	050506-4
	Thallium	49.28	ug/L	50	ug/L	98.6	90.0 - 110.0	MS	06-MAY-05 23:54	050506-4
	Lead	51.58	ug/L	50	ug/L	103.2	90.0 - 110.0	MS	07-MAY-05 03:46	050506-5
	Aluminum	4965.8	ug/L	5000	ug/L	99.3	90.0 - 110.0	P	09-MAY-05 08:29	050905-1
	Arsenic	501.29	ug/L	500	ug/L	100.3	90.0 - 110.0	P	09-MAY-05 08:29	050905-1
	Barium	499.56	ug/L	500	ug/L	99.9	90.0 - 110.0	P	09-MAY-05 08:29	050905-1
	Calcium	4974.96	ug/L	5000	ug/L	99.5	90.0 - 110.0	P	09-MAY-05 08:29	050905-1
	Chromium	500.26	ug/L	500	ug/L	100.1	90.0 - 110.0	P	09-MAY-05 08:29	050905-1
	Cobalt	496.26	ug/L	500	ug/L	99.3	90.0 - 110.0	P	09-MAY-05 08:29	050905-1
	Copper	496.75	ug/L	500	ug/L	99.4	90.0 - 110.0	P	09-MAY-05 08:29	050905-1
	Magnesium	4893.92	ug/L	5000	ug/L	97.9	90.0 - 110.0	P	09-MAY-05 08:29	050905-1
	Nickel	484.96	ug/L	500	ug/L	97	90.0 - 110.0	P	09-MAY-05 08:29	050905-1
	Potassium	2518.64	ug/L	2500	ug/L	100.8	90.0 - 110.0	P	09-MAY-05 08:29	050905-1
	Selenium	2509.87	ug/L	2500	ug/L	100.4	90.0 - 110.0	P	09-MAY-05 08:29	050905-1
	Silver	252.47	ug/L	250	ug/L	101	90.0 - 110.0	P	09-MAY-05 08:29	050905-1
	Sodium	2532.73	ug/L	2500	ug/L	101.3	90.0 - 110.0	P	09-MAY-05 08:29	050905-1
	Vanadium	489.68	ug/L	500	ug/L	97.9	90.0 - 110.0	P	09-MAY-05 08:29	050905-1
	Zinc	493.63	ug/L	500	ug/L	98.7	90.0 - 110.0	P	09-MAY-05 08:29	050905-1
	Mercury	5.21	ug/L	5	ug/L	104.3	90.0 - 110.0	AV	09-MAY-05 08:54	050905W1-3
	Iron	4778.74	ug/L	5000	ug/L	95.6	90.0 - 110.0	P	10-MAY-05 13:50	051005-2
CCV01										
	Antimony	50.76	ug/L	50	ug/L	101.5	90.0 - 110.0	MS	07-MAY-05 00:19	050506-4
	Beryllium	51.66	ug/L	50	ug/L	103.3	90.0 - 110.0	MS	07-MAY-05 00:19	050506-4
	Cadmium	48.68	ug/L	50	ug/L	97.4	90.0 - 110.0	MS	07-MAY-05 00:19	050506-4
	Manganese	52.98	ug/L	50	ug/L	106	90.0 - 110.0	MS	07-MAY-05 00:19	050506-4
	Thallium	48.97	ug/L	50	ug/L	97.9	90.0 - 110.0	MS	07-MAY-05 00:19	050506-4
	Lead	51.94	ug/L	50	ug/L	103.9	90.0 - 110.0	MS	07-MAY-05 03:55	050506-5

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 3195S-1

Contract: LANL00101 **Lab Code:** GEL

Initial Calibration Source:

Continuing Calibration Source:

Instrument ID: ICPMS5,MER536,TRACE2

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Mercury	5.06	ug/L	5	ug/L	101.2	80.0 – 120.0	AV	09-MAY-05 09:00	050905W1-3
	Aluminum	5095.57	ug/L	5000	ug/L	101.9	90.0 – 110.0	P	09-MAY-05 09:07	050905-1
	Arsenic	506.52	ug/L	500	ug/L	101.3	90.0 – 110.0	P	09-MAY-05 09:07	050905-1
	Barium	504.02	ug/L	500	ug/L	100.8	90.0 – 110.0	P	09-MAY-05 09:07	050905-1
	Calcium	5010.73	ug/L	5000	ug/L	100.2	90.0 – 110.0	P	09-MAY-05 09:07	050905-1
	Chromium	504.16	ug/L	500	ug/L	100.8	90.0 – 110.0	P	09-MAY-05 09:07	050905-1
	Cobalt	509.98	ug/L	500	ug/L	102	90.0 – 110.0	P	09-MAY-05 09:07	050905-1
	Copper	505.81	ug/L	500	ug/L	101.2	90.0 – 110.0	P	09-MAY-05 09:07	050905-1
	Magnesium	5087.66	ug/L	5000	ug/L	101.8	90.0 – 110.0	P	09-MAY-05 09:07	050905-1
	Nickel	506.34	ug/L	500	ug/L	101.3	90.0 – 110.0	P	09-MAY-05 09:07	050905-1
	Potassium	5161.44	ug/L	5000	ug/L	103.2	90.0 – 110.0	P	09-MAY-05 09:07	050905-1
	Selenium	509.23	ug/L	500	ug/L	101.9	90.0 – 110.0	P	09-MAY-05 09:07	050905-1
	Silver	508.52	ug/L	500	ug/L	101.7	90.0 – 110.0	P	09-MAY-05 09:07	050905-1
	Sodium	10211.93	ug/L	10000	ug/L	102.1	90.0 – 110.0	P	09-MAY-05 09:07	050905-1
	Vanadium	499.79	ug/L	500	ug/L	100	90.0 – 110.0	P	09-MAY-05 09:07	050905-1
	Zinc	504.23	ug/L	500	ug/L	100.9	90.0 – 110.0	P	09-MAY-05 09:07	050905-1
	Iron	4597.97	ug/L	5000	ug/L	92	90.0 – 110.0	P	10-MAY-05 14:39	051005-2
CCV02										
	Antimony	50.5	ug/L	50	ug/L	101	90.0 – 110.0	MS	07-MAY-05 01:01	050506-4
	Beryllium	48.5	ug/L	50	ug/L	97	90.0 – 110.0	MS	07-MAY-05 01:01	050506-4
	Cadmium	49.34	ug/L	50	ug/L	98.7	90.0 – 110.0	MS	07-MAY-05 01:01	050506-4
	Manganese	51.5	ug/L	50	ug/L	103	90.0 – 110.0	MS	07-MAY-05 01:01	050506-4
	Thallium	49.19	ug/L	50	ug/L	98.4	90.0 – 110.0	MS	07-MAY-05 01:01	050506-4
	Lead	50.09	ug/L	50	ug/L	100.2	90.0 – 110.0	MS	07-MAY-05 04:15	050506-5
	Mercury	5.04	ug/L	5	ug/L	100.7	80.0 – 120.0	AV	09-MAY-05 09:24	050905W1-3
	Aluminum	5101.81	ug/L	5000	ug/L	102	90.0 – 110.0	P	09-MAY-05 10:28	050905-1
	Arsenic	511.31	ug/L	500	ug/L	102.3	90.0 – 110.0	P	09-MAY-05 10:28	050905-1
	Barium	501.4	ug/L	500	ug/L	100.3	90.0 – 110.0	P	09-MAY-05 10:28	050905-1
	Calcium	5032.6	ug/L	5000	ug/L	100.7	90.0 – 110.0	P	09-MAY-05 10:28	050905-1
	Chromium	507.51	ug/L	500	ug/L	101.5	90.0 – 110.0	P	09-MAY-05 10:28	050905-1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 3195S–1

Contract: LANL00101 **Lab Code:** GEL

Initial Calibration Source:

Continuing Calibration Source:

Instrument ID: ICPMS5,MER536,TRACE2

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Cobalt	512.83	ug/L	500	ug/L	102.6	90.0 – 110.0	P	09–MAY–05 10:28	050905–1
	Copper	505.71	ug/L	500	ug/L	101.1	90.0 – 110.0	P	09–MAY–05 10:28	050905–1
	Magnesium	5126.76	ug/L	5000	ug/L	102.5	90.0 – 110.0	P	09–MAY–05 10:28	050905–1
	Nickel	506.89	ug/L	500	ug/L	101.4	90.0 – 110.0	P	09–MAY–05 10:28	050905–1
	Potassium	5255.51	ug/L	5000	ug/L	105.1	90.0 – 110.0	P	09–MAY–05 10:28	050905–1
	Selenium	517.88	ug/L	500	ug/L	103.6	90.0 – 110.0	P	09–MAY–05 10:28	050905–1
	Silver	508.43	ug/L	500	ug/L	101.7	90.0 – 110.0	P	09–MAY–05 10:28	050905–1
	Sodium	10323.67	ug/L	10000	ug/L	103.2	90.0 – 110.0	P	09–MAY–05 10:28	050905–1
	Vanadium	501.08	ug/L	500	ug/L	100.2	90.0 – 110.0	P	09–MAY–05 10:28	050905–1
	Zinc	502.2	ug/L	500	ug/L	100.4	90.0 – 110.0	P	09–MAY–05 10:28	050905–1
	Iron	4250.09	ug/L	5000	ug/L	85	90.0 – 110.0	P	10–MAY–05 15:44	051005–2
CCV03										
	Mercury	5	ug/L	5	ug/L	99.9	80.0 – 120.0	AV	09–MAY–05 09:48	050905W1–3
	Aluminum	5231.9	ug/L	5000	ug/L	104.6	90.0 – 110.0	P	09–MAY–05 11:39	050905–1
	Arsenic	482.64	ug/L	500	ug/L	96.5	90.0 – 110.0	P	09–MAY–05 11:39	050905–1
	Barium	498.19	ug/L	500	ug/L	99.6	90.0 – 110.0	P	09–MAY–05 11:39	050905–1
	Calcium	5038.98	ug/L	5000	ug/L	100.8	90.0 – 110.0	P	09–MAY–05 11:39	050905–1
	Chromium	513.65	ug/L	500	ug/L	102.7	90.0 – 110.0	P	09–MAY–05 11:39	050905–1
	Cobalt	507.24	ug/L	500	ug/L	101.5	90.0 – 110.0	P	09–MAY–05 11:39	050905–1
	Copper	509.15	ug/L	500	ug/L	101.8	90.0 – 110.0	P	09–MAY–05 11:39	050905–1
	Magnesium	5180.69	ug/L	5000	ug/L	103.6	90.0 – 110.0	P	09–MAY–05 11:39	050905–1
	Nickel	501.53	ug/L	500	ug/L	100.3	90.0 – 110.0	P	09–MAY–05 11:39	050905–1
	Potassium	5132.14	ug/L	5000	ug/L	102.6	90.0 – 110.0	P	09–MAY–05 11:39	050905–1
	Selenium	497.75	ug/L	500	ug/L	99.6	90.0 – 110.0	P	09–MAY–05 11:39	050905–1
	Silver	506.33	ug/L	500	ug/L	101.3	90.0 – 110.0	P	09–MAY–05 11:39	050905–1
	Sodium	10154.79	ug/L	10000	ug/L	101.6	90.0 – 110.0	P	09–MAY–05 11:39	050905–1
	Vanadium	516.83	ug/L	500	ug/L	103.4	90.0 – 110.0	P	09–MAY–05 11:39	050905–1
	Zinc	498.93	ug/L	500	ug/L	99.8	90.0 – 110.0	P	09–MAY–05 11:39	050905–1
	Iron	5443.12	ug/L	5000	ug/L	108.9	90.0 – 110.0	P	10–MAY–05 16:10	051005–2

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 3195S-1

Contract: LANL00101 **Lab Code:** GEL

Initial Calibration Source:

Continuing Calibration Source:

Instrument ID: ICPMS5,MER536,TRACE2

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
CCV04										
	Mercury	5	ug/L	5	ug/L	100	80.0 – 120.0	AV	09-MAY-05 10:11	050905W1-3
	Aluminum	5257.74	ug/L	5000	ug/L	105.2	90.0 – 110.0	P	09-MAY-05 12:26	050905-1
	Arsenic	472.05	ug/L	500	ug/L	94.4	90.0 – 110.0	P	09-MAY-05 12:26	050905-1
	Barium	493.24	ug/L	500	ug/L	98.7	90.0 – 110.0	P	09-MAY-05 12:26	050905-1
	Calcium	5092.24	ug/L	5000	ug/L	101.8	90.0 – 110.0	P	09-MAY-05 12:26	050905-1
	Chromium	522.14	ug/L	500	ug/L	104.4	90.0 – 110.0	P	09-MAY-05 12:26	050905-1
	Cobalt	503.44	ug/L	500	ug/L	100.7	90.0 – 110.0	P	09-MAY-05 12:26	050905-1
	Copper	506.61	ug/L	500	ug/L	101.3	90.0 – 110.0	P	09-MAY-05 12:26	050905-1
	Magnesium	5295.39	ug/L	5000	ug/L	105.9	90.0 – 110.0	P	09-MAY-05 12:26	050905-1
	Nickel	503.26	ug/L	500	ug/L	100.7	90.0 – 110.0	P	09-MAY-05 12:26	050905-1
	Potassium	5003.43	ug/L	5000	ug/L	100.1	90.0 – 110.0	P	09-MAY-05 12:26	050905-1
	Selenium	502.94	ug/L	500	ug/L	100.6	90.0 – 110.0	P	09-MAY-05 12:26	050905-1
	Silver	498.42	ug/L	500	ug/L	99.7	90.0 – 110.0	P	09-MAY-05 12:26	050905-1
	Sodium	9758.7	ug/L	10000	ug/L	97.6	90.0 – 110.0	P	09-MAY-05 12:26	050905-1
	Vanadium	535.64	ug/L	500	ug/L	107.1	90.0 – 110.0	P	09-MAY-05 12:26	050905-1
	Zinc	499.59	ug/L	500	ug/L	99.9	90.0 – 110.0	P	09-MAY-05 12:26	050905-1
	Iron	5131.68	ug/L	5000	ug/L	102.6	90.0 – 110.0	P	10-MAY-05 17:10	051005-2
CCV05										
	Mercury	5.01	ug/L	5	ug/L	100.3	80.0 – 120.0	AV	09-MAY-05 10:37	050905W1-3
	Aluminum	5122.51	ug/L	5000	ug/L	102.5	90.0 – 110.0	P	09-MAY-05 13:25	050905-1
	Arsenic	461.59	ug/L	500	ug/L	92.3	90.0 – 110.0	P	09-MAY-05 13:25	050905-1
	Barium	494.83	ug/L	500	ug/L	99	90.0 – 110.0	P	09-MAY-05 13:25	050905-1
	Calcium	5116.78	ug/L	5000	ug/L	102.3	90.0 – 110.0	P	09-MAY-05 13:25	050905-1
	Chromium	526.71	ug/L	500	ug/L	105.3	90.0 – 110.0	P	09-MAY-05 13:25	050905-1
	Cobalt	502.23	ug/L	500	ug/L	100.5	90.0 – 110.0	P	09-MAY-05 13:25	050905-1
	Copper	491.97	ug/L	500	ug/L	98.4	90.0 – 110.0	P	09-MAY-05 13:25	050905-1
	Magnesium	5324.55	ug/L	5000	ug/L	106.5	90.0 – 110.0	P	09-MAY-05 13:25	050905-1
	Nickel	504.55	ug/L	500	ug/L	100.9	90.0 – 110.0	P	09-MAY-05 13:25	050905-1
	Potassium	4927.27	ug/L	5000	ug/L	98.6	90.0 – 110.0	P	09-MAY-05 13:25	050905-1
	Selenium	484.61	ug/L	500	ug/L	96.9	90.0 – 110.0	P	09-MAY-05 13:25	050905-1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 3195S–1

Contract: LANL00101 **Lab Code:** GEL

Initial Calibration Source:

Continuing Calibration Source:

Instrument ID: ICPMS5,MER536,TRACE2

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Silver	487.37	ug/L	500	ug/L	97.5	90.0 – 110.0	P	09–MAY–05 13:25	050905–1
	Sodium	9772.06	ug/L	10000	ug/L	97.7	90.0 – 110.0	P	09–MAY–05 13:25	050905–1
	Vanadium	541.78	ug/L	500	ug/L	108.4	90.0 – 110.0	P	09–MAY–05 13:25	050905–1
	Zinc	497.57	ug/L	500	ug/L	99.5	90.0 – 110.0	P	09–MAY–05 13:25	050905–1
CCV06										
	Mercury	4.97	ug/L	5	ug/L	99.5	80.0 – 120.0	AV	09–MAY–05 11:00	050905W1–3
CCV07										
	Mercury	4.99	ug/L	5	ug/L	99.9	80.0 – 120.0	AV	09–MAY–05 11:24	050905W1–3
CCV08										
	Mercury	5.01	ug/L	5	ug/L	100.1	80.0 – 120.0	AV	09–MAY–05 11:48	050905W1–3
CCV09										
	Mercury	4.98	ug/L	5	ug/L	99.6	80.0 – 120.0	AV	09–MAY–05 12:12	050905W1–3

METALS
-2b-
CRDL Standard for AA & ICP

SDG No: 3195S-1

Contract: LANL00101 **Lab Code:** GEL

AA CRDL Standard Source: SPEX

ICP CRDL Standard Source Solutions Plus

Instrument ID: ICPMS5,MER536,TRACE2

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Advisory Limits (%R)	M	Analysis Date/Time	Run Number
CRDL01										
	Manganese	11.36	ug/L	10	ug/L	113.59	70.0 – 130.0	MS	07-MAY-05 00:04	050506-4
	Thallium	1.05	ug/L	1	ug/L	105.4	70.0 – 130.0	MS	07-MAY-05 00:04	050506-4
	Antimony	3.81	ug/L	4	ug/L	95.28	70.0 – 130.0	MS	07-MAY-05 00:04	050506-4
	Beryllium	.401	ug/L	.4	ug/L	100.25	70.0 – 130.0	MS	07-MAY-05 00:04	050506-4
	Cadmium	2.03	ug/L	2	ug/L	101.35	70.0 – 130.0	MS	07-MAY-05 00:04	050506-4
	Lead	4.81	ug/L	4	ug/L	120.13	70.0 – 130.0	MS	07-MAY-05 03:50	050506-5
	Mercury	.1925	ug/L	.2	ug/L	96.25	70.0 – 130.0	AV	09-MAY-05 08:58	050905W1-3
PQL01										
	Aluminum	175.87	ug/L	200	ug/L	87.94	70.0 – 130.0	P	09-MAY-05 08:41	050905-1
	Magnesium	177.55	ug/L	200	ug/L	88.78	70.0 – 130.0	P	09-MAY-05 08:41	050905-1
	Nickel	10.49	ug/L	10	ug/L	104.95	70.0 – 130.0	P	09-MAY-05 08:41	050905-1
	Potassium	205.37	ug/L	200	ug/L	102.69	70.0 – 130.0	P	09-MAY-05 08:41	050905-1
	Silver	11	ug/L	10	ug/L	109.98	70.0 – 130.0	P	09-MAY-05 08:41	050905-1
	Sodium	192.95	ug/L	200	ug/L	96.48	70.0 – 130.0	P	09-MAY-05 08:41	050905-1
	Arsenic	8.85	ug/L	10	ug/L	88.49	70.0 – 130.0	P	09-MAY-05 08:41	050905-1
	Barium	9.98	ug/L	10	ug/L	99.79	70.0 – 130.0	P	09-MAY-05 08:41	050905-1
	Chromium	9.3	ug/L	10	ug/L	92.97	70.0 – 130.0	P	09-MAY-05 08:41	050905-1
	Cobalt	9.63	ug/L	10	ug/L	96.29	70.0 – 130.0	P	09-MAY-05 08:41	050905-1
	Copper	10.21	ug/L	10	ug/L	102.1	70.0 – 130.0	P	09-MAY-05 08:41	050905-1
	Vanadium	10.01	ug/L	10	ug/L	100.08	70.0 – 130.0	P	09-MAY-05 08:41	050905-1
	Zinc	9.75	ug/L	10	ug/L	97.49	70.0 – 130.0	P	09-MAY-05 08:41	050905-1
	Calcium	179.87	ug/L	200	ug/L	89.93	70.0 – 130.0	P	09-MAY-05 08:41	050905-1
	Selenium	10.92	ug/L	10	ug/L	109.18	70.0 – 130.0	P	09-MAY-05 08:41	050905-1
	Iron	195.22	ug/L	200	ug/L	97.61	70.0 – 130.0	P	10-MAY-05 14:03	051005-2

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 3195S-1

Contract: LANL00101 **Lab Code: GEL**

Sample ID	Analyte	Result	Acceptance ug/L	Conc Qual	MDL	RDL	M	Analysis Date/Time	Run
ICB01									
	Antimony	0.5	+/-2	U	0.5	2.0	MS	06-MAY-05 23:59	050506-4
	Beryllium	0.1	+/-.5	U	0.1	0.5	MS	06-MAY-05 23:59	050506-4
	Cadmium	0.1	+/-1	U	0.1	1.0	MS	06-MAY-05 23:59	050506-4
	Manganese	1.0	+/-5	U	1.0	5.0	MS	06-MAY-05 23:59	050506-4
	Thallium	0.4	+/-1	U	0.4	1.0	MS	06-MAY-05 23:59	050506-4
	Lead	0.5	+/-2	U	0.5	2.0	MS	07-MAY-05 03:48	050506-5
	Aluminum	68.0	+/-200	U	68.0	200	P	09-MAY-05 08:36	050905-1
	Arsenic	6.0	+/-15	U	6.0	15.0	P	09-MAY-05 08:36	050905-1
	Barium	1.0	+/-5	U	1.0	5.0	P	09-MAY-05 08:36	050905-1
	Calcium	36.0	+/-100	U	36.0	100	P	09-MAY-05 08:36	050905-1
	Chromium	-1.47	+/-5	B	1.0	5.0	P	09-MAY-05 08:36	050905-1
	Cobalt	1.0	+/-5	U	1.0	5.0	P	09-MAY-05 08:36	050905-1
	Copper	3.0	+/-10	U	3.0	10.0	P	09-MAY-05 08:36	050905-1
	Magnesium	85.0	+/-300	U	85.0	300	P	09-MAY-05 08:36	050905-1
	Nickel	1.21	+/-5	B	1.0	5.0	P	09-MAY-05 08:36	050905-1
	Potassium	50.0	+/-150	U	50.0	150	P	09-MAY-05 08:36	050905-1
	Selenium	6.0	+/-15	U	6.0	15.0	P	09-MAY-05 08:36	050905-1
	Silver	1.0	+/-5	U	1.0	5.0	P	09-MAY-05 08:36	050905-1
	Sodium	45.0	+/-150	U	45.0	150	P	09-MAY-05 08:36	050905-1
	Vanadium	1.0	+/-5	U	1.0	5.0	P	09-MAY-05 08:36	050905-1
	Zinc	2.0	+/-10	U	2.0	10.0	P	09-MAY-05 08:36	050905-1
	Mercury	0.05	+/-.2	U	0.05	0.2	AV	09-MAY-05 08:56	050905W1-3
	Iron	18.0	+/-100	U	18.0	100	P	10-MAY-05 13:57	051005-2
CCB01									
	Antimony	0.5	+/-2	U	0.5	2.0	MS	07-MAY-05 00:25	050506-4
	Beryllium	0.1	+/-.5	U	0.1	0.5	MS	07-MAY-05 00:25	050506-4
	Cadmium	0.1	+/-1	U	0.1	1.0	MS	07-MAY-05 00:25	050506-4
	Manganese	1.0	+/-5	U	1.0	5.0	MS	07-MAY-05 00:25	050506-4
	Thallium	0.4	+/-1	U	0.4	1.0	MS	07-MAY-05 00:25	050506-4
	Lead	0.5	+/-2	U	0.5	2.0	MS	07-MAY-05 03:57	050506-5
	Mercury	0.05	+/-.2	U	0.05	0.2	AV	09-MAY-05 09:02	050905W1-3

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 3195S-1

Contract: LANL00101 **Lab Code: GEL**

Sample ID	Analyte	Result	Acceptance ug/L	Conc Qual	MDL	RDL	M	Analysis Date/Time	Run
	Aluminum	68.0	+/-200	U	68.0	200	P	09-MAY-05 09:13	050905-1
	Arsenic	6.0	+/-15	U	6.0	15.0	P	09-MAY-05 09:13	050905-1
	Barium	1.0	+/-5	U	1.0	5.0	P	09-MAY-05 09:13	050905-1
	Calcium	36.0	+/-100	U	36.0	100	P	09-MAY-05 09:13	050905-1
	Chromium	1.0	+/-5	U	1.0	5.0	P	09-MAY-05 09:13	050905-1
	Cobalt	1.0	+/-5	U	1.0	5.0	P	09-MAY-05 09:13	050905-1
	Copper	3.0	+/-10	U	3.0	10.0	P	09-MAY-05 09:13	050905-1
	Magnesium	85.0	+/-300	U	85.0	300	P	09-MAY-05 09:13	050905-1
	Nickel	1.0	+/-5	U	1.0	5.0	P	09-MAY-05 09:13	050905-1
	Potassium	50.0	+/-150	U	50.0	150	P	09-MAY-05 09:13	050905-1
	Selenium	6.0	+/-15	U	6.0	15.0	P	09-MAY-05 09:13	050905-1
	Silver	1.0	+/-5	U	1.0	5.0	P	09-MAY-05 09:13	050905-1
	Sodium	45.0	+/-150	U	45.0	150	P	09-MAY-05 09:13	050905-1
	Vanadium	1.0	+/-5	U	1.0	5.0	P	09-MAY-05 09:13	050905-1
	Zinc	2.0	+/-10	U	2.0	10.0	P	09-MAY-05 09:13	050905-1
	Iron	18.0	+/-100	U	18.0	100	P	10-MAY-05 14:45	051005-2
CCB02									
	Antimony	0.5	+/-2	U	0.5	2.0	MS	07-MAY-05 01:06	050506-4
	Beryllium	0.1	+/-.5	U	0.1	0.5	MS	07-MAY-05 01:06	050506-4
	Cadmium	0.1	+/-1	U	0.1	1.0	MS	07-MAY-05 01:06	050506-4
	Manganese	1.0	+/-5	U	1.0	5.0	MS	07-MAY-05 01:06	050506-4
	Thallium	0.4	+/-1	U	0.4	1.0	MS	07-MAY-05 01:06	050506-4
	Lead	0.5	+/-2	U	0.5	2.0	MS	07-MAY-05 04:17	050506-5
	Mercury	0.05	+/-.2	U	0.05	0.2	AV	09-MAY-05 09:26	050905W1-3
	Aluminum	68.0	+/-200	U	68.0	200	P	09-MAY-05 10:34	050905-1
	Arsenic	6.0	+/-15	U	6.0	15.0	P	09-MAY-05 10:34	050905-1
	Barium	1.0	+/-5	U	1.0	5.0	P	09-MAY-05 10:34	050905-1
	Calcium	36.0	+/-100	U	36.0	100	P	09-MAY-05 10:34	050905-1
	Chromium	1.0	+/-5	U	1.0	5.0	P	09-MAY-05 10:34	050905-1
	Cobalt	-1.24	+/-5	B	1.0	5.0	P	09-MAY-05 10:34	050905-1
	Copper	3.0	+/-10	U	3.0	10.0	P	09-MAY-05 10:34	050905-1

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 3195S-1

Contract: LANL00101 **Lab Code: GEL**

Sample ID	Analyte	Result	Acceptance ug/L	Conc Qual	MDL	RDL	M	Analysis Date/Time	Run
	Magnesium	85.0	+/-300	U	85.0	300	P	09-MAY-05 10:34	050905-1
	Nickel	2.57	+/-5	B	1.0	5.0	P	09-MAY-05 10:34	050905-1
	Potassium	50.0	+/-150	U	50.0	150	P	09-MAY-05 10:34	050905-1
	Selenium	6.0	+/-15	U	6.0	15.0	P	09-MAY-05 10:34	050905-1
	Silver	1.0	+/-5	U	1.0	5.0	P	09-MAY-05 10:34	050905-1
	Sodium	45.0	+/-150	U	45.0	150	P	09-MAY-05 10:34	050905-1
	Vanadium	1.0	+/-5	U	1.0	5.0	P	09-MAY-05 10:34	050905-1
	Zinc	2.0	+/-10	U	2.0	10.0	P	09-MAY-05 10:34	050905-1
	Iron	18.0	+/-100	U	18.0	100	P	10-MAY-05 15:50	051005-2
CCB03									
	Mercury	0.05	+/-.2	U	0.05	0.2	AV	09-MAY-05 09:50	050905W1-3
	Aluminum	68.0	+/-200	U	68.0	200	P	09-MAY-05 11:45	050905-1
	Arsenic	6.0	+/-15	U	6.0	15.0	P	09-MAY-05 11:45	050905-1
	Barium	1.0	+/-5	U	1.0	5.0	P	09-MAY-05 11:45	050905-1
	Calcium	36.0	+/-100	U	36.0	100	P	09-MAY-05 11:45	050905-1
	Chromium	1.0	+/-5	U	1.0	5.0	P	09-MAY-05 11:45	050905-1
	Cobalt	1.0	+/-5	U	1.0	5.0	P	09-MAY-05 11:45	050905-1
	Copper	3.0	+/-10	U	3.0	10.0	P	09-MAY-05 11:45	050905-1
	Magnesium	85.0	+/-300	U	85.0	300	P	09-MAY-05 11:45	050905-1
	Nickel	1.0	+/-5	U	1.0	5.0	P	09-MAY-05 11:45	050905-1
	Potassium	50.0	+/-150	U	50.0	150	P	09-MAY-05 11:45	050905-1
	Selenium	6.0	+/-15	U	6.0	15.0	P	09-MAY-05 11:45	050905-1
	Silver	1.0	+/-5	U	1.0	5.0	P	09-MAY-05 11:45	050905-1
	Sodium	45.0	+/-150	U	45.0	150	P	09-MAY-05 11:45	050905-1
	Vanadium	1.0	+/-5	U	1.0	5.0	P	09-MAY-05 11:45	050905-1
	Zinc	2.0	+/-10	U	2.0	10.0	P	09-MAY-05 11:45	050905-1
	Iron	18.0	+/-100	U	18.0	100	P	10-MAY-05 16:16	051005-2
CCB04									
	Mercury	-0.054	+/-.2	B	0.05	0.2	AV	09-MAY-05 10:14	050905W1-3
	Aluminum	68.0	+/-200	U	68.0	200	P	09-MAY-05 12:32	050905-1
	Arsenic	6.0	+/-15	U	6.0	15.0	P	09-MAY-05 12:32	050905-1

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 3195S-1

Contract: LANL00101 **Lab Code: GEL**

Sample ID	Analyte	Result	Acceptance ug/L	Conc Qual	MDL	RDL	M	Analysis Date/Time	Run
	Barium	1.0	+/-5	U	1.0	5.0	P	09-MAY-05 12:32	050905-1
	Calcium	36.0	+/-100	U	36.0	100	P	09-MAY-05 12:32	050905-1
	Chromium	-1.31	+/-5	B	1.0	5.0	P	09-MAY-05 12:32	050905-1
	Cobalt	1.0	+/-5	U	1.0	5.0	P	09-MAY-05 12:32	050905-1
	Copper	3.0	+/-10	U	3.0	10.0	P	09-MAY-05 12:32	050905-1
	Magnesium	85.0	+/-300	U	85.0	300	P	09-MAY-05 12:32	050905-1
	Nickel	1.13	+/-5	B	1.0	5.0	P	09-MAY-05 12:32	050905-1
	Potassium	50.0	+/-150	U	50.0	150	P	09-MAY-05 12:32	050905-1
	Selenium	6.0	+/-15	U	6.0	15.0	P	09-MAY-05 12:32	050905-1
	Silver	1.0	+/-5	U	1.0	5.0	P	09-MAY-05 12:32	050905-1
	Sodium	45.0	+/-150	U	45.0	150	P	09-MAY-05 12:32	050905-1
	Vanadium	1.0	+/-5	U	1.0	5.0	P	09-MAY-05 12:32	050905-1
	Zinc	2.0	+/-10	U	2.0	10.0	P	09-MAY-05 12:32	050905-1
	Iron	18.0	+/-100	U	18.0	100	P	10-MAY-05 17:16	051005-2
CCB05	Mercury	-0.054	+/-.2	B	0.05	0.2	AV	09-MAY-05 10:39	050905W1-3
	Aluminum	68.0	+/-200	U	68.0	200	P	09-MAY-05 13:31	050905-1
	Arsenic	6.0	+/-15	U	6.0	15.0	P	09-MAY-05 13:31	050905-1
	Barium	1.0	+/-5	U	1.0	5.0	P	09-MAY-05 13:31	050905-1
	Calcium	36.0	+/-100	U	36.0	100	P	09-MAY-05 13:31	050905-1
	Chromium	-1.14	+/-5	B	1.0	5.0	P	09-MAY-05 13:31	050905-1
	Cobalt	1.0	+/-5	U	1.0	5.0	P	09-MAY-05 13:31	050905-1
	Copper	3.0	+/-10	U	3.0	10.0	P	09-MAY-05 13:31	050905-1
	Magnesium	85.0	+/-300	U	85.0	300	P	09-MAY-05 13:31	050905-1
	Nickel	1.41	+/-5	B	1.0	5.0	P	09-MAY-05 13:31	050905-1
	Potassium	50.0	+/-150	U	50.0	150	P	09-MAY-05 13:31	050905-1
	Selenium	6.0	+/-15	U	6.0	15.0	P	09-MAY-05 13:31	050905-1
	Silver	1.0	+/-5	U	1.0	5.0	P	09-MAY-05 13:31	050905-1
	Sodium	45.0	+/-150	U	45.0	150	P	09-MAY-05 13:31	050905-1
	Vanadium	1.0	+/-5	U	1.0	5.0	P	09-MAY-05 13:31	050905-1
	Zinc	2.0	+/-10	U	2.0	10.0	P	09-MAY-05 13:31	050905-1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 3195S–1

Contract: LANL00101 **Lab Code: GEL**

Sample ID	Analyte	Result	Acceptance ug/L	Conc Qual	MDL	RDL	M	Analysis Date/Time	Run
CCB06	Mercury	0.05	+/–.2	U	0.05	0.2	AV	09–MAY–05 11:02	050905W1–3
CCB07	Mercury	0.05	+/–.2	U	0.05	0.2	AV	09–MAY–05 11:26	050905W1–3
CCB08	Mercury	–0.053	+/–.2	B	0.05	0.2	AV	09–MAY–05 11:50	050905W1–3
CCB09	Mercury	–0.056	+/–.2	B	0.05	0.2	AV	09–MAY–05 12:14	050905W1–3

METALS
-3b-
PREPARATION BLANK SUMMARY

SDG NO. 3195S-1

Contract: LANL00101

Matrix: WATER

Sample ID	Analyte	Result	Units	Acceptance Window	Conc Qual	M	MDL	RDL
1200839978								
	Mercury	0.05	ug/L	+/-0.2	U	AV	0.05	0.2
1200840490								
	Aluminum	68	ug/L	+/-200	U	P	68	200
	Arsenic	6	ug/L	+/-15.0	U	P	6	15
	Barium	1	ug/L	+/-5.0	U	P	1	5
	Calcium	36	ug/L	+/-100	U	P	36	100
	Chromium	-1.62301	ug/L	+/-5.0	B	P	1	5
	Cobalt	1	ug/L	+/-5.0	U	P	1	5
	Copper	3	ug/L	+/-10.0	U	P	3	10
	Iron	18	ug/L	+/-100	U	P	18	100
	Magnesium	85	ug/L	+/-300	U	P	85	300
	Nickel	1.60409	ug/L	+/-5.0	B	P	1	5
	Potassium	50	ug/L	+/-150	U	P	50	150
	Selenium	6	ug/L	+/-15.0	U	P	6	15
	Silver	1	ug/L	+/-5.0	U	P	1	5
	Sodium	45	ug/L	+/-150	U	P	45	150
	Vanadium	1	ug/L	+/-5.0	U	P	1	5
	Zinc	2	ug/L	+/-10.0	U	P	2	10
1200840566								
	Antimony	0.5	ug/L	+/-2.0	U	MS	0.5	2
	Beryllium	0.1	ug/L	+/-0.5	U	MS	0.1	0.5
	Cadmium	0.1	ug/L	+/-1.0	U	MS	0.1	1
	Lead	0.5	ug/L	+/-2.0	U	MS	0.5	2
	Manganese	1	ug/L	+/-5.0	U	MS	1	5
	Thallium	0.4	ug/L	+/-1.0	U	MS	0.4	1

METALS
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Interference Check Sample

SDG No: 3195S-1

Contract: LANL00101 **Lab Code:** GEL

ICS: O2Si

Instrument: TRACE2

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Aluminum	471213.88	ug/L	500000	ug/L	94.2	80.0 - 120.0	09-MAY-05 08:47	050905-1
	Arsenic	-0.674	ug/L					09-MAY-05 08:47	050905-1
	Barium	1.2	ug/L					09-MAY-05 08:47	050905-1
	Calcium	457999.03	ug/L	500000	ug/L	91.6	80.0 - 120.0	09-MAY-05 08:47	050905-1
	Chromium	-0.09	ug/L					09-MAY-05 08:47	050905-1
	Cobalt	-1.52	ug/L					09-MAY-05 08:47	050905-1
	Copper	4.56	ug/L					09-MAY-05 08:47	050905-1
	Magnesium	496666.34	ug/L	500000	ug/L	99.3	80.0 - 120.0	09-MAY-05 08:47	050905-1
	Nickel	-1.69	ug/L					09-MAY-05 08:47	050905-1
	Potassium	9.35	ug/L					09-MAY-05 08:47	050905-1
	Selenium	3.67	ug/L					09-MAY-05 08:47	050905-1
	Silver	0.021	ug/L					09-MAY-05 08:47	050905-1
	Sodium	15.79	ug/L					09-MAY-05 08:47	050905-1
	Vanadium	0.678	ug/L					09-MAY-05 08:47	050905-1
	Zinc	3.54	ug/L					09-MAY-05 08:47	050905-1
ICSAB01									
	Aluminum	469512.47	ug/L	500000	ug/L	93.9	80.0 - 120.0	09-MAY-05 08:53	050905-1
	Arsenic	504.08	ug/L	500	ug/L	101	80.0 - 120.0	09-MAY-05 08:53	050905-1
	Barium	506.25	ug/L	500	ug/L	101	80.0 - 120.0	09-MAY-05 08:53	050905-1
	Calcium	452561.81	ug/L	500000	ug/L	90.5	80.0 - 120.0	09-MAY-05 08:53	050905-1
	Chromium	479.27	ug/L	500	ug/L	95.9	80.0 - 120.0	09-MAY-05 08:53	050905-1
	Cobalt	465.76	ug/L	500	ug/L	93.2	80.0 - 120.0	09-MAY-05 08:53	050905-1
	Copper	500.34	ug/L	500	ug/L	100	80.0 - 120.0	09-MAY-05 08:53	050905-1
	Magnesium	494311.16	ug/L	500000	ug/L	98.9	80.0 - 120.0	09-MAY-05 08:53	050905-1
	Nickel	450.83	ug/L	500	ug/L	90.2	80.0 - 120.0	09-MAY-05 08:53	050905-1
	Potassium	5728.94	ug/L	5000	ug/L	115	80.0 - 120.0	09-MAY-05 08:53	050905-1
	Selenium	2477.77	ug/L	2500	ug/L	99.1	80.0 - 120.0	09-MAY-05 08:53	050905-1
	Silver	258.97	ug/L	250	ug/L	104	80.0 - 120.0	09-MAY-05 08:53	050905-1
	Sodium	5226.06	ug/L	5000	ug/L	105	80.0 - 120.0	09-MAY-05 08:53	050905-1

METALS
–4–
Interference Check Sample

SDG No: 3195S–1

Contract: LANL00101 **Lab Code:** GEL

ICS:

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
	Vanadium	477.97	ug/L	500	ug/L	95.6	80.0 – 120.0	09–MAY–05 08:53	050905–1
	Zinc	490.72	ug/L	500	ug/L	98.1	80.0 – 120.0	09–MAY–05 08:53	050905–1

METALS
-4-
Interference Check Sample

SDG No: 3195S-1

Contract: LANL00101 **Lab Code:** GEL

ICS: O2Si

Instrument: TRACE2

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Iron	186763.56	ug/L	200000	ug/L	93.4	80.0 - 120.0	10-MAY-05 14:19	051005-2
ICSAB01									
	Iron	191506.52	ug/L	200000	ug/L	95.8	80.0 - 120.0	10-MAY-05 14:25	051005-2

METALS
–4–
Interference Check Sample

SDG No: 3195S–1

Contract: LANL00101 **Lab Code:** GEL

ICS: O2Si

Instrument: ICPMS5

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Antimony	0.663	ug/L					07–MAY–05 00:09	050506–4
	Beryllium	0.015	ug/L					07–MAY–05 00:09	050506–4
	Cadmium	0.306	ug/L					07–MAY–05 00:09	050506–4
	Manganese	3.22	ug/L					07–MAY–05 00:09	050506–4
	Thallium	0.026	ug/L					07–MAY–05 00:09	050506–4
ICSAB01									
	Antimony	21.74	ug/L	22.3	ug/L	97.5	80.0 – 120.0	07–MAY–05 00:14	050506–4
	Beryllium	19.61	ug/L	20	ug/L	98.1	80.0 – 120.0	07–MAY–05 00:14	050506–4
	Cadmium	19.56	ug/L	20	ug/L	97.8	80.0 – 120.0	07–MAY–05 00:14	050506–4
	Manganese	24.27	ug/L	21.9	ug/L	111	80.0 – 120.0	07–MAY–05 00:14	050506–4
	Thallium	19.87	ug/L	20	ug/L	99.3	80.0 – 120.0	07–MAY–05 00:14	050506–4

METALS
-4-
Interference Check Sample

SDG No: 3195S-1

Contract: LANL00101 **Lab Code:** GEL

ICS: O2Si

Instrument: ICPMS5

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Lead	0.936	ug/L					07-MAY-05 03:52	050506-5
ICSAB01									
	Lead	20.88	ug/L	20.8	ug/L	100	80.0 - 120.0	07-MAY-05 03:53	050506-5

METALS
-5a-

Matrix Spike Summary

SDG NO. 3195S-1 **Client ID** RE03-05-59548S

Contract: LANL00101 **Level:** Low

Matrix: WATER **% Solids:**

Sample ID: 135804001 **Spike ID:** 1200840493

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Aluminum	ug/L	75-125	5230		68	U	5000	104		P
Arsenic	ug/L	75-125	474		6	U	500	94.9		P
Barium	ug/L	75-125	504		1.47	B	500	100		P
Calcium	ug/L	75-125	6060		789		5000	105		P
Chromium	ug/L	75-125	526		1	U	500	105		P
Cobalt	ug/L	75-125	505		1	U	500	101		P
Copper	ug/L	75-125	505		3	U	500	101		P
Iron	ug/L	75-125	5320		35.2	B	5000	106		P
Magnesium	ug/L	75-125	5620		234	B	5000	108		P
Nickel	ug/L	75-125	498		1	U	500	99.6		P
Potassium	ug/L	75-125	4970		91	B	5000	97.6		P
Selenium	ug/L	75-125	472		6	U	500	94.2		P
Silver	ug/L	75-125	495		1	U	500	99		P
Sodium	ug/L	75-125	6180		1220		5000	99.3		P
Vanadium	ug/L	75-125	543		1	U	500	109		P
Zinc	ug/L	75-125	507		2.16	B	500	101		P

METALS
–5a–

Matrix Spike Summary

SDG NO. 3195S–1 **Client ID** RE03–05–59548S

Contract: LANL00101 **Level:** Low

Matrix: WATER **% Solids:**

Sample ID: 135804001 **Spike ID:** 1200840569

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Antimony	ug/L	75–125	101		0.5	U	100	101		MS
Beryllium	ug/L	75–125	48.6		0.1	U	50	97.3		MS
Cadmium	ug/L	75–125	5.4		0.1	U	5	108		MS
Lead	ug/L	75–125	20.3		0.5	U	20	101		MS
Manganese	ug/L	75–125	49.1		1	U	50	96.5		MS
Thallium	ug/L	75–125	46.9		0.4	U	50	93		MS

METALS
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Matrix Spike Summary

SDG NO.	3195S–1	**Client ID**	RE03–05–59548S
Contract:	LANL00101	**Level:**	Low
Matrix:	WATER	**% Solids:**	
Sample ID:	135804001	**Spike ID:**	1200840116

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Mercury	ug/L	75–125	2.05		0.05	U	2	102		AV

Metals
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Duplicate Sample Summary

SDG No.: 3195S-1

Contract: LANL00101 **Lab Code:** GEL

Matrix: LIQUID **Level:** Low **Client ID:** RE03-05-59548D

Sample ID: 135804001 **Duplicate ID:** 1200840492 **Percent Solids for Dup:** N/A

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	ug/L		68	U	68	U			P
Arsenic	ug/L		6	U	6	U			P
Barium	ug/L	+/-5	1.47	B	1.28	B	14.1		P
Calcium	ug/L	+/-20%	789		797		1.01		P
Chromium	ug/L		1	U	1	U			P
Cobalt	ug/L		1	U	1	U			P
Copper	ug/L		3	U	3	U			P
Iron	ug/L	+/-100	35.2	B	24.1	B	37.3		P
Magnesium	ug/L	+/-300	234	B	230	B	1.96		P
Nickel	ug/L		1	U	1	U			P
Potassium	ug/L	+/-150	91	B	89.9	B	1.29		P
Selenium	ug/L		6	U	6	U			P
Silver	ug/L		1	U	1	U			P
Sodium	ug/L	+/-20%	1220		1200		1.19		P
Vanadium	ug/L		1	U	1	U			P
Zinc	ug/L	+/-10	2.16	B	2.8	B	25.8		P

Metals
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Duplicate Sample Summary

SDG No.: 3195S-1

Contract: LANL00101 **Lab Code:** GEL

Matrix: LIQUID **Level:** Low **Client ID:** RE03-05-59548D

Sample ID: 135804001 **Duplicate ID:** 1200840568 **Percent Solids for Dup:** N/A

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Antimony	ug/L		0.5	U	0.5	U			MS
Beryllium	ug/L		0.1	U	0.1	U			MS
Cadmium	ug/L		0.1	U	0.1	U			MS
Lead	ug/L		0.5	U	0.5	U			MS
Manganese	ug/L		1	U	1	U			MS
Thallium	ug/L		0.4	U	0.4	U			MS

Metals
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Duplicate Sample Summary

SDG No.: 3195S–1

Contract: LANL00101 **Lab Code:** GEL

Matrix: LIQUID **Level:** Low **Client ID:** RE03–05–59548D

Sample ID: 135804001 **Duplicate ID:** 1200840112 **Percent Solids for Dup:** N/A

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Mercury	ug/L		0.05	U	0.05	U			AV

METALS
-7-
Laboratory Control Sample Summary

SDG NO. 3195S-1

Contract: LANL00101

Aqueous LCS Source:OS2I **Solid LCS Source:**

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1200840491								
	Aluminum	ug/L	5000	5290		106	80-120	P
	Arsenic	ug/L	500	483		96.5	80-120	P
	Barium	ug/L	500	506		101	80-120	P
	Calcium	ug/L	5000	5310		106	80-120	P
	Chromium	ug/L	500	532		106	80-120	P
	Cobalt	ug/L	500	511		102	80-120	P
	Copper	ug/L	500	512		102	80-120	P
	Iron	ug/L	5000	5280		106	80-120	P
	Magnesium	ug/L	5000	5430		109	80-120	P
	Nickel	ug/L	500	505		101	80-120	P
	Potassium	ug/L	5000	4990		99.8	80-120	P
	Selenium	ug/L	500	479		95.8	80-120	P
	Silver	ug/L	500	503		101	80-120	P
	Sodium	ug/L	5000	5100		102	80-120	P
	Vanadium	ug/L	500	548		110	80-120	P
	Zinc	ug/L	500	511		102	80-120	P

METALS
-7-
Laboratory Control Sample Summary

SDG NO. 3195S-1

Contract: LANL00101

Aqueous LCS Source: o2si **Solid LCS Source:**

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1200840567								
	Antimony	ug/L	50	48.9		97.7	80-120	MS
	Beryllium	ug/L	50	45.7		91.5	80-120	MS
	Cadmium	ug/L	50	45.6		91.2	80-120	MS
	Lead	ug/L	50	47.3		94.6	80-120	MS
	Manganese	ug/L	50	46		92	80-120	MS
	Thallium	ug/L	50	44.5		88.9	80-120	MS

METALS
-7-
Laboratory Control Sample Summary

SDG NO. 3195S-1

Contract: LANL00101

Aqueous LCS Source: GEL **Solid LCS Source:**

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1200839979								
	Mercury	ug/L	2	2.05		103	80-120	AV

METALS
-9-
Serial Dilution Sample Summary

SDG NO. 3195S-1 **Client ID** RE03-05-59548L

Contract: LANL00101

Matrix: LIQUID **Level:** Low

Sample ID: 135804001 **Serial Dilution ID:** 1200840494

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Aluminum	68	U	340	U				P
Arsenic	6	U	30	U				P
Barium	1.47	B	5	U	100			P
Calcium	789		750		4.94			P
Chromium	1	U	5	U				P
Cobalt	1	U	5	U				P
Copper	3	U	15	U				P
Iron	35.2	B	90	U	100			P
Magnesium	234	B	425	U	100			P
Nickel	1	U	5	U				P
Potassium	91	B	250	U	100			P
Selenium	6	U	30	U				P
Silver	1	U	5	U				P
Sodium	1220		1120		8.2			P
Vanadium	1	U	5	U				P
Zinc	2.16	B	10	U	100			P

METALS
-9-
Serial Dilution Sample Summary

SDG NO. 3195S-1 **Client ID** RE03-05-59548L

Contract: LANL00101

Matrix: LIQUID **Level:** Low

Sample ID: 135804001 **Serial Dilution ID:** 1200840570

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Antimony	.5	U	2.5	U				MS
Beryllium	.1	U	.5	U				MS
Cadmium	.1	U	.5	U				MS
Lead	.5	U	2.5	U				MS
Manganese	1	U	5	U				MS
Thallium	.4	U	2	U				MS

METALS
-9-
Serial Dilution Sample Summary

SDG NO. 3195S-1 **Client ID** RE03-05-59548L

Contract: LANL00101

Matrix: LIQUID **Level:** Low

Sample ID: 135804001 **Serial Dilution ID:** 1200840114

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Mercury	.05	U	.25	U				AV

METALS
–13–
SAMPLE PREPARATION SUMMARY

SDG No: 3195S–1 **Method Type:** P

Contract: LANL00101 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number	423065						
135804001	RE03–05–59548	SAMPLE	WATER	06–MAY–05	50mL	50mL	
1200840490	MB for batch 423065	MB	WATER	06–MAY–05	50mL	50mL	
1200840491	LCS for batch 423065	LCS	WATER	06–MAY–05	50mL	50mL	
1200840492	RE03–05–59548D	DUP	WATER	06–MAY–05	50mL	50mL	
1200840493	RE03–05–59548S	MS	WATER	06–MAY–05	50mL	50mL	

METALS
-13-
SAMPLE PREPARATION SUMMARY

SDG No: 3195S-1 **Method Type:** MS

Contract: LANL00101 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number	423103						
135804001	RE03-05-59548	SAMPLE	WATER	06-MAY-05	50mL	50mL	
1200840566	MB for batch 423103	MB	WATER	06-MAY-05	50mL	50mL	
1200840567	LCS for batch 423103	LCS	WATER	06-MAY-05	50mL	50mL	
1200840568	RE03-05-59548D	DUP	WATER	06-MAY-05	50mL	50mL	
1200840569	RE03-05-59548S	MS	WATER	06-MAY-05	50mL	50mL	

METALS
-13-
SAMPLE PREPARATION SUMMARY

SDG No: 3195S-1 **Method Type:** AV

Contract: LANL00101 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number	422838						
1200839979	LCS for batch 422838	LCS	GROUND WATER	06-MAY-05	20mL	20mL	
1200839978	MB for batch 422838	MB	GROUND WATER	06-MAY-05	20mL	20mL	
1200840112	RE03-05-59548D	DUP	WATER	06-MAY-05	20mL	20mL	
1200840116	RE03-05-59548S	MS	WATER	06-MAY-05	20mL	20mL	
135804001	RE03-05-59548	SAMPLE	WATER	06-MAY-05	20mL	20mL	

Metals
-14-
Analysis Run Log

Contract: LANL00101
Lab Code: GEL
Inst Name: TRACE2
Start Date: 09-MAY-05 **End Date:** 09-MAY-05

Client Sdg: 3195S-1
Method P
Data File: 050905-1

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn
S0	1	07:57	X		X	X			X	X	X	X			X			X	X	X	X	X		X	X
S0.1	1	08:03	X		X	X			X	X	X	X			X			X	X	X	X	X		X	X
S0.5	1	08:09	X		X	X			X	X	X	X			X			X	X	X	X	X		X	X
SCAL	1	08:15	X		X	X			X	X	X	X			X			X	X	X	X	X		X	X
S10	1	08:21	X		X	X			X	X	X	X			X			X	X	X	X	X		X	X
ICV01	1	08:29	X		X	X			X	X	X	X			X			X	X	X	X	X		X	X
ICB01	1	08:36	X		X	X			X	X	X	X			X			X	X	X	X	X		X	X
PQL01	1	08:41	X		X	X			X	X	X	X			X			X	X	X	X	X		X	X
ICSA01	1	08:47	X		X	X			X	X	X	X			X			X	X	X	X	X		X	X
ICSAB01	1	08:53	X		X	X			X	X	X	X			X			X	X	X	X	X		X	X
CCV01	1	09:07	X		X	X			X	X	X	X			X			X	X	X	X	X		X	X
CCB01	1	09:13	X		X	X			X	X	X	X			X			X	X	X	X	X		X	X
ZZZZZZ	1	09:47																							
ZZZZZZ	1	09:53																							
ZZZZZZ	1	09:59																							
ZZZZZZ	1	10:05																							
ZZZZZZ	1	10:11																							
ZZZZZZ	5	10:17																							
ZZZZZZ	1	10:22																							
CCV02	1	10:28	X		X	X			X	X	X	X			X			X	X	X	X	X		X	X
CCB02	1	10:34	X		X	X			X	X	X	X			X			X	X	X	X	X		X	X
ZZZZZZ	1	10:40																							
ZZZZZZ	1	10:46																							
ZZZZZZ	1	10:52																							
ZZZZZZ	1	10:58																							
ZZZZZZ	1	11:04																							
ZZZZZZ	1	11:10																							
ZZZZZZ	5	11:16																							
ZZZZZZ	1	11:21																							
ZZZZZZ	1	11:27																							
ZZZZZZ	1	11:33																							
CCV03	1	11:39	X		X	X			X	X	X	X			X			X	X	X	X	X		X	X
CCB03	1	11:45	X		X	X			X	X	X	X			X			X	X	X	X	X		X	X
ZZZZZZ	1	11:51																							
ZZZZZZ	1	11:57																							
ZZZZZZ	1	12:03																							
ZZZZZZ	1	12:09																							
ZZZZZZ	5	12:15																							
ZZZZZZ	1	12:20																							
CCV04	1	12:26	X		X	X			X	X	X	X			X			X	X	X	X	X		X	X

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time																							
CCB04	1	12:32	X		X	X			X	X	X	X			X			X	X	X	X	X		X	X
1200840490	1	12:38	X		X	X			X	X	X	X			X			X	X	X	X	X		X	X
1200840491	1	12:44	X		X	X			X	X	X	X			X			X	X	X	X	X		X	X
135804001	1	12:50	X		X	X			X	X	X	X			X			X	X	X	X	X		X	X
1200840492	1	12:56	X		X	X			X	X	X	X			X			X	X	X	X	X		X	X
1200840493	1	13:02	X		X	X			X	X	X	X			X			X	X	X	X	X		X	X
1200840494	5	13:08	X		X	X			X	X	X	X			X			X	X	X	X	X		X	X
ZZZZZZ	1	13:14																							
ZZZZZZ	1	13:20																							
CCV05	1	13:25	X		X	X			X	X	X	X			X			X	X	X	X	X		X	X
CCB05	1	13:31	X		X	X			X	X	X	X			X			X	X	X	X	X		X	X

Metals
-14-
Analysis Run Log

Contract: LANL00101
Lab Code: GEL
Inst Name: TRACE2
Start Date: 10-MAY-05 **End Date:** 10-MAY-05

Client Sdg: 3195S-1
Method P
Data File: 051005-2

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn
S0	1	13:06											X												
S0.1	1	13:12											X												
S0.5	1	13:18											X												
SCAL	1	13:24											X												
S10	1	13:30											X												
S10	1	13:35											X												
SCAL	1	13:43											X												
ICV01	1	13:50											X												
ICB01	1	13:57											X												
PQL01	1	14:03											X												
ZZZZZZ	1	14:09																							
ICSA01	1	14:19											X												
ICSAB01	1	14:25											X												
CCV01	1	14:39											X												
CCB01	1	14:45											X												
ZZZZZZ	1	14:51																							
ZZZZZZ	1	14:57																							
ZZZZZZ	1	15:03																							
ZZZZZZ	1	15:09																							
ZZZZZZ	1	15:15																							
ZZZZZZ	5	15:21																							
ZZZZZZ	1	15:26																							
ZZZZZZ	1	15:32																							
ZZZZZZ	1	15:38																							
CCV02	1	15:44											X												
CCB02	1	15:50											X												
CCV03	1	16:10											X												
CCB03	1	16:16											X												
ZZZZZZ	1	16:22																							
ZZZZZZ	1	16:28																							
1200840490	1	16:34											X												
1200840491	1	16:40											X												
135804001	1	16:46											X												
1200840492	1	16:52											X												
1200840493	1	16:58											X												
1200840494	5	17:04											X												
CCV04	1	17:10											X												
CCB04	1	17:16											X												

Metals
-14-
Analysis Run Log

Contract: LANL00101
Lab Code: GEL
Inst Name: ICPMS5
Start Date: 06-MAY-05 **End Date:** 07-MAY-05

Client Sdg: 3195S-1
Method MS
Data File: 050506-4

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn
Blank	1	23:38:00		X			X	X								X							X		
Standard 1	1	23:43:00		X			X	X								X							X		
Standard 2	1	23:48:00		X			X	X								X							X		
ICV01	1	23:54:00		X			X	X								X							X		
ICB01	1	23:59:00		X			X	X								X							X		
CRDL01	1	00:04:00		X			X	X								X							X		
ICSA01	1	00:09:00		X			X	X								X							X		
ICSAB01	1	00:14:00		X			X	X								X							X		
CCV01	1	00:19:00		X			X	X								X							X		
CCB01	1	00:25:00		X			X	X								X							X		
1200840566	1	00:30:00		X			X	X								X							X		
1200840567	1	00:35:00		X			X	X								X							X		
135804001	1	00:40:00		X			X	X								X							X		
1200840568	1	00:45:00		X			X	X								X							X		
1200840569	1	00:50:00		X			X	X								X							X		
1200840570	5	00:56:00		X			X	X								X							X		
CCV02	1	01:01:00		X			X	X								X							X		
CCB02	1	01:06:00		X			X	X								X							X		

Metals
-14-
Analysis Run Log

Contract: LANL00101
Lab Code: GEL
Inst Name: ICPMS5
Start Date: 06-MAY-05 **End Date:** 07-MAY-05

Client Sdg: 3195S-1
Method MS
Data File: 050506-5

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn
Blank	1	03:41:00												X											
Standard 1	1	03:43:00												X											
Standard 2	1	03:45:00												X											
ICV01	1	03:46:00												X											
ICB01	1	03:48:00												X											
CRDL01	1	03:50:00												X											
ICSA01	1	03:52:00												X											
ICSAB01	1	03:53:00												X											
CCV01	1	03:55:00												X											
CCB01	1	03:57:00												X											
1200840566	1	03:59:00												X											
1200840567	1	04:02:00												X											
135804001	1	04:04:00												X											
1200840568	1	04:07:00												X											
1200840569	1	04:10:00												X											
1200840570	5	04:13:00												X											
CCV02	1	04:15:00												X											
CCB02	1	04:17:00												X											

Metals
-14-
Analysis Run Log

Contract: LANL00101
Lab Code: GEL
Inst Name: MER536
Start Date: 09-MAY-05 **End Date:** 09-MAY-05

Client Sdg: 3195S-1
Method AV
Data File: 050905W1-3

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn
SCalib Blank	1	08:42															X								
S0.2	1	08:44															X								
S0.5	1	08:46															X								
S2.0	1	08:48															X								
S5.0	1	08:50															X								
S10	1	08:52															X								
ICV01	1	08:54															X								
ICB01	1	08:56															X								
CRDL01	1	08:58															X								
CCV01	1	09:00															X								
CCB01	1	09:02															X								
ZZZZZZ	1	09:04																							
ZZZZZZ	1	09:06																							
ZZZZZZ	1	09:08																							
ZZZZZZ	1	09:10																							
ZZZZZZ	1	09:12																							
ZZZZZZ	5	09:14																							
ZZZZZZ	1	09:16																							
ZZZZZZ	1	09:18																							
ZZZZZZ	1	09:20																							
ZZZZZZ	1	09:22																							
CCV02	1	09:24															X								
CCB02	1	09:26															X								
ZZZZZZ	1	09:28																							
ZZZZZZ	1	09:30																							
ZZZZZZ	1	09:32																							
ZZZZZZ	1	09:34																							
ZZZZZZ	1	09:36																							
ZZZZZZ	1	09:38																							
ZZZZZZ	1	09:40																							
ZZZZZZ	1	09:42																							
ZZZZZZ	1	09:44																							
ZZZZZZ	1	09:46																							
CCV03	1	09:48															X								
CCB03	1	09:50															X								
ZZZZZZ	1	09:52																							
ZZZZZZ	1	09:54																							
ZZZZZZ	1	09:56																							
ZZZZZZ	1	09:58																							
ZZZZZZ	1	10:00																							

Metals
-14-
Analysis Run Log

Samp No.	D/F	Run Time																						
ZZZZZZ	1	10:02																						
ZZZZZZ	1	10:04																						
ZZZZZZ	1	10:06																						
ZZZZZZ	1	10:07																						
ZZZZZZ	5	10:09																						
CCV04	1	10:11													X									
CCB04	1	10:14													X									
ZZZZZZ	1	10:17																						
ZZZZZZ	1	10:19																						
ZZZZZZ	1	10:21																						
ZZZZZZ	1	10:23																						
ZZZZZZ	1	10:25																						
ZZZZZZ	1	10:27																						
ZZZZZZ	1	10:29																						
ZZZZZZ	5	10:31																						
ZZZZZZ	1	10:33																						
ZZZZZZ	1	10:35																						
CCV05	1	10:37													X									
CCB05	1	10:39													X									
ZZZZZZ	1	10:41																						
ZZZZZZ	1	10:43																						
ZZZZZZ	5	10:45																						
ZZZZZZ	1	10:46																						
ZZZZZZ	1	10:48																						
ZZZZZZ	1	10:50																						
ZZZZZZ	1	10:52																						
ZZZZZZ	5	10:54																						
ZZZZZZ	1	10:56																						
ZZZZZZ	1	10:58																						
CCV06	1	11:00													X									
CCB06	1	11:02													X									
ZZZZZZ	1	11:05																						
ZZZZZZ	1	11:06																						
ZZZZZZ	1	11:08																						
ZZZZZZ	1	11:10																						
ZZZZZZ	1	11:12																						
ZZZZZZ	5	11:14																						
1200839978	1	11:16													X									
1200839979	1	11:18													X									
ZZZZZZ	1	11:20																						

Metals
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Analysis Run Log

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn
ZZZZZZ	1	11:22																							
CCV07	1	11:24															X								
CCB07	1	11:26															X								
ZZZZZZ	1	11:28																							
ZZZZZZ	5	11:30																							
ZZZZZZ	1	11:32																							
135804001	1	11:34															X								
1200840112	1	11:36															X								
1200840116	1	11:38															X								
1200840114	5	11:40															X								
ZZZZZZ	1	11:42																							
ZZZZZZ	1	11:44																							
ZZZZZZ	1	11:46																							
CCV08	1	11:48															X								
CCB08	1	11:50															X								

STANDARDS DATA

METALS
-10-
Instrument Detection Limits

SDG NO. 3195S-1

Contract: LANL00101 **Lab Code: GEL** **MDL Effective Date:** 01-APR-05

ICP	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
	Aluminum	308.215	68.0	200
	Antimony	206.838	4.0	10
	Arsenic	193.696	6.0	15
	Barium	493.409	1.0	5
	Beryllium	313.042	1.0	5
	Cadmium	226.502	1.0	5
	Calcium	317.933	36.0	100
	Chromium	267.716	1.0	5
	Cobalt	228.616	1.0	5
	Copper	324.754	3.0	10
	Iron	259.94	18.0	100
	Lead	220.353	2.5	10
	Magnesium	279.078	85.0	300
	Manganese	257.61	2.0	10
	Nickel	231.604	1.0	5
	Potassium	766.491	50.0	150
	Selenium	196.026	6.0	15
	Silver	328.068	1.0	5
	Sodium	588.995	45.0	150
	Thallium	190.864	5.0	20
	Vanadium	292.402	1.0	5
	Zinc	213.856	2.0	10

METALS
–10–
Instrument Detection Limits

SDG NO. 3195S–1

Contract: LANL00101 **Lab Code: GEL** **MDL Effective Date:** 01–APR–05

ICP/MS	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
	Aluminum		5.0	15
	Antimony		0.5	2
	Arsenic		1.5	5
	Barium		0.5	2
	Beryllium		0.1	.5
	Cadmium		0.1	1
	Calcium		20.0	100
	Chromium		1.0	3
	Cobalt		0.1	1
	Copper		0.2	1
	Iron		10.0	25
	Lead		0.5	2
	Magnesium		5.0	15
	Manganese		1.0	5
	Nickel		0.5	2
	Potassium		80.0	300
	Selenium		2.5	5
	Silver		0.2	1
	Sodium		80.0	250
	Thallium		0.4	1
	Vanadium		2.0	30
	Zinc		2.0	10

METALS
–10–
Instrument Detection Limits

SDG NO. 3195S–1

Contract: LANL00101 **Lab Code: GEL** **MDL Effective Date:** 01–APR–05

	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
MERCURY				
	Mercury		0.05	.2

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL00101
Instrument: TRACE2
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 3195S-1
Effective Dates: 31-OCT-04,31-JAN-05

Parmname	Wavelength	Aluminum	Antimony	Arsenic	Barium	Beryllium
Aluminum	308.215	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.838	0.00000	0.00000	0.00000	0.00000	0.00000
Arsenic	189.042	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	493.409	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.042	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.678	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Calcium	317.933	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.753	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	259.94	0.00000	0.00000	0.00000	0.00000	0.00000
	271.441	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.351	0.00000	0.00000	0.00000	0.00000	0.00000
	220.352	0.00000	0.00000	0.00000	0.00000	0.00000
Magnesium	279.078	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.03	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	178.287	0.00000	0.00000	0.00000	0.00000	0.00000
Potassium	766.491	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.022	0.00002	0.00000	0.00000	0.00000	0.00000
Silicon	288.158	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Sodium	330.232	0.00120	0.00000	0.00000	0.00092	0.00000
	588.95	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.864	0.00000	0.00000	0.00000	0.00000	0.00000
Tin	189.989	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.941	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	385.958	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	-0.00040	0.00000
Zinc	213.858	0.00000	0.00000	0.00000	0.00000	0.00000

METALS
–11–
Interelement Correction Factors

Lab Code: GEL
Contract: LANL00101
Instrument: TRACE2
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 3195S–1
Effective Dates: 31–OCT–04,31–JAN–05

Parmname	Wavelength	Boron	Cadmium	Calcium	Chromium	Cobalt
Aluminum	308.215	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.838	0.00000	0.00000	0.00000	0.00307	0.00000
Arsenic	189.042	0.00000	0.00000	0.00000	0.00013	0.00013
Barium	493.409	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.042	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.678	0.00000	0.00000	0.00000	0.00000	0.00106
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Calcium	317.933	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	–0.00051	0.00000
Copper	324.753	0.00000	0.00000	0.00000	0.00000	–0.00135
Iron	259.94	0.00000	0.00000	0.00000	0.00000	0.00000
	271.441	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.351	0.00000	0.00000	0.00000	0.00000	0.00000
	220.352	0.00000	0.00000	0.00000	0.00000	0.00000
Magnesium	279.078	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.03	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	–0.00065
Phosphorous	178.287	0.00000	0.00000	0.00000	0.00000	0.00000
Potassium	766.491	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.022	0.00000	0.00000	0.00000	–0.00014	–0.00044
Silicon	288.158	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Sodium	330.232	0.00000	0.00000	0.00000	0.00000	0.00000
	588.95	0.00000	0.00000	0.00003	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00001	0.00000	0.00000
Thallium	190.864	0.00000	0.00000	0.00000	0.00000	–0.00252
Tin	189.989	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.941	0.00000	0.00000	0.00000	0.00029	0.00000
Uranium	385.958	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.858	0.00000	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL00101
Instrument: TRACE2
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 3195S-1
Effective Dates: 31-OCT-04,31-JAN-05

Parmname	Wavelength	Copper	Iron	Lead	Magnesium	Manganese
Aluminum	308.215	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.838	0.00000	0.00008	0.00000	0.00000	0.00000
Arsenic	189.042	0.00021	-0.00001	0.00000	0.00000	0.00000
Barium	493.409	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.042	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.678	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00002	0.00000	0.00000	0.00000
Calcium	317.933	0.00000	0.00000	0.00000	0.00004	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	-0.00093
Cobalt	228.616	0.00000	0.00002	0.00000	0.00000	0.00000
Copper	324.753	0.00000	-0.00025	0.00000	0.00000	0.00000
Iron	259.94	0.00000	0.00000	0.00000	0.00010	0.00000
	271.441	0.00000	0.00000	0.00000	0.00010	0.00000
Lead	220.351	0.00000	0.00023	0.00000	0.00000	0.00000
	220.352	0.00000	0.00004	0.00000	0.00000	0.00000
Magnesium	279.078	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00002	0.00000	0.00001	0.00000
Molybdenum	202.03	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00002	0.00000	0.00000	0.00000
Phosphorous	178.287	0.00000	0.00010	0.00000	0.00000	0.00000
Potassium	766.491	0.00000	0.00000	0.00000	0.00012	0.00000
Selenium	196.022	0.00000	-0.00025	0.00000	0.00000	0.00103
Silicon	288.158	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Sodium	330.232	0.00000	0.00000	0.00000	0.00000	0.00000
	588.95	0.00000	0.00000	0.00000	0.00010	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.864	0.00000	-0.00002	0.00000	0.00000	0.00000
Tin	189.989	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.941	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	385.958	0.00000	0.00101	0.00000	0.00000	0.00725
Vanadium	292.402	0.00000	0.00003	0.00000	0.00000	0.00000
Zinc	213.858	0.00000	0.00005	0.00000	0.00003	0.00000

METALS
–11–
Interelement Correction Factors

Lab Code: GEL
Contract: LANL00101
Instrument: TRACE2
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 3195S–1
Effective Dates: 31–OCT–04,31–JAN–05

Parmname	Wavelength	Molybdenum	Nickel	Phosphorous	Potassium	Selenium
Aluminum	308.215	–0.01269	0.00000	0.00000	0.00000	0.00000
Antimony	206.838	–0.00708	0.00000	0.00000	0.00000	0.00000
Arsenic	189.042	0.00026	0.00000	0.00000	0.00000	0.00000
Barium	493.409	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.042	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.678	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Calcium	317.933	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.753	0.00020	0.00000	0.00000	0.00000	0.00000
Iron	259.94	0.00000	0.00000	0.00000	0.00000	0.00000
	271.441	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.351	–0.00108	0.00000	0.00000	0.00000	0.00000
	220.352	–0.00112	0.00000	0.00000	0.00000	0.00000
Magnesium	279.078	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.03	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	178.287	0.00000	0.00000	0.00000	0.00000	0.00000
Potassium	766.491	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.022	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	288.158	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	–0.00051	0.00000	0.00000	0.00000	0.00000
Sodium	330.232	0.00000	0.00000	0.00000	0.00000	0.00000
	588.95	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.864	0.00000	0.00000	0.00000	0.00000	0.00000
Tin	189.989	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.941	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	385.958	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	–0.00064	0.00000	0.00000	0.00000	0.00000
Zinc	213.858	0.00000	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL00101
Instrument: TRACE2
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 3195S-1
Effective Dates: 31-OCT-04,31-JAN-05

Parmname	Wavelength	Silicon	Silver	Sodium	Strontium	Thallium
Aluminum	308.215	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.838	0.00000	0.00000	0.00000	0.00000	0.00000
Arsenic	189.042	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	493.409	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.042	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.678	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Calcium	317.933	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.753	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	259.94	0.00000	0.00000	0.00000	0.00000	0.00000
	271.441	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.351	0.00000	0.00000	0.00000	0.00000	0.00000
	220.352	0.00000	0.00000	0.00000	0.00000	0.00000
Magnesium	279.078	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.03	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	178.287	0.00000	0.00000	0.00000	0.00000	0.00000
Potassium	766.491	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.022	-0.00013	0.00000	0.00000	0.00000	0.00000
Silicon	288.158	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Sodium	330.232	0.00000	0.00000	0.00000	0.00000	0.00000
	588.95	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.864	0.00000	0.00000	0.00000	0.00000	0.00000
Tin	189.989	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.941	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	385.958	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.858	0.00000	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL00101
Instrument: TRACE2
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 3195S-1
Effective Dates: 31-OCT-04,31-JAN-05

Parmname	Wavelength	Tin	Titanium	Uranium	Vanadium	Zinc
Aluminum	308.215	0.00000	0.00000	0.00000	0.02412	0.00000
Antimony	206.838	0.00000	0.00000	0.00000	0.00000	0.00000
Arsenic	189.042	0.00000	0.00000	-0.00018	0.00000	0.00000
Barium	493.409	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.042	0.00000	0.00000	0.00000	0.00017	0.00000
Boron	249.678	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Calcium	317.933	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00104	0.00000	0.00000
Cobalt	228.616	0.00000	0.00181	0.00012	0.00000	0.00000
Copper	324.753	0.00000	0.00000	0.00089	0.00000	0.00000
Iron	259.94	0.00000	0.00000	0.00000	0.00000	0.00000
	271.441	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.351	0.00000	-0.00580	0.00050	0.00000	0.00000
	220.352	0.00000	-0.00006	0.00059	0.00000	0.00000
Magnesium	279.078	0.00000	0.00000	0.00424	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.03	0.00000	0.00000	0.00000	-0.00001	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	178.287	0.00000	0.00000	0.00000	0.00000	0.00000
Potassium	766.491	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.022	0.00000	-0.00057	-0.00025	-0.00030	0.00000
Silicon	288.158	0.01260	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00025	0.00000	0.00000
Sodium	330.232	0.00000	0.00000	0.00000	0.00254	0.02000
	588.95	0.00000	0.00000	0.00000	0.00017	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.864	0.00000	-0.00144	0.00000	-0.00240	0.00000
Tin	189.989	0.00000	-0.00604	0.00000	0.00000	0.00000
Titanium	334.941	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	385.958	0.00000	0.00000	0.00000	-0.00581	0.00000
Vanadium	292.402	0.00000	0.00180	0.00020	0.00000	0.00000
Zinc	213.858	0.00000	0.00000	0.00000	0.00000	0.00000

METALS
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Linear Ranges

SDG NO. 3195S–1

Contract: LANL00101 **Lab Code: GEL**

Instrument ID TRACE2

Analyte	Integration Time	LDR	Units	Effective Date
Aluminum		500000	ug/L	01–MAY–05
Antimony		50000	ug/L	01–MAY–05
Arsenic		50000	ug/L	01–MAY–05
Barium		15000	ug/L	01–MAY–05
Beryllium		10000	ug/L	01–MAY–05
Cadmium		25000	ug/L	01–MAY–05
Calcium		500000	ug/L	01–MAY–05
Chromium		50000	ug/L	01–MAY–05
Cobalt		50000	ug/L	01–MAY–05
Copper		25000	ug/L	01–MAY–05
Iron		500000	ug/L	01–MAY–05
Lead		50000	ug/L	01–MAY–05
Magnesium		500000	ug/L	01–MAY–05
Manganese		10000	ug/L	01–MAY–05
Nickel		50000	ug/L	01–MAY–05
Potassium		30000	ug/L	01–MAY–05
Selenium		50000	ug/L	01–MAY–05
Silver		2000	ug/L	01–MAY–05
Sodium		200000	ug/L	01–MAY–05
Thallium		50000	ug/L	01–MAY–05
Vanadium		50000	ug/L	01–MAY–05
Zinc		5000	ug/L	01–MAY–05

METALS
-12-
Linear Ranges

SDG NO. 3195S-1

Contract: LANL00101 **Lab Code: GEL**

Instrument ID ICPMS5

Analyte	Integration Time	LDR	Units	Effective Date
Aluminum		200000	ug/L	01-MAY-05
Antimony		2500	ug/L	01-MAY-05
Arsenic		5000	ug/L	01-MAY-05
Barium		10000	ug/L	01-MAY-05
Beryllium		5000	ug/L	01-MAY-05
Cadmium		10000	ug/L	01-MAY-05
Calcium		200000	ug/L	01-MAY-05
Chromium		10000	ug/L	01-MAY-05
Cobalt		10000	ug/L	01-MAY-05
Copper		10000	ug/L	01-MAY-05
Iron		200000	ug/L	01-MAY-05
Lead		10000	ug/L	01-MAY-05
Magnesium		200000	ug/L	01-MAY-05
Manganese		10000	ug/L	01-MAY-05
Nickel		10000	ug/L	01-MAY-05
Potassium		200000	ug/L	01-MAY-05
Selenium		2500	ug/L	01-MAY-05
Silver		100	ug/L	01-MAY-05
Sodium		100000	ug/L	01-MAY-05
Thallium		10000	ug/L	01-MAY-05
Vanadium		10000	ug/L	01-MAY-05
Zinc		5000	ug/L	01-MAY-05

RAW DATA

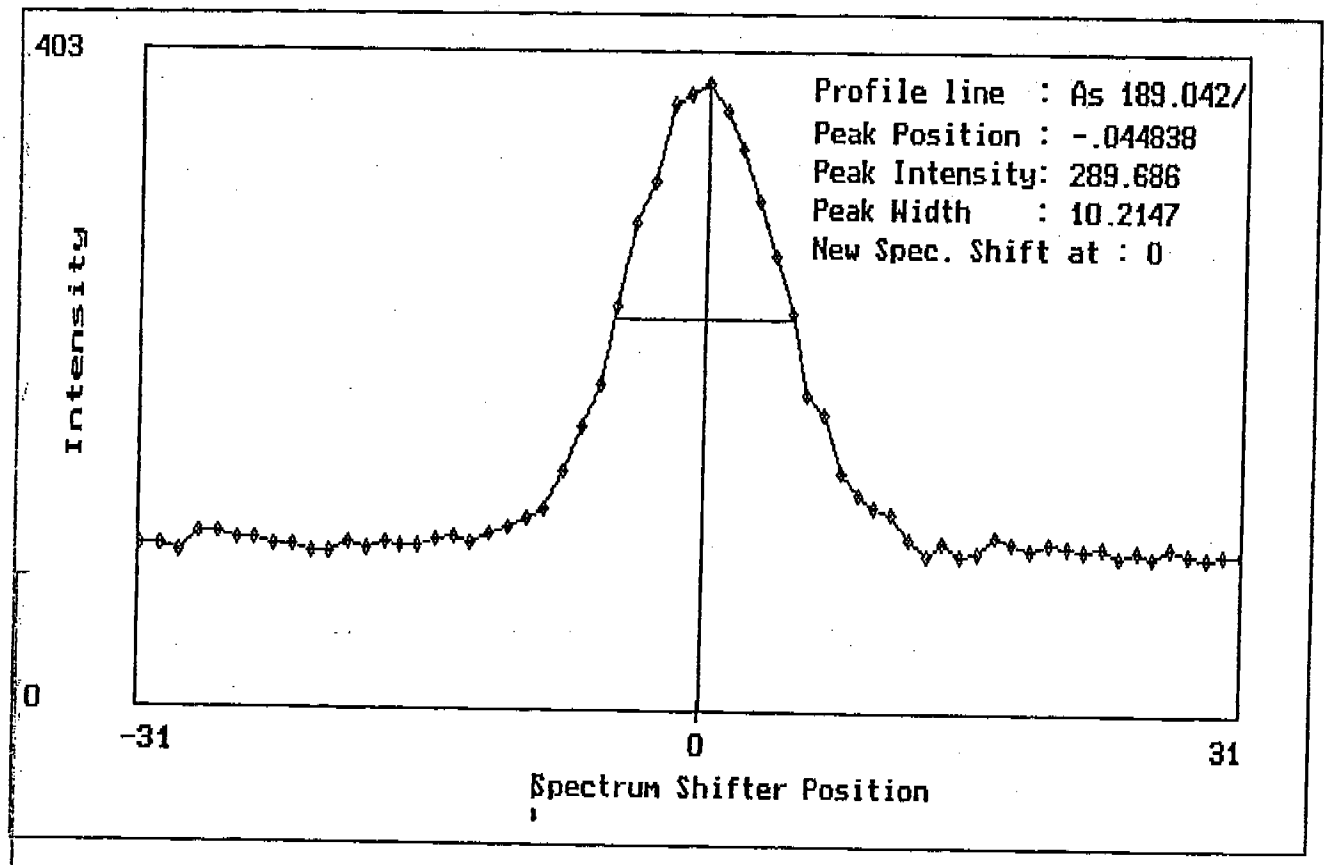
403
Intensity
0
-31
0
31
Spectrum Shifter Position
Profile line : As 189.042/
Peak Position : -.044838
Peak Intensity: 289.686
Peak Width : 10.2147
New Spec. Shift at : 0

HK
5/09/05

Standardization Rpt. 05/09/05 08:03:45 AM page 1

Method: TRACE2 Standard: S0
Run Time: 05/09/05 07:57:54

Elem	Ag_328	Al_308	As_189	B_2496	Ba_493	Be_313	Ca_317
Avge	-.0000	.0055	.0014	.0004	.0011	.0004	.0046
SDev	.0006	.0005	.0022	.0003	.0003	.0001	.0011
%RSD	1629.	9.866	155.0	69.94	26.15	14.70	24.21
#1	.0007	.0060	-.0001	.0008	.0015	.0005	.0058
#2	-.0005	.0055	.0004	.0003	.0011	.0004	.0044
#3	-.0003	.0049	.0040	.0002	.0009	.0004	.0036

Elem	Cd_226	Co_228	Cr_267	Cu_324	Fe_	Fe_	K_7664
Avge	-.0000	.0003	.0006	.0009	.0002	.0027	.0573
SDev	.0005	.0003	.0002	.0002	.0001	.0008	.0048
%RSD	2236.	96.21	32.91	25.87	45.18	30.17	8.394
#1	-.0003	.0003	.0006	.0008	.0001	.0035	.0518
#2	-.0004	.0000	.0004	.0012	.0002	.0026	.0608
#3	.0006	.0006	.0007	.0007	.0003	.0019	.0592

Elem	Mg_279	Mn_257	Mo_202	Na_	Na_	Ni_231	Sb_206
Avge	.0005	-.0000	-.0001	-.0007	-2.183	-.0000	.0005
SDev	.0003	.0001	.0005	.0016	.024	.0006	.0001
%RSD	49.02	352.0	440.7	228.7	1.112	1577.	30.83
#1	.0008	.0001	.0001	.0008	-2.210	.0002	.0004
#2	.0006	-.0001	.0003	-.0024	-2.174	.0004	.0004
#3	.0002	-.0001	-.0007	-.0004	-2.164	-.0007	.0006

Elem	Sn_189	Ti_334	Tl_190	U_3859	V_2924	Zn_213	P_1782
Avge	.0002	-.0003	-.0019	.0183	.0000	.0002	.0250
SDev	.0026	.0006	.0026	.0008	.0002	.0001	.0027
%RSD	1094.	183.6	136.0	4.342	905.7	62.22	10.99
#1	.0031	-.0006	-.0049	.0179	.0002	.0003	.0240
#2	-.0020	-.0008	-.0009	.0178	-.0002	.0001	.0229
#3	-.0004	.0004	.0001	.0192	.0001	.0003	.0281

Elem	Si_288	Si02_	Sr_421	Pb1st	Pb2nd	Se1st	Se2nd
Avge	.0033	.0033	.0028	-.0018	-.0014	.0039	-.0012
SDev	.0001	.0001	.0002	.0016	.0005	.0029	.0013
%RSD	4.405	4.405	7.347	90.23	36.53	75.32	108.0
#1	.0034	.0034	.0030	-.0035	-.0009	.0022	-.0003
#2	.0034	.0034	.0026	-.0017	-.0013	.0022	-.0028
#3	.0032	.0032	.0027	-.0002	-.0019	.0073	-.0006

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	15957	--	--	--	--	--	--
SDev	110.5926	--	--	--	--	--	--
%RSD	.6930871	--	--	--	--	--	--
#1	15845	--	--	--	--	--	--
#2	15958	--	--	--	--	--	--
#3	16066	--	--	--	--	--	--

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	15361	--	--	--	--	--	--
SDev	345.7846	--	--	--	--	--	--
%RSD	2.251079	--	--	--	--	--	--
#1	15116	--	--	--	--	--	--
#2	15210	--	--	--	--	--	--
#3	15756	--	--	--	--	--	--

Method: TRACE2 Standard: S0.1
Run Time: 05/09/05 08:03:49

Elem	Ag_328	As_189	B_2496	Ba_493	Be_313	Cd_226	Co_228
Avge	.0875	.0569	.0125	.2686	.2631	.2624	.0537
SDev	.0012	.0003	.0002	.0006	.0001	.0034	.0006
%RSD	1.385	.5738	1.537	.2153	.0220	1.305	1.129
#1	.0867	.0570	.0124	.2692	.2632	.2654	.0532
#2	.0869	.0573	.0127	.2682	.2631	.2632	.0536
#3	.0889	.0566	.0123	.2683	.2631	.2587	.0544

Elem	Cr_267	Cu_324	K_7664	Mn_257	Mo_202	Ni_231	Sb_206
Avge	.0461	.0580	1.660	.0326	.0449	.0433	.0177
SDev	.0004	.0003	.014	.0003	.0007	.0006	.0006
%RSD	.8245	.4652	.8535	.8101	1.574	1.467	3.379
#1	.0465	.0583	1.665	.0329	.0456	.0429	.0183
#2	.0458	.0579	1.671	.0324	.0442	.0440	.0176
#3	.0460	.0578	1.644	.0324	.0451	.0429	.0171

Elem	Sn_189	Ti_334	Tl_190	U_3859	V_2924	Zn_213	P_1782
Avge	.0733	.5141	.0367	.0226	.0159	.0275	.3215
SDev	.0031	.0019	.0012	.0009	.0003	.0000	.0042
%RSD	4.237	.3617	3.164	3.968	1.687	.1221	1.300
#1	.0709	.5138	.0371	.0236	.0159	.0275	.3169
#2	.0723	.5124	.0354	.0225	.0156	.0275	.3225
#3	.0768	.5160	.0376	.0218	.0162	.0275	.3251

Elem	Si_288	Si02_	Sr_421	Pb1st	Pb2nd	Se1st	Se2nd
Avge	.0364	.0364	1.004	.1037	.0417	.0697	.0306
SDev	.0006	.0006	.003	.0055	.0018	.0062	.0024
%RSD	1.699	1.699	.2919	5.328	4.190	8.871	7.953
#1	.0371	.0371	1.008	.1100	.0413	.0706	.0301
#2	.0362	.0362	1.004	.1011	.0402	.0753	.0285
#3	.0359	.0359	1.002	.0999	.0437	.0631	.0333

Method: TRACE2 Standard: S0.5
Run Time: 05/09/05 08:09:43

Elem	Ag_328	As_189	B_2496	Ba_493	Be_313	Cd_226	Co_228
Avge	.4310	.2680	.0601	1.314	1.294	1.275	.2658
SDev	.0016	.0014	.0005	.003	.003	.006	.0012
%RSD	.3812	.5328	.7601	.2309	.2032	.4890	.4677
#1	.4328	.2692	.0605	1.317	1.293	1.268	.2644
#2	.4295	.2684	.0603	1.315	1.292	1.281	.2660
#3	.4308	.2664	.0596	1.311	1.297	1.276	.2669

Elem	Cr_267	Cu_324	Fe_	K_7664	Mn_257	Mo_202	Ni_231
Avge	.2264	.2793	1.087	8.028	.1618	.2208	.2101
SDev	.0008	.0008	.007	.024	.0006	.0009	.0012
%RSD	.3708	.2776	.6657	.2959	.3636	.4174	.5531
#1	.2269	.2801	1.086	8.018	.1619	.2218	.2112
#2	.2269	.2786	1.095	8.012	.1623	.2204	.2089
#3	.2255	.2790	1.080	8.056	.1612	.2201	.2103

Elem	Sb_206	Sn_189	Ti_334	Tl_190	U_3859	V_2924	Zn_213
Avge	.0832	.3486	2.534	.1927	.0404	.0792	.1338
SDev	.0008	.0016	.004	.0022	.0004	.0006	.0004
%RSD	.9329	.4653	.1475	1.117	1.049	.8135	.2897
#1	.0830	.3482	2.535	.1938	.0403	.0790	.1340
#2	.0826	.3472	2.531	.1902	.0408	.0799	.1340
#3	.0841	.3504	2.538	.1940	.0400	.0787	.1333

Elem	P_1782	Si_288	Si02_	Sr_421	Pb1st	Pb2nd	Se1st
Avge	1.482	.1679	.1679	4.925	.5102	.2058	.3347
SDev	.006	.0003	.0003	.014	.0043	.0013	.0056
%RSD	.4240	.1787	.1787	.2888	.8464	.6417	1.666
#1	1.486	.1677	.1677	4.938	.5149	.2067	.3390
#2	1.475	.1683	.1683	4.927	.5093	.2064	.3284
#3	1.486	.1678	.1678	4.909	.5064	.2043	.3367

Elem	Se2nd
Avge	.1595
SDev	.0022
%RSD	1.396
#1	.1580
#2	.1621
#3	.1585

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	16050	--	--	--	--	--	--
SDev	165.8126	--	--	--	--	--	--
%RSD	1.033072	--	--	--	--	--	--
#1	15860	--	--	--	--	--	--
#2	16164	--	--	--	--	--	--
#3	16127	--	--	--	--	--	--

Method: TRACE2 Standard: SCAL
Run Time: 05/09/05 08:15:38

Elem	Ag_328	Al_308	As_189	B_2496	Ba_493	Be_313	Ca_317
Avge	.8708	.5405	.5383	.1205	2.642	2.614	1.816
SDev	.0020	.0018	.0032	.0011	.006	.005	.001
%RSD	.2291	.3359	.5847	.9322	.2220	.1904	.0750
#1	.8731	.5388	.5420	.1208	2.638	2.619	1.817
#2	.8694	.5424	.5364	.1215	2.649	2.609	1.816
#3	.8698	.5403	.5366	.1193	2.640	2.612	1.814

Elem	Cd_226	Co_228	Cr_267	Cu_324	Fe_	Fe_	K_7664
Avge	2.542	.5339	.4562	.5639	.1251	2.160	15.72
SDev	.004	.0015	.0005	.0006	.0008	.020	.01
%RSD	.1511	.2812	.1004	.1084	.6458	.9346	.0691
#1	2.544	.5350	.4563	.5634	.1260	2.137	15.73
#2	2.544	.5345	.4566	.5646	.1248	2.174	15.71
#3	2.538	.5322	.4557	.5638	.1245	2.170	15.71

Elem	Mg_279	Mn_257	Mo_202	Na_	Ni_231	Sb_206	Sn_189
Avge	.2026	.3248	.4409	53.40	.4195	.1693	.6982
SDev	.0005	.0011	.0034	.13	.0019	.0013	.0069
%RSD	.2309	.3395	.7714	.2388	.4444	.7414	.9853
#1	.2025	.3235	.4371	53.27	.4174	.1707	.7061
#2	.2031	.3253	.4436	53.52	.4209	.1685	.6939
#3	.2022	.3255	.4420	53.42	.4202	.1687	.6946

Elem	Ti_334	Tl_190	U_3859	V_2924	Zn_213	P_1782	Si_288
Avge	5.106	.3866	.0624	.1591	.2667	2.916	.3341
SDev	.006	.0017	.0008	.0005	.0006	.038	.0006
%RSD	.1251	.4506	1.197	.3286	.2279	1.315	.1871
#1	5.112	.3878	.0618	.1588	.2661	2.952	.3334
#2	5.105	.3874	.0621	.1597	.2673	2.921	.3347
#3	5.100	.3846	.0632	.1589	.2666	2.875	.3343

Elem	Si02_	Sr_421	Pb1st	Pb2nd	Se1st	Se2nd
Avge	.3341	9.908	1.012	.4152	.6617	.3157
SDev	.0006	.015	.022	.0032	.0114	.0020
%RSD	.1871	.1509	2.170	.7803	1.717	.6272
#1	.3334	9.906	.9955	.4162	.6530	.3136
#2	.3347	9.924	1.004	.4178	.6576	.3176
#3	.3343	9.895	1.037	.4116	.6746	.3158

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	16315	--	--	--	--	--	--
SDev	181.3359	--	--	--	--	--	--
%RSD	1.111443	--	--	--	--	--	--
#1	16510	--	--	--	--	--	--
#2	16285	--	--	--	--	--	--
#3	16151	--	--	--	--	--	--

Method: TRACE2 Standard: S10
Run Time: 05/09/05 08:21:34

Elem	Al_308	Ca_317	Fe_	Mg_279	Na_
Avge	2.634	9.061	.2423	.9975	.1904
SDev	.012	.022	.0019	.0003	.0018
%RSD	.4628	.2408	.8012	.0268	.9396
#1	2.631	9.046	.2406	.9973	.1897
#2	2.624	9.050	.2417	.9974	.1891
#3	2.648	9.086	.2444	.9978	.1925

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	15644	--	--	--	--	--	--
SDev	150.6374	--	--	--	--	--	--
%RSD	.9629232	--	--	--	--	--	--
#1	15816	--	--	--	--	--	--
#2	15575	--	--	--	--	--	--
#3	15540	--	--	--	--	--	--

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Method: TRACE2 Slope = Conc(SIR)/IR

Element	Wavelen	High std	Low std	Slope	Y-intercept	Date Standardized
Ag_328	328.068	Multiple	Standards	1149.80	.039911	05/09/05 08:15:38
Al_308	308.215	Multiple	Standards	18865.8	-103.956	05/09/05 08:21:34
As_189	189.042	Multiple	Standards	1847.23	-2.66612	05/09/05 08:15:38
B_2496	249.678	Multiple	Standards	8340.14	-3.49815	05/09/05 08:15:38
Ba_493	493.409	Multiple	Standards	377.754	-.435070	05/09/05 08:15:38
Be_313	313.042	Multiple	Standards	383.397	-.173581	05/09/05 08:15:38
Ca_317	317.933	Multiple	Standards	5521.45	-25.3994	05/09/05 08:21:34
Cd_226	226.502	Multiple	Standards	388.837	-.008589	05/09/05 08:15:38
Co_228	228.616	Multiple	Standards	1879.03	-.550745	05/09/05 08:15:38
Cr_267	267.716	Multiple	Standards	2201.82	-1.24258	05/09/05 08:15:38
Cu_324	324.753	Multiple	Standards	1772.00	-1.63816	05/09/05 08:15:38
Fe_	271.441	Multiple	Standards	81322.8	-17.7454	05/09/05 08:21:34
Fe_	259.940	Multiple	Standards	4623.09	-12.4438	05/09/05 08:15:38
K_7664	766.491	Multiple	Standards	629.861	-36.1700	05/09/05 08:15:38
Mg_279	279.078	Multiple	Standards	49828.1	-26.5999	05/09/05 08:21:34
Mn_257	257.610	Multiple	Standards	3079.52	.060433	05/09/05 08:15:38
Mo_202	202.030	Multiple	Standards	2249.93	.265707	05/09/05 08:15:38
Na_	330.232	S10	S0	104635.	74.0193	05/09/05 08:21:34
Na_	588.950	SCAL	S0	179.905	392.714	05/09/05 08:21:34
Ni_231	231.604	Multiple	Standards	2356.10	.075926	05/09/05 08:15:38
Sb_206	206.838	Multiple	Standards	5899.51	-2.72455	05/09/05 08:15:38
Pb_220	220.353	NONE	NONE	.000000	.000000	*NOT STANDARDIZED
Se_196	196.026	NONE	NONE	.000000	.000000	*NOT STANDARDIZED
Sn_189	189.989	Multiple	Standards	1403.24	-.360151	05/09/05 08:15:38
Ti_334	334.941	Multiple	Standards	195.835	.060059	05/09/05 08:15:38
Tl_190	190.864	Multiple	Standards	2561.56	4.90289	05/09/05 08:15:38
U_3859	385.958	Multiple	Standards	23062.9	-422.446	05/09/05 08:15:38
V_2924	292.402	Multiple	Standards	6303.29	-.134637	05/09/05 08:15:38
Zn_213	213.858	Multiple	Standards	3721.00	-.790564	05/09/05 08:15:38
P_1782	178.287	Multiple	Standards	1710.52	-42.8545	05/09/05 08:15:38
Si_288	288.158	Multiple	Standards	15140.5	-50.6195	05/09/05 08:15:38
SiO2_	288.158	Multiple	Standards	32385.5	-108.275	05/09/05 08:15:38
Sr_421	421.552	Multiple	Standards	100.798	-.289985	05/09/05 08:15:38
Pb1st	220.351	Multiple	Standards	970.422	1.75064	05/09/05 08:15:38
Pb2nd	220.352	Multiple	Standards	2372.89	3.24528	05/09/05 08:15:38
Se1st	196.021	Multiple	Standards	1521.15	-5.92276	05/09/05 08:15:38
Se2nd	196.022	Multiple	Standards	3115.61	3.84056	05/09/05 08:15:38

Method: TRACE2

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Ag_328	328.068	S0	.000000	-.005425	.005425
		S0.1	100.000	100.671	-.671112
		S0.5	500.000	495.636	4.36420
		SCAL	1000.00	1001.24	-1.24323

CorCoef: 0.99998

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Al_308	308.215	S0	.000000	-.652353	.652353
		SCAL	10000.0	10093.0	-92.9971
		S10	50000.0	49592.6	407.371

CorCoef: 0.99999

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
As_189	189.042	S0	.000000	-.020643	.020643
		S0.1	100.000	102.525	-2.52473
		S0.5	500.000	492.342	7.65759
		SCAL	1000.00	991.781	8.21851

CorCoef: 0.99998

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
B_2496	249.678	S0	.000000	-.003742	.003742
		S0.1	100.000	100.583	-.582764
		S0.5	500.000	497.779	2.22150
		SCAL	1000.00	1001.79	-1.79230

CorCoef: 0.99999

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Ba_493	493.409	S0	.000000	-.008431	.008431
		S0.1	100.000	101.025	-1.02499
		S0.5	500.000	496.033	3.96674
		SCAL	1000.00	997.684	2.31628

CorCoef: 0.99999

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Be_313	313.042	S0	.000000	-.005325	.005325
		S0.1	100.000	100.704	-.703896
		S0.5	500.000	495.815	4.18542
		SCAL	1000.00	1001.85	-1.85077

CorCoef: 0.99998

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Ca_317	317.933	S0	.000000	.004323	-.004323
		SCAL	10000.0	9999.46	.541016
		S10	50000.0	50002.7	-2.70313

CorCoef: 1.00000

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Cd_226	226.502	S0	.000000	-.017433	.017433
		S0.1	100.000	102.033	-2.03306
		S0.5	500.000	495.752	4.24844
		SCAL	1000.00	988.463	11.5367

CorCoef: 1.00000

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Co_228	228.616	S0	.000000	-.002229	.002229
		S0.1	100.000	100.433	-.433304
		S0.5	500.000	498.857	1.14255
		SCAL	1000.00	1002.63	-2.63452

CorCoef: 1.00000

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Cr_267	267.716	S0	.000000	-.001570	.001570
		S0.1	100.000	100.246	-.245941
		S0.5	500.000	497.325	2.67502
		SCAL	1000.00	1003.21	-3.21478

CorCoef: 0.99999

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Cu_324	324.753	S0	.000000	-.009127	.009127
		S0.1	100.000	101.113	-1.11349
		S0.5	500.000	493.229	6.77072
		SCAL	1000.00	997.679	2.32098

CorCoef: 0.99998

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Fe_	271.441	S0	.000000	-.791640	.791640
		SCAL	10000.0	10158.3	-158.328
		S10	20000.0	19683.3	316.656

CorCoef: 0.99983

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Fe_	259.940	S0	.000000	-.064784	.064784
		S0.5	5000.00	5012.96	-12.9570
		SCAL	10000.0	9974.09	25.9131

CorCoef: 1.00000

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
K_7664	766.491	S0	.000000	-.088876	.088876
		S0.1	1000.00	1009.42	-9.41699
		S0.5	5000.00	5020.61	-20.6147
		SCAL	10000.0	9864.60	135.398

CorCoef: 0.99996

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Mg_279	279.078	S0	.000000	-.518618	.518618
		SCAL	10000.0	10069.1	-69.0771
		S10	50000.0	49676.0	324.035

CorCoef: 1.00000

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Mn_257	257.610	S0	.000000	-.002999	.002999
		S0.1	100.000	100.374	-.373558
		S0.5	500.000	498.269	1.73062
		SCAL	1000.00	1000.20	-.204956

CorCoef: 1.00000

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Mo_202	202.030	S0	.000000	-.011813	.011813
		S0.1	100.000	101.380	-1.37975
		S0.5	500.000	496.979	3.02106
		SCAL	1000.00	992.245	7.75531
CorCoef:	1.00000				

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Na_	330.232	S0	.000000	.000000	-.000000
		S10	20000.0	20000.0	.000000

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Na_	588.950	S0	.000000	.000005	-.000005
		SCAL	10000.0	10000.0	.000000

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Ni_231	231.604	S0	.000000	-.017484	.017484
		S0.1	100.000	101.982	-1.98162
		S0.5	500.000	495.080	4.92032
		SCAL	1000.00	988.445	11.5555
CorCoef:	1.00000				

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Sb_206	206.838	S0	.000000	-.016531	.016531
		S0.1	100.000	101.659	-1.65887
		S0.5	500.000	488.209	11.7908
		SCAL	1000.00	996.065	3.93481
CorCoef:	0.99993				

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Pb_220	220.353	NONE	.000000	.000000	.000000
		NONE	10.0000	.000000	10.0000

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Se_196	196.026	NONE	.000000	.000000	.000000
		NONE	10.0000	.000000	10.0000

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Sn_189	189.989	S0	.000000	-.026275	.026275
		S0.1	100.000	102.498	-2.49787
		S0.5	500.000	488.763	11.2367
		SCAL	1000.00	979.372	20.6284
CorCoef:	0.99999				

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Ti_334	334.941	S0	.000000	-.005847	.005847
		S0.1	100.000	100.730	-.729897
		S0.5	500.000	496.391	3.60895
		SCAL	1000.00	999.919	.080933
CorCoef:	0.99999				

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Tl_190	190.864	S0	.000000	.004092	-.004092
		S0.1	100.000	98.8747	1.12527
		S0.5	500.000	498.389	1.61069
		SCAL	1000.00	995.249	4.75061

CorCoef: 1.00000

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
U_3859	385.958	S0	.000000	.011254	-.011254
		S0.1	100.000	98.8147	1.18527
		S0.5	500.000	508.646	-8.64624
		SCAL	1000.00	1016.21	-16.2114

CorCoef: 1.00000

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
V_2924	292.402	S0	.000000	-.001031	.001031
		S0.1	100.000	100.245	-.244675
		S0.5	500.000	499.129	.870575
		SCAL	1000.00	1002.81	-2.81207

CorCoef: 1.00000

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Zn_213	213.858	S0	.000000	-.013716	.013716
		S0.1	100.000	101.597	-1.59747
		S0.5	500.000	496.956	3.04449
		SCAL	1000.00	991.463	8.53699

CorCoef: 1.00000

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
P_1782	178.287	S0	.000000	-.062549	.062549
		S0.1	500.000	507.118	-7.11823
		S0.5	2500.00	2492.93	7.07446
		SCAL	5000.00	4944.95	55.0474

CorCoef: 0.99999

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Si_288	288.158	S0	.000000	-.005586	.005586
		S0.1	500.000	500.801	-.801117
		S0.5	2500.00	2491.89	8.11450
		SCAL	5000.00	5008.22	-8.21826

CorCoef: 1.00000

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
SiO2_	288.158	S0	.000000	-.011953	.011953
		S0.1	1069.50	1071.21	-1.71362
		S0.5	5347.50	5330.14	17.3574
		SCAL	10695.0	10712.6	-17.5781

CorCoef: 1.00000

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Cr_421	421.552	S0	.000000	-.007755	.007755
		S0.1	100.000	100.948	-.948242
		S0.5	500.000	496.103	3.89664
		SCAL	1000.00	998.451	1.54944

CorCoef: 0.99999

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Pb1st	220.351	S0	.000000	-.020411	.020411
		S0.1	100.000	102.360	-2.36027
		S0.5	500.000	496.849	3.15079
		SCAL	1000.00	984.029	15.9712

CorCoef: 0.99998

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Pb2nd	220.352	S0	.000000	-.020963	.020963
		S0.1	100.000	102.312	-2.31184
		S0.5	500.000	491.668	8.33163
		SCAL	1000.00	988.414	11.5860

CorCoef: 0.99999

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Se1st	196.021	S0	.000000	.001872	-.001872
		S0.1	100.000	100.060	-.059799
		S0.5	500.000	503.180	-3.17972
		SCAL	1000.00	1000.66	-.657227

CorCoef: 1.00000

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Se2nd	196.022	S0	.000000	.003008	-.003008
		S0.1	100.000	99.2040	.795975
		S0.5	500.000	500.869	-.868958
		SCAL	1000.00	987.325	12.6754

CorCoef: 0.99997

Method: TRACE2 Sample Name: ICV Operator: HSC
Run Time: 05/09/05 08:29:00
Comment: CALIBRATION CURVE
Mode: CONC Corr. Factor: 1

Elem	Ag_328	Al_308	As_189	B_2496	Ba_493	Be_313	Ca_317
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	252.5	4966.	501.3	489.7	499.6	247.6	4975.
SDev	2.3	35.	10.8	7.3	1.3	1.5	20.
%RSD	.8994	.6970	2.146	1.497	.2535	.5910	.4090
#1	253.6	4938.	499.2	481.3	498.3	247.4	4957.
#2	253.9	5004.	512.9	494.4	500.8	249.2	4997.
#3	249.9	4955.	491.7	493.5	499.6	246.3	4971.
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	250.0	5000.	500.0	500.0	500.0	250.0	5000.
Range	10.00	10.00	10.00	10.00	10.00	10.00	10.00

Elem	Cd_226	Co_228	Cr_267	Cu_324	Fe_	K_7664	Mg_279
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	489.7	496.3	500.3	496.8	4795.	2519.	4894.
SDev	.5	3.4	1.4	3.0	78.	17.	5.
%RSD	.0942	.6858	.2877	.6109	1.621	.6643	.1076
#1	489.3	495.3	498.9	494.9	4738.	2505.	4888.
#2	490.2	500.0	501.7	500.3	4763.	2537.	4898.
#3	489.6	493.4	500.2	495.1	4883.	2513.	4896.
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	500.0	500.0	500.0	500.0	5000.	2500.	5000.
Range	10.00	10.00	10.00	10.00	10.00	10.00	10.00

Elem	Mn_257	Mo_202	Na_	Ni_231	Sb_206	Pb_220	Se_196
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	490.0	496.2	2533.	485.0	501.0	489.2	2510.
SDev	4.6	3.0	19.	1.4	5.9	5.1	25.
%RSD	.9475	.5987	.7478	.2922	1.186	1.038	.9974
#1	485.3	497.1	2528.	484.8	494.8	485.8	2493.
#2	490.2	492.9	2554.	486.5	506.7	495.0	2539.
#3	494.6	498.6	2517.	483.6	501.4	486.6	2498.
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	500.0	500.0	2500.	500.0	500.0	500.0	2500.
Range	10.00	10.00	10.00	10.00	10.00	10.00	10.00

Elem	Sn_189	Ti_334	Tl_190	U_3859	V_2924	Zn_213	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	484.1	498.1	505.2	501.0	489.7	493.6	2534.
SDev	2.9	2.6	7.4	5.9	1.0	.7	30.
%RSD	.5994	.5200	1.463	1.181	.2075	.1322	1.189
#1	483.0	497.1	500.9	497.8	489.5	493.7	2521.
#2	487.4	501.0	513.7	507.8	488.8	494.2	2568.
#3	481.9	496.1	500.9	497.3	490.8	492.9	2513.
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass

Value	500.0	500.0	500.0	500.0	500.0	500.0	2500.
Range	10.00	10.00	10.00	10.00	10.00	10.00	10.00
Elem	Si_288	Si02_	Sr_421	Pb1st	Pb2nd	Se1st	Se2nd
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	4927.	10540.	500.5	494.8	486.4	2537.	2496.
SDev	28.	59.	1.4	5.0	5.9	30.	37.
%RSD	.5621	.5621	.2817	1.002	1.215	1.188	1.489
#1	4916.	10520.	499.0	495.3	481.1	2560.	2459.
#2	4958.	10610.	501.7	499.5	492.8	2549.	2534.
#3	4906.	10490.	501.0	489.6	485.2	2503.	2496.
Errors	QC Pass	NOCHECK	QC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK
Value	5000.		500.0				
Range	10.00		10.00				
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	16108	--	--	--	--	--	--
SDev	191.2021	--	--	--	--	--	--
%RSD	1.187022	--	--	--	--	--	--
#1	15931	--	--	--	--	--	--
#2	16081	--	--	--	--	--	--
#3	16311	--	--	--	--	--	--

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Method: TRACE2 Sample Name: ICB Operator: HSC
Run Time: 05/09/05 08:36:03
Comment: CALIBRATION CURVE
Mode: CONC Corr. Factor: 1

Elem	Ag_328	Al_308	As_189	B_2496	Ba_493	Be_313	Ca_317
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	.2359	-16.12	-3.839	2.778	.1879	.0829	-20.68
SDev	1.083	6.62	.885	1.092	.2265	.0569	1.58
%RSD	459.3	41.07	23.05	39.33	120.5	68.66	7.649
#1	-.2406	-17.28	-3.213	2.973	.1962	.1466	-20.46
#2	1.476	-8.997	-4.852	3.759	.4102	.0647	-19.22
#3	-.5275	-22.08	-3.452	1.601	-.0426	.0373	-22.36
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.0000	.0000	.0000	.0000	.0000	.0000	.0000
Range	5.000	200.0	15.00	50.00	5.000	5.000	100.0

Elem	Cd_226	Co_228	Cr_267	Cu_324	Fe_	K_7664	Mg_279
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	.3753	-.4401	-1.473	-.0106	-10.58	-1.886	-20.48
SDev	.4379	.6048	.637	1.6120	1.29	14.402	5.39
%RSD	116.7	137.4	43.22	15160.	12.16	763.8	26.31
#1	.4789	.0064	-1.135	1.829	-9.133	14.73	-26.70
#2	-.1051	-.1983	-1.076	-1.175	-11.01	-9.628	-17.19
#3	.7521	-1.128	-2.207	-.6865	-11.60	-10.76	-17.55
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.0000	.0000	.0000	.0000	.0000	.0000	.0000
Range	5.000	5.000	5.000	10.00	100.0	150.0	300.0

Elem	Mn_257	Mo_202	Na_	Ni_231	Sb_206	Pb_220	Se_196
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	.4350	-.2870	10.78	1.211	3.543	2.609	-1.892
SDev	.1818	.6982	20.95	2.947	6.727	3.630	2.691
%RSD	41.79	243.2	194.5	243.3	189.9	139.2	142.3
#1	.6124	-.2714	32.89	3.592	9.954	2.829	-.8823
#2	.4437	-.9928	-8.783	2.126	-3.461	6.124	-4.942
#3	.2491	.4032	8.220	-2.085	4.137	-1.127	.1491
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.0000	.0000	.0000	.0000	.0000	.0000	.0000
Range	10.00	10.00	150.0	5.000	10.00	10.00	15.00

Elem	Sn_189	Ti_334	Tl_190	U_3859	V_2924	Zn_213	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	.9350	.2523	6.835	5.638	.4993	-.1839	-6.606
SDev	1.183	.2249	7.293	29.36	.4243	.2636	2.644
%RSD	126.5	89.17	106.7	520.8	84.99	143.3	40.03
#1	.5627	.2588	14.23	23.56	.9891	-.3451	-7.529
#2	2.259	.4739	-.3503	-28.25	.2617	-.3269	-3.624
#3	-.0169	.0241	6.623	21.61	.2470	.1203	-8.665
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass

Value	.0000	.0000	.0000	.0000	.0000	.0000	.0000
Range	10.00	5.000	20.00	50.00	5.000	10.00	150.0
Elem	Si_288	Si02_	Sr_421	Pb1st	Pb2nd	Se1st	Se2nd
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	-.2578	-.5513	.1139	-1.991	4.905	-5.584	-.0481
SDev	8.0337	17.184	.0673	7.314	8.238	13.710	3.1602
%RSD	3117.	3117.	59.10	367.2	167.9	245.5	6565.
#1	6.312	13.50	.1435	4.303	2.093	3.446	-3.043
#2	-9.215	-19.71	.1614	-10.01	14.18	-21.36	3.255
#3	2.130	4.555	.0369	-.2624	-1.558	1.161	-.3559
Errors	QC Pass	NOCHECK	QC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK
Value	.0000		.0000				
Range	100.0		5.000				
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	16402	--	--	--	--	--	--
SDev	334.3989	--	--	--	--	--	--
%RSD	2.038831	--	--	--	--	--	--
#1	16754	--	--	--	--	--	--
#2	16089	--	--	--	--	--	--
#3	16361	--	--	--	--	--	--

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Method: TRACE2 Sample Name: PQL Operator: HSC
Run Time: 05/09/05 08:41:57
Comment: CALIBRATION CURVE
Mode: CONC Corr. Factor: 1

Elem	Ag_328	Al_308	As_189	B_2496	Ba_493	Be_313	Ca_317
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	11.00	175.9	8.849	98.96	9.979	9.861	179.9
SDev	.77	8.8	3.721	1.11	.202	.027	1.1
%RSD	7.001	4.977	42.04	1.119	2.027	.2733	.5939
#1	11.70	185.8	Q5.639	100.2	10.14	9.831	180.5
#2	11.13	169.4	12.93	97.99	10.05	9.873	180.5
#3	10.17	172.4	7.982	98.71	9.751	9.881	178.6
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	10.00	200.0	10.00	100.0	10.00	10.00	200.0
Range	30.00	30.00	30.00	30.00	30.00	30.00	30.00

Elem	Cd_226	Co_228	Cr_267	Cu_324	Fe_	K_7664	Mg_279
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	10.88	9.629	9.297	10.21	187.3	205.4	177.6
SDev	.32	1.078	1.205	.75	2.6	12.8	5.3
%RSD	2.936	11.19	12.96	7.373	1.408	6.248	3.005
#1	11.22	10.67	10.55	9.722	187.6	206.9	174.0
#2	10.83	9.701	8.145	11.08	189.7	217.4	175.0
#3	10.59	8.518	9.199	9.830	184.5	191.8	183.7
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	10.00	10.00	10.00	10.00	200.0	200.0	200.0
Range	30.00	30.00	30.00	30.00	30.00	30.00	30.00

Elem	Mn_257	Mo_202	Na_	Ni_231	Sb_206	Pb_220	Se_196
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	19.69	20.60	193.0	10.49	21.07	12.02	10.92
SDev	.40	1.53	13.7	1.19	3.94	2.85	2.43
%RSD	2.052	7.409	7.118	11.35	18.69	23.70	22.25
#1	20.10	21.79	178.9	9.127	21.96	9.902	11.77
#2	19.29	21.13	193.6	11.31	16.76	10.90	12.81
#3	19.68	18.88	206.4	11.05	24.49	Q15.26	8.178
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	20.00	20.00	200.0	10.00	20.00	10.00	10.00
Range	30.00	30.00	30.00	30.00	30.00	30.00	30.00

Elem	Sn_189	Ti_334	Tl_190	U_3859	V_2924	Zn_213	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	23.44	10.12	21.74	113.5	10.01	9.749	97.11
SDev	3.23	.32	1.84	14.4	1.14	.450	10.14
%RSD	13.79	3.142	8.451	12.70	11.42	4.612	10.45
#1	Q26.83	10.49	23.64	117.7	10.91	9.850	85.49
#2	20.39	9.896	19.98	125.3	10.39	9.258	101.6
#3	23.09	9.985	21.60	97.41	8.723	10.14	104.2
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass

Value	20.00	10.00	20.00	100.0	10.00	10.00	100.0
Range	30.00	30.00	30.00	30.00	30.00	30.00	30.00
Elem	Si_288	Si02_	Sr_421	Pb1st	Pb2nd	Se1st	Se2nd
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	197.0	421.4	9.861	12.56	11.75	8.783	11.98
SDev	3.6	7.8	.077	9.46	4.25	8.951	4.94
%RSD	1.841	1.841	.7853	75.35	36.16	101.9	41.24
#1	200.7	429.2	9.948	1.695	14.00	.1525	17.57
#2	197.0	421.4	9.833	19.01	6.848	18.02	10.20
#3	193.4	413.7	9.801	16.98	14.40	8.174	8.180
Errors	QC Pass	NOCHECK	QC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK
Value	200.0		10.00				
Range	30.00		30.00				
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	15738	--	--	--	--	--	--
SDev	509.4133	--	--	--	--	--	--
%RSD	3.236939	--	--	--	--	--	--
#1	15365	--	--	--	--	--	--
#2	15530	--	--	--	--	--	--
#3	16318	--	--	--	--	--	--

Analysis Report QC Standard 05/09/05 08:53:41 AM page 1

Method: TRACE2 Sample Name: ICS-A Operator: HSC
Run Time: 05/09/05 08:47:51
Comment: CALIBRATION CURVE
Mode: CONC Corr. Factor: 1

Elem	Ag_328	Al_308	As_189	B_2496	Ba_493	Be_313	Ca_317
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	.0214	471200.	-.6740	-2.206	1.204	.0663	458000.
SDev	1.027	298.	.5729	5.087	.149	.0152	851.
%RSD	4793.	.0632	85.00	230.6	12.38	22.96	.1858
#1	1.205	471300.	-1.322	-7.996	1.374	.0589	458100.
#2	-.4952	471500.	-.4638	1.544	1.138	.0838	458800.
#3	-.6451	470900.	-.2359	-.1661	1.099	.0562	457100.
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.0000	500000.	.0000	.0000	.0000	.0000	500000.
Range	10.00	100000.	30.00	100.0	10.00	10.00	100000.

Elem	Cd_226	Co_228	Cr_267	Cu_324	Fe_	K_7664	Mg_279
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	-.9316	-1.522	-.0895	4.562	192300.	9.351	496700.
SDev	.8948	1.032	1.8703	4.391	1141.	3.263	363.
%RSD	96.05	67.80	2089.	96.26	.5934	34.89	.0730
#1	-1.964	-2.705	1.588	1.785	193300.	8.443	496900.
#2	-.4406	-1.054	.2504	9.625	192400.	6.638	496900.
#3	-.3897	-.8072	-2.107	2.276	191100.	12.97	496200.
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.0000	.0000	.0000	.0000	200000.	.0000	500000.
Range	10.00	10.00	10.00	20.00	40000.	300.0	100000.

Elem	Mn_257	Mo_202	Na_	Ni_231	Sb_206	Pb_220	Se_196
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	2.298	1.974	15.79	-1.691	3.762	2.522	3.671
SDev	.235	2.559	4.48	2.066	11.79	.609	4.495
%RSD	10.25	129.6	28.40	122.2	313.3	24.13	122.5
#1	2.489	-.1896	11.62	-2.646	3.555	2.313	5.233
#2	2.035	4.799	15.21	-3.107	-7.921	3.208	7.177
#3	2.370	1.314	20.53	.6798	15.65	2.046	-1.398
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.0000	.0000	.0000	.0000	.0000	.0000	.0000
Range	20.00	20.00	300.0	10.00	20.00	20.00	30.00

Elem	Sn_189	Ti_334	Tl_190	U_3859	V_2924	Zn_213	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	3.047	-1.642	2.463	-10.09	.6783	3.536	15.22
SDev	1.696	.125	9.802	3.99	.8532	3.774	2.98
%RSD	55.68	7.624	398.0	39.54	125.8	106.7	19.55
#1	1.429	-1.499	-7.359	-5.506	1.530	1.463	15.81
#2	4.813	-1.729	2.503	-11.97	.6816	7.892	12.00
#3	2.899	-1.700	12.24	-12.78	-.1766	1.253	17.86
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass

Value	.0000	.0000	.0000	.0000	.0000	.0000	.0000
Range	20.00	10.00	40.00	100.0	10.00	20.00	300.0
Elem	Si_288	Si02_	Sr_421	Pb1st	Pb2nd	Se1st	Se2nd
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	-1.215	-2.600	4.819	233.3	-112.7	3.188	3.912
SDev	3.373	7.215	.053	8.9	3.8	15.29	1.452
%RSD	277.5	277.5	1.099	3.798	3.404	479.8	37.13
#1	-.5738	-1.227	4.870	238.1	-115.4	5.761	4.969
#2	-4.863	-10.40	4.822	238.7	-114.4	17.03	2.256
#3	1.791	3.831	4.764	223.1	-108.3	-13.23	4.510
Errors	QC Pass	NOCHECK	QC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK
Value	.0000		.0000				
Range	200.0		10.00				
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	14912	--	--	--	--	--	--
SDev	100.7186	--	--	--	--	--	--
%RSD	.6754165	--	--	--	--	--	--
#1	14824	--	--	--	--	--	--
#2	14890	--	--	--	--	--	--
#3	15022	--	--	--	--	--	--

Method: TRACE2 Sample Name: ICS-AB Operator: HSC
Run Time: 05/09/05 08:53:45
Comment: CALIBRATION CURVE
Mode: CONC Corr. Factor: 1

Elem	Ag_328	Al_308	As_189	B_2496	Ba_493	Be_313	Ca_317
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	259.0	469500.	504.1	491.8	506.3	247.4	452600.
SDev	.9	1918.	2.6	3.9	2.3	.7	856.
%RSD	.3300	.4084	.5108	.7847	.4516	.2899	.1892
#1	258.6	471600.	507.0	489.8	508.8	247.1	453500.
#2	258.4	467900.	502.2	489.3	504.5	247.0	451700.
#3	260.0	469000.	503.0	496.2	505.5	248.2	452500.
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	250.0	500000.	500.0	500.0	500.0	250.0	500000.
Range	20.00	20.00	20.00	20.00	20.00	20.00	20.00

Elem	Cd_226	Co_228	Cr_267	Cu_324	Fe_	K_7664	Mg_279
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	466.3	465.8	479.3	500.3	192200.	5729.	494300.
SDev	1.1	2.2	1.2	.9	1145.	18.	1405.
%RSD	.2336	.4694	.2439	.1751	.5953	.3126	.2842
#1	466.1	463.2	480.4	499.4	191400.	5717.	495600.
#2	465.4	466.9	478.1	501.2	191800.	5720.	492800.
#3	467.5	467.2	479.3	500.4	193500.	5750.	494600.
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	500.0	500.0	500.0	500.0	200000.	5000.	500000.
Range	20.00	20.00	20.00	20.00	20.00	20.00	20.00

Elem	Mn_257	Mo_202	Na_	Ni_231	Sb_206	Pb_220	Se_196
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	474.4	487.7	5226.	450.8	506.8	473.8	2478.
SDev	3.2	2.3	24.	.6	8.0	3.3	6.
%RSD	.6821	.4687	.4557	.1397	1.574	.7047	.2480
#1	478.1	490.2	5215.	450.2	516.0	476.3	2475.
#2	473.2	485.7	5209.	451.5	502.7	470.0	2485.
#3	471.9	487.1	5253.	450.8	501.8	475.1	2474.
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	500.0	500.0	5000.	500.0	500.0	500.0	2500.
Range	20.00	20.00	20.00	20.00	20.00	20.00	20.00

Elem	Sn_189	Ti_334	Tl_190	U_3859	V_2924	Zn_213	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	482.2	491.9	474.4	496.5	478.0	490.7	2562.
SDev	5.5	1.8	8.7	4.3	3.6	2.4	17.
%RSD	1.139	.3682	1.832	.8701	.7630	.4959	.6454
#1	485.8	491.7	474.4	498.4	482.0	492.6	2547.
#2	475.9	490.1	465.7	499.6	474.8	488.0	2559.
#3	485.0	493.7	483.0	491.5	477.1	491.6	2580.
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass

Value	500.0	500.0	500.0	500.0	500.0	500.0	2500.
Range	20.00	20.00	20.00	20.00	20.00	20.00	20.00
Elem	Si_288	Si02_	Sr_421	Pb1st	Pb2nd	Se1st	Se2nd
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	4857.	10390.	505.8	694.0	363.9	2485.	2474.
SDev	13.	27.	2.4	1.4	4.4	23.	20.
%RSD	.2580	.2580	.4745	.2079	1.219	.9075	.8035
#1	4867.	10410.	508.6	695.6	366.9	2484.	2470.
#2	4843.	10360.	504.3	692.9	358.8	2462.	2496.
#3	4861.	10400.	504.6	693.6	366.0	2507.	2457.
Errors	QC Pass	NOCHECK	QC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK
Value	5000.		500.0				
Range	20.00		20.00				

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	15012	--	--	--	--	--	--
SDev	33.87921	--	--	--	--	--	--
%RSD	.2256790	--	--	--	--	--	--
#1	15032	--	--	--	--	--	--
#2	15032	--	--	--	--	--	--
#3	14973	--	--	--	--	--	--

Method: TRACE2 Sample Name: CCV1 Operator: HSC
Run Time: 05/09/05 09:07:40
Comment: CALIBRATION CURVE
Mode: CONC Corr. Factor: 1

Elem	Ag_328	Al_308	As_189	B_2496	Ba_493	Be_313	Ca_317
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	508.5	5096.	506.5	499.9	504.0	505.5	5011.
SDev	1.3	21.	7.0	2.7	.4	3.2	2.
%RSD	.2515	.4064	1.387	.5364	.0770	.6317	.0361
#1	507.2	5072.	499.6	497.7	504.2	502.1	5011.
#2	508.6	5111.	506.4	502.9	504.3	505.9	5012.
#3	509.8	5104.	513.6	499.3	503.6	508.5	5009.
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	500.0	5000.	500.0	500.0	500.0	500.0	5000.
Range	10.00	10.00	10.00	10.00	10.00	10.00	10.00

Elem	Cd_226	Co_228	Cr_267	Cu_324	Fe_	K_7664	Mg_279
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	505.2	510.0	504.2	505.8	4955.	5161.	5088.
SDev	2.1	4.1	2.3	4.4	55.	51.	13.
%RSD	.4239	.7971	.4620	.8653	1.105	.9975	.2512
#1	504.0	507.9	502.3	500.8	5018.	5113.	5094.
#2	504.0	507.4	503.4	509.0	4928.	5157.	5073.
#3	507.7	514.7	506.8	507.6	4919.	5215.	5096.
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	500.0	500.0	500.0	500.0	5000.	5000.	5000.
Range	10.00	10.00	10.00	10.00	10.00	10.00	10.00

Elem	Mn_257	Mo_202	Na_	Ni_231	Sb_206	Pb_220	Se_196
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	498.6	503.1	10210.	506.3	506.4	498.5	509.2
SDev	1.1	5.0	58.	5.0	4.1	7.7	8.5
%RSD	.2210	.9914	.5700	.9854	.8033	1.544	1.669
#1	499.5	507.8	10280.	502.4	502.0	490.5	499.5
#2	497.4	503.7	10180.	504.7	510.0	499.2	515.0
#3	499.0	497.8	10180.	511.9	507.1	505.8	513.2
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	500.0	500.0	10000.	500.0	500.0	500.0	500.0
Range	10.00	10.00	10.00	10.00	10.00	10.00	10.00

Elem	Sn_189	Ti_334	Tl_190	U_3859	V_2924	Zn_213	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	500.1	506.1	513.8	505.4	499.8	504.2	2546.
SDev	3.7	1.7	5.4	12.6	3.4	.3	26.
%RSD	.7462	.3393	1.052	2.491	.6715	.0538	1.031
#1	498.5	504.3	509.7	500.3	502.9	504.1	2527.
#2	497.4	506.2	511.8	496.1	500.2	504.0	2537.
#3	504.3	507.7	519.9	519.7	496.2	504.5	2576.
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass

Value	500.0	500.0	500.0	500.0	500.0	500.0	2500.
Range	10.00	10.00	10.00	10.00	10.00	10.00	10.00
Elem	Si_288	Si02_	Sr_421	Pb1st	Pb2nd	Se1st	Se2nd
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	2557.	5470.	503.6	499.0	498.2	506.6	510.6
SDev	16.	34.	.7	6.0	9.4	15.2	5.2
%RSD	.6159	.6160	.1348	1.201	1.878	2.994	1.028
#1	2540.	5433.	504.0	492.2	489.6	489.4	504.5
#2	2561.	5477.	502.9	503.6	496.9	518.2	513.5
#3	2571.	5500.	504.1	501.1	508.1	512.1	513.7
Errors	QC Pass	NOCHECK	QC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK
Value	2500.		500.0				
Range	10.00		10.00				
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	16631	--	--	--	--	--	--
SDev	154.6970	--	--	--	--	--	--
%RSD	.9301826	--	--	--	--	--	--
#1	16457	--	--	--	--	--	--
#2	16682	--	--	--	--	--	--
#3	16753	--	--	--	--	--	--

Method: TRACE2 Sample Name: CCB1 Operator: HSC
Run Time: 05/09/05 09:13:35
Comment: CALIBRATION CURVE
Mode: CONC Corr. Factor: 1

Elem	Ag_328	Al_308	As_189	B_2496	Ba_493	Be_313	Ca_317
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	-.1981	-18.87	-1.636	-1.263	.1022	.2089	-14.51
SDev	1.0767	9.74	4.992	1.002	.0298	.1104	3.33
%RSD	543.4	51.62	305.2	79.34	29.17	52.85	22.94
#1	.4180	-11.10	.2421	-1.855	.1350	.3294	-11.27
#2	.4289	-15.71	2.145	-1.827	.0951	.1851	-14.33
#3	-1.441	-29.80	-7.294	-.1061	.0767	.1124	-17.92
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.0000	.0000	.0000	.0000	.0000	.0000	.0000
Range	5.000	200.0	15.00	50.00	5.000	5.000	100.0

Elem	Cd_226	Co_228	Cr_267	Cu_324	Fe_	K_7664	Mg_279
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	.4164	-.9747	-.6651	.9539	-7.722	19.45	-18.88
SDev	.1113	1.5224	1.3138	.8736	1.509	9.75	4.93
%RSD	26.72	156.2	197.5	91.58	19.55	50.15	26.11
#1	.2977	-1.044	.6331	1.960	-6.377	28.92	-13.53
#2	.4333	.5814	-.6344	.5088	-9.354	19.98	-19.86
#3	.5183	-2.461	-1.994	.3926	-7.434	9.437	-23.25
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.0000	.0000	.0000	.0000	.0000	.0000	.0000
Range	5.000	5.000	5.000	10.00	100.0	150.0	300.0

Elem	Mn_257	Mo_202	Na_	Ni_231	Sb_206	Pb_220	Se_196
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	.2641	1.048	-34.26	.8525	-2.482	2.894	1.210
SDev	.2020	1.793	16.05	1.448	5.578	.989	9.053
%RSD	76.47	171.1	46.86	169.8	224.8	34.17	747.9
#1	.4648	3.071	-17.96	1.158	-1.930	2.487	-1.725
#2	.2667	.4161	-34.77	2.123	2.800	2.173	11.37
#3	.0609	-.3439	-50.05	-.7235	-8.315	4.022	-6.011
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.0000	.0000	.0000	.0000	.0000	.0000	.0000
Range	10.00	10.00	150.0	5.000	10.00	10.00	15.00

Elem	Sn_189	Ti_334	Tl_190	U_3859	V_2924	Zn_213	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	.3453	.0834	5.049	-3.427	-.1484	.1233	3.921
SDev	2.297	.2638	3.323	13.251	1.5234	.3010	5.414
%RSD	665.2	316.4	65.81	386.7	1026.	244.2	138.1
#1	-2.199	.3684	1.374	2.785	1.107	-.0574	7.539
#2	2.266	.0339	5.932	-18.64	.2908	-.0435	6.527
#3	.9696	-.1522	7.842	5.577	-1.843	.4707	-2.302
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass

Value	.0000	.0000	.0000	.0000	.0000	.0000	.0000
Range	10.00	5.000	20.00	50.00	5.000	10.00	150.0
Elem	Si_288	Si02_	Sr_421	Pb1st	Pb2nd	Se1st	Se2nd
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	-3.486	-7.456	.1501	7.285	.7021	1.723	.9547
SDev	.572	1.224	.1586	5.194	1.440	3.788	13.36
%RSD	16.42	16.42	105.6	71.30	205.1	219.9	1399.
#1	-2.935	-6.278	.3186	2.834	2.314	-2.628	-1.273
#2	-4.078	-8.722	.1278	6.029	.2488	3.513	15.29
#3	-3.445	-7.369	.0038	12.99	-.4566	4.283	-11.15
Errors	QC Pass	NOCHECK	QC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK
Value	.0000		.0000				
Range	100.0		5.000				

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	14989	--	--	--	--	--	--
SDev	239.5340	--	--	--	--	--	--
%RSD	1.598014	--	--	--	--	--	--
#1	15241	--	--	--	--	--	--
#2	14964	--	--	--	--	--	--
#3	14764	--	--	--	--	--	--

Method: TRACE2 Sample Name: CCV1 Operator: HSC
Run Time: 05/09/05 10:28:49
Comment: 423484||6010 WATER
Mode: CONC Corr. Factor: 1

Elem	Ag_328	Al_308	As_189	B_2496	Ba_493	Be_313	Ca_317
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	508.4	5102.	511.3	497.6	501.4	505.0	5033.
SDev	1.7	5.	5.3	6.1	2.6	1.1	20.
%RSD	.3278	.0925	1.036	1.233	.5281	.2135	.3920
#1	507.3	5099.	506.0	499.9	502.2	505.1	5034.
#2	507.7	5099.	511.3	490.6	498.4	503.9	5012.
#3	510.3	5107.	516.6	502.2	503.5	506.1	5052.
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	500.0	5000.	500.0	500.0	500.0	500.0	5000.
Range	10.00	10.00	10.00	10.00	10.00	10.00	10.00

Elem	Cd_226	Co_228	Cr_267	Cu_324	Fe_	K_7664	Mg_279
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	506.6	512.8	507.5	505.7	5019.	5256.	5127.
SDev	1.6	2.8	1.8	.6	38.	19.	50.
%RSD	.3237	.5490	.3493	.1238	.7592	.3606	.9824
#1	508.0	512.1	508.7	505.9	5046.	5252.	5169.
#2	504.8	510.5	505.5	505.0	4976.	5239.	5071.
#3	506.9	515.9	508.3	506.2	5037.	5276.	5140.
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	500.0	500.0	500.0	500.0	5000.	5000.	5000.
Range	10.00	10.00	10.00	10.00	10.00	10.00	10.00

Elem	Mn_257	Mo_202	Na_	Ni_231	Sb_206	Pb_220	Se_196
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	502.7	500.6	10320.	506.9	505.6	508.2	517.9
SDev	1.6	2.9	31.	1.4	2.1	2.4	9.5
%RSD	.3250	.5881	.2978	.2832	.4095	.4730	1.828
#1	503.0	501.3	10290.	506.2	503.5	510.8	515.7
#2	501.0	497.3	10320.	505.9	507.6	507.8	509.7
#3	504.3	503.0	10350.	508.5	505.9	506.1	528.2
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	500.0	500.0	10000.	500.0	500.0	500.0	500.0
Range	10.00	10.00	10.00	10.00	10.00	10.00	10.00

Elem	Sn_189	Ti_334	Tl_190	U_3859	V_2924	Zn_213	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	506.4	506.2	512.0	506.4	501.1	502.2	2504.
SDev	1.3	1.4	4.5	4.8	3.3	4.3	17.
%RSD	.2597	.2697	.8777	.9420	.6575	.8564	.6629
#1	507.9	505.8	511.5	503.0	503.1	506.2	2486.
#2	505.4	505.1	507.8	511.8	497.3	497.7	2509.
#3	506.0	507.7	516.8	504.2	502.9	502.7	2518.
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass

Value	500.0	500.0	500.0	500.0	500.0	500.0	2500.
Range	10.00	10.00	10.00	10.00	10.00	10.00	10.00
Elem	Si_288	Si02_	Sr_421	Pb1st	Pb2nd	Se1st	Se2nd
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	2550.	5455.	500.3	505.8	509.4	515.4	519.1
SDev	7.	14.	3.0	2.4	4.2	6.4	11.2
%RSD	.2572	.2572	.6022	.4690	.8337	1.233	2.164
#1	2553.	5461.	501.5	505.6	513.4	511.7	517.7
#2	2543.	5439.	496.9	503.6	509.8	511.8	508.7
#3	2555.	5465.	502.6	508.3	505.0	522.8	531.0
Errors	QC Pass	NOCHECK	QC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK
Value	2500.		500.0				
Range	10.00		10.00				
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	15797	--	--	--	--	--	--
SDev	182.9333	--	--	--	--	--	--
%RSD	1.158048	--	--	--	--	--	--
#1	15788	--	--	--	--	--	--
#2	15984	--	--	--	--	--	--
#3	15619	--	--	--	--	--	--

Method: TRACE2 Sample Name: CCB1 Operator: HSC
Run Time: 05/09/05 10:34:44
Comment: 423484||6010 WATER
Mode: CONC Corr. Factor: 1

Elem	Ag_328	Al_308	As_189	B_2496	Ba_493	Be_313	Ca_317
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	.0053	-19.26	-2.544	.2739	-.0078	.1875	-21.61
SDev	.4754	1.44	2.331	2.391	.1278	.0391	1.27
%RSD	9025.	7.502	91.63	872.9	1629.	20.83	5.856
#1	-.3489	-20.73	-1.922	2.072	-.0819	.2108	-21.34
#2	-.1808	-19.19	-.5869	1.188	-.0814	.2092	-22.99
#3	.5455	-17.85	-5.122	-2.439	.1398	.1424	-20.50
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.0000	.0000	.0000	.0000	.0000	.0000	.0000
Range	5.000	200.0	15.00	50.00	5.000	5.000	100.0

Elem	Cd_226	Co_228	Cr_267	Cu_324	Fe_	K_7664	Mg_279
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	.4395	-1.242	-.5710	.5277	-10.18	13.81	-25.67
SDev	.5639	.292	.9225	.8042	1.60	6.85	7.34
%RSD	128.3	23.53	161.5	152.4	15.71	49.61	28.60
#1	.6666	-1.432	-1.414	.2290	-11.21	16.40	-30.03
#2	-.2026	-.9052	-.7129	1.438	-11.00	18.99	-29.79
#3	.8544	-1.387	.4142	-.0844	-8.340	6.042	-17.20
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.0000	.0000	.0000	.0000	.0000	.0000	.0000
Range	5.000	5.000	5.000	10.00	100.0	150.0	300.0

Elem	Mn_257	Mo_202	Na_	Ni_231	Sb_206	Pb_220	Se_196
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	.1285	.1600	-8.742	2.567	3.856	-.8730	-.9729
SDev	.2278	1.665	17.504	1.082	1.836	1.5332	3.1704
%RSD	177.3	1041.	200.2	42.16	47.61	175.6	325.9
#1	.2667	2.069	-25.78	3.536	5.174	-.1644	-.4980
#2	.2533	-.9983	9.193	1.399	4.636	-2.632	1.933
#3	-.1344	-.5902	-9.636	2.764	1.759	.1777	-4.354
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.0000	.0000	.0000	.0000	.0000	.0000	.0000
Range	10.00	10.00	150.0	5.000	10.00	10.00	15.00

Elem	Sn_189	Ti_334	Tl_190	U_3859	V_2924	Zn_213	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	2.208	.1707	4.273	20.46	-.4445	-.0738	-1.529
SDev	4.581	.2100	4.050	3.32	1.5689	.2304	2.956
%RSD	207.5	123.0	94.79	16.21	353.0	311.9	193.3
#1	5.074	.0078	7.973	24.15	-2.242	-.0437	1.577
#2	-3.075	.0967	-.0547	19.54	.6480	.1400	-4.307
#3	4.625	.4077	4.901	17.71	.2608	-.3178	-1.858
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass

Value	.0000	.0000	.0000	.0000	.0000	.0000	.0000
Range	10.00	5.000	20.00	50.00	5.000	10.00	150.0
Elem	Si_288	Si02_	Sr_421	Pb1st	Pb2nd	Se1st	Se2nd
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	3.081	6.590	.1113	2.207	-2.411	.7745	-1.845
SDev	3.525	7.540	.0040	4.972	3.657	8.950	.797
%RSD	114.4	114.4	3.574	225.2	151.7	1156.	43.17
#1	1.952	4.175	.1142	7.004	-3.743	3.747	-2.617
#2	7.032	15.04	.1067	2.541	-5.215	7.860	-1.026
#3	.2589	.5538	.1129	-2.923	1.726	-9.283	-1.893
Errors	QC Pass	NOCHECK	QC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK
Value	.0000		.0000				
Range	100.0		5.000				
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	15589	--	--	--	--	--	--
SDev	545.3801	--	--	--	--	--	--
%RSD	3.498448	--	--	--	--	--	--
#1	14976	--	--	--	--	--	--
#2	16020	--	--	--	--	--	--
#3	15772	--	--	--	--	--	--

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Method: TRACE2 Sample Name: CCV1 Operator: HSC
Run Time: 05/09/05 11:39:39
Comment: 422821||6010 SOIL
Mode: CONC Corr. Factor: 1

Elem	Ag_328	Al_308	As_189	B_2496	Ba_493	Be_313	Ca_317
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	506.3	5232.	482.6	497.2	498.2	504.3	5039.
SDev	2.4	4.	3.9	5.0	.7	2.1	10.
%RSD	.4669	.0824	.8051	1.001	.1409	.4105	.2076
#1	508.9	5228.	484.9	491.5	499.0	506.2	5050.
#2	504.3	5236.	478.2	499.3	497.6	502.1	5029.
#3	505.8	5232.	484.9	500.7	498.1	504.6	5038.
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	500.0	5000.	500.0	500.0	500.0	500.0	5000.
Range	10.00	10.00	10.00	10.00	10.00	10.00	10.00

Elem	Cd_226	Co_228	Cr_267	Cu_324	Fe_	K_7664	Mg_279
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	498.3	507.2	513.7	509.2	5314.	5132.	5181.
SDev	1.9	3.0	1.2	.2	25.	33.	9.
%RSD	.3741	.5840	.2323	.0385	.4620	.6411	.1656
#1	499.3	510.4	515.0	508.9	5291.	5156.	5172.
#2	496.1	504.5	513.0	509.3	5340.	5095.	5189.
#3	499.5	506.8	512.9	509.3	5312.	5145.	5181.
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	500.0	500.0	500.0	500.0	5000.	5000.	5000.
Range	10.00	10.00	10.00	10.00	10.00	10.00	10.00

Elem	Mn_257	Mo_202	Na_	Ni_231	Sb_206	Pb_220	Se_196
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	520.3	493.3	10150.	501.5	497.8	499.4	497.7
SDev	.2	3.9	108.	.2	4.9	2.4	4.5
%RSD	.0339	.7862	1.068	.0428	.9802	.4823	.9136
#1	520.4	490.7	10280.	501.7	498.9	497.5	494.7
#2	520.4	497.7	10070.	501.3	492.5	502.1	503.0
#3	520.1	491.4	10110.	501.6	502.1	498.6	495.6
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	500.0	500.0	10000.	500.0	500.0	500.0	500.0
Range	10.00	10.00	10.00	10.00	10.00	10.00	10.00

Elem	Sn_189	Ti_334	Tl_190	U_3859	V_2924	Zn_213	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	491.6	503.9	496.9	501.8	516.8	498.9	2400.
SDev	.7	1.8	5.8	8.7	1.3	2.0	17.
%RSD	.1360	.3596	1.172	1.740	.2491	.3970	.6996
#1	490.9	505.9	503.6	493.2	516.4	498.5	2414.
#2	492.2	502.3	493.0	501.5	518.3	501.1	2381.
#3	491.9	503.5	494.1	510.6	515.8	497.2	2404.
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass

Value	500.0	500.0	500.0	500.0	500.0	500.0	2500.
Range	10.00	10.00	10.00	10.00	10.00	10.00	10.00
Elem	Si_288	Si02_	Sr_421	Pb1st	Pb2nd	Se1st	Se2nd
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	2587.	5533.	499.1	501.0	498.6	499.0	497.1
SDev	2.	5.	.3	4.3	4.1	3.6	8.5
%RSD	.0941	.0941	.0627	.8558	.8288	.7301	1.713
#1	2589.	5539.	499.4	504.6	494.0	499.9	492.0
#2	2586.	5532.	498.8	502.3	502.1	495.0	506.9
#3	2585.	5528.	499.0	496.3	499.7	502.1	492.4
Errors	QC Pass	NOCHECK	QC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK
Value	2500.		500.0				
Range	10.00		10.00				
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	15680	--	--	--	--	--	--
SDev	242.9674	--	--	--	--	--	--
%RSD	1.549541	--	--	--	--	--	--
#1	15502	--	--	--	--	--	--
#2	15957	--	--	--	--	--	--
#3	15582	--	--	--	--	--	--

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Method: TRACE2 Sample Name: CCB1 Operator: HSC
Run Time: 05/09/05 11:45:35
Comment: 422821||6010 SOIL
Mode: CONC Corr. Factor: 1

Elem	Ag_328	Al_308	As_189	B_2496	Ba_493	Be_313	Ca_317
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	.1876	-10.81	2.620	1.908	.2158	.2897	-18.39
SDev	.3937	6.82	2.354	1.006	.1574	.1188	2.33
%RSD	209.9	63.16	89.84	52.71	72.94	41.02	12.65
#1	.4840	-5.743	4.550	1.388	.3271	.4252	-16.78
#2	.3379	-8.106	3.313	1.269	.2846	.2403	-17.33
#3	-.2592	-18.57	-.0024	3.067	.0357	.2035	-21.05
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.0000	.0000	.0000	.0000	.0000	.0000	.0000
Range	5.000	200.0	15.00	50.00	5.000	5.000	100.0

Elem	Cd_226	Co_228	Cr_267	Cu_324	Fe_	K_7664	Mg_279
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	.4087	-.6778	-.7147	1.163	.5391	13.45	-25.52
SDev	.1942	.4212	.6640	.753	3.662	11.99	8.12
%RSD	47.52	62.14	92.91	64.72	679.3	89.19	31.83
#1	.3962	-.9215	-1.405	1.574	4.706	19.54	-16.95
#2	.6088	-.1915	-.6590	.2942	-2.168	-.3695	-26.50
#3	.2210	-.9205	-.0803	1.620	-.9210	21.17	-33.11
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.0000	.0000	.0000	.0000	.0000	.0000	.0000
Range	5.000	5.000	5.000	10.00	100.0	150.0	300.0

Elem	Mn_257	Mo_202	Na_	Ni_231	Sb_206	Pb_220	Se_196
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	.5893	.6580	-13.47	.6455	-.2872	5.639	-.8056
SDev	.2968	1.181	3.29	1.294	1.9724	4.723	8.1710
%RSD	50.37	179.5	24.45	200.5	686.7	83.75	1014.
#1	.6618	-.4664	-10.15	1.915	1.884	8.980	4.796
#2	.8431	.5515	-13.51	-.6723	-1.969	.2358	-10.18
#3	.2629	1.889	-16.74	.6935	-.7761	7.702	2.969
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.0000	.0000	.0000	.0000	.0000	.0000	.0000
Range	10.00	10.00	150.0	5.000	10.00	10.00	15.00

Elem	Sn_189	Ti_334	Tl_190	U_3859	V_2924	Zn_213	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	.4071	.5068	1.659	-3.405	.4114	.0922	3.178
SDev	2.671	.1002	3.540	20.881	.2447	.1300	5.382
%RSD	656.0	19.77	213.4	613.3	59.49	141.1	169.3
#1	1.652	.5061	1.234	18.83	.2707	.1783	3.010
#2	2.228	.6073	5.392	-22.60	.2695	.1555	-2.118
#3	-2.659	.4069	-1.650	-6.448	.6940	-.0574	8.643
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass

Value	.0000	.0000	.0000	.0000	.0000	.0000	.0000
Range	10.00	5.000	20.00	50.00	5.000	10.00	150.0
Elem	Si_288	Si02_	Sr_421	Pb1st	Pb2nd	Se1st	Se2nd
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	4.988	10.67	.2580	1.626	7.643	-3.064	.3218
SDev	7.553	16.16	.0868	6.912	3.800	7.280	9.711
%RSD	151.4	151.4	33.64	425.1	49.73	237.6	3018.
#1	7.517	16.08	.3466	7.816	9.561	5.080	4.654
#2	-3.505	-7.496	.2544	-5.833	3.266	-8.940	-10.80
#3	10.95	23.42	.1731	2.896	10.10	-5.332	7.113
Errors	QC Pass	NOCHECK	QC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK
Value	.0000		.0000				
Range	100.0		5.000				
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	15453	--	--	--	--	--	--
SDev	261.2669	--	--	--	--	--	--
%RSD	1.690768	--	--	--	--	--	--
#1	15365	--	--	--	--	--	--
#2	15746	--	--	--	--	--	--
#3	15246	--	--	--	--	--	--

Method: TRACE2 Sample Name: CCV1 Operator: HSC
Run Time: 05/09/05 12:26:53
Comment: 423505||6010 WATER
Mode: CONC Corr. Factor: 1

Fe fails

Elem	Ag_328	Al_308	As_189	B_2496	Ba_493	Be_313	Ca_317
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	498.4	5258.	472.0	522.2	493.2	501.3	5092.
SDev	2.6	15.	7.3	6.1	1.2	1.5	5.
%RSD	.5119	.2759	1.556	1.167	.2465	.3071	.1032
#1	500.6	5243.	479.7	520.3	491.9	502.0	5087.
#2	495.6	5259.	465.1	529.1	493.5	499.5	5093.
#3	499.1	5272.	471.3	517.3	494.3	502.4	5097.
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	500.0	5000.	500.0	500.0	500.0	500.0	5000.
Range	10.00	10.00	10.00	10.00	10.00	10.00	10.00

Elem	Cd_226	Co_228	Cr_267	Cu_324	Fe_	K_7664	Mg_279
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	502.1	503.4	522.1	506.6	Q5720.	5003.	5295.
SDev	1.5	2.4	.5	1.4	90.	20.	9.
%RSD	.3022	.4856	.1036	.2674	1.565	.3947	.1695
#1	502.8	505.2	521.9	506.1	Q5639.	5023.	5285.
#2	500.3	500.6	521.7	505.6	Q5816.	4984.	5300.
#3	503.1	504.5	522.8	508.2	Q5705.	5004.	5302.
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Fail	QC Pass	QC Pass
Value	500.0	500.0	500.0	500.0	5000.	5000.	5000.
Range	10.00	10.00	10.00	10.00	10.00	10.00	10.00

Elem	Mn_257	Mo_202	Na_	Ni_231	Sb_206	Pb_220	Se_196
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	543.9	497.6	9759.	503.3	498.1	498.3	502.9
SDev	2.9	1.2	90.	4.8	5.2	3.6	6.6
%RSD	.5272	.2318	.9271	.9536	1.037	.7133	1.317
#1	541.0	496.4	9789.	497.8	500.5	494.2	499.6
#2	546.7	498.0	9657.	506.9	492.2	500.0	510.6
#3	543.9	498.6	9830.	505.1	501.6	500.7	498.6
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	500.0	500.0	10000.	500.0	500.0	500.0	500.0
Range	10.00	10.00	10.00	10.00	10.00	10.00	10.00

Elem	Sn_189	Ti_334	Tl_190	U_3859	V_2924	Zn_213	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	492.3	498.4	478.8	514.7	535.6	499.6	2357.
SDev	.9	1.6	5.0	9.2	3.1	1.4	30.
%RSD	.1788	.3138	1.047	1.797	.5799	.2809	1.269
#1	491.6	499.1	482.9	505.4	532.4	498.4	2347.
#2	492.1	496.6	473.2	514.8	538.6	501.1	2334.
#3	493.3	499.4	480.3	523.9	536.0	499.2	2391.
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass

Value	500.0	500.0	500.0	500.0	500.0	500.0	2500.
Range	10.00	10.00	10.00	10.00	10.00	10.00	10.00
Elem	Si_288	Si02_	Sr_421	Pb1st	Pb2nd	Se1st	Se2nd
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	2621.	5606.	496.6	498.9	498.0	496.8	506.0
SDev	10.	21.	1.1	8.6	5.9	13.0	16.4
%RSD	.3679	.3679	.2256	1.719	1.194	2.617	3.239
#1	2616.	5595.	495.4	497.4	492.7	501.7	498.6
#2	2615.	5594.	496.9	491.1	504.4	482.0	524.8
#3	2632.	5630.	497.6	508.1	497.1	506.6	494.7
Errors	QC Pass	NOCHECK	QC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK
Value	2500.		500.0				
Range	10.00		10.00				
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	17442	--	--	--	--	--	--
SDev	453.8193	--	--	--	--	--	--
%RSD	2.601841	--	--	--	--	--	--
#1	17910	--	--	--	--	--	--
#2	17413	--	--	--	--	--	--
#3	17004	--	--	--	--	--	--

Method: TRACE2 Sample Name: CCB1 Operator: HSC
Run Time: 05/09/05 12:32:48
Comment: 423505||6010 WATER
Mode: CONC Corr. Factor: 1

Elem	Ag_328	Al_308	As_189	B_2496	Ba_493	Be_313	Ca_317
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	.8141	-27.19	-2.373	1.274	.1423	.2820	-20.01
SDev	.2334	3.79	2.108	2.676	.0809	.0748	.88
%RSD	28.67	13.93	88.83	210.1	56.84	26.54	4.378
#1	.5508	-31.28	-4.323	4.000	.2200	.3680	-20.43
#2	.8962	-26.47	-.1360	1.172	.0585	.2321	-20.59
#3	.9954	-23.81	-2.661	-1.350	.1486	.2458	-19.00
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.0000	.0000	.0000	.0000	.0000	.0000	.0000
Range	5.000	200.0	15.00	50.00	5.000	5.000	100.0

Elem	Cd_226	Co_228	Cr_267	Cu_324	Fe_	K_7664	Mg_279
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	.8202	.1611	-1.309	.9786	-6.745	5.859	-20.31
SDev	.3863	.4320	.567	.5998	1.209	13.65	3.21
%RSD	47.10	268.1	43.32	61.29	17.93	232.9	15.82
#1	1.165	.5312	-1.832	1.527	-6.209	20.91	-20.30
#2	.4028	.2657	-1.388	.3380	-8.129	-5.720	-23.53
#3	.8927	-.3136	-.7065	1.071	-5.896	2.392	-17.11
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.0000	.0000	.0000	.0000	.0000	.0000	.0000
Range	5.000	5.000	5.000	10.00	100.0	150.0	300.0

Elem	Mn_257	Mo_202	Na_	Ni_231	Sb_206	Pb_220	Se_196
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	.5187	.2728	-9.958	1.125	-2.703	1.686	.9006
SDev	.1187	1.126	5.766	1.747	4.105	3.078	2.830
%RSD	22.88	412.7	57.91	155.3	151.9	182.6	314.3
#1	.4564	-.4568	-6.044	2.951	-6.132	-1.542	3.453
#2	.4441	-.2942	-7.250	.9558	-3.823	2.012	-2.143
#3	.6555	1.569	-16.58	-.5309	1.847	4.587	1.392
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.0000	.0000	.0000	.0000	.0000	.0000	.0000
Range	10.00	10.00	150.0	5.000	10.00	10.00	15.00

Elem	Sn_189	Ti_334	Tl_190	U_3859	V_2924	Zn_213	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	1.461	.3605	4.792	20.61	.4106	-.1596	-5.934
SDev	3.385	.1600	.903	11.44	1.223	.3626	5.088
%RSD	231.7	44.37	18.84	55.52	297.8	227.1	85.74
#1	.7232	.3116	3.755	23.38	.6698	.1662	-.3408
#2	-1.494	.2306	5.220	8.034	-.9209	-.0949	-10.29
#3	5.154	.5391	5.401	30.41	1.483	-.5502	-7.175
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass

Value	.0000	.0000	.0000	.0000	.0000	.0000	.0000
Range	10.00	5.000	20.00	50.00	5.000	10.00	150.0
Elem	Si_288	Si02_	Sr_421	Pb1st	Pb2nd	Se1st	Se2nd
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	5.872	12.56	.2662	1.114	1.971	-.7292	1.714
SDev	3.430	7.34	.0323	.533	4.358	8.1250	4.894
%RSD	58.42	58.42	12.15	47.81	221.1	1114.	285.5
#1	9.666	20.68	.2735	.5075	-2.565	7.088	1.638
#2	4.960	10.61	.2308	1.329	2.353	-.1446	-3.141
#3	2.990	6.395	.2943	1.505	6.126	-9.131	6.646
Errors	QC Pass	NOCHECK	QC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK
Value	.0000		.0000				
Range	100.0		5.000				
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	15726	--	--	--	--	--	--
SDev	300.9474	--	--	--	--	--	--
%RSD	1.913747	--	--	--	--	--	--
#1	15571	--	--	--	--	--	--
#2	16072	--	--	--	--	--	--
#3	15533	--	--	--	--	--	--

Method: TRACE2 Sample Name: 1200840490 Operator: HSC
Run Time: 05/09/05 12:38:44
Comment: 423067||6010 WATER
Mode: CONC Corr. Factor: 1

Elem	Ag_328	Al_308	As_189	B_2496	Ba_493	Be_313	Ca_317
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	-.2962	-32.09	.0514	.3498	.1111	.1396	-11.65
SDev	.5167	3.12	2.518	1.614	.0925	.0516	.28
%RSD	174.4	9.736	4902.	461.4	83.23	36.96	2.409
#1	-.0327	-29.33	2.045	.7568	.1912	.1933	-11.67
#2	-.8916	-31.46	.8877	-1.429	.0099	.1353	-11.36
#3	.0356	-35.48	-2.778	1.722	.1322	.0903	-11.93
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	5.000	200.0	15.00	50.00	5.000	5.000	100.0
Low	-5.000	-200.0	-15.00	-50.00	-5.000	-5.000	-100.0

Elem	Cd_226	Co_228	Cr_267	Cu_324	Fe	K_7664	Mg_279
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	.1685	-.9059	-1.623	.8726	-2.960	2.430	-22.44
SDev	.7215	.2348	.481	.5980	2.451	4.388	4.90
%RSD	428.2	25.92	29.64	68.53	82.81	180.5	21.84
#1	.7600	-.6723	-1.665	1.410	-1.537	7.484	-17.07
#2	-.6353	-.9035	-2.082	.9797	-1.552	-.4009	-26.68
#3	.3808	-1.142	-1.123	.2283	-5.790	.2071	-23.56
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	5.000	5.000	5.000	10.00	100.0	150.0	300.0
Low	-5.000	-5.000	-5.000	-10.00	-100.0	-150.0	-300.0

Elem	Mn_257	Mo_202	Na	Ni_231	Sb_206	Pb_220	Se_196
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	.2553	.6987	-6.887	1.604	-.4714	3.775	.6821
SDev	.3845	1.001	4.350	.176	2.7253	1.119	4.455
%RSD	150.6	143.3	63.17	11.00	578.1	29.64	653.2
#1	.2570	1.844	-9.398	1.728	2.560	2.659	3.766
#2	-.1301	-.0133	-1.864	1.682	-1.255	4.896	-4.426
#3	.6389	.2657	-9.400	1.402	-2.719	3.768	2.706
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.00	10.00	150.0	5.000	10.00	10.00	15.00
Low	-10.00	-10.00	-150.0	-5.000	-10.00	-10.00	-15.00

Elem	Sn_189	Ti_334	Tl_190	U_3859	V_2924	Zn_213	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	.8821	.2587	5.405	12.71	-.1444	1.388	-2.880
SDev	1.157	.2480	2.795	10.13	.7907	.243	1.400
%RSD	131.2	95.86	51.71	79.70	547.5	17.48	48.61
#1	1.432	.4347	7.349	1.054	-.9381	1.108	-2.501
#2	-.4473	-.0249	2.202	19.37	.6432	1.517	-1.708
#3	1.662	.3664	6.663	17.70	-.1383	1.539	-4.430
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	NOCHECK

High	10.00	5.000	20.00	50.00	10.00	10.00	
Low	-10.00	-5.000	-20.00	-50.00	-10.00	-10.00	
Elem	Si_288	Si02_	Sr_421	Pb1st	Pb2nd	Se1st	Se2nd
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	9.892	21.16	.1260	3.199	4.062	5.510	-1.728
SDev	1.584	3.39	.0406	1.399	2.146	4.216	6.515
%RSD	16.01	16.01	32.26	43.73	52.82	76.51	377.0
#1	11.16	23.88	.1729	3.298	2.340	9.983	.6630
#2	10.39	22.23	.1039	1.753	6.466	4.939	-9.101
#3	8.118	17.36	.1012	4.546	3.380	1.609	3.253
Errors	LC Pass	NOCHECK	LC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK
High	100.0		10.00				
Low	-100.0		-10.00				
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	15932	--	--	--	--	--	--
SDev	227.2764	--	--	--	--	--	--
%RSD	1.426567	--	--	--	--	--	--
#1	15684	--	--	--	--	--	--
#2	16130	--	--	--	--	--	--
#3	15982	--	--	--	--	--	--

Method: TRACE2 Sample Name: 1200840491 Operator: HSC
Run Time: 05/09/05 12:44:38
Comment: 423067||6010 WATER
Mode: CONC Corr. Factor: 1

Elem	Ag_328	Al_308	As_189	B_2496	Ba_493	Be_313	Ca_317
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	502.7	5293.	482.7	514.7	506.5	510.8	5309.
SDev	6.0	64.	6.0	1.4	1.8	3.5	26.
%RSD	1.195	1.218	1.253	.2793	.3579	.6913	.4810
#1	503.8	5317.	485.2	515.8	506.2	510.8	5306.
#2	508.1	5342.	487.1	515.3	508.4	514.3	5335.
#3	496.2	5220.	475.8	513.1	504.9	507.3	5285.
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2000.	500000.	50000.	50000.	15000.	10000.	500000.
Low	-5.000	-200.0	-15.00	-50.00	-5.000	-5.000	-100.0

Elem	Cd_226	Co_228	Cr_267	Cu_324	Fe_	K_7664	Mg_279
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	507.8	510.8	531.6	512.4	5916.	4989.	5433.
SDev	3.5	1.8	2.6	5.9	17.	43.	23.
%RSD	.6965	.3495	.4927	1.161	.2881	.8531	.4323
#1	508.3	510.9	531.8	514.1	5901.	4997.	5423.
#2	511.0	512.5	534.1	517.3	5914.	5026.	5460.
#3	504.0	509.0	528.9	505.8	5935.	4942.	5416.
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	25000.	50000.	50000.	25000.	500000.	30000.	500000.
Low	-5.000	-5.000	-5.000	-10.00	-100.0	-150.0	-300.0

Elem	Mn_257	Mo_202	Na_	Ni_231	Sb_206	Pb_220	Se_196
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	556.9	504.8	5101.	505.3	506.9	504.2	479.2
SDev	1.7	1.1	54.	2.1	5.0	5.6	4.8
%RSD	.3072	.2226	1.067	.4218	.9794	1.118	1.007
#1	556.3	503.5	5121.	506.9	503.0	504.5	474.9
#2	558.8	505.6	5143.	506.1	512.5	509.6	484.4
#3	555.5	505.3	5039.	502.9	505.2	498.3	478.4
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10000.	50000.	200000.	50000.	50000.	50000.	50000.
Low	-10.00	-10.00	-150.0	-5.000	-10.00	-10.00	-15.00

Elem	Sn_189	Ti_334	Tl_190	U_3859	V_2924	Zn_213	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	501.6	503.2	476.9	508.9	548.5	510.6	485.5
SDev	4.4	3.5	8.4	8.2	1.6	2.7	5.9
%RSD	.8866	.6897	1.768	1.616	.2998	.5200	1.210
#1	500.0	503.1	475.6	516.5	546.9	509.2	488.9
#2	506.6	506.7	485.9	510.0	550.2	513.7	488.9
#3	498.1	499.8	469.2	500.1	548.2	508.9	478.7
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass

High	50000.	10000.	50000.	50000.	50000.	5000.	50000.
Low	-10.00	-5.000	-20.00	-50.00	-5.000	-10.00	-150.0
Elem	Si_288	Si02_	Sr_421	Pb1st	Pb2nd	Se1st	Se2nd
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	5102.	10910.	505.3	511.9	500.3	482.4	477.7
SDev	69.	148.	2.3	4.7	6.5	8.3	3.7
%RSD	1.360	1.360	.4582	.9275	1.309	1.722	.7722
#1	5115.	10940.	504.2	515.0	499.3	477.5	473.5
#2	5164.	11050.	508.0	514.2	507.3	492.0	480.6
#3	5027.	10750.	503.8	506.4	494.3	477.7	478.8
Errors	LC Pass	NOCHECK	LC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK
High	50000.		10000.				
Low	-100.0		-5.000				
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	16495	--	--	--	--	--	--
SDev	66.98216	--	--	--	--	--	--
%RSD	.4060849	--	--	--	--	--	--
#1	16525	--	--	--	--	--	--
#2	16541	--	--	--	--	--	--
#3	16418	--	--	--	--	--	--

Method: TRACE2 Sample Name: 135804001 Operator: HSC
Run Time: 05/09/05 12:50:32
Comment: 423067||6010 WATER
Mode: CONC Corr. Factor: 1

Elem	Ag_328	Al_308	As_189	B_2496	Ba_493	Be_313	Ca_317
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	.2923	17.46	.0883	4.157	1.472	.2400	788.7
SDev	.5618	1.26	2.039	1.608	.096	.0454	3.4
%RSD	192.2	7.195	2310.	38.68	6.533	18.90	.4305
#1	.9410	18.08	-1.883	2.553	1.575	.2899	790.8
#2	-.0292	18.29	2.189	4.151	1.459	.2013	790.5
#3	-.0350	16.02	-.0412	5.769	1.384	.2288	784.8
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2000.	500000.	50000.	50000.	15000.	10000.	500000.
Low	-5.000	-200.0	-15.00	-50.00	-5.000	-5.000	-100.0

Elem	Cd_226	Co_228	Cr_267	Cu_324	Fe_	K_7664	Mg_279
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	-.0495	-.3254	-.2625	2.254	19.94	91.04	234.2
SDev	.1730	.3015	.6041	.370	1.49	11.49	3.1
%RSD	349.3	92.67	230.1	16.41	7.491	12.62	1.344
#1	.0616	-.1008	-.3227	2.533	21.65	89.00	232.4
#2	.0387	-.6680	-.8343	1.835	18.93	80.70	232.4
#3	-.2489	-.2073	.3694	2.395	19.23	103.4	237.8
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	25000.	50000.	50000.	25000.	500000.	30000.	500000.
Low	-5.000	-5.000	-5.000	-10.00	-100.0	-150.0	-300.0

Elem	Mn_257	Mo_202	Na_	Ni_231	Sb_206	Pb_220	Se_196
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	.8075	1.046	1219.	.4467	-2.740	1.624	1.280
SDev	.3173	.488	15.	1.805	3.296	3.435	1.732
%RSD	39.29	46.69	1.196	404.0	120.3	211.6	135.3
#1	1.174	1.082	1234.	2.355	.8496	-.6280	-.5178
#2	.6217	.5408	1218.	.2192	-3.441	-.0786	2.937
#3	.6271	1.516	1204.	-1.234	-5.629	5.577	1.420
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10000.	50000.	200000.	50000.	50000.	50000.	50000.
Low	-10.00	-10.00	-150.0	-5.000	-10.00	-10.00	-15.00

Elem	Sn_189	Ti_334	Tl_190	U_3859	V_2924	Zn_213	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	2.136	1.184	3.775	9.242	.5015	2.157	-9.222
SDev	.318	.094	7.704	11.63	.5895	.211	3.190
%RSD	14.90	7.959	204.1	125.9	117.6	9.800	34.59
#1	1.769	1.291	5.061	12.56	.6234	2.351	-12.66
#2	2.306	1.114	-4.491	-3.689	1.021	1.932	-6.359
#3	2.332	1.148	10.75	18.86	-.1395	2.188	-8.646
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass

High	50000.	10000.	50000.	50000.	50000.	5000.	50000.
Low	-10.00	-5.000	-20.00	-50.00	-5.000	-10.00	-150.0
Elem	Si_288	Si02_	Sr_421	Pb1st	Pb2nd	Se1st	Se2nd
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	265.2	567.2	6.884	-.2237	2.546	-2.731	3.282
SDev	1.9	4.1	.061	3.6663	4.431	3.841	1.409
%RSD	.7181	.7181	.8809	1639.	174.1	140.6	42.92
#1	263.3	563.3	6.945	1.399	-1.640	-7.140	2.788
#2	265.0	566.9	6.884	-4.421	2.089	-.9358	4.871
#3	267.1	571.4	6.823	2.351	7.188	-.1162	2.187
Errors	LC Pass	NOCHECK	LC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK
High	50000.		10000.				
Low	-100.0		-5.000				
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	16366	--	--	--	--	--	--
SDev	170.5539	--	--	--	--	--	--
%RSD	1.042140	--	--	--	--	--	--
#1	16541	--	--	--	--	--	--
#2	16357	--	--	--	--	--	--
#3	16200	--	--	--	--	--	--

Method: TRACE2 Sample Name: 1200840492 Operator: HSC
Run Time: 05/09/05 12:56:26
Comment: 423067||6010 WATER
Mode: CONC Corr. Factor: 1

Elem	Ag_328	Al_308	As_189	B_2496	Ba_493	Be_313	Ca_317
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	.2091	15.25	-2.282	4.031	1.278	.0838	796.7
SDev	.4636	3.30	1.763	.807	.039	.0137	2.6
%RSD	221.7	21.60	77.27	20.02	3.060	16.34	.3258
#1	-.3196	12.01	-.6976	3.826	1.295	.0908	794.0
#2	.5461	15.15	-4.181	3.347	1.306	.0927	796.9
#3	.4009	18.60	-1.966	4.922	1.233	.0681	799.1
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2000.	500000.	50000.	50000.	15000.	10000.	500000.
Low	-5.000	-200.0	-15.00	-50.00	-5.000	-5.000	-100.0

Elem	Cd_226	Co_228	Cr_267	Cu_324	Fe	K_7664	Mg_279
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	.2349	-.5146	-.6483	2.601	20.07	89.87	229.7
SDev	.4750	.3622	.8119	.222	1.17	1.09	14.1
%RSD	202.3	70.39	125.2	8.548	5.824	1.209	6.124
#1	.7715	-.4353	.2753	2.587	19.16	91.08	229.7
#2	-.1316	-.1987	-.9713	2.387	19.66	88.97	215.6
#3	.0647	-.9100	-1.249	2.831	21.39	89.56	243.7
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	25000.	50000.	50000.	25000.	500000.	30000.	500000.
Low	-5.000	-5.000	-5.000	-10.00	-100.0	-150.0	-300.0

Elem	Mn_257	Mo_202	Na	Ni_231	Sb_206	Pb_220	Se_196
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	.5100	.7810	1204.	.9142	-.6151	2.018	-1.293
SDev	.2251	1.766	.	.8127	2.8933	1.595	.808
%RSD	44.14	226.2	.0039	88.90	470.4	79.04	62.50
#1	.2500	2.806	1204.	1.849	.2535	.1930	-.9998
#2	.6403	-.4445	1204.	.5217	-3.843	3.145	-.6722
#3	.6395	-.0182	1204.	.3722	1.744	2.716	-2.207
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10000.	50000.	200000.	50000.	50000.	50000.	50000.
Low	-10.00	-10.00	-150.0	-5.000	-10.00	-10.00	-15.00

Elem	Sn_189	Ti_334	Tl_190	U_3859	V_2924	Zn_213	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	1.203	1.063	3.304	5.066	.7884	2.796	-1.691
SDev	2.519	.094	5.116	3.206	.8275	.369	5.452
%RSD	209.4	8.851	154.9	63.28	105.0	13.19	322.4
#1	3.607	1.080	-2.163	1.368	1.051	2.469	-7.882
#2	1.419	1.148	7.977	7.058	-.1385	3.196	2.391
#3	-1.417	.9620	4.098	6.772	1.453	2.723	.4177
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass

High	50000.	10000.	50000.	50000.	50000.	5000.	50000.
Low	-10.00	-5.000	-20.00	-50.00	-5.000	-10.00	-150.0
Elem	Si_288	Si02_	Sr_421	Pb1st	Pb2nd	Se1st	Se2nd
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	256.4	548.5	6.786	.6520	2.700	-6.739	1.426
SDev	2.0	4.3	.015	2.443	2.329	6.560	2.492
%RSD	.7844	.7844	.2235	374.7	86.27	97.34	174.7
#1	254.2	543.7	6.786	-.5628	.5704	-9.672	3.330
#2	258.1	552.1	6.801	-.9455	5.187	.7752	-1.395
#3	257.0	549.6	6.770	3.464	2.342	-11.32	2.344
Errors	LC Pass	NOCHECK	LC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK
High	50000.		10000.				
Low	-100.0		-5.000				
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	15878	--	--	--	--	--	--
SDev	57.29408	--	--	--	--	--	--
%RSD	.3608394	--	--	--	--	--	--
#1	15944	--	--	--	--	--	--
#2	15840	--	--	--	--	--	--
#3	15850	--	--	--	--	--	--

Method: TRACE2 Sample Name: 1200840493 Operator: HSC
Run Time: 05/09/05 13:02:20
Comment: 423067||6010 WATER
Mode: CONC Corr. Factor: 1

Elem	Ag_328	Al_308	As_189	B_2496	Ba_493	Be_313	Ca_317
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	495.1	5231.	474.4	516.0	503.9	506.0	6060.
SDev	2.2	11.	5.5	1.6	1.2	1.9	12.
%RSD	.4432	.2088	1.159	.3011	.2379	.3767	.1908
#1	493.5	5244.	472.1	517.8	502.6	504.0	6073.
#2	494.2	5223.	480.7	514.8	504.2	506.0	6051.
#3	497.6	5227.	470.4	515.6	504.9	507.8	6056.
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2000.	500000.	50000.	50000.	15000.	10000.	500000.
Low	-5.000	-200.0	-15.00	-50.00	-5.000	-5.000	-100.0

Elem	Cd_226	Co_228	Cr_267	Cu_324	Fe_	K_7664	Mg_279
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	502.6	504.6	525.9	505.3	5852.	4970.	5623.
SDev	.4	1.7	.5	2.0	117.	24.	20.
%RSD	.0750	.3281	.0912	.3947	2.005	.4909	.3610
#1	502.8	502.7	525.9	503.5	5982.	4948.	5638.
#2	502.1	505.4	525.5	504.9	5819.	4966.	5600.
#3	502.8	505.8	526.5	507.4	5754.	4996.	5630.
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	25000.	50000.	50000.	25000.	500000.	30000.	500000.
Low	-5.000	-5.000	-5.000	-10.00	-100.0	-150.0	-300.0

Elem	Mn_257	Mo_202	Na_	Ni_231	Sb_206	Pb_220	Se_196
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	549.9	501.7	6185.	498.5	504.2	496.8	472.4
SDev	6.3	.6	27.	3.3	3.7	4.1	8.1
%RSD	1.140	.1211	.4441	.6630	.7327	.8320	1.722
#1	557.1	501.0	6157.	495.5	500.6	492.0	463.8
#2	546.6	502.2	6187.	497.9	508.0	499.5	480.0
#3	545.9	501.9	6211.	502.0	503.8	498.9	473.5
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10000.	50000.	200000.	50000.	50000.	50000.	50000.
Low	-10.00	-10.00	-150.0	-5.000	-10.00	-10.00	-15.00

Elem	Sn_189	Ti_334	Tl_190	U_3859	V_2924	Zn_213	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	492.2	499.8	471.2	508.7	543.1	507.0	476.4
SDev	5.1	1.5	3.5	13.6	4.8	1.3	11.9
%RSD	1.034	.2911	.7390	2.682	.8852	.2628	2.508
#1	497.9	498.2	469.8	524.5	548.6	505.6	490.2
#2	490.2	499.9	475.2	501.2	539.6	508.2	468.4
#3	488.4	501.2	468.7	500.5	541.1	507.3	470.7
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass

High	50000.	10000.	50000.	50000.	50000.	5000.	50000.
Low	-10.00	-5.000	-20.00	-50.00	-5.000	-10.00	-150.0
Elem	Si_288	Si02_	Sr_421	Pb1st	Pb2nd	Se1st	Se2nd
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	5273.	11280.	508.2	499.6	495.4	477.5	469.9
SDev	11.	23.	.8	5.3	5.5	10.3	10.2
%RSD	.2012	.2012	.1546	1.064	1.119	2.160	2.169
#1	5284.	11300.	507.3	496.5	489.8	467.4	462.0
#2	5263.	11260.	508.8	496.6	500.9	477.1	481.4
#3	5273.	11280.	508.6	505.7	495.4	488.0	466.2
Errors	LC Pass	NOCHECK	LC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK
High	50000.		10000.				
Low	-100.0		-5.000				
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	16047	--	--	--	--	--	--
SDev	85.57699	--	--	--	--	--	--
%RSD	.5332937	--	--	--	--	--	--
#1	16143	--	--	--	--	--	--
#2	15980	--	--	--	--	--	--
#3	16018	--	--	--	--	--	--

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Method: TRACE2 Sample Name: 1200840494|5| Operator: HSC
Run Time: 05/09/05 13:08:14
Comment: 423067||6010 WATER
Mode: CONC Corr. Factor: 1

Elem	Ag_328	Al_308	As_189	B_2496	Ba_493	Be_313	Ca_317
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	.8320	-31.23	-1.901	1.404	.5150	.2598	150.0
SDev	.2555	3.96	2.293	2.709	.0902	.0684	3.4
%RSD	30.71	12.68	120.6	193.0	17.52	26.32	2.274
#1	.6762	-33.55	-.3631	-.9043	.4344	.3273	153.9
#2	1.127	-26.66	-.8030	4.387	.6125	.2613	147.9
#3	.6931	-33.49	-4.537	.7285	.4981	.1906	148.1
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2000.	500000.	50000.	50000.	15000.	10000.	500000.
Low	-5.000	-200.0	-15.00	-50.00	-5.000	-5.000	-100.0

Elem	Cd_226	Co_228	Cr_267	Cu_324	Fe_	K_7664	Mg_279
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	.6347	-.0035	-.2905	.7602	-1.887	24.30	28.69
SDev	.1368	.2385	1.0192	.6701	.365	8.05	6.59
%RSD	21.55	6721.	350.8	88.14	19.36	33.11	22.99
#1	.6687	.2635	.7837	1.534	-1.515	32.48	25.98
#2	.7512	-.0788	-1.244	.3697	-2.245	16.39	36.20
#3	.4841	-.1953	-.4113	.3770	-1.901	24.04	23.88
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	25000.	50000.	50000.	25000.	500000.	30000.	500000.
Low	-5.000	-5.000	-5.000	-10.00	-100.0	-150.0	-300.0

Elem	Mn_257	Mo_202	Na_	Ni_231	Sb_206	Pb_220	Se_196
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	.6393	-.6777	223.6	.8636	.3578	1.554	-3.824
SDev	.3327	1.3800	10.5	2.366	2.022	3.041	4.445
%RSD	52.04	203.6	4.683	274.0	565.2	195.6	116.2
#1	.8264	-.9940	235.6	1.982	1.670	4.815	.9053
#2	.8364	.8329	216.4	-1.855	-1.971	1.052	-7.916
#3	.2552	-1.872	218.7	2.464	1.374	-1.204	-4.460
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10000.	50000.	200000.	50000.	50000.	50000.	50000.
Low	-10.00	-10.00	-150.0	-5.000	-10.00	-10.00	-15.00

Elem	Sn_189	Ti_334	Tl_190	U_3859	V_2924	Zn_213	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	2.198	.5478	4.935	11.89	.2605	.7647	2.847
SDev	1.174	.0880	3.703	14.11	.4014	.5750	6.034
%RSD	53.41	16.06	75.02	118.7	154.1	75.20	211.9
#1	3.135	.6326	9.207	28.05	-.1417	1.292	3.541
#2	.8814	.5538	2.967	2.009	.2621	.8502	-3.503
#3	2.576	.4570	2.633	5.604	.6611	.1517	8.505
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass

High	50000.	10000.	50000.	50000.	50000.	5000.	50000.
Low	-10.00	-5.000	-20.00	-50.00	-5.000	-10.00	-150.0
Elem	Si_288	Si02_	Sr_421	Pb1st	Pb2nd	Se1st	Se2nd
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	48.95	104.7	1.653	2.607	1.029	-5.677	-2.898
SDev	6.76	14.5	.059	4.048	3.517	1.991	5.899
%RSD	13.82	13.82	3.542	155.3	341.9	35.06	203.5
#1	56.75	121.4	1.708	6.825	3.812	-3.447	3.078
#2	44.81	95.85	1.658	-1.246	2.199	-6.312	-8.717
#3	45.29	96.87	1.592	2.243	-2.924	-7.273	-3.056
Errors	LC Pass	NOCHECK	LC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK
High	50000.		10000.				
Low	-100.0		-5.000				
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	15909	--	--	--	--	--	--
SDev	148.8561	--	--	--	--	--	--
%RSD	.9356677	--	--	--	--	--	--
#1	16075	--	--	--	--	--	--
#2	15866	--	--	--	--	--	--
#3	15787	--	--	--	--	--	--

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Method: TRACE2 Sample Name: CCV2 Operator: HSC
Run Time: 05/09/05 13:25:58
Comment: 422695||6010 WATER
Mode: CONC Corr. Factor: 1

✓ Fe fail

Elem	Ag_328	Al_308	As_189	B_2496	Ba_493	Be_313	Ca_317
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	487.4	5123.	461.6	509.5	494.8	502.0	5117.
SDev	2.0	3.	1.5	7.0	2.2	1.8	17.
%RSD	.4192	.0560	.3351	1.379	.4351	.3680	.3366
#1	485.7	5120.	459.8	501.6	493.4	500.2	5098.
#2	486.8	5122.	462.1	511.7	493.8	502.0	5121.
#3	489.6	5126.	462.8	515.1	497.3	503.9	5131.
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	500.0	5000.	500.0	500.0	500.0	500.0	5000.
Range	10.00	10.00	10.00	10.00	10.00	10.00	10.00

Elem	Cd_226	Co_228	Cr_267	Cu_324	Fe_	K_7664	Mg_279
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	502.6	502.2	526.7	492.0	Q5761.	4927.	5325.
SDev	1.0	2.6	1.7	2.0	12.	9.	22.
%RSD	.1900	.5275	.3282	.4035	.2136	.1744	.4099
#1	503.7	500.4	524.8	490.2	Q5774.	4917.	5306.
#2	501.8	501.0	527.3	491.6	Q5759.	4933.	5349.
#3	502.4	505.3	528.1	494.1	Q5750.	4931.	5319.
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Fail	QC Pass	QC Pass
Value	500.0	500.0	500.0	500.0	5000.	5000.	5000.
Range	10.00	10.00	10.00	10.00	10.00	10.00	10.00

Elem	Mn_257	Mo_202	Na_	Ni_231	Sb_206	Pb_220	Se_196
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	545.6	500.5	9772.	504.5	490.0	489.6	484.6
SDev	1.6	2.5	20.	3.7	9.1	5.9	10.1
%RSD	.2941	.5085	.2028	.7257	1.858	1.198	2.074
#1	543.8	499.9	9770.	500.6	482.0	482.9	491.3
#2	545.9	498.3	9753.	505.3	488.1	491.9	489.4
#3	546.9	503.3	9793.	507.7	499.9	493.9	473.1
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	500.0	500.0	10000.	500.0	500.0	500.0	500.0
Range	10.00	10.00	10.00	10.00	10.00	10.00	10.00

Elem	Sn_189	Ti_334	Tl_190	U_3859	V_2924	Zn_213	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	486.1	498.6	475.5	512.4	541.8	497.6	2520.
SDev	7.1	2.2	9.7	8.9	2.6	1.3	15.
%RSD	1.466	.4395	2.041	1.740	.4846	.2674	.5837
#1	480.6	496.4	480.9	522.7	540.1	497.7	2503.
#2	494.2	498.6	464.2	507.3	540.5	496.2	2528.
#3	483.5	500.8	481.2	507.2	544.8	498.8	2528.
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass

Value	500.0	500.0	500.0	500.0	500.0	500.0	2500.
Range	10.00	10.00	10.00	10.00	10.00	10.00	10.00
Elem	Si_288	Si02_	Sr_421	Pb1st	Pb2nd	Se1st	Se2nd
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	2521.	5392.	498.3	497.1	485.8	478.9	487.5
SDev	11.	24.	1.8	5.0	7.9	13.8	11.6
%RSD	.4371	.4371	.3590	1.003	1.626	2.876	2.379
#1	2510.	5368.	497.3	495.2	476.8	494.7	489.7
#2	2521.	5392.	497.3	493.3	491.3	472.7	497.8
#3	2532.	5415.	500.4	502.7	489.5	469.3	474.9
Errors	QC Pass	NOCHECK	QC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK
Value	2500.		500.0				
Range	10.00		10.00				
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	15479	--	--	--	--	--	--
SDev	188.9108	--	--	--	--	--	--
%RSD	1.220446	--	--	--	--	--	--
#1	15570	--	--	--	--	--	--
#2	15605	--	--	--	--	--	--
#3	15262	--	--	--	--	--	--

Analysis Report QC Standard 05/09/05 01:37:45 PM page 1

Method: TRACE2 Sample Name: CCB2 Operator: HSC
Run Time: 05/09/05 13:31:54
Comment: 422695||6010 WATER
Mode: CONC Corr. Factor: 1

Elem	Ag_328	Al_308	As_189	B_2496	Ba_493	Be_313	Ca_317
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	.0653	-32.04	-3.085	-1.890	.3435	.4129	-18.84
SDev	.7405	5.12	8.138	2.772	.2225	.1429	2.32
%RSD	1134.	15.97	263.8	146.7	64.80	34.61	12.31
#1	-.4571	-37.40	-12.45	-.2305	.1075	.2523	-21.43
#2	.9127	-27.21	.9776	-5.090	.5497	.4600	-16.97
#3	-.2597	-31.51	2.223	-.3488	.3732	.5262	-18.10
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.0000	.0000	.0000	.0000	.0000	.0000	.0000
Range	5.000	200.0	15.00	50.00	5.000	5.000	100.0

Elem	Cd_226	Co_228	Cr_267	Cu_324	Fe_	K_7664	Mg_279
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	.5953	.0876	-1.141	-.3077	-5.171	-1.940	-23.44
SDev	.8255	.7910	1.135	3.4191	1.335	43.470	8.08
%RSD	138.7	903.4	99.47	1111.	25.82	2241.	34.45
#1	-.3385	-.4157	-2.271	-4.197	-6.709	-51.88	-32.61
#2	1.228	.9993	-.0021	1.049	-4.507	18.65	-20.34
#3	.8968	-.3209	-1.149	2.225	-4.298	27.41	-17.38
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.0000	.0000	.0000	.0000	.0000	.0000	.0000
Range	5.000	5.000	5.000	10.00	100.0	150.0	300.0

Elem	Mn_257	Mo_202	Na_	Ni_231	Sb_206	Pb_220	Se_196
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	.3894	.1541	-27.30	1.409	-4.465	1.609	-3.762
SDev	.1152	1.250	36.05	1.811	18.872	3.091	2.359
%RSD	29.59	811.0	132.1	128.6	422.6	192.1	62.70
#1	.4631	-1.203	-68.63	-.5396	Q-25.84	5.141	-1.225
#2	.2566	.4088	-10.94	1.724	2.530	.2969	-5.888
#3	.4483	1.257	-2.328	3.041	9.911	-.6091	-4.173
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.0000	.0000	.0000	.0000	.0000	.0000	.0000
Range	10.00	10.00	150.0	5.000	10.00	10.00	15.00

Elem	Sn_189	Ti_334	Tl_190	U_3859	V_2924	Zn_213	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	-.0610	.4243	1.864	-18.14	-.5488	-.4015	4.085
SDev	2.6085	.2317	12.54	86.29	1.6171	.7187	12.12
%RSD	4275.	54.60	672.4	475.7	294.6	179.0	296.6
#1	-2.741	.1623	-12.50	Q-116.8	-2.170	-1.032	-9.907
#2	.0890	.5083	10.61	18.93	1.064	-.5532	11.09
#3	2.469	.6023	7.481	43.42	-.5398	.3809	11.07
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass

Value	.0000	.0000	.0000	.0000	.0000	.0000	.0000
Range	10.00	5.000	20.00	50.00	5.000	10.00	150.0
Elem	Si_288	Si02_	Sr_421	Pb1st	Pb2nd	Se1st	Se2nd
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	-2.727	-5.834	.4371	-.2144	2.520	-6.717	-2.286
SDev	13.691	29.285	.0995	9.8265	9.441	23.158	14.471
%RSD	502.0	502.0	22.75	4583.	374.6	344.7	632.9
#1	-18.00	-38.50	.3224	-10.49	12.95	-32.15	14.21
#2	1.363	2.915	.4985	.7661	.0626	-1.169	-8.244
#3	8.452	18.08	.4905	9.085	-5.449	13.16	-12.83
Errors	QC Pass	NOCHECK	QC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK
Value	.0000		.0000				
Range	100.0		5.000				

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	15645	--	--	--	--	--	--
SDev	296.4276	--	--	--	--	--	--
%RSD	1.894709	--	--	--	--	--	--
#1	15316	--	--	--	--	--	--
#2	15728	--	--	--	--	--	--
#3	15891	--	--	--	--	--	--

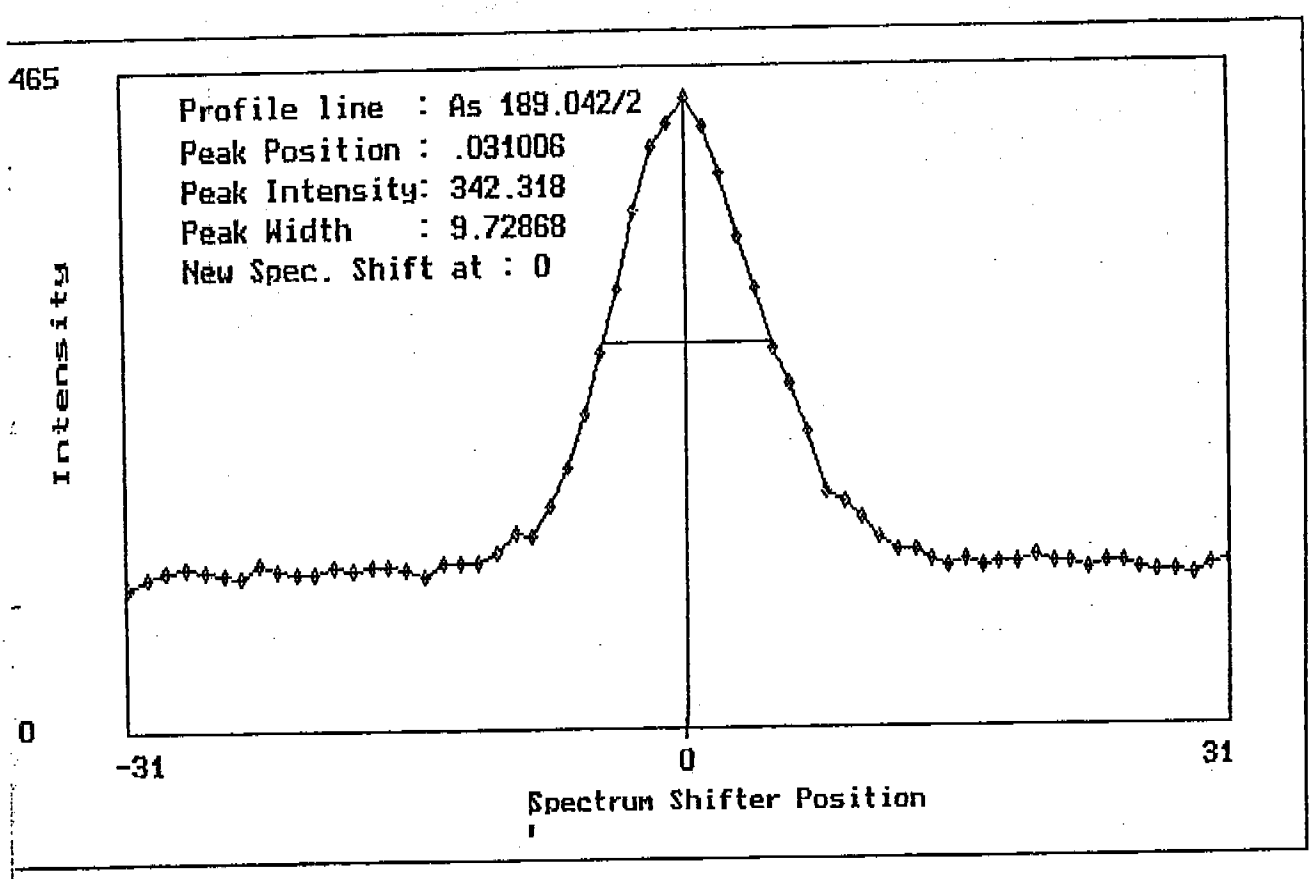
465
Profile line : As 189.042/2
Peak Position : .031006
Peak Intensity: 342.318
Peak Width : 9.72868
New Spec. Shift at : 0
Intensity
0
-31
0
31
Spectrum Shifter Position

HSC
05/10/05

Method: TRACE2 Standard: S0
Run Time: 05/10/05 13:06:52

Elem	Ag_328	Al_308	As_189	B_2496	Ba_493	Be_313	Ca_317
Avge	-.0007	.0047	.0000	.0004	.0006	.0005	.0008
SDev	.0007	.0002	.0025	.0003	.0003	.0001	.0001
%RSD	107.9	4.847	5581.	65.39	48.66	13.20	10.69
#1	-.0003	.0047	.0021	.0007	.0004	.0004	.0009
#2	-.0015	.0049	-.0027	.0002	.0005	.0005	.0007
#3	-.0002	.0044	.0008	.0004	.0009	.0005	.0009

Elem	Cd_226	Co_228	Cr_267	Cu_324	Fe_	Fe_	K_7664
Avge	-.0005	-.0001	.0002	.0009	-.0001	.0004	.0485
SDev	.0006	.0006	.0003	.0005	.0002	.0003	.0140
%RSD	113.9	851.4	145.0	51.70	297.7	70.79	28.83
#1	.0001	.0002	.0005	.0014	.0001	.0003	.0647
#2	-.0006	-.0008	.0000	.0009	-.0001	.0002	.0409
#3	-.0011	.0003	.0001	.0005	-.0002	.0008	.0401

Elem	Mg_279	Mn_257	Mo_202	Na_	Na_	Ni_231	Sb_206
Avge	.0000	.0000	.0001	-.0008	-2.242	.0001	.0005
SDev	.0002	.0001	.0003	.0012	.054	.0004	.0001
%RSD	520.6	107700.	327.0	157.6	2.390	420.3	22.26
#1	.0002	.0001	-.0001	-.0003	-2.193	-.0003	.0006
#2	-.0002	-.0001	-.0001	-.0021	-2.234	.0002	.0004
#3	.0001	.0000	.0005	.0002	-2.299	.0005	.0005

Elem	Sn_189	Ti_334	Tl_190	U_3859	V_2924	Zn_213	P_1782
Avge	.0004	-.0008	-.0011	.0185	-.0000	.0001	.0272
SDev	.0013	.0010	.0011	.0012	.0001	.0001	.0018
%RSD	331.5	124.1	95.73	6.666	450.8	99.57	6.702
#1	-.0010	-.0001	.0001	.0199	.0001	.0001	.0256
#2	.0015	-.0020	-.0017	.0175	.0000	.0000	.0269
#3	.0006	-.0003	-.0018	.0182	-.0001	.0001	.0292

Elem	Si_288	SiO2_	Sr_421	Pb1st	Pb2nd	Se1st	Se2nd
Avge	.0043	.0043	.0024	.0032	-.0009	.0016	-.0011
SDev	.0001	.0001	.0004	.0006	.0020	.0037	.0003
%RSD	3.513	3.513	15.35	17.38	231.2	226.8	25.66
#1	.0043	.0043	.0024	.0033	-.0005	.0050	-.0009
#2	.0041	.0041	.0020	.0026	-.0030	-.0023	-.0009
#3	.0044	.0044	.0027	.0037	.0009	.0022	-.0014

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	17314	--	--	--	--	--	--
SDev	145.5171	--	--	--	--	--	--
%RSD	.8404602	--	--	--	--	--	--
#1	17373	--	--	--	--	--	--
#2	17421	--	--	--	--	--	--
#3	17148	--	--	--	--	--	--

Method: TRACE2 Standard: S0.1
Run Time: 05/10/05 13:12:50

Elem	Ag_328	As_189	B_2496	Ba_493	Be_313	Cd_226	Co_228
Avge	.0919	.0575	.0126	.2611	.2721	.2790	.0572
SDev	.0017	.0006	.0005	.0010	.0016	.0028	.0004
%RSD	1.891	1.113	4.175	.3752	.5834	.9947	.7791
#1	.0900	.0578	.0121	.2604	.2702	.2804	.0567
#2	.0934	.0580	.0131	.2606	.2730	.2807	.0576
#3	.0923	.0568	.0124	.2622	.2729	.2758	.0572

Elem	Cr_267	Cu_324	K_7664	Mn_257	Mo_202	Ni_231	Sb_206
Avge	.0480	.0604	1.851	.0316	.0441	.0462	.0176
SDev	.0004	.0004	.004	.0002	.0006	.0002	.0004
%RSD	.9315	.5910	.2344	.6387	1.266	.4040	2.104
#1	.0476	.0600	1.855	.0318	.0445	.0462	.0178
#2	.0485	.0606	1.851	.0314	.0443	.0464	.0178
#3	.0480	.0606	1.846	.0315	.0434	.0461	.0172

Elem	Sn_189	Ti_334	Tl_190	U_3859	V_2924	Zn_213	P_1782
Avge	.0670	.5243	.0401	.0232	.0159	.0283	.3513
SDev	.0043	.0027	.0009	.0005	.0002	.0002	.0026
%RSD	6.427	.5208	2.254	2.083	1.527	.6442	.7305
#1	.0620	.5211	.0392	.0235	.0157	.0282	.3542
#2	.0696	.5256	.0402	.0227	.0160	.0285	.3492
#3	.0693	.5261	.0410	.0235	.0162	.0282	.3507

Elem	Si_288	Si02_	Sr_421	Pb1st	Pb2nd	Se1st	Se2nd
Avge	.0393	.0393	.9810	.1044	.0466	.0674	.0317
SDev	.0006	.0006	.0040	.0022	.0014	.0013	.0021
%RSD	1.614	1.614	.4052	2.100	3.017	1.935	6.463
#1	.0386	.0386	.9781	.1043	.0454	.0672	.0321
#2	.0399	.0399	.9794	.1022	.0481	.0688	.0336
#3	.0394	.0394	.9856	.1066	.0464	.0662	.0295

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	17271	--	--	--	--	--	--
SDev	554.3746	--	--	--	--	--	--
%RSD	3.209881	--	--	--	--	--	--
#1	17904	--	--	--	--	--	--
#2	17037	--	--	--	--	--	--
#3	16872	--	--	--	--	--	--

Method: TRACE2 Standard: S0.5
Run Time: 05/10/05 13:18:47

Elem	Ag_328	As_189	B_2496	Ba_493	Be_313	Cd_226	Co_228
Avge	.4572	.2819	.0630	1.295	1.364	1.392	.2825
SDev	.0083	.0051	.0009	.020	.024	.029	.0046
%RSD	1.824	1.824	1.423	1.537	1.761	2.109	1.646
#1	.4481	.2760	.0620	1.273	1.337	1.358	.2774
#2	.4644	.2856	.0634	1.311	1.384	1.413	.2865
#3	.4592	.2839	.0637	1.303	1.370	1.404	.2837

Elem	Cr_267	Cu_324	Fe_	K_7664	Mn_257	Mo_202	Ni_231
Avge	.2412	.2922	.9655	8.898	.1584	.2193	.2275
SDev	.0046	.0046	.0117	.157	.0026	.0052	.0037
%RSD	1.917	1.582	1.213	1.770	1.646	2.362	1.603
#1	.2362	.2871	.9522	8.728	.1554	.2133	.2234
#2	.2453	.2962	.9699	9.040	.1600	.2221	.2304
#3	.2422	.2932	.9743	8.925	.1598	.2224	.2287

Elem	Sb_206	Sn_189	Ti_334	Tl_190	U_3859	V_2924	Zn_213
Avge	.0859	.3407	2.630	.2015	.0406	.0803	.1388
SDev	.0020	.0070	.048	.0065	.0003	.0015	.0023
%RSD	2.346	2.052	1.836	3.225	.8701	1.839	1.658
#1	.0835	.3330	2.577	.1951	.0405	.0786	.1362
#2	.0869	.3467	2.671	.2081	.0410	.0812	.1400
#3	.0871	.3422	2.643	.2013	.0403	.0811	.1404

Elem	P_1782	Si_288	Si02_	Sr_421	Pb1st	Pb2nd	Se1st
Avge	1.652	.1834	.1834	4.884	.5413	.2273	.3392
SDev	.037	.0040	.0040	.077	.0013	.0028	.0035
%RSD	2.249	2.169	2.169	1.578	.2373	1.232	1.043
#1	1.609	.1788	.1788	4.797	.5426	.2259	.3363
#2	1.674	.1853	.1853	4.945	.5400	.2306	.3382
#3	1.672	.1861	.1861	4.909	.5414	.2256	.3432

Elem	Se2nd
Avge	.1646
SDev	.0029
%RSD	1.766
#1	.1623
#2	.1679
#3	.1637

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	17246	--	--	--	--	--	--
SDev	177.6450	--	--	--	--	--	--
%RSD	1.030037	--	--	--	--	--	--
#1	17188	--	--	--	--	--	--
#2	17105	--	--	--	--	--	--
#3	17446	--	--	--	--	--	--

ethod: TRACE2 Standard: SCAL
un Time: 05/10/05 13:24:44

Elem	Ag_328	Al_308	As_189	B_2496	Ba_493	Be_313	Ca_317
Avge	.9093	.5764	.5503	.1231	2.609	2.721	1.862
SDev	.0091	.0051	.0092	.0008	.023	.026	.012
%RSD	.9964	.8829	1.672	.6329	.8738	.9526	.6679
#1	.9034	.5731	.5413	.1223	2.586	2.697	1.848
#2	.9197	.5823	.5596	.1238	2.609	2.749	1.871
#3	.9047	.5738	.5500	.1232	2.631	2.718	1.868

Elem	Cd_226	Co_228	Cr_267	Cu_324	Fe_	Fe_	K_7664
Avge	2.723	.5576	.4772	.5797	.1377	1.912	17.04
SDev	.016	.0044	.0024	.0066	.0018	.026	.15
%RSD	.6048	.7886	.4944	1.146	1.287	1.344	.8607
#1	2.710	.5539	.4745	.5748	.1362	1.916	16.92
#2	2.742	.5625	.4790	.5872	.1397	1.885	17.20
#3	2.718	.5564	.4781	.5769	.1372	1.936	16.99

Elem	Mg_279	Mn_257	Mo_202	Na_	Ni_231	Sb_206	Sn_189
Avge	.2172	.3154	.4347	59.01	.4484	.1713	.6695
SDev	.0010	.0013	.0040	.95	.0027	.0022	.0038
%RSD	.4484	.4068	.9142	1.618	.5969	1.268	.5668
#1	.2164	.3142	.4318	58.00	.4454	.1689	.6661
#2	.2182	.3151	.4329	59.89	.4494	.1731	.6736
#3	.2169	.3167	.4392	59.15	.4505	.1718	.6687

Elem	Ti_334	Tl_190	U_3859	V_2924	Zn_213	P_1782	Si_288
Avge	5.237	.3954	.0628	.1598	.2726	3.225	.3547
SDev	.047	.0042	.0002	.0014	.0024	.039	.0044
%RSD	.8997	1.068	.3516	.8816	.8823	1.208	1.245
#1	5.185	.3919	.0628	.1588	.2700	3.184	.3515
#2	5.277	.4001	.0631	.1592	.2748	3.262	.3597
#3	5.249	.3942	.0627	.1614	.2728	3.229	.3528

Elem	SiO2_	Sr_421	Pb1st	Pb2nd	Se1st	Se2nd
Avge	.3547	9.781	1.072	.4565	.6626	.3313
SDev	.0044	.081	.011	.0150	.0175	.0138
%RSD	1.245	.8244	1.063	3.282	2.634	4.158
#1	.3515	9.694	1.068	.4736	.6565	.3455
#2	.3597	9.796	1.085	.4503	.6823	.3305
#3	.3528	9.853	1.064	.4456	.6490	.3180

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	16037	--	--	--	--	--	--
SDev	308.3105	--	--	--	--	--	--
%RSD	1.922538	--	--	--	--	--	--
#1	16094	--	--	--	--	--	--
#2	16312	--	--	--	--	--	--
#3	15704	--	--	--	--	--	--

Method: TRACE2 Standard: S10
Run Time: 05/10/05 13:30:42

Elem	Al_308	Ca_317	Fe_	Mg_279	Na_
Avge	2.839	9.350	.2693	1.067	.2166
SDev	.029	.092	.0043	.013	.0027
%RSD	1.016	.9856	1.595	1.221	1.266
#1	2.806	9.243	.2645	1.052	.2135
#2	2.853	9.401	.2708	1.074	.2182
#3	2.858	9.404	.2727	1.075	.2183

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	16489	--	--	--	--	--	--
SDev	119.2447	--	--	--	--	--	--
%RSD	.7231800	--	--	--	--	--	--
#1	16611	--	--	--	--	--	--
#2	16484	--	--	--	--	--	--
#3	16372	--	--	--	--	--	--

Method: TRACE2 Slope = Conc(SIR)/IR

Element	Wavelen	High std	Low std	Slope	Y-intercept	Date Standardized
Ag_328	328.068	Multiple	Standards	1089.83	.743750	05/10/05 01:24:44
Al_308	308.215	Multiple	Standards	17576.5	-82.5041	05/10/05 01:30:42
As_189	189.042	Multiple	Standards	1777.87	-.097447	05/10/05 01:24:44
B_2496	249.678	Multiple	Standards	8135.27	-3.59209	05/10/05 01:24:44
Ba_493	493.409	Multiple	Standards	384.480	-.231013	05/10/05 01:24:44
Be_313	313.042	Multiple	Standards	367.572	-.168454	05/10/05 01:24:44
Ca_317	317.933	Multiple	Standards	5360.12	-4.36482	05/10/05 01:30:42
Cd_226	226.502	Multiple	Standards	361.348	.186064	05/10/05 01:24:44
Co_228	228.616	Multiple	Standards	1772.57	.120401	05/10/05 01:24:44
Cr_267	267.716	Multiple	Standards	2086.92	-.360217	05/10/05 01:24:44
Cu_324	324.753	Multiple	Standards	1706.07	-1.61864	05/10/05 01:24:44
Fe_	271.441	Multiple	Standards	73414.7	3.73359	05/10/05 01:30:42
Fe_	259.940	Multiple	Standards	5206.02	-2.33396	05/10/05 01:24:44
K_7664	766.491	Multiple	Standards	569.169	-27.8681	05/10/05 01:24:44
Mg_279	279.078	Multiple	Standards	46468.7	-2.47854	05/10/05 01:30:42
Mn_257	257.610	Multiple	Standards	3166.12	.000463	05/10/05 01:24:44
Mo_202	202.030	Multiple	Standards	2285.54	-.228665	05/10/05 01:24:44
Na_	330.232	S10	S0	91993.5	70.3534	05/10/05 01:30:42
Na_	588.950	SCAL	S0	163.256	366.037	05/10/05 01:30:42
Ni_231	231.604	Multiple	Standards	2197.47	-.227954	05/10/05 01:24:44
Sb_206	206.838	Multiple	Standards	5833.39	-3.03412	05/10/05 01:24:44
Pb_220	220.353	NONE	NONE	.000000	.000000	*NOT STANDARDIZED
Se_196	196.026	NONE	NONE	.000000	.000000	*NOT STANDARDIZED
Sn_189	189.989	Multiple	Standards	1479.47	-.562653	05/10/05 01:24:44
Ti_334	334.941	Multiple	Standards	190.470	.153135	05/10/05 01:24:44
Tl_190	190.864	Multiple	Standards	2454.73	2.72981	05/10/05 01:24:44
U_3859	385.958	Multiple	Standards	22277.1	-412.191	05/10/05 01:24:44
V_2924	292.402	Multiple	Standards	6255.33	.124762	05/10/05 01:24:44
Zn_213	213.858	Multiple	Standards	3604.87	-.225035	05/10/05 01:24:44
P_1782	178.287	Multiple	Standards	1548.51	-42.1288	05/10/05 01:24:44
Si_288	288.158	Multiple	Standards	14172.4	-60.8251	05/10/05 01:24:44
SiO2_	288.158	Multiple	Standards	30314.7	-130.105	05/10/05 01:24:44
Sr_421	421.552	Multiple	Standards	102.297	-.245286	05/10/05 01:24:44
Pb1st	220.351	Multiple	Standards	950.460	-2.98975	05/10/05 01:24:44
Pb2nd	220.352	Multiple	Standards	2157.21	1.82629	05/10/05 01:24:44
Se1st	196.021	Multiple	Standards	1508.34	-2.44003	05/10/05 01:24:44
Se2nd	196.022	Multiple	Standards	3005.62	3.25420	05/10/05 01:24:44

Method: TRACE2

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
g_328	328.068	S0	.000000	-.008568	.008568
		S0.1	100.000	100.944	-.944351
		S0.5	500.000	499.054	.946106
		SCAL	1000.00	991.675	8.32526

orCoef: 0.99999

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
l_308	308.215	S0	.000000	-.297748	.297748
		SCAL	10000.0	10048.7	-48.6602
		S10	50000.0	49814.1	185.934

orCoef: 1.00000

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
s_189	189.042	S0	.000000	-.018960	.018960
		S0.1	100.000	102.145	-2.14544
		S0.5	500.000	500.997	-.997223
		SCAL	1000.00	978.265	21.7350

orCoef: 0.99992

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
_2496	249.678	S0	.000000	.011066	-.011066
		S0.1	100.000	98.6817	1.31825
		S0.5	500.000	509.289	-9.28922
		SCAL	1000.00	997.781	2.21881

orCoef: 0.99993

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Ba_493	493.409	S0	.000000	-.000942	.000942
		S0.1	100.000	100.153	-.152794
		S0.5	500.000	497.833	2.16702
		SCAL	1000.00	1002.81	-2.80621

orCoef: 0.99999

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Be_313	313.042	S0	.000000	.001485	-.001485
		S0.1	100.000	99.8302	.169785
		S0.5	500.000	501.082	-1.08185
		SCAL	1000.00	1000.05	-.053162

orCoef: 1.00000

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Ca_317	317.933	S0	.000000	.176875	-.176875
		SCAL	10000.0	9977.89	22.1094
		S10	50000.0	50110.5	-110.547

orCoef: 1.00000

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Cd_226	226.502	S0	.000000	-.009579	.009579
		S0.1	100.000	100.999	-.998650
		S0.5	500.000	503.032	-3.03198
		SCAL	1000.00	984.248	15.7520

orCoef: 0.99993

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Co_228	228.616	S0	.000000	-.011649	.011649
		S0.1	100.000	101.434	-1.43388
		S0.5	500.000	500.928	-.928436
		SCAL	1000.00	988.485	11.5152

CorCoef: 0.99998

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Cr_267	267.716	S0	.000000	.000689	-.000689
		S0.1	100.000	99.8673	.132706
		S0.5	500.000	503.068	-3.06778
		SCAL	1000.00	995.516	4.48431

CorCoef: 0.99998

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Cu_324	324.753	S0	.000000	-.012657	.012657
		S0.1	100.000	101.425	-1.42486
		S0.5	500.000	496.856	3.14441
		SCAL	1000.00	987.319	12.6811

CorCoef: 0.99999

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Fe_	271.441	S0	.000000	-.562080	.562080
		SCAL	10000.0	10112.4	-112.416
		S10	20000.0	19775.2	224.832

CorCoef: 0.99991

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Fe_	259.940	S0	.000000	-.120238	.120238
		S0.5	5000.00	5024.05	-24.0479
		SCAL	10000.0	9951.91	48.0947

CorCoef: 0.99998

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
K_7664	766.491	S0	.000000	-.238320	.238320
		S0.1	1000.00	1025.67	-25.6693
		S0.5	5000.00	5036.49	-36.4917
		SCAL	10000.0	9670.33	329.675

CorCoef: 0.99977

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Mg_279	279.078	S0	.000000	-.676215	.676215
		SCAL	10000.0	10088.8	-88.7793
		S10	50000.0	49577.5	422.500

CorCoef: 0.99999

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Mn_257	257.610	S0	.000000	.000632	-.000632
		S0.1	100.000	99.8977	.102341
		S0.5	500.000	501.529	-1.52893
		SCAL	1000.00	998.445	1.55463

CorCoef: 1.00000

lement	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
o_202	202.030	S0	.000000	-.004688	.004688
		S0.1	100.000	100.501	-.500839
		S0.5	500.000	500.901	-.900757
		SCAL	1000.00	993.190	6.80981

orCoef: 0.99999

lement	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
la_	330.232	S0	.000000	-.000002	.000002
		S10	20000.0	20000.0	.000000

lement	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
la_	588.950	S0	.000000	.000012	-.000012
		SCAL	10000.0	10000.0	.000000

lement	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
li_231	231.604	S0	.000000	-.013077	.013077
		S0.1	100.000	101.389	-1.38917
		S0.5	500.000	499.704	.295624
		SCAL	1000.00	985.121	14.8792

orCoef: 0.99997

lement	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
b_206	206.838	S0	.000000	-.001095	.001095
		S0.1	100.000	99.7295	.270493
		S0.5	500.000	497.868	2.13235
		SCAL	1000.00	996.053	3.94708

orCoef: 1.00000

lement	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
b_220	220.353	NONE	.000000	.000000	.000000
		NONE	10.0000	.000000	10.0000

lement	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
e_196	196.026	NONE	.000000	.000000	.000000
		NONE	10.0000	.000000	10.0000

lement	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
n_189	189.989	S0	.000000	.006668	-.006668
		S0.1	100.000	98.5119	1.48811
		S0.5	500.000	503.420	-3.42038
		SCAL	1000.00	989.917	10.0827

orCoef: 0.99996

lement	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
i_334	334.941	S0	.000000	-.000300	.000300
		S0.1	100.000	100.008	-.008133
		S0.5	500.000	501.132	-1.13159
		SCAL	1000.00	997.655	2.34454

orCoef: 1.00000

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Al_190	190.864	S0	.000000	-.017269	.017269
		S0.1	100.000	101.272	-1.27205
		S0.5	500.000	497.316	2.68427
		SCAL	1000.00	973.426	26.5742

CorCoef: 0.99994

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
_3859	385.958	S0	.000000	-.040731	.040731
		S0.1	100.000	104.951	-4.95091
		S0.5	500.000	492.038	7.96225
		SCAL	1000.00	987.539	12.4606

CorCoef: 0.99997

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
_2924	292.402	S0	.000000	.001599	-.001599
		S0.1	100.000	99.8786	.121353
		S0.5	500.000	502.451	-2.45090
		SCAL	1000.00	999.830	.169617

CorCoef: 1.00000

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Zn_213	213.858	S0	.000000	-.016627	.016627
		S0.1	100.000	101.847	-1.84692
		S0.5	500.000	500.288	-.288116
		SCAL	1000.00	982.299	17.7006

CorCoef: 0.99995

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
_1782	178.287	S0	.000000	-.020197	.020197
		S0.1	500.000	501.912	-1.91168
		S0.5	2500.00	2515.47	-15.4668
		SCAL	5000.00	4951.95	48.0542

CorCoef: 0.99997

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Si_288	288.158	S0	.000000	.031000	-.031000
		S0.1	500.000	495.700	4.29993
		S0.5	2500.00	2538.51	-38.5056
		SCAL	5000.00	4965.99	34.0117

CorCoef: 0.99993

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Si02_	288.158	S0	.000000	.066300	-.066300
		S0.1	1069.50	1060.30	9.19763
		S0.5	5347.50	5429.86	-82.3633
		SCAL	10695.0	10622.2	72.7510

CorCoef: 0.99993

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Sr_421	421.552	S0	.000000	-.000882	.000882
		S0.1	100.000	100.113	-.112656
		S0.5	500.000	499.338	.661591
		SCAL	1000.00	1000.34	-.336731

CorCoef: 1.00000

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Pb1st	220.351	S0	.000000	.032060	-.032060
		S0.1	100.000	96.2044	3.79562
		S0.5	500.000	511.537	-11.5367
		SCAL	1000.00	1016.24	-16.2391

CorCoef: 0.99997

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Pb2nd	220.352	S0	.000000	-.021661	.021661
		S0.1	100.000	102.376	-2.37630
		S0.5	500.000	492.258	7.74179
		SCAL	1000.00	986.589	13.4106

CorCoef: 0.99999

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Se1st	196.021	S0	.000000	.008244	-.008244
		S0.1	100.000	99.2167	.783279
		S0.5	500.000	509.245	-9.24500
		SCAL	1000.00	996.950	3.05042

CorCoef: 0.99993

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Se2nd	196.022	S0	.000000	.009147	-.009147
		S0.1	100.000	98.5834	1.41661
		S0.5	500.000	498.108	1.89215
		SCAL	1000.00	999.027	.973145

CorCoef: 1.00000

Method: TRACE2 Sample Name: S10 Operator: HSC
Run Time: 05/10/05 13:35:53
Comment: CALIBRATION CURVE
Mode: CONC Corr. Factor: 1

Elem	Ag_328	Al_308	As_189	B_2496	Ba_493	Be_313	Ca_317
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	.8607	49590.	.6592	.6990	.4703	.2230	50050.
SDev	.6612	158.	3.964	4.065	.0573	.0169	177.
%RSD	76.82	.3182	601.3	581.5	12.17	7.573	.3539
#1	.4836	49420.	4.758	5.246	.4187	.2086	49850.
#2	.4743	49720.	-3.154	-2.583	.5319	.2188	50170.
#3	1.624	49640.	.3728	-.5654	.4604	.2416	50130.
Errors	NOCHECK	QC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK	QC Pass
Value		50000.					50000.
Range		5.000					5.000

Elem	Cd_226	Co_228	Cr_267	Cu_324	Fe_	K_7664	Mg_279
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	.1884	.1050	-.6521	.2418	19710.	7.883	49730.
SDev	.1797	.1658	.7932	.2189	200.	4.906	136.
%RSD	95.37	157.9	121.6	90.52	1.017	62.23	.2742
#1	-.0191	.2471	-.4733	.4818	19490.	3.221	49620.
#2	.2933	.1451	-1.519	.0531	19740.	7.427	49880.
#3	.2911	-.0771	.0364	.1905	19890.	13.00	49680.
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	QC Pass	NOCHECK	QC Pass
Value					20000.		50000.
Range					5.000		5.000

Elem	Mn_257	Mo_202	Na_	Ni_231	Sb_206	Pb_220	Se_196
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	.2659	-.3244	19970.	1.071	-1.547	1.542	1.937
SDev	.1059	.4081	138.	.975	4.945	2.027	1.293
%RSD	39.82	125.8	.6888	91.01	319.8	131.4	66.76
#1	.3120	-.0907	19810.	.1976	2.565	-.2144	.6527
#2	.3409	-.7956	20030.	2.122	-7.034	1.081	3.239
#3	.1448	-.0869	20070.	.8930	-.1698	3.760	1.920
Errors	NOCHECK	NOCHECK	QC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK
Value			20000.				
Range			5.000				

Elem	Sn_189	Ti_334	Tl_190	U_3859	V_2924	Zn_213	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	-1.211	.2011	2.085	-8.416	.9305	.3456	2.629
SDev	1.413	.1498	3.032	3.564	.5981	.1167	6.158
%RSD	116.6	74.51	145.4	42.35	64.28	33.77	234.2
#1	.2414	.0727	4.388	-12.17	.2780	.3790	1.718
#2	-2.580	.1649	3.216	-5.075	1.453	.4420	9.192
#3	-1.294	.3657	-1.350	-8.007	1.061	.2159	-3.022
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK

Value
Range

Elem	Si_288	Si02_	Sr_421	Pb1st	Pb2nd	Se1st	Se2nd
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	-17.79	-38.05	.6488	24.65	-9.994	-1.514	3.660
SDev	6.91	14.78	.0258	2.56	2.497	6.709	5.282
%RSD	38.85	38.85	3.975	10.40	24.98	443.2	144.3
#1	-25.75	-55.09	.6251	21.76	-11.18	5.519	-1.777
#2	-14.25	-30.47	.6763	26.63	-11.68	-7.842	8.771
#3	-13.37	-28.60	.6450	25.56	-7.125	-2.218	3.986
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK

Value
Range

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	16274	--	--	--	--	--	--
SDev	255.2010	--	--	--	--	--	--
%RSD	1.568156	--	--	--	--	--	--
#1	16569	--	--	--	--	--	--
#2	16126	--	--	--	--	--	--
#3	16127	--	--	--	--	--	--

Method: TRACE2 Sample Name: SCAL Operator: HSC
Run Time: 05/10/05 13:43:00
Comment: CALIBRATION CURVE
Mode: CONC Corr. Factor: 1

Elem	Ag_328	Al_308	As_189	B_2496	Ba_493	Be_313	Ca_317
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	1007.	10170.	1002.	1018.	1021.	1019.	10180.
SDev	30.	336.	27.	32.	33.	30.	302.
%RSD	3.018	3.302	2.726	3.177	3.216	2.978	2.972
#1	1041.	10550.	1029.	Q1056.	Q1059.	Q1053.	10520.
#2	999.0	10040.	1004.	999.1	1007.	1009.	10070.
#3	981.9	9913.	974.2	1000.	997.6	995.3	9941.
Errors	QC Pass	NOCHECK	QC Pass	QC Pass	QC Pass	QC Pass	NOCHECK
Value	1000.		1000.	1000.	1000.	1000.	
Range	5.000		5.000	5.000	5.000	5.000	

Elem	Cd_226	Co_228	Cr_267	Cu_324	Fe_	K_7664	Mg_279
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	1000.	1004.	1016.	1003.	10130.	9770.	10260.
SDev	31.	31.	30.	32.	231.	270.	299.
%RSD	3.102	3.136	2.956	3.178	2.283	2.765	2.918
#1	1036.	1039.	Q1050.	1039.	10390.	10070.	10610.
#2	986.9	991.9	1003.	993.1	9960.	9674.	10130.
#3	978.2	979.5	994.7	977.7	10040.	9561.	10050.
Errors	QC Pass	QC Pass	QC Pass	QC Pass	NOCHECK	NOCHECK	NOCHECK
Value	1000.	1000.	1000.	1000.			
Range	5.000	5.000	5.000	5.000			

Elem	Mn_257	Mo_202	Na_	Ni_231	Sb_206	Pb_220	Se_196
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	1015.	1014.	10150.	1002.	1016.	995.6	1000.
SDev	25.	30.	350.	29.	34.	29.9	36.
%RSD	2.459	3.003	3.451	2.902	3.366	3.002	3.615
#1	1043.	1049.	10530.	1035.	Q1056.	1030.	1041.
#2	1004.	995.9	10080.	989.0	1002.	983.1	971.8
#3	997.4	997.2	9847.	981.2	992.0	974.0	988.3
Errors	QC Pass	QC Pass	NOCHECK	QC Pass	QC Pass	QC Pass	QC Pass
Value	1000.	1000.		1000.	1000.	1000.	1000.
Range	5.000	5.000		5.000	5.000	5.000	5.000

Elem	Sn_189	Ti_334	Tl_190	U_3859	V_2924	Zn_213	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	1015.	1016.	996.1	992.3	1017.	997.3	5092.
SDev	32.	30.	29.5	32.0	27.	27.7	156.
%RSD	3.124	3.001	2.959	3.225	2.627	2.781	3.056
#1	Q1051.	Q1050.	1028.	1029.	1048.	1029.	Q5260.
#2	999.2	1006.	989.4	974.9	1000.	984.4	5065.
#3	994.0	992.0	970.5	972.8	1004.	978.4	4952.
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass

Value	1000.	1000.	1000.	1000.	1000.	1000.	5000.
Range	5.000	5.000	5.000	5.000	5.000	5.000	5.000
Elem	Si_288	Si02_	Sr_421	Pb1st	Pb2nd	Se1st	Se2nd
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	5050.	10800.	1017.	1024.	981.2	1000.	1000.
SDev	147.	314.	33.	24.	32.9	29.	40.
%RSD	2.911	2.911	3.197	2.358	3.357	2.928	4.029
#1	5216.	11160.	Q1054.	1051.	1019.	1034.	1044.
#2	5001.	10700.	1003.	1018.	965.5	984.6	965.4
#3	4935.	10560.	994.3	1004.	959.1	982.3	991.3
Errors	NOCHECK	NOCHECK	QC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK
Value			1000.				
Range			5.000				
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	16411	--	--	--	--	--	--
SDev	527.2458	--	--	--	--	--	--
%RSD	3.212774	--	--	--	--	--	--
#1	15819	--	--	--	--	--	--
#2	16582	--	--	--	--	--	--
#3	16831	--	--	--	--	--	--

ethod: TRACE2 Sample Name: ICV Operator: HSC
un Time: 05/10/05 13:50:06
omment: CALIBRATION CURVE
ode: CONC Corr. Factor: 1

Elem	Ag_328	Al_308	As_189	B_2496	Ba_493	Be_313	Ca_317
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	248.8	4953.	499.9	501.4	501.6	247.3	4968.
SDev	.4	12.	5.7	9.0	1.2	.4	7.
%RSD	.1787	.2429	1.132	1.800	.2356	.1607	.1329
#1	249.2	4964.	494.5	509.1	502.7	247.0	4969.
#2	248.3	4953.	505.7	503.6	501.9	247.1	4974.
#3	249.0	4940.	499.4	491.5	500.4	247.7	4961.
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	250.0	5000.	500.0	500.0	500.0	250.0	5000.
Range	10.00	10.00	10.00	10.00	10.00	10.00	10.00

Elem	Cd_226	Co_228	Cr_267	Cu_324	Fe_	K_7664	Mg_279
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	487.8	489.4	500.2	491.1	4779.	2440.	4897.
SDev	2.9	2.2	.7	.4	69.	29.	5.
%RSD	.5848	.4476	.1462	.0777	1.436	1.169	.0957
#1	488.5	487.6	500.6	490.9	4833.	2409.	4902.
#2	484.7	488.8	499.4	490.8	4802.	2449.	4895.
#3	490.2	491.8	500.7	491.5	4702.	2464.	4894.
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	500.0	500.0	500.0	500.0	5000.	2500.	5000.
Range	10.00	10.00	10.00	10.00	10.00	10.00	10.00

Elem	Mn_257	Mo_202	Na_	Ni_231	Sb_206	Pb_220	Se_196
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	487.7	497.3	2487.	482.3	501.5	487.5	2467.
SDev	2.2	.7	25.	2.3	5.5	7.3	29.
%RSD	.4451	.1404	1.013	.4768	1.093	1.498	1.188
#1	489.8	496.7	2469.	480.2	497.0	479.4	2437.
#2	487.8	497.1	2476.	484.8	507.6	489.9	2468.
#3	485.5	498.1	2516.	481.9	499.9	493.4	2496.
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	500.0	500.0	2500.	500.0	500.0	500.0	2500.
Range	10.00	10.00	10.00	10.00	10.00	10.00	10.00

Elem	Sn_189	Ti_334	Tl_190	U_3859	V_2924	Zn_213	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	485.7	497.0	490.4	492.1	488.7	490.1	2462.
SDev	1.5	1.0	7.2	21.6	4.7	.4	33.
%RSD	.3188	.2034	1.459	4.397	.9551	.0886	1.327
#1	485.0	497.0	483.0	472.3	492.0	489.6	2434.
#2	487.5	496.0	490.7	515.2	490.8	490.2	2454.
#3	484.8	498.0	497.3	488.7	483.3	490.5	2498.
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass

Value	500.0	500.0	500.0	500.0	500.0	500.0	2500.
Range	10.00	10.00	10.00	10.00	10.00	10.00	10.00
Elem	Si_288	Si02_	Sr_421	Pb1st	Pb2nd	Se1st	Se2nd
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	4908.	10500.	502.6	497.0	482.8	2475.	2463.
SDev	7.	15.	1.7	5.4	8.7	33.	31.
%RSD	.1415	.1415	.3346	1.088	1.796	1.339	1.278
#1	4915.	10510.	504.5	492.4	472.8	2456.	2427.
#2	4906.	10490.	501.4	495.7	487.0	2455.	2475.
#3	4902.	10490.	501.8	503.0	488.6	2513.	2487.
Errors	QC Pass	NOCHECK	QC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK
Value	5000.		500.0				
Range	10.00		10.00				

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	16853	--	--	--	--	--	--
SDev	166.0429	--	--	--	--	--	--
%RSD	.9852705	--	--	--	--	--	--
#1	17008	--	--	--	--	--	--
#2	16872	--	--	--	--	--	--
#3	16678	--	--	--	--	--	--

Method: TRACE2 Sample Name: ICB Operator: HSC
Run Time: 05/10/05 13:57:13
Comment: CALIBRATION CURVE
Mode: CONC Corr. Factor: 1

Elem	Ag_328	Al_308	As_189	B_2496	Ba_493	Be_313	Ca_317
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	-1.457	-6.773	-2.751	-2.036	.0052	.1143	-.4449
SDev	1.307	3.790	6.149	3.797	.2243	.1336	.3858
%RSD	89.72	55.95	223.5	186.5	4315.	116.9	86.71
#1	-.7184	-4.855	4.041	.1927	.1491	.1949	-.0008
#2	-.6859	-4.327	-4.356	.1199	.1198	.1879	-.6968
#3	-2.966	-11.14	-7.939	-6.420	-.2533	-.0400	-.6372
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.0000	.0000	.0000	.0000	.0000	.0000	.0000
Range	5.000	200.0	15.00	50.00	5.000	5.000	100.0

Elem	Cd_226	Co_228	Cr_267	Cu_324	Fe_	K_7664	Mg_279
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	.2867	-.6268	-.8970	.3322	-2.521	.1972	-7.752
SDev	.6293	.6628	.5705	3.362	2.129	35.65	2.505
%RSD	219.5	105.7	63.60	1012.	84.45	18080.	32.31
#1	1.006	.0155	-.4946	3.034	-.2147	26.05	-5.235
#2	-.1642	-.5875	-1.550	1.396	-4.412	15.01	-7.776
#3	.0186	-1.308	-.6465	-3.433	-2.937	-40.47	-10.24
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.0000	.0000	.0000	.0000	.0000	.0000	.0000
Range	5.000	5.000	5.000	10.00	100.0	150.0	300.0

Elem	Mn_257	Mo_202	Na_	Ni_231	Sb_206	Pb_220	Se_196
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	-.0594	-1.906	-3.784	-.1471	-3.713	2.755	-2.741
SDev	.2113	1.001	25.097	2.0730	13.116	1.054	2.879
%RSD	356.0	52.53	663.2	1409.	353.2	38.26	105.0
#1	.1847	-2.488	12.85	1.306	8.484	1.560	-3.670
#2	-.1799	-.7500	8.452	.7743	-2.036	3.149	-5.042
#3	-.1828	-2.480	-32.65	-2.521	Q-17.59	3.554	.4875
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.0000	.0000	.0000	.0000	.0000	.0000	.0000
Range	10.00	10.00	150.0	5.000	10.00	10.00	15.00

Elem	Sn_189	Ti_334	Tl_190	U_3859	V_2924	Zn_213	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	-2.858	-.2278	-1.640	-20.60	-1.320	-.0150	1.578
SDev	2.435	.2993	7.601	46.69	2.197	.3629	7.274
%RSD	85.21	131.4	463.4	226.6	166.5	2413.	461.1
#1	-.0461	.0534	7.013	12.74	.1207	.4040	-4.036
#2	-4.276	-.1944	-4.692	-.5830	-.2318	-.2246	9.796
#3	-4.253	-.5423	-7.242	Q-73.96	-3.849	-.2246	-1.027
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass

Operator: HSC

lethod: TRACE2 Sample Name: PQL
un Time: 05/10/05 14:03:09
omment: CALIBRATION CURVE
lode: CONC Corr. Factor: 1

Elem	Ag_328	Al_308	As_189	B_2496	Ba_493	Be_313	Ca_317
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	11.84	209.0	10.43	98.92	10.42	9.763	199.2
SDev	3.42	16.2	.85	5.02	.58	.052	4.1
%RSD	28.92	7.775	8.139	5.074	5.589	.5277	2.053
#1	8.638	192.1	11.02	98.08	9.938	9.736	195.1
#2	11.43	210.3	10.83	94.38	10.27	9.822	199.3
#3	Q15.45	224.5	9.460	104.3	11.07	9.731	203.3
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	10.00	200.0	10.00	100.0	10.00	10.00	200.0
Range	30.00	30.00	30.00	30.00	30.00	30.00	30.00

Elem	Cd_226	Co_228	Cr_267	Cu_324	Fe_	K_7664	Mg_279
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	10.43	10.19	10.72	9.853	195.2	202.6	212.3
SDev	.58	2.31	3.03	.826	4.2	9.4	28.2
%RSD	5.598	22.66	28.26	8.382	2.132	4.656	13.26
#1	10.45	7.809	8.892	8.923	191.4	192.3	191.6
#2	11.00	10.35	9.059	10.50	194.6	210.9	200.8
#3	9.833	12.42	Q14.22	10.14	199.7	204.7	244.3
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	10.00	10.00	10.00	10.00	200.0	200.0	200.0
Range	30.00	30.00	30.00	30.00	30.00	30.00	30.00

Elem	Mn_257	Mo_202	Na_	Ni_231	Sb_206	Pb_220	Se_196
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	19.86	19.67	192.1	9.262	14.77	12.43	9.064
SDev	.74	3.25	8.9	.285	2.49	.56	3.881
%RSD	3.740	16.50	4.607	3.079	16.89	4.523	42.82
#1	19.43	16.99	201.6	8.969	Q12.67	12.34	8.285
#2	19.43	18.75	190.6	9.539	14.11	Q13.04	Q5.632
#3	20.72	23.28	184.1	9.279	17.53	11.92	Q13.27
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	20.00	20.00	200.0	10.00	20.00	10.00	10.00
Range	30.00	30.00	30.00	30.00	30.00	30.00	30.00

Elem	Sn_189	Ti_334	Tl_190	U_3859	V_2924	Zn_213	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	23.65	10.33	18.70	85.87	11.78	10.13	108.1
SDev	6.49	.97	1.94	22.52	3.62	.34	7.0
%RSD	27.43	9.420	10.38	26.22	30.73	3.402	6.472
#1	17.66	9.431	16.62	78.53	8.827	9.816	108.9
#2	22.77	10.19	19.01	111.1	10.70	10.09	114.7
#3	Q30.54	11.36	20.46	Q67.93	Q15.82	10.50	100.7
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass

Value	20.00	10.00	20.00	100.0	10.00	10.00	100.0
Range	30.00	30.00	30.00	30.00	30.00	30.00	30.00
Elem	Si_288	Si02_	Sr_421	Pb1st	Pb2nd	Se1st	Se2nd
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	179.2	383.4	9.901	3.948	16.67	-2.330	14.75
SDev	6.6	14.2	.251	18.63	8.58	17.370	14.08
%RSD	3.709	3.709	2.532	471.9	51.49	745.6	95.42
#1	175.6	375.6	9.666	11.75	12.63	10.02	7.417
#2	186.9	399.8	9.871	17.41	10.85	5.178	5.858
#3	175.2	374.8	10.17	-17.32	26.52	-22.19	30.98
Errors	QC Pass	NOCHECK	QC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK
Value	200.0		10.00				
Range	30.00		30.00				
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	17380	--	--	--	--	--	--
SDev	469.7335	--	--	--	--	--	--
%RSD	2.702737	--	--	--	--	--	--
#1	17922	--	--	--	--	--	--
#2	17104	--	--	--	--	--	--
#3	17113	--	--	--	--	--	--

Analysis Report QC Standard 05/10/05 02:25:19 PM page 1

Method: TRACE2 Sample Name: ICS-A Operator: HSC
Run Time: 05/10/05 14:19:26
Comment: CALIBRATION CURVE
Mode: CONC Corr. Factor: 1

Elem	Ag_328	Al_308	As_189	B_2496	Ba_493	Be_313	Ca_317
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	.2568	453200.	1.337	.4364	1.262	.0677	442800.
SDev	.1205	9333.	3.551	1.893	.071	.0213	8990.
%RSD	46.95	2.059	265.7	433.7	5.592	31.48	2.030
#1	.3215	464000.	-2.257	2.269	1.229	.0476	453200.
#2	.3311	447400.	1.425	.5514	1.214	.0654	437500.
#3	.1177	448200.	4.842	-1.511	1.343	.0900	437600.
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.0000	500000.	.0000	.0000	.0000	.0000	500000.
Range	10.00	100000.	30.00	100.0	10.00	10.00	100000.

Elem	Cd_226	Co_228	Cr_267	Cu_324	Fe_	K_7664	Mg_279
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	-.9992	-.0425	1.446	2.683	186800.	4.871	476400.
SDev	.7333	1.1266	.809	.809	2505.	3.318	9712.
%RSD	73.39	2650.	55.97	30.17	1.342	68.12	2.039
#1	-.5041	-1.301	1.305	3.233	189600.	1.798	487600.
#2	-.6518	.8732	.7163	1.753	184700.	4.425	471000.
#3	-1.842	.2998	2.316	3.061	186000.	8.390	470600.
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.0000	.0000	.0000	.0000	200000.	.0000	500000.
Range	10.00	10.00	10.00	20.00	40000.	300.0	100000.

Elem	Mn_257	Mo_202	Na_	Ni_231	Sb_206	Pb_220	Se_196
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	2.047	.8457	-15.94	-1.282	5.645	11.87	10.98
SDev	.413	1.127	6.96	.909	1.593	5.30	2.75
%RSD	20.16	133.3	43.66	70.94	28.22	44.63	25.05
#1	2.390	.5196	-23.94	-1.960	3.921	16.62	7.826
#2	2.162	2.100	-11.37	-1.638	5.951	6.156	12.88
#3	1.589	-.0825	-12.50	-.2485	7.062	12.83	12.24
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.0000	.0000	.0000	.0000	.0000	.0000	.0000
Range	20.00	20.00	300.0	10.00	20.00	20.00	30.00

Elem	Sn_189	Ti_334	Tl_190	U_3859	V_2924	Zn_213	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	.2352	-1.438	3.521	-12.91	1.736	.7929	11.13
SDev	1.315	.187	5.309	8.81	1.343	.1738	3.14
%RSD	559.1	13.04	150.8	68.22	77.34	21.92	28.19
#1	1.753	-1.593	4.920	-22.55	3.268	.6704	8.980
#2	-.5701	-1.230	7.991	-10.90	1.177	.7165	14.74
#3	-.4770	-1.491	-2.347	-5.284	.7636	.9918	9.687
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass

Value	.0000	.0000	.0000	.0000	.0000	.0000	.0000
Range	20.00	10.00	40.00	100.0	10.00	20.00	300.0
Elem	Si_288	Si02_	Sr_421	Pb1st	Pb2nd	Se1st	Se2nd
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	-11.88	-25.42	4.819	252.7	-108.4	11.13	10.91
SDev	3.11	6.66	.081	3.8	6.1	.08	4.08
%RSD	26.21	26.21	1.680	1.493	5.589	.7584	37.45
#1	-12.57	-26.88	4.912	256.1	-102.9	11.04	6.220
#2	-8.481	-18.14	4.762	248.7	-114.9	11.21	13.71
#3	-14.60	-31.22	4.783	253.5	-107.3	11.14	12.79
Errors	QC Pass	NOCHECK	QC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK
Value	.0000		.0000				
Range	200.0		10.00				
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	15537	--	--	--	--	--	--
SDev	232.0576	--	--	--	--	--	--
%RSD	1.493594	--	--	--	--	--	--
#1	15272	--	--	--	--	--	--
#2	15704	--	--	--	--	--	--
#3	15635	--	--	--	--	--	--

Method: TRACE2 Sample Name: ICS-AB Operator: HSC
Run Time: 05/10/05 14:25:22
Comment: CALIBRATION CURVE
Mode: CONC Corr. Factor: 1

Elem	Ag_328	Al_308	As_189	B_2496	Ba_493	Be_313	Ca_317
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	257.4	462400.	499.5	496.1	509.5	247.4	451000.
SDev	.6	568.	5.3	1.1	1.2	.6	494.
%RSD	.2408	.1228	1.061	.2134	.2283	.2252	.1094
#1	256.7	463000.	505.5	496.7	508.5	246.8	451000.
#2	257.6	461900.	497.2	494.8	509.2	247.7	450400.
#3	257.9	462200.	495.7	496.6	510.8	247.8	451400.
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	250.0	500000.	500.0	500.0	500.0	250.0	500000.
Range	20.00	20.00	20.00	20.00	20.00	20.00	20.00

Elem	Cd_226	Co_228	Cr_267	Cu_324	Fe_	K_7664	Mg_279
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	462.1	453.7	474.0	494.4	191500.	5525.	485800.
SDev	.6	3.4	2.0	1.3	968.	22.	1432.
%RSD	.1231	.7429	.4275	.2656	.5057	.3913	.2948
#1	462.7	452.3	475.8	492.8	190400.	5502.	487400.
#2	461.6	451.2	474.4	495.1	191800.	5528.	484800.
#3	461.8	457.5	471.8	495.1	192300.	5545.	485100.
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	500.0	500.0	500.0	500.0	200000.	5000.	500000.
Range	20.00	20.00	20.00	20.00	20.00	20.00	20.00

Elem	Mn_257	Mo_202	Na_	Ni_231	Sb_206	Pb_220	Se_196
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	468.6	488.0	5111.	445.9	502.6	471.7	2419.
SDev	2.8	2.9	26.	3.1	14.2	3.0	12.
%RSD	.6043	.5961	.5174	.6910	2.816	.6314	.4787
#1	471.9	489.3	5083.	449.3	515.3	472.8	2423.
#2	467.1	484.6	5115.	443.3	487.3	468.4	2406.
#3	466.9	490.0	5135.	445.2	505.0	474.0	2429.
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	500.0	500.0	5000.	500.0	500.0	500.0	2500.
Range	20.00	20.00	20.00	20.00	20.00	20.00	20.00

Elem	Sn_189	Ti_334	Tl_190	U_3859	V_2924	Zn_213	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	481.7	490.9	467.2	486.0	479.3	487.2	2569.
SDev	5.0	1.3	6.3	11.8	1.5	.9	22.
%RSD	1.044	.2614	1.357	2.430	.3085	.1925	.8552
#1	486.6	489.4	471.1	478.2	479.5	487.5	2560.
#2	476.5	491.3	470.6	480.2	477.7	487.9	2552.
#3	481.9	491.9	459.9	499.6	480.7	486.1	2594.
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass

Value	500.0	500.0	500.0	500.0	500.0	500.0	2500.
Range	20.00	20.00	20.00	20.00	20.00	20.00	20.00
Elem	Si_288	Si02_	Sr_421	Pb1st	Pb2nd	Se1st	Se2nd
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	4805.	10280.	508.4	727.6	344.0	2425.	2416.
SDev	15.	32.	.7	3.0	3.2	25.	9.
%RSD	.3093	.3093	.1306	.4168	.9332	1.031	.3662
#1	4789.	10240.	508.9	730.1	344.3	2418.	2425.
#2	4811.	10290.	507.6	724.2	340.6	2405.	2407.
#3	4816.	10300.	508.7	728.4	347.0	2453.	2417.
Errors	QC Pass	NOCHECK	QC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK
Value	5000.		500.0				
Range	20.00		20.00				

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	15296	--	--	--	--	--	--
SDev	48.87607	--	--	--	--	--	--
%RSD	.3195375	--	--	--	--	--	--
#1	15352	--	--	--	--	--	--
#2	15263	--	--	--	--	--	--
#3	15273	--	--	--	--	--	--

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Method: TRACE2 Sample Name: CCV1 Operator: HSC
Run Time: 05/10/05 14:39:23
Comment: CALIBRATION CURVE
Mode: CONC Corr. Factor: 1

Elem	Ag_328	Al_308	As_189	B_2496	Ba_493	Be_313	Ca_317
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	507.0	5093.	515.3	497.2	504.1	505.6	4989.
SDev	2.2	47.	2.4	9.1	4.9	2.4	50.
%RSD	.4328	.9221	.4661	1.824	.9801	.4792	1.006
#1	509.5	5147.	512.6	506.9	509.7	508.4	5045.
#2	506.1	5061.	517.2	488.9	500.5	504.4	4947.
#3	505.3	5070.	516.3	496.0	502.0	504.0	4975.
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	500.0	5000.	500.0	500.0	500.0	500.0	5000.
Range	10.00	10.00	10.00	10.00	10.00	10.00	10.00

Elem	Cd_226	Co_228	Cr_267	Cu_324	Fe	K_7664	Mg_279
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	509.2	503.8	499.0	501.9	4598.	5177.	5069.
SDev	2.0	.8	2.4	2.4	114.	13.	51.
%RSD	.3957	.1542	.4800	.4733	2.478	.2584	1.012
#1	511.4	504.7	501.7	504.4	4728.	5163.	5125.
#2	508.7	503.3	498.1	501.3	4515.	5179.	5025.
#3	507.5	503.5	497.2	499.8	4551.	5190.	5056.
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	500.0	500.0	500.0	500.0	5000.	5000.	5000.
Range	10.00	10.00	10.00	10.00	10.00	10.00	10.00

Elem	Mn_257	Mo_202	Na	Ni_231	Sb_206	Pb_220	Se_196
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	480.1	503.5	10360.	502.8	503.3	513.7	516.5
SDev	6.2	6.2	53.	2.1	5.8	5.5	7.3
%RSD	1.286	1.225	.5122	.4223	1.144	1.073	1.404
#1	487.1	510.5	10410.	505.3	503.6	508.2	515.6
#2	475.4	498.6	10350.	501.6	508.9	513.6	509.7
#3	477.8	501.5	10300.	501.7	497.4	519.2	524.1
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	500.0	500.0	10000.	500.0	500.0	500.0	500.0
Range	10.00	10.00	10.00	10.00	10.00	10.00	10.00

Elem	Sn_189	Ti_334	Tl_190	U_3859	V_2924	Zn_213	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	502.9	505.8	514.7	503.0	488.6	503.6	2614.
SDev	1.3	2.7	3.4	5.3	7.9	4.0	4.
%RSD	.2571	.5285	.6595	1.049	1.614	.7958	.1343
#1	504.1	508.9	518.4	501.0	497.6	508.2	2613.
#2	501.5	504.1	511.7	509.0	483.1	501.5	2618.
#3	503.1	504.4	514.1	499.0	485.1	501.0	2611.
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass

Value	500.0	500.0	500.0	500.0	500.0	500.0	2500.
Range	10.00	10.00	10.00	10.00	10.00	10.00	10.00
Elem	Si_288	Si02_	Sr_421	Pb1st	Pb2nd	Se1st	Se2nd
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	2531.	5413.	503.5	524.6	508.2	528.0	510.8
SDev	12.	26.	4.2	13.2	7.5	15.8	16.5
%RSD	.4810	.4810	.8303	2.520	1.472	2.992	3.228
#1	2543.	5439.	508.2	511.1	506.7	513.7	516.6
#2	2531.	5413.	500.4	537.6	501.6	545.0	492.1
#3	2518.	5387.	501.9	525.0	516.3	525.4	523.5
Errors	QC Pass	NOCHECK	QC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK
Value	2500.		500.0				
Range	10.00		10.00				
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	16825	--	--	--	--	--	--
SDev	100.6369	--	--	--	--	--	--
%RSD	.5981343	--	--	--	--	--	--
#1	16939	--	--	--	--	--	--
#2	16750	--	--	--	--	--	--
#3	16786	--	--	--	--	--	--

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Method: TRACE2 Sample Name: CCB1 Operator: HSC
Run Time: 05/10/05 14:45:21
Comment: CALIBRATION CURVE
Mode: CONC Corr. Factor: 1

Elem	Ag_328	Al_308	As_189	B_2496	Ba_493	Be_313	Ca_317
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	.9676	13.80	1.348	.7790	.3574	.3849	8.279
SDev	.6829	10.25	3.397	1.763	.1613	.0936	4.765
%RSD	70.58	74.28	251.9	226.3	45.13	24.33	57.56
#1	1.193	11.76	3.836	-1.222	.4188	.4742	7.506
#2	1.509	24.91	2.731	2.105	.4790	.3930	13.38
#3	.2004	4.719	-2.522	1.454	.1744	.2875	3.948
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.0000	.0000	.0000	.0000	.0000	.0000	.0000
Range	5.000	200.0	15.00	50.00	5.000	5.000	100.0

Elem	Cd_226	Co_228	Cr_267	Cu_324	Fe_	K_7664	Mg_279
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	.1392	.5684	-.2092	1.033	4.375	13.63	12.66
SDev	.3464	.6892	1.0187	.387	2.388	7.30	5.70
%RSD	248.8	121.3	487.0	37.50	54.57	53.57	45.01
#1	.4598	.2253	.8732	1.181	4.644	18.84	16.55
#2	-.2282	1.362	-.3514	1.325	6.616	16.78	15.31
#3	.1860	.1180	-1.149	.5934	1.864	5.285	6.118
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.0000	.0000	.0000	.0000	.0000	.0000	.0000
Range	5.000	5.000	5.000	10.00	100.0	150.0	300.0

Elem	Mn_257	Mo_202	Na_	Ni_231	Sb_206	Pb_220	Se_196
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	.3903	.9165	-17.84	.0573	-.5125	-.3175	-1.725
SDev	.2049	.7142	22.69	.7230	.4630	1.4976	3.662
%RSD	52.50	77.92	127.2	1261.	90.34	471.7	212.3
#1	.3692	1.636	7.917	-.3560	-.9857	1.380	-5.865
#2	.6049	.2079	-34.86	.8922	-.0604	-1.453	-.3994
#3	.1967	.9055	-26.58	-.3642	-.4913	-.8789	1.090
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.0000	.0000	.0000	.0000	.0000	.0000	.0000
Range	10.00	10.00	150.0	5.000	10.00	10.00	15.00

Elem	Sn_189	Ti_334	Tl_190	U_3859	V_2924	Zn_213	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	.2658	.3245	-.8675	-4.034	.5317	.4351	7.630
SDev	2.953	.1242	2.4838	14.531	.7786	.3802	4.648
%RSD	1111.	38.27	286.3	360.2	146.4	87.40	60.91
#1	-.3881	.3529	.0122	-16.22	-.2362	.6146	9.040
#2	3.491	.4321	-3.671	-7.926	1.321	.6923	11.41
#3	-2.305	.1886	1.057	12.05	.5107	-.0017	2.441
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass

Value	.0000	.0000	.0000	.0000	.0000	.0000	.0000
Range	10.00	5.000	20.00	50.00	5.000	10.00	150.0
Elem	Si_288	Si02_	Sr_421	Pb1st	Pb2nd	Se1st	Se2nd
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	-14.89	-31.85	.3453	-.6500	-.1515	.1998	-2.686
SDev	4.85	10.38	.1284	5.1389	3.0386	9.987	3.015
%RSD	32.59	32.59	37.18	790.6	2005.	4998.	112.3
#1	-13.75	-29.40	.3985	-.5549	2.345	-7.991	-4.803
#2	-20.22	-43.24	.4385	-5.836	.7347	-2.734	.7663
#3	-10.71	-22.92	.1989	4.441	-3.535	11.33	-4.020
Errors	QC Pass	NOCHECK	QC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK
Value	.0000		.0000				
Range	100.0		5.000				
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	16328	--	--	--	--	--	--
SDev	748.8704	--	--	--	--	--	--
%RSD	4.586357	--	--	--	--	--	--
#1	17159	--	--	--	--	--	--
#2	15705	--	--	--	--	--	--
#3	16121	--	--	--	--	--	--

Operator: HSC

lethod: TRACE2 Sample Name: CCV1
un Time: 05/10/05 15:44:47
omment: 421419||6010 WATER
lode: CONC Corr. Factor: 1

#1 Fe fails

Elem	Ag_328	Al_308	As_189	B_2496	Ba_493	Be_313	Ca_317
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	514.8	5019.	536.2	494.1	506.0	513.7	5027.
SDev	2.2	12.	5.5	9.4	2.5	1.6	20.
%RSD	.4325	.2353	1.031	1.911	.4920	.3125	.3915
#1	515.9	5013.	542.5	484.6	503.9	514.3	5014.
#2	516.2	5033.	534.1	503.5	508.7	514.8	5050.
#3	512.2	5011.	532.1	494.2	505.5	511.8	5018.
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	500.0	5000.	500.0	500.0	500.0	500.0	5000.
Range	10.00	10.00	10.00	10.00	10.00	10.00	10.00

Elem	Cd_226	Co_228	Cr_267	Cu_324	Fe_	K_7664	Mg_279
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	518.8	511.7	498.9	502.9	Q4250.	5369.	5050.
SDev	1.6	3.3	1.8	1.1	93.	28.	17.
%RSD	.3168	.6378	.3605	.2214	2.199	.5287	.3386
#1	518.2	512.1	498.0	503.7	Q4152.	5395.	5041.
#2	520.6	514.7	501.0	503.4	Q4260.	5373.	5070.
#3	517.5	508.2	497.8	501.6	Q4338.	5339.	5040.
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Fail	QC Pass	QC Pass
Value	500.0	500.0	500.0	500.0	5000.	5000.	5000.
Range	10.00	10.00	10.00	10.00	10.00	10.00	10.00

Elem	Mn_257	Mo_202	Na_	Ni_231	Sb_206	Pb_220	Se_196
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	467.4	504.2	10720.	513.7	510.7	518.5	525.2
SDev	4.5	5.6	72.	2.9	4.6	1.2	5.5
%RSD	.9594	1.119	.6730	.5582	.8927	.2342	1.053
#1	462.5	497.7	10790.	511.5	515.7	519.3	520.0
#2	468.5	507.3	10720.	517.0	506.9	519.0	531.0
#3	471.3	507.6	10650.	512.7	509.4	517.1	524.7
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	500.0	500.0	10000.	500.0	500.0	500.0	500.0
Range	10.00	10.00	10.00	10.00	10.00	10.00	10.00

Elem	Sn_189	Ti_334	Tl_190	U_3859	V_2924	Zn_213	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	509.5	514.0	522.6	478.2	481.3	510.2	Q2821.
SDev	2.3	1.6	5.6	11.4	4.6	2.8	19.
%RSD	.4549	.3207	1.068	2.392	.9647	.5437	.6680
#1	508.5	513.6	526.6	490.7	475.9	512.5	Q2819.
#2	512.1	515.8	525.0	468.2	483.7	511.1	Q2840.
#3	507.8	512.6	516.2	475.8	484.2	507.1	Q2803.
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Fail

Value	500.0	500.0	500.0	500.0	500.0	500.0	2500.
Range	10.00	10.00	10.00	10.00	10.00	10.00	10.00
Elem	Si_288	Si02_	Sr_421	Pb1st	Pb2nd	Se1st	Se2nd
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	2549.	5452.	505.3	526.8	514.3	525.5	525.0
SDev	12.	26.	3.2	4.3	3.6	.2	8.3
%RSD	.4678	.4678	.6326	.8160	.7037	.0367	1.586
#1	2562.	5479.	503.6	527.7	515.2	525.5	517.2
#2	2548.	5450.	509.0	522.1	517.4	525.4	533.8
#3	2538.	5428.	503.3	530.6	510.4	525.8	524.1
Errors	QC Pass	NOCHECK	QC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK
Value	2500.		500.0				
Range	10.00		10.00				
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	17048	--	--	--	--	--	--
SDev	108.8313	--	--	--	--	--	--
%RSD	.6383972	--	--	--	--	--	--
#1	17094	--	--	--	--	--	--
#2	16923	--	--	--	--	--	--
#3	17125	--	--	--	--	--	--

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Method: TRACE2 Sample Name: CCB1 Operator: HSC
Run Time: 05/10/05 15:50:44
Comment: 421419||6010 WATER
Mode: CONC Corr. Factor: 1

Elem	Ag_328	Al_308	As_189	B_2496	Ba_493	Be_313	Ca_317
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	.8382	6.849	1.580	-.8428	.3877	.3516	7.755
SDev	.6826	6.143	1.747	2.4944	.1812	.0767	2.167
%RSD	81.43	89.69	110.5	295.9	46.74	21.82	27.94
#1	1.276	13.27	-.4230	1.823	.4205	.4323	10.23
#2	.0517	1.031	2.786	-3.120	.1923	.3430	6.817
#3	1.187	6.244	2.379	-1.232	.5502	.2795	6.216
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.0000	.0000	.0000	.0000	.0000	.0000	.0000
Range	5.000	200.0	15.00	50.00	5.000	5.000	100.0

Elem	Cd_226	Co_228	Cr_267	Cu_324	Fe_	K_7664	Mg_279
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	.5109	.2985	-.2295	-.0444	1.545	5.930	3.155
SDev	.4242	.8008	1.5828	.4816	2.119	6.930	11.94
%RSD	83.04	268.3	689.8	1086.	137.2	116.9	378.5
#1	.9296	.5497	-.4725	-.5738	1.447	11.50	11.64
#2	.0814	-.5978	-1.677	.0732	-.5239	8.116	-10.50
#3	.5217	.9435	1.461	.3676	3.711	-1.830	8.327
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.0000	.0000	.0000	.0000	.0000	.0000	.0000
Range	5.000	5.000	5.000	10.00	100.0	150.0	300.0

Elem	Mn_257	Mo_202	Na_	Ni_231	Sb_206	Pb_220	Se_196
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	.1281	.0693	-6.583	1.206	-5.479	.2125	-1.828
SDev	.2212	1.809	7.699	.717	3.327	.7662	1.689
%RSD	172.6	2611.	117.0	59.45	60.73	360.5	92.42
#1	.3835	2.123	-12.86	2.033	-8.666	1.092	-.6469
#2	.0006	-1.288	2.009	.7904	-5.742	-.3095	-1.074
#3	.0003	-.6267	-8.902	.7932	-2.027	-.1451	-3.763
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.0000	.0000	.0000	.0000	.0000	.0000	.0000
Range	10.00	10.00	150.0	5.000	10.00	10.00	15.00

Elem	Sn_189	Ti_334	Tl_190	U_3859	V_2924	Zn_213	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	-2.118	.4135	1.640	-9.980	-.3675	.5534	9.905
SDev	3.864	.3908	8.125	5.611	1.1102	.3237	5.229
%RSD	182.5	94.50	495.4	56.22	302.1	58.50	52.79
#1	.4258	.5912	9.861	-13.13	-.6294	.6472	14.19
#2	-6.564	-.0345	1.445	-13.30	-1.323	.8198	11.44
#3	-.2150	.6839	-6.386	-3.502	.8502	.1931	4.079
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass

Value	.0000	.0000	.0000	.0000	.0000	.0000	.0000
Range	10.00	5.000	20.00	50.00	5.000	10.00	150.0
Elem	Si_288	Si02_	Sr_421	Pb1st	Pb2nd	Se1st	Se2nd
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	-14.37	-30.73	.4081	-1.320	.9774	5.211	-5.342
SDev	8.19	17.51	.1070	5.892	3.479	9.431	4.555
%RSD	56.98	56.98	26.21	446.5	356.0	181.0	85.26
#1	-10.22	-21.86	.5284	-2.761	3.016	-.8084	-.5663
#2	-9.085	-19.43	.3237	5.160	-3.040	16.08	-9.638
#3	-23.80	-50.91	.3723	-6.357	2.956	.3615	-5.822
Errors	QC Pass	NOCHECK	QC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK
Value	.0000		.0000				
Range	100.0		5.000				
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	17002	--	--	--	--	--	--
SDev	414.3021	--	--	--	--	--	--
%RSD	2.436822	--	--	--	--	--	--
#1	16524	--	--	--	--	--	--
#2	17257	--	--	--	--	--	--
#3	17225	--	--	--	--	--	--

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Operator: HSC

lethod: TRACE2 Sample Name: CCV1
un Time: 05/10/05 16:10:41
omment: 421419||6010 WATER
lode: CONC Corr. Factor: 1

Elem	Ag_328	Al_308	As_189	B_2496	Ba_493	Be_313	Ca_317
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	491.6	5076.	506.8	490.0	496.7	494.5	5052.
SDev	3.2	30.	4.5	5.4	1.7	3.4	20.
%RSD	.6499	.5992	.8945	1.103	.3389	.6968	.3895
#1	492.4	5105.	508.3	490.7	497.1	495.7	5061.
#2	494.3	5079.	510.4	495.0	498.1	497.3	5065.
#3	488.1	5044.	501.7	484.2	494.8	490.7	5029.
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	500.0	5000.	500.0	500.0	500.0	500.0	5000.
Range	10.00	10.00	10.00	10.00	10.00	10.00	10.00

Elem	Cd_226	Co_228	Cr_267	Cu_324	Fe_	K_7664	Mg_279
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	507.6	504.4	504.6	488.0	5443.	5308.	5240.
SDev	2.1	3.4	3.4	2.6	47.	26.	16.
%RSD	.4057	.6757	.6747	.5376	.8649	.4968	.3095
#1	508.6	507.2	506.6	490.4	5453.	5323.	5258.
#2	509.0	505.3	506.6	488.3	5392.	5324.	5236.
#3	505.3	500.6	500.7	485.2	5484.	5278.	5226.
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	500.0	500.0	500.0	500.0	5000.	5000.	5000.
Range	10.00	10.00	10.00	10.00	10.00	10.00	10.00

Elem	Mn_257	Mo_202	Na_	Ni_231	Sb_206	Pb_220	Se_196
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	518.8	508.8	10520.	503.4	502.0	509.0	512.7
SDev	1.3	4.7	85.	.9	2.1	10.7	5.6
%RSD	.2521	.9175	.8100	.1886	.4240	2.097	1.084
#1	519.3	506.4	10580.	504.4	500.6	508.4	514.4
#2	517.3	505.9	10560.	502.6	500.8	519.9	517.2
#3	519.8	514.2	10420.	503.0	504.4	498.6	506.5
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	500.0	500.0	10000.	500.0	500.0	500.0	500.0
Range	10.00	10.00	10.00	10.00	10.00	10.00	10.00

Elem	Sn_189	Ti_334	Tl_190	U_3859	V_2924	Zn_213	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	532.6	500.2	501.3	498.3	507.7	499.4	2501.
SDev	3.9	3.2	4.5	14.5	3.8	1.9	37.
%RSD	.7333	.6362	.9005	2.912	.7550	.3786	1.468
#1	528.3	501.0	502.1	483.3	511.1	501.1	2512.
#2	536.0	502.9	505.3	499.2	503.6	499.8	2531.
#3	533.4	496.7	496.4	512.3	508.5	497.4	2460.
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass

Value	500.0	500.0	500.0	500.0	500.0	500.0	2500.
Range	10.00	10.00	10.00	10.00	10.00	10.00	10.00
Elem	Si_288	Si02_	Sr_421	Pb1st	Pb2nd	Se1st	Se2nd
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	2487.	5321.	498.1	524.1	501.4	522.3	507.9
SDev	4.	8.	2.5	2.5	14.8	7.9	10.1
%RSD	.1581	.1581	.4995	.4716	2.958	1.509	1.986
#1	2491.	5328.	499.3	523.2	501.0	530.2	506.5
#2	2483.	5312.	499.8	526.9	516.4	514.4	518.6
#3	2488.	5322.	495.3	522.3	486.8	522.4	498.6
Errors	QC Pass	NOCHECK	QC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK
Value	2500.		500.0				
Range	10.00		10.00				

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	16796	--	--	--	--	--	--
SDev	143.2194	--	--	--	--	--	--
%RSD	.8527160	--	--	--	--	--	--
#1	16689	--	--	--	--	--	--
#2	16740	--	--	--	--	--	--
#3	16958	--	--	--	--	--	--

Analysis Report QC Standard 05/10/05 04:22:32 PM

Method: TRACE2 Sample Name: CCB1 Operator: HSC
Run Time: 05/10/05 16:16:39
Comment: 421419||6010 WATER
Mode: CONC Corr. Factor: 1

Elem	Ag_328	Al_308	As_189	B_2496	Ba_493	Be_313	Ca_317
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	1.523	3.466	1.397	-1.920	.6420	.4162	5.049
SDev	.817	5.458	5.222	1.529	.1791	.1406	1.885
%RSD	53.63	157.5	373.7	79.62	27.90	33.79	37.34
#1	2.161	9.285	4.550	-3.594	.8211	.5627	6.970
#2	.6026	-1.541	-4.630	-1.567	.4629	.4035	4.976
#3	1.806	2.655	4.272	-.5986	.6420	.2823	3.201
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.0000	.0000	.0000	.0000	.0000	.0000	.0000
Range	5.000	200.0	15.00	50.00	5.000	5.000	100.0

Elem	Cd_226	Co_228	Cr_267	Cu_324	Fe_	K_7664	Mg_279
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	.4759	1.174	.3868	1.212	5.089	23.45	14.70
SDev	.5477	1.117	.8506	1.062	1.837	15.27	5.12
%RSD	115.1	95.14	219.9	87.59	36.10	65.14	34.80
#1	-.1511	1.659	-.5161	2.288	7.056	40.88	17.64
#2	.8607	-.1035	1.173	.1652	4.794	12.41	17.66
#3	.7182	1.965	.5035	1.183	3.417	17.05	8.792
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.0000	.0000	.0000	.0000	.0000	.0000	.0000
Range	5.000	5.000	5.000	10.00	100.0	150.0	300.0

Elem	Mn_257	Mo_202	Na_	Ni_231	Sb_206	Pb_220	Se_196
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	.4571	.5784	-46.02	-.0447	1.642	1.484	8.421
SDev	.2251	.9446	10.91	1.3279	4.555	1.098	6.765
%RSD	49.25	163.3	23.70	2972.	277.4	74.00	80.34
#1	.5908	1.051	-34.19	1.413	.6025	2.731	10.22
#2	.1972	1.194	-55.68	-1.185	-2.303	1.064	14.10
#3	.5832	-.5092	-48.19	-.3616	6.626	.6581	.9361
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.0000	.0000	.0000	.0000	.0000	.0000	.0000
Range	10.00	10.00	150.0	5.000	10.00	10.00	15.00

Elem	Sn_189	Ti_334	Tl_190	U_3859	V_2924	Zn_213	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	2.129	.5973	1.307	27.44	1.407	.1451	12.58
SDev	2.356	.0994	3.795	4.10	1.115	.3388	3.92
%RSD	110.6	16.65	290.3	14.95	79.23	233.6	31.17
#1	4.594	.6744	3.503	25.63	2.065	-.2259	9.877
#2	-.0993	.4851	-3.075	24.55	.1199	.2229	10.78
#3	1.893	.6324	3.494	32.13	2.037	.4382	17.08
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass

Value	.0000	.0000	.0000	.0000	.0000	.0000	.0000
Range	10.00	5.000	20.00	50.00	5.000	10.00	150.0
Elem	Si_288	Si02_	Sr_421	Pb1st	Pb2nd	Se1st	Se2nd
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	-8.742	-18.70	.4455	-1.212	2.830	4.406	10.42
SDev	5.788	12.38	.1125	2.526	.392	6.657	6.82
%RSD	66.21	66.21	25.26	208.5	13.86	151.1	65.41
#1	-14.11	-30.18	.5754	1.624	3.283	6.213	12.23
#2	-2.609	-5.581	.3850	-2.040	2.614	9.973	16.16
#3	-9.510	-20.34	.3762	-3.219	2.594	-2.968	2.885
Errors	QC Pass	NOCHECK	QC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK
Value	.0000		.0000				
Range	100.0		5.000				
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	16147	--	--	--	--	--	--
SDev	128.1414	--	--	--	--	--	--
%RSD	.7935994	--	--	--	--	--	--
#1	16079	--	--	--	--	--	--
#2	16067	--	--	--	--	--	--
#3	16295	--	--	--	--	--	--

Analysis Report

Method: TRACE2 Sample Name: 1200840490 Operator: HSC
Run Time: 05/10/05 16:34:28
Comment: 423067||6010 WATER
Mode: CONC Corr. Factor: 1

Elem	Ag_328	Al_308	As_189	B_2496	Ba_493	Be_313	Ca_317
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	.5392	1.538	3.335	1.337	.1415	.0244	21.27
SDev	.8425	3.590	3.853	1.991	.0947	.0265	2.94
%RSD	156.3	233.5	115.5	148.9	66.92	108.4	13.84
#1	.7361	1.672	2.280	1.341	.1420	.0097	23.26
#2	-.3844	5.058	.1205	3.327	.2360	.0550	22.66
#3	1.266	-2.118	7.606	-.6559	.0466	.0086	17.89
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	5.000	200.0	15.00	50.00	5.000	5.000	100.0
Low	-5.000	-200.0	-15.00	-50.00	-5.000	-5.000	-100.0

Elem	Cd_226	Co_228	Cr_267	Cu_324	Fe_	K_7664	Mg_279
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	.2878	-.2424	.0416	.0189	3.444	14.30	19.01
SDev	.1279	.8614	.5260	.6311	2.377	2.43	1.70
%RSD	44.44	355.4	1263.	3340.	69.01	17.02	8.949
#1	.1421	-.3139	-.1388	-.6108	6.189	14.20	19.93
#2	.3397	-1.066	-.3704	.6513	2.093	11.92	20.06
#3	.3817	.6525	.6341	.0162	2.051	16.79	17.05
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	5.000	5.000	5.000	10.00	100.0	150.0	300.0
Low	-5.000	-5.000	-5.000	-10.00	-100.0	-150.0	-300.0

Elem	Mn_257	Mo_202	Na_	Ni_231	Sb_206	Pb_220	Se_196
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	.2557	-.2755	-13.86	-.5803	-1.155	-.1788	-2.334
SDev	.1111	.4458	3.16	1.0063	2.942	1.2147	6.599
%RSD	43.46	161.8	22.79	173.4	254.8	679.3	282.7
#1	.3840	.0485	-10.81	-1.028	-4.449	-.4283	2.554
#2	.1924	-.7839	-13.64	.5721	1.213	1.141	-9.841
#3	.1907	-.0912	-17.12	-1.285	-.2290	-1.249	.2835
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.00	10.00	150.0	5.000	10.00	10.00	15.00
Low	-10.00	-10.00	-150.0	-5.000	-10.00	-10.00	-15.00

Elem	Sn_189	Ti_334	Tl_190	U_3859	V_2924	Zn_213	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	-1.933	.2302	7.344	16.94	-.3838	1.230	3.409
SDev	1.449	.0896	5.829	12.06	1.1571	.340	4.332
%RSD	74.99	38.93	79.37	71.19	301.5	27.63	127.1
#1	-3.252	.3033	13.90	30.87	.8767	1.304	7.730
#2	-.3814	.2573	5.408	9.946	-1.398	1.526	-.9344
#3	-2.164	.1302	2.730	10.01	-.6303	.8588	3.431
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	NOCHECK

High	10.00	5.000	20.00	50.00	10.00	10.00	
Low	-10.00	-5.000	-20.00	-50.00	-10.00	-10.00	
Elem	Si_288	Si02_	Sr_421	Pb1st	Pb2nd	Se1st	Se2nd
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	7.217	15.44	.6937	-.3462	-.0952	.9322	-3.965
SDev	2.952	6.31	.1258	1.3790	2.2785	5.577	9.238
%RSD	40.90	40.90	18.13	398.3	2393.	598.2	233.0
#1	5.346	11.44	.7655	-1.487	.1004	-2.140	4.897
#2	10.62	22.72	.7672	-.7373	2.079	-2.433	-13.54
#3	5.686	12.16	.5485	1.186	-2.465	7.369	-3.254
Errors	LC Pass	NOCHECK	LC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK
High	100.0		10.00				
Low	-100.0		-10.00				
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	16526	--	--	--	--	--	--
SDev	83.26710	--	--	--	--	--	--
%RSD	.5038704	--	--	--	--	--	--
#1	16492	--	--	--	--	--	--
#2	16464	--	--	--	--	--	--
#3	16620	--	--	--	--	--	--

nalysis Report

Operator: HSC

ethod: TRACE2 Sample Name: 1200840491
un Time: 05/10/05 16:40:24
omment: 423067||6010 WATER
ode: CONC Corr. Factor: 1

Elem	Ag_328	Al_308	As_189	B_2496	Ba_493	Be_313	Ca_317
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	500.6	5148.	527.2	484.8	505.1	497.6	5215.
SDev	2.8	19.	4.0	4.7	1.1	2.4	18.
%RSD	.5501	.3711	.7580	.9662	.2269	.4786	.3400
#1	502.0	5154.	527.5	480.7	505.9	499.8	5228.
#2	502.3	5163.	531.1	489.9	505.5	498.0	5222.
#3	497.4	5127.	523.1	483.9	503.7	495.1	5195.
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2000.	500000.	50000.	50000.	15000.	10000.	500000.
Low	-5.000	-200.0	-15.00	-50.00	-5.000	-5.000	-100.0

Elem	Cd_226	Co_228	Cr_267	Cu_324	Fe_	K_7664	Mg_279
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	517.2	511.6	506.2	494.4	5284.	5630.	5361.
SDev	2.7	.7	1.7	1.3	54.	5.	15.
%RSD	.5171	.1318	.3441	.2607	1.014	.0912	.2758
#1	519.2	512.3	506.8	495.5	5308.	5633.	5378.
#2	518.3	511.6	507.6	494.7	5222.	5633.	5349.
#3	514.2	510.9	504.2	493.0	5321.	5624.	5358.
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	25000.	50000.	50000.	25000.	500000.	30000.	500000.
Low	-5.000	-5.000	-5.000	-10.00	-100.0	-150.0	-300.0

Elem	Mn_257	Mo_202	Na_	Ni_231	Sb_206	Pb_220	Se_196
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	513.9	513.3	5680.	505.8	514.0	525.9	515.1
SDev	3.6	1.9	18.	4.3	5.3	1.7	9.1
%RSD	.7002	.3664	.3087	.8559	1.030	.3270	1.765
#1	518.0	511.7	5699.	509.8	514.8	526.9	506.9
#2	511.4	515.4	5678.	506.3	508.4	523.9	524.9
#3	512.3	513.0	5664.	501.2	518.9	526.9	513.6
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10000.	50000.	200000.	50000.	50000.	50000.	50000.
Low	-10.00	-10.00	-150.0	-5.000	-10.00	-10.00	-15.00

Elem	Sn_189	Ti_334	Tl_190	U_3859	V_2924	Zn_213	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	547.5	503.0	506.6	488.5	505.9	509.9	520.7
SDev	5.2	2.0	2.4	9.8	2.3	1.5	6.4
%RSD	.9569	.4032	.4656	2.006	.4500	.2879	1.234
#1	553.6	504.3	504.5	495.6	508.5	508.2	518.9
#2	544.8	504.1	506.2	477.3	504.6	510.6	527.8
#3	544.3	500.7	509.2	492.5	504.6	510.8	515.3
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass

High	50000.	10000.	50000.	50000.	50000.	5000.	50000.
Low	-10.00	-5.000	-20.00	-50.00	-5.000	-10.00	-150.0
Elem	Si_288	Si02_	Sr_421	Pb1st	Pb2nd	Se1st	Se2nd
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	4955.	10600.	501.8	539.8	519.0	523.8	510.8
SDev	7.	15.	.6	2.1	2.2	4.1	12.8
%RSD	.1398	.1398	.1187	.3889	.4185	.7827	2.510
#1	4960.	10610.	502.2	538.8	521.0	524.7	498.0
#2	4947.	10580.	502.2	538.4	516.7	527.4	523.6
#3	4958.	10610.	501.2	542.2	519.2	519.3	510.8
Errors	LC Pass	NOCHECK	LC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK
High	50000.		10000.				
Low	-100.0		-5.000				
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	16638	--	--	--	--	--	--
SDev	22.02969	--	--	--	--	--	--
%RSD	.1324033	--	--	--	--	--	--
#1	16663	--	--	--	--	--	--
#2	16632	--	--	--	--	--	--
#3	16620	--	--	--	--	--	--

nalysis Report

Operator: HSC

lethod: TRACE2 Sample Name: 135804001
un Time: 05/10/05 16:46:21
omment: 423067||6010 WATER
lode: CONC Corr. Factor: 1

Elem	Ag_328	Al_308	As_189	B_2496	Ba_493	Be_313	Ca_317
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	.8706	48.86	-.3249	3.714	1.794	.2518	797.3
SDev	.2688	6.48	3.1551	1.418	.117	.0355	3.6
%RSD	30.88	13.26	971.1	38.17	6.539	14.08	.4514
#1	.8753	54.30	-3.721	2.941	1.717	.2628	801.4
#2	.5995	50.59	2.516	5.350	1.929	.2804	794.7
#3	1.137	41.70	.2304	2.850	1.737	.2121	795.7
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2000.	500000.	50000.	50000.	15000.	10000.	500000.
Low	-5.000	-200.0	-15.00	-50.00	-5.000	-5.000	-100.0

Elem	Cd_226	Co_228	Cr_267	Cu_324	Fe	K_7664	Mg_279
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	.2705	.8745	-.0051	2.127	35.19	107.3	254.6
SDev	1.237	.0067	.3239	.182	1.31	.9	6.2
%RSD	457.4	.7708	6292.	8.549	3.723	.8769	2.431
#1	.9447	.8823	-.3743	1.960	33.69	106.8	261.6
#2	1.024	.8701	.2313	2.101	36.14	108.4	249.9
#3	-1.157	.8712	.1276	2.321	35.73	106.7	252.2
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	25000.	50000.	50000.	25000.	500000.	30000.	500000.
Low	-5.000	-5.000	-5.000	-10.00	-100.0	-150.0	-300.0

Elem	Mn_257	Mo_202	Na	Ni_231	Sb_206	Pb_220	Se_196
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	.9018	.3338	1336.	1.519	3.047	-.0143	-1.323
SDev	.1161	.4913	4.	.701	1.591	1.8269	3.759
%RSD	12.87	147.2	.2970	46.16	52.20	12780.	284.2
#1	.9743	.9011	1340.	.9940	4.180	.7388	-.3855
#2	.9632	.0505	1334.	1.248	3.733	1.316	1.879
#3	.7679	.0498	1332.	2.316	1.229	-2.097	-5.462
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10000.	50000.	200000.	50000.	50000.	50000.	50000.
Low	-10.00	-10.00	-150.0	-5.000	-10.00	-10.00	-15.00

Elem	Sn_189	Ti_334	Tl_190	U_3859	V_2924	Zn_213	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	1.112	1.176	1.149	26.71	1.141	2.933	8.677
SDev	1.464	.032	4.486	16.08	.454	.479	1.304
%RSD	131.7	2.738	390.4	60.19	39.81	16.32	15.03
#1	2.187	1.189	4.255	14.48	1.666	3.330	7.620
#2	1.704	1.200	3.186	44.92	.8776	3.068	8.276
#3	-.5558	1.140	-3.994	20.74	.8805	2.402	10.13
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass

High	50000.	10000.	50000.	50000.	50000.	5000.	50000.
Low	-10.00	-5.000	-20.00	-50.00	-5.000	-10.00	-150.0
Elem	Si_288	Si02_	Sr_421	Pb1st	Pb2nd	Se1st	Se2nd
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	261.2	558.7	6.903	-4.121	2.036	.0433	-2.005
SDev	36.3	77.7	.050	1.456	3.269	10.31	.991
%RSD	13.91	13.91	.7302	35.33	160.6	23820.	49.45
#1	245.7	525.5	6.955	-5.691	3.949	4.440	-2.794
#2	235.2	503.1	6.897	-3.856	3.898	7.429	-.8922
#3	302.7	647.5	6.855	-2.815	-1.739	-11.74	-2.328
Errors	LC Pass	NOCHECK	LC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK
High	50000.		10000.				
Low	-100.0		-5.000				
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	16324	--	--	--	--	--	--
SDev	122.1514	--	--	--	--	--	--
%RSD	.7482998	--	--	--	--	--	--
#1	16185	--	--	--	--	--	--
#2	16374	--	--	--	--	--	--
#3	16413	--	--	--	--	--	--

Method: TRACE2 Sample Name: 1200840492 Operator: HSC
Run Time: 05/10/05 16:52:18
Comment: 423067||6010 WATER
Mode: CONC Corr. Factor: 1

Elem	Ag_328	Al_308	As_189	B_2496	Ba_493	Be_313	Ca_317
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	.8063	48.04	.7471	1.432	1.557	.0507	797.7
SDev	.1770	.69	2.648	2.799	.095	.0262	1.7
%RSD	21.95	1.433	354.4	195.5	6.085	51.82	.2193
#1	.8685	47.56	.4568	-1.585	1.642	.0355	797.3
#2	.6066	48.83	3.528	1.936	1.574	.0810	799.6
#3	.9438	47.74	-1.743	3.945	1.455	.0355	796.1
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2000.	500000.	50000.	50000.	15000.	10000.	500000.
Low	-5.000	-200.0	-15.00	-50.00	-5.000	-5.000	-100.0

Elem	Cd_226	Co_228	Cr_267	Cu_324	Fe_	K_7664	Mg_279
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	.4533	.0423	-.2954	2.932	24.13	101.3	248.0
SDev	.3122	.3150	1.1879	.648	2.71	1.8	7.5
%RSD	68.87	744.6	402.1	22.09	11.24	1.800	3.010
#1	.6759	.2231	.5016	2.772	26.88	101.2	241.0
#2	.5875	-.3214	.2728	3.645	24.04	103.2	255.8
#3	.0965	.2252	-1.661	2.379	21.46	99.53	247.2
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	25000.	50000.	50000.	25000.	500000.	30000.	500000.
Low	-5.000	-5.000	-5.000	-10.00	-100.0	-150.0	-300.0

Elem	Mn_257	Mo_202	Na_	Ni_231	Sb_206	Pb_220	Se_196
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	.6481	.8066	1319.	1.445	-3.628	1.366	3.257
SDev	.1123	1.060	9.	.437	3.148	.478	7.676
%RSD	17.32	131.4	.6778	30.24	86.77	35.02	235.7
#1	.7777	-.2287	1328.	1.127	-6.277	.8276	11.03
#2	.5832	.7596	1320.	1.943	-.1481	1.528	3.068
#3	.5833	1.889	1310.	1.265	-4.458	1.742	-4.323
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10000.	50000.	200000.	50000.	50000.	50000.	50000.
Low	-10.00	-10.00	-150.0	-5.000	-10.00	-10.00	-15.00

Elem	Sn_189	Ti_334	Tl_190	U_3859	V_2924	Zn_213	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	.6016	1.090	-.2442	20.55	1.536	2.141	13.61
SDev	1.326	.070	2.7298	15.48	.896	.128	7.24
%RSD	220.4	6.395	1118.	75.32	58.36	5.957	53.22
#1	-.7390	1.011	-2.111	38.42	.5009	2.212	5.333
#2	1.912	1.141	-1.510	11.64	2.053	1.993	16.70
#3	.6320	1.118	2.889	11.58	2.053	2.216	18.79
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass

High	50000.	10000.	50000.	50000.	50000.	5000.	50000.
Low	-10.00	-5.000	-20.00	-50.00	-5.000	-10.00	-150.0
Elem	Si_288	Si02_	Sr_421	Pb1st	Pb2nd	Se1st	Se2nd
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	247.7	529.9	6.691	-4.239	4.164	-2.082	5.923
SDev	3.3	7.0	.020	2.526	.771	6.687	11.45
%RSD	1.320	1.320	.2993	59.59	18.51	321.2	193.4
#1	251.2	537.3	6.696	-6.972	4.722	2.680	15.19
#2	244.7	523.4	6.707	-1.991	3.284	-9.727	9.456
#3	247.3	529.0	6.668	-3.752	4.485	.8011	-6.881
Errors	LC Pass	NOCHECK	LC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK
High	50000.		10000.				
Low	-100.0		-5.000				

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	16198	--	--	--	--	--	--
SDev	14.54983	--	--	--	--	--	--
%RSD	.0898258	--	--	--	--	--	--
#1	16215	--	--	--	--	--	--
#2	16188	--	--	--	--	--	--
#3	16191	--	--	--	--	--	--

nalysis Report

Operator: HSC

ethod: TRACE2 Sample Name: 1200840493
un Time: 05/10/05 16:58:14
omment: 423067||6010 WATER
ode: CONC Corr. Factor: 1

Elem	Ag_328	Al_308	As_189	B_2496	Ba_493	Be_313	Ca_317
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	493.9	5147.	515.8	481.9	500.4	491.9	5971.
SDev	1.9	23.	3.7	7.4	3.6	1.3	38.
%RSD	.3778	.4397	.7251	1.536	.7117	.2643	.6388
#1	493.8	5122.	515.1	480.0	496.4	490.7	5927.
#2	492.1	5167.	512.5	490.0	503.2	491.8	5992.
#3	495.8	5153.	519.9	475.6	501.6	493.3	5994.
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2000.	500000.	50000.	50000.	15000.	10000.	500000.
Low	-5.000	-200.0	-15.00	-50.00	-5.000	-5.000	-100.0

Elem	Cd_226	Co_228	Cr_267	Cu_324	Fe_	K_7664	Mg_279
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	511.5	506.8	501.7	490.7	5323.	5695.	5568.
SDev	2.8	1.3	3.5	1.1	109.	26.	47.
%RSD	.5416	.2529	.6994	.2338	2.055	.4570	.8386
#1	508.4	505.4	498.1	489.5	5219.	5673.	5515.
#2	512.4	508.0	505.1	490.9	5437.	5688.	5593.
#3	513.6	506.9	501.7	491.7	5312.	5724.	5598.
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	25000.	50000.	50000.	25000.	500000.	30000.	500000.
Low	-5.000	-5.000	-5.000	-10.00	-100.0	-150.0	-300.0

Elem	Mn_257	Mo_202	Na_	Ni_231	Sb_206	Pb_220	Se_196
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	512.2	505.4	7002.	493.4	506.7	520.2	511.3
SDev	5.8	7.4	35.	3.1	5.3	4.5	9.1
%RSD	1.141	1.472	.5008	.6349	1.049	.8650	1.785
#1	505.5	499.4	6980.	490.0	512.7	525.4	505.5
#2	516.0	513.7	6983.	496.2	504.8	518.4	506.5
#3	515.1	503.1	7042.	493.9	502.5	516.9	521.8
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10000.	50000.	200000.	50000.	50000.	50000.	50000.
Low	-10.00	-10.00	-150.0	-5.000	-10.00	-10.00	-15.00

Elem	Sn_189	Ti_334	Tl_190	U_3859	V_2924	Zn_213	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	540.4	499.1	500.9	494.4	502.3	506.3	519.6
SDev	4.7	2.6	4.1	8.0	5.2	4.0	9.1
%RSD	.8773	.5271	.8180	1.616	1.027	.7821	1.749
#1	535.9	496.3	497.4	502.4	496.3	501.7	518.6
#2	545.4	499.2	499.8	494.4	504.8	508.2	511.0
#3	540.1	501.6	505.4	486.4	505.6	508.9	529.1
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass

High	50000.	10000.	50000.	50000.	50000.	5000.	50000.
Low	-10.00	-5.000	-20.00	-50.00	-5.000	-10.00	-150.0
Elem	Si 288	Si02_	Sr_421	Pb1st	Pb2nd	Se1st	Se2nd
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	5139.	10990.	503.5	538.4	511.2	516.5	508.6
SDev	11.	24.	4.1	6.9	4.5	7.4	12.1
%RSD	.2165	.2165	.8233	1.278	.8889	1.432	2.380
#1	5137.	10990.	498.8	545.5	515.3	520.0	498.3
#2	5129.	10970.	506.6	531.7	511.8	508.0	505.7
#3	5151.	11020.	505.2	538.2	506.3	521.4	521.9
Errors	LC Pass	NOCHECK	LC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK
High	50000.		10000.				
Low	-100.0		-5.000				
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	16399	--	--	--	--	--	--
SDev	78.16967	--	--	--	--	--	--
%RSD	.4766850	--	--	--	--	--	--
#1	16468	--	--	--	--	--	--
#2	16413	--	--	--	--	--	--
#3	16314	--	--	--	--	--	--

nalysis Report

ethod: TRACE2 Sample Name: 1200840494|5| Operator: HSC
un Time: 05/10/05 17:04:09
omment: 423067||6010 WATER
ode: CONC Corr. Factor: 1

Elem	Ag_328	Al_308	As_189	B_2496	Ba_493	Be_313	Ca_317
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	.2098	1.441	1.081	1.179	.5297	.2337	168.4
SDev	.1371	6.987	.969	1.517	.1699	.0842	.3
%RSD	65.36	484.8	89.62	128.7	32.07	36.04	.1713
#1	.3394	8.654	1.317	2.863	.6606	.3249	168.7
#2	.2237	-5.296	1.909	.7548	.5907	.1590	168.4
#3	.0662	.9663	.0160	-.0806	.3377	.2171	168.1
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2000.	500000.	50000.	50000.	15000.	10000.	500000.
Low	-5.000	-200.0	-15.00	-50.00	-5.000	-5.000	-100.0

Elem	Cd_226	Co_228	Cr_267	Cu_324	Fe_	K_7664	Mg_279
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	.2670	-.7867	.5492	.8267	4.487	25.56	54.81
SDev	.1342	.6636	.1857	.8353	1.650	12.00	4.95
%RSD	50.26	84.35	33.82	101.0	36.77	46.95	9.034
#1	.1419	-.8565	.3820	1.069	4.020	32.53	59.82
#2	.2503	-.0910	.7491	-.1029	6.320	11.70	49.91
#3	.4087	-1.413	.5164	1.514	3.121	32.44	54.71
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	25000.	50000.	50000.	25000.	500000.	30000.	500000.
Low	-5.000	-5.000	-5.000	-10.00	-100.0	-150.0	-300.0

Elem	Mn_257	Mo_202	Na_	Ni_231	Sb_206	Pb_220	Se_196
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	.2561	-.6767	223.7	1.436	3.943	1.283	-3.125
SDev	.1125	1.1417	7.1	1.856	3.123	1.850	4.825
%RSD	43.92	168.7	3.158	129.3	79.20	144.3	154.4
#1	.3860	.0503	230.2	2.990	7.288	3.093	2.319
#2	.1876	-1.993	224.8	-.6195	1.105	-.6044	-4.823
#3	.1948	-.0878	216.2	1.938	3.435	1.359	-6.873
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10000.	50000.	200000.	50000.	50000.	50000.	50000.
Low	-10.00	-10.00	-150.0	-5.000	-10.00	-10.00	-15.00

Elem	Sn_189	Ti_334	Tl_190	U_3859	V_2924	Zn_213	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	1.726	.4284	5.746	16.75	-.7711	1.020	10.35
SDev	3.255	.1506	1.375	9.58	1.3540	.571	4.99
%RSD	188.6	35.15	23.93	57.20	175.6	56.03	48.18
#1	2.962	.5251	6.924	21.46	.5015	1.093	6.252
#2	-1.966	.2549	6.080	5.726	-.6208	.4153	8.893
#3	4.182	.5053	4.235	23.06	-2.194	1.551	15.90
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass

High	50000.	10000.	50000.	50000.	50000.	5000.	50000.
Low	-10.00	-5.000	-20.00	-50.00	-5.000	-10.00	-150.0
Elem	Si_288	Si02_	Sr_421	Pb1st	Pb2nd	Se1st	Se2nd
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	37.51	80.24	1.606	-1.326	2.585	1.516	-5.443
SDev	7.18	15.36	.071	3.023	2.447	5.057	9.235
%RSD	19.14	19.14	4.406	228.0	94.67	333.5	169.7
#1	45.55	97.43	1.688	1.711	3.784	-1.783	4.367
#2	31.73	67.87	1.568	-1.353	-.2305	-1.006	-6.728
#3	35.26	75.43	1.562	-4.334	4.201	7.338	-13.97
Errors	LC Pass	NOCHECK	LC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK
High	50000.		10000.				
Low	-100.0		-5.000				
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	16485	--	--	--	--	--	--
SDev	321.3270	--	--	--	--	--	--
%RSD	1.949199	--	--	--	--	--	--
#1	16387	--	--	--	--	--	--
#2	16844	--	--	--	--	--	--
#3	16224	--	--	--	--	--	--

nalysis Report QC Standard 05/10/05 05:16:00 PM

Operator: HSC

ethod: TRACE2 Sample Name: CCV1

un Time: 05/10/05 17:10:06

omment: 423067||6010 WATER

ode: CONC Corr. Factor: 1

K fails

Elem	Ag_328	Al_308	As_189	B_2496	Ba_493	Be_313	Ca_317
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	484.0	4962.	513.4	468.2	490.7	484.3	4985.
SDev	2.6	26.	3.9	3.8	1.2	2.8	11.
%RSD	.5287	.5293	.7668	.8055	.2434	.5874	.2246
#1	485.5	4940.	514.6	472.5	489.9	486.7	4974.
#2	481.1	4955.	509.0	465.3	490.1	481.2	4986.
#3	485.4	4991.	516.6	466.9	492.0	485.2	4996.
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	500.0	5000.	500.0	500.0	500.0	500.0	5000.
Range	10.00	10.00	10.00	10.00	10.00	10.00	10.00

Elem	Cd_226	Co_228	Cr_267	Cu_324	Fe_	K_7664	Mg_279
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	505.9	502.7	496.1	474.4	5132.	Q5614.	5195.
SDev	.9	3.5	2.9	3.1	92.	43.	20.
%RSD	.1717	.6982	.5782	.6506	1.788	.7734	.3934
#1	504.9	505.4	499.3	475.8	5028.	Q5628.	5171.
#2	506.4	498.8	493.7	470.9	5202.	Q5566.	5206.
#3	506.4	504.0	495.3	476.5	5165.	Q5650.	5207.
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Fail	QC Pass
Value	500.0	500.0	500.0	500.0	5000.	5000.	5000.
Range	10.00	10.00	10.00	10.00	10.00	10.00	10.00

Elem	Mn_257	Mo_202	Na_	Ni_231	Sb_206	Pb_220	Se_196
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	500.2	509.2	Q11010.	498.1	499.5	513.0	512.1
SDev	3.3	3.8	106.	.5	3.9	7.2	11.9
%RSD	.6589	.7463	.9589	.0910	.7753	1.398	2.321
			110.6				
#1	496.4	505.1	Q11010.	498.6	504.0	516.6	519.4
#2	502.3	512.6	10910.	497.7	497.9	504.7	498.3
#3	501.9	509.9	Q11120.	498.0	496.8	517.6	518.5
Errors	QC Pass	QC Pass	QC ~~Fail~~ Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	500.0	500.0	10000.	500.0	500.0	500.0	500.0
Range	10.00	10.00	10.00	10.00	10.00	10.00	10.00

Elem	Sn_189	Ti_334	Tl_190	U_3859	V_2924	Zn_213	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	539.6	496.0	514.7	494.7	492.3	494.2	2586.
SDev	7.0	2.1	3.0	17.8	4.6	.9	60.
%RSD	1.305	.4293	.5835	3.595	.9421	.1879	2.331
#1	545.2	497.3	515.2	474.7	487.0	495.2	2534.
#2	531.7	493.6	511.5	508.8	494.9	494.0	2571.
#3	542.0	497.2	517.5	500.7	495.1	493.4	2652.
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass

Value	500.0	500.0	500.0	500.0	500.0	500.0	2500.
Range	10.00	10.00	10.00	10.00	10.00	10.00	10.00
Elem	Si_288	Si02_	Sr_421	Pb1st	Pb2nd	Se1st	Se2nd
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	2430.	5199.	492.4	530.3	504.3	529.8	503.2
SDev	24.	51.	.9	13.3	4.4	10.5	12.6
%RSD	.9873	.9873	.1743	2.517	.8751	1.988	2.505
#1	2441.	5222.	492.3	534.3	507.8	537.4	510.3
#2	2403.	5140.	491.6	515.4	499.3	517.8	488.6
#3	2447.	5234.	493.3	541.2	505.8	534.3	510.5
Errors	QC Pass	NOCHECK	QC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK
Value	2500.		500.0				
Range	10.00		10.00				

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	16121	--	--	--	--	--	--
SDev	156.5070	--	--	--	--	--	--
%RSD	.9708381	--	--	--	--	--	--
#1	16233	--	--	--	--	--	--
#2	16187	--	--	--	--	--	--
#3	15942	--	--	--	--	--	--

Operator: HSC

ethod: TRACE2 Sample Name: CCB1
un Time: 05/10/05 17:16:04
omment: 423067||6010 WATER
ode: CONC Corr. Factor: 1

Elem	Ag_328	Al_308	As_189	B_2496	Ba_493	Be_313	Ca_317
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	-.0357	-3.847	2.259	-1.271	.2951	.3286	2.454
SDev	1.0701	.994	.653	2.235	.2126	.0840	2.022
%RSD	2994.	25.84	28.89	175.9	72.04	25.56	82.38
#1	.1339	-4.444	1.550	-1.084	.4092	.4209	4.560
#2	.9394	-2.699	2.836	-3.593	.4264	.3083	2.272
#3	-1.180	-4.396	2.392	.8650	.0498	.2566	.5294
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.0000	.0000	.0000	.0000	.0000	.0000	.0000
Range	5.000	200.0	15.00	50.00	5.000	5.000	100.0

Elem	Cd_226	Co_228	Cr_267	Cu_324	Fe_	K_7664	Mg_279
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	.8989	.3681	.4323	.6891	2.505	8.557	-6.229
SDev	.5056	.4951	.1851	.4259	2.902	6.353	7.108
%RSD	56.25	134.5	42.81	61.81	115.9	74.25	114.1
#1	1.478	.6639	.3898	.9939	5.371	13.09	.2941
#2	.5482	.6438	.6350	.2025	2.577	1.296	-5.175
#3	.6700	-.2035	.2723	.8709	-.4326	11.28	-13.80
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.0000	.0000	.0000	.0000	.0000	.0000	.0000
Range	5.000	5.000	5.000	10.00	100.0	150.0	300.0

Elem	Mn_257	Mo_202	Na_	Ni_231	Sb_206	Pb_220	Se_196
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	.3222	.6950	-50.21	1.294	-2.118	-.2801	-3.404
SDev	.2286	.1771	8.96	1.289	6.249	.2633	3.120
%RSD	70.93	25.48	17.84	99.61	295.0	93.97	91.66
#1	.5861	.8989	-55.57	1.534	-8.425	-.0467	.0463
#2	.1872	.5799	-39.87	-.0980	-2.000	-.5655	-4.232
#3	.1934	.6061	-55.18	2.447	4.071	-.2283	-6.027
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.0000	.0000	.0000	.0000	.0000	.0000	.0000
Range	10.00	10.00	150.0	5.000	10.00	10.00	15.00

Elem	Sn_189	Ti_334	Tl_190	U_3859	V_2924	Zn_213	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	-1.279	.2213	-.2394	4.806	-.0047	.6497	12.77
SDev	3.124	.1901	2.6641	16.18	.2257	.2303	5.29
%RSD	244.3	85.87	1113.	336.7	4824.	35.44	41.45
#1	2.268	.3176	1.823	21.92	-.2653	.6639	17.94
#2	-2.480	.3441	.7059	-10.25	.1266	.4126	13.02
#3	-3.625	.0024	-3.247	2.757	.1246	.8725	7.358
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass

Value	.0000	.0000	.0000	.0000	.0000	.0000	.0000
Range	10.00	5.000	20.00	50.00	5.000	10.00	150.0
Elem	Si_288	Si02_	Sr_421	Pb1st	Pb2nd	Se1st	Se2nd
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	-10.82	-23.15	.2664	-4.139	1.646	1.880	-6.042
SDev	3.89	8.31	.1172	1.708	.606	9.925	1.825
%RSD	35.92	35.92	44.01	41.28	36.81	527.9	30.20
#1	-7.512	-16.07	.3729	-2.166	1.012	13.30	-6.570
#2	-9.851	-21.07	.2855	-5.121	1.709	-4.672	-4.012
#3	-15.10	-32.30	.1408	-5.130	2.219	-2.987	-7.545
Errors	QC Pass	NOCHECK	QC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK
Value	.0000		.0000				
Range	100.0		5.000				
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	16535	--	--	--	--	--	--
SDev	383.2253	--	--	--	--	--	--
%RSD	2.317728	--	--	--	--	--	--
#1	16216	--	--	--	--	--	--
#2	16960	--	--	--	--	--	--
#3	16428	--	--	--	--	--	--

Instrument Tuning Report

File Name: default2.tun
File Path: c:\elandata\Tuning

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Pk. Width
He	3.0	3.0	589	2080	0.559
Be	9.0	9.0	2049	2080	0.613
Mg	24.0	24.0	5676	2080	0.625
Mg	25.0	25.0	5933	2085	0.636
Mg	26.0	26.0	6157	2090	0.630
Co	58.9	58.9	14186	2110	0.626
Rh	102.9	102.9	24878	2175	0.579
In	114.9	114.9	27783	2190	0.593
Ce	139.9	139.9	33866	2215	0.582
Pb	206.0	206.0	49936	2290	0.579
Pb	207.0	207.0	50183	2275	0.612
Pb	208.0	208.0	50427	2310	0.584
U	238.1	238.0	57731	2325	0.596

✓ EAG 5/6/05

Daily Performance Report

Sample ID: Sample
Sample Date/Time: Friday, May 06, 2005 09:32:05
Sample Description:
Method File: c:\elandata\Method\Daily2.mth
Dataset File: c:\elandata\Dataset\050301\Sample.969
Tuning File: c:\elandata\Tuning\default2.tun
Optimization File: c:\elandata\Optimize\default.dac
Dual Detector Mode: Pulse

Acq. Dead Time(ns): 35
Current Dead Time (ns): 35

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Be	9.0	3608.3	3608.256	37.960	1.1
	Mg	24.0	35273.3	35273.300	466.477	1.3
	Co	58.9	94687.6	94687.573	569.082	0.6
	Rh	102.9	173781.9	173781.872	1441.359	0.8
	In	114.9	217906.5	217906.523	2619.499	1.2
	Pb	208.0	167829.3	167829.303	970.812	0.6
⌈>	Ba	137.9	192842.7	192842.736	1412.647	0.7
⌊	Ba++	69.0	3960.7	0.021	0.000	1.8
⌈>	Ce	139.9	236472.6	236472.563	1410.368	0.6
⌊	CeO	155.9	3556.4	0.015	0.000	1.1
	Bkgd	220.0	27.7	27.700	6.191	22.3

Current Optimization File Data

Current Value	Description
0.93	Nebulizer Gas Flow
8.75	Lens Voltage
1400.00	ICP RF Power
-1781.25	Analog Stage Voltage
1250.00	Pulse Stage Voltage
200.00	Discriminator Threshold
-6.00	AC Rod Offset
60.00	Service DAC 1
0.00	Quadrupole Rod Offset
0.00	Differential Aperture

EAG 5/6/05

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	21	8.8	3232.0
Co	59	21	9.8	75152.5
In	115	21	10.5	210515.1

ICPMS#5 - Summary Report

Sample ID: Blank
Sample Date/Time: Friday, May 06, 2005 23:38:40
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: c:\elandata\Dataset\050506\Blank.184

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7		ug/L		145	
	Be	9		ug/L		22	
	B	11		ug/L		887	
	Na	23		ug/L		21016	
	Mg	24		ug/L		2000	
	Al	27		ug/L		11672	
	P	31		ug/L		7972	
	K	39		ug/L		1453797	
	Ca	43		ug/L		1203	
>	Sc	45		ug/L		1915798	
	Ti	47		ug/L		519	
	V	51		ug/L		6074	
	Cr	52		ug/L		11365	
	Cr	53		ug/L		300851	
	Mn	55		ug/L		3991	
	Fe	57		ug/L		22617	
	Co	59		ug/L		359	
	Ni	60		ug/L		111	
	Cu	63		ug/L		240	
	Cu	65		ug/L		170	
	Zn	66		ug/L		976	
	Zn	67		ug/L		21225	
	Zn	68		ug/L		1804	
>	Ge	74		ug/L		783099	
	As	75		ug/L		2552	
	Se	77		ug/L		21962	
	Se	82		ug/L		120	
	Kr	83		ug/L		291	
	Sr	88		ug/L		368	
	Y	89		ug/L		85	
	Zr	90		ug/L		2945	
	Mo	98		ug/L		117	
	Ag	107		ug/L		64	
	Cd	111		ug/L		32	
	Cd	114		ug/L		54	
>	In	115		ug/L		378217	
	Sn	120		ug/L		850	
	Sb	121		ug/L		234	
	Sb	123		ug/L		210	
	Ba	135		ug/L		57	
	Ba	137		ug/L		69	
	Ho	165		ug/L		24	
>	Ta	181		ug/L		407322	
	Tl	205		ug/L		355	
	Pb	208		ug/L		23169	
	Bi	209		ug/L		68	
	Th	232		ug/L		495	
	U	238		ug/L		130	

CRDL: Pb, U
ICSA: K
ICSAB: K
CCV: P, Zr

Sample ID: Blank
Report Date/Time: Friday, May 06, 2005 23:41:27
Page 1

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	0.9999
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	0.9999
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	0.9999
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Ta	181	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45					
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115					
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Ta	181					
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Friday, May 06, 2005 23:43:49
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: c:\elandata\Dataset\050506\Standard 1.185

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	10.000	ug/L	0.275	17886	0.009
	Be	9	10.000	ug/L	1.816	4694	0.002
	B	11	20.000	ug/L	1.941	8807	0.004
	Na	23	1000.000	ug/L	1.992	6036988	3.119
	Mg	24	1000.000	ug/L	1.198	4230571	2.193
	Al	27	1000.000	ug/L	4.646	6481245	3.355
	P	31	1000.000	ug/L	2.488	419866	0.214
	K	39	1000.000	ug/L	2.276	12276697	5.606
	Ca	43	1000.000	ug/L	2.941	23309	0.011
>	Sc	45		ug/L		1928549	1928548.829
	Ti	47	10.000	ug/L	2.792	11151	0.006
	V	51	10.000	ug/L	9.705	128887	0.064
	Cr	52	10.000	ug/L	2.620	125235	0.059
	Cr	53		ug/L		332929	0.016
	Mn	55	10.000	ug/L	1.705	186403	0.095
	Fe	57	1000.000	ug/L	0.478	372129	0.181
	Co	59	10.000	ug/L	0.871	131487	0.068
	Ni	60	10.000	ug/L	0.688	27981	0.014
	Cu	63		ug/L		65010	0.034
	Cu	65	10.000	ug/L	0.418	32062	0.017
	Zn	66	10.000	ug/L	1.376	21096	0.025
	Zn	67		ug/L		24654	0.004
	Zn	68		ug/L		17643	0.020
>	Ge	74		ug/L		790361	790360.766
	As	75	10.000	ug/L	7.450	24164	0.027
	Se	77		ug/L		25466	0.004
	Se	82	10.000	ug/L	4.705	2057	0.002
	Kr	83		ug/L		304	0.000
	Sr	88	10.000	ug/L	1.298	254910	0.674
	Y	89		ug/L		135	0.000
	Zr	90	10.000	ug/L	4.741	155591	0.404
	Mo	98	10.000	ug/L	2.392	59834	0.158
	Ag	107	10.000	ug/L	2.210	95949	0.254
	Cd	111	10.000	ug/L	2.458	21511	0.057
	Cd	114		ug/L		50021	0.132
>	In	115		ug/L		377659	377658.533
	Sn	120	10.000	ug/L	3.066	91898	0.241
	Sb	121	10.000	ug/L	1.918	79079	0.209
	Sb	123		ug/L		60739	0.160
	Ba	135		ug/L		22887	0.056
	Ba	137	10.000	ug/L	3.593	40299	0.099
	Ho	165		ug/L		32	0.000
>	Ta	181		ug/L		407657	407656.619
	Tl	205	10.000	ug/L	0.362	215351	0.527
	Pb	208	10.000	ug/L	2.064	301620	0.683
	Bi	209		ug/L		79	0.000
	Th	232	10.000	ug/L	0.701	303186	0.743
	U	238	10.000	ug/L	1.337	296776	0.728

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Ta	181	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45					
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115					
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Ta	181					
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Friday, May 06, 2005 23:48:57
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: c:\elandata\Dataset\050506\Standard 2.186

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	99.966	ug/L	2.820	172123	0.089
	Be	9	99.976	ug/L	1.857	45772	0.024
	B	11	200.015	ug/L	3.074	80922	0.041
	Na	23	10000.457	ug/L	4.373	60639240	31.336
	Mg	24	9999.485	ug/L	2.640	42217415	21.812
	Al	27	9999.531	ug/L	3.057	64598515	33.388
	P	31	9995.893	ug/L	0.785	3975559	2.051
	K	39	9993.483	ug/L	5.801	103298928	52.600
	Ca	43	9998.095	ug/L	0.638	218748	0.112
>	Sc	45		ug/L		1934935	1934934.625
	Ti	47	100.006	ug/L	0.812	107744	0.055
	V	51	100.089	ug/L	3.680	1360226	0.700
	Cr	52	99.925	ug/L	1.614	1073021	0.549
	Cr	53		ug/L		463590	0.083
	Mn	55	99.897	ug/L	1.861	1660726	0.856
	Fe	57	9992.758	ug/L	2.472	3288243	1.688
	Co	59	99.887	ug/L	2.027	1181240	0.610
	Ni	60	99.924	ug/L	1.177	259772	0.134
	Cu	63		ug/L		604708	0.312
	Cu	65	99.935	ug/L	1.897	300467	0.155
	Zn	66	99.963	ug/L	1.675	192989	0.245
	Zn	67		ug/L		54126	0.042
	Zn	68		ug/L		152973	0.193
>	Ge	74		ug/L		783094	783094.133
	As	75	100.021	ug/L	0.602	220959	0.279
	Se	77		ug/L		45174	0.030
	Se	82	99.987	ug/L	1.600	19043	0.024
	Kr	83		ug/L		303	0.000
	Sr	88	99.912	ug/L	0.486	2309384	6.188
	Y	89		ug/L		584	0.001
	Zr	90	99.841	ug/L	0.719	1302953	3.484
	Mo	98	99.964	ug/L	1.426	569524	1.526
	Ag	107	99.928	ug/L	1.706	883158	2.367
	Cd	111	99.963	ug/L	1.096	204627	0.548
	Cd	114		ug/L		471007	1.262
>	In	115		ug/L		373151	373150.961
	Sn	120	99.932	ug/L	0.601	843022	2.257
	Sb	121	99.933	ug/L	1.514	730332	1.957
	Sb	123		ug/L		569228	1.525
	Ba	135		ug/L		219811	0.538
	Ba	137	99.929	ug/L	1.801	376189	0.921
	Ho	165		ug/L		32	0.000
>	Ta	181		ug/L		408513	408513.214
	Tl	205	99.857	ug/L	1.476	1882013	4.607
	Pb	208	99.906	ug/L	1.632	2570685	6.237
	Bi	209		ug/L		300	0.001
	Th	232	99.920	ug/L	0.883	2805625	6.867
	U	238	99.904	ug/L	1.209	2710570	6.636

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	0.9999
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	0.9999
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Ta	181	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45					
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115					
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Ta	181					
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Friday, May 06, 2005 23:54:04
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: c:\elandata\Dataset\050506\QC Std 1.187

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	50.881	ug/L	1.362	83320	0.045
	Be	9	51.502	ug/L	0.758	22416	0.012
	B	11	107.728	ug/L	1.967	41797	0.022
	Na	23	4827.438	ug/L	2.902	27824489	15.127
	Mg	24	4950.435	ug/L	6.459	19843951	10.798
	Al	27	4802.685	ug/L	2.801	29490626	16.036
	P	31	4590.297	ug/L	1.001	1738626	0.942
	K	39	5011.999	ug/L	3.080	49880647	26.380
	Ca	43	5010.180	ug/L	1.020	104724	0.056
>	Sc	45		ug/L		1838300	1838299.825
	Ti	47	48.856	ug/L	0.535	50265	0.027
	V	51	47.955	ug/L	4.391	622206	0.335
	Cr	52	50.541	ug/L	2.836	520978	0.278
	Cr	53		ug/L		228648	-0.033
	Mn	55	52.779	ug/L	0.821	835544	0.452
	Fe	57	5041.936	ug/L	1.688	1587155	0.852
	Co	59	52.834	ug/L	3.308	593745	0.323
	Ni	60	51.576	ug/L	1.123	127443	0.069
	Cu	63		ug/L		294744	0.160
	Cu	65	50.548	ug/L	1.258	144494	0.079
	Zn	66	49.710	ug/L	2.111	95534	0.122
	Zn	67		ug/L		28488	0.010
	Zn	68		ug/L		75257	0.095
>	Ge	74		ug/L		775618	775617.532
	As	75	47.039	ug/L	0.970	104261	0.131
	Se	77		ug/L		19041	-0.003
	Se	82	49.344	ug/L	0.563	9368	0.012
	Kr	83		ug/L		316	0.000
	Sr	88	48.670	ug/L	2.307	1167488	3.014
	Y	89		ug/L		569	0.001
	Zr	90	46.136	ug/L	2.874	626462	1.610
	Mo	98	48.589	ug/L	1.045	287332	0.742
	Ag	107	50.000	ug/L	0.773	458584	1.184
	Cd	111	48.693	ug/L	0.892	103451	0.267
	Cd	114		ug/L		241455	0.623
>	In	115		ug/L		387223	387222.630
	Sn	120	50.041	ug/L	1.566	438486	1.130
	Sb	121	50.336	ug/L	1.650	381878	0.986
	Sb	123		ug/L		295903	0.764
	Ba	135		ug/L		109416	0.259
	Ba	137	49.308	ug/L	0.462	191801	0.454
	Ho	165		ug/L		54	0.000
>	Ta	181		ug/L		421972	421971.754
	Tl	205	49.275	ug/L	1.698	959512	2.273
	Pb	208	51.655	ug/L	1.196	1384752	3.225
	Bi	209		ug/L		162	0.000
	Th	232	47.184	ug/L	1.857	1368794	3.243
	U	238	50.657	ug/L	2.318	1419813	3.365

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	0.9999
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	0.9999
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Ta	181	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
	Li	7	101.761				
	Be	9	103.004				
	B	11	107.728				
	Na	23	96.549				
	Mg	24	99.009				
	Al	27	95.103				
	P	31	91.806				
	K	39	100.240				
	Ca	43	100.204				
>	Sc	45		96.0			
	Ti	47	97.711				
	V	51	95.910				
	Cr	52	101.082				
	Cr	53					
	Mn	55	105.559				
	Fe	57	100.839				
	Co	59	105.667				
	Ni	60	103.152				
	Cu	63					
	Cu	65	101.096				
	Zn	66	99.420				
	Zn	67					
	Zn	68					
>	Ge	74		99.0			
	As	75	94.078				
	Se	77					
	Se	82	98.688				
	Kr	83					
	Sr	88	97.340				
	Y	89					
	Zr	90	92.272				
	Mo	98	97.179				
	Ag	107	99.999				
	Cd	111	97.387				
	Cd	114					
>	In	115		102.4			
	Sn	120	100.082				
	Sb	121	100.672				
	Sb	123					
	Ba	135					
	Ba	137	98.617				
	Ho	165					
>	Ta	181		103.6			
	Tl	205	98.550				
	Pb	208	103.311				
	Bi	209					
	Th	232	94.368				
	U	238	101.314				

QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Friday, May 06, 2005 23:59:15
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: c:\elandata\Dataset\050506\QC Std 2.188

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	0.024	ug/L	28.232	191	0.000
	Be	9	0.002	ug/L	389.324	24	0.000
	B	11	6.242	ug/L	19.164	3453	0.001
	Na	23	0.987	ug/L	75.953	27694	0.003
	Mg	24	0.298	ug/L	119.168	3334	0.001
	Al	27	-0.252	ug/L	34.140	10337	-0.001
	P	31	0.576	ug/L	144.272	8421	0.000
	K	39	12.220	ug/L	22.860	1620303	0.064
	Ca	43	-1.642	ug/L	83.605	1200	-0.000
>	Sc	45		ug/L		1968516	1968516.264
	Ti	47	0.009	ug/L	61.142	543	0.000
	V	51	-0.556	ug/L	231.174	-1534	-0.004
	Cr	52	0.863	ug/L	14.494	21002	0.005
	Cr	53		ug/L		349788	0.021
	Mn	55	0.027	ug/L	7.273	4549	0.000
	Fe	57	10.990	ug/L	22.134	26889	0.002
	Co	59	0.005	ug/L	58.919	426	0.000
	Ni	60	0.009	ug/L	33.036	137	0.000
	Cu	63		ug/L		295	0.000
	Cu	65	0.006	ug/L	46.383	193	0.000
	Zn	66	0.040	ug/L	69.097	1080	0.000
	Zn	67		ug/L		19856	-0.002
	Zn	68		ug/L		1988	0.000
>	Ge	74		ug/L		803721	803720.833
	As	75	0.565	ug/L	57.136	3889	0.002
	Se	77		ug/L		31030	0.011
	Se	82	-0.257	ug/L	60.197	73	-0.000
	Kr	83		ug/L		312	0.000
	Sr	88	0.002	ug/L	147.862	415	0.000
	Y	89		ug/L		85	0.000
	Zr	90	0.599	ug/L	27.055	10892	0.021
	Mo	98	0.043	ug/L	27.264	370	0.001
	Ag	107	0.005	ug/L	55.902	107	0.000
	Cd	111	0.004	ug/L	51.284	40	0.000
	Cd	114		ug/L		83	0.000
>	In	115		ug/L		380248	380247.816
	Sn	120	0.117	ug/L	34.084	1860	0.003
	Sb	121	0.179	ug/L	25.666	1563	0.003
	Sb	123		ug/L		1204	0.003
	Ba	135		ug/L		51	-0.000
	Ba	137	0.002	ug/L	38.407	75	0.000
	Ho	165		ug/L		26	0.000
>	Ta	181		ug/L		393480	393480.099
	Tl	205	0.029	ug/L	22.793	860	0.001
	Pb	208	0.218	ug/L	56.298	27740	0.014
	Bi	209		ug/L		53	-0.000
	Th	232	0.047	ug/L	26.875	1741	0.003
	U	238	0.006	ug/L	43.437	287	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	0.9999
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	0.9999
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Ta	181	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
Li	7					
Be	9					
B	11					
Na	23					
Mg	24					
Al	27					
P	31					
K	39					
Ca	43					
> Sc	45		102.8			
Ti	47					
V	51					
Cr	52					
Cr	53					
Mn	55					
Fe	57					
Co	59					
Ni	60					
Cu	63					
Cu	65					
Zn	66					
Zn	67					
Zn	68					
> Ge	74		102.6			
As	75					
Se	77					
Se	82					
Kr	83					
Sr	88					
Y	89					
Zr	90					
Mo	98					
Ag	107					
Cd	111					
Cd	114					
> In	115		100.5			
Sn	120					
Sb	121					
Sb	123					
Ba	135					
Ba	137					
Ho	165					
> Ta	181		96.6			
Tl	205					
Pb	208					
Bi	209					
Th	232					
U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Saturday, May 07, 2005 00:04:25
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: c:\elandata\Dataset\050506\QC Std 3.189

Pb, U

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	20.206	ug/L	0.873	33545	0.018
	Be	9	0.401	ug/L	5.190	198	0.000
	B	11	31.526	ug/L	3.195	12978	0.007
	Na	23	499.690	ug/L	6.800	2929888	1.566
	Mg	24	17.655	ug/L	5.765	73522	0.039
	Al	27	29.652	ug/L	5.408	195328	0.099
	P	31	95.678	ug/L	2.241	44228	0.020
	K	39	620.362	ug/L	5.194	7484308	3.265
	Ca	43	202.854	ug/L	1.082	5409	0.002
>	Sc	45		ug/L		1859179	1859179.257
	Ti	47	17.411	ug/L	1.511	18438	0.010
	V	51	19.174	ug/L	3.994	255121	0.134
	Cr	52	6.083	ug/L	5.812	73092	0.033
	Cr	53		ug/L		178302	-0.061
	Mn	55	11.359	ug/L	2.353	184870	0.097
	Fe	57	63.814	ug/L	5.749	41978	0.011
	Co	59	2.248	ug/L	2.980	25883	0.014
	Ni	60	4.281	ug/L	0.833	10799	0.006
	Cu	63		ug/L		13913	0.007
	Cu	65	2.306	ug/L	0.338	6824	0.004
	Zn	66	20.242	ug/L	2.547	40780	0.050
	Zn	67		ug/L		18331	-0.004
	Zn	68		ug/L		31966	0.038
>	Ge	74		ug/L		801360	801360.410
	As	75	5.036	ug/L	1.888	13868	0.014
	Se	77		ug/L		12748	-0.012
	Se	82	9.523	ug/L	0.351	1967	0.002
	Kr	83		ug/L		303	0.000
	Sr	88	20.532	ug/L	0.472	501599	1.272
	Y	89		ug/L		2911	0.007
	Zr	90	1.761	ug/L	1.539	27291	0.061
	Mo	98	0.952	ug/L	1.010	5851	0.015
	Ag	107	2.067	ug/L	0.848	19359	0.049
	Cd	111	2.027	ug/L	1.767	4416	0.011
	Cd	114		ug/L		10164	0.026
>	In	115		ug/L		394152	394152.147
	Sn	120	4.037	ug/L	0.587	36824	0.091
	Sb	121	3.811	ug/L	0.188	29651	0.075
	Sb	123		ug/L		22903	0.058
	Ba	135		ug/L		8946	0.021
	Ba	137	4.009	ug/L	1.148	15573	0.037
	Ho	165		ug/L		167	0.000
>	Ta	181		ug/L		419627	419626.804
	Tl	205	1.054	ug/L	3.321	20760	0.049
	Pb	208	5.317	ug/L	1.606	163141	0.332
	Bi	209		ug/L		157	0.000
	Th	232	1.940	ug/L	3.598	56444	0.133
	U	238	0.549	ug/L	4.811	15424	0.036

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	0.9999
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	0.9999
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Ta	181	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
	Li	7	101.028				
	Be	9	100.197				
	B	11	105.088				
	Na	23	99.938				
	Mg	24	88.274				
	Al	27	98.840				
	P	31	95.678				
	K	39	103.394				
	Ca	43	101.427				
>	Sc	45		97.0			
	Ti	47	87.055				
	V	51	95.872				
	Cr	52	101.380				
	Cr	53					
	Mn	55	113.591				
	Fe	57	127.627				
	Co	59	112.408				
	Ni	60	107.034				
	Cu	63					
	Cu	65	115.292				
	Zn	66	101.210				
	Zn	67					
	Zn	68					
>	Ge	74		102.3			
	As	75	83.939				
	Se	77					
	Se	82	95.228				
	Kr	83					
	Sr	88	102.661				
	Y	89					
	Zr	90	88.049				
	Mo	98	95.218				
	Ag	107	103.331				
	Cd	111	101.361				
	Cd	114					
>	In	115		104.2			
	Sn	120	100.932				
	Sb	121	95.267				
	Sb	123					
	Ba	135					
	Ba	137	100.233				
	Ho	165					
>	Ta	181		103.0			
	Tl	205	105.355				
	Pb	208	132.929				
	Bi	209					
	Th	232	97.005				
	U	238	137.222				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 3	Pb	208	CRDL is out of limits
QC Std 3	U	238	CRDL is out of limits

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Saturday, May 07, 2005 00:09:34
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: c:\elandata\Dataset\050506\QC Std 4.190

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	0.542	ug/L	6.707	983	0.000
	Be	9	0.015	ug/L	53.092	27	0.000
	B	11	4.413	ug/L	8.416	2426	0.001
	Na	23	88087.786	ug/L	4.560	486474901	276.020
	Mg	24	87553.552	ug/L	5.593	336575847	190.979
	Al	27	91711.543	ug/L	9.063	539432708	306.218
	P	31	91180.081	ug/L	3.619	32984410	18.705
	K	39	56125.463	ug/L	16.163	523522925	295.411
	Ca	43	90342.633	ug/L	0.353	1792657	1.016
>	Sc	45		ug/L		1763558	1763557.670
	Ti	47	1722.521	ug/L	1.629	1683473	0.955
	V	51	0.528	ug/L	50.116	12079	0.004
	Cr	52	1.508	ug/L	5.300	25052	0.008
	Cr	53		ug/L		136466	-0.080
	Mn	55	3.217	ug/L	2.627	52289	0.028
	Fe	57	99428.422	ug/L	3.975	29620951	16.795
	Co	59	0.325	ug/L	3.361	3830	0.002
	Ni	60	1.656	ug/L	2.872	4025	0.002
	Cu	63		ug/L		12943	0.007
	Cu	65	2.478	ug/L	3.101	6941	0.004
	Zn	66	6.524	ug/L	3.756	12786	0.016
	Zn	67		ug/L		12769	-0.010
	Zn	68		ug/L		7079	0.007
>	Ge	74		ug/L		741334	741334.329
	As	75	-0.490	ug/L	64.454	1408	-0.001
	Se	77		ug/L		11873	-0.012
	Se	82	-1.009	ug/L	30.030	-67	-0.000
	Kr	83		ug/L		440	0.000
	Sr	88	1.745	ug/L	1.811	40385	0.108
	Y	89		ug/L		1337	0.003
	Zr	90	1.155	ug/L	41.737	17803	0.040
	Mo	98	2010.463	ug/L	2.138	11365435	30.690
	Ag	107	0.051	ug/L	10.938	513	0.001
	Cd	111	0.306	ug/L	27.846	652	0.002
	Cd	114		ug/L		11801	0.032
>	In	115		ug/L		370386	370386.217
	Sn	120	0.168	ug/L	1.444	2235	0.004
	Sb	121	0.663	ug/L	3.119	5037	0.013
	Sb	123		ug/L		3911	0.010
	Ba	135		ug/L		946	0.002
	Ba	137	0.400	ug/L	1.813	1612	0.004
	Ho	165		ug/L		79	0.000
>	Ta	181		ug/L		418323	418322.637
	Tl	205	0.026	ug/L	5.209	858	0.001
	Pb	208	1.429	ug/L	3.483	61109	0.089
	Bi	209		ug/L		4561	0.011
	Th	232	0.038	ug/L	10.391	1610	0.003
	U	238	0.012	ug/L	6.682	468	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	0.9999
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	0.9999
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Ta	181	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11	220.666				
	Na	23	88.088				
	Mg	24	87.694				
	Al	27	91.712				
	P	31	91.189				
	K	39	56.125				
	Ca	43	90.343				
>	Sc	45		92.1			
	Ti	47	86.126				
	V	51	26.401				
	Cr	52	35.902				
	Cr	53					
	Mn	55	169.312				
	Fe	57	99.428				
	Co	59					
	Ni	60	118.269				
	Cu	63					
	Cu	65	130.426				
	Zn	66	116.508				
	Zn	67					
	Zn	68					
>	Ge	74		94.7			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88	60.173				
	Y	89					
	Zr	90					
	Mo	98	100.523				
	Ag	107	17.099				
	Cd	111					
	Cd	114					
>	In	115		97.9			
	Sn	120	5.241				
	Sb	121	28.827				
	Sb	123					
	Ba	135					
	Ba	137	199.866				
	Ho	165					
>	Ta	181		102.7			
	Tl	205					
	Pb	208	178.622				
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 4	K	39	ICSA is out of limits

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Saturday, May 07, 2005 00:14:43
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: c:\elandata\Dataset\050506\QC Std 5.191

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	21.118	ug/L	1.628	32213	0.019
	Be	9	19.610	ug/L	1.295	7943	0.005
	B	11	22.507	ug/L	3.650	8740	0.005
	Na	23	84342.703	ug/L	5.110	451543069	264.285
	Mg	24	94493.995	ug/L	3.298	352033404	206.118
	Al	27	85733.674	ug/L	1.910	489052888	286.258
	P	31	91996.840	ug/L	0.116	32246315	18.873
	K	39	S	ug/L	S	S	S
	Ca	43	91425.162	ug/L	1.243	1757305	1.028
>	Sc	45		ug/L		1708250	1708250.288
	Ti	47	1733.479	ug/L	1.465	1641359	0.961
	V	51	20.202	ug/L	3.678	246723	0.141
	Cr	52	21.625	ug/L	1.843	212951	0.119
	Cr	53		ug/L		148903	-0.070
	Mn	55	24.269	ug/L	1.405	358942	0.208
	Fe	57	101579.123	ug/L	0.585	29330256	17.158
	Co	59	21.415	ug/L	1.582	223854	0.131
	Ni	60	21.348	ug/L	0.769	49081	0.029
	Cu	63		ug/L		116560	0.068
	Cu	65	22.012	ug/L	0.776	58556	0.034
	Zn	66	25.857	ug/L	1.485	46668	0.063
	Zn	67		ug/L		18310	-0.002
	Zn	68		ug/L		33323	0.044
>	Ge	74		ug/L		721641	721640.620
	As	75	19.928	ug/L	2.719	42449	0.056
	Se	77		ug/L		13424	-0.009
	Se	82	20.121	ug/L	2.890	3619	0.005
	Kr	83		ug/L		433	0.000
	Sr	88	22.212	ug/L	0.361	503353	1.376
	Y	89		ug/L		1330	0.003
	Zr	90	21.021	ug/L	1.962	271046	0.734
	Mo	98	2005.641	ug/L	1.504	11193929	30.616
	Ag	107	19.470	ug/L	1.580	168657	0.461
	Cd	111	19.559	ug/L	1.755	39256	0.107
	Cd	114		ug/L		102781	0.281
>	In	115		ug/L		365642	365642.386
	Sn	120	20.935	ug/L	1.636	173695	0.473
	Sb	121	21.741	ug/L	1.319	155860	0.426
	Sb	123		ug/L		120599	0.329
	Ba	135		ug/L		42831	0.103
	Ba	137	19.568	ug/L	1.696	74601	0.180
	Ho	165		ug/L		81	0.000
>	Ta	181		ug/L		413397	413397.329
	Tl	205	19.866	ug/L	2.169	379171	0.916
	Pb	208	21.574	ug/L	1.933	580185	1.347
	Bi	209		ug/L		4569	0.011
	Th	232	20.258	ug/L	1.511	575996	1.392
	U	238	21.583	ug/L	2.320	592623	1.434

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	0.9999
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	0.9999
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Ta	181	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
	Li	7	105.592				
	Be	9	98.051				
	B	11	102.306				
	Na	23	84.343				
	Mg	24	94.645				
	Al	27	85.734				
	P	31	92.006				
	K	39	S				
	Ca	43	91.425				
>	Sc	45		89.2			
	Ti	47	86.674				
	V	51	91.828				
	Cr	52	89.358				
	Cr	53					
	Mn	55	110.816				
	Fe	57	101.579				
	Co	59	107.077				
	Ni	60	99.759				
	Cu	63					
	Cu	65	100.513				
	Zn	66	101.004				
	Zn	67					
	Zn	68					
>	Ge	74		92.2			
	As	75	99.642				
	Se	77					
	Se	82	100.606				
	Kr	83					
	Sr	88	96.996				
	Y	89					
	Zr	90	105.107				
	Mo	98	100.282				
	Ag	107	95.909				
	Cd	111	97.797				
	Cd	114					
>	In	115		96.7			
	Sn	120	90.238				
	Sb	121	97.493				
	Sb	123					
	Ba	135					
	Ba	137	96.872				
	Ho	165					
>	Ta	181		101.5			
	Tl	205	99.332				
	Pb	208	103.720				
	Bi	209					
	Th	232	101.291				
	U	238	107.916				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 5	K	39	ICSAB is out of limits

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Saturday, May 07, 2005 00:19:52
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: c:\elandata\Dataset\050506\QC Std 6.192

P, Zr

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	53.517	ug/L	1.096	83047	0.048
	Be	9	51.664	ug/L	1.045	21311	0.012
	B	11	100.332	ug/L	3.963	36962	0.021
	Na	23	4648.107	ug/L	7.390	25404968	14.565
	Mg	24	4558.464	ug/L	8.458	17332617	9.943
	Al	27	4674.757	ug/L	5.494	27208614	15.609
	P	31	4401.796	ug/L	1.974	1580621	0.903
	K	39	4696.791	ug/L	2.091	44397313	24.721
	Ca	43	4937.250	ug/L	2.756	97811	0.056
>	Sc	45		ug/L		1742271	1742270.929
	Ti	47	50.195	ug/L	1.583	48935	0.028
	V	51	47.742	ug/L	1.356	587312	0.334
	Cr	52	50.279	ug/L	0.907	491346	0.276
	Cr	53		ug/L		184455	-0.051
	Mn	55	52.981	ug/L	0.554	794899	0.454
	Fe	57	5062.562	ug/L	1.532	1510360	0.855
	Co	59	53.068	ug/L	0.254	565341	0.324
	Ni	60	51.804	ug/L	2.126	121325	0.070
	Cu	63		ug/L		284993	0.163
	Cu	65	52.765	ug/L	1.246	142939	0.082
	Zn	66	50.009	ug/L	1.353	93617	0.123
	Zn	67		ug/L		25283	0.006
	Zn	68		ug/L		73611	0.095
>	Ge	74		ug/L		755439	755439.401
	As	75	47.919	ug/L	0.501	103406	0.134
	Se	77		ug/L		15476	-0.008
	Se	82	50.665	ug/L	1.789	9365	0.012
	Kr	83		ug/L		266	-0.000
	Sr	88	48.085	ug/L	0.337	1160335	2.978
	Y	89		ug/L		545	0.001
	Zr	90	44.715	ug/L	4.555	610577	1.560
	Mo	98	47.528	ug/L	2.843	282610	0.726
	Ag	107	48.807	ug/L	3.035	450128	1.156
	Cd	111	48.682	ug/L	2.564	104001	0.267
	Cd	114		ug/L		242856	0.623
>	In	115		ug/L		389488	389488.465
	Sn	120	49.245	ug/L	3.506	433892	1.112
	Sb	121	50.758	ug/L	3.370	387159	0.994
	Sb	123		ug/L		302766	0.777
	Ba	135		ug/L		108307	0.253
	Ba	137	47.565	ug/L	2.294	187357	0.438
	Ho	165		ug/L		51	0.000
>	Ta	181		ug/L		427375	427375.103
	Tl	205	48.972	ug/L	0.621	965893	2.259
	Pb	208	52.045	ug/L	1.569	1412713	3.249
	Bi	209		ug/L		144	0.000
	Th	232	47.657	ug/L	0.934	1400213	3.275
	U	238	50.700	ug/L	2.064	1439067	3.367

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	0.9999
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	0.9999
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Ta	181	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
Li	7	107.034				
Be	9	103.329				
B	11	100.332				
Na	23	92.962				
Mg	24	91.169				
Al	27	92.569				
P	31	88.036				
K	39	93.936				
Ca	43	98.745				
Sc	45		90.9			
Ti	47	100.389				
V	51	95.484				
Cr	52	100.558				
Cr	53					
Mn	55	105.962				
Fe	57	101.251				
Co	59	106.136				
Ni	60	103.609				
Cu	63					
Cu	65	105.530				
Zn	66	100.019				
Zn	67					
Zn	68					
Ge	74		96.5			
As	75	95.839				
Se	77					
Se	82	101.331				
Kr	83					
Sr	88	96.169				
Y	89					
Zr	90	89.431				
Mo	98	95.056				
Ag	107	97.614				
Cd	111	97.363				
Cd	114					
In	115		103.0			
Sn	120	98.491				
Sb	121	101.516				
Sb	123					
Ba	135					
Ba	137	95.130				
Ho	165					
Ta	181		104.9			
Tl	205	97.944				
Pb	208	104.091				
Bi	209					
Th	232	95.314				
U	238	101.401				

QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
QC Std 6	P	31CCV is out of limits (+/- 10%)
QC Std 6	Zr	90CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Saturday, May 07, 2005 00:25:02
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: c:\elandata\Dataset\050506\QC Std 7.193

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	0.079	ug/L	6.307	273	0.000
	Be	9	0.012	ug/L	196.129	27	0.000
	B	11	4.144	ug/L	21.099	2465	0.001
	Na	23	6.426	ug/L	17.081	58119	0.020
	Mg	24	1.889	ug/L	38.538	9670	0.004
	Al	27	1.592	ug/L	12.443	21349	0.005
	P	31	2.240	ug/L	43.131	8646	0.000
	K	39	21.064	ug/L	10.534	1626623	0.111
	Ca	43	-6.627	ug/L	50.007	1036	-0.000
>	Sc	45		ug/L		1870508	1870507.577
	Ti	47	0.036	ug/L	55.472	543	0.000
	V	51	-0.477	ug/L	192.988	-425	-0.003
	Cr	52	-0.052	ug/L	241.717	10551	-0.000
	Cr	53		ug/L		302822	0.005
	Mn	55	-0.011	ug/L	9.095	3722	-0.000
	Fe	57	-12.334	ug/L	2.049	18185	-0.002
	Co	59	0.002	ug/L	59.182	374	0.000
	Ni	60	0.011	ug/L	7.343	137	0.000
	Cu	63		ug/L		343	0.000
	Cu	65	0.027	ug/L	18.228	246	0.000
	Zn	66	0.052	ug/L	30.431	1054	0.000
	Zn	67		ug/L		16918	-0.005
	Zn	68		ug/L		2010	0.000
>	Ge	74		ug/L		767034	767033.755
	As	75	0.124	ug/L	134.958	2765	0.000
	Se	77		ug/L		26779	0.007
	Se	82	0.861	ug/L	37.453	277	0.000
	Kr	83		ug/L		272	-0.000
	Sr	88	0.001	ug/L	94.147	391	0.000
	Y	89		ug/L		80	-0.000
	Zr	90	0.551	ug/L	24.983	10087	0.019
	Mo	98	0.153	ug/L	20.357	990	0.002
	Ag	107	0.005	ug/L	8.645	109	0.000
	Cd	111	0.007	ug/L	80.463	46	0.000
	Cd	114		ug/L		58	0.000
>	In	115		ug/L		373697	373697.138
	Sn	120	0.126	ug/L	27.551	1905	0.003
	Sb	121	0.111	ug/L	30.462	1041	0.002
	Sb	123		ug/L		830	0.002
	Ba	135		ug/L		47	-0.000
	Ba	137	0.000	ug/L	2428.957	69	0.000
	Ho	165		ug/L		24	0.000
>	Ta	181		ug/L		407818	407817.508
	Tl	205	0.011	ug/L	8.712	566	0.001
	Pb	208	0.282	ug/L	52.655	30404	0.018
	Bi	209		ug/L		49	-0.000
	Th	232	0.039	ug/L	30.212	1582	0.003
	U	238	0.005	ug/L	23.063	261	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	0.9999
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	0.9999
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Ta	181	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
Li	7					
Be	9					
B	11					
Na	23					
Mg	24					
Al	27					
P	31					
K	39					
Ca	43					
> Sc	45		97.6			
Ti	47					
V	51					
Cr	52					
Cr	53					
Mn	55					
Fe	57					
Co	59					
Ni	60					
Cu	63					
Cu	65					
Zn	66					
Zn	67					
Zn	68					
> Ge	74		97.9			
As	75					
Se	77					
Se	82					
Kr	83					
Sr	88					
Y	89					
Zr	90					
Mo	98					
Ag	107					
Cd	111					
Cd	114					
> In	115		98.8			
Sn	120					
Sb	121					
Sb	123					
Ba	135					
Ba	137					
Ho	165					
> Ta	181		100.1			
Tl	205					
Pb	208					
Bi	209					
Th	232					
U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1200840566
Sample Date/Time: Saturday, May 07, 2005 00:30:13
Sample Type:
Sample Description: LANL 6020 MB
Number of Replicates: 3
Batch ID: 423104|1|baj
Method File: c:\elandata\Method\6020.mth
Dataset File: c:\elandata\Dataset\050506\1200840566.194

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	0.237	ug/L	6.523	560	0.000
	Be	9	-0.002	ug/L	149.964	21	-0.000
	B	11	1.805	ug/L	18.783	1633	0.000
	Na	23	13.878	ug/L	8.929	106396	0.043
	Mg	24	1.086	ug/L	32.718	6668	0.002
	Al	27	2.323	ug/L	36.218	27026	0.008
	P	31	3.704	ug/L	14.746	9612	0.001
	K	39	36.067	ug/L	2.908	1853227	0.190
	Ca	43	30.170	ug/L	15.466	1889	0.000
>	Sc	45		ug/L		1953455	1953454.679
	Ti	47	0.412	ug/L	6.542	975	0.000
	V	51	24.297	ug/L	12.273	338026	0.170
	Cr	52	1.336	ug/L	2.378	25925	0.007
	Cr	53		ug/L		943229	0.326
	Mn	55	0.296	ug/L	8.454	9020	0.003
	Fe	57	-1.976	ug/L	39.750	22408	-0.000
	Co	59	0.002	ug/L	71.683	390	0.000
	Ni	60	0.045	ug/L	12.002	230	0.000
	Cu	63		ug/L		692	0.000
	Cu	65	0.097	ug/L	8.467	468	0.000
	Zn	66	1.627	ug/L	3.569	3948	0.004
	Zn	67		ug/L		69059	0.065
	Zn	68		ug/L		6525	0.006
>	Ge	74		ug/L		753725	753725.291
	As	75	3.663	ug/L	36.551	10155	0.010
	Se	77		ug/L		93396	0.096
	Se	82	3.509	ug/L	27.415	755	0.001
	Kr	83		ug/L		272	-0.000
	Sr	88	0.018	ug/L	5.553	729	0.001
	Y	89		ug/L		81	0.000
	Zr	90	0.647	ug/L	40.094	10757	0.023
	Mo	98	0.063	ug/L	13.363	449	0.001
	Ag	107	0.004	ug/L	45.504	93	0.000
	Cd	111	0.013	ug/L	33.078	55	0.000
	Cd	114		ug/L		49	-0.000
>	In	115		ug/L		353580	353580.231
	Sn	120	0.166	ug/L	17.200	2122	0.004
	Sb	121	0.049	ug/L	36.371	561	0.001
	Sb	123		ug/L		431	0.001
	Ba	135		ug/L		91	0.000
	Ba	137	0.026	ug/L	5.589	148	0.000
	Ho	165		ug/L		23	0.000
>	Ta	181		ug/L		360665	360665.134
	Tl	205	0.005	ug/L	22.780	394	0.000
	Pb	208	-0.753	ug/L	2.956	3574	-0.047
	Bi	209		ug/L		124	0.000
	Th	232	0.006	ug/L	72.642	598	0.000
	U	238	-0.000	ug/L	58.750	107	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	0.9999
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	0.9999
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Ta	181	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
Li	7					
Be	9					
B	11					
Na	23					
Mg	24					
Al	27					
P	31					
K	39					
Ca	43					
> Sc	45		102.0			
Ti	47					
V	51					
Cr	52					
Cr	53					
Mn	55					
Fe	57					
Co	59					
Ni	60					
Cu	63					
Cu	65					
Zn	66					
Zn	67					
Zn	68					
> Ge	74		96.2			
As	75					
Se	77					
Se	82					
Kr	83					
Sr	88					
Y	89					
Zr	90					
Mo	98					
Ag	107					
Cd	111					
Cd	114					
> In	115		93.5			
Sn	120					
Sb	121					
Sb	123					
Ba	135					
Ba	137					
Ho	165					
> Ta	181		88.5			
Tl	205					
Pb	208					
Bi	209					
Th	232					
U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1200840567
Sample Date/Time: Saturday, May 07, 2005 00:35:23
Sample Type:
Sample Description: LANL 6020 LCS
Number of Replicates: 3
Batch ID: 423104[1]ba]
Method File: c:\elandata\Method\6020.mth
Dataset File: c:\elandata\Dataset\050506\1200840567.195

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	42.366	ug/L	2.336	73887	0.038
	Be	9	45.725	ug/L	0.680	21192	0.011
	B	11	104.096	ug/L	2.472	43039	0.022
	Na	23	1979.159	ug/L	3.056	12161400	6.202
	Mg	24	2089.268	ug/L	3.257	8923415	4.557
	Al	27	1997.103	ug/L	7.943	13061232	6.668
	P	31	1923.044	ug/L	0.804	780359	0.395
	K	39	1918.034	ug/L	9.149	21250681	10.095
	Ca	43	1909.632	ug/L	1.024	43263	0.021
>	Sc	45		ug/L		1957382	1957381.506
	Ti	47	42.494	ug/L	0.937	46620	0.024
	V	51	67.482	ug/L	5.075	929827	0.472
	Cr	52	46.743	ug/L	2.226	513959	0.257
	Cr	53		ug/L		1030028	0.369
	Mn	55	46.017	ug/L	0.994	776173	0.394
	Fe	57	1812.445	ug/L	1.792	622317	0.306
	Co	59	45.874	ug/L	1.867	549047	0.280
	Ni	60	44.138	ug/L	0.445	116151	0.059
	Cu	63		ug/L		273340	0.140
	Cu	65	44.554	ug/L	1.227	135628	0.069
	Zn	66	47.362	ug/L	1.654	88405	0.116
	Zn	67		ug/L		95290	0.099
	Zn	68		ug/L		72721	0.094
>	Ge	74		ug/L		752989	752989.172
	As	75	47.441	ug/L	3.273	102098	0.132
	Se	77		ug/L		98809	0.103
	Se	82	48.578	ug/L	2.292	8953	0.012
	Kr	83		ug/L		306	0.000
	Sr	88	47.530	ug/L	1.204	1016238	2.944
	Y	89		ug/L		164	0.000
	Zr	90	48.306	ug/L	1.612	584390	1.686
	Mo	98	45.498	ug/L	7.283	239816	0.695
	Ag	107	47.688	ug/L	1.727	389803	1.129
	Cd	111	45.603	ug/L	0.530	86349	0.250
	Cd	114		ug/L		199985	0.579
>	In	115		ug/L		345100	345099.628
	Sn	120	47.637	ug/L	0.189	372056	1.076
	Sb	121	48.853	ug/L	0.850	330298	0.956
	Sb	123		ug/L		255953	0.741
	Ba	135		ug/L		93309	0.262
	Ba	137	49.137	ug/L	2.191	161200	0.453
	Ho	165		ug/L		98	0.000
>	Ta	181		ug/L		355951	355951.436
	Tl	205	44.470	ug/L	1.387	730447	2.051
	Pb	208	46.255	ug/L	0.617	1048059	2.888
	Bi	209		ug/L		168	0.000
	Th	232	44.632	ug/L	2.314	1092088	3.067
	U	238	48.830	ug/L	2.547	1154298	3.243

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	0.9999
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	0.9999
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Ta	181	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
Li	7					
Be	9					
B	11					
Na	23					
Mg	24					
Al	27					
P	31					
K	39					
Ca	43					
> Sc	45		102.2			
Ti	47					
V	51					
Cr	52					
Cr	53					
Mn	55					
Fe	57					
Co	59					
Ni	60					
Cu	63					
Cu	65					
Zn	66					
Zn	67					
Zn	68					
> Ge	74		96.2			
As	75					
Se	77					
Se	82					
Kr	83					
Sr	88					
Y	89					
Zr	90					
Mo	98					
Ag	107					
Cd	111					
Cd	114					
> In	115		91.2			
Sn	120					
Sb	121					
Sb	123					
Ba	135					
Ba	137					
Ho	165					
> Ta	181		87.4			
Tl	205					
Pb	208					
Bi	209					
Th	232					
U	238					

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 135804001
Sample Date/Time: Saturday, May 07, 2005 00:40:34
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 423104|1|baj
Method File: c:\elandata\Method\6020.mth
Dataset File: c:\elandata\Dataset\050506\135804001.196

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	0.694	ug/L	1.724	1356	0.001
	Be	9	0.000	ug/L	2593.502	23	0.000
	B	11	8.580	ug/L	6.520	4375	0.002
	Na	23	1354.239	ug/L	8.056	8319466	4.243
	Mg	24	246.038	ug/L	0.785	1051670	0.537
	Al	27	56.002	ug/L	22.058	377745	0.187
	P	31	4.138	ug/L	17.070	9798	0.001
	K	39	126.460	ug/L	6.186	2785887	0.666
	Ca	43	819.719	ug/L	2.282	19256	0.009
>	Sc	45		ug/L		1955825	1955824.634
	Ti	47	1.129	ug/L	5.897	1752	0.001
	V	51	25.954	ug/L	12.443	361109	0.182
	Cr	52	1.247	ug/L	20.815	24990	0.007
	Cr	53		ug/L		1017024	0.363
	Mn	55	0.811	ug/L	1.417	17677	0.007
	Fe	57	21.609	ug/L	6.422	30227	0.004
	Co	59	0.012	ug/L	2.432	514	0.000
	Ni	60	0.178	ug/L	15.587	582	0.000
	Cu	63		ug/L		10894	0.005
	Cu	65	1.741	ug/L	1.847	5463	0.003
	Zn	66	2.144	ug/L	0.873	4908	0.005
	Zn	67		ug/L		83217	0.083
	Zn	68		ug/L		7884	0.008
>	Ge	74		ug/L		754377	754377.017
	As	75	3.985	ug/L	28.971	10850	0.011
	Se	77		ug/L		93642	0.096
	Se	82	2.519	ug/L	19.972	575	0.001
	Kr	83		ug/L		324	0.000
	Sr	88	7.460	ug/L	1.275	158817	0.462
	Y	89		ug/L		1110	0.003
	Zr	90	0.476	ug/L	39.048	8364	0.017
	Mo	98	0.055	ug/L	18.896	397	0.001
	Ag	107	0.005	ug/L	37.664	97	0.000
	Cd	111	0.004	ug/L	45.435	36	0.000
	Cd	114		ug/L		103	0.000
>	In	115		ug/L		343003	343002.724
	Sn	120	0.073	ug/L	7.085	1339	0.002
	Sb	121	0.026	ug/L	15.745	390	0.001
	Sb	123		ug/L		321	0.000
	Ba	135		ug/L		2735	0.008
	Ba	137	1.461	ug/L	2.356	4770	0.013
	Ho	165		ug/L		71	0.000
>	Ta	181		ug/L		349999	349998.502
	Tl	205	0.354	ug/L	31.786	6025	0.016
	Pb	208	-0.657	ug/L	1.707	5554	-0.041
	Bi	209		ug/L		236	0.001
	Th	232	0.016	ug/L	42.077	807	0.001
	U	238	0.003	ug/L	51.033	191	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	0.9999
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	0.9999
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Ta	181	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		102.1			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		96.3			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		90.7			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Ta	181		85.9			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1200840568
Sample Date/Time: Saturday, May 07, 2005 00:45:46
Sample Type:
Sample Description: LANL 6020 DUP
Number of Replicates: 3
Batch ID: 423104|1|baj
Method File: c:\elandata\Method\6020.mth
Dataset File: c:\elandata\Dataset\050506\1200840568.197

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	0.639	ug/L	4.553	1254	0.001
	Be	9	-0.002	ug/L	1055.714	22	-0.000
	B	11	6.089	ug/L	5.166	3352	0.001
	Na	23	1434.123	ug/L	4.617	8768400	4.494
	Mg	24	235.287	ug/L	2.148	1001238	0.513
	Al	27	57.868	ug/L	8.549	387881	0.193
	P	31	3.926	ug/L	10.330	9670	0.001
	K	39	134.113	ug/L	3.842	2852218	0.706
	Ca	43	821.181	ug/L	0.811	19203	0.009
>	Sc	45		ug/L		1947078	1947078.408
	Ti	47	1.250	ug/L	5.028	1875	0.001
	V	51	26.657	ug/L	8.968	369266	0.186
	Cr	52	1.647	ug/L	6.684	29159	0.009
	Cr	53		ug/L		1056984	0.386
	Mn	55	0.795	ug/L	2.974	17320	0.007
	Fe	57	22.823	ug/L	10.347	30487	0.004
	Co	59	0.010	ug/L	20.307	482	0.000
	Ni	60	0.183	ug/L	4.642	591	0.000
	Cu	63		ug/L		11736	0.006
	Cu	65	1.857	ug/L	1.269	5789	0.003
	Zn	66	2.327	ug/L	0.926	5229	0.006
	Zn	67		ug/L		87356	0.089
	Zn	68		ug/L		8222	0.009
>	Ge	74		ug/L		751854	751854.495
	As	75	2.983	ug/L	33.341	8708	0.008
	Se	77		ug/L		98442	0.103
	Se	82	2.655	ug/L	24.244	598	0.001
	Kr	83		ug/L		300	0.000
	Sr	88	7.571	ug/L	1.275	161480	0.469
	Y	89		ug/L		1235	0.003
	Zr	90	0.182	ug/L	13.099	4856	0.006
	Mo	98	0.043	ug/L	3.920	331	0.001
	Ag	107	0.004	ug/L	31.087	91	0.000
	Cd	111	0.012	ug/L	25.578	52	0.000
	Cd	114		ug/L		92	0.000
>	In	115		ug/L		343676	343676.432
	Sn	120	0.061	ug/L	9.400	1247	0.001
	Sb	121	0.009	ug/L	50.764	276	0.000
	Sb	123		ug/L		229	0.000
	Ba	135		ug/L		2974	0.008
	Ba	137	1.586	ug/L	3.882	5163	0.015
	Ho	165		ug/L		70	0.000
>	Ta	181		ug/L		349215	349214.956
	Tl	205	0.109	ug/L	9.020	2066	0.005
	Pb	208	-0.655	ug/L	0.756	5594	-0.041
	Bi	209		ug/L		135	0.000
	Th	232	0.006	ug/L	19.114	580	0.000
	U	238	0.003	ug/L	19.493	174	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	0.9999
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	0.9999
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Ta	181	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		101.6			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		96.0			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		90.9			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Ta	181		85.7			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1200840569
Sample Date/Time: Saturday, May 07, 2005 00:50:58
Sample Type:
Sample Description: LANL 6020 MS
Number of Replicates: 3
Batch ID: [423104]1[ba]
Method File: c:\elandata\Method\6020.mth
Dataset File: c:\elandata\Dataset\050506\1200840569.198

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	44.027	ug/L	2.698	76029	0.039
	Be	9	48.636	ug/L	1.036	22319	0.012
	B	11	115.209	ug/L	2.590	47066	0.024
	Na	23	3507.899	ug/L	3.996	21322027	10.992
	Mg	24	2478.782	ug/L	7.332	10481637	5.407
	Al	27	2114.385	ug/L	3.298	13694819	7.060
	P	31	1999.166	ug/L	2.476	802819	0.410
	K	39	1971.251	ug/L	0.885	21579571	10.376
	Ca	43	2762.841	ug/L	1.668	61426	0.031
>	Sc	45		ug/L		1938043	1938043.450
	Ti	47	46.159	ug/L	2.443	50099	0.026
	V	51	73.748	ug/L	6.549	1005523	0.516
	Cr	52	50.849	ug/L	2.109	552578	0.279
	Cr	53		ug/L		1147406	0.435
	Mn	55	49.063	ug/L	1.227	819145	0.421
	Fe	57	1938.351	ug/L	2.464	657394	0.327
	Co	59	47.900	ug/L	2.609	567609	0.293
	Ni	60	46.664	ug/L	1.366	121574	0.063
	Cu	63		ug/L		294765	0.152
	Cu	65	47.977	ug/L	0.778	144596	0.075
	Zn	66	49.769	ug/L	1.836	91990	0.122
	Zn	67		ug/L		104248	0.113
	Zn	68		ug/L		76376	0.100
>	Ge	74		ug/L		745954	745953.916
	As	75	41.366	ug/L	2.474	88469	0.115
	Se	77		ug/L		103906	0.111
	Se	82	12.177	ug/L	5.692	2310	0.003
	Kr	83		ug/L		324	0.000
	Sr	88	56.777	ug/L	1.408	1191617	3.516
	Y	89		ug/L		1263	0.004
	Zr	90	51.667	ug/L	2.080	613344	1.803
	Mo	98	49.220	ug/L	2.494	254589	0.751
	Ag	107	50.230	ug/L	2.948	402968	1.190
	Cd	111	5.400	ug/L	0.788	10063	0.030
	Cd	114		ug/L		21111	0.062
>	In	115		ug/L		338834	338834.333
	Sn	120	49.539	ug/L	2.667	379711	1.119
	Sb	121	101.119	ug/L	2.391	670802	1.980
	Sb	123		ug/L		525060	1.549
	Ba	135		ug/L		99314	0.281
	Ba	137	52.863	ug/L	1.788	172224	0.487
	Ho	165		ug/L		152	0.000
>	Ta	181		ug/L		353442	353442.441
	Tl	205	46.853	ug/L	1.061	764249	2.161
	Pb	208	19.296	ug/L	0.805	445861	1.205
	Bi	209		ug/L		208	0.000
	Th	232	46.005	ug/L	1.414	1117895	3.162
	U	238	48.250	ug/L	1.478	1132746	3.205

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	0.9999
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	0.9999
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Ta	181	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		101.2			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		95.3			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		89.6			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Ta	181		86.8			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1200840570
Sample Date/Time: Saturday, May 07, 2005 00:56:09
Sample Type:
Sample Description: LANL 6020 SDILT
Number of Replicates: 3
Batch ID: 423104|5|ba]
Method File: c:\elandata\Method\6020.mth
Dataset File: c:\elandata\Dataset\050506\1200840570.199

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	0.124	ug/L	15.444	361	0.000
	Be	9	0.013	ug/L	53.080	28	0.000
	B	11	4.747	ug/L	19.835	2795	0.001
	Na	23	263.461	ug/L	8.268	1621121	0.826
	Mg	24	54.380	ug/L	9.742	231880	0.119
	Al	27	9.823	ug/L	25.060	75202	0.033
	P	31	1.026	ug/L	67.757	8468	0.000
	K	39	37.086	ug/L	14.127	1847965	0.195
	Ca	43	166.958	ug/L	5.632	4852	0.002
>	Sc	45		ug/L		1937319	1937319.092
	Ti	47	0.363	ug/L	36.931	915	0.000
	V	51	-3.603	ug/L	24.485	-42621	-0.025
	Cr	52	0.741	ug/L	8.995	19375	0.004
	Cr	53		ug/L		649977	0.179
	Mn	55	0.259	ug/L	3.674	8341	0.002
	Fe	57	-8.137	ug/L	15.459	20205	-0.001
	Co	59	-0.002	ug/L	134.988	344	-0.000
	Ni	60	0.038	ug/L	4.278	210	0.000
	Cu	63		ug/L		2594	0.001
	Cu	65	0.382	ug/L	4.809	1320	0.001
	Zn	66	0.643	ug/L	6.806	2175	0.002
	Zn	67		ug/L		40529	0.026
	Zn	68		ug/L		4217	0.003
>	Ge	74		ug/L		770305	770304.553
	As	75	1.638	ug/L	55.340	6012	0.005
	Se	77		ug/L		54176	0.042
	Se	82	2.596	ug/L	6.754	602	0.001
	Kr	83		ug/L		306	0.000
	Sr	88	1.493	ug/L	1.593	33568	0.092
	Y	89		ug/L		285	0.001
	Zr	90	-0.131	ug/L	6.072	1151	-0.005
	Mo	98	0.014	ug/L	38.934	188	0.000
	Ag	107	0.001	ug/L	209.627	70	0.000
	Cd	111	0.005	ug/L	67.104	40	0.000
	Cd	114		ug/L		54	0.000
>	In	115		ug/L		359273	359273.169
	Sn	120	0.001	ug/L	170.229	815	0.000
	Sb	121	0.008	ug/L	81.048	276	0.000
	Sb	123		ug/L		234	0.000
	Ba	135		ug/L		629	0.002
	Ba	137	0.286	ug/L	6.013	1040	0.003
	Ho	165		ug/L		31	0.000
>	Ta	181		ug/L		371428	371427.999
	Tl	205	0.393	ug/L	28.894	7066	0.018
	Pb	208	-0.742	ug/L	1.087	3924	-0.046
	Bi	209		ug/L		109	0.000
	Th	232	0.002	ug/L	188.717	500	0.000
	U	238	0.001	ug/L	295.125	132	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	0.9999
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	0.9999
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Ta	181	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		101.1			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		98.4			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		95.0			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Ta	181		91.2			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 8
Sample Date/Time: Saturday, May 07, 2005 01:01:21
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: c:\elandata\Dataset\050506\QC Std 8.200

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	47.343	ug/L	0.626	78504	0.042
	Be	9	48.501	ug/L	2.474	21374	0.011
	B	11	98.236	ug/L	3.833	38669	0.020
	Na	23	4974.589	ug/L	3.124	29034250	15.588
	Mg	24	5081.042	ug/L	4.864	20633450	11.083
	Al	27	4771.935	ug/L	3.050	29666166	15.933
	P	31	4562.739	ug/L	0.931	1749982	0.936
	K	39	4874.965	ug/L	3.487	49173120	25.659
	Ca	43	4924.052	ug/L	0.676	104231	0.055
>	Sc	45		ug/L		1861336	1861336.065
	Ti	47	49.413	ug/L	3.120	51472	0.027
	V	51	46.102	ug/L	3.791	605986	0.322
	Cr	52	49.243	ug/L	3.488	514296	0.270
	Cr	53		ug/L		289179	-0.002
	Mn	55	51.496	ug/L	1.628	825528	0.441
	Fe	57	4869.607	ug/L	1.851	1552961	0.823
	Co	59	50.764	ug/L	3.010	577727	0.310
	Ni	60	49.669	ug/L	0.133	124281	0.067
	Cu	63		ug/L		293624	0.158
	Cu	65	49.445	ug/L	1.451	143113	0.077
	Zn	66	49.962	ug/L	1.615	94826	0.123
	Zn	67		ug/L		32628	0.016
	Zn	68		ug/L		74510	0.095
>	Ge	74		ug/L		765935	765935.374
	As	75	47.970	ug/L	0.960	104954	0.134
	Se	77		ug/L		20617	-0.001
	Se	82	49.628	ug/L	1.042	9303	0.012
	Kr	83		ug/L		297	0.000
	Sr	88	49.432	ug/L	1.097	1149196	3.061
	Y	89		ug/L		533	0.001
	Zr	90	47.151	ug/L	2.659	620431	1.645
	Mo	98	48.994	ug/L	0.341	280779	0.748
	Ag	107	49.188	ug/L	1.610	437215	1.165
	Cd	111	49.341	ug/L	0.275	101589	0.271
	Cd	114		ug/L		236954	0.631
>	In	115		ug/L		375267	375267.477
	Sn	120	49.845	ug/L	1.359	423272	1.126
	Sb	121	50.498	ug/L	0.304	371258	0.989
	Sb	123		ug/L		285800	0.761
	Ba	135		ug/L		108074	0.265
	Ba	137	49.322	ug/L	1.740	185496	0.455
	Ho	165		ug/L		50	0.000
>	Ta	181		ug/L		408016	408016.384
	Tl	205	49.191	ug/L	1.836	926205	2.269
	Pb	208	50.366	ug/L	0.370	1306098	3.144
	Bi	209		ug/L		145	0.000
	Th	232	47.009	ug/L	1.194	1318638	3.231
	U	238	50.182	ug/L	1.678	1359917	3.333

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	0.9999
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	0.9999
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Ta	181	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
	Li	7	94.686				
	Be	9	97.002				
	B	11	98.236				
	Na	23	99.492				
	Mg	24	101.621				
	Al	27	94.494				
	P	31	91.255				
	K	39	97.499				
	Ca	43	98.481				
>	Sc	45		97.2			
	Ti	47	98.825				
	V	51	92.203				
	Cr	52	98.486				
	Cr	53					
	Mn	55	102.993				
	Fe	57	97.392				
	Co	59	101.528				
	Ni	60	99.339				
	Cu	63					
	Cu	65	98.889				
	Zn	66	99.925				
	Zn	67					
	Zn	68					
>	Ge	74		97.8			
	As	75	95.940				
	Se	77					
	Se	82	99.256				
	Kr	83					
	Sr	88	98.863				
	Y	89					
	Zr	90	94.303				
	Mo	98	97.989				
	Ag	107	98.376				
	Cd	111	98.682				
	Cd	114					
>	In	115		99.2			
	Sn	120	99.691				
	Sb	121	100.995				
	Sb	123					
	Ba	135					
	Ba	137	98.645				
	Ho	165					
>	Ta	181		100.2			
	Tl	205	98.382				
	Pb	208	100.732				
	Bi	209					
	Th	232	94.018				
	U	238	100.363				

QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 9
Sample Date/Time: Saturday, May 07, 2005 01:06:32
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: c:\elandata\Dataset\050506\QC Std 9.201

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	-0.011	ug/L	68.968	126	-0.000
	Be	9	-0.005	ug/L	113.489	20	-0.000
	B	11	4.543	ug/L	21.851	2661	0.001
	Na	23	0.569	ug/L	292.554	24357	0.002
	Mg	24	0.406	ug/L	122.742	3667	0.001
	Al	27	0.070	ug/L	616.115	12005	0.000
	P	31	1.825	ug/L	41.490	8619	0.000
	K	39	26.353	ug/L	5.280	1705781	0.139
	Ca	43	-1.470	ug/L	191.452	1162	-0.000
>	Sc	45		ug/L		1900578	1900578.036
	Ti	47	0.048	ug/L	55.484	565	0.000
	V	51	-1.164	ug/L	70.370	-9404	-0.008
	Cr	52	-0.063	ug/L	135.971	10620	-0.000
	Cr	53		ug/L		390324	0.048
	Mn	55	0.064	ug/L	12.179	4998	0.001
	Fe	57	-11.564	ug/L	11.460	18725	-0.002
	Co	59	0.000	ug/L	1856.342	357	0.000
	Ni	60	0.005	ug/L	87.237	122	0.000
	Cu	63		ug/L		286	0.000
	Cu	65	0.010	ug/L	43.690	198	0.000
	Zn	66	-0.044	ug/L	45.205	887	-0.000
	Zn	67		ug/L		22749	0.002
	Zn	68		ug/L		2270	0.001
>	Ge	74		ug/L		778649	778648.907
	As	75	0.372	ug/L	240.071	3349	0.001
	Se	77		ug/L		31933	0.013
	Se	82	-0.185	ug/L	22.157	85	-0.000
	Kr	83		ug/L		283	-0.000
	Sr	88	0.000	ug/L	639.429	365	0.000
	Y	89		ug/L		80	-0.000
	Zr	90	0.626	ug/L	26.836	10956	0.022
	Mo	98	0.045	ug/L	33.683	368	0.001
	Ag	107	0.005	ug/L	34.516	104	0.000
	Cd	111	-0.000	ug/L	10144.091	31	-0.000
	Cd	114		ug/L		58	0.000
>	In	115		ug/L		370270	370270.198
	Sn	120	0.088	ug/L	38.016	1562	0.002
	Sb	121	0.129	ug/L	39.982	1165	0.003
	Sb	123		ug/L		888	0.002
	Ba	135		ug/L		50	-0.000
	Ba	137	-0.002	ug/L	78.107	58	-0.000
	Ho	165		ug/L		26	0.000
>	Ta	181		ug/L		390461	390461.087
	Tl	205	0.074	ug/L	8.111	1677	0.003
	Pb	208	-0.329	ug/L	13.599	14196	-0.021
	Bi	209		ug/L		60	-0.000
	Th	232	0.038	ug/L	29.072	1504	0.003
	U	238	0.004	ug/L	44.057	237	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	0.9999
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	0.9999
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Ta	181	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45			99.2		
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74			99.4		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115			97.9		
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Ta	181			95.9		
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Blank
Sample Date/Time: Saturday, May 07, 2005 03:41:38
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\pb only.mth
Dataset File: c:\elandata\Dataset\050506\Blank.231

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Ta	181		ug/L		346684	
	Pb	208		ug/L		5531	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Ta	181	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
Ta	181					
Pb	208					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Saturday, May 07, 2005 03:43:23
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\pb only.mth
Dataset File: c:\elandata\Dataset\050506\Standard 1.232

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Ta	181		ug/L		344624	344623.643
	Pb	208	10.000	ug/L	1.376	246951	0.701

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Ta	181	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
> Ta	181					
Pb	208					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Saturday, May 07, 2005 03:45:06
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\pb only.mth
Dataset File: c:\elandata\Dataset\050506\Standard 2.233

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Ta	181		ug/L		357915	357914.735
[	Pb	208	99.912	ug/L	1.162	2307696	6.432

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Ta	181	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
Ta	181					
Pb	208					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Saturday, May 07, 2005 03:46:49
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\pb only.mth
Dataset File: c:\elandata\Dataset\050506\QC Std 1.234

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Ta	181		ug/L		360027	360027.173
	Pb	208	51.582	ug/L	1.337	1201195	3.321

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Ta	181	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
Ta	181		103.8			
Pb	208	103.164				

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Saturday, May 07, 2005 03:48:35
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\pb only.mth
Dataset File: c:\elandata\Dataset\050506\QC Std 2.235

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Ta	181		ug/L		355005	355004.620
⌊	Pb	208	0.147	ug/L	3.471	9026	0.009

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Ta	181	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
[>	Ta	181		102.4			
[	Pb	208					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Saturday, May 07, 2005 03:50:22
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\pb only.mth
Dataset File: c:\elandata\Dataset\050506\QC Std 3.236

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Ta	181		ug/L		351104	351104.239
[	Pb	208	4.805	ug/L	2.287	114156	0.309

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Ta	181	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
Ta	181		101.3			
Pb	208	120.115				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Saturday, May 07, 2005 03:52:06
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\pb only.mth
Dataset File: c:\elandata\Dataset\050506\QC Std 4.237

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Ta	181		ug/L		363196	363196.251
[	Pb	208	0.936	ug/L	1.852	27674	0.060

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Ta	181	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
Ta	181		104.8			
Pb	208	116.980				

QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Saturday, May 07, 2005 03:53:51
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\pb only.mth
Dataset File: c:\elandata\Dataset\050506\QC Std 5.238

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Ta	181		ug/L		375790	375789.825
[	Pb	208	20.883	ug/L	1.331	511099	1.344

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Ta	181	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
[>	Ta	181		108.4			
[	Pb	208	100.397				

QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Saturday, May 07, 2005 03:55:36
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\pb only.mth
Dataset File: c:\elandata\Dataset\050506\QC Std 6.239

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Ta	181		ug/L		387363	387362.749
[	Pb	208	51.943	ug/L	1.512	1301301	3.344

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Ta	181	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
[>	Ta	181		111.7			
[	Pb	208	103.886				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Saturday, May 07, 2005 03:57:22
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\pb only.mth
Dataset File: c:\elandata\Dataset\050506\QC Std 7.240

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Ta	181		ug/L		376616	376615.756
[	Pb	208	0.376	ug/L	1.628	15137	0.024

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Ta	181	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
[>	Ta	181		108.6			
[	Pb	208					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1200840566
Sample Date/Time: Saturday, May 07, 2005 03:59:34
Sample Type:
Sample Description: LANL 6020 MB
Number of Replicates: 3
Batch ID: 423104|1|ba|
Method File: c:\elandata\Method\pb only.mth
Dataset File: c:\elandata\Dataset\050506\1200840566.241

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Ta	181		ug/L		350315	350314.873
[	Pb	208	-0.092	ug/L	7.251	3508	-0.006

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Ta	181Linear Thru Zero	
Pb	208Linear Thru Zero	1.0000

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
Ta	181		101.0			
Pb	208					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1200840567
Sample Date/Time: Saturday, May 07, 2005 04:02:15
Sample Type:
Sample Description: LANL 6020 LCS
Number of Replicates: 3
Batch ID: 423104|1|baj
Method File: c:\elandata\Method\pb only.mth
Dataset File: c:\elandata\Dataset\050506\1200840567.242

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Ta	181		ug/L		342460	342460.390
>	Pb	208	47.303	ug/L	2.620	1047986	3.045

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Ta	181	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
Ta	181		98.8			
Pb	208					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 135804001
Sample Date/Time: Saturday, May 07, 2005 04:04:56
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 423104|1|baj
Method File: c:\elandata\Method\pb only.mth
Dataset File: c:\elandata\Dataset\050506\135804001.243

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Ta	181		ug/L		336890	336889.601
[	Pb	208	-0.014	ug/L	46.793	5064	-0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Ta	181	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
[>	Ta	181		97.2			
[	Pb	208					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1200840568
Sample Date/Time: Saturday, May 07, 2005 04:07:39
Sample Type:
Sample Description: LANL 6020 DUP
Number of Replicates: 3
Batch ID: 423104|1|baj
Method File: c:\elandata\Method\pb only.mth
Dataset File: c:\elandata\Dataset\050506\1200840568.244

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Ta	181		ug/L		335525	335525.188
[	Pb	208	-0.009	ug/L	26.546	5150	-0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Ta	181	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
Ta	181		96.8			
Pb	208					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1200840569
Sample Date/Time: Saturday, May 07, 2005 04:10:21
Sample Type:
Sample Description: LANL 6020 MS
Number of Replicates: 3
Batch ID: 423104|1|baj
Method File: c:\elandata\Method\pb only.mth
Dataset File: c:\elandata\Dataset\050506\1200840569.245

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Ta	181		ug/L		338727	338727.161
	Pb	208	20.293	ug/L	1.636	447821	1.306

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Ta	181	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
Ta	181		97.7			
Pb	208					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1200840570
Sample Date/Time: Saturday, May 07, 2005 04:13:05
Sample Type:
Sample Description: LANL 6020 SDILT
Number of Replicates: 3
Batch ID: 423104|5|baj
Method File: c:\elandata\Method\pb only.mth
Dataset File: c:\elandata\Dataset\050506\1200840570.246

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Ta	181		ug/L		341485	341484.774
[	Pb	208	-0.097	ug/L	2.972	3320	-0.006

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Ta	181	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
[>	Ta	181		98.5			
[	Pb	208					

QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 8
Sample Date/Time: Saturday, May 07, 2005 04:15:22
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\pb only.mth
Dataset File: c:\elandata\Dataset\050506\QC Std 8.247

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Ta	181		ug/L		361569	361568.994
[	Pb	208	50.087	ug/L	2.490	1171206	3.224

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Ta	181	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
[>	Ta	181		104.3			
[	Pb	208	100.174				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 9
Sample Date/Time: Saturday, May 07, 2005 04:17:09
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\pb only.mth
Dataset File: c:\elandata\Dataset\050506\QC Std 9.246

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Ta	181		ug/L		354770	354769.957
[	Pb	208	0.039	ug/L	18.529	6540	0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Ta	181	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
Ta	181		102.3			
Pb	208					

QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

==========

Method Name: WATER1 DAE 5/9/05
Method Description: 1470A, 245.2, ILM04 ANALYST NOR1
Element: Hg

Date: 05/09/2005
Technique:FI-MHS
Calibration Type:
Hg, Zero Intercept: Linear
Wavelength: 253.7 nm
Sample Info Name: 050905W1.SIF Results Data Set Name: 050905W1

==========

Element: Hg Seq. No.: 1 AS Loc.: 1 Date: 05/09/2005
Sample ID: Calib Blank

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1			0.0032	0.0032	08:41:54	No
2			0.0033	0.0033	08:42:29	No
Mean:			0.0032			
SD :			0.0001			
%RSD:			2.3728			

Auto-zero performed.

==========

Element: Hg Seq. No.: 2 AS Loc.: 2 Date: 05/09/2005
Sample ID: S0.2

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1			0.0019	0.0052	08:43:52	No
2			0.0021	0.0053	08:44:27	No
Mean:			0.0020			
SD :			0.0001			
%RSD:			5.7493			

[Hg] Standard number 1 applied. [0.200]
Correlation Coefficient: 1.00000 Slope: 0.01010

==========

Element: Hg Seq. No.: 3 AS Loc.: 3 Date: 05/09/2005
Sample ID: S0.5

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1			0.0079	0.0111	08:45:50	No
2			0.0081	0.0114	08:46:25	No
Mean:			0.0080			
SD :			0.0002			
%RSD:			2.3194			

[Hg] Standard number 2 applied. [0.500]
Correlation Coefficient: 0.94103 Slope: 0.01549

==========

Element: Hg Seq. No.: 4 AS Loc.: 4 Date: 05/09/2005
Sample ID: S2.0

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1			0.0315	0.0348	08:47:49	No
2			0.0319	0.0352	08:48:24	No
Mean:			0.0317			
SD :			0.0003			
%RSD:			0.9023			

[Hg] Standard number 3 applied. [2.000]
Correlation Coefficient: 0.99857 Slope: 0.01584

==========

Element: Hg Seq. No.: 5 AS Loc.: 5 Date: 05/09/2005
Sample ID: S5.0

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1			0.0748	0.0780	08:49:49	No
2			0.0761	0.0793	08:50:24	No
Mean:			0.0754			
SD :			0.0009			
%RSD:			1.2037			

[Hg] Standard number 4 applied. [5.000]
Correlation Coefficient: 0.99951 Slope: 0.01520

==========

Element: Hg Seq. No.: 6 AS Loc.: 6 Date: 05/09/2005
Sample ID: S10

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1			0.1465	0.1497	08:51:51	No
2			0.1483	0.1515	08:52:26	No
Mean:			0.1474			
SD :			0.0012			
%RSD:			0.8425			

[Hg] Standard number 5 applied. [10.00]
Correlation Coefficient: 0.99973 Slope: 0.01485

Calibration data for Hg

Standard ID	Mean Signal (Pk Height)	Entered Concentration (µg/L)	Calculated Concentration (µg/L)	Standard Deviation	%RSD
Calib Blank	0.0032	---	----	----	----
S0.2	0.0020	0.200	0.136	0.0001	5.7
S0.5	0.0080	0.500	0.540	0.0002	2.3
S2.0	0.0317	2.000	2.137	0.0003	0.9
S5.0	0.0754	5.000	5.081	0.0009	1.2
S10	0.1474	10.000	9.927	0.0012	0.8

Correlation Coefficient: 0.99973 Slope: 0.01485 ----

✓ NAG 5/9/05

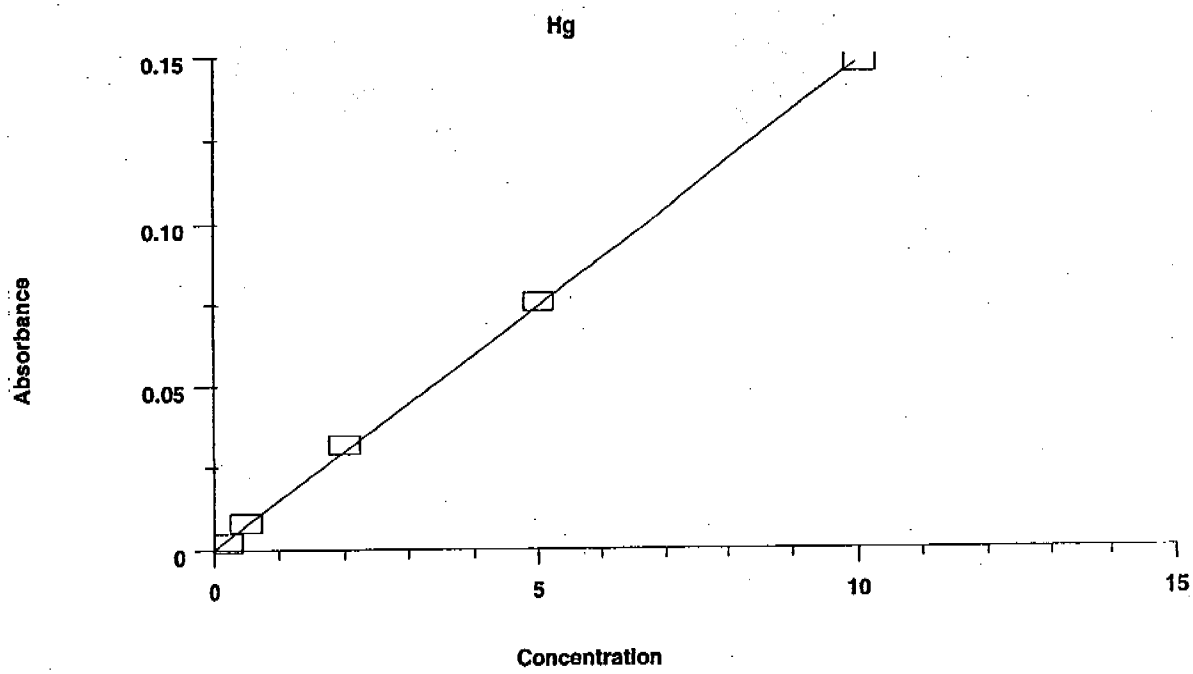

Element: Hg Seq. No.: 7 AS Loc.: 9 Date: 05/09/2005
Sample ID: ICV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	5.219	5.219	0.0775	0.0807	08:53:55	No
2	5.211	5.211	0.0774	0.0806	08:54:30	No
Mean:	5.215	5.215	0.0774			
SD :	0.0059	0.0059	0.0001			
%RSD:	0.1	0.1	0.1137			

QC value within specified limits.

Element: Hg Seq. No.: 8 AS Loc.: 10 Date: 05/09/2005
Sample ID: ICB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.014	-0.014	-0.0002	0.0030	08:55:52	No
2	-0.008	-0.008	-0.0001	0.0031	08:56:27	No
Mean:	-0.011	-0.011	-0.0002			
SD :	0.0046	0.0046	0.0001			
%RSD:	42.3	42.3	42.3088			

QC value within specified limits.

Element: Hg Seq. No.: 9 AS Loc.: 11 Date: 05/09/2005
Sample ID: CRDL

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.192	0.192	0.0028	0.0061	08:57:48	No
2	0.193	0.193	0.0029	0.0061	08:58:23	No
Mean:	0.192	0.192	0.0029			
SD :	0.0010	0.0010	0.0000			
%RSD:	0.5	0.5	0.5242			

QC value within specified limits.

Element: Hg Seq. No.: 10 AS Loc.: 7 Date: 05/09/2005
Sample ID: CCV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	5.028	5.028	0.0746	0.0779	08:59:49	No
2	5.096	5.096	0.0757	0.0789	09:00:24	No
Mean:	5.062	5.062	0.0752			
SD :	0.0477	0.0477	0.0007			
%RSD:	0.9	0.9	0.9428			

QC value within specified limits.

Element: Hg Seq. No.: 11 AS Loc.: 8 Date: 05/09/2005
Sample ID: CCB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.034	-0.034	-0.0005	0.0027	09:01:52	No
2	-0.025	-0.025	-0.0004	0.0028	09:02:27	No
Mean:	-0.030	-0.030	-0.0004			
SD :	0.0064	0.0064	0.0001			
%RSD:	21.3	21.3	21.2564			

QC value within specified limits.

Element: Hg Seq. No.: 12 AS Loc.: 12 Date: 05/09/2005
Sample ID: 1200839776|i||422748|MB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.007	0.007	0.0001	0.0033	09:03:53	No
2	0.001	0.001	0.0000	0.0032	09:04:28	No
Mean:	0.004	0.004	0.0001			
SD :	0.0040	0.0040	0.0001			
%RSD:	106.3	106.3	106.3110			

Element: Hg Seq. No.: 13 AS Loc.: 13 Date: 05/09/2005
Sample ID: 1200839777|i||LCS

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	2.144	2.144	0.0318	0.0350	09:05:52	No
2	2.166	2.166	0.0322	0.0354	09:06:27	No
Mean:	2.155	2.155	0.0320			
SD :	0.0157	0.0157	0.0002			
%RSD:	0.7	0.7	0.7266			

Element: Hg Seq. No.: 14 AS Loc.: 14 Date: 05/09/2005
Sample ID: 135264001|i|

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.018	0.018	0.0003	0.0035	09:07:53	No
2	0.020	0.020	0.0003	0.0035	09:08:28	No
Mean:	0.019	0.019	0.0003			
SD :	0.0017	0.0017	0.0000			
%RSD:	8.7	8.7	8.6628			

Element: Hg Seq. No.: 15 AS Loc.: 15 Date: 05/09/2005
Sample ID: 1200839778|i|||DUP

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.025	0.025	0.0004	0.0036	09:09:55	No
2	0.029	0.029	0.0004	0.0037	09:10:30	No
Mean:	0.027	0.027	0.0004			
SD :	0.0029	0.0029	0.0000			
%RSD:	10.8	10.8	10.7984			

Element: Hg Seq. No.: 16 AS Loc.: 16 Date: 05/09/2005
Sample ID: 1200839779|i|||MS

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	2.173	2.173	0.0323	0.0355	09:11:57	No
2	2.152	2.152	0.0319	0.0352	09:12:33	No
Mean:	2.162	2.162	0.0321			
SD :	0.0150	0.0150	0.0002			
%RSD:	0.7	0.7	0.6922			

Element: Hg Seq. No.: 17 AS Loc.: 17 Date: 05/09/2005
Sample ID: 1200839780|i|5||SDILT

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.035	-0.035	-0.0005	0.0027	09:13:57	No
2	-0.028	-0.028	-0.0004	0.0028	09:14:31	No
Mean:	-0.031	-0.031	-0.0005			
SD :	0.0052	0.0052	0.0001			
%RSD:	16.5	16.5	16.5371			

Element: Hg Seq. No.: 18 AS Loc.: 18 Date: 05/09/2005
Sample ID: 135264002|i|

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.016	0.016	0.0002	0.0035	09:15:51	No
2	0.014	0.014	0.0002	0.0034	09:16:26	No
Mean:	0.015	0.015	0.0002			
SD :	0.0016	0.0016	0.0000			
%RSD:	10.8	10.8	10.7861			

Element: Hg Seq. No.: 19 AS Loc.: 19 Date: 05/09/2005
Sample ID: 135264003|i|

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.003	-0.003	0.0000	0.0032	09:17:48	No
2	-0.005	-0.005	-0.0001	0.0031	09:18:23	No
Mean:	-0.004	-0.004	-0.0001			
SD :	0.0017	0.0017	0.0000			
%RSD:	44.4	44.4	44.4215			

Element: Hg Seq. No.: 20 AS Loc.: 20 Date: 05/09/2005
Sample ID: 135264004|i|

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.011	-0.011	-0.0002	0.0031	09:19:45	No
2	-0.009	-0.009	-0.0001	0.0031	09:20:20	No
Mean:	-0.010	-0.010	-0.0001			
SD :	0.0017	0.0017	0.0000			

%RSD: 17.1 17.1 17.1099

==========

Element: Hg Seq. No.: 21 AS Loc.: 21 Date: 05/09/2005
Sample ID: 135264005|i|

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.000	0.000	0.0000	0.0032	09:21:42	No
2	0.007	0.007	0.0001	0.0033	09:22:17	No
Mean:	0.003	0.003	0.0001			
SD :	0.0046	0.0046	0.0001			
%RSD:	135.4	135.4	135.3780			

==========

Element: Hg Seq. No.: 22 AS Loc.: 7 Date: 05/09/2005
Sample ID: CCV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	5.045	5.045	0.0749	0.0781	09:23:41	No
2	5.028	5.028	0.0746	0.0779	09:24:16	No
Mean:	5.036	5.036	0.0748			
SD :	0.0117	0.0117	0.0002			
%RSD:	0.2	0.2	0.2319			

QC value within specified limits.

==========

Element: Hg Seq. No.: 23 AS Loc.: 8 Date: 05/09/2005
Sample ID: CCB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.034	-0.034	-0.0005	0.0027	09:25:45	No
2	-0.033	-0.033	-0.0005	0.0027	09:26:20	No
Mean:	-0.033	-0.033	-0.0005			
SD :	0.0004	0.0004	0.0000			
%RSD:	1.3	1.3	1.2622			

QC value within specified limits.

==========

Element: Hg Seq. No.: 24 AS Loc.: 22 Date: 05/09/2005
Sample ID: 135264006|i|

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.006	0.006	0.0001	0.0033	09:27:45	No
2	0.006	0.006	0.0001	0.0033	09:28:20	No
Mean:	0.006	0.006	0.0001			
SD :	0.0004	0.0004	0.0000			
%RSD:	7.3	7.3	7.2690			

==========

Element: Hg Seq. No.: 25 AS Loc.: 23 Date: 05/09/2005
Sample ID: 135264007|i|

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.008	-0.008	-0.0001	0.0031	09:29:44	No
2	-0.007	-0.007	-0.0001	0.0031	09:30:18	No
Mean:	-0.007	-0.007	-0.0001			
SD :	0.0004	0.0004	0.0000			
%RSD:	5.0	5.0	4.9623			

==========

Element: Hg Seq. No.: 26 AS Loc.: 24 Date: 05/09/2005
Sample ID: 135264008|i|

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.005	-0.005	-0.0001	0.0031	09:31:42	No
2	-0.005	-0.005	-0.0001	0.0031	09:32:16	No
Mean:	-0.005	-0.005	-0.0001			
SD :	0.0002	0.0002	0.0000			
%RSD:	3.2	3.2	3.1734			

Element: Hg Seq. No.: 27 AS Loc.: 25 Date: 05/09/2005
Sample ID: 135264009|i|

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.042	-0.042	-0.0006	0.0026	09:33:40	No
2	-0.042	-0.042	-0.0006	0.0026	09:34:16	No
Mean:	-0.042	-0.042	-0.0006			
SD :	0.0000	0.0000	0.0000			
%RSD:						

Element: Hg Seq. No.: 28 AS Loc.: 26 Date: 05/09/2005
Sample ID: 135264010|i|

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.019	-0.019	-0.0003	0.0029	09:35:40	No
2	-0.019	-0.019	-0.0003	0.0029	09:36:15	No
Mean:	-0.019	-0.019	-0.0003			
SD :	0.0000	0.0000	0.0000			
%RSD:						

Element: Hg Seq. No.: 29 AS Loc.: 27 Date: 05/09/2005
Sample ID: 135264011|i|

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.036	-0.036	-0.0005	0.0027	09:37:40	No
2	-0.032	-0.032	-0.0005	0.0027	09:38:14	No
Mean:	-0.034	-0.034	-0.0005			
SD :	0.0028	0.0028	0.0000			
%RSD:	8.2	8.2	8.2159			

Element: Hg Seq. No.: 30 AS Loc.: 28 Date: 05/09/2005
Sample ID: 135264012|i|

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.026	-0.026	-0.0004	0.0028	09:39:40	No
2	-0.027	-0.027	-0.0004	0.0028	09:40:15	No
Mean:	-0.027	-0.027	-0.0004			
SD :	0.0007	0.0007	0.0000			
%RSD:	2.7	2.7	2.7255			

Element: Hg Seq. No.: 31 AS Loc.: 29 Date: 05/09/2005
Sample ID: 135264013|i|

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.010	-0.010	-0.0001	0.0031	09:41:41	No
2	-0.004	-0.004	-0.0001	0.0032	09:42:16	No
Mean:	-0.007	-0.007	-0.0001			
SD :	0.0042	0.0042	0.0001			

%RSD: 64.0 64.0 63.9863

==========

Element: Hg Seq. No.: 32 AS Loc.: 30 Date: 05/09/2005
Sample ID: 135264014|i|

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.020	-0.020	-0.0003	0.0029	09:43:43	No
2	-0.019	-0.019	-0.0003	0.0029	09:44:18	No
Mean:	-0.020	-0.020	-0.0003			
SD :	0.0004	0.0004	0.0000			
%RSD:	1.9	1.9	1.8546			

==========

Element: Hg Seq. No.: 33 AS Loc.: 31 Date: 05/09/2005
Sample ID: 135264015|i|

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.020	-0.020	-0.0003	0.0029	09:45:45	No
2	-0.022	-0.022	-0.0003	0.0029	09:46:20	No
Mean:	-0.021	-0.021	-0.0003			
SD :	0.0017	0.0017	0.0000			
%RSD:	8.1	8.1	8.1123			

==========

Element: Hg Seq. No.: 34 AS Loc.: 7 Date: 05/09/2005
Sample ID: CCV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	4.980	4.980	0.0739	0.0772	09:47:48	No
2	5.013	5.013	0.0744	0.0777	09:48:23	No
Mean:	4.997	4.997	0.0742			
SD :	0.0232	0.0232	0.0003			
%RSD:	0.5	0.5	0.4639			

QC value within specified limits.

==========

Element: Hg Seq. No.: 35 AS Loc.: 8 Date: 05/09/2005
Sample ID: CCB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.048	-0.048	-0.0007	0.0025	09:49:51	No
2	-0.047	-0.047	-0.0007	0.0025	09:50:26	No
Mean:	-0.048	-0.048	-0.0007			
SD :	0.0005	0.0005	0.0000			
%RSD:	1.1	1.1	1.1031			

QC value within specified limits.

==========

Element: Hg Seq. No.: 36 AS Loc.: 32 Date: 05/09/2005
Sample ID: 135264016|i|

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.033	-0.033	-0.0005	0.0027	09:51:50	No
2	-0.029	-0.029	-0.0004	0.0028	09:52:25	No
Mean:	-0.031	-0.031	-0.0005			
SD :	0.0031	0.0031	0.0000			
%RSD:	10.2	10.2	10.2217			

==========

Element: Hg Seq. No.: 37 AS Loc.: 33 Date: 05/09/2005
Sample ID: 135264017|i|

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.131	0.131	0.0019	0.0052	09:53:45	No
2	0.059	0.059	0.0009	0.0041	09:54:20	No
Mean:	0.095	0.095	0.0014			
SD :	0.0513	0.0513	0.0008			
%RSD:	54.1	54.1	54.0698			

Element: Hg Seq. No.: 38 AS Loc.: 34 Date: 05/09/2005
Sample ID: 135264018|i|

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.023	0.023	0.0003	0.0036	09:55:40	No
2	0.011	0.011	0.0002	0.0034	09:56:15	No
Mean:	0.017	0.017	0.0003			
SD :	0.0083	0.0083	0.0001			
%RSD:	49.0	49.0	48.9897			

Element: Hg Seq. No.: 39 AS Loc.: 35 Date: 05/09/2005
Sample ID: 1200839781|i||422751|MB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.028	-0.028	-0.0004	0.0028	09:57:37	No
2	-0.034	-0.034	-0.0005	0.0027	09:58:12	No
Mean:	-0.031	-0.031	-0.0005			
SD :	0.0040	0.0040	0.0001			
%RSD:	13.0	13.0	13.0198			

Element: Hg Seq. No.: 40 AS Loc.: 36 Date: 05/09/2005
Sample ID: 1200839782|i|||LCS

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	2.093	2.093	0.0311	0.0343	09:59:34	No
2	2.040	2.040	0.0303	0.0335	10:00:09	No
Mean:	2.066	2.066	0.0307			
SD :	0.0375	0.0375	0.0006			
%RSD:	1.8	1.8	1.8170			

Element: Hg Seq. No.: 41 AS Loc.: 37 Date: 05/09/2005
Sample ID: 135421001|i|

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.041	-0.041	-0.0006	0.0026	10:01:31	No
2	-0.038	-0.038	-0.0006	0.0027	10:02:06	No
Mean:	-0.040	-0.040	-0.0006			
SD :	0.0019	0.0019	0.0000			
%RSD:	4.8	4.8	4.8088			

Element: Hg Seq. No.: 42 AS Loc.: 38 Date: 05/09/2005
Sample ID: 135421002|i|

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.035	-0.035	-0.0005	0.0027	10:03:28	No
2	-0.035	-0.035	-0.0005	0.0027	10:04:03	No
Mean:	-0.035	-0.035	-0.0005			
SD :	0.0003	0.0003	0.0000			

%RSD: 0.9 0.9 0.9421

==========

Element: Hg Seq. No.: 43 AS Loc.: 39 Date: 05/09/2005
Sample ID: 1200839783|i|||DUP 1200839784 MS NAC 5/9/05

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	2.078	2.078	0.0308	0.0341	10:05:25	No
2	2.079	2.079	0.0309	0.0341	10:06:00	No
Mean:	2.078	2.078	0.0309			
SD :	0.0008	0.0008	0.0000			
%RSD:						

==========

Element: Hg Seq. No.: 44 AS Loc.: 40 Date: 05/09/2005
Sample ID: 1200839784|i|||MS 1200839785 ~~5x dilut~~ Duplicate NAC 5/9/05

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.070	-0.070	-0.0010	0.0022	10:07:24	No
2	-0.068	-0.068	-0.0010	0.0022	10:07:59	No
Mean:	-0.069	-0.069	-0.0010			
SD :	0.0015	0.0015	0.0000			
%RSD:	2.2	2.2	2.2242			

==========

Element: Hg Seq. No.: 45 AS Loc.: 41 Date: 05/09/2005
Sample ID: 1200839785|i|5||SDILT

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.055	-0.055	-0.0008	0.0024	10:09:23	No
2	-0.053	-0.053	-0.0008	0.0024	10:09:57	No
Mean:	-0.054	-0.054	-0.0008			
SD :	0.0018	0.0018	0.0000			
%RSD:	3.4	3.4	3.3764			

==========

Element: Hg Seq. No.: 46 AS Loc.: 7 Date: 05/09/2005
Sample ID: CCV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	4.983	4.983	0.0740	0.0772	10:11:23	No
2	5.014	5.014	0.0744	0.0777	10:11:58	No
Mean:	4.999	4.999	0.0742			
SD :	0.0216	0.0216	0.0003			
%RSD:	0.4	0.4	0.4324			

QC value within specified limits.

==========

Element: Hg Seq. No.: 47 AS Loc.: 8 Date: 05/09/2005
Sample ID: CCB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.055	-0.055	-0.0008	0.0024	10:13:26	No
2	-0.053	-0.053	-0.0008	0.0024	10:14:01	No
Mean:	-0.054	-0.054	-0.0008			
SD :	0.0016	0.0016	0.0000			
%RSD:	2.9	2.9	2.8632			

==========

Element: Hg Seq. No.: 48 AS Loc.: 42 Date: 05/09/2005
Sample ID: 135421003|i|

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.022	-0.022	-0.0003	0.0029	10:16:41	No
2	-0.023	-0.023	-0.0003	0.0029	10:17:16	No
Mean:	-0.022	-0.022	-0.0003			
SD :	0.0007	0.0007	0.0000			
%RSD:	3.0	3.0	3.0275			

==========

Element: Hg Seq. No.: 49 AS Loc.: 43 Date: 05/09/2005
Sample ID: 1200839759|i||422743|MB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.038	-0.038	-0.0006	0.0027	10:18:41	No
2	-0.029	-0.029	-0.0004	0.0028	10:19:16	No
Mean:	-0.033	-0.033	-0.0005			
SD :	0.0065	0.0065	0.0001			
%RSD:	19.5	19.5	19.4594			

==========

Element: Hg Seq. No.: 50 AS Loc.: 44 Date: 05/09/2005
Sample ID: 1200839769|i|||LCS

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	2.049	2.049	0.0304	0.0336	10:20:41	No
2	2.056	2.056	0.0305	0.0337	10:21:16	No
Mean:	2.052	2.052	0.0305			
SD :	0.0051	0.0051	0.0001			
%RSD:	0.2	0.2	0.2498			

==========

Element: Hg Seq. No.: 51 AS Loc.: 45 Date: 05/09/2005
Sample ID: 135787003|i|

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.018	0.018	0.0003	0.0035	10:22:42	No
2	0.017	0.017	0.0003	0.0035	10:23:16	No
Mean:	0.018	0.018	0.0003			
SD :	0.0005	0.0005	0.0000			
%RSD:	2.9	2.9	2.8722			

==========

Element: Hg Seq. No.: 52 AS Loc.: 46 Date: 05/09/2005
Sample ID: 135787004|i|

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.013	0.013	0.0002	0.0034	10:24:42	No
2	0.020	0.020	0.0003	0.0035	10:25:17	No
Mean:	0.016	0.016	0.0002			
SD :	0.0048	0.0048	0.0001			
%RSD:	29.2	29.2	29.1765			

==========

Element: Hg Seq. No.: 53 AS Loc.: 47 Date: 05/09/2005
Sample ID: 1200839760|i|||DUP

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.008	0.008	0.0001	0.0033	10:26:43	No
2	0.008	0.008	0.0001	0.0033	10:27:18	No
Mean:	0.008	0.008	0.0001			
SD :	0.0002	0.0002	0.0000			
%RSD:	2.5	2.5	2.5282			

Element: Hg Seq. No.: 54 AS Loc.: 48 Date: 05/09/2005
Sample ID: 1200839766|i|||MS

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	2.092	2.092	0.0311	0.0343	10:28:42	No
2	2.086	2.086	0.0310	0.0342	10:29:17	No
Mean:	2.089	2.089	0.0310			
SD :	0.0044	0.0044	0.0001			
%RSD:	0.2	0.2	0.2121			

Element: Hg Seq. No.: 55 AS Loc.: 49 Date: 05/09/2005
Sample ID: 1200839763|i|5||SDILT

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.067	-0.067	-0.0010	0.0022	10:30:37	No
2	-0.067	-0.067	-0.0010	0.0022	10:31:12	No
Mean:	-0.067	-0.067	-0.0010			
SD :	0.0003	0.0003	0.0000			
%RSD:	0.4	0.4	0.4286			

Element: Hg Seq. No.: 56 AS Loc.: 50 Date: 05/09/2005
Sample ID: 135792001|i|

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.046	-0.046	-0.0007	0.0025	10:32:33	No
2	-0.044	-0.044	-0.0007	0.0026	10:33:08	No
Mean:	-0.045	-0.045	-0.0007			
SD :	0.0015	0.0015	0.0000			
%RSD:	3.3	3.3	3.3247			

Element: Hg Seq. No.: 57 AS Loc.: 51 Date: 05/09/2005
Sample ID: 135792002|i|

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.019	-0.019	-0.0003	0.0029	10:34:29	No
2	-0.019	-0.019	-0.0003	0.0029	10:35:03	No
Mean:	-0.019	-0.019	-0.0003			
SD :	0.0003	0.0003	0.0000			
%RSD:	1.5	1.5	1.5416			

Element: Hg Seq. No.: 58 AS Loc.: 7 Date: 05/09/2005
Sample ID: CCV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	5.019	5.019	0.0745	0.0777	10:36:27	No
2	5.011	5.011	0.0744	0.0776	10:37:02	No
Mean:	5.015	5.015	0.0745			
SD :	0.0051	0.0051	0.0001			
%RSD:	0.1	0.1	0.1023			

QC value within specified limits.

Element: Hg Seq. No.: 59 AS Loc.: 8 Date: 05/09/2005
Sample ID: CCB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.056	-0.056	-0.0008	0.0024	10:38:30	No
2	-0.052	-0.052	-0.0008	0.0025	10:39:05	No

Mean:	-0.054	-0.054	-0.0008
SD :	0.0030	0.0030	0.0000
%RSD:	5.6	5.6	5.6255

QC value within specified limits.

==========

Element: Hg Seq. No.: 60 AS Loc.: 52 Date: 05/09/2005
Sample ID: 1200839761|i|||DUP

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.027	-0.027	-0.0004	0.0028	10:40:30	No
2	-0.021	-0.021	-0.0003	0.0029	10:41:05	No
Mean:	-0.024	-0.024	-0.0004			
SD :	0.0042	0.0042	0.0001			
%RSD:	17.7	17.7	17.6975			

==========

Element: Hg Seq. No.: 61 AS Loc.: 53 Date: 05/09/2005
Sample ID: 1200839767|i|||MS

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	2.105	2.105	0.0312	0.0345	10:42:27	No
2	2.094	2.094	0.0311	0.0343	10:43:02	No
Mean:	2.100	2.100	0.0312			
SD :	0.0073	0.0073	0.0001			
%RSD:	0.3	0.3	0.3488			

==========

Element: Hg Seq. No.: 62 AS Loc.: 54 Date: 05/09/2005
Sample ID: 1200839764|i|5||SDILT

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.067	-0.067	-0.0010	0.0022	10:44:24	No
2	-0.065	-0.065	-0.0010	0.0023	10:45:00	No
Mean:	-0.066	-0.066	-0.0010			
SD :	0.0015	0.0015	0.0000			
%RSD:	2.2	2.2	2.2439			

==========

Element: Hg Seq. No.: 63 AS Loc.: 55 Date: 05/09/2005
Sample ID: 135792003|i|

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.017	-0.017	-0.0003	0.0030	10:46:23	No
2	-0.017	-0.017	-0.0002	0.0030	10:46:58	No
Mean:	-0.017	-0.017	-0.0003			
SD :	0.0003	0.0003	0.0000			
%RSD:	2.0	2.0	2.0270			

==========

Element: Hg Seq. No.: 64 AS Loc.: 56 Date: 05/09/2005
Sample ID: 135792004|i|

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.030	-0.030	-0.0004	0.0028	10:48:22	No
2	-0.027	-0.027	-0.0004	0.0028	10:48:57	No
Mean:	-0.028	-0.028	-0.0004			
SD :	0.0021	0.0021	0.0000			
%RSD:	7.4	7.4	7.4296			

==========

Element: Hg Seq. No.: 65 AS Loc.: 57 Date: 05/09/2005

Sample ID: 1200839762|i||DUP

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.032	-0.032	-0.0005	0.0028	10:50:21	No
2	-0.025	-0.025	-0.0004	0.0028	10:50:56	No
Mean:	-0.028	-0.028	-0.0004			
SD :	0.0043	0.0043	0.0001			
%RSD:	15.1	15.1	15.1000			

Element: Hg Seq. No.: 66 AS Loc.: 58 Date: 05/09/2005
Sample ID: 1200839768|i|||MS

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	2.087	2.087	0.0310	0.0342	10:52:20	No
2	2.094	2.094	0.0311	0.0343	10:52:54	No
Mean:	2.091	2.091	0.0310			
SD :	0.0054	0.0054	0.0001			
%RSD:	0.3	0.3	0.2591			

Element: Hg Seq. No.: 67 AS Loc.: 59 Date: 05/09/2005
Sample ID: 1200839765|i|5||SDILT

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.064	-0.064	-0.0010	0.0023	10:54:18	No
2	-0.058	-0.058	-0.0009	0.0024	10:54:54	No
Mean:	-0.061	-0.061	-0.0009			
SD :	0.0045	0.0045	0.0001			
%RSD:	7.3	7.3	7.3039			

Element: Hg Seq. No.: 68 AS Loc.: 60 Date: 05/09/2005
Sample ID: 135792005|i|

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.028	-0.028	-0.0004	0.0028	10:56:19	No
2	-0.021	-0.021	-0.0003	0.0029	10:56:54	No
Mean:	-0.025	-0.025	-0.0004			
SD :	0.0050	0.0050	0.0001			
%RSD:	20.3	20.3	20.3058			

Element: Hg Seq. No.: 69 AS Loc.: 61 Date: 05/09/2005
Sample ID: 135792006|i|

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.019	-0.019	-0.0003	0.0029	10:58:20	No
2	-0.013	-0.013	-0.0002	0.0030	10:58:55	No
Mean:	-0.016	-0.016	-0.0002			
SD :	0.0043	0.0043	0.0001			
%RSD:	27.2	27.2	27.1671			

Element: Hg Seq. No.: 70 AS Loc.: 7 Date: 05/09/2005
Sample ID: CCV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	4.975	4.975	0.0739	0.0771	11:00:21	No
2	4.975	4.975	0.0739	0.0771	11:00:56	No
Mean:	4.975	4.975	0.0739			

SD :	0.0002	0.0002	0.0000
%RSD:			

QC value within specified limits.

==========

Element: Hg Seq. No.: 71 AS Loc.: 8 Date: 05/09/2005
Sample ID: CCB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.036	-0.036	-0.0005	0.0027	11:02:23	No
2	-0.033	-0.033	-0.0005	0.0027	11:02:58	No
Mean:	-0.034	-0.034	-0.0005			
SD :	0.0026	0.0026	0.0000			
%RSD:	7.7	7.7	7.6645			

QC value within specified limits.

==========

Element: Hg Seq. No.: 72 AS Loc.: 62 Date: 05/09/2005
Sample ID: 1200839749|i||422737|MB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.069	-0.069	-0.0010	0.0022	11:04:25	No
2	-0.067	-0.067	-0.0010	0.0022	11:05:00	No
Mean:	-0.068	-0.068	-0.0010			
SD :	0.0012	0.0012	0.0000			
%RSD:	1.8	1.8	1.8096			

==========

Element: Hg Seq. No.: 73 AS Loc.: 63 Date: 05/09/2005
Sample ID: 1200839750|i|||LCS

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	1.826	1.826	0.0271	0.0303	11:06:22	No
2	1.816	1.816	0.0270	0.0302	11:06:56	No
Mean:	1.821	1.821	0.0270			
SD :	0.0067	0.0067	0.0001			
%RSD:	0.4	0.4	0.3703			

==========

Element: Hg Seq. No.: 74 AS Loc.: 64 Date: 05/09/2005
Sample ID: 135759001|i|

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.053	-0.053	-0.0008	0.0024	11:08:17	No
2	-0.049	-0.049	-0.0007	0.0025	11:08:52	No
Mean:	-0.051	-0.051	-0.0008			
SD :	0.0034	0.0034	0.0001			
%RSD:	6.8	6.8	6.7563			

==========

Element: Hg Seq. No.: 75 AS Loc.: 65 Date: 05/09/2005
Sample ID: 1200839751|i|||MS

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	1.705	1.705	0.0253	0.0285	11:10:12	No
2	1.719	1.719	0.0255	0.0287	11:10:46	No
Mean:	1.712	1.712	0.0254			
SD :	0.0097	0.0097	0.0001			
%RSD:	0.6	0.6	0.5657			

==========

Element: Hg Seq. No.: 76 AS Loc.: 66 Date: 05/09/2005

Sample ID: 1200839752|i|||MSD

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	1.742	1.742	0.0259	0.0291	11:12:06	No
2	1.725	1.725	0.0256	0.0288	11:12:41	No
Mean:	1.733	1.733	0.0257			
SD :	0.0124	0.0124	0.0002			
%RSD:	0.7	0.7	0.7177			

Element: Hg Seq. No.: 77 AS Loc.: 67 Date: 05/09/2005
Sample ID: 1200839753|i|5||SDILT

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.075	-0.075	-0.0011	0.0021	11:14:02	No
2	-0.076	-0.076	-0.0011	0.0021	11:14:37	No
Mean:	-0.076	-0.076	-0.0011			
SD :	0.0009	0.0009	0.0000			
%RSD:	1.1	1.1	1.1499			

Element: Hg Seq. No.: 78 AS Loc.: 68 Date: 05/09/2005
Sample ID: 1200839978|i||422841|MB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.050	-0.050	-0.0007	0.0025	11:15:59	No
2	-0.047	-0.047	-0.0007	0.0025	11:16:34	No
Mean:	-0.048	-0.048	-0.0007			
SD :	0.0024	0.0024	0.0000			
%RSD:	4.9	4.9	4.8561			

Element: Hg Seq. No.: 79 AS Loc.: 69 Date: 05/09/2005
Sample ID: 1200839979|i|||LCS

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	2.048	2.048	0.0304	0.0336	11:17:56	No
2	2.053	2.053	0.0305	0.0337	11:18:30	No
Mean:	2.051	2.051	0.0304			
SD :	0.0040	0.0040	0.0001			
%RSD:	0.2	0.2	0.1946			

Element: Hg Seq. No.: 80 AS Loc.: 70 Date: 05/09/2005
Sample ID: 135782001|i|

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.042	-0.042	-0.0006	0.0026	11:19:52	No
2	-0.041	-0.041	-0.0006	0.0026	11:20:28	No
Mean:	-0.041	-0.041	-0.0006			
SD :	0.0006	0.0006	0.0000			
%RSD:	1.5	1.5	1.4973			

Element: Hg Seq. No.: 81 AS Loc.: 71 Date: 05/09/2005
Sample ID: 1200840111|i|||DUP

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.043	-0.043	-0.0006	0.0026	11:21:51	No
2	-0.040	-0.040	-0.0006	0.0026	11:22:26	No
Mean:	-0.041	-0.041	-0.0006			

SD :	0.0021	0.0021	0.0000
%RSD:	5.0	5.0	5.0437

==========

Element: Hg Seq. No.: 82 AS Loc.: 7 Date: 05/09/2005
Sample ID: CCV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	4.983	4.983	0.0740	0.0772	11:23:51	No
2	5.005	5.005	0.0743	0.0775	11:24:25	No
Mean:	4.994	4.994	0.0741			
SD :	0.0153	0.0153	0.0002			
%RSD:	0.3	0.3	0.3065			

QC value within specified limits.

==========

Element: Hg Seq. No.: 83 AS Loc.: 8 Date: 05/09/2005
Sample ID: CCB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.048	-0.048	-0.0007	0.0025	11:25:53	No
2	-0.047	-0.047	-0.0007	0.0025	11:26:28	No
Mean:	-0.047	-0.047	-0.0007			
SD :	0.0005	0.0005	0.0000			
%RSD:	1.0	1.0	0.9786			

QC value within specified limits.

==========

Element: Hg Seq. No.: 84 AS Loc.: 72 Date: 05/09/2005
Sample ID: 1200840115|i|||MS

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	2.120	2.120	0.0315	0.0347	11:27:54	No
2	2.122	2.122	0.0315	0.0347	11:28:29	No
Mean:	2.121	2.121	0.0315			
SD :	0.0011	0.0011	0.0000			
%RSD:						

==========

Element: Hg Seq. No.: 85 AS Loc.: 73 Date: 05/09/2005
Sample ID: 1200840113|i|5||SDILT

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.073	-0.073	-0.0011	0.0021	11:29:54	No
2	-0.073	-0.073	-0.0011	0.0021	11:30:29	No
Mean:	-0.073	-0.073	-0.0011			
SD :	0.0001	0.0001	0.0000			
%RSD:	0.2	0.2	0.1832			

==========

Element: Hg Seq. No.: 86 AS Loc.: 74 Date: 05/09/2005
Sample ID: 135782003|i|

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.053	-0.053	-0.0008	0.0024	11:31:53	No
2	-0.054	-0.054	-0.0008	0.0024	11:32:28	No
Mean:	-0.054	-0.054	-0.0008			
SD :	0.0005	0.0005	0.0000			
%RSD:	1.0	1.0	1.0026			

==========

Element: Hg Seq. No.: 87 AS Loc.: 75 Date: 05/09/2005

Sample ID: 135804001|i|

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.070	-0.070	-0.0010	0.0022	11:33:53	No
2	-0.070	-0.070	-0.0010	0.0022	11:34:28	No
Mean:	-0.070	-0.070	-0.0010			
SD :	0.0004	0.0004	0.0000			
%RSD:	0.6	0.6	0.5879			

Element: Hg Seq. No.: 88 AS Loc.: 76 Date: 05/09/2005
Sample ID: 1200840112|i|||DUP

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.066	-0.066	-0.0010	0.0022	11:35:54	No
2	-0.063	-0.063	-0.0009	0.0023	11:36:29	No
Mean:	-0.065	-0.065	-0.0010			
SD :	0.0023	0.0023	0.0000			
%RSD:	3.6	3.6	3.5800			

Element: Hg Seq. No.: 89 AS Loc.: 77 Date: 05/09/2005
Sample ID: 1200840116|i|||MS

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	2.038	2.038	0.0303	0.0335	11:37:55	No
2	2.055	2.055	0.0305	0.0337	11:38:30	No
Mean:	2.046	2.046	0.0304			
SD :	0.0115	0.0115	0.0002			
%RSD:	0.6	0.6	0.5617			

Element: Hg Seq. No.: 90 AS Loc.: 78 Date: 05/09/2005
Sample ID: 1200840114|i|5||SDILT

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.088	-0.088	-0.0013	0.0019	11:39:53	No
2	-0.084	-0.084	-0.0012	0.0020	11:40:28	No
Mean:	-0.086	-0.086	-0.0013			
SD :	0.0026	0.0026	0.0000			
%RSD:	3.0	3.0	2.9675			

Element: Hg Seq. No.: 91 AS Loc.: 79 Date: 05/09/2005
Sample ID: 135808003|i|

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.068	-0.068	-0.0010	0.0022	11:41:48	No
2	-0.069	-0.069	-0.0010	0.0022	11:42:23	No
Mean:	-0.069	-0.069	-0.0010			
SD :	0.0002	0.0002	0.0000			
%RSD:	0.4	0.4	0.3541			

Element: Hg Seq. No.: 92 AS Loc.: 80 Date: 05/09/2005
Sample ID: 1200839980|i|||DUP

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.069	-0.069	-0.0010	0.0022	11:43:43	No
2	-0.067	-0.067	-0.0010	0.0022	11:44:18	No
Mean:	-0.068	-0.068	-0.0010			

SD :	0.0010	0.0010	0.0000
%RSD:	1.5	1.5	1.5061

==========

Element: Hg Seq. No.: 93 AS Loc.: 81 Date: 05/09/2005
Sample ID: 1200839981|i|||MS

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	2.063	2.063	0.0306	0.0339	11:45:38	No
2	2.061	2.061	0.0306	0.0338	11:46:13	No
Mean:	2.062	2.062	0.0306			
SD :	0.0014	0.0014	0.0000			
%RSD:						

==========

Element: Hg Seq. No.: 94 AS Loc.: 7 Date: 05/09/2005
Sample ID: CCV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	5.001	5.001	0.0742	0.0775	11:47:37	No
2	5.010	5.010	0.0744	0.0776	11:48:12	No
Mean:	5.006	5.006	0.0743			
SD :	0.0064	0.0064	0.0001			
%RSD:	0.1	0.1	0.1274			

QC value within specified limits.

==========

Element: Hg Seq. No.: 95 AS Loc.: 8 Date: 05/09/2005
Sample ID: CCB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.055	-0.055	-0.0008	0.0024	11:49:40	No
2	-0.052	-0.052	-0.0008	0.0025	11:50:15	No
Mean:	-0.053	-0.053	-0.0008			
SD :	0.0021	0.0021	0.0000			
%RSD:	4.0	4.0	3.9787			

QC value within specified limits.

==========

Element: Hg Seq. No.: 96 AS Loc.: 82 Date: 05/09/2005
Sample ID: 1200839982|i|5||SDILT

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.085	-0.085	-0.0013	0.0020	11:51:41	No
2	-0.082	-0.082	-0.0012	0.0020	11:52:15	No
Mean:	-0.083	-0.083	-0.0012			
SD :	0.0016	0.0016	0.0000			
%RSD:	1.9	1.9	1.9233			

==========

Element: Hg Seq. No.: 97 AS Loc.: 83 Date: 05/09/2005
Sample ID: 135808004|i|

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.069	-0.069	-0.0010	0.0022	11:53:37	No
2	-0.068	-0.068	-0.0010	0.0022	11:54:12	No
Mean:	-0.068	-0.068	-0.0010			
SD :	0.0004	0.0004	0.0000			
%RSD:	0.6	0.6	0.6315			

==========

Element: Hg Seq. No.: 98 AS Loc.: 84 Date: 05/09/2005

MISCELLANEOUS DATA

5/6/05

Prep LogBook

Analyst: RG2 Verified by: 5/6/05

Batch: 423065

Lab SOP: GL-MA-E-006 REV# 9

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1200840491	UI050503-01	.25	mL
LCS	1200840491	UI050503-06	.25	mL
MS	1200840493	UI050503-01	.25	mL
MS	1200840493	UI050503-06	.25	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1200840490		SW846 3005A	06-MAY-2005 08:00	50 mL	50 mL	1	WATER
LCS	1200840491		SW846 3005A	06-MAY-2005 08:00	50 mL	50 mL	1	WATER
SAMPLE	135804001		SW846 3005A	06-MAY-2005 08:00	50 mL	50 mL	1	WATER
DUP	1200840492	135804001	SW846 3005A	06-MAY-2005 08:00	50 mL	50 mL	1	WATER
MS	1200840493	135804001	SW846 3005A	06-MAY-2005 08:00	50 mL	50 mL	1	WATER
SDILT	1200840494	135804001	SW846 3005A	06-MAY-2005 08:00	50 mL	50 mL	1	WATER

Reagent/Solvent Lot ID	Amount	Description
300385	2.5 mL	HYDROCHLORIC ACID
300383	1 mL	Nitric Acid CONC.

Comments:

534

Prep LogBook

Analyst: RG2 Verified by: 5/10/05

Batch: 423103

Lab SOP: GL-MA-E-006 REV# 9

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1200840567	UI050322A	.5	mL
MS	1200840569	UI050322-01	.5	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1200840566		SW846 3005A	06-MAY-2005 08:00	50 mL	50 mL	1	WATER
LCS	1200840567		SW846 3005A	06-MAY-2005 08:00	50 mL	50 mL	1	WATER
SAMPLE	135804001		SW846 3005A	06-MAY-2005 08:00	50 mL	50 mL	1	WATER
DUP	1200840568	135804001	SW846 3005A	06-MAY-2005 08:00	50 mL	50 mL	1	WATER
MS	1200840569	135804001	SW846 3005A	06-MAY-2005 08:00	50 mL	50 mL	1	WATER
SDILT	1200840570	135804001	SW846 3005A	06-MAY-2005 08:00	50 mL	50 mL	1	WATER

Reagent/Solvent Lot ID	Amount	Description
300385	2.5 mL	HYDROCHLORIC ACID
300383	1 mL	Nitric Acid CONC.

Comments:

535

Prep LogBook

Analyst: ETL Verified by: NKE 5/9/05
Batch: 422838 5/6/05
Lab SOP: GL-MA-E-010 REV# 15

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1200839979	WHG050506-13	.2	mL
MS	1200839981	WHG050506-13	.2	mL
MS	1200840115	WHG050506-13	.2	mL
MS	1200840116	WHG050506-13	.2	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1200839978		SW846 7470A Prep	06-MAY-2005 11:00	20 mL	20 mL	1	GROUND WATER
LCS	1200839979		SW846 7470A Prep	06-MAY-2005 11:00	20 mL	20 mL	1	GROUND WATER
SAMPLE	135782001		SW846 7470A Prep	06-MAY-2005 11:00	20 mL	20 mL	1	WATER
DUP	1200840111	135782001	SW846 7470A Prep	06-MAY-2005 11:00	20 mL	20 mL	1	WATER
SDILT	1200840113	135782001	SW846 7470A Prep	06-MAY-2005 11:00	20 mL	20 mL	1	WATER
MS	1200840115	135782001	SW846 7470A Prep	06-MAY-2005 11:00	20 mL	20 mL	1	WATER
SAMPLE	135782003		SW846 7470A Prep	06-MAY-2005 11:00	20 mL	20 mL	1	WATER
SAMPLE	135804001		SW846 7470A Prep	06-MAY-2005 11:00	20 mL	20 mL	1	WATER
DUP	1200840112	135804001	SW846 7470A Prep	06-MAY-2005 11:00	20 mL	20 mL	1	WATER
SDILT	1200840114	135804001	SW846 7470A Prep	06-MAY-2005 11:00	20 mL	20 mL	1	WATER
MS	1200840116	135804001	SW846 7470A Prep	06-MAY-2005 11:00	20 mL	20 mL	1	WATER
SAMPLE	135808003		SW846 7470A Prep	06-MAY-2005 11:00	20 mL	20 mL	1	GROUND WATER
DUP	1200839980	135808003	SW846 7470A Prep	06-MAY-2005 11:00	20 mL	20 mL	1	GROUND WATER
MS	1200839981	135808003	SW846 7470A Prep	06-MAY-2005 11:00	20 mL	20 mL	1	GROUND WATER
SDILT	1200839982	135808003	SW846 7470A Prep	06-MAY-2005 11:00	20 mL	20 mL	1	GROUND WATER
SAMPLE	135808004		SW846 7470A Prep	06-MAY-2005 11:00	20 mL	20 mL	1	GROUND WATER
SAMPLE	135808007		SW846 7470A Prep	06-MAY-2005 11:00	20 mL	20 mL	1	GROUND WATER
SAMPLE	135808008		SW846 7470A Prep	06-MAY-2005 11:00	20 mL	20 mL	1	GROUND WATER
SAMPLE	135808009		SW846 7470A Prep	06-MAY-2005 11:00	20 mL	20 mL	1	GROUND WATER
SAMPLE	135808010		SW846 7470A Prep	06-MAY-2005 11:00	20 mL	20 mL	1	GROUND WATER

Reagent/Solvent Lot ID	Amount	Description
302191	1 mL	Sulfuric Acid, Concentrated
302189-1	.5 mL	NITRIC ACID
288754-C	1.5 mL	5% Potassium Persulfate
301012-C	3 mL	5% KMnO4 solution
301014-C	1 mL	Hg reducing agent
WHG050506-06	500 uL	Mercury Working 2nd Source 5.0/ICV
WHG050506-01	20 uL	Mercury Working 1st Source CAL 0.2/CRA
WHG050506-02	50 uL	Mercury Working 1st Source CAL 0.5
WHG050506-05	1 mL	Mercury Working 1st Source CAL 10.0
WHG050506-03	200 uL	Mercury Working 1st Source CAL 2.0

Comments: Digestion Start Date: 06-MAY-05 11:00
Digestion End Date: 06-MAY-05 13:00

Prep LogBook

WHG050506-04 500 uL Mercury Working 1st Source CAL 5.0/CCV

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Wednesday, May 4, 2005

REQUEST NUMBER: 3202S

Los Alamos
NATIONAL LABORATORY

ANALYSIS TYPE: ORGANIC

ATTN: Stacy Griffin
General Engineering Laboratories, Inc., Historical
2040 Savage Road
Charleston, SC 29407

Please analyze the enclosed samples according to the schedule indicated:

SHIP DATE: 05/04/2005
REPORT DUE: 05/14/2005
TURN AROUND REQ'D: 10

RAD SCREENING: NOT REQ
COMMENTS:

These samples are on:

LANL Request Number: 3202S
Per Agreement Number: 126310011
Project Cost Code: MR0R00FC6800

LANL ER SMO CONTACT:
Signature:

METHOD CODE	SAMPLE ID	CONT ID	SAMPLE MATRIX	DATE SAMPLED	COMMENTS
SW-846:8260B	RE03-05-58926	1	S	05/04/2005	
SW-846:8260B	RE03-05-58926	2	S	05/04/2005	
SW-846:8015M_EXTRACTABLE	RE03-05-58926	3	S	05/04/2005	
SW-846:8082	RE03-05-58926	3	S	05/04/2005	
SW-846:8270C	RE03-05-58926	3	S	05/04/2005	
SW-846:8015M_PURGEABLE	RE03-05-58926	5	S	05/04/2005	
SW-846:8260B	RE03-05-58927	1	S	05/04/2005	
SW-846:8260B	RE03-05-58927	2	S	05/04/2005	
SW-846:8015M_EXTRACTABLE	RE03-05-58927	3	S	05/04/2005	
SW-846:8082	RE03-05-58927	3	S	05/04/2005	
SW-846:8270C	RE03-05-58927	3	S	05/04/2005	
SW-846:8015M_PURGEABLE	RE03-05-58927	5	S	05/04/2005	
SW-846:8260B	RE03-05-58928	1	S	05/04/2005	
SW-846:8260B	RE03-05-59557	1	S	05/04/2005	
SW-846:8260B	RE03-05-59557	2	S	05/04/2005	
SW-846:8015M_EXTRACTABLE	RE03-05-59557	3	S	05/04/2005	
SW-846:8082	RE03-05-59557	3	S	05/04/2005	
SW-846:8270C	RE03-05-59557	3	S	05/04/2005	
SW-846:8015M_PURGEABLE	RE03-05-59557	5	S	05/04/2005	
SW-846:8260B	RE03-05-59558	1	S	05/04/2005	
SW-846:8260B	RE03-05-59558	2	S	05/04/2005	
SW-846:8015M_EXTRACTABLE	RE03-05-59558	3	S	05/04/2005	
SW-846:8082	RE03-05-59558	3	S	05/04/2005	
SW-846:8270C	RE03-05-59558	3	S	05/04/2005	
SW-846:8015M_PURGEABLE	RE03-05-59558	5	S	05/04/2005	

Final Page of REQUEST NUMBER 3202S

Wednesday, May 4, 2005

Los Alamos
NATIONAL LABORATORY

CHAIN OF CUSTODY DOCUMENT NUMBER: 3202SC

REQUEST NUMBER: 3202S

ANALYSIS TYPE: ORGANIC

ATTN: Stacy Griffin
General Engineering Laboratories, Inc., Historical
2040 Savage Road
Charleston, SC 29407

SAMPLE ID	CONT ID	CONTAINER DESCRIPTION	ORDER TEMPLATE CODE	PRESERVATIVE	MATRIX
RE03-05-58926	1	5 G ENCORE	8260BENCORE	ICE	S
RE03-05-58926	2	5 G ENCORE	8260BENCORE	ICE	S
RE03-05-58926	3	500 ML GLASS	8270C+8082+TPH-DRO	ICE	S
RE03-05-58926	5	125 SEPTUM AMBER GLASS	TPH-GRO	ICE	S
RE03-05-58927	1	5 G ENCORE	8260BENCORE	ICE	S
RE03-05-58927	2	5 G ENCORE	8260BENCORE	ICE	S
RE03-05-58927	3	500 ML GLASS	8270C+8082+TPH-DRO	ICE	S
RE03-05-58927	5	125 SEPTUM AMBER GLASS	TPH-GRO	ICE	S
RE03-05-58928	1	125 SEPTUM AMBER GLASS	8260B	ICE	S
RE03-05-59557	1	5 G ENCORE	8260BENCORE	ICE	S
RE03-05-59557	2	5 G ENCORE	8260BENCORE	ICE	S
RE03-05-59557	3	500 ML GLASS	8270C+8082+TPH-DRO	ICE	S
RE03-05-59557	5	125 SEPTUM AMBER GLASS	TPH-GRO	ICE	S
RE03-05-59558	1	5 G ENCORE	8260BENCORE	ICE	S
RE03-05-59558	2	5 G ENCORE	8260BENCORE	ICE	S
RE03-05-59558	3	500 ML GLASS	8270C+8082+TPH-DRO	ICE	S
RE03-05-59558	5	125 SEPTUM AMBER GLASS	TPH-GRO	ICE	S

Final Page of CHAIN OF CUSTODY DOCUMENT FOR REQUEST NUMBER 3202S

Relinquished By:		Date	Time	Received By:		Date	Time
PRINTED NAME	SIGNATURE			PRINTED NAME	SIGNATURE		
PRINTED NAME	SIGNATURE			PRINTED NAME	SIGNATURE		
PRINTED NAME	SIGNATURE			PRINTED NAME	SIGNATURE		

Received for DISPOSAL By:		Date	Time	Remarks:
PRINTED NAME	SIGNATURE			

Los Alamos National Laboratory
Environmental Restoration Project
Los Alamos, NM 87545

FIELD CHAIN OF CUSTODY

EVENT NAME: Waste Characterization of material From TA-3, SWMU 03-013(i) Remediation. 2nd Qtr, FY 2005.

COC ID: 220342 **Event ID:** 4842

SAMPLE ID: RE03-05-58928 **ER TEAM LEADER:** Roy Bohn **DESTINATION:** SMO

SAMPLE ORDER MATRIX: Soil **FIELD TEAM LEADER:** Daniel Thompson **DEST. POC:**

ANALYSES REQUESTED

CONT. ID	ORDER	CONTAINER DESCRIPTION	PRESERVATIVE	COLLECTED Y / N	REASON	SPECIAL INSTRUCTIONS
1	8260B	125 SEPTUM AMBER GLASS	Ice	Y		

RELINQUISHED BY (printed name): (signature): Paul Allen	Date/Time: 5/4/05 1120	RELINQUISHED BY (printed name): (signature):	Date/Time:
RECEIVED BY (printed name): (signature): Gary Wells	Date/Time: 5/4/05 1125	RECEIVED BY (printed name): (signature):	Date/Time:

Los Alamos National Laboratory
Environmental Restoration Project
Los Alamos, NM 87545

FIELD CHAIN OF CUSTODY

EVENT NAME: Waste Characterization of material From TA-3, SWMU 03-013(i) Remediation. 2nd Qtr, FY 2005.

COC ID: 220262 **Event ID:**4842

SAMPLE ID: RE03-05-58926 **ER TEAM LEADER:** Roy Bohn **DESTINATION:** SMO

SAMPLE ORDER MATRIX: Soil **FIELD TEAM LEADER:** Daniel Thompson **DEST. POC:**

ANALYSES REQUESTED

CONT. ID	ORDER	CONTAINER DESCRIPTION	PRESERVATIVE	COLLECTED Y / N	REASON	SPECIAL INSTRUCTIONS
1	8260BENCORE	5 G ENCORE	Ice	Y		
2	8260BENCORE	5 G ENCORE	Ice	Y		
3	8270C+8082+TPH-DRO	500 ML GLASS	Ice	Y		
4	METALS_TCLP	500 ML POLY	Ice	Y		
5	TPH-GRO	125 SEPTUM AMBER GLASS	Ice	Y		

RELINQUISHED BY (printed name): (signature): Paul Alan	**Date/Time:** 5/4/05 1120	**RELINQUISHED BY** (printed name): (signature):	**Date/Time:**
RECEIVED BY (printed name): (signature):	**Date/Time:** 5/4/05 1125	**RECEIVED BY** (printed name): (signature):	**Date/Time:**

Los Alamos National Laboratory
Environmental Restoration Project
Los Alamos, NM 87545

FIELD CHAIN OF CUSTODY

EVENT NAME: Waste Characterization of material From TA-3, SWMU 03-013(i) Remediation. 2nd Qtr, FY 2005.

COC ID: 220272 **Event ID:** 4842

SAMPLE ID: RE03-05-58927 **ER TEAM LEADER:** Roy Bohn **DESTINATION:** SMO

SAMPLE ORDER MATRIX: Soil **FIELD TEAM LEADER:** Daniel Thompson **DEST. POC:**

ANALYSES REQUESTED

CONT. ID	ORDER	CONTAINER DESCRIPTION	PRESERVATIVE	COLLECTED Y / N	REASON	SPECIAL INSTRUCTIONS
1	8260BENCORE	5 G ENCORE	Ice	Y		
2	8260BENCORE	5 G ENCORE	Ice	Y		
3	8270C+8082+TPH-DRO	500 ML GLASS	Ice	Y		
4	METALS_TCLP	500 ML POLY	Ice	Y		
5	TPH-GRO	125 SEPTUM AMBER GLASS	Ice	Y		

RELINQUISHED BY (printed name): (signature): Paul Allen	**Date/Time:** 5/4/03 1120	**RELINQUISHED BY** (printed name): (signature):	**Date/Time:**
RECEIVED BY (printed name): (signature):	**Date/Time:** 5-4-03 1125	**RECEIVED BY** (printed name): (signature):	**Date/Time:**

Los Alamos National Laboratory
Environmental Restoration Project
Los Alamos, NM 87545

FIELD CHAIN OF CUSTODY

EVENT NAME: Waste Characterization of material From TA-3, SWMU 03-013(i) Remediation. 2nd Qtr, FY 2005.

COC ID: 227032 **Event ID:** 4842

SAMPLE ID: RE03-05-59558 **ER TEAM LEADER:** Roy Bohn **DESTINATION:** SMO

SAMPLE ORDER MATRIX: Soil **FIELD TEAM LEADER:** Daniel Thompson **DEST. POC:**

ANALYSES REQUESTED

CONT. ID	ORDER	CONTAINER DESCRIPTION	PRESERVATIVE	COLLECTED Y / N	REASON	SPECIAL INSTRUCTIONS
1	8260BENCORE	5 G ENCORE	Ice	Y		
2	8260BENCORE	5 G ENCORE	Ice	Y		
3	8270C+8082+TPH-DRO	500 ML GLASS	Ice	Y		
4	METALS_TCLP	500 ML POLY	Ice	Y		
5	TPH-GRO	125 SEPTUM AMBER GLASS	Ice	Y		

10 day TAT

RELINQUISHED BY (printed name): (signature):	Date/Time: 5/4/05 1120	**RELINQUISHED BY** (printed name): (signature):	Date/Time:
RECEIVED BY (printed name): (signature):	Date/Time: 5/4/05 1125	**RECEIVED BY** (printed name): (signature):	Date/Time:

Los Alamos National Laboratory
Environmental Restoration Project
Los Alamos, NM 87545

FIELD CHAIN OF CUSTODY

EVENT NAME: Waste Characterization of material From TA-3, SWMU 03-013(i) Remediation. 2nd Qtr, FY 2005.

COC ID: 227022 **Event ID:**4842

SAMPLE ID: RE03-05-59557 **ER TEAM LEADER:** Roy Bohn **DESTINATION:** SMO

SAMPLE ORDER MATRIX: Soil **FIELD TEAM LEADER:** Daniel Thompson **DEST. POC:**

ANALYSES REQUESTED

CONT. ID	ORDER	CONTAINER DESCRIPTION	PRESERVATIVE	COLLECTED Y / N	REASON	SPECIAL INSTRUCTIONS
1	8260BENCORE	5 G ENCORE	Ice	Y		
2	8260BENCORE	5 G ENCORE	Ice	Y		
3	8270C+8082+TPH-DRO	500 ML GLASS	Ice	Y		
4	METALS_TCLP	500 ML POLY	Ice	Y		
5	TPH-GRO	125 SEPTUM AMBER GLASS	Ice	Y		

10 day TAT

RELINQUISHED BY (printed name): Saul Alain **(signature):**	**Date/Time:** 5/4/05 1120	**RELINQUISHED BY (printed name):** **(signature):**	**Date/Time:**
RECEIVED BY (printed name): **(signature):**	**Date/Time:** 5/4/05 1125	**RECEIVED BY (printed name):** **(signature):**	**Date/Time:**

Rad Screening Data Release Form

The Following samples were received at the Field Support Facility (FSF) without screening data (list sample number):

These samples will not be shipped until radiological screening data documentation arrives at the FSF. I understand that it is my responsibility to ensure this information arrives at the FSF in a timely manner. If holding times are missed because screening data does not arrive, I will pick up the samples.

The following samples do not require rad screening data for the reasons stated (list sample numbers):

RE03-05-58926
RE03-05-58927
RE03-05-59557
RE03-05-59558
RE03-05-~~59559~~ SA 58928

Reason:

Print Last Name Alanis Signature [signature] Date 5/4/2005

Data Validation Cover Sheet

Section I. Data Record Package Identification

Request Number: 3202S Validation Date: 09-Jun-05 Lab Code: GEL

Contract Laboratory Name: General Engineering Laboratories

Validator: John A. Wilcox Organization: EES-9

Analytical Suite(s): (check all that apply)

- ☒ Volatile Organics
- ☒ Semivolatile Organics
- ☒ Organochlorine Pesticides/Polychlorinated Biphenyls
- ☐ Other: _____ (describe)
- ☐ High Explosives
- ☐ Inorganics
- ☐ Radiochemistry

Section II. Completeness Check

Yes	No	n/a	(check one)	Yes	No	n/a	(check one)
☒	☐	☐	1. Chain-of-custody form(s)	☒	☐	☐	6. Raw/BSS data
☒	☐	☐	2. Case narrative	☒	☐	☐	7. Quality control forms
☒	☐	☐	3. Sample result forms	☒	☐	☐	8. Quantitation reports
☒	☐	☐	4. Sample chromatograms	☒	☐	☐	9. TICs forms
☒	☐	☐	5. Standard chromatograms	☒	☐	☐	10. TICs mass spectra

Identify any samples in the assigned Request Number that are missing:

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed upon date of resolution and contract laboratory point of contact):

VOC analyses: Two surrogates were above method limits for sample -58927. Also in sample -58927, the Internal Standard peak area for 1,4-Dichlorobenzene was below the method limit. All other LANL-specified QC were within limits. A comparison of the sample spectra with the reference spetrum showed false positive results, which were qualified U, V8.

SVOC analyses: In sample -58927, the Internal Standard peak areas for Chrysene-d12 and Perylene-d12 were below method limits. In sample -58958, the Internal Standard peak area for Perylene-d12 was below method limits.The method blank had contamination for bis(2-Ethylhexyl)phthalate - the 10x rule was applied to detected sample values for this compound. All other LANL-specified QC were within limits.

DRO analyses: Surrogates had poor recovery due to dilution - no qualiers were assigned. All other QC were within limits.

GRO analyses: Sample -58927 had low surrogate recovery. All other QC were within limits.

PCB analyses: Surrogates had poor recovery due to dilution - no qualifiers were assigned. All other QC were within limits.

(Attach additional comment sheets as necessary)

Validator's signature: John A Wilcox Date: 6/10/05

Attachment D: VOC Data-Validation Checklist

Yes	No	n/a	(check one)	Assign qualifier listed below if criteria = Yes: Detected analyte	Undetected analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	J, V9	UJ, V9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, V9a	R, V9a
☐	☒	☐	3. The instrument performance check was not present or fails acceptance criteria.	R, V16a	R, V16a
☐	☒	☐	4. The initial calibration was not present.	R, V16	R, V16
☐	☒	☐	5. The initial calibration did not have 5 calibration points and a low standard at the reporting limit.	R, V7	R, V7
☐	☒	☐	6. The initial calibration analyte %RSD was >30% .	J, V7a	UJ, V7a
☐	☒	☐	7. The analyte minimum RRF was <0.05.	J, V7b	R, V7b
☐	☒	☐	8. The CCV was not present.	R, V16	R, V16
☐	☒	☐	9. The continuing calibration analyte %D was >25%.	J, V7a	UJ, V7a
☐	☒	☐	10. The analyte minimum RRF was <0.05.	J, V7b	R, V7b
☐	☒	☐	11. The method blank was not reported.	R, V4b	R, V4b
☐	☒	☐	12. The analyte detected in the method blank and sample result for analyte was < 5x/10x the amount in the blank.	U, V4	N/A
☐	☒	☐	13. The analyte detected in the method blank and sample result for analyte was >5x/10x the amount in the method blank.	J, V4a	N/A
☐	☒	☐	14. The IS information was not present.	R, V2a	R, V2a
☐	☒	☐	15. The IS areas in CCV were <50% or >200% of the previous days' IS areas.	J, V1	UJ, V1
☐	☒	☐	16. The IS retention times had shifted by >30 s.	J, V0	UJ, V0
☐	☒	☐	17. The sample IS areas were >200% of the daily CCV IS areas.	J, V1b	N/A
☒	☐	☐	18. The sample IS areas were <50% but are ≥10% of the daily CCV IS areas.	J, V1a	UJ, V1a
☐	☒	☐	19. The sample IS areas were <10% of the daily CCV IS areas.	J, V2	R, V2
☐	☒	☐	20. The surrogate information was not present.	R, V3f	R, V3f
☒	☐	☐	21. The surrogate %R was >UAL.	J+, V3	N/A
☐	☒	☐	22. The surrogate %R was <LAL but ≥10%.	J-, V3a	UJ, V3c
☐	☒	☐	23. The surrogate %R was <10%.	J-, V3b	R, V3d
☐	☒	☐	24. The surrogate recoveries were (1) <LAL and (1) >UAL.	J, V3e	UJ, V3e
☐	☒	☐	25. The LCS information was not present.	R, V12	R, V12
☐	☒	☐	26. The LCS %R was >UAL.	J+, V12d	N/A
☐	☒	☐	27. The LCS %R was <LAL but ≥10%.	J-, V12b	UJ, V12c
☐	☒	☐	28. The LCS %R was <10%.	J-, V12a	R, V12a
☐	☒	☐	29. The mass spectral information was missing.	R, V8a	R, V8a
☒	☐	☐	30. The mass spectrum did not meet method specifications.	U, V8	N/A
☐	☒	☐	31. The TICs were requested but not reported.	R, V11	R, V11
☐	☒	☐	32. The sample was diluted inappropriately.	N/A	U, V10
☐	☒	☐	33. Other obvious data-quality issues were identified.	__, V19	__, V19

Attachment D: SVOC Data-Validation Checklist

Yes	No	(check one)	Assign qualifier listed below if criteria = Yes: Detected analyte	Undetected analyte
☐	☒	1. The Sample was extracted >1 to ≤2 times the appropriate hold time requirement.	J-, SV9	UJ, SV9
☐	☒	2. The Sample was extracted >2 times the appropriate holding time requirement.	R, SV9a	R, SV9a
☐	☒	3. The Sample was analyzed outside the analytical holding time requirement.	R, SV9b	R, SV9b
☐	☒	4. The instrument performance check (DFTPP) is not present or fails acceptance criteria.	R, SV16A	R, SV16A
☐	☒	5. The initial calibration is not present.	R, SV16	R, SV16
☐	☒	6. The initial calibration does not have either 5 calibration points or a low standard at the reporting limit.	R, SV7	R, SV7
☐	☒	7. The initial calibration analyte %RSD is >30%.	J, SV7a	UJ, SV7a
☐	☒	8. The analyte minimum RRF is <0.05 in the initial calibration.	J, SV7b	R, SV7b
☐	☒	9. CCV is not present.	R, SV16	R, SV16
☐	☒	10. The continuing calibration analyte %D is >25%.	J, SV7a	UJ, SV7a
☐	☒	11. The analyte minimum RRF is <0.05 in the continuing calibration.	J, SV7b	R, SV7b
☐	☒	12. The method blank information is not present.	R, SV4b	R, SV4b
☐	☒	13. The analyte detected in the method blank and sample result for analyte is ≤5x/10x the amount in blank.	U, SV4	N/A
☐	☒	14. The analyte detected in the method blank and sample result for analyte is >5x/10x the amount in method blank	J, SV4a	N/A
☐	☒	15. IS information is not present.	R, SV2a	R, SV2a
☒	☐	16. The IS area in the CCV is <50%R or >200%R.	J, SV1	UJ, SV1
☐	☒	17. The IS retention times have shifted by more 30 s.	J, SV0	R, SV0
☐	☒	18. The sample IS area is >200%R.	J, SV1b	N/A
☐	☒	19. The sample IS area is <50%R but ≥10%R.The s	J, SV1a	UJ, SV1a
☐	☒	20. The Sample IS area is <10%R.	J, SV2	R, SV2
☐	☒	21. The surrogate information is not present.	R, SV3f	R, SV3f
☐	☒	22. The surrogate %R is greater than the UAL.	J+, SV3	N/A
☐	☒	23. The surrogate %R is lower than the LAL but ≥10%.	J-, SV3a	UJ, SV3c
☐	☒	24. The surrogate %R is <10%.	J-, SV3b	R, SV3d
☐	☒	25. There is one surrogate %R <LAL and one surrogate %R >UAL.	J, SV3e	UJ, SV3e
☐	☒	26. LCS information is not present.	R, SV12	R, SV12
☒	☐	27. The LCS %R is >UAL.	J+, SV12d	N/A
☐	☒	28. The LCS %R is <LAL but ≥10%.	J-, SV12b	UJ, SV12c
☐	☒	29. The LCS %R is <10%	J-, SV12a	R, SV12a
☐	☒	30. Mass spectral information is missing.	R, SV8a	R, SV8a
☒	☐	31. The mass spectrum does not meet method specifications.	U, SV8	N/A
☐	☒	32. TICs were requested but not reported.	none	none
☐	☒	33. The sample was diluted inappropriately.	N/A	UJ, V10
☐	☒	34. Other obvious data quality issues were identified.	__, SV19	__, SV19

PEST/PCB Data-Validation Checklist

Yes	No	n/a	(check one)	Assign qualifier listed below if criteria = Yes: Detected analyte	Undetected analyte
☐	☒	☐	1. The breakdown performance check is not present.	R, P10b	R, P10b
☐	☒	☐	2. The breakdown performance exceeds criteria for individual or combined.	J-, P10	---[a], P10
☐	☒	☐	3. The Breakdown performance exceeds criteria and the associated breakdown products are present in sample.	J+, P10a	UJ, P10a
☐	☒	☐	4. Initial calibration is not present.	R, P16	R, P16
☐	☒	☐	5. Initial calibration does not have 5 calibration points and/or low standard at or below the reporting limit.	J, P7	R, P7
☐	☒	☐	6. Initial calibration analyte %RSD is >20% or RSD is <0.995.	J, P7a	UJ, P7a
☐	☒	☐	7. The CCV is not present or analyzed at proper frequency.	R, P16	R, P16
☐	☒	☐	8. Continuing calibration analyte %D is >15%.	J, P7a	UJ, P7a
☐	☒	☐	9. A multicomponent analyte is reported with no standard being analyzed within 72 h of the initial analysis.	J, P7b	N/A
☐	☒	☐	10. The RT window information is not present.	R, P11	R, P11
☐	☒	☐	11. RT window for individual analytes in the CCV have shifted more than 0.05 minutes from the RT window from the initial calibration.	---[b], P11a	---[c], P11a
☐	☒	☐	12. The method blank is not reported.	R, P4b	R, P4b
☐	☒	☐	13. The analyte detected in blank <u>and</u> sample result for analyte < 5x the amount in blank.	UJ, P4	N/A
☐	☒	☐	14. The analyte detected in blank <u>and</u> sample result for analyte > 5x the amount in blank.	J, P4a	N/A
☐	☒	☐	15. The confirmation information is not present for positive results.	R, P8a	R, P8a
☐	☒	☐	16. The analyte reported was not confirmed on a second dissimilar column or detector.	UJ, P8	N/A
☐	☒	☐	17. The analyte reported exceeds the RT window but was confirmed.	J, P11b	N/A
☐	☒	☐	18. The multicomponent analyte is reported but does not match the pattern for the analyte in the associated standard.	J, P7b	N/A
☐	☒	☐	19. Surrogate information is not present.	R, P3f	R, P3f
☐	☒	☐	20. Surrogate % recovery is > the UAL.	J+, P3	N/A
☐	☒	☐	21. Surrogate % recovery is < LAL but ≥10%.	J-, P3a	UJ, P3c
☐	☒	☐	22. Surrogate % recovery is < 10%.	J-, P3b	R, P3d
☐	☒	☐	23. One surrogate recovery is < LAL and one surrogate recovery is > UAL.	J, P3e	UJ, P3e
☐	☒	☐	24. The LCS information is not present.	R, P12	R, P12
☐	☒	☐	25. LCS % recovery is >130%.	J+, P12d	N/A
☐	☒	☐	26. LCS % recovery is < 70% but ≥10%.	J-, P12b	UJ, P12c
☐	☒	☐	27. LCS % recovery is < 10%.	J-, P12a	R, P12a
☐	☒	☐	28. The sample was extracted outside of the appropriate hold time.	J-, P9	UJ, P9
☐	☒	☐	29. The sample was extracted 2 times the appropriate holding time.	R, P9a	R, P9a
☐	☒	☐	30. The sample was analyzed outside the analytical holding time.	R, P9b	R, P9b
☐	☒	☐	31. The sample was diluted inappropriately.	N/A	U, P10c
☐	☒	☐	32. The other obvious data quality issues identified.	__, P19	__, P19

Wednesday, May 4, 2005

CHAIN OF CUSTODY DOCUMENT NUMBER: 3202SC

Los Alamos
NATIONAL LABORATORY

REQUEST NUMBER: 3202S

ANALYSIS TYPE: ORGANIC

ATTN: Stacy Griffin
General Engineering Laboratories, Inc., Historical
2040 Savage Road
Charleston, SC 29407

1358317

SAMPLE ID	CONT ID	CONTAINER DESCRIPTION	ORDER TEMPLATE CODE	PRESERVATIVE	MATRIX
RE03-05-58926 825	1	5 G ENCORE	8260BENCORE	ICE	S
RE03-05-58926	2	5 G ENCORE	8260BENCORE	ICE	S
RE03-05-58926	3	500 ML GLASS	8270C+8082+TPH-DRO	ICE	S
RE03-05-58926	5	125 SEPTUM AMBER GLASS	TPH-GRO	ICE	S
RE03-05-58927 931	1	5 G ENCORE	8260BENCORE	ICE	S
RE03-05-58927	2	5 G ENCORE	8260BENCORE	ICE	S
RE03-05-58927	3	500 ML GLASS	8270C+8082+TPH-DRO	ICE	S
RE03-05-58927	5	125 SEPTUM AMBER GLASS	TPH-GRO	ICE	S
RE03-05-58928 800	1	125 SEPTUM AMBER GLASS	8260B	ICE	S
RE03-05-59557 1007	1	5 G ENCORE	8260BENCORE	ICE	S
RE03-05-59557	2	5 G ENCORE	8260BENCORE	ICE	S
RE03-05-59557	3	500 ML GLASS	8270C+8082+TPH-DRO	ICE	S
RE03-05-59557	5	125 SEPTUM AMBER GLASS	TPH-GRO	ICE	S
RE03-05-59558 1017	1	5 G ENCORE	8260BENCORE	ICE	S
RE03-05-59558	2	5 G ENCORE	8260BENCORE	ICE	S
RE03-05-59558 1017	3	500 ML GLASS	8270C+8082+TPH-DRO	ICE	S
RE03-05-59558	5	125 SEPTUM AMBER GLASS	TPH-GRO	ICE	S

Final Page of CHAIN OF CUSTODY DOCUMENT FOR REQUEST NUMBER 3202S

Relinquished By: PRINTED NAME / SIGNATURE	Date	Time	Received By: PRINTED NAME / SIGNATURE	Date	Time
A Padilla	5/4/05	1400	C Gause	5/5/5	9:40

Received for DISPOSAL By: PRINTED NAME / SIGNATURE	Date	Time	Remarks:

Wednesday, May 4, 2005

REQUEST NUMBER: 3202S

Los Alamos
NATIONAL LABORATORY

ANALYSIS TYPE: ORGANIC

ATTN: Stacy Griffin
General Engineering Laboratories, Inc., Historical
2040 Savage Road
Charleston, SC 29407

Please analyze the enclosed samples according to the schedule indicated:

SHIP DATE: 05/04/2005
REPORT DUE: 05/14/2005
TURN AROUND REQ'D: 10

RAD SCREENING: NOT REQ
COMMENTS:

These samples are on:

LANL Request Number: 3202S
Per Agreement Number: 126310011
Project Cost Code: MR0R00FC6800

LANL ER SMO CONTACT:
Signature:

METHOD CODE	SAMPLE ID	CONT ID	SAMPLE MATRIX	DATE SAMPLED	COMMENTS
SW-846:8260B	RE03-05-58926	1	S	05/04/2005	
SW-846:8260B	RE03-05-58926	2	S	05/04/2005	
SW-846:8015M_EXTRACTABLE	RE03-05-58926	3	S	05/04/2005	
SW-846:8082	RE03-05-58926	3	S	05/04/2005	
SW-846:8270C	RE03-05-58926	3	S	05/04/2005	
SW-846:8015M_PURGEABLE	RE03-05-58926	5	S	05/04/2005	
SW-846:8260B	RE03-05-58927	1	S	05/04/2005	
SW-846:8260B	RE03-05-58927	2	S	05/04/2005	
SW-846:8015M_EXTRACTABLE	RE03-05-58927	3	S	05/04/2005	
SW-846:8082	RE03-05-58927	3	S	05/04/2005	
SW-846:8270C	RE03-05-58927	3	S	05/04/2005	
SW-846:8015M_PURGEABLE	RE03-05-58927	5	S	05/04/2005	
SW-846:8260B	RE03-05-58928	1	S	05/04/2005	
SW-846:8260B	RE03-05-59557	1	S	05/04/2005	
SW-846:8260B	RE03-05-59557	2	S	05/04/2005	
SW-846:8015M_EXTRACTABLE	RE03-05-59557	3	S	05/04/2005	
SW-846:8082	RE03-05-59557	3	S	05/04/2005	
SW-846:8270C	RE03-05-59557	3	S	05/04/2005	
SW-846:8015M_PURGEABLE	RE03-05-59557	5	S	05/04/2005	
SW-846:8260B	RE03-05-59558	1	S	05/04/2005	
SW-846:8260B	RE03-05-59558	2	S	05/04/2005	
SW-846:8015M_EXTRACTABLE	RE03-05-59558	3	S	05/04/2005	
SW-846:8082	RE03-05-59558	3	S	05/04/2005	
SW-846:8270C	RE03-05-59558	3	S	05/04/2005	
SW-846:8015M_PURGEABLE	RE03-05-59558	5	S	05/04/2005	

Final Page of REQUEST NUMBER 3202S

6

1D
PCB ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-58926

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Matrix: (soil/water) SOIL Lab Sample ID: 135831001

Sample wt/vol: 30.0 (g/mL) G Lab File ID: 045F4501

% Moisture: 6 decanted: (Y/N) N Date Received: 05/05/05

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 05/09/05

Concentrated Extract Volume: 1.00(mL) Date Analyzed: 05/11/05

Injection Volume: 1.0(uL) Dilution Factor: 10.0

GPC Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
12674-11-2	Aroclor-1016	35.4	U
11104-28-2	Aroclor-1221	35.4	U
11141-16-5	Aroclor-1232	35.4	U
53469-21-9	Aroclor-1242	35.4	U
12672-29-6	Aroclor-1248	35.4	U
11097-69-1	Aroclor-1254	11.9	J
11096-82-5	Aroclor-1260	35.4	U

JAW
6/9/05

1D
PCB ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-58927

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Matrix: (soil/water) SOIL Lab Sample ID: 135831002

Sample wt/vol: 30.0 (g/mL) G Lab File ID: 048F4801

% Moisture: 9 decanted: (Y/N) N Date Received: 05/05/05

Extraction: (SepF/Cont/Sonc) SONC Date Extracted:05/09/05

Concentrated Extract Volume: 1.00(mL) Date Analyzed: 05/11/05

Injection Volume: 1.0(uL) Dilution Factor: 10.0

GPC Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
12674-11-2	Aroclor-1016	36.6	U
11104-28-2	Aroclor-1221	36.6	U
11141-16-5	Aroclor-1232	36.6	U
53469-21-9	Aroclor-1242	36.6	U
12672-29-6	Aroclor-1248	36.6	U
11097-69-1	Aroclor-1254	18.8	J
11096-82-5	Aroclor-1260	36.6	U

gaw
6/9/05

FORM I PEST OLM03.0

1D
PCB ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-59557

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Matrix: (soil/water) SOIL Lab Sample ID: 135831003

Sample wt/vol: 30.0 (g/mL) G Lab File ID: 026F2601

% Moisture: 9 decanted: (Y/N) N Date Received: 05/05/05

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 05/09/05

Concentrated Extract Volume: 1.00(mL) Date Analyzed: 05/12/05

Injection Volume: 1.0(uL) Dilution Factor: 10.0

GPC Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
12674-11-2	Aroclor-1016	36.5	U
11104-28-2	Aroclor-1221	36.5	U
11141-16-5	Aroclor-1232	36.5	U
53469-21-9	Aroclor-1242	36.5	U
12672-29-6	Aroclor-1248	36.5	U
11097-69-1	Aroclor-1254	135	
11096-82-5	Aroclor-1260	32.4	J

JAW
6/9/05

FORM I PEST OLM03.0

1D
PCB ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-59558

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Matrix: (soil/water) SOIL Lab Sample ID: 135831004

Sample wt/vol: 30.0 (g/mL) G Lab File ID: 017F1701

% Moisture: 7 decanted: (Y/N) N Date Received: 05/05/05

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 05/09/05

Concentrated Extract Volume: 1.00(mL) Date Analyzed: 05/12/05

Injection Volume: 1.0(uL) Dilution Factor: 10.0

GPC Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
12674-11-2	Aroclor-1016	35.9	U
11104-28-2	Aroclor-1221	35.9	U
11141-16-5	Aroclor-1232	35.9	U
53469-21-9	Aroclor-1242	35.9	U
12672-29-6	Aroclor-1248	35.9	U
11097-69-1	Aroclor-1254	99.7	
11096-82-5	Aroclor-1260	44.5	

JAW
6/9/05

FORM I PEST OLM03.0

1B
DRO ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-58926

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Matrix: (soil/water) SOIL Lab Sample ID: 135831001

Sample wt/vol: 30.0 (g/mL) G Lab File ID: 023F2301

Level: (low/med) LOW Date Received: 05/05/05

% Moisture: 6 decanted: (Y/N) N Date Extracted: 05/11/05

Concentrated Extract Volume: 1.00(mL) Date Analyzed: 05/16/05

Injection Volume: 1.0(uL) Dilution Factor: 50.0

GPC Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) MG/KG	Q
	----------Diesel Range Organics	1840	

JAW 6/9/05

FORM I SV-1 OLM03.0

1B
DRO ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-58927

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Matrix: (soil/water) SOIL Lab Sample ID: 135831002

Sample wt/vol: 30.0 (g/mL) G Lab File ID: 026F2601

Level: (low/med) LOW Date Received: 05/05/05

% Moisture: 9 decanted: (Y/N) N Date Extracted: 05/11/05

Concentrated Extract Volume: 1.00(mL) Date Analyzed: 05/16/05

Injection Volume: 1.0(uL) Dilution Factor: 50.0

GPC Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) MG/KG	Q
	Diesel Range Organics	3700	

JAW
6/9/05

FORM I SV-1 OLM03.0

1B
DRO ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-59557

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Matrix: (soil/water) SOIL Lab Sample ID: 135831003

Sample wt/vol: 30.0 (g/mL) G Lab File ID: 006F0601

Level: (low/med) LOW Date Received: 05/05/05

% Moisture: 9 decanted: (Y/N) N Date Extracted: 05/12/05

Concentrated Extract Volume: 1.00(mL) Date Analyzed: 05/16/05

Injection Volume: 1.0(uL) Dilution Factor: 50.0

GPC Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) MG/KG	Q
	----------Diesel Range Organics	172	

JAW
6/9/05

FORM I SV-1 OLM03.0

1B
DRO ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-59558

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Matrix: (soil/water) SOIL Lab Sample ID: 135831004

Sample wt/vol: 30.0 (g/mL) G Lab File ID: 018F1801

Level: (low/med) LOW Date Received: 05/05/05

% Moisture: 7 decanted: (Y/N) N Date Extracted: 05/12/05

Concentrated Extract Volume: 1.30(mL) Date Analyzed: 05/16/05

Injection Volume: 1.0(uL) Dilution Factor: 200.0

GPC Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) MG/KG	Q
	----------Diesel Range Organics	10500	

JAW
6/9/05

FORM I SV-1 OLM03.0

1A
GRO ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-58926

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Matrix: (soil/water) SOIL Lab Sample ID: 135831001

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 1K306

Level: (low/med) LOW Date Received: 05/05/05

% Moisture: not dec. 6 Date Analyzed: 05/18/05

GC Column: RTX-VOLATILES ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
	----------Gasoline Range Organics_____	22.1	J

jaw
6/9/05

FORM I VOA OLM03.0

1A
GRO ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-58927

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Matrix: (soil/water) SOIL Lab Sample ID: 135831002

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 1K2017

Level: (low/med) LOW Date Received: 05/05/05

% Moisture: not dec. 9 Date Analyzed: 05/17/05

GC Column: RTX-VOLATILES ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
	----------Gasoline Range Organics_____	27.0	JB

J, V3a

JAW
6/9/05

FORM I VOA OLM03.0

1A
GRO ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-59557

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Matrix: (soil/water) SOIL Lab Sample ID: 135831003

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 1K2018

Level: (low/med) LOW Date Received: 05/05/05

% Moisture: not dec. 9 Date Analyzed: 05/18/05

GC Column: RTX-VOLATILES ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
	Gasoline Range Organics	54.7	U

JAW
6/9/05

FORM I VOA OLM03.0

1A
GRO ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-59558

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Matrix: (soil/water) SOIL Lab Sample ID: 135831004

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 1K308

Level: (low/med) LOW Date Received: 05/05/05

% Moisture: not dec. 7 Date Analyzed: 05/18/05

GC Column: RTX-VOLATILES ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
	----------Gasoline Range Organics_____	53.8	U

JAW
6/9/05

FORM I VOA OLM03.0

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-58926

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Matrix: (soil/water) SOIL Lab Sample ID: 135831001

Sample wt/vol: 4.4 (g/mL) G Lab File ID: 1J519

Level: (low/med) LOW Date Received: 05/05/05

% Moisture: not dec. 6 Date Analyzed: 05/13/05

GC Column: RTX-VOLATILES ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-71-8	Dichlorodifluoromethane	1.2	U
74-87-3	Chloromethane	1.2	U
75-01-4	Vinyl chloride	1.2	U
74-83-9	Bromomethane	1.2	U
75-00-3	Chloroethane	1.2	U
75-69-4	Trichlorofluoromethane	1.2	U
75-35-4	1,1-Dichloroethylene	0.38	J
67-64-1	Acetone	14.6	
76-13-1	Trichlorotrifluoroethane	6.0	U
74-88-4	Iodomethane	6.0	U
75-15-0	Carbon disulfide	6.0	U
75-09-2	Methylene chloride	6.0	U
156-60-5	trans-1,2-Dichloroethylene	1.2	U
75-34-3	1,1-Dichloroethane	1.2	U
78-93-3	2-Butanone	6.0	U
156-59-2	cis-1,2-Dichloroethylene	1.2	U
594-20-7	2,2-Dichloropropane	1.2	U
74-97-5	Bromochloromethane	1.2	U
67-66-3	Chloroform	1.2	U
71-55-6	1,1,1-Trichloroethane	1.2	U
563-58-6	1,1-Dichloropropene	1.2	U
56-23-5	Carbon tetrachloride	1.2	U
107-06-2	1,2-Dichloroethane	1.2	U
71-43-2	Benzene	1.2	U
79-01-6	Trichloroethylene	1.2	U
78-87-5	1,2-Dichloropropane	1.2	U
74-95-3	Dibromomethane	1.2	U
75-27-4	Bromodichloromethane	1.2	U
10061-01-5	cis-1,3-Dichloropropylene	1.2	U
108-10-1	4-Methyl-2-pentanone	6.0	U
108-88-3	Toluene	2.0	
10061-02-6	trans-1,3-Dichloropropylene	1.2	U
79-00-5	1,1,2-Trichloroethane	1.2	U

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FORM I VOA OLM03.0

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-58926

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Matrix: (soil/water) SOIL Lab Sample ID: 135831001

Sample wt/vol: 4.4 (g/mL) G Lab File ID: 1J519

Level: (low/med) LOW Date Received: 05/05/05

% Moisture: not dec. 6 Date Analyzed: 05/13/05

GC Column: RTX-VOLATILES ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
142-28-9	1,3-Dichloropropane	1.2	U
591-78-6	2-Hexanone	6.0	U
127-18-4	Tetrachloroethylene	1.2	U
124-48-1	Dibromochloromethane	1.2	U
106-93-4	1,2-Dibromoethane	1.2	U
108-90-7	Chlorobenzene	1.2	U
630-20-6	1,1,1,2-Tetrachloroethane	1.2	U
100-41-4	Ethylbenzene	1.2	U
95-47-6	o-Xylene	1.2	U
	m,p-Xylenes	2.4	U
100-42-5	Styrene	1.2	U
75-25-2	Bromoform	1.2	U
98-82-8	Isopropylbenzene	1.2	U
79-34-5	1,1,2,2-Tetrachloroethane	1.2	U
96-18-4	1,2,3-Trichloropropane	1.2	U
108-86-1	Bromobenzene	1.2	U
103-65-1	n-Propylbenzene	1.2	U
95-49-8	2-Chlorotoluene	1.2	U
108-67-8	1,3,5-Trimethylbenzene	1.2	U
95-63-6	1,2,4-Trimethylbenzene	1.2	U
106-43-4	4-Chlorotoluene	1.2	U
98-06-6	tert-Butylbenzene	1.2	U
135-98-8	sec-Butylbenzene	1.2	U
99-87-6	4-Isopropyltoluene	0.88	J
541-73-1	1,3-Dichlorobenzene	1.2	U
106-46-7	1,4-Dichlorobenzene	1.2	U
104-51-8	n-Butylbenzene	1.2	U
95-50-1	1,2-Dichlorobenzene	1.2	U
96-12-8	1,2-Dibromo-3-chloropropane	1.2	U

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JAW 6/9/05

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

RE03-05-58926

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Matrix: (soil/water) SOIL Lab Sample ID: 135831001

Sample wt/vol: 4.4 (g/mL) G Lab File ID: 1J519

Level: (low/med) LOW Date Received: 05/05/05

% Moisture: not dec. 6 Date Analyzed: 05/13/05

GC Column: RTX-VOLATILES ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 3

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	80-56-8	UNKNOWN TERPENE	9.29	72.9	J
2.	13466-78-9	3-CARENE	10.52	110	NJ
3.		UNKNOWN HYDROCARBON	10.76	7.4	J
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FORM I VOA-TIC OLM03.0

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-58927

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Matrix: (soil/water) SOIL Lab Sample ID: 135831002

Sample wt/vol: 4.5 (g/mL) G Lab File ID: 1J520

Level: (low/med) LOW Date Received: 05/05/05

% Moisture: not dec. 9 Date Analyzed: 05/14/05

GC Column: RTX-VOLATILES ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG		Q
75-71-8	Dichlorodifluoromethane		1.2	U
74-87-3	Chloromethane		1.2	U
75-01-4	Vinyl chloride		1.2	U
74-83-9	Bromomethane		1.2	U
75-00-3	Chloroethane		1.2	U
75-69-4	Trichlorofluoromethane		1.2	U
75-35-4	1,1-Dichloroethylene		1.2	U
67-64-1	Acetone	J+, V3	43.1	
76-13-1	Trichlorotrifluoroethane		6.1	U
74-88-4	Iodomethane		6.1	U
75-15-0	Carbon disulfide		6.1	U
75-09-2	Methylene chloride		6.1	U
156-60-5	trans-1,2-Dichloroethylene		1.2	U
75-34-3	1,1-Dichloroethane		1.2	U
78-93-3	2-Butanone	J+, V3	6.8	
156-59-2	cis-1,2-Dichloroethylene		1.2	U
594-20-7	2,2-Dichloropropane		1.2	U
74-97-5	Bromochloromethane		1.2	U
67-66-3	Chloroform		1.2	U
71-55-6	1,1,1-Trichloroethane		1.2	U
563-58-6	1,1-Dichloropropene		1.2	U
56-23-5	Carbon tetrachloride		1.2	U
107-06-2	1,2-Dichloroethane		1.2	U
71-43-2	Benzene		1.2	U
79-01-6	Trichloroethylene		1.2	U
78-87-5	1,2-Dichloropropane		1.2	U
74-95-3	Dibromomethane		1.2	U
75-27-4	Bromodichloromethane		1.2	U
10061-01-5	cis-1,3-Dichloropropylene		1.2	U
108-10-1	4-Methyl-2-pentanone		6.1	U
108-88-3	Toluene		1.2	U
10061-02-6	trans-1,3-Dichloropropylene		1.2	U
79-00-5	1,1,2-Trichloroethane		1.2	U

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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-58927

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Matrix: (soil/water) SOIL Lab Sample ID: 135831002

Sample wt/vol: 4.5 (g/mL) G Lab File ID: 1J520

Level: (low/med) LOW Date Received: 05/05/05

% Moisture: not dec. 9 Date Analyzed: 05/14/05

GC Column: RTX-VOLATILES ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
142-28-9	1,3-Dichloropropane	1.2	U
591-78-6	2-Hexanone	6.1	U
127-18-4	Tetrachloroethylene	1.2	U
124-48-1	Dibromochloromethane	1.2	U
106-93-4	1,2-Dibromoethane	1.2	U
108-90-7	Chlorobenzene	1.2	U
630-20-6	1,1,1,2-Tetrachloroethane	1.2	U
100-41-4	Ethylbenzene	1.2	U
95-47-6	o-Xylene	1.2	U
----------	m,p-Xylenes	2.4	U
100-42-5	Styrene	1.2	U
75-25-2	Bromoform	1.2	U
98-82-8	Isopropylbenzene	1.2	U
79-34-5	1,1,2,2-Tetrachloroethane	1.2	U
96-18-4	1,2,3-Trichloropropane	1.2	U
108-86-1	Bromobenzene	1.2	U
103-65-1	n-Propylbenzene	1.2	U
95-49-8	2-Chlorotoluene	1.2	U
108-67-8	1,3,5-Trimethylbenzene	1.2	U
95-63-6	1,2,4-Trimethylbenzene	1.2	U
106-43-4	4-Chlorotoluene	1.2	U
98-06-6	tert-Butylbenzene	1.2	U
135-98-8	sec-Butylbenzene	1.2	U
99-87-6	4-Isopropyltoluene	0.68	J
541-73-1	1,3-Dichlorobenzene	1.2	U
106-46-7	1,4-Dichlorobenzene	1.2	U
104-51-8	n-Butylbenzene	1.2	U
95-50-1	1,2-Dichlorobenzene	1.2	U
96-12-8	1,2-Dibromo-3-chloropropane	1.2	U

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6/9/05

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1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

RE03-05-58927

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Matrix: (soil/water) SOIL Lab Sample ID: 135831002

Sample wt/vol: 4.5 (g/mL) G Lab File ID: 1J520

Level: (low/med) LOW Date Received: 05/05/05

% Moisture: not dec. 9 Date Analyzed: 05/14/05

GC Column: RTX-VOLATILES ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 5

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN HYDROCARBON	2.04	6.1	J
2. 80-56-8	UNKNOWN TERPENE	9.29	33.0	NJ
3. 13466-78-9	3-CARENE	10.52	46.9	NJ
4.	UNKNOWN HYDROCARBON	11.48	11.9	J
5.	UNKNOWN HYDROCARBON	11.50	6.5	J
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FORM I VOA-TIC OLM03.0

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-58928

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Matrix: (soil/water) SOIL Lab Sample ID: 135831005

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 1J514

Level: (low/med) LOW Date Received: 05/05/05

% Moisture: not dec. _____ Date Analyzed: 05/13/05

GC Column: RTX-VOLATILES ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-71-8	Dichlorodifluoromethane	1.0	U
74-87-3	Chloromethane	1.0	U
75-01-4	Vinyl chloride	1.0	U
74-83-9	Bromomethane	1.0	U
75-00-3	Chloroethane	1.0	U
75-69-4	Trichlorofluoromethane	1.0	U
75-35-4	1,1-Dichloroethylene	7.0	
67-64-1	Acetone	90.7	
76-13-1	Trichlorotrifluoroethane	5.0	U
74-88-4	Iodomethane	5.0	U
75-15-0	Carbon disulfide	5.0	U
75-09-2	Methylene chloride	3.2	J
156-60-5	trans-1,2-Dichloroethylene	1.0	U
75-34-3	1,1-Dichloroethane	1.0	U
78-93-3	2-Butanone	7.6	
156-59-2	cis-1,2-Dichloroethylene	1.0	U
594-20-7	2,2-Dichloropropane	1.0	U
74-97-5	Bromochloromethane	1.0	U
67-66-3	Chloroform	1.0	U
71-55-6	1,1,1-Trichloroethane	1.0	U
563-58-6	1,1-Dichloropropene	1.0	U
56-23-5	Carbon tetrachloride	1.0	U
107-06-2	1,2-Dichloroethane	1.0	U
71-43-2	Benzene	1.0	U
79-01-6	Trichloroethylene	1.0	U
78-87-5	1,2-Dichloropropane	1.0	U
74-95-3	Dibromomethane	1.0	U
75-27-4	Bromodichloromethane	1.0	U
10061-01-5	cis-1,3-Dichloropropylene	1.0	U
108-10-1	4-Methyl-2-pentanone	5.0	U
108-88-3	Toluene	3.2	
10061-02-6	trans-1,3-Dichloropropylene	1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	U

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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-58928

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Matrix: (soil/water) SOIL Lab Sample ID: 135831005

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 1J514

Level: (low/med) LOW Date Received: 05/05/05

% Moisture: not dec. _____ Date Analyzed: 05/13/05

GC Column: RTX-VOLATILES ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND		CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
142-28-9	1,3-Dichloropropane		1.0	U
591-78-6	2-Hexanone		1.8	J
127-18-4	Tetrachloroethylene		1.0	U
124-48-1	Dibromochloromethane		1.0	U
106-93-4	1,2-Dibromoethane		1.0	U
108-90-7	Chlorobenzene		1.0	U
630-20-6	1,1,1,2-Tetrachloroethane		1.0	U
100-41-4	Ethylbenzene		0.39	J
95-47-6	o-Xylene		0.29	J
	m,p-Xylenes		1.2	J
100-42-5	Styrene		1.0	U
75-25-2	Bromoform		1.0	U
98-82-8	Isopropylbenzene		1.0	U
79-34-5	1,1,2,2-Tetrachloroethane		1.0	U
96-18-4	1,2,3-Trichloropropane		1.0	U
108-86-1	Bromobenzene		1.0	U
103-65-1	n-Propylbenzene		1.0	U
95-49-8	2-Chlorotoluene		1.0	U
108-67-8	1,3,5-Trimethylbenzene		1.0	U
95-63-6	1,2,4-Trimethylbenzene	U, V8	0.72	J
106-43-4	4-Chlorotoluene		1.0	U
98-06-6	tert-Butylbenzene		1.0	U
135-98-8	sec-Butylbenzene		1.0	U
99-87-6	4-Isopropyltoluene		0.76	J
541-73-1	1,3-Dichlorobenzene		1.0	U
106-46-7	1,4-Dichlorobenzene	U, V8	0.24	J
104-51-8	n-Butylbenzene		1.0	U
95-50-1	1,2-Dichlorobenzene		1.0	U
96-12-8	1,2-Dibromo-3-chloropropane		1.0	U

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FORM I VOA OLM03.0

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

RE03-05-58928

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Matrix: (soil/water) SOIL Lab Sample ID: 135831005

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 1J514

Level: (low/med) LOW Date Received: 05/05/05

% Moisture: not dec. _____ Date Analyzed: 05/13/05

GC Column: RTX-VOLATILES ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 1

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN HYDROCARBON	10.74	11.0	J
2.				
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FORM I VOA-TIC OLM03.0

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-59557

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Matrix: (soil/water) SOIL Lab Sample ID: 135831003

Sample wt/vol: 4.9 (g/mL) G Lab File ID: 1J521

Level: (low/med) LOW Date Received: 05/05/05

% Moisture: not dec. 9 Date Analyzed: 05/14/05

GC Column: RTX-VOLATILES ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-71-8	Dichlorodifluoromethane	1.1	U
74-87-3	Chloromethane	1.1	U
75-01-4	Vinyl chloride	1.1	U
74-83-9	Bromomethane	1.1	U
75-00-3	Chloroethane	1.1	U
75-69-4	Trichlorofluoromethane	1.1	U
75-35-4	1,1-Dichloroethylene	1.1	U
67-64-1	Acetone	5.6	U
76-13-1	Trichlorotrifluoroethane	5.6	U
74-88-4	Iodomethane	5.6	U
75-15-0	Carbon disulfide	5.6	U
75-09-2	Methylene chloride	5.6	U
156-60-5	trans-1,2-Dichloroethylene	1.1	U
75-34-3	1,1-Dichloroethane	1.1	U
78-93-3	2-Butanone	5.6	U
156-59-2	cis-1,2-Dichloroethylene	1.1	U
594-20-7	2,2-Dichloropropane	1.1	U
74-97-5	Bromochloromethane	1.1	U
67-66-3	Chloroform	1.1	U
71-55-6	1,1,1-Trichloroethane	1.1	U
563-58-6	1,1-Dichloropropene	1.1	U
56-23-5	Carbon tetrachloride	1.1	U
107-06-2	1,2-Dichloroethane	1.1	U
71-43-2	Benzene	1.1	U
79-01-6	Trichloroethylene	1.1	U
78-87-5	1,2-Dichloropropane	1.1	U
74-95-3	Dibromomethane	1.1	U
75-27-4	Bromodichloromethane	1.1	U
10061-01-5	cis-1,3-Dichloropropylene	1.1	U
108-10-1	4-Methyl-2-pentanone	5.6	U
108-88-3	Toluene	1.1	U
10061-02-6	trans-1,3-Dichloropropylene	1.1	U
79-00-5	1,1,2-Trichloroethane	1.1	U

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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-59557

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Matrix: (soil/water) SOIL Lab Sample ID: 135831003

Sample wt/vol: 4.9 (g/mL) G Lab File ID: 1J521

Level: (low/med) LOW Date Received: 05/05/05

% Moisture: not dec. 9 Date Analyzed: 05/14/05

GC Column: RTX-VOLATILES ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
142-28-9	1,3-Dichloropropane	1.1	U
591-78-6	2-Hexanone	5.6	U
127-18-4	Tetrachloroethylene	1.1	U
124-48-1	Dibromochloromethane	1.1	U
106-93-4	1,2-Dibromoethane	1.1	U
108-90-7	Chlorobenzene	1.1	U
630-20-6	1,1,1,2-Tetrachloroethane	1.1	U
100-41-4	Ethylbenzene	1.1	U
95-47-6	o-Xylene	1.1	U
	m,p-Xylenes	2.2	U
100-42-5	Styrene	1.1	U
75-25-2	Bromoform	1.1	U
98-82-8	Isopropylbenzene	1.1	U
79-34-5	1,1,2,2-Tetrachloroethane	1.1	U
96-18-4	1,2,3-Trichloropropane	1.1	U
108-86-1	Bromobenzene	1.1	U
103-65-1	n-Propylbenzene	1.1	U
95-49-8	2-Chlorotoluene	1.1	U
108-67-8	1,3,5-Trimethylbenzene	1.1	U
95-63-6	1,2,4-Trimethylbenzene	1.1	U
106-43-4	4-Chlorotoluene	1.1	U
98-06-6	tert-Butylbenzene	1.1	U
135-98-8	sec-Butylbenzene	1.1	U
99-87-6	4-Isopropyltoluene	1.1	U
541-73-1	1,3-Dichlorobenzene	1.1	U
106-46-7	1,4-Dichlorobenzene	1.1	U
104-51-8	n-Butylbenzene	1.1	U
95-50-1	1,2-Dichlorobenzene	1.1	U
96-12-8	1,2-Dibromo-3-chloropropane	1.1	U

FORM I VOA OLM03.0

JAW
6/9/05

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

RE03-05-59557

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Matrix: (soil/water) SOIL Lab Sample ID: 135831003

Sample wt/vol: 4.9 (g/mL) G Lab File ID: 1J521

Level: (low/med) LOW Date Received: 05/05/05

% Moisture: not dec. 9 Date Analyzed: 05/14/05

GC Column: RTX-VOLATILES ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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FORM I VOA-TIC OLM03.0

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-59558

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Matrix: (soil/water) SOIL Lab Sample ID: 135831004

Sample wt/vol: 5.3 (g/mL) G Lab File ID: 1J522

Level: (low/med) LOW Date Received: 05/05/05

% Moisture: not dec. 7 Date Analyzed: 05/14/05

GC Column: RTX-VOLATILES ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-71-8	Dichlorodifluoromethane	1.0	U
74-87-3	Chloromethane	1.0	U
75-01-4	Vinyl chloride	1.0	U
74-83-9	Bromomethane	1.0	U
75-00-3	Chloroethane	1.0	U
75-69-4	Trichlorofluoromethane	1.0	U
75-35-4	1,1-Dichloroethylene	1.0	U
67-64-1	Acetone	5.1	U
76-13-1	Trichlorotrifluoroethane	5.1	U
74-88-4	Iodomethane	5.1	U
75-15-0	Carbon disulfide	5.1	U
75-09-2	Methylene chloride	5.1	U
156-60-5	trans-1,2-Dichloroethylene	1.0	U
75-34-3	1,1-Dichloroethane	1.0	U
78-93-3	2-Butanone	5.1	U
156-59-2	cis-1,2-Dichloroethylene	1.0	U
594-20-7	2,2-Dichloropropane	1.0	U
74-97-5	Bromochloromethane	1.0	U
67-66-3	Chloroform	1.0	U
71-55-6	1,1,1-Trichloroethane	1.0	U
563-58-6	1,1-Dichloropropene	1.0	U
56-23-5	Carbon tetrachloride	1.0	U
107-06-2	1,2-Dichloroethane	1.0	U
71-43-2	Benzene	1.0	U
79-01-6	Trichloroethylene	1.0	U
78-87-5	1,2-Dichloropropane	1.0	U
74-95-3	Dibromomethane	1.0	U
75-27-4	Bromodichloromethane	1.0	U
10061-01-5	cis-1,3-Dichloropropylene	1.0	U
108-10-1	4-Methyl-2-pentanone	5.1	U
108-88-3	Toluene	0.30	J
10061-02-6	trans-1,3-Dichloropropylene	1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	U

FORM I VOA OLM03.0

JMW 6/9/05

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-59558

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Matrix: (soil/water) SOIL Lab Sample ID: 135831004

Sample wt/vol: 5.3 (g/mL) G Lab File ID: 1J522

Level: (low/med) LOW Date Received: 05/05/05

% Moisture: not dec. 7 Date Analyzed: 05/14/05

GC Column: RTX-VOLATILES ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
142-28-9	1,3-Dichloropropane	1.0	U
591-78-6	2-Hexanone	5.1	U
127-18-4	Tetrachloroethylene	1.0	U
124-48-1	Dibromochloromethane	1.0	U
106-93-4	1,2-Dibromoethane	1.0	U
108-90-7	Chlorobenzene	1.0	U
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U
100-41-4	Ethylbenzene	1.0	U
95-47-6	o-Xylene	1.0	U
	m,p-Xylenes	2.0	U
100-42-5	Styrene	1.0	U
75-25-2	Bromoform	1.0	U
98-82-8	Isopropylbenzene	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U
96-18-4	1,2,3-Trichloropropane	1.0	U
108-86-1	Bromobenzene	1.0	U
103-65-1	n-Propylbenzene	1.0	U
95-49-8	2-Chlorotoluene	1.0	U
108-67-8	1,3,5-Trimethylbenzene	1.0	U
95-63-6	1,2,4-Trimethylbenzene	1.0	U
106-43-4	4-Chlorotoluene	1.0	U
98-06-6	tert-Butylbenzene	1.0	U
135-98-8	sec-Butylbenzene	1.0	U
99-87-6	4-Isopropyltoluene	1.0	U
541-73-1	1,3-Dichlorobenzene	1.0	U
106-46-7	1,4-Dichlorobenzene	1.0	U
104-51-8	n-Butylbenzene	1.0	U
95-50-1	1,2-Dichlorobenzene	1.0	U
96-12-8	1,2-Dibromo-3-chloropropane	1.0	U

FORM I VOA OLM03.0

JAW
6/9/05

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

RE03-05-59558

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Matrix: (soil/water) SOIL Lab Sample ID: 135831004

Sample wt/vol: 5.3 (g/mL) G Lab File ID: 1J522

Level: (low/med) LOW Date Received: 05/05/05

% Moisture: not dec. 7 Date Analyzed: 05/14/05

GC Column: RTX-VOLATILES ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 2

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 80-56-8	UNKNOWN TERPENE	9.29	55.2	NJ
2. 13466-78-9	3-CARENE	10.52	18.0	NJ
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FORM I VOA-TIC OLM03.0

1B
SVOA ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-58926

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Matrix: (soil/water) SOIL Lab Sample ID: 135831001

Sample wt/vol: 30.0 (g/mL) G Lab File ID: S8E1912

Level: (low/med) LOW Date Received: 05/05/05

% Moisture: 6 decanted: (Y/N) N Date Extracted: 05/10/05

Concentrated Extract Volume: 1.00(mL) Date Analyzed: 05/19/05

Injection Volume: 0.5(uL) Dilution Factor: 10.0

GPC Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
62-75-9	N-Methyl-N-nitrosomethylamin	3540	U
110-86-1	Pyridine	3540	U
62-53-3	Aniline	3540	U
108-95-2	Phenol	3540	U
111-44-4	bis(2-Chloroethyl) ether	3540	U
95-57-8	2-Chlorophenol	3540	U
541-73-1	1,3-Dichlorobenzene	3540	U
106-46-7	1,4-Dichlorobenzene	3540	U
100-51-6	Benzyl alcohol	3540	U
95-50-1	1,2-Dichlorobenzene	3540	U
108-60-1	bis(2-Chloroisopropyl)ether	3540	U
95-48-7	o-Cresol	3540	U
621-64-7	N-Nitrosodipropylamine	3540	U
65794-96-9	m,p-Cresols	3540	U
67-72-1	Hexachloroethane	3540	U
78-59-1	Isophorone	3540	U
88-75-5	2-Nitrophenol	3540	U
105-67-9	2,4-Dimethylphenol	3540	U
111-91-1	bis(2-Chloroethoxy)methane	3540	U
120-83-2	2,4-Dichlorophenol	3540	U
65-85-0	Benzoic acid	7080	U
120-82-1	1,2,4-Trichlorobenzene	3540	U
91-20-3	Naphthalene	354	U
106-47-8	4-Chloroaniline	3540	U
87-68-3	Hexachlorobutadiene	3540	U
59-50-7	4-Chloro-3-methylphenol	3540	U
91-57-6	2-Methylnaphthalene	354	U
77-47-4	Hexachlorocyclopentadiene	3540	U
88-06-2	2,4,6-Trichlorophenol	3540	U
95-95-4	2,4,5-Trichlorophenol	3540	U
91-58-7	2-Chloronaphthalene	354	U
88-74-4	o-Nitroaniline	3540	U
99-09-2	m-Nitroaniline	3540	U

FORM I SV-1 OLM03.0

JAW 6/9/05

1C
SVOA ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-58926

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Matrix: (soil/water) SOIL Lab Sample ID: 135831001

Sample wt/vol: 30.0 (g/mL) G Lab File ID: S8E1912

Level: (low/med) LOW Date Received: 05/05/05

% Moisture: 6 decanted: (Y/N) N Date Extracted: 05/10/05

Concentrated Extract Volume: 1.00(mL) Date Analyzed: 05/19/05

Injection Volume: 0.5(uL) Dilution Factor: 10.0

GPC Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG		Q
131-11-3	Dimethylphthalate		3540	U
606-20-2	2,6-Dinitrotoluene		3540	U
208-96-8	Acenaphthylene		354	U
83-32-9	Acenaphthene		354	U
51-28-5	2,4-Dinitrophenol		7080	U
132-64-9	Dibenzofuran		3540	U
121-14-2	2,4-Dinitrotoluene		3540	U
84-66-2	Diethylphthalate		3540	U
100-02-7	4-Nitrophenol		3540	U
86-73-7	Fluorene		354	U
7005-72-3	4-Chlorophenylphenylether		3540	U
534-52-1	2-Methyl-4,6-dinitrophenol		3540	U
100-01-6	p-Nitroaniline		3540	U
122-39-4	Diphenylamine		3540	U
122-66-7	1,2-Diphenylhydrazine		3540	U
101-55-3	4-Bromophenylphenylether		3540	U
118-74-1	Hexachlorobenzene		3540	U
87-86-5	Pentachlorophenol		3540	U
85-01-8	Phenanthrene		354	U
120-12-7	Anthracene		354	U
84-74-2	Di-n-butylphthalate		3540	U
206-44-0	Fluoranthene		354	U
129-00-0	Pyrene		354	U
85-68-7	Butylbenzylphthalate		3540	U
56-55-3	Benzo(a)anthracene		354	U
91-94-1	3,3'-Dichlorobenzidine		3540	U
218-01-9	Chrysene		354	U
117-81-7	bis(2-Ethylhexyl)phthalate	U, SVB	2120	JB
117-84-0	Di-n-octylphthalate		3540	U
205-99-2	Benzo(b)fluoranthene		354	U
207-08-9	Benzo(k)fluoranthene		354	U
50-32-8	Benzo(a)pyrene		354	U
193-39-5	Indeno(1,2,3-cd)pyrene		354	U

FORM I SV-2 OLM03.0

JAW
6/9/05

1C
SVOA ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-58926

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Matrix: (soil/water) SOIL Lab Sample ID: 135831001

Sample wt/vol: 30.0 (g/mL) G Lab File ID: S8E1912

Level: (low/med) LOW Date Received: 05/05/05

% Moisture: 6 decanted: (Y/N) N Date Extracted: 05/10/05

Concentrated Extract Volume: 1.00(mL) Date Analyzed: 05/19/05

Injection Volume: 0.5(uL) Dilution Factor: 10.0

GPC Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
53-70-3	Dibenzo(a,h)anthracene	354	U
191-24-2	Benzo(ghi)perylene	354	U

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6/9/05

FORM I SV-3 OLM03.0

1F

SVOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

RE03-05-58926

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Matrix: (soil/water) SOIL Lab Sample ID: 135831001

Sample wt/vol: 30.0 (g/mL) G Lab File ID: S8E1912

Level: (low/med) LOW Date Received: 05/05/05

% Moisture: 6 decanted: (Y/N) N Date Extracted: 05/10/05

Concentrated Extract Volume: 1.00(mL) Date Analyzed: 05/19/05

Injection Volume: 0.5(uL) Dilution Factor: 10.0

GPC Cleanup: (Y/N) N

Number TICs found: 7

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 16696-65-4	1,11-DIBROMOUNDECANE	7.91	8350	NJ
2. 20175-84-2	[1,2'-BINAPHTHALENE]-5,5',8,	7.96	7220	NJ
3. 19780-11-1	2-DODECEN-1-YL(-)SUCCINIC AN	7.99	6250	NJ
4.	UNKNOWN	8.04	7810	J
5. 4452-45-3	1,14-DOCOSANEDIOL	9.06	15000	NJ
6. 1000100-23-6	DECAHYDRO-9-ETHYL-4,4,8,10-T	9.17	14700	NJ
7. 7683-64-9	SQUALENE	9.24	8870	NJ
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FORM I SV-TIC OLM03.0

1B
SVOA ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-58927

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Matrix: (soil/water) SOIL Lab Sample ID: 135831002

Sample wt/vol: 30.0 (g/mL) G Lab File ID: S8E1913

Level: (low/med) LOW Date Received: 05/05/05

% Moisture: 9 decanted: (Y/N) N Date Extracted: 05/10/05

Concentrated Extract Volume: 1.00(mL) Date Analyzed: 05/19/05

Injection Volume: 0.5(uL) Dilution Factor: 10.0

GPC Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
62-75-9	N-Methyl-N-nitrosomethylamin	3660	U
110-86-1	Pyridine	3660	U
62-53-3	Aniline	3660	U
108-95-2	Phenol	3660	U
111-44-4	bis(2-Chloroethyl) ether	3660	U
95-57-8	2-Chlorophenol	3660	U
541-73-1	1,3-Dichlorobenzene	3660	U
106-46-7	1,4-Dichlorobenzene	3660	U
100-51-6	Benzyl alcohol	3660	U
95-50-1	1,2-Dichlorobenzene	3660	U
108-60-1	bis(2-Chloroisopropyl)ether	3660	U
95-48-7	o-Cresol	3660	U
621-64-7	N-Nitrosodipropylamine	3660	U
65794-96-9	m,p-Cresols	3660	U
67-72-1	Hexachloroethane	3660	U
78-59-1	Isophorone	3660	U
88-75-5	2-Nitrophenol	3660	U
105-67-9	2,4-Dimethylphenol	3660	U
111-91-1	bis(2-Chloroethoxy)methane	3660	U
120-83-2	2,4-Dichlorophenol	3660	U
65-85-0	Benzoic acid	7330	U
120-82-1	1,2,4-Trichlorobenzene	3660	U
91-20-3	Naphthalene	366	U
106-47-8	4-Chloroaniline	3660	U
87-68-3	Hexachlorobutadiene	3660	U
59-50-7	4-Chloro-3-methylphenol	3660	U
91-57-6	2-Methylnaphthalene	366	U
77-47-4	Hexachlorocyclopentadiene	3660	U
88-06-2	2,4,6-Trichlorophenol	3660	U
95-95-4	2,4,5-Trichlorophenol	3660	U
91-58-7	2-Chloronaphthalene	366	U
88-74-4	o-Nitroaniline	3660	U
99-09-2	m-Nitroaniline	3660	U

JAW 6/9/05

FORM I SV-1 OLM03.0

1C
SVOA ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-58927

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Matrix: (soil/water) SOIL Lab Sample ID: 135831002

Sample wt/vol: 30.0 (g/mL) G Lab File ID: S8E1913

Level: (low/med) LOW Date Received: 05/05/05

% Moisture: 9 decanted: (Y/N) N Date Extracted: 05/10/05

Concentrated Extract Volume: 1.00(mL) Date Analyzed: 05/19/05

Injection Volume: 0.5(uL) Dilution Factor: 10.0

GPC Cleanup: (Y/N) N

CAS NO.	COMPOUND		CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
131-11-3	Dimethylphthalate		3660	U
606-20-2	2,6-Dinitrotoluene		3660	U
208-96-8	Acenaphthylene		366	U
83-32-9	Acenaphthene		366	U
51-28-5	2,4-Dinitrophenol		7330	U
132-64-9	Dibenzofuran		3660	U
121-14-2	2,4-Dinitrotoluene		3660	U
84-66-2	Diethylphthalate		3660	U
100-02-7	4-Nitrophenol		3660	U
86-73-7	Fluorene		366	U
7005-72-3	4-Chlorophenylphenylether		3660	U
534-52-1	2-Methyl-4,6-dinitrophenol		3660	U
100-01-6	p-Nitroaniline		3660	U
122-39-4	Diphenylamine		3660	U
122-66-7	1,2-Diphenylhydrazine		3660	U
101-55-3	4-Bromophenylphenylether		3660	U
118-74-1	Hexachlorobenzene		3660	U
87-86-5	Pentachlorophenol		3660	U
85-01-8	Phenanthrene	u, SV8	145	J
120-12-7	Anthracene		366	U
84-74-2	Di-n-butylphthalate		3660	U
206-44-0	Fluoranthene	u, SV8	208	J
129-00-0	Pyrene	u, SV8	308	J
85-68-7	Butylbenzylphthalate		3660	U
56-55-3	Benzo(a)anthracene		366	U
91-94-1	3,3'-Dichlorobenzidine		3660	U
218-01-9	Chrysene	uJ, SV1	366	U
117-81-7	bis(2-Ethylhexyl)phthalate	JAW	3660	U
117-84-0	Di-n-octylphthalate		3660	U
205-99-2	Benzo(b)fluoranthene		366	U
207-08-9	Benzo(k)fluoranthene		366	U
50-32-8	Benzo(a)pyrene		366	U
193-39-5	Indeno(1,2,3-cd)pyrene		366	U

JAW 6/9/05

FORM I SV-2 OLM03.0

1C
SVOA ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-58927

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Matrix: (soil/water) SOIL Lab Sample ID: 135831002

Sample wt/vol: 30.0 (g/mL) G Lab File ID: S8E1913

Level: (low/med) LOW Date Received: 05/05/05

% Moisture: 9 decanted: (Y/N) N Date Extracted: 05/10/05

Concentrated Extract Volume: 1.00(mL) Date Analyzed: 05/19/05

Injection Volume: 0.5(uL) Dilution Factor: 10.0

GPC Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
53-70-3	Dibenzo(a,h)anthracene	UJ, SV1 ~~366~~	U
191-24-2	Benzo(ghi)perylene	366	U

JAW 6/9/05

FORM I SV-3 OLM03.0

1F
SVOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

RE03-05-58927

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Matrix: (soil/water) SOIL Lab Sample ID: 135831002

Sample wt/vol: 30.0 (g/mL) G Lab File ID: S8E1913

Level: (low/med) LOW Date Received: 05/05/05

% Moisture: 9 decanted: (Y/N) N Date Extracted:05/10/05

Concentrated Extract Volume: 1.00(mL) Date Analyzed: 05/19/05

Injection Volume: 0.5(uL) Dilution Factor: 10.0

GPC Cleanup: (Y/N) N

Number TICs found: 6

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 1000196-98-1	BICYCLO[4.3.0]NONANE, 2,2,6,	7.92	13100	NJ
2. 19780-11-1	2-DODECEN-1-YL(-)SUCCINIC AN	7.96	6480	NJ
3. 1786-12-5	CYCLOTETRADECANE, 1,7,11-TRI	8.53	11400	NJ
4. 20175-84-2	[1,2'-BINAPHTHALENE]-5,5',8,	8.57	10100	NJ
5. 1000130-78-5	11,12-DIBROMO-TETRADECAN-1-O	9.08	12300	NJ
6. 53584-60-4	28-NOR-17.ALPHA.(H)-HOPANE	10.17	10700	NJ
7.				
8.				
9.				
10.				
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FORM I SV-TIC OLM03.0

1B
SVOA ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-59557

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Matrix: (soil/water) SOIL Lab Sample ID: 135831003

Sample wt/vol: 30.0 (g/mL) G Lab File ID: S8E1914

Level: (low/med) LOW Date Received: 05/05/05

% Moisture: 9 decanted: (Y/N) N Date Extracted: 05/10/05

Concentrated Extract Volume: 1.00(mL) Date Analyzed: 05/19/05

Injection Volume: 0.5(uL) Dilution Factor: 10.0

GPC Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
62-75-9	N-Methyl-N-nitrosomethylamin	3650	U
110-86-1	Pyridine	3650	U
62-53-3	Aniline	3650	U
108-95-2	Phenol	3650	U
111-44-4	bis(2-Chloroethyl) ether	3650	U
95-57-8	2-Chlorophenol	3650	U
541-73-1	1,3-Dichlorobenzene	3650	U
106-46-7	1,4-Dichlorobenzene	3650	U
100-51-6	Benzyl alcohol	3650	U
95-50-1	1,2-Dichlorobenzene	3650	U
108-60-1	bis(2-Chloroisopropyl)ether	3650	U
95-48-7	o-Cresol	3650	U
621-64-7	N-Nitrosodipropylamine	3650	U
65794-96-9	m,p-Cresols	3650	U
67-72-1	Hexachloroethane	3650	U
78-59-1	Isophorone	3650	U
88-75-5	2-Nitrophenol	3650	U
105-67-9	2,4-Dimethylphenol	3650	U
111-91-1	bis(2-Chloroethoxy)methane	3650	U
120-83-2	2,4-Dichlorophenol	3650	U
65-85-0	Benzoic acid	7290	U
120-82-1	1,2,4-Trichlorobenzene	3650	U
91-20-3	Naphthalene	365	U
106-47-8	4-Chloroaniline	3650	U
87-68-3	Hexachlorobutadiene	3650	U
59-50-7	4-Chloro-3-methylphenol	3650	U
91-57-6	2-Methylnaphthalene	365	U
77-47-4	Hexachlorocyclopentadiene	3650	U
88-06-2	2,4,6-Trichlorophenol	3650	U
95-95-4	2,4,5-Trichlorophenol	3650	U
91-58-7	2-Chloronaphthalene	365	U
88-74-4	o-Nitroaniline	3650	U
99-09-2	m-Nitroaniline	3650	U

JAW 6/9/05

FORM I SV-1 OLM03.0

1C
SVOA ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-59557

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Matrix: (soil/water) SOIL Lab Sample ID: 135831003

Sample wt/vol: 30.0 (g/mL) G Lab File ID: S8E1914

Level: (low/med) LOW Date Received: 05/05/05

% Moisture: 9 decanted: (Y/N) N Date Extracted: 05/10/05

Concentrated Extract Volume: 1.00(mL) Date Analyzed: 05/19/05

Injection Volume: 0.5(uL) Dilution Factor: 10.0

GPC Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG		Q
131-11-3	Dimethylphthalate		3650	U
606-20-2	2,6-Dinitrotoluene		3650	U
208-96-8	Acenaphthylene		365	U
83-32-9	Acenaphthene		365	U
51-28-5	2,4-Dinitrophenol		7290	U
132-64-9	Dibenzofuran		3650	U
121-14-2	2,4-Dinitrotoluene		3650	U
84-66-2	Diethylphthalate		3650	U
100-02-7	4-Nitrophenol		3650	U
86-73-7	Fluorene		365	U
7005-72-3	4-Chlorophenylphenylether		3650	U
534-52-1	2-Methyl-4,6-dinitrophenol		3650	U
100-01-6	p-Nitroaniline		3650	U
122-39-4	Diphenylamine		3650	U
122-66-7	1,2-Diphenylhydrazine		3650	U
101-55-3	4-Bromophenylphenylether		3650	U
118-74-1	Hexachlorobenzene		3650	U
87-86-5	Pentachlorophenol		3650	U
85-01-8	Phenanthrene	u, SV8	218	J
120-12-7	Anthracene		365	U
84-74-2	Di-n-butylphthalate		3650	U
206-44-0	Fluoranthene		312	J
129-00-0	Pyrene		391	
85-68-7	Butylbenzylphthalate		3650	U
56-55-3	Benzo(a)anthracene		365	U
91-94-1	3,3'-Dichlorobenzidine		3650	U
218-01-9	Chrysene	u, SV8	222	J
117-81-7	bis(2-Ethylhexyl)phthalate		2020	JB
117-84-0	Di-n-octylphthalate		3650	U
205-99-2	Benzo(b)fluoranthene	u, SV8	789	
207-08-9	Benzo(k)fluoranthene		365	U
50-32-8	Benzo(a)pyrene	u, SV8	903	
193-39-5	Indeno(1,2,3-cd)pyrene		365	U

FORM I SV-2 OLM03.0

JAW 6/9/05

1C
SVOA ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-59557

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Matrix: (soil/water) SOIL Lab Sample ID: 135831003

Sample wt/vol: 30.0 (g/mL) G Lab File ID: S8E1914

Level: (low/med) LOW Date Received: 05/05/05

% Moisture: 9 decanted: (Y/N) N Date Extracted: 05/10/05

Concentrated Extract Volume: 1.00(mL) Date Analyzed: 05/19/05

Injection Volume: 0.5(uL) Dilution Factor: 10.0

GPC Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
53-70-3	Dibenzo(a,h)anthracene	365	U
191-24-2	Benzo(ghi)perylene	365	U

JAW
6/9/05

FORM I SV-3 OLM03.0

1F
SVOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

RE03-05-59557

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Matrix: (soil/water) SOIL Lab Sample ID: 135831003

Sample wt/vol: 30.0 (g/mL) G Lab File ID: S8E1914

Level: (low/med) LOW Date Received: 05/05/05

% Moisture: 9 decanted: (Y/N) N Date Extracted: 05/10/05

Concentrated Extract Volume: 1.00(mL) Date Analyzed: 05/19/05

Injection Volume: 0.5(uL) Dilution Factor: 10.0

GPC Cleanup: (Y/N) N

Number TICs found: 22

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		UNKNOWN HYDROCARBON	7.86	2060	J
2.		UNKNOWN HYDROCARBON	7.89	2540	J
3.		UNKNOWN	7.96	2150	J
4.		UNKNOWN HYDROCARBON	8.01	2720	J
5.		UNKNOWN ANHYDRIDE	8.03	3160	J
6.		UNKNOWN	8.07	4260	J
7.		UNKNOWN	8.16	5820	J
8.		UNKNOWN HYDROCARBON	8.22	4960	J
9.		UNKNOWN	8.28	2290	J
10.		UNKNOWN	8.31	3610	J
11.		UNKNOWN	8.34	2410	J
12.		UNKNOWN	8.51	3430	J
13.		UNKNOWN	8.54	4050	J
14.		UNKNOWN HYDROCARBON	8.57	4020	J
15.	1000130-81-0	E-11,13-DIMETHYL-12-TETRADEC	8.64	2470	NJ
16.		UNKNOWN HYDROCARBON	8.66	2310	J
17.		UNKNOWN HYDROCARBON	8.70	2490	J
18.		UNKNOWN	8.73	2030	J
19.		UNKNOWN	9.02	3350	J
20.		UNKNOWN	9.05	3570	J
21.		UNKNOWN	9.30	4050	J
22.		UNKNOWN	9.41	4100	J
23.					
24.					
25.					
26.					
27.					
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30.					

FORM I SV-TIC OLM03.0

1B
SVOA ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-59558

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Matrix: (soil/water) SOIL Lab Sample ID: 135831004

Sample wt/vol: 30.0 (g/mL) G Lab File ID: S8E1915

Level: (low/med) LOW Date Received: 05/05/05

% Moisture: 7 decanted: (Y/N) N Date Extracted: 05/10/05

Concentrated Extract Volume: 1.00(mL) Date Analyzed: 05/19/05

Injection Volume: 0.5(uL) Dilution Factor: 10.0

GPC Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
62-75-9	N-Methyl-N-nitrosomethylamin	3590	U
110-86-1	Pyridine	3590	U
62-53-3	Aniline	3590	U
108-95-2	Phenol	3590	U
111-44-4	bis(2-Chloroethyl) ether	3590	U
95-57-8	2-Chlorophenol	3590	U
541-73-1	1,3-Dichlorobenzene	3590	U
106-46-7	1,4-Dichlorobenzene	3590	U
100-51-6	Benzyl alcohol	3590	U
95-50-1	1,2-Dichlorobenzene	3590	U
108-60-1	bis(2-Chloroisopropyl)ether	3590	U
95-48-7	o-Cresol	3590	U
621-64-7	N-Nitrosodipropylamine	3590	U
65794-96-9	m,p-Cresols	3590	U
67-72-1	Hexachloroethane	3590	U
78-59-1	Isophorone	3590	U
88-75-5	2-Nitrophenol	3590	U
105-67-9	2,4-Dimethylphenol	3590	U
111-91-1	bis(2-Chloroethoxy)methane	3590	U
120-83-2	2,4-Dichlorophenol	3590	U
65-85-0	Benzoic acid	7170	U
120-82-1	1,2,4-Trichlorobenzene	3590	U
91-20-3	Naphthalene	359	U
106-47-8	4-Chloroaniline	3590	U
87-68-3	Hexachlorobutadiene	3590	U
59-50-7	4-Chloro-3-methylphenol	3590	U
91-57-6	2-Methylnaphthalene	359	U
77-47-4	Hexachlorocyclopentadiene	3590	U
88-06-2	2,4,6-Trichlorophenol	3590	U
95-95-4	2,4,5-Trichlorophenol	3590	U
91-58-7	2-Chloronaphthalene	359	U
88-74-4	o-Nitroaniline	3590	U
99-09-2	m-Nitroaniline	3590	U

JAW 6/9/05

FORM I SV-1 OLM03.0

1C
SVOA ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-59558

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Matrix: (soil/water) SOIL Lab Sample ID: 135831004

Sample wt/vol: 30.0 (g/mL) G Lab File ID: S8E1915

Level: (low/med) LOW Date Received: 05/05/05

% Moisture: 7 decanted: (Y/N) N Date Extracted: 05/10/05

Concentrated Extract Volume: 1.00(mL) Date Analyzed: 05/19/05

Injection Volume: 0.5(uL) Dilution Factor: 10.0

GPC Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
131-11-3	Dimethylphthalate	3590	U
606-20-2	2,6-Dinitrotoluene	3590	U
208-96-8	Acenaphthylene	359	U
83-32-9	Acenaphthene	359	U
51-28-5	2,4-Dinitrophenol	7170	U
132-64-9	Dibenzofuran	3590	U
121-14-2	2,4-Dinitrotoluene	3590	U
84-66-2	Diethylphthalate	3590	U
100-02-7	4-Nitrophenol	3590	U
86-73-7	Fluorene	359	U
7005-72-3	4-Chlorophenylphenylether	3590	U
534-52-1	2-Methyl-4,6-dinitrophenol	3590	U
100-01-6	p-Nitroaniline	3590	U
122-39-4	Diphenylamine	3590	U
122-66-7	1,2-Diphenylhydrazine	3590	U
101-55-3	4-Bromophenylphenylether	3590	U
118-74-1	Hexachlorobenzene	3590	U
87-86-5	Pentachlorophenol	3590	U
85-01-8	Phenanthrene	146	J
120-12-7	Anthracene	359	U
84-74-2	Di-n-butylphthalate	3590	U
206-44-0	Fluoranthene	218	J
129-00-0	Pyrene	255	J
85-68-7	Butylbenzylphthalate	3590	U
56-55-3	Benzo(a)anthracene	359	U
91-94-1	3,3'-Dichlorobenzidine	3590	U
218-01-9	Chrysene	U, SVB 147	J
117-81-7	bis(2-Ethylhexyl)phthalate	3160	JB
117-84-0	Di-n-octylphthalate	3590	U
205-99-2	Benzo(b)fluoranthene	359	U
207-08-9	Benzo(k)fluoranthene	359	U
50-32-8	Benzo(a)pyrene	U, SVB 834	
193-39-5	Indeno(1,2,3-cd)pyrene	UJ, SVB 359	U

JAW

FORM I SV-2 OLM03.0

JAW 6/9/05

1C
SVOA ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-59558

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Matrix: (soil/water) SOIL Lab Sample ID: 135831004

Sample wt/vol: 30.0 (g/mL) G Lab File ID: S8E1915

Level: (low/med) LOW Date Received: 05/05/05

% Moisture: 7 decanted: (Y/N) N Date Extracted: 05/10/05

Concentrated Extract Volume: 1.00(mL) Date Analyzed: 05/19/05

Injection Volume: 0.5(uL) Dilution Factor: 10.0

GPC Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
53-70-3	Dibenzo(a,h)anthracene	UJ, SVI 359	U
191-24-2	Benzo(ghi)perylene	359	U

JAW 6/9/05

FORM I SV-3 OLM03.0

1F

SVOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

RE03-05-59558

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Matrix: (soil/water) SOIL Lab Sample ID: 135831004

Sample wt/vol: 30.0 (g/mL) G Lab File ID: S8E1915

Level: (low/med) LOW Date Received: 05/05/05

% Moisture: 7 decanted: (Y/N) N Date Extracted: 05/10/05

Concentrated Extract Volume: 1.00(mL) Date Analyzed: 05/19/05

Injection Volume: 0.5(uL) Dilution Factor: 10.0

GPC Cleanup: (Y/N) N

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.					
2.					
3.					
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7.					
8.					
9.					
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FORM I SV-TIC OLM03.0

DATA VALIDATION COVER SHEET (Example)

SECTION I.

REQUEST NUMBER: 32025 COST CODE: _____

VALIDATION DATE: _____

LAB NAME: _____ LAB CODE: _____

VALIDATOR: _____ ORGANIZATION: _____

ANALYTICAL SUITE: ___ VOLATILES ___ HIGH EXPLOSIVES

___ SEMIVOLATILES ___ INORGANICS

___ PESTICIDES/AROCLORS ___ RADIOCHEMISTRY

OTHER (describe) _____

SECTION II. COMPLETENESS CHECKLIST

Item	Present? (Y/N/NA)	Item	Present? (Y/N/NA)
1. COC form(s)		2. Case Narrative	
3. Sample Results		4. Sample Chromatograms	
5. Standard Chromatograms		6. Quantitation Reports	
7. QC Forms			

Identify any samples in the assigned Request Number that are missing:

_____ _____ _____ _____ _____ _____

_____ _____ _____ _____ _____ _____

Comments: include information about requests to the laboratory and agreed upon date of resolution and lab contact: (Attach additional comment sheets as necessary)

_____

_____

_____

Signature/1st validation: _____ Date/1st validation: _____

Signature/2nd validation: _____ Date/2nd validation: _____

GENERAL ENGINEERING LABORATORIES, LLC
a Member of THE GEL GROUP, INC.
Meeting Today's Needs with a Vision for Tomorrow

May 31, 2005

Ms. Joylene Valdez, MS-M707
Los Alamos National Laboratory
TA-3, Bldg. 1237, Drop Pt. 03U
Los Alamos, NM 87544

Re: Contract No. 12631-0011 2P

Dear Ms. Valdez:

I am sending you the data package for the soil samples for release # 3202S that were analyzed for Organic parameters.

General Engineering Laboratories appreciates this opportunity to provide you with analytical results, and trusts that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 769-7391.

Yours very truly,

Valerie S. Davis
Project Manager

enclosure

P.O. Box 30712 • Charleston, SC 29417 • 2040 Savage Road (29407)
Phone (843) 556-8171 • Fax (843) 766-1178 • www.gel.com

LOS ALAMOS NATIONAL LABORATORY
Contract No. 12631-0011 2P
Release # 3202S

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Sample Data 649
Standards Data 688
Quality Control Data 841
Miscellaneous Data 874

GENERAL NARRATIVE

CASE NARRATIVE
for
Los Alamos National Laboratory
Contract No. 12631-0011 2P
Release # 3202S

May 30, 2005

Laboratory Identification:

General Engineering Laboratories, LLC.

Mailing Address:

P.O. Box 30712
Charleston, South Carolina 29417

Express Mail Delivery and Shipping Address:

2040 Savage Road
Charleston, South Carolina 29407

Telephone Number:

(843) 556-8171

Summary:

Sample receipt

The samples for Los Alamos National Laboratory SMO release #3202S arrived at General Engineering Laboratories, LLC., (GEL) Charleston, South Carolina on May 5, 2005 for environmental analyses. The sample containers arrived without any visible signs of tampering or breakage. The sample containers were received at 2°C temperature.

The laboratory received the following samples:

Laboratory Identification	Sample Description
135831001	RE03-05-58926
135831002	RE03-05-58927
135831003	RE03-05-59557
135831004	RE03-05-59558
135831005	RE03-05-58928

2

Internal Chain of Custody:

Custody was maintained for the samples.

Data Package:

The enclosed data package contains the following sections: Case Narrative, Chain of Custody, Cooler Receipt Checklist, Data Qualifier Review Sheet, Volatile Analysis, Semivolatile Analysis, FID Analysis, PCB Analysis, and TPH-GRO Analysis.

I certify that this data report is in compliance with the terms and conditions of the subcontract and task order, both technically and for completeness, for other than the conditions detailed in the attached case narrative.

Valerie S. Davis

Project Manager

CHAIN OF CUSTODY

Wednesday, May 4, 2005

CHAIN OF CUSTODY DOCUMENT NUMBER: 3202SC

Los Alamos
NATIONAL LABORATORY

REQUEST NUMBER: 3202S

ANALYSIS TYPE: ORGANIC

ATTN: Stacy Griffin
General Engineering Laboratories, Inc., Historical
2040 Savage Road
Charleston, SC 29407

1358317

SAMPLE ID	CONT ID	CONTAINER DESCRIPTION	ORDER TEMPLATE CODE	PRESERVATIVE	MATRIX
RE03-05-58926 925	1	5 G ENCORE	8260BENCORE	ICE	S
RE03-05-58926 ↓	2	5 G ENCORE	8260BENCORE	ICE	S
RE03-05-58926 ↓	3	500 ML GLASS	8270C+8082+TPH-DRO	ICE	S
RE03-05-58926 ↓	5	125 SEPTUM AMBER GLASS	TPH-GRO	ICE	S
RE03-05-58927 931	1	5 G ENCORE	8260BENCORE	ICE	S
RE03-05-58927 ↓	2	5 G ENCORE	8260BENCORE	ICE	S
RE03-05-58927 ↓	3	500 ML GLASS	8270C+8082+TPH-DRO	ICE	S
RE03-05-58927 ↓	5	125 SEPTUM AMBER GLASS	TPH-GRO	ICE	S
RE03-05-58928 800	1	125 SEPTUM AMBER GLASS - 2	8260B	ICE	S
RE03-05-59557 1007	1	5 G ENCORE	8260BENCORE	ICE	S
RE03-05-59557 ↓	2	5 G ENCORE	8260BENCORE	ICE	S
RE03-05-59557 ↓	3	500 ML GLASS	8270C+8082+TPH-DRO	ICE	S
RE03-05-59557 ↓	5	125 SEPTUM AMBER GLASS	TPH-GRO	ICE	S
RE03-05-59558 1017	1	5 G ENCORE	8260BENCORE	ICE	S
RE03-05-59558 ↓	2	5 G ENCORE	8260BENCORE	ICE	S
RE03-05-59558 1017	3	500 ML GLASS	8270C+8082+TPH-DRO	ICE	S
RE03-05-59558 ↓	5	125 SEPTUM AMBER GLASS	TPH-GRO	ICE	S

Final Page of CHAIN OF CUSTODY DOCUMENT FOR REQUEST NUMBER 3202S

Relinquished By: PRINTED NAME / SIGNATURE	Date	Time	Received By: PRINTED NAME / SIGNATURE	Date	Time
APadilla APadilla	5/4/05	1400	CGause CGause	5/5/5	9:40

Received for DISPOSAL By: PRINTED NAME / SIGNATURE	Date	Time	Remarks:

5

Wednesday, May 4, 2005

REQUEST NUMBER: 3202S

ANALYSIS TYPE: ORGANIC

Los Alamos
NATIONAL LABORATORY

ATTN: Stacy Griffin
General Engineering Laboratories, Inc., Historical
2040 Savage Road
Charleston, SC 29407

Please analyze the enclosed samples according to the schedule indicated:

These samples are on:

SHIP DATE: 05/04/2005
REPORT DUE: 05/14/2005
TURN AROUND REQ'D: 10

LANL Request Number: 3202S
Per Agreement Number: 126310011
Project Cost Code: MR0R00FC6800

RAD SCREENING: NOT REQ
COMMENTS:

LANL ER SMO CONTACT:
Signature:

METHOD CODE	SAMPLE ID	CONT ID	SAMPLE MATRIX	DATE SAMPLED	COMMENTS
SW-846:8260B	RE03-05-58926	1	S	05/04/2005	
SW-846:8260B	RE03-05-58926	2	S	05/04/2005	
SW-846:8015M_EXTRACTABLE	RE03-05-58926	3	S	05/04/2005	
SW-846:8082	RE03-05-58926	3	S	05/04/2005	
SW-846:8270C	RE03-05-58926	3	S	05/04/2005	
SW-846:8015M_PURGEABLE	RE03-05-58926	5	S	05/04/2005	
SW-846:8260B	RE03-05-58927	1	S	05/04/2005	
SW-846:8260B	RE03-05-58927	2	S	05/04/2005	
SW-846:8015M_EXTRACTABLE	RE03-05-58927	3	S	05/04/2005	
SW-846:8082	RE03-05-58927	3	S	05/04/2005	
SW-846:8270C	RE03-05-58927	3	S	05/04/2005	
SW-846:8015M_PURGEABLE	RE03-05-58927	5	S	05/04/2005	
SW-846:8260B	RE03-05-58928	1	S	05/04/2005	
SW-846:8260B	RE03-05-59557	1	S	05/04/2005	
SW-846:8260B	RE03-05-59557	2	S	05/04/2005	
SW-846:8015M_EXTRACTABLE	RE03-05-59557	3	S	05/04/2005	
SW-846:8082	RE03-05-59557	3	S	05/04/2005	
SW-846:8270C	RE03-05-59557	3	S	05/04/2005	
SW-846:8015M_PURGEABLE	RE03-05-59557	5	S	05/04/2005	
SW-846:8260B	RE03-05-59558	1	S	05/04/2005	
SW-846:8260B	RE03-05-59558	2	S	05/04/2005	
SW-846:8015M_EXTRACTABLE	RE03-05-59558	3	S	05/04/2005	
SW-846:8082	RE03-05-59558	3	S	05/04/2005	
SW-846:8270C	RE03-05-59558	3	S	05/04/2005	
SW-846:8015M_PURGEABLE	RE03-05-59558	5	S	05/04/2005	

Final Page of REQUEST NUMBER 3202S

6

COOLER RECEIPT CHECKLIST

SAMPLE RECEIPT & REVIEW FORM

GENERAL ENGINEERING LABORATORIES, LLC

PM use only

Client: Los Alamos	SDG/ARCOC/Work Order: 32025
Date Received: 5.5.05	PM(A) Review (ensure non-conforming items are resolved prior to signing):
Received By:	

	Sample Receipt Criteria	Conforming	NA	Non-Conforming	Comments/Qualifiers (Required for Non-Conforming Items).
1	Shipping containers received intact and sealed?	✓			Circle Applicable: seals broken damaged container leaking container other (describe)
2	Samples requiring cold preservation within (4 +/- 2 C)? Record preservation method.	✓			Circle Coolant # ice bags (blue ice) dry ice none other(describe) 2.0
3	Chain of custody documents included with shipment?	✓			
4	Sample containers intact and sealed?	✓			Circle Applicable: seals broken damaged container leaking container other (describe)
5	Samples requiring chemical preservation at proper pH?		✓		Sample ID's, containers affected and observed pH:
6	VOA vials free of headspace (defined as < 6mm bubble)?		✓		Sample ID's and containers affected:
7	Samples received within holding time?	✓			Id's and tests affected:
8	Sample ID's on COC match ID's on bottles?	✓			Sample ID's and containers affected:
9	Date & time on COC match date & time on bottles?			✓	Sample ID's affected: no date + time on chain
10	Number of containers received match number indicated on COC?	✓			Sample ID's affected:
11	COC form is properly signed in relinquished/received sections?	✓			
12	Air Bill ,Tracking #'s, & Additional Comments	6954 7789 4140			

Radiological Information	Non-RAD	RAD	RADI	RSO RAD Receipt #
What is the radiological classification of the samples?	✓			Comments:
Radioactivity Screening Results (maximum observed CPM)	30 CPM			*If > x2 area background is observed on a non-radioactive sample, contact the RSO to investigate.

PM (or PMA) review of Receiving Rad classification: RSO Initials SJS/05 Date:

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DATA REVIEW QUALIFIER FLAG DEFINITION SHEET

General Engineering Laboratories, LLC

DATA QUALIFIERS FOR ORGANIC ANALYSES

Data Qualifiers used on Form 1s or Certificates of Analysis (COA) follow the specifications set forth in the technical specifications of the most current CLP Statement of Work and are defined as follows:

Section	Explanation	Location
A	The TIC is suspected aldol-condensation product.	COA, Form 1, and EDD
B	Analyte was detected in the associated method blank as well as in the sample.	COA, Form 1, and EDD
C	Pesticide analyte has been confirmed by GC/MS.	COA, Form 1, and EDD
D	Analyte(s) quantified in an analysis performed at a secondary dilution factor.	COA, Form 1, and EDD
E	Identifies compounds whose concentrations exceed the upper level of the calibration range of the instrument for that specific analysis.	COA, Form 1, and EDD
J	This flag indicates an estimated value concerning either, (1) estimating a concentration for tentatively identified compounds (TICs), or (2) analyte detected at a level less than the RDL or PQL and greater than or equal to the MDL.	COA, Form 1, and EDD
N	Presumptive evidence based upon a mass spectral library search to make a tentative identification of the analyte.	COA, Form 1, and EDD
NJ	Analyte has been tentatively identified and the associated numerical value is estimated based upon 1:1 response factor to the nearest eluting internal standard.	COA, Form 1, and EDD
P	- Pesticide/PCB target analyte that is greater than 25% difference for the detected concentrations between the two GC columns. - HPLC target analyte that is greater than 40% difference for the detected concentrations between detectors or columns.	Form 1 and EDD
U	Compound analyzed for but not detected (sample quantitation limit has been adjusted to reflect dilutions and percent moisture).	COA, Form 1, and EDD
X	Other reporting flag as defined in report narrative.	COA, Form 1, and EDD
**	Laboratory Control Sample recovery outside of acceptance limit.	QC Summary Report

All surrogate recoveries and acceptance ranges are reported at the bottom of Form 2 or COA.

GC/MS VOLATILE ANALYSIS

GC/MS Volatile Organics
Los Alamos National Laboratory (LANL)
SDG 3202S

Method/Analysis Information

Procedure:	Volatile Organic Compounds (VOC) by Gas Chromatography/Mass Spectrometer
Analytical Method:	SW846 8260B
Prep Method:	SW846 5035
Analytical Batch Number:	425470
Prep Batch Number:	425465

Sample Analysis

The following client and quality control samples were analyzed to complete this SDG using the methods referenced in the Analysis Information section:

Sample ID	Client ID
135831001	RE03-05-58926
135831002	RE03-05-58927
135831003	RE03-05-59557
135831004	RE03-05-59558
135831005	RE03-05-58928
1200846374	Method Blank (MB)
1200846405	Laboratory Control Sample (LCS)
1200846375	Laboratory Control Sample (LCS)
1200846406	Laboratory Control Sample Duplicate (LCSD)

Preparation/Analytical Method Verification

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by General Engineering Laboratories, LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-038 REV# 9.

Calibration Information
Due to the limited capacity of software all of the current initial calibration files are not displayed here. If necessary, a calibration history will be inserted in the package prior to the appropriate Form 6.

Initial Calibration
All initial calibration requirements have been met for this sample delivery groups (SDG). A second source initial

calibration verification (ICV) was included in the standard section directly behind the initial calibration.

Continuing Calibration Verification Requirements
All associated calibration verification standard(s) (ICV or CCV) met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Surrogate Recoveries
The surrogate recoveries in all client samples and quality control samples were within the acceptance limits except for Dibromofluoromethane and Bromofluorobenzene in sample 135831002 (RE03-05-58927). Sample reanalysis confirmed possible matrix interference.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

Laboratory Control Sample Duplicate (LCSD) Recovery
The LCS duplicate recoveries were within the acceptance limits, except for Acetone and Tetrachloroethylene. The LCS duplicate meets the recovery requirements per the client SOW.

LCS/LCSD Relative Percent Difference (RPD) Statement
The RPD(s) between the LCS and LCSD met the acceptance limits.

QC Sample Designation
Spike analyses were not performed in this SDG due to lack of additional sample volumes.

Internal Standard (ISTD) Acceptance
1,4-Dichlorobenzene-d4 internal standard response was below the required acceptance criteria in sample 135831002 (RE03-05-58927). Sample reanalysis confirmed possible matrix interference.

Technical Information

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection or sample receipt. Those holding times expressed in hours are calculated in the ALPHALIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Sample Preservation and Integrity
All samples met the sample preservation and integrity requirements.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-extraction/Re-analysis
Samples were reanalyzed in this SDG due to internal standard responses and/or surrogate recoveries.

Miscellaneous Information

Electronic Package Comment
The following package was generated using an electronic data processing program referred to as virtual packaging.

In an effort to increase quality and efficiency, the laboratory is developing systems to eventually generate all data packages electronically. The following change from traditional packages should be noted:
Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. An electronic signature page inserted after the case narrative of each electronic package will indicate the analyst, reviewer, and report specialist names associated with the generation of the data and package. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Nonconformance (NCR) Documentation
A nonconformance report (NCR ID 202717) was generated for this SDG.

Manual Integrations
Data files associated with the initial calibration, continuing calibration check, and samples did not require manual integrations.

TIC Comment
The tentatively identified compounds may include silanols. These compounds were due to column or septum bleed and were not native to the affected samples.

Additional Comments
The laboratory is in the process of adding an additional surrogate compound. Currently the compound appears as a tentatively identified compound (TIC) in the sample library search at 10 minutes. The laboratory eliminated this peak as a TIC from the Form 1.

System Configuration

The Volatile-GC/MS analysis was performed on a Volatile Organic Analysis by Gas Chromatography/Mass Spectroscopy.

Instrument ID	System Configuration	Column ID	Column Description	P & T Trap
VOA1.I	HP6890/HP5973	RESTEK	RTX-Volatiles, 30m x 0.25 mm, 1.0um	Trap 10

Certification Statement

When the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Pat Steele Date: 06-02-05

Roadmap for LANL 3202S VOA

This roadmap was analyzed by Tammy Woodie on 05-17-2005, 22:56.
This roadmap was reviewed by Kelle Bellamy on 05-18-2005, 10:47.
This roadmap was packaged by LySandra Gathers on 05-23-2005, 15:18.

Sample

exclude	manual	datafile	smpid	clientid	injdate	injtime	sublist	dilution	comment
☐	N	/chem/VOA1.i/051305v1.b/1j514.d	135831005	RE03-05-58928	13-MAY-2005	21:51	3202S.sub	1	
☐	N	/chem/VOA1.i/051305v1.b/1j519.d	135831001	RE03-05-58926	13-MAY-2005	23:57	3202S.sub	1	
☐	N	/chem/VOA1.i/051305v1.b/1j520.d	135831002	RE03-05-58927	14-MAY-2005	00:22	3202S.sub	1	IS AND SS FAILURES
☐	N	/chem/VOA1.i/051305v1.b/1j521.d	135831003	RE03-05-59557	14-MAY-2005	00:47	3202S.sub	1	
☐	N	/chem/VOA1.i/051305v1.b/1j522.d	135831004	RE03-05-59558	14-MAY-2005	01:12	3202S.sub	1	
■	N	/chem/VOA5.i/051605v5.b/5k124.d	135831002	RE03-05-58927	17-MAY-2005	02:08	3202S.sub	1	CONFIRMS

QC Sample

exclude	manual	datafile	smpid	clientid	sampletype	injdate	injtime	sublist	dilution	comment
☐	N	/chem/VOA1.i/051305v1.b/1j502LCSLB.d	1200846405	VBLK01LCS	lcs	13-MAY-2005	16:00	3202S.sub	1	
☐	N	/chem/VOA1.i/051305v1.b/1j504SLCSLB.d	1200846375	VBLK01SLCS	lcs	13-MAY-2005	16:50	3202S.sub	1	
☐	N	/chem/VOA1.i/051305v1.b/1j505LCSDLB.d	1200846406	VBLK01LCSD	lcsd	13-MAY-2005	18:06	3202S.sub	1	
☐	N	/chem/VOA1.i/051305v1.b/1j508LB.d	1200846374	VBLK01	mb	13-MAY-2005	19:21	3202S.sub	1	
■	N	/chem/VOA5.i/051605v5.b/5k109LCSLB.d	1200849220	VBLK02LCS	lcs	16-MAY-2005	19:17	3202S.sub	1	
■	N	/chem/VOA5.i/051605v5.b/5k111SLCSLB.d	1200849219	VBLK02SLCS	lcs	16-MAY-2005	20:11	3202S.sub	1	
■	N	/chem/VOA5.i/051605v5.b/5k114LB.d	1200849218	VBLK02	mb	16-MAY-2005	21:40	3202S.sub	1	

SAMPLE DATA SUMMARY

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-58926

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Matrix: (soil/water) SOIL Lab Sample ID: 135831001

Sample wt/vol: 4.4 (g/mL) G Lab File ID: 1J519

Level: (low/med) LOW Date Received: 05/05/05

% Moisture: not dec. 6 Date Analyzed: 05/13/05

GC Column: RTX-VOLATILES ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-71-8	Dichlorodifluoromethane	1.2	U
74-87-3	Chloromethane	1.2	U
75-01-4	Vinyl chloride	1.2	U
74-83-9	Bromomethane	1.2	U
75-00-3	Chloroethane	1.2	U
75-69-4	Trichlorofluoromethane	1.2	U
75-35-4	1,1-Dichloroethylene	0.38	J
67-64-1	Acetone	14.6	
76-13-1	Trichlorotrifluoroethane	6.0	U
74-88-4	Iodomethane	6.0	U
75-15-0	Carbon disulfide	6.0	U
75-09-2	Methylene chloride	6.0	U
156-60-5	trans-1,2-Dichloroethylene	1.2	U
75-34-3	1,1-Dichloroethane	1.2	U
78-93-3	2-Butanone	6.0	U
156-59-2	cis-1,2-Dichloroethylene	1.2	U
594-20-7	2,2-Dichloropropane	1.2	U
74-97-5	Bromochloromethane	1.2	U
67-66-3	Chloroform	1.2	U
71-55-6	1,1,1-Trichloroethane	1.2	U
563-58-6	1,1-Dichloropropene	1.2	U
56-23-5	Carbon tetrachloride	1.2	U
107-06-2	1,2-Dichloroethane	1.2	U
71-43-2	Benzene	1.2	U
79-01-6	Trichloroethylene	1.2	U
78-87-5	1,2-Dichloropropane	1.2	U
74-95-3	Dibromomethane	1.2	U
75-27-4	Bromodichloromethane	1.2	U
10061-01-5	cis-1,3-Dichloropropylene	1.2	U
108-10-1	4-Methyl-2-pentanone	6.0	U
108-88-3	Toluene	2.0	
10061-02-6	trans-1,3-Dichloropropylene	1.2	U
79-00-5	1,1,2-Trichloroethane	1.2	U

FORM I VOA OLM03.0

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-58926

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Matrix: (soil/water) SOIL Lab Sample ID: 135831001

Sample wt/vol: 4.4 (g/mL) G Lab File ID: 1J519

Level: (low/med) LOW Date Received: 05/05/05

% Moisture: not dec. 6 Date Analyzed: 05/13/05

GC Column: RTX-VOLATILES ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
142-28-9	1,3-Dichloropropane	1.2	U
591-78-6	2-Hexanone	6.0	U
127-18-4	Tetrachloroethylene	1.2	U
124-48-1	Dibromochloromethane	1.2	U
106-93-4	1,2-Dibromoethane	1.2	U
108-90-7	Chlorobenzene	1.2	U
630-20-6	1,1,1,2-Tetrachloroethane	1.2	U
100-41-4	Ethylbenzene	1.2	U
95-47-6	o-Xylene	1.2	U
	m,p-Xylenes	2.4	U
100-42-5	Styrene	1.2	U
75-25-2	Bromoform	1.2	U
98-82-8	Isopropylbenzene	1.2	U
79-34-5	1,1,2,2-Tetrachloroethane	1.2	U
96-18-4	1,2,3-Trichloropropane	1.2	U
108-86-1	Bromobenzene	1.2	U
103-65-1	n-Propylbenzene	1.2	U
95-49-8	2-Chlorotoluene	1.2	U
108-67-8	1,3,5-Trimethylbenzene	1.2	U
95-63-6	1,2,4-Trimethylbenzene	1.2	U
106-43-4	4-Chlorotoluene	1.2	U
98-06-6	tert-Butylbenzene	1.2	U
135-98-8	sec-Butylbenzene	1.2	U
99-87-6	4-Isopropyltoluene	0.88	J
541-73-1	1,3-Dichlorobenzene	1.2	U
106-46-7	1,4-Dichlorobenzene	1.2	U
104-51-8	n-Butylbenzene	1.2	U
95-50-1	1,2-Dichlorobenzene	1.2	U
96-12-8	1,2-Dibromo-3-chloropropane	1.2	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

RE03-05-58926

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Matrix: (soil/water) SOIL Lab Sample ID: 135831001

Sample wt/vol: 4.4 (g/mL) G Lab File ID: 1J519

Level: (low/med) LOW Date Received: 05/05/05

% Moisture: not dec. 6 Date Analyzed: 05/13/05

GC Column: RTX-VOLATILES ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 3

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 80-56-8	UNKNOWN TERPENE	9.29	72.9	J
2. 13466-78-9	3-CARENE	10.52	110	NJ
3.	UNKNOWN HYDROCARBON	10.76	7.4	J
4.				
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FORM I VOA-TIC OLM03.0

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-58927

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Matrix: (soil/water) SOIL Lab Sample ID: 135831002

Sample wt/vol: 4.5 (g/mL) G Lab File ID: 1J520

Level: (low/med) LOW Date Received: 05/05/05

% Moisture: not dec. 9 Date Analyzed: 05/14/05

GC Column: RTX-VOLATILES ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-71-8	Dichlorodifluoromethane	1.2	U
74-87-3	Chloromethane	1.2	U
75-01-4	Vinyl chloride	1.2	U
74-83-9	Bromomethane	1.2	U
75-00-3	Chloroethane	1.2	U
75-69-4	Trichlorofluoromethane	1.2	U
75-35-4	1,1-Dichloroethylene	1.2	U
67-64-1	Acetone	43.1	
76-13-1	Trichlorotrifluoroethane	6.1	U
74-88-4	Iodomethane	6.1	U
75-15-0	Carbon disulfide	6.1	U
75-09-2	Methylene chloride	6.1	U
156-60-5	trans-1,2-Dichloroethylene	1.2	U
75-34-3	1,1-Dichloroethane	1.2	U
78-93-3	2-Butanone	6.8	
156-59-2	cis-1,2-Dichloroethylene	1.2	U
594-20-7	2,2-Dichloropropane	1.2	U
74-97-5	Bromochloromethane	1.2	U
67-66-3	Chloroform	1.2	U
71-55-6	1,1,1-Trichloroethane	1.2	U
563-58-6	1,1-Dichloropropene	1.2	U
56-23-5	Carbon tetrachloride	1.2	U
107-06-2	1,2-Dichloroethane	1.2	U
71-43-2	Benzene	1.2	U
79-01-6	Trichloroethylene	1.2	U
78-87-5	1,2-Dichloropropane	1.2	U
74-95-3	Dibromomethane	1.2	U
75-27-4	Bromodichloromethane	1.2	U
10061-01-5	cis-1,3-Dichloropropylene	1.2	U
108-10-1	4-Methyl-2-pentanone	6.1	U
108-88-3	Toluene	1.2	U
10061-02-6	trans-1,3-Dichloropropylene	1.2	U
79-00-5	1,1,2-Trichloroethane	1.2	U

FORM I VOA OLM03.0

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-58927

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Matrix: (soil/water) SOIL Lab Sample ID: 135831002

Sample wt/vol: 4.5 (g/mL) G Lab File ID: 1J520

Level: (low/med) LOW Date Received: 05/05/05

% Moisture: not dec. 9 Date Analyzed: 05/14/05

GC Column: RTX-VOLATILES ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
142-28-9	1,3-Dichloropropane	1.2	U
591-78-6	2-Hexanone	6.1	U
127-18-4	Tetrachloroethylene	1.2	U
124-48-1	Dibromochloromethane	1.2	U
106-93-4	1,2-Dibromoethane	1.2	U
108-90-7	Chlorobenzene	1.2	U
630-20-6	1,1,1,2-Tetrachloroethane	1.2	U
100-41-4	Ethylbenzene	1.2	U
95-47-6	o-Xylene	1.2	U
	m,p-Xylenes	2.4	U
100-42-5	Styrene	1.2	U
75-25-2	Bromoform	1.2	U
98-82-8	Isopropylbenzene	1.2	U
79-34-5	1,1,2,2-Tetrachloroethane	1.2	U
96-18-4	1,2,3-Trichloropropane	1.2	U
108-86-1	Bromobenzene	1.2	U
103-65-1	n-Propylbenzene	1.2	U
95-49-8	2-Chlorotoluene	1.2	U
108-67-8	1,3,5-Trimethylbenzene	1.2	U
95-63-6	1,2,4-Trimethylbenzene	1.2	U
106-43-4	4-Chlorotoluene	1.2	U
98-06-6	tert-Butylbenzene	1.2	U
135-98-8	sec-Butylbenzene	1.2	U
99-87-6	4-Isopropyltoluene	0.68	J
541-73-1	1,3-Dichlorobenzene	1.2	U
106-46-7	1,4-Dichlorobenzene	1.2	U
104-51-8	n-Butylbenzene	1.2	U
95-50-1	1,2-Dichlorobenzene	1.2	U
96-12-8	1,2-Dibromo-3-chloropropane	1.2	U

FORM I VOA OLM03.0

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

RE03-05-58927

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Matrix: (soil/water) SOIL Lab Sample ID: 135831002

Sample wt/vol: 4.5 (g/mL) G Lab File ID: 1J520

Level: (low/med) LOW Date Received: 05/05/05

% Moisture: not dec. 9 Date Analyzed: 05/14/05

GC Column: RTX-VOLATILES ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 5

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN HYDROCARBON	2.04	6.1	J
2. 80-56-8	UNKNOWN TERPENE	9.29	33.0	NJ
3. 13466-78-9	3-CARENE	10.52	46.9	NJ
4.	UNKNOWN HYDROCARBON	11.48	11.9	J
5.	UNKNOWN HYDROCARBON	11.50	6.5	J
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FORM I VOA-TIC OLM03.0

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-58928

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Matrix: (soil/water) SOIL Lab Sample ID: 135831005

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 1J514

Level: (low/med) LOW Date Received: 05/05/05

% Moisture: not dec. _____ Date Analyzed: 05/13/05

GC Column: RTX-VOLATILES ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-71-8	Dichlorodifluoromethane	1.0	U
74-87-3	Chloromethane	1.0	U
75-01-4	Vinyl chloride	1.0	U
74-83-9	Bromomethane	1.0	U
75-00-3	Chloroethane	1.0	U
75-69-4	Trichlorofluoromethane	1.0	U
75-35-4	1,1-Dichloroethylene	7.0	
67-64-1	Acetone	90.7	
76-13-1	Trichlorotrifluoroethane	5.0	U
74-88-4	Iodomethane	5.0	U
75-15-0	Carbon disulfide	5.0	U
75-09-2	Methylene chloride	3.2	J
156-60-5	trans-1,2-Dichloroethylene	1.0	U
75-34-3	1,1-Dichloroethane	1.0	U
78-93-3	2-Butanone	7.6	
156-59-2	cis-1,2-Dichloroethylene	1.0	U
594-20-7	2,2-Dichloropropane	1.0	U
74-97-5	Bromochloromethane	1.0	U
67-66-3	Chloroform	1.0	U
71-55-6	1,1,1-Trichloroethane	1.0	U
563-58-6	1,1-Dichloropropene	1.0	U
56-23-5	Carbon tetrachloride	1.0	U
107-06-2	1,2-Dichloroethane	1.0	U
71-43-2	Benzene	1.0	U
79-01-6	Trichloroethylene	1.0	U
78-87-5	1,2-Dichloropropane	1.0	U
74-95-3	Dibromomethane	1.0	U
75-27-4	Bromodichloromethane	1.0	U
10061-01-5	cis-1,3-Dichloropropylene	1.0	U
108-10-1	4-Methyl-2-pentanone	5.0	U
108-88-3	Toluene	3.2	
10061-02-6	trans-1,3-Dichloropropylene	1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	U

FORM I VOA OLM03.0

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-58928

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Matrix: (soil/water) SOIL Lab Sample ID: 135831005

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 1J514

Level: (low/med) LOW Date Received: 05/05/05

% Moisture: not dec. _____ Date Analyzed: 05/13/05

GC Column: RTX-VOLATILES ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
142-28-9	1,3-Dichloropropane	1.0	U
591-78-6	2-Hexanone	1.8	J
127-18-4	Tetrachloroethylene	1.0	U
124-48-1	Dibromochloromethane	1.0	U
106-93-4	1,2-Dibromoethane	1.0	U
108-90-7	Chlorobenzene	1.0	U
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U
100-41-4	Ethylbenzene	0.39	J
95-47-6	o-Xylene	0.29	J
	m,p-Xylenes	1.2	J
100-42-5	Styrene	1.0	U
75-25-2	Bromoform	1.0	U
98-82-8	Isopropylbenzene	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U
96-18-4	1,2,3-Trichloropropane	1.0	U
108-86-1	Bromobenzene	1.0	U
103-65-1	n-Propylbenzene	1.0	U
95-49-8	2-Chlorotoluene	1.0	U
108-67-8	1,3,5-Trimethylbenzene	1.0	U
95-63-6	1,2,4-Trimethylbenzene	0.72	J
106-43-4	4-Chlorotoluene	1.0	U
98-06-6	tert-Butylbenzene	1.0	U
135-98-8	sec-Butylbenzene	1.0	U
99-87-6	4-Isopropyltoluene	0.76	J
541-73-1	1,3-Dichlorobenzene	1.0	U
106-46-7	1,4-Dichlorobenzene	0.24	J
104-51-8	n-Butylbenzene	1.0	U
95-50-1	1,2-Dichlorobenzene	1.0	U
96-12-8	1,2-Dibromo-3-chloropropane	1.0	U

FORM I VOA OLM03.0

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

RE03-05-58928

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Matrix: (soil/water) SOIL Lab Sample ID: 135831005

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 1J514

Level: (low/med) LOW Date Received: 05/05/05

% Moisture: not dec. _____ Date Analyzed: 05/13/05

GC Column: RTX-VOLATILES ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 1

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN HYDROCARBON	10.74	11.0	J
2.				
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FORM I VOA-TIC OLM03.0

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-59557

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Matrix: (soil/water) SOIL Lab Sample ID: 135831003

Sample wt/vol: 4.9 (g/mL) G Lab File ID: 1J521

Level: (low/med) LOW Date Received: 05/05/05

% Moisture: not dec. 9 Date Analyzed: 05/14/05

GC Column: RTX-VOLATILES ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-71-8	Dichlorodifluoromethane	1.1	U
74-87-3	Chloromethane	1.1	U
75-01-4	Vinyl chloride	1.1	U
74-83-9	Bromomethane	1.1	U
75-00-3	Chloroethane	1.1	U
75-69-4	Trichlorofluoromethane	1.1	U
75-35-4	1,1-Dichloroethylene	1.1	U
67-64-1	Acetone	5.6	U
76-13-1	Trichlorotrifluoroethane	5.6	U
74-88-4	Iodomethane	5.6	U
75-15-0	Carbon disulfide	5.6	U
75-09-2	Methylene chloride	5.6	U
156-60-5	trans-1,2-Dichloroethylene	1.1	U
75-34-3	1,1-Dichloroethane	1.1	U
78-93-3	2-Butanone	5.6	U
156-59-2	cis-1,2-Dichloroethylene	1.1	U
594-20-7	2,2-Dichloropropane	1.1	U
74-97-5	Bromochloromethane	1.1	U
67-66-3	Chloroform	1.1	U
71-55-6	1,1,1-Trichloroethane	1.1	U
563-58-6	1,1-Dichloropropene	1.1	U
56-23-5	Carbon tetrachloride	1.1	U
107-06-2	1,2-Dichloroethane	1.1	U
71-43-2	Benzene	1.1	U
79-01-6	Trichloroethylene	1.1	U
78-87-5	1,2-Dichloropropane	1.1	U
74-95-3	Dibromomethane	1.1	U
75-27-4	Bromodichloromethane	1.1	U
10061-01-5	cis-1,3-Dichloropropylene	1.1	U
108-10-1	4-Methyl-2-pentanone	5.6	U
108-88-3	Toluene	1.1	U
10061-02-6	trans-1,3-Dichloropropylene	1.1	U
79-00-5	1,1,2-Trichloroethane	1.1	U

FORM I VOA OLM03.0

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-59557

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Matrix: (soil/water) SOIL Lab Sample ID: 135831003

Sample wt/vol: 4.9 (g/mL) G Lab File ID: 1J521

Level: (low/med) LOW Date Received: 05/05/05

% Moisture: not dec. 9 Date Analyzed: 05/14/05

GC Column: RTX-VOLATILES ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
142-28-9	1,3-Dichloropropane	1.1	U
591-78-6	2-Hexanone	5.6	U
127-18-4	Tetrachloroethylene	1.1	U
124-48-1	Dibromochloromethane	1.1	U
106-93-4	1,2-Dibromoethane	1.1	U
108-90-7	Chlorobenzene	1.1	U
630-20-6	1,1,1,2-Tetrachloroethane	1.1	U
100-41-4	Ethylbenzene	1.1	U
95-47-6	o-Xylene	1.1	U
	m,p-Xylenes	2.2	U
100-42-5	Styrene	1.1	U
75-25-2	Bromoform	1.1	U
98-82-8	Isopropylbenzene	1.1	U
79-34-5	1,1,2,2-Tetrachloroethane	1.1	U
96-18-4	1,2,3-Trichloropropane	1.1	U
108-86-1	Bromobenzene	1.1	U
103-65-1	n-Propylbenzene	1.1	U
95-49-8	2-Chlorotoluene	1.1	U
108-67-8	1,3,5-Trimethylbenzene	1.1	U
95-63-6	1,2,4-Trimethylbenzene	1.1	U
106-43-4	4-Chlorotoluene	1.1	U
98-06-6	tert-Butylbenzene	1.1	U
135-98-8	sec-Butylbenzene	1.1	U
99-87-6	4-Isopropyltoluene	1.1	U
541-73-1	1,3-Dichlorobenzene	1.1	U
106-46-7	1,4-Dichlorobenzene	1.1	U
104-51-8	n-Butylbenzene	1.1	U
95-50-1	1,2-Dichlorobenzene	1.1	U
96-12-8	1,2-Dibromo-3-chloropropane	1.1	U

FORM I VOA OLM03.0

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

RE03-05-59557

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Matrix: (soil/water) SOIL Lab Sample ID: 135831003

Sample wt/vol: 4.9 (g/mL) G Lab File ID: 1J521

Level: (low/med) LOW Date Received: 05/05/05

% Moisture: not dec. 9 Date Analyzed: 05/14/05

GC Column: RTX-VOLATILES ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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FORM I VOA-TIC OLM03.0

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-59558

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Matrix: (soil/water) SOIL Lab Sample ID: 135831004

Sample wt/vol: 5.3 (g/mL) G Lab File ID: 1J522

Level: (low/med) LOW Date Received: 05/05/05

% Moisture: not dec. 7 Date Analyzed: 05/14/05

GC Column: RTX-VOLATILES ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-71-8	Dichlorodifluoromethane	1.0	U
74-87-3	Chloromethane	1.0	U
75-01-4	Vinyl chloride	1.0	U
74-83-9	Bromomethane	1.0	U
75-00-3	Chloroethane	1.0	U
75-69-4	Trichlorofluoromethane	1.0	U
75-35-4	1,1-Dichloroethylene	1.0	U
67-64-1	Acetone	5.1	U
76-13-1	Trichlorotrifluoroethane	5.1	U
74-88-4	Iodomethane	5.1	U
75-15-0	Carbon disulfide	5.1	U
75-09-2	Methylene chloride	5.1	U
156-60-5	trans-1,2-Dichloroethylene	1.0	U
75-34-3	1,1-Dichloroethane	1.0	U
78-93-3	2-Butanone	5.1	U
156-59-2	cis-1,2-Dichloroethylene	1.0	U
594-20-7	2,2-Dichloropropane	1.0	U
74-97-5	Bromochloromethane	1.0	U
67-66-3	Chloroform	1.0	U
71-55-6	1,1,1-Trichloroethane	1.0	U
563-58-6	1,1-Dichloropropene	1.0	U
56-23-5	Carbon tetrachloride	1.0	U
107-06-2	1,2-Dichloroethane	1.0	U
71-43-2	Benzene	1.0	U
79-01-6	Trichloroethylene	1.0	U
78-87-5	1,2-Dichloropropane	1.0	U
74-95-3	Dibromomethane	1.0	U
75-27-4	Bromodichloromethane	1.0	U
10061-01-5	cis-1,3-Dichloropropylene	1.0	U
108-10-1	4-Methyl-2-pentanone	5.1	U
108-88-3	Toluene	0.30	J
10061-02-6	trans-1,3-Dichloropropylene	1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	U

FORM I VOA OLM03.0

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-59558

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Matrix: (soil/water) SOIL Lab Sample ID: 135831004

Sample wt/vol: 5.3 (g/mL) G Lab File ID: 1J522

Level: (low/med) LOW Date Received: 05/05/05

% Moisture: not dec. 7 Date Analyzed: 05/14/05

GC Column: RTX-VOLATILES ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
142-28-9	1,3-Dichloropropane	1.0	U
591-78-6	2-Hexanone	5.1	U
127-18-4	Tetrachloroethylene	1.0	U
124-48-1	Dibromochloromethane	1.0	U
106-93-4	1,2-Dibromoethane	1.0	U
108-90-7	Chlorobenzene	1.0	U
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U
100-41-4	Ethylbenzene	1.0	U
95-47-6	o-Xylene	1.0	U
	m,p-Xylenes	2.0	U
100-42-5	Styrene	1.0	U
75-25-2	Bromoform	1.0	U
98-82-8	Isopropylbenzene	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U
96-18-4	1,2,3-Trichloropropane	1.0	U
108-86-1	Bromobenzene	1.0	U
103-65-1	n-Propylbenzene	1.0	U
95-49-8	2-Chlorotoluene	1.0	U
108-67-8	1,3,5-Trimethylbenzene	1.0	U
95-63-6	1,2,4-Trimethylbenzene	1.0	U
106-43-4	4-Chlorotoluene	1.0	U
98-06-6	tert-Butylbenzene	1.0	U
135-98-8	sec-Butylbenzene	1.0	U
99-87-6	4-Isopropyltoluene	1.0	U
541-73-1	1,3-Dichlorobenzene	1.0	U
106-46-7	1,4-Dichlorobenzene	1.0	U
104-51-8	n-Butylbenzene	1.0	U
95-50-1	1,2-Dichlorobenzene	1.0	U
96-12-8	1,2-Dibromo-3-chloropropane	1.0	U

FORM I VOA OLM03.0

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

RE03-05-59558

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Matrix: (soil/water) SOIL Lab Sample ID: 135831004

Sample wt/vol: 5.3 (g/mL) G Lab File ID: 1J522

Level: (low/med) LOW Date Received: 05/05/05

% Moisture: not dec. 7 Date Analyzed: 05/14/05

GC Column: RTX-VOLATILES ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 2

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 80-56-8	UNKNOWN TERPENE	9.29	55.2	NJ
2. 13466-78-9	3-CARENE	10.52	18.0	NJ
3.				
4.				
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FORM I VOA-TIC OLM03.0

QUALITY CONTROL SUMMARY

2B
SOIL VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Level:(low/med) LOW

	EPA SAMPLE NO.	SMC1 (DBF)#	SMC2 (TOL)#	SMC3 (BFB)#	OTHER	TOT OUT
01	VBLK01LCS	97	90	86		0
02	VBLK01SLCS	104	98	95		0
03	VBLK01LCSD	106	99	94		0
04	VBLK01	96	93	88		0
05	RE03-05-58928	118	104	96		0
06	RE03-05-58926	107	97	103		0
07	RE03-05-58927	121*	111	142*		2
08	RE03-05-59557	108	108	87		0
09	RE03-05-59558	105	93	96		0
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		QC LIMITS
SMC1 (DBF)	= Dibromofluoromethane	(74-121)
SMC2 (TOL)	= Toluene-d8	(76-121)
SMC3 (BFB)	= Bromofluorobenzene	(62-124)

Column to be used to flag recovery values

* Values outside of contract required QC limits

3B
SOIL VOLATILE LAB CONTROL SAMPLE

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Matrix Spike - EPA Sample No.: VBLK01 Level:(low/med) LOW

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC #	QC. LIMITS REC.
Dichlorodifluoromethane	50.0	0.0	44.2	88	48-138
Chloromethane	50.0	0.0	36.4	73	50-130
Vinyl chloride	50.0	0.0	40.9	82	58-134
Bromomethane	50.0	0.0	59.0	118	59-125
Chloroethane	50.0	0.0	53.8	108	69-135
Trichlorofluoromethane	50.0	0.0	48.3	97	62-139
1,1-Dichloroethylene	50.0	0.0	51.3	103	73-120
Acetone	250	0.0	322	129	62-129
Iodomethane	250	0.0	293	117	78-138
Carbon disulfide	250	0.0	216	86	78-143
Methylene chloride	50.0	0.0	48.3	97	75-130
trans-1,2-Dichloroethyl	50.0	0.0	57.6	115	80-129
1,1-Dichloroethane	50.0	0.0	52.4	105	75-125
2-Butanone	250	0.0	252	101	61-133
cis-1,2-Dichloroethylen	50.0	0.0	57.5	115	81-122
2,2-Dichloropropane	50.0	0.0	65.7	131	76-135
Bromochloromethane	50.0	0.0	54.6	109	79-125
Chloroform	50.0	0.0	54.6	109	80-120
1,1,1-Trichloroethane	50.0	0.0	61.2	122	71-124
1,1-Dichloropropene	50.0	0.0	57.5	115	78-123
Carbon tetrachloride	50.0	0.0	65.1	130	75-134
1,2-Dichloroethane	50.0	0.0	50.9	102	73-124
Benzene	50.0	0.0	52.0	104	75-125
Trichloroethylene	50.0	0.0	57.2	114	79-125
1,2-Dichloropropane	50.0	0.0	48.2	96	75-120
Dibromomethane	50.0	0.0	50.7	101	81-123
Bromodichloromethane	50.0	0.0	50.6	101	87-130
cis-1,3-Dichloropropyle	50.0	0.0	51.9	104	80-124

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

COMMENTS: _____

3B
SOIL VOLATILE LAB CONTROL SAMPLE

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Matrix Spike - EPA Sample No.: VBLK01 Level:(low/med) LOW

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC #	QC. LIMITS REC.
4-Methyl-2-pentanone	250	0.0	184	74	63-136
Toluene	50.0	0.0	50.1	100	78-125
trans-1,3-Dichloropropy	50.0	0.0	46.6	93	74-122
1,1,2-Trichloroethane	50.0	0.0	46.0	92	78-120
1,3-Dichloropropane	50.0	0.0	47.6	95	77-120
2-Hexanone	250	0.0	228	91	62-141
Tetrachloroethylene	50.0	0.0	63.4	127	69-127
Dibromochloromethane	50.0	0.0	48.6	97	75-130
1,2-Dibromoethane	50.0	0.0	47.5	95	78-121
Chlorobenzene	50.0	0.0	51.0	102	80-125
1,1,1,2-Tetrachloroetha	50.0	0.0	53.8	108	82-124
Ethylbenzene	50.0	0.0	50.8	102	79-125
o-Xylene	50.0	0.0	55.3	111	80-122
m,p-Xylenes	100	0.0	117	117	80-119
Styrene	50.0	0.0	56.2	112	79-119
Bromoform	50.0	0.0	50.2	100	67-135
Isopropylbenzene	50.0	0.0	48.4	97	72-125
1,1,2,2-Tetrachloroetha	50.0	0.0	46.7	93	73-126
1,2,3-Trichloropropane	50.0	0.0	50.1	100	69-124
Bromobenzene	50.0	0.0	53.4	107	80-121
n-Propylbenzene	50.0	0.0	53.6	107	76-124
2-Chlorotoluene	50.0	0.0	51.8	104	74-118
1,3,5-Trimethylbenzene	50.0	0.0	52.6	105	74-118
1,2,4-Trimethylbenzene	50.0	0.0	51.5	103	75-118
4-Chlorotoluene	50.0	0.0	51.2	102	75-120
tert-Butylbenzene	50.0	0.0	54.7	109	76-122
sec-Butylbenzene	50.0	0.0	53.5	107	76-124
4-Isopropyltoluene	50.0	0.0	55.0	110	77-126

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

COMMENTS: _____

3B
SOIL VOLATILE LAB CONTROL SAMPLE

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Matrix Spike - EPA Sample No.: VBLK01 Level:(low/med) LOW

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC #	QC. LIMITS REC.
1,3-Dichlorobenzene	50.0	0.0	53.7	107	77-121
1,4-Dichlorobenzene	50.0	0.0	52.8	106	77-121
n-Butylbenzene	50.0	0.0	55.1	110	75-130
1,2-Dichlorobenzene	50.0	0.0	50.5	101	79-119
1,2-Dibromo-3-chloropro	50.0	0.0	42.5	85	60-133

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

COMMENTS: _____

3B
SOIL VOLATILE LAB CONTROL SAMPLE

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Matrix Spike - EPA Sample No.: VBLK01 Level:(low/med) LOW

COMPOUND	SPIKE ADDED (ug/Kg)	LCSD CONCENTRATION (ug/Kg)	LCSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Dichlorodifluoromethane	50.0	42.2	84	5	20	48-138
Chloromethane	50.0	34.7	69	6	20	50-130
Vinyl chloride	50.0	38.1	76	8	20	58-134
Bromomethane	50.0	61.2	122	3	20	59-125
Chloroethane	50.0	53.8	108	0	20	69-135
Trichlorofluoromethane	50.0	47.1	94	3	20	62-139
1,1-Dichloroethylene	50.0	50.9	102	1	20	73-120
Acetone	250	324	130*	1	20	62-129
Iodomethane	250	293	117	0	20	78-138
Carbon disulfide	250	219	88	2	20	78-143
Methylene chloride	50.0	47.6	95	2	20	75-130
trans-1,2-Dichloroethyl	50.0	58.0	116	1	20	80-129
1,1-Dichloroethane	50.0	51.4	103	2	20	75-125
2-Butanone	250	252	101	0	20	61-133
cis-1,2-Dichloroethylen	50.0	55.9	112	3	20	81-122
2,2-Dichloropropane	50.0	64.4	129	2	20	76-135
Bromochloromethane	50.0	54.1	108	1	20	79-125
Chloroform	50.0	54.7	109	0	20	80-120
1,1,1-Trichloroethane	50.0	61.0	122	0	20	71-124
1,1-Dichloropropene	50.0	57.9	116	1	20	78-123
Carbon tetrachloride	50.0	65.0	130	0	20	75-134
1,2-Dichloroethane	50.0	52.3	105	3	20	73-124
Benzene	50.0	52.8	106	2	20	75-125
Trichloroethylene	50.0	59.7	119	4	20	79-125
1,2-Dichloropropane	50.0	50.1	100	4	20	75-120
Dibromomethane	50.0	51.7	103	2	20	81-123
Bromodichloromethane	50.0	50.9	102	1	20	87-130
cis-1,3-Dichloropropyle	50.0	53.5	107	3	20	80-124

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

COMMENTS: _____

3B
SOIL VOLATILE LAB CONTROL SAMPLE

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Matrix Spike - EPA Sample No.: VBLK01 Level:(low/med) LOW

COMPOUND	SPIKE ADDED (ug/Kg)	LCSD CONCENTRATION (ug/Kg)	LCSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
4-Methyl-2-pentanone	250	175	70	6	20	63-136
Toluene	50.0	49.8	100	0	20	78-125
trans-1,3-Dichloropropy	50.0	45.7	91	2	20	74-122
1,1,2-Trichloroethane	50.0	44.7	89	3	20	78-120
1,3-Dichloropropane	50.0	50.2	100	5	20	77-120
2-Hexanone	250	217	87	4	20	62-141
Tetrachloroethylene	50.0	64.9	130*	2	20	69-127
Dibromochloromethane	50.0	50.4	101	4	20	75-130
1,2-Dibromoethane	50.0	50.3	101	6	20	78-121
Chlorobenzene	50.0	53.6	107	5	20	80-125
1,1,1,2-Tetrachloroetha	50.0	57.7	115	6	20	82-124
Ethylbenzene	50.0	53.9	108	6	20	79-125
o-Xylene	50.0	53.6	107	4	20	80-122
m,p-Xylenes	100	110	110	6	20	80-119
Styrene	50.0	53.9	108	4	20	79-119
Bromoform	50.0	50.7	101	1	20	67-135
Isopropylbenzene	50.0	48.4	97	0	20	72-125
1,1,2,2-Tetrachloroetha	50.0	46.7	93	0	20	73-126
1,2,3-Trichloropropane	50.0	50.8	102	2	20	69-124
Bromobenzene	50.0	54.0	108	1	20	80-121
n-Propylbenzene	50.0	52.7	105	2	20	76-124
2-Chlorotoluene	50.0	51.6	103	1	20	74-118
1,3,5-Trimethylbenzene	50.0	52.5	105	0	20	74-118
1,2,4-Trimethylbenzene	50.0	52.1	104	1	20	75-118
4-Chlorotoluene	50.0	51.0	102	0	20	75-120
tert-Butylbenzene	50.0	54.3	109	0	20	76-122
sec-Butylbenzene	50.0	53.1	106	1	20	76-124
4-Isopropyltoluene	50.0	56.5	113	3	20	77-126

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

COMMENTS: _____

3B
SOIL VOLATILE LAB CONTROL SAMPLE

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Matrix Spike - EPA Sample No.: VBLK01 Level:(low/med) LOW

COMPOUND	SPIKE ADDED (ug/Kg)	LCSD CONCENTRATION (ug/Kg)	LCSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
1,3-Dichlorobenzene	50.0	53.4	107	0	20	77-121
1,4-Dichlorobenzene	50.0	53.3	107	1	20	77-121
n-Butylbenzene	50.0	55.0	110	0	20	75-130
1,2-Dichlorobenzene	50.0	51.5	103	2	20	79-119
1,2-Dibromo-3-chloropro	50.0	42.9	86	1	20	60-133

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 61 outside limits
Spike Recovery: 2 out of 122 outside limits

COMMENTS:

3B
SOIL VOLATILE LAB CONTROL SAMPLE

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Matrix Spike - EPA Sample No.: VBLK01 Level:(low/med) LOW

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC #	QC. LIMITS REC.
Trichlorotrifluoroethan	250	0.0	249	100	58-138

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 0 outside limits
Spike Recovery: 0 out of 1 outside limits

COMMENTS:

4A
VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBLK01

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Lab File ID: 1J508LB Lab Sample ID: 1200846374

Date Analyzed: 05/13/05 Time Analyzed: 1921

GC Column: RTX-VOLATILESID: 0.25 (mm) Heated Purge: (Y/N) Y

Instrument ID: VOA1

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	VBLK01LCS	1200846405	1J502LCSLB	1600
02	VBLK01SLCS	1200846375	1J504SLCSLB	1650
03	VBLK01LCSD	1200846406	1J505LCSDLB	1806
04	RE03-05-58928	135831005	1J514	2151
05	RE03-05-58926	135831001	1J519	2357
06	RE03-05-58927	135831002	1J520	0022
07	RE03-05-59557	135831003	1J521	0047
08	RE03-05-59558	135831004	1J522	0112
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5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Lab File ID: 1G216 BFB Injection Date: 04/19/05

Instrument ID: VOA1 BFB Injection Time: 2352

GC Column: RTX-VOLATILES ID: 0.25 (mm) Heated Purge: (Y/N) Y

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	20.3
75	30.0 - 60.0% of mass 95	46.6
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.6
173	Less than 2.0% of mass 174	0.4 (0.5)1
174	50.0 - 100.0% of mass 95	74.3
175	5.0 - 9.0% of mass 174	5.5 (7.4)1
176	95.0 - 101.0% of mass 174	71.2 (95.8)1
177	5.0 - 9.0% of mass 176	4.9 (6.9)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD0005	UVM050216-01C	1G218	04/20/05	0044
02	VSTD001	W1VM050419-01	1G219	04/20/05	0109
03	VSTD002	W1VM050419-02	1G221	04/20/05	0201
04	VSTD005	W1VM050419-03	1G222	04/20/05	0227
05	VSTD010	W1VM050419-04	1G223	04/20/05	0253
06	VSTD020	W1VM050419-05	1G224	04/20/05	0318
07	VSTD050	W1VM050419-06	1G225	04/20/05	0344
08	VSTD100	W1VM050419-07	1G226	04/20/05	0410
09	VSTD005S	UVM050408-01A	1G228	04/20/05	0501
10	VSTD010S	UVM050408-02A	1G229	04/20/05	0527
11	VSTD025S	UVM050408-03A	1G230	04/20/05	0553
12	VSTD050S	UVM050408-04A	1G231	04/20/05	0619
13	VSTD100S	UVM050408-05A	1G232	04/20/05	0645
14	VSTD250S	UVM050408-06A	1G233	04/20/05	0710
15	VSTD500S	UVM050408-07A	1G234	04/20/05	0736
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5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Lab File ID: 1J501 BFB Injection Date: 05/13/05

Instrument ID: VOA1 BFB Injection Time: 1547

GC Column: RTX-VOLATILES ID: 0.25 (mm) Heated Purge: (Y/N) Y

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	18.9
75	30.0 - 60.0% of mass 95	45.0
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	7.0
173	Less than 2.0% of mass 174	0.5 (0.6)1
174	50.0 - 100.0% of mass 95	78.4
175	5.0 - 9.0% of mass 174	6.3 (8.0)1
176	95.0 - 101.0% of mass 174	77.2 (98.5)1
177	5.0 - 9.0% of mass 176	5.4 (7.0)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD050	W1VM050513-01	1J502	05/13/05	1600
02	VBLK01LCS	1200846405	1J502LCSLB	05/13/05	1600
03	VSTD250S	UVM050309-01B	1J504	05/13/05	1650
04	VBLK01SLCS	1200846375	1J504SLCSLB	05/13/05	1650
05	VBLK01LCSD	1200846406	1J505LCSDLB	05/13/05	1806
06	VBLK01	1200846374	1J508LB	05/13/05	1921
07	RE03-05-58928	135831005	1J514	05/13/05	2151
08	RE03-05-58926	135831001	1J519	05/13/05	2357
09	RE03-05-58927	135831002	1J520	05/14/05	0022
10	RE03-05-59557	135831003	1J521	05/14/05	0047
11	RE03-05-59558	135831004	1J522	05/14/05	0112
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8A
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Lab File ID (Standard): 1J502 Date Analyzed: 05/13/05

Instrument ID: VOA1 Time Analyzed: 1600

GC Column: RTX-VOLATILES ID: 0.25 (mm) Heated Purge: (Y/N) Y

		IS1(FLB) AREA #	RT #	IS2(CBZ) AREA #	RT #	IS3(DCB) AREA #	RT #
	12 HOUR STD	783577	5.18	577925	8.21	303756	10.90
	UPPER LIMIT	1567154	5.68	1155850	8.71	607512	11.40
	LOWER LIMIT	391788	4.68	288962	7.71	151878	10.40
	EPA SAMPLE NO.						
01	VBLK01LCS	783577	5.18	577925	8.21	303756	10.90
02	VBLK01SLCS	833330	5.18	583999	8.21	271020	10.90
03	VBLK01LCSD	713840	5.18	549160	8.21	282161	10.90
04	VBLK01	779007	5.18	570598	8.21	252696	10.91
05	RE03-05-58928	666376	5.17	505145	8.21	246612	10.90
06	RE03-05-58926	816273	5.18	524676	8.21	197368	10.90
07	RE03-05-58927	583400	5.18	315556	8.21	78762*	10.91
08	RE03-05-59557	743250	5.18	539690	8.21	238610	10.91
09	RE03-05-59558	741025	5.18	534709	8.21	222861	10.90
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IS1 (FLB) = Fluorobenzene
IS2 (CBZ) = Chlorobenzene-d5
IS3 (DCB) = 1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = + 0.50 minutes of internal standard RT
RT LOWER LIMIT = - 0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

SAMPLE DATA

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-58926

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Matrix: (soil/water) SOIL Lab Sample ID: 135831001

Sample wt/vol: 4.4 (g/mL) G Lab File ID: 1J519

Level: (low/med) LOW Date Received: 05/05/05

% Moisture: not dec. 6 Date Analyzed: 05/13/05

GC Column: RTX-VOLATILES ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-71-8	Dichlorodifluoromethane	1.2	U
74-87-3	Chloromethane	1.2	U
75-01-4	Vinyl chloride	1.2	U
74-83-9	Bromomethane	1.2	U
75-00-3	Chloroethane	1.2	U
75-69-4	Trichlorofluoromethane	1.2	U
75-35-4	1,1-Dichloroethylene	0.38	J
67-64-1	Acetone	14.6	
76-13-1	Trichlorotrifluoroethane	6.0	U
74-88-4	Iodomethane	6.0	U
75-15-0	Carbon disulfide	6.0	U
75-09-2	Methylene chloride	6.0	U
156-60-5	trans-1,2-Dichloroethylene	1.2	U
75-34-3	1,1-Dichloroethane	1.2	U
78-93-3	2-Butanone	6.0	U
156-59-2	cis-1,2-Dichloroethylene	1.2	U
594-20-7	2,2-Dichloropropane	1.2	U
74-97-5	Bromochloromethane	1.2	U
67-66-3	Chloroform	1.2	U
71-55-6	1,1,1-Trichloroethane	1.2	U
563-58-6	1,1-Dichloropropene	1.2	U
56-23-5	Carbon tetrachloride	1.2	U
107-06-2	1,2-Dichloroethane	1.2	U
71-43-2	Benzene	1.2	U
79-01-6	Trichloroethylene	1.2	U
78-87-5	1,2-Dichloropropane	1.2	U
74-95-3	Dibromomethane	1.2	U
75-27-4	Bromodichloromethane	1.2	U
10061-01-5	cis-1,3-Dichloropropylene	1.2	U
108-10-1	4-Methyl-2-pentanone	6.0	U
108-88-3	Toluene	2.0	
10061-02-6	trans-1,3-Dichloropropylene	1.2	U
79-00-5	1,1,2-Trichloroethane	1.2	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-58926

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Matrix: (soil/water) SOIL Lab Sample ID: 135831001

Sample wt/vol: 4.4 (g/mL) G Lab File ID: 1J519

Level: (low/med) LOW Date Received: 05/05/05

% Moisture: not dec. 6 Date Analyzed: 05/13/05

GC Column: RTX-VOLATILES ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
142-28-9	1,3-Dichloropropane	1.2	U
591-78-6	2-Hexanone	6.0	U
127-18-4	Tetrachloroethylene	1.2	U
124-48-1	Dibromochloromethane	1.2	U
106-93-4	1,2-Dibromoethane	1.2	U
108-90-7	Chlorobenzene	1.2	U
630-20-6	1,1,1,2-Tetrachloroethane	1.2	U
100-41-4	Ethylbenzene	1.2	U
95-47-6	o-Xylene	1.2	U
	m,p-Xylenes	2.4	U
100-42-5	Styrene	1.2	U
75-25-2	Bromoform	1.2	U
98-82-8	Isopropylbenzene	1.2	U
79-34-5	1,1,2,2-Tetrachloroethane	1.2	U
96-18-4	1,2,3-Trichloropropane	1.2	U
108-86-1	Bromobenzene	1.2	U
103-65-1	n-Propylbenzene	1.2	U
95-49-8	2-Chlorotoluene	1.2	U
108-67-8	1,3,5-Trimethylbenzene	1.2	U
95-63-6	1,2,4-Trimethylbenzene	1.2	U
106-43-4	4-Chlorotoluene	1.2	U
98-06-6	tert-Butylbenzene	1.2	U
135-98-8	sec-Butylbenzene	1.2	U
99-87-6	4-Isopropyltoluene	0.88	J
541-73-1	1,3-Dichlorobenzene	1.2	U
106-46-7	1,4-Dichlorobenzene	1.2	U
104-51-8	n-Butylbenzene	1.2	U
95-50-1	1,2-Dichlorobenzene	1.2	U
96-12-8	1,2-Dibromo-3-chloropropane	1.2	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

RE03-05-58926

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Matrix: (soil/water) SOIL Lab Sample ID: 135831001

Sample wt/vol: 4.4 (g/mL) G Lab File ID: 1J519

Level: (low/med) LOW Date Received: 05/05/05

% Moisture: not dec. 6 Date Analyzed: 05/13/05

GC Column: RTX-VOLATILES ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 3

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 80-56-8	UNKNOWN TERPENE	9.29	72.9	J
2. 13466-78-9	3-CARENE	10.52	110	NJ
3.	UNKNOWN HYDROCARBON	10.76	7.4	J
4.				
5.				
6.				
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28.				
29.				
30.				

FORM I VOA-TIC OLM03.0

General Engineering Laboratories, LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/051305v1.b/1j519.d
Lab Smp Id: 135831001 Client Smp ID: RE03-05-58926
Inj Date : 13-MAY-2005 23:57
Operator : PAM Inst ID: VOA1.i
Smp Info : |135831001|425470|1|VOAF|1|
Misc Info : LANL 4.4G N/A
Comment :
Method : /chem/VOA1.i/051305v1.b/VOA1-8260B-041905.m
Meth Date : 17-May-2005 22:45 tcl Quant Type: ISTD
Cal Date : 20-APR-2005 05:01 Cal File: 1g228.d
Als bottle: 18
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 3202S.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	5.87600	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	4.40000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
* 40 Fluorobenzene	96	5.179	5.179	(1.000)	816273	50.0000	(H)
* 61 Chlorobenzene-d5	117	8.208	8.213	(1.000)	524676	50.0000	
* 86 1,4-Dichlorobenzene-d4	152	10.901	10.900	(1.000)	197368	50.0000	
$ 35 Dibromofluoromethane	113	4.474	4.473	(0.864)	235898	53.6133	64.7
$ 47 Toluene-d8	98	6.659	6.658	(0.811)	768341	48.6224	58.7
$ 71 Bromofluorobenzene	95	9.571	9.570	(0.878)	257451	51.4555	62.1
11 1,1-Dichloroethylene	61	3.000	3.010	(0.579)	2238	0.31407	0.38(a)
10 Acetone	43	2.834	2.828	(0.547)	18938	12.0870	14.6
50 Toluene	92	6.729	6.739	(0.820)	17727	1.66517	2.0
84 4-Isopropyltoluene	119	10.799	10.799	(0.991)	9168	0.73352	0.88(aQH)

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
H - Operator selected an alternate compound hit.

General Engineering Laboratories, LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/051305v1.b/1j519.d
Lab Smp Id: 135831001 Client Smp ID: RE03-05-58926
Inj Date : 13-MAY-2005 23:57
Operator : PAM Inst ID: VOA1.i
Smp Info : |135831001|425470|1|VOAF|1|
Misc Info : LANL 4.4G N/A
Comment :
Method : /chem/VOA1.i/051305v1.b/VOA1-8260B-041905.m
Meth Date : 17-May-2005 22:45 tcl Quant Type: ISTD
Cal Date : 20-APR-2005 05:01 Cal File: 1g228.d
Als bottle: 18
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 3202S.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	5.87600	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	4.40000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 61 Chlorobenzene-d5	8.208	1530699	50.000
* 86 1,4-Dichlorobenzene-d4	10.901	1220042	50.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ug/l)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown Terpene					CAS #: 80-56-8		
9.293	1848227	60.3719598	72.9	95	Nist98.1	40169	61(L)

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ug/l)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
====	====	==========	==========	====	=======	=========	======
3-Carene				CAS #: 13466-78-9			
10.516	2231438	91.4491976	110	94	Nist98.1	117793	86
Unknown Hydrocarbon				CAS #:			
10.757	150120	6.15222836	7.4	0		0	86(L)

QC Flag Legend

L - Operator selected an alternate library search match.

Data File: /chem/VOA1.i/051305v1.b/1j519.d
Date : 13-MAY-2005 23:57
Client ID: RE03-05-58926
Sample Info: |1358310011425470|1|VOAF|1|

Column phase: RTX-Volatiles

Instrument: VOA1.i

Operator: PAM
Column diameter: 0.25

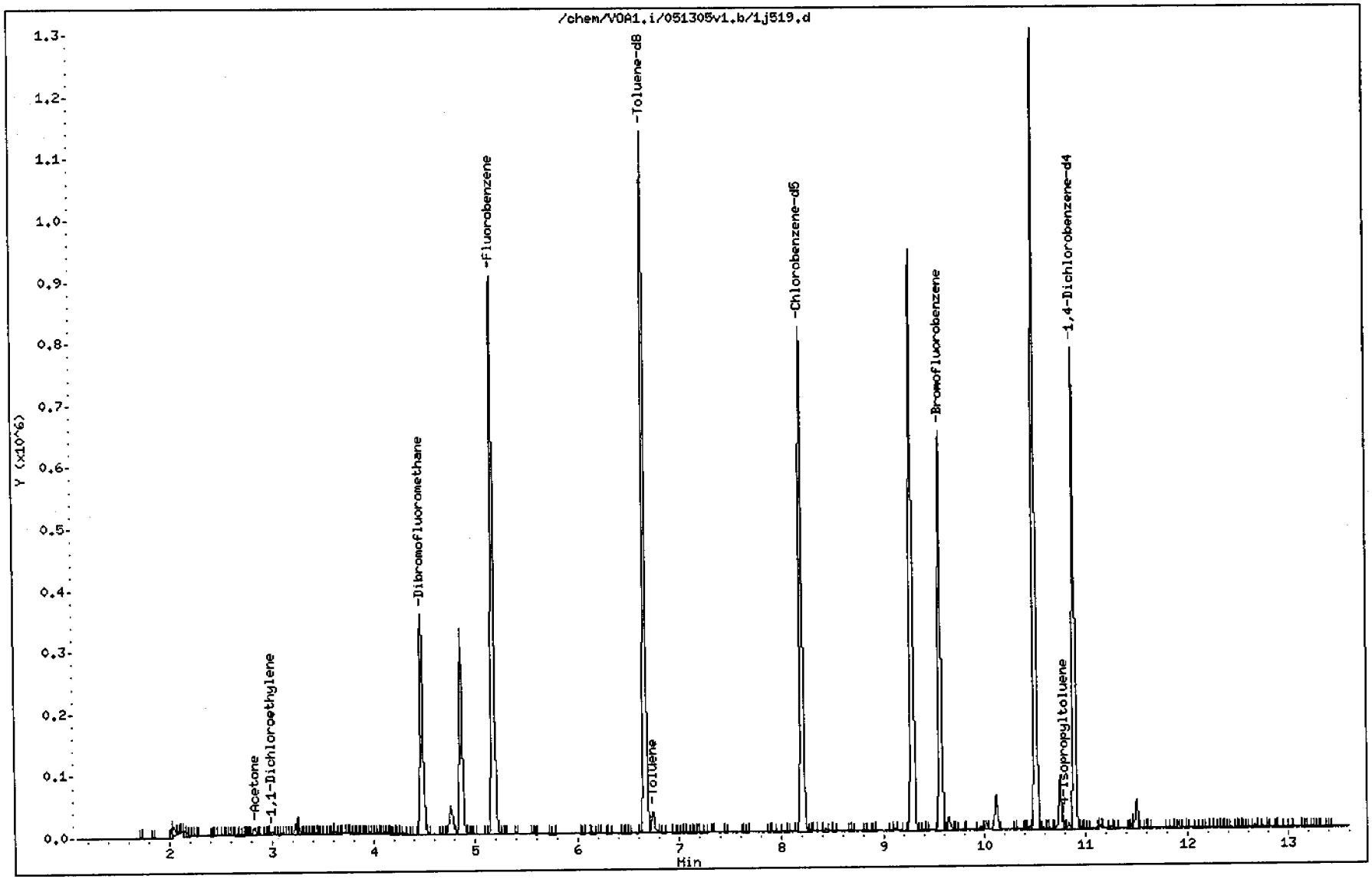

Data File: /chem/VOA1.i/051305v1.b/1j519.d

Date : 13-MAY-2005 23:57

Client ID: RE03-05-58926

Instrument: VOA1.i

Sample Info: |135831001|425470|1|VOAF|1|

Operator: PAM

Column phase: RTX-Volatiles

Column diameter: 0.25

11 1,1-Dichloroethylene

Concentration: 0.38 ug/Kg

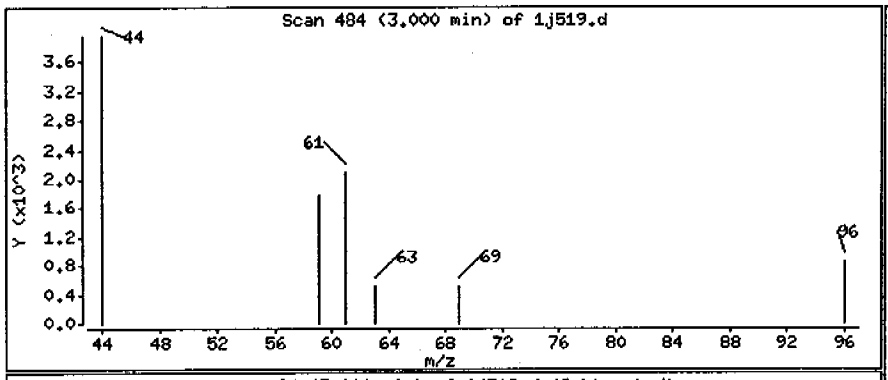

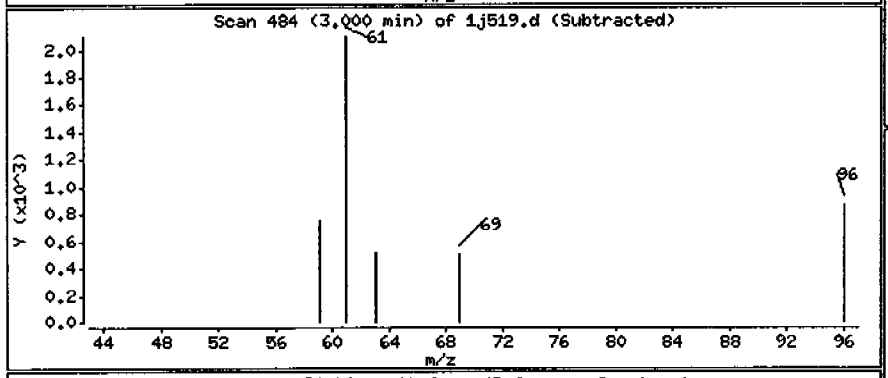

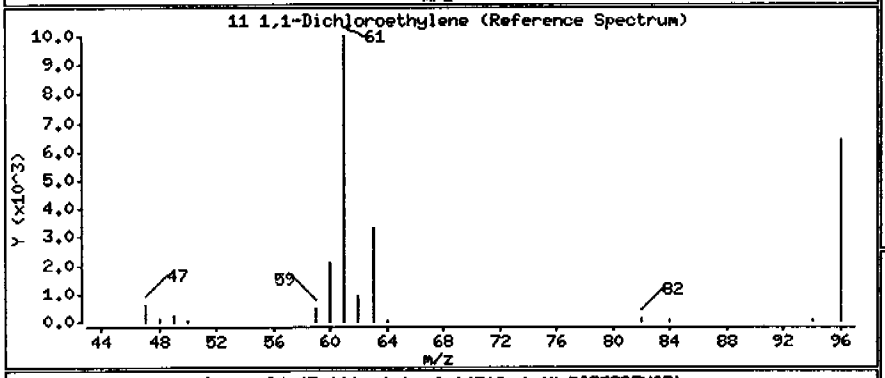

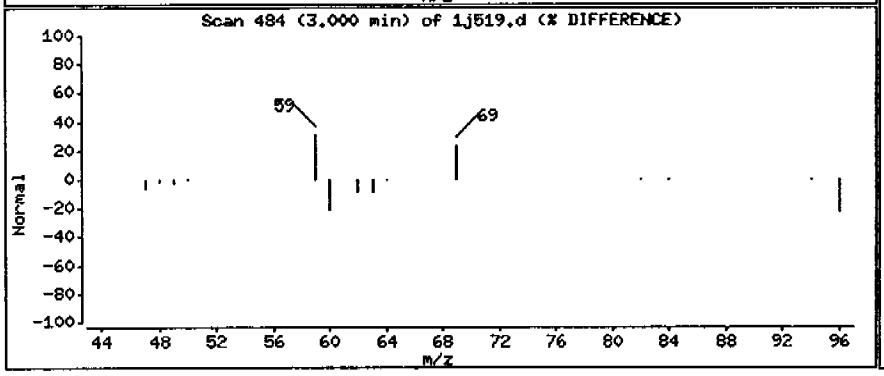

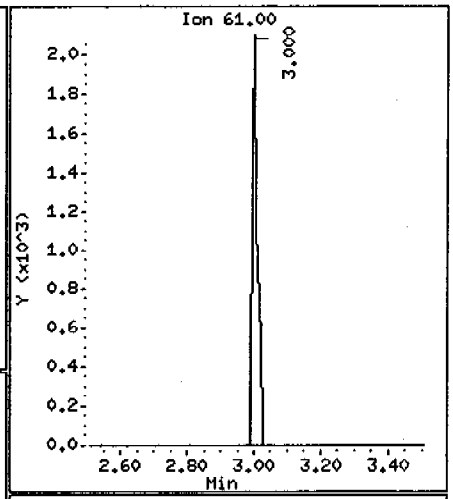

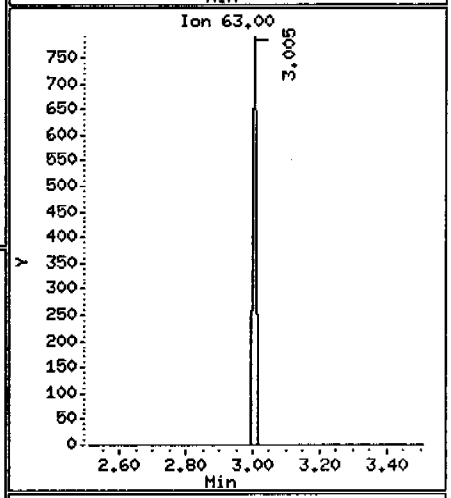

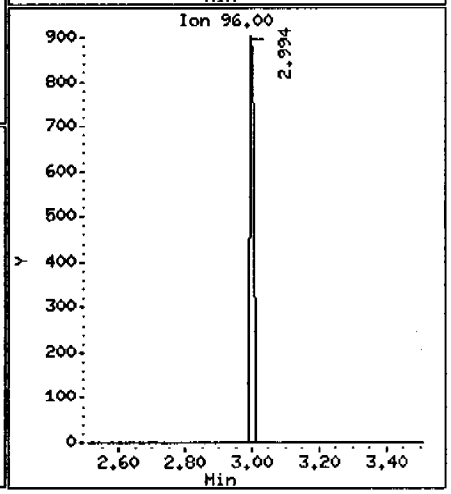

Data File: /chem/VOA1.i/051305v1.b/1j519.d

Date : 13-MAY-2005 23:57

Client ID: RE03-05-58926

Instrument: VOA1.i

Sample Info: |1358310011425470|1|VOAF|1|

Operator: PAM

Column phase: RTX-Volatiles

Column diameter: 0.25

10 Acetone

Concentration: 14.6 ug/Kg

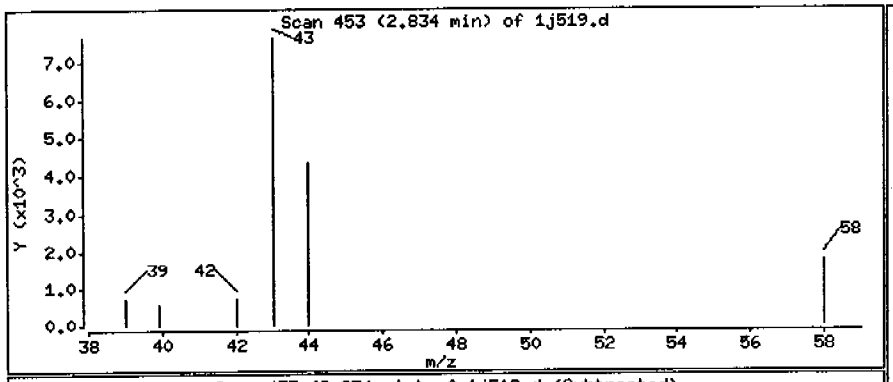

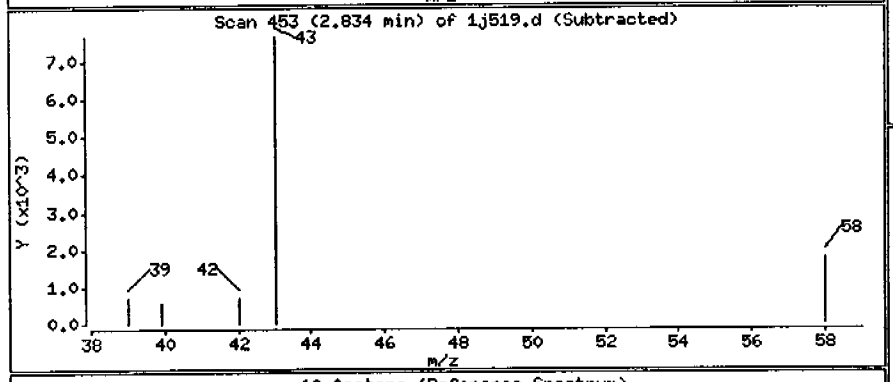

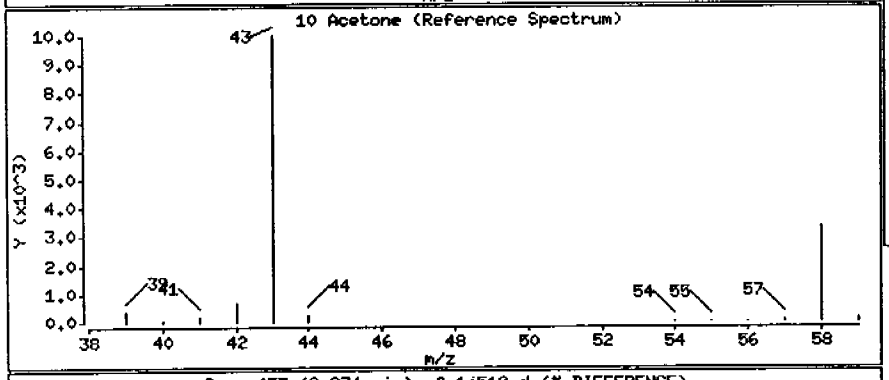

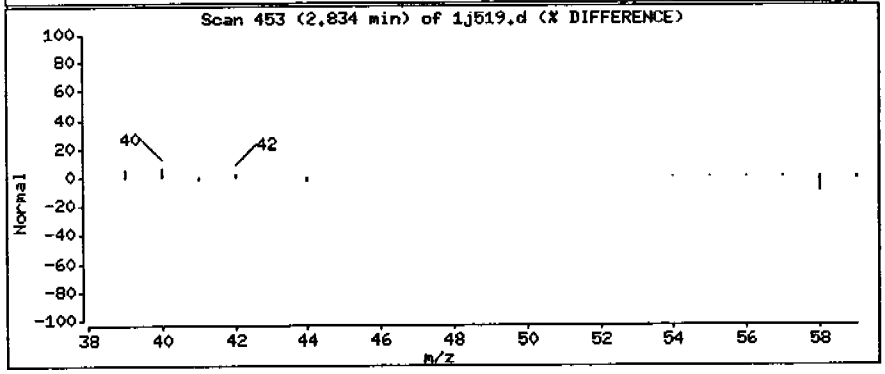

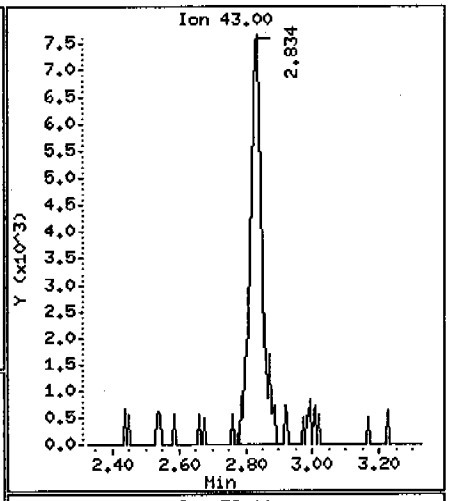

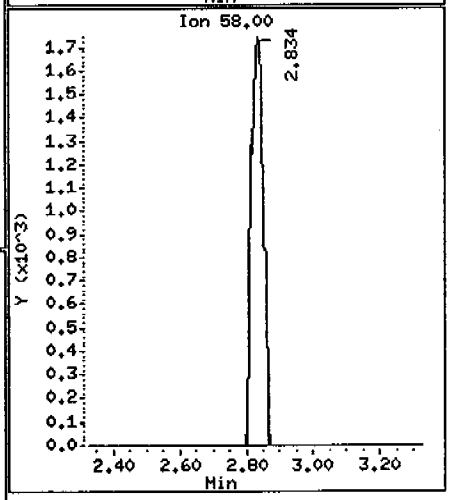

Data File: /chem/VOA1.i/051305v1.b/1j519.d

Date : 13-MAY-2005 23:57

Client ID: RE03-05-58926

Instrument: VOA1.i

Sample Info: |1358310011425470|1|VOAF|1|

Operator: PAM

Column phase: RTX-Volatiles

Column diameter: 0.25

50 Toluene

Concentration: 2.0 ug/Kg

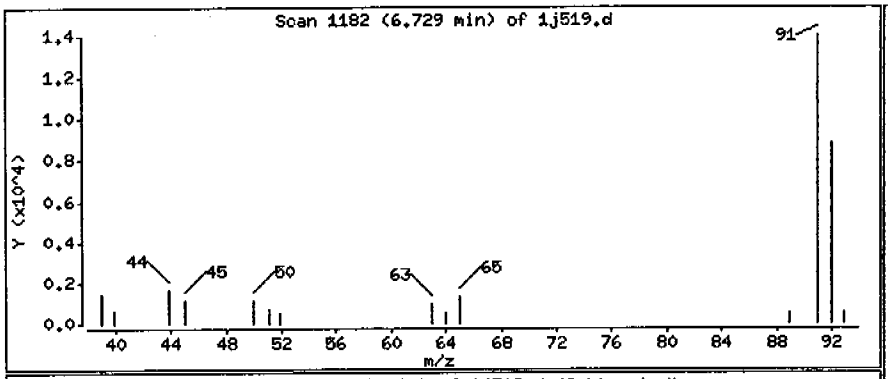

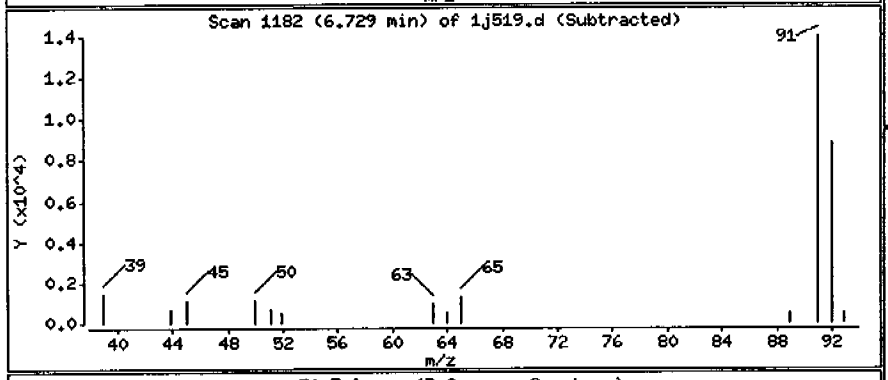

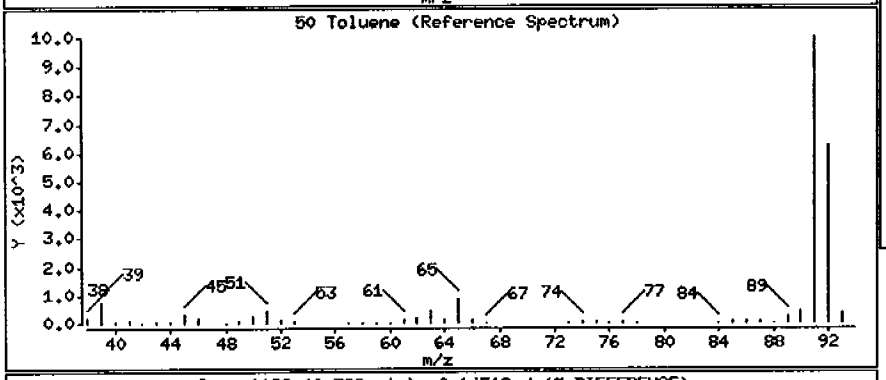

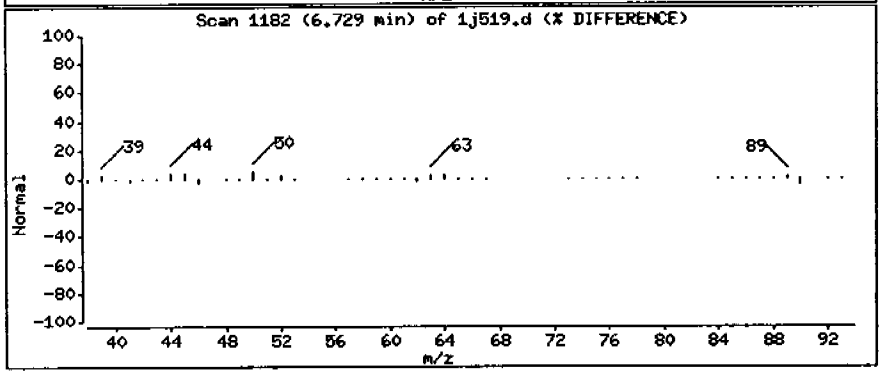

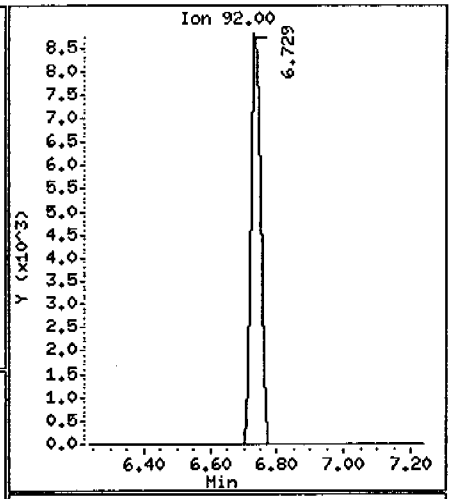

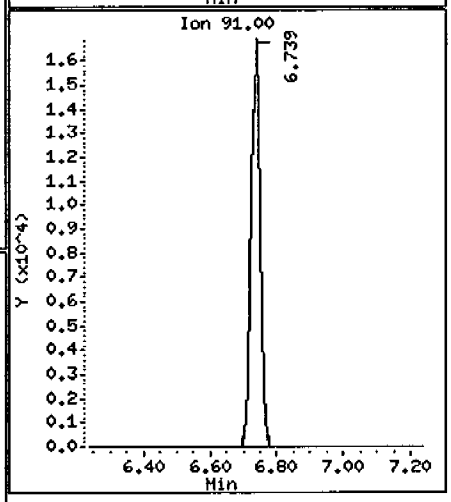

Data File: /chem/VOA1.i/051305v1.b/1j519.d

Date : 13-MAY-2005 23:57

Client ID: RE03-05-58926

Instrument: VOA1.i

Sample Info: |135831001|425470|1|VOAF|1|

Operator: PAM

Column phase: RTX-Volatiles

Column diameter: 0.25

84 4-Isopropyltoluene

Concentration: 0.88 ug/Kg

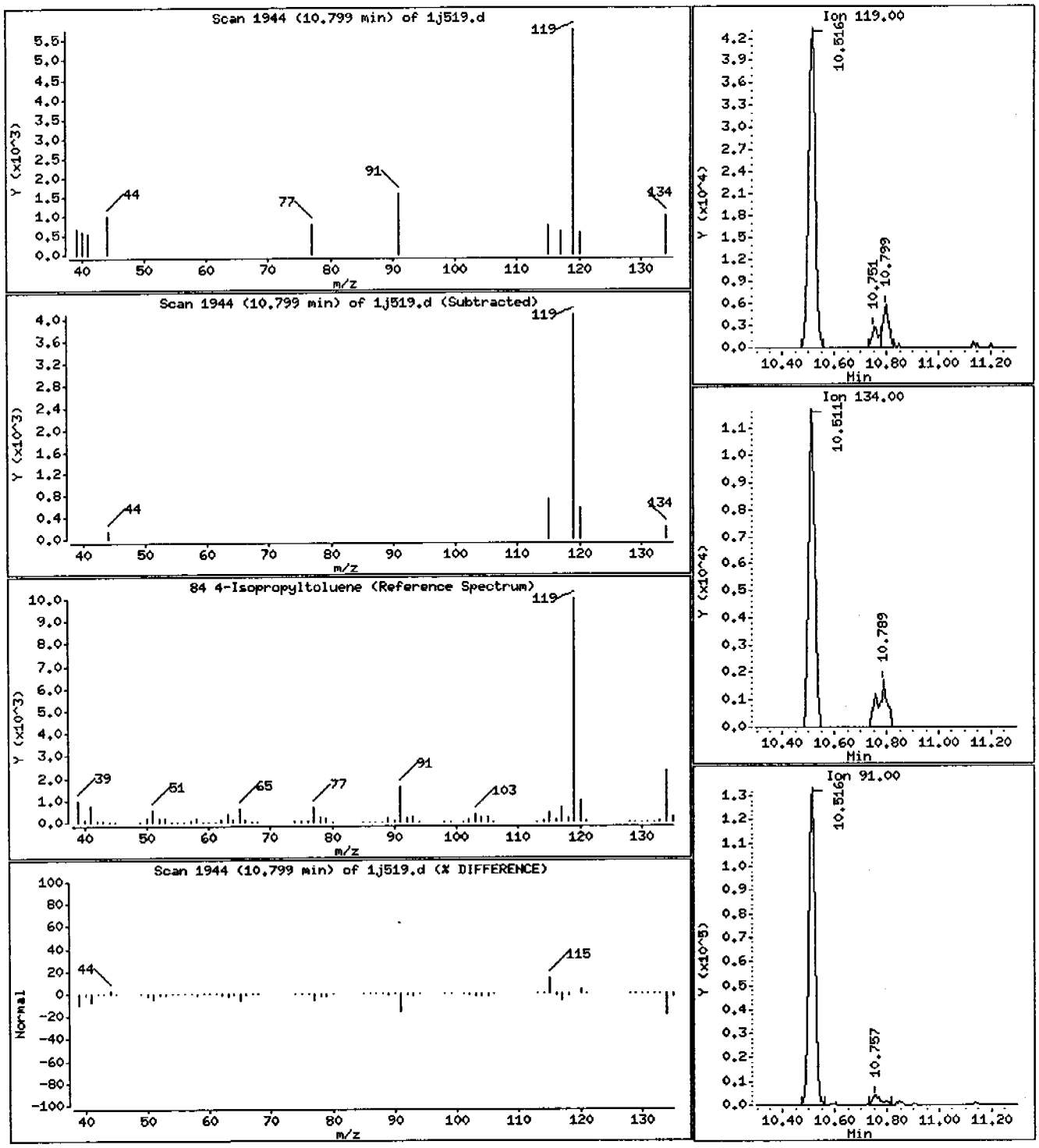

Data File: /chem/VOA1.i/051305v1.b/1j519.d

Date : 13-MAY-2005 23:57

Client ID: RE03-05-58926

Instrument: VOA1.i

Sample Info: |1358310011425470|1|VOAF|1|

Operator: PAM

Column phase: RTX-Volatiles

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Terpene	80-56-8	Nist98.l	40169	95	C10H16	136
Unknown			0	0		0
.alpha.-Pinene	80-56-8	Nist98.l	40169	95	C10H16	136

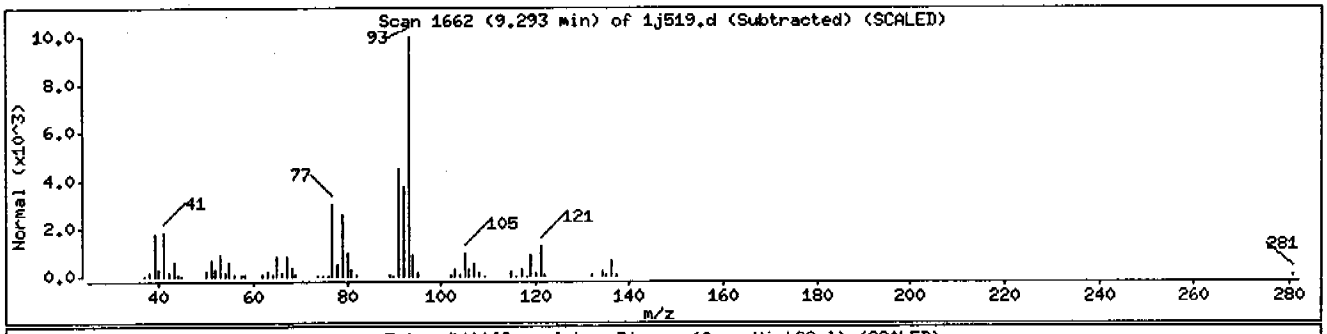

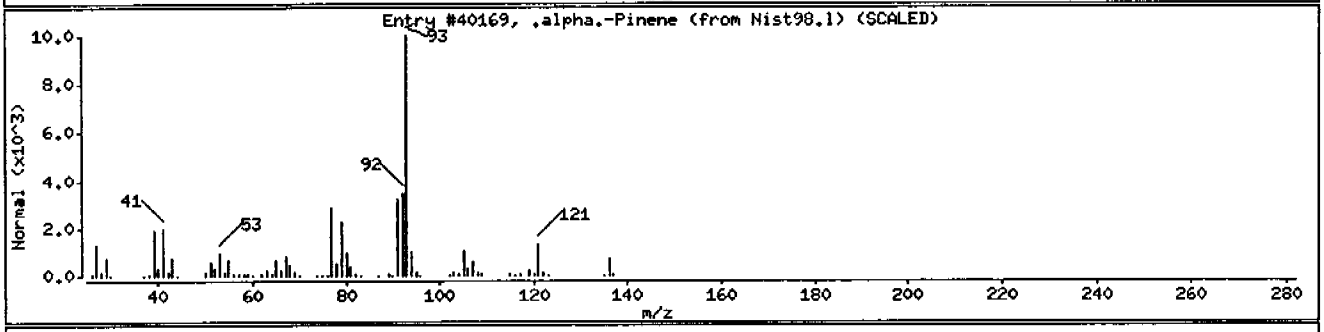

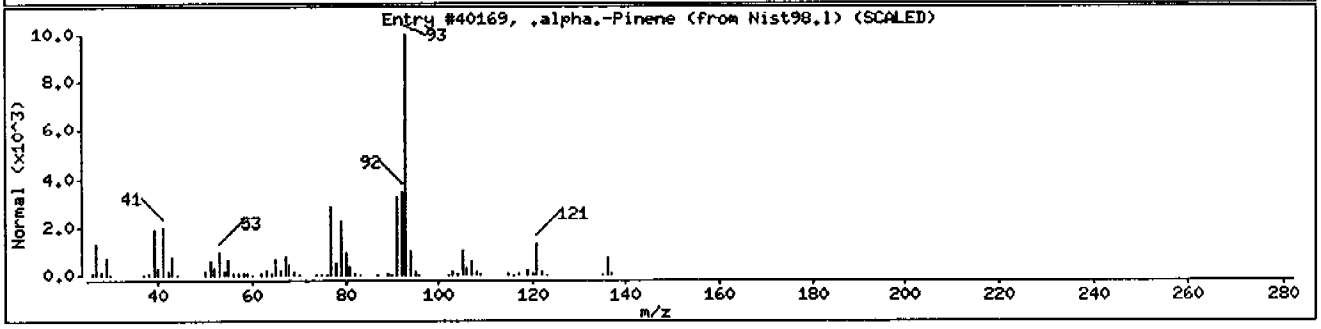

Data File: /chem/VOA1.i/051305v1.b/1j519.d

Date : 13-MAY-2005 23:57

Client ID: RE03-05-58926

Instrument: VOA1.i

Sample Info: |1358310011425470|1|VOAF|1|

Operator: PAM

Column phase: RTX-Volatiles

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
3-Carene	13466-78-9	Nist98.l	117793	94	C10H16	136
3-Carene	13466-78-9	Nist98.l	117882	93	C10H16	136
3-Carene	13466-78-9	Nist98.l	40142	93	C10H16	136

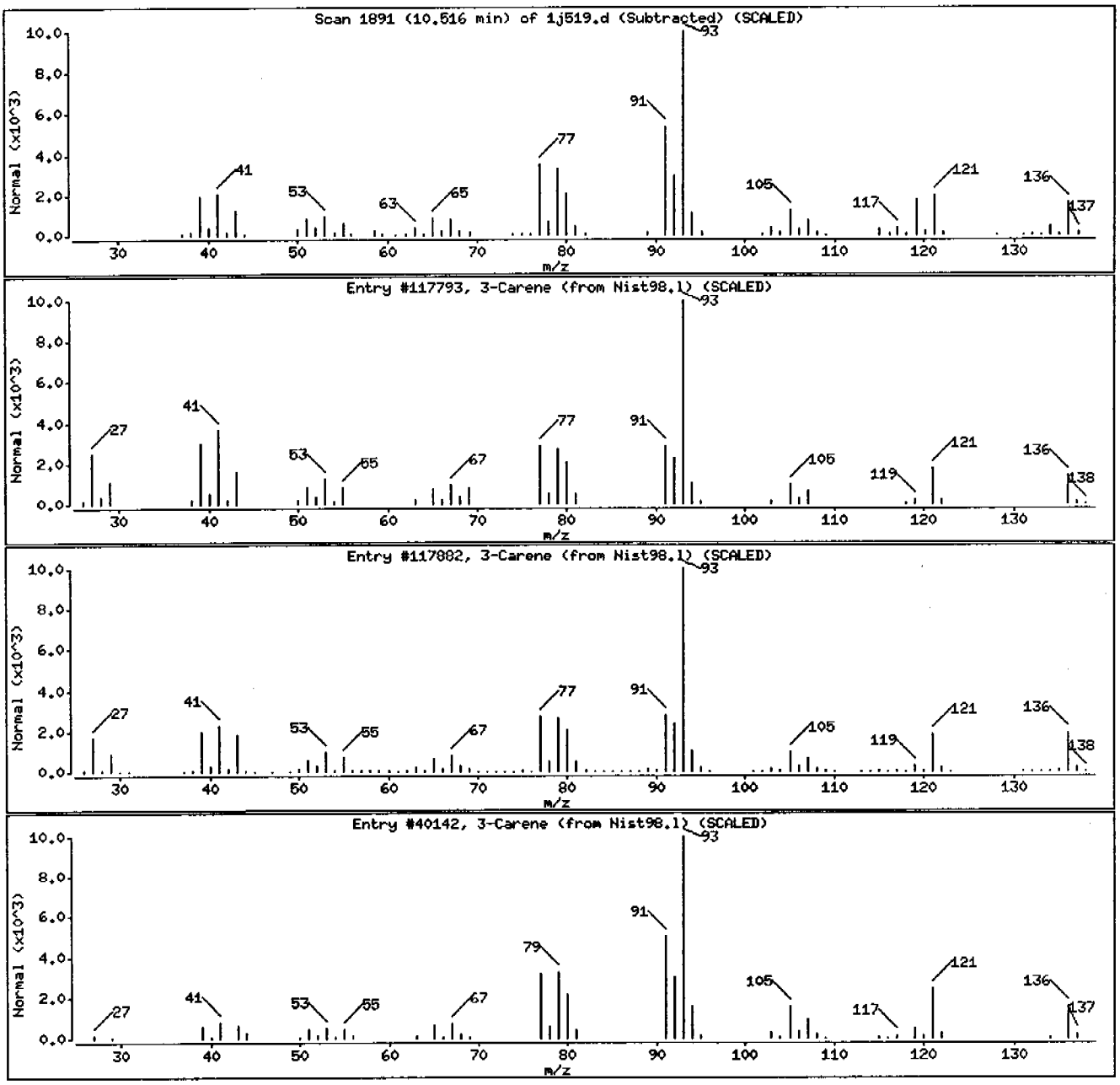

Data File: /chem/VOA1.i/051305v1.b/1j519.d

Date : 13-MAY-2005 23:57

Client ID: RE03-05-58926

Instrument: VOA1.i

Sample Info: |1358310011425470111VOAF|1|

Operator: PAM

Column phase: RTX-Volatiles

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Hydrocarbon						
Cyclohexene, 1-methyl-4-(1-methylethenyl	5989-54-8	Nist98.l	114008	95	C10H16	136
Cyclohexene, 1-methyl-4-(1-methylethenyl	5989-54-8	Nist98.l	114008	95	C10H16	136
D-Limonene	5989-27-5	Nist98.l	21974	94	C10H16	136

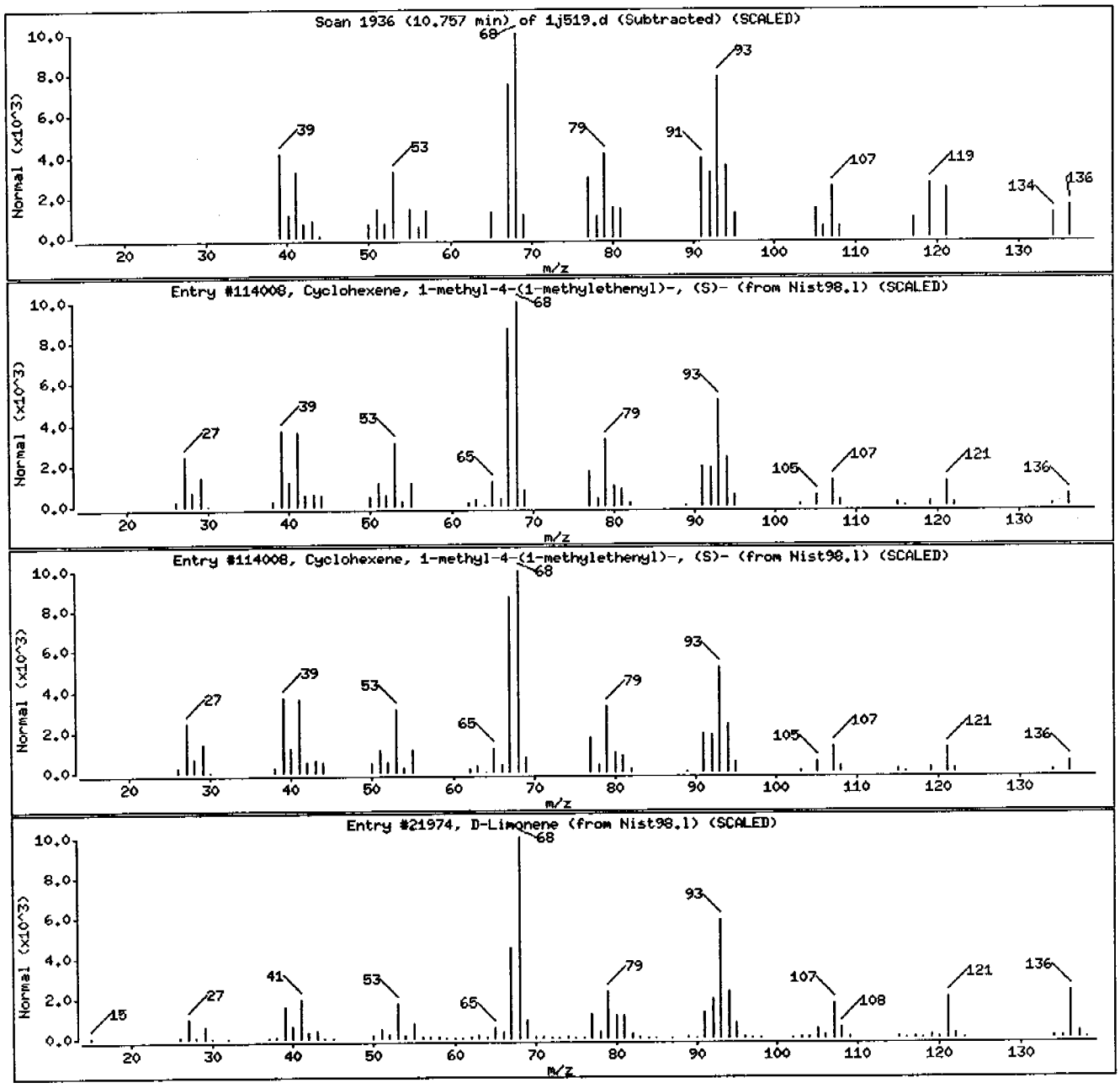

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-58927

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Matrix: (soil/water) SOIL Lab Sample ID: 135831002

Sample wt/vol: 4.5 (g/mL) G Lab File ID: 1J520

Level: (low/med) LOW Date Received: 05/05/05

% Moisture: not dec. 9 Date Analyzed: 05/14/05

GC Column: RTX-VOLATILES ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-71-8	Dichlorodifluoromethane	1.2	U
74-87-3	Chloromethane	1.2	U
75-01-4	Vinyl chloride	1.2	U
74-83-9	Bromomethane	1.2	U
75-00-3	Chloroethane	1.2	U
75-69-4	Trichlorofluoromethane	1.2	U
75-35-4	1,1-Dichloroethylene	1.2	U
67-64-1	Acetone	43.1	
76-13-1	Trichlorotrifluoroethane	6.1	U
74-88-4	Iodomethane	6.1	U
75-15-0	Carbon disulfide	6.1	U
75-09-2	Methylene chloride	6.1	U
156-60-5	trans-1,2-Dichloroethylene	1.2	U
75-34-3	1,1-Dichloroethane	1.2	U
78-93-3	2-Butanone	6.8	
156-59-2	cis-1,2-Dichloroethylene	1.2	U
594-20-7	2,2-Dichloropropane	1.2	U
74-97-5	Bromochloromethane	1.2	U
67-66-3	Chloroform	1.2	U
71-55-6	1,1,1-Trichloroethane	1.2	U
563-58-6	1,1-Dichloropropene	1.2	U
56-23-5	Carbon tetrachloride	1.2	U
107-06-2	1,2-Dichloroethane	1.2	U
71-43-2	Benzene	1.2	U
79-01-6	Trichloroethylene	1.2	U
78-87-5	1,2-Dichloropropane	1.2	U
74-95-3	Dibromomethane	1.2	U
75-27-4	Bromodichloromethane	1.2	U
10061-01-5	cis-1,3-Dichloropropylene	1.2	U
108-10-1	4-Methyl-2-pentanone	6.1	U
108-88-3	Toluene	1.2	U
10061-02-6	trans-1,3-Dichloropropylene	1.2	U
79-00-5	1,1,2-Trichloroethane	1.2	U

FORM I VOA OLM03.0

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-58927

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Matrix: (soil/water) SOIL Lab Sample ID: 135831002

Sample wt/vol: 4.5 (g/mL) G Lab File ID: 1J520

Level: (low/med) LOW Date Received: 05/05/05

% Moisture: not dec. 9 Date Analyzed: 05/14/05

GC Column: RTX-VOLATILES ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
142-28-9	1,3-Dichloropropane	1.2	U
591-78-6	2-Hexanone	6.1	U
127-18-4	Tetrachloroethylene	1.2	U
124-48-1	Dibromochloromethane	1.2	U
106-93-4	1,2-Dibromoethane	1.2	U
108-90-7	Chlorobenzene	1.2	U
630-20-6	1,1,1,2-Tetrachloroethane	1.2	U
100-41-4	Ethylbenzene	1.2	U
95-47-6	o-Xylene	1.2	U
	m,p-Xylenes	2.4	U
100-42-5	Styrene	1.2	U
75-25-2	Bromoform	1.2	U
98-82-8	Isopropylbenzene	1.2	U
79-34-5	1,1,2,2-Tetrachloroethane	1.2	U
96-18-4	1,2,3-Trichloropropane	1.2	U
108-86-1	Bromobenzene	1.2	U
103-65-1	n-Propylbenzene	1.2	U
95-49-8	2-Chlorotoluene	1.2	U
108-67-8	1,3,5-Trimethylbenzene	1.2	U
95-63-6	1,2,4-Trimethylbenzene	1.2	U
106-43-4	4-Chlorotoluene	1.2	U
98-06-6	tert-Butylbenzene	1.2	U
135-98-8	sec-Butylbenzene	1.2	U
99-87-6	4-Isopropyltoluene	0.68	J
541-73-1	1,3-Dichlorobenzene	1.2	U
106-46-7	1,4-Dichlorobenzene	1.2	U
104-51-8	n-Butylbenzene	1.2	U
95-50-1	1,2-Dichlorobenzene	1.2	U
96-12-8	1,2-Dibromo-3-chloropropane	1.2	U

FORM I VOA OLM03.0

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

RE03-05-58927

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Matrix: (soil/water) SOIL Lab Sample ID: 135831002

Sample wt/vol: 4.5 (g/mL) G Lab File ID: 1J520

Level: (low/med) LOW Date Received: 05/05/05

% Moisture: not dec. 9 Date Analyzed: 05/14/05

GC Column: RTX-VOLATILES ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 5

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN HYDROCARBON	2.04	6.1	J
2. 80-56-8	UNKNOWN TERPENE	9.29	33.0	NJ
3. 13466-78-9	3-CARENE	10.52	46.9	NJ
4.	UNKNOWN HYDROCARBON	11.48	11.9	J
5.	UNKNOWN HYDROCARBON	11.50	6.5	J
6.				
7.				
8.				
9.				
10.				
11.				
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FORM I VOA-TIC OLM03.0

General Engineering Laboratories, LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/051305v1.b/1j520.d
Lab Smp Id: 135831002 Client Smp ID: RE03-05-58927
Inj Date : 14-MAY-2005 00:22
Operator : PAM Inst ID: VOA1.i
Smp Info : |135831002|425470|1|VOAF|1|
Misc Info : LANL 4.5G N/A
Comment :
Method : /chem/VOA1.i/051305v1.b/VOA1-8260B-041905.m
Meth Date : 17-May-2005 22:45 tcl Quant Type: ISTD
Cal Date : 20-APR-2005 05:01 Cal File: 1g228.d
Als bottle: 19
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 3202S.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	9.03700	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	4.50000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
* 40 Fluorobenzene	96	5.179	5.179	(1.000)	583400	50.0000	
* 61 Chlorobenzene-d5	117	8.208	8.213	(1.000)	315556	50.0000	
* 86 1,4-Dichlorobenzene-d4	152	10.906	10.900	(1.000)	78762	50.0000	
$ 35 Dibromofluoromethane	113	4.474	4.473	(0.864)	190260	60.5013	73.9(R)
$ 47 Toluene-d8	98	6.659	6.658	(0.811)	528971	55.6582	68.0
$ 71 Bromofluorobenzene	95	9.570	9.570	(0.878)	142324	71.2813	87.1(R)
10 Acetone	43	2.834	2.828	(0.547)	39557	35.3245	43.1
30 2-Butanone	43	4.036	4.030	(0.779)	10824	5.59477	6.8
84 4-Isopropyltoluene	119	10.794	10.799	(0.990)	2791	0.55957	0.68(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
R - Spike/Surrogate failed recovery limits.

General Engineering Laboratories, LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/051305v1.b/1j520.d
Lab Smp Id: 135831002 Client Smp ID: RE03-05-58927
Inj Date : 14-MAY-2005 00:22
Operator : PAM Inst ID: VOA1.i
Smp Info : |135831002|425470|1|VOAF|1|
Misc Info : LANL 4.5G N/A
Comment :
Method : /chem/VOA1.i/051305v1.b/VOA1-8260B-041905.m
Meth Date : 17-May-2005 22:45 tcl Quant Type: ISTD
Cal Date : 20-APR-2005 05:01 Cal File: 1g228.d
Als bottle: 19
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 3202S.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	9.03700	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	4.50000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 40 Fluorobenzene	5.179	1268119	50.000
* 61 Chlorobenzene-d5	8.208	951814	50.000
* 86 1,4-Dichlorobenzene-d4	10.906	465487	50.000

CONCENTRATIONS					QUANT		
RT	AREA	ON-COL(ug/l)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #

RT	AREA	CONCENTRATIONS ON-COL(ug/l)	FINAL(ug/Kg)	QUAL	QUANT LIBRARY	LIB ENTRY	CPND #
Unknown Hydrocarbon				CAS #:			
2.038	127004	5.00755592	6.1	0		0	40
Unknown Terpene				CAS #:	80-56-8		
9.293	513699	26.9852426	33.0	95	Nist98.1	40169	61(L)
3-Carene				CAS #:	13466-78-9		
10.516	357563	38.4073724	46.9	93	Nist98.1	117882	86
Unknown Hydrocarbon				CAS #:			
11.483	90759	9.74875741	11.9	0		0	86
Unknown Hydrocarbon				CAS #:			
11.499	49467	5.31346432	6.5	0		0	86

QC Flag Legend

L - Operator selected an alternate library search match.

Data File: /chem/VOA1.i/051305v1.b/1j520.d
Date : 14-MAY-2005 00:22
Client ID: RE03-05-58927
Sample Info: |135831002|425470|1|VOAF|1|

Column phase: RTX-Volatiles

Instrument: VOA1.i

Operator: PAM
Column diameter: 0.25

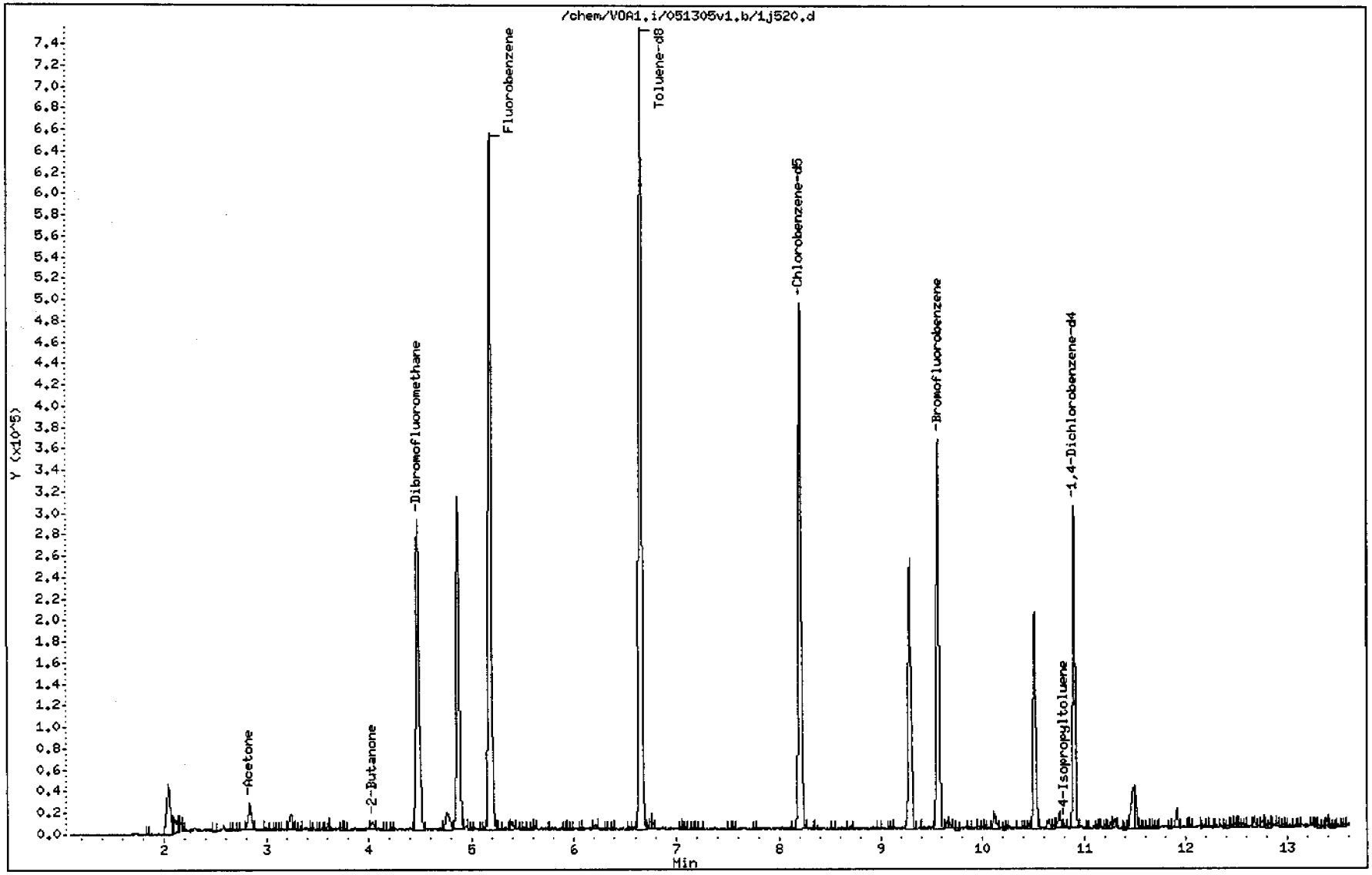

Data File: /chem/VOA1.i/051305v1.b/1j520.d

Date : 14-MAY-2005 00:22

Client ID: RE03-05-58927

Instrument: VOA1.i

Sample Info: |135831002142547011|VOAF|1|

Operator: PAM

Column phase: RTX-Volatiles

Column diameter: 0.25

10 Acetone

Concentration: 43.1 ug/Kg

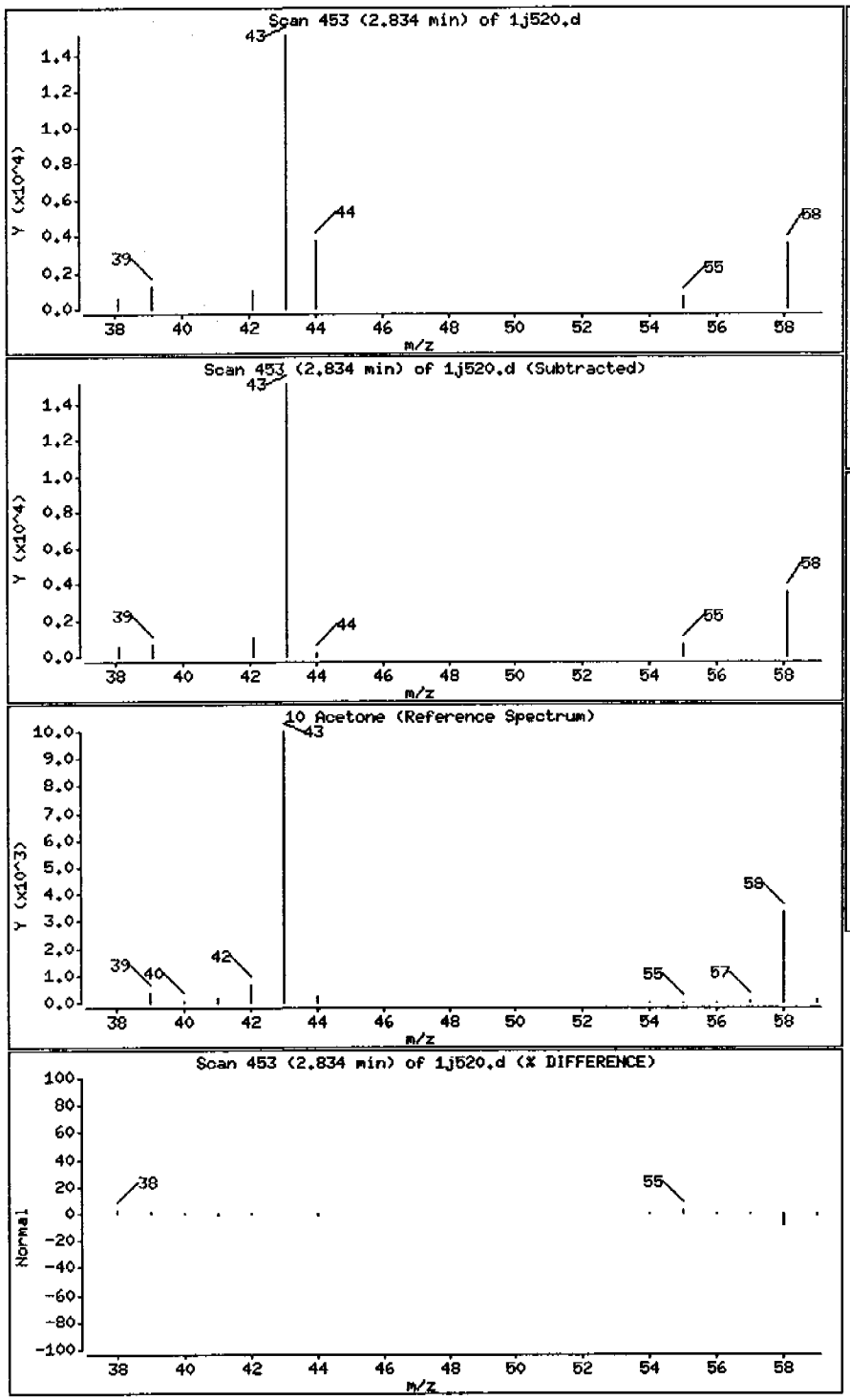

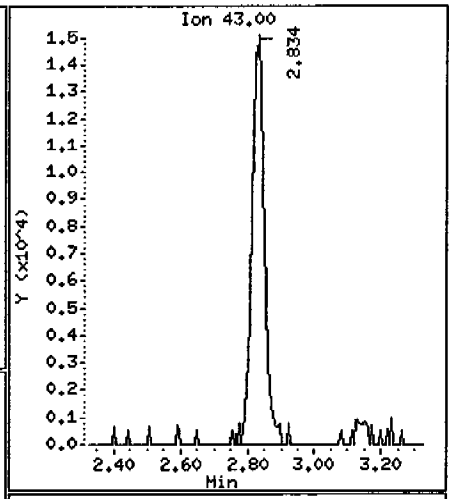

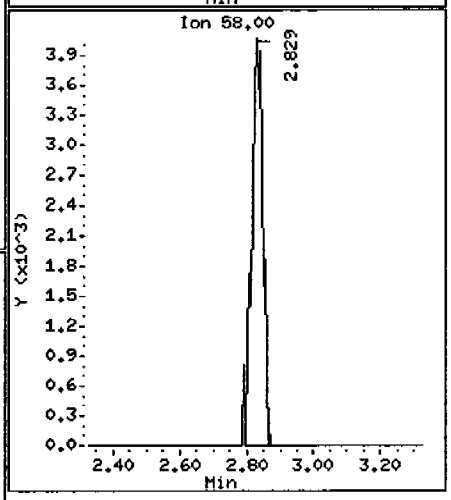

Data File: /chem/VOA1.i/051305v1.b/1j520.d

Date : 14-MAY-2005 00:22

Client ID: RE03-05-58927

Instrument: VOA1.i

Sample Info: |1358310021425470|1|VOAF|1|

Operator: PAM

Column phase: RTX-Volatiles

Column diameter: 0.25

30 2-Butanone

Concentration: 6.8 ug/Kg

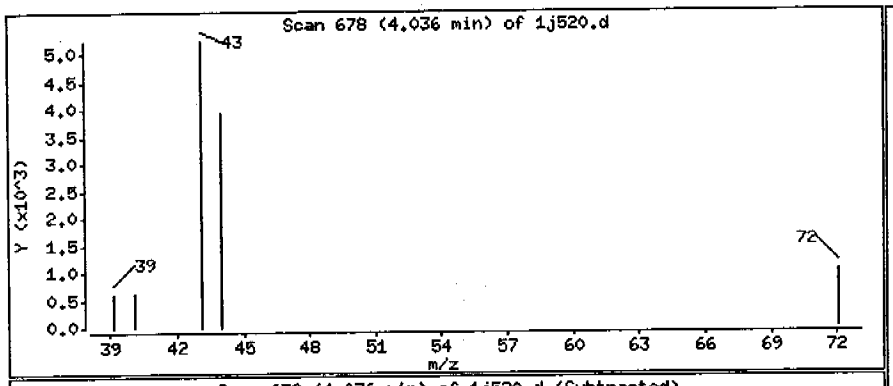

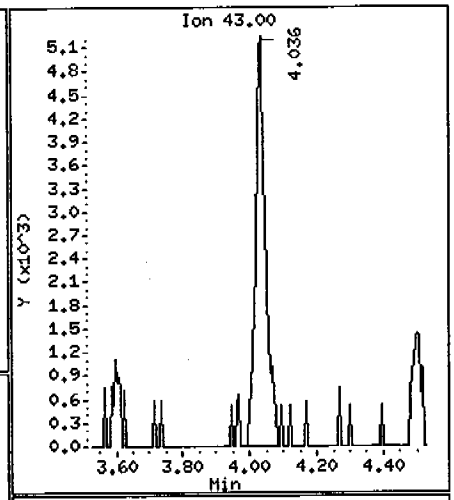

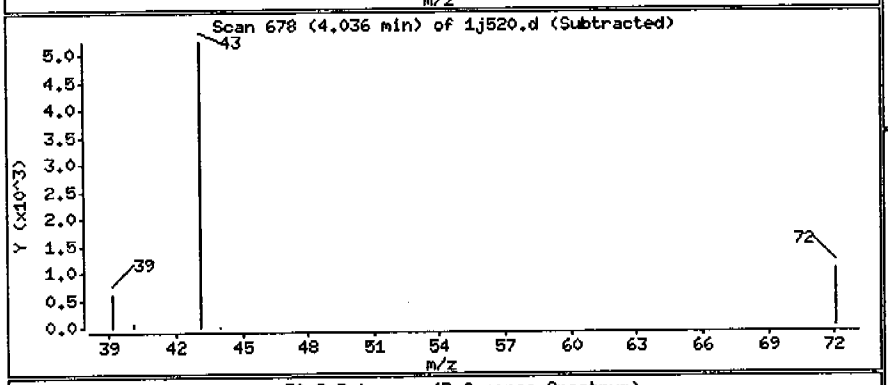

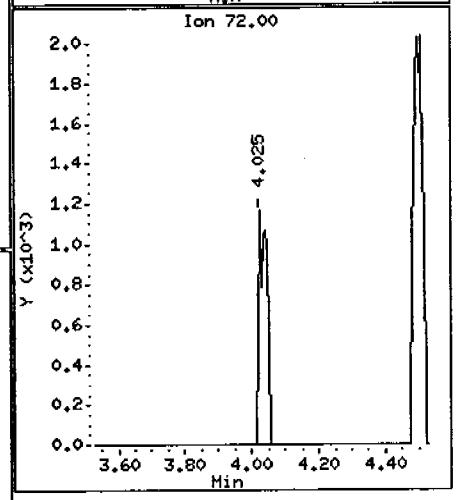

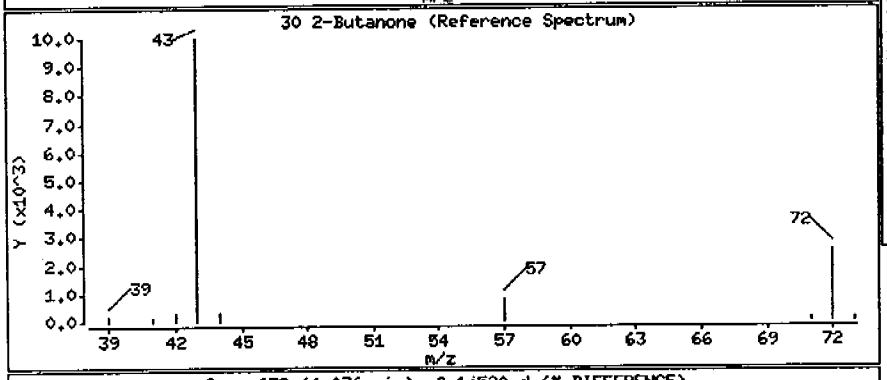

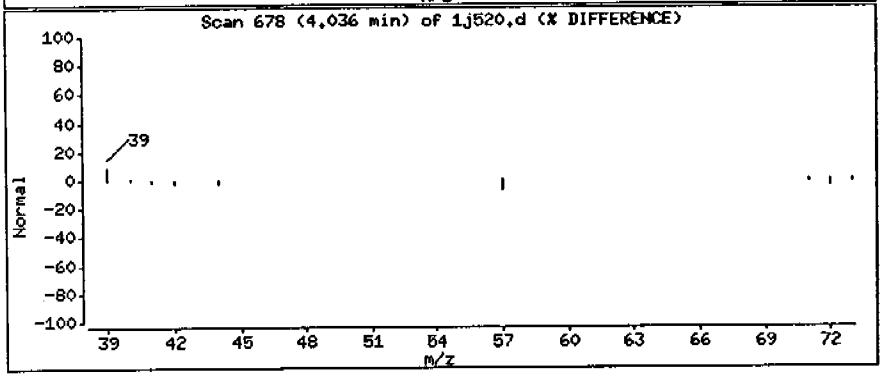

Data File: /chem/VOA1.i/051305v1.b/1j520.d

Date : 14-MAY-2005 00:22

Client ID: RE03-05-58927

Instrument: VOA1.i

Sample Info: |1358310021425470|1|VOAF|1|

Operator: PAH

Column phase: RTX-Volatiles

Column diameter: 0.25

84 4-Isopropyltoluene

Concentration: 0.68 ug/Kg

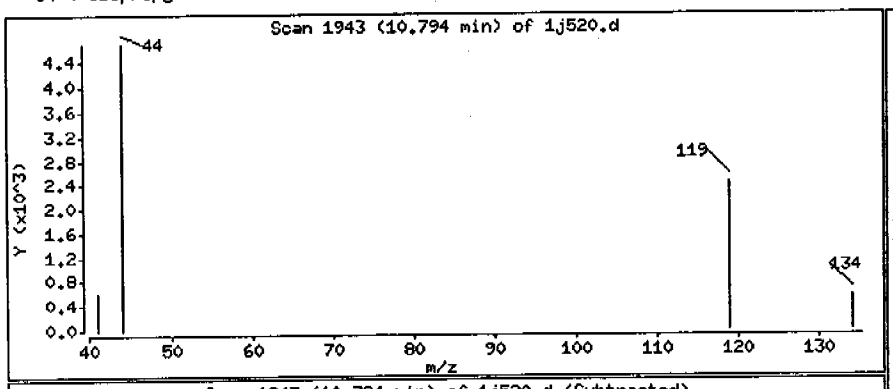

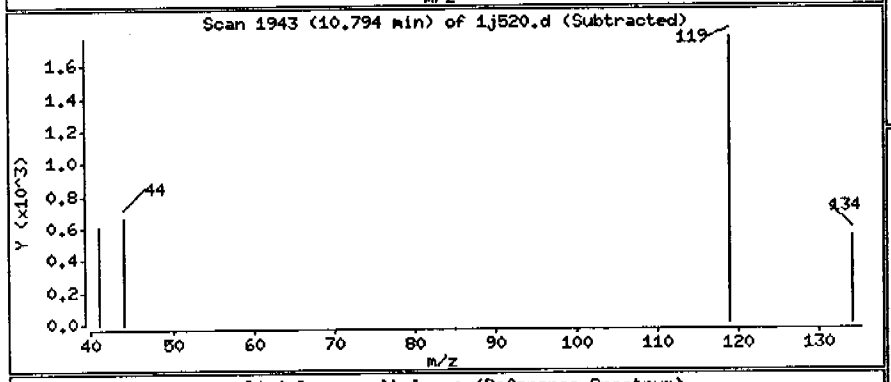

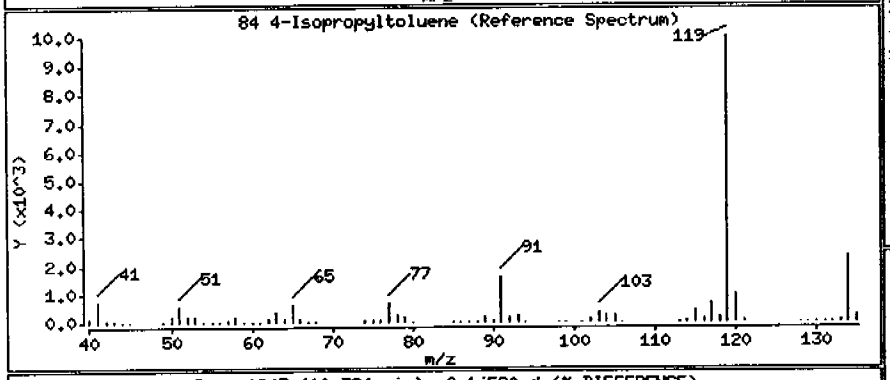

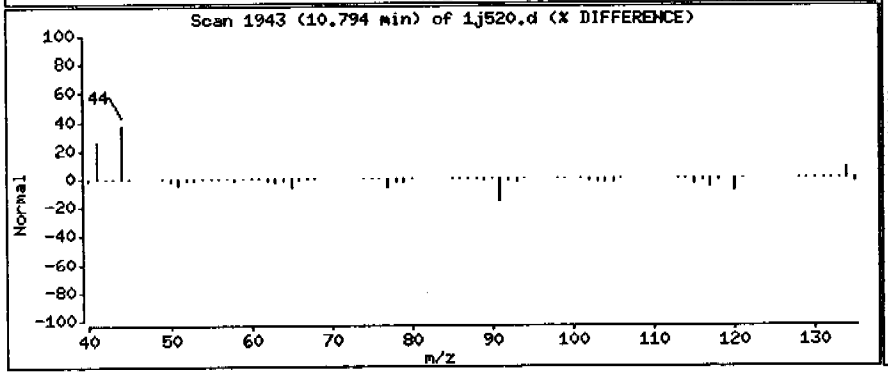

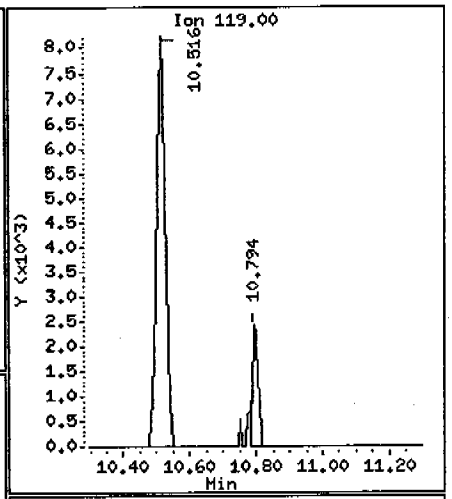

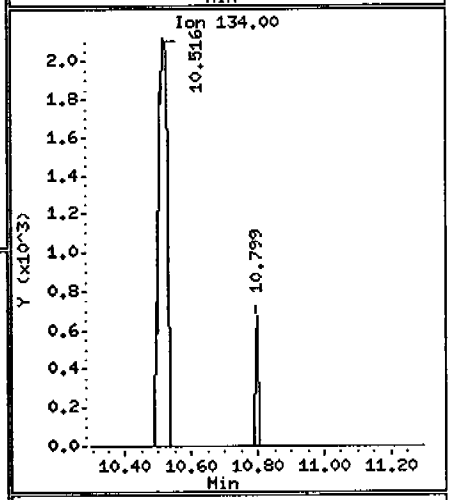

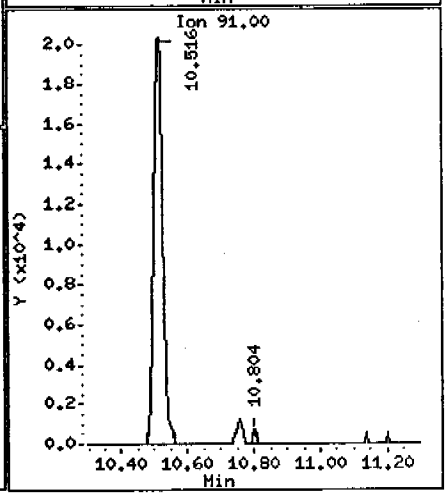

Data File: /chem/VOA1.i/051305v1.b/1j520.d

Date : 14-MAY-2005 00:22

Client ID: RE03-05-58927

Instrument: VOA1.i

Sample Info: |1358310021425470|1|VOAF|1|

Operator: PAM

Column phase: RTX-Volatiles

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Hydrocarbon						
2-Oxetanone, 4,4-dimethyl-	1823-52-5	Nist98.l	1851	83	C5H8O2	100
1-Propene, 2-methyl-	115-11-7	Nist98.l	108463	43	C4H8	56
1-Propene, 2-methyl-	115-11-7	Nist98.l	1551	38	C4H8	56

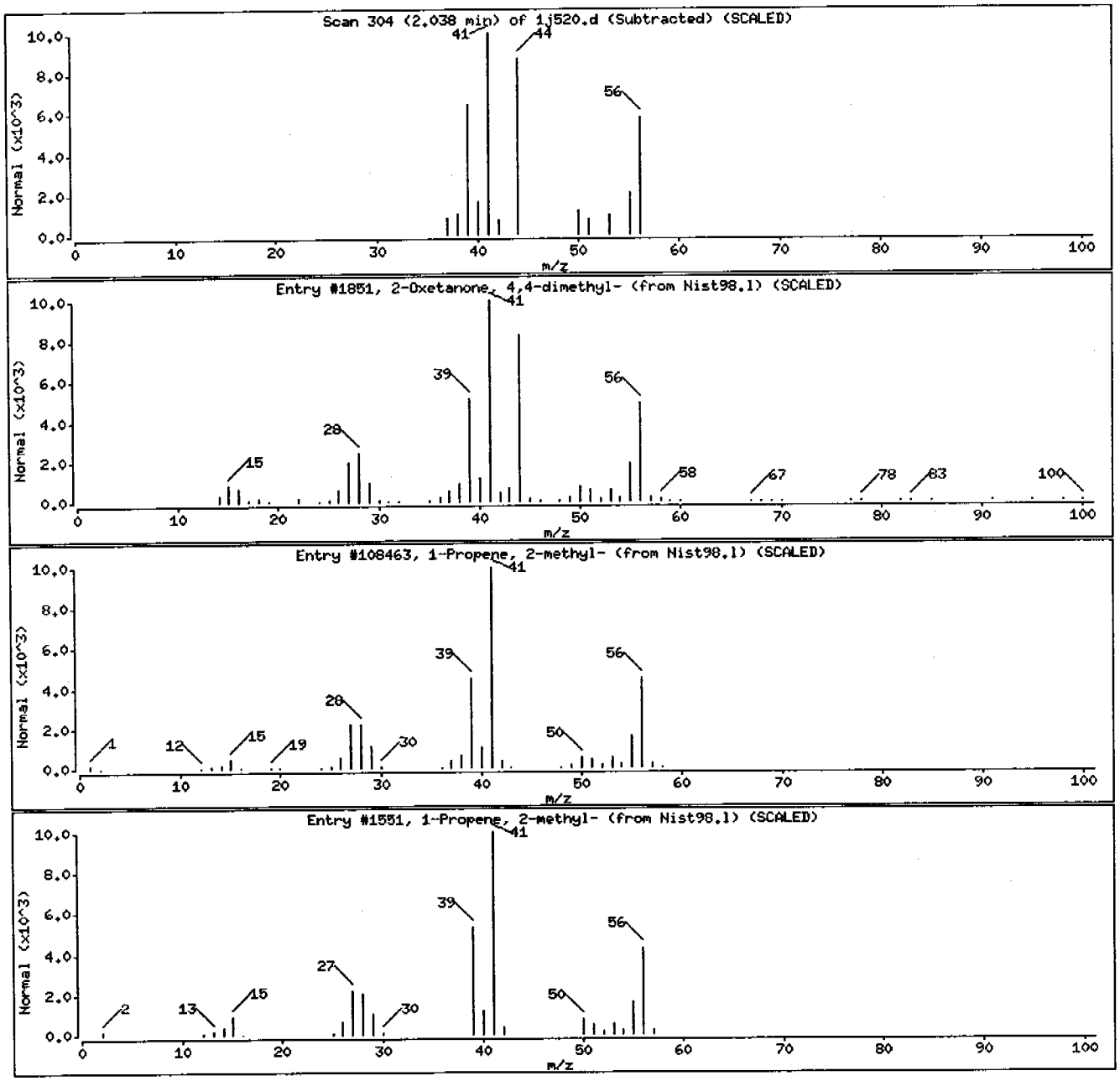

Data File: /chem/VOA1.i/051305v1.b/1j520.d

Date : 14-MAY-2005 00:22

Client ID: RE03-05-58927

Instrument: VOA1.i

Sample Info: |135831002|42547011|VOAF|1|

Operator: PAM

Column phase: RTX-Volatiles

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Terpene	80-56-8	Nist98.l	40169	95	C10H16	136
1R-.alpha.-Pinene	7785-70-8	Nist98.l	40147	96	C10H16	136
Bicyclo[3.1.1]hept-2-ene, 2,6,6-trimethy	2437-95-8	Nist98.l	40144	93	C10H16	136

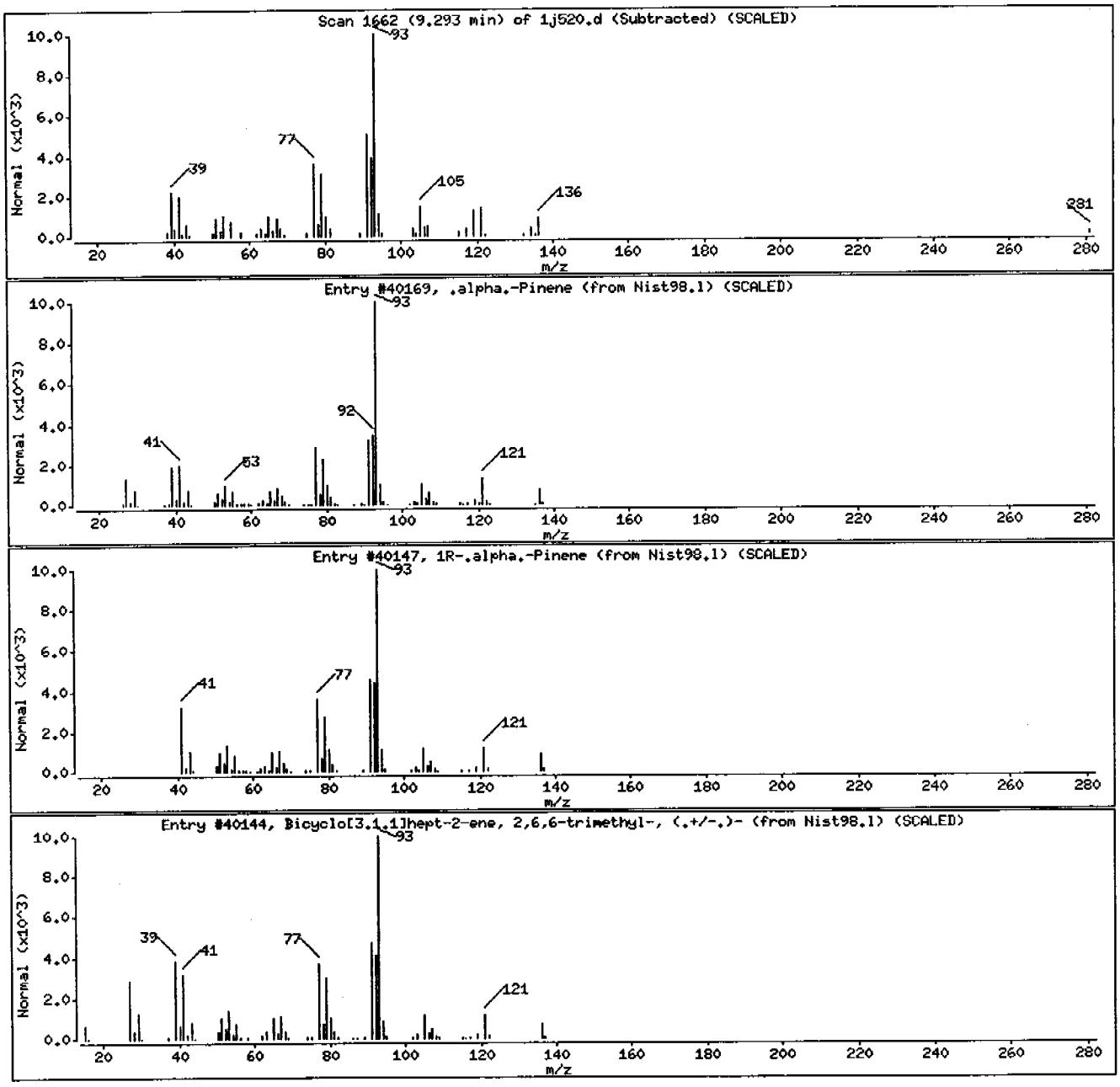

Data File: /chem/VOA1.i/051305v1.b/1j520.d

Date : 14-MAY-2005 00:22

Client ID: RE03-05-58927

Instrument: VOA1.i

Sample Info: |1358310021425470|1|VOAF|1|

Operator: PAM

Column phase: RTX-Volatiles

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
3-Carene	13466-78-9	Nist98.l	117882	93	C10H16	136
1S-.alpha.-Pinene	7785-26-4	Nist98.l	40167	93	C10H16	136
3-Carene	13466-78-9	Nist98.l	117793	93	C10H16	136

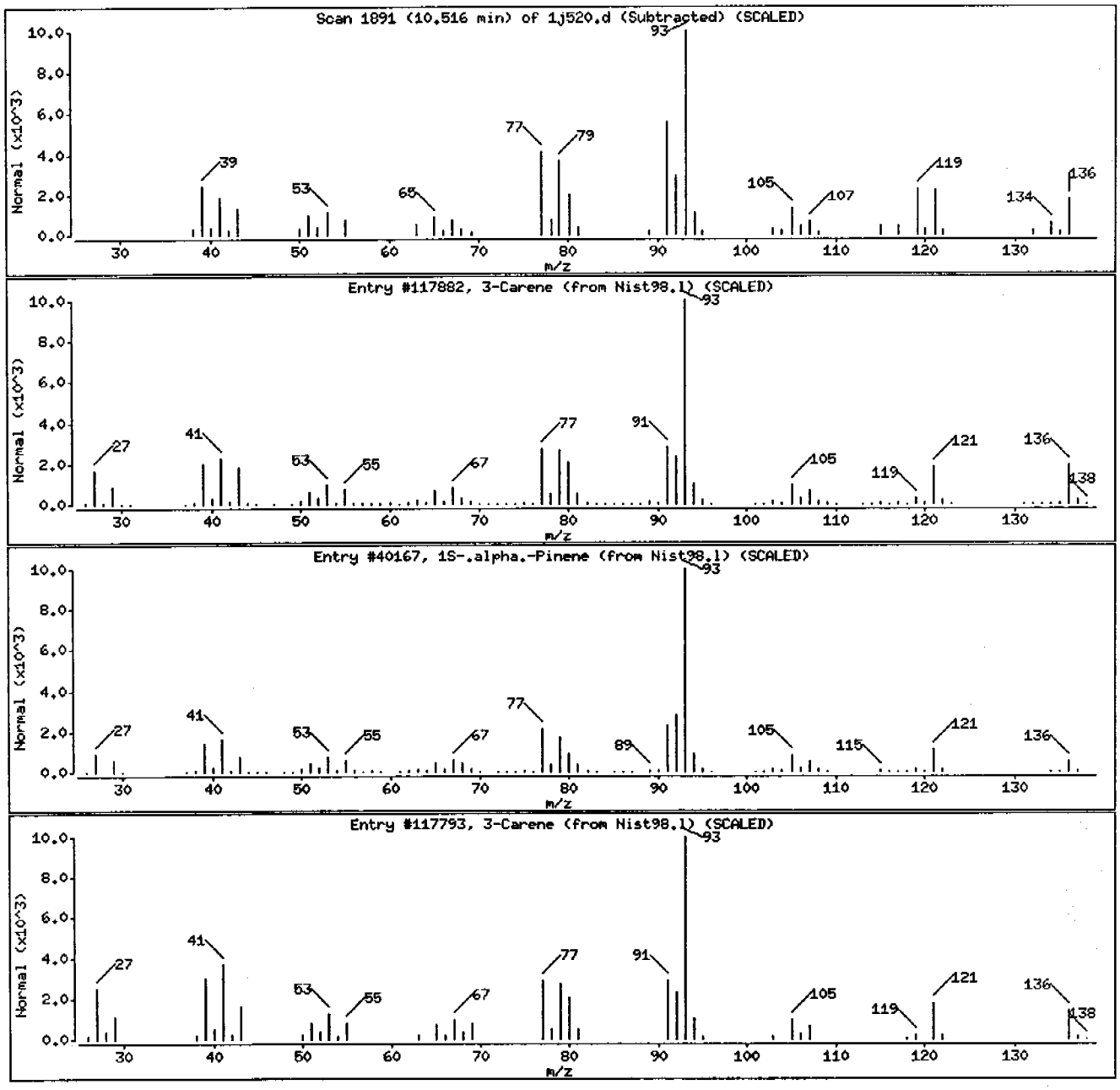

Data File: /chem/VOA1.i/051305v1.b/1j520.d

Date : 14-MAY-2005 00:22

Client ID: RE03-05-58927

Instrument: VOA1.i

Sample Info: |1358310021425470|1|VOAF|1|

Operator: PAM

Column phase: RTX-Volatiles

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Hydrocarbon						
3-Cyclohexen-1-ol, 5-methylene-6-(1-meth	54274-41-8	Nist98.l	30799	22	C10H140	150
10-Oxatricyclo[4.2.1.13,9]dec-4-ene, 9-e	1000141-58-3	Nist98.l	30911	16	C11H140	162
cis-anti-cis-Tricyclo[7.3.0.0(2,6)]-7-do	70702-18-0	Nist98.l	38269	16	C12H18	162

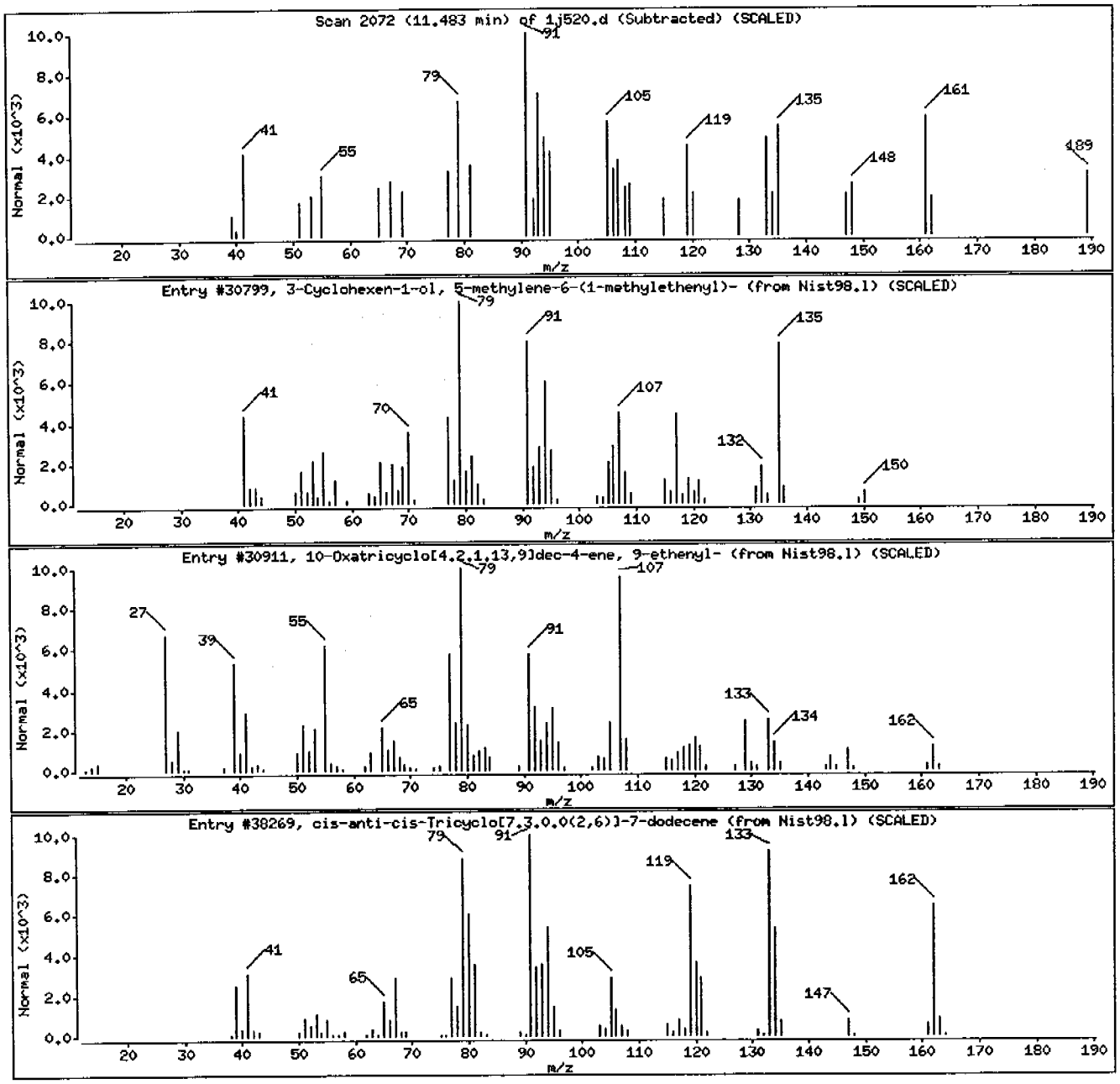

Data File: /chem/VOA1.i/051305v1.b/1j520.d

Date : 14-MAY-2005 00:22

Client ID: RE03-05-58927

Instrument: VOA1.i

Sample Info: |1358310021425470|1|VOAF|1|

Operator: PAM

Column phase: RTX-Volatiles

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Hydrocarbon						
Benzenamine, 2,6-dimethyl-	87-62-7	Nist98.l	119506	10	C8H11N	121
3,4-Dihydro-1-methylpyrrolo[1,2-a]pyrazi	1000223-33-7	Nist98.l	60603	10	C8H10N2	134
Phenol, 4-(2-propenyl)-	501-92-8	Nist98.l	122240	10	C9H10O	134

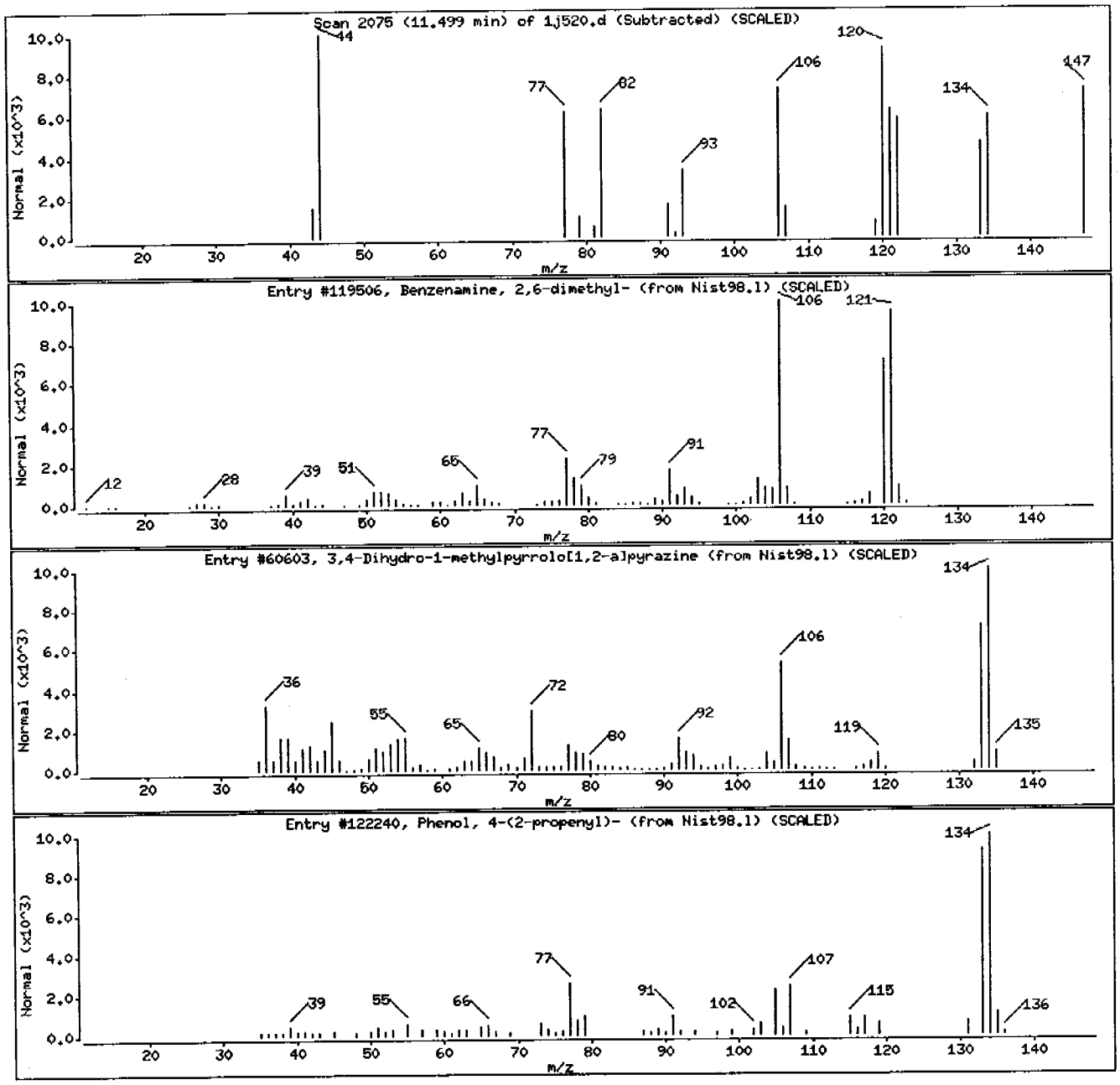

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-58928

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Matrix: (soil/water) SOIL Lab Sample ID: 135831005

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 1J514

Level: (low/med) LOW Date Received: 05/05/05

% Moisture: not dec. _____ Date Analyzed: 05/13/05

GC Column: RTX-VOLATILES ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-71-8	Dichlorodifluoromethane	1.0	U
74-87-3	Chloromethane	1.0	U
75-01-4	Vinyl chloride	1.0	U
74-83-9	Bromomethane	1.0	U
75-00-3	Chloroethane	1.0	U
75-69-4	Trichlorofluoromethane	1.0	U
75-35-4	1,1-Dichloroethylene	7.0	
67-64-1	Acetone	90.7	
76-13-1	Trichlorotrifluoroethane	5.0	U
74-88-4	Iodomethane	5.0	U
75-15-0	Carbon disulfide	5.0	U
75-09-2	Methylene chloride	3.2	J
156-60-5	trans-1,2-Dichloroethylene	1.0	U
75-34-3	1,1-Dichloroethane	1.0	U
78-93-3	2-Butanone	7.6	
156-59-2	cis-1,2-Dichloroethylene	1.0	U
594-20-7	2,2-Dichloropropane	1.0	U
74-97-5	Bromochloromethane	1.0	U
67-66-3	Chloroform	1.0	U
71-55-6	1,1,1-Trichloroethane	1.0	U
563-58-6	1,1-Dichloropropene	1.0	U
56-23-5	Carbon tetrachloride	1.0	U
107-06-2	1,2-Dichloroethane	1.0	U
71-43-2	Benzene	1.0	U
79-01-6	Trichloroethylene	1.0	U
78-87-5	1,2-Dichloropropane	1.0	U
74-95-3	Dibromomethane	1.0	U
75-27-4	Bromodichloromethane	1.0	U
10061-01-5	cis-1,3-Dichloropropylene	1.0	U
108-10-1	4-Methyl-2-pentanone	5.0	U
108-88-3	Toluene	3.2	
10061-02-6	trans-1,3-Dichloropropylene	1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	U

FORM I VOA OLM03.0

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-58928

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Matrix: (soil/water) SOIL Lab Sample ID: 135831005

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 1J514

Level: (low/med) LOW Date Received: 05/05/05

% Moisture: not dec. _____ Date Analyzed: 05/13/05

GC Column: RTX-VOLATILES ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
142-28-9	1,3-Dichloropropane	1.0	U
591-78-6	2-Hexanone	1.8	J
127-18-4	Tetrachloroethylene	1.0	U
124-48-1	Dibromochloromethane	1.0	U
106-93-4	1,2-Dibromoethane	1.0	U
108-90-7	Chlorobenzene	1.0	U
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U
100-41-4	Ethylbenzene	0.39	J
95-47-6	o-Xylene	0.29	J
	m,p-Xylenes	1.2	J
100-42-5	Styrene	1.0	U
75-25-2	Bromoform	1.0	U
98-82-8	Isopropylbenzene	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U
96-18-4	1,2,3-Trichloropropane	1.0	U
108-86-1	Bromobenzene	1.0	U
103-65-1	n-Propylbenzene	1.0	U
95-49-8	2-Chlorotoluene	1.0	U
108-67-8	1,3,5-Trimethylbenzene	1.0	U
95-63-6	1,2,4-Trimethylbenzene	0.72	J
106-43-4	4-Chlorotoluene	1.0	U
98-06-6	tert-Butylbenzene	1.0	U
135-98-8	sec-Butylbenzene	1.0	U
99-87-6	4-Isopropyltoluene	0.76	J
541-73-1	1,3-Dichlorobenzene	1.0	U
106-46-7	1,4-Dichlorobenzene	0.24	J
104-51-8	n-Butylbenzene	1.0	U
95-50-1	1,2-Dichlorobenzene	1.0	U
96-12-8	1,2-Dibromo-3-chloropropane	1.0	U

FORM I VOA OLM03.0

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

RE03-05-58928

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Matrix: (soil/water) SOIL Lab Sample ID: 135831005

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 1J514

Level: (low/med) LOW Date Received: 05/05/05

% Moisture: not dec. _____ Date Analyzed: 05/13/05

GC Column: RTX-VOLATILES ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 1

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN HYDROCARBON	10.74	11.0	J
2.				
3.				
4.				
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30.				

FORM I VOA-TIC OLM03.0

General Engineering Laboratories, LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/051305v1.b/1j514.d
Lab Smp Id: 135831005 Client Smp ID: RE03-05-58928
Inj Date : 13-MAY-2005 21:51
Operator : PAM Inst ID: VOA1.i
Smp Info : |135831005|425470|1|VOAF|1|
Misc Info : LANL 5G N/A
Comment :
Method : /chem/VOA1.i/051305v1.b/VOA1-8260B-041905.m
Meth Date : 17-May-2005 22:45 tcl Quant Type: ISTD
Cal Date : 20-APR-2005 05:01 Cal File: 1g228.d
Als bottle: 13
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 3202S.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	0.00000	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
* 40 Fluorobenzene	96	5.174	5.179	(1.000)	666376	50.0000	
* 61 Chlorobenzene-d5	117	8.209	8.213	(1.000)	505145	50.0000	
* 86 1,4-Dichlorobenzene-d4	152	10.901	10.900	(1.000)	246612	50.0000	
$ 35 Dibromofluoromethane	113	4.480	4.473	(0.866)	211552	58.8954	58.9
$ 47 Toluene-d8	98	6.659	6.658	(0.811)	790785	51.9776	52.0
$ 71 Bromofluorobenzene	95	9.571	9.570	(0.878)	299563	47.9168	47.9
11 1,1-Dichloroethylene	61	3.005	3.010	(0.581)	40667	6.99077	7.0
10 Acetone	43	2.829	2.828	(0.547)	116052	90.7303	90.7
17 Methylene chloride	84	3.256	3.261	(0.629)	12499	3.24738	3.2(aQ)
30 2-Butanone	43	4.036	4.030	(0.780)	16844	7.62232	7.6
87 1,4-Dichlorobenzene	146	10.933	10.932	(1.003)	2031	0.24272	0.24(aQ)
50 Toluene	92	6.734	6.739	(0.820)	32469	3.16787	3.2

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
55 2-Hexanone	43	7.065	7.064	(0.861)	6455	1.75099	1.8(a)
58 Ethylbenzene	91	8.342	8.341	(1.016)	7471	0.39265	0.39(a)
63 m,p-Xylenes	106	8.438	8.437	(1.028)	8546	1.16527	1.2(a)
64 o-Xylene	106	8.903	8.913	(1.085)	2058	0.29275	0.29(aQ)
84 4-Isopropyltoluene	119	10.794	10.799	(0.990)	11921	0.76333	0.76(a)
79 1,2,4-Trimethylbenzene	105	10.447	10.446	(0.958)	11076	0.72406	0.72(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.

General Engineering Laboratories, LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/051305v1.b/1j514.d
Lab Smp Id: 135831005 Client Smp ID: RE03-05-58928
Inj Date : 13-MAY-2005 21:51
Operator : PAM Inst ID: VOA1.i
Smp Info : |135831005|425470|1|VOAF|1|
Misc Info : LANL 5G N/A
Comment :
Method : /chem/VOA1.i/051305v1.b/VOA1-8260B-041905.m
Meth Date : 17-May-2005 22:45 tcl Quant Type: ISTD
Cal Date : 20-APR-2005 05:01 Cal File: 1g228.d
Als bottle: 13
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 3202S.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	0.00000	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 86 1,4-Dichlorobenzene-d4	10.901	1558937	50.000

	CONCENTRATIONS				QUANT		
RT	AREA	ON-COL(ug/l)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown Hydrocarbon				CAS #:			
10.735	343558	11.0189834	11.0	0		0	86

Data File: /chem/VOA1.i/051305v1.b/1j514.d
Date : 13-MAY-2005 21:51
Client ID: RE03-05-58928
Sample Info: 1135831005142547011|VOAF|1|
Column phase: RTX-Volatiles

Instrument: VOA1.i
Operator: PAM
Column diameter: 0.25

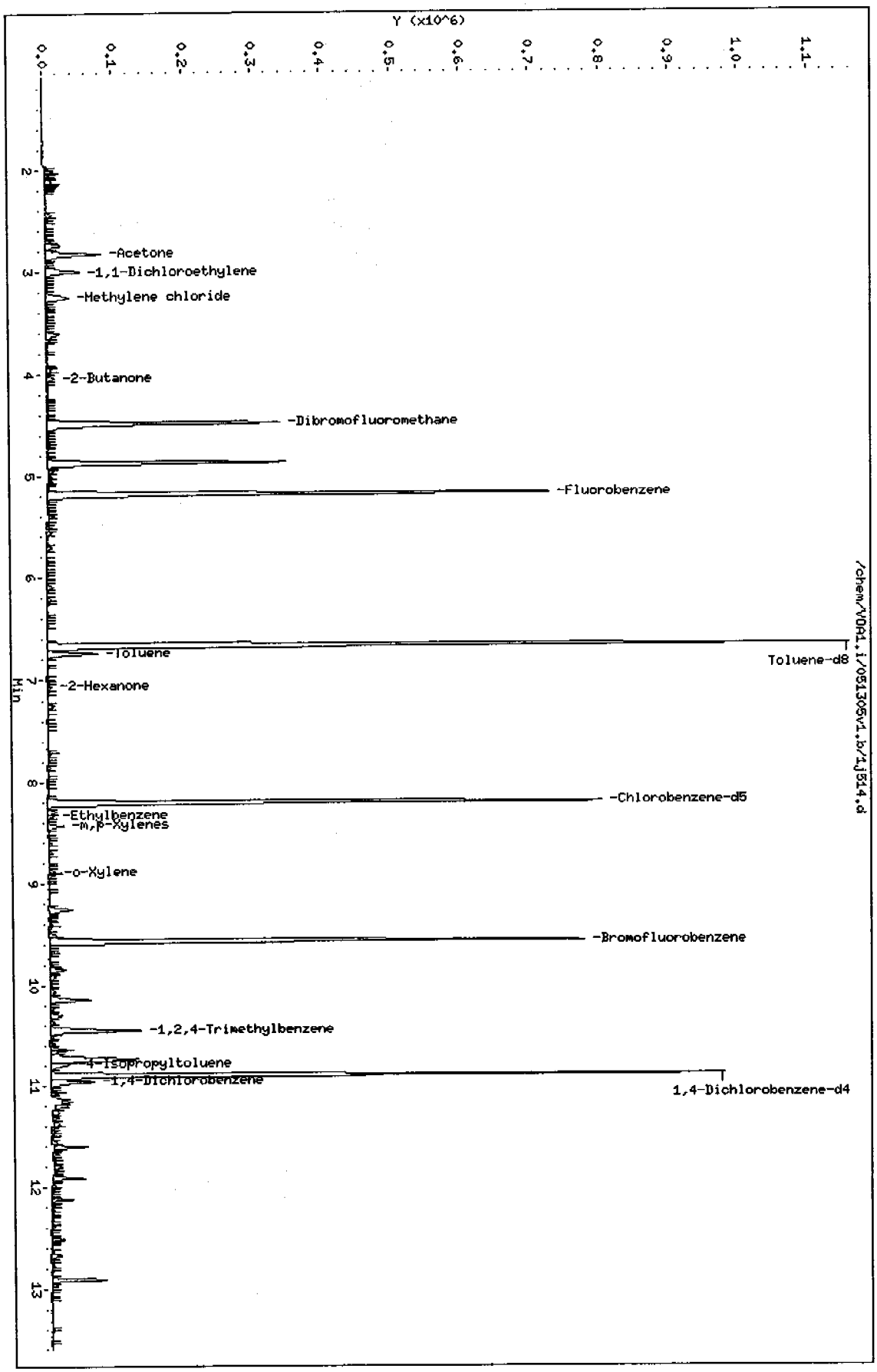

Page 1

Data File: /chem/VOA1.i/051305v1.b/1j514.d

Date : 13-MAY-2005 21:51

Client ID: RE03-05-58928

Instrument: VOA1.i

Sample Info: |1135831005|425470|1|VOAF|1|

Operator: PAH

Column phase: RTX-Volatiles

Column diameter: 0.25

11 1,1-Dichloroethylene

Concentration: 7.0 ug/Kg

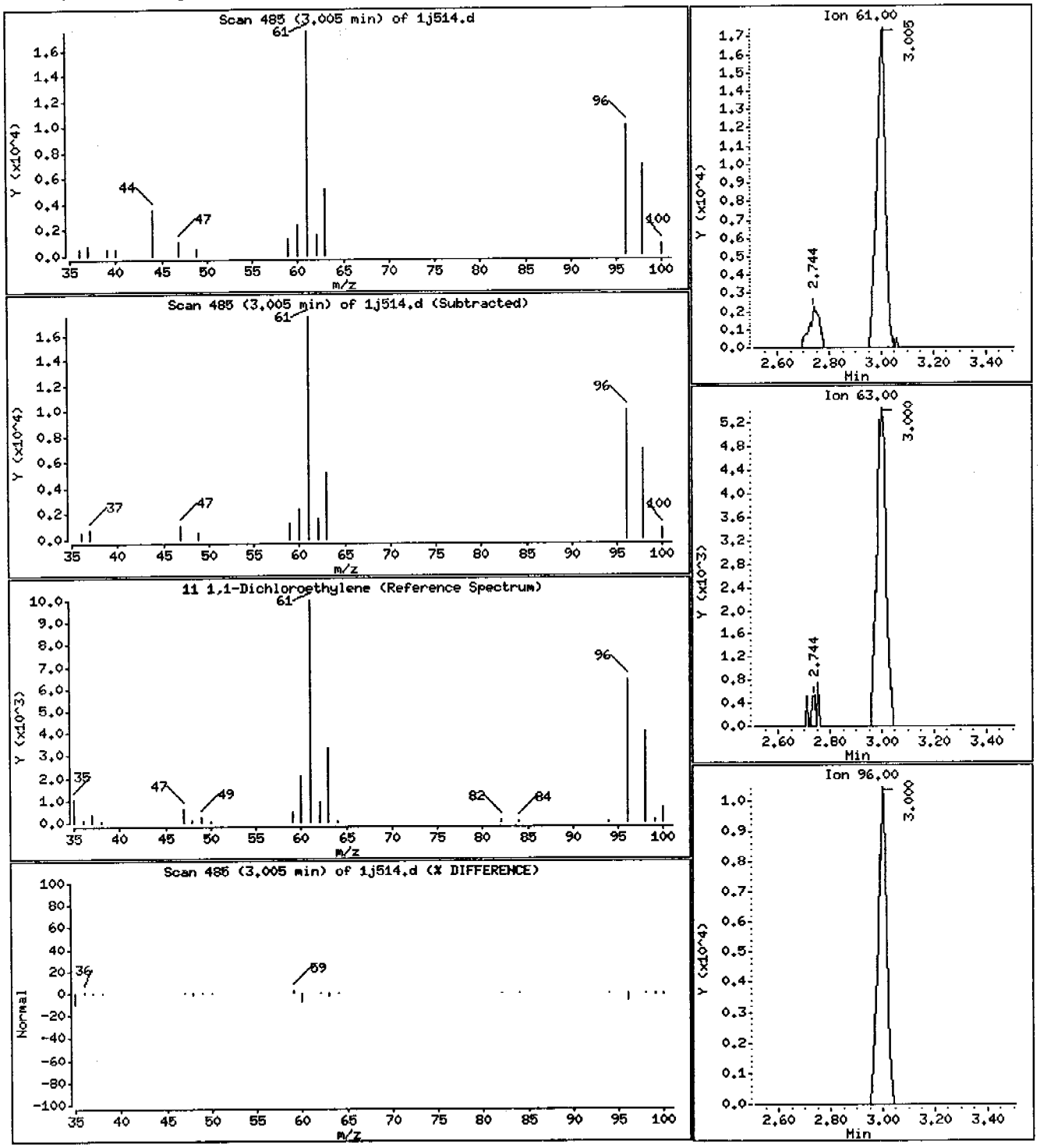

Data File: /chem/VOA1.i/051305v1.b/1j514.d

Date : 13-MAY-2005 21:51

Client ID: RE03-05-58928

Instrument: VOA1.i

Sample Info: |135831005|425470|1|VOAF|1|

Operator: PAM

Column phase: RTX-Volatiles

Column diameter: 0.25

10 Acetone

Concentration: 90.7 ug/Kg

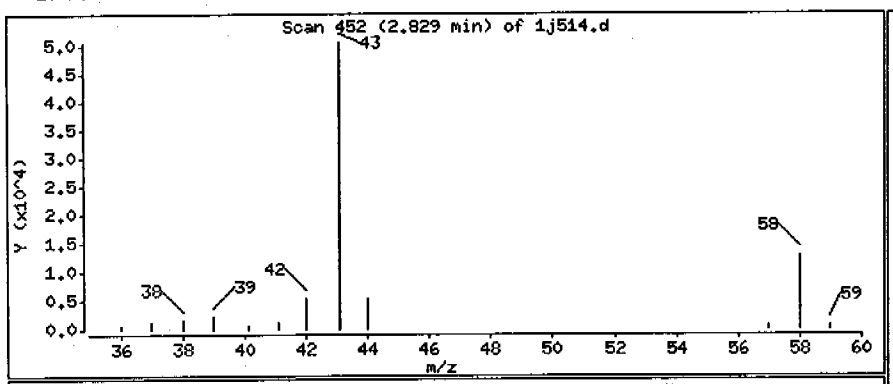

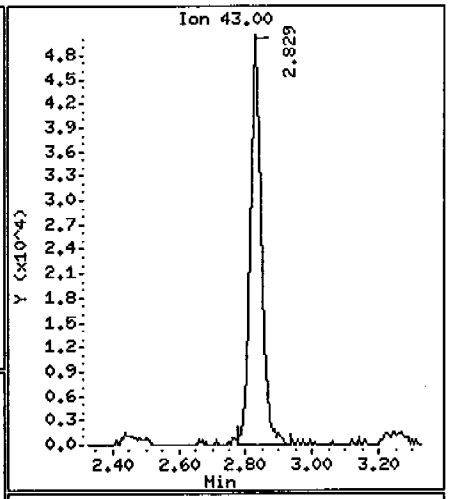

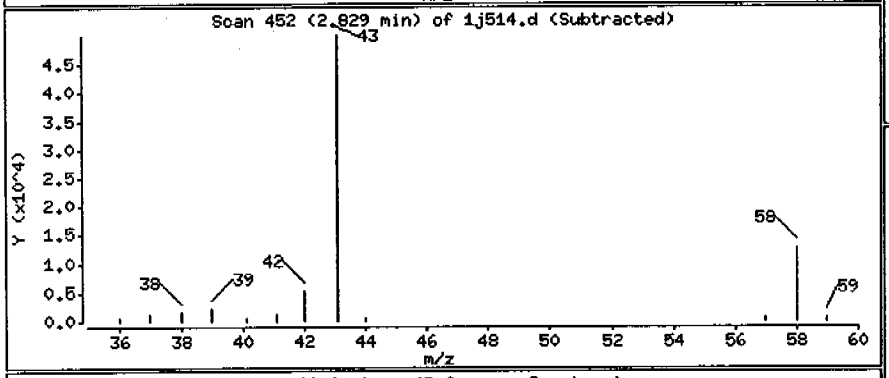

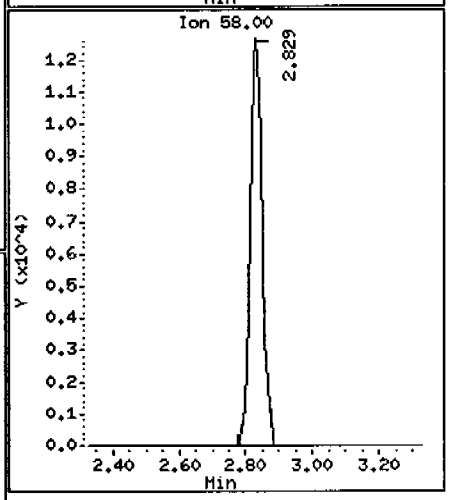

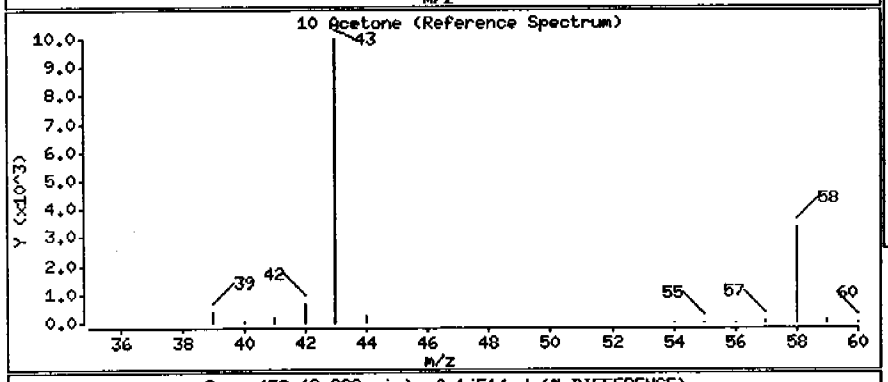

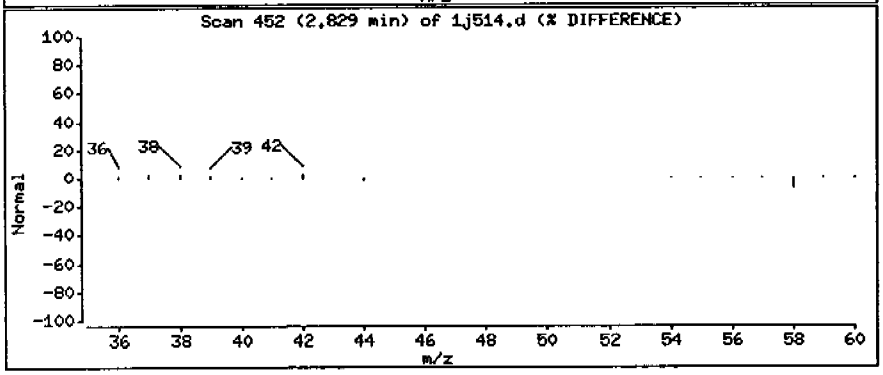

Data File: /chem/VOA1.i/051305v1.b/1j514.d

Date : 13-MAY-2005 21:51

Client ID: RE03-05-58928

Instrument: VOA1.i

Sample Info: |1358310051425470111VOAF111

Operator: PAM

Column phase: RTX-Volatiles

Column diameter: 0.25

17 Methylene chloride

Concentration: 3.2 ug/Kg

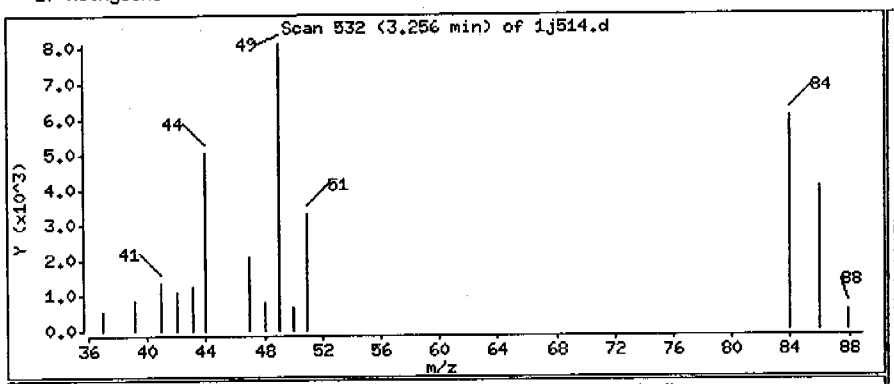

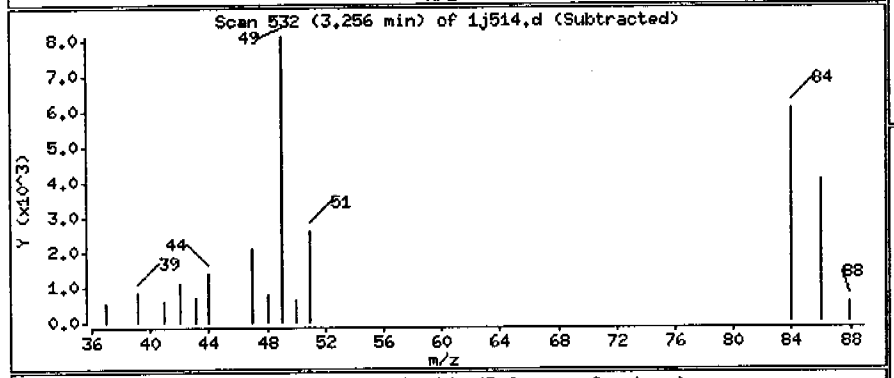

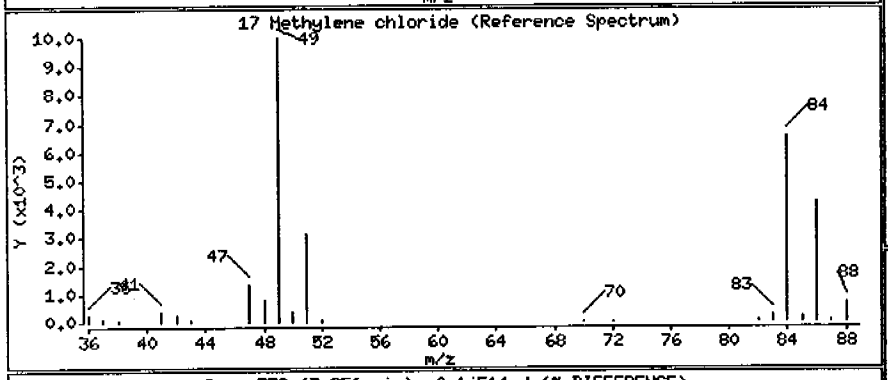

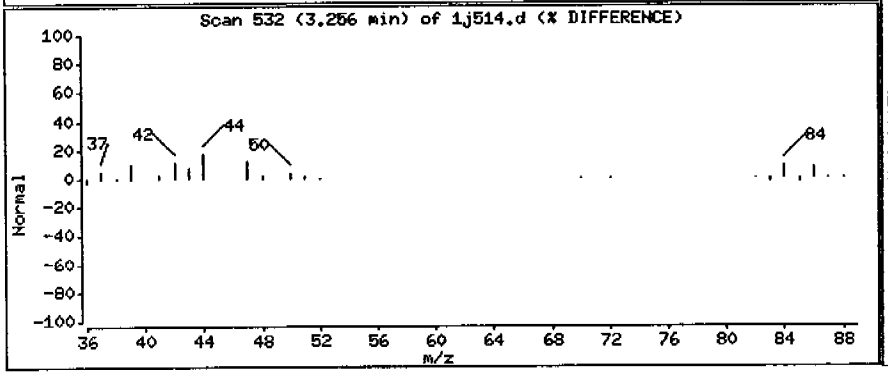

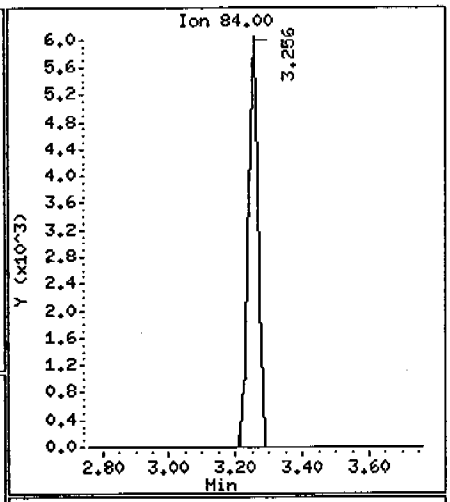

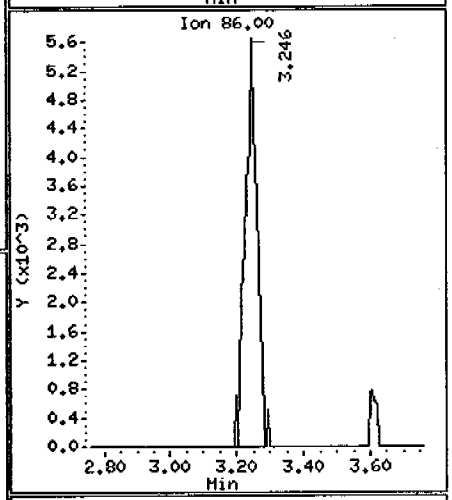

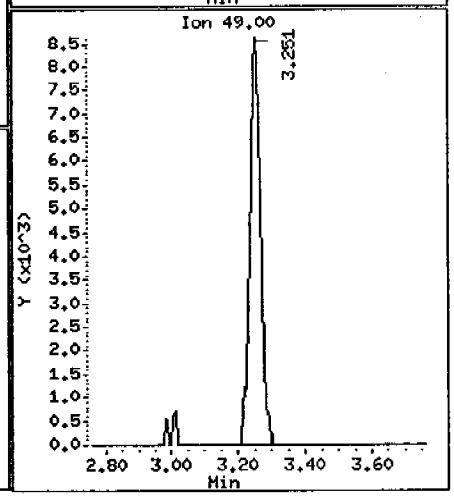

Data File: /chem/VOA1.i/051305v1.b/1j514.d

Date : 13-MAY-2005 21:51

Client ID: RE03-05-58928

Instrument: VOA1.i

Sample Info: |1358310051425470|1|VOAF|1|

Operator: PAM

Column phase: RTX-Volatiles

Column diameter: 0.25

30 2-Butanone

Concentration: 7.6 ug/Kg

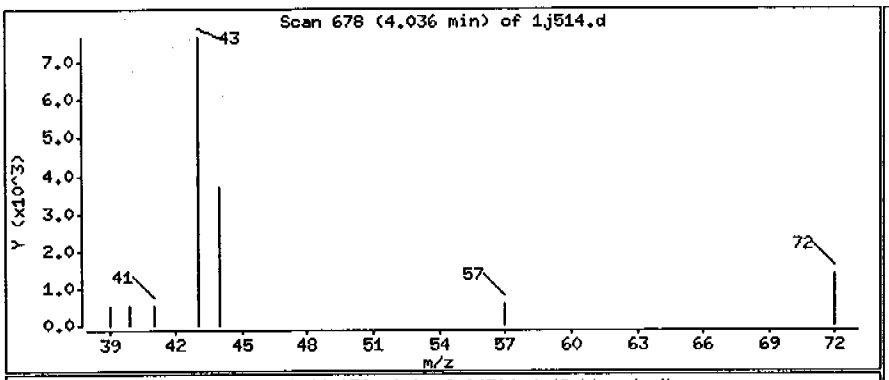

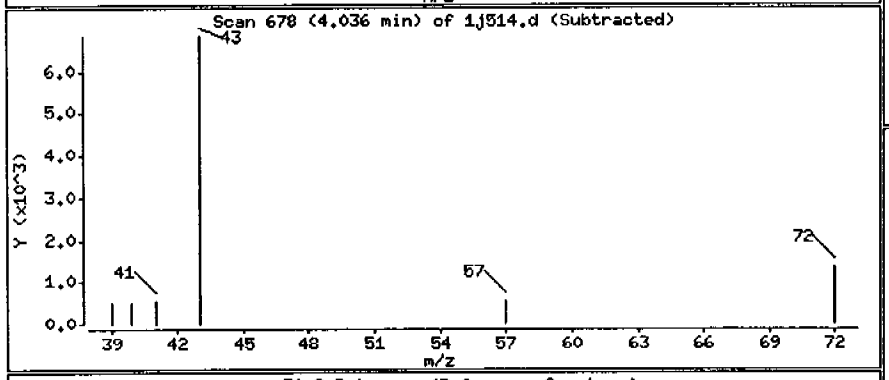

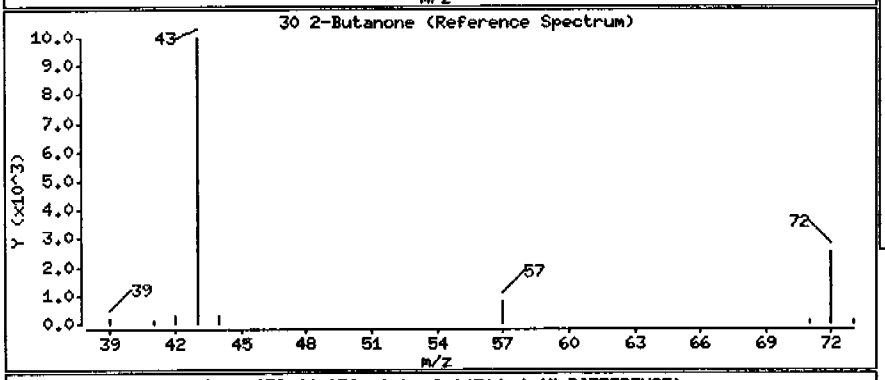

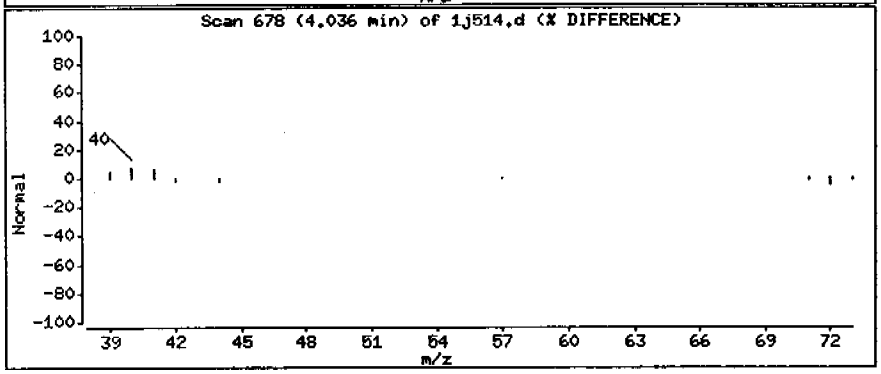

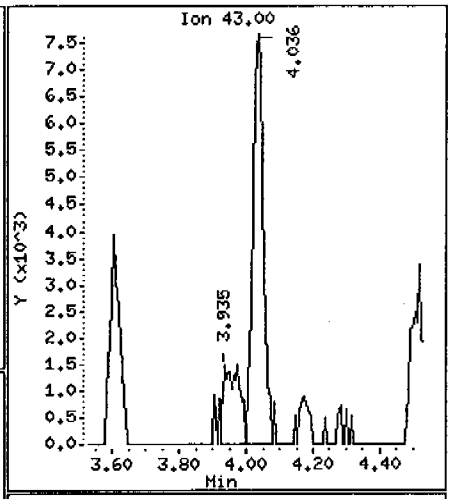

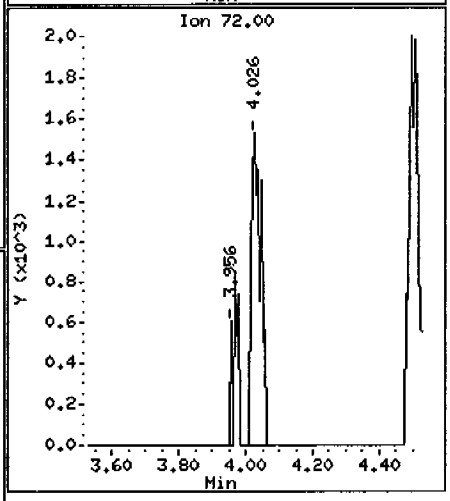

Data File: /chem/VOA1.i/051305v1.b/1j514.d

Date : 13-MAY-2005 21:51

Client ID: RE03-05-58928

Instrument: VOA1.i

Sample Info: |135831005|42547011|VOAF|1|

Operator: PAM

Column phase: RTX-Volatiles

Column diameter: 0.25

87 1,4-Dichlorobenzene

Concentration: 0.24 ug/Kg

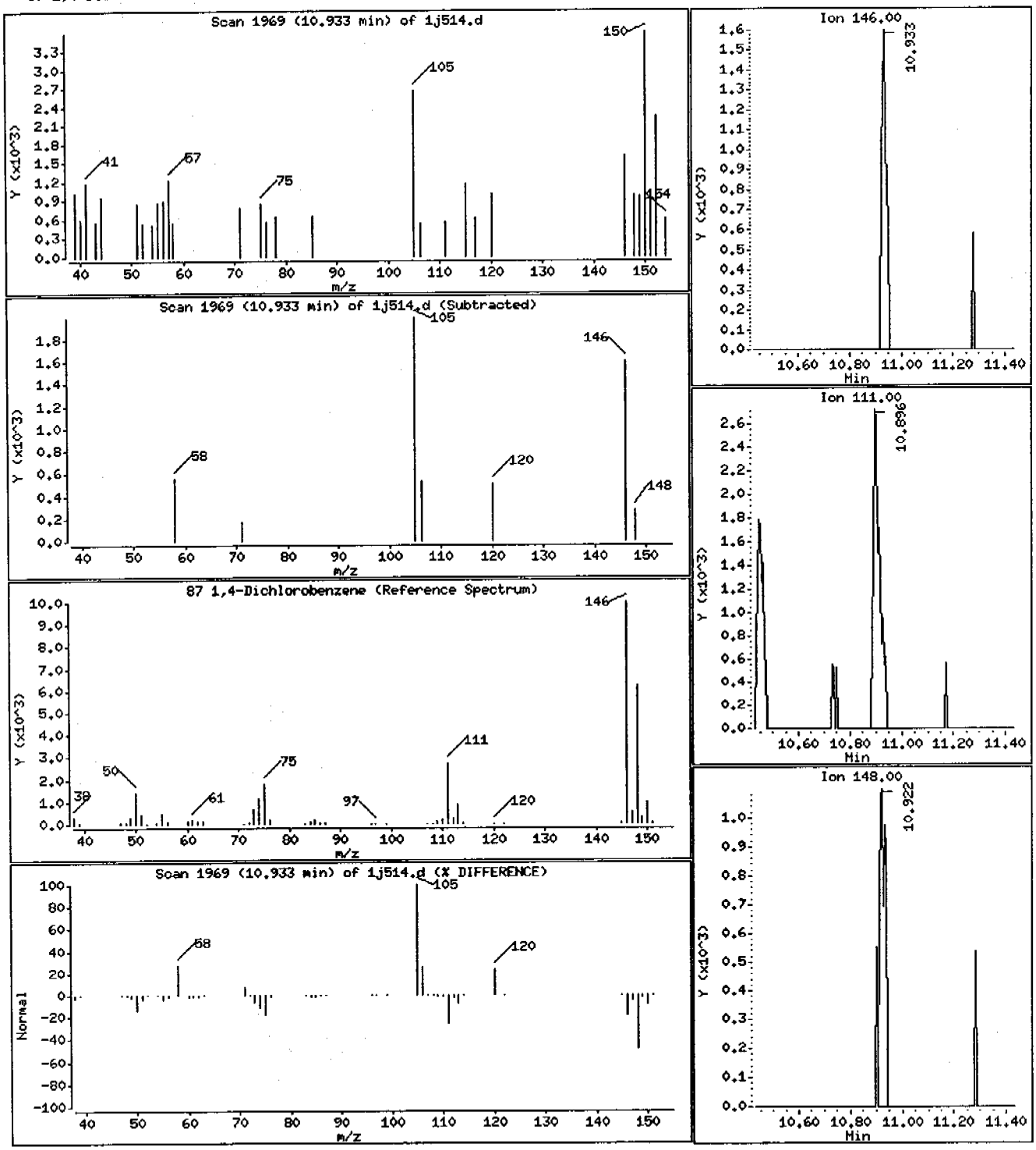

Data File: /chem/VOA1.i/051305v1.b/1j514.d

Date : 13-MAY-2005 21:51

Client ID: RE03-05-58928

Sample Info: |1358310051425470|1|VOAF|1|

Instrument: VOA1.i

Operator: PAM

Column phase: RTX-Volatiles

Column diameter: 0.25

50 Toluene

Concentration: 3.2 ug/Kg

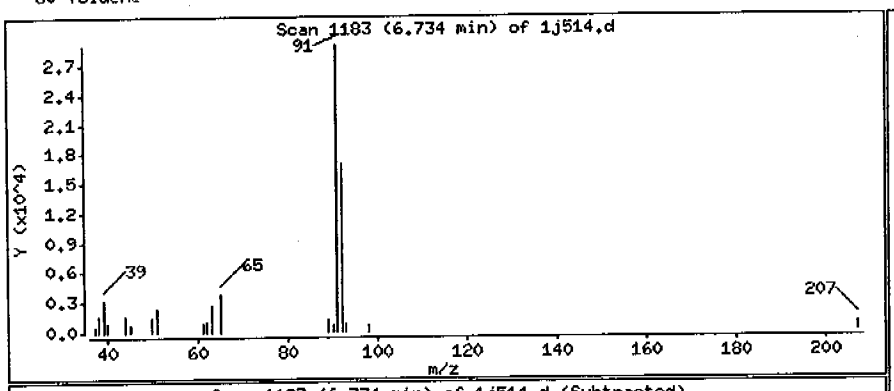

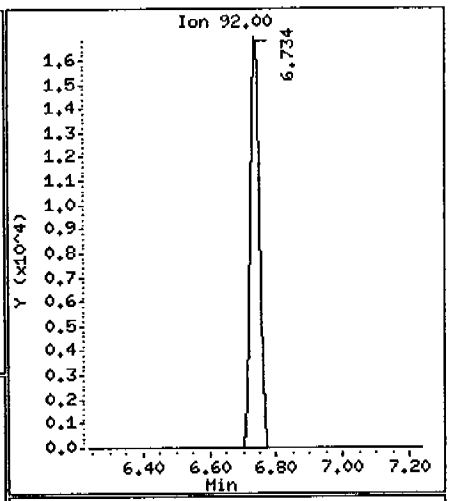

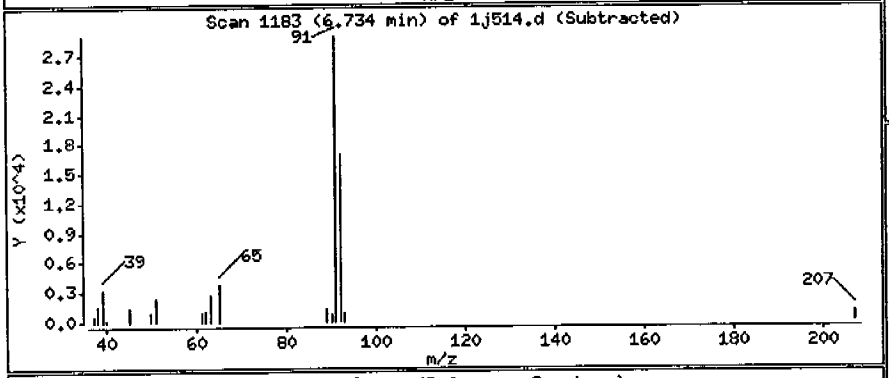

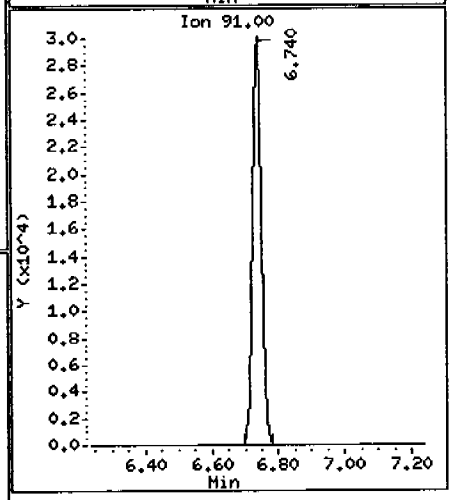

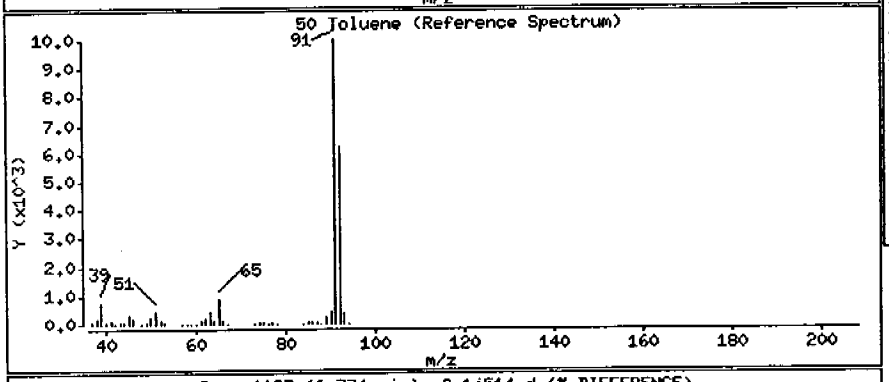

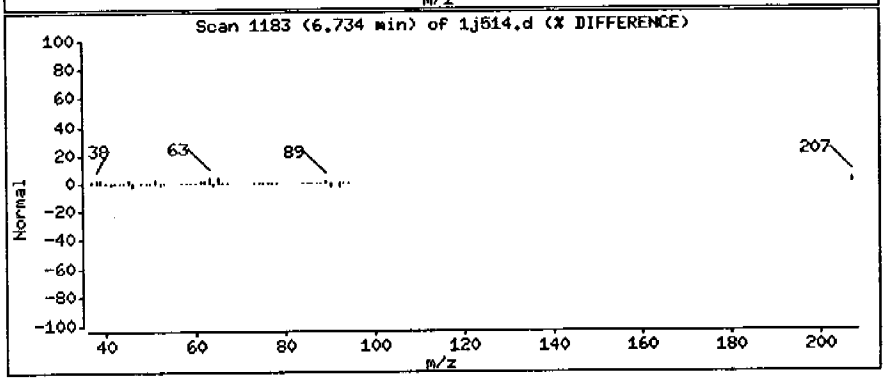

Data File: /chem/VOA1.i/051305v1.b/1j514.d

Date : 13-MAY-2005 21:51

Client ID: RE03-05-58928

Instrument: VOA1.i

Sample Info: |1358310051425470|1|VOAF|1|

Operator: PAM

Column phase: RTX-Volatiles

Column diameter: 0.25

55 2-Hexanone

Concentration: 1.8 ug/Kg

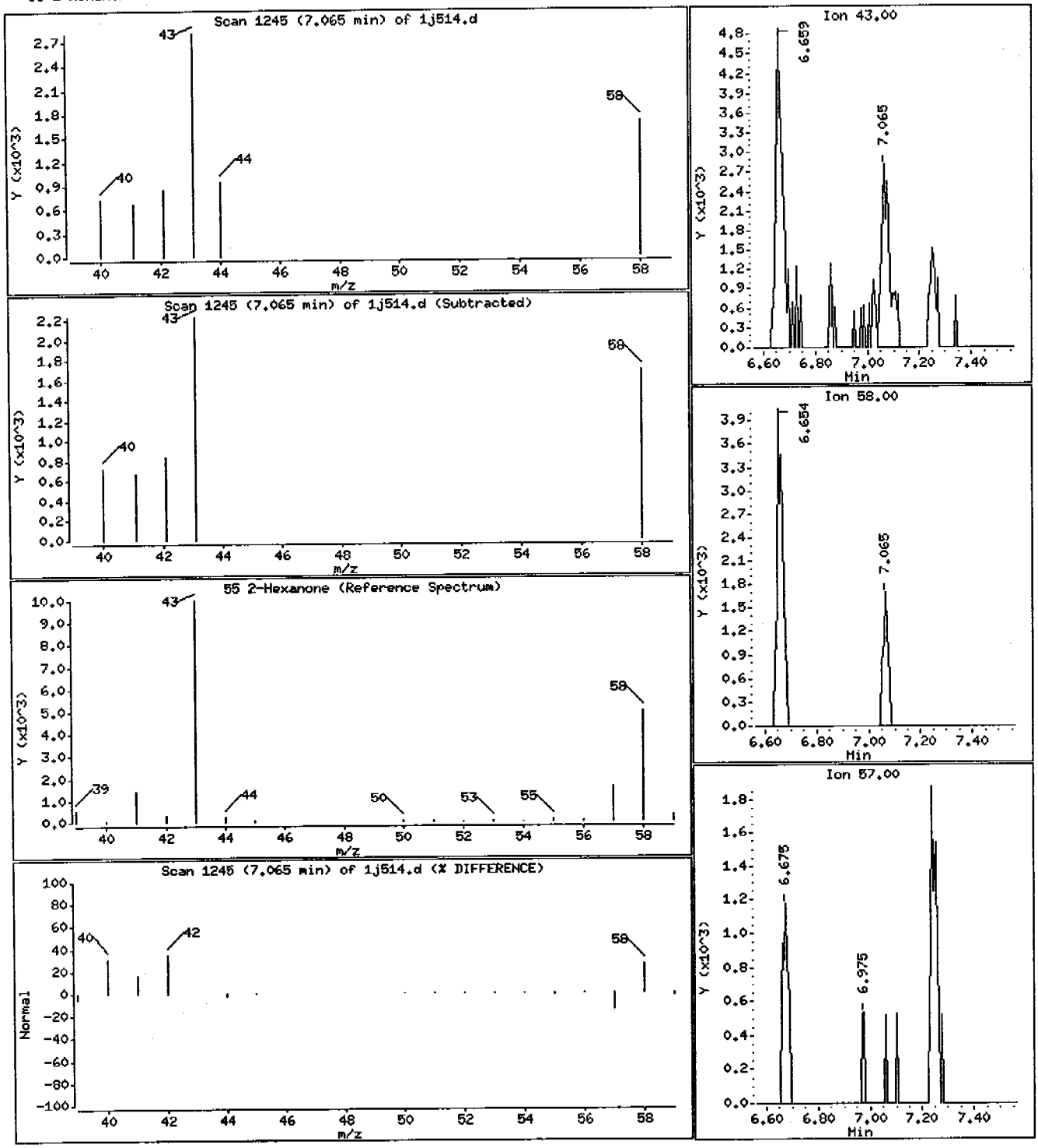

Data File: /chem/VOA1.i/051305v1.b/1j514.d

Date : 13-MAY-2005 21:51

Client ID: RE03-05-58928

Instrument: VOA1.i

Sample Info: |1358310051425470|1|VOAF|1|

Operator: PAM

Column phase: RTX-Volatiles

Column diameter: 0.25

58 Ethylbenzene

Concentration: 0.39 ug/Kg

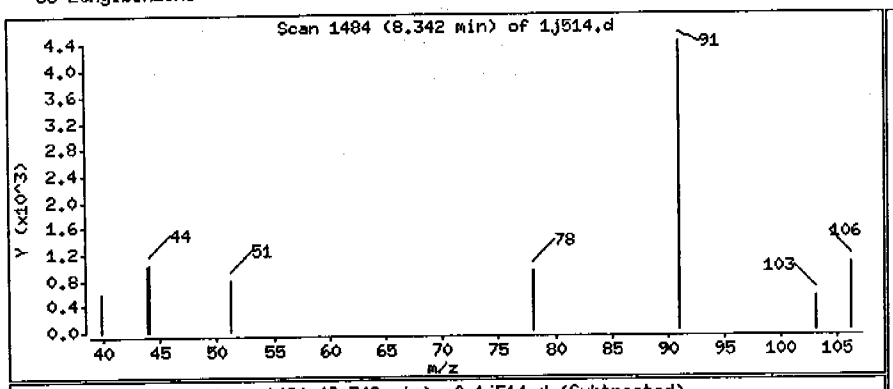

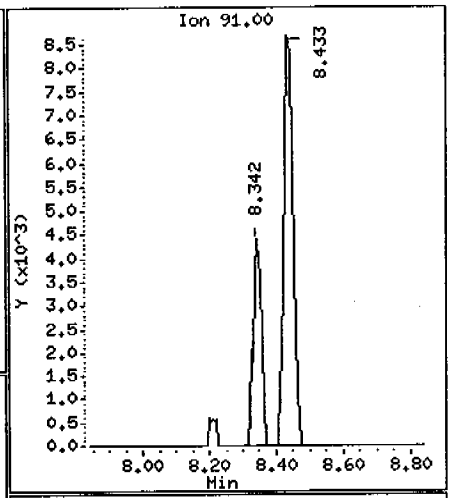

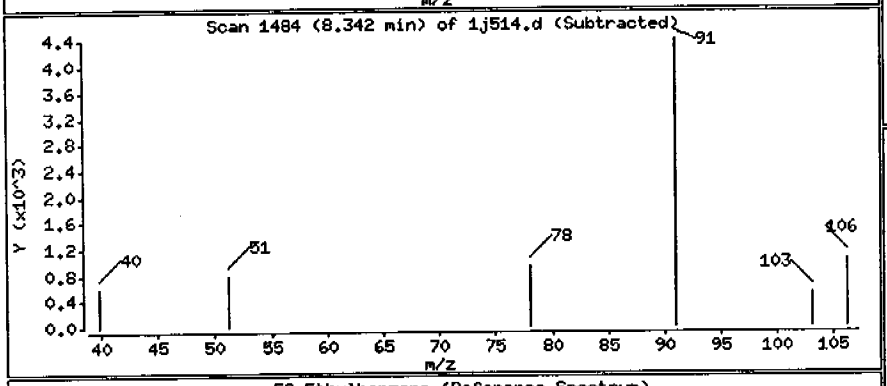

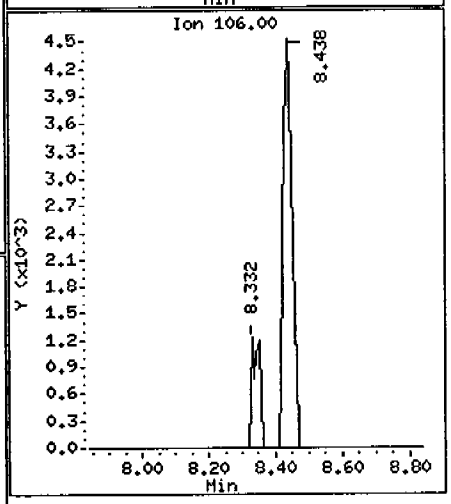

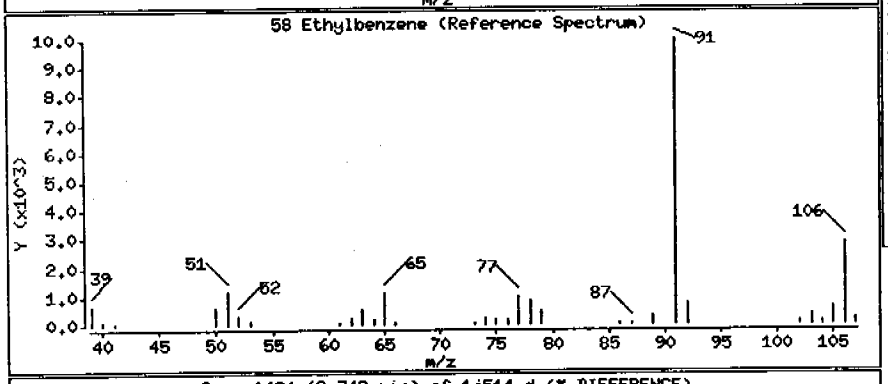

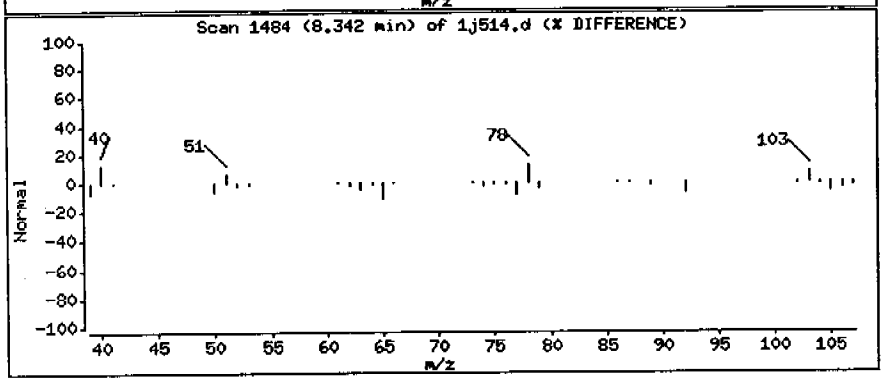

Data File: /chem/VOA1.i/051305v1.b/1j514.d

Date : 13-MAY-2005 21:51

Client ID: RE03-05-58928

Instrument: VOA1.i

Sample Info: |1358310051425470|1|VOAF|1|

Operator: PAM

Column phase: RTX-Volatiles

Column diameter: 0.25

63 m,p-Xylenes

Concentration: 1.2 ug/Kg

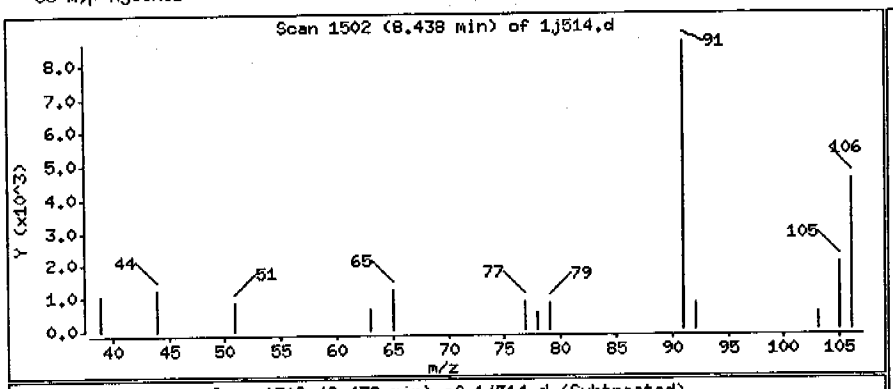

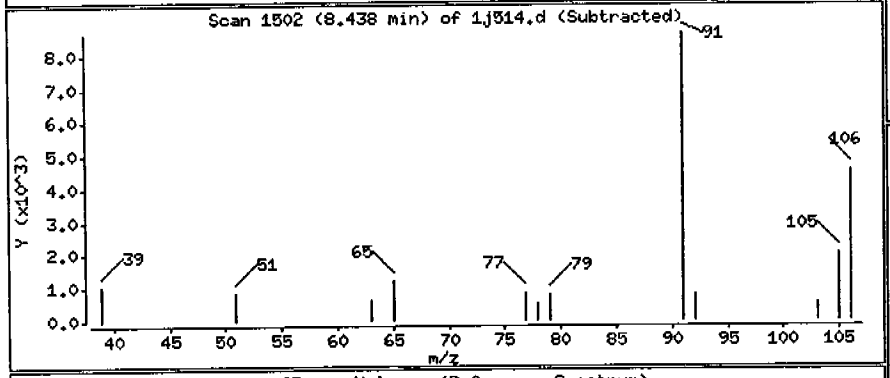

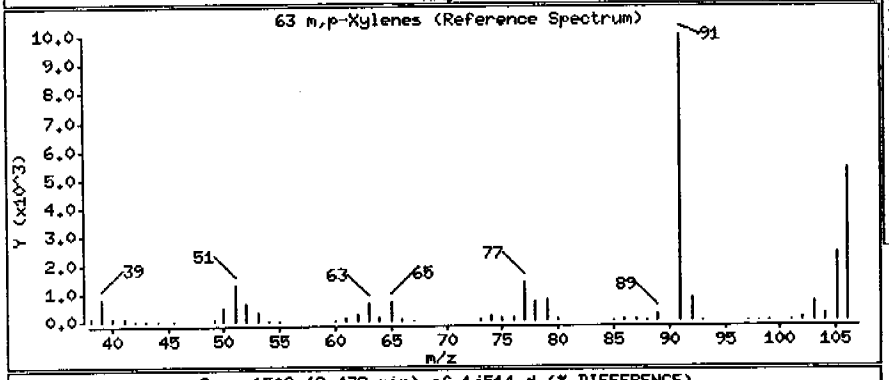

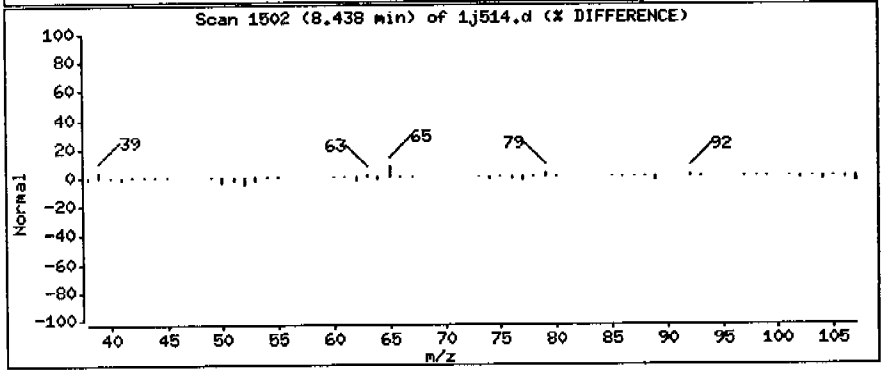

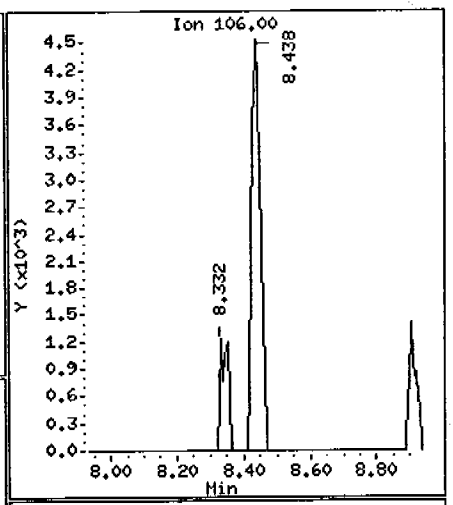

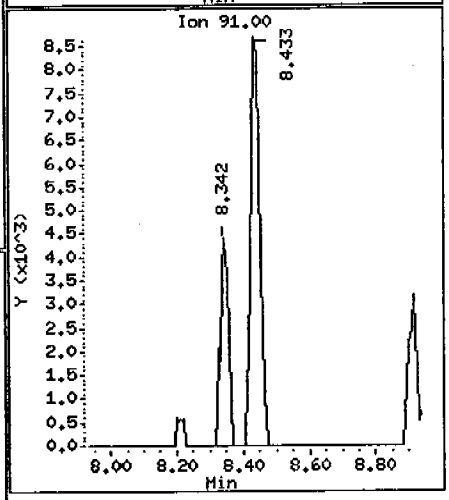

Data File: /chem/VOA1.i/051305v1.b/1j514.d

Date : 13-MAY-2005 21:51

Client ID: RE03-05-58928

Instrument: VOA1.i

Sample Info: |1358310051425470|1|VOAF|1|

Operator: PAM

Column phase: RTX-Volatiles

Column diameter: 0.25

64 o-Xylene

Concentration: 0.29 ug/Kg

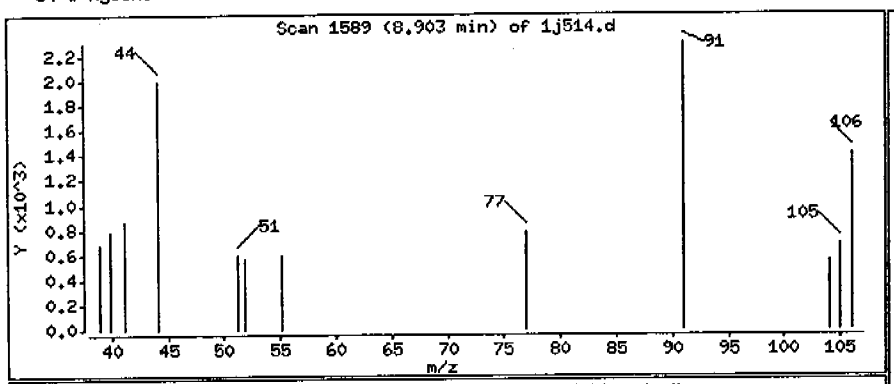

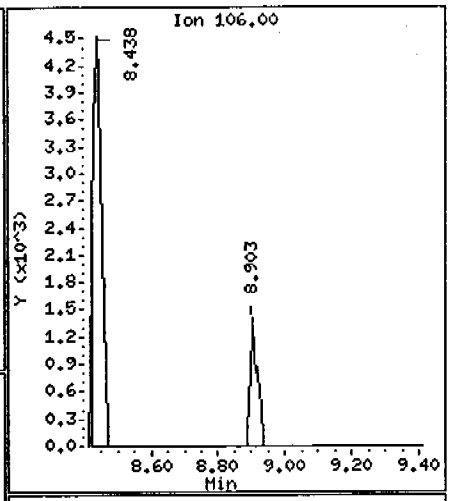

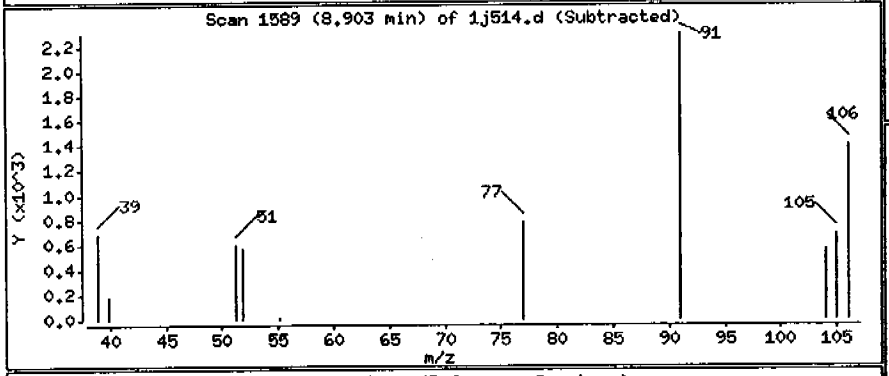

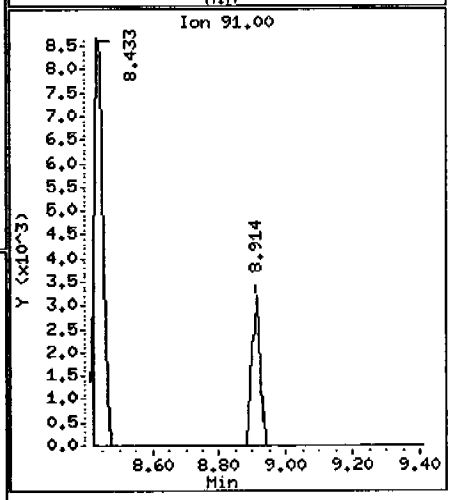

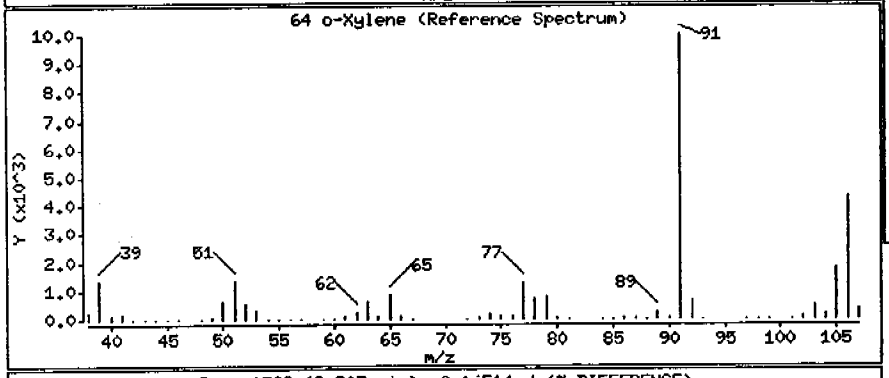

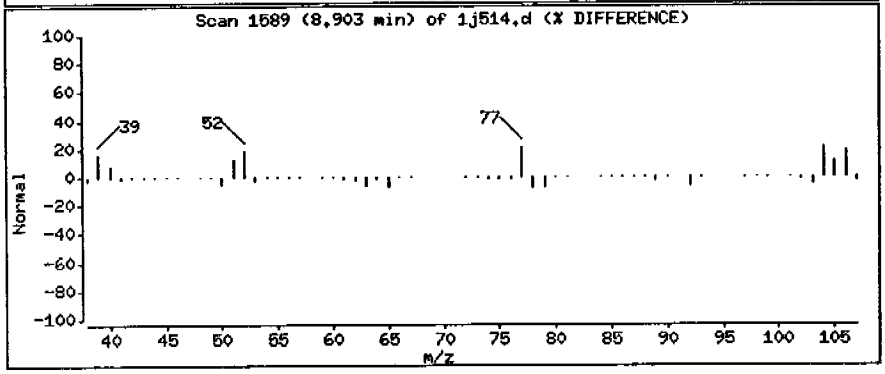

Data File: /chem/VOA1.i/051305v1.b/1j514.d

Date : 13-MAY-2005 21:51

Client ID: RE03-05-58928

Instrument: VOA1.i

Sample Info: 1135831005142547011|VOAF|1|

Operator: PAM

Column phase: RTX-Volatiles

Column diameter: 0.25

84 4-Isopropyltoluene

Concentration: 0.76 ug/Kg

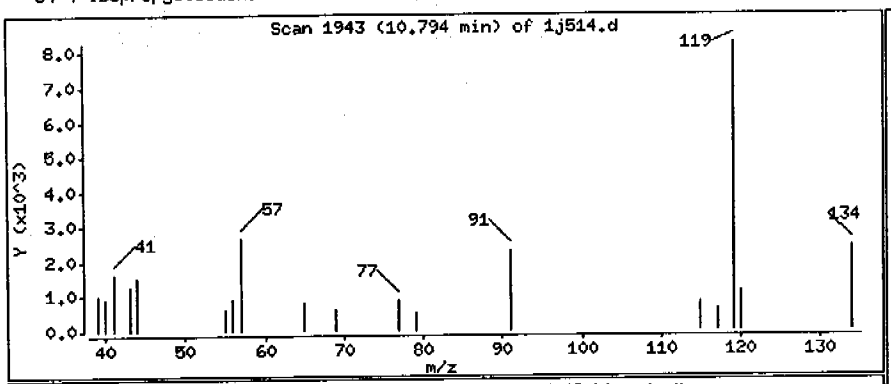

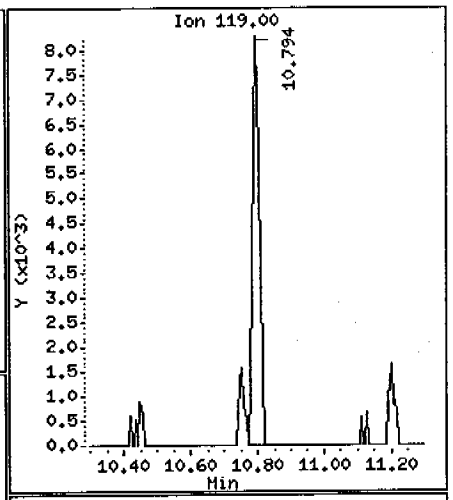

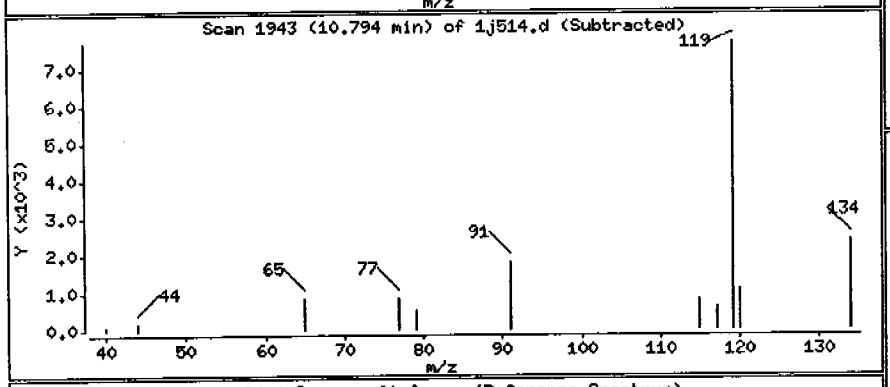

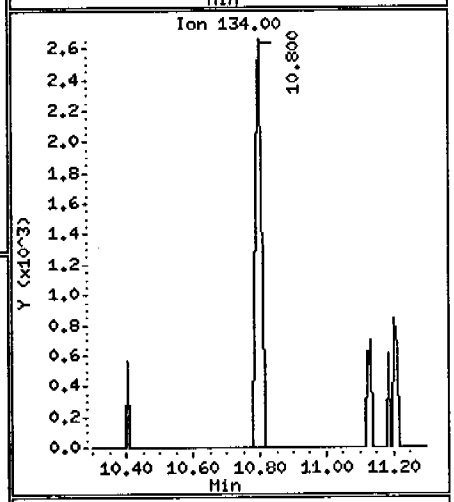

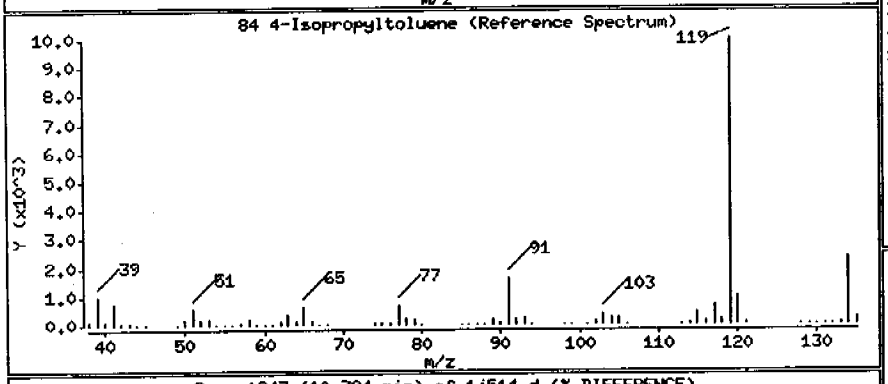

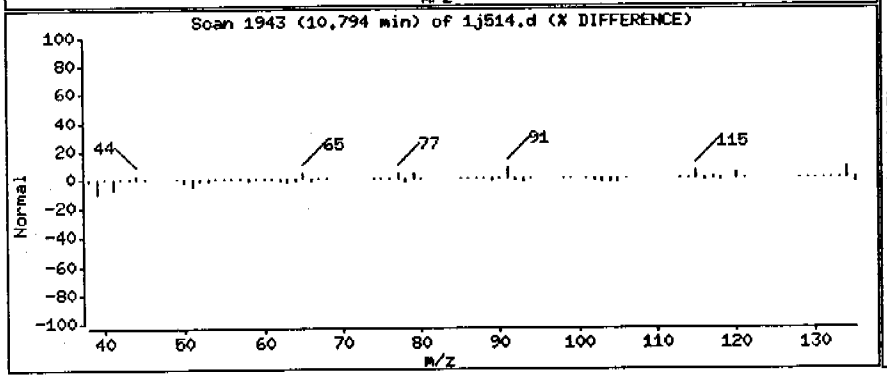

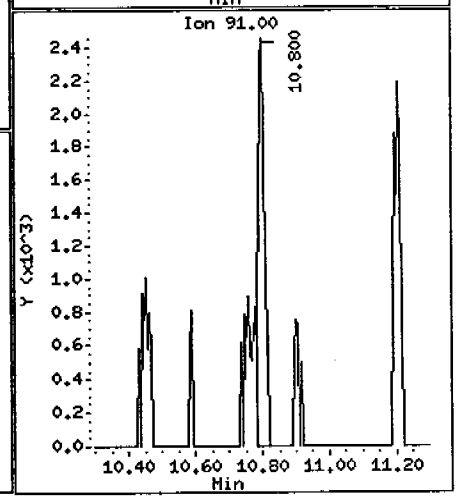

Data File: /chem/VOA1.i/051305v1.b/1j514.d

Date : 13-MAY-2005 21:51

Client ID: RE03-05-58928

Instrument: VOA1.i

Sample Info: |1358310051425470|1|VOAF|1|

Operator: PAM

Column phase: RTX-Volatiles

Column diameter: 0.25

79 1,2,4-Trimethylbenzene

Concentration: 0.72 ug/Kg

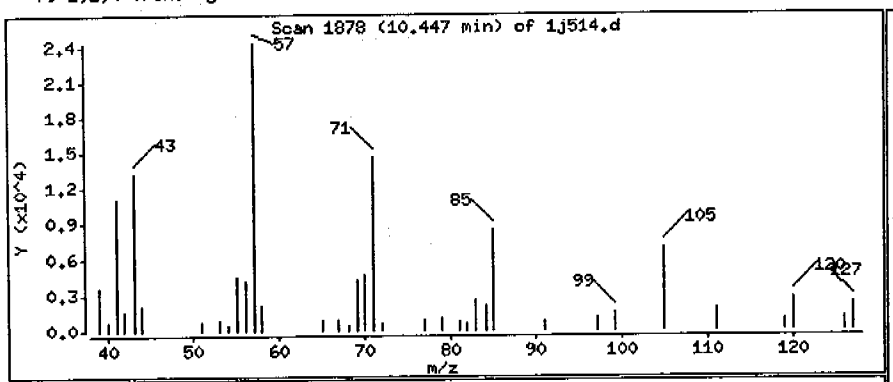

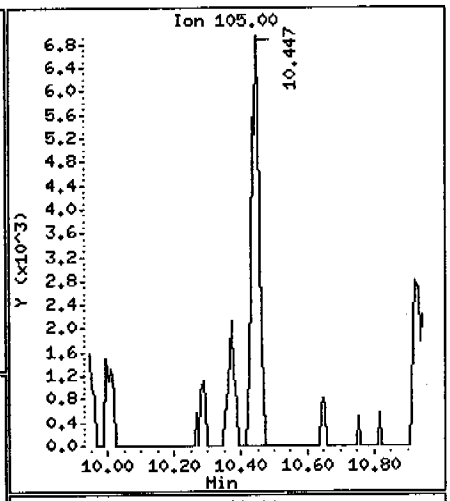

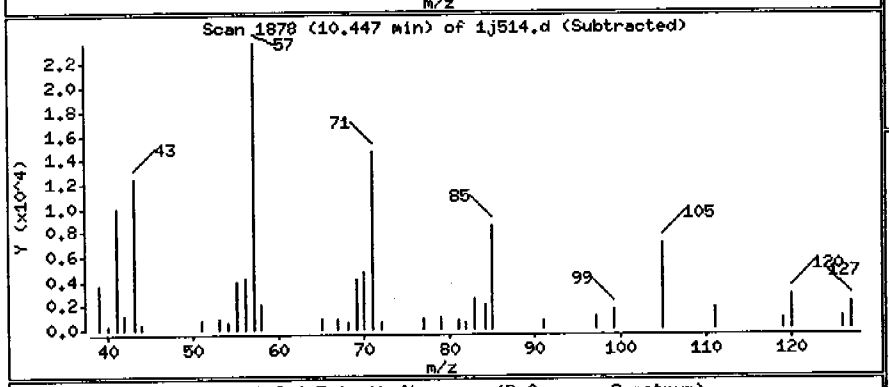

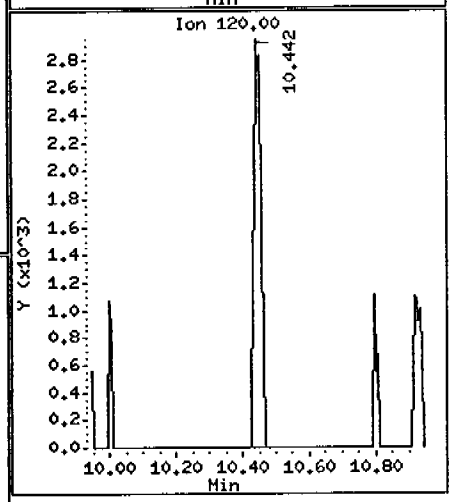

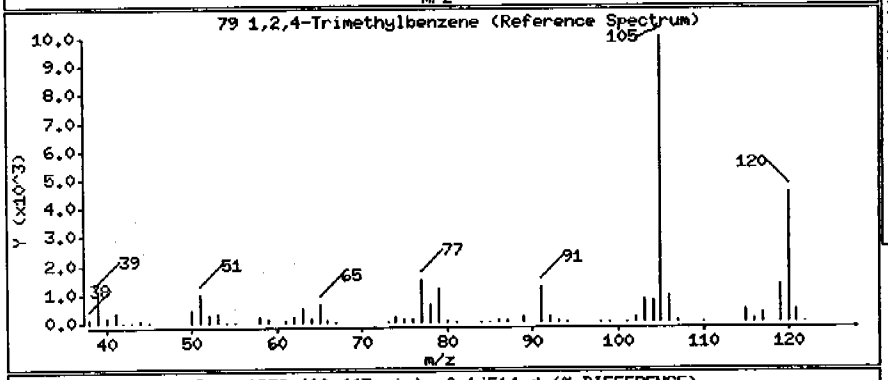

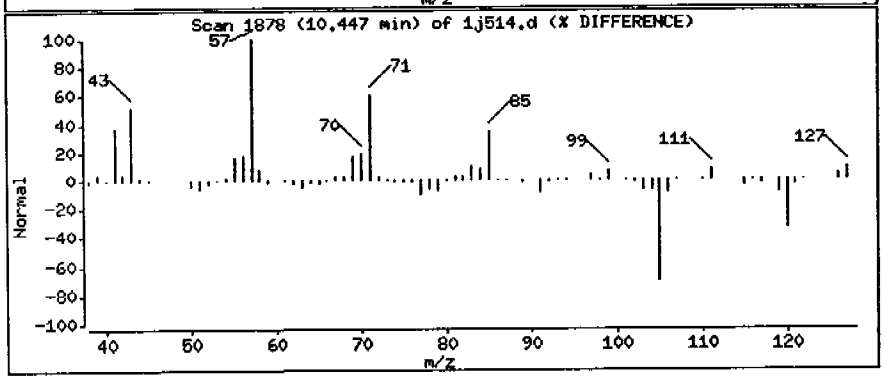

Data File: /chem/VOA1.i/051305v1.b/1j514.d

Date : 13-MAY-2005 21:51

Client ID: RE03-05-58928

Instrument: VOA1.i

Sample Info: |1358310051425470|1|VOAF|1|

Operator: PAM

Column phase: RTX-Volatiles

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Hydrocarbon						
Heptane, 2,2-dimethyl-	1071-26-7	Nist98.1	112496	53	C9H20	128
Azetidine, 1-methyl-	4923-79-9	Nist98.1	119	47	C4H9N	71
Hexane, 2,2,5,5-tetramethyl-	1071-81-4	Nist98.1	112499	42	C10H22	142

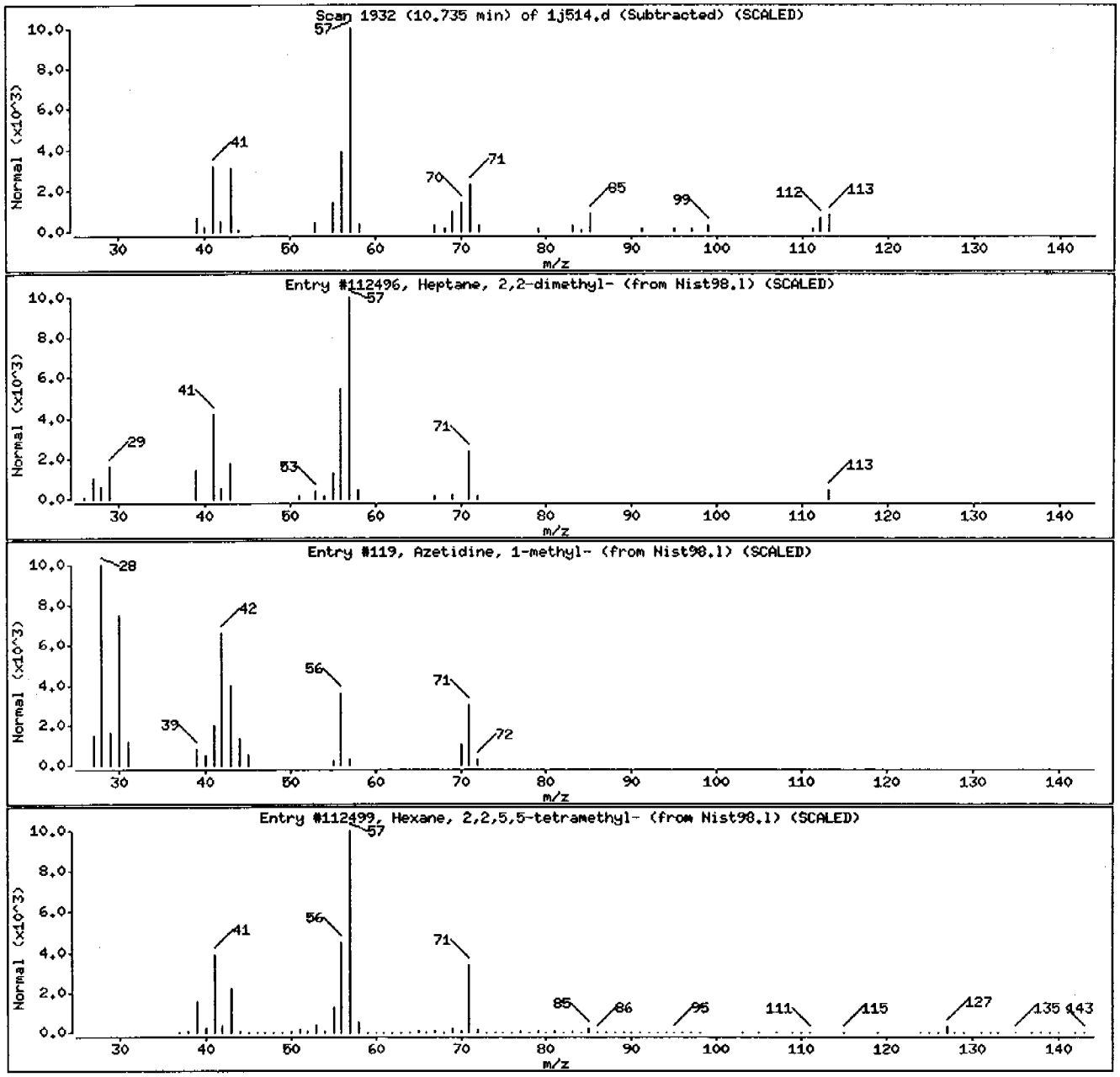

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-59557

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Matrix: (soil/water) SOIL Lab Sample ID: 135831003

Sample wt/vol: 4.9 (g/mL) G Lab File ID: 1J521

Level: (low/med) LOW Date Received: 05/05/05

% Moisture: not dec. 9 Date Analyzed: 05/14/05

GC Column: RTX-VOLATILES ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-71-8	Dichlorodifluoromethane	1.1	U
74-87-3	Chloromethane	1.1	U
75-01-4	Vinyl chloride	1.1	U
74-83-9	Bromomethane	1.1	U
75-00-3	Chloroethane	1.1	U
75-69-4	Trichlorofluoromethane	1.1	U
75-35-4	1,1-Dichloroethylene	1.1	U
67-64-1	Acetone	5.6	U
76-13-1	Trichlorotrifluoroethane	5.6	U
74-88-4	Iodomethane	5.6	U
75-15-0	Carbon disulfide	5.6	U
75-09-2	Methylene chloride	5.6	U
156-60-5	trans-1,2-Dichloroethylene	1.1	U
75-34-3	1,1-Dichloroethane	1.1	U
78-93-3	2-Butanone	5.6	U
156-59-2	cis-1,2-Dichloroethylene	1.1	U
594-20-7	2,2-Dichloropropane	1.1	U
74-97-5	Bromochloromethane	1.1	U
67-66-3	Chloroform	1.1	U
71-55-6	1,1,1-Trichloroethane	1.1	U
563-58-6	1,1-Dichloropropene	1.1	U
56-23-5	Carbon tetrachloride	1.1	U
107-06-2	1,2-Dichloroethane	1.1	U
71-43-2	Benzene	1.1	U
79-01-6	Trichloroethylene	1.1	U
78-87-5	1,2-Dichloropropane	1.1	U
74-95-3	Dibromomethane	1.1	U
75-27-4	Bromodichloromethane	1.1	U
10061-01-5	cis-1,3-Dichloropropylene	1.1	U
108-10-1	4-Methyl-2-pentanone	5.6	U
108-88-3	Toluene	1.1	U
10061-02-6	trans-1,3-Dichloropropylene	1.1	U
79-00-5	1,1,2-Trichloroethane	1.1	U

FORM I VOA OLM03.0

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-59557

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Matrix: (soil/water) SOIL Lab Sample ID: 135831003

Sample wt/vol: 4.9 (g/mL) G Lab File ID: 1J521

Level: (low/med) LOW Date Received: 05/05/05

% Moisture: not dec. 9 Date Analyzed: 05/14/05

GC Column: RTX-VOLATILES ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
142-28-9	1,3-Dichloropropane	1.1	U
591-78-6	2-Hexanone	5.6	U
127-18-4	Tetrachloroethylene	1.1	U
124-48-1	Dibromochloromethane	1.1	U
106-93-4	1,2-Dibromoethane	1.1	U
108-90-7	Chlorobenzene	1.1	U
630-20-6	1,1,1,2-Tetrachloroethane	1.1	U
100-41-4	Ethylbenzene	1.1	U
95-47-6	o-Xylene	1.1	U
	m,p-Xylenes	2.2	U
100-42-5	Styrene	1.1	U
75-25-2	Bromoform	1.1	U
98-82-8	Isopropylbenzene	1.1	U
79-34-5	1,1,2,2-Tetrachloroethane	1.1	U
96-18-4	1,2,3-Trichloropropane	1.1	U
108-86-1	Bromobenzene	1.1	U
103-65-1	n-Propylbenzene	1.1	U
95-49-8	2-Chlorotoluene	1.1	U
108-67-8	1,3,5-Trimethylbenzene	1.1	U
95-63-6	1,2,4-Trimethylbenzene	1.1	U
106-43-4	4-Chlorotoluene	1.1	U
98-06-6	tert-Butylbenzene	1.1	U
135-98-8	sec-Butylbenzene	1.1	U
99-87-6	4-Isopropyltoluene	1.1	U
541-73-1	1,3-Dichlorobenzene	1.1	U
106-46-7	1,4-Dichlorobenzene	1.1	U
104-51-8	n-Butylbenzene	1.1	U
95-50-1	1,2-Dichlorobenzene	1.1	U
96-12-8	1,2-Dibromo-3-chloropropane	1.1	U

FORM I VOA OLM03.0

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

RE03-05-59557

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Matrix: (soil/water) SOIL Lab Sample ID: 135831003

Sample wt/vol: 4.9 (g/mL) G Lab File ID: 1J521

Level: (low/med) LOW Date Received: 05/05/05

% Moisture: not dec. 9 Date Analyzed: 05/14/05

GC Column: RTX-VOLATILES ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.				
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FORM I VOA-TIC OLM03.0

General Engineering Laboratories, LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/051305v1.b/1j521.d
Lab Smp Id: 135831003 Client Smp ID: RE03-05-59557
Inj Date : 14-MAY-2005 00:47
Operator : PAM Inst ID: VOA1.i
Smp Info : |135831003|425470|1|VOAF|1|
Misc Info : LANL 4.9G N/A
Comment :
Method : /chem/VOA1.i/051305v1.b/VOA1-8260B-041905.m
Meth Date : 17-May-2005 22:45 tcl Quant Type: ISTD
Cal Date : 20-APR-2005 05:01 Cal File: 1g228.d
Als bottle: 20
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 3202S.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	8.58140	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	4.90000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
* 40 Fluorobenzene	96	5.179	5.179	(1.000)	743250	50.0000	
* 61 Chlorobenzene-d5	117	8.213	8.213	(1.000)	539690	50.0000	
* 86 1,4-Dichlorobenzene-d4	152	10.905	10.900	(1.000)	238610	50.0000	
$ 35 Dibromofluoromethane	113	4.479	4.473	(0.865)	215489	53.7865	60.0
$ 47 Toluene-d8	98	6.658	6.658	(0.811)	878203	54.0287	60.3
$ 71 Bromofluorobenzene	95	9.570	9.570	(0.878)	262681	43.4264	48.5

General Engineering Laboratories, LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/051305v1.b/1j521.d
Lab Smp Id: 135831003 Client Smp ID: RE03-05-59557
Inj Date : 14-MAY-2005 00:47
Operator : PAM Inst ID: VOA1.i
Smp Info : |135831003|425470|1|VOAF|1|
Misc Info : LANL 4.9G N/A
Comment :
Method : /chem/VOA1.i/051305v1.b/VOA1-8260B-041905.m
Meth Date : 17-May-2005 22:45 tcl Quant Type: ISTD
Cal Date : 20-APR-2005 05:01 Cal File: 1g228.d
Als bottle: 20
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 3202S.sub
Target Version: 3.50
Processing Host: prdsvr07

- NO TENTATIVELY IDENTIFIED COMPOUNDS -

Data File: /chem/VOA1.i/051305v1.b/1j521.d
Date : 14-MAY-2005 00:47
Client ID: RE03-05-59557
Sample Info: |1358310031425470|1|VOAF|1|

Column phase: RTX-Volatiles

Instrument: VOA1.i

Operator: PAM
Column diameter: 0.25

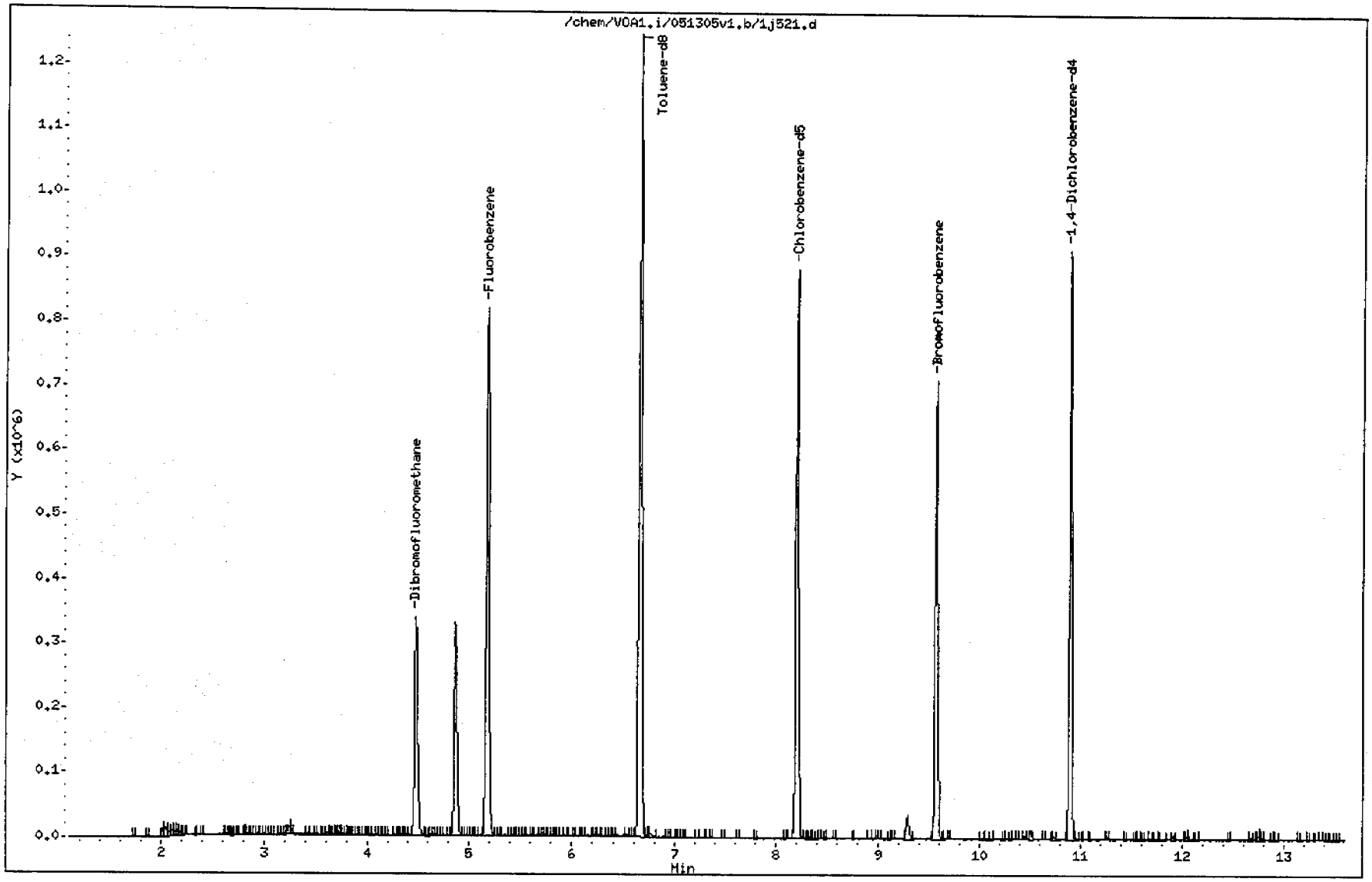

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-59558

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Matrix: (soil/water) SOIL Lab Sample ID: 135831004

Sample wt/vol: 5.3 (g/mL) G Lab File ID: 1J522

Level: (low/med) LOW Date Received: 05/05/05

% Moisture: not dec. 7 Date Analyzed: 05/14/05

GC Column: RTX-VOLATILES ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-71-8	Dichlorodifluoromethane	1.0	U
74-87-3	Chloromethane	1.0	U
75-01-4	Vinyl chloride	1.0	U
74-83-9	Bromomethane	1.0	U
75-00-3	Chloroethane	1.0	U
75-69-4	Trichlorofluoromethane	1.0	U
75-35-4	1,1-Dichloroethylene	1.0	U
67-64-1	Acetone	5.1	U
76-13-1	Trichlorotrifluoroethane	5.1	U
74-88-4	Iodomethane	5.1	U
75-15-0	Carbon disulfide	5.1	U
75-09-2	Methylene chloride	5.1	U
156-60-5	trans-1,2-Dichloroethylene	1.0	U
75-34-3	1,1-Dichloroethane	1.0	U
78-93-3	2-Butanone	5.1	U
156-59-2	cis-1,2-Dichloroethylene	1.0	U
594-20-7	2,2-Dichloropropane	1.0	U
74-97-5	Bromochloromethane	1.0	U
67-66-3	Chloroform	1.0	U
71-55-6	1,1,1-Trichloroethane	1.0	U
563-58-6	1,1-Dichloropropene	1.0	U
56-23-5	Carbon tetrachloride	1.0	U
107-06-2	1,2-Dichloroethane	1.0	U
71-43-2	Benzene	1.0	U
79-01-6	Trichloroethylene	1.0	U
78-87-5	1,2-Dichloropropane	1.0	U
74-95-3	Dibromomethane	1.0	U
75-27-4	Bromodichloromethane	1.0	U
10061-01-5	cis-1,3-Dichloropropylene	1.0	U
108-10-1	4-Methyl-2-pentanone	5.1	U
108-88-3	Toluene	0.30	J
10061-02-6	trans-1,3-Dichloropropylene	1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	U

FORM I VOA OLM03.0

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-59558

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Matrix: (soil/water) SOIL Lab Sample ID: 135831004

Sample wt/vol: 5.3 (g/mL) G Lab File ID: 1J522

Level: (low/med) LOW Date Received: 05/05/05

% Moisture: not dec. 7 Date Analyzed: 05/14/05

GC Column: RTX-VOLATILES ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
142-28-9	1,3-Dichloropropane	1.0	U
591-78-6	2-Hexanone	5.1	U
127-18-4	Tetrachloroethylene	1.0	U
124-48-1	Dibromochloromethane	1.0	U
106-93-4	1,2-Dibromoethane	1.0	U
108-90-7	Chlorobenzene	1.0	U
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U
100-41-4	Ethylbenzene	1.0	U
95-47-6	o-Xylene	1.0	U
	m,p-Xylenes	2.0	U
100-42-5	Styrene	1.0	U
75-25-2	Bromoform	1.0	U
98-82-8	Isopropylbenzene	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U
96-18-4	1,2,3-Trichloropropane	1.0	U
108-86-1	Bromobenzene	1.0	U
103-65-1	n-Propylbenzene	1.0	U
95-49-8	2-Chlorotoluene	1.0	U
108-67-8	1,3,5-Trimethylbenzene	1.0	U
95-63-6	1,2,4-Trimethylbenzene	1.0	U
106-43-4	4-Chlorotoluene	1.0	U
98-06-6	tert-Butylbenzene	1.0	U
135-98-8	sec-Butylbenzene	1.0	U
99-87-6	4-Isopropyltoluene	1.0	U
541-73-1	1,3-Dichlorobenzene	1.0	U
106-46-7	1,4-Dichlorobenzene	1.0	U
104-51-8	n-Butylbenzene	1.0	U
95-50-1	1,2-Dichlorobenzene	1.0	U
96-12-8	1,2-Dibromo-3-chloropropane	1.0	U

FORM I VOA OLM03.0

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

RE03-05-59558

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Matrix: (soil/water) SOIL Lab Sample ID: 135831004

Sample wt/vol: 5.3 (g/mL) G Lab File ID: 1J522

Level: (low/med) LOW Date Received: 05/05/05

% Moisture: not dec. 7 Date Analyzed: 05/14/05

GC Column: RTX-VOLATILES ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 2

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 80-56-8	UNKNOWN TERPENE	9.29	55.2	NJ
2. 13466-78-9	3-CARENE	10.52	18.0	NJ
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FORM I VOA-TIC OLM03.0

General Engineering Laboratories, LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/051305v1.b/1j522.d
Lab Smp Id: 135831004 Client Smp ID: RE03-05-59558
Inj Date : 14-MAY-2005 01:12
Operator : PAM Inst ID: VOA1.i
Smp Info : |135831004|425470|1|VOAF|1|
Misc Info : LANL 5.3G N/A
Comment :
Method : /chem/VOA1.i/051305v1.b/VOA1-8260B-041905.m
Meth Date : 17-May-2005 22:45 tcl Quant Type: ISTD
Cal Date : 20-APR-2005 05:01 Cal File: 1g228.d
Als bottle: 21
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 3202S.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	7.08420	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.30000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
* 40 Fluorobenzene	96	5.180	5.179	(1.000)	741025	50.0000	
* 61 Chlorobenzene-d5	117	8.209	8.213	(1.000)	534709	50.0000	
* 86 1,4-Dichlorobenzene-d4	152	10.902	10.900	(1.000)	222861	50.0000	
$ 35 Dibromofluoromethane	113	4.475	4.473	(0.864)	209431	52.4314	53.2
$ 47 Toluene-d8	98	6.660	6.658	(0.811)	750179	46.5823	47.3
$ 71 Bromofluorobenzene	95	9.566	9.570	(0.877)	272439	48.2225	49.0
50 Toluene	92	6.740	6.739	(0.821)	3245	0.29910	0.30(a)

QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).

General Engineering Laboratories, LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/051305v1.b/1j522.d
Lab Smp Id: 135831004 Client Smp ID: RE03-05-59558
Inj Date : 14-MAY-2005 01:12
Operator : PAM Inst ID: VOA1.i
Smp Info : |135831004|425470|1|VOAF|1|
Misc Info : LANL 5.3G N/A
Comment :
Method : /chem/VOA1.i/051305v1.b/VOA1-8260B-041905.m
Meth Date : 17-May-2005 22:45 tcl Quant Type: ISTD
Cal Date : 20-APR-2005 05:01 Cal File: 1g228.d
Als bottle: 21
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 3202S.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	7.08420	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.30000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 61 Chlorobenzene-d5	8.209	1576408	50.000
* 86 1,4-Dichlorobenzene-d4	10.902	1372380	50.000

	CONCENTRATIONS				QUANT			
	RT	AREA	ON-COL(ug/l)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown Terpene					CAS #: 80-56-8			
	9.294	1714393	54.3765330	55.2	97	Nist98.1	40169	61

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ug/l)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
====	====	==========	==========	====	=======	=========	======
3-Carene				CAS #: 13466-78-9			
10.517	485743	17.6971112	18.0	93	Nist98.1	117793	86

Data File: /chem/VOA1.i/051305v1.b/1j522.d
Date : 14-MAY-2005 01:12
Client ID: RE03-05-59558
Sample Info: |135831004|425470|1|VOAF|1|

Column phase: RTX-Volatiles

Instrument: VOA1.i

Operator: PAM
Column diameter: 0.25

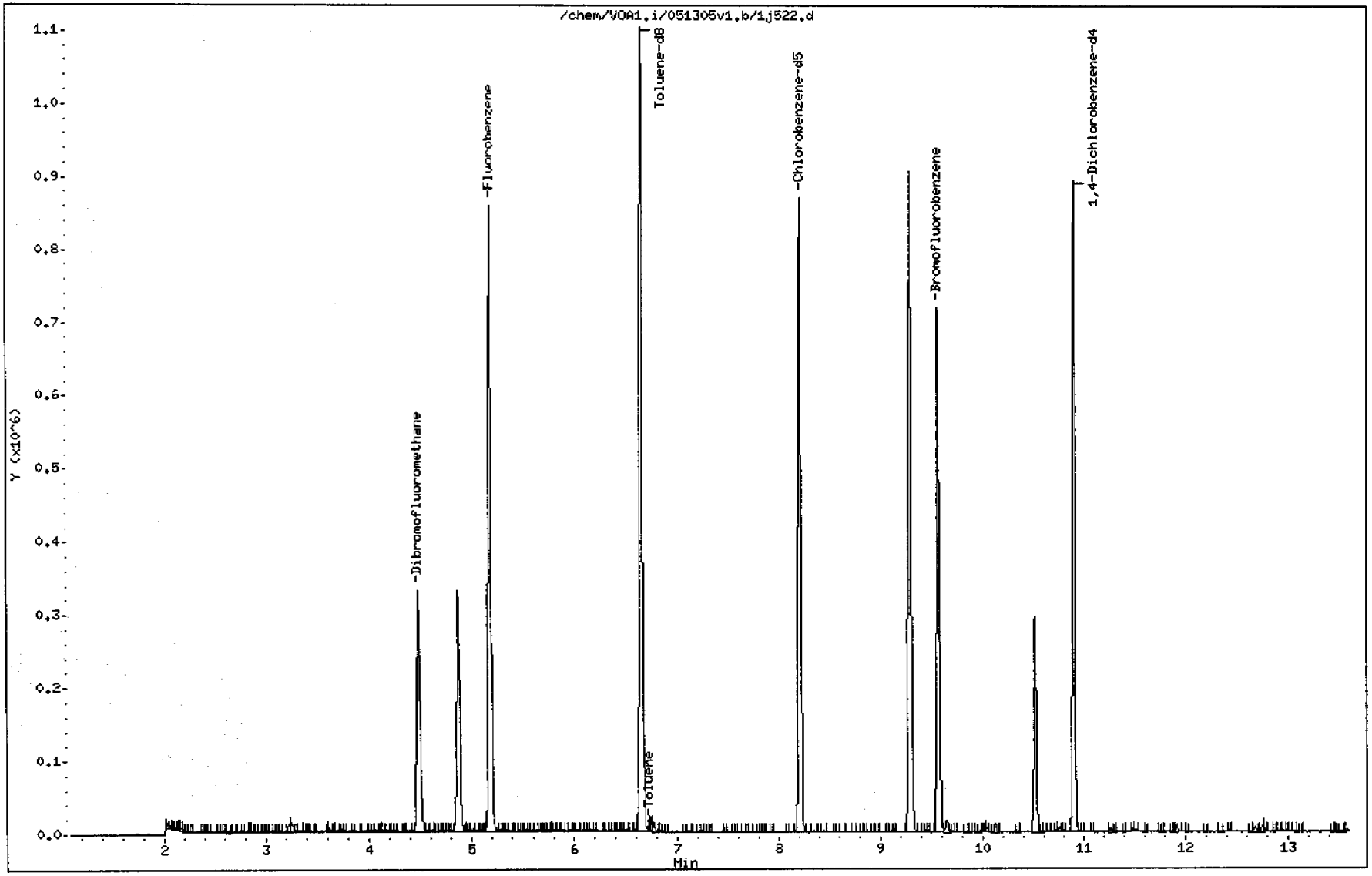

Data File: /chem/VOA1.i/051305v1.b/1j522.d

Date : 14-MAY-2005 01:12

Client ID: RE03-05-59558

Instrument: VOA1.i

Sample Info: |135831004142547011|VOAF|1|

Operator: PAM

Column phase: RTX-Volatiles

Column diameter: 0.25

50 Toluene

Concentration: 0.30 ug/Kg

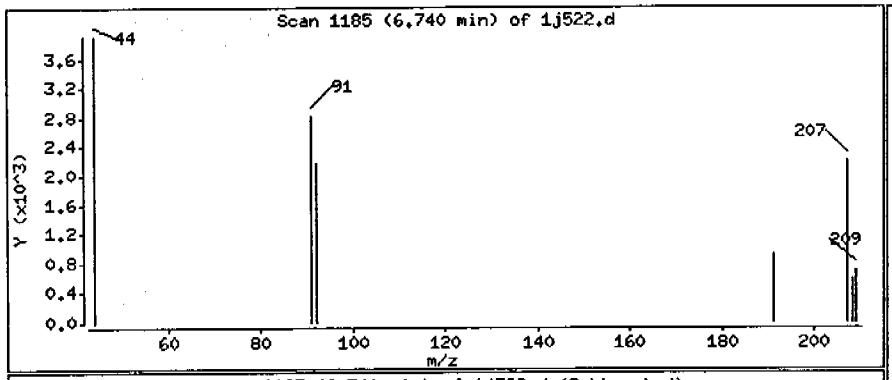

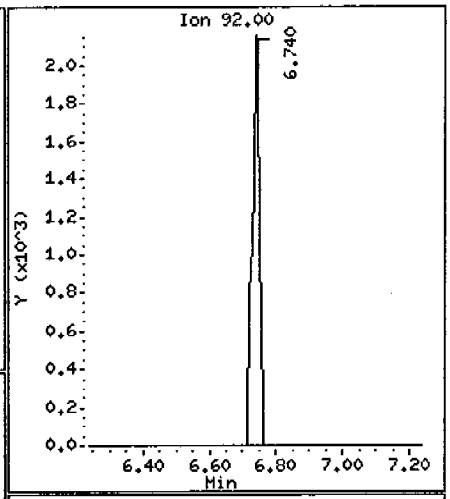

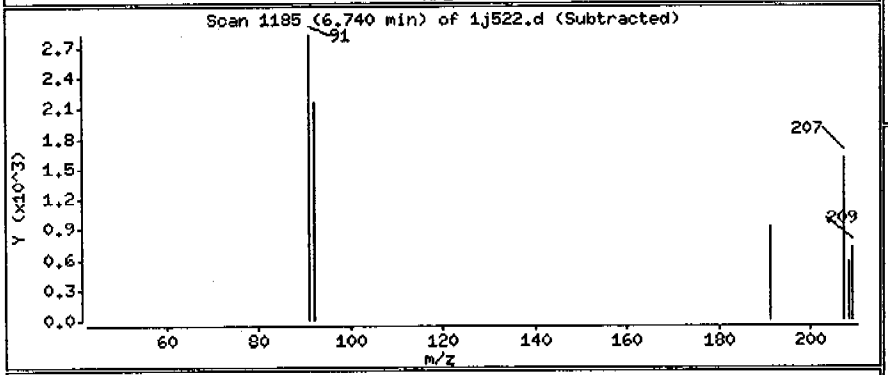

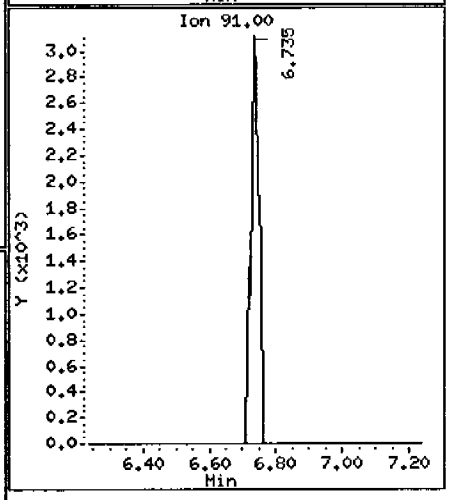

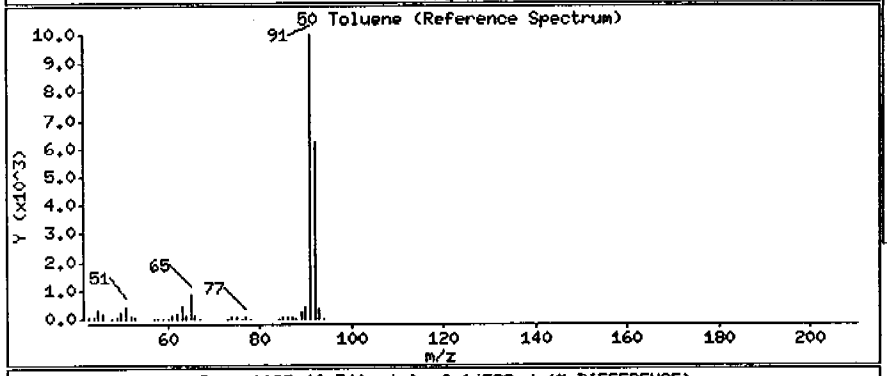

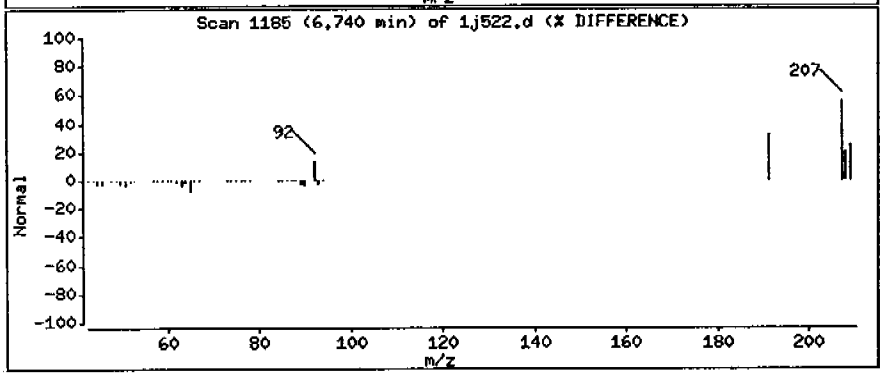

Data File: /chem/VOA1.i/051305v1.b/1j522.d

Date : 14-MAY-2005 01:12

Client ID: RE03-05-59558

Instrument: VOA1.i

Sample Info: |1358310041425470|1|VOAF|1|

Operator: PAM

Column phase: RTX-Volatiles

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Terpene	80-56-8	Nist98.l	40169	97	C10H16	136
1R-.alpha.-Pinene	7785-70-8	Nist98.l	40147	96	C10H16	136
Bicyclo[3.1.1]hept-2-ene, 2,6,6-trimethy	2437-95-8	Nist98.l	40144	95	C10H16	136

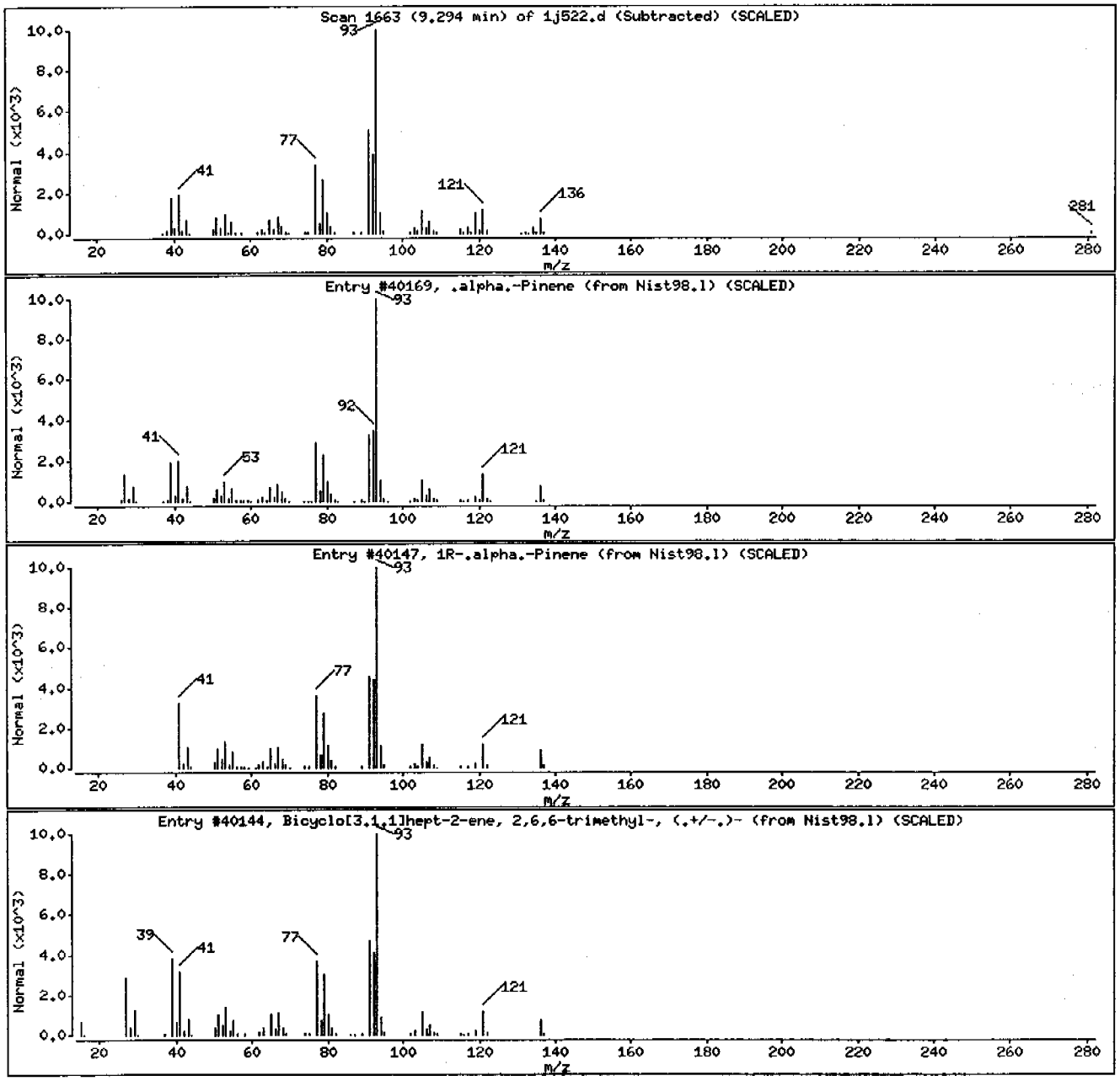

Data File: /chem/VOA1.i/051305v1.b/1j522.d

Date : 14-MAY-2005 01:12

Client ID: RE03-05-59558

Instrument: VOA1.i

Sample Info: |1358310041425470|1|VOAF|1|

Operator: PAM

Column phase: RTX-Volatiles

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
3-Carene	13466-78-9	Nist98.l	117793	93	C10H16	136
3-Carene	13466-78-9	Nist98.l	40142	90	C10H16	136
Tricyclo[2.2.1.02,6]heptane, 1,3,3-trime	488-97-1	Nist98.l	117889	90	C10H16	136

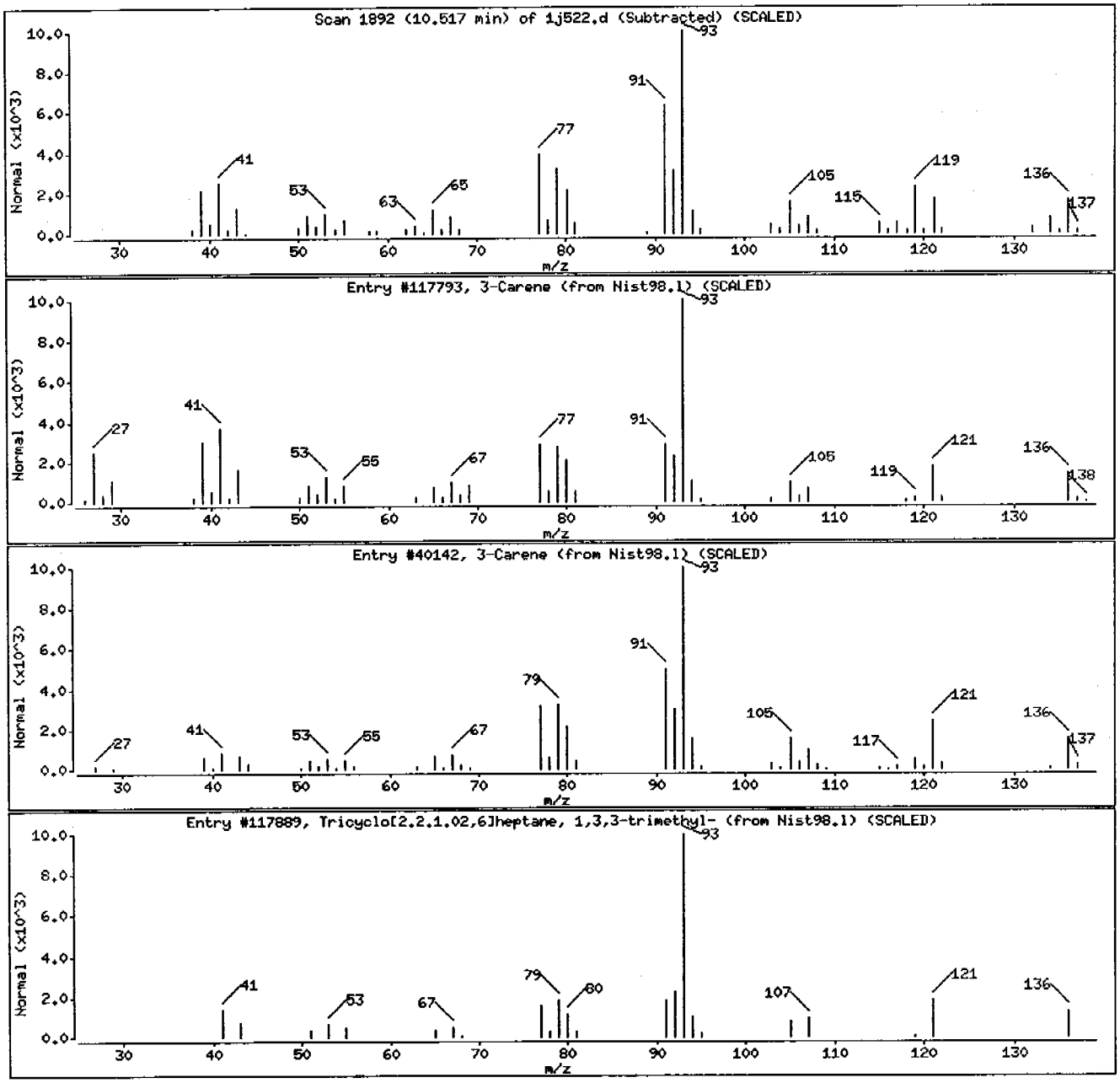

STANDARDS DATA

EPA 524.2/Low level SW846 8260B and Regular level 8260B and EPA 624
Calibration Standard Concentration Levels

	Level 1	Level 1a	Level 2	Level 3	Level 4 #	Level 5	Level 6	Level 7 !	Level 7a
Fluorobenzene (IS)									
Dibromofluoromethane (surr)		0.5	1	2	5	10	20	50	100
Dichlorodifluoromethane		0.5	1	2	5	10	20	50	100
Chloromethane		0.5	1	2	5	10	20	50	100
Vinyl chloride		0.5	1	2	5	10	20	50	100
Bromomethane		0.5	1	2	5	10	20	50	100
Chloroethane		0.5	1	2	5	10	20	50	100
Trichlorofluoromethane		0.5	1	2	5	10	20	50	100
1,1-Dichloroethene		0.5	1	2	5	10	20	50	100
Acetone	1	2.5	5	10	25	50	100	250	500
Iodomethane	1	2.5	5	10	25	50	100	250	500
Carbon disulfide	1	2.5	5	10	25	50	100	250	500
Methylene chloride		0.5	1	2	5	10	20	50	100
trans-1,2-Dichloroethene		0.5	1	2	5	10	20	50	100
1,1-Dichloroethane		0.5	1	2	5	10	20	50	100
Vinyl acetate	1	2.5	5	10	25	50	100	250	500
cis-1,2-Dichloroethene		0.5	1	2	5	10	20	50	100
2,2-Dichloropropane		0.5	1	2	5	10	20	50	100
2-Butanone	1	2.5	5	10	25	50	100	250	500
Bromochloromethane		0.5	1	2	5	10	20	50	100
Chloroform		0.5	1	2	5	10	20	50	100
1,1,1-Trichloroethane		0.5	1	2	5	10	20	50	100
1,1-Dichloropropene		0.5	1	2	5	10	20	50	100
Carbon tetrachloride		0.5	1	2	5	10	20	50	100
Benzene		0.5	1	2	5	10	20	50	100
1,2-Dichloroethane		0.5	1	2	5	10	20	50	100
Trichloroethene		0.5	1	2	5	10	20	50	100
1,2-Dichloropropane		0.5	1	2	5	10	20	50	100
Dibromomethane		0.5	1	2	5	10	20	50	100
Bromodichloromethane		0.5	1	2	5	10	20	50	100
cis-1,3-Dichloropropene		0.5	1	2	5	10	20	50	100
tert-Butylmethylether		0.5	1	2	5	10	20	50	100
Ethyl Ether			1	2	5	10	20	50	100
Acetonitrile			25	50	125	250	500	1250	2500
2-Chloroethylvinyl ether			5	10	25	50	100	250	500
Methyl acetate			5	10	25	50	100	250	500
Cyclohexane			1	2	5	10	20	50	100
Methylcyclohexane			1	2	5	10	20	50	100
n-Butyl alcohol			50	100	250	500	1000	2500	5000
2-Nitropropane			5	10	25	50	100	250	500
Ethyl acetate			5	10	25	50	100	250	500
Acrolein			5	10	25	50	100	250	500
Trichlorotrifluoroethane			5	10	25	50	100	250	500
Allyl chloride			5	10	25	50	100	250	500
Acrylonitrile			5	10	25	50	100	250	500
1,4-Dioxane			50	100	250	500	1000	2500	5000
Isobutyl alcohol			50	100	250	500	1000	2500	5000
Methacrylonitrile			5	10	25	50	100	250	500
Propionitrile			5	10	25	50	100	250	500
Methyl methacrylate			5	10	25	50	100	250	500
2-Chloro-1,3-butadiene(chloroprene)			1	2	5	10	20	50	100
Chlorobenzene-d5 (IS)									
Toluene-d8 (surr)		0.5	1	2	5	10	20	50	100
4-Methyl-2-pentanone	1	2.5	5	10	25	50	100	250	500
Toluene		0.5	1	2	5	10	20	50	100
trans-1,3-Dichloropropene		0.5	1	2	5	10	20	50	100
1,1,2-Trichloroethane		0.5	1	2	5	10	20	50	100
Tetrachloroethene		0.5	1	2	5	10	20	50	100
1,3-Dichloropropane		0.5	1	2	5	10	20	50	100
2-Hexanone	1	2.5	5	10	25	50	20	250	500
Dibromochloromethane		0.5	1	2	5	10	20	50	100
1,2-Dibromoethane		0.5	1	2	5	10	20	50	100
Chlorobenzene		0.5	1	2	5	10	20	50	100

	Level 1	Level 1a	Level 2	Level 3	Level 4 #	Level 5	Level 6	Level 7 !	Level 7a
1,1,1,2-Tetrachloroethane		0.5	1	2	5	10	20	50	100
Ethylbenzene		0.5	1	2	5	10	20	50	100
m,p-Xylene		1	2	4	10	20	20	100	200
o-Xylene		0.5	1	2	5	10	20	50	100
Stryene		0.5	1	2	5	10	20	50	100
Cyclohexanone			50	100	250	500	1000	2500	5000
Ethyl methacrylate			5	10	25	50	100	250	500
1,4-Dichlorobenzene-d4 (IS)									
Bromofluorobenzene (surr)		0.5	1	2	5	10	20	50	100
Bromoform		0.5	1	2	5	10	20	50	100
Isopropylbenzene		0.5	1	2	5	10	20	50	100
1,1,2,2-Tetrachloroethane		0.5	1	2	5	10	20	50	100
Bromobenzene		0.5	1	2	5	10	20	50	100
1,2,3-Trichloropropane		0.5	1	2	5	10	20	50	100
n-Propylbenzene		0.5	1	2	5	10	20	50	100
2-Chlorotoluene		0.5	1	2	5	10	20	50	100
1,3,5-Trimethylbenzene		0.5	1	2	5	10	20	50	100
4-Chlorotoluene		0.5	1	2	5	10	20	50	100
1,2,4-Trimethylbenzene		0.5	1	2	5	10	20	50	100
sec-Butylbenzene		0.5	1	2	5	10	20	50	100
1,3-Dichlorobenzene		0.5	1	2	5	10	20	50	100
tert-Butylbenzene		0.5	1	2	5	10	20	50	100
Isopropyltoluene		0.5	1	2	5	10	20	50	100
1,4-Dichlorobenzene		0.5	1	2	5	10	20	50	100
n-Butylbenzene		0.5	1	2	5	10	20	50	100
1,2-Dichlorobenzene		0.5	1	2	5	10	20	50	100
1,2-Dibromo-3-chloropropane		0.5	1	2	5	10	20	50	100
1,2,4-Trichlorobenzene		0.5	1	2	5	10	20	50	100
Hexachlorobutadiene		0.5	1	2	5	10	20	50	100
Naphthalene		0.5	1	2	5	10	20	50	100
1,2,3-Trichlorobenzene		0.5	1	2	5	10	20	50	100
cis-1,4-Dichloro-2-butene			5	10	25	50	100	250	500
trans-1,4-Dichloro-2-butene			5	10	25	50	100	250	500
Tetrahydrofuran			5	10	25	50	100	250	500
Pentachloroethane			5	10	25	50	100	250	500
Benzyl chloride			5	10	25	50	100	250	500
bis(2-Chloro-isopropyl)ether			5	10	25	50	100	250	500

Method	PQL	Concentration range
EPA 524.2	Level 1a	Levels 1a -> 7a
SW 846 8260B low level	Level 1a	Levels 1-> 7a
EPA 624	Level 2	Levels 2-> 7a
SW846 8260B	Level 2	Levels 2-> 7a

#: Indicates calibration verification concentration level used for low level analysis

!: Indicates calibration verification concentration level used for regular level analysis

Report Date: 20-Apr-2005 14:44

Calibration History

Method : /chem/VOA1.i/041905v1.b/VOA1-8260B-041905.m
Start Cal Date: 20-APR-2005 00:44
End Cal Date : 20-APR-2005 07:36

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 1.00000		
20-APR-2005 05:01	ICALsubS	/chem/VOA1.i/041905v1.b/1g228.d
20-APR-2005 01:09	CALsubL+	/chem/VOA1.i/041905v1.b/1g219.d
Cal Level: 2 , Cal Amount: 2.00000		
20-APR-2005 05:27	ICALsubS	/chem/VOA1.i/041905v1.b/1g229.d
20-APR-2005 02:01	CALsubL+	/chem/VOA1.i/041905v1.b/1g221.d
Cal Level: 3 , Cal Amount: 5.00000		
20-APR-2005 05:53	ICALsubS	/chem/VOA1.i/041905v1.b/1g230.d
20-APR-2005 02:27	CALsubL+	/chem/VOA1.i/041905v1.b/1g222.d
Cal Level: 4 , Cal Amount: 10.00000		
20-APR-2005 06:19	ICALsubS	/chem/VOA1.i/041905v1.b/1g231.d
20-APR-2005 02:53	CALsubL+	/chem/VOA1.i/041905v1.b/1g223.d
Cal Level: 5 , Cal Amount: 20.00000		
20-APR-2005 06:45	ICALsubS	/chem/VOA1.i/041905v1.b/1g232.d
20-APR-2005 03:18	CALsubL+	/chem/VOA1.i/041905v1.b/1g224.d
Cal Level: 6 , Cal Amount: 50.00000		
20-APR-2005 07:10	ICALsubS	/chem/VOA1.i/041905v1.b/1g233.d
20-APR-2005 03:44	CALsubL+	/chem/VOA1.i/041905v1.b/1g225.d
Cal Level: 7 , Cal Amount: 100.00000		
20-APR-2005 07:36	ICALsubS	/chem/VOA1.i/041905v1.b/1g234.d
20-APR-2005 04:10	CALsubL+	/chem/VOA1.i/041905v1.b/1g226.d
Cal Level: 8 , Cal Amount: 200.00000		
20-APR-2005 00:44	BENZENE+	/chem/VOA1.i/041905v1.b/1g218.d

20-APR-2005 00:44	CALsubL+	/chem/VOA1.i/041905v1.b/1g218.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 6

Ccal Level: 6 , Ccal Amount: 50.0		
20-APR-2005 09:19	CALsubS+SS	/chem/VOA1.i/041905v1.b/1g238.d
Ccal Level: 6 , Ccal Amount: 50.0		
20-APR-2005 08:53	CALsubL+	/chem/VOA1.i/041905v1.b/1g237.d
Ccal Level: 6 , Ccal Amount: 50.0		
20-APR-2005 08:28	CALsubL+	/chem/VOA1.i/041905v1.b/1g236.d
Ccal Level: 6 , Ccal Amount: 50.0		
20-APR-2005 07:10	ICALsubS	/chem/VOA1.i/041905v1.b/1g233.d
Ccal Level: 6 , Ccal Amount: 50.0		
20-APR-2005 03:44	CALsubL+	/chem/VOA1.i/041905v1.b/1g225.d

General Engineering Laboratories, LLC

INITIAL CALIBRATION DATA

Start Cal Date : 20-APR-2005 00:44
End Cal Date : 20-APR-2005 07:36
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/VOA1.i/041905v1.b/VOA1-8260B-041905.m
Cal Date : 22-Apr-2005 08:36 ehl

Calibration File Names:
Level 1: /chem/VOA1.i/041905v1.b/1g228.d
Level 2: /chem/VOA1.i/041905v1.b/1g229.d
Level 3: /chem/VOA1.i/041905v1.b/1g230.d
Level 4: /chem/VOA1.i/041905v1.b/1g231.d
Level 5: /chem/VOA1.i/041905v1.b/1g232.d
Level 6: /chem/VOA1.i/041905v1.b/1g233.d
Level 7: /chem/VOA1.i/041905v1.b/1g234.d
Level 8: /chem/VOA1.i/041905v1.b/1g218.d

Compound	1 Level 1	2 Level 2	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	200 Level 8									
M 1 Xylenes (total)	0.71676	0.73557	0.67446	0.71287	0.70870	0.76451					
	0.69834	+++++					AVRG		0.71589		3.96633
M 2 1,2-Dichloroethylene (total)	0.23368	0.26423	0.25506	0.25620	0.26539	0.27813					
	0.25572	+++++					AVRG		0.25835		5.25661
M 135 1,3-Dichloropropylene	0.57894	0.65279	0.63008	0.62448	0.63889	0.69863					
	0.64788	+++++					AVRG		0.63881		5.61560
3 Dichlorodifluoromethane	2883	6359	16528	33124	76509	217102					
	439995	+++++					LINR	0.01451	0.28775		0.99777
4 Chloromethane	0.35716	0.35921	0.29139	0.28727	0.34098	0.34256					
	0.29361	+++++					AVRG		0.32460		9.98693

General Engineering Laboratories, LLC

INITIAL CALIBRATION DATA

Start Cal Date : 20-APR-2005 00:44
End Cal Date : 20-APR-2005 07:36
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/VOA1.i/041905v1.b/VOA1-8260B-041905.m
Cal Date : 22-Apr-2005 08:36 eh1

Compound	1 Level 1 100 Level 7	2 Level 2 200 Level 8	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
5 Vinyl chloride	0.26907	0.29804	0.28871	0.28416	0.30896	0.31524					
	0.27405	+++++					AVRG		0.29117		5.91546
6 Bromomethane	3853	6877	13850	26190	54260	139959					
	256594	+++++					LINR	-0.03096	0.16806		0.99163
7 Chloroethane	0.16498	0.17757	0.17312	0.16369	0.17579	0.18524					
	0.16431	+++++					AVRG		0.17210		4.73933
8 Trichlorofluoromethane	0.36196	0.35304	0.37272	0.34892	0.38180	0.41211					
	0.35269	+++++					AVRG		0.36903		6.06970
134 Ethyl Ether	0.28932	0.27919	0.27730	0.26523	0.29758	0.32622					
	0.28022	+++++					AVRG		0.28787		6.83823
9 Acrolein	0.03759	0.03909	0.04288	0.04040	0.04879	0.04706					
	0.04724	+++++					AVRG		0.04329		10.27672
12 Trichlorotrifluoroethane	0.09379	0.08586	0.08251	0.08507	0.09541	0.08821					
	0.09450	+++++					AVRG		0.08933		5.80751
10 Acetone	0.10735	0.10137	0.09470	0.09263	0.09451	0.09279					
	0.08846	+++++					AVRG		0.09597		6.59217
11 1,1-Dichloroethylene	0.47538	0.42171	0.40273	0.43683	0.43113	0.45810					
	0.42950	+++++					AVRG		0.43648		5.46617

General Engineering Laboratories, LLC

INITIAL CALIBRATION DATA

Start Cal Date : 20-APR-2005 00:44
End Cal Date : 20-APR-2005 07:36
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/VOA1.i/041905v1.b/VOA1-8260B-041905.m
Cal Date : 22-Apr-2005 08:36 eh1

Compound	1 Level 1 / 100 Level 7	2 Level 2 / 200 Level 8	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
13 Iodomethane	0.40614	0.40663	0.38104	0.38819	0.39267	0.41147					
	0.36933	+++++					AVRG		0.39364		3.91246
15 Acetonitrile	0.03279	0.03823	0.04092	0.04016	0.04091	0.04337					
	0.03944	+++++					AVRG		0.03940		8.41624
128 Methyl acetate	0.26765	0.27082	0.25506	0.26686	0.26979	0.28333					
	0.25856	+++++					AVRG		0.26744		3.42111
14 Carbon disulfide	0.90311	0.90621	0.82276	0.81037	0.81351	0.84062					
	0.76424	+++++					AVRG		0.83726		6.15405
16 Allyl chloride	0.10385	0.10056	0.10211	0.10246	0.12250	0.11397					
	0.12186	+++++					AVRG		0.10961		8.79574
17 Methylene chloride	+++++	0.36396	0.28277	0.27743	0.27266	0.27928					
	0.25668	+++++					AVRG		0.28880		13.13752
18 Acrylonitrile	0.11647	0.11514	0.10942	0.11117	0.12460	0.11971					
	0.12532	+++++					AVRG		0.11740		5.25588
20 tert-Butyl methyl ether	0.83343	0.83137	0.85124	0.84349	0.88937	0.94713					
	0.87916	+++++					AVRG		0.86788		4.76516
21 trans-1,2-Dichloroethylene	0.21401	0.26644	0.24458	0.24025	0.25151	0.25995					
	0.23918	+++++					AVRG		0.24513		6.95281

General Engineering Laboratories, LLC

INITIAL CALIBRATION DATA

Start Cal Date : 20-APR-2005 00:44
End Cal Date : 20-APR-2005 07:36
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/VOA1.i/041905v1.b/VOA1-8260B-041905.m
Cal Date : 22-Apr-2005 08:36 eh1

Compound	1 Level 1 100 Level 7	2 Level 2 200 Level 8	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
23 Vinyl acetate	0.65009	0.63993	0.61864	0.58542	0.64835	0.69102					
	0.60689	+++++					AVRG		0.63433		5.41561
22 1,1-Dichloroethane	0.51919	0.48612	0.48173	0.50040	0.50769	0.53712					
	0.50102	+++++					AVRG		0.50475		3.77184
24 2-Chloro-1,3-butadiene	0.35878	0.35654	0.35821	0.36716	0.41467	0.37833					
	0.40776	+++++					AVRG		0.37735		6.46122
26 Ethyl acetate	0.33301	0.34049	0.30701	0.29431	0.33154	0.31678					
	0.32983	+++++					AVRG		0.32185		5.12686
30 2-Butanone	0.16225	0.17175	0.15623	0.15565	0.16742	0.18115					
	0.16622	+++++					AVRG		0.16581		5.39988
31 cis-1,2-Dichloroethylene	0.25335	0.26203	0.26555	0.27216	0.27927	0.29630					
	0.27227	+++++					AVRG		0.27156		5.05652
28 Propionitrile	0.03505	0.03892	0.03932	0.04058	0.04711	0.04696					
	0.04952	+++++					AVRG		0.04249		12.62359
25 2,2-Dichloropropane	0.30861	0.33095	0.29886	0.32273	0.31897	0.33495					
	0.30718	+++++					AVRG		0.31747		4.16174
27 Methacrylonitrile	0.22762	0.20553	0.19454	0.19168	0.22147	0.20525					
	0.22033	+++++					AVRG		0.20949		6.64895

General Engineering Laboratories, LLC

INITIAL CALIBRATION DATA

Start Cal Date : 20-APR-2005 00:44
End Cal Date : 20-APR-2005 07:36
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/VOA1.i/041905v1.b/VOA1-8260B-041905.m
Cal Date : 22-Apr-2005 08:36 eh1

Compound	1 Level 1	2 Level 2	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	200 Level 8									
29 Bromochloromethane	601	3403	9283	20183	37799	102376					
	212241	+++++					LINR	0.00416	0.13736		0.99915
32 Chloroform	0.47161	0.48378	0.42950	0.45539	0.48111	0.50247					
	0.44984	+++++					AVRG		0.46767		5.23199
72 Tetrahydrofuran	23811	31840	52760	88283	163232	385723					
	782598	+++++					LINR	-0.16515	0.32080		0.99908
36 1,1,1-Trichloroethane	0.35448	0.37385	0.32367	0.34178	0.35348	0.36601					
	0.33869	+++++					AVRG		0.35028		4.86933
19 Isobutyl alcohol	0.01213	0.01207	0.01149	0.01111	0.01299	0.01278					
	0.01332	+++++					AVRG		0.01227		6.56969
34 1,1-Dichloropropene	0.34157	0.38853	0.35947	0.37228	0.37328	0.38141					
	0.35722	+++++					AVRG		0.36768		4.34912
129 Cyclohexane	0.55873	0.55483	0.53831	0.56087	0.56753	0.58953					
	0.54176	+++++					AVRG		0.55879		3.05713
33 Carbon tetrachloride	0.30772	0.32385	0.31113	0.34139	0.35369	0.36174					
	0.33002	+++++					AVRG		0.33279		6.17547
37 1,2-Dichloroethane	0.37871	0.39329	0.36590	0.39899	0.41601	0.44107					
	0.41470	+++++					AVRG		0.40124		6.28070

General Engineering Laboratories, LLC

INITIAL CALIBRATION DATA

Start Cal Date : 20-APR-2005 00:44
End Cal Date : 20-APR-2005 07:36
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/VOA1.i/041905v1.b/VOA1-8260B-041905.m
Cal Date : 22-Apr-2005 08:36 eh1

Compound	1 Level 1	2 Level 2	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	200 Level 8									
38 Benzene	1.15482	1.18265	1.08475	1.08631	1.11480	1.18559					
	1.07960	1.10059					AVRG		1.12364		3.94377
131 n-Butyl alcohol	19627	28664	82443	172068	342658	944435					
	1944173	5318					LINR	0.47363	0.01260		0.99892
39 Trichloroethylene	0.26845	0.27588	0.26458	0.26507	0.27223	0.28977					
	0.25923	+++++					AVRG		0.27075		3.68963
42 Methyl methacrylate	0.21713	0.19575	0.19639	0.19103	0.21384	0.20879					
	0.21007	+++++					AVRG		0.20471		4.96413
41 1,2-Dichloropropane	0.29722	0.30459	0.31402	0.31220	0.32707	0.33934					
	0.31574	+++++					AVRG		0.31574		4.41968
130 Methylcyclohexane	0.54274	0.54432	0.49562	0.53584	0.54373	0.56255					
	0.52187	+++++					AVRG		0.53524		3.96715
97 1,4-Dioxane	1314	2912	9487	20191	40162	95937					
	204501	+++++					LINR	0.68335	0.00288		0.99877
43 Dibromomethane	0.17398	0.18677	0.17768	0.17418	0.18969	0.19660					
	0.18285	+++++					AVRG		0.18311		4.63068
45 Bromodichloromethane	0.36375	0.36086	0.36695	0.36615	0.37984	0.40458					
	0.37701	+++++					AVRG		0.37416		4.03408

General Engineering Laboratories, LLC

INITIAL CALIBRATION DATA

Start Cal Date : 20-APR-2005 00:44
End Cal Date : 20-APR-2005 07:36
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/VOA1.i/041905v1.b/VOA1-8260B-041905.m
Cal Date : 22-Apr-2005 08:36 eh1

Compound	1 Level 1 / 100 Level 7	2 Level 2 / 200 Level 8	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
48 2-Nitropropane	0.12161	0.11459	0.10789	0.10555	0.11999	0.11803					
	0.12368	+++++					AVRG		0.11591		5.97061
44 2-Chloroethylvinyl ether	0.21054	0.19443	0.20353	0.19627	0.21456	0.23394					
	0.19443	+++++					AVRG		0.20682		6.94683
46 cis-1,3-Dichloropropylene	0.42458	0.45817	0.45672	0.44515	0.46857	0.50244					
	0.45758	+++++					AVRG		0.45903		5.15808
49 4-Methyl-2-pentanone	0.20958	0.19918	0.20095	0.20131	0.20866	0.23200					
	0.21735	+++++					AVRG		0.20986		5.55176
50 Toluene	1.03224	1.09111	0.97782	0.95811	0.97471	1.07827					
	0.98929	+++++					AVRG		1.01451		5.24581
51 Ethyl methacrylate	0.63223	0.65766	0.62511	0.60924	0.67718	0.62261					
	0.64896	+++++					AVRG		0.63900		3.66927
53 trans-1,3-Dichloropropylene	0.54943	0.64368	0.59844	0.59371	0.61643	0.66450					
	0.63186	+++++					AVRG		0.61400		6.15849
54 1,1,2-Trichloroethane	0.32204	0.28968	0.30532	0.29914	0.29051	0.33710					
	0.30848	+++++					AVRG		0.30747		5.58539
55 2-Hexanone	0.36911	0.35819	0.34047	0.35186	0.36369	0.40076					
	0.37017	+++++					AVRG		0.36489		5.18122

General Engineering Laboratories, LLC

INITIAL CALIBRATION DATA

Start Cal Date : 20-APR-2005 00:44
End Cal Date : 20-APR-2005 07:36
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/VOA1.i/041905v1.b/VOA1-8260B-041905.m
Cal Date : 22-Apr-2005 08:36 eh1

Compound	1 Level 1 100 Level 7	2 Level 2 200 Level 8	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
52 1,3-Dichloropropane	0.58259	0.59763	0.58450	0.60491	0.60337	0.65331					
	0.59682	+++++					AVRG		0.60330		3.92228
56 Tetrachloroethylene	0.26438	0.29252	0.27943	0.30645	0.29115	0.30338					
	0.27948	+++++					AVRG		0.28811		5.13059
57 Dibromochloromethane	0.35490	0.39810	0.40036	0.40706	0.40097	0.44007					
	0.41026	+++++					AVRG		0.40168		6.24848
59 1,2-Dibromoethane	0.35559	0.35096	0.31497	0.34503	0.35774	0.38894					
	0.37016	+++++					AVRG		0.35477		6.41481
62 Chlorobenzene	1.09147	1.16071	1.04667	1.08614	1.08477	1.12896					
	1.04321	+++++					AVRG		1.09170		3.85169
58 Ethylbenzene	1.96560	1.90539	1.78774	1.85286	1.86651	1.95991					
	1.84529	+++++					AVRG		1.88333		3.42157
60 1,1,1,2-Tetrachloroethane	0.36199	0.36107	0.34982	0.35397	0.37506	0.41089					
	0.37910	+++++					AVRG		0.37027		5.60849
63 m,p-Xylenes	0.73854	0.75666	0.67556	0.72415	0.71625	0.76462					
	0.70568	+++++					AVRG		0.72592		4.22507
64 o-Xylene	0.67321	0.69341	0.67227	0.69030	0.69360	0.76430					
	0.68366	+++++					AVRG		0.69582		4.52377

General Engineering Laboratories, LLC

INITIAL CALIBRATION DATA

Start Cal Date : 20-APR-2005 00:44
End Cal Date : 20-APR-2005 07:36
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/VOA1.i/041905v1.b/VOA1-8260B-041905.m
Cal Date : 22-Apr-2005 08:36 eh1

Compound	1 Level 1	2 Level 2	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	200 Level 8									
65 Styrene	1.20551	1.15912	1.12910	1.20023	1.19182	1.32969					
	1.19286	+++++					AVRG		1.20119		5.22745
66 Bromoform	0.40059	0.47642	0.48414	0.50071	0.51644	0.58635					
	0.53268	+++++					AVRG		0.49962		11.40605
67 Isopropylbenzene	3.54981	3.59029	3.32624	3.47143	3.35023	3.70924					
	3.29383	+++++					AVRG		3.47015		4.46628
68 cis-1,4-Dichloro-2-butene	0.35827	0.35739	0.32908	0.33066	0.36930	0.35256					
	0.37475	+++++					AVRG		0.35315		4.98120
70 Cyclohexanone	0.01630	0.01780	0.01723	0.01711	0.02076	0.02109					
	+++++	+++++					AVRG		0.01838		11.05147
73 1,1,2,2-Tetrachloroethane	0.94939	0.89181	0.95372	0.99001	0.95814	1.06433					
	0.95723	+++++					AVRG		0.96637		5.39576
69 trans-1,4-Dichloro-2-butene	0.26323	0.23910	0.23710	0.23361	0.25711	0.24716					
	0.26078	+++++					AVRG		0.24830		4.88748
74 1,2,3-Trichloropropane	699	2304	5919	14150	26400	71548					
	141852	+++++					LINR	-0.00745	0.26677		0.99449
75 Bromobenzene	0.88444	0.87640	0.84756	0.86233	0.84917	0.95035					
	0.84379	+++++					AVRG		0.87343		4.25993

General Engineering Laboratories, LLC

INITIAL CALIBRATION DATA

Start Cal Date : 20-APR-2005 00:44
End Cal Date : 20-APR-2005 07:36
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/VOA1.i/041905v1.b/VOA1-8260B-041905.m
Cal Date : 22-Apr-2005 08:36 eh1

Compound	1 Level 1	2 Level 2	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	200 Level 8									
76 n-Propylbenzene	4.32847	4.42077	4.17235	4.44319	4.38416	4.72094					
	4.09438	+++++					AVRG		4.36632		4.65583
78 1,3,5-Trimethylbenzene	3.13253	3.06423	2.83819	3.06571	2.96093	3.27565					
	2.83888	+++++					AVRG		3.02516		5.24797
77 2-Chlorotoluene	2.91836	2.84067	2.72526	2.84450	2.68818	3.04113					
	2.67057	+++++					AVRG		2.81838		4.76618
80 4-Chlorotoluene	3.16450	2.99172	2.79616	2.93931	2.85044	3.13098					
	2.74268	+++++					AVRG		2.94511		5.49276
81 tert-Butylbenzene	2.71706	2.88548	2.78540	2.75777	2.81230	3.08107					
	2.73587	+++++					AVRG		2.82499		4.45592
79 1,2,4-Trimethylbenzene	3.20492	3.20158	2.94206	3.06877	3.04654	3.30773					
	2.93856	+++++					AVRG		3.10145		4.54672
82 Pentachloroethane	0.40975	0.39841	0.37594	0.36184	0.41567	0.38951					
	0.38364	+++++					AVRG		0.39068		4.84285
83 sec-Butylbenzene	3.97755	4.01746	3.80929	3.86754	3.85239	4.19732					
	3.76674	+++++					AVRG		3.92690		3.78362
84 4-Isopropyltoluene	3.24233	3.16724	3.06015	3.10634	3.18159	3.35985					
	3.04691	+++++					AVRG		3.16634		3.47393

General Engineering Laboratories, LLC

INITIAL CALIBRATION DATA

Start Cal Date : 20-APR-2005 00:44
End Cal Date : 20-APR-2005 07:36
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/VOA1.i/041905v1.b/VOA1-8260B-041905.m
Cal Date : 22-Apr-2005 08:36 ehl

Compound	1 Level 1 100 Level 7	2 Level 2 200 Level 8	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
85 1,3-Dichlorobenzene	1.85836	1.73085	1.63688	1.67793	1.60910	1.71375					
	1.57023	+++++					AVRG		1.68530		5.64379
87 1,4-Dichlorobenzene	1.87344	1.66227	1.68392	1.69899	1.61586	1.76968					
	1.57146	+++++					AVRG		1.69652		5.90128
88 Benzyl chloride	1.64130	1.26982	1.16874	1.21857	1.33492	1.23982					
	1.28532	+++++					AVRG		1.30835		11.91545
89 n-Butylbenzene	3.11202	3.23230	2.94407	3.09189	3.02187	3.33985					
	3.00950	+++++					AVRG		3.10736		4.42566
90 1,2-Dichlorobenzene	1.73046	1.64797	1.54471	1.55782	1.54737	1.69383					
	1.50554	+++++					AVRG		1.60396		5.37190
91 bis(2-Chloroisopropyl)ether	0.60494	0.59657	0.54788	0.54976	0.60913	0.58029					
	0.61813	+++++					AVRG		0.58667		4.83843
92 1,2-Dibromo-3-chloropropane	0.14178	0.15296	0.17351	0.18108	0.19006	0.21557					
	0.19511	+++++					AVRG		0.17858		14.12149
93 1,2,4-Trichlorobenzene	1.18629	0.98163	0.97960	0.97008	0.94558	1.06564					
	0.94842	+++++					AVRG		1.01103		8.60655
94 Hexachlorobutadiene	0.55805	0.56413	0.49498	0.56382	0.54358	0.59221					
	0.52321	+++++					AVRG		0.54857		5.76868

General Engineering Laboratories, LLC

INITIAL CALIBRATION DATA

Start Cal Date : 20-APR-2005 00:44
End Cal Date : 20-APR-2005 07:36
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/VOA1.i/041905v1.b/VOA1-8260B-041905.m
Cal Date : 22-Apr-2005 08:36 eh1

Compound	1 Level 1	2 Level 2	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	200 Level 8									
95 Naphthalene	3.45570	2.97027	2.74263	2.86874	2.81617	3.19605					
	2.86096	+++++					AVRG		2.98722		8.45148
96 1,2,3-Trichlorobenzene	1.08996	1.03047	0.96481	0.95971	0.94585	1.07728					
	0.94548	+++++					AVRG		1.00194		6.27707
$ 35 Dibromofluoromethane	+++++	+++++	0.25286	0.26750	0.28048	0.28669					
	0.26005	+++++					AVRG		0.26952		5.20264
$ 47 Toluene-d8	+++++	+++++	1.58232	1.51058	1.43428	1.57480					
	1.42753	+++++					AVRG		1.50590		4.91122
$ 71 Bromofluorobenzene	+++++	+++++	1.38458	1.32345	1.23027	1.27261					
	1.12671	+++++					AVRG		1.26752		7.69687

General Engineering Laboratories, LLC

INITIAL CALIBRATION DATA

Start Cal Date : 20-APR-2005 00:44
End Cal Date : 20-APR-2005 07:36
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/VOA1.i/041905v1.b/VOA1-8260B-041905.m
Cal Date : 22-Apr-2005 08:36 eh1

Curve	Formula	Units
Averaged	Amt = Rsp/ml	Response
Linear	Amt = b + Rsp/ml	Response

Data File: /chem/VOA1.i/041905v1.b/1g237.d
Report Date: 27-Apr-2005 15:12

General Engineering Laboratories, LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA1.i
Lab File ID: 1g237.d
Analysis Type: WATER
Lab Sample ID: UVM050323-01D
Method: /chem/VOA1.i/041905v1.b/VOA1-8260B-041905.m

Injection Date: 20-APR-2005 08:53
Init. Cal. Date(s): 20-APR-2005 20-APR-2005
Init. Cal. Times: 00:44 07:36
Quant Type: ISTD

	COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
M	1 Xylenes (total)	0.71589	0.70537	0.70537	0.050	-1.46867	40.00000	Averaged	
M	2 1,2-Dichloroethylene (total	0.25835	0.27720	0.27720	0.050	7.29671	40.00000	Averaged	
M	135 1,3-Dichloropropylene	0.63881	0.63016	0.63016	0.050	-1.35381	40.00000	Averaged	
	3 Dichlorodifluoromethane	57.25855	50.00000	0.32534	0.050	14.51710	40.00000	Linear	
	4 Chloromethane	0.32460	0.38310	0.38310	0.100	18.02458	40.00000	Averaged	spcc
	5 Vinyl chloride	0.29117	0.32061	0.32061	0.050	10.10873	20.00000	Averaged	ccc
	6 Bromomethane	55.19598	50.00000	0.19073	0.050	10.39196	40.00000	Linear	
	7 Chloroethane	0.17210	0.21363	0.21363	0.050	24.13243	40.00000	Averaged	
	8 Trichlorofluoromethane	0.36903	0.39539	0.39539	0.050	7.14096	40.00000	Averaged	
	134 Ethyl Ether	0.28787	0.28333	0.28333	0.010	-1.57614	40.00000	Averaged	
	10 Acetone	0.09597	0.09564	0.09564	0.050	-0.34660	40.00000	Averaged	
	15 Acetonitrile	0.03940	0.04228	0.04228	0.010	7.30774	40.00000	Averaged	
	11 1,1-Dichloroethylene	0.43648	0.44138	0.44138	0.050	1.12169	20.00000	Averaged	ccc
	128 Methyl acetate	0.26744	0.27135	0.27135	0.010	1.46197	40.00000	Averaged	
	13 Iodomethane	0.39364	0.38162	0.38162	0.050	-3.05371	40.00000	Averaged	
	17 Methylene chloride	0.28880	0.27488	0.27488	0.050	-4.81937	40.00000	Averaged	
	14 Carbon disulfide	0.83726	0.74147	0.74147	0.050	-11.44139	40.00000	Averaged	
	20 tert-Butyl methyl ether	0.86788	0.91000	0.91000	0.050	4.85306	40.00000	Averaged	
	21 trans-1,2-Dichloroethylene	0.24513	0.25827	0.25827	0.050	5.35798	40.00000	Averaged	
	23 Vinyl acetate	0.63433	0.66224	0.66224	0.010	4.39923	40.00000	Averaged	
	22 1,1-Dichloroethane	0.50475	0.53899	0.53899	0.100	6.78344	40.00000	Averaged	spcc
	30 2-Butanone	0.16581	0.17524	0.17524	0.030	5.68536	40.00000	Averaged	
	31 cis-1,2-Dichloroethylene	0.27156	0.29613	0.29613	0.050	9.04676	40.00000	Averaged	
	25 2,2-Dichloropropane	0.31747	0.32162	0.32162	0.050	1.30950	40.00000	Averaged	
	32 Chloroform	0.46767	0.47771	0.47771	0.010	2.14613	20.00000	Averaged	ccc
	29 Bromochloromethane	50.69791	50.00000	0.13870	0.010	1.39581	40.00000	Linear	
$	35 Dibromofluoromethane	0.26952	0.26873	0.26873	0.010	-0.29356	40.00000	Averaged	
	36 1,1,1-Trichloroethane	0.35028	0.35758	0.35758	0.010	2.08278	40.00000	Averaged	
	129 Cyclohexane	0.55879	0.50753	0.50753	0.010	-9.17422	40.00000	Averaged	
	34 1,1-Dichloropropene	0.36768	0.36369	0.36369	0.010	-1.08492	40.00000	Averaged	
	131 n-Butyl alcohol	2482	5000	0.00619	0.001	-50.36368	40.00000	Linear	<-
	33 Carbon tetrachloride	0.33279	0.34997	0.34997	0.010	5.16340	40.00000	Averaged	
	37 1,2-Dichloroethane	0.40124	0.43773	0.43773	0.010	9.09549	40.00000	Averaged	
	38 Benzene	1.12364	1.11879	1.11879	0.010	-0.43153	40.00000	Averaged	
	39 Trichloroethylene	0.27075	0.27739	0.27739	0.010	2.45235	40.00000	Averaged	
	41 1,2-Dichloropropane	0.31574	0.33963	0.33963	0.010	7.56493	20.00000	Averaged	ccc

General Engineering Laboratories, LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA1.i
Lab File ID: 1g237.d
Analysis Type: WATER
Lab Sample ID: UVM050323-01D
Method: /chem/VOA1.i/041905v1.b/VOA1-8260B-041905.m

Injection Date: 20-APR-2005 08:53
Init. Cal. Date(s): 20-APR-2005 20-APR-2005
Init. Cal. Times: 00:44 07:36
Quant Type: ISTD

	COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
	130 Methylcyclohexane	0.53524	0.46753	0.46753	0.010	-12.64957	40.00000	Averaged	
	45 Bromodichloromethane	0.37416	0.38791	0.38791	0.010	3.67395	40.00000	Averaged	
	43 Dibromomethane	0.18311	0.19000	0.19000	0.010	3.76645	40.00000	Averaged	
	44 2-Chloroethylvinyl ether	0.20682	0.20879	0.20879	0.001	0.95364	40.00000	Averaged	
	49 4-Methyl-2-pentanone	0.20986	0.22025	0.22025	0.010	4.95231	40.00000	Averaged	
	46 cis-1,3-Dichloropropylene	0.45903	0.45511	0.45511	0.010	-0.85448	40.00000	Averaged	
$	47 Toluene-d8	1.50590	1.52656	1.52656	0.010	1.37208	40.00000	Averaged	
	50 Toluene	1.01451	1.00643	1.00643	0.010	-0.79646	20.00000	Averaged	ccc
	53 trans-1,3-Dichloropropylene	0.61400	0.60779	0.60779	0.010	-1.01154	40.00000	Averaged	
	54 1,1,2-Trichloroethane	0.30747	0.31709	0.31709	0.010	3.13012	40.00000	Averaged	
	55 2-Hexanone	0.36489	0.38971	0.38971	0.010	6.80054	40.00000	Averaged	
	52 1,3-Dichloropropane	0.60330	0.65310	0.65310	0.010	8.25469	40.00000	Averaged	
	56 Tetrachloroethylene	0.28811	0.27862	0.27862	0.010	-3.29587	40.00000	Averaged	
	57 Dibromochloromethane	0.40168	0.44069	0.44069	0.010	9.71295	40.00000	Averaged	
	59 1,2-Dibromoethane	0.35477	0.38131	0.38131	0.010	7.48071	40.00000	Averaged	
	62 Chlorobenzene	1.09170	1.08930	1.08930	0.300	-0.22057	40.00000	Averaged	spcc
	60 1,1,1,2-Tetrachloroethane	0.37027	0.39570	0.39570	0.010	6.86723	40.00000	Averaged	
	58 Ethylbenzene	1.88333	1.84637	1.84637	0.010	-1.96242	20.00000	Averaged	ccc
	63 m,p-Xylenes	0.72592	0.69593	0.69593	0.010	-4.13149	40.00000	Averaged	
	64 o-Xylene	0.69582	0.72426	0.72426	0.010	4.08732	40.00000	Averaged	
	65 Styrene	1.20119	1.22671	1.22671	0.010	2.12485	40.00000	Averaged	
	66 Bromoform	0.49962	0.57022	0.57022	0.100	14.13135	40.00000	Averaged	spcc
	67 Isopropylbenzene	3.47015	3.26375	3.26375	0.010	-5.94808	40.00000	Averaged	
	73 1,1,2,2-Tetrachloroethane	0.96637	1.00348	1.00348	0.300	3.83961	40.00000	Averaged	spcc
$	71 Bromofluorobenzene	1.26752	1.17629	1.17629	0.010	-7.19768	40.00000	Averaged	
	74 1,2,3-Trichloropropane	50.70091	50.00000	0.27249	0.010	1.40182	40.00000	Linear	
	75 Bromobenzene	0.87343	0.87908	0.87908	0.010	0.64642	40.00000	Averaged	
	76 n-Propylbenzene	4.36632	4.13744	4.13744	0.010	-5.24196	40.00000	Averaged	
	77 2-Chlorotoluene	2.81838	2.77104	2.77104	0.010	-1.67988	40.00000	Averaged	
	78 1,3,5-Trimethylbenzene	3.02516	2.80246	2.80246	0.010	-7.36175	40.00000	Averaged	
	80 4-Chlorotoluene	2.94511	2.67323	2.67323	0.010	-9.23176	40.00000	Averaged	
	81 tert-Butylbenzene	2.82499	2.75996	2.75996	0.010	-2.30198	40.00000	Averaged	
	79 1,2,4-Trimethylbenzene	3.10145	2.84443	2.84443	0.010	-8.28701	40.00000	Averaged	
	83 sec-Butylbenzene	3.92690	3.76553	3.76553	0.010	-4.10929	40.00000	Averaged	
	84 4-Isopropyltoluene	3.16634	2.95398	2.95398	0.010	-6.70677	40.00000	Averaged	

General Engineering Laboratories, LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA1.i
Lab File ID: 1g237.d
Analysis Type: WATER
Lab Sample ID: UVM050323-01D
Method: /chem/VOA1.i/041905v1.b/VOA1-8260B-041905.m

Injection Date: 20-APR-2005 08:53
Init. Cal. Date(s): 20-APR-2005 20-APR-2005
Init. Cal. Times: 00:44 07:36
Quant Type: ISTD

COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
85 1,3-Dichlorobenzene	1.68530	1.55064	1.55064	0.010	-7.99010	40.00000	Averaged
87 1,4-Dichlorobenzene	1.69652	1.54406	1.54406	0.010	-8.98630	40.00000	Averaged
89 n-Butylbenzene	3.10736	2.71357	2.71357	0.010	-12.67283	40.00000	Averaged
90 1,2-Dichlorobenzene	1.60396	1.52326	1.52326	0.010	-5.03117	40.00000	Averaged
92 1,2-Dibromo-3-chloropropane	0.17858	0.20998	0.20998	0.010	17.58333	40.00000	Averaged
93 1,2,4-Trichlorobenzene	1.01103	0.87647	0.87647	0.010	-13.30998	40.00000	Averaged
94 Hexachlorobutadiene	0.54857	0.45226	0.45226	0.010	-17.55670	40.00000	Averaged
95 Naphthalene	2.98722	2.84396	2.84396	0.010	-4.79574	40.00000	Averaged
96 1,2,3-Trichlorobenzene	1.00194	0.90832	0.90832	0.010	-9.34370	40.00000	Averaged

Average %D / Drift Results.

Calculated Average %D/Drift = 6.47128
Maximun Average %D/Drift = 20.00000
* Passed Average %D/Drift Test.

General Engineering Laboratories, LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/041905v1.b/1g237.d
Lab Smp Id: UVM050323-01D Client Smp ID: VSTD050
Inj Date : 20-APR-2005 08:53
Operator : PAM Inst ID: VOA1.i
Smp Info : |UVM050323-01D|ICV|1|VOAF|1|
Misc Info : VSTD050
Comment :
Method : /chem/VOA1.i/041905v1.b/VOA1-8260B-041905.m
Meth Date : 27-Apr-2005 15:12 tcl Quant Type: ISTD
Cal Date : 20-APR-2005 05:01 Cal File: 1g228.d
Als bottle: 25 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: CALsubL+.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (Uf/Vo) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	sample purged

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
M 1 Xylenes (total)	106				1016802	150.000	148
M 2 1,2-Dichloroethylene (total)	96				381947	100.000	107
M 135 1,3-Dichloropropylene	75				605590	100.000	99.1
3 Dichlorodifluoromethane	85	1.913	1.913	(0.369)	224144	50.0000	57.2
4 Chloromethane	50	2.034	2.034	(0.393)	263937	50.0000	59.0
5 Vinyl chloride	62	2.124	2.124	(0.410)	220882	50.0000	55.0
6 Bromomethane	94	2.386	2.386	(0.461)	131403	50.0000	55.2
7 Chloroethane	64	2.418	2.418	(0.467)	147181	50.0000	62.1
8 Trichlorofluoromethane	101	2.637	2.637	(0.509)	272400	50.0000	53.6
134 Ethyl Ether	59	2.760	2.760	(0.533)	195198	50.0000	49.2
10 Acetone	43	2.835	2.835	(0.547)	329457	250.000	249
15 Acetonitrile	41	2.963	2.963	(0.572)	728259	1250.00	1340
11 1,1-Dichloroethylene	61	3.006	3.006	(0.580)	304087	50.0000	50.6
128 Methyl acetate	43	3.139	3.139	(0.606)	934724	250.000	254
13 Iodomethane	142	3.182	3.182	(0.614)	1314573	250.000	242

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
17 Methylene chloride	84	3.273	3.273	(0.632)	189377	50.0000	47.6
14 Carbon disulfide	76	3.337	3.337	(0.644)	2554154	250.000	221
20 tert-Butyl methyl ether	73	3.412	3.412	(0.659)	626944	50.0000	52.4
21 trans-1,2-Dichloroethylene	96	3.513	3.513	(0.678)	177931	50.0000	52.7
23 Vinyl acetate	43	3.738	3.738	(0.722)	2281238	250.000	261
22 1,1-Dichloroethane	63	3.775	3.775	(0.729)	371337	50.0000	53.4
30 2-Butanone	43	4.031	4.031	(0.778)	603642	250.000	264
31 cis-1,2-Dichloroethylene	96	4.213	4.213	(0.813)	204016	50.0000	54.5
25 2,2-Dichloropropane	77	4.202	4.202	(0.811)	221581	50.0000	50.6
32 Chloroform	83	4.331	4.331	(0.836)	329115	50.0000	51.1
29 Bromochloromethane	128	4.437	4.437	(0.857)	95558	50.0000	50.7
$ 35 Dibromofluoromethane	113	4.480	4.480	(0.865)	185138	50.0000	49.8
36 1,1,1-Trichloroethane	97	4.683	4.683	(0.904)	246351	50.0000	51.0
129 Cyclohexane	56	4.769	4.769	(0.921)	349661	50.0000	45.4
34 1,1-Dichloropropene	75	4.811	4.811	(0.929)	250564	50.0000	49.4
131 n-Butyl alcohol	56	4.859	4.859	(0.938)	426667	5000.00	2480
33 Carbon tetrachloride	117	4.913	4.913	(0.948)	241114	50.0000	52.6
37 1,2-Dichloroethane	62	4.940	4.940	(0.954)	301575	50.0000	54.5
38 Benzene	78	5.004	5.004	(0.966)	770787	50.0000	49.8
* 40 Fluorobenzene	96	5.180	5.180	(1.000)	688947	50.0000	
39 Trichloroethylene	95	5.549	5.549	(1.071)	191104	50.0000	51.2
41 1,2-Dichloropropane	63	5.666	5.666	(1.094)	233985	50.0000	53.8
130 Methylcyclohexane	83	5.704	5.704	(1.101)	322106	50.0000	43.7
45 Bromodichloromethane	83	5.858	5.858	(1.131)	267248	50.0000	51.8
43 Dibromomethane	93	5.885	5.885	(1.136)	130903	50.0000	51.9
44 2-Chloroethylvinyl ether	63	6.136	6.136	(1.185)	719218	250.000	252
49 4-Methyl-2-pentanone	58	6.200	6.200	(0.755)	529160	250.000	262
46 cis-1,3-Dichloropropylene	75	6.371	6.371	(1.230)	313544	50.0000	49.6
$ 47 Toluene-d8	98	6.660	6.660	(0.811)	733516	50.0000	50.7
50 Toluene	92	6.735	6.735	(0.820)	483591	50.0000	49.6
53 trans-1,3-Dichloropropylene	75	6.852	6.852	(0.835)	292046	50.0000	49.5
54 1,1,2-Trichloroethane	83	7.012	7.012	(0.854)	152363	50.0000	51.6
55 2-Hexanone	43	7.060	7.060	(0.860)	936277	250.000	267
52 1,3-Dichloropropane	76	7.263	7.263	(0.885)	313818	50.0000	54.1
56 Tetrachloroethylene	164	7.434	7.434	(0.906)	133876	50.0000	48.4
57 Dibromochloromethane	129	7.531	7.531	(0.917)	211753	50.0000	54.8
59 1,2-Dibromoethane	107	7.750	7.750	(0.944)	183220	50.0000	53.7
* 61 Chlorobenzene-d5	117	8.209	8.209	(1.000)	480502	50.0000	
62 Chlorobenzene	112	8.246	8.246	(1.005)	523409	50.0000	49.9
60 1,1,1,2-Tetrachloroethane	131	8.294	8.294	(1.010)	190134	50.0000	53.4
58 Ethylbenzene	91	8.343	8.343	(1.016)	887185	50.0000	49.0
63 m,p-Xylenes	106	8.433	8.433	(1.027)	668792	100.000	95.9
64 o-Xylene	106	8.909	8.909	(1.085)	348010	50.0000	52.0
65 Styrene	104	8.925	8.925	(1.087)	589439	50.0000	51.1
66 Bromoform	173	9.213	9.213	(0.845)	136857	50.0000	57.1
67 Isopropylbenzene	105	9.336	9.336	(0.856)	783322	50.0000	47.0
73 1,1,2,2-Tetrachloroethane	83	9.443	9.443	(0.866)	240842	50.0000	51.9

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
$ 71 Bromofluorobenzene	95	9.566	9.566	(0.877)	282318	50.0000	46.4
74 1,2,3-Trichloropropane	110	9.609	9.609	(0.881)	65400	50.0000	50.7
75 Bromobenzene	156	9.774	9.774	(0.897)	210985	50.0000	50.3
76 n-Propylbenzene	91	9.806	9.806	(0.900)	993015	50.0000	47.4
77 2-Chlorotoluene	91	9.972	9.972	(0.915)	665068	50.0000	49.2
78 1,3,5-Trimethylbenzene	105	9.999	9.999	(0.917)	672609	50.0000	46.3
80 4-Chlorotoluene	91	10.031	10.031	(0.920)	641593	50.0000	45.4
81 tert-Butylbenzene	119	10.410	10.410	(0.955)	662410	50.0000	48.8
79 1,2,4-Trimethylbenzene	105	10.442	10.442	(0.958)	682684	50.0000	45.8
83 sec-Butylbenzene	105	10.650	10.650	(0.977)	903754	50.0000	47.9
84 4-Isopropyltoluene	119	10.795	10.795	(0.990)	708977	50.0000	46.6
85 1,3-Dichlorobenzene	146	10.827	10.827	(0.993)	372165	50.0000	46.0
* 86 1,4-Dichlorobenzene-d4	152	10.901	10.901	(1.000)	240007	50.0000	
87 1,4-Dichlorobenzene	146	10.934	10.934	(1.003)	370586	50.0000	45.5
89 n-Butylbenzene	91	11.201	11.201	(1.027)	651275	50.0000	43.7
90 1,2-Dichlorobenzene	146	11.275	11.275	(1.034)	365593	50.0000	47.5
92 1,2-Dibromo-3-chloropropane	75	11.943	11.943	(1.096)	50397	50.0000	58.8(Q)
93 1,2,4-Trichlorobenzene	180	12.712	12.712	(1.166)	210358	50.0000	43.3
94 Hexachlorobutadiene	225	12.878	12.878	(1.181)	108545	50.0000	41.2
95 Naphthalene	128	12.905	12.905	(1.184)	682570	50.0000	47.6
96 1,2,3-Trichlorobenzene	180	13.145	13.145	(1.206)	218003	50.0000	45.3

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: /chem/VOA1.i/041905v1.b/1g237.d
Date : 20-APR-2005 03:53
Client ID: VSTD050
Sample Info: IUVH050323-01D|ICV1|1|VOAF|1|
Purge Volume: 5.0
Column phase: RTX-Volatiles

Instrument: VOA1.i
Operator: PAM
Column diameter: 0.25

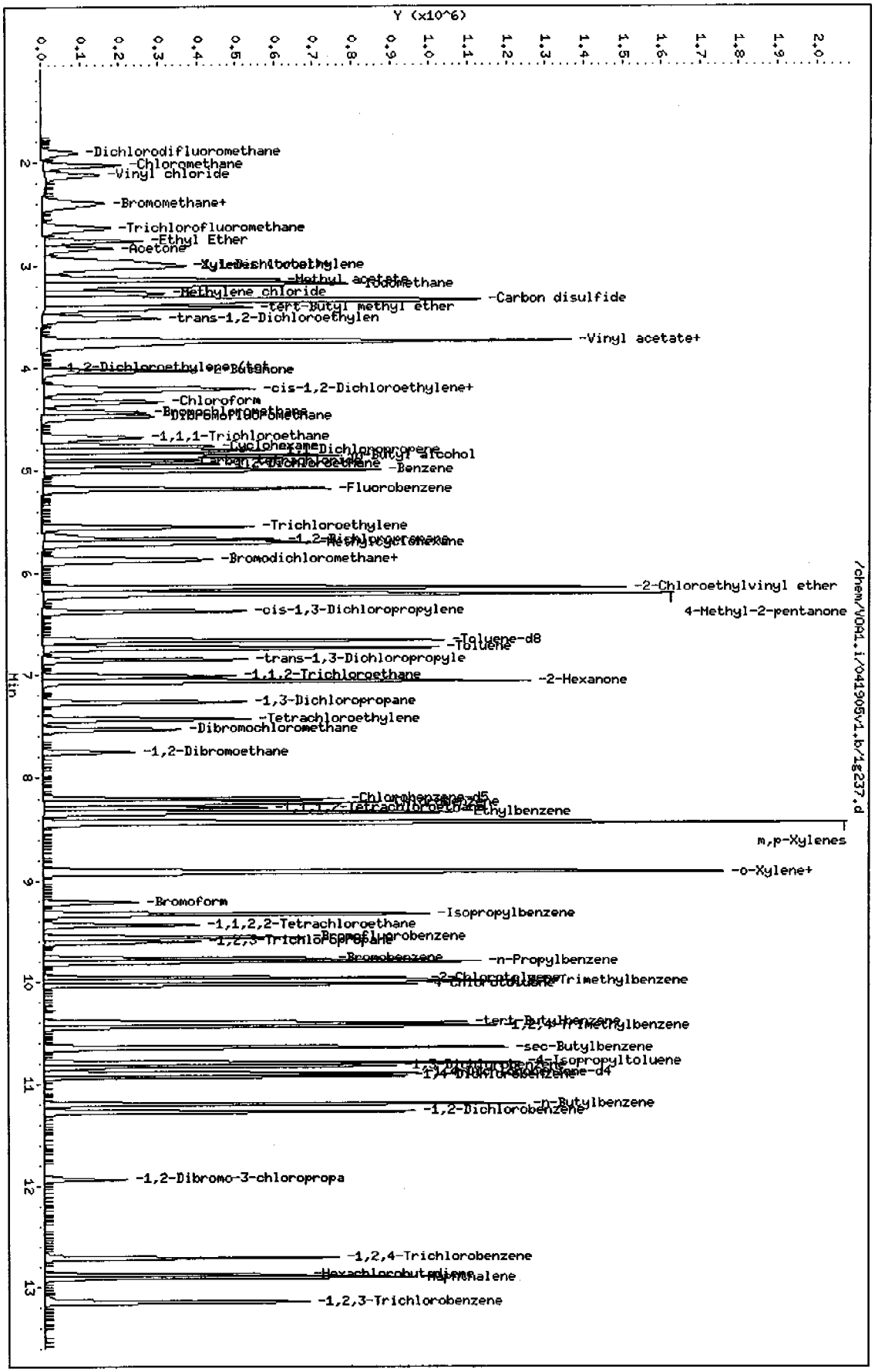

Page 1

Data File: /chem/VOA1.i/051305v1.b/1j502.d
Report Date: 17-May-2005 22:45

General Engineering Laboratories, LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA1.i
Lab File ID: 1j502.d
Analysis Type: WATER
Lab Sample ID: W1VM050513-01
Method: /chem/VOA1.i/051305v1.b/VOA1-8260B-041905.m

Injection Date: 13-MAY-2005 16:00
Init. Cal. Date(s): 20-APR-2005 20-APR-2005
Init. Cal. Times: 00:44 07:36
Quant Type: ISTD

	COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
M	1 Xylenes (total)	0.71589	0.82339	0.82339	0.050	15.01581	40.00000	Averaged	
M	2 1,2-Dichloroethylene (total	0.25835	0.29734	0.29734	0.050	15.09281	40.00000	Averaged	
M	135 1,3-Dichloropropylene	0.63881	0.60921	0.60921	0.050	-4.63345	40.00000	Averaged	
	3 Dichlorodifluoromethane	44.25109	50.00000	0.25049	0.050	-11.49781	40.00000	Linear	
	4 Chloromethane	0.32460	0.23619	0.23619	0.100	-27.23592	40.00000	Averaged	spcc
	5 Vinyl chloride	0.29117	0.23842	0.23842	0.050	-18.11616	20.00000	Averaged	ccc
	6 Bromomethane	59.02705	50.00000	0.20361	0.050	18.05410	40.00000	Linear	
	7 Chloroethane	0.17210	0.18525	0.18525	0.050	7.63826	40.00000	Averaged	
	8 Trichlorofluoromethane	0.36903	0.35624	0.35624	0.050	-3.46587	40.00000	Averaged	
	134 Ethyl Ether	0.28787	0.23008	0.23008	0.010	-20.07476	40.00000	Averaged	
	10 Acetone	0.09597	0.12373	0.12373	0.050	28.91879	40.00000	Averaged	
	15 Acetonitrile	0.03940	0.03959	0.03959	0.010	0.47772	40.00000	Averaged	
	11 1,1-Dichloroethylene	0.43648	0.44820	0.44820	0.050	2.68484	20.00000	Averaged	ccc
	128 Methyl acetate	0.26744	0.22754	0.22754	0.010	-14.91898	40.00000	Averaged	
	13 Iodomethane	0.39364	0.46199	0.46199	0.050	17.36472	40.00000	Averaged	
	17 Methylene chloride	0.28880	0.27898	0.27898	0.050	-3.39768	40.00000	Averaged	
	14 Carbon disulfide	0.83726	0.72306	0.72306	0.050	-13.64008	40.00000	Averaged	
	20 tert-Butyl methyl ether	0.86788	0.73980	0.73980	0.050	-14.75870	40.00000	Averaged	
	21 trans-1,2-Dichloroethylene	0.24513	0.28228	0.28228	0.050	15.15518	40.00000	Averaged	
	23 Vinyl acetate	0.63433	0.64134	0.64134	0.010	1.10448	40.00000	Averaged	
	22 1,1-Dichloroethane	0.50475	0.52918	0.52918	0.100	4.83917	40.00000	Averaged	spcc
	30 2-Butanone	0.16581	0.16729	0.16729	0.030	0.89104	40.00000	Averaged	
	31 cis-1,2-Dichloroethylene	0.27156	0.31239	0.31239	0.050	15.03651	40.00000	Averaged	
	25 2,2-Dichloropropane	0.31747	0.41731	0.41731	0.050	31.44949	40.00000	Averaged	
	32 Chloroform	0.46767	0.51063	0.51063	0.010	9.18506	20.00000	Averaged	ccc
	29 Bromochloromethane	54.61630	50.00000	0.14947	0.010	9.23260	40.00000	Linear	
$	35 Dibromofluoromethane	0.26952	0.26142	0.26142	0.010	-3.00610	40.00000	Averaged	
	36 1,1,1-Trichloroethane	0.35028	0.42903	0.42903	0.010	22.48253	40.00000	Averaged	
	129 Cyclohexane	0.55879	0.54803	0.54803	0.010	-1.92588	40.00000	Averaged	
	34 1,1-Dichloropropene	0.36768	0.42295	0.42295	0.010	15.03169	40.00000	Averaged	
	131 n-Butyl alcohol	1868	2500	0.00929	0.001	-25.29467	40.00000	Linear	
	33 Carbon tetrachloride	0.33279	0.43337	0.43337	0.010	30.22322	40.00000	Averaged	
	37 1,2-Dichloroethane	0.40124	0.40855	0.40855	0.010	1.82272	40.00000	Averaged	
	38 Benzene	1.12364	1.16952	1.16952	0.010	4.08293	40.00000	Averaged	
	39 Trichloroethylene	0.27075	0.30964	0.30964	0.010	14.36371	40.00000	Averaged	
	41 1,2-Dichloropropane	0.31574	0.30437	0.30437	0.010	-3.60001	20.00000	Averaged	ccc

General Engineering Laboratories, LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA1.i
Lab File ID: 1j502.d
Analysis Type: WATER
Lab Sample ID: W1VM050513-01 Quant Type: ISTD
Method: /chem/VOA1.i/051305v1.b/VOA1-8260B-041905.m

Injection Date: 13-MAY-2005 16:00
Init. Cal. Date(s): 20-APR-2005 20-APR-2005
Init. Cal. Times: 00:44 07:36

	COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
	130 Methylcyclohexane	0.53524	0.55016	0.55016	0.010	2.78823	40.00000	Averaged	
	45 Bromodichloromethane	0.37416	0.37848	0.37848	0.010	1.15549	40.00000	Averaged	
	43 Dibromomethane	0.18311	0.18562	0.18562	0.010	1.37368	40.00000	Averaged	
	44 2-Chloroethylvinyl ether	0.20682	0.14970	0.14970	0.001	-27.61861	40.00000	Averaged	
	49 4-Methyl-2-pentanone	0.20986	0.15448	0.15448	0.010	-26.39106	40.00000	Averaged	
	46 cis-1,3-Dichloropropylene	0.45903	0.47663	0.47663	0.010	3.83416	40.00000	Averaged	
$	47 Toluene-d8	1.50590	1.35339	1.35339	0.010	-10.12736	40.00000	Averaged	
	50 Toluene	1.01451	1.01631	1.01631	0.010	0.17755	20.00000	Averaged	ccc
	53 trans-1,3-Dichloropropylene	0.61400	0.57219	0.57219	0.010	-6.80981	40.00000	Averaged	
	54 1,1,2-Trichloroethane	0.30747	0.28294	0.28294	0.010	-7.97667	40.00000	Averaged	
	55 2-Hexanone	0.36489	0.33341	0.33341	0.010	-8.62850	40.00000	Averaged	
	52 1,3-Dichloropropane	0.60330	0.57416	0.57416	0.010	-4.83137	40.00000	Averaged	
	56 Tetrachloroethylene	0.28811	0.36547	0.36547	0.010	26.84889	40.00000	Averaged	
	57 Dibromochloromethane	0.40168	0.39011	0.39011	0.010	-2.88014	40.00000	Averaged	
	59 1,2-Dibromoethane	0.35477	0.33732	0.33732	0.010	-4.92003	40.00000	Averaged	
	62 Chlorobenzene	1.09170	1.11441	1.11441	0.300	2.07963	40.00000	Averaged	spcc
	60 1,1,1,2-Tetrachloroethane	0.37027	0.39830	0.39830	0.010	7.56953	40.00000	Averaged	
	58 Ethylbenzene	1.88333	1.91210	1.91210	0.010	1.52740	20.00000	Averaged	ccc
	63 m,p-Xylenes	0.72592	0.85044	0.85044	0.010	17.15250	40.00000	Averaged	
	64 o-Xylene	0.69582	0.76928	0.76928	0.010	10.55758	40.00000	Averaged	
	65 Styrene	1.20119	1.35011	1.35011	0.010	12.39767	40.00000	Averaged	
	66 Bromoform	0.49962	0.50121	0.50121	0.100	0.31958	40.00000	Averaged	spcc
	67 Isopropylbenzene	3.47015	3.35839	3.35839	0.010	-3.22083	40.00000	Averaged	
	73 1,1,2,2-Tetrachloroethane	0.96637	0.90253	0.90253	0.300	-6.60652	40.00000	Averaged	spcc
$	71 Bromofluorobenzene	1.26752	1.09612	1.09612	0.010	-13.52294	40.00000	Averaged	
	74 1,2,3-Trichloropropane	50.06221	50.00000	0.26908	0.010	0.12442	40.00000	Linear	
	75 Bromobenzene	0.87343	0.93374	0.93374	0.010	6.90499	40.00000	Averaged	
	76 n-Propylbenzene	4.36632	4.68408	4.68408	0.010	7.27743	40.00000	Averaged	
	77 2-Chlorotoluene	2.81838	2.92173	2.92173	0.010	3.66695	40.00000	Averaged	
	78 1,3,5-Trimethylbenzene	3.02516	3.18149	3.18149	0.010	5.16757	40.00000	Averaged	
	80 4-Chlorotoluene	2.94511	3.01426	3.01426	0.010	2.34783	40.00000	Averaged	
	81 tert-Butylbenzene	2.82499	3.09298	3.09298	0.010	9.48631	40.00000	Averaged	
	79 1,2,4-Trimethylbenzene	3.10145	3.19387	3.19387	0.010	2.97973	40.00000	Averaged	
	83 sec-Butylbenzene	3.92690	4.20247	4.20247	0.010	7.01738	40.00000	Averaged	
	84 4-Isopropyltoluene	3.16634	3.48171	3.48171	0.010	9.95980	40.00000	Averaged	

General Engineering Laboratories, LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA1.i Injection Date: 13-MAY-2005 16:00
Lab File ID: 1j502.d Init. Cal. Date(s): 20-APR-2005 20-APR-2005
Analysis Type: WATER Init. Cal. Times: 00:44 07:36
Lab Sample ID: W1VM050513-01 Quant Type: ISTD
Method: /chem/VOA1.i/051305v1.b/VOA1-8260B-041905.m

COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
85 1,3-Dichlorobenzene	1.68530	1.80969	1.80969	0.010	7.38088	40.00000	Averaged
87 1,4-Dichlorobenzene	1.69652	1.78998	1.78998	0.010	5.50905	40.00000	Averaged
89 n-Butylbenzene	3.10736	3.42468	3.42468	0.010	10.21199	40.00000	Averaged
90 1,2-Dichlorobenzene	1.60396	1.62042	1.62042	0.010	1.02610	40.00000	Averaged
92 1,2-Dibromo-3-chloropropane	0.17858	0.15167	0.15167	0.010	-15.07055	40.00000	Averaged
93 1,2,4-Trichlorobenzene	1.01103	0.98537	0.98537	0.010	-2.53880	40.00000	Averaged
94 Hexachlorobutadiene	0.54857	0.57783	0.57783	0.010	5.33463	40.00000	Averaged
95 Naphthalene	2.98722	2.29264	2.29264	0.010	-23.25168	40.00000	Averaged
96 1,2,3-Trichlorobenzene	1.00194	0.85653	0.85653	0.010	-14.51266	40.00000	Averaged

Average %D / Drift Results.

Calculated Average %D/Drift = 9.95997
Maximun Average %D/Drift = 20.00000
* Passed Average %D/Drift Test.

General Engineering Laboratories, LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/051305v1.b/1j502.d
Lab Smp Id: W1VM050513-01 Client Smp ID: VSTD050
Inj Date : 13-MAY-2005 16:00
Operator : PAM Inst ID: VOA1.i
Smp Info : |W1VM050513-01|CCVLCS|1|VOAF|1|
Misc Info : CCV 5mL N/A UVM050418-01D+IVM050512-01
Comment :
Method : /chem/VOA1.i/051305v1.b/VOA1-8260B-041905.m
Meth Date : 17-May-2005 22:45 tcl Quant Type: ISTD
Cal Date : 20-APR-2005 05:01 Cal File: 1g228.d
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: CALsubL+.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (Uf/Vo) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	sample purged

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
M 1 Xylenes (total)	106				1427565	150.000	172
M 2 1,2-Dichloroethylene (total)	96				465973	100.000	115
M 135 1,3-Dichloropropylene	75				704159	100.000	98.5
3 Dichlorodifluoromethane	85	1.896	1.896	(0.366)	196275	50.0000	44.2
4 Chloromethane	50	2.021	2.021	(0.390)	185072	50.0000	36.4
5 Vinyl chloride	62	2.123	2.123	(0.410)	186824	50.0000	40.9
6 Bromomethane	94	2.379	2.379	(0.459)	159542	50.0000	59.0
7 Chloroethane	64	2.406	2.406	(0.465)	145154	50.0000	53.8
8 Trichlorofluoromethane	101	2.636	2.636	(0.509)	279144	50.0000	48.3
134 Ethyl Ether	59	2.753	2.753	(0.532)	180283	50.0000	40.0
10 Acetone	43	2.828	2.828	(0.546)	484751	250.000	322
15 Acetonitrile	41	2.956	2.956	(0.571)	775569	1250.00	1260
11 1,1-Dichloroethylene	61	3.010	3.010	(0.581)	351201	50.0000	51.3
128 Methyl acetate	43	3.133	3.133	(0.605)	891474	250.000	213
13 Iodomethane	142	3.175	3.175	(0.613)	1810035	250.000	293

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
17 Methylene chloride	84	3.261	3.261	(0.630)	218606	50.0000	48.3
14 Carbon disulfide	76	3.346	3.346	(0.646)	2832855	250.000	216
20 tert-Butyl methyl ether	73	3.405	3.405	(0.658)	579687	50.0000	42.6
21 trans-1,2-Dichloroethylene	96	3.501	3.501	(0.676)	221189	50.0000	57.6
23 Vinyl acetate	43	3.731	3.731	(0.720)	2512694	250.000	253
22 1,1-Dichloroethane	63	3.763	3.763	(0.727)	414652	50.0000	52.4
30 2-Butanone	43	4.030	4.030	(0.778)	655410	250.000	252
31 cis-1,2-Dichloroethylene	96	4.206	4.206	(0.812)	244784	50.0000	57.5
25 2,2-Dichloropropane	77	4.196	4.196	(0.810)	326992	50.0000	65.7
32 Chloroform	83	4.329	4.329	(0.836)	400115	50.0000	54.6
29 Bromochloromethane	128	4.436	4.436	(0.857)	117118	50.0000	54.6
$ 35 Dibromofluoromethane	113	4.473	4.473	(0.864)	204839	50.0000	48.5
36 1,1,1-Trichloroethane	97	4.676	4.676	(0.903)	336180	50.0000	61.2
129 Cyclohexane	56	4.762	4.762	(0.920)	429426	50.0000	49.0
34 1,1-Dichloropropene	75	4.810	4.810	(0.929)	331413	50.0000	57.5
131 n-Butyl alcohol	56	4.858	4.858	(0.938)	364023	2500.00	1870
33 Carbon tetrachloride	117	4.906	4.906	(0.947)	339580	50.0000	65.1
37 1,2-Dichloroethane	62	4.938	4.938	(0.954)	320132	50.0000	50.9
38 Benzene	78	5.002	5.002	(0.966)	916406	50.0000	52.0
* 40 Fluorobenzene	96	5.179	5.179	(1.000)	783577	50.0000	
39 Trichloroethylene	95	5.547	5.547	(1.071)	242623	50.0000	57.2
41 1,2-Dichloropropane	63	5.665	5.665	(1.094)	238501	50.0000	48.2
130 Methylcyclohexane	83	5.702	5.702	(1.101)	431095	50.0000	51.4
45 Bromodichloromethane	83	5.862	5.862	(1.132)	296572	50.0000	50.6
43 Dibromomethane	93	5.884	5.884	(1.136)	145450	50.0000	50.7
44 2-Chloroethylvinyl ether	63	6.140	6.140	(1.186)	586491	250.000	181
49 4-Methyl-2-pentanone	58	6.204	6.204	(0.755)	446377	250.000	184
46 cis-1,3-Dichloropropylene	75	6.375	6.375	(1.231)	373475	50.0000	51.9
$ 47 Toluene-d8	98	6.658	6.658	(0.811)	782159	50.0000	44.9
50 Toluene	92	6.739	6.739	(0.820)	587351	50.0000	50.1
53 trans-1,3-Dichloropropylene	75	6.856	6.856	(0.835)	330684	50.0000	46.6
54 1,1,2-Trichloroethane	83	7.011	7.011	(0.854)	163519	50.0000	46.0
55 2-Hexanone	43	7.064	7.064	(0.860)	963425	250.000	228
52 1,3-Dichloropropane	76	7.267	7.267	(0.885)	331819	50.0000	47.6
56 Tetrachloroethylene	164	7.433	7.433	(0.905)	211213	50.0000	63.4
57 Dibromochloromethane	129	7.534	7.534	(0.917)	225453	50.0000	48.6
59 1,2-Dibromoethane	107	7.753	7.753	(0.944)	194943	50.0000	47.5
* 61 Chlorobenzene-d5	117	8.213	8.213	(1.000)	577925	50.0000	
62 Chlorobenzene	112	8.250	8.250	(1.005)	644044	50.0000	51.0
60 1,1,1,2-Tetrachloroethane	131	8.298	8.298	(1.010)	230187	50.0000	53.8
58 Ethylbenzene	91	8.341	8.341	(1.016)	1105048	50.0000	50.8
63 m,p-Xylenes	106	8.437	8.437	(1.027)	982976	100.000	117
64 o-Xylene	106	8.913	8.913	(1.085)	444589	50.0000	55.3
65 Styrene	104	8.929	8.929	(1.087)	780263	50.0000	56.2
66 Bromoform	173	9.223	9.223	(0.846)	152247	50.0000	50.2
67 Isopropylbenzene	105	9.340	9.340	(0.857)	1020130	50.0000	48.4
73 1,1,2,2-Tetrachloroethane	83	9.447	9.447	(0.867)	274149	50.0000	46.7

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
$ 71 Bromofluorobenzene	95	9.570	9.570	(0.878)	332952	50.0000	43.2
74 1,2,3-Trichloropropane	110	9.613	9.613	(0.882)	81736	50.0000	50.1
75 Bromobenzene	156	9.778	9.778	(0.897)	283630	50.0000	53.4
76 n-Propylbenzene	91	9.810	9.810	(0.900)	1422817	50.0000	53.6
77 2-Chlorotoluene	91	9.970	9.970	(0.915)	887493	50.0000	51.8
78 1,3,5-Trimethylbenzene	105	10.003	10.003	(0.918)	966396	50.0000	52.6
80 4-Chlorotoluene	91	10.035	10.035	(0.921)	915599	50.0000	51.2
81 tert-Butylbenzene	119	10.414	10.414	(0.955)	939511	50.0000	54.7
79 1,2,4-Trimethylbenzene	105	10.446	10.446	(0.958)	970156	50.0000	51.5
83 sec-Butylbenzene	105	10.649	10.649	(0.977)	1276524	50.0000	53.5
84 4-Isopropyltoluene	119	10.799	10.799	(0.991)	1057589	50.0000	55.0
85 1,3-Dichlorobenzene	146	10.831	10.831	(0.994)	549704	50.0000	53.7
* 86 1,4-Dichlorobenzene-d4	152	10.900	10.900	(1.000)	303756	50.0000	
87 1,4-Dichlorobenzene	146	10.932	10.932	(1.003)	543717	50.0000	52.8
89 n-Butylbenzene	91	11.205	11.205	(1.028)	1040267	50.0000	55.1
90 1,2-Dichlorobenzene	146	11.279	11.279	(1.035)	492211	50.0000	50.5
92 1,2-Dibromo-3-chloropropane	75	11.942	11.942	(1.096)	46070	50.0000	42.5(Q)
93 1,2,4-Trichlorobenzene	180	12.716	12.716	(1.167)	299311	50.0000	48.7
94 Hexachlorobutadiene	225	12.882	12.882	(1.182)	175520	50.0000	52.7
95 Naphthalene	128	12.909	12.909	(1.184)	696403	50.0000	38.4
96 1,2,3-Trichlorobenzene	180	13.149	13.149	(1.206)	260176	50.0000	42.7

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: /chem/VOA1.i/051305v1.b/1j502.d
Date : 13-MAY-2005 16:00
Client ID: VSTD050
Sample Info: IW1VH050513-01ICCVLCS1I1VOAFI1I
Purge Volume: 5.0
Column phase: RTX-Volatiles

Instrument: VOA1.i
Operator: PAM
Column diameter: 0.25

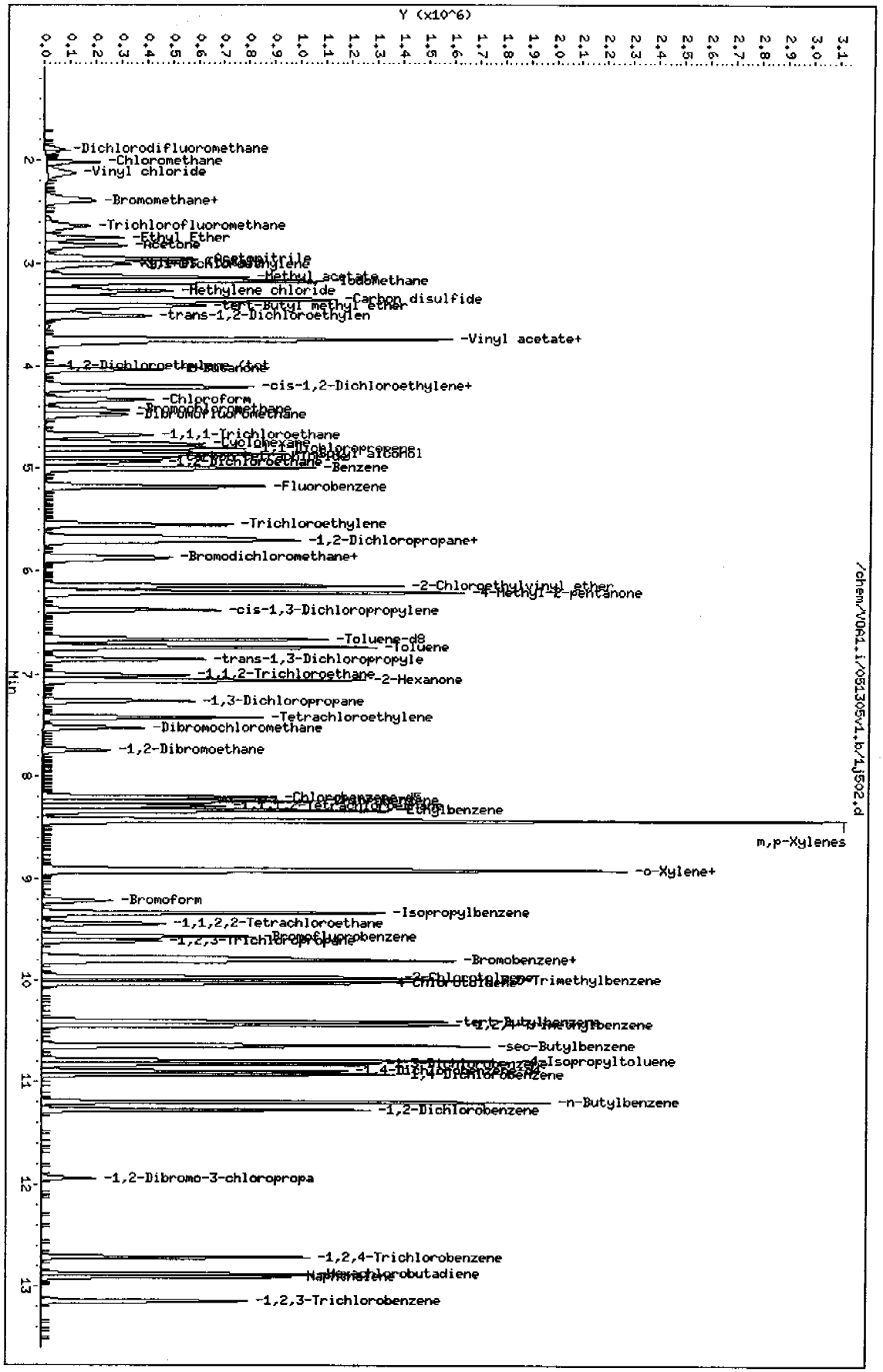

General Engineering Laboratories, LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA1.i
Lab File ID: 1j504.d
Analysis Type: WATER
Lab Sample ID: UVM050309-01B
Method: /chem/VOA1.i/051305v1.b/VOA1-8260B-041905.m

Injection Date: 13-MAY-2005 16:50
Init. Cal. Date(s): 20-APR-2005 20-APR-2005
Init. Cal. Times: 00:44 07:36
Quant Type: ISTD

	COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
	9 Acrolein	0.04329	0.03917	0.03917	0.001	-9.51771	40.00000	Averaged	
	12 Trichlorotrifluoroethane	0.08933	0.08908	0.08908	0.050	-0.28131	40.00000	Averaged	
	16 Allyl chloride	0.10961	0.08524	0.08524	0.010	-22.23209	40.00000	Averaged	
	18 Acrylonitrile	0.11740	0.07955	0.07955	0.010	-32.23871	40.00000	Averaged	
	24 2-Chloro-1,3-butadiene	0.37735	0.39748	0.39748	0.010	5.33427	40.00000	Averaged	
	28 Propionitrile	0.04249	0.03917	0.03917	0.010	-7.81883	40.00000	Averaged	
	26 Ethyl acetate	0.32185	0.28338	0.28338	0.010	-11.95302	40.00000	Averaged	
	27 Methacrylonitrile	0.20949	0.18812	0.18812	0.010	-10.20245	40.00000	Averaged	
	19 Isobutyl alcohol	0.01227	0.01114	0.01114	0.005	-9.17982	40.00000	Averaged	
	72 Tetrahydrofuran	208	250	0.27765	0.010	-16.75154	40.00000	Linear	
	42 Methyl methacrylate	0.20471	0.18356	0.18356	0.010	-10.33447	40.00000	Averaged	
	51 Ethyl methacrylate	0.63900	0.47834	0.47834	0.010	-25.14199	40.00000	Averaged	
	97 1,4-Dioxane	2291	2500	0.00260	0.001	-8.37949	40.00000	Linear	
	48 2-Nitropropane	0.11591	0.09122	0.09122	0.010	-21.29603	40.00000	Averaged	
	70 Cyclohexanone	0.01838	0.01393	0.01393	0.010	-24.21396	40.00000	Averaged	
	68 cis-1,4-Dichloro-2-butene	0.35315	0.33620	0.33620	0.010	-4.79938	40.00000	Averaged	
	69 trans-1,4-Dichloro-2-butene	0.24830	0.29375	0.29375	0.010	18.30782	40.00000	Averaged	
	82 Pentachloroethane	0.39068	0.53047	0.53047	0.010	35.78077	40.00000	Averaged	
	88 Benzyl chloride	1.30835	1.65988	1.65988	0.010	26.86797	40.00000	Averaged	
	91 bis(2-Chloroisopropyl)ether	0.58667	0.34131	0.34131	0.010	-41.82318	40.00000	Averaged	<-
$	35 Dibromofluoromethane	0.26952	0.28004	0.28004	0.010	3.90575	40.00000	Averaged	
$	47 Toluene-d8	1.50590	1.46983	1.46983	0.010	-2.39503	40.00000	Averaged	
$	71 Bromofluorobenzene	1.26752	1.20118	1.20118	0.010	-5.23401	40.00000	Averaged	

Average %D / Drift Results.

Calculated Average %D/Drift = 15.39085
Maximun Average %D/Drift = 20.00000
* Passed Average %D/Drift Test.

General Engineering Laboratories, LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/051305v1.b/1j504.d
Lab Smp Id: UVM050309-01B Client Smp ID: VSTD250S
Inj Date : 13-MAY-2005 16:50
Operator : PAM Inst ID: VOA1.i
Smp Info : |UVM050309-01B|SHORT|1|VOAF|1|
Misc Info : SHORT 5mL N/A VSTD250S
Comment :
Method : /chem/VOA1.i/051305v1.b/VOA1-8260B-041905.m
Meth Date : 16-May-2005 16:10 tcl Quant Type: ISTD
Cal Date : 20-APR-2005 05:01 Cal File: 1g228.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: CALsubS+SS.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (Uf/Vo) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	sample purged

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
9 Acrolein	56	2.786	2.786	(0.538)	163219	250.000	226
12 Trichlorotrifluoroethane	85	2.930	2.930	(0.566)	371175	250.000	249
16 Allyl chloride	76	3.202	3.202	(0.618)	355185	250.000	194
18 Acrylonitrile	53	3.272	3.272	(0.632)	331475	250.000	169
24 2-Chloro-1,3-butadiene	53	3.854	3.854	(0.744)	331232	50.0000	52.7
28 Propionitrile	54	4.020	4.020	(0.776)	163216	250.000	230
26 Ethyl acetate	43	4.169	4.169	(0.805)	1180747	250.000	220
27 Methacrylonitrile	41	4.201	4.201	(0.811)	783813	250.000	224
19 Isobutyl alcohol	41	4.292	4.292	(0.829)	464314	2500.00	2270
72 Tetrahydrofuran	42	4.490	4.490	(0.412)	376249	250.000	208
42 Methyl methacrylate	69	5.708	5.708	(1.102)	764818	250.000	224
* 40 Fluorobenzene	96	5.179	5.179	(1.000)	833330	50.0000	
51 Ethyl methacrylate	69	6.894	6.894	(0.840)	1396752	250.000	187
97 1,4-Dioxane	88	5.863	5.863	(1.132)	108245	2500.00	2290
48 2-Nitropropane	43	5.863	5.863	(1.132)	380091	250.000	197

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
* 61 Chlorobenzene-d5	117	8.208	8.208	(1.000)	583999	50.0000	
70 Cyclohexanone	55	9.287	9.287	(1.131)	203400	1250.00	947
68 cis-1,4-Dichloro-2-butene	53	9.298	9.298	(0.853)	455580	250.000	238
69 trans-1,4-Dichloro-2-butene	53	9.688	9.688	(0.889)	398067	250.000	296
82 Pentachloroethane	167	10.419	10.419	(0.956)	718837	250.000	339
* 86 1,4-Dichlorobenzene-d4	152	10.900	10.900	(1.000)	271020	50.0000	
88 Benzyl chloride	91	11.018	11.018	(1.011)	2249307	250.000	317
91 bis(2-Chloroisopropyl)ether	45	11.269	11.269	(1.034)	462504	250.000	145
$ 35 Dibromofluoromethane	113	4.474	4.474	(0.864)	233369	50.0000	52.0
$ 47 Toluene-d8	98	6.659	6.659	(0.811)	858381	50.0000	48.8
$ 71 Bromofluorobenzene	95	9.570	9.570	(0.878)	325544	50.0000	47.4

Data File: /chem/VOA1.i/051305v1.b/1j504.d
Date : 13-MAY-2005 16:50
Client ID: VSTD250S
Sample Info: IUWM050303-01B|SHORT|1|VOAF1|
Purge Volume: 5.0
Column phase: RTX-Volatiles

Instrument: VOA1.i
Operator: PAM
Column diameter: 0.25

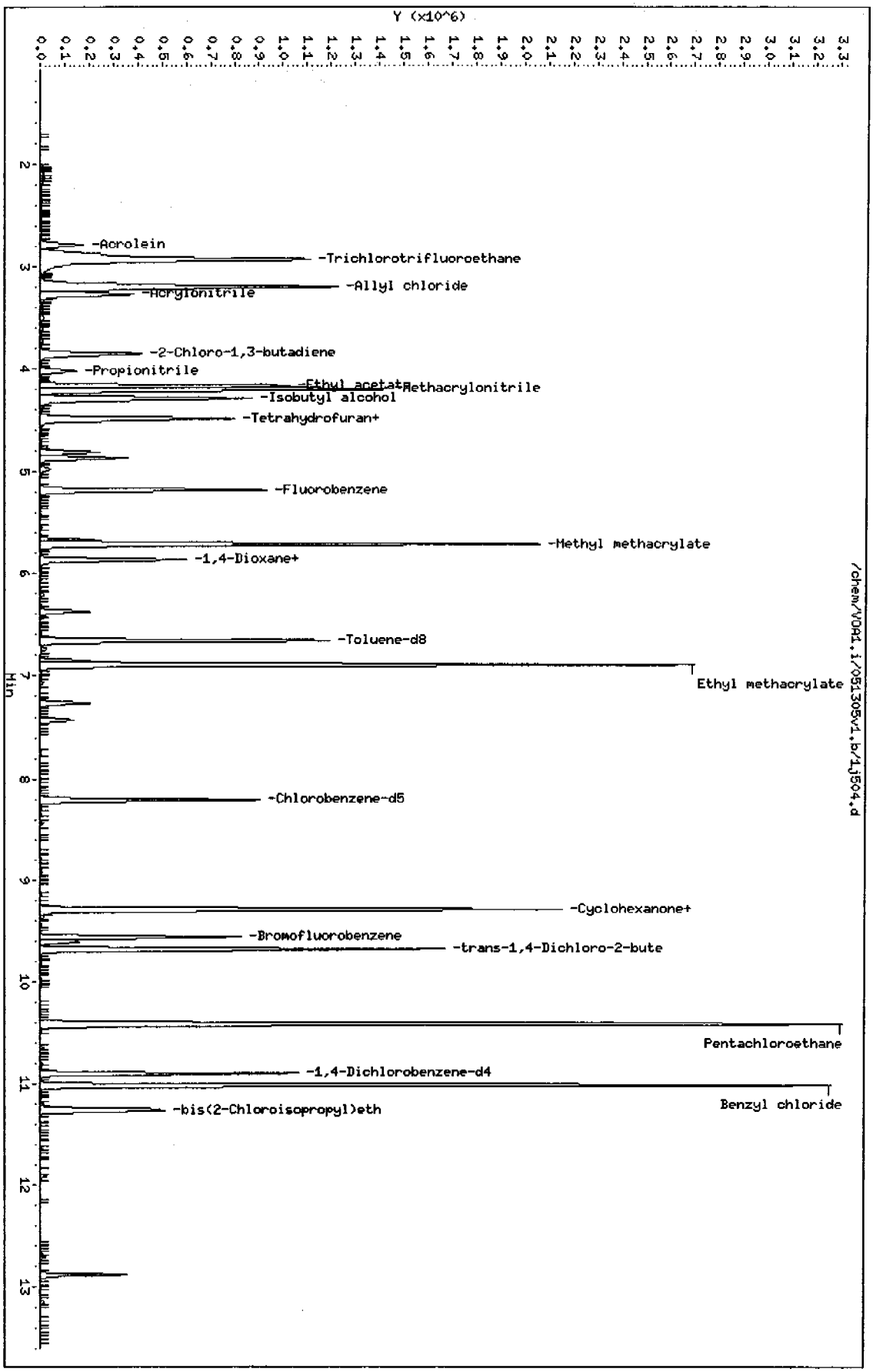

Page 1

QUALITY CONTROL DATA

Data File: /chem/VOA1.i/051305v1.b/1j501.d

Date : 13-MAY-2005 15:47

Client ID: BFB01

Instrument: VOA1.i

Sample Info: |UVM050303-04|BFB|1|VOAF|1|

Operator: PAM

Column phase: RTX-Volatiles

Column diameter: 0.25

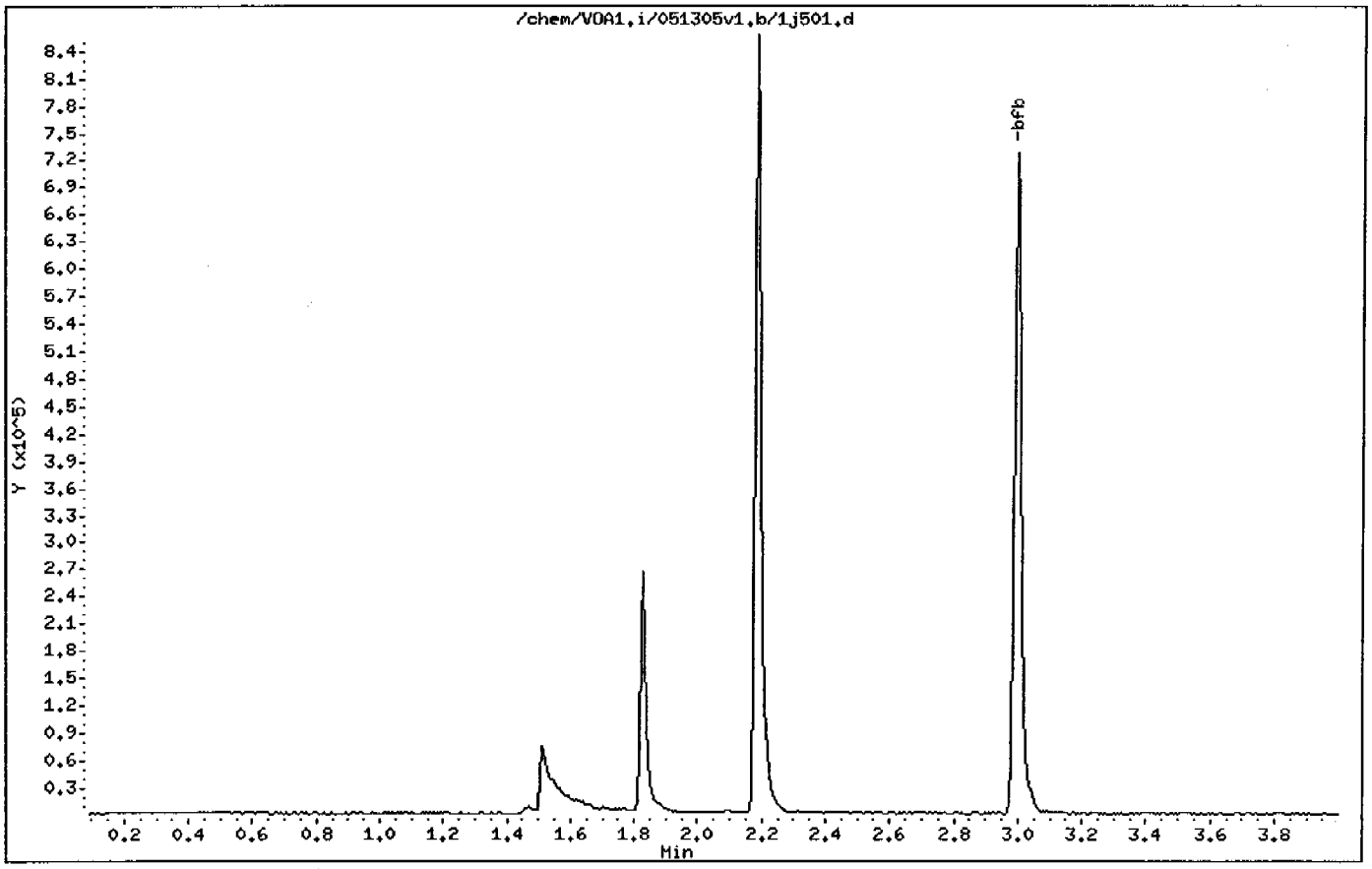

Data File: /chem/VOA1.i/051305v1.b/1j501.d

Date : 13-MAY-2005 15:47

Client ID: BFB01

Instrument: VOA1.i

Sample Info: |UVM050303-04|BFB|1|VOAF|1|

Operator: PAM

Column phase: RTX-Volatiles

Column diameter: 0.25

1 bfb

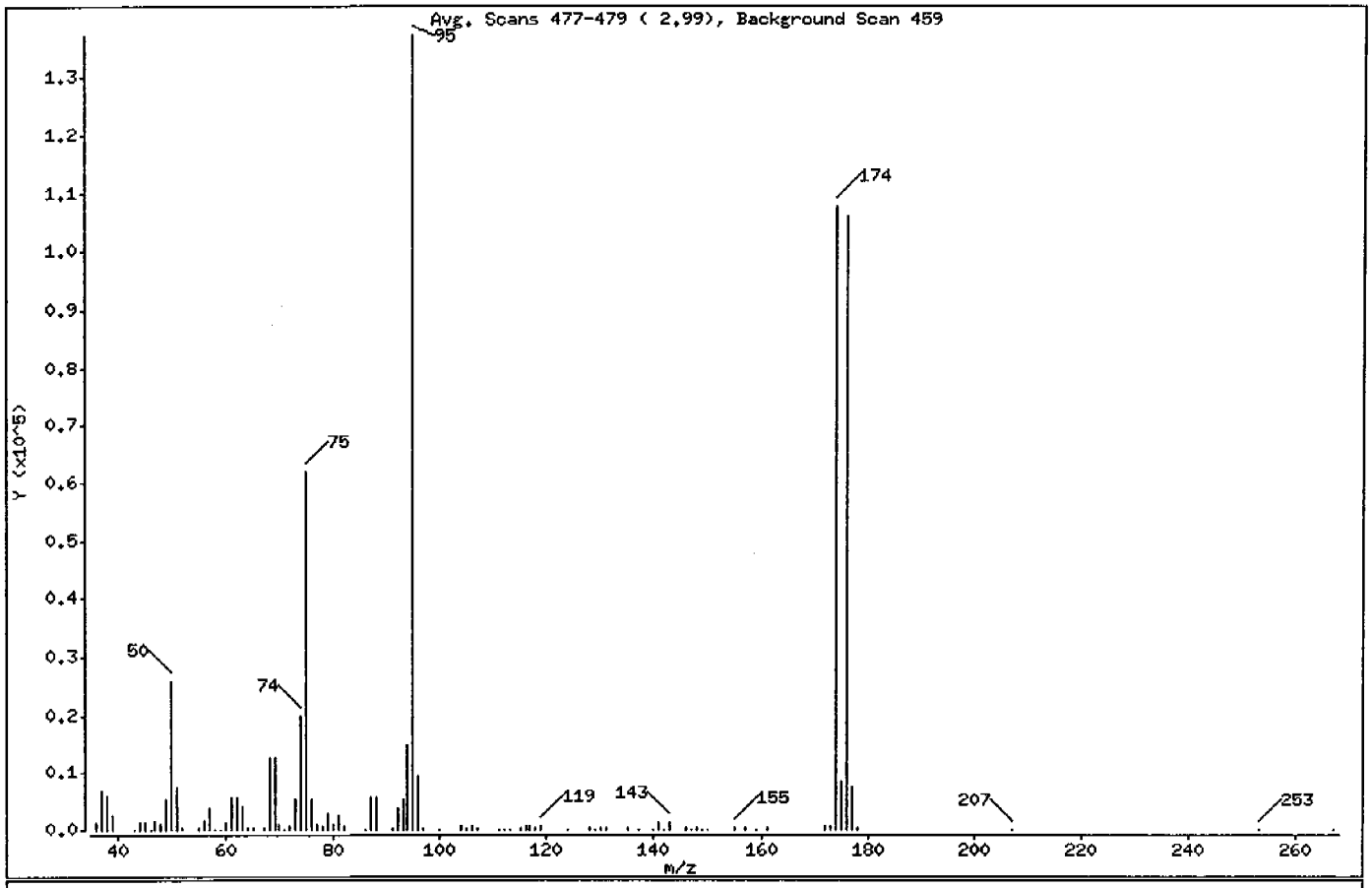

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	18.93
75	30.00 - 60.00% of mass 95	44.99
96	5.00 - 9.00% of mass 95	6.95
173	Less than 2.00% of mass 174	0.45 (0.58)
174	50.00 - 100.00% of mass 95	78.37
175	5.00 - 9.00% of mass 174	6.28 (8.01)
176	95.00 - 101.00% of mass 174	77.17 (98.47)
177	5.00 - 9.00% of mass 176	5.43 (7.03)

Data File: /chem/VOA1.i/051305v1.b/1j501.d

Date : 13-MAY-2005 15:47

Client ID: BFB01

Instrument: VOA1.i

Sample Info: |UVM050303-04|BFB|1|VOAF|1|

Operator: PAM

Column phase: RTX-Volatiles

Column diameter: 0.25

Data File: 1j501.d
Spectrum: Avg. Scans 477-479 (2.99), Background Scan 459
Location of Maximum: 95.00
Number of points: 94

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	1378	65.00	411	95.00	137344	141.00	1325
37.00	7003	67.00	291	96.00	9549	142.00	116
38.00	6062	68.00	12769	97.00	258	143.00	1353
39.00	2664	69.00	12727	100.00	107	146.00	175
43.00	66	70.00	1044	104.00	494	147.00	111
44.00	1136	71.00	54	105.00	241	148.00	447
45.00	1184	72.00	606	106.00	567	149.00	63
46.00	63	73.00	5234	107.00	263	150.00	139
47.00	1686	74.00	19960	111.00	68	155.00	339
48.00	804	75.00	61816	112.00	63	157.00	219
49.00	5346	76.00	5292	113.00	117	159.00	156
50.00	26008	77.00	813	115.00	198	161.00	162
51.00	7538	78.00	524	116.00	475	172.00	603
52.00	273	79.00	2802	117.00	676	173.00	623
55.00	356	80.00	941	118.00	410	174.00	107664
56.00	1735	81.00	2620	119.00	767	175.00	8622
57.00	3637	82.00	515	124.00	60	176.00	106016
58.00	50	86.00	121	128.00	433	177.00	7457
59.00	55	87.00	5801	129.00	76	178.00	239
60.00	1193	88.00	5761	130.00	470	207.00	51
61.00	5750	91.00	450	131.00	270	253.00	52
62.00	5720	92.00	3815	135.00	276	267.00	51
63.00	4041	93.00	5239	137.00	77		
64.00	412	94.00	14842	140.00	57		

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK01

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Matrix: (soil/water) SOIL Lab Sample ID: 1200846374

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 1J508LB

Level: (low/med) LOW Date Received: 04/19/05

% Moisture: not dec. _____ Date Analyzed: 05/13/05

GC Column: RTX-VOLATILES ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-71-8	Dichlorodifluoromethane	1.0	U
74-87-3	Chloromethane	1.0	U
75-01-4	Vinyl chloride	1.0	U
74-83-9	Bromomethane	1.0	U
75-00-3	Chloroethane	1.0	U
75-69-4	Trichlorofluoromethane	1.0	U
75-35-4	1,1-Dichloroethylene	1.0	U
67-64-1	Acetone	5.0	U
76-13-1	Trichlorotrifluoroethane	5.0	U
74-88-4	Iodomethane	5.0	U
75-15-0	Carbon disulfide	5.0	U
75-09-2	Methylene chloride	5.0	U
156-60-5	trans-1,2-Dichloroethylene	1.0	U
75-34-3	1,1-Dichloroethane	1.0	U
78-93-3	2-Butanone	5.0	U
156-59-2	cis-1,2-Dichloroethylene	1.0	U
594-20-7	2,2-Dichloropropane	1.0	U
74-97-5	Bromochloromethane	1.0	U
67-66-3	Chloroform	1.0	U
71-55-6	1,1,1-Trichloroethane	1.0	U
563-58-6	1,1-Dichloropropene	1.0	U
56-23-5	Carbon tetrachloride	1.0	U
107-06-2	1,2-Dichloroethane	1.0	U
71-43-2	Benzene	1.0	U
79-01-6	Trichloroethylene	1.0	U
78-87-5	1,2-Dichloropropane	1.0	U
74-95-3	Dibromomethane	1.0	U
75-27-4	Bromodichloromethane	1.0	U
10061-01-5	cis-1,3-Dichloropropylene	1.0	U
108-10-1	4-Methyl-2-pentanone	5.0	U
108-88-3	Toluene	1.0	U
10061-02-6	trans-1,3-Dichloropropylene	1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK01

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Matrix: (soil/water) SOIL Lab Sample ID: 1200846374

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 1J508LB

Level: (low/med) LOW Date Received: 04/19/05

% Moisture: not dec. _____ Date Analyzed: 05/13/05

GC Column: RTX-VOLATILES ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
142-28-9	1,3-Dichloropropane	1.0	U
591-78-6	2-Hexanone	5.0	U
127-18-4	Tetrachloroethylene	1.0	U
124-48-1	Dibromochloromethane	1.0	U
106-93-4	1,2-Dibromoethane	1.0	U
108-90-7	Chlorobenzene	1.0	U
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U
100-41-4	Ethylbenzene	1.0	U
95-47-6	o-Xylene	1.0	U
	m,p-Xylenes	2.0	U
100-42-5	Styrene	1.0	U
75-25-2	Bromoform	1.0	U
98-82-8	Isopropylbenzene	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U
96-18-4	1,2,3-Trichloropropane	1.0	U
108-86-1	Bromobenzene	1.0	U
103-65-1	n-Propylbenzene	1.0	U
95-49-8	2-Chlorotoluene	1.0	U
108-67-8	1,3,5-Trimethylbenzene	1.0	U
95-63-6	1,2,4-Trimethylbenzene	1.0	U
106-43-4	4-Chlorotoluene	1.0	U
98-06-6	tert-Butylbenzene	1.0	U
135-98-8	sec-Butylbenzene	1.0	U
99-87-6	4-Isopropyltoluene	1.0	U
541-73-1	1,3-Dichlorobenzene	1.0	U
106-46-7	1,4-Dichlorobenzene	1.0	U
104-51-8	n-Butylbenzene	1.0	U
95-50-1	1,2-Dichlorobenzene	1.0	U
96-12-8	1,2-Dibromo-3-chloropropane	1.0	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLK01

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Matrix: (soil/water) SOIL Lab Sample ID: 1200846374

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 1J508LB

Level: (low/med) LOW Date Received: 04/19/05

% Moisture: not dec. _____ Date Analyzed: 05/13/05

GC Column: RTX-VOLATILES ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.					
2.					
3.					
4.					
5.					
6.					
7.					
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27.					
28.					
29.					
30.					

FORM I VOA-TIC OLM03.0

General Engineering Laboratories, LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/051305v1.b/1j508LB.d
Lab Smp Id: 1200846374 Client Smp ID: VBLK01
Inj Date : 13-MAY-2005 19:21
Operator : PAM Inst ID: VOA1.i
Smp Info : |1200846374|425470|1|VOAF|1|
Misc Info : BLANK 5mL N/A VBLK01
Comment :
Method : /chem/VOA1.i/051305v1.b/VOA1-8260B-041905.m
Meth Date : 17-May-2005 22:45 tcl Quant Type: ISTD
Cal Date : 20-APR-2005 05:01 Cal File: 1g228.d
Als bottle: 7 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 3202S.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	0.00000	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
* 40 Fluorobenzene	96	5.179	5.179	(1.000)	779007	50.0000	
* 61 Chlorobenzene-d5	117	8.213	8.213	(1.000)	570598	50.0000	
* 86 1,4-Dichlorobenzene-d4	152	10.906	10.900	(1.000)	252696	50.0000	
$ 35 Dibromofluoromethane	113	4.479	4.473	(0.865)	200524	47.7539	47.8
$ 47 Toluene-d8	98	6.659	6.658	(0.811)	801340	46.6295	46.6
$ 71 Bromofluorobenzene	95	9.570	9.570	(0.878)	281176	43.8929	43.9

General Engineering Laboratories, LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/051305v1.b/1j508LB.d
Lab Smp Id: 1200846374 Client Smp ID: VBLK01
Inj Date : 13-MAY-2005 19:21
Operator : PAM Inst ID: VOA1.i
Smp Info : |1200846374|425470|1|VOAF|1|
Misc Info : BLANK 5mL N/A VBLK01
Comment :
Method : /chem/VOA1.i/051305v1.b/VOA1-8260B-041905.m
Meth Date : 17-May-2005 22:45 tcl Quant Type: ISTD
Cal Date : 20-APR-2005 05:01 Cal File: 1g228.d
Als bottle: 7 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 3202S.sub
Target Version: 3.50
Processing Host: prdsvr07

- NO TENTATIVELY IDENTIFIED COMPOUNDS -

Data File: /chem/VOA1.i/051305v1.b/1j508LB.d
Date : 13-MAY-2005 19:21
Client ID: VBLK01
Sample Info: |120084637414254701|VOAF1|

Column phase: RTX-Volatiles

Instrument: VOA1.i

Operator: PAM
Column diameter: 0.25

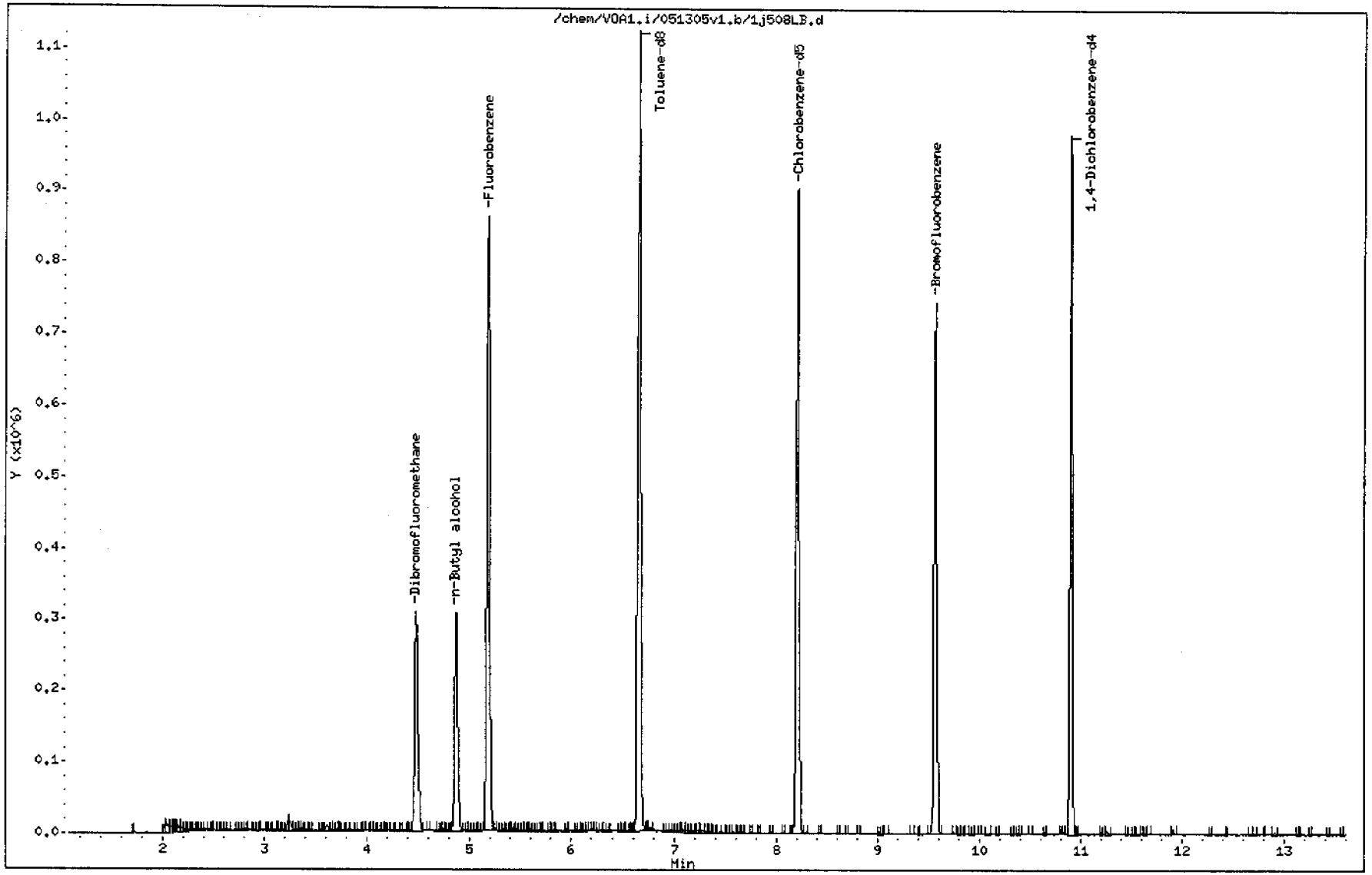

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK01LCS

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Matrix: (soil/water) SOIL Lab Sample ID: 1200846405

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 1J502LCSLB

Level: (low/med) LOW Date Received: 04/19/05

% Moisture: not dec. _____ Date Analyzed: 05/13/05

GC Column: RTX-VOLATILES ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-71-8	Dichlorodifluoromethane	44.2	
74-87-3	Chloromethane	36.4	
75-01-4	Vinyl chloride	40.9	
74-83-9	Bromomethane	59.0	
75-00-3	Chloroethane	53.8	
75-69-4	Trichlorofluoromethane	48.3	
75-35-4	1,1-Dichloroethylene	51.3	
67-64-1	Acetone	322	
76-13-1	Trichlorotrifluoroethane	5.0	U
74-88-4	Iodomethane	293	
75-15-0	Carbon disulfide	216	
75-09-2	Methylene chloride	48.3	
156-60-5	trans-1,2-Dichloroethylene	57.6	
75-34-3	1,1-Dichloroethane	52.4	
78-93-3	2-Butanone	252	
156-59-2	cis-1,2-Dichloroethylene	57.5	
594-20-7	2,2-Dichloropropane	65.7	
74-97-5	Bromochloromethane	54.6	
67-66-3	Chloroform	54.6	
71-55-6	1,1,1-Trichloroethane	61.2	
563-58-6	1,1-Dichloropropene	57.5	
56-23-5	Carbon tetrachloride	65.1	
107-06-2	1,2-Dichloroethane	50.9	
71-43-2	Benzene	52.0	
79-01-6	Trichloroethylene	57.2	
78-87-5	1,2-Dichloropropane	48.2	
74-95-3	Dibromomethane	50.7	
75-27-4	Bromodichloromethane	50.6	
10061-01-5	cis-1,3-Dichloropropylene	51.9	
108-10-1	4-Methyl-2-pentanone	184	
108-88-3	Toluene	50.1	
10061-02-6	trans-1,3-Dichloropropylene	46.6	
79-00-5	1,1,2-Trichloroethane	46.0	

FORM I VOA OLM03.0

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK01LCS

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Matrix: (soil/water) SOIL Lab Sample ID: 1200846405

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 1J502LCSLB

Level: (low/med) LOW Date Received: 04/19/05

% Moisture: not dec. _____ Date Analyzed: 05/13/05

GC Column: RTX-VOLATILES ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
142-28-9	1,3-Dichloropropane	47.6	
591-78-6	2-Hexanone	228	
127-18-4	Tetrachloroethylene	63.4	
124-48-1	Dibromochloromethane	48.6	
106-93-4	1,2-Dibromoethane	47.5	
108-90-7	Chlorobenzene	51.0	
630-20-6	1,1,1,2-Tetrachloroethane	53.8	
100-41-4	Ethylbenzene	50.8	
95-47-6	o-Xylene	55.3	
	m,p-Xylenes	117	
100-42-5	Styrene	56.2	
75-25-2	Bromoform	50.2	
98-82-8	Isopropylbenzene	48.4	
79-34-5	1,1,2,2-Tetrachloroethane	46.7	
96-18-4	1,2,3-Trichloropropane	50.1	
108-86-1	Bromobenzene	53.4	
103-65-1	n-Propylbenzene	53.6	
95-49-8	2-Chlorotoluene	51.8	
108-67-8	1,3,5-Trimethylbenzene	52.6	
95-63-6	1,2,4-Trimethylbenzene	51.5	
106-43-4	4-Chlorotoluene	51.2	
98-06-6	tert-Butylbenzene	54.7	
135-98-8	sec-Butylbenzene	53.5	
99-87-6	4-Isopropyltoluene	55.0	
541-73-1	1,3-Dichlorobenzene	53.7	
106-46-7	1,4-Dichlorobenzene	52.8	
104-51-8	n-Butylbenzene	55.1	
95-50-1	1,2-Dichlorobenzene	50.5	
96-12-8	1,2-Dibromo-3-chloropropane	42.5	

FORM I VOA OLM03.0

General Engineering Laboratories, LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/051305v1.b/1j502LCSLB.d
Lab Smp Id: 1200846405 Client Smp ID: VBLK01LCS
Inj Date : 13-MAY-2005 16:00
Operator : PAM Inst ID: VOA1.i
Smp Info : |1200846405|425470|1|VOAF|1|
Misc Info : CCV 5mL N/A UVM050418-01D+IVM050512-01
Comment :
Method : /chem/VOA1.i/051305v1.b/VOA1-8260B-041905.m
Meth Date : 16-May-2005 17:01 tcl Quant Type: ISTD
Cal Date : 20-APR-2005 05:01 Cal File: 1g228.d
Als bottle: 1 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 3202S.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	0.00000	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
* 40 Fluorobenzene	96	5.179	5.179	(1.000)	783577	50.0000	
* 61 Chlorobenzene-d5	117	8.213	8.213	(1.000)	577925	50.0000	
* 86 1,4-Dichlorobenzene-d4	152	10.900	10.900	(1.000)	303756	50.0000	
$ 35 Dibromofluoromethane	113	4.473	4.473	(0.864)	204839	48.4969	48.5
$ 47 Toluene-d8	98	6.658	6.658	(0.811)	782159	44.9363	44.9
$ 71 Bromofluorobenzene	95	9.570	9.570	(0.878)	332952	43.2385	43.2
3 Dichlorodifluoromethane	85	1.896	1.896	(0.366)	196275	44.2511	44.2
4 Chloromethane	50	2.021	2.021	(0.390)	185072	36.3820	36.4
5 Vinyl chloride	62	2.123	2.123	(0.410)	186824	40.9419	40.9
6 Bromomethane	94	2.379	2.379	(0.459)	159542	59.0270	59.0
7 Chloroethane	64	2.406	2.406	(0.465)	145154	53.8191	53.8
8 Trichlorofluoromethane	101	2.636	2.636	(0.509)	279144	48.2671	48.3

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
11 1,1-Dichloroethylene	61	3.010	3.010	(0.581)	351201	51.3424	51.3
10 Acetone	43	2.828	2.828	(0.546)	484751	322.297	322
14 Carbon disulfide	76	3.346	3.346	(0.646)	2832855	215.900	216
17 Methylene chloride	84	3.261	3.261	(0.630)	218606	48.3012	48.3
21 trans-1,2-Dichloroethylene	96	3.501	3.501	(0.676)	221189	57.5776	57.6
22 1,1-Dichloroethane	63	3.763	3.763	(0.727)	414652	52.4196	52.4
31 cis-1,2-Dichloroethylene	96	4.206	4.206	(0.812)	244784	57.5183	57.5
32 Chloroform	83	4.329	4.329	(0.836)	400115	54.5925	54.6
37 1,2-Dichloroethane	62	4.938	4.938	(0.954)	320132	50.9114	50.9
30 2-Butanone	43	4.030	4.030	(0.778)	655410	252.228	252
36 1,1,1-Trichloroethane	97	4.676	4.676	(0.903)	336180	61.2413	61.2
87 1,4-Dichlorobenzene	146	10.932	10.932	(1.003)	543717	52.7545	52.8
85 1,3-Dichlorobenzene	146	10.831	10.831	(0.994)	549704	53.6904	53.7
90 1,2-Dichlorobenzene	146	11.279	11.279	(1.035)	492211	50.5131	50.5
33 Carbon tetrachloride	117	4.906	4.906	(0.947)	339580	65.1116	65.1
38 Benzene	78	5.002	5.002	(0.966)	916406	52.0415	52.0
39 Trichloroethylene	95	5.547	5.547	(1.071)	242623	57.1819	57.2
41 1,2-Dichloropropane	63	5.665	5.665	(1.094)	238501	48.2000	48.2
45 Bromodichloromethane	83	5.862	5.862	(1.132)	296572	50.5777	50.6
46 cis-1,3-Dichloropropylene	75	6.375	6.375	(1.231)	373475	51.9171	51.9
53 trans-1,3-Dichloropropylene	75	6.856	6.856	(0.835)	330684	46.5951	46.6
54 1,1,2-Trichloroethane	83	7.011	7.011	(0.854)	163519	46.0117	46.0
57 Dibromochloromethane	129	7.534	7.534	(0.917)	225453	48.5599	48.6
49 4-Methyl-2-pentanone	58	6.204	6.204	(0.755)	446377	184.022	184
50 Toluene	92	6.739	6.739	(0.820)	587351	50.0888	50.1
56 Tetrachloroethylene	164	7.433	7.433	(0.905)	211213	63.4244	63.4
55 2-Hexanone	43	7.064	7.064	(0.860)	963425	228.429	228
59 1,2-Dibromoethane	107	7.753	7.753	(0.944)	194943	47.5400	47.5
62 Chlorobenzene	112	8.250	8.250	(1.005)	644044	51.0398	51.0
58 Ethylbenzene	91	8.341	8.341	(1.016)	1105048	50.7637	50.8
63 m,p-Xylenes	106	8.437	8.437	(1.027)	982976	117.152	117
65 Styrene	104	8.929	8.929	(1.087)	780263	56.1988	56.2
64 o-Xylene	106	8.913	8.913	(1.085)	444589	55.2788	55.3
67 Isopropylbenzene	105	9.340	9.340	(0.857)	1020130	48.3896	48.4
66 Bromoform	173	9.223	9.223	(0.846)	152247	50.1598	50.2
73 1,1,2,2-Tetrachloroethane	83	9.447	9.447	(0.867)	274149	46.6967	46.7
92 1,2-Dibromo-3-chloropropane	75	11.942	11.942	(1.096)	46070	42.4647	42.5(Q)
60 1,1,1,2-Tetrachloroethane	131	8.298	8.298	(1.010)	230187	53.7848	53.8
34 1,1-Dichloropropene	75	4.810	4.810	(0.929)	331413	57.5158	57.5
25 2,2-Dichloropropane	77	4.196	4.196	(0.810)	326992	65.7247	65.7
80 4-Chlorotoluene	91	10.035	10.035	(0.921)	915599	51.1739	51.2
75 Bromobenzene	156	9.778	9.778	(0.897)	283630	53.4525	53.4
81 tert-Butylbenzene	119	10.414	10.414	(0.955)	939511	54.7432	54.7
83 sec-Butylbenzene	105	10.649	10.649	(0.977)	1276524	53.5087	53.5
76 n-Propylbenzene	91	9.810	9.810	(0.900)	1422817	53.6387	53.6
89 n-Butylbenzene	91	11.205	11.205	(1.028)	1040267	55.1060	55.1
13 Iodomethane	142	3.175	3.175	(0.613)	1810035	293.412	293

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
43 Dibromomethane	93	5.884	5.884	(1.136)	145450	50.6868	50.7
29 Bromochloromethane	128	4.436	4.436	(0.857)	117118	54.6163	54.6
84 4-Isopropyltoluene	119	10.799	10.799	(0.991)	1057589	54.9799	55.0
77 2-Chlorotoluene	91	9.970	9.970	(0.915)	887493	51.8335	51.8
52 1,3-Dichloropropane	76	7.267	7.267	(0.885)	331819	47.5843	47.6
78 1,3,5-Trimethylbenzene	105	10.003	10.003	(0.918)	966396	52.5838	52.6
74 1,2,3-Trichloropropane	110	9.613	9.613	(0.882)	81736	50.0622	50.1
79 1,2,4-Trimethylbenzene	105	10.446	10.446	(0.958)	970156	51.4899	51.5

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: /chem/VOA1.i/051305v1.b/1j502LCSLB.d
Date : 13-MAY-2005 16:00
Client ID: VBLK01LCS
Sample Info: 1120084640514254701|1|VOAF1|1
Column phase: RTX-Volatiles

Instrument: VOA1.i
Operator: PAM
Column diameter: 0.25

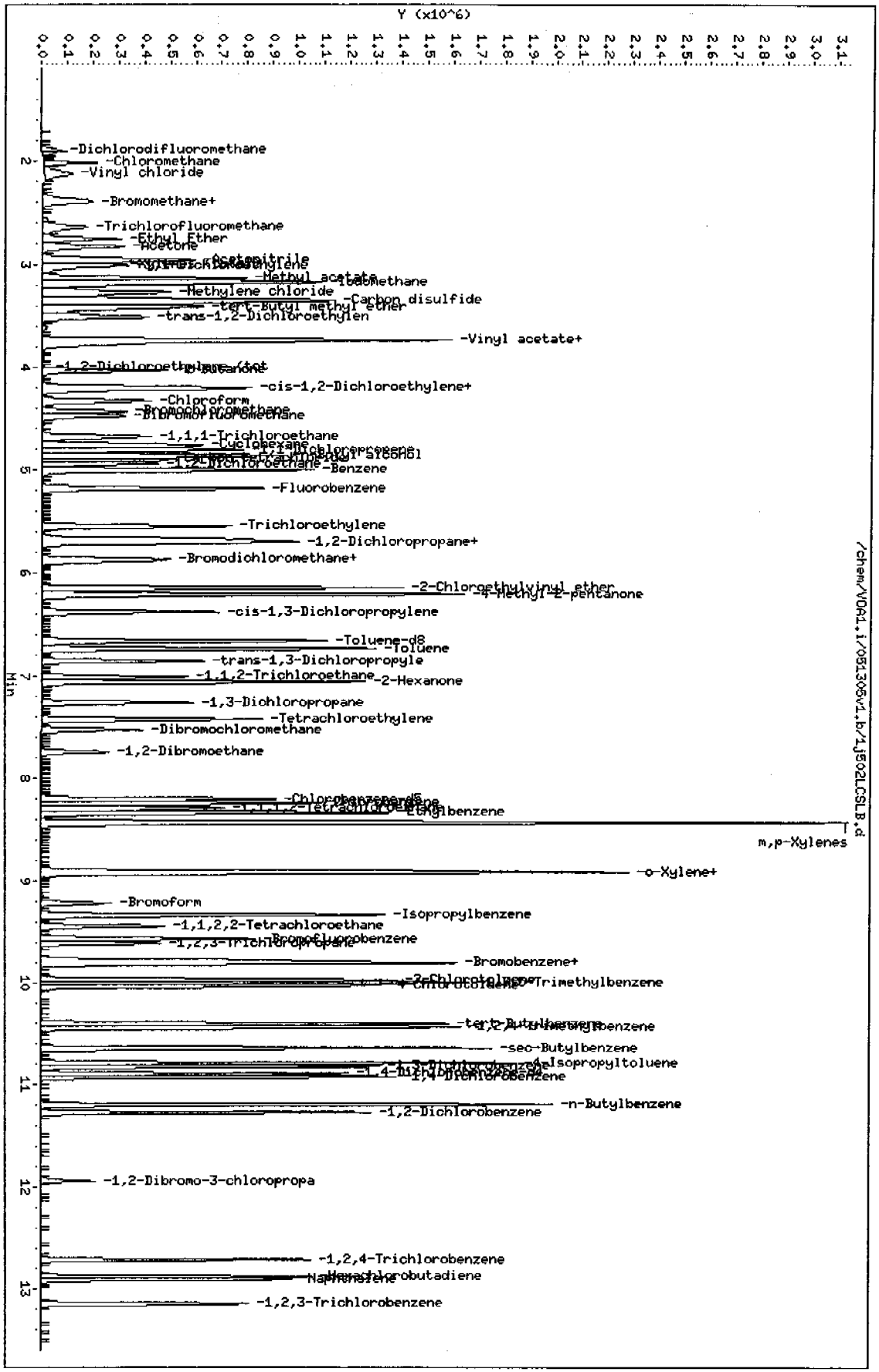

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK01SLCS

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Matrix: (soil/water) SOIL Lab Sample ID: 1200846375

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 1J504SLCSLB

Level: (low/med) LOW Date Received: 04/19/05

% Moisture: not dec. _____ Date Analyzed: 05/13/05

GC Column: RTX-VOLATILES ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-71-8	Dichlorodifluoromethane	1.0	U
74-87-3	Chloromethane	1.0	U
75-01-4	Vinyl chloride	1.0	U
74-83-9	Bromomethane	1.0	U
75-00-3	Chloroethane	1.0	U
75-69-4	Trichlorofluoromethane	1.0	U
75-35-4	1,1-Dichloroethylene	1.0	U
67-64-1	Acetone	5.0	U
76-13-1	Trichlorotrifluoroethane	249	
74-88-4	Iodomethane	5.0	U
75-15-0	Carbon disulfide	5.0	U
75-09-2	Methylene chloride	5.0	U
156-60-5	trans-1,2-Dichloroethylene	1.0	U
75-34-3	1,1-Dichloroethane	1.0	U
78-93-3	2-Butanone	5.0	U
156-59-2	cis-1,2-Dichloroethylene	1.0	U
594-20-7	2,2-Dichloropropane	1.0	U
74-97-5	Bromochloromethane	1.0	U
67-66-3	Chloroform	1.0	U
71-55-6	1,1,1-Trichloroethane	1.0	U
563-58-6	1,1-Dichloropropene	1.0	U
56-23-5	Carbon tetrachloride	1.0	U
107-06-2	1,2-Dichloroethane	1.0	U
71-43-2	Benzene	1.0	U
79-01-6	Trichloroethylene	1.0	U
78-87-5	1,2-Dichloropropane	1.0	U
74-95-3	Dibromomethane	1.0	U
75-27-4	Bromodichloromethane	1.0	U
10061-01-5	cis-1,3-Dichloropropylene	1.0	U
108-10-1	4-Methyl-2-pentanone	5.0	U
108-88-3	Toluene	1.0	U
10061-02-6	trans-1,3-Dichloropropylene	1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	U

FORM I VOA OLM03.0

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK01SLCS

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Matrix: (soil/water) SOIL Lab Sample ID: 1200846375

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 1J504SLCSLB

Level: (low/med) LOW Date Received: 04/19/05

% Moisture: not dec. _____ Date Analyzed: 05/13/05

GC Column: RTX-VOLATILES ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
142-28-9	1,3-Dichloropropane	1.0	U
591-78-6	2-Hexanone	5.0	U
127-18-4	Tetrachloroethylene	1.0	U
124-48-1	Dibromochloromethane	1.0	U
106-93-4	1,2-Dibromoethane	1.0	U
108-90-7	Chlorobenzene	1.0	U
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U
100-41-4	Ethylbenzene	1.0	U
95-47-6	o-Xylene	1.0	U
	m,p-Xylenes	2.0	U
100-42-5	Styrene	1.0	U
75-25-2	Bromoform	1.0	U
98-82-8	Isopropylbenzene	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U
96-18-4	1,2,3-Trichloropropane	1.0	U
108-86-1	Bromobenzene	1.0	U
103-65-1	n-Propylbenzene	1.0	U
95-49-8	2-Chlorotoluene	1.0	U
108-67-8	1,3,5-Trimethylbenzene	1.0	U
95-63-6	1,2,4-Trimethylbenzene	1.0	U
106-43-4	4-Chlorotoluene	1.0	U
98-06-6	tert-Butylbenzene	1.0	U
135-98-8	sec-Butylbenzene	1.0	U
99-87-6	4-Isopropyltoluene	1.0	U
541-73-1	1,3-Dichlorobenzene	1.0	U
106-46-7	1,4-Dichlorobenzene	1.0	U
104-51-8	n-Butylbenzene	1.0	U
95-50-1	1,2-Dichlorobenzene	1.0	U
96-12-8	1,2-Dibromo-3-chloropropane	1.0	U

FORM I VOA OLM03.0

General Engineering Laboratories, LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/051305v1.b/1j504SLCSLB.d
Lab Smp Id: 1200846375 Client Smp ID: VBLK01SLCS
Inj Date : 13-MAY-2005 16:50
Operator : PAM Inst ID: VOA1.i
Smp Info : |1200846375|425470|1|VOAF|1|
Misc Info : SHORT 5mL N/A VBLK01SLCS UVM050309-01B
Comment :
Method : /chem/VOA1.i/051305v1.b/VOA1-8260B-041905.m
Meth Date : 16-May-2005 17:01 tcl Quant Type: ISTD
Cal Date : 20-APR-2005 05:01 Cal File: 1g228.d
Als bottle: 3 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 3202S.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	0.00000	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
* 40 Fluorobenzene	96	5.179	5.179	(1.000)	833330	50.0000	
* 61 Chlorobenzene-d5	117	8.208	8.213	(1.000)	583999	50.0000	
* 86 1,4-Dichlorobenzene-d4	152	10.900	10.900	(1.000)	271020	50.0000	
$ 35 Dibromofluoromethane	113	4.474	4.473	(0.864)	233369	51.9529	52.0
$ 47 Toluene-d8	98	6.659	6.658	(0.811)	858381	48.8025	48.8
$ 71 Bromofluorobenzene	95	9.570	9.570	(0.878)	325544	47.3830	47.4
12 Trichlorotrifluoroethane	85	2.930	2.930	(0.566)	371175	249.297	249

Data File: /chem/VOA1.i/051305v1.b/1J504SLCSLB.d
Date : 13-MAY-2005 16:50
Client ID: VBLK01SLCS
Sample Info: I120084637514254701 | VOAF!1 |
Column phase: RTX-Volatiles

Instrument: VOA1.i
Operator: PAM
Column diameter: 0.25

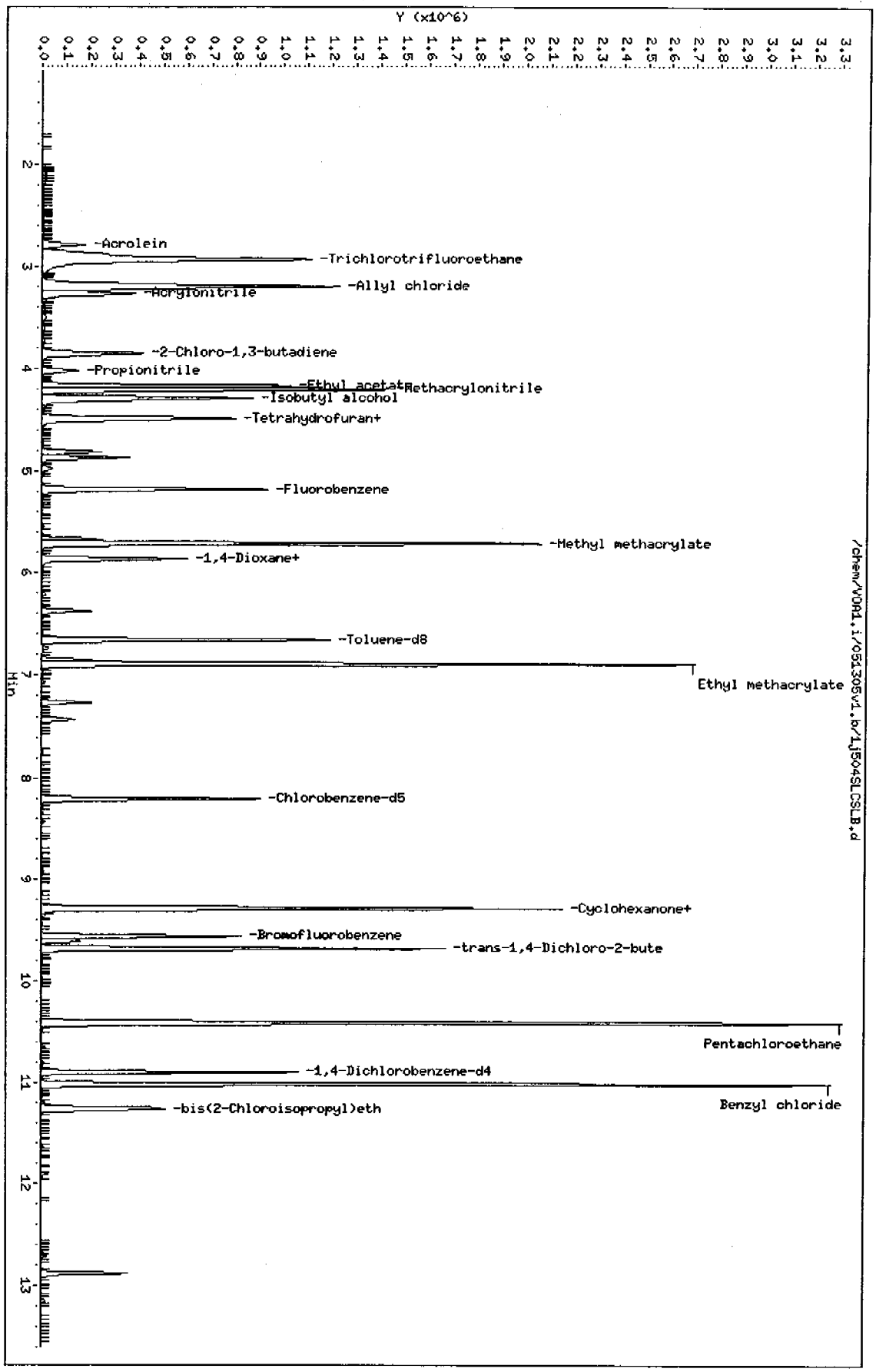

Page 1

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK01LCSD

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Matrix: (soil/water) SOIL Lab Sample ID: 1200846406

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 1J505LCSDLB

Level: (low/med) LOW Date Received: 04/19/05

% Moisture: not dec. _____ Date Analyzed: 05/13/05

GC Column: RTX-VOLATILES ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-71-8	Dichlorodifluoromethane	42.2	
74-87-3	Chloromethane	34.7	
75-01-4	Vinyl chloride	38.1	
74-83-9	Bromomethane	61.2	
75-00-3	Chloroethane	53.8	
75-69-4	Trichlorofluoromethane	47.1	
75-35-4	1,1-Dichloroethylene	50.9	
67-64-1	Acetone	324	
76-13-1	Trichlorotrifluoroethane	5.0	U
74-88-4	Iodomethane	293	
75-15-0	Carbon disulfide	219	
75-09-2	Methylene chloride	47.6	
156-60-5	trans-1,2-Dichloroethylene	58.0	
75-34-3	1,1-Dichloroethane	51.4	
78-93-3	2-Butanone	252	
156-59-2	cis-1,2-Dichloroethylene	55.9	
594-20-7	2,2-Dichloropropane	64.4	
74-97-5	Bromochloromethane	54.1	
67-66-3	Chloroform	54.7	
71-55-6	1,1,1-Trichloroethane	61.0	
563-58-6	1,1-Dichloropropene	57.9	
56-23-5	Carbon tetrachloride	65.0	
107-06-2	1,2-Dichloroethane	52.3	
71-43-2	Benzene	52.8	
79-01-6	Trichloroethylene	59.7	
78-87-5	1,2-Dichloropropane	50.1	
74-95-3	Dibromomethane	51.7	
75-27-4	Bromodichloromethane	50.9	
10061-01-5	cis-1,3-Dichloropropylene	53.5	
108-10-1	4-Methyl-2-pentanone	175	
108-88-3	Toluene	49.8	
10061-02-6	trans-1,3-Dichloropropylene	45.7	
79-00-5	1,1,2-Trichloroethane	44.7	

FORM I VOA OLM03.0

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK01LCSD

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Matrix: (soil/water) SOIL Lab Sample ID: 1200846406

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 1J505LCSDLB

Level: (low/med) LOW Date Received: 04/19/05

% Moisture: not dec. _____ Date Analyzed: 05/13/05

GC Column: RTX-VOLATILES ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
142-28-9	1,3-Dichloropropane	50.2	
591-78-6	2-Hexanone	217	
127-18-4	Tetrachloroethylene	64.9	
124-48-1	Dibromochloromethane	50.4	
106-93-4	1,2-Dibromoethane	50.3	
108-90-7	Chlorobenzene	53.6	
630-20-6	1,1,1,2-Tetrachloroethane	57.7	
100-41-4	Ethylbenzene	53.9	
95-47-6	o-Xylene	53.6	
	m,p-Xylenes	110	
100-42-5	Styrene	53.9	
75-25-2	Bromoform	50.7	
98-82-8	Isopropylbenzene	48.4	
79-34-5	1,1,2,2-Tetrachloroethane	46.7	
96-18-4	1,2,3-Trichloropropane	50.8	
108-86-1	Bromobenzene	54.0	
103-65-1	n-Propylbenzene	52.7	
95-49-8	2-Chlorotoluene	51.6	
108-67-8	1,3,5-Trimethylbenzene	52.5	
95-63-6	1,2,4-Trimethylbenzene	52.1	
106-43-4	4-Chlorotoluene	51.0	
98-06-6	tert-Butylbenzene	54.3	
135-98-8	sec-Butylbenzene	53.1	
99-87-6	4-Isopropyltoluene	56.5	
541-73-1	1,3-Dichlorobenzene	53.4	
106-46-7	1,4-Dichlorobenzene	53.3	
104-51-8	n-Butylbenzene	55.0	
95-50-1	1,2-Dichlorobenzene	51.5	
96-12-8	1,2-Dibromo-3-chloropropane	42.9	

FORM I VOA OLM03.0

General Engineering Laboratories, LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/051305v1.b/1j505LCSDLB.d
Lab Smp Id: 1200846406 Client Smp ID: VBLK01LCSD
Inj Date : 13-MAY-2005 18:06
Operator : PAM Inst ID: VOA1.i
Smp Info : |1200846406|425470|1|VOAF|1|
Misc Info : CCV 5mL N/A UVM050418-01D+IVM050512-01
Comment :
Method : /chem/VOA1.i/051305v1.b/VOA1-8260B-041905.m
Meth Date : 16-May-2005 17:01 tcl Quant Type: ISTD
Cal Date : 20-APR-2005 05:01 Cal File: 1g228.d
Als bottle: 4 QC Sample: LCSD
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 3202S.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	0.00000	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
* 40 Fluorobenzene	96	5.180	5.179	(1.000)	713840	50.0000	
* 61 Chlorobenzene-d5	117	8.209	8.213	(1.000)	549160	50.0000	
* 86 1,4-Dichlorobenzene-d4	152	10.901	10.900	(1.000)	282161	50.0000	
$ 35 Dibromofluoromethane	113	4.480	4.473	(0.865)	203768	52.9564	53.0
$ 47 Toluene-d8	98	6.660	6.658	(0.811)	820413	49.6030	49.6
$ 71 Bromofluorobenzene	95	9.571	9.570	(0.878)	337906	47.2403	47.2
3 Dichlorodifluoromethane	85	1.904	1.896	(0.368)	170518	42.2334	42.2
4 Chloromethane	50	2.017	2.021	(0.389)	160722	34.6819	34.7
5 Vinyl chloride	62	2.124	2.123	(0.410)	158473	38.1216	38.1
6 Bromomethane	94	2.380	2.379	(0.460)	150540	61.1930	61.2
7 Chloroethane	64	2.407	2.406	(0.465)	132319	53.8531	53.8
8 Trichlorofluoromethane	101	2.642	2.636	(0.510)	248140	47.0978	47.1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
11 1,1-Dichloroethylene	61	3.011	3.010	(0.581)	317418	50.9369	50.9
10 Acetone	43	2.829	2.828	(0.546)	443360	323.575	324(R)
14 Carbon disulfide	76	3.347	3.346	(0.646)	2623395	219.469	219
17 Methylene chloride	84	3.262	3.261	(0.630)	196092	47.5594	47.6
21 trans-1,2-Dichloroethylene	96	3.508	3.501	(0.677)	202986	58.0012	58.0
22 1,1-Dichloroethane	63	3.769	3.763	(0.728)	370794	51.4545	51.4
31 cis-1,2-Dichloroethylene	96	4.202	4.206	(0.811)	216746	55.9055	55.9
32 Chloroform	83	4.330	4.329	(0.836)	365419	54.7294	54.7
37 1,2-Dichloroethane	62	4.945	4.938	(0.955)	299438	52.2725	52.3
30 2-Butanone	43	4.031	4.030	(0.778)	597457	252.387	252
36 1,1,1-Trichloroethane	97	4.678	4.676	(0.903)	305342	61.0576	61.0
87 1,4-Dichlorobenzene	146	10.933	10.932	(1.003)	509943	53.2643	53.3
85 1,3-Dichlorobenzene	146	10.832	10.831	(0.994)	508190	53.4345	53.4
90 1,2-Dichlorobenzene	146	11.280	11.279	(1.035)	466436	51.5314	51.5
33 Carbon tetrachloride	117	4.907	4.906	(0.947)	308651	64.9628	65.0
38 Benzene	78	5.003	5.002	(0.966)	847052	52.8023	52.8
39 Trichloroethylene	95	5.548	5.547	(1.071)	230730	59.6913	59.7
41 1,2-Dichloropropane	63	5.671	5.665	(1.095)	225896	50.1125	50.1
45 Bromodichloromethane	83	5.864	5.862	(1.132)	271932	50.9062	50.9
46 cis-1,3-Dichloropropylene	75	6.376	6.375	(1.231)	350497	53.4828	53.5
53 trans-1,3-Dichloropropylene	75	6.857	6.856	(0.835)	308516	45.7485	45.7
54 1,1,2-Trichloroethane	83	7.012	7.011	(0.854)	151035	44.7250	44.7
57 Dibromochloromethane	129	7.536	7.534	(0.918)	222595	50.4557	50.4
49 4-Methyl-2-pentanone	58	6.205	6.204	(0.756)	403523	175.069	175
50 Toluene	92	6.740	6.739	(0.821)	554443	49.7591	49.8
56 Tetrachloroethylene	164	7.434	7.433	(0.906)	205406	64.9115	64.9(R)
55 2-Hexanone	43	7.066	7.064	(0.861)	870807	217.284	217
59 1,2-Dibromoethane	107	7.755	7.753	(0.945)	195980	50.2963	50.3
62 Chlorobenzene	112	8.251	8.250	(1.005)	642975	53.6241	53.6
58 Ethylbenzene	91	8.342	8.341	(1.016)	1115712	53.9382	53.9
63 m,p-Xylenes	106	8.438	8.437	(1.028)	878622	110.200	110
65 Styrene	104	8.930	8.929	(1.088)	710720	53.8713	53.9
64 o-Xylene	106	8.914	8.913	(1.086)	409830	53.6261	53.6
67 Isopropylbenzene	105	9.341	9.340	(0.857)	948464	48.4334	48.4
66 Bromoform	173	9.224	9.223	(0.846)	142847	50.6648	50.7
73 1,1,2,2-Tetrachloroethane	83	9.448	9.447	(0.867)	254771	46.7173	46.7
92 1,2-Dibromo-3-chloropropane	75	11.943	11.942	(1.096)	43214	42.8808	42.9(Q)
60 1,1,1,2-Tetrachloroethane	131	8.300	8.298	(1.011)	234833	57.7444	57.7
34 1,1-Dichloropropene	75	4.811	4.810	(0.929)	304089	57.9295	57.9
25 2,2-Dichloropropane	77	4.197	4.196	(0.810)	291855	64.3932	64.4
80 4-Chlorotoluene	91	10.036	10.035	(0.921)	847403	50.9872	51.0
75 Bromobenzene	156	9.779	9.778	(0.897)	266178	54.0027	54.0
81 tert-Butylbenzene	119	10.410	10.414	(0.955)	866105	54.3283	54.3
83 sec-Butylbenzene	105	10.650	10.649	(0.977)	1177069	53.1160	53.1
76 n-Propylbenzene	91	9.806	9.810	(0.900)	1297957	52.6766	52.7
89 n-Butylbenzene	91	11.200	11.205	(1.027)	964000	54.9742	55.0
13 Iodomethane	142	3.176	3.175	(0.613)	1646123	292.910	293

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
43 Dibromomethane	93	5.885	5.884	(1.136)	135266	51.7429	51.7
29 Bromochloromethane	128	4.437	4.436	(0.857)	105689	54.1035	54.1
84 4-Isopropyltoluene	119	10.800	10.799	(0.991)	1009489	56.4958	56.5
77 2-Chlorotoluene	91	9.972	9.970	(0.915)	821383	51.6439	51.6
52 1,3-Dichloropropane	76	7.269	7.267	(0.885)	332341	50.1556	50.2
78 1,3,5-Trimethylbenzene	105	10.004	10.003	(0.918)	895617	52.4623	52.5
74 1,2,3-Trichloropropane	110	9.614	9.613	(0.882)	77044	50.8054	50.8(Q)
79 1,2,4-Trimethylbenzene	105	10.447	10.446	(0.958)	911272	52.0662	52.1

QC Flag Legend

Q - Qualifier signal failed the ratio test.
R - Spike/Surrogate failed recovery limits.

Data File: /chem/VOA1.i/051305v1.b/1J505LCSDLB.d
Date : 13-MAY-2005 18:06
Client ID: VBLK01LCSD
Sample Info: 1120084640614254701 1 1VOAF11
Column phase: RTX-Volatiles

Instrument: VOA1.i
Operator: PAM
Column diameter: 0.25

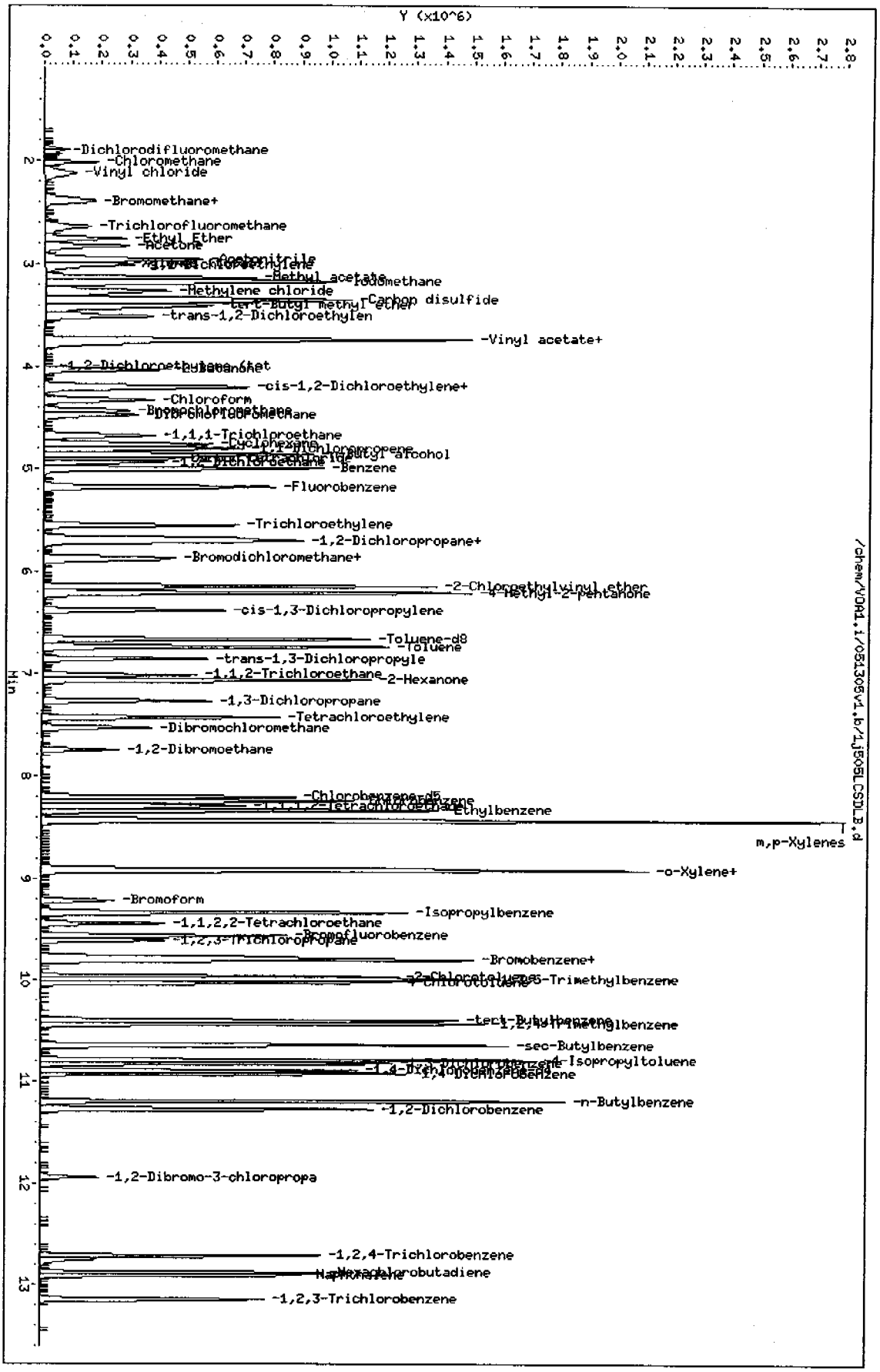

Page 1

MISCELLANEOUS DATA

General Engineering Laboratories
Form GEL-XXX
Rev. 06/02

NCR Report No.: 202717
Revision No.: 2

COMPANY – WIDE NONCONFORMANCE REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
17-MAY-05	Federal	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
VOA GC/MS	SW846 8260B	Solid	LANL
Batch ID:	**Sample Numbers:**		
425470	See Below		

Potentially affected work order(s)(SDG): 135805(3194S),135831(3202S),136007(3205S),136326(3228S)

Application Issues:

Failed Recovery for LCS/MS/PS

Specification and Requirements Nonconformance Description:	NRG Disposition:
Laboratory Control Sample (LCS) Recovery The laboratory control samples did not recover all spiking analytes within the acceptance limits.	The failures were less than 5% of the requested analyte list. This satisfies the client criteria. Please see the Form III in the deliverable for a complete list of failures and the recovery limits.
Laboratory Control Sample Duplicate (LCSD) Recovery The laboratory control sample duplicates did not recover all spiking analytes within the acceptance limits.	The failures were less than 5% of the requested analyte list. This satisfies the client criteria. Please see the Form III in the deliverable for a complete list of failures and the recovery limits.

Originator's Name:

Tammy Woodie 18-MAY-05

Data Validator/Group Leader:

Erin Haubert 19-MAY-05

Quality Review:

Director:

General Engineering Laboratories, LLC
Revision:11/22/04

ORGANIC RUN LOG - INSTRUMENT ID#VOA1

Date: 4/19/05 Method 8260 Operator: PAM

REVIEWED BY: EHL
DATE: 4/21/05

HARDWARE CONFIGURATION & METHOD CONDITIONS SUMMARY No# 1

Daily Instrument Readings:
Multiplier Voltage: 1494

CALIBRATION & CC INFORMATION:

Initial Calibration Date: 4/19/05

(See pg. _____ for ICAL Std. Sci. Ids)

Sequence Number: 041905V1

Daily Standard Solution ID#		Volume Added for Purge (ul) Blk/ Smpl	CCV	MS/ LCS	BFB
CCV	UVM050323-01D				
IS	UVM050325-01	1	1	1	
SS	UVM050325-02	1		1	
LCS/MS	N/A			5	
BFB	UVM050303-04				1
SHORT	UVM050309-01A		5		
DHEC	N/A			5	

Purge Amount	
5	Water Purge Vol:
5	Soil Purge Wt.
	Mid level ext. MeOH Vol:
	ul
	Methanol Lot #
x	Heated Purge

Analysis Date	Time	Data File	Lab Sample ID	Client	Batch #	Wt.(g) or Vol(ml/ul)	Dil. Factor	pH	AS Slot #	Matrix w or s	Analyst	Acceptable(√/X)	Comments
4/19/05	23:52	1G216.D	UVM050303-04		BFB2	1UL	1	N/A	4	W/S	PAM	O	
4/20/05	0:18	1G217.D	BLANK		ICAL	5ML	1	N/A	5	W/S	PAM	O	
4/20/05	0:44	1G218.D	UVM050216-01C	VSTD0005	ICAL	5ML	1	N/A	6	W/S	PAM	O	UVM050216-01C
4/20/05	1:09	1G219.D	W1VM050419-01	VSTD001	ICAL	5ML	1	N/A	7	W/S	PAM	O	UVM050216-02C+UVM050314-02E
4/20/05	1:35	1G220.D	W1VM050419-01	VSTD001	ICAL	5ML	1	N/A	8	W/S	PAM	O	UVM050216-03C+UVM050314-03E
4/20/05	2:01	1G221.D	W1VM050419-02	VSTD002	ICAL	5ML	1	N/A	9	W/S	PAM	O	UVM050216-04C+UVM050314-04E
4/20/05	2:27	1G222.D	W1VM050419-03	VSTD005	ICAL	5ML	1	N/A	10	W/S	PAM	O	UVM050216-04C+UVM050314-04E
4/20/05	2:53	1G223.D	W1VM050419-04	VSTD010	ICAL	5ML	1	N/A	11	W/S	PAM	O	UVM050216-05C+UVM050314-05E
4/20/05	3:18	1G224.D	W1VM050419-05	VSTD020	ICAL	5ML	1	N/A	12	W/S	PAM	O	UVM050216-07C+UVM050314-07E
4/20/05	3:44	1G225.D	W1VM050419-06	VSTD050	ICAL	5ML	1	N/A	13	W/S	PAM	O	UVM050216-07C+UVM050314-07E
4/20/05	4:10	1G226.D	W1VM050419-07	VSTD100	ICAL	5ML	1	N/A	14	W/S	PAM	O	UVM050216-08C+UVM050314-08E
4/20/05	4:36	1G227.D	BLANK		ICAL	5ML	1	N/A	15	W/S	PAM	O	
4/20/05	5:01	1G228.D	UVM050408-01A		ICAL	5ML	1	N/A	16	W/S	PAM	O	
4/20/05	5:27	1G229.D	UVM050408-02A		ICAL	5ML	1	N/A	17	W/S	PAM	O	
4/20/05	5:53	1G230.D	UVM050408-03A		ICAL	5ML	1	N/A	18	W/S	PAM	O	
4/20/05	6:19	1G231.D	UVM050408-04A		ICAL	5ML	1	N/A	19	W/S	PAM	O	
4/20/05	6:45	1G232.D	UVM050408-05A		ICAL	5ML	1	N/A	20	W/S	PAM	O	
4/20/05	7:10	1G233.D	UVM050408-06A		ICAL	5ML	1	N/A	21	W/S	PAM	O	
4/20/05	7:36	1G234.D	UVM050408-07A		ICAL	5ML	1	N/A	22	W/S	PAM	O	
4/20/05	8:02	1G235.D	BLANK		ICAL	5ML	1	N/A	23	W/S	PAM	O	
4/20/05	8:28	1G236.D	W1VM050419-08	VSTD050	ICV	5ML	1	N/A	24	W/S	PAM	X	UVM050418-01A+IV050414-
4/20/05	8:53	1G237.D	UVM050323-01D	VSTD050	ICV	5ML	1	N/A	25	W/S	PAM	O	
4/20/05	9:19	1G238.D	UVM050309-01A	VSTD2509	ICVS	5ML	1	N/A	26	W/S	PAM	O	

General ... ineering Laboratories, LLC
Revision... /22/04

ORGANIC RUN LOG - ...RUMENT ID#VOA1

Date: 5/13/05 Method 8260B Operator: PAM

REVIEWED BY: GAS
DATE: 5-17-05

HARDWARE CONFIGURATION & METHOD CONDITIONS SUMMARY No# 1

Daily Instrument Readings:
Multiplier Voltage: 1706

CALIBRATION & CC INFORMATION:

Initial Calibration Date: 4/19/05

(See pg. 8 for ICAL Std. Sci. Ids)

Daily Standard

Volume Added for Purge (ul)

	Solution ID#	Blk/ Smpl	CCV	MS/ LCS	BFB
CCV	W1VM050513-01		5+5		
IS	UVM050325-01	1	1	1	
SS	UVM050325-02	1	1	1	
LCS/MS	W1VM050513-01			5+5	
BFB	UVM050303-04				1
SHORT	UVM050309-01B		5		
DHEC	N/A				

Purge Amount

	Water Purge Vol:
5	Soil Purge Wt.
	Mid level ext. MeOH Vol:
	ul
	Methanol Lot #
x	Heated Purge

Sequence Number: 051305V1

Analysis Date Time	Data File	Lab Sample ID	Client	Batch #	Wt.(g) or Vol(ml/ul)	Dil. Factor	pH	AS Slot #	Matrix w or s	Analyst	Acceptable (O/X)	Comments
5/13/05 15:47	1J501.D	UVM050303-04	N/A	BFB	N/A	1	N/A	100	s	PAM	O	
5/13/05 16:00	1J502.D	W1VM050513-01	N/A	CCVLCS	N/A	1	N/A	1	s	PAM	O	UVM050418-01D+IVM050512-01
5/13/05 16:25	1J503.D	UVM050427-01D	N/A	CCVLCS	N/A	1	N/A	2	s	PAM	X	
5/13/05 16:50	1J504.D	UVM050309-01B	N/A	SHORT	N/A	1	N/A	3	s	PAM	O	
5/13/05 18:06	1J505.D	W1VM050513-01	N/A	LCSD	N/A	1	N/A	4	s	PAM	O	UVM050418-01D+IVM050512-01
5/13/05 18:31	1J506.D	BLANK	N/A	BLANK	N/A	1	N/A	5	s	PAM	X	CLEAN UP BLANK
5/13/05 18:56	1J507.D	120083----	N/A	42----	N/A	1	N/A	6	s	PAM	X	VBLK01
5/13/05 19:21	1J508.D	120083----	BLANK	42---	5mL	1	N/A	7	s	PAM	O	VBLK01
5/13/05 19:46	1J509.D	135752007	DMAX	424888	3.4G	1	N/A	8	s	PAM	O	last IS fails all SS pass confirmed by 1J310
5/13/05 20:11	1J510.D	BLANK	BLANK	BLANK	5mL	1	N/A	9	s	PAM	X	CLEAN UP BLANK
5/13/05 20:36	1J511.D	BLANK	BLANK	BLANK	5mL	1	N/A	10	s	PAM	X	CLEAN UP BLANK
5/13/05 21:01	1J512.D	BLANK	BLANK	BLANK	5mL	1	N/A	11	s	PAM	X	CLEAN UP BLANK
5/13/05 21:26	1J513.D	135805005	LANL	425470	5.0G	1	N/A	12	s	PAM	O	
5/13/05 21:51	1J514.D	135831005	LANL	425470	5G	1	N/A	13	s	PAM	O	
5/13/05 22:16	1J515.D	136007003	LANL	425470	5G	1	N/A	14	s	PAM	O	
5/13/05 22:42	1J516.D	136326003	LANL	425470	5G	1	N/A	15	s	PAM	X	DBFM high
5/13/05 23:07	1J517.D	135805003	LANL	425470	4.4G	1	N/A	16	s	PAM	O	
5/13/05 23:32	1J518.D	135805004	LANL	425470	4.8G	1	N/A	17	s	PAM	O	
5/13/05 23:57	1J519.D	135831001	LANL	425470	4.4G	1	N/A	18	s	PAM	O	
5/14/05 0:22	1J520.D	135831002	LANL	425470	4.5G	1	N/A	19	s	PAM	X	IS and SS failures
5/14/05 0:47	1J521.D	135831003	LANL	425470	4.9G	1	N/A	20	s	PAM	O	
5/14/05 1:12	1J522.D	135831004	LANL	425470	5.3G	1	N/A	21	s	PAM	O	
5/14/05 1:37	1J523.D	136007001	LANL	425470	3.8G	1	N/A	22	s	PAM	O	
5/14/05 2:02	1J524.D	136007002	LANL	425470	3.9G	1	N/A	23	s	PAM	X	DBFM high
5/14/05 2:27	1J525.D	136326001	LANL	425470	4.8G	1	N/A	24	s	PAM	O	
5/14/05 2:52	1J526.D	136326002	LANL	425470	4.0G	1	N/A	25	s	PAM	O	

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General Engineering Laboratories, LLC
Revision:11/22/04

ORGANIC RUN LOG - INSTRUMENT ID#VOA5

Date: 5/16/2005 Method 8260B Operator: JEB

REVIEWED BY: _____
DATE: _____

HARDWARE CONFIGURATION & METHOD CONDITIONS SUMMARY No# 1

Daily Instrument Readings:
Multiplier Voltage: 2082

CALIBRATION & CC INFORMATION:

Initial Calibration Date: 4/28/2005

(See pg. 2 for ICAL Std. Sci. Ids)

Sequence Number: 051605V5

Daily Standard

Solution ID#		Volume Added for Purge (ul) Blk/ Smpl	CCV	MS/ LCS	BFB
CCV	UVM050427-01E		5		
IS	UVM050412-01	1	1	1	
SS	UVM050412-02	1	1	1	
LCS/MS	UVM050427-01E			5	
BFB	UVM050412-02				1
SHORT	UVM050429-01A		5		
DHEC	UVM050415-01D			5	

Purge Amount

5	Water Purge Vol:
5	Soil Purge Wt.
	Mid level ext. MeOH Vol:
	ul
	Methanol Lot #
x	Heated Purge

Analysis Date	Time	Data File	Lab Sample ID	Client	Batch #	Wt.(g) or Vol(ml/ul)	Dil. Factor	pH	AS Slot #	Matrix w or s	Analyst	Acceptable (√/X)	Comments
5/16/2005	10:56	5K102.D	1200----	BLANK	------	5mL	1	N/A	6	w	JEB	X	VBLK01
5/16/2005	11:23	5K103.D	bosh001	bosh	-------	100ul	50	N/A	7	w	JEB	X	
5/16/2005	11:50	5K104.D	bosh002	bosh	-------	100ul	50	N/A	8	w	JEB	X	
5/16/2005	12:17	5K105.D	bosh003	bosh	-------	100ul	50	N/A	9	w	JEB	X	
5/16/2005	12:44	5K106.D	bosh004	bosh	-------	100ul	50	N/A	10	w	JEB	X	
5/16/2005	13:11	5K107.D	bosh005	bosh	-------	100ul	50	N/A	11	w	JEB	X	
5/16/2005	19:02	5K108.D	UVM050412-02	N/A	BFB	N/A	1	N/A	100	w/s	JEB	O	
5/16/2005	19:17	5K109.D	UVM050427-01E	N/A	CCV	N/A	1	N/A	1	w/s	JEB	O	
5/16/2005	19:44	5K110.D	UVM050427-01E	N/A	CCV	N/A	1	N/A	2	w/s	JEB	O	
5/16/2005	20:11	5K111.D	UVM050429-01A	N/A	SHORT	N/A	1	N/A	3	w/s	JEB	O	
5/16/2005	20:38	5K112.D	UVM050415-01D	N/A	DHEC	N/A	1	N/A	4	w/s	JEB	O	
5/16/2005	21:05	5K113.D	BLANK	N/A	BLANK	N/A	1	N/A	5	w/s	JEB	X	CLEAN UP
5/16/2005	21:40	5K114.D	1200----	N/A	BLANK	N/A	1	N/A	6	w/s	JEB	O	VBLK01
5/16/2005	22:06	5K115.D	135906020	[redacted]	425712	5mL	1	pH2	7	w	JEB	O	
5/16/2005	22:33	5K116.D	135906021	[redacted]	425712	5mL	1	pH2	8	w	JEB	O	
5/16/2005	23:00	5K117.D	135906001	[redacted]	425712	5mL	1	pH2	9	w	JEB	O	
5/16/2005	23:26	5K118.D	135906014	[redacted]	425712	5mL	1	pH2	10	w	JEB	O	
5/16/2005	23:53	5K119.D	135906015	[redacted]	425712	5mL	1	pH2	11	w	JEB	O	
5/17/2005	0:20	5K120.D	135906016	[redacted]	425712	5mL	1	pH2	12	w	JEB	O	
5/17/2005	0:47	5K121.D	135906017	[redacted]	425712	5mL	1	pH2	13	w	JEB	O	
5/17/2005	1:14	5K122.D	135906018	[redacted]	425712	5mL	1	pH2	14	w	JEB	O	
5/17/2005	1:41	5K123.D	135906019	[redacted]	425712	5mL	1	pH2	15	w	JEB	O	
5/17/2005	2:08	5K124.D	135831002	LANL	425470	4.8G	1	N/A	16	s	JEB	X	confirms original analysis
5/17/2005	2:35	5K125.D	136007002	LANL	425470	3.6G	1	N/A	17	s	JEB	O	
5/17/2005	3:02	5K126.D	136326003	LANL	425470	5G	1	N/A	18	s	JEB	O	
5/17/2005	3:29	5K127.D	136033001	[redacted]	425842	5mL	1	pH2	19	w	JEB	O	RR @10X
5/17/2005	3:56	5K128.D	136033002	[redacted]	425842	5mL	1	pH2	20	w	JEB	X	RR NEAT possible carryover
5/17/2005	4:23	5K129.D	136033003	[redacted]	425842	5mL	1	pH2	21	w	JEB	X	RR NEAT possible carryover

Soil Preparation Log-Method 5035

Analyst: TW
Date: 5-13-05
Balance ID: B003

Reviewed by PS
Date 6/2/05

Client	Lab ID#	Con#	Tare wt(g)	final wt(g)	*sample wt(g)	***re	time	preservative lot #
[redacted]	135752007	02	30.43	33.87	3.4	—	1830	H2O
LANL	135805008	01	21.70	26.10	4.4		1832	
	004	01	21.95	26.75	4.8		1833	
	005	01	21.77	26.77	5.0		1834	
	135831 001	01	21.85	26.27	4.4		1835	
	002	01	21.85	26.34	4.5		1836	
	003	01	21.87	26.74	4.9		1837	
	004	01	21.82	27.13	5.3		1838	
	005	01	21.66	26.66	5.0		1839	
	136007001	01	21.82	25.64	3.8		1840	
	002	01	21.86	25.76	3.9		1841	
	003	01	21.74	26.76	5.0		1842	
	136326001	01	21.88	26.69	4.8		1843	
	002	01	21.96	26.54	4.6		1844	
	003	01	21.82	26.51	5.0		1845	

*Sample weight(g)= Final weight(g) - Tare weight(g)
**Preservative: 1= 5ml of 20% Sodium Bisulfate, 2= 10ml of Purge and Trap grade Methanol
*** Surrogate Lot # N/A

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VOC-187

Soilprelog

Soil Preparation Log-Method 5035

Analyst: TW
Date: 5-16-05
Balance ID: B003

Reviewed by B
Date 6/7/05

Client	Lab ID#	Con#	Tare wt(g)	final wt(g)	*sample wt(g)	Tare	time	preservative lot #
LANL	135831002	02	25.20	30.04	4.8	—	2200	Water
↓	136007002	02	25.26	28.84	3.6	—	2202	↓
	136326003	01	25.46	30.44	5.0	—	2203	

TW 5/17/05

*Sample weight(g)= Final weight(g) - Tare weight(g)
Preservative: 1= 5ml of 20% Sodium Bisulfate, 2= 10ml of Purge and Trap grade Methanol*
*** Surrogate Lot # NA

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V0-0-187

GC/MS SEMIVOLATILE ANALYSIS

Semi-Volatile Case Narrative
Los Alamos National Laboratory (LANL)
SDG 3202S

Method/Analysis Information

Procedure:	Semi-volatile Analysis by Gas Chromatograph/Mass Spectrometer
Analytical Method:	SW846 8270C
Prep Method:	SW846 3550B
Analytical Batch Number:	423903
Prep Batch Number:	423902

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 8270C:

Sample ID	Client ID
135831001	RE03-05-58926
135831002	RE03-05-58927
135831003	RE03-05-59557
135831004	RE03-05-59558
1200842643	Method Blank (MB)
1200842644	Laboratory Control Sample (LCS)
1200842645	135831001(RE03-05-58926) Matrix Spike (MS)
1200842646	135831001(RE03-05-58926) Matrix Spike Duplicate (MSD)

Preparation/Analytical Method Verification

Procedures for preparation, analysis, and reporting of analytical data are documented by General Engineering Laboratories, LLC (GEL) as Standard Operating Procedure (SOP) GL-OA-E-009, Rev. 14.

Calibration Information

Due to software limitations, the files displayed at the beginning of the Form 6 are only the last files uploaded for each individual level. A complete listing of all files used in the current ICAL are shown on the Calibration History

that is included with each Level 4 or higher package. The last file by date in each level is the one currently uploaded for that level.
Diphenylamine has now superseded N-Nitroso-diphenylamine as a CCC on Quantitation Reports, Initial Calibration Reports, Calibration Check Standard Reports, etc. Previous versions of EPA Method 8270 (prior to 8270C) listed N-Nitroso-diphenylamine as a CCC. However, as stated in EPA Method 8270C, Revision 3, December, 1996, Section 1.4.5, "N-Nitroso-diphenylamine decomposes in the gas chromatographic inlet and cannot be separated from Diphenylamine." Studies of these two compounds at GEL, both independent of each other and together, show that they not only co-elute, but also have similar mass spectra. N-Nitroso-diphenylamine and Diphenylamine will be reported as Diphenylamine on all reports and forms.

When calibrations are performed for Appendix IX compounds some of the compounds may not be calibrated exactly according to the criteria in Method 8270C. If the %RSD is greater than 15% or the correlation coefficient is less that 0.99 then the analyte is quantitated using the response factor. If the analyte is detected then the sample is re-analyzed for that analyte on an instrument that is compliant with the criteria in the method.

Initial Calibration
All initial calibration requirements have been met for this sample delivery group (SDG). A second source initial calibration verification (ICV) was included in the standard section directly behind the initial calibration.

CCV Requirements
All associated calibration verification standard(s) (ICV or CCV) met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Surrogate Recoveries
The surrogate recoveries met the acceptance limits.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

QC Sample Designation
Sample 135831001 (RE03-05-58926) was selected for analysis as the matrix spike and matrix spike duplicate.

Matrix Spike (MS) Recovery Statement
The MS recovered multiple analytes outside the acceptance limits. The LCS met the acceptance criteria but the MSD recovered multiple analytes outside the acceptance limits. Therefore, the failures were attributed to matrix interference and the results were reported.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recovered multiple analytes outside the acceptance limits. The LCS met the acceptance criteria but the MS recovered multiple analytes outside the acceptance limits. Therefore, the failures were attributed to matrix interference and the results were reported.

MS/MSD Relative Percent Difference (RPD) Statement
The MS/MSD RPD values did not meet the acceptance criteria. The failures were attributed to matrix interference and the results were reported.

Internal Standard (ISTD) Acceptance
The internal standard responses were outside of the acceptance criteria for the following samples: 135831002 (RE03-05-58927) and 135831004 (RE03-05-59558). The samples were re-analyzed and confirmed the failures were the result of matrix interference. Only the original sample analyses were reported. The confirmation analysis raw data results are located in the Miscellaneous Section of the data report.

Technical Information:

Holding Time Specifications
All samples in this SDG met the specified holding time. GEL assigns holding times based on the associated methodology that assigns the date and time from sample collection or sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

Sample Dilutions
Samples 1200842645 (RE03-05-58926), 1200842646 (RE03-05-58926), 135831001 (RE03-05-58926), 135831002 (RE03-05-58927), 135831003 (RE03-05-59557) and 135831004 (RE03-05-59558) were diluted because the extracts were very dark and viscous.

Sample Re-extraction/Re-analysis
Re-extractions or re-analyses were not required in this SDG except for confirmations and/or dilutions.

Miscellaneous Information:

Nonconformance (NCR) Documentation
A nonconformance report (NCR) was not generated for this SDG.

Manual Integrations
Some initial calibration standards, continuing calibration standards, and/or samples may require manual integrations due to software limitations. Please see the raw data in the Miscellaneous Section.

Additional Comments
Additional comments were not required for this SDG.

Electronic Package Comment

The following package was generated using an electronic data processing program referred to as "virtual packaging". In an effort to increase quality and efficiency, the laboratory is developing systems to eventually generate all data packages electronically. The following change from "traditional" packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. An electronic signature page inserted after the case narrative of each electronic package will indicate the analyst, reviewer, and report specialist names associated with the generation of the data and package. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

System Configuration

The laboratory utilizes a HP 6890 Series gas chromatograph and a HP 5973 Mass Selective Detector. The configuration is equipped with the electronic pressure control. All MS interfaces are capillary direct.
Chromatographic Columns

Chromatographic separation of semi-volatile components is accomplished through analysis on one or more of the following columns (all with dimensions of 30 meters x 0.25 millimeters ID and 0.25 micron film except J&W DB-5MS2 which is 25 meters x 0.20 mm ID and 0.33 micron film):

Column ID	Column Description
J&W	DB-5.625(5% Phenyl)-methylpolysiloxane (identified by a DB-5.625 designation on quantitation reports and reconstructed ion chromatograms)
J&W DB-5MS	Similar to the J&W DB-5.625 with low bleed characteristics (identified by a DB-5MS designation)
Alltech	EC-5 (SE-54) 5% Phenyl, 95% Methylpolysiloxane (identified by a HP-5MS designation)
HP	HP-5MS 5% Phenylmethylsiloxane (identified by a HP-5MS designation)
Phenomenex	ZB-5 5% Phenyl Polysiloxane (identified by a ZB-5 designation)
J&W DB-5MS2	Similar to the J&W DB-5.625 with low bleed characteristics (identified by a DB-5MS2 designation)

Instrument Configuration

The samples reported in this SDG were analyzed on one or more of the following instrument systems. Instrument systems are referenced in the raw data and individual form headers by the Instrument ID designations listed below:

The Semi-Volatiles-GC/MS analysis was performed on a HP Mass Spectrometer.

Instrument ID	System Configuration	Column ID	Column Description
MSD8.I	HP6890/HP5973	DB-5MS	25m x 0.2mm, 0.33um (5% Phenylmethylpolysiloxane)

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

Reviewer: David B. Beachey **Date:** 6-3-05

Roadmap for LANL 3202S SVOA

This roadmap was analyzed by Chris Kerr on 05-27-2005, 08:54.
This roadmap was reviewed by Cameron Bearden on 05-27-2005, 14:35.
This roadmap was packaged by Sherri Brown on 06-01-2005, 13:51.

Sample

exclude	manual	datafile	smpid	injdate	injtime	sublist	clientid	dilution	comment
■	N	/chem/MSD4.i/s051705.b/s4e1731.d	135831001	18-MAY-2005	05:20	3202S.sub	RE03-05-58926	1	DUSE - fails ISTD - RR on MSD8
■	N	/chem/MSD4.i/s051705.b/s4e1734.d	135831002	18-MAY-2005	06:26	3202S.sub	RE03-05-58927	1	DUSE - fails ISTD - RR on MSD8
■	N	/chem/MSD4.i/s051705.b/s4e1735.d	135831003	18-MAY-2005	06:47	3202S.sub	RE03-05-59557	1	DUSE - fails ISTD - RR on MSD8
■	N	/chem/MSD4.i/s051705.b/s4e1736.d	135831004	18-MAY-2005	07:08	3202S.sub	RE03-05-59558	1	DUSE - fails ISTD - RR on MSD8
□	N	/chem/MSD8.i/s051905.b/s8e1912.d	135831001	19-MAY-2005	18:37	3202S.sub	RE03-05-58926	10	
□	N	/chem/MSD8.i/s051905.b/s8e1913.d	135831002	19-MAY-2005	20:04	3202S.sub	RE03-05-58927	10	FAILS ISTD. Confirmed by s4e1734
□	N	/chem/MSD8.i/s051905.b/s8e1914.d	135831003	19-MAY-2005	20:24	3202S.sub	RE03-05-59557	10	
□	N	/chem/MSD8.i/s051905.b/s8e1915.d	135831004	19-MAY-2005	20:44	3202S.sub	RE03-05-59558	10	FAILS ISTD. Confirmed by s4e1736.

QC Sample

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	comment
□	N	/chem/MSD8.i/s051905.b/s8e1904-2.d	1200842643	mb	19-MAY-2005	15:52	3202S.sub	SBLK01	1	
□	N	/chem/MSD8.i/s051905.b/s8e1905-2.d	1200842644	lcs	19-MAY-2005	16:13	3202S.sub	SBLK01LCS	1	
□	N	/chem/MSD8.i/s051905.b/s8e1910.d	1200842645	ms	19-MAY-2005	17:56	3202S.sub	RE03-05-58926MS	10	
□	N	/chem/MSD8.i/s051905.b/s8e1911.d	1200842646	msd	19-MAY-2005	18:16	3202S.sub	RE03-05-58926MSD	10	

SAMPLE DATA SUMMARY

1B
SVOA ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-58926

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Matrix: (soil/water) SOIL Lab Sample ID: 135831001

Sample wt/vol: 30.0 (g/mL) G Lab File ID: S8E1912

Level: (low/med) LOW Date Received: 05/05/05

% Moisture: 6 decanted: (Y/N) N Date Extracted: 05/10/05

Concentrated Extract Volume: 1.00(mL) Date Analyzed: 05/19/05

Injection Volume: 0.5(uL) Dilution Factor: 10.0

GPC Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
62-75-9	N-Methyl-N-nitrosomethylamin	3540	U
110-86-1	Pyridine	3540	U
62-53-3	Aniline	3540	U
108-95-2	Phenol	3540	U
111-44-4	bis(2-Chloroethyl) ether	3540	U
95-57-8	2-Chlorophenol	3540	U
541-73-1	1,3-Dichlorobenzene	3540	U
106-46-7	1,4-Dichlorobenzene	3540	U
100-51-6	Benzyl alcohol	3540	U
95-50-1	1,2-Dichlorobenzene	3540	U
108-60-1	bis(2-Chloroisopropyl)ether	3540	U
95-48-7	o-Cresol	3540	U
621-64-7	N-Nitrosodipropylamine	3540	U
65794-96-9	m,p-Cresols	3540	U
67-72-1	Hexachloroethane	3540	U
78-59-1	Isophorone	3540	U
88-75-5	2-Nitrophenol	3540	U
105-67-9	2,4-Dimethylphenol	3540	U
111-91-1	bis(2-Chloroethoxy)methane	3540	U
120-83-2	2,4-Dichlorophenol	3540	U
65-85-0	Benzoic acid	7080	U
120-82-1	1,2,4-Trichlorobenzene	3540	U
91-20-3	Naphthalene	354	U
106-47-8	4-Chloroaniline	3540	U
87-68-3	Hexachlorobutadiene	3540	U
59-50-7	4-Chloro-3-methylphenol	3540	U
91-57-6	2-Methylnaphthalene	354	U
77-47-4	Hexachlorocyclopentadiene	3540	U
88-06-2	2,4,6-Trichlorophenol	3540	U
95-95-4	2,4,5-Trichlorophenol	3540	U
91-58-7	2-Chloronaphthalene	354	U
88-74-4	o-Nitroaniline	3540	U
99-09-2	m-Nitroaniline	3540	U

1C
SVOA ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-58926

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Matrix: (soil/water) SOIL Lab Sample ID: 135831001

Sample wt/vol: 30.0 (g/mL) G Lab File ID: S8E1912

Level: (low/med) LOW Date Received: 05/05/05

% Moisture: 6 decanted: (Y/N) N Date Extracted: 05/10/05

Concentrated Extract Volume: 1.00(mL) Date Analyzed: 05/19/05

Injection Volume: 0.5(uL) Dilution Factor: 10.0

GPC Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
131-11-3	Dimethylphthalate	3540	U
606-20-2	2,6-Dinitrotoluene	3540	U
208-96-8	Acenaphthylene	354	U
83-32-9	Acenaphthene	354	U
51-28-5	2,4-Dinitrophenol	7080	U
132-64-9	Dibenzofuran	3540	U
121-14-2	2,4-Dinitrotoluene	3540	U
84-66-2	Diethylphthalate	3540	U
100-02-7	4-Nitrophenol	3540	U
86-73-7	Fluorene	354	U
7005-72-3	4-Chlorophenylphenylether	3540	U
534-52-1	2-Methyl-4,6-dinitrophenol	3540	U
100-01-6	p-Nitroaniline	3540	U
122-39-4	Diphenylamine	3540	U
122-66-7	1,2-Diphenylhydrazine	3540	U
101-55-3	4-Bromophenylphenylether	3540	U
118-74-1	Hexachlorobenzene	3540	U
87-86-5	Pentachlorophenol	3540	U
85-01-8	Phenanthrene	354	U
120-12-7	Anthracene	354	U
84-74-2	Di-n-butylphthalate	3540	U
206-44-0	Fluoranthene	354	U
129-00-0	Pyrene	354	U
85-68-7	Butylbenzylphthalate	3540	U
56-55-3	Benzo(a)anthracene	354	U
91-94-1	3,3'-Dichlorobenzidine	3540	U
218-01-9	Chrysene	354	U
117-81-7	bis(2-Ethylhexyl)phthalate	2120	JB
117-84-0	Di-n-octylphthalate	3540	U
205-99-2	Benzo(b)fluoranthene	354	U
207-08-9	Benzo(k)fluoranthene	354	U
50-32-8	Benzo(a)pyrene	354	U
193-39-5	Indeno(1,2,3-cd)pyrene	354	U

FORM I SV-2 OLM03.0

1C
SVOA ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-58926

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Matrix: (soil/water) SOIL Lab Sample ID: 135831001

Sample wt/vol: 30.0 (g/mL) G Lab File ID: S8E1912

Level: (low/med) LOW Date Received: 05/05/05

% Moisture: 6 decanted: (Y/N) N Date Extracted: 05/10/05

Concentrated Extract Volume: 1.00(mL) Date Analyzed: 05/19/05

Injection Volume: 0.5(uL) Dilution Factor: 10.0

GPC Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
53-70-3	Dibenzo(a,h)anthracene	354	U
191-24-2	Benzo(ghi)perylene	354	U

FORM I SV-3 OLM03.0

1F
SVOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

RE03-05-58926

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Matrix: (soil/water) SOIL Lab Sample ID: 135831001

Sample wt/vol: 30.0 (g/mL) G Lab File ID: S8E1912

Level: (low/med) LOW Date Received: 05/05/05

% Moisture: 6 decanted: (Y/N) N Date Extracted: 05/10/05

Concentrated Extract Volume: 1.00(mL) Date Analyzed: 05/19/05

Injection Volume: 0.5(uL) Dilution Factor: 10.0

GPC Cleanup: (Y/N) N

Number TICs found: 7

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	16696-65-4	1,11-DIBROMOUNDECANE	7.91	8350	NJ
2.	20175-84-2	[1,2'-BINAPHTHALENE]-5,5',8,	7.96	7220	NJ
3.	19780-11-1	2-DODECEN-1-YL(-)SUCCINIC AN	7.99	6250	NJ
4.		UNKNOWN	8.04	7810	J
5.	4452-45-3	1,14-DOCOSANEDIOL	9.06	15000	NJ
6.	1000100-23-6	DECAHYDRO-9-ETHYL-4,4,8,10-T	9.17	14700	NJ
7.	7683-64-9	SQUALENE	9.24	8870	NJ
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FORM I SV-TIC OLM03.0

1B
SVOA ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-58927

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Matrix: (soil/water) SOIL Lab Sample ID: 135831002

Sample wt/vol: 30.0 (g/mL) G Lab File ID: S8E1913

Level: (low/med) LOW Date Received: 05/05/05

% Moisture: 9 decanted: (Y/N) N Date Extracted: 05/10/05

Concentrated Extract Volume: 1.00(mL) Date Analyzed: 05/19/05

Injection Volume: 0.5(uL) Dilution Factor: 10.0

GPC Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
62-75-9	N-Methyl-N-nitrosomethylamin	3660	U
110-86-1	Pyridine	3660	U
62-53-3	Aniline	3660	U
108-95-2	Phenol	3660	U
111-44-4	bis(2-Chloroethyl) ether	3660	U
95-57-8	2-Chlorophenol	3660	U
541-73-1	1,3-Dichlorobenzene	3660	U
106-46-7	1,4-Dichlorobenzene	3660	U
100-51-6	Benzyl alcohol	3660	U
95-50-1	1,2-Dichlorobenzene	3660	U
108-60-1	bis(2-Chloroisopropyl)ether	3660	U
95-48-7	o-Cresol	3660	U
621-64-7	N-Nitrosodipropylamine	3660	U
65794-96-9	m,p-Cresols	3660	U
67-72-1	Hexachloroethane	3660	U
78-59-1	Isophorone	3660	U
88-75-5	2-Nitrophenol	3660	U
105-67-9	2,4-Dimethylphenol	3660	U
111-91-1	bis(2-Chloroethoxy)methane	3660	U
120-83-2	2,4-Dichlorophenol	3660	U
65-85-0	Benzoic acid	7330	U
120-82-1	1,2,4-Trichlorobenzene	3660	U
91-20-3	Naphthalene	366	U
106-47-8	4-Chloroaniline	3660	U
87-68-3	Hexachlorobutadiene	3660	U
59-50-7	4-Chloro-3-methylphenol	3660	U
91-57-6	2-Methylnaphthalene	366	U
77-47-4	Hexachlorocyclopentadiene	3660	U
88-06-2	2,4,6-Trichlorophenol	3660	U
95-95-4	2,4,5-Trichlorophenol	3660	U
91-58-7	2-Chloronaphthalene	366	U
88-74-4	o-Nitroaniline	3660	U
99-09-2	m-Nitroaniline	3660	U

FORM I SV-1 OLM03.0

1C
SVOA ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-58927

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Matrix: (soil/water) SOIL Lab Sample ID: 135831002

Sample wt/vol: 30.0 (g/mL) G Lab File ID: S8E1913

Level: (low/med) LOW Date Received: 05/05/05

% Moisture: 9 decanted: (Y/N) N Date Extracted: 05/10/05

Concentrated Extract Volume: 1.00(mL) Date Analyzed: 05/19/05

Injection Volume: 0.5(uL) Dilution Factor: 10.0

GPC Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
131-11-3	Dimethylphthalate	3660	U
606-20-2	2,6-Dinitrotoluene	3660	U
208-96-8	Acenaphthylene	366	U
83-32-9	Acenaphthene	366	U
51-28-5	2,4-Dinitrophenol	7330	U
132-64-9	Dibenzofuran	3660	U
121-14-2	2,4-Dinitrotoluene	3660	U
84-66-2	Diethylphthalate	3660	U
100-02-7	4-Nitrophenol	3660	U
86-73-7	Fluorene	366	U
7005-72-3	4-Chlorophenylphenylether	3660	U
534-52-1	2-Methyl-4,6-dinitrophenol	3660	U
100-01-6	p-Nitroaniline	3660	U
122-39-4	Diphenylamine	3660	U
122-66-7	1,2-Diphenylhydrazine	3660	U
101-55-3	4-Bromophenylphenylether	3660	U
118-74-1	Hexachlorobenzene	3660	U
87-86-5	Pentachlorophenol	3660	U
85-01-8	Phenanthrene	145	J
120-12-7	Anthracene	366	U
84-74-2	Di-n-butylphthalate	3660	U
206-44-0	Fluoranthene	208	J
129-00-0	Pyrene	308	J
85-68-7	Butylbenzylphthalate	3660	U
56-55-3	Benzo(a)anthracene	366	U
91-94-1	3,3'-Dichlorobenzidine	3660	U
218-01-9	Chrysene	366	U
117-81-7	bis(2-Ethylhexyl)phthalate	3660	U
117-84-0	Di-n-octylphthalate	3660	U
205-99-2	Benzo(b)fluoranthene	366	U
207-08-9	Benzo(k)fluoranthene	366	U
50-32-8	Benzo(a)pyrene	366	U
193-39-5	Indeno(1,2,3-cd)pyrene	366	U

FORM I SV-2 OLM03.0

1C
SVOA ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-58927

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Matrix: (soil/water) SOIL Lab Sample ID: 135831002

Sample wt/vol: 30.0 (g/mL) G Lab File ID: S8E1913

Level: (low/med) LOW Date Received: 05/05/05

% Moisture: 9 decanted: (Y/N) N Date Extracted: 05/10/05

Concentrated Extract Volume: 1.00(mL) Date Analyzed: 05/19/05

Injection Volume: 0.5(uL) Dilution Factor: 10.0

GPC Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
53-70-3	Dibenzo(a,h)anthracene	366	U
191-24-2	Benzo(ghi)perylene	366	U

FORM I SV-3 OLM03.0

1F

SVOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

RE03-05-58927

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Matrix: (soil/water) SOIL Lab Sample ID: 135831002

Sample wt/vol: 30.0 (g/mL) G Lab File ID: S8E1913

Level: (low/med) LOW Date Received: 05/05/05

% Moisture: 9 decanted: (Y/N) N Date Extracted:05/10/05

Concentrated Extract Volume: 1.00(mL) Date Analyzed: 05/19/05

Injection Volume: 0.5(uL) Dilution Factor: 10.0

GPC Cleanup: (Y/N) N

Number TICs found: 6

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 1000196-98-1	BICYCLO[4.3.0]NONANE, 2,2,6,	7.92	13100	NJ
2. 19780-11-1	2-DODECEN-1-YL(-)SUCCINIC AN	7.96	6480	NJ
3. 1786-12-5	CYCLOTETRADECANE, 1,7,11-TRI	8.53	11400	NJ
4. 20175-84-2	[1,2'-BINAPHTHALENE]-5,5',8,	8.57	10100	NJ
5. 1000130-78-5	11,12-DIBROMO-TETRADECAN-1-O	9.08	12300	NJ
6. 53584-60-4	28-NOR-17.ALPHA.(H)-HOPANE	10.17	10700	NJ
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FORM I SV-TIC OLM03.0

1B
SVOA ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-59557

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Matrix: (soil/water) SOIL Lab Sample ID: 135831003

Sample wt/vol: 30.0 (g/mL) G Lab File ID: S8E1914

Level: (low/med) LOW Date Received: 05/05/05

% Moisture: 9 decanted: (Y/N) N Date Extracted: 05/10/05

Concentrated Extract Volume: 1.00(mL) Date Analyzed: 05/19/05

Injection Volume: 0.5(uL) Dilution Factor: 10.0

GPC Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
62-75-9	N-Methyl-N-nitrosomethylamin	3650	U
110-86-1	Pyridine	3650	U
62-53-3	Aniline	3650	U
108-95-2	Phenol	3650	U
111-44-4	bis(2-Chloroethyl) ether	3650	U
95-57-8	2-Chlorophenol	3650	U
541-73-1	1,3-Dichlorobenzene	3650	U
106-46-7	1,4-Dichlorobenzene	3650	U
100-51-6	Benzyl alcohol	3650	U
95-50-1	1,2-Dichlorobenzene	3650	U
108-60-1	bis(2-Chloroisopropyl)ether	3650	U
95-48-7	o-Cresol	3650	U
621-64-7	N-Nitrosodipropylamine	3650	U
65794-96-9	m,p-Cresols	3650	U
67-72-1	Hexachloroethane	3650	U
78-59-1	Isophorone	3650	U
88-75-5	2-Nitrophenol	3650	U
105-67-9	2,4-Dimethylphenol	3650	U
111-91-1	bis(2-Chloroethoxy)methane	3650	U
120-83-2	2,4-Dichlorophenol	3650	U
65-85-0	Benzoic acid	7290	U
120-82-1	1,2,4-Trichlorobenzene	3650	U
91-20-3	Naphthalene	365	U
106-47-8	4-Chloroaniline	3650	U
87-68-3	Hexachlorobutadiene	3650	U
59-50-7	4-Chloro-3-methylphenol	3650	U
91-57-6	2-Methylnaphthalene	365	U
77-47-4	Hexachlorocyclopentadiene	3650	U
88-06-2	2,4,6-Trichlorophenol	3650	U
95-95-4	2,4,5-Trichlorophenol	3650	U
91-58-7	2-Chloronaphthalene	365	U
88-74-4	o-Nitroaniline	3650	U
99-09-2	m-Nitroaniline	3650	U

1C

SVOA ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-59557

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Matrix: (soil/water) SOIL Lab Sample ID: 135831003

Sample wt/vol: 30.0 (g/mL) G Lab File ID: S8E1914

Level: (low/med) LOW Date Received: 05/05/05

% Moisture: 9 decanted: (Y/N) N Date Extracted: 05/10/05

Concentrated Extract Volume: 1.00(mL) Date Analyzed: 05/19/05

Injection Volume: 0.5(uL) Dilution Factor: 10.0

GPC Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
131-11-3	Dimethylphthalate	3650	U
606-20-2	2,6-Dinitrotoluene	3650	U
208-96-8	Acenaphthylene	365	U
83-32-9	Acenaphthene	365	U
51-28-5	2,4-Dinitrophenol	7290	U
132-64-9	Dibenzofuran	3650	U
121-14-2	2,4-Dinitrotoluene	3650	U
84-66-2	Diethylphthalate	3650	U
100-02-7	4-Nitrophenol	3650	U
86-73-7	Fluorene	365	U
7005-72-3	4-Chlorophenylphenylether	3650	U
534-52-1	2-Methyl-4,6-dinitrophenol	3650	U
100-01-6	p-Nitroaniline	3650	U
122-39-4	Diphenylamine	3650	U
122-66-7	1,2-Diphenylhydrazine	3650	U
101-55-3	4-Bromophenylphenylether	3650	U
118-74-1	Hexachlorobenzene	3650	U
87-86-5	Pentachlorophenol	3650	U
85-01-8	Phenanthrene	218	J
120-12-7	Anthracene	365	U
84-74-2	Di-n-butylphthalate	3650	U
206-44-0	Fluoranthene	312	J
129-00-0	Pyrene	391	
85-68-7	Butylbenzylphthalate	3650	U
56-55-3	Benzo(a)anthracene	365	U
91-94-1	3,3'-Dichlorobenzidine	3650	U
218-01-9	Chrysene	222	J
117-81-7	bis(2-Ethylhexyl)phthalate	2020	JB
117-84-0	Di-n-octylphthalate	3650	U
205-99-2	Benzo(b)fluoranthene	789	
207-08-9	Benzo(k)fluoranthene	365	U
50-32-8	Benzo(a)pyrene	903	
193-39-5	Indeno(1,2,3-cd)pyrene	365	U

FORM I SV-2 OLM03.0

1C
SVOA ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-59557

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Matrix: (soil/water) SOIL Lab Sample ID: 135831003

Sample wt/vol: 30.0 (g/mL) G Lab File ID: S8E1914

Level: (low/med) LOW Date Received: 05/05/05

% Moisture: 9 decanted: (Y/N) N Date Extracted: 05/10/05

Concentrated Extract Volume: 1.00(mL) Date Analyzed: 05/19/05

Injection Volume: 0.5(uL) Dilution Factor: 10.0

GPC Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
53-70-3	Dibenzo(a,h)anthracene	365	U
191-24-2	Benzo(ghi)perylene	365	U

FORM I SV-3 OLM03.0

1F
SVOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

RE03-05-59557

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Matrix: (soil/water) SOIL Lab Sample ID: 135831003

Sample wt/vol: 30.0 (g/mL) G Lab File ID: S8E1914

Level: (low/med) LOW Date Received: 05/05/05

% Moisture: 9 decanted: (Y/N) N Date Extracted: 05/10/05

Concentrated Extract Volume: 1.00(mL) Date Analyzed: 05/19/05

Injection Volume: 0.5(uL) Dilution Factor: 10.0

GPC Cleanup: (Y/N) N

Number TICs found: 22

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN HYDROCARBON	7.86	2060	J
2.	UNKNOWN HYDROCARBON	7.89	2540	J
3.	UNKNOWN	7.96	2150	J
4.	UNKNOWN HYDROCARBON	8.01	2720	J
5.	UNKNOWN ANHYDRIDE	8.03	3160	J
6.	UNKNOWN	8.07	4260	J
7.	UNKNOWN	8.16	5820	J
8.	UNKNOWN HYDROCARBON	8.22	4960	J
9.	UNKNOWN	8.28	2290	J
10.	UNKNOWN	8.31	3610	J
11.	UNKNOWN	8.34	2410	J
12.	UNKNOWN	8.51	3430	J
13.	UNKNOWN	8.54	4050	J
14.	UNKNOWN HYDROCARBON	8.57	4020	J
15. 1000130-81-0	E-11,13-DIMETHYL-12-TETRADEC	8.64	2470	NJ
16.	UNKNOWN HYDROCARBON	8.66	2310	J
17.	UNKNOWN HYDROCARBON	8.70	2490	J
18.	UNKNOWN	8.73	2030	J
19.	UNKNOWN	9.02	3350	J
20.	UNKNOWN	9.05	3570	J
21.	UNKNOWN	9.30	4050	J
22.	UNKNOWN	9.41	4100	J
23.				
24.				
25.				
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27.				
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FORM I SV-TIC OLM03.0

1B
SVOA ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-59558

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Matrix: (soil/water) SOIL Lab Sample ID: 135831004

Sample wt/vol: 30.0 (g/mL) G Lab File ID: S8E1915

Level: (low/med) LOW Date Received: 05/05/05

% Moisture: 7 decanted: (Y/N) N Date Extracted: 05/10/05

Concentrated Extract Volume: 1.00(mL) Date Analyzed: 05/19/05

Injection Volume: 0.5(uL) Dilution Factor: 10.0

GPC Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
62-75-9	N-Methyl-N-nitrosomethylamin	3590	U
110-86-1	Pyridine	3590	U
62-53-3	Aniline	3590	U
108-95-2	Phenol	3590	U
111-44-4	bis(2-Chloroethyl) ether	3590	U
95-57-8	2-Chlorophenol	3590	U
541-73-1	1,3-Dichlorobenzene	3590	U
106-46-7	1,4-Dichlorobenzene	3590	U
100-51-6	Benzyl alcohol	3590	U
95-50-1	1,2-Dichlorobenzene	3590	U
108-60-1	bis(2-Chloroisopropyl)ether	3590	U
95-48-7	o-Cresol	3590	U
621-64-7	N-Nitrosodipropylamine	3590	U
65794-96-9	m,p-Cresols	3590	U
67-72-1	Hexachloroethane	3590	U
78-59-1	Isophorone	3590	U
88-75-5	2-Nitrophenol	3590	U
105-67-9	2,4-Dimethylphenol	3590	U
111-91-1	bis(2-Chloroethoxy)methane	3590	U
120-83-2	2,4-Dichlorophenol	3590	U
65-85-0	Benzoic acid	7170	U
120-82-1	1,2,4-Trichlorobenzene	3590	U
91-20-3	Naphthalene	359	U
106-47-8	4-Chloroaniline	3590	U
87-68-3	Hexachlorobutadiene	3590	U
59-50-7	4-Chloro-3-methylphenol	3590	U
91-57-6	2-Methylnaphthalene	359	U
77-47-4	Hexachlorocyclopentadiene	3590	U
88-06-2	2,4,6-Trichlorophenol	3590	U
95-95-4	2,4,5-Trichlorophenol	3590	U
91-58-7	2-Chloronaphthalene	359	U
88-74-4	o-Nitroaniline	3590	U
99-09-2	m-Nitroaniline	3590	U

FORM I SV-1 OLM03.0

1C
SVOA ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-59558

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Matrix: (soil/water) SOIL Lab Sample ID: 135831004

Sample wt/vol: 30.0 (g/mL) G Lab File ID: S8E1915

Level: (low/med) LOW Date Received: 05/05/05

% Moisture: 7 decanted: (Y/N) N Date Extracted: 05/10/05

Concentrated Extract Volume: 1.00(mL) Date Analyzed: 05/19/05

Injection Volume: 0.5(uL) Dilution Factor: 10.0

GPC Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
131-11-3	Dimethylphthalate	3590	U
606-20-2	2,6-Dinitrotoluene	3590	U
208-96-8	Acenaphthylene	359	U
83-32-9	Acenaphthene	359	U
51-28-5	2,4-Dinitrophenol	7170	U
132-64-9	Dibenzofuran	3590	U
121-14-2	2,4-Dinitrotoluene	3590	U
84-66-2	Diethylphthalate	3590	U
100-02-7	4-Nitrophenol	3590	U
86-73-7	Fluorene	359	U
7005-72-3	4-Chlorophenylphenylether	3590	U
534-52-1	2-Methyl-4,6-dinitrophenol	3590	U
100-01-6	p-Nitroaniline	3590	U
122-39-4	Diphenylamine	3590	U
122-66-7	1,2-Diphenylhydrazine	3590	U
101-55-3	4-Bromophenylphenylether	3590	U
118-74-1	Hexachlorobenzene	3590	U
87-86-5	Pentachlorophenol	3590	U
85-01-8	Phenanthrene	146	J
120-12-7	Anthracene	359	U
84-74-2	Di-n-butylphthalate	3590	U
206-44-0	Fluoranthene	218	J
129-00-0	Pyrene	255	J
85-68-7	Butylbenzylphthalate	3590	U
56-55-3	Benzo(a)anthracene	359	U
91-94-1	3,3'-Dichlorobenzidine	3590	U
218-01-9	Chrysene	147	J
117-81-7	bis(2-Ethylhexyl)phthalate	3160	JB
117-84-0	Di-n-octylphthalate	3590	U
205-99-2	Benzo(b)fluoranthene	359	U
207-08-9	Benzo(k)fluoranthene	359	U
50-32-8	Benzo(a)pyrene	834	
193-39-5	Indeno(1,2,3-cd)pyrene	359	U

FORM I SV-2 OLM03.0

1C
SVOA ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-59558

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Matrix: (soil/water) SOIL Lab Sample ID: 135831004

Sample wt/vol: 30.0 (g/mL) G Lab File ID: S8E1915

Level: (low/med) LOW Date Received: 05/05/05

% Moisture: 7 decanted: (Y/N) N Date Extracted:05/10/05

Concentrated Extract Volume: 1.00(mL) Date Analyzed: 05/19/05

Injection Volume: 0.5(uL) Dilution Factor: 10.0

GPC Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
53-70-3	Dibenzo(a,h)anthracene	359	U
191-24-2	Benzo(ghi)perylene	359	U

FORM I SV-3 OLM03.0

1F
SVOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

RE03-05-59558

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Matrix: (soil/water) SOIL Lab Sample ID: 135831004

Sample wt/vol: 30.0 (g/mL) G Lab File ID: S8E1915

Level: (low/med) LOW Date Received: 05/05/05

% Moisture: 7 decanted: (Y/N) N Date Extracted: 05/10/05

Concentrated Extract Volume: 1.00(mL) Date Analyzed: 05/19/05

Injection Volume: 0.5(uL) Dilution Factor: 10.0

GPC Cleanup: (Y/N) N

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.					
2.					
3.					
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FORM I SV-TIC OLM03.0

QUALITY CONTROL SUMMARY

2D
SOIL SVOA SURROGATE RECOVERY

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Level:(low/med) LOW

	EPA SAMPLE NO.	S1 (2FP)#	S2 (PHL)#	S3 (NBZ)#	S4 (FBP)#	S5 (TBP)#	S6 (TPH)#	TOT OUT
01	SBLK01	62	61	67	60	67	66	0
02	SBLK01LCS	59	60	59	62	86	76	0
03	RE03-05-58926MS	54	58	52	63	69	85	0
04	RE03-05-58926MSD	83	82	80	78	96	103	0
05	RE03-05-58926	51	52	54	53	56	77	0
06	RE03-05-58927	41	40D	47	54	47	86	0
07	RE03-05-59557	64	61	58	59	48	69	0
08	RE03-05-59558	66	64	65	64	52	77	0
09								
10								
11								
12								
13								
14								
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28								
29								
30								

		QC LIMITS
S1 (2FP)	= 2-Fluorophenol	(40-105)
S2 (PHL)	= Phenol-d5	(46-100)
S3 (NBZ)	= Nitrobenzene-d5	(42-114)
S4 (FBP)	= 2-Fluorobiphenyl	(50-113)
S5 (TBP)	= 2,4,6-Tribromophenol	(35-120)
S6 (TPH)	= p-Terphenyl-d14	(44-125)

Column to be used to flag recovery values
* Values outside of contract required QC limits
D Surrogate diluted out

3D

SOIL SVOA MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Matrix Spike - EPA Sample No.: RE03-05-5892 Level:(low/med) LOW

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC #	QC. LIMITS REC.
N-Methyl-N-nitrosomethy	1770	0.0	740	42	10-150
Pyridine	1770	0.0	0.0	0*	1- 86
Aniline	1770	0.0	0.0	0*	20-107
Phenol	3540	0.0	2040	58	32-114
bis(2-Chloroethyl) ethe	1770	0.0	893	50	22-119
2-Chlorophenol	3540	0.0	1980	56	34-106
1,3-Dichlorobenzene	1770	0.0	881	50	26-100
1,4-Dichlorobenzene	1770	0.0	816	46	36-101
Benzyl alcohol	1770	0.0	3230	182*	17-116
1,2-Dichlorobenzene	1770	0.0	845	48	30-103
bis(2-Chloroisopropyl)e	1770	0.0	840	47	19-122
o-Cresol	3540	0.0	2040	58	34-111
N-Nitrosodipropylamine	1770	0.0	886	50	33-114
m,p-Cresols	3540	0.0	1980	56	27-118
Hexachloroethane	1770	0.0	778	44	25-106
Isophorone	1770	0.0	959	54	26-113
2-Nitrophenol	3540	0.0	1900	54	30-113
2,4-Dimethylphenol	3540	0.0	2450	69	38-106
bis(2-Chloroethoxy)meth	1770	0.0	1060	60	35-109
2,4-Dichlorophenol	3540	0.0	2580	73	41-111
Benzoic acid	3540	0.0	6770	191*	6-140
1,2,4-Trichlorobenzene	1770	0.0	1100	62	33-107
Naphthalene	1770	0.0	1130	64	30-107
4-Chloroaniline	1770	0.0	787	44	24-102
Hexachlorobutadiene	1770	0.0	1080	61	32-104
4-Chloro-3-methylphenol	3540	0.0	2540	72	40-122
2-Methylnaphthalene	1770	0.0	1220	69	40-112
Hexachlorocyclopentadie	1770	0.0	3120	176*	20- 97

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

COMMENTS: _____

3D

SOIL SVOA MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Matrix Spike - EPA Sample No.: RE03-05-5892 Level:(low/med) LOW

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC #	QC. LIMITS REC.
2,4,6-Trichlorophenol	3540	0.0	2520	71	42-109
2,4,5-Trichlorophenol	3540	0.0	2500	71	44-118
2-Chloronaphthalene	1770	0.0	1120	63	40-106
o-Nitroaniline	1770	0.0	912	52	36-135
m-Nitroaniline	1770	0.0	767	43	23-125
Dimethylphthalate	1770	0.0	1130	64	44-113
2,6-Dinitrotoluene	1770	0.0	921	52	41-111
Acenaphthylene	1770	0.0	1210	68	38-111
Acenaphthene	1770	0.0	1180	67	40-116
2,4-Dinitrophenol	3540	0.0	4740	134*	17-117
Dibenzofuran	1770	0.0	1120	63	40-116
2,4-Dinitrotoluene	1770	0.0	2090	118	46-119
Diethylphthalate	1770	0.0	1220	69	47-113
4-Nitrophenol	3540	0.0	3190	90	34-137
Fluorene	1770	0.0	1300	73	44-116
4-Chlorophenylphenyleth	1770	0.0	1200	68	45-110
2-Methyl-4,6-dinitrophe	3540	0.0	4030	114	19-128
p-Nitroaniline	1770	0.0	964	54	30-138
Diphenylamine	1770	0.0	1190	67	45-118
1,2-Diphenylhydrazine	1770	0.0	1060	60	47-118
4-Bromophenylphenylethe	1770	0.0	1290	73	40-126
Hexachlorobenzene	1770	0.0	1150	65	38-117
Pentachlorophenol	3540	0.0	3790	107	33-127
Phenanthrene	1770	0.0	1500	85	46-116
Anthracene	1770	0.0	1280	72	53-110
Di-n-butylphthalate	1770	0.0	1270	72	53-120
Fluoranthene	1770	0.0	1630	92	46-122
Pyrene	1770	0.0	1840	104	41-131

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

COMMENTS: _____

3D

SOIL SVOA MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Matrix Spike - EPA Sample No.: RE03-05-5892 Level:(low/med) LOW

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC #	QC. LIMITS REC.
Butylbenzylphthalate	1770	0.0	1600	90	45-129
Benzo(a)anthracene	1770	0.0	1510	85	50-121
3,3'-Dichlorobenzidine	1770	0.0	0.0	0*	19-131
Chrysene	1770	0.0	1360	77	44-123
bis(2-Ethylhexyl)phthal	1770	2120	3000	50	48-137
Di-n-octylphthalate	1770	0.0	3620	204*	43-140
Benzo(b)fluoranthene	1770	0.0	1690	95	45-129
Benzo(k)fluoranthene	1770	0.0	1610	91	43-132
Benzo(a)pyrene	1770	0.0	1940	110	50-120
Indeno(1,2,3-cd)pyrene	1770	0.0	1420	80	28-136
Dibenzo(a,h)anthracene	1770	0.0	1470	83	37-133
Benzo(ghi)perylene	1770	0.0	972	55	24-133

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

COMMENTS: _____

3D

SOIL SVOA MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Matrix Spike - EPA Sample No.: RE03-05-5892 Level:(low/med) LOW

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
N-Methyl-N-nitrosomethy	1770	1050	59	34*	30	10-150
Pyridine	1770	0.0	0*		30	1- 86
Aniline	1770	0.0	0*		30	20-107
Phenol	3540	2960	84	37*	30	32-114
bis(2-Chloroethyl) ethe	1770	1320	74	39*	30	22-119
2-Chlorophenol	3540	2940	83	39*	30	34-106
1,3-Dichlorobenzene	1770	1100	62	21	30	26-100
1,4-Dichlorobenzene	1770	1100	62	30	30	36-101
Benzyl alcohol	1770	4590	259*	35*	30	17-116
1,2-Dichlorobenzene	1770	1260	71	39*	30	30-103
bis(2-Chloroisopropyl)e	1770	1260	71	41*	30	19-122
o-Cresol	3540	2870	81	33*	30	34-111
N-Nitrosodipropylamine	1770	1320	74	39*	30	33-114
m,p-Cresols	3540	2880	81	36*	30	27-118
Hexachloroethane	1770	938	53	18	30	25-106
Isophorone	1770	1400	79	38*	30	26-113
2-Nitrophenol	3540	2920	82	41*	30	30-113
2,4-Dimethylphenol	3540	3340	94	31*	30	38-106
bis(2-Chloroethoxy)meth	1770	1530	86	36*	30	35-109
2,4-Dichlorophenol	3540	3630	102	33*	30	41-111
Benzoic acid	3540	7280	206*	8	30	6-140
1,2,4-Trichlorobenzene	1770	1410	80	25	30	33-107
Naphthalene	1770	1480	84	27	30	30-107
4-Chloroaniline	1770	1420	80	58*	30	24-102
Hexachlorobutadiene	1770	1350	76	22	30	32-104
4-Chloro-3-methylphenol	3540	3900	110	42*	30	40-122
2-Methylnaphthalene	1770	1580	89	25	30	40-112
Hexachlorocyclopentadie	1770	3240	183*	4	30	20- 97

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

COMMENTS:

3D

SOIL SVOA MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Matrix Spike - EPA Sample No.: RE03-05-5892 Level:(low/med) LOW

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
2,4,6-Trichlorophenol	3540	3400	96	30	30	42-109
2,4,5-Trichlorophenol	3540	3570	101	35*	30	44-118
2-Chloronaphthalene	1770	1370	77	20	30	40-106
o-Nitroaniline	1770	1300	73	34*	30	36-135
m-Nitroaniline	1770	1090	62	36*	30	23-125
Dimethylphthalate	1770	1480	84	27	30	44-113
2,6-Dinitrotoluene	1770	1200	68	27	30	41-111
Acenaphthylene	1770	1480	84	21	30	38-111
Acenaphthene	1770	1430	81	19	30	40-116
2,4-Dinitrophenol	3540	0.0	0*		30	17-117
Dibenzofuran	1770	1420	80	24	30	40-116
2,4-Dinitrotoluene	1770	2400	136*	14	30	46-119
Diethylphthalate	1770	1640	93	30	30	47-113
4-Nitrophenol	3540	4120	116	25	30	34-137
Fluorene	1770	1660	94	25	30	44-116
4-Chlorophenylphenyleth	1770	1520	86	23	30	45-110
2-Methyl-4,6-dinitrophe	3540	4230	119	4	30	19-128
p-Nitroaniline	1770	1360	77	35*	30	30-138
Diphenylamine	1770	1550	88	27	30	45-118
1,2-Diphenylhydrazine	1770	1380	78	26	30	47-118
4-Bromophenylphenylethe	1770	1590	90	21	30	40-126
Hexachlorobenzene	1770	1340	76	16	30	38-117
Pentachlorophenol	3540	4660	132*	21	30	33-127
Phenanthrene	1770	1720	97	13	30	46-116
Anthracene	1770	1630	92	24	30	53-110
Di-n-butylphthalate	1770	1660	94	26	30	53-120
Fluoranthene	1770	1880	106	14	30	46-122
Pyrene	1770	2010	114	9	30	41-131

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

COMMENTS:

3D

SOIL SVOA MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Matrix Spike - EPA Sample No.: RE03-05-5892 Level:(low/med) LOW

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Butylbenzylphthalate	1770	2050	116	25	30	45-129
Benzo(a)anthracene	1770	1700	96	12	30	50-121
3,3'-Dichlorobenzidine	1770	0.0	0*		30	19-131
Chrysene	1770	1830	103	29	30	44-123
bis(2-Ethylhexyl)phthal	1770	3470	76	41*	30	48-137
Di-n-octylphthalate	1770	4100	232*	13	30	43-140
Benzo(b)fluoranthene	1770	2030	115	19	30	45-129
Benzo(k)fluoranthene	1770	1840	104	13	30	43-132
Benzo(a)pyrene	1770	2260	128*	15	30	50-120
Indeno(1,2,3-cd)pyrene	1770	1640	93	15	30	28-136
Dibenzo(a,h)anthracene	1770	1760	99	18	30	37-133
Benzo(ghi)perylene	1770	1140	64	15	30	24-133

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

RPD: 22 out of 68 outside limits
Spike Recovery: 19 out of 136 outside limits

COMMENTS: _____

3D
SOIL SVOA LAB CONTROL SAMPLE

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Matrix Spike - EPA Sample No.: SBLK01 Level:(low/med) LOW

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC #	QC. LIMITS REC.
N-Methyl-N-nitrosomethy	1670	0.0	812	49	10-150
Pyridine	1670	0.0	616	37	12- 89
Aniline	1670	0.0	738	44	22-104
Phenol	3330	0.0	2030	61	43-100
bis(2-Chloroethyl) ethe	1670	0.0	876	52	33-105
2-Chlorophenol	3330	0.0	2050	62	45-104
1,3-Dichlorobenzene	1670	0.0	886	53	44- 97
1,4-Dichlorobenzene	1670	0.0	910	54	38-103
Benzyl alcohol	1670	0.0	910	54	20-111
1,2-Dichlorobenzene	1670	0.0	930	56	36-105
bis(2-Chloroisopropyl)e	1670	0.0	878	52	26-114
o-Cresol	3330	0.0	2090	63	42-102
N-Nitrosodipropylamine	1670	0.0	1000	60	40-107
m,p-Cresols	3330	0.0	2130	64	42-105
Hexachloroethane	1670	0.0	902	54	36-102
Isophorone	1670	0.0	963	58	45- 99
2-Nitrophenol	3330	0.0	2300	69	42-105
2,4-Dimethylphenol	3330	0.0	2180	65	42-104
bis(2-Chloroethoxy)meth	1670	0.0	997	60	40-102
2,4-Dichlorophenol	3330	0.0	2300	69	47-107
Benzoic acid	3330	0.0	2680	80	30-119
1,2,4-Trichlorobenzene	1670	0.0	1000	60	35-108
Naphthalene	1670	0.0	1040	62	40-103
4-Chloroaniline	1670	0.0	830	50	25- 96
Hexachlorobutadiene	1670	0.0	1020	61	42-100
4-Chloro-3-methylphenol	3330	0.0	2560	77	52-108
2-Methylnaphthalene	1670	0.0	1080	65	47-104
Hexachlorocyclopentadie	1670	0.0	961	58	26-103

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

COMMENTS:

3D
SOIL SVOA LAB CONTROL SAMPLE

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Matrix Spike - EPA Sample No.: SBLK01 Level:(low/med) LOW

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC #	QC. LIMITS REC.
2,4,6-Trichlorophenol	3330	0.0	2340	70	50-102
2,4,5-Trichlorophenol	3330	0.0	2320	70	51-109
2-Chloronaphthalene	1670	0.0	1020	61	46-102
o-Nitroaniline	1670	0.0	1130	68	47-120
m-Nitroaniline	1670	0.0	1020	61	33-110
Dimethylphthalate	1670	0.0	1110	66	55-102
2,6-Dinitrotoluene	1670	0.0	1160	69	50-109
Acenaphthylene	1670	0.0	1150	69	47-103
Acenaphthene	1670	0.0	1180	71	52-109
2,4-Dinitrophenol	3330	0.0	2570	77	35-121
Dibenzofuran	1670	0.0	1030	62	52-101
2,4-Dinitrotoluene	1670	0.0	1230	74	59-113
Diethylphthalate	1670	0.0	1170	70	54-106
4-Nitrophenol	3330	0.0	2670	80	40-132
Fluorene	1670	0.0	1200	72	52-105
4-Chlorophenylphenyleth	1670	0.0	1120	67	54-103
2-Methyl-4,6-dinitrophe	3330	0.0	2500	75	36-133
p-Nitroaniline	1670	0.0	1160	69	38-122
Diphenylamine	1670	0.0	1120	67	50-110
1,2-Diphenylhydrazine	1670	0.0	1060	63	51-113
4-Bromophenylphenylethe	1670	0.0	1180	71	53-115
Hexachlorobenzene	1670	0.0	1180	71	54-106
Pentachlorophenol	3330	0.0	2840	85	42-120
Phenanthrene	1670	0.0	1250	75	61-103
Anthracene	1670	0.0	1300	78	57-108
Di-n-butylphthalate	1670	0.0	1240	74	64-110
Fluoranthene	1670	0.0	1360	81	60-115
Pyrene	1670	0.0	1290	77	53-117

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

COMMENTS: _____

3D
SOIL SVOA LAB CONTROL SAMPLE

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Matrix Spike - EPA Sample No.: SBLK01 Level:(low/med) LOW

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC #	QC. LIMITS REC.
Butylbenzylphthalate	1670	0.0	1270	76	53-122
Benzo(a)anthracene	1670	0.0	1320	79	65-110
3,3'-Dichlorobenzidine	1670	0.0	1380	83	37-126
Chrysene	1670	0.0	1390	83	65-109
bis(2-Ethylhexyl)phthal	1670	118	1300	71	61-124
Di-n-octylphthalate	1670	0.0	1350	81	46-127
Benzo(b)fluoranthene	1670	0.0	1240	74	56-115
Benzo(k)fluoranthene	1670	0.0	1510	90	53-121
Benzo(a)pyrene	1670	0.0	1300	78	58-110
Indeno(1,2,3-cd)pyrene	1670	0.0	1290	77	53-120
Dibenzo(a,h)anthracene	1670	0.0	1270	76	52-124
Benzo(ghi)perylene	1670	0.0	1280	77	51-125

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

RPD: 0 out of 0 outside limits
Spike Recovery: 0 out of 68 outside limits

COMMENTS: _____

4B
SVOA METHOD BLANK SUMMARY

EPA SAMPLE NO.

SBLK01

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Lab File ID: S8E1904-2 Lab Sample ID: 1200842643

Instrument ID: MSD8 Date Extracted: 05/10/05

Matrix: (soil/water) SOIL Date Analyzed: 05/19/05

Level:(low/med) LOW Time Analyzed: 1552

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	SBLK01LCS	1200842644	S8E1905-2	05/19/05
02	RE03-05-58926MS	1200842645	S8E1910	05/19/05
03	RE03-05-58926MSD	1200842646	S8E1911	05/19/05
04	RE03-05-58926	135831001	S8E1912	05/19/05
05	RE03-05-58927	135831002	S8E1913	05/19/05
06	RE03-05-59557	135831003	S8E1914	05/19/05
07	RE03-05-59558	135831004	S8E1915	05/19/05
08				
09				
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5B

SVOA ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Lab File ID: S8E1101 DFTPP Injection Date: 05/11/05

Instrument ID: MSD8 DFTPP Injection Time: 1500

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	33.4
68	Less than 2.0% of mass 69	0.0 (0.0)1
69	Mass 69 relative abundance	31.5
70	Less than 2.0% of mass 69	0.2 (0.6)1
127	40.0 - 60.0% of mass 198	43.1
197	Less than 1.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	6.6
275	10.0 - 30.0% of mass 198	29.9
365	Greater than 1.0% of mass 198	4.07
441	Present, but less than mass 443	13.2
442	Greater than 40.0% of mass 198	73.7
443	17.0 - 23.0% of mass 442	14.5 (19.6)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	ANBZICAL001	UBN050216-15	S8E1111	05/11/05	1818
02	ANBZICAL010	UBN050216-16	S8E1112	05/11/05	1838
03	ANBZICAL020	UBN050216-17	S8E1113	05/11/05	1859
04	ANBZICAL040	UBN050216-18	S8E1114	05/11/05	1919
05	ANBZICAL050	UBN050216-19	S8E1115	05/11/05	1939
06	ANBZICAL080	UBN050216-20	S8E1116	05/11/05	2000
07	ANBZICAL100	UBN050216-21	S8E1117	05/11/05	2020
08	ANBZICAL120	UBN050216-22	S8E1118	05/11/05	2040
09					
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22					

5B

SVOA ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Lab File ID: S8E1601 DFTPP Injection Date: 05/16/05

Instrument ID: MSD8 DFTPP Injection Time: 1352

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	33.3
68	Less than 2.0% of mass 69	0.0 (0.0)1
69	Mass 69 relative abundance	32.7
70	Less than 2.0% of mass 69	0.1 (0.3)1
127	40.0 - 60.0% of mass 198	43.2
197	Less than 1.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	6.9
275	10.0 - 30.0% of mass 198	29.7
365	Greater than 1.0% of mass 198	3.92
441	Present, but less than mass 443	11.7
442	Greater than 40.0% of mass 198	68.4
443	17.0 - 23.0% of mass 442	13.1 (19.2)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	BNAICAL001	UBN050506-23	S8E1605	05/16/05	1546
02	BNAICAL010	UBN050506-24	S8E1606	05/16/05	1606
03	BNAICAL020	UBN050506-25	S8E1607	05/16/05	1626
04	BNAICAL040	UBN050506-26.3	S8E1608	05/16/05	1647
05	BNAICAL050	UBN050506-27	S8E1609	05/16/05	1707
06	BNAICAL080	UBN050506-28	S8E1610	05/16/05	1728
07	BNAICAL100	UBN050506-29	S8E1611	05/16/05	1748
08	BNAICAL120	UBN050506-30	S8E1612	05/16/05	1809
09	BNA ICV	UBN050421-04.1	S8E1614	05/16/05	1850
10					
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18					
19					
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21					
22					

5B

SVOA ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Lab File ID: S8E1901 DFTPP Injection Date: 05/19/05

Instrument ID: MSD8 DFTPP Injection Time: 1446

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	32.1
68	Less than 2.0% of mass 69	0.0 (0.0)1
69	Mass 69 relative abundance	33.0
70	Less than 2.0% of mass 69	0.2 (0.5)1
127	40.0 - 60.0% of mass 198	43.7
197	Less than 1.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	6.8
275	10.0 - 30.0% of mass 198	29.2
365	Greater than 1.0% of mass 198	3.94
441	Present, but less than mass 443	12.4
442	Greater than 40.0% of mass 198	68.4
443	17.0 - 23.0% of mass 442	13.1 (19.1)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	BNA CVS	UBN050421-04.3	S8E1902	05/19/05	1501
02	ANBZ CVS	UBN050506-06.3	S8E1903	05/19/05	1522
03	SBLK01	1200842643	S8E1904-2	05/19/05	1552
04	SBLK01LCS	1200842644	S8E1905-2	05/19/05	1613
05	RE03-05-58926MS	1200842645	S8E1910	05/19/05	1756
06	RE03-05-58926MSD	1200842646	S8E1911	05/19/05	1816
07	RE03-05-58926	135831001	S8E1912	05/19/05	1837
08	RE03-05-58927	135831002	S8E1913	05/19/05	2004
09	RE03-05-59557	135831003	S8E1914	05/19/05	2024
10	RE03-05-59558	135831004	S8E1915	05/19/05	2044
11					
12					
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22					

8B
SVOA INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Lab File ID (Standard): S8E1902 Date Analyzed: 05/19/05

Instrument ID: MSD8 Time Analyzed: 1501

		IS1(DCB) AREA #	RT #	IS2(NPT) AREA #	RT #	IS3(ANT) AREA #	RT #
	12 HOUR STD	142760	3.79	605639	4.66	353337	5.90
	UPPER LIMIT	285520	4.29	1211278	5.16	706674	6.40
	LOWER LIMIT	71380	3.29	302820	4.16	176668	5.40
	EPA SAMPLE NO.						
01	SBLK01	114869	3.79	402922	4.65	262709	5.90
02	SBLK01LCS	124428	3.79	512899	4.65	315855	5.90
03	RE03-05-58926MS	109536	3.79	402221	4.65	259646	5.90
04	RE03-05-58926MSD	122898	3.79	458255	4.65	305130	5.90
05	RE03-05-58926	131177	3.79	483455	4.65	317294	5.90
06	RE03-05-58927	108783	3.79	400699	4.65	258691	5.90
07	RE03-05-59557	142113	3.79	514964	4.65	329793	5.90
08	RE03-05-59558	105573	3.79	371126	4.65	240189	5.90
09							
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22							

IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = + 0.50 minutes of internal standard RT
RT LOWER LIMIT = - 0.50 minutes of internal standard RT

Column used to flag internal standard area values with an asterisk.
* Values outside of QC limits.

8C
SVOA INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Lab File ID (Standard): S8E1902 Date Analyzed: 05/19/05

Instrument ID: MSD8 Time Analyzed: 1501

		IS4(PHN) AREA #	RT #	IS5(CRY) AREA #	RT #	IS6(PRY) AREA #	RT #
	12 HOUR STD	709636	6.89	516526	8.46	404394	9.57
	UPPER LIMIT	1419272	7.39	1033052	8.96	808788	10.07
	LOWER LIMIT	354818	6.39	258263	7.96	202197	9.07
	EPA SAMPLE NO.						
01	SBLK01	544132	6.89	441962	8.46	374744	9.58
02	SBLK01LCS	667079	6.89	532819	8.46	473203	9.57
03	RE03-05-58926MS	520933	6.89	336746	8.46	254381	9.57
04	RE03-05-58926MSD	643117	6.89	450347	8.46	356218	9.57
05	RE03-05-58926	630818	6.89	348131	8.46	245321	9.57
06	RE03-05-58927	466537	6.89	228698*	8.47	174851*	9.59
07	RE03-05-59557	614983	6.89	346046	8.46	228657	9.57
08	RE03-05-59558	459229	6.89	268082	8.46	187622*	9.56
09							
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22							

IS4 (PHN) = Phenanthrene-d10
IS5 (CRY) = Chrysene-d12
IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = + 0.50 minutes of internal standard RT
RT LOWER LIMIT = - 0.50 minutes of internal standard RT

Column used to flag internal standard area values with an asterisk.
* Values outside of QC limits.

SAMPLE DATA

1B
SVOA ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-58926

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Matrix: (soil/water) SOIL Lab Sample ID: 135831001

Sample wt/vol: 30.0 (g/mL) G Lab File ID: S8E1912

Level: (low/med) LOW Date Received: 05/05/05

% Moisture: 6 decanted: (Y/N) N Date Extracted: 05/10/05

Concentrated Extract Volume: 1.00(mL) Date Analyzed: 05/19/05

Injection Volume: 0.5(uL) Dilution Factor: 10.0

GPC Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
62-75-9	N-Methyl-N-nitrosomethylamin	3540	U
110-86-1	Pyridine	3540	U
62-53-3	Aniline	3540	U
108-95-2	Phenol	3540	U
111-44-4	bis(2-Chloroethyl) ether	3540	U
95-57-8	2-Chlorophenol	3540	U
541-73-1	1,3-Dichlorobenzene	3540	U
106-46-7	1,4-Dichlorobenzene	3540	U
100-51-6	Benzyl alcohol	3540	U
95-50-1	1,2-Dichlorobenzene	3540	U
108-60-1	bis(2-Chloroisopropyl)ether	3540	U
95-48-7	o-Cresol	3540	U
621-64-7	N-Nitrosodipropylamine	3540	U
65794-96-9	m,p-Cresols	3540	U
67-72-1	Hexachloroethane	3540	U
78-59-1	Isophorone	3540	U
88-75-5	2-Nitrophenol	3540	U
105-67-9	2,4-Dimethylphenol	3540	U
111-91-1	bis(2-Chloroethoxy)methane	3540	U
120-83-2	2,4-Dichlorophenol	3540	U
65-85-0	Benzoic acid	7080	U
120-82-1	1,2,4-Trichlorobenzene	3540	U
91-20-3	Naphthalene	354	U
106-47-8	4-Chloroaniline	3540	U
87-68-3	Hexachlorobutadiene	3540	U
59-50-7	4-Chloro-3-methylphenol	3540	U
91-57-6	2-Methylnaphthalene	354	U
77-47-4	Hexachlorocyclopentadiene	3540	U
88-06-2	2,4,6-Trichlorophenol	3540	U
95-95-4	2,4,5-Trichlorophenol	3540	U
91-58-7	2-Chloronaphthalene	354	U
88-74-4	o-Nitroaniline	3540	U
99-09-2	m-Nitroaniline	3540	U

1C

SVOA ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-58926

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Matrix: (soil/water) SOIL Lab Sample ID: 135831001

Sample wt/vol: 30.0 (g/mL) G Lab File ID: S8E1912

Level: (low/med) LOW Date Received: 05/05/05

% Moisture: 6 decanted: (Y/N) N Date Extracted: 05/10/05

Concentrated Extract Volume: 1.00(mL) Date Analyzed: 05/19/05

Injection Volume: 0.5(uL) Dilution Factor: 10.0

GPC Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
131-11-3	Dimethylphthalate	3540	U
606-20-2	2,6-Dinitrotoluene	3540	U
208-96-8	Acenaphthylene	354	U
83-32-9	Acenaphthene	354	U
51-28-5	2,4-Dinitrophenol	7080	U
132-64-9	Dibenzofuran	3540	U
121-14-2	2,4-Dinitrotoluene	3540	U
84-66-2	Diethylphthalate	3540	U
100-02-7	4-Nitrophenol	3540	U
86-73-7	Fluorene	354	U
7005-72-3	4-Chlorophenylphenylether	3540	U
534-52-1	2-Methyl-4,6-dinitrophenol	3540	U
100-01-6	p-Nitroaniline	3540	U
122-39-4	Diphenylamine	3540	U
122-66-7	1,2-Diphenylhydrazine	3540	U
101-55-3	4-Bromophenylphenylether	3540	U
118-74-1	Hexachlorobenzene	3540	U
87-86-5	Pentachlorophenol	3540	U
85-01-8	Phenanthrene	354	U
120-12-7	Anthracene	354	U
84-74-2	Di-n-butylphthalate	3540	U
206-44-0	Fluoranthene	354	U
129-00-0	Pyrene	354	U
85-68-7	Butylbenzylphthalate	3540	U
56-55-3	Benzo(a)anthracene	354	U
91-94-1	3,3'-Dichlorobenzidine	3540	U
218-01-9	Chrysene	354	U
117-81-7	bis(2-Ethylhexyl)phthalate	2120	JB
117-84-0	Di-n-octylphthalate	3540	U
205-99-2	Benzo(b)fluoranthene	354	U
207-08-9	Benzo(k)fluoranthene	354	U
50-32-8	Benzo(a)pyrene	354	U
193-39-5	Indeno(1,2,3-cd)pyrene	354	U

FORM I SV-2 OLM03.0

1C
SVOA ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-58926

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Matrix: (soil/water) SOIL Lab Sample ID: 135831001

Sample wt/vol: 30.0 (g/mL) G Lab File ID: S8E1912

Level: (low/med) LOW Date Received: 05/05/05

% Moisture: 6 decanted: (Y/N) N Date Extracted: 05/10/05

Concentrated Extract Volume: 1.00(mL) Date Analyzed: 05/19/05

Injection Volume: 0.5(uL) Dilution Factor: 10.0

GPC Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
53-70-3	Dibenzo(a,h)anthracene	354	U
191-24-2	Benzo(ghi)perylene	354	U

FORM I SV-3 OLM03.0

1F

SVOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

RE03-05-58926

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Matrix: (soil/water) SOIL Lab Sample ID: 135831001

Sample wt/vol: 30.0 (g/mL) G Lab File ID: S8E1912

Level: (low/med) LOW Date Received: 05/05/05

% Moisture: 6 decanted: (Y/N) N Date Extracted: 05/10/05

Concentrated Extract Volume: 1.00(mL) Date Analyzed: 05/19/05

Injection Volume: 0.5(uL) Dilution Factor: 10.0

GPC Cleanup: (Y/N) N

Number TICs found: 7

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 16696-65-4	1,11-DIBROMOUNDECANE	7.91	8350	NJ
2. 20175-84-2	[1,2'-BINAPHTHALENE]-5,5',8,	7.96	7220	NJ
3. 19780-11-1	2-DODECEN-1-YL(-)SUCCINIC AN	7.99	6250	NJ
4.	UNKNOWN	8.04	7810	J
5. 4452-45-3	1,14-DOCOSANEDIOL	9.06	15000	NJ
6. 1000100-23-6	DECAHYDRO-9-ETHYL-4,4,8,10-T	9.17	14700	NJ
7. 7683-64-9	SQUALENE	9.24	8870	NJ
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FORM I SV-TIC OLM03.0

General Engineering Laboratories, LLC

Data file : /chem/MSD8.i/s051905.b/s8e1912.d
Lab Smp Id: 135831001 Client Smp ID: RE03-05-58926
Inj Date : 19-MAY-2005 18:37
Operator : cak Inst ID: MSD8.i
Smp Info : |135831001|423903|10|SVMF|1|LANL|
Misc Info : |MSD8270_SF|WBN050506-02
Comment : Column: J & W DB-5MS:25m x 0.20mm - 0.33um Film m
Method : /chem/MSD8.i/s051905.b/MSD8-8270-051605a.m
Meth Date : 23-May-2005 08:53 cak Quant Type: ISTD
Cal Date : 11-MAY-2005 18:18 Cal File: s8e1111.d
Als bottle: 12
Dil Factor: 10.00000
Integrator: HP RTE Compound Sublist: 3202S.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	10.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	5.87600	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.790	3.792	(1.000)	131177	40.0000	
* 29 Naphthalene-d8	136	4.654	4.655	(1.000)	483455	40.0000	
* 46 Acenaphthene-d10	164	5.900	5.901	(1.000)	317294	40.0000	
* 67 Phenanthrene-d10	188	6.892	6.894	(1.000)	630818	40.0000	
* 91 Chrysene-d12	240	8.461	8.463	(1.000)	348131	40.0000	
* 98 Perylene-d12	264	9.572	9.567	(1.000)	245321	40.0000	
$ 3 2-Fluorophenol	112	2.974	2.975	(0.785)	13768	5.06942	1800
$ 5 Phenol-d5	99	3.502	3.504	(0.924)	16182	5.17313	1830
$ 20 Nitrobenzene-d5	82	4.149	4.150	(0.891)	7611	2.71855	963
$ 39 2-Fluorobiphenyl	172	5.394	5.396	(0.914)	25920	2.67067	946
$ 60 2,4,6-Tribromophenol	329	6.440	6.442	(1.092)	6393	5.57844	1980
$ 81 p-Terphenyl-d14	244	7.803	7.805	(0.922)	32499	3.85132	1360

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
93 bis(2-Ethylhexyl)phthalate	149	8.373	8.375	(0.990)	15431	5.99126	2120(a)

QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).

General Engineering Laboratories, LLC

Data file : /chem/MSD8.i/s051905.b/s8e1912.d
Lab Smp Id: 135831001 Client Smp ID: RE03-05-58926
Inj Date : 19-MAY-2005 18:37
Operator : cak Inst ID: MSD8.i
Smp Info : |135831001|423903|10|SVMF|1|LANL|
Misc Info : |MSD8270_SF|WBN050506-02
Comment : Column: J & W DB-5MS:25m x 0.20mm - 0.33um Film m
Method : /chem/MSD8.i/s051905.b/MSD8-8270-051605a.m
Meth Date : 23-May-2005 08:53 cak Quant Type: ISTD
Cal Date : 11-MAY-2005 18:18 Cal File: s8e1111.d
Als bottle: 12
Dil Factor: 10.00000
Integrator: HP RTE Compound Sublist: 3202S.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	10.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	5.87600	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 91 Chrysene-d12	8.461	3263121	40.000
* 98 Perylene-d12	9.572	1760163	40.000

	CONCENTRATIONS				QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
1,11-Dibromoundecane				CAS #: 16696-65-4			
7.909	1922886	23.5711280	8350	87	Nist98.1	13089	91

RT	AREA	CONCENTRATIONS ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	QUANT LIBRARY	LIB ENTRY	CPND #
[1,2'-Binaphthalene]-5,5',8,8'-tetrone,				CAS #: 20175-84-2			
7.956	1663538	20.3919825	7220	99	Nist98.1	111487	91
2-Dodecen-1-yl(-)succinic anhydride				CAS #: 19780-11-1			
7.985	1440710	17.6605124	6250	91	Nist98.1	1951	91
Unknown				CAS #:			
8.038	1799080	22.0534855	7810	0		0	91
1,14-Docosanediol				CAS #: 4452-45-3			
9.061	1866412	42.4145129	15000	91	Nist98.1	23057	98
Decahydro-9-ethyl-4,4,8,10-tetramethylna				CAS #: 1000100-23-6			
9.166	1823437	41.4378982	14700	89	Nist98.1	55966	98
Squalene				CAS #: 7683-64-9			
9.237	1102252	25.0488513	8870	89	Nist98.1	23074	98

Data File: /chem/MSD8.i/s051905.b/s8e1912.d
Date : 19-MAY-2005 18:37
Client ID: RE03-05-58926
Sample Info: |135831001|423903|10|SVMF|1|LANL|
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD8.i
Operator: cak
Column diameter: 0.20

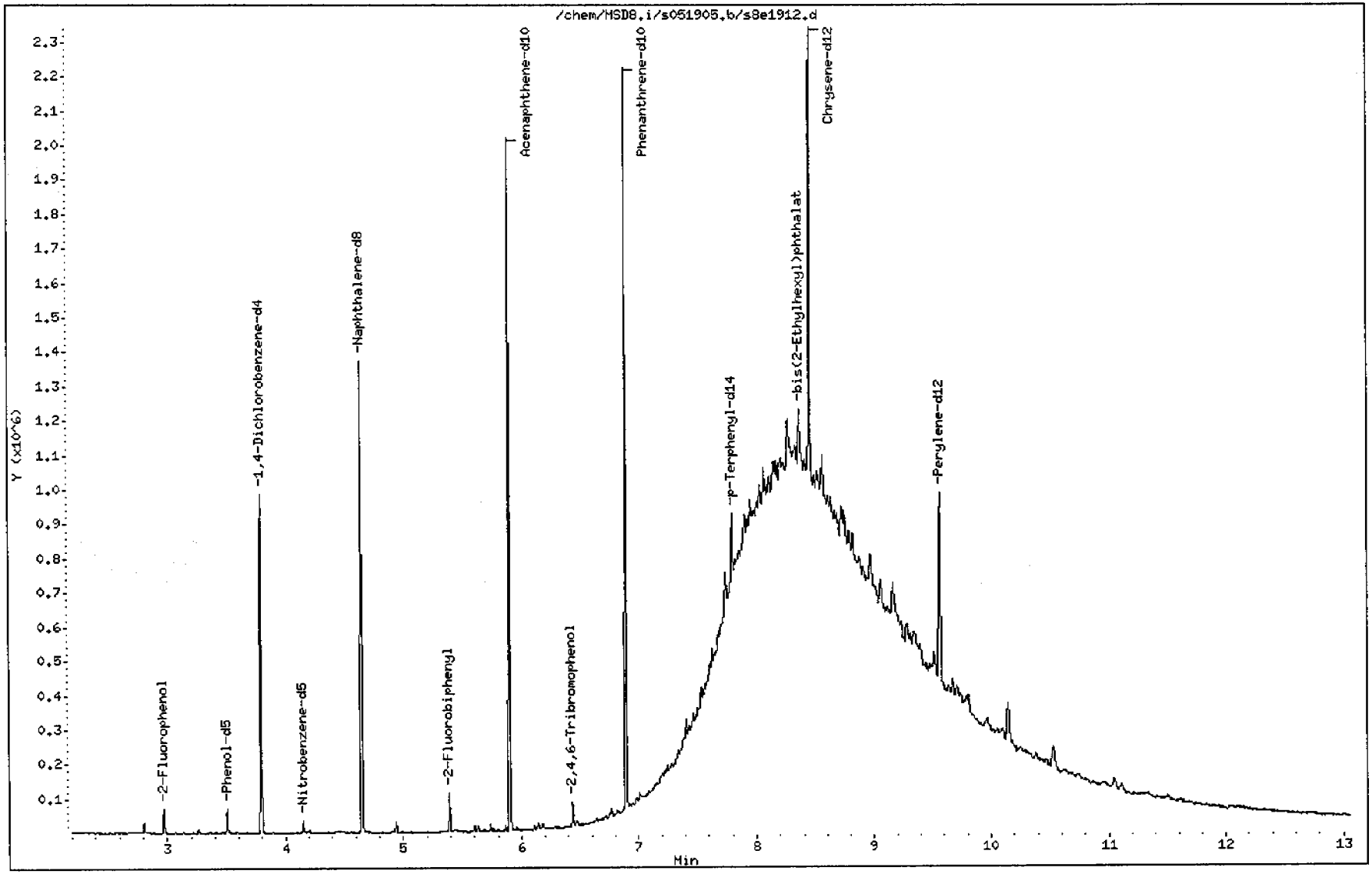

Data File: /chem/MSD8.i/s051905.b/s8e1912.d

Date : 19-MAY-2005 18:37

Client ID: RE03-05-58926

Instrument: MSD8.i

Sample Info: |135831001|423903|10|SVMF|1|LANL|

Volume Injected (uL): 0.5

Operator: cak

Column phase: J&W DB-5MS

Column diameter: 0.20

93 bis(2-Ethylhexyl)phthalate

Concentration: 2120 ug/Kg

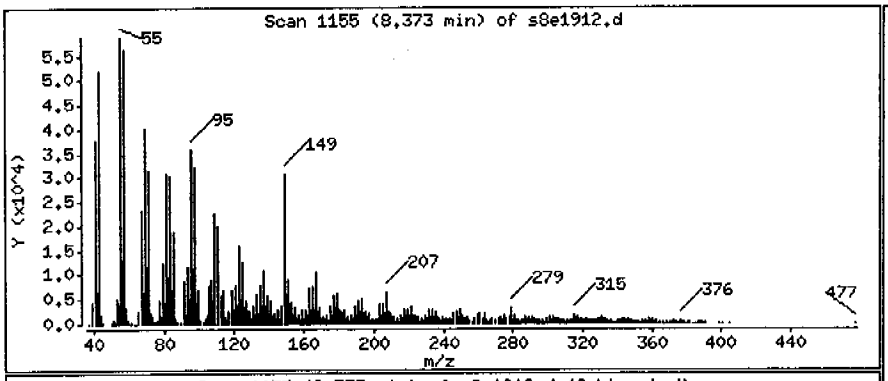

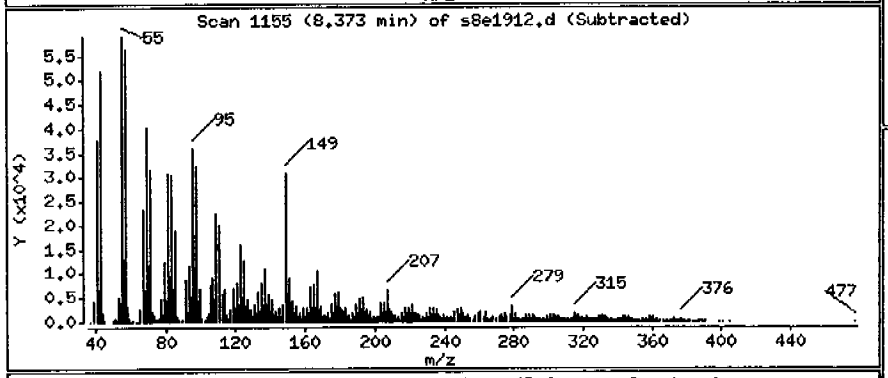

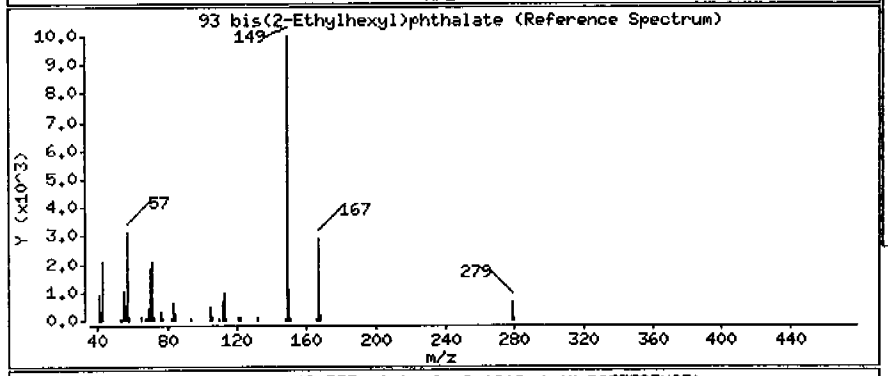

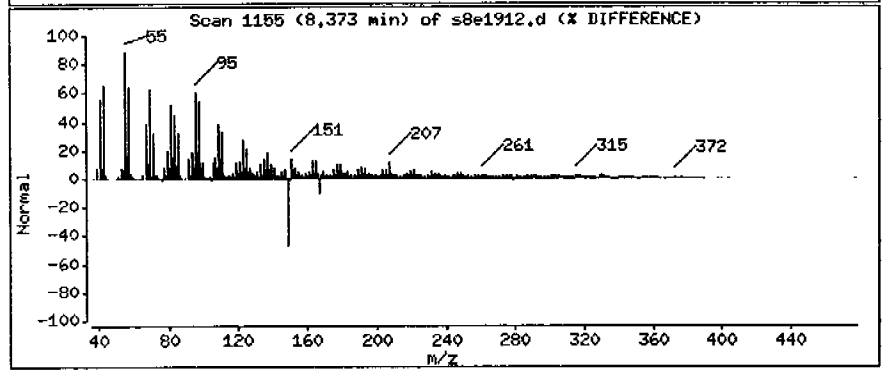

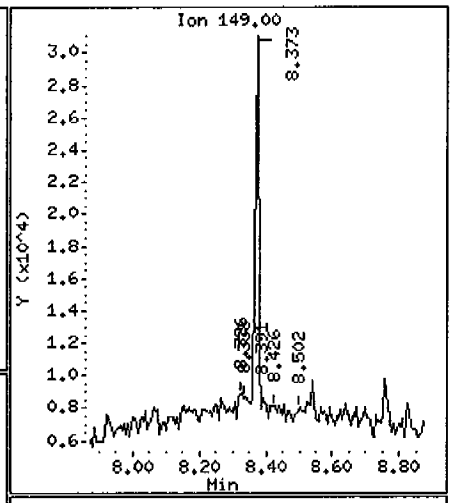

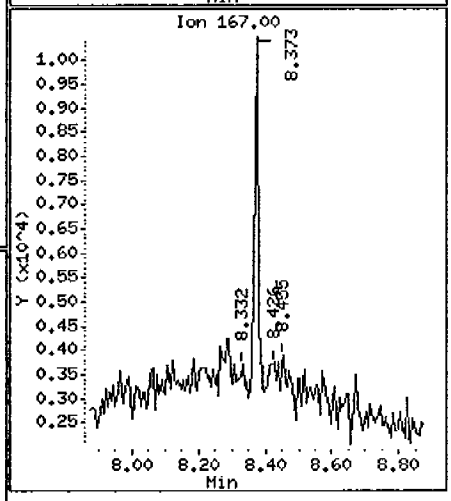

Data File: /chem/MSD8.i/s051905.b/s8e1912.d

Date : 19-MAY-2005 18:37

Client ID: RE03-05-58926 Instrument: MSD8.i

Sample Info: |1358310011423903|10|SVMF|1|LANL|

Volume Injected (uL): 0.5 Operator: cak

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
1,11-Dibromoundecane	16696-65-4	Nist98.l	13089	87	C11H22Br2	312
1-Bromo-11-iodoundecane	1000195-60-2	Nist98.l	22893	72	C11H22BrI	360
Octadecane, 1-chloro-	3386-33-2	Nist98.l	112584	68	C18H37Cl	288

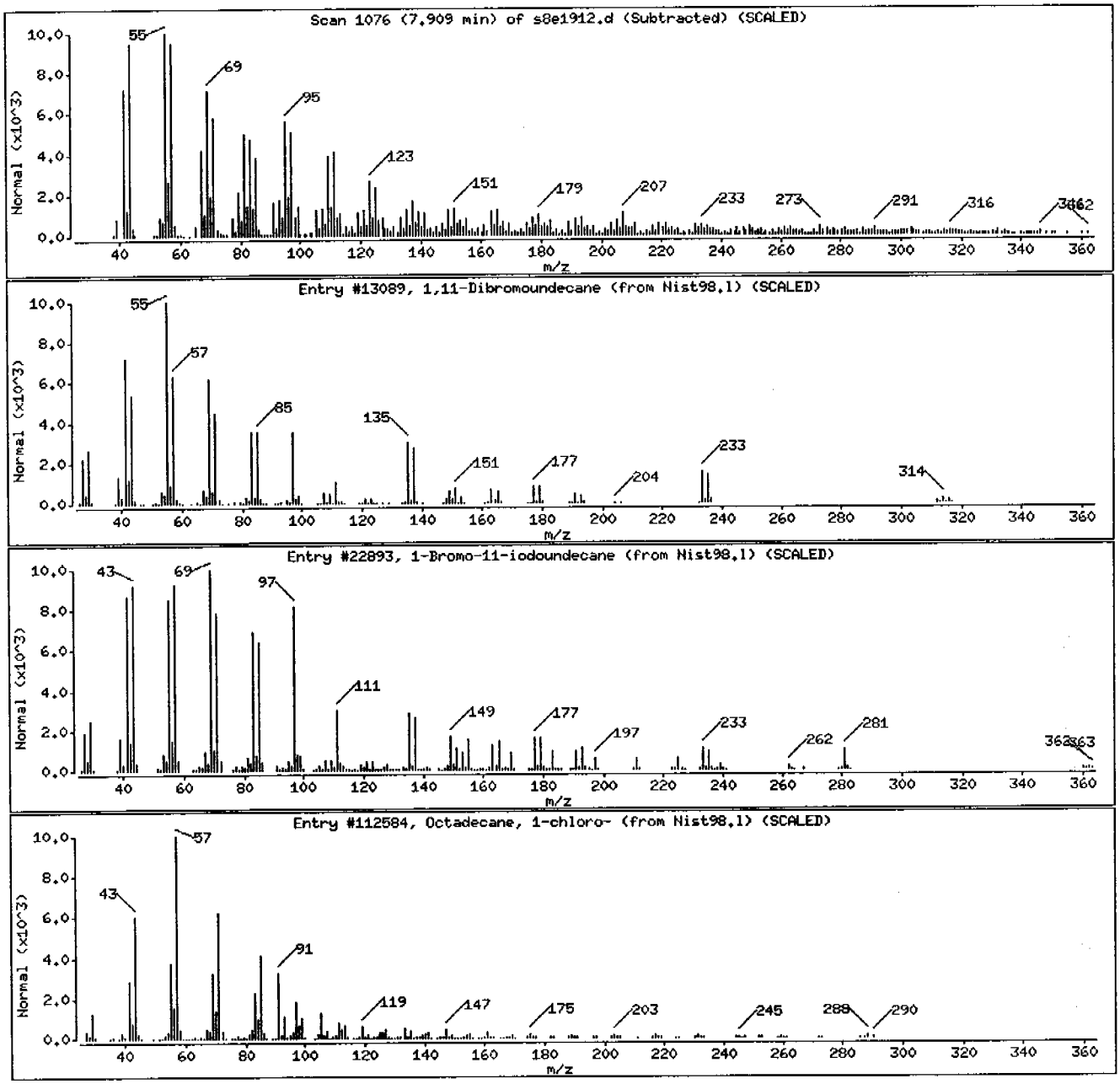

Data File: /chem/MSD8.i/s051905.b/s8e1912.d

Date : 19-MAY-2005 18:37

Client ID: RE03-05-58926

Instrument: MSD8.i

Sample Info: |135831001|423903|10|SVMF|1|LANL|

Volume Injected (uL): 0.5

Operator: cak

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
[1,2'-Binaphthalene]-5,5',8,8'-tetrone,	20175-84-2	Nist98.l	111487	99	C22H1406	374
2-Dodecen-1-yl(-)succinic anhydride	19780-11-1	Nist98.l	1951	95	C16H2603	266
1H-Indene, 5-butyl-6-hexyloctahydro-	55044-36-5	Nist98.l	2761	70	C19H36	264

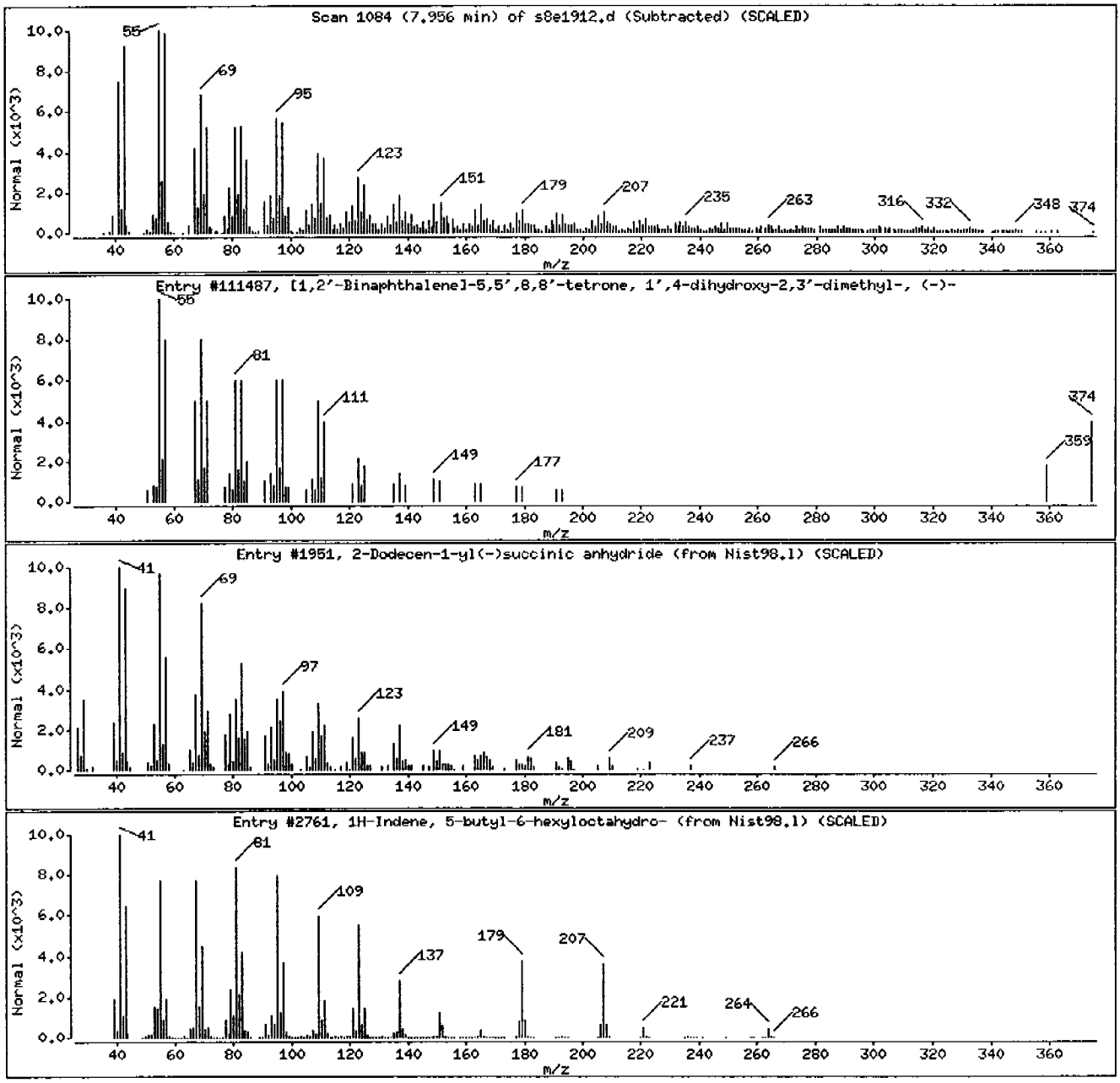

Data File: /chem/MSD8.i/s051905.b/s8e1912.d

Date : 19-MAY-2005 18:37

Client ID: RE03-05-58926

Instrument: MSD8.i

Sample Info: |1358310011423903110|SVMF11|LANL|

Volume Injected (uL): 0.5

Operator: cak

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
2-Dodecen-1-yl(-)succinic anhydride	19780-11-1	Nist98.l	1951	91	C16H26O3	266
E-11,13-Dimethyl-12-tetradecen-1-ol acet	1000130-81-0	Nist98.l	22661	64	C18H34O2	282
1H-Indene, 5-butyl-6-hexyloctahydro-	55044-36-5	Nist98.l	2761	60	C19H36	264

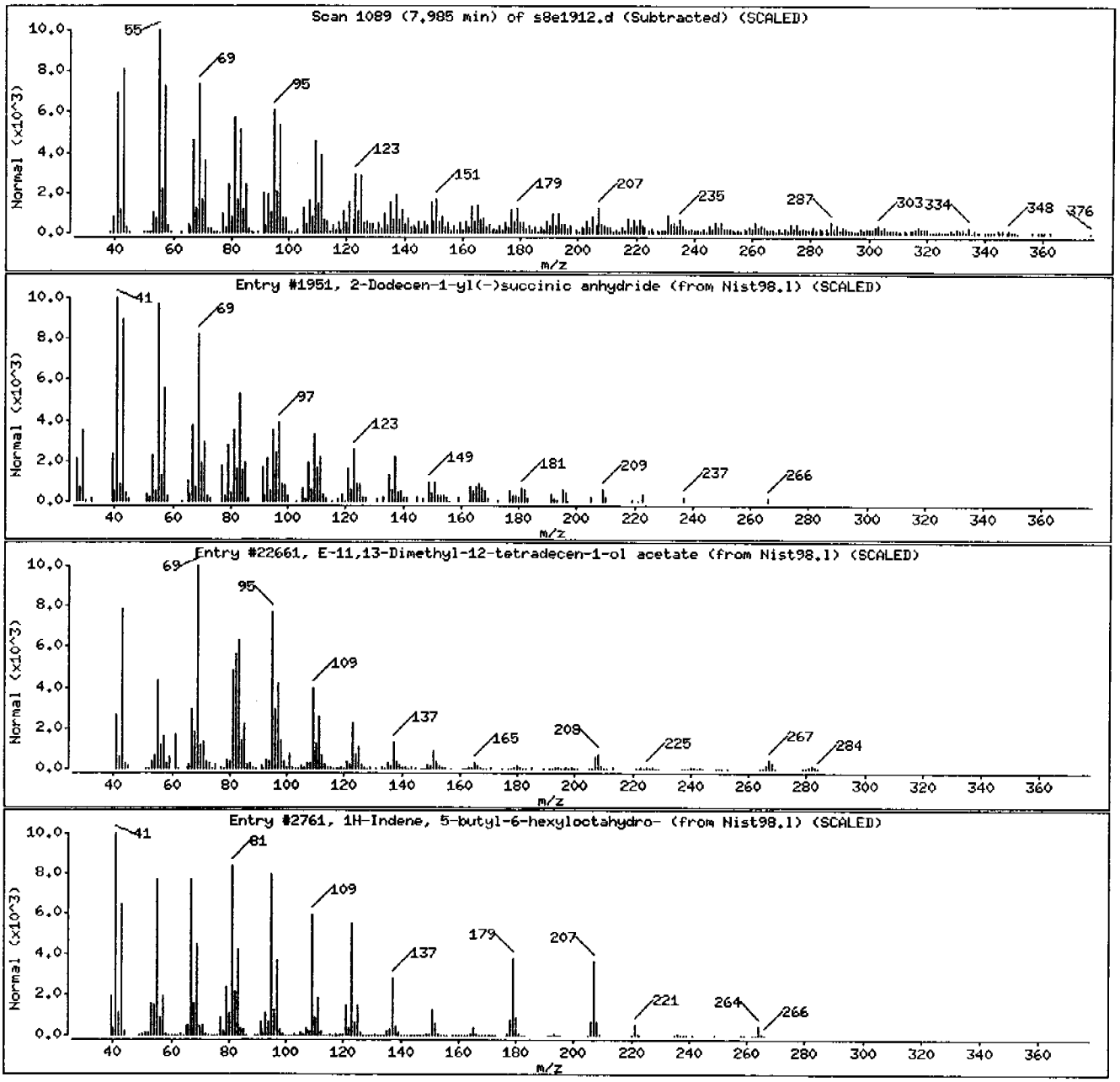

Data File: /chem/MSD8.i/s051905.b/s8e1912.d

Date : 19-MAY-2005 18:37

Client ID: RE03-05-58926 Instrument: MSD8.i

Sample Info: |135831001|423903|10|SVHF|1|LANL|

Volume Injected (uL): 0.5 Operator: cak

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
1H-Indene, 5-butyl-6-hexyloctahydro-	55044-36-5	Nist98.l	2761	78	C19H36	264
E-11,13-Dimethyl-12-tetradecen-1-ol acet	1000130-81-0	Nist98.l	22661	50	C18H3402	282
1-Pentadecene	13360-61-7	Nist98.l	109475	46	C15H30	210

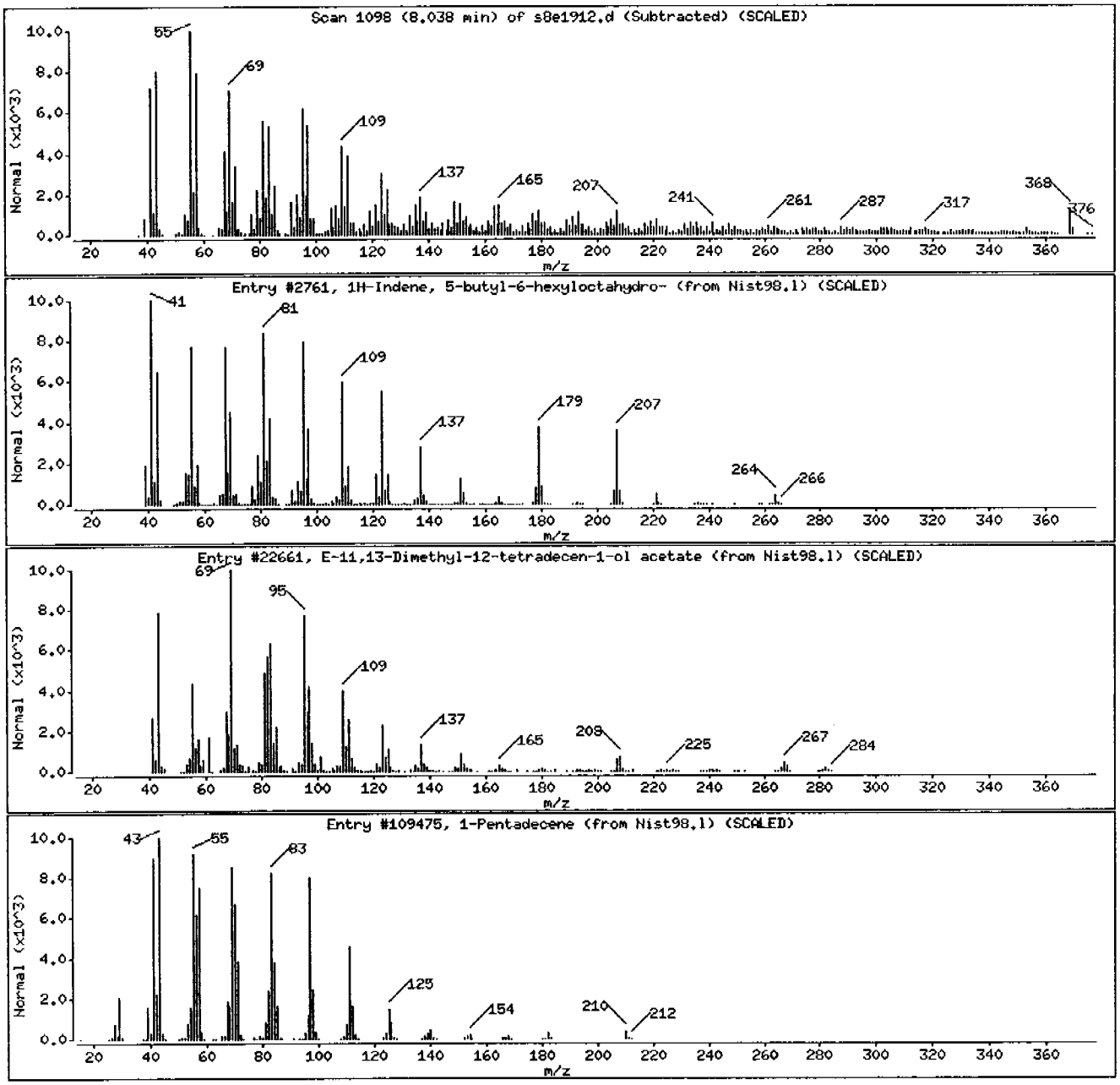

Data File: /chem/MSD8.i/s051905.b/s8e1912.d

Date : 19-MAY-2005 18:37

Client ID: RE03-05-58926 Instrument: MSD8.i

Sample Info: |135831001|423903|10|SVMF|1|LANL|

Volume Injected (uL): 0.5 Operator: cak

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
1,14-Docosanediol	4452-45-3	Nist98.l	23057	91	C22H46O2	342
11,12-Dibromo-tetradecan-1-ol acetate	1000130-78-5	Nist98.l	5209	90	C16H30Br2O2	412
[1,2'-Binaphthalene]-5,5',8,8'-tetrone,	20175-84-2	Nist98.l	111487	89	C22H14O6	374

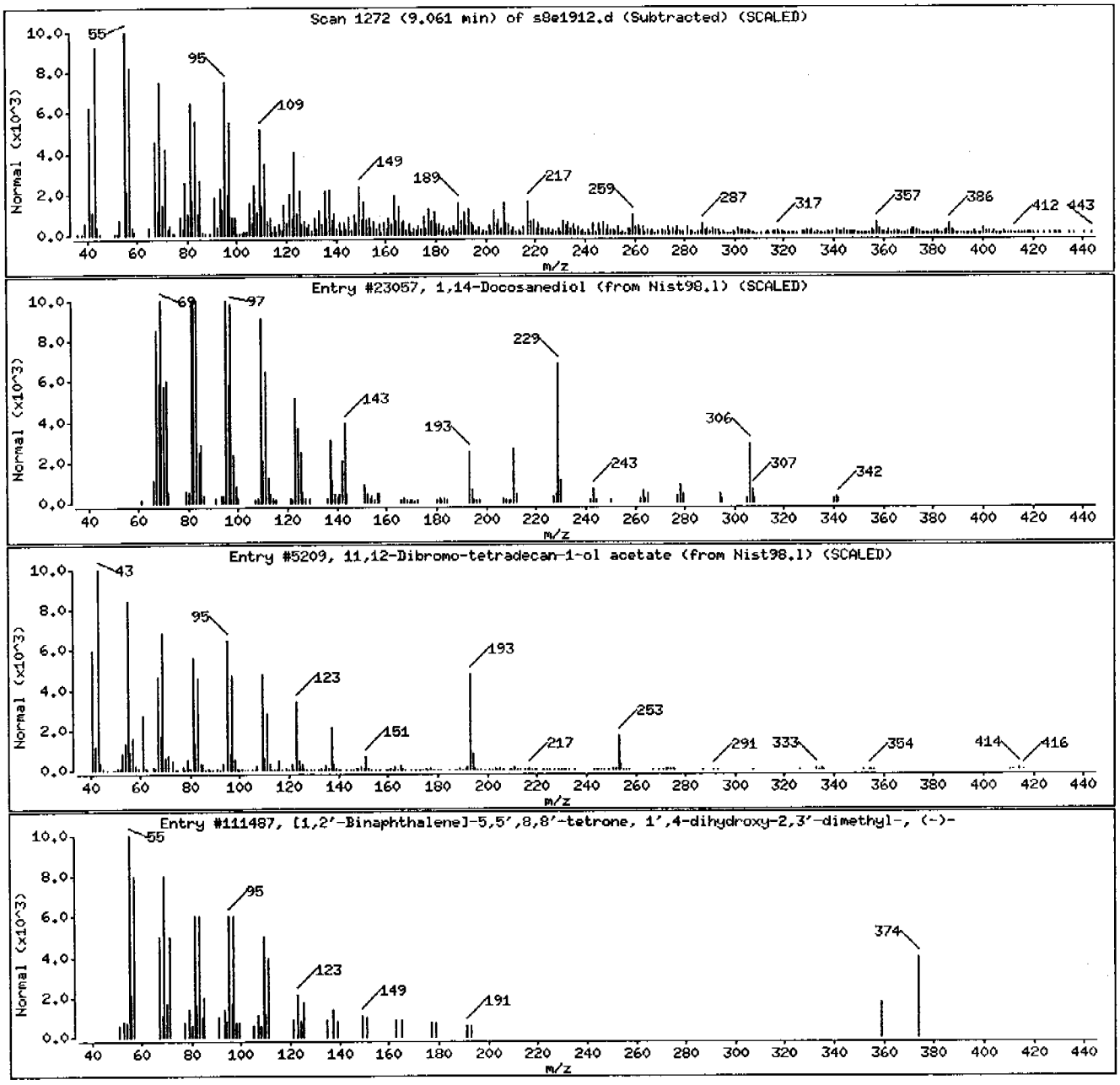

Data File: /chem/MSD8.i/s051905.b/s8e1912.d

Date : 19-MAY-2005 18:37

Client ID: RE03-05-58926 Instrument: MSD8.i

Sample Info: |1358310011423903110|SVMF|1|LANL|

Volume Injected (uL): 0.5 Operator: cak

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Decahydro-9-ethyl-4,4,8,10-tetramethylna	1000100-23-6	Nist98.l	55966	89	C16H30	222
D-Homoandrostane, (5.alpha.,13.alpha.)-	54482-31-4	Nist98.l	41085	83	C20H34	274
11,12-Dibromo-tetradecan-1-ol acetate	1000130-78-5	Nist98.l	5209	83	C16H30Br2O2	412

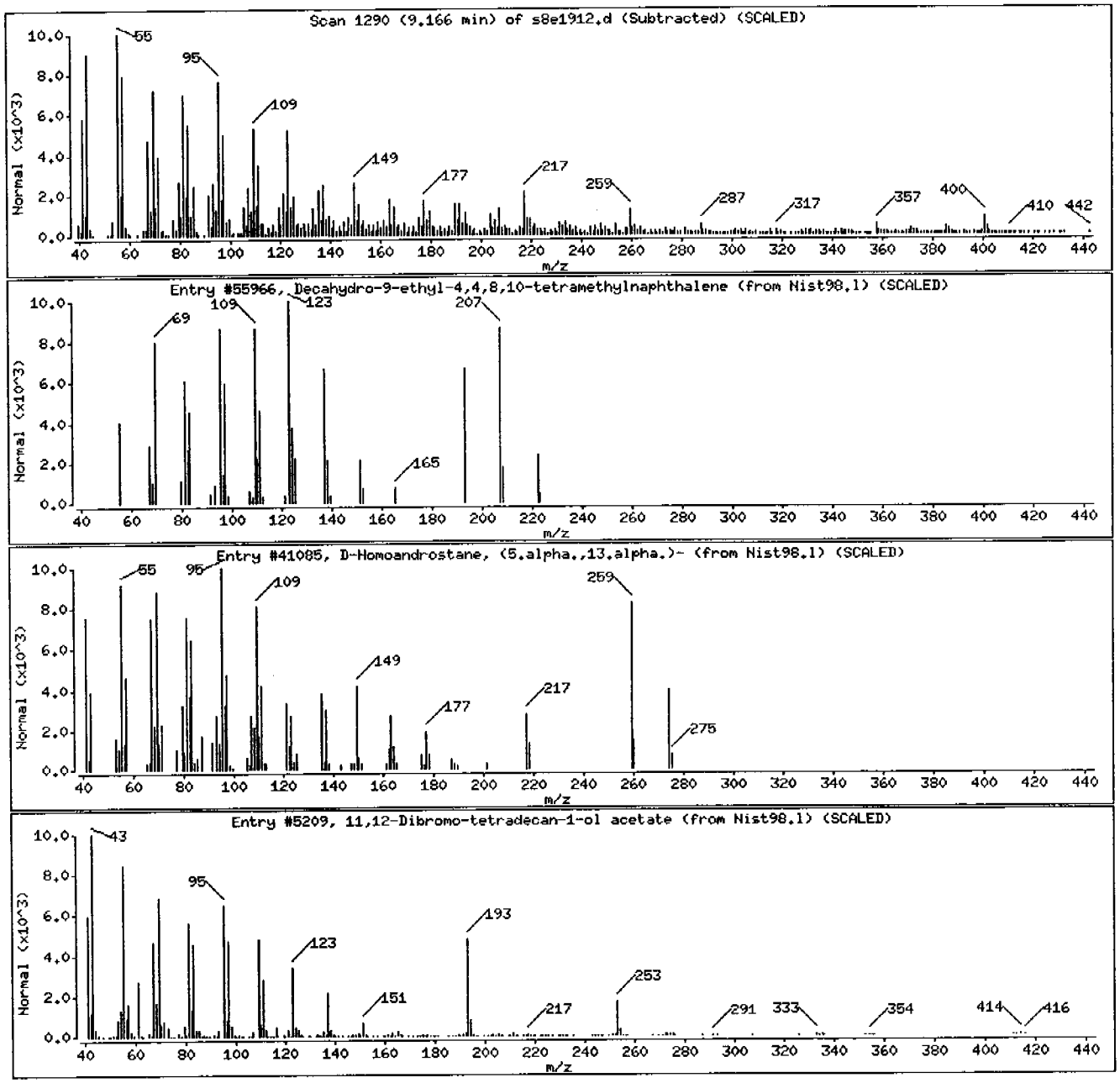

Data File: /chem/MSD8.i/s051905.b/s8e1912.d

Date : 19-MAY-2005 18:37

Client ID: RE03-05-58926

Instrument: MSD8.i

Sample Info: |135831001|423903|10|SVMF|1|LANL|

Volume Injected (uL): 0.5

Operator: cak

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Squalene	7683-64-9	Nist98.l	23074	89	C30H50	410
[1,2'-Binaphthalene]-5,5',8,8'-tetrone,	20175-84-2	Nist98.l	111487	86	C22H14O6	374
Methyl 2-octylcyclopropene-1-octanoate	3220-60-8	Nist98.l	31502	72	C20H36O2	308

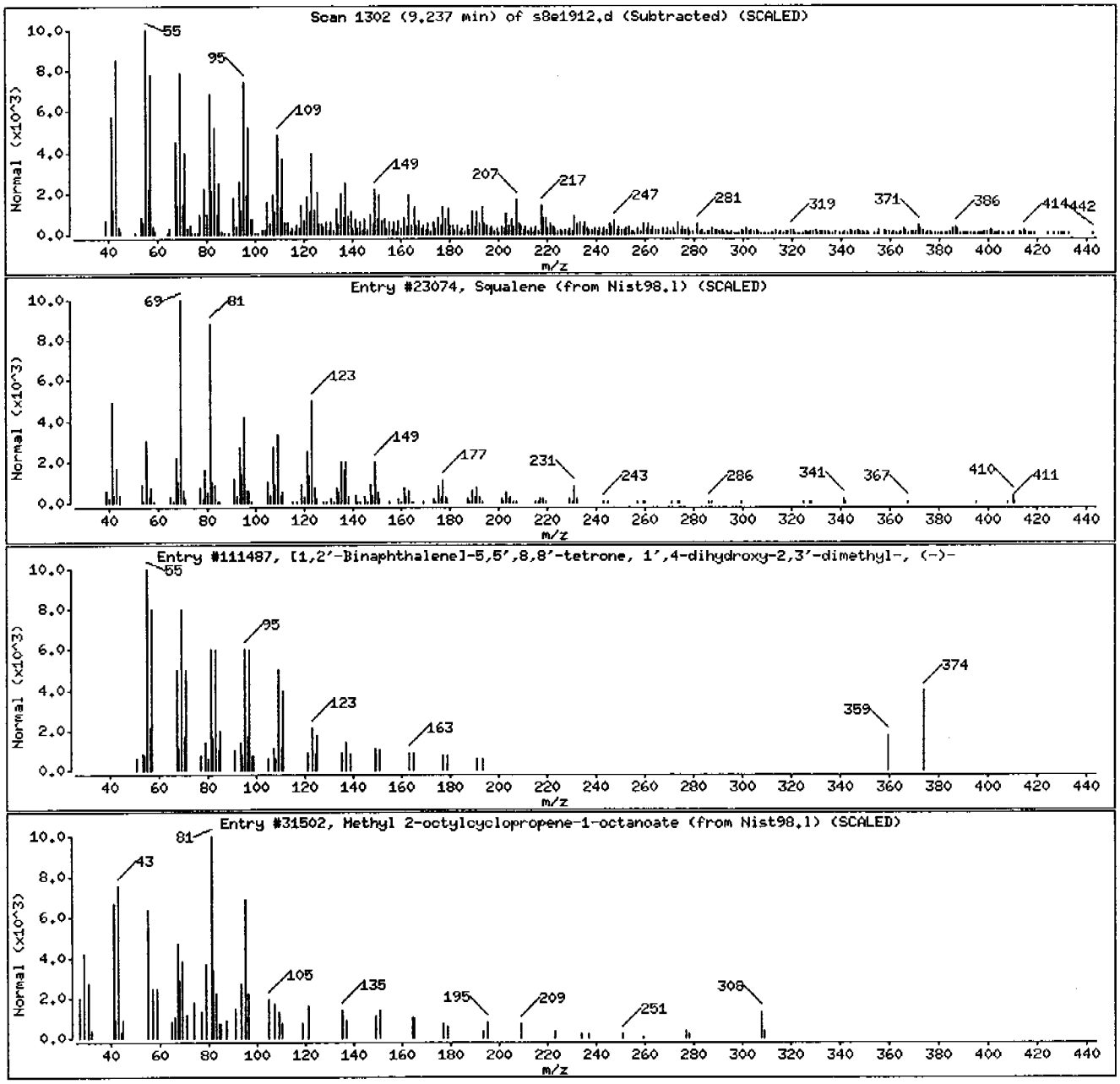

1B
SVOA ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-58927

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Matrix: (soil/water) SOIL Lab Sample ID: 135831002

Sample wt/vol: 30.0 (g/mL) G Lab File ID: S8E1913

Level: (low/med) LOW Date Received: 05/05/05

% Moisture: 9 decanted: (Y/N) N Date Extracted: 05/10/05

Concentrated Extract Volume: 1.00(mL) Date Analyzed: 05/19/05

Injection Volume: 0.5(uL) Dilution Factor: 10.0

GPC Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
62-75-9	N-Methyl-N-nitrosomethylamin	3660	U
110-86-1	Pyridine	3660	U
62-53-3	Aniline	3660	U
108-95-2	Phenol	3660	U
111-44-4	bis(2-Chloroethyl) ether	3660	U
95-57-8	2-Chlorophenol	3660	U
541-73-1	1,3-Dichlorobenzene	3660	U
106-46-7	1,4-Dichlorobenzene	3660	U
100-51-6	Benzyl alcohol	3660	U
95-50-1	1,2-Dichlorobenzene	3660	U
108-60-1	bis(2-Chloroisopropyl)ether	3660	U
95-48-7	o-Cresol	3660	U
621-64-7	N-Nitrosodipropylamine	3660	U
65794-96-9	m,p-Cresols	3660	U
67-72-1	Hexachloroethane	3660	U
78-59-1	Isophorone	3660	U
88-75-5	2-Nitrophenol	3660	U
105-67-9	2,4-Dimethylphenol	3660	U
111-91-1	bis(2-Chloroethoxy)methane	3660	U
120-83-2	2,4-Dichlorophenol	3660	U
65-85-0	Benzoic acid	7330	U
120-82-1	1,2,4-Trichlorobenzene	3660	U
91-20-3	Naphthalene	366	U
106-47-8	4-Chloroaniline	3660	U
87-68-3	Hexachlorobutadiene	3660	U
59-50-7	4-Chloro-3-methylphenol	3660	U
91-57-6	2-Methylnaphthalene	366	U
77-47-4	Hexachlorocyclopentadiene	3660	U
88-06-2	2,4,6-Trichlorophenol	3660	U
95-95-4	2,4,5-Trichlorophenol	3660	U
91-58-7	2-Chloronaphthalene	366	U
88-74-4	o-Nitroaniline	3660	U
99-09-2	m-Nitroaniline	3660	U

FORM I SV-1 OLM03.0

1C
SVOA ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-58927

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Matrix: (soil/water) SOIL Lab Sample ID: 135831002

Sample wt/vol: 30.0 (g/mL) G Lab File ID: S8E1913

Level: (low/med) LOW Date Received: 05/05/05

% Moisture: 9 decanted: (Y/N) N Date Extracted: 05/10/05

Concentrated Extract Volume: 1.00(mL) Date Analyzed: 05/19/05

Injection Volume: 0.5(uL) Dilution Factor: 10.0

GPC Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
131-11-3	Dimethylphthalate	3660	U
606-20-2	2,6-Dinitrotoluene	3660	U
208-96-8	Acenaphthylene	366	U
83-32-9	Acenaphthene	366	U
51-28-5	2,4-Dinitrophenol	7330	U
132-64-9	Dibenzofuran	3660	U
121-14-2	2,4-Dinitrotoluene	3660	U
84-66-2	Diethylphthalate	3660	U
100-02-7	4-Nitrophenol	3660	U
86-73-7	Fluorene	366	U
7005-72-3	4-Chlorophenylphenylether	3660	U
534-52-1	2-Methyl-4,6-dinitrophenol	3660	U
100-01-6	p-Nitroaniline	3660	U
122-39-4	Diphenylamine	3660	U
122-66-7	1,2-Diphenylhydrazine	3660	U
101-55-3	4-Bromophenylphenylether	3660	U
118-74-1	Hexachlorobenzene	3660	U
87-86-5	Pentachlorophenol	3660	U
85-01-8	Phenanthrene	145	J
120-12-7	Anthracene	366	U
84-74-2	Di-n-butylphthalate	3660	U
206-44-0	Fluoranthene	208	J
129-00-0	Pyrene	308	J
85-68-7	Butylbenzylphthalate	3660	U
56-55-3	Benzo(a)anthracene	366	U
91-94-1	3,3'-Dichlorobenzidine	3660	U
218-01-9	Chrysene	366	U
117-81-7	bis(2-Ethylhexyl)phthalate	3660	U
117-84-0	Di-n-octylphthalate	3660	U
205-99-2	Benzo(b)fluoranthene	366	U
207-08-9	Benzo(k)fluoranthene	366	U
50-32-8	Benzo(a)pyrene	366	U
193-39-5	Indeno(1,2,3-cd)pyrene	366	U

FORM I SV-2 OLM03.0

1C
SVOA ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-58927

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Matrix: (soil/water) SOIL Lab Sample ID: 135831002

Sample wt/vol: 30.0 (g/mL) G Lab File ID: S8E1913

Level: (low/med) LOW Date Received: 05/05/05

% Moisture: 9 decanted: (Y/N) N Date Extracted: 05/10/05

Concentrated Extract Volume: 1.00(mL) Date Analyzed: 05/19/05

Injection Volume: 0.5(uL) Dilution Factor: 10.0

GPC Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
53-70-3	Dibenzo(a,h)anthracene	366	U
191-24-2	Benzo(ghi)perylene	366	U

FORM I SV-3 OLM03.0

1F

SVOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

RE03-05-58927

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Matrix: (soil/water) SOIL Lab Sample ID: 135831002

Sample wt/vol: 30.0 (g/mL) G Lab File ID: S8E1913

Level: (low/med) LOW Date Received: 05/05/05

% Moisture: 9 decanted: (Y/N) N Date Extracted: 05/10/05

Concentrated Extract Volume: 1.00(mL) Date Analyzed: 05/19/05

Injection Volume: 0.5(uL) Dilution Factor: 10.0

GPC Cleanup: (Y/N) N

Number TICs found: 6

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 1000196-98-1	BICYCLO[4.3.0]NONANE, 2,2,6,	7.92	13100	NJ
2. 19780-11-1	2-DODECEN-1-YL(-)SUCCINIC AN	7.96	6480	NJ
3. 1786-12-5	CYCLOTETRADECANE, 1,7,11-TRI	8.53	11400	NJ
4. 20175-84-2	[1,2'-BINAPHTHALENE]-5,5',8,	8.57	10100	NJ
5. 1000130-78-5	11,12-DIBROMO-TETRADECAN-1-O	9.08	12300	NJ
6. 53584-60-4	28-NOR-17.ALPHA.(H)-HOPANE	10.17	10700	NJ
7.				
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FORM I SV-TIC OLM03.0

General Engineering Laboratories, LLC

Data file : /chem/MSD8.i/s051905.b/s8e1913.d
Lab Smp Id: 135831002 Client Smp ID: RE03-05-58927
Inj Date : 19-MAY-2005 20:04
Operator : cak Inst ID: MSD8.i
Smp Info : |135831002|423903|10|SVMF|1|LANL|
Misc Info : |MSD8270_SF|WBN050506-02
Comment : Column: J & W DB-5MS:25m x 0.20mm - 0.33um Film m
Method : /chem/MSD8.i/s051905.b/MSD8-8270-051605a.m
Meth Date : 20-May-2005 11:13 cak Quant Type: ISTD
Cal Date : 11-MAY-2005 18:18 Cal File: s8e1111.d
Als bottle: 13
Dil Factor: 10.00000
Integrator: HP RTE Compound Sublist: 3202S.sub
Target Version: 3.50
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	10.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	9.03700	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.791	3.792	(1.000)	108783	40.0000	
* 29 Naphthalene-d8	136	4.654	4.655	(1.000)	400699	40.0000	
* 46 Acenaphthene-d10	164	5.900	5.901	(1.000)	258691	40.0000	
* 67 Phenanthrene-d10	188	6.893	6.894	(1.000)	466537	40.0000	
* 91 Chrysene-d12	240	8.468	8.463	(1.000)	228698	40.0000	
* 98 Perylene-d12	264	9.590	9.567	(1.000)	174851	40.0000	
$ 3 2-Fluorophenol	112	2.974	2.975	(0.785)	9289	4.12432	1510
$ 5 Phenol-d5	99	3.503	3.504	(0.924)	10417	4.01569	1470(R)
$ 20 Nitrobenzene-d5	82	4.149	4.150	(0.891)	5412	2.33234	855
$ 39 2-Fluorobiphenyl	172	5.395	5.396	(0.914)	21210	2.68044	982
$ 60 2,4,6-Tribromophenol	329	6.441	6.442	(1.092)	4412	4.72198	1730
$ 81 p-Terphenyl-d14	244	7.810	7.805	(0.922)	23758	4.28578	1570

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
79 Pyrene	202	7.757	7.752	(0.916)	6042	0.83985	308(a)
68 Phenanthrene	178	6.911	6.912	(1.003)	3667	0.39628	145(a)
76 Fluoranthene	202	7.622	7.617	(1.106)	6250	0.56641	208(a)

QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
R - Spike/Surrogate failed recovery limits.

General Engineering Laboratories, LLC

Data file : /chem/MSD8.i/s051905.b/s8e1913.d
Lab Smp Id: 135831002 Client Smp ID: RE03-05-58927
Inj Date : 19-MAY-2005 20:04
Operator : cak Inst ID: MSD8.i
Smp Info : |135831002|423903|10|SVMF|1|LANL|
Misc Info : |MSD8270_SF|WBN050506-02
Comment : Column: J & W DB-5MS:25m x 0.20mm - 0.33um Film m
Method : /chem/MSD8.i/s051905.b/MSD8-8270-051605a.m
Meth Date : 20-May-2005 11:13 cak Quant Type: ISTD
Cal Date : 11-MAY-2005 18:18 Cal File: s8e1111.d
Als bottle: 13
Dil Factor: 10.00000
Integrator: HP RTE Compound Sublist: 3202S.sub
Target Version: 3.50
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariabl

Name	Value	Description
DF	10.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	9.03700	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 91 Chrysene-d12	8.468	5641800	40.000
* 98 Perylene-d12	9.590	3328523	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Bicyclo[4.3.0]nonane, 2,2,6,7-tetramethy				CAS #: 1000196-98-1			
7.915	5059222	35.8695580	13100	83	Nist98.1	4398	91

RT	AREA	CONCENTRATIONS ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	QUANT LIBRARY	LIB ENTRY	CPND #
2-Dodecen-1-yl(-)succinic anhydride				CAS #: 19780-11-1			
7.962	2493782	17.6807550	6480	95	Nist98.1	1951	91
Cyclotetradecane, 1,7,11-trimethyl-4-(1-				CAS #: 1786-12-5			
8.532	4395145	31.1612938	11400	92	Nist98.1	13719	91
[1,2'-Binaphthalene]-5,5',8,8'-tetrone,				CAS #: 20175-84-2			
8.573	3899828	27.6495259	10100	98	Nist98.1	111487	91
11,12-Dibromo-tetradecan-1-ol acetate				CAS #: 1000130-78-5			
9.079	2795117	33.5898820	12300	93	Nist98.1	5209	98
28-Nor-17.alpha.(H)-hopane				CAS #: 53584-60-4			
10.171	2441099	29.3355231	10700	93	Nist98.1	80568	98

Data File: /chem/MSD8.i/s051905.b/s8e1913.d
Date : 19-MAY-2005 20:04
Client ID: RE03-05-58927
Sample Info: |135831002|423903|10|SVMF|1|LANL|
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD8.i
Operator: csk
Column diameter: 0.20

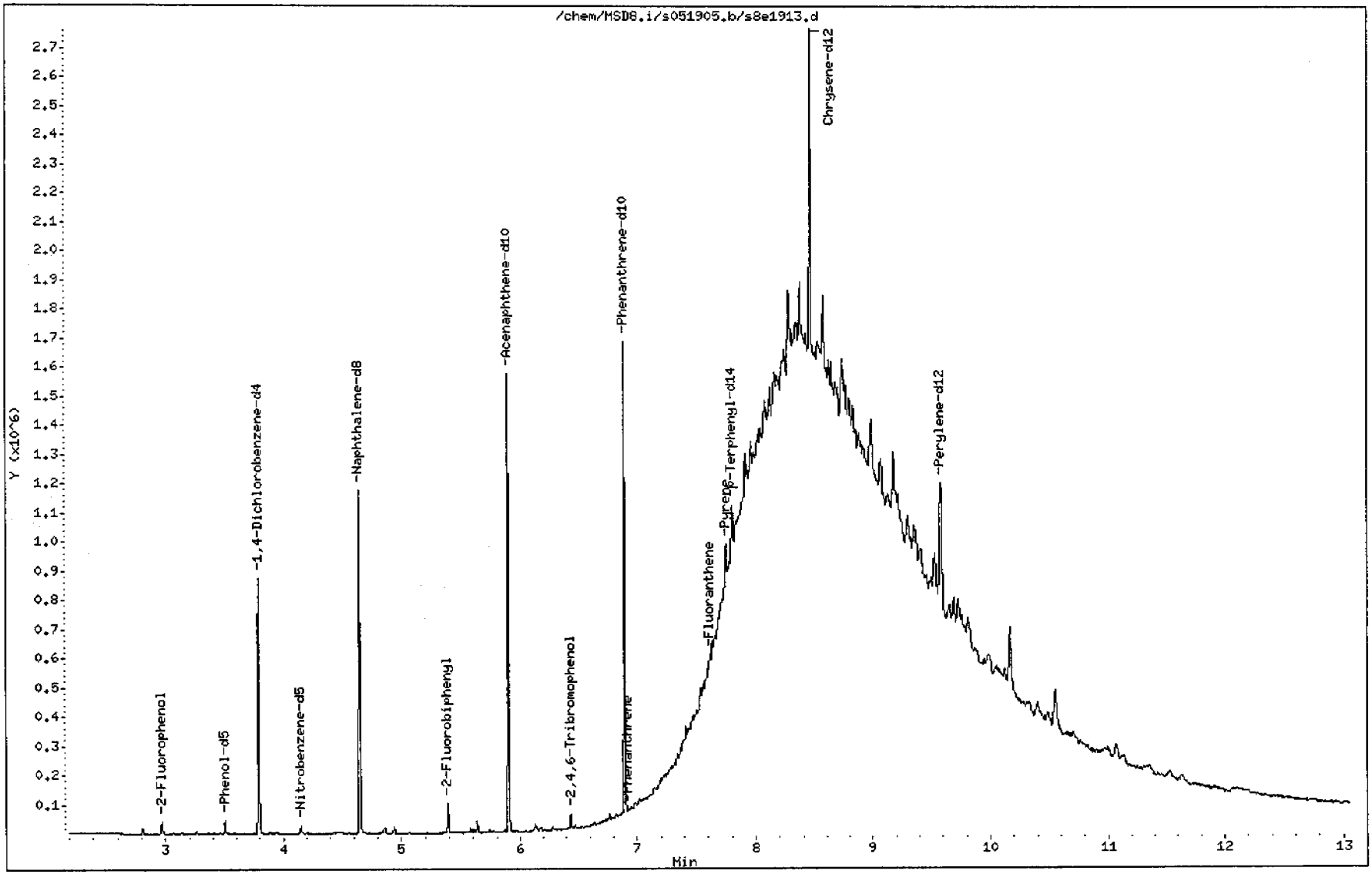

Data File: /chem/MSD8.i/s051905.b/s8e1913.d

Date : 19-MAY-2005 20:04

Client ID: RE03-05-58927

Instrument: MSD8.i

Sample Info: |1358310021423903110|SVMF|1|LANL|

Volume Injected (uL): 0.5

Operator: cak

Column phase: J&W DB-5MS

Column diameter: 0.20

79 Pyrene

Concentration: 308 ug/Kg

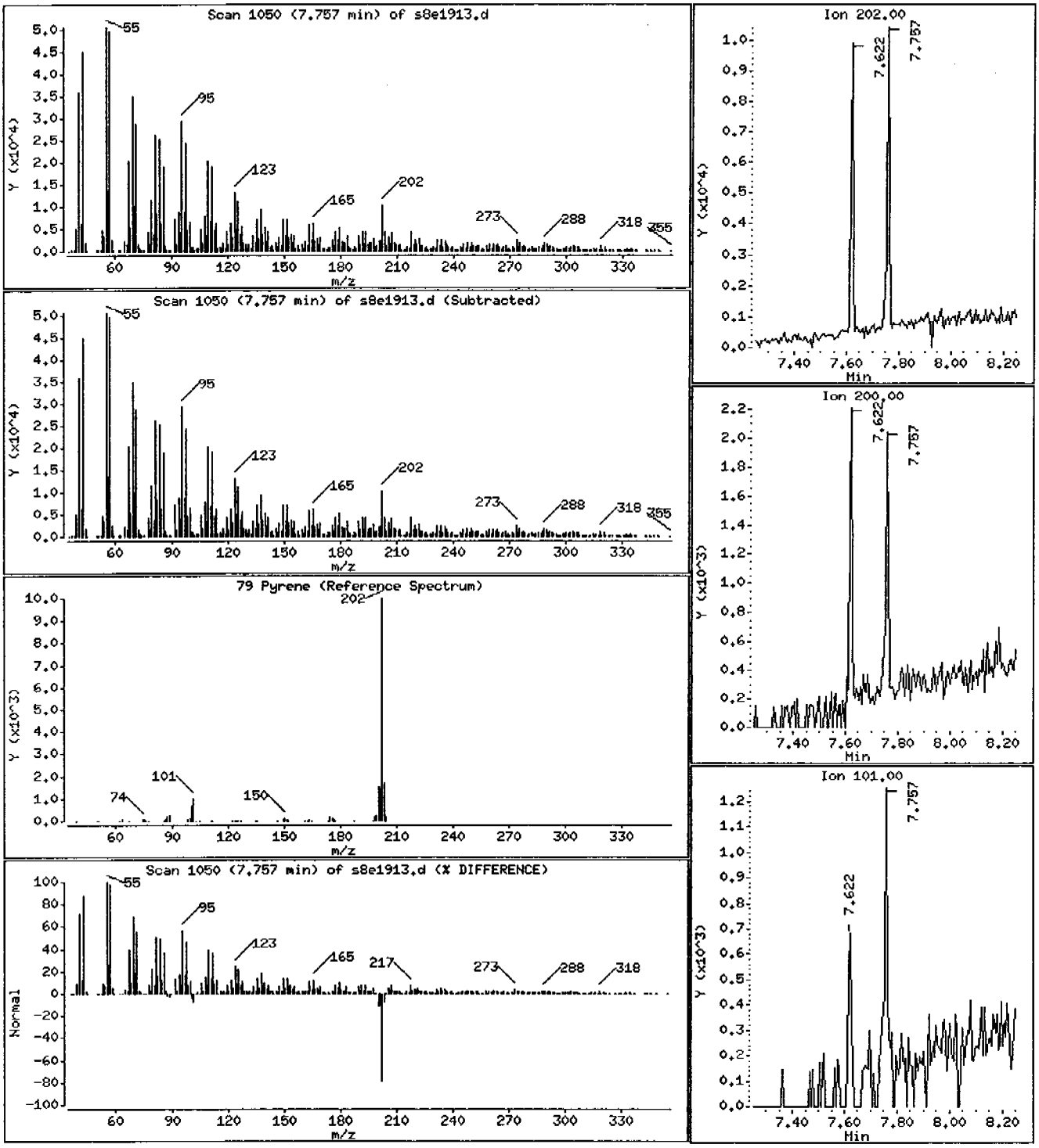

Data File: /chem/MSD8.i/s051905.b/s8e1913.d

Date : 19-MAY-2005 20:04

Client ID: RE03-05-58927

Instrument: MSD8.i

Sample Info: |1358310021423903|10|SVMF11|LANL|

Volume Injected (uL): 0.5

Operator: cak

Column phase: J&W DB-5MS

Column diameter: 0.20

68 Phenanthrene

Concentration: 145 ug/Kg

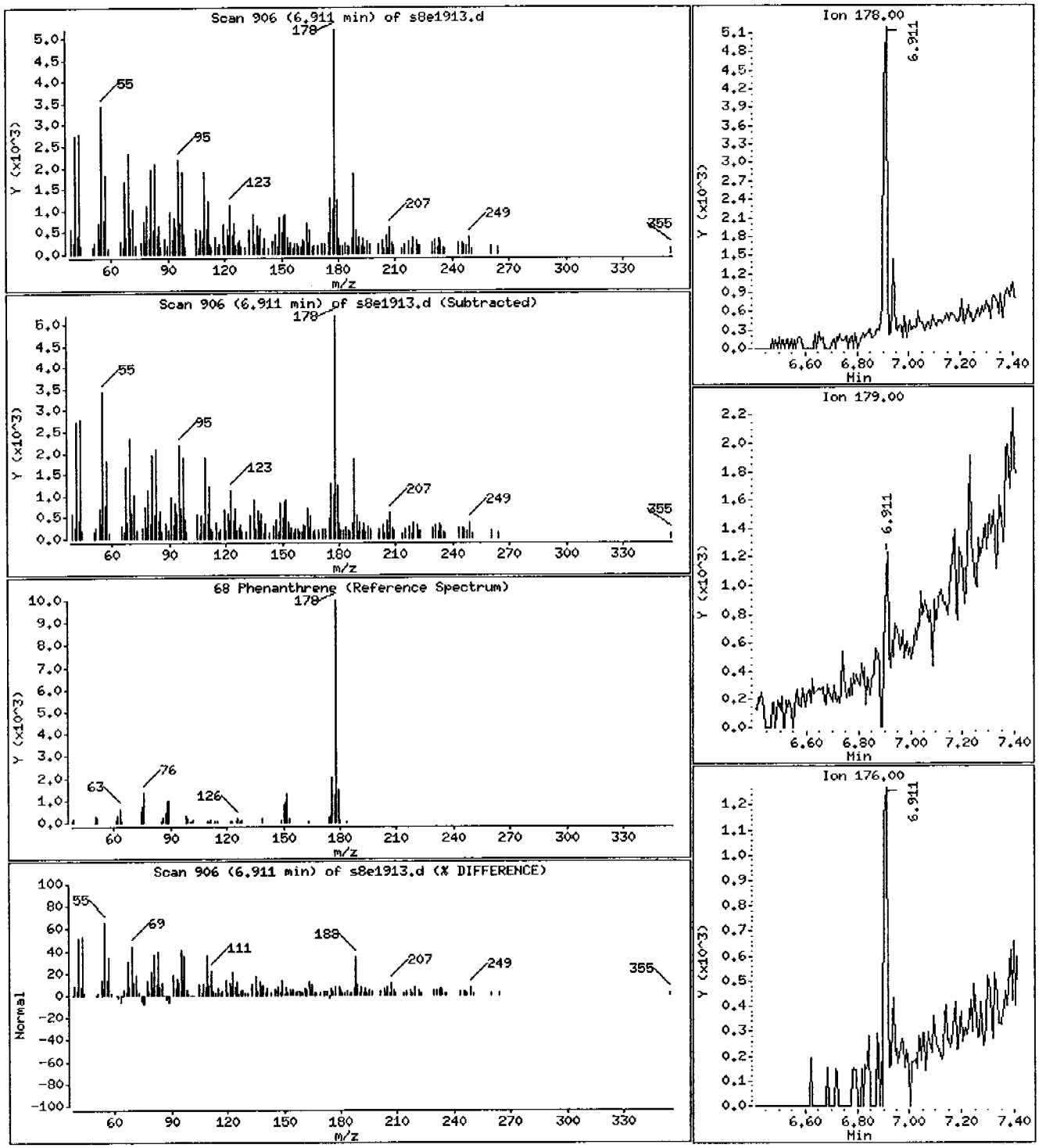

Data File: /chem/MSD8.i/s051905.b/s8e1913.d

Date : 19-MAY-2005 20:04

Client ID: RE03-05-58927

Instrument: MSD8.i

Sample Info: |135831002|423903|10|SVMF|1|LANL|

Volume Injected (uL): 0.5

Operator: cak

Column phase: J&W DB-5MS

Column diameter: 0.20

76 Fluoranthene

Concentration: 208 ug/Kg

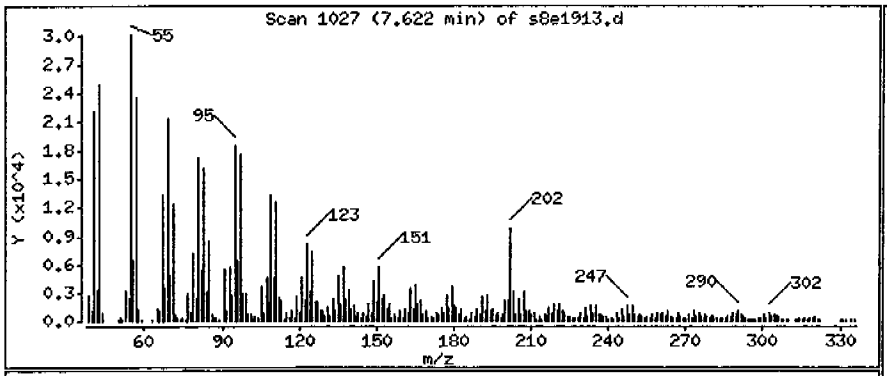

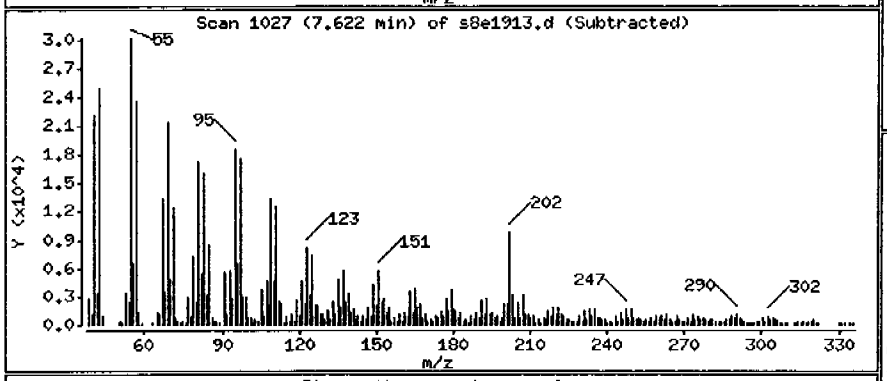

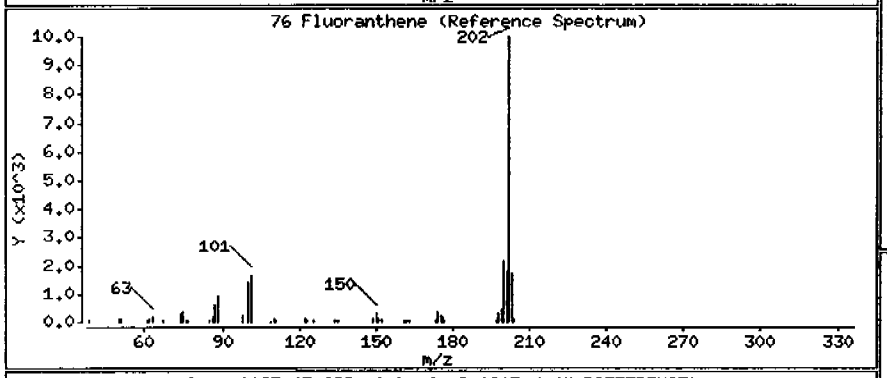

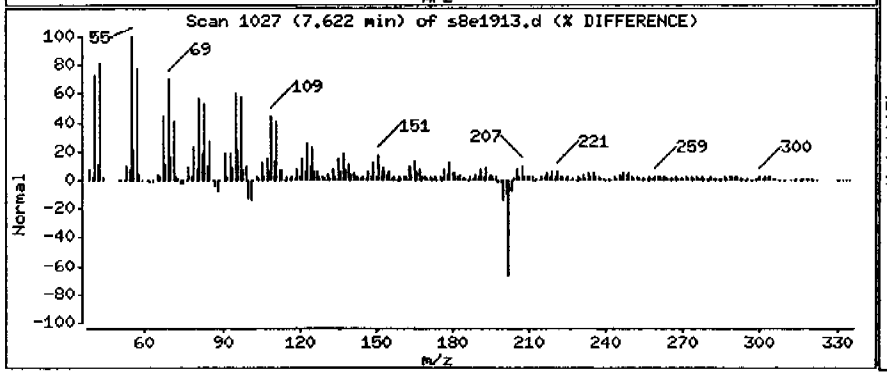

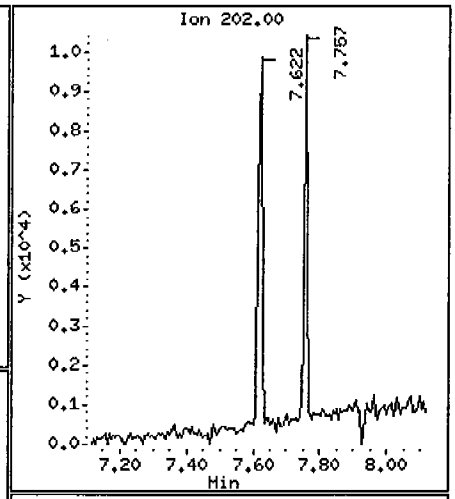

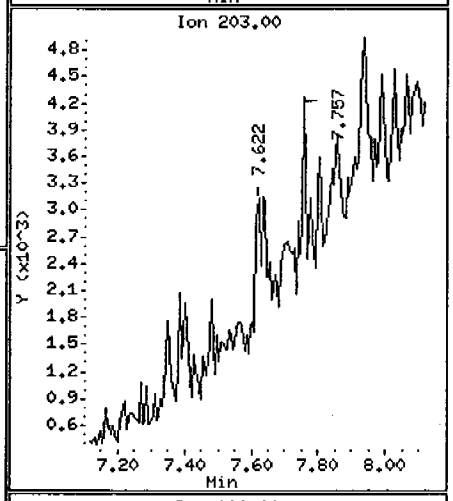

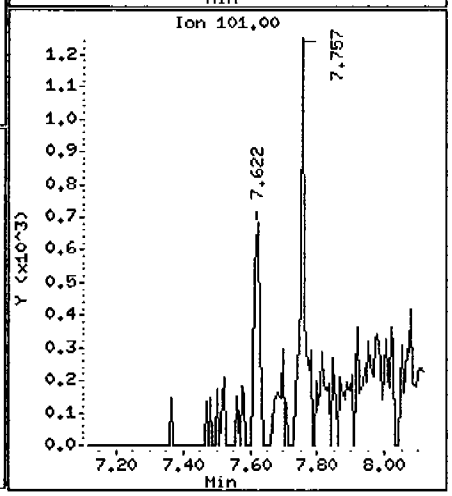

Data File: /chem/MSD8.i/s051905.b/s8e1913.d

Date : 19-MAY-2005 20:04

Client ID: RE03-05-58927 Instrument: MSD8.i

Sample Info: |1358310021423903|10|SVMF|1|LANL|

Volume Injected (uL): 0.5 Operator: cak

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Bicyclo[4.3.0]nonane, 2,2,6,7-tetramethy	1000196-98-1	Nist98.l	4398	83	C13H240	196
2-Dodecen-1-yl(-)succinic anhydride	19780-11-1	Nist98.l	1951	60	C16H2603	266
Oxirane, tridecyl-	18633-25-5	Nist98.l	1806	60	C15H300	226

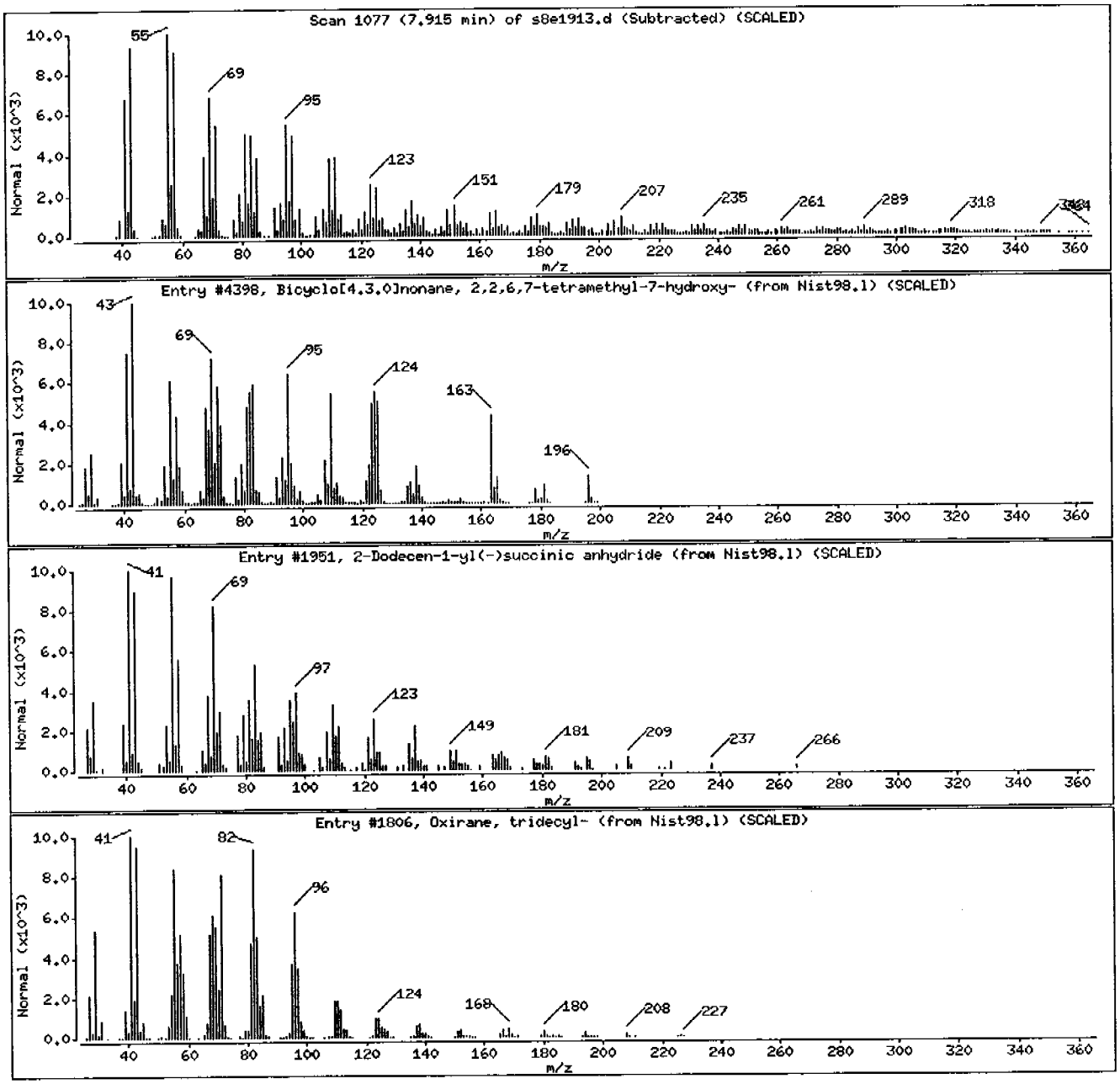

Data File: /chem/MSD8.i/s051905.b/s8e1913.d

Date : 19-MAY-2005 20:04

Client ID: RE03-05-58927

Instrument: MSD8.i

Sample Info: |1358310021423903|10|SVMF|1|LANL|

Volume Injected (uL): 0.5

Operator: cak

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
2-Dodecen-1-yl(-)succinic anhydride	19780-11-1	Nist98.l	1951	95	C16H26O3	266
1H-Indene, 5-butyl-6-hexyloctahydro-	55044-36-5	Nist98.l	2761	70	C19H36	264
Cyclotetradecane, 1,7,11-trimethyl-4-(1-	1786-12-5	Nist98.l	13719	64	C20H40	280

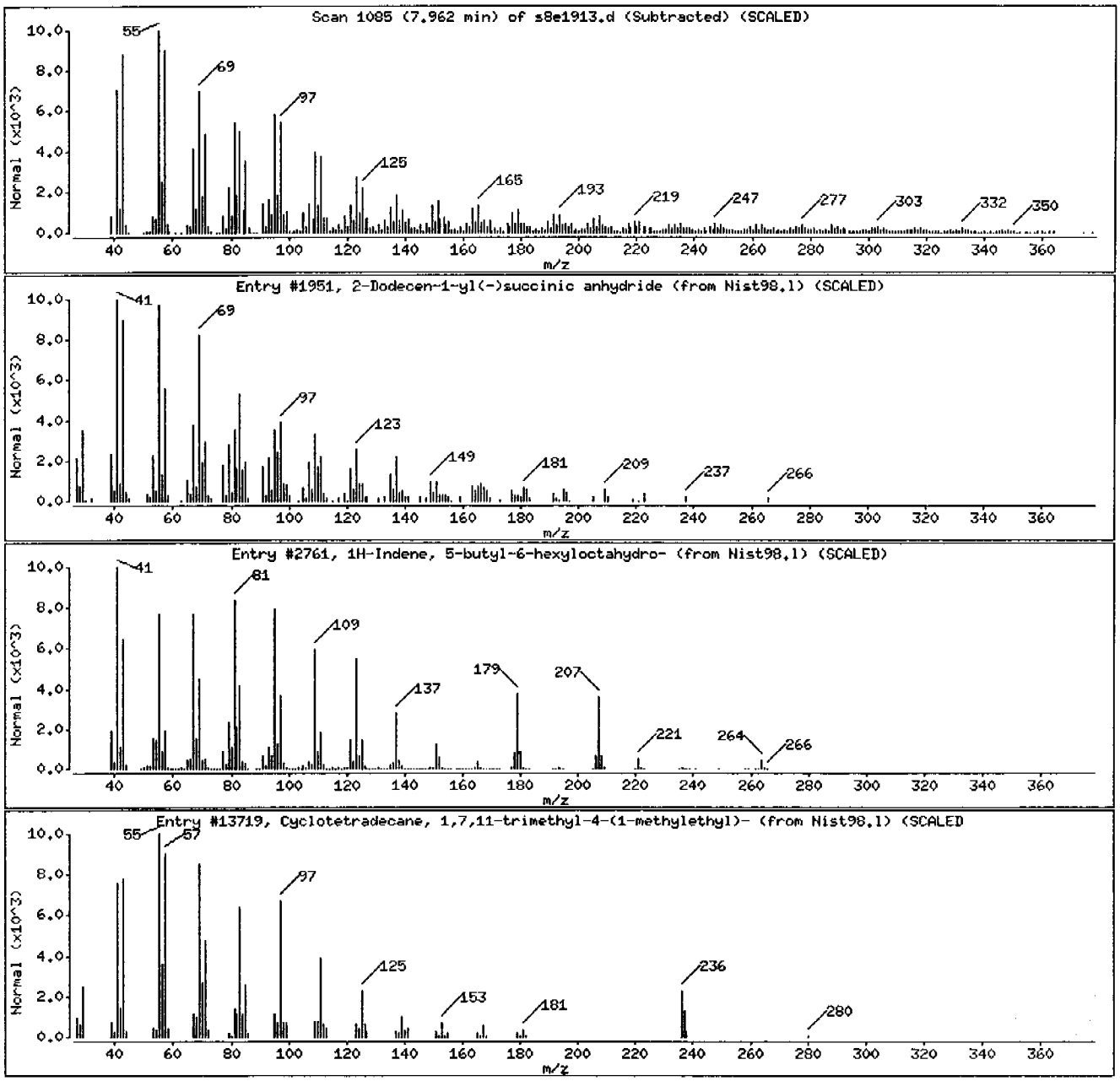

Data File: /chem/MSD8.i/s051905.b/s8e1913.d

Date : 19-MAY-2005 20:04

Client ID: RE03-05-58927 Instrument: MSD8.i

Sample Info: |1358310021423903110|SVMF|1|LANL|

Volume Injected (uL): 0.5 Operator: cak

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Cyclotetradecane, 1,7,11-trimethyl-4-(1-	1786-12-5	Nist98.l	13719	92	C20H40	280
Pentacosane	629-99-2	Nist98.l	109666	90	C25H52	352
Octadecane, 1-chloro-	3386-33-2	Nist98.l	112584	90	C18H37Cl	288

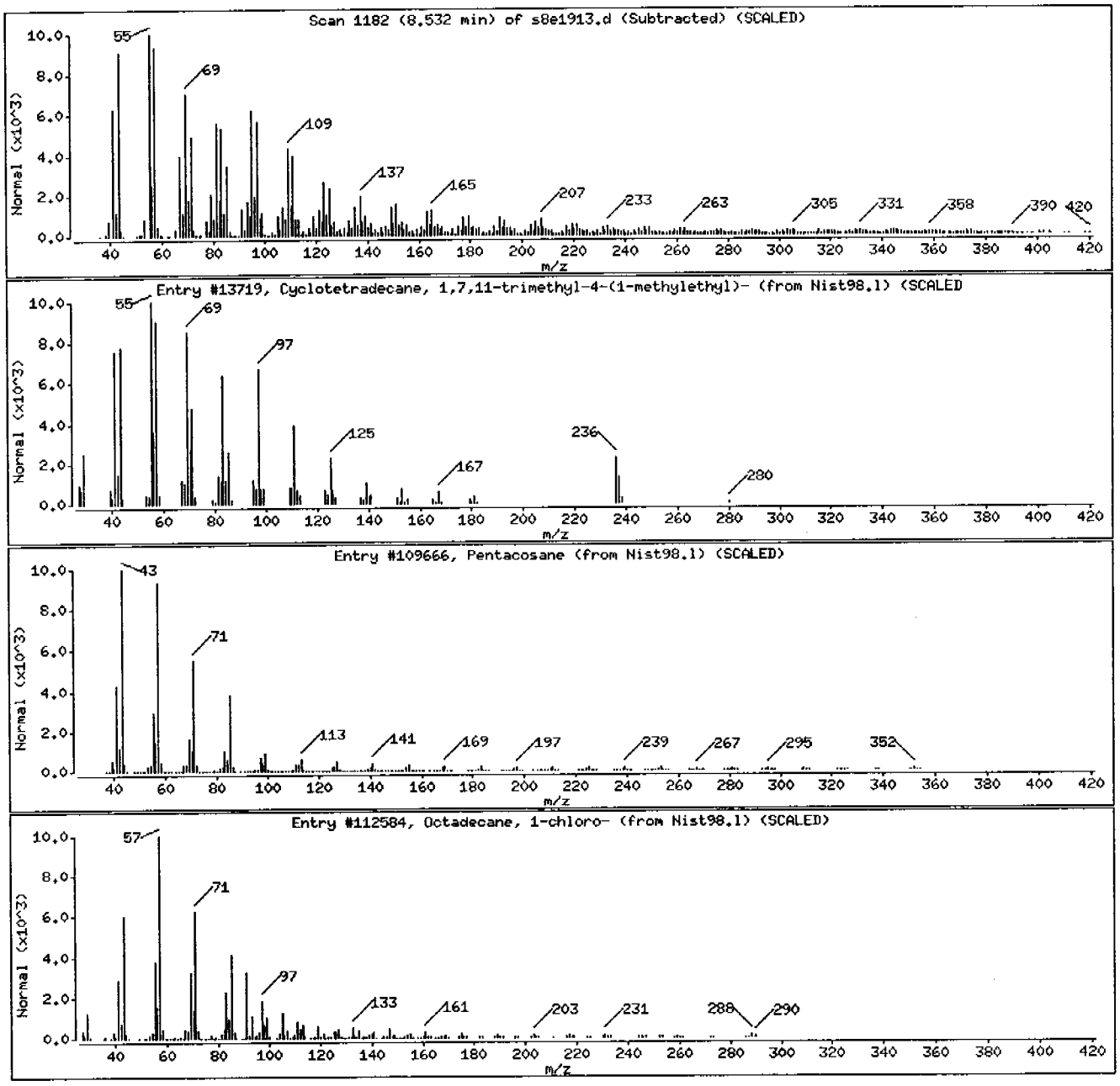

Data File: /chem/MSD8.i/s051905.b/s8e1913.d

Date : 19-MAY-2005 20:04

Client ID: RE03-05-58927 Instrument: MSD8.i

Sample Info: |1358310021423903|10|SVMF|1|LANL|

Volume Injected (uL): 0.5 Operator: cak

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
[1,2'-Binaphthalene]-5,5',8,8'-tetrone,	20175-84-2	Nist98.l	111487	98	C22H1406	374
Cyclotetradecane, 1,7,11-trimethyl-4-(1-	1786-12-5	Nist98.l	13719	89	C20H40	280
2-Dodecen-1-yl(-)succinic anhydride	19780-11-1	Nist98.l	1951	86	C16H2603	266

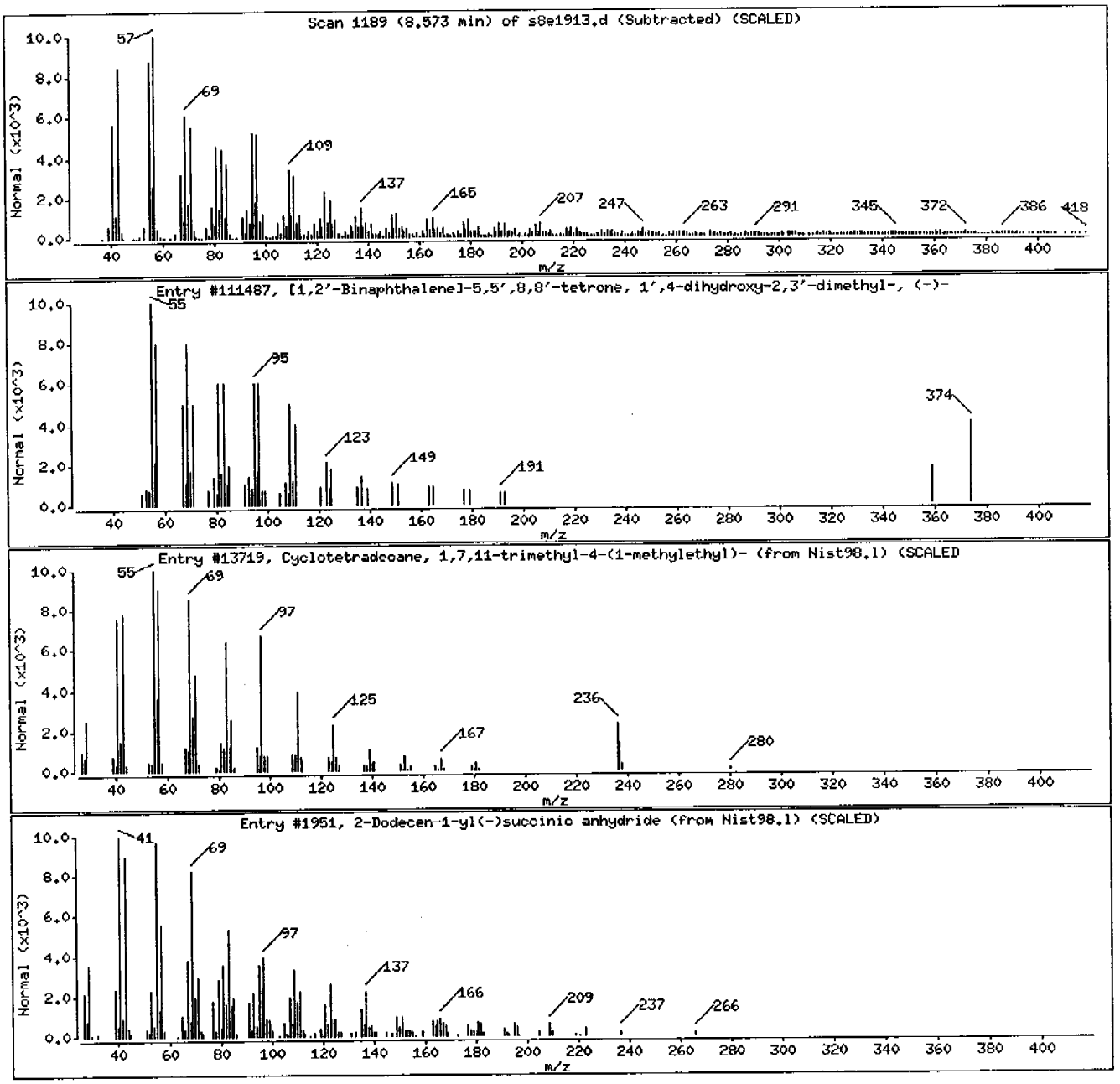

Data File: /chem/MSD8.i/s051905.b/s8e1913.d

Date : 19-MAY-2005 20:04

Client ID: RE03-05-58927

Instrument: MSD8.i

Sample Info: |135831002|423903|10|SVMF|1|LANL|

Volume Injected (uL): 0.5

Operator: cak

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
11,12-Dibromo-tetradecan-1-ol acetate	1000130-78-5	Nist98.l	5209	93	C16H30Br2O2	412
[1,2'-Binaphthalene]-5,5',8,8'-tetrone,	20175-84-2	Nist98.l	111487	87	C22H14O6	374
21-Nor-5.alpha.-cholest-24-en-20-one	14949-18-9	Nist98.l	23310	72	C26H42O	370

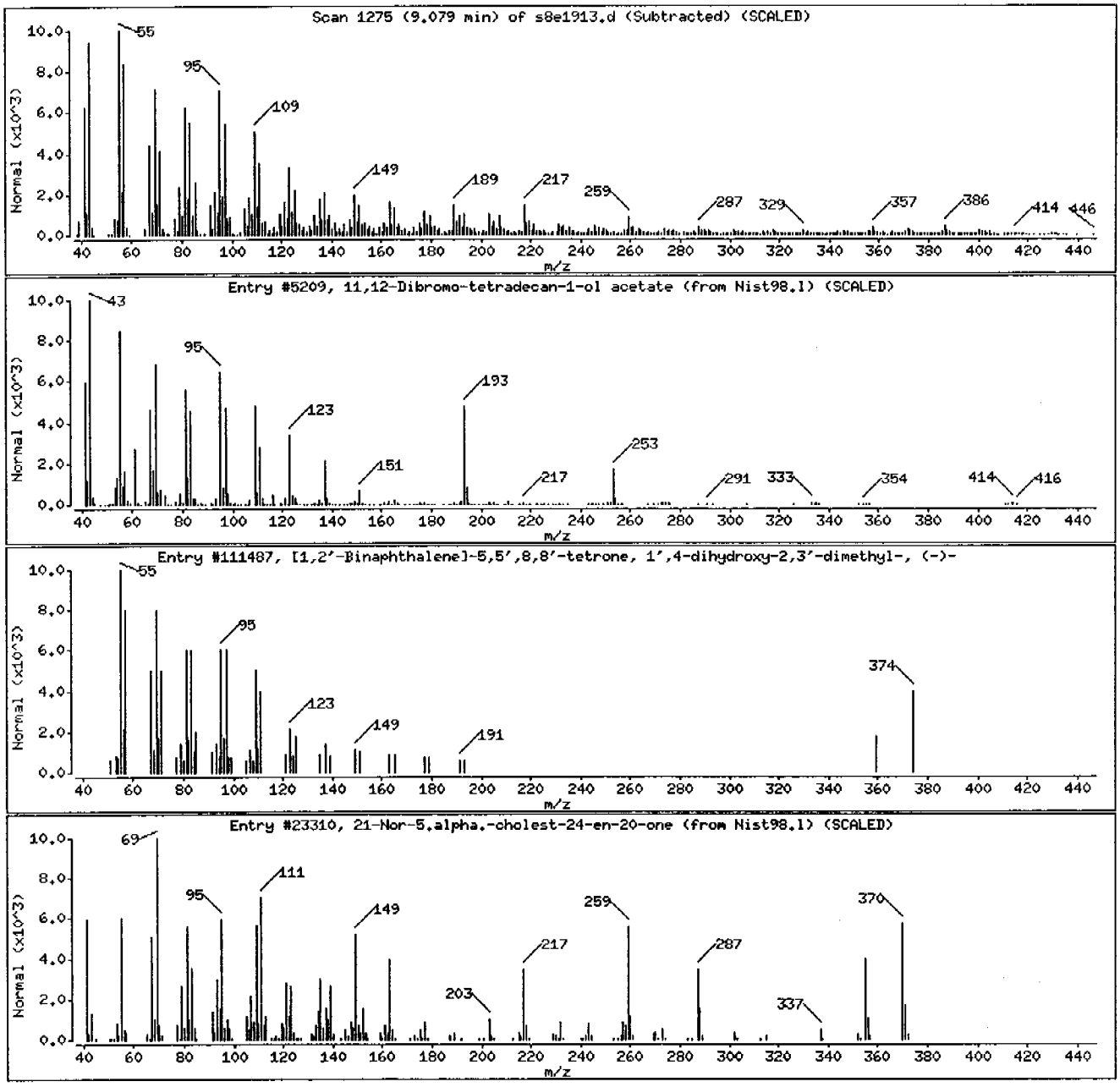

Data File: /chem/MSD8.i/s051905.b/s8e1913.d

Date : 19-MAY-2005 20:04

Client ID: RE03-05-58927 Instrument: MSD8.i

Sample Info: |1358310021423903110|SVMF1|1|LANL|

Volume Injected (uL): 0.5 Operator: cak

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
28-Nor-17.alpha.(H)-hopane	53584-60-4	Nist98.1	80568	93	C29H50	398
28-Nor-17.beta.(H)-hopane	36728-72-0	Nist98.1	80569	90	C29H50	398
15-Isobutyl-(13alphah)-isocopalane	87953-47-7	Nist98.1	80523	64	C24H44	332

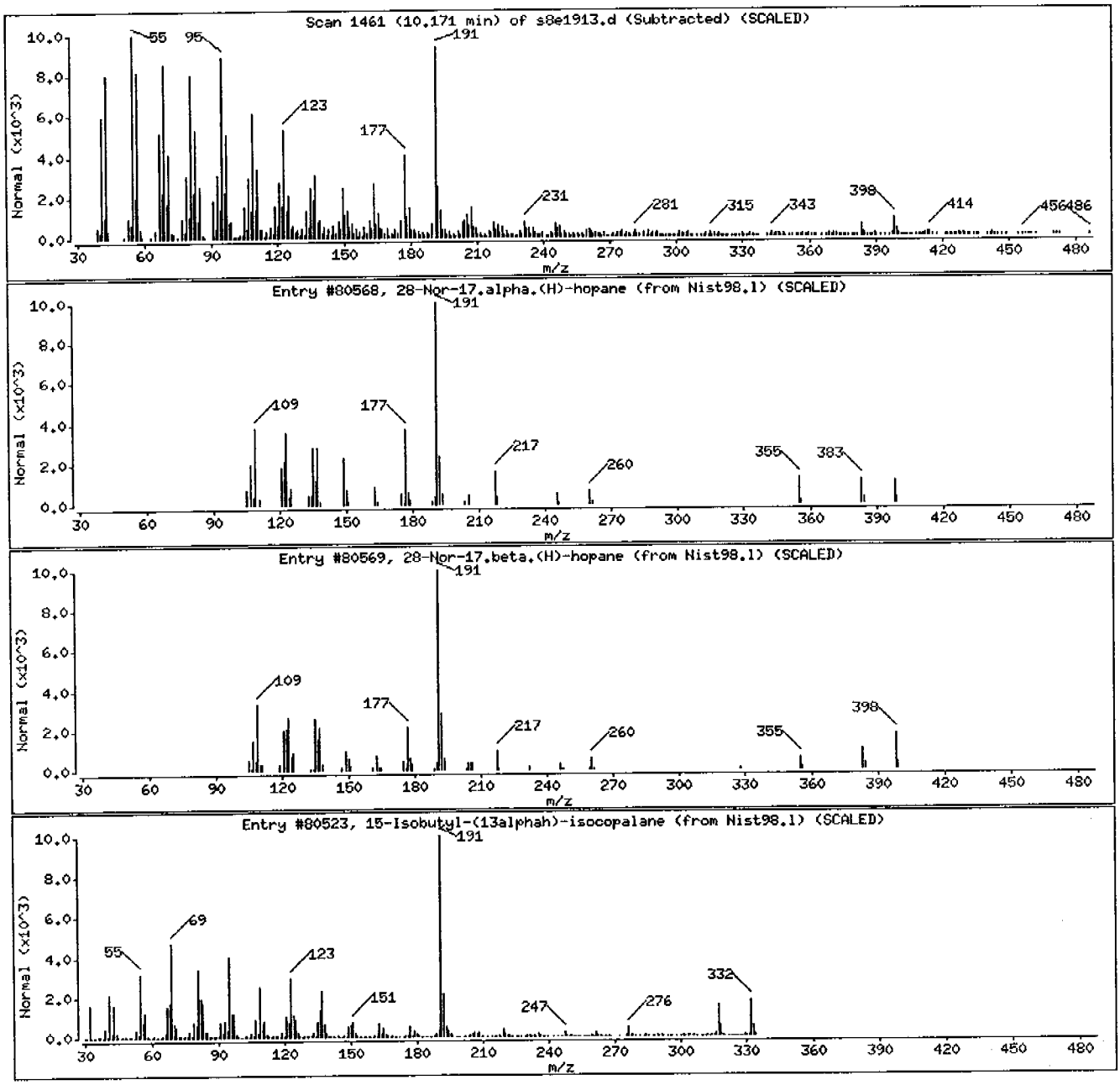

1B
SVOA ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-59557

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Matrix: (soil/water) SOIL Lab Sample ID: 135831003

Sample wt/vol: 30.0 (g/mL) G Lab File ID: S8E1914

Level: (low/med) LOW Date Received: 05/05/05

% Moisture: 9 decanted: (Y/N) N Date Extracted: 05/10/05

Concentrated Extract Volume: 1.00(mL) Date Analyzed: 05/19/05

Injection Volume: 0.5(uL) Dilution Factor: 10.0

GPC Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
62-75-9	N-Methyl-N-nitrosomethylamin	3650	U
110-86-1	Pyridine	3650	U
62-53-3	Aniline	3650	U
108-95-2	Phenol	3650	U
111-44-4	bis(2-Chloroethyl) ether	3650	U
95-57-8	2-Chlorophenol	3650	U
541-73-1	1,3-Dichlorobenzene	3650	U
106-46-7	1,4-Dichlorobenzene	3650	U
100-51-6	Benzyl alcohol	3650	U
95-50-1	1,2-Dichlorobenzene	3650	U
108-60-1	bis(2-Chloroisopropyl)ether	3650	U
95-48-7	o-Cresol	3650	U
621-64-7	N-Nitrosodipropylamine	3650	U
65794-96-9	m,p-Cresols	3650	U
67-72-1	Hexachloroethane	3650	U
78-59-1	Isophorone	3650	U
88-75-5	2-Nitrophenol	3650	U
105-67-9	2,4-Dimethylphenol	3650	U
111-91-1	bis(2-Chloroethoxy)methane	3650	U
120-83-2	2,4-Dichlorophenol	3650	U
65-85-0	Benzoic acid	7290	U
120-82-1	1,2,4-Trichlorobenzene	3650	U
91-20-3	Naphthalene	365	U
106-47-8	4-Chloroaniline	3650	U
87-68-3	Hexachlorobutadiene	3650	U
59-50-7	4-Chloro-3-methylphenol	3650	U
91-57-6	2-Methylnaphthalene	365	U
77-47-4	Hexachlorocyclopentadiene	3650	U
88-06-2	2,4,6-Trichlorophenol	3650	U
95-95-4	2,4,5-Trichlorophenol	3650	U
91-58-7	2-Chloronaphthalene	365	U
88-74-4	o-Nitroaniline	3650	U
99-09-2	m-Nitroaniline	3650	U

FORM I SV-1 OLM03.0

1C
SVOA ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-59557

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Matrix: (soil/water) SOIL Lab Sample ID: 135831003

Sample wt/vol: 30.0 (g/mL) G Lab File ID: S8E1914

Level: (low/med) LOW Date Received: 05/05/05

% Moisture: 9 decanted: (Y/N) N Date Extracted: 05/10/05

Concentrated Extract Volume: 1.00(mL) Date Analyzed: 05/19/05

Injection Volume: 0.5(uL) Dilution Factor: 10.0

GPC Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
131-11-3	Dimethylphthalate	3650	U
606-20-2	2,6-Dinitrotoluene	3650	U
208-96-8	Acenaphthylene	365	U
83-32-9	Acenaphthene	365	U
51-28-5	2,4-Dinitrophenol	7290	U
132-64-9	Dibenzofuran	3650	U
121-14-2	2,4-Dinitrotoluene	3650	U
84-66-2	Diethylphthalate	3650	U
100-02-7	4-Nitrophenol	3650	U
86-73-7	Fluorene	365	U
7005-72-3	4-Chlorophenylphenylether	3650	U
534-52-1	2-Methyl-4,6-dinitrophenol	3650	U
100-01-6	p-Nitroaniline	3650	U
122-39-4	Diphenylamine	3650	U
122-66-7	1,2-Diphenylhydrazine	3650	U
101-55-3	4-Bromophenylphenylether	3650	U
118-74-1	Hexachlorobenzene	3650	U
87-86-5	Pentachlorophenol	3650	U
85-01-8	Phenanthrene	218	J
120-12-7	Anthracene	365	U
84-74-2	Di-n-butylphthalate	3650	U
206-44-0	Fluoranthene	312	J
129-00-0	Pyrene	391	
85-68-7	Butylbenzylphthalate	3650	U
56-55-3	Benzo(a)anthracene	365	U
91-94-1	3,3'-Dichlorobenzidine	3650	U
218-01-9	Chrysene	222	J
117-81-7	bis(2-Ethylhexyl)phthalate	2020	JB
117-84-0	Di-n-octylphthalate	3650	U
205-99-2	Benzo(b)fluoranthene	789	
207-08-9	Benzo(k)fluoranthene	365	U
50-32-8	Benzo(a)pyrene	903	
193-39-5	Indeno(1,2,3-cd)pyrene	365	U

FORM I SV-2 OLM03.0

1C
SVOA ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-59557

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Matrix: (soil/water) SOIL Lab Sample ID: 135831003

Sample wt/vol: 30.0 (g/mL) G Lab File ID: S8E1914

Level: (low/med) LOW Date Received: 05/05/05

% Moisture: 9 decanted: (Y/N) N Date Extracted: 05/10/05

Concentrated Extract Volume: 1.00(mL) Date Analyzed: 05/19/05

Injection Volume: 0.5(uL) Dilution Factor: 10.0

GPC Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
53-70-3	Dibenzo(a,h)anthracene	365	U
191-24-2	Benzo(ghi)perylene	365	U

FORM I SV-3 OLM03.0

1F

SVOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

RE03-05-59557

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Matrix: (soil/water) SOIL Lab Sample ID: 135831003

Sample wt/vol: 30.0 (g/mL) G Lab File ID: S8E1914

Level: (low/med) LOW Date Received: 05/05/05

% Moisture: 9 decanted: (Y/N) N Date Extracted:05/10/05

Concentrated Extract Volume: 1.00(mL) Date Analyzed: 05/19/05

Injection Volume: 0.5(uL) Dilution Factor: 10.0

GPC Cleanup: (Y/N) N

Number TICs found: 22

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN HYDROCARBON	7.86	2060	J
2.	UNKNOWN HYDROCARBON	7.89	2540	J
3.	UNKNOWN	7.96	2150	J
4.	UNKNOWN HYDROCARBON	8.01	2720	J
5.	UNKNOWN ANHYDRIDE	8.03	3160	J
6.	UNKNOWN	8.07	4260	J
7.	UNKNOWN	8.16	5820	J
8.	UNKNOWN HYDROCARBON	8.22	4960	J
9.	UNKNOWN	8.28	2290	J
10.	UNKNOWN	8.31	3610	J
11.	UNKNOWN	8.34	2410	J
12.	UNKNOWN	8.51	3430	J
13.	UNKNOWN	8.54	4050	J
14.	UNKNOWN HYDROCARBON	8.57	4020	J
15. 1000130-81-0	E-11,13-DIMETHYL-12-TETRADEC	8.64	2470	NJ
16.	UNKNOWN HYDROCARBON	8.66	2310	J
17.	UNKNOWN HYDROCARBON	8.70	2490	J
18.	UNKNOWN	8.73	2030	J
19.	UNKNOWN	9.02	3350	J
20.	UNKNOWN	9.05	3570	J
21.	UNKNOWN	9.30	4050	J
22.	UNKNOWN	9.41	4100	J
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				

FORM I SV-TIC OLM03.0

General Engineering Laboratories, LLC

Data file : /chem/MSD8.i/s051905.b/s8e1914.d
Lab Smp Id: 135831003 Client Smp ID: RE03-05-59557
Inj Date : 19-MAY-2005 20:24
Operator : cak Inst ID: MSD8.i
Smp Info : |135831003|423903|10|SVMF|1|LANL|
Misc Info : |MSD8270_SF|WBN050506-02
Comment : Column: J & W DB-5MS:25m x 0.20mm - 0.33um Film m
Method : /chem/MSD8.i/s051905.b/MSD8-8270-051605a.m
Meth Date : 20-May-2005 11:13 cak Quant Type: ISTD
Cal Date : 11-MAY-2005 18:18 Cal File: s8e1111.d
Als bottle: 14
Dil Factor: 10.00000
Integrator: HP RTE Compound Sublist: 3202S.sub
Target Version: 3.50
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	10.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	8.58140	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.790	3.792	(1.000)	142113	40.0000	
* 29 Naphthalene-d8	136	4.654	4.655	(1.000)	514964	40.0000	
* 46 Acenaphthene-d10	164	5.900	5.901	(1.000)	329793	40.0000	
* 67 Phenanthrene-d10	188	6.893	6.894	(1.000)	614983	40.0000	
* 91 Chrysene-d12	240	8.461	8.463	(1.000)	346046	40.0000	
* 98 Perylene-d12	264	9.572	9.567	(1.000)	228657	40.0000	
$ 3 2-Fluorophenol	112	2.974	2.975	(0.785)	18729	6.36540	2320
$ 5 Phenol-d5	99	3.502	3.504	(0.924)	20624	6.08580	2220
$ 20 Nitrobenzene-d5	82	4.149	4.150	(0.891)	8607	2.88620	1050
$ 39 2-Fluorobiphenyl	172	5.394	5.396	(0.914)	29978	2.97172	1080
$ 60 2,4,6-Tribromophenol	329	6.440	6.442	(1.092)	5754	4.83057	1760
$ 81 p-Terphenyl-d14	244	7.809	7.805	(0.923)	28726	3.42471	1250

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
79 Pyrene	202	7.756	7.752	(0.917)	11686	1.07353	391
68 Phenanthrene	178	6.904	6.912	(1.002)	7287	0.59740	218(a)
76 Fluoranthene	202	7.615	7.617	(1.105)	12434	0.85483	312(a)
92 Chrysene	228	8.479	8.474	(1.002)	4689	0.60984	222(a)
93 bis(2-Ethylhexyl)phthalate	149	8.373	8.375	(0.990)	12686	5.54768	2020(a)
95 Benzo(b)fluoranthene	252	9.213	9.209	(0.963)	6025	2.16507	789
97 Benzo(a)pyrene	252	9.519	9.514	(0.994)	2641	2.47565	903

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

General Engineering Laboratories, LLC

Data file : /chem/MSD8.i/s051905.b/s8e1914.d
Lab Smp Id: 135831003 Client Smp ID: RE03-05-59557
Inj Date : 19-MAY-2005 20:24
Operator : cak Inst ID: MSD8.i
Smp Info : |135831003|423903|10|SVMF|1|LANL|
Misc Info : |MSD8270_SF|WBN050506-02
Comment : Column: J & W DB-5MS:25m x 0.20mm - 0.33um Film m
Method : /chem/MSD8.i/s051905.b/MSD8-8270-051605a.m
Meth Date : 20-May-2005 11:13 cak Quant Type: ISTD
Cal Date : 11-MAY-2005 18:18 Cal File: s8e1111.d
Als bottle: 14
Dil Factor: 10.00000
Integrator: HP RTE Compound Sublist: 3202S.sub
Target Version: 3.50
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	10.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	8.58140	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 91 Chrysene-d12	8.461	1111623	40.000
* 98 Perylene-d12	9.572	741125	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown Hydrocarbon				CAS #:			
7.862	156943	5.64735780	2060	0		0	91

Data File: /chem/MSD8.i/s051905.b/s8e1914.d
Report Date: 23-May-2005 08:51

RT	AREA	CONCENTRATIONS ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	QUANT LIBRARY	LIB ENTRY	CPND #
Unknown Hydrocarbon				CAS #:			
7.886	193277	6.95477541	2540	0		0	91
Unknown				CAS #:			
7.962	164049	5.90304489	2150	0		0	91
Unknown Hydrocarbon				CAS #:			
8.009	207061	7.45077519	2720	0		0	91
Unknown Anhydride				CAS #:			
8.027	240847	8.66649499	3160	0		0	91
Unknown				CAS #:			
8.074	324732	11.6849535	4260	0		0	91
Unknown				CAS #:			
8.156	443854	15.9713871	5820	0		0	91
Unknown Hydrocarbon				CAS #:			
8.220	377671	13.5899044	4960	0		0	91
Unknown				CAS #:			
8.279	174318	6.27254687	2290	0		0	91
Unknown				CAS #:			
8.314	275404	9.90995622	3610	0		0	91
Unknown				CAS #:			
8.344	183719	6.61084584	2410	0		0	91
Unknown				CAS #:			
8.514	261548	9.41140470	3430	0		0	91
Unknown				CAS #:			
8.538	308760	11.1102373	4050	0		0	91
Unknown Hydrocarbon				CAS #:			
8.567	306206	11.0183216	4020	0		0	91
E-11,13-Dimethyl-12-tetradecen-1-ol acet				CAS #: 1000130-81-0			
8.638	188287	6.77519343	2470	83	Nist98.1	22661	91
Unknown Hydrocarbon				CAS #:			
8.661	176229	6.34133666	2310	0		0	91

RT	AREA	CONCENTRATIONS ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	QUANT LIBRARY	LIB ENTRY	CPND #
Unknown Hydrocarbon					CAS #:		
8.702	189838	6.83101097	2490	0		0	91
Unknown					CAS #:		
8.732	154772	5.56923642	2030	0		0	91
Unknown					CAS #:		
9.020	170314	9.19216821	3350	0		0	98
Unknown					CAS #:		
9.055	181368	9.78880351	3570	0		0	98
Unknown					CAS #:		
9.296	205962	11.1161635	4050	0		0	98
Unknown					CAS #:		
9.407	208099	11.2315319	4100	0		0	98

Data File: /chem/MSD8.i/s051905.b/s8e1914.d
Date : 19-MAY-2005 20:24
Client ID: RE03-05-59557
Sample Info: |1358310031423903110|SVMFi1|LANL|
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD8.i
Operator: cak
Column diameter: 0.20

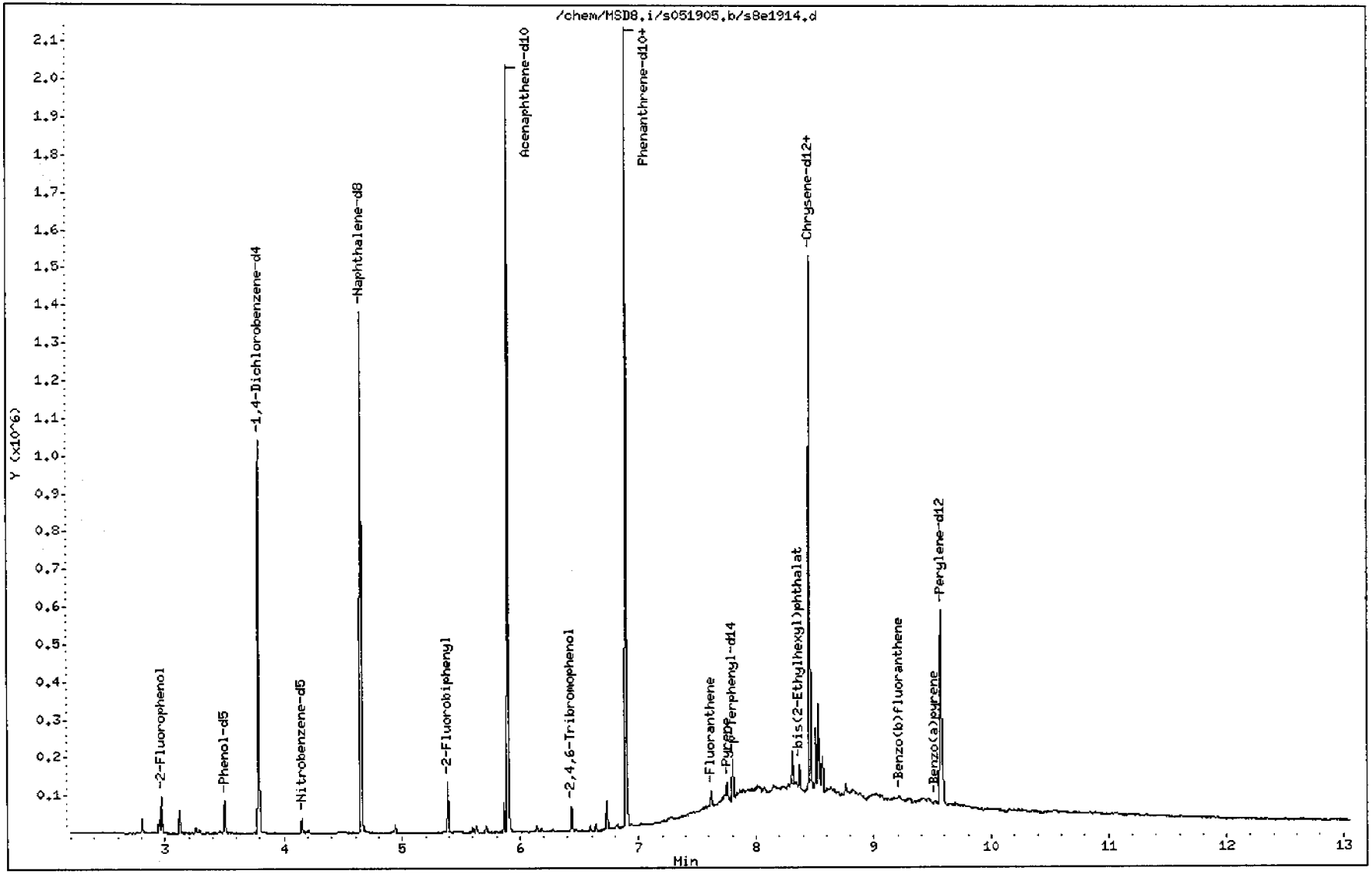

Data File: /chem/MSD8.i/s051905.b/s8e1914.d

Date : 19-MAY-2005 20:24

Client ID: RE03-05-59557

Instrument: MSD8.i

Sample Info: |1358310031423903110|SVMF|1|LANL|

Volume Injected (uL): 0.5

Operator: cak

Column phase: J&W DB-5HS

Column diameter: 0.20

79 Pyrene

Concentration: 391 ug/Kg

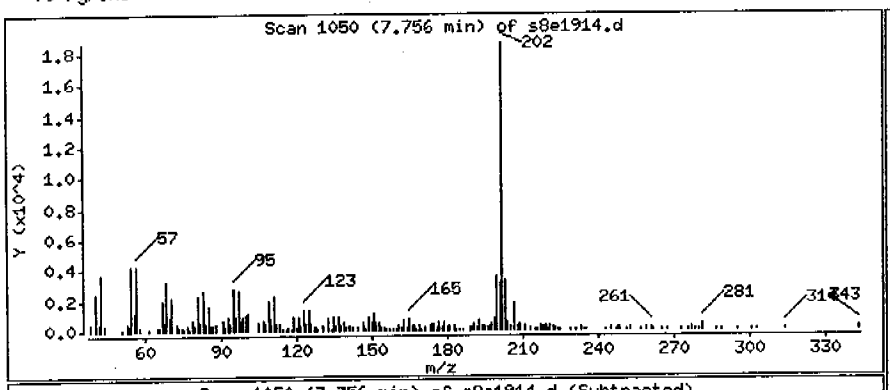

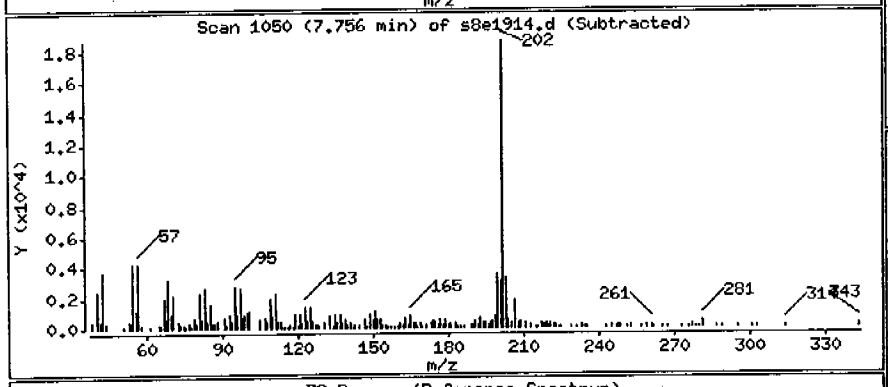

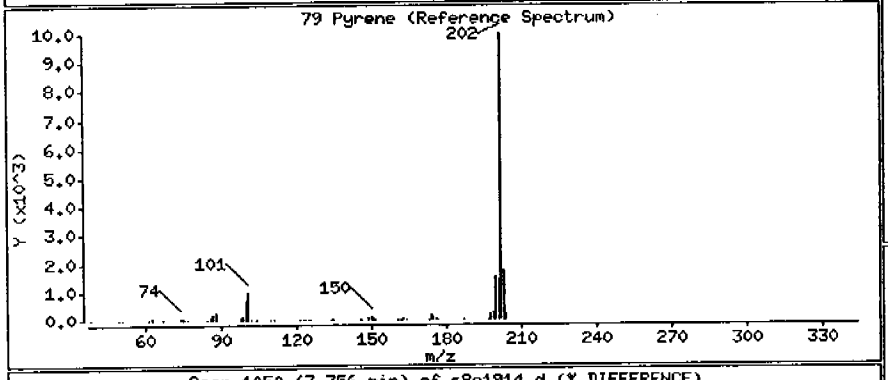

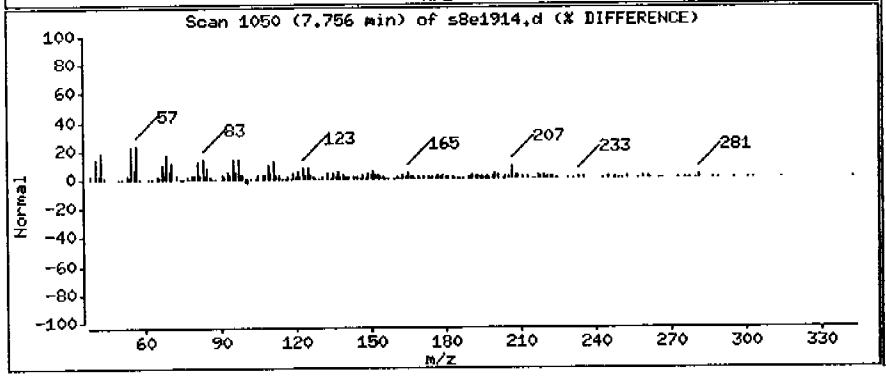

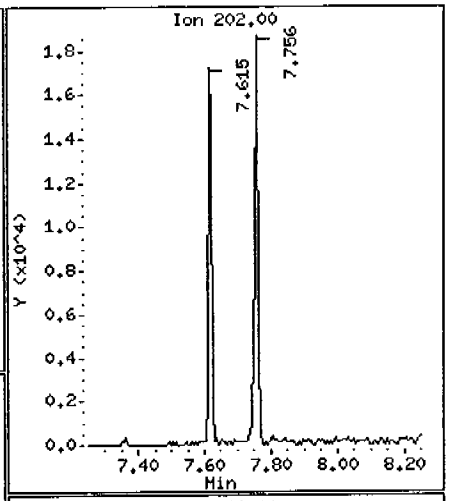

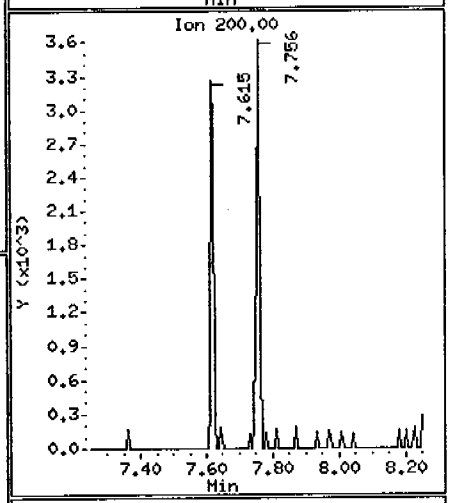

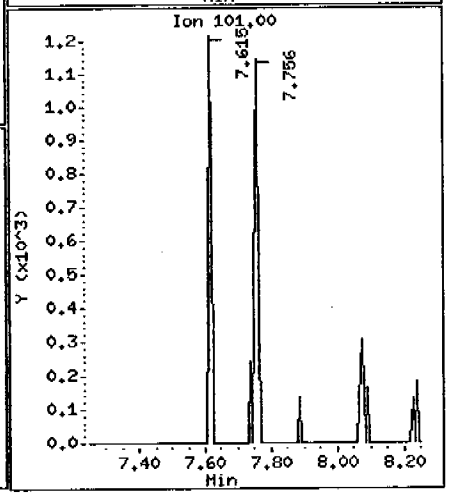

Data File: /chem/MSD8.i/s051905.b/s8e1914.d

Date : 19-MAY-2005 20:24

Client ID: RE03-05-59557

Instrument: MSD8.i

Sample Info: |1358310031423903|10|SVHF|1|LANL|

Volume Injected (uL): 0.5

Operator: cak

Column phase: J&W DB-5MS

Column diameter: 0.20

68 Phenanthrene

Concentration: 218 ug/Kg

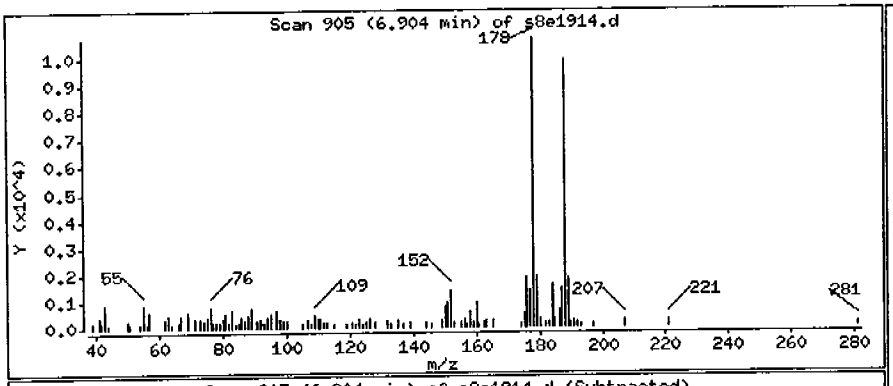

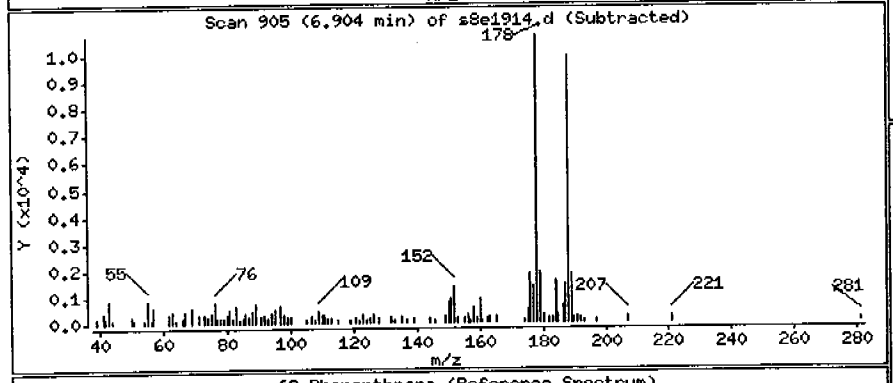

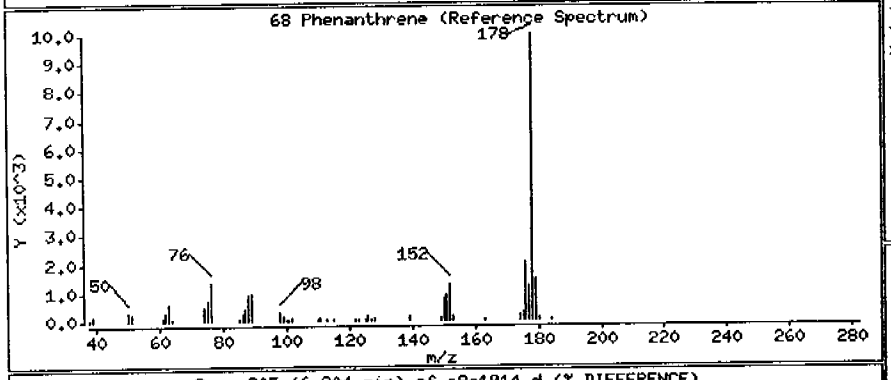

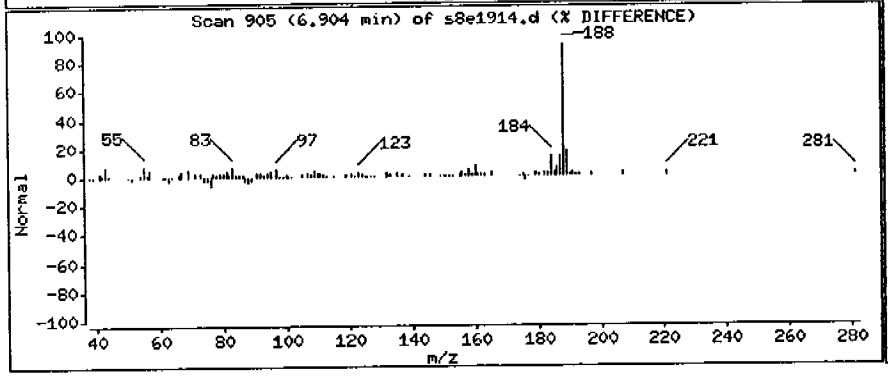

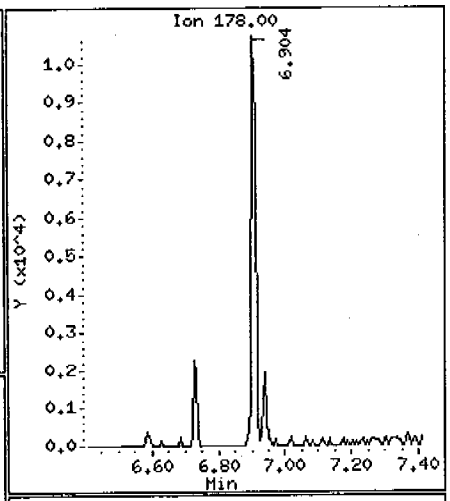

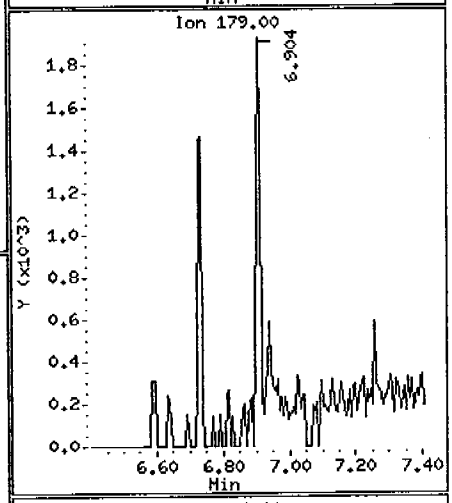

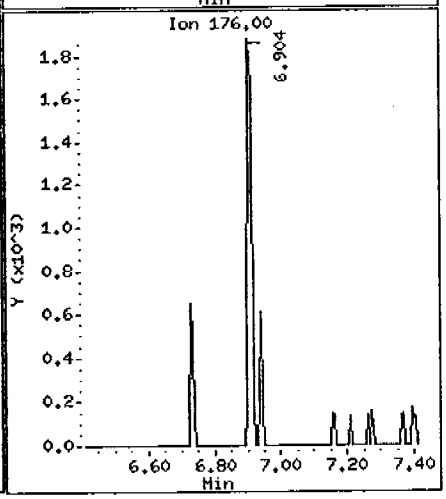

Data File: /chem/MSD8.i/s051905.b/s8e1914.d

Date : 19-MAY-2005 20:24

Client ID: RE03-05-59557

Instrument: MSD8.i

Sample Info: 1135831003142390311 0 1SVHF1 1 1LANL1

Volume Injected (uL): 0.5

Operator: cak

Column phase: J&W DB-5MS

Column diameter: 0.20

76 Fluoranthene

Concentration: 312 ug/Kg

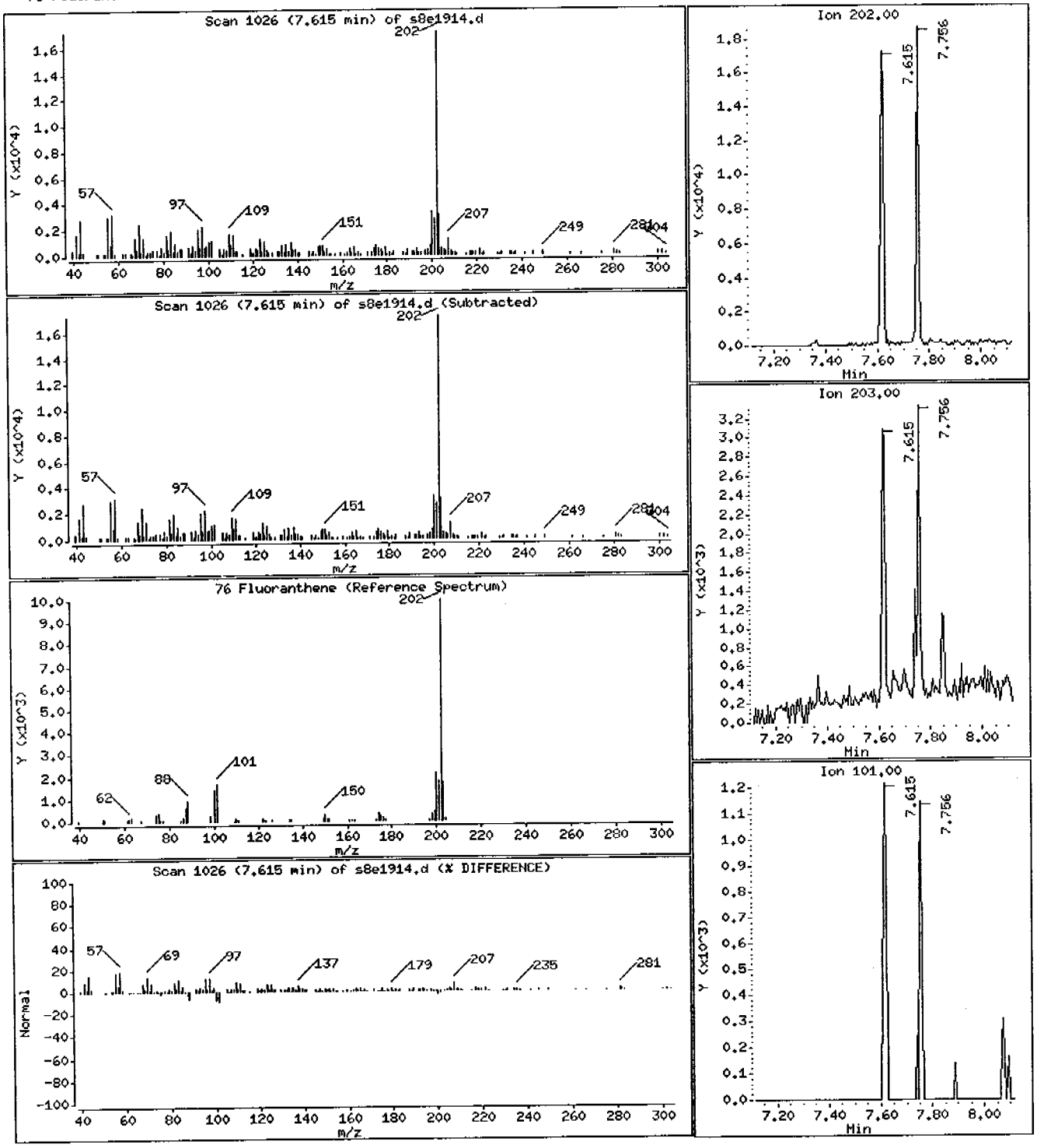

Data File: /chem/MSD8.i/s051905.b/s8e1914.d

Date : 19-MAY-2005 20:24

Client ID: RE03-05-59557

Instrument: MSD8.i

Sample Info: |1358310031423903110|SVMF|1|LANL|

Volume Injected (uL): 0.5

Operator: cak

Column phase: J&W DB-5MS

Column diameter: 0.20

92 Chrysene

Concentration: 222 ug/Kg

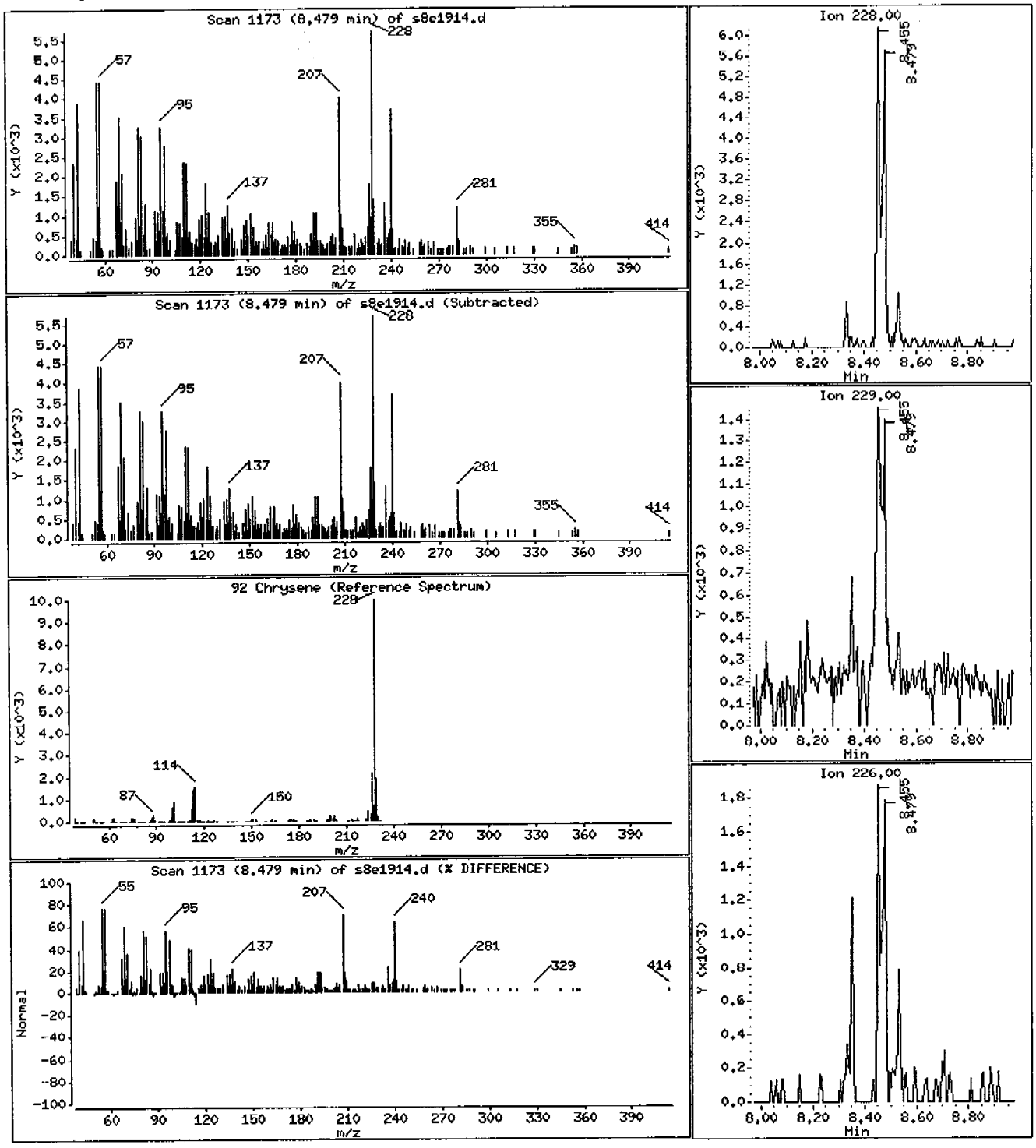

Data File: /chem/MSD8.i/s051905.b/s8e1914.d

Date : 19-MAY-2005 20:24

Client ID: RE03-05-59557

Instrument: MSD8.i

Sample Info: |135831003|423903|10|SVMF11|LANL|

Volume Injected (uL): 0.5

Operator: cak

Column phase: J&W DB-5MS

Column diameter: 0.20

93 bis(2-Ethylhexyl)phthalate

Concentration: 2020 ug/Kg

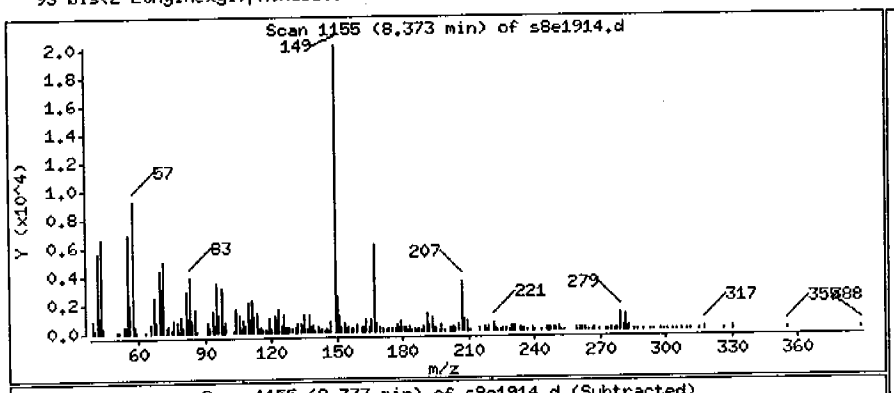

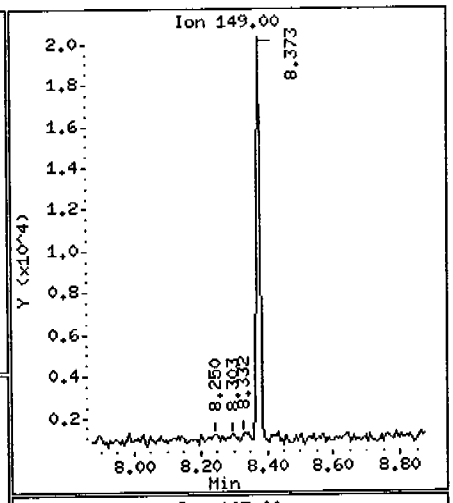

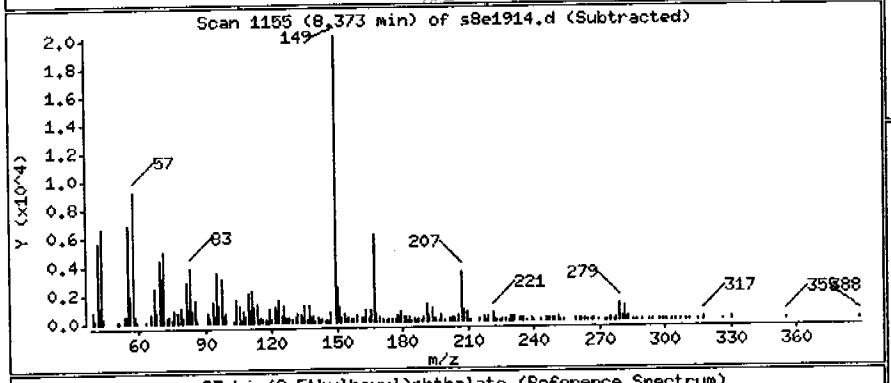

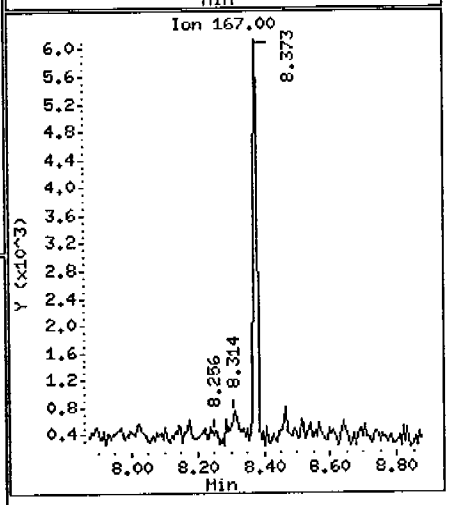

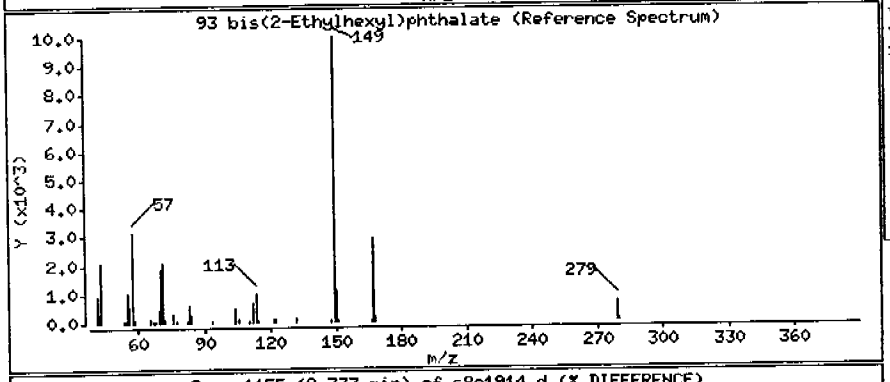

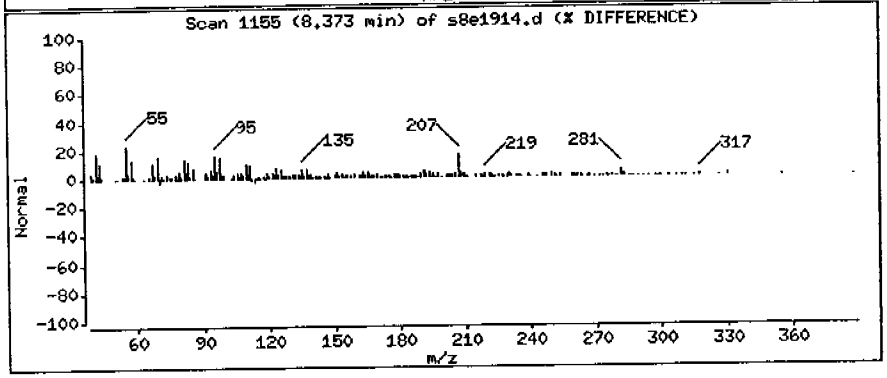

Data File: /chem/MSD8.i/s051905.b/s8e1914.d

Date : 19-MAY-2005 20:24

Client ID: RE03-05-59557

Instrument: MSD8.i

Sample Info: |1358310031423903110|SVMF|1|LANL|

Volume Injected (uL): 0.5

Operator: cak

Column phase: J&W DB-5MS

Column diameter: 0.20

95 Benzo(b)fluoranthene

Concentration: 789 ug/Kg

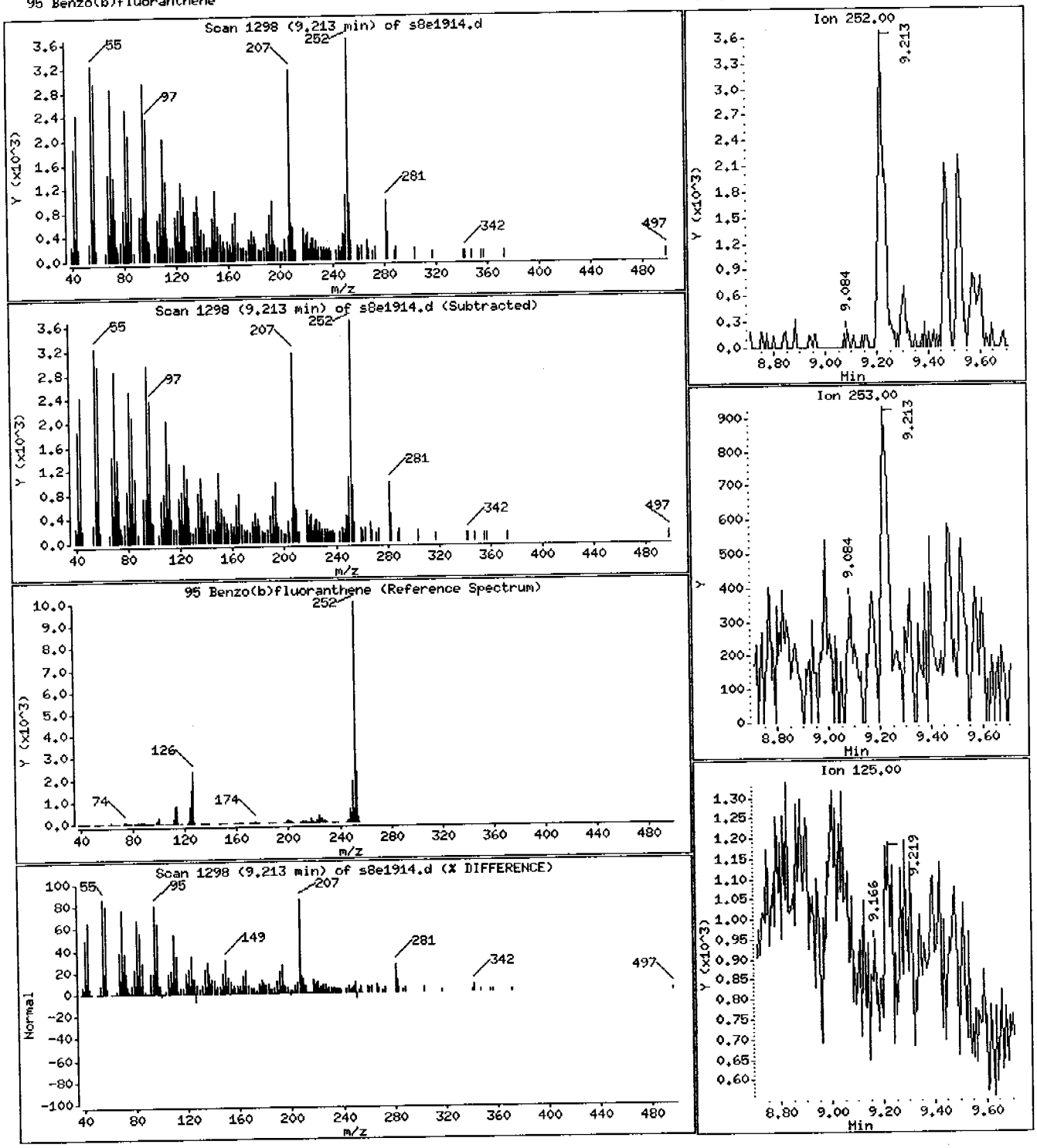

Data File: /chem/MSD8.i/s051905.b/s8e1914.d

Date : 19-MAY-2005 20:24

Client ID: RE03-05-59557

Instrument: MSD8.i

Sample Info: |1358310031423903|101SVMF|1|LANL|

Volume Injected (uL): 0.5

Operator: cak

Column phase: J&W DB-5MS

Column diameter: 0.20

97 Benzo(a)pyrene

Concentration: 903 ug/Kg

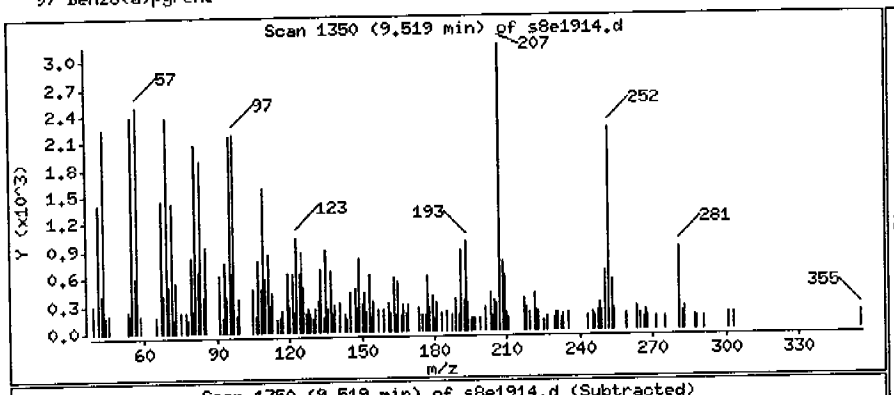

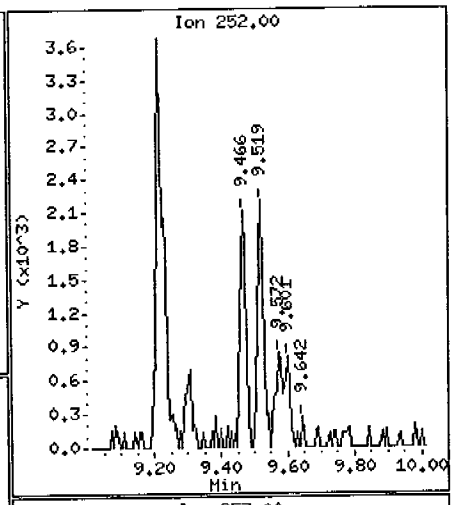

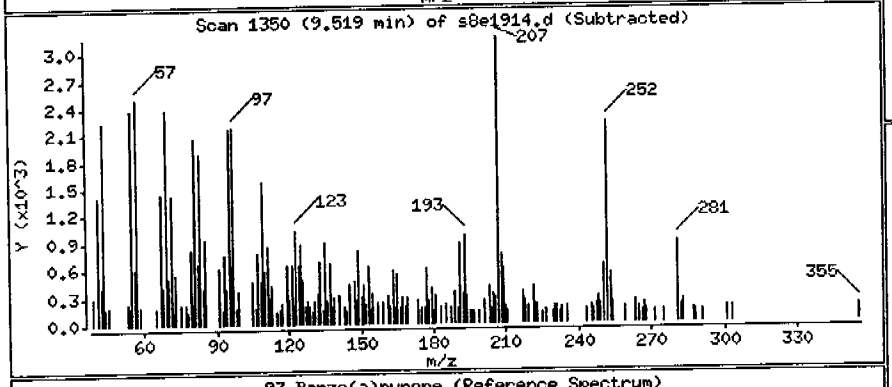

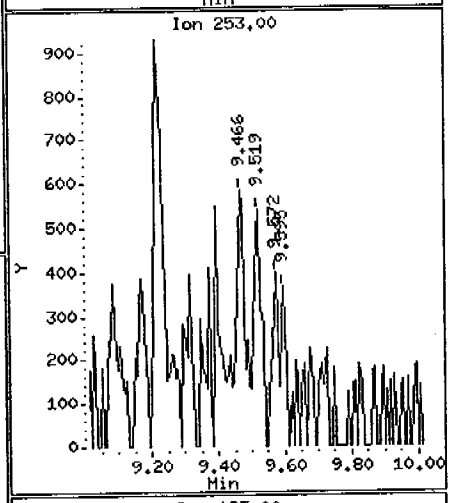

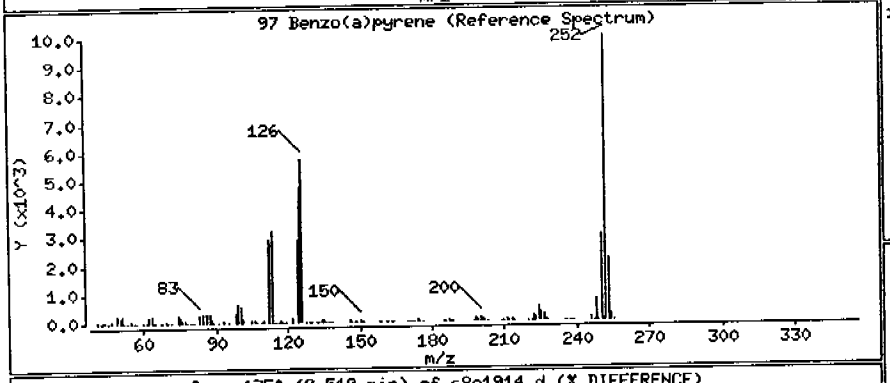

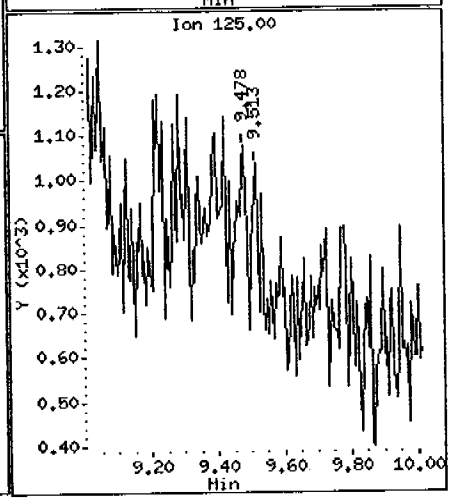

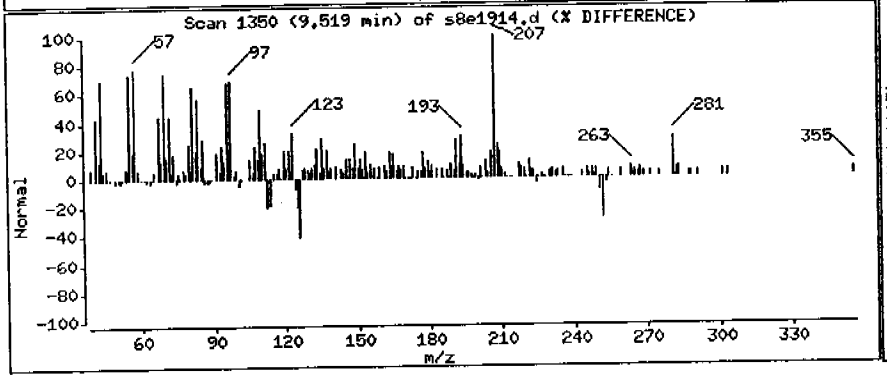

Data File: /chem/MSD8.i/s051905.b/s8e1914.d

Date : 19-MAY-2005 20:24

Client ID: RE03-05-59557

Instrument: MSD8.i

Sample Info: |1358310031423903110|SVMF|1|LANL|

Volume Injected (uL): 0.5

Operator: cak

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Hydrocarbon						
2(1H)-Naphthalenone, octahydro-4a-methyl	54594-42-2	Nist98.l	31702	64	C14H24O	208
2-Dodecen-1-yl(-)succinic anhydride	19780-11-1	Nist98.l	1951	56	C16H26O3	266
11,12-Dibromo-tetradecan-1-ol acetate	1000130-78-5	Nist98.l	5209	45	C16H30Br2O2	412

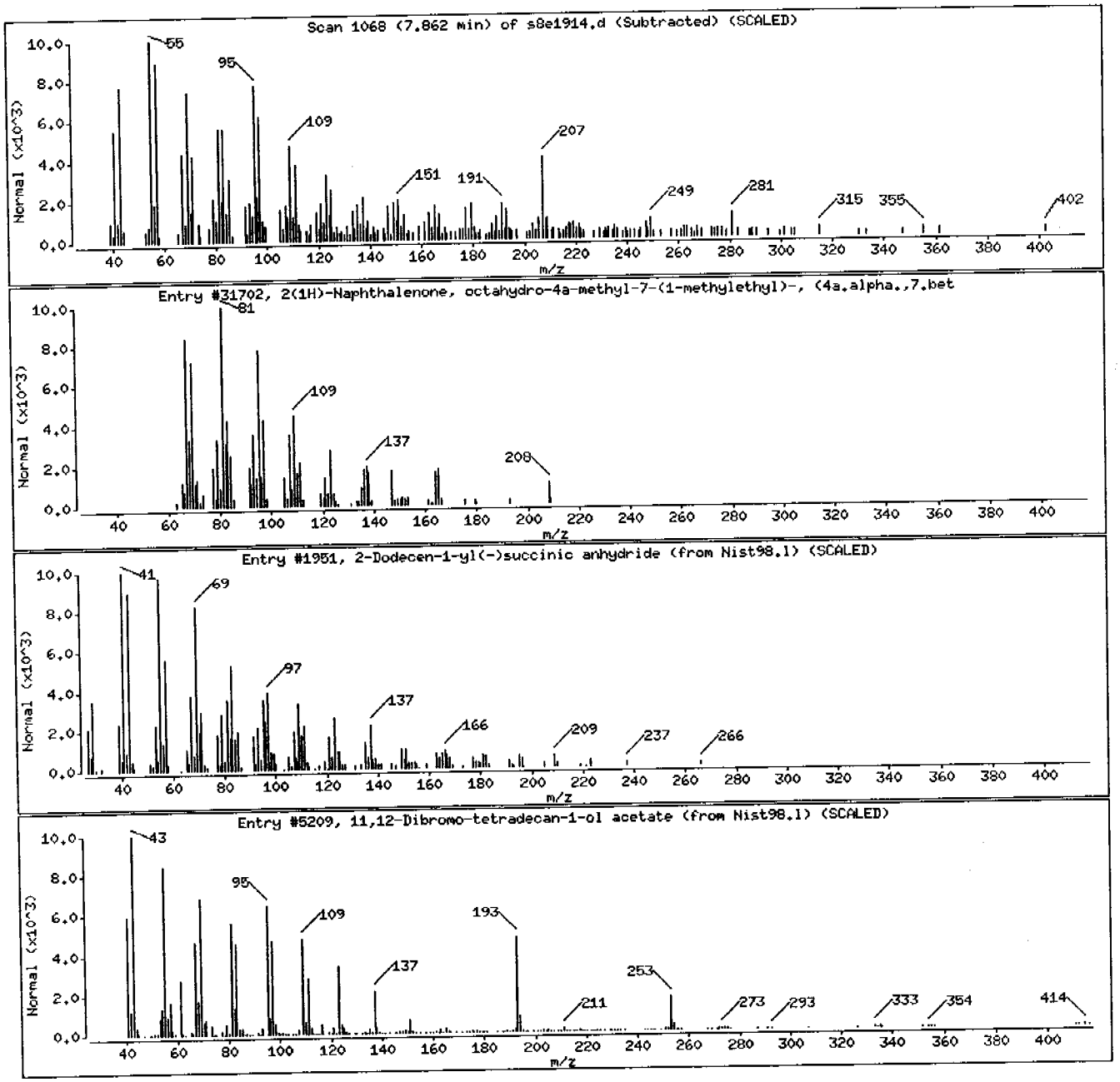

Data File: /chem/MSD8.i/s051905.b/s8e1914.d

Date : 19-MAY-2005 20:24

Client ID: RE03-05-59557

Instrument: MSD8.i

Sample Info: |1358310031423903110|SVMFI1|LANL|

Volume Injected (uL): 0.5

Operator: oak

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Hydrocarbon						
2-Butanone, 4-(2,6,6-trimethyl-2-cyclohe	39721-65-8	Nist98.l	4528	46	C13H220	194
E-11,13-Dimethyl-12-tetradecen-1-ol acet	1000130-81-0	Nist98.l	22661	43	C18H3402	282
Decane, 5,6-bis(2,2-dimethylpropylidene)	73002-85-4	Nist98.l	33290	41	C20H38	278

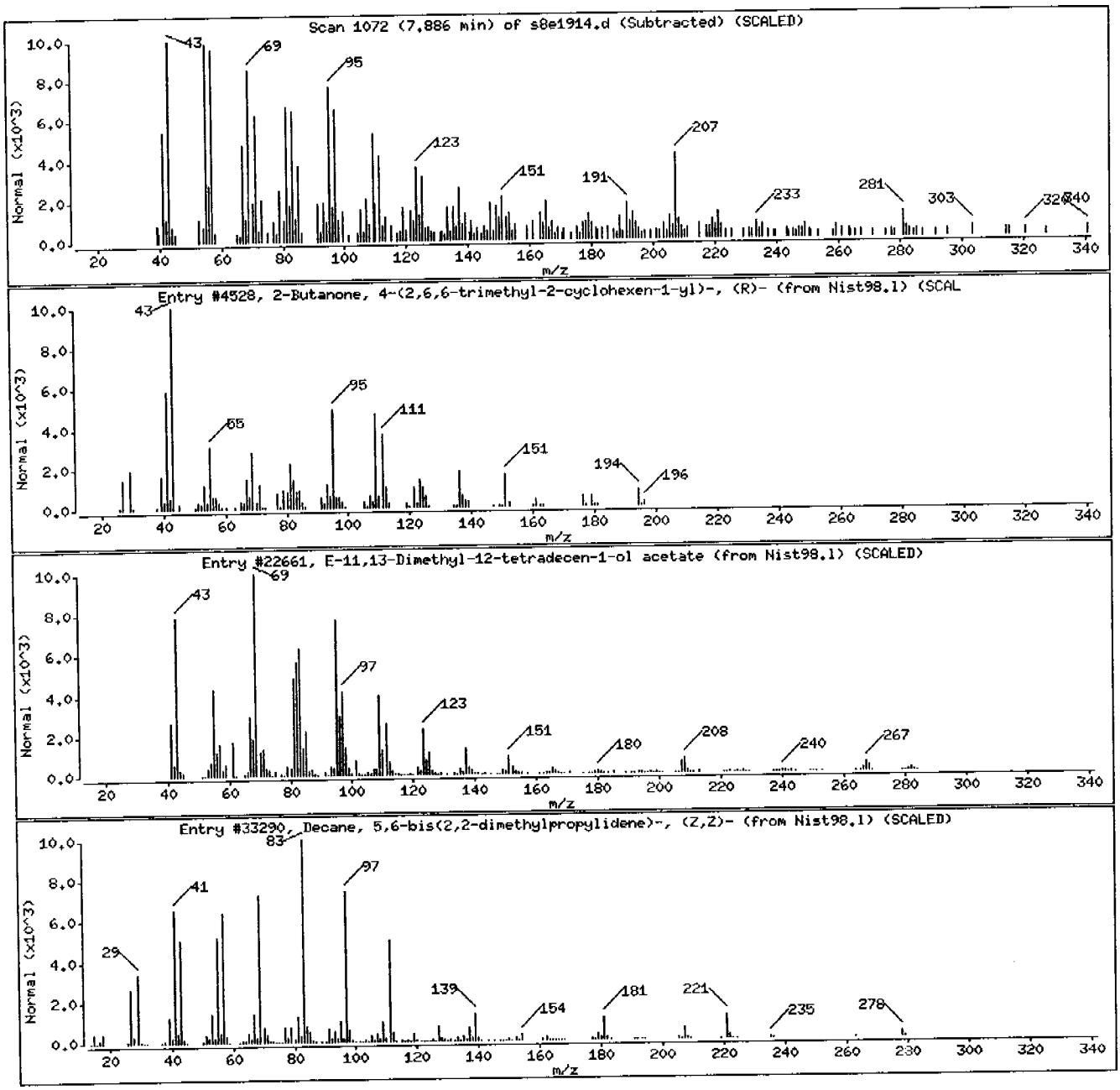

Data File: /chem/MSD8.i/s051905.b/s8e1914.d

Date : 19-MAY-2005 20:24

Client ID: RE03-05-59557 Instrument: MSD8.i

Sample Info: |1358310031423903|101SWMF11LANL|

Volume Injected (uL): 0.5 Operator: cak

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
6-Hydroxy-7-methyl-oct-3-enedithioic aci	83041-08-1	Nist98.1	41247	47	C12H22OS2	246
1-Bromo-11-iodoundecane	1000195-60-2	Nist98.1	22893	46	C11H22BrI	360
Tridecanedial	63521-76-6	Nist98.1	14456	43	C13H24O2	212

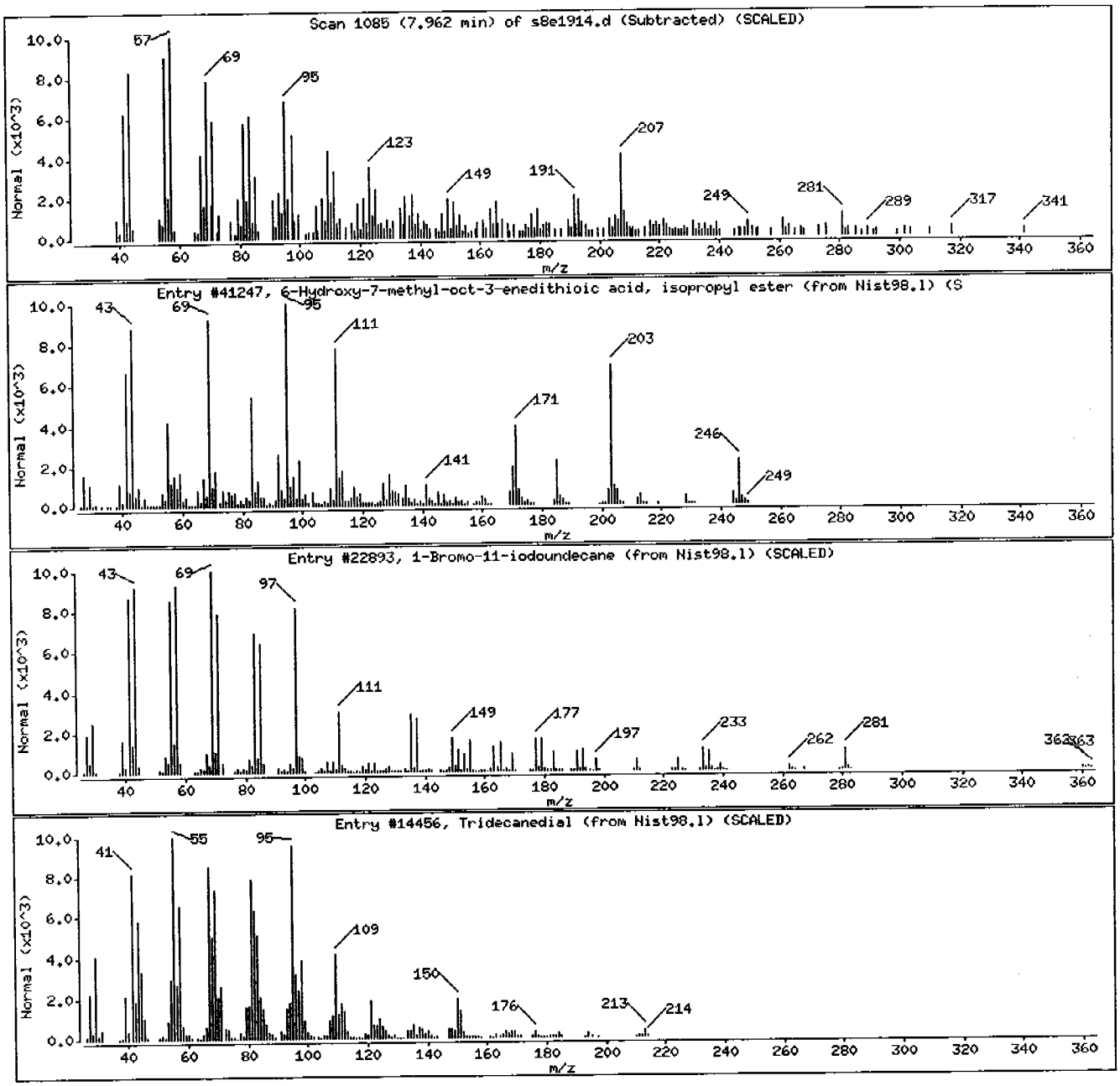

Data File: /chem/MSD8.i/s051905.b/s8e1914.d

Date : 19-MAY-2005 20:24

Client ID: RE03-05-59557

Instrument: MSD8.i

Sample Info: |1358310031423903|10|SVMF|1|LANL|

Volume Injected (uL): 0.5

Operator: cak

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Hydrocarbon						
Cyclohexane, 1-(cyclohexylmethyl)-2-ethy	54934-92-8	Nist98.l	13401	62	C15H28	208
E-11,13-Dimethyl-12-tetradecen-1-ol acet	1000130-81-0	Nist98.l	22661	55	C18H3402	282
Cyclohexane, 1,2-dimethyl-3-pentyl-4-pro	62376-17-4	Nist98.l	42165	42	C16H32	224

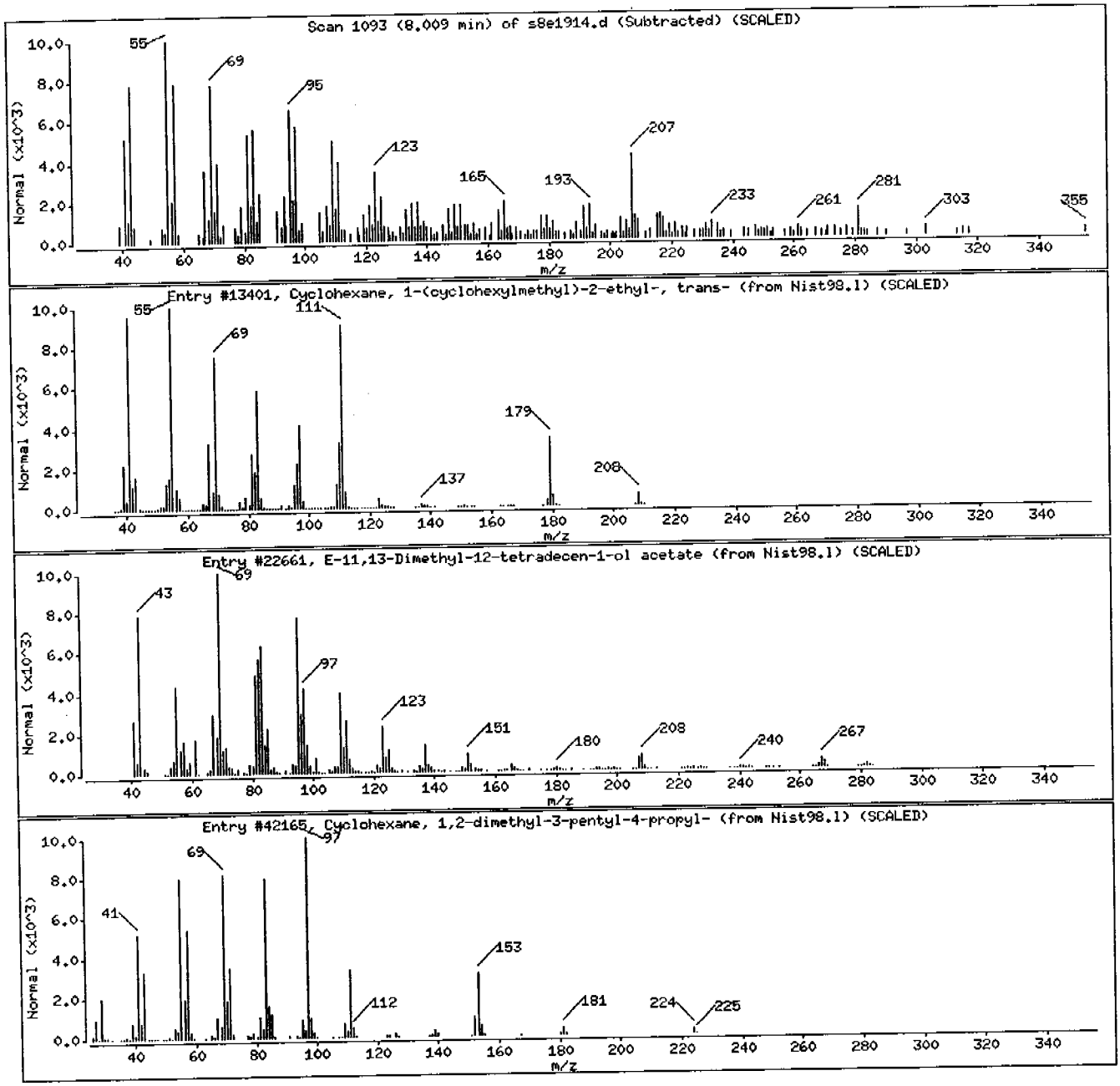

Data File: /chem/MSD8.i/s051905.b/s8e1914.d

Date : 19-MAY-2005 20:24

Client ID: RE03-05-59557 Instrument: MSD8.i

Sample Info: |1358310031423903|10|SVMF|1|LANL|

Volume Injected (uL): 0.5 Operator: cak

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Anhydride						
2-Dodecen-1-yl(-)succinic anhydride	19780-11-1	Nist98.l	1951	78	C16H2603	266
1-Nonadecene	18435-45-5	Nist98.l	108523	45	C19H38	266
Cyclohexane, 1-(cyclohexylmethyl)-2-ethy	54934-92-8	Nist98.l	13401	42	C15H28	208

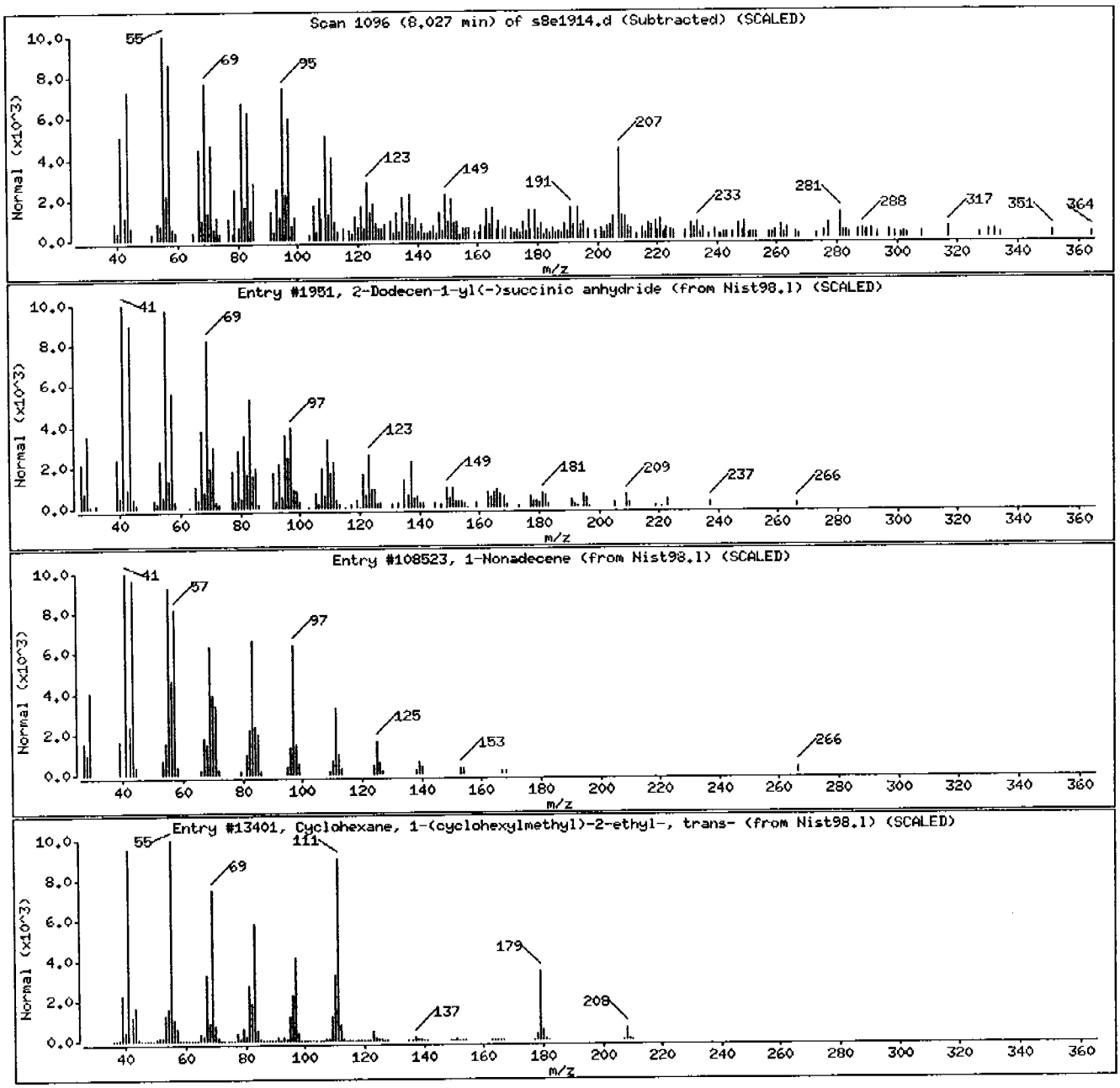

Data File: /chem/MSD8.i/s051905.b/s8e1914.d

Date : 19-MAY-2005 20:24

Client ID: RE03-05-59557 Instrument: MSD8.i

Sample Info: |1358310031423903|10|SVMF|1|LANL|

Volume Injected (uL): 0.5 Operator: cak

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Spiro[4.5]decan-7-one, 1,8-dimethyl-8,9-	1000197-25-2	Nist98.l	7938	51	C15H2402	236
E-11,13-Dimethyl-12-tetradecen-1-ol acet	1000130-81-0	Nist98.l	22661	45	C18H3402	282
2-Butanone, 4-(2,6,6-trimethyl-2-cyclohe	39721-65-8	Nist98.l	4528	30	C13H220	194

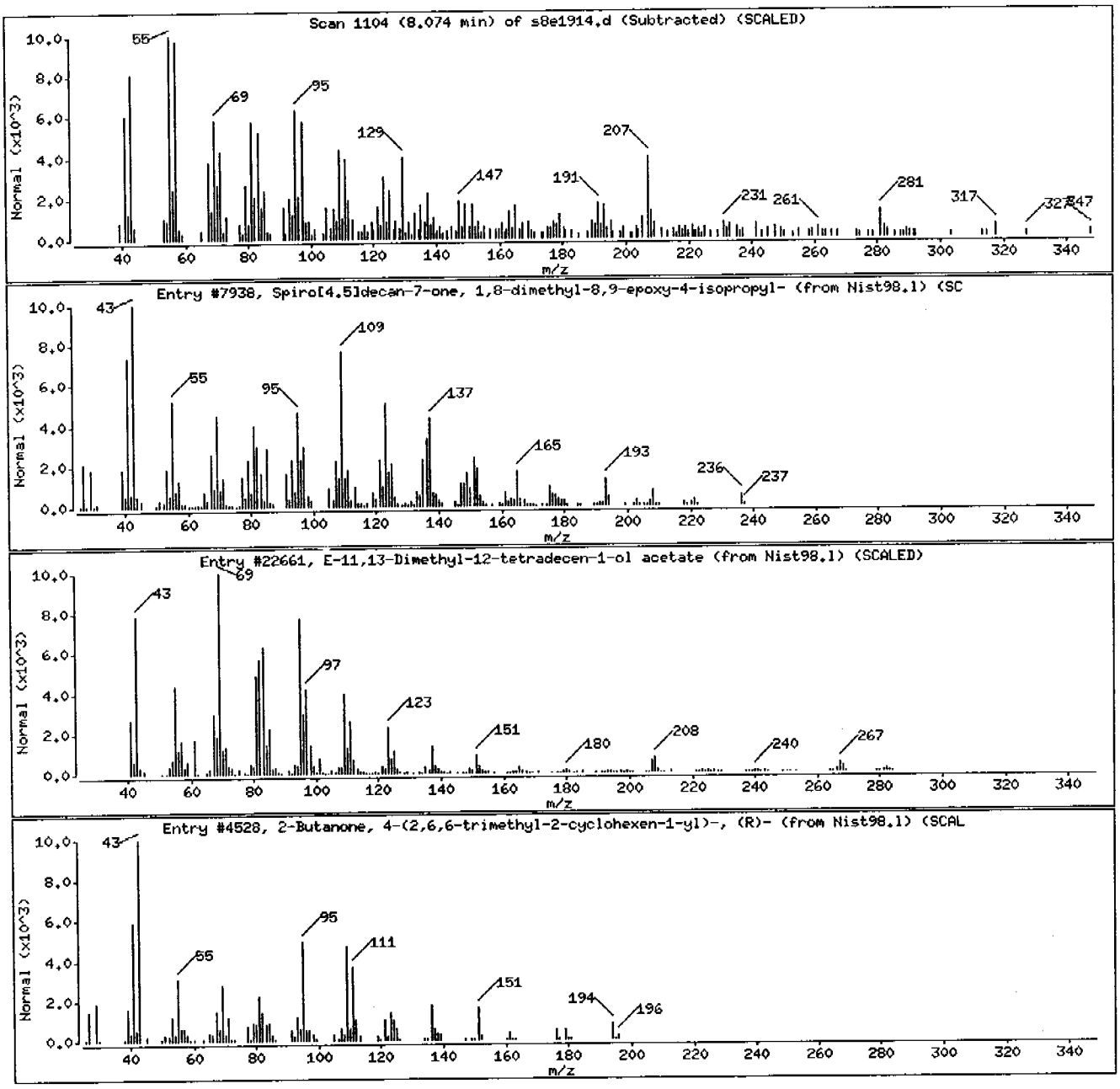

Data File: /chem/MSD8.i/s051905.b/s8e1914.d

Date : 19-MAY-2005 20:24

Client ID: RE03-05-59557

Instrument: MSD8.i

Sample Info: |1358310031423903110|SVMF11|LANL|

Volume Injected (uL): 0.5

Operator: cak

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
5-Octen-2-one, 6-methyl-8-(2,6,6-trimeth	55638-41-0	Nist98.1	7963	59	C18H30O	262
Cyclohexene, 4-(4-ethylcyclohexyl)-1-pen	1000221-62-6	Nist98.1	13178	52	C19H34	262
1-Pentadecene	13360-61-7	Nist98.1	109475	46	C15H30	210

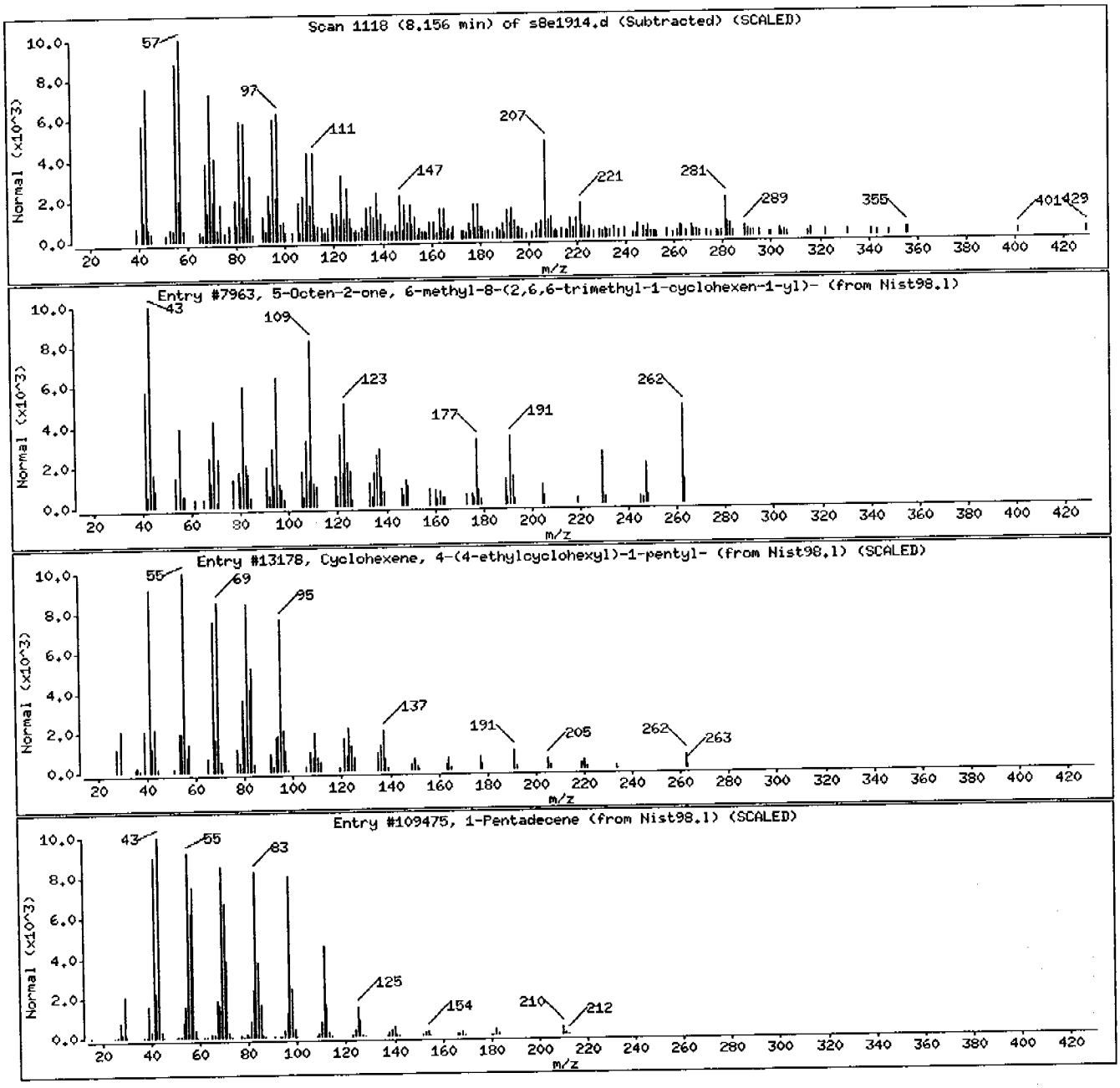

Data File: /chem/MSD8.i/s051905.b/s8e1914.d

Date : 19-MAY-2005 20:24

Client ID: RE03-05-59557

Instrument: MSD8.i

Sample Info: |1358310031423903|101SVHF|1|LANL|

Volume Injected (uL): 0.5

Operator: cak

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Hydrocarbon						
1-Pentadecene	13360-61-7	Nist98.1	109475	62	C15H30	210
Cyclododecanemethanol	1892-12-2	Nist98.1	13924	46	C13H26O	198
Decane, 5,6-bis(2,2-dimethylpropylidene)	73002-85-4	Nist98.1	33290	43	C20H38	278

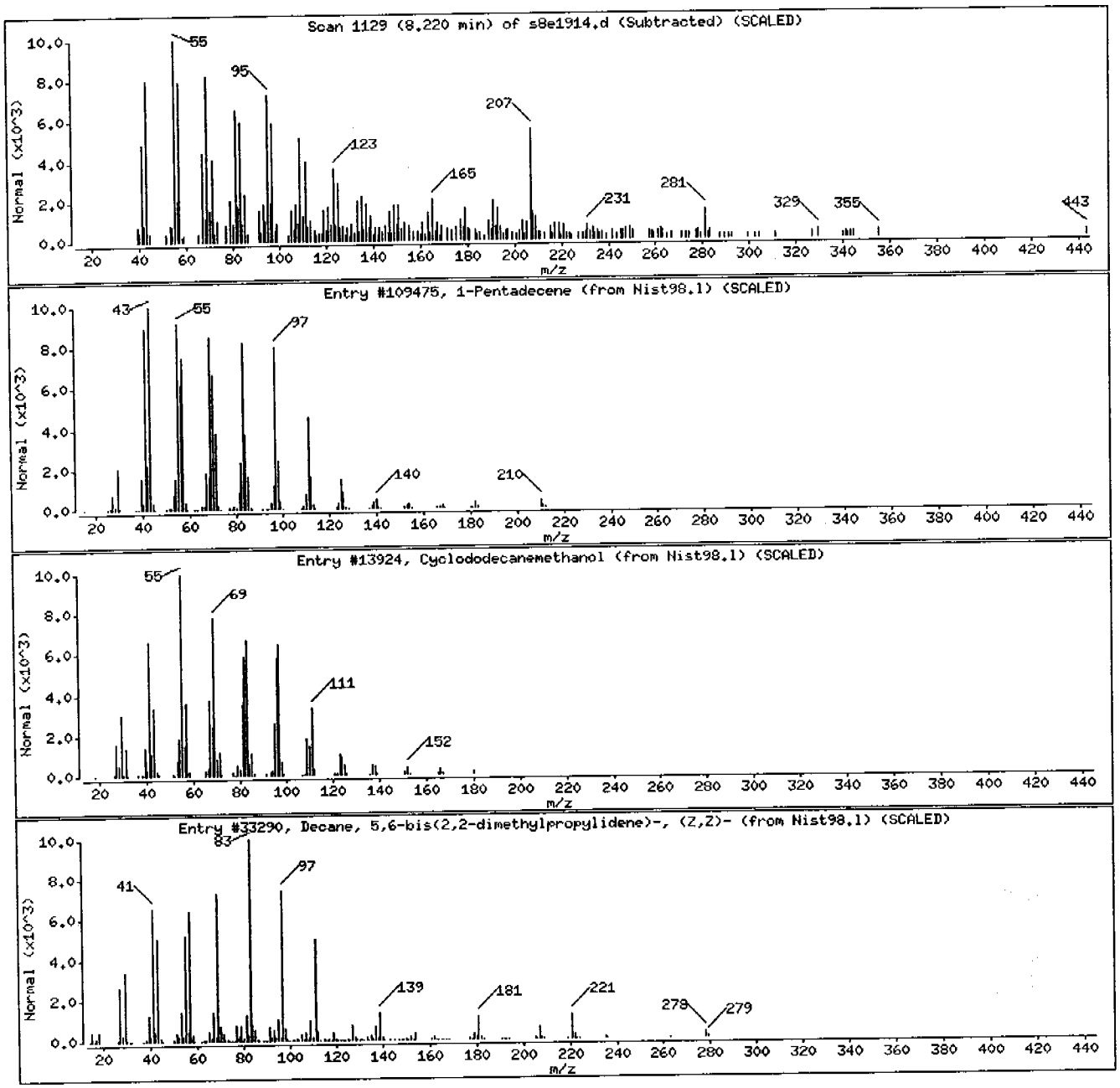

Data File: /chem/MSD8.i/s051905.b/s8e1914.d

Date : 19-MAY-2005 20:24

Client ID: RE03-05-59557

Instrument: MSD8.i

Sample Info: |1358310031423903|10|SVMF|1|LANL|

Volume Injected (uL): 0.5

Operator: cak

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
2,4,5,5,8a-Pentamethyl-4a,5,6,7,8,8a-hex	1000195-30-1	Nist98.l	49498	64	C14H24O	208
1H-Indene, 5-butyl-6-hexyloctahydro-	55044-36-5	Nist98.l	2761	55	C19H36	264
2-Dodecen-1-yl(-)succinic anhydride	19780-11-1	Nist98.l	1951	52	C16H26O3	266

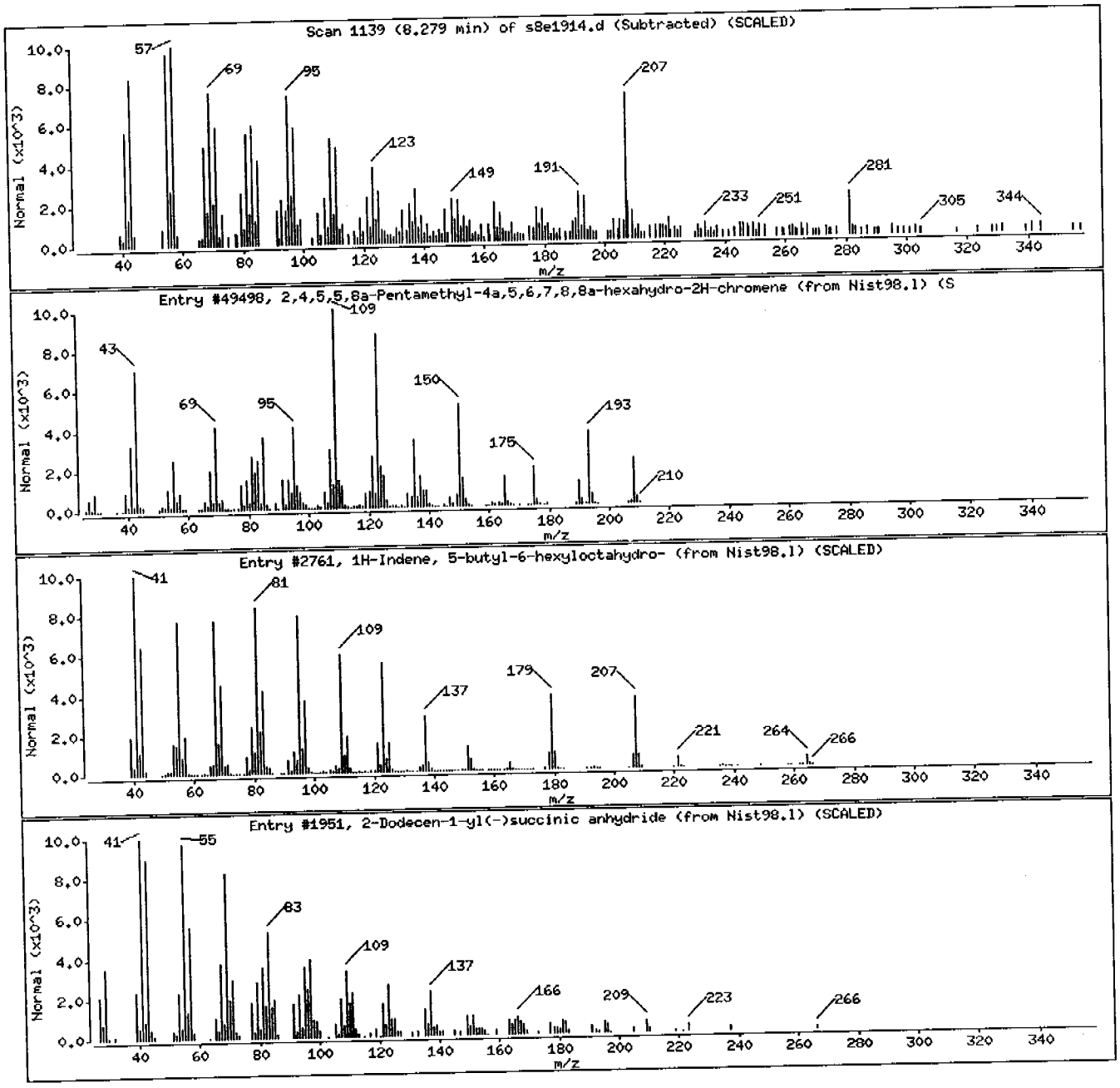

Data File: /chem/MSD8.i/s051905.b/s8e1914.d

Date : 19-MAY-2005 20:24

Client ID: RE03-05-59557

Instrument: MSD8.i

Sample Info: |1358310031423903|10|SVMF|1|LANL|

Volume Injected (uL): 0.5

Operator: cak

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
3-Phenylthiane,S-oxide	1000215-92-3	Nist98.l	38232	9	C11H14OS	194
Benzene, 1,1'-[1-(2,2-dimethyl-3-butenyl	61142-62-9	Nist98.l	36964	9	C21H26	278
Azetidine, 1-benzyl-3,3-dimethyl-2-pheny	22606-97-9	Nist98.l	37396	7	C18H21N	251

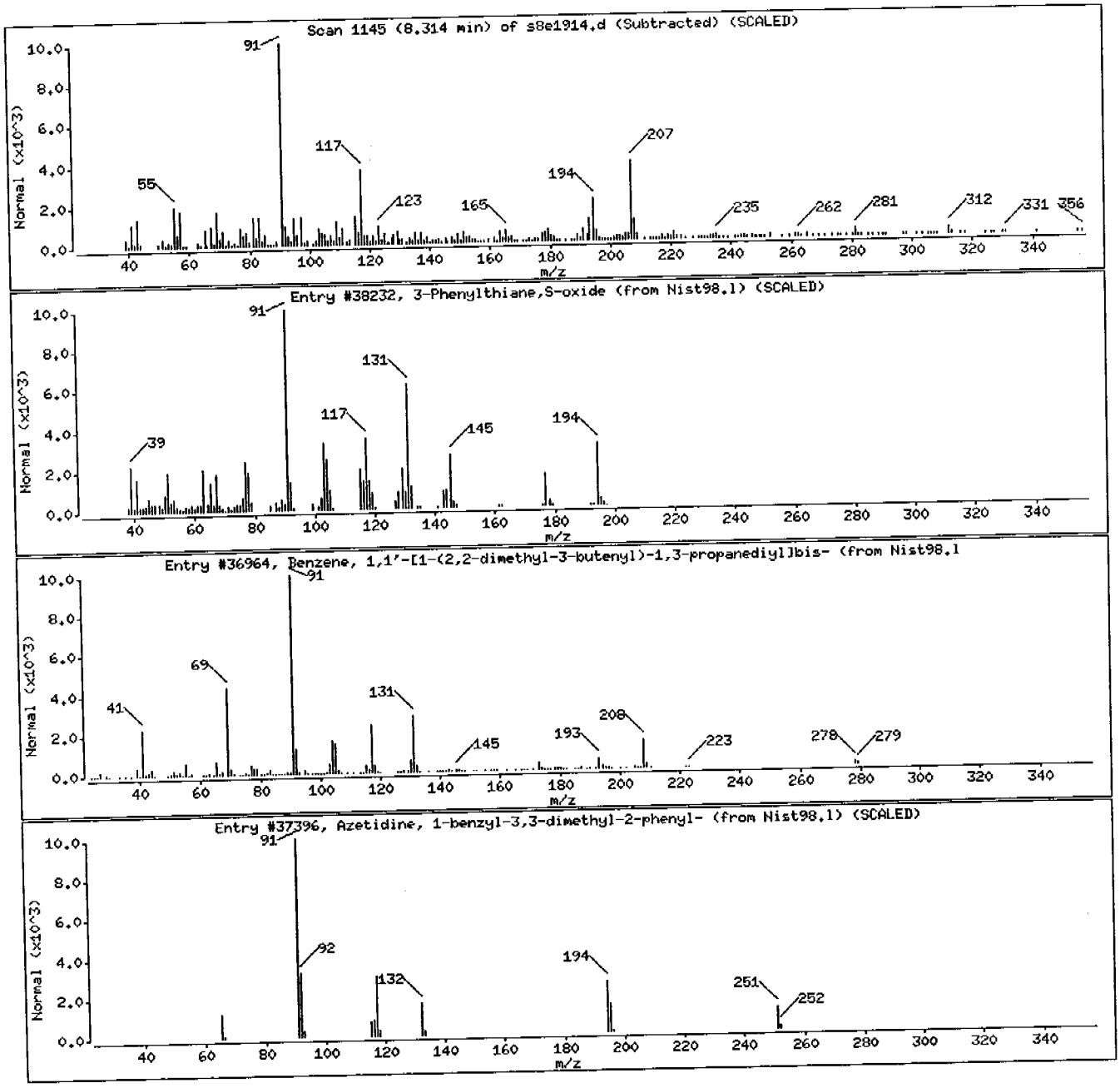

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Date : 19-MAY-2005 20:24

Client ID: RE03-05-59557

Instrument: MSD8.i

Sample Info: |1358310031423903110|SVHF|1|LANL|

Volume Injected (uL): 0.5

Operator: cak

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
1,3-Dioxolane, 4-ethyl-5-octyl-2,2-bis(t	38274-72-5	Nist98.l	23227	46	C15H24F6O2	350
1-Bromo-11-iodoundecane	1000195-60-2	Nist98.l	22893	38	C11H22BrI	360
2(1H)-Naphthalenone, octahydro-4a-methyl	54594-42-2	Nist98.l	31702	38	C14H24O	208

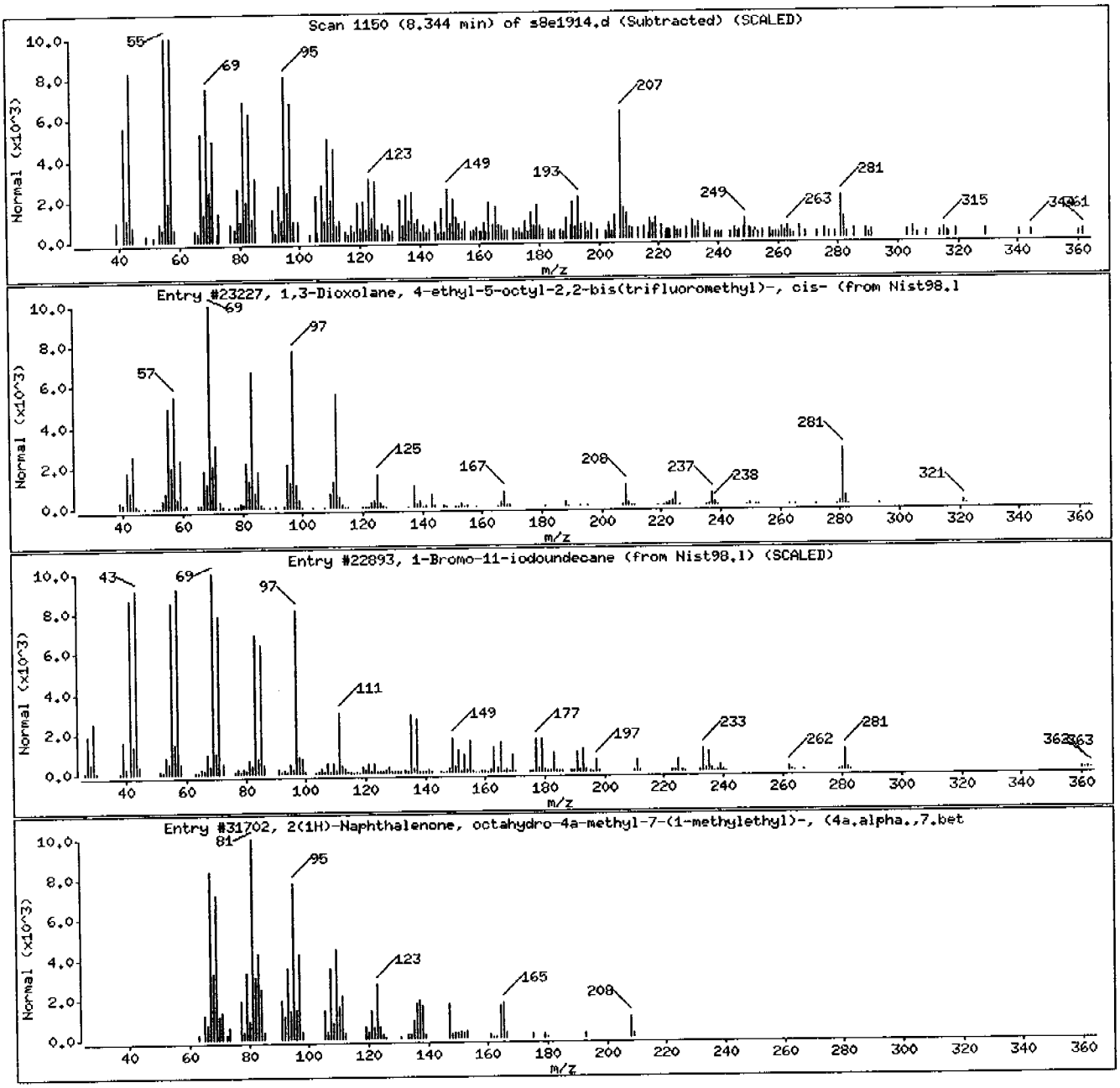

Data File: /chem/MSD8.i/s051905.b/s8e1914.d

Date : 19-MAY-2005 20:24

Client ID: RE03-05-59557

Instrument: MSD8.i

Sample Info: |135831003|423903|10|SVMF1|LANL|

Volume Injected (uL): 0.5

Operator: cak

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
1H-Indole, 1-methyl-2-phenyl-	3558-24-5	Nist98.l	84868	60	C15H13N	207
1H-Indole, 2-methyl-3-phenyl-	4757-69-1	Nist98.l	126477	55	C15H13N	207
1H-Indole, 5-methyl-2-phenyl-	13228-36-9	Nist98.l	84867	49	C15H13N	207

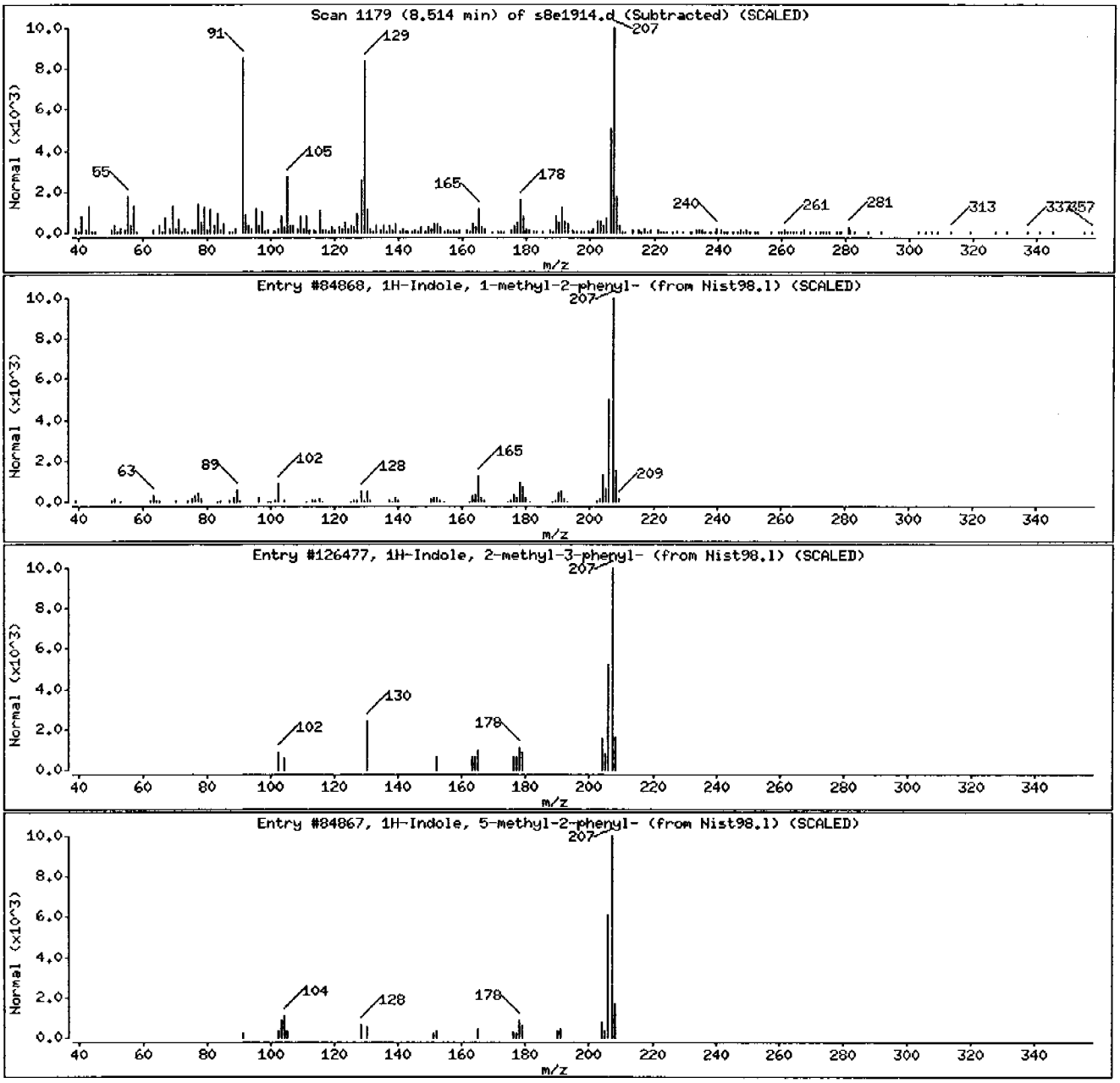

Data File: /chem/MSD8.i/s051905.b/s8e1914.d

Date : 19-MAY-2005 20:24

Client ID: RE03-05-59557 Instrument: MSD8.i

Sample Info: |135831003|423903|10|SVMF|1|LANL|

Volume Injected (uL): 0.5 Operator: cak

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
(2,3-Diphenylcyclopropyl)methyl phenyl s	1000142-94-7	Nist98.l	38190	64	C22H20OS	332
Methadone N-oxide	1000120-80-7	Nist98.l	84766	59	C21H27NO2	325
5-Methyl-2-phenylindolizine	36944-99-7	Nist98.l	84865	49	C15H13N	207

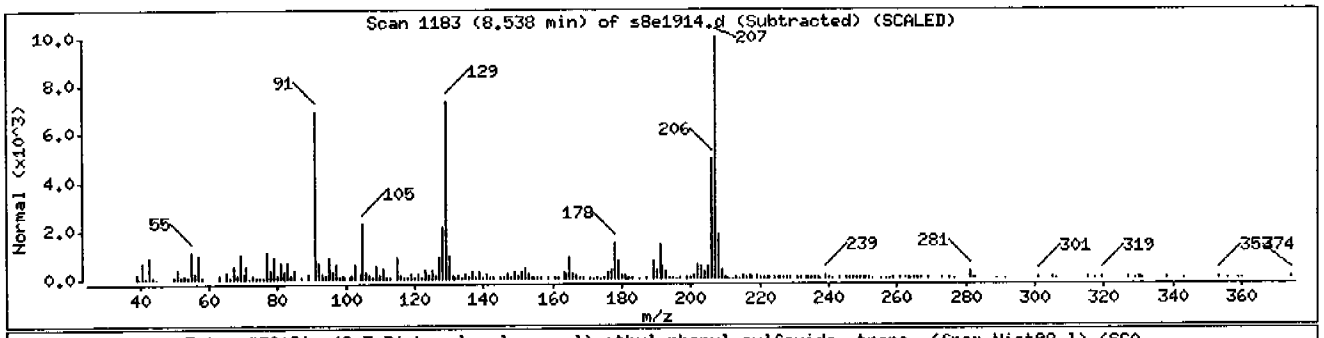

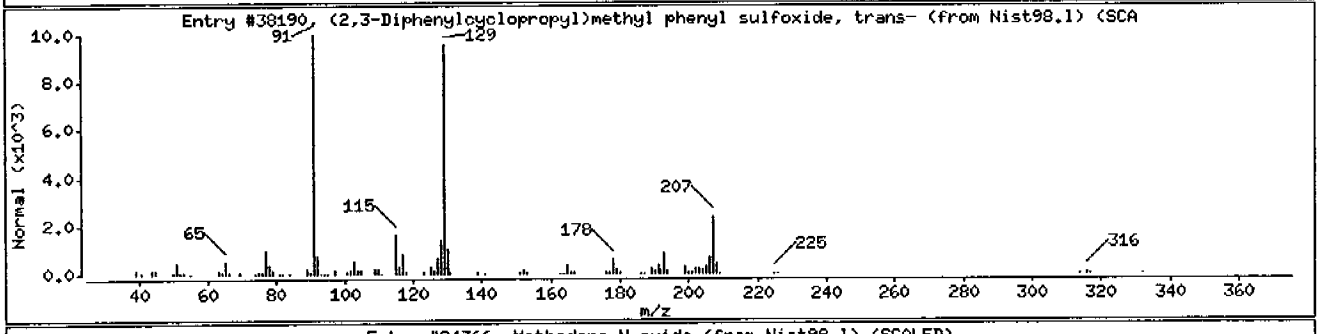

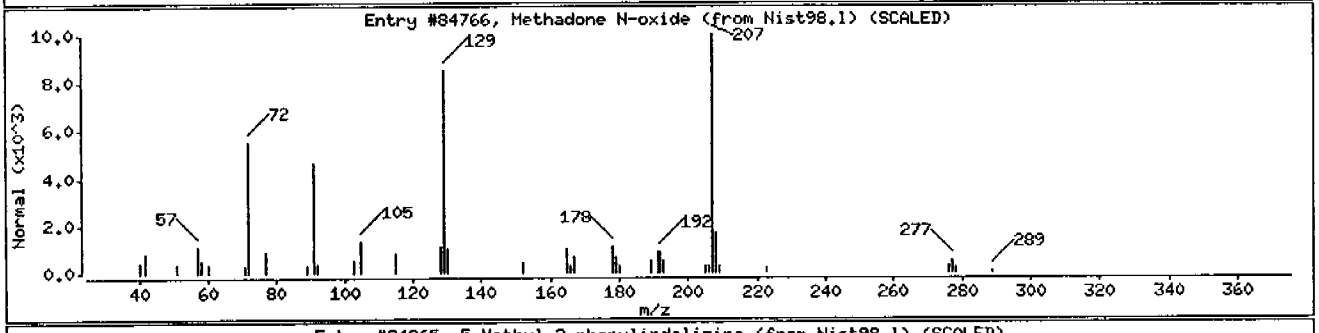

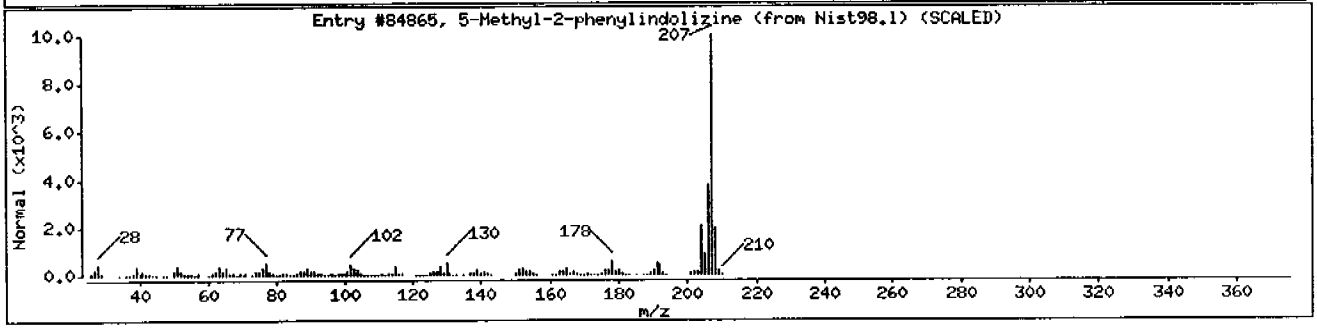

Data File: /chem/MSD8.i/s051905.b/s8e1914.d

Date : 19-MAY-2005 20:24

Client ID: RE03-05-59557 Instrument: MSD8.i

Sample Info: |135831003|423903|10|SVMF|1|LANL|

Volume Injected (uL): 0.5 Operator: cak

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Hydrocarbon						
1-Propene, 3-(2-cyclopentenyl)-2-methyl-	1000154-23-3	Nist98.l	84768	58	C21H22	274
1H-Indole, 1-methyl-2-phenyl-	3558-24-5	Nist98.l	84868	50	C15H13N	207
1H-Indole, 2-methyl-3-phenyl-	4757-69-1	Nist98.l	84869	46	C15H13N	207

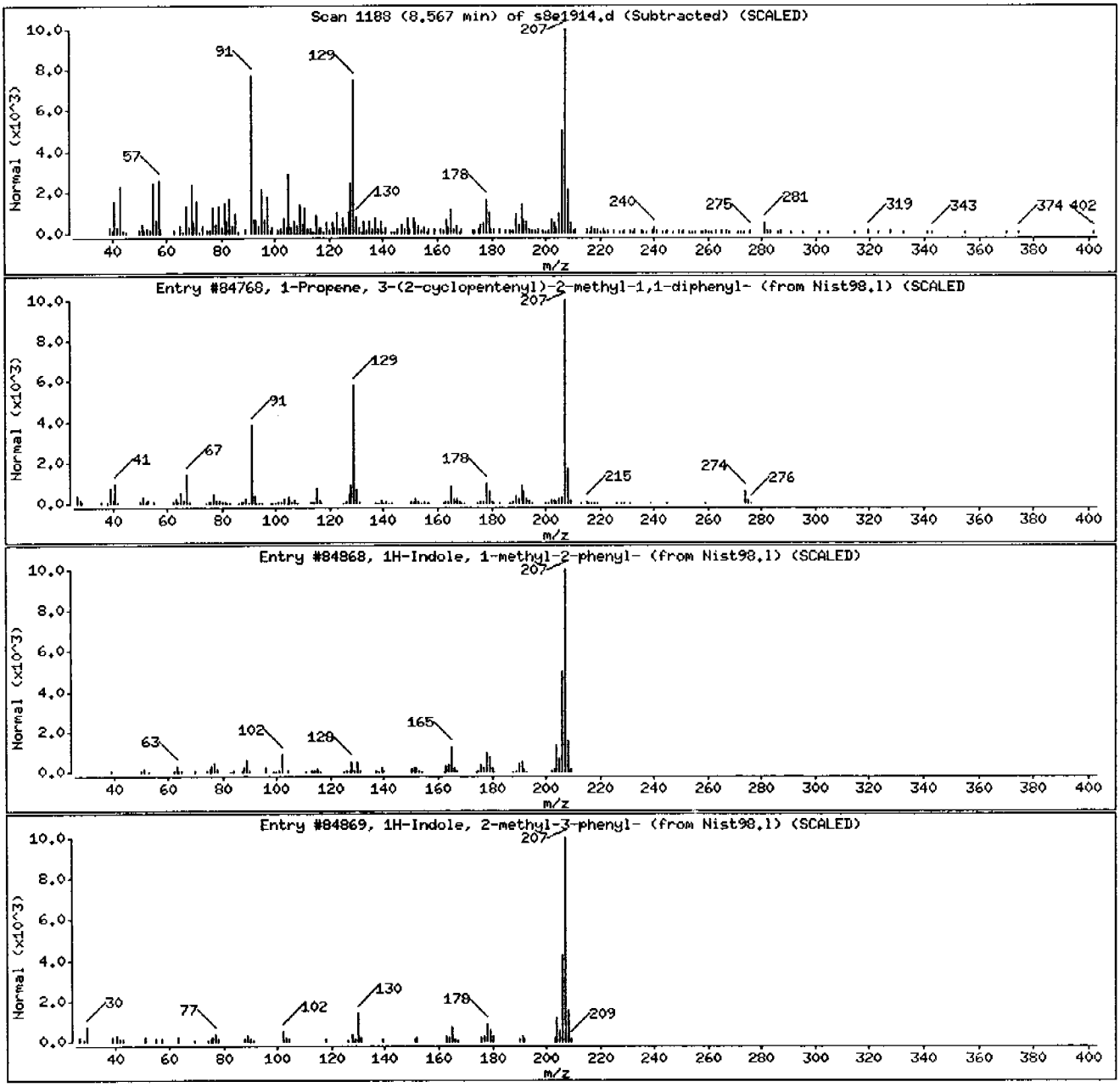

Data File: /chem/MSD8.i/s051905.b/s8e1914.d

Date : 19-MAY-2005 20:24

Client ID: RE03-05-59557 Instrument: MSD8.i

Sample Info: |1358310031423903110|SVHF|1|LANL|

Volume Injected (uL): 0.5 Operator: cak

Column phase: J&W DB-5HS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
E-11,13-Dimethyl-12-tetradecen-1-ol acet	1000130-81-0	Nist98.l	22661	83	C18H3402	282
Cholest-23-ene, (5.beta.)-	30658-62-9	Nist98.l	14638	46	C27H46	370
Cyclohexane-1-methanol, 3,3-dimethyl-2-(	1000196-01-5	Nist98.l	49150	44	C14H240	208

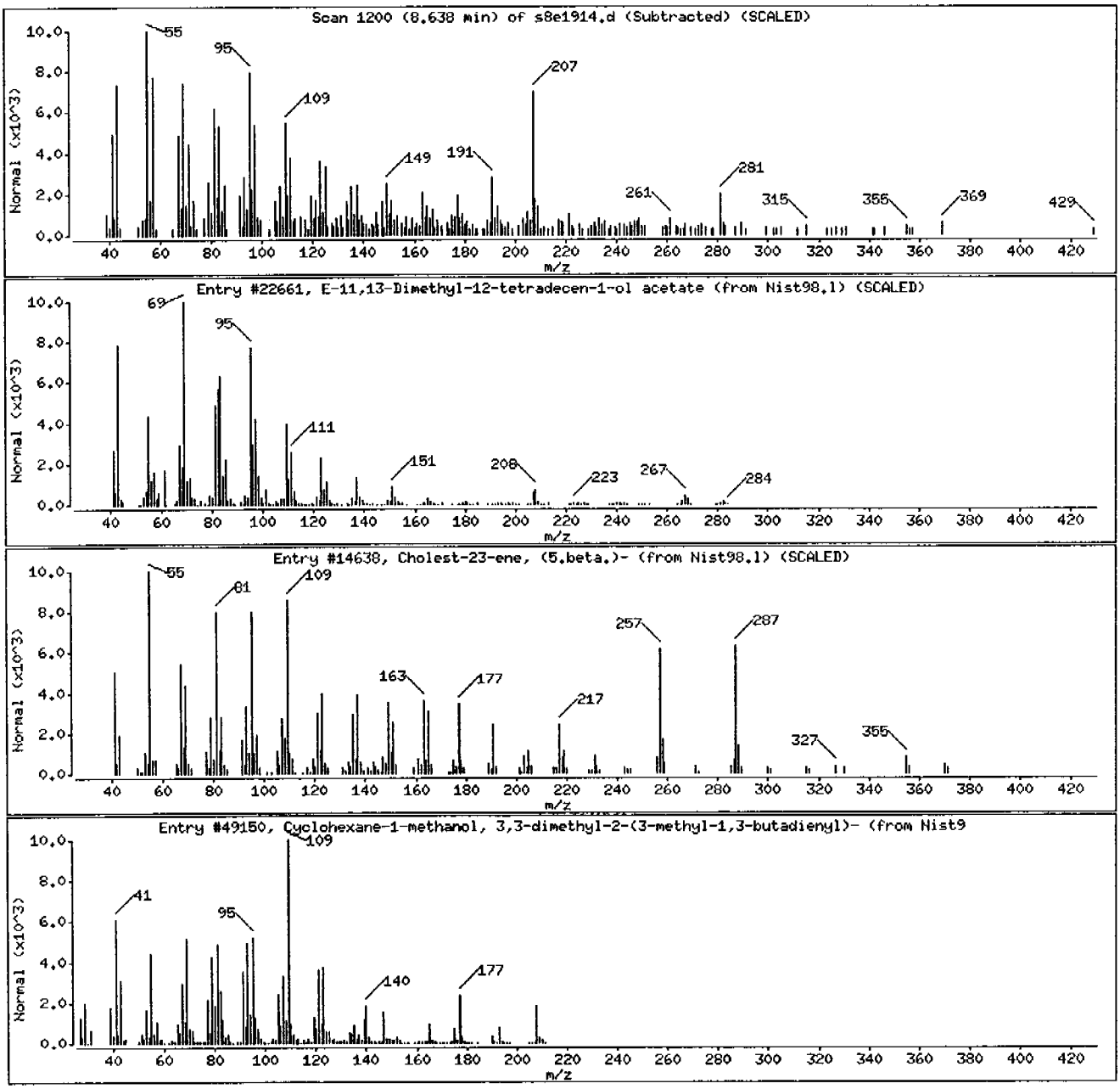

Data File: /chem/MSD8.i/s051905.b/s8e1914.d

Date : 19-MAY-2005 20:24

Client ID: RE03-05-59557 Instrument: MSD8.i

Sample Info: |135831003|423903|10|SVMF|1|LANL|

Volume Injected (uL): 0.5 Operator: cak

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Hydrocarbon						
2(1H)-Naphthalenone, octahydro-4a,7,7-tr	54699-31-9	Nist98.l	14635	70	C13H22O	194
2-Dodecen-1-yl(-)succinic anhydride	19780-11-1	Nist98.l	1951	46	C16H26O3	266
Cyclohexanebutanoic acid, 2,2-dimethyl-6	95452-15-6	Nist98.l	23276	43	C14H24O2	224

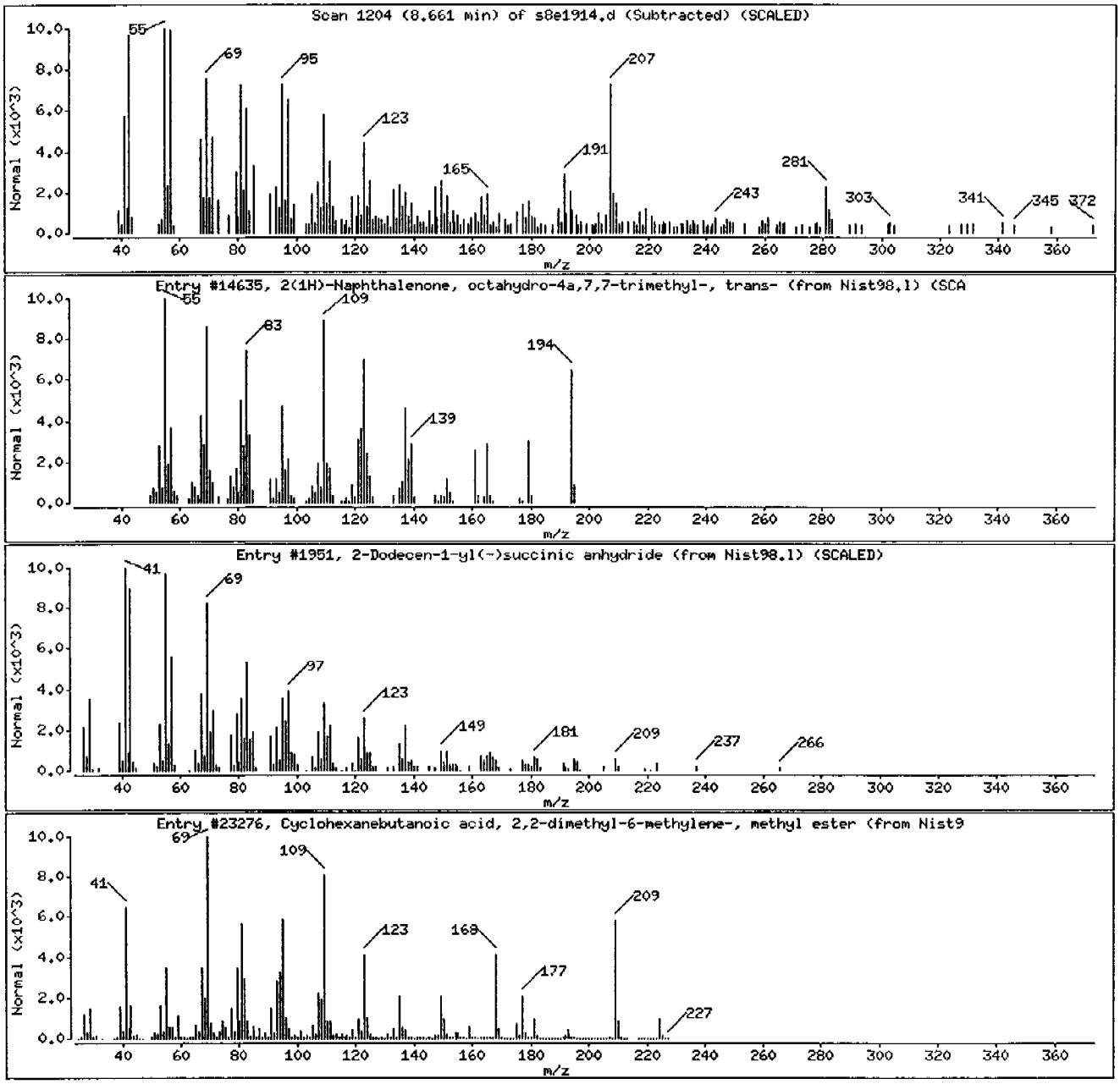

Data File: /chem/MSD8.i/s051905.b/s8e1914.d

Date : 19-MAY-2005 20:24

Client ID: RE03-05-59557 Instrument: MSD8.i

Sample Info: |135831003|423903|10|SVMF|1|LANL|

Volume Injected (uL): 0.5 Operator: cak

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Hydrocarbon						
2(1H)-Naphthalenone, octahydro-4a-methyl	54594-42-2	Nist98.l	31702	44	C14H240	208
2-Methyl-Z-2-docosane	1000131-16-9	Nist98.l	22882	38	C23H46	322
Hexadecanoic acid, 2-hydroxy-, methyl es	16742-51-1	Nist98.l	13720	35	C17H3403	286

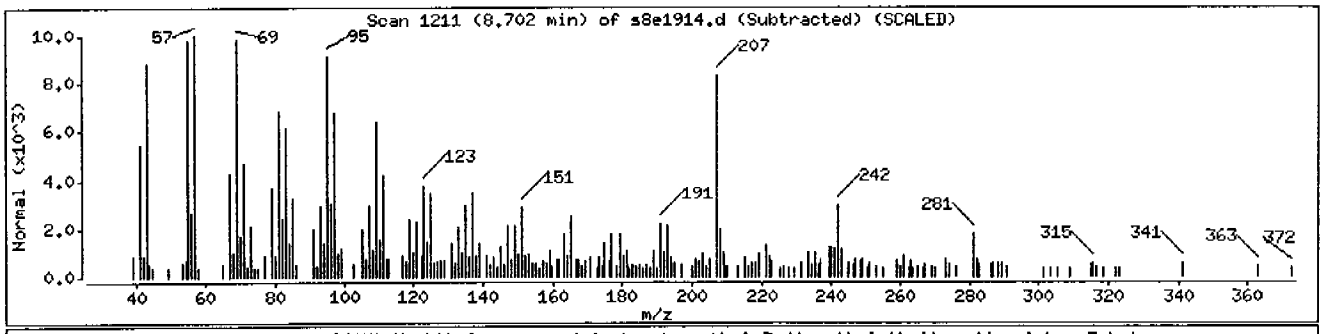

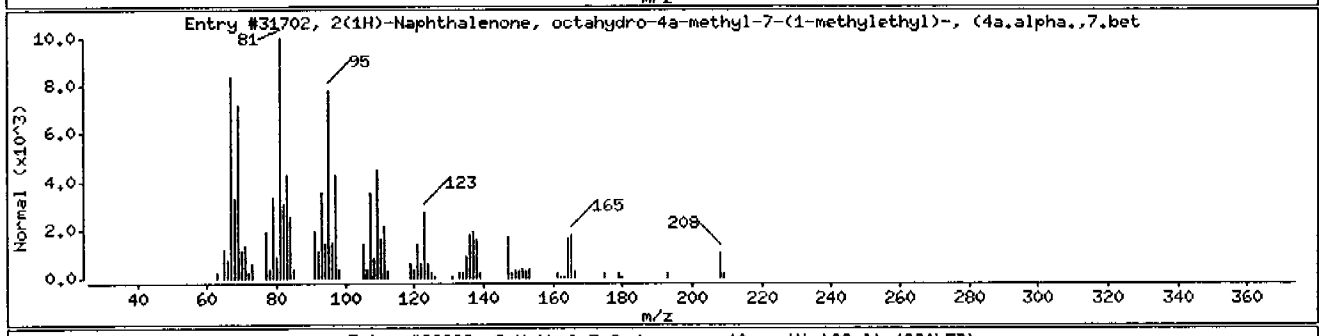

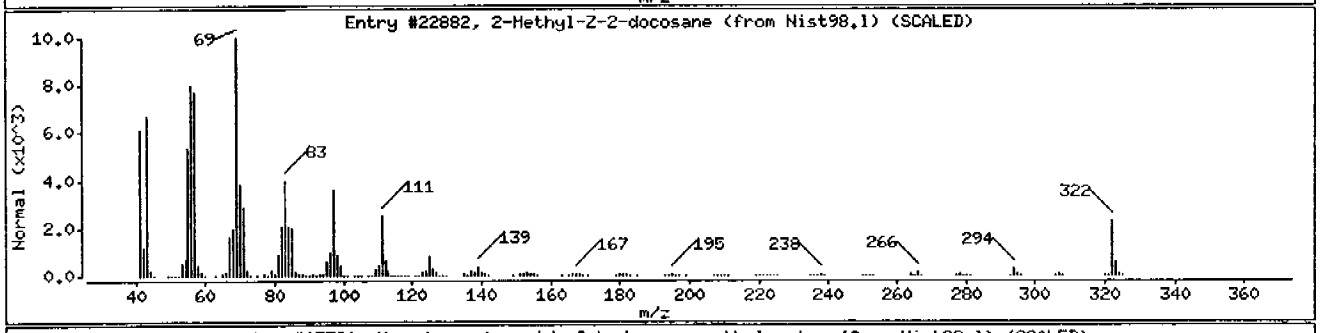

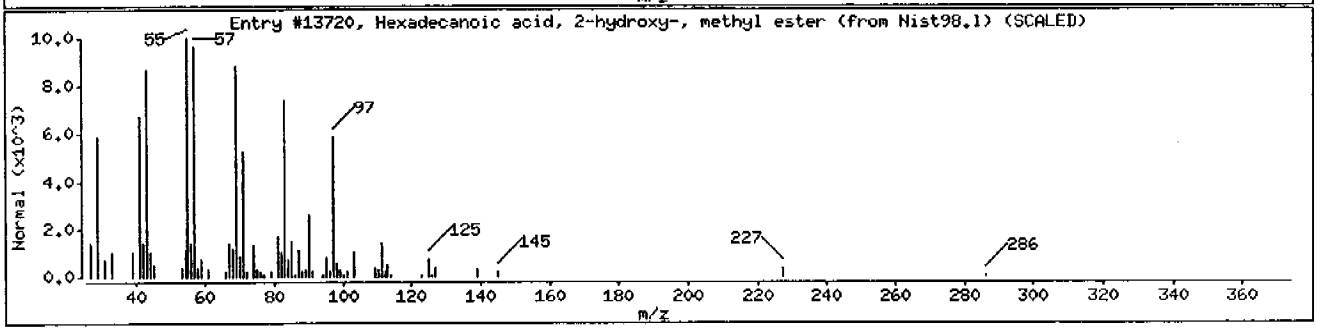

Data File: /chem/MSD8.i/s051905.b/s8e1914.d

Date : 19-MAY-2005 20:24

Client ID: RE03-05-59557 Instrument: MSD8.i

Sample Info: |135831003|423903|10|SVMF|1|LANL|

Volume Injected (uL): 0.5 Operator: cak

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
11,12-Dibromo-tetradecan-1-ol acetate	1000130-78-5	Nist98.l	5209	43	C16H30Br2O2	412
1,3-Dioxolane, 4-ethyl-5-octyl-2,2-bis(t	38274-72-5	Nist98.l	23227	30	C15H24F6O2	350
1,3-Dioxolane, 4-ethyl-5-octyl-2,2-bis(t	38274-73-6	Nist98.l	23228	27	C15H24F6O2	350

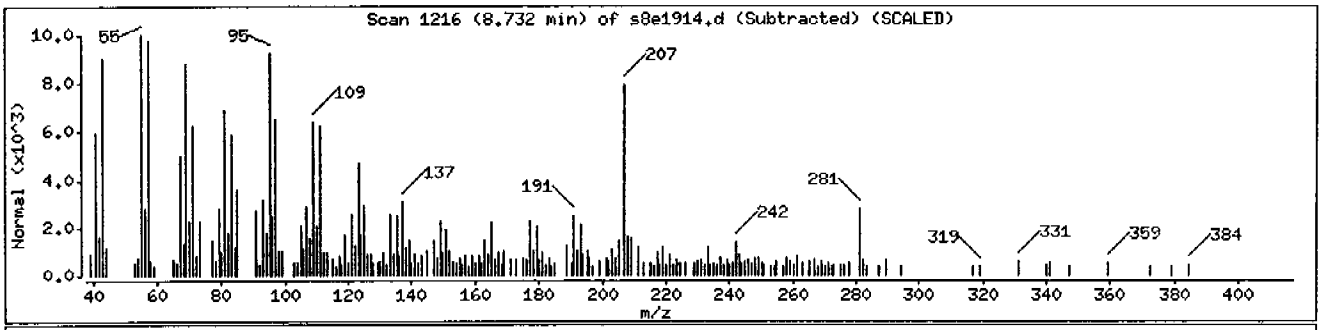

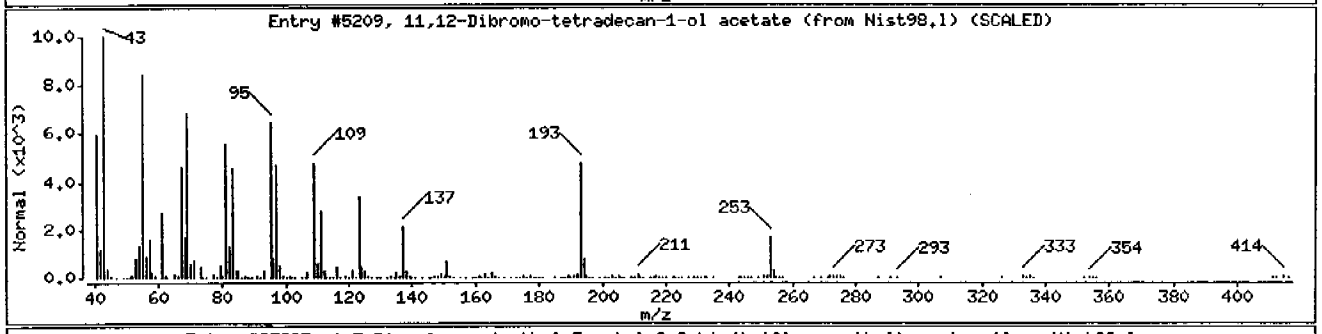

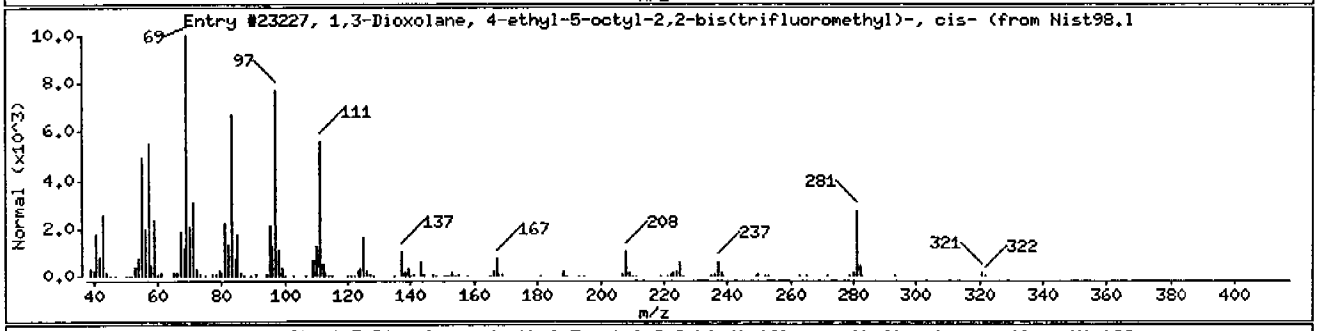

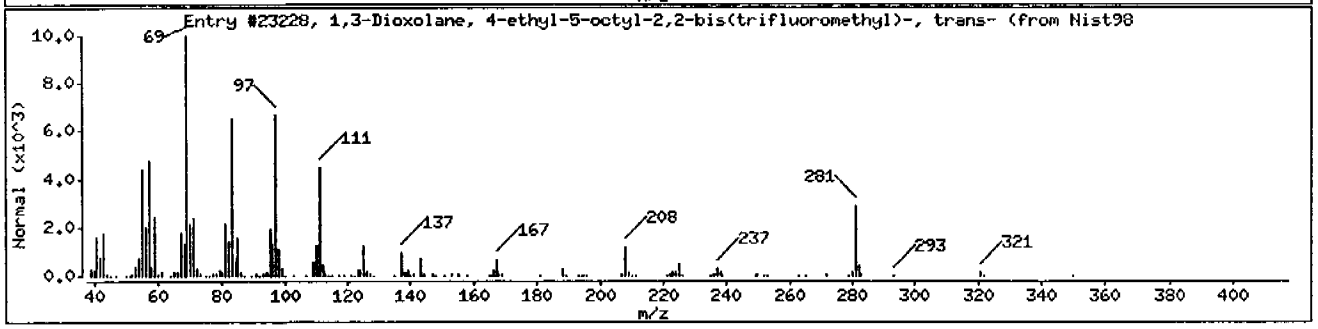

Data File: /chem/MSD8.i/s051905.b/s8e1914.d

Date : 19-MAY-2005 20:24

Client ID: RE03-05-59557 Instrument: MSD8.i

Sample Info: 1135831003142390311 0 1SVMF1 1LANL1

Volume Injected (uL): 0.5 Operator: cak

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Naphthalene, decahydro-1,4a-dimethyl-7-(	30824-81-8	Nist98.l	119902	43	C15H28	208
2,4,5,5,8a-Pentamethyl-4a,5,6,7,8,8a-hex	1000195-30-1	Nist98.l	49498	38	C14H240	208
Hexadecanoic acid, 2-hydroxy-, methyl es	16742-51-1	Nist98.l	13720	35	C17H3403	286

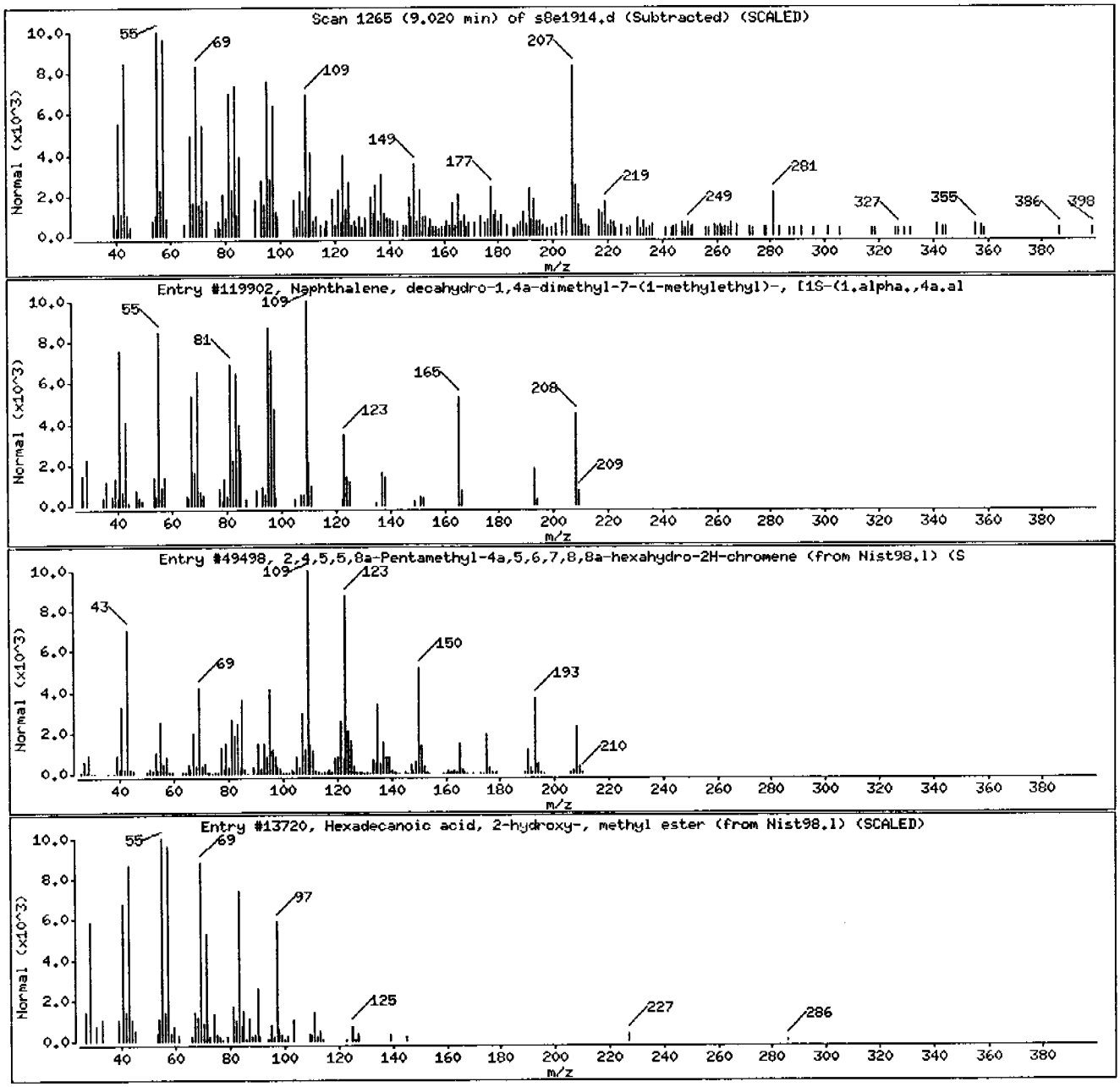

Data File: /chem/MSD8.i/s051905.b/s8e1914.d

Date : 19-MAY-2005 20:24

Client ID: RE03-05-59557

Instrument: MSD8.i

Sample Info: |1358310031423903|10|SVMF|1|LANL|

Volume Injected (uL): 0.5

Operator: cak

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Naphthalene, decahydro-1,8a-dimethyl-7-(	15404-63-4	Nist98.l	41611	30	C15H28	208
10.alpha.-Eremophilane	3242-05-5	Nist98.l	41610	30	C15H28	208
1H-Indole, 2-methyl-3-phenyl-	4757-69-1	Nist98.l	126477	27	C15H13N	207

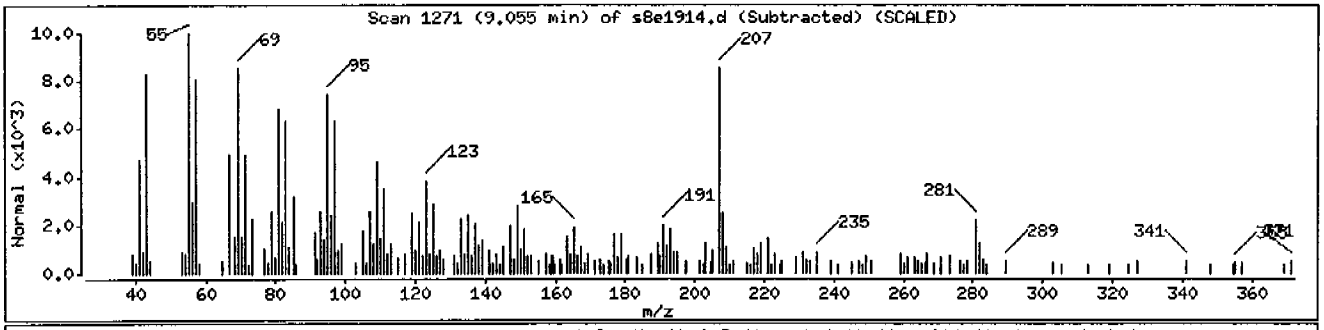

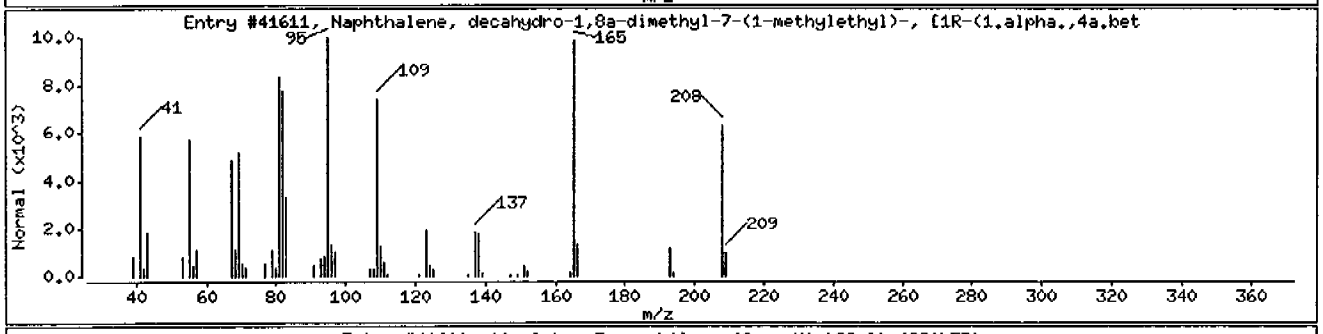

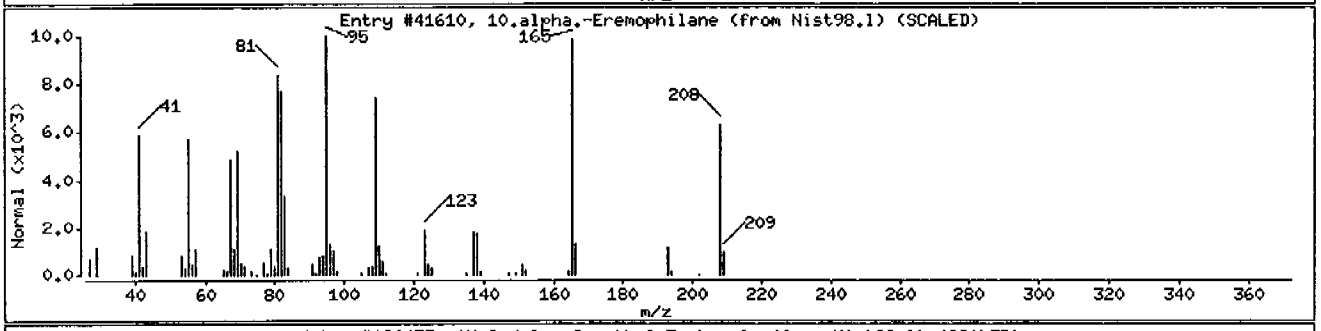

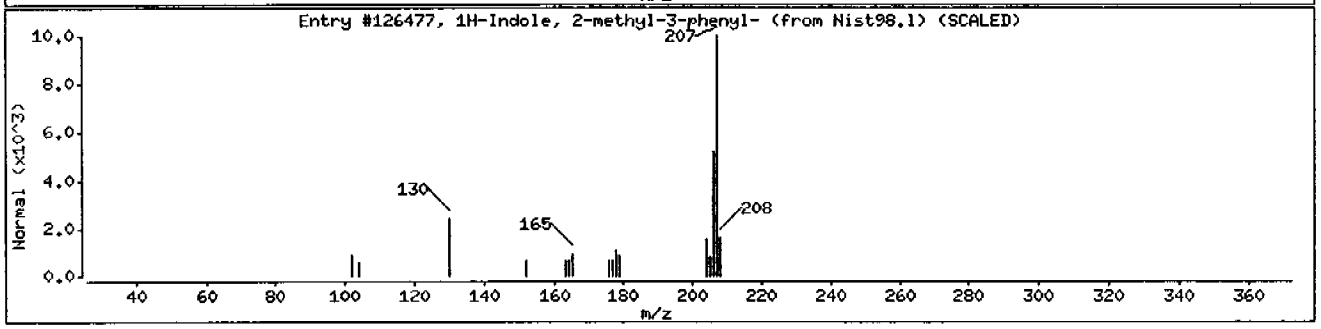

Data File: /chem/MSD8.i/s051905.b/s8e1914.d

Date : 19-MAY-2005 20:24

Client ID: RE03-05-59557

Instrument: MSD8.i

Sample Info: |135831003|423903110|SVMF|1|LANL|

Volume Injected (uL): 0.5

Operator: cak

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Decane, 5,6-bis(2,2-dimethylpropylidene)	73002-85-4	Nist98.l	33290	42	C20H38	278
Cyclopentane, 1,1'-[3-(2-cyclopentylethy	55255-85-1	Nist98.l	2576	35	C22H40	304
Cyclohexane, 1,1'-(2-propyl-1,3-propaned	55030-21-2	Nist98.l	14264	30	C18H34	250

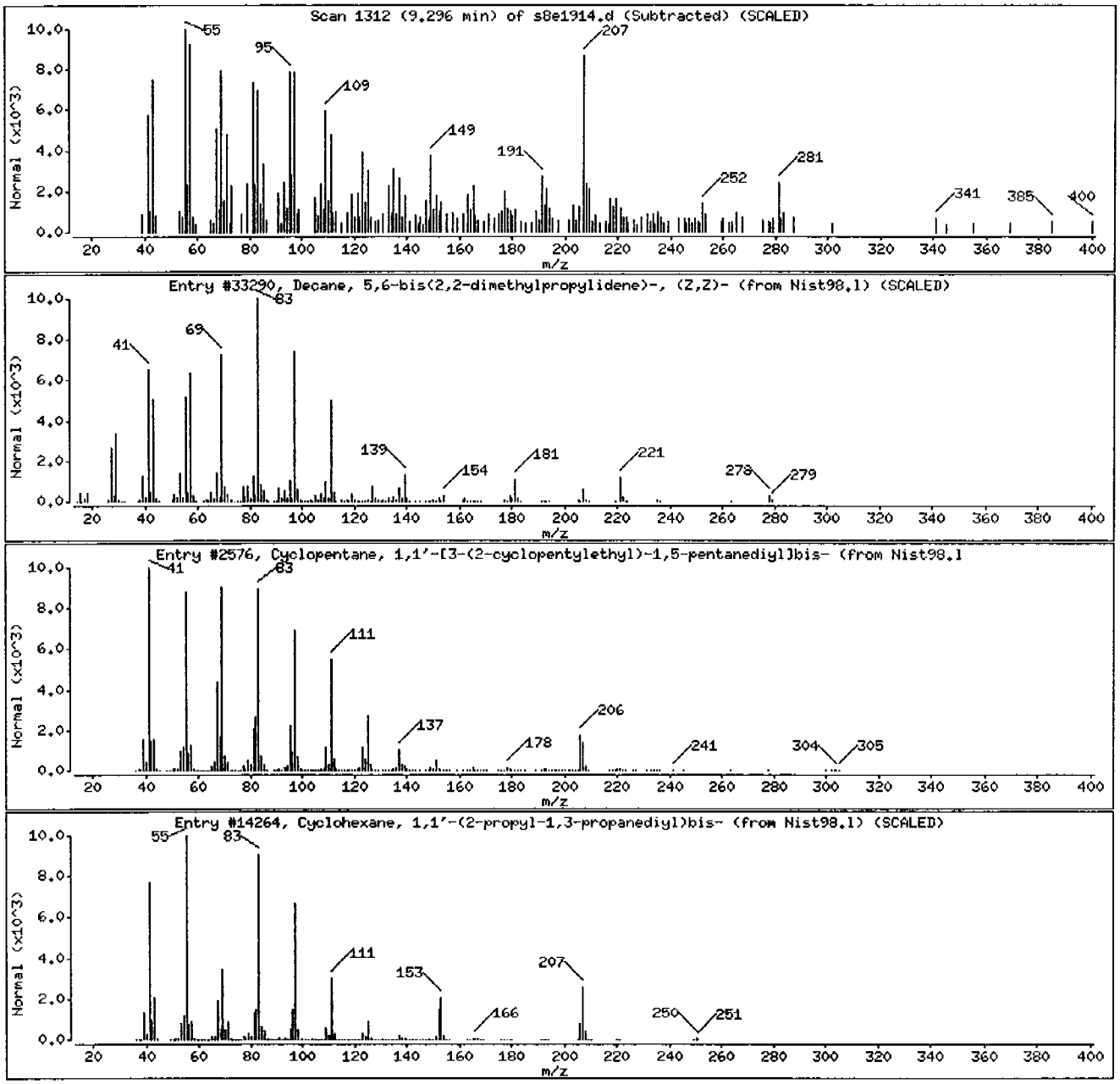

Data File: /chem/MSD8.i/s051905.b/s8e1914.d

Date : 19-MAY-2005 20:24

Client ID: RE03-05-59557

Instrument: MSD8.i

Sample Info: I135831003I423903I10ISVMFI1ILANLI

Volume Injected (uL): 0.5

Operator: cak

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
1H-Indene, 5-butyl-6-hexyloctahydro-	55044-36-5	Nist98.l	2761	46	C19H36	264
2,4,5,5,8a-Pentamethyl-4a,5,6,7,8,8a-hex	1000195-30-1	Nist98.l	49498	35	C14H240	208
D-Homoandrostane, (5.alpha.,13.alpha.)-	54482-31-4	Nist98.l	41085	27	C20H34	274

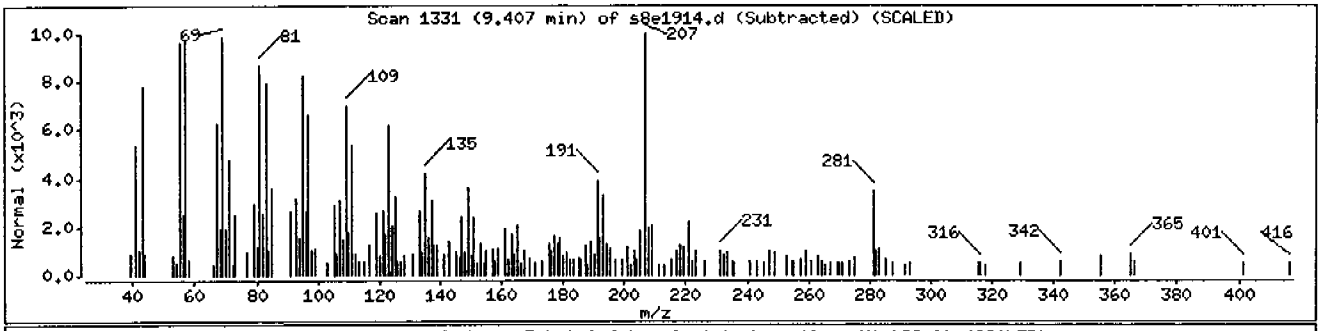

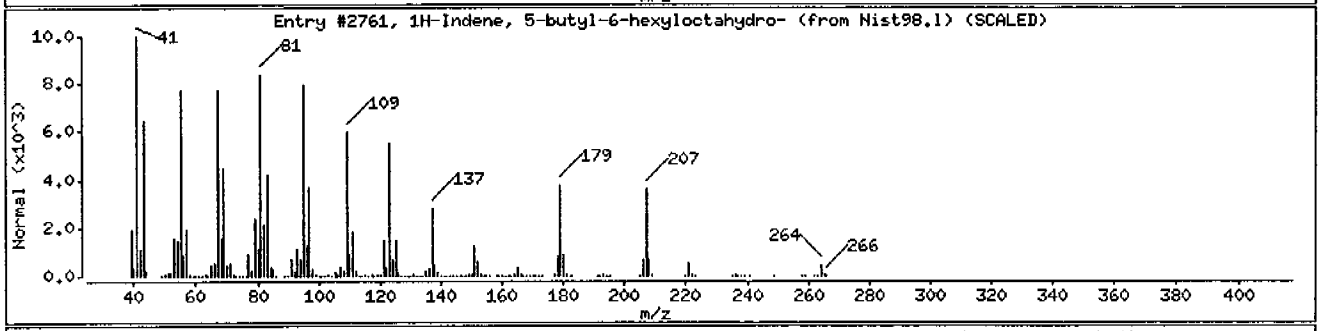

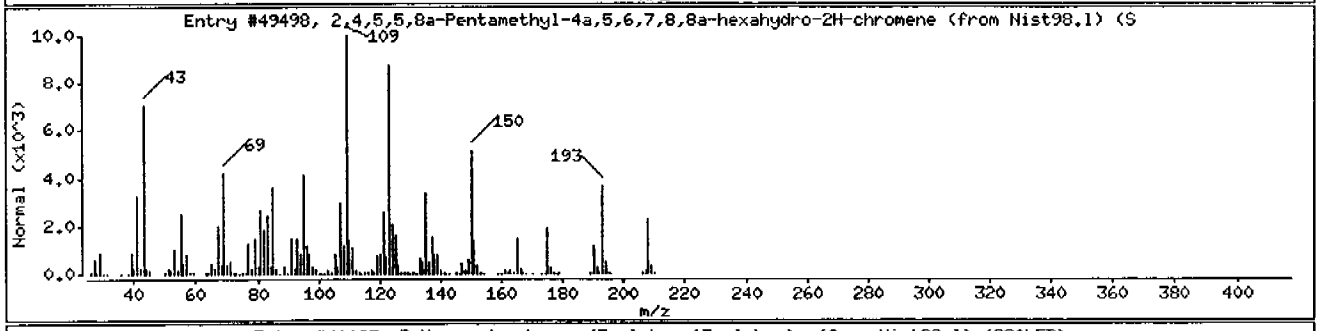

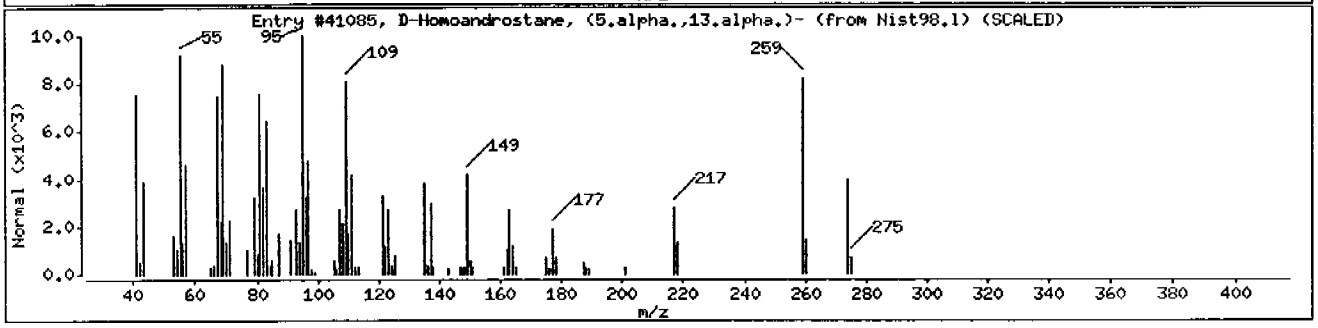

1B
SVOA ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-59558

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Matrix: (soil/water) SOIL Lab Sample ID: 135831004

Sample wt/vol: 30.0 (g/mL) G Lab File ID: S8E1915

Level: (low/med) LOW Date Received: 05/05/05

% Moisture: 7 decanted: (Y/N) N Date Extracted: 05/10/05

Concentrated Extract Volume: 1.00(mL) Date Analyzed: 05/19/05

Injection Volume: 0.5(uL) Dilution Factor: 10.0

GPC Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
62-75-9	N-Methyl-N-nitrosomethylamin	3590	U
110-86-1	Pyridine	3590	U
62-53-3	Aniline	3590	U
108-95-2	Phenol	3590	U
111-44-4	bis(2-Chloroethyl) ether	3590	U
95-57-8	2-Chlorophenol	3590	U
541-73-1	1,3-Dichlorobenzene	3590	U
106-46-7	1,4-Dichlorobenzene	3590	U
100-51-6	Benzyl alcohol	3590	U
95-50-1	1,2-Dichlorobenzene	3590	U
108-60-1	bis(2-Chloroisopropyl)ether	3590	U
95-48-7	o-Cresol	3590	U
621-64-7	N-Nitrosodipropylamine	3590	U
65794-96-9	m,p-Cresols	3590	U
67-72-1	Hexachloroethane	3590	U
78-59-1	Isophorone	3590	U
88-75-5	2-Nitrophenol	3590	U
105-67-9	2,4-Dimethylphenol	3590	U
111-91-1	bis(2-Chloroethoxy)methane	3590	U
120-83-2	2,4-Dichlorophenol	3590	U
65-85-0	Benzoic acid	7170	U
120-82-1	1,2,4-Trichlorobenzene	3590	U
91-20-3	Naphthalene	359	U
106-47-8	4-Chloroaniline	3590	U
87-68-3	Hexachlorobutadiene	3590	U
59-50-7	4-Chloro-3-methylphenol	3590	U
91-57-6	2-Methylnaphthalene	359	U
77-47-4	Hexachlorocyclopentadiene	3590	U
88-06-2	2,4,6-Trichlorophenol	3590	U
95-95-4	2,4,5-Trichlorophenol	3590	U
91-58-7	2-Chloronaphthalene	359	U
88-74-4	o-Nitroaniline	3590	U
99-09-2	m-Nitroaniline	3590	U

FORM I SV-1 OLM03.0

1C
SVOA ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-59558

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Matrix: (soil/water) SOIL Lab Sample ID: 135831004

Sample wt/vol: 30.0 (g/mL) G Lab File ID: S8E1915

Level: (low/med) LOW Date Received: 05/05/05

% Moisture: 7 decanted: (Y/N) N Date Extracted: 05/10/05

Concentrated Extract Volume: 1.00(mL) Date Analyzed: 05/19/05

Injection Volume: 0.5(uL) Dilution Factor: 10.0

GPC Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
131-11-3	Dimethylphthalate	3590	U
606-20-2	2,6-Dinitrotoluene	3590	U
208-96-8	Acenaphthylene	359	U
83-32-9	Acenaphthene	359	U
51-28-5	2,4-Dinitrophenol	7170	U
132-64-9	Dibenzofuran	3590	U
121-14-2	2,4-Dinitrotoluene	3590	U
84-66-2	Diethylphthalate	3590	U
100-02-7	4-Nitrophenol	3590	U
86-73-7	Fluorene	359	U
7005-72-3	4-Chlorophenylphenylether	3590	U
534-52-1	2-Methyl-4,6-dinitrophenol	3590	U
100-01-6	p-Nitroaniline	3590	U
122-39-4	Diphenylamine	3590	U
122-66-7	1,2-Diphenylhydrazine	3590	U
101-55-3	4-Bromophenylphenylether	3590	U
118-74-1	Hexachlorobenzene	3590	U
87-86-5	Pentachlorophenol	3590	U
85-01-8	Phenanthrene	146	J
120-12-7	Anthracene	359	U
84-74-2	Di-n-butylphthalate	3590	U
206-44-0	Fluoranthene	218	J
129-00-0	Pyrene	255	J
85-68-7	Butylbenzylphthalate	3590	U
56-55-3	Benzo(a)anthracene	359	U
91-94-1	3,3'-Dichlorobenzidine	3590	U
218-01-9	Chrysene	147	J
117-81-7	bis(2-Ethylhexyl)phthalate	3160	JB
117-84-0	Di-n-octylphthalate	3590	U
205-99-2	Benzo(b)fluoranthene	359	U
207-08-9	Benzo(k)fluoranthene	359	U
50-32-8	Benzo(a)pyrene	834	
193-39-5	Indeno(1,2,3-cd)pyrene	359	U

FORM I SV-2 OLM03.0

1C
SVOA ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-59558

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Matrix: (soil/water) SOIL Lab Sample ID: 135831004

Sample wt/vol: 30.0 (g/mL) G Lab File ID: S8E1915

Level: (low/med) LOW Date Received: 05/05/05

% Moisture: 7 decanted: (Y/N) N Date Extracted: 05/10/05

Concentrated Extract Volume: 1.00(mL) Date Analyzed: 05/19/05

Injection Volume: 0.5(uL) Dilution Factor: 10.0

GPC Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
53-70-3	Dibenzo(a,h)anthracene	359	U
191-24-2	Benzo(ghi)perylene	359	U

FORM I SV-3 OLM03.0

1F
SVOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

RE03-05-59558

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Matrix: (soil/water) SOIL Lab Sample ID: 135831004

Sample wt/vol: 30.0 (g/mL) G Lab File ID: S8E1915

Level: (low/med) LOW Date Received: 05/05/05

% Moisture: 7 decanted: (Y/N) N Date Extracted:05/10/05

Concentrated Extract Volume: 1.00(mL) Date Analyzed: 05/19/05

Injection Volume: 0.5(uL) Dilution Factor: 10.0

GPC Cleanup: (Y/N) N

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					
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27.					
28.					
29.					
30.					

FORM I SV-TIC OLM03.0

General Engineering Laboratories, LLC

Data file : /chem/MSD8.i/s051905.b/s8e1915.d
Lab Smp Id: 135831004 Client Smp ID: RE03-05-59558
Inj Date : 19-MAY-2005 20:44
Operator : cak Inst ID: MSD8.i
Smp Info : |135831004|423903|10|SVMF|1|LANL|
Misc Info : |MSD8270_SF|WBN050506-02
Comment : Column: J & W DB-5MS:25m x 0.20mm - 0.33um Film m
Method : /chem/MSD8.i/s051905.b/MSD8-8270-051605a.m
Meth Date : 20-May-2005 11:13 cak Quant Type: ISTD
Cal Date : 11-MAY-2005 18:18 Cal File: s8e1111.d
Als bottle: 15
Dil Factor: 10.00000
Integrator: HP RTE Compound Sublist: 3202S.sub
Target Version: 3.50
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	10.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	7.08420	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.788	3.792	(1.000)	105573	40.0000	
* 29 Naphthalene-d8	136	4.652	4.655	(1.000)	371126	40.0000	
* 46 Acenaphthene-d10	164	5.897	5.901	(1.000)	240189	40.0000	
* 67 Phenanthrene-d10	188	6.890	6.894	(1.000)	459229	40.0000	
* 91 Chrysene-d12	240	8.459	8.463	(1.000)	268082	40.0000	
* 98 Perylene-d12	264	9.564	9.567	(1.000)	187622	40.0000	
$ 3 2-Fluorophenol	112	2.971	2.975	(0.784)	14561	6.66167	2390
$ 5 Phenol-d5	99	3.500	3.504	(0.924)	16008	6.35862	2280
$ 20 Nitrobenzene-d5	82	4.146	4.150	(0.891)	6989	3.25196	1170
$ 39 2-Fluorobiphenyl	172	5.392	5.396	(0.914)	23518	3.20106	1150
$ 60 2,4,6-Tribromophenol	329	6.438	6.442	(1.092)	4537	5.22980	1880
$ 81 p-Terphenyl-d14	244	7.801	7.805	(0.922)	25060	3.85652	1380

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
79 Pyrene	202	7.754	7.752	(0.917)	6005	0.71208	255(a)
68 Phenanthrene	178	6.908	6.912	(1.003)	3720	0.40841	146(a)
76 Fluoranthene	202	7.619	7.617	(1.106)	6607	0.60829	218(a)
92 Chrysene	228	8.471	8.474	(1.001)	2445	0.41047	147(a)
93 bis(2-Ethylhexyl)phthalate	149	8.371	8.375	(0.990)	24992	8.82096	3160(a)
97 Benzo(a)pyrene	252	9.511	9.514	(0.994)	1536	2.32426	834

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

General Engineering Laboratories, LLC

Data file : /chem/MSD8.i/s051905.b/s8e1915.d
Lab Smp Id: 135831004 Client Smp ID: RE03-05-59558
Inj Date : 19-MAY-2005 20:44
Operator : cak Inst ID: MSD8.i
Smp Info : |135831004|423903|10|SVMF|1|LANL|
Misc Info : |MSD8270_SF|WBN050506-02
Comment : Column: J & W DB-5MS:25m x 0.20mm - 0.33um Film m
Method : /chem/MSD8.i/s051905.b/MSD8-8270-051605a.m
Meth Date : 20-May-2005 11:13 cak Quant Type: ISTD
Cal Date : 11-MAY-2005 18:18 Cal File: s8e1111.d
Als bottle: 15
Dil Factor: 10.00000
Integrator: HP RTE Compound Sublist: 3202S.sub
Target Version: 3.50
Processing Host: kilroy

- NO TENTATIVELY IDENTIFIED COMPOUNDS -

Data File: /chem/MSD8.i/s051905.b/s8e1915.d
Date : 19-MAY-2005 20:44
Client ID: RE03-05-59558
Sample Info: |1358310041423903|10|SVMF11|LANL|
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD8.i
Operator: cak
Column diameter: 0.20

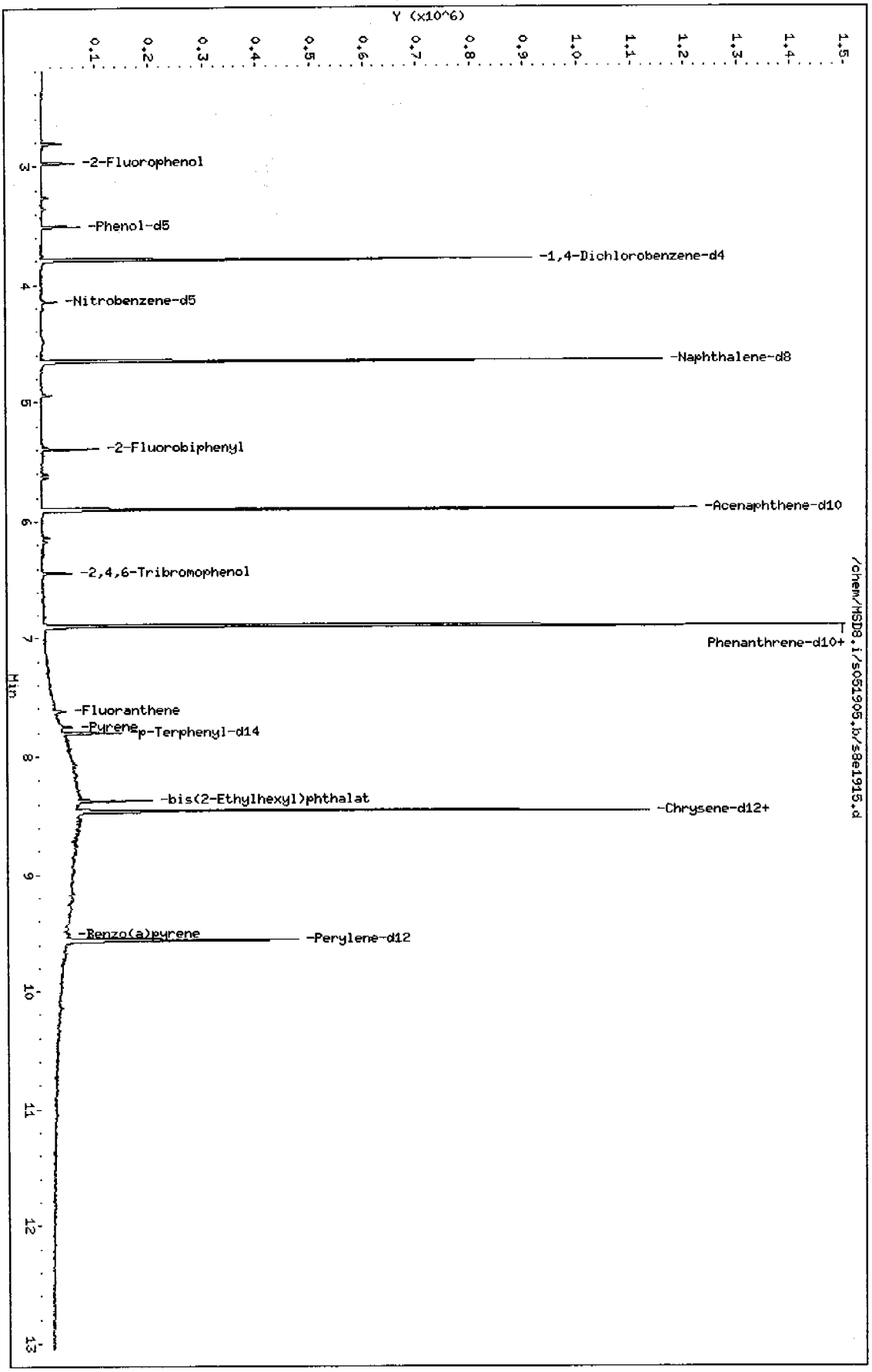

Data File: /chem/MSD8.i/s051905.b/s8e1915.d

Date : 19-MAY-2005 20:44

Client ID: RE03-05-59558

Instrument: MSD8.i

Sample Info: |135831004|423903|10|SVMF|1|LANL|

Volume Injected (uL): 0.5

Operator: cak

Column phase: J&W DB-5MS

Column diameter: 0.20

79 Pyrene

Concentration: 255 ug/Kg

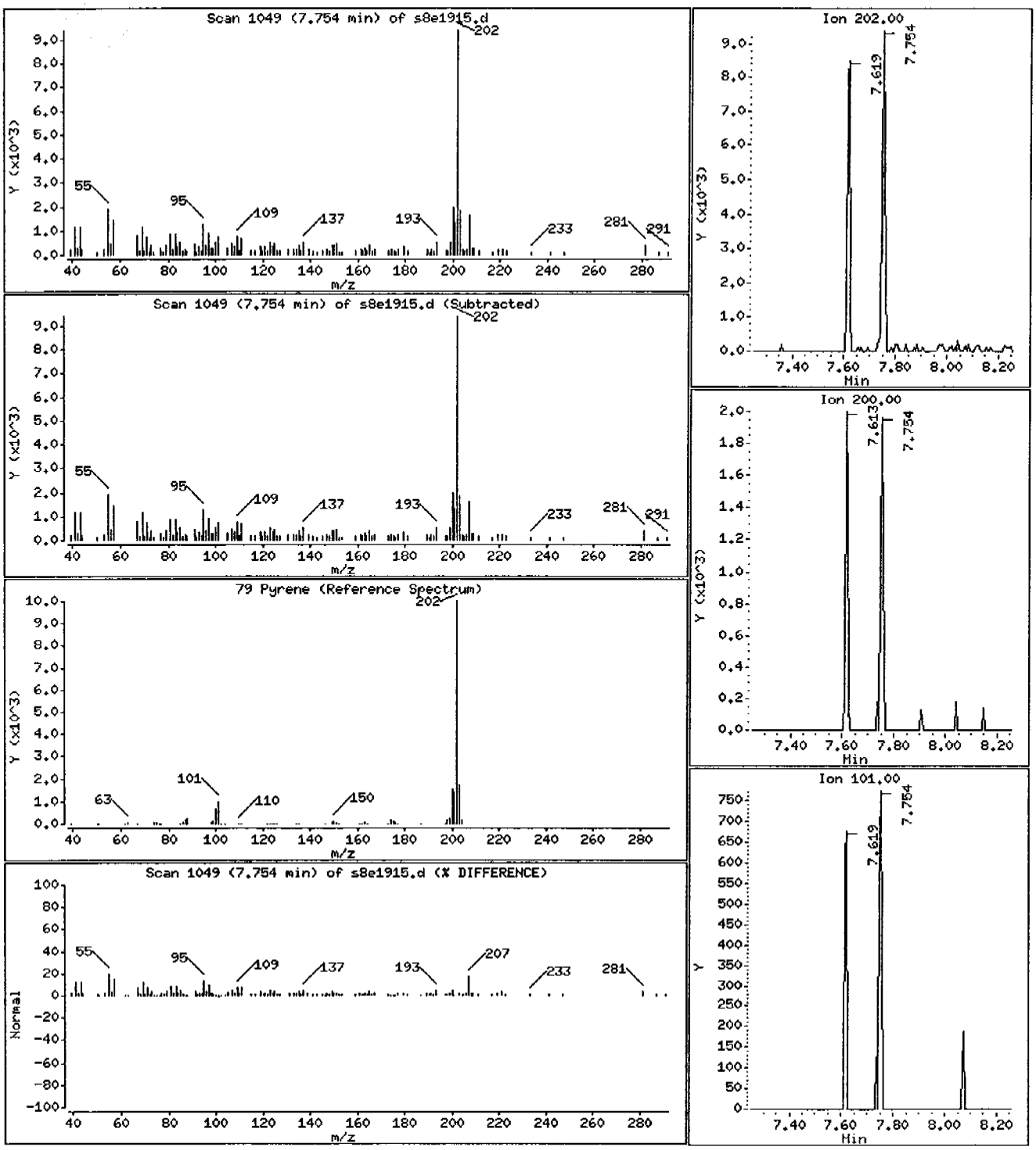

Data File: /chem/MSD8.i/s051905.b/s8e1915.d

Date : 19-MAY-2005 20:44

Client ID: RE03-05-59558 Instrument: MSD8.i

Sample Info: |135831004|423903|10|SVMF|1|LANL|

Volume Injected (uL): 0.5 Operator: cak

Column phase: J&W DB-5HS Column diameter: 0.20

68 Phenanthrene Concentration: 146 ug/Kg

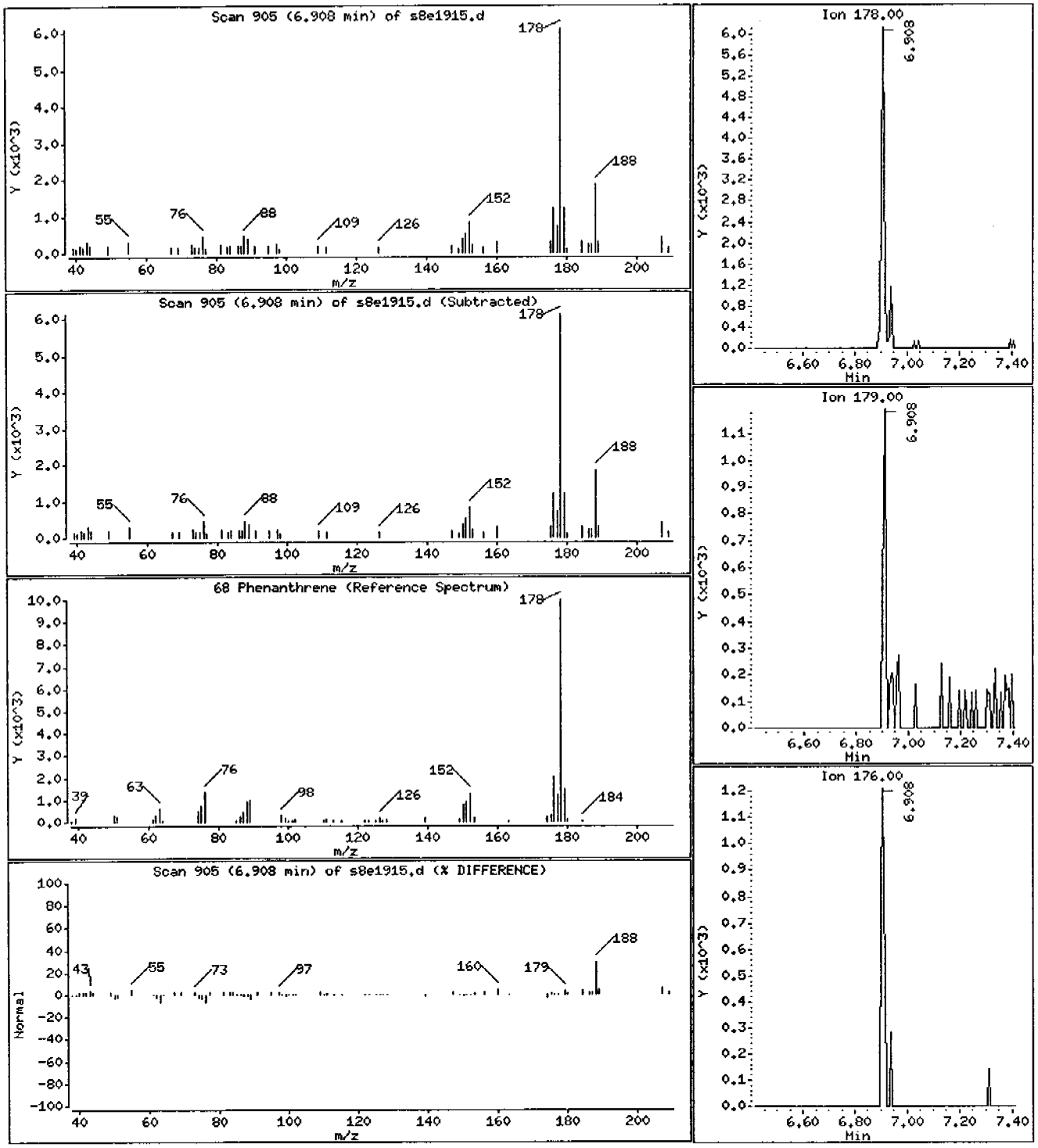

Data File: /chem/MSD8.i/s051905.b/s8e1915.d

Date : 19-MAY-2005 20:44

Client ID: RE03-05-59558

Instrument: MSD8.i

Sample Info: |135831004|423903|10|SVMF|1|LANL|

Volume Injected (uL): 0.5

Operator: cak

Column phase: J&W DB-5MS

Column diameter: 0.20

76 Fluoranthene

Concentration: 218 ug/Kg

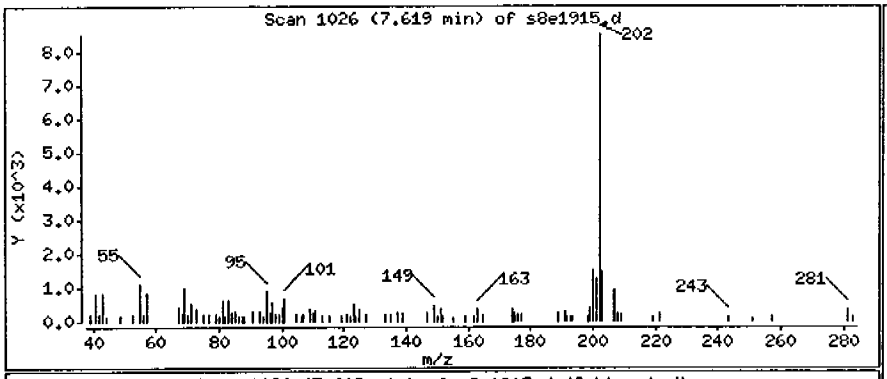

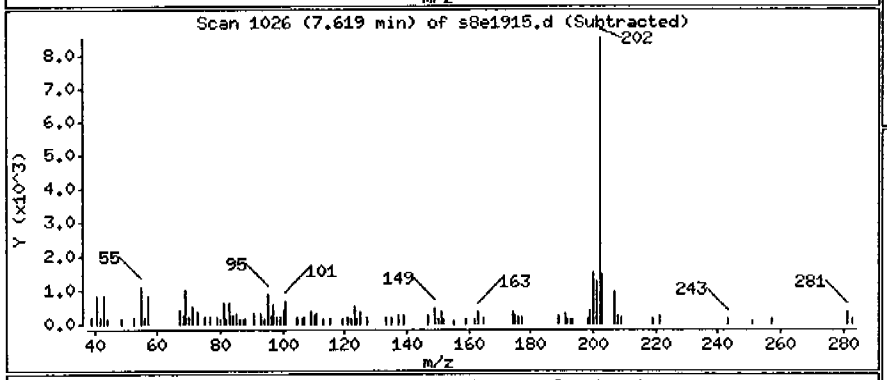

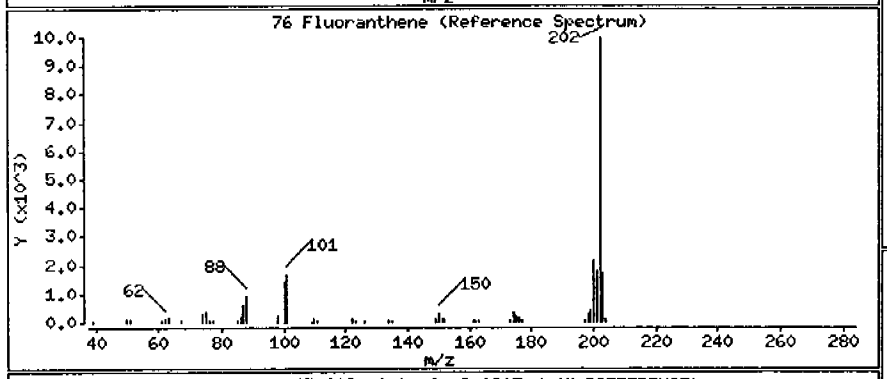

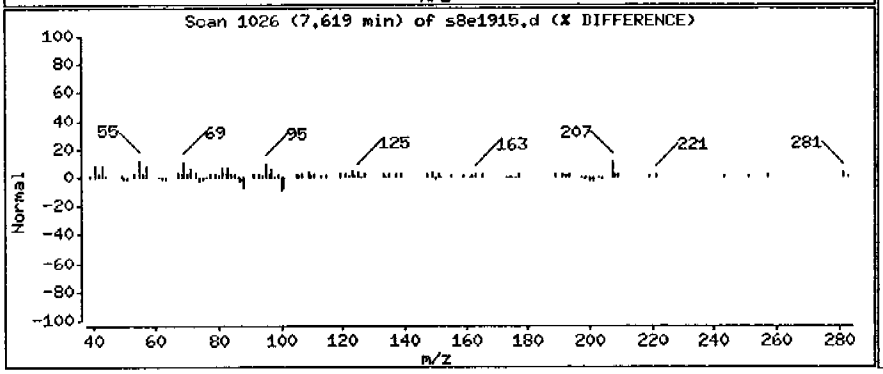

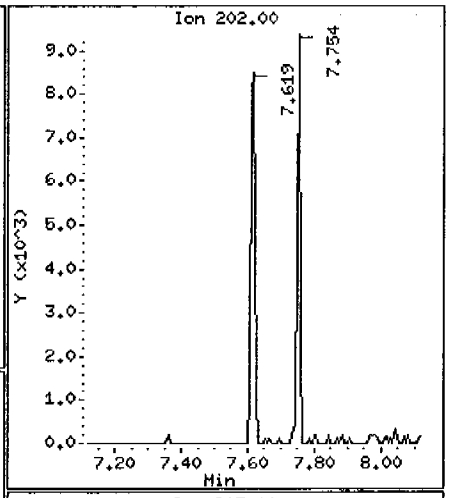

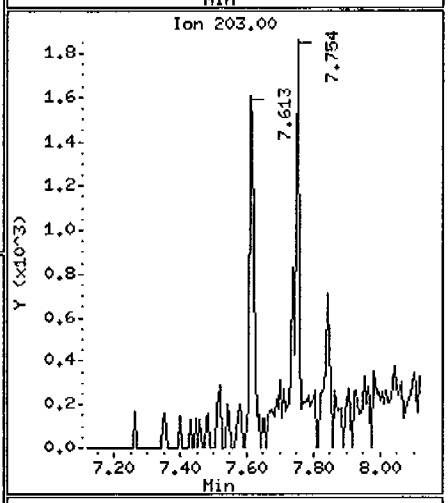

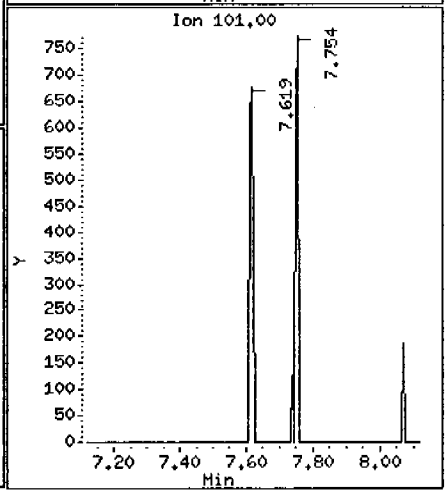

Data File: /chem/MSD8.i/s051905.b/s8e1915.d

Date : 19-MAY-2005 20:44

Client ID: RE03-05-59558

Instrument: MSD8.i

Sample Info: |1358310041423903|101SVMF11LANL|

Volume Injected (uL): 0.5

Operator: cak

Column phase: J&W DB-5MS

Column diameter: 0.20

92 Chrysene

Concentration: 147 ug/Kg

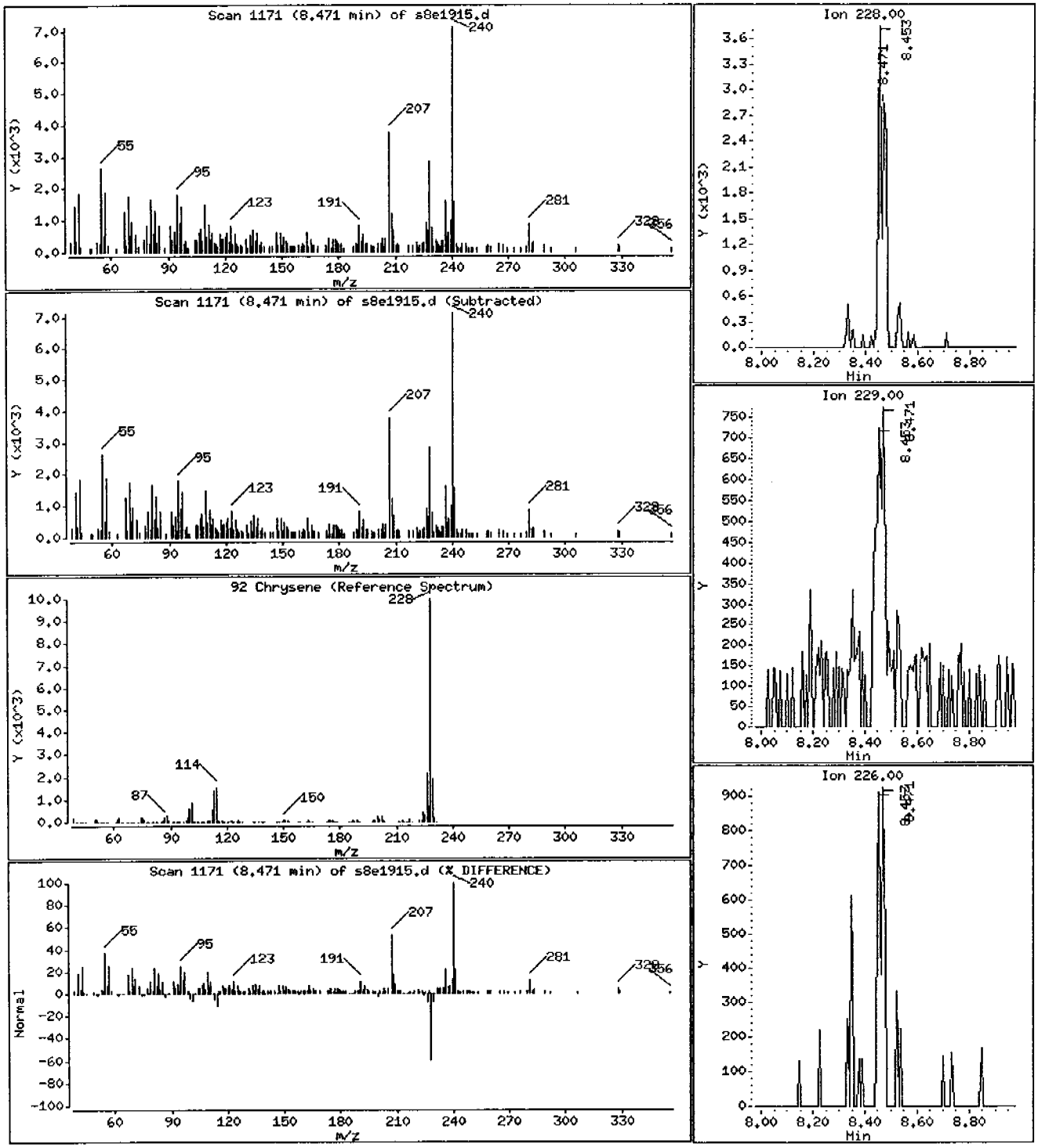

Data File: /chem/MSD8.i/s051905.b/s8e1915.d

Date : 19-MAY-2005 20:44

Client ID: RE03-05-59558 Instrument: MSD8.i

Sample Info: |135831004|423903|10|SVMF11|LANL|

Volume Injected (uL): 0.5 Operator: cak

Column phase: J&W DB-5MS Column diameter: 0.20

93 bis(2-Ethylhexyl)phthalate Concentration: 3160 ug/Kg

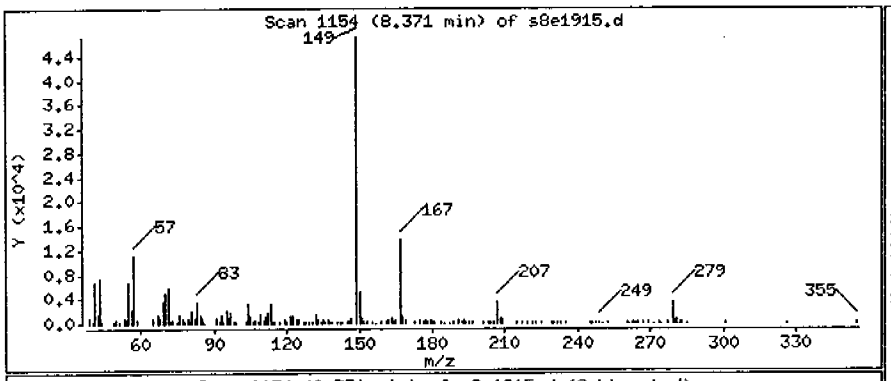

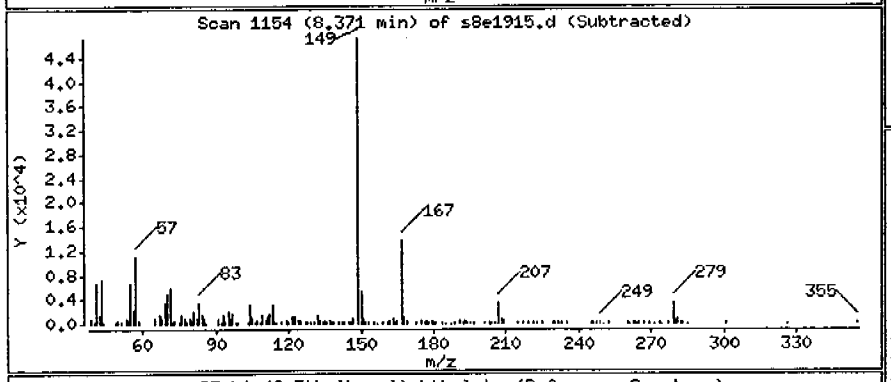

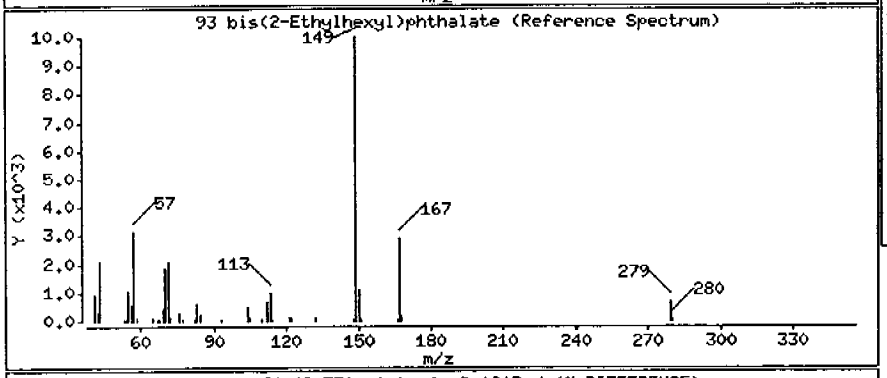

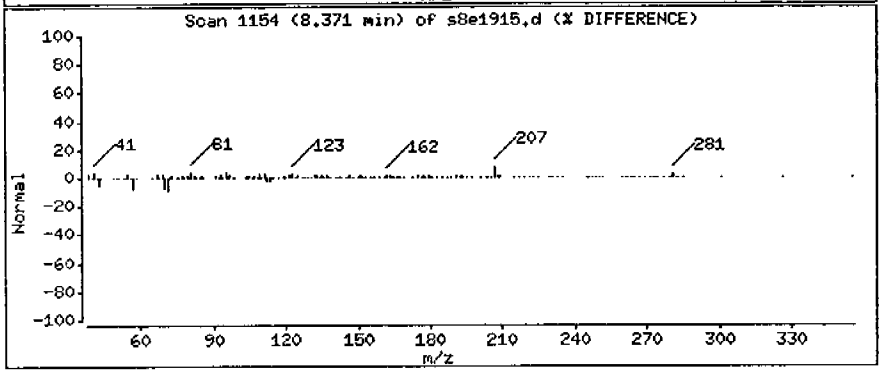

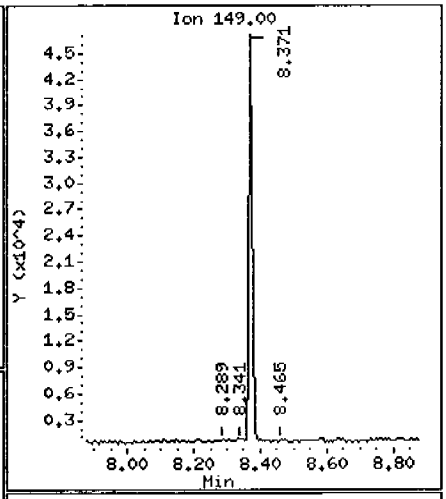

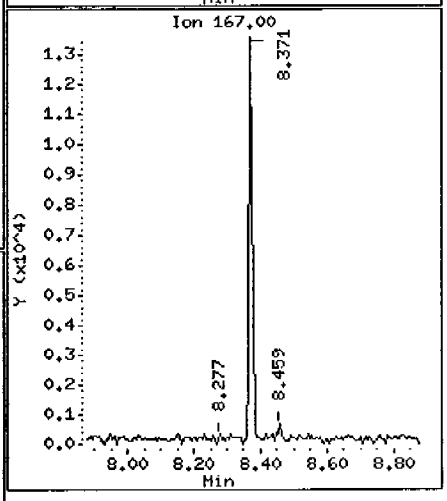

Data File: /chem/MSD8.i/s051905.b/s8e1915.d

Date : 19-MAY-2005 20:44

Client ID: RE03-05-59558

Instrument: MSD8.i

Sample Info: |135831004|423903|10|SVMF|1|LANL|

Volume Injected (uL): 0.5

Operator: cak

Column phase: J&W DB-5MS

Column diameter: 0.20

97 Benzo(a)pyrene

Concentration: 834 ug/Kg

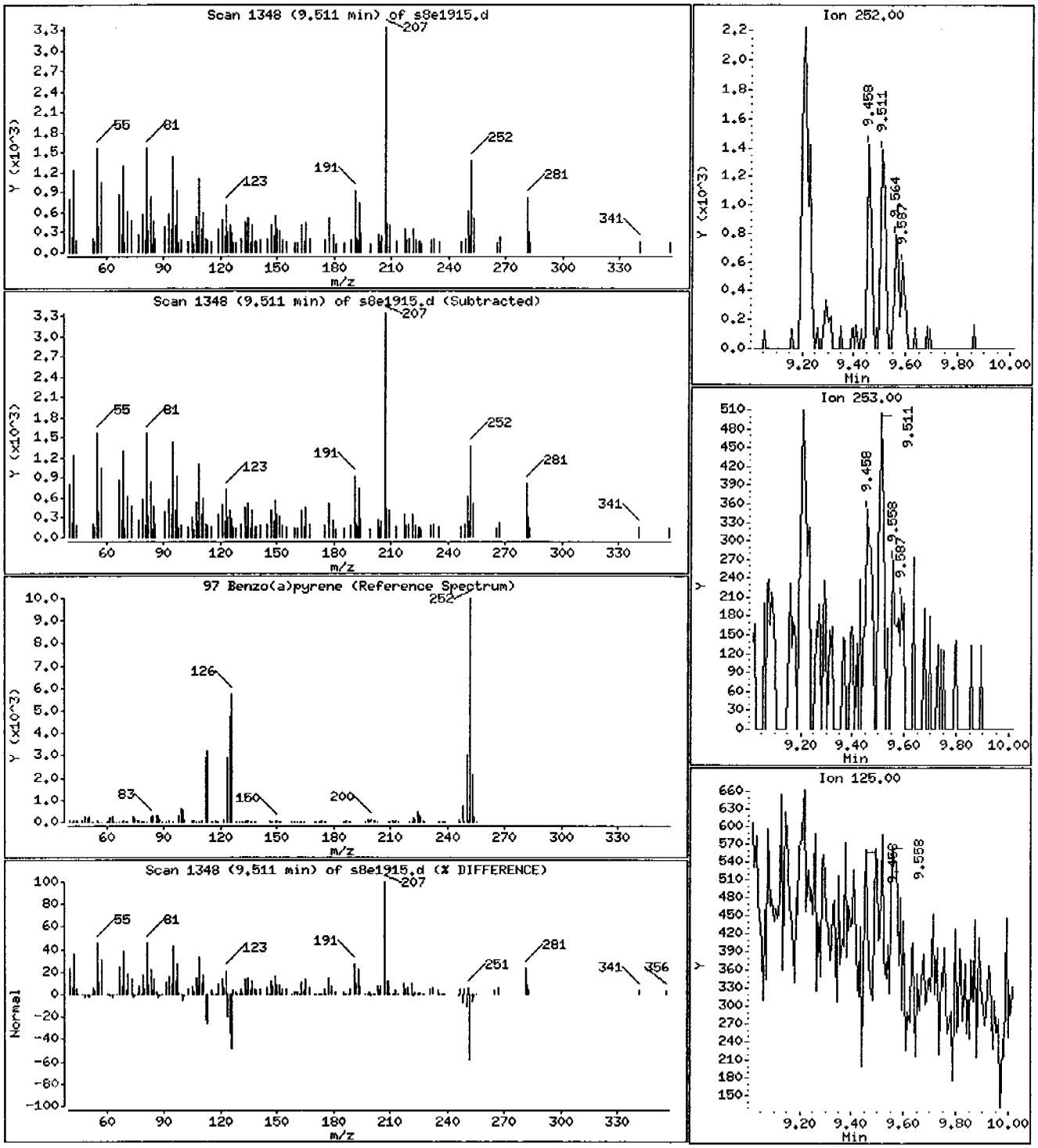

STANDARDS DATA

SW846 8270C/EPA 625								
Calibration Standard Concentration Levels*								
	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
1,4-Dichlorobenzene-d4 (INTERNAL STANDARD								
Naphthalene-d8 (INTERNAL STANDARD)								
Acenaphthene-d10 (INTERNAL STANDARD)								
Phenanthrene-d10 (INTERNAL STANDARD)								
Chrysene-d12 (INTERNAL STANDARD)								
Perylene-d12 (INTERNAL STANDARD)								
2-Fluorophenol (SURROGATE)		10	20	40	50	80	100	120
Phenol-d5 (SURROGATE)		10	20	40	50	80	100	120
2-Chlorophenol-d4 (CLP SURROGATE)		10	20	40	50	80	100	120
1,2-Dichlorobenzene-d4 (CLP SURROGATE)		10	20	40	50	80	100	120
Nitrobenzene-d5 (SURROGATE)		10	20	40	50	80	100	120
2-Fluorobiphenyl (SURROGATE)		10	20	40	50	80	100	120
2,4,6-Tribromophenol (SURROGATE)		10	20	40	50	80	100	120
p-Terphenyl-d14 (SURROGATE)		10	20	40	50	80	100	120
N-Nitrosodimethylamine		10	20	40	50	80	100	120
Pyridine		10	20	40	50	80	100	120
Aniline		10	20	40	50	80	100	120
Benzaldehyde		10	20	40	50	80	100	120
Phenol		10	20	40	50	80	100	120
bis(2-Chloroethyl)ether		10	20	40	50	80	100	120
2-Chlorophenol		10	20	40	50	80	100	120
n-Decane		10	20	40	50	80	100	120
1,3-Dichlorobenzene		10	20	40	50	80	100	120
1,4-Dichlorobenzene		10	20	40	50	80	100	120
Benzyl Alcohol		10	20	40	50	80	100	120
1,2-Dichlorobenzene		10	20	40	50	80	100	120
bis(2-Chloroisopropyl)ether		10	20	40	50	80	100	120
o-Cresol (2-Methylphenol)		10	20	40	50	80	100	120
Acetophenone		10	20	40	50	80	100	120
N-Nitrosodipropylamine		10	20	40	50	80	100	120
m,p-Cresols (3-Methylphenol & 4-Methylphenol)		10	20	40	50	80	100	120
Hexachloroethane		10	20	40	50	80	100	120
Nitrobenzene		10	20	40	50	80	100	120
Isophorone		10	20	40	50	80	100	120
2-Nitrophenol		10	20	40	50	80	100	120
2,4-Dimethylphenol		10	20	40	50	80	100	120
bis(2-Chloroethoxy)methane		10	20	40	50	80	100	120
2,4-Dichlorophenol		10	20	40	50	80	100	120
Benzoic Acid			20	40	50	80	100	120
1,2,4-Trichlorobenzene		10	20	40	50	80	100	120
Naphthalene	1	10	20	40	50	80	100	120
alpha-Terpineol		10	20	40	50	80	100	120
4-Chloroaniline		10	20	40	50	80	100	120

Caprolactam		10	20	40	50	80	100	120

SW846 8270C/EPA 625								
Calibration Standard Concentration Levels*								
	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Hexachlorobutadiene		10	20	40	50	80	100	120
4-Chloro-3-methylphenol		10	20	40	50	80	100	120
2-Methylnaphthalene	1	10	20	40	50	80	100	120
1-Methylnaphthalene	1	10	20	40	50	80	100	120
Hexachlorocyclopentadiene		10	20	40	50	80	100	120
1,1'-Biphenyl		10	20	40	50	80	100	120
2,3-Dichloroaniline		10	20	40	50	80	100	120
2,4,6-Trichlorophenol		10	20	40	50	80	100	120
2,4,5-Trichlorophenol		10	20	40	50	80	100	120
2-Chloronaphthalene	1	10	20	40	50	80	100	120
o-Nitroaniline		10	20	40	50	80	100	120
m-Nitroaniline		10	20	40	50	80	100	120
Dimethylphthalate		10	20	40	50	80	100	120
2,6-Dinitrotoluene		10	20	40	50	80	100	120
Acenaphthylene	1	10	20	40	50	80	100	120
Acenaphthene	1	10	20	40	50	80	100	120
2,4-Dinitrophenol			20	40	50	80	100	120
Dibenzofuran		10	20	40	50	80	100	120
2,4-Dinitrotoluene		10	20	40	50	80	100	120
Diethylphthalate		10	20	40	50	80	100	120
4-Nitrophenol		10	20	40	50	80	100	120
Fluorene	1	10	20	40	50	80	100	120
4-Chlorophenyl phenyl ether		10	20	40	50	80	100	120
2-Methyl-4,6-dinitrophenol		10	20	40	50	80	100	120
p-Nitroaniline		10	20	40	50	80	100	120
Diphenylamine		10	20	40	50	80	100	120
1,2-Diphenylhydrazine		10	20	40	50	80	100	120
Tributylphosphate		10	20	40	50	80	100	120
4-Bromophenyl phenyether		10	20	40	50	80	100	120
Hexachlorobenzene		10	20	40	50	80	100	120
Atrazine		10	20	40	50	80	100	120
Pentachlorophenol		10	20	40	50	80	100	120
n-Octadecane		10	20	40	50	80	100	120
Phenanthrene	1	10	20	40	50	80	100	120
Anthracene	1	10	20	40	50	80	100	120
Di-n-butylphthalate		10	20	40	50	80	100	120
Fluoranthene	1	10	20	40	50	80	100	120
Benzidine	10	20	50	100	150	200	250	300
Pyrene	1	10	20	40	50	80	100	120
Butylbenzylphthalate		10	20	40	50	80	100	120
Benzo(a)anthracene	1	10	20	40	50	80	100	120
3,3'-Dichlorobenzidene	10	20	50	100	150	200	250	300

Chrysene	1	10	20	40	50	80	100	120
bis (2-Ethylhexyl) phthalate	1	10	20	40	50	80	100	120
Di-n-octylphthalate		10	20	40	50	80	100	120

SW846 8270C/EPA 625
Calibration Standard Concentration Levels*

	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Benzo(b)fluoranthene	1	10	20	40	50	80	100	120
Benzo(k)fluoranthene	1	10	20	40	50	80	100	120
Benzo(a)pyrene	1	10	20	40	50	80	100	120
Indeno-(1,2,3-cd)pyrene	1	10	20	40	50	80	100	120
Dibenzo(a,h)anthracene	1	10	20	40	50	80	100	120
Benzo(ghi)perylene	1	10	20	40	50	80	100	120
Carbazole	1	10	20	40	50	80	100	120

APPENDIX IX

1,4-Dioxane		10	20	40	50	80	100	120
Methyl methacrylate		10	20	40	50	80	100	120
Ethyl methacrylate		10	20	40	50	80	100	120
2-Picoline		10	20	40	50	80	100	120
N-Nitrosomethylethylamine		10	20	40	50	80	100	120
Methyl methanesulfonate		10	20	40	50	80	100	120
N-Nitrosodiethylamine		10	20	40	50	80	100	120
Ethyl methanesulfonate		10	20	40	50	80	100	120
Pentachloroethane		10	20	40	50	80	100	120
N-Nitrosopyrrolidine		10	20	40	50	80	100	120
N-Nitrosomorpholine		10	20	40	50	80	100	120
o-Toluidine		10	20	40	50	80	100	120
N-Nitrosopiperidine		10	20	40	50	80	100	120
a,a-Dimethhylphenethylamine		10	20	40	50	80	100	120
Triethylphosphorothioate		10	20	40	50	80	100	120
2,6-Dichlorophenol		10	20	40	50	80	100	120
Hexachloropropene		10	20	40	50	80	100	120
p-Phenylenediamine		10	20	40	50	80	100	120
N-Nitrosodi-n-butylamine		10	20	40	50	80	100	120
Safrole		10	20	40	50	80	100	120
1,2,4,5-Tetrachlorobenzene		10	20	40	50	80	100	120
Isosafrole		10	20	40	50	80	100	120
1,4-Naphthoquinone		10	20	40	50	80	100	120
m-Dinitrobenzene		10	20	40	50	80	100	120
Pentachlorobenzene		10	20	40	50	80	100	120
1-Naphthylamine		10	20	40	50	80	100	120
2-Naphthylamine		10	20	40	50	80	100	120
2,3,4,6-Tetrachlorophenol		10	20	40	50	80	100	120
5-Nitro-o-toluidine		10	20	40	50	80	100	120

Thionazin		10	20	40	50	80	100	120
Sulfotepp		10	20	40	50	80	100	120
Phorate		10	20	40	50	80	100	120
1,3,5-Trinitrobenzene		10	20	40	50	80	100	120
Phenacetin		10	20	40	50	80	100	120
Diallate (cis and trans)		10	20	40	50	80	100	120

SW846 8270C/EPA 625								
Calibration Standard Concentration Levels*								
	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Dimethoate		10	20	40	50	80	100	120
4-Aminobiphenyl		10	20	40	50	80	100	120
Pentachloronitrobenzene		10	20	40	50	80	100	120
Pronamide		10	20	40	50	80	100	120
Dinoseb		10	20	40	50	80	100	120
Disulfoton		10	20	40	50	80	100	120
Methyl parathion		10	20	40	50	80	100	120
4-Nitroquinoline oxide		10	20	40	50	80	100	120
Methapyrilene		10	20	40	50	80	100	120
Isodrin		10	20	40	50	80	100	120
Aramite		10	20	40	50	80	100	120
Kepone		10	20	40	50	80	100	120
p-(Dimethylamino)azobenzene		10	20	40	50	80	100	120
Chlorobenzilate		10	20	40	50	80	100	120
3,3'-Dimethylbenzidine		10	20	40	50	80	100	120
Famphur		10	20	40	50	80	100	120
2-Acetylaminofluorene		10	20	40	50	80	100	120
7,12-Dimethylbenz(a)anthracene		10	20	40	50	80	100	120
3-Methylcholanthrene		10	20	40	50	80	100	120
Hexachlorophene		500	1000	1250	2000	2500		
p-Benzoquinone		10	20	40	50	80	100	120
Parathion		10	20	40	50	80	100	120
Methoxychlor		10	20	40	50	80	100	120
2-Ethoxyethanol		50	75	100	125	150	200	250
cis-Diallate		1.5	3	6	7.5	12	15	18
trans-Diallate		8.5	17	34	42	68	85	102
Dibenzo(a,e)pyrene		50	75	100	125	150	200	250
Phthalic anhydride		50	75	100	125	150	200	250
1,4-Dinitrobenzene		50	75	100	125	150	200	250
(2,3-Dibromopropyl)phosphate		50	75	100	125	150	200	250
Methylenebis(2-chloroaniline)		50	75	100	125	150	200	250

All values are mg/L without the prep factor.
# Indicates the calibration verification concentration level used
* Usual calibration levels using SCAN methodology

(04/04)

Report Date: 20-May-2005 15:34

Calibration History

Method : /chem/MSD8.i/s051905.b/MSD8-8270-051605a.m
Start Cal Date: 11-MAY-2005 15:15
End Cal Date : 16-MAY-2005 20:53

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 1.00000		
11-MAY-2005 18:18	ANIL+BNZ+AT	/chem/MSD8.i/s051105a.b/s8e1111.d
16-MAY-2005 15:46	BNAICAL-NAB	/chem/MSD8.i/s051605a.b/s8e1605.d
Cal Level: 2 , Cal Amount: 10.00000		
16-MAY-2005 19:31	HEXMIX-O2SI	/chem/MSD8.i/s051605a.b/s8e1616.d
13-MAY-2005 01:14	167MIX-O2SI	/chem/MSD8.i/s051205a.b/s8e1231.d
12-MAY-2005 22:31	AP9MIX-O2SI	/chem/MSD8.i/s051205a.b/s8e1223.d
11-MAY-2005 21:01	168MIX-O2SI	/chem/MSD8.i/s051105a.b/s8e1119.d
11-MAY-2005 18:38	ANIL+BNZ+AT	/chem/MSD8.i/s051105a.b/s8e1112.d
16-MAY-2005 16:06	BNAICAL-NAB	/chem/MSD8.i/s051605a.b/s8e1606.d
Cal Level: 3 , Cal Amount: 20.00000		
16-MAY-2005 19:51	HEXMIX-O2SI	/chem/MSD8.i/s051605a.b/s8e1617.d
13-MAY-2005 01:34	167MIX-O2SI	/chem/MSD8.i/s051205a.b/s8e1232.d
12-MAY-2005 22:51	AP9MIX-O2SI	/chem/MSD8.i/s051205a.b/s8e1224.d
11-MAY-2005 21:21	168MIX-O2SI	/chem/MSD8.i/s051105a.b/s8e1120.d
11-MAY-2005 18:59	ANIL+BNZ+AT	/chem/MSD8.i/s051105a.b/s8e1113.d
16-MAY-2005 16:26	BNAICAL-NAB	/chem/MSD8.i/s051605a.b/s8e1607.d
Cal Level: 4 , Cal Amount: 40.00000		
16-MAY-2005 20:12	HEXMIX-O2SI	/chem/MSD8.i/s051605a.b/s8e1618.d
13-MAY-2005 01:55	167MIX-O2SI	/chem/MSD8.i/s051205a.b/s8e1233.d
12-MAY-2005 23:12	AP9MIX-O2SI	/chem/MSD8.i/s051205a.b/s8e1225.d
11-MAY-2005 21:41	168MIX-O2SI	/chem/MSD8.i/s051105a.b/s8e1121.d
11-MAY-2005 19:19	ANIL+BNZ+AT	/chem/MSD8.i/s051105a.b/s8e1114.d
16-MAY-2005 16:47	BNAICAL-NAB	/chem/MSD8.i/s051605a.b/s8e1608.d
Cal Level: 5 , Cal Amount: 50.00000		
16-MAY-2005 20:33	HEXMIX-O2SI	/chem/MSD8.i/s051605a.b/s8e1619.d
13-MAY-2005 02:15	167MIX-O2SI	/chem/MSD8.i/s051205a.b/s8e1234.d
12-MAY-2005 23:32	AP9MIX-O2SI	/chem/MSD8.i/s051205a.b/s8e1226.d
11-MAY-2005 22:02	168MIX-O2SI	/chem/MSD8.i/s051105a.b/s8e1122.d
11-MAY-2005 19:39	ANIL+BNZ+AT	/chem/MSD8.i/s051105a.b/s8e1115.d
16-MAY-2005 17:07	BNAICAL-NAB	/chem/MSD8.i/s051605a.b/s8e1609.d
Cal Level: 6 , Cal Amount: 80.00000		

16-MAY-2005 20:53	HEXMIX-O2SI	/chem/MSD8.i/s051605a.b/s8e1620.d
13-MAY-2005 02:35	167MIX-O2SI	/chem/MSD8.i/s051205a.b/s8e1235.d

12-MAY-2005 23:53	AP9MIX-O2SI	/chem/MSD8.i/s051205a.b/s8e1227.d
11-MAY-2005 22:22	168MIX-O2SI	/chem/MSD8.i/s051105a.b/s8e1123.d
11-MAY-2005 20:00	ANIL+BNZ+AT	/chem/MSD8.i/s051105a.b/s8e1116.d
16-MAY-2005 17:28	BNAICAL-NAB	/chem/MSD8.i/s051605a.b/s8e1610.d

Cal Level: 7 , Cal Amount: 100.00000		
13-MAY-2005 02:55	167MIX-O2SI	/chem/MSD8.i/s051205a.b/s8e1236.d
13-MAY-2005 00:13	AP9MIX-O2SI	/chem/MSD8.i/s051205a.b/s8e1228.d
11-MAY-2005 22:42	168MIX-O2SI	/chem/MSD8.i/s051105a.b/s8e1124.d
11-MAY-2005 20:20	ANIL+BNZ+AT	/chem/MSD8.i/s051105a.b/s8e1117.d
16-MAY-2005 17:48	BNAICAL-NAB	/chem/MSD8.i/s051605a.b/s8e1611.d

Cal Level: 8 , Cal Amount: 120.00000		
13-MAY-2005 03:16	167MIX-O2SI	/chem/MSD8.i/s051205a.b/s8e1237.d
13-MAY-2005 00:33	AP9MIX-O2SI	/chem/MSD8.i/s051205a.b/s8e1229.d
11-MAY-2005 23:03	168MIX-O2SI	/chem/MSD8.i/s051105a.b/s8e1125.d
11-MAY-2005 20:40	ANIL+BNZ+AT	/chem/MSD8.i/s051105a.b/s8e1118.d
16-MAY-2005 18:09	BNAICAL-NAB	/chem/MSD8.i/s051605a.b/s8e1612.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 40.0		
19-MAY-2005 15:01	BNAICAL-NAB	/chem/MSD8.i/s051905.b/s8e1902.d

Ccal Level: 4 , Ccal Amount: 40.0		
19-MAY-2005 15:22	ANIL+BNZ+AT	/chem/MSD8.i/s051905.b/s8e1903.d

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INITIAL CALIBRATION DATA

Start Cal Date : 11-MAY-2005 15:15
End Cal Date : 16-MAY-2005 20:53
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD8.i/s051905.b/MSD8-8270-051605a.m
Cal Date : 20-May-2005 11:13 cak

Calibration File Names:
Level 1: /chem/MSD8.i/s051105a.b/s8e1111.d
Level 2: /chem/MSD8.i/s051605a.b/s8e1616.d
Level 3: /chem/MSD8.i/s051605a.b/s8e1617.d
Level 4: /chem/MSD8.i/s051605a.b/s8e1618.d
Level 5: /chem/MSD8.i/s051605a.b/s8e1619.d
Level 6: /chem/MSD8.i/s051605a.b/s8e1620.d
Level 7: /chem/MSD8.i/s051205a.b/s8e1236.d
Level 8: /chem/MSD8.i/s051205a.b/s8e1237.d

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
1 N-Methyl-N-nitrosomethylamine	+++++	0.40565	0.43476	0.42341	0.44584	+++++					
	0.41728	0.39464					AVRG		0.42026		4.45488
2 Pyridine	+++++	0.79118	0.88139	0.81642	0.85891	+++++					
	0.81222	0.78109					AVRG		0.82354		4.74201
4 Aniline	+++++	1.29440	1.39348	1.38183	1.40413	1.38788					
	1.35962	1.34402					AVRG		1.36648		2.76854
209 Benzaldehyde	+++++	0.78155	0.82055	0.82482	0.81520	0.79783					
	0.76675	0.75384					AVRG		0.79435		3.49486
6 Phenol	+++++	1.04037	1.07258	1.02698	1.04642	+++++					
	0.96789	0.94281					AVRG		1.01618		4.92270

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
7 bis(2-Chloroethyl) ether	+++++	0.78184	0.89155	0.83402	0.90666	+++++					
	0.95824	0.77863					AVRG		0.85849		8.43451
8 2-Chlorophenol	+++++	0.99834	1.02339	0.98596	1.04837	+++++					
	0.99434	0.98014					AVRG		1.00509		2.57832
185 n-Decane	+++++	1.00715	1.03605	0.93630	0.96768	+++++					
	0.83893	0.76705					AVRG		0.92553		11.16470
9 1,3-Dichlorobenzene	+++++	1.22294	1.27425	1.23333	1.29008	+++++					
	1.22258	1.19841					AVRG		1.24027		2.80441
11 1,4-Dichlorobenzene	+++++	1.28724	1.33074	1.26726	1.34233	+++++					
	1.26757	1.23154					AVRG		1.28778		3.26045
12 Benzyl alcohol	+++++	0.52666	0.58450	0.56910	0.58518	+++++					
	0.57352	0.54968					AVRG		0.56477		4.02310
13 1,2-Dichlorobenzene	+++++	1.14709	1.23916	1.16172	1.22917	+++++					
	1.15451	1.13487					AVRG		1.17775		3.79543
14 bis(2-Chloroisopropyl)ether	+++++	1.36122	1.43912	1.34210	1.38594	+++++					
	1.25209	1.16854					AVRG		1.32483		7.40597
15 o-Cresol	+++++	0.77362	0.82203	0.79350	0.82158	+++++					
	0.77773	0.75778					AVRG		0.79104		3.33798

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
16 Acetophenone	+++++	1.26688	1.38991	1.33810	1.39599	+++++					
	1.29399	1.24495					AVRG		1.32164		4.79781
17 N-Nitrosodipropylamine	+++++	0.58316	0.63753	0.62275	0.65455	+++++					
	0.62386	0.60652					AVRG		0.62139		3.97528
18 m,p-Cresols	+++++	1.07776	1.16046	1.15841	1.21869	+++++					
	1.12650	1.07936					AVRG		1.13686		4.75699
19 Hexachloroethane	+++++	0.42816	0.46416	0.45368	0.47769	+++++					
	0.45559	0.43045					AVRG		0.45162		4.26584
21 Nitrobenzene	+++++	0.22232	0.23980	0.22435	0.23542	+++++					
	0.21299	0.20132					AVRG		0.22270		6.37843
22 Isophorone	+++++	0.45711	0.48361	0.43758	0.45627	+++++					
	0.41038	0.39124					AVRG		0.43936		7.69652
23 2-Nitrophenol	+++++	0.10485	0.12273	0.12328	0.13185	+++++					
	0.12385	0.11901					AVRG		0.12093		7.38465
24 2,4-Dimethylphenol	+++++	0.24796	0.25818	0.23503	0.24319	+++++					
	0.21812	0.20159					AVRG		0.23401		8.89718
25 bis(2-Chloroethoxy)methane	+++++	0.26337	0.26943	0.24391	0.24693	+++++					
	0.21911	0.20505					AVRG		0.24130		10.35737

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
26 2,4-Dichlorophenol	+++++	0.21209	0.23423	0.23058	0.23401	+++++					
	0.21760	0.20740					AVRG		0.22265		5.29781
27 Benzoic acid	+++++	+++++	10184	36075	49936	+++++					
	152068	217383					LINR	0.41208	0.11907		0.99675
28 1,2,4-Trichlorobenzene	+++++	0.31384	0.31309	0.28171	0.28758	+++++					
	0.26031	0.24654					AVRG		0.28384		9.60821
30 Naphthalene	0.83822	0.84365	0.86262	0.78712	0.78401	+++++					
	0.68259	0.63528					AVRG		0.77621		11.11571
204 alpha-Terpineol	+++++	0.20377	0.20837	0.19170	0.19314	+++++					
	0.17681	0.16558					AVRG		0.18989		8.52438
31 4-Chloroaniline	+++++	0.33455	0.35991	0.35202	0.35447	0.36035					
	0.35259	0.35114					AVRG		0.35215		2.44285
189 Caprolactam	+++++	0.05782	0.07315	0.07176	0.07444	+++++					
	0.06885	0.06365					AVRG		0.06828		9.37413
32 Hexachlorobutadiene	+++++	0.23121	0.23374	0.21097	0.21578	+++++					
	0.18735	0.17104					AVRG		0.20835		11.87936
33 4-Chloro-3-methylphenol	+++++	0.21021	0.22886	0.21514	0.21947	+++++					
	0.20019	0.18818					AVRG		0.21034		6.86938

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
34 2-Methylnaphthalene	0.55516	0.59256	0.59677	0.54529	0.56670	+++++					
	0.50650	0.47564					AVRG		0.54837		8.06303
35 1-Methylnaphthalene	0.55772	0.55500	0.57609	0.52397	0.53517	+++++					
	0.48139	0.44718					AVRG		0.52522		8.73967
36 Hexachlorocyclopentadiene	+++++	13292	37508	89310	116257	+++++					
	265036	365163					LINR	0.19101	0.36977		0.99818
208 1,1'-Biphenyl	+++++	1.28108	1.30266	1.25029	1.31239	+++++					
	1.26293	1.21223					AVRG		1.27026		2.89505
205 2,3-Dichloroaniline	+++++	0.45627	0.49015	0.46526	0.48141	0.47252					
	0.47659	0.47557					AVRG		0.47397		2.30775
37 2,4,6-Trichlorophenol	+++++	0.26370	0.31209	0.31309	0.33739	+++++					
	0.33942	0.32057					AVRG		0.31438		8.73472
38 2,4,5-Trichlorophenol	+++++	0.30849	0.35356	0.33172	0.36769	+++++					
	0.38195	0.33165					AVRG		0.34584		7.79784
40 2-Chloronaphthalene	0.91452	0.93742	0.97803	0.94745	1.00604	+++++					
	0.95054	0.91729					AVRG		0.95018		3.44247
42 o-Nitroaniline	+++++	0.16027	0.18874	0.19707	0.19721	0.20633					
	0.20527	0.20693					AVRG		0.19455		8.47090

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
41 m-Nitroaniline	+++++	0.17337	0.19802	0.21623	0.21218	0.22956					
	0.22554	0.22658					AVRG		0.21164		9.46695
43 Dimethylphthalate	+++++	1.12841	1.18739	1.15888	1.21963	+++++					
	1.19283	1.14229					AVRG		1.17157		2.93029
44 2,6-Dinitrotoluene	+++++	0.16116	0.20426	0.21492	0.23361	+++++					
	0.24460	0.23769					AVRG		0.21604		14.25974
45 Acenaphthylene	1.02867	1.41296	1.50650	1.47654	1.57116	+++++					
	1.53103	1.46679					AVRG		1.42766		12.81448
47 Acenaphthene	0.91290	0.92787	0.97870	0.94369	0.98904	+++++					
	0.97522	0.93767					AVRG		0.95216		3.03464
48 2,4-Dinitrophenol	+++++	+++++	8340	22309	28519	+++++					
	75542	98681					LINR	0.32351	0.10776		0.99476
49 Dibenzofuran	+++++	1.45897	1.47521	1.42899	1.49962	+++++					
	1.45401	1.40327					AVRG		1.45335		2.33360
50 2,4-Dinitrotoluene	+++++	14259	39396	90548	120354	+++++					
	246250	319315					LINR	0.09695	0.32246		0.99824
51 Diethylphthalate	+++++	1.22357	1.27013	1.22442	1.29452	+++++					
	1.26788	1.19388					AVRG		1.24573		3.02496

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Compound	1 Level 1 / 100 Level 7	10 Level 2 / 120 Level 8	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
52 4-Nitrophenol	+++++	6351	20079	45926	59805	+++++					
	121406	+++++					LINR	0.11373	0.16478		0.99962
53 Fluorene	0.97359	1.06086	1.09558	1.04962	1.09955	+++++					
	1.07125	1.03689					AVRG		1.05534		4.04128
54 4-Chlorophenylphenylether	+++++	0.69994	0.71687	0.67760	0.72403	+++++					
	0.70295	0.67131					AVRG		0.69878		2.99217
55 2-Methyl-4,6-dinitrophenol	+++++	6054	18937	48814	65030	+++++					
	150083	202857					LINR	0.26128	0.11099		0.99542
56 p-Nitroaniline	+++++	0.14846	0.19207	0.19760	0.18041	0.21026					
	0.19358	0.19540					AVRG		0.18825		10.42446
57 N-Nitroso-diphenylamine	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+00		0.000e+00
133 Diphenylamine	+++++	0.49127	0.50512	0.48543	0.52411	+++++					
	0.51286	0.51760					AVRG		0.50606		2.99724
58 1,2-Diphenylhydrazine	+++++	0.42980	0.44435	0.42655	0.45422	+++++					
	0.44600	0.44827					AVRG		0.44153		2.47363
59 Tributylphosphate	+++++	0.94037	1.11987	1.09258	1.17742	+++++					
	1.18134	1.15463					AVRG		1.11103		8.13011

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
61 4-Bromophenylphenylether	+++++	0.20063	0.20781	0.20205	0.21518	+++++					
	0.21088	0.21216					AVRG		0.20812		2.77597
62 alpha-BHC	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+00		0.000e+00
63 Hexachlorobenzene	+++++	0.21808	0.21569	0.20569	0.22265	+++++					
	0.21778	0.21443					AVRG		0.21572		2.62354
207 Atrazine	+++++	0.04384	0.04511	0.04649	0.04762	0.04672					
	0.04897	0.04805					AVRG		0.04669		3.76815
64 beta-BHC	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+00		0.000e+00
65 Pentachlorophenol	+++++	7344	23888	60524	79026	+++++					
	157488	200913					LINR	0.14641	0.10858		0.99939
206 n-Octadecane	+++++	0.30573	0.30584	0.27457	0.29608	+++++					
	0.28418	0.28426					AVRG		0.29178		4.39199
66 gamma-BHC (Lindane)	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+00		0.000e+00
68 Phenanthrene	0.80971	0.78086	0.80599	0.76895	0.82412	+++++					
	0.78869	0.77533					AVRG		0.79338		2.55862

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
69 Anthracene	0.63575	0.73433	0.79166	0.77089	0.82171	+++++					
	0.78540	0.78277					AVRG		0.76036		7.99785
70 delta-BHC	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+00		0.000e+00
71 Heptachlor	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+00		0.000e+00
72 Di-n-butylphthalate	+++++	0.92648	1.01189	1.00226	1.09251	+++++					
	1.09104	1.06628					AVRG		1.03174		6.24316
73 Aldrin	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+00		0.000e+00
74 Heptachlor epoxide	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+00		0.000e+00
75 Endrin	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+00		0.000e+00
76 Fluoranthene	0.67233	0.89290	0.96448	0.96893	1.05431	+++++					
	1.04327	1.02632					AVRG		0.94608		14.06416
77 Benzidine	54249	174097	474061	1216691	1345563	2131624					
	2399480	2609024					LINR	0.14439	0.61214		0.99966

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	100 Level 7	120 Level 8									
78 Endosulfan I	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+00		0.000e+00
79 Pyrene	1.02422	1.29705	1.32832	1.27806	1.34691	+++++					
	1.27247	1.26094					AVRG		1.25828		8.56258
80 4,4'-DDE	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+00		0.000e+00
82 Dieldrin	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+00		0.000e+00
83 4,4'-DDD	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+00		0.000e+00
84 Endosulfan II	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+00		0.000e+00
85 Butylbenzylphthalate	+++++	0.42866	0.52353	0.52918	0.56438	+++++					
	0.56638	0.55508					AVRG		0.52787		9.81441
86 4,4'-DDT	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+00		0.000e+00
87 Endosulfan sulfate	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+00		0.000e+00

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INITIAL CALIBRATION DATA

Start Cal Date : 11-MAY-2005 15:15
End Cal Date : 16-MAY-2005 20:53
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD8.i/s051905.b/MSD8-8270-051605a.m
Cal Date : 20-May-2005 11:13 cak

Compound	1 Level 1 100 Level 7	10 Level 2 120 Level 8	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
88 Endrin aldehyde	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+00		0.000e+00
89 Benzo(a)anthracene	0.78390	0.89499	0.94093	0.92163	0.98333	+++++					
	0.96897	0.95058					AVRG		0.92062		7.27719
90 3,3'-Dichlorobenzidine	0.18663	0.22171	0.24256	0.26879	0.22941	0.27217					
	0.23612	0.23139					AVRG		0.23610		11.46989
92 Chrysene	0.89353	0.88785	0.90217	0.88780	0.92235	+++++					
	0.88149	0.84623					AVRG		0.88878		2.59614
93 bis(2-Ethylhexyl)phthalate	2236	47128	134670	311874	408832	+++++					
	841665	1067751					LINR	0.08566	0.69124		0.99870
94 Di-n-octylphthalate	+++++	61032	192523	476716	635216	+++++					
	1334531	1613480					LINR	0.15231	1.21933		0.99912
95 Benzo(b)fluoranthene	4669	75391	217895	477797	636821	+++++					
	1182610	1427723					LINR	0.02873	1.03769		0.99843
96 Benzo(k)fluoranthene	0.66118	0.98982	0.97588	0.96931	1.03976	+++++					
	1.03976	1.04013					AVRG		0.95941		14.09143
97 Benzo(a)pyrene	3117	61407	173674	400955	517980	+++++					
	1020723	1209932					LINR	0.04889	0.88867		0.99932

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Compound	1 Level 1 100 Level 7	10 Level 2 120 Level 8	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
99 Indeno(1,2,3-cd)pyrene	2438	56138	185210	422419	550973	+++++					
	1028433	1166866					LINR	0.01762	0.87102		0.99668
100 Dibenzo(a,h)anthracene	2033	43654	147177	343955	454437	+++++					
	852837	971352					LINR	0.03111	0.72667		0.99684
101 Benzo(ghi)perylene	2703	53747	164191	363548	473533	+++++					
	845519	950923					LINR	-0.01864	0.70750		0.99432
102 1,4-Dioxane	+++++	0.30449	0.28683	0.25636	0.24674	0.22076					
	+++++	+++++					AVRG		0.26304		12.58324
103 Methyl methacrylate	+++++	0.29655	0.30988	0.29008	0.30113	0.28542					
	+++++	0.27468					AVRG		0.29296		4.22307
104 Ethyl methacrylate	+++++	1.13115	1.18335	1.11931	1.13355	1.08737					
	+++++	1.05654					AVRG		1.11855		3.87661
105 2-Picoline	+++++	0.95189	1.01265	0.98167	0.99735	0.95472					
	+++++	0.92576					AVRG		0.97067		3.32833
106 N-Nitrosomethylethylamine	+++++	0.38439	0.40859	0.40292	0.40928	0.39496					
	+++++	0.37958					AVRG		0.39662		3.16088
107 Methyl methanesulfonate	+++++	0.44177	0.46408	0.45873	0.46302	0.43083					
	+++++	0.42084					AVRG		0.44654		4.07756

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108 N-Nitrosodiethylamine	+++++	0.41177	0.44360	0.43121	0.45313	0.43444					
	+++++	0.41876					AVRG		0.43215		3.54233
109 Ethyl Methanesulfonate	+++++	0.56942	0.60868	0.59962	0.61708	0.59253					
	+++++	0.57826					AVRG		0.59427		3.04144
110 Pentachloroethane	+++++	0.50160	0.52888	0.51957	0.52905	0.50610					
	+++++	0.49408					AVRG		0.51321		2.87447
111 N-Nitrosopyrrolidine	+++++	0.40883	0.45166	0.45949	0.46351	0.45869					
	+++++	0.45247					AVRG		0.44911		4.50552
113 N-Nitrosomorpholine	+++++	0.57065	0.60596	0.61729	0.61755	0.59059					
	+++++	0.58162					AVRG		0.59728		3.25124
114 o-Toluidine	+++++	1.46763	1.60352	1.57472	1.60357	1.54795					
	+++++	1.50676					AVRG		1.55069		3.53233
115 N-Nitrosopiperidine	+++++	0.11403	0.11960	0.11901	0.11861	0.12336					
	0.11970	0.11722					AVRG		0.11879		2.37030
116 a,a-Dimethylphenethylamine	+++++	0.49298	0.67487	0.70091	0.72336	0.73073					
	+++++	0.72123					AVRG		0.67401		13.49700
117 Triethylphosphorothioate	+++++	0.17567	0.19077	0.18966	0.18651	0.18868					
	0.18887	0.19161					AVRG		0.18739		2.89352

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Compound	1 Level 1 / 100 Level 7	10 Level 2 / 120 Level 8	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
118 2,6-Dichlorophenol	+++++	0.20836	0.23443	0.24190	0.24162	0.24472					
	+++++	0.24163					AVRG		0.23544		5.82011
119 Hexachloropropene	+++++	0.17220	0.19557	0.22728	0.21071	0.21730					
	+++++	0.22143					AVRG		0.20742		9.83300
120 p-Phenylenediamine	+++++	22309	64214	126126	173735	321759					
	402028	525639					LINR	0.15632	0.24640		0.99629
121 N-Nitrosodi-n-butylamine	+++++	0.17003	0.19237	0.18824	0.18736	0.18375					
	+++++	0.17692					AVRG		0.18311		4.50238
122 Safrole	+++++	0.24436	0.27170	0.27425	0.27328	0.26747					
	+++++	0.26096					AVRG		0.26534		4.28607
123 1,2,4,5-Tetrachlorobenzene	+++++	0.60238	0.64878	0.62871	0.62398	0.60964					
	+++++	0.58375					AVRG		0.61620		3.67559
124 Isosafrole	+++++	0.41042	0.45755	0.45203	0.44849	0.44283					
	+++++	0.44021					AVRG		0.44192		3.76709
125 1,4-Naphthoquinone	+++++	0.31756	0.37037	0.38148	0.38620	0.38351					
	+++++	0.37108					AVRG		0.36837		6.98717
126 m-Dinitrobenzene	+++++	10819	28204	76934	81454	151374					
	+++++	232857					LINR	0.14649	0.16656		0.99877

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	100 Level 7	120 Level 8									
127 Pentachlorobenzene	+++++	0.54437	0.57532	0.56980	0.57442	0.56571					
	+++++	0.54279					AVRG		0.56207		2.62184
128 1-Naphthylamine	+++++	0.89969	0.96268	0.96792	0.95317	0.89563					
	+++++	0.89826					AVRG		0.92956		3.77266
129 2-Naphthylamine	+++++	0.89911	0.96592	0.97129	0.89462	0.86433					
	+++++	0.86471					AVRG		0.91000		5.24173
130 2,3,4,6-Tetrachlorophenol	+++++	17388	46105	125684	137421	235052					
	+++++	348295					LINR	0.08354	0.24744		0.99964
131 5-Nitro-o-toluidine	+++++	0.20899	0.24909	0.28559	0.27113	0.28184					
	+++++	0.29011					AVRG		0.26446		11.67281
132 Thionazin	+++++	0.14184	0.15741	0.15947	0.16161	0.15965					
	0.16194	0.16414					AVRG		0.15801		4.71285
134 Sulfotepp	+++++	0.09471	0.10267	0.10865	0.10659	0.11387					
	0.11902	0.12478					AVRG		0.11004		9.20706
135 Phorate	+++++	0.20630	0.21892	0.22990	0.21961	0.22463					
	0.23639	0.24060					AVRG		0.22519		5.16774
136 1,3,5-Trinitrobenzene	+++++	4758	14631	33313	49880	100704					
	133247	179645					LINR	0.29424	0.07013		0.99266

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	100 Level 7	120 Level 8										
137 Phenacetin	+++++	0.17158	0.19648	0.22670	0.22414	0.23451						
	+++++	0.24869					AVRG		0.21702		12.93609	
138 Diallate	+++++	0.16168	0.16375	0.16626	0.15828	0.16107						
	0.16741	0.16480					AVRG		0.16332		1.95100	
139 Dimethoate	+++++	0.10655	0.12171	0.13030	0.13184	0.12912						
	0.13316	0.13190					AVRG		0.12637		7.53419	
140 4-Aminobiphenyl	+++++	0.50459	0.53277	0.56334	0.52687	0.56499						
	+++++	0.58185					AVRG		0.54574		5.31153	
141 Pentachloronitrobenzene	+++++	0.10130	0.11767	0.11664	0.12305	0.10553						
	+++++	0.08889					AVRG		0.10885		11.66729	
142 Pronamide	+++++	0.52154	0.58562	0.56232	0.58095	0.52823						
	+++++	0.45970					AVRG		0.53973		8.76275	
143 Dinoseb	+++++	0.03245	0.03970	0.06757	0.06726	0.08412						
	+++++	0.09786					AVRG		0.06483		38.75682	<-
144 Disulfoton	+++++	0.18078	0.20395	0.20905	0.20217	0.20644						
	0.21310	0.20965					AVRG		0.20359		5.25804	
145 Methyl parathion	+++++	18049	38512	108830	129705	213988						
	258774	364226					LINR	0.13799	0.13457		0.99931	

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
146 4-Nitroquinoline-1-oxide	+++++	1810	3396	12467	11377	19402					
	+++++	32405					LINR	0.16119	0.01183		0.99123
147 Methapyrilene	+++++	0.25909	0.31834	0.31780	0.33313	0.29837					
	+++++	0.30513					AVRG		0.30531		8.39508
148 Isodrin	+++++	0.09428	0.09966	0.09771	0.09634	0.09716					
	0.09877	0.09579					AVRG		0.09710		1.87792
149 Aramite	+++++	0.03110	0.03643	0.04166	0.04255	0.03980					
	+++++	0.04220					AVRG		0.03896		11.45336
150 Kepone	+++++	6863	18493	56273	70570	124724					
	140119	186723					LINR	0.15355	0.07270		0.99439
151 p-(Dimethylamino)azobenzene	+++++	0.26122	0.31316	0.26957	0.29615	0.25712					
	+++++	+++++					AVRG		0.27944		8.66181
152 Chlorobenzilate	+++++	28587	71701	222945	281334	497825					
	582389	+++++					LINR	0.20558	0.44572		0.99574
153 3,3'-Dimethylbenzidine	+++++	0.47998	0.49095	0.53620	0.49830	0.42457					
	+++++	0.44230					AVRG		0.47872		8.40634
154 Famphur	+++++	0.47264	0.51978	0.56530	0.54555	0.55771					
	0.56616	0.59850					AVRG		0.54652		7.37236

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	100 Level 7	120 Level 8									
155 2-Acetylaminofluorene	+++++	17193	41692	191773	153237	287281					
	+++++	610215					LINR	0.23503	0.27639		0.99212
157 7,12Dimethylbenz(a)anthracene	+++++	0.45650	0.57572	0.57175	0.60623	0.58514					
	+++++	0.56126					AVRG		0.55943		9.41305
158 3-Methylcholanthrene	+++++	0.35455	0.43194	0.50247	0.50644	0.50960					
	+++++	0.51459					AVRG		0.46993		13.69702
166 Maleic anhydride	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+00		0.000e+00
167 a,a,a-Trichlorotoluene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+00		0.000e+00
169 2,3-Dimethylnaphthalene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+00		0.000e+00
170 2,6-Dimethylnapthalene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+00		0.000e+00
171 Biphenyl	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+00		0.000e+00
172 1-Methyl fluorene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+00		0.000e+00

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
173 Carbazole	0.70696	0.66601	0.71030	0.70702	0.67743	0.70500					
	0.67312	0.66865					AVRG		0.68931		2.84089
174 Hexachlorophene	+++++	171059	443344	741519	1502081	1684300					
	+++++	+++++					LINR	6.51595	0.06131		0.99501
175 Benzo(j)fluoranthene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+00		0.000e+00
176 Dibenz(a,h)acridine	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+00		0.000e+00
177 Dibenz(a,j)acridine	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+00		0.000e+00
178 Dibenzo(a,i)pyrene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+00		0.000e+00
180 7-H-Dibenzo(c,g)carbazole	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+00		0.000e+00
181 Dibenzo(a,h)pyrene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+00		0.000e+00
182 4,6-Dinitro-2-cyclohexylpheno	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+00		0.000e+00

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184 p-Benzoquinone	+++++	0.47328	0.53904	0.54993	0.57425	0.56216						
	0.55656	0.54660					AVRG		0.54312		6.04420	
185 (2,3-Dibromopropyl)phosphate	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					LINR	0.000e+00	0.000e+00		0.000e+00	<-
186 2,6-Toluene diisocyanate	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	
191 Parathion	+++++	9175	20412	60532	72483	126004						
	152906	218179					LINR	0.19093	0.08158		0.99828	
192 Methoxychlor	+++++	64888	142507	398776	492763	846315						
	909836	1294056					LINR	0.13800	0.71520		0.99800	
193 Hexamethyleneimine	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	
195 4-Chlorophenyl sulfone	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	
197 Anthraquinone	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	
199 2-Aminoanthraquinone	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	-+++++					AVRG		0.000e+00		0.000e+00	

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Compound	1 Level 1 100 Level 7	10 Level 2 120 Level 8	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
200 2-Methyl anthracene	+++++ +++++	+++++ +++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
201 N,N-Dimethyl formamide	+++++ +++++	+++++ +++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
202 bis(2-Chloromethyl)ether	+++++ +++++	+++++ +++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
210 9,10-Anthracenedione	+++++ +++++	+++++ +++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
211 1HBenzdeisoquinoline132Hdione	+++++ +++++	+++++ +++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
212 Dichlofenthion	+++++ +++++	+++++ +++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
213 m_Toluidine	+++++ +++++	+++++ +++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
214 p-Toluidine	+++++ +++++	+++++ +++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
215 Cyclohexylamine	+++++ +++++	+++++ +++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00

General Engineering Laboratories, LLC

INITIAL CALIBRATION DATA

Start Cal Date : 11-MAY-2005 15:15
End Cal Date : 16-MAY-2005 20:53
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD8.i/s051905.b/MSD8-8270-051605a.m
Cal Date : 20-May-2005 11:13 cak

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
217 Diisobutylamine	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+00		0.000e+00
218 Dimethylaniline	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+00		0.000e+00
219 Nonylamine	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+00		0.000e+00
220 Diethylamine	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+00		0.000e+00
221 n-Propanol	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+00		0.000e+00
222 Cyclohexanol	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+00		0.000e+00
223 3,3'-Dimethoxybenzidine(2)	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+00		0.000e+00
(3)	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+00		0.000e+00
224 2-Ethoxyethanol	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+00		0.000e+00

General Engineering Laboratories, LLC

INITIAL CALIBRATION DATA

Start Cal Date : 11-MAY-2005 15:15
End Cal Date : 16-MAY-2005 20:53
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD8.i/s051905.b/MSD8-8270-051605a.m
Cal Date : 20-May-2005 11:13 cak

Compound	1 Level 1 100 Level 7	10 Level 2 120 Level 8	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
225 Dibenzo(a,e)pyrene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					LINR	0.000e+00	0.000e+00		0.000e+00	<-
226 Phthalic anhydride	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	
230 1,4-Dinitrobenzene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	
227 Cis Diallate	+++++	0.16237	0.17359	0.17896	0.17138	0.17472						
	0.17706	0.17209					AVRG		0.17288		3.09331	
228 Trans Diallate	+++++	0.19022	0.19265	0.19560	0.18621	0.18949						
	0.19696	0.19388					AVRG		0.19214		1.95100	
229 Methylenebis(2-chloroaniline)	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	
$ 3 2-Fluorophenol	+++++	0.80258	0.87142	0.81662	0.86611	+++++						
	0.81907	0.79317					AVRG		0.82816		3.97020	
$ 5 Phenol-d5	+++++	0.93973	0.99589	0.95401	0.99996	+++++						
	0.93242	0.90112					AVRG		0.95385		4.01493	

General Engineering Laboratories, LLC

INITIAL CALIBRATION DATA

Start Cal Date : 11-MAY-2005 15:15
End Cal Date : 16-MAY-2005 20:53
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD8.i/s051905.b/MSD8-8270-051605a.m
Cal Date : 20-May-2005 11:13 cak

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
$ 187 2-Chlorophenol-d4	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+00		0.000e+00
$ 188 1,2-Dichlorobenzene-d4	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+00		0.000e+00
$ 20 Nitrobenzene-d5	+++++	0.23819	0.24635	0.23218	0.24330	+++++					
	0.21958	0.21023					AVRG		0.23164		6.10368
$ 39 2-Fluorobiphenyl	+++++	1.24686	1.25098	1.19573	1.26503	+++++					
	1.22712	1.15542					AVRG		1.22352		3.35900
$ 60 2,4,6-Tribromophenol	+++++	0.10904	0.13944	0.14794	0.15594	+++++					
	0.16152	0.15295					AVRG		0.14447		13.08455
$ 81 p-Terphenyl-d14	+++++	0.96821	0.98192	0.96509	1.01768	+++++					
	0.95835	0.92615					AVRG		0.96957		3.09450

General Engineering Laboratories, LLC

INITIAL CALIBRATION DATA

Start Cal Date : 11-MAY-2005 15:15
End Cal Date : 16-MAY-2005 20:53
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD8.i/s051905.b/MSD8-8270-051605a.m
Cal Date : 20-May-2005 11:13 cak

Curve	Formula	Units
Averaged	Amt = Rsp/ml	Response
Linear	Amt = b + Rsp/ml	Response

Data File: /chem/MSD8.i/s051605a.b/s8e1614.d
Report Date: 17-May-2005 07:42

General Engineering Laboratories, LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD8.i
Lab File ID: s8e1614.d
Analysis Type:
Lab Sample ID: UBN050421-04.1 Quant Type: ISTD
Method: /chem/MSD8.i/s051605a.b/MSD8-8270-051605a.m

Injection Date: 16-MAY-2005 18:50
Init. Cal. Date(s): 11-MAY-2005 16-MAY-2005
Init. Cal. Times: 15:15 20:53

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
$ 3 2-Fluorophenol	0.82816	0.91770	0.91770	0.000	10.81180	60.00000	Averaged	
$ 5 Phenol-d5	0.95385	1.01865	1.01865	0.000	6.79347	60.00000	Averaged	
$ 20 Nitrobenzene-d5	0.23164	0.23498	0.23498	0.000	1.44183	60.00000	Averaged	
$ 39 2-Fluorobiphenyl	1.22352	1.18766	1.18766	0.000	-2.93104	60.00000	Averaged	
$ 60 2,4,6-Tribromophenol	0.14447	0.14835	0.14835	0.000	2.68534	60.00000	Averaged	
$ 81 p-Terphenyl-d14	0.96957	0.98494	0.98494	0.000	1.58596	60.00000	Averaged	
1 N-Methyl-N-nitrosomethylami	0.42026	0.29399	0.29399	0.000	-30.04640	60.00000	Averaged	
2 Pyridine	0.82354	0.63741	0.63741	0.000	-22.60126	60.00000	Averaged	
6 Phenol	1.01618	1.00454	1.00454	0.001	-1.14502	20.00000	Averaged	ccc
7 bis(2-Chloroethyl) ether	0.85849	0.80662	0.80662	0.000	-6.04130	60.00000	Averaged	
8 2-Chlorophenol	1.00509	0.97173	0.97173	0.000	-3.31892	60.00000	Averaged	
185 n-Decane	0.92553	0.89469	0.89469	0.000	-3.33137	60.00000	Averaged	
9 1,3-Dichlorobenzene	1.24027	1.20690	1.20690	0.000	-2.68975	60.00000	Averaged	
11 1,4-Dichlorobenzene	1.28778	1.20827	1.20827	0.001	-6.17430	20.00000	Averaged	ccc
12 Benzyl alcohol	0.56477	0.57428	0.57428	0.000	1.68270	60.00000	Averaged	
13 1,2-Dichlorobenzene	1.17775	1.15557	1.15557	0.000	-1.88394	60.00000	Averaged	
14 bis(2-Chloroisopropyl)ether	1.32483	1.13512	1.13512	0.000	-14.31950	60.00000	Averaged	
15 o-Cresol	0.79104	0.73652	0.73652	0.000	-6.89214	60.00000	Averaged	
16 Acetophenone	1.32164	1.21419	1.21419	0.000	-8.12978	60.00000	Averaged	
17 N-Nitrosodipropylamine	0.62139	0.56073	0.56073	0.050	-9.76218	60.00000	Averaged	spcc
18 m,p-Cresols	1.13686	1.04049	1.04049	0.000	-8.47729	60.00000	Averaged	
19 Hexachloroethane	0.45162	0.42370	0.42370	0.000	-6.18167	60.00000	Averaged	
21 Nitrobenzene	0.22270	0.22035	0.22035	0.000	-1.05346	60.00000	Averaged	
22 Isophorone	0.43936	0.45790	0.45790	0.000	4.21944	60.00000	Averaged	
23 2-Nitrophenol	0.12093	0.12343	0.12343	0.001	2.06578	20.00000	Averaged	ccc
24 2,4-Dimethylphenol	0.23401	0.24230	0.24230	0.000	3.54215	60.00000	Averaged	
25 bis(2-Chloroethoxy)methane	0.24130	0.23404	0.23404	0.000	-3.00873	60.00000	Averaged	
26 2,4-Dichlorophenol	0.22265	0.22311	0.22311	0.001	0.20536	20.00000	Averaged	ccc
27 Benzoic acid	42.33040	40.00000	0.07694	0.000	5.82600	60.00000	Linear	
28 1,2,4-Trichlorobenzene	0.28384	0.27569	0.27569	0.000	-2.87300	60.00000	Averaged	
30 Naphthalene	0.77621	0.77875	0.77875	0.000	0.32664	60.00000	Averaged	
204 alpha-Terpineol	0.18989	0.19098	0.19098	0.000	0.56982	60.00000	Averaged	
189 Caprolactam	0.06828	0.07090	0.07090	0.000	3.83528	60.00000	Averaged	
32 Hexachlorobutadiene	0.20835	0.22382	0.22382	0.001	7.42516	20.00000	Averaged	ccc
33 4-Chloro-3-methylphenol	0.21034	0.19531	0.19531	0.001	-7.14564	20.00000	Averaged	ccc
34 2-Methylnaphthalene	0.54837	0.53876	0.53876	0.000	-1.75400	60.00000	Averaged	

General Engineering Laboratories, LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD8.i Injection Date: 16-MAY-2005 18:50
Lab File ID: s8e1614.d Init. Cal. Date(s): 11-MAY-2005 16-MAY-2005
Analysis Type: Init. Cal. Times: 15:15 20:53
Lab Sample ID: UBN050421-04.1 Quant Type: ISTD
Method: /chem/MSD8.i/s051605a.b/MSD8-8270-051605a.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
35 1-Methylnaphthalene	0.52522	0.49850	0.49850	0.000	-5.08641	60.00000	Averaged	
36 Hexachlorocyclopentadiene	35.89655	40.00000	0.26120	0.050	-10.25863	60.00000	Linear	spcc
208 1,1'-Biphenyl	1.27026	1.24946	1.24946	0.000	-1.63796	60.00000	Averaged	
37 2,4,6-Trichlorophenol	0.31438	0.30538	0.30538	0.001	-2.86132	20.00000	Averaged	ccc
38 2,4,5-Trichlorophenol	0.34584	0.30675	0.30675	0.000	-11.30328	60.00000	Averaged	
40 2-Chloronaphthalene	0.95018	0.89302	0.89302	0.000	-6.01567	60.00000	Averaged	
43 Dimethylphthalate	1.17157	1.10547	1.10547	0.000	-5.64183	60.00000	Averaged	
44 2,6-Dinitrotoluene	0.21604	0.21600	0.21600	0.000	-0.01661	60.00000	Averaged	
45 Acenaphthylene	1.42766	1.53098	1.53098	0.000	7.23699	60.00000	Averaged	
47 Acenaphthene	0.95216	0.92289	0.92289	0.001	-3.07412	20.00000	Averaged	ccc
48 2,4-Dinitrophenol	37.95863	40.00000	0.06740	0.050	-5.10343	60.00000	Linear	spcc
49 Dibenzofuran	1.45335	1.35629	1.35629	0.000	-6.67788	60.00000	Averaged	
50 2,4-Dinitrotoluene	36.87112	40.00000	0.26597	0.000	-7.82219	60.00000	Linear	
51 Diethylphthalate	1.24573	1.14675	1.14675	0.000	-7.94603	60.00000	Averaged	
52 4-Nitrophenol	33.68138	40.00000	0.12001	0.050	-15.79654	60.00000	Linear	spcc
53 Fluorene	1.05534	1.05571	1.05571	0.000	0.03543	60.00000	Averaged	
54 4-Chlorophenylphenylether	0.69878	0.61198	0.61198	0.000	-12.42163	60.00000	Averaged	
55 2-Methyl-4,6-dinitrophenol	34.85843	40.00000	0.06772	0.000	-12.85393	60.00000	Linear	
133 Diphenylamine	0.50606	0.48169	0.48169	0.001	-4.81693	20.00000	Averaged	ccc
58 1,2-Diphenylhydrazine	0.44153	0.40443	0.40443	0.000	-8.40276	60.00000	Averaged	
59 Tributylphosphate	1.11103	1.04496	1.04496	0.000	-5.94725	60.00000	Averaged	
61 4-Bromophenylphenylether	0.20812	0.16569	0.16569	0.000	-20.38822	60.00000	Averaged	
63 Hexachlorobenzene	0.21572	0.20403	0.20403	0.000	-5.41938	60.00000	Averaged	
65 Pentachlorophenol	37.62096	40.00000	0.08623	0.001	-5.94759	20.00000	Linear	ccc
206 n-Octadecane	0.29178	0.26141	0.26141	0.000	-10.40657	60.00000	Averaged	
68 Phenanthrene	0.79338	0.78262	0.78262	0.000	-1.35564	60.00000	Averaged	
69 Anthracene	0.76036	0.76727	0.76727	0.000	0.90946	60.00000	Averaged	
72 Di-n-butylphthalate	1.03174	0.94931	0.94931	0.000	-7.99012	60.00000	Averaged	
76 Fluoranthene	0.94608	0.96229	0.96229	0.001	1.71391	20.00000	Averaged	ccc
79 Pyrene	1.25828	1.31781	1.31781	0.000	4.73066	60.00000	Averaged	
85 Butylbenzylphthalate	0.52787	0.54564	0.54564	0.000	3.36718	60.00000	Averaged	
89 Benzo(a)anthracene	0.92062	0.94434	0.94434	0.000	2.57645	60.00000	Averaged	
92 Chrysene	0.88878	0.84436	0.84436	0.000	-4.99686	60.00000	Averaged	
93 bis(2-Ethylhexyl)phthalate	37.41131	40.00000	0.58729	0.000	-6.47172	60.00000	Linear	
94 Di-n-octylphthalate	40.79726	40.00000	1.05791	0.001	1.99315	20.00000	Linear	ccc

General Engineering Laboratories, LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD8.i
Lab File ID: s8e1614.d
Analysis Type:
Lab Sample ID: UBN050421-04.1
Method: /chem/MSD8.i/s051605a.b/MSD8-8270-051605a.m

Injection Date: 16-MAY-2005 18:50
Init. Cal. Date(s): 11-MAY-2005 16-MAY-2005
Init. Cal. Times: 15:15 20:53
Quant Type: ISTD

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
95 Benzo(b)fluoranthene	37.43105	40.00000	0.94123	0.000	-6.42236	60.00000	Linear	
96 Benzo(k)fluoranthene	0.95941	1.06952	1.06952	0.000	11.47751	60.00000	Averaged	
97 Benzo(a)pyrene	37.00379	40.00000	0.77866	0.001	-7.49053	20.00000	Linear	ccc
99 Indeno(1,2,3-cd)pyrene	33.70242	40.00000	0.71854	0.000	-15.74395	60.00000	Linear	
100 Dibenzo(a,h)anthracene	33.91354	40.00000	0.59349	0.000	-15.21615	60.00000	Linear	
101 Benzo(ghi)perylene	33.40213	40.00000	0.60399	0.000	-16.49467	60.00000	Linear	

Data File: /chem/MSD8.i/s051905.b/s8e1902.d
Report Date: 23-May-2005 08:54

General Engineering Laboratories, LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD8.i
Lab File ID: s8e1902.d
Analysis Type:
Lab Sample ID: UBN050421-04.3 Quant Type: ISTD
Method: /chem/MSD8.i/s051905.b/MSD8-8270-051605a.m

Injection Date: 19-MAY-2005 15:01
Init. Cal. Date(s): 11-MAY-2005 16-MAY-2005
Init. Cal. Times: 15:15 20:53

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
$ 3 2-Fluorophenol	0.82816	0.76720	0.76720	0.000	-7.36147	60.00000	Averaged	
$ 5 Phenol-d5	0.95385	0.87726	0.87726	0.000	-8.03032	60.00000	Averaged	
$ 20 Nitrobenzene-d5	0.23164	0.22358	0.22358	0.000	-3.47668	60.00000	Averaged	
$ 39 2-Fluorobiphenyl	1.22352	1.18317	1.18317	0.000	-3.29843	60.00000	Averaged	
$ 60 2,4,6-Tribromophenol	0.14447	0.15620	0.15620	0.000	8.11572	60.00000	Averaged	
$ 81 p-Terphenyl-d14	0.96957	0.99938	0.99938	0.000	3.07456	60.00000	Averaged	
1 N-Methyl-N-nitrosomethylami	0.42026	0.36356	0.36356	0.000	-13.49211	60.00000	Averaged	
2 Pyridine	0.82354	0.71079	0.71079	0.000	-13.69075	60.00000	Averaged	
6 Phenol	1.01618	0.92724	0.92724	0.001	-8.75192	20.00000	Averaged	ccc
7 bis(2-Chloroethyl) ether	0.85849	0.89887	0.89887	0.000	4.70322	60.00000	Averaged	
8 2-Chlorophenol	1.00509	0.95834	0.95834	0.000	-4.65191	60.00000	Averaged	
185 n-Decane	0.92553	0.88353	0.88353	0.000	-4.53738	60.00000	Averaged	
9 1,3-Dichlorobenzene	1.24027	1.20857	1.20857	0.000	-2.55576	60.00000	Averaged	
11 1,4-Dichlorobenzene	1.28778	1.24473	1.24473	0.001	-3.34290	20.00000	Averaged	ccc
12 Benzyl alcohol	0.56477	0.53649	0.53649	0.000	-5.00709	60.00000	Averaged	
13 1,2-Dichlorobenzene	1.17775	1.18793	1.18793	0.000	0.86400	60.00000	Averaged	
14 bis(2-Chloroisopropyl)ether	1.32483	1.22351	1.22351	0.000	-7.64824	60.00000	Averaged	
15 o-Cresol	0.79104	0.75899	0.75899	0.000	-4.05178	60.00000	Averaged	
16 Acetophenone	1.32164	1.29143	1.29143	0.000	-2.28533	60.00000	Averaged	
17 N-Nitrosodipropylamine	0.62139	0.61175	0.61175	0.050	-1.55143	60.00000	Averaged	spcc
18 m,p-Cresols	1.13686	1.08642	1.08642	0.000	-4.43668	60.00000	Averaged	
19 Hexachloroethane	0.45162	0.44652	0.44652	0.000	-1.12995	60.00000	Averaged	
21 Nitrobenzene	0.22270	0.20634	0.20634	0.000	-7.34808	60.00000	Averaged	
22 Isophorone	0.43936	0.39633	0.39633	0.000	-9.79549	60.00000	Averaged	
23 2-Nitrophenol	0.12093	0.12352	0.12352	0.001	2.14219	20.00000	Averaged	ccc
24 2,4-Dimethylphenol	0.23401	0.22430	0.22430	0.000	-4.15106	60.00000	Averaged	
25 bis(2-Chloroethoxy)methane	0.24130	0.23299	0.23299	0.000	-3.44296	60.00000	Averaged	
26 2,4-Dichlorophenol	0.22265	0.21427	0.21427	0.001	-3.76470	20.00000	Averaged	ccc
27 Benzoic acid	43.84740	40.00000	0.08146	0.000	9.61849	60.00000	Linear	
28 1,2,4-Trichlorobenzene	0.28384	0.27984	0.27984	0.000	-1.41128	60.00000	Averaged	
30 Naphthalene	0.77621	0.72921	0.72921	0.000	-6.05611	60.00000	Averaged	
204 alpha-Terpineol	0.18989	0.18812	0.18812	0.000	-0.93422	60.00000	Averaged	
189 Caprolactam	0.06828	0.07271	0.07271	0.000	6.48314	60.00000	Averaged	
32 Hexachlorobutadiene	0.20835	0.20406	0.20406	0.001	-2.05967	20.00000	Averaged	ccc
33 4-Chloro-3-methylphenol	0.21034	0.20175	0.20175	0.001	-4.08359	20.00000	Averaged	ccc
34 2-Methylnaphthalene	0.54837	0.52443	0.52443	0.000	-4.36717	60.00000	Averaged	

General Engineering Laboratories, LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD8.i
Lab File ID: s8e1902.d
Analysis Type:
Lab Sample ID: UBN050421-04.3 Quant Type: ISTD
Method: /chem/MSD8.i/s051905.b/MSD8-8270-051605a.m

Injection Date: 19-MAY-2005 15:01
Init. Cal. Date(s): 11-MAY-2005 16-MAY-2005
Init. Cal. Times: 15:15 20:53

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
35 1-Methylnaphthalene	0.52522	0.49664	0.49664	0.000	-5.44054	60.00000	Averaged	
36 Hexachlorocyclopentadiene	34.91661	40.00000	0.25214	0.050	-12.70846	60.00000	Linear	spcc
208 1,1'-Biphenyl	1.27026	1.27493	1.27493	0.000	0.36726	60.00000	Averaged	
37 2,4,6-Trichlorophenol	0.31438	0.31508	0.31508	0.001	0.22435	20.00000	Averaged	ccc
38 2,4,5-Trichlorophenol	0.34584	0.33170	0.33170	0.000	-4.08986	60.00000	Averaged	
40 2-Chloronaphthalene	0.95018	0.92711	0.92711	0.000	-2.42848	60.00000	Averaged	
43 Dimethylphthalate	1.17157	1.10020	1.10020	0.000	-6.09209	60.00000	Averaged	
44 2,6-Dinitrotoluene	0.21604	0.20766	0.20766	0.000	-3.88052	60.00000	Averaged	
45 Acenaphthylene	1.42766	1.44064	1.44064	0.000	0.90879	60.00000	Averaged	
47 Acenaphthene	0.95216	0.88564	0.88564	0.001	-6.98601	20.00000	Averaged	ccc
48 2,4-Dinitrophenol	39.18642	40.00000	0.07071	0.050	-2.03396	60.00000	Linear	spcc
49 Dibenzofuran	1.45335	1.39324	1.39324	0.000	-4.13590	60.00000	Averaged	
50 2,4-Dinitrotoluene	36.27214	40.00000	0.26114	0.000	-9.31964	60.00000	Linear	
51 Diethylphthalate	1.24573	1.17156	1.17156	0.000	-5.95433	60.00000	Averaged	
52 4-Nitrophenol	36.34870	40.00000	0.13100	0.050	-9.12826	60.00000	Linear	spcc
53 Fluorene	1.05534	1.02368	1.02368	0.000	-2.99931	60.00000	Averaged	
54 4-Chlorophenylphenylether	0.69878	0.67763	0.67763	0.000	-3.02746	60.00000	Averaged	
55 2-Methyl-4,6-dinitrophenol	37.27041	40.00000	0.07441	0.000	-6.82397	60.00000	Linear	
133 Diphenylamine	0.50606	0.49306	0.49306	0.001	-2.56954	20.00000	Averaged	ccc
58 1,2-Diphenylhydrazine	0.44153	0.41780	0.41780	0.000	-5.37522	60.00000	Averaged	
59 Tributylphosphate	1.11103	1.16152	1.16152	0.000	4.54408	60.00000	Averaged	
61 4-Bromophenylphenylether	0.20812	0.21267	0.21267	0.000	2.18775	60.00000	Averaged	
63 Hexachlorobenzene	0.21572	0.21847	0.21847	0.000	1.27680	60.00000	Averaged	
65 Pentachlorophenol	40.07087	40.00000	0.09288	0.001	0.17717	20.00000	Linear	ccc
206 n-Octadecane	0.29178	0.29304	0.29304	0.000	0.43348	60.00000	Averaged	
68 Phenanthrene	0.79338	0.75559	0.75559	0.000	-4.76323	60.00000	Averaged	
69 Anthracene	0.76036	0.74889	0.74889	0.000	-1.50844	60.00000	Averaged	
72 Di-n-butylphthalate	1.03174	0.99315	0.99315	0.000	-3.74030	60.00000	Averaged	
76 Fluoranthene	0.94608	0.90560	0.90560	0.001	-4.27803	20.00000	Averaged	ccc
79 Pyrene	1.25828	1.27070	1.27070	0.000	0.98734	60.00000	Averaged	
85 Butylbenzylphthalate	0.52787	0.55720	0.55720	0.000	5.55565	60.00000	Averaged	
89 Benzo(a)anthracene	0.92062	0.88181	0.88181	0.000	-4.21512	60.00000	Averaged	
92 Chrysene	0.88878	0.85293	0.85293	0.000	-4.03323	60.00000	Averaged	
93 bis(2-Ethylhexyl)phthalate	42.03759	40.00000	0.66724	0.000	5.09399	60.00000	Linear	
94 Di-n-octylphthalate	46.08533	40.00000	1.21911	0.001	15.21333	20.00000	Linear	ccc

General Engineering Laboratories, LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD8.i Injection Date: 19-MAY-2005 15:01
Lab File ID: s8e1902.d Init. Cal. Date(s): 11-MAY-2005 16-MAY-2005
Analysis Type: Init. Cal. Times: 15:15 20:53
Lab Sample ID: UBN050421-04.3 Quant Type: ISTD
Method: /chem/MSD8.i/s051905.b/MSD8-8270-051605a.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
95 Benzo(b)fluoranthene	39.15583	40.00000	0.98597	0.000	-2.11042	60.00000	Linear	
96 Benzo(k)fluoranthene	0.95941	0.99391	0.99391	0.000	3.59633	60.00000	Averaged	
97 Benzo(a)pyrene	37.52617	40.00000	0.79026	0.001	-6.18456	20.00000	Linear	ccc
99 Indeno(1,2,3-cd)pyrene	32.31275	40.00000	0.68828	0.000	-19.21813	60.00000	Linear	
100 Dibenzo(a,h)anthracene	31.79781	40.00000	0.55506	0.000	-20.50548	60.00000	Linear	
101 Benzo(ghi)perylene	31.79183	40.00000	0.57550	0.000	-20.52043	60.00000	Linear	

General Engineering Laboratories, LLC

Data file : /chem/MSD8.i/s051905.b/s8e1902.d
Lab Smp Id: UBN050421-04.3 Client Smp ID: BNA CVS
Inj Date : 19-MAY-2005 15:01
Operator : cak Inst ID: MSD8.i
Smp Info : |UBN050421-04.3|40ppm|1|SVMF|1|BNA CVS|
Misc Info : |MSD8270|WBN050506-02
Comment : Column: J & W DB-5MS:25m x 0.20mm - 0.33um Film m
Method : /chem/MSD8.i/s051905.b/MSD8-8270-051605a.m
Meth Date : 23-May-2005 08:53 cak Quant Type: ISTD
Cal Date : 11-MAY-2005 18:18 Cal File: s8e1111.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: BNAICAL-NAB.sub
Target Version: 3.50
Processing Host: kilroy

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	3.792	3.792	(1.000)	142760	40.0000	
* 29 Naphthalene-d8	136	4.655	4.655	(1.000)	605639	40.0000	(H)
* 46 Acenaphthene-d10	164	5.901	5.901	(1.000)	353337	40.0000	(H)
* 67 Phenanthrene-d10	188	6.894	6.894	(1.000)	709636	40.0000	(H)
* 91 Chrysene-d12	240	8.463	8.463	(1.000)	516526	40.0000	(H)
* 98 Perylene-d12	264	9.567	9.567	(1.000)	404394	40.0000	(H)
$ 3 2-Fluorophenol	112	2.975	2.975	(0.785)	109525	40.0000	37.0(H)
$ 5 Phenol-d5	99	3.504	3.504	(0.924)	125237	40.0000	36.8(H)
$ 20 Nitrobenzene-d5	82	4.150	4.150	(0.876)	135411	40.0000	38.6
$ 39 2-Fluorobiphenyl	172	5.396	5.396	(0.903)	418057	40.0000	38.7(H)
$ 60 2,4,6-Tribromophenol	329	6.442	6.442	(1.078)	55191	40.0000	43.2(H)
$ 81 p-Terphenyl-d14	244	7.805	7.805	(0.915)	516204	40.0000	41.2
1 N-Methyl-N-nitrosomethylamine	74	2.264	2.264	(0.597)	51902	40.0000	34.6(H)
2 Pyridine	79	2.299	2.299	(0.606)	101472	40.0000	34.5
6 Phenol	94	3.510	3.510	(0.926)	132373	40.0000	36.5(H)
7 bis(2-Chloroethyl) ether	93	3.592	3.592	(0.947)	128322	40.0000	41.9(H)
8 2-Chlorophenol	128	3.651	3.651	(0.963)	136812	40.0000	38.1(H)
185 n-Decane	43	3.639	3.639	(0.960)	126133	40.0000	38.2
9 1,3-Dichlorobenzene	146	3.756	3.756	(0.991)	172535	40.0000	39.0(H)
11 1,4-Dichlorobenzene	146	3.803	3.803	(1.003)	177698	40.0000	38.7
12 Benzyl alcohol	108	3.856	3.856	(1.017)	76590	40.0000	38.0(H)
13 1,2-Dichlorobenzene	146	3.903	3.903	(1.029)	169589	40.0000	40.3
14 bis(2-Chloroisopropyl)ether	45	3.933	3.933	(1.037)	174668	40.0000	36.9(H)
15 o-Cresol	107	3.909	3.909	(1.031)	108353	40.0000	38.4(H)
16 Acetophenone	105	4.038	4.038	(1.065)	184365	40.0000	39.1
17 N-Nitrosodipropylamine	70	4.027	4.027	(1.062)	87334	40.0000	39.4(H)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
18 m,p-Cresols	107	4.003	4.003	(1.056)	155098	40.0000	38.2(H)
19 Hexachloroethane	117	4.132	4.132	(1.090)	63745	40.0000	39.5
21 Nitrobenzene	77	4.162	4.162	(0.878)	124965	40.0000	37.1
22 Isophorone	82	4.315	4.315	(0.911)	240031	40.0000	36.1(H)
23 2-Nitrophenol	139	4.379	4.379	(0.924)	74808	40.0000	40.8
24 2,4-Dimethylphenol	122	4.373	4.373	(0.923)	135843	40.0000	38.3(H)
25 bis(2-Chloroethoxy)methane	93	4.438	4.438	(0.937)	141109	40.0000	38.6
26 2,4-Dichlorophenol	162	4.538	4.538	(0.958)	129768	40.0000	38.5(H)
27 Benzoic acid	105	4.414	4.414	(0.932)	49334	40.0000	43.8
28 1,2,4-Trichlorobenzene	180	4.602	4.602	(0.971)	169481	40.0000	39.4(H)
30 Naphthalene	128	4.667	4.667	(0.985)	441635	40.0000	37.6(H)
204 alpha-Terpineol	59	4.644	4.644	(0.980)	113933	40.0000	39.6(H)
189 Caprolactam	113	4.932	4.932	(1.041)	44033	40.0000	42.6(H)
32 Hexachlorobutadiene	225	4.732	4.732	(0.999)	123585	40.0000	39.2(H)
33 4-Chloro-3-methylphenol	107	5.002	5.002	(1.056)	122189	40.0000	38.4
34 2-Methylnaphthalene	142	5.149	5.149	(1.087)	317613	40.0000	38.2(H)
35 1-Methylnaphthalene	142	5.225	5.225	(1.103)	300786	40.0000	37.8(H)
36 Hexachlorocyclopentadiene	237	5.255	5.255	(0.879)	89092	40.0000	34.9
208 1,1'-Biphenyl	154	5.472	5.472	(0.915)	450479	40.0000	40.1
37 2,4,6-Trichlorophenol	196	5.337	5.337	(0.893)	111330	40.0000	40.1(H)
38 2,4,5-Trichlorophenol	196	5.366	5.366	(0.898)	117202	40.0000	38.4(H)
40 2-Chloronaphthalene	162	5.501	5.501	(0.920)	327582	40.0000	39.0(H)
43 Dimethylphthalate	163	5.666	5.666	(0.948)	388741	40.0000	37.6
44 2,6-Dinitrotoluene	165	5.725	5.725	(0.958)	73373	40.0000	38.4
45 Acenaphthylene	152	5.801	5.801	(0.970)	509031	40.0000	40.4(H)
47 Acenaphthene	154	5.924	5.924	(0.991)	312929	40.0000	37.2(H)
48 2,4-Dinitrophenol	184	5.924	5.924	(0.991)	24983	40.0000	39.2(H)
49 Dibenzofuran	168	6.042	6.042	(1.011)	492282	40.0000	38.3(H)
50 2,4-Dinitrotoluene	165	6.013	6.013	(1.006)	92272	40.0000	36.3(H)
51 Diethylphthalate	149	6.160	6.160	(1.030)	413955	40.0000	37.6(H)
52 4-Nitrophenol	139	5.936	5.936	(0.993)	46286	40.0000	36.3
53 Fluorene	166	6.277	6.277	(1.050)	361705	40.0000	38.8(H)
54 4-Chlorophenylphenylether	204	6.259	6.259	(1.047)	239431	40.0000	38.8(H)
55 2-Methyl-4,6-dinitrophenol	198	6.295	6.295	(0.907)	52807	40.0000	37.3(H)
133 Diphenylamine	169	6.336	6.336	(0.913)	349894	40.0000	39.0(H)
58 1,2-Diphenylhydrazine	77	6.371	6.371	(0.918)	296484	40.0000	37.8
59 Tributylphosphate	99	6.283	6.283	(1.051)	410408	40.0000	41.8(H)
61 4-Bromophenylphenylether	248	6.588	6.588	(0.949)	150919	40.0000	40.9
63 Hexachlorobenzene	284	6.641	6.641	(0.957)	155036	40.0000	40.5
65 Pentachlorophenol	266	6.765	6.765	(0.975)	65909	40.0000	40.1
206 n-Octadecane	57	6.753	6.753	(0.973)	207953	40.0000	40.2(H)
68 Phenanthrene	178	6.912	6.912	(0.996)	536192	40.0000	38.1(H)
69 Anthracene	178	6.941	6.941	(1.000)	531439	40.0000	39.4
72 Di-n-butylphthalate	149	7.188	7.188	(1.036)	704777	40.0000	38.5
76 Fluoranthene	202	7.617	7.617	(1.097)	642649	40.0000	38.3(H)
79 Pyrene	202	7.752	7.752	(0.909)	656352	40.0000	40.4(H)
85 Butylbenzylphthalate	149	8.063	8.063	(0.946)	287806	40.0000	42.2

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
89 Benzo(a)anthracene	228	8.451	8.451	(0.991)	455480	40.0000	38.3(H)
92 Chrysene	228	8.474	8.474	(0.994)	440560	40.0000	38.4(H)
93 bis(2-Ethylhexyl)phthalate	149	8.375	8.375	(0.982)	344647	40.0000	42.0(H)
94 Di-n-octylphthalate	149	8.768	8.768	(0.909)	493001	40.0000	46.1(H)
95 Benzo(b)fluoranthene	252	9.209	9.209	(0.955)	398722	40.0000	39.2(H)
96 Benzo(k)fluoranthene	252	9.232	9.232	(0.957)	401931	40.0000	41.4(H)
97 Benzo(a)pyrene	252	9.514	9.514	(0.987)	319577	40.0000	37.5(H)
99 Indeno(1,2,3-cd)pyrene	276	10.842	10.842	(1.124)	278336	40.0000	32.3(H)
100 Dibenzo(a,h)anthracene	278	10.842	10.842	(1.124)	224462	40.0000	31.8(H)
101 Benzo(ghi)perylene	276	11.242	11.242	(1.166)	232730	40.0000	31.8(H)

QC Flag Legend

H - Operator selected an alternate compound hit.

Data File: /chem/MSD8.i/s051905.b/s8e1902.d
Date : 19-MAY-2005 15:01
Client ID: BNA CVS
Sample Info: IUBN050421-04,3|40ppm|1|SVMF|1|BNA CVS|
Column phase: J&W DB-5MS

Instrument: MSD8.i
Operator: cak
Column diameter: 0.20

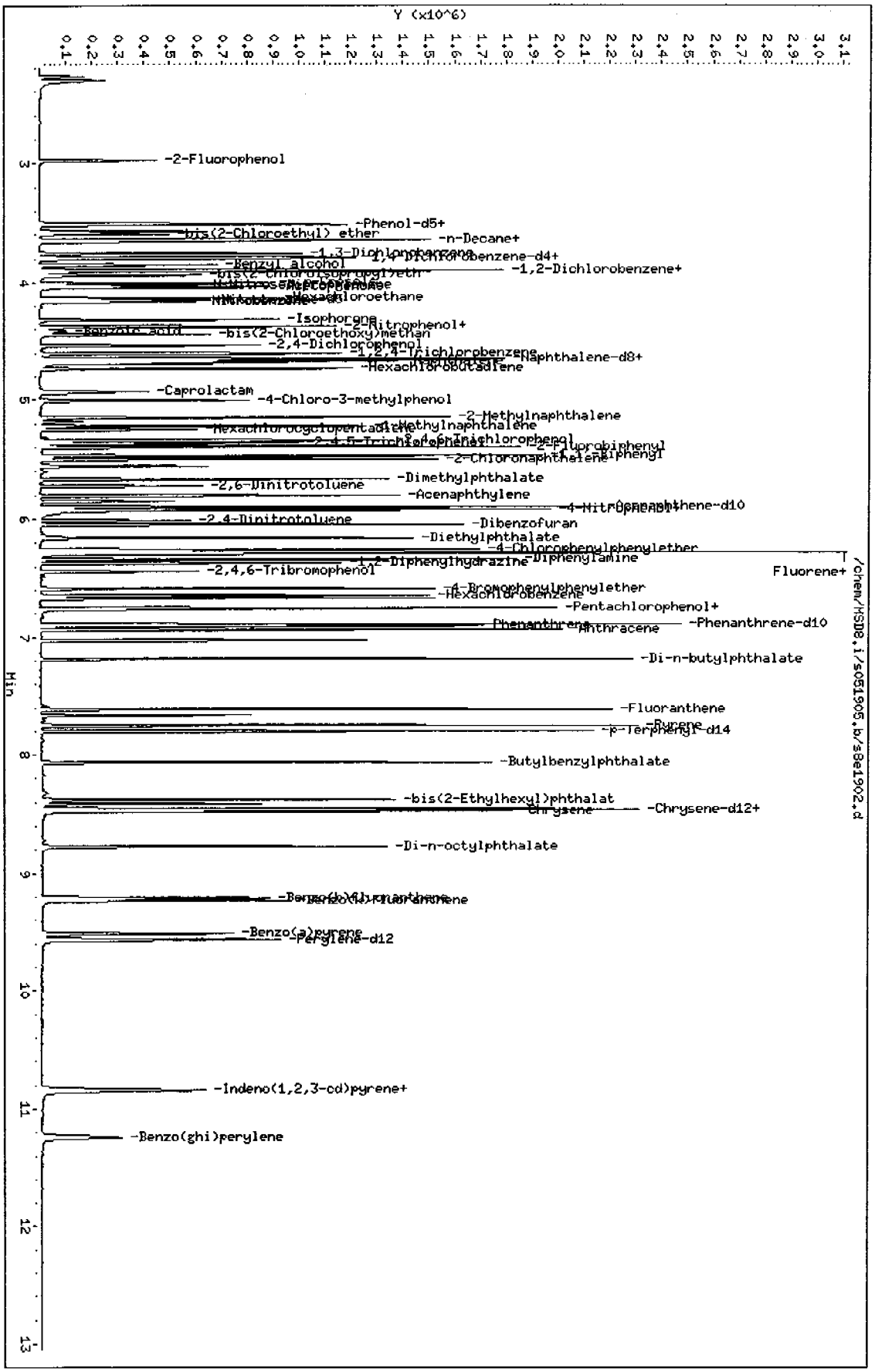

General Engineering Laboratories, LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD8.i Injection Date: 19-MAY-2005 15:22
Lab File ID: s8e1903.d Init. Cal. Date(s): 11-MAY-2005 16-MAY-2005
Analysis Type: Init. Cal. Times: 15:15 20:53
Lab Sample ID: UBN050506-06.3 Quant Type: ISTD
Method: /chem/MSD8.i/s051905.b/MSD8-8270-051605a.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
4 Aniline	1.36648	1.30779	1.30779	0.000	-4.29526	60.00000	Averaged	
209 Benzaldehyde	0.79435	0.64827	0.64827	0.000	-18.39041	60.00000	Averaged	
31 4-Chloroaniline	0.35215	0.31511	0.31511	0.000	-10.51909	60.00000	Averaged	
205 2,3-Dichloroaniline	0.47397	0.47203	0.47203	0.000	-0.40773	60.00000	Averaged	
42 o-Nitroaniline	0.19455	0.19572	0.19572	0.000	0.60480	60.00000	Averaged	
41 m-Nitroaniline	0.21164	0.21005	0.21005	0.000	-0.75061	60.00000	Averaged	
56 p-Nitroaniline	0.18825	0.20069	0.20069	0.000	6.60654	60.00000	Averaged	
207 Atrazine	0.04669	0.04627	0.04627	0.000	-0.89570	60.00000	Averaged	
77 Benzidine	30.85768	100	0.15354	0.000	-69.14232	60.00000	Linear	<-
90 3,3'-Dichlorobenzidine	0.23610	0.09185	0.09185	0.000	-61.09444	60.00000	Averaged	<-
173 Carbazole	0.68931	0.75609	0.75609	0.000	9.68806	60.00000	Averaged	

General Engineering Laboratories, LLC

Data file : /chem/MSD8.i/s051905.b/s8e1903.d
Lab Smp Id: UBN050506-06.3 Client Smp ID: ANBZ CVS
Inj Date : 19-MAY-2005 15:22
Operator : cak Inst ID: MSD8.i
Smp Info : |UBN050506-06.3|40ppm|1|SVMF|1|ANBZ CVS|
Misc Info : |MSD8270|WBN050506-02
Comment : Column: J & W DB-5MS:25m x 0.20mm - 0.33um Film m
Method : /chem/MSD8.i/s051905.b/MSD8-8270-051605a.m
Meth Date : 20-May-2005 11:13 cak Quant Type: ISTD
Cal Date : 11-MAY-2005 18:18 Cal File: s8e1111.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ANIL+BNZ+AT.sub
Target Version: 3.50
Processing Host: kilroy

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	3.791	3.791	(1.000)	130681	40.0000	
* 29 Naphthalene-d8	136	4.654	4.654	(1.000)	535250	40.0000	
* 46 Acenaphthene-d10	164	5.900	5.900	(1.000)	322468	40.0000	
* 67 Phenanthrene-d10	188	6.893	6.893	(1.000)	663425	40.0000	
* 91 Chrysene-d12	240	8.468	8.468	(1.000)	518480	40.0000	
* 98 Perylene-d12	264	9.578	9.578	(1.000)	432383	40.0000	
4 Aniline	93	3.573	3.573	(0.943)	170903	40.0000	38.3(H)
209 Benzaldehyde	77	3.515	3.515	(0.927)	84716	40.0000	32.6(H)
31 4-Chloroaniline	127	4.684	4.684	(1.006)	168660	40.0000	35.8(H)
205 2,3-Dichloroaniline	161	5.348	5.348	(0.906)	152216	40.0000	39.8(H)
42 o-Nitroaniline	65	5.559	5.559	(0.942)	63114	40.0000	40.2
41 m-Nitroaniline	138	5.853	5.853	(0.992)	67735	40.0000	39.7(H)
56 p-Nitroaniline	138	6.276	6.276	(1.064)	64716	40.0000	42.6(H)
207 Atrazine	173	6.664	6.664	(0.967)	30696	40.0000	39.6
77 Benzidine	184	7.669	7.669	(0.906)	199017	100.000	30.8
90 3,3'-Dichlorobenzidine	252	8.415	8.415	(0.994)	119062	100.000	38.9
173 Carbazole	167	7.028	7.028	(1.020)	501610	40.0000	43.9(H)

QC Flag Legend

H - Operator selected an alternate compound hit.

Data File: /chem/MSD8.i/s051905.b/s8e1903.d

Date : 19-MAY-2005 15:22

Client ID: ANBZ CVS

Sample Info: |UBN050506-06.3|40ppm|1|SVMF|1|ANBZ CVS|

Column phase: J&W DB-5MS

Instrument: MSD8.i

Operator: cak

Column diameter: 0.20

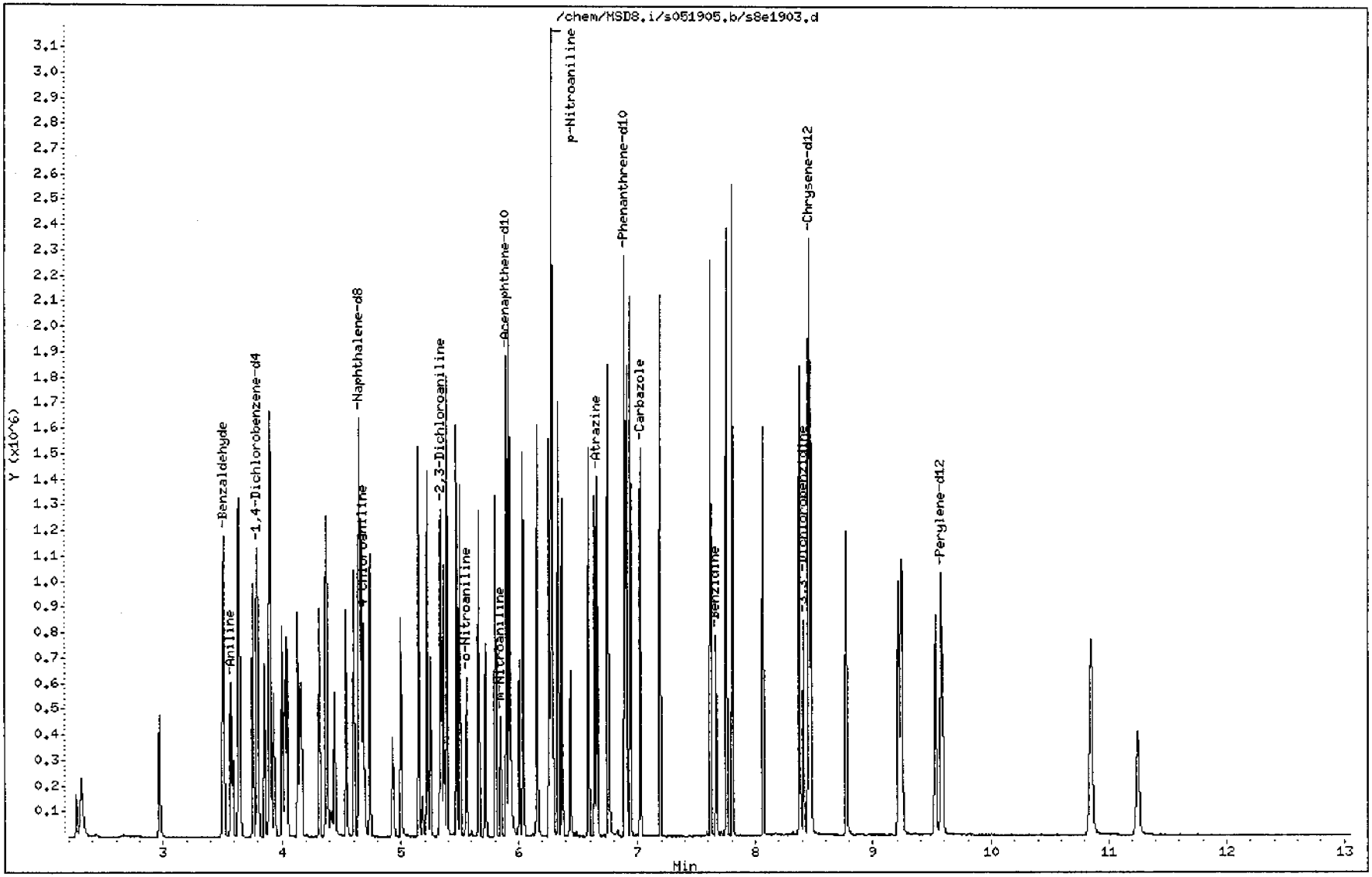

QUALITY CONTROL DATA

Data File: /chem/MSD8.i/s051905.b/s8e1901.d

Date : 19-MAY-2005 14:46

Client ID: DFTPP

Instrument: MSD8.i

Sample Info: |WBN050506-01|50ng|1|SVM|1|DFTPP|

Operator: cak

Column phase: J&W DB-5MS

Column diameter: 0.20

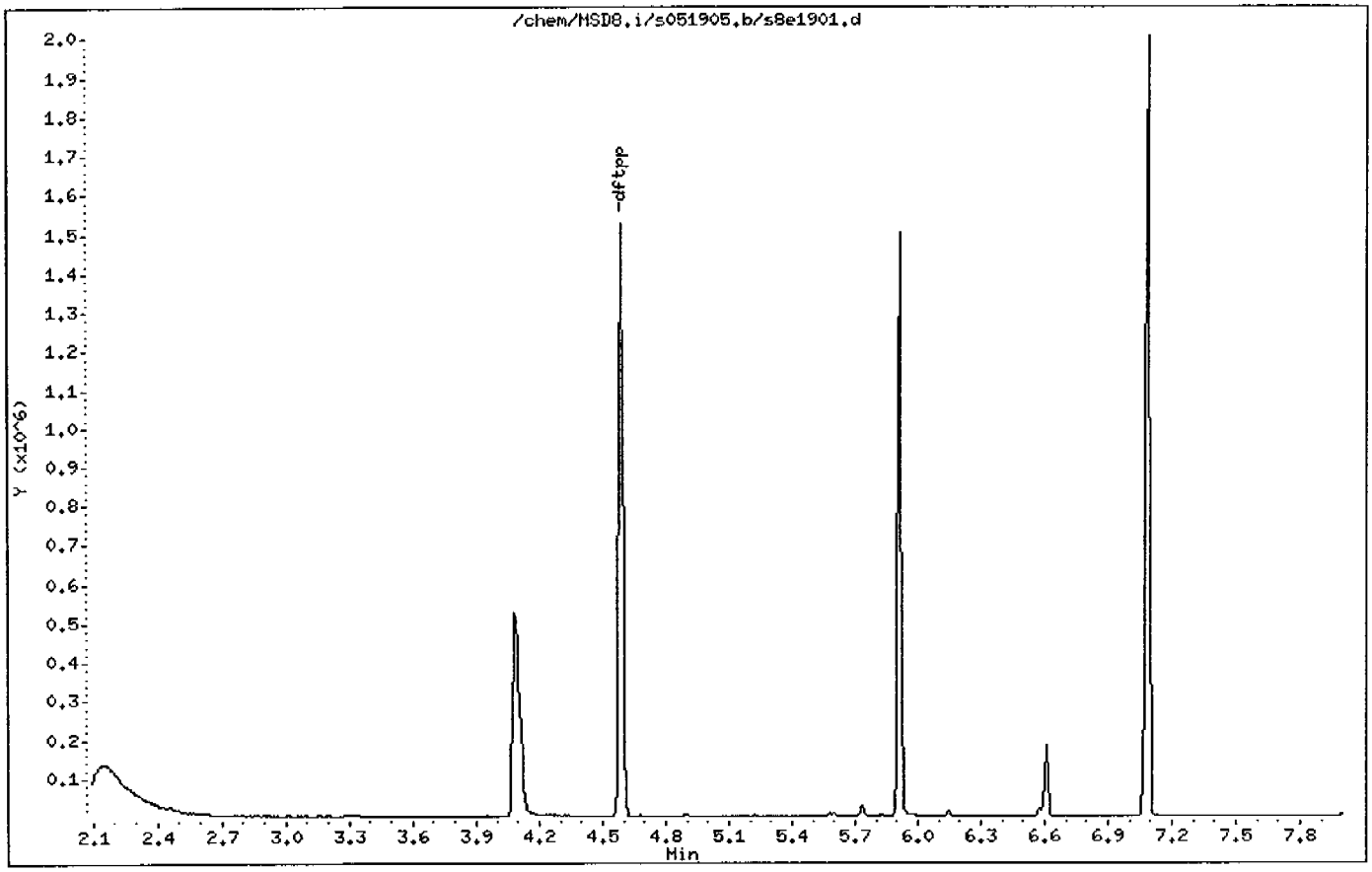

Data File: /chem/MSD8.i/s051905.b/s8e1901.d

Date : 19-MAY-2005 14:46

Client ID: DFTPP

Instrument: MSD8.i

Sample Info: |WBN050506-01|50ng|1|SVM|1|DFTPP|

Operator: cak

Column phase: J&W DB-5MS

Column diameter: 0.20

1 dftpp

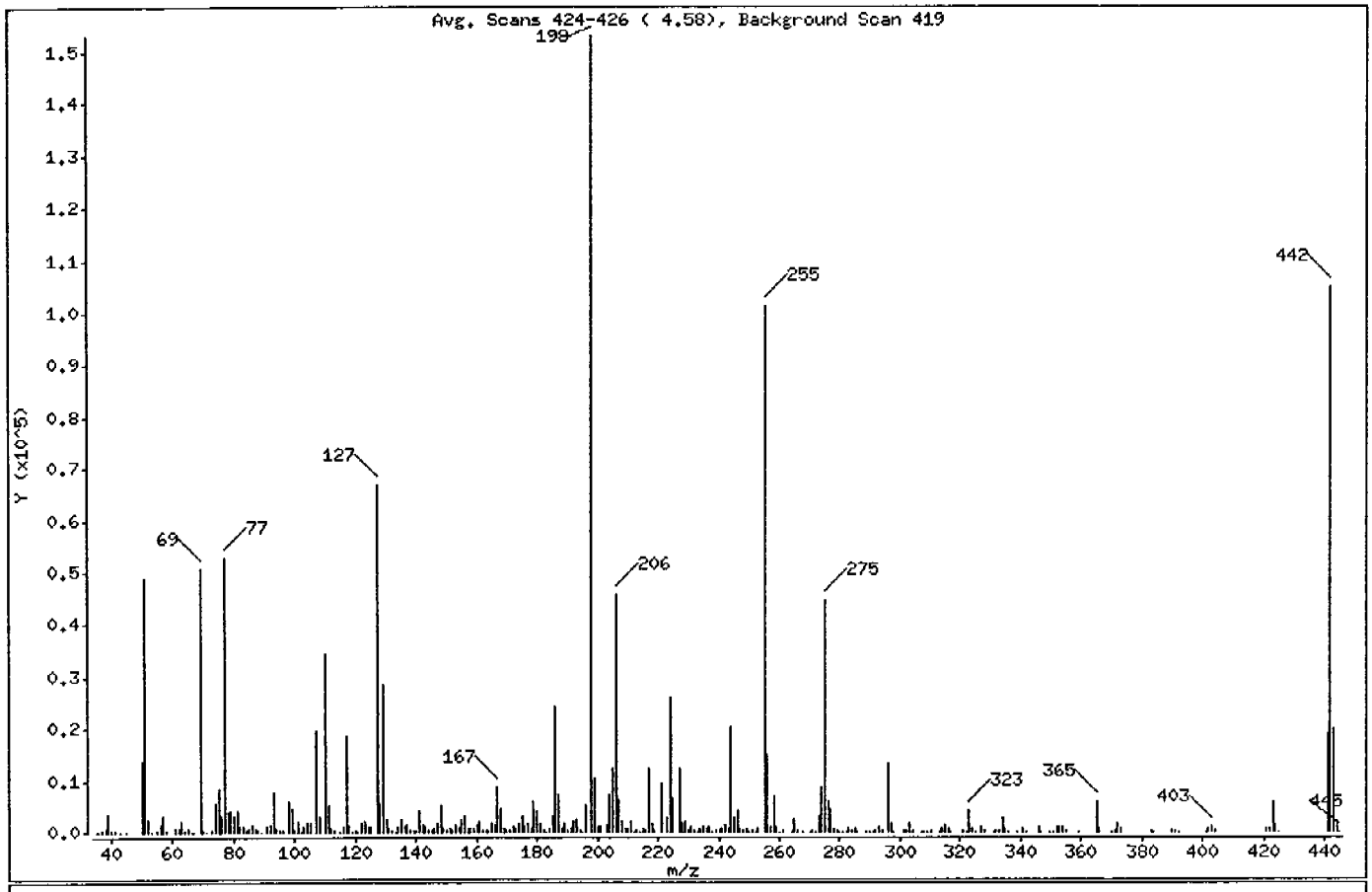

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	32.06
68	Less than 2.00% of mass 69	0.00 (0.00)
69	Mass 69 relative abundance	33.04
70	Less than 2.00% of mass 69	0.18 (0.55)
127	40.00 - 60.00% of mass 198	43.69
197	Less than 1.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.84
275	10.00 - 30.00% of mass 198	29.18
365	Greater than 1.00% of mass 198	3.94
441	Present, but less than mass 443	12.42
442	Greater than 40.00% of mass 198	68.43
443	17.00 - 23.00% of mass 442	13.09 (19.12)

Data File: /chem/MSD8.i/s051905.b/s8e1901.d

Date : 19-MAY-2005 14:46

Client ID: DFTPP

Instrument: MSD8.i

Sample Info: |WBN050506-01|50ng|1|SVM|1|DFTPP|

Operator: cak

Column phase: J&W DB-5MS

Column diameter: 0.20

Data File: s8e1901.d
Spectrum: Avg. Scans 424-426 (4.58), Background Scan 419
Location of Maximum: 198.00
Number of points: 297

m/z	Y	m/z	Y	m/z	Y	m/z	Y
35.00	46	127.00	66920	204.00	7245	289.00	137
36.00	48	128.00	5593	205.00	12196	290.00	68
37.00	222	129.00	28608	206.00	45896	291.00	90
38.00	745	130.00	2512	207.00	6321	292.00	220
39.00	3581	131.00	548	208.00	1996	293.00	966
40.00	202	132.00	306	209.00	672	294.00	210
41.00	191	133.00	159	210.00	587	296.00	13354
43.00	44	134.00	902	211.00	2184	297.00	1931
45.00	121	135.00	2572	212.00	95	298.00	63
50.00	13670	136.00	1132	213.00	224	301.00	230
51.00	49104	137.00	1456	214.00	76	302.00	275
52.00	2509	138.00	239	215.00	684	303.00	1676
53.00	165	139.00	255	216.00	502	304.00	402
55.00	427	140.00	266	217.00	12329	307.00	51
56.00	1529	141.00	4342	218.00	1775	308.00	148
57.00	3295	142.00	1288	219.00	233	309.00	53
58.00	201	143.00	1064	221.00	9492	310.00	249
61.00	671	144.00	229	223.00	2775	313.00	125
62.00	698	145.00	290	224.00	26192	314.00	722
63.00	2283	146.00	827	225.00	6555	315.00	1569
64.00	304	147.00	1927	227.00	12484	316.00	822
65.00	843	148.00	5368	228.00	1716	317.00	123
66.00	44	149.00	864	229.00	2279	321.00	404
67.00	83	150.00	330	230.00	405	322.00	158
69.00	50600	151.00	709	231.00	983	323.00	4093
70.00	276	152.00	363	232.00	193	324.00	755
71.00	88	153.00	1239	233.00	169	325.00	60
73.00	411	154.00	1020	234.00	827	327.00	957
74.00	5730	155.00	2310	235.00	940	328.00	419
75.00	8325	156.00	3224	236.00	634	331.00	45
76.00	3221	157.00	642	237.00	1024	332.00	338
77.00	52928	158.00	782	238.00	69	333.00	278
78.00	3805	159.00	700	239.00	526	334.00	2703
79.00	4354	160.00	1343	240.00	396	335.00	636
80.00	3039	161.00	2268	241.00	668	336.00	95

Data File: /chem/MSD8.i/s051905.b/s8e1901.d

Date : 19-MAY-2005 14:46

Client ID: DFTPP

Instrument: MSD8.i

Sample Info: |WBN050506-01|50ng|1|SVM|1|DFTPP|

Operator: cak

Column phase: J&W DB-5MS

Column diameter: 0.20

Data File: s8e1901.d

Spectrum: Avg. Scans 424-426 (4.58), Background Scan 419

Location of Maximum: 198.00

Number of points: 297

m/z	Y	m/z	Y	m/z	Y	m/z	Y
81.00	4125	162.00	523	242.00	1464	339.00	47
82.00	989	163.00	211	243.00	760	341.00	578
83.00	891	164.00	227	244.00	20560	342.00	115
84.00	230	165.00	1672	245.00	2978	346.00	976
85.00	782	166.00	1320	246.00	4323	347.00	161
86.00	1357	167.00	8665	247.00	843	350.00	42
87.00	671	168.00	4577	248.00	228	351.00	48
88.00	255	169.00	718	249.00	724	352.00	1117
89.00	46	170.00	317	250.00	48	353.00	895
91.00	1089	171.00	359	251.00	220	354.00	1152
92.00	1236	172.00	981	252.00	172	355.00	256
93.00	7590	173.00	878	253.00	553	359.00	49
94.00	615	174.00	1848	255.00	101328	365.00	6041
95.00	205	175.00	3133	256.00	15061	366.00	632
96.00	393	176.00	889	257.00	1176	370.00	134
98.00	5948	177.00	1736	258.00	7069	371.00	283
99.00	4492	178.00	533	259.00	1097	372.00	1885
100.00	342	179.00	6101	260.00	160	373.00	561
101.00	2266	180.00	4170	261.00	203	383.00	494
102.00	99	181.00	1863	264.00	53	384.00	139
103.00	994	182.00	254	265.00	2568	390.00	261
104.00	1634	183.00	78	266.00	329	391.00	184
105.00	1651	184.00	619	268.00	66	392.00	62
107.00	19864	185.00	3278	270.00	55	401.00	56
108.00	3096	186.00	24392	271.00	250	402.00	723
110.00	34480	187.00	7374	272.00	103	403.00	1012
111.00	5328	188.00	829	273.00	3287	404.00	481
112.00	786	189.00	1821	274.00	8648	421.00	828
113.00	267	190.00	347	275.00	44696	422.00	561
115.00	100	191.00	837	276.00	6152	423.00	5820
116.00	966	192.00	2222	277.00	4614	424.00	1453
117.00	18696	193.00	2475	278.00	803	425.00	144
118.00	1273	194.00	487	279.00	184	441.00	19024
119.00	128	195.00	103	280.00	50	442.00	104808
120.00	315	196.00	5278	281.00	50	443.00	20040

Data File: /chem/MSD8.i/s051905.b/s8e1901.d

Date : 19-MAY-2005 14:46

Client ID: DFTPP

Instrument: MSD8.i

Sample Info: |WBN050506-01|50ng|1|SVM|1|DFTPP|

Operator: cak

Column phase: J&W DB-5MS

Column diameter: 0.20

Data File: s8e1901.d
Spectrum: Avg. Scans 424-426 (4.58), Background Scan 419
Location of Maximum: 198.00
Number of points: 297

m/z	Y	m/z	Y	m/z	Y	m/z	Y
121.00	49	198.00	153152	282.00	98	444.00	1754
122.00	1598	199.00	10482	283.00	564	445.00	96
123.00	2168	200.00	985	284.00	374		
124.00	981	201.00	1001	285.00	769		
125.00	918	203.00	1485	286.00	115		

1B
SVOA ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK01

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Matrix: (soil/water) SOIL Lab Sample ID: 1200842643

Sample wt/vol: 30.0 (g/mL) G Lab File ID: S8E1904-2

Level: (low/med) LOW Date Received: 05/10/05

% Moisture: 0 decanted: (Y/N) N Date Extracted: 05/10/05

Concentrated Extract Volume: 1.00(mL) Date Analyzed: 05/19/05

Injection Volume: 0.5(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
62-75-9	N-Methyl-N-nitrosomethylamin	333	U
110-86-1	Pyridine	333	U
62-53-3	Aniline	333	U
108-95-2	Phenol	333	U
111-44-4	bis(2-Chloroethyl) ether	333	U
95-57-8	2-Chlorophenol	333	U
541-73-1	1,3-Dichlorobenzene	333	U
106-46-7	1,4-Dichlorobenzene	333	U
100-51-6	Benzyl alcohol	333	U
95-50-1	1,2-Dichlorobenzene	333	U
108-60-1	bis(2-Chloroisopropyl)ether	333	U
95-48-7	o-Cresol	333	U
621-64-7	N-Nitrosodipropylamine	333	U
65794-96-9	m,p-Cresols	333	U
67-72-1	Hexachloroethane	333	U
78-59-1	Isophorone	333	U
88-75-5	2-Nitrophenol	333	U
105-67-9	2,4-Dimethylphenol	333	U
111-91-1	bis(2-Chloroethoxy)methane	333	U
120-83-2	2,4-Dichlorophenol	333	U
65-85-0	Benzoic acid	667	U
120-82-1	1,2,4-Trichlorobenzene	333	U
91-20-3	Naphthalene	33.3	U
106-47-8	4-Chloroaniline	333	U
87-68-3	Hexachlorobutadiene	333	U
59-50-7	4-Chloro-3-methylphenol	333	U
91-57-6	2-Methylnaphthalene	33.3	U
77-47-4	Hexachlorocyclopentadiene	333	U
88-06-2	2,4,6-Trichlorophenol	333	U
95-95-4	2,4,5-Trichlorophenol	333	U
91-58-7	2-Chloronaphthalene	33.3	U
88-74-4	o-Nitroaniline	333	U
99-09-2	m-Nitroaniline	333	U

1C
SVOA ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK01

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Matrix: (soil/water) SOIL Lab Sample ID: 1200842643

Sample wt/vol: 30.0 (g/mL) G Lab File ID: S8E1904-2

Level: (low/med) LOW Date Received: 05/10/05

% Moisture: 0 decanted: (Y/N) N Date Extracted:05/10/05

Concentrated Extract Volume: 1.00(mL) Date Analyzed: 05/19/05

Injection Volume: 0.5(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
131-11-3	Dimethylphthalate	333	U
606-20-2	2,6-Dinitrotoluene	333	U
208-96-8	Acenaphthylene	33.3	U
83-32-9	Acenaphthene	33.3	U
51-28-5	2,4-Dinitrophenol	667	U
132-64-9	Dibenzofuran	333	U
121-14-2	2,4-Dinitrotoluene	333	U
84-66-2	Diethylphthalate	333	U
100-02-7	4-Nitrophenol	333	U
86-73-7	Fluorene	33.3	U
7005-72-3	4-Chlorophenylphenylether	333	U
534-52-1	2-Methyl-4,6-dinitrophenol	333	U
100-01-6	p-Nitroaniline	333	U
122-39-4	Diphenylamine	333	U
122-66-7	1,2-Diphenylhydrazine	333	U
101-55-3	4-Bromophenylphenylether	333	U
118-74-1	Hexachlorobenzene	333	U
87-86-5	Pentachlorophenol	333	U
85-01-8	Phenanthrene	33.3	U
120-12-7	Anthracene	33.3	U
84-74-2	Di-n-butylphthalate	333	U
206-44-0	Fluoranthene	33.3	U
129-00-0	Pyrene	33.3	U
85-68-7	Butylbenzylphthalate	333	U
56-55-3	Benzo(a)anthracene	33.3	U
91-94-1	3,3'-Dichlorobenzidine	333	U
218-01-9	Chrysene	33.3	U
117-81-7	bis(2-Ethylhexyl)phthalate	118	J
117-84-0	Di-n-octylphthalate	333	U
205-99-2	Benzo(b)fluoranthene	33.3	U
207-08-9	Benzo(k)fluoranthene	33.3	U
50-32-8	Benzo(a)pyrene	33.3	U
193-39-5	Indeno(1,2,3-cd)pyrene	33.3	U

FORM I SV-2 OLM03.0

1C
SVOA ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK01

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Matrix: (soil/water) SOIL Lab Sample ID: 1200842643

Sample wt/vol: 30.0 (g/mL) G Lab File ID: S8E1904-2

Level: (low/med) LOW Date Received: 05/10/05

% Moisture: 0 decanted: (Y/N) N Date Extracted: 05/10/05

Concentrated Extract Volume: 1.00(mL) Date Analyzed: 05/19/05

Injection Volume: 0.5(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
53-70-3	Dibenzo(a,h)anthracene	33.3	U
191-24-2	Benzo(ghi)perylene	33.3	U

FORM I SV-3 OLM03.0

1F
SVOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SBLK01

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Matrix: (soil/water) SOIL Lab Sample ID: 1200842643

Sample wt/vol: 30.0 (g/mL) G Lab File ID: S8E1904-2

Level: (low/med) LOW Date Received: 05/10/05

% Moisture: _____ decanted: (Y/N)___ Date Extracted:05/10/05

Concentrated Extract Volume: 1.00(mL) Date Analyzed: 05/19/05

Injection Volume: 0.5(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

Number TICs found: 4

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	1.62	292	J
2.	UNKNOWN	1.82	961	J
3.	UNKNOWN ALDOL CONDENSATE	2.81	436	JA
4.	UNKNOWN	3.26	167	J
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
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24.				
25.				
26.				
27.				
28.				
29.				
30.				

FORM I SV-TIC OLM03.0

General Engineering Laboratories, LLC

Data file : /chem/MSD8.i/s051905.b/s8e1904-2.d
Lab Smp Id: 1200842643 Client Smp ID: SBLK01
Inj Date : 19-MAY-2005 15:52
Operator : cak Inst ID: MSD8.i
Smp Info : |1200842643|423903|1|SVMF|1|MB|
Misc Info : |MSD8270_SF|WBN050506-02
Comment : Column: J & W DB-5MS:25m x 0.20mm - 0.33um Film m
Method : /chem/MSD8.i/s051905.b/MSD8-8270-051605a.m
Meth Date : 20-May-2005 11:13 cak Quant Type: ISTD
Cal Date : 11-MAY-2005 18:18 Cal File: s8e1111.d
Als bottle: 4 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 3202S.sub
Target Version: 3.50
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	0.00000	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.787	3.792	(1.000)	114869	40.0000	
* 29 Naphthalene-d8	136	4.650	4.655	(1.000)	402922	40.0000	
* 46 Acenaphthene-d10	164	5.902	5.901	(1.000)	262709	40.0000	
* 67 Phenanthrene-d10	188	6.895	6.894	(1.000)	544132	40.0000	
* 91 Chrysene-d12	240	8.464	8.463	(1.000)	441962	40.0000	
* 98 Perylene-d12	264	9.580	9.567	(1.000)	374744	40.0000	
$ 3 2-Fluorophenol	112	2.976	2.975	(0.786)	148781	62.5590	2080
$ 5 Phenol-d5	99	3.505	3.504	(0.926)	165919	60.5720	2020
$ 20 Nitrobenzene-d5	82	4.145	4.150	(0.891)	78068	33.4583	1120
$ 39 2-Fluorobiphenyl	172	5.397	5.396	(0.914)	240416	29.9182	997
$ 60 2,4,6-Tribromophenol	329	6.436	6.442	(1.091)	63843	67.2834	2240
$ 81 p-Terphenyl-d14	244	7.811	7.805	(0.923)	354493	33.0906	1100

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
93 bis(2-Ethylhexyl)phthalate	149	8.375	8.375	(0.990)	894	3.54333	118(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

General Engineering Laboratories, LLC

Data file : /chem/MSD8.i/s051905.b/s8e1904-2.d
Lab Smp Id: 1200842643 Client Smp ID: SBLK01
Inj Date : 19-MAY-2005 15:52
Operator : cak Inst ID: MSD8.i
Smp Info : |1200842643|423903|1|SVMF|1|MB|
Misc Info : |MSD8270_SF|WBN050506-02
Comment : Column: J & W DB-5MS:25m x 0.20mm - 0.33um Film m
Method : /chem/MSD8.i/s051905.b/MSD8-8270-051605a.m
Meth Date : 20-May-2005 11:13 cak Quant Type: ISTD
Cal Date : 11-MAY-2005 18:18 Cal File: s8e1111.d
Als bottle: 4 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 3202S.sub
Target Version: 3.50
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	0.00000	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	3.787	664305	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown				CAS #:			
1.619	145599	8.76702211	292	0		0	10
Unknown				CAS #:			
1.824	478787	28.8293646	961	0		0	10

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
====	====	==========	==========	====	=======	=========	======
Unknown Aldol Condensate					CAS #:		
2.805	217144	13.0749351	436	0		0	10
Unknown					CAS #:		
3.258	83382	5.02068861	167	0		0	10

Data File: /chem/MSD8.i/s051905.b/s8e1904-2.d
Date : 19-MAY-2005 15:52
Client ID: SBLK01
Sample Info: |1200842643|423903|1|SVMF|1|MB|
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD8.i
Operator: cak
Column diameter: 0.20

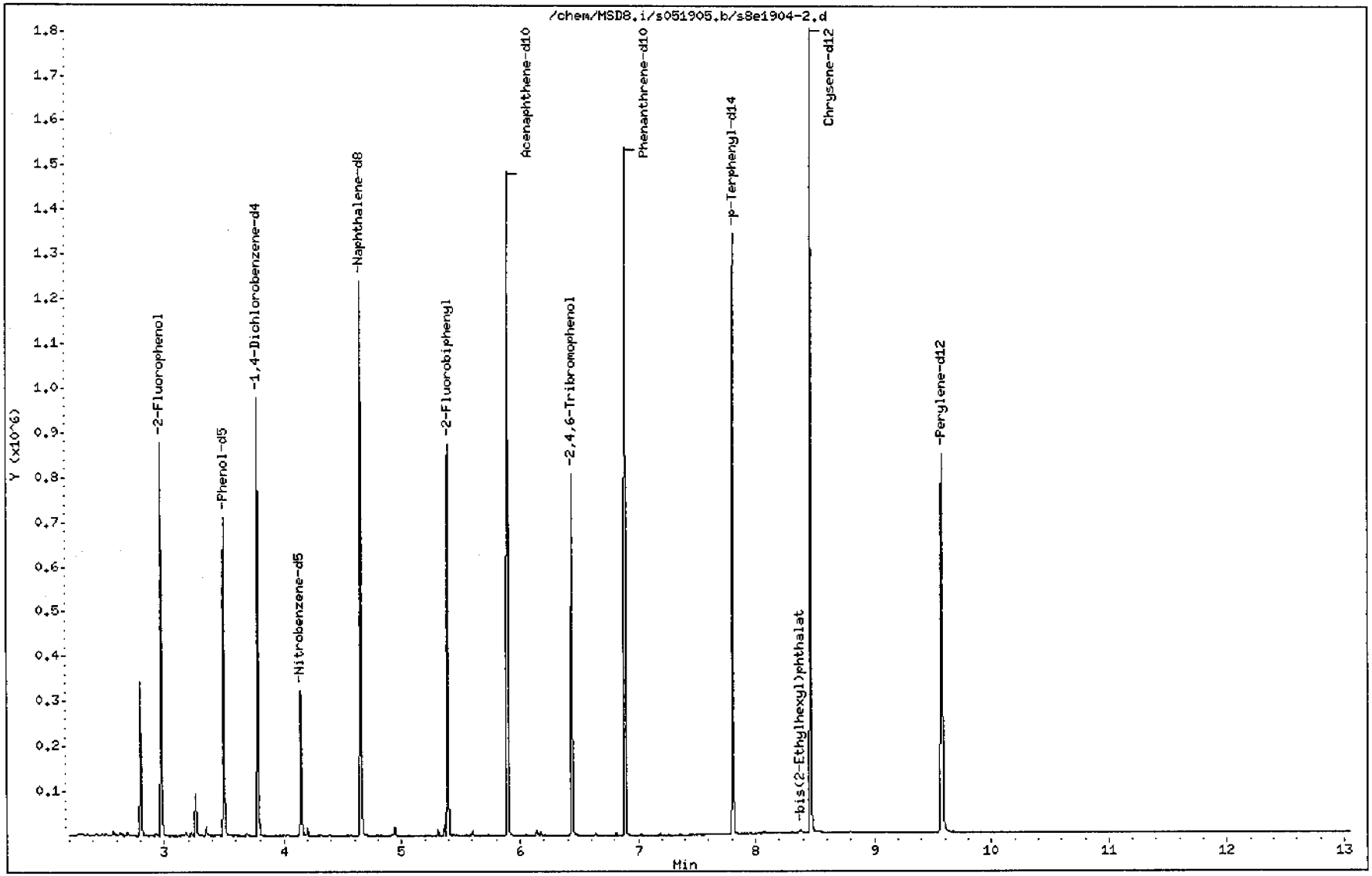

Data File: /chem/MSD8.i/s051905.b/s8e1904-2.d

Date : 19-MAY-2005 15:52

Client ID: SBLK01

Instrument: MSD8.i

Sample Info: |1200842643|4239031|1|SVMF|1|MB|

Volume Injected (uL): 0.5

Operator: cak

Column phase: J&W DB-5MS

Column diameter: 0.20

93 bis(2-Ethylhexyl)phthalate

Concentration: 118 ug/Kg

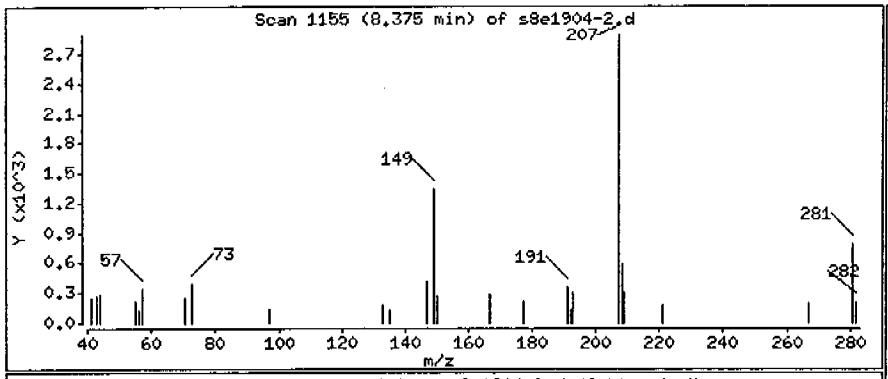

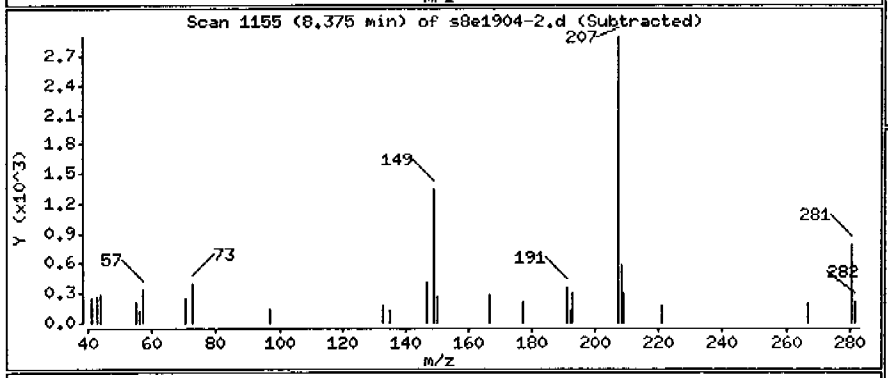

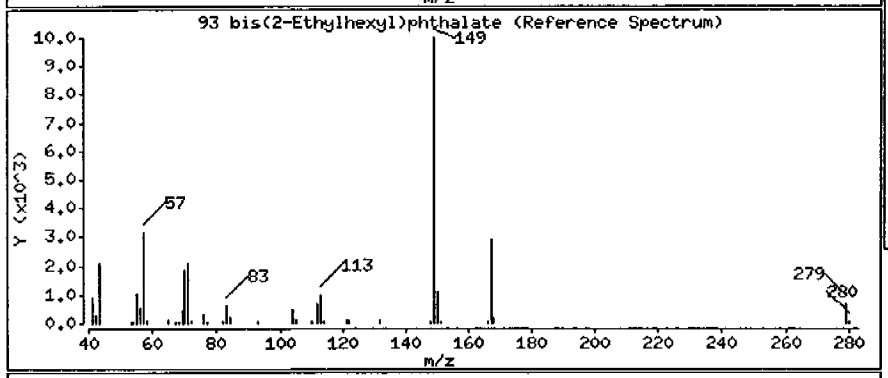

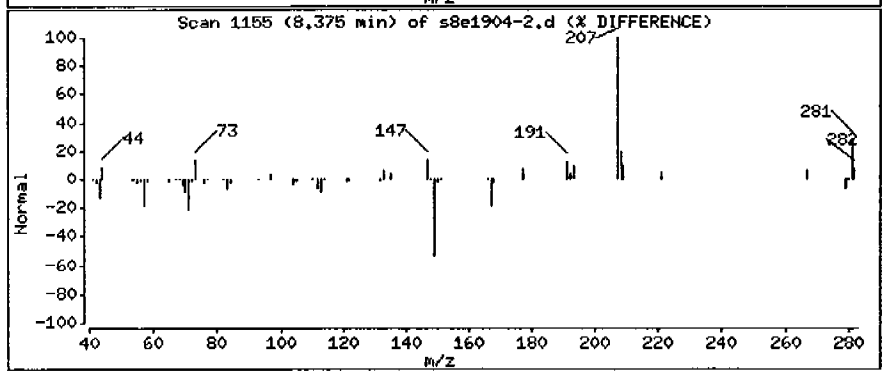

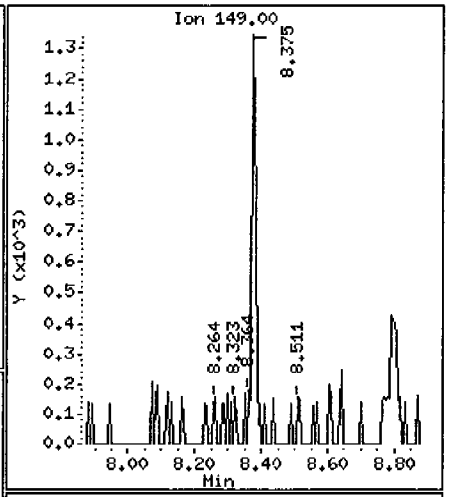

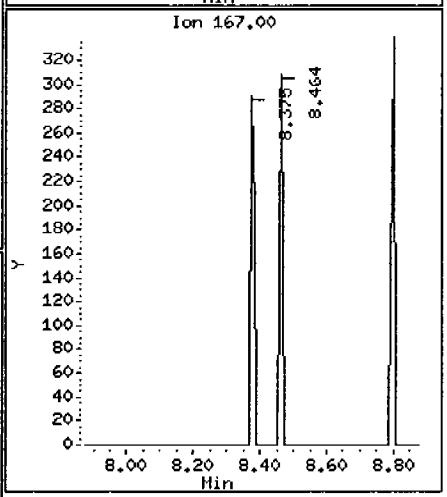

Data File: /chem/MSD8.i/s051905.b/s8e1904-2.d

Date : 19-MAY-2005 15:52

Client ID: SBLK01

Instrument: MSD8.i

Sample Info: |1200842643|423903|1|SVMF|1|MB|

Volume Injected (uL): 0.5

Operator: cak

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Propionic acid, 2-chloro-, pentyl ester	1000132-28-6	Nist98.l	6211	38	C8H15ClO2	178
2-Butanone, 3-methyl-	563-80-4	Nist98.l	109358	9	C5H10O	86
Cyclooct-4-en-1-ol, 8-iodo-, acetate	1000197-11-8	Nist98.l	7886	9	C10H15IO2	294

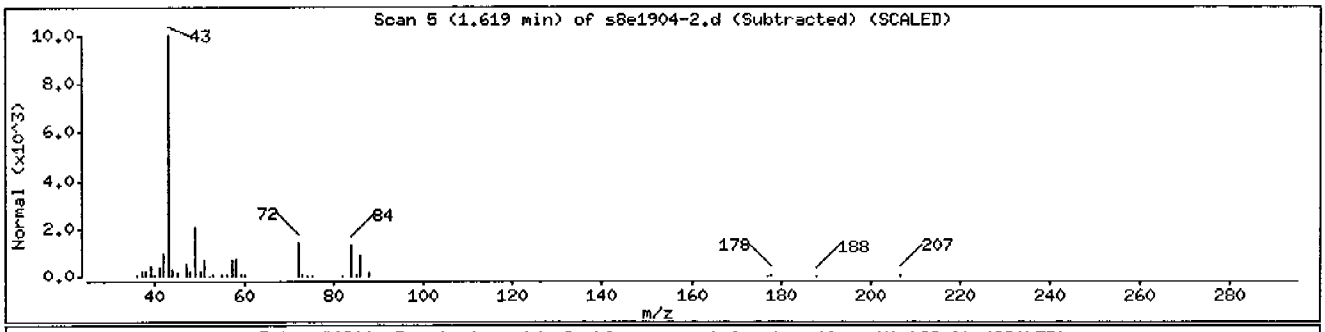

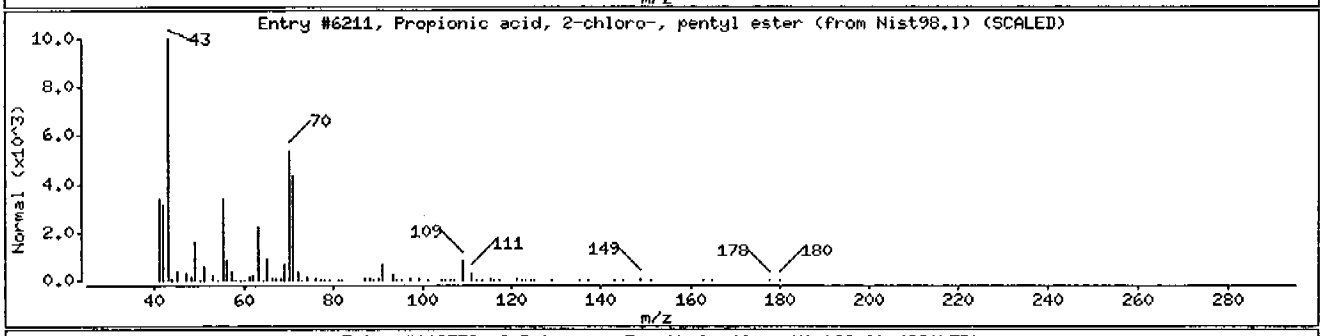

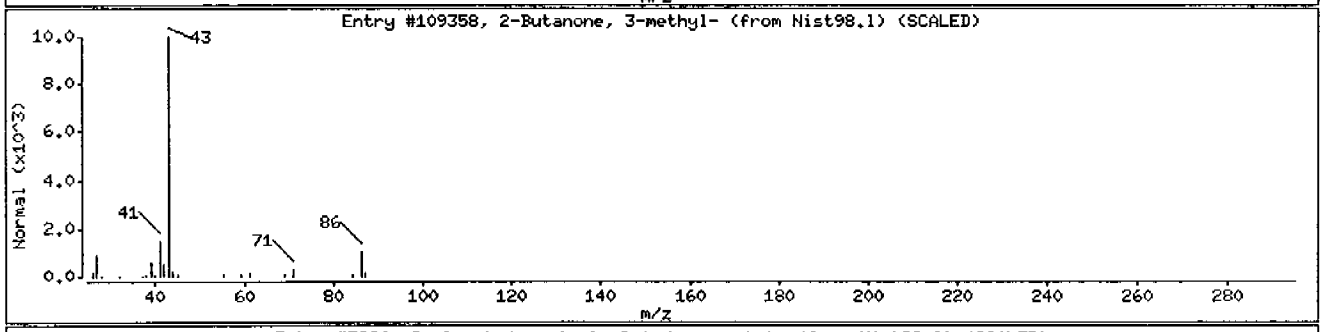

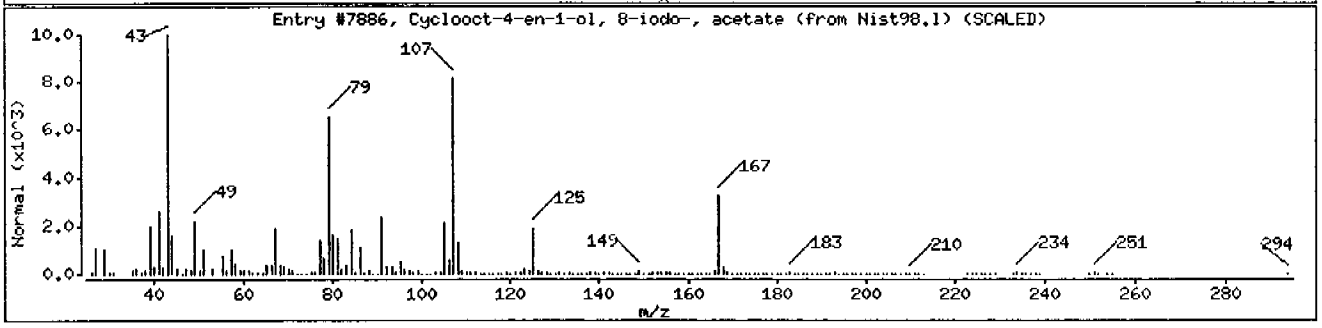

Data File: /chem/MSD8.i/s051905.b/s8e1904-2.d

Date : 19-MAY-2005 15:52

Client ID: SBLK01 Instrument: MSD8.i

Sample Info: |1200842643|4239031|1|SVHF|1|MB|

Volume Injected (uL): 0.5 Operator: cak

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Propane, 2,2-dimethoxy-	77-76-9	Nist98.1	25339	45	C5H12O2	104
Propane, 2,2-dimethoxy-	77-76-9	Nist98.1	114823	38	C5H12O2	104
Propane, 2,2-dimethoxy-	77-76-9	Nist98.1	114821	36	C5H12O2	104

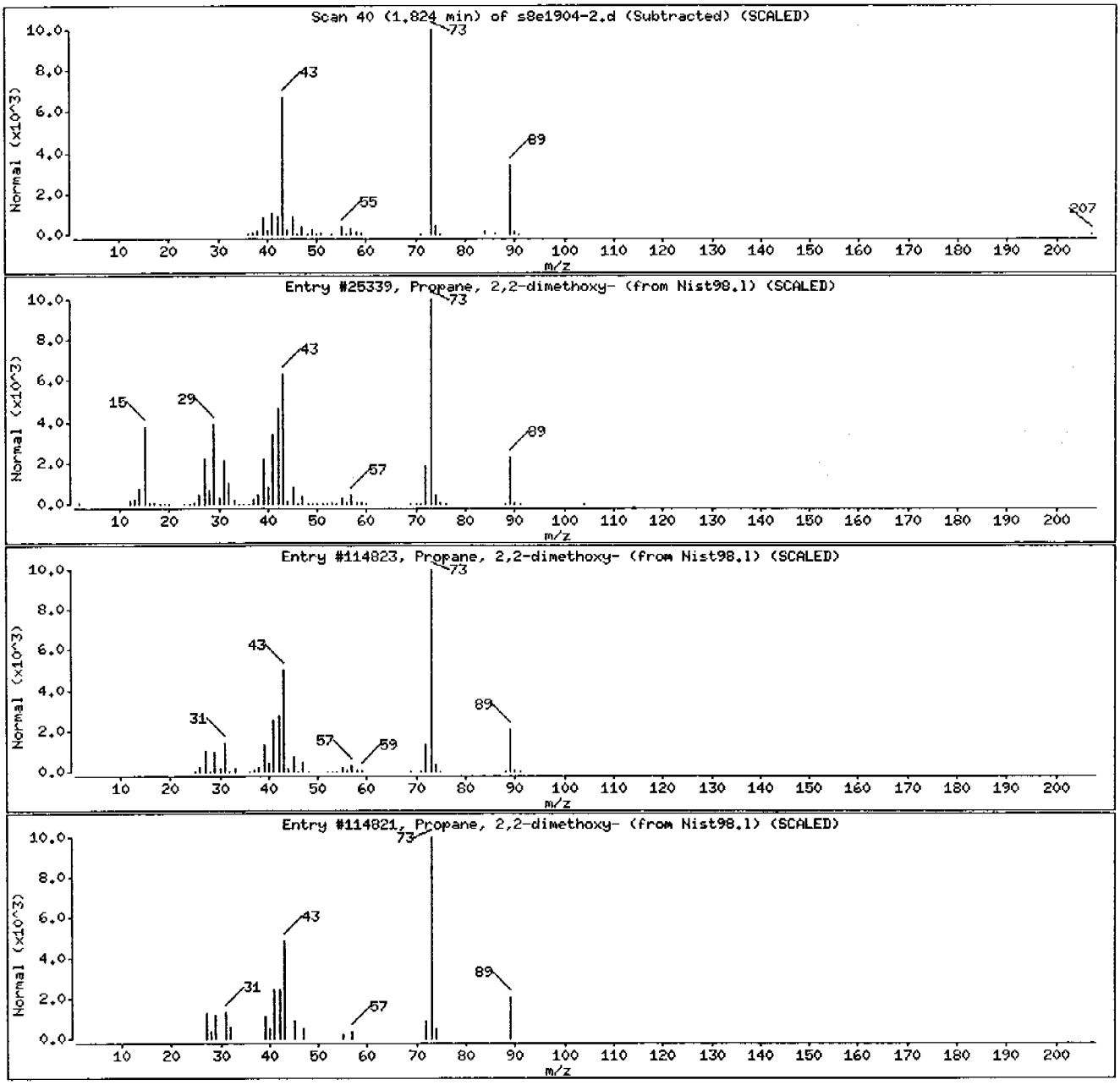

Data File: /chem/MSD8.i/s051905.b/s8e1904-2.d

Date : 19-MAY-2005 15:52

Client ID: SBLK01

Instrument: MSD8.i

Sample Info: 1120084264314239031 1|SVMF|1|MB1

Volume Injected (uL): 0.5

Operator: cak

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	Nist98.l	109756	56	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	Nist98.l	109755	38	C6H12O2	116
Acetic acid, 1,1-dimethylethyl ester	540-88-5	Nist98.l	109590	33	C6H12O2	116

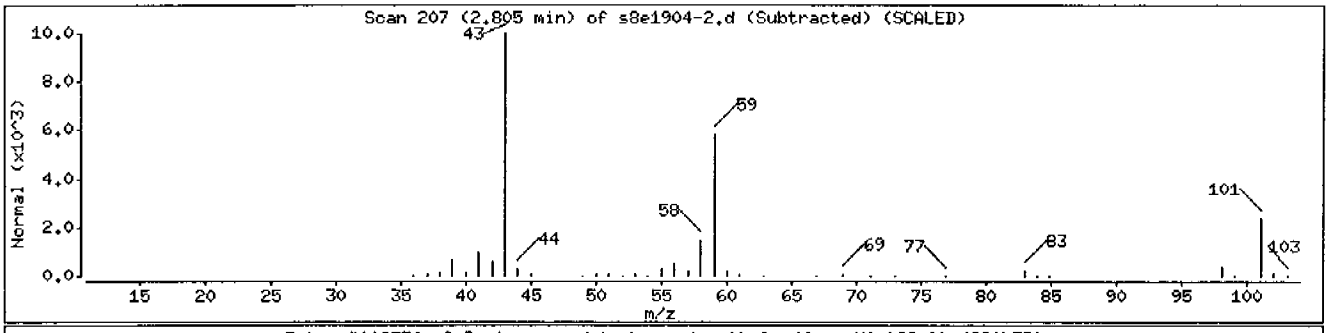

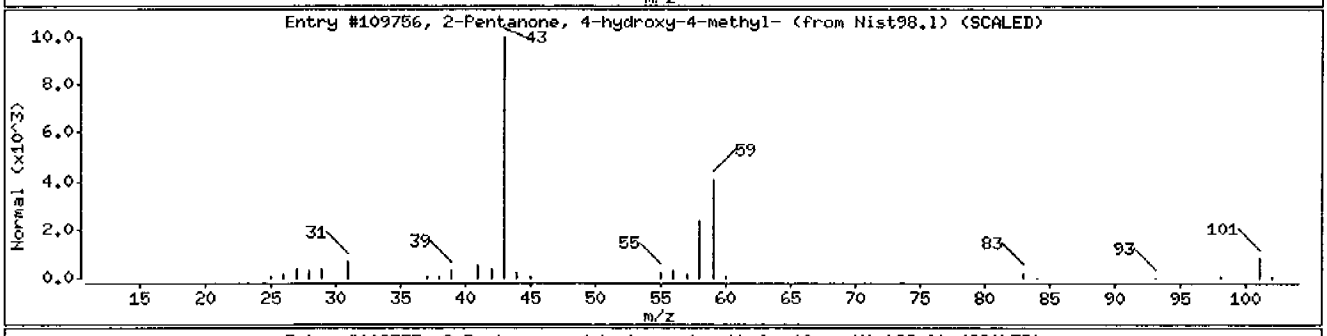

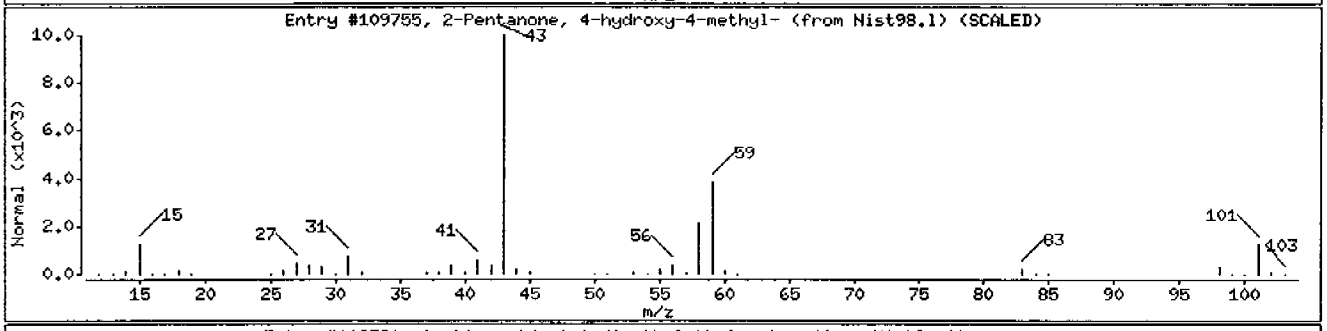

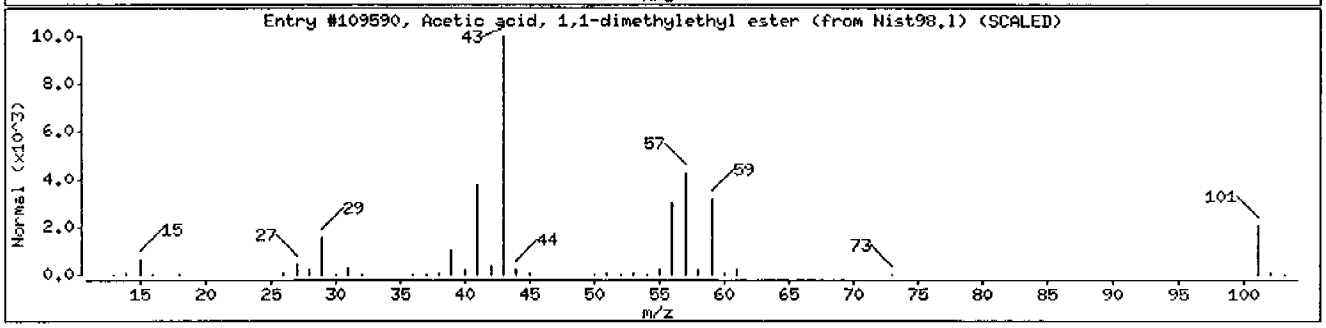

Data File: /chem/MSD8.i/s051905.b/s8e1904-2.d

Date : 19-MAY-2005 15:52

Client ID: SBLK01 Instrument: MSD8.i

Sample Info: |1200842643|423903|1|SVMF|1|MB|

Volume Injected (uL): 0.5 Operator: cak

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Glycine, N-[2-cyanoethyl]-	1000133-01-4	Nist98.1	3565	38	C5H8N2O2	128
Formic acid, propyl ester	110-74-7	Nist98.1	108994	23	C4H8O2	88
Butane, 2,3-dimethyl-	79-29-8	Nist98.1	3328	9	C6H14	86

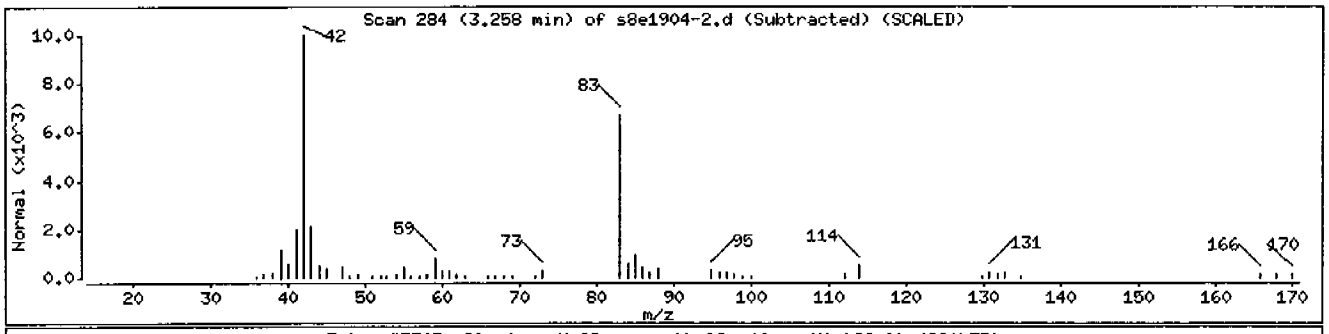

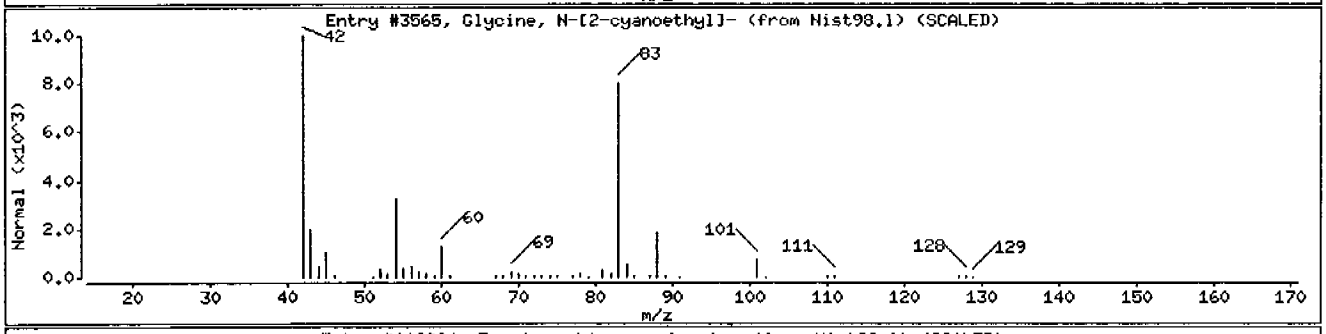

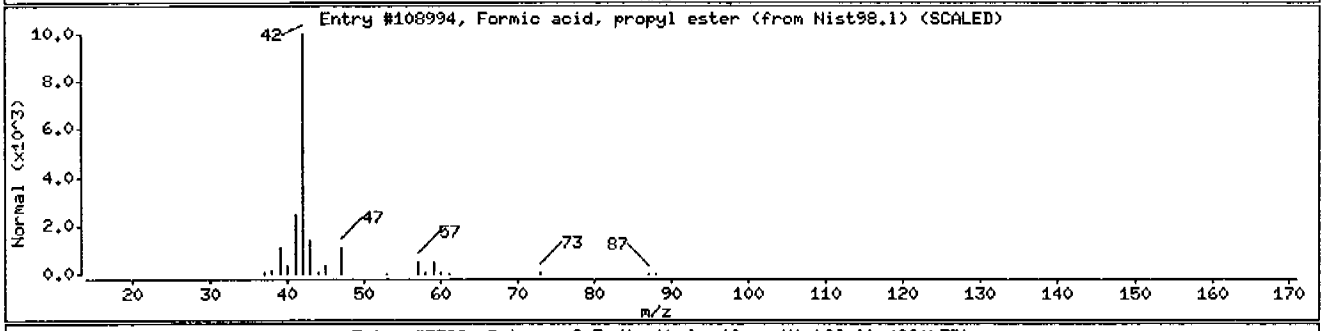

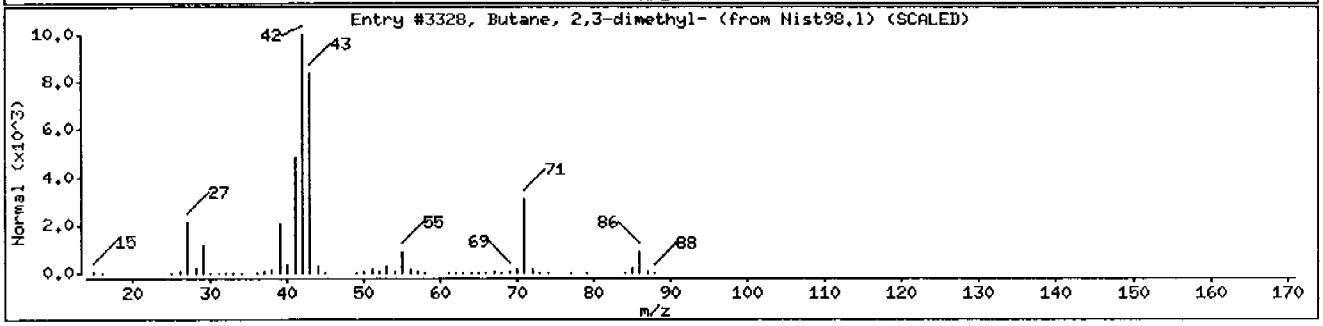

1B
SVOA ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK01LCS

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Matrix: (soil/water) SOIL Lab Sample ID: 1200842644

Sample wt/vol: 30.0 (g/mL) G Lab File ID: S8E1905-2

Level: (low/med) LOW Date Received: 05/10/05

% Moisture: 0 decanted: (Y/N) N Date Extracted: 05/10/05

Concentrated Extract Volume: 1.00(mL) Date Analyzed: 05/19/05

Injection Volume: 0.5(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
62-75-9	N-Methyl-N-nitrosomethylamin	812	
110-86-1	Pyridine	616	
62-53-3	Aniline	738	
108-95-2	Phenol	2030	
111-44-4	bis(2-Chloroethyl) ether	876	
95-57-8	2-Chlorophenol	2050	
541-73-1	1,3-Dichlorobenzene	886	
106-46-7	1,4-Dichlorobenzene	910	
100-51-6	Benzyl alcohol	910	
95-50-1	1,2-Dichlorobenzene	930	
108-60-1	bis(2-Chloroisopropyl)ether	878	
95-48-7	o-Cresol	2090	
621-64-7	N-Nitrosodipropylamine	1000	
65794-96-9	m,p-Cresols	2130	
67-72-1	Hexachloroethane	902	
78-59-1	Isophorone	963	
88-75-5	2-Nitrophenol	2300	
105-67-9	2,4-Dimethylphenol	2180	
111-91-1	bis(2-Chloroethoxy)methane	997	
120-83-2	2,4-Dichlorophenol	2300	
65-85-0	Benzoic acid	2680	
120-82-1	1,2,4-Trichlorobenzene	1000	
91-20-3	Naphthalene	1040	
106-47-8	4-Chloroaniline	830	
87-68-3	Hexachlorobutadiene	1020	
59-50-7	4-Chloro-3-methylphenol	2560	
91-57-6	2-Methylnaphthalene	1080	
77-47-4	Hexachlorocyclopentadiene	961	
88-06-2	2,4,6-Trichlorophenol	2340	
95-95-4	2,4,5-Trichlorophenol	2320	
91-58-7	2-Chloronaphthalene	1020	
88-74-4	o-Nitroaniline	1130	
99-09-2	m-Nitroaniline	1020	

FORM I SV-1 OLM03.0

1C
SVOA ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK01LCS

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Matrix: (soil/water) SOIL Lab Sample ID: 1200842644

Sample wt/vol: 30.0 (g/mL) G Lab File ID: S8E1905-2

Level: (low/med) LOW Date Received: 05/10/05

% Moisture: 0 decanted: (Y/N) N Date Extracted: 05/10/05

Concentrated Extract Volume: 1.00(mL) Date Analyzed: 05/19/05

Injection Volume: 0.5(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
131-11-3	Dimethylphthalate	1110	
606-20-2	2,6-Dinitrotoluene	1160	
208-96-8	Acenaphthylene	1150	
83-32-9	Acenaphthene	1180	
51-28-5	2,4-Dinitrophenol	2570	
132-64-9	Dibenzofuran	1030	
121-14-2	2,4-Dinitrotoluene	1230	
84-66-2	Diethylphthalate	1170	
100-02-7	4-Nitrophenol	2670	
86-73-7	Fluorene	1200	
7005-72-3	4-Chlorophenylphenylether	1120	
534-52-1	2-Methyl-4,6-dinitrophenol	2500	
100-01-6	p-Nitroaniline	1160	
122-39-4	Diphenylamine	1120	
122-66-7	1,2-Diphenylhydrazine	1060	
101-55-3	4-Bromophenylphenylether	1180	
118-74-1	Hexachlorobenzene	1180	
87-86-5	Pentachlorophenol	2840	
85-01-8	Phenanthrene	1250	
120-12-7	Anthracene	1300	
84-74-2	Di-n-butylphthalate	1240	
206-44-0	Fluoranthene	1360	
129-00-0	Pyrene	1290	
85-68-7	Butylbenzylphthalate	1270	
56-55-3	Benzo(a)anthracene	1320	
91-94-1	3,3'-Dichlorobenzidine	1380	
218-01-9	Chrysene	1390	
117-81-7	bis(2-Ethylhexyl)phthalate	1300	B
117-84-0	Di-n-octylphthalate	1350	
205-99-2	Benzo(b)fluoranthene	1240	
207-08-9	Benzo(k)fluoranthene	1510	
50-32-8	Benzo(a)pyrene	1300	
193-39-5	Indeno(1,2,3-cd)pyrene	1290	

FORM I SV-2 OLM03.0

1C
SVOA ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK01LCS

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Matrix: (soil/water) SOIL Lab Sample ID: 1200842644

Sample wt/vol: 30.0 (g/mL) G Lab File ID: S8E1905-2

Level: (low/med) LOW Date Received: 05/10/05

% Moisture: 0 decanted: (Y/N) N Date Extracted:05/10/05

Concentrated Extract Volume: 1.00(mL) Date Analyzed: 05/19/05

Injection Volume: 0.5(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
53-70-3	Dibenzo(a,h)anthracene	1270	
191-24-2	Benzo(ghi)perylene	1280	

FORM I SV-3 OLM03.0

General Engineering Laboratories, LLC

Data file : /chem/MSD8.i/s051905.b/s8e1905-2.d
Lab Smp Id: 1200842644 Client Smp ID: SBLK01LCS
Inj Date : 19-MAY-2005 16:13
Operator : cak Inst ID: MSD8.i
Smp Info : |1200842644|423903|1|SVMF|1|LCS|
Misc Info : |MSD8270_SF|WBN050506-02
Comment : Column: J & W DB-5MS:25m x 0.20mm - 0.33um Film m
Method : /chem/MSD8.i/s051905.b/MSD8-8270-051605a.m
Meth Date : 23-May-2005 08:53 cak Quant Type: ISTD
Cal Date : 11-MAY-2005 18:18 Cal File: s8e1111.d
Als bottle: 5 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 3202S.sub
Target Version: 3.50
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	0.00000	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.787	3.792	(1.000)	124428	40.0000	
* 29 Naphthalene-d8	136	4.650	4.655	(1.000)	512899	40.0000	
* 46 Acenaphthene-d10	164	5.902	5.901	(1.000)	315855	40.0000	
* 67 Phenanthrene-d10	188	6.895	6.894	(1.000)	667079	40.0000	
* 91 Chrysene-d12	240	8.464	8.463	(1.000)	532819	40.0000	
* 98 Perylene-d12	264	9.568	9.567	(1.000)	473203	40.0000	
$ 3 2-Fluorophenol	112	2.976	2.975	(0.786)	152872	59.3410	1980
$ 5 Phenol-d5	99	3.505	3.504	(0.926)	178580	60.1857	2010
$ 20 Nitrobenzene-d5	82	4.151	4.150	(0.893)	88115	29.6668	989
$ 39 2-Fluorobiphenyl	172	5.397	5.396	(0.914)	299388	30.9880	1030
$ 60 2,4,6-Tribromophenol	329	6.442	6.442	(1.092)	98120	86.0081	2870
$ 81 p-Terphenyl-d14	244	7.806	7.805	(0.922)	492367	38.1234	1270

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
6 Phenol	94	3.517	3.510	(0.929)	192332	60.8449	2030
8 2-Chlorophenol	128	3.652	3.651	(0.964)	192128	61.4507	2050
11 1,4-Dichlorobenzene	146	3.799	3.803	(1.003)	109312	27.2877	910
17 N-Nitrosodipropylamine	70	4.028	4.027	(1.064)	58122	30.0687	1000
28 1,2,4-Trichlorobenzene	180	4.603	4.602	(0.990)	109413	30.0619	1000
33 4-Chloro-3-methylphenol	107	5.003	5.002	(1.076)	206987	76.7442	2560
47 Acenaphthene	154	5.925	5.924	(1.004)	267328	35.5556	1180
50 2,4-Dinitrotoluene	165	6.008	6.013	(1.018)	84032	36.8802	1230
52 4-Nitrophenol	139	5.937	5.936	(1.006)	98306	80.1023	2670
65 Pentachlorophenol	266	6.760	6.765	(0.980)	143573	85.1425	2840
79 Pyrene	202	7.753	7.752	(0.916)	650768	38.8265	1290
2 Pyridine	79	2.300	2.299	(0.607)	47376	18.4934	616
4 Aniline	93	3.569	3.573	(0.943)	94178	22.1558	738(H)
7 bis(2-Chloroethyl) ether	93	3.587	3.592	(0.947)	70214	26.2924	876
9 1,3-Dichlorobenzene	146	3.752	3.756	(0.991)	102556	26.5820	886
12 Benzyl alcohol	108	3.851	3.856	(1.017)	47984	27.3127	910
13 1,2-Dichlorobenzene	146	3.904	3.903	(1.031)	102280	27.9176	930
14 bis(2-Chloroisopropyl)ether	45	3.934	3.933	(1.039)	108509	26.3297	878
15 o-Cresol	107	3.910	3.909	(1.033)	154615	62.8342	2090
18 m,p-Cresols	107	4.004	4.003	(1.057)	225955	63.8933	2130
19 Hexachloroethane	117	4.133	4.132	(1.092)	38021	27.0639	902
22 Isophorone	82	4.316	4.315	(0.928)	162752	28.8888	963
23 2-Nitrophenol	139	4.380	4.379	(0.942)	106964	68.9822	2300
24 2,4-Dimethylphenol	122	4.374	4.373	(0.941)	195959	65.3066	2180
25 bis(2-Chloroethoxy)methane	93	4.439	4.438	(0.955)	92534	29.9070	997
26 2,4-Dichlorophenol	162	4.539	4.538	(0.976)	196653	68.8826	2300
27 Benzoic acid	105	4.427	4.414	(0.952)	97527	80.3600	2680
30 Naphthalene	128	4.668	4.667	(1.004)	310266	31.1732	1040
31 4-Chloroaniline	127	4.686	4.684	(1.008)	112380	24.8881	830(Q)
32 Hexachlorobutadiene	225	4.733	4.732	(1.018)	81635	30.5572	1020
34 2-Methylnaphthalene	142	5.150	5.149	(1.107)	228493	32.4955	1080
36 Hexachlorocyclopentadiene	237	5.250	5.255	(0.889)	61878	28.8330	961
37 2,4,6-Trichlorophenol	196	5.338	5.337	(0.904)	174168	70.1602	2340
38 2,4,5-Trichlorophenol	196	5.367	5.366	(0.909)	190360	69.7054	2320
40 2-Chloronaphthalene	162	5.502	5.501	(0.932)	229149	30.5409	1020
42 o-Nitroaniline	65	5.555	5.559	(0.941)	52024	33.8654	1130
41 m-Nitroaniline	138	5.849	5.853	(0.991)	51135	30.5979	1020(Q)
43 Dimethylphthalate	163	5.667	5.666	(0.960)	308589	33.3567	1110
44 2,6-Dinitrotoluene	165	5.720	5.725	(0.969)	59396	34.8172	1160
45 Acenaphthylene	152	5.802	5.801	(0.983)	387670	34.3881	1150
48 2,4-Dinitrophenol	184	5.920	5.924	(1.003)	54537	77.0334	2570(Q)
49 Dibenzofuran	168	6.043	6.042	(1.024)	354385	30.8801	1030
51 Diethylphthalate	149	6.160	6.160	(1.044)	346027	35.1769	1170
53 Fluorene	166	6.278	6.277	(1.064)	300596	36.0716	1200
54 4-Chlorophenylphenylether	204	6.260	6.259	(1.061)	185717	33.6575	1120
55 2-Methyl-4,6-dinitrophenol	198	6.296	6.295	(0.913)	119719	75.1319	2500
56 p-Nitroaniline	138	6.278	6.276	(1.064)	51915	34.9240	1160(Q)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
133 Diphenylamine	169	6.337	6.336	(0.919)	283909	33.6400	1120
58 1,2-Diphenylhydrazine	77	6.366	6.371	(0.923)	234584	31.8581	1060
61 4-Bromophenylphenylether	248	6.589	6.588	(0.956)	123415	35.5583	1180
63 Hexachlorobenzene	284	6.642	6.641	(0.963)	127708	35.4988	1180
68 Phenanthrene	178	6.907	6.912	(1.002)	494853	37.4006	1250
69 Anthracene	178	6.942	6.941	(1.007)	495514	39.0769	1300
72 Di-n-butylphthalate	149	7.189	7.188	(1.043)	643152	37.3787	1240
76 Fluoranthene	202	7.618	7.617	(1.105)	642297	40.7091	1360
85 Butylbenzylphthalate	149	8.064	8.063	(0.953)	268300	38.1571	1270
89 Benzo(a)anthracene	228	8.452	8.451	(0.999)	487305	39.7375	1320
90 3,3'-Dichlorobenzidine	252	8.411	8.415	(0.994)	129849	41.2885	1380
92 Chrysene	228	8.475	8.474	(1.001)	494127	41.7375	1390
93 bis(2-Ethylhexyl)phthalate	149	8.376	8.375	(0.990)	327345	38.9778	1300
94 Di-n-octylphthalate	149	8.769	8.768	(0.916)	498369	40.6421	1350
95 Benzo(b)fluoranthene	252	9.210	9.209	(0.963)	442941	37.2313	1240
96 Benzo(k)fluoranthene	252	9.233	9.232	(0.965)	515235	45.3958	1510
97 Benzo(a)pyrene	252	9.515	9.514	(0.994)	388689	38.9278	1300
99 Indeno(1,2,3-cd)pyrene	276	10.843	10.842	(1.133)	391752	38.7234	1290
100 Dibenzo(a,h)anthracene	278	10.849	10.842	(1.134)	316043	38.0082	1270
101 Benzo(ghi)perylene	276	11.249	11.242	(1.176)	328445	38.4963	1280
1 N-Methyl-N-nitrosomethylamine	74	2.265	2.264	(0.598)	31851	24.3637	812

QC Flag Legend

Q - Qualifier signal failed the ratio test.
H - Operator selected an alternate compound hit.

Data File: /chem/MSD8.i/s051905.b/s8e1905-2.d
Date : 19-MAY-2005 16:13
Client ID: SBLK01LCS
Sample Info: 1120084264414239031|SVMF11|LCS|
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD8.i
Operator: cak
Column diameter: 0.20

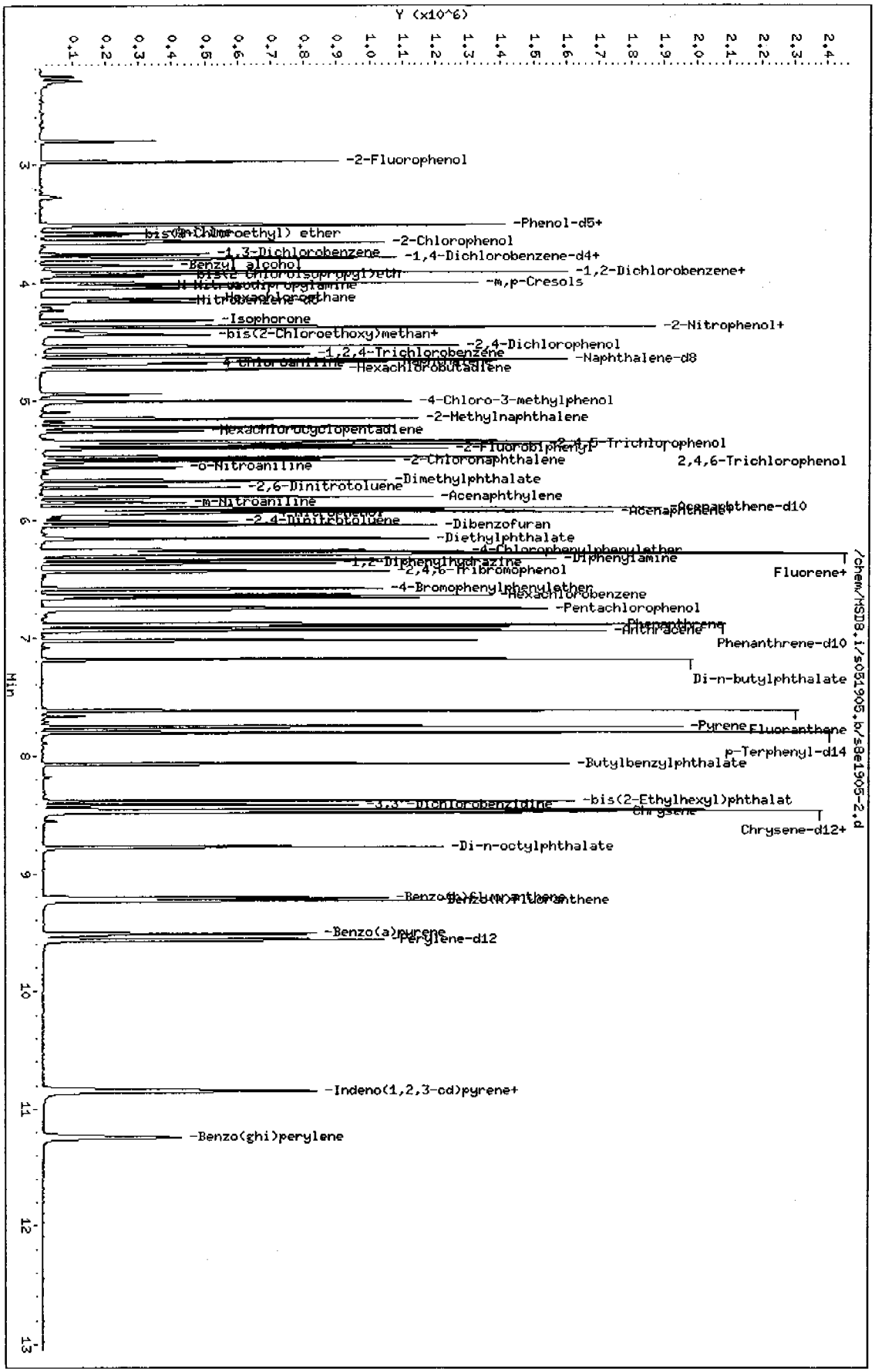

1B
SVOA ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-58926MS

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Matrix: (soil/water) SOIL Lab Sample ID: 1200842645

Sample wt/vol: 30.0 (g/mL) G Lab File ID: S8E1910

Level: (low/med) LOW Date Received: 05/05/05

% Moisture: 6 decanted: (Y/N) N Date Extracted: 05/10/05

Concentrated Extract Volume: 1.00(mL) Date Analyzed: 05/19/05

Injection Volume: 0.5(uL) Dilution Factor: 10.0

GPC Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
62-75-9	N-Methyl-N-nitrosomethylamin	740	J
110-86-1	Pyridine	3540	U
62-53-3	Aniline	3540	U
108-95-2	Phenol	2040	J
111-44-4	bis(2-Chloroethyl) ether	893	J
95-57-8	2-Chlorophenol	1980	J
541-73-1	1,3-Dichlorobenzene	881	J
106-46-7	1,4-Dichlorobenzene	816	J
100-51-6	Benzyl alcohol	3230	J
95-50-1	1,2-Dichlorobenzene	845	J
108-60-1	bis(2-Chloroisopropyl)ether	840	J
95-48-7	o-Cresol	2040	J
621-64-7	N-Nitrosodipropylamine	886	J
65794-96-9	m,p-Cresols	1980	J
67-72-1	Hexachloroethane	778	J
78-59-1	Isophorone	959	J
88-75-5	2-Nitrophenol	1900	J
105-67-9	2,4-Dimethylphenol	2450	J
111-91-1	bis(2-Chloroethoxy)methane	1060	J
120-83-2	2,4-Dichlorophenol	2580	J
65-85-0	Benzoic acid	6770	J
120-82-1	1,2,4-Trichlorobenzene	1100	J
91-20-3	Naphthalene	1130	
106-47-8	4-Chloroaniline	787	J
87-68-3	Hexachlorobutadiene	1080	J
59-50-7	4-Chloro-3-methylphenol	2540	J
91-57-6	2-Methylnaphthalene	1220	
77-47-4	Hexachlorocyclopentadiene	3120	J
88-06-2	2,4,6-Trichlorophenol	2520	J
95-95-4	2,4,5-Trichlorophenol	2500	J
91-58-7	2-Chloronaphthalene	1120	
88-74-4	o-Nitroaniline	912	J
99-09-2	m-Nitroaniline	767	J

FORM I SV-1 OLM03.0

1C
SVOA ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-58926MS

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Matrix: (soil/water) SOIL Lab Sample ID: 1200842645

Sample wt/vol: 30.0 (g/mL) G Lab File ID: S8E1910

Level: (low/med) LOW Date Received: 05/05/05

% Moisture: 6 decanted: (Y/N) N Date Extracted: 05/10/05

Concentrated Extract Volume: 1.00(mL) Date Analyzed: 05/19/05

Injection Volume: 0.5(uL) Dilution Factor: 10.0

GPC Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
131-11-3	Dimethylphthalate	1130	J
606-20-2	2,6-Dinitrotoluene	921	J
208-96-8	Acenaphthylene	1210	
83-32-9	Acenaphthene	1180	
51-28-5	2,4-Dinitrophenol	4740	J
132-64-9	Dibenzofuran	1120	J
121-14-2	2,4-Dinitrotoluene	2090	J
84-66-2	Diethylphthalate	1220	J
100-02-7	4-Nitrophenol	3190	J
86-73-7	Fluorene	1300	
7005-72-3	4-Chlorophenylphenylether	1200	J
534-52-1	2-Methyl-4,6-dinitrophenol	4030	
100-01-6	p-Nitroaniline	964	J
122-39-4	Diphenylamine	1190	J
122-66-7	1,2-Diphenylhydrazine	1060	J
101-55-3	4-Bromophenylphenylether	1290	J
118-74-1	Hexachlorobenzene	1150	J
87-86-5	Pentachlorophenol	3790	
85-01-8	Phenanthrene	1500	
120-12-7	Anthracene	1280	
84-74-2	Di-n-butylphthalate	1270	J
206-44-0	Fluoranthene	1630	
129-00-0	Pyrene	1840	
85-68-7	Butylbenzylphthalate	1600	J
56-55-3	Benzo(a)anthracene	1510	
91-94-1	3,3'-Dichlorobenzidine	3540	U
218-01-9	Chrysene	1360	
117-81-7	bis(2-Ethylhexyl)phthalate	3000	JB
117-84-0	Di-n-octylphthalate	3620	
205-99-2	Benzo(b)fluoranthene	1690	
207-08-9	Benzo(k)fluoranthene	1610	
50-32-8	Benzo(a)pyrene	1940	
193-39-5	Indeno(1,2,3-cd)pyrene	1420	

FORM I SV-2 OLM03.0

1C
SVOA ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-58926MS

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Matrix: (soil/water) SOIL Lab Sample ID: 1200842645

Sample wt/vol: 30.0 (g/mL) G Lab File ID: S8E1910

Level: (low/med) LOW Date Received: 05/05/05

% Moisture: 6 decanted: (Y/N) N Date Extracted: 05/10/05

Concentrated Extract Volume: 1.00(mL) Date Analyzed: 05/19/05

Injection Volume: 0.5(uL) Dilution Factor: 10.0

GPC Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
53-70-3	Dibenzo(a,h)anthracene	1470	
191-24-2	Benzo(ghi)perylene	972	

FORM I SV-3 OLM03.0

General Engineering Laboratories, LLC

Data file : /chem/MSD8.i/s051905.b/s8e1910.d
Lab Smp Id: 1200842645 Client Smp ID: RE03-05-58926MS
Inj Date : 19-MAY-2005 17:56
Operator : cak Inst ID: MSD8.i
Smp Info : |1200842645|423903|10|SVMF|1|MS-1001|
Misc Info : |MSD8270_SF|WBN050506-02
Comment : Column: J & W DB-5MS:25m x 0.20mm - 0.33um Film m
Method : /chem/MSD8.i/s051905.b/MSD8-8270-051605a.m
Meth Date : 23-May-2005 08:53 cak Quant Type: ISTD
Cal Date : 11-MAY-2005 18:18 Cal File: s8e1111.d
Als bottle: 10 QC Sample: MS
Dil Factor: 10.00000
Integrator: HP RTE Compound Sublist: 3202S.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	10.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	5.87600	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.791	3.792	(1.000)	109536	40.0000	
* 29 Naphthalene-d8	136	4.649	4.655	(1.000)	402221	40.0000	
* 46 Acenaphthene-d10	164	5.900	5.901	(1.000)	259646	40.0000	
* 67 Phenanthrene-d10	188	6.893	6.894	(1.000)	520933	40.0000	
* 91 Chrysene-d12	240	8.462	8.463	(1.000)	336746	40.0000	
* 98 Perylene-d12	264	9.572	9.567	(1.000)	254381	40.0000	
$ 3 2-Fluorophenol	112	2.974	2.975	(0.785)	12306	5.42631	1920
$ 5 Phenol-d5	99	3.503	3.504	(0.924)	15051	5.76218	2040
$ 20 Nitrobenzene-d5	82	4.149	4.150	(0.893)	6082	2.61116	925
$ 39 2-Fluorobiphenyl	172	5.395	5.396	(0.914)	24940	3.14023	1110
$ 60 2,4,6-Tribromophenol	329	6.441	6.442	(1.092)	6509	6.94069	2460
$ 81 p-Terphenyl-d14	244	7.804	7.805	(0.922)	34495	4.22606	1500

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
6 Phenol	94	3.509	3.510	(0.926)	16063	5.77246	2040(a)
8 2-Chlorophenol	128	3.650	3.651	(0.963)	15431	5.60650	1980(a)
11 1,4-Dichlorobenzene	146	3.797	3.803	(1.002)	8127	2.30458	816(a)
17 N-Nitrosodipropylamine	70	4.020	4.027	(1.060)	4257	2.50172	886(a)
28 1,2,4-Trichlorobenzene	180	4.602	4.602	(0.990)	8843	3.09824	1100(a)
33 4-Chloro-3-methylphenol	107	4.995	5.002	(1.075)	15177	7.17556	2540(a)
47 Acenaphthene	154	5.924	5.924	(1.004)	20590	3.33140	1180
50 2,4-Dinitrotoluene	165	6.006	6.013	(1.018)	4249	5.90790	2090(a)
52 4-Nitrophenol	139	5.936	5.936	(1.006)	4763	9.00220	3190(a)
65 Pentachlorophenol	266	6.758	6.765	(0.980)	6858	10.7060	3790
79 Pyrene	202	7.757	7.752	(0.917)	55003	5.19238	1840
7 bis(2-Chloroethyl) ether	93	3.585	3.592	(0.946)	5929	2.52203	893(a)
9 1,3-Dichlorobenzene	146	3.756	3.756	(0.991)	8453	2.48885	881(a)
12 Benzyl alcohol	108	3.903	3.856	(1.029)	14094	9.11304	3230(aQR)
13 1,2-Dichlorobenzene	146	3.903	3.903	(1.029)	7696	2.38624	845(a)
14 bis(2-Chloroisopropyl)ether	45	3.932	3.933	(1.037)	8603	2.37133	840(a)
15 o-Cresol	107	3.903	3.909	(1.029)	12506	5.77330	2040(a)
18 m,p-Cresols	107	3.997	4.003	(1.054)	17452	5.60583	1980(a)
19 Hexachloroethane	117	4.132	4.132	(1.090)	2718	2.19775	778(a)
22 Isophorone	82	4.314	4.315	(0.928)	11962	2.70753	959(a)
23 2-Nitrophenol	139	4.378	4.379	(0.942)	6539	5.37746	1900(a)
24 2,4-Dimethylphenol	122	4.367	4.373	(0.939)	16278	6.91768	2450(a)
25 bis(2-Chloroethoxy)methane	93	4.437	4.438	(0.954)	7291	3.00487	1060(a)
26 2,4-Dichlorophenol	162	4.537	4.538	(0.976)	16315	7.28724	2580(a)
27 Benzoic acid	105	4.390	4.414	(0.944)	3147	19.1115	6770(aQR)
30 Naphthalene	128	4.666	4.667	(1.004)	24857	3.18466	1130
31 4-Chloroaniline	127	4.684	4.684	(1.008)	7873	2.22336	787(aQ)
32 Hexachlorobutadiene	225	4.731	4.732	(1.018)	6417	3.06293	1080(a)
34 2-Methylnaphthalene	142	5.148	5.149	(1.107)	19045	3.45381	1220
36 Hexachlorocyclopentadiene	237	5.254	5.255	(0.890)	2801	8.80755	3120(aR)
37 2,4,6-Trichlorophenol	196	5.336	5.337	(0.904)	14543	7.12660	2520(a)
38 2,4,5-Trichlorophenol	196	5.360	5.366	(0.908)	15844	7.05768	2500(a)
40 2-Chloronaphthalene	162	5.501	5.501	(0.932)	19495	3.16078	1120
42 o-Nitroaniline	65	5.554	5.559	(0.941)	3252	2.57519	912(a)
41 m-Nitroaniline	138	5.847	5.853	(0.991)	2976	2.16627	767(aQ)
43 Dimethylphthalate	163	5.665	5.666	(0.960)	24319	3.19783	1130(a)
44 2,6-Dinitrotoluene	165	5.718	5.725	(0.969)	3647	2.60063	921(a)
45 Acenaphthylene	152	5.800	5.801	(0.983)	31603	3.41021	1210
48 2,4-Dinitrophenol	184	5.924	5.924	(1.004)	312	13.3865	4740(aQR)
49 Dibenzofuran	168	6.041	6.042	(1.024)	29766	3.15522	1120(a)
51 Diethylphthalate	149	6.153	6.160	(1.043)	27812	3.43942	1220(a)
53 Fluorene	166	6.276	6.277	(1.064)	25088	3.66230	1300
54 4-Chlorophenylphenylether	204	6.259	6.259	(1.061)	15435	3.40285	1200(a)
55 2-Methyl-4,6-dinitrophenol	198	6.288	6.295	(0.912)	1342	11.3798	4030(Q)
56 p-Nitroaniline	138	6.270	6.276	(1.063)	3327	2.72264	964(aQ)
133 Diphenylamine	169	6.335	6.336	(0.919)	22203	3.36887	1190(a)
58 1,2-Diphenylhydrazine	77	6.364	6.371	(0.923)	17293	3.00738	1060(a)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
61 4-Bromophenylphenylether	248	6.588	6.588	(0.956)	9900	3.65261	1290(a)
63 Hexachlorobenzene	284	6.641	6.641	(0.963)	9102	3.23987	1150(a)
68 Phenanthrene	178	6.905	6.912	(1.002)	43832	4.24218	1500
69 Anthracene	178	6.940	6.941	(1.007)	35810	3.61629	1280
72 Di-n-butylphthalate	149	7.187	7.188	(1.043)	48320	3.59611	1270(a)
76 Fluoranthene	202	7.616	7.617	(1.105)	56635	4.59660	1630
85 Butylbenzylphthalate	149	8.068	8.063	(0.953)	20134	4.53066	1600(a)
89 Benzo(a)anthracene	228	8.456	8.451	(0.999)	33011	4.25928	1510
92 Chrysene	228	8.474	8.474	(1.001)	28719	3.83826	1360
93 bis(2-Ethylhexyl)phthalate	149	8.374	8.375	(0.990)	29290	8.45954	3000(aR)
94 Di-n-octylphthalate	149	8.773	8.768	(0.917)	32113	10.2338	3620(QR)
95 Benzo(b)fluoranthene	252	9.214	9.209	(0.963)	23984	4.78374	1690
96 Benzo(k)fluoranthene	252	9.232	9.232	(0.964)	27701	4.54013	1610
97 Benzo(a)pyrene	252	9.520	9.514	(0.994)	19850	5.46809	1940
99 Indeno(1,2,3-cd)pyrene	276	10.836	10.842	(1.132)	18297	4.00777	1420
100 Dibenzo(a,h)anthracene	278	10.847	10.842	(1.133)	13451	4.15496	1470
101 Benzo(ghi)perylene	276	11.241	11.242	(1.174)	15702	2.74433	972
1 N-Methyl-N-nitrosomethylamine	74	2.281	2.264	(0.602)	2405	2.08976	740(a)

QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
R - Spike/Surrogate failed recovery limits.

Data File: /chem/MSD8.i/s051905.b/s8e1910.d
Date : 19-MAY-2005 17:56
Client ID: RE03-05-58926MS
Sample Info: 1120084264514239031101SVMF1|MS-1001|
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD8.i
Operator: cak
Column diameter: 0.20

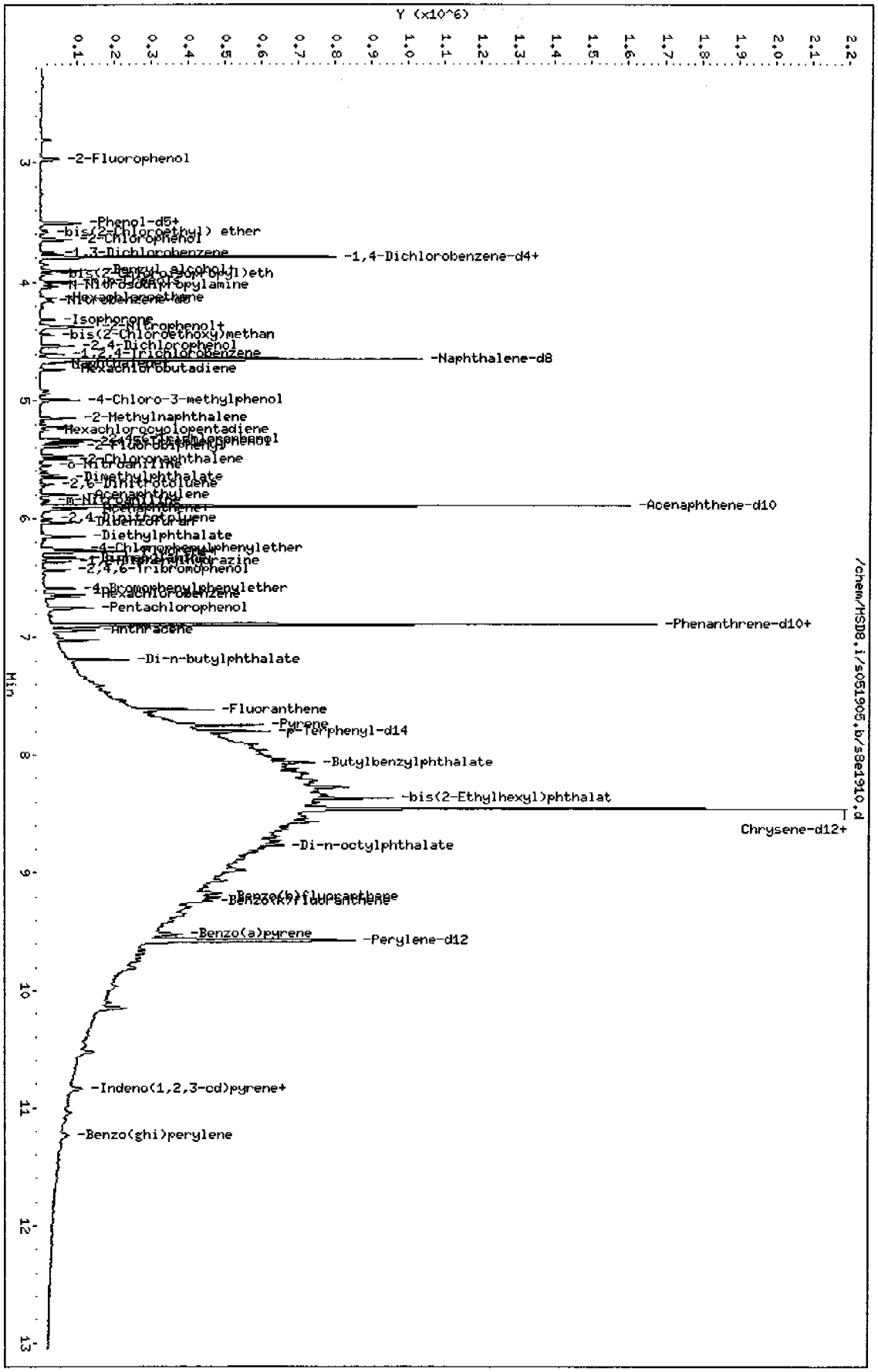

1B
SVOA ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-58926MSD

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Matrix: (soil/water) SOIL Lab Sample ID: 1200842646

Sample wt/vol: 30.0 (g/mL) G Lab File ID: S8E1911

Level: (low/med) LOW Date Received: 05/05/05

% Moisture: 6 decanted: (Y/N) N Date Extracted: 05/10/05

Concentrated Extract Volume: 1.00(mL) Date Analyzed: 05/19/05

Injection Volume: 0.5(uL) Dilution Factor: 10.0

GPC Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
62-75-9	N-Methyl-N-nitrosomethylamin	1050	J
110-86-1	Pyridine	3540	U
62-53-3	Aniline	3540	U
108-95-2	Phenol	2960	J
111-44-4	bis(2-Chloroethyl) ether	1320	J
95-57-8	2-Chlorophenol	2940	J
541-73-1	1,3-Dichlorobenzene	1100	J
106-46-7	1,4-Dichlorobenzene	1100	J
100-51-6	Benzyl alcohol	4590	
95-50-1	1,2-Dichlorobenzene	1260	J
108-60-1	bis(2-Chloroisopropyl)ether	1260	J
95-48-7	o-Cresol	2870	J
621-64-7	N-Nitrosodipropylamine	1320	J
65794-96-9	m,p-Cresols	2880	J
67-72-1	Hexachloroethane	938	J
78-59-1	Isophorone	1400	J
88-75-5	2-Nitrophenol	2920	J
105-67-9	2,4-Dimethylphenol	3340	J
111-91-1	bis(2-Chloroethoxy)methane	1530	J
120-83-2	2,4-Dichlorophenol	3630	
65-85-0	Benzoic acid	7280	
120-82-1	1,2,4-Trichlorobenzene	1410	J
91-20-3	Naphthalene	1480	
106-47-8	4-Chloroaniline	1420	J
87-68-3	Hexachlorobutadiene	1350	J
59-50-7	4-Chloro-3-methylphenol	3900	
91-57-6	2-Methylnaphthalene	1580	
77-47-4	Hexachlorocyclopentadiene	3240	J
88-06-2	2,4,6-Trichlorophenol	3400	J
95-95-4	2,4,5-Trichlorophenol	3570	
91-58-7	2-Chloronaphthalene	1370	
88-74-4	o-Nitroaniline	1300	J
99-09-2	m-Nitroaniline	1090	J

FORM I SV-1 OLM03.0

1C
SVOA ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-58926MSD

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Matrix: (soil/water) SOIL Lab Sample ID: 1200842646

Sample wt/vol: 30.0 (g/mL) G Lab File ID: S8E1911

Level: (low/med) LOW Date Received: 05/05/05

% Moisture: 6 decanted: (Y/N) N Date Extracted: 05/10/05

Concentrated Extract Volume: 1.00(mL) Date Analyzed: 05/19/05

Injection Volume: 0.5(uL) Dilution Factor: 10.0

GPC Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
131-11-3	Dimethylphthalate	1480	J
606-20-2	2,6-Dinitrotoluene	1200	J
208-96-8	Acenaphthylene	1480	
83-32-9	Acenaphthene	1430	
51-28-5	2,4-Dinitrophenol	7080	U
132-64-9	Dibenzofuran	1420	J
121-14-2	2,4-Dinitrotoluene	2400	J
84-66-2	Diethylphthalate	1640	J
100-02-7	4-Nitrophenol	4120	
86-73-7	Fluorene	1660	
7005-72-3	4-Chlorophenylphenylether	1520	J
534-52-1	2-Methyl-4,6-dinitrophenol	4230	
100-01-6	p-Nitroaniline	1360	J
122-39-4	Diphenylamine	1550	J
122-66-7	1,2-Diphenylhydrazine	1380	J
101-55-3	4-Bromophenylphenylether	1590	J
118-74-1	Hexachlorobenzene	1340	J
87-86-5	Pentachlorophenol	4660	
85-01-8	Phenanthrene	1720	
120-12-7	Anthracene	1630	
84-74-2	Di-n-butylphthalate	1660	J
206-44-0	Fluoranthene	1880	
129-00-0	Pyrene	2010	
85-68-7	Butylbenzylphthalate	2050	J
56-55-3	Benzo(a)anthracene	1700	
91-94-1	3,3'-Dichlorobenzidine	3540	U
218-01-9	Chrysene	1830	
117-81-7	bis(2-Ethylhexyl)phthalate	3470	JB
117-84-0	Di-n-octylphthalate	4100	
205-99-2	Benzo(b)fluoranthene	2030	
207-08-9	Benzo(k)fluoranthene	1840	
50-32-8	Benzo(a)pyrene	2260	
193-39-5	Indeno(1,2,3-cd)pyrene	1640	

FORM I SV-2 OLM03.0

1C
SVOA ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-58926MSD

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Matrix: (soil/water) SOIL Lab Sample ID: 1200842646

Sample wt/vol: 30.0 (g/mL) G Lab File ID: S8E1911

Level: (low/med) LOW Date Received: 05/05/05

% Moisture: 6 decanted: (Y/N) N Date Extracted: 05/10/05

Concentrated Extract Volume: 1.00(mL) Date Analyzed: 05/19/05

Injection Volume: 0.5(uL) Dilution Factor: 10.0

GPC Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
53-70-3	Dibenzo(a,h)anthracene	1760	
191-24-2	Benzo(ghi)perylene	1140	

FORM I SV-3 OLM03.0

General Engineering Laboratories, LLC

Data file : /chem/MSD8.i/s051905.b/s8e1911.d
Lab Smp Id: 1200842646 Client Smp ID: RE03-05-58926MSD
Inj Date : 19-MAY-2005 18:16
Operator : cak Inst ID: MSD8.i
Smp Info : |1200842646|423903|10|SVMF|1|MSD-1001|
Misc Info : |MSD8270_SF|WBN050506-02
Comment : Column: J & W DB-5MS:25m x 0.20mm - 0.33um Film m
Method : /chem/MSD8.i/s051905.b/MSD8-8270-051605a.m
Meth Date : 23-May-2005 08:53 cak Quant Type: ISTD
Cal Date : 11-MAY-2005 18:18 Cal File: s8e1111.d
Als bottle: 11 QC Sample: MSD
Dil Factor: 10.00000
Integrator: HP RTE Compound Sublist: 3202S.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	10.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	5.87600	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.785	3.792	(1.000)	122898	40.0000	
* 29 Naphthalene-d8	136	4.655	4.655	(1.000)	458255	40.0000	
* 46 Acenaphthene-d10	164	5.900	5.901	(1.000)	305130	40.0000	
* 67 Phenanthrene-d10	188	6.893	6.894	(1.000)	643117	40.0000	
* 91 Chrysene-d12	240	8.462	8.463	(1.000)	450347	40.0000	
* 98 Perylene-d12	264	9.573	9.567	(1.000)	356218	40.0000	
$ 3 2-Fluorophenol	112	2.974	2.975	(0.786)	21109	8.29598	2940
$ 5 Phenol-d5	99	3.497	3.504	(0.924)	24113	8.22782	2910
$ 20 Nitrobenzene-d5	82	4.150	4.150	(0.891)	10577	3.98573	1410
$ 39 2-Fluorobiphenyl	172	5.395	5.396	(0.914)	36705	3.93267	1390
$ 60 2,4,6-Tribromophenol	329	6.435	6.442	(1.091)	10542	9.56550	3390
$ 81 p-Terphenyl-d14	244	7.804	7.805	(0.922)	56384	5.16524	1830

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
6 Phenol	94	3.509	3.510	(0.927)	26103	8.36058	2960(a)
8 2-Chlorophenol	128	3.650	3.651	(0.964)	25623	8.29735	2940(a)
11 1,4-Dichlorobenzene	146	3.797	3.803	(1.003)	12281	3.10389	1100(a)
17 N-Nitrosodipropylamine	70	4.020	4.027	(1.062)	7123	3.73088	1320(a)
28 1,2,4-Trichlorobenzene	180	4.602	4.602	(0.989)	12938	3.97869	1410(a)
33 4-Chloro-3-methylphenol	107	4.996	5.002	(1.073)	26536	11.0119	3900
47 Acenaphthene	154	5.924	5.924	(1.004)	29406	4.04858	1430
50 2,4-Dinitrotoluene	165	6.006	6.013	(1.018)	7115	6.77044	2400(aR)
52 4-Nitrophenol	139	5.936	5.936	(1.006)	8913	11.6400	4120
65 Pentachlorophenol	266	6.758	6.765	(0.980)	12758	13.1642	4660(R)
79 Pyrene	202	7.751	7.752	(0.916)	80493	5.68189	2010
7 bis(2-Chloroethyl) ether	93	3.585	3.592	(0.947)	9839	3.73020	1320(a)
9 1,3-Dichlorobenzene	146	3.756	3.756	(0.992)	11833	3.10524	1100(a)
12 Benzyl alcohol	108	3.903	3.856	(1.031)	22512	12.9734	4590(QR)
13 1,2-Dichlorobenzene	146	3.903	3.903	(1.031)	12911	3.56796	1260(a)
14 bis(2-Chloroisopropyl)ether	45	3.932	3.933	(1.039)	14427	3.54429	1260(a)
15 o-Cresol	107	3.903	3.909	(1.031)	19681	8.09776	2870(a)
18 m,p-Cresols	107	3.997	4.003	(1.056)	28432	8.13981	2880(a)
19 Hexachloroethane	117	4.132	4.132	(1.092)	3677	2.64993	938(a)
22 Isophorone	82	4.314	4.315	(0.927)	19867	3.94693	1400(a)
23 2-Nitrophenol	139	4.373	4.379	(0.939)	11417	8.24092	2920(a)
24 2,4-Dimethylphenol	122	4.367	4.373	(0.938)	25270	9.42588	3340(a)
25 bis(2-Chloroethoxy)methane	93	4.437	4.438	(0.953)	11979	4.33328	1530(a)
26 2,4-Dichlorophenol	162	4.531	4.538	(0.973)	26120	10.2402	3630
27 Benzoic acid	105	4.390	4.414	(0.943)	5542	20.5458	7280(QR)
30 Naphthalene	128	4.667	4.667	(1.003)	37093	4.17123	1480(Q)
31 4-Chloroaniline	127	4.684	4.684	(1.006)	16228	4.02247	1420(aQ)
32 Hexachlorobutadiene	225	4.731	4.732	(1.016)	9110	3.81664	1350(a)
34 2-Methylnaphthalene	142	5.148	5.149	(1.106)	28069	4.46789	1580
36 Hexachlorocyclopentadiene	237	5.254	5.255	(0.890)	4292	9.16219	3240(aR)
37 2,4,6-Trichlorophenol	196	5.336	5.337	(0.904)	23012	9.59577	3400(a)
38 2,4,5-Trichlorophenol	196	5.360	5.366	(0.908)	26600	10.0827	3570
40 2-Chloronaphthalene	162	5.501	5.501	(0.932)	28084	3.87459	1370
42 o-Nitroaniline	65	5.554	5.559	(0.941)	5437	3.66365	1300(a)
41 m-Nitroaniline	138	5.848	5.853	(0.991)	4957	3.07040	1090(aQ)
43 Dimethylphthalate	163	5.665	5.666	(0.960)	37466	4.19221	1480(a)
44 2,6-Dinitrotoluene	165	5.718	5.725	(0.969)	5576	3.38347	1200(a)
45 Acenaphthylene	152	5.801	5.801	(0.983)	45416	4.17021	1480
49 Dibenzofuran	168	6.041	6.042	(1.024)	44408	4.00560	1420(a)
51 Diethylphthalate	149	6.153	6.160	(1.043)	44081	4.63875	1640(a)
53 Fluorene	166	6.276	6.277	(1.064)	37764	4.69097	1660
54 4-Chlorophenylphenylether	204	6.259	6.259	(1.061)	22915	4.29885	1520(a)
55 2-Methyl-4,6-dinitrophenol	198	6.288	6.295	(0.912)	2651	11.9370	4230
56 p-Nitroaniline	138	6.271	6.276	(1.063)	5522	3.84530	1360(aQ)
133 Diphenylamine	169	6.335	6.336	(0.919)	35570	4.37167	1550(a)
58 1,2-Diphenylhydrazine	77	6.365	6.371	(0.923)	27686	3.90004	1380(a)
61 4-Bromophenylphenylether	248	6.588	6.588	(0.956)	15060	4.50076	1590(a)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
63 Hexachlorobenzene	284	6.641	6.641	(0.963)	13148	3.79090	1340(a)
68 Phenanthrene	178	6.905	6.912	(1.002)	62001	4.86059	1720
69 Anthracene	178	6.940	6.941	(1.007)	56189	4.59624	1630
72 Di-n-butylphthalate	149	7.187	7.188	(1.043)	77605	4.67830	1660(a)
76 Fluoranthene	202	7.616	7.617	(1.105)	80808	5.31249	1880
85 Butylbenzylphthalate	149	8.063	8.063	(0.953)	34426	5.79259	2050(a)
89 Benzo(a)anthracene	228	8.450	8.451	(0.999)	49926	4.81681	1700
92 Chrysene	228	8.474	8.474	(1.001)	51817	5.17837	1830
93 bis(2-Ethylhexyl)phthalate	149	8.374	8.375	(0.990)	49546	9.79268	3470(aR)
94 Di-n-octylphthalate	149	8.768	8.768	(0.916)	59565	11.5780	4100(QR)
95 Benzo(b)fluoranthene	252	9.208	9.209	(0.962)	42371	5.73443	2030
96 Benzo(k)fluoranthene	252	9.232	9.232	(0.964)	44414	5.19830	1840
97 Benzo(a)pyrene	252	9.520	9.514	(0.994)	35015	6.38019	2260(R)
99 Indeno(1,2,3-cd)pyrene	276	10.842	10.842	(1.133)	30491	4.63550	1640
100 Dibenzo(a,h)anthracene	278	10.848	10.842	(1.133)	24211	4.98557	1760
101 Benzo(ghi)perylene	276	11.241	11.242	(1.174)	24972	3.21793	1140
1 N-Methyl-N-nitrosomethylamine	74	2.275	2.264	(0.601)	3826	2.96305	1050(a)

QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
R - Spike/Surrogate failed recovery limits.

Data File: /chem/MSD8.i/s051905.b/s8e1911.d
Date : 19-MAY-2005 18:16
Client ID: RE03-05-58926MSD
Sample Info: 1120084264614239031101SVMF11MSD-1001
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD8.i
Operator: cak
Column diameter: 0.20

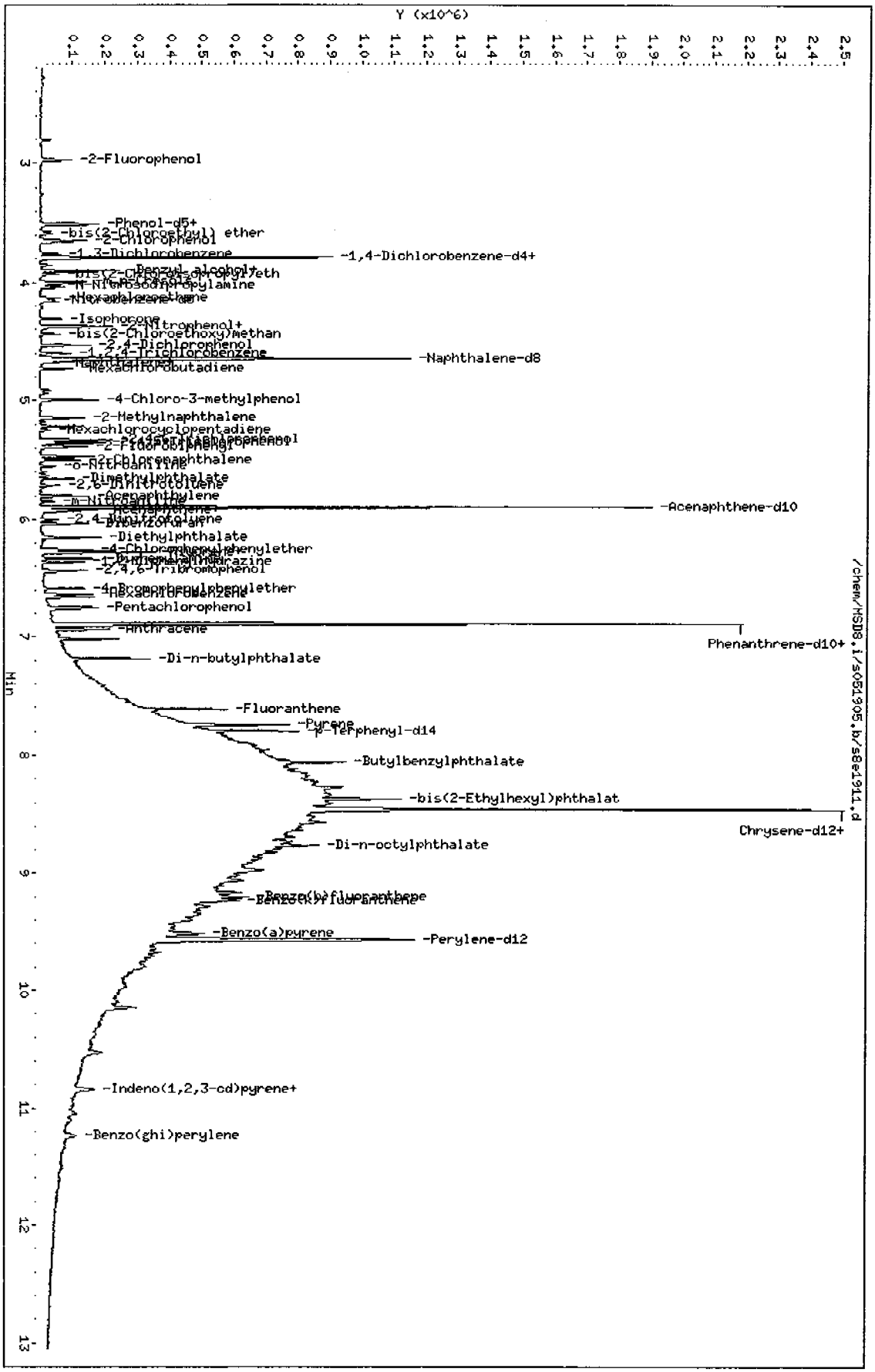

MISCELLANEOUS DATA

GEL ORGANIC RUN LOG INSTRUMENT ID: MSD8

DATE:05/11/05 METHOD: 8270,625 OPERATOR: CAK REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 8 on pg. 109
Multiplier Voltage: 1482Emv Extr. Injection Volume: 0.5, 1.0 ul SOLVENT REF MAT 050428-A
DFTPP Solution ID: WBN050506-01 Internal Std ID: WBN050506-02
Sequence Number:051105A.B Initial Calibration Date(s): 05/11/05 SOP: GL-OA-E-009 Rev. 14

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
s8e1101.d	WBN050506-01	cak	11-MAY-2005 15:00		s051105a	1.0	DFTPP	
s8e1102.d	UBN050421-01	cak	11-MAY-2005 15:15	1ppm	s051105a	1.0	BNA ICAL	DUSE
s8e1103.d	UBN050421-02	cak	11-MAY-2005 15:36	10ppm	s051105a	1.0	BNA ICAL	DUSE
s8e1104.d	UBN050421-03	cak	11-MAY-2005 15:56	20ppm	s051105a	1.0	BNA ICAL	DUSE
s8e1105.d	UBN050421-04	cak	11-MAY-2005 16:17	40ppm	s051105a	1.0	BNA ICAL	DUSE
s8e1106.d	UBN050421-05	cak	11-MAY-2005 16:37	50ppm	s051105a	1.0	BNA ICAL	DUSE
s8e1107.d	UBN050421-06	cak	11-MAY-2005 16:57	80ppm	s051105a	1.0	BNA ICAL	DUSE
s8e1108.d	UBN050421-07	cak	11-MAY-2005 17:17	100ppm	s051105a	1.0	BNA ICAL	DUSE
s8e1109.d	UBN050421-08	cak	11-MAY-2005 17:38	120ppm	s051105a	1.0	BNA ICAL	DUSE
s8e1110.d	UBN050505-04.2	cak	11-MAY-2005 17:58	40ppm	s051105a	1.0	bna nsi CVS	DUSE
s8e1111.d	UBN050216-15	cak	11-MAY-2005 18:18	1ppm	s051105a	1.0	ANBZICAL	
s8e1112.d	UBN050216-16	cak	11-MAY-2005 18:38	10ppm	s051105a	1.0	ANBZICAL	
s8e1113.d	UBN050216-17	cak	11-MAY-2005 18:59	20ppm	s051105a	1.0	ANBZICAL	
s8e1114.d	UBN050216-18	cak	11-MAY-2005 19:19	40ppm	s051105a	1.0	ANBZICAL	
s8e1115.d	UBN050216-19	cak	11-MAY-2005 19:39	50ppm	s051105a	1.0	ANBZICAL	
s8e1116.d	UBN050216-20	cak	11-MAY-2005 20:00	80ppm	s051105a	1.0	ANBZICAL	
s8e1117.d	UBN050216-21	cak	11-MAY-2005 20:20	100ppm	s051105a	1.0	ANBZICAL	
s8e1118.d	UBN050216-22	cak	11-MAY-2005 20:40	120ppm	s051105a	1.0	ANBZICAL	
s8e1119.d	UBN050308-08	cak	11-MAY-2005 21:01	10ppm	s051105a	1.0	168 ICAL	
s8e1120.d	UBN050308-09	cak	11-MAY-2005 21:21	20ppm	s051105a	1.0	168 ICAL	
s8e1121.d	UBN050308-10	cak	11-MAY-2005 21:41	40ppm	s051105a	1.0	168 ICAL	

s8e1122.d	UBN050308-11	cak	11-MAY-2005 22:02	50ppm	s051105a	1.0	168	ICAL
s8e1123.d	UBN050308-12	cak	11-MAY-2005 22:22	80ppm	s051105a	1.0	168	ICAL
s8e1124.d	UBN050308-13	cak	11-MAY-2005 22:42	100ppm	s051105a	1.0	168	ICAL
s8e1125.d	UBN050308-14	cak	11-MAY-2005 23:03	120ppm	s051105a	1.0	168	ICAL

Instrument Batch: /chem/MSD8.i/s051105a.b

GEL ORGANIC RUN LOG INSTRUMENT ID: MSD8

DATE:05/16/05 METHOD: 8270,625 OPERATOR:cak REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No.8 on pg.109
Multiplier Voltage: 1482Emv Extr. Injection Volume: 0.5, 1.0 ul SOLVENT REF MAT 050428-A
DFTPP Solution ID: WBN050506-01 Internal Std ID: WBN050506-02
Sequence Number:S051605.B Initial Calibration Date(s):05/16/05 SOP: GL-OA-E-009 Rev. 14

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
s8e1601.d	WBN050506-01	cak	16-MAY-2005 13:52		s051605a	1.0	DFTPP	
s8e1602.d	UBN050506-26.3	cak	16-MAY-2005 14:07	40ppm	s051605a	1.0	BNA CVS	DUSE
s8e1603.d	UBN050506-06.3	cak	16-MAY-2005 14:27	40ppm	s051605a	1.0	ANBZ CVS	
s8e1604.d	INSTRUMENT BLANK	cak	16-MAY-2005 15:25		s051605a	1.0		
s8e1605.d	UBN050506-23	cak	16-MAY-2005 15:46	1ppm	s051605a	1.0	BNAICAL	
s8e1606.d	UBN050506-24	cak	16-MAY-2005 16:06	10ppm	s051605a	1.0	BNAICAL	
s8e1607.d	UBN050506-25	cak	16-MAY-2005 16:26	20ppm	s051605a	1.0	BNAICAL	
s8e1608.d	UBN050506-26.3	cak	16-MAY-2005 16:47	40ppm	s051605a	1.0	BNAICAL	
s8e1609.d	UBN050506-27	cak	16-MAY-2005 17:07	50ppm	s051605a	1.0	BNAICAL	
s8e1610.d	UBN050506-28	cak	16-MAY-2005 17:28	80ppm	s051605a	1.0	BNAICAL	
s8e1611.d	UBN050506-29	cak	16-MAY-2005 17:48	100ppm	s051605a	1.0	BNAICAL	
s8e1612.d	UBN050506-30	cak	16-MAY-2005 18:09	120ppm	s051605a	1.0	BNAICAL	
s8e1613.d	INSTRUMENT BLANK	cak	16-MAY-2005 18:29		s051605a	1.0		
s8e1614.d	UBN050421-04.1	cak	16-MAY-2005 18:50	40ppm	s051605a	1.0	BNA ICV NSI	
s8e1615.d	INSTRUMENT BLANK	cak	16-MAY-2005 19:10		s051605a	1.0		
s8e1616.d	UBN050413-09	cak	16-MAY-2005 19:31	500ppm	s051605a	1.0	HEXICAL	
s8e1617.d	UBN050413-10	cak	16-MAY-2005 19:51	1000ppm	s051605a	1.0	HEXICAL	
s8e1618.d	UBN050413-11	cak	16-MAY-2005 20:12	1250ppm	s051605a	1.0	HEXICAL	
s8e1619.d	UBN050413-12	cak	16-MAY-2005 20:33	2000ppm	s051605a	1.0	HEXICAL	
s8e1620.d	UBN050413-13	cak	16-MAY-2005 20:53	2500ppm	s051605a	1.0	HEXICAL	

Instrument Batch: /chem/MSD8.i/s051605a.b

GEL ORGANIC RUN LOG INSTRUMENT ID: MSD8

DATE:05/19/05 METHOD: 8270,625 OPERATOR:cak REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 8 on pg. 109
Multiplier Voltage: 1482 Emv Extr. Injection Volume: 0.5, 1.0 ul SOLVENT REF MAT 050428-A
DFTPP Solution ID: WBN050506-01 Internal Std ID: WBN050506-02
Sequence Number:S051905.B Initial Calibration Date(s):05/16/05 SOP: GL-OA-E-009 Rev. 14

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
s8e1901.d	WBN050506-01	cak	19-MAY-2005 14:46		s051905	1.0	DFTPP	
s8e1902.d	UBN050421-04.3	cak	19-MAY-2005 15:01	40ppm	s051905	1.0	BNA CVS	
s8e1903.d	UBN050506-06.3	cak	19-MAY-2005 15:22	40ppm	s051905	1.0	ANBZ CVS	
s8e1904-1.d	1200842643	cak	19-MAY-2005 15:52	423903	3194S	1.0	MB	
s8e1904-2.d	1200842643	cak	19-MAY-2005 15:52	423903	3202S	1.0	MB	
s8e1904.d	1200842643	cak	19-MAY-2005 15:52	423903		1.0	MB	
s8e1905-1.d	1200842644	cak	19-MAY-2005 16:13	423903	3194S	1.0	LCS	
s8e1905-2.d	1200842644	cak	19-MAY-2005 16:13	423903	3202S	1.0	LCS	
s8e1905.d	1200842644	cak	19-MAY-2005 16:13	423903		1.0	LCS	
s8e1906.d	135805001	cak	19-MAY-2005 16:34	423903	3194S	4.0	LANL	
s8e1907.d	135805002	cak	19-MAY-2005 16:55	423903	3194S	4.0	LANL	
s8e1908.d	135805003	cak	19-MAY-2005 17:15	423903	3194S	4.0	LANL	
s8e1909.d	135805004	cak	19-MAY-2005 17:36	423903	3194S	4.0	LANL	
s8e1910.d	1200842645	cak	19-MAY-2005 17:56	423903	3202S	10.0	MS-1001	
s8e1911.d	1200842646	cak	19-MAY-2005 18:16	423903	3202S	10.0	MSD-1001	
s8e1912.d	135831001	cak	19-MAY-2005 18:37	423903	3202S	10.0	LANL	
s8e1913.d	135831002	cak	19-MAY-2005 20:04	423903	3202S	10.0	LANL	FAILS ISTD. Confirmed by s4e1734
s8e1914.d	135831003	cak	19-MAY-2005 20:24	423903	3202S	10.0	LANL	
s8e1915.d	135831004	cak	19-MAY-2005 20:44	423903	3202S	10.0	LANL	FAILS ISTD. Confirmed by s4e1736.
s8e1916-1.d	1200847768	cak	19-MAY-2005 21:05	426005	136013	1.0	MB	
s8e1916-2.d	1200847768	cak	19-MAY-2005 21:05	426005	136017	1.0	MB	

s8e1916-3.d	1200847768	cak	19-MAY-2005 21:05	426005	136335		1.0	MB	
s8e1916-4.d	1200847768	cak	19-MAY-2005 21:05	426005	136336		1.0	MB	
s8e1916-5.d	1200847768	cak	19-MAY-2005 21:05	426005	136576		1.0	MB	
s8e1916-6.d	1200847768	cak	19-MAY-2005 21:05	426005	136577		1.0	MB	
s8e1916.d	1200847768	cak	19-MAY-2005 21:05	426005	s051905		1.0	MB	
s8e1917-1.d	1200847769	cak	19-MAY-2005 21:25	426005	136013		1.0	LCS	
s8e1917-2.d	1200847769	cak	19-MAY-2005 21:25	426005	136017		1.0	LCS	
s8e1917-3.d	1200847769	cak	19-MAY-2005 21:25	426005	136335		1.0	LCS	
s8e1917-4.d	1200847769	cak	19-MAY-2005 21:25	426005	136336		1.0	LCS	
s8e1917-5.d	1200847769	cak	19-MAY-2005 21:25	426005	136576		1.0	LCS	
s8e1917-6.d	1200847769	cak	19-MAY-2005 21:25	426005	136577		1.0	LCS	
s8e1917.d	1200847769	cak	19-MAY-2005 21:25	426005	s051905		1.0	LCS	
s8e1918-1.d	1200848287	cak	19-MAY-2005 21:46	426005	136013		1.0	LCSD	
s8e1918-2.d	1200848287	cak	19-MAY-2005 21:46	426005	136017		1.0	LCSD	
s8e1918-3.d	1200848287	cak	19-MAY-2005 21:46	426005	136335		1.0	LCSD	
s8e1918-4.d	1200848287	cak	19-MAY-2005 21:46	426005	136336		1.0	LCSD	
s8e1918-5.d	1200848287	cak	19-MAY-2005 21:46	426005	136576		1.0	LCSD	
s8e1918-6.d	1200848287	cak	19-MAY-2005 21:46	426005	136577		1.0	LCSD	
s8e1918.d	1200848287	cak	19-MAY-2005 21:46	426005	s051905		1.0	LCSD	

Instrument Batch: /chem/MSD8.i/s051905.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
s8e1919.d	136013001	cak	19-MAY-2005 22:06	426005	136013	10.0	COMM	FAILS ISTD RR SEE RX OF
s8e1920.d	136017001	cak	19-MAY-2005 22:27	426005	136017	1.0	COMM	DUSE RX OF S4E1529 CONFIRMS
s8e1921.d	136335003	cak	19-MAY-2005 22:47	426005	136335	1.0	GEEL	DUSE RX OF S4E1534 CONFIRMS
s8e1922.d	136335004	cak	19-MAY-2005 23:07	426005	136335	1.0	GEEL	RX OF S4E1534 DNC USE THIS DATA
s8e1923.d	136336001	cak	19-MAY-2005 23:28	426005	136336	1.0	CH2M	FAILS SURR NO SAMPLE LEFT TO RX REPORT AS IS
s8e1924.d	136336002	cak	19-MAY-2005 23:48	426005	136336	1.0	CH2M	FAILS SURR NO SAMPLE LEFT TO RX REPORT AS IS

s8e1925.d	136336003	cak	20-MAY-2005 00:08	426005	136336	1.0	CH2M	FAILS SURR NO SAMPLE LEFT TO RX REPORT AS IS
s8e1926.d	136336004	cak	20-MAY-2005 00:29	426005	136336	1.0	CH2M	FAILS SURR NO SAMPLE LEFT TO RX REPORT AS IS
s8e1927.d	136336005	cak	20-MAY-2005 00:49	426005	136336	1.0	CH2M	FAILS SURR NO SAMPLE LEFT TO RX REPORT AS IS
s8e1928.d	136336006	cak	20-MAY-2005 01:09	426005	136336	1.0	CH2M	FAILS ISTD RR SEE
s8e1929.d	136576001	cak	20-MAY-2005 01:30	426005	136576	1.0	COMM	FAILS ISTD RR SEE
s8e1930.d	136577001	cak	20-MAY-2005 01:50	426005	136577	1.0	COMM	FAILS ISTD RR SEE

Instrument Batch: /chem/MSD8.i/s051905.b

Page: 2

Prep Logbook

Extraction of Semivolatile and Nonvolatile Organic Compounds from Soil, Sludge and Other Miscellaneous Samples

Batch ID: 423902 **Verified by:** _____

Analyst: Joan Patrick

Method: SW846 3550B

Lab SOP: GL-OA-E-010 REV# 12

Instrument: Semi-Volatiles Manual

Sample ID	Run Date	Aliquot (g)	Prepped Aliquot (mL)	Prepped Factor (mL/g)
1200842643 MB	10-MAY-2005 13:34:28	30	1	0.03333
1200842644 LCS	10-MAY-2005 13:34:28	30	1	0.03333
135805001	10-MAY-2005 13:34:28	30	1	0.03333
135805002	10-MAY-2005 13:34:28	30	1	0.03333
135805003	10-MAY-2005 13:34:28	30	1	0.03333
135805004	10-MAY-2005 13:34:28	30	1	0.03333
135831001	10-MAY-2005 13:34:28	30	1	0.03333
1200842645 MS (135831001)	10-MAY-2005 13:34:28	30	1	0.03333
1200842646 MSD (135831001)	10-MAY-2005 13:34:28	30	1	0.03333
135831002	10-MAY-2005 13:34:28	30	1	0.03333
135831003	10-MAY-2005 13:34:28	30	1	0.03333
135831004	10-MAY-2005 13:34:28	30	1	0.03333

Type	Sample Id	Description	Serial Number	Spike Amt	Units
LCS	1200842644	BNA LCS for all spikes	UE050429-03	1	mL
MS	1200842645	BNA LCS for all spikes	UE050429-03	1	mL
MSD	1200842646	BNA LCS for all spikes	UE050429-03	1	mL
SURR	All	BNA for all SurrogateS	UE050503-01	1	mL
REGNT	All	Acetone	050322-A	100	mL
REGNT	All	Methylene Chloride	050505-A	180	mL
SOURC	All	SODIUM SULFATE	243217	30	g

Comments:

Final Solvent: CH2CL2

Verified By: NAG

General Engineering Laboratories, LLC

Data file : /chem/MSD4.i/s051705.b/s4e1734.d
Lab Smp Id: 135831002 Client Smp ID: RE03-05-58927
Inj Date : 18-MAY-2005 06:26
Operator : EED Inst ID: MSD4.i
Smp Info : |135831002|423903|1|SVMF|1|LANL
Misc Info : |MSD8270_SF|WBN050506-02|
Comment : Column: J & W DB-5MS:25m x 0.20mm - 0.33um Film
Method : /chem/MSD4.i/s051705.b/MSD4-8270-051105.m
Meth Date : 18-May-2005 12:59 eri00936 Quant Type: ISTD
Cal Date : 11-MAY-2005 16:28 Cal File: s4e1120.d
Als bottle: 34
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 3202S.sub
Target Version: 3.50
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariabl

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	9.03700	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.947	3.948	(1.000)	124874	40.0000	
* 29 Naphthalene-d8	136	4.814	4.815	(1.000)	574750	40.0000	
* 46 Acenaphthene-d10	164	6.064	6.059	(1.000)	352447	40.0000	
* 67 Phenanthrene-d10	188	7.073	7.068	(1.000)	583452	40.0000	
* 91 Chrysene-d12	240	8.824	8.813	(1.000)	249798	40.0000	
* 98 Perylene-d12	264	10.381	10.353	(1.000)	75711	40.0000	
$ 3 2-Fluorophenol	112	3.133	3.122	(0.794)	239942	69.7725	2560
$ 5 Phenol-d5	99	3.658	3.653	(0.927)	312856	72.2061	2640
$ 20 Nitrobenzene-d5	82	4.307	4.307	(0.895)	146070	30.7630	1130
$ 39 2-Fluorobiphenyl	172	5.551	5.552	(0.915)	323656	34.1219	1250
$ 60 2,4,6-Tribromophenol	329	6.607	6.602	(1.089)	97757	71.5734	2620
$ 81 p-Terphenyl-d14	244	8.034	8.029	(0.910)	314343	55.0769	2020

General Engineering Laboratories, LLC

RECOVERY REPORT

Client Name: Los Alamos National 05-MAY-2005 00:00 Client SDG: 3202S
Sample Matrix: SOLID Fraction: SV
Lab Smp Id: 135831002 Client Smp ID: RE03-05-58927
Level: LOW Operator: EED
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: LCS-H2O.spk Quant Type: ISTD
Sublist File: 3202S.sub
Method File: /chem/MSD4.i/s051705.b/MSD4-8270-051105.m
Misc Info: |MSD8270_SF|WBN050506-02|

SURROGATE COMPOUND	CONC ADDED ug/Kg	CONC RECOVERED ug/Kg	% RECOVERED	LIMITS
$ 3 2-Fluorophenol	3660	2560	69.95	40-105
$ 5 Phenol-d5	3660	2640	72.13	46-100
$ 20 Nitrobenzene-d5	1830	1130	61.75	42-114
$ 39 2-Fluorobiphenyl	1830	1250	68.31	50-113
$ 60 2,4,6-Tribromophen	3660	2620	71.58	35-120
$ 81 p-Terphenyl-d14	1830	2020	110.38	44-125

Data File: /chem/MSD4.i/s051705.b/s4e1734.d
Date : 18-MAY-2005 06:26
Client ID: RE03-05-58927
Sample Info: |1358310021423903|1|SVMF|1|LANL
Volume Injected (uL): 0.5
Column phase: J & W DB-5MS

Instrument: MSD4.i

Operator: EED
Column diameter: 0.20

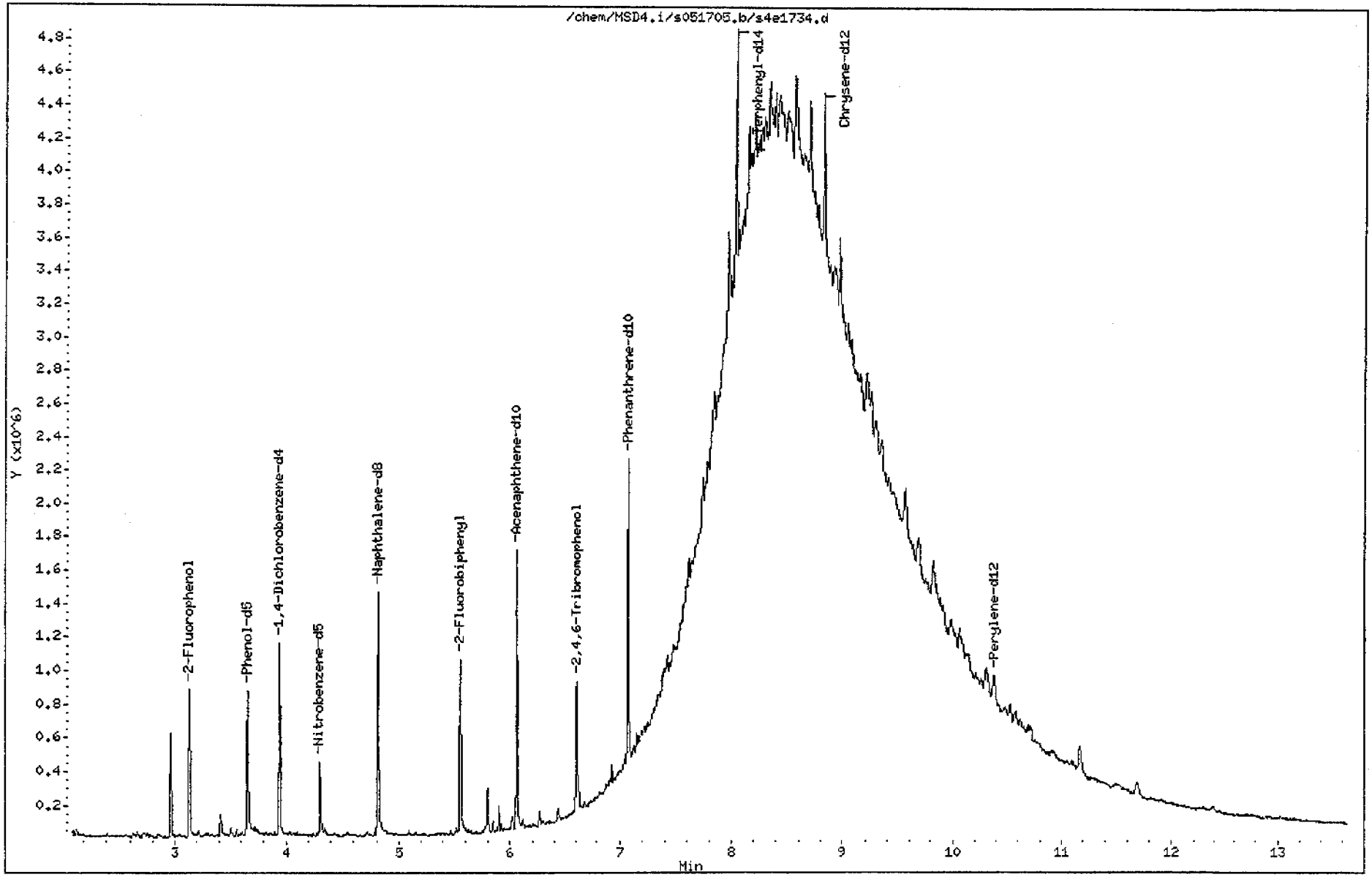

410

General Engineering Laboratories, LLC

Data file : /chem/MSD4.i/s051705.b/s4e1736.d
Lab Smp Id: 135831004 Client Smp ID: RE03-05-59558
Inj Date : 18-MAY-2005 07:08
Operator : EED Inst ID: MSD4.i
Smp Info : |135831004|423903|1|SVMF|1|LANL
Misc Info : |MSD8270_SF|WBN050506-02|
Comment : Column: J & W DB-5MS:25m x 0.20mm - 0.33um Film
Method : /chem/MSD4.i/s051705.b/MSD4-8270-051105.m
Meth Date : 18-May-2005 12:59 eri00936 Quant Type: ISTD
Cal Date : 11-MAY-2005 16:28 Cal File: s4e1120.d
Als bottle: 36
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 3202S.sub
Target Version: 3.50
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariabl

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	7.08420	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.947	3.948	(1.000)	118106	40.0000	
* 29 Naphthalene-d8	136	4.814	4.815	(1.000)	552169	40.0000	
* 46 Acenaphthene-d10	164	6.058	6.059	(1.000)	326668	40.0000	
* 67 Phenanthrene-d10	188	7.072	7.068	(1.000)	524574	40.0000	
* 91 Chrysene-d12	240	8.818	8.813	(1.000)	183311	40.0000	
* 98 Perylene-d12	264	10.369	10.353	(1.000)	74245	40.0000	
$ 3 2-Fluorophenol	112	3.127	3.122	(0.792)	232380	71.4458	2560
$ 5 Phenol-d5	99	3.658	3.653	(0.927)	298939	72.9478	2620
$ 20 Nitrobenzene-d5	82	4.306	4.307	(0.895)	132237	28.9887	1040
$ 39 2-Fluorobiphenyl	172	5.551	5.552	(0.916)	302642	34.4244	1230
$ 60 2,4,6-Tribromophenol	329	6.606	6.602	(1.091)	64929	51.2896	1840
$ 81 p-Terphenyl-d14	244	8.034	8.029	(0.911)	224055	53.4960	1920

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
79 Pyrene	202	7.981	7.976	(0.905)	48216	9.19225	330
53 Fluorene	166	6.441	6.442	(1.063)	4285	0.49618	17.8(a)
68 Phenanthrene	178	7.084	7.085	(1.002)	43598	4.20933	151
76 Fluoranthene	202	7.833	7.828	(1.108)	57566	5.33458	191
93 bis(2-Ethylhexyl)phthalate	149	8.694	8.690	(0.986)	252746	86.4707	3100

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

General Engineering Laboratories, LLC

RECOVERY REPORT

Client Name: Los Alamos National 05-MAY-2005 00:00 Client SDG: 3202S
Sample Matrix: SOLID Fraction: SV
Lab Smp Id: 135831004 Client Smp ID: RE03-05-59558
Level: LOW Operator: EED
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: LCS-H2O.spk Quant Type: ISTD
Sublist File: 3202S.sub
Method File: /chem/MSD4.i/s051705.b/MSD4-8270-051105.m
Misc Info: |MSD8270_SF|WBN050506-02|

SURROGATE COMPOUND	CONC ADDED ug/Kg	CONC RECOVERED ug/Kg	% RECOVERED	LIMITS
$ 3 2-Fluorophenol	3590	2560	71.31	40-105
$ 5 Phenol-d5	3590	2620	72.98	46-100
$ 20 Nitrobenzene-d5	1790	1040	58.10	42-114
$ 39 2-Fluorobiphenyl	1790	1230	68.72	50-113
$ 60 2,4,6-Tribromophen	3590	1840	51.25	35-120
$ 81 p-Terphenyl-d14	1790	1920	107.26	44-125

Data File: /chem/MSD4.i/s051705.b/s4e1736.d
Date : 18-MAY-2005 07:08
Client ID: RE03-05-59558
Sample Info: |135831004|423903|1|SVMF|1|LANL
Volume Injected (uL): 0.5
Column phase: J & W DB-5MS

Instrument: MSD4.i

Operator: EED
Column diameter: 0.20

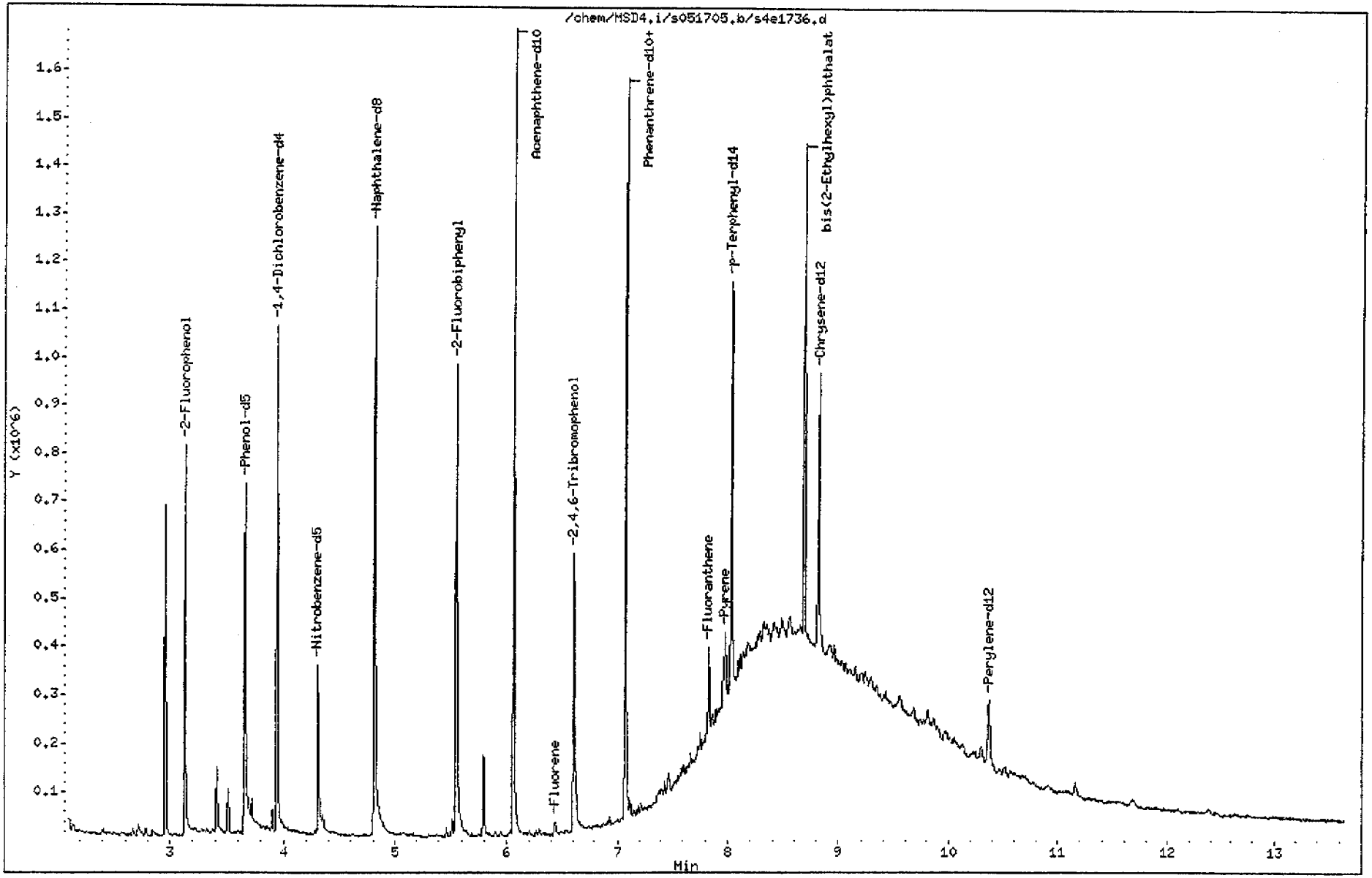

GC SEMIVOLATILE DRO ANALYSIS

DRO Case Narrative
Los Alamos National Laboratory (LANL)
SDG 3202S

Method/Analysis Information

Procedure:	**Non-Volatile Total Petroleum Hydrocarbons by Flame Ionization Detector**
Analytical Method:	SW846 8015A/B SVOC
Prep Method:	SW846 3550B
Analytical Batch Number:	423035, 423910
Prep Batch Number:	423034, 423909

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 8015A/B SVOC:

Sample ID	Client ID
135831001	RE03-05-58926
135831002	RE03-05-58927
135831003	RE03-05-59557
135831004	RE03-05-59558
1200840424	Method Blank (MB) in batch 423035
1200842656	Method Blank (MB) in batch 423910
1200840425	Laboratory Control Sample (LCS) in batch 423035
1200842657	Laboratory Control Sample (LCS) in batch 423910
1200840426	135831001(RE03-05-58926) Matrix Spike (MS) in batch 423035
1200840427	135831001(RE03-05-58926) Matrix Spike Duplicate (MSD) in batch 423035
1200842660	135831003(RE03-05-59557) Matrix Spike (MS) in batch 423910
1200842661	135831003(RE03-05-59557) Matrix Spike Duplicate (MSD) in batch 423910

Preparation/Analytical Method Verification

Procedures for preparation, analysis, and reporting of analytical data are documented by General Engineering Laboratories, LLC. (GEL) as Standard Operating Procedures (SOP).

Calibration Information

Initial Calibration
All initial calibration requirements have been met for this sample delivery group (SDG).

Continuing Calibration Verification (CCV) Requirements
All calibration verification standards (CVS, ICV, or CCV) requirements have not been met for this SDG.

Some target analytes failed with a positive bias in the standards bracketing the samples in this SDG. The positive bias for the analytical data is a result of the instrument response increasing after the initial calibration. All samples were re-analyzed and the standard failed in the same manner, confirming matrix interference.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB(s) analyzed with this SDG met the acceptance criteria.

Surrogate Recoveries
All surrogate recoveries were not within the acceptance criteria. Samples 1200840426 (RE03-05-58926MS), 1200840427 (RE03-05-58926MSD), 135831001 (RE03-05-58926), 135831002 (RE03-05-58927), 1200842660 (RE03-05-59557MS), 1200842661 (RE03-05-59557MSD), 135831003 (RE03-05-59557) and 135831004 (RE03-05-59558) did not meet surrogate recovery acceptance criteria due to matrix interference associated with high level hits of Diesel Range Organics, and/or the presence of hydrocarbons heavier than diesel. See NCRs #201969 and #202768 located in the Miscellaneous Section.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

QC Sample Designation
Samples 135831001 (RE03-05-58926) and 135831003 (RE03-05-59557) were selected for analysis as the matrix spike and matrix spike duplicate analyses.

Matrix Spike (MS) Recovery Statement
The MS recoveries for this SDG were not within the acceptance limits due matrix interference and dilution. The matrix spike duplicate confirms the failure.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recoveries for this SDG were not within the acceptance limits due matrix interference and dilution. The MS confirms the failure.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD(s) between the MS and MSD met the acceptance limits in batch 423035. The RPD between the MS and MSD in batch 423910 were not within acceptance criteria due to matrix interference and dilution. See NCR #201969 located in the Miscellaneous Section.

Technical Information

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

Sample Dilutions
All samples in this SDG were diluted due to the oily matrix of the samples.

Sample Re-extraction/Re-analysis
Re-extractions or re-analyses were not required in this SDG.

Miscellaneous Information

Nonconformance (NCR) Documentation
NCRs # 202768 and #201969 have been generated for this SDG.

Manual Integrations
Certain standards and QC samples may have required manual integrations to correctly position the baseline as set in the calibration standard injections. If manual integrations were performed, copies of all manual integration peak profiles are included in the raw data section of this fraction.

Additional Comments
The additional comments field is used to address special issues associated with each analysis, clarify method/contractual issues pertaining to the analysis, and to list any report documents generated as a result of sample analysis or review. The following additional comments were required:

Samples 1200840426 (RE03-05-58926MS), 1200840427 (RE03-05-58926MSD), 135831001 (RE03-05-58926), 135831002 (RE03-05-58927), 1200842660 (RE03-05-59557MS), 1200842661 (RE03-05-59557MSD), 135831003 (RE03-05-59557) and 135831004 (RE03-05-59558) contained hydrocarbons heavier than diesel.

Due to software limitation, the Form VIIs will display the results either in the % difference or % drift depending on the type of the calibration curve. If the curve of all analytes is generated using an average response factor (RF), the Form VII will display results using the %difference calculation (RF). If the curve of one or more analytes is generated using a linear curve, the Form VII will display results using the % drift calculation (by concentration) for all analytes.

System Configuration

The GC-FID analysis was performed on a HP Gas Chromatograph.

Instrument ID	System Configuration	Column ID	Column Description
FIDA.I	HP5890 Series II FID	J&W DB-Wax	30m x 0.53mm, 0.5um
FIDA.I	HP5890 Series II FID	ZB-5	30m x 0.25mm, 0.25um (Phenomenex)
FIDA.I	HP5890 Series II FID	J&W BD-624	75m x 0.53mm, 1.4um

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: _____ **Date:** 9/4

SAMPLE DATA SUMMARY

1B
DRO ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-58926

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Matrix: (soil/water) SOIL Lab Sample ID: 135831001

Sample wt/vol: 30.0 (g/mL) G Lab File ID: 023F2301

Level: (low/med) LOW Date Received: 05/05/05

% Moisture: 6 decanted: (Y/N) N Date Extracted:05/11/05

Concentrated Extract Volume: 1.00(mL) Date Analyzed: 05/16/05

Injection Volume: 1.0(uL) Dilution Factor: 50.0

GPC Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) MG/KG	Q
	----------Diesel Range Organics_____	1840	_____

FORM I SV-1 OLM03.0

1B

DRO ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-58927

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Matrix: (soil/water) SOIL Lab Sample ID: 135831002

Sample wt/vol: 30.0 (g/mL) G Lab File ID: 026F2601

Level: (low/med) LOW Date Received: 05/05/05

% Moisture: 9 decanted: (Y/N) N Date Extracted:05/11/05

Concentrated Extract Volume: 1.00(mL) Date Analyzed: 05/16/05

Injection Volume: 1.0(uL) Dilution Factor: 50.0

GPC Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) MG/KG	Q
	----------Diesel Range Organics_____	3700	_____

FORM I SV-1 OLM03.0

1B
DRO ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-59557

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Matrix: (soil/water) SOIL Lab Sample ID: 135831003

Sample wt/vol: 30.0 (g/mL) G Lab File ID: 006F0601

Level: (low/med) LOW Date Received: 05/05/05

% Moisture: 9 decanted: (Y/N) N Date Extracted:05/12/05

Concentrated Extract Volume: 1.00(mL) Date Analyzed: 05/16/05

Injection Volume: 1.0(uL) Dilution Factor: 50.0

GPC Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) MG/KG	Q
----------	Diesel Range Organics	172	

FORM I SV-1 OLM03.0

1B
DRO ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-59558

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Matrix: (soil/water) SOIL Lab Sample ID: 135831004

Sample wt/vol: 30.0 (g/mL) G Lab File ID: 018F1801

Level: (low/med) LOW Date Received: 05/05/05

% Moisture: 7 decanted: (Y/N) N Date Extracted: 05/12/05

Concentrated Extract Volume: 1.30(mL) Date Analyzed: 05/16/05

Injection Volume: 1.0(uL) Dilution Factor: 200.0

GPC Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) MG/KG	Q
----------	Diesel Range Organics	10500	

FORM I SV-1 OLM03.0

QUALITY CONTROL SUMMARY

2D
SOIL DRO SURROGATE RECOVERY

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Level: (low/med) LOW

	EPA SAMPLE NO.	S1 #	S2 #	S3 #	S4 #	S5 #	S6 #	TOT OUT
01	DBLK01	67						0
02	DBLK01LCS	106						0
03	DBLK02	73						0
04	DBLK02LCS	104						0
05	RE03-05-59557	0D						0
06	RE03-05-59557MS	0D						0
07	RE03-05-59557MSD	0D						0
08	RE03-05-59558	0D						0
09	RE03-05-58926	0D						0
10	RE03-05-58926MS	0D						0
11	RE03-05-58926MSD	0D						0
12	RE03-05-58927	0D						0
13								
14								
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17								
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29								
30								

S1 = o-Terphenyl QC LIMITS (38-143)

Column to be used to flag recovery values
* Values outside of contract required QC limits
D Surrogate diluted out

3D
SOIL DRO LAB CONTROL SAMPLE

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Matrix Spike - EPA Sample No.: DBLK01 Level:(low/med) LOW

COMPOUND	SPIKE ADDED (mg/Kg)	SAMPLE CONCENTRATION (mg/Kg)	LCS CONCENTRATION (mg/Kg)	LCS % REC #	QC. LIMITS REC.
Diesel Range Organics	33.3	0.0	29.7	89	60-112

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

RPD: 0 out of 0 outside limits
Spike Recovery: 0 out of 1 outside limits

COMMENTS:

FORM III SV-2 OLM03.0

3D
SOIL DRO LAB CONTROL SAMPLE

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Matrix Spike - EPA Sample No.: DBLK02 Level:(low/med) LOW

COMPOUND	SPIKE ADDED (mg/Kg)	SAMPLE CONCENTRATION (mg/Kg)	LCS CONCENTRATION (mg/Kg)	LCS % REC #	QC. LIMITS REC.
Diesel Range Organics	33.3	0.0	27.1	81	60-112

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

RPD: 0 out of 0 outside limits
Spike Recovery: 0 out of 1 outside limits

COMMENTS:

FORM III SV-2 OLM03.0

3D

SOIL DRO MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Matrix Spike - EPA Sample No.: RE03-05-5955 Level:(low/med) LOW

COMPOUND	SPIKE ADDED (mg/Kg)	SAMPLE CONCENTRATION (mg/Kg)	MS CONCENTRATION (mg/Kg)	MS % REC #	QC. LIMITS REC.
Diesel Range Organics	18.2	172	953	4291*	22-158

COMPOUND	SPIKE ADDED (mg/Kg)	MSD CONCENTRATION (mg/Kg)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Diesel Range Organics	36.5	488	866*	133*	37	22-158

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

RPD: 1 out of 1 outside limits
Spike Recovery: 2 out of 2 outside limits

COMMENTS: _____

FORM III SV-2 OLM03.0

3D

SOIL DRO MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Matrix Spike - EPA Sample No.: RE03-05-8926 Level:(low/med) LOW

COMPOUND	SPIKE ADDED (mg/Kg)	SAMPLE CONCENTRATION (mg/Kg)	MS CONCENTRATION (mg/Kg)	MS % REC #	QC. LIMITS REC.
Diesel Range Organics	35.4	1500	1610	311*	22-158

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

RPD: 0 out of 0 outside limits
Spike Recovery: 1 out of 1 outside limits

COMMENTS:

FORM III SV-2 OLM03.0

FORM 3
SOIL SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Matrix Spike - Los Alamos Sample No.: RE03

COMPOUND	SPIKE ADDED (mg/Kg)	SAMPLE CONCENTRATION (mg/Kg)	MS CONCENTRATION (mg/Kg)	MS % REC #	QC. LIMITS REC.
Diesel Range Organics	35.4	1840	1500	N/A	22-158

COMPOUND	SPIKE ADDED (mg/Kg)	MSD CONCENTRATION (mg/Kg)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Diesel Range Organics	35.4	1610	N/A	N/A	37	22-158

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 1 outside limits
Spike Recovery: 0 out of 2 outside limits
N/A: Not applicable due to parent sample concentration

COMMENTS: _____

FORM III SV

4B
DRO METHOD BLANK SUMMARY

EPA SAMPLE NO.

DBLK01

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Lab File ID: 007F0701MB2 Lab Sample ID: 1200840424

Instrument ID: FIDA Date Extracted: 05/11/05

Matrix: (soil/water) SOIL Date Analyzed: 05/12/05

Level:(low/med) LOW Time Analyzed: 1303

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	DBLK01LCS	1200840425	008F0801LCS2	05/12/05
02	RE03-05-58926	135831001	023F2301	05/16/05
03	RE03-05-58926MS	1200840426	024F2401	05/16/05
04	RE03-05-58926MSD	1200840427	025F2501	05/16/05
05	RE03-05-58927	135831002	026F2601	05/16/05
06				
07				
08				
09				
10				
11				
12				
13				
14				
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4B
DRO METHOD BLANK SUMMARY

EPA SAMPLE NO.

DBLK02

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Lab File ID: 005F0501 Lab Sample ID: 1200842656

Instrument ID: FIDA Date Extracted: 05/12/05

Matrix: (soil/water) SOIL Date Analyzed: 05/13/05

Level:(low/med) LOW Time Analyzed: 1228

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	DBLK02LCS	1200842657	006F0601	05/13/05
02	RE03-05-59557	135831003	006F0601	05/16/05
03	RE03-05-59557MS	1200842660	007F0701	05/16/05
04	RE03-05-59557MSD	1200842661	008F0801	05/16/05
05	RE03-05-59558	135831004	018F1801	05/16/05
06				
07				
08				
09				
10				
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SAMPLE DATA

1B
DRO ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-58926

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Matrix: (soil/water) SOIL Lab Sample ID: 135831001

Sample wt/vol: 30.0 (g/mL) G Lab File ID: 023F2301

Level: (low/med) LOW Date Received: 05/05/05

% Moisture: 6 decanted: (Y/N) N Date Extracted:05/11/05

Concentrated Extract Volume: 1.00(mL) Date Analyzed: 05/16/05

Injection Volume: 1.0(uL) Dilution Factor: 50.0

GPC Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) MG/KG	Q
	----------Diesel Range Organics	1840	

General Engineering Laboratories, LLC

ZB-5 0.25mm

Data file : /chem/fida.i/051605/023f2301.d
Lab Smp Id: 135831001 Client Smp ID: RE03-05-58926
Inj Date : 16-MAY-2005 21:10
Operator : JMB3 Inst ID: fida.i
Smp Info : |135831001|50|
Misc Info : |FIDDRO_SF|423035|FIDF|LANL|
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fida.i/051605/FIDa.i_f_DRO_042105.m
Meth Date : 17-May-2005 08:53 jos00786 Quant Type: ESTD
Cal Date : 21-APR-2005 17:02 Cal File: 007f0701.d
Als bottle: 23
Dil Factor: 50.00000
Integrator: Falcon Compound Sublist: 3202S.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	50.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weigth of sample extracted (g)
M	5.87600	% Moisture

Cpnd Variable Local Compound Variable

	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (mg/L)	FINAL (mg/Kg)
S	1 Diesel Range Organics					CAS #:
	7.623- 17.980			6943720	1039.61	1840

Data File: /chem/fida.i/051605/023f2301.d
Date : 16-MAY-2005 21:10
Client ID: RE03-05-58926
Sample Info: |135831001|50|
Volume Injected (uL): 1.0
Column phase: ZB-5

Instrument: fida.i

Operator: JMB3
Column diameter: 0.25

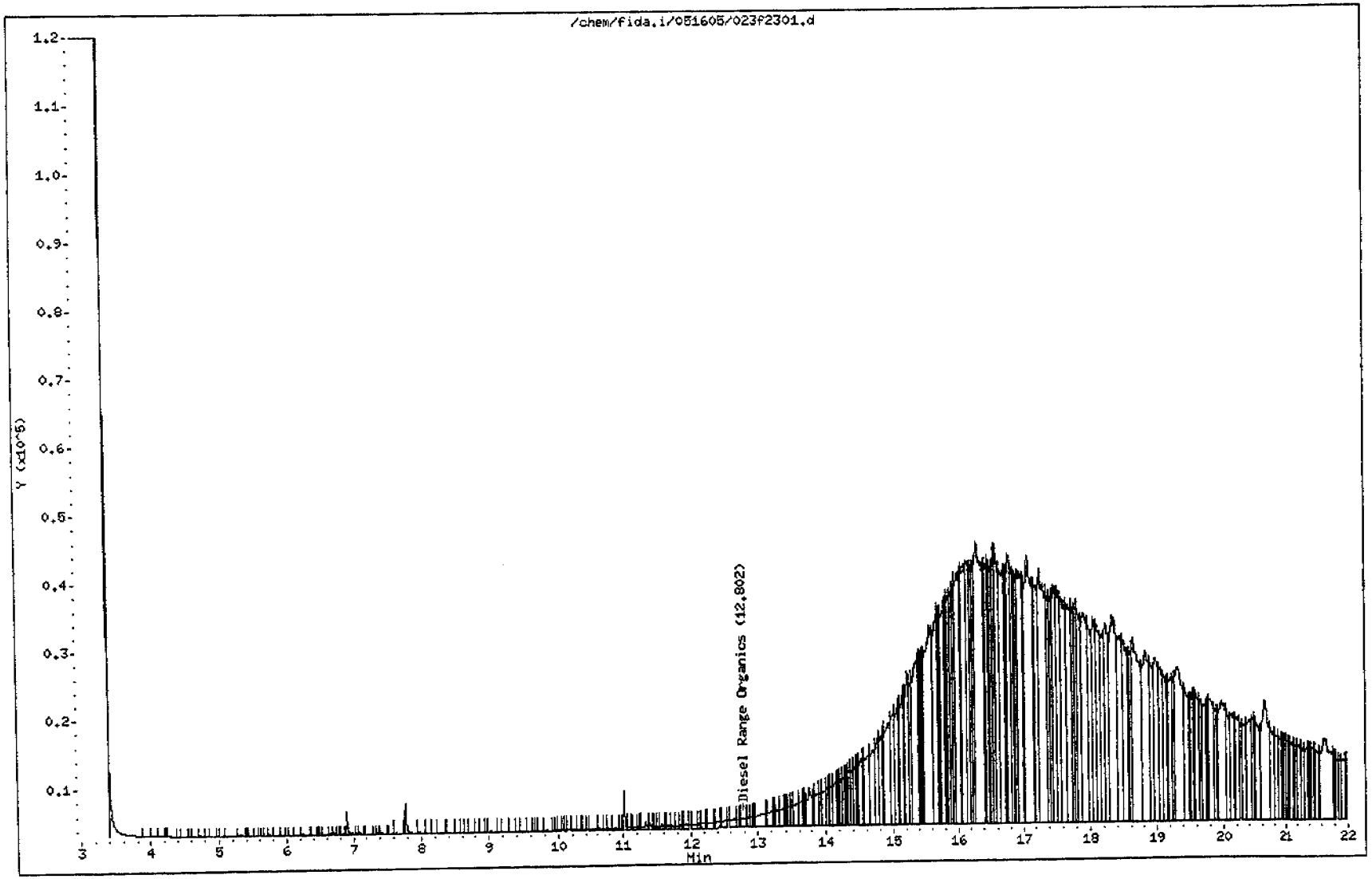

1B
DRO ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-58927

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Matrix: (soil/water) SOIL Lab Sample ID: 135831002

Sample wt/vol: 30.0 (g/mL) G Lab File ID: 026F2601

Level: (low/med) LOW Date Received: 05/05/05

% Moisture: 9 decanted: (Y/N) N Date Extracted: 05/11/05

Concentrated Extract Volume: 1.00(mL) Date Analyzed: 05/16/05

Injection Volume: 1.0(uL) Dilution Factor: 50.0

GPC Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) MG/KG	Q
	Diesel Range Organics	3700	

FORM I SV-1 OLM03.0

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ZB-5 0.25mm

Data file : /chem/fida.i/051605/026f2601.d
Lab Smp Id: 135831002 Client Smp ID: RE03-05-58927
Inj Date : 16-MAY-2005 22:36
Operator : JMB3 Inst ID: fida.i
Smp Info : |135831002|50|
Misc Info : |FIDDRO_SF|423035|FIDF|LANL|
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fida.i/051605/FIDa.i_f_DRO_042105.m
Meth Date : 17-May-2005 08:53 jos00786 Quant Type: ESTD
Cal Date : 21-APR-2005 17:02 Cal File: 007f0701.d
Als bottle: 26
Dil Factor: 50.00000
Integrator: Falcon Compound Sublist: 3202S.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	50.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weigth of sample extracted (g)
M	9.03700	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (mg/L)	FINAL (mg/Kg)
S 1 Diesel Range Organics					CAS #:
7.623- 17.980			13501423	2021.42	3700

Data File: /chem/fida.i/051605/026f2601.d
Date : 16-MAY-2005 22:36
Client ID: RE03-05-58927
Sample Info: |1358310021501
Volume Injected (uL): 1.0
Column phase: ZB-5

Instrument: fida.i

Operator: JMB3
Column diameter: 0.25

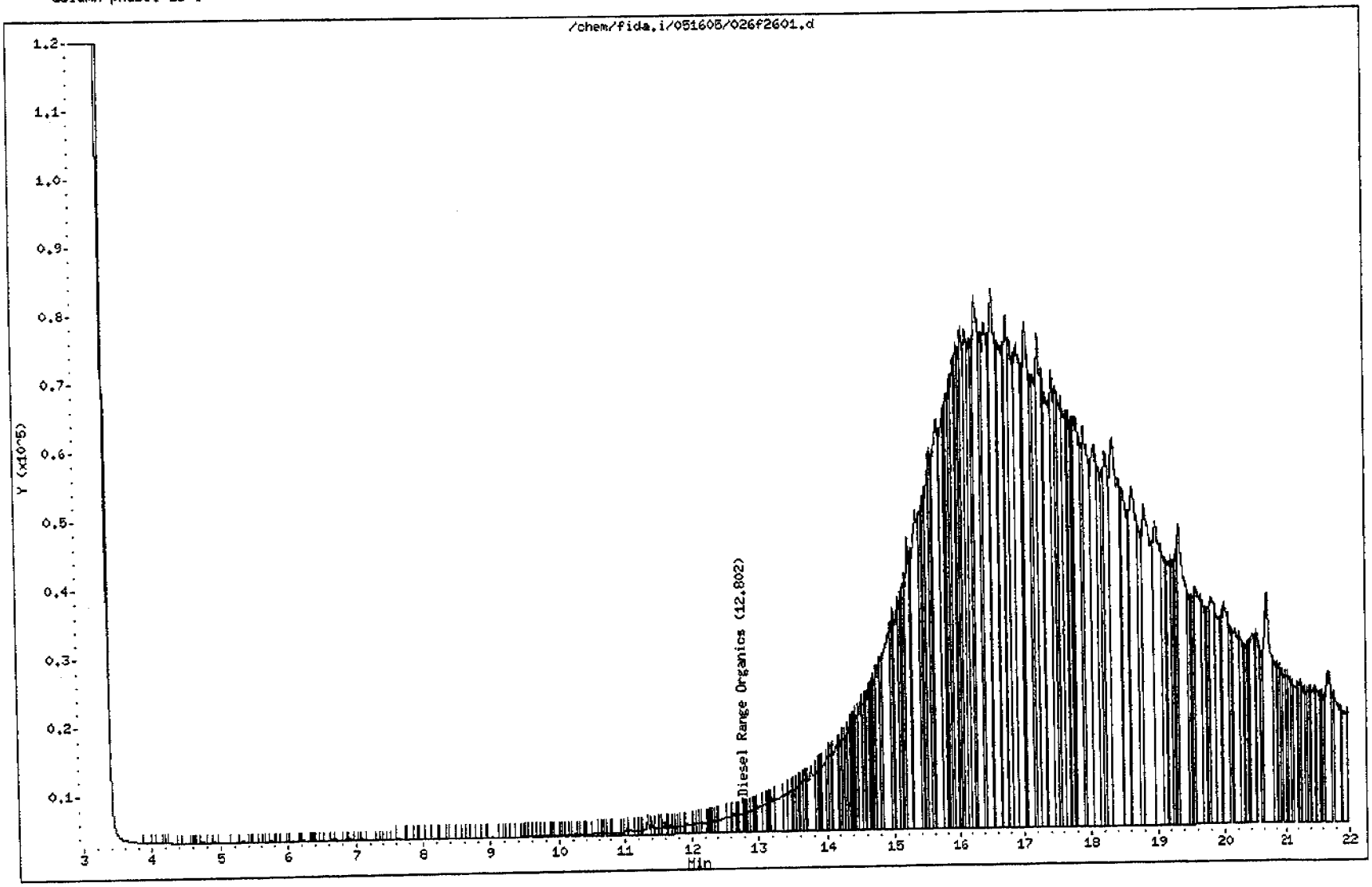

1B
DRO ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-59557

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Matrix: (soil/water) SOIL Lab Sample ID: 135831003

Sample wt/vol: 30.0 (g/mL) G Lab File ID: 006F0601

Level: (low/med) LOW Date Received: 05/05/05

% Moisture: 9 decanted: (Y/N) N Date Extracted: 05/12/05

Concentrated Extract Volume: 1.00(mL) Date Analyzed: 05/16/05

Injection Volume: 1.0(uL) Dilution Factor: 50.0

GPC Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) MG/KG	Q
	----------Diesel Range Organics	172	

FORM I SV-1 OLM03.0

General Engineering Laboratories, LLC

ZB-5 0.25mm

Data file : /chem/fida.i/051605/006f0601.d
Lab Smp Id: 135831003 Client Smp ID: RE03-05-59557
Inj Date : 16-MAY-2005 12:28
Operator : JMB3 Inst ID: fida.i
Smp Info : |135831003|50|
Misc Info : |FIDDRO_SF|423910|FIDF|LANL|
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fida.i/051605/FIDa.i_f_DRO_042105.m
Meth Date : 17-May-2005 08:53 jos00786 Quant Type: ESTD
Cal Date : 21-APR-2005 17:02 Cal File: 007f0701.d
Als bottle: 6
Dil Factor: 50.00000
Integrator: Falcon Compound Sublist: 3202S.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	50.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weigth of sample extracted (g)
M	8.58140	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (mg/L)	FINAL (mg/Kg)
S 1 Diesel Range Organics					CAS #:
7.623- 17.980			629514	94.2501	172

Data File: /chem/fida.i/051605/006f0601.d
Date : 16-MAY-2005 12:28
Client ID: RE03-05-59557
Sample Info: |1358310031501
Volume Injected (uL): 1.0
Column phase: ZB-5

Instrument: fida.i

Operator: JMB3
Column diameter: 0.25

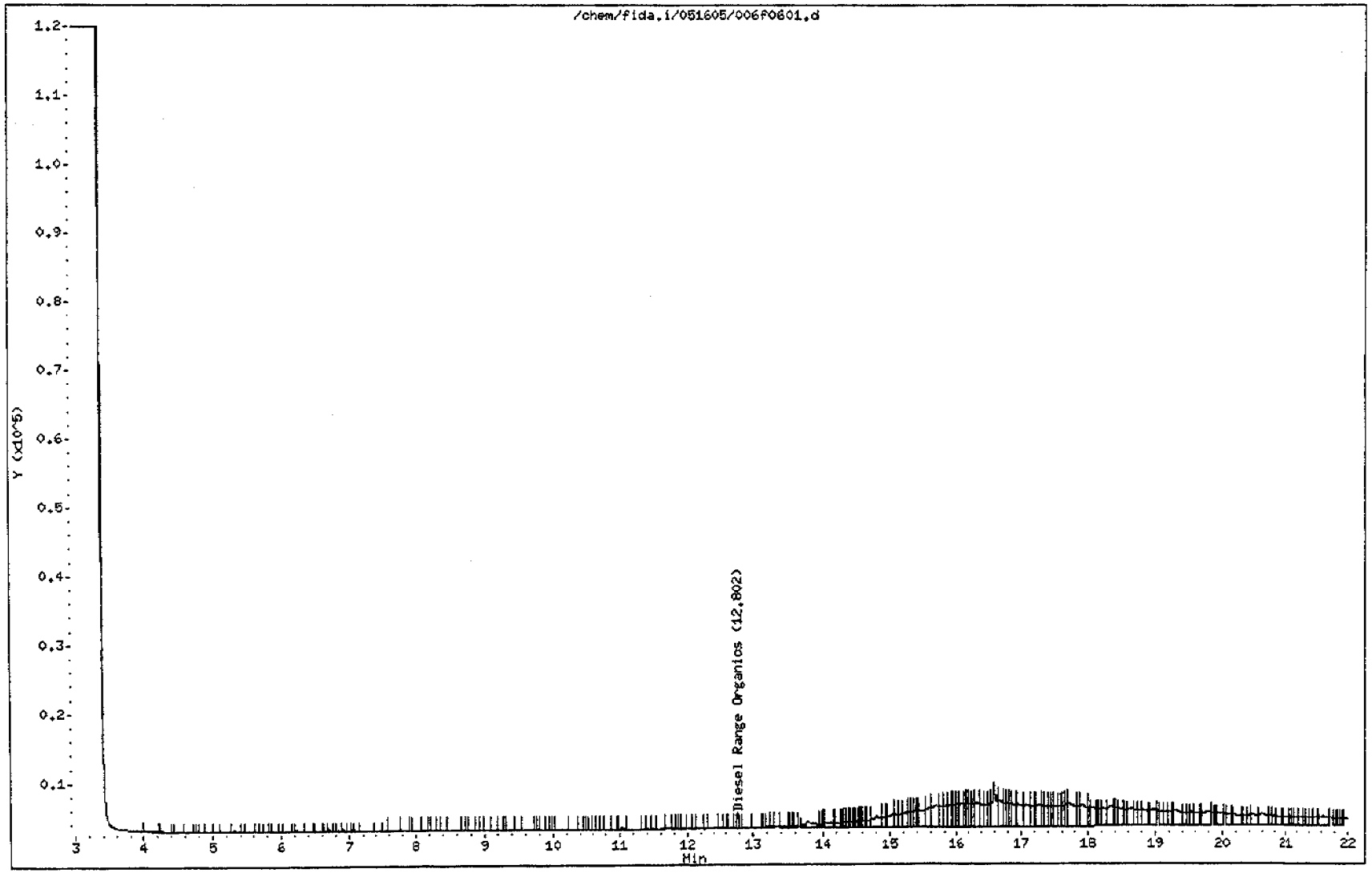

1B
DRO ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-59558

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Matrix: (soil/water) SOIL Lab Sample ID: 135831004

Sample wt/vol: 30.0 (g/mL) G Lab File ID: 018F1801

Level: (low/med) LOW Date Received: 05/05/05

% Moisture: 7 decanted: (Y/N) N Date Extracted: 05/12/05

Concentrated Extract Volume: 1.30(mL) Date Analyzed: 05/16/05

Injection Volume: 1.0(uL) Dilution Factor: 200.0

GPC Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) MG/KG	Q
	Diesel Range Organics	10500	

FORM I SV-1 OLM03.0

General Engineering Laboratories, LLC

ZB-5 0.25mm

Data file : /chem/fida.i/051605/018f1801.d
Lab Smp Id: 135831004 Client Smp ID: RE03-05-59558
Inj Date : 16-MAY-2005 18:47
Operator : JMB3 Inst ID: fida.i
Smp Info : |135831004|200|
Misc Info : |FIDDRO_SF|423910|FIDF|LANL|
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fida.i/051605/FIDa.i_f_DRO_042105.m
Meth Date : 17-May-2005 08:53 jos00786 Quant Type: ESTD
Cal Date : 21-APR-2005 17:02 Cal File: 007f0701.d
Als bottle: 18
Dil Factor: 200.00000
Integrator: Falcon Compound Sublist: 3202S.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	200.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.30000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weigth of sample extracted (g)
M	7.08420	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (mg/L)	FINAL (mg/Kg)
S 1 Diesel Range Organics					CAS #:
7.623- 17.980			7508787	1124.21	10500

Data File: /chem/fida.i/051605/018f1801.d
Date : 16-MAY-2005 18:47
Client ID: RE03-05-59558
Sample Info: |1358310041200|
Volume Injected (uL): 1.0
Column phase: ZB-5

Instrument: fida.i

Operator: JMB3
Column diameter: 0.25

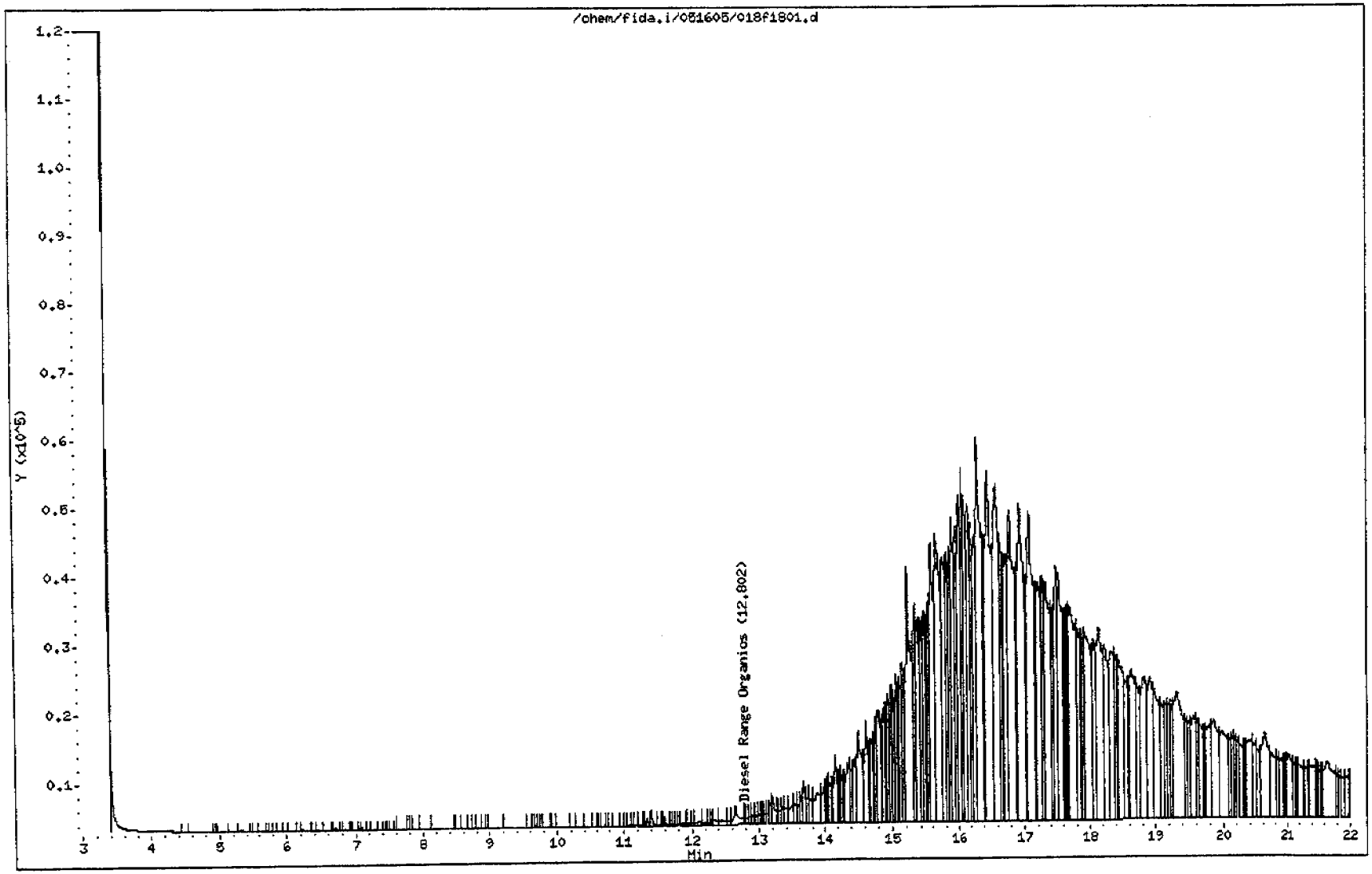

STANDARDS DATA

Report Date: 15-May-2005 11:33

Calibration History

Method : /chem/fida.i/051205/FIDa.i_f_DRO_042105.m
Start Cal Date: 21-APR-2005 15:08
End Cal Date : 21-APR-2005 17:02

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 50.00000		
21-APR-2005 15:08	DRO	/chem/fida.i/042105/003f0301.d
Cal Level: 3 , Cal Amount: 200.00000		
21-APR-2005 15:36	DRO	/chem/fida.i/042105/004f0401.d
Cal Level: 4 , Cal Amount: 500.00000		
21-APR-2005 16:05	DRO	/chem/fida.i/042105/005f0501.d
Cal Level: 5 , Cal Amount: 1000.00000		
21-APR-2005 16:34	DRO	/chem/fida.i/042105/006f0601.d
Cal Level: 7 , Cal Amount: 5000.00000		
21-APR-2005 17:02	DRO	/chem/fida.i/042105/007f0701.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 5

Ccal Level: 5 , Ccal Amount: 1000		
13-MAY-2005 02:02	DRO	/chem/fida.i/051205/034f3401.d
Ccal Level: 5 , Ccal Amount: 1000		
12-MAY-2005 21:46	DRO	/chem/fida.i/051205/025f2501.d
Ccal Level: 5 , Ccal Amount: 1000		
12-MAY-2005 16:52	DRO	/chem/fida.i/051205/015f1501.d
Ccal Level: 5 , Ccal Amount: 1000		
12-MAY-2005 11:09	DRO	/chem/fida.i/051205/003f0301.d
Ccal Level: 5 , Ccal Amount: 1000		
12-MAY-2005 22:43	3192S	/chem/fida.i/051205/027f2701.d

General Engineering Laboratories, LLC

COMPOUND LISTING

Method file : /chem/fida.i/051205/FIDa.i_f_DRO_042105.m
Quant Method : ESTD Target Version : 3.50
Last Update : 13-May-2005 09:24 Number of Cpnds : 4
Data Type : GC DATA

Global Integrator : Falcon

Chromat Events	Values
Initial:Start Threshold	1.000000
Initial:End Threshold	0.500000
Initial:Area Threshold	5.000000
Initial:P-P Resolution	1.000000
Initial:Bunch Factor	2.000000
Initial:Negative Peaks	OFF
Initial:Tension	3.000000
4.000:Force Cluster ON	n/a
20.000:Force Cluster OFF	n/a

	Compound	RT	RT Window	RF
S	1 Diesel Range Organics	12.803	7.623-17.983	6.679e+03
$	2 o-Terphenyl	13.777	13.747-13.807	9.213e+03
	3 Decane (C10)	7.653	7.623-7.683	
	4 Octacosane (C28)	17.953	17.923-17.983	

General Engineering Laboratories, LLC

INITIAL CALIBRATION DATA

Start Cal Date : 21-APR-2005 15:08
End Cal Date : 21-APR-2005 17:02
Quant Method : ESTD
Target Version : 3.50
Integrator : Falcon
Method file : /chem/fida.i/051205/FIDa.i_f_DRO_042105.m
Cal Date : 13-May-2005 09:24 jos00786

Calibration File Names:
Level 1: /chem/fida.i/042105/003f0301.d
Level 3: /chem/fida.i/042105/004f0401.d
Level 4: /chem/fida.i/042105/005f0501.d
Level 5: /chem/fida.i/042105/006f0601.d
Level 7: /chem/fida.i/042105/007f0701.d

450

Compound	50 Level 1	200 Level 3	500 Level 4	1000 Level 5	5000 Level 7	Curve	Coefficients b	m1	m2	%RSD or R^2	
$ 1 Diesel Range Organics	6612	6367	6617	6842	6958	AVRG		6679		3.42876	
3 Decane (C10)	+++++	+++++	+++++	+++++	+++++	LINR	0.000e+00	0.000e+00		0.000e+00	<-
4 Octacosane (C28)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00	
$ 2 o-Terphenyl	8144	8873	9082	9516	10451	AVRG		9213		9.24435	

General Engineering Laboratories, LLC

INITIAL CALIBRATION DATA

Start Cal Date : 21-APR-2005 15:08
End Cal Date : 21-APR-2005 17:02
Quant Method : ESTD
Target Version : 3.50
Integrator : Falcon
Method file : /chem/fida.i/051205/FIDa.i_f_DRO_042105.m
Cal Date : 13-May-2005 09:24 jos00786

Curve	Formula	Units
Averaged	Amt = Rsp/ml	Response
Linear	Amt = b + Rsp/ml	Response

Report Date: 16-May-2005 08:25

Calibration History

Method : /chem/fida.i/051305/FIDa.i_f_DRO_042105.m
Start Cal Date: 21-APR-2005 15:08
End Cal Date : 21-APR-2005 17:02

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 50.00000		
21-APR-2005 15:08	DRO	/chem/fida.i/042105/003f0301.d
Cal Level: 3 , Cal Amount: 200.00000		
21-APR-2005 15:36	DRO	/chem/fida.i/042105/004f0401.d
Cal Level: 4 , Cal Amount: 500.00000		
21-APR-2005 16:05	DRO	/chem/fida.i/042105/005f0501.d
Cal Level: 5 , Cal Amount: 1000.00000		
21-APR-2005 16:34	DRO	/chem/fida.i/042105/006f0601.d
Cal Level: 7 , Cal Amount: 5000.00000		
21-APR-2005 17:02	DRO	/chem/fida.i/042105/007f0701.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 5

Ccal Level: 5 , Ccal Amount: 1000		
13-MAY-2005 22:57	DRO	/chem/fida.i/051305/027f2701.d
Ccal Level: 5 , Ccal Amount: 1000		
13-MAY-2005 17:14	DRO	/chem/fida.i/051305/015f1501.d
Ccal Level: 5 , Ccal Amount: 1000		
13-MAY-2005 11:31	DRO	/chem/fida.i/051305/003f0301.d

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COMPOUND LISTING

Method file : /chem/fida.i/051305/FIDa.i_f_DRO_042105.m
Quant Method : ESTD Target Version : 3.50
Last Update : 15-May-2005 11:55 Number of Cpnds : 4
Data Type : GC DATA

Global Integrator : Falcon

Chromat Events	Values
Initial:Start Threshold	1.000000
Initial:End Threshold	0.500000
Initial:Area Threshold	5.000000
Initial:P-P Resolution	1.000000
Initial:Bunch Factor	2.000000
Initial:Negative Peaks	OFF
Initial:Tension	3.000000
4.000:Force Cluster ON	n/a
20.000:Force Cluster OFF	n/a

	Compound	RT	RT Window	RF
S	1 Diesel Range Organics	12.802	7.623-17.980	6.679e+03
$	2 o-Terphenyl	13.777	13.747-13.807	9.213e+03
	3 Decane (C10)	7.653	7.623-7.683	
	4 Octacosane (C28)	17.950	17.920-17.980	

General Engineering Laboratories, LLC

INITIAL CALIBRATION DATA

Start Cal Date : 21-APR-2005 15:08
End Cal Date : 21-APR-2005 17:02
Quant Method : ESTD
Target Version : 3.50
Integrator : Falcon
Method file : /chem/fida.i/051305/FIDa.i_f_DRO_042105.m
Cal Date : 15-May-2005 11:55 jos00786

Calibration File Names:
Level 1: /chem/fida.i/042105/003f0301.d
Level 3: /chem/fida.i/042105/004f0401.d
Level 4: /chem/fida.i/042105/005f0501.d
Level 5: /chem/fida.i/042105/006f0601.d
Level 7: /chem/fida.i/042105/007f0701.d

Compound	50 Level 1	200 Level 3	500 Level 4	1000 Level 5	5000 Level 7	Curve	Coefficients b	m1	m2	%RSD or R^2	
S 1 Diesel Range Organics	6612	6367	6617	6842	6958	AVRG		6679		3.42876	
3 Decane (C10)	+++++	+++++	+++++	+++++	+++++	LINR	0.000e+00	0.000e+00		0.000e+00	<-
4 Octacosane (C28)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00	
$ 2 o-Terphenyl	8144	8873	9082	9516	10451	AVRG		9213		9.24435	

General Engineering Laboratories, LLC

INITIAL CALIBRATION DATA

Start Cal Date : 21-APR-2005 15:08
End Cal Date : 21-APR-2005 17:02
Quant Method : ESTD
Target Version : 3.50
Integrator : Falcon
Method file : /chem/fida.i/051305/FIDa.i_f_DRO_042105.m
Cal Date : 15-May-2005 11:55 jos00786

Curve	Formula	Units
Averaged	Amt = Rsp/ml	Response
Linear	Amt = b + Rsp/ml	Response

Report Date: 17-May-2005 08:50

Calibration History

Method : /chem/fida.i/051605/FIDa.i_f_DRO_042105.m
Start Cal Date: 21-APR-2005 15:08
End Cal Date : 21-APR-2005 17:02

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 50.00000		
21-APR-2005 15:08	DRO	/chem/fida.i/042105/003f0301.d
Cal Level: 3 , Cal Amount: 200.00000		
21-APR-2005 15:36	DRO	/chem/fida.i/042105/004f0401.d
Cal Level: 4 , Cal Amount: 500.00000		
21-APR-2005 16:05	DRO	/chem/fida.i/042105/005f0501.d
Cal Level: 5 , Cal Amount: 1000.00000		
21-APR-2005 16:34	DRO	/chem/fida.i/042105/006f0601.d
Cal Level: 7 , Cal Amount: 5000.00000		
21-APR-2005 17:02	DRO	/chem/fida.i/042105/007f0701.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 5

Ccal Level: 5 , Ccal Amount: 1000		
16-MAY-2005 23:05	DRO	/chem/fida.i/051605/027f2701.d
Ccal Level: 5 , Ccal Amount: 1000		
16-MAY-2005 17:21	DRO	/chem/fida.i/051605/015f1501.d
Ccal Level: 5 , Ccal Amount: 1000		
16-MAY-2005 10:59	DRO	/chem/fida.i/051605/003f0301.d

General Engineering Laboratories, LLC

COMPOUND LISTING

Method file : /chem/fida.i/051605/FIDa.i_f_DRO_042105.m
Quant Method : ESTD Target Version : 3.50
Last Update : 17-May-2005 08:33 Number of Cpnds : 4
Data Type : GC DATA

Global Integrator : Falcon

Chromat Events	Values
Initial:Start Threshold	1.000000
Initial:End Threshold	0.500000
Initial:Area Threshold	5.000000
Initial:P-P Resolution	1.000000
Initial:Bunch Factor	2.000000
Initial:Negative Peaks	OFF
Initial:Tension	3.000000
4.000:Force Cluster ON	n/a
20.000:Force Cluster OFF	n/a

	Compound	RT	RT Window	RF
S	1 Diesel Range Organics	12.802	7.623-17.980	6.679e+03
$	2 o-Terphenyl	13.773	13.743-13.803	9.213e+03
	3 Decane (C10)	7.653	7.623-7.683	
	4 Octacosane (C28)	17.950	17.920-17.980	

General Engineering Laboratories, LLC

INITIAL CALIBRATION DATA

Start Cal Date : 21-APR-2005 15:08
End Cal Date : 21-APR-2005 17:02
Quant Method : ESTD
Target Version : 3.50
Integrator : Falcon
Method file : /chem/fida.i/051605/FIDa.i_f_DRO_042105.m
Cal Date : 17-May-2005 08:33 jos00786

Calibration File Names:
Level 1: /chem/fida.i/042105/003f0301.d
Level 3: /chem/fida.i/042105/004f0401.d
Level 4: /chem/fida.i/042105/005f0501.d
Level 5: /chem/fida.i/042105/006f0601.d
Level 7: /chem/fida.i/042105/007f0701.d

Compound	50 Level 1	200 Level 3	500 Level 4	1000 Level 5	5000 Level 7	Curve	Coefficients b	m1	m2	%RSD or R^2	
$ 1 Diesel Range Organics	6612	6367	6617	6842	6958	AVRG		6679		3.42876	
3 Decane (C10)	+++++	+++++	+++++	+++++	+++++	LINR	0.000e+00	0.000e+00		0.000e+00	<-
4 Octacosane (C28)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00	
$ 2 o-Terphenyl	8144	8873	9082	9516	10451	AVRG		9213		9.24435	

General Engineering Laboratories, LLC

INITIAL CALIBRATION DATA

Start Cal Date : 21-APR-2005 15:08
End Cal Date : 21-APR-2005 17:02
Quant Method : ESTD
Target Version : 3.50
Integrator : Falcon
Method file : /chem/fida.i/051605/FIDa.i_f_DRO_042105.m
Cal Date : 17-May-2005 08:33 jos00786

Curve	Formula	Units
Averaged	Amt = Rsp/ml	Response
Linear	Amt = b + Rsp/ml	Response

General Engineering Laboratories, LLC

ZB-5 0.25mm

Data file : /chem/fida.i/042105/003f0301.d
Lab Smp Id: UFI050110-01 50 Client Smp ID: CSTD01
Inj Date : 21-APR-2005 15:08
Operator : JMB3 Inst ID: fida.i
Smp Info : |UFI050110-01 50
Misc Info :
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fida.i/042105/FIDa.i_f_DRO_042105.m
Meth Date : 22-Apr-2005 08:32 jos00786 Quant Type: ESTD
Cal Date : 21-APR-2005 15:08 Cal File: 003f0301.d
Als bottle: 3 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: DRO.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: kilroy

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (mg/L)	AMOUNTS ON-COL (mg/L)
$ 1 Diesel Range Organics					CAS #:
7.633- 18.003			330599	50.0000	49.5
$ 2 o-Terphenyl					CAS #: 84-15-1
13.767	13.767	0.000	20359	2.50000	2.2

Data File: /chem/fida.i/042105/003f0301.d
Date : 21-APR-2005 15:08
Client ID: CSTD01
Sample Info: IUFI050110-01 50

Column phase: ZB-5

Instrument: fida.i

Operator: JMB3
Column diameter: 0.25

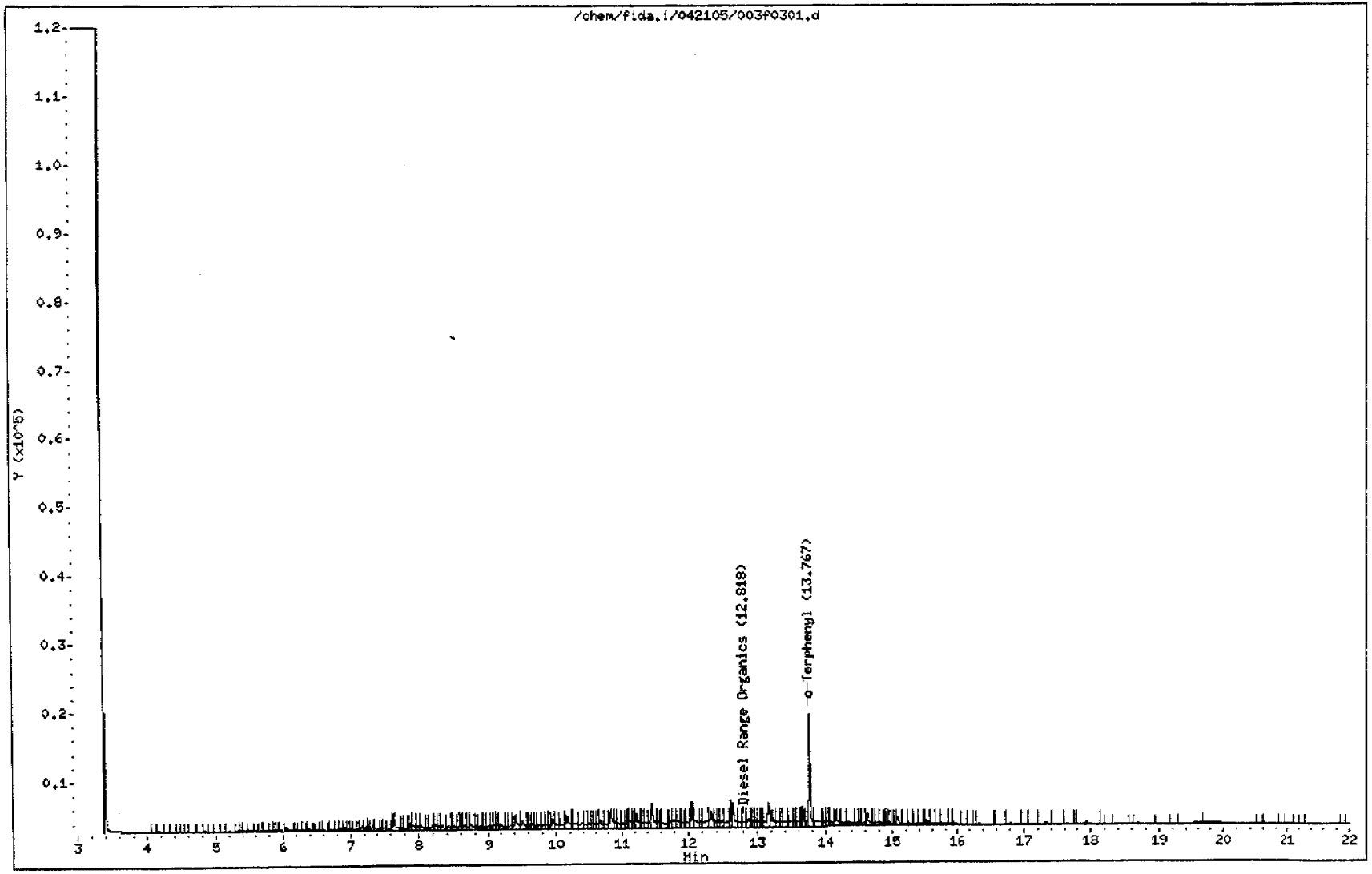

General Engineering Laboratories, LLC

ZB-5 0.25mm

Data file : /chem/fida.i/042105/004f0401.d
Lab Smp Id: UFI050110-03 200 Client Smp ID: CSTD02
Inj Date : 21-APR-2005 15:36
Operator : JMB3 Inst ID: fida.i
Smp Info : |UFI050110-03 200
Misc Info :
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fida.i/042105/FIDa.i_f_DRO_042105.m
Meth Date : 22-Apr-2005 08:32 jos00786 Quant Type: ESTD
Cal Date : 21-APR-2005 15:36 Cal File: 004f0401.d
Als bottle: 4 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: DRO.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: kilroy

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (mg/L)	AMOUNTS ON-COL (mg/L)
$ 1 Diesel Range Organics					CAS #:
7.633- 18.003			1273445	200.000	191
$ 2 o-Terphenyl					CAS #: 84-15-1
13.770	13.770	0.000	88733	10.0000	9.6

Data File: /chem/fida.i/042105/004f0401.d
Date : 21-APR-2005 15:36
Client ID: CSTD02
Sample Info: IUFI050110-03 200

Column phase: ZB-5

Instrument: fida.i

Operator: JMB3
Column diameter: 0.25

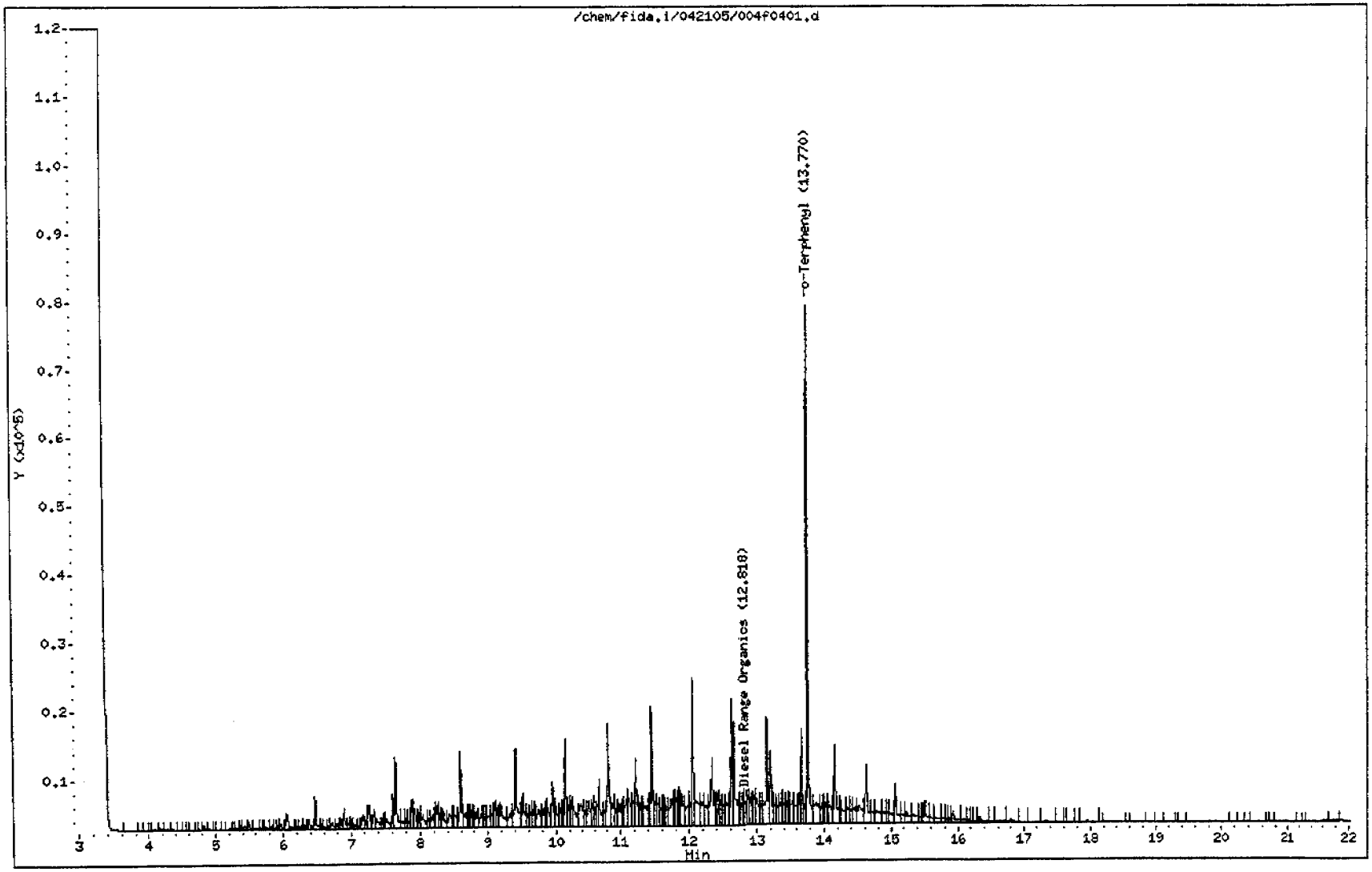

General Engineering Laboratories, LLC

ZB-5 0.25mm

Data file : /chem/fida.i/042105/005f0501.d
Lab Smp Id: UFI050110-04 500 Client Smp ID: CSTD03
Inj Date : 21-APR-2005 16:05
Operator : JMB3 Inst ID: fida.i
Smp Info : |UFI050110-04 500
Misc Info :
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fida.i/042105/FIDa.i_f_DRO_042105.m
Meth Date : 22-Apr-2005 08:32 jos00786 Quant Type: ESTD
Cal Date : 21-APR-2005 16:05 Cal File: 005f0501.d
Als bottle: 5 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: DRO.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: kilroy

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (mg/L)	AMOUNTS ON-COL (mg/L)
S 1 Diesel Range Organics					CAS #:
7.633- 18.003			3308524	500.000	495
$ 2 o-Terphenyl					CAS #: 84-15-1
13.777	13.777	0.000	227046	25.0000	24.6

Data File: /chem/fida.i/042105/005f0501.d
Date : 21-APR-2005 16:05
Client ID: CSTD03
Sample Info: IUFI050110-04 500

Column phase: ZB-5

Instrument: fida.i

Operator: JHB3
Column diameter: 0.25

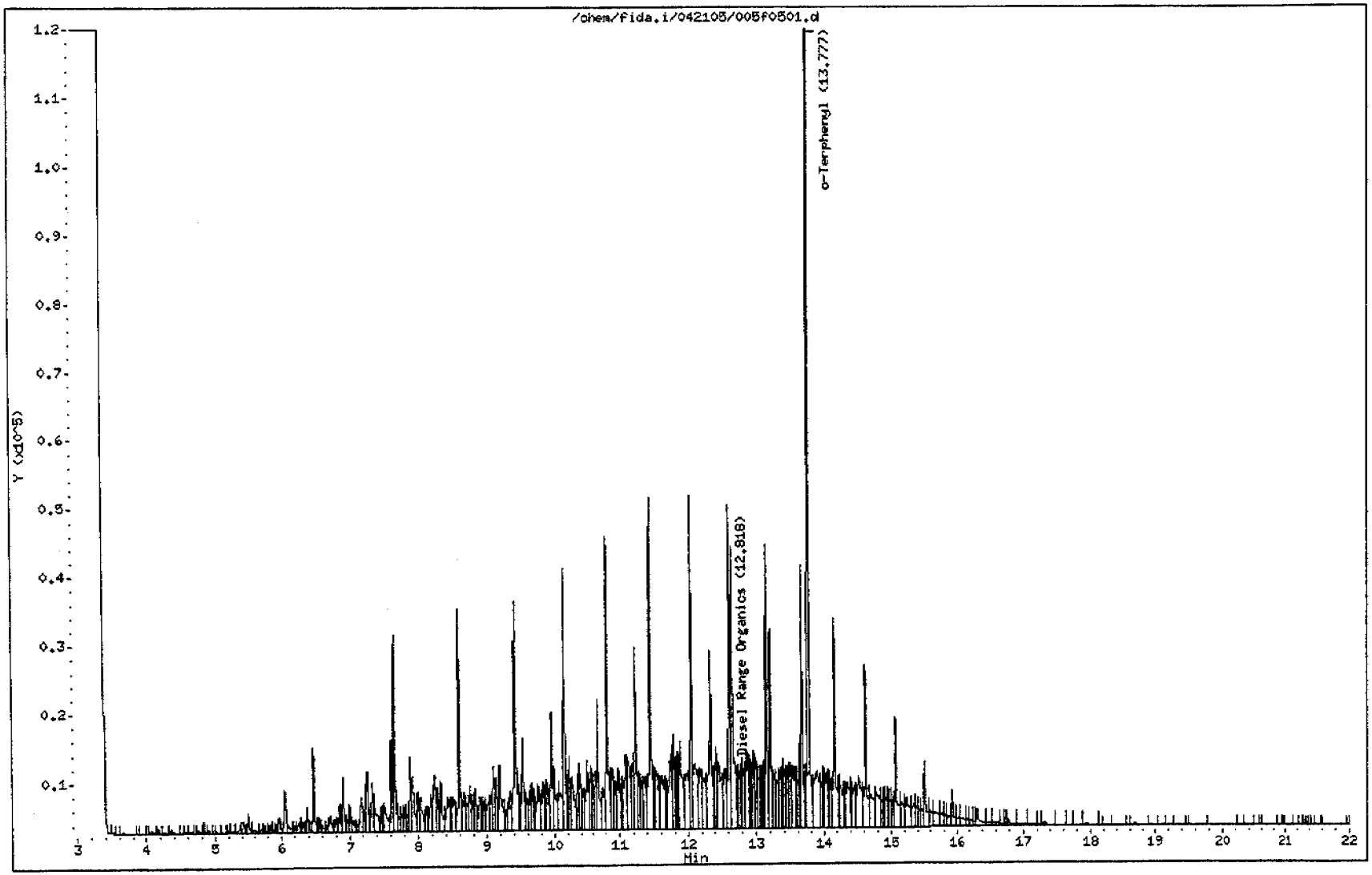

General Engineering Laboratories, LLC

ZB-5 0.25mm

Data file : /chem/fida.i/042105/006f0601.d
Lab Smp Id: UFI050110-05 1000 Client Smp ID: CSTD04
Inj Date : 21-APR-2005 16:34
Operator : JMB3 Inst ID: fida.i
Smp Info : |UFI050110-05 1000
Misc Info :
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fida.i/042105/FIDa.i_f_DRO_042105.m
Meth Date : 22-Apr-2005 08:32 jos00786 Quant Type: ESTD
Cal Date : 21-APR-2005 16:34 Cal File: 006f0601.d
Als bottle: 6 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: DRO.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: kilroy

	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (mg/L)	AMOUNTS ON-COL (mg/L)	
S	1 Diesel Range Organics						CAS #:
	7.633- 18.003			6841887	1000.00	1020	
$	2 o-Terphenyl						CAS #: 84-15-1
	13.783	13.783	0.000	475793	50.0000	51.6	

Data File: /chem/fida.i/042105/006f0601.d
Date : 21-APR-2005 16:34
Client ID: CSTD04
Sample Info: IUFI050110-05 1000

Column phase: ZB-5

Instrument: fida.i

Operator: JMB3
Column diameter: 0.25

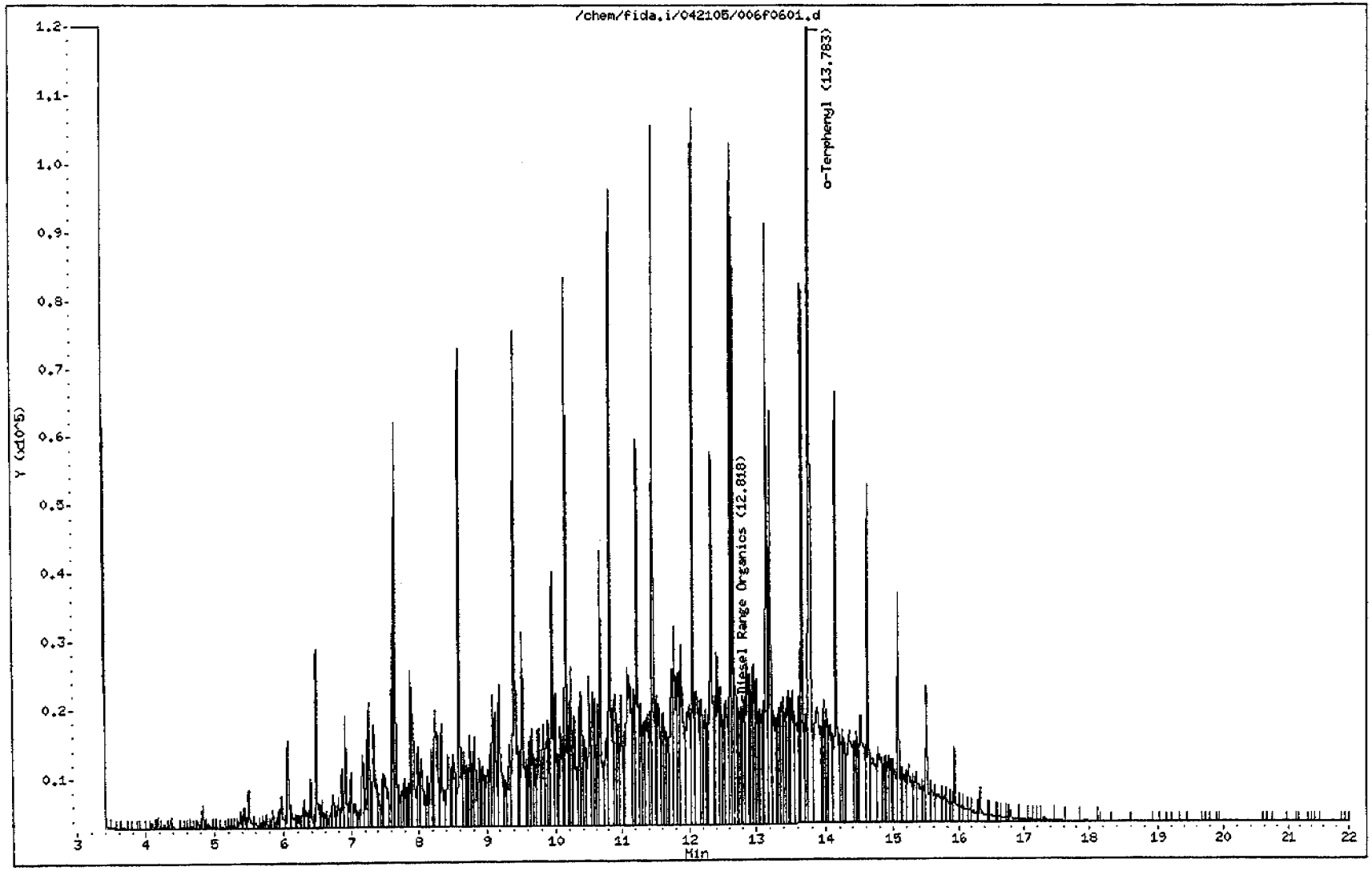

General Engineering Laboratories, LLC

ZB-5 0.25mm

Data file : /chem/fida.i/042105/007f0701.d
Lab Smp Id: UFI050110-06 5000 Client Smp ID: CSTD05
Inj Date : 21-APR-2005 17:02
Operator : JMB3 Inst ID: fida.i
Smp Info : |UFI050110-06 5000
Misc Info :
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fida.i/042105/FIDa.i_f_DRO_042105.m
Meth Date : 22-Apr-2005 08:32 jos00786 Quant Type: ESTD
Cal Date : 21-APR-2005 17:02 Cal File: 007f0701.d
Als bottle: 7 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: DRO.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: kilroy

	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (mg/L)	AMOUNTS ON-COL (mg/L)		
S	1 Diesel Range Organics					CAS #:		
	7.633- 18.003			34788941	5000.00	5210		(A)
$	2 o-Terphenyl					CAS #: 84-15-1		
	13.827	13.827	0.000	2612850	250.000	284		(A)

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.

Data File: /chem/fida.i/042105/007f0701.d
Date : 21-APR-2005 17:02
Client ID: CSTD05
Sample Info: !UFI050110-06 5000

Column phase: ZB-5

Instrument: fida.i

Operator: JHB3
Column diameter: 0.25

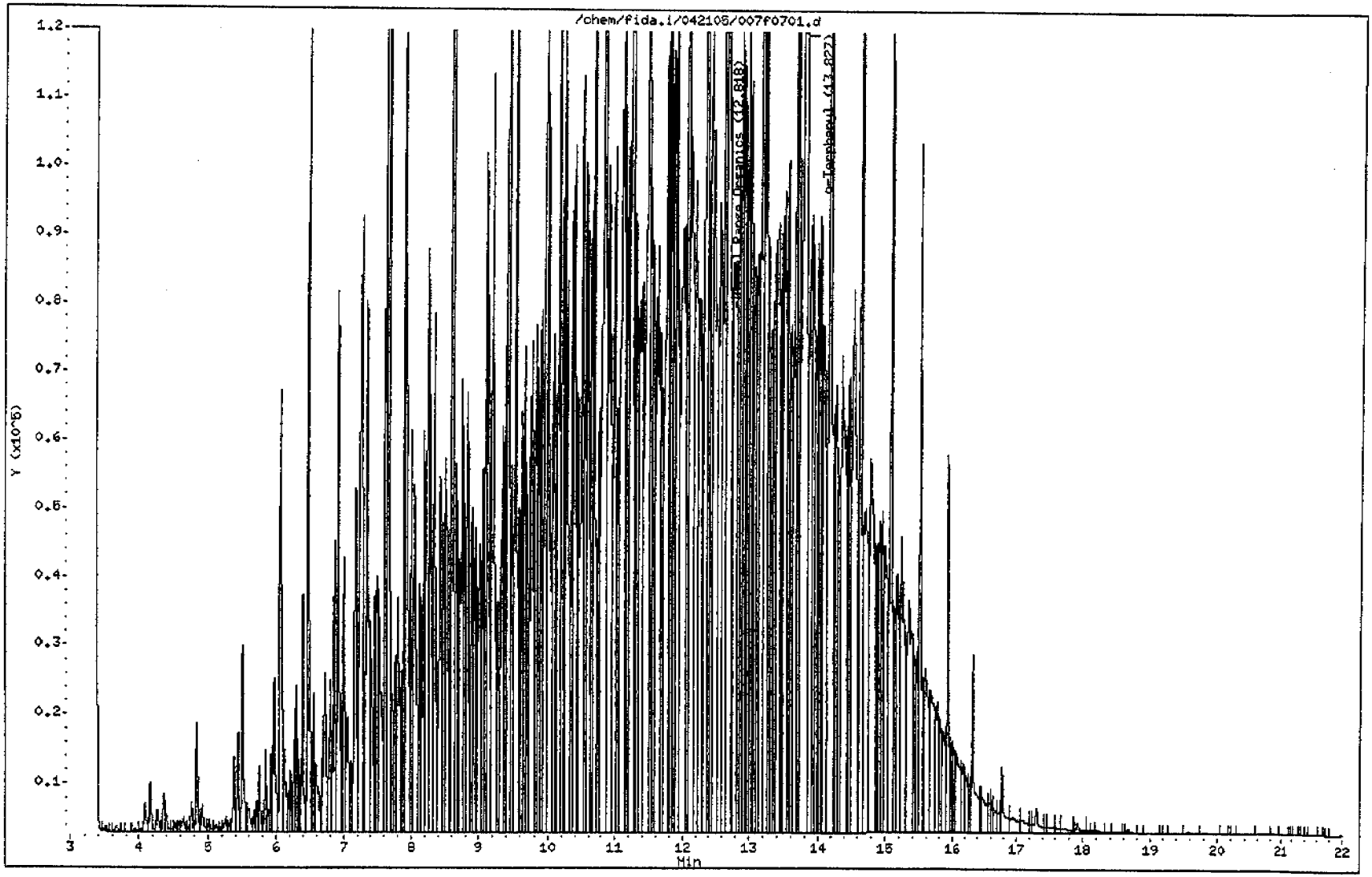

FORM 7
SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Instrument ID: FIDA Calibration Date: 05/12/05 Time: 1109

Lab File ID: 003F0301 Init. Calib. Date(s): 04/21/05 04/21/05

Init. Calib. Times: 1508 1702

GC Column: ZB-5 ID: 0.25 (mm)

COMPOUND	SAMPLE AMOUNT	1000 AMOUNT	CURVE	%D	MAX %d
Diesel Range Organics	981	1000	AVRG	-1.9	15.0
o-Terphenyl	53.0	50.0	AVRG	6.0	15.0

FORM VII SV

FORM 7
SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Instrument ID: FIDA Calibration Date: 05/12/05 Time: 1652

Lab File ID: 015F1501 Init. Calib. Date(s): 04/21/05 04/21/05

Init. Calib. Times: 1508 1702

GC Column: ZB-5 ID: 0.25 (mm)

COMPOUND	SAMPLE AMOUNT	1000 AMOUNT	CURVE	%D	MAX %d
Diesel Range Organics	967	1000	AVRG	-3.3	15.0
o-Terphenyl	50.3	50.0	AVRG	0.6	15.0

FORM VII SV

FORM 7
SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Instrument ID: FIDA Calibration Date: 05/13/05 Time: 1131

Lab File ID: 003F0301 Init. Calib. Date(s): 04/21/05 04/21/05

Init. Calib. Times: 1508 1702

GC Column: ZB-5 ID: 0.25 (mm)

COMPOUND	SAMPLE AMOUNT	1000 AMOUNT	CURVE	%D	MAX %d
Diesel Range Organics	955	1000	AVRG	-4.5	15.0
o-Terphenyl	51.4	50.0	AVRG	2.8	15.0

FORM VII SV

FORM 7
SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Instrument ID: FIDA Calibration Date: 05/13/05 Time: 1714

Lab File ID: 015F1501 Init. Calib. Date(s): 04/21/05 04/21/05

Init. Calib. Times: 1508 1702

GC Column: ZB-5 ID: 0.25 (mm)

COMPOUND	SAMPLE AMOUNT	1000 AMOUNT	CURVE	%D	MAX %d
Diesel Range Organics	940	1000	AVRG	-6.0	15.0
o-Terphenyl	51.0	50.0	AVRG	2.0	15.0

FORM VII SV

FORM 7
SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Instrument ID: FIDA Calibration Date: 05/16/05 Time: 1059

Lab File ID: 003F0301 Init. Calib. Date(s): 04/21/05 04/21/05

Init. Calib. Times: 1508 1702

GC Column: ZB-5 ID: 0.25 (mm)

COMPOUND	SAMPLE AMOUNT	1000 AMOUNT	CURVE	%D	MAX %d
Diesel Range Organics	997	1000	AVRG	-0.3	15.0
o-Terphenyl	54.4	50.0	AVRG	8.8	15.0

FORM VII SV

FORM 7
SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Instrument ID: FIDA Calibration Date: 05/16/05 Time: 1721

Lab File ID: 015F1501 Init. Calib. Date(s): 04/21/05 04/21/05

Init. Calib. Times: 1508 1702

GC Column: ZB-5 ID: 0.25 (mm)

COMPOUND	SAMPLE AMOUNT	1000 AMOUNT	CURVE	%D	MAX %d
Diesel Range Organics	1040	1000	AVRG	4.0	15.0
o-Terphenyl	55.6	50.0	AVRG	11.2	15.0

FORM VII SV

FORM 7
SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Instrument ID: FIDA Calibration Date: 05/16/05 Time: 2305

Lab File ID: 027F2701 Init. Calib. Date(s): 04/21/05 04/21/05

Init. Calib. Times: 1508 1702

GC Column: ZB-5 ID: 0.25 (mm)

COMPOUND	SAMPLE AMOUNT	1000 AMOUNT	CURVE	%D	MAX %d	
Diesel Range Organics	1410	1000	AVRG	41.0	15.0	<-
o-Terphenyl	61.8	50.0	AVRG	23.6	15.0	<-

FORM VII SV

General Engineering Laboratories, LLC

ZB-5 0.25mm

Data file : /chem/fida.i/051205/003f0301.d
Lab Smp Id: UFI050310-01 1000 Client Smp ID: DSTD01
Inj Date : 12-MAY-2005 11:09
Operator : JMB3 Inst ID: fida.i
Smp Info : |UFI050310-01 1000
Misc Info :
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fida.i/051205/FIDa.i_f_DRO_042105.m
Meth Date : 13-May-2005 09:24 jos00786 Quant Type: ESTD
Cal Date : 21-APR-2005 17:02 Cal File: 007f0701.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: DRO.sub
Target Version: 3.50 Sample Matrix: None

	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (mg/L)	ON-COL (mg/L)
S	1 Diesel Range Organics					CAS #:
	7.623- 17.983			6553163	1000.00	981
$	2 o-Terphenyl					CAS #: 84-15-1
	13.777	13.777	0.000	488167	50.0000	53.0

Data File: /chem/fida.i/051205/003f0301.d
Date : 12-MAY-2005 11:09
Client ID: DSTD01
Sample Info: IUFI050310-01 1000

Column phase: ZB-5

Instrument: fida.i

Operator: JMB3
Column diameter: 0.25

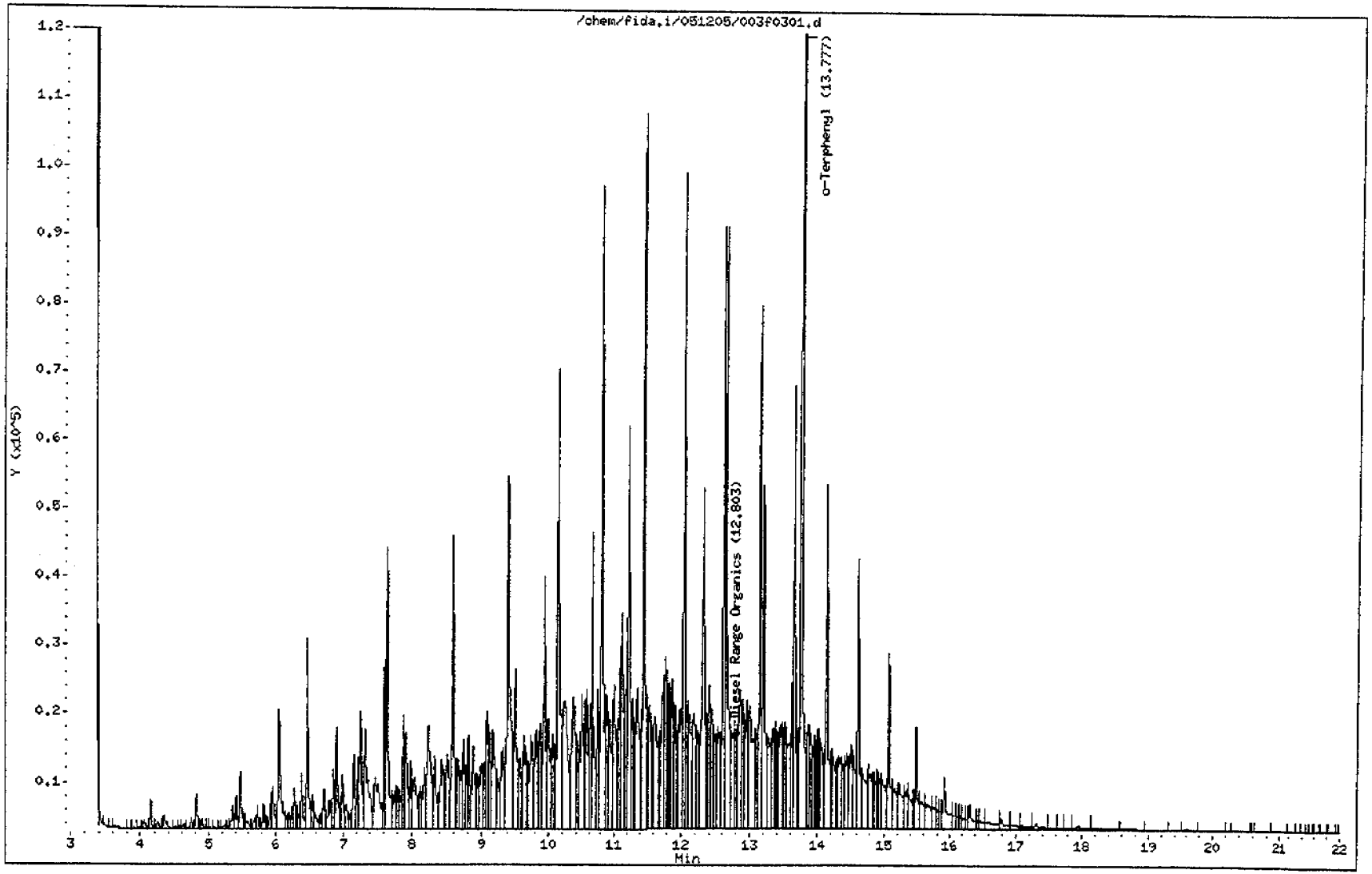

General Engineering Laboratories, LLC

ZB-5 0.25mm

Data file : /chem/fida.i/051205/015f1501.d
Lab Smp Id: UFI050310-01 1000 Client Smp ID: DSTD02
Inj Date : 12-MAY-2005 16:52
Operator : JMB3 Inst ID: fida.i
Smp Info : |UFI050310-01 1000
Misc Info :
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fida.i/051205/FIDa.i_f_DRO_042105.m
Meth Date : 13-May-2005 09:24 jos00786 Quant Type: ESTD
Cal Date : 21-APR-2005 17:02 Cal File: 007f0701.d
Als bottle: 15 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: DRO.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (mg/L)	AMOUNTS ON-COL (mg/L)
$ 1 Diesel Range Organics					CAS #:
7.623- 17.983			6458730	1000.00	967
$ 2 o-Terphenyl					CAS #: 84-15-1
13.780	13.777	0.003	463836	50.0000	50.3

Data File: /chem/fida.i/051205/015f1501.d
Date : 12-MAY-2005 16:52
Client ID: DSTD02
Sample Info: !UFI050310-01 1000

Column phase: ZB-5

Instrument: fida.i

Operator: JMB3
Column diameter: 0.25

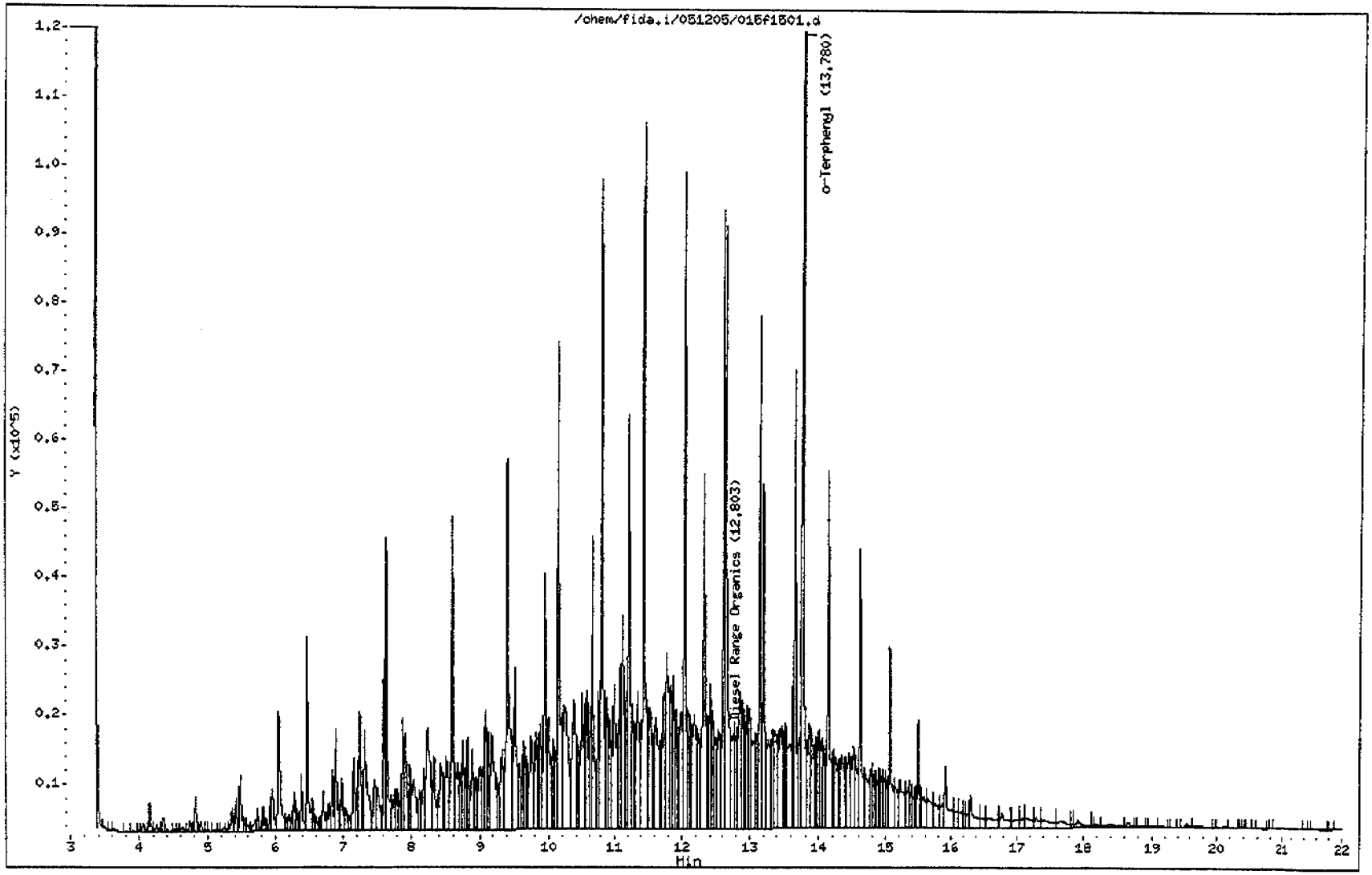

General Engineering Laboratories, LLC

ZB-5 0.25mm

Data file : /chem/fida.i/051305/003f0301.d
Lab Smp Id: UFI050310-01 1000 Client Smp ID: DSTD01
Inj Date : 13-MAY-2005 11:31
Operator : JMB3 Inst ID: fida.i
Smp Info : |UFI050310-01 1000
Misc Info :
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fida.i/051305/FIDa.i_f_DRO_042105.m
Meth Date : 15-May-2005 11:55 jos00786 Quant Type: ESTD
Cal Date : 21-APR-2005 17:02 Cal File: 007f0701.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: DRO.sub
Target Version: 3.50 Sample Matrix: None

	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (mg/L)	AMOUNTS ON-COL (mg/L)
S	1 Diesel Range Organics					CAS #:
	7.623- 17.980			6381741	1000.00	955
$	2 o-Terphenyl					CAS #: 84-15-1
	13.777	13.777	0.000	473622	50.0000	51.4

Data File: /chem/fida.i/051305/003f0301.d
Date : 13-MAY-2005 11:31
Client ID: DSTD01
Sample Info: IUFI050310-01 1000

Column phase: ZB-5

Instrument: fida.i

Operator: JMB3
Column diameter: 0.25

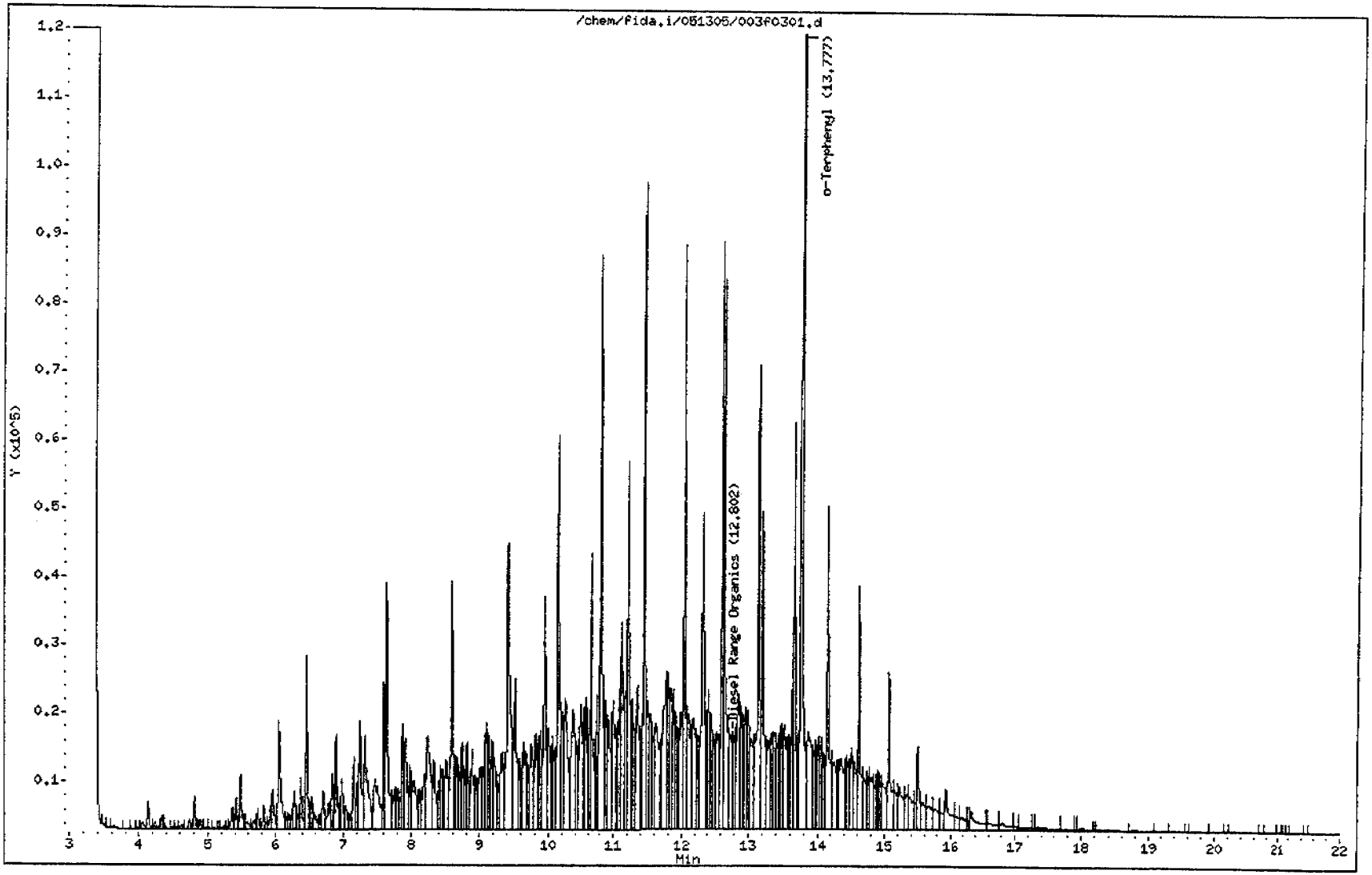

General Engineering Laboratories, LLC

ZB-5 0.25mm

Data file : /chem/fida.i/051305/015f1501.d
Lab Smp Id: UFI050310-01 1000 Client Smp ID: DSTD02
Inj Date : 13-MAY-2005 17:14
Operator : JMB3 Inst ID: fida.i
Smp Info : |UFI050310-01 1000
Misc Info :
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fida.i/051305/FIDa.i_f_DRO_042105.m
Meth Date : 15-May-2005 11:55 jos00786 Quant Type: ESTD
Cal Date : 21-APR-2005 17:02 Cal File: 007f0701.d
Als bottle: 15 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: DRO.sub
Target Version: 3.50 Sample Matrix: None

	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (mg/L)	AMOUNTS ON-COL (mg/L)
S	1 Diesel Range Organics					CAS #:
	7.623- 17.980			6276623	1000.00	940
$	2 o-Terphenyl					CAS #: 84-15-1
	13.777	13.777	0.000	469670	50.0000	51.0

Data File: /chem/fida.i/051305/015f1501.d
Date : 13-MAY-2005 17:14
Client ID: DSTD02
Sample Info: IUFI050310-01 1000

Column phase: ZB-5

Instrument: fida.i

Operator: JMB3
Column diameter: 0.25

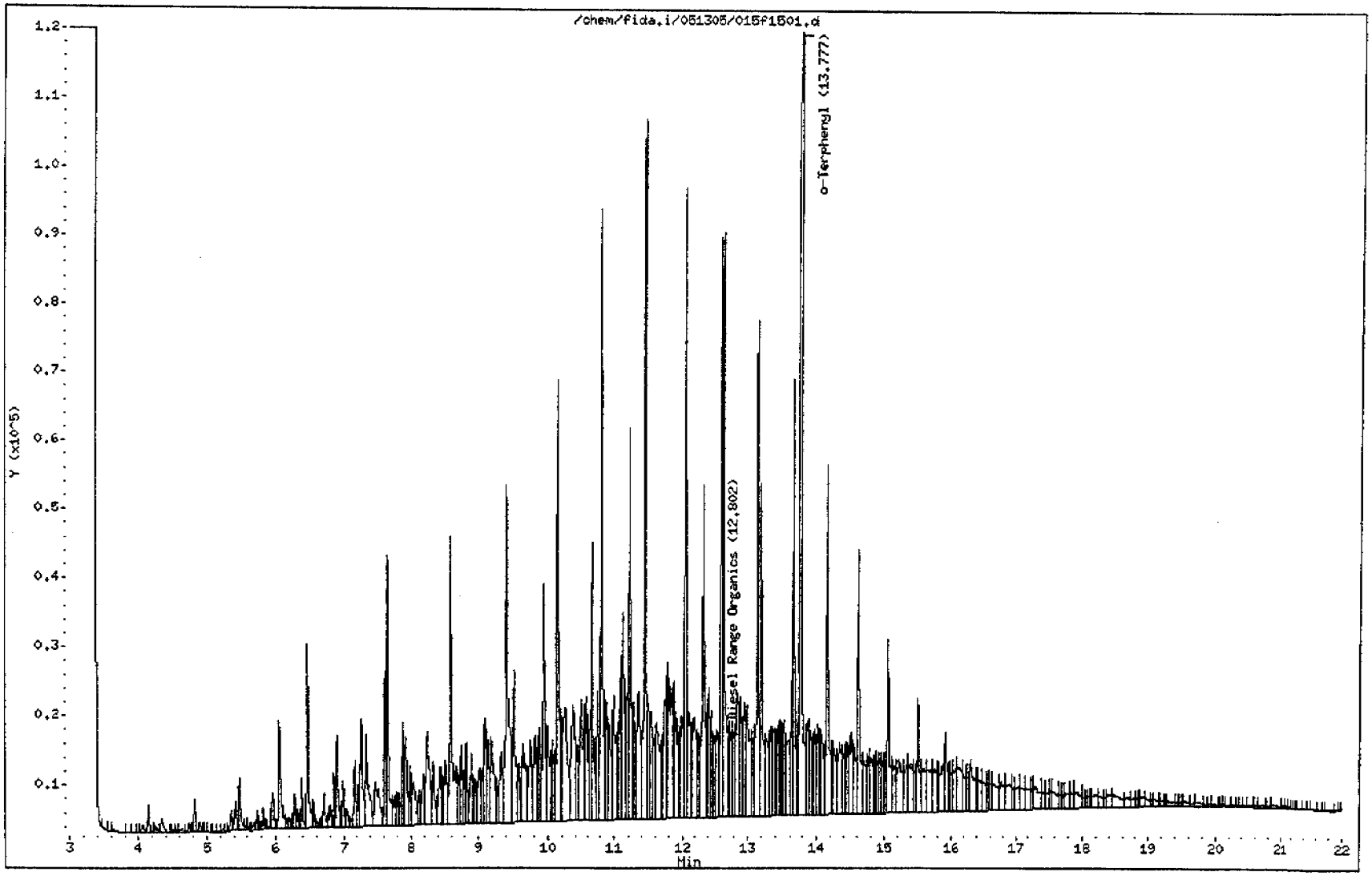

General Engineering Laboratories, LLC

ZB-5 0.25mm

Data file : /chem/fida.i/051605/003f0301.d
Lab Smp Id: UFI050310-01 1000 Client Smp ID: DSTD01
Inj Date : 16-MAY-2005 10:59
Operator : JMB3 Inst ID: fida.i
Smp Info : |UFI050310-01 1000
Misc Info :
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fida.i/051605/FIDa.i_f_DRO_042105.m
Meth Date : 17-May-2005 08:51 jos00786 Quant Type: ESTD
Cal Date : 21-APR-2005 17:02 Cal File: 007f0701.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: DRO.sub
Target Version: 3.50 Sample Matrix: None

	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (mg/L)	AMOUNTS ON-COL (mg/L)
S	1 Diesel Range Organics					CAS #:
	7.623- 17.980			6658485	1000.00	997
$	2 o-Terphenyl					CAS #: 84-15-1
	13.773	13.773	0.000	501475	50.0000	54.4

Data File: /chem/fida.i/051605/015f1501.d
Date : 16-MAY-2005 17:21
Client ID: DSTD02
Sample Info: IUFI050310-01 1000

Column phase: ZB-5

Instrument: fida.i

Operator: JMB3
Column diameter: 0.25

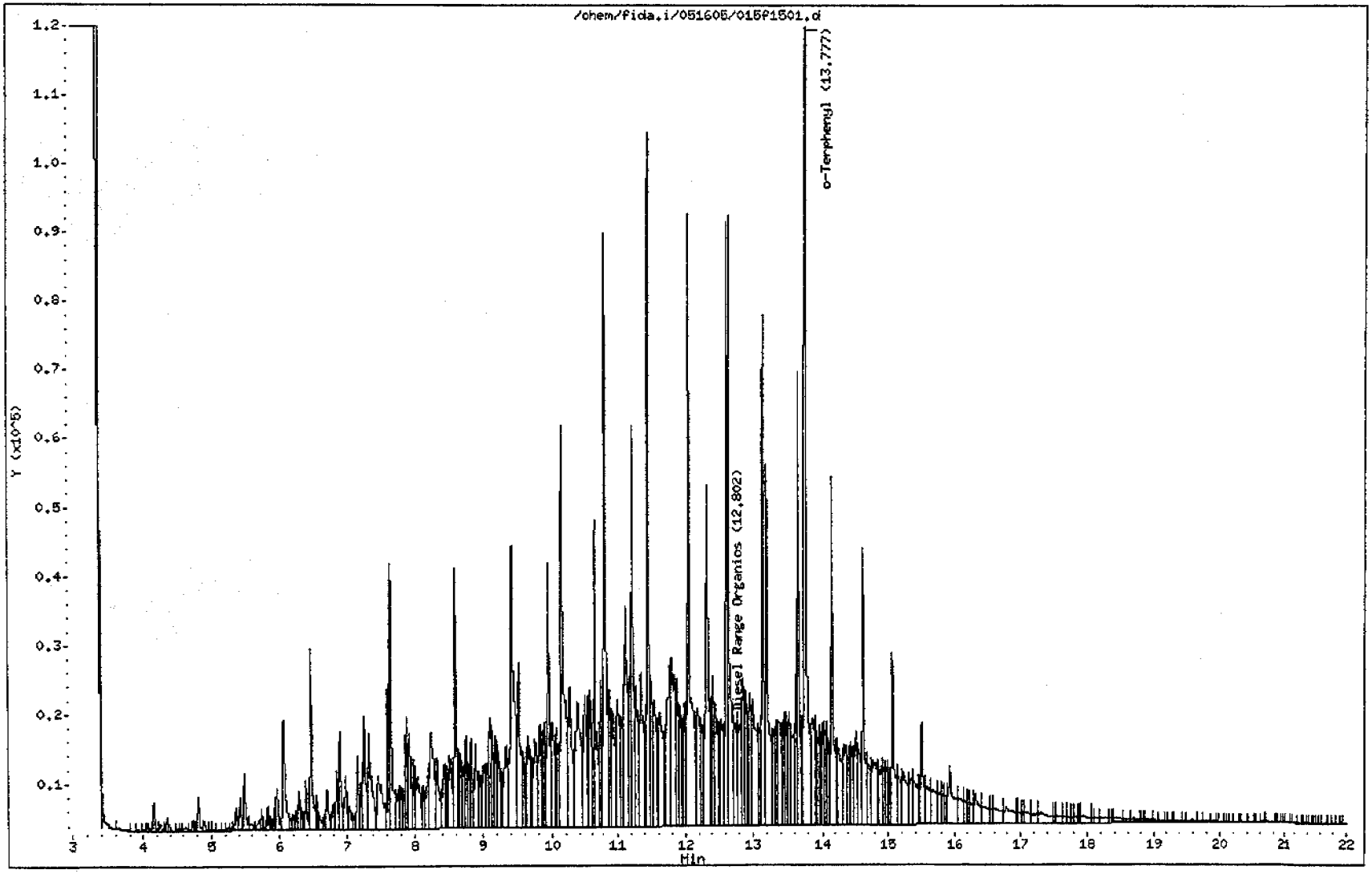

General Engineering Laboratories, LLC

ZB-5 0.25mm

Data file : /chem/fida.i/051605/027f2701.d
Lab Smp Id: UFI050310-01 1000 Client Smp ID: DSTD03
Inj Date : 16-MAY-2005 23:05
Operator : JMB3 Inst ID: fida.i
Smp Info : |UFI050310-01 1000
Misc Info :
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fida.i/051605/FIDa.i_f_DRO_042105.m
Meth Date : 17-May-2005 08:53 jos00786 Quant Type: ESTD
Cal Date : 21-APR-2005 17:02 Cal File: 007f0701.d
Als bottle: 27 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: DRO.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: kilroy

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (mg/L)	AMOUNTS ON-COL (mg/L)		
S 1 Diesel Range Organics					CAS #:		
7.623- 17.980			9398690	1000.00	1410		
$ 2 o-Terphenyl					CAS #: 84-15-1		
13.780	13.773	0.007	569343	50.0000	61.8		(M)

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/fida.i/051605/027f2701.d
Injection Date: 16-MAY-2005 23:05
Instrument: fida.i
Client Sample ID: DSTD03

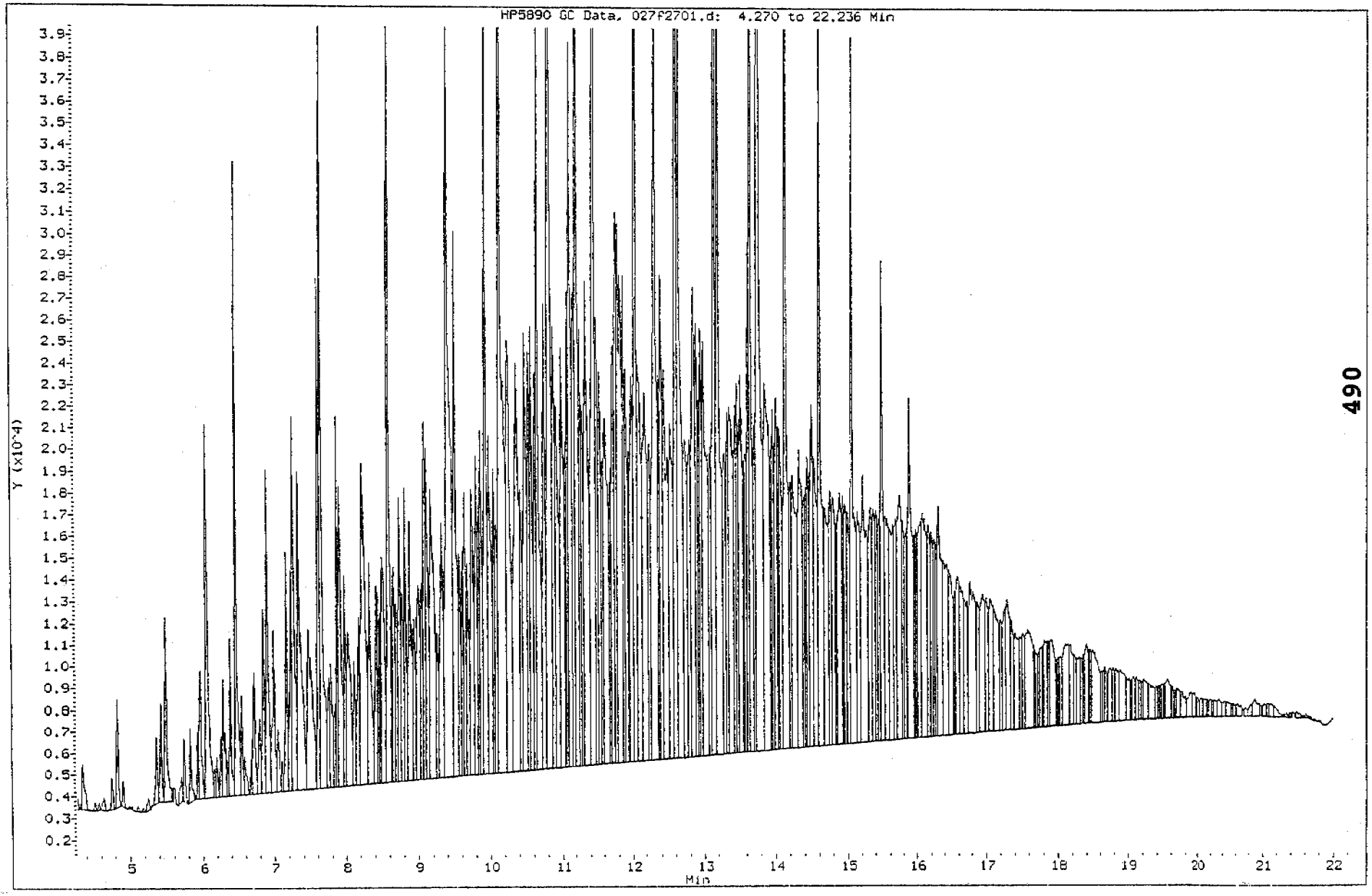

490

Data File: /chem/fida.i/051605/027f2701.d
Injection Date: 16-MAY-2005 23:05
Instrument: fida.i
Client Sample ID: DSTD03

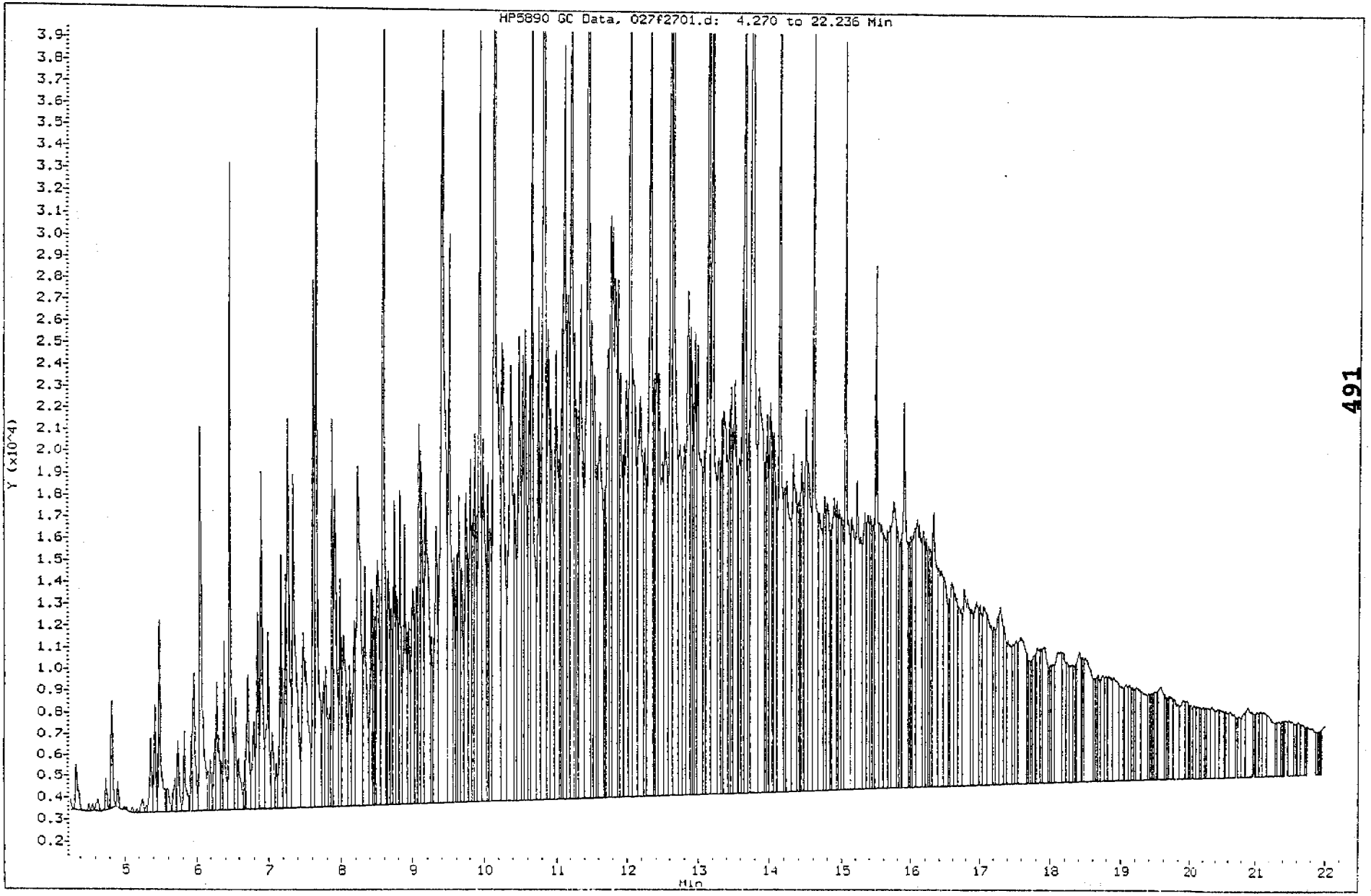

491

Data File: /chem/fida.i/051605/027f2701.d
Date : 16-MAY-2005 23:05
Client ID: DSTD03
Sample Info: IUFI050310-01 1000

Column phase: ZB-5

Instrument: fida.i

Operator: JMB3
Column diameter: 0.25

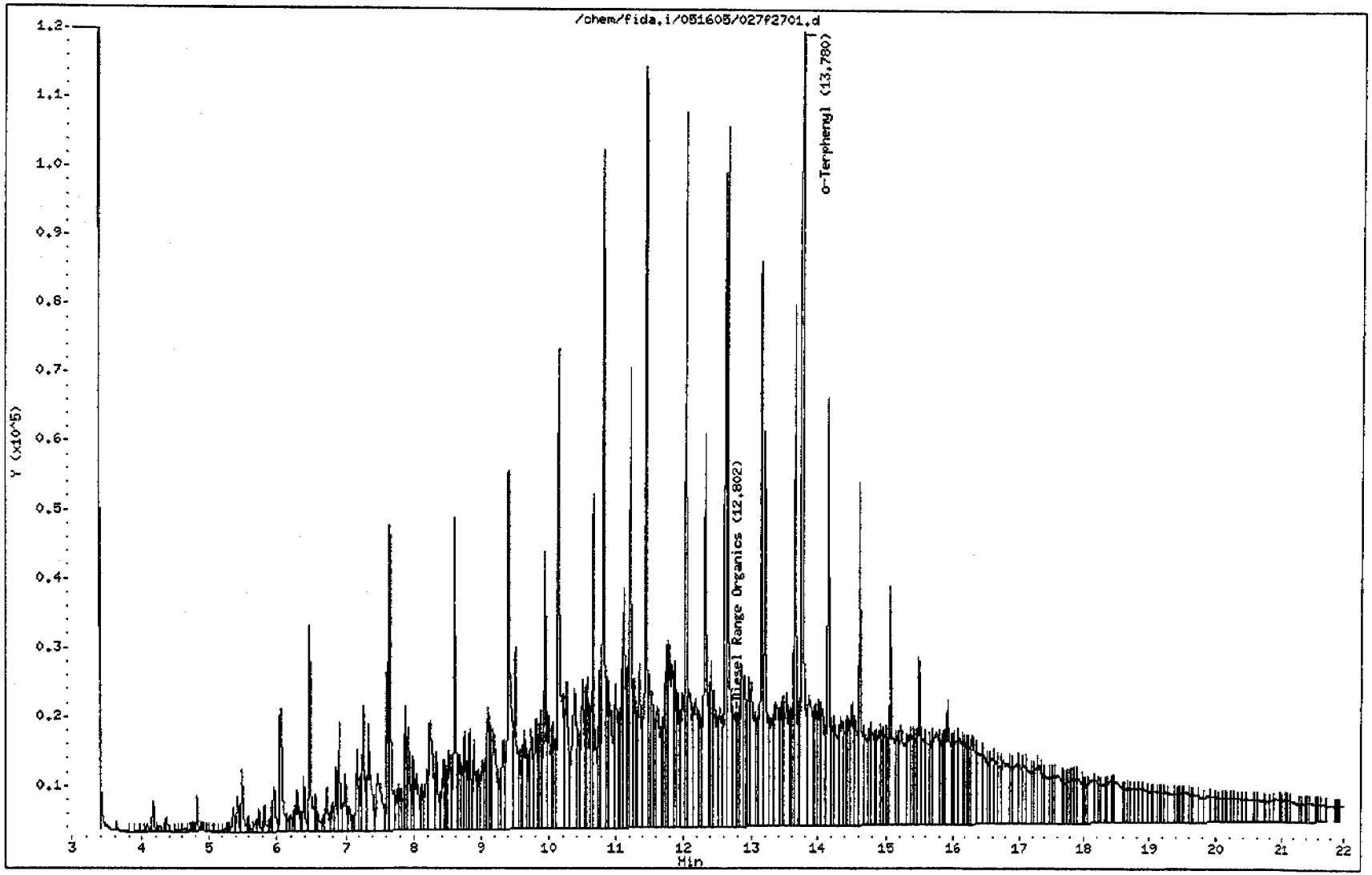

8D
DRO ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

GC Column: ZB-5 ID: 0.25 (mm) Init. Calib. Date(s): 04/21/05 04/21/05

Instrument ID: FIDA

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 13.78

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	RT #
01	ZZZZZ	ZZZZZ	04/21/05	1411	13.77	
02	ZZZZZ	ZZZZZ	04/21/05	1439		
03	CSTD01	UFI050110-01	04/21/05	1508	13.77	
04	CSTD02	UFI050110-03	04/21/05	1536	13.77	
05	CSTD03	UFI050110-04	04/21/05	1605	13.78	
06	CSTD04	UFI050110-05	04/21/05	1634	13.78	
07	CSTD05	UFI050110-06	04/21/05	1702	13.83*	
08	DSTD01	UFI050310-01	04/21/05	1731	13.78	
09	ZZZZZ	ZZZZZ	04/21/05	1759	13.77	
10	ZZZZZ	ZZZZZ	04/21/05	1828	13.77	
11	ZZZZZ	ZZZZZ	04/21/05	1857	13.77	
12	ZZZZZ	ZZZZZ	04/21/05	1925	13.77	
13	ZZZZZ	ZZZZZ	04/21/05	1954	13.77	
14	ZZZZZ	ZZZZZ	04/21/05	2022	13.77	
15	ZZZZZ	ZZZZZ	04/21/05	2051	13.77	
16	DSTD02	UFI050310-01	04/21/05	2120	13.78	
17	ZZZZZ	ZZZZZ	04/21/05	2148	13.77	
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						
31						
32						

S1 = o-Terphenyl

QC LIMITS
(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
DRO ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

GC Column: ZB-5 ID: 0.25 (mm) Init. Calib. Date(s): 04/21/05 04/21/05

Instrument ID: FIDA

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 13.78

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	RT #
01	ZZZZZ	ZZZZZ	05/12/05	1011	13.76	
02	ZZZZZ	ZZZZZ	05/12/05	1040		
03	DSTD01	UFI050310-01	05/12/05	1109	13.78	
04	ZZZZZ	ZZZZZ	05/12/05	1138	13.77	
05	ZZZZZ	ZZZZZ	05/12/05	1206	13.76	
06	ZZZZZ	ZZZZZ	05/12/05	1235	13.77	
07	DBLK01	1200840424	05/12/05	1303	13.77	
08	DBLK01LCS	1200840425	05/12/05	1332	13.77	
09	ZZZZZ	ZZZZZ	05/12/05	1401	13.76	
10	ZZZZZ	ZZZZZ	05/12/05	1429	13.76	
11	ZZZZZ	ZZZZZ	05/12/05	1458	13.76	
12	ZZZZZ	ZZZZZ	05/12/05	1526	13.77	
13	ZZZZZ	ZZZZZ	05/12/05	1555	13.77	
14	ZZZZZ	ZZZZZ	05/12/05	1623	13.76	
15	DSTD02	UFI050310-01	05/12/05	1652	13.78	
16	ZZZZZ	ZZZZZ	05/12/05	1720	13.77	
17	ZZZZZ	ZZZZZ	05/12/05	1749	13.77	
18	ZZZZZ	ZZZZZ	05/12/05	1817	13.77	
19	ZZZZZ	ZZZZZ	05/12/05	1846	13.77	
20	ZZZZZ	ZZZZZ	05/12/05	1923	13.76	
21	ZZZZZ	ZZZZZ	05/12/05	1952	13.77	
22	ZZZZZ	ZZZZZ	05/12/05	2020	13.77	
23	ZZZZZ	ZZZZZ	05/12/05	2049	13.78	
24	ZZZZZ	ZZZZZ	05/12/05	2117	13.77	
25	DSTD03	UFI050310-01	05/12/05	2146	13.78	
26	ZZZZZ	ZZZZZ	05/12/05	2214	13.77	
27	ZZZZZ	ZZZZZ	05/12/05	2243	13.77	
28	ZZZZZ	ZZZZZ	05/12/05	2311	13.77	
29	ZZZZZ	ZZZZZ	05/12/05	2340	13.77	
30	ZZZZZ	ZZZZZ	05/13/05	0008	13.77	
31	ZZZZZ	ZZZZZ	05/13/05	0037	13.77	
32	ZZZZZ	ZZZZZ	05/13/05	0105	13.77	

S1 = o-Terphenyl

QC LIMITS
(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

8D
DRO ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

GC Column: ZB-5 ID: 0.25 (mm) Init. Calib. Date(s): 04/21/05 04/21/05

Instrument ID: FIDA

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 13.78

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	RT #
01	ZZZZZ	ZZZZZ	05/13/05	0134	13.77	
02	DSTD04	UFI050310-01	05/13/05	0202	13.78	
03	ZZZZZ	ZZZZZ	05/13/05	0231	13.77	
04						
05						
06						
07						
08						
09						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						
31						
32						

S1 = o-Terphenyl

QC LIMITS
(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

8D
DRO ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

GC Column: ZB-5 ID: 0.25 (mm) Init. Calib. Date(s): 04/21/05 04/21/05

Instrument ID: FIDA

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 13.78

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	RT #
01	ZZZZZ	ZZZZZ	05/13/05	1033	13.76	
02	ZZZZZ	ZZZZZ	05/13/05	1102		
03	DSTD01	UFI050310-01	05/13/05	1131	13.78	
04	ZZZZZ	ZZZZZ	05/13/05	1159	13.77	
05	DBLK02	1200842656	05/13/05	1228	13.77	
06	DBLK02LCS	1200842657	05/13/05	1257	13.77	
07	ZZZZZ	ZZZZZ	05/13/05	1354	13.77	
08	ZZZZZ	ZZZZZ	05/13/05	1423	13.80	
09	ZZZZZ	ZZZZZ	05/13/05	1451	13.77	
10	ZZZZZ	ZZZZZ	05/13/05	1520	13.77	
11	ZZZZZ	ZZZZZ	05/13/05	1549	13.78	
12	ZZZZZ	ZZZZZ	05/13/05	1617	13.77	
13	ZZZZZ	ZZZZZ	05/13/05	1646	13.77	
14	DSTD02	UFI050310-01	05/13/05	1714	13.78	
15	ZZZZZ	ZZZZZ	05/13/05	1743	13.77	
16	ZZZZZ	ZZZZZ	05/13/05	1811	13.77	
17	ZZZZZ	ZZZZZ	05/13/05	1840	13.77	
18	ZZZZZ	ZZZZZ	05/13/05	1908	13.77	
19	ZZZZZ	ZZZZZ	05/13/05	1937		
20	ZZZZZ	ZZZZZ	05/13/05	2005		
21	ZZZZZ	ZZZZZ	05/13/05	2034		
22	ZZZZZ	ZZZZZ	05/13/05	2102		
23	ZZZZZ	ZZZZZ	05/13/05	2131	13.77	
24	ZZZZZ	ZZZZZ	05/13/05	2200	13.77	
25	ZZZZZ	ZZZZZ	05/13/05	2228		
26	DSTD03	UFI050310-01	05/13/05	2257	13.78	
27	ZZZZZ	ZZZZZ	05/13/05	2325	13.77	
28						
29						
30						
31						
32						

S1 = o-Terphenyl

QC LIMITS
(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

8D
DRO ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

GC Column: ZB-5 ID: 0.25 (mm) Init. Calib. Date(s): 04/21/05 04/21/05

Instrument ID: FIDA

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 13.77

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	RT #
01	ZZZZZ	ZZZZZ	05/16/05	1002	13.77	
02	ZZZZZ	ZZZZZ	05/16/05	1030		
03	DSTD01	UFI050310-01	05/16/05	1059	13.77	
04	ZZZZZ	ZZZZZ	05/16/05	1130	13.76	
05	ZZZZZ	ZZZZZ	05/16/05	1159	13.76	
06	RE03-05-59557	135831003	05/16/05	1228		
07	RE03-05-59557MS	1200842660	05/16/05	1256		
08	RE03-05-59557MSD	1200842661	05/16/05	1325		
09	ZZZZZ	ZZZZZ	05/16/05	1353	13.80	
10	ZZZZZ	ZZZZZ	05/16/05	1458	13.76	
11	ZZZZZ	ZZZZZ	05/16/05	1527		
12	ZZZZZ	ZZZZZ	05/16/05	1555	13.78	
13	ZZZZZ	ZZZZZ	05/16/05	1624	13.76	
14	ZZZZZ	ZZZZZ	05/16/05	1653	13.76	
15	DSTD02	UFI050310-01	05/16/05	1721	13.78	
16	ZZZZZ	ZZZZZ	05/16/05	1750	13.76	
17	ZZZZZ	ZZZZZ	05/16/05	1819	13.76	
18	RE03-05-59558	135831004	05/16/05	1847		
19	ZZZZZ	ZZZZZ	05/16/05	1916	13.76	
20	ZZZZZ	ZZZZZ	05/16/05	1944	13.77	
21	ZZZZZ	ZZZZZ	05/16/05	2013	13.76	
22	ZZZZZ	ZZZZZ	05/16/05	2042	13.77	
23	RE03-05-58926	135831001	05/16/05	2110		
24	RE03-05-58926MS	1200840426	05/16/05	2139		
25	RE03-05-58926MSD	1200840427	05/16/05	2208		
26	RE03-05-58927	135831002	05/16/05	2236		
27	DSTD03	UFI050310-01	05/16/05	2305	13.78	
28	ZZZZZ	ZZZZZ	05/16/05	2333	13.76	
29						
30						
31						
32						

S1 = o-Terphenyl

QC LIMITS
(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

QUALITY CONTROL DATA

1B
DRO ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

DBLK01

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Matrix: (soil/water) SOIL Lab Sample ID: 1200840424

Sample wt/vol: 30.0 (g/mL) G Lab File ID: 007F0701MB2

Level: (low/med) LOW Date Received: 05/11/05

% Moisture: 0 decanted: (Y/N) N Date Extracted:05/11/05

Concentrated Extract Volume: 1.00(mL) Date Analyzed: 05/12/05

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) MG/KG	Q
	----------Diesel Range Organics_____	1.7	U

FORM I SV-1 OLM03.0

General Engineering Laboratories, LLC

ZB-5 0.25mm

Data file : /chem/fida.i/051205/007f0701MB2.d
Lab Smp Id: 1200840424 Client Smp ID: DBLK01
Inj Date : 12-MAY-2005 13:03
Operator : JMB3 Inst ID: fida.i
Smp Info : |1200840424|1|
Misc Info : |FIDDRO_SF|423035|FIDF|MB|
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fida.i/051205/FIDa.i_f_DRO_042105.m
Meth Date : 13-May-2005 09:24 jos00786 Quant Type: ESTD
Cal Date : 21-APR-2005 17:02 Cal File: 007f0701.d
Als bottle: 7 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 3202S.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weigth of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (mg/L)	FINAL (mg/Kg)
$ 2 o-Terphenyl					CAS #: 84-15-1
13.767	13.777	-0.010	123803	13.4376	0.45

Data File: /chem/fida.i/051205/007f0701MB2.d
Date : 12-MAY-2005 13:03
Client ID: DBLK01
Sample Info: |120084042411|
Volume Injected (uL): 1.0
Column phase: ZB-5

Instrument: fida.i
Operator: JMB3
Column diameter: 0.25

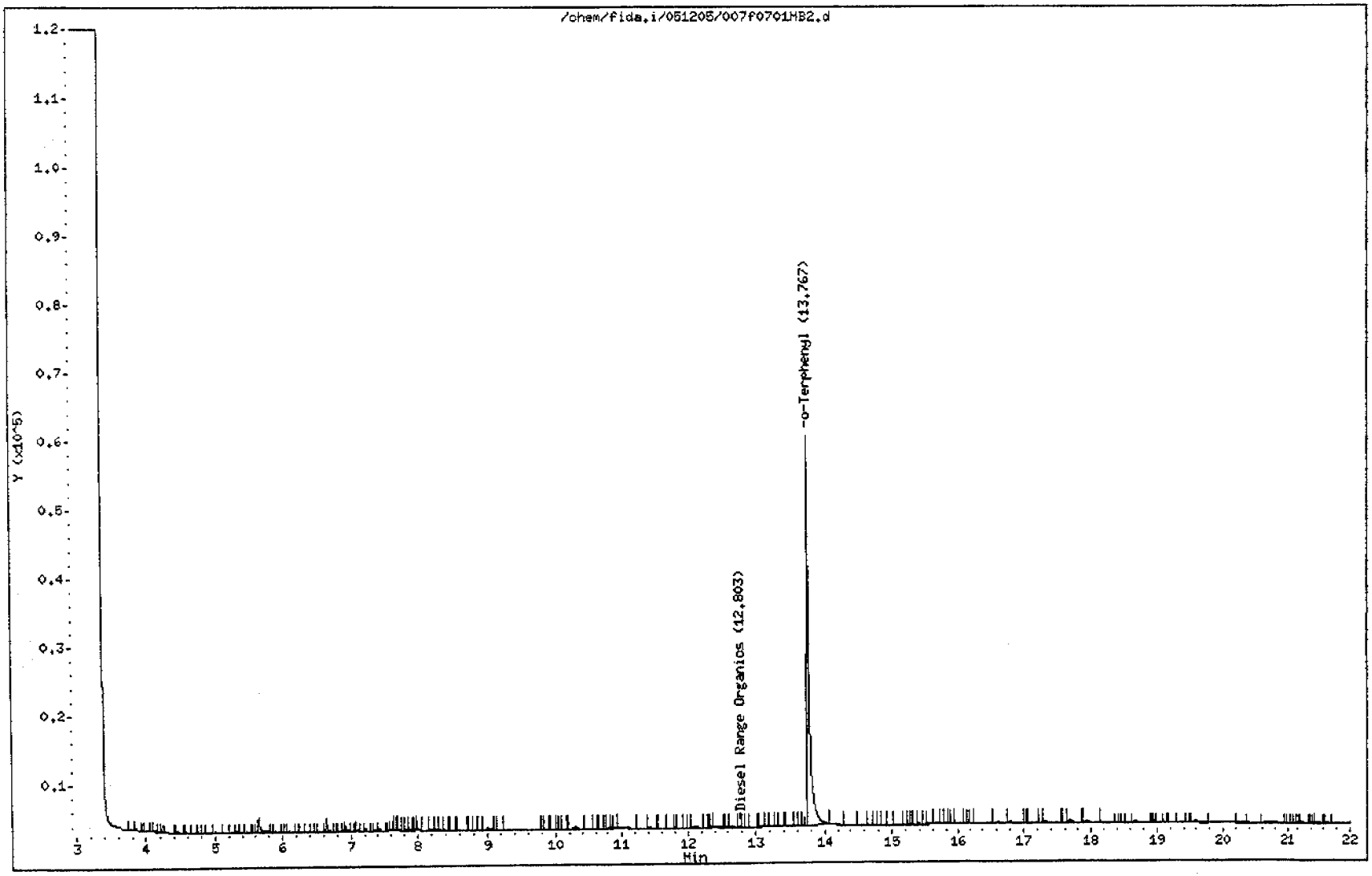

501

1B
DRO ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

DBLK02

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Matrix: (soil/water) SOIL Lab Sample ID: 1200842656

Sample wt/vol: 30.0 (g/mL) G Lab File ID: 005F0501

Level: (low/med) LOW Date Received: 05/12/05

% Moisture: 0 decanted: (Y/N) N Date Extracted:05/12/05

Concentrated Extract Volume: 1.00(mL) Date Analyzed: 05/13/05

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) MG/KG	Q
	----------Diesel Range Organics_____	1.7	U

FORM I SV-1 OLM03.0

General Engineering Laboratories, LLC

ZB-5 0.25mm

Data file : /chem/fida.i/051305/005f0501.d
Lab Smp Id: 1200842656 Client Smp ID: DBLK02
Inj Date : 13-MAY-2005 12:28
Operator : JMB3 Inst ID: fida.i
Smp Info : |1200842656|1|
Misc Info : |FIDDRO_SF|423910|FIDF|MB|
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fida.i/051305/FIDa.i_f_DRO_042105.m
Meth Date : 15-May-2005 11:55 jos00786 Quant Type: ESTD
Cal Date : 21-APR-2005 17:02 Cal File: 007f0701.d
Als bottle: 5 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 3202S.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weigth of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (mg/L)	FINAL (mg/Kg)
$ 2 o-Terphenyl					CAS #: 84-15-1
13.767	13.777	-0.010	135776	14.7371	0.49

Data File: /chem/fida.i/051305/005f0501.d
Date : 13-MAY-2005 12:28
Client ID: DBLK02
Sample Info: |120084265611|
Volume Injected (uL): 1.0
Column phase: ZB-5

Instrument: fida.i

Operator: JMB3
Column diameter: 0.25

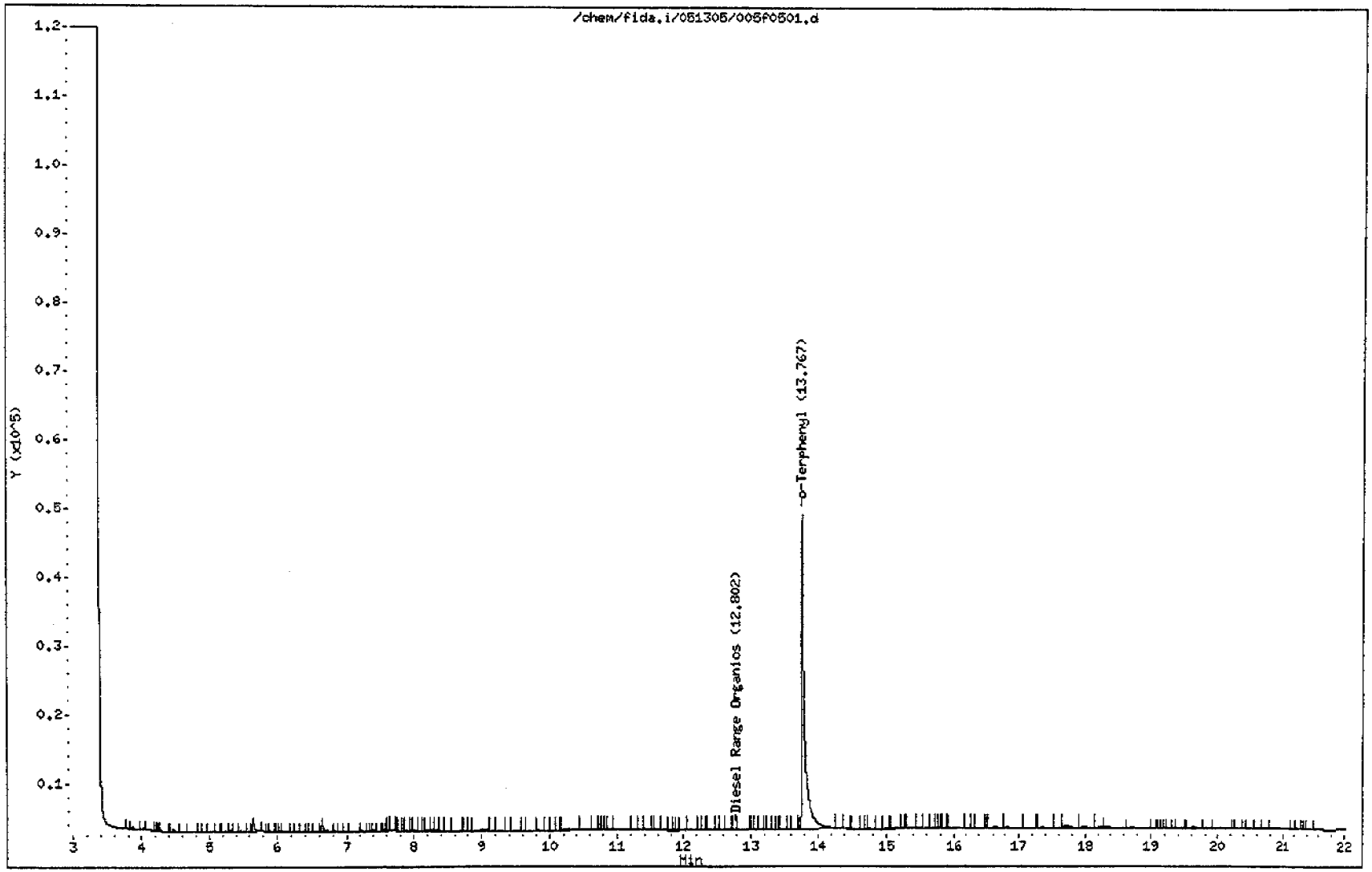

1B
DRO ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

DBLK01LCS

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Matrix: (soil/water) SOIL Lab Sample ID: 1200840425

Sample wt/vol: 30.0 (g/mL) G Lab File ID: 008F0801LCS2

Level: (low/med) LOW Date Received: 05/11/05

% Moisture: 0 decanted: (Y/N) N Date Extracted: 05/11/05

Concentrated Extract Volume: 1.00(mL) Date Analyzed: 05/12/05

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) MG/KG	Q
	----------Diesel Range Organics	29.7	

FORM I SV-1 OLM03.0

General Engineering Laboratories, LLC

ZB-5 0.25mm

Data file : /chem/fida.i/051205/008f0801LCS2.d
Lab Smp Id: 1200840425 Client Smp ID: DBLK01LCS
Inj Date : 12-MAY-2005 13:32
Operator : JMB3 Inst ID: fida.i
Smp Info : |1200840425|1|
Misc Info : |FIDDRO_SF|423035|FIDF|LCS|
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fida.i/051205/FIDa.i_f_DRO_042105.m
Meth Date : 13-May-2005 09:24 jos00786 Quant Type: ESTD
Cal Date : 21-APR-2005 17:02 Cal File: 007f0701.d
Als bottle: 8 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 3202S.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weigth of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (mg/L)	FINAL (mg/Kg)	
S	1 Diesel Range Organics					CAS #:	
	7.623- 17.983			5943481	889.851	29.7	
$	2 o-Terphenyl					CAS #: 84-15-1	
	13.767	13.777	-0.010	195241	21.1914	0.71	(M)

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/fida.i/051205/006f0801.d
Injection Date: 12-MAY-2005 13:32
Instrument: fida.i
Client Sample ID: DBLK01LCS

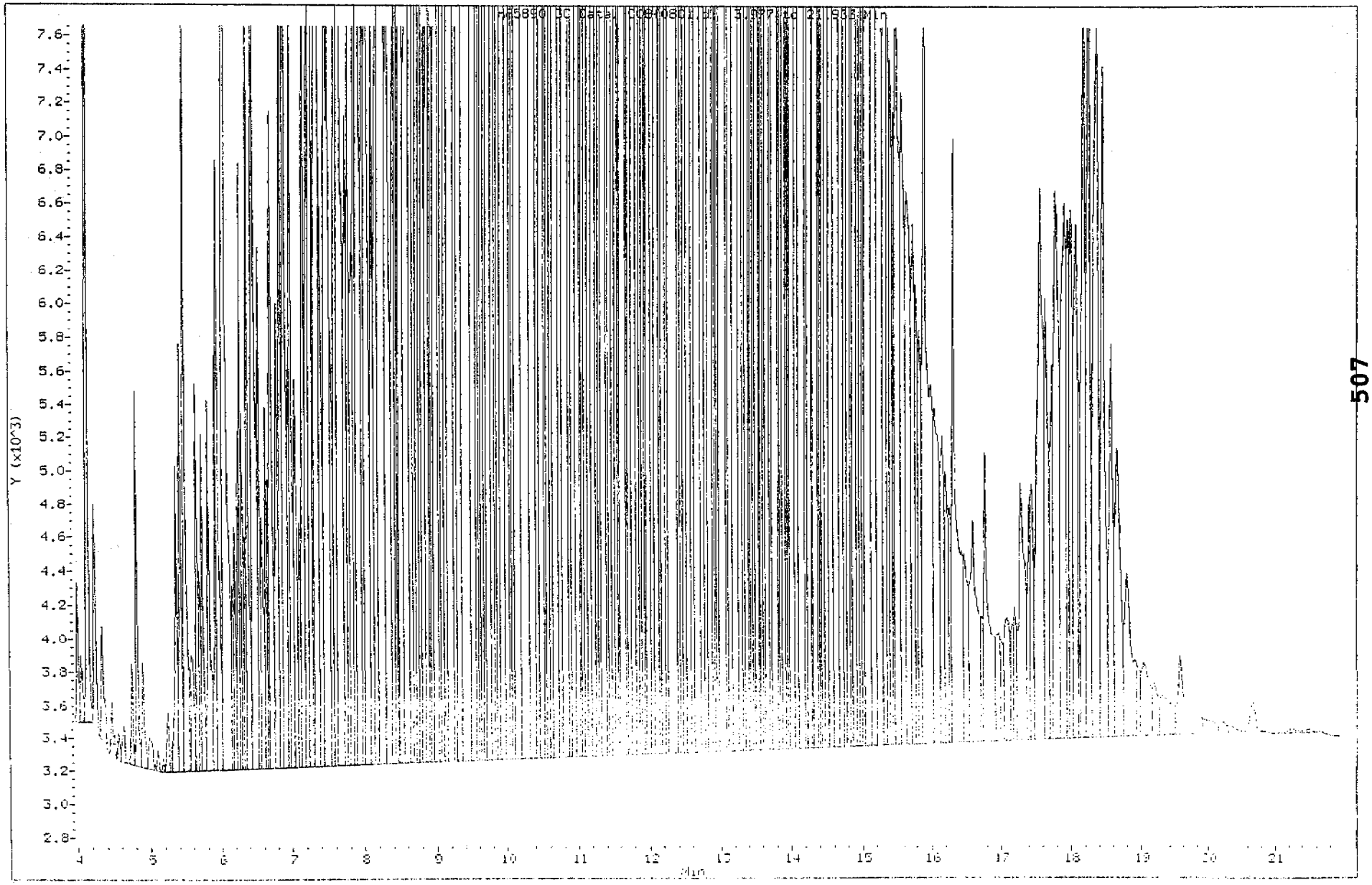

Data File: /chem/fida.i/051205/008f0801.d
Injection Date: 12-MAY-2005 13:32
Instrument: fida.i
Client Sample ID: DBLK01LCS

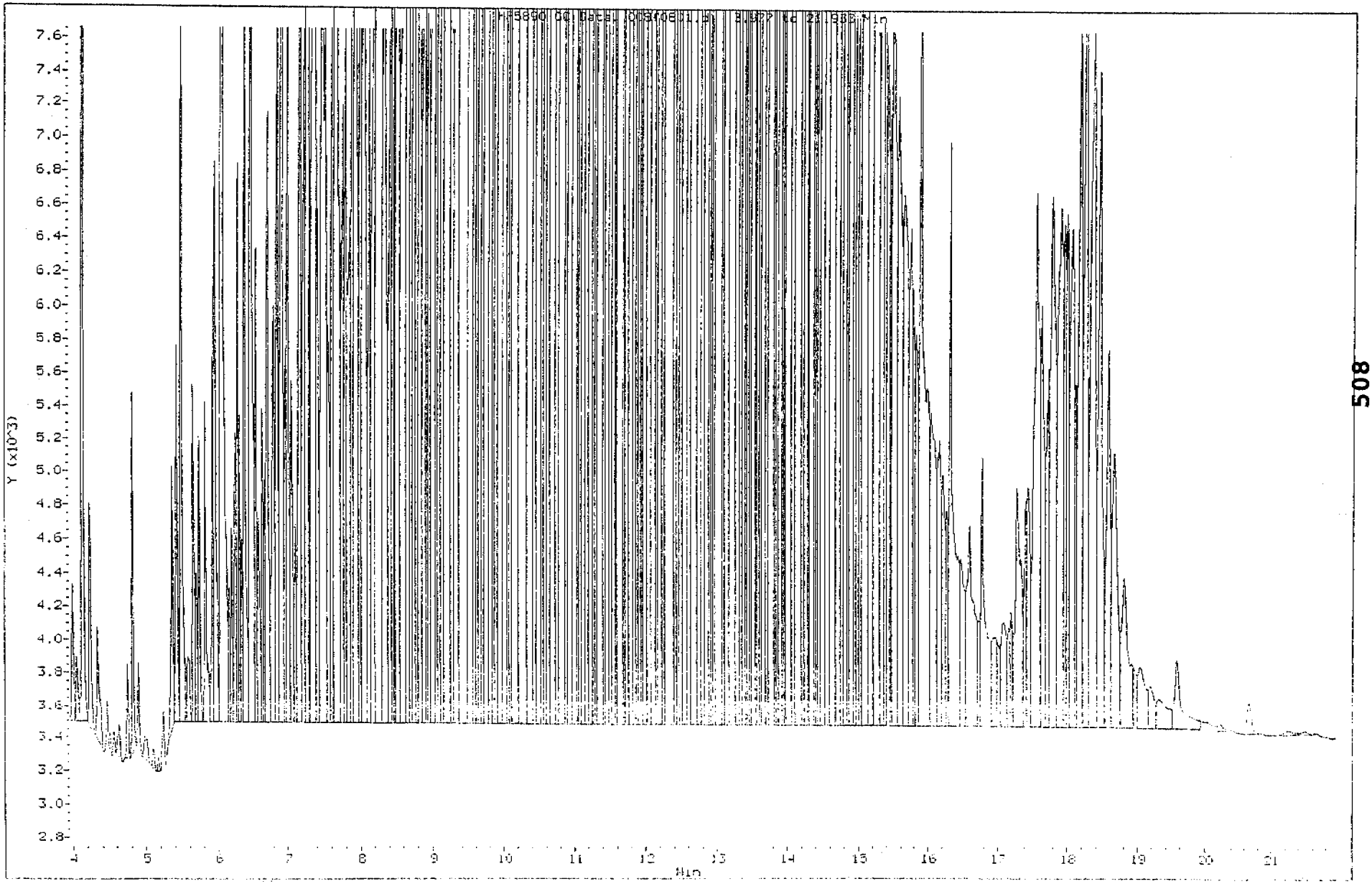

508

Data File: /chem/fida.i/051205/008f0801LCS2.d
Date : 12-MAY-2005 13:32
Client ID: DBLK01LCS
Sample Info: |1200840425|1|
Volume Injected (uL): 1.0
Column phase: ZB-5

Instrument: fida.i

Operator: JMB3
Column diameter: 0.25

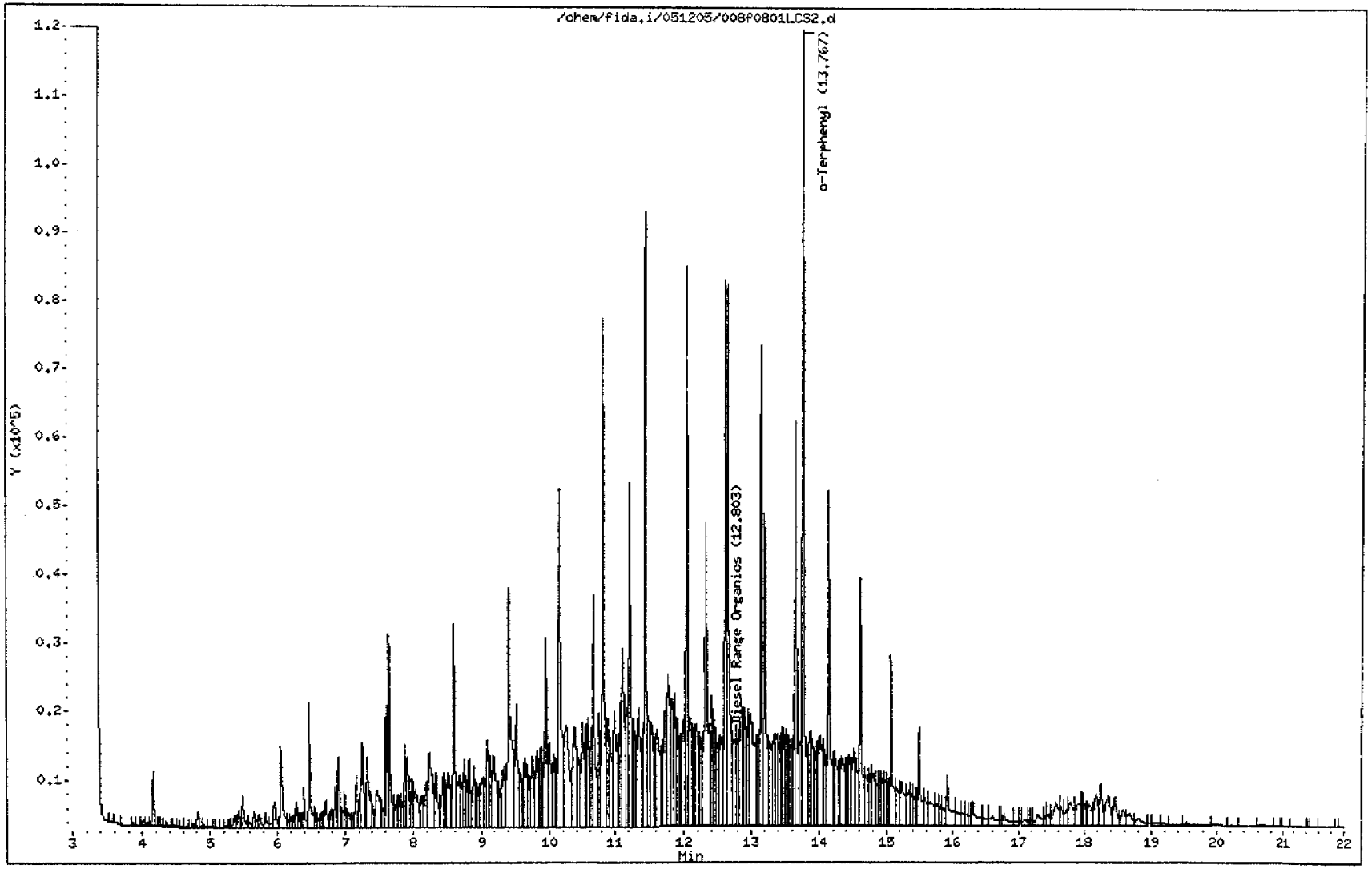

1B
DRO ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

DBLK02LCS

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Matrix: (soil/water) SOIL Lab Sample ID: 1200842657

Sample wt/vol: 30.0 (g/mL) G Lab File ID: 006F0601

Level: (low/med) LOW Date Received: 05/12/05

% Moisture: 0 decanted: (Y/N) N Date Extracted: 05/12/05

Concentrated Extract Volume: 1.00(mL) Date Analyzed: 05/13/05

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) MG/KG	Q
	----------Diesel Range Organics	27.1	

FORM I SV-1 OLM03.0

General Engineering Laboratories, LLC

ZB-5 0.25mm

Data file : /chem/fida.i/051305/006f0601.d
Lab Smp Id: 1200842657 Client Smp ID: DBLK02LCS
Inj Date : 13-MAY-2005 12:57
Operator : JMB3 Inst ID: fida.i
Smp Info : |1200842657|1|
Misc Info : |FIDDRO_SF|423910|FIDF|LCS|
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fida.i/051305/FIDa.i_f_DRO_042105.m
Meth Date : 15-May-2005 11:55 jos00786 Quant Type: ESTD
Cal Date : 21-APR-2005 17:02 Cal File: 007f0701.d
Als bottle: 6 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 3202S.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weigth of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (mg/L)	FINAL (mg/Kg)	
$ 1 Diesel Range Organics					CAS #:	
7.623- 17.980			5434786	813.690	27.1	
$ 2 o-Terphenyl					CAS #: 84-15-1	
13.767	13.777	-0.010	194494	21.1104	0.70	(M)

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/fida.i/051305/006f0601.d
Injection Date: 13-MAY-2005 12:57
Instrument: fida.i
Client Sample ID: DBLK01LCS

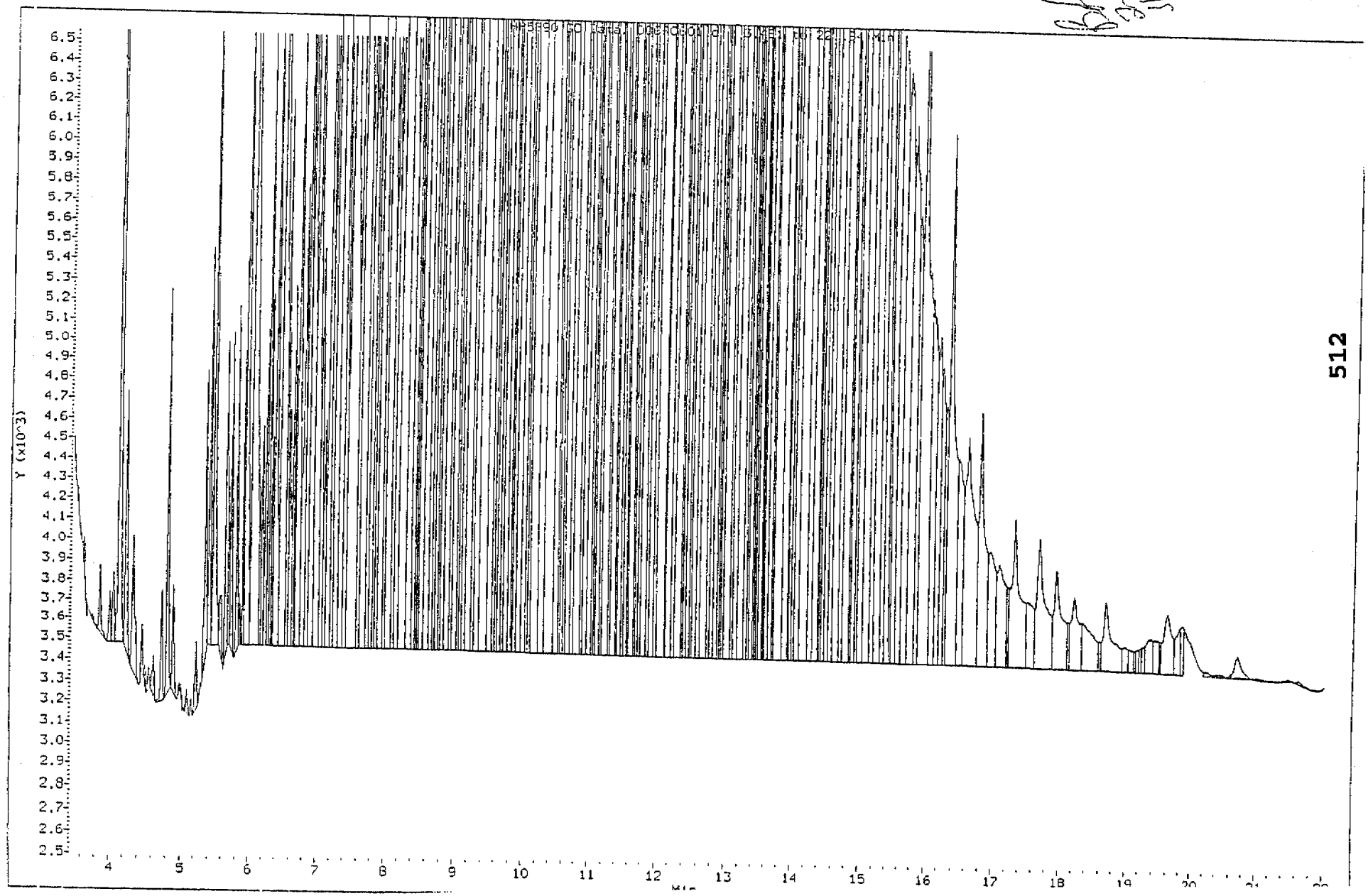

Data File: /chem/fida.i/051305/006f0601.d
Injection Date: 13-MAY-2005 12:57
Instrument: fida.i
Client Sample ID: DBLK01LCS

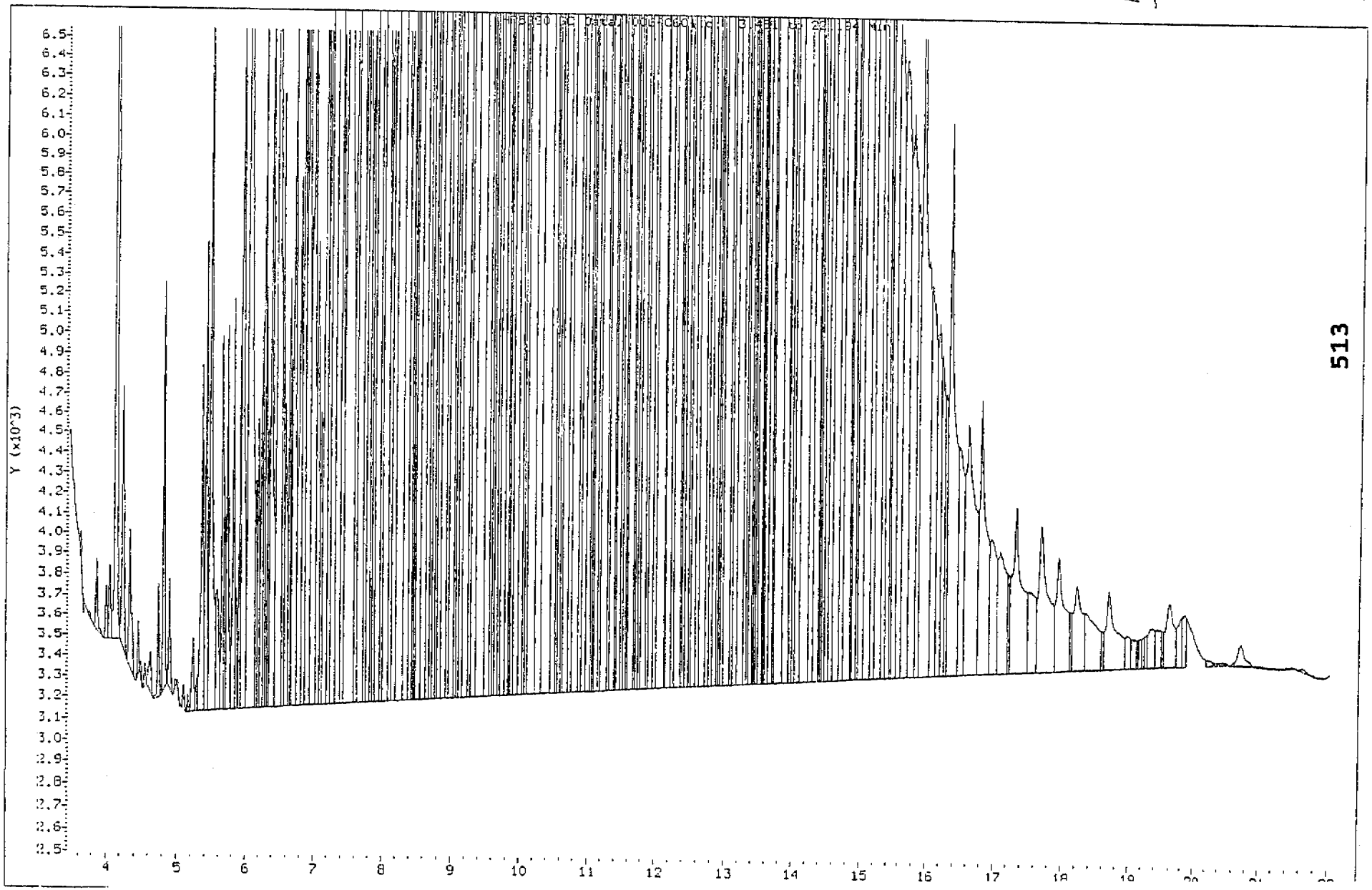

513

Data File: /chem/fida.i/051305/006f0601.d
Date : 13-MAY-2005 12:57
Client ID: DBLK02LCS
Sample Info: |1200842657|1|
Volume Injected (uL): 1.0
Column phase: ZB-5

Instrument: fida.i

Operator: JHB3
Column diameter: 0.25

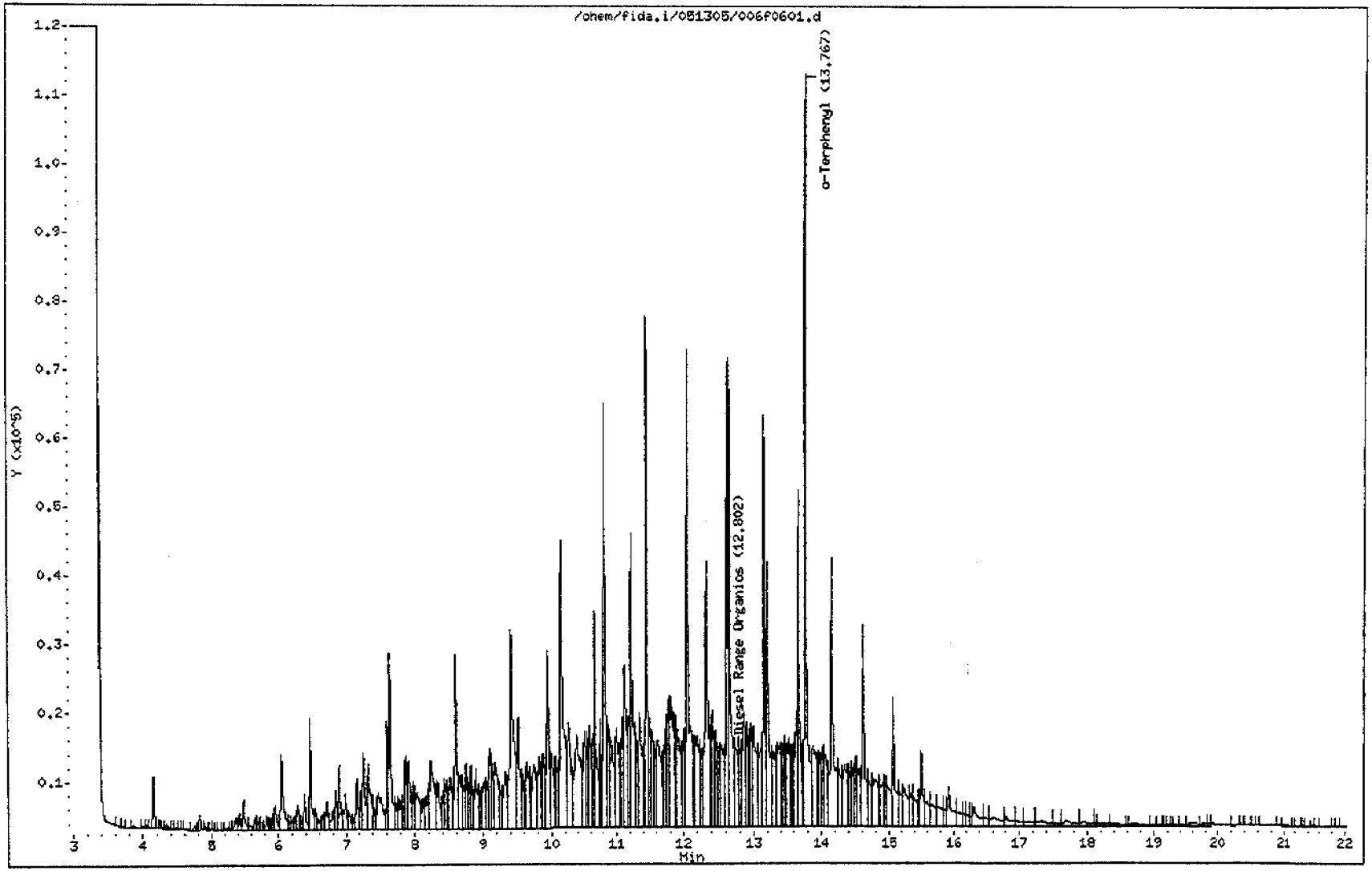

1B

DRO ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-59557MS

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Matrix: (soil/water) SOIL Lab Sample ID: 1200842660

Sample wt/vol: 30.0 (g/mL) G Lab File ID: 007F0701

Level: (low/med) LOW Date Received: 05/05/05

% Moisture: 9 decanted: (Y/N) N Date Extracted:05/12/05

Concentrated Extract Volume: 1.00(mL) Date Analyzed: 05/16/05

Injection Volume: 1.0(uL) Dilution Factor: 50.0

GPC Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) MG/KG	Q
	----------Diesel Range Organics_____	953	_____

FORM I SV-1 OLM03.0

General Engineering Laboratories, LLC

ZB-5 0.25mm

Data file : /chem/fida.i/051605/007f0701.d
Lab Smp Id: 1200842660 Client Smp ID: RE03-05-59557MS
Inj Date : 16-MAY-2005 12:56
Operator : JMB3 Inst ID: fida.i
Smp Info : |1200842660|50|
Misc Info : |FIDDRO_SF|423910|FIDF|MS|
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fida.i/051605/FIDa.i_f_DRO_042105.m
Meth Date : 17-May-2005 08:53 jos00786 Quant Type: ESTD
Cal Date : 21-APR-2005 17:02 Cal File: 007f0701.d
Als bottle: 7 QC Sample: MS
Dil Factor: 50.00000
Integrator: Falcon Compound Sublist: 3202S.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	50.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weigth of sample extracted (g)
M	8.58140	% Moisture

Cpnd Variable Local Compound Variable

	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (mg/L)	FINAL (mg/Kg)	
S	1 Diesel Range Organics					CAS #:	
	7.623- 17.980			3490530	522.598	953	(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: /chem/fida.i/051605/007f0701.d
Date : 16-MAY-2005 12:56
Client ID: RE03-05-59587MS
Sample Info: |1200842660|50|
Volume Injected (uL): 1.0
Column phase: ZB-5

Instrument: fida.i

Operator: JMB3
Column diameter: 0.25

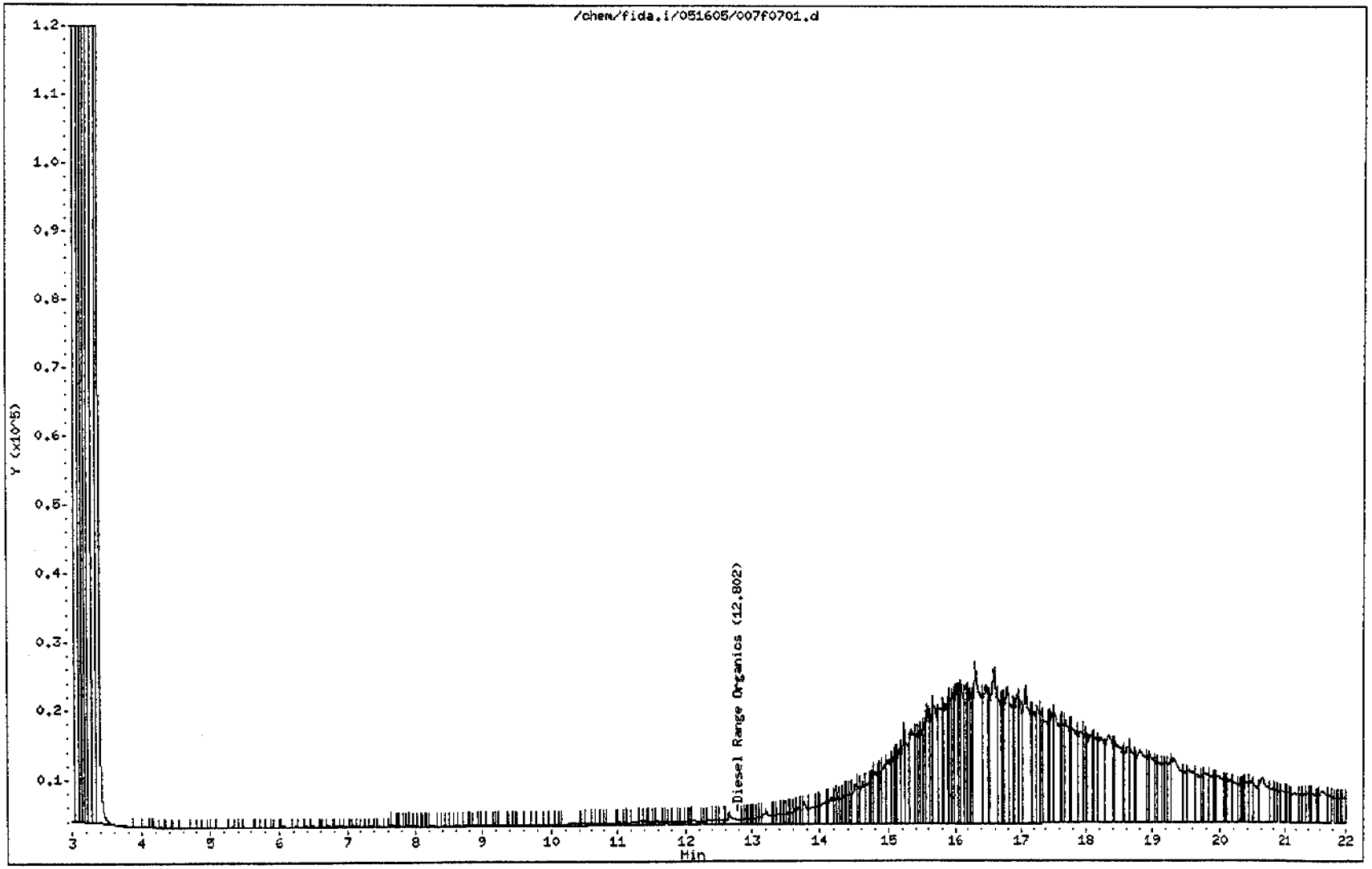

1B
DRO ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-8926MS

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Matrix: (soil/water) SOIL Lab Sample ID: 1200840426

Sample wt/vol: 30.0 (g/mL) G Lab File ID: 024F2401

Level: (low/med) LOW Date Received: 05/05/05

% Moisture: 6 decanted: (Y/N) N Date Extracted:05/11/05

Concentrated Extract Volume: 1.00(mL) Date Analyzed: 05/16/05

Injection Volume: 1.0(uL) Dilution Factor: 50.0

GPC Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) MG/KG	Q
	Diesel Range Organics	1500	

FORM I SV-1 OLM03.0

General Engineering Laboratories, LLC

ZB-5 0.25mm

Data file : /chem/fida.i/051605/024f2401.d
Lab Smp Id: 1200840426 Client Smp ID: RE03-05-8926MS
Inj Date : 16-MAY-2005 21:39
Operator : JMB3 Inst ID: fida.i
Smp Info : |1200840426|50|
Misc Info : |FIDDRO_SF|423035|FIDF|MS|
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fida.i/051605/FIDa.i_f_DRO_042105.m
Meth Date : 17-May-2005 08:53 jos00786 Quant Type: ESTD
Cal Date : 21-APR-2005 17:02 Cal File: 007f0701.d
Als bottle: 24 QC Sample: MS
Dil Factor: 50.00000
Integrator: Falcon Compound Sublist: 3202S.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	50.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weigth of sample extracted (g)
M	5.87600	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (mg/L)	FINAL (mg/Kg)
S 1 Diesel Range Organics					CAS #:
7.623- 17.980			5653463	846.430	1500 (R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: /chem/fida.i/051605/024f2401.d
Date : 16-MAY-2005 21:39
Client ID: RE03-05-8926MS
Sample Info: |120084042615|
Volume Injected (uL): 1.0
Column phase: ZB-5

Instrument: fida.i

Operator: JHB3
Column diameter: 0.25

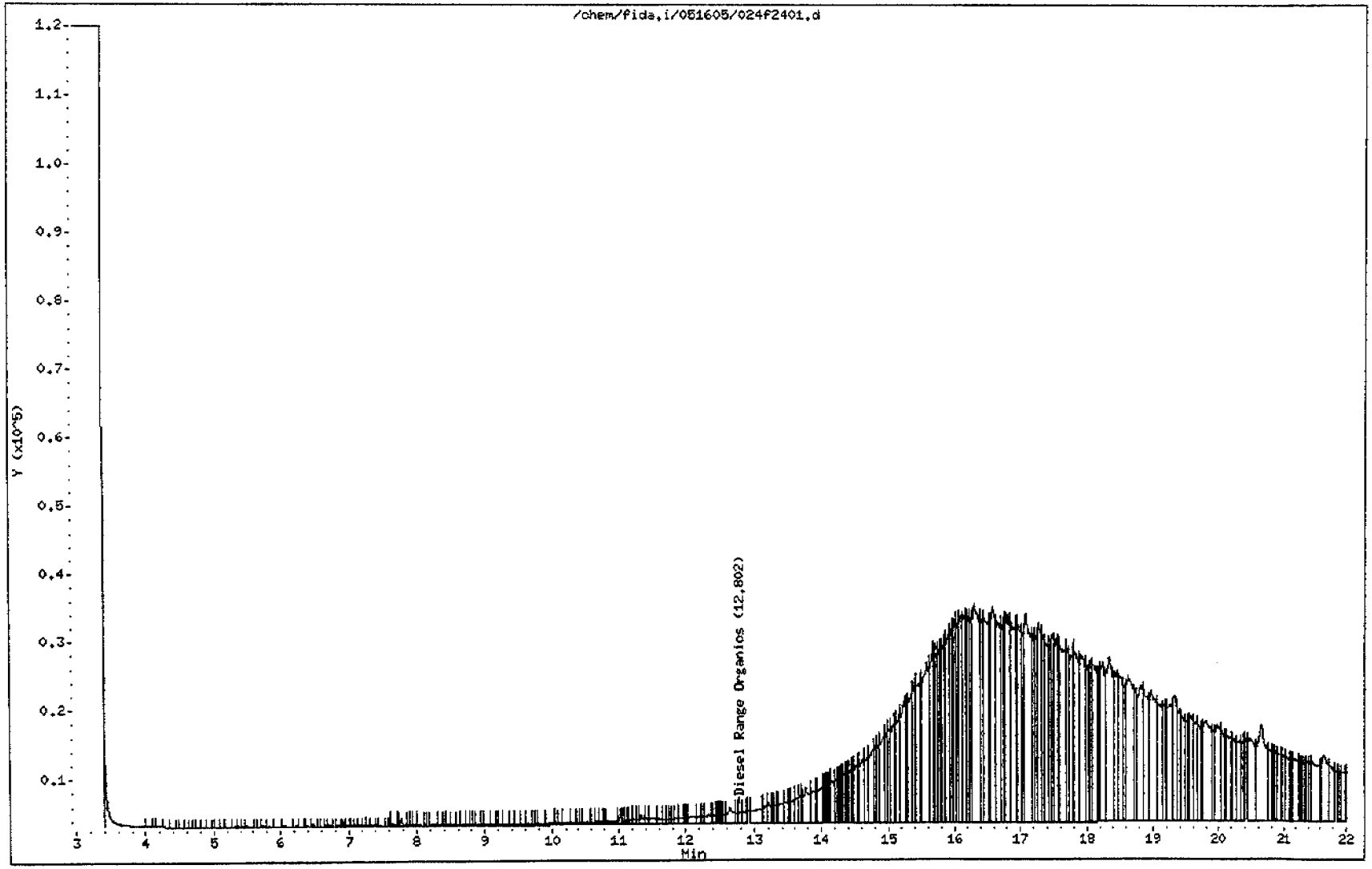

1B
DRO ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-59557MSD

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Matrix: (soil/water) SOIL Lab Sample ID: 1200842661

Sample wt/vol: 30.0 (g/mL) G Lab File ID: 008F0801

Level: (low/med) LOW Date Received: 05/05/05

% Moisture: 9 decanted: (Y/N) N Date Extracted:05/12/05

Concentrated Extract Volume: 1.00(mL) Date Analyzed: 05/16/05

Injection Volume: 1.0(uL) Dilution Factor: 50.0

GPC Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) MG/KG	Q
	----------Diesel Range Organics	488	

FORM I SV-1 OLM03.0

General Engineering Laboratories, LLC

ZB-5 0.25mm

Data file : /chem/fida.i/051605/008f0801.d
Lab Smp Id: 1200842661 Client Smp ID: RE03-05-59557MSD
Inj Date : 16-MAY-2005 13:25
Operator : JMB3 Inst ID: fida.i
Smp Info : |1200842661|50|
Misc Info : |FIDDRO_SF|423910|FIDF|MSD|
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fida.i/051605/FIDa.i_f_DRO_042105.m
Meth Date : 17-May-2005 08:53 jos00786 Quant Type: ESTD
Cal Date : 21-APR-2005 17:02 Cal File: 007f0701.d
Als bottle: 8 QC Sample: MSD
Dil Factor: 50.00000
Integrator: Falcon Compound Sublist: 3202S.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	50.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weigth of sample extracted (g)
M	8.58140	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (mg/L)	FINAL (mg/Kg)	
S 1 Diesel Range Organics					CAS #:	
7.623- 17.980			1789901	267.982	488	(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: /chem/fida.i/051605/008f0801.d
Date : 16-MAY-2005 13:25
Client ID: RE03-05-59557MSD
Sample Info: |1200842661|50|
Volume Injected (uL): 1.0
Column phase: ZB-5

Instrument: fida.i

Operator: JMB3
Column diameter: 0.25

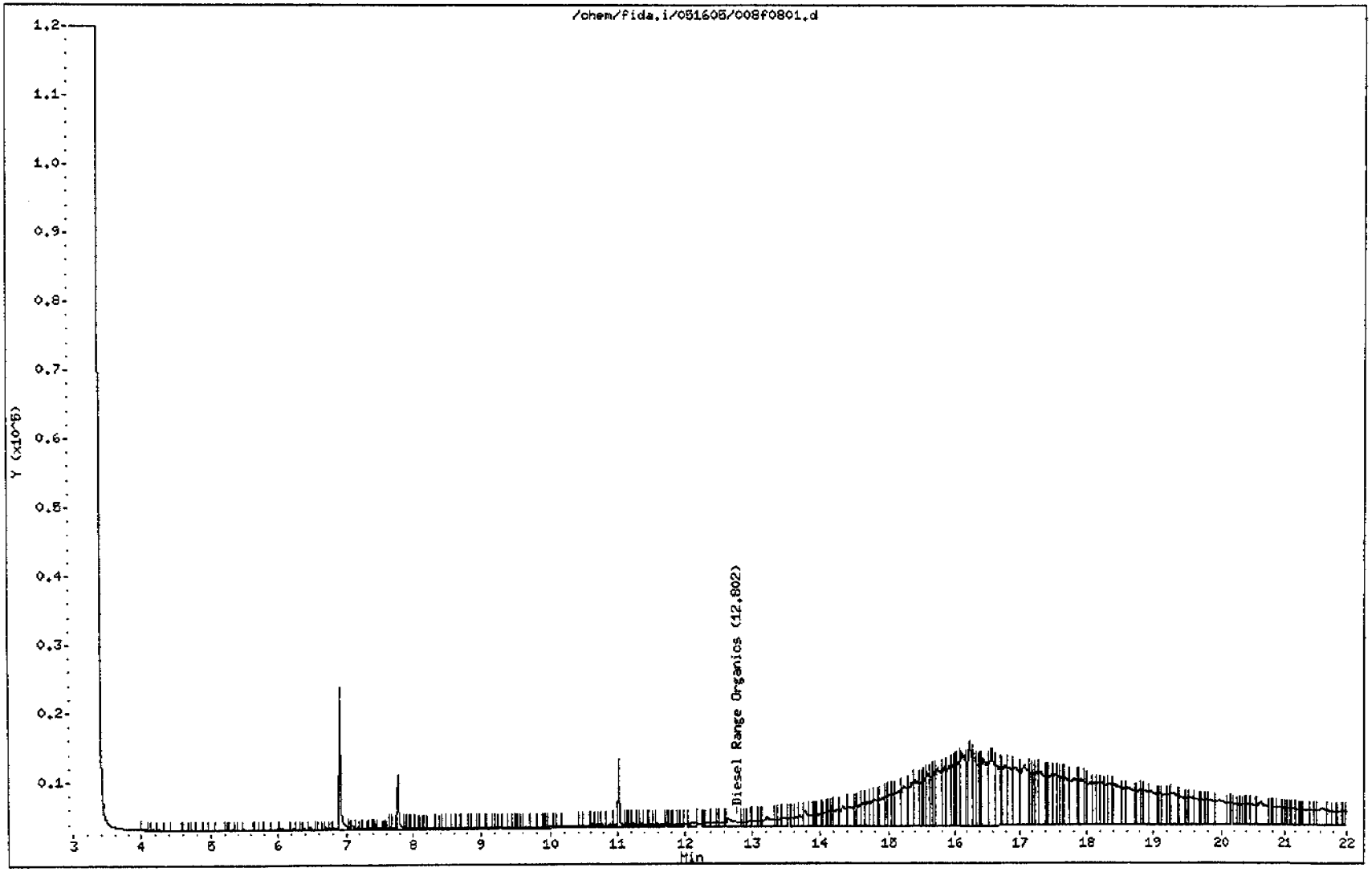

1B
DRO ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-8926MSD

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Matrix: (soil/water) SOIL Lab Sample ID: 1200840427

Sample wt/vol: 30.0 (g/mL) G Lab File ID: 025F2501

Level: (low/med) LOW Date Received: 05/05/05

% Moisture: 6 decanted: (Y/N) N Date Extracted:05/11/05

Concentrated Extract Volume: 1.00(mL) Date Analyzed: 05/16/05

Injection Volume: 1.0(uL) Dilution Factor: 50.0

GPC Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) MG/KG	Q
----------	Diesel Range Organics	1610	

FORM I SV-1 OLM03.0

General Engineering Laboratories, LLC

ZB-5 0.25mm

Data file : /chem/fida.i/051605/025f2501.d
Lab Smp Id: 1200840427 Client Smp ID: RE03-05-8926MSD
Inj Date : 16-MAY-2005 22:08
Operator : JMB3 Inst ID: fida.i
Smp Info : |1200840427|50|
Misc Info : |FIDDRO_SF|423035|FIDF|MSD|
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fida.i/051605/FIDa.i_f_DRO_042105.m
Meth Date : 17-May-2005 08:53 jos00786 Quant Type: ESTD
Cal Date : 21-APR-2005 17:02 Cal File: 007f0701.d
Als bottle: 25 QC Sample: MSD
Dil Factor: 50.00000
Integrator: Falcon Compound Sublist: 3202S.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	50.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weigth of sample extracted (g)
M	5.87600	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (mg/L)	FINAL (mg/Kg)	
S 1 Diesel Range Organics					CAS #:	
7.623- 17.980			6065800	908.165	1610	(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: /chem/fida.i/051605/025f2501.d
Date : 16-MAY-2005 22:08
Client ID: RE03-05-8926MSD
Sample Info: |1200840427150|
Volume Injected (uL): 1.0
Column phase: ZB-5

Instrument: fida.i

Operator: JMB3
Column diameter: 0.25

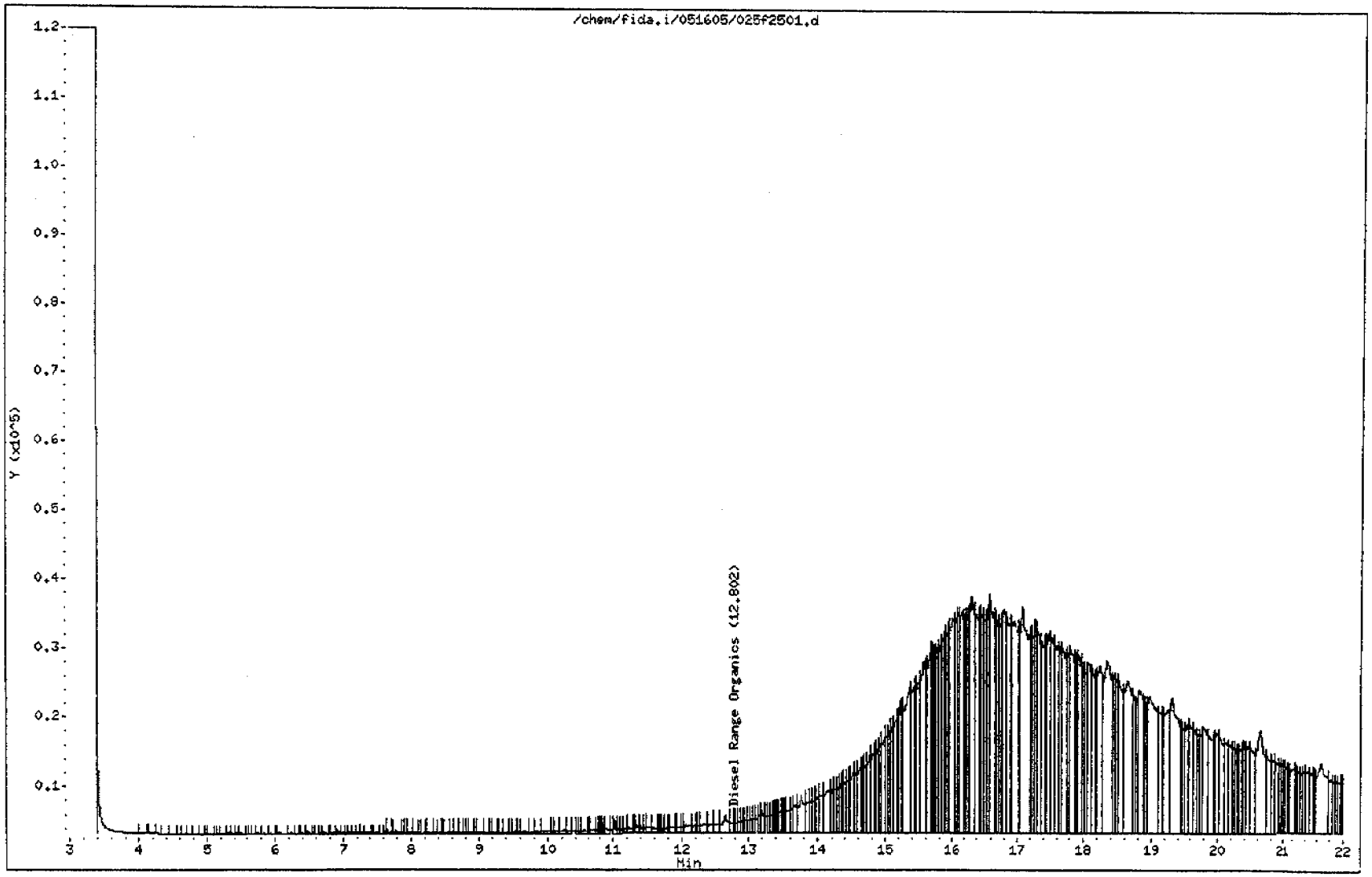

MISCELLANEOUS DATA

GEL ORGANIC RUN LOG INSTRUMENT ID: fida.i

DATE: 05/18/2005 METHOD: FIDa.i_f_DRO_042105.m OPERATOR:JMB3 REVIEWED BY:_____

DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 16 on pg. 16 Solvent REFMAT ID: Methylene Chloride 252222

Calibration & QC Information
GC Column: ZB-5 30m x 0.25mm x 0.25um
Initial Calibration Dates: See Calibration History and Standards Log
Initial Calibration Std ID's: See Calibration History and Standards Log
FID analysis of GEL SOP: GL-OA-E-003

Sequence Number: 042105 Injection Volume: 2.0 ul

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001f0101.d	IFI050314-01 IB	JMB3	21-APR-2005 14:11		042105	1.0		CLEAN
002f0201.d	UFI050328-03 RT	JMB3	21-APR-2005 14:39		042105	1.0		RT MARKER
003f0301.d	UFI050110-01 50	JMB3	21-APR-2005 15:08		042105	1.0		ICAL 1
004f0401.d	UFI050110-03 200	JMB3	21-APR-2005 15:36		042105	1.0		ICAL 2
005f0501.d	UFI050110-04 500	JMB3	21-APR-2005 16:05		042105	1.0		ICAL 3
006f0601.d	UFI050110-05 1000	JMB3	21-APR-2005 16:34		042105	1.0		ICAL 4
007f0701.d	UFI050110-06 5000	JMB3	21-APR-2005 17:02		042105	1.0		ICAL 5
008f0801.d	UFI050310-01 1000	JMB3	21-APR-2005 17:31		042105	1.0		ICV: Passes
009f0901.d	IFI050314-01 IB	JMB3	21-APR-2005 17:59		042105	1.0		CLEAN
010f1001.d	QCNAGSOILBLK	JMB3	21-APR-2005 18:28		042105	1.0		
011f1101.d	QCNAGSOILLCS1	JMB3	21-APR-2005 18:57		042105	1.0		
012f1201.d	QCNAGSOILLCS2	JMB3	21-APR-2005 19:25		042105	1.0		
013f1301.d	QCNAGSOILLCS3	JMB3	21-APR-2005 19:54		042105	1.0		
014f1401.d	QCNAGSOILLCS4	JMB3	21-APR-2005 20:22		042105	1.0		
015f1501.d	QCNAGSOILLCS5	JMB3	21-APR-2005 20:51		042105	1.0		

Instrument Batch: /chem/fida.i/042105 Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
016f1601.d	UFI050310-01 1000	JMB3	21-APR-2005 21:20		042105	1.0		CCV: Passes

017f1701.d	IFI050314-01 IB	JMB3	21-APR-2005 21:48		042105	1.0	CLEAN

GEL ORGANIC RUN LOG INSTRUMENT ID: fida.i

DATE: 05/13/2005 METHOD: FIDa.i_f_DRO_042105.m OPERATOR:JMB3 REVIEWED BY:_____

DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 16 on pg. 16 Solvent REFMAT ID: Methylene Chloride 252222

Calibration & QC Information
GC Column: ZB-5 30m x 0.25mm x 0.25um
Initial Calibration Dates: See Calibration History and Standards Log
Initial Calibration Std ID's: See Calibration History and Standards Log
FID analysis of GEL SOP: GL-OA-E-003

ESHL 136029
EAEN 136033
LANL 3192S
LANL 3194S
LANL 3202S

Sequence Number: 051205 Injection Volume: 2.0 ul

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001f0101.d	IFI050314-01 IB	JMB3	12-MAY-2005 10:11		051205	1.0		CLEAN
002f0201.d	UFI050221-03 RT	JMB3	12-MAY-2005 10:40		051205	1.0		RT MARKER
003f0301.d	UFI050310-01 1000	JMB3	12-MAY-2005 11:09		051205	1.0		CCV: Passes
004f0401.d	IFI050314-01 IB	JMB3	12-MAY-2005 11:38		051205	1.0		CLEAN
005f0501.d	1200842693	JMB3	12-MAY-2005 12:06	423926	136029	1.0	MB	USE
006f0601.d	1200842694	JMB3	12-MAY-2005 12:35	423926	136029	1.0	LCS	USE
007f0701.d	1200840424	JMB3	12-MAY-2005 13:03	423035	3192S	1.0	MB	USE: LANL 3194S, LANL 3202S
008f0801.d	1200840425	JMB3	12-MAY-2005 13:32	423035	3192S	1.0	LCS	USE: LANL 3194S, LANL 3202S
009f0901.d	136029003	JMB3	12-MAY-2005 14:01	423926	136029	1.0	ESHL	USE: OTP Fails low; Reextract confirms: See 051805
010f1001.d	1200842695	JMB3	12-MAY-2005 14:29	423926	136029	1.0	MS	USE: OTP Fails low; Reextract confirms: See 051805
011f1101.d	1200842696	JMB3	12-MAY-2005 14:58	423926	136029	1.0	MSD	USE: OTP Fails low; Reextract confirms: See 051805
012f1201.d	136033001	JMB3	12-MAY-2005 15:26	423926	136033	1.0	EAEN	USE
013f1301.d	136033002	JMB3	12-MAY-2005 15:55	423926	136033	1.0	EAEN	USE
014f1401.d	136033003	JMB3	12-MAY-2005 16:23	423926	136033	1.0	EAEN	USE
015f1501.d	UFI050310-01 1000	JMB3	12-MAY-2005 16:52		051205	1.0		CCV: Passes

Instrument Batch: /chem/fida.i/051205 Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
016f1601.d	IFI050314-01 IB	JMB3	12-MAY-2005 17:20		051205	1.0		CLEAN

017f1701.d	135802001	JMB3	12-MAY-2005 17:49	423035	3192S		10.0	LANL	USE
018f1801.d	135802002	JMB3	12-MAY-2005 18:17	423035	3192S		10.0	LANL	DUSE: Rerun @ 50x
019f1901.d	IFI050314-01 IB	JMB3	12-MAY-2005 18:46		051205		1.0		Instrument Blank
020f2001.d	135802003	JMB3	12-MAY-2005 19:23	423035	3192S		50.0	LANL	USE
021f2101.d	135802004	JMB3	12-MAY-2005 19:52	423035	3192S		10.0	LANL	USE
022f2201.d	135802005	JMB3	12-MAY-2005 20:20	423035	3192S		50.0	LANL	USE
023f2301.d	135802006	JMB3	12-MAY-2005 20:49	423035	3192S		50.0	LANL	DUSE: Rerun @ 10x
024f2401.d	135802007	JMB3	12-MAY-2005 21:17	423035	3192S		50.0	LANL	DUSE: Rerun @ 10x
025f2501.d	UFI050310-01 1000	JMB3	12-MAY-2005 21:46		051205		1.0		CCV: Passes
026f2601.d	IFI050314-01 IB	JMB3	12-MAY-2005 22:14		051205		1.0		CLEAN
027f2701.d	135802008	JMB3	12-MAY-2005 22:43	423035	3192S		50.0	LANL	USE
028f2801.d	135802009	JMB3	12-MAY-2005 23:11	423035	3192S		50.0	LANL	USE
029f2901.d	135802010	JMB3	12-MAY-2005 23:40	423035	3192S		50.0	LANL	USE
030f3001.d	135802011	JMB3	13-MAY-2005 00:08	423035	3192S		10.0	LANL	DUSE: Rerun neat
031f3101.d	135802012	JMB3	13-MAY-2005 00:37	423035	3192S		50.0	LANL	DUSE: Rerun @ 10x
032f3201.d	135802013	JMB3	13-MAY-2005 01:05	423035	3192S		50.0	LANL	USE
033f3301.d	135802014	JMB3	13-MAY-2005 01:34	423035	3192S		10.0	LANL	USE
034f3401.d	UFI050310-01 1000	JMB3	13-MAY-2005 02:02		051205		1.0		CCV: Passes
035f3501.d	IFI050314-01 IB	JMB3	13-MAY-2005 02:31		051205		1.0		CLEAN

GEL ORGANIC RUN LOG INSTRUMENT ID: fida.i

DATE: 05/15/2005 METHOD: FIDa.i_f_DRO_042105.m OPERATOR:JMB3 REVIEWED BY:_____

DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 16 on pg. 16 Solvent REFMAT ID: Methylene Chloride 252222

Calibration & QC Information
GC Column: ZB-5 30m x 0.25mm x 0.25um
Initial Calibration Dates: See Calibration History and Standards Log
Initial Calibration Std ID's: See Calibration History and Standards Log
FID analysis of GEL SOP: GL-OA-E-003

LANL 3202S
MIDT 135841
AMOC 136119
EAEN 136036
BOSH 136181
CONT 136194

Sequence Number: 051305 Injection Volume: 2.0 ul

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001f0101.d	IFI050314-01 IB	JMB3	13-MAY-2005 10:33		051305	1.0		CLEAN
002f0201.d	UFI050221-03 RT	JMB3	13-MAY-2005 11:02		051305	1.0		RT MARKER
003f0301.d	UFI050310-01 1000	JMB3	13-MAY-2005 11:31		051305	1.0		CCV: Passes
004f0401.d	IFI050314-01 IB	JMB3	13-MAY-2005 11:59		051305	1.0		CLEAN
005f0501.d	1200842656	JMB3	13-MAY-2005 12:28	423910	3202S	1.0	MB	USE: MIDT 135841, AMOC 136119, EAEN 136036, BOSH 136181
006f0601.d	1200842657	JMB3	13-MAY-2005 12:57	423910	3202S	1.0	LCS	USE: MIDT 135841, AMOC 136119, EAEN 136036, BOSH 136181
007f0701.d	1200844661	JMB3	13-MAY-2005 13:25	424712	136194	1.0	MB	USE
008f0801.d	1200844662	JMB3	13-MAY-2005 13:54	424712	136194	1.0	LCS	USE
009f0901.d	136119001	JMB3	13-MAY-2005 14:23	423910	136119	1.0	AMOC	USE
010f1001.d	136181001	JMB3	13-MAY-2005 14:51	423910	136181	1.0	BOSH	USE
011f1101.d	136181002	JMB3	13-MAY-2005 15:20	423910	136181	1.0	BOSH	USE
012f1201.d	136181003	JMB3	13-MAY-2005 15:49	423910	136181	1.0	BOSH	DUSE: Rerun @ 10x; See 051505
013f1301.d	136181004	JMB3	13-MAY-2005 16:17	423910	136181	1.0	BOSH	DUSE: Rerun; See 051505
014f1401.d	136181005	JMB3	13-MAY-2005 16:46	423910	136181	1.0	BOSH	USE
015f1501.d	UFI050310-01 1000	JMB3	13-MAY-2005 17:14		051305	1.0		CCV: Passes

Instrument Batch: /chem/fida.i/051305

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
016f1601.d	IFI050314-01 IB	JMB3	13-MAY-2005 17:43		051305	1.0		CLEAN

017f1701.d	135841008	JMB3	13-MAY-2005 18:11	423910	135841	1.0	MIDT	DUSE: Rerun; See 051505	
018f1801.d	135841007	JMB3	13-MAY-2005 18:40	423910	135841	1.0	MIDT	USE	
019f1901.d	135841006	JMB3	13-MAY-2005 19:08	423910	135841	50.0	MIDT	USE	
020f2001.d	135841001	JMB3	13-MAY-2005 19:37	423910	135841	50.0	MIDT	USE	
021f2101.d	1200842658	JMB3	13-MAY-2005 20:05	423910	135841	50.0	MS	USE	
022f2201.d	1200842659	JMB3	13-MAY-2005 20:34	423910	135841	50.0	MSD	USE	
023f2301.d	135841002	JMB3	13-MAY-2005 21:02	423910	135841	50.0	MIDT	USE	
024f2401.d	135841003	JMB3	13-MAY-2005 21:31	423910	135841	20.0	MIDT	USE	
025f2501.d	135841004	JMB3	13-MAY-2005 22:00	423910	135841	20.0	MIDT	USE	
026f2601.d	135841005	JMB3	13-MAY-2005 22:28	423910	135841	50.0	MIDT	USE	
027f2701.d	UFI050310-01 1000	JMB3	13-MAY-2005 22:57		051305	1.0		CCV: Passes	
028f2801.d	IFI050314-01 IB	JMB3	13-MAY-2005 23:25		051305	1.0		Instrument Blank	

GEL ORGANIC RUN LOG INSTRUMENT ID: fida.i

DATE: 05/17/2005 METHOD: FIDa.i_f_DRO_042105.m OPERATOR:JMB3 REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 16 on pg. 16 Solvent REFMAT ID: Methylene Chloride 252222

Calibration & QC Information
GC Column: ZB-5 30m x 0.25mm x 0.25um
Initial Calibration Dates: See Calibration History and Standards Log
Initial Calibration Std ID's: See Calibration History and Standards Log
FID analysis of GEL SOP: GL-OA-E-003

EAEN 136036
LANL 3202S
LANL 3192S
LANL 3194S

Sequence Number: 051605 Injection Volume: 2.0 ul

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001f0101.d	IFI050314-01 IB	JMB3	16-MAY-2005 10:02		051605	1.0		CLEAN
002f0201.d	UFI050221-03 RT	JMB3	16-MAY-2005 10:30		051605	1.0		RT MARKER
003f0301.d	UFI050310-01 1000	JMB3	16-MAY-2005 10:59		051605	1.0		CCV: Passes
004f0401.d	IFI050314-01 IB	JMB3	16-MAY-2005 11:30		051605	1.0		CLEAN
005f0501.d	136036001	JMB3	16-MAY-2005 11:59	423910	136036	10.0	EAEN	USE
006f0601.d	135831003	JMB3	16-MAY-2005 12:28	423910	3202S	50.0	LANL	USE
007f0701.d	1200842660	JMB3	16-MAY-2005 12:56	423910	3202S	50.0	MS	USE
008f0801.d	1200842661	JMB3	16-MAY-2005 13:25	423910	3202S	50.0	MSD	USE
009f0901.d	135831004	JMB3	16-MAY-2005 13:53	423910	3202S	20.0	LANL	USE: Rerun @ 200x
010f1001.d	IFI050314-01 IB	JMB3	16-MAY-2005 14:58		051605	1.0		CLEAN
011f1101.d	135802002	JMB3	16-MAY-2005 15:27	423035	3192S	50.0	LANL	USE
012f1201.d	135802006	JMB3	16-MAY-2005 15:55	423035	3192S	10.0	LANL	USE
013f1301.d	135802007	JMB3	16-MAY-2005 16:24	423035	3192S	10.0	LANL	USE
014f1401.d	135802012	JMB3	16-MAY-2005 16:53	423035	3192S	10.0	LANL	USE
015f1501.d	UFI050310-01 1000	JMB3	16-MAY-2005 17:21		051605	1.0		CCV: Passes

Instrument Batch: /chem/fida.i/051605

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
016f1601.d	IFI050314-01 IB	JMB3	16-MAY-2005 17:50		051605	1.0		CLEAN

017f1701.d	135802011	JMB3	16-MAY-2005 18:19	423035	3192S		1.0	LANL	USE: See 051705 for CCV failure confirmation
018f1801.d	135831004	JMB3	16-MAY-2005 18:47	423910	3202S		200.0	LANL	USE: See 051705 for CCV failure confirmation
019f1901.d	135805001	JMB3	16-MAY-2005 19:16	423035	3194S		10.0	LANL	USE: See 051705 for CCV failure confirmation
020f2001.d	135805002	JMB3	16-MAY-2005 19:44	423035	3194S		10.0	LANL	USE: See 051705 for CCV failure confirmation
021f2101.d	135805003	JMB3	16-MAY-2005 20:13	423035	3194S		1.0	LANL	USE: See 051705 for CCV failure confirmation
022f2201.d	135805004	JMB3	16-MAY-2005 20:42	423035	3194S		10.0	LANL	USE: See 051705 for CCV failure confirmation
023f2301.d	135831001	JMB3	16-MAY-2005 21:10	423035	3202S		50.0	LANL	USE: See 051705 for CCV failure confirmation
024f2401.d	1200840426	JMB3	16-MAY-2005 21:39	423035	3202S		50.0	MS	USE: See 051705 for CCV failure confirmation
025f2501.d	1200840427	JMB3	16-MAY-2005 22:08	423035	3202S		50.0	MSD	USE: See 051705 for CCV failure confirmation
026f2601.d	135831002	JMB3	16-MAY-2005 22:36	423035	3202S		50.0	LANL	USE: See 051705 for CCV failure confirmation
027f2701.d	UFI050310-01 1000	JMB3	16-MAY-2005 23:05		051605		1.0		CCV: Fails high; See 051705 for CCV failure confirmation
028f2801.d	IFI050314-01 IB	JMB3	16-MAY-2005 23:33		051605		1.0		Instrument Blank

Prep Logbook

Extraction of Semivolatile and Nonvolatile Organic Compounds from Soil, Sludge and Other Miscellaneous Samples

Batch ID: 423034 **Verified by:** _____
Analyst: Nathan Greene
Method: SW846 3550B

Lab SOP: GL-OA-E-010 REV# 12
Instrument: Semi-Volatiles Manual

Sample ID	Run Date	Aliquot (g)	Prepped Aliquot (mL)	Prepped Factor (mL/g)
1200840424 MB	11-MAY-2005 13:00:00	30	1	0.03333
1200840425 LCS	11-MAY-2005 13:00:00	30	1	0.03333
135802001	11-MAY-2005 13:00:00	30	1	0.03333
135802002	11-MAY-2005 13:00:00	30	1	0.03333
135802003	11-MAY-2005 13:00:00	30	1	0.03333
135802004	11-MAY-2005 13:00:00	30	1	0.03333
135802005	11-MAY-2005 13:00:00	30	1	0.03333
135802006	11-MAY-2005 13:00:00	30	1	0.03333
135802007	11-MAY-2005 13:00:00	30	1	0.03333
135802008	11-MAY-2005 13:00:00	30	1	0.03333
135802009	11-MAY-2005 13:00:00	30	1	0.03333
135802010	11-MAY-2005 13:00:00	30	1	0.03333
135802011	11-MAY-2005 13:00:00	30	1	0.03333
135802012	11-MAY-2005 13:00:00	30	1	0.03333
135802013	11-MAY-2005 13:00:00	30	1	0.03333
135802014	11-MAY-2005 13:00:00	30	1	0.03333
135805001	11-MAY-2005 13:00:00	30	1	0.03333
135805002	11-MAY-2005 13:00:00	30	1	0.03333
135805003	11-MAY-2005 13:00:00	30	1	0.03333
135805004	11-MAY-2005 13:00:00	30	1	0.03333
135831001	11-MAY-2005 13:00:00	30	1	0.03333
1200840426 MS (135831001)	11-MAY-2005 13:00:00	30	1	0.03333
1200840427 MSD (135831001)	11-MAY-2005 13:00:00	30	1	0.03333
135831002	11-MAY-2005 13:00:00	30	1	0.03333

Type	Sample Id	Description	Serial Number	Spike Amt	Units
LCS	1200840425	DRO LCS	UE050419-03	1	mL
MS	1200840426	DRO LCS	UE050419-03	1	mL
MSD	1200840427	DRO LCS	UE050419-03	1	mL
SURR	All	20 ppm surrogate	WE050509-01	1	mL
REGNT	All	Methylene Chloride	050505-A	100	mL
SOURC	All	SODIUM SULFATE	243217	30	g

Comments:
Final Solvent: CH2Cl2
Verified By: AJP

Prep Logbook

Extraction of Semivolatile and Nonvolatile Organic Compounds from Soil, Sludge and Other Miscellaneous Samples

Batch ID: 423909 **Verified by:** _____
Analyst: Nathan Greene
Method: SW846 3550B

Lab SOP: GL-OA-E-010 REV# 12
Instrument: Semi-Volatiles Manual

Sample ID	Run Date	Aliquot (g)	Prepped Aliquot (mL)	Prepped Factor (mL/g)
1200842656 MB	12-MAY-2005 13:00:00	30	1	0.03333
1200842657 LCS	12-MAY-2005 13:00:00	30	1	0.03333
135831003	12-MAY-2005 13:00:00	30	1	0.03333
1200842660 MS (135831003)	12-MAY-2005 13:00:00	30	1	0.03333
1200842661 MSD (135831003)	12-MAY-2005 13:00:00	30	1	0.03333
135831004	12-MAY-2005 13:00:00	30	1.3	0.04333
135841001	12-MAY-2005 13:00:00	30	1	0.03333
1200842658 MS (135841001)	12-MAY-2005 13:00:00	30	1	0.03333
1200842659 MSD (135841001)	12-MAY-2005 13:00:00	30	1	0.03333
135841002	12-MAY-2005 13:00:00	30	1	0.03333
135841003	12-MAY-2005 13:00:00	30	1	0.03333
135841004	12-MAY-2005 13:00:00	30	1	0.03333
135841005	12-MAY-2005 13:00:00	30	1	0.03333
135841006	12-MAY-2005 13:00:00	30	1	0.03333
135841007	12-MAY-2005 13:00:00	30	1.4	0.04667
135841008	12-MAY-2005 13:00:00	30	1	0.03333
136036001	12-MAY-2005 13:00:00	30	1	0.03333
136119001	12-MAY-2005 13:00:00	30	1	0.03333
136181001	12-MAY-2005 13:00:00	30	1	0.03333
136181002	12-MAY-2005 13:00:00	30	1	0.03333
136181003	12-MAY-2005 13:00:00	30	1	0.03333
136181004	12-MAY-2005 13:00:00	30	1	0.03333
136181005	12-MAY-2005 13:00:00	30	1	0.03333

Type	Sample Id	Description	Serial Number	Spike Amt	Units
LCS	1200842657	DRO LCS	UE050419-03	1	mL
MS	1200842658	DRO LCS	UE050419-03	1	mL
MS	1200842660	DRO LCS	UE050419-03	1	mL
MSD	1200842659	DRO LCS	UE050419-03	1	mL
MSD	1200842661	DRO LCS	UE050419-03	1	mL
SURR	All	20 ppm surrogate	WE050509-01	1	mL
REGNT	All	Methylene Chloride	050505-A	100	mL
SOURC	All	SODIUM SULFATE	243217	30	g

Comments:
Final Solvent: CH2Cl2
Verified By: AJP
Samples very dark and oily

General Engineering Laboratories
Form GEL-XXX
Rev. 06/02

NCR Report No.: 201969
Revision No.: 1

COMPANY – WIDE NONCONFORMANCE REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
16-MAY-05	Federal	Specifications	Process
Instrument Type: GC/FID	**Test / Method:** SW846 8015A/B SVOC	**Matrix Type:** Solid	**Client Code:** AMOC, BOSH, EAEN, LANL,
Batch ID: 423910	**Sample Numbers:** See Below		

Potentially affected work order(s)(SDG): 135831(3202S),135841,136036,136119,136181

Application Issues:

Failed Recovery for Surrogate or Tracer

Failed Recovery for LCS/MS/PS

Failed RPD for LCS/LCSD, MS/MSD, or PS/PSD

Failed CCV or CCB

Specification and Requirements Nonconformance Description:	NRG Disposition:
1. Failed Recovery for MS: QC 1200842658MS QC 1200842660MS	1. The spike recoveries for the indicated MS's were not within the acceptance limits. The failures for each were confirmed by their respective matrix spike duplicates, therefore the failures are attributed to matrix interference.
2. Failed RPD for MSD: QC 1200842661MSD	2. The relative percent difference between MS 1200842660 and MSD 1200842661 was not within acceptance limits due to matrix interferences and sample extract dilutions of 1:50.
3. Failed Recovery for Surrogate: QC 1200842658MS QC 1200842659MSD QC 1200842660MS QC 1200842661MSD 135831 003, 004 135841 001, 002, 003, 004, 005, 006 136181 001, 003, 004	3. The indicated samples failed surrogate recoveries due to matrix interferences associated with high level hits for Diesel Range Organics, as well as the presence of hydrocarbons heavier than diesel.
4. Failed CCV: 135831 004	4. All calibration verification standardss (CVS, ICV, or CCV) requirements have not been met for this SDG. Some target analytes failed acceptance criteria with a positive bias in the standards bracketing the samples in this SDG. The positive bias for the analytical data is a result of instrument response increasing after the initial calibration. All samples bracketted by this failing standard were re-analyzed and the standard failed in the same manner, confirming matrix interference.

Originator's Name:

Josh Brooks 16-MAY-05

Data Validator/Group Leader:

Quality Review:

Director:

General Engineering Laboratories
Form GEL-XXX
Rev. 06/02

NCR Report No.: 202768
Revision No.: 1

COMPANY – WIDE NONCONFORMANCE REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
18-MAY-05			
Instrument Type: GC/FID	**Test / Method:** SW846 8015A/B SVOC	**Matrix Type:** Solid	**Client Code:** LANL
Batch ID: 423035	**Sample Numbers:** SEE BELOW		

Potentially affected work order(s)(SDG): 135802(3192S),135805(3194S),135831(3202S)

Application Issues:

Failed Recovery for Surrogate or Tracer

Failed Recovery for LCS/MS/PS

Failed CCV or CCB

Specification and Requirements Nonconformance Description:	**NRG Disposition:**
1. Failed Recovery for surrogate: QC 1200840426MS QC 1200840427MSD 135802 001, 002, 003, 004, 006, 007, 008, 009, 010, 012, 013, 014 135805 001, 002, 004 135831 001, 002 2. Failed Recovery for MS: QC 1200840426MS 3. Failed CCV: QC 1200840426MS QC 1200840427MSD 135802 011 135805 001, 002, 003, 004 135831 001, 002	1. The following samples failed ortho-terphenyl surrogate recoveries due to matrix interferences associated with high level hits of Diesel Range Organics, and/or the presence of hydrocarbons heavier than diesel. 2. The MS recoveries for this SDG were not within the acceptance limits. The failures confirm in the matrix spike duplicate and are attributed to matrix interference. 3. All calibration verification standardss (CVS, ICV, or CCV) requirements have not been met for this SDG. Some target analytes failed with a positive bias in the standards bracketing the samples in this SDG. The positive bias for the analytical data is a result of the instrument response increasing after the initial calibration. All samples were re-analyzed and the standard failed in the same manner, confirming matrix interference.

Originator's Name:
Josh Brooks 18-MAY-05

Data Validator/Group Leader:

Quality Review:

Director:

GC/FID VOLATILE ANALYSIS

GC Volatile Organics
Los Alamos National Laboratory (LANL)
SDG 3202S

Method/Analysis Information

Procedure:	Volatile Total Petroleum Hydrocarbons by Flame Ionization Detector
Analytical Method:	SW846 8015B VOC
Prep Method:	SW846 8015B PREP
Analytical Batch Number:	425588
Prep Batch Number:	425587

Sample Analysis

The following client and quality control samples were analyzed to complete this sample delivery group/work order using the methods referenced in the Analysis Information section:

Sample ID	Client ID
135831001	RE03-05-58926
135831002	RE03-05-58927
135831003	RE03-05-59557
135831004	RE03-05-59558
1200850346	Method Blank (MB)
1200850348	Laboratory Control Sample (LCS)
1200850347	Method Blank (MB)
1200850349	Laboratory Control Sample (LCS)
1200846634	135805001(RE03-05-59531) Matrix Spike (MS)
1200846635	135805001(RE03-05-59531) Matrix Spike Duplicate (MSD)

Gasoline Range Organics will be designated as GRO throughout this case narrative.

Preparation/Analytical Method Verification
Procedures for preparation, analysis, and reporting of analytical data are documented by General Engineering Laboratories, LLC. (GEL) as Standard Operating Procedures (SOP).

Calibration Information
Due to the limited capacity of software, all of the current initial calibration files may not be displayed. If necessary, a calibration history report was inserted, prior to the appropriate Form 6, in the Standards section in the data package.

Initial Calibration
All initial calibration requirements have been met for this sample delivery group (SDG).

CCV Requirements
All associated calibration verification standard(s) (ICV or CCV) met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
Target analytes were detected in the blank below the reporting limit.

Surrogate Recoveries
Sample 135831002 (RE03-05-58927) failed surrogate recoveries. The sample was re-analyzed and confirmed the failures. Please see the Form II in the deliverable for a complete list of failures and the recovery limits. See NCR 203021.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

QC Sample Designation
Client sample 135805001 (RE03-05-59531) was selected for analysis.

Matrix Spike (MS) Recovery Statement
The MS recoveries were not within the acceptance limits. The MSD recovered in a similar manner. Please see the Form III in the deliverable for a complete list of failures and the recovery limits. See NCR 203021.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recoveries were not within the acceptance limits. The MS recovered in a similar manner. Please see the Form III in the deliverable for a complete list of failures and the recovery limits. See NCR 203021.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD(s) between the MS and MSD met the acceptance limits.

Technical Information

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the ALPHALIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-extraction/Re-analysis
Sample 135831002 (RE03-05-58927) was re-analyzed due to surrogate failures.

Miscellaneous Information

Electronic Package Comment

The following package was generated using an electronic data processing program referred to as "virtual packaging". In an effort to increase quality and efficiency, the laboratory is developing systems to eventually generate all data packages electronically. The following change from "traditional" packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. An electronic signature page inserted after the case narrative of each electronic package will indicate the analyst, reviewer, and report specialist names associated with the generation of the data and package. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Nonconformance (NCR) Documentation

Nonconformance report (NCR) 203021 was generated for this SDG.

Manual Integrations

Data files associated with the initial calibration, continuing calibration check, and samples did not require manual integrations.

Additional Comments

Additional comments were not required for this SDG.

System Configuration

The laboratory utilizes the following gas chromatographic configurations:

Chromatographic Columns

Chromatographic separation of volatile components is accomplished through the following column:

Column ID	Column Description
J&W2	DB-624(0.53mm x 3.0u x 15m)

Instrument Configuration

Instrument systems are referenced in the raw data and individual form headers by the Instrument ID designation below:

Instrument ID	System Configuration	Chromatographic Column	P & T Trap
VOC1	Tracor 540 GC PID/FID	J&W	Tekmar #1

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Erin Lambert Date: 5/31/05

Roadmap for LANL 3202S GRO

This roadmap was analyzed by Amy Jamison on 05-19-2005, 15:06.
This roadmap was reviewed by Gwen Hallquist on 05-19-2005, 16:20.
This roadmap was reviewed by Amy Jamison on 05-23-2005, 13:14.
This roadmap was analyzed by Amy Jamison on 05-23-2005, 13:23.
This roadmap was reviewed by LySandra Gathers on 05-23-2005, 14:26.
This roadmap was packaged by LySandra Gathers on 05-23-2005, 16:06.

Sample

exclude	manual	datafile	smpid	injdate	injtime	sublist	clientid	dilution	comment
■	N	/chem/voc1a.i/051705.b/1k2016.d	135831001	17-MAY-2005	22:57	GRO.sub	RE03-05-58926	1.00000	
□	N	/chem/voc1a.i/051805.b/1k306.d	135831001	18-MAY-2005	14:17	GRO.sub	RE03-05-58926	1.00000	
■	N	/chem/voc1a.i/051805.b/1k307.d	135831002	18-MAY-2005	14:51	GRO.sub	RE03-05-58927	1.00000	
□	N	/chem/voc1a.i/051705.b/1k2017.d	135831002	17-MAY-2005	23:32	GRO.sub	RE03-05-58927	1.00000	
□	N	/chem/voc1a.i/051705.b/1k2018.d	135831003	18-MAY-2005	00:07	GRO.sub	RE03-05-59557	1.00000	
■	N	/chem/voc1a.i/051705.b/1k2019.d	135831004	18-MAY-2005	00:43	GRO.sub	RE03-05-59558	1.00000	
□	N	/chem/voc1a.i/051805.b/1k308.d	135831004	18-MAY-2005	15:26	GRO.sub	RE03-05-59558	1.00000	

QC Sample

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	comment
■	N	/chem/voc1a.i/051705.b/1k206bslanl.d	1200850346	mb	17-MAY-2005	16:31	GRO.sub	VBLK02	1.00000	
■	N	/chem/voc1a.i/051705.b/1k206bslanl.d	1200850347	mb	17-MAY-2005	16:31	GRO.sub	VBLK01	1.00000	
□	N	/chem/voc1a.i/051705.b/1k206bslanl1.d	1200850346	mb	17-MAY-2005	16:31	GRO.sub	VBLK01	1.00000	
■	N	/chem/voc1a.i/051705.b/1k206bslanl.d	1200850346	mb	17-MAY-2005	16:31	GRO.sub	VBLK02	1.00000	
■	N	/chem/voc1a.i/051705.b/1k206bslanl.d	1200850347	mb	17-MAY-2005	16:31	GRO.sub	VBLK01	1.00000	
■	N	/chem/voc1a.i/051805.b/1k305BSLANL.d	1200850347	mb	18-MAY-2005	12:21	GRO.sub	VBLK03	1.00000	
□	N	/chem/voc1a.i/051805.b/1k305BSLANL1.d	1200850347	mb	18-MAY-2005	12:21	GRO.sub	VBLK02	1.00000	

■	N	/chem/voc1a.i/051705.b/1k204LSlanl.d	1200850348	lcs	17-MAY-2005	15:15	GRO.sub	VBLK02LCS	1.00000	
□	N	/chem/voc1a.i/051705.b/1k204LSlanl1.d	1200850348	lcs	17-MAY-2005	15:15	GRO.sub	VBLK01LCS	1.00000	
■	N	/chem/voc1a.i/051805.b/1k304LSLANL.d	1200850349	lcs	18-MAY-2005	11:46	GRO.sub	VBLK03LCS	1.00000	
□	N	/chem/voc1a.i/051805.b/1k304LSLANL1.d	1200850349	lcs	18-MAY-2005	11:46	GRO.sub	VBLK02LCS	1.00000	

SAMPLE DATA SUMMARY

1A
GRO ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-58926

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Matrix: (soil/water) SOIL Lab Sample ID: 135831001

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 1K306

Level: (low/med) LOW Date Received: 05/05/05

% Moisture: not dec. 6 Date Analyzed: 05/18/05

GC Column: RTX-VOLATILES ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
----------	Gasoline Range Organics	22.1	J

1A
GRO ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-58927

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Matrix: (soil/water) SOIL Lab Sample ID: 135831002

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 1K2017

Level: (low/med) LOW Date Received: 05/05/05

% Moisture: not dec. 9 Date Analyzed: 05/17/05

GC Column: RTX-VOLATILES ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
----------	Gasoline Range Organics	27.0	JB

FORM I VOA OLM03.0

1A
GRO ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-59557

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Matrix: (soil/water) SOIL Lab Sample ID: 135831003

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 1K2018

Level: (low/med) LOW Date Received: 05/05/05

% Moisture: not dec. 9 Date Analyzed: 05/18/05

GC Column: RTX-VOLATILES ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
	----------Gasoline Range Organics	54.7	U

FORM I VOA OLM03.0

1A
GRO ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-59558

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Matrix: (soil/water) SOIL Lab Sample ID: 135831004

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 1K308

Level: (low/med) LOW Date Received: 05/05/05

% Moisture: not dec. 7 Date Analyzed: 05/18/05

GC Column: RTX-VOLATILES ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
	----------Gasoline Range Organics_____	53.8	U

FORM I VOA OLM03.0

QUALITY CONTROL SUMMARY

2B
SOIL GRO SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Level:(low/med) LOW

	EPA SAMPLE NO.	SMC1 (BFB)#	SMC2 #	SMC3 #	OTHER	TOT OUT
01	VBLK01LCS	106				0
02	VBLK01	91				0
03	RE03-05-58927	34*				1
04	RE03-05-59557	73				0
05	VBLK02LCS	111				0
06	VBLK02	109				0
07	RE03-05-58926	63				0
08	RE03-05-59558	78				0
09						
10						
11						
12						
13						
14						
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30						

SMC1 (BFB) = Bromofluorobenzene QC LIMITS (58-124)

Column to be used to flag recovery values

* Values outside of contract required QC limits

3B
SOIL GRO MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3194S

Matrix Spike - EPA Sample No.: RE03-05-5953 Level:(low/med) LOW

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC #	QC. LIMITS REC.
Gasoline Range Organics	595	29.2	258	38*	51-130

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Gasoline Range Organics	595	294	44*	15	31	51-130

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 1 outside limits
Spike Recovery: 2 out of 2 outside limits

COMMENTS: _____

FORM III VOA-2 OLM03.0

3B
SOIL GRO LAB CONTROL SAMPLE

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Matrix Spike - EPA Sample No.: VBLK01 Level:(low/med) LOW

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC #	QC. LIMITS REC.
Gasoline Range Organics	500	39.4	518	96	73-118

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 0 outside limits
Spike Recovery: 0 out of 1 outside limits

COMMENTS: _____

3B
SOIL GRO LAB CONTROL SAMPLE

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Matrix Spike - EPA Sample No.: VBLK02 Level:(low/med) LOW

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC #	QC. LIMITS REC.
Gasoline Range Organics	500	0.0	501	100	73-118

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 0 outside limits
Spike Recovery: 0 out of 1 outside limits

COMMENTS: _____

4A
GRO METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBLK01

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Lab File ID: 1K206BSLANL1 Lab Sample ID: 1200850346

Date Analyzed: 05/17/05 Time Analyzed: 1631

GC Column: RTX-VOLATILESID: 0.25 (mm) Heated Purge: (Y/N) Y

Instrument ID: VOC1A

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	VBLK01LCS	1200850348	1K204LSLANL1	1515
02	RE03-05-58927	135831002	1K2017	2332
03	RE03-05-59557	135831003	1K2018	0007
04				
05				
06				
07				
08				
09				
10				
11				
12				
13				
14				
15				
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17				
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4A
GRO METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBLK02

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Lab File ID: 1K305BSLANL1 Lab Sample ID: 1200850347

Date Analyzed: 05/18/05 Time Analyzed: 1221

GC Column: RTX-VOLATILESID: 0.25 (mm) Heated Purge: (Y/N) Y

Instrument ID: VOC1A

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	VBLK02LCS	1200850349	1K304LSLANL1	1146
02	RE03-05-58926	135831001	1K306	1417
03	RE03-05-59558	135831004	1K308	1526
04				
05				
06				
07				
08				
09				
10				
11				
12				
13				
14				
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17				
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SAMPLE DATA

1A
GRO ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-58926

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Matrix: (soil/water) SOIL Lab Sample ID: 135831001

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 1K306

Level: (low/med) LOW Date Received: 05/05/05

% Moisture: not dec. 6 Date Analyzed: 05/18/05

GC Column: RTX-VOLATILES ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
----------	Gasoline Range Organics	22.1	J

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Data file : /chem/voc1a.i/051805.b/1k306.d
Lab Smp Id: 135831001 Client Smp ID: RE03-05-58926
Inj Date : 18-MAY-2005 14:17
Operator : ACJ Inst ID: voc1a.i
Smp Info : |135831001|1|
Misc Info : |VOC8015_SF|425588|GROF|
Comment : FID
Method : /chem/voc1a.i/051805.b/8015GRO-050905.m
Meth Date : 19-May-2005 10:09 amj Quant Type: ESTD
Cal Date : 09-MAY-2005 21:08 Cal File: 1j1010.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: GRO.sub
Target Version: 3.50 Sample Matrix: SOIL
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M)*(Vt/Ws))*Uf * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	5.87600	% Moisture
Vt	5.00000	Purge Volume (mL)
Ws	5.00000	Weight of sample (g)
Uf	1.00000	Unit Correction Factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	
S 1 Gasoline Range Organics					CAS #:	
2.997-	12.204		77154	20.8074	22.1	(a)
S 3 Bromofluorobenzene					CAS #: 460-00-4	
9.956	9.940	0.016	118835	31.7070	33.7	

QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).

Data File: /chem/voc1a.i/051805.b/1k306.d
Date : 18-MAY-2005 14:17
Client ID: RE03-05-58926
Sample Info: |13583100|1|

Column phase: Rtx-Volatiles

Instrument: voc1a.i

Operator: ACJ
Column diameter: 0.25

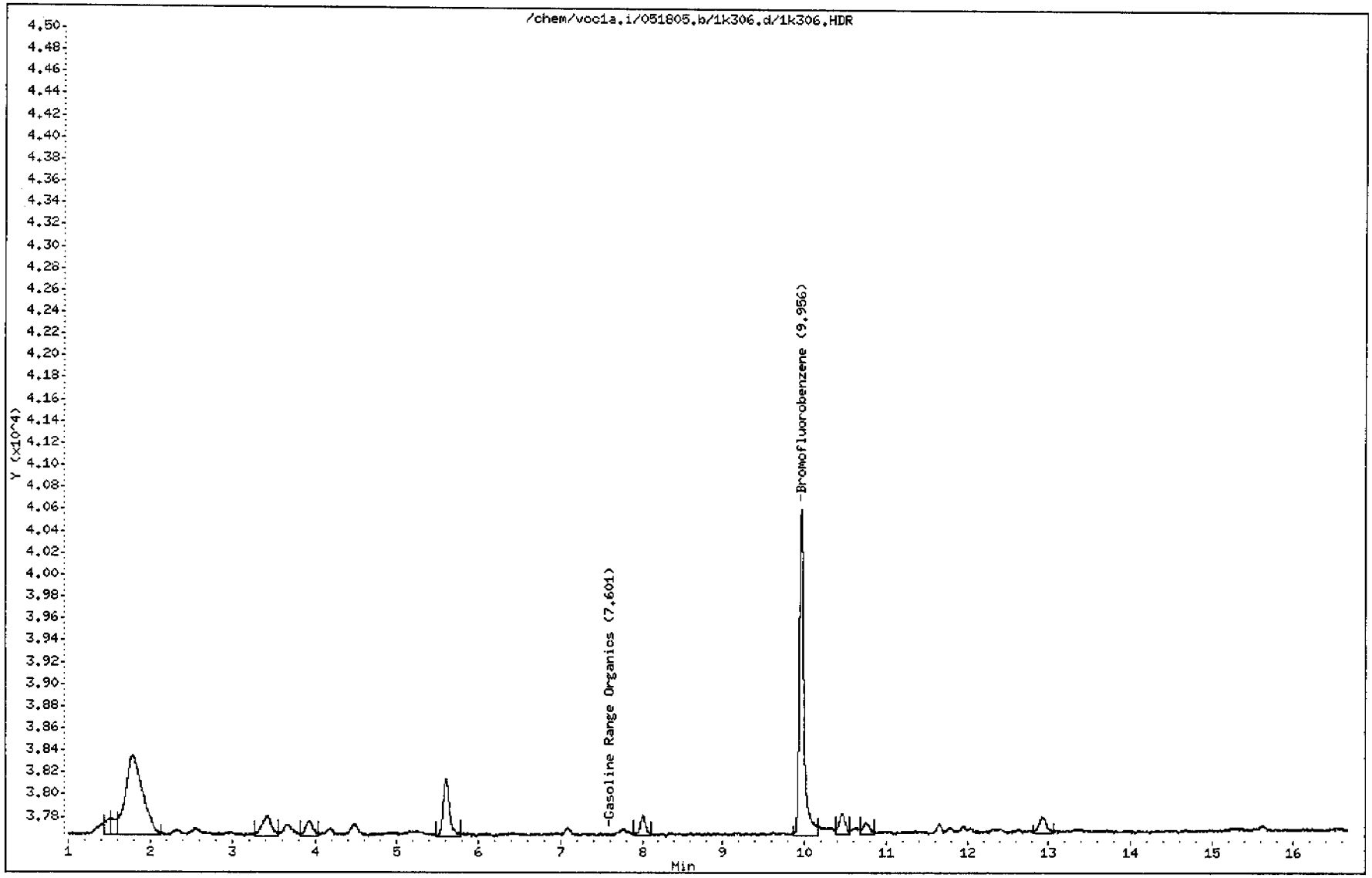

1A
GRO ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-58927

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Matrix: (soil/water) SOIL Lab Sample ID: 135831002

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 1K2017

Level: (low/med) LOW Date Received: 05/05/05

% Moisture: not dec. 9 Date Analyzed: 05/17/05

GC Column: RTX-VOLATILES ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
----------	Gasoline Range Organics	27.0	JB

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Data file : /chem/voc1a.i/051705.b/1k2017.d
Lab Smp Id: 135831002 Client Smp ID: RE03-05-58927
Inj Date : 17-MAY-2005 23:32
Operator : ACJ Inst ID: voc1a.i
Smp Info : |135831002|1|
Misc Info : |VOC8015_SF|425588|GROF|
Comment : FID
Method : /chem/voc1a.i/051705.b/8015GRO-050905.m
Meth Date : 18-May-2005 07:45 amj Quant Type: ESTD
Cal Date : 09-MAY-2005 21:08 Cal File: 1j1010.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: GRO.sub
Target Version: 3.50 Sample Matrix: SOIL
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M)*(Vt/Ws))*Uf * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	9.03700	% Moisture
Vt	5.00000	Purge Volume (mL)
Ws	5.00000	Weight of sample (g)
Uf	1.00000	Unit Correction Factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	
S 1 Gasoline Range Organics					CAS #:	
3.220-	12.207		91197	24.5946	27.0	(a)
$ 3 Bromofluorobenzene					CAS #: 460-00-4	
9.938	9.942	-0.004	63671	16.9884	18.7	(R)

QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: /chem/voc1a.i/051705.b/1k2017.d
Date : 17-MAY-2005 23:32
Client ID: RE03-05-58927
Sample Info: |135831002|1|

Column phase: Rtx-Volatiles

Instrument: voc1a.i

Operator: ACJ
Column diameter: 0.25

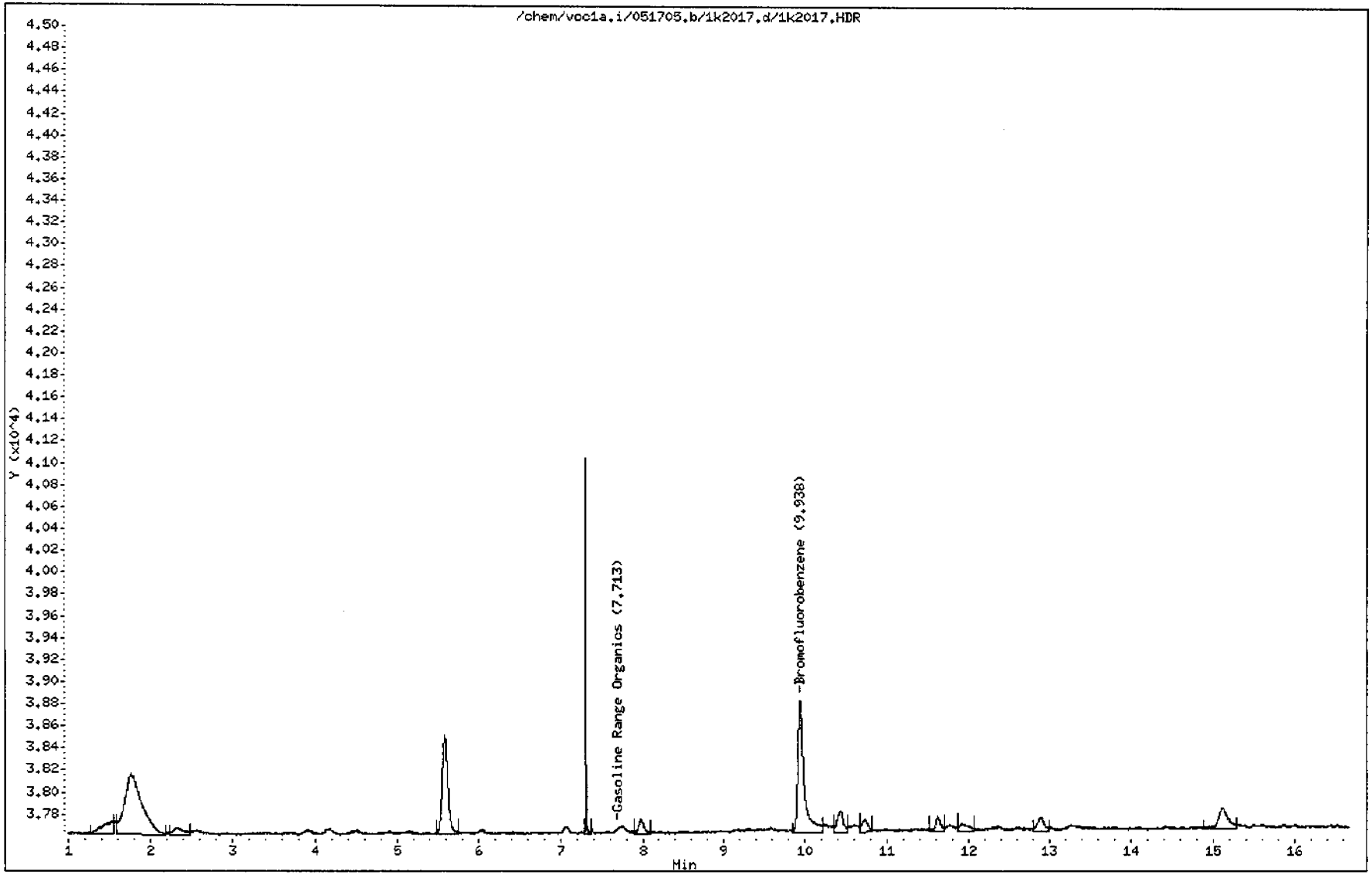

1A
GRO ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-59557

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Matrix: (soil/water) SOIL Lab Sample ID: 135831003

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 1K2018

Level: (low/med) LOW Date Received: 05/05/05

% Moisture: not dec. 9 Date Analyzed: 05/18/05

GC Column: RTX-VOLATILES ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
	----------Gasoline Range Organics_____	54.7	U

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Data file : /chem/voc1a.i/051705.b/1k2018.d
Lab Smp Id: 135831003 Client Smp ID: RE03-05-59557
Inj Date : 18-MAY-2005 00:07
Operator : ACJ Inst ID: voc1a.i
Smp Info : |135831003|1|
Misc Info : |VOC8015_SF|425588|GROF|
Comment : FID
Method : /chem/voc1a.i/051705.b/8015GRO-050905.m
Meth Date : 18-May-2005 07:45 amj Quant Type: ESTD
Cal Date : 09-MAY-2005 21:08 Cal File: 1j1010.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: GRO.sub
Target Version: 3.50 Sample Matrix: SOIL
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M)*(Vt/Ws))*Uf * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	8.58140	% Moisture
Vt	5.00000	Purge Volume (mL)
Ws	5.00000	Weight of sample (g)
Uf	1.00000	Unit Correction Factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)
$ 3 Bromofluorobenzene					CAS #: 460-00-4
9.928	9.942	-0.014	137112	36.5836	40.0

Data File: /chem/voc1a.i/051705.b/1k2018.d
Date : 18-MAY-2005 00:07
Client ID: RE03-05-59557
Sample Info: |135831003|1|

Column phase: Rtx-Volatiles

Instrument: voc1a.i

Operator: ACJ
Column diameter: 0.25

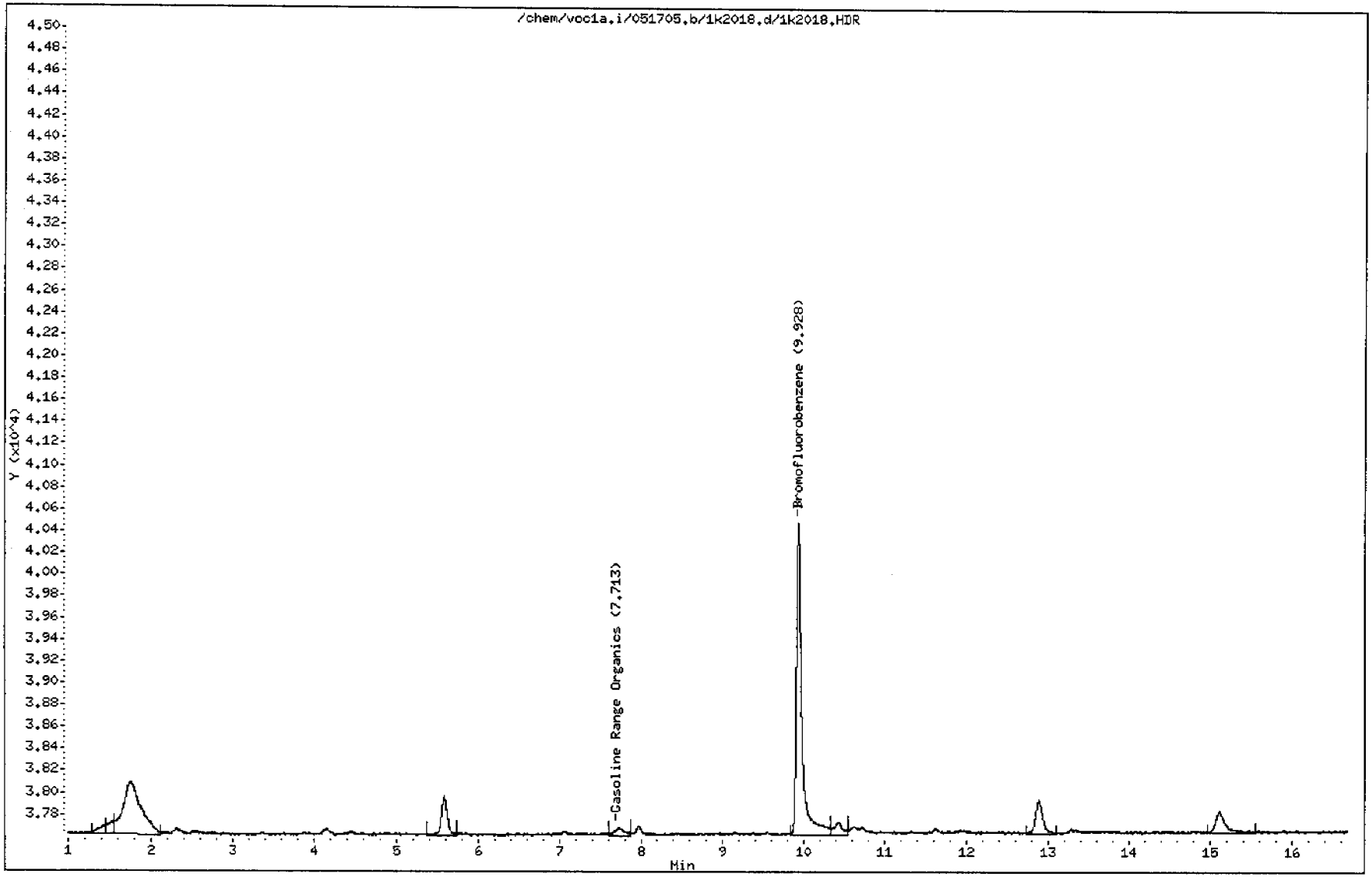

1A
GRO ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-59558

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Matrix: (soil/water) SOIL Lab Sample ID: 135831004

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 1K308

Level: (low/med) LOW Date Received: 05/05/05

% Moisture: not dec. 7 Date Analyzed: 05/18/05

GC Column: RTX-VOLATILES ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
----------	Gasoline Range Organics	53.8	U

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Data file : /chem/voc1a.i/051805.b/1k308.d
Lab Smp Id: 135831004 Client Smp ID: RE03-05-59558
Inj Date : 18-MAY-2005 15:26
Operator : ACJ Inst ID: voc1a.i
Smp Info : |135831004|1|
Misc Info : |VOC8015_SF|425588|GROF|
Comment : FID
Method : /chem/voc1a.i/051805.b/8015GRO-050905.m
Meth Date : 19-May-2005 10:09 amj Quant Type: ESTD
Cal Date : 09-MAY-2005 21:08 Cal File: 1j1010.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: GRO.sub
Target Version: 3.50 Sample Matrix: SOIL
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M)*(Vt/Ws))*Uf * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	7.08420	% Moisture
Vt	5.00000	Purge Volume (mL)
Ws	5.00000	Weight of sample (g)
Uf	1.00000	Unit Correction Factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)
$ 3 Bromofluorobenzene					CAS #: 460-00-4
9.948	9.940	0.008	145454	38.8094	41.8

Data File: /chem/voc1a.i/051805.b/1k308.d

Date : 18-MAY-2005 15:26

Client ID: RE03-05-59558

Sample Info: |135831004|1|

Column phase: Rtx-Volatiles

Instrument: voc1a.i

Operator: ACJ

Column diameter: 0.25

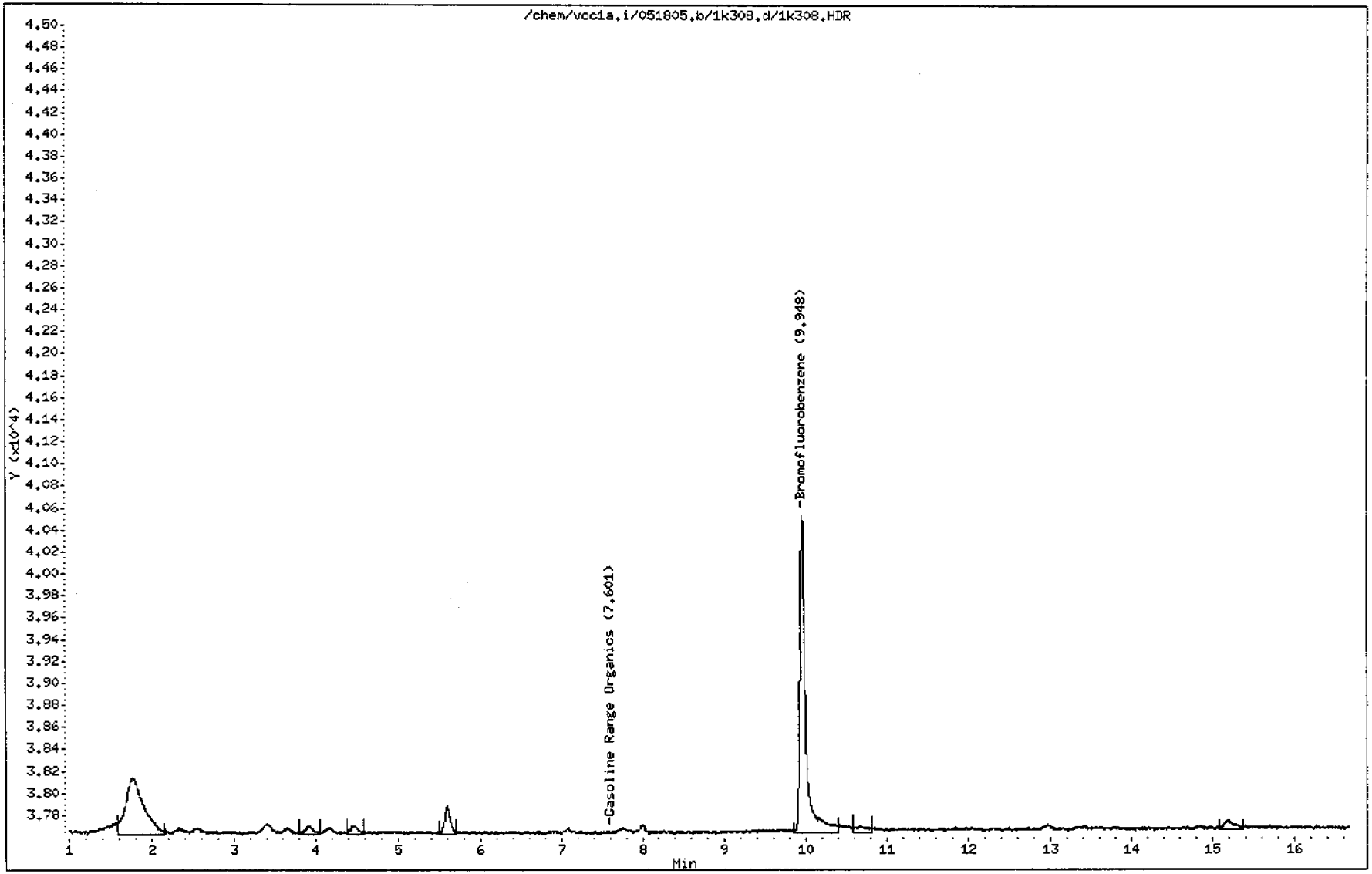

STANDARDS DATA

Report Date: 26-May-2005 13:29

Calibration History

Method : /chem/voc1a.i/051705.b/8015GRO-050905.m
Start Cal Date: 09-MAY-2005 17:36
End Cal Date : 09-MAY-2005 21:08

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 50.00000		
09-MAY-2005 17:36	GRO	/chem/voc1a.i/050905.b/1j104.d
Cal Level: 2 , Cal Amount: 100.00000		
09-MAY-2005 18:11	GRO	/chem/voc1a.i/050905.b/1j105.d
Cal Level: 3 , Cal Amount: 250.00000		
09-MAY-2005 18:46	GRO	/chem/voc1a.i/050905.b/1j106.d
Cal Level: 4 , Cal Amount: 500.00000		
09-MAY-2005 19:22	GRO	/chem/voc1a.i/050905.b/1j107.d
Cal Level: 5 , Cal Amount: 750.00000		
09-MAY-2005 19:57	GRO	/chem/voc1a.i/050905.b/1j108.d
Cal Level: 6 , Cal Amount: 1000.00000		
09-MAY-2005 20:33	GRO	/chem/voc1a.i/050905.b/1j109.d
Cal Level: 7 , Cal Amount: 2000.00000		
09-MAY-2005 21:08	GRO	/chem/voc1a.i/050905.b/1j1010.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 500		
18-MAY-2005 01:18	GRO	/chem/voc1a.i/051705.b/1k2020.d
Ccal Level: 4 , Ccal Amount: 500		
17-MAY-2005 21:12	GRO	/chem/voc1a.i/051705.b/1k2013.d

Ccal Level: 4 , Ccal Amount: 500

17-MAY-2005 15:15	GRO	/chem/voc1a.i/051705.b/1k204.d
Ccal Level: 4 , Ccal Amount: 500		
17-MAY-2005 09:36	GRO	/chem/voc1a.i/051705.b/1k204.d
Ccal Level: 4 , Ccal Amount: 500		
17-MAY-2005 14:41	GRO	/chem/voc1a.i/051705.b/1k203.d
Ccal Level: 4 , Ccal Amount: 500		
17-MAY-2005 09:36	GRO	/chem/voc1a.i/051705.b/1k204.d
Ccal Level: 4 , Ccal Amount: 500		
17-MAY-2005 09:02	GRO	/chem/voc1a.i/051705.b/1k203.d

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INITIAL CALIBRATION DATA

Start Cal Date : 09-MAY-2005 17:36
End Cal Date : 09-MAY-2005 21:08
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem/voc1a.i/051705.b/8015GRO-050905.m
Cal Date : 24-May-2005 16:34 amj
Curve Type : Average

Calibration File Names:
Level 1: /chem/voc1a.i/050905.b/1j104.d
Level 2: /chem/voc1a.i/050905.b/1j105.d
Level 3: /chem/voc1a.i/050905.b/1j106.d
Level 4: /chem/voc1a.i/050905.b/1j107.d
Level 5: /chem/voc1a.i/050905.b/1j108.d
Level 6: /chem/voc1a.i/050905.b/1j109.d
Level 7: /chem/voc1a.i/050905.b/1j1010.d

Compound	50.000 Level 1 / 2000.000 Level 7	100.000 Level 2	250.000 Level 3	500.000 Level 4	750.000 Level 5	1000.000 Level 6	___ RRF	% RSD
S 1 Gasoline Range Organics	3277 / 4049	3481	3665	3713	3909	3861	3708	7.127
2 2-Methylpentane	+++++ / +++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
4 1,2,4-Trimethylbenzene	+++++ / +++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
$ 3 Bromofluorobenzene	4319 / 3883	3550	3691	3524	3589	3679	3748	7.446

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Data file : /chem/vocla.i/050905.b/1j202.d
Lab Smp Id: W1V050509-01 Client Smp ID: RTCHECK
Inj Date : 09-MAY-2005 16:24
Operator : AW2 Inst ID: vocla.i
Smp Info : |W1V050509-01|
Misc Info : |VOC8015_LF|-----|GROF|
Comment : FID
Method : /chem/vocla.i/050905.b/8015GRO-050905.m
Meth Date : 10-May-2005 09:51 amj Quant Type: ESTD
Cal Date : 09-MAY-2005 21:08 Cal File: 1j1010.d
Als bottle: 1 QC Sample: RT_CHECK
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: Range.sub
Target Version: 3.50 Sample Matrix: WATER

Concentration Formula: Amt * DF * (Vt/Vo)*Uf * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	5.00000	Purge Volume
Vo	5.00000	Initial sample volume
Uf	1.00000	Unit Correction Factor

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	
2 2-Methylpentane					CAS #:	
3.664	3.664	0.000	327885			(a)
$ 3 Bromofluorobenzene					CAS #: 460-00-4	
10.239	10.239	0.000	191040	50.9724	51.0	
4 1,2,4-Trimethylbenzene					CAS #:	
11.626	11.626	0.000	361329			(a)

QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).

Data File: /chem/voc1a.i/050905.b/1j202.d
Date : 09-MAY-2005 16:24
Client ID: RTCHECK
Sample Info: IW1V050509-01I
Purge Volume: 5.0
Column phase: Rtx-Volatiles

Instrument: voc1a.i
Operator: AW2
Column diameter: 0.25

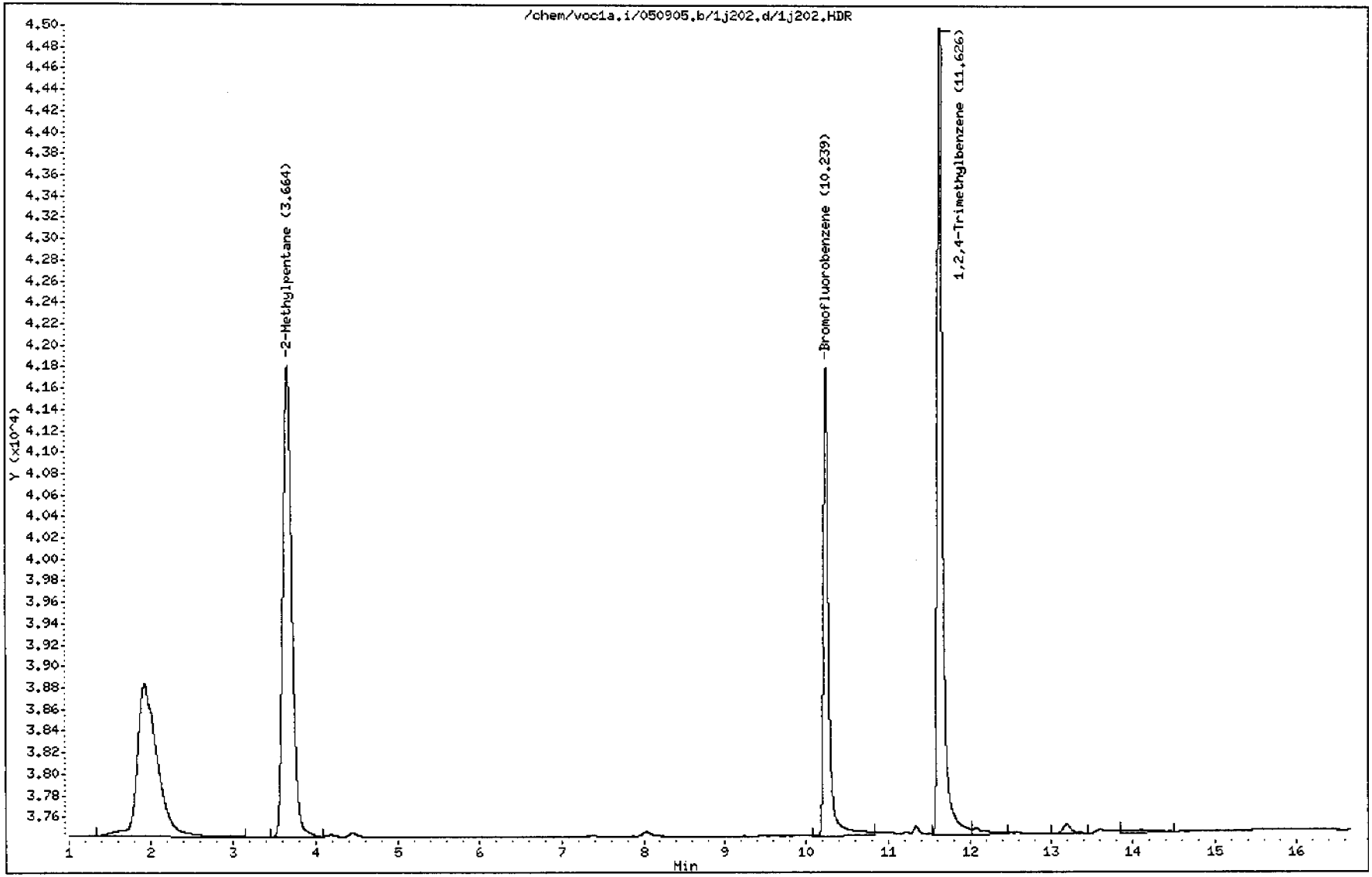

General Engineering Laboratories, LLC

SW-846 3rd edition 8015 Modified

Data file : /chem/voc1a.i/051705.b/1k202.d
Lab Smp Id: W1V050517-01 Client Smp ID: RTCHECK
Inj Date : 17-MAY-2005 14:06
Operator : ACJ Inst ID: voc1a.i
Smp Info : |W1V050517-01|
Misc Info : |VOC8015_LF|-----|GROF|
Comment : FID
Method : /chem/voc1a.i/051705.b/8015GRO-050905.m
Meth Date : 18-May-2005 07:45 amj Quant Type: ESTD
Cal Date : 09-MAY-2005 21:08 Cal File: 1j1010.d
Als bottle: 1 QC Sample: RT_CHECK
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: Range.sub
Target Version: 3.50 Sample Matrix: WATER

Concentration Formula: Amt * DF * (Vt/Vo)*Uf * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	5.00000	Purge Volume
Vo	5.00000	Initial sample volume
Uf	1.00000	Unit Correction Factor

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	
2 2-Methylpentane					CAS #:	
3.645	3.640	0.005	11141			(a)
$ 3 Bromofluorobenzene					CAS #: 460-00-4	
9.948	9.942	0.006	197854	52.7905	52.8	
4 1,2,4-Trimethylbenzene					CAS #:	
11.780	11.787	-0.007	5699			(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

Data File: /chem/voc1a.i/051705.b/1k202.d
Date : 17-MAY-2005 14:06
Client ID: RTCHECK
Sample Info: |W1V050517-01|
Purge Volume: 5.0
Column phase: Rtx-Volatiles

Instrument: voc1a.i

Operator: ACJ
Column diameter: 0.25

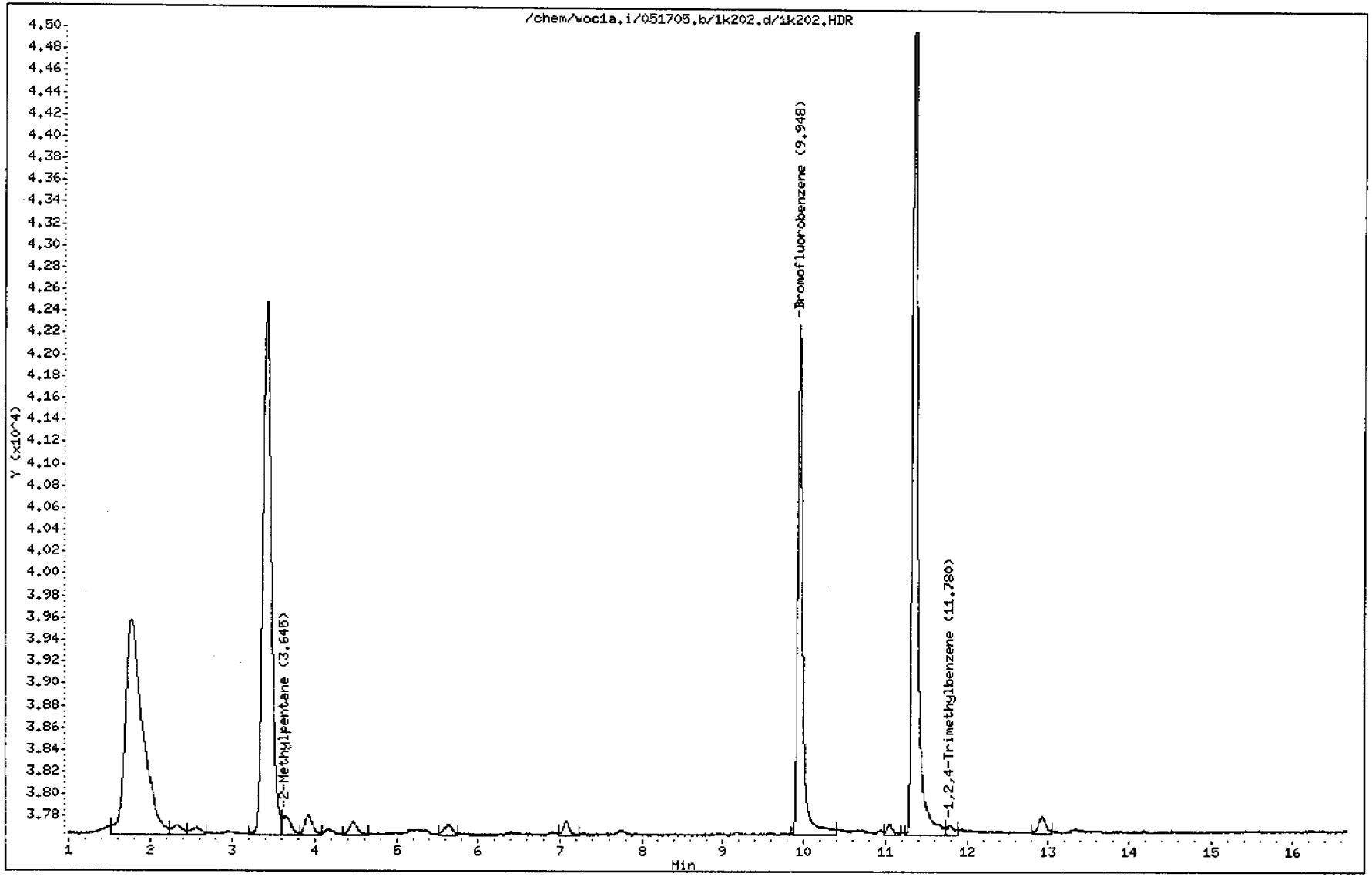

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COMPOUND LISTING

Method file : /chem/voc1a.i/051805.b/8015GRO-050905.m
Quant Method : ESTD Target Version : 3.50
Last Update : 19-May-2005 10:09 Number of Cpnds : 4
Data Type : GC DATA

Global Integrator : HP Genie

Chromat Events	Values
Initial:Thresh Units	1.000000
Initial:Peak Width	0.050000
Initial:Area Reject	5000.000000
Initial:Solvent Slope	500000.000000
Initial:Split Solvent	2000.000000

	Compound	RT	RT Window	RF
S	1 Gasoline Range Organics	7.601	2.997-12.204	3.708e+03
	2 2-Methylpentane	3.417	2.997-3.837	
$	3 Bromofluorobenzene	9.940	9.520-10.360	3.748e+03
	4 1,2,4-Trimethylbenzene	11.784	11.364-12.204	

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SW-846 3rd edition 8015 Modified

Data file : /chem/voc1a.i/051805.b/1k302.d
Lab Smp Id: W1V050518-01 Client Smp ID: RTCHECK
Inj Date : 18-MAY-2005 10:37
Operator : ACJ Inst ID: voc1a.i
Smp Info : |W1V050518-01|
Misc Info : |VOC8015_LF|-----|GROF|
Comment : FID
Method : /chem/voc1a.i/051805.b/8015GRO-050905.m
Meth Date : 19-May-2005 10:09 amj Quant Type: ESTD
Cal Date : 09-MAY-2005 21:08 Cal File: 1j1010.d
Als bottle: 1 QC Sample: RT_CHECK
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: Range.sub
Target Version: 3.50 Sample Matrix: WATER

Concentration Formula: Amt * DF * (Vt/Vo)*Uf * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	5.00000	Purge Volume
Vo	5.00000	Initial sample volume
Uf	1.00000	Unit Correction Factor

Cpnd Variable Local Compound Variable

	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	
	2 2-Methylpentane					CAS #:	
	3.417	3.417	0.000	351415			(a)
$	3 Bromofluorobenzene					CAS #: 460-00-4	
	9.940	9.940	0.000	206048	54.9770	55.0	
	4 1,2,4-Trimethylbenzene					CAS #:	
	11.784	11.784	0.000	6985			(a)

QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).

Data File: /chem/voc1a.i/051805.b/1k302.d
Date : 18-MAY-2005 10:37
Client ID: RTCHECK
Sample Info: !W1V050518-01!
Purge Volume: 5.0
Column phase: Rtx-Volatiles

Instrument: voc1a.i
Operator: ACJ
Column diameter: 0.25

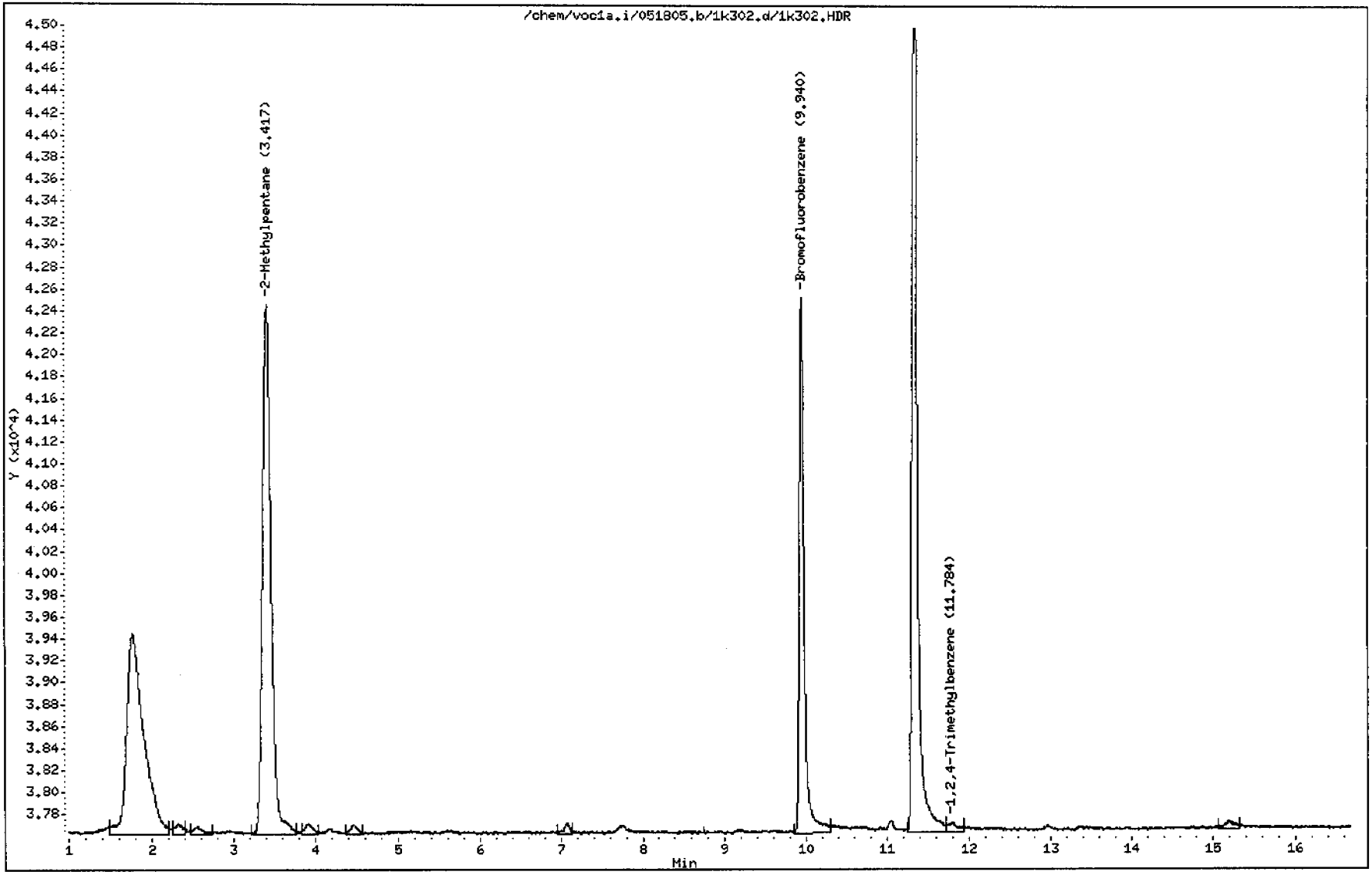

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: voc1a.i Injection Date: 17-MAY-2005 15:15
Lab File ID: 1k204.d Init. Cal. Date(s): 09-MAY-2005 09-MAY-2005
Analysis Type: WATER Init. Cal. Times: 17:36 21:08
Lab Sample ID: WVG050512-01 Quant Type: ESTD
Method: /chem/voc1a.i/051705.b/8015GRO-050905.m

COMPOUND	RRF / AMOUNT	RF500	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
S 1 Gasoline Range Organics	3708	3841	0.010	3.58832	15.00000	Averaged
$ 3 Bromofluorobenzene	3748	3966	0.010	5.82699	15.00000	Averaged

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Data file : /chem/voc1a.i/051705.b/1k204.d
Lab Smp Id: WVG050512-01 Client Smp ID: VSTD0500
Inj Date : 17-MAY-2005 15:15
Operator : ACJ Inst ID: voc1a.i
Smp Info : |WVG050512-01|
Misc Info : |VOC8015_LF|-----|GROF|
Comment : FID
Method : /chem/voc1a.i/051705.b/8015GRO-050905.m
Meth Date : 18-May-2005 07:45 amj Quant Type: ESTD
Cal Date : 09-MAY-2005 21:08 Cal File: 1j1010.d
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: GRO.sub
Target Version: 3.50 Sample Matrix: WATER

Concentration Formula: Amt * DF * (Vt/Vo)*Uf * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	5.00000	Purge Volume
Vo	5.00000	Initial sample volume
Uf	1.00000	Unit Correction Factor

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
S 1 Gasoline Range Organics					CAS #:
3.220-	12.207		1920536	500.000	518
$ 3 Bromofluorobenzene					CAS #: 460-00-4
9.940	9.942	-0.002	198315	50.0000	52.9

Data File: /chem/voc1a.i/051705.b/1k204.d
Date : 17-MAY-2005 15:15
Client ID: VSTD0500
Sample Info: IWVG050512-011
Purge Volume: 5.0
Column phase: Rtx-Volatiles

Instrument: voc1a.i

Operator: ACJ
Column diameter: 0.25

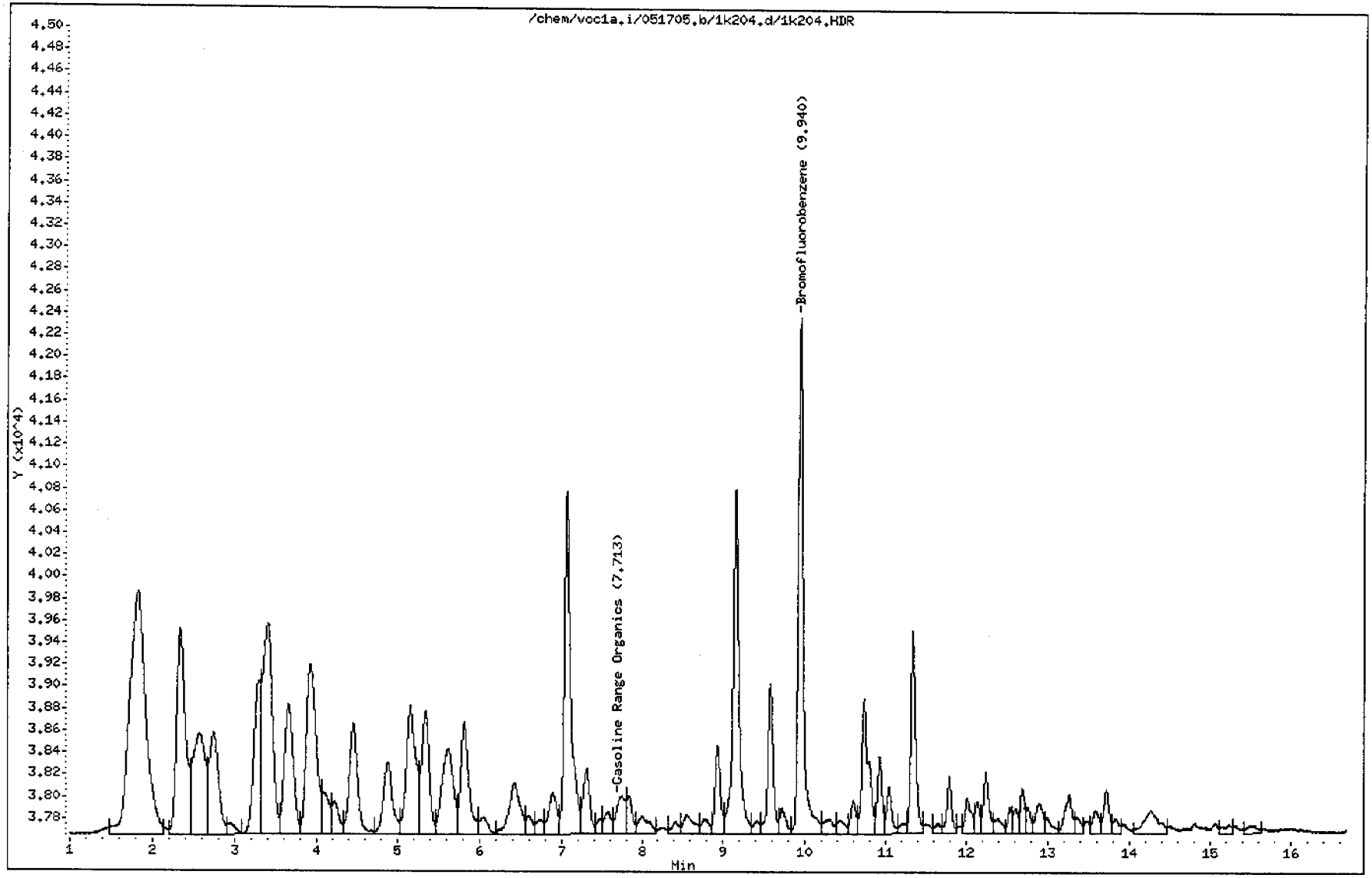

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: voc1a.i
Lab File ID: 1k2013.d
Analysis Type: WATER
Lab Sample ID: CCV001
Method: /chem/voc1a.i/051705.b/8015GRO-050905.m

Injection Date: 17-MAY-2005 21:12
Init. Cal. Date(s): 09-MAY-2005 09-MAY-2005
Init. Cal. Times: 17:36 21:08
Quant Type: ESTD

COMPOUND	RRF / AMOUNT	RF500	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
S 1 Gasoline Range Organics	3708	3611	0.010	-2.60798	15.00000	Averaged
$ 3 Bromofluorobenzene	3748	3942	0.010	5.18877	15.00000	Averaged

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Data file : /chem/voc1a.i/051705.b/1k2013.d
Lab Smp Id: CCV001 Client Smp ID: VSTD0500
Inj Date : 17-MAY-2005 21:12
Operator : ACJ Inst ID: voc1a.i
Smp Info : |CCV001|
Misc Info : |VOC8015_LF|-----|GROF|
Comment : FID
Method : /chem/voc1a.i/051705.b/8015GRO-050905.m
Meth Date : 18-May-2005 07:45 amj Quant Type: ESTD
Cal Date : 09-MAY-2005 21:08 Cal File: 1j1010.d
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: GRO.sub
Target Version: 3.50 Sample Matrix: WATER

Concentration Formula: Amt * DF * (Vt/Vo)*Uf * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	5.00000	Purge Volume
Vo	5.00000	Initial sample volume
Uf	1.00000	Unit Correction Factor

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
S 1 Gasoline Range Organics					CAS #:
3.220	12.207		1805656	500.000	487
$ 3 Bromofluorobenzene					CAS #: 460-00-4
9.926	9.942	-0.016	197119	50.0000	52.6

Data File: /chem/voc1a.i/051705.b/1k2013.d
Date : 17-MAY-2005 21:12
Client ID: VSTD0500
Sample Info: |CCV001|
Purge Volume: 5.0
Column phase: Rtx-Volatiles

Instrument: voc1a.i

Operator: ACJ
Column diameter: 0.25

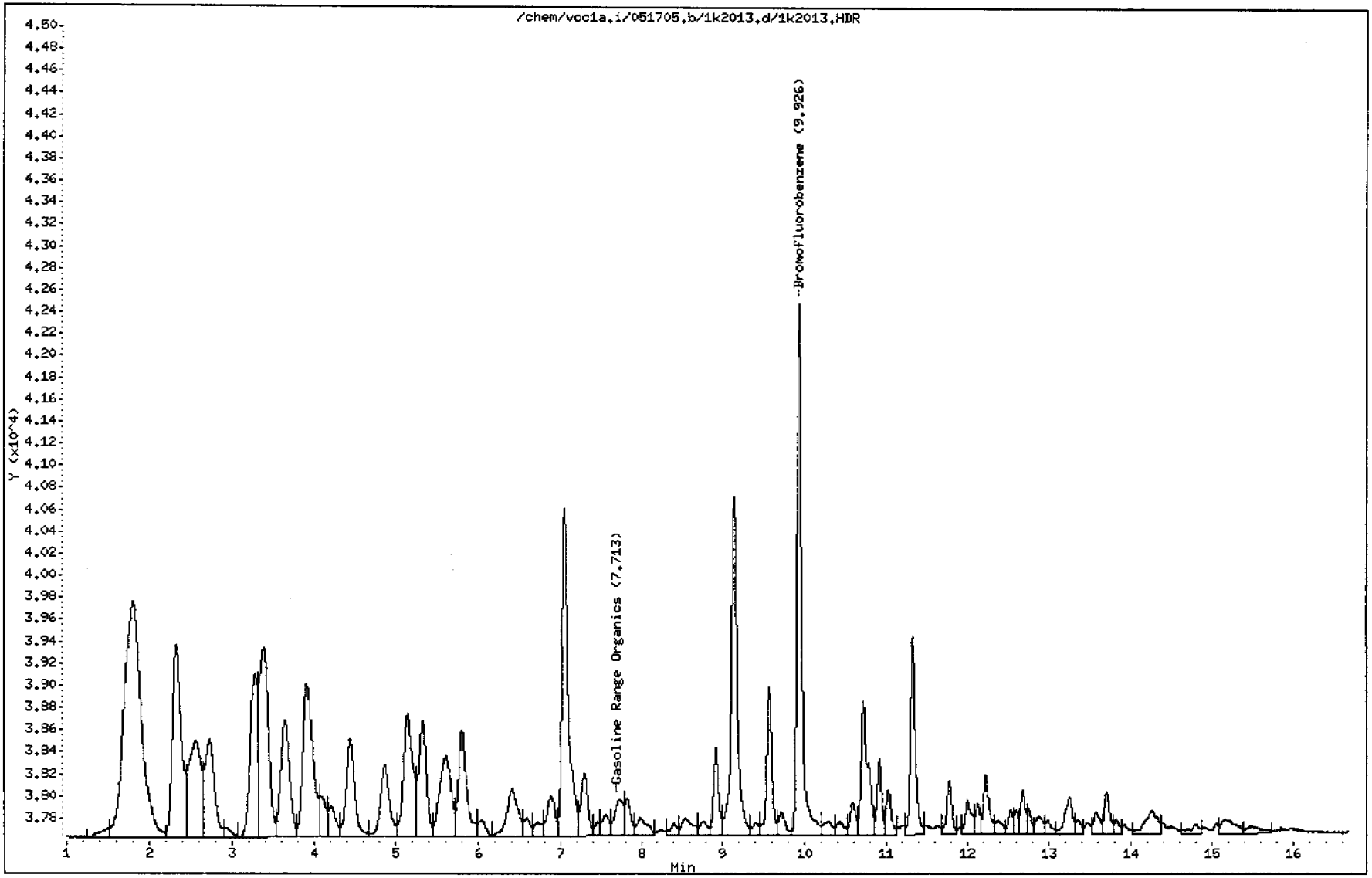

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: voc1a.i
Lab File ID: 1k2020.d
Analysis Type: WATER
Lab Sample ID: CCV002
Method: /chem/voc1a.i/051705.b/8015GRO-050905.m

Injection Date: 18-MAY-2005 01:18
Init. Cal. Date(s): 09-MAY-2005 09-MAY-2005
Init. Cal. Times: 17:36 21:08
Quant Type: ESTD

COMPOUND	RRF / AMOUNT	RF500	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
S 1 Gasoline Range Organics	3708	3873	0.010	4.45774	15.00000	Averaged
$ 3 Bromofluorobenzene	3748	3871	0.010	3.27464	15.00000	Averaged

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Data file : /chem/voc1a.i/051705.b/1k2020.d
Lab Smp Id: CCV002 Client Smp ID: VSTD0500
Inj Date : 18-MAY-2005 01:18
Operator : ACJ Inst ID: voc1a.i
Smp Info : |CCV002|
Misc Info : |VOC8015_LF|-----|GROF|
Comment : FID
Method : /chem/voc1a.i/051705.b/8015GRO-050905.m
Meth Date : 18-May-2005 07:45 amj Quant Type: ESTD
Cal Date : 09-MAY-2005 21:08 Cal File: 1j1010.d
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: GRO.sub
Target Version: 3.50 Sample Matrix: WATER

Concentration Formula: Amt * DF * (Vt/Vo)*Uf * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	5.00000	Purge Volume
Vo	5.00000	Initial sample volume
Uf	1.00000	Unit Correction Factor

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
S 1 Gasoline Range Organics					CAS #:
3.220	12.207		1936655	500.000	522
$ 3 Bromofluorobenzene					CAS #: 460-00-4
9.932	9.942	-0.010	193532	50.0000	51.6

Data File: /chem/voc1a.i/051705.b/1k2020.d
Date : 18-MAY-2005 01:18
Client ID: VSTD0500
Sample Info: ICCV002
Purge Volume: 5.0
Column phase: Rtx-Volatiles

Instrument: voc1a.i

Operator: ACJ
Column diameter: 0.25

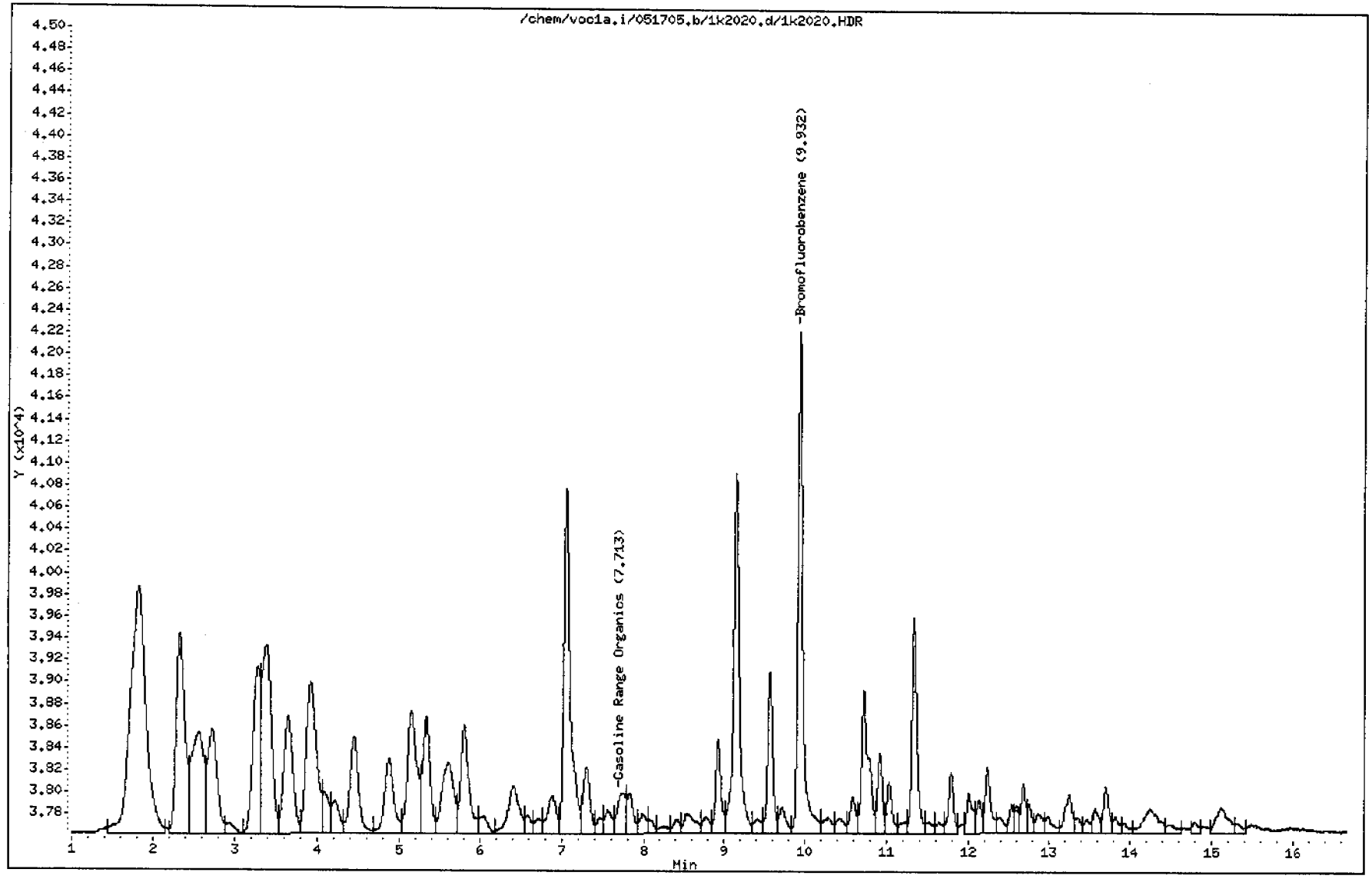

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: voc1a.i Injection Date: 18-MAY-2005 11:46
Lab File ID: 1k304.d Init. Cal. Date(s): 09-MAY-2005 09-MAY-2005
Analysis Type: WATER Init. Cal. Times: 17:36 21:08
Lab Sample ID: WVG050512-01 Quant Type: ESTD
Method: /chem/voc1a.i/051805.b/8015GRO-050905.m

COMPOUND	RRF / AMOUNT	RF500	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
S 1 Gasoline Range Organics	3708	3714	0.010	0.17275	15.00000	Averaged
$ 3 Bromofluorobenzene	3748	4157	0.010	10.90231	15.00000	Averaged

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SW-846 3rd edition 8015 Modified

Data file : /chem/voc1a.i/051805.b/1k304.d
Lab Smp Id: WVG050512-01 Client Smp ID: VSTD0500
Inj Date : 18-MAY-2005 11:46
Operator : ACJ Inst ID: voc1a.i
Smp Info : |WVG050512-01|
Misc Info : |VOC8015_LF|-----|GROF|
Comment : FID
Method : /chem/voc1a.i/051805.b/8015GRO-050905.m
Meth Date : 19-May-2005 10:09 amj Quant Type: ESTD
Cal Date : 09-MAY-2005 21:08 Cal File: 1j1010.d
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: GRO.sub
Target Version: 3.50 Sample Matrix: WATER

Concentration Formula: Amt * DF * (Vt/Vo)*Uf * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	5.00000	Purge Volume
Vo	5.00000	Initial sample volume
Uf	1.00000	Unit Correction Factor

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
S 1 Gasoline Range Organics					CAS #:
2.997-	12.204		1857211	500.000	501
$ 3 Bromofluorobenzene					CAS #: 460-00-4
9.931	9.940	-0.009	207825	50.0000	55.4

Data File: /chem/voc1a.i/051805.b/1k304.d
Date : 18-MAY-2005 11:46
Client ID: VSTD0500
Sample Info: |WVG050512-01|
Purge Volume: 5.0
Column phase: Rtx-Volatiles

Instrument: voc1a.i

Operator: ACJ
Column diameter: 0.25

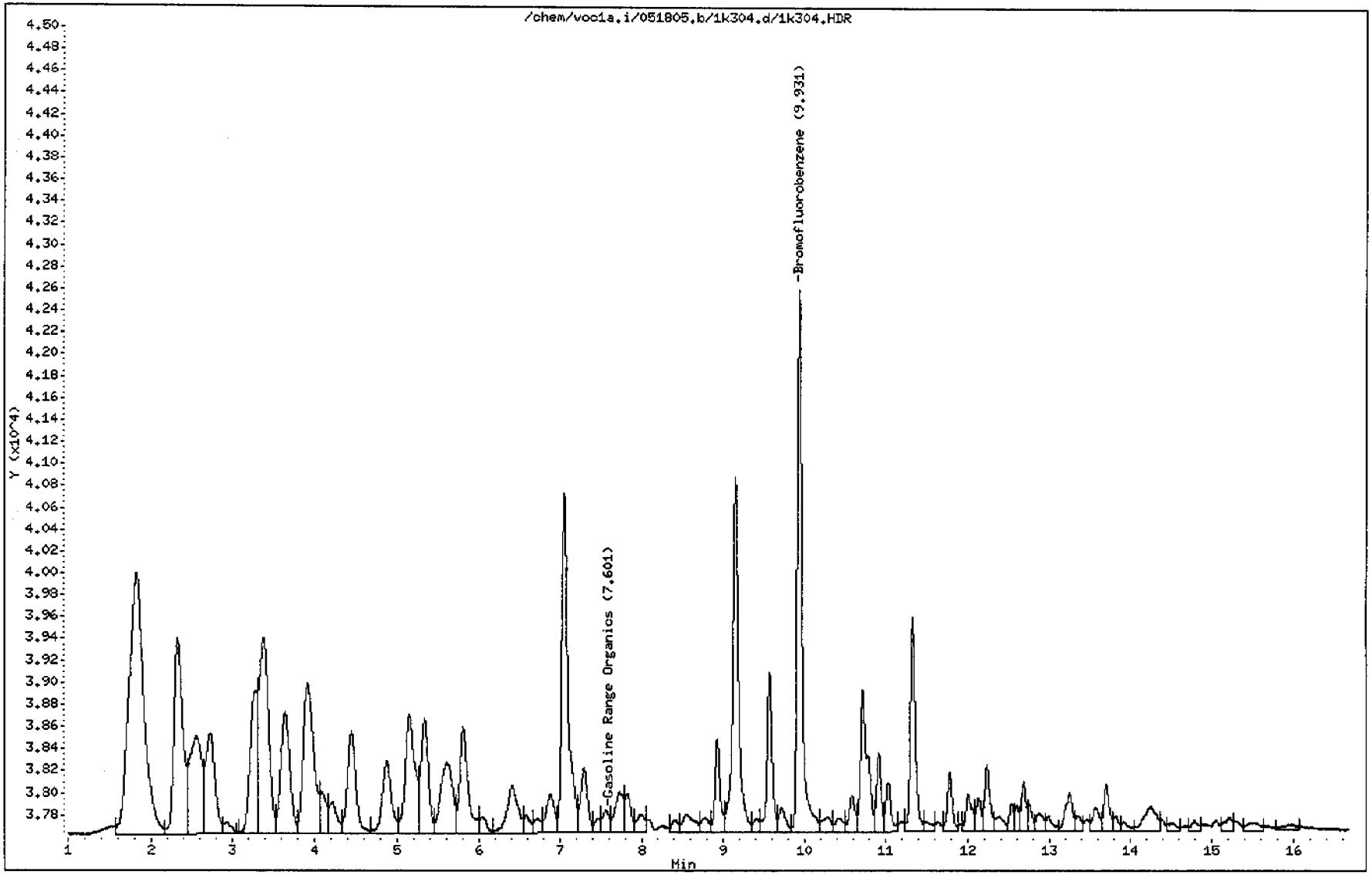

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: voc1a.i Injection Date: 18-MAY-2005 17:45
Lab File ID: 1k3012.d Init. Cal. Date(s): 09-MAY-2005 09-MAY-2005
Analysis Type: WATER Init. Cal. Times: 17:36 21:08
Lab Sample ID: CCV001 Quant Type: ESTD
Method: /chem/voc1a.i/051805.b/8015GRO-050905.m

COMPOUND	RRF / AMOUNT	RF500	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
S 1 Gasoline Range Organics	3708	3619	0.010	-2.39222	15.00000	Averaged
$ 3 Bromofluorobenzene	3748	4101	0.010	9.41184	15.00000	Averaged

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Data file : /chem/vocla.i/051805.b/1k3012.d
Lab Smp Id: CCV001 Client Smp ID: VSTD0500
Inj Date : 18-MAY-2005 17:45
Operator : ACJ Inst ID: vocla.i
Smp Info : |CCV001|
Misc Info : |VOC8015_LF|-----|GROF|
Comment : FID
Method : /chem/vocla.i/051805.b/8015GRO-050905.m
Meth Date : 19-May-2005 10:09 amj Quant Type: ESTD
Cal Date : 09-MAY-2005 21:08 Cal File: 1j1010.d
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: GRO.sub
Target Version: 3.50 Sample Matrix: WATER

Concentration Formula: Amt * DF * (Vt/Vo)*Uf * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	5.00000	Purge Volume
Vo	5.00000	Initial sample volume
Uf	1.00000	Unit Correction Factor

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
$ 1 Gasoline Range Organics					CAS #:
2.997	12.204		1809656	500.000	488
$ 3 Bromofluorobenzene					CAS #: 460-00-4
9.944	9.940	0.004	205032	50.0000	54.7

Data File: /chem/voc1a.i/051805.b/1k3012.d
Date : 18-MAY-2005 17:45
Client ID: VSTD0500
Sample Info: |CCV001|
Purge Volume: 5.0
Column phase: Rtx-Volatiles

Instrument: voc1a.i

Operator: ACJ
Column diameter: 0.25

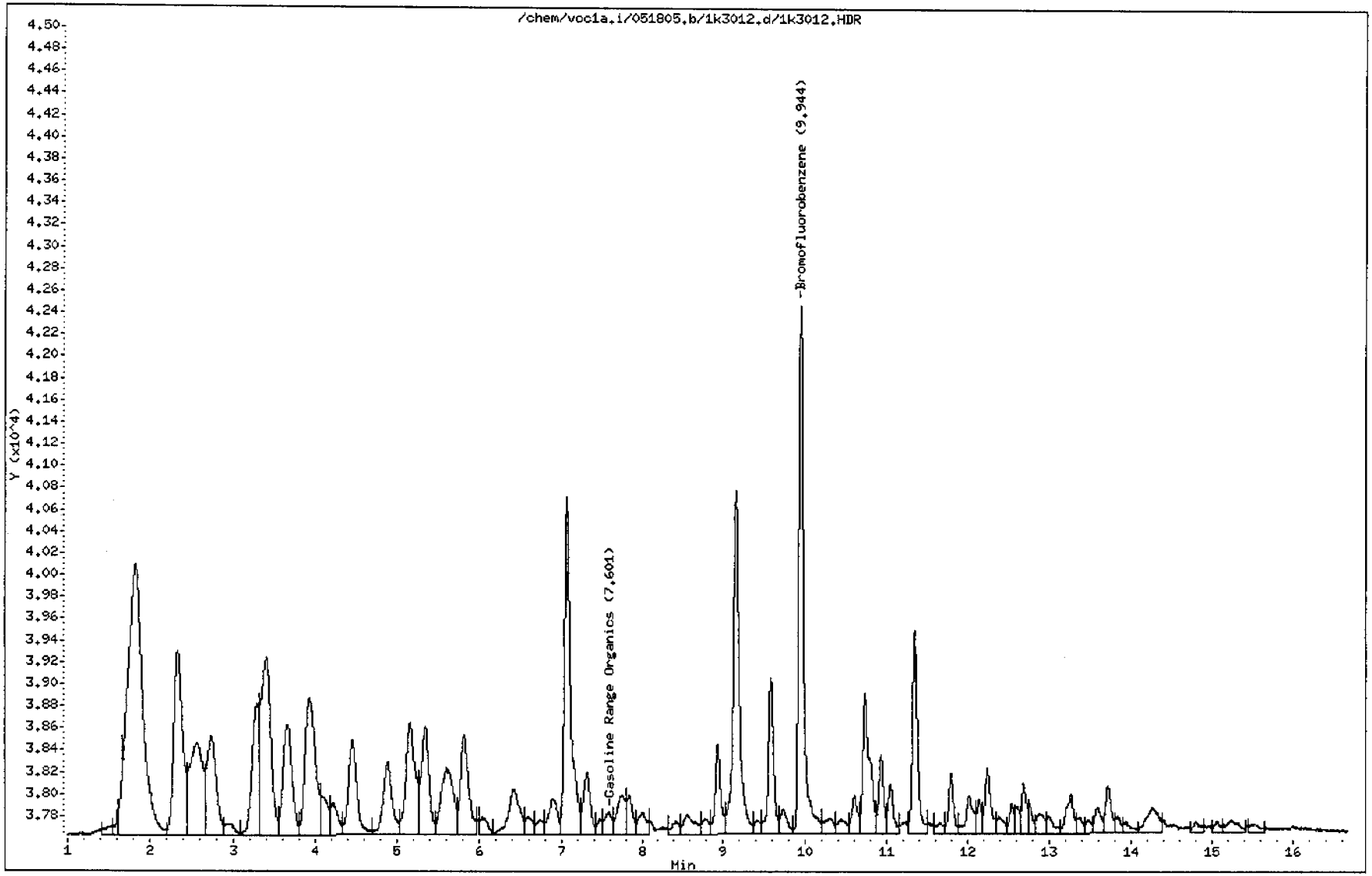

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: voc1a.i
Lab File ID: 1k3022.d
Analysis Type: WATER
Lab Sample ID: CCV002
Method: /chem/voc1a.i/051805.b/8015GRO-050905.m

Injection Date: 18-MAY-2005 23:31
Init. Cal. Date(s): 09-MAY-2005 09-MAY-2005
Init. Cal. Times: 17:36 21:08
Quant Type: ESTD

COMPOUND	RRF / AMOUNT	RF500	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
S 1 Gasoline Range Organics	3708	3289	0.010	-11.31338	15.00000	Averaged
$ 3 Bromofluorobenzene	3748	3646	0.010	-2.72706	15.00000	Averaged

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Data file : /chem/voc1a.i/051805.b/1k3022.d
Lab Smp Id: CCV002 Client Smp ID: VSTD0500
Inj Date : 18-MAY-2005 23:31
Operator : ACJ Inst ID: voc1a.i
Smp Info : |CCV002|
Misc Info : |VOC8015_LF|-----|GROF|
Comment : FID
Method : /chem/voc1a.i/051805.b/8015GRO-050905.m
Meth Date : 19-May-2005 10:09 amj Quant Type: ESTD
Cal Date : 09-MAY-2005 21:08 Cal File: 1j1010.d
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: GRO.sub
Target Version: 3.50 Sample Matrix: WATER

Concentration Formula: Amt * DF * (Vt/Vo)*Uf * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	5.00000	Purge Volume
Vo	5.00000	Initial sample volume
Uf	1.00000	Unit Correction Factor

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
$ 1 Gasoline Range Organics					CAS #:
2.997	12.204		1644257	500.000	443
$ 3 Bromofluorobenzene					CAS #: 460-00-4
9.943	9.940	0.003	182285	50.0000	48.6

Data File: /chem/voc1a.i/051805.b/1k3022.d
Date : 18-MAY-2005 23:31
Client ID: VSTD0500
Sample Info: ICCV0021
Purge Volume: 5.0
Column phase: Rtx-Volatiles

Instrument: voc1a.i

Operator: ACJ
Column diameter: 0.25

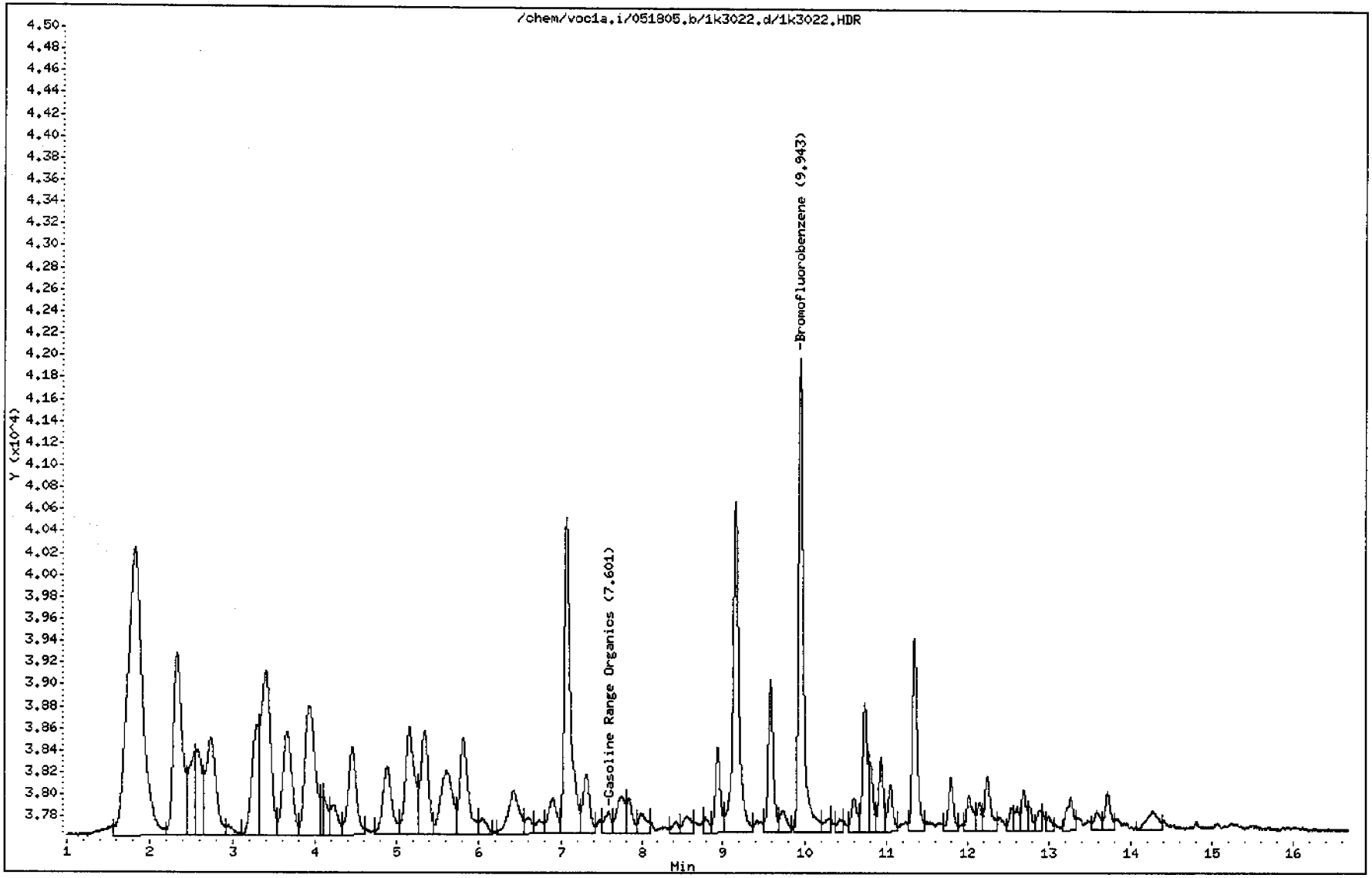

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8D
GRO ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

GC Column: RTX-VOLATILES ID: 0.25 (mm) Init. Calib. Date(s): 05/09/05 05/09/05

Instrument ID: VOC1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 9.94

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	RT #
01	ZZZZZ	ZZZZZ	05/17/05	1332	9.96	
02	VSTD0500	UVG050218-01	05/17/05	1441	9.94	
03	VSTD0500	WVG050512-01	05/17/05	1515	9.94	
04	ZZZZZ	ZZZZZ	05/17/05	1515	9.94	
05	ZZZZZ	ZZZZZ	05/17/05	1515	9.94	
06	VBLK02LCS	1200850348	05/17/05	1515	9.94	
07	VBLK01LCS	1200850348	05/17/05	1515	9.94	
08	ZZZZZ	ZZZZZ	05/17/05	1550	9.94	
09	ZZZZZ	ZZZZZ	05/17/05	1631	9.95	
10	VBLK02	1200850346	05/17/05	1631	9.95	
11	VBLK01	1200850346	05/17/05	1631	9.95	
12	ZZZZZ	ZZZZZ	05/17/05	1743	9.95	
13	ZZZZZ	ZZZZZ	05/17/05	1818	9.94	
14	ZZZZZ	ZZZZZ	05/17/05	1853	9.93	
15	ZZZZZ	ZZZZZ	05/17/05	1928	9.94	
16	ZZZZZ	ZZZZZ	05/17/05	2003	9.93	
17	ZZZZZ	ZZZZZ	05/17/05	2037	9.92	
18	VSTD0500	CCV001	05/17/05	2112	9.93	
19	ZZZZZ	ZZZZZ	05/17/05	2147	9.94	
20	ZZZZZ	ZZZZZ	05/17/05	2222	9.93	
21	RE03-05-58926	135831001	05/17/05	2257	9.93	
22	RE03-05-58927	135831002	05/17/05	2332	9.94	
23	RE03-05-59557	135831003	05/18/05	0007	9.93	
24	RE03-05-59558	135831004	05/18/05	0043	9.94	
25	VSTD0500	CCV002	05/18/05	0118	9.93	
26						
27						
28						
29						
30						
31						
32						

QC LIMITS
S1 = Bromofluorobenzene (+/- 0.42 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

8D
GRO ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

GC Column: RTX-VOLATILES ID: 0.25 (mm) Init. Calib. Date(s): 05/09/05 05/09/05

Instrument ID: VOC1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 9.94

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	RT #
01	ZZZZZ	ZZZZZ	05/18/05	1002	9.95	
02	VSTD0500	WVG050512-01	05/18/05	1111	9.93	
03	VSTD0500	WVG050512-01	05/18/05	1146	9.93	
04	ZZZZZ	ZZZZZ	05/18/05	1146	9.93	
05	ZZZZZ	ZZZZZ	05/18/05	1146	9.93	
06	VBLK03LCS	1200850349	05/18/05	1146	9.93	
07	VBLK02LCS	1200850349	05/18/05	1146	9.93	
08	ZZZZZ	ZZZZZ	05/18/05	1146	9.93	
09	ZZZZZ	ZZZZZ	05/18/05	1221	9.93	
10	ZZZZZ	ZZZZZ	05/18/05	1221	9.93	
11	VBLK03	1200850347	05/18/05	1221	9.93	
12	VBLK02	1200850347	05/18/05	1221	9.93	
13	ZZZZZ	ZZZZZ	05/18/05	1221	9.93	
14	RE03-05-58926	135831001	05/18/05	1417	9.96	
15	RE03-05-58927	135831002	05/18/05	1451	9.95	
16	RE03-05-59558	135831004	05/18/05	1526	9.95	
17	ZZZZZ	ZZZZZ	05/18/05	1601	9.94	
18	ZZZZZ	ZZZZZ	05/18/05	1635	9.95	
19	ZZZZZ	ZZZZZ	05/18/05	1710	9.95	
20	VSTD0500	CCV001	05/18/05	1745	9.94	
21	ZZZZZ	ZZZZZ	05/18/05	1819	9.94	
22	ZZZZZ	ZZZZZ	05/18/05	1854	9.94	
23	ZZZZZ	ZZZZZ	05/18/05	1929	9.95	
24	ZZZZZ	ZZZZZ	05/18/05	2003	9.95	
25	ZZZZZ	ZZZZZ	05/18/05	2038	9.94	
26	ZZZZZ	ZZZZZ	05/18/05	2113	9.95	
27	ZZZZZ	ZZZZZ	05/18/05	2147	9.97	
28	ZZZZZ	ZZZZZ	05/18/05	2222	9.95	
29	ZZZZZ	ZZZZZ	05/18/05	2256	9.94	
30	VSTD0500	CCV002	05/18/05	2331	9.94	
31						
32						

QC LIMITS
S1 = Bromofluorobenzene (+/- 0.42 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

8D
GRO ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

GC Column: RTX-VOLATILES ID: 0.25 (mm) Init. Calib. Date(s): 05/09/05 05/09/05

Instrument ID: VOC1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 10.24

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	RT #
01	ZZZZZ	ZZZZZ	05/09/05	1548	10.26	
02	ZZZZZ	ZZZZZ	05/09/05	1700	10.23	
03	VSTD0050	VSTD0050	05/09/05	1736	10.25	
04	VSTD0100	VSTD0100	05/09/05	1811	10.26	
05	VSTD0250	VSTD0250	05/09/05	1846	10.25	
06	VSTD0500	VSTD0500	05/09/05	1922	10.24	
07	VSTD0750	VSTD0750	05/09/05	1957	10.23	
08	VSTD1000	VSTD1000	05/09/05	2033	10.25	
09	VSTD02000	VSTD02000	05/09/05	2108	10.24	
10	ZZZZZ	ZZZZZ	05/09/05	2143	10.25	
11	ZZZZZ	ZZZZZ	05/09/05	2219	10.25	
12	SECOND SOURCE	WVG050508-01	05/09/05	2254	10.25	
13	ZZZZZ	ZZZZZ	05/09/05	2254	10.25	
14	SECOND SOURCE	WVG050508-01	05/09/05	2254	10.25	
15	ZZZZZ	ZZZZZ	05/09/05	2329	10.25	
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						
31						
32						

QC LIMITS
S1 = Bromofluorobenzene (+/- 0.42 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

QUALITY CONTROL DATA

1A
GRO ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK01

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Matrix: (soil/water) SOIL Lab Sample ID: 1200850346

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 1K206BSLANL1

Level: (low/med) LOW Date Received: 05/17/05

% Moisture: not dec. _____ Date Analyzed: 05/17/05

GC Column: RTX-VOLATILES ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
	----------Gasoline Range Organics_____	39.4	J

FORM I VOA OLM03.0

General Engineering Laboratories, LLC

SW-846 3rd edition 8015 Modified

Data file : /chem/vocla.i/051705.b/1k206bslanl1.d
Lab Smp Id: 1200850346 Client Smp ID: VBLK01
Inj Date : 17-MAY-2005 16:31
Operator : ACJ Inst ID: vocla.i
Smp Info : |1200850346|1|
Misc Info : |VOC8015_SF|425588|GROF|
Comment : FID
Method : /chem/vocla.i/051705.b/8015GRO-050905.m
Meth Date : 18-May-2005 07:45 amj Quant Type: ESTD
Cal Date : 09-MAY-2005 21:08 Cal File: 1j1010.d
Als bottle: 1 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: GRO.sub
Target Version: 3.50 Sample Matrix: SOIL
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M)*(Vt/Ws))*Uf * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	0.00000	% Moisture
Vt	5.00000	Purge Volume (mL)
Ws	5.00000	Weight of sample (g)
Uf	1.00000	Unit Correction Factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	
S 1 Gasoline Range Organics					CAS #:	
3.220-	12.207		146081	39.3960	39.4	(a)
$ 3 Bromofluorobenzene					CAS #: 460-00-4	
9.948	9.942	0.006	170825	45.5787	45.6	

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

1A
GRO ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK02

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Matrix: (soil/water) SOIL Lab Sample ID: 1200850347

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 1K305BSLANL1

Level: (low/med) LOW Date Received: 05/18/05

% Moisture: not dec. _____ Date Analyzed: 05/18/05

GC Column: RTX-VOLATILES ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
	----------Gasoline Range Organics_____	50.0	U

FORM I VOA OLM03.0

General Engineering Laboratories, LLC

SW-846 3rd edition 8015 Modified

Data file : /chem/voc1a.i/051805.b/1k305BSLANL1.d
Lab Smp Id: 1200850347 Client Smp ID: VBLK02
Inj Date : 18-MAY-2005 12:21
Operator : ACJ Inst ID: voc1a.i
Smp Info : |1200850347|1|
Misc Info : |VOC8015_SF|425588|GROF|
Comment : FID
Method : /chem/voc1a.i/051805.b/8015GRO-050905.m
Meth Date : 19-May-2005 10:09 amj Quant Type: ESTD
Cal Date : 09-MAY-2005 21:08 Cal File: 1j1010.d
Als bottle: 1 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: GRO.sub
Target Version: 3.50 Sample Matrix: SOIL
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M)*(Vt/Ws))*Uf * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	0.00000	% Moisture
Vt	5.00000	Purge Volume (mL)
Ws	5.00000	Weight of sample (g)
Uf	1.00000	Unit Correction Factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)
$ 3 Bromofluorobenzene					CAS #: 460-00-4
9.933	9.940	-0.007	204581	54.5854	54.6

1A
GRO ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK01LCS

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Matrix: (soil/water) SOIL Lab Sample ID: 1200850348

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 1K204LSLANL1

Level: (low/med) LOW Date Received: 05/17/05

% Moisture: not dec. _____ Date Analyzed: 05/17/05

GC Column: RTX-VOLATILES ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
	----------Gasoline Range Organics_____	518	B

FORM I VOA OLM03.0

General Engineering Laboratories, LLC

SW-846 3rd edition 8015 Modified

Data file : /chem/voc1a.i/051705.b/1k204LSlanl1.d
Lab Smp Id: 1200850348 Client Smp ID: VBLK01LCS
Inj Date : 17-MAY-2005 15:15
Operator : ACJ Inst ID: voc1a.i
Smp Info : |1200850348|1|
Misc Info : |VOC8015_SF|425588|GROF|
Comment : FID
Method : /chem/voc1a.i/051705.b/8015GRO-050905.m
Meth Date : 18-May-2005 07:45 amj Quant Type: ESTD
Cal Date : 09-MAY-2005 21:08 Cal File: 1j1010.d
Als bottle: 1 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: GRO.sub
Target Version: 3.50 Sample Matrix: SOIL
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M)*(Vt/Ws))*Uf * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	0.00000	% Moisture
Vt	5.00000	Purge Volume (mL)
Ws	5.00000	Weight of sample (g)
Uf	1.00000	Unit Correction Factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)
S	1 Gasoline Range Organics					CAS #:
	3.220-	12.207		1920536	517.942	518
$	3 Bromofluorobenzene					CAS #: 460-00-4
	9.940	9.942	-0.002	198315	52.9135	52.9

1A
GRO ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK02LCS

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Matrix: (soil/water) SOIL Lab Sample ID: 1200850349

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 1K304LSLANL1

Level: (low/med) LOW Date Received: 05/18/05

% Moisture: not dec. _____ Date Analyzed: 05/18/05

GC Column: RTX-VOLATILES ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
	----------Gasoline Range Organics_____	501	

FORM I VOA OLM03.0

General Engineering Laboratories, LLC

SW-846 3rd edition 8015 Modified

Data file : /chem/voc1a.i/051805.b/1k304LSLANL1.d
Lab Smp Id: 1200850349 Client Smp ID: VBLK02LCS
Inj Date : 18-MAY-2005 11:46
Operator : ACJ Inst ID: voc1a.i
Smp Info : |1200850349|1|
Misc Info : |VOC8015_SF|425588|GROF|
Comment : FID
Method : /chem/voc1a.i/051805.b/8015GRO-050905.m
Meth Date : 19-May-2005 10:09 amj Quant Type: ESTD
Cal Date : 09-MAY-2005 21:08 Cal File: 1j1010.d
Als bottle: 1 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: GRO.sub
Target Version: 3.50 Sample Matrix: SOIL
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M)*(Vt/Ws))*Uf * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	0.00000	% Moisture
Vt	5.00000	Purge Volume (mL)
Ws	5.00000	Weight of sample (g)
Uf	1.00000	Unit Correction Factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)
S 1 Gasoline Range Organics					CAS #:
2.997-	12.204		1857211	500.864	501
$ 3 Bromofluorobenzene					CAS #: 460-00-4
9.931	9.940	-0.009	207825	55.4509	55.4

MISCELLANEOUS DATA

General Engineering Laboratories
Form GEL-XXX
Rev. 06/02

NCR Report No.: 203021
Revision No.: 4

COMPANY – WIDE NONCONFORMANCE REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
18-MAY-05	Federal	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
VOC/FID	SW846 8015A/B VOC	Solid	LANL
Batch ID:	**Sample Numbers:**		
425588	See Below		

Potentially affected work order(s)(SDG): 135805(3194S),135831(3202S)

Application Issues:

Failed Recovery for Surrogate or Tracer

Failed Recovery for LCS/MS/PS

Method Blank contamination

Specification and Requirements Nonconformance Description:	NRG Disposition:
Surrogate Recoveries Sample 1200846634 (RE03-05-59531MS) failed surrogate recoveries.	The sample was re-analyzed and confirmed the failures. The MSD and associated sample recovered this surrogate at the lower end of the acceptance limits. Please see the Form II in the deliverable for a complete list of failures and the recovery limits.
Sample 135831002 (RE03-05-58927) failed surrogate recoveries.	The sample was re-analyzed and confirmed the failures. Please see the Form II in the deliverable for a complete list of failures and the recovery limits. See NCR 203021.
Matrix Spike (MS) Recovery Statement The MS recoveries were not within the acceptance limits.	The MSD recovered in a similar manner. Please see the Form III in the deliverable for a complete list of failures and the recovery limits.
Matrix Spike Duplicate (MSD) Recovery Statement The MSD recoveries were not within the acceptance limits.	The MS recovered in a similar manner. Please see the Form III in the deliverable for a complete list of failures and the recovery limits.

Originator's Name:

Amy Jamison 18-MAY-05

Data Validator/Group Leader:

Erin Haubert 19-MAY-05

Quality Review:

Director:

Revision No.: 06/19/98

ORGANIC RUN LOG - INSTRUMENT ID# VOC1

DATE: 5 / 09 / 05 METHOD: 8015 OPERATOR: ACJ REVIEWED BY: RAM DATE: 5-10-05

HARDWARE CONFIGURATION & METHOD CONDITIONS SUMMARY No# 1 on pg. 1

Daily Instrument Readings:
Detector #1 = FID
Detector #2 = PID (Volt Setting n/a)

VO-0-195

CALIBRATION & QC INFORMATION:

Initial Calibration Date: / /
(See pg. for ICAL Std. Sol. IDs)
Initial Calib. Stock Std. IDs:

Septelice Number: 050905

	Daily Standard Solution ID#	Volume Added for Purge (ul) Dil/Smpl	CCV/~~LCS~~	LCS/MS	RT
CCV/~~LCS~~	AVG0462IX-01A		5		
IS					
SS	WG0411130-01D	2.5	2.5	2.5	2.5
LCS/MS					
RT ~~Other~~	W1V050509-01				5.5

Purge Amount
- [x] Water Purge Volume: 5 ml.
- [ ] Soil Purge Weight: gm.
- [ ] Med level ext. MeOH vol.: ul. (Methanol Lot #:)
- [x] Heated Purge [ ] Ambient Purge

Analysis Date	Time	Data File	Lab Sample ID#	Client	Batch #	Dil. Factor	pH	AS slot #	Matrix (w = water; s = soil)	Analyst	Acceptable (✓/X)	G20: AVG04 Comments Soil - WG0411130-01D
5/9/05	1548	~~8IJ101~~	BLANK					1	W	ACJ	X	
	1624	1J202	RT					2			✓	AVG0462IX-01/02
	1700	1J203	BLANK					3			X	
	1736	104	VSTD0050					4			✓	GRO: 0.5ul + Soil: .2ul
	1811	105	0100					5			✓	1.0ul + .5ul
	1846	106	0250					6			✓	2.5ul + 1.0ul
	1922	107	0500					7			✓	5.0ul + 2.5ul
	1957	108	0750					8			✓	7.5ul + 3.5ul
	2033	109	1000					9			✓	10.0ul + 5.0ul
	2108	110	2000					10			✓	20.0ul + 10ul
	2143	111	BLANK					11			X	
	2219	112	BLANK					12			X	
	2254	113	CCV					13			✓	
	2329	114	CCV					14			X	not needed
		~~115~~	ACJ 05/10/05									
		~~116~~	ACJ 05/10/05									

ACJ 05/10/05

(✓ = OK / X = Rerun)

617

077

[illegible] Laboratories, Inc.
Revision No.: 06/19/98

ORGANIC RUN LOG - INSTRUMENT ID# VOC1

DATE: 5/17/05 METHOD: 8015 OPERATOR: ACS REVIEWED BY: [illegible]
DATE: 5-19-05

HARDWARE CONFIGURATION & METHOD CONDITIONS SUMMARY No# 1 on pg. 1

VO-0185

Daily Instrument Readings:
Detector #1 = FID
Detector #2 = PID (Volt Setting N/A)

CALIBRATION & QC INFORMATION:

Initial Calibration Date: 5/05/05
(see pg. 027 for ICAL Std. Sol. IDs)
Initial Calib. Stock Std. IDs:

Sequence Number: 051705

	Daily Standard Solution ID#	Volume Added for Purge (ul) Blk/Smpl	CCV/~~LCS~~	LCS/MS	RT
CCV/~~LCS~~	~~[illegible]~~				
IS	WV605017-01 exp 05/17/05		5		
SS	WV604130-00A	2.5	2.5	2.5	2.5
LCS/MS	WV605252-01			5	
RT Other	WV605178-01				5+5

Purge Amount
- [x] Water Purge Volume: 5 ml.
- [ ] Soil Purge Weight: 5.0 gm.
- [ ] Med level ext. MeOH vol.: ____ ul.
(Methanol Lot #: ____)
- [x] Heated Purge [ ] Ambient Purge

Analysis Date	Time	Data File	Lab Sample ID#	Client	Batch #	Dil. Factor	pH	AS slot #	Matrix (w = water; s = soil)	Analyst	Accept-able (✓/X)	Comments
5/17/05	1332	1K 201	BLANK	—	—	—	—	1	W	ACS	X	not needed
	1406	202	RT					2			✓	WV605209-01/02
	1441	203	CCV					3			X	
	1515	204	CCV/LCS					4			✓	
	1550	205	BLANK					5			X	
	1631	206	BLANK					6			✓	NCR J VALUE
	1743	207	135732002	[redacted]	425589	1:100	2	7	W		X	over diluted
	1818	208	1200846638				2	8			X	over diluted MS 135732002
	1853	209	1200846639				2	9			X	over diluted MSD 135732002
	1928	2010	~~137~~ 135732002	[redacted]	425589	1:50	2	10			✓	ACS 05/17/05
	2003	2011	1200846638					11			✓	MS 135732002 NCR spike failure
	2037	2012	1200846639					12			✓	MSD 135732002 NCR spike failure
	2112	2013	CCV	—	—	—	—	13			✓	
	2147	2014	1360330001	[redacted]	426494	1:1	2	14			✓	
	2222	2015	1360330002					15			✓	
	2257	2016	135831001	LANL	425588	1:1	—	16	S		X	rerun J value
	2332	2017	002				—	17			✓ X	surrogate failure & NCR
5/18/05	0007	2018	003				—	18			✓	
	0043	2019	004				—	19			X	rerun J value
	0118	2020	CCV	—	—	—	—	20	W		✓	

(✓ = OK / X = Rerun)

618

097

VO-0186

BRAL ENGINEERING LABORATORIES, Inc.
Revision No.: 06/19/08

ORGANIC RUN LOG - INSTRUMENT ID# VOC1

Sequence Number: 057705 (Continuation)

Analysis Date	/ Time	Data File	Lab Sample ID#.	Client	Batch #	Dil. Factor	pH	AS slot #	Matrix (w = water; s = soil)	Analyst	Accept -able (✓/X)	Comments
		~~ACT~~										ACT 05/19/05
05/18/05	—	1K2021	CCV	—	—	—	—	21	W	ACT	—	NOT processed

[redacted]

[redacted] Laboratories, Inc.
Revision No.: 08/19/98

ORGANIC RUN LOG - INSTRUMENT ID# VOC1

DATE: 5 / 18 / 05 METHOD: 8015 OPERATOR: ATS REVIEWED BY: KS
DATE: 5/19/05

HARDWARE CONFIGURATION & METHOD CONDITIONS SUMMARY No# 1 on pg. 1

VOC0135

Daily Instrument Readings:
Detector #1 = FID
Detector #2 = PID (Volt Setting n/a)

CALIBRATION & QC INFORMATION:

Initial Calibration Date: ~~5~~ 03 / 09 / 05 ACS 05/18/05
(see pg. 577 for ICAL Std. Sol. IDs)
Initial Calib. Stock Std. IDs:

Reagentice Number: 051805

	Daily Standard Solution ID#	Volume Added for Purge (ml) Blk/Smpl	CCV/LCS	LCS/MS	RT
CCV/~~LCS~~	~~WVG0411B-MS~~		5		
IS	WVG050518-01 ACS 05/18/05				
SS	WVG041130-02A	2.5	2.5	2.5	2.5
LCS/MS	WVG050512-01			5	
RT ~~Other~~	WVG050515-01				5.5

Purge Amount
- [x] ~~Water~~ Purge Volume: 5 ml.
- [x] ~~Soil~~ Purge Weight: 5 gm.
- [ ] Med level ext. MeOH vol.: ____ ml. (Methanol Lot #: ____)
- [x] ~~Heated~~ Purge [ ] Ambient Purge

Analysis Date	Time	Data File	Lab Sample ID#	Client	Batch #	Dil. Factor	pH	AS slot #	Matrix (w = water, s = soil)	Analyst	Accept-able (✓/X)	Comments
5/18/05	1002	IK301	BLANK					1	W	ATS	X	not needed
	1037	302	RT					2			✓	WVG050784-01/02
	1111	303	CCV/LCS					3			X	
	1146	304	CCV/LCS					4			✓	
	1221	305	BLANK					5			✓	
	1412	306	135831001	LANL	425588	1:1	—	6	S		✓	
	1451	307	002				—	7			X	report original analysis
	1526	308	004				—	8			✓	
	1601	309	136461007	[redacted]	426742	1:1	2	9	W		✓	
	1635	3010	1200849696				2	10			✓	MS 136461007
	1710	3011	1200849697				2	11			✓	MSD 136461007
	1745	3012	CCV	~~LCS~~	—	—	—	12	W		✓	ATS 05/18/05
	1819	3013	136033003	[redacted]	426494	1:1	2	13	W		✓	
	1854	3014	004				2	14			✓	
	1929	3015	1200849103				2	15			✓	MS 136033004
	3003	3016	1200849104				2	16			✓	MSD 136033004
	2038	3017	136033005				2	17			X	overrange
	2113	3018	136033006				2	18			X	conc
	2147	3019	136036001		426728	1:1	—	19	S		X	surrogate ↓
	2222	3020	1200849654				—	20	1			MS 136036001

(✓ = OK / X = Rerun)

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GENERAL ENGINEERING LABORATORIES, Inc.
Revision No.: 05/19/98

ORGANIC RUN LOG - INSTRUMENT ID# VOC1

PAGE #: 100

VO-0195

Sequence Number: 051805 (Continuation)

Analysis Date	/ Time	Data File	Lab Sample ID#	Client	Batch #	Dil. Factor	pH	AS slot #	Matrix (w = water, s = soil)	Analyst	Accept-able (✓/X)	Comments
05/18/05	2256	1K3021	1205849655	[redacted]	926728	1:1	—	21	S	[illegible]	✓	MSD 1360364001
↓	2331	↓ 3022	CCV	—	—	—	—	22	W	↓	✓	
—	—	↓ 3023	CCV	—	—	—	—	23	W	↓	—	not processed

(✓ = OK / X = Rerun)

Calibration Date:

midpoint std lvl:		
internal std	area	rt
1 a,a,a-TFT		
2		
3		

Calibration Verification Std. Data File:

internal std	area	rt
1 a,a,a-TFT		
2		
3		

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General Engineering Laboratories, LLC

SW-846 3rd edition 8015 Modified

Data file : /chem/vocla.i/051405.b/1j609.d
Lab Smp Id: 135805001 Client Smp ID: RE03-05-59531
Inj Date : 14-MAY-2005 14:58
Operator : ACJ Inst ID: vocla.i
Smp Info : |135805001|1|
Misc Info : |VOC8015_SF|425588|GROF|
Comment : FID
Method : /chem/vocla.i/051405.b/8015GRO-050905.m
Meth Date : 16-May-2005 15:16 amj Quant Type: ESTD
Cal Date : 09-MAY-2005 21:08 Cal File: 1j1010.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: GRO.sub
Target Version: 3.50 Sample Matrix: SOIL

Concentration Formula: Amt * DF * (100/(100-M)*(Vt/Ws))*Uf * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	15.93160	% Moisture
Vt	5.00000	Purge Volume (mL)
Ws	5.00000	Weight of sample (g)
Uf	1.00000	Unit Correction Factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	
S 1 Gasoline Range Organics					CAS #:	
3.234	12.215		91182	24.5905	29.2	(a)
$ 3 Bromofluorobenzene					CAS #: 460-00-4	
9.937	9.957	-0.020	129817	34.6372	41.2	

QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).

ACJ 05/18/05

General Engineering Laboratories, LLC

RECOVERY REPORT

Client Name: Los Alamos National 04-MAY-2005 00:00 Client SDG: 3194S
Sample Matrix: SOLID Fraction: VOA
Lab Smp Id: 135805001 Client Smp ID: RE03-05-59531
Level: LOW Operator: ACJ
Data Type: GC DATA SampleType: SAMPLE
SpikeList File: GROLCSH20.spk Quant Type: ESTD
Sublist File: GRO.sub
Method File: /chem/voc1a.i/051405.b/8015GRO-050905.m
Misc Info: |VOC8015_SF|425588|GROF|

SURROGATE COMPOUND	CONC ADDED ug/Kg	CONC RECOVERED ug/Kg	% RECOVERED	LIMITS
$ 3 Bromofluorobenzene	59.5	41.2	69.27	58-124

Data File: /chem/voc1a.i/051405.b/1j609.d
Date : 14-MAY-2005 14:58
Client ID: RE03-05-59531
Sample Info: |135805001|1|

Instrument: voc1a.i

Operator: ACJ

Column phase: Rtx-Volatiles

Column diameter: 0.25

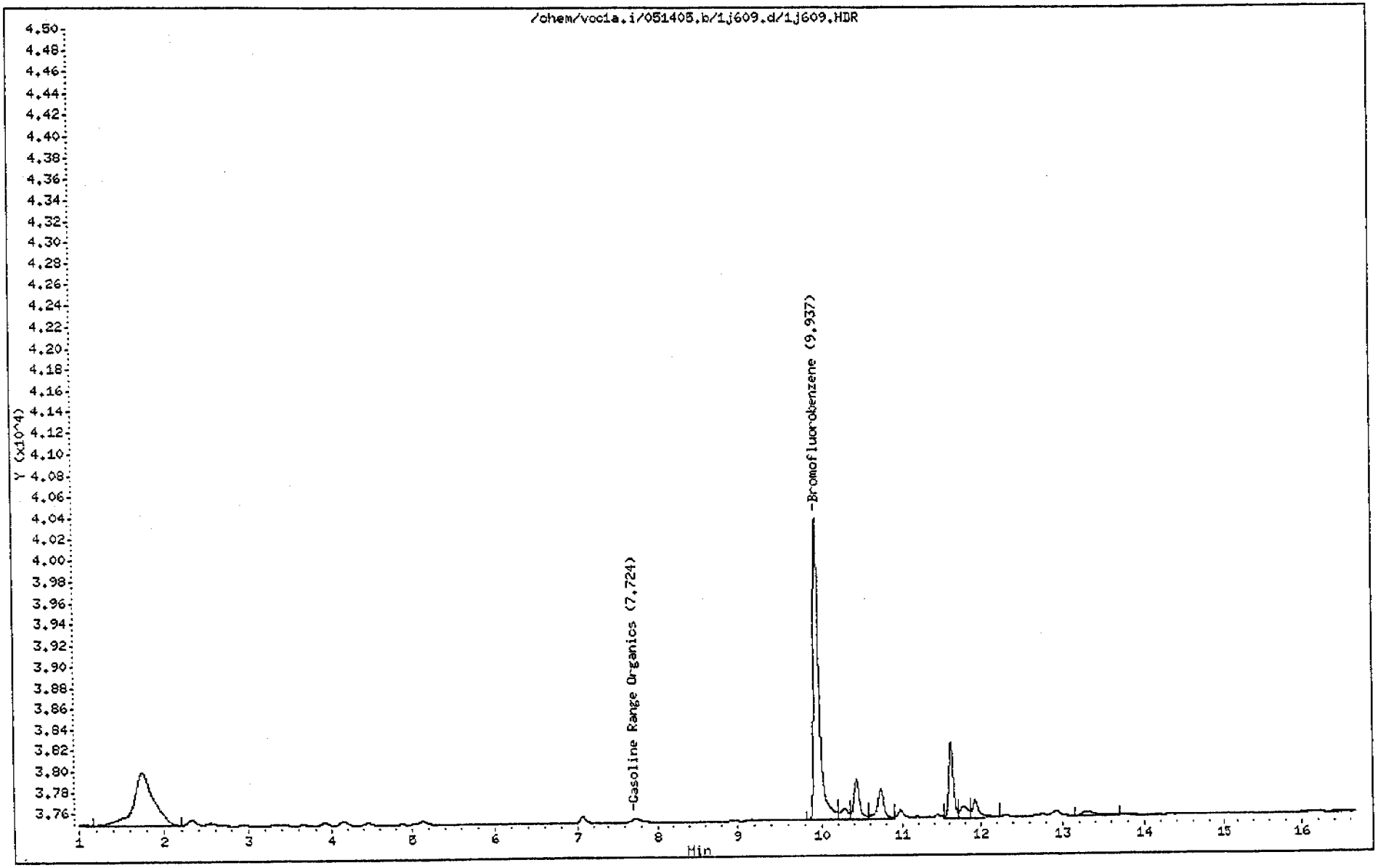

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General Engineering Laboratories, LLC

SW-846 3rd edition 8015 Modified

Data file : /chem/voc1a.i/051405.b/1j6013.d
Lab Smp Id: 1200846634 — Client Smp ID: RE03-05-59531MS
Inj Date : 14-MAY-2005 17:19
Operator : ACJ — Inst ID: voc1a.i
Smp Info : |1200846634|1|
Misc Info : |VOC8015_SF|425588|GROF|
Comment : FID
Method : /chem/voc1a.i/051405.b/8015GRO-050905.m
Meth Date : 16-May-2005 15:16 amj — Quant Type: ESTD
Cal Date : 09-MAY-2005 21:08 — Cal File: 1j1010.d
Als bottle: 1 — QC Sample: MS
Dil Factor: 1.00000
Integrator: HP Genie — Compound Sublist: GRO.sub
Target Version: 3.50 — Sample Matrix: SOIL

Concentration Formula: Amt * DF * (100/(100-M)*(Vt/Ws))*Uf * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	15.93160	% Moisture
Vt	5.00000	Purge Volume (mL)
Ws	5.00000	Weight of sample (g)
Uf	1.00000	Unit Correction Factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable — Local Compound Variable

NCR spike + surrogate failure

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	
$ 1 Gasoline Range Organics					CAS #: 258	
3.234	12.215		804213	216.885		(R)
$ 3 Bromofluorobenzene					CAS #: 460-00-4	
9.934	9.957	-0.023	104077	27.7693	33.0	(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

ACJ 05/18/05

Data File: /chem/vocla.i/051405.b/1j6013.d
Report Date: 18-May-2005 15:15

General Engineering Laboratories, LLC

RECOVERY REPORT

Client Name:
Sample Matrix: SOLID
Lab Smp Id: 1200846634
Level: LOW
Data Type: GC DATA
SpikeList File: GROSOIL.spk
Sublist File: GRO.sub
Method File: /chem/vocla.i/051405.b/8015GRO-050905.m
Misc Info: |VOC8015_SF|425588|GROF|

Client SDG: 3194S
Fraction: VOA
Client Smp ID: RE03-05-59531MS
Operator: ACJ
SampleType: MS
Quant Type: ESTD

SPIKE COMPOUND	CONC ADDED ug/Kg	CONC RECOVERED ug/Kg	% RECOVERED	LIMITS
S 1 Gasoline Range Org	595	258	43.38*	51-130

SURROGATE COMPOUND	CONC ADDED ug/Kg	CONC RECOVERED ug/Kg	% RECOVERED	LIMITS
$ 3 Bromofluorobenzene	59.5	33.0	55.54*	58-124

Data File: /chem/voc1a.i/051405.b/1j6013.d
Date : 14-MAY-2005 17:19
Client ID: RE03-05-59531MS
Sample Info: |1200846634|1|

Column phase: Rtx-Volatiles

Instrument: voc1a.i

Operator: ACJ
Column diameter: 0.25

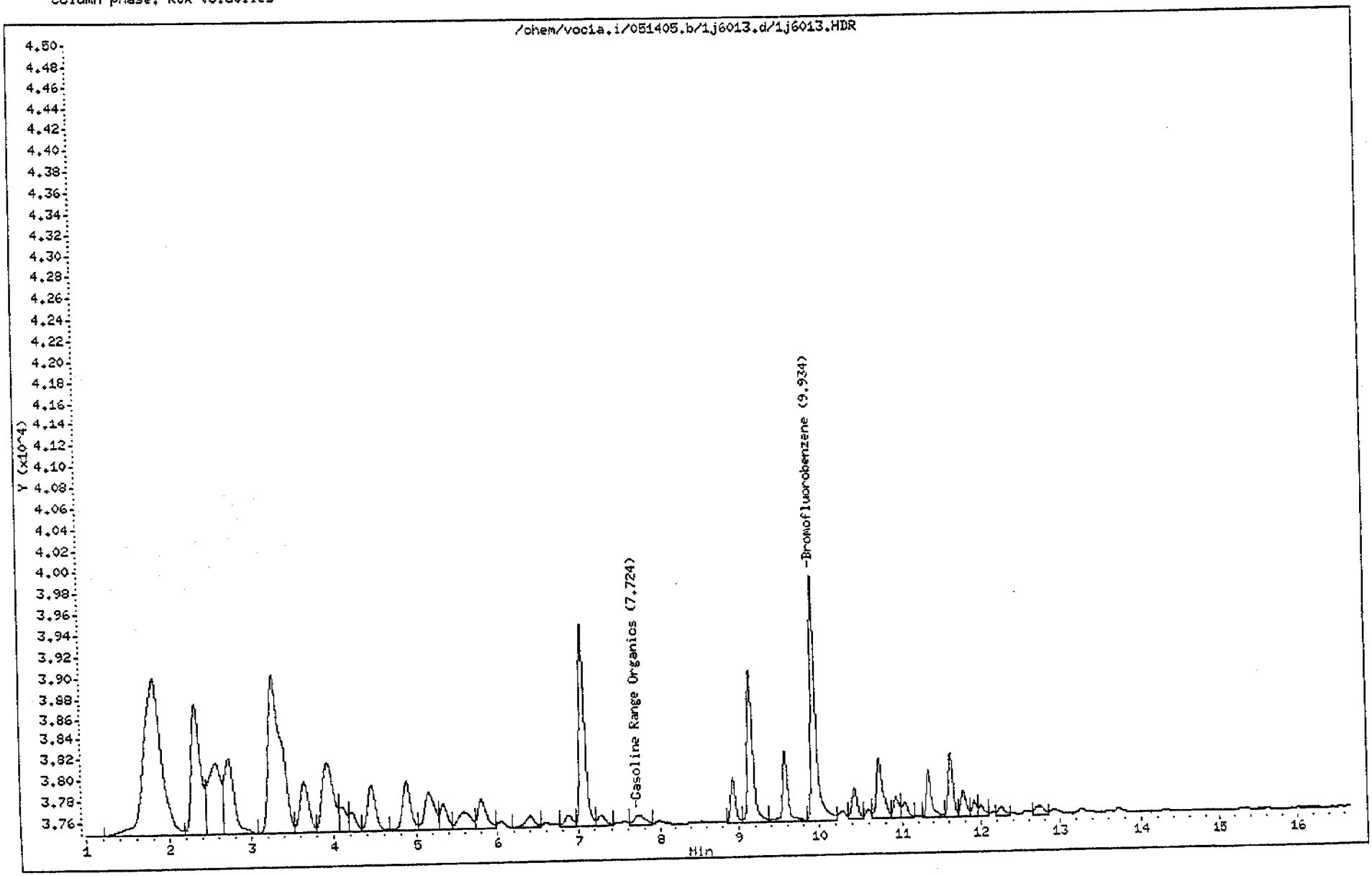

General Engineering Laboratories, LLC

SW-846 3rd edition 8015 Modified

Data file : /chem/vocla.i/upload.b/1j6014.d
Lab Smp Id: 1200846635 — Client Smp ID: RE03-05-59531MSD
Inj Date : 14-MAY-2005 17:54
Operator : ACJ — Inst ID: vocla.i
Smp Info : |1200846635|1|
Misc Info : |VOC8015_SF|425588|GROF|
Comment : FID
Method : /chem/vocla.i/051405.b/8015GRO-050905.m
Meth Date : 16-May-2005 15:16 amj — Quant Type: ESTD
Cal Date : 09-MAY-2005 21:08 — Cal File: 1j1010.d
Als bottle: 1 — QC Sample: MSD
Dil Factor: 1.00000
Integrator: HP Genie — Compound Sublist: GRO.sub
Target Version: 3.50 — Sample Matrix: SOIL

Concentration Formula: Amt * DF * (100/(100-M)*(Vt/Ws))*Uf * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	15.93160	% Moisture
Vt	5.00000	Purge Volume (mL)
Ws	5.00000	Weight of sample (g)
Uf	1.00000	Unit Correction Factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable — Local Compound Variable

NCR spike failure

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	
$ 1 Gasoline Range Organics					CAS #: 294	(R)
3.234	12.215		916951	247.289		
$ 3 Bromofluorobenzene					CAS #: 460-00-4	
9.943	9.957	-0.014	121986	32.5477	38.7	

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

ACJ 05/18/05

Data File: /chem/vocla.i/upload.b/1j6014.d
Report Date: 18-May-2005 15:17

General Engineering Laboratories, LLC

RECOVERY REPORT

Client Name:
Sample Matrix: SOLID
Lab Smp Id: 1200846635
Level: LOW
Data Type: GC DATA
SpikeList File: GROSOIL.spk
Sublist File: GRO.sub
Method File: /chem/vocla.i/051405.b/8015GRO-050905.m
Misc Info: |VOC8015_SF|425588|GROF|

Client SDG: 3194S
Fraction: VOA
Client Smp ID: RE03-05-59531MSD
Operator: ACJ
SampleType: MSD
Quant Type: ESTD

SPIKE COMPOUND	CONC ADDED ug/Kg	CONC RECOVERED ug/Kg	% RECOVERED	LIMITS
S 1 Gasoline Range Org	595	294	49.43*	51-130

SURROGATE COMPOUND	CONC ADDED ug/Kg	CONC RECOVERED ug/Kg	% RECOVERED	LIMITS
$ 3 Bromofluorobenzene	59.5	38.7	65.10	58-124

Data File: /chem/voc1a.i/upload.b/1j6014.d
Date : 14-MAY-2005 17:54
Client ID: RE03-05-59531MSD
Sample Info: |120084663511|

Column phase: Rtx-Volatiles

Instrument: voc1a.i

Operator: ACJ
Column diameter: 0.25

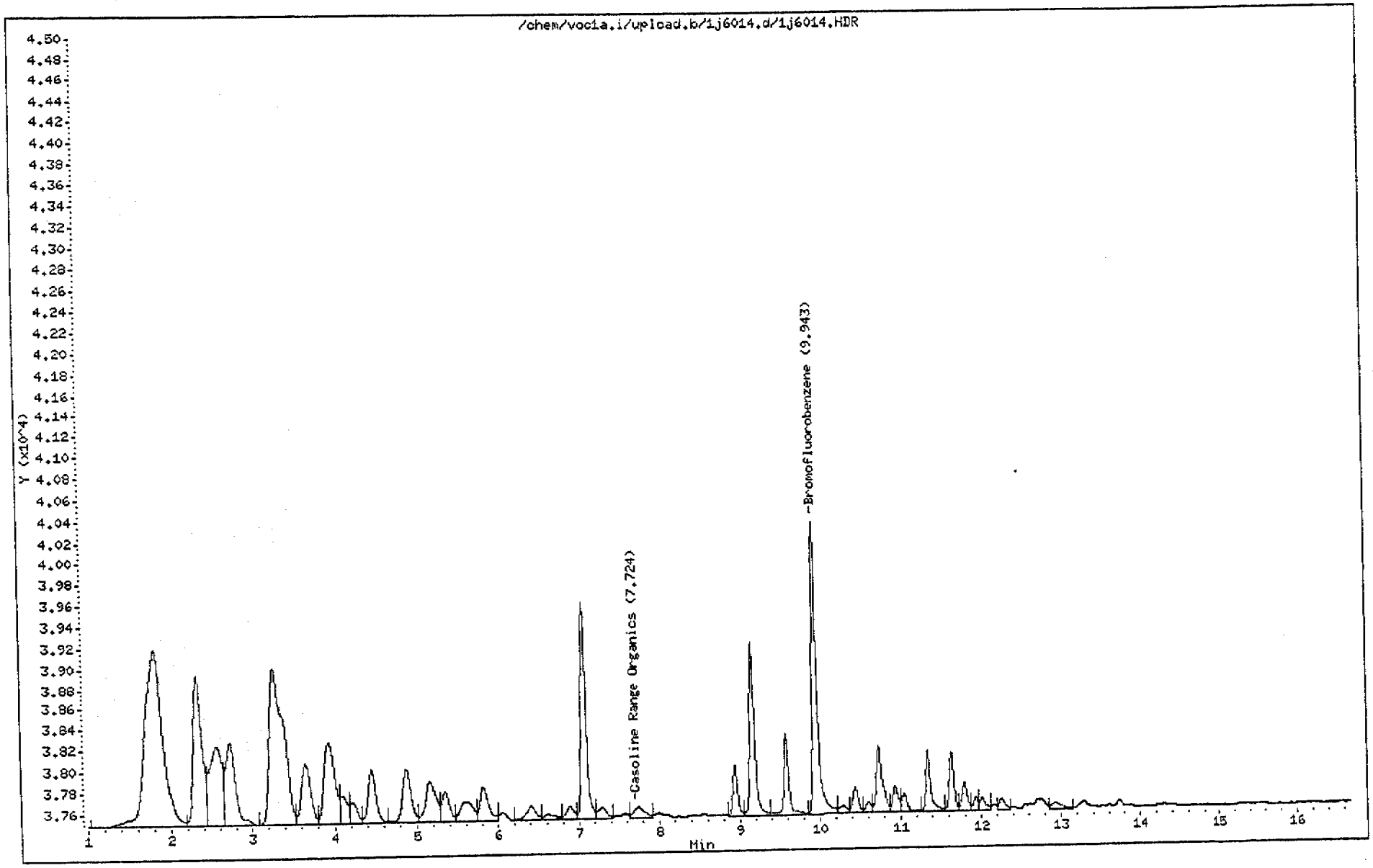

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GC SEMIVOLATILE PCB ANALYSIS

PCB Case Narrative
Los Alamos National Laboratory (LANL)
SDG 3202S

Method/Analysis Information

Procedure:	Polychlorinated Biphenyls by ECD
Analytical Method:	SW846 8082
Prep Method:	SW846 3550B
Analytical Batch Number:	423332
Prep Batch Number:	423330

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 8082:

Sample ID	Client ID
135831001	RE03-05-58926
135831002	RE03-05-58927
135831003	RE03-05-59557
135831004	RE03-05-59558
1200841140	Method Blank (MB)
1200841141	Laboratory Control Sample (LCS)
1200841151	135831001(RE03-05-58926) Matrix Spike (MS)
1200841152	135831001(RE03-05-58926) Matrix Spike Duplicate (MSD)

Preparation/Analytical Method Verification

Procedures for preparation, analysis, and reporting of analytical data are documented by General Engineering Laboratories, LLC. (GEL) as Standard Operating Procedures (SOP).

Calibration Information

Initial Calibration
All initial calibration requirements have been met for this sample delivery group (SDG).

Continuing Calibration Verification (CCV) Requirements
All calibration verification standards (CVS, ICV, or CCV) requirements have not been met for this SDG.

Two of five peaks failed with a negative bias on one analytical column in the Aroclor-1254 standard analyzed on 05/11/05 at 1428; however, the average amount of the five peaks met the acceptance criteria.

One or more of five peaks failed with a negative bias on one analytical column in the Aroclor-1016 and Aroclor-1260 standards analyzed on 05/12/05 at 0017 and at 1902; however, the average amount of the five peaks met the acceptance criteria.

Aroclor-1260 failed acceptance criteria with a negative bias on one analytical column in the standards bracketing the samples in this SDG. The negative bias for the analytical data is a result of instrument response decreasing after the initial calibration. All samples with results greater than the PQL were re-analyzed and the bracketing standard failed in the same manner; therefore, the standard failure is attributed to matrix interference.

Decachlorobiphenyl (DCB) surrogate failed acceptance criteria in the standard bracketing the samples in this SDG. However, this non-compliance has no adverse effects on the data.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB(s) analyzed with this SDG met the acceptance criteria.

Surrogate Recoveries
Samples 1200841151 (RE03-05-58926MS), 1200841152 (RE03-05-58926MSD), and 135831001 (RE03-05-58926) failed to meet the surrogate recovery acceptance criteria. Since the MS and MSD were performed on this sample and failed in the same manner, this failure is attributed to sample matrix interference and the data is reported as is. Samples 135831002 (RE03-05-58927), 135831003 (RE03-05-59557) and 135831004 (RE03-05-59558) did not meet the surrogate recovery acceptance criteria due to dilution.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

QC Sample Designation
Sample 135831001 (RE03-05-58926) was selected for the matrix spike and matrix spike duplicate analysis.

Matrix Spike (MS) Recovery Statement
The MS recoveries for this SDG were within the established acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recoveries for this SDG were within the established acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD(s) between the MS and MSD met the acceptance limits.

Technical Information

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP. All sample extracts were cleaned using alumina.

Sample Dilutions
Samples 1200841151 (RE03-05-58926MS), 1200841152 (RE03-05-58926MSD), 135831001 (RE03-05-58926), 135831002 (RE03-05-58927), 135831003 (RE03-05-59557) and 135831004 (RE03-05-59558) were diluted at 1:10 due to the oily matrix of the extracts.

Sample Re-extraction/Re-analysis
Re-extractions or re-analyses were not required in this SDG.

Miscellaneous Information

Electronic Package Comment

The following package was generated using an electronic data processing program referred to as "virtual packaging". In an effort to increase quality and efficiency, the laboratory is developing systems to eventually generate all data packages electronically. The following change from "traditional" packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. An electronic signature page inserted after the case narrative of each electronic package will indicate the analyst, reviewer, and report specialist names associated with the generation of the data and package. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Nonconformance (NCR) Documentation
Nonconformance reports (NCRs) are for documentation of any procedural anomalies that may deviate from referenced SOP or contractual document. A NCR was not required for this SDG.

Manual Integrations
Certain standards and samples may have required manual integrations to correctly position the baseline as set in the calibration standard injections. If manual integrations were performed, copies of all manual integration peak profiles are included in the raw data section of this PCB fraction.

Additional Comments
The additional comments field is used to address special issues associated with each analysis, clarify method/contractual issues pertaining to the analysis, and to list any report documents generated as a result of sample analysis or review. The following additional comments were required:

The higher results from either column has been chosen and reported in the data package.

Aroclors quantitated on the raw data report by the Target data system do not necessarily represent a positive aroclor identification. In order for positive identification to be made, the aroclor must match in pattern and retention time; as well as quantitate relatively close between the primary and confirmation columns, as specified in SW846 method 8000. When these conditions are not met, the aroclor is reported as a non-detect on the data report. These situations will be noted on the raw data as DMP, representing does not match pattern, or DNC does not confirm.

Due to software limitation, the Form VIIs will display the results either in the % difference or % drift depending on the type of the calibration curve. If the curve of all analytes is generated using an average response factor (RF), the Form VII will display results using the %difference calculation (RF). If the curve of one or more analytes is generated using a linear curve, the Form VII will display results using the % drift calculation (by concentration) for all analytes.

System Configuration

The Semi-Volatiles-PCB analysis was performed on a HP Gas Chromatograph.

Instrument ID	System Configuration	Column ID	Column Description
ECD8A.I_1	HP6890 Series ECD	Rtx-CLP I	30m x 0.25mm, 0.25um (Rtx-CLPesticide I)
ECD8A.I_2	HP6890 Series ECD	Rtx-CLP II	30m x 0.25mm, 0.20um (Rtx-CLPesticide II)

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: _____ Date: 5/19/15

Roadmap for LANL 3202S PCB

This roadmap was analyzed by Jared Wagner on 05-13-2005, 15:38.
This roadmap was reviewed by Gwen Hallquist on 05-13-2005, 18:37.
This roadmap was packaged by Yvette Lampkin on 05-17-2005, 10:42.

Front Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd8a.i/051105.b/045f4501.d	135831001	sample	11-MAY-2005	23:03	3202S.sub	RE03-05-58926	10.00000	423332	UPLOAD BOTH USE HIGHER
■	N	/chem/ecd8a.i/051105.b/049f4901.d	135831002	sample	11-MAY-2005	23:52	3202S.sub	RE03-05-58927	10.00000	423332	DUSE INJECTED VIAL 49 TWICE
☐	N	/chem/ecd8a.i/051105.b/048f4801.d	135831002	sample	11-MAY-2005	23:40	3202S.sub	RE03-05-58927	10.00000	423332	UPLOAD BOTH USE HIGHER
☐	N	/chem/ecd8a.i/051205.b/026f2601.d	135831003	sample	12-MAY-2005	18:49	3202S.sub	RE03-05-59557	10.00000	423332	UPLOAD BOTH USE HIGHER
■	N	/chem/ecd8a.i/051105.b/050f5001.d	135831004	sample	12-MAY-2005	00:04	3202S.sub	RE03-05-59558	1.00000	423332	DUSE DILUTION NEEDED
☐	N	/chem/ecd8a.i/051205.b/017f1701.d	135831004	sample	12-MAY-2005	16:59	3202S.sub	RE03-05-59558	10.00000	423332	UPLOAD BOTH USE HIGHER

Back Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd8a.i/051105.b/045b4501.d	135831001	sample	11-MAY-2005	23:03	3202S.sub	RE03-05-58926	10.00000	423332	UPLOAD BOTH USE HIGHER
■	N	/chem/ecd8a.i/051105.b/049b4901.d	135831002	sample	11-MAY-2005	23:52	3202S.sub	RE03-05-58927	10.00000	423332	DUSE INJECTED VIAL 49 TWICE
☐	N	/chem/ecd8a.i/051105.b/048b4801.d	135831002	sample	11-MAY-2005	23:40	3202S.sub	RE03-05-58927	10.00000	423332	UPLOAD BOTH USE HIGHER
☐	N	/chem/ecd8a.i/051205.b/026b2601.d	135831003	sample	12-MAY-2005	18:49	3202S.sub	RE03-05-59557	10.00000	423332	UPLOAD BOTH USE HIGHER
■	N	/chem/ecd8a.i/051105.b/050b5001.d	135831004	sample	12-MAY-2005	00:04	3202S.sub	RE03-05-59558	1.00000	423332	DUSE DILUTION NEEDED
☐	N	/chem/ecd8a.i/051205.b/017b1701.d	135831004	sample	12-MAY-2005	16:59	3202S.sub	RE03-05-59558	10.00000	423332	UPLOAD BOTH USE HIGHER

Front QC Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd8a.i/051105.b/043f4301.d	1200841140	mb	11-MAY-2005	22:39	3202S.sub	PBLK01	1.00000	423332	UPLOAD BOTH USE HIGHER
☐	N	/chem/ecd8a.i/051105.b/044f4401.d	1200841141	lcs	11-MAY-2005	22:51	3202S.sub	PBLK01LCS	1.00000	423332	UPLOAD BOTH USE HIGHER
☐	N	/chem/ecd8a.i/051105.b/046f4601.d	1200841151	ms	11-MAY-2005	23:15	3202S.sub	RE03-05-58926MS	10.00000	423332	UPLOAD BOTH USE HIGHER
☐	N	/chem/ecd8a.i/051105.b/047f4701.d	1200841152	msd	11-MAY-2005	23:28	3202S.sub	RE03-05-58926MSD	10.00000	423332	UPLOAD BOTH USE HIGHER

Back QC Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd8a.i/051105.b/043b4301.d	1200841140	mb	11-MAY-2005	22:39	3202S.sub	PBLK01	1.00000	423332	UPLOAD BOTH USE HIGHER
☐	N	/chem/ecd8a.i/051105.b/044b4401.d	1200841141	lcs	11-MAY-2005	22:51	3202S.sub	PBLK01LCS	1.00000	423332	UPLOAD BOTH USE HIGHER
☐	N	/chem/ecd8a.i/051105.b/046b4601.d	1200841151	ms	11-MAY-2005	23:15	3202S.sub	RE03-05-58926MS	10.00000	423332	UPLOAD BOTH USE HIGHER

☐	N	/chem/ccd8a.i/051105.b/047b4701.d	1200841152	msd	11-MAY-2005	23:28	3202S.sub	RE03-05-58926MSD	10.00000	423332	UPLOAD BOTH USE HIGHER

SAMPLE DATA SUMMARY

1D
PCB ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-58926

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Matrix: (soil/water) SOIL Lab Sample ID: 135831001

Sample wt/vol: 30.0 (g/mL) G Lab File ID: 045F4501

% Moisture: 6 decanted: (Y/N) N Date Received: 05/05/05

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 05/09/05

Concentrated Extract Volume: 1.00(mL) Date Analyzed: 05/11/05

Injection Volume: 1.0(uL) Dilution Factor: 10.0

GPC Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
12674-11-2	Aroclor-1016	35.4	U
11104-28-2	Aroclor-1221	35.4	U
11141-16-5	Aroclor-1232	35.4	U
53469-21-9	Aroclor-1242	35.4	U
12672-29-6	Aroclor-1248	35.4	U
11097-69-1	Aroclor-1254	11.9	J
11096-82-5	Aroclor-1260	35.4	U

1D
PCB ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-58927

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Matrix: (soil/water) SOIL Lab Sample ID: 135831002

Sample wt/vol: 30.0 (g/mL) G Lab File ID: 048F4801

% Moisture: 9 decanted: (Y/N) N Date Received: 05/05/05

Extraction: (SepF/Cont/Sonc) SONC Date Extracted:05/09/05

Concentrated Extract Volume: 1.00(mL) Date Analyzed: 05/11/05

Injection Volume: 1.0(uL) Dilution Factor: 10.0

GPC Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
12674-11-2	Aroclor-1016	36.6	U
11104-28-2	Aroclor-1221	36.6	U
11141-16-5	Aroclor-1232	36.6	U
53469-21-9	Aroclor-1242	36.6	U
12672-29-6	Aroclor-1248	36.6	U
11097-69-1	Aroclor-1254	18.8	J
11096-82-5	Aroclor-1260	36.6	U

1D
PCB ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-59557

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Matrix: (soil/water) SOIL Lab Sample ID: 135831003

Sample wt/vol: 30.0 (g/mL) G Lab File ID: 026F2601

% Moisture: 9 decanted: (Y/N) N Date Received: 05/05/05

Extraction: (SepF/Cont/Sonc) SONC Date Extracted:05/09/05

Concentrated Extract Volume: 1.00(mL) Date Analyzed: 05/12/05

Injection Volume: 1.0(uL) Dilution Factor: 10.0

GPC Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
12674-11-2	Aroclor-1016	36.5	U
11104-28-2	Aroclor-1221	36.5	U
11141-16-5	Aroclor-1232	36.5	U
53469-21-9	Aroclor-1242	36.5	U
12672-29-6	Aroclor-1248	36.5	U
11097-69-1	Aroclor-1254	135	
11096-82-5	Aroclor-1260	32.4	J

FORM I PEST OLM03.0

1D
PCB ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-59558

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Matrix: (soil/water) SOIL Lab Sample ID: 135831004

Sample wt/vol: 30.0 (g/mL) G Lab File ID: 017F1701

% Moisture: 7 decanted: (Y/N) N Date Received: 05/05/05

Extraction: (SepF/Cont/Sonc) SONC Date Extracted:05/09/05

Concentrated Extract Volume: 1.00(mL) Date Analyzed: 05/12/05

Injection Volume: 1.0(uL) Dilution Factor: 10.0

GPC Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
12674-11-2	Aroclor-1016	35.9	U
11104-28-2	Aroclor-1221	35.9	U
11141-16-5	Aroclor-1232	35.9	U
53469-21-9	Aroclor-1242	35.9	U
12672-29-6	Aroclor-1248	35.9	U
11097-69-1	Aroclor-1254	99.7	
11096-82-5	Aroclor-1260	44.5	

FORM I PEST OLM03.0

QUALITY CONTROL SUMMARY

2F
SOIL PCB SURROGATE RECOVERY

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

GC Column(1): CLP1 ID: 0.25 (mm) GC Column(2): CLP2 ID: 0.25 (mm)

	EPA SAMPLE NO.	S1 1 %REC #	S1 2 %REC #	DCB 1 %REC #	DCB 2 %REC #	OTHER (1)	OTHER (2)	TOT OUT
01	PBLK01	73	76	88	85			0
02	PBLK01LCS	69	72	84	80			0
03	RE03-05-58926	55D	46D	32D	32D			0
04	RE03-05-58926MS	69	59	39D	38D			0
05	RE03-05-58926MSD	68	59	38D	37D			0
06	RE03-05-58927	59	42D	32D	25D			0
07	RE03-05-59558	82	75	49D	43D			0
08	RE03-05-59557	64	56D	41D	44D			0
09								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								

ADVISORY
QC LIMITS

S1 = 4cmx (58-106)
S2 (DCB) = Decachlorobiphenyl (55-115)

Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out

3F
SOIL PCB LAB CONTROL SAMPLE

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Matrix Spike - EPA Sample No.: PBLK01

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC #	QC. LIMITS REC.
Aroclor-1016	33.3	0.0	24.1	72	57-112
Aroclor-1260	33.3	0.0	26.3	79	60-126

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 0 outside limits
Spike Recovery: 0 out of 2 outside limits

COMMENTS: _____

3F

SOIL PCB MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Matrix Spike - EPA Sample No.: RE03-05-5892

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC #	QC. LIMITS REC.
Aroclor-1016	35.4	0.0	27.2	77	27-152
Aroclor-1260	35.4	0.0	24.2	68	32-144

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Aroclor-1016	35.4	28.5	80	4	30	27-152
Aroclor-1260	35.4	26.6	75	10	30	32-144

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 2 outside limits
Spike Recovery: 0 out of 4 outside limits

COMMENTS: _____

4C

PCB METHOD BLANK SUMMARY

EPA SAMPLE NO.

PBLK01

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Lab Sample ID: 1200841140 Lab File ID: 043F4301

Matrix (soil/water) SOIL Extraction:(SepF/Cont/Sonc) SONC

Sulfur Cleanup (Y/N) Y Date Extracted: 05/09/05

Date Analyzed (1): 05/11/05 Date Analyzed (2): 05/11/05

Time Analyzed (1): 2239 Time Analyzed (2): 2239

Instrument ID (1): ECD8A Instrument ID (2): ECD8A

GC Column (1): CLP1 ID: 0.25(mm) GC Column (2): CLP2 ID: 0.25(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
01	PBLK01LCS	1200841141	05/11/05	05/11/05
02	RE03-05-58926	135831001	05/11/05	05/11/05
03	RE03-05-58926MS	1200841151	05/11/05	05/11/05
04	RE03-05-58926MSD	1200841152	05/11/05	05/11/05
05	RE03-05-58927	135831002	05/11/05	05/11/05
06	RE03-05-59558	135831004	05/12/05	05/12/05
07	RE03-05-59557	135831003	05/12/05	05/12/05
08				
09				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				

SAMPLE DATA

1D
PCB ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-58926

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Matrix: (soil/water) SOIL Lab Sample ID: 135831001

Sample wt/vol: 30.0 (g/mL) G Lab File ID: 045F4501

% Moisture: 6 decanted: (Y/N) N Date Received: 05/05/05

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 05/09/05

Concentrated Extract Volume: 1.00(mL) Date Analyzed: 05/11/05

Injection Volume: 1.0(uL) Dilution Factor: 10.0

GPC Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
12674-11-2	Aroclor-1016	35.4	U
11104-28-2	Aroclor-1221	35.4	U
11141-16-5	Aroclor-1232	35.4	U
53469-21-9	Aroclor-1242	35.4	U
12672-29-6	Aroclor-1248	35.4	U
11097-69-1	Aroclor-1254	11.9	J
11096-82-5	Aroclor-1260	35.4	U

General Engineering Laboratories, LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/051105.b/045f4501.d
Lab Smp Id: 135831001 Client Smp ID: RE03-05-58926
Inj Date : 11-MAY-2005 23:03
Operator : JMW1 Inst ID: ecd8a.i
Smp Info : |135831001|10|
Misc Info : |ECD82P_1SF|423332|SVAF|LANL|SOIL|RE03-05-58926|||
Comment :
Method : /chem/ecd8a.i/051105.b/ECD8-F-8082-050905.m
Meth Date : 12-May-2005 11:06 jar00935 Quant Type: ESTD
Cal Date : 06-APR-2005 12:43 Cal File: 013f1301.d
Als bottle: 45
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: 3202S.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	10.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	5.87600	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.868	1.864	0.004	2258605	11.0340	3.9	80.00- 120.00	100.00(R)
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.760	5.758	0.002	1476371	6.38883	2.3	80.00- 120.00	100.00(R)
6 Aroclor-1254					CAS #: 11097-69-1		
3.575	3.575	0.000	251694	26.3799	9.3	80.00- 120.00	100.00(aM)
3.766	3.768	-0.002	217599	30.9699	11.0	53.25- 93.25	86.45
3.851	3.853	-0.002	503572	41.2207	14.6	103.24- 143.24	200.07
3.978	3.978	0.000	0			32.53- 72.53	0.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
6 Aroclor-1254 (continued)							
4.043	4.045	-0.002	226996	26.6727	9.4	69.99- 109.99	90.19
			Average of Peak Concentrations =		11.1		

QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Data File: /chem/ecd8a.i/051105.b/045f4501.d

Date : 11-MAY-2005 23:03

Client ID: RE03-05-58926

Sample Info: |135831001|10|

Volume Injected (uL): 1.0

Column phase: CLP1

Instrument: ecd8a.i

Operator: JMW1

Column diameter: 0.25

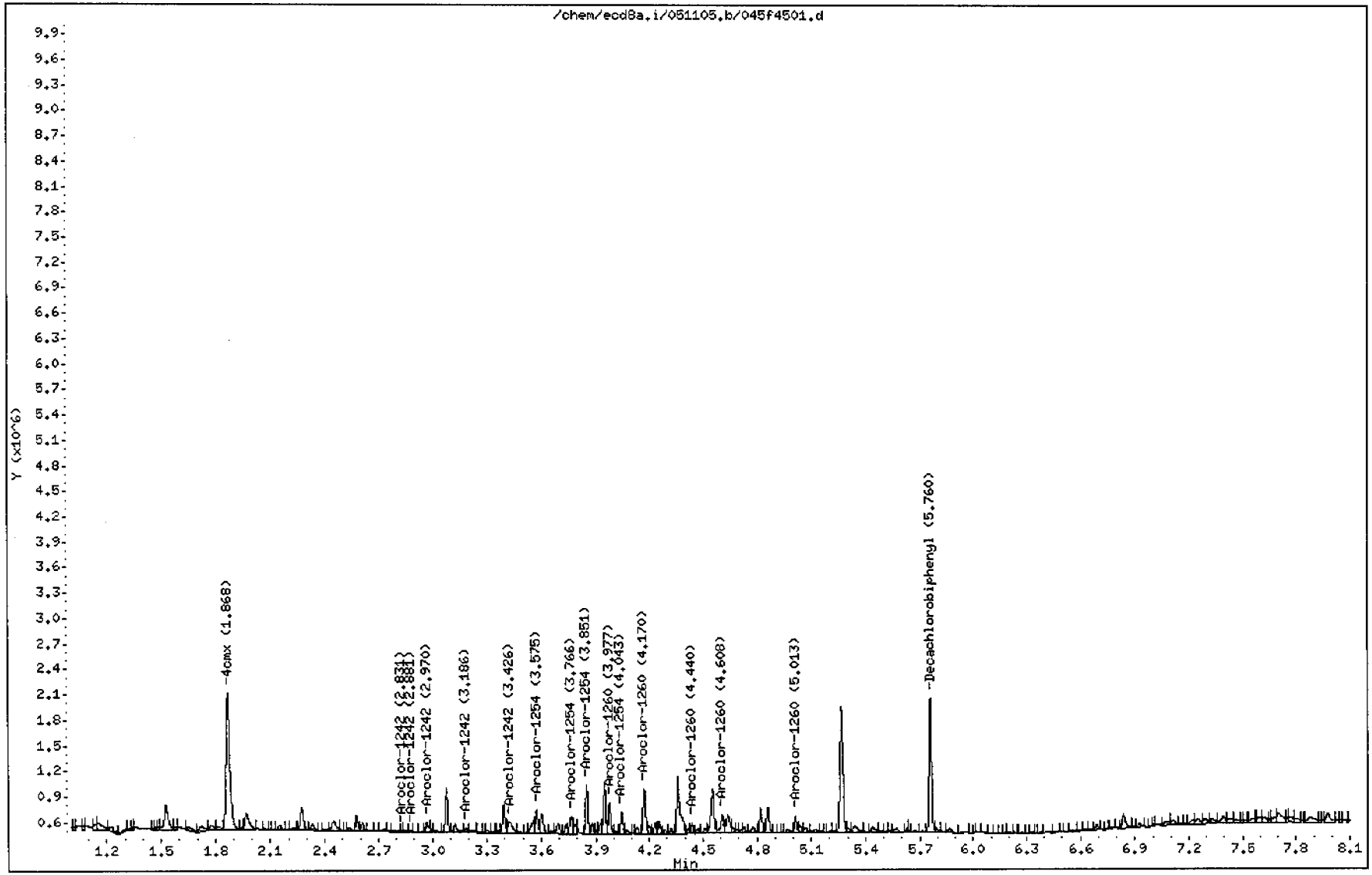

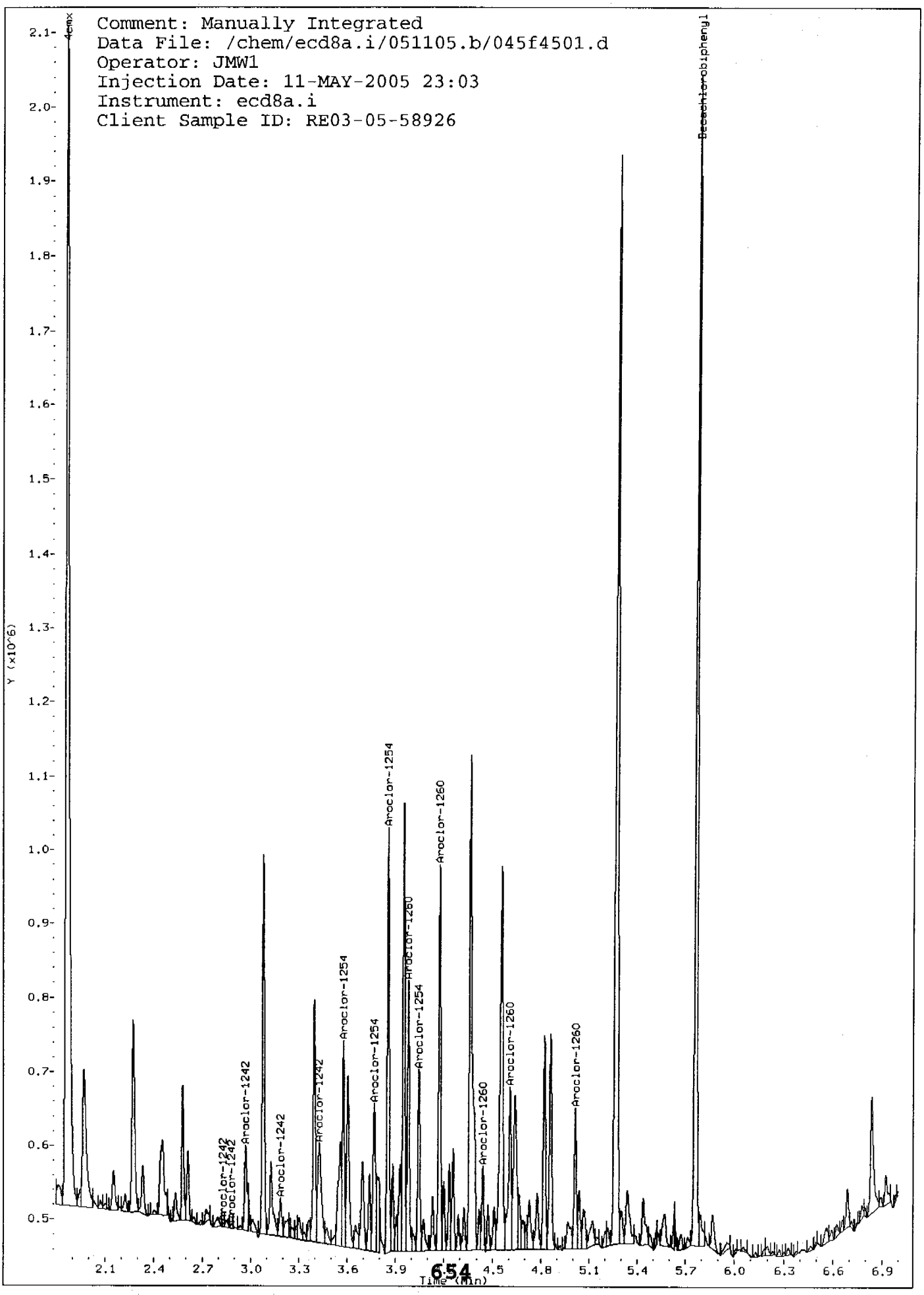
Comment: Manually Integrated
Data File: /chem/ecd8a.i/051105.b/045f4501.d
Operator: JMW1
Injection Date: 11-MAY-2005 23:03
Instrument: ecd8a.i
Client Sample ID: RE03-05-58926
4cmx
Decachlorobiphenyl
Aroclor-1242
Aroclor-1254
Aroclor-1260
Y (x10^6)
Time (Min)
6.54

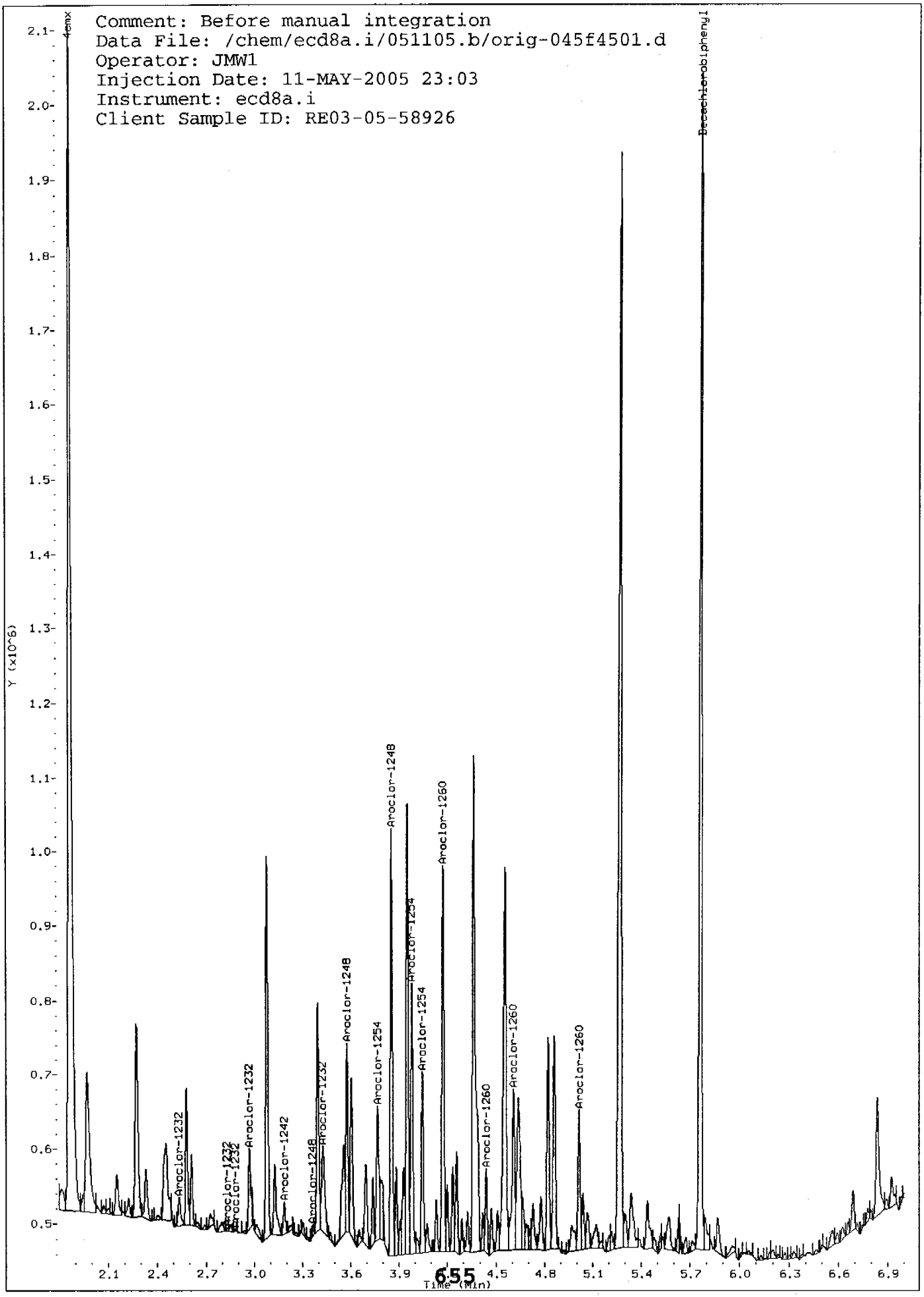
Comment: Before manual integration
Data File: /chem/ecd8a.i/051105.b/orig-045f4501.d
Operator: JMW1
Injection Date: 11-MAY-2005 23:03
Instrument: ecd8a.i
Client Sample ID: RE03-05-58926
Decachlorobiphenyl
Aroclor-1232
Aroclor-1242
Aroclor-1248
Aroclor-1254
Aroclor-1260
Y (x10^6)
Time (Min)

General Engineering Laboratories, LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/051105.b/045b4501.d
Lab Smp Id: 135831001 Client Smp ID: RE03-05-58926
Inj Date : 11-MAY-2005 23:03
Operator : JMW1 Inst ID: ecd8a.i
Smp Info : |135831001|10|
Misc Info : |ECD82P_1SF|423332|SVAF|LANL|SOIL|RE03-05-58926|||
Comment :
Method : /chem/ecd8a.i/051105.b/ECD8-B-8082-050905.m
Meth Date : 12-May-2005 11:07 jar00935 Quant Type: ESTD
Cal Date : 06-APR-2005 12:43 Cal File: 013b1301.d
Als bottle: 45
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: 3202S.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	10.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	5.87600	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.196	2.193	0.003	6875927	9.44833	3.3	80.00- 120.00	100.00(R)
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.477	6.476	0.001	3261719	6.48706	2.3	80.00- 120.00	100.00(R)
6 Aroclor-1254					CAS #: 11097-69-1		
3.988	3.987	0.001	792021	33.5125	11.9	80.00- 120.00	100.00(a)
4.123	4.123	0.000	851964	33.6023	11.9	84.83- 124.83	107.57
4.365	4.367	-0.002	600756	33.5480	11.9	53.70- 93.70	75.85
4.448	4.448	0.000	0			118.96- 158.96	0.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
6 Aroclor-1254 (continued)							
4.609	4.609	0.000	0			76.93- 116.93	0.00

Average of Peak Concentrations = 11.9

QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
R - Spike/Surrogate failed recovery limits.

Data File: /chem/ecd8a.i/051105.b/045b4501.d
Date : 11-MAY-2005 23:03
Client ID: RE03-05-58926
Sample Info: 1135831001101
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd8a.i
Operator: JMM1
Column diameter: 0.25

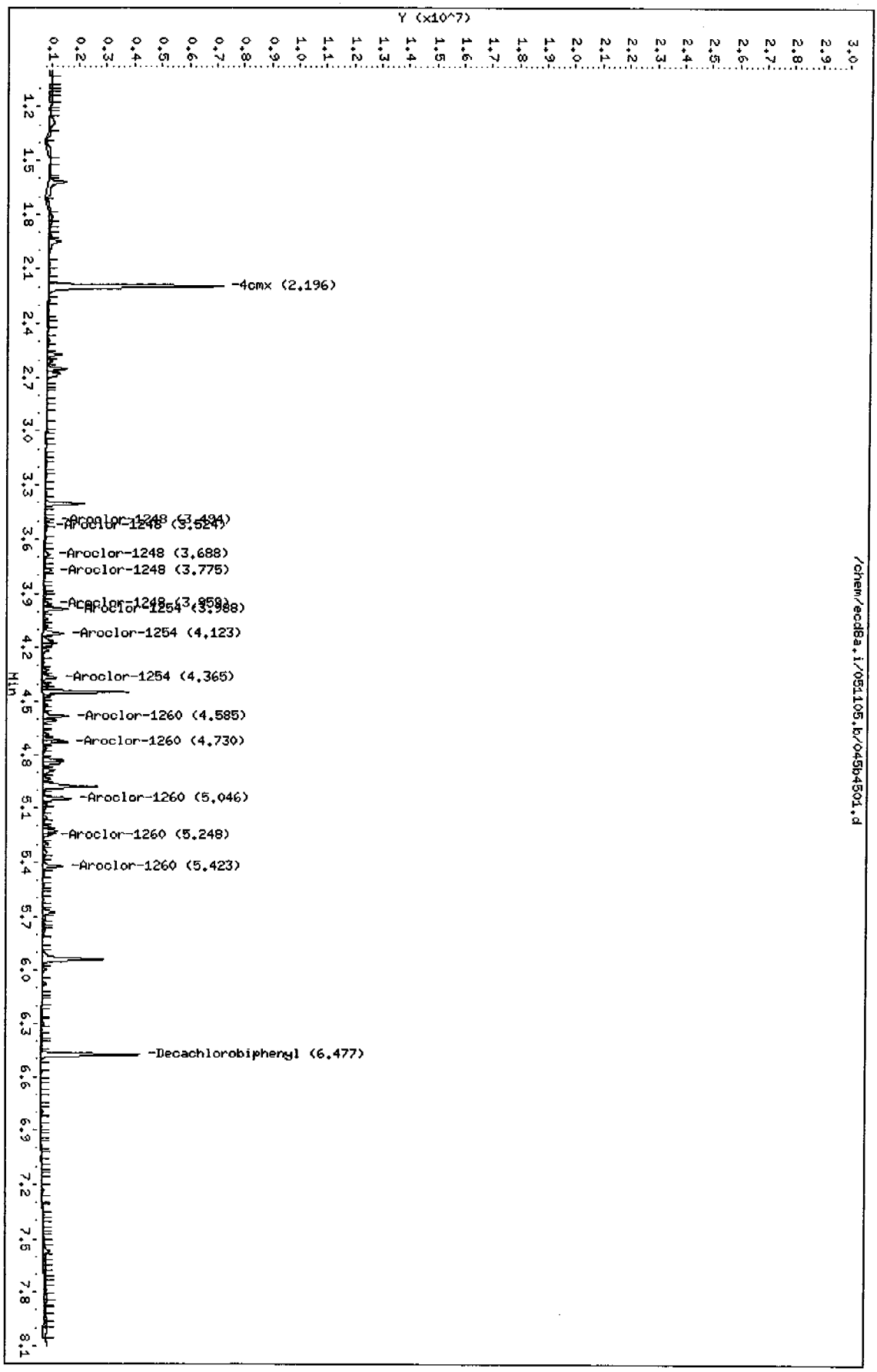

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PCB ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-58927

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Matrix: (soil/water) SOIL Lab Sample ID: 135831002

Sample wt/vol: 30.0 (g/mL) G Lab File ID: 048F4801

% Moisture: 9 decanted: (Y/N) N Date Received: 05/05/05

Extraction: (SepF/Cont/Sonc) SONC Date Extracted:05/09/05

Concentrated Extract Volume: 1.00(mL) Date Analyzed: 05/11/05

Injection Volume: 1.0(uL) Dilution Factor: 10.0

GPC Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
12674-11-2------	Aroclor-1016	36.6	U
11104-28-2------	Aroclor-1221	36.6	U
11141-16-5------	Aroclor-1232	36.6	U
53469-21-9------	Aroclor-1242	36.6	U
12672-29-6------	Aroclor-1248	36.6	U
11097-69-1------	Aroclor-1254	18.8	J
11096-82-5------	Aroclor-1260	36.6	U

General Engineering Laboratories, LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/051105.b/048f4801.d
Lab Smp Id: 135831002 Client Smp ID: RE03-05-58927
Inj Date : 11-MAY-2005 23:40
Operator : JMW1 Inst ID: ecd8a.i
Smp Info : |135831002|10|
Misc Info : |ECD82P_1SF|423332|SVAF|LANL|SOIL|RE03-05-58927|||
Comment :
Method : /chem/ecd8a.i/051105.b/ECD8-F-8082-050905.m
Meth Date : 12-May-2005 11:06 jar00935 Quant Type: ESTD
Cal Date : 06-APR-2005 12:43 Cal File: 013f1301.d
Als bottle: 48
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: 3202S.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	10.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	9.03700	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.869	1.864	0.005	2381535	11.6346	4.3	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.771	5.758	0.013	1443734	6.24760	2.3	80.00- 120.00	100.00(R)
6 Aroclor-1254					CAS #: 11097-69-1		
3.577	3.575	0.002	468019	49.0527	18.0	80.00- 120.00	100.00(aM)
3.767	3.768	-0.001	418136	59.5115	21.8	53.25- 93.25	89.34
3.853	3.853	0.000	0			103.24- 143.24	0.00
3.978	3.978	0.000	0			32.53- 72.53	0.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
6 Aroclor-1254 (continued)							
4.046	4.045	0.001	382601	44.9568	16.5	69.99- 109.99	81.75
		Average of Peak Concentrations =			18.8		

QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Data File: /chem/ecd8a.i/051105.b/048f4801.d

Date : 11-MAY-2005 23:40

Client ID: RE03-05-58927

Sample Info: |135831002|10|

Volume Injected (uL): 1.0

Column phase: CLP1

Instrument: ecd8a.i

Operator: JHW1

Column diameter: 0.25

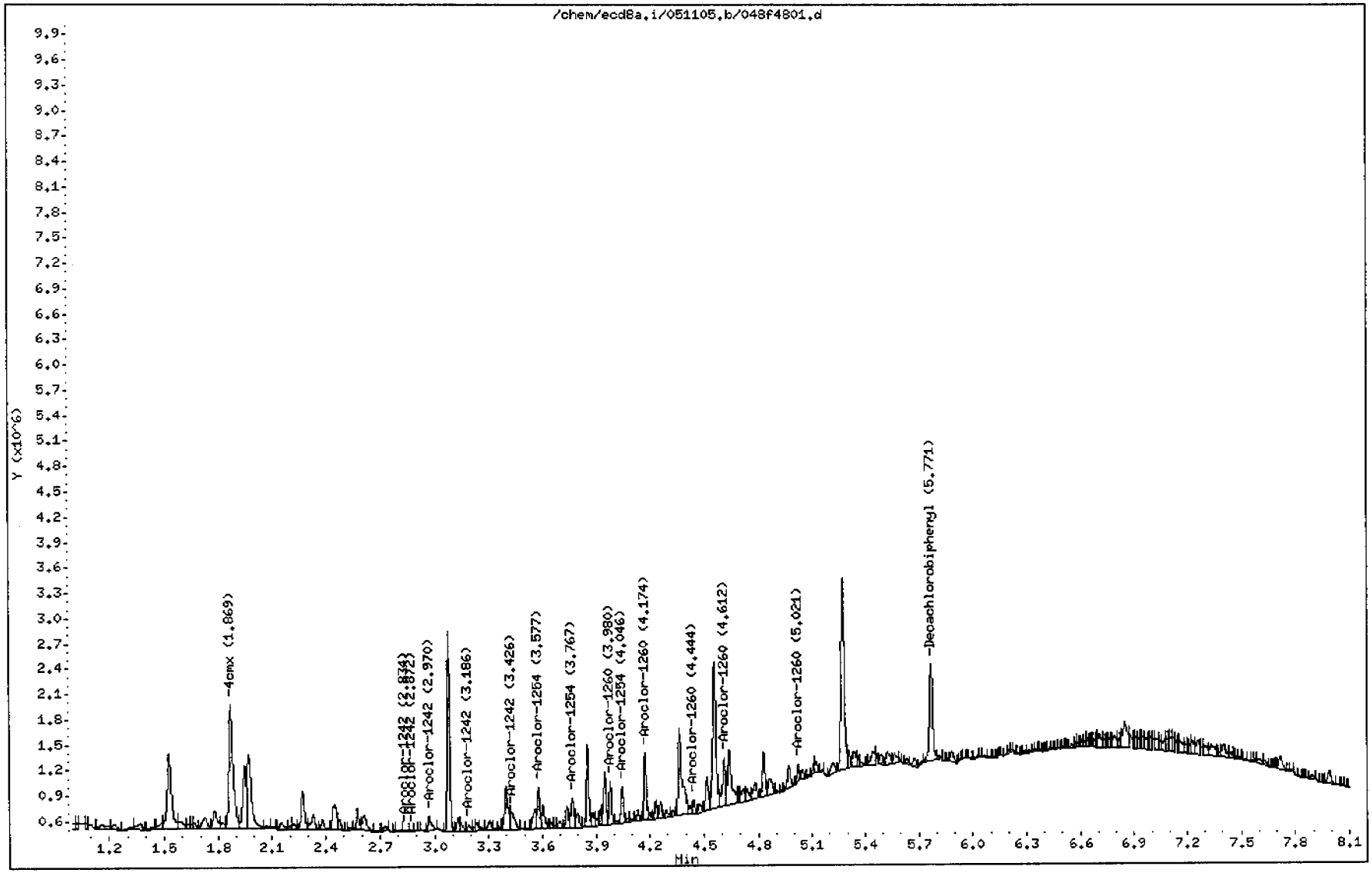

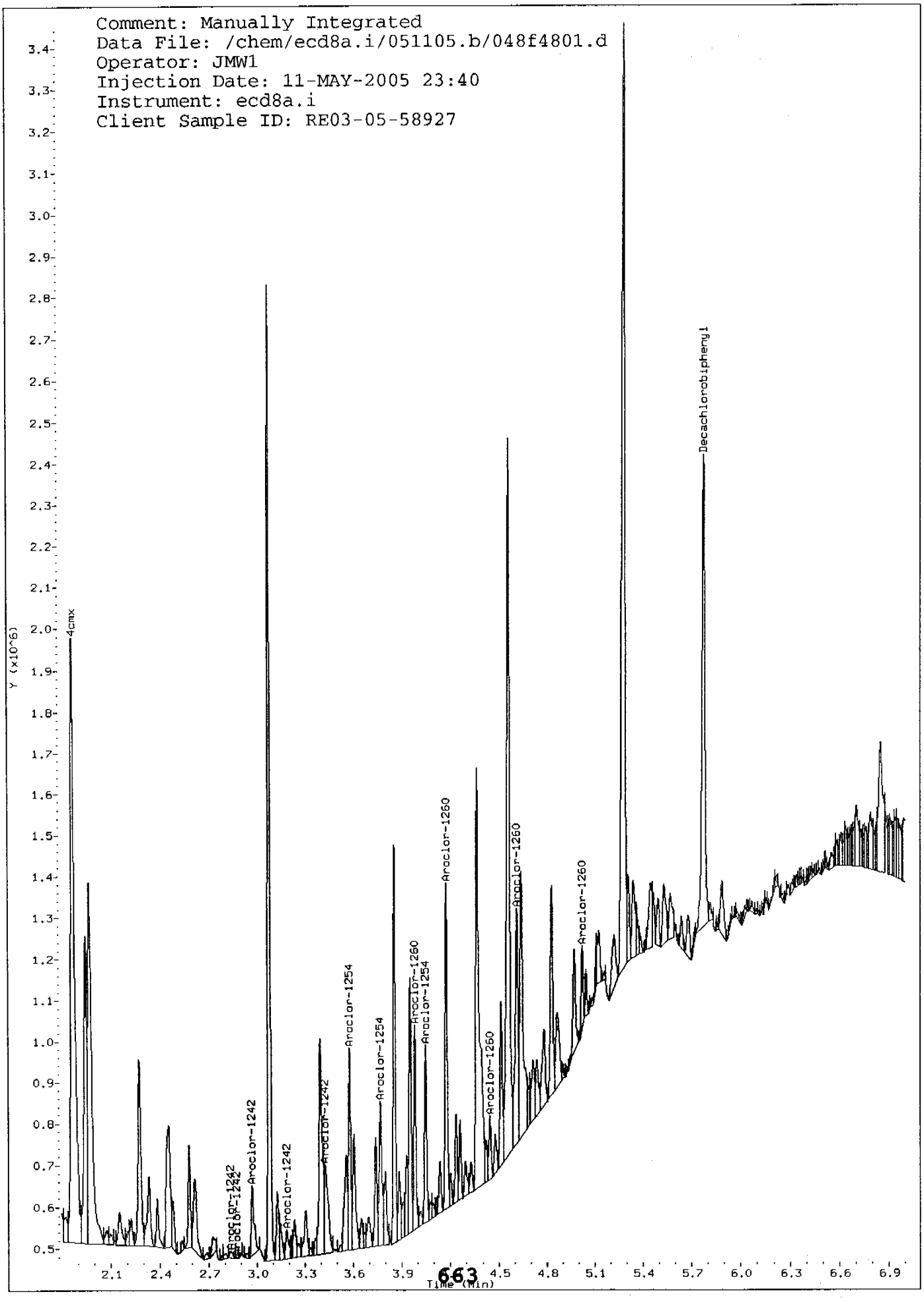
Comment: Manually Integrated
Data File: /chem/ecd8a.i/051105.b/048f4801.d
Operator: JMW1
Injection Date: 11-MAY-2005 23:40
Instrument: ecd8a.i
Client Sample ID: RE03-05-58927
Y (x10^6)
Time (Min)
4cmx
Aroclor-1242
Aroclor-1254
Aroclor-1260
Decachlorobiphenyl

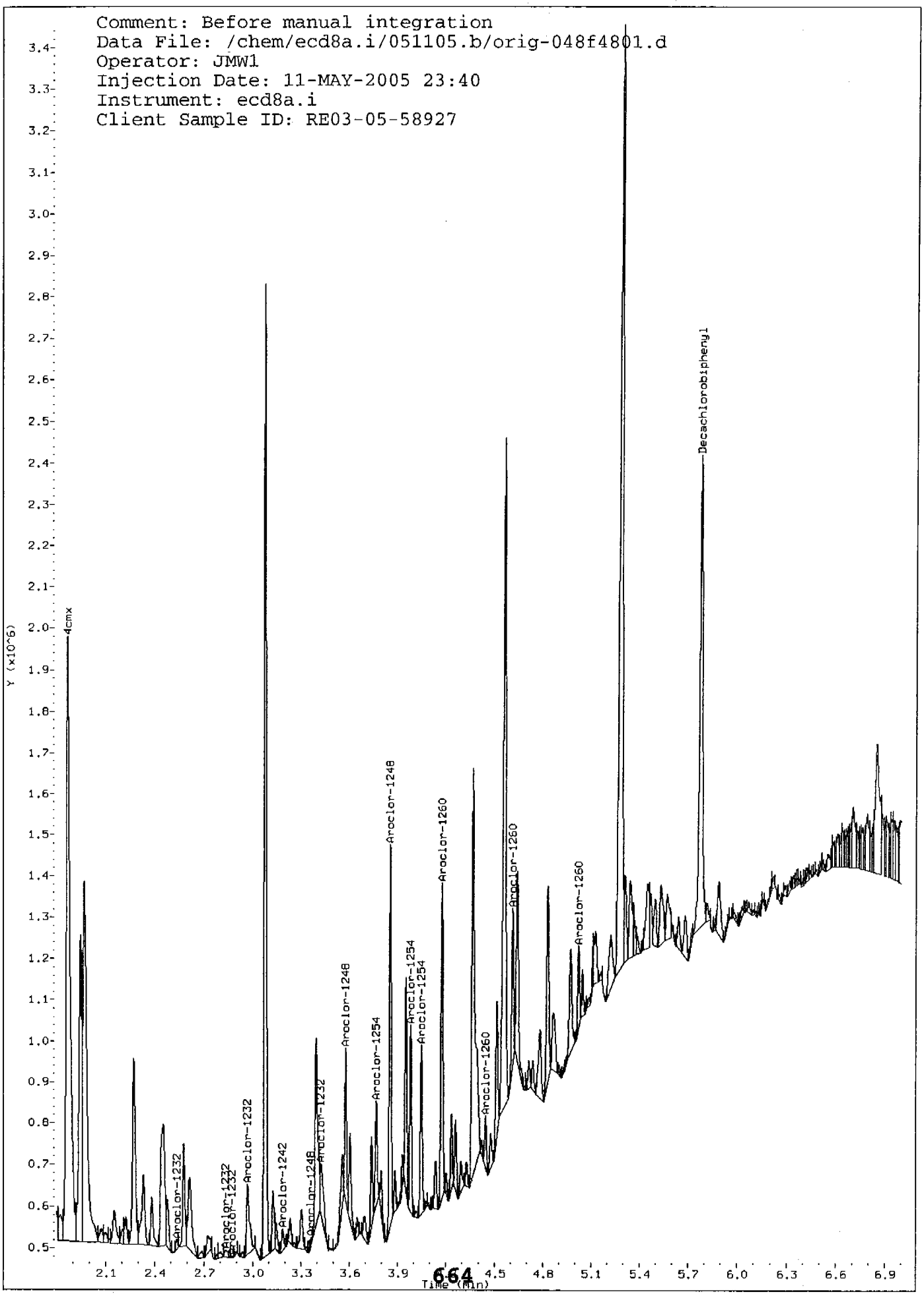
Comment: Before manual integration
Data File: /chem/ecd8a.i/051105.b/orig-048f4801.d
Operator: JMW1
Injection Date: 11-MAY-2005 23:40
Instrument: ecd8a.i
Client Sample ID: RE03-05-58927
Y (x10^6)
Time (Min)
4cmx
Aroclor-1232
Aroclor-1242
Aroclor-1248
Aroclor-1254
Aroclor-1260
Decachlorobiphenyl

General Engineering Laboratories, LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/051105.b/048b4801.d
Lab Smp Id: 135831002 Client Smp ID: RE03-05-58927
Inj Date : 11-MAY-2005 23:40
Operator : JMW1 Inst ID: ecd8a.i
Smp Info : |135831002|10|
Misc Info : |ECD82P_1SF|423332|SVAF|LANL|SOIL|RE03-05-58927|||
Comment :
Method : /chem/ecd8a.i/051105.b/ECD8-B-8082-050905.m
Meth Date : 12-May-2005 11:07 jar00935 Quant Type: ESTD
Cal Date : 06-APR-2005 12:43 Cal File: 013b1301.d
Als bottle: 48
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: 3202S.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	10.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	9.03700	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.196	2.193	0.003	6223144	8.55133	3.1	80.00- 120.00	100.00(R)
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.485	6.476	0.009	2501140	4.97438	1.8	80.00- 120.00	100.00(RM)
6 Aroclor-1254					CAS #: 11097-69-1		
3.989	3.987	0.002	1338660	56.6423	20.8	80.00- 120.00	100.00(aM)
4.126	4.123	0.003	1244984	49.1034	18.0	84.83- 124.83	93.00
4.368	4.367	0.001	1021177	57.0255	20.9	53.70- 93.70	76.28
4.448	4.448	0.000	0			118.96- 158.96	0.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
6 Aroclor-1254 (continued)							
4.611	4.609	0.002	903109	38.7228	14.2	76.93- 116.93	67.46
			Average of Peak Concentrations =		18.4		

QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Data File: /chem/ecd8a.i/051105.b/048b4801.d

Date : 11-MAY-2005 23:40

Client ID: RE03-05-58927

Sample Info: |135831002|10|

Volume Injected (uL): 1.0

Column phase: CLP2

Instrument: ecd8a.i

Operator: JMW1

Column diameter: 0.25

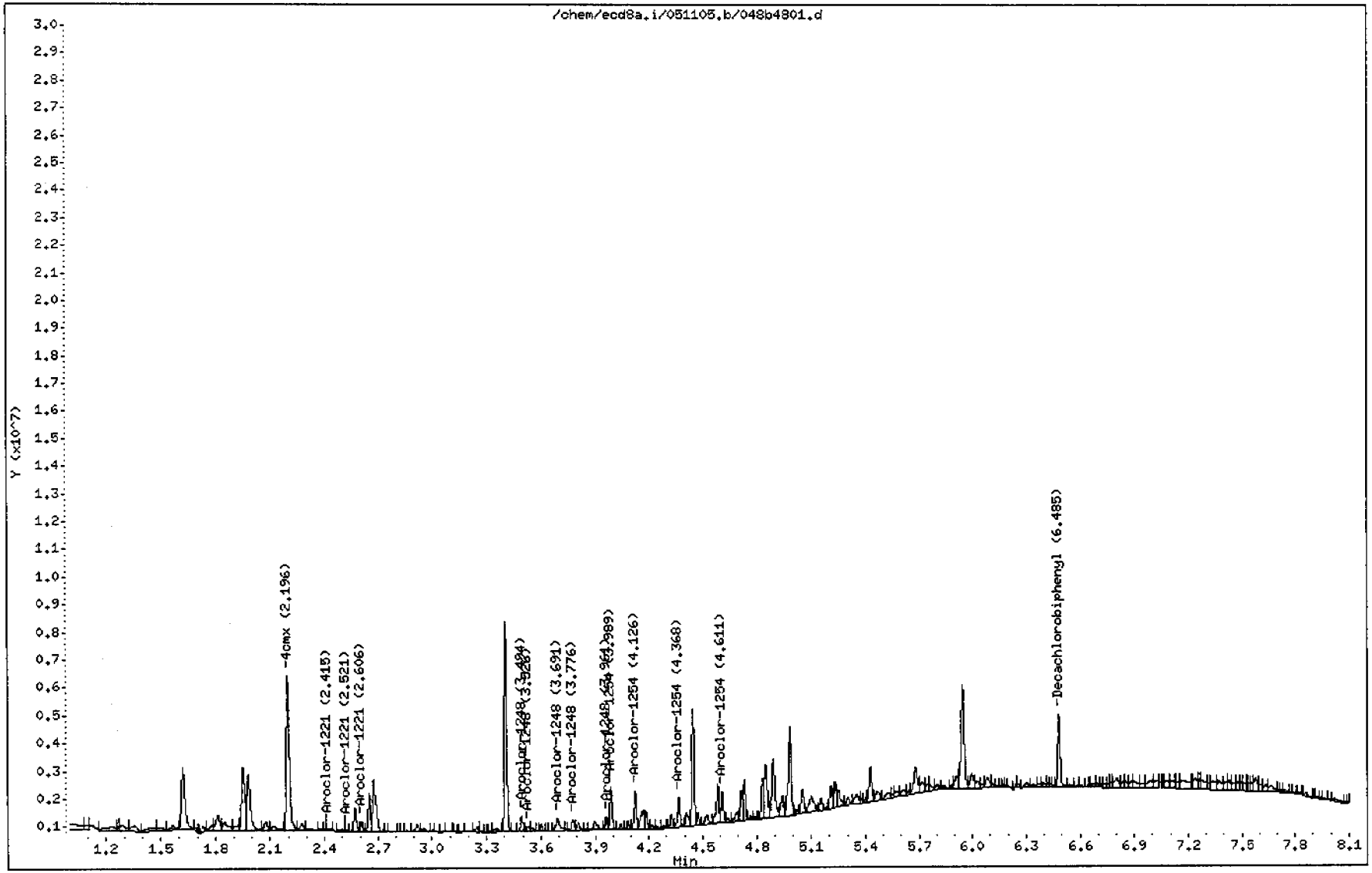

Comment: Manually Integrated
Data File: /chem/ecd8a.i/051105.b/048b4801.d
Operator: JMW1
Injection Date: 11-MAY-2005 23:40
Instrument: ecd8a.i
Client Sample ID: RE03-05-58927

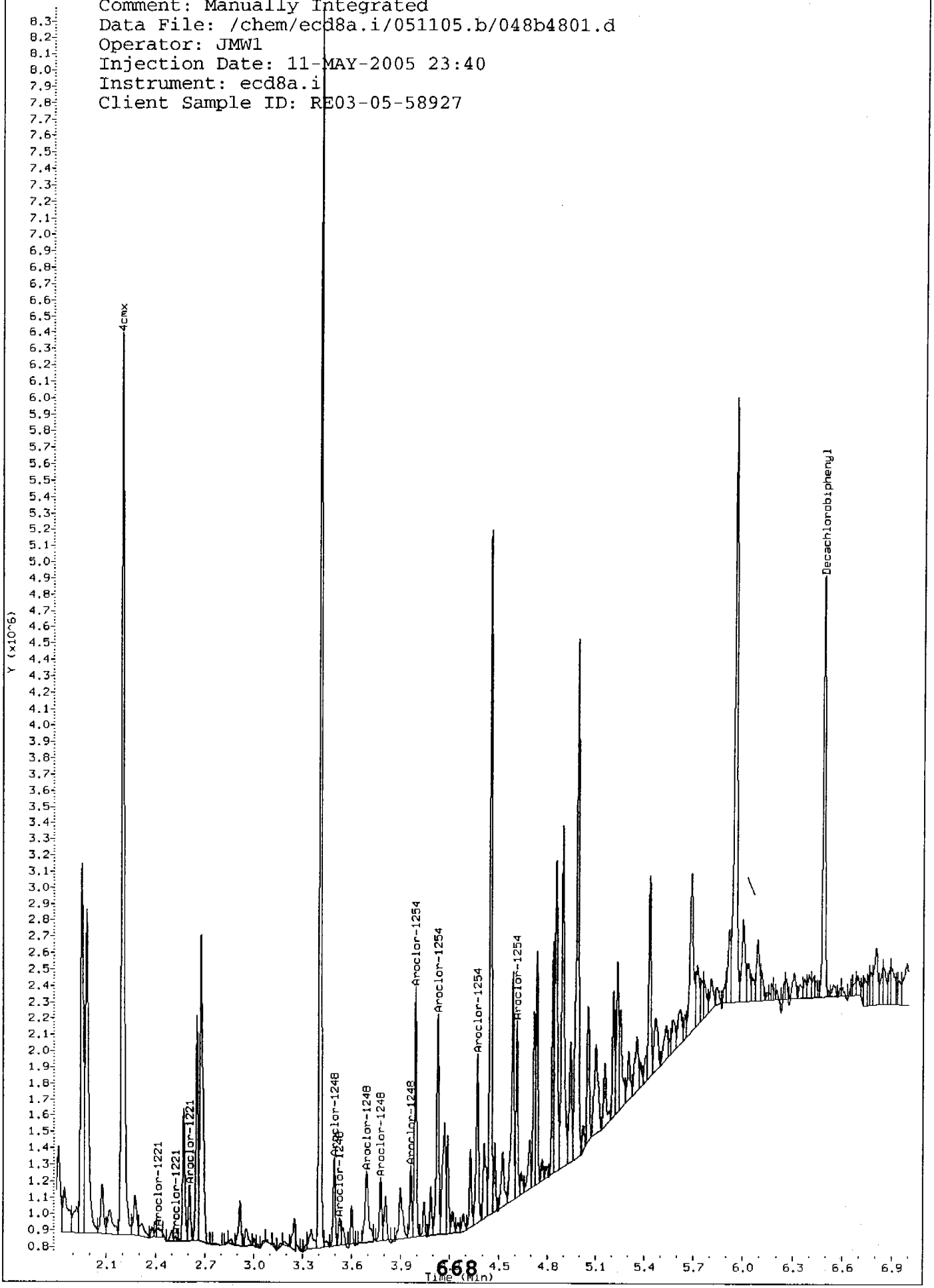

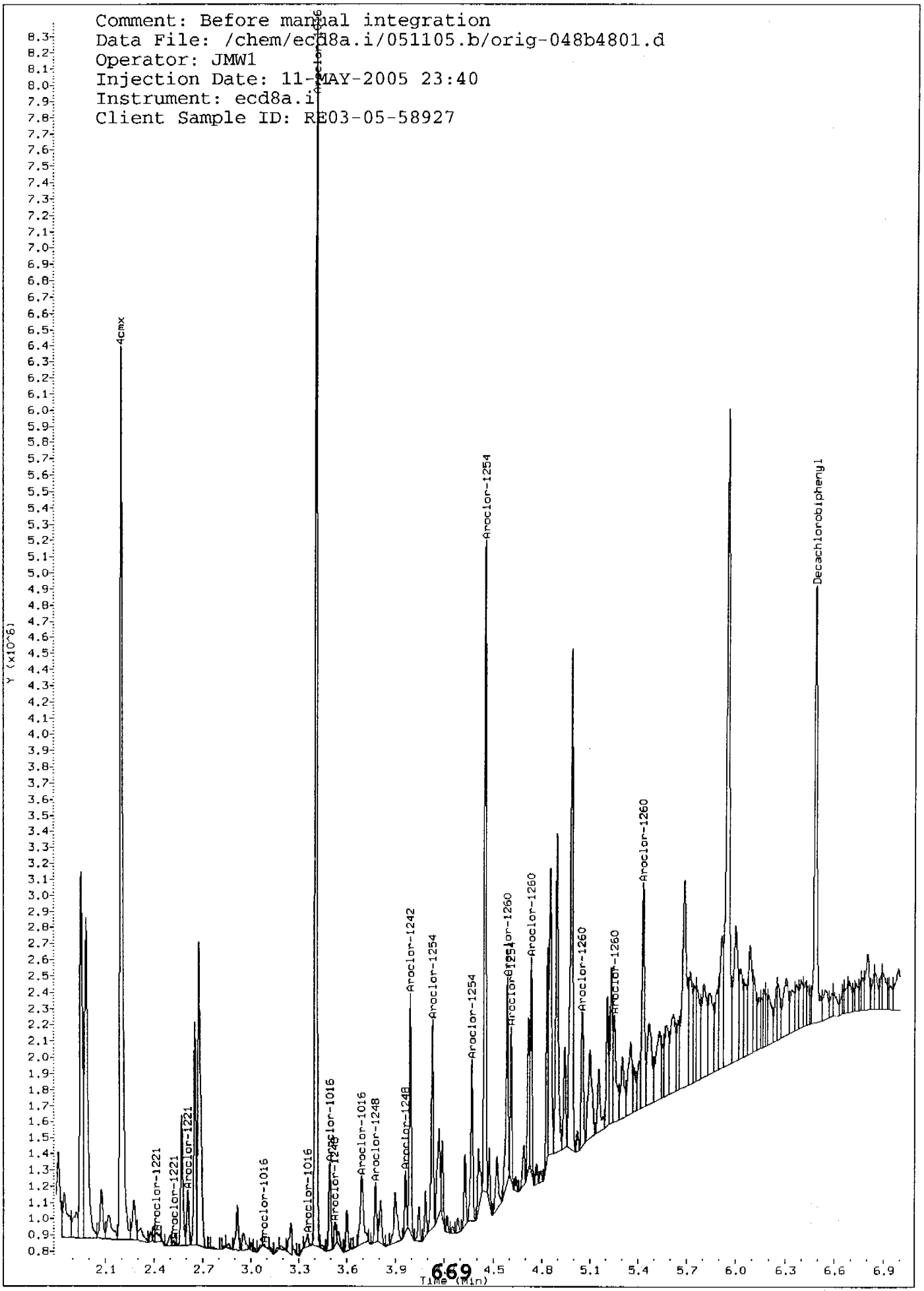
Comment: Before manual integration
Data File: /chem/ecd8a.i/051105.b/orig-048b4801.d
Operator: JMW1
Injection Date: 11-MAY-2005 23:40
Instrument: ecd8a.i
Client Sample ID: RE03-05-58927
4cmx
Aroclor-1221
Aroclor-1221
Aroclor-1221
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1248
Aroclor-1016
Aroclor-1248
Aroclor-1248
Aroclor-1242
Aroclor-1254
Aroclor-1254
Aroclor-1254
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^6)
Time (min)

1D
PCB ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-59557

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Matrix: (soil/water) SOIL Lab Sample ID: 135831003

Sample wt/vol: 30.0 (g/mL) G Lab File ID: 026F2601

% Moisture: 9 decanted: (Y/N) N Date Received: 05/05/05

Extraction: (SepF/Cont/Sonc) SONC Date Extracted:05/09/05

Concentrated Extract Volume: 1.00(mL) Date Analyzed: 05/12/05

Injection Volume: 1.0(uL) Dilution Factor: 10.0

GPC Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
12674-11-2------	Aroclor-1016	36.5	U
11104-28-2------	Aroclor-1221	36.5	U
11141-16-5------	Aroclor-1232	36.5	U
53469-21-9------	Aroclor-1242	36.5	U
12672-29-6------	Aroclor-1248	36.5	U
11097-69-1------	Aroclor-1254	135	
11096-82-5------	Aroclor-1260	32.4	J

FORM I PEST OLM03.0

General Engineering Laboratories, LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/051205.b/026f2601.d
Lab Smp Id: 135831003 Client Smp ID: RE03-05-59557
Inj Date : 12-MAY-2005 18:49
Operator : JMW1 Inst ID: ecd8a.i
Smp Info : |135831003|10|
Misc Info : |ECD82P_1SF|423332|SVAF|LANL|
Comment :
Method : /chem/ecd8a.i/051205.b/ECD8-F-8082-050905.m
Meth Date : 13-May-2005 10:22 jar00935 Quant Type: ESTD
Cal Date : 06-APR-2005 12:43 Cal File: 013f1301.d
Als bottle: 26
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: 3202S.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	10.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	8.58140	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.867	1.868	-0.001	2652592	12.9588	4.7	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.758	5.760	-0.002	1927603	8.34149	3.0	80.00- 120.00	100.00(R)
6 Aroclor-1254					CAS #: 11097-69-1		
3.575	3.579	-0.004	2992942	313.688	114	80.00- 120.00	100.00
3.767	3.770	-0.003	2771794	394.498	144	54.85- 94.85	92.61
3.851	3.854	-0.003	6060857	496.121	181	109.61- 149.61	202.50
3.981	3.981	0.000	0			33.43- 73.43	0.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
6 Aroclor-1254 (continued)							
4.043	4.047	-0.004	2366649	278.089	101	75.41- 115.41	79.07
			Average of Peak Concentrations =		135		
7 Aroclor-1260					CAS #: 11096-82-5		
3.982	3.982	0.000	0			80.00- 120.00	0.00(a)
4.173	4.173	0.000	0			140.32- 180.32	0.00
4.439	4.443	-0.004	574489	71.6204	26.1	61.22- 101.22	18.89
4.607	4.613	-0.006	662526	73.6344	26.8	71.43- 111.43	21.78
5.012	5.016	-0.004	1166666	105.740	38.6	96.41- 136.41	38.36
			Average of Peak Concentrations =		30.5		

QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
R - Spike/Surrogate failed recovery limits.

Data File: /chem/ecd8a.i/051205.b/026f2601.d
Date : 12-MAY-2005 18:49
Client ID: RE03-05-59557
Sample Info: |135831003|10|
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecd8a.i

Operator: JMW1
Column diameter: 0.25

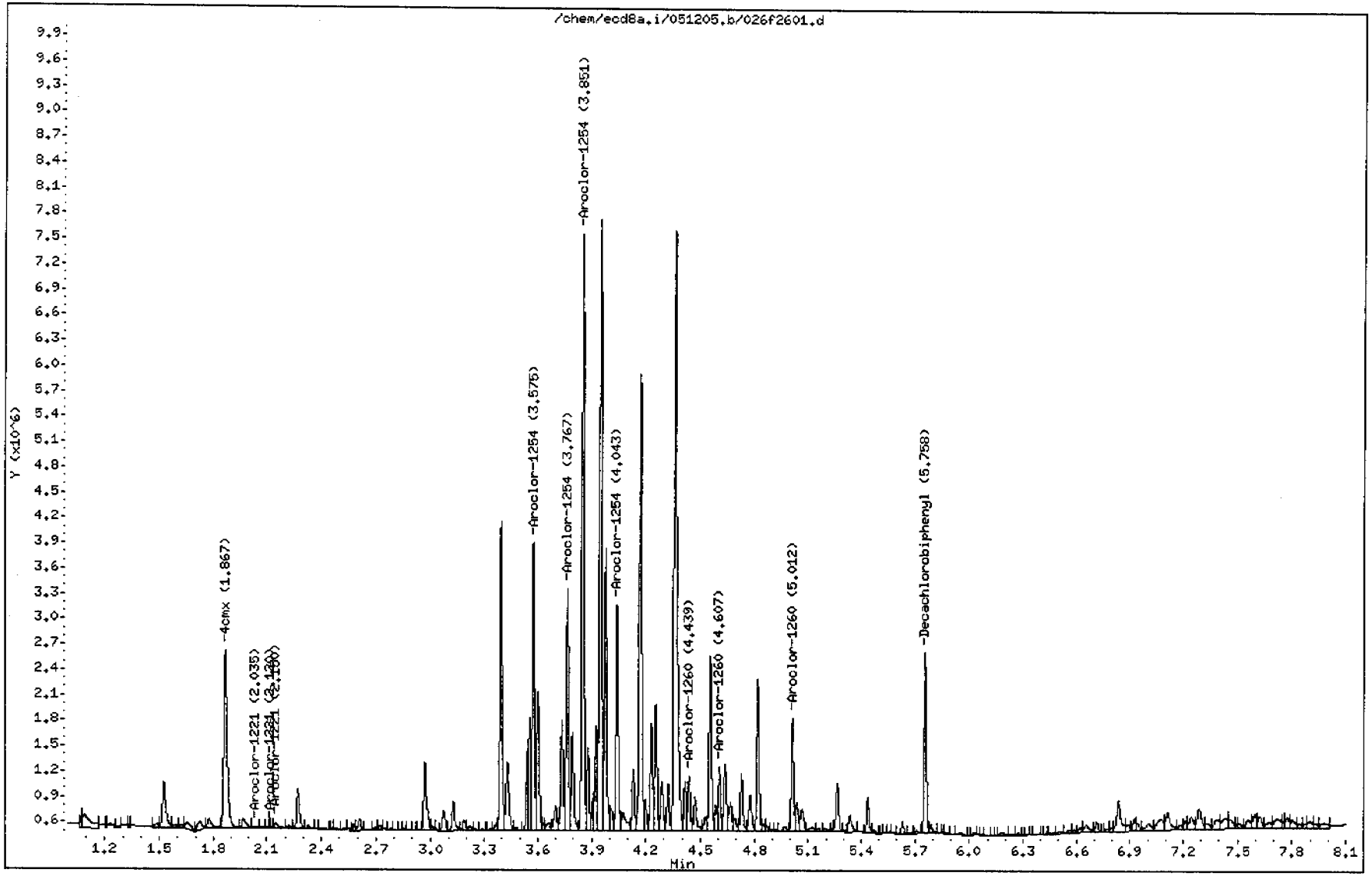

General Engineering Laboratories, LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/051205.b/026b2601.d
Lab Smp Id: 135831003 Client Smp ID: RE03-05-59557
Inj Date : 12-MAY-2005 18:49
Operator : JMW1 Inst ID: ecd8a.i
Smp Info : |135831003|10|
Misc Info : |ECD82P_1SF|423332|SVAF|LANL|
Comment :
Method : /chem/ecd8a.i/051205.b/ECD8-B-8082-050905.m
Meth Date : 13-May-2005 12:07 jar00935 Quant Type: ESTD
Cal Date : 06-APR-2005 12:43 Cal File: 013b1301.d
Als bottle: 26
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: 3202S.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	10.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	8.58140	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.197	2.197	0.000	8129766	11.1713	4.1	80.00- 120.00	100.00(R)
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.478	6.478	0.000	4393857	8.73871	3.2	80.00- 120.00	100.00(R)
6 Aroclor-1254					CAS #: 11097-69-1		
3.989	3.989	0.000	9009042	381.197	139	80.00- 120.00	100.00
4.125	4.125	0.000	9212279	363.342	132	85.47- 125.47	102.26
4.368	4.369	-0.001	6295211	351.543	128	54.20- 94.20	69.88
4.451	4.451	0.000	0			119.63- 159.63	0.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
6 Aroclor-1254 (continued)							
4.611	4.611	0.000	0			77.57- 117.57	0.00
Average of Peak Concentrations =					133		
7 Aroclor-1260					CAS #: 11096-82-5		
4.587	4.587	0.000	0			80.00- 120.00	0.00(a)
4.733	4.733	0.000	0			104.45- 144.45	0.00
5.048	5.044	0.004	2522263	116.456	42.5	55.73- 95.73	27.20
5.249	5.250	-0.001	1705737	73.1116	26.6	61.34- 101.34	18.39
5.424	5.423	0.001	4174119	77.0003	28.1	169.55- 209.55	45.01
Average of Peak Concentrations =					32.4		

QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
R - Spike/Surrogate failed recovery limits.

Data File: /chem/ecd8a.i/051205.b/026b2601.d
Date : 12-MAY-2005 18:49
Client ID: RE03-05-59557
Sample Info: |135831003|10|
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd8a.i
Operator: JMW1
Column diameter: 0.25

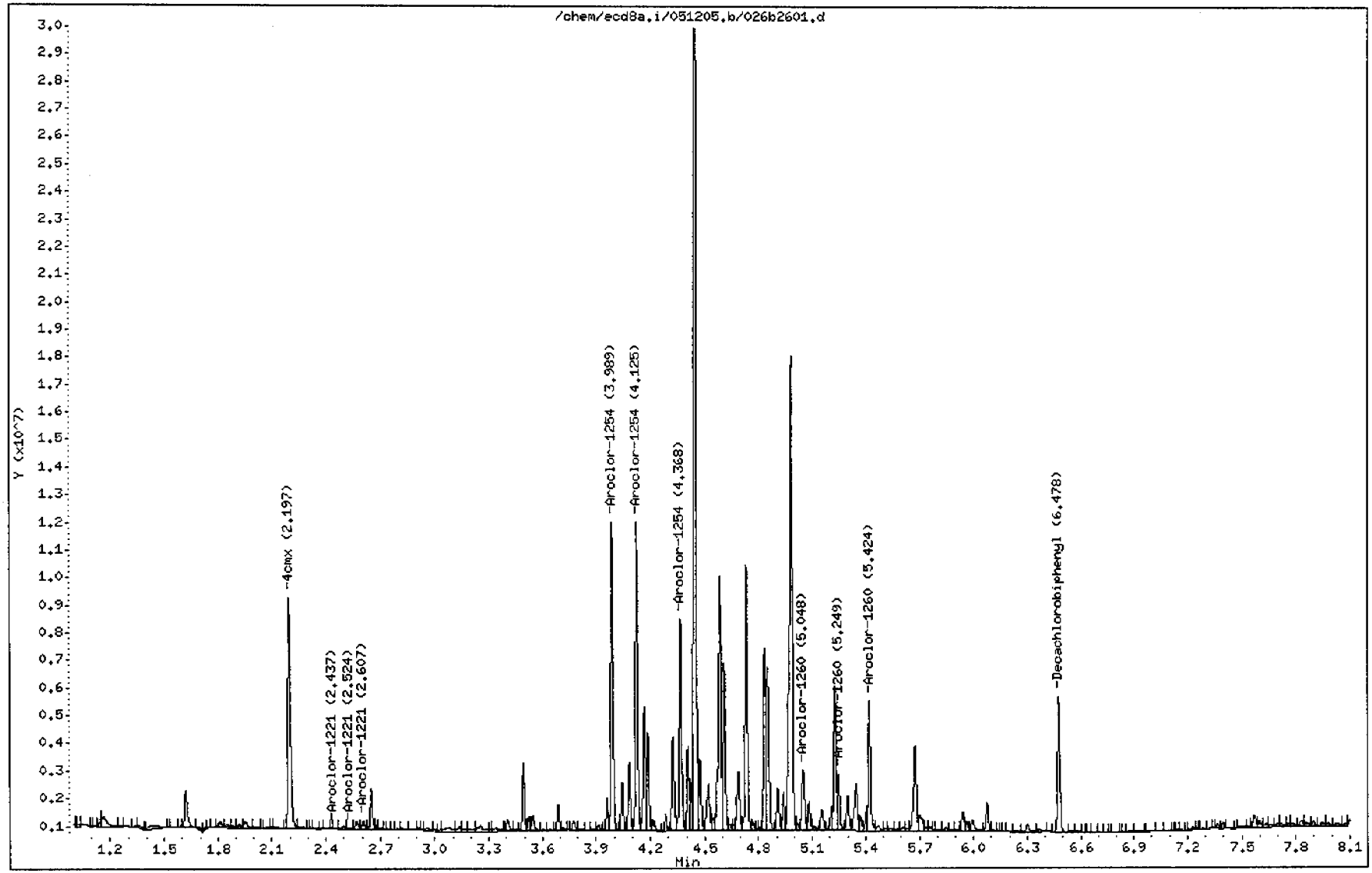

1D
PCB ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-59558

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Matrix: (soil/water) SOIL Lab Sample ID: 135831004

Sample wt/vol: 30.0 (g/mL) G Lab File ID: 017F1701

% Moisture: 7 decanted: (Y/N) N Date Received: 05/05/05

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 05/09/05

Concentrated Extract Volume: 1.00(mL) Date Analyzed: 05/12/05

Injection Volume: 1.0(uL) Dilution Factor: 10.0

GPC Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
12674-11-2	Aroclor-1016	35.9	U
11104-28-2	Aroclor-1221	35.9	U
11141-16-5	Aroclor-1232	35.9	U
53469-21-9	Aroclor-1242	35.9	U
12672-29-6	Aroclor-1248	35.9	U
11097-69-1	Aroclor-1254	99.7	
11096-82-5	Aroclor-1260	44.5	

FORM I PEST OLM03.0

General Engineering Laboratories, LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/051205.b/017f1701.d
Lab Smp Id: 135831004 Client Smp ID: RE03-05-59558
Inj Date : 12-MAY-2005 16:59
Operator : JMW1 Inst ID: ecd8a.i
Smp Info : |135831004|10|
Misc Info : |ECD82P_1SF|423332|SVAF|LANL|SOIL|RE03-05-59558|||
Comment :
Method : /chem/ecd8a.i/051205.b/ECD8-F-8082-050905.m
Meth Date : 13-May-2005 10:22 jar00935 Quant Type: ESTD
Cal Date : 06-APR-2005 12:43 Cal File: 013f1301.d
Als bottle: 17
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: 3202S.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	10.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	7.08420	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.872	1.868	0.004	3367204	16.4499	5.9	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.802	5.760	0.042	2275945	9.84890	3.5	80.00- 120.00	100.00(RM)
6 Aroclor-1254					CAS #: 11097-69-1		
3.586	3.579	0.007	2381827	249.638	89.6	80.00- 120.00	100.00
3.776	3.770	0.006	1949414	277.452	99.5	54.85- 94.85	81.85
3.854	3.854	0.000	0			109.61- 149.61	0.00
3.981	3.981	0.000	0			33.43- 73.43	0.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
6 Aroclor-1254 (continued)							
4.058	4.047	0.011	2609278	306.598	110	75.41- 115.41	109.55
Average of Peak Concentrations =					99.7		
7 Aroclor-1260					CAS #: 11096-82-5		
3.982	3.982	0.000	0			80.00- 120.00	0.00(M)
4.173	4.173	0.000	0			140.32- 180.32	0.00
4.459	4.443	0.016	658594	82.1056	29.4	61.22- 101.22	19.51
4.626	4.613	0.013	1107450	123.084	44.2	71.43- 111.43	32.81
5.039	5.016	0.023	1846009	167.312	60.0	96.41- 136.41	54.70
Average of Peak Concentrations =					44.5		

QC Flag Legend

R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Data File: /chem/ecd8a.i/051205.b/017f1701.d
Date : 12-MAY-2005 16:59
Client ID: RE03-05-59558
Sample Info: |135831004|10|
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecd8a.i

Operator: JMW1
Column diameter: 0.25

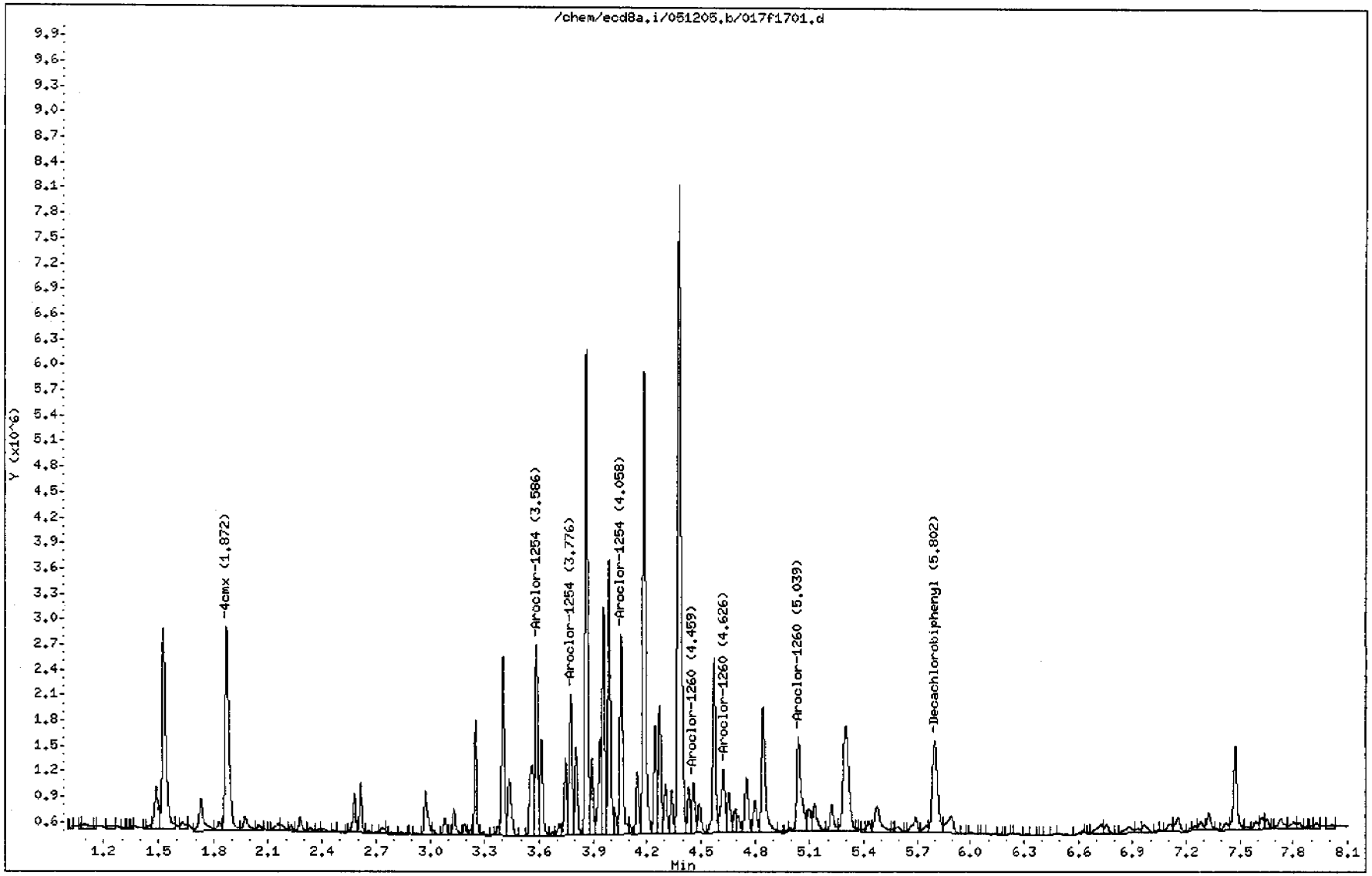

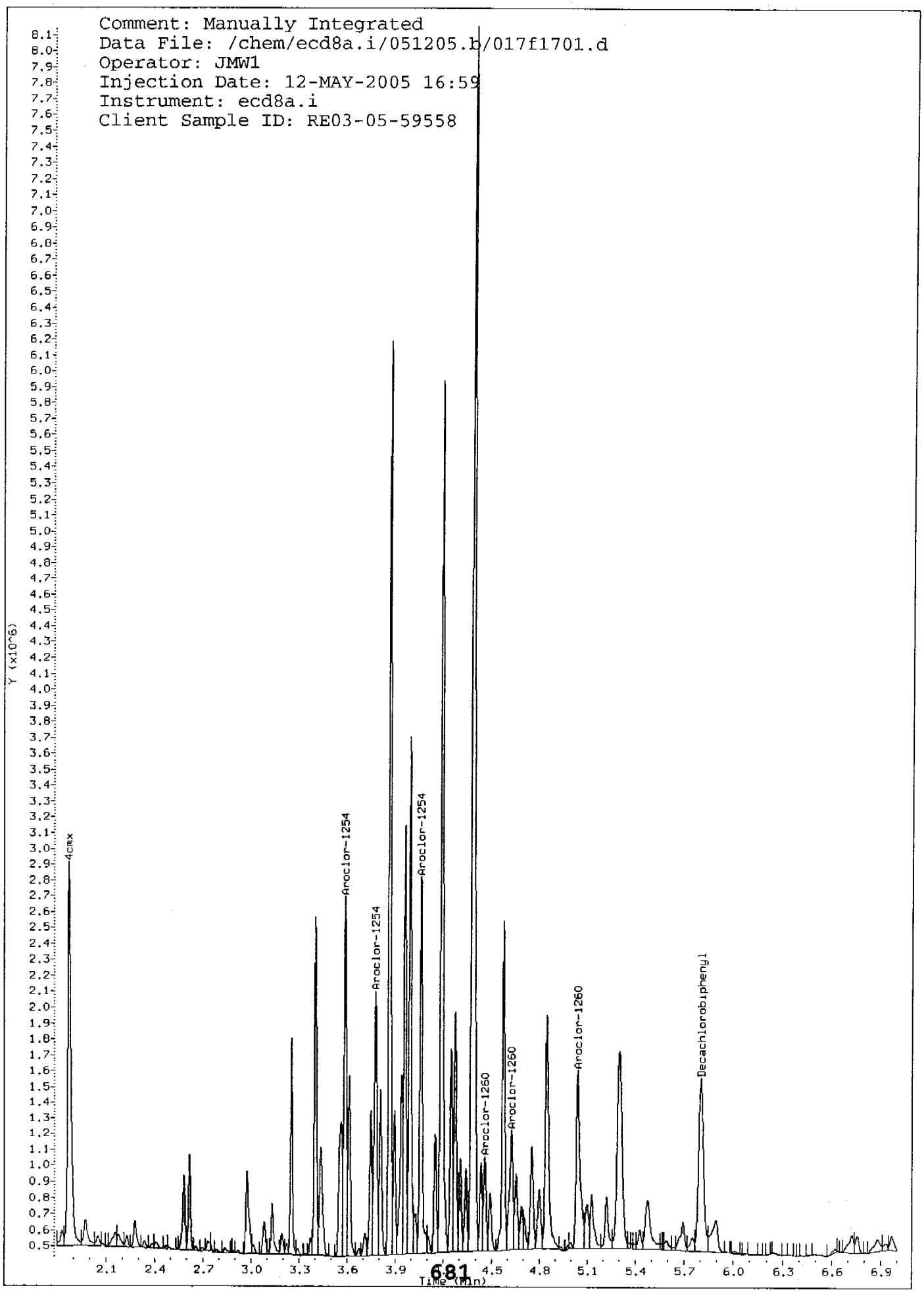
Comment: Manually Integrated
Data File: /chem/ecd8a.i/051205.b/017f1701.d
Operator: JMW1
Injection Date: 12-MAY-2005 16:59
Instrument: ecd8a.i
Client Sample ID: RE03-05-59558
Y (x10^6)
4cmx
Aroclor-1254
Aroclor-1254
Aroclor-1254
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Time (Min)

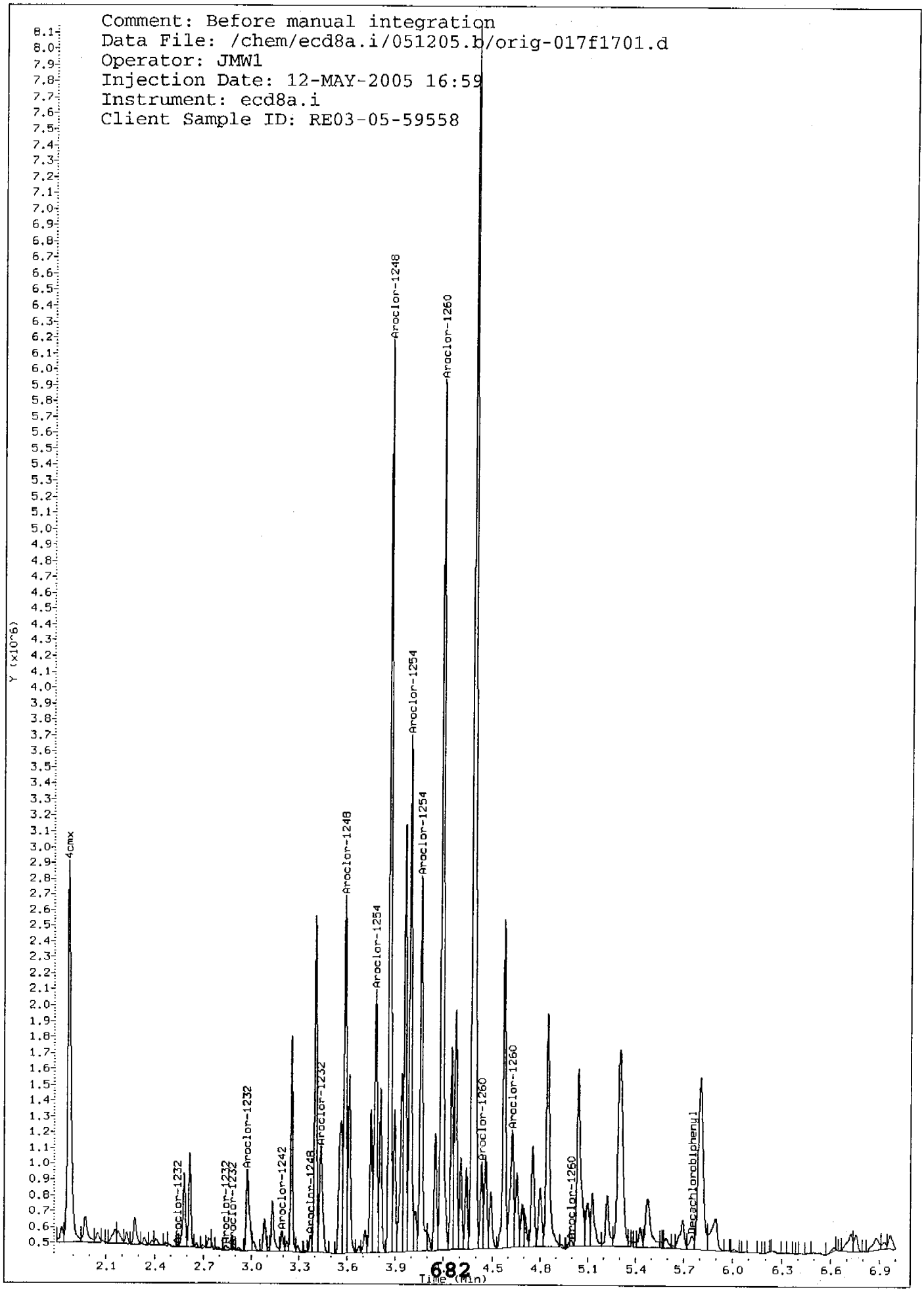
Comment: Before manual integration
Data File: /chem/ecd8a.i/051205.b/orig-017f1701.d
Operator: JMW1
Injection Date: 12-MAY-2005 16:59
Instrument: ecd8a.i
Client Sample ID: RE03-05-59558
Y (x10^6)
Time (Min)
4cmx
Aroclor-1232
Aroclor-1232
Aroclor-1232
Aroclor-1232
Aroclor-1242
Aroclor-1248
Aroclor-1232
Aroclor-1248
Aroclor-1254
Aroclor-1248
Aroclor-1254
Aroclor-1254
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl

General Engineering Laboratories, LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/051205.b/017b1701.d
Lab Smp Id: 135831004 Client Smp ID: RE03-05-59558
Inj Date : 12-MAY-2005 16:59
Operator : JMW1 Inst ID: ecd8a.i
Smp Info : |135831004|10|
Misc Info : |ECD82P_1SF|423332|SVAF|LANL|SOIL|RE03-05-59558|||
Comment :
Method : /chem/ecd8a.i/051205.b/ECD8-B-8082-050905.m
Meth Date : 13-May-2005 12:07 jar00935 Quant Type: ESTD
Cal Date : 06-APR-2005 12:43 Cal File: 013b1301.d
Als bottle: 17
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: 3202S.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	10.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	7.08420	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.197	2.197	0.000	10971245	15.0758	5.4	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.502	6.478	0.024	4384036	8.71918	3.1	80.00- 120.00	100.00(R)
6 Aroclor-1254					CAS #: 11097-69-1		
3.993	3.989	0.004	5922215	250.585	89.9	80.00- 120.00	100.00
4.131	4.125	0.006	6330773	249.692	89.6	85.47- 125.47	106.90
4.375	4.369	0.006	3987836	222.693	79.9	54.20- 94.20	67.34
4.451	4.451	0.000	0			119.63- 159.63	0.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
6 Aroclor-1254 (continued)							
4.619	4.611	0.008	5393842	231.273	83.0	77.57- 117.57	91.08
Average of Peak Concentrations =					85.6		
7 Aroclor-1260					CAS #: 11096-82-5		
4.587	4.587	0.000	0			80.00- 120.00	0.00(M)
4.733	4.733	0.000	0			104.45- 144.45	0.00
5.061	5.044	0.017	2885576	133.230	47.8	55.73- 95.73	29.12
5.261	5.250	0.011	1986617	85.1507	30.5	61.34- 101.34	20.05
5.440	5.423	0.017	7367939	135.917	48.8	169.55- 209.55	74.36
Average of Peak Concentrations =					42.4		

QC Flag Legend

R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Data File: /chem/ecd8a.i/051205.b/017b1701.d
Date : 12-MAY-2005 16:59
Client ID: RE03-05-59558
Sample Info: |135831004|10|
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd8a.i

Operator: JMW1
Column diameter: 0.25

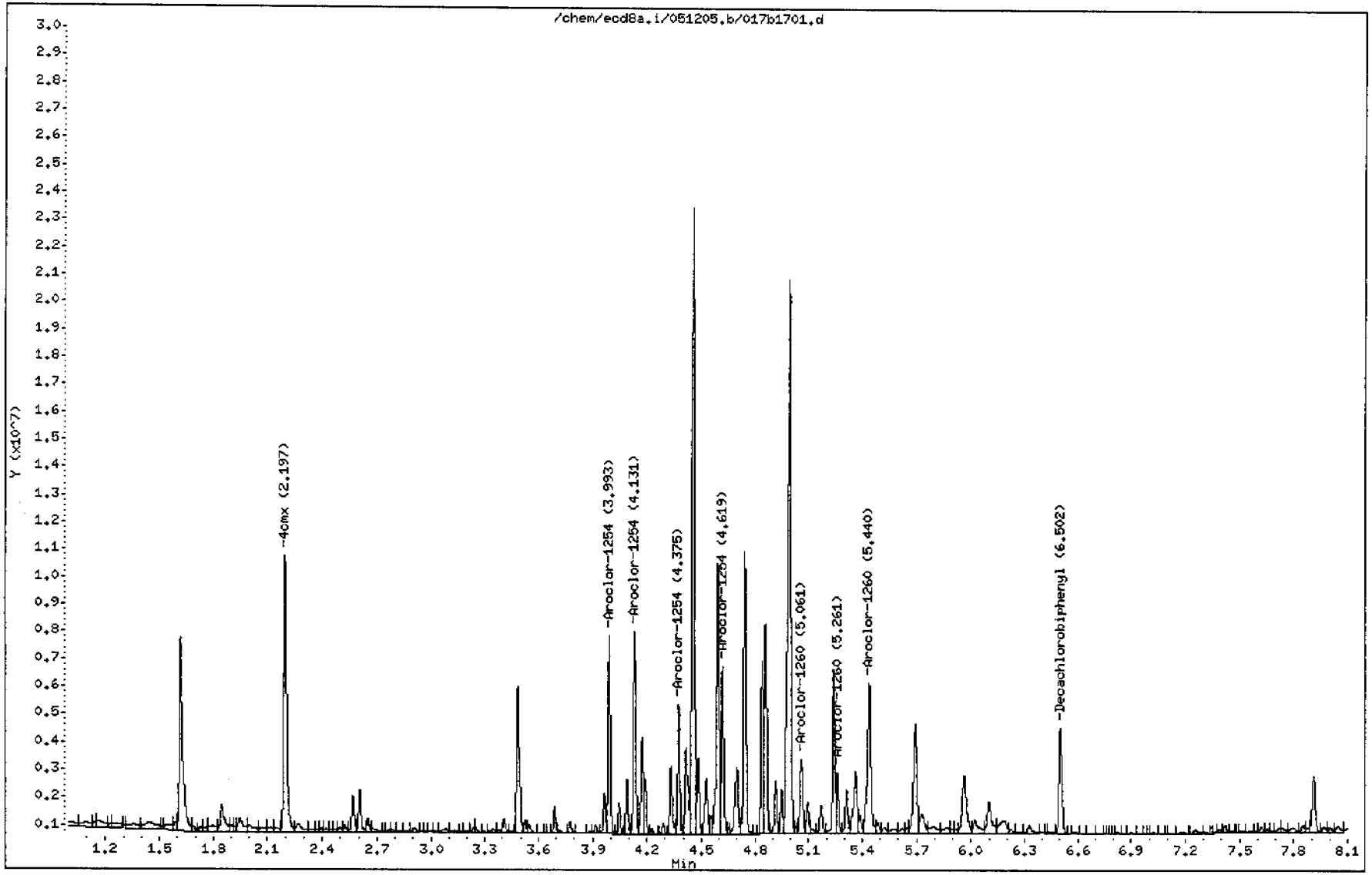

Comment: Manually Integrated
Data File: /chem/ecd8a.i/051205.b/017b1701.d
Operator: JMW1
Injection Date: 12-MAY-2005 16:59
Instrument: ecd8a.i
Client Sample ID: RE03-05-59558

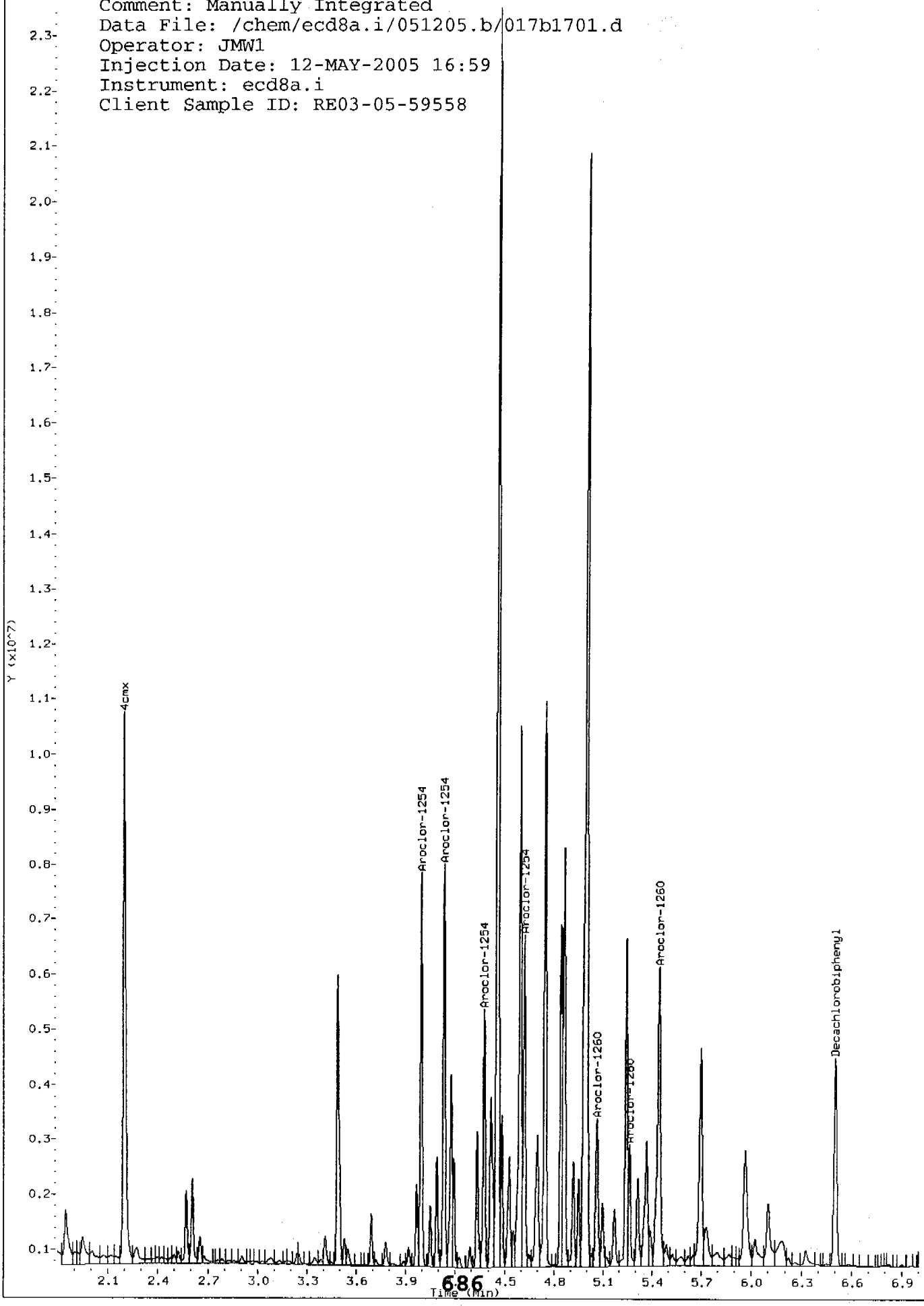

Comment: Before manual integration
Data File: /chem/ecd8a.i/051205.b/orig-017b1701.d
Operator: JMW1
Injection Date: 12-MAY-2005 16:59
Instrument: ecd8a.i
Client Sample ID: RE03-05-59558

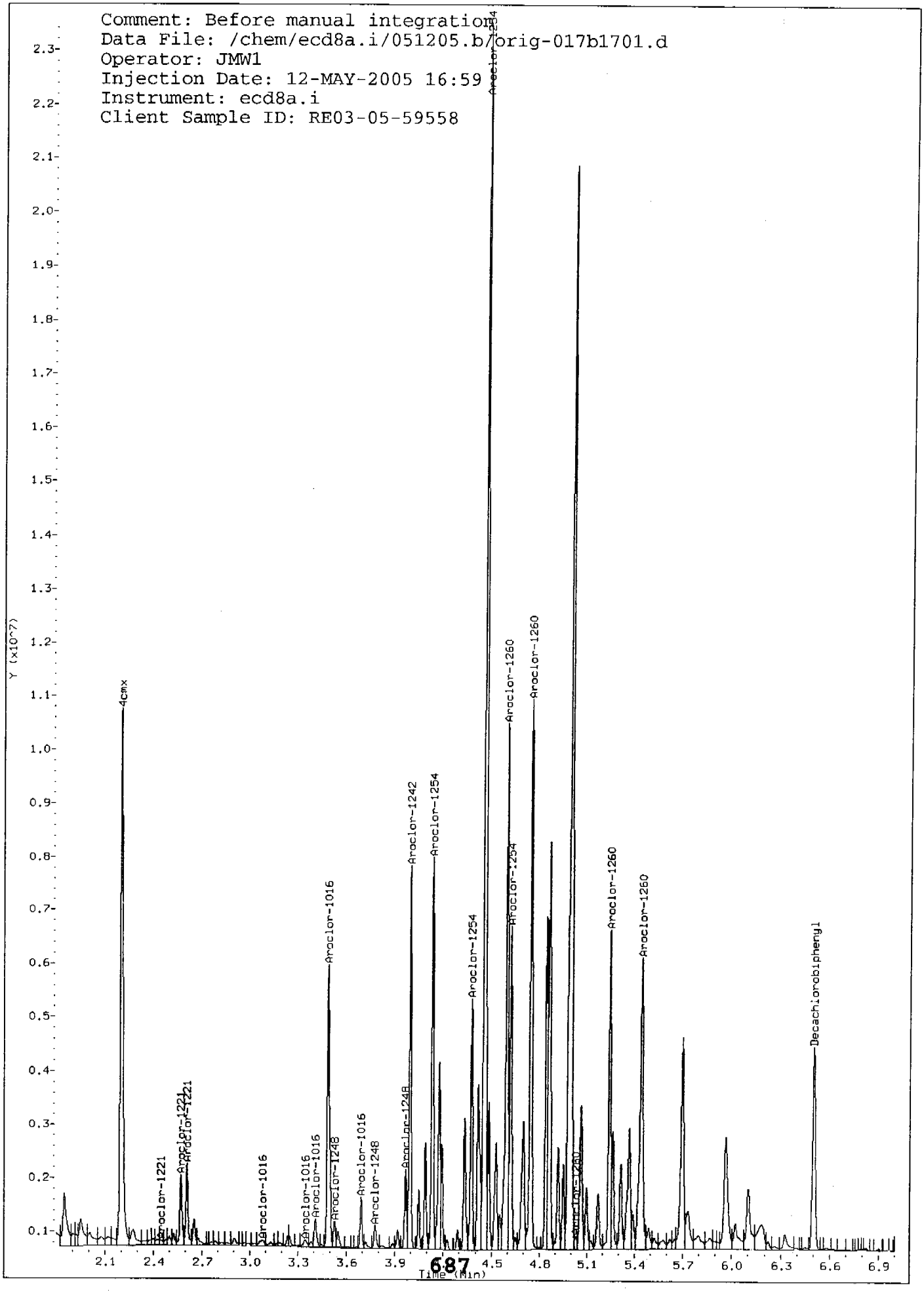

STANDARDS DATA

Report Date: 12-May-2005 11:52

Calibration History

Method : /chem/ecd8a.i/051105.b/ECD8-F-8082-050905.m
Start Cal Date: 03-FEB-2005 10:58
End Cal Date : 09-MAY-2005 11:46

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 100.00000		
06-APR-2005 11:54	AR1221	/chem/ecd8a.i/040605.b/009f0901.d
22-MAR-2005 12:43	AR1268	/chem/ecd8a.i/032205.b/015f1501.d
04-MAR-2005 09:18	AR1262	/chem/ecd8a.i/030405.b/002f0201.d
09-MAY-2005 10:57	AR1248	/chem/ecd8a.i/050905.b/005f0501.d
25-MAR-2005 11:57	AR1232	/chem/ecd8a.i/032505.b/009f0901.d
26-APR-2005 11:22	AR1242	/chem/ecd8a.i/042605.b/009f0901.d
03-MAY-2005 11:43	AR1254	/chem/ecd8a.i/050305.b/003f0301.d
02-MAY-2005 12:15	AR1660	/chem/ecd8a.i/050205.b/002f0201.d
Cal Level: 2 , Cal Amount: 250.00000		
06-APR-2005 12:06	AR1221	/chem/ecd8a.i/040605.b/010f1001.d
22-MAR-2005 12:55	AR1268	/chem/ecd8a.i/032205.b/016f1601.d
04-MAR-2005 09:30	AR1262	/chem/ecd8a.i/030405.b/003f0301.d
09-MAY-2005 11:09	AR1248	/chem/ecd8a.i/050905.b/006f0601.d
25-MAR-2005 12:09	AR1232	/chem/ecd8a.i/032505.b/010f1001.d
26-APR-2005 11:34	AR1242	/chem/ecd8a.i/042605.b/010f1001.d
03-MAY-2005 11:55	AR1254	/chem/ecd8a.i/050305.b/004f0401.d
02-MAY-2005 12:27	AR1660	/chem/ecd8a.i/050205.b/003f0301.d
Cal Level: 3 , Cal Amount: 500.00000		
06-APR-2005 12:18	AR1221	/chem/ecd8a.i/040605.b/011f1101.d
22-MAR-2005 13:07	AR1268	/chem/ecd8a.i/032205.b/017f1701.d
04-MAR-2005 09:42	AR1262	/chem/ecd8a.i/030405.b/004f0401.d
09-MAY-2005 11:21	AR1248	/chem/ecd8a.i/050905.b/007f0701.d
25-MAR-2005 12:22	AR1232	/chem/ecd8a.i/032505.b/011f1101.d
26-APR-2005 11:46	AR1242	/chem/ecd8a.i/042605.b/011f1101.d
03-MAY-2005 12:08	AR1254	/chem/ecd8a.i/050305.b/005f0501.d
02-MAY-2005 12:39	AR1660	/chem/ecd8a.i/050205.b/004f0401.d
Cal Level: 4 , Cal Amount: 1000.00000		
22-MAR-2005 13:19	AR1268	/chem/ecd8a.i/032205.b/018f1801.d
06-APR-2005 12:30	AR1221	/chem/ecd8a.i/040605.b/012f1201.d
25-MAR-2005 12:34	AR1232	/chem/ecd8a.i/032505.b/012f1201.d
04-MAR-2005 09:54	AR1262	/chem/ecd8a.i/030405.b/005f0501.d
09-MAY-2005 11:34	AR1248	/chem/ecd8a.i/050905.b/008f0801.d
26-APR-2005 11:59	AR1242	/chem/ecd8a.i/042605.b/012f1201.d
03-MAY-2005 12:20	AR1254	/chem/ecd8a.i/050305.b/006f0601.d
02-MAY-2005 12:52	AR1660	/chem/ecd8a.i/050205.b/005f0501.d

Cal Level: 5 , Cal Amount: 4000.00000		
06-APR-2005 12:43	AR1221	/chem/ecd8a.i/040605.b/013f1301.d
22-MAR-2005 13:32	AR1268	/chem/ecd8a.i/032205.b/019f1901.d
04-MAR-2005 10:07	AR1262	/chem/ecd8a.i/030405.b/006f0601.d
09-MAY-2005 11:46	AR1248	/chem/ecd8a.i/050905.b/009f0901.d
25-MAR-2005 12:46	AR1232	/chem/ecd8a.i/032505.b/013f1301.d
26-APR-2005 12:11	AR1242	/chem/ecd8a.i/042605.b/013f1301.d
03-MAY-2005 12:32	AR1254	/chem/ecd8a.i/050305.b/007f0701.d
02-MAY-2005 13:04	AR1660	/chem/ecd8a.i/050205.b/006f0601.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 1000		
11-MAY-2005 14:41	AR1242	/chem/ecd8a.i/051105.b/004f0401.d
Ccal Level: 4 , Ccal Amount: 1000		
11-MAY-2005 14:28	AR1254	/chem/ecd8a.i/051105.b/003f0301.d
Ccal Level: 4 , Ccal Amount: 1000		
12-MAY-2005 10:25	AR1660	/chem/ecd8a.i/051105.b/092f9201.d
Ccal Level: 4 , Ccal Amount: 1000		
12-MAY-2005 07:50	AR1660	/chem/ecd8a.i/051105.b/088f8801.d
Ccal Level: 4 , Ccal Amount: 1000		
12-MAY-2005 06:00	AR1660	/chem/ecd8a.i/051105.b/079f7901.d
Ccal Level: 4 , Ccal Amount: 1000		
12-MAY-2005 04:09	AR1660	/chem/ecd8a.i/051105.b/070f7001.d
Ccal Level: 4 , Ccal Amount: 1000		
12-MAY-2005 03:33	AR1660	/chem/ecd8a.i/051105.b/067f6701.d
Ccal Level: 4 , Ccal Amount: 1000		
12-MAY-2005 02:56	AR1660	/chem/ecd8a.i/051105.b/064f6401.d
Ccal Level: 4 , Ccal Amount: 1000		
12-MAY-2005 02:19	AR1660	/chem/ecd8a.i/051105.b/061f6101.d
Ccal Level: 4 , Ccal Amount: 1000		
12-MAY-2005 00:53	AR1660	/chem/ecd8a.i/051105.b/054f5401.d
Ccal Level: 4 , Ccal Amount: 1000		
12-MAY-2005 00:17	AR1660	/chem/ecd8a.i/051105.b/051f5101.d
Ccal Level: 4 , Ccal Amount: 1000		
11-MAY-2005 22:14	AR1660	/chem/ecd8a.i/051105.b/041f4101.d
Ccal Level: 4 , Ccal Amount: 1000		
11-MAY-2005 20:48	AR1254	/chem/ecd8a.i/051105.b/034f3401.d
Ccal Level: 4 , Ccal Amount: 1000		
11-MAY-2005 20:36	AR1660	/chem/ecd8a.i/051105.b/033f3301.d
Ccal Level: 4 , Ccal Amount: 1000		

11-MAY-2005 18:46	AR1254	/chem/ecd8a.i/051105.b/024f2401.d
Ccal Level: 4 , Ccal Amount: 1000		
11-MAY-2005 18:34	AR1660	/chem/ecd8a.i/051105.b/023f2301.d
Ccal Level: 4 , Ccal Amount: 1000		
11-MAY-2005 17:45	AR1660	/chem/ecd8a.i/051105.b/019f1901.d
Ccal Level: 4 , Ccal Amount: 1000		
11-MAY-2005 15:42	AR1268	/chem/ecd8a.i/051105.b/009f0901.d
Ccal Level: 4 , Ccal Amount: 1000		
11-MAY-2005 15:30	AR1221	/chem/ecd8a.i/051105.b/008f0801.d
Ccal Level: 4 , Ccal Amount: 1000		
11-MAY-2005 15:17	AR1232	/chem/ecd8a.i/051105.b/007f0701.d
Ccal Level: 4 , Ccal Amount: 1000		
11-MAY-2005 15:05	AR1262	/chem/ecd8a.i/051105.b/006f0601.d
Ccal Level: 4 , Ccal Amount: 1000		
11-MAY-2005 14:53	AR1248	/chem/ecd8a.i/051105.b/005f0501.d
Ccal Level: 4 , Ccal Amount: 1000		
11-MAY-2005 14:16	AR1660	/chem/ecd8a.i/051105.b/002f0201.d

Report Date: 12-May-2005 11:52

Calibration History

Method : /chem/ecd8a.i/051105.b/ECD8-B-8082-050905.m
Start Cal Date: 03-FEB-2005 10:58
End Cal Date : 09-MAY-2005 11:46

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 100.00000		
06-APR-2005 11:54	AR1221	/chem/ecd8a.i/040605.b/009b0901.d
22-MAR-2005 12:43	AR1268	/chem/ecd8a.i/032205.b/015b1501.d
04-MAR-2005 09:18	AR1262	/chem/ecd8a.i/030405.b/002b0201.d
09-MAY-2005 10:57	AR1248	/chem/ecd8a.i/050905.b/005b0501.d
25-MAR-2005 11:57	AR1232	/chem/ecd8a.i/032505.b/009b0901.d
26-APR-2005 11:22	AR1242	/chem/ecd8a.i/042605.b/009b0901.d
03-MAY-2005 11:43	AR1254	/chem/ecd8a.i/050305.b/003b0301.d
02-MAY-2005 12:15	AR1660	/chem/ecd8a.i/050205.b/002b0201.d
Cal Level: 2 , Cal Amount: 250.00000		
06-APR-2005 12:06	AR1221	/chem/ecd8a.i/040605.b/010b1001.d
22-MAR-2005 12:55	AR1268	/chem/ecd8a.i/032205.b/016b1601.d
04-MAR-2005 09:30	AR1262	/chem/ecd8a.i/030405.b/003b0301.d
09-MAY-2005 11:09	AR1248	/chem/ecd8a.i/050905.b/006b0601.d
25-MAR-2005 12:09	AR1232	/chem/ecd8a.i/032505.b/010b1001.d
26-APR-2005 11:34	AR1242	/chem/ecd8a.i/042605.b/010b1001.d
03-MAY-2005 11:55	AR1254	/chem/ecd8a.i/050305.b/004b0401.d
02-MAY-2005 12:27	AR1660	/chem/ecd8a.i/050205.b/003b0301.d
Cal Level: 3 , Cal Amount: 500.00000		
06-APR-2005 12:18	AR1221	/chem/ecd8a.i/040605.b/011b1101.d
22-MAR-2005 13:07	AR1268	/chem/ecd8a.i/032205.b/017b1701.d
04-MAR-2005 09:42	AR1262	/chem/ecd8a.i/030405.b/004b0401.d
09-MAY-2005 11:21	AR1248	/chem/ecd8a.i/050905.b/007b0701.d
25-MAR-2005 12:22	AR1232	/chem/ecd8a.i/032505.b/011b1101.d
26-APR-2005 11:46	AR1242	/chem/ecd8a.i/042605.b/011b1101.d
03-MAY-2005 12:08	AR1254	/chem/ecd8a.i/050305.b/005b0501.d
02-MAY-2005 12:39	AR1660	/chem/ecd8a.i/050205.b/004b0401.d
Cal Level: 4 , Cal Amount: 1000.00000		
22-MAR-2005 13:19	AR1268	/chem/ecd8a.i/032205.b/018b1801.d
06-APR-2005 12:30	AR1221	/chem/ecd8a.i/040605.b/012b1201.d
25-MAR-2005 12:34	AR1232	/chem/ecd8a.i/032505.b/012b1201.d
04-MAR-2005 09:54	AR1262	/chem/ecd8a.i/030405.b/005b0501.d
09-MAY-2005 11:34	AR1248	/chem/ecd8a.i/050905.b/008b0801.d
26-APR-2005 11:59	AR1242	/chem/ecd8a.i/042605.b/012b1201.d
03-MAY-2005 12:20	AR1254	/chem/ecd8a.i/050305.b/006b0601.d
02-MAY-2005 12:52	AR1660	/chem/ecd8a.i/050205.b/005b0501.d
Cal Level: 5 , Cal Amount: 4000.00000		
06-APR-2005 12:43	AR1221	/chem/ecd8a.i/040605.b/013b1301.d
22-MAR-2005 13:32	AR1268	/chem/ecd8a.i/032205.b/019b1901.d
04-MAR-2005 10:07	AR1262	/chem/ecd8a.i/030405.b/006b0601.d

09-MAY-2005 11:46	AR1248	/chem/ecd8a.i/050905.b/009b0901.d
25-MAR-2005 12:46	AR1232	/chem/ecd8a.i/032505.b/013b1301.d
26-APR-2005 12:11	AR1242	/chem/ecd8a.i/042605.b/013b1301.d
03-MAY-2005 12:32	AR1254	/chem/ecd8a.i/050305.b/007b0701.d
02-MAY-2005 13:04	AR1660	/chem/ecd8a.i/050205.b/006b0601.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 1000		
12-MAY-2005 10:25	AR1660	/chem/ecd8a.i/051105.b/092b9201.d
Ccal Level: 4 , Ccal Amount: 1000		
12-MAY-2005 07:50	AR1660	/chem/ecd8a.i/051105.b/088b8801.d
Ccal Level: 4 , Ccal Amount: 1000		
12-MAY-2005 06:00	AR1660	/chem/ecd8a.i/051105.b/079b7901.d
Ccal Level: 4 , Ccal Amount: 1000		
12-MAY-2005 04:09	AR1660	/chem/ecd8a.i/051105.b/070b7001.d
Ccal Level: 4 , Ccal Amount: 1000		
12-MAY-2005 03:33	AR1660	/chem/ecd8a.i/051105.b/067b6701.d
Ccal Level: 4 , Ccal Amount: 1000		
11-MAY-2005 14:16	AR1660	/chem/ecd8a.i/051105.b/002b0201.d
Ccal Level: 4 , Ccal Amount: 1000		
12-MAY-2005 02:19	AR1660	/chem/ecd8a.i/051105.b/061b6101.d
Ccal Level: 4 , Ccal Amount: 1000		
12-MAY-2005 00:53	AR1660	/chem/ecd8a.i/051105.b/054b5401.d
Ccal Level: 4 , Ccal Amount: 1000		
12-MAY-2005 00:17	AR1660	/chem/ecd8a.i/051105.b/051b5101.d
Ccal Level: 4 , Ccal Amount: 1000		
11-MAY-2005 22:14	AR1660	/chem/ecd8a.i/051105.b/041b4101.d
Ccal Level: 4 , Ccal Amount: 1000		
11-MAY-2005 20:48	AR1254	/chem/ecd8a.i/051105.b/034b3401.d
Ccal Level: 4 , Ccal Amount: 1000		
11-MAY-2005 20:36	AR1660	/chem/ecd8a.i/051105.b/033b3301.d
Ccal Level: 4 , Ccal Amount: 1000		
11-MAY-2005 18:46	AR1254	/chem/ecd8a.i/051105.b/024b2401.d
Ccal Level: 4 , Ccal Amount: 1000		
11-MAY-2005 18:34	AR1660	/chem/ecd8a.i/051105.b/023b2301.d
Ccal Level: 4 , Ccal Amount: 1000		
11-MAY-2005 17:45	AR1660	/chem/ecd8a.i/051105.b/019b1901.d
Ccal Level: 4 , Ccal Amount: 1000		
11-MAY-2005 15:42	AR1268	/chem/ecd8a.i/051105.b/009b0901.d
Ccal Level: 4 , Ccal Amount: 1000		
11-MAY-2005 15:30	AR1221	/chem/ecd8a.i/051105.b/008b0801.d

Ccal Level: 4 , Ccal Amount: 1000		
11-MAY-2005 15:17	AR1232	/chem/ecd8a.i/051105.b/007b0701.d
Ccal Level: 4 , Ccal Amount: 1000		
11-MAY-2005 15:05	AR1262	/chem/ecd8a.i/051105.b/006b0601.d
Ccal Level: 4 , Ccal Amount: 1000		
11-MAY-2005 14:53	AR1248	/chem/ecd8a.i/051105.b/005b0501.d
Ccal Level: 4 , Ccal Amount: 1000		
11-MAY-2005 14:41	AR1242	/chem/ecd8a.i/051105.b/004b0401.d
Ccal Level: 4 , Ccal Amount: 1000		
11-MAY-2005 14:28	AR1254	/chem/ecd8a.i/051105.b/003b0301.d
Ccal Level: 4 , Ccal Amount: 1000		
11-MAY-2005 15:42	AR1268	/chem/ecd8a.i/051105.b/009f0901.d
Ccal Level: 4 , Ccal Amount: 1000		
11-MAY-2005 15:30	AR1221	/chem/ecd8a.i/051105.b/008f0801.d
Ccal Level: 4 , Ccal Amount: 1000		
11-MAY-2005 15:17	AR1232	/chem/ecd8a.i/051105.b/007f0701.d
Ccal Level: 4 , Ccal Amount: 1000		
11-MAY-2005 15:05	AR1262	/chem/ecd8a.i/051105.b/006f0601.d
Ccal Level: 4 , Ccal Amount: 1000		
11-MAY-2005 14:28	AR1254	/chem/ecd8a.i/051105.b/003f0301.d
Ccal Level: 4 , Ccal Amount: 1000		
11-MAY-2005 14:16	AR1660	/chem/ecd8a.i/051105.b/002f0201.d

General Engineering Laboratories, LLC

COMPOUND LISTING

Method file : /chem/ecd8a.i/051105.b/ECD8-F-8082-050905.m
Quant Method : ESTD Target Version : 3.50
Last Update : 12-May-2005 11:06 Number of Cpnds : 12
Data Type : GC MULTI COMP

Global Integrator : Falcon

Chromat Events	Values
Initial:Start Threshold	758.000000
Initial:End Threshold	379.000000
Initial:Area Threshold	734.000000
Initial:P-P Resolution	1.000000
Initial:Bunch Factor	2.000000
Initial:Negative Peaks	OFF
Initial:Tension	1.100000
8.500:Bunch Factor	2.000000

Compound	RT	RT Window	RF
1 Aroclor-1016	2.831	2.801-2.861	6.144e+03
	2.876	2.846-2.906	3.794e+03
	2.966	2.936-2.996	3.204e+03
	2.982	2.952-3.012	3.625e+03
	3.184	3.154-3.214	3.100e+03
2 Aroclor-1221	2.006	1.976-2.036	1.772e+03
	2.114	2.084-2.144	8.410e+02
	2.144	2.114-2.174	4.465e+03
3 Aroclor-1232	2.550	2.520-2.580	9.773e+02
	2.834	2.804-2.864	1.894e+03
	2.879	2.849-2.909	1.181e+03
	2.985	2.955-3.015	9.538e+02
	3.426	3.396-3.456	1.123e+03
4 Aroclor-1242	2.833	2.803-2.863	4.478e+03
	2.878	2.848-2.908	2.800e+03
	2.968	2.938-2.998	2.213e+03
	3.185	3.155-3.215	2.569e+03
	3.424	3.394-3.454	3.211e+03
5 Aroclor-1248	3.186	3.156-3.216	4.819e+03
	3.363	3.333-3.393	3.528e+03
	3.424	3.394-3.454	7.025e+03
	3.578	3.548-3.608	6.107e+03
	3.853	3.823-3.883	4.299e+03

General Engineering Laboratories, LLC

COMPOUND LISTING

Method file : /chem/ecd8a.i/051105.b/ECD8-F-8082-050905.m

Compound	RT	RT Window	RF
6 Aroclor-1254	3.575	3.545-3.605	9.541e+03
	3.768	3.738-3.798	7.026e+03
	3.853	3.823-3.883	1.222e+04
	3.978	3.948-4.008	4.751e+03
	4.045	4.015-4.075	8.510e+03
7 Aroclor-1260	3.978	3.948-4.008	1.005e+04
	4.169	4.139-4.199	1.581e+04
	4.440	4.410-4.470	8.021e+03
	4.609	4.579-4.639	8.998e+03
	5.014	4.984-5.044	1.103e+04
8 Aroclor-1262	4.171	4.141-4.201	6.880e+03
	4.443	4.413-4.473	9.029e+03
	4.611	4.581-4.641	8.252e+03
	4.822	4.792-4.852	1.748e+04
	5.040	5.010-5.070	7.027e+03
9 Aroclor-1268	5.039	5.009-5.069	2.018e+04
	5.065	5.035-5.095	2.043e+04
	5.196	5.166-5.226	1.660e+04
	5.438	5.408-5.468	6.838e+03
	5.631	5.601-5.661	5.569e+04
M 10 Aroclor-Total	1.000	0.980-1.020	
$ 11 4cmx	1.864	1.834-1.894	2.047e+05
$ 12 Decachlorobiphenyl	5.758	5.728-5.788	2.311e+05

General Engineering Laboratories, LLC

COMPOUND LISTING

Method file : /chem/ecd8a.i/051105.b/ECD8-B-8082-050905.m
Quant Method : ESTD Target Version : 3.50
Last Update : 12-May-2005 11:07 Number of Cpnds : 12
Data Type : GC MULTI COMP

Global Integrator : Falcon

Chromat Events	Values
Initial:Start Threshold	733.000000
Initial:End Threshold	366.500000
Initial:Area Threshold	522.000000
Initial:P-P Resolution	0.000000
Initial:Bunch Factor	3.000000
Initial:Negative Peaks	OFF
Initial:Tension	1.000000
9.000:Bunch Factor	3.000000

Compound	RT	RT Window	RF
1 Aroclor-1016	3.084	3.054-3.114	8.256e+03
	3.342	3.312-3.372	1.738e+04
	3.418	3.388-3.448	1.025e+04
	3.491	3.461-3.521	1.057e+04
	3.684	3.654-3.714	1.424e+04
2 Aroclor-1221	2.434	2.404-2.464	4.865e+03
	2.544	2.514-2.574	2.821e+03
	2.590	2.560-2.620	1.133e+04
3 Aroclor-1232	3.085	3.055-3.115	2.438e+03
	3.343	3.313-3.373	5.065e+03
	3.420	3.390-3.450	3.004e+03
	3.493	3.463-3.523	2.561e+03
	3.687	3.657-3.717	3.711e+03
4 Aroclor-1242	3.084	3.054-3.114	6.068e+03
	3.343	3.313-3.373	1.265e+04
	3.418	3.388-3.448	7.428e+03
	3.686	3.656-3.716	1.055e+04
	3.992	3.962-4.022	1.167e+04
5 Aroclor-1248	3.493	3.463-3.523	1.534e+04
	3.523	3.493-3.553	1.307e+04
	3.686	3.656-3.716	1.908e+04
	3.774	3.744-3.804	1.972e+04
	3.960	3.930-3.990	2.026e+04

General Engineering Laboratories, LLC

COMPOUND LISTING

Method file : /chem/ecd8a.i/051105.b/ECD8-B-8082-050905.m

Compound	RT	RT Window	RF
6 Aroclor-1254	3.987	3.957-4.017	2.363e+04
	4.123	4.093-4.153	2.535e+04
	4.367	4.337-4.397	1.791e+04
	4.448	4.418-4.478	3.390e+04
	4.609	4.579-4.639	2.332e+04
7 Aroclor-1260	4.584	4.554-4.614	2.791e+04
	4.731	4.701-4.761	3.468e+04
	5.043	5.013-5.073	2.166e+04
	5.248	5.218-5.278	2.333e+04
	5.422	5.392-5.452	5.421e+04
8 Aroclor-1262	4.586	4.556-4.616	1.443e+04
	4.732	4.702-4.762	1.687e+04
	5.045	5.015-5.075	2.342e+04
	5.250	5.220-5.280	2.150e+04
	5.424	5.394-5.454	4.258e+04
9 Aroclor-1268	5.670	5.640-5.700	5.396e+04
	5.703	5.673-5.733	5.128e+04
	5.876	5.846-5.906	4.077e+04
	6.074	6.044-6.104	1.617e+04
	6.300	6.270-6.330	1.254e+05
M 10 Aroclor-Total	1.000	0.980-1.020	
$ 11 4cmx	2.193	2.163-2.223	7.277e+05
$ 12 Decachlorobiphenyl	6.476	6.446-6.506	5.028e+05

General Engineering Laboratories, LLC

INITIAL CALIBRATION DATA

Start Cal Date : 03-FEB-2005 10:58
End Cal Date : 09-MAY-2005 11:46
Quant Method : ESTD
Origin : None
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd8a.i/051105.b/ECD8-F-8082-050905.m
Cal Date : 12-May-2005 11:06 jar00935
Curve Type : Average

Calibration File Names:
Level 1: /chem/ecd8a.i/040605.b/009f0901.d
Level 2: /chem/ecd8a.i/040605.b/010f1001.d
Level 3: /chem/ecd8a.i/040605.b/011f1101.d
Level 4: /chem/ecd8a.i/032205.b/018f1801.d
Level 5: /chem/ecd8a.i/040605.b/013f1301.d

Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
1 Aroclor-1016(1)	6478	6298	6240	5983	5721	6144	4.810
(2)	3926	3825	3884	3728	3606	3794	3.391
(3)	3458	3338	3168	3027	3030	3204	5.957
(4)	3869	3657	3787	3615	3197	3625	7.171
(5)	3249	3019	3175	3085	2974	3100	3.621
2 Aroclor-1221(1)	1929	1839	1753	1741	1600	1772	6.916
(2)	910	880	854	813	748	841	7.463
(3)	4978	4722	4463	4318	3844	4465	9.608
3 Aroclor-1232(1)	1078	1037	996	915	859	977	9.158
(2)	2090	1953	1923	1803	1702	1894	7.833
(3)	1286	1214	1196	1127	1084	1181	6.652
(4)	1070	980	966	904	849	954	8.726
(5)	1227	1119	1137	1033	1100	1123	6.253
4 Aroclor-1242(1)	4773	4557	4518	4396	4143	4478	5.162
(2)	2970	2827	2809	2741	2650	2800	4.223
(3)	2349	2275	2241	2157	2041	2213	5.327
(4)	2784	2701	2622	2442	2298	2569	7.689
(5)	3192	3171	3237	3211	3246	3211	0.966
5 Aroclor-1248(1)	5169	4761	4859	4717	4587	4819	4.546
(2)	3660	3349	3629	3420	3582	3528	3.862
(3)	7255	6622	7109	6796	7343	7025	4.365
(4)	6364	5998	6270	5883	6020	6107	3.299
(5)	4581	4443	4523	3847	4100	4299	7.305
6 Aroclor-1254(1)	9856	9743	9174	9529	9403	9541	2.842
(2)	7165	7024	6832	7062	7047	7026	1.728
(3)	12280	12182	11805	12343	12472	12216	2.072
(4)	4942	4770	4640	4739	4663	4751	2.518
(5)	8052	8182	8229	8818	9271	8510	6.079

General Engineering Laboratories, LLC

INITIAL CALIBRATION DATA

Start Cal Date : 03-FEB-2005 10:58
End Cal Date : 09-MAY-2005 11:46
Quant Method : ESTD
Origin : None
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd8a.i/051105.b/ECD8-F-8082-050905.m
Cal Date : 12-May-2005 11:06 jar00935
Curve Type : Average

Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
7 Aroclor-1260(1)	10233	10055	10125	9937	9916	10053	1.316
(2)	15835	15624	15810	15750	16017	15807	0.904
(3)	8126	7960	7985	7927	8108	8021	1.122
(4)	8954	8819	8938	8954	9323	8998	2.118
(5)	10567	10677	10966	10961	11997	11033	5.134
8 Aroclor-1262(1)	6897	6803	6910	6787	7003	6880	1.275
(2)	9047	8969	9057	8948	9122	9029	0.781
(3)	8206	8193	8283	8194	8384	8252	1.001
(4)	16743	17082	17427	17666	18458	17475	3.724
(5)	7079	6920	7076	6942	7117	7027	1.270
9 Aroclor-1268(1)	19469	19839	19921	20347	21331	20182	3.541
(2)	20416	20679	20206	20418	20428	20429	0.820
(3)	16235	16582	16431	16676	17096	16604	1.936
(4)	6633	6848	6800	6891	7017	6838	2.048
(5)	53363	55275	55332	56326	58130	55685	3.120
M 10 Aroclor-Total	+++++	+++++	+++++	+++++	+++++	+++++	+++++
$ 11 4cmx	213997	208263	206029	197445	197740	204695	3.471
$ 12 Decachlorobiphenyl	221133	225208	232318	223547	253226	231086	5.651

General Engineering Laboratories, LLC

INITIAL CALIBRATION DATA

Start Cal Date : 03-FEB-2005 10:58
End Cal Date : 09-MAY-2005 11:46
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd8a.i/051105.b/ECD8-B-8082-050905.m
Cal Date : 12-May-2005 11:07 jar00935
Curve Type : Average

Calibration File Names:
Level 1: /chem/ecd8a.i/040605.b/009b0901.d
Level 2: /chem/ecd8a.i/040605.b/010b1001.d
Level 3: /chem/ecd8a.i/040605.b/011b1101.d
Level 4: /chem/ecd8a.i/032205.b/018b1801.d
Level 5: /chem/ecd8a.i/040605.b/013b1301.d

Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
1 Aroclor-1016(1)	8542	8394	8670	8331	7343	8256	6.384
(2)	17369	17708	18156	17654	16017	17381	4.676
(3)	9820	10096	10606	10543	10183	10250	3.183
(4)	10794	10799	10939	10581	9757	10574	4.485
(5)	14291	14488	14808	14336	13266	14238	4.071
2 Aroclor-1221(1)	4917	4878	4871	4952	4706	4865	1.943
(2)	2855	2883	2848	2852	2666	2821	3.108
(3)	11488	11848	11795	11557	9980	11334	6.810
3 Aroclor-1232(1)	2502	2467	2519	2424	2280	2438	3.927
(2)	5013	5097	5266	5114	4835	5065	3.112
(3)	2945	2954	3088	3023	3009	3004	1.933
(4)	2597	2588	2648	2551	2422	2561	3.321
(5)	3649	3730	3871	3694	3612	3711	2.696
4 Aroclor-1242(1)	6295	6067	6177	6222	5578	6068	4.711
(2)	12674	12595	13021	13102	11876	12654	3.840
(3)	7155	7148	7559	7794	7485	7428	3.730
(4)	10551	10499	10826	10912	9954	10548	3.563
(5)	11600	11531	11990	12096	11138	11671	3.294
5 Aroclor-1248(1)	15341	15422	16299	15379	14236	15335	4.777
(2)	13121	12979	13859	13175	12202	13067	4.523
(3)	18966	19113	20339	19200	17789	19081	4.746
(4)	19247	19378	21096	19982	18904	19721	4.368
(5)	19503	19519	21631	20676	19948	20256	4.465
6 Aroclor-1254(1)	23669	24278	23616	24394	22211	23634	3.675
(2)	25219	25944	25150	26150	24309	25354	2.880
(3)	17403	18050	17837	18677	17570	17907	2.772
(4)	33952	34955	33763	34937	31869	33895	3.713
(5)	22849	23671	23205	24307	22581	23322	2.938

General Engineering Laboratories, LLC

INITIAL CALIBRATION DATA

Start Cal Date : 03-FEB-2005 10:58
End Cal Date : 09-MAY-2005 11:46
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd8a.i/051105.b/ECD8-B-8082-050905.m
Cal Date : 12-May-2005 11:07 jar00935
Curve Type : Average

Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
7 Aroclor-1260(1)	28536	28665	28849	27949	25559	27912	4.863
(2)	35567	35616	35759	34719	31739	34680	4.885
(3)	22293	22211	22376	21611	19802	21659	4.988
(4)	23790	23735	24256	23426	21446	23331	4.691
(5)	55454	55577	55851	54049	50114	54209	4.415
8 Aroclor-1262(1)	14754	14729	14758	14328	13601	14434	3.464
(2)	17162	17226	17284	16797	15881	16870	3.465
(3)	24299	24316	24066	23307	21135	23425	5.738
(4)	22147	22290	22143	21383	19555	21503	5.330
(5)	44258	44375	43854	42384	38026	42579	6.262
9 Aroclor-1268(1)	53522	55680	54720	54390	51504	53963	2.922
(2)	52531	53777	52000	50864	47253	51285	4.846
(3)	41491	42808	41504	40772	37279	40771	5.115
(4)	15564	16915	16461	16317	15603	16172	3.593
(5)	131618	132970	127922	123952	110471	125387	7.214
M 10 Aroclor-Total	#####	#####	#####	#####	#####	#####	#####
$ 11 4cmx	674388	710609	739220	732952	781529	727740	5.406
$ 12 Decachlorobiphenyl	507950	508886	510371	501078	485734	502804	2.026

Report Date: 13-May-2005 14:07

Calibration History

Method : /chem/ecd8a.i/051205.b/ECD8-F-8082-050905.m
Start Cal Date: 03-FEB-2005 10:58
End Cal Date : 09-MAY-2005 11:46

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 100.00000		
06-APR-2005 11:54	AR1221	/chem/ecd8a.i/040605.b/009f0901.d
22-MAR-2005 12:43	AR1268	/chem/ecd8a.i/032205.b/015f1501.d
04-MAR-2005 09:18	AR1262	/chem/ecd8a.i/030405.b/002f0201.d
09-MAY-2005 10:57	AR1248	/chem/ecd8a.i/050905.b/005f0501.d
25-MAR-2005 11:57	AR1232	/chem/ecd8a.i/032505.b/009f0901.d
26-APR-2005 11:22	AR1242	/chem/ecd8a.i/042605.b/009f0901.d
03-MAY-2005 11:43	AR1254	/chem/ecd8a.i/050305.b/003f0301.d
02-MAY-2005 12:15	AR1660	/chem/ecd8a.i/050205.b/002f0201.d
Cal Level: 2 , Cal Amount: 250.00000		
06-APR-2005 12:06	AR1221	/chem/ecd8a.i/040605.b/010f1001.d
22-MAR-2005 12:55	AR1268	/chem/ecd8a.i/032205.b/016f1601.d
04-MAR-2005 09:30	AR1262	/chem/ecd8a.i/030405.b/003f0301.d
09-MAY-2005 11:09	AR1248	/chem/ecd8a.i/050905.b/006f0601.d
25-MAR-2005 12:09	AR1232	/chem/ecd8a.i/032505.b/010f1001.d
26-APR-2005 11:34	AR1242	/chem/ecd8a.i/042605.b/010f1001.d
03-MAY-2005 11:55	AR1254	/chem/ecd8a.i/050305.b/004f0401.d
02-MAY-2005 12:27	AR1660	/chem/ecd8a.i/050205.b/003f0301.d
Cal Level: 3 , Cal Amount: 500.00000		
06-APR-2005 12:18	AR1221	/chem/ecd8a.i/040605.b/011f1101.d
22-MAR-2005 13:07	AR1268	/chem/ecd8a.i/032205.b/017f1701.d
04-MAR-2005 09:42	AR1262	/chem/ecd8a.i/030405.b/004f0401.d
09-MAY-2005 11:21	AR1248	/chem/ecd8a.i/050905.b/007f0701.d
25-MAR-2005 12:22	AR1232	/chem/ecd8a.i/032505.b/011f1101.d
26-APR-2005 11:46	AR1242	/chem/ecd8a.i/042605.b/011f1101.d
03-MAY-2005 12:08	AR1254	/chem/ecd8a.i/050305.b/005f0501.d
02-MAY-2005 12:39	AR1660	/chem/ecd8a.i/050205.b/004f0401.d
Cal Level: 4 , Cal Amount: 1000.00000		
22-MAR-2005 13:19	AR1268	/chem/ecd8a.i/032205.b/018f1801.d
06-APR-2005 12:30	AR1221	/chem/ecd8a.i/040605.b/012f1201.d
25-MAR-2005 12:34	AR1232	/chem/ecd8a.i/032505.b/012f1201.d
04-MAR-2005 09:54	AR1262	/chem/ecd8a.i/030405.b/005f0501.d
09-MAY-2005 11:34	AR1248	/chem/ecd8a.i/050905.b/008f0801.d
26-APR-2005 11:59	AR1242	/chem/ecd8a.i/042605.b/012f1201.d
03-MAY-2005 12:20	AR1254	/chem/ecd8a.i/050305.b/006f0601.d
02-MAY-2005 12:52	AR1660	/chem/ecd8a.i/050205.b/005f0501.d
Cal Level: 5 , Cal Amount: 4000.00000		
06-APR-2005 12:43	AR1221	/chem/ecd8a.i/040605.b/013f1301.d
22-MAR-2005 13:32	AR1268	/chem/ecd8a.i/032205.b/019f1901.d
04-MAR-2005 10:07	AR1262	/chem/ecd8a.i/030405.b/006f0601.d

09-MAY-2005 11:46	AR1248	/chem/ecd8a.i/050905.b/009f0901.d
25-MAR-2005 12:46	AR1232	/chem/ecd8a.i/032505.b/013f1301.d
26-APR-2005 12:11	AR1242	/chem/ecd8a.i/042605.b/013f1301.d
03-MAY-2005 12:32	AR1254	/chem/ecd8a.i/050305.b/007f0701.d
02-MAY-2005 13:04	AR1660	/chem/ecd8a.i/050205.b/006f0601.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 1000		
12-MAY-2005 12:30	AR1248	/chem/ecd8a.i/051205.b/005f0501.d
Ccal Level: 4 , Ccal Amount: 1000		
12-MAY-2005 19:02	AR1660	/chem/ecd8a.i/051205.b/027f2701.d
Ccal Level: 4 , Ccal Amount: 1000		
12-MAY-2005 18:25	AR1660	/chem/ecd8a.i/051205.b/024f2401.d
Ccal Level: 4 , Ccal Amount: 1000		
12-MAY-2005 17:48	AR1660	/chem/ecd8a.i/051205.b/021f2101.d
Ccal Level: 4 , Ccal Amount: 1000		
12-MAY-2005 17:11	AR1660	/chem/ecd8a.i/051205.b/018f1801.d
Ccal Level: 4 , Ccal Amount: 1000		
12-MAY-2005 15:54	AR1660	/chem/ecd8a.i/051205.b/015f1501.d
Ccal Level: 4 , Ccal Amount: 1000		
12-MAY-2005 13:19	AR1268	/chem/ecd8a.i/051205.b/009f0901.d
Ccal Level: 4 , Ccal Amount: 1000		
12-MAY-2005 13:07	AR1221	/chem/ecd8a.i/051205.b/008f0801.d
Ccal Level: 4 , Ccal Amount: 1000		
12-MAY-2005 12:55	AR1232	/chem/ecd8a.i/051205.b/007f0701.d
Ccal Level: 4 , Ccal Amount: 1000		
12-MAY-2005 12:43	AR1262	/chem/ecd8a.i/051205.b/006f0601.d
Ccal Level: 4 , Ccal Amount: 1000		
12-MAY-2005 12:18	AR1242	/chem/ecd8a.i/051205.b/004f0401.d
Ccal Level: 4 , Ccal Amount: 1000		
12-MAY-2005 12:06	AR1254	/chem/ecd8a.i/051205.b/003f0301.d
Ccal Level: 4 , Ccal Amount: 1000		
12-MAY-2005 11:54	AR1660	/chem/ecd8a.i/051205.b/002f0201.d

Report Date: 13-May-2005 14:07

Calibration History

Method : /chem/ecd8a.i/051205.b/ECD8-B-8082-050905.m
Start Cal Date: 03-FEB-2005 10:58
End Cal Date : 09-MAY-2005 11:46

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 100.00000		
06-APR-2005 11:54	AR1221	/chem/ecd8a.i/040605.b/009b0901.d
22-MAR-2005 12:43	AR1268	/chem/ecd8a.i/032205.b/015b1501.d
04-MAR-2005 09:18	AR1262	/chem/ecd8a.i/030405.b/002b0201.d
09-MAY-2005 10:57	AR1248	/chem/ecd8a.i/050905.b/005b0501.d
25-MAR-2005 11:57	AR1232	/chem/ecd8a.i/032505.b/009b0901.d
26-APR-2005 11:22	AR1242	/chem/ecd8a.i/042605.b/009b0901.d
03-MAY-2005 11:43	AR1254	/chem/ecd8a.i/050305.b/003b0301.d
02-MAY-2005 12:15	AR1660	/chem/ecd8a.i/050205.b/002b0201.d
Cal Level: 2 , Cal Amount: 250.00000		
06-APR-2005 12:06	AR1221	/chem/ecd8a.i/040605.b/010b1001.d
22-MAR-2005 12:55	AR1268	/chem/ecd8a.i/032205.b/016b1601.d
04-MAR-2005 09:30	AR1262	/chem/ecd8a.i/030405.b/003b0301.d
09-MAY-2005 11:09	AR1248	/chem/ecd8a.i/050905.b/006b0601.d
25-MAR-2005 12:09	AR1232	/chem/ecd8a.i/032505.b/010b1001.d
26-APR-2005 11:34	AR1242	/chem/ecd8a.i/042605.b/010b1001.d
03-MAY-2005 11:55	AR1254	/chem/ecd8a.i/050305.b/004b0401.d
02-MAY-2005 12:27	AR1660	/chem/ecd8a.i/050205.b/003b0301.d
Cal Level: 3 , Cal Amount: 500.00000		
06-APR-2005 12:18	AR1221	/chem/ecd8a.i/040605.b/011b1101.d
22-MAR-2005 13:07	AR1268	/chem/ecd8a.i/032205.b/017b1701.d
04-MAR-2005 09:42	AR1262	/chem/ecd8a.i/030405.b/004b0401.d
09-MAY-2005 11:21	AR1248	/chem/ecd8a.i/050905.b/007b0701.d
25-MAR-2005 12:22	AR1232	/chem/ecd8a.i/032505.b/011b1101.d
26-APR-2005 11:46	AR1242	/chem/ecd8a.i/042605.b/011b1101.d
03-MAY-2005 12:08	AR1254	/chem/ecd8a.i/050305.b/005b0501.d
02-MAY-2005 12:39	AR1660	/chem/ecd8a.i/050205.b/004b0401.d
Cal Level: 4 , Cal Amount: 1000.00000		
22-MAR-2005 13:19	AR1268	/chem/ecd8a.i/032205.b/018b1801.d
06-APR-2005 12:30	AR1221	/chem/ecd8a.i/040605.b/012b1201.d
25-MAR-2005 12:34	AR1232	/chem/ecd8a.i/032505.b/012b1201.d
04-MAR-2005 09:54	AR1262	/chem/ecd8a.i/030405.b/005b0501.d
09-MAY-2005 11:34	AR1248	/chem/ecd8a.i/050905.b/008b0801.d
26-APR-2005 11:59	AR1242	/chem/ecd8a.i/042605.b/012b1201.d
03-MAY-2005 12:20	AR1254	/chem/ecd8a.i/050305.b/006b0601.d
02-MAY-2005 12:52	AR1660	/chem/ecd8a.i/050205.b/005b0501.d
Cal Level: 5 , Cal Amount: 4000.00000		
06-APR-2005 12:43	AR1221	/chem/ecd8a.i/040605.b/013b1301.d
22-MAR-2005 13:32	AR1268	/chem/ecd8a.i/032205.b/019b1901.d
04-MAR-2005 10:07	AR1262	/chem/ecd8a.i/030405.b/006b0601.d

09-MAY-2005 11:46	AR1248	/chem/ecd8a.i/050905.b/009b0901.d
25-MAR-2005 12:46	AR1232	/chem/ecd8a.i/032505.b/013b1301.d
26-APR-2005 12:11	AR1242	/chem/ecd8a.i/042605.b/013b1301.d
03-MAY-2005 12:32	AR1254	/chem/ecd8a.i/050305.b/007b0701.d
02-MAY-2005 13:04	AR1660	/chem/ecd8a.i/050205.b/006b0601.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 1000		
12-MAY-2005 12:55	AR1232	/chem/ecd8a.i/051205.b/007b0701.d
Ccal Level: 4 , Ccal Amount: 1000		
12-MAY-2005 19:02	AR1660	/chem/ecd8a.i/051205.b/027b2701.d
Ccal Level: 4 , Ccal Amount: 1000		
12-MAY-2005 17:48	AR1660	/chem/ecd8a.i/051205.b/021b2101.d
Ccal Level: 4 , Ccal Amount: 1000		
12-MAY-2005 15:54	AR1660	/chem/ecd8a.i/051205.b/015b1501.d
Ccal Level: 4 , Ccal Amount: 1000		
12-MAY-2005 18:25	AR1660	/chem/ecd8a.i/051205.b/024b2401.d
Ccal Level: 4 , Ccal Amount: 1000		
12-MAY-2005 17:11	AR1660	/chem/ecd8a.i/051205.b/018b1801.d
Ccal Level: 4 , Ccal Amount: 1000		
12-MAY-2005 13:19	AR1268	/chem/ecd8a.i/051205.b/009b0901.d
Ccal Level: 4 , Ccal Amount: 1000		
12-MAY-2005 13:07	AR1221	/chem/ecd8a.i/051205.b/008b0801.d
Ccal Level: 4 , Ccal Amount: 1000		
12-MAY-2005 12:43	AR1262	/chem/ecd8a.i/051205.b/006b0601.d
Ccal Level: 4 , Ccal Amount: 1000		
12-MAY-2005 12:30	AR1248	/chem/ecd8a.i/051205.b/005b0501.d
Ccal Level: 4 , Ccal Amount: 1000		
12-MAY-2005 12:18	AR1242	/chem/ecd8a.i/051205.b/004b0401.d
Ccal Level: 4 , Ccal Amount: 1000		
12-MAY-2005 12:06	AR1254	/chem/ecd8a.i/051205.b/003b0301.d
Ccal Level: 4 , Ccal Amount: 1000		
12-MAY-2005 11:54	AR1660	/chem/ecd8a.i/051205.b/002b0201.d

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COMPOUND LISTING

Method file : /chem/ecd8a.i/051205.b/ECD8-F-8082-050905.m
Quant Method : ESTD Target Version : 3.50
Last Update : 13-May-2005 10:22 Number of Cpnds : 12
Data Type : GC MULTI COMP

Global Integrator : Falcon

Chromat Events	Values
Initial:Start Threshold	758.000000
Initial:End Threshold	379.000000
Initial:Area Threshold	734.000000
Initial:P-P Resolution	1.000000
Initial:Bunch Factor	2.000000
Initial:Negative Peaks	OFF
Initial:Tension	1.100000
8.500:Bunch Factor	2.000000

Compound	RT	RT Window	RF
1 Aroclor-1016	2.835	2.805-2.865	6.144e+03
	2.881	2.851-2.911	3.794e+03
	2.971	2.941-3.001	3.204e+03
	2.987	2.957-3.017	3.625e+03
	3.188	3.158-3.218	3.100e+03
2 Aroclor-1221	2.008	1.978-2.038	1.772e+03
	2.114	2.084-2.144	8.410e+02
	2.145	2.115-2.175	4.465e+03
3 Aroclor-1232	2.552	2.522-2.582	9.773e+02
	2.835	2.805-2.865	1.894e+03
	2.880	2.850-2.910	1.181e+03
	2.987	2.957-3.017	9.538e+02
	3.427	3.397-3.457	1.123e+03
4 Aroclor-1242	2.835	2.805-2.865	4.478e+03
	2.880	2.850-2.910	2.800e+03
	2.971	2.941-3.001	2.213e+03
	3.188	3.158-3.218	2.569e+03
	3.426	3.396-3.456	3.211e+03
5 Aroclor-1248	3.188	3.158-3.218	4.819e+03
	3.364	3.334-3.394	3.528e+03
	3.426	3.396-3.456	7.025e+03
	3.580	3.550-3.610	6.107e+03
	3.855	3.825-3.885	4.299e+03

General Engineering Laboratories, LLC

COMPOUND LISTING

Method file : /chem/ecd8a.i/051205.b/ECD8-F-8082-050905.m

	Compound	RT	RT Window	RF
	6 Aroclor-1254	3.579	3.549-3.609	9.541e+03
		3.770	3.740-3.800	7.026e+03
		3.854	3.824-3.884	1.222e+04
		3.981	3.951-4.011	4.751e+03
		4.047	4.017-4.077	8.510e+03
	7 Aroclor-1260	3.982	3.952-4.012	1.005e+04
		4.173	4.143-4.203	1.581e+04
		4.443	4.413-4.473	8.021e+03
		4.613	4.583-4.643	8.998e+03
		5.016	4.986-5.046	1.103e+04
	8 Aroclor-1262	4.172	4.142-4.202	6.880e+03
		4.443	4.413-4.473	9.029e+03
		4.611	4.581-4.641	8.252e+03
		4.822	4.792-4.852	1.748e+04
		5.039	5.009-5.069	7.027e+03
	9 Aroclor-1268	5.039	5.009-5.069	2.018e+04
		5.065	5.035-5.095	2.043e+04
		5.195	5.165-5.225	1.660e+04
		5.438	5.408-5.468	6.838e+03
		5.631	5.601-5.661	5.569e+04
M	10 Aroclor-Total	1.000	0.980-1.020	
$	11 4cmx	1.868	1.838-1.898	2.047e+05
$	12 Decachlorobiphenyl	5.760	5.730-5.790	2.311e+05

General Engineering Laboratories, LLC

COMPOUND LISTING

Method file : /chem/ecd8a.i/051205.b/ECD8-B-8082-050905.m
Quant Method : ESTD Target Version : 3.50
Last Update : 13-May-2005 12:07 Number of Cpnds : 12
Data Type : GC MULTI COMP

Global Integrator : Falcon

Chromat Events	Values
Initial:Start Threshold	733.000000
Initial:End Threshold	366.500000
Initial:Area Threshold	522.000000
Initial:P-P Resolution	0.000000
Initial:Bunch Factor	3.000000
Initial:Negative Peaks	OFF
Initial:Tension	1.000000
9.000:Bunch Factor	3.000000

Compound	RT	RT Window	RF
1 Aroclor-1016	3.087	3.057-3.117	8.256e+03
	3.346	3.316-3.376	1.738e+04
	3.421	3.391-3.451	1.025e+04
	3.494	3.464-3.524	1.057e+04
	3.688	3.658-3.718	1.424e+04
2 Aroclor-1221	2.435	2.405-2.465	4.865e+03
	2.546	2.516-2.576	2.821e+03
	2.593	2.563-2.623	1.133e+04
3 Aroclor-1232	3.087	3.057-3.117	2.438e+03
	3.346	3.316-3.376	5.065e+03
	3.422	3.392-3.452	3.004e+03
	3.495	3.465-3.525	2.561e+03
	3.688	3.658-3.718	3.711e+03
4 Aroclor-1242	3.087	3.057-3.117	6.068e+03
	3.346	3.316-3.376	1.265e+04
	3.421	3.391-3.451	7.428e+03
	3.688	3.658-3.718	1.055e+04
	3.994	3.964-4.024	1.167e+04
5 Aroclor-1248	3.494	3.464-3.524	1.534e+04
	3.525	3.495-3.555	1.307e+04
	3.688	3.658-3.718	1.908e+04
	3.775	3.745-3.805	1.972e+04
	3.962	3.932-3.992	2.026e+04

General Engineering Laboratories, LLC

COMPOUND LISTING

Method file : /chem/ecd8a.i/051205.b/ECD8-B-8082-050905.m

Compound	RT	RT Window	RF
6 Aroclor-1254	3.989	3.959-4.019	2.363e+04
	4.125	4.095-4.155	2.535e+04
	4.369	4.339-4.399	1.791e+04
	4.451	4.421-4.481	3.390e+04
	4.611	4.581-4.641	2.332e+04
7 Aroclor-1260	4.587	4.557-4.617	2.791e+04
	4.733	4.703-4.763	3.468e+04
	5.044	5.014-5.074	2.166e+04
	5.250	5.220-5.280	2.333e+04
	5.423	5.393-5.453	5.421e+04
8 Aroclor-1262	4.587	4.557-4.617	1.443e+04
	4.734	4.704-4.764	1.687e+04
	5.045	5.015-5.075	2.342e+04
	5.250	5.220-5.280	2.150e+04
	5.424	5.394-5.454	4.258e+04
9 Aroclor-1268	5.670	5.640-5.700	5.396e+04
	5.703	5.673-5.733	5.128e+04
	5.876	5.846-5.906	4.077e+04
	6.075	6.045-6.105	1.617e+04
	6.301	6.271-6.331	1.254e+05
M 10 Aroclor-Total	1.000	0.980-1.020	
$ 11 4cmx	2.197	2.167-2.227	7.277e+05
$ 12 Decachlorobiphenyl	6.478	6.448-6.508	5.028e+05

General Engineering Laboratories, LLC

INITIAL CALIBRATION DATA

Start Cal Date : 03-FEB-2005 10:58
End Cal Date : 09-MAY-2005 11:46
Quant Method : ESTD
Origin : None
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd8a.i/051205.b/ECD8-F-8082-050905.m
Cal Date : 13-May-2005 10:22 jar00935
Curve Type : Average

Calibration File Names:
Level 1: /chem/ecd8a.i/040605.b/009f0901.d
Level 2: /chem/ecd8a.i/040605.b/010f1001.d
Level 3: /chem/ecd8a.i/040605.b/011f1101.d
Level 4: /chem/ecd8a.i/032205.b/018f1801.d
Level 5: /chem/ecd8a.i/040605.b/013f1301.d

Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
1 Aroclor-1016(1)	6478	6298	6240	5983	5721	6144	4.810
(2)	3926	3825	3884	3728	3606	3794	3.391
(3)	3458	3338	3168	3027	3030	3204	5.957
(4)	3869	3657	3787	3615	3197	3625	7.171
(5)	3249	3019	3175	3085	2974	3100	3.621
2 Aroclor-1221(1)	1929	1839	1753	1741	1600	1772	6.916
(2)	910	880	854	813	748	841	7.463
(3)	4978	4722	4463	4318	3844	4465	9.608
3 Aroclor-1232(1)	1078	1037	996	915	859	977	9.158
(2)	2090	1953	1923	1803	1702	1894	7.833
(3)	1286	1214	1196	1127	1084	1181	6.652
(4)	1070	980	966	904	849	954	8.726
(5)	1227	1119	1137	1033	1100	1123	6.253
4 Aroclor-1242(1)	4773	4557	4518	4396	4143	4478	5.162
(2)	2970	2827	2809	2741	2650	2800	4.223
(3)	2349	2275	2241	2157	2041	2213	5.327
(4)	2784	2701	2622	2442	2298	2569	7.689
(5)	3192	3171	3237	3211	3246	3211	0.966
5 Aroclor-1248(1)	5169	4761	4859	4717	4587	4819	4.546
(2)	3660	3349	3629	3420	3582	3528	3.862
(3)	7255	6622	7109	6796	7343	7025	4.365
(4)	6364	5998	6270	5883	6020	6107	3.299
(5)	4581	4443	4523	3847	4100	4299	7.305
6 Aroclor-1254(1)	9856	9743	9174	9529	9403	9541	2.842
(2)	7165	7024	6832	7062	7047	7026	1.728
(3)	12280	12182	11805	12343	12472	12216	2.072
(4)	4942	4770	4640	4739	4663	4751	2.518
(5)	8052	8182	8229	8818	9271	8510	6.079

General Engineering Laboratories, LLC

INITIAL CALIBRATION DATA

Start Cal Date : 03-FEB-2005 10:58
End Cal Date : 09-MAY-2005 11:46
Quant Method : ESTD
Origin : None
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd8a.i/051205.b/ECD8-F-8082-050905.m
Cal Date : 13-May-2005 10:22 jar00935
Curve Type : Average

Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
7 Aroclor-1260(1)	10233	10055	10125	9937	9916	10053	1.316
(2)	15835	15624	15810	15750	16017	15807	0.904
(3)	8126	7960	7985	7927	8108	8021	1.122
(4)	8954	8819	8938	8954	9323	8998	2.118
(5)	10567	10677	10966	10961	11997	11033	5.134
8 Aroclor-1262(1)	6897	6803	6910	6787	7003	6880	1.275
(2)	9047	8969	9057	8948	9122	9029	0.781
(3)	8206	8193	8283	8194	8384	8252	1.001
(4)	16743	17082	17427	17666	18458	17475	3.724
(5)	7079	6920	7076	6942	7117	7027	1.270
9 Aroclor-1268(1)	19469	19839	19921	20347	21331	20182	3.541
(2)	20416	20679	20206	20418	20428	20429	0.820
(3)	16235	16582	16431	16676	17096	16604	1.936
(4)	6633	6848	6800	6891	7017	6838	2.048
(5)	53363	55275	55332	56326	58130	55685	3.120
M 10 Aroclor-Total	+++++	+++++	+++++	+++++	+++++	+++++	+++++
$ 11 4cmx	213997	208263	206029	197445	197740	204695	3.471
$ 12 Decachlorobiphenyl	221133	225208	232318	223547	253226	231086	5.651

General Engineering Laboratories, LLC

INITIAL CALIBRATION DATA

Start Cal Date : 03-FEB-2005 10:58
End Cal Date : 09-MAY-2005 11:46
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd8a.i/051205.b/ECD8-B-8082-050905.m
Cal Date : 13-May-2005 12:07 jar00935
Curve Type : Average

Calibration File Names:
Level 1: /chem/ecd8a.i/040605.b/009b0901.d
Level 2: /chem/ecd8a.i/040605.b/010b1001.d
Level 3: /chem/ecd8a.i/040605.b/011b1101.d
Level 4: /chem/ecd8a.i/032205.b/018b1801.d
Level 5: /chem/ecd8a.i/040605.b/013b1301.d

Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
1 Aroclor-1016(1)	8542	8394	8670	8331	7343	8256	6.384
(2)	17369	17708	18156	17654	16017	17381	4.676
(3)	9820	10096	10606	10543	10183	10250	3.183
(4)	10794	10799	10939	10581	9757	10574	4.485
(5)	14291	14488	14808	14336	13266	14238	4.071
2 Aroclor-1221(1)	4917	4878	4871	4952	4706	4865	1.943
(2)	2855	2883	2848	2852	2666	2821	3.108
(3)	11488	11848	11795	11557	9980	11334	6.810
3 Aroclor-1232(1)	2502	2467	2519	2424	2280	2438	3.927
(2)	5013	5097	5266	5114	4835	5065	3.112
(3)	2945	2954	3088	3023	3009	3004	1.933
(4)	2597	2588	2648	2551	2422	2561	3.321
(5)	3649	3730	3871	3694	3612	3711	2.696
4 Aroclor-1242(1)	6295	6067	6177	6222	5578	6068	4.711
(2)	12674	12595	13021	13102	11876	12654	3.840
(3)	7155	7148	7559	7794	7485	7428	3.730
(4)	10551	10499	10826	10912	9954	10548	3.563
(5)	11600	11531	11990	12096	11138	11671	3.294
5 Aroclor-1248(1)	15341	15422	16299	15379	14236	15335	4.777
(2)	13121	12979	13859	13175	12202	13067	4.523
(3)	18966	19113	20339	19200	17789	19081	4.746
(4)	19247	19378	21096	19982	18904	19721	4.368
(5)	19503	19519	21631	20676	19948	20256	4.465
6 Aroclor-1254(1)	23669	24278	23616	24394	22211	23634	3.675
(2)	25219	25944	25150	26150	24309	25354	2.880
(3)	17403	18050	17837	18677	17570	17907	2.772
(4)	33952	34955	33763	34937	31869	33895	3.713
(5)	22849	23671	23205	24307	22581	23322	2.938

General Engineering Laboratories, LLC

INITIAL CALIBRATION DATA

Start Cal Date : 03-FEB-2005 10:58
End Cal Date : 09-MAY-2005 11:46
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd8a.i/051205.b/ECD8-B-8082-050905.m
Cal Date : 13-May-2005 12:07 jar00935
Curve Type : Average

Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
7 Aroclor-1260(1)	28536	28665	28849	27949	25559	27912	4.863
(2)	35567	35616	35759	34719	31739	34680	4.885
(3)	22293	22211	22376	21611	19802	21659	4.988
(4)	23790	23735	24256	23426	21446	23331	4.691
(5)	55454	55577	55851	54049	50114	54209	4.415
8 Aroclor-1262(1)	14754	14729	14758	14328	13601	14434	3.464
(2)	17162	17226	17284	16797	15881	16870	3.465
(3)	24299	24316	24066	23307	21135	23425	5.738
(4)	22147	22290	22143	21383	19555	21503	5.330
(5)	44258	44375	43854	42384	38026	42579	6.262
9 Aroclor-1268(1)	53522	55680	54720	54390	51504	53963	2.922
(2)	52531	53777	52000	50864	47253	51285	4.846
(3)	41491	42808	41504	40772	37279	40771	5.115
(4)	15564	16915	16461	16317	15603	16172	3.593
(5)	131618	132970	127922	123952	110471	125387	7.214
M 10 Aroclor-Total	+++++	+++++	+++++	+++++	+++++	+++++	+++++
$ 11 4cmx	674388	710609	739220	732952	781529	727740	5.406
$ 12 Decachlorobiphenyl	507950	508886	510371	501078	485734	502804	2.026

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Instrument ID: ECD8A Calibration Date: 05/11/05 Time: 1416

Lab File ID: 002F0201 Init. Calib. Date(s): 05/02/05 05/02/05

Heated Purge: (Y/N) N Init. Calib. Times: 1215 1304

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D	
Aroclor-1016	6144.167	5582.343	0.01	-9.1	15.0	
(2)	3793.681	3518.314	0.01	-7.2	15.0	
(3)	3204.143	2934.906	0.01	-8.4	15.0	
(4)	3625.009	3213.400	0.01	-11.4	15.0	
(5)	3100.444	2909.831	0.01	-6.1	15.0	
Aroclor-1260	10053.077	8750.020	0.01	-13.0	15.0	
(2)	15807.463	13594.505	0.01	-14.0	15.0	
(3)	8021.304	6990.794	0.01	-12.8	15.0	
(4)	8997.502	7800.362	0.01	-13.3	15.0	
(5)	11033.351	9402.453	0.01	-14.8	15.0	
4cmx	204694.57	191397.59	0.01	-6.5	15.0	
Decachlorobiphenyl	231086.22	187126.07	0.01	-19.0	15.0	<-

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Instrument ID: ECD8A Calibration Date: 05/11/05 Time: 1416

Lab File ID: 002B0201 Init. Calib. Date(s): 05/02/05 05/02/05

Heated Purge: (Y/N) N Init. Calib. Times: 1215 1304

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	8255.991	8345.870	0.01	1.1	15.0
(2)	17380.744	17364.062	0.01	-0.1	15.0
(3)	10249.549	10280.041	0.01	0.3	15.0
(4)	10573.935	10621.053	0.01	0.4	15.0
(5)	14237.857	14198.990	0.01	-0.3	15.0
Aroclor-1260	27911.532	28204.192	0.01	1.0	15.0
(2)	34680.222	35242.652	0.01	1.6	15.0
(3)	21658.550	22219.455	0.01	2.6	15.0
(4)	23330.595	23977.041	0.01	2.8	15.0
(5)	54209.109	55417.262	0.01	2.2	15.0
4cmx	727739.58	713387.27	0.01	-2.0	15.0
Decachlorobiphenyl	502803.97	512558.59	0.01	1.9	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Instrument ID: ECD8A Calibration Date: 05/11/05 Time: 1428

Lab File ID: 003F0301 Init. Calib. Date(s): 05/03/05 05/03/05

Heated Purge: (Y/N) N Init. Calib. Times: 1143 1232

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D	
Aroclor-1254	9541.142	8123.458	0.01	-14.8	15.0	
(2)	7026.135	5950.190	0.01	-15.3	15.0	<-
(3)	12216.485	10011.730	0.01	-18.0	15.0	<-
(4)	4751.008	4267.417	0.01	-10.2	15.0	
(5)	8510.416	7310.394	0.01	-14.1	15.0	
4cmx	204694.57	200489.80	0.01	-2.0	15.0	
Decachlorobiphenyl	231086.22	206916.88	0.01	-10.4	15.0	

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Instrument ID: ECD8A Calibration Date: 05/11/05 Time: 1428

Lab File ID: 003B0301 Init. Calib. Date(s): 05/03/05 05/03/05

Heated Purge: (Y/N) N Init. Calib. Times: 1143 1232

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1254	23633.573	23537.253	0.01	-0.4	15.0
(2)	25354.313	24581.753	0.01	-3.0	15.0
(3)	17907.364	17341.127	0.01	-3.2	15.0
(4)	33895.100	32406.935	0.01	-4.4	15.0
(5)	23322.420	22567.760	0.01	-3.2	15.0
4cmx	727739.58	749133.53	0.01	2.9	15.0
Decachlorobiphenyl	502803.97	569403.26	0.01	13.2	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Instrument ID: ECD8A Calibration Date: 05/11/05 Time: 2214

Lab File ID: 041F4101 Init. Calib. Date(s): 05/02/05 05/02/05

Heated Purge: (Y/N) N Init. Calib. Times: 1215 1304

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	6144.167	5589.246	0.01	-9.0	15.0
(2)	3793.681	3442.356	0.01	-9.3	15.0
(3)	3204.143	2908.876	0.01	-9.2	15.0
(4)	3625.009	3188.577	0.01	-12.0	15.0
(5)	3100.444	2871.759	0.01	-7.4	15.0
Aroclor-1260	10053.077	9215.485	0.01	-8.3	15.0
(2)	15807.463	14592.773	0.01	-7.7	15.0
(3)	8021.304	7448.445	0.01	-7.1	15.0
(4)	8997.502	8386.522	0.01	-6.8	15.0
(5)	11033.351	10618.370	0.01	-3.8	15.0
4cmx	204694.57	184400.71	0.01	-9.9	15.0
Decachlorobiphenyl	231086.22	224395.53	0.01	-2.9	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Instrument ID: ECD8A Calibration Date: 05/11/05 Time: 2214

Lab File ID: 041B4101 Init. Calib. Date(s): 05/02/05 05/02/05

Heated Purge: (Y/N) N Init. Calib. Times: 1215 1304

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	8255.991	7662.678	0.01	-7.2	15.0
(2)	17380.744	16165.624	0.01	-7.0	15.0
(3)	10249.549	9478.886	0.01	-7.5	15.0
(4)	10573.935	9708.944	0.01	-8.2	15.0
(5)	14237.857	13015.800	0.01	-8.6	15.0
Aroclor-1260	27911.532	25734.703	0.01	-7.8	15.0
(2)	34680.222	32015.931	0.01	-7.7	15.0
(3)	21658.550	20021.843	0.01	-7.6	15.0
(4)	23330.595	21666.608	0.01	-7.1	15.0
(5)	54209.109	50574.840	0.01	-6.7	15.0
4cmx	727739.58	677248.73	0.01	-6.9	15.0
Decachlorobiphenyl	502803.97	468746.06	0.01	-6.8	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Instrument ID: ECD8A Calibration Date: 05/12/05 Time: 0017

Lab File ID: 051F5101 Init. Calib. Date(s): 05/02/05 05/02/05

Heated Purge: (Y/N) N Init. Calib. Times: 1215 1304

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D	
Aroclor-1016	6144.167	5770.741	0.01	-6.1	15.0	
(2)	3793.681	3534.420	0.01	-6.8	15.0	
(3)	3204.143	3058.475	0.01	-4.5	15.0	
(4)	3625.009	3194.761	0.01	-11.9	15.0	
(5)	3100.444	2920.120	0.01	-5.8	15.0	
Aroclor-1260	10053.077	9017.286	0.01	-10.3	15.0	
(2)	15807.463	14217.069	0.01	-10.1	15.0	
(3)	8021.304	6938.292	0.01	-13.5	15.0	
(4)	8997.502	7694.280	0.01	-14.5	15.0	
(5)	11033.351	9305.795	0.01	-15.6	15.0	<-
4cmx	204694.57	188532.91	0.01	-7.9	15.0	
Decachlorobiphenyl	231086.22	169865.60	0.01	-26.5	15.0	<-

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Instrument ID: ECD8A Calibration Date: 05/12/05 Time: 0017

Lab File ID: 051B5101 Init. Calib. Date(s): 05/02/05 05/02/05

Heated Purge: (Y/N) N Init. Calib. Times: 1215 1304

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D	
Aroclor-1016	8255.991	7313.963	0.01	-11.4	15.0	
(2)	17380.744	15146.717	0.01	-12.8	15.0	
(3)	10249.549	8896.665	0.01	-13.2	15.0	
(4)	10573.935	8900.873	0.01	-15.8	15.0	<-
(5)	14237.857	11700.174	0.01	-17.8	15.0	<-
Aroclor-1260	27911.532	20136.880	0.01	-27.8	15.0	<-
(2)	34680.222	24299.013	0.01	-29.9	15.0	<-
(3)	21658.550	13819.890	0.01	-36.2	15.0	<-
(4)	23330.595	14623.529	0.01	-37.3	15.0	<-
(5)	54209.109	32963.266	0.01	-39.2	15.0	<-
4cmx	727739.58	660597.71	0.01	-9.2	15.0	
Decachlorobiphenyl	502803.97	272289.52	0.01	-45.8	15.0	<-

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Instrument ID: ECD8A Calibration Date: 05/12/05 Time: 1154

Lab File ID: 002F0201 Init. Calib. Date(s): 05/02/05 05/02/05

Heated Purge: (Y/N) N Init. Calib. Times: 1215 1304

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	6144.167	5663.645	0.01	-7.8	15.0
(2)	3793.681	3496.177	0.01	-7.8	15.0
(3)	3204.143	3027.080	0.01	-5.5	15.0
(4)	3625.009	3156.724	0.01	-12.9	15.0
(5)	3100.444	2903.847	0.01	-6.3	15.0
Aroclor-1260	10053.077	9397.215	0.01	-6.5	15.0
(2)	15807.463	14894.285	0.01	-5.8	15.0
(3)	8021.304	7606.088	0.01	-5.2	15.0
(4)	8997.502	8586.061	0.01	-4.6	15.0
(5)	11033.351	10789.702	0.01	-2.2	15.0
4cmx	204694.57	184559.70	0.01	-9.8	15.0
Decachlorobiphenyl	231086.22	224587.85	0.01	-2.8	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Instrument ID: ECD8A Calibration Date: 05/12/05 Time: 1154

Lab File ID: 002B0201 Init. Calib. Date(s): 05/02/05 05/02/05

Heated Purge: (Y/N) N Init. Calib. Times: 1215 1304

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	8255.991	7854.594	0.01	-4.9	15.0
(2)	17380.744	16710.525	0.01	-3.8	15.0
(3)	10249.549	9839.594	0.01	-4.0	15.0
(4)	10573.935	10065.201	0.01	-4.8	15.0
(5)	14237.857	13563.914	0.01	-4.7	15.0
Aroclor-1260	27911.532	27001.816	0.01	-3.2	15.0
(2)	34680.222	33588.725	0.01	-3.1	15.0
(3)	21658.550	20980.004	0.01	-3.1	15.0
(4)	23330.595	22726.463	0.01	-2.6	15.0
(5)	54209.109	52987.225	0.01	-2.2	15.0
4cmx	727739.58	695881.15	0.01	-4.4	15.0
Decachlorobiphenyl	502803.97	460222.51	0.01	-8.5	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Instrument ID: ECD8A Calibration Date: 05/12/05 Time: 1206

Lab File ID: 003F0301 Init. Calib. Date(s): 05/03/05 05/03/05

Heated Purge: (Y/N) N Init. Calib. Times: 1143 1232

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1254	9541.142	8375.472	0.01	-12.2	15.0
(2)	7026.135	6269.178	0.01	-10.8	15.0
(3)	12216.485	10855.514	0.01	-11.1	15.0
(4)	4751.008	4475.138	0.01	-5.8	15.0
(5)	8510.416	7990.770	0.01	-6.1	15.0
4cmx	204694.57	193393.36	0.01	-5.5	15.0
Decachlorobiphenyl	231086.22	250079.50	0.01	8.2	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Instrument ID: ECD8A Calibration Date: 05/12/05 Time: 1206

Lab File ID: 003B0301 Init. Calib. Date(s): 05/03/05 05/03/05

Heated Purge: (Y/N) N Init. Calib. Times: 1143 1232

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1254	23633.573	22391.892	0.01	-5.2	15.0
(2)	25354.313	23617.610	0.01	-6.8	15.0
(3)	17907.364	16615.199	0.01	-7.2	15.0
(4)	33895.100	31265.119	0.01	-7.8	15.0
(5)	23322.420	21848.526	0.01	-6.3	15.0
4cmx	727739.58	724079.22	0.01	-0.5	15.0
Decachlorobiphenyl	502803.97	514704.63	0.01	2.4	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Instrument ID: ECD8A Calibration Date: 05/12/05 Time: 1554

Lab File ID: 015F1501 Init. Calib. Date(s): 05/02/05 05/02/05

Heated Purge: (Y/N) N Init. Calib. Times: 1215 1304

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	6144.167	5565.627	0.01	-9.4	15.0
(2)	3793.681	3447.456	0.01	-9.1	15.0
(3)	3204.143	2902.934	0.01	-9.4	15.0
(4)	3625.009	3101.746	0.01	-14.4	15.0
(5)	3100.444	2838.411	0.01	-8.4	15.0
Aroclor-1260	10053.077	8995.824	0.01	-10.5	15.0
(2)	15807.463	14324.062	0.01	-9.4	15.0
(3)	8021.304	7282.718	0.01	-9.2	15.0
(4)	8997.502	8247.017	0.01	-8.3	15.0
(5)	11033.351	10542.272	0.01	-4.4	15.0
4cmx	204694.57	180319.54	0.01	-11.9	15.0
Decachlorobiphenyl	231086.22	216590.69	0.01	-6.3	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Instrument ID: ECD8A Calibration Date: 05/12/05 Time: 1554

Lab File ID: 015B1501 Init. Calib. Date(s): 05/02/05 05/02/05

Heated Purge: (Y/N) N Init. Calib. Times: 1215 1304

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	8255.991	7429.177	0.01	-10.0	15.0
(2)	17380.744	15738.662	0.01	-9.4	15.0
(3)	10249.549	9364.319	0.01	-8.6	15.0
(4)	10573.935	9346.209	0.01	-11.6	15.0
(5)	14237.857	12703.952	0.01	-10.8	15.0
Aroclor-1260	27911.532	24992.924	0.01	-10.4	15.0
(2)	34680.222	31283.761	0.01	-9.8	15.0
(3)	21658.550	19483.330	0.01	-10.0	15.0
(4)	23330.595	21171.127	0.01	-9.2	15.0
(5)	54209.109	49808.661	0.01	-8.1	15.0
4cmx	727739.58	664278.20	0.01	-8.7	15.0
Decachlorobiphenyl	502803.97	433956.79	0.01	-13.7	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Instrument ID: ECD8A Calibration Date: 05/12/05 Time: 1711

Lab File ID: 018F1801 Init. Calib. Date(s): 05/02/05 05/02/05

Heated Purge: (Y/N) N Init. Calib. Times: 1215 1304

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	6144.167	5625.891	0.01	-8.4	15.0
(2)	3793.681	3464.938	0.01	-8.7	15.0
(3)	3204.143	3014.881	0.01	-5.9	15.0
(4)	3625.009	3122.736	0.01	-13.8	15.0
(5)	3100.444	2882.269	0.01	-7.0	15.0
Aroclor-1260	10053.077	9111.418	0.01	-9.4	15.0
(2)	15807.463	14620.947	0.01	-7.5	15.0
(3)	8021.304	7393.054	0.01	-7.8	15.0
(4)	8997.502	8323.423	0.01	-7.5	15.0
(5)	11033.351	10482.663	0.01	-5.0	15.0
4cmx	204694.57	184906.09	0.01	-9.7	15.0
Decachlorobiphenyl	231086.22	211575.59	0.01	-8.4	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Instrument ID: ECD8A Calibration Date: 05/12/05 Time: 1711

Lab File ID: 018B1801 Init. Calib. Date(s): 05/02/05 05/02/05

Heated Purge: (Y/N) N Init. Calib. Times: 1215 1304

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D	
Aroclor-1016	8255.991	7636.842	0.01	-7.5	15.0	
(2)	17380.744	16078.382	0.01	-7.5	15.0	
(3)	10249.549	9431.361	0.01	-8.0	15.0	
(4)	10573.935	9606.466	0.01	-9.1	15.0	
(5)	14237.857	12800.717	0.01	-10.1	15.0	
Aroclor-1260	27911.532	23847.187	0.01	-14.6	15.0	
(2)	34680.222	29404.112	0.01	-15.2	15.0	<-
(3)	21658.550	17408.791	0.01	-19.6	15.0	<-
(4)	23330.595	18474.244	0.01	-20.8	15.0	<-
(5)	54209.109	42404.638	0.01	-21.8	15.0	<-
4cmx	727739.58	680718.11	0.01	-6.5	15.0	
Decachlorobiphenyl	502803.97	370516.15	0.01	-26.3	15.0	<-

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Instrument ID: ECD8A Calibration Date: 05/12/05 Time: 1825

Lab File ID: 024F2401 Init. Calib. Date(s): 05/02/05 05/02/05

Heated Purge: (Y/N) N Init. Calib. Times: 1215 1304

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	6144.167	5523.022	0.01	-10.1	15.0
(2)	3793.681	3424.550	0.01	-9.7	15.0
(3)	3204.143	2842.960	0.01	-11.3	15.0
(4)	3625.009	3163.745	0.01	-12.7	15.0
(5)	3100.444	2831.648	0.01	-8.7	15.0
Aroclor-1260	10053.077	9049.637	0.01	-10.0	15.0
(2)	15807.463	14370.008	0.01	-9.1	15.0
(3)	8021.304	7339.825	0.01	-8.5	15.0
(4)	8997.502	8294.970	0.01	-7.8	15.0
(5)	11033.351	10518.516	0.01	-4.7	15.0
4cmx	204694.57	180094.52	0.01	-12.0	15.0
Decachlorobiphenyl	231086.22	219106.40	0.01	-5.2	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Instrument ID: ECD8A Calibration Date: 05/12/05 Time: 1825

Lab File ID: 024B2401 Init. Calib. Date(s): 05/02/05 05/02/05

Heated Purge: (Y/N) N Init. Calib. Times: 1215 1304

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	8255.991	7381.930	0.01	-10.6	15.0
(2)	17380.744	15646.486	0.01	-10.0	15.0
(3)	10249.549	9246.380	0.01	-9.8	15.0
(4)	10573.935	9413.077	0.01	-11.0	15.0
(5)	14237.857	12650.507	0.01	-11.1	15.0
Aroclor-1260	27911.532	24818.268	0.01	-11.1	15.0
(2)	34680.222	30852.654	0.01	-11.0	15.0
(3)	21658.550	19244.704	0.01	-11.1	15.0
(4)	23330.595	20897.974	0.01	-10.4	15.0
(5)	54209.109	48549.147	0.01	-10.4	15.0
4cmx	727739.58	651707.24	0.01	-10.4	15.0
Decachlorobiphenyl	502803.97	434311.61	0.01	-13.6	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Instrument ID: ECD8A Calibration Date: 05/12/05 Time: 1902

Lab File ID: 027F2701 Init. Calib. Date(s): 05/02/05 05/02/05

Heated Purge: (Y/N) N Init. Calib. Times: 1215 1304

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D	
Aroclor-1016	6144.167	5586.030	0.01	-9.1	15.0	
(2)	3793.681	3493.219	0.01	-7.9	15.0	
(3)	3204.143	3008.303	0.01	-6.1	15.0	
(4)	3625.009	3052.174	0.01	-15.8	15.0	<-
(5)	3100.444	2866.493	0.01	-7.5	15.0	
Aroclor-1260	10053.077	8940.289	0.01	-11.1	15.0	
(2)	15807.463	14332.874	0.01	-9.3	15.0	
(3)	8021.304	7260.995	0.01	-9.5	15.0	
(4)	8997.502	8174.186	0.01	-9.2	15.0	
(5)	11033.351	10407.527	0.01	-5.7	15.0	
4cmx	204694.57	181719.26	0.01	-11.2	15.0	
Decachlorobiphenyl	231086.22	214385.57	0.01	-7.2	15.0	

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Instrument ID: ECD8A Calibration Date: 05/12/05 Time: 1902

Lab File ID: 027B2701 Init. Calib. Date(s): 05/02/05 05/02/05

Heated Purge: (Y/N) N Init. Calib. Times: 1215 1304

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D	
Aroclor-1016	8255.991	7521.227	0.01	-8.9	15.0	
(2)	17380.744	15754.929	0.01	-9.4	15.0	
(3)	10249.549	9332.855	0.01	-8.9	15.0	
(4)	10573.935	9473.319	0.01	-10.4	15.0	
(5)	14237.857	12694.318	0.01	-10.8	15.0	
Aroclor-1260	27911.532	24497.958	0.01	-12.2	15.0	
(2)	34680.222	30487.128	0.01	-12.1	15.0	
(3)	21658.550	18553.328	0.01	-14.3	15.0	
(4)	23330.595	19926.437	0.01	-14.6	15.0	
(5)	54209.109	46437.087	0.01	-14.3	15.0	
4cmx	727739.58	655519.06	0.01	-9.9	15.0	
Decachlorobiphenyl	502803.97	400359.96	0.01	-20.4	15.0	<-

FORM VII PEST

General Engineering Laboratories, LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/051105.b/002f0201.d
Lab Smp Id: WAR050425-01601 Client Smp ID: AR166001
Inj Date : 11-MAY-2005 14:16
Operator : JMW1 Inst ID: ecd8a.i
Smp Info : |WAR050425-01601
Misc Info : |CCV|1660||ICV|
Comment :
Method : /chem/ecd8a.i/051105.b/ECD8-F-8082-050905.m
Meth Date : 12-May-2005 11:06 jar00935 Quant Type: ESTD
Cal Date : 06-APR-2005 12:43 Cal File: 013f1301.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: kilroy

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.864	1.864	0.000	19139759	0.00000	93.5	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.758	5.758	0.000	18712607	0.00000	81.0	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.831	2.831	0.000	5582343	1000.00	908	80.00- 120.00	100.00
2.876	2.876	0.000	3518314	1000.00	927	41.76- 81.76	63.03
2.966	2.966	0.000	2934905	1000.00	916	32.50- 72.50	52.57
2.982	2.982	0.000	3213400	1000.00	886	38.07- 78.07	57.56
3.184	3.184	0.000	2909830	1000.00	938	31.05- 71.05	52.13
Average of Peak Amounts =					915		
7 Aroclor-1260					CAS #: 11096-82-5		
3.978	3.978	0.000	8750019	1000.00	870	80.00- 120.00	100.00
4.169	4.169	0.000	13594505	1000.00	860	137.41- 177.41	155.37
4.440	4.440	0.000	6990794	1000.00	872	59.28- 99.28	79.89
4.609	4.609	0.000	7800361	1000.00	867	68.28- 108.28	89.15
5.014	5.014	0.000	9402452	1000.00	852	88.36- 128.36	107.46
Average of Peak Amounts =					864		

Data File: /chem/ecd8a.i/051105.b/002f0201.d
Date : 11-MAY-2005 14:16
Client ID: AR166001
Sample Info: IWAR050425-01601

Column phase: CLP1

Instrument: ecd8a.i

Operator: JMW1
Column diameter: 0.25

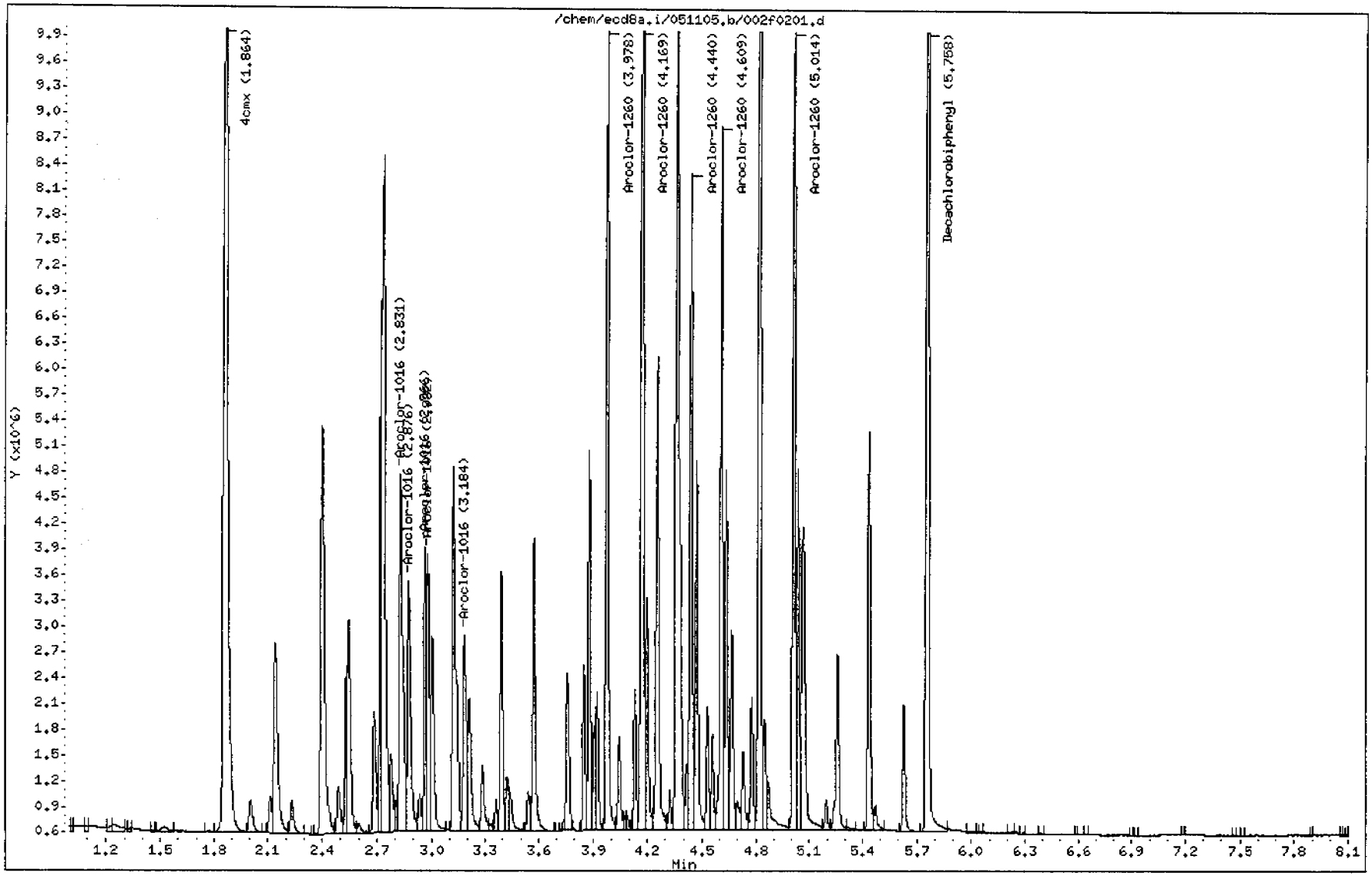

General Engineering Laboratories, LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/051105.b/002b0201.d
Lab Smp Id: WAR050425-01601 Client Smp ID: AR166001
Inj Date : 11-MAY-2005 14:16
Operator : JMW1 Inst ID: ecd8a.i
Smp Info : |WAR050425-01601
Misc Info : |CCV|1660||ICV|
Comment :
Method : /chem/ecd8a.i/051105.b/ECD8-B-8082-050905.m
Meth Date : 12-May-2005 11:07 jar00935 Quant Type: ESTD
Cal Date : 06-APR-2005 12:43 Cal File: 013f1301.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.193	2.193	0.000	71338727	0.00000	98.0	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.476	6.476	0.000	51255859	0.00000	102	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.084	3.084	0.000	8345870	1000.00	1010	80.00- 120.00	100.00(M)
3.342	3.342	0.000	17364062	1000.00	999	192.80- 232.80	208.06
3.418	3.418	0.000	10280041	1000.00	1000	105.10- 145.10	123.18
3.491	3.491	0.000	10621053	1000.00	1000	108.09- 148.09	127.26
3.684	3.684	0.000	14198989	1000.00	997	152.18- 192.18	170.13
Average of Peak Amounts =					1e+03		
7 Aroclor-1260					CAS #: 11096-82-5		
4.584	4.584	0.000	28204191	1000.00	1010	80.00- 120.00	100.00(M)
4.731	4.731	0.000	35242652	1000.00	1020	104.58- 144.58	124.96
5.043	5.043	0.000	22219455	1000.00	1020	55.68- 95.68	78.78
5.248	5.248	0.000	23977041	1000.00	1030	63.92- 103.92	85.01
5.422	5.422	0.000	55417261	1000.00	1020	176.42- 216.42	196.49
Average of Peak Amounts =					1.02e+03		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd8a.i/051105.b/002b0201.d
Date : 11-MAY-2005 14:16
Client ID: AR166001
Sample Info: IWAR050425-01601

Column phase: CLP2

Instrument: ecd8a.i

Operator: JMW1
Column diameter: 0.25

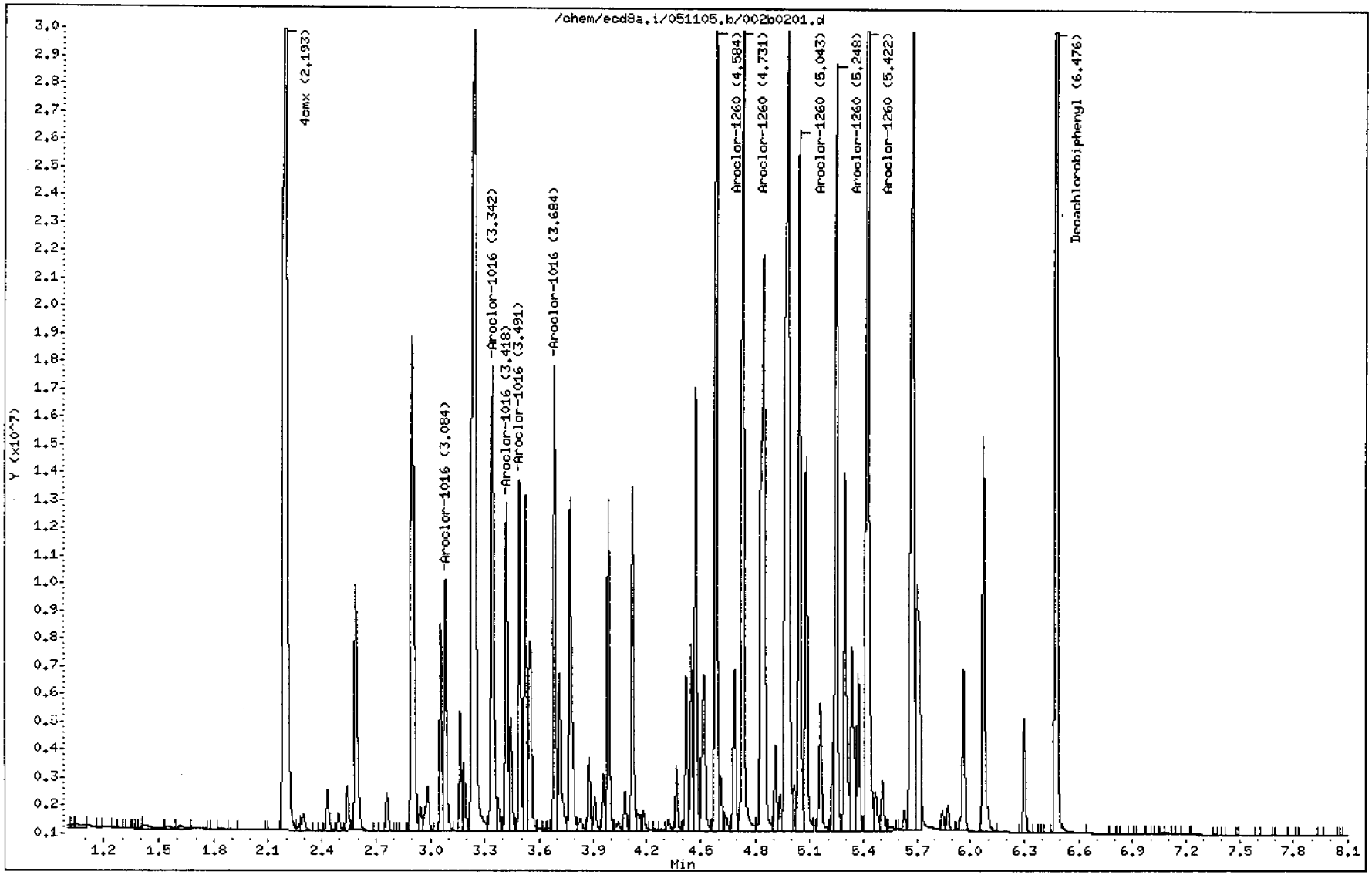

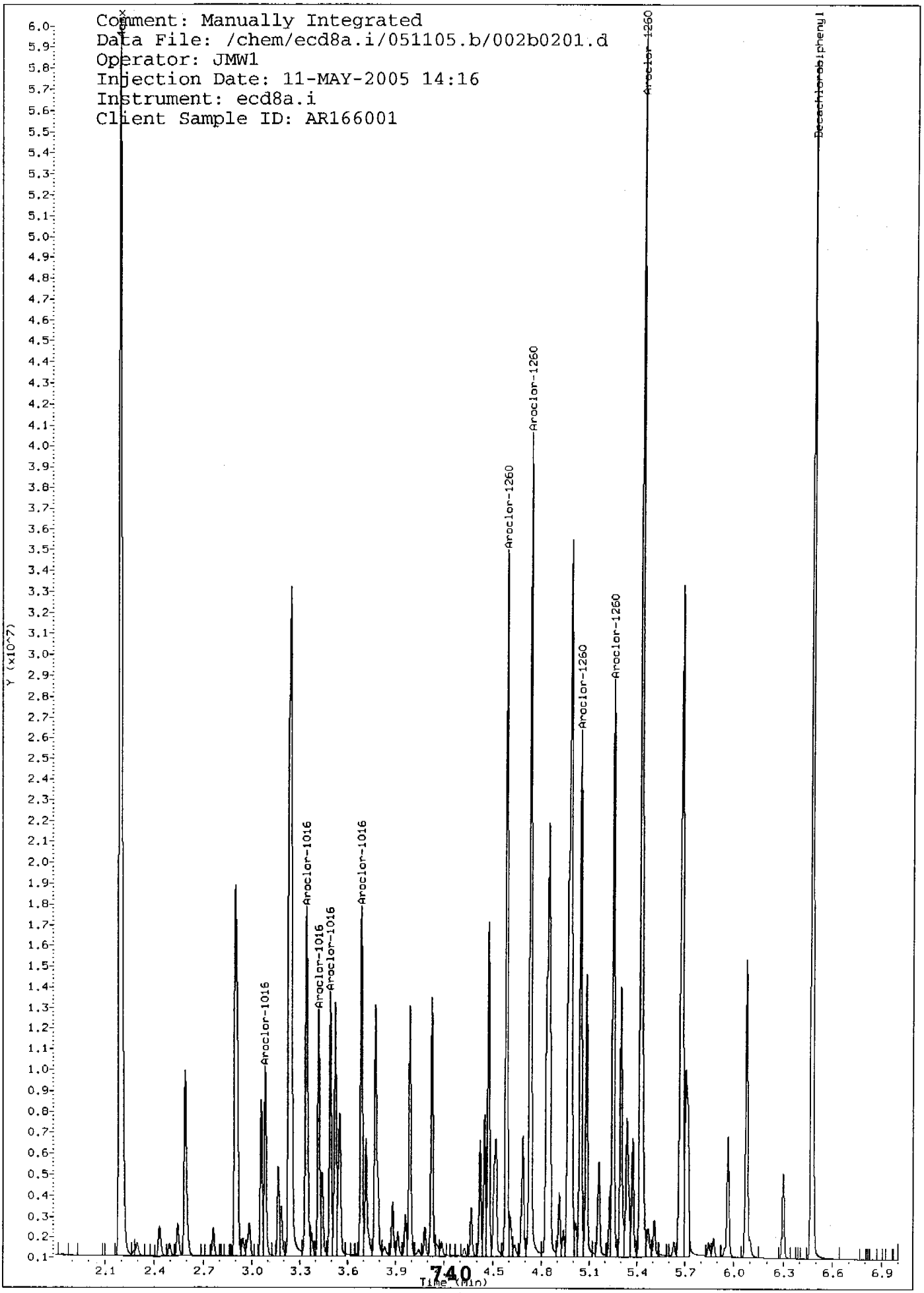
Comment: Manually Integrated
Data File: /chem/ecd8a.i/051105.b/002b0201.d
Operator: JMW1
Injection Date: 11-MAY-2005 14:16
Instrument: ecd8a.i
Client Sample ID: AR166001
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (min)

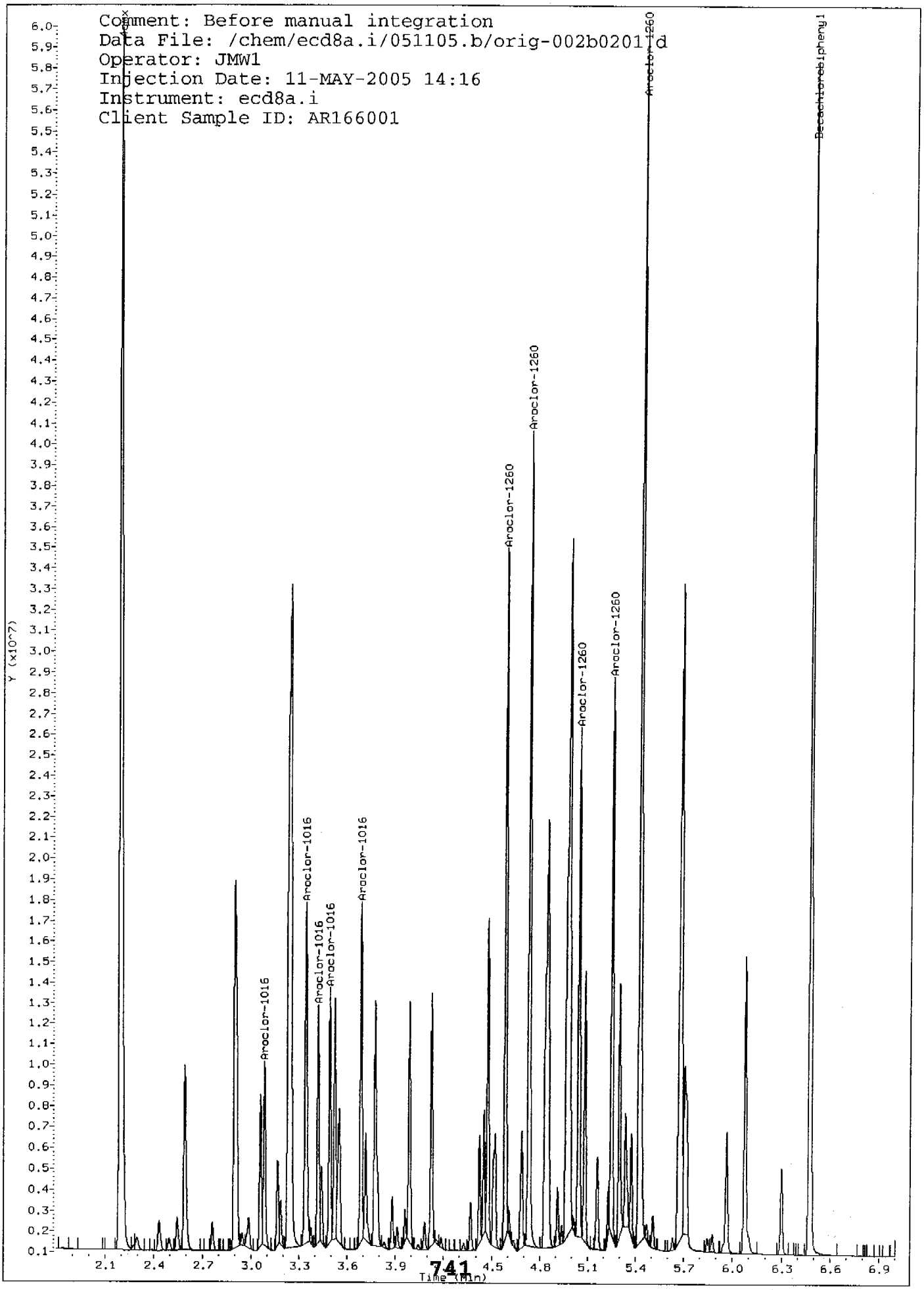
Comment: Before manual integration
Data File: /chem/ecd8a.i/051105.b/orig-002b0201.d
Operator: JMW1
Injection Date: 11-MAY-2005 14:16
Instrument: ecd8a.i
Client Sample ID: AR166001
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

General Engineering Laboratories, LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/051105.b/003f0301.d
Lab Smp Id: WAR050415-05 541 Client Smp ID: AR125401
Inj Date : 11-MAY-2005 14:28
Operator : JMW1 Inst ID: ecd8a.i
Smp Info : |WAR050415-05 541
Misc Info : |CVS|1254||CVS|
Comment :
Method : /chem/ecd8a.i/051105.b/ECD8-F-8082-050905.m
Meth Date : 12-May-2005 11:06 jar00935 Quant Type: ESTD
Cal Date : 06-APR-2005 12:43 Cal File: 013f1301.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1254.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.865	1.864	0.001	20048980	0.00000	97.9	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.758	5.758	0.000	20691688	0.00000	89.5	80.00- 120.00	100.00(M)
6 Aroclor-1254					CAS #: 11097-69-1		
3.575	3.575	0.000	8123457	1000.00	851	80.00- 120.00	100.00(M)
3.768	3.768	0.000	5950189	1000.00	847	53.25- 93.25	73.25
3.853	3.853	0.000	10011730	1000.00	820	103.24- 143.24	123.24
3.978	3.978	0.000	4267417	1000.00	898	32.53- 72.53	52.53
4.045	4.045	0.000	7310394	1000.00	859	69.99- 109.99	89.99
		Average of Peak Amounts =			855		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd8a.i/051105.b/003f0301.d
Date : 11-MAY-2005 14:28
Client ID: AR125401
Sample Info: IWAR050415-05 541

Column phase: CLP1

Instrument: ecd8a.i

Operator: JMW1
Column diameter: 0.25

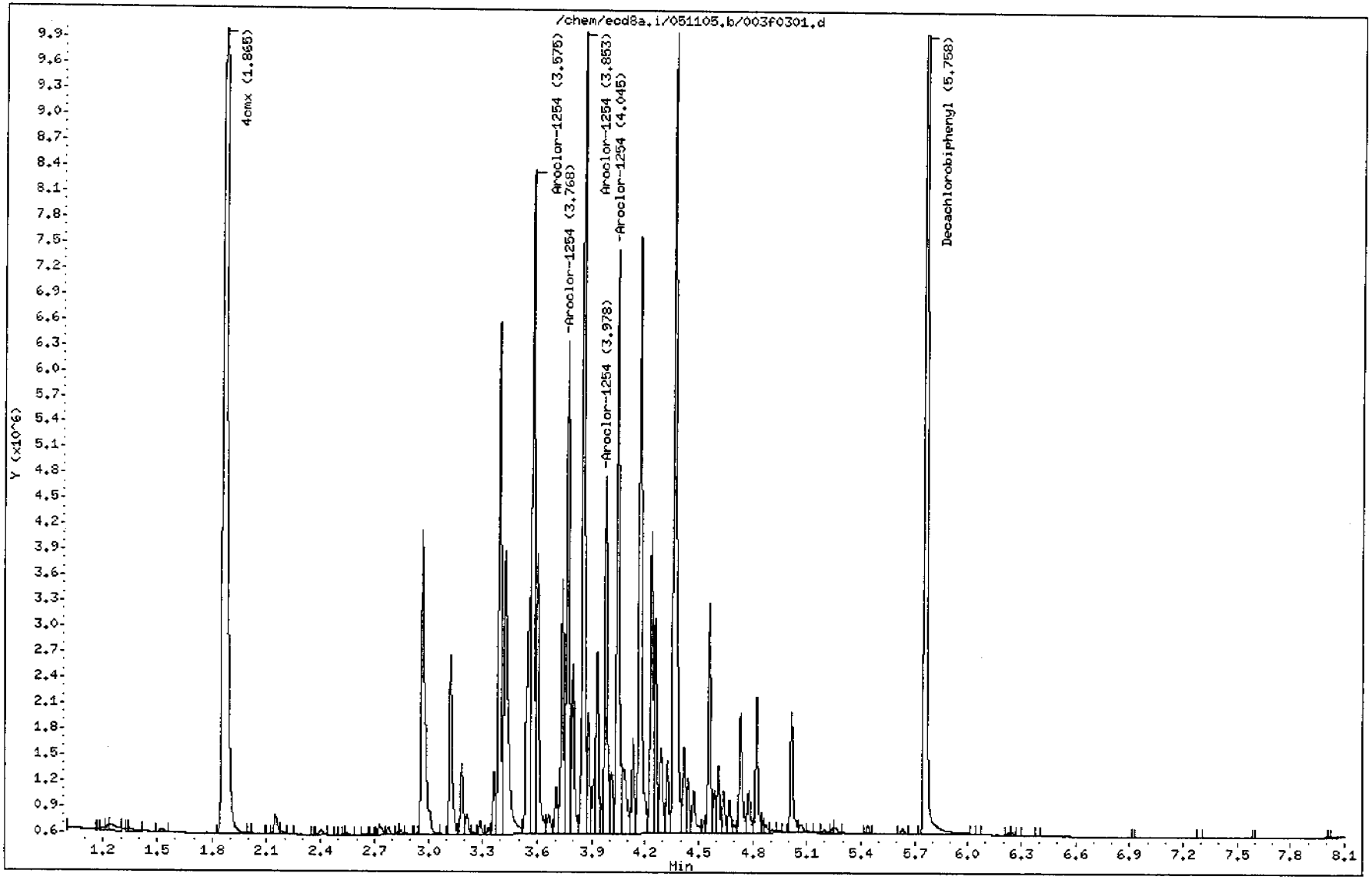

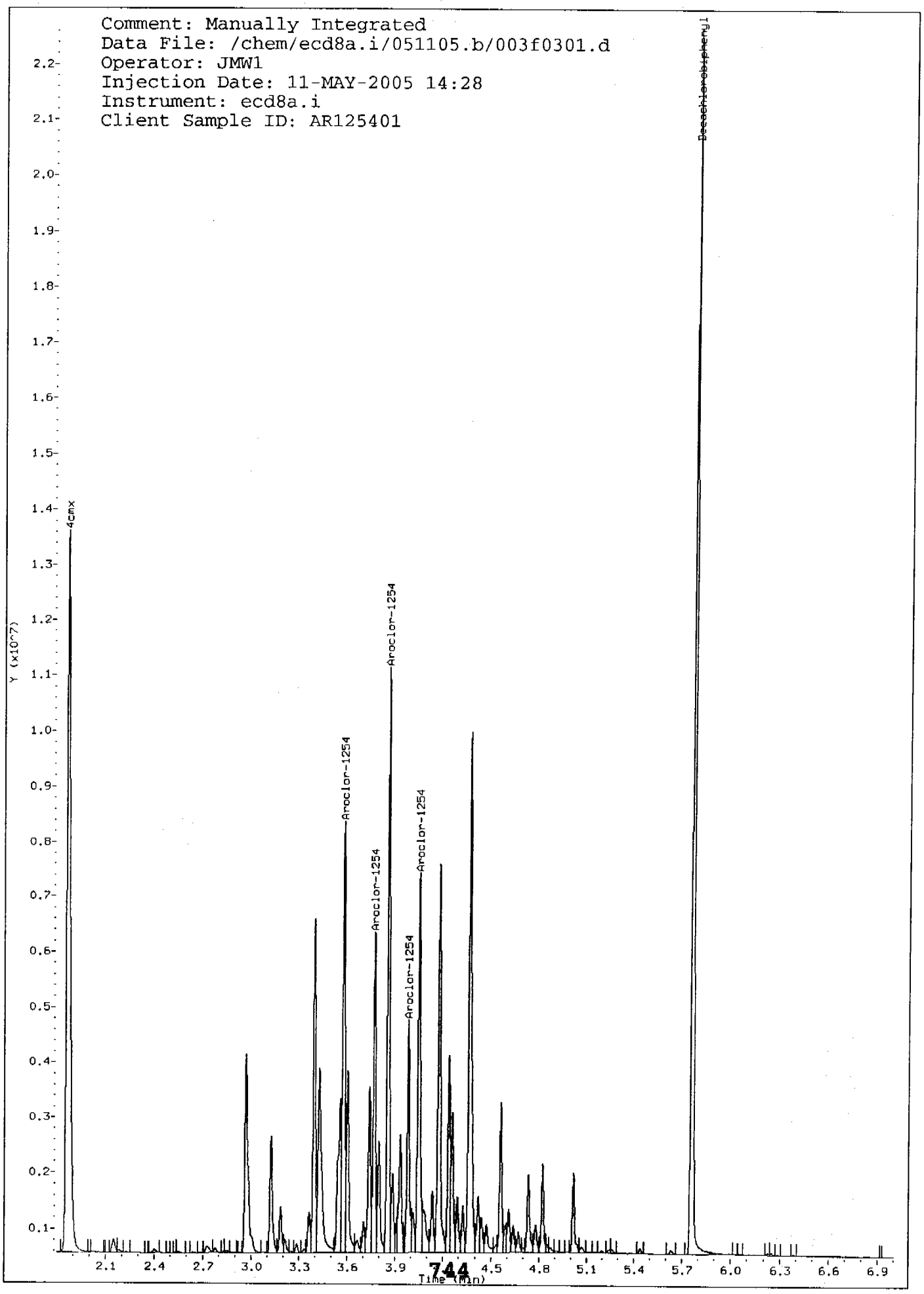
Comment: Manually Integrated
Data File: /chem/ecd8a.i/051105.b/003f0301.d
Operator: JMW1
Injection Date: 11-MAY-2005 14:28
Instrument: ecd8a.i
Client Sample ID: AR125401
Decachlorobiphenyl
4cmx
Aroclor-1254
Aroclor-1254
Aroclor-1254
Aroclor-1254
Aroclor-1254
Y (x10^7)
Time (min)

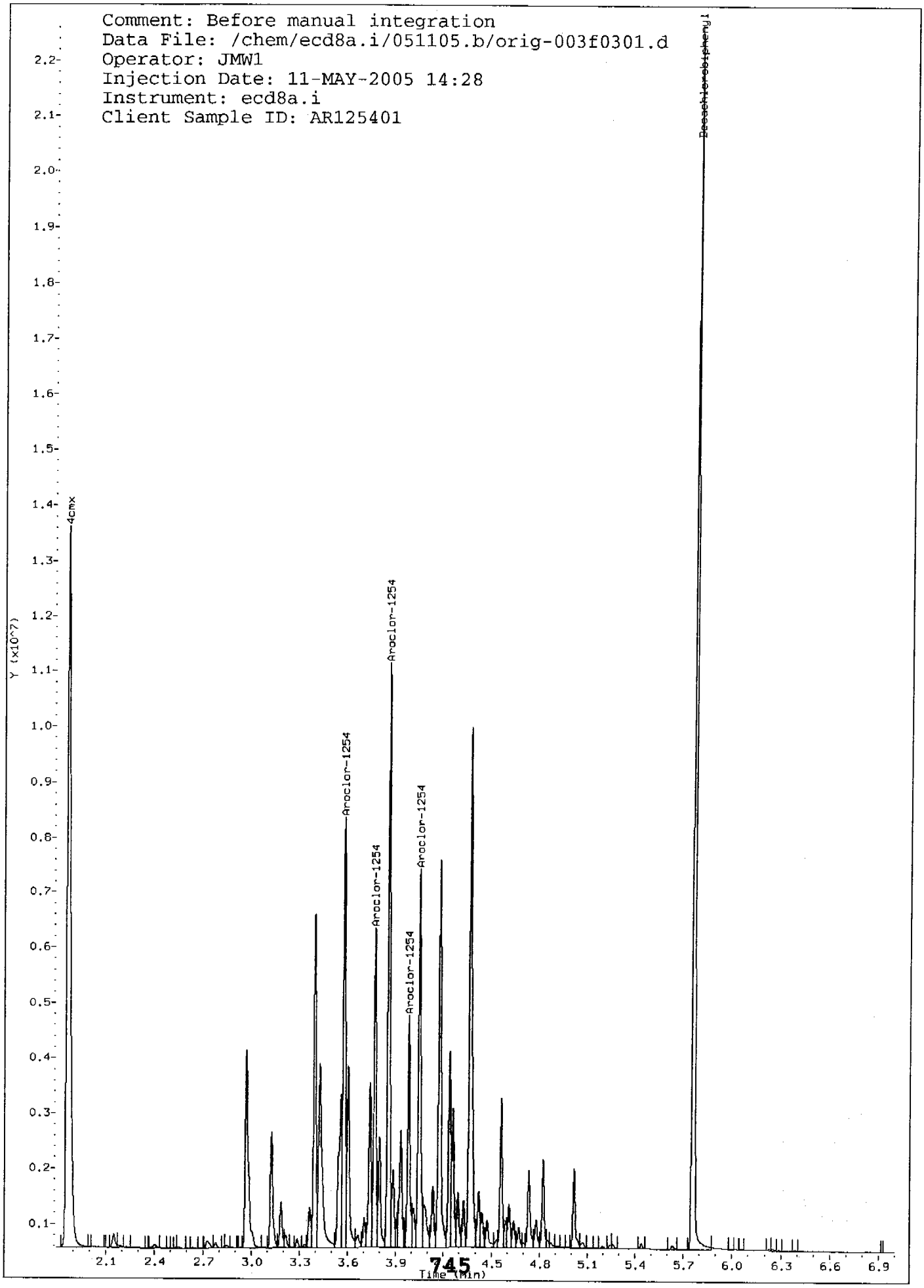
Comment: Before manual integration
Data File: /chem/ecd8a.i/051105.b/orig-003f0301.d
Operator: JMW1
Injection Date: 11-MAY-2005 14:28
Instrument: ecd8a.i
Client Sample ID: AR125401
4cmx
Aroclor-1254
Aroclor-1254
Aroclor-1254
Aroclor-1254
Aroclor-1254
Decachlorobiphenyl
Y (x10^7)
Time (min)

General Engineering Laboratories, LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/051105.b/003b0301.d
Lab Smp Id: WAR050415-05 541 Client Smp ID: AR125401
Inj Date : 11-MAY-2005 14:28
Operator : JMW1 Inst ID: ecd8a.i
Smp Info : |WAR050415-05 541
Misc Info : |CVS|1254||CVS|
Comment :
Method : /chem/ecd8a.i/051105.b/ECD8-B-8082-050905.m
Meth Date : 12-May-2005 11:07 jar00935 Quant Type: ESTD
Cal Date : 06-APR-2005 12:43 Cal File: 013b1301.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1254.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: kilroy

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.193	2.193	0.000	74913353	0.00000	103	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.477	6.476	0.001	56940326	0.00000	113	80.00- 120.00	100.00
6 Aroclor-1254					CAS #: 11097-69-1		
3.987	3.987	0.000	23537252	1000.00	996	80.00- 120.00	100.00
4.123	4.123	0.000	24581753	1000.00	970	84.83- 124.83	104.44
4.367	4.367	0.000	17341127	1000.00	968	53.70- 93.70	73.68
4.448	4.448	0.000	32406934	1000.00	956	118.96- 158.96	137.68
4.609	4.609	0.000	22567760	1000.00	968	76.93- 116.93	95.88
Average of Peak Amounts =					972		

Data File: /chem/ecd8a.i/051105.b/003b0301.d
Date : 11-MAY-2005 14:28
Client ID: AR125401
Sample Info: IWAR050415-05 541

Column phase: CLP2

Instrument: ecd8a.i

Operator: JMW1
Column diameter: 0.25

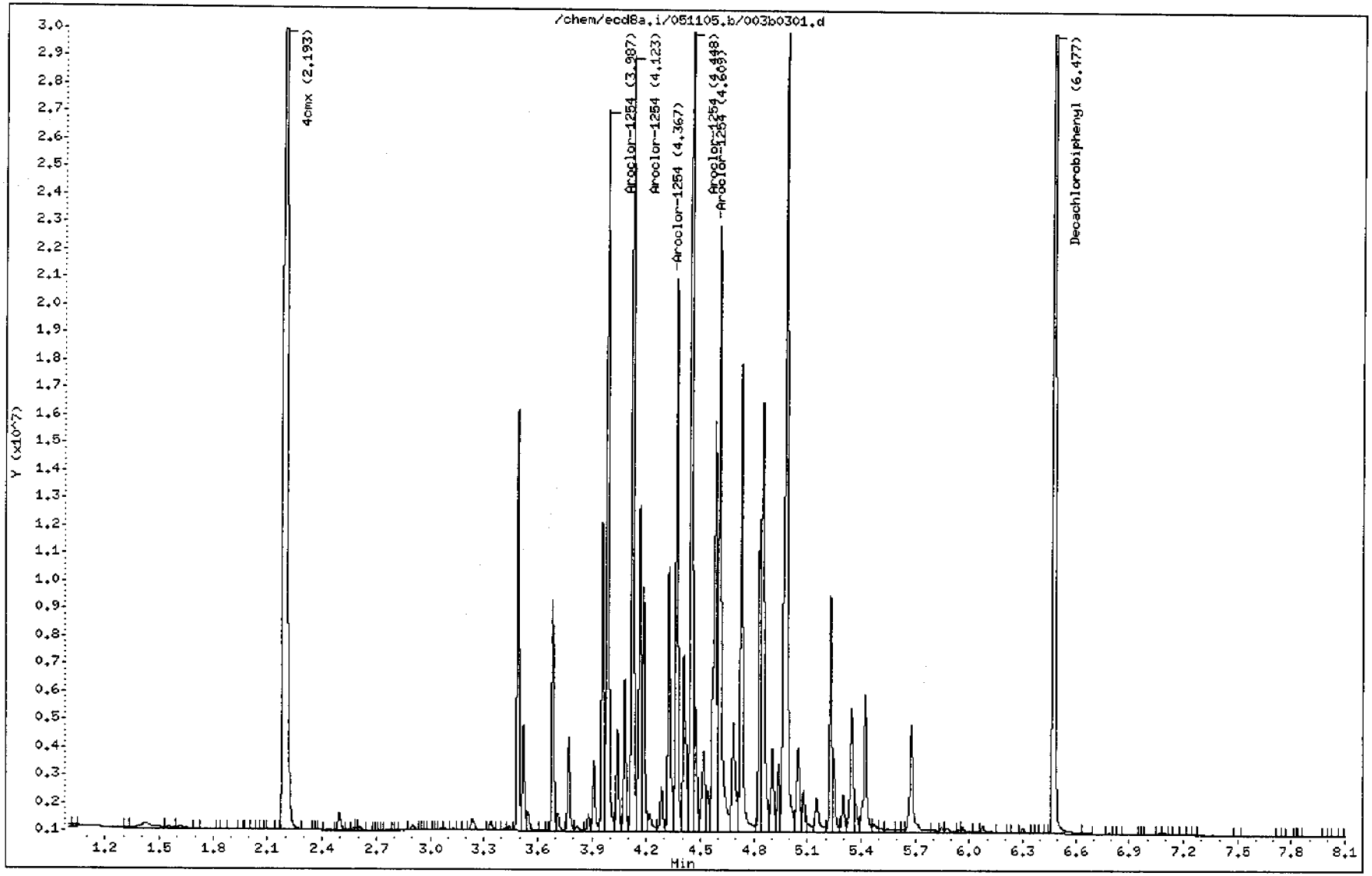

General Engineering Laboratories, LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/051105.b/004f0401.d
Lab Smp Id: WAR050323-01 421 Client Smp ID: AR124201
Inj Date : 11-MAY-2005 14:41
Operator : JMW1 Inst ID: ecd8a.i
Smp Info : |WAR050323-01 421
Misc Info : |CVS|1242||CVS|
Comment :
Method : /chem/ecd8a.i/051105.b/ECD8-F-8082-050905.m
Meth Date : 12-May-2005 11:06 jar00935 Quant Type: ESTD
Cal Date : 06-APR-2005 12:43 Cal File: 013f1301.d
Als bottle: 4 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1242.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.865	1.864	0.001	19383884	0.00000	94.7	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.758	5.758	0.000	22463834	0.00000	97.2	80.00- 120.00	100.00
4 Aroclor-1242					CAS #: 53469-21-9		
2.833	2.833	0.000	4486319	1000.00	1000	80.00- 120.00	100.00(M)
2.878	2.878	0.000	2849816	1000.00	1020	43.52- 83.52	63.52
2.968	2.968	0.000	2255368	1000.00	1020	30.27- 70.27	50.27
3.185	3.185	0.000	2579224	1000.00	1000	37.49- 77.49	57.49
3.424	3.424	0.000	3069442	1000.00	956	48.42- 88.42	68.42
Average of Peak Amounts =					1e+03		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd8a.i/051105.b/004f0401.d
Date : 11-MAY-2005 14:41
Client ID: AR124201
Sample Info: IWAR050323-01 421

Column phase: CLP1

Instrument: ecd8a.i

Operator: JMW1
Column diameter: 0.25

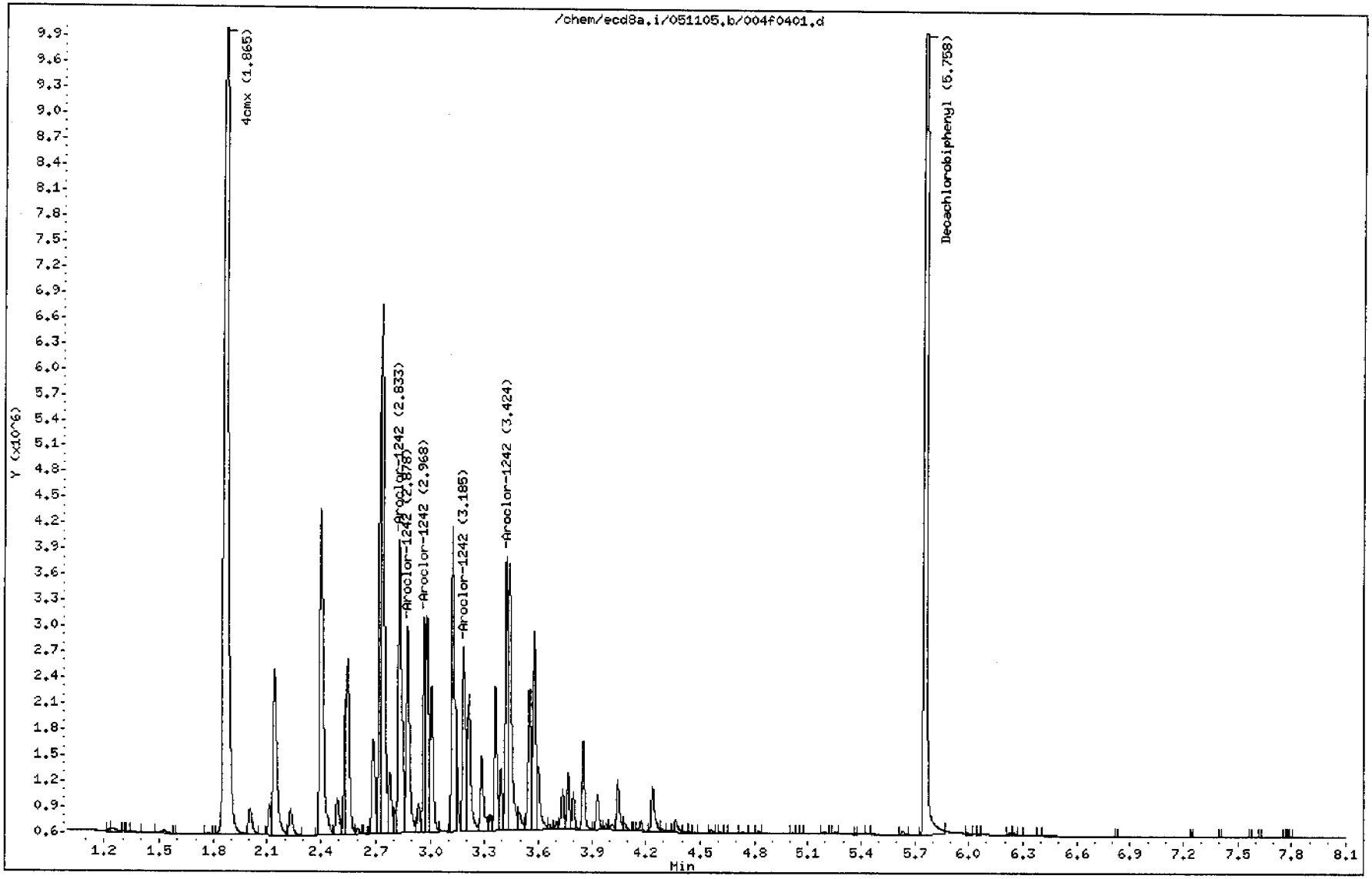

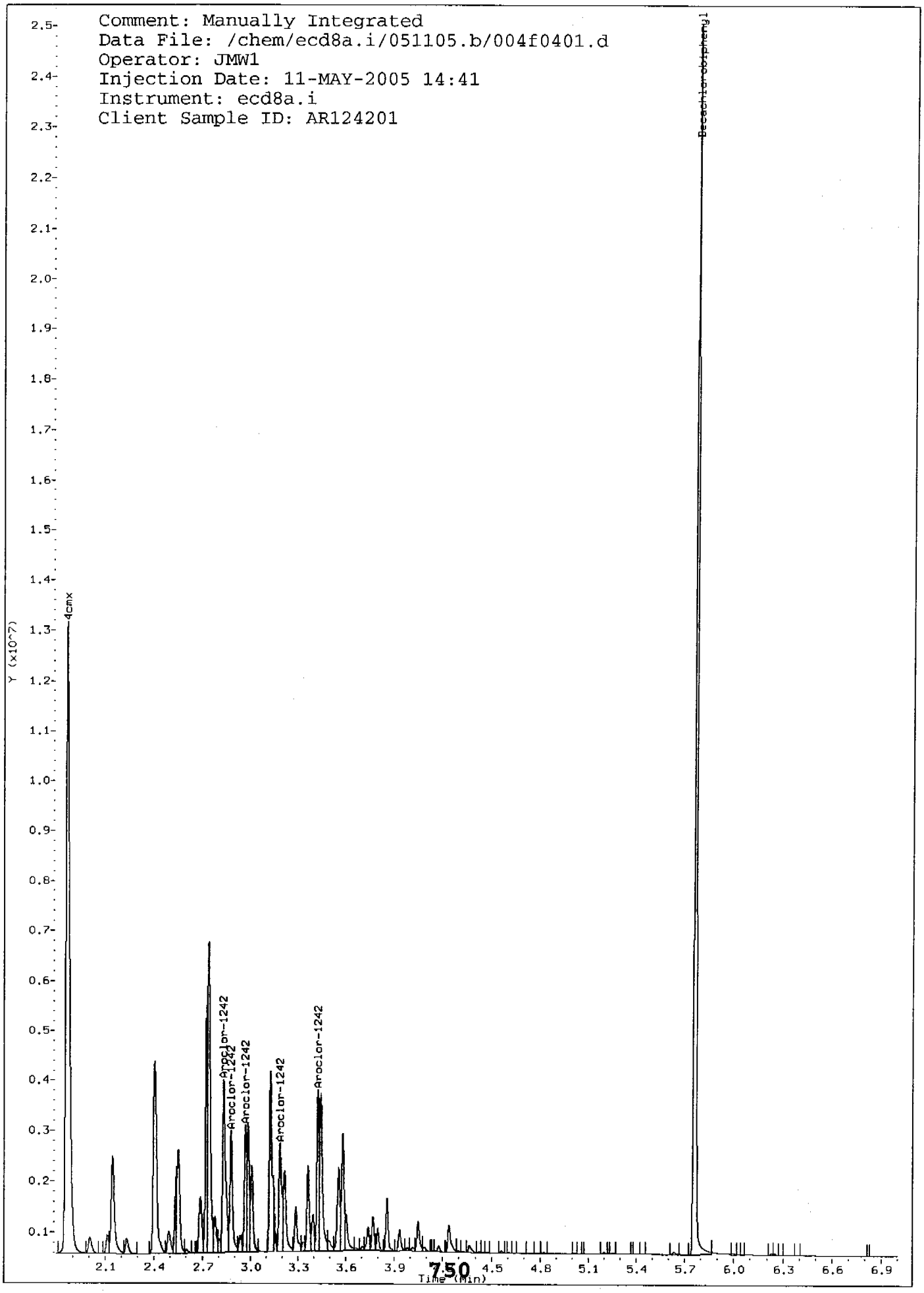
Comment: Manually Integrated
Data File: /chem/ecd8a.i/051105.b/004f0401.d
Operator: JMW1
Injection Date: 11-MAY-2005 14:41
Instrument: ecd8a.i
Client Sample ID: AR124201
Decachlorobiphenyl
4cmx
Aroclor-1242
Aroclor-1242
Aroclor-1242
Aroclor-1242
Aroclor-1242
Y (x10^7)
Time (Min)

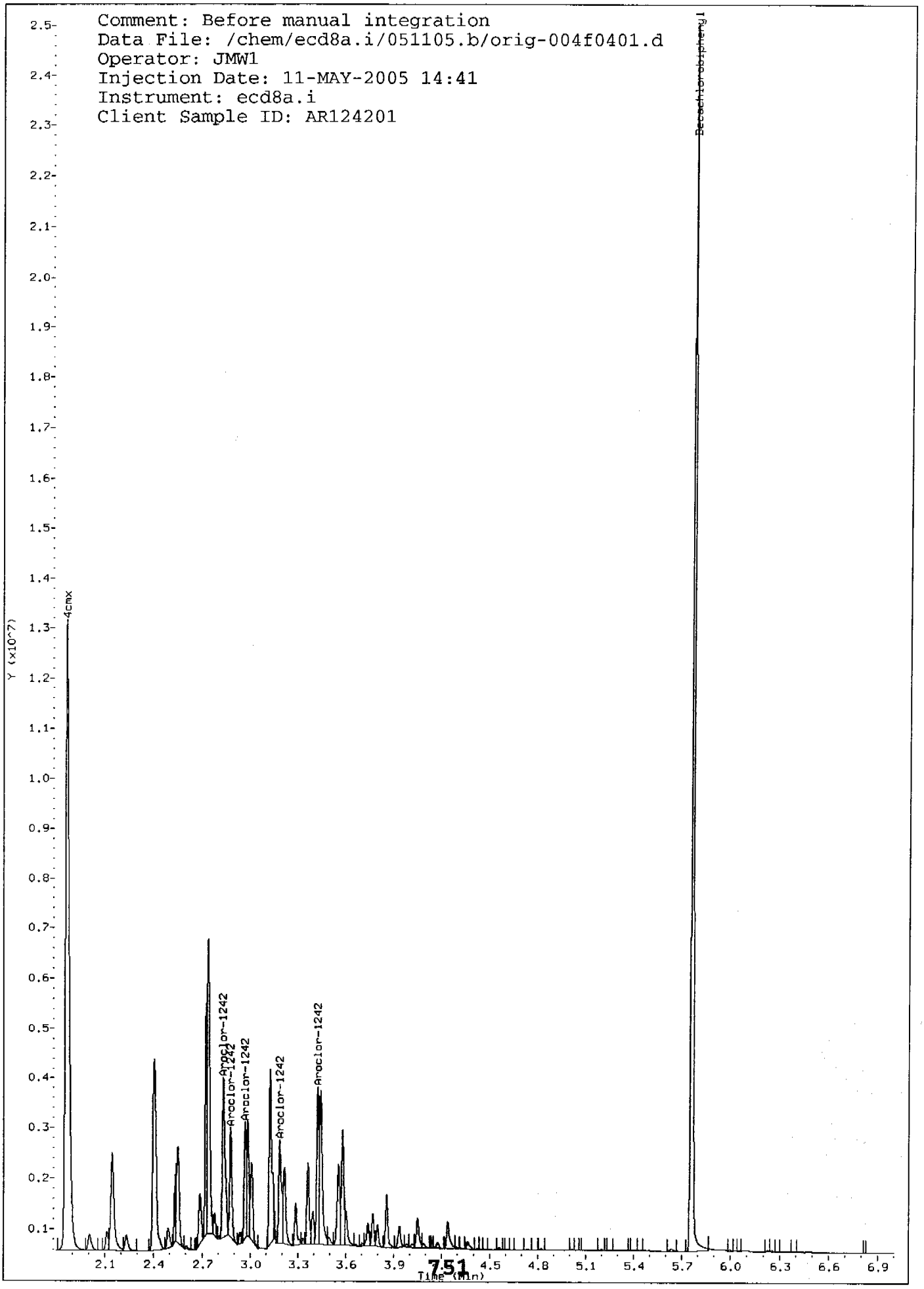
Comment: Before manual integration
Data File: /chem/ecd8a.i/051105.b/orig-004f0401.d
Operator: JMW1
Injection Date: 11-MAY-2005 14:41
Instrument: ecd8a.i
Client Sample ID: AR124201
Decachlorobiphenyl
4cmx
Aroclor-1242
Aroclor-1242
Aroclor-1242
Aroclor-1242
Aroclor-1242
Y (x10^7)
Time (min)
7.51

General Engineering Laboratories, LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/051105.b/004b0401.d
Lab Smp Id: WAR050323-01 421 Client Smp ID: AR124201
Inj Date : 11-MAY-2005 14:41
Operator : JMW1 Inst ID: ecd8a.i
Smp Info : |WAR050323-01 421
Misc Info : |CVS|1242||CVS|
Comment :
Method : /chem/ecd8a.i/051105.b/ECD8-B-8082-050905.m
Meth Date : 12-May-2005 11:07 jar00935 Quant Type: ESTD
Cal Date : 06-APR-2005 12:43 Cal File: 013b1301.d
Als bottle: 4 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1242.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: kilroy

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.194	2.193	0.001	71484629	0.00000	98.2	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.477	6.476	0.001	53599891	0.00000	107	80.00- 120.00	100.00
4 Aroclor-1242					CAS #: 53469-21-9		
3.084	3.084	0.000	6313714	1000.00	1040	80.00- 120.00	100.00
3.343	3.343	0.000	13165216	1000.00	1040	188.52- 228.52	208.52
3.418	3.418	0.000	7839981	1000.00	1060	104.17- 144.17	124.17
3.686	3.686	0.000	10802688	1000.00	1020	151.10- 191.10	171.10
3.992	3.992	0.000	11690485	1000.00	1000	165.16- 205.16	185.16

Average of Peak Amounts = 1.03e+03

Data File: /chem/ecd8a.i/051105.b/004b0401.d
Date : 11-MAY-2005 14:41
Client ID: AR124201
Sample Info: IWAR050323-01 421

Column phase: CLP2

Instrument: ecd8a.i

Operator: JMW1
Column diameter: 0.25

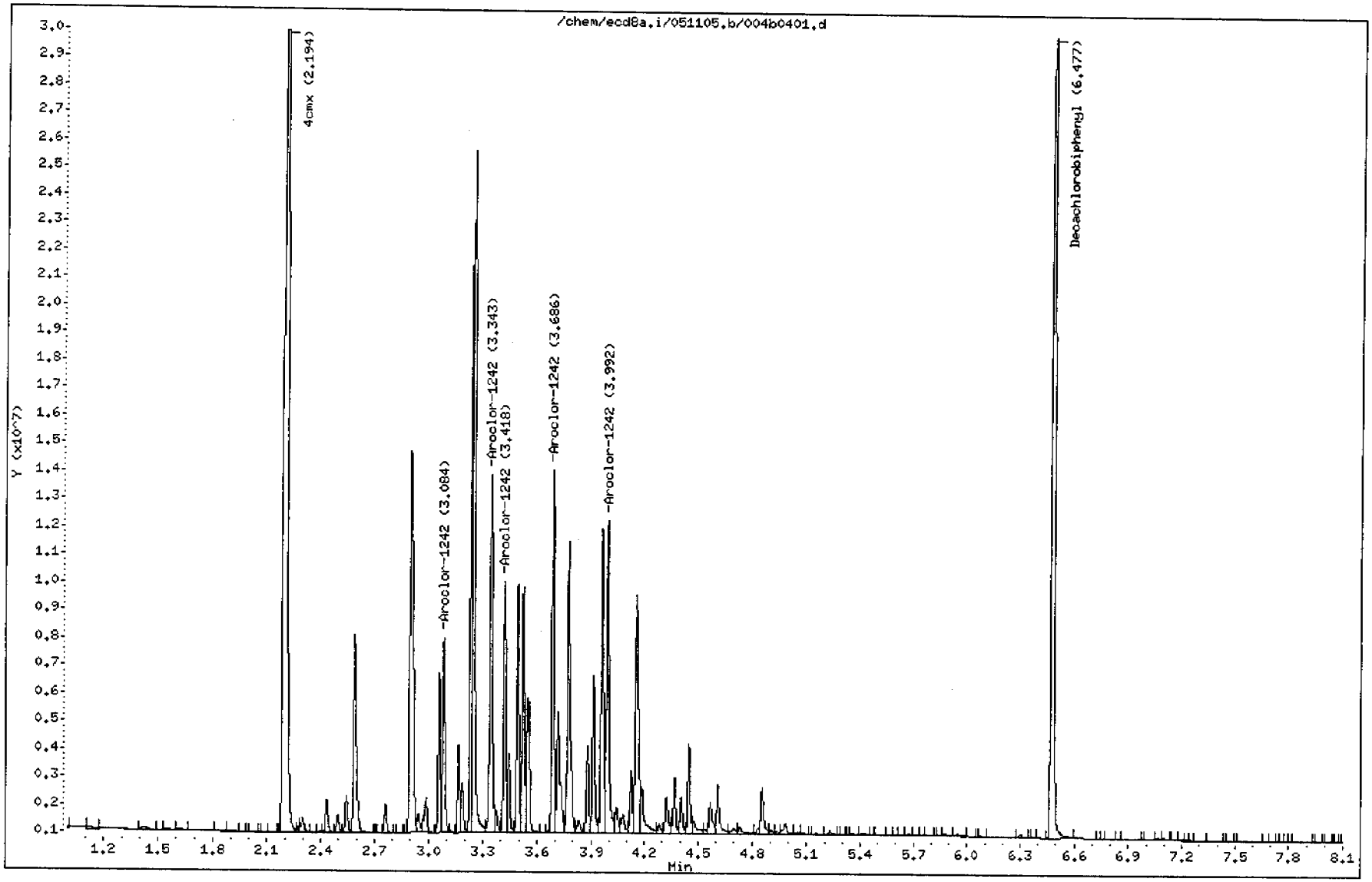

General Engineering Laboratories, LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/051105.b/005f0501.d
Lab Smp Id: WAR050504-01 481 Client Smp ID: AR124801
Inj Date : 11-MAY-2005 14:53
Operator : JMW1 Inst ID: ecd8a.i
Smp Info : |WAR050504-01 481
Misc Info : |CVS|1248||CVS|
Comment :
Method : /chem/ecd8a.i/051105.b/ECD8-F-8082-050905.m
Meth Date : 12-May-2005 11:06 jar00935 Quant Type: ESTD
Cal Date : 06-APR-2005 12:43 Cal File: 013f1301.d
Als bottle: 5 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1248.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.866	1.864	0.002	19293917	0.00000	94.2	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.758	5.758	0.000	20255021	0.00000	87.6	80.00- 120.00	100.00
5 Aroclor-1248					CAS #: 12672-29-6		
3.186	3.186	0.000	4191127	1000.00	870	80.00- 120.00	100.00
3.363	3.363	0.000	2975883	1000.00	843	51.00- 91.00	71.00
3.424	3.424	0.000	5718874	1000.00	814	116.45- 156.45	136.45
3.578	3.578	0.000	4998289	1000.00	818	99.26- 139.26	119.26
3.853	3.853	0.000	3543889	1000.00	824	64.56- 104.56	84.56
Average of Peak Amounts =					834		

Data File: /chem/ecd8a.i/051105.b/005f0501.d
Date : 11-MAY-2005 14:53
Client ID: AR124801
Sample Info: IWAR050504-01 481

Column phase: CLP1

Instrument: ecd8a.i

Operator: JMW1
Column diameter: 0.25

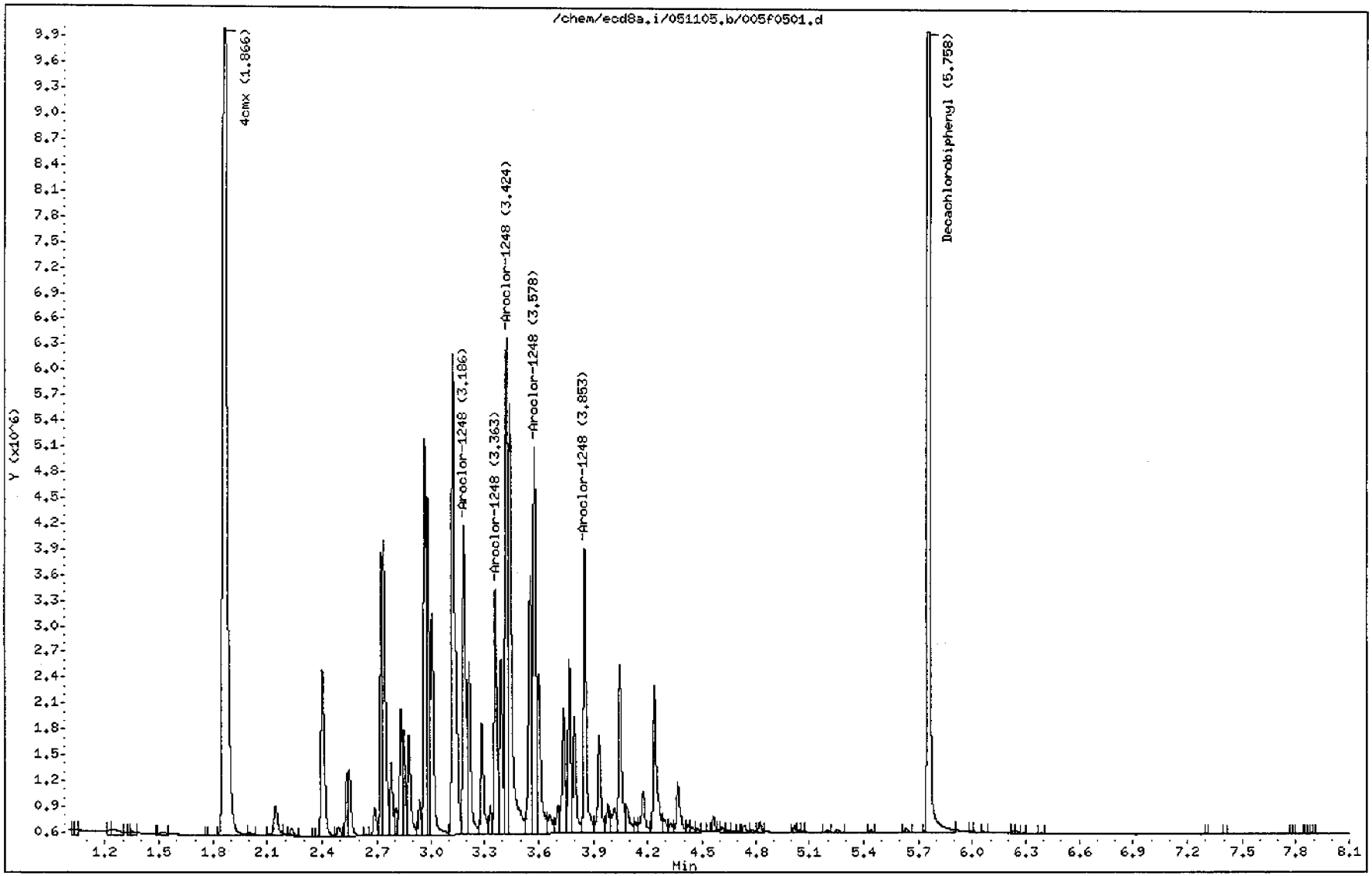

General Engineering Laboratories, LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/051105.b/005b0501.d
Lab Smp Id: WAR050504-01 481 Client Smp ID: AR124801
Inj Date : 11-MAY-2005 14:53
Operator : JMW1 Inst ID: ecd8a.i
Smp Info : |WAR050504-01 481
Misc Info : |CVS|1248||CVS|
Comment :
Method : /chem/ecd8a.i/051105.b/ECD8-B-8082-050905.m
Meth Date : 12-May-2005 11:07 jar00935 Quant Type: ESTD
Cal Date : 06-APR-2005 12:43 Cal File: 013f1301.d
Als bottle: 5 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1248.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.194	2.193	0.001	71148047	0.00000	97.8	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.477	6.476	0.001	53876509	0.00000	107	80.00- 120.00	100.00
5 Aroclor-1248					CAS #: 12672-29-6		
3.493	3.493	0.000	14845732	1000.00	968	80.00- 120.00	100.00
3.523	3.523	0.000	12688782	1000.00	971	65.47- 105.47	85.47
3.686	3.686	0.000	18509446	1000.00	970	104.68- 144.68	124.68
3.774	3.774	0.000	19215199	1000.00	974	109.43- 149.43	129.43
3.960	3.960	0.000	19216591	1000.00	949	109.44- 149.44	129.44
Average of Peak Amounts =					966		

Data File: /chem/ecd8a.i/051105.b/005b0501.d
Date : 11-MAY-2005 14:53
Client ID: AR124801
Sample Info: IWAR050504-01 481

Column phase: CLP2

Instrument: ecd8a.i

Operator: JMW1
Column diameter: 0.25

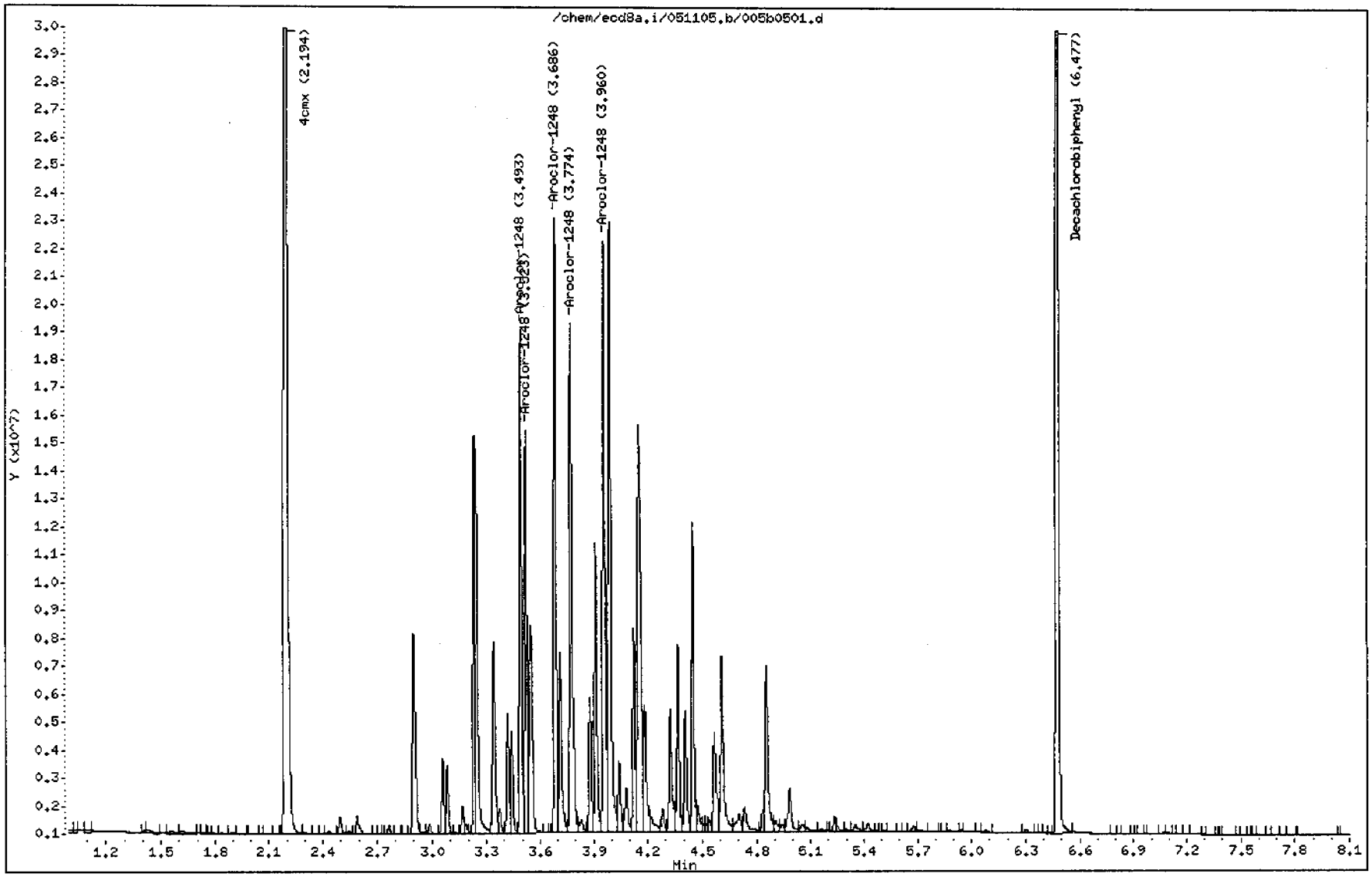

General Engineering Laboratories, LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/051105.b/007f0701.d
Lab Smp Id: WAR050401-05 321 Client Smp ID: AR123201
Inj Date : 11-MAY-2005 15:17
Operator : JMW1 Inst ID: ecd8a.i
Smp Info : |WAR050401-05 321
Misc Info : |CVS|1232||CVS|
Comment :
Method : /chem/ecd8a.i/051105.b/ECD8-F-8082-050905.m
Meth Date : 12-May-2005 11:06 jar00935 Quant Type: ESTD
Cal Date : 06-APR-2005 12:43 Cal File: 013f1301.d
Als bottle: 7 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1232.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.866	1.864	0.002	19140858	0.00000	93.5	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.759	5.758	0.001	18886984	0.00000	81.7	80.00- 120.00	100.00
3 Aroclor-1232					CAS #: 11141-16-5		
2.550	2.550	0.000	1304845	1000.00	1340	80.00- 120.00	100.00
2.834	2.834	0.000	2326080	1000.00	1230	158.26- 198.26	178.26
2.879	2.879	0.000	1476460	1000.00	1250	93.15- 133.15	113.15
2.985	2.985	0.000	1186908	1000.00	1240	70.96- 110.96	90.96
3.426	3.426	0.000	1310023	1000.00	1170	80.40- 120.40	100.40

Average of Peak Amounts = 1.24e+03

Data File: /chem/ecd8a.i/051105.b/007f0701.d

Date : 11-MAY-2005 15:17

Client ID: AR123201

Sample Info: IWAR050401-05 321

Column phase: CLP1

Instrument: ecd8a.i

Operator: JMW1

Column diameter: 0.25

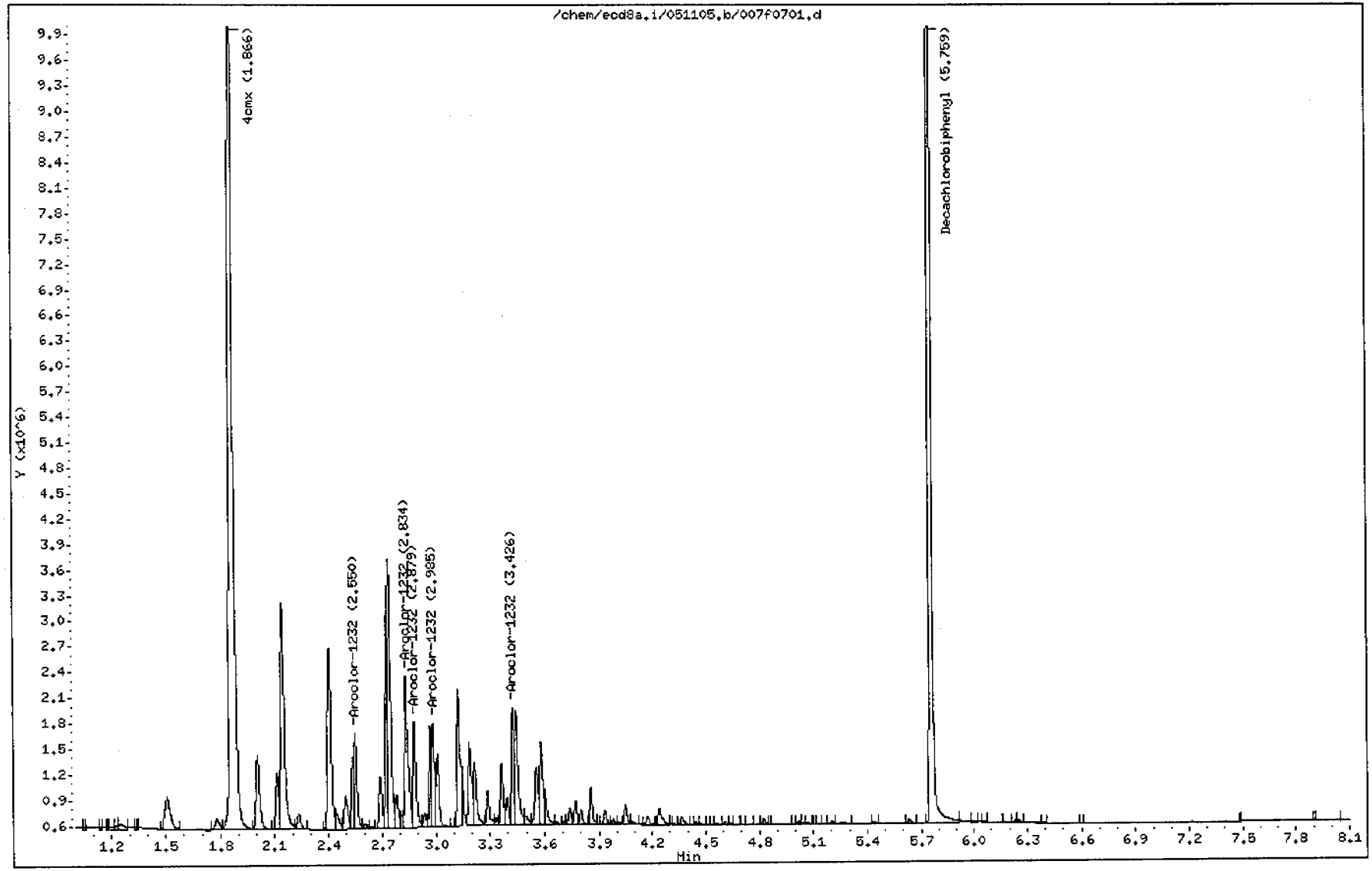

General Engineering Laboratories, LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/051105.b/007b0701.d
Lab Smp Id: WAR050401-05 321 Client Smp ID: AR123201
Inj Date : 11-MAY-2005 15:17
Operator : JMW1 Inst ID: ecd8a.i
Smp Info : |WAR050401-05 321
Misc Info : |CVS|1232||CVS|
Comment :
Method : /chem/ecd8a.i/051105.b/ECD8-B-8082-050905.m
Meth Date : 12-May-2005 11:07 jar00935 Quant Type: ESTD
Cal Date : 06-APR-2005 12:43 Cal File: 013f1301.d
Als bottle: 7 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1232.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.194	2.193	0.001	69942023	0.00000	96.1	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.477	6.476	0.001	52355617	0.00000	104	80.00- 120.00	100.00
3 Aroclor-1232					CAS #: 11141-16-5		
3.085	3.085	0.000	3235845	1000.00	1330	80.00- 120.00	100.00
3.343	3.343	0.000	6676834	1000.00	1320	186.34- 226.34	206.34
3.420	3.420	0.000	3862903	1000.00	1280	99.38- 139.38	119.38
3.493	3.493	0.000	3342822	1000.00	1300	83.31- 123.31	103.31
3.687	3.687	0.000	4979836	1000.00	1340	133.90- 173.90	153.90

Average of Peak Amounts = 1.32e+03

Data File: /chem/ecd8a.i/051105.b/007b0701.d
Date : 11-MAY-2005 15:17
Client ID: AR123201
Sample Info: IWAR050401-05 321

Column phase: CLP2

Instrument: ecd8a.i

Operator: JMW1
Column diameter: 0.25

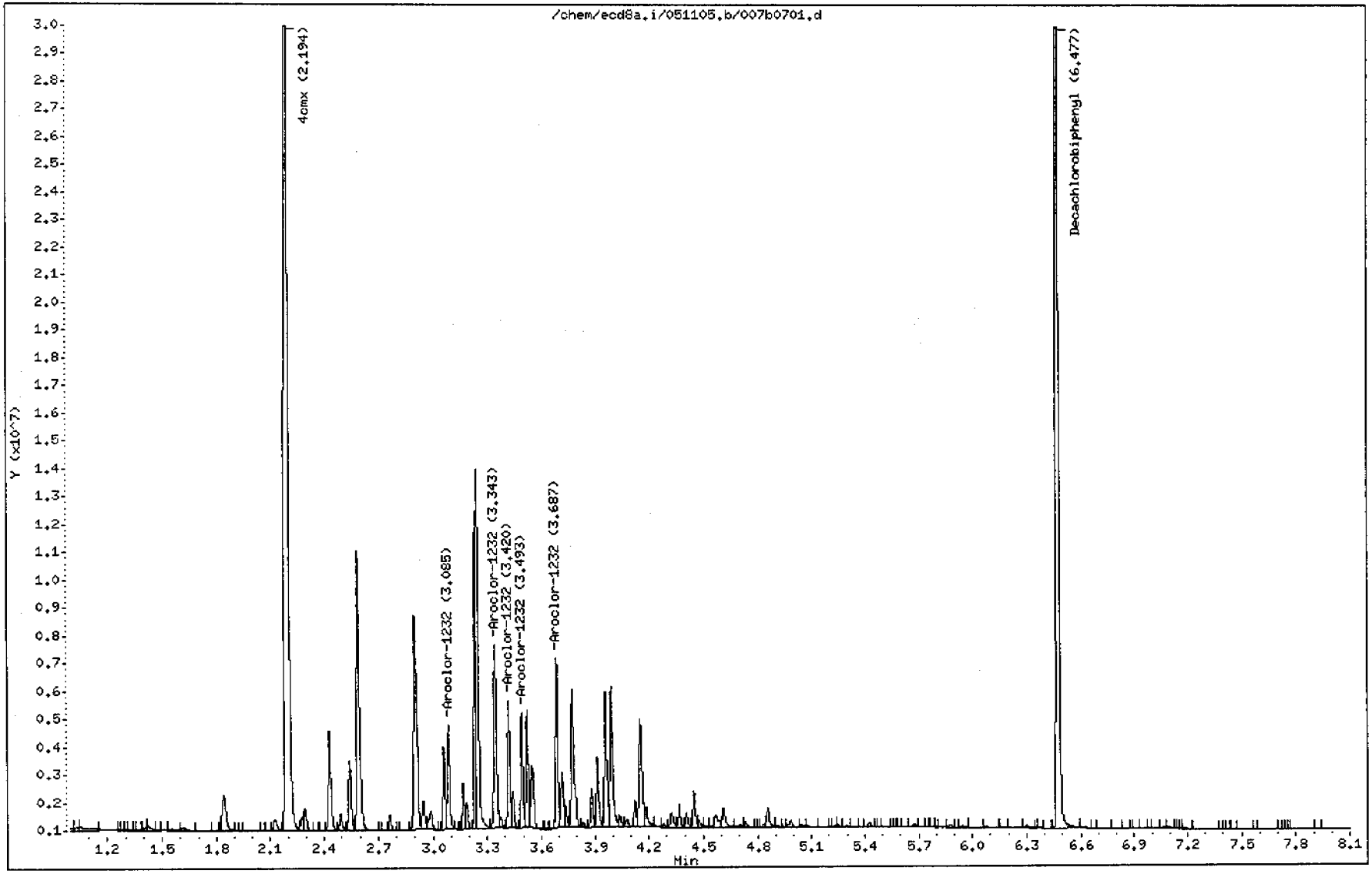

General Engineering Laboratories, LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/051105.b/008f0801.d
Lab Smp Id: WAR050328-05 211 Client Smp ID: AR122101
Inj Date : 11-MAY-2005 15:30
Operator : JMW1 Inst ID: ecd8a.i
Smp Info : |WAR050328-05 211
Misc Info : |CVS|1221||CVS|
Comment :
Method : /chem/ecd8a.i/051105.b/ECD8-F-8082-050905.m
Meth Date : 12-May-2005 11:06 jar00935 Quant Type: ESTD
Cal Date : 06-APR-2005 12:43 Cal File: 013f1301.d
Als bottle: 8 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1221.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.866	1.864	0.002	19319681	0.00000	94.4	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.759	5.758	0.001	18877990	0.00000	81.7	80.00- 120.00	100.00
2 Aroclor-1221					CAS #: 11104-28-2		
2.006	2.006	0.000	1836391	1000.00	1040	80.00- 120.00	100.00
2.114	2.114	0.000	933608	1000.00	1110	30.84- 70.84	50.84
2.144	2.144	0.000	4545109	1000.00	1020	227.50- 267.50	247.50

Average of Peak Amounts = 1.05e+03

Data File: /chem/ecd8a.i/051105.b/008f0801.d

Date : 11-MAY-2005 15:30

Client ID: AR122101

Sample Info: IWAR050328-05 211

Column phase: CLP1

Instrument: ecd8a.i

Operator: JMW1

Column diameter: 0.25

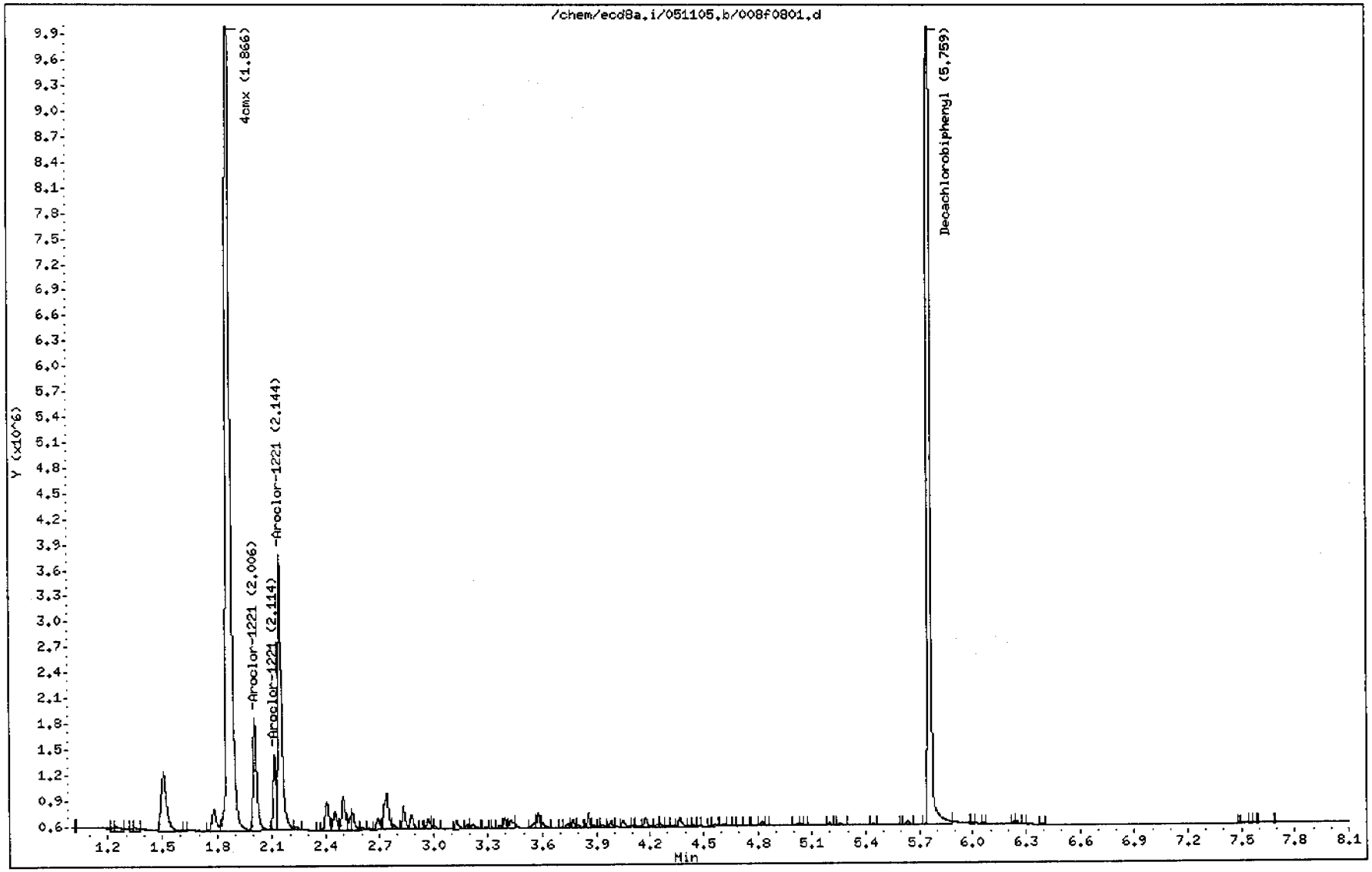

General Engineering Laboratories, LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/051105.b/008b0801.d
Lab Smp Id: WAR050328-05 211 Client Smp ID: AR122101
Inj Date : 11-MAY-2005 15:30
Operator : JMW1 Inst ID: ecd8a.i
Smp Info : |WAR050328-05 211
Misc Info : |CVS|1221||CVS|
Comment :
Method : /chem/ecd8a.i/051105.b/ECD8-B-8082-050905.m
Meth Date : 12-May-2005 11:07 jar00935 Quant Type: ESTD
Cal Date : 06-APR-2005 12:43 Cal File: 013f1301.d
Als bottle: 8 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1221.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.195	2.193	0.002	69234478	0.00000	95.1	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.477	6.476	0.001	53249661	0.00000	106	80.00- 120.00	100.00
2 Aroclor-1221					CAS #: 11104-28-2		
2.434	2.434	0.000	5481691	1000.00	1130	80.00- 120.00	100.00
2.544	2.544	0.000	3177875	1000.00	1130	37.97- 77.97	57.97
2.590	2.590	0.000	13061158	1000.00	1150	218.27- 258.27	238.27

Average of Peak Amounts = 1.14e+03

Data File: /chem/ecd8a.i/051105.b/008b0801.d
Date : 11-MAY-2005 15:30
Client ID: AR122101
Sample Info: IWAR050328-05 211

Column phase: CLP2

Instrument: ecd8a.i

Operator: JMW1
Column diameter: 0.25

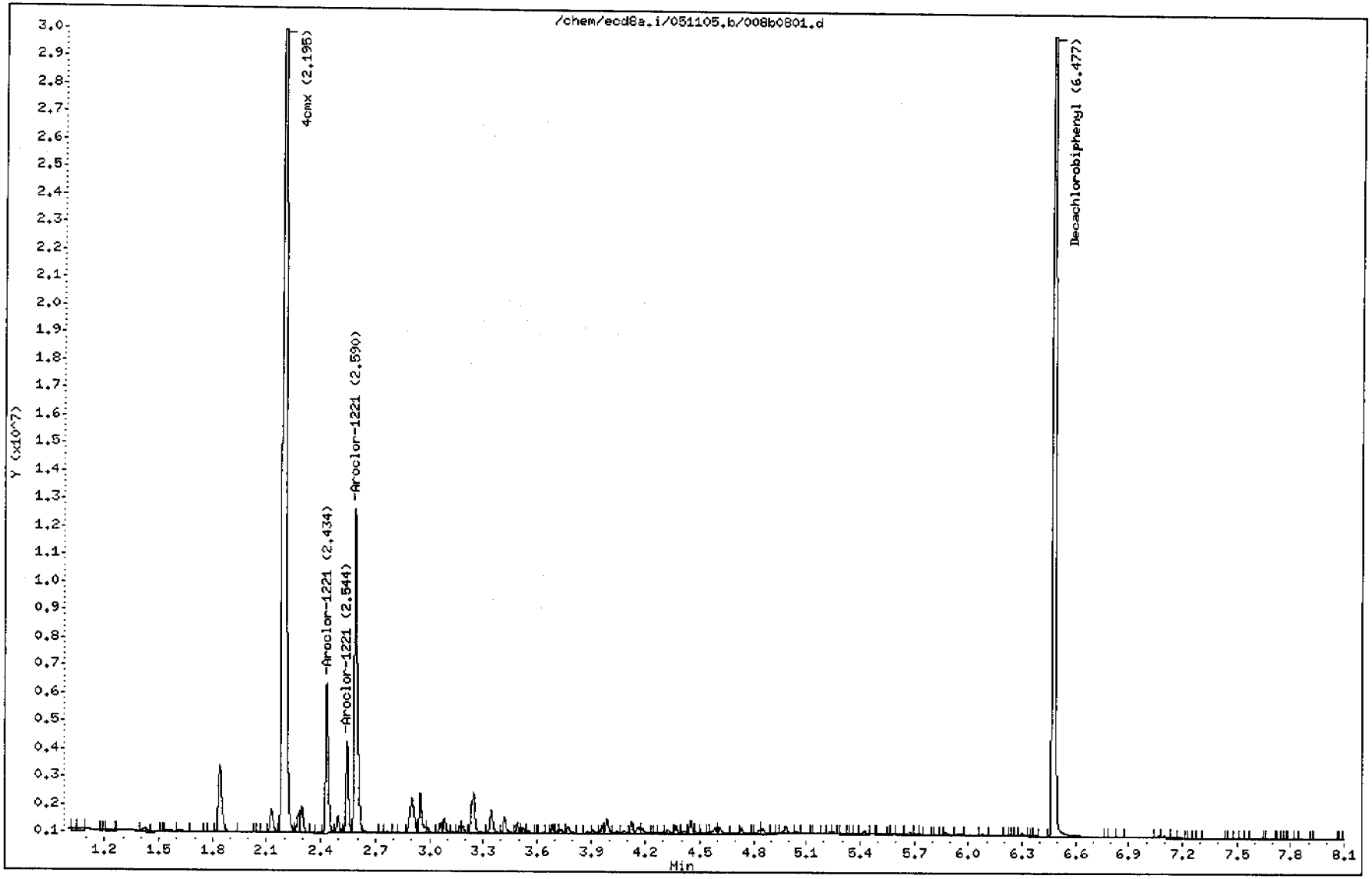

General Engineering Laboratories, LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/051105.b/041f4101.d
Lab Smp Id: WAR050425-01 605 Client Smp ID: AR166005
Inj Date : 11-MAY-2005 22:14
Operator : JMW1 Inst ID: ecd8a.i
Smp Info : |WAR050425-01 605
Misc Info : |CCV|1660||ICV|
Comment :
Method : /chem/ecd8a.i/051105.b/ECD8-F-8082-050905.m
Meth Date : 12-May-2005 11:06 jar00935 Quant Type: ESTD
Cal Date : 06-APR-2005 12:43 Cal File: 013f1301.d
Als bottle: 41 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.866	1.864	0.002	18440071	0.00000	90.1	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.760	5.758	0.002	22439553	0.00000	97.1	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.835	2.831	0.004	5589245	1000.00	910	80.00- 120.00	100.00
2.880	2.876	0.004	3442356	1000.00	907	41.76- 81.76	61.59
2.971	2.966	0.005	2908876	1000.00	908	32.50- 72.50	52.04
2.986	2.982	0.004	3188577	1000.00	880	38.07- 78.07	57.05
3.187	3.184	0.003	2871758	1000.00	926	31.05- 71.05	51.38
Average of Peak Amounts =					906		
7 Aroclor-1260					CAS #: 11096-82-5		
3.981	3.978	0.003	9215484	1000.00	917	80.00- 120.00	100.00
4.172	4.169	0.003	14592773	1000.00	923	137.41- 177.41	158.35
4.443	4.440	0.003	7448445	1000.00	928	59.28- 99.28	80.83
4.612	4.609	0.003	8386522	1000.00	932	68.28- 108.28	91.00
5.016	5.014	0.002	10618369	1000.00	962	88.36- 128.36	115.22
Average of Peak Amounts =					933		

Data File: /chem/ecd8a.i/051105.b/041f4101.d
Date : 11-MAY-2005 22:14
Client ID: AR166005
Sample Info: IWAR050425-01 605

Column phase: CLP1

Instrument: ecd8a.i

Operator: JMW1
Column diameter: 0.25

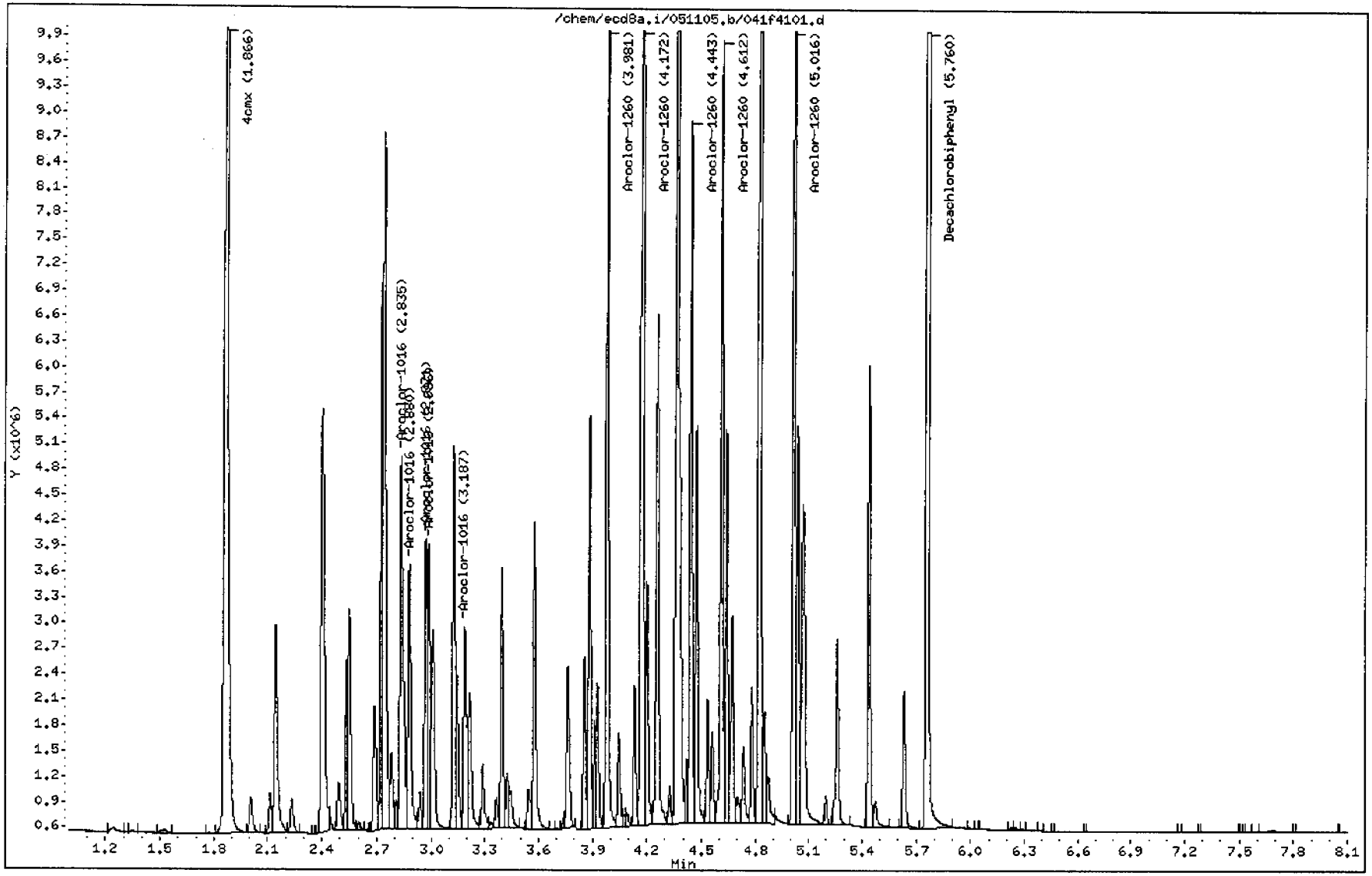

General Engineering Laboratories, LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/051105.b/041b4101.d
Lab Smp Id: WAR050425-01 605 Client Smp ID: AR166005
Inj Date : 11-MAY-2005 22:14
Operator : JMW1 Inst ID: ecd8a.i
Smp Info : |WAR050425-01 605
Misc Info : |CCV|1660||ICV|
Comment :
Method : /chem/ecd8a.i/051105.b/ECD8-B-8082-050905.m
Meth Date : 12-May-2005 11:07 jar00935 Quant Type: ESTD
Cal Date : 06-APR-2005 12:43 Cal File: 013b1301.d
Als bottle: 41 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.196	2.193	0.003	67724873	0.00000	93.1	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.476	6.476	0.000	46874606	0.00000	93.2	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.086	3.084	0.002	7662677	1000.00	928	80.00- 120.00	100.00
3.345	3.342	0.003	16165623	1000.00	930	191.23- 231.23	210.97
3.420	3.418	0.002	9478886	1000.00	925	105.03- 145.03	123.70
3.493	3.491	0.002	9708944	1000.00	918	106.71- 146.71	126.70
3.686	3.684	0.002	13015799	1000.00	914	151.68- 191.68	169.86
Average of Peak Amounts =					923		
7 Aroclor-1260					CAS #: 11096-82-5		
4.586	4.584	0.002	25734702	1000.00	922	80.00- 120.00	100.00
4.731	4.731	0.000	32015930	1000.00	923	105.13- 145.13	124.41
5.044	5.043	0.001	20021843	1000.00	924	57.28- 97.28	77.80
5.249	5.248	0.001	21666607	1000.00	929	63.38- 103.38	84.19
5.422	5.422	0.000	50574839	1000.00	933	173.79- 213.79	196.52
Average of Peak Amounts =					926		

Data File: /chem/ecd8a.i/051105.b/041b4101.d
Date : 11-MAY-2005 22:14
Client ID: AR166005
Sample Info: IWAR050425-01 605
Column phase: CLP2

Instrument: ecd8a.i
Operator: JMW1
Column diameter: 0.25

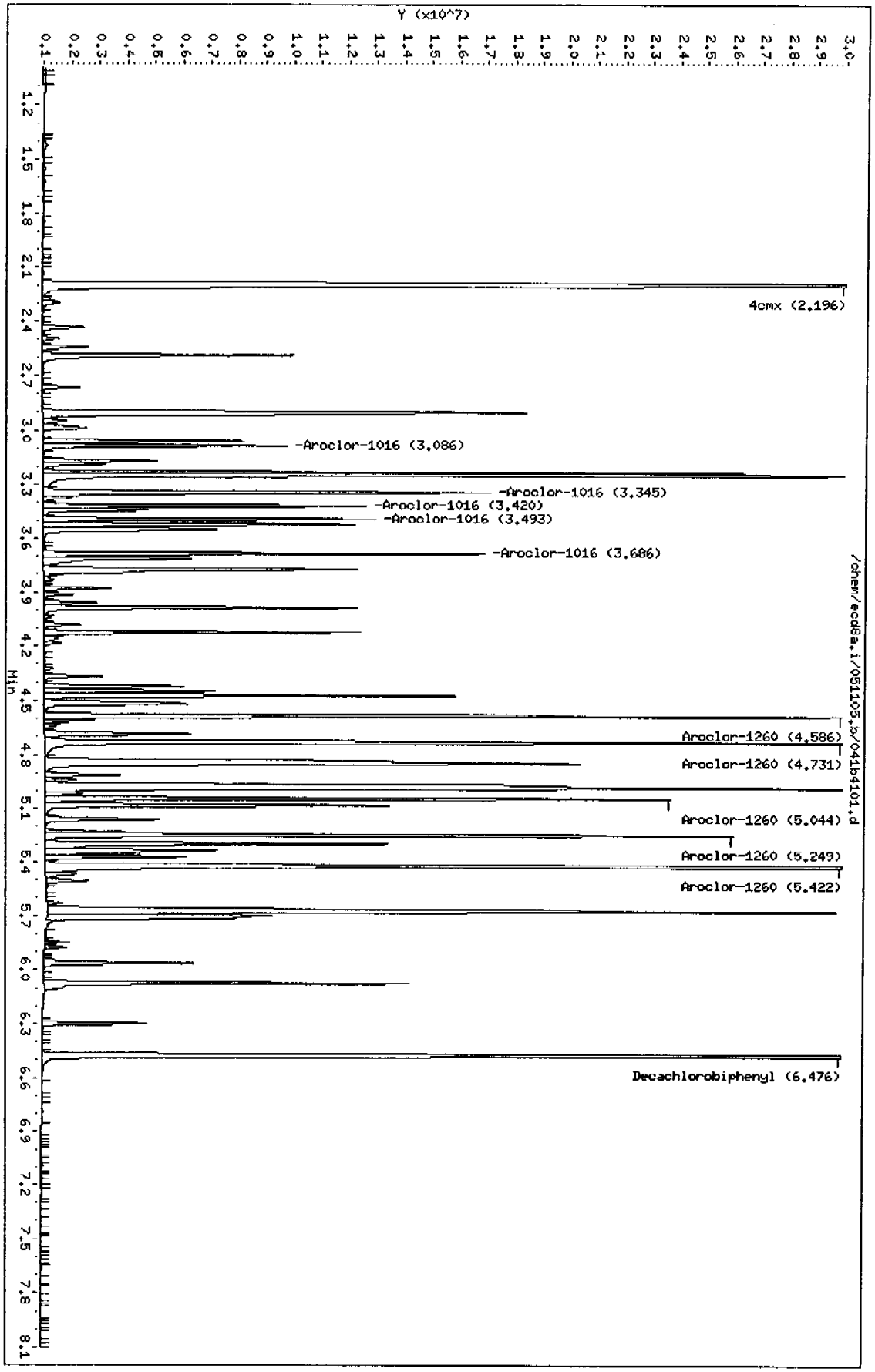

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RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/051105.b/051f5101.d
Lab Smp Id: WAR050425-01 606 Client Smp ID: AR166006
Inj Date : 12-MAY-2005 00:17
Operator : JMW1 Inst ID: ecd8a.i
Smp Info : |WAR050425-01 606
Misc Info : |CCV|1660||ICV|
Comment :
Method : /chem/ecd8a.i/051105.b/ECD8-F-8082-050905.m
Meth Date : 12-May-2005 11:06 jar00935 Quant Type: ESTD
Cal Date : 06-APR-2005 12:43 Cal File: 013f1301.d
Als bottle: 51 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.869	1.864	0.005	18853291	0.00000	92.1	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.759	5.758	0.001	16986560	0.00000	73.5	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.835	2.831	0.004	5770740	1000.00	939	80.00- 120.00	100.00
2.880	2.876	0.004	3534419	1000.00	932	41.76- 81.76	61.25
2.970	2.966	0.004	3058474	1000.00	954	32.50- 72.50	53.00
2.986	2.982	0.004	3194761	1000.00	881	38.07- 78.07	55.36
3.188	3.184	0.004	2920119	1000.00	942	31.05- 71.05	50.60
Average of Peak Amounts =					930		
7 Aroclor-1260					CAS #: 11096-82-5		
3.981	3.978	0.003	9017286	1000.00	897	80.00- 120.00	100.00
4.172	4.169	0.003	14217068	1000.00	899	137.41- 177.41	157.66
4.443	4.440	0.003	6938292	1000.00	865	59.28- 99.28	76.94
4.611	4.609	0.002	7694279	1000.00	855	68.28- 108.28	85.33
5.015	5.014	0.001	9305795	1000.00	843	88.36- 128.36	103.20
Average of Peak Amounts =					872		

Data File: /chem/ecd8a.i/051105.b/051f5101.d
Date : 12-MAY-2005 00:17
Client ID: AR166006
Sample Info: IWAR050425-01 606

Column phase: CLP1

Instrument: ecd8a.i

Operator: JMW1
Column diameter: 0.25

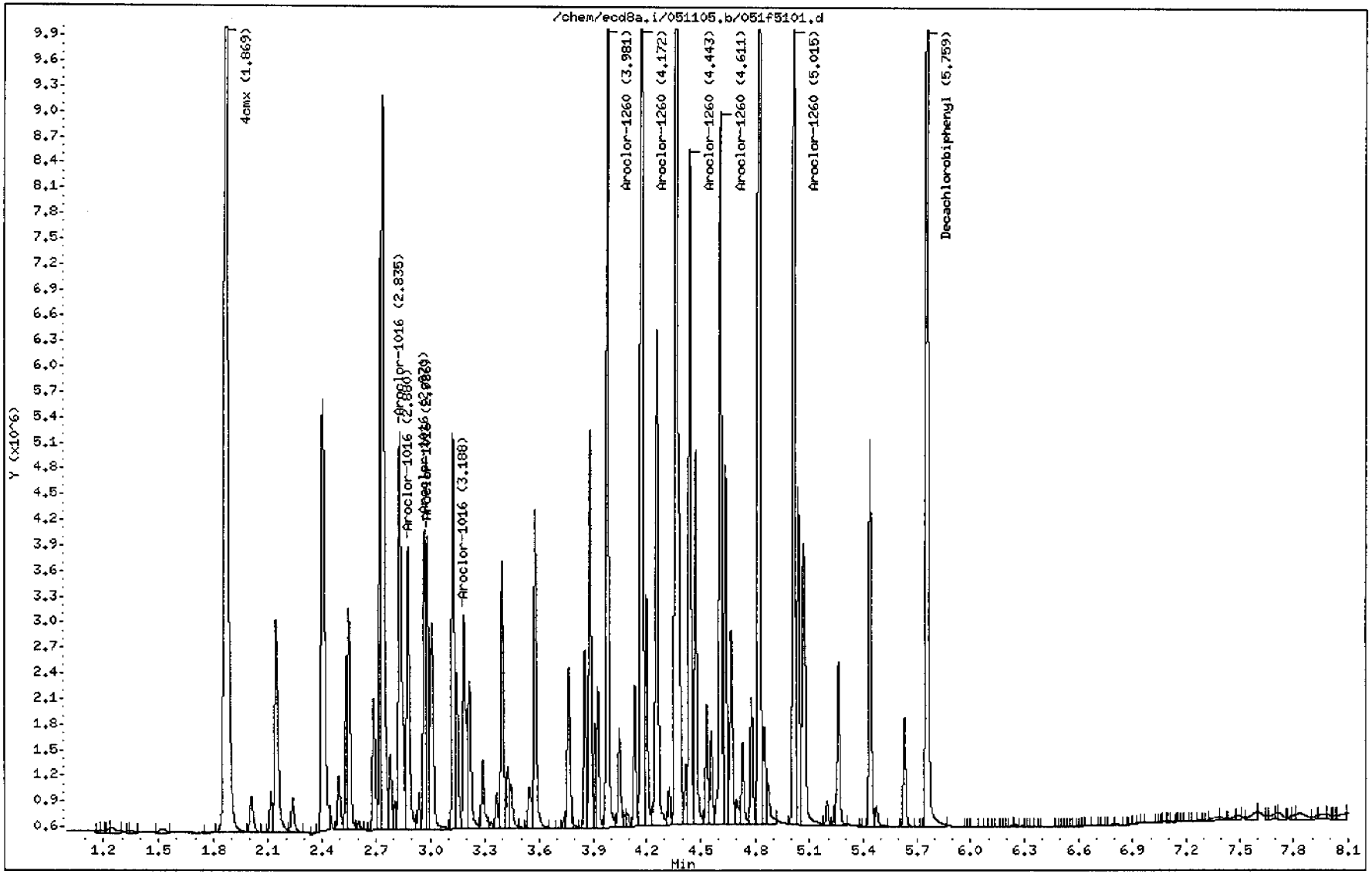

General Engineering Laboratories, LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/051105.b/051b5101.d
Lab Smp Id: WAR050425-01 606 Client Smp ID: AR166006
Inj Date : 12-MAY-2005 00:17
Operator : JMW1 Inst ID: ecd8a.i
Smp Info : |WAR050425-01 606
Misc Info : |CCV|1660||ICV|
Comment :
Method : /chem/ecd8a.i/051105.b/ECD8-B-8082-050905.m
Meth Date : 12-May-2005 11:07 jar00935 Quant Type: ESTD
Cal Date : 06-APR-2005 12:43 Cal File: 013b1301.d
Als bottle: 51 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.197	2.193	0.004	66059771	0.00000	90.8	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.476	6.476	0.000	27228952	0.00000	54.2	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.086	3.084	0.002	7313963	1000.00	886	80.00- 120.00	100.00
3.345	3.342	0.003	15146716	1000.00	871	191.23- 231.23	207.09
3.420	3.418	0.002	8896665	1000.00	868	105.03- 145.03	121.64
3.494	3.491	0.003	8900872	1000.00	842	106.71- 146.71	121.70
3.687	3.684	0.003	11700174	1000.00	822	151.68- 191.68	159.97
Average of Peak Amounts =					858		
7 Aroclor-1260					CAS #: 11096-82-5		
4.585	4.584	0.001	20136880	1000.00	721	80.00- 120.00	100.00
4.732	4.731	0.001	24299012	1000.00	701	105.13- 145.13	120.67
5.043	5.043	0.000	13819889	1000.00	638	57.28- 97.28	68.63
5.249	5.248	0.001	14623528	1000.00	627	63.38- 103.38	72.62
5.422	5.422	0.000	32963265	1000.00	608	173.79- 213.79	163.70
Average of Peak Amounts =					659		

Data File: /chem/ecd8a.i/051105.b/051b5101.d

Date : 12-MAY-2005 00:17

Client ID: AR166006

Sample Info: IWAR050425-01 606

Column phase: CLP2

Instrument: ecd8a.i

Operator: JMW1

Column diameter: 0.25

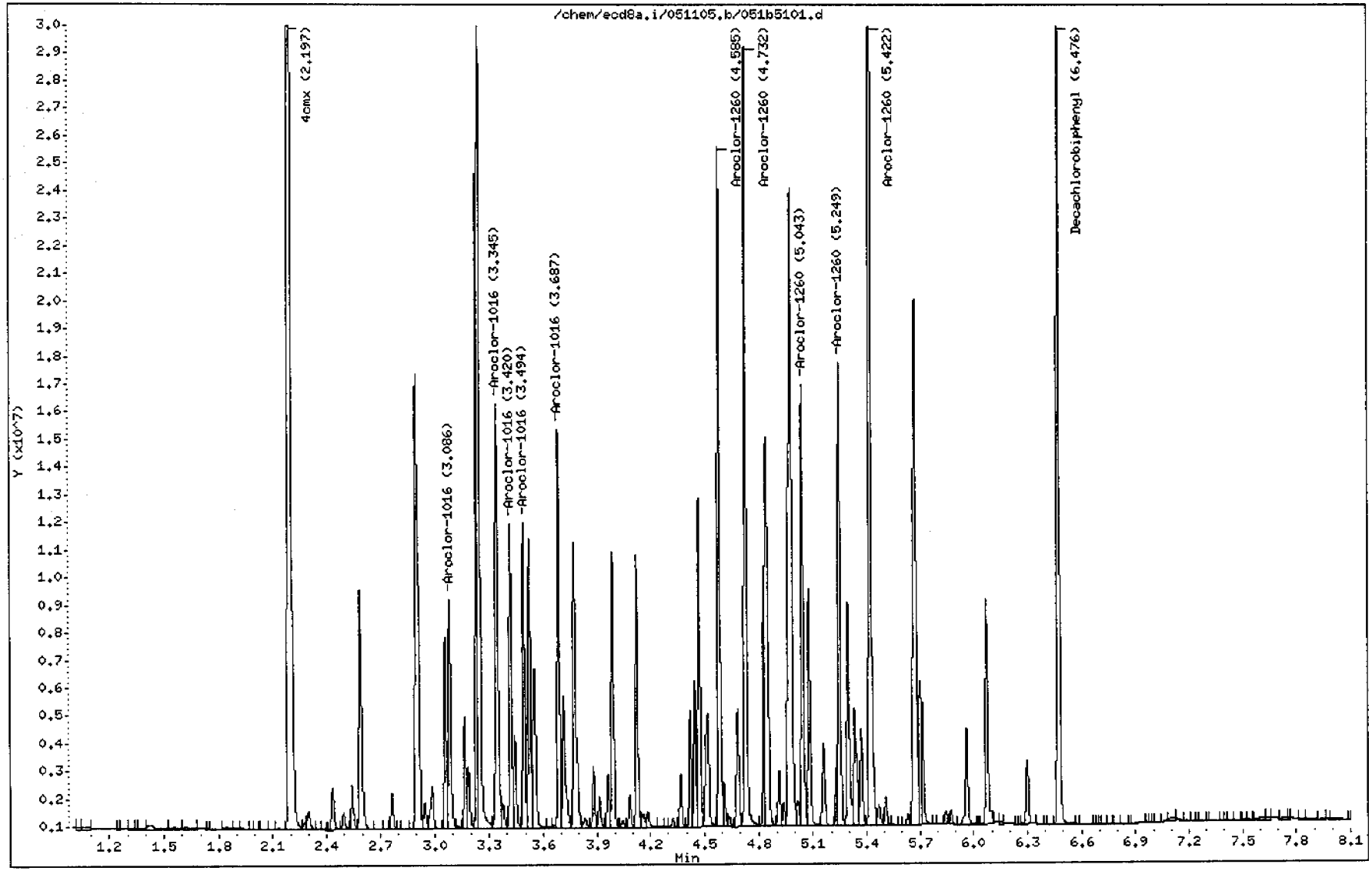

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RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/051205.b/002f0201.d
Lab Smp Id: WAR050511-13 601 Client Smp ID: AR166001
Inj Date : 12-MAY-2005 11:54
Operator : JMW1 Inst ID: ecd8a.i
Smp Info : |WAR050511-13 601
Misc Info : |CCV|1660||ICV|
Comment :
Method : /chem/ecd8a.i/051205.b/ECD8-F-8082-050905.m
Meth Date : 13-May-2005 10:22 jar00935 Quant Type: ESTD
Cal Date : 06-APR-2005 12:43 Cal File: 013f1301.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.868	1.868	0.000	18455970	0.00000	90.2	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.760	5.760	0.000	22458785	0.00000	97.2	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.835	2.835	0.000	5663645	1000.00	922	80.00- 120.00	100.00
2.881	2.881	0.000	3496176	1000.00	922	42.53- 82.53	61.73
2.971	2.971	0.000	3027079	1000.00	945	33.85- 73.85	53.45
2.987	2.987	0.000	3156724	1000.00	871	34.64- 74.64	55.74
3.188	3.188	0.000	2903847	1000.00	936	31.32- 71.32	51.27
Average of Peak Amounts =					919		
7 Aroclor-1260					CAS #: 11096-82-5		
3.982	3.982	0.000	9397215	1000.00	935	80.00- 120.00	100.00
4.173	4.173	0.000	14894284	1000.00	942	140.32- 180.32	158.50
4.443	4.443	0.000	7606088	1000.00	948	61.22- 101.22	80.94
4.613	4.613	0.000	8586060	1000.00	954	71.43- 111.43	91.37
5.016	5.016	0.000	10789702	1000.00	978	96.41- 136.41	114.82
Average of Peak Amounts =					951		

Data File: /chem/ecd8a.i/051205.b/002f0201.d

Date : 12-MAY-2005 11:54

Client ID: AR166001

Sample Info: IWAR050511-13 601

Column phase: CLP1

Instrument: ecd8a.i

Operator: JMW1

Column diameter: 0.25

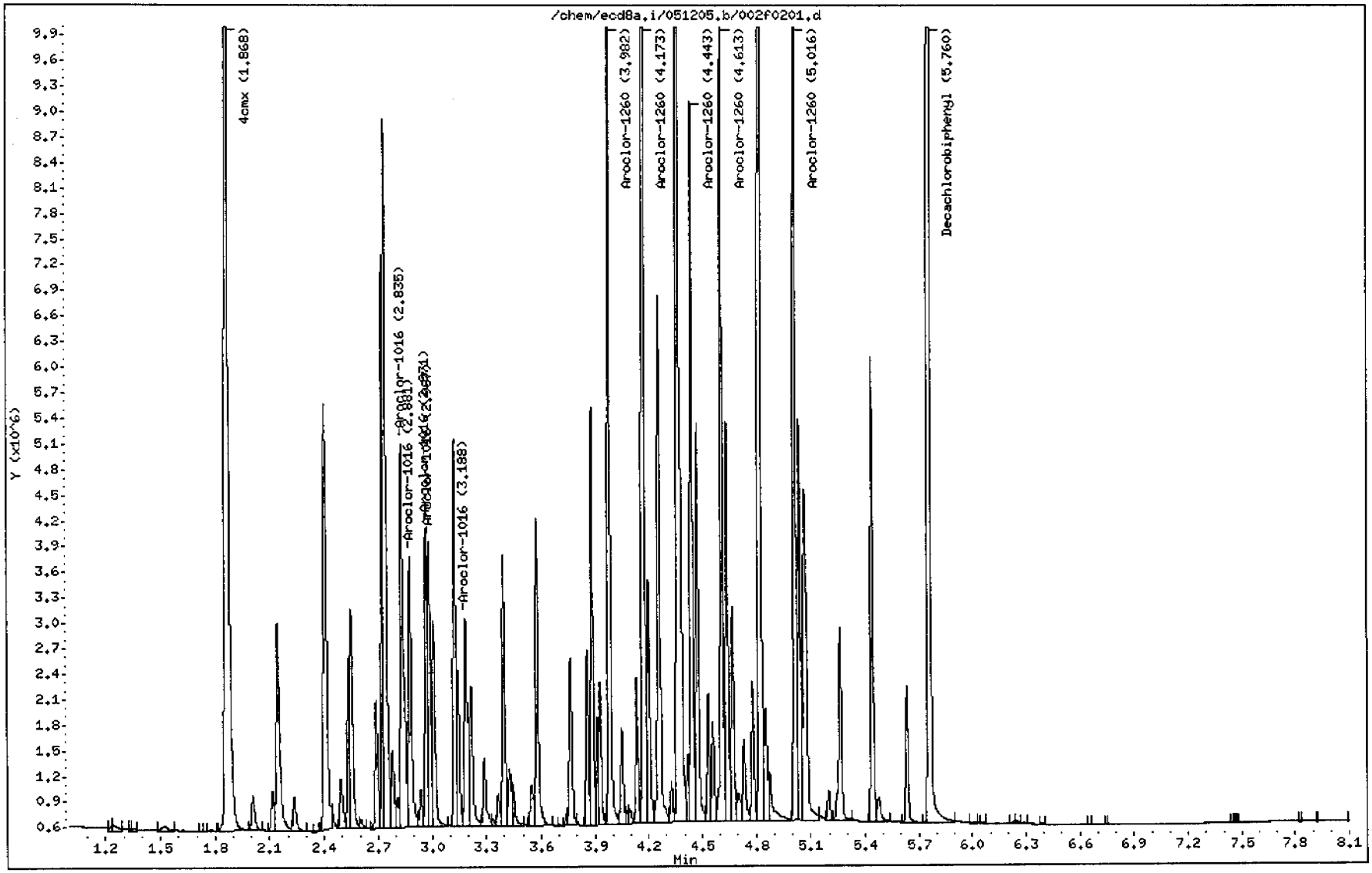

General Engineering Laboratories, LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/051205.b/002b0201.d
Lab Smp Id: WAR050511-13 601 Client Smp ID: AR166001
Inj Date : 12-MAY-2005 11:54
Operator : JMW1 Inst ID: ecd8a.i
Smp Info : |WAR050511-13 601
Misc Info : |CCV|1660||ICV|
Comment :
Method : /chem/ecd8a.i/051205.b/ECD8-B-8082-050905.m
Meth Date : 13-May-2005 12:07 jar00935 Quant Type: ESTD
Cal Date : 06-APR-2005 12:43 Cal File: 013f1301.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.197	2.197	0.000	69588115	0.00000	95.6	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.478	6.478	0.000	46022251	0.00000	91.5	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.087	3.087	0.000	7854594	1000.00	951	80.00- 120.00	100.00
3.346	3.346	0.000	16710525	1000.00	961	189.47- 229.47	212.75
3.421	3.421	0.000	9839593	1000.00	960	104.09- 144.09	125.27
3.494	3.494	0.000	10065201	1000.00	952	105.95- 145.95	128.14
3.688	3.688	0.000	13563913	1000.00	953	148.78- 188.78	172.69
Average of Peak Amounts =					955		
7 Aroclor-1260					CAS #: 11096-82-5		
4.587	4.587	0.000	27001815	1000.00	967	80.00- 120.00	100.00
4.733	4.733	0.000	33588725	1000.00	968	104.45- 144.45	124.39
5.044	5.044	0.000	20980003	1000.00	969	55.73- 95.73	77.70
5.250	5.250	0.000	22726462	1000.00	974	61.34- 101.34	84.17
5.423	5.423	0.000	52987225	1000.00	977	169.55- 209.55	196.24
Average of Peak Amounts =					971		

Data File: /chem/ecd8a.i/051205.b/002b0201.d
Date : 12-MAY-2005 11:54
Client ID: AR166001
Sample Info: WAR050511-13 601
Column phase: CLP2

Instrument: ecd8a.i
Operator: JKWI
Column diameter: 0.25

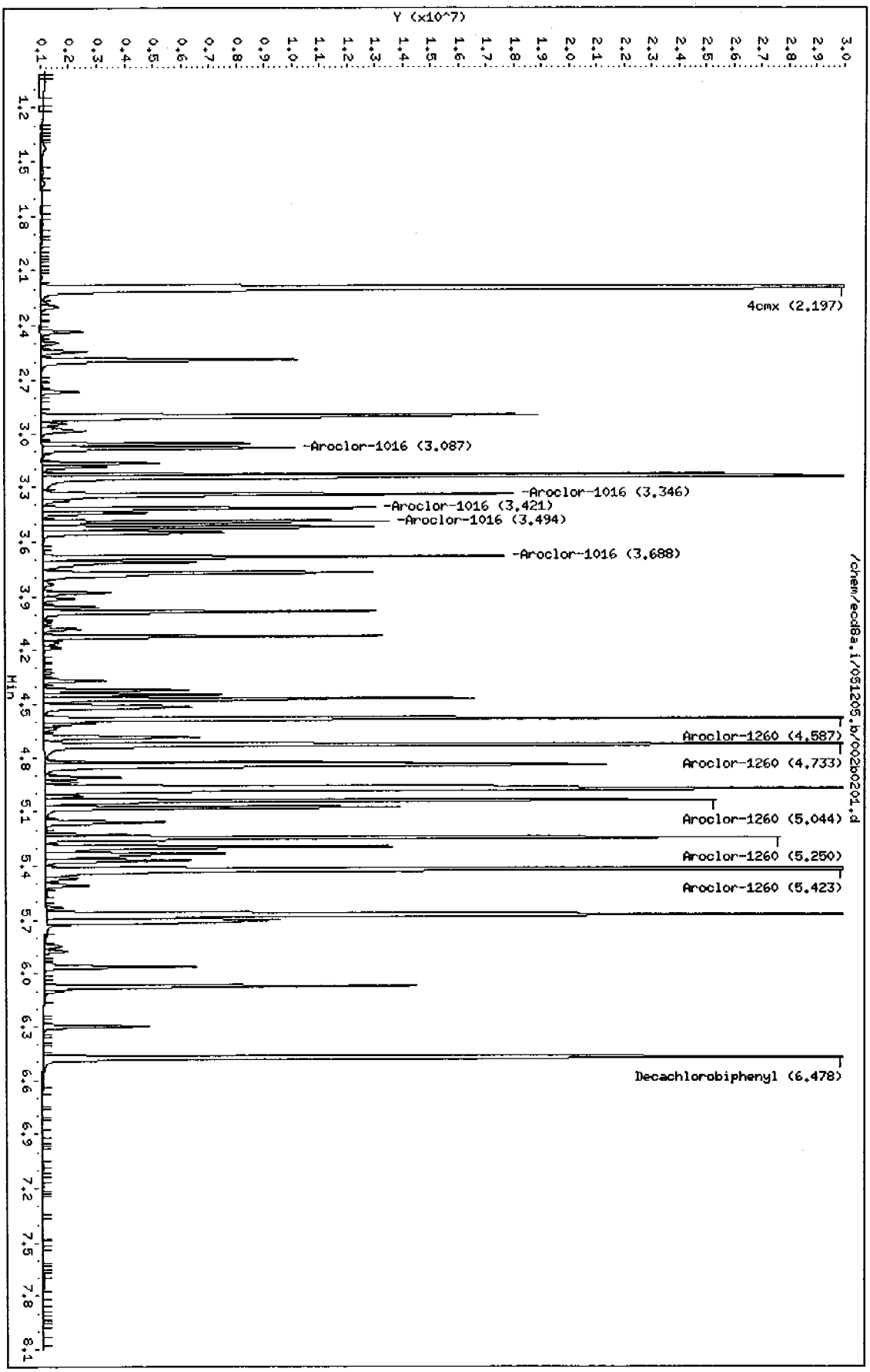

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RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/051205.b/003f0301.d
Lab Smp Id: WAR050415-05 541 Client Smp ID: AR125401
Inj Date : 12-MAY-2005 12:06
Operator : JMW1 Inst ID: ecd8a.i
Smp Info : |WAR050415-05 541
Misc Info : |CVS|1254||CVS|
Comment :
Method : /chem/ecd8a.i/051205.b/ECD8-F-8082-050905.m
Meth Date : 13-May-2005 10:22 jar00935 Quant Type: ESTD
Cal Date : 06-APR-2005 12:43 Cal File: 013f1301.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1254.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.868	1.868	0.000	19339336	0.00000	94.5	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.759	5.760	-0.001	25007950	0.00000	108	80.00- 120.00	100.00
6 Aroclor-1254					CAS #: 11097-69-1		
3.579	3.579	0.000	8375472	1000.00	878	80.00- 120.00	100.00
3.770	3.770	0.000	6269178	1000.00	892	54.85- 94.85	74.85
3.854	3.854	0.000	10855514	1000.00	888	109.61- 149.61	129.61
3.981	3.981	0.000	4475138	1000.00	942	33.43- 73.43	53.43
4.047	4.047	0.000	7990770	1000.00	939	75.41- 115.41	95.41
Average of Peak Amounts =					908		

Data File: /chem/ecd8a.i/051205.b/003f0301.d

Date : 12-MAY-2005 12:06

Client ID: AR125401

Sample Info: IWAR050415-05 541

Column phase: CLP1

Instrument: ecd8a.i

Operator: JMW1

Column diameter: 0.25

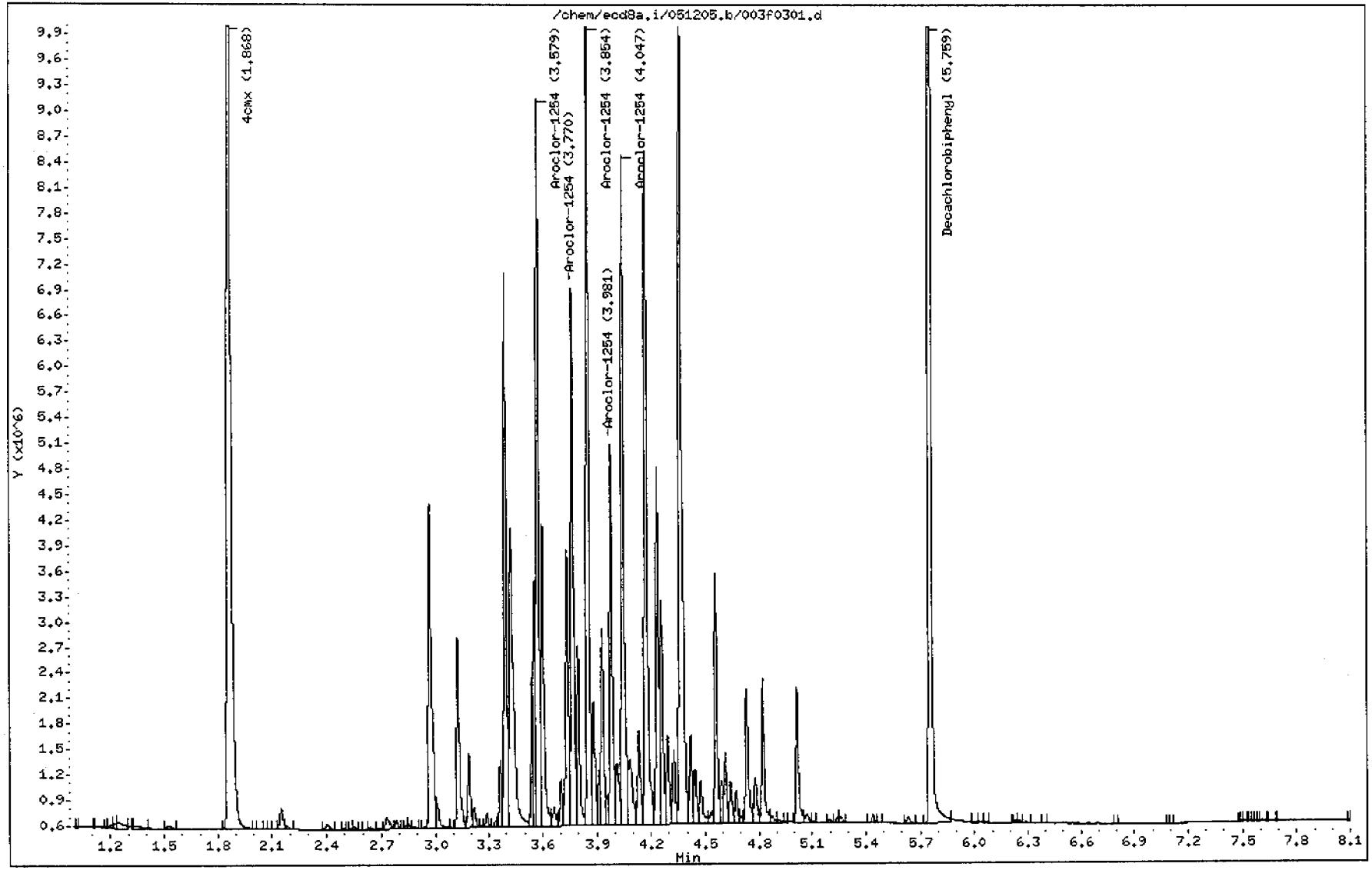

General Engineering Laboratories, LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/051205.b/003b0301.d
Lab Smp Id: WAR050415-05 541 Client Smp ID: AR125401
Inj Date : 12-MAY-2005 12:06
Operator : JMW1 Inst ID: ecd8a.i
Smp Info : |WAR050415-05 541
Misc Info : |CVS|1254||CVS|
Comment :
Method : /chem/ecd8a.i/051205.b/ECD8-B-8082-050905.m
Meth Date : 13-May-2005 12:07 jar00935 Quant Type: ESTD
Cal Date : 06-APR-2005 12:43 Cal File: 013f1301.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1254.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.197	2.197	0.000	72407922	0.00000	99.5	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.477	6.478	-0.001	51470463	0.00000	102	80.00- 120.00	100.00
6 Aroclor-1254					CAS #: 11097-69-1		
3.989	3.989	0.000	22391892	1000.00	947	80.00- 120.00	100.00
4.125	4.125	0.000	23617609	1000.00	932	85.47- 125.47	105.47
4.369	4.369	0.000	16615199	1000.00	928	54.20- 94.20	74.20
4.451	4.451	0.000	31265118	1000.00	922	119.63- 159.63	139.63
4.611	4.611	0.000	21848526	1000.00	937	77.57- 117.57	97.57
Average of Peak Amounts =					933		

Data File: /chem/ecd8a.i/051205.b/003b0301.d
Date : 12-MAY-2005 12:06
Client ID: AR125401
Sample Info: IWAR050415-05 541

Column phase: CLP2

Instrument: ecd8a.i

Operator: JMW1
Column diameter: 0.25

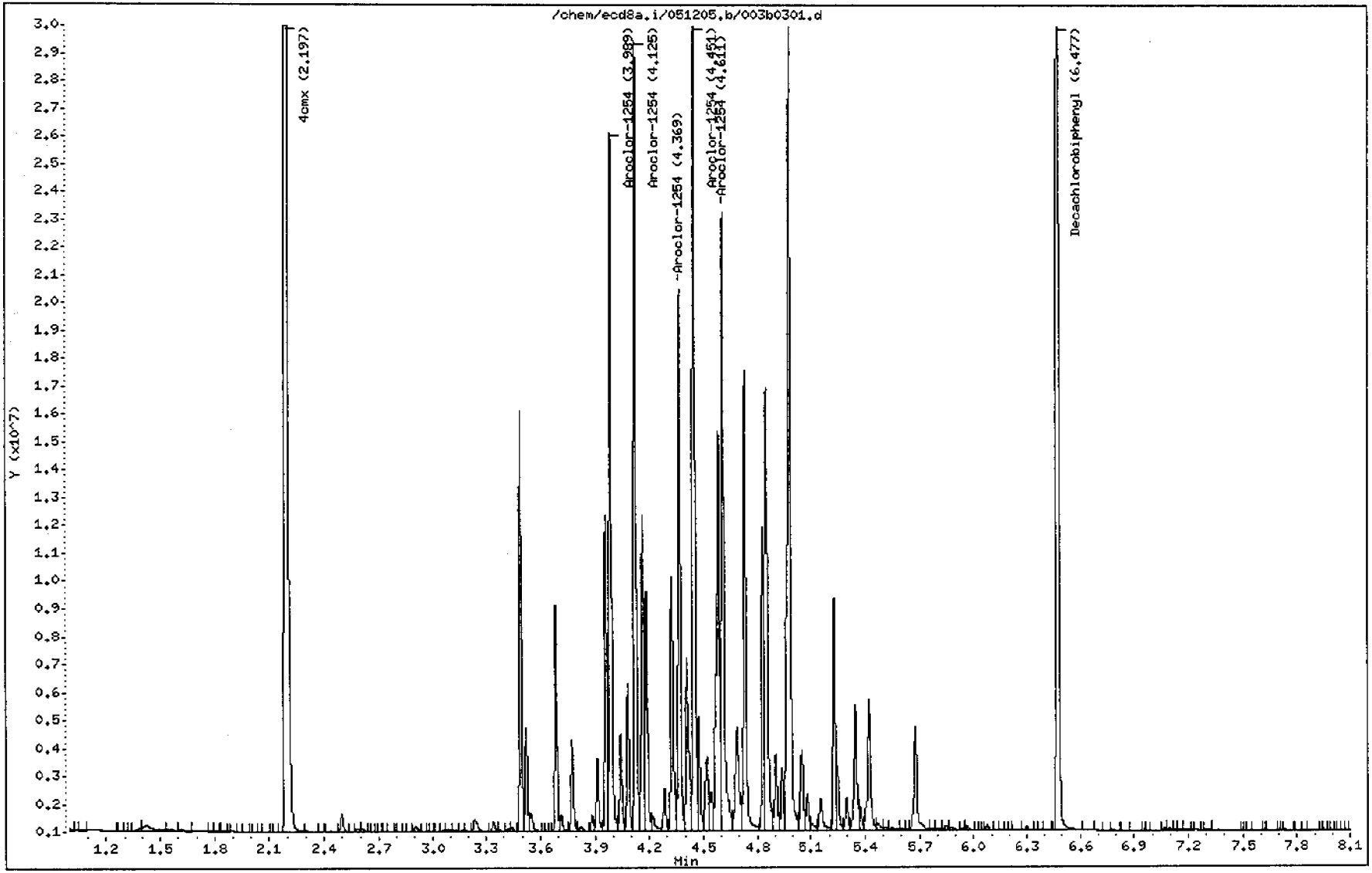

General Engineering Laboratories, LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/051205.b/004f0401.d
Lab Smp Id: WAR050323-01 421 Client Smp ID: AR124201
Inj Date : 12-MAY-2005 12:18
Operator : JMW1 Inst ID: ecd8a.i
Smp Info : |WAR050323-01 421
Misc Info : |CVS|1242||CVS|
Comment :
Method : /chem/ecd8a.i/051205.b/ECD8-F-8082-050905.m
Meth Date : 13-May-2005 10:22 jar00935 Quant Type: ESTD
Cal Date : 06-APR-2005 12:43 Cal File: 013f1301.d
Als bottle: 4 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1242.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.868	1.868	0.000	18576026	0.00000	90.7	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.759	5.760	-0.001	23603512	0.00000	102	80.00- 120.00	100.00
4 Aroclor-1242					CAS #: 53469-21-9		
2.835	2.835	0.000	4317663	1000.00	964	80.00- 120.00	100.00
2.880	2.880	0.000	2734296	1000.00	977	43.33- 83.33	63.33
2.971	2.971	0.000	2145347	1000.00	970	29.69- 69.69	49.69
3.188	3.188	0.000	2432477	1000.00	947	36.34- 76.34	56.34
3.426	3.426	0.000	2951209	1000.00	919	48.35- 88.35	68.35
Average of Peak Amounts =					955		

Data File: /chem/ecd8a.i/051205.b/004f0401.d

Date : 12-MAY-2005 12:18

Client ID: AR124201

Sample Info: IWAR050323-01 421

Column phase: CLP1

Instrument: ecd8a.i

Operator: JMW1

Column diameter: 0.25

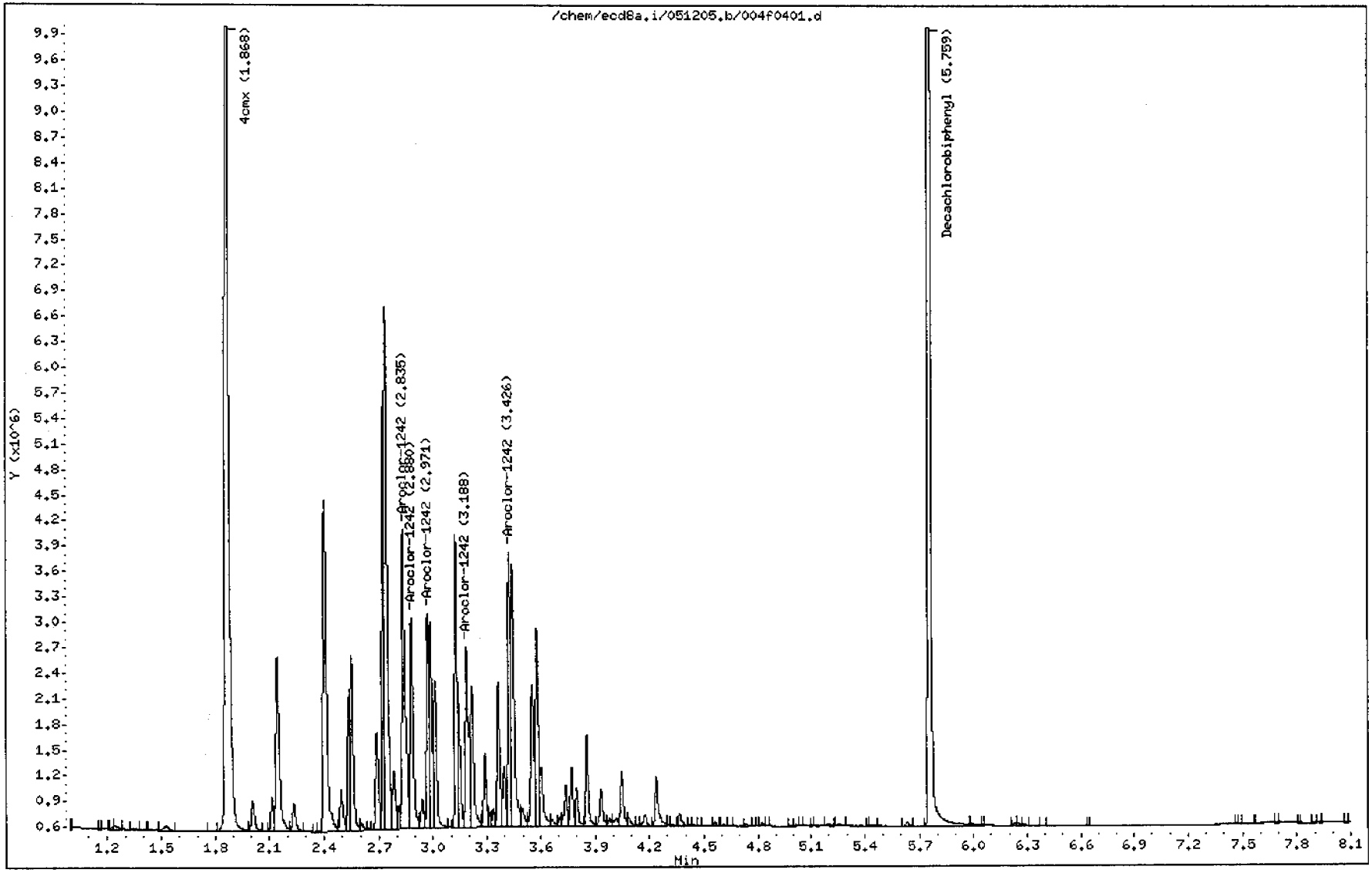

General Engineering Laboratories, LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/051205.b/004b0401.d
Lab Smp Id: WAR050323-01 421 Client Smp ID: AR124201
Inj Date : 12-MAY-2005 12:18
Operator : JMW1 Inst ID: ecd8a.i
Smp Info : |WAR050323-01 421
Misc Info : |CVS|1242||CVS|
Comment :
Method : /chem/ecd8a.i/051205.b/ECD8-B-8082-050905.m
Meth Date : 13-May-2005 12:07 jar00935 Quant Type: ESTD
Cal Date : 06-APR-2005 12:43 Cal File: 013f1301.d
Als bottle: 4 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1242.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.197	2.197	0.000	68781348	0.00000	94.5	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.477	6.478	-0.001	48340451	0.00000	96.1	80.00- 120.00	100.00
4 Aroclor-1242					CAS #: 53469-21-9		
3.087	3.087	0.000	5838501	1000.00	962	80.00- 120.00	100.00
3.346	3.346	0.000	12269873	1000.00	970	190.15- 230.15	210.15
3.421	3.421	0.000	7278498	1000.00	980	104.66- 144.66	124.66
3.688	3.688	0.000	10104805	1000.00	958	153.07- 193.07	173.07
3.994	3.994	0.000	10862906	1000.00	931	166.06- 206.06	186.06
Average of Peak Amounts =					960		

Data File: /chem/ecd8a.i/051205.b/004b0401.d
Date : 12-MAY-2005 12:18
Client ID: AR124201
Sample Info: IWAR050323-01 421

Column phase: CLP2

Instrument: ecd8a.i

Operator: JMW1
Column diameter: 0.25

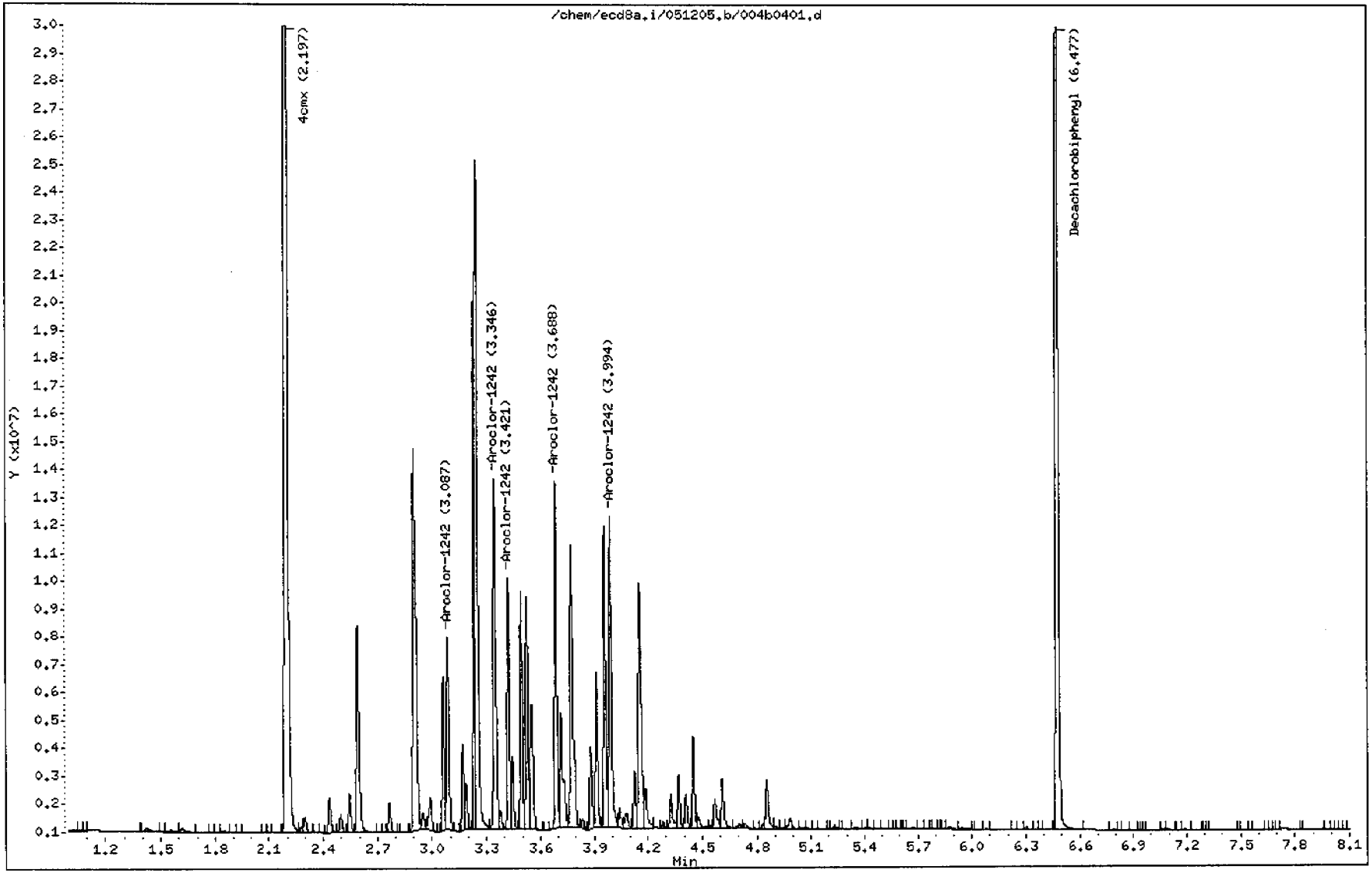

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RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/051205.b/005f0501.d
Lab Smp Id: WAR050504-01 481 Client Smp ID: AR124801
Inj Date : 12-MAY-2005 12:30
Operator : JMW1 Inst ID: ecd8a.i
Smp Info : |WAR050504-01 481
Misc Info : |CVS|1248||CVS|
Comment :
Method : /chem/ecd8a.i/051205.b/ECD8-F-8082-050905.m
Meth Date : 13-May-2005 10:22 jar00935 Quant Type: ESTD
Cal Date : 06-APR-2005 12:43 Cal File: 013f1301.d
Als bottle: 5 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1248.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.868	1.868	0.000	18459295	0.00000	90.2	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.759	5.760	-0.001	23790997	0.00000	103	80.00- 120.00	100.00
5 Aroclor-1248					CAS #: 12672-29-6		
3.188	3.188	0.000	4292846	1000.00	891	80.00- 120.00	100.00(M)
3.364	3.364	0.000	3105294	1000.00	880	52.34- 92.34	72.34
3.426	3.426	0.000	6028732	1000.00	858	120.44- 160.44	140.44
3.580	3.580	0.000	5291113	1000.00	866	103.25- 143.25	123.25
3.855	3.855	0.000	3620799	1000.00	842	64.34- 104.34	84.34
Average of Peak Amounts =					868		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd8a.i/051205.b/005f0501.d

Date : 12-MAY-2005 12:30

Client ID: AR124801

Sample Info: IWAR050504-01 481

Column phase: CLP1

Instrument: ecd8a.i

Operator: JMW1

Column diameter: 0.25

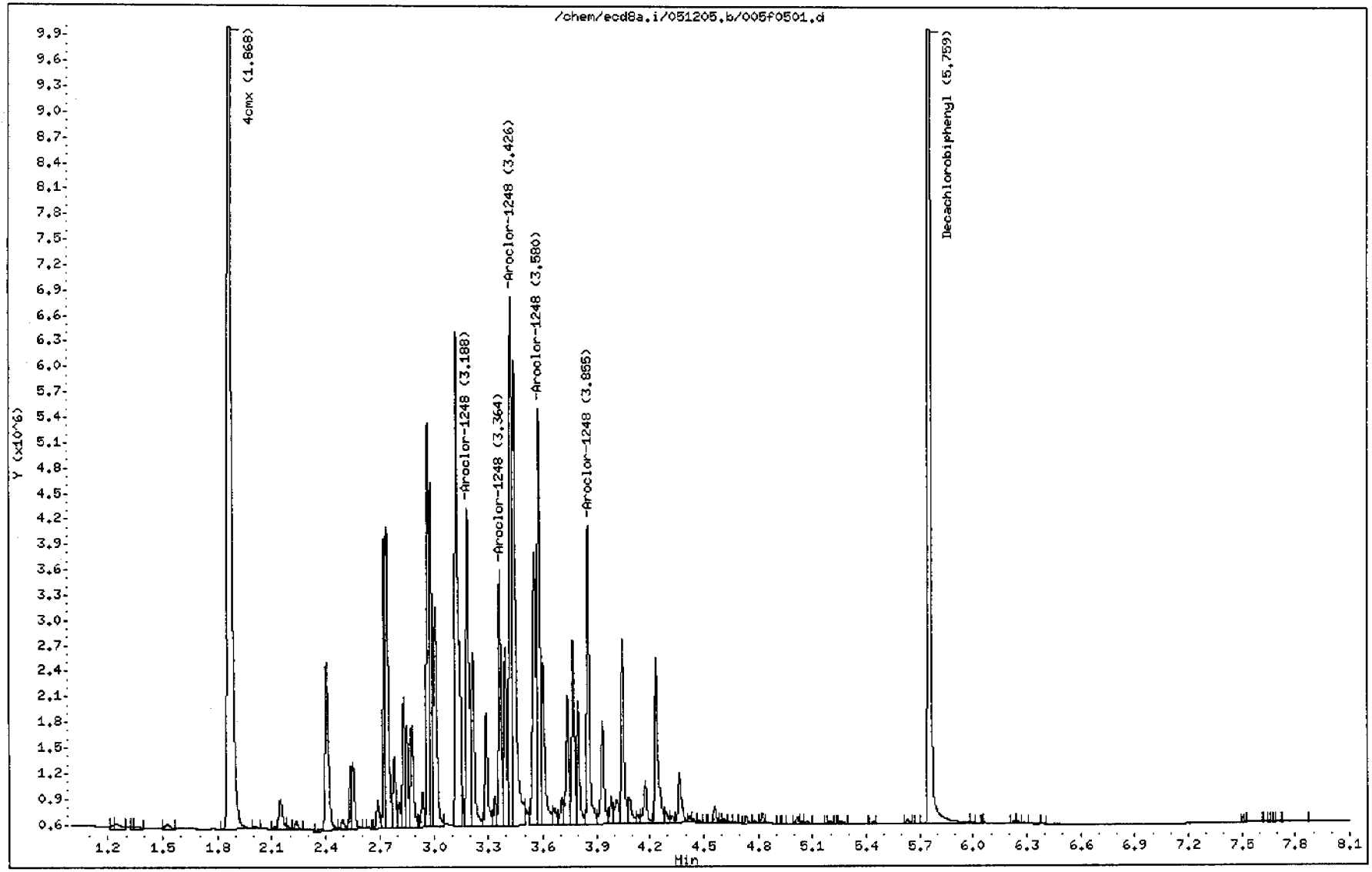

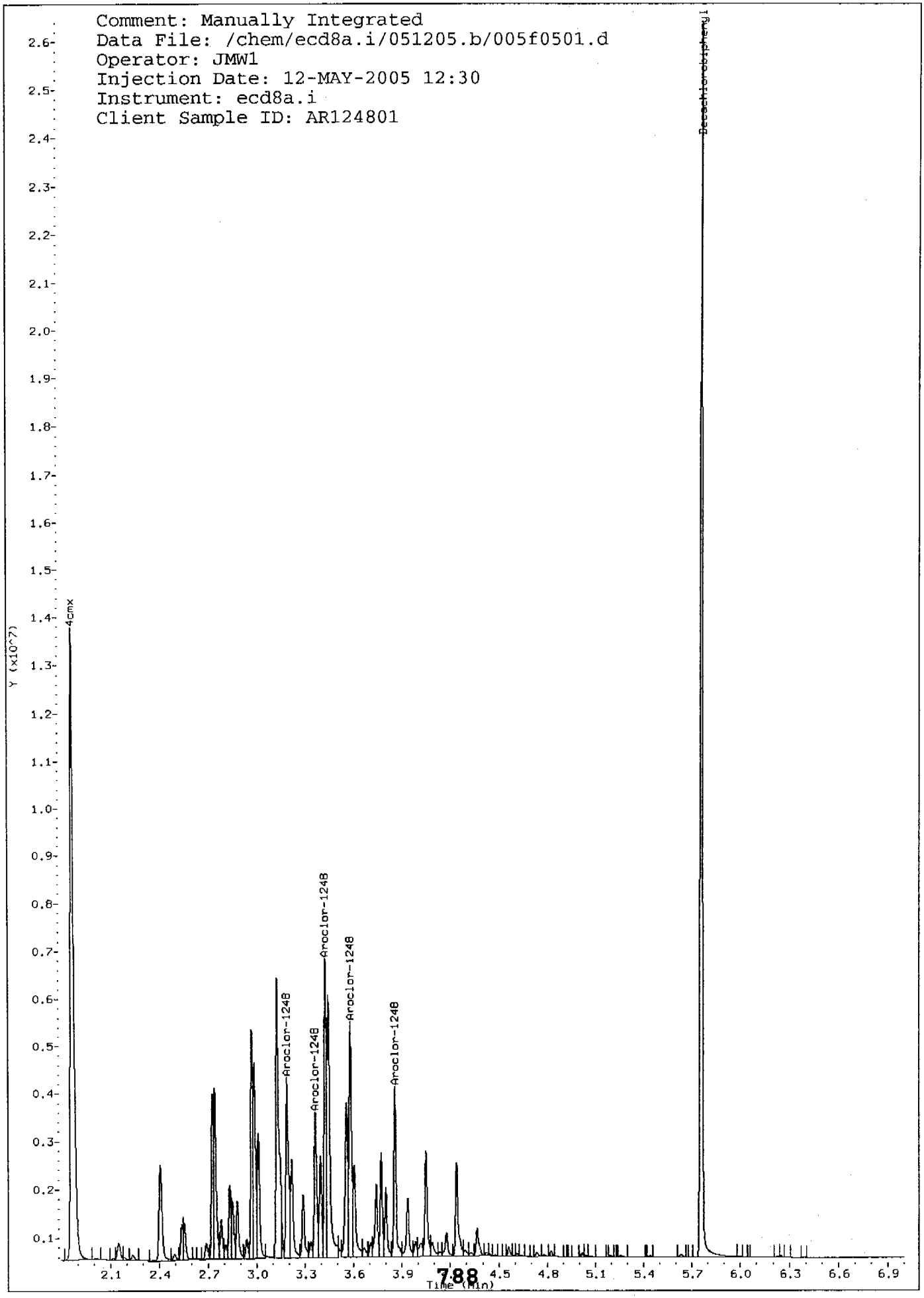
Comment: Manually Integrated
Data File: /chem/ecd8a.i/051205.b/005f0501.d
Operator: JMW1
Injection Date: 12-MAY-2005 12:30
Instrument: ecd8a.i
Client Sample ID: AR124801
Decachlorodiphenyl
4cmx
Aroclor-1248
Aroclor-1248
Aroclor-1248
Aroclor-1248
Aroclor-1248
Y (x10^7)
Time (Min)

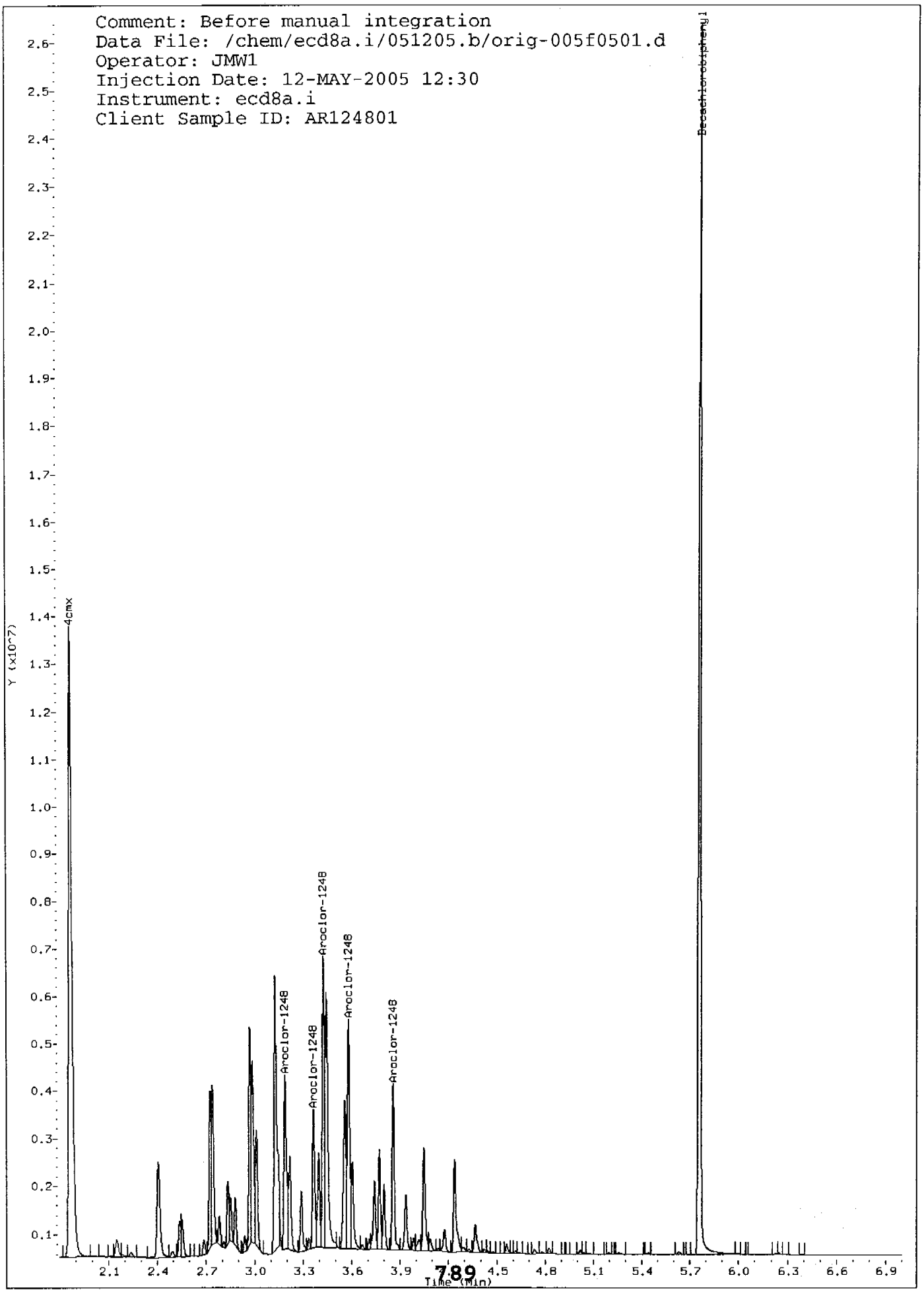
Comment: Before manual integration
Data File: /chem/ecd8a.i/051205.b/orig-005f0501.d
Operator: JMW1
Injection Date: 12-MAY-2005 12:30
Instrument: ecd8a.i
Client Sample ID: AR124801
Y (x10^7)
4cmx
Aroclor-1248
Aroclor-1248
Aroclor-1248
Aroclor-1248
Aroclor-1248
Decachlorobiphenyl
Time (Min)

General Engineering Laboratories, LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/051205.b/005b0501.d
Lab Smp Id: WAR050504-01 481 Client Smp ID: AR124801
Inj Date : 12-MAY-2005 12:30
Operator : JMW1 Inst ID: ecd8a.i
Smp Info : |WAR050504-01 481
Misc Info : |CVS|1248||CVS|
Comment :
Method : /chem/ecd8a.i/051205.b/ECD8-B-8082-050905.m
Meth Date : 13-May-2005 12:07 jar00935 Quant Type: ESTD
Cal Date : 06-APR-2005 12:43 Cal File: 013b1301.d
Als bottle: 5 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1248.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: kilroy

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.197	2.197	0.000	68086996	0.00000	93.6	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.477	6.478	-0.001	48698530	0.00000	96.8	80.00- 120.00	100.00
5 Aroclor-1248					CAS #: 12672-29-6		
3.494	3.494	0.000	14116426	1000.00	920	80.00- 120.00	100.00
3.525	3.525	0.000	12019225	1000.00	920	65.14- 105.14	85.14
3.688	3.688	0.000	17598658	1000.00	922	104.67- 144.67	124.67
3.775	3.775	0.000	18200563	1000.00	923	108.93- 148.93	128.93
3.962	3.962	0.000	18607137	1000.00	919	111.81- 151.81	131.81
Average of Peak Amounts =					921		

Data File: /chem/ecd8a.i/051205.b/005b0501.d
Date : 12-MAY-2005 12:30
Client ID: AR124801
Sample Info: IWAR050504-01 481

Column phase: CLP2

Instrument: ecd8a.i

Operator: JMW1
Column diameter: 0.25

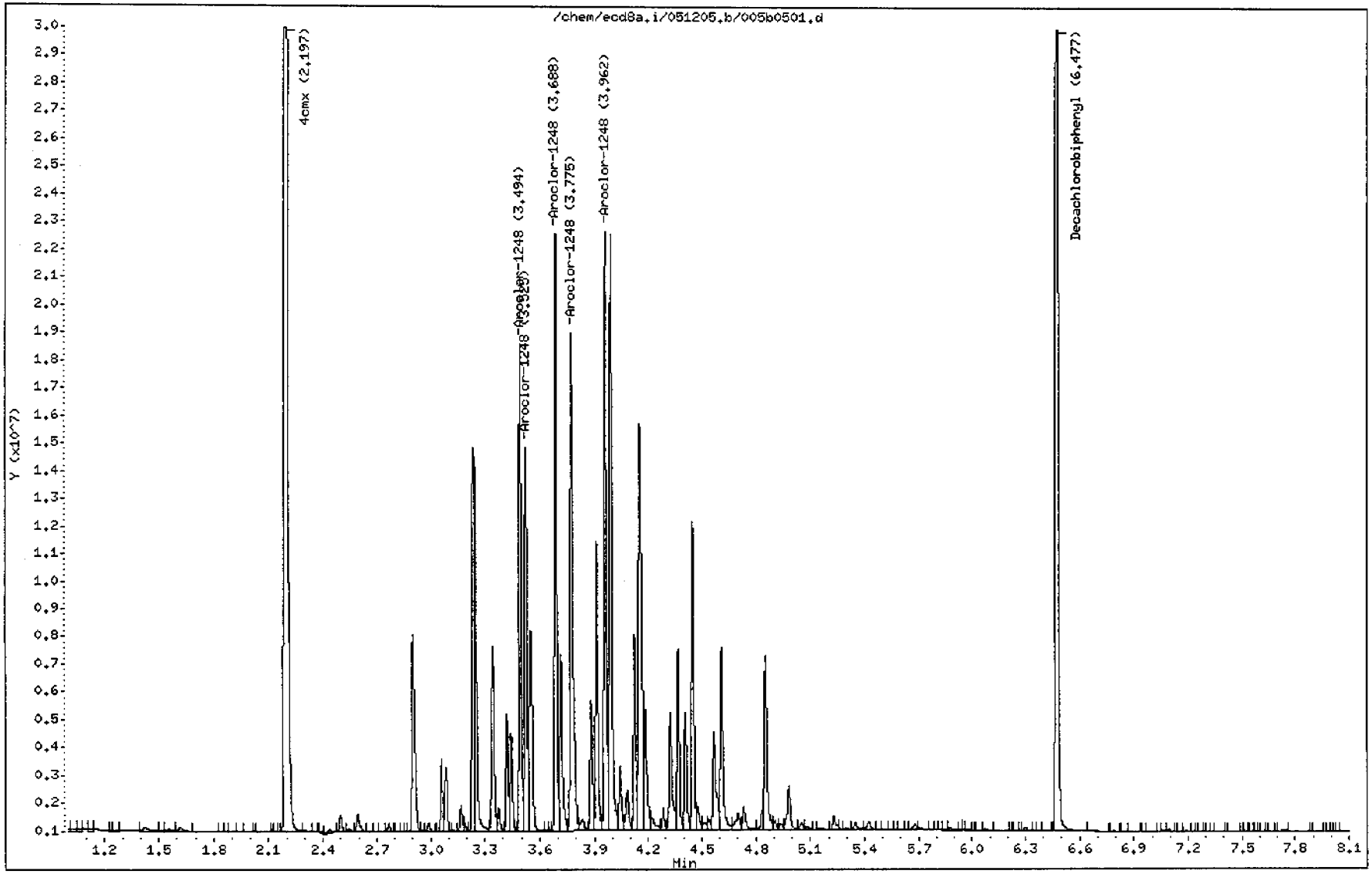

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RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/051205.b/007f0701.d
Lab Smp Id: WAR050401-05 321 Client Smp ID: AR123201
Inj Date : 12-MAY-2005 12:55
Operator : JMW1 Inst ID: ecd8a.i
Smp Info : |WAR050401-05 321
Misc Info : |CVS|1232||CVS|
Comment :
Method : /chem/ecd8a.i/051205.b/ECD8-F-8082-050905.m
Meth Date : 13-May-2005 10:22 jar00935 Quant Type: ESTD
Cal Date : 06-APR-2005 12:43 Cal File: 013f1301.d
Als bottle: 7 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1232.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: kilroy

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.867	1.868	-0.001	18687533	0.00000	91.3	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.758	5.760	-0.002	23432688	0.00000	101	80.00- 120.00	100.00
3 Aroclor-1232					CAS #: 11141-16-5		
2.552	2.552	0.000	1256543	1000.00	1280	80.00- 120.00	100.00
2.835	2.835	0.000	2376918	1000.00	1260	169.16- 209.16	189.16
2.880	2.880	0.000	1496681	1000.00	1270	99.11- 139.11	119.11
2.987	2.987	0.000	1213998	1000.00	1270	76.61- 116.61	96.61
3.427	3.427	0.000	1453986	1000.00	1290	95.71- 135.71	115.71

Average of Peak Amounts = 1.27e+03

Data File: /chem/ecd8a.i/051205.b/007f0701.d

Date : 12-MAY-2005 12:55

Client ID: AR123201

Sample Info: IWAR050401-05 321

Column phase: CLP1

Instrument: ecd8a.i

Operator: JMW1

Column diameter: 0.25

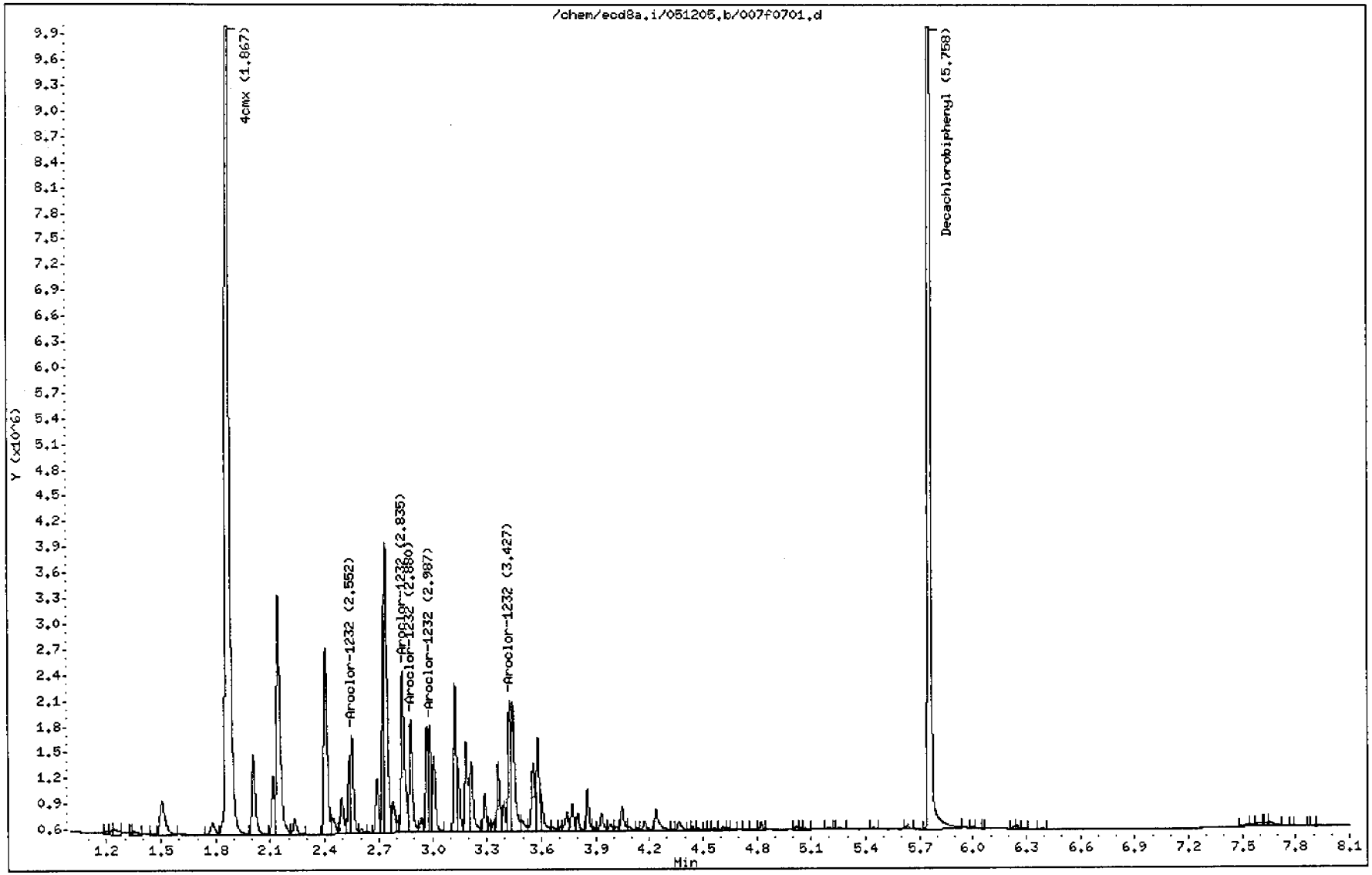

General Engineering Laboratories, LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/051205.b/007b0701.d
Lab Smp Id: WAR050401-05 321 Client Smp ID: AR123201
Inj Date : 12-MAY-2005 12:55
Operator : JMW1 Inst ID: ecd8a.i
Smp Info : |WAR050401-05 321
Misc Info : |CVS|1232||CVS|
Comment :
Method : /chem/ecd8a.i/051205.b/ECD8-B-8082-050905.m
Meth Date : 13-May-2005 12:07 jar00935 Quant Type: ESTD
Cal Date : 06-APR-2005 12:43 Cal File: 013f1301.d
Als bottle: 7 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1232.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.197	2.197	0.000	67705770	0.00000	93.0	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.477	6.478	-0.001	48253096	0.00000	96.0	80.00- 120.00	100.00(M)
3 Aroclor-1232					CAS #: 11141-16-5		
3.087	3.087	0.000	3147451	1000.00	1290	80.00- 120.00	100.00
3.346	3.346	0.000	6575725	1000.00	1300	188.92- 228.92	208.92
3.422	3.422	0.000	3811083	1000.00	1270	101.08- 141.08	121.08
3.495	3.495	0.000	3284384	1000.00	1280	84.35- 124.35	104.35
3.688	3.688	0.000	4879902	1000.00	1310	135.04- 175.04	155.04

Average of Peak Amounts = 1.29e+03

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd8a.i/051205.b/007b0701.d

Date : 12-MAY-2005 12:55

Client ID: AR123201

Sample Info: IWAR050401-05 321

Column phase: CLP2

Instrument: ecd8a.i

Operator: JMW1

Column diameter: 0.25

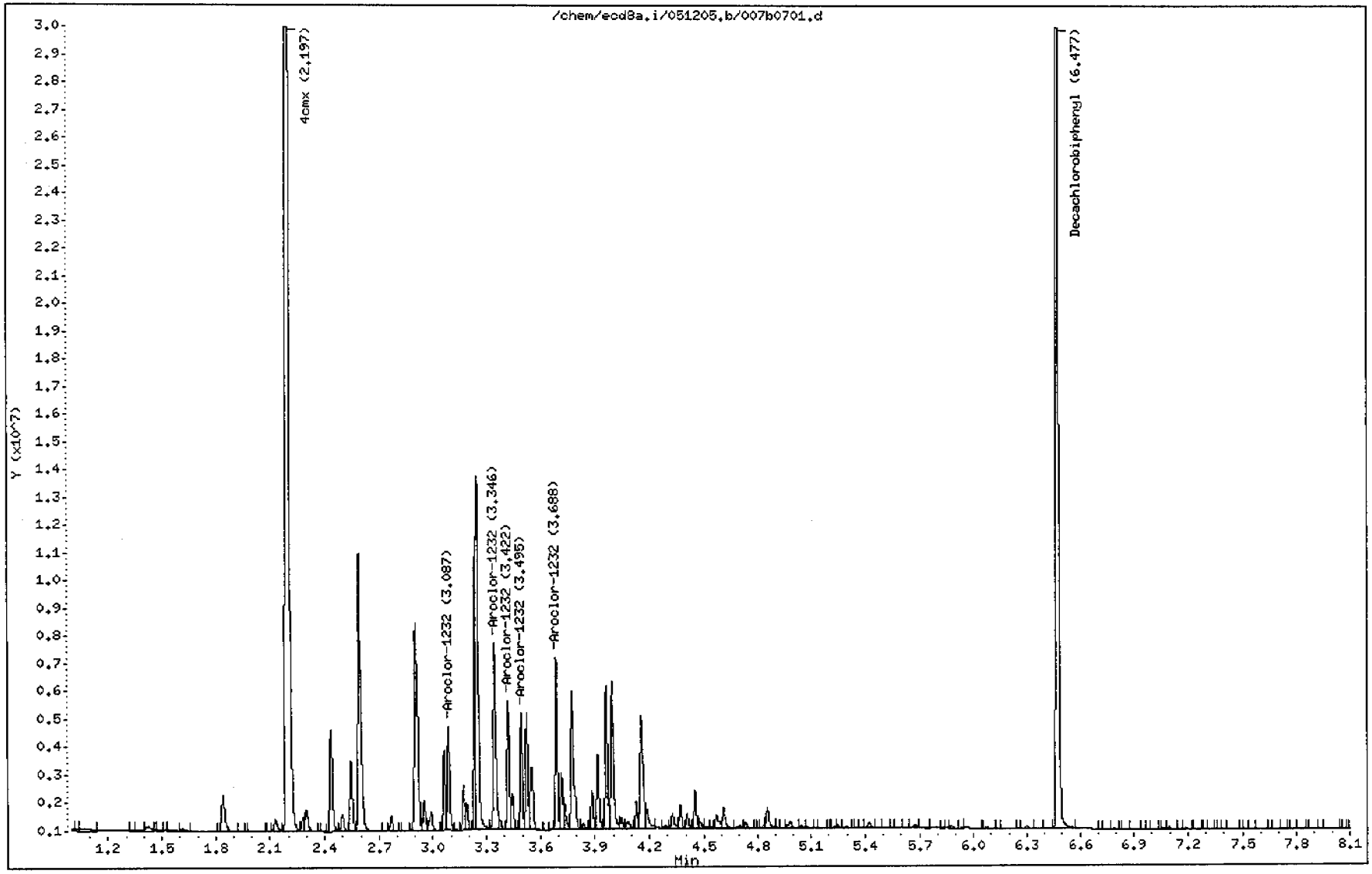

Comment: Manually Integrated
Data File: /chem/ecd8a.i/051205.b/007b0701.d
Operator: JMW1
Injection Date: 12-MAY-2005 12:55
Instrument: ecd8a.i
Client Sample ID: AR123201

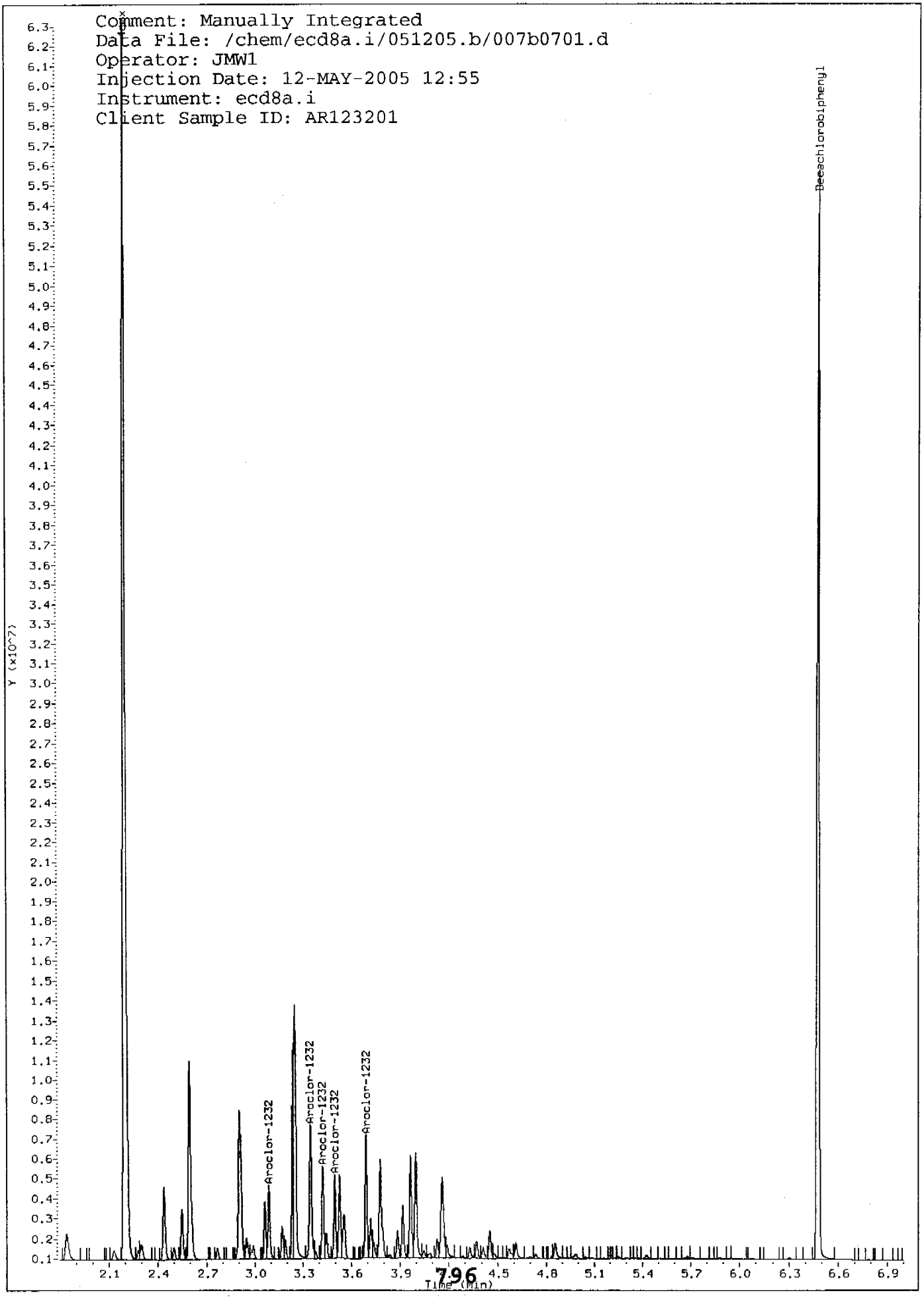

Comment: Before manual integration
Data File: /chem/ecd8a.i/051205.b/orig-007b0701.d
Operator: JMW1
Injection Date: 12-MAY-2005 12:55
Instrument: ecd8a.i
Client Sample ID: AR123201

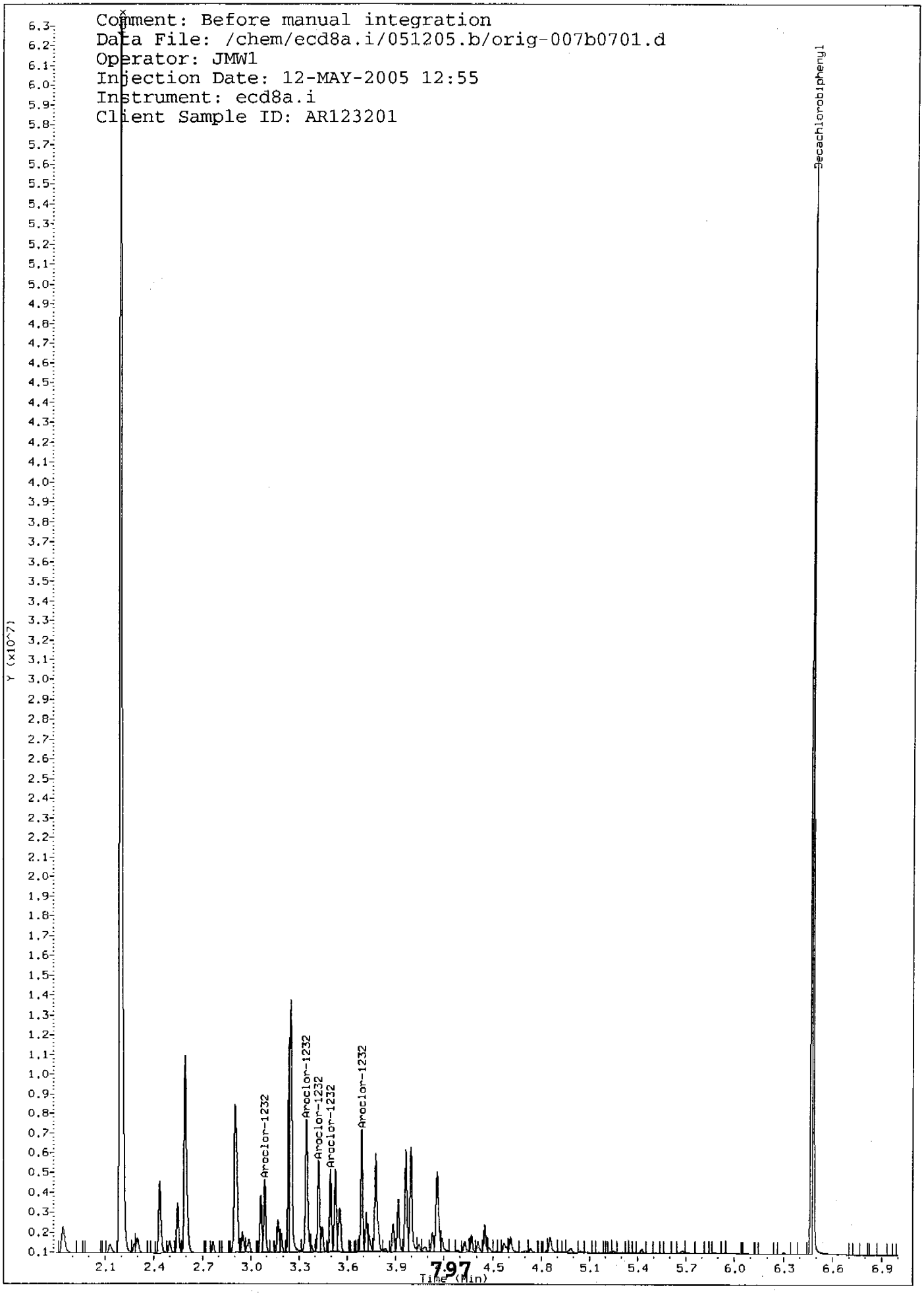

General Engineering Laboratories, LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/051205.b/008f0801.d
Lab Smp Id: WAR050328-05 211 Client Smp ID: AR122101
Inj Date : 12-MAY-2005 13:07
Operator : JMW1 Inst ID: ecd8a.i
Smp Info : |WAR050328-05 211
Misc Info : |CVS|1221||CVS|
Comment :
Method : /chem/ecd8a.i/051205.b/ECD8-F-8082-050905.m
Meth Date : 13-May-2005 10:22 jar00935 Quant Type: ESTD
Cal Date : 06-APR-2005 12:43 Cal File: 013f1301.d
Als bottle: 8 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1221.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.868	1.868	0.000	18664588	0.00000	91.2	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.758	5.760	-0.002	23690718	0.00000	102	80.00- 120.00	100.00
2 Aroclor-1221					CAS #: 11104-28-2		
2.008	2.008	0.000	1819470	1000.00	1030	80.00- 120.00	100.00
2.114	2.114	0.000	951611	1000.00	1130	32.30- 72.30	52.30
2.145	2.145	0.000	4466047	1000.00	1000	225.46- 265.46	245.46

Average of Peak Amounts = 1.05e+03

Data File: /chem/ecd8a.i/051205.b/008f0801.d

Date : 12-MAY-2005 13:07

Client ID: AR122101

Sample Info: IWAR050328-05 211

Column phase: CLP1

Instrument: ecd8a.i

Operator: JMW1

Column diameter: 0.25

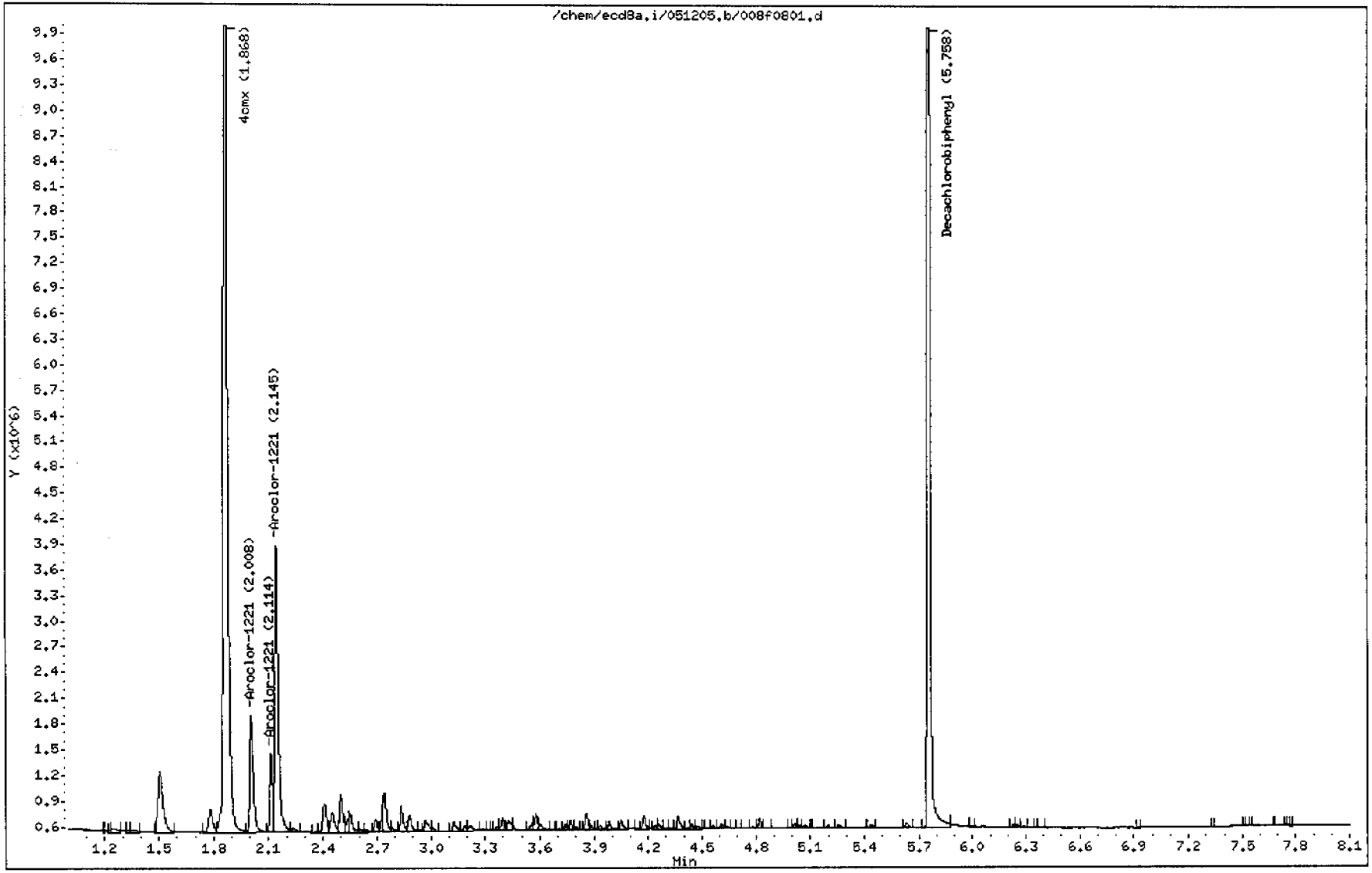

General Engineering Laboratories, LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/051205.b/008b0801.d
Lab Smp Id: WAR050328-05 211 Client Smp ID: AR122101
Inj Date : 12-MAY-2005 13:07
Operator : JMW1 Inst ID: ecd8a.i
Smp Info : |WAR050328-05 211
Misc Info : |CVS|1221||CVS|
Comment :
Method : /chem/ecd8a.i/051205.b/ECD8-B-8082-050905.m
Meth Date : 13-May-2005 12:07 jar00935 Quant Type: ESTD
Cal Date : 06-APR-2005 12:43 Cal File: 013f1301.d
Als bottle: 8 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1221.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.197	2.197	0.000	67104051	0.00000	92.2	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.477	6.478	-0.001	49250379	0.00000	98.0	80.00- 120.00	100.00
2 Aroclor-1221					CAS #: 11104-28-2		
2.435	2.435	0.000	5321254	1000.00	1090	80.00- 120.00	100.00
2.546	2.546	0.000	3062713	1000.00	1080	37.56- 77.56	57.56
2.593	2.593	0.000	12569313	1000.00	1110	216.21- 256.21	236.21

Average of Peak Amounts = 1.1e+03

Data File: /chem/ecd8a.i/051205.b/008b0801.d
Date : 12-MAY-2005 13:07
Client ID: AR122101
Sample Info: IWAR050328-05 211

Column phase: CLP2

Instrument: ecd8a.i

Operator: JMW1
Column diameter: 0.25

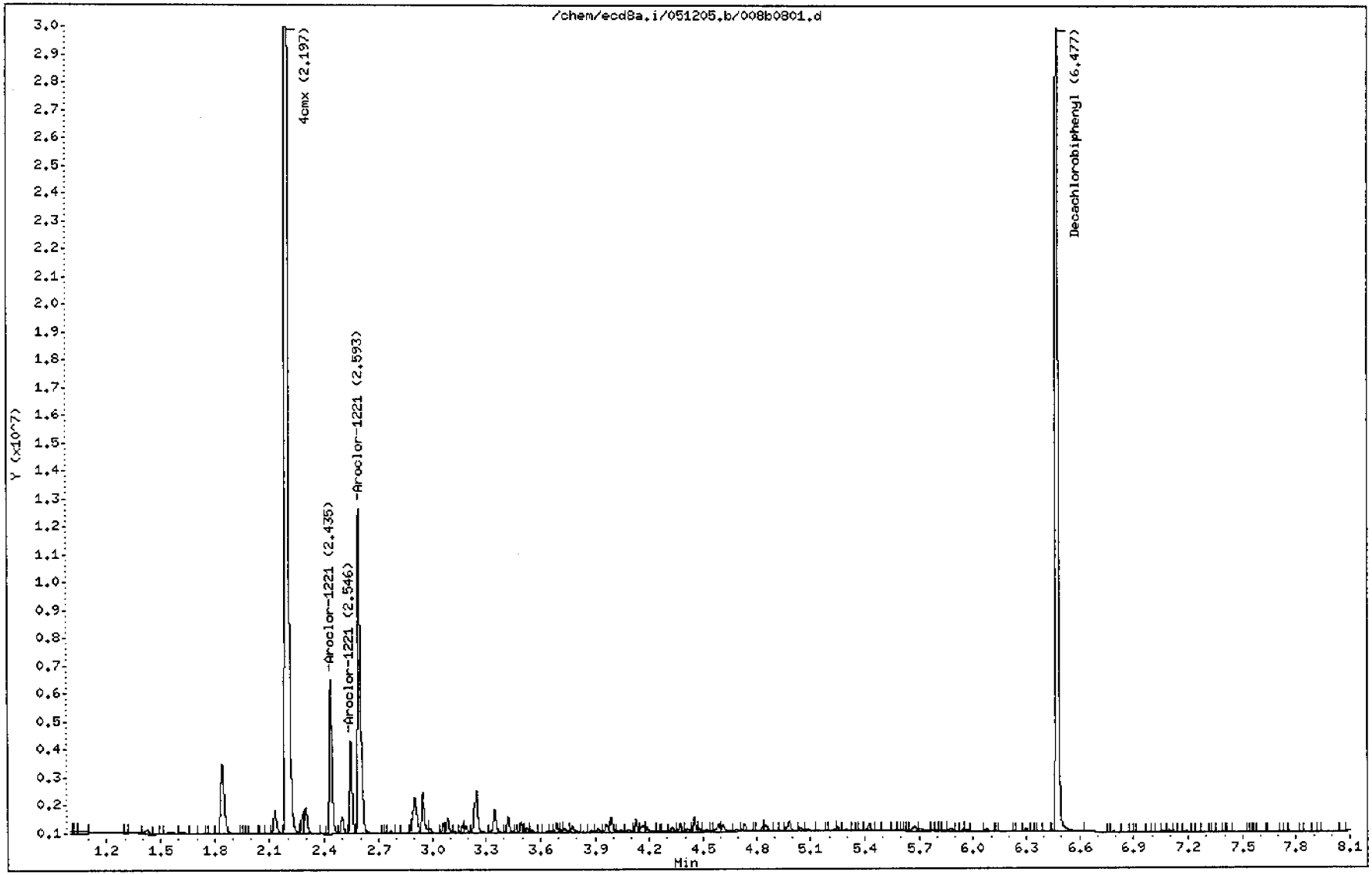

General Engineering Laboratories, LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/051205.b/015f1501.d
Lab Smp Id: WAR050511-13 602 Client Smp ID: AR166002
Inj Date : 12-MAY-2005 15:54
Operator : JMW1 Inst ID: ecd8a.i
Smp Info : |WAR050511-13 602
Misc Info : |CCV|1660||ICV|
Comment :
Method : /chem/ecd8a.i/051205.b/ECD8-F-8082-050905.m
Meth Date : 13-May-2005 10:22 jar00935 Quant Type: ESTD
Cal Date : 06-APR-2005 12:43 Cal File: 013f1301.d
Als bottle: 15 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: kilroy

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.871	1.868	0.003	18031954	0.00000	88.1	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.764	5.760	0.004	21659069	0.00000	93.7	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.840	2.835	0.005	5565626	1000.00	906	80.00- 120.00	100.00
2.886	2.881	0.005	3447456	1000.00	909	42.53- 82.53	61.94
2.976	2.971	0.005	2902933	1000.00	906	33.85- 73.85	52.16
2.992	2.987	0.005	3101745	1000.00	856	34.64- 74.64	55.73
3.193	3.188	0.005	2838411	1000.00	915	31.32- 71.32	51.00
Average of Peak Amounts =					898		
7 Aroclor-1260					CAS #: 11096-82-5		
3.986	3.982	0.004	8995823	1000.00	895	80.00- 120.00	100.00
4.178	4.173	0.005	14324061	1000.00	906	140.32- 180.32	159.23
4.449	4.443	0.006	7282717	1000.00	908	61.22- 101.22	80.96
4.617	4.613	0.004	8247017	1000.00	916	71.43- 111.43	91.68
5.021	5.016	0.005	10542272	1000.00	955	96.41- 136.41	117.19
Average of Peak Amounts =					916		

Data File: /chem/ecd8a.i/051205.b/015f1501.d
Date : 12-MAY-2005 15:54
Client ID: AR166002
Sample Info: IWAR050511-13 602

Column phase: CLP1

Instrument: ecd8a.i

Operator: JMW1
Column diameter: 0.25

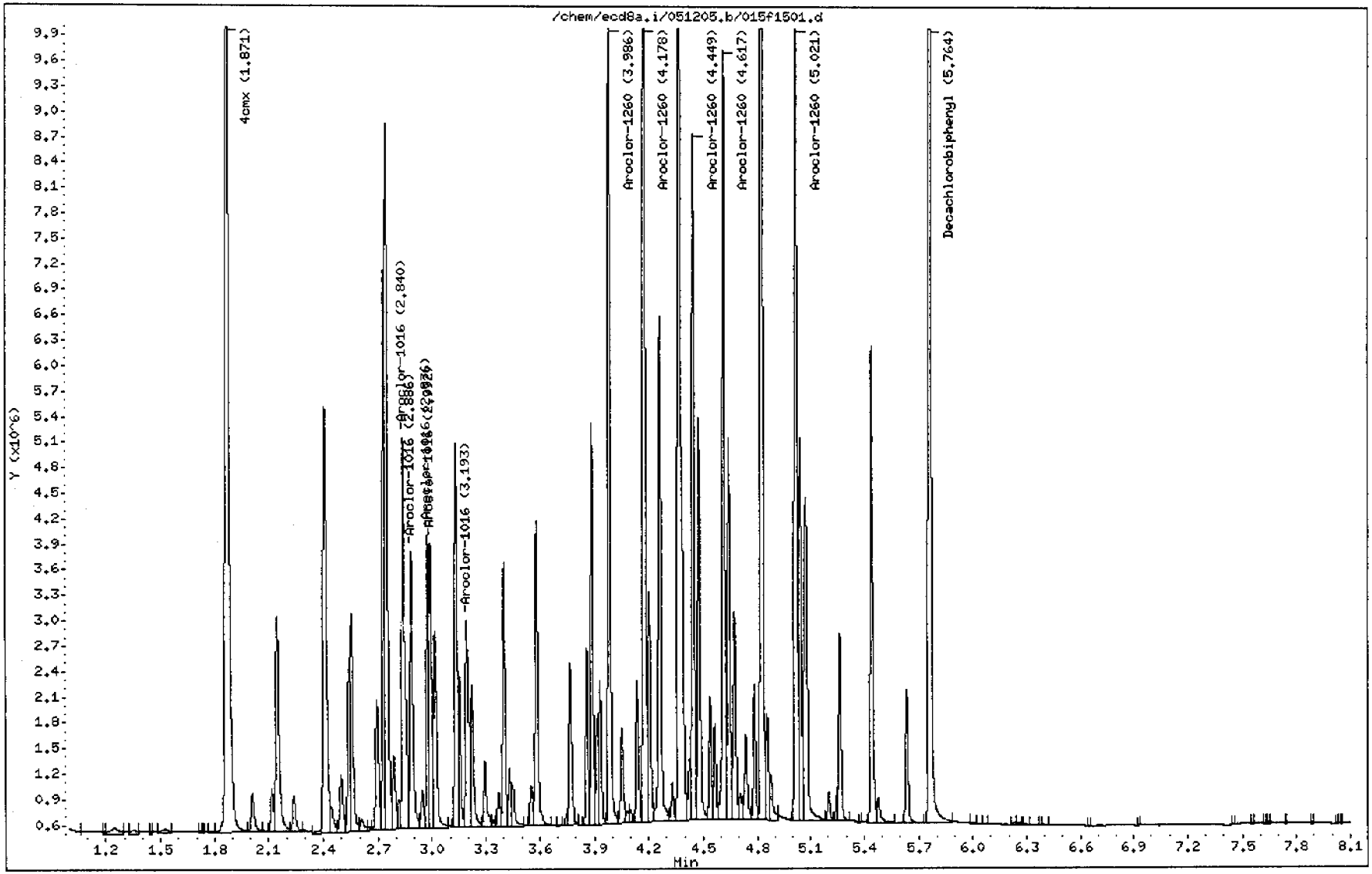

General Engineering Laboratories, LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/051205.b/015b1501.d
Lab Smp Id: WAR050511-13 602 Client Smp ID: AR166002
Inj Date : 12-MAY-2005 15:54
Operator : JMW1 Inst ID: ecd8a.i
Smp Info : |WAR050511-13 602
Misc Info : |CCV|1660||ICV|
Comment :
Method : /chem/ecd8a.i/051205.b/ECD8-B-8082-050905.m
Meth Date : 13-May-2005 12:07 jar00935 Quant Type: ESTD
Cal Date : 06-APR-2005 12:43 Cal File: 013b1301.d
Als bottle: 15 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.196	2.197	-0.001	66427820	0.00000	91.3	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.479	6.478	0.001	43395679	0.00000	86.3	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.087	3.087	0.000	7429177	1000.00	900	80.00- 120.00	100.00(M)
3.346	3.346	0.000	15738662	1000.00	906	189.47- 229.47	211.85
3.422	3.421	0.001	9364319	1000.00	914	104.09- 144.09	126.05
3.495	3.494	0.001	9346209	1000.00	884	105.95- 145.95	125.80
3.689	3.688	0.001	12703952	1000.00	892	148.78- 188.78	171.00
Average of Peak Amounts =					899		
7 Aroclor-1260					CAS #: 11096-82-5		
4.588	4.587	0.001	24992924	1000.00	895	80.00- 120.00	100.00(M)
4.735	4.733	0.002	31283760	1000.00	902	104.45- 144.45	125.17
5.046	5.044	0.002	19483330	1000.00	900	55.73- 95.73	77.96
5.251	5.250	0.001	21171127	1000.00	907	61.34- 101.34	84.71
5.426	5.423	0.003	49808660	1000.00	919	169.55- 209.55	199.29
Average of Peak Amounts =					905		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd8a.i/051205.b/015b1501.d
Date : 12-MAY-2005 15:54
Client ID: AR166002
Sample Info: IWAR050511-13 602

Column phase: CLP2

Instrument: ecd8a.i

Operator: JMW1
Column diameter: 0.25

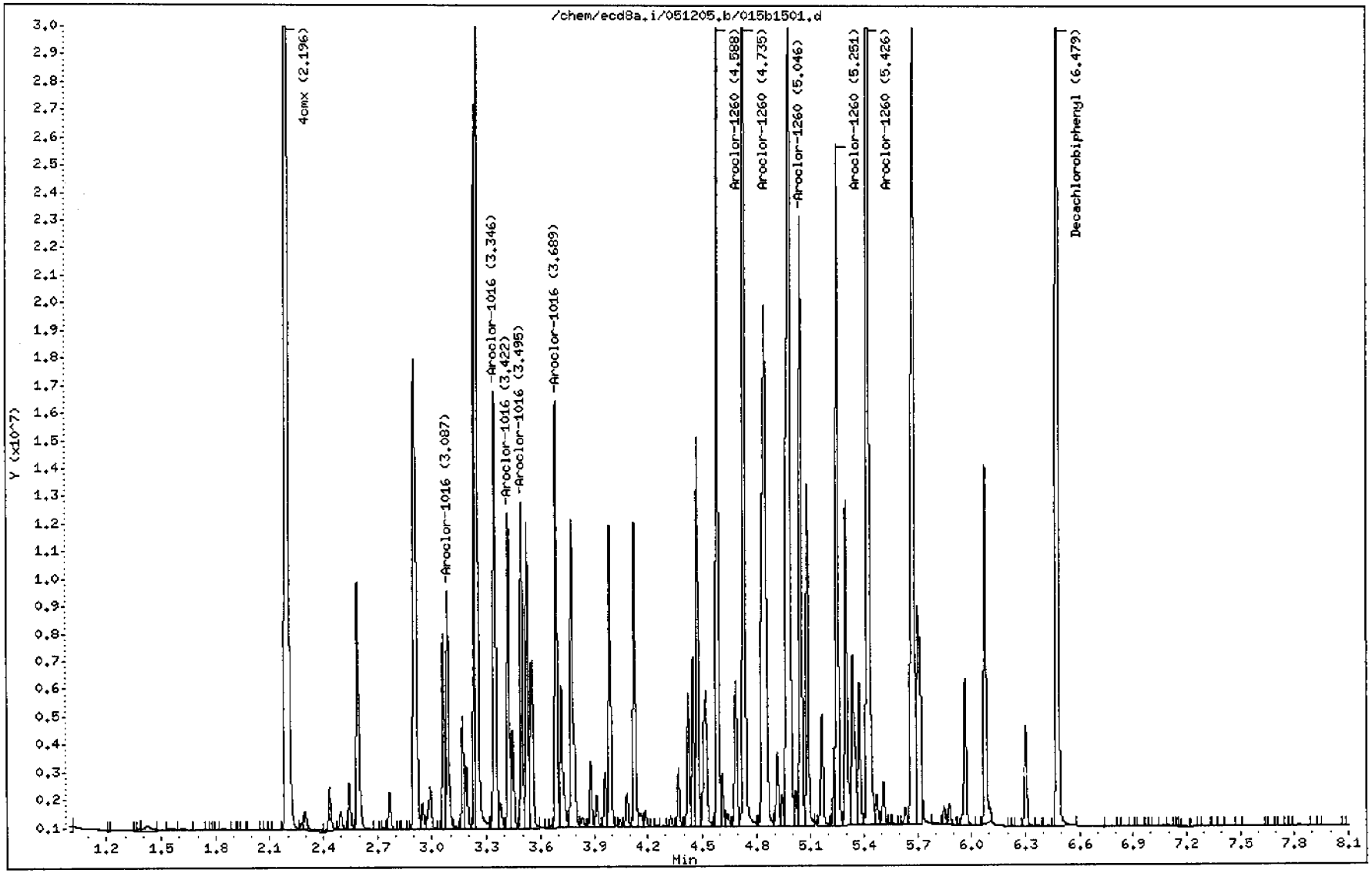

Comment: Manually Integrated
Data File: /chem/ecd8a.i/051205.b/015b1501.d
Operator: JMW1
Injection Date: 12-MAY-2005 15:54
Instrument: ecd8a.i
Client Sample ID: AR166002

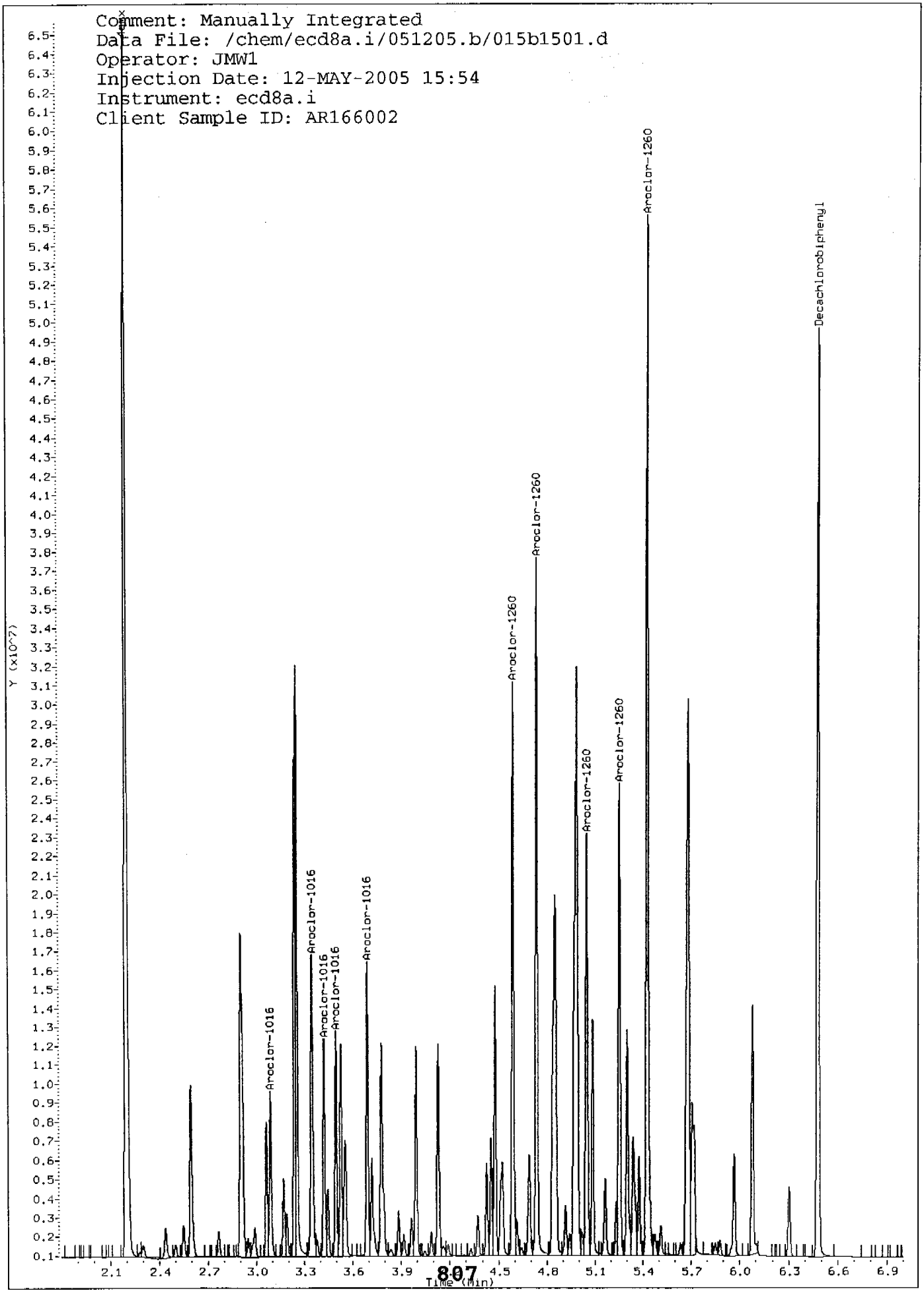

Comment: Before manual integration
Data File: /chem/ecd8a.i/051205.b/orig-015b1501.d
Operator: JMW1
Injection Date: 12-MAY-2005 15:54
Instrument: ecd8a.i
Client Sample ID: AR166002

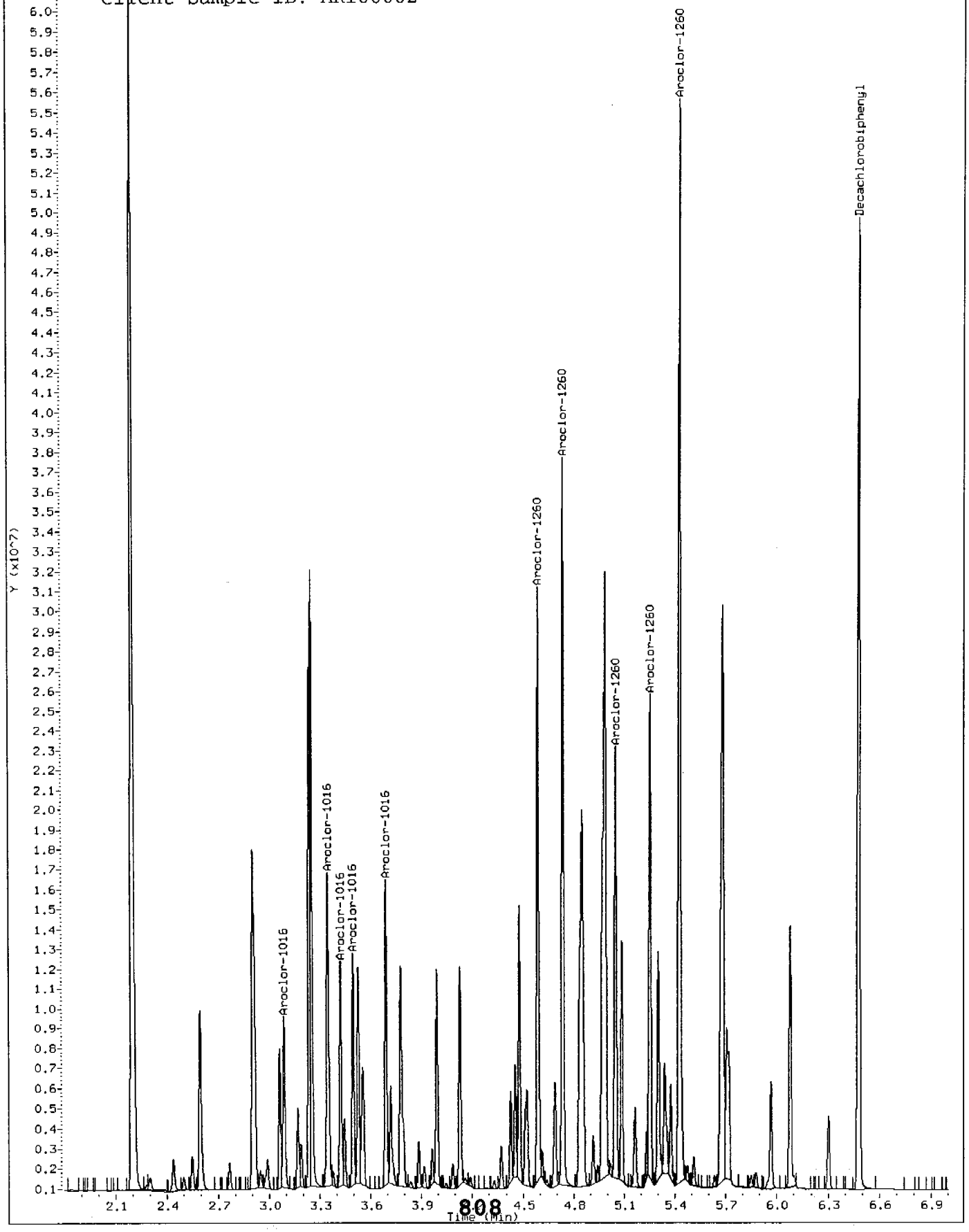

General Engineering Laboratories, LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/051205.b/018f1801.d
Lab Smp Id: WAR050511-13 603 Client Smp ID: AR166003
Inj Date : 12-MAY-2005 17:11
Operator : JMW1 Inst ID: ecd8a.i
Smp Info : |WAR050511-13 603
Misc Info : |CCV|1660||ICV|
Comment :
Method : /chem/ecd8a.i/051205.b/ECD8-F-8082-050905.m
Meth Date : 13-May-2005 10:22 jar00935 Quant Type: ESTD
Cal Date : 06-APR-2005 12:43 Cal File: 013f1301.d
Als bottle: 18 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.868	1.868	0.000	18490609	0.00000	90.3	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.759	5.760	-0.001	21157559	0.00000	91.6	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.835	2.835	0.000	5625891	1000.00	916	80.00- 120.00	100.00
2.881	2.881	0.000	3464937	1000.00	913	42.53- 82.53	61.59
2.971	2.971	0.000	3014881	1000.00	941	33.85- 73.85	53.59
2.987	2.987	0.000	3122735	1000.00	861	34.64- 74.64	55.51
3.189	3.188	0.001	2882269	1000.00	930	31.32- 71.32	51.23
Average of Peak Amounts =					912		
7 Aroclor-1260					CAS #: 11096-82-5		
3.982	3.982	0.000	9111417	1000.00	906	80.00- 120.00	100.00
4.173	4.173	0.000	14620947	1000.00	925	140.32- 180.32	160.47
4.444	4.443	0.001	7393054	1000.00	922	61.22- 101.22	81.14
4.613	4.613	0.000	8323423	1000.00	925	71.43- 111.43	91.35
5.016	5.016	0.000	10482663	1000.00	950	96.41- 136.41	115.05
Average of Peak Amounts =					926		

Data File: /chem/ecd8a.i/051205.b/018f1801.d
Date : 12-MAY-2005 17:11
Client ID: AR166003
Sample Info: IWAR050511-13 603

Column phase: CLP1

Instrument: ecd8a.i

Operator: JMW1
Column diameter: 0.25

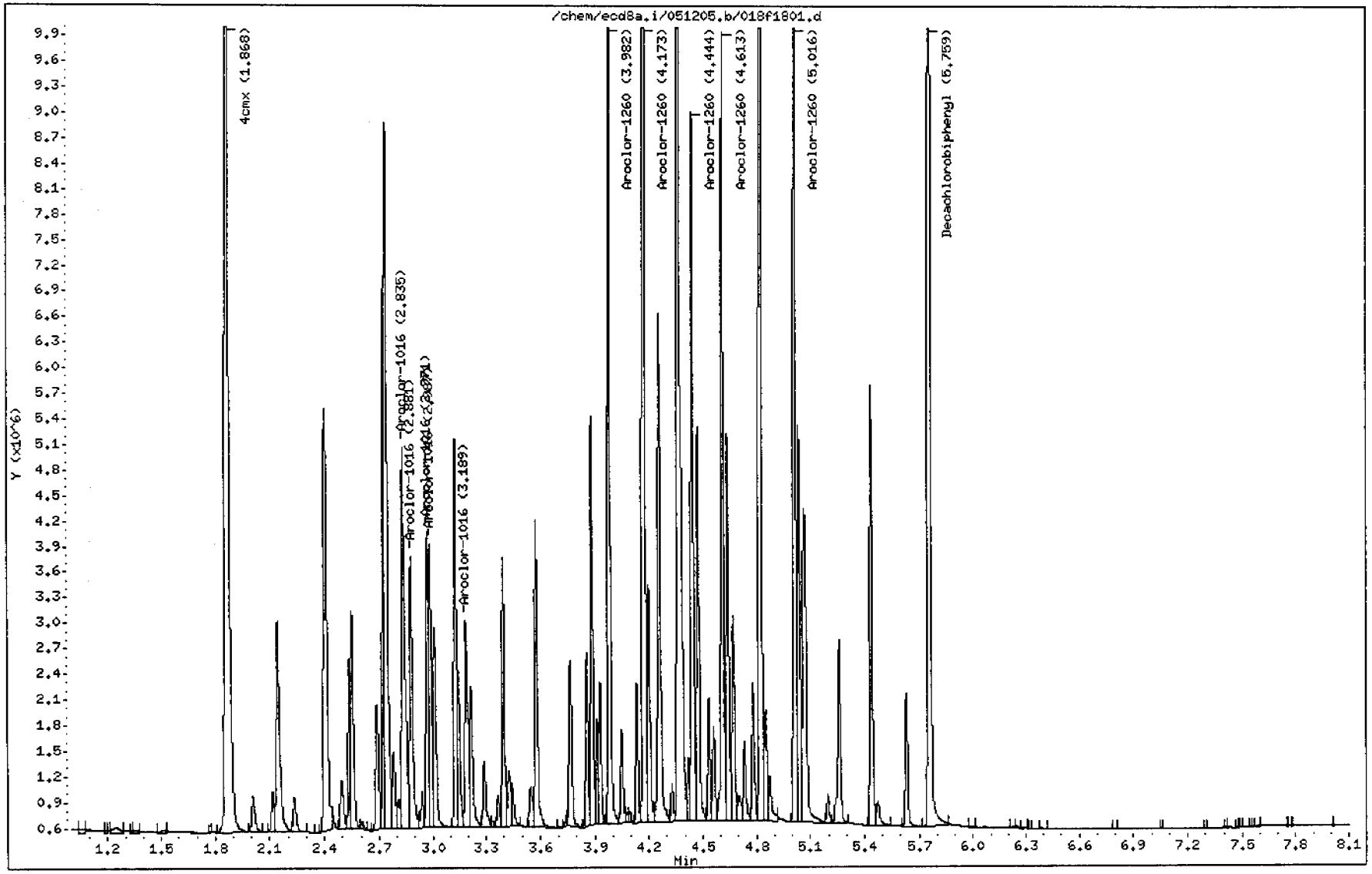

General Engineering Laboratories, LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/051205.b/018b1801.d
Lab Smp Id: WAR050511-13 603 Client Smp ID: AR166003
Inj Date : 12-MAY-2005 17:11
Operator : JMW1 Inst ID: ecd8a.i
Smp Info : |WAR050511-13 603
Misc Info : |CCV|1660||ICV|
Comment :
Method : /chem/ecd8a.i/051205.b/ECD8-B-8082-050905.m
Meth Date : 13-May-2005 12:07 jar00935 Quant Type: ESTD
Cal Date : 06-APR-2005 12:43 Cal File: 013b1301.d
Als bottle: 18 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.197	2.197	0.000	68071811	0.00000	93.5	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.478	6.478	0.000	37051615	0.00000	73.7	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.087	3.087	0.000	7636842	1000.00	925	80.00- 120.00	100.00
3.346	3.346	0.000	16078382	1000.00	925	189.47- 229.47	210.54
3.421	3.421	0.000	9431360	1000.00	920	104.09- 144.09	123.50
3.494	3.494	0.000	9606465	1000.00	908	105.95- 145.95	125.79
3.688	3.688	0.000	12800717	1000.00	899	148.78- 188.78	167.62
Average of Peak Amounts =					916		
7 Aroclor-1260					CAS #: 11096-82-5		
4.587	4.587	0.000	23847186	1000.00	854	80.00- 120.00	100.00
4.734	4.733	0.001	29404111	1000.00	848	104.45- 144.45	123.30
5.044	5.044	0.000	17408791	1000.00	804	55.73- 95.73	73.00
5.249	5.250	-0.001	18474243	1000.00	792	61.34- 101.34	77.47
5.424	5.423	0.001	42404637	1000.00	782	169.55- 209.55	177.82
Average of Peak Amounts =					816		

Data File: /chem/ecd8a.i/051205.b/018b1801.d
Date : 12-MAY-2005 17:11
Client ID: AR166003
Sample Info: IWAR050511-13 603

Column phase: CLP2

Instrument: ecd8a.i

Operator: JMW1
Column diameter: 0.25

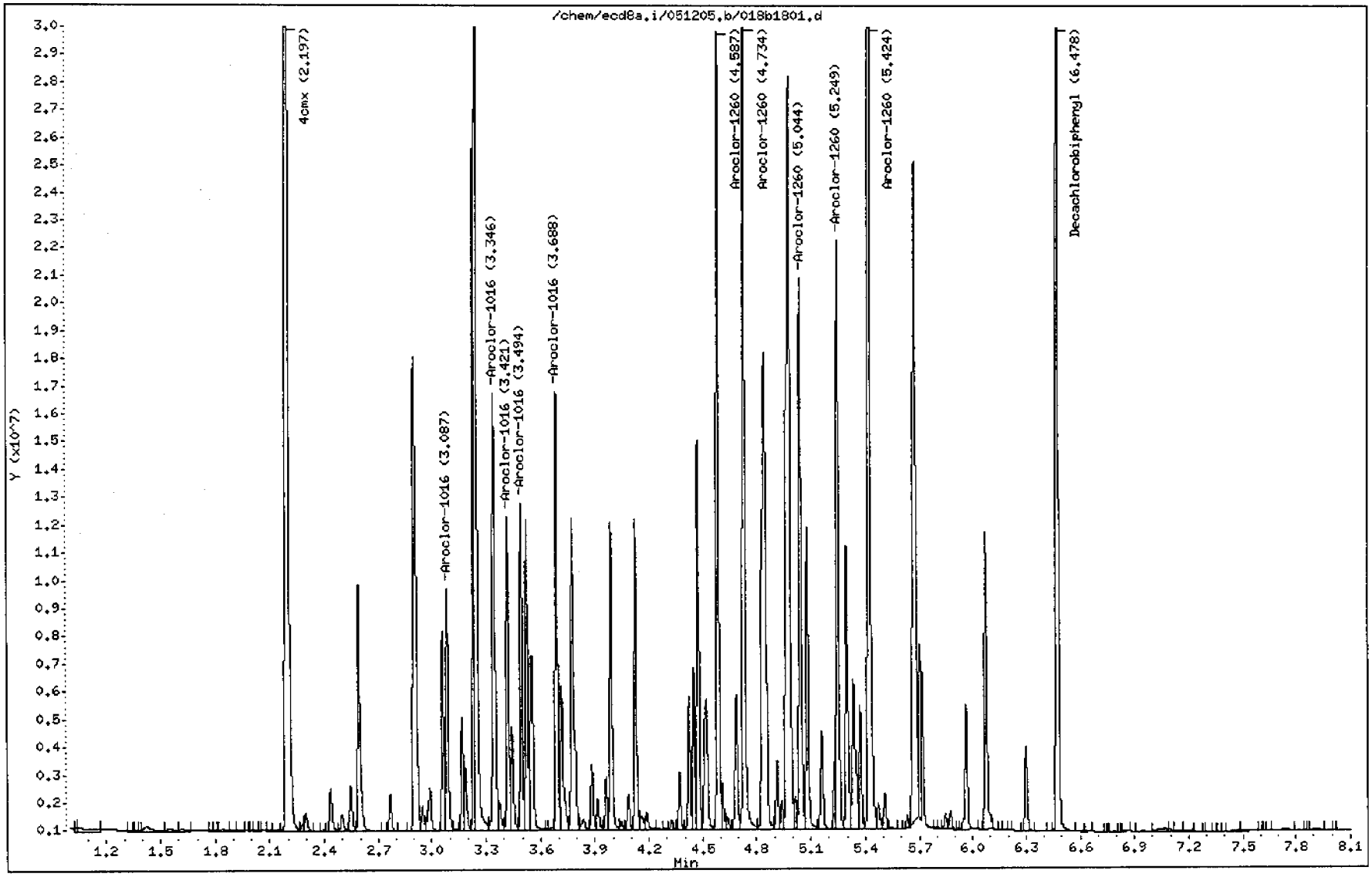

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RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/051205.b/024f2401.d
Lab Smp Id: WAR050511-13 605 Client Smp ID: AR166005
Inj Date : 12-MAY-2005 18:25
Operator : JMW1 Inst ID: ecd8a.i
Smp Info : |WAR050511-13 605
Misc Info : |CCV|1660||ICV|
Comment :
Method : /chem/ecd8a.i/051205.b/ECD8-F-8082-050905.m
Meth Date : 13-May-2005 10:22 jar00935 Quant Type: ESTD
Cal Date : 06-APR-2005 12:43 Cal File: 013f1301.d
Als bottle: 24 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.867	1.868	-0.001	18009452	0.00000	88.0	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.759	5.760	-0.001	21910640	0.00000	94.8	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.834	2.835	-0.001	5523021	1000.00	899	80.00- 120.00	100.00
2.879	2.881	-0.002	3424550	1000.00	903	42.53- 82.53	62.01
2.970	2.971	-0.001	2842959	1000.00	887	33.85- 73.85	51.47
2.986	2.987	-0.001	3163744	1000.00	873	34.64- 74.64	57.28
3.188	3.188	0.000	2831647	1000.00	913	31.32- 71.32	51.27
Average of Peak Amounts =					895		
7 Aroclor-1260					CAS #: 11096-82-5		
3.981	3.982	-0.001	9049636	1000.00	900	80.00- 120.00	100.00
4.173	4.173	0.000	14370008	1000.00	909	140.32- 180.32	158.79
4.443	4.443	0.000	7339824	1000.00	915	61.22- 101.22	81.11
4.611	4.613	-0.002	8294970	1000.00	922	71.43- 111.43	91.66
5.016	5.016	0.000	10518515	1000.00	953	96.41- 136.41	116.23
Average of Peak Amounts =					920		

Data File: /chem/ecd8a.i/051205.b/024f2401.d
Date : 12-MAY-2005 18:25
Client ID: AR166005
Sample Info: IWAR050511-13 605

Column phase: CLP1

Instrument: ecd8a.i

Operator: JMW1
Column diameter: 0.25

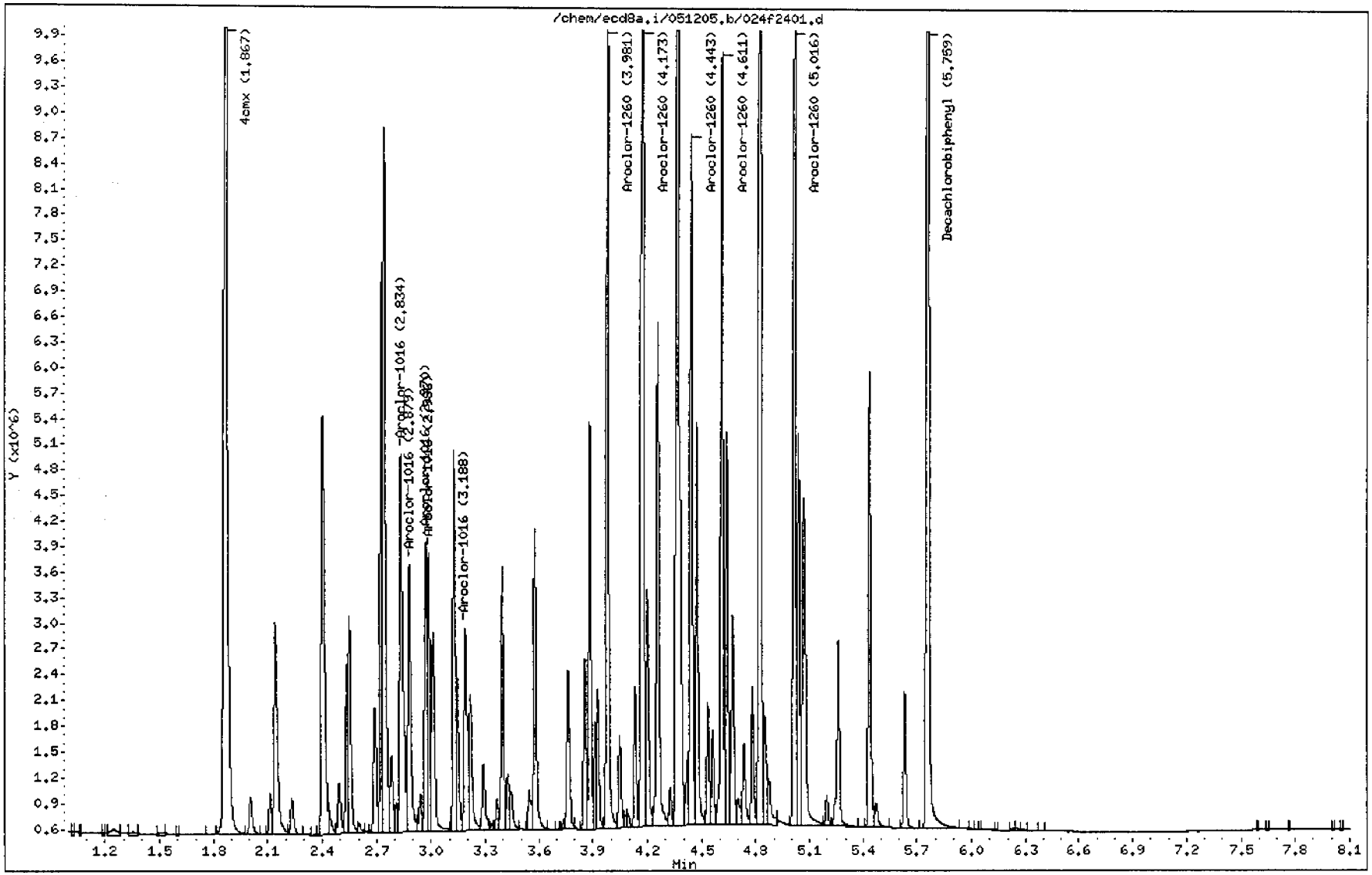

General Engineering Laboratories, LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/051205.b/024b2401.d
Lab Smp Id: WAR050511-13 605 Client Smp ID: AR166005
Inj Date : 12-MAY-2005 18:25
Operator : JMW1 Inst ID: ecd8a.i
Smp Info : |WAR050511-13 605
Misc Info : |CCV|1660||ICV|
Comment :
Method : /chem/ecd8a.i/051205.b/ECD8-B-8082-050905.m
Meth Date : 13-May-2005 12:07 jar00935 Quant Type: ESTD
Cal Date : 06-APR-2005 12:43 Cal File: 013b1301.d
Als bottle: 24 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.196	2.197	-0.001	65170724	0.00000	89.6	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.477	6.478	-0.001	43431161	0.00000	86.4	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.087	3.087	0.000	7381930	1000.00	894	80.00- 120.00	100.00
3.345	3.346	-0.001	15646486	1000.00	900	189.47- 229.47	211.96
3.421	3.421	0.000	9246380	1000.00	902	104.09- 144.09	125.26
3.494	3.494	0.000	9413076	1000.00	890	105.95- 145.95	127.52
3.688	3.688	0.000	12650506	1000.00	888	148.78- 188.78	171.37
Average of Peak Amounts =					895		
7 Aroclor-1260					CAS #: 11096-82-5		
4.587	4.587	0.000	24818267	1000.00	889	80.00- 120.00	100.00
4.734	4.733	0.001	30852654	1000.00	890	104.45- 144.45	124.31
5.044	5.044	0.000	19244704	1000.00	888	55.73- 95.73	77.54
5.250	5.250	0.000	20897974	1000.00	896	61.34- 101.34	84.20
5.424	5.423	0.001	48549147	1000.00	896	169.55- 209.55	195.62
Average of Peak Amounts =					892		

Data File: /chem/ecd8a.i/051205.b/024b2401.d
Date : 12-MAY-2005 18:25
Client ID: AR166005
Sample Info: IWAR050511-13 605

Column phase: CLP2

Instrument: ecd8a.i

Operator: JMW1
Column diameter: 0.25

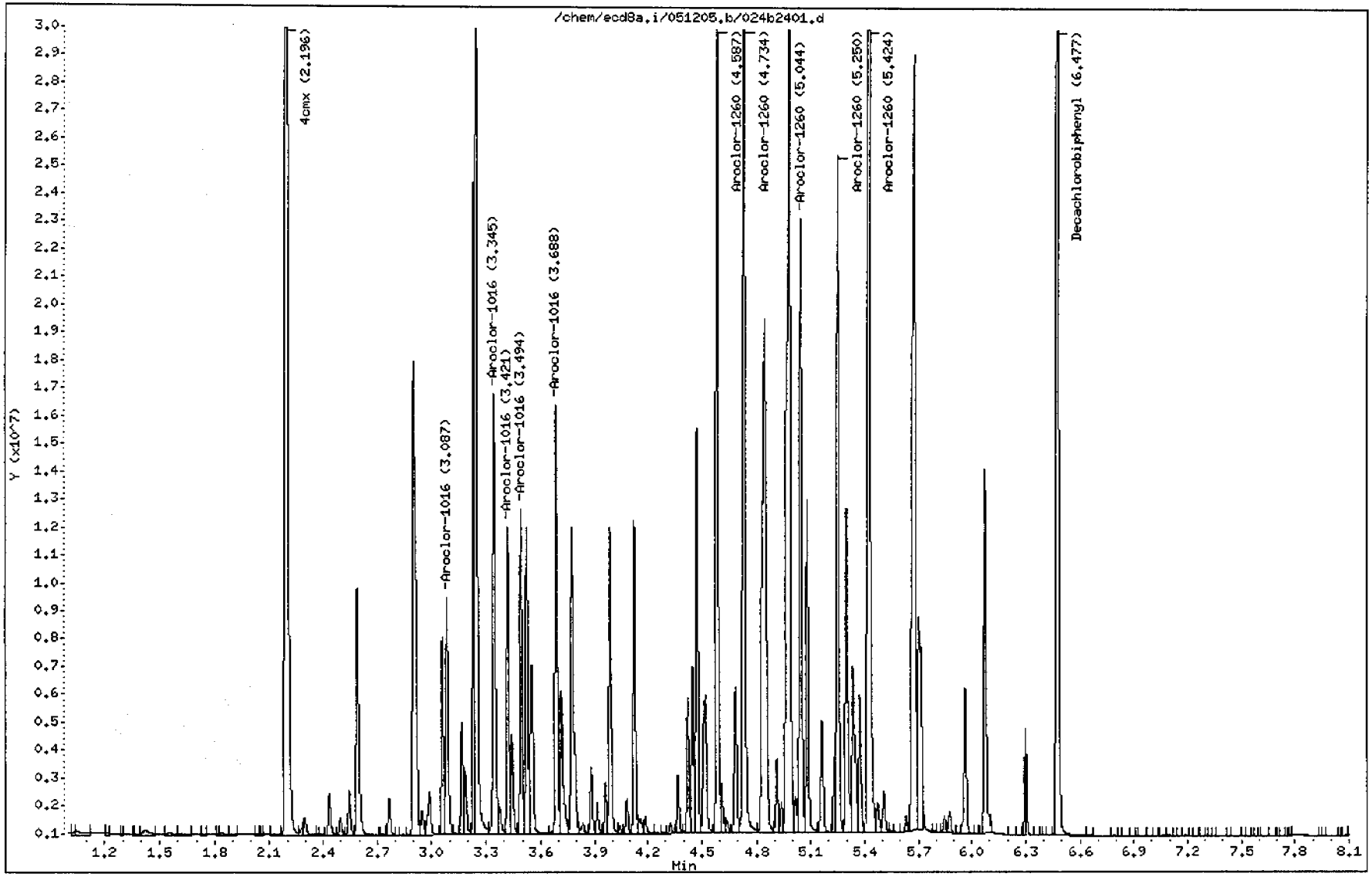

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RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/051205.b/027f2701.d
Lab Smp Id: WAR050511-13 606 Client Smp ID: AR166006
Inj Date : 12-MAY-2005 19:02
Operator : JMW1 Inst ID: ecd8a.i
Smp Info : |WAR050511-13 606
Misc Info : |CCV|1660||ICV|
Comment :
Method : /chem/ecd8a.i/051205.b/ECD8-F-8082-050905.m
Meth Date : 13-May-2005 10:22 jar00935 Quant Type: ESTD
Cal Date : 06-APR-2005 12:43 Cal File: 013f1301.d
Als bottle: 27 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: kilroy

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.867	1.868	-0.001	18171926	0.00000	88.8	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.758	5.760	-0.002	21438557	0.00000	92.8	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.835	2.835	0.000	5586029	1000.00	909	80.00- 120.00	100.00
2.881	2.881	0.000	3493219	1000.00	921	42.53- 82.53	62.53
2.971	2.971	0.000	3008302	1000.00	939	33.85- 73.85	53.85
2.986	2.987	-0.001	3052174	1000.00	842	34.64- 74.64	54.64
3.187	3.188	-0.001	2866493	1000.00	924	31.32- 71.32	51.32
Average of Peak Amounts =					907		
7 Aroclor-1260					CAS #: 11096-82-5		
3.981	3.982	-0.001	8940289	1000.00	889	80.00- 120.00	100.00
4.172	4.173	-0.001	14332873	1000.00	907	140.32- 180.32	160.32
4.443	4.443	0.000	7260995	1000.00	905	61.22- 101.22	81.22
4.611	4.613	-0.002	8174186	1000.00	908	71.43- 111.43	91.43
5.016	5.016	0.000	10407526	1000.00	943	96.41- 136.41	116.41
Average of Peak Amounts =					911		

Data File: /chem/ecd8a.i/051205.b/027f2701.d
Date : 12-MAY-2005 19:02
Client ID: AR166006
Sample Info: IWAR050511-13 606

Column phase: CLP1

Instrument: ecd8a.i

Operator: JMW1
Column diameter: 0.25

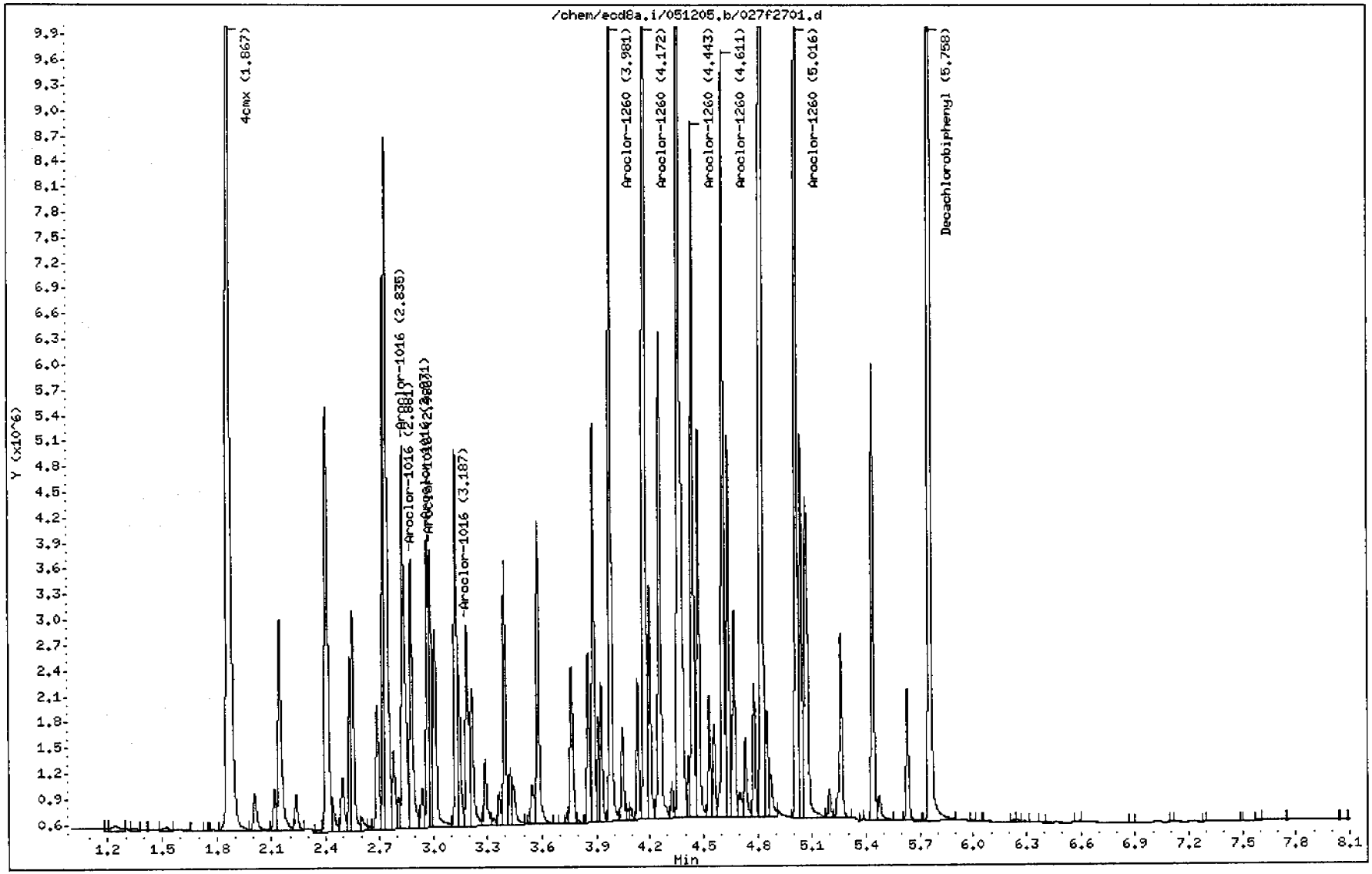

General Engineering Laboratories, LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/051205.b/027b2701.d
Lab Smp Id: WAR050511-13 606 Client Smp ID: AR166006
Inj Date : 12-MAY-2005 19:02
Operator : JMW1 Inst ID: ecd8a.i
Smp Info : |WAR050511-13 606
Misc Info : |CCV|1660||ICV|
Comment :
Method : /chem/ecd8a.i/051205.b/ECD8-B-8082-050905.m
Meth Date : 13-May-2005 12:07 jar00935 Quant Type: ESTD
Cal Date : 06-APR-2005 12:43 Cal File: 013b1301.d
Als bottle: 27 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.196	2.197	-0.001	65551906	0.00000	90.1	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.476	6.478	-0.002	40035996	0.00000	79.6	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.087	3.087	0.000	7521227	1000.00	911	80.00- 120.00	100.00(M)
3.346	3.346	0.000	15754929	1000.00	906	189.47- 229.47	209.47
3.421	3.421	0.000	9332854	1000.00	910	104.09- 144.09	124.09
3.495	3.494	0.001	9473319	1000.00	896	105.95- 145.95	125.95
3.688	3.688	0.000	12694317	1000.00	892	148.78- 188.78	168.78
Average of Peak Amounts =					903		
7 Aroclor-1260					CAS #: 11096-82-5		
4.587	4.587	0.000	24497957	1000.00	878	80.00- 120.00	100.00(M)
4.733	4.733	0.000	30487128	1000.00	879	104.45- 144.45	124.45
5.045	5.044	0.001	18553328	1000.00	857	55.73- 95.73	75.73
5.250	5.250	0.000	19926437	1000.00	854	61.34- 101.34	81.34
5.424	5.423	0.001	46437087	1000.00	857	169.55- 209.55	189.55
Average of Peak Amounts =					865		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd8a.i/051205.b/027b2701.d
Date : 12-MAY-2005 19:02
Client ID: AR166006
Sample Info: IWAR050511-13 606

Column phase: CLP2

Instrument: ecd8a.i

Operator: JMW1
Column diameter: 0.25

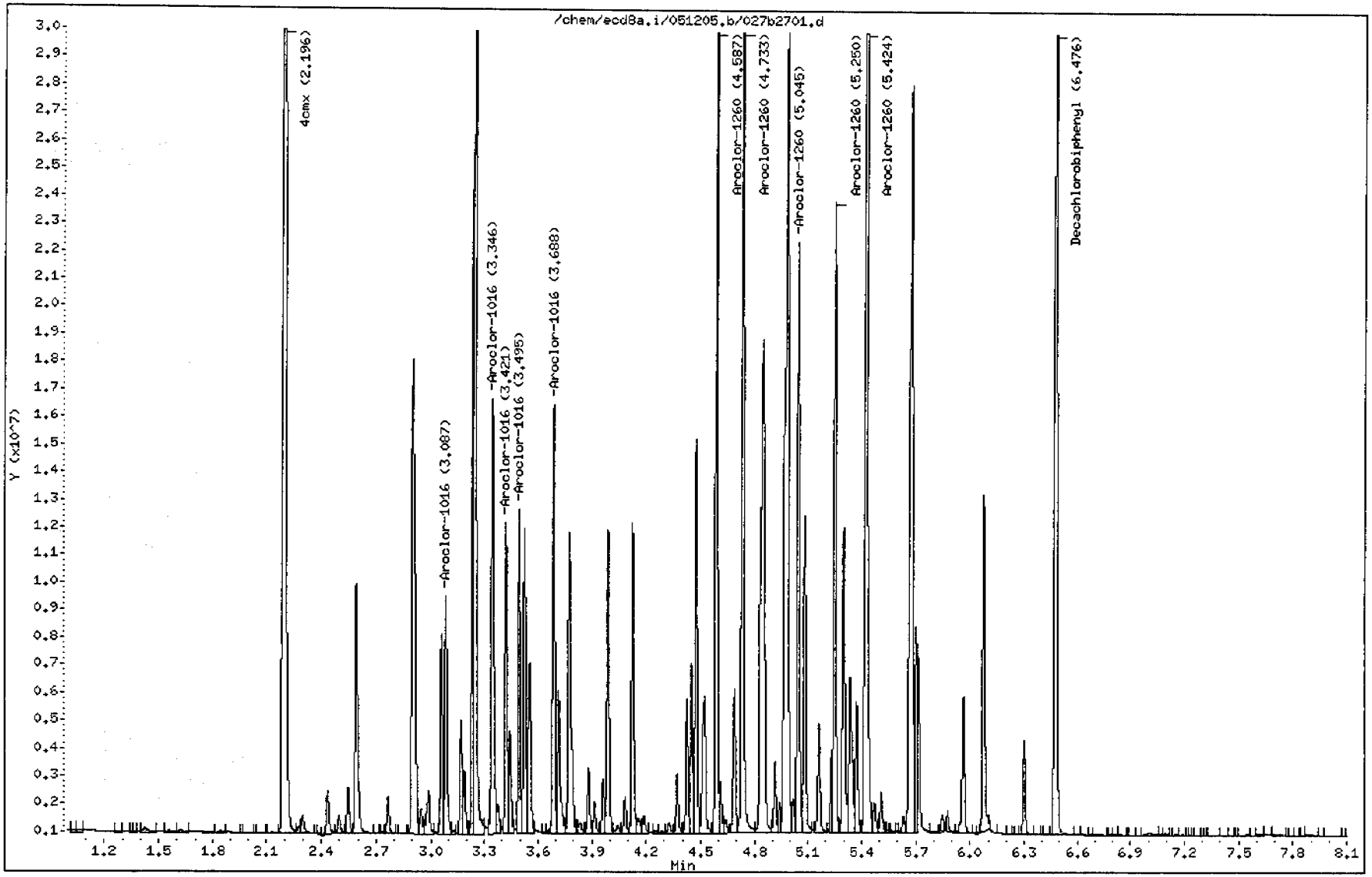

821

Comment: Manually Integrated
Data File: /chem/ecd8a.i/051205.b/027b2701.d
Operator: JMW1
Injection Date: 12-MAY-2005 19:02
Instrument: ecd8a.i
Client Sample ID: AR166006

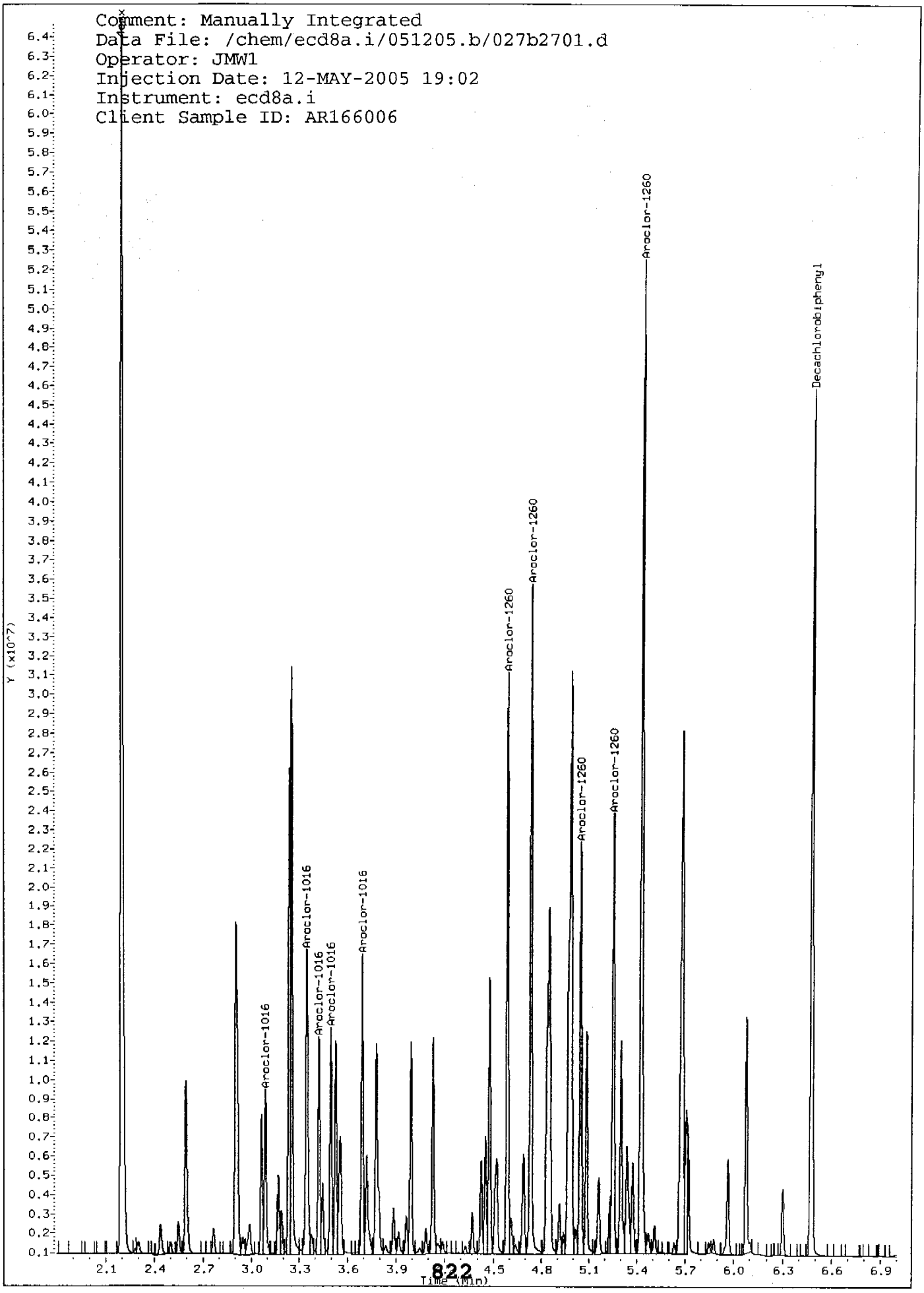

Comment: Before manual integration
Data File: /chem/ecd8a.i/051205.b/orig-027b2701.d
Operator: JMW1
Injection Date: 12-MAY-2005 19:02
Instrument: ecd8a.i
Client Sample ID: AR166006

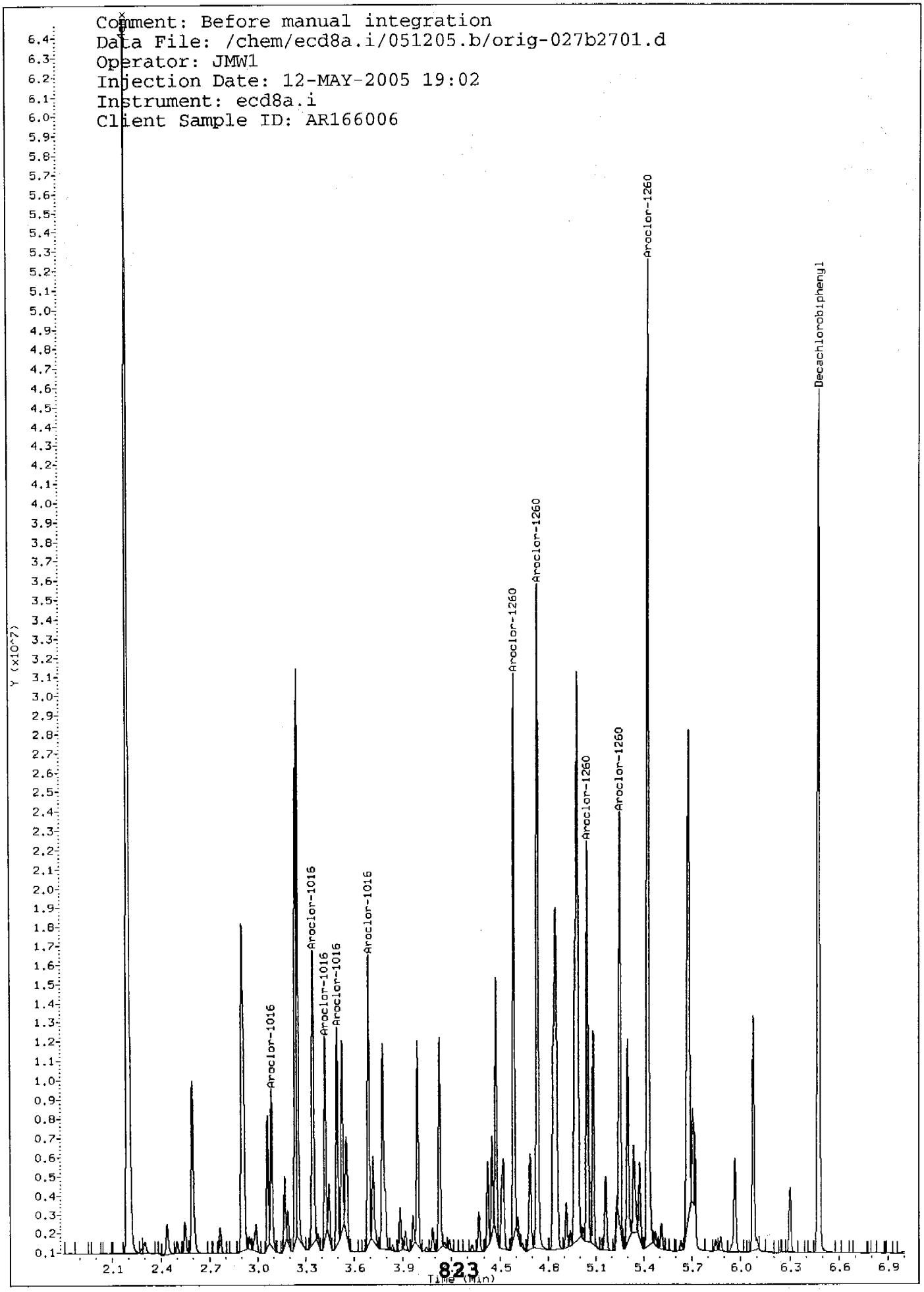

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 05/02/05 05/02/05

Instrument ID: ECD8A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 1.87 DCB: 5.76

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	ZZZZZ	ZZZZZ	05/02/05	1202	1.87	5.75
02	AR166001	WAR050502-08	05/02/05	1215	1.87	5.76
03	AR166002	WAR050502-07	05/02/05	1227	1.87	5.76
04	AR166003	WAR050502-06	05/02/05	1239	1.87	5.76
05	AR166004	WAR050502-05	05/02/05	1252	1.87	5.76
06	AR166005	IAR050321-01	05/02/05	1304	1.87	5.76
07	AR166001	WAR050425-01	05/02/05	1316	1.87	5.76
08	AR125401	WAR050415-05	05/02/05	1328	1.87	5.76
09	AR124201	WAR050323-01	05/02/05	1341	1.87	5.76
10	AR124801	WAR050225-01	05/02/05	1353	1.87	5.76
11	AR126201	WAR050412-02	05/02/05	1405	1.87	5.76
12	AR123201	WAR050401-05	05/02/05	1418	1.87	5.76
13	AR122101	WAR050328-05	05/02/05	1430	1.87	5.76
14	AR126801	WAR050322-10	05/02/05	1442	1.87	5.76
15	ZZZZZ	ZZZZZ	05/02/05	1524	1.87	5.76
16	ZZZZZ	ZZZZZ	05/02/05	1536	1.87	5.76
17	ZZZZZ	ZZZZZ	05/02/05	1548	1.87	5.76
18	ZZZZZ	ZZZZZ	05/02/05	1601	1.87	5.76
19	ZZZZZ	ZZZZZ	05/02/05	1613	1.87	5.76
20	ZZZZZ	ZZZZZ	05/02/05	1625	1.87	5.75
21	ZZZZZ	ZZZZZ	05/02/05	1637	1.87	5.76
22	ZZZZZ	ZZZZZ	05/02/05	1650	1.87	5.76
23	ZZZZZ	ZZZZZ	05/02/05	1702	1.87	5.76
24	ZZZZZ	ZZZZZ	05/02/05	1714	1.87	5.76
25	ZZZZZ	ZZZZZ	05/02/05	1726	1.87	5.75
26	AR166002	WAR050425-01	05/02/05	1739	1.87	5.76
27	ZZZZZ	ZZZZZ	05/02/05	1751	1.87	5.76
28	ZZZZZ	ZZZZZ	05/02/05	1803	1.87	5.75
29	ZZZZZ	ZZZZZ	05/02/05	1815	1.87	5.76
30	ZZZZZ	ZZZZZ	05/02/05	1828	1.87	5.76
31	ZZZZZ	ZZZZZ	05/02/05	1840	1.87	5.75
32	ZZZZZ	ZZZZZ	05/02/05	1852	1.87	5.76

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 05/02/05 05/02/05

Instrument ID: ECD8A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.20 DCB: 6.48

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	ZZZZZ	ZZZZZ	05/02/05	1202	2.20	6.48
02	AR166001	WAR050502-08	05/02/05	1215	2.20	6.48
03	AR166002	WAR050502-07	05/02/05	1227	2.20	6.48
04	AR166003	WAR050502-06	05/02/05	1239	2.20	6.48
05	AR166004	WAR050502-05	05/02/05	1252	2.20	6.48
06	AR166005	IAR050321-01	05/02/05	1304	2.20	6.48
07	AR166001	WAR050425-01	05/02/05	1316	2.20	6.48
08	AR125401	WAR050415-05	05/02/05	1328	2.20	6.48
09	AR124201	WAR050323-01	05/02/05	1341	2.20	6.48
10	AR124801	WAR050225-01	05/02/05	1353	2.20	6.48
11	AR126201	WAR050412-02	05/02/05	1405	2.20	6.48
12	AR123201	WAR050401-05	05/02/05	1418	2.20	6.48
13	AR122101	WAR050328-05	05/02/05	1430	2.20	6.48
14	AR126801	WAR050322-10	05/02/05	1442	2.20	6.48
15	ZZZZZ	ZZZZZ	05/02/05	1524	2.20	6.48
16	ZZZZZ	ZZZZZ	05/02/05	1536	2.20	6.48
17	ZZZZZ	ZZZZZ	05/02/05	1548	2.20	6.48
18	ZZZZZ	ZZZZZ	05/02/05	1601	2.20	6.48
19	ZZZZZ	ZZZZZ	05/02/05	1613	2.20	6.48
20	ZZZZZ	ZZZZZ	05/02/05	1625	2.20	6.48
21	ZZZZZ	ZZZZZ	05/02/05	1637	2.20	6.48
22	ZZZZZ	ZZZZZ	05/02/05	1650	2.20	6.48
23	ZZZZZ	ZZZZZ	05/02/05	1702	2.20	6.48
24	ZZZZZ	ZZZZZ	05/02/05	1714	2.20	6.48
25	ZZZZZ	ZZZZZ	05/02/05	1726	2.20	6.48
26	AR166002	WAR050425-01	05/02/05	1739	2.20	6.48
27	ZZZZZ	ZZZZZ	05/02/05	1751	2.20	6.48
28	ZZZZZ	ZZZZZ	05/02/05	1803	2.20	6.48
29	ZZZZZ	ZZZZZ	05/02/05	1815	2.20	6.48
30	ZZZZZ	ZZZZZ	05/02/05	1828	2.20	6.48
31	ZZZZZ	ZZZZZ	05/02/05	1840	2.20	6.48
32	ZZZZZ	ZZZZZ	05/02/05	1852	2.20	6.48

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 05/03/05 05/03/05

Instrument ID: ECD8A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 1.87 DCB: 5.76

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	ZZZZZ	ZZZZZ	05/03/05	1118	1.87	5.75
02	AR166001	WAR050425-01	05/03/05	1131	1.87	5.76
03	AR125401	WAR050503-04	05/03/05	1143	1.87	5.76
04	AR125402	WAR050503-03	05/03/05	1155	1.87	5.76
05	AR125403	WAR050503-02	05/03/05	1208	1.87	5.76
06	AR125404	WAR050503-01	05/03/05	1220	1.87	5.76
07	AR125405	IAR050328-01	05/03/05	1232	1.87	5.76
08	AR125401	WAR050415-05	05/03/05	1244	1.87	5.76
09	AR124201	WAR050323-01	05/03/05	1257	1.87	5.76
10	AR124801	WAR050225-01	05/03/05	1309	1.87	5.76
11	AR126201	WAR050412-02	05/03/05	1321	1.87	5.76
12	AR123201	WAR050401-05	05/03/05	1334	1.87	5.76
13	AR122101	WAR050328-05	05/03/05	1346	1.87	5.76
14	AR126801	WAR050322-10	05/03/05	1358	1.87	5.76
15	ZZZZZ	ZZZZZ	05/03/05	1433	1.87	5.76
16	ZZZZZ	ZZZZZ	05/03/05	1446	1.87	5.75
17	ZZZZZ	ZZZZZ	05/03/05	1458	1.87	5.75
18	AR166002	WAR050425-01	05/03/05	1530	1.87	5.76
19	ZZZZZ	ZZZZZ	05/03/05	1542	1.87	5.76
20	ZZZZZ	ZZZZZ	05/03/05	1554	1.87	5.76
21	ZZZZZ	ZZZZZ	05/03/05	1606	1.87	5.76
22	ZZZZZ	ZZZZZ	05/03/05	1619	1.87	5.76
23	ZZZZZ	ZZZZZ	05/03/05	1631	1.87	5.76
24	ZZZZZ	ZZZZZ	05/03/05	1643	1.87	5.76
25	ZZZZZ	ZZZZZ	05/03/05	1655	1.87	5.76
26	ZZZZZ	ZZZZZ	05/03/05	1708	1.87	5.75
27	ZZZZZ	ZZZZZ	05/03/05	1720	1.87	5.76
28	ZZZZZ	ZZZZZ	05/03/05	1732	1.87	5.75
29	ZZZZZ	ZZZZZ	05/03/05	1745	1.87	5.75
30	AR166003	WAR050425-01	05/03/05	1757	1.87	5.76
31	ZZZZZ	ZZZZZ	05/03/05	1809	1.87	5.76
32	ZZZZZ	ZZZZZ	05/03/05	1821	1.87	5.75

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 05/03/05 05/03/05

Instrument ID: ECD8A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.20 DCB: 6.48

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	ZZZZZ	ZZZZZ	05/03/05	1118	2.20	6.48
02	AR166001	WAR050425-01	05/03/05	1131	2.20	6.48
03	AR125401	WAR050503-04	05/03/05	1143	2.20	6.48
04	AR125402	WAR050503-03	05/03/05	1155	2.20	6.48
05	AR125403	WAR050503-02	05/03/05	1208	2.20	6.48
06	AR125404	WAR050503-01	05/03/05	1220	2.20	6.48
07	AR125405	IAR050328-01	05/03/05	1232	2.20	6.48
08	AR125401	WAR050415-05	05/03/05	1244	2.20	6.48
09	AR124201	WAR050323-01	05/03/05	1257	2.20	6.48
10	AR124801	WAR050225-01	05/03/05	1309	2.20	6.48
11	AR126201	WAR050412-02	05/03/05	1321	2.20	6.48
12	AR123201	WAR050401-05	05/03/05	1334	2.20	6.48
13	AR122101	WAR050328-05	05/03/05	1346	2.20	6.48
14	AR126801	WAR050322-10	05/03/05	1358	2.20	6.48
15	ZZZZZ	ZZZZZ	05/03/05	1433	2.20	6.48
16	ZZZZZ	ZZZZZ	05/03/05	1446	2.20	6.48
17	ZZZZZ	ZZZZZ	05/03/05	1458	2.20	6.48
18	AR166002	WAR050425-01	05/03/05	1530	2.20	6.48
19	ZZZZZ	ZZZZZ	05/03/05	1542	2.20	6.48
20	ZZZZZ	ZZZZZ	05/03/05	1554	2.20	6.48
21	ZZZZZ	ZZZZZ	05/03/05	1606	2.20	6.48
22	ZZZZZ	ZZZZZ	05/03/05	1619	2.20	6.48
23	ZZZZZ	ZZZZZ	05/03/05	1631	2.20	6.48
24	ZZZZZ	ZZZZZ	05/03/05	1643	2.20	6.48
25	ZZZZZ	ZZZZZ	05/03/05	1655	2.20	6.48
26	ZZZZZ	ZZZZZ	05/03/05	1708	2.20	6.48
27	ZZZZZ	ZZZZZ	05/03/05	1720	2.20	6.48
28	ZZZZZ	ZZZZZ	05/03/05	1732	2.20	6.48
29	ZZZZZ	ZZZZZ	05/03/05	1745	2.20	6.48
30	AR166003	WAR050425-01	05/03/05	1757	2.20	6.48
31	ZZZZZ	ZZZZZ	05/03/05	1809	2.20	6.48
32	ZZZZZ	ZZZZZ	05/03/05	1821	2.20	6.48

QC LIMITS
S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 05/02/05 05/03/05

Instrument ID: ECD8A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 1.86 DCB: 5.76

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	ZZZZZ	ZZZZZ	05/11/05	1404	1.86	5.76
02	AR166001	WAR050425-01	05/11/05	1416	1.86	5.76
03	AR125401	WAR050415-05	05/11/05	1428	1.87	5.76
04	AR124201	WAR050323-01	05/11/05	1441	1.87	5.76
05	AR124801	WAR050504-01	05/11/05	1453	1.87	5.76
06	AR126201	WAR050412-02	05/11/05	1505	1.87	5.76
07	AR123201	WAR050401-05	05/11/05	1517	1.87	5.76
08	AR122101	WAR050328-05	05/11/05	1530	1.87	5.76
09	AR126801	WAR050322-10	05/11/05	1542	1.87	5.76
10	ZZZZZ	ZZZZZ	05/11/05	1554	1.87	5.76
11	ZZZZZ	ZZZZZ	05/11/05	1607	1.87	5.76
12	ZZZZZ	ZZZZZ	05/11/05	1619	1.87	5.76
13	ZZZZZ	ZZZZZ	05/11/05	1631	1.87	5.76
14	ZZZZZ	ZZZZZ	05/11/05	1643	1.87	5.76
15	ZZZZZ	ZZZZZ	05/11/05	1656	1.87	5.76
16	ZZZZZ	ZZZZZ	05/11/05	1708	1.87	5.76
17	ZZZZZ	ZZZZZ	05/11/05	1720	1.87	5.76
18	ZZZZZ	ZZZZZ	05/11/05	1732	1.87	5.76
19	AR166002	WAR050425-01	05/11/05	1745	1.87	5.76
20	ZZZZZ	ZZZZZ	05/11/05	1757	1.87	5.76
21	ZZZZZ	ZZZZZ	05/11/05	1809	1.86	5.76
22	ZZZZZ	ZZZZZ	05/11/05	1821	1.87	5.76
23	AR166003	WAR050425-01	05/11/05	1834	1.87	5.76
24	AR125402	WAR050415-05	05/11/05	1846	1.87	5.76
25	ZZZZZ	ZZZZZ	05/11/05	1858	1.87	5.76
26	ZZZZZ	ZZZZZ	05/11/05	1910	1.87	5.76
27	ZZZZZ	ZZZZZ	05/11/05	1923	1.87	5.76
28	ZZZZZ	ZZZZZ	05/11/05	1935	1.87	5.76
29	ZZZZZ	ZZZZZ	05/11/05	1947	1.87	5.76
30	ZZZZZ	ZZZZZ	05/11/05	1959	1.87	5.76
31	ZZZZZ	ZZZZZ	05/11/05	2012	1.87	5.76
32	ZZZZZ	ZZZZZ	05/11/05	2024	1.87	5.76

QC LIMITS
S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 05/02/05 05/03/05

Instrument ID: ECD8A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 1.86 DCB: 5.76

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	AR166004	WAR050425-01	05/11/05	2036	1.87	5.76
02	AR125403	WAR050415-05	05/11/05	2048	1.87	5.76
03	ZZZZZ	ZZZZZ	05/11/05	2101	1.87	5.76
04	ZZZZZ	ZZZZZ	05/11/05	2113	1.87	5.76
05	ZZZZZ	ZZZZZ	05/11/05	2125	1.87	5.76
06	ZZZZZ	ZZZZZ	05/11/05	2137	1.87	5.76
07	ZZZZZ	ZZZZZ	05/11/05	2150	1.87	5.76
08	ZZZZZ	ZZZZZ	05/11/05	2202	1.87	5.76
09	AR166005	WAR050425-01	05/11/05	2214	1.87	5.76
10	ZZZZZ	ZZZZZ	05/11/05	2226	1.87	5.76
11	PBLK01	1200841140	05/11/05	2239	1.87	5.76
12	PBLK01LCS	1200841141	05/11/05	2251	1.87	5.76
13	RE03-05-58926	135831001	05/11/05	2303	1.87	5.76
14	RE03-05-58926MS	1200841151	05/11/05	2315	1.87	5.76
15	RE03-05-58926MSD	1200841152	05/11/05	2328	1.87	5.76
16	RE03-05-58927	135831002	05/11/05	2340	1.87	5.77
17	ZZZZZ	ZZZZZ	05/11/05	2352	1.87	5.77
18	ZZZZZ	ZZZZZ	05/12/05	0004	1.87	5.75
19	AR166006	WAR050425-01	05/12/05	0017	1.87	5.76
20	ZZZZZ	ZZZZZ	05/12/05	0029	1.87	5.76
21	ZZZZZ	ZZZZZ	05/12/05	0041	1.87	5.76
22	AR166007	WAR050425-01	05/12/05	0053	1.87	5.76
23	ZZZZZ	ZZZZZ	05/12/05	0106	1.87	5.76
24	ZZZZZ	ZZZZZ	05/12/05	0118	1.87	5.76
25	ZZZZZ	ZZZZZ	05/12/05	0130	1.87	5.76
26	ZZZZZ	ZZZZZ	05/12/05	0142	1.87	5.75
27	ZZZZZ	ZZZZZ	05/12/05	0154	1.87	5.76
28	ZZZZZ	ZZZZZ	05/12/05	0207	1.87	5.76
29	AR166008	WAR050425-01	05/12/05	0219	1.87	5.76
30	ZZZZZ	ZZZZZ	05/12/05	0231	1.87	5.76
31	ZZZZZ	ZZZZZ	05/12/05	0243	1.87	5.76
32	AR166009	WAR050425-01	05/12/05	0256	1.87	5.76

QC LIMITS
S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 05/02/05 05/03/05

Instrument ID: ECD8A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.19 DCB: 6.48

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	ZZZZZ	ZZZZZ	05/11/05	1404	2.19	6.48
02	AR166001	WAR050425-01	05/11/05	1416	2.19	6.48
03	AR125401	WAR050415-05	05/11/05	1428	2.19	6.48
04	AR124201	WAR050323-01	05/11/05	1441	2.19	6.48
05	AR124801	WAR050504-01	05/11/05	1453	2.19	6.48
06	AR126201	WAR050412-02	05/11/05	1505	2.19	6.48
07	AR123201	WAR050401-05	05/11/05	1517	2.19	6.48
08	AR122101	WAR050328-05	05/11/05	1530	2.19	6.48
09	AR126801	WAR050322-10	05/11/05	1542	2.20	6.48
10	ZZZZZ	ZZZZZ	05/11/05	1554	2.20	6.48
11	ZZZZZ	ZZZZZ	05/11/05	1607	2.20	6.48
12	ZZZZZ	ZZZZZ	05/11/05	1619	2.20	6.48
13	ZZZZZ	ZZZZZ	05/11/05	1631	2.20	6.48
14	ZZZZZ	ZZZZZ	05/11/05	1643	2.20	6.48
15	ZZZZZ	ZZZZZ	05/11/05	1656	2.20	6.48
16	ZZZZZ	ZZZZZ	05/11/05	1708	2.20	6.48
17	ZZZZZ	ZZZZZ	05/11/05	1720	2.20	6.48
18	ZZZZZ	ZZZZZ	05/11/05	1732	2.19	6.48
19	AR166002	WAR050425-01	05/11/05	1745	2.20	6.48
20	ZZZZZ	ZZZZZ	05/11/05	1757	2.20	6.48
21	ZZZZZ	ZZZZZ	05/11/05	1809	2.18	6.49
22	ZZZZZ	ZZZZZ	05/11/05	1821	2.20	6.48
23	AR166003	WAR050425-01	05/11/05	1834	2.20	6.48
24	AR125402	WAR050415-05	05/11/05	1846	2.20	6.48
25	ZZZZZ	ZZZZZ	05/11/05	1858	2.20	6.48
26	ZZZZZ	ZZZZZ	05/11/05	1910	2.20	6.48
27	ZZZZZ	ZZZZZ	05/11/05	1923	2.20	6.48
28	ZZZZZ	ZZZZZ	05/11/05	1935	2.20	6.48
29	ZZZZZ	ZZZZZ	05/11/05	1947	2.20	6.48
30	ZZZZZ	ZZZZZ	05/11/05	1959	2.20	6.48
31	ZZZZZ	ZZZZZ	05/11/05	2012	2.20	6.48
32	ZZZZZ	ZZZZZ	05/11/05	2024	2.20	6.47

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 05/02/05 05/03/05

Instrument ID: ECD8A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.19 DCB: 6.48

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	AR166004	WAR050425-01	05/11/05	2036	2.20	6.48
02	AR125403	WAR050415-05	05/11/05	2048	2.20	6.48
03	ZZZZZ	ZZZZZ	05/11/05	2101	2.20	6.48
04	ZZZZZ	ZZZZZ	05/11/05	2113	2.20	6.48
05	ZZZZZ	ZZZZZ	05/11/05	2125	2.20	6.48
06	ZZZZZ	ZZZZZ	05/11/05	2137	2.20	6.47
07	ZZZZZ	ZZZZZ	05/11/05	2150	2.20	6.47
08	ZZZZZ	ZZZZZ	05/11/05	2202	2.20	6.48
09	AR166005	WAR050425-01	05/11/05	2214	2.20	6.48
10	ZZZZZ	ZZZZZ	05/11/05	2226	2.20	6.48
11	PBLK01	1200841140	05/11/05	2239	2.20	6.47
12	PBLK01LCS	1200841141	05/11/05	2251	2.20	6.48
13	RE03-05-58926	135831001	05/11/05	2303	2.20	6.48
14	RE03-05-58926MS	1200841151	05/11/05	2315	2.20	6.48
15	RE03-05-58926MSD	1200841152	05/11/05	2328	2.20	6.48
16	RE03-05-58927	135831002	05/11/05	2340	2.20	6.48
17	ZZZZZ	ZZZZZ	05/11/05	2352	2.20	6.48
18	ZZZZZ	ZZZZZ	05/12/05	0004	2.20	6.46
19	AR166006	WAR050425-01	05/12/05	0017	2.20	6.48
20	ZZZZZ	ZZZZZ	05/12/05	0029	2.20	6.48
21	ZZZZZ	ZZZZZ	05/12/05	0041	2.20	6.48
22	AR166007	WAR050425-01	05/12/05	0053	2.20	6.48
23	ZZZZZ	ZZZZZ	05/12/05	0106	2.20	6.48
24	ZZZZZ	ZZZZZ	05/12/05	0118	2.20	6.47
25	ZZZZZ	ZZZZZ	05/12/05	0130	2.20	6.47
26	ZZZZZ	ZZZZZ	05/12/05	0142	2.20	6.47
27	ZZZZZ	ZZZZZ	05/12/05	0154	2.20	6.47
28	ZZZZZ	ZZZZZ	05/12/05	0207	2.20	6.47
29	AR166008	WAR050425-01	05/12/05	0219	2.20	6.48
30	ZZZZZ	ZZZZZ	05/12/05	0231	2.20	6.48
31	ZZZZZ	ZZZZZ	05/12/05	0243	2.20	6.47
32	AR166009	WAR050425-01	05/12/05	0256	2.20	6.48

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 05/02/05 05/03/05

Instrument ID: ECD8A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 1.87 DCB: 5.76

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	ZZZZZ	ZZZZZ	05/12/05	1142	1.87	5.77
02	AR166001	WAR050511-13	05/12/05	1154	1.87	5.76
03	AR125401	WAR050415-05	05/12/05	1206	1.87	5.76
04	AR124201	WAR050323-01	05/12/05	1218	1.87	5.76
05	AR124801	WAR050504-01	05/12/05	1230	1.87	5.76
06	AR126201	WAR050412-02	05/12/05	1243	1.87	5.76
07	AR123201	WAR050401-05	05/12/05	1255	1.87	5.76
08	AR122101	WAR050328-05	05/12/05	1307	1.87	5.76
09	AR126801	WAR050509-01	05/12/05	1319	1.87	5.76
10	ZZZZZ	ZZZZZ	05/12/05	1440	1.87	5.76
11	ZZZZZ	ZZZZZ	05/12/05	1452	1.87	5.76
12	ZZZZZ	ZZZZZ	05/12/05	1504	1.87	5.76
13	ZZZZZ	ZZZZZ	05/12/05	1516	1.87	5.76
14	ZZZZZ	ZZZZZ	05/12/05	1529	1.87	5.76
15	AR166002	WAR050511-13	05/12/05	1554	1.87	5.76
16	ZZZZZ	ZZZZZ	05/12/05	1641	1.87	5.76
17	RE03-05-59558	135831004	05/12/05	1659	1.87	5.80*
18	AR166003	WAR050511-13	05/12/05	1711	1.87	5.76
19	ZZZZZ	ZZZZZ	05/12/05	1724	1.87	5.76
20	ZZZZZ	ZZZZZ	05/12/05	1736	1.87	5.76
21	AR166004	WAR050511-13	05/12/05	1748	1.87	5.76
22	ZZZZZ	ZZZZZ	05/12/05	1800	1.87	5.76
23	ZZZZZ	ZZZZZ	05/12/05	1813	1.87	5.76
24	AR166005	WAR050511-13	05/12/05	1825	1.87	5.76
25	ZZZZZ	ZZZZZ	05/12/05	1837	1.87	5.76
26	RE03-05-59557	135831003	05/12/05	1849	1.87	5.76
27	AR166006	WAR050511-13	05/12/05	1902	1.87	5.76
28						
29						
30						
31						
32						

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 05/02/05 05/03/05

Instrument ID: ECD8A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.20 DCB: 6.48

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	ZZZZZ	ZZZZZ	05/12/05	1142	2.20	6.48
02	AR166001	WAR050511-13	05/12/05	1154	2.20	6.48
03	AR125401	WAR050415-05	05/12/05	1206	2.20	6.48
04	AR124201	WAR050323-01	05/12/05	1218	2.20	6.48
05	AR124801	WAR050504-01	05/12/05	1230	2.20	6.48
06	AR126201	WAR050412-02	05/12/05	1243	2.20	6.48
07	AR123201	WAR050401-05	05/12/05	1255	2.20	6.48
08	AR122101	WAR050328-05	05/12/05	1307	2.20	6.48
09	AR126801	WAR050509-01	05/12/05	1319	2.20	6.48
10	ZZZZZ	ZZZZZ	05/12/05	1440	2.20	6.48
11	ZZZZZ	ZZZZZ	05/12/05	1452	2.20	6.48
12	ZZZZZ	ZZZZZ	05/12/05	1504	2.20	6.48
13	ZZZZZ	ZZZZZ	05/12/05	1516	2.20	6.48
14	ZZZZZ	ZZZZZ	05/12/05	1529	2.20	6.48
15	AR166002	WAR050511-13	05/12/05	1554	2.20	6.48
16	ZZZZZ	ZZZZZ	05/12/05	1641	2.20	6.48
17	RE03-05-59558	135831004	05/12/05	1659	2.20	6.50
18	AR166003	WAR050511-13	05/12/05	1711	2.20	6.48
19	ZZZZZ	ZZZZZ	05/12/05	1724	2.20	6.48
20	ZZZZZ	ZZZZZ	05/12/05	1736	2.20	6.48
21	AR166004	WAR050511-13	05/12/05	1748	2.20	6.48
22	ZZZZZ	ZZZZZ	05/12/05	1800	2.20	6.48
23	ZZZZZ	ZZZZZ	05/12/05	1813	2.20	6.48
24	AR166005	WAR050511-13	05/12/05	1825	2.20	6.48
25	ZZZZZ	ZZZZZ	05/12/05	1837	2.20	6.48
26	RE03-05-59557	135831003	05/12/05	1849	2.20	6.48
27	AR166006	WAR050511-13	05/12/05	1902	2.20	6.48
28						
29						
30						
31						
32						

QC LIMITS
S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

10B
PCB IDENTIFICATION SUMMARY
FOR MULTICOMPONENT ANALYTES

EPA SAMPLE NO.

PBLK01LCS

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Lab Sample ID: 1200841141 Date(s) Analyzed: 05/11/05 05/11/05

Instrument ID (1): ECD8A Instrument ID (2): ECD8A

GC Column(1): CLP1 ID: 0.25(mm) GC Column(2): CLP2 ID: 0.25(mm)

ANALYTE	PEAK	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	MEAN CONCENTRATION	RPD
	1	2.83	2.80	2.86	23.8		
Aroclor-1016	2	2.88	2.85	2.91	23.8		
	3	2.97	2.94	3.00	24.2		
COLUMN 1	4	2.99	2.95	3.01	23.5		
	5	3.19	3.15	3.21	25.2	24.1	
	1	3.09	3.05	3.11	23.5		
	2	3.34	3.31	3.37	24.4		
	3	3.42	3.39	3.45	23.7		
COLUMN 2	4	3.49	3.46	3.52	25.0		
	5	3.69	3.65	3.71	24.0	24.1	0.0
	1	3.98	3.95	4.01	25.1		
Aroclor-1260	2	4.17	4.14	4.20	25.6		
	3	4.44	4.41	4.47	26.1		
COLUMN 1	4	4.61	4.58	4.64	26.5		
	5	5.01	4.98	5.04	28.1	26.3	
	1	4.59	4.55	4.61	25.0		
	2	4.73	4.70	4.76	25.6		
	3	5.04	5.01	5.07	25.8		
COLUMN 2	4	5.25	5.22	5.28	26.2		
	5	5.42	5.39	5.45	26.8	25.9	1.5
	1						
	2						
	3						
COLUMN 1	4						
	5						
	1						
	2						
	3						
COLUMN 2	4						
	5						

At least 3 peaks for each column are required for identification o: multicomponent analytes.

10B
PCB IDENTIFICATION SUMMARY
FOR MULTICOMPONENT ANALYTES

EPA SAMPLE NO.

RE03-05-58926

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Lab Sample ID: 135831001 Date(s) Analyzed: 05/11/05 05/11/05

Instrument ID (1): ECD8A Instrument ID (2): ECD8A

GC Column(1): CLP1 ID: 0.25(mm) GC Column(2): CLP2 ID: 0.25(mm)

ANALYTE	PEAK	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	MEAN CONCENTRATION	RPD
Aroclor-1254 COLUMN 1	1	3.58	3.55	3.61	9.3		
	2	3.77	3.74	3.80	11.0		
	3	3.85	3.82	3.88	14.6		
	4	4.04	4.02	4.08	9.4		
	5					11.1	
COLUMN 2	1	3.99	3.96	4.02	11.9		
	2	4.12	4.09	4.15	11.9		
	3	4.37	4.34	4.40	11.9		
	4						
	5					11.9	7.0
COLUMN 1	1						
	2						
	3						
	4						
	5						
COLUMN 2	1						
	2						
	3						
	4						
	5						
COLUMN 1	1						
	2						
	3						
	4						
	5						
COLUMN 2	1						
	2						
	3						
	4						
	5						

At least 3 peaks for each column are required for identification o: multicomponent analytes.

10B
PCB IDENTIFICATION SUMMARY
FOR MULTICOMPONENT ANALYTES

EPA SAMPLE NO.

RE03-05-58926MS

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Lab Sample ID: 1200841151 Date(s) Analyzed: 05/11/05 05/11/05

Instrument ID (1): ECD8A Instrument ID (2): ECD8A

GC Column(1): CLP1 ID: 0.25(mm) GC Column(2): CLP2 ID: 0.25(mm)

ANALYTE	PEAK	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	MEAN CONCENTRATION	RPD
Aroclor-1016 COLUMN 1	1	2.84	2.80	2.86	26.7		
	2	2.88	2.85	2.91	25.8		
	3	2.99	2.95	3.01	26.4		
	4	3.19	3.15	3.21	30.0		
	5					27.2	
COLUMN 2	1	3.09	3.05	3.11	23.5		
	2	3.34	3.31	3.37	23.8		
	3	3.49	3.46	3.52	30.7		
	4	3.69	3.65	3.71	26.1		
	5					26.0	4.5
Aroclor-1254 COLUMN 1	1	3.58	3.55	3.61	15.2		
	2	3.76	3.74	3.80	14.8		
	3	3.85	3.82	3.88	12.3		
	4	4.04	4.02	4.08	9.2		
	5					12.9	
COLUMN 2	1	3.99	3.96	4.02	16.2		
	2	4.12	4.09	4.15	14.8		
	3	4.37	4.34	4.40	8.6		
	4	4.45	4.42	4.48	15.1		
	5					13.7	6.0
Aroclor-1260 COLUMN 1	1	3.98	3.95	4.01	26.6		
	2	4.17	4.14	4.20	25.7		
	3	4.44	4.41	4.47	20.9		
	4	4.61	4.58	4.64	27.5		
	5	5.01	4.98	5.04	20.2	24.2	
COLUMN 2	1	4.59	4.55	4.61	24.3		
	2	4.73	4.70	4.76	27.3		
	3	5.04	5.01	5.07	30.6		
	4	5.25	5.22	5.28	19.0		
	5	5.42	5.39	5.45	19.5	24.1	0.4

At least 3 peaks for each column are required for identification o: multicomponent analytes.

10B
PCB IDENTIFICATION SUMMARY
FOR MULTICOMPONENT ANALYTES

EPA SAMPLE NO.

RE03-05-58926MSD

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Lab Sample ID: 1200841152 Date(s) Analyzed: 05/11/05 05/11/05

Instrument ID (1): ECD8A Instrument ID (2): ECD8A

GC Column(1): CLP1 ID: 0.25(mm) GC Column(2): CLP2 ID: 0.25(mm)

ANALYTE	PEAK	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	MEAN CONCENTRATION	RPD
	1	2.83	2.80	2.86	26.8		
Aroclor-1016	2	2.88	2.85	2.91	25.4		
	3	2.99	2.95	3.01	29.6		
COLUMN 1	4	3.19	3.15	3.21	32.3		
	5					28.5	
	1	3.09	3.05	3.11	22.6		
	2	3.34	3.31	3.37	22.1		
	3	3.49	3.46	3.52	37.4		
COLUMN 2	4	3.69	3.65	3.71	28.7		
	5					27.7	2.8
	1	3.76	3.74	3.80	21.7		
Aroclor-1254	2	3.85	3.82	3.88	20.7		
	3	4.04	4.02	4.08	16.4		
COLUMN 1	4						
	5					19.6	
	1	4.12	4.09	4.15	23.6		
	2	4.37	4.34	4.40	17.3		
	3	4.61	4.58	4.64	13.1		
COLUMN 2	4						
	5					18.0	8.5
	1	3.98	3.95	4.01	29.8		
Aroclor-1260	2	4.17	4.14	4.20	29.9		
	3	4.44	4.41	4.47	20.4		
COLUMN 1	4	4.61	4.58	4.64	31.1		
	5	5.01	4.98	5.04	21.8	26.6	
	1	4.58	4.55	4.61	30.1		
	2	4.73	4.70	4.76	26.8		
	3	5.05	5.01	5.07	36.1		
COLUMN 2	4	5.25	5.22	5.28	19.1		
	5	5.42	5.39	5.45	20.0	26.4	0.8

At least 3 peaks for each column are required for identification o: multicomponent analytes.

10B
PCB IDENTIFICATION SUMMARY
FOR MULTICOMPONENT ANALYTES

EPA SAMPLE NO.

RE03-05-58927

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Lab Sample ID: 135831002 Date(s) Analyzed: 05/11/05 05/11/05

Instrument ID (1): ECD8A Instrument ID (2): ECD8A

GC Column(1): CLP1 ID: 0.25(mm) GC Column(2): CLP2 ID: 0.25(mm)

ANALYTE	PEAK	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	MEAN CONCENTRATION	RPD
	1	3.58	3.55	3.61	18.0		
Aroclor-1254	2	3.77	3.74	3.80	21.8		
	3	4.05	4.02	4.08	16.5		
COLUMN 1	4						
	5					18.8	
	1	3.99	3.96	4.02	20.8		
	2	4.13	4.09	4.15	18.0		
	3	4.37	4.34	4.40	20.9		
COLUMN 2	4	4.61	4.58	4.64	14.2		
	5					18.4	2.2
	1						
	2						
	3						
COLUMN 1	4						
	5						
	1						
	2						
	3						
COLUMN 2	4						
	5						
	1						
	2						
	3						
COLUMN 1	4						
	5						
	1						
	2						
	3						
COLUMN 2	4						
	5						

At least 3 peaks for each column are required for identification o: multicomponent analytes.

10B
PCB IDENTIFICATION SUMMARY
FOR MULTICOMPONENT ANALYTES

EPA SAMPLE NO.

RE03-05-59557

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Lab Sample ID: 135831003 Date(s) Analyzed: 05/12/05 05/12/05

Instrument ID (1): ECD8A Instrument ID (2): ECD8A

GC Column(1): CLP1 ID: 0.25(mm) GC Column(2): CLP2 ID: 0.25(mm)

ANALYTE	PEAK	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	MEAN CONCENTRATION	RPD
Aroclor-1254 COLUMN 1	1	3.58	3.55	3.61	114		
	2	3.77	3.74	3.80	144		
	3	3.85	3.82	3.88	181		
	4	4.04	4.02	4.08	101		
	5					135	
COLUMN 2	1	3.99	3.96	4.02	139		
	2	4.13	4.10	4.16	132		
	3	4.37	4.34	4.40	128		
	4						
	5					133	1.5
Aroclor-1260 COLUMN 1	1	4.44	4.41	4.47	26.1		
	2	4.61	4.58	4.64	26.8		
	3	5.01	4.99	5.05	38.6		
	4						
	5					30.5	
COLUMN 2	1	5.05	5.01	5.07	42.5		
	2	5.25	5.22	5.28	26.6		
	3	5.42	5.39	5.45	28.1		
	4						
	5					32.4	6.0
_____ COLUMN 1	1						
	2						
	3						
	4						
	5						
COLUMN 2	1						
	2						
	3						
	4						
	5						

At least 3 peaks for each column are required for identification o: multicomponent analytes.

10B
PCB IDENTIFICATION SUMMARY
FOR MULTICOMPONENT ANALYTES

EPA SAMPLE NO.

RE03-05-59558

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Lab Sample ID: 135831004 Date(s) Analyzed: 05/12/05 05/12/05

Instrument ID (1): ECD8A Instrument ID (2): ECD8A

GC Column(1): CLP1 ID: 0.25(mm) GC Column(2): CLP2 ID: 0.25(mm)

ANALYTE	PEAK	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	MEAN CONCENTRATION	RPD
Aroclor-1254 COLUMN 1	1	3.59	3.55	3.61	89.6		
	2	3.78	3.74	3.80	99.5		
	3	4.06	4.02	4.08	110		
	4						
	5					99.7	
COLUMN 2	1	3.99	3.96	4.02	89.9		
	2	4.13	4.10	4.16	89.6		
	3	4.38	4.34	4.40	79.9		
	4	4.62	4.58	4.64	83.0		
	5					85.6	15.2
Aroclor-1260 COLUMN 1	1	4.46	4.41	4.47	29.4		
	2	4.63	4.58	4.64	44.2		
	3	5.04	4.99	5.05	60.0		
	4						
	5					44.5	
COLUMN 2	1	5.06	5.01	5.07	47.8		
	2	5.26	5.22	5.28	30.5		
	3	5.44	5.39	5.45	48.8		
	4						
	5					42.4	4.8
COLUMN 1	1						
	2						
	3						
	4						
	5						
COLUMN 2	1						
	2						
	3						
	4						
	5						

At least 3 peaks for each column are required for identification o: multicomponent analytes.

QUALITY CONTROL DATA

1D
PCB ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PBLK01

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Matrix: (soil/water) SOIL Lab Sample ID: 1200841140

Sample wt/vol: 30.0 (g/mL) G Lab File ID: 043F4301

% Moisture: 0 decanted: (Y/N) N Date Received: 05/09/05

Extraction: (SepF/Cont/Sonc) SONC Date Extracted:05/09/05

Concentrated Extract Volume: 1.00(mL) Date Analyzed: 05/11/05

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
12674-11-2	Aroclor-1016	3.3	U
11104-28-2	Aroclor-1221	3.3	U
11141-16-5	Aroclor-1232	3.3	U
53469-21-9	Aroclor-1242	3.3	U
12672-29-6	Aroclor-1248	3.3	U
11097-69-1	Aroclor-1254	3.3	U
11096-82-5	Aroclor-1260	3.3	U

General Engineering Laboratories, LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/051105.b/043f4301.d
Lab Smp Id: 1200841140 Client Smp ID: PBLK01
Inj Date : 11-MAY-2005 22:39
Operator : JMW1 Inst ID: ecd8a.i
Smp Info : |1200841140|1|
Misc Info : |ECD82P_1S|423332|SVA|MB|
Comment :
Method : /chem/ecd8a.i/051105.b/ECD8-F-8082-050905.m
Meth Date : 12-May-2005 11:06 jar00935 Quant Type: ESTD
Cal Date : 06-APR-2005 12:43 Cal File: 013f1301.d
Als bottle: 43 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 3202S.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.867	1.864	0.003	30081431	146.958	4.9	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.757	5.758	-0.001	41154287	178.091	5.9	80.00- 120.00	100.00

Data File: /chem/ecd8a.i/051105.b/043f4301.d

Date : 11-MAY-2005 22:39

Client ID: PBLK01

Sample Info: |120084114011|

Volume Injected (uL): 1.0

Column phase: CLP1

Instrument: ecd8a.i

Operator: JMW1

Column diameter: 0.25

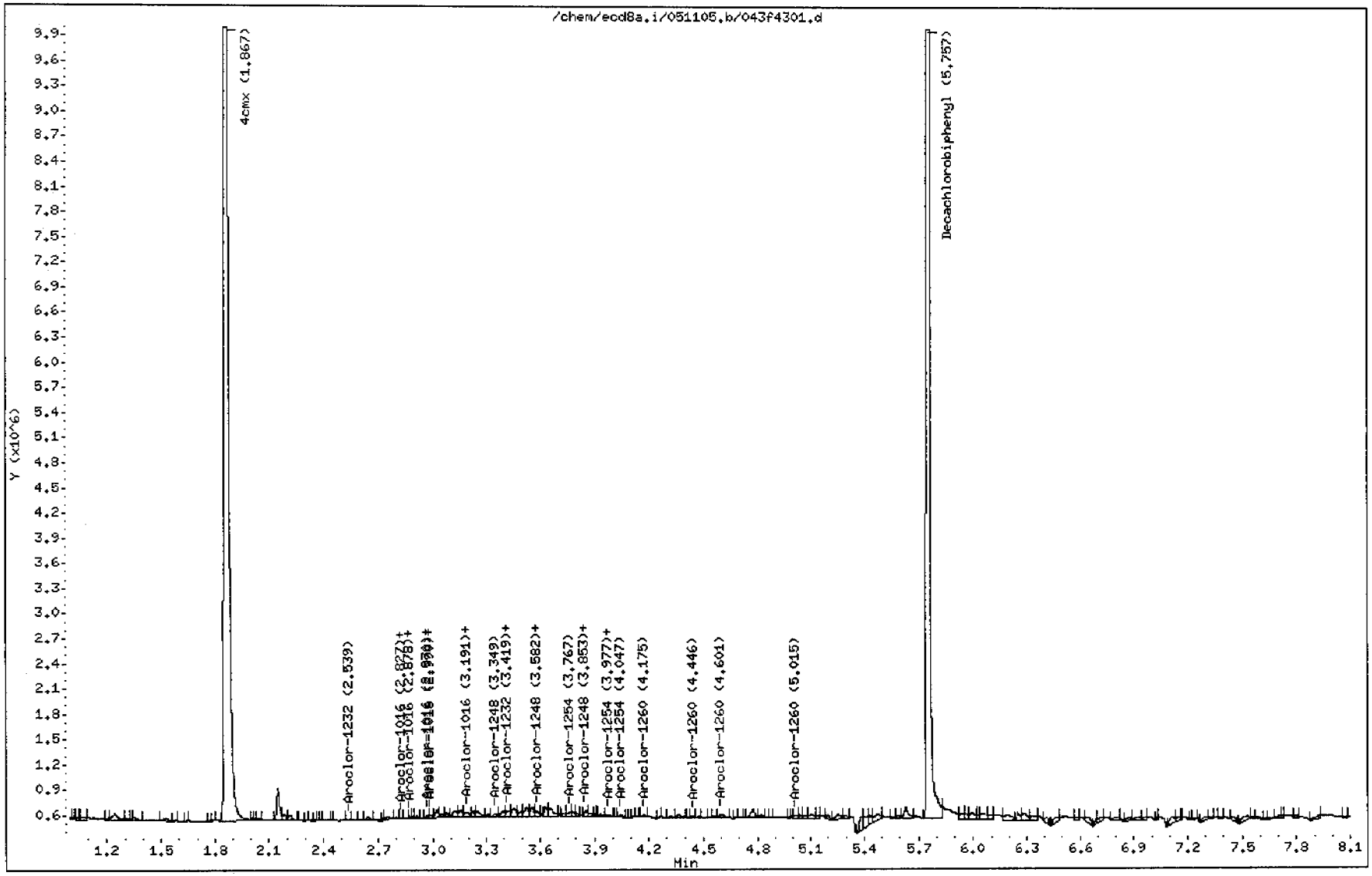

General Engineering Laboratories, LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/051105.b/043b4301.d
Lab Smp Id: 1200841140 Client Smp ID: PBLK01
Inj Date : 11-MAY-2005 22:39
Operator : JMW1 Inst ID: ecd8a.i
Smp Info : |1200841140|1|
Misc Info : |ECD82P_1S|423332|SVA|MB|
Comment :
Method : /chem/ecd8a.i/051105.b/ECD8-B-8082-050905.m
Meth Date : 12-May-2005 11:07 jar00935 Quant Type: ESTD
Cal Date : 06-APR-2005 12:43 Cal File: 013b1301.d
Als bottle: 43 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 3202S.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.196	2.193	0.003	111778679	153.597	5.1	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.475	6.476	-0.001	86217642	171.474	5.7	80.00- 120.00	100.00

Data File: /chem/ecd8a.i/051105.b/043b4301.d

Date : 11-MAY-2005 22:39

Client ID: PBLK01

Sample Info: |120084114011|

Volume Injected (uL): 1.0

Column phase: CLP2

Instrument: ecd8a.i

Operator: JMW1

Column diameter: 0.25

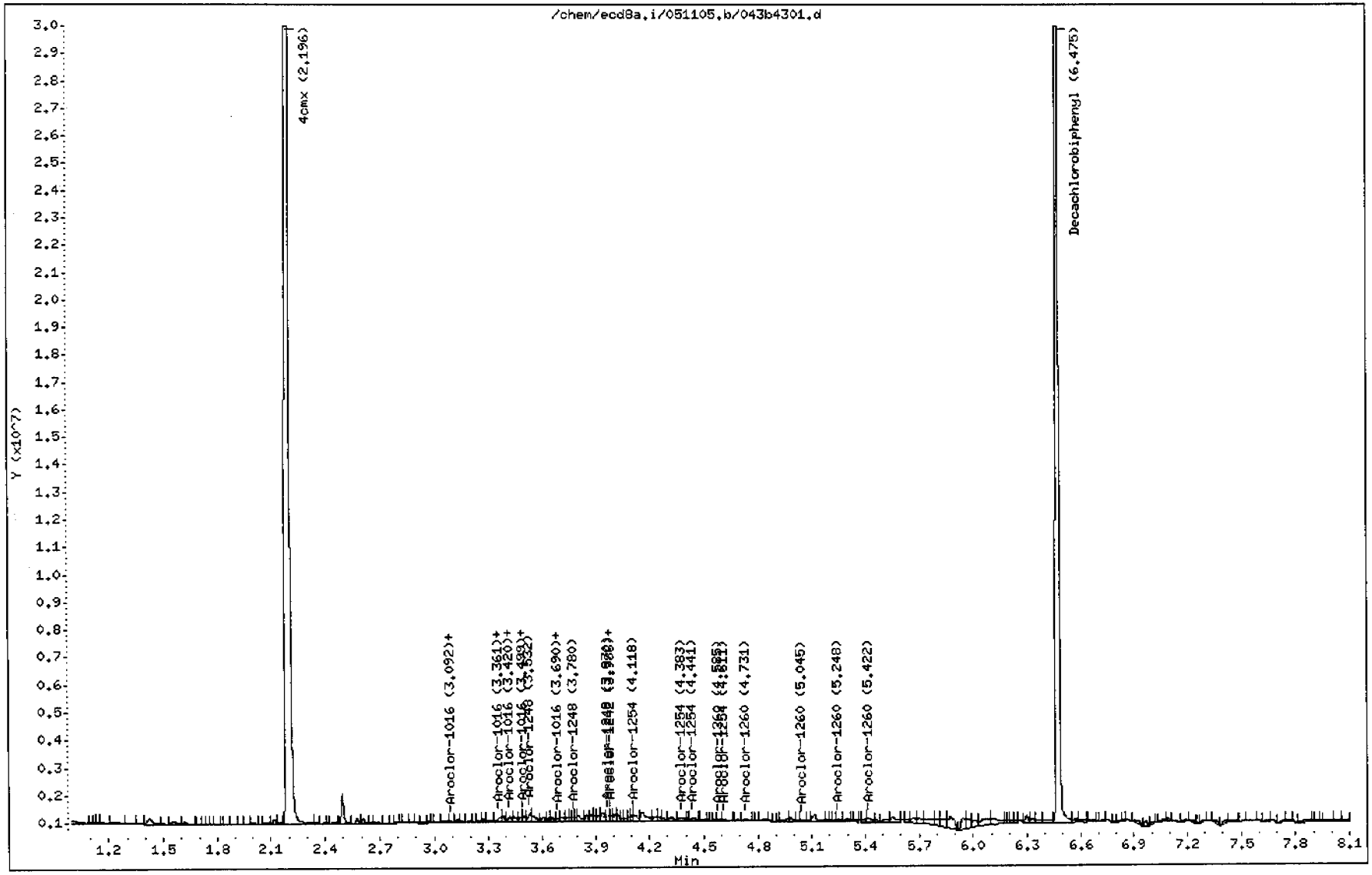

1D
PCB ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PBLK01LCS

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Matrix: (soil/water) SOIL Lab Sample ID: 1200841141

Sample wt/vol: 30.0 (g/mL) G Lab File ID: 044F4401

% Moisture: 0 decanted: (Y/N) N Date Received: 05/09/05

Extraction: (SepF/Cont/Sonc) SONC Date Extracted:05/09/05

Concentrated Extract Volume: 1.00(mL) Date Analyzed: 05/11/05

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
12674-11-2	Aroclor-1016	24.1	
11104-28-2	Aroclor-1221	3.3	U
11141-16-5	Aroclor-1232	3.3	U
53469-21-9	Aroclor-1242	3.3	U
12672-29-6	Aroclor-1248	3.3	U
11097-69-1	Aroclor-1254	3.3	U
11096-82-5	Aroclor-1260	26.3	

FORM I PEST OLM03.0

General Engineering Laboratories, LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/051105.b/044f4401.d
Lab Smp Id: 1200841141 Client Smp ID: PBLK01LCS
Inj Date : 11-MAY-2005 22:51
Operator : JMW1 Inst ID: ecd8a.i
Smp Info : |1200841141|1|
Misc Info : |ECD82P_1S|423332|SVA|LCS|
Comment :
Method : /chem/ecd8a.i/051105.b/ECD8-F-8082-050905.m
Meth Date : 12-May-2005 11:06 jar00935 Quant Type: ESTD
Cal Date : 06-APR-2005 12:43 Cal File: 013f1301.d
Als bottle: 44 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 3202S.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.867	1.864	0.003	28425842	138.870	4.6	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.757	5.758	-0.001	38879819	168.248	5.6	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.834	2.831	0.003	4386790	713.976	23.8	80.00- 120.00	100.00
2.879	2.876	0.003	2714219	715.458	23.8	41.76- 81.76	61.87
2.970	2.966	0.004	2326834	726.195	24.2	32.50- 72.50	53.04
2.986	2.982	0.004	2558268	705.727	23.5	38.07- 78.07	58.32

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
1 Aroclor-1016 (continued)							
3.187	3.184	0.003	2346931	756.966	25.2	31.05- 71.05	53.50
		Average of Peak Concentrations =			24.1		
7 Aroclor-1260					CAS #: 11096-82-5		
3.980	3.978	0.002	7575366	753.537	25.1	80.00- 120.00	100.00
4.173	4.169	0.004	12139418	767.955	25.6	137.41- 177.41	160.25
4.443	4.440	0.003	6288267	783.946	26.1	59.28- 99.28	83.01
4.611	4.609	0.002	7145270	794.139	26.5	68.28- 108.28	94.32
5.014	5.014	0.000	9311174	843.912	28.1	88.36- 128.36	122.91
		Average of Peak Concentrations =			26.3		

Data File: /chem/ecd8a.i/051105.b/044f4401.d
Date : 11-MAY-2005 22:51
Client ID: PBLK01LCS
Sample Info: |1200841141|1|
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecd8a.i

Operator: JMW1
Column diameter: 0.25

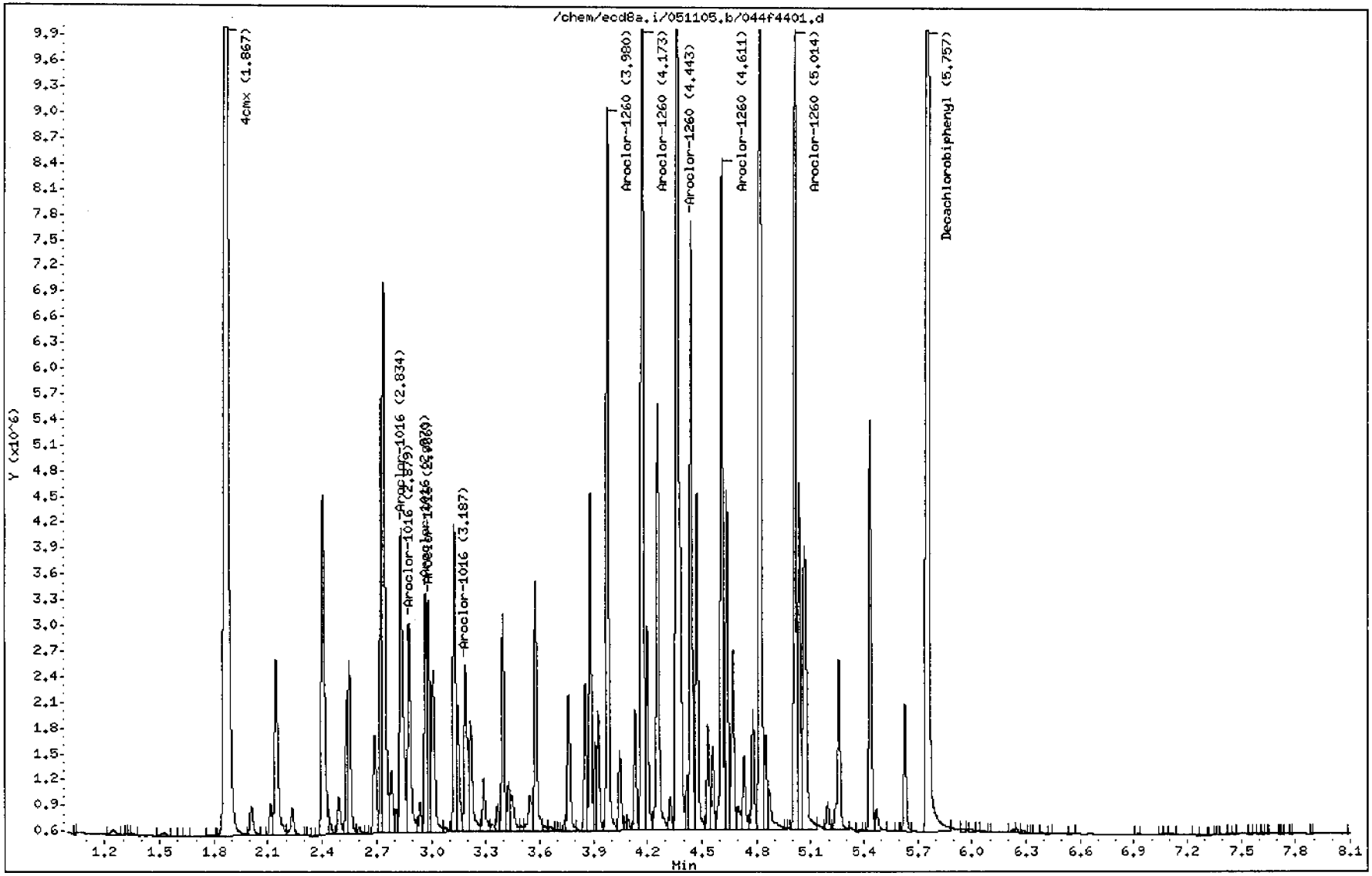

General Engineering Laboratories, LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/051105.b/044b4401.d
Lab Smp Id: 1200841141 Client Smp ID: PBLK01LCS
Inj Date : 11-MAY-2005 22:51
Operator : JMW1 Inst ID: ecd8a.i
Smp Info : |1200841141|1|
Misc Info : |ECD82P_1S|423332|SVA|LCS|
Comment :
Method : /chem/ecd8a.i/051105.b/ECD8-B-8082-050905.m
Meth Date : 12-May-2005 11:07 jar00935 Quant Type: ESTD
Cal Date : 06-APR-2005 12:43 Cal File: 013b1301.d
Als bottle: 44 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 3202S.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.195	2.193	0.002	106078248	145.764	4.8	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.475	6.476	-0.001	82319219	163.720	5.4	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.085	3.084	0.001	5811994	703.973	23.5	80.00- 120.00	100.00
3.344	3.342	0.002	12717218	731.684	24.4	191.23- 231.23	218.81
3.419	3.418	0.001	7296301	711.866	23.7	105.03- 145.03	125.54
3.494	3.491	0.003	7930184	749.975	25.0	106.71- 146.71	136.45

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
1 Aroclor-1016 (continued)							
3.687	3.684	0.003	10270342	721.340	24.0	151.68- 191.68	176.71
Average of Peak Concentrations =					24.1		
7 Aroclor-1260					CAS #: 11096-82-5		
4.585	4.584	0.001	20980101	751.664	25.0	80.00- 120.00	100.00
4.731	4.731	0.000	26607264	767.217	25.6	105.13- 145.13	126.82
5.044	5.043	0.001	16785510	775.006	25.8	57.28- 97.28	80.01
5.249	5.248	0.001	18362734	787.067	26.2	63.38- 103.38	87.52
5.422	5.422	0.000	43626936	804.790	26.8	173.79- 213.79	207.94
Average of Peak Concentrations =					25.9		

Data File: /chem/ecd8a.i/051105.b/044b4401.d
Date : 11-MAY-2005 22:51
Client ID: PBLK01LCS
Sample Info: |1200841141|1|
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd8a.i

Operator: JMW1
Column diameter: 0.25

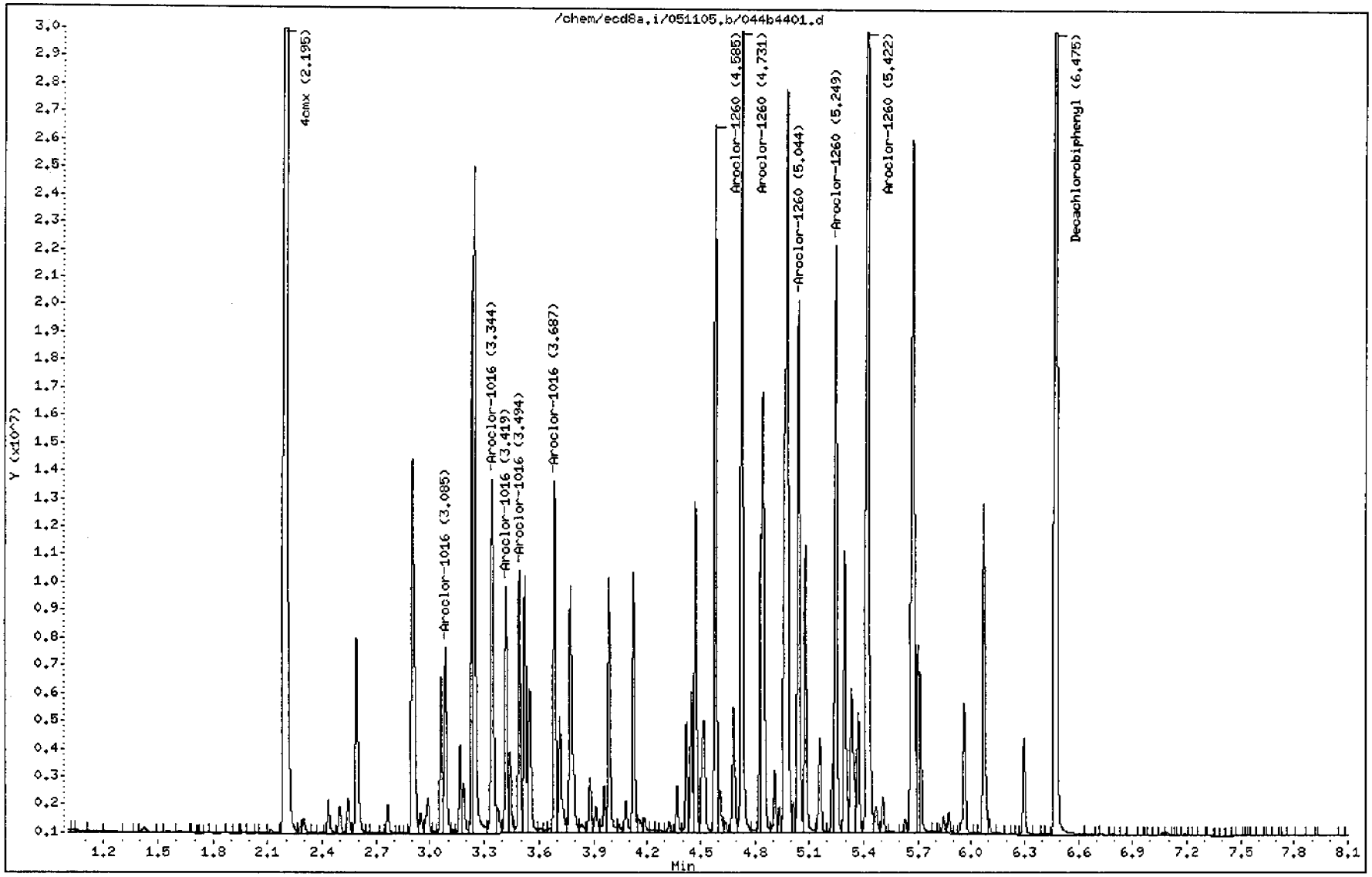

1D
PCB ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-58926MS

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Matrix: (soil/water) SOIL Lab Sample ID: 1200841151

Sample wt/vol: 30.0 (g/mL) G Lab File ID: 046F4601

% Moisture: 6 decanted: (Y/N) N Date Received: 05/05/05

Extraction: (SepF/Cont/Sonc) SONC Date Extracted:05/09/05

Concentrated Extract Volume: 1.00(mL) Date Analyzed: 05/11/05

Injection Volume: 1.0(uL) Dilution Factor: 10.0

GPC Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
12674-11-2	Aroclor-1016	27.2	J
11104-28-2	Aroclor-1221	35.4	U
11141-16-5	Aroclor-1232	35.4	U
53469-21-9	Aroclor-1242	35.4	U
12672-29-6	Aroclor-1248	35.4	U
11097-69-1	Aroclor-1254	13.7	J
11096-82-5	Aroclor-1260	24.2	J

General Engineering Laboratories, LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/051105.b/046f4601.d
Lab Smp Id: 1200841151 Client Smp ID: RE03-05-58926MS
Inj Date : 11-MAY-2005 23:15
Operator : JMW1 Inst ID: ecd8a.i
Smp Info : |1200841151|10|
Misc Info : |ECD82P_1SF|423332|SVAF|MS|
Comment :
Method : /chem/ecd8a.i/051105.b/ECD8-F-8082-050905.m
Meth Date : 12-May-2005 11:06 jar00935 Quant Type: ESTD
Cal Date : 06-APR-2005 12:43 Cal File: 013f1301.d
Als bottle: 46 QC Sample: MS
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: 3202S.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	10.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	5.87600	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.868	1.864	0.004	2818799	13.7708	4.9	80.00- 120.00	100.00(M)
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.760	5.758	0.002	1812915	7.84519	2.8	80.00- 120.00	100.00(R)
1 Aroclor-1016					CAS #: 12674-11-2		
2.835	2.831	0.004	463549	75.4454	26.7	80.00- 120.00	100.00(a)
2.880	2.876	0.004	276394	72.8564	25.8	41.76- 81.76	59.63
2.966	2.966	0.000	0			32.50- 72.50	0.00
2.986	2.982	0.004	269988	74.4793	26.4	38.07- 78.07	58.24

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
1 Aroclor-1016 (continued)							
3.187	3.184	0.003	262582	84.6917	30.0	31.05- 71.05	56.65
Average of Peak Concentrations =					27.2		
6 Aroclor-1254					CAS #: 11097-69-1		
3.577	3.575	0.002	408823	42.8484	15.2	80.00- 120.00	100.00(a)
3.764	3.768	-0.004	293575	41.7833	14.8	53.25- 93.25	71.81
3.852	3.853	-0.001	425664	34.8434	12.3	103.24- 143.24	104.12
3.978	3.978	0.000	0			32.53- 72.53	0.00
4.043	4.045	-0.002	222227	26.1124	9.2	69.99- 109.99	54.36
Average of Peak Concentrations =					12.9		
7 Aroclor-1260					CAS #: 11096-82-5		
3.978	3.978	0.000	755737	75.1747	26.6	80.00- 120.00	100.00(a)
4.171	4.169	0.002	1149332	72.7082	25.7	137.41- 177.41	152.08
4.440	4.440	0.000	473495	59.0297	20.9	59.28- 99.28	62.65
4.608	4.609	-0.001	699121	77.7017	27.5	68.28- 108.28	92.51
5.013	5.014	-0.001	629510	57.0552	20.2	88.36- 128.36	83.30
Average of Peak Concentrations =					24.2		

QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Data File: /chem/ecd8a.i/051105.b/046f4601.d
Date : 11-MAY-2005 23:15
Client ID: RE03-05-58926MS
Sample Info: |1200841151|10|
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecd8a.i
Operator: JMW1
Column diameter: 0.25

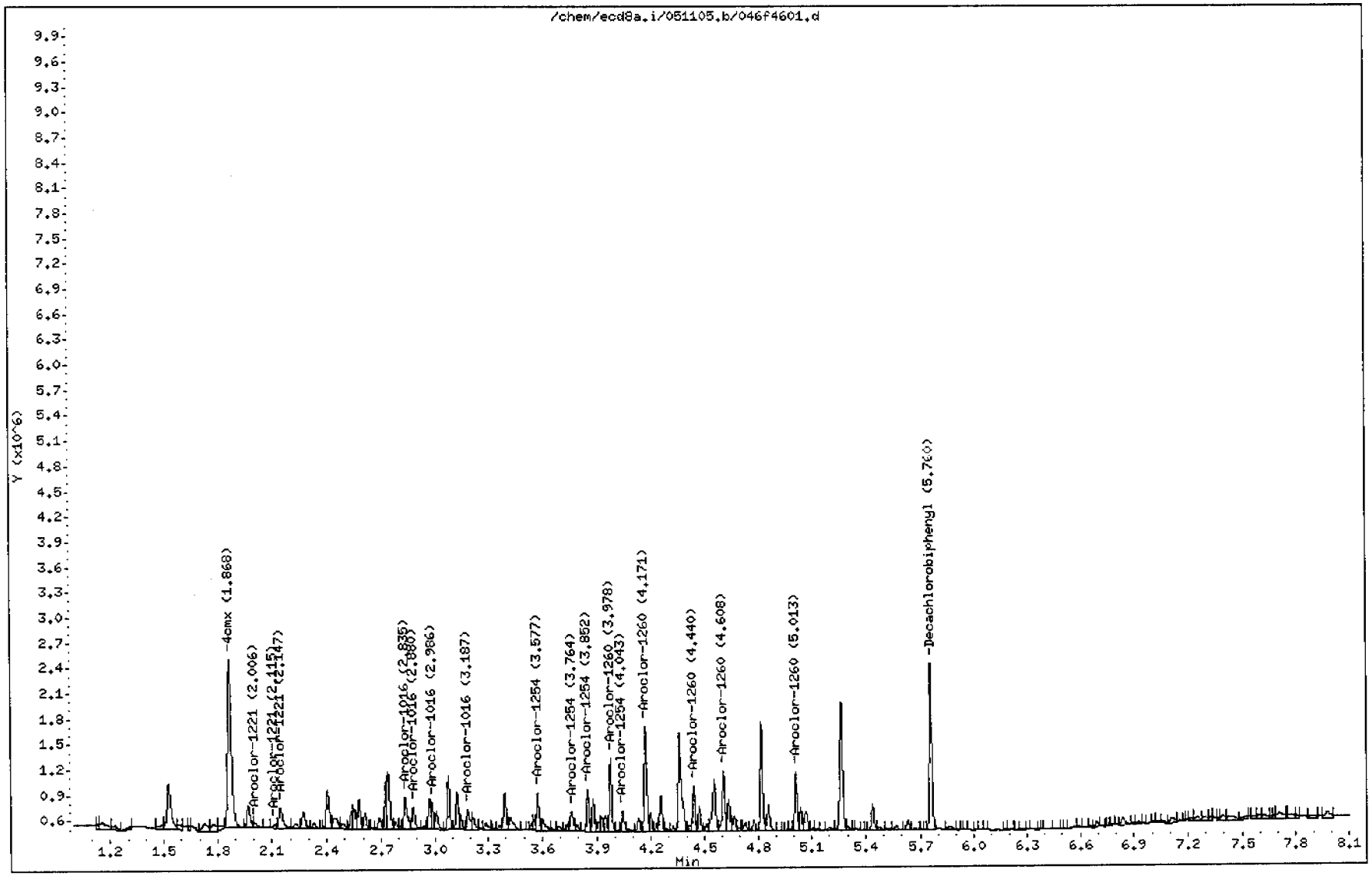

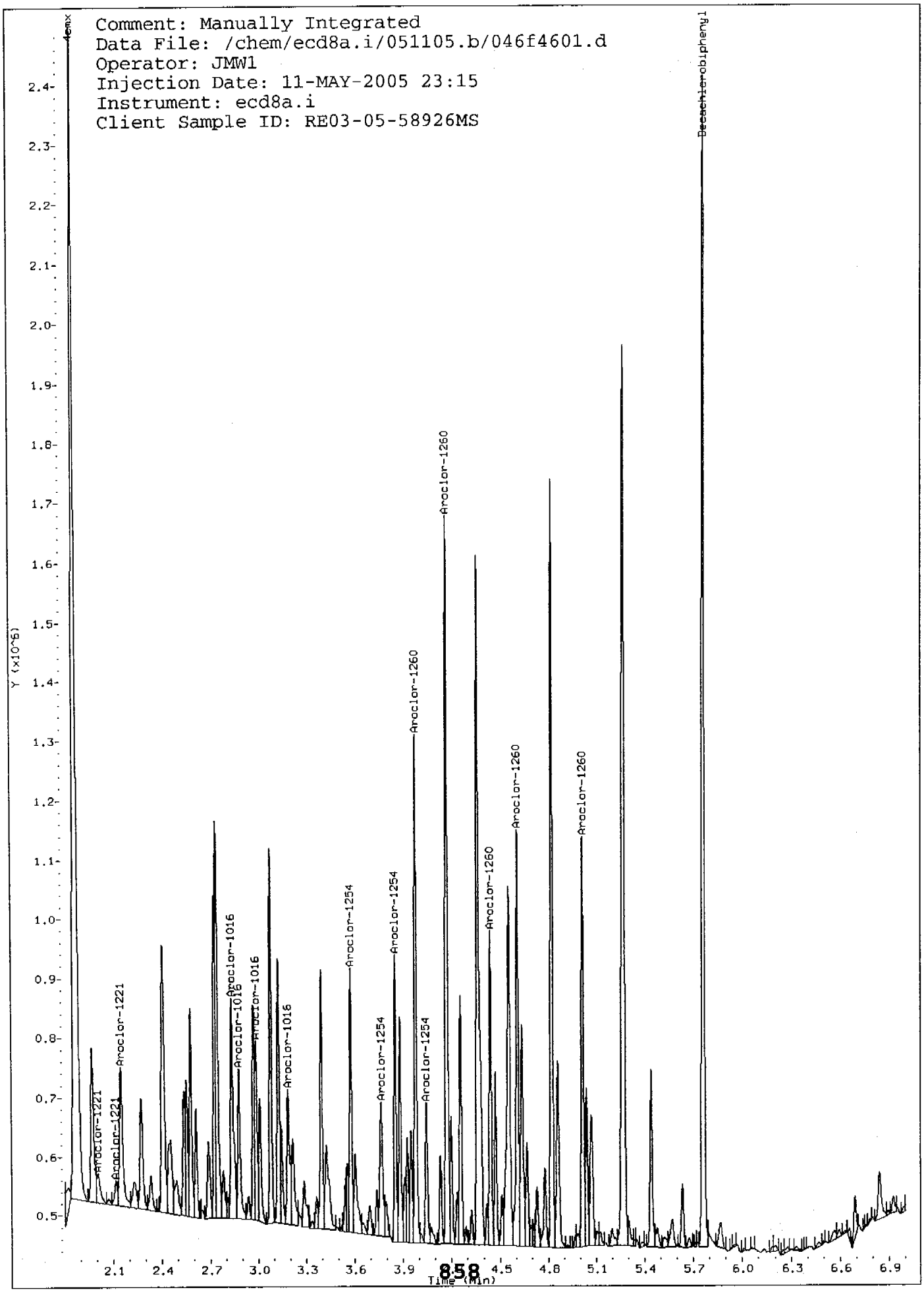
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Data File: /chem/ecd8a.i/051105.b/046f4601.d
Operator: JMW1
Injection Date: 11-MAY-2005 23:15
Instrument: ecd8a.i
Client Sample ID: RE03-05-58926MS
Decachlorobiphenyl
Aroclor-1260
Aroclor-1254
Aroclor-1016
Aroclor-1221
Y (x10^6)
Time (Min)

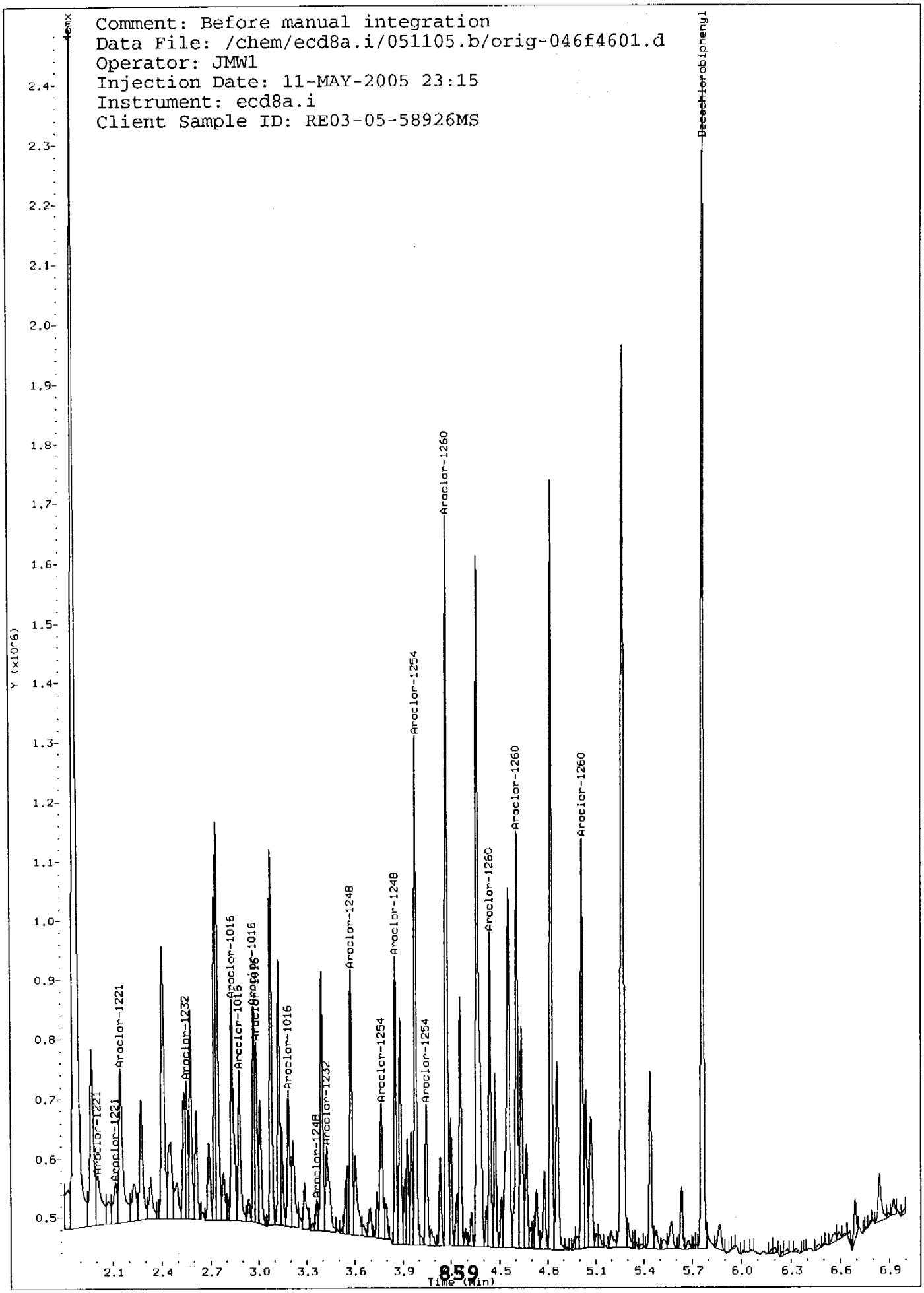
Comment: Before manual integration
Data File: /chem/ecd8a.i/051105.b/orig-046f4601.d
Operator: JMW1
Injection Date: 11-MAY-2005 23:15
Instrument: ecd8a.i
Client Sample ID: RE03-05-58926MS
Decachlorobiphenyl
Aroclor-1221
Aroclor-1232
Aroclor-1016
Aroclor-1248
Aroclor-1254
Aroclor-1260
Y (x10^6)
Time (Min)

General Engineering Laboratories, LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/051105.b/046b4601.d
Lab Smp Id: 1200841151 Client Smp ID: RE03-05-58926MS
Inj Date : 11-MAY-2005 23:15
Operator : JMW1 Inst ID: ecd8a.i
Smp Info : |1200841151|10|
Misc Info : |ECD82P_1SF|423332|SVAF|MS|
Comment :
Method : /chem/ecd8a.i/051105.b/ECD8-B-8082-050905.m
Meth Date : 12-May-2005 11:07 jar00935 Quant Type: ESTD
Cal Date : 06-APR-2005 12:43 Cal File: 013b1301.d
Als bottle: 46 QC Sample: MS
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: 3202S.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	10.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	5.87600	% Moisture
Cpnd Variable		Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.197	2.193	0.004	8726831	11.9917	4.2	80.00- 120.00	100.00(M)
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.478	6.476	0.002	3847180	7.65145	2.7	80.00- 120.00	100.00(R)
1 Aroclor-1016					CAS #: 12674-11-2		
3.086	3.084	0.002	548997	66.4968	23.5	80.00- 120.00	100.00(aM)
3.344	3.342	0.002	1167031	67.1451	23.8	191.23- 231.23	212.58
3.418	3.418	0.000	0			105.03- 145.03	0.00
3.493	3.491	0.002	917061	86.7284	30.7	106.71- 146.71	167.04

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
1 Aroclor-1016 (continued)							
3.687	3.684	0.003	1048173	73.6187	26.1	151.68- 191.68	190.93
Average of Peak Concentrations =					26.0		
6 Aroclor-1254					CAS #: 11097-69-1		
3.988	3.987	0.001	1083684	45.8536	16.2	80.00- 120.00	100.00(aM)
4.124	4.123	0.001	1062781	41.9172	14.8	84.83- 124.83	98.07
4.367	4.367	0.000	434469	24.2620	8.6	53.70- 93.70	40.09
4.448	4.448	0.000	1444325	42.6116	15.1	118.96- 158.96	133.28
4.609	4.609	0.000	0			76.93- 116.93	0.00
Average of Peak Concentrations =					13.7		
7 Aroclor-1260					CAS #: 11096-82-5		
4.585	4.584	0.001	1913009	68.5383	24.3	80.00- 120.00	100.00(aM)
4.732	4.731	0.001	2673150	77.0800	27.3	105.13- 145.13	139.74
5.044	5.043	0.001	1872172	86.4403	30.6	57.28- 97.28	97.87
5.248	5.248	0.000	1253813	53.7412	19.0	63.38- 103.38	65.54
5.423	5.422	0.001	2979925	54.9709	19.5	173.79- 213.79	155.77
Average of Peak Concentrations =					24.1		

QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Data File: /chem/ecd8a.i/051105.b/046b4601.d
Date : 11-MAY-2005 23:15
Client ID: RE03-05-58926MS
Sample Info: |120084115111 0|
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd8a.i
Operator: JMM1
Column diameter: 0.25

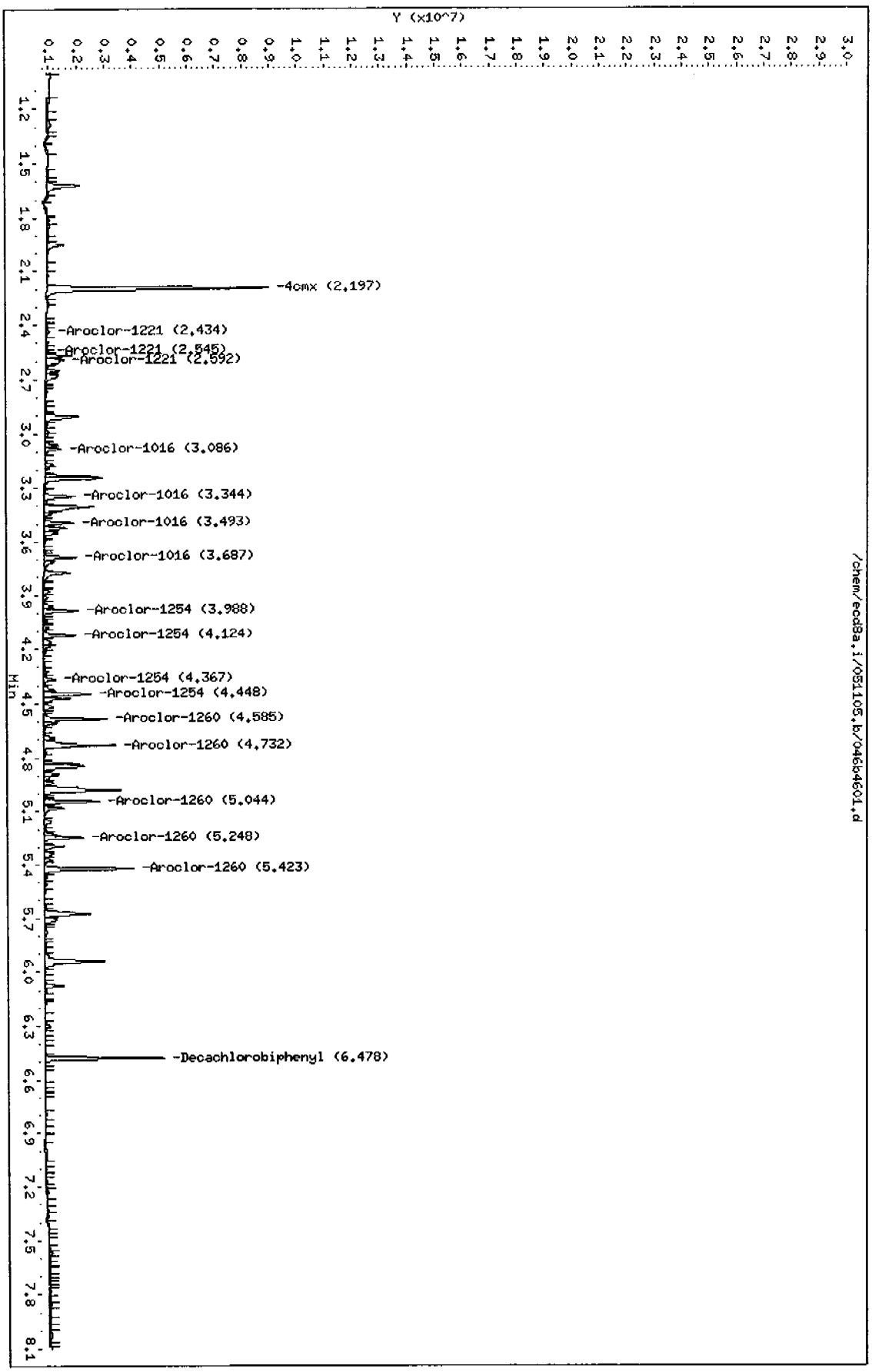

Comment: Manually Integrated
Data File: /chem/ecd8a.i/051105.b/046b4601.d
Operator: JMW1
Injection Date: 11-MAY-2005 23:15
Instrument: ecd8a.i
Client Sample ID: RE03-05-58926MS

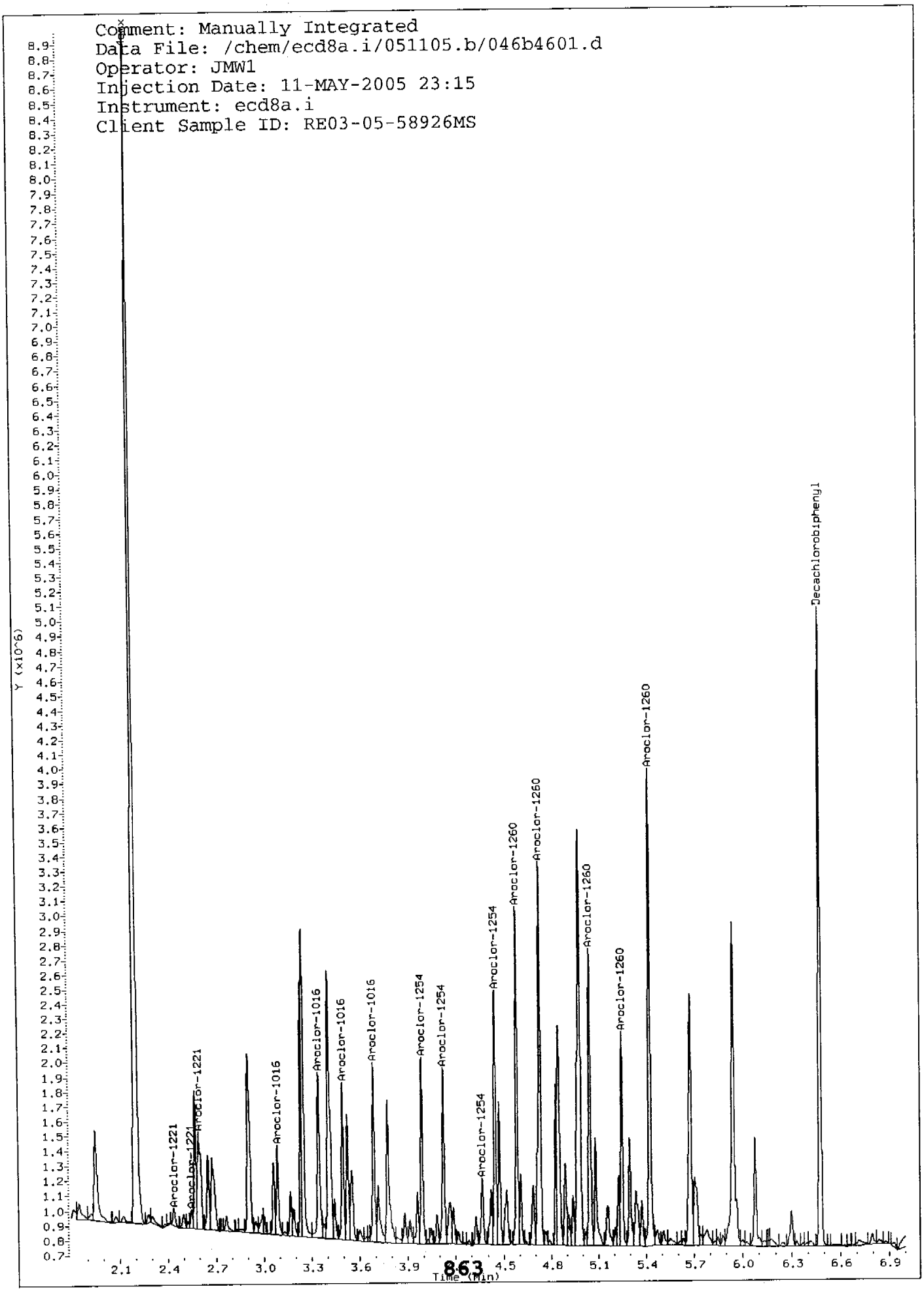

Comment: Before manual integration
Data File: /chem/ecd8a.i/051105.b/orig-046b4601.d
Operator: JMW1
Injection Date: 11-MAY-2005 23:15
Instrument: ecd8a.i
Client Sample ID: RE03-05-58926MS

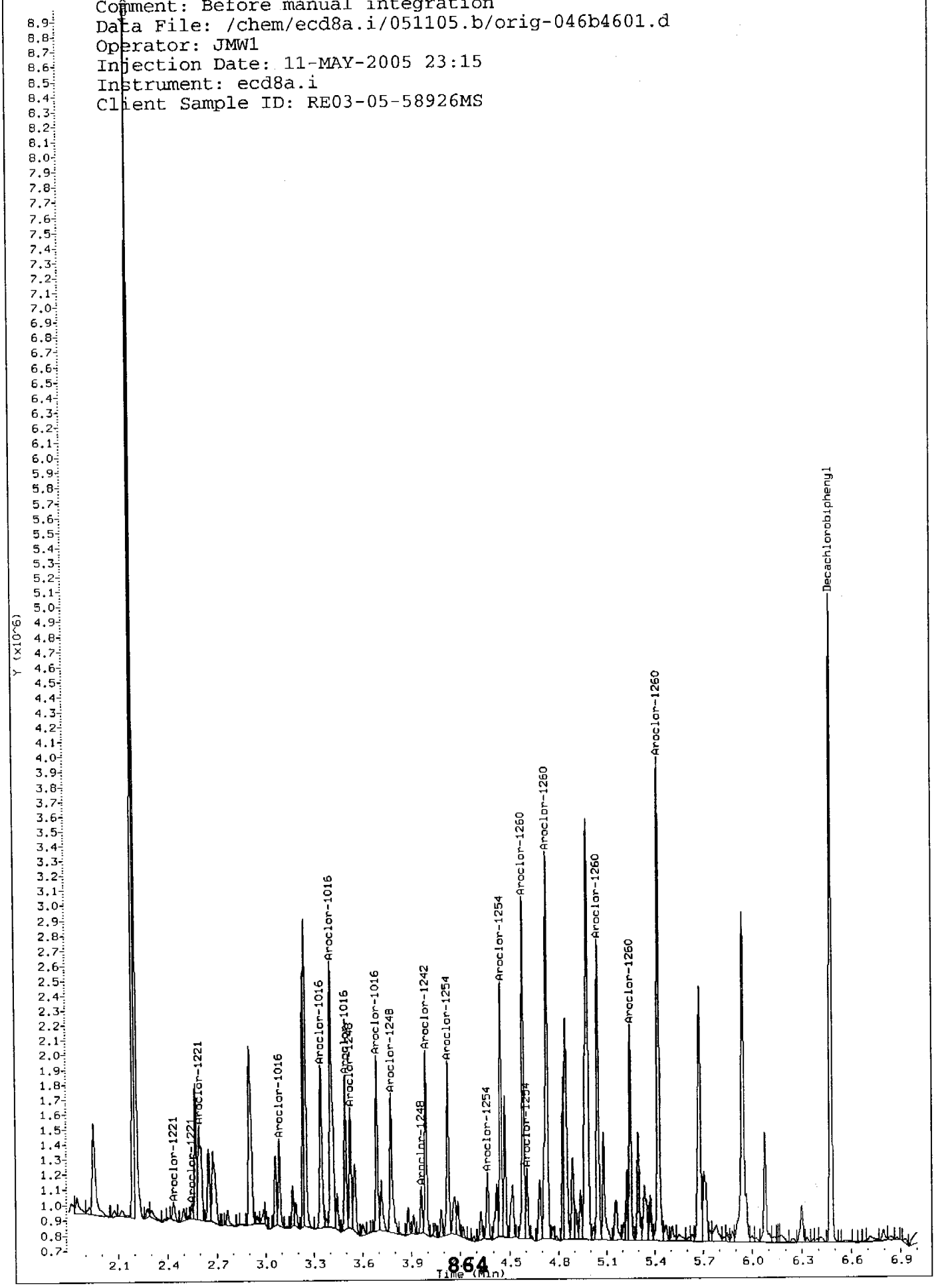

1D
PCB ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RE03-05-58926MSD

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 3202S

Matrix: (soil/water) SOIL Lab Sample ID: 1200841152

Sample wt/vol: 30.0 (g/mL) G Lab File ID: 047F4701

% Moisture: 6 decanted: (Y/N) N Date Received: 05/05/05

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 05/09/05

Concentrated Extract Volume: 1.00(mL) Date Analyzed: 05/11/05

Injection Volume: 1.0(uL) Dilution Factor: 10.0

GPC Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
12674-11-2	Aroclor-1016	28.5	J
11104-28-2	Aroclor-1221	35.4	U
11141-16-5	Aroclor-1232	35.4	U
53469-21-9	Aroclor-1242	35.4	U
12672-29-6	Aroclor-1248	35.4	U
11097-69-1	Aroclor-1254	19.6	J
11096-82-5	Aroclor-1260	26.6	J

FORM I PEST OLM03.0

General Engineering Laboratories, LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/051105.b/047f4701.d
Lab Smp Id: 1200841152 Client Smp ID: RE03-05-58926MSD
Inj Date : 11-MAY-2005 23:28
Operator : JMW1 Inst ID: ecd8a.i
Smp Info : |1200841152|10|
Misc Info : |ECD82P_1SF|423332|SVAF|MSD|
Comment :
Method : /chem/ecd8a.i/051105.b/ECD8-F-8082-050905.m
Meth Date : 12-May-2005 11:06 jar00935 Quant Type: ESTD
Cal Date : 06-APR-2005 12:43 Cal File: 013f1301.d
Als bottle: 47 QC Sample: MSD
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: 3202S.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	10.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	5.87600	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.868	1.864	0.004	2758431	13.4758	4.8	80.00- 120.00	100.00(M)
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.761	5.758	0.003	1753549	7.58829	2.7	80.00- 120.00	100.00(R)
1 Aroclor-1016					CAS #: 12674-11-2		
2.834	2.831	0.003	465091	75.6963	26.8	80.00- 120.00	100.00(aM)
2.879	2.876	0.003	271596	71.5917	25.4	41.76- 81.76	58.40
2.966	2.966	0.000	0			32.50- 72.50	0.00
2.986	2.982	0.004	303315	83.6729	29.6	38.07- 78.07	65.22

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
1 Aroclor-1016 (continued)							
3.186	3.184	0.002	282867	91.2344	32.3	31.05- 71.05	60.82
Average of Peak Concentrations =					28.5		
6 Aroclor-1254					CAS #: 11097-69-1		
3.575	3.575	0.000	0			80.00- 120.00	0.00(aM)
3.765	3.768	-0.003	431353	61.3926	21.7	53.25- 93.25	69.81
3.852	3.853	-0.001	713274	58.3862	20.7	103.24- 143.24	115.44
3.978	3.978	0.000	0			32.53- 72.53	0.00
4.043	4.045	-0.002	394432	46.3470	16.4	69.99- 109.99	63.84
Average of Peak Concentrations =					19.6		
7 Aroclor-1260					CAS #: 11096-82-5		
3.977	3.978	-0.001	844774	84.0314	29.8	80.00- 120.00	100.00(a)
4.171	4.169	0.002	1335366	84.4769	29.9	137.41- 177.41	158.07
4.441	4.440	0.001	461699	57.5591	20.4	59.28- 99.28	54.65
4.608	4.609	-0.001	789668	87.7652	31.1	68.28- 108.28	93.48
5.014	5.014	0.000	679040	61.5443	21.8	88.36- 128.36	80.38
Average of Peak Concentrations =					26.6		

QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Data File: /chem/ecd8a.i/051105.b/047f4701.d
Date : 11-MAY-2005 23:28
Client ID: RE03-05-58926MSD
Sample Info: |1200841152|10|
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecd8a.i
Operator: JMW1
Column diameter: 0.25

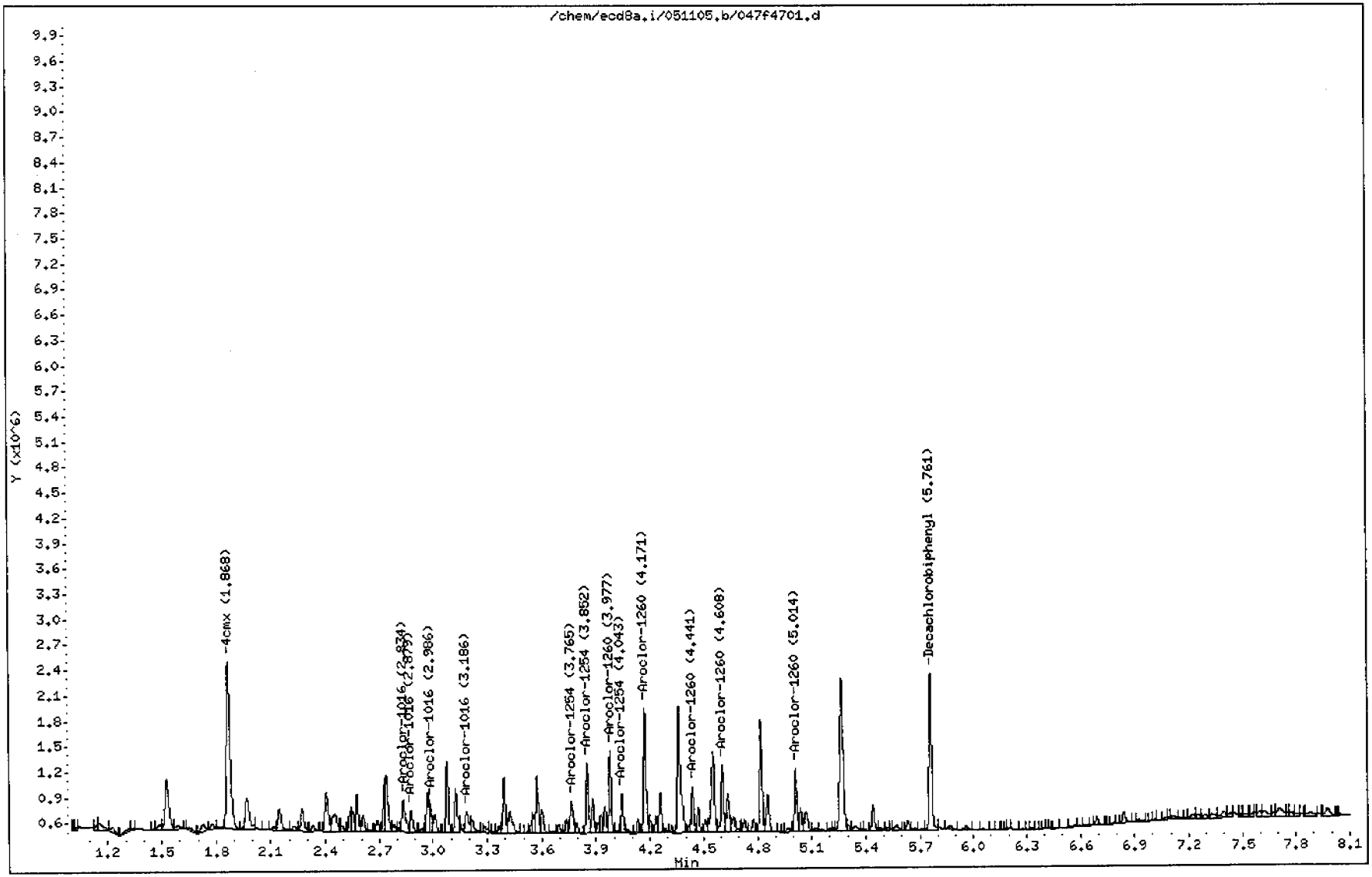

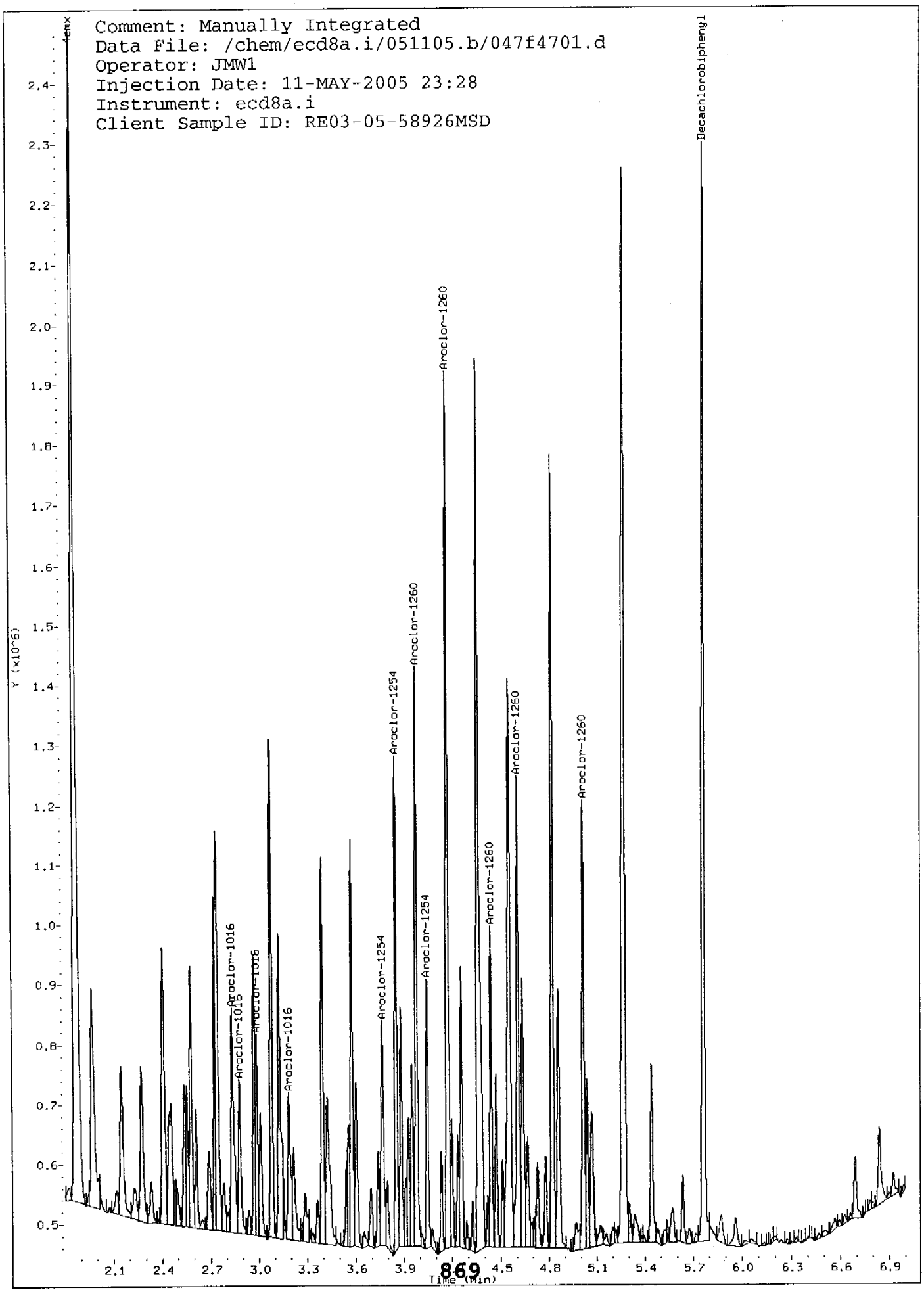
Comment: Manually Integrated
Data File: /chem/ecd8a.i/051105.b/047f4701.d
Operator: JMW1
Injection Date: 11-MAY-2005 23:28
Instrument: ecd8a.i
Client Sample ID: RE03-05-58926MSD
Decachlorobiphenyl
Aroclor-1260
Aroclor-1254
Aroclor-1016
Y (x10^6)
Time (Min)

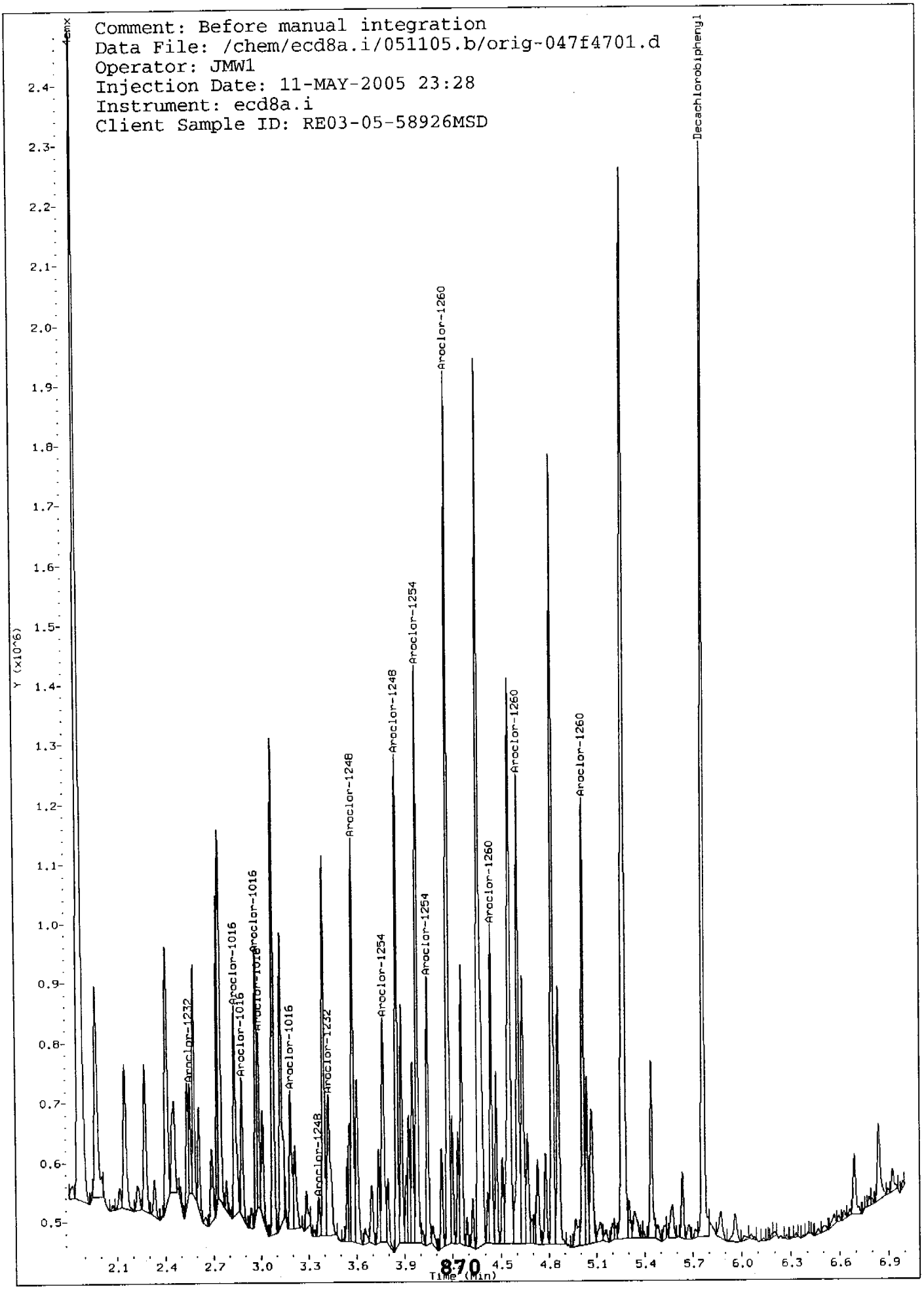
Comment: Before manual integration
Data File: /chem/ecd8a.i/051105.b/orig-047f4701.d
Operator: JMW1
Injection Date: 11-MAY-2005 23:28
Instrument: ecd8a.i
Client Sample ID: RE03-05-58926MSD
Y (x10^6)
Time (Min)
Decachlorobiphenyl
Aroclor-1260
Aroclor-1254
Aroclor-1248
Aroclor-1232
Aroclor-1016

General Engineering Laboratories, LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/051105.b/047b4701.d
Lab Smp Id: 1200841152 Client Smp ID: RE03-05-58926MSD
Inj Date : 11-MAY-2005 23:28
Operator : JMW1 Inst ID: ecd8a.i
Smp Info : |1200841152|10|
Misc Info : |ECD82P_1SF|423332|SVAF|MSD|
Comment :
Method : /chem/ecd8a.i/051105.b/ECD8-B-8082-050905.m
Meth Date : 12-May-2005 11:07 jar00935 Quant Type: ESTD
Cal Date : 06-APR-2005 12:43 Cal File: 013b1301.d
Als bottle: 47 QC Sample: MSD
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: 3202S.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	10.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	5.87600	% Moisture
Cpnd Variable		Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.197	2.193	0.004	8688395	11.9389	4.2	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.478	6.476	0.002	3697773	7.35430	2.6	80.00- 120.00	100.00(R)
1 Aroclor-1016					CAS #: 12674-11-2		
3.086	3.084	0.002	527841	63.9343	22.6	80.00- 120.00	100.00(a)
3.345	3.342	0.003	1087042	62.5429	22.1	191.23- 231.23	205.94
3.418	3.418	0.000	0			105.03- 145.03	0.00
3.493	3.491	0.002	1115966	105.539	37.4	106.71- 146.71	211.42

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
1 Aroclor-1016 (continued)							
3.687	3.684	0.003	1154245	81.0687	28.7	151.68- 191.68	218.67
Average of Peak Concentrations =					27.7		
6 Aroclor-1254					CAS #: 11097-69-1		
3.987	3.987	0.000	0			80.00- 120.00	0.00(a)
4.123	4.123	0.000	1688931	66.6132	23.6	84.83- 124.83	106.43
4.367	4.367	0.000	876365	48.9388	17.3	53.70- 93.70	55.22
4.448	4.448	0.000	0			118.96- 158.96	0.00
4.608	4.609	-0.001	864245	37.0564	13.1	76.93- 116.93	54.46
Average of Peak Concentrations =					18.0		
7 Aroclor-1260					CAS #: 11096-82-5		
4.584	4.584	0.000	2369308	84.8863	30.1	80.00- 120.00	100.00(a)
4.732	4.731	0.001	2626974	75.7485	26.8	105.13- 145.13	110.88
5.046	5.043	0.003	2207908	101.942	36.1	57.28- 97.28	93.19
5.248	5.248	0.000	1260537	54.0294	19.1	63.38- 103.38	53.20
5.424	5.422	0.002	3068567	56.6061	20.0	173.79- 213.79	129.51
Average of Peak Concentrations =					26.4		

QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
R - Spike/Surrogate failed recovery limits.

Data File: /chem/ecd8a.i/051105.b/047b4701.d
Date : 11-MAY-2005 23:28
Client ID: RE03-05-58926MSD
Sample Info: 1120084115211101
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd8a.i
Operator: JMM1
Column diameter: 0.25

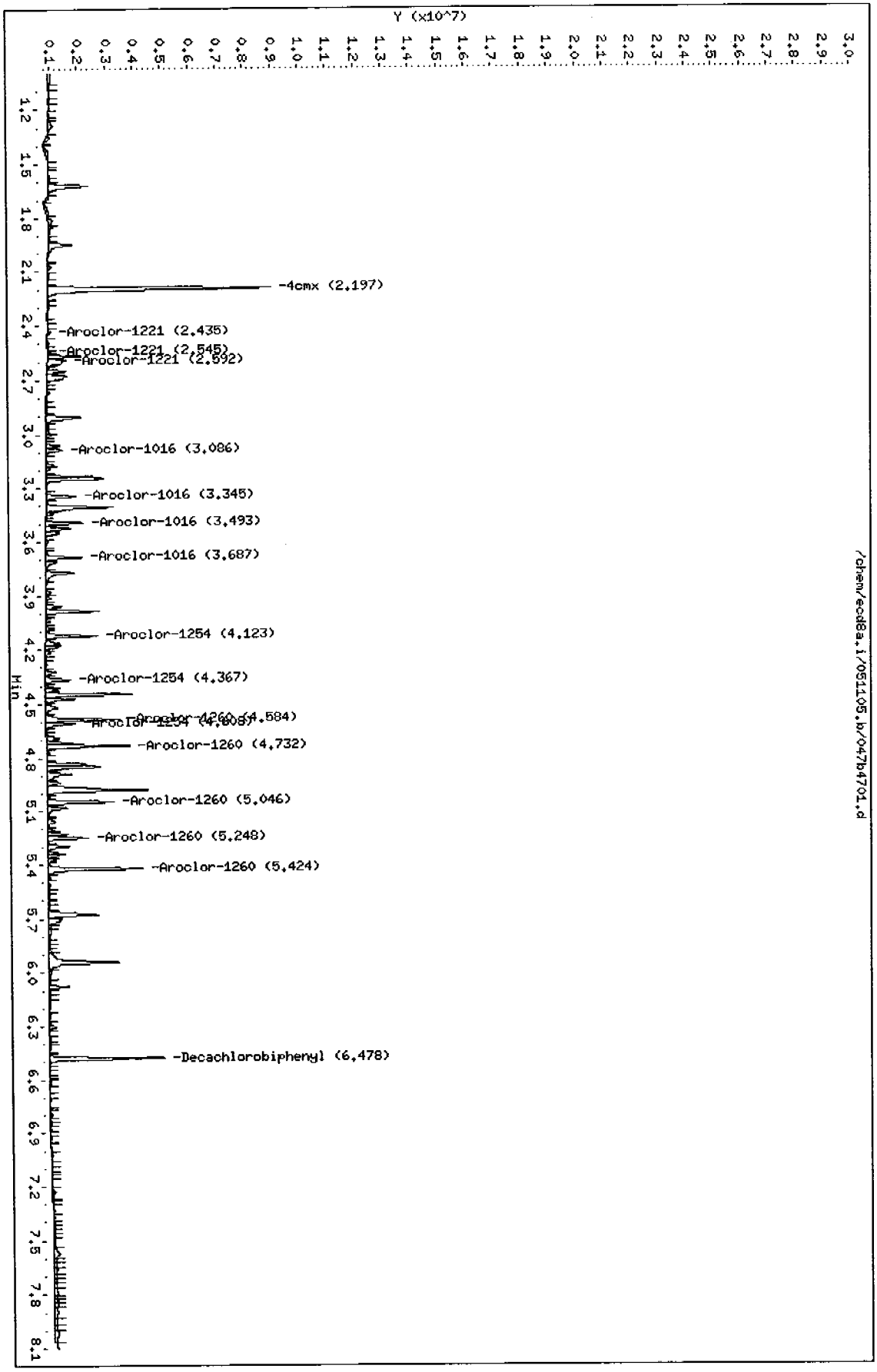

Page 1

MISCELLANEOUS DATA

GEL ORGANIC RUN LOG INSTRUMENT ID: ECD8

DATE: 05/04/2005 METHOD: ECD8-F-8082-050205.m OPERATOR:JMW1 REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT283721
ALUMINA LOT 291823-A
MERCURY LOT 050221-A.2

Calibration & QC Information
Initial Calibration Dates: See Calibration History and Standards Log
Initial Calibration Std ID's: See Calibration History and Standards Log
GEL SOP GL-OA-E-040
EPA Method: 8082 Polychlorinated Biphenyls PCBs by Gas Chromatography
Sequence Number: 050205 Injection Volume: 1.0 uL

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001f0101.d	WAR050413-10	JMW1	02-MAY-2005 12:02	BLK	050205	1.0	IBLK	CLEAN
002f0201.d	WAR050502-08 601	JMW1	02-MAY-2005 12:15	1660	050205	1.0	CAL1	CAL1
003f0301.d	WAR050502-07 602	JMW1	02-MAY-2005 12:27	1660	050205	1.0	CAL2	CAL2
004f0401.d	WAR050502-06 603	JMW1	02-MAY-2005 12:39	1660	050205	1.0	CAL3	CAL3
005f0501.d	WAR050502-05 604	JMW1	02-MAY-2005 12:52	1660	050205	1.0	CAL4	CAL4
006f0601.d	IAR050321-01 605	JMW1	02-MAY-2005 13:04	1660	050205	1.0	CAL5	CAL5
007f0701.d	WAR050425-01 601	JMW1	02-MAY-2005 13:16	1660	050205	1.0	ICV	PASSED BOTH COLUMNS
008f0801.d	WAR050415-05 541	JMW1	02-MAY-2005 13:28	1254	050205	1.0	CVS	PASSED BOTH COLUMNS
009f0901.d	WAR050323-01 421	JMW1	02-MAY-2005 13:41	1242	050205	1.0	CVS	PASSED BOTH COLUMNS
010f1001.d	WAR050225-01 481	JMW1	02-MAY-2005 13:53	1248	050205	1.0	CVS	PATTERN ONLY
011f1101.d	WAR050412-02 621	JMW1	02-MAY-2005 14:05	1262	050205	1.0	CVS	PATTERN ONLY
012f1201.d	WAR050401-05 321	JMW1	02-MAY-2005 14:18	1232	050205	1.0	CVS	PATTERN ONLY
013f1301.d	WAR050328-05 211	JMW1	02-MAY-2005 14:30	1221	050205	1.0	CVS	PATTERN ONLY
014f1401.d	WAR050322-10 681	JMW1	02-MAY-2005 14:42	1268	050205	1.0	CVS	PATTERN ONLY
015f1501.d	WAR050413-10	JMW1	02-MAY-2005 15:24	BLK	050205	1.0	IBLK	CLEAN

Instrument Batch: /chem/ecd8a.i/050205.b Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
016f1601.d	1200830182	JMW1	02-MAY-2005 15:36	418888	134787	1.0	MB	UPLOAD BOTH USE FRONT
017f1701.d	1200830183	JMW1	02-MAY-2005 15:48	418888	134787	1.0	LCS	UPLOAD BOTH USE FRONT

018f1801.d	134787001	JMW1	02-MAY-2005 16:01	418888	134787	1.0	GEEL	RERUN FOR DILUTION
019f1901.d	1200830185	JMW1	02-MAY-2005 16:13	418888	134787	1.0	MS	RERUN FOR DILUTION
020f2001.d	1200830186	JMW1	02-MAY-2005 16:25	418888	134787	1.0	MSD	RERUN FOR DILUTION
021f2101.d	134787002	JMW1	02-MAY-2005 16:37	418888	134787	1.0	GEEL	RERUN FOR DILUTION
022f2201.d	134787003	JMW1	02-MAY-2005 16:50	418888	134787	1.0	GEEL	RERUN FOR DILUTION
023f2301.d	134787004	JMW1	02-MAY-2005 17:02	418888	134787	10.0	GEEL	RERUN FOR DILUTION
024f2401.d	134787005	JMW1	02-MAY-2005 17:14	418888	134787	1.0	GEEL	RERUN FOR DILUTION
025f2501.d	134787006	JMW1	02-MAY-2005 17:26	418888	134787	1.0	GEEL	RERUN FOR DILUTION
026f2601.d	WAR050425-01 602	JMW1	02-MAY-2005 17:39	1660	050205	1.0	ICV	PASSED ONE COLUMN
027f2701.d	WAR050413-10	JMW1	02-MAY-2005 17:51	BLK	050205	1.0	IBLK	CLEAN
028f2801.d	1200830187	JMW1	02-MAY-2005 18:03	418888	134787	1.0	MS	RERUN FOR DILUTION
029f2901.d	1200830189	JMW1	02-MAY-2005 18:15	418888	134787	1.0	MSD	RERUN FOR DILUTION
030f3001.d	134787007	JMW1	02-MAY-2005 18:28	418888	134787	1.0	GEEL	RERUN FOR DILUTION
031f3101.d	134787008	JMW1	02-MAY-2005 18:40	418888	134787	1.0	GEEL	RERUN FOR DILUTION
032f3201.d	134787009	JMW1	02-MAY-2005 18:52	418888	134787	1.0	GEEL	RERUN FOR DILUTION
033f3301.d	134787010	JMW1	02-MAY-2005 19:04	418888	134787	1.0	GEEL	RERUN FOR DILUTION
034f3401.d	134787011	JMW1	02-MAY-2005 19:17	418888	134787	1.0	GEEL	RERUN FOR DILUTION
035f3501.d	134787012	JMW1	02-MAY-2005 19:29	418888	134787	1.0	GEEL	UPLOAD BOTH USE FRONT

Instrument Batch: /chem/ecd8a.i/050205.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
036f3601.d	134787013	JMW1	02-MAY-2005 19:41	418888	134787	1.0	GEEL	RERUN FOR DILUTION
037f3701.d	134787014	JMW1	02-MAY-2005 19:53	418888	134787	1.0	GEEL	RERUN FOR DILUTION
038f3801.d	WAR050425-01603	JMW1	02-MAY-2005 20:06	1660	050205	1.0	ICV	PASSED ONE COLUMN
039f3901.d	WAR050413-10	JMW1	02-MAY-2005 20:18	BLK	050205	1.0	IBLK	CLEAN
040f4001.d	134787015	JMW1	02-MAY-2005 20:30	418888	134787	1.0	GEEL	RERUN FOR DILUTION
041f4101.d	134787017	JMW1	02-MAY-2005 20:42	418888	134787	1.0	GEEL	UPLOAD BOTH USE FRONT

042f4201.d	134787018	JMW1	02-MAY-2005 20:55	418888	134787	10.0	GEEL	UPLOAD BOTH USE FRONT
043f4301.d	134787019	JMW1	02-MAY-2005 21:07	418888	134787	10.0	GEEL	UPLOAD BOTH USE FRONT
044f4401.d	134787020	JMW1	02-MAY-2005 21:19	418888	134787	10.0	GEEL	UPLOAD BOTH USE FRONT
045f4501.d	134787021	JMW1	02-MAY-2005 21:31	418888	134787	10.0	GEEL	UPLOAD BOTH USE FRONT
046f4601.d	WAR050425-01 604	JMW1	02-MAY-2005 21:44	1660	050205	1.0	ICV	PASSED BOTH COLUMNS

GEL ORGANIC RUN LOG INSTRUMENT ID: ECD8

DATE: 05/04/2005 METHOD: ECD8-F-8082-050305.m OPERATOR:JMW1 REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT 283721
ALUMINA LOT 291823-A
MERCURY LOT 050221-A.2

Calibration & QC Information
Initial Calibration Dates: See Calibration History and Standards Log
Initial Calibration Std ID's: See Calibration History and Standards Log
GEL SOP GL-OA-E-040
EPA Method: 8082 Polychlorinated Biphenyls PCBs by Gas Chromatography
Sequence Number: 050305 Injection Volume: 1.0 uL

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001f0101.d	WAR050413-10	JMW1	03-MAY-2005 11:18	BLK	050305	1.0	IBLK	CLEAN
002f0201.d	WAR050425-01 601	JMW1	03-MAY-2005 11:31	1660	050305	1.0	ICV	PASSED BOTH COLUMNS
003f0301.d	WAR050503-04 541	JMW1	03-MAY-2005 11:43	1254	050305	1.0	CAL1	CAL1
004f0401.d	WAR050503-03 542	JMW1	03-MAY-2005 11:55	1254	050305	1.0	CAL2	CAL2
005f0501.d	WAR050503-02 543	JMW1	03-MAY-2005 12:08	1254	050305	1.0	CAL3	CAL3
006f0601.d	WAR050503-01 544	JMW1	03-MAY-2005 12:20	1254	050305	1.0	CAL4	CAL4
007f0701.d	IAR050328-01 545	JMW1	03-MAY-2005 12:32	1254	050305	1.0	CAL5	CAL5
008f0801.d	WAR050415-05 541	JMW1	03-MAY-2005 12:44	1254	050305	1.0	CVS	PASSED BOTH COLUMNS
009f0901.d	WAR050323-01 421	JMW1	03-MAY-2005 12:57	1242	050305	1.0	CVS	PASSED BOTH COLUMNS
010f1001.d	WAR050225-01 481	JMW1	03-MAY-2005 13:09	1248	050305	1.0	CVS	PATTERN ONLY
011f1101.d	WAR050412-02 621	JMW1	03-MAY-2005 13:21	1262	050305	1.0	CVS	PATTERN ONLY
012f1201.d	WAR050401-05 321	JMW1	03-MAY-2005 13:34	1232	050305	1.0	CVS	PATTERN ONLY
013f1301.d	WAR050328-05 211	JMW1	03-MAY-2005 13:46	1221	050305	1.0	CVS	PASSED BOTH COLUMNS
014f1401.d	WAR050322-10 681	JMW1	03-MAY-2005 13:58	1268	050305	1.0	CVS	PATTERN ONLY
015f1501.d	WAR050413-10	JMW1	03-MAY-2005 14:33	BLK	050305	1.0	IBLK	CLEAN

Instrument Batch: /chem/ecd8a.i/050305.b Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
016f1601.d	1200830303	JMW1	03-MAY-2005 14:46	418931	EUI-3221	1.0	DUP	UPLOAD BOTH USE FRONT
017f1701.d	1200830305	JMW1	03-MAY-2005 14:58	418931	EUI-3221	1.0	DUP	UPLOAD BOTH USE FRONT

018f1801.d	WAR050425-01 602	JMW1	03-MAY-2005 15:30	1660	050305		1.0	ICV	PASSED BOTH COLUMNS
019f1901.d	WAR050413-10	JMW1	03-MAY-2005 15:42	BLK	050305		1.0	IBLK	CLEAN
020f2001.d	134787001	JMW1	03-MAY-2005 15:54	418888	134787		5.0	GEEL	UPLOAD BOTH USE FRONT
021f2101.d	1200830185	JMW1	03-MAY-2005 16:06	418888	134787		5.0	MS	UPLOAD BOTH USE FRONT
022f2201.d	1200830186	JMW1	03-MAY-2005 16:19	418888	134787		5.0	MSD	UPLOAD BOTH USE FRONT
023f2301.d	134787002	JMW1	03-MAY-2005 16:31	418888	134787		1.0	GEEL	UPLOAD BOTH USE FRONT
024f2401.d	134787003	JMW1	03-MAY-2005 16:43	418888	134787		50.0	GEEL	UPLOAD BOTH USE FRONT
025f2501.d	134787004	JMW1	03-MAY-2005 16:55	418888	134787		50.0	GEEL	UPLOAD BOTH USE FRONT
026f2601.d	134787005	JMW1	03-MAY-2005 17:08	418888	134787		1.0	GEEL	UPLOAD BOTH USE FRONT
027f2701.d	134787006	JMW1	03-MAY-2005 17:20	418888	134787		10.0	GEEL	UPLOAD BOTH USE FRONT
028f2801.d	1200830187	JMW1	03-MAY-2005 17:32	418888	134787		10.0	MS	UPLOAD BOTH USE FRONT
029f2901.d	1200830189	JMW1	03-MAY-2005 17:45	418888	134787		10.0	MSD	UPLOAD BOTH USE FRONT
030f3001.d	WAR050425-01 603	JMW1	03-MAY-2005 17:57	1660	050305		1.0	ICV	PASSED BOTH COLUMNS
031f3101.d	WAR050413-10	JMW1	03-MAY-2005 18:09	BLK	050305		1.0	IBLK	CLEAN
032f3201.d	134787007	JMW1	03-MAY-2005 18:21	418888	134787		1.0	GEEL	UPLOAD BOTH USE FRONT
033f3301.d	134787008	JMW1	03-MAY-2005 18:33	418888	134787		5.0	GEEL	UPLOAD BOTH USE FRONT
034f3401.d	134787009	JMW1	03-MAY-2005 18:46	418888	134787		10.0	GEEL	DUSE RERUN FOR DILUTION
035f3501.d	134787014	JMW1	03-MAY-2005 18:58	418888	134787		50.0	GEEL	DUSE RERUN

Instrument Batch: /chem/ecd8a.i/050305.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
036f3601.d	134787010	JMW1	03-MAY-2005 19:10	418888	134787	1.0	GEEL	UPLOAD BOTH USE FRONT
037f3701.d	134787011	JMW1	03-MAY-2005 19:22	418888	134787	1.0	GEEL	UPLOAD BOTH USE FRONT
038f3801.d	134787013	JMW1	03-MAY-2005 19:35	418888	134787	1.0	GEEL	UPLOAD BOTH USE FRONT
039f3901.d	134787015	JMW1	03-MAY-2005 19:47	418888	134787	1.0	GEEL	UPLOAD BOTH USE FRONT
040f4001.d	WAR050425-01 604	JMW1	03-MAY-2005 19:59	1660	050305	1.0	ICV	PASSED BOTH COLUMNS

GEL ORGANIC RUN LOG INSTRUMENT ID: ECD8

DATE: 05/12/2005 METHOD: ECD8-F-8082-050905.m OPERATOR:JMW1 REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT 297325
ALUMINA LOT 302784-A
MERCURY LOT 291581-A.2

Calibration & QC Information
Initial Calibration Dates: See Calibration History and Standards Log
Initial Calibration Std ID's: See Calibration History and Standards Log
GEL SOP GL-OA-E-040
EPA Method: 8082 Polychlorinated Biphenyls PCBs by Gas Chromatography
Sequence Number: 051105 Injection Volume: 1.0 uL

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001f0101.d	WAR050413-10	JMW1	11-MAY-2005 14:04	BLK	051105	1.0	IBLK	CLEAN
002f0201.d	WAR050425-01601	JMW1	11-MAY-2005 14:16	1660	051105	1.0	ICV	PASSED BOTH COLUMNS
003f0301.d	WAR050415-05 541	JMW1	11-MAY-2005 14:28	1254	051105	1.0	CVS	PASSED BOTH COLUMNS
004f0401.d	WAR050323-01 421	JMW1	11-MAY-2005 14:41	1242	051105	1.0	CVS	PASSED BOTH COLUMNS
005f0501.d	WAR050504-01 481	JMW1	11-MAY-2005 14:53	1248	051105	1.0	CVS	PATTERN ONLY
006f0601.d	WAR050412-02 621	JMW1	11-MAY-2005 15:05	1262	051105	1.0	CVS	PATTERN ONLY
007f0701.d	WAR050401-05 321	JMW1	11-MAY-2005 15:17	1232	051105	1.0	CVS	PATTERN ONLY
008f0801.d	WAR050328-05 211	JMW1	11-MAY-2005 15:30	1221	051105	1.0	CVS	PASSED BOTH COLUMNS
009f0901.d	WAR050322-10 681	JMW1	11-MAY-2005 15:42	1268	051105	1.0	CVS	PATTERN ONLY
010f1001.d	WAR050413-10	JMW1	11-MAY-2005 15:54	BLK	051105	1.0	IBLK	CLEAN
011f1101.d	135916001	JMW1	11-MAY-2005 16:07	423403	NMI-094	100.0	DMAX	UPLOAD BOTH USE FRONT
012f1201.d	135916002	JMW1	11-MAY-2005 16:19	423403	NMI-094	50.0	DMAX	UPLOAD BOTH USE FRONT
013f1301.d	135916003	JMW1	11-MAY-2005 16:31	423403	NMI-094	50.0	DMAX	UPLOAD BOTH USE FRONT
014f1401.d	1200841338	JMW1	11-MAY-2005 16:43	423403	NMI-094	50.0	MS	UPLOAD BOTH USE FRONT
015f1501.d	1200841339	JMW1	11-MAY-2005 16:56	423403	NMI-094	50.0	MSD	UPLOAD BOTH USE FRONT

Instrument Batch: /chem/ecd8a.i/051105.b Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
016f1601.d	135916004	JMW1	11-MAY-2005 17:08	423403	NMI-094	1.0	DMAX	UPLOAD BOTH USE FRONT
017f1701.d	135916005	JMW1	11-MAY-2005 17:20	423403	NMI-094	50.0	DMAX	UPLOAD BOTH USE FRONT

018f1801.d	135916006	JMW1	11-MAY-2005 17:32	423403	NMI-094		1.0	DMAX	UPLOAD BOTH USE FRONT
019f1901.d	WAR050425-01 602	JMW1	11-MAY-2005 17:45	1660	051105		1.0	ICV	FAILED LOW, CONFIRMS WITH 051005 DATA
020f2001.d	WAR050413-10	JMW1	11-MAY-2005 17:57	BLK	051105		1.0	IBLK	CLEAN
021f2101.d	135735027	JMW1	11-MAY-2005 18:09	422950	135735		100.0	LAID	DUSE CHECK FAILURE
022f2201.d	WAR050413-10	JMW1	11-MAY-2005 18:21	BLK	051105		1.0	IBLK	CLEAN
023f2301.d	WAR050425-01 603	JMW1	11-MAY-2005 18:34	1660	051105		1.0	ICV	PASSED BOTH COLUMNS
024f2401.d	WAR050415-05 542	JMW1	11-MAY-2005 18:46	1254	051105		1.0	CVS	PASSED BOTH COLUMNS
025f2501.d	WAR050413-10	JMW1	11-MAY-2005 18:58	BLK	051105		1.0	IBLK	CLEAN
026f2601.d	1200842573	JMW1	11-MAY-2005 19:10	423884	1000033063C		1.0	MB	UPLOAD BOTH USE FRONT
027f2701.d	1200842574	JMW1	11-MAY-2005 19:23	423884	1000033063C		1.0	LCS	UPLOAD BOTH USE FRONT
028f2801.d	136055001	JMW1	11-MAY-2005 19:35	423884	1000033063C		1.0	FERO	UPLOAD BOTH USE FRONT
029f2901.d	136055002	JMW1	11-MAY-2005 19:47	423884	1000033063C		1.0	FERO	UPLOAD BOTH USE FRONT
030f3001.d	136055003	JMW1	11-MAY-2005 19:59	423884	1000033063C		1.0	FERO	UPLOAD BOTH USE FRONT
031f3101.d	1200842575	JMW1	11-MAY-2005 20:12	423884	1000033063C		1.0	MS	UPLOAD BOTH USE FRONT
032f3201.d	1200842576	JMW1	11-MAY-2005 20:24	423884	1000033063C		1.0	MSD	UPLOAD BOTH USE FRONT
033f3301.d	WAR050425-01 604	JMW1	11-MAY-2005 20:36	1660	051105		1.0	ICV	PASSED BOTH COLUMNS
034f3401.d	WAR050415-05 543	JMW1	11-MAY-2005 20:48	1254	051105		1.0	CVS	PASSED BOTH COLUMNS
035f3501.d	WAR050413-10	JMW1	11-MAY-2005 21:01	BLK	051105		1.0	IBLK	CLEAN

Instrument Batch: /chem/ecd8a.i/051105.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
036f3601.d	1200842513	JMW1	11-MAY-2005 21:13	423858	136042	1.0	MB	UPLOAD BOTH USE FRONT
037f3701.d	1200842514	JMW1	11-MAY-2005 21:25	423858	136042	1.0	LCS	UPLOAD BOTH USE FRONT
038f3801.d	135846001	JMW1	11-MAY-2005 21:37	423858	135846	200.0	PERM	UPLOAD BOTH USE FRONT
039f3901.d	135846001	JMW1	11-MAY-2005 21:50	423858	135846	10.0	PERM	DUSE
040f4001.d	WAR050413-10	JMW1	11-MAY-2005 22:02	BLK	051105	1.0	IBLK	CLEAN
041f4101.d	WAR050425-01 605	JMW1	11-MAY-2005 22:14	1660	051105	1.0	ICV	PASSED BOTH COLUMNS

042f4201.d	WAR050413-10	JMW1	11-MAY-2005 22:26	BLK	051105	1.0	IBLK	CLEAN
043f4301.d	1200841140	JMW1	11-MAY-2005 22:39	423332	3202S	1.0	MB	UPLOAD BOTH USE HIGHER
044f4401.d	1200841141	JMW1	11-MAY-2005 22:51	423332	3202S	1.0	LCS	UPLOAD BOTH USE HIGHER
045f4501.d	135831001	JMW1	11-MAY-2005 23:03	423332	3202S	10.0	LANL	UPLOAD BOTH USE HIGHER
046f4601.d	1200841151	JMW1	11-MAY-2005 23:15	423332	3202S	10.0	MS	UPLOAD BOTH USE HIGHER
047f4701.d	1200841152	JMW1	11-MAY-2005 23:28	423332	3202S	10.0	MSD	UPLOAD BOTH USE HIGHER
048f4801.d	135831002	JMW1	11-MAY-2005 23:40	423332	3202S	10.0	LANL	UPLOAD BOTH USE HIGHER
049f4901.d	135831002	JMW1	11-MAY-2005 23:52	423552	3202S	10.0	LANL	DUSE INJECTED VIAL 49 TWICE
050f5001.d	135831004	JMW1	12-MAY-2005 00:04	423332	3202S	1.0	LANL	DUSE DILUTION NEEDED
051f5101.d	WAR050425-01 606	JMW1	12-MAY-2005 00:17	1660	051105	1.0	ICV	FAILED LOW CONFIRMS WITH 051205 DATA
052f5201.d	WAR050413-10	JMW1	12-MAY-2005 00:29	BLK	051105	1.0	IBLK	CLEAN
053f5301.d	WAR050413-10	JMW1	12-MAY-2005 00:41	BLK	051105	1.0	IBLK	CLEAN
054f5401.d	WAR050425-01 607	JMW1	12-MAY-2005 00:53	1660	051105	1.0	ICV	PASSED BOTH COLUMNS
055f5501.d	WAR050413-10	JMW1	12-MAY-2005 01:06	BLK	051105	1.0	IBLK	CLEAN

Instrument Batch: /chem/ecd8a.i/051105.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
056f5601.d	135841030	JMW1	12-MAY-2005 01:18	423332	135841	10.0	GEEL	UPLOAD BOTH USE FRONT
057f5701.d	1200841143	JMW1	12-MAY-2005 01:30	423332	135841	10.0	MS	UPLOAD BOTH USE FRONT
058f5801.d	1200841144	JMW1	12-MAY-2005 01:42	423332	135841	10.0	MSD	UPLOAD BOTH USE FRONT
059f5901.d	135841031	JMW1	12-MAY-2005 01:54	423332	135841	1.0	GEEL	UPLOAD BOTH USE FRONT
060f6001.d	1200841142	JMW1	12-MAY-2005 02:07	423332	135841	1.0	DUP	UPLOAD BOTH USE FRONT
061f6101.d	WAR050425-01 608	JMW1	12-MAY-2005 02:19	1660	051105	1.0	ICV	PASSED BOTH COLUMNS
062f6201.d	WAR050413-10	JMW1	12-MAY-2005 02:31	BLK	051105	1.0	IBLK	CLEAN
063f6301.d	WAR050413-10	JMW1	12-MAY-2005 02:43	BLK	051105	1.0	IBLK	CLEAN
064f6401.d	WAR050425-01 609	JMW1	12-MAY-2005 02:56	1660	051105	1.0	ICV	PASSED BOTH COLUMNS
065f6501.d	WAR050413-10	JMW1	12-MAY-2005 03:08	BLK	051105	1.0	IBLK	CLEAN
066f6601.d	135867001	JMW1	12-MAY-2005 03:20	423332	135867	10.0	SCEG	DUSE DO SULFUR CLEANUP

067f6701.d	WAR050425-01 610	JMW1	12-MAY-2005 03:33	1660	051105	1.0	ICV	PASSED BOTH COLUMNS
068f6801.d	WAR050413-10	JMW1	12-MAY-2005 03:45	BLK	051105	1.0	IBLK	CLEAN
069f6901.d	WAR050413-10	JMW1	12-MAY-2005 03:57	BLK	051105	1.0	IBLK	CLEAN
070f7001.d	WAR050425-01 611	JMW1	12-MAY-2005 04:09	1660	051105	1.0	ICV	
071f7101.d	WAR050413-10	JMW1	12-MAY-2005 04:22	BLK	051105	1.0	IBLK	
072f7201.d	136042001	JMW1	12-MAY-2005 04:34	423858	136042	1.0	CAST	
073f7301.d	136042002	JMW1	12-MAY-2005 04:46	423858	136042	1.0	CAST	
074f7401.d	136042003	JMW1	12-MAY-2005 04:58	423858	136042	1.0	CAST	
075f7501.d	136051001	JMW1	12-MAY-2005 05:11	423858	136051	1.0	CAST	

Instrument Batch: /chem/ecd8a.i/051105.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
076f7601.d	136051002	JMW1	12-MAY-2005 05:23	423858	136051	10.0	CAST	
077f7701.d	136051003	JMW1	12-MAY-2005 05:35	423858	136051	1.0	CAST	
078f7801.d	136051004	JMW1	12-MAY-2005 05:47	423858	136051	1.0	CAST	
079f7901.d	WAR050425-01 612	JMW1	12-MAY-2005 06:00	1660	051105	1.0	ICV	
080f8001.d	WAR050413-10	JMW1	12-MAY-2005 06:12	BLK	051105	1.0	IBLK	
081f8101.d	136051005	JMW1	12-MAY-2005 06:24	423858	136051	10.0	CAST	
082f8201.d	136051006	JMW1	12-MAY-2005 06:37	423858	136051	1.0	CAST	
083f8301.d	136051007	JMW1	12-MAY-2005 06:49	423858	136051	10.0	CAST	
084f8401.d	136051008	JMW1	12-MAY-2005 07:01	423858	136051	1.0	CAST	
085f8501.d	136051009	JMW1	12-MAY-2005 07:13	423858	136051	1.0	CAST	
086f8601.d	1200842517	JMW1	12-MAY-2005 07:26	423858	136051	1.0	MS	
087f8701.d	1200842518	JMW1	12-MAY-2005 07:38	423858	136051	1.0	MSD	
088f8801.d	WAR050425-01 613	JMW1	12-MAY-2005 07:50	1660	051105	1.0	ICV	PASSED BOTH COLUMNS
089f8901.d	WAR050413-10	JMW1	12-MAY-2005 09:48	BLK	051105	1.0	IBLK	CLEAN
090f9001.d	135735027	JMW1	12-MAY-2005 10:00	422950	135735	100.0	LAID	UPLOAD BOTH USE FRONT

091f9101.d	WAR050413-10	JMW1	12-MAY-2005 10:12	BLK	051105	1.0	IBLK	CLEAN
092f9201.d	WAR050425-01 614	JMW1	12-MAY-2005 10:25	1660	051105	1.0	ICV	PASSED BOTH COLUMNS

Instrument Batch: /chem/ecd8a.i/051105.b

GEL ORGANIC RUN LOG INSTRUMENT ID: ECD8

DATE: 05/13/2005 METHOD: ECD8-F-8082-050905.m OPERATOR:JMW1 REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT 297325
ALUMINA LOT 302784-A
MERCURY LOT 291581-A.2

Calibration & QC Information
Initial Calibration Dates: See Calibration History and Standards Log
Initial Calibration Std ID's: See Calibration History and Standards Log
GEL SOP GL-OA-E-040
EPA Method: 8082 Polychlorinated Biphenyls PCBs by Gas Chromatography
Sequence Number: 051205 Injection Volume: 1.0 uL

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001f0101.d	WAR050413-10	JMW1	12-MAY-2005 11:42	BLK	051205	1.0	IBLK	CLEAN
002f0201.d	WAR050511-13 601	JMW1	12-MAY-2005 11:54	1660	051205	1.0	ICV	PASSED BOTH COLUMNS
003f0301.d	WAR050415-05 541	JMW1	12-MAY-2005 12:06	1254	051205	1.0	CVS	PASSED BOTH COLUMNS
004f0401.d	WAR050323-01 421	JMW1	12-MAY-2005 12:18	1242	051205	1.0	CVS	PASSED BOTH COLUMNS
005f0501.d	WAR050504-01 481	JMW1	12-MAY-2005 12:30	1248	051205	1.0	CVS	PATTERN ONLY
006f0601.d	WAR050412-02 621	JMW1	12-MAY-2005 12:43	1262	051205	1.0	CVS	PATTERN ONLY
007f0701.d	WAR050401-05 321	JMW1	12-MAY-2005 12:55	1232	051205	1.0	CVS	PATTERN ONLY
008f0801.d	WAR050328-05 211	JMW1	12-MAY-2005 13:07	1221	051205	1.0	CVS	PATTERN ONLY
009f0901.d	WAR050509-01 681	JMW1	12-MAY-2005 13:19	1268	051205	1.0	CVS	PATTERN ONLY
010f1001.d	WAR050413-10	JMW1	12-MAY-2005 14:40	BLK	051205	1.0	IBLK	CLEAN
011f1101.d	1200844492	JMW1	12-MAY-2005 14:52	424639	135867	1.0	QC A	DUSE LCS AND SURR FAILURE
012f1201.d	1200844493	JMW1	12-MAY-2005 15:04	424639	135867	1.0	QC A	DUSE LCS AND SURR FAILURE
013f1301.d	1200844494	JMW1	12-MAY-2005 15:16	424639	135867	1.0	QC A	DUSE LCS AND SURR FAILURE
014f1401.d	135867002	JMW1	12-MAY-2005 15:29	424639	135867	1.0	SCEG	DUSE LCS AND SURR FAILURE
015f1501.d	WAR050511-13 602	JMW1	12-MAY-2005 15:54	1660	051205	1.0	ICV	PASSED BOTH COLUMNS

Instrument Batch: /chem/ecd8a.i/051205.b Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
016f1601.d	WAR050413-10	JMW1	12-MAY-2005 16:41	BLK	051205	1.0	IBLK	CLEAN
017f1701.d	135831004	JMW1	12-MAY-2005 16:59	423332	3202S	10.0	LANL	UPLOAD BOTH USE HIGHER

018f1801.d	WAR050511-13 603	JMW1	12-MAY-2005 17:11	1660	051205		1.0	ICV	FAILED LOW, CONFIRMS
019f1901.d	WAR050413-10	JMW1	12-MAY-2005 17:24	BLK	051205		1.0	IBLK	CLEAN
020f2001.d	WAR050413-10	JMW1	12-MAY-2005 17:36	BLK	051205		1.0	IBLK	CLEAN
021f2101.d	WAR050511-13 604	JMW1	12-MAY-2005 17:48	1660	051205		1.0	ICV	PASSED BOTH COLUMNS
022f2201.d	WAR050413-10	JMW1	12-MAY-2005 18:00	BLK	051205		1.0	IBLK	CLEAN
023f2301.d	135867001	JMW1	12-MAY-2005 18:13	423332	135867		10.0	SCEG	UPLOAD BOTH USE FRONT
024f2401.d	WAR050511-13 605	JMW1	12-MAY-2005 18:25	1660	051205		1.0	ICV	PASSED BOTH COLUMNS
025f2501.d	WAR050413-10	JMW1	12-MAY-2005 18:37	BLK	051205		1.0	IBLK	CLEAN
026f2601.d	135831003	JMW1	12-MAY-2005 18:49	423332	3202S		10.0	LANL	UPLOAD BOTH USE HIGHER
027f2701.d	WAR050511-13 606	JMW1	12-MAY-2005 19:02	1660	051205		1.0	ICV	PASSED BOTH COLUMNS

Instrument Batch: /chem/ecd8a.i/051205.b

Prep Logbook

Extraction of Semivolatile and Nonvolatile Organic Compounds from Soil, Sludge and Other Miscellaneous Samples

Batch ID: 423330 **Verified by:** _____

Analyst: Nathan Greene **Lab SOP:** GL-OA-E-010 REV# 12

Method: SW846 3550B **Instrument:** Semi-Volatiles Manual

Sample ID	Run Date	Aliquot (g)	Clean Up	Prior to Clean up (mL)	Amount Cleaned (mL)	After Clean up (mL)	Prepped Aliquot (mL)	Prepped Factor (mL/g)
1200841140 MB	09-MAY-2005 10:00:00	30	H2SO4/KMn1		1	6	1	0.03333
1200841141 LCS	09-MAY-2005 10:00:00	30	H2SO4/KMn1		1	6	1	0.03333
135831001	09-MAY-2005 10:00:00	30	H2SO4/KMn1		1	6	1	0.03333
1200841151 MS (135831001)	09-MAY-2005 10:00:00	30	H2SO4/KMn1		1	6	1	0.03333
1200841152 MSD (135831001)	09-MAY-2005 10:00:00	30	H2SO4/KMn1		1	6	1	0.03333
135831002	09-MAY-2005 10:00:00	30	H2SO4/KMn1		1	6	1	0.03333
135831003	09-MAY-2005 10:00:00	30	H2SO4/KMn1		1	6	1	0.03333
135831004	09-MAY-2005 10:00:00	30	H2SO4/KMn1		1	6	1	0.03333
135841030	09-MAY-2005 10:00:00	30	H2SO4/KMn1		1	6	1	0.03333
1200841143 MS (135841030)	09-MAY-2005 10:00:00	30	H2SO4/KMn1		1	6	1	0.03333
1200841144 MSD (135841030)	09-MAY-2005 10:00:00	30	H2SO4/KMn1		1	6	1	0.03333
135841031	09-MAY-2005 10:00:00	30	H2SO4/KMn1		1	6	1	0.03333
1200841142 DUP (135841031)	09-MAY-2005 10:00:00	30	H2SO4/KMn1		1	6	1	0.03333
135867001	09-MAY-2005 10:00:00	30	H2SO4/KMn1		1	6	1	0.03333

Type	Sample Id	Description	Serial Number	Spike Amt	Units
LCS	1200841141	PCB Laboratory Control	WE050330-02	1	mL
MS	1200841143	PCB Laboratory Control	WE050330-02	1	mL
MS	1200841151	PCB Laboratory Control	WE050330-02	1	mL
MSD	1200841144	PCB Laboratory Control	WE050330-02	1	mL
MSD	1200841152	PCB Laboratory Control	WE050330-02	1	mL
SURR	All	PEST LOW LEVEL SURROGATE 200 UG/L	UE050428-03	1	mL
REGNT	All	Acetone	050322-A	100	mL
REGNT	All	Hexane	050427	180	mL
REGNT	All	Sulfuric Acid Sol., 1:1	12-MAR-2005	5	mL
REGNT	All	5% Potassium permanganate solution	161827-C	5	mL
SOURC	All	SODIUM SULFATE	243217	30	g

Comments:

Final Solvent: Hexane
Clean up Initials: JKP
Verified By: JKP
Clean Up SOP: GL-OA-E-036 REV.1
Clean up Date: 09-MAY-2005

Wednesday, July 21, 1999

REQUEST NUMBER: 5824R

ANALYSIS TYPE: ORG

Los Alamos
NATIONAL LABORATORY

AMENDED

ATTN: Maren Beery
KEMRON
109 STARLITE PARK
MARIETTA, OH 45750

Please analyze the enclosed samples according to the schedule indicated:

These samples are on:

SHIP DATE: 7/21/99
REPORT DUE: 8/22/99
TURN AROUND REQ'D: 30 days

LANL Request Number: 5824R
Per Agreement Number: 7797L0014-9S
Project Cost Code: MR3R3M041045

RAD SCREENING: Yes, Received

COMMENTS: 03 - 1114 , GA; TPH BY DIESEL AND GAS. AMENDED: SEE ATTACHED MEMO FOR CORRECTED ID NUMBERS 7/21/99 JV.

LANL ER SMO CONTACT: Joylene Valdez MS H865 5056659968

Signature: Joylene Valdez

ANALYSIS ORDER CODE	ANALYTE(S)	SAMPLE ID	CONT ID	SAMPLE MATRIX	DATE SAMPLED	COMMENTS
PCB		RE03-99-2000	02	S	7/17/99	
TPH		RE03-99-2000	03	S	7/17/99	
VOCECORE		RE03-99-2000	04	S	7/17/99	
VOCECORE		RE03-99-2000	05	S	7/17/99	
VOCECORE		RE03-99-2000	06	S	7/17/99	
VOCECORE		RE03-99-2000	07	S	7/17/99	
PCB		RE03-99-2001	02	S	7/17/99	
TPH		RE03-99-2001	03	S	7/17/99	
VOCECORE		RE03-99-2001	04	S	7/17/99	
VOCECORE		RE03-99-2001	05	S	7/17/99	
VOCECORE		RE03-99-2001	06	S	7/17/99	
VOCECORE		RE03-99-2001	07	S	7/17/99	
PCB		RE03-99-2002	02	S	7/17/99	
TPH		RE03-99-2002	03	S	7/17/99	
VOCECORE		RE03-99-2002	04	S	7/17/99	
VOCECORE		RE03-99-2002	05	S	7/17/99	
VOCECORE		RE03-99-2002	06	S	7/17/99	
VOCECORE		RE03-99-2002	07	S	7/17/99	
PCB		RE03-99-2003	02	S	7/17/99	
TPH		RE03-99-2003	03	S	7/17/99	
VOCECORE		RE03-99-2003	04	S	7/17/99	
VOCECORE		RE03-99-2003	05	S	7/17/99	
VOCECORE		RE03-99-2003	06	S	7/17/99	
VOCECORE		RE03-99-2003	07	S	7/17/99	

ANALYSIS ORDER CODE	ANALYTE(S)	SAMPLE ID	CONT ID	SAMPLE MATRIX	DATE SAMPLED	COMMENTS
PCB		RE03-99-2004	02	S	7/17/99	
TPH		RE03-99-2004	03	S	7/17/99	
VOCECORE		RE03-99-2004	04	S	7/17/99	
VOCECORE		RE03-99-2004	05	S	7/17/99	
VOCECORE		RE03-99-2004	06	S	7/17/99	
VOCECORE		RE03-99-2004	07	S	7/17/99	
PCB		RE03-99-2005	02	S	7/17/99	
TPH		RE03-99-2005	03	S	7/17/99	
VOCECORE		RE03-99-2005	04	S	7/17/99	
VOCECORE		RE03-99-2005	05	S	7/17/99	
VOCECORE		RE03-99-2005	06	S	7/17/99	
VOCECORE		RE03-99-2005	07	S	7/17/99	
PCB		RE03-99-2006	02	S	7/17/99	
TPH		RE03-99-2006	03	S	7/17/99	
VOCECORE		RE03-99-2006	04	S	7/17/99	
VOCECORE		RE03-99-2006	05	S	7/17/99	
VOCECORE		RE03-99-2006	06	S	7/17/99	
VOCECORE		RE03-99-2006	07	S	7/17/99	
PCB		RE03-99-2007	02	S	7/17/99	
TPH		RE03-99-2007	03	S	7/17/99	
VOCECORE		RE03-99-2007	04	S	7/17/99	
VOCECORE		RE03-99-2007	05	S	7/17/99	
VOCECORE		RE03-99-2007	06	S	7/17/99	
VOCECORE		RE03-99-2007	07	S	7/17/99	

To: Joylene Valdez

TA-3-36 Gas Station
Sample ID Crosswalk

Original ID#	ER ID#
36-SSW1	RE03-99-2000
36-SSW2	RE03-99-2001
36-NSW1	RE03-99-2002
36-NSW2	RE03-99-2003
36-SFD1	RE03-99-2004
36-SFD2	RE03-99-2005
36-SSE1	RE03-99-2006
36-NSE1	RE03-99-2007

(Also sent via e-mail.)

X-Mailer: Novell GroupWise 4.1
Date: Wed, 21 Jul 1999 09:21:56 -0400
From: Jeffrey Linn <jlinn@gtsduratek.com>
To: jvaldez@eds.lanl.gov
Subject: TA-3 Sample Crosswalk table

Joylene,
Please see table below. Sorry for the confusion. We'll get it right next time.

TA-3-36 Gas Station
Sample ID Crosswalk

Original ID#	ER ID#
36-SSW1	RE03-99-2000
36-SSW2	RE03-99-2001
36-NSW1	RE03-99-2002
36-NSW2	RE03-99-2003
36-SFD1	RE03-99-2004
36-SFD2	RE03-99-2005
36-SSE1	RE03-99-2006
36-NSE1	RE03-99-2007

Jeff Linn
(505) 661-6621
(505) 661-2541 fax
(888) 542-2068 pager
jlinn@gtsduratek.com

!

!

Tuesday, July 20, 1999

REQUEST NUMBER: 5824R
ANALYSIS TYPE: ORG

Los Alamos
NATIONAL LABORATORY

ATTN: Maren Beery
KEMRON
109 STARLITE PARK
MARIETTA, OH 45750

Please analyze the enclosed samples according to the schedule indicated:

These samples are on:

SHIP DATE: 7/19/99
REPORT DUE: 8/21/99
TURN AROUND REQ'D: 30 days

LANL Request Number: 5824R
Per Agreement Number: 7797L0014-9S
Project Cost Code: CG9K00000000

RAD SCREENING: Not Required

COMMENTS: 03 - 6666 , JL; TPH 8015 BY DIESEL AND GAS

LANL ER SMO CONTACT: Joylene Valdez MS H865 5056659968
Signature: Joylene Valdez

ANALYSIS ORDER CODE	ANALYTE(S)	SAMPLE ID	CONT ID	SAMPLE MATRIX	DATE SAMPLED	COMMENTS
VOCECORE		36NSE1	01	S	7/17/99	
VOCECORE		36NSE1	02	S	7/17/99	
VOCECORE		36NSE1	03	S	7/17/99	
VOCECORE		36NSE1	04	S	7/17/99	
TPH		36NSE1	05	S	7/17/99	
PCB		36NSE1	06	S	7/17/99	
VOCECORE		36NSW1	01	S	7/17/99	
VOCECORE		36NSW1	02	S	7/17/99	
VOCECORE		36NSW1	03	S	7/17/99	
VOCECORE		36NSW1	04	S	7/17/99	
TPH		36NSW1	05	S	7/17/99	
PCB		36NSW1	06	S	7/17/99	
VOCECORE		36NSW2	01	S	7/17/99	
VOCECORE		36NSW2	02	S	7/17/99	
VOCECORE		36NSW2	03	S	7/17/99	
VOCECORE		36NSW2	04	S	7/17/99	
TPH		36NSW2	05	S	7/17/99	
PCB		36NSW2	06	S	7/17/99	
VOCECORE		36SFD1	01	S	7/17/99	
VOCECORE		36SFD1	02	S	7/17/99	
VOCECORE		36SFD1	03	S	7/17/99	
VOCECORE		36SFD1	04	S	7/17/99	
TPH		36SFD1	05	S	7/17/99	
PCB		36SFD1	06	S	7/17/99	

ANALYSIS ORDER CODE	ANALYTE(S)	SAMPLE ID	CONT ID	SAMPLE MATRIX	DATE SAMPLED	COMMENTS
VOCECORE		36SFD2	01	S	7/17/99	
VOCECORE		36SFD2	02	S	7/17/99	
VOCECORE		36SFD2	03	S	7/17/99	
VOCECORE		36SFD2	04	S	7/17/99	
TPH		36SFD2	05	S	7/17/99	
PCB		36SFD2	06	S	7/17/99	
VOCECORE		36SSE1	01	S	7/17/99	
VOCECORE		36SSE1	02	S	7/17/99	
VOCECORE		36SSE1	03	S	7/17/99	
VOCECORE		36SSE1	04	S	7/17/99	
TPH		36SSE1	05	S	7/17/99	
PCB		36SSE1	06	S	7/17/99	
VOCECORE		36SSW1	01	S	7/17/99	
VOCECORE		36SSW1	02	S	7/17/99	
VOCECORE		36SSW1	03	S	7/17/99	
VOCECORE		36SSW1	04	S	7/17/99	
TPH		36SSW1	05	S	7/17/99	
PCB		36SSW1	06	S	7/17/99	
VOCECORE		36SSW2	01	S	7/17/99	
VOCECORE		36SSW2	02	S	7/17/99	
VOCECORE		36SSW2	03	S	7/17/99	
VOCECORE		36SSW2	04	S	7/17/99	
TPH		36SSW2	05	S	7/17/99	
PCB		36SSW2	06	S	7/17/99	

X-Mailer: Novell GroupWise 4.1
Date: Wed, 21 Jul 1999 06:10:44 -0400
From: Jeffrey Linn <jlinn@gtsduratek.com>
To: jvaldez@eds.lanl.gov
Subject: Cost code for TA-3-36 Gas Station samples

Joylene,
The cost code for the TA-3-36 Gas Station samples is:

MR3R 3M03 1045

Thanx for the help!

Jeff Linn
(505) 661-6621
(505) 661-2541 fax
(888) 542-2068 pager
jlinn@gtsduratek.com

Tuesday, July 20, 1999

Los Alamos
NATIONAL LABORATORY

CHAIN OF CUSTODY DOCUMENT NUMBER: 5824RC

REQUEST NUMBER: 5824R
ANALYSIS TYPE: ORG

ATTN: Maren Beery
KEMRON
109 STARLITE PARK
MARIETTA, OH 45750

SAMPLE ID	CONT ID	CONTAINER DESCRIPTION	ANALYSIS ORDER CODE	PRESERVATIVE	MATRIX
36NSE1	01	EN CORE	VOCECORE	NONE	S
36NSE1	02	EN CORE	VOCECORE	NONE	S
36NSE1	03	EN CORE	VOCECORE	NONE	S
36NSE1	04	125 ml poly	VOCECORE	NONE	S
36NSE1	05	250 ml amber glass	TPH	NONE	S
36NSE1	06	125 ml glass	PCB	NONE	S
36NSW1	01	EN CORE	VOCECORE	NONE	S
36NSW1	02	EN CORE	VOCECORE	NONE	S
36NSW1	03	EN CORE	VOCECORE	NONE	S
36NSW1	04	125 ml poly	VOCECORE	NONE	S
36NSW1	05	250 ml amber glass	TPH	NONE	S
36NSW1	06	125 ml glass	PCB	NONE	S
36NSW2	01	EN CORE	VOCECORE	NONE	S
36NSW2	02	EN CORE	VOCECORE	NONE	S
36NSW2	03	EN CORE	VOCECORE	NONE	S
36NSW2	04	125 ml poly	VOCECORE	NONE	S
36NSW2	05	250 ml amber glass	TPH	NONE	S
36NSW2	06	125 ml glass	PCB	NONE	S
36SFD1	01	EN CORE	VOCECORE	NONE	S
36SFD1	02	EN CORE	VOCECORE	NONE	S

Relinquished By: **Date** **Time**

PRINTED NAME SIGNATURE 7/20/99 1305

PRINTED NAME SIGNATURE

PRINTED NAME SIGNATURE

Received By: **Date** **Time**

PRINTED NAME SIGNATURE

PRINTED NAME SIGNATURE

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Received for DISPOSAL By: **Date** **Time**

PRINTED NAME SIGNATURE

Remarks:

Tuesday, July 20, 1999

COC DOC NUMBER: 5824RC
REQUEST NUMBER: 5824R

SAMPLE ID	CONT ID	CONTAINER DESCRIPTION	ANALYSIS ORDER CODE		
36SFD1	03	EN CORE	VOCECORE	NONE	S
36SFD1	04	125 ml poly	VOCECORE	NONE	S
36SFD1	05	250 ml amber glass	TPH	NONE	S
36SFD1	06	125 ml glass	PCB	NONE	S
36SFD2	01	EN CORE	VOCECORE	NONE	S
36SFD2	02	EN CORE	VOCECORE	NONE	S
36SFD2	03	EN CORE	VOCECORE	NONE	S
36SFD2	04	125 ml poly	VOCECORE	NONE	S
36SFD2	05	250 ml amber glass	TPH	NONE	S
36SFD2	06	125 ml glass	PCB	NONE	S
36SSE1	01	EN CORE	VOCECORE	NONE	S
36SSE1	02	EN CORE	VOCECORE	NONE	S
36SSE1	03	EN CORE	VOCECORE	NONE	S
36SSE1	04	125 ml poly	VOCECORE	NONE	S
36SSE1	05	250 ml amber glass	TPH	NONE	S
36SSE1	06	125 ml glass	PCB	NONE	S
36SSW1	01	EN CORE	VOCECORE	NONE	S
36SSW1	02	EN CORE	VOCECORE	NONE	S
36SSW1	03	EN CORE	VOCECORE	NONE	S
36SSW1	04	125 ml poly	VOCECORE	NONE	S
36SSW1	05	250 ml amber glass	TPH	NONE	S
36SSW1	06	125 ml glass	PCB	NONE	S
36SSW2	01	EN CORE	VOCECORE	NONE	S
36SSW2	02	EN CORE	VOCECORE	NONE	S
36SSW2	03	EN CORE	VOCECORE	NONE	S
36SSW2	04	125 ml poly	VOCECORE	NONE	S

Relinquished By: Date Time

PRINTED NAME SIGNATURE 7/20/99 13:05

PRINTED NAME SIGNATURE

PRINTED NAME SIGNATURE

Received By: Date Time

PRINTED NAME SIGNATURE

PRINTED NAME SIGNATURE

PRINTED NAME SIGNATURE

Received for DISPOSAL By: Date Time

PRINTED NAME SIGNATURE

Remarks:

Tuesday, July 20, 1999

COC DOC NUMBER: 8824RC
REQUEST NUMBER: 8824R
Page 3

SAMPLE ID	CONT ID	CONTAINER DESCRIPTION	ANALYSIS ORDER CODE		
36SSW2	05	250 ml amber glass	TPH	NONE	S
36SSW2	06	125 ml glass	PCB	NONE	S

Final Page of CHAIN OF CUSTODY DOCUMENT FOR REQUEST NUMBER 8824R Page 2

Relinquished By: Date Time

PRINTED NAME SIGNATURE 7/20/99 1305

PRINTED NAME SIGNATURE

PRINTED NAME SIGNATURE

Received By: Date Time

PRINTED NAME SIGNATURE

PRINTED NAME SIGNATURE

PRINTED NAME SIGNATURE

Received for DISPOSAL By: Date Time

PRINTED NAME SIGNATURE

Remarks:

Rad Screening Data Release Form

The Following samples were received at the Field Support Facility (FSF) without screening data (list sample number):

36NSE1

These samples will not be shipped until radiological screening data documentation arrives at the FSF. I understand that it is my responsibility to ensure this information arrives at the FSF in a timely manner. If holding times are missed because screening data does not arrive, I will pick up the samples.

The following samples do not require rad screening data for the reasons stated (list sample numbers):

36 NSW1
36 NSW2
36 SFD1
36 SSE1
36 SSW1
36 SSW2
36 SFD2

Reason:

Print Last Name LINN Signature [signature] Date 7/19/99

ARS
AMERICAN RADIATION SERVICES OF
NEW MEXICO

1903 Central Ave. • Los Alamos, New Mexico 87544
(505) 663-0363 • Fax (505) 663-0365

ARSNM Tracking Number:	ARSNM-99-0034	**COC Number:**	0-NONE
Client I.D.:	TA-3-36NSE1	**ARSNM Sample I.D.:**	ARSNM-99-0215
Date Sampled:	7/19/99	**Date Received:**	7/19/99
Time Sampled:	1515	**Time Received:**	1515
Type of Sample:	solid	**Date of Report:**	7/20/99
Contact Person:	Jeff Linn	**Charge Code:**	7002-500

Analysis Description	Analysis Result	Analysis Error ±2 Sigma	Detection Limit	Analysis Units	Analysis Test Method	Analysis Date & Time	Analysis Technician
Gross Alpha	16.69	7.81	9.69	pCi/gm	EPA 900M	7/19/99 2032	wm
Gross Beta	38.29	10.71	19.24	pCi/gm	EPA 900M	7/19/99 2032	wm
Gros Gamma	BDL	N/A	13.97	pCi/gm	EPA 900M	7/19/99 1650	wm

Notes: none

Waylan Metts

Cost Per Sample: 127.28

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the performed analysis itself. Reproduction of this report in less than full requires the written consent of the client.

CG9 0000 0000
30 day

CHAIN OF CUSTODY DATE 7/19/99 PAGE 1 OF 1

REPORT TO: GTS Duratek
661-6621 PHONE NUMBER
661-2541 FAX NUMBER
COMPANY: Los Alamos National Laboratory
ADDRESS: MS M769
P.O. Box 1663
Los Alamos, NM 87545
SAMPLER: Jeff Linn

ANALYSIS REQUESTED

SAMPLE ID	DATE	TIME	MATRIX	8015 Mod - Diesel TPH	8015 Mod - Gasoline TPH	8015/8020 - Gasoline/BTEX	8020 - BTEX	8260 - VOCS	8270 - SVOC's	8081 - PCB	8081 - Pest./PCB	Total Metals	TCLP	Gross Alpha/Beta	Gamma Spec	Iso. Pu	Iso. U	Iso. Am	Iso. Th	Tritium	Sr - 90	% Moisture	Asbestos	Numbers of Containers
TA-3-36 NSE1	7/17/99	2:50pm	SOIL	1	1			4		1		1												7
TA-3-36 NSW1	7/17/99	1:15pm	SOIL	1	1			4		1		1												7
TA-3-36 NSW2	7/17/99	1:30pm	SOIL	1	1			4		1		1												7
TA-3-36 SFD1	7/17/99	2:00pm	SOIL	1	1			4		1		1												7
TA-3-36 SFD2	7/17/99	2:05pm	SOIL	1	1			4		1		1												7
TA-3-36 SSE1	7/17/99	2:35pm	SOIL	1	1			4		1		1												7
TA-3-36 SSW1	7/17/99	12:45pm	SOIL	1	1			4		1		1												7
TA-3-36 SSW2	7/17/99	12:56pm	SOIL	1	1			4		1		1												7

PROJECT ID: TA-3-36 Gas Station
TAT: Standard RAD: Yes ___ No X
OTHER HAZARDS: None

SAMPLE DISPOSAL: By Lab ___ Return ___
COMMENTS: Note that 8015: Diesel/Gas use same container

RELINQUISHED BY: 1	RELINQUISHED BY: 2	RELINQUISHED BY: 3
Sign. [signature] Time 11:28	Received: Sign. [signature] Time 11:28	Sign. Time
Print Jeff Linn Date 7/19/99	Print Jaylene Valdez Date 7-19-99	Print Date
Company GTS Duratek	Company SMO	Company
RELINQUISHED BY: 1	**RELINQUISHED BY: 2**	**RELINQUISHED BY: 3**
Sign. Time	Sign. Time	Sign. Time
Print Date	Print Date	Print Date
Company	Company	Company

Los Alamos National Laboratory Environmental Restoration (Los Alamos, NM 87545)

CHAIN OF CUSTODY/REQUEST FOR ANALYSIS

Technical Area C3	Send Lab Report to Gabriela Escobeda-L	Field Unit Leader Gabriela Escobeda-L
Operable Unit 1114	M992	(505)665-7352
Date	LANL Destination SMO	Turnaround 30 days
OU Contact Gabriela Escobeda-L	LANL Contact Stephanie Hagelberg	Lab Report Required
Contact Phone No (505) 665-7352	LANL Mail Stop	Charge Code RMR3R3M041045

Relinquished by: Jeff Linn (Signature): Affiliation: GTS Duratek	Date:	Relinquished by: (Signature): Affiliation:	Date:	Relinquished by: (Signature): Affiliation:	Date:
Received by: (Signature): Affiliation:	Time:	Received by: (Signature): Affiliation:	Time:	Received by: (Signature): Affiliation:	Time:

POSSIBLE HAZARD IDENTIFICATION: (please indicate if sample(s) are hazardous materials and/or suspected to contain high levels of hazardous substances): Radiological___ Highly Toxic___ Flammable___ Skin Irritant___ Non-Hazard___ Other___

SCREENING METHOD: Rad Van

SAMPLE DISPOSAL: Disposal by Lab

Comments:

Field Unique Sample #/ID	Cont ID	Date & Time Collected	Sample Container Volume/Material	Matrix	Preserv	ANALYSIS REQUESTED: (SMO Order Codes)	REMARKS (Conditions of receipt, etc.)
RE03-99-2000	05		5 gm Encore Container-A	Soil	Ice	VOCECORE	
RE03-99-2000	03		250 ml Amber Glass	Soil	Ice	TPH	
RE03-99-2000	02		125 ml Glass	Soil	None	PCB	
RE03-99-2000	01		125 ml Polyethylene	Soil	Ice	METTAL	
RE03-99-2001	07		5 gm Encore Container-C	Soil	Ice	VOCECORE	
RE03-99-2001	06		5 gm Encore Container-E	Soil	Ice	VOCECORE	
RE03-99-2001	01		125 ml Polyethylene	Soil	Ice	METTAL	
RE03-99-2001	02		125 ml Glass	Soil	None	PCB	
RE03-99-2000	06		5 gm Encore Container-E	Soil	Ice	VOCECORE	
RE03-99-2000	07		5 gm Encore Container-C	Soil	Ice	VOCECORE	
RE03-99-2001	03		250 ml Amber Glass	Soil	Ice	TPH	
RE03-99-2001	05		5 gm Encore Container-A	Soil	Ice	VOCECORE	

Original - LANL Destination Yellow - RPF Pink - FTL Copy

SENT BY: 7-21-99 ;12:51PM ; E-PPC→ 86659972;# 3/ 5

Los Alamos National Laboratory Environmental Restoration (Los Alamos, NM 87545)

CHAIN OF CUSTODY/REQUEST FOR ANALYSIS

Technical Area C3	Send Lab Report to Gabriela Escobeda-L	Field Unit Leader Gabriela Escobeda-L
Operable Unit 1114	M992	(505)665-7352
Date	LANL Destination SMO	Turnaround 30 days
OU Contact Gabriela Escobeda-L	LANL Contact Stephanie Hagelberg	Lab Report Required
Contact Phone No (505) 665-7352	LANL Mail Stop	Charge Code RMR3R3M041045

Field Unique Sample #/ID	Cont ID	Date & Time Collected	Sample Container Volume/Material	Matrix	Preserv	ANALYSIS REQUESTED: (SMO Order Codes)	REMARKS (Conditions of receipt, etc.)
RE03-99-2000	04		125 mL Polyethylene	Soil	Ice	VOCECORE	
RE03-99-2001	04		125 mL Polyethylene	Soil	Ice	VOCECORE	
RE03-99-2002	05		5 gm Encore Container-A	Soil	Ice	VOCECORE	
RE03-99-2002	03		250 ml Amber Glass	Soil	Ice	TPH	
RE03-99-2002	02		125 ml Glass	Soil	None	PCB	
RE03-99-2002	01		125 ml Polyethylene	Soil	Ice	METTAL	
RE03-99-2002	06		5 gm Encore Container-E	Soil	Ice	VOCECORE	
RE03-99-2002	07		5 gm Encore Container-C	Soil	Ice	VOCECORE	
RE03-99-2002	04		125 mL Polyethylene	Soil	Ice	VOCECORE	
RE03-99-2003	05		5 gm Encore Container-A	Soil	Ice	VOCECORE	
RE03-99-2003	03		250 ml Amber Glass	Soil	Ice	TPH	
RE03-99-2003	02		125 ml Glass	Soil	None	PCB	
RE03-99-2003	01		125 ml Polyethylene	Soil	Ice	METTAL	
RE03-99-2003	06		5 gm Encore Container-E	Soil	Ice	VOCECORE	
RE03-99-2003	07		5 gm Encore Container-C	Soil	Ice	VOCECORE	
RE03-99-2003	04		125 mL Polyethylene	Soil	Ice	VOCECORE	
RE03-99-2004	05		5 gm Encore Container-A	Soil	Ice	VOCECORE	
RE03-99-2004	03		250 ml Amber Glass	Soil	Ice	TPH	
RE03-99-2004	02		125 ml Glass	Soil	None	PCB	
RE03-99-2004	01		125 ml Polyethylene	Soil	Ice	METTAL	
RE03-99-2004	06		5 gm Encore Container-E	Soil	Ice	VOCECORE	
RE03-99-2004	07		5 gm Encore Container-C	Soil	Ice	VOCECORE	
RE03-99-2004	04		125 mL Polyethylene	Soil	Ice	VOCECORE	
RE03-99-2005	05		5 gm Encore Container-A	Soil	Ice	VOCECORE	
RE03-99-2005	03		250 ml Amber Glass	Soil	Ice	TPH	

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SENT BY: 7-21-99 ;12:52PM ; E-PPC→ 86658972;# 4/ 5

Los Alamos National Laboratory Environmental Restoration (Los Alamos, NM 87545)

CHAIN OF CUSTODY/REQUEST FOR ANALYSIS

Technical Area 03	Send Lab Report to Gabriela Escobeda-L	Field Unit Leader Gabriela Escobeda-L
Operable Unit 1114	M992	(505)665-7352
Date	LANL Destination SMO	Turnaround 30 days
OU Contact Gabriela Escobeda-L	LANL Contact Stephanie Hagelberg	Lab Report Required
Contact Phone No (505) 665-7352	LANL Mail Stop	Charge Code RMR3R3M041045

Field Unique Sample #/ID	Cont ID	Date & Time Collected	Sample Container Volume/Material	Matrix	Preserv	ANALYSIS REQUESTED: (SMO Order Codes)	REMARKS (Conditions of receipt, etc.)
RE03-99-2005	02		125 ml Glass	Soil	None	PCB	
RE03-99-2005	01		125 ml Polyethylene	Soil	Ice	METTAL	
RE03-99-2005	06		5 gm Encore Container-E	Soil	Ice	VOCECORE	
RE03-99-2005	07		5 gm Encore Container-C	Soil	Ice	VOCECORE	
RE03-99-2005	04		125 mL Polyethylene	Soil	Ice	VOCECORE	
RE03-99-2006	05		5 gm Encore Container-A	Soil	Ice	VOCECORE	
RE03-99-2006	03		250 ml Amber Glass	Soil	Ice	TPH	
RE03-99-2006	02		125 ml Glass	Soil	None	PCB	
RE03-99-2006	01		125 ml Polyethylene	Soil	Ice	METTAL	
RE03-99-2006	06		5 gm Encore Container-E	Soil	Ice	VOCECORE	
RE03-99-2006	07		5 gm Encore Container-C	Soil	Ice	VOCECORE	
RE03-99-2006	04		125 mL Polyethylene	Soil	Ice	VOCECORE	
RE03-99-2007	05		5 gm Encore Container-A	Soil	Ice	VOCECORE	
RE03-99-2007	03		250 ml Amber Glass	Soil	Ice	TPH	
RE03-99-2007	02		125 ml Glass	Soil	None	PCB	
RE03-99-2007	01		125 ml Polyethylene	Soil	Ice	METTAL	
RE03-99-2007	06		5 gm Encore Container-E	Soil	Ice	VOCECORE	
RE03-99-2007	07		5 gm Encore Container-C	Soil	Ice	VOCECORE	
RE03-99-2007	04		125 mL Polyethylene	Soil	Ice	VOCECORE	
RE03-99-2008	07		5 gm Encore Container-C	Soil	Ice	VOCECORE	
RE03-99-2008	06		5 gm Encore Container-E	Soil	Ice	VOCECORE	
RE03-99-2008	05		5 gm Encore Container-A	Soil	Ice	VOCECORE	
RE03-99-2008	03		250 ml Amber Glass	Soil	Ice	TPH	
RE03-99-2008	02		125 ml Glass	Soil	None	PCB	
RE03-99-2008	01		125 ml Polyethylene	Soil	Ice	METTAL	

Original - LANL Destination Yellow - RPF Pink - FTL Copy

SENT BY: 7-21-99 ;12:52PM ; E-PPC→ 00003R/2;# 3/ 3

Los Alamos National Laboratory Environmental Restoration (Los Alamos, NM 87545)
CHAIN OF CUSTODY/REQUEST FOR ANALYSIS

Technical Area 03	**Send Lab Report to** Gabriela Escobeda-L	**Field Unit Leader** Gabriela Escobeda-L
Operable Unit 1114	M992	(505)665-7352
Date	**LANL Destination** SMO	**Turnaround** 30 days
OU Contact Gabriela Escobeda-L	**LANL Contact** Stephanie Hagelberg	**Lab Report Required**
Contact Phone No (505) 665-7352	**LANL Mail Stop**	**Charge Code** RMR3R3M041045

Field Unique Sample #/ID	Cont ID	Date & Time Collected	Sample Container Volume/Material	Matrix	Preserv	ANALYSIS REQUESTED: (SMO Order Codes)	REMARKS (Conditions of receipt, etc.)
RE03-99-2008	04		125 mL Polyethylene	Soil	Ice	VOCECORE	
RE03-99-2009	07		5 gm Encore Container-C	Soil	Ice	VOCECORE	
RE03-99-2009	06		5 gm Encore Container-E	Soil	Ice	VOCECORE	
RE03-99-2009	05		5 gm Encore Container-A	Soil	Ice	VOCECORE	
RE03-99-2009	03		250 ml Amber Glass	Soil	Ice	TPH	
RE03-99-2009	02		125 ml Glass	Soil	None	PCB	
RE03-99-2009	01		125 ml Polyethylene	Soil	Ice	METTAL	
RE03-99-2009	04		125 mL Polyethylene	Soil	Ice	VOCECORE	
RE03-99-2010	07		5 gm Encore Container-C	Soil	Ice	VOCECORE	
RE03-99-2010	06		5 gm Encore Container-E	Soil	Ice	VOCECORE	
RE03-99-2010	05		5 gm Encore Container-A	Soil	Ice	VOCECORE	
RE03-99-2010	03		250 ml Amber Glass	Soil	Ice	TPH	
RE03-99-2010	02		125 ml Glass	Soil	None	PCB	
RE03-99-2010	01		125 ml Polyethylene	Soil	Ice	METTAL	
RE03-99-2010	04		125 mL Polyethylene	Soil	Ice	VOCECORE	
RE03-99-2011	07		5 gm Encore Container-C	Soil	Ice	VOCECORE	
RE03-99-2011	06		5 gm Encore Container-E	Soil	Ice	VOCECORE	
RE03-99-2011	05		5 gm Encore Container-A	Soil	Ice	VOCECORE	
RE03-99-2011	03		250 ml Amber Glass	Soil	Ice	TPH	
RE03-99-2011	02		125 ml Glass	Soil	None	PCB	
RE03-99-2011	01		125 ml Polyethylene	Soil	Ice	METTAL	
RE03-99-2011	04		125 mL Polyethylene	Soil	Ice	VOCECORE	

Original - LANL Destination Yellow - RPF Pink - FTL Copy

AMERICAN RADIATION SERVICES OF NEW MEXICO

1903 Central Ave. • Los Alamos, New Mexico 87544
(505) 663-0363 • Fax (505) 663-0365

Notes:

Comments:

1.0) Soil and Sludge analysis are reported on a wet basis or an as received basis unless otherwise indicated.
2.0) The data in this report are within the limits of uncertainty specified in the reference method unless specified.
3.0) Modified analysis procedures are procedures that are modified to meet the certain specifications. An example may be the use of a water method to analyze a solid matrix due to the lack of an officially recognized procedure for the analysis of the solid matrix.
4.0) Derived Air Concentrations and Effluent Release Concentrations are obtained from 10 CFR 20 Appendix B.
5.0) Total activity is actually total gamma activity and is determined utilizing the prominent gamma emitters from the naturally occurring radioactive decay chains and other prominent radioactive nuclides. Total activity may be lower than actual total activity due to the extent of secular equilibrium achieved in the various decay chains at the time of analysis. The total activity is not representative of nuclides that emit soley alpha or beta particles.
6.0) Ra-228 is determinded via secular equilibrium with its daughter, Actinium 228. (Gamma Spectroscopy only).
7.0) U-238 is determined via secular equilibrium with its daughter, Thorium 234. (Gamma Spectroscopy only).
8.0) All Gamma spectroscopy was performed utilizing high purity germanium detectors (HPGE).

Method References:

1.0) EPA 600/4-80-032, Prescribed Procedures for the Measurements of Radioactivity in Drinking Water, August 1980.
2.0) Standard Methods for the Examination of Water and Waste Water, 18th, 1992.
3.0) EPA SW-846, Test Methods for Evaluating Solid Waste, Third Edition, (9/86). (Updated through 1995).
4.0) EPA 600/4/79-020, Methods for Chemical Analysis of Water and Waste, March 1983.
5.0) HASL 300

Definitions:

1.0)	BDL	Analyte not detected because the value was below the detection limit.
2.0)	ND	Not detected above the detection limit.
3.0)	Detection Limit	The minimum amount of the analyte that ARS can detect utilizing the specific analysis.
4.0)	B	Method Bank
5.0)	D	Method Duplicate
6.0)	MS	Matrix Spike
7.0)	S	Spike
8.0)	RS	Reference Spike
9.0)	*SC	Subcontracted out to another qualified laboratory
10.0)	NR	Not Referenced

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the performed analysis itself. Reproduction of this report in less than full requires the written consent of the client.

CHAIN OF CUSTODY DATE 7/19/99 PAGE 1 OF 1

REPORT TO: GTS DURATEK
PHONE NUMBER: 661-6621 FAX NUMBER: 661-2541
COMPANY: Los Alamos National Laboratory
ADDRESS: MS M769
P.O. Box 1663
Los Alamos, NM 87545
SAMPLER:

ANALYSIS REQUESTED

SAMPLE ID	DATE	TIME	MATRIX	8015 Mod - Diesel	8015 Mod - Gasoline	8015/8020 - Gasoline/BTEX	8020 - BTEX	8260 - VOCS	8270 - SVOC's	8081 - PCB	8081 - Pest./PCB	Total Metals	TCLP	Gross Alpha/Beta	Gamma Spec	Iso. Pu	Iso. U	Iso. Am	Iso. Th	Tritium	Sr - 90	% Moisture	Asbestos	Gross gamma	Number of Containers
TL-3-36NSE1	7/19/99	3:10	Soil											4										2	1

PROJECT ID:
TAT: 24 Hour RAD: Yes NA No
OTHER HAZARDS: None - RAD SCREENING
SAMPLE DISPOSAL: By Lab Return
COMMENTS:
BILL TO: CHEMICAL WASTE MANAGEMENT, INC.

RELINQUISHED BY: 1	RECEIVED RELINQUISHED BY: 2	RELINQUISHED BY: 3
Sign. 1515 Time	Sign. Time 1515	Sign. Time
Print STEFF LINN Date 7/19/99	Print Waylan Metts Date 7/19/99	Print Date
Company GTS DURATEK	Company ARS of NM	Company
RELINQUISHED BY: 1	RELINQUISHED BY: 2	RELINQUISHED BY: 3
Sign. Time	Sign. Time	Sign. Time
Print Date	Print Date	Print Date
Company	Company	Company

WM 7/20/99 project reference 7002-50C

ARS
AMERICAN RADIATION SERVICES OF NEW MEXICO

Sample Results

To: Joy Lene Valdez

Fax: 665-9972

Date: 7/20/99

Pages: 5 (including cover)

American Radiation Services of NM
1903 Central Ave.
Los Alamos, NM 87544

Phone: 663-0363
Fax: 663-0365

Have a Great Day!

ARS
AMERICAN RADIATION SERVICES OF
NEW MEXICO

1903 Central Ave. • Los Alamos, New Mexico 87544
(505) 663-0363 • Fax (505) 663-0365

American Radiation Services of New Mexico

Laboratory Analysis Report

Prepared For:

GTS DURATEK
Attn: Jeffrey H. Linn
190 Central Park Square
Los Alamos, NM 87544
Phone: 505-661-6621
Fax: 505-661-2541

Mark W. Krohn
Vice-President Operations

Note: American Radiation Services of New Mexico assumes no liability for the use or interpretation of any analytical results provided other than the cost of the performed analysis itself. Reproduction of this report in less than full requires the written consent of the client.

CHAIN OF CUSTODY FORM (Example)

SECTION I. DATA PACKAGE INFORMATION (Relinquisher completes)

New Issue ☒ Yes ☐ No

Request Number(s): 5819 5722 5749 5803 5824

Data Package Requestor (check one): ☒ Editing/Validation ☐ User

Name (print) Joseph Garcia Focus Area: IT

Phone 1-5716 Z Number: 167339

SECTION II. AUTHORIZING SIGNATURES (Relinquished/Received signatures)

Relinquished By: [signature] Date: 8-9-99

I accept custody of the above listed data package(s).

Received By: [signature] Date: 8/10/99

Relinquished By: _____ Date: _____

I accept custody of the above listed data package(s).

Received By: _____ Date: _____

Comments:

Los Alamos
Environmental Restoration Project

ER SOP-15.09

Picked up
Jeff Lynn
8/11/99 1200
JS

KEMRON Environmental Services
109 Starlite Park
Marietta, Ohio 45750
Phone: (740) 373-4071

Los Alamos National Laboratory
SMO, TA-3, Bldg. 271
MS H865, Drop Point O1U
Los Alamos, NM 87545
Attention: Joylene Valdez

PO Number:
Account Number: LANL-295

Login #: L9907381
Report Date: 08/04/99
Work ID: 5824R/MR3R3M041045
Date Received: 07/21/99

SAMPLE IDENTIFICATION

Sample Number	Sample Description	Sample Number	Sample Description
L9907381-01	RE03-99-2000	L9907381-02	RE03-99-2001
L9907381-03	RE03-99-2002	L9907381-04	RE03-99-2003
L9907381-05	RE03-99-2004	L9907381-06	RE03-99-2005
L9907381-07	RE03-99-2006	L9907381-08	RE03-99-2007

All results on solids/sludges are reported on a dry weight basis, where applicable, unless otherwise specified. This report shall not be reproduced, except in full, without the written approval of KEMRON.

NYSDOH ELAP ID: 10861

Certified By
Dennis S. Tepe

Jeff
Report Sent To: _____
Approved By: _____
Date Sent: _____

KEMRON
ENVIRONMENTAL SERVICES

593

CHAIN OF CUSTODY FORM (Example)

SECTION I. DATA PACKAGE INFORMATION (Relinquisher completes)

New Issue ☒ Yes ☐ No

Request Number(s): 5819 5722 5749 5803 5824

Data Package Requestor (check one): ☒ Editing/Validation ☐ User

Name (print) Joseph Garcia Focus Area: IT

Phone 1-5716 Z Number: 167339

SECTION II. AUTHORIZING SIGNATURES (Reliquished/Received signatures)

Relinquished By: [signature] Date: 8-9-99

I accept custody of the above listed data package(s).

Received By: [signature] Date: 8/10/99

Relinquished By: [signature] Date: 9/28/99

I accept custody of the above listed data package(s).

Received By: [signature] Date: 9-28-99

Comments:

ER SOP-15.09

Los Alamos
Environmental Restoration Project

DATA VALIDATION COVER SHEET

SECTION I.

REQUEST NUMBER: **5824R** COST CODE: _____

VALIDATION DATE: **20-Sept-99**

LAB NAME: **Kemron**

VALIDATOR: **Herman Ramsey** ORGANIZATION: **IT**

ANALYTICAL SUITE: _X_ *VOLATILES* ___ *HIGH EXPLOSIVES*

___ SEMIVOLATILES ___ INORGANICS

_X_ PESTICIDES/AROCLORS ___ RADIOCHEMISTRY

OTHER (describe) X **TPH (diesel and gasoline ranges)**

SECTION II. COMPLETENESS CHECKLIST

Item	Present? (Y/N/NA)	Item	Present? (Y/N/NA)
1. COC form(s)		2. Case Narrative	
3. Sample Results		4. Sample Chromatograms	
5. Standard Chromatograms		6. Quantitation Reports	
7. QC Forms			

Identify any samples in the assigned Request Number that are missing:

_____ _____ _____ _____ _____ _____

_____ _____ _____ _____ _____ _____

Comments: include information about requests to the laboratory and agreed upon date of resolution and lab contact: (Attach additional comment sheets as necessary)

TPH analysis. TPH has been baseline validated using the PCB/Pest baseline validation checklist.

Signature/1st validation: Herman Ramsey Date/1st validation: 9/21/99

Signature/2nd validation: _____ Date/2nd validation: _____

ER-SOP-15.09

Los Alamos
Environmental Restoration

CCS AND VALIDATION

Explanation of qualifiers (Q):

U The analyte was analyzed for but not detected above the reported EQL

J The analyte was positively identified, the associated numerical value is the approximate concentration of the analyte in the sample
J+ Likely has a high bias
J- Likely has a low bias

UJ The analyte was analyzed for but not detected. The associated value is an estimate

R The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. Presence or absence cannot be verified. Note: Any results qualified as "R" should be looked at for relevance for data use. Thus, "R" implies "PM" also, and must not be used alone

P Use professional judgement based on data use . It usually has an "M"with it, indicating that a manual check should be made if the data that is qualified with the "P" is important to the data user.

In addition, PM also means that a decision must be made by the project manager/delegee regarding the need for further review of the data. This review should include some consideration of potential impact that could result from using the P qualified data. (For example, in the case of holding time excedance, the project manager/delegee can decide to use the data with no qualification when analyltes of interest are known to not be adversely affected by holding time exceedances. Another example is the case where soil sample duplicate analyses for metals exceed the precision criteria. Since this is likley because of sample non-homogeneity rather than lab error, the manager/delegee must decide how to use the data.)

PM Manual review of raw data is recommended to determine if the defect impacts data use, as in "R" above.

REASON CODES FOR VALIDATION QUALIFIERS

ORGANOCHLORINE PESTICIDES/AROCLORS (P)

3 Surrogate % recovery > upper limit, which indicates a potential high bias in the results and a potential for false positive results.

3a Surrogate % recovery is > 10% but < the lower limit, which indicates a potential low bias in the results.

3b Surrogate % recovery < 10%, which indicates an increased potential low bias in the results..

3c Result is non-detect and the surrogate % recovery > 10 % but < lower limit, which indicates a potential for false negative results.

3d Result is a non-detect and the surrogate recovery < 10%, which indicates a greatly increased potential for false negative results.

4 Sample result > EQL and < 5X the concentration of the related analyte in the blank, which indicates the reported detection is considered to be indistinguishable from blank contamination.

5 Sample result < EQL and < 5X (10X as above) the concentration of the analyte in the blank, which indicates the detected result was indistinguishable from blank contamination and the detected result was changed to non-detected at the EQL.

5a Sample result > EQL and > 5X (10X as above) the concentration of the analyte in the blank, which indicates the reported result is not likely to be related to the contamination in the associated blank.

6 % RSD or % D exceeds the specification - apply to a positive result, which indicates potential quantitation problems in the analyses and the potential for false positive results.

7 % RSD or %D exceeds the specification - apply to a non-detect, which indicates potential quantitation problems in the analyses and the potential false negative results.

8. Analyte concentration exceeds linear range and sample not diluted to within that range. This usually results in a negative bias in the reported concentratiion.

9. Holding time is exceeded. An evaluation of the data of interest with respect to holding time exceedance impact (technically) is recommended. Factors to consider include sample preservation, sample storage practices, use of the data, levels of contamination found in the sample, and the physical, chemical, and biological stability of the target analytes in the sample matrix.

10. Breakdown criteria have been exceeded, indicating poor instrument performance which can result in a low bias in the reported results and potential false negative results for labile compounds and potential false positive results for breakdown procucts.

11. Surrogate retention time has shifted by > 0.05 minutes, possibly affecting analyte identification and causing false positives or negatives.

Total Petroleum Hydrocarbons

Initial calibration: **Present? X yes no** **Daily calibration verification** **Present? X yes no**	 **NA** **NA**	**Obtain from lab. Q=A** **Obtain from lab. Q=A**	
Surrogates: **Present? X yes no** **% recovery** ~~**Tetrachloro-m-xylene 50-160**~~ ~~**Decachlorbiphenyl50-160**~~ *For diesel range organics, o-terphenyl and octacosane were used as the surrogates. The QC limits reported by* ***Kemron*** *are 43.0-136.0% for o-terphenyl and 25.0-162.0% for octacosane.*	**J-, UJ**	**Obtain from lab. Q=A** **If either surrogate's % recovery is more than upper limit, detected target compounds are are qualified with J+.** **If either surrogate's % recovery is ≥ 10% but ≤ lower limit, qualify detected compounds with J-** **and non-detected target analytes as UJ.** **If either surrogate's % recovery <10%, qualify detected compounds as J-** **and non-detects as R, PM.** **Enter % recovery in FIMAD table**	 **P3** **P3a** **P3c** **P3b** **P3d**

ADR
9/21/99

Retention Time Windows **Present? X yes no** **~~Surrogates' retention time should not shift by ± 0.05 minutes.~~** **As per a conversation with Steve Fry of Paragon on 28 May 98, there is no retention time window specified in the method (8015 or 8000). Paragon uses a window of ± 0.5 minutes. This same window was used for Kemrons data of diesel range and gasoline reange.**	**OK**	**Obtain from lab. Q=A** **If either of the surrogate's RT shifts >± 0.05 minutes, qualify the results as PM. (An examination of chromatographic peaks will be required to determine if target analytes are present).**	
Method blanks **Present? X yes no** **Separate for each method, matrix, and/or analytical batch** **Target analytes < EQL** ***Kemron** uses 4000 µg/kg as the reporting limit for diesel range organics and 100 µg/kg for the gasoline range organics.*	**OK**	**Obtain from lab. Q=A** **If target compound found in blank but not in sample, no qualifier.** **Sample result > EQL and < 5 X multiple of blank, elevate EQL to sample result and qualify as U.** **Sample result < EQL and < 5X multiple of blank, elevate sample results to EQL and qualify as U.** **Sample result > 5X multiple, OK**	**P4** **P5**
Holding time **Extraction within 14 days of sample collection for soil and 7 days for water** **Analyses within 40 days of extraction**	**OK**	**Compare date of extraction with sampling date on Analytical Request and date of analysis with date of extraction. Q=PM**	

HMR
9/21/99

CCS AND VALIDATION

Explanation of qualifiers (Q):

U The analyte was analyzed for but not detected above the reported EQL

J The analyte was positively identified, the associated numerical value is the approximate concentration of the analyte in the sample
J+ Likely has a high bias
J- Likely has a low bias

UJ The analyte was analyzed for but not detected. The associated value is an estimate

R The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. Presence or absence cannot be verified. Note: Any results qualified as "R" should be looked at for relevance for data use. Thus, "R" implies "PM" also, and must not be used alone

P Use professional judgement based on data use . It usually has an "M"with it, indicating that a manual check should be made if the data that is qualified with the "P" is important to the data user.

In addition, PM also means that a decision must be made by the project manager/delegee regarding the need for further review of the data. This review should include some consideration of potential impact that could result from using the P qualified data. (For example, in the case of holding time excedance, the project manager/delegee can decide to use the data with no qualification when analyltes of interest are known to not be adversely affected by holding time exceedances. Another example is the case where soil sample duplicate analyses for metals exceed the precision criteria. Since this is likley because of sample non-homogeneity rather than lab error, the manager/delegee must decide how to use the data.)

PM Manual review of raw data is recommended to determine if the defect impacts data use, as in "R" above.

REASON CODES FOR VALIDATION QUALIFIERS

VOLATILES (V)

0 The internal standard retention time has shifted by more than ±30 seconds, which could affect compound identification and cause false positives or negatives.

1 The internal standard area count for the quantitating internal standard is outside the - 50, + 100 % window in relation to the previous continuing calibration, which could affect the accuracy of the quantitation of the associated analytes and the correct quantiitatiion of surrogate recoveries.

1a Non-detected results, and the area count for the quantitating internal standard is < 50 % of the area count for the previous continuing calibration, which greatly increases the potential for false negative results.

2 Very low or abrupt drop-off of quantitating internal standard, which indicates an increased potential for false negative results and possibly other problems with sample quantitation.

3 SMC (surrogate) % recovery > upper limit, which indicates a potential high bias in the results and a potential for false positive results.

3a SMC % recovery < lower limit but > 10%, which indicates a potential low bias in the results.

3b SMC recovery < 10%, which indicates an increased potential for a low bias in the results.

3c Indicates that the quantitation limit is approximated for non-detects because of SMC recovery < lower limit but > 10%, which also indicates an increased potential for false negative results.

3d SMC % recovery < 10% and result is a non-detect, which indicates a greatly increased potential for false negative results.

4 Sample result > EQL and < 5X (10X for acetone, methylene chloride, and 2-butanone) the concentration of the related analyte in the blank, which indicates the reported detection is considered to be indistinguishable from blank contamination.

5 Sample result < EQL and < 5X (10X as above) the concentration of the analyte in the blank, which indicates the detected result was indistinguishable from blank contamination and the detected result was changed to non-detected at the EQL.

5a Sample result > EQL and > 5X (10X as above) the concentration of the analyte in the blank, which indicates the reported result is not likely to be related to the contamination in the associated blank.

6 Response factor for the analytes is <0.05, indicating a sensitivity problem that could prohibit detection if present at low concentrations.

7 % RSD or % D exceeds the specification which may affect quantitation, which indicates potential quantitation problems in the analyses.

8 Instrument Performance Check has ion ratios our of specification, which may affect compound identification.

9. Holding time is exceeded. An evaluation of the data of interest with respect to holding time exceedance impact (technically) is recommended. Factors to consider include sample preservation, sample storage practices, use of the data, levels of contamination found in the sample, and the physical, chemical, and biological stability of the target analytes in the sample matrix.

10. The result is higher than the high point of the calibration (or outside the linear range). This usually results in a negative bias in the reported concentratiion.

VOLATILES

Instrument Performance Check **Present? X yes no**	**NA**	**Obtain from lab. Q=A**	
Initial calibration: **Present? X yes no** **Continuing Calibration** **Present? X yes no**	**NA**	**Obtain from lab. Q=A** **Analytes not meeting RRF or % RSD criteria should be circled on Initial Calibration Form** **Obtain from lab. Q=A** **Analytes not meeting RRF or % D criteria should be circled on Continuing Calibration Form**	
Internal Standards **Present? X yes no** **Required IS:** **chlorobenzene-d5** **1,4-difluorobenzene** **1,4-dichlorbenzene -d4** **RT must be < ± 30 sec. from previous continuing calibraition** **Response area must not vary by > factor of 2 (+100, -50) from previous continuing calibration** *Fluorobenzene was used in place of 1,4-difluorobenzene as an internal standard. It was in limits.*	**OK See com ment**	**Check manually during baseline validation.** **Obtain from lab. Q=A** **If RT varies by > 30 seconds, qualify with PM, in which case focused validation checks the chromato-graphic profile for false + or -.** **If an IS area count is outside the -50 +100 % criterion, qualify positive results quantified by the IS with J,PM** **Non-detects quantified by the IS as UJ if area count < 50 %** **Very low or abrupt drop-off, R** **Enter % variation in FIMAD table**	 **V1** **V1a** **V2**

HDR
9/21/99

System Monitoring Compounds (SMC) or surrogates **Present? X yes no** **% recovery Water** **Toluene-d8 88-110%** **BFB 86-115%** **Dibromofluoromethane 86-118%** **% recovery Soil** **Toluene-d8 81-117%** **BFB 74-121** **Dibromofluoromethane 80-120** *1,2-dichloroethane-d4 was also used as a surrogate.*	**OK See com ment**	**Obtain from lab. Q=A** **If SMC % recovery > upper limit, detected target compounds are qualified with J+.** **For non-detects, not qualified** **If SMC has % recovery < lower limit but 3 10%, qualify detected compounds with J-** **For detected compounds, same J- qualifier if recovery of SMC < 10%** **For non-detects, the quantitation limit is qualified as approximated, UJ, when SMC is ≥10%** **For non-detected analytes, if SMC recovery <10%, reject R, PM** **Do not qualify results for diluted samples based on SMC/ Surrogate recoveries** **Enter % recovery in FIMAD table**	 **V3** **V3a** **V3b** **V3c** **V3d**

HDR
9/21/99

Method Blanks **Present? X yes no** **Separate blank for each method, matrix and/or 12 hour batch** **Target compounds must be ≤ EQL except acetone, methylene chloride, and 2-butanone which can be present at ≤ 5 X EQL.** *Acetone and methylene chloride were detected in the blank.*	**U See com ment**	**Obtain from lab. Q=A** **If target compound found in blank but not in sample, no qualifier.** **Sample result > EQL and < 5 X (< 10x for noted exceptions) multiple of blank, elevate EQL to sample result and qualify as U.** **Sample result < EQL and < 5X (< 10x for noted exceptions) multiple of blank, elevate sample results to EQL and qualify as U.** **Sample result > 5X multiple, OK**	**V4** **V5**
Holding time **Analysis within 14 days of sample collection for soil and 7 days for water.**	**OK**	**Compare date of analysis with sampling date on Analytical Request** **Q=PM if not met**	
TICs (if requested) **Present X yes no**	requested		

HDR
9/21/99

CCS AND VALIDATION

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J- Likely has a low bias

UJ The analyte was analyzed for but not detected. The associated value is an estimate

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PM Manual review of raw data is recommended to determine if the defect impacts data use, as in "R" above.

REASON CODES FOR VALIDATION QUALIFIERS

ORGANOCHLORINE PESTICIDES/AROCLORS (P)

3 Surrogate % recovery > upper limit, which indicates a potential high bias in the results and a potential for false positive results.

3a Surrogate % recovery is > 10% but < the lower limit, which indicates a potential low bias in the results.

3b Surrogate % recovery < 10%, which indicates an increased potential low bias in the results..

3c Result is non-detect and the surrogate % recovery > 10 % but < lower limit, which indicates a potential for false negative results.

3d Result is a non-detect and the surrogate recovery < 10%, which indicates a greatly increased potential for false negative results.

4 Sample result > EQL and < 5X the concentration of the related analyte in the blank, which indicates the reported detection is considered to be indistinguishable from blank contamination.

5 Sample result < EQL and < 5X (10X as above) the concentration of the analyte in the blank, which indicates the detected result was indistinguishable from blank contamination and the detected result was changed to non-detected at the EQL.

5a Sample result > EQL and > 5X (10X as above) the concentration of the analyte in the blank, which indicates the reported result is not likely to be related to the contamination in the associated blank.

6 % RSD or % D exceeds the specification - apply to a positive result, which indicates potential quantitation problems in the analyses and the potential for false positive results.

7 % RSD or %D exceeds the specification - apply to a non-detect, which indicates potential quantitation problems in the analyses and the potential false negative results.

8. Analyte concentration exceeds linear range and sample not diluted to within that range. This usually results in a negative bias in the reported concentratiion.

9. Holding time is exceeded. An evaluation of the data of interest with respect to holding time exceedance impact (technically) is recommended. Factors to consider include sample preservation, sample storage practices, use of the data, levels of contamination found in the sample, and the physical, chemical, and biological stability of the target analytes in the sample matrix.

10. Breakdown criteria have been exceeded, indicating poor instrument performance which can result in a low bias in the reported results and potential false negative results for labile compounds and potential false positive results for breakdown procucts.

11. Surrogate retention time has shifted by > 0.05 minutes, possibly affecting analyte identification and causing false positives or negatives.

ORGANOCHLORINE PESTICIDES/AROCLORS

Initial calibration: Present? X yes no **Daily calibration verification** Present? X yes no	 NA NA	Obtain from lab. Q=A Obtain from lab. Q=A	
Surrogates: Present? X yes no % recovery Tetrachloro-m-xylene 50-160 Decachlorbiphenyl 50-160	OK	Obtain from lab. Q=A If either surrogate's % recovery is more than upper limit, detected target compounds are are qualified with J+. If either surrogate's % recovery is ≥ 10% but ≤ lower limit, qualify detected compounds with J- and non-detected target analytes as UJ. If either surrogate's % recovery <10%, qualify detected compounds as J- and non-detects as R, PM. Enter % recovery in FIMAD table	 P3 P3a P3c P3b P3d
Retention Time Windows Present? X yes no Surrogates' retention time should not shift by ± 0.05 minutes.	OK	Obtain from lab. Q=A If either of the surrogate's RT shifts >± 0.05 minutes, qualify the results as PM. (An examination of chromatographic peaks will be required to determine if target analytes are present).	

HDR
9/21/99

Method blanks Present? X yes no Separate for each method, matrix, and/or analytical batch Target analytes < EQL	OK	Obtain from lab. Q=A If target compound found in blank but not in sample, no qualifier. Sample result > EQL and < 5 X multiple of blank, elevate EQL to sample result and qualify as U. Sample result < EQL and < 5X multiple of blank, elevate sample results to EQL and qualify as U. Sample result > 5X multiple, OK	 P4 P5
Breakdown criteria Present? yes no ≤ 20% for either 4,4'-DDT or endrin or 30% for combined breakdown.	NA	Obtain from lab. Q=A Q=P	
Holding time Extraction within 14 days of sample collection for soil and 7 days for water Analyses within 40 days of extraction	OK	Compare date of extraction with sampling date on Analytical Request and date of analysis with date of extraction. Q=PM	

HDR
9/21/99

Login #L9907381
August 4, 1999 12:05 pm

KEMRON ENVIRONMENTAL SERVICES

Lab Sample ID: L9907381-01
Client Sample ID: RE03-99-2000
Site/Work ID: 5824R/MR3R3M041045

Matrix: Soil
Collected: 07/17/99 N/A

% Solid: 86
COC Info: N/A

Analyte	Units	Result	Qualifiers	RL	Dil	Type	Analyst	Analysis Date	Time	Method
Percent Solids.....	% wt.	86		1.0	1	N/A	SMW	07/27/99	16:40	D2216-90

Product: 8082LA - PCB's - LANL

Lab Sample ID: L9907381-01
Client Sample ID: RE03-99-2000
Site/Work ID: 5824R/MR3R3M041045
Matrix: Soil

TCLP Extract Date: N/A
Extract Date: 07/22/99
Analysis Date: 07/26/99 Time: 10:53

Dil. Type: N/A
COC Info: N/A

Date Collected: 07/17/99

Instrument: HP7
Analyst: CDB
Lab File ID: 7G2622

Sample Weight: N/A
Extract Volume: N/A

% Solid: 86

Method: 8082\3550
Run ID: R70759
Batch : WG61476

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
12674-11-2	Aroclor-1016.....	ug/kg		ND	190	5
11104-28-2	Aroclor-1221.....	ug/kg		ND	380	5
11141-16-5	Aroclor-1232.....	ug/kg		ND	190	5
53469-21-9	Aroclor-1242.....	ug/kg		ND	190	5
12672-29-6	Aroclor-1248.....	ug/kg		ND	190	5
11097-69-1	Aroclor-1254.....	ug/kg		ND	190	5
11096-82-5	Aroclor-1260.....	ug/kg		ND	190	5

SURROGATES- In Percent Recovery:

2,4,5,6-Tetrachloro-m-xylene.....	65.2	(29 - 133%)
Decachlorobiphenyl.....	66.4	(30 - 173%)

RL = Reporting Limit

HDR 9/21/99

Login #L9907381
August 4, 1999 12:05 pm

KEMRON ENVIRONMENTAL SERVICES

Product: DRO - Diesel Range Organics (GC)

Lab Sample ID: L9907381-01
Client Sample ID: RE03-99-2000
Site/Work ID: 5824R/MR3R3M041045
Matrix: Soil

TCLP Extract Date: N/A
Extract Date: 07/22/99
Analysis Date: 07/24/99 Time: 19:49

Dil. Type: N/A
COC Info: N/A

Date Collected: 07/17/99

Instrument: HP8
Analyst: HV
Lab File ID: G8012R

Sample Weight: N/A
Extract Volume: N/A

% Solid: 86

Method: 8015\3550
Run ID: R70838
Batch : WG61453

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
68334-30-5	Diesel Range Organics.....	ug/kg	(J-, P3b) 160000		4700	1

SURROGATES- In Percent Recovery:

o-Terphenyl.....	71.1		(43 - 136%)
Octacosane.....	3.65	*,SMI	(25 - 162%)

Product: GRO - Gasoline Range Organics

Lab Sample ID: L9907381-01
Client Sample ID: RE03-99-2000
Site/Work ID: 5824R/MR3R3M041045
Matrix: Soil

TCLP Extract Date: N/A
Extract Date: N/A
Analysis Date: 07/26/99 Time: 15:33

Dil. Type: N/A
COC Info: N/A

Date Collected: 07/17/99

Instrument: HP5
Analyst: VMN
Lab File ID: 5G769

Sample Weight: N/A
Extract Volume: N/A

% Solid: 86

Method: 8015
Run ID: R71040
Batch : WG61593

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
8006-61-9	Gasoline Range Organics.....	ug/kg	48	J	120	1

SURROGATES- In Percent Recovery:

Chlorobenzene.....	65.1	(64 - 148%)

RL = Reporting Limit

HDR 9/21/99

Login #L9907381
August 4, 1999 12:05 pm

KEMRON ENVIRONMENTAL SERVICES

Product: 8260LS - VOA Library Search

Lab Sample ID: L9907381-01
Client Sample ID: RE03-99-2000
Site/Work ID: 5824R/MR3R3M041045
Matrix: Soil

TCLP Extract Date: N/A
Extract Date: N/A
Analysis Date: 07/22/99 Time: 12:50

Dil. Type: N/A
COC Info: N/A

Date Collected: 07/17/99

Instrument: HPMS6
Analyst: CMS
Lab File ID: 6M14658

Sample Weight: N/A
Extract Volume: N/A

% Solid: 86

Method: 8260B
Run ID: R70278
Batch : WG61351

CAS #	Compound	Units	Result	Qualifiers	RL	Ret Time
001678-92-8	Cyclohexane, propyl-.....	ug/kg	6.66			17.407
003386-33-2	Octadecane, 1-chloro-.....	ug/kg	12.3			18.119
000872-78-6	Bicyclo[2.2.1]heptane, 2-methyl-, exo-.....	ug/kg	6.41			20.455
NA	Unknown.....	ug/kg	37.1			17.149
NA	Unknown.....	ug/kg	34.9			19.769
NA	Unknown.....	ug/kg	13.0			22.437

Product: 826LA - Volatile Organics

Lab Sample ID: L9907381-01
Client Sample ID: RE03-99-2000
Site/Work ID: 5824R/MR3R3M041045
Matrix: Soil

TCLP Extract Date: N/A
Extract Date: N/A
Analysis Date: 07/22/99 Time: 12:50

Dil. Type: N/A
COC Info: N/A

Date Collected: 07/17/99

Instrument: HPMS6
Analyst: CMS
Lab File ID: 6M14658

Sample Weight: N/A
Extract Volume: N/A

% Solid: 86

Method: 8260B
Run ID: R70278
Batch : WG61351

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
75-71-8	Dichlorodifluoromethane.....	ug/kg		ND	10	.9
74-87-3	Chloromethane.....	ug/kg		ND	10	.9
75-01-4	Vinyl chloride.....	ug/kg		ND	10	.9
74-83-9	Bromomethane.....	ug/kg		ND	10	.9
75-00-3	Chloroethane.....	ug/kg		ND	10	.9
75-69-4	Trichlorofluoromethane.....	ug/kg		ND	5.2	.9
75-35-4	1,1-Dichloroethene.....	ug/kg		ND	5.2	.9
74-88-4	Iodomethane.....	ug/kg		ND	5.2	.9
75-15-0	Carbon disulfide.....	ug/kg		ND	5.2	.9
67-64-1	Acetone.....	ug/kg	19	J,B	21	.9 (4,05)
75-09-2	Methylene chloride.....	ug/kg		ND	5.2	.9
156-60-5	trans-1,2-Dichloroethene.....	ug/kg		ND	10	.9

RL = Reporting Limit

HDR
9/21/99

Login #L9907381
August 4, 1999 12:05 pm

KEMRON ENVIRONMENTAL SERVICES

Product: 826LA - Volatile Organics

Lab Sample ID: L9907381-01
Client Sample ID: RE03-99-2000
Site/Work ID: 5824R/MR3R3M041045
Matrix: Soil

TCLP Extract Date: N/A
Extract Date: N/A
Analysis Date: 07/22/99 Time: 12:50

Dil. Type: N/A
COC Info: N/A

Date Collected: 07/17/99

Instrument: HPMS6
Analyst: CMS
Lab File ID: 6M14658

Sample Weight: N/A
Extract Volume: N/A

% Solid: 86

Method: 8260B
Run ID: R70278
Batch : WG61351

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
75-34-3	1,1-Dichloroethane	ug/kg		ND	5.2	.9
594-20-7	2,2-Dichloropropane	ug/kg		ND	5.2	.9
156-59-2	cis-1,2-Dichloroethene	ug/kg		ND	10	.9
78-93-3	2-Butanone	ug/kg	2.7	J	21	.9
74-97-5	Bromochloromethane	ug/kg		ND	5.2	.9
67-66-3	Chloroform	ug/kg		ND	5.2	.9
71-55-6	1,1,1-Trichloroethane	ug/kg		ND	5.2	.9
56-23-5	Carbon tetrachloride	ug/kg		ND	5.2	.9
563-58-6	1,1-Dichloropropene	ug/kg		ND	5.2	.9
71-43-2	Benzene	ug/kg		ND	5.2	.9
107-06-2	1,2-Dichloroethane	ug/kg		ND	5.2	.9
79-01-6	Trichloroethene	ug/kg		ND	5.2	.9
78-87-5	1,2-Dichloropropane	ug/kg		ND	5.2	.9
74-95-3	Dibromomethane	ug/kg		ND	5.2	.9
75-27-4	Bromodichloromethane	ug/kg		ND	5.2	.9
10061-02-6	trans-1,3-Dichloropropene	ug/kg		ND	5.2	.9
108-10-1	4-Methyl-2-pentanone	ug/kg		ND	5.2	.9
108-88-3	Toluene	ug/kg		ND	21	.9
10061-01-5	cis-1,3-Dichloropropene	ug/kg		ND	5.2	.9
79-00-5	1,1,2-Trichloroethane	ug/kg		ND	5.2	.9
127-18-4	Tetrachloroethene	ug/kg		ND	5.2	.9
142-28-9	1,3-Dichloropropane	ug/kg		ND	5.2	.9
124-48-1	Dibromochloromethane	ug/kg		ND	5.2	.9
591-78-6	2-Hexanone	ug/kg		ND	5.2	.9
106-93-4	1,2-Dibromoethane	ug/kg		ND	21	.9
108-90-7	Chlorobenzene	ug/kg		ND	5.2	.9
630-20-6	1,1,1,2-Tetrachloroethane	ug/kg		ND	5.2	.9
100-41-4	Ethyl benzene	ug/kg		ND	5.2	.9
1330-20-7	Xylenes (total)	ug/kg		ND	5.2	.9
100-42-5	Styrene	ug/kg	1.0	J	5.2	.9
75-25-2	Bromoform	ug/kg		ND	5.2	.9
98-82-8	Isopropylbenzene	ug/kg		ND	5.2	.9
108-86-1	Bromobenzene	ug/kg		ND	5.2	.9
96-18-4	1,2,3-Trichloropropane	ug/kg		ND	5.2	.9
79-34-5	1,1,2,2-Tetrachloroethane	ug/kg		ND	5.2	.9
103-65-1	n-Propylbenzene	ug/kg		ND	5.2	.9
95-49-8	2-Chlorotoluene	ug/kg	0.64	J	5.2	.9
106-43-4	4-Chlorotoluene	ug/kg		ND	5.2	.9
108-67-8	1,3,5-Trimethylbenzene	ug/kg	3.6	J	5.2	.9

RL = Reporting Limit

9/21/99

Login #L9907381
August 4, 1999 12:05 pm

KEMRON ENVIRONMENTAL SERVICES

Product: 826LA - Volatile Organics

Lab Sample ID: L9907381-01
Client Sample ID: RE03-99-2000
Site/Work ID: 5824R/MR3R3M041045
Matrix: Soil

TCLP Extract Date: N/A
Extract Date: N/A
Analysis Date: 07/22/99 Time: 12:50

Dil. Type: N/A
COC Info: N/A

Date Collected: 07/17/99

Instrument: HPMS6
Analyst: CMS
Lab File ID: 6M14658

Sample Weight: N/A
Extract Volume: N/A

% Solid: 86

Method: 8260B
Run ID: R70278
Batch : WG61351

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
98-06-6	tert-Butylbenzene	ug/kg		ND	5.2	.9
95-63-6	1,2,4-Trimethylbenzene	ug/kg	4.2	J	5.2	.9
135-98-8	sec-Butylbenzene	ug/kg	0.35	J	5.2	.9
541-73-1	1,3-Dichlorobenzene	ug/kg		ND	5.2	.9
106-46-7	1,4-Dichlorobenzene	ug/kg		ND	5.2	.9
99-87-6	p-Isopropyltoluene	ug/kg	0.43	J	5.2	.9
95-50-1	1,2-Dichlorobenzene	ug/kg		ND	5.2	.9
104-51-8	n-Butylbenzene	ug/kg	0.71	J	5.2	.9
96-12-8	1,2-Dibromo-3-chloropropane	ug/kg		ND	10	.9
76-13-1	Trichlorotrifluoroethane	ug/kg		ND	5.2	.9

SURROGATES- In Percent Recovery:

Toluene-d8	90.2	(81 - 117%)
p-Bromofluorobenzene	113	(74 - 121%)
Dibromofluoromethane	91.6	(80 - 120%)
1,2-Dichloroethane-d4	91.1	(80 - 120%)

Lab Sample ID: L9907381-02
Client Sample ID: RE03-99-2001
Site/Work ID: 5824R/MR3R3M041045

Matrix: Soil
Collected: 07/17/99 N/A

% Solid: 90
COC Info: N/A

Analyte	Units	Result	Qualifiers	RL	Dil	Type	Analyst	Analysis Date	Time	Method
Percent Solids	% wt.	90		1.0	1	N/A	SMW	07/27/99	16:40	D2216-90

RL = Reporting Limit

HDR
9/21/99

Login #L9907381
August 4, 1999 12:05 pm

KEMRON ENVIRONMENTAL SERVICES

Product: 8082LA - PCB's - LANL

Lab Sample ID: L9907381-02
Client Sample ID: RE03-99-2001
Site/Work ID: 5824R/MR3R3M041045
Matrix: Soil

TCLP Extract Date: N/A
Extract Date: 07/22/99
Analysis Date: 07/26/99 Time: 11:19

Dil. Type: N/A
COC Info: N/A

Date Collected: 07/17/99

Instrument: HP7
Analyst: CDB
Lab File ID: 7G2623

Sample Weight: N/A
Extract Volume: N/A

% Solid: 90

Method: 8082\3550
Run ID: R70759
Batch : WG61476

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
12674-11-2	Aroclor-1016	ug/kg		ND	180	5
11104-28-2	Aroclor-1221	ug/kg		ND	370	5
11141-16-5	Aroclor-1232	ug/kg		ND	180	5
53469-21-9	Aroclor-1242	ug/kg		ND	180	5
12672-29-6	Aroclor-1248	ug/kg		ND	180	5
11097-69-1	Aroclor-1254	ug/kg		ND	180	5
11096-82-5	Aroclor-1260	ug/kg		ND	180	5

SURROGATES- In Percent Recovery:

2,4,5,6-Tetrachloro-m-xylene	56.6	(29 - 133%)
Decachlorobiphenyl	67.3	(30 - 173%)

Product: DRO - Diesel Range Organics (GC)

Lab Sample ID: L9907381-02
Client Sample ID: RE03-99-2001
Site/Work ID: 5824R/MR3R3M041045
Matrix: Soil

TCLP Extract Date: N/A
Extract Date: 07/22/99
Analysis Date: 07/24/99 Time: 21:08

Dil. Type: N/A
COC Info: N/A

Date Collected: 07/17/99

Instrument: HP8
Analyst: HV
Lab File ID: G8013R

Sample Weight: N/A
Extract Volume: N/A

% Solid: 90

Method: 8015\3550
Run ID: R70838
Batch : WG61453

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
68334-30-5	Diesel Range Organics	ug/kg (J-, P3b)	240000		4400	1

SURROGATES- In Percent Recovery:

o-Terphenyl	14.9 *	(43 - 136%)
Octacosane	3.15 *	(25 - 162%)

RL = Reporting Limit

HDR
9/21/99

Login #L9907381
August 4, 1999 12:05 pm

KEMRON ENVIRONMENTAL SERVICES

Product: GRO - Gasoline Range Organics

Lab Sample ID: L9907381-02
Client Sample ID: RE03-99-2001
Site/Work ID: 5824R/MR3R3M041045
Matrix: Soil

TCLP Extract Date: N/A
Extract Date: N/A
Analysis Date: 07/26/99 Time: 16:21

Dil. Type: N/A
COC Info: N/A

Date Collected: 07/17/99

Instrument: HP5
Analyst: VMN
Lab File ID: 5G770

Sample Weight: N/A
Extract Volume: N/A

% Solid: 90

Method: 8015
Run ID: R71040
Batch : WG61593

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
8006-61-9	Gasoline Range Organics.....	ug/kg	(J-, P3a) 170		110	1

SURROGATES- In Percent Recovery:

Chlorobenzene.....	63.0	*,RE	(64 - 148%)

Product: 8260LS - VOA Library Search

Lab Sample ID: L9907381-02
Client Sample ID: RE03-99-2001
Site/Work ID: 5824R/MR3R3M041045
Matrix: Soil

TCLP Extract Date: N/A
Extract Date: N/A
Analysis Date: 07/22/99 Time: 13:27

Dil. Type: N/A
COC Info: N/A

Date Collected: 07/17/99

Instrument: HPMS6
Analyst: CMS
Lab File ID: 6M14659

Sample Weight: N/A
Extract Volume: N/A

% Solid: 90

Method: 8260B
Run ID: R70278
Batch : WG61351

CAS #	Compound	Units	Result	Qualifiers	RL	Ret Time
000111-84-2	Nonane.....	ug/kg	6.16			16.142
002051-30-1	Octane, 2,6-dimethyl-.....	ug/kg	9.35			16.817
004923-78-8	Cyclohexane, 1-ethyl-2-methyl-, trans-.....	ug/kg	5.79			16.975
001678-92-8	Cyclohexane, propyl-.....	ug/kg	18.3			17.407
005911-04-6	Nonane, 3-methyl-.....	ug/kg	7.67			17.581
000124-18-5	Decane.....	ug/kg	30.4			18.119
004291-79-6	Cyclohexane, 1-methyl-2-propyl-.....	ug/kg	6.65			18.736
001678-93-9	Cyclohexane, butyl-.....	ug/kg	9.80			19.39
001120-21-4	Undecane.....	ug/kg	6.73			19.922
001074-43-7	Benzene, 1-methyl-3-propyl-.....	ug/kg	8.28			20.181
000493-02-7	Naphthalene, decahydro-, trans-.....	ug/kg	11.8			20.455
NA	Unknown.....	ug/kg	29.4			17.15
NA	Unknown.....	ug/kg	21.3			19.76
NA	Unknown.....	ug/kg	8.24			22.43

RL = Reporting Limit

HDR
9/21/99

Login #L9907381
August 4, 1999 12:05 pm

KEMRON ENVIRONMENTAL SERVICES

Product: 826LA - Volatile Organics

Lab Sample ID: L9907381-02
Client Sample ID: RE03-99-2001
Site/Work ID: 5824R/MR3R3M041045
Matrix: Soil

TCLP Extract Date: N/A
Extract Date: N/A
Analysis Date: 07/22/99 Time: 13:27

Dil. Type: N/A
COC Info: N/A

Date Collected: 07/17/99

Instrument: HPMS6
Analyst: CMS
Lab File ID: 6M14659

Sample Weight: N/A
Extract Volume: N/A

% Solid: 90

Method: 8260B
Run ID: R70278
Batch : WG61351

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
75-71-8	Dichlorodifluoromethane	ug/kg		ND	10	.9
74-87-3	Chloromethane	ug/kg		ND	10	.9
75-01-4	Vinyl chloride	ug/kg		ND	10	.9
74-83-9	Bromomethane	ug/kg		ND	10	.9
75-00-3	Chloroethane	ug/kg		ND	10	.9
75-69-4	Trichlorofluoromethane	ug/kg		ND	10	.9
75-35-4	1,1-Dichloroethene	ug/kg		ND	5.0	.9
74-88-4	Iodomethane	ug/kg		ND	5.0	.9
75-15-0	Carbon disulfide	ug/kg		ND	5.0	.9
67-64-1	Acetone	ug/kg		ND	5.0	.9
75-09-2	Methylene chloride	ug/kg	25	B	20	.9 (u,V5)
156-60-5	trans-1,2-Dichloroethene	ug/kg	4.6	J,B	5.0	.9 (u,V5)
75-34-3	1,1-Dichloroethane	ug/kg		ND	10	.9
594-20-7	2,2-Dichloropropane	ug/kg		ND	5.0	.9
156-59-2	cis-1,2-Dichloroethene	ug/kg		ND	5.0	.9
78-93-3	2-Butanone	ug/kg		ND	10	.9
74-97-5	Bromochloromethane	ug/kg		ND	20	.9
67-66-3	Chloroform	ug/kg		ND	5.0	.9
71-55-6	1,1,1-Trichloroethane	ug/kg		ND	5.0	.9
56-23-5	Carbon tetrachloride	ug/kg		ND	5.0	.9
563-58-6	1,1-Dichloropropene	ug/kg		ND	5.0	.9
71-43-2	Benzene	ug/kg		ND	5.0	.9
107-06-2	1,2-Dichloroethane	ug/kg		ND	5.0	.9
79-01-6	Trichloroethene	ug/kg		ND	5.0	.9
78-87-5	1,2-Dichloropropane	ug/kg		ND	5.0	.9
74-95-3	Dibromomethane	ug/kg		ND	5.0	.9
75-27-4	Bromodichloromethane	ug/kg		ND	5.0	.9
10061-02-6	trans-1,3-Dichloropropene	ug/kg		ND	5.0	.9
108-10-1	4-Methyl-2-pentanone	ug/kg		ND	5.0	.9
108-88-3	Toluene	ug/kg		ND	20	.9
10061-01-5	cis-1,3-Dichloropropene	ug/kg		ND	5.0	.9
79-00-5	1,1,2-Trichloroethane	ug/kg		ND	5.0	.9
127-18-4	Tetrachloroethene	ug/kg		ND	5.0	.9
142-28-9	1,3-Dichloropropane	ug/kg		ND	5.0	.9
124-48-1	Dibromochloromethane	ug/kg		ND	5.0	.9
591-78-6	2-Hexanone	ug/kg		ND	5.0	.9
106-93-4	1,2-Dibromoethane	ug/kg		ND	20	.9
108-90-7	Chlorobenzene	ug/kg		ND	5.0	.9
630-20-6	1,1,1,2-Tetrachloroethane	ug/kg		ND	5.0	.9
				ND	5.0	.9

RL = Reporting Limit

HDR
9/21/99

Login #L9907381
August 4, 1999 12:05 pm

KEMRON ENVIRONMENTAL SERVICES

Product: 826LA - Volatile Organics

Lab Sample ID: L9907381-02
Client Sample ID: RE03-99-2001
Site/Work ID: 5824R/MR3R3M041045
Matrix: Soil

TCLP Extract Date: N/A
Extract Date: N/A
Analysis Date: 07/22/99 Time: 13:27

Dil. Type: N/A
COC Info: N/A

Date Collected: 07/17/99

Instrument: HPMS6
Analyst: CMS
Lab File ID: 6M14659

Sample Weight: N/A
Extract Volume: N/A

% Solid: 90

Method: 8260B
Run ID: R70278
Batch : WG61351

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
100-41-4	Ethyl benzene	ug/kg		ND	5.0	.9
1330-20-7	Xylenes (total)	ug/kg	1.0	J	5.0	.9
100-42-5	Styrene	ug/kg		ND	5.0	.9
75-25-2	Bromoform	ug/kg		ND	5.0	.9
98-82-8	Isopropylbenzene	ug/kg	0.21	J	5.0	.9
108-86-1	Bromobenzene	ug/kg		ND	5.0	.9
96-18-4	1,2,3-Trichloropropane	ug/kg		ND	5.0	.9
79-34-5	1,1,2,2-Tetrachloroethane	ug/kg		ND	5.0	.9
103-65-1	n-Propylbenzene	ug/kg	0.87	J	5.0	.9
95-49-8	2-Chlorotoluene	ug/kg		ND	5.0	.9
106-43-4	4-Chlorotoluene	ug/kg		ND	5.0	.9
108-67-8	1,3,5-Trimethylbenzene	ug/kg	4.6	J	5.0	.9
98-06-6	tert-Butylbenzene	ug/kg		ND	5.0	.9
95-63-6	1,2,4-Trimethylbenzene	ug/kg	3.3	J	5.0	.9
135-98-8	sec-Butylbenzene	ug/kg	0.68	J	5.0	.9
541-73-1	1,3-Dichlorobenzene	ug/kg		ND	5.0	.9
106-46-7	1,4-Dichlorobenzene	ug/kg		ND	5.0	.9
99-87-6	p-Isopropyltoluene	ug/kg	0.76	J	5.0	.9
95-50-1	1,2-Dichlorobenzene	ug/kg		ND	5.0	.9
104-51-8	n-Butylbenzene	ug/kg	1.1	J	5.0	.9
96-12-8	1,2-Dibromo-3-chloropropane	ug/kg		ND	10	.9
76-13-1	Trichlorotrifluoroethane	ug/kg		ND	5.0	.9

SURROGATES- In Percent Recovery:

Toluene-d8	86.6	(81 - 117%)
p-Bromofluorobenzene	105	(74 - 121%)
Dibromofluoromethane	89.3	(80 - 120%)
1,2-Dichloroethane-d4	89.6	(80 - 120%)

RL = Reporting Limit

NDR
9/21/99

Login #L9907381
August 4, 1999 12:05 pm

KEMRON ENVIRONMENTAL SERVICES

Lab Sample ID: L9907381-03
Client Sample ID: RE03-99-2002
Site/Work ID: 5824R/MR3R3M041045

Matrix: Soil
Collected: 07/17/99 N/A

% Solid: 88
COC Info: N/A

Analyte	Units	Result	Qualifiers	RL	Dil	Type	Analyst	Analysis Date	Time	Method
Percent Solids.....	% wt.	88		1.0	1	N/A	SMW	07/27/99	16:40	D2216-90

Product: 8082LA - PCB's - LANL

Lab Sample ID: L9907381-03
Client Sample ID: RE03-99-2002
Site/Work ID: 5824R/MR3R3M041045
Matrix: Soil

TCLP Extract Date: N/A
Extract Date: 07/22/99
Analysis Date: 07/26/99 Time: 12:35

Dil. Type: N/A
COC Info: N/A

Date Collected: 07/17/99

Instrument: HP7
Analyst: CDB
Lab File ID: 7G2626

Sample Weight: N/A
Extract Volume: N/A

% Solid: 88

Method: 8082\3550
Run ID: R70759
Batch : WG61476

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
12674-11-2	Aroclor-1016.....	ug/kg		ND	38	1
11104-28-2	Aroclor-1221.....	ug/kg		ND	75	1
11141-16-5	Aroclor-1232.....	ug/kg		ND	38	1
53469-21-9	Aroclor-1242.....	ug/kg		ND	38	1
12672-29-6	Aroclor-1248.....	ug/kg		ND	38	1
11097-69-1	Aroclor-1254.....	ug/kg		ND	38	1
11096-82-5	Aroclor-1260.....	ug/kg		ND	38	1

SURROGATES- In Percent Recovery:

2,4,5,6-Tetrachloro-m-xylene.....	71.6	(29 - 133%)
Decachlorobiphenyl.....	87.8	(30 - 173%)

RL = Reporting Limit

HDR
9/21/99

KEMRON ENVIRONMENTAL SERVICES

Product: DRO - Diesel Range Organics (GC)

Lab Sample ID: L9907381-03
Client Sample ID: RE03-99-2002
Site/Work ID: 5824R/MR3R3M041045
Matrix: Soil

TCLP Extract Date: N/A
Extract Date: 07/22/99
Analysis Date: 07/24/99 Time: 22:27

Dil. Type: N/A
COC Info: N/A

Date Collected: 07/17/99

Instrument: HP8
Analyst: HV
Lab File ID: G8014R

Sample Weight: N/A
Extract Volume: N/A

% Solid: 88

Method: 8015\3550
Run ID: R70838
Batch : WG61453

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
68334-30-5	Diesel Range Organics.....	ug/kg	14000		4500	1

SURROGATES- In Percent Recovery:

o-Terphenyl.....	61.9	(43 - 136%)
Octacosane.....	35.5	(25 - 162%)

Product: GRO - Gasoline Range Organics

Lab Sample ID: L9907381-03
Client Sample ID: RE03-99-2002
Site/Work ID: 5824R/MR3R3M041045
Matrix: Soil

TCLP Extract Date: N/A
Extract Date: N/A
Analysis Date: 07/26/99 Time: 17:13

Dil. Type: N/A
COC Info: N/A

Date Collected: 07/17/99

Instrument: HP5
Analyst: VMN
Lab File ID: 5G771

Sample Weight: N/A
Extract Volume: N/A

% Solid: 88

Method: 8015
Run ID: R71040
Batch : WG61593

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
8006-61-9	Gasoline Range Organics.....	ug/kg		ND	110	1

SURROGATES- In Percent Recovery:

Chlorobenzene.....	66.6	(64 - 148%)

RL = Reporting Limit

HDR
9/21/99

Login #L9907381
August 4, 1999 12:05 pm

KEMRON ENVIRONMENTAL SERVICES

Product: 8260LS - VOA Library Search

Lab Sample ID: L9907381-03
Client Sample ID: RE03-99-2002
Site/Work ID: 5824R/MR3R3M041045
Matrix: Soil

TCLP Extract Date: N/A
Extract Date: N/A
Analysis Date: 07/22/99 Time: 14:05

Dil. Type: N/A
COC Info: N/A

Date Collected: 07/17/99

Instrument: HPMS6
Analyst: CMS
Lab File ID: 6M14660

Sample Weight: N/A
Extract Volume: N/A

% Solid: 88

Method: 8260B
Run ID: R70278
Batch : WG61351

CAS #	Compound	Units	Result	Qualifiers	RL	Ret Time
000091-20-3	Naphthalene#2	ug/kg	5.96			23.619
NA	Unknown	ug/kg	37.2			17.144
NA	Unknown	ug/kg	5.20			17.408
NA	Unknown	ug/kg	25.7			19.765
NA	Unknown	ug/kg	9.27			22.433

Product: 826LA - Volatile Organics

Lab Sample ID: L9907381-03
Client Sample ID: RE03-99-2002
Site/Work ID: 5824R/MR3R3M041045
Matrix: Soil

TCLP Extract Date: N/A
Extract Date: N/A
Analysis Date: 07/22/99 Time: 14:05

Dil. Type: N/A
COC Info: N/A

Date Collected: 07/17/99

Instrument: HPMS6
Analyst: CMS
Lab File ID: 6M14660

Sample Weight: N/A
Extract Volume: N/A

% Solid: 88

Method: 8260B
Run ID: R70278
Batch : WG61351

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution	
75-71-8	Dichlorodifluoromethane	ug/kg		ND	10	.9	
74-87-3	Chloromethane	ug/kg		ND	10	.9	
75-01-4	Vinyl chloride	ug/kg		ND	10	.9	
74-83-9	Bromomethane	ug/kg		ND	10	.9	
75-00-3	Chloroethane	ug/kg		ND	10	.9	
75-69-4	Trichlorofluoromethane	ug/kg		ND	10	.9	
75-35-4	1,1-Dichloroethene	ug/kg		ND	5.1	.9	
74-88-4	Iodomethane	ug/kg		ND	5.1	.9	
75-15-0	Carbon disulfide	ug/kg		ND	5.1	.9	
67-64-1	Acetone	ug/kg		ND	5.1	.9	
75-09-2	Methylene chloride	ug/kg	6.1	J,B	20	.9	(u, v5)
156-60-5	trans-1,2-Dichloroethene	ug/kg	4.1	J,B	5.1	.9	(u, v5)
75-34-3	1,1-Dichloroethane	ug/kg		ND	10	.9	
		ug/kg		ND	5.1	.9	

RL = Reporting Limit

HDR
9/21/99

Login #L9907381
August 4, 1999 12:05 pm

KEMRON ENVIRONMENTAL SERVICES

Product: 826LA - Volatile Organics

Lab Sample ID: L9907381-03
Client Sample ID: RE03-99-2002
Site/Work ID: 5824R/MR3R3M041045
Matrix: Soil

TCLP Extract Date: N/A
Extract Date: N/A
Analysis Date: 07/22/99 Time: 14:05

Dil. Type: N/A
COC Info: N/A

Date Collected: 07/17/99

Instrument: HPMS6
Analyst: CMS
Lab File ID: 6M14660

Sample Weight: N/A
Extract Volume: N/A

% Solid: 88

Method: 8260B
Run ID: R70278
Batch : WG61351

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
594-20-7	2,2-Dichloropropane	ug/kg		ND	5.1	.9
156-59-2	cis-1,2-Dichloroethene	ug/kg		ND	10	.9
78-93-3	2-Butanone	ug/kg		ND	20	.9
74-97-5	Bromochloromethane	ug/kg		ND	5.1	.9
67-66-3	Chloroform	ug/kg		ND	5.1	.9
71-55-6	1,1,1-Trichloroethane	ug/kg		ND	5.1	.9
56-23-5	Carbon tetrachloride	ug/kg		ND	5.1	.9
563-58-6	1,1-Dichloropropene	ug/kg		ND	5.1	.9
71-43-2	Benzene	ug/kg		ND	5.1	.9
107-06-2	1,2-Dichloroethane	ug/kg		ND	5.1	.9
79-01-6	Trichloroethene	ug/kg		ND	5.1	.9
78-87-5	1,2-Dichloropropane	ug/kg		ND	5.1	.9
74-95-3	Dibromomethane	ug/kg		ND	5.1	.9
75-27-4	Bromodichloromethane	ug/kg		ND	5.1	.9
10061-02-6	trans-1,3-Dichloropropene	ug/kg		ND	5.1	.9
108-10-1	4-Methyl-2-pentanone	ug/kg		ND	5.1	.9
108-88-3	Toluene	ug/kg		ND	20	.9
10061-01-5	cis-1,3-Dichloropropene	ug/kg		ND	5.1	.9
79-00-5	1,1,2-Trichloroethane	ug/kg		ND	5.1	.9
127-18-4	Tetrachloroethene	ug/kg		ND	5.1	.9
142-28-9	1,3-Dichloropropane	ug/kg	0.57	J	5.1	.9
124-48-1	Dibromochloromethane	ug/kg		ND	5.1	.9
591-78-6	2-Hexanone	ug/kg		ND	5.1	.9
106-93-4	1,2-Dibromoethane	ug/kg		ND	20	.9
108-90-7	Chlorobenzene	ug/kg		ND	5.1	.9
630-20-6	1,1,1,2-Tetrachloroethane	ug/kg		ND	5.1	.9
100-41-4	Ethyl benzene	ug/kg		ND	5.1	.9
1330-20-7	Xylenes (total)	ug/kg		ND	5.1	.9
100-42-5	Styrene	ug/kg		ND	5.1	.9
75-25-2	Bromoform	ug/kg		ND	5.1	.9
98-82-8	Isopropylbenzene	ug/kg		ND	5.1	.9
108-86-1	Bromobenzene	ug/kg		ND	5.1	.9
96-18-4	1,2,3-Trichloropropane	ug/kg		ND	5.1	.9
79-34-5	1,1,2,2-Tetrachloroethane	ug/kg		ND	5.1	.9
103-65-1	n-Propylbenzene	ug/kg		ND	5.1	.9
95-49-8	2-Chlorotoluene	ug/kg		ND	5.1	.9
106-43-4	4-Chlorotoluene	ug/kg		ND	5.1	.9
108-67-8	1,3,5-Trimethylbenzene	ug/kg		ND	5.1	.9
98-06-6	tert-Butylbenzene	ug/kg	1.1	J	5.1	.9

RL = Reporting Limit

HDR
8/21/99

Login #L9907381
August 5, 1999 09:24 am

KEMRON ENVIRONMENTAL SERVICES

Product: 826LA - Volatile Organics

Lab Sample ID: L9907381-03
Client Sample ID: RE03-99-2002
Site/Work ID: 5824R/MR3R3M041045
Matrix: Soil

TCLP Extract Date: N/A
Extract Date: N/A
Analysis Date: 07/22/99 Time: 14:05

Dil. Type: N/A
COC Info: N/A

Date Collected: 07/17/99

Instrument: HPMS6
Analyst: CMS
Lab File ID: 6M14660

Sample Weight: N/A
Extract Volume: N/A

% Solid: 88

Method: 8260B
Run ID: R70278
Batch : WG61351

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
95-63-6	1,2,4-Trimethylbenzene	ug/kg	1.8	J	5.1	.9
135-98-8	sec-Butylbenzene	ug/kg		ND	5.1	.9
541-73-1	1,3-Dichlorobenzene	ug/kg		ND	5.1	.9
106-46-7	1,4-Dichlorobenzene	ug/kg		ND	5.1	.9
99-87-6	p-Isopropyltoluene	ug/kg		ND	5.1	.9
95-50-1	1,2-Dichlorobenzene	ug/kg		ND	5.1	.9
104-51-8	n-Butylbenzene	ug/kg	0.30	J	5.1	.9
96-12-8	1,2-Dibromo-3-chloropropane	ug/kg		ND	10	.9
76-13-1	Trichlorotrifluoroethane	ug/kg		ND	5.1	.9

SURROGATES- In Percent Recovery:

Toluene-d8	87.8	(81 - 117%)
p-Bromofluorobenzene	95.2	(74 - 121%)
Dibromofluoromethane	90.5	(80 - 120%)
1,2-Dichloroethane-d4	90.3	(80 - 120%)

Lab Sample ID: L9907381-04
Client Sample ID: RE03-99-2003
Site/Work ID: 5824R/MR3R3M041045

Matrix: Soil
Collected: 07/17/99 N/A

% Solid: 84
COC Info: N/A

Analyte	Units	Result	Qualifiers	RL	Dil	Type	Analyst	Analysis Date	Time	Method
Percent Solids	% wt.	84		1.0	1	N/A	SMW	07/27/99	16:40	D2216-90

RL = Reporting Limit

HDR
9/21/99

Login #L9907381
August 4, 1999 12:05 pm

KEMRON ENVIRONMENTAL SERVICES

Product: 8082LA - PCB's - LANL

Lab Sample ID: L9907381-04
Client Sample ID: RE03-99-2003
Site/Work ID: 5824R/MR3R3M041045
Matrix: Soil

TCLP Extract Date: N/A
Extract Date: 07/22/99
Analysis Date: 07/26/99 Time: 13:01

Dil. Type: N/A
COC Info: N/A

Date Collected: 07/17/99

Instrument: HP7
Analyst: CDB
Lab File ID: 7G2627

Sample Weight: N/A
Extract Volume: N/A

% Solid: 84

Method: 8082\3550
Run ID: R70759
Batch : WG61476

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
12674-11-2	Aroclor-1016	ug/kg		ND	39	1
11104-28-2	Aroclor-1221	ug/kg		ND	79	1
11141-16-5	Aroclor-1232	ug/kg		ND	39	1
53469-21-9	Aroclor-1242	ug/kg		ND	39	1
12672-29-6	Aroclor-1248	ug/kg		ND	39	1
11097-69-1	Aroclor-1254	ug/kg		ND	39	1
11096-82-5	Aroclor-1260	ug/kg		ND	39	1

SURROGATES- In Percent Recovery:

2,4,5,6-Tetrachloro-m-xylene	76.8	(29 - 133%)
Decachlorobiphenyl	92.7	(30 - 173%)

Product: DRO - Diesel Range Organics (GC)

Lab Sample ID: L9907381-04
Client Sample ID: RE03-99-2003
Site/Work ID: 5824R/MR3R3M041045
Matrix: Soil

TCLP Extract Date: N/A
Extract Date: 07/22/99
Analysis Date: 07/24/99 Time: 23:46

Dil. Type: N/A
COC Info: N/A

Date Collected: 07/17/99

Instrument: HP8
Analyst: HV
Lab File ID: G8015R

Sample Weight: N/A
Extract Volume: N/A

% Solid: 84

Method: 8015\3550
Run ID: R70838
Batch : WG61453

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
68334-30-5	Diesel Range Organics	ug/kg (J-, P3a)	27000		4800	1

SURROGATES- In Percent Recovery:

o-Terphenyl	61.4		(43 - 136%)
Octacosane	18.9	*,SMI	(25 - 162%)

RL = Reporting Limit

HOR
9/21/99

KEMRON ENVIRONMENTAL SERVICES

Product: GRO - Gasoline Range Organics

Lab Sample ID: L9907381-04
Client Sample ID: RE03-99-2003
Site/Work ID: 5824R/MR3R3M041045
Matrix: Soil

TCLP Extract Date: N/A
Extract Date: N/A
Analysis Date: 07/26/99 Time: 18:01

Dil. Type: N/A
COC Info: N/A

Date Collected: 07/17/99

Instrument: HP5
Analyst: VMN
Lab File ID: 5G772

Sample Weight: N/A
Extract Volume: N/A

% Solid: 84

Method: 8015
Run ID: R71040
Batch : WG61593

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
8006-61-9	Gasoline Range Organics.....	ug/kg (J-, P3a)	38	J	120	1

SURROGATES- In Percent Recovery:
Chlorobenzene..... 59.9 *,RE (64 - 148%)

Product: 8260LS - VOA Library Search

Lab Sample ID: L9907381-04
Client Sample ID: RE03-99-2003
Site/Work ID: 5824R/MR3R3M041045
Matrix: Soil

TCLP Extract Date: N/A
Extract Date: N/A
Analysis Date: 07/22/99 Time: 14:45

Dil. Type: N/A
COC Info: N/A

Date Collected: 07/17/99

Instrument: HPMS6
Analyst: CMS
Lab File ID: 6M14661

Sample Weight: N/A
Extract Volume: N/A

% Solid: 84

Method: 8260B
Run ID: R70278
Batch : WG61351

CAS #	Compound	Units	Result	Qualifiers	RL	Ret Time
NA	Unknown.....	ug/kg	14.0			19.771
NA	Naphthalene.....	ug/kg	18.0			23.62

RL = Reporting Limit

HDR
9/21/99

Login #L9907381
August 4, 1999 12:05 pm

KEMRON ENVIRONMENTAL SERVICES

Product: 826LA - Volatile Organics

Lab Sample ID: L9907381-04
Client Sample ID: RE03-99-2003
Site/Work ID: 5824R/MR3R3M041045
Matrix: Soil

TCLP Extract Date: N/A
Extract Date: N/A
Analysis Date: 07/22/99 Time: 14:45

Dil. Type: N/A
COC Info: N/A

Date Collected: 07/17/99

Instrument: HPMS6
Analyst: CMS
Lab File ID: 6M14661

Sample Weight: N/A
Extract Volume: N/A

% Solid: 84

Method: 8260B
Run ID: R70278
Batch : WG61351

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
75-71-8	Dichlorodifluoromethane	ug/kg		ND	12	1
74-87-3	Chloromethane	ug/kg		ND	12	1
75-01-4	Vinyl chloride	ug/kg		ND	12	1
74-83-9	Bromomethane	ug/kg		ND	12	1
75-00-3	Chloroethane	ug/kg		ND	12	1
75-69-4	Trichlorofluoromethane	ug/kg		ND	12	1
75-35-4	1,1-Dichloroethene	ug/kg		ND	6.0	1
74-88-4	Iodomethane	ug/kg		ND	6.0	1
75-15-0	Carbon disulfide	ug/kg		ND	6.0	1
67-64-1	Acetone	ug/kg		ND	6.0	1
75-09-2	Methylene chloride	ug/kg	6.6	J,B	24	1 (u,V5)
156-60-5	trans-1,2-Dichloroethene	ug/kg	3.5	J,B	6.0	1 (u,V5)
75-34-3	1,1-Dichloroethane	ug/kg		ND	12	1
594-20-7	2,2-Dichloropropane	ug/kg		ND	6.0	1
156-59-2	cis-1,2-Dichloroethene	ug/kg		ND	6.0	1
78-93-3	2-Butanone	ug/kg		ND	12	1
74-97-5	Bromochloromethane	ug/kg		ND	24	1
67-66-3	Chloroform	ug/kg		ND	6.0	1
71-55-6	1,1,1-Trichloroethane	ug/kg		ND	6.0	1
56-23-5	Carbon tetrachloride	ug/kg		ND	6.0	1
563-58-6	1,1-Dichloropropene	ug/kg		ND	6.0	1
71-43-2	Benzene	ug/kg		ND	6.0	1
107-06-2	1,2-Dichloroethane	ug/kg		ND	6.0	1
79-01-6	Trichloroethene	ug/kg		ND	6.0	1
78-87-5	1,2-Dichloropropane	ug/kg		ND	6.0	1
74-95-3	Dibromomethane	ug/kg		ND	6.0	1
75-27-4	Bromodichloromethane	ug/kg		ND	6.0	1
10061-02-6	trans-1,3-Dichloropropene	ug/kg		ND	6.0	1
108-10-1	4-Methyl-2-pentanone	ug/kg		ND	6.0	1
108-88-3	Toluene	ug/kg		ND	24	1
10061-01-5	cis-1,3-Dichloropropene	ug/kg		ND	6.0	1
79-00-5	1,1,2-Trichloroethane	ug/kg		ND	6.0	1
127-18-4	Tetrachloroethene	ug/kg		ND	6.0	1
142-28-9	1,3-Dichloropropane	ug/kg		ND	6.0	1
124-48-1	Dibromochloromethane	ug/kg		ND	6.0	1
591-78-6	2-Hexanone	ug/kg		ND	6.0	1
106-93-4	1,2-Dibromoethane	ug/kg		ND	24	1
108-90-7	Chlorobenzene	ug/kg		ND	6.0	1
630-20-6	1,1,1,2-Tetrachloroethane	ug/kg		ND	6.0	1
				ND	6.0	1

RL = Reporting Limit

HDR
9/21/99

Login #L9907381
August 4, 1999 12:05 pm

KEMRON ENVIRONMENTAL SERVICES

Product: 826LA - Volatile Organics

Lab Sample ID: L9907381-04
Client Sample ID: RE03-99-2003
Site/Work ID: 5824R/MR3R3M041045
Matrix: Soil

Dil. Type: N/A
COC Info: N/A

Sample Weight: N/A
Extract Volume: N/A

Date Collected: 07/17/99

% Solid: 84

TCLP Extract Date: N/A
Extract Date: N/A
Analysis Date: 07/22/99 Time: 14:45

Instrument: HPMS6
Analyst: CMS
Lab File ID: 6M14661

Method: 8260B
Run ID: R70278
Batch : WG61351

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
100-41-4	Ethyl benzene	ug/kg		ND	6.0	1
1330-20-7	Xylenes (total)	ug/kg		ND	6.0	1
100-42-5	Styrene	ug/kg		ND	6.0	1
75-25-2	Bromoform	ug/kg		ND	6.0	1
98-82-8	Isopropylbenzene	ug/kg		ND	6.0	1
108-86-1	Bromobenzene	ug/kg		ND	6.0	1
96-18-4	1,2,3-Trichloropropane	ug/kg		ND	6.0	1
79-34-5	1,1,2,2-Tetrachloroethane	ug/kg		ND	6.0	1
103-65-1	n-Propylbenzene	ug/kg		ND	6.0	1
95-49-8	2-Chlorotoluene	ug/kg		ND	6.0	1
106-43-4	4-Chlorotoluene	ug/kg		ND	6.0	1
108-67-8	1,3,5-Trimethylbenzene	ug/kg		ND	6.0	1
98-06-6	tert-Butylbenzene	ug/kg		ND	6.0	1
95-63-6	1,2,4-Trimethylbenzene	ug/kg	0.44	J	6.0	1
135-98-8	sec-Butylbenzene	ug/kg		ND	6.0	1
541-73-1	1,3-Dichlorobenzene	ug/kg		ND	6.0	1
106-46-7	1,4-Dichlorobenzene	ug/kg		ND	6.0	1
99-87-6	p-Isopropyltoluene	ug/kg		ND	6.0	1
95-50-1	1,2-Dichlorobenzene	ug/kg		ND	6.0	1
104-51-8	n-Butylbenzene	ug/kg		ND	6.0	1
96-12-8	1,2-Dibromo-3-chloropropane	ug/kg		ND	12	1
76-13-1	Trichlorotrifluoroethane	ug/kg		ND	6.0	1

SURROGATES- In Percent Recovery:

Toluene-d8	86.8	(81 - 117%)
p-Bromofluorobenzene	88.3	(74 - 121%)
Dibromofluoromethane	90.8	(80 - 120%)
1,2-Dichloroethane-d4	93.3	(80 - 120%)

RL - Reporting Limit

HDR 9/21/99

Login #L9907381
August 4, 1999 12:05 pm

KEMRON ENVIRONMENTAL SERVICES

Lab Sample ID: L9907381-05
Client Sample ID: RE03-99-2004
Site/Work ID: 5824R/MR3R3M041045

Matrix: Soil
Collected: 07/17/99 N/A

% Solid: 83
COC Info: N/A

Analyte	Units	Result	Qualifiers	RL	Dil	Type	Analyst	Analysis Date	Time	Method
Percent Solids.....	% wt.	83		1.0	1	N/A	SMW	07/27/99	16:40	D2216-90

Product: 8082LA - PCB's - LANL

Lab Sample ID: L9907381-05
Client Sample ID: RE03-99-2004
Site/Work ID: 5824R/MR3R3M041045
Matrix: Soil

TCLP Extract Date: N/A
Extract Date: 07/22/99
Analysis Date: 07/26/99 Time: 13:26

Dil. Type: N/A
COC Info: N/A

Date Collected: 07/17/99

Instrument: HP7
Analyst: CDB
Lab File ID: 7G2628

Sample Weight: N/A
Extract Volume: N/A

% Solid: 83

Method: 8082\3550
Run ID: R70759
Batch : WG61476

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
12674-11-2	Aroclor-1016.....	ug/kg		ND	40	1
11104-28-2	Aroclor-1221.....	ug/kg		ND	80	1
11141-16-5	Aroclor-1232.....	ug/kg		ND	40	1
53469-21-9	Aroclor-1242.....	ug/kg		ND	40	1
12672-29-6	Aroclor-1248.....	ug/kg		ND	40	1
11097-69-1	Aroclor-1254.....	ug/kg		ND	40	1
11096-82-5	Aroclor-1260.....	ug/kg		ND	40	1

SURROGATES- In Percent Recovery:

2,4,5,6-Tetrachloro-m-xylene.....	66.0	(29 - 133%)
Decachlorobiphenyl.....	86.6	(30 - 173%)

RL = Reporting Limit

HDR
9/21/99

KEMRON ENVIRONMENTAL SERVICES

Product: DRO - Diesel Range Organics (GC)

Lab Sample ID: L9907381-05
Client Sample ID: RE03-99-2004
Site/Work ID: 5824R/MR3R3M041045
Matrix: Soil

TCLP Extract Date: N/A
Extract Date: 07/22/99
Analysis Date: 07/25/99 Time: 01:04

Dil. Type: N/A
COC Info: N/A

Date Collected: 07/17/99

Instrument: HP8
Analyst: HV
Lab File ID: G8016R

Sample Weight: N/A
Extract Volume: N/A

% Solid: 83

Method: 8015\3550
Run ID: R70839
Batch : WG61453

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
68334-30-5	Diesel Range Organics.....	ug/kg	31000 (J-, P3a)		4800	1

SURROGATES- In Percent Recovery:

o-Terphenyl.....	70.2		(43 - 136%)
Octacosane.....	17.7	*SMI	(25 - 162%)

Product: GRO - Gasoline Range Organics

Lab Sample ID: L9907381-05
Client Sample ID: RE03-99-2004
Site/Work ID: 5824R/MR3R3M041045
Matrix: Soil

TCLP Extract Date: N/A
Extract Date: N/A
Analysis Date: 07/26/99 Time: 18:48

Dil. Type: N/A
COC Info: N/A

Date Collected: 07/17/99

Instrument: HP5
Analyst: VMN
Lab File ID: 5G773

Sample Weight: N/A
Extract Volume: N/A

% Solid: 83

Method: 8015
Run ID: R71040
Batch : WG61593

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
8006-61-9	Gasoline Range Organics.....	ug/kg		ND	120	1

SURROGATES- In Percent Recovery:

Chlorobenzene.....	64.6	(64 - 148%)

RL = Reporting Limit

HDR
9/21/99

KEMRON ENVIRONMENTAL SERVICES

Product: 8260LS - VOA Library Search

Lab Sample ID: L9907381-05
Client Sample ID: RE03-99-2004
Site/Work ID: 5824R/MR3R3M041045
Matrix: Soil

TCLP Extract Date: N/A
Extract Date: N/A
Analysis Date: 07/22/99 Time: 15:25

Dil. Type: N/A
COC Info: N/A

Date Collected: 07/17/99

Instrument: HPMS6
Analyst: CMS
Lab File ID: 6M14662

Sample Weight: N/A
Extract Volume: N/A

% Solid: 83

Method: 8260B
Run ID: R70278
Batch : WG61351

CAS #	Compound	Units	Result	Qualifiers	RL	Ret Time
NA	Unknown	ug/kg	19.0			19.764
NA	Unknown	ug/kg	6.12			22.432

Product: 826LA - Volatile Organics

Lab Sample ID: L9907381-05
Client Sample ID: RE03-99-2004
Site/Work ID: 5824R/MR3R3M041045
Matrix: Soil

TCLP Extract Date: N/A
Extract Date: N/A
Analysis Date: 07/22/99 Time: 15:25

Dil. Type: N/A
COC Info: N/A

Date Collected: 07/17/99

Instrument: HPMS6
Analyst: CMS
Lab File ID: 6M14662

Sample Weight: N/A
Extract Volume: N/A

% Solid: 83

Method: 8260B
Run ID: R70278
Batch : WG61351

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution	
75-71-8	Dichlorodifluoromethane	ug/kg		ND	11	.9	
74-87-3	Chloromethane	ug/kg		ND	11	.9	
75-01-4	Vinyl chloride	ug/kg		ND	11	.9	
74-83-9	Bromomethane	ug/kg		ND	11	.9	
75-00-3	Chloroethane	ug/kg		ND	11	.9	
75-69-4	Trichlorofluoromethane	ug/kg		ND	5.4	.9	
75-35-4	1,1-Dichloroethene	ug/kg		ND	5.4	.9	
74-88-4	Iodomethane	ug/kg		ND	5.4	.9	
75-15-0	Carbon disulfide	ug/kg		ND	5.4	.9	
67-64-1	Acetone	ug/kg	6.3	J,B	22	.9	(U, V5)
75-09-2	Methylene chloride	ug/kg	5.4	B	5.4	.9	(U, V5)
156-60-5	trans-1,2-Dichloroethene	ug/kg		ND	11	.9	
75-34-3	1,1-Dichloroethane	ug/kg		ND	5.4	.9	
594-20-7	2,2-Dichloropropane	ug/kg		ND	5.4	.9	
156-59-2	cis-1,2-Dichloroethene	ug/kg		ND	11	.9	
78-93-3	2-Butanone	ug/kg		ND	22	.9	

RL = Reporting Limit

HDR
9/21/99

Login #L9907381
August 4, 1999 12:05 pm

KEMRON ENVIRONMENTAL SERVICES

Product: 826LA - Volatile Organics

Lab Sample ID: L9907381-05
Client Sample ID: RE03-99-2004
Site/Work ID: 5824R/MR3R3M041045
Matrix: Soil

TCLP Extract Date: N/A
Extract Date: N/A
Analysis Date: 07/22/99 Time: 15:25

Dil. Type: N/A
COC Info: N/A

Date Collected: 07/17/99

Instrument: HPMS6
Analyst: CMS
Lab File ID: 6M14662

Sample Weight: N/A
Extract Volume: N/A

% Solid: 83

Method: 8260B
Run ID: R70278
Batch : WG61351

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
74-97-5	Bromochloromethane	ug/kg		ND	5.4	.9
67-66-3	Chloroform	ug/kg		ND	5.4	.9
71-55-6	1,1,1-Trichloroethane	ug/kg		ND	5.4	.9
56-23-5	Carbon tetrachloride	ug/kg		ND	5.4	.9
563-58-6	1,1-Dichloropropene	ug/kg		ND	5.4	.9
71-43-2	Benzene	ug/kg		ND	5.4	.9
107-06-2	1,2-Dichloroethane	ug/kg		ND	5.4	.9
79-01-6	Trichloroethene	ug/kg		ND	5.4	.9
78-87-5	1,2-Dichloropropane	ug/kg		ND	5.4	.9
74-95-3	Dibromomethane	ug/kg		ND	5.4	.9
75-27-4	Bromodichloromethane	ug/kg		ND	5.4	.9
10061-02-6	trans-1,3-Dichloropropene	ug/kg		ND	5.4	.9
108-10-1	4-Methyl-2-pentanone	ug/kg		ND	5.4	.9
108-88-3	Toluene	ug/kg		ND	22	.9
10061-01-5	cis-1,3-Dichloropropene	ug/kg		ND	5.4	.9
79-00-5	1,1,2-Trichloroethane	ug/kg		ND	5.4	.9
127-18-4	Tetrachloroethene	ug/kg		ND	5.4	.9
142-28-9	1,3-Dichloropropane	ug/kg		ND	5.4	.9
124-48-1	Dibromochloromethane	ug/kg		ND	5.4	.9
591-78-6	2-Hexanone	ug/kg		ND	5.4	.9
106-93-4	1,2-Dibromoethane	ug/kg		ND	22	.9
108-90-7	Chlorobenzene	ug/kg		ND	5.4	.9
630-20-6	1,1,1,2-Tetrachloroethane	ug/kg		ND	5.4	.9
100-41-4	Ethyl benzene	ug/kg		ND	5.4	.9
1330-20-7	Xylenes (total)	ug/kg		ND	5.4	.9
100-42-5	Styrene	ug/kg		ND	5.4	.9
75-25-2	Bromoform	ug/kg		ND	5.4	.9
98-82-8	Isopropylbenzene	ug/kg		ND	5.4	.9
108-86-1	Bromobenzene	ug/kg		ND	5.4	.9
96-18-4	1,2,3-Trichloropropane	ug/kg		ND	5.4	.9
79-34-5	1,1,2,2-Tetrachloroethane	ug/kg		ND	5.4	.9
103-65-1	n-Propylbenzene	ug/kg		ND	5.4	.9
95-49-8	2-Chlorotoluene	ug/kg		ND	5.4	.9
106-43-4	4-Chlorotoluene	ug/kg		ND	5.4	.9
108-67-8	1,3,5-Trimethylbenzene	ug/kg		ND	5.4	.9
98-06-6	tert-Butylbenzene	ug/kg		ND	5.4	.9
95-63-6	1,2,4-Trimethylbenzene	ug/kg		ND	5.4	.9
135-98-8	sec-Butylbenzene	ug/kg		ND	5.4	.9
541-73-1	1,3-Dichlorobenzene	ug/kg		ND	5.4	.9

RL = Reporting Limit

HDR
9/21/99

Login #L9907381
August 4, 1999 12:05 pm

KEMRON ENVIRONMENTAL SERVICES

Product: 826LA - Volatile Organics

Lab Sample ID: L9907381-05
Client Sample ID: RE03-99-2004
Site/Work ID: 5824R/MR3R3M041045
Matrix: Soil

TCLP Extract Date: N/A
Extract Date: N/A
Analysis Date: 07/22/99 Time: 15:25

Dil. Type: N/A
COC Info: N/A

Date Collected: 07/17/99

Instrument: HPMS6
Analyst: CMS
Lab File ID: 6M14662

Sample Weight: N/A
Extract Volume: N/A

% Solid: 83

Method: 8260B
Run ID: R70278
Batch : WG61351

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
106-46-7	1,4-Dichlorobenzene	ug/kg		ND	5.4	.9
99-87-6	p-Isopropyltoluene	ug/kg		ND	5.4	.9
95-50-1	1,2-Dichlorobenzene	ug/kg		ND	5.4	.9
104-51-8	n-Butylbenzene	ug/kg		ND	5.4	.9
96-12-8	1,2-Dibromo-3-chloropropane	ug/kg		ND	11	.9
76-13-1	Trichlorotrifluoroethane	ug/kg		ND	5.4	.9

SURROGATES- In Percent Recovery:

Toluene-d8	87.7	(81 - 117%)
p-Bromofluorobenzene	89.3	(74 - 121%)
Dibromofluoromethane	92.3	(80 - 120%)
1,2-Dichloroethane-d4	96.2	(80 - 120%)

Lab Sample ID: L9907381-06
Client Sample ID: RE03-99-2005
Site/Work ID: 5824R/MR3R3M041045

Matrix: Soil
Collected: 07/17/99 N/A

% Solid: 83
COC Info: N/A

Analyte	Units	Result	Qualifiers	RL	Dil	Type	Analyst	Analysis Date	Time	Method
Percent Solids	% wt.	83		1.0	1	N/A	SMW	07/27/99	16:40	D2216-90

RL = Reporting Limit

NOR
9/21/99

KEMRON ENVIRONMENTAL SERVICES

Product: 8082LA - PCB's - LANL

Lab Sample ID: L9907381-06
Client Sample ID: RE03-99-2005
Site/Work ID: 5824R/MR3R3M041045
Matrix: Soil

TCLP Extract Date: N/A
Extract Date: 07/22/99
Analysis Date: 07/26/99 Time: 14:43

Dil. Type: N/A
COC Info: N/A

Date Collected: 07/17/99

Instrument: HP7
Analyst: CDB
Lab File ID: 7G2631

Sample Weight: N/A
Extract Volume: N/A

% Solid: 83

Method: 8082\3550
Run ID: R70759
Batch : WG61476

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
12674-11-2	Aroclor-1016	ug/kg		ND	40	1
11104-28-2	Aroclor-1221	ug/kg		ND	80	1
11141-16-5	Aroclor-1232	ug/kg		ND	40	1
53469-21-9	Aroclor-1242	ug/kg		ND	40	1
12672-29-6	Aroclor-1248	ug/kg		ND	40	1
11097-69-1	Aroclor-1254	ug/kg		ND	40	1
11096-82-5	Aroclor-1260	ug/kg		ND	40	1

SURROGATES- In Percent Recovery:

2,4,5,6-Tetrachloro-m-xylene	85.3	(29 - 133%)
Decachlorobiphenyl	107	(30 - 173%)

Product: DRO - Diesel Range Organics (GC)

Lab Sample ID: L9907381-06
Client Sample ID: RE03-99-2005
Site/Work ID: 5824R/MR3R3M041045
Matrix: Soil

TCLP Extract Date: N/A
Extract Date: 07/22/99
Analysis Date: 07/25/99 Time: 02:24

Dil. Type: N/A
COC Info: N/A

Date Collected: 07/17/99

Instrument: HP8
Analyst: HV
Lab File ID: G8017R

Sample Weight: N/A
Extract Volume: N/A

% Solid: 83

Method: 8015\3550
Run ID: R70839
Batch : WG61453

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
68334-30-5	Diesel Range Organics	ug/kg	5700		4800	1

SURROGATES- In Percent Recovery:

o-Terphenyl	55.5	(43 - 136%)
Octacosane	35.9	(25 - 162%)

RL = Reporting Limit

HDR
9/21/99

KEMRON ENVIRONMENTAL SERVICES

Product: GRO - Gasoline Range Organics

Lab Sample ID: L9907381-06
Client Sample ID: RE03-99-2005
Site/Work ID: 5824R/MR3R3M041045
Matrix: Soil

TCLP Extract Date: N/A
Extract Date: N/A
Analysis Date: 07/26/99 Time: 19:33

Dil. Type: N/A
COC Info: N/A

Date Collected: 07/17/99

Instrument: HP5
Analyst: VMN
Lab File ID: 5G774

Sample Weight: N/A
Extract Volume: N/A

% Solid: 83

Method: 8015
Run ID: R71040
Batch : WG61593

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
8006-61-9	Gasoline Range Organics.....	ug/kg		ND	120	1
	SURROGATES- In Percent Recovery:					
	Chlorobenzene.....		67.5	(64 - 148%)		

Product: 8260LS - VOA Library Search

Lab Sample ID: L9907381-06
Client Sample ID: RE03-99-2005
Site/Work ID: 5824R/MR3R3M041045
Matrix: Soil

TCLP Extract Date: N/A
Extract Date: N/A
Analysis Date: 07/22/99 Time: 16:04

Dil. Type: N/A
COC Info: N/A

Date Collected: 07/17/99

Instrument: HPMS6
Analyst: CMS
Lab File ID: 6M14663

Sample Weight: N/A
Extract Volume: N/A

% Solid: 83

Method: 8260B
Run ID: R70278
Batch : WG61351

CAS #	Compound	Units	Result	Qualifiers	RL	Ret Time
NA	Unknown.....	ug/kg	12.2			19.762

RL = Reporting Limit

NDR
9/21/99

Login #L9907381
August 4, 1999 12:05 pm

KEMRON ENVIRONMENTAL SERVICES

Product: 826LA - Volatile Organics

Lab Sample ID: L9907381-06
Client Sample ID: RE03-99-2005
Site/Work ID: 5824R/MR3R3M041045
Matrix: Soil

TCLP Extract Date: N/A
Extract Date: N/A
Analysis Date: 07/22/99 Time: 16:04

Dil. Type: N/A
COC Info: N/A

Date Collected: 07/17/99

Instrument: HPMS6
Analyst: CMS
Lab File ID: 6M14663

Sample Weight: N/A
Extract Volume: N/A

% Solid: 83

Method: 8260B
Run ID: R70278
Batch : WG61351

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
75-71-8	Dichlorodifluoromethane	ug/kg		ND	12	1
74-87-3	Chloromethane	ug/kg		ND	12	1
75-01-4	Vinyl chloride	ug/kg		ND	12	1
74-83-9	Bromomethane	ug/kg		ND	12	1
75-00-3	Chloroethane	ug/kg		ND	12	1
75-69-4	Trichlorofluoromethane	ug/kg		ND	12	1
75-35-4	1,1-Dichloroethene	ug/kg		ND	6.0	1
74-88-4	Iodomethane	ug/kg		ND	6.0	1
75-15-0	Carbon disulfide	ug/kg		ND	6.0	1
67-64-1	Acetone	ug/kg		ND	6.0	1
75-09-2	Methylene chloride	ug/kg	7.1	J,B	24	1 (u, V5)
156-60-5	trans-1,2-Dichloroethene	ug/kg	6.7	B	6.0	1 (u, V5)
75-34-3	1,1-Dichloroethane	ug/kg		ND	12	1
594-20-7	2,2-Dichloropropane	ug/kg		ND	6.0	1
156-59-2	cis-1,2-Dichloroethene	ug/kg		ND	6.0	1
78-93-3	2-Butanone	ug/kg		ND	12	1
74-97-5	Bromochloromethane	ug/kg		ND	24	1
67-66-3	Chloroform	ug/kg		ND	6.0	1
71-55-6	1,1,1-Trichloroethane	ug/kg		ND	6.0	1
56-23-5	Carbon tetrachloride	ug/kg		ND	6.0	1
563-58-6	1,1-Dichloropropene	ug/kg		ND	6.0	1
71-43-2	Benzene	ug/kg		ND	6.0	1
107-06-2	1,2-Dichloroethane	ug/kg		ND	6.0	1
79-01-6	Trichloroethene	ug/kg		ND	6.0	1
78-87-5	1,2-Dichloropropane	ug/kg		ND	6.0	1
74-95-3	Dibromomethane	ug/kg		ND	6.0	1
75-27-4	Bromodichloromethane	ug/kg		ND	6.0	1
10061-02-6	trans-1,3-Dichloropropene	ug/kg		ND	6.0	1
108-10-1	4-Methyl-2-pentanone	ug/kg		ND	6.0	1
108-88-3	Toluene	ug/kg		ND	24	1
10061-01-5	cis-1,3-Dichloropropene	ug/kg		ND	6.0	1
79-00-5	1,1,2-Trichloroethane	ug/kg		ND	6.0	1
127-18-4	Tetrachloroethene	ug/kg		ND	6.0	1
142-28-9	1,3-Dichloropropane	ug/kg		ND	6.0	1
124-48-1	Dibromochloromethane	ug/kg		ND	6.0	1
591-78-6	2-Hexanone	ug/kg		ND	6.0	1
106-93-4	1,2-Dibromoethane	ug/kg		ND	24	1
108-90-7	Chlorobenzene	ug/kg		ND	6.0	1
630-20-6	1,1,1,2-Tetrachloroethane	ug/kg		ND	6.0	1
				ND	6.0	1

RL = Reporting Limit

9/21/99

Login #L9907381
August 4, 1999 12:05 pm

KEMRON ENVIRONMENTAL SERVICES

Product: 826LA - Volatile Organics

Lab Sample ID: L9907381-06
Client Sample ID: RE03-99-2005
Site/Work ID: 5824R/MR3R3M041045
Matrix: Soil

TCLP Extract Date: N/A
Extract Date: N/A
Analysis Date: 07/22/99 Time: 16:04

Dil. Type: N/A
COC Info: N/A

Date Collected: 07/17/99

Instrument: HPMS6
Analyst: CMS
Lab File ID: 6M14663

Sample Weight: N/A
Extract Volume: N/A

% Solid: 83

Method: 8260B
Run ID: R70278
Batch : WG61351

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
100-41-4	Ethyl benzene	ug/kg		ND	6.0	1
1330-20-7	Xylenes (total)	ug/kg		ND	6.0	1
100-42-5	Styrene	ug/kg		ND	6.0	1
75-25-2	Bromoform	ug/kg		ND	6.0	1
98-82-8	Isopropylbenzene	ug/kg		ND	6.0	1
108-86-1	Bromobenzene	ug/kg		ND	6.0	1
96-18-4	1,2,3-Trichloropropane	ug/kg		ND	6.0	1
79-34-5	1,1,2,2-Tetrachloroethane	ug/kg		ND	6.0	1
103-65-1	n-Propylbenzene	ug/kg		ND	6.0	1
95-49-8	2-Chlorotoluene	ug/kg		ND	6.0	1
106-43-4	4-Chlorotoluene	ug/kg		ND	6.0	1
108-67-8	1,3,5-Trimethylbenzene	ug/kg		ND	6.0	1
98-06-6	tert-Butylbenzene	ug/kg		ND	6.0	1
95-63-6	1,2,4-Trimethylbenzene	ug/kg		ND	6.0	1
135-98-8	sec-Butylbenzene	ug/kg		ND	6.0	1
541-73-1	1,3-Dichlorobenzene	ug/kg		ND	6.0	1
106-46-7	1,4-Dichlorobenzene	ug/kg		ND	6.0	1
99-87-6	p-Isopropyltoluene	ug/kg		ND	6.0	1
95-50-1	1,2-Dichlorobenzene	ug/kg		ND	6.0	1
104-51-8	n-Butylbenzene	ug/kg		ND	6.0	1
96-12-8	1,2-Dibromo-3-chloropropane	ug/kg		ND	6.0	1
76-13-1	Trichlorotrifluoroethane	ug/kg		ND	12	1
		ug/kg		ND	6.0	1

SURROGATES- In Percent Recovery:

Toluene-d8	87.9	(81 - 117%)
p-Bromofluorobenzene	88.7	(74 - 121%)
Dibromofluoromethane	91.1	(80 - 120%)
1,2-Dichloroethane-d4	93.3	(80 - 120%)

RL = Reporting Limit

HDR 9/21/99

Login #L9907381
August 4, 1999 12:05 pm

KEMRON ENVIRONMENTAL SERVICES

Lab Sample ID: L9907381-07
Client Sample ID: RE03-99-2006
Site/Work ID: 5824R/MR3R3M041045

Matrix: Soil
Collected: 07/17/99 N/A

% Solid: 78
COC Info: N/A

Analyte	Units	Result	Qualifiers	RL	Dil	Type	Analyst	Analysis Date	Time	Method
Percent Solids.....	% wt.	78		1.0	1	N/A	SMW	07/27/99	16:40	D2216-90

Product: 8082LA - PCB's - LANL

Lab Sample ID: L9907381-07
Client Sample ID: RE03-99-2006
Site/Work ID: 5824R/MR3R3M041045
Matrix: Soil

TCLP Extract Date: N/A
Extract Date: 07/22/99
Analysis Date: 07/26/99 Time: 15:08

Dil. Type: N/A
COC Info: N/A

Date Collected: 07/17/99

Instrument: HP7
Analyst: CDB
Lab File ID: 7G2632

Sample Weight: N/A
Extract Volume: N/A

% Solid: 78

Method: 8082\3550
Run ID: R70759
Batch : WG61476

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
12674-11-2	Aroclor-1016.....	ug/kg		ND	42	1
11104-28-2	Aroclor-1221.....	ug/kg		ND	85	1
11141-16-5	Aroclor-1232.....	ug/kg		ND	42	1
53469-21-9	Aroclor-1242.....	ug/kg		ND	42	1
12672-29-6	Aroclor-1248.....	ug/kg		ND	42	1
11097-69-1	Aroclor-1254.....	ug/kg		ND	42	1
11096-82-5	Aroclor-1260.....	ug/kg		ND	42	1

SURROGATES- In Percent Recovery:

2,4,5,6-Tetrachloro-m-xylene.....	82.3	(29 - 133%)
Decachlorobiphenyl.....	112	(30 - 173%)

RL = Reporting Limit

KDR
9/21/99

KEMRON ENVIRONMENTAL SERVICES

Product: DRO - Diesel Range Organics (GC)

Lab Sample ID: L9907381-07
Client Sample ID: RE03-99-2006
Site/Work ID: 5824R/MR3R3M041045
Matrix: Soil

TCLP Extract Date: N/A
Extract Date: 07/22/99
Analysis Date: 07/25/99 Time: 03:42

Dil. Type: N/A
COC Info: N/A

Date Collected: 07/17/99

Instrument: HP8
Analyst: HV
Lab File ID: G8018R

Sample Weight: N/A
Extract Volume: N/A

% Solid: 78

Method: 8015\3550
Run ID: R70839
Batch : WG61453

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
68334-30-5	Diesel Range Organics.....	ug/kg	5500		5100	1

SURROGATES- In Percent Recovery:

o-Terphenyl.....	66.0	(43 - 136%)
Octacosane.....	44.4	(25 - 162%)

Product: GRO - Gasoline Range Organics

Lab Sample ID: L9907381-07
Client Sample ID: RE03-99-2006
Site/Work ID: 5824R/MR3R3M041045
Matrix: Soil

TCLP Extract Date: N/A
Extract Date: N/A
Analysis Date: 07/26/99 Time: 20:17

Dil. Type: N/A
COC Info: N/A

Date Collected: 07/17/99

Instrument: HP5
Analyst: VMN
Lab File ID: 5G775

Sample Weight: N/A
Extract Volume: N/A

% Solid: 78

Method: 8015
Run ID: R71040
Batch : WG61593

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
8006-61-9	Gasoline Range Organics.....	ug/kg	(UJ, P3C)	ND	130	1

SURROGATES- In Percent Recovery:

Chlorobenzene.....	62.7 *,RE	(64 - 148%)

RL = Reporting Limit

NOR 9/21/99

Login #L9907381
August 4, 1999 12:05 pm

KEMRON ENVIRONMENTAL SERVICES

Product: 8260LS - VOA Library Search

Lab Sample ID: L9907381-07
Client Sample ID: RE03-99-2006
Site/Work ID: 5824R/MR3R3M041045
Matrix: Soil

TCLP Extract Date: N/A
Extract Date: N/A
Analysis Date: 07/22/99 Time: 16:43

Dil. Type: N/A
COC Info: N/A

Date Collected: 07/17/99

Instrument: HPMS6
Analyst: CMS
Lab File ID: 6M14664

Sample Weight: N/A
Extract Volume: N/A

% Solid: 78

Method: 8260B
Run ID: R70278
Batch : WG61351

CAS #	Compound	Units	Result	Qualifiers	RL	Ret Time
NA	Unknown.....	ug/kg	15.8			19.759

Product: 826LA - Volatile Organics

Lab Sample ID: L9907381-07
Client Sample ID: RE03-99-2006
Site/Work ID: 5824R/MR3R3M041045
Matrix: Soil

TCLP Extract Date: N/A
Extract Date: N/A
Analysis Date: 07/22/99 Time: 16:43

Dil. Type: N/A
COC Info: N/A

Date Collected: 07/17/99

Instrument: HPMS6
Analyst: CMS
Lab File ID: 6M14664

Sample Weight: N/A
Extract Volume: N/A

% Solid: 78

Method: 8260B
Run ID: R70278
Batch : WG61351

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
75-71-8	Dichlorodifluoromethane.....	ug/kg		ND	12	.9
74-87-3	Chloromethane.....	ug/kg		ND	12	.9
75-01-4	Vinyl chloride.....	ug/kg		ND	12	.9
74-83-9	Bromomethane.....	ug/kg		ND	12	.9
75-00-3	Chloroethane.....	ug/kg		ND	12	.9
75-69-4	Trichlorofluoromethane.....	ug/kg		ND	12	.9
75-35-4	1,1-Dichloroethene.....	ug/kg		ND	5.8	.9
74-88-4	Iodomethane.....	ug/kg		ND	5.8	.9
75-15-0	Carbon disulfide.....	ug/kg		ND	5.8	.9
67-64-1	Acetone.....	ug/kg		ND	5.8	.9
75-09-2	Methylene chloride.....	ug/kg	5.4	J,B	23	.9 (u, V5)
156-60-5	trans-1,2-Dichloroethene.....	ug/kg	5.8	J,B	5.8	.9 (u, V5)
75-34-3	1,1-Dichloroethane.....	ug/kg		ND	12	.9
594-20-7	2,2-Dichloropropane.....	ug/kg		ND	5.8	.9
156-59-2	cis-1,2-Dichloroethene.....	ug/kg		ND	5.8	.9
78-93-3	2-Butanone.....	ug/kg		ND	12	.9
74-97-5	Bromochloromethane.....	ug/kg		ND	23	.9
					5.8	.9

RL = Reporting Limit

HDR 9/21/99

Login #L9907381
August 4, 1999 12:05 pm

KEMRON ENVIRONMENTAL SERVICES

Product: 826LA - Volatile Organics

Lab Sample ID: L9907381-07
Client Sample ID: RE03-99-2006
Site/Work ID: 5824R/MR3R3M041045
Matrix: Soil

TCLP Extract Date: N/A
Extract Date: N/A
Analysis Date: 07/22/99 Time: 16:43

Dil. Type: N/A
COC Info: N/A

Date Collected: 07/17/99

Instrument: HPMS6
Analyst: CMS
Lab File ID: 6M14664

Sample Weight: N/A
Extract Volume: N/A

% Solid: 78

Method: 8260B
Run ID: R70278
Batch : WG61351

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
67-66-3	Chloroform	ug/kg		ND	5.8	.9
71-55-6	1,1,1-Trichloroethane	ug/kg		ND	5.8	.9
56-23-5	Carbon tetrachloride	ug/kg		ND	5.8	.9
563-58-6	1,1-Dichloropropene	ug/kg		ND	5.8	.9
71-43-2	Benzene	ug/kg		ND	5.8	.9
107-06-2	1,2-Dichloroethane	ug/kg		ND	5.8	.9
79-01-6	Trichloroethene	ug/kg		ND	5.8	.9
78-87-5	1,2-Dichloropropane	ug/kg		ND	5.8	.9
74-95-3	Dibromomethane	ug/kg		ND	5.8	.9
75-27-4	Bromodichloromethane	ug/kg		ND	5.8	.9
10061-02-6	trans-1,3-Dichloropropene	ug/kg		ND	5.8	.9
108-10-1	4-Methyl-2-pentanone	ug/kg		ND	5.8	.9
108-88-3	Toluene	ug/kg		ND	23	.9
10061-01-5	cis-1,3-Dichloropropene	ug/kg		ND	5.8	.9
79-00-5	1,1,2-Trichloroethane	ug/kg		ND	5.8	.9
127-18-4	Tetrachloroethene	ug/kg		ND	5.8	.9
142-28-9	1,3-Dichloropropane	ug/kg		ND	5.8	.9
124-48-1	Dibromochloromethane	ug/kg		ND	5.8	.9
591-78-6	2-Hexanone	ug/kg		ND	5.8	.9
106-93-4	1,2-Dibromoethane	ug/kg		ND	23	.9
108-90-7	Chlorobenzene	ug/kg		ND	5.8	.9
630-20-6	1,1,1,2-Tetrachloroethane	ug/kg		ND	5.8	.9
100-41-4	Ethyl benzene	ug/kg		ND	5.8	.9
1330-20-7	Xylenes (total)	ug/kg		ND	5.8	.9
100-42-5	Styrene	ug/kg		ND	5.8	.9
75-25-2	Bromoform	ug/kg		ND	5.8	.9
98-82-8	Isopropylbenzene	ug/kg		ND	5.8	.9
108-86-1	Bromobenzene	ug/kg		ND	5.8	.9
96-18-4	1,2,3-Trichloropropane	ug/kg		ND	5.8	.9
79-34-5	1,1,2,2-Tetrachloroethane	ug/kg		ND	5.8	.9
103-65-1	n-Propylbenzene	ug/kg		ND	5.8	.9
95-49-8	2-Chlorotoluene	ug/kg		ND	5.8	.9
106-43-4	4-Chlorotoluene	ug/kg		ND	5.8	.9
108-67-8	1,3,5-Trimethylbenzene	ug/kg		ND	5.8	.9
98-06-6	tert-Butylbenzene	ug/kg		ND	5.8	.9
95-63-6	1,2,4-Trimethylbenzene	ug/kg		ND	5.8	.9
135-98-8	sec-Butylbenzene	ug/kg		ND	5.8	.9
541-73-1	1,3-Dichlorobenzene	ug/kg		ND	5.8	.9
106-46-7	1,4-Dichlorobenzene	ug/kg		ND	5.8	.9

RL = Reporting Limit

HDR 9/21/99

Login #L9907381
August 4, 1999 12:05 pm

KEMRON ENVIRONMENTAL SERVICES

Product: 826LA - Volatile Organics

Lab Sample ID: L9907381-07
Client Sample ID: RE03-99-2006
Site/Work ID: 5824R/MR3R3M041045
Matrix: Soil

TCLP Extract Date: N/A
Extract Date: N/A
Analysis Date: 07/22/99 Time: 16:43

Dil. Type: N/A
COC Info: N/A

Date Collected: 07/17/99

Instrument: HPMS6
Analyst: CMS
Lab File ID: 6M14664

Sample Weight: N/A
Extract Volume: N/A

% Solid: 78

Method: 8260B
Run ID: R70278
Batch : WG61351

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
99-87-6	p-Isopropyltoluene	ug/kg		ND	5.8	.9
95-50-1	1,2-Dichlorobenzene	ug/kg		ND	5.8	.9
104-51-8	n-Butylbenzene	ug/kg		ND	5.8	.9
96-12-8	1,2-Dibromo-3-chloropropane	ug/kg		ND	12	.9
76-13-1	Trichlorotrifluoroethane	ug/kg		ND	5.8	.9

SURROGATES- In Percent Recovery:

Toluene-d8	88.1	(81 - 117%)
p-Bromofluorobenzene	89.1	(74 - 121%)
Dibromofluoromethane	94.2	(80 - 120%)
1,2-Dichloroethane-d4	100	(80 - 120%)

Lab Sample ID: L9907381-08
Client Sample ID: RE03-99-2007
Site/Work ID: 5824R/MR3R3M041045

Matrix: Soil
Collected: 07/17/99 N/A

% Solid: 81
COC Info: N/A

Analyte	Units	Result	Qualifiers	RL	Dil	Type	Analyst	Analysis Date	Time	Method
Percent Solids	% wt.	81		1.0	1	N/A	SMW	07/27/99	16:40	D2216-90

RL = Reporting Limit

HDR
9/21/99

Login #L9907381
August 4, 1999 12:05 pm

KEMRON ENVIRONMENTAL SERVICES

Product: 8082LA - PCB's - LANL

Lab Sample ID: L9907381-08
Client Sample ID: RE03-99-2007
Site/Work ID: 5824R/MR3R3M041045
Matrix: Soil

TCLP Extract Date: N/A
Extract Date: 07/22/99
Analysis Date: 07/26/99 Time: 15:34

Dil. Type: N/A
COC Info: N/A

Date Collected: 07/17/99

Instrument: HP7
Analyst: CDB
Lab File ID: 7G2633

Sample Weight: N/A
Extract Volume: N/A

% Solid: 81

Method: 8082\3550
Run ID: R70759
Batch : WG61476

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
12674-11-2	Aroclor-1016	ug/kg		ND	41	1
11104-28-2	Aroclor-1221	ug/kg		ND	81	1
11141-16-5	Aroclor-1232	ug/kg		ND	41	1
53469-21-9	Aroclor-1242	ug/kg		ND	41	1
12672-29-6	Aroclor-1248	ug/kg		ND	41	1
11097-69-1	Aroclor-1254	ug/kg		ND	41	1
11096-82-5	Aroclor-1260	ug/kg		ND	41	1

SURROGATES- In Percent Recovery:

2,4,5,6-Tetrachloro-m-xylene	93.1	(29 - 133%)
Decachlorobiphenyl	127	(30 - 173%)

Product: DRO - Diesel Range Organics (GC)

Lab Sample ID: L9907381-08
Client Sample ID: RE03-99-2007
Site/Work ID: 5824R/MR3R3M041045
Matrix: Soil

TCLP Extract Date: N/A
Extract Date: 07/22/99
Analysis Date: 07/25/99 Time: 05:01

Dil. Type: N/A
COC Info: N/A

Date Collected: 07/17/99

Instrument: HP8
Analyst: HV
Lab File ID: G8019R

Sample Weight: N/A
Extract Volume: N/A

% Solid: 81

Method: 8015\3550
Run ID: R70839
Batch : WG61453

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
68334-30-5	Diesel Range Organics	ug/kg		ND	4900	1

SURROGATES- In Percent Recovery:

o-Terphenyl	63.8	(43 - 136%)
Octacosane	62.5	(25 - 162%)

RL = Reporting Limit

NDR
9/21/99

KEMRON ENVIRONMENTAL SERVICES

Product: GRO - Gasoline Range Organics

Lab Sample ID: L9907381-08
Client Sample ID: RE03-99-2007
Site/Work ID: 5824R/MR3R3M041045
Matrix: Soil

TCLP Extract Date: N/A
Extract Date: N/A
Analysis Date: 07/26/99 Time: 21:01

Dil. Type: N/A
COC Info: N/A

Date Collected: 07/17/99

Instrument: HP5
Analyst: VMN
Lab File ID: 5G776

Sample Weight: N/A
Extract Volume: N/A

% Solid: 81

Method: 8015
Run ID: R71040
Batch : WG61593

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
8006-61-9	Gasoline Range Organics.....	ug/kg		ND	120	1
	SURROGATES- In Percent Recovery:					
	Chlorobenzene.....		68.1	(64 - 148%)		

Product: 8260LS - VOA Library Search

Lab Sample ID: L9907381-08
Client Sample ID: RE03-99-2007
Site/Work ID: 5824R/MR3R3M041045
Matrix: Soil

TCLP Extract Date: N/A
Extract Date: N/A
Analysis Date: 07/22/99 Time: 17:22

Dil. Type: N/A
COC Info: N/A

Date Collected: 07/17/99

Instrument: HPMS6
Analyst: CMS
Lab File ID: 6M14665

Sample Weight: N/A
Extract Volume: N/A

% Solid: 81

Method: 8260B
Run ID: R70278
Batch : WG61351

CAS #	Compound	Units	Result	Qualifiers	RL	Ret Time
NA	Unknown.....	ug/kg	22.2			19.759

RL = Reporting Limit

HDR
9/21/99

Login #L9907381
August 4, 1999 12:05 pm

KEMRON ENVIRONMENTAL SERVICES

Product: 826LA - Volatile Organics

Lab Sample ID: L9907381-08
Client Sample ID: RE03-99-2007
Site/Work ID: 5824R/MR3R3M041045
Matrix: Soil

TCLP Extract Date: N/A
Extract Date: N/A
Analysis Date: 07/22/99 Time: 17:22

Dil. Type: N/A
COC Info: N/A

Date Collected: 07/17/99

Instrument: HPMS6
Analyst: CMS
Lab File ID: 6M14665

Sample Weight: N/A
Extract Volume: N/A

% Solid: 81

Method: 8260B
Run ID: R70278
Batch : WG61351

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
75-71-8	Dichlorodifluoromethane	ug/kg		ND	11	.9
74-87-3	Chloromethane	ug/kg		ND	11	.9
75-01-4	Vinyl chloride	ug/kg		ND	11	.9
74-83-9	Bromomethane	ug/kg		ND	11	.9
75-00-3	Chloroethane	ug/kg		ND	11	.9
75-69-4	Trichlorofluoromethane	ug/kg		ND	11	.9
75-35-4	1,1-Dichloroethene	ug/kg		ND	5.6	.9
74-88-4	Iodomethane	ug/kg		ND	5.6	.9
75-15-0	Carbon disulfide	ug/kg		ND	5.6	.9
67-64-1	Acetone	ug/kg		ND	5.6	.9
75-09-2	Methylene chloride	ug/kg	5.3	J,B	22	.9 (U,V5)
156-60-5	trans-1,2-Dichloroethene	ug/kg	5.6	B	5.6	.9 (U,V5)
75-34-3	1,1-Dichloroethane	ug/kg		ND	11	.9
594-20-7	2,2-Dichloropropane	ug/kg		ND	5.6	.9
156-59-2	cis-1,2-Dichloroethene	ug/kg		ND	5.6	.9
78-93-3	2-Butanone	ug/kg		ND	11	.9
74-97-5	Bromochloromethane	ug/kg		ND	22	.9
67-66-3	Chloroform	ug/kg		ND	5.6	.9
71-55-6	1,1,1-Trichloroethane	ug/kg		ND	5.6	.9
56-23-5	Carbon tetrachloride	ug/kg		ND	5.6	.9
563-58-6	1,1-Dichloropropene	ug/kg		ND	5.6	.9
71-43-2	Benzene	ug/kg		ND	5.6	.9
107-06-2	1,2-Dichloroethane	ug/kg		ND	5.6	.9
79-01-6	Trichloroethene	ug/kg		ND	5.6	.9
78-87-5	1,2-Dichloropropane	ug/kg		ND	5.6	.9
74-95-3	Dibromomethane	ug/kg		ND	5.6	.9
75-27-4	Bromodichloromethane	ug/kg		ND	5.6	.9
10061-02-6	trans-1,3-Dichloropropene	ug/kg		ND	5.6	.9
108-10-1	4-Methyl-2-pentanone	ug/kg		ND	5.6	.9
108-88-3	Toluene	ug/kg		ND	22	.9
10061-01-5	cis-1,3-Dichloropropene	ug/kg		ND	5.6	.9
79-00-5	1,1,2-Trichloroethane	ug/kg		ND	5.6	.9
127-18-4	Tetrachloroethene	ug/kg		ND	5.6	.9
142-28-9	1,3-Dichloropropane	ug/kg		ND	5.6	.9
124-48-1	Dibromochloromethane	ug/kg		ND	5.6	.9
591-78-6	2-Hexanone	ug/kg		ND	5.6	.9
106-93-4	1,2-Dibromoethane	ug/kg		ND	22	.9
108-90-7	Chlorobenzene	ug/kg		ND	5.6	.9
630-20-6	1,1,1,2-Tetrachloroethane	ug/kg		ND	5.6	.9

RL = Reporting Limit

9/21/99

Login #L9907381
August 4, 1999 12:05 pm

KEMRON ENVIRONMENTAL SERVICES

Product: 826LA - Volatile Organics

Lab Sample ID: L9907381-08
Client Sample ID: RE03-99-2007
Site/Work ID: 5824R/MR3R3M041045
Matrix: Soil

TCLP Extract Date: N/A
Extract Date: N/A
Analysis Date: 07/22/99 Time: 17:22

Dil. Type: N/A
COC Info: N/A

Date Collected: 07/17/99

Instrument: HPMS6
Analyst: CMS
Lab File ID: 6M14665

Sample Weight: N/A
Extract Volume: N/A

% Solid: 81

Method: 8260B
Run ID: R70278
Batch : WG61351

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
100-41-4	Ethyl benzene	ug/kg		ND	5.6	.9
1330-20-7	Xylenes (total)	ug/kg		ND	5.6	.9
100-42-5	Styrene	ug/kg		ND	5.6	.9
75-25-2	Bromoform	ug/kg		ND	5.6	.9
98-82-8	Isopropylbenzene	ug/kg		ND	5.6	.9
108-86-1	Bromobenzene	ug/kg		ND	5.6	.9
96-18-4	1,2,3-Trichloropropane	ug/kg		ND	5.6	.9
79-34-5	1,1,2,2-Tetrachloroethane	ug/kg		ND	5.6	.9
103-65-1	n-Propylbenzene	ug/kg		ND	5.6	.9
95-49-8	2-Chlorotoluene	ug/kg		ND	5.6	.9
106-43-4	4-Chlorotoluene	ug/kg		ND	5.6	.9
108-67-8	1,3,5-Trimethylbenzene	ug/kg		ND	5.6	.9
98-06-6	tert-Butylbenzene	ug/kg		ND	5.6	.9
95-63-6	1,2,4-Trimethylbenzene	ug/kg		ND	5.6	.9
135-98-8	sec-Butylbenzene	ug/kg		ND	5.6	.9
541-73-1	1,3-Dichlorobenzene	ug/kg		ND	5.6	.9
106-46-7	1,4-Dichlorobenzene	ug/kg		ND	5.6	.9
99-87-6	p-Isopropyltoluene	ug/kg		ND	5.6	.9
95-50-1	1,2-Dichlorobenzene	ug/kg		ND	5.6	.9
104-51-8	n-Butylbenzene	ug/kg		ND	5.6	.9
96-12-8	1,2-Dibromo-3-chloropropane	ug/kg		ND	5.6	.9
76-13-1	Trichlorotrifluoroethane	ug/kg		ND	11	.9
		ug/kg		ND	5.6	.9

SURROGATES- In Percent Recovery:

Toluene-d8	86.7	(81 - 117%)
p-Bromofluorobenzene	86.5	(74 - 121%)
Dibromofluoromethane	91.6	(80 - 120%)
1,2-Dichloroethane-d4	93.0	(80 - 120%)

RL = Reporting Limit

HDR 9/21/99

KEMRON ENVIRONMENTAL SERVICES , OVL
SEMI-VOLATILES QUALITY CONTROL SUMMARY

ANAL WORK GRP : WG61453
METHOD : 8015
MATRIX : soil
CONCENTRATION UNITS : ug / kg
PREP WORK GRP : WG61386

EXT DATE : 07-22-99
EXT BENCH SHEET : V120-P21
BLK FILENAME : G80010R
LCS FILENAME : G80011R
INSTRUMENT : HP8

RUN DATE : 07-23-99
SMPL ID : 07-381-03
SMPL FLNM : G80014R
MS FLNM : G80022R
MSD FLNM : G80023R

ANALYTE	CONCENTRATION , ug / kg									PERCENT RECOVERY , %										PERCENT		
	RDL	BLANK	LCS SPIKE ADDED	LCS	LCS DUP	SAMPLE	MS SPIKE ADDED	MS	MSD	BLANK	LCS	LCS DUP	LCS LCL	LCS UCL	SAMPLE	MS	MSD	MS LCL	MS UCL	DUP RPD	MSD RPD	RPD UCL
DIESEL	4000	ND	40000	30046	NA	12073	40000	34409	34017	NA	75.1	NA	18.0	173	NA	55.8	54.9	18.0	173	NA	1	20
SURROGATE																						
o-TERPHENYL	800	469	800	673	NA	495	800	610	669	58.7	84.2	NA	43.0	136	61.9	76.2	83.7	43.0	136	NA	9	20
OCTACOSANE	800	644	800	724	NA	284	800	156	194	80.4	90.5	NA	25.0	162	35.5	19.5	24.3	25.0	162	NA	22	20

NOTES & DEFINITIONS :
NA = NOT APPLICABLE
ND = NOT DETECTED
RDL=REPORTING DETECTION LIMIT

Kemron Environmental Services

Volatile Quality Control Summary
Method 8015B

Workgroup	WG61593
RunDate	26-Jul-99
Matrix:	Soil
Instrument	HP5
Analyst	VMN

BLK FLNM:	5G768
LCS FLNM:	5G767
SMPL Num:	07-381-08
SMPL FLNM:	5G776
MS FLNM:	5G778
MSD FLNM:	5G779

LCS DF:	1
SMPL DF:	1
MS DF:	1
MSD DF:	1

Daily QA Information		Concentration, PPB							Percent Recovery					% RPD		Outliers			
	MDL	BLK	LCS	LCS Spike Level	SMPL	MS	MSD	MS Spike Level	LCS	LCS Limit	MS	MSD	MS Limit	MS RPD	RPD UCL	LCS	MS	MSD	%RPD
Target Analytes	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	%	%	%	%	%	%	%				
GRO	21.7	ND	822.5	900.0	ND	819.0	842.0	900.0	91.4	79 - 113	91.0	93.6	79 - 113	2.8	16.0				
		BLK	LCS		SMPL	MS	MSD	SS Spike Level	BLK	LCS		SMPL	MS	MSD	Surrogate Limit	BLK	LCS	SMPL	MS	MSD
Surrogate Standard		ug/kg	ug/kg		ug/kg	ug/kg	ug/kg	ug/kg	%	%		%	%	%	%					
chlorobenzene		22.5	22.9		20.4	25.1	25.3	30.0	75.0	76.4		68.1	83.6	84.4	64 - 148					

Notes and Definitions

MDL = Method Detection Limit
BLK = Method Blank
LCS = Laboratory Control Sample
SMPL = Sample Results
MS/MSD = Matrix Spike / Matrix Spike Duplicate
UPL = Upper Control Limit
RPD = Relative Percent Difference

ND = Not Detected
NA = Not Applicable
DF = Dilution Factor
DL = Diluted Out
SS = Surrogate Standard
L = Low
H = High

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: KEMRON ENVIRONMENTAL Contract: 7797L0014-

Lab Code: _____ Case No.: L9907381 SAS No.: _____ SDG No.: _____

Lab File ID: 6M14571.D BFB Injection Date: 07/15/99

Instrument ID: HPMS 6 BFB Injection Time: 10:19

GC Column: RESTEK ID: 0.32 (mm) Heated Purge: (Y/N) Y

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	8.0 - 40.0% of mass 95	16.7
75	30.0 - 66.0% of mass 95	47.0
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.5
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	50.0 - 120.0% of mass 95	79.1
175	4.0 - 9.0% of mass 174	5.5 (6.9)1
176	93.0 - 101.0% of mass 174	76.3 (96.5)1
177	5.0 - 9.0% of mass 176	5.2 (6.8)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD050	WG61023-02 50 PPB	6M14573.D	07/15/99	11:46
02	VSTD020	WG61023-03 20 PPB	6M14574.D	07/15/99	12:20
03	VSTD010	WG61023-04 10 PPB	6M14575.D	07/15/99	12:54
04	VSTD005	WG61023-05 5 PPB S	6M14576.D	07/15/99	13:29
05	VSTD001	WG61023-06 1 PPB S	6M14577.D	07/15/99	14:03
06	VSTD100	WG61023-07 100 PPB	6M14578.D	07/15/99	14:38
07	VSTD200	WG61023-08 200 PPB	6M14579.D	07/15/99	15:12
08	VLCS0715	WG61023-09 20 PPB	6M14581.D	07/15/99	16:21
09	VBLK0715	WG61023-10 VBLK071	6M14582.D	07/15/99	16:56
10	RE53-99-134	L9907207-04 A LANL 8	6M14583.D	07/15/99	17:31
11	RE53-99-135	L9907207-05 A LANL 8	6M14584.D	07/15/99	18:05
12	RE53-99-138	L9907207-06 A LANL 8	6M14585.D	07/15/99	18:38
13	RE53-99-139	L9907207-07 A LANL 8	6M14586.D	07/15/99	19:12
14	RE53-99-140	L9907207-08 A LANL 8	6M14587.D	07/15/99	19:45
15	RE53-99-141	L9907207-09 A LANL 8	6M14588.D	07/15/99	20:19
16	RE53-99-158	L9907207-10 A LANL 8	6M14589.D	07/15/99	20:52
17	RE53-99-159	L9907207-11 B LANL 8	6M14590.D	07/15/99	21:26

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: KEMRON ENVIRONMENTAL Contract: 7797L0014-

Lab Code: _____ Case No.: L9907381 SAS No.: _____ SDG No.: _____

Lab File ID: 6M14652.D BFB Injection Date: 07/22/99

Instrument ID: HPMS 6 BFB Injection Time: 09:00

GC Column: RESTEK ID: 0.32 (mm) Heated Purge: (Y/N) Y

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	8.0 - 40.0% of mass 95	17.1
75	30.0 - 66.0% of mass 95	46.2
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.9
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	50.0 - 120.0% of mass 95	80.6
175	4.0 - 9.0% of mass 174	6.0 (7.4)1
176	93.0 - 101.0% of mass 174	79.2 (98.3)1
177	5.0 - 9.0% of mass 176	5.4 (6.9)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD050	WG61369-02 50 PPB	6M14653.D	07/22/99	09:29
02	VBLK0722	WG61369-03 VBLK072	6M14654.D	07/22/99	10:10
03	VLCS0722	WG61369-04 20 PPB	6M14655.D	07/22/99	10:45
04	RE03-99-2000	L9907381-01 A LANL 8	6M14658.D	07/22/99	12:50
05	RE03-99-2001	L9907381-02 A LANL 8	6M14659.D	07/22/99	13:27
06	RE03-99-2002	L9907381-03 A LANL 8	6M14660.D	07/22/99	14:05
07	RE03-99-2003	L9907381-04 A LANL 8	6M14661.D	07/22/99	14:45
08	RE03-99-2004	L9907381-05 A LANL 8	6M14662.D	07/22/99	15:25
09	RE03-99-2005	L9907381-06 A LANL 8	6M14663.D	07/22/99	16:04
10	RE03-99-2006	L9907381-07 A LANL 8	6M14664.D	07/22/99	16:43
11	RE03-99-2007	L9907381-08 A LANL 8	6M14665.D	07/22/99	17:22
12	0816-99-1153	WG61351-05 LANL 82	6M14666.D	07/22/99	18:02
13	0816-99-1153 MS	WG61351-06 MS LANL	6M14667.D	07/22/99	18:40
14	0816-99-1153 MSD	WG61351-07 MSD LA	6M14668.D	07/22/99	19:18
15	0816-99-1154	L9907372-03 LANL 826	6M14669.D	07/22/99	19:54
16	0816-99-1155	L9907372-04 LANL 826	6M14670.D	07/22/99	20:29
17	0816-99-1156	L9907372-05 LANL 826	6M14671.D	07/22/99	21:04
18	0816-99-1152	L9907372-01 LANL 826	6M14672.D	07/22/99	21:39

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: KEMRON ENVIRONMENTAL Contract: 7797L0014-8M

Lab Code: _____ Case No.: L9907381 SAS No.: _____ SDG No.: _____

Lab File ID (Standard): 6M14653.D Date Analyzed: 07/22/99

Instrument ID: HPMS 6 Time Analyzed: 09:29

GC Column: RESTEK ID: 0.32 (mm) Heated Purge: (Y/N) Y

		IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
	12 HOUR STD	1647952	11.92	1257892	16.43	656829	20.01
	UPPER LIMIT	3295904	11.42	2515784	15.93	1313658	19.51
	LOWER LIMIT	823976	12.42	628946	16.93	328415	20.51
	EPA SAMPLE NO.						
01	VBLK0722	1587583	11.92	1207547	16.43	640746	20.01
02	VLCS0722	1567304	11.92	1208697	16.43	673091	20.01
03	RE03-99-2000	1419562	11.92	1012598	16.43	393497	20.01
04	RE03-99-2001	1460561	11.92	1081440	16.43	461985	20.01
05	RE03-99-2002	1502416	11.92	1140777	16.43	556032	20.01
06	RE03-99-2003	1472610	11.91	1138659	16.43	617210	20.01
07	RE03-99-2004	1500137	11.91	1152638	16.43	621445	20.01
08	RE03-99-2005	1481480	11.92	1145750	16.43	622575	20.01
09	RE03-99-2006	1439554	11.91	1124795	16.43	621330	20.01
10	RE03-99-2007	1469117	11.91	1132821	16.43	620646	20.01
11	0816-99-1153	1463166	11.91	1126401	16.42	609881	20.01
12	0816-99-1153 MS	1491021	11.91	1158432	16.43	631263	20.01
13	0816-99-1153 MS	1505843	11.92	1151501	16.43	619590	20.01
14	0816-99-1154	1423682	11.92	1094180	16.43	593048	20.01
15	0816-99-1155	1471078	11.91	1122003	16.42	589596	20.00
16	0816-99-1156	1467509	11.91	1130677	16.42	613371	20.00
17	0816-99-1152	1461960	11.92	1127590	16.42	609665	20.00

IS1 = Fluorobenzene
IS2 = Chlorobenzene-d5
IS3 = 1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column to be used to flag values outside QC limit with an asterisk.
* Values outside of contract required QC limits

Kemron Environmental Services -OVL
Volatile Quality Control Summary

Workgroup #:	WG61351	**Run Date:**	7/22/99	**SMPL Num:**	07-372-02	**LCS DF:**	1
Method:	8260B	**Instrument ID:**	HPMS6	**SMPL FLNM:**	6M14666.D	**SMPL DF:**	1
Matrix:	SOIL	**BLK FLNM:**	6M14654.D	**MS FLNM:**	6M14667.D	**MS DF:**	1
Units:	ug/Kg	**LCS FLNM:**	6M14655.D	**MSD FLNM:**	6M14668.D	**MSD DF:**	1

		CONCENTRATION, PPB							PERCENT RECOVERY									PERCENT RPD		OUTLIERS					
Target Analytes	MDL ug/Kg	Blank ug/Kg	LCS ug/Kg	LCS Spike Level ug/Kg	Sample ug/Kg	MS ug/Kg	MSD ug/Kg	MS Spike Level ug/Kg	BLK %	LCS %	LCS LCL %	LCS UCL %	SMPL %	MS %	MSD %	MS LCL %	MS UCL %	MS RPD %	RPD UCL %	Blank	LCS	Sample	MS	MSD	RPD
dichlorodifluoromethane	0.31	ND	19.6	20.0	ND	20.3	18.4	20.0	ND	98.0	19.0	175.0	ND	101.6	92.0	19.0	175.0	9.9	43.0						
vinyl chloride	0.39	ND	18.9	20.0	ND	18.9	17.0	20.0	ND	94.5	67.0	141.0	ND	94.3	85.1	67.0	141.0	10.3	26.0						
chloromethane	0.34	ND	17.3	20.0	ND	17.3	16.7	20.0	ND	86.5	54.0	144.0	ND	86.5	83.7	54.0	144.0	3.2	25.0						
bromomethane	0.42	ND	21.7	20.0	ND	20.0	19.0	20.0	ND	108.5	67.0	143.0	ND	100.0	94.9	67.0	143.0	5.2	27.0						
chloroethane	0.46	ND	20.1	20.0	ND	19.7	18.9	20.0	ND	100.6	71.0	135.0	ND	98.6	94.4	71.0	135.0	4.4	24.0						
trichlorofluoromethane	0.28	ND	21.6	20.0	ND	37.4	33.9	20.0	ND	108.1	68.0	151.0	ND	187.1	169.3	68.0	151.0	10.0	24.0				H	H	
acetone	2.5	4.8	24.4	20.0	3.9	17.1	19.5	20.0	4.8	122.0	70.0	161.0	3.9	66.3	78.4	70.0	161.0	13.2	51.0				L		
trichlorotrifluoroethane	0.00	ND	NS	NS	ND	NS	NS	NS	ND	NS	NA	NA	ND	NA	NA	NA	NA	NA	NA						
1,1-dichloroethene	0.19	ND	20.5	20.0	ND	19.9	18.3	20.0	ND	102.6	83.0	133.0	ND	99.6	91.6	83.0	133.0	8.4	16.0						
iodomethane	0.63	ND	12.1	20.0	ND	7.0	7.2	20.0	ND	NS	NA	NA	ND	34.8	36.0	NA	NA	3.4	NA						
methylene chloride	2.21	4.5	20.9	20.0	3.2	16.3	19.9	20.0	4.5	104.5	70.0	130.0	3.2	65.8	83.8	70.0	130.0	19.8	17.0				L	L	
carbon disulfide	0.59	ND	11.4	20.0	ND	9.0	7.3	20.0	ND	57.2	65.0	135.0	ND	45.0	36.3	65.0	135.0	21.5	19.0		L		L		H
trans-1,2-dichloroethene	0.23	ND	22.3	20.0	ND	18.9	17.6	20.0	ND	111.4	81.0	145.0	ND	94.5	88.1	81.0	145.0	7.1	15.0				L	L	H
1,1-dichloroethane	0.21	ND	20.7	20.0	ND	18.9	18.7	20.0	ND	103.3	86.0	126.0	ND	94.3	93.6	86.0	126.0	0.7	16.0						
2-butanone	0.6	ND	20.0	20.0	ND	13.4	15.7	20.0	ND	100.2	39.0	159.0	ND	66.9	78.4	39.0	159.0	15.8	47.0						
2,2-dichloropropane	0.20	ND	22.3	20.0	ND	21.1	19.4	20.0	ND	111.4	70.0	134.0	ND	105.5	96.8	70.0	134.0	8.6	20.0						
cis-1,2-dichloroethene	0.19	ND	20.6	20.0	ND	17.5	17.4	20.0	ND	102.8	78.0	129.0	ND	87.3	87.0	78.0	129.0	0.3	16.0						
chloroform	0.17	ND	21.3	20.0	ND	19.2	19.3	20.0	ND	106.5	81.0	126.0	ND	96.2	96.6	81.0	126.0	0.4	15.0						
bromochloromethane	0.31	ND	20.9	20.0	ND	16.7	17.9	20.0	ND	104.3	81.0	129.0	ND	83.5	89.7	81.0	129.0	7.1	15.0						
1,1,1-trichloroethane	0.18	ND	22.2	20.0	ND	21.5	20.1	20.0	ND	110.9	77.0	130.0	ND	107.7	100.6	77.0	130.0	6.8	17.0						
1,1-dichloropropene	0.18	ND	22.9	20.0	ND	21.2	19.5	20.0	ND	114.6	92.0	136.0	ND	105.9	97.3	92.0	136.0	8.5	15.0						
carbon tetrachloride	0.17	ND	24.0	20.0	ND	23.2	21.3	20.0	ND	120.0	76.0	132.0	ND	116.2	106.3	76.0	132.0	8.9	19.0						
1,2-dichloroethane	0.16	ND	21.0	20.0	ND	16.9	18.5	20.0	ND	104.9	78.0	128.0	ND	84.6	92.4	78.0	128.0	8.9	16.0						
benzene	0.18	ND	20.8	20.0	ND	18.5	18.1	20.0	ND	103.8	86.0	122.0	ND	92.4	90.6	86.0	122.0	1.9	15.0						
trichloroethene	0.19	ND	20.9	20.0	ND	18.4	17.2	20.0	ND	104.3	84.0	125.0	ND	92.2	86.2	84.0	125.0	6.7	15.0						
1,2-dichloropropane	0.15	ND	20.3	20.0	ND	17.4	17.9	20.0	ND	101.3	83.0	125.0	ND	86.8	89.7	83.0	125.0	3.3	15.0						
bromodichloromethane	0.15	ND	21.9	20.0	ND	18.1	19.2	20.0	ND	109.3	80.0	130.0	ND	90.3	96.2	80.0	130.0	6.3	15.0						
dibromomethane	0.27	ND	20.5	20.0	ND	15.5	16.9	20.0	ND	102.4	80.0	127.0	ND	77.5	84.5	80.0	127.0	8.7	15.0				L		
4-methyl-2-pentanone	0.5	ND	21.3	20.0	ND	14.9	17.0	20.0	ND	106.3	48.0	158.0	ND	74.7	85.2	48.0	158.0	13.2	42.0						
cis-1,3-dichloropropene	0.30	ND	21.9	20.0	ND	16.0	17.1	20.0	ND	109.3	85.0	127.0	ND	80.2	85.4	85.0	127.0	6.3	15.0				L		
toluene	0.36	ND	20.4	20.0	ND	17.4	17.1	20.0	ND	101.8	85.0	123.0	ND	86.9	85.6	85.0	123.0	1.6	15.0						
trans-1,3-dichloropropene	0.34	ND	20.1	20.0	ND	13.5	15.0	20.0	ND	100.3	82.0	124.0	ND	67.4	74.9	82.0	124.0	10.5	15.0				L	L	
2-hexanone	0.6	ND	19.9	20.0	ND	12.5	14.7	20.0	ND	99.7	38.0	130.0	ND	62.6	73.6	38.0	130.0	16.1	51.0						
1,1,2-trichloroethane	0.54	ND	19.8	20.0	ND	15.3	16.9	20.0	ND	99.2	82.0	126.0	ND	76.3	84.7	82.0	126.0	10.5	16.0				L		
1,3-dichloropropane	0.35	ND	19.6	20.0	ND	14.9	16.7	20.0	ND	98.1	84.0	104.0	ND	74.5	83.7	84.0	104.0	11.6	15.0				L	L	
tetrachloroethene	0.24	ND	20.0	20.0	ND	17.0	15.6	20.0	ND	99.8	83.0	126.0	ND	84.9	78.2	83.0	126.0	8.2	15.0					L	

Kemron Environmental Services -OVL
Volatile Quality Control Summary

Workgroup #: WG61351
Method: 8260B
Matrix: SOIL
Units: ug/Kg

Run Date: 7/22/99
Instrument ID: HPMS6
BLK FLNM: 6M14654.D
LCS FLNM: 6M14655.D

SMPL Num 07-372-02
SMPL FLNM: 6M14666.D
MS FLNM. 6M14667.D
MSD FLNM. 6M14668.D

LCS DF: 1
SMPL DF: 1
MS DF: 1
MSD DF: 1

		CONCENTRATION, PPB							PERCENT RECOVERY									PERCENT RPD		OUTLIERS					
Target Analytes	MDL ug/Kg	BLK ug/Kg	LCS ug/Kg	LCS Spike Level ug/Kg	Sample ug/Kg	MS ug/Kg	MSD ug/Kg	MS Spike Level ug/Kg	BLK %	LCS %	LCS LCL %	LCS UCL %	Sample %	MS %	MSD %	MS LCL %	MSD UCL %	MS RPD %	RPD UCL %	Blank	LCS	Sample	MS	MSD	RPD
chlorodibromomethane	0.47	ND	21.7	20.0	ND	16.0	17.7	20.0	ND	108.7	82.0	126.0	ND	79.9	88.5	82.0	126.0	10.2	17.0				L		
1,2-dibromoethane	0.38	ND	19.6	20.0	ND	13.6	15.5	20.0	ND	97.8	81.0	128.0	ND	68.1	77.3	81.0	128.0	12.7	17.0				L	L	
chlorobenzene	0.23	ND	19.8	20.0	ND	14.5	14.9	20.0	ND	98.9	86.0	125.0	ND	72.7	74.6	86.0	125.0	2.6	15.0				L	L	
1,1,1,2-tetrachloroethane	0.24	ND	22.5	20.0	ND	17.5	18.5	20.0	ND	112.5	83.0	127.0	ND	87.4	92.3	83.0	127.0	5.5	15.0						
ethylbenzene	0.22	ND	20.3	20.0	ND	16.4	15.6	20.0	ND	101.7	86.0	125.0	ND	81.8	78.2	86.0	125.0	4.5	15.0				L	L	
m+p-xylene	0.43	ND	40.2	40.0	ND	31.7	30.5	40.0	ND	100.5	86.0	123.0	ND	79.3	76.3	86.0	123.0	3.9	15.0				L	L	
o-xylene	0.26	ND	20.5	20.0	ND	15.8	15.9	20.0	ND	102.5	87.0	124.0	ND	79.2	79.5	87.0	124.0	0.4	15.0				L	L	
total xylenes	0.69	ND	60.7	60.0	ND	47.5	46.4	60.0	ND	101.1	173.0	247.0	ND	79.2	77.4	173.0	247.0	2.4	30.0						
styrene	0.28	ND	20.5	20.0	ND	13.7	14.5	20.0	ND	102.4	83.0	124.0	ND	68.4	72.3	83.0	124.0	5.6	15.0				L	L	
isopropylbenzene	0.19	ND	20.2	20.0	ND	15.8	14.8	20.0	ND	100.8	85.0	124.0	ND	79.0	73.9	85.0	124.0	6.7	15.0				L	L	
bromoform	0.16	ND	18.2	20.0	ND	12.2	14.2	20.0	ND	91.0	64.0	132.0	ND	61.0	71.2	64.0	132.0	15.4	24.0				L		
1,1,2,2-tetrachloroethane	0.22	ND	18.4	20.0	ND	14.8	12.6	20.0	ND	92.1	72.0	140.0	ND	74.1	63.0	72.0	140.0	16.2	22.0					L	
1,2,3-trichloropropane	0.50	ND	18.9	20.0	ND	13.8	16.1	20.0	ND	94.6	70.0	144.0	ND	68.8	80.5	70.0	144.0	15.6	24.0				L		
propyl-benzene	0.24	ND	19.9	20.0	ND	14.6	13.9	20.0	ND	99.4	84.0	126.0	ND	72.8	69.6	84.0	126.0	4.6	15.0				L	L	
bromobenzene	0.21	ND	19.4	20.0	ND	12.2	13.7	20.0	ND	96.8	85.0	121.0	ND	61.1	68.3	85.0	121.0	11.1	15.0				L	L	
1,3,5-trimethylbenzene	0.25	ND	19.9	20.0	ND	13.5	13.3	20.0	ND	99.4	86.0	124.0	ND	67.5	66.6	86.0	124.0	1.3	15.0				L	L	
2-chlorotoluene	0.35	ND	19.8	20.0	ND	13.2	13.3	20.0	ND	99.0	81.0	127.0	ND	66.2	66.3	81.0	127.0	0.2	15.0				L	L	
4-chlorotoluene	0.38	ND	19.1	20.0	ND	12.7	13.5	20.0	ND	95.6	84.0	125.0	ND	63.5	67.6	84.0	125.0	6.2	15.0				L	L	
tert-butyl-benzene	0.27	ND	19.0	20.0	ND	13.8	13.3	20.0	ND	95.2	83.0	125.0	ND	69.1	66.3	83.0	125.0	4.2	15.0				L	L	
1,2,4-trimethylbenzene	0.27	ND	19.4	20.0	ND	11.9	12.4	20.0	ND	97.2	87.0	124.0	ND	59.4	61.8	87.0	124.0	3.9	18.0				L	L	
sec-butyl-benzene	0.24	ND	19.2	20.0	ND	12.9	12.3	20.0	ND	96.2	83.0	126.0	ND	64.7	61.6	83.0	126.0	4.8	15.0				L	L	
p-isopropyl-toluene	0.23	ND	19.2	20.0	ND	11.6	11.3	20.0	ND	95.9	83.0	122.0	ND	57.9	56.3	83.0	122.0	2.9	15.0				L	L	
1,3-dichlorobenzene	0.23	ND	19.4	20.0	ND	10.5	11.8	20.0	ND	97.1	85.0	121.0	ND	52.7	59.2	85.0	121.0	11.5	15.0				L	L	
1,4-dichlorobenzene	0.22	ND	19.1	20.0	ND	9.8	11.2	20.0	ND	95.4	84.0	119.0	ND	48.9	56.0	84.0	119.0	13.4	15.0				L	L	
n-butyl-benzene	0.29	ND	19.7	20.0	ND	10.6	10.3	20.0	ND	98.6	81.0	128.0	ND	53.0	51.5	81.0	128.0	3.0	15.0				L	L	
1,2-dichlorobenzene	0.27	ND	19.3	20.0	ND	9.7	11.6	20.0	ND	96.3	86.0	123.0	ND	48.4	58.0	86.0	123.0	18.0	15.0				L	L	H
1,2-dibromo-3-chloropropane	0.42	ND	16.0	20.0	ND	9.9	11.4	20.0	ND	80.1	51.0	151.0	ND	49.3	57.0	51.0	151.0	14.6	38.0				L		
Surrogates																									
dibromofluoromethane		45.1	44.8	50.0	46.4	45.7	45.0	50.0	90.1	89.6	80	120	92.8	91.5	90.0										
1,2-dichloroethane-d4		44.8	44.2	50.0	47.8	46.6	45.7	50.0	89.5	88.3	70	121	95.5	93.2	91.4										
toluene-d8		43.8	42.7	50.0	44.0	42.9	43.2	50.0	87.5	85.4	81	117	88.0	85.7	86.4										
p-bromofluorobenzene		43.9	42.7	50.0	44.0	43.8	44.1	50.0	87.8	85.3	74	121	88.0	87.7	88.3										

Notes and Definitions:

MDL= Method Detection Limit
BLK= Method Blank
LCS= Laboratory Control Sample

MS/MSD Matrix Spike / Matrix Spike Duplicate
LCL= Lower Control Limit
UCL= Upper Control Limit

H Above control limit
L=Below control limit
ND= Not Detected

RPD= Relative Percent Difference
NS= Not spiked
NA=Not applicable

DF Dilution Factor

KEMRON ENVIRONMENTAL SERVICES
MARIETTA, OH
QUALITY CONTROL SUMMARY / PCB SOILS , FRONT

EXT'N DATE : 7/22/99
EXT'N BENCH SHT : V120P27
EXT'N WORK GRP : WG61385

INSTRUMENT : HP7
ANALYST : CDB
RUN DATE : 7/26/99
ANAL WORK GRP : WG61476

BLK FLNM : 7G2620
LCS FLNM : 7G2621

SMPL ID : 07-381-02 5X
SMPL FLNM : 7G2623
MS FLNM : 7G2624
MSD FLNM : 7G2625

COMPOUND	RDL	CONCENTRATION , ug/Kg					% RECOVERY									PERCENT						
		Blank	LCS	Sample	MS	MSD	Blank	LCS	LCS LCL	LCS UCL	Sample	MS	MSD	MS LCL	MS UCL	MS/MSD RPD	RPD Advisory Limits	Blank	LCS	Sample	MS	MSD
AROCLOR 1016	17.0	ND	75.6	ND	63.3	54.3	NA	90.8	29	131	NA	76.0	65.2	29	131	15.3	0-49					
AROCLOR 1221	17.0	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0-39					
AROCLOR 1232	17.0	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0-36					
AROCLOR 1242	17.0	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0-37					
AROCLOR 1248	17.0	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0-39					
AROCLOR 1254	17.0	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0-37					
AROCLOR 1260	17.0	ND	76.0	ND	46.9	37.1	NA	91.2	29	131	NA	56.3	44.5	29	131	23.3	0-62					
SURROGATES																						
2,4,5,6-TETRACHLORO-M-XYLENE		15.1	16.3	2.26	2.69	2.30	75.7	81.7	29	133	45.3	53.7	46.0	29	133							
DECACHLOROBIPHENYL		24.4	25.9	2.69	3.40	3.04	122	129	30	173	53.8	68.0	60.8	30	173							

NOTES & DEFINITIONS :

LCS, MS & MSD spiked at 83.3 ug/kg
SURROGATES spiked at 20.0 ug/kg
NA = NOT APPLICABLE
DL = DILUTED OUT
ND = NOT DETECTED
RDL=REPORTING DETECTION LIMIT

LCS=LABORATORY CONTROL SAMPLE
MS=MATRIX SPIKE
MSD=MATRIX SPIKE DUPLICATE

PESTICIDE CALIBRATION OF MULTICOMPONENT ANALYTES

Lab Name: Kemron Environmental Services
Lab Code: Case No.
Instrument ID: HP-7
GC Column: DB 17-MS

Contract: 7797L0014-8M
SAS No: SDG. No. L9907381

Date: 7/27/99

COMPOUND	AMOUNT (ppb)	PEAK	RT	RT WINDOW FROM	RT WINDOW TO	MIDPOINT AREA	CALIBRATION FACTOR
AROCLOR 1016	500	1	4.220	4.150	4.290	366246	732.49
		2	4.900	4.830	4.970	840186	1680.37
		3	5.380	5.310	5.450	420196	840.39
		4	5.590	5.520	5.660	1554702	3109.40
		5	5.820	5.750	5.890	737580	1475.16
AROCLOR 1221	500	1	2.660	2.590	2.730	204245	408.49
		2	3.860	3.790	3.930	194039	388.08
		3	4.100	4.030	4.170	130483	260.97
		4	4.220	4.150	4.290	510063	1020.13
		5	4.560	4.490	4.630	72784	145.57
AROCLOR 1232	500	1	4.220	4.150	4.290	418355	836.71
		2	4.900	4.830	4.970	305215	610.43
		3	5.590	5.520	5.660	619038	1238.08
		4	5.820	5.750	5.890	300929	601.86
		5	7.140	7.070	7.210	131256	262.51
AROCLOR 1242	500	1	4.220	4.150	4.290	298726	597.45
		2	4.900	4.830	4.970	634055	1268.11
		3	5.590	5.520	5.660	1157952	2315.90
		4	5.820	5.750	5.890	549734	1099.47
		5	7.690	7.620	7.760	343935	687.87
AROCLOR 1248	500	1	6.620	6.550	6.690	284852	569.70
		2	6.870	6.800	6.940	284344	568.69
		3	7.700	7.630	7.770	574112	1148.22
		4	8.610	8.540	8.680	198472	396.94
		5	9.450	9.380	9.520	210475	420.95
AROCLOR 1254	500	1	8.140	8.070	8.210	404688	809.38
		2	8.320	8.250	8.390	1400909	2801.82
		3	8.610	8.540	8.680	1401895	2803.79
		4	9.460	9.390	9.530	785684	1571.37
		5	9.750	9.680	9.820	913354	1826.71
AROCLOR 1260	500	1	8.610	8.540	8.680	1340976	2681.95
		2	8.810	8.740	8.880	1397758	2795.52
		3	9.240	9.170	9.310	499790	999.58
		4	10.710	10.640	10.780	848080	1696.16
		5	14.150	14.080	14.220	464372	928.74

KEMRON Environmental Services
109 Starlite Park
Marietta, Ohio 45750
Phone: (740) 373-4071

Los Alamos National Laboratory
SMO, TA-3, Bldg. 271
MS H865, Drop Point O1U
Los Alamos, NM 87545
Attention: Joylene Valdez

PO Number:
Account Number: LANL-295

Login #: L9907381
Report Date: 08/04/99
Work ID: 5824R/MR3R3M041045
Date Received: 07/21/99

SAMPLE IDENTIFICATION

Sample Number	Sample Description	Sample Number	Sample Description
L9907381-01	RE03-99-2000	L9907381-02	RE03-99-2001
L9907381-03	RE03-99-2002	L9907381-04	RE03-99-2003
L9907381-05	RE03-99-2004	L9907381-06	RE03-99-2005
L9907381-07	RE03-99-2006	L9907381-08	RE03-99-2007

All results on solids/sludges are reported on a dry weight basis, where applicable, unless otherwise specified. This report shall not be reproduced, except in full, without the written approval of KEMRON.

NYSDOH ELAP ID: 10861

Certified By
Dennis S. Tepe

KEMRON
ENVIRONMENTAL SERVICES

Order #99-07-381
August 4, 1999 14:53

KEMRON ENVIRONMENTAL SERVICES
REPORT NARRATIVE

Lab ID# 7797L0014-8M

CLIENT: Los Alamos National Laboratory

LANL SDG/RN: 5824R

Sample Management:

Eight soil samples were received at Kemron Environmental Services on 7/21/99. The sample IDs were changed as per the amended chain of custody.

Client ID: RE03-99-2000
RE03-99-2001
RE03-99-2002
RE03-99-2003
RE03-99-2004
RE03-99-2005
RE03-99-2006
RE03-99-2007

Quality Control:

VOLATILE ORGANICS - 8260:

Target analytes and tentatively identified compounds detected int he method blank and samples were "B" qualified. The LCS recovery result for carbon disulfide was below the lower control limit. Multiple MS/MSD and RPD results were outside advisory limits.

GASOLINE RANGE ORGANICS - 8015:

Sample matrix interference on surrogate standards was confirmed by reanalysis.

PCB's - 8082:

Sample fractions 01 and 02 were analyzed at dilutions due to the presence of non-target analytes.

DIESEL RANGE ORGANICS - 8015:

Sample fraction 02 yielded % recoveries for both surrogates that were outside acceptable limits. This sample will be re-extracted and re-analyzed. Several samples in this case yielded % recoveries for octacosane that were outside acceptable limits. This can be attributed to sample matrix effects.

Shipment Conditions:

The samples were received intact. Solid blue ice was present.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and in completeness, except as detailed in this QC Report.

Laboratory Manager

Date: 8/5/99

Wednesday, July 21, 1999

REQUEST NUMBER: 5824R
ANALYSIS TYPE: ORG

Los Alamos
NATIONAL LABORATORY

AMENDED

ATTN: Maren Beery
KEMRON
109 STARLITE PARK
MARIETTA, OH 45750

Please analyze the enclosed samples according to the schedule indicated:

SHIP DATE: 7/21/99
REPORT DUE: 8/22/99
TURN AROUND REQ'D: 30 days

These samples are on:

LANL Request Number: 5824R
Per Agreement Number: 7797L0014-9S
Project Cost Code: MR3R3M041045

RAD SCREENING: Yes, Received

COMMENTS: 03 - 1114 , GA; TPH BY DIESEL AND GAS. CORRECTED ID NUMBERS 7/21/99 JV.

AMENDED: SEE ATTACHED MEMO FOR

LANL ER SMO CONTACT: Joylene Valdez MS H865 5056659968
Signature: Joylene Valdez

ANALYSIS ORDER CODE	ANALYTE(S)	SAMPLE ID	CONT ID	SAMPLE MATRIX	DATE SAMPLED	COMMENTS
PCB		RE03-99-2000	02	S	7/17/99	
TPH		RE03-99-2000	03	S	7/17/99	
VOCECORE		RE03-99-2000	04	S	7/17/99	
VOCECORE		RE03-99-2000	05	S	7/17/99	
VOCECORE		RE03-99-2000	06	S	7/17/99	
VOCECORE		RE03-99-2000	07	S	7/17/99	
PCB		RE03-99-2001	02	S	7/17/99	
TPH		RE03-99-2001	03	S	7/17/99	
VOCECORE		RE03-99-2001	04	S	7/17/99	
VOCECORE		RE03-99-2001	05	S	7/17/99	
VOCECORE		RE03-99-2001	06	S	7/17/99	
VOCECORE		RE03-99-2001	07	S	7/17/99	
PCB		RE03-99-2002	02	S	7/17/99	
TPH		RE03-99-2002	03	S	7/17/99	
VOCECORE		RE03-99-2002	04	S	7/17/99	
VOCECORE		RE03-99-2002	05	S	7/17/99	
VOCECORE		RE03-99-2002	06	S	7/17/99	
VOCECORE		RE03-99-2002	07	S	7/17/99	
PCB		RE03-99-2003	02	S	7/17/99	
TPH		RE03-99-2003	03	S	7/17/99	
VOCECORE		RE03-99-2003	04	S	7/17/99	
VOCECORE		RE03-99-2003	05	S	7/17/99	
VOCECORE		RE03-99-2003	06	S	7/17/99	
VOCECORE		RE03-99-2003	07	S	7/17/99	

ANALYSIS ORDER CODE	ANALYTE(S)	SAMPLE ID	CONT ID	SAMPLE MATRIX	DATE SAMPLED	COMMENTS
PCB		RE03-99-2004	02	S	7/17/99	
TPH		RE03-99-2004	03	S	7/17/99	
VOCECORE		RE03-99-2004	04	S	7/17/99	
VOCECORE		RE03-99-2004	05	S	7/17/99	
VOCECORE		RE03-99-2004	06	S	7/17/99	
VOCECORE		RE03-99-2004	07	S	7/17/99	
PCB		RE03-99-2005	02	S	7/17/99	
TPH		RE03-99-2005	03	S	7/17/99	
VOCECORE		RE03-99-2005	04	S	7/17/99	
VOCECORE		RE03-99-2005	05	S	7/17/99	
VOCECORE		RE03-99-2005	06	S	7/17/99	
VOCECORE		RE03-99-2005	07	S	7/17/99	
PCB		RE03-99-2006	02	S	7/17/99	
TPH		RE03-99-2006	03	S	7/17/99	
VOCECORE		RE03-99-2006	04	S	7/17/99	
VOCECORE		RE03-99-2006	05	S	7/17/99	
VOCECORE		RE03-99-2006	06	S	7/17/99	
VOCECORE		RE03-99-2006	07	S	7/17/99	
PCB		RE03-99-2007	02	S	7/17/99	
TPH		RE03-99-2007	03	S	7/17/99	
VOCECORE		RE03-99-2007	04	S	7/17/99	
VOCECORE		RE03-99-2007	05	S	7/17/99	
VOCECORE		RE03-99-2007	06	S	7/17/99	
VOCECORE		RE03-99-2007	07	S	7/17/99	

To: Joylene Valdez

TA-3-36 Gas Station
Sample ID Crosswalk

Original ID#	ER ID#
36-SSW1	RE03-99-2000
36-SSW2	RE03-99-2001
36-NSW1	RE03-99-2002
36-NSW2	RE03-99-2003
36-SFD1	RE03-99-2004
36-SFD2	RE03-99-2005
36-SSE1	RE03-99-2006
36-NSE1	RE03-99-2007

(Also sent via e-mail.)

Tuesday, July 20, 1999

Los Alamos
NATIONAL LABORATORY

REQUEST NUMBER: 5824R
ANALYSIS TYPE: ORG

ATTN: Maren Beery
KEMRON
109 STARLITE PARK
MARIETTA, OH 45750

Please analyze the enclosed samples according to the schedule indicated:

SHIP DATE: 7/19/99
REPORT DUE: 8/21/99
TURN AROUND REQ'D: 30 days

These samples are on:

LANL Request Number: 5824R
Per Agreement Number: 7797L0014-9S
Project Cost Code: CG9K00000000

RAD SCREENING: Not Required

COMMENTS: 03 - 6666 , JL; TPH 8015 BY DIESEL AND GAS

LANL ER SMO CONTACT: Joylene Valdez MS H865 5056659968
Signature: Joylene Valdez

ANALYSIS ORDER CODE	ANALYTE(S)	SAMPLE ID	CONT ID	SAMPLE MATRIX	DATE SAMPLED	COMMENTS
VOCECORE		36NSE1	01	S	7/17/99	
VOCECORE		36NSE1	02	S	7/17/99	
VOCECORE		36NSE1	03	S	7/17/99	
VOCECORE		36NSE1	04	S	7/17/99	
TPH		36NSE1	05	S	7/17/99	
PCB		36NSE1	06	S	7/17/99	
VOCECORE		36NSW1	01	S	7/17/99	
VOCECORE		36NSW1	02	S	7/17/99	
VOCECORE		36NSW1	03	S	7/17/99	
VOCECORE		36NSW1	04	S	7/17/99	
TPH		36NSW1	05	S	7/17/99	
PCB		36NSW1	06	S	7/17/99	
VOCECORE		36NSW2	01	S	7/17/99	
VOCECORE		36NSW2	02	S	7/17/99	
VOCECORE		36NSW2	03	S	7/17/99	
VOCECORE		36NSW2	04	S	7/17/99	
TPH		36NSW2	05	S	7/17/99	
PCB		36NSW2	06	S	7/17/99	
VOCECORE		36SFD1	01	S	7/17/99	
VOCECORE		36SFD1	02	S	7/17/99	
VOCECORE		36SFD1	03	S	7/17/99	
VOCECORE		36SFD1	04	S	7/17/99	
TPH		36SFD1	05	S	7/17/99	
PCB		36SFD1	06	S	7/17/99	

ANALYSIS ORDER CODE	ANALYTE(S)	SAMPLE ID	CONT ID	SAMPLE MATRIX	DATE SAMPLED	COMMENTS
VOCECORE		36SFD2	01	S	7/17/99	
VOCECORE		36SFD2	02	S	7/17/99	
VOCECORE		[illegible]D2	03	S	7/17/99	
VOCECORE		[illegible]D2	04	S	7/17/99	
TPH		[illegible]D2	05	S	7/17/99	
PCB		[illegible]FD2	06	S	7/17/99	
VOCECORE		36SSE1	01	S	7/17/99	
VOCECORE		36SSE1	02	S	7/17/99	
VOCECORE		36SSE1	03	S	7/17/99	
VOCECORE		36SSE1	04	S	7/17/99	
TPH		36SSE1	05	S	7/17/99	
PCB		36SSE1	06	S	7/17/99	
VOCECORE		36SSW1	01	S	7/17/99	
VOCECORE		36SSW1	02	S	7/17/99	
VOCECORE		36SSW1	03	S	7/17/99	
VOCECORE		36SSW1	04	S	7/17/99	
TPH		36SSW1	05	S	7/17/99	
PCB		36SSW1	06	S	7/17/[illegible]	
VOCECORE		36SSW2	01	S	[illegible]/17/[illegible]	
VOCECORE		36SSW2	02	S	7/17/99	
VOCECORE		36SSW2	03	S	7/17/99	
VOCECORE		36SSW2	04	S	7/[illegible]	
TPH		36SSW2	05	S	7[illegible]	
PCB		36SSW2	06	S	7/17/99	

Tuesday, July 20, 1999

Los Alamos
NATIONAL LABORATORY

CHAIN OF CUSTODY DOCUMENT NUMBER: 5824RC

REQUEST NUMBER: 5824R
ANALYSIS TYPE: ORG

ATTN: Maren Beery
KEMRON
109 STARLITE PARK
MARIETTA, OH 45750

SAMPLE ID	CONT ID	CONTAINER DESCRIPTION	ANALYSIS ORDER CODE	PRESERVATIVE	MATRIX
36NSE1	01	EN CORE	VOCECORE	NONE	S
36NSE1	02	EN CORE	VOCECORE	NONE	S
36NSE1	03	EN CORE	VOCECORE	NONE	S
36NSE1	04	125 ml poly	VOCECORE	NONE	S
36NSE1	05	250 ml amber glass	TPH	NONE	S
36NSE1	06	125 ml glass	PCB	NONE	S
36NSW1	01	EN CORE	VOCECORE	NONE	S
36NSW1	02	EN CORE	VOCECORE	NONE	S
36NSW1	03	EN CORE	VOCECORE	NONE	S
36NSW1	04	125 ml poly	VOCECORE	NONE	S
36NSW1	05	250 ml amber glass	TPH	NONE	S
36NSW1	06	125 ml glass	PCB	NONE	S
36NSW2	01	EN CORE	VOCECORE	NONE	S
36NSW2	02	EN CORE	VOCECORE	NONE	S
36NSW2	03	EN CORE	VOCECORE	NONE	S
36NSW2	04	125 ml poly	VOCECORE	NONE	S
36NSW2	05	250 ml amber glass	TPH	NONE	S
36NSW2	06	125 ml glass	PCB	NONE	S
36SFD1	01	EN CORE	VOCECORE	NONE	S
36SFD1	02	EN CORE	VOCECORE	NONE	S

Relinquished By: Jaqueline 7/20/99 13:05 — PRINTED NAME / SIGNATURE

Received By: Brenda Gregory Brenda Gregory 7/21/99 1044 — PRINTED NAME / SIGNATURE

PRINTED NAME / SIGNATURE

PRINTED NAME / SIGNATURE

PRINTED NAME / SIGNATURE

PRINTED NAME / SIGNATURE

Received for DISPOSAL By: Date Time

PRINTED NAME / SIGNATURE

Remarks: C of C Dated
SVS intact
solid blue ice present
(bg)

Tuesday, July 20, 1999

COC DOC NUMBER: 8924RC
REQUEST NUMBER: 8924R

SAMPLE ID	CONT ID	CONTAINER DESCRIPTION	ANALYSIS ORDER CODE		
36SFD1	03	EN CORE	VOCECORE	NONE	S
36SFD1	04	125 ml poly	VOCECORE	NONE	S
36SFD1	05	250 ml amber glass	TPH	NONE	S
36SFD1	06	125 ml glass	PCB	NONE	S
36SFD2	01	EN CORE	VOCECORE	NONE	S
36SFD2	02	EN CORE	VOCECORE	NONE	S
36SFD2	03	EN CORE	VOCECORE	NONE	S
36SFD2	04	125 ml poly	VOCECORE	NONE	S
36SFD2	05	250 ml amber glass	TPH	NONE	S
36SFD2	06	125 ml glass	PCB	NONE	S
36SSE1	01	EN CORE	VOCECORE	NONE	S
36SSE1	02	EN CORE	VOCECORE	NONE	S
36SSE1	03	EN CORE	VOCECORE	NONE	S
36SSE1	04	125 ml poly	VOCECORE	NONE	S
36SSE1	05	250 ml amber glass	TPH	NONE	S
36SSE1	06	125 ml glass	PCB	NONE	S
36SSW1	01	EN CORE	VOCECORE	NONE	S
36SSW1	02	EN CORE	VOCECORE	NONE	S
36SSW1	03	EN CORE	VOCECORE	NONE	S
36SSW1	04	125 ml poly	VOCECORE	NONE	S
36SSW1	05	250 ml amber glass	TPH	NONE	S
36SSW1	06	125 ml glass	PCB	NONE	S
36SSW2	01	EN CORE	VOCECORE	NONE	S
36SSW2	02	EN CORE	VOCECORE	NONE	S
36SSW2	03	EN CORE	VOCECORE	NONE	S
36SSW2	04	125 ml poly	VOCECORE	NONE	S

Relinquished By: Date Time

PRINTED NAME SIGNATURE 7/20/99 13:05

PRINTED NAME SIGNATURE

PRINTED NAME SIGNATURE

Received By: Date Time

PRINTED NAME SIGNATURE 7/21/99 1044

PRINTED NAME SIGNATURE

PRINTED NAME SIGNATURE

Received for DISPOSAL By: Date Time

PRINTED NAME SIGNATURE

Remarks:

C of C sealed
SKs intact
Solid blue ice present
(bg)

Tuesday, July 20, 1999

COC DOC NUMBER: 8824RC
REQUEST NUMBER: 8824R
Page 3

SAMPLE ID	CONT ID	CONTAINER DESCRIPTION	ANALYSIS ORDER CODE		
36SSW2	05	250 ml amber glass	TPH	NONE	S
36SSW2	06	125 ml glass	PCB	NONE	S

Final Page of CHAIN OF CUSTODY DOCUMENT FOR REQUEST NUMBER 8824R Page 2

Relinquished By:		Date	Time	Received By:		Date	Time
PRINTED NAME	SIGNATURE	7/20/99	1305	Brenda Gregory	Brenda Gregory	7/21/99	044
PRINTED NAME	SIGNATURE			PRINTED NAME	SIGNATURE		
PRINTED NAME	SIGNATURE			PRINTED NAME	SIGNATURE		

Received for DISPOSAL By:		Date	Time
PRINTED NAME	SIGNATURE		

Remarks: Cyc Dated
Sustant
Solid blue ice present
BG

DATA VALIDATION COVER SHEET (Example)

SECTION I.

REQUEST NUMBER: 5824 COST CODE: MR3B-M041045

VALIDATION DATE: _____

LAB NAME: Memron LAB CODE: _____

VALIDATOR: _____ ORGANIZATION: _____

ANALYTICAL SUITE: ___ VOLATILES ___ HIGH EXPLOSIVES

___ SEMIVOLATILES ___ INORGANICS

___ PESTICIDES/AROCLORS ___ RADIOCHEMISTRY

OTHER (describe) _____

SECTION II. COMPLETENESS CHECKLIST

Item	Present? (Y/N/NA)	Item	Present? (Y/N/NA)
1. COC form(s)		2. Case Narrative	
3. Sample Results		4. Sample Chromatograms	
5. Standard Chromatograms		6. Quantitation Reports	
7. QC Forms			

Identify any samples in the assigned Request Number that are missing:

_____ _____ _____ _____ _____ _____

_____ _____ _____ _____ _____ _____

Comments: include information about requests to the laboratory and agreed upon date of resolution and lab contact: (Attach additional comment sheets as necessary)

_____

_____

_____

Signature/1st validation: _____ Date/1st validation: _____

Signature/2nd validation: _____ Date/2nd validation: _____

KEMRON Environmental Services
109 Starlite Park
Marietta, Ohio 45750
Phone: (740) 373-4071

Los Alamos National Laboratory
SMO, TA-3, Bldg. 271
MS H865, Drop Point O1U
Los Alamos, NM 87545
Attention: Joylene Valdez

PO Number:
Account Number: LANL-295

Login #: L9907381
Report Date: 08/04/99
Work ID: 5824R/MR3R3M041045
Date Received: 07/21/99

AUG 1999

SAMPLE IDENTIFICATION

Sample Number	Sample Description	Sample Number	Sample Description
L9907381-01	RE03-99-2000	L9907381-02	RE03-99-2001
L9907381-03	RE03-99-2002	L9907381-04	RE03-99-2003
L9907381-05	RE03-99-2004	L9907381-06	RE03-99-2005
L9907381-07	RE03-99-2006	L9907381-08	RE03-99-2007

All results on solids/sludges are reported on a dry weight basis, where applicable, unless otherwise specified. This report shall not be reproduced, except in full, without the written approval of KEMRON.

NYSDOH ELAP ID: 10861

Certified By
Dennis S. Tepe

KEMRON
ENVIRONMENTAL SERVICES

Order #99-07-381
August 4, 1999 14:53

KEMRON ENVIRONMENTAL SERVICES
REPORT NARRATIVE

Lab ID# 7797L0014-8M

CLIENT: Los Alamos National Laboratory

LANL SDG/RN: 5824R

Sample Management:

Eight soil samples were received at Kemron Environmental Services on 7/21/99. The sample IDs were changed as per the amended chain of custody.

Client ID: RE03-99-2000
RE03-99-2001
RE03-99-2002
RE03-99-2003
RE03-99-2004
RE03-99-2005
RE03-99-2006
RE03-99-2007

Quality Control:

VOLATILE ORGANICS - 8260:

Target analytes and tentatively identified compounds detected int he method blank and samples were "B" qualified. The LCS recovery result for carbon disulfide was below the lower control limit. Multiple MS/MSD and RPD results were outside advisory limits.

GASOLINE RANGE ORGANICS - 8015:

Sample matrix interference on surrogate standards was confirmed by reanalysis.

PCB's - 8082:

Sample fractions 01 and 02 were analyzed at dilutions due to the presence of non-target analytes.

DIESEL RANGE ORGANICS - 8015:

Sample fraction 02 yielded % recoveries for both surrogates that were outside acceptable limits. This sample will be re-extracted and re-analyzed. Several samples in this case yielded % recoveries for octacosane that were outside acceptable limits. This can be attributed to sample matrix effects.

Shipment Conditions:

The samples were received intact. Solid blue ice was present.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and in completeness, except as detailed in this QC Report.

Laboratory Manager

Date: 8/5/99

Login #L9907381
August 4, 1999 12:05 pm

KEMRON ENVIRONMENTAL SERVICES

Lab Sample ID: L9907381-01
Client Sample ID: RE03-99-2000
Site/Work ID: 5824R/MR3R3M041045

Matrix: Soil
Collected: 07/17/99 N/A

% Solid: 86
COC Info: N/A

Analyte	Units	Result	Qualifiers	RL	Dil	Type	Analyst	Analysis Date	Time	Method
Percent Solids.....	% wt.	86		1.0	1	N/A	SMW	07/27/99	16:40	D2216-90

Product: 8082LA - PCB's - LANL

Lab Sample ID: L9907381-01
Client Sample ID: RE03-99-2000
Site/Work ID: 5824R/MR3R3M041045
Matrix: Soil

TCLP Extract Date: N/A
Extract Date: 07/22/99
Analysis Date: 07/26/99 Time: 10:53

Dil. Type: N/A
COC Info: N/A

Date Collected: 07/17/99

Instrument: HP7
Analyst: CDB
Lab File ID: 7G2622

Sample Weight: N/A
Extract Volume: N/A

% Solid: 86

Method: 8082\3550
Run ID: R70759
Batch : WG61476

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
12674-11-2	Aroclor-1016.....	ug/kg		ND	190	5
11104-28-2	Aroclor-1221.....	ug/kg		ND	380	5
11141-16-5	Aroclor-1232.....	ug/kg		ND	190	5
53469-21-9	Aroclor-1242.....	ug/kg		ND	190	5
12672-29-6	Aroclor-1248.....	ug/kg		ND	190	5
11097-69-1	Aroclor-1254.....	ug/kg		ND	190	5
11096-82-5	Aroclor-1260.....	ug/kg		ND	190	5

SURROGATES- In Percent Recovery:

2,4,5,6-Tetrachloro-m-xylene.....	65.2	(29 - 133%)
Decachlorobiphenyl.....	66.4	(30 - 173%)

RL = Reporting Limit

KEMRON ENVIRONMENTAL SERVICES

Product: DRO - Diesel Range Organics (GC)

Lab Sample ID: L9907381-01
Client Sample ID: RE03-99-2000
Site/Work ID: 5824R/MR3R3M041045
Matrix: Soil

TCLP Extract Date: N/A
Extract Date: 07/22/99
Analysis Date: 07/24/99 Time: 19:49

Dil. Type: N/A
COC Info: N/A

Date Collected: 07/17/99

Instrument: HP8
Analyst: HV
Lab File ID: G8012R

Sample Weight: N/A
Extract Volume: N/A

% Solid: 86

Method: 8015\3550
Run ID: R70838
Batch : WG61453

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
68334-30-5	Diesel Range Organics.....	ug/kg	160000		4700	1

SURROGATES- In Percent Recovery:

o-Terphenyl.....	71.1		(43 - 136%)
Octacosane.....	3.65	*,SMI	(25 - 162%)

Product: GRO - Gasoline Range Organics

Lab Sample ID: L9907381-01
Client Sample ID: RE03-99-2000
Site/Work ID: 5824R/MR3R3M041045
Matrix: Soil

TCLP Extract Date: N/A
Extract Date: N/A
Analysis Date: 07/26/99 Time: 15:33

Dil. Type: N/A
COC Info: N/A

Date Collected: 07/17/99

Instrument: HP5
Analyst: VMN
Lab File ID: 5G769

Sample Weight: N/A
Extract Volume: N/A

% Solid: 86

Method: 8015
Run ID: R71040
Batch : WG61593

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
8006-61-9	Gasoline Range Organics.....	ug/kg	48	J	120	1

SURROGATES- In Percent Recovery:

Chlorobenzene.....	65.1	(64 - 148%)

RL = Reporting Limit

KEMRON ENVIRONMENTAL SERVICES

Product: 8260LS - VOA Library Search

Lab Sample ID: L9907381-01
Client Sample ID: RE03-99-2000
Site/Work ID: 5824R/MR3R3M041045
Matrix: Soil

TCLP Extract Date: N/A
Extract Date: N/A
Analysis Date: 07/22/99 Time: 12:50

Dil. Type: N/A
COC Info: N/A
Date Collected: 07/17/99
Instrument: HPMS6
Analyst: CMS
Lab File ID: 6M14658

Sample Weight: N/A
Extract Volume: N/A
% Solid: 86
Method: 8260B
Run ID: R70278
Batch : WG61351

CAS #	Compound	Units	Result	Qualifiers	RL	Ret Time
001678-92-8	Cyclohexane, propyl-.....	ug/kg	6.66			17.407
003386-33-2	Octadecane, 1-chloro-.....	ug/kg	12.3			18.119
000872-78-6	Bicyclo[2.2.1]heptane, 2-methyl-, exo-.....	ug/kg	6.41			20.455
NA	Unknown.....	ug/kg	37.1			17.149
NA	Unknown.....	ug/kg	34.9			19.769
NA	Unknown.....	ug/kg	13.0			22.437

Product: 826LA - Volatile Organics

Lab Sample ID: L9907381-01
Client Sample ID: RE03-99-2000
Site/Work ID: 5824R/MR3R3M041045
Matrix: Soil

TCLP Extract Date: N/A
Extract Date: N/A
Analysis Date: 07/22/99 Time: 12:50

Dil. Type: N/A
COC Info: N/A
Date Collected: 07/17/99
Instrument: HPMS6
Analyst: CMS
Lab File ID: 6M14658

Sample Weight: N/A
Extract Volume: N/A
% Solid: 86
Method: 8260B
Run ID: R70278
Batch : WG61351

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
75-71-8	Dichlorodifluoromethane.....	ug/kg		ND	10	.9
74-87-3	Chloromethane.....	ug/kg		ND	10	.9
75-01-4	Vinyl chloride.....	ug/kg		ND	10	.9
74-83-9	Bromomethane.....	ug/kg		ND	10	.9
75-00-3	Chloroethane.....	ug/kg		ND	10	.9
75-69-4	Trichlorofluoromethane.....	ug/kg		ND	5.2	.9
75-35-4	1,1-Dichloroethene.....	ug/kg		ND	5.2	.9
74-88-4	Iodomethane.....	ug/kg		ND	5.2	.9
75-15-0	Carbon disulfide.....	ug/kg		ND	5.2	.9
67-64-1	Acetone.....	ug/kg	19	J,B	21	.9
75-09-2	Methylene chloride.....	ug/kg		ND	5.2	.9
156-60-5	trans-1,2-Dichloroethene.....	ug/kg		ND	10	.9

RL = Reporting Limit

Login #L9907381
August 4, 1999 12:05 pm

KEMRON ENVIRONMENTAL SERVICES

Product: 826LA - Volatile Organics

Lab Sample ID: L9907381-01
Client Sample ID: RE03-99-2000
Site/Work ID: 5824R/MR3R3M041045
Matrix: Soil

Dil. Type: N/A
COC Info: N/A
Date Collected: 07/17/99

Sample Weight: N/A
Extract Volume: N/A
% Solid: 86

TCLP Extract Date: N/A
Extract Date: N/A
Analysis Date: 07/22/99 Time: 12:50

Instrument: HPMS6
Analyst: CMS
Lab File ID: 6M14658

Method: 8260B
Run ID: R70278
Batch : WG61351

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
75-34-3	1,1-Dichloroethane	ug/kg		ND	5.2	.9
594-20-7	2,2-Dichloropropane	ug/kg		ND	5.2	.9
156-59-2	cis-1,2-Dichloroethene	ug/kg		ND	10	.9
78-93-3	2-Butanone	ug/kg	2.7	J	21	.9
74-97-5	Bromochloromethane	ug/kg		ND	5.2	.9
67-66-3	Chloroform	ug/kg		ND	5.2	.9
71-55-6	1,1,1-Trichloroethane	ug/kg		ND	5.2	.9
56-23-5	Carbon tetrachloride	ug/kg		ND	5.2	.9
563-58-6	1,1-Dichloropropene	ug/kg		ND	5.2	.9
71-43-2	Benzene	ug/kg		ND	5.2	.9
107-06-2	1,2-Dichloroethane	ug/kg		ND	5.2	.9
79-01-6	Trichloroethene	ug/kg		ND	5.2	.9
78-87-5	1,2-Dichloropropane	ug/kg		ND	5.2	.9
74-95-3	Dibromomethane	ug/kg		ND	5.2	.9
75-27-4	Bromodichloromethane	ug/kg		ND	5.2	.9
10061-02-6	trans-1,3-Dichloropropene	ug/kg		ND	5.2	.9
108-10-1	4-Methyl-2-pentanone	ug/kg		ND	21	.9
108-88-3	Toluene	ug/kg		ND	5.2	.9
10061-01-5	cis-1,3-Dichloropropene	ug/kg		ND	5.2	.9
79-00-5	1,1,2-Trichloroethane	ug/kg		ND	5.2	.9
127-18-4	Tetrachloroethene	ug/kg		ND	5.2	.9
142-28-9	1,3-Dichloropropane	ug/kg		ND	5.2	.9
124-48-1	Dibromochloromethane	ug/kg		ND	5.2	.9
591-78-6	2-Hexanone	ug/kg		ND	21	.9
106-93-4	1,2-Dibromoethane	ug/kg		ND	5.2	.9
108-90-7	Chlorobenzene	ug/kg		ND	5.2	.9
630-20-6	1,1,1,2-Tetrachloroethane	ug/kg		ND	5.2	.9
100-41-4	Ethyl benzene	ug/kg		ND	5.2	.9
1330-20-7	Xylenes (total)	ug/kg	1.0	J	5.2	.9
100-42-5	Styrene	ug/kg		ND	5.2	.9
75-25-2	Bromoform	ug/kg		ND	5.2	.9
98-82-8	Isopropylbenzene	ug/kg		ND	5.2	.9
108-86-1	Bromobenzene	ug/kg		ND	5.2	.9
96-18-4	1,2,3-Trichloropropane	ug/kg		ND	5.2	.9
79-34-5	1,1,2,2-Tetrachloroethane	ug/kg		ND	5.2	.9
103-65-1	n-Propylbenzene	ug/kg	0.64	J	5.2	.9
95-49-8	2-Chlorotoluene	ug/kg		ND	5.2	.9
106-43-4	4-Chlorotoluene	ug/kg		ND	5.2	.9
108-67-8	1,3,5-Trimethylbenzene	ug/kg	3.6	J	5.2	.9

RL = Reporting Limit

KEMRON ENVIRONMENTAL SERVICES

Product: 826LA - Volatile Organics

Lab Sample ID: L9907381-01
Client Sample ID: RE03-99-2000
Site/Work ID: 5824R/MR3R3M041045
Matrix: Soil

Dil. Type: N/A
COC Info: N/A
Date Collected: 07/17/99

Sample Weight: N/A
Extract Volume: N/A
% Solid: 86

TCLP Extract Date: N/A
Extract Date: N/A
Analysis Date: 07/22/99 Time: 12:50

Instrument: HPMS6
Analyst: CMS
Lab File ID: 6M14658

Method: 8260B
Run ID: R70278
Batch : WG61351

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
98-06-6	tert-Butylbenzene	ug/kg		ND	5.2	.9
95-63-6	1,2,4-Trimethylbenzene	ug/kg	4.2	J	5.2	.9
135-98-8	sec-Butylbenzene	ug/kg	0.35	J	5.2	.9
541-73-1	1,3-Dichlorobenzene	ug/kg		ND	5.2	.9
106-46-7	1,4-Dichlorobenzene	ug/kg		ND	5.2	.9
99-87-6	p-Isopropyltoluene	ug/kg	0.43	J	5.2	.9
95-50-1	1,2-Dichlorobenzene	ug/kg		ND	5.2	.9
104-51-8	n-Butylbenzene	ug/kg	0.71	J	5.2	.9
96-12-8	1,2-Dibromo-3-chloropropane	ug/kg		ND	10	.9
76-13-1	Trichlorotrifluoroethane	ug/kg		ND	5.2	.9

SURROGATES- In Percent Recovery:

Toluene-d8	90.2	(81 - 117%)
p-Bromofluorobenzene	113	(74 - 121%)
Dibromofluoromethane	91.6	(80 - 120%)
1,2-Dichloroethane-d4	91.1	(80 - 120%)

Lab Sample ID: L9907381-02
Client Sample ID: RE03-99-2001
Site/Work ID: 5824R/MR3R3M041045

Matrix: Soil
Collected: 07/17/99 N/A

% Solid: 90
COC Info: N/A

Analyte	Units	Result	Qualifiers	RL	Dil	Type	Analyst	Analysis Date	Time	Method
Percent Solids	% wt.	90		1.0	1	N/A	SMW	07/27/99	16:40	D2216-90

RL = Reporting Limit

KEMRON ENVIRONMENTAL SERVICES

Product: 8082LA - PCB's - LANL

Lab Sample ID: L9907381-02
Client Sample ID: RE03-99-2001
Site/Work ID: 5824R/MR3R3M041045
Matrix: Soil

TCLP Extract Date: N/A
Extract Date: 07/22/99
Analysis Date: 07/26/99 Time: 11:19

Dil. Type: N/A
COC Info: N/A

Date Collected: 07/17/99

Instrument: HP7
Analyst: CDB
Lab File ID: 7G2623

Sample Weight: N/A
Extract Volume: N/A

% Solid: 90

Method: 8082\3550
Run ID: R70759
Batch : WG61476

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
12674-11-2	Aroclor-1016	ug/kg		ND	180	5
11104-28-2	Aroclor-1221	ug/kg		ND	370	5
11141-16-5	Aroclor-1232	ug/kg		ND	180	5
53469-21-9	Aroclor-1242	ug/kg		ND	180	5
12672-29-6	Aroclor-1248	ug/kg		ND	180	5
11097-69-1	Aroclor-1254	ug/kg		ND	180	5
11096-82-5	Aroclor-1260	ug/kg		ND	180	5

SURROGATES- In Percent Recovery:

2,4,5,6-Tetrachloro-m-xylene	56.6	(29 - 133%)
Decachlorobiphenyl	67.3	(30 - 173%)

Product: DRO - Diesel Range Organics (GC)

Lab Sample ID: L9907381-02
Client Sample ID: RE03-99-2001
Site/Work ID: 5824R/MR3R3M041045
Matrix: Soil

TCLP Extract Date: N/A
Extract Date: 07/22/99
Analysis Date: 07/24/99 Time: 21:08

Dil. Type: N/A
COC Info: N/A

Date Collected: 07/17/99

Instrument: HP8
Analyst: HV
Lab File ID: G8013R

Sample Weight: N/A
Extract Volume: N/A

% Solid: 90

Method: 8015\3550
Run ID: R70838
Batch : WG61453

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
68334-30-5	Diesel Range Organics	ug/kg	240000		4400	1

SURROGATES- In Percent Recovery:

o-Terphenyl	14.9 *	(43 - 136%)
Octacosane	3.15 *	(25 - 162%)

RL = Reporting Limit

KEMRON ENVIRONMENTAL SERVICES

Product: GRO - Gasoline Range Organics

Lab Sample ID: L9907381-02
Client Sample ID: RE03-99-2001
Site/Work ID: 5824R/MR3R3M041045
Matrix: Soil

TCLP Extract Date: N/A
Extract Date: N/A
Analysis Date: 07/26/99 Time: 16:21

Dil. Type: N/A
COC Info: N/A
Date Collected: 07/17/99

Instrument: HP5
Analyst: VMN
Lab File ID: 5G770

Sample Weight: N/A
Extract Volume: N/A
% Solid: 90

Method: 8015
Run ID: R71040
Batch : WG61593

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
8006-61-9	Gasoline Range Organics.....	ug/kg	170		110	1

SURROGATES- In Percent Recovery:

Chlorobenzene..... 63.0 *,RE (64 - 148%)

Product: 8260LS - VOA Library Search

Lab Sample ID: L9907381-02
Client Sample ID: RE03-99-2001
Site/Work ID: 5824R/MR3R3M041045
Matrix: Soil

TCLP Extract Date: N/A
Extract Date: N/A
Analysis Date: 07/22/99 Time: 13:27

Dil. Type: N/A
COC Info: N/A
Date Collected: 07/17/99

Instrument: HPMS6
Analyst: CMS
Lab File ID: 6M14659

Sample Weight: N/A
Extract Volume: N/A
% Solid: 90

Method: 8260B
Run ID: R70278
Batch : WG61351

CAS #	Compound	Units	Result	Qualifiers	RL	Ret Time
000111-84-2	Nonane.....	ug/kg	6.16			16.142
002051-30-1	Octane, 2,6-dimethyl-.....	ug/kg	9.35			16.817
004923-78-8	Cyclohexane, 1-ethyl-2-methyl-, trans-.....	ug/kg	5.79			16.975
001678-92-8	Cyclohexane, propyl-.....	ug/kg	18.3			17.407
005911-04-6	Nonane, 3-methyl-.....	ug/kg	7.67			17.581
000124-18-5	Decane.....	ug/kg	30.4			18.119
004291-79-6	Cyclohexane, 1-methyl-2-propyl-.....	ug/kg	6.65			18.736
001678-93-9	Cyclohexane, butyl-.....	ug/kg	9.80			19.39
001120-21-4	Undecane.....	ug/kg	6.73			19.922
001074-43-7	Benzene, 1-methyl-3-propyl-.....	ug/kg	8.28			20.181
000493-02-7	Naphthalene, decahydro-, trans-.....	ug/kg	11.8			20.455
NA	Unknown.....	ug/kg	29.4			17.15
NA	Unknown.....	ug/kg	21.3			19.76
NA	Unknown.....	ug/kg	8.24			22.43

RL = Reporting Limit

Login #L9907381
August 4, 1999 12:05 pm

KEMRON ENVIRONMENTAL SERVICES

Product: 826LA - Volatile Organics

Lab Sample ID: L9907381-02
Client Sample ID: RE03-99-2001
Site/Work ID: 5824R/MR3R3M041045
Matrix: Soil

Dil. Type: N/A
COC Info: N/A
Date Collected: 07/17/99

Sample Weight: N/A
Extract Volume: N/A
% Solid: 90

TCLP Extract Date: N/A
Extract Date: N/A
Analysis Date: 07/22/99 Time: 13:27

Instrument: HPMS6
Analyst: CMS
Lab File ID: 6M14659

Method: 8260B
Run ID: R70278
Batch : WG61351

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
75-71-8	Dichlorodifluoromethane	ug/kg		ND	10	.9
74-87-3	Chloromethane	ug/kg		ND	10	.9
75-01-4	Vinyl chloride	ug/kg		ND	10	.9
74-83-9	Bromomethane	ug/kg		ND	10	.9
75-00-3	Chloroethane	ug/kg		ND	10	.9
75-69-4	Trichlorofluoromethane	ug/kg		ND	5.0	.9
75-35-4	1,1-Dichloroethene	ug/kg		ND	5.0	.9
74-88-4	Iodomethane	ug/kg		ND	5.0	.9
75-15-0	Carbon disulfide	ug/kg		ND	5.0	.9
67-64-1	Acetone	ug/kg	25	B	20	.9
75-09-2	Methylene chloride	ug/kg	4.6	J,B	5.0	.9
156-60-5	trans-1,2-Dichloroethene	ug/kg		ND	10	.9
75-34-3	1,1-Dichloroethane	ug/kg		ND	5.0	.9
594-20-7	2,2-Dichloropropane	ug/kg		ND	5.0	.9
156-59-2	cis-1,2-Dichloroethene	ug/kg		ND	10	.9
78-93-3	2-Butanone	ug/kg		ND	20	.9
74-97-5	Bromochloromethane	ug/kg		ND	5.0	.9
67-66-3	Chloroform	ug/kg		ND	5.0	.9
71-55-6	1,1,1-Trichloroethane	ug/kg		ND	5.0	.9
56-23-5	Carbon tetrachloride	ug/kg		ND	5.0	.9
563-58-6	1,1-Dichloropropene	ug/kg		ND	5.0	.9
71-43-2	Benzene	ug/kg		ND	5.0	.9
107-06-2	1,2-Dichloroethane	ug/kg		ND	5.0	.9
79-01-6	Trichloroethene	ug/kg		ND	5.0	.9
78-87-5	1,2-Dichloropropane	ug/kg		ND	5.0	.9
74-95-3	Dibromomethane	ug/kg		ND	5.0	.9
75-27-4	Bromodichloromethane	ug/kg		ND	5.0	.9
10061-02-6	trans-1,3-Dichloropropene	ug/kg		ND	5.0	.9
108-10-1	4-Methyl-2-pentanone	ug/kg		ND	20	.9
108-88-3	Toluene	ug/kg		ND	5.0	.9
10061-01-5	cis-1,3-Dichloropropene	ug/kg		ND	5.0	.9
79-00-5	1,1,2-Trichloroethane	ug/kg		ND	5.0	.9
127-18-4	Tetrachloroethene	ug/kg		ND	5.0	.9
142-28-9	1,3-Dichloropropane	ug/kg		ND	5.0	.9
124-48-1	Dibromochloromethane	ug/kg		ND	5.0	.9
591-78-6	2-Hexanone	ug/kg		ND	20	.9
106-93-4	1,2-Dibromoethane	ug/kg		ND	5.0	.9
108-90-7	Chlorobenzene	ug/kg		ND	5.0	.9
630-20-6	1,1,1,2-Tetrachloroethane	ug/kg		ND	5.0	.9

RL = Reporting Limit

KEMRON ENVIRONMENTAL SERVICES

Product: 826LA - Volatile Organics

Lab Sample ID: L9907381-02
Client Sample ID: RE03-99-2001
Site/Work ID: 5824R/MR3R3M041045
Matrix: Soil

Dil. Type: N/A
COC Info: N/A
Date Collected: 07/17/99

Sample Weight: N/A
Extract Volume: N/A
% Solid: 90

TCLP Extract Date: N/A
Extract Date: N/A
Analysis Date: 07/22/99 Time: 13:27

Instrument: HPMS6
Analyst: CMS
Lab File ID: 6M14659

Method: 8260B
Run ID: R70278
Batch : WG61351

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
100-41-4	Ethyl benzene	ug/kg		ND	5.0	.9
1330-20-7	Xylenes (total)	ug/kg	1.0	J	5.0	.9
100-42-5	Styrene	ug/kg		ND	5.0	.9
75-25-2	Bromoform	ug/kg		ND	5.0	.9
98-82-8	Isopropylbenzene	ug/kg	0.21	J	5.0	.9
108-86-1	Bromobenzene	ug/kg		ND	5.0	.9
96-18-4	1,2,3-Trichloropropane	ug/kg		ND	5.0	.9
79-34-5	1,1,2,2-Tetrachloroethane	ug/kg		ND	5.0	.9
103-65-1	n-Propylbenzene	ug/kg	0.87	J	5.0	.9
95-49-8	2-Chlorotoluene	ug/kg		ND	5.0	.9
106-43-4	4-Chlorotoluene	ug/kg		ND	5.0	.9
108-67-8	1,3,5-Trimethylbenzene	ug/kg	4.6	J	5.0	.9
98-06-6	tert-Butylbenzene	ug/kg		ND	5.0	.9
95-63-6	1,2,4-Trimethylbenzene	ug/kg	3.3	J	5.0	.9
135-98-8	sec-Butylbenzene	ug/kg	0.68	J	5.0	.9
541-73-1	1,3-Dichlorobenzene	ug/kg		ND	5.0	.9
106-46-7	1,4-Dichlorobenzene	ug/kg		ND	5.0	.9
99-87-6	p-Isopropyltoluene	ug/kg	0.76	J	5.0	.9
95-50-1	1,2-Dichlorobenzene	ug/kg		ND	5.0	.9
104-51-8	n-Butylbenzene	ug/kg	1.1	J	5.0	.9
96-12-8	1,2-Dibromo-3-chloropropane	ug/kg		ND	10	.9
76-13-1	Trichlorotrifluoroethane	ug/kg		ND	5.0	.9

SURROGATES- In Percent Recovery:

Toluene-d8	86.6	(81 - 117%)
p-Bromofluorobenzene	105	(74 - 121%)
Dibromofluoromethane	89.3	(80 - 120%)
1,2-Dichloroethane-d4	89.6	(80 - 120%)

RL = Reporting Limit

KEMRON ENVIRONMENTAL SERVICES

Lab Sample ID: L9907381-03
Client Sample ID: RE03-99-2002
Site/Work ID: 5824R/MR3R3M041045

Matrix: Soil
Collected: 07/17/99 N/A

% Solid: 88
COC Info: N/A

Analyte	Units	Result	Qualifiers	RL	Dil	Type	Analyst	Analysis Date	Time	Method
Percent Solids.....	% wt.	88		1.0	1	N/A	SMW	07/27/99	16:40	D2216-90

Product: 8082LA - PCB's - LANL

Lab Sample ID: L9907381-03
Client Sample ID: RE03-99-2002
Site/Work ID: 5824R/MR3R3M041045
Matrix: Soil

TCLP Extract Date: N/A
Extract Date: 07/22/99
Analysis Date: 07/26/99 Time: 12:35

Dil. Type: N/A
COC Info: N/A

Date Collected: 07/17/99

Instrument: HP7
Analyst: CDB
Lab File ID: 7G2626

Sample Weight: N/A
Extract Volume: N/A

% Solid: 88

Method: 8082\3550
Run ID: R70759
Batch : WG61476

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
12674-11-2	Aroclor-1016.....	ug/kg		ND	38	1
11104-28-2	Aroclor-1221.....	ug/kg		ND	75	1
11141-16-5	Aroclor-1232.....	ug/kg		ND	38	1
53469-21-9	Aroclor-1242.....	ug/kg		ND	38	1
12672-29-6	Aroclor-1248.....	ug/kg		ND	38	1
11097-69-1	Aroclor-1254.....	ug/kg		ND	38	1
11096-82-5	Aroclor-1260.....	ug/kg		ND	38	1

SURROGATES- In Percent Recovery:

2,4,5,6-Tetrachloro-m-xylene.....	71.6	(29 - 133%)
Decachlorobiphenyl.....	87.8	(30 - 173%)

RL = Reporting Limit

KEMRON ENVIRONMENTAL SERVICES

Product: DRO - Diesel Range Organics (GC)

Lab Sample ID: L9907381-03
Client Sample ID: RE03-99-2002
Site/Work ID: 5824R/MR3R3M041045
Matrix: Soil

TCLP Extract Date: N/A
Extract Date: 07/22/99
Analysis Date: 07/24/99 Time: 22:27

Dil. Type: N/A
COC Info: N/A

Date Collected: 07/17/99

Instrument: HP8
Analyst: HV
Lab File ID: G8014R

Sample Weight: N/A
Extract Volume: N/A

% Solid: 88

Method: 8015\3550
Run ID: R70838
Batch : WG61453

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
68334-30-5	Diesel Range Organics.....	ug/kg	14000		4500	1

SURROGATES- In Percent Recovery:

o-Terphenyl.....	61.9	(43 - 136%)
Octacosane.....	35.5	(25 - 162%)

Product: GRO - Gasoline Range Organics

Lab Sample ID: L9907381-03
Client Sample ID: RE03-99-2002
Site/Work ID: 5824R/MR3R3M041045
Matrix: Soil

TCLP Extract Date: N/A
Extract Date: N/A
Analysis Date: 07/26/99 Time: 17:13

Dil. Type: N/A
COC Info: N/A

Date Collected: 07/17/99

Instrument: HP5
Analyst: VMN
Lab File ID: 5G771

Sample Weight: N/A
Extract Volume: N/A

% Solid: 88

Method: 8015
Run ID: R71040
Batch : WG61593

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
8006-61-9	Gasoline Range Organics.....	ug/kg		ND	110	1

SURROGATES- In Percent Recovery:

Chlorobenzene.....	66.6	(64 - 148%)

RL = Reporting Limit

Product: 8260LS - VOA Library Search

Lab Sample ID: L9907381-03
Client Sample ID: RE03-99-2002
Site/Work ID: 5824R/MR3R3M041045
Matrix: Soil

TCLP Extract Date: N/A
Extract Date: N/A
Analysis Date: 07/22/99 Time: 14:05

Dil. Type: N/A
COC Info: N/A

Date Collected: 07/17/99

Instrument: HPMS6
Analyst: CMS
Lab File ID: 6M14660

Sample Weight: N/A
Extract Volume: N/A

% Solid: 88

Method: 8260B
Run ID: R70278
Batch : WG61351

CAS #	Compound	Units	Result	Qualifiers	RL	Ret Time
000091-20-3	Naphthalene#2	ug/kg	5.96			23.619
NA	Unknown	ug/kg	37.2			17.144
NA	Unknown	ug/kg	5.20			17.408
NA	Unknown	ug/kg	25.7			19.765
NA	Unknown	ug/kg	9.27			22.433

Product: 826LA - Volatile Organics

Lab Sample ID: L9907381-03
Client Sample ID: RE03-99-2002
Site/Work ID: 5824R/MR3R3M041045
Matrix: Soil

TCLP Extract Date: N/A
Extract Date: N/A
Analysis Date: 07/22/99 Time: 14:05

Dil. Type: N/A
COC Info: N/A

Date Collected: 07/17/99

Instrument: HPMS6
Analyst: CMS
Lab File ID: 6M14660

Sample Weight: N/A
Extract Volume: N/A

% Solid: 88

Method: 8260B
Run ID: R70278
Batch : WG61351

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
75-71-8	Dichlorodifluoromethane	ug/kg		ND	10	.9
74-87-3	Chloromethane	ug/kg		ND	10	.9
75-01-4	Vinyl chloride	ug/kg		ND	10	.9
74-83-9	Bromomethane	ug/kg		ND	10	.9
75-00-3	Chloroethane	ug/kg		ND	10	.9
75-69-4	Trichlorofluoromethane	ug/kg		ND	5.1	.9
75-35-4	1,1-Dichloroethene	ug/kg		ND	5.1	.9
74-88-4	Iodomethane	ug/kg		ND	5.1	.9
75-15-0	Carbon disulfide	ug/kg		ND	5.1	.9
67-64-1	Acetone	ug/kg	6.1	J,B	20	.9
75-09-2	Methylene chloride	ug/kg	4.1	J,B	5.1	.9
156-60-5	trans-1,2-Dichloroethene	ug/kg		ND	10	.9
75-34-3	1,1-Dichloroethane	ug/kg		ND	5.1	.9

RL = Reporting Limit

Login #L9907381
August 4, 1999 12:05 pm

KEMRON ENVIRONMENTAL SERVICES

Product: 826LA - Volatile Organics

Lab Sample ID: L9907381-03
Client Sample ID: RE03-99-2002
Site/Work ID: 5824R/MR3R3M041045
Matrix: Soil

TCLP Extract Date: N/A
Extract Date: N/A
Analysis Date: 07/22/99 Time: 14:05

Dil. Type: N/A
COC Info: N/A

Date Collected: 07/17/99

Instrument: HPMS6
Analyst: CMS
Lab File ID: 6M14660

Sample Weight: N/A
Extract Volume: N/A

% Solid: 88

Method: 8260B
Run ID: R70278
Batch : WG61351

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
594-20-7	2,2-Dichloropropane	ug/kg		ND	5.1	.9
156-59-2	cis-1,2-Dichloroethene	ug/kg		ND	10	.9
78-93-3	2-Butanone	ug/kg		ND	20	.9
74-97-5	Bromochloromethane	ug/kg		ND	5.1	.9
67-66-3	Chloroform	ug/kg		ND	5.1	.9
71-55-6	1,1,1-Trichloroethane	ug/kg		ND	5.1	.9
56-23-5	Carbon tetrachloride	ug/kg		ND	5.1	.9
563-58-6	1,1-Dichloropropene	ug/kg		ND	5.1	.9
71-43-2	Benzene	ug/kg		ND	5.1	.9
107-06-2	1,2-Dichloroethane	ug/kg		ND	5.1	.9
79-01-6	Trichloroethene	ug/kg		ND	5.1	.9
78-87-5	1,2-Dichloropropane	ug/kg		ND	5.1	.9
74-95-3	Dibromomethane	ug/kg		ND	5.1	.9
75-27-4	Bromodichloromethane	ug/kg		ND	5.1	.9
10061-02-6	trans-1,3-Dichloropropene	ug/kg		ND	5.1	.9
108-10-1	4-Methyl-2-pentanone	ug/kg		ND	20	.9
108-88-3	Toluene	ug/kg		ND	5.1	.9
10061-01-5	cis-1,3-Dichloropropene	ug/kg		ND	5.1	.9
79-00-5	1,1,2-Trichloroethane	ug/kg		ND	5.1	.9
127-18-4	Tetrachloroethene	ug/kg	0.57	J	5.1	.9
142-28-9	1,3-Dichloropropane	ug/kg		ND	5.1	.9
124-48-1	Dibromochloromethane	ug/kg		ND	5.1	.9
591-78-6	2-Hexanone	ug/kg		ND	20	.9
106-93-4	1,2-Dibromoethane	ug/kg		ND	5.1	.9
108-90-7	Chlorobenzene	ug/kg		ND	5.1	.9
630-20-6	1,1,1,2-Tetrachloroethane	ug/kg		ND	5.1	.9
100-41-4	Ethyl benzene	ug/kg		ND	5.1	.9
1330-20-7	Xylenes (total)	ug/kg		ND	5.1	.9
100-42-5	Styrene	ug/kg		ND	5.1	.9
75-25-2	Bromoform	ug/kg		ND	5.1	.9
98-82-8	Isopropylbenzene	ug/kg		ND	5.1	.9
108-86-1	Bromobenzene	ug/kg		ND	5.1	.9
96-18-4	1,2,3-Trichloropropane	ug/kg		ND	5.1	.9
79-34-5	1,1,2,2-Tetrachloroethane	ug/kg		ND	5.1	.9
103-65-1	n-Propylbenzene	ug/kg		ND	5.1	.9
95-49-8	2-Chlorotoluene	ug/kg		ND	5.1	.9
106-43-4	4-Chlorotoluene	ug/kg		ND	5.1	.9
108-67-8	1,3,5-Trimethylbenzene	ug/kg	1.1	J	5.1	.9
98-06-6	tert-Butylbenzene	ug/kg		ND	5.1	.9

RL = Reporting Limit

KEMRON ENVIRONMENTAL SERVICES

Product: 826LA - Volatile Organics

Lab Sample ID: L9907381-03
Client Sample ID: RE03-99-2002
Site/Work ID: 5824R/MR3R3M041045
Matrix: Soil

Dil. Type: N/A
COC Info: N/A
Date Collected: 07/17/99

Sample Weight: N/A
Extract Volume: N/A
% Solid: 88

TCLP Extract Date: N/A
Extract Date: N/A
Analysis Date: 07/22/99 Time: 14:05

Instrument: HPMS6
Analyst: CMS
Lab File ID: 6M14660

Method: 8260B
Run ID: R70278
Batch : WG61351

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
95-63-6	1,2,4-Trimethylbenzene	ug/kg	1.8	J	5.1	.9
135-98-8	sec-Butylbenzene	ug/kg		ND	5.1	.9
541-73-1	1,3-Dichlorobenzene	ug/kg		ND	5.1	.9
106-46-7	1,4-Dichlorobenzene	ug/kg		ND	5.1	.9
99-87-6	p-Isopropyltoluene	ug/kg		ND	5.1	.9
95-50-1	1,2-Dichlorobenzene	ug/kg		ND	5.1	.9
104-51-8	n-Butylbenzene	ug/kg	0.30	J	5.1	.9
96-12-8	1,2-Dibromo-3-chloropropane	ug/kg		ND	10	.9
76-13-1	Trichlorotrifluoroethane	ug/kg		ND	5.1	.9

SURROGATES- In Percent Recovery:

Toluene-d8	87.8	(81 - 117%)
p-Bromofluorobenzene	95.2	(74 - 121%)
Dibromofluoromethane	90.5	(80 - 120%)
1,2-Dichloroethane-d4	90.3	(80 - 120%)

Lab Sample ID: L9907381-04
Client Sample ID: RE03-99-2003
Site/Work ID: 5824R/MR3R3M041045

Matrix: Soil
Collected: 07/17/99 N/A

% Solid: 84
COC Info: N/A

Analyte	Units	Result	Qualifiers	RL	Dil	Type	Analyst	Analysis Date	Time	Method
Percent Solids	% wt.	84		1.0	1	N/A	SMW	07/27/99	16:40	D2216-90

RL = Reporting Limit

KEMRON ENVIRONMENTAL SERVICES

Product: 8082LA - PCB's - LANL

Lab Sample ID: L9907381-04
Client Sample ID: RE03-99-2003
Site/Work ID: 5824R/MR3R3M041045
Matrix: Soil

TCLP Extract Date: N/A
Extract Date: 07/22/99
Analysis Date: 07/26/99 Time: 13:01

Dil. Type: N/A
COC Info: N/A

Date Collected: 07/17/99

Instrument: HP7
Analyst: CDB
Lab File ID: 7G2627

Sample Weight: N/A
Extract Volume: N/A

% Solid: 84

Method: 8082\3550
Run ID: R70759
Batch : WG61476

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
12674-11-2	Aroclor-1016	ug/kg		ND	39	1
11104-28-2	Aroclor-1221	ug/kg		ND	79	1
11141-16-5	Aroclor-1232	ug/kg		ND	39	1
53469-21-9	Aroclor-1242	ug/kg		ND	39	1
12672-29-6	Aroclor-1248	ug/kg		ND	39	1
11097-69-1	Aroclor-1254	ug/kg		ND	39	1
11096-82-5	Aroclor-1260	ug/kg		ND	39	1

SURROGATES- In Percent Recovery:

2,4,5,6-Tetrachloro-m-xylene	76.8		(29 - 133%)
Decachlorobiphenyl	92.7		(30 - 173%)

Product: DRO - Diesel Range Organics (GC)

Lab Sample ID: L9907381-04
Client Sample ID: RE03-99-2003
Site/Work ID: 5824R/MR3R3M041045
Matrix: Soil

TCLP Extract Date: N/A
Extract Date: 07/22/99
Analysis Date: 07/24/99 Time: 23:46

Dil. Type: N/A
COC Info: N/A

Date Collected: 07/17/99

Instrument: HP8
Analyst: HV
Lab File ID: G8015R

Sample Weight: N/A
Extract Volume: N/A

% Solid: 84

Method: 8015\3550
Run ID: R70838
Batch : WG61453

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
68334-30-5	Diesel Range Organics	ug/kg	27000		4800	1

SURROGATES- In Percent Recovery:

o-Terphenyl	61.4		(43 - 136%)
Octacosane	18.9	*,SMI	(25 - 162%)

RL = Reporting Limit

KEMRON ENVIRONMENTAL SERVICES

Product: GRO - Gasoline Range Organics

Lab Sample ID: L9907381-04
Client Sample ID: RE03-99-2003
Site/Work ID: 5824R/MR3R3M041045
Matrix: Soil

TCLP Extract Date: N/A
Extract Date: N/A
Analysis Date: 07/26/99 Time: 18:01

Dil. Type: N/A
COC Info: N/A

Date Collected: 07/17/99

Instrument: HP5
Analyst: VMN
Lab File ID: 5G772

Sample Weight: N/A
Extract Volume: N/A

% Solid: 84

Method: 8015
Run ID: R71040
Batch : WG61593

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
8006-61-9	Gasoline Range Organics.....	ug/kg	38	J	120	1

SURROGATES- In Percent Recovery:

Chlorobenzene.....	59.9	*,RE	(64 - 148%)

Product: 8260LS - VOA Library Search

Lab Sample ID: L9907381-04
Client Sample ID: RE03-99-2003
Site/Work ID: 5824R/MR3R3M041045
Matrix: Soil

TCLP Extract Date: N/A
Extract Date: N/A
Analysis Date: 07/22/99 Time: 14:45

Dil. Type: N/A
COC Info: N/A

Date Collected: 07/17/99

Instrument: HPMS6
Analyst: CMS
Lab File ID: 6M14661

Sample Weight: N/A
Extract Volume: N/A

% Solid: 84

Method: 8260B
Run ID: R70278
Batch : WG61351

CAS #	Compound	Units	Result	Qualifiers	RL	Ret Time
NA	Unknown.....	ug/kg	14.0			19.771
NA	Naphthalene.....	ug/kg	18.0			23.62

RL = Reporting Limit

Login #L9907381
August 4, 1999 12:05 pm

KEMRON ENVIRONMENTAL SERVICES

Product: 826LA - Volatile Organics

Lab Sample ID: L9907381-04
Client Sample ID: RE03-99-2003
Site/Work ID: 5824R/MR3R3M041045
Matrix: Soil

TCLP Extract Date: N/A
Extract Date: N/A
Analysis Date: 07/22/99 Time: 14:45

Dil. Type: N/A
COC Info: N/A

Date Collected: 07/17/99

Instrument: HPMS6
Analyst: CMS
Lab File ID: 6M14661

Sample Weight: N/A
Extract Volume: N/A

% Solid: 84

Method: 8260B
Run ID: R70278
Batch : WG61351

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
75-71-8	Dichlorodifluoromethane	ug/kg		ND	12	1
74-87-3	Chloromethane	ug/kg		ND	12	1
75-01-4	Vinyl chloride	ug/kg		ND	12	1
74-83-9	Bromomethane	ug/kg		ND	12	1
75-00-3	Chloroethane	ug/kg		ND	12	1
75-69-4	Trichlorofluoromethane	ug/kg		ND	6.0	1
75-35-4	1,1-Dichloroethene	ug/kg		ND	6.0	1
74-88-4	Iodomethane	ug/kg		ND	6.0	1
75-15-0	Carbon disulfide	ug/kg		ND	6.0	1
67-64-1	Acetone	ug/kg	6.6	J,B	24	1
75-09-2	Methylene chloride	ug/kg	3.5	J,B	6.0	1
156-60-5	trans-1,2-Dichloroethene	ug/kg		ND	12	1
75-34-3	1,1-Dichloroethane	ug/kg		ND	6.0	1
594-20-7	2,2-Dichloropropane	ug/kg		ND	6.0	1
156-59-2	cis-1,2-Dichloroethene	ug/kg		ND	12	1
78-93-3	2-Butanone	ug/kg		ND	24	1
74-97-5	Bromochloromethane	ug/kg		ND	6.0	1
67-66-3	Chloroform	ug/kg		ND	6.0	1
71-55-6	1,1,1-Trichloroethane	ug/kg		ND	6.0	1
56-23-5	Carbon tetrachloride	ug/kg		ND	6.0	1
563-58-6	1,1-Dichloropropene	ug/kg		ND	6.0	1
71-43-2	Benzene	ug/kg		ND	6.0	1
107-06-2	1,2-Dichloroethane	ug/kg		ND	6.0	1
79-01-6	Trichloroethene	ug/kg		ND	6.0	1
78-87-5	1,2-Dichloropropane	ug/kg		ND	6.0	1
74-95-3	Dibromomethane	ug/kg		ND	6.0	1
75-27-4	Bromodichloromethane	ug/kg		ND	6.0	1
10061-02-6	trans-1,3-Dichloropropene	ug/kg		ND	6.0	1
108-10-1	4-Methyl-2-pentanone	ug/kg		ND	24	1
108-88-3	Toluene	ug/kg		ND	6.0	1
10061-01-5	cis-1,3-Dichloropropene	ug/kg		ND	6.0	1
79-00-5	1,1,2-Trichloroethane	ug/kg		ND	6.0	1
127-18-4	Tetrachloroethene	ug/kg		ND	6.0	1
142-28-9	1,3-Dichloropropane	ug/kg		ND	6.0	1
124-48-1	Dibromochloromethane	ug/kg		ND	6.0	1
591-78-6	2-Hexanone	ug/kg		ND	24	1
106-93-4	1,2-Dibromoethane	ug/kg		ND	6.0	1
108-90-7	Chlorobenzene	ug/kg		ND	6.0	1
630-20-6	1,1,1,2-Tetrachloroethane	ug/kg		ND	6.0	1

RL = Reporting Limit

KEMRON ENVIRONMENTAL SERVICES

Product: 826LA - Volatile Organics

Lab Sample ID: L9907381-04
Client Sample ID: RE03-99-2003
Site/Work ID: 5824R/MR3R3M041045
Matrix: Soil

TCLP Extract Date: N/A
Extract Date: N/A
Analysis Date: 07/22/99 Time: 14:45

Dil. Type: N/A
COC Info: N/A

Date Collected: 07/17/99

Instrument: HPMS6
Analyst: CMS
Lab File ID: 6M14661

Sample Weight: N/A
Extract Volume: N/A

% Solid: 84

Method: 8260B
Run ID: R70278
Batch : WG61351

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
100-41-4	Ethyl benzene	ug/kg		ND	6.0	1
1330-20-7	Xylenes (total)	ug/kg		ND	6.0	1
100-42-5	Styrene	ug/kg		ND	6.0	1
75-25-2	Bromoform	ug/kg		ND	6.0	1
98-82-8	Isopropylbenzene	ug/kg		ND	6.0	1
108-86-1	Bromobenzene	ug/kg		ND	6.0	1
96-18-4	1,2,3-Trichloropropane	ug/kg		ND	6.0	1
79-34-5	1,1,2,2-Tetrachloroethane	ug/kg		ND	6.0	1
103-65-1	n-Propylbenzene	ug/kg		ND	6.0	1
95-49-8	2-Chlorotoluene	ug/kg		ND	6.0	1
106-43-4	4-Chlorotoluene	ug/kg		ND	6.0	1
108-67-8	1,3,5-Trimethylbenzene	ug/kg		ND	6.0	1
98-06-6	tert-Butylbenzene	ug/kg		ND	6.0	1
95-63-6	1,2,4-Trimethylbenzene	ug/kg		ND	6.0	1
135-98-8	sec-Butylbenzene	ug/kg	0.44	J	6.0	1
541-73-1	1,3-Dichlorobenzene	ug/kg		ND	6.0	1
106-46-7	1,4-Dichlorobenzene	ug/kg		ND	6.0	1
99-87-6	p-Isopropyltoluene	ug/kg		ND	6.0	1
95-50-1	1,2-Dichlorobenzene	ug/kg		ND	6.0	1
104-51-8	n-Butylbenzene	ug/kg		ND	6.0	1
96-12-8	1,2-Dibromo-3-chloropropane	ug/kg		ND	6.0	1
76-13-1	Trichlorotrifluoroethane	ug/kg		ND	12	1
					6.0	1

SURROGATES- In Percent Recovery:

Toluene-d8	86.8	(81 - 117%)
p-Bromofluorobenzene	88.3	(74 - 121%)
Dibromofluoromethane	90.8	(80 - 120%)
1,2-Dichloroethane-d4	93.3	(80 - 120%)

RL = Reporting Limit

KEMRON ENVIRONMENTAL SERVICES

Lab Sample ID: L9907381-05
Client Sample ID: RE03-99-2004
Site/Work ID: 5824R/MR3R3M041045

Matrix: Soil
Collected: 07/17/99 N/A

% Solid: 83
COC Info: N/A

Analyte	Units	Result	Qualifiers	RL	Dil	Type	Analyst	Analysis Date	Time	Method
Percent Solids.....	% wt.	83		1.0	1	N/A	SMW	07/27/99	16:40	D2216-90

Product: 8082LA - PCB's - LANL

Lab Sample ID: L9907381-05
Client Sample ID: RE03-99-2004
Site/Work ID: 5824R/MR3R3M041045
Matrix: Soil

TCLP Extract Date: N/A
Extract Date: 07/22/99
Analysis Date: 07/26/99 Time: 13:26

Dil. Type: N/A
COC Info: N/A

Date Collected: 07/17/99

Instrument: HP7
Analyst: CDB
Lab File ID: 7G2628

Sample Weight: N/A
Extract Volume: N/A

% Solid: 83

Method: 8082\3550
Run ID: R70759
Batch : WG61476

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
12674-11-2	Aroclor-1016.....	ug/kg		ND	40	1
11104-28-2	Aroclor-1221.....	ug/kg		ND	80	1
11141-16-5	Aroclor-1232.....	ug/kg		ND	40	1
53469-21-9	Aroclor-1242.....	ug/kg		ND	40	1
12672-29-6	Aroclor-1248.....	ug/kg		ND	40	1
11097-69-1	Aroclor-1254.....	ug/kg		ND	40	1
11096-82-5	Aroclor-1260.....	ug/kg		ND	40	1

SURROGATES- In Percent Recovery:

2,4,5,6-Tetrachloro-m-xylene.....	66.0	(29 - 133%)
Decachlorobiphenyl.....	86.6	(30 - 173%)

RL = Reporting Limit

KEMRON ENVIRONMENTAL SERVICES

Product: DRO - Diesel Range Organics (GC)

Lab Sample ID: L9907381-05
Client Sample ID: RE03-99-2004
Site/Work ID: 5824R/MR3R3M041045
Matrix: Soil

TCLP Extract Date: N/A
Extract Date: 07/22/99
Analysis Date: 07/25/99 Time: 01:04

Dil. Type: N/A
COC Info: N/A

Date Collected: 07/17/99

Instrument: HP8
Analyst: HV
Lab File ID: G8016R

Sample Weight: N/A
Extract Volume: N/A

% Solid: 83

Method: 8015\3550
Run ID: R70839
Batch : WG61453

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
68334-30-5	Diesel Range Organics.....	ug/kg	31000		4800	1

SURROGATES- In Percent Recovery:

o-Terphenyl.....	70.2		(43 - 136%)
Octacosane.....	17.7	*SMI	(25 - 162%)

Product: GRO - Gasoline Range Organics

Lab Sample ID: L9907381-05
Client Sample ID: RE03-99-2004
Site/Work ID: 5824R/MR3R3M041045
Matrix: Soil

TCLP Extract Date: N/A
Extract Date: N/A
Analysis Date: 07/26/99 Time: 18:48

Dil. Type: N/A
COC Info: N/A

Date Collected: 07/17/99

Instrument: HP5
Analyst: VMN
Lab File ID: 5G773

Sample Weight: N/A
Extract Volume: N/A

% Solid: 83

Method: 8015
Run ID: R71040
Batch : WG61593

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
8006-61-9	Gasoline Range Organics.....	ug/kg		ND	120	1

SURROGATES- In Percent Recovery:

Chlorobenzene.....	64.6	(64 - 148%)

RL = Reporting Limit

KEMRON ENVIRONMENTAL SERVICES

Product: 8260LS - VOA Library Search

Lab Sample ID: L9907381-05
Client Sample ID: RE03-99-2004
Site/Work ID: 5824R/MR3R3M041045
Matrix: Soil

Dil. Type: N/A
COC Info: N/A
Date Collected: 07/17/99

Sample Weight: N/A
Extract Volume: N/A
% Solid: 83

TCLP Extract Date: N/A
Extract Date: N/A
Analysis Date: 07/22/99 Time: 15:25

Instrument: HPMS6
Analyst: CMS
Lab File ID: 6M14662

Method: 8260B
Run ID: R70278
Batch : WG61351

CAS #	Compound	Units	Result	Qualifiers	RL	Ret Time
NA	Unknown.....	ug/kg	19.0			19.764
NA	Unknown.....	ug/kg	6.12			22.432

Product: 826LA - Volatile Organics

Lab Sample ID: L9907381-05
Client Sample ID: RE03-99-2004
Site/Work ID: 5824R/MR3R3M041045
Matrix: Soil

Dil. Type: N/A
COC Info: N/A
Date Collected: 07/17/99

Sample Weight: N/A
Extract Volume: N/A
% Solid: 83

TCLP Extract Date: N/A
Extract Date: N/A
Analysis Date: 07/22/99 Time: 15:25

Instrument: HPMS6
Analyst: CMS
Lab File ID: 6M14662

Method: 8260B
Run ID: R70278
Batch : WG61351

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
75-71-8	Dichlorodifluoromethane.....	ug/kg		ND	11	.9
74-87-3	Chloromethane.....	ug/kg		ND	11	.9
75-01-4	Vinyl chloride.....	ug/kg		ND	11	.9
74-83-9	Bromomethane.....	ug/kg		ND	11	.9
75-00-3	Chloroethane.....	ug/kg		ND	11	.9
75-69-4	Trichlorofluoromethane.....	ug/kg		ND	5.4	.9
75-35-4	1,1-Dichloroethene.....	ug/kg		ND	5.4	.9
74-88-4	Iodomethane.....	ug/kg		ND	5.4	.9
75-15-0	Carbon disulfide.....	ug/kg		ND	5.4	.9
67-64-1	Acetone.....	ug/kg	6.3	J,B	22	.9
75-09-2	Methylene chloride.....	ug/kg	5.4	B	5.4	.9
156-60-5	trans-1,2-Dichloroethene.....	ug/kg		ND	11	.9
75-34-3	1,1-Dichloroethane.....	ug/kg		ND	5.4	.9
594-20-7	2,2-Dichloropropane.....	ug/kg		ND	5.4	.9
156-59-2	cis-1,2-Dichloroethene.....	ug/kg		ND	11	.9
78-93-3	2-Butanone.....	ug/kg		ND	22	.9

RL = Reporting Limit

Login #L9907381
August 4, 1999 12:05 pm

KEMRON ENVIRONMENTAL SERVICES

Product: 826LA - Volatile Organics

Lab Sample ID: L9907381-05
Client Sample ID: RE03-99-2004
Site/Work ID: 5824R/MR3R3M041045
Matrix: Soil

Dil. Type: N/A
COC Info: N/A
Date Collected: 07/17/99

Sample Weight: N/A
Extract Volume: N/A
% Solid: 83

TCLP Extract Date: N/A
Extract Date: N/A
Analysis Date: 07/22/99 Time: 15:25

Instrument: HPMS6
Analyst: CMS
Lab File ID: 6M14662

Method: 8260B
Run ID: R70278
Batch : WG61351

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
74-97-5	Bromochloromethane	ug/kg		ND	5.4	.9
67-66-3	Chloroform	ug/kg		ND	5.4	.9
71-55-6	1,1,1-Trichloroethane	ug/kg		ND	5.4	.9
56-23-5	Carbon tetrachloride	ug/kg		ND	5.4	.9
563-58-6	1,1-Dichloropropene	ug/kg		ND	5.4	.9
71-43-2	Benzene	ug/kg		ND	5.4	.9
107-06-2	1,2-Dichloroethane	ug/kg		ND	5.4	.9
79-01-6	Trichloroethene	ug/kg		ND	5.4	.9
78-87-5	1,2-Dichloropropane	ug/kg		ND	5.4	.9
74-95-3	Dibromomethane	ug/kg		ND	5.4	.9
75-27-4	Bromodichloromethane	ug/kg		ND	5.4	.9
10061-02-6	trans-1,3-Dichloropropene	ug/kg		ND	5.4	.9
108-10-1	4-Methyl-2-pentanone	ug/kg		ND	22	.9
108-88-3	Toluene	ug/kg		ND	5.4	.9
10061-01-5	cis-1,3-Dichloropropene	ug/kg		ND	5.4	.9
79-00-5	1,1,2-Trichloroethane	ug/kg		ND	5.4	.9
127-18-4	Tetrachloroethene	ug/kg		ND	5.4	.9
142-28-9	1,3-Dichloropropane	ug/kg		ND	5.4	.9
124-48-1	Dibromochloromethane	ug/kg		ND	5.4	.9
591-78-6	2-Hexanone	ug/kg		ND	22	.9
106-93-4	1,2-Dibromoethane	ug/kg		ND	5.4	.9
108-90-7	Chlorobenzene	ug/kg		ND	5.4	.9
630-20-6	1,1,1,2-Tetrachloroethane	ug/kg		ND	5.4	.9
100-41-4	Ethyl benzene	ug/kg		ND	5.4	.9
1330-20-7	Xylenes (total)	ug/kg		ND	5.4	.9
100-42-5	Styrene	ug/kg		ND	5.4	.9
75-25-2	Bromoform	ug/kg		ND	5.4	.9
98-82-8	Isopropylbenzene	ug/kg		ND	5.4	.9
108-86-1	Bromobenzene	ug/kg		ND	5.4	.9
96-18-4	1,2,3-Trichloropropane	ug/kg		ND	5.4	.9
79-34-5	1,1,2,2-Tetrachloroethane	ug/kg		ND	5.4	.9
103-65-1	n-Propylbenzene	ug/kg		ND	5.4	.9
95-49-8	2-Chlorotoluene	ug/kg		ND	5.4	.9
106-43-4	4-Chlorotoluene	ug/kg		ND	5.4	.9
108-67-8	1,3,5-Trimethylbenzene	ug/kg		ND	5.4	.9
98-06-6	tert-Butylbenzene	ug/kg		ND	5.4	.9
95-63-6	1,2,4-Trimethylbenzene	ug/kg		ND	5.4	.9
135-98-8	sec-Butylbenzene	ug/kg		ND	5.4	.9
541-73-1	1,3-Dichlorobenzene	ug/kg		ND	5.4	.9

RL = Reporting Limit

KEMRON ENVIRONMENTAL SERVICES

Product: 826LA - Volatile Organics

Lab Sample ID: L9907381-05
Client Sample ID: RE03-99-2004
Site/Work ID: 5824R/MR3R3M041045
Matrix: Soil

TCLP Extract Date: N/A
Extract Date: N/A
Analysis Date: 07/22/99 Time: 15:25

Dil. Type: N/A
COC Info: N/A

Date Collected: 07/17/99

Instrument: HPMS6
Analyst: CMS
Lab File ID: 6M14662

Sample Weight: N/A
Extract Volume: N/A

% Solid: 83

Method: 8260B
Run ID: R70278
Batch : WG61351

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
106-46-7	1,4-Dichlorobenzene.....	ug/kg		ND	5.4	.9
99-87-6	p-Isopropyltoluene.....	ug/kg		ND	5.4	.9
95-50-1	1,2-Dichlorobenzene.....	ug/kg		ND	5.4	.9
104-51-8	n-Butylbenzene.....	ug/kg		ND	5.4	.9
96-12-8	1,2-Dibromo-3-chloropropane.....	ug/kg		ND	11	.9
76-13-1	Trichlorotrifluoroethane.....	ug/kg		ND	5.4	.9

SURROGATES- In Percent Recovery:

Toluene-d8.....	87.7	(81 - 117%)
p-Bromofluorobenzene.....	89.3	(74 - 121%)
Dibromofluoromethane.....	92.3	(80 - 120%)
1,2-Dichloroethane-d4.....	96.2	(80 - 120%)

Lab Sample ID: L9907381-06
Client Sample ID: RE03-99-2005
Site/Work ID: 5824R/MR3R3M041045

Matrix: Soil
Collected: 07/17/99 N/A

% Solid: 83
COC Info: N/A

Analyte	Units	Result	Qualifiers	RL	Dil	Type	Analyst	Analysis Date	Time	Method
Percent Solids.....	% wt.	83		1.0	1	N/A	SMW	07/27/99	16:40	D2216-90

RL = Reporting Limit

Product: 8082LA - PCB's - LANL

Lab Sample ID: L9907381-06
Client Sample ID: RE03-99-2005
Site/Work ID: 5824R/MR3R3M041045
Matrix: Soil

TCLP Extract Date: N/A
Extract Date: 07/22/99
Analysis Date: 07/26/99 Time: 14:43

Dil. Type: N/A
COC Info: N/A

Date Collected: 07/17/99

Instrument: HP7
Analyst: CDB
Lab File ID: 7G2631

Sample Weight: N/A
Extract Volume: N/A

% Solid: 83

Method: 8082\3550
Run ID: R70759
Batch : WG61476

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
12674-11-2	Aroclor-1016	ug/kg		ND	40	1
11104-28-2	Aroclor-1221	ug/kg		ND	80	1
11141-16-5	Aroclor-1232	ug/kg		ND	40	1
53469-21-9	Aroclor-1242	ug/kg		ND	40	1
12672-29-6	Aroclor-1248	ug/kg		ND	40	1
11097-69-1	Aroclor-1254	ug/kg		ND	40	1
11096-82-5	Aroclor-1260	ug/kg		ND	40	1

SURROGATES- In Percent Recovery:

2,4,5,6-Tetrachloro-m-xylene	85.3	(29 - 133%)
Decachlorobiphenyl	107	(30 - 173%)

Product: DRO - Diesel Range Organics (GC)

Lab Sample ID: L9907381-06
Client Sample ID: RE03-99-2005
Site/Work ID: 5824R/MR3R3M041045
Matrix: Soil

TCLP Extract Date: N/A
Extract Date: 07/22/99
Analysis Date: 07/25/99 Time: 02:24

Dil. Type: N/A
COC Info: N/A

Date Collected: 07/17/99

Instrument: HP8
Analyst: HV
Lab File ID: G8017R

Sample Weight: N/A
Extract Volume: N/A

% Solid: 83

Method: 8015\3550
Run ID: R70839
Batch : WG61453

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
68334-30-5	Diesel Range Organics	ug/kg	5700		4800	1

SURROGATES- In Percent Recovery:

o-Terphenyl	55.5	(43 - 136%)
Octacosane	35.9	(25 - 162%)

RL = Reporting Limit

KEMRON ENVIRONMENTAL SERVICES

Product: GRO - Gasoline Range Organics

Lab Sample ID: L9907381-06
Client Sample ID: RE03-99-2005
Site/Work ID: 5824R/MR3R3M041045
Matrix: Soil

TCLP Extract Date: N/A
Extract Date: N/A
Analysis Date: 07/26/99 Time: 19:33

Dil. Type: N/A
COC Info: N/A

Date Collected: 07/17/99

Instrument: HP5
Analyst: VMN
Lab File ID: 5G774

Sample Weight: N/A
Extract Volume: N/A

% Solid: 83

Method: 8015
Run ID: R71040
Batch : WG61593

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
8006-61-9	Gasoline Range Organics.....	ug/kg		ND	120	1
	SURROGATES- In Percent Recovery:					
	Chlorobenzene.....		67.5	(64 - 148%)		

Product: 8260LS - VOA Library Search

Lab Sample ID: L9907381-06
Client Sample ID: RE03-99-2005
Site/Work ID: 5824R/MR3R3M041045
Matrix: Soil

TCLP Extract Date: N/A
Extract Date: N/A
Analysis Date: 07/22/99 Time: 16:04

Dil. Type: N/A
COC Info: N/A

Date Collected: 07/17/99

Instrument: HPMS6
Analyst: CMS
Lab File ID: 6M14663

Sample Weight: N/A
Extract Volume: N/A

% Solid: 83

Method: 8260B
Run ID: R70278
Batch : WG61351

CAS #	Compound	Units	Result	Qualifiers	RL	Ret Time
NA	Unknown.....	ug/kg	12.2			19.762

RL = Reporting Limit

KEMRON ENVIRONMENTAL SERVICES

Product: 826LA - Volatile Organics

Lab Sample ID: L9907381-06
Client Sample ID: RE03-99-2005
Site/Work ID: 5824R/MR3R3M041045
Matrix: Soil

TCLP Extract Date: N/A
Extract Date: N/A
Analysis Date: 07/22/99 Time: 16:04

Dil. Type: N/A
COC Info: N/A

Date Collected: 07/17/99

Instrument: HPMS6
Analyst: CMS
Lab File ID: 6M14663

Sample Weight: N/A
Extract Volume: N/A

% Solid: 83

Method: 8260B
Run ID: R70278
Batch : WG61351

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
75-71-8	Dichlorodifluoromethane	ug/kg		ND	12	1
74-87-3	Chloromethane	ug/kg		ND	12	1
75-01-4	Vinyl chloride	ug/kg		ND	12	1
74-83-9	Bromomethane	ug/kg		ND	12	1
75-00-3	Chloroethane	ug/kg		ND	12	1
75-69-4	Trichlorofluoromethane	ug/kg		ND	6.0	1
75-35-4	1,1-Dichloroethene	ug/kg		ND	6.0	1
74-88-4	Iodomethane	ug/kg		ND	6.0	1
75-15-0	Carbon disulfide	ug/kg		ND	6.0	1
67-64-1	Acetone	ug/kg	7.1	J,B	24	1
75-09-2	Methylene chloride	ug/kg	6.7	B	6.0	1
156-60-5	trans-1,2-Dichloroethene	ug/kg		ND	12	1
75-34-3	1,1-Dichloroethane	ug/kg		ND	6.0	1
594-20-7	2,2-Dichloropropane	ug/kg		ND	6.0	1
156-59-2	cis-1,2-Dichloroethene	ug/kg		ND	12	1
78-93-3	2-Butanone	ug/kg		ND	24	1
74-97-5	Bromochloromethane	ug/kg		ND	6.0	1
67-66-3	Chloroform	ug/kg		ND	6.0	1
71-55-6	1,1,1-Trichloroethane	ug/kg		ND	6.0	1
56-23-5	Carbon tetrachloride	ug/kg		ND	6.0	1
563-58-6	1,1-Dichloropropene	ug/kg		ND	6.0	1
71-43-2	Benzene	ug/kg		ND	6.0	1
107-06-2	1,2-Dichloroethane	ug/kg		ND	6.0	1
79-01-6	Trichloroethene	ug/kg		ND	6.0	1
78-87-5	1,2-Dichloropropane	ug/kg		ND	6.0	1
74-95-3	Dibromomethane	ug/kg		ND	6.0	1
75-27-4	Bromodichloromethane	ug/kg		ND	6.0	1
10061-02-6	trans-1,3-Dichloropropene	ug/kg		ND	6.0	1
108-10-1	4-Methyl-2-pentanone	ug/kg		ND	24	1
108-88-3	Toluene	ug/kg		ND	6.0	1
10061-01-5	cis-1,3-Dichloropropene	ug/kg		ND	6.0	1
79-00-5	1,1,2-Trichloroethane	ug/kg		ND	6.0	1
127-18-4	Tetrachloroethene	ug/kg		ND	6.0	1
142-28-9	1,3-Dichloropropane	ug/kg		ND	6.0	1
124-48-1	Dibromochloromethane	ug/kg		ND	6.0	1
591-78-6	2-Hexanone	ug/kg		ND	24	1
106-93-4	1,2-Dibromoethane	ug/kg		ND	6.0	1
108-90-7	Chlorobenzene	ug/kg		ND	6.0	1
630-20-6	1,1,1,2-Tetrachloroethane	ug/kg		ND	6.0	1

RL = Reporting Limit

KEMRON ENVIRONMENTAL SERVICES

Product: 826LA - Volatile Organics

Lab Sample ID: L9907381-06
Client Sample ID: RE03-99-2005
Site/Work ID: 5824R/MR3R3M041045
Matrix: Soil

TCLP Extract Date: N/A
Extract Date: N/A
Analysis Date: 07/22/99 Time: 16:04

Dil. Type: N/A
COC Info: N/A

Date Collected: 07/17/99

Instrument: HPMS6
Analyst: CMS
Lab File ID: 6M14663

Sample Weight: N/A
Extract Volume: N/A

% Solid: 83

Method: 8260B
Run ID: R70278
Batch : WG61351

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
100-41-4	Ethyl benzene	ug/kg		ND	6.0	1
1330-20-7	Xylenes (total)	ug/kg		ND	6.0	1
100-42-5	Styrene	ug/kg		ND	6.0	1
75-25-2	Bromoform	ug/kg		ND	6.0	1
98-82-8	Isopropylbenzene	ug/kg		ND	6.0	1
108-86-1	Bromobenzene	ug/kg		ND	6.0	1
96-18-4	1,2,3-Trichloropropane	ug/kg		ND	6.0	1
79-34-5	1,1,2,2-Tetrachloroethane	ug/kg		ND	6.0	1
103-65-1	n-Propylbenzene	ug/kg		ND	6.0	1
95-49-8	2-Chlorotoluene	ug/kg		ND	6.0	1
106-43-4	4-Chlorotoluene	ug/kg		ND	6.0	1
108-67-8	1,3,5-Trimethylbenzene	ug/kg		ND	6.0	1
98-06-6	tert-Butylbenzene	ug/kg		ND	6.0	1
95-63-6	1,2,4-Trimethylbenzene	ug/kg		ND	6.0	1
135-98-8	sec-Butylbenzene	ug/kg		ND	6.0	1
541-73-1	1,3-Dichlorobenzene	ug/kg		ND	6.0	1
106-46-7	1,4-Dichlorobenzene	ug/kg		ND	6.0	1
99-87-6	p-Isopropyltoluene	ug/kg		ND	6.0	1
95-50-1	1,2-Dichlorobenzene	ug/kg		ND	6.0	1
104-51-8	n-Butylbenzene	ug/kg		ND	6.0	1
96-12-8	1,2-Dibromo-3-chloropropane	ug/kg		ND	12	1
76-13-1	Trichlorotrifluoroethane	ug/kg		ND	6.0	1

SURROGATES- In Percent Recovery:

Toluene-d8	87.9	(81 - 117%)
p-Bromofluorobenzene	88.7	(74 - 121%)
Dibromofluoromethane	91.1	(80 - 120%)
1,2-Dichloroethane-d4	93.3	(80 - 120%)

RL = Reporting Limit

KEMRON ENVIRONMENTAL SERVICES

Lab Sample ID: L9907381-07
Client Sample ID: RE03-99-2006
Site/Work ID: 5824R/MR3R3M041045

Matrix: Soil
Collected: 07/17/99 N/A

% Solid: 78
COC Info: N/A

Analyte	Units	Result	Qualifiers	RL	Dil	Type	Analyst	Analysis Date	Time	Method
Percent Solids.....	% wt.	78		1.0	1	N/A	SMW	07/27/99	16:40	D2216-90

Product: 8082LA - PCB's - LANL

Lab Sample ID: L9907381-07
Client Sample ID: RE03-99-2006
Site/Work ID: 5824R/MR3R3M041045
Matrix: Soil

TCLP Extract Date: N/A
Extract Date: 07/22/99
Analysis Date: 07/26/99 Time: 15:08

Dil. Type: N/A
COC Info: N/A

Date Collected: 07/17/99

Instrument: HP7
Analyst: CDB
Lab File ID: 7G2632

Sample Weight: N/A
Extract Volume: N/A

% Solid: 78

Method: 8082\3550
Run ID: R70759
Batch : WG61476

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
12674-11-2	Aroclor-1016.....	ug/kg		ND	42	1
11104-28-2	Aroclor-1221.....	ug/kg		ND	85	1
11141-16-5	Aroclor-1232.....	ug/kg		ND	42	1
53469-21-9	Aroclor-1242.....	ug/kg		ND	42	1
12672-29-6	Aroclor-1248.....	ug/kg		ND	42	1
11097-69-1	Aroclor-1254.....	ug/kg		ND	42	1
11096-82-5	Aroclor-1260.....	ug/kg		ND	42	1

SURROGATES- In Percent Recovery:

2,4,5,6-Tetrachloro-m-xylene.....	82.3	(29 - 133%)
Decachlorobiphenyl.....	112	(30 - 173%)

RL = Reporting Limit

Product: DRO - Diesel Range Organics (GC)

Lab Sample ID: L9907381-07
Client Sample ID: RE03-99-2006
Site/Work ID: 5824R/MR3R3M041045
Matrix: Soil

TCLP Extract Date: N/A
Extract Date: 07/22/99
Analysis Date: 07/25/99 Time: 03:42

Dil. Type: N/A
COC Info: N/A

Date Collected: 07/17/99

Instrument: HP8
Analyst: HV
Lab File ID: G8018R

Sample Weight: N/A
Extract Volume: N/A

% Solid: 78

Method: 8015\3550
Run ID: R70839
Batch : WG61453

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
68334-30-5	Diesel Range Organics.....	ug/kg	5500		5100	1

SURROGATES- In Percent Recovery:

o-Terphenyl.....	66.0	(43 - 136%)
Octacosane.....	44.4	(25 - 162%)

Product: GRO - Gasoline Range Organics

Lab Sample ID: L9907381-07
Client Sample ID: RE03-99-2006
Site/Work ID: 5824R/MR3R3M041045
Matrix: Soil

TCLP Extract Date: N/A
Extract Date: N/A
Analysis Date: 07/26/99 Time: 20:17

Dil. Type: N/A
COC Info: N/A

Date Collected: 07/17/99

Instrument: HP5
Analyst: VMN
Lab File ID: 5G775

Sample Weight: N/A
Extract Volume: N/A

% Solid: 78

Method: 8015
Run ID: R71040
Batch : WG61593

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
8006-61-9	Gasoline Range Organics.....	ug/kg		ND	130	1

SURROGATES- In Percent Recovery:

Chlorobenzene.....	62.7	*,RE	(64 - 148%)

RL = Reporting Limit

KEMRON ENVIRONMENTAL SERVICES

Product: 8260LS - VOA Library Search

Lab Sample ID: L9907381-07
Client Sample ID: RE03-99-2006
Site/Work ID: 5824R/MR3R3M041045
Matrix: Soil

TCLP Extract Date: N/A
Extract Date: N/A
Analysis Date: 07/22/99 Time: 16:43

Dil. Type: N/A
COC Info: N/A
Date Collected: 07/17/99

Instrument: HPMS6
Analyst: CMS
Lab File ID: 6M14664

Sample Weight: N/A
Extract Volume: N/A
% Solid: 78

Method: 8260B
Run ID: R70278
Batch : WG61351

CAS #	Compound	Units	Result	Qualifiers	RL	Ret Time
NA	Unknown.....	ug/kg	15.8			19.759

Product: 826LA - Volatile Organics

Lab Sample ID: L9907381-07
Client Sample ID: RE03-99-2006
Site/Work ID: 5824R/MR3R3M041045
Matrix: Soil

TCLP Extract Date: N/A
Extract Date: N/A
Analysis Date: 07/22/99 Time: 16:43

Dil. Type: N/A
COC Info: N/A
Date Collected: 07/17/99

Instrument: HPMS6
Analyst: CMS
Lab File ID: 6M14664

Sample Weight: N/A
Extract Volume: N/A
% Solid: 78

Method: 8260B
Run ID: R70278
Batch : WG61351

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
75-71-8	Dichlorodifluoromethane.....	ug/kg		ND	12	.9
74-87-3	Chloromethane.....	ug/kg		ND	12	.9
75-01-4	Vinyl chloride.....	ug/kg		ND	12	.9
74-83-9	Bromomethane.....	ug/kg		ND	12	.9
75-00-3	Chloroethane.....	ug/kg		ND	12	.9
75-69-4	Trichlorofluoromethane.....	ug/kg		ND	5.8	.9
75-35-4	1,1-Dichloroethene.....	ug/kg		ND	5.8	.9
74-88-4	Iodomethane.....	ug/kg		ND	5.8	.9
75-15-0	Carbon disulfide.....	ug/kg		ND	5.8	.9
67-64-1	Acetone.....	ug/kg	5.4	J,B	23	.9
75-09-2	Methylene chloride.....	ug/kg	5.8	J,B	5.8	.9
156-60-5	trans-1,2-Dichloroethene.....	ug/kg		ND	12	.9
75-34-3	1,1-Dichloroethane.....	ug/kg		ND	5.8	.9
594-20-7	2,2-Dichloropropane.....	ug/kg		ND	5.8	.9
156-59-2	cis-1,2-Dichloroethene.....	ug/kg		ND	12	.9
78-93-3	2-Butanone.....	ug/kg		ND	23	.9
74-97-5	Bromochloromethane.....	ug/kg		ND	5.8	.9

RL = Reporting Limit

Login #L9907381
August 4, 1999 12:05 pm

KEMRON ENVIRONMENTAL SERVICES

Product: 826LA - Volatile Organics

Lab Sample ID: L9907381-07
Client Sample ID: RE03-99-2006
Site/Work ID: 5824R/MR3R3M041045
Matrix: Soil

Dil. Type: N/A
COC Info: N/A

Sample Weight: N/A
Extract Volume: N/A

Date Collected: 07/17/99

% Solid: 78

TCLP Extract Date: N/A
Extract Date: N/A
Analysis Date: 07/22/99 Time: 16:43

Instrument: HPMS6
Analyst: CMS
Lab File ID: 6M14664

Method: 8260B
Run ID: R70278
Batch : WG61351

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
67-66-3	Chloroform	ug/kg		ND	5.8	.9
71-55-6	1,1,1-Trichloroethane	ug/kg		ND	5.8	.9
56-23-5	Carbon tetrachloride	ug/kg		ND	5.8	.9
563-58-6	1,1-Dichloropropene	ug/kg		ND	5.8	.9
71-43-2	Benzene	ug/kg		ND	5.8	.9
107-06-2	1,2-Dichloroethane	ug/kg		ND	5.8	.9
79-01-6	Trichloroethene	ug/kg		ND	5.8	.9
78-87-5	1,2-Dichloropropane	ug/kg		ND	5.8	.9
74-95-3	Dibromomethane	ug/kg		ND	5.8	.9
75-27-4	Bromodichloromethane	ug/kg		ND	5.8	.9
10061-02-6	trans-1,3-Dichloropropene	ug/kg		ND	5.8	.9
108-10-1	4-Methyl-2-pentanone	ug/kg		ND	23	.9
108-88-3	Toluene	ug/kg		ND	5.8	.9
10061-01-5	cis-1,3-Dichloropropene	ug/kg		ND	5.8	.9
79-00-5	1,1,2-Trichloroethane	ug/kg		ND	5.8	.9
127-18-4	Tetrachloroethene	ug/kg		ND	5.8	.9
142-28-9	1,3-Dichloropropane	ug/kg		ND	5.8	.9
124-48-1	Dibromochloromethane	ug/kg		ND	5.8	.9
591-78-6	2-Hexanone	ug/kg		ND	23	.9
106-93-4	1,2-Dibromoethane	ug/kg		ND	5.8	.9
108-90-7	Chlorobenzene	ug/kg		ND	5.8	.9
630-20-6	1,1,1,2-Tetrachloroethane	ug/kg		ND	5.8	.9
100-41-4	Ethyl benzene	ug/kg		ND	5.8	.9
1330-20-7	Xylenes (total)	ug/kg		ND	5.8	.9
100-42-5	Styrene	ug/kg		ND	5.8	.9
75-25-2	Bromoform	ug/kg		ND	5.8	.9
98-82-8	Isopropylbenzene	ug/kg		ND	5.8	.9
108-86-1	Bromobenzene	ug/kg		ND	5.8	.9
96-18-4	1,2,3-Trichloropropane	ug/kg		ND	5.8	.9
79-34-5	1,1,2,2-Tetrachloroethane	ug/kg		ND	5.8	.9
103-65-1	n-Propylbenzene	ug/kg		ND	5.8	.9
95-49-8	2-Chlorotoluene	ug/kg		ND	5.8	.9
106-43-4	4-Chlorotoluene	ug/kg		ND	5.8	.9
108-67-8	1,3,5-Trimethylbenzene	ug/kg		ND	5.8	.9
98-06-6	tert-Butylbenzene	ug/kg		ND	5.8	.9
95-63-6	1,2,4-Trimethylbenzene	ug/kg		ND	5.8	.9
135-98-8	sec-Butylbenzene	ug/kg		ND	5.8	.9
541-73-1	1,3-Dichlorobenzene	ug/kg		ND	5.8	.9
106-46-7	1,4-Dichlorobenzene	ug/kg		ND	5.8	.9

RL = Reporting Limit

KEMRON ENVIRONMENTAL SERVICES

Product: 826LA - Volatile Organics

Lab Sample ID: L9907381-07
Client Sample ID: RE03-99-2006
Site/Work ID: 5824R/MR3R3M041045
Matrix: Soil

Dil. Type: N/A
COC Info: N/A
Date Collected: 07/17/99

Sample Weight: N/A
Extract Volume: N/A
% Solid: 78

TCLP Extract Date: N/A
Extract Date: N/A
Analysis Date: 07/22/99 Time: 16:43

Instrument: HPMS6
Analyst: CMS
Lab File ID: 6M14664

Method: 8260B
Run ID: R70278
Batch : WG61351

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
99-87-6	p-Isopropyltoluene.....	ug/kg		ND	5.8	.9
95-50-1	1,2-Dichlorobenzene.....	ug/kg		ND	5.8	.9
104-51-8	n-Butylbenzene.....	ug/kg		ND	5.8	.9
96-12-8	1,2-Dibromo-3-chloropropane.....	ug/kg		ND	12	.9
76-13-1	Trichlorotrifluoroethane.....	ug/kg		ND	5.8	.9

SURROGATES- In Percent Recovery:

Toluene-d8.....	88.1	(81 - 117%)
p-Bromofluorobenzene.....	89.1	(74 - 121%)
Dibromofluoromethane.....	94.2	(80 - 120%)
1,2-Dichloroethane-d4.....	100	(80 - 120%)

Lab Sample ID: L9907381-08
Client Sample ID: RE03-99-2007
Site/Work ID: 5824R/MR3R3M041045

Matrix: Soil
Collected: 07/17/99 N/A

% Solid: 81
COC Info: N/A

Analyte	Units	Result	Qualifiers	RL	Dil	Type	Analyst	Analysis Date	Time	Method
Percent Solids.....	% wt.	81		1.0	1	N/A	SMW	07/27/99	16:40	D2216-90

RL = Reporting Limit

Product: 8082LA - PCB's - LANL

Lab Sample ID: L9907381-08
Client Sample ID: RE03-99-2007
Site/Work ID: 5824R/MR3R3M041045
Matrix: Soil

TCLP Extract Date: N/A
Extract Date: 07/22/99
Analysis Date: 07/26/99 Time: 15:34

Dil. Type: N/A
COC Info: N/A

Date Collected: 07/17/99

Instrument: HP7
Analyst: CDB
Lab File ID: 7G2633

Sample Weight: N/A
Extract Volume: N/A

% Solid: 81

Method: 8082\3550
Run ID: R70759
Batch : WG61476

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
12674-11-2	Aroclor-1016	ug/kg		ND	41	1
11104-28-2	Aroclor-1221	ug/kg		ND	81	1
11141-16-5	Aroclor-1232	ug/kg		ND	41	1
53469-21-9	Aroclor-1242	ug/kg		ND	41	1
12672-29-6	Aroclor-1248	ug/kg		ND	41	1
11097-69-1	Aroclor-1254	ug/kg		ND	41	1
11096-82-5	Aroclor-1260	ug/kg		ND	41	1

SURROGATES- In Percent Recovery:

2,4,5,6-Tetrachloro-m-xylene	93.1	(29 - 133%)
Decachlorobiphenyl	127	(30 - 173%)

Product: DRO - Diesel Range Organics (GC)

Lab Sample ID: L9907381-08
Client Sample ID: RE03-99-2007
Site/Work ID: 5824R/MR3R3M041045
Matrix: Soil

TCLP Extract Date: N/A
Extract Date: 07/22/99
Analysis Date: 07/25/99 Time: 05:01

Dil. Type: N/A
COC Info: N/A

Date Collected: 07/17/99

Instrument: HP8
Analyst: HV
Lab File ID: G8019R

Sample Weight: N/A
Extract Volume: N/A

% Solid: 81

Method: 8015\3550
Run ID: R70839
Batch : WG61453

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
68334-30-5	Diesel Range Organics	ug/kg		ND	4900	1

SURROGATES- In Percent Recovery:

o-Terphenyl	63.8	(43 - 136%)
Octacosane	62.5	(25 - 162%)

RL = Reporting Limit

KEMRON ENVIRONMENTAL SERVICES

Product: GRO - Gasoline Range Organics

Lab Sample ID: L9907381-08
Client Sample ID: RE03-99-2007
Site/Work ID: 5824R/MR3R3M041045
Matrix: Soil

TCLP Extract Date: N/A
Extract Date: N/A
Analysis Date: 07/26/99 Time: 21:01

Dil. Type: N/A
COC Info: N/A
Date Collected: 07/17/99
Instrument: HP5
Analyst: VMN
Lab File ID: 5G776

Sample Weight: N/A
Extract Volume: N/A
% Solid: 81
Method: 8015
Run ID: R71040
Batch : WG61593

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
8006-61-9	Gasoline Range Organics.....	ug/kg		ND	120	1
	SURROGATES- In Percent Recovery:					
	Chlorobenzene.....		68.1	(64 - 148%)		

Product: 8260LS - VOA Library Search

Lab Sample ID: L9907381-08
Client Sample ID: RE03-99-2007
Site/Work ID: 5824R/MR3R3M041045
Matrix: Soil

TCLP Extract Date: N/A
Extract Date: N/A
Analysis Date: 07/22/99 Time: 17:22

Dil. Type: N/A
COC Info: N/A
Date Collected: 07/17/99
Instrument: HPMS6
Analyst: CMS
Lab File ID: 6M14665

Sample Weight: N/A
Extract Volume: N/A
% Solid: 81
Method: 8260B
Run ID: R70278
Batch : WG61351

CAS #	Compound	Units	Result	Qualifiers	RL	Ret Time
NA	Unknown.....	ug/kg	22.2			19.759

RL = Reporting Limit

KEMRON ENVIRONMENTAL SERVICES

Product: 826LA - Volatile Organics

Lab Sample ID: L9907381-08
Client Sample ID: RE03-99-2007
Site/Work ID: 5824R/MR3R3M041045
Matrix: Soil

Dil. Type: N/A
COC Info: N/A
Date Collected: 07/17/99

Sample Weight: N/A
Extract Volume: N/A
% Solid: 81

TCLP Extract Date: N/A
Extract Date: N/A
Analysis Date: 07/22/99 Time: 17:22

Instrument: HPMS6
Analyst: CMS
Lab File ID: 6M14665

Method: 8260B
Run ID: R70278
Batch : WG61351

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
75-71-8	Dichlorodifluoromethane	ug/kg		ND	11	.9
74-87-3	Chloromethane	ug/kg		ND	11	.9
75-01-4	Vinyl chloride	ug/kg		ND	11	.9
74-83-9	Bromomethane	ug/kg		ND	11	.9
75-00-3	Chloroethane	ug/kg		ND	11	.9
75-69-4	Trichlorofluoromethane	ug/kg		ND	5.6	.9
75-35-4	1,1-Dichloroethene	ug/kg		ND	5.6	.9
74-88-4	Iodomethane	ug/kg		ND	5.6	.9
75-15-0	Carbon disulfide	ug/kg		ND	5.6	.9
67-64-1	Acetone	ug/kg	5.3	J,B	22	.9
75-09-2	Methylene chloride	ug/kg	5.6	B	5.6	.9
156-60-5	trans-1,2-Dichloroethene	ug/kg		ND	11	.9
75-34-3	1,1-Dichloroethane	ug/kg		ND	5.6	.9
594-20-7	2,2-Dichloropropane	ug/kg		ND	5.6	.9
156-59-2	cis-1,2-Dichloroethene	ug/kg		ND	11	.9
78-93-3	2-Butanone	ug/kg		ND	22	.9
74-97-5	Bromochloromethane	ug/kg		ND	5.6	.9
67-66-3	Chloroform	ug/kg		ND	5.6	.9
71-55-6	1,1,1-Trichloroethane	ug/kg		ND	5.6	.9
56-23-5	Carbon tetrachloride	ug/kg		ND	5.6	.9
563-58-6	1,1-Dichloropropene	ug/kg		ND	5.6	.9
71-43-2	Benzene	ug/kg		ND	5.6	.9
107-06-2	1,2-Dichloroethane	ug/kg		ND	5.6	.9
79-01-6	Trichloroethene	ug/kg		ND	5.6	.9
78-87-5	1,2-Dichloropropane	ug/kg		ND	5.6	.9
74-95-3	Dibromomethane	ug/kg		ND	5.6	.9
75-27-4	Bromodichloromethane	ug/kg		ND	5.6	.9
10061-02-6	trans-1,3-Dichloropropene	ug/kg		ND	5.6	.9
108-10-1	4-Methyl-2-pentanone	ug/kg		ND	22	.9
108-88-3	Toluene	ug/kg		ND	5.6	.9
10061-01-5	cis-1,3-Dichloropropene	ug/kg		ND	5.6	.9
79-00-5	1,1,2-Trichloroethane	ug/kg		ND	5.6	.9
127-18-4	Tetrachloroethene	ug/kg		ND	5.6	.9
142-28-9	1,3-Dichloropropane	ug/kg		ND	5.6	.9
124-48-1	Dibromochloromethane	ug/kg		ND	5.6	.9
591-78-6	2-Hexanone	ug/kg		ND	22	.9
106-93-4	1,2-Dibromoethane	ug/kg		ND	5.6	.9
108-90-7	Chlorobenzene	ug/kg		ND	5.6	.9
630-20-6	1,1,1,2-Tetrachloroethane	ug/kg		ND	5.6	.9

RL = Reporting Limit

KEMRON ENVIRONMENTAL SERVICES

Product: 826LA - Volatile Organics

Lab Sample ID: L9907381-08
Client Sample ID: RE03-99-2007
Site/Work ID: 5824R/MR3R3M041045
Matrix: Soil

Dil. Type: N/A
COC Info: N/A

Sample Weight: N/A
Extract Volume: N/A

Date Collected: 07/17/99

% Solid: 81

TCLP Extract Date: N/A
Extract Date: N/A
Analysis Date: 07/22/99 Time: 17:22

Instrument: HPMS6
Analyst: CMS
Lab File ID: 6M14665

Method: 8260B
Run ID: R70278
Batch : WG61351

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
100-41-4	Ethyl benzene	ug/kg		ND	5.6	.9
1330-20-7	Xylenes (total)	ug/kg		ND	5.6	.9
100-42-5	Styrene	ug/kg		ND	5.6	.9
75-25-2	Bromoform	ug/kg		ND	5.6	.9
98-82-8	Isopropylbenzene	ug/kg		ND	5.6	.9
108-86-1	Bromobenzene	ug/kg		ND	5.6	.9
96-18-4	1,2,3-Trichloropropane	ug/kg		ND	5.6	.9
79-34-5	1,1,2,2-Tetrachloroethane	ug/kg		ND	5.6	.9
103-65-1	n-Propylbenzene	ug/kg		ND	5.6	.9
95-49-8	2-Chlorotoluene	ug/kg		ND	5.6	.9
106-43-4	4-Chlorotoluene	ug/kg		ND	5.6	.9
108-67-8	1,3,5-Trimethylbenzene	ug/kg		ND	5.6	.9
98-06-6	tert-Butylbenzene	ug/kg		ND	5.6	.9
95-63-6	1,2,4-Trimethylbenzene	ug/kg		ND	5.6	.9
135-98-8	sec-Butylbenzene	ug/kg		ND	5.6	.9
541-73-1	1,3-Dichlorobenzene	ug/kg		ND	5.6	.9
106-46-7	1,4-Dichlorobenzene	ug/kg		ND	5.6	.9
99-87-6	p-Isopropyltoluene	ug/kg		ND	5.6	.9
95-50-1	1,2-Dichlorobenzene	ug/kg		ND	5.6	.9
104-51-8	n-Butylbenzene	ug/kg		ND	5.6	.9
96-12-8	1,2-Dibromo-3-chloropropane	ug/kg		ND	11	.9
76-13-1	Trichlorotrifluoroethane	ug/kg		ND	5.6	.9

SURROGATES- In Percent Recovery:

Toluene-d8	86.7	(81 - 117%)
p-Bromofluorobenzene	86.5	(74 - 121%)
Dibromofluoromethane	91.6	(80 - 120%)
1,2-Dichloroethane-d4	93.0	(80 - 120%)

RL = Reporting Limit

Order #: 99-07-381
August 4, 1999 12:05 pm

KEMRON ENVIRONMENTAL SERVICES
WORK GROUPS

Work Group	Run ID	Sample	Dil Type	Matrix	Product	Method	Date Collected	Department
WG61351	R70278	L9907381-01		Soil	VOA Library Search	8260B	17-JUL-1999	Volatile - GC/MS
WG61351	R70278	L9907381-01		Soil	Volatile Organics	8260B	17-JUL-1999	Volatile - GC/MS
WG61351	R70278	L9907381-02		Soil	VOA Library Search	8260B	17-JUL-1999	Volatile - GC/MS
WG61351	R70278	L9907381-02		Soil	Volatile Organics	8260B	17-JUL-1999	Volatile - GC/MS
WG61351	R70278	L9907381-03		Soil	VOA Library Search	8260B	17-JUL-1999	Volatile - GC/MS
WG61351	R70278	L9907381-03		Soil	Volatile Organics	8260B	17-JUL-1999	Volatile - GC/MS
WG61351	R70278	L9907381-04		Soil	VOA Library Search	8260B	17-JUL-1999	Volatile - GC/MS
WG61351	R70278	L9907381-04		Soil	Volatile Organics	8260B	17-JUL-1999	Volatile - GC/MS
WG61351	R70278	L9907381-05		Soil	VOA Library Search	8260B	17-JUL-1999	Volatile - GC/MS
WG61351	R70278	L9907381-05		Soil	Volatile Organics	8260B	17-JUL-1999	Volatile - GC/MS
WG61351	R70278	L9907381-06		Soil	VOA Library Search	8260B	17-JUL-1999	Volatile - GC/MS
WG61351	R70278	L9907381-06		Soil	Volatile Organics	8260B	17-JUL-1999	Volatile - GC/MS
WG61351	R70278	L9907381-07		Soil	VOA Library Search	8260B	17-JUL-1999	Volatile - GC/MS
WG61351	R70278	L9907381-07		Soil	Volatile Organics	8260B	17-JUL-1999	Volatile - GC/MS
WG61351	R70278	L9907381-08		Soil	VOA Library Search	8260B	17-JUL-1999	Volatile - GC/MS
WG61351	R70278	L9907381-08		Soil	Volatile Organics	8260B	17-JUL-1999	Volatile - GC/MS
WG61385	R70759	L9907381-01		Soil	PCB's - LANL	8082\3550	17-JUL-1999	Extraction
WG61385	R70759	L9907381-02		Soil	PCB's - LANL	8082\3550	17-JUL-1999	Extraction
WG61385	R70759	L9907381-03		Soil	PCB's - LANL	8082\3550	17-JUL-1999	Extraction
WG61385	R70759	L9907381-04		Soil	PCB's - LANL	8082\3550	17-JUL-1999	Extraction
WG61385	R70759	L9907381-05		Soil	PCB's - LANL	8082\3550	17-JUL-1999	Extraction
WG61385	R70759	L9907381-06		Soil	PCB's - LANL	8082\3550	17-JUL-1999	Extraction
WG61385	R70759	L9907381-07		Soil	PCB's - LANL	8082\3550	17-JUL-1999	Extraction
WG61385	R70759	L9907381-08		Soil	PCB's - LANL	8082\3550	17-JUL-1999	Extraction
WG61386	R70838	L9907381-01		Soil	Diesel Range Organics (GC)	8015\3550	17-JUL-1999	Extraction
WG61386	R70838	L9907381-02		Soil	Diesel Range Organics (GC)	8015\3550	17-JUL-1999	Extraction
WG61386	R70838	L9907381-03		Soil	Diesel Range Organics (GC)	8015\3550	17-JUL-1999	Extraction
WG61386	R70838	L9907381-04		Soil	Diesel Range Organics (GC)	8015\3550	17-JUL-1999	Extraction
WG61386	R70839	L9907381-05		Soil	Diesel Range Organics (GC)	8015\3550	17-JUL-1999	Extraction
WG61386	R70839	L9907381-06		Soil	Diesel Range Organics (GC)	8015\3550	17-JUL-1999	Extraction
WG61386	R70839	L9907381-07		Soil	Diesel Range Organics (GC)	8015\3550	17-JUL-1999	Extraction
WG61386	R70839	L9907381-08		Soil	Diesel Range Organics (GC)	8015\3550	17-JUL-1999	Extraction
WG61453	R70838	L9907381-01		Soil	Diesel Range Organics (GC)	8015\3550	17-JUL-1999	Semivolatile - GC
WG61453	R70838	L9907381-02		Soil	Diesel Range Organics (GC)	8015\3550	17-JUL-1999	Semivolatile - GC
WG61453	R70838	L9907381-03		Soil	Diesel Range Organics (GC)	8015\3550	17-JUL-1999	Semivolatile - GC
WG61453	R70838	L9907381-04		Soil	Diesel Range Organics (GC)	8015\3550	17-JUL-1999	Semivolatile - GC
WG61453	R70839	L9907381-05		Soil	Diesel Range Organics (GC)	8015\3550	17-JUL-1999	Semivolatile - GC
WG61453	R70839	L9907381-06		Soil	Diesel Range Organics (GC)	8015\3550	17-JUL-1999	Semivolatile - GC
WG61453	R70839	L9907381-07		Soil	Diesel Range Organics (GC)	8015\3550	17-JUL-1999	Semivolatile - GC
WG61453	R70839	L9907381-08		Soil	Diesel Range Organics (GC)	8015\3550	17-JUL-1999	Semivolatile - GC
WG61476	R70759	L9907381-01		Soil	PCB's - LANL	8082\3550	17-JUL-1999	Semivolatile - GC

Order #: 99-07-381
August 4, 1999 12:05 pm

KEMRON ENVIRONMENTAL SERVICES
WORK GROUPS

Work Group	Run ID	Sample	Dil Type	Matrix	Product	Method	Date Collected	Department
WG61476	R70759	L9907381-02		Soil	PCB's - LANL	8082\3550	17-JUL-1999	Semivolatile - GC
WG61476	R70759	L9907381-03		Soil	PCB's - LANL	8082\3550	17-JUL-1999	Semivolatile - GC
WG61476	R70759	L9907381-04		Soil	PCB's - LANL	8082\3550	17-JUL-1999	Semivolatile - GC
WG61476	R70759	L9907381-05		Soil	PCB's - LANL	8082\3550	17-JUL-1999	Semivolatile - GC
WG61476	R70759	L9907381-06		Soil	PCB's - LANL	8082\3550	17-JUL-1999	Semivolatile - GC
WG61476	R70759	L9907381-07		Soil	PCB's - LANL	8082\3550	17-JUL-1999	Semivolatile - GC
WG61476	R70759	L9907381-08		Soil	PCB's - LANL	8082\3550	17-JUL-1999	Semivolatile - GC
WG61593	R71040	L9907381-01		Soil	Gasoline Range Organics	8015	17-JUL-1999	Volatile - GC
WG61593	R71040	L9907381-02		Soil	Gasoline Range Organics	8015	17-JUL-1999	Volatile - GC
WG61593	R71040	L9907381-03		Soil	Gasoline Range Organics	8015	17-JUL-1999	Volatile - GC
WG61593	R71040	L9907381-04		Soil	Gasoline Range Organics	8015	17-JUL-1999	Volatile - GC
WG61593	R71040	L9907381-05		Soil	Gasoline Range Organics	8015	17-JUL-1999	Volatile - GC
WG61593	R71040	L9907381-06		Soil	Gasoline Range Organics	8015	17-JUL-1999	Volatile - GC
WG61593	R71040	L9907381-07		Soil	Gasoline Range Organics	8015	17-JUL-1999	Volatile - GC
WG61593	R71040	L9907381-08		Soil	Gasoline Range Organics	8015	17-JUL-1999	Volatile - GC
WG61696	R70693	L9907381-01		Soil	Percent Solids	D2216-90	17-JUL-1999	Conventionals
WG61696	R70693	L9907381-02		Soil	Percent Solids	D2216-90	17-JUL-1999	Conventionals
WG61696	R70693	L9907381-03		Soil	Percent Solids	D2216-90	17-JUL-1999	Conventionals
WG61696	R70693	L9907381-04		Soil	Percent Solids	D2216-90	17-JUL-1999	Conventionals
WG61696	R70693	L9907381-05		Soil	Percent Solids	D2216-90	17-JUL-1999	Conventionals
WG61696	R70693	L9907381-06		Soil	Percent Solids	D2216-90	17-JUL-1999	Conventionals
WG61696	R70693	L9907381-07		Soil	Percent Solids	D2216-90	17-JUL-1999	Conventionals
WG61696	R70693	L9907381-08		Soil	Percent Solids	D2216-90	17-JUL-1999	Conventionals

KEMRON ANALYST LIST

Ohio Valley Laboratory

07/29/99

ALC - - Ann L. Clark
BAD - - Becky A. Diehl
CAR - - Caleb A. Robinson
CBN - - C. Brian Noll
CEB - - Chad E. Barnes
CDB - - Christy D. Burton
CG - - Cheryl Graham
CK - - Carl King
CMS - - Crystal M. Stevens
CRC - - Carla R. Cochran
DIH - - Deanna I. Hesson
DLN - - Deanna L. Norton
DLP - - Dorothy L. Payne
DMD - - David M. Dye
ECL - - Eric C. Lawson
FEH - - Fay E. Harmon
GWH - - George W. Hutchinson
HLC - - Holly L. Currey
HV - - Hema Vilasagar
JCR - - Jennifer C. Randall
JDN - - Jamie D. Newell
JG - - Jonathan Graziani
JLH - - Janice L. Holland
JWR - - John W. Richards
JYH - - Ji Y. Hu

KAS - - Kevin A Stutler
KHA - - Kim H. Archer
KJS - - Kara J. Stump
KRA - - Kathy R. Albertson
LKM - - Laura K. Morris
MDA - - Mike D. Albertson
MDC - - Michael D. Cochran
MES - - Mary E. Schiling
MLS - - Michael L. Schimmel
MMB - - Maren M. Beery
RDC - - Rebecca D. Cutlip
RDS - - Rebecca D. Sutton
REF - - Ron E. Fertile
REK - - Robert E. Kyer
RSS - - Regina S. Simmons
RWC - - Rodney W. Campbell
SJK - - Sindy J. Kinney
SJM - - Shawn J. Marshall
SLP - - Sheri L. Pfalzgraf
SLT - - Stephanie L. Tepe
SMW - - Shauna M. Welch
SPL - - Steve P. Learn
SPS - - Steve P. Swatzel
TRS - - Todd R. Stack
VC - - Vicki Collier
VMN - - Vincent M. Nedeff

KEMRON Environmental Services, Inc.
LIST OF VALID QUALIFIERS (qual)
December 10, 1998

Qualifier	Description
A	See the report narrative
NA	Not applicable
+	Correlation coefficient for the MSA is less than 0.995
<	Less than
>	Greater than
B	Present in the method blank
C	Confirmed by GC/MS
*	Surrogate or spike compound out of range
CG	Confluent growth
D	The analyte was quantified at a secondary dilution factor
DL	Surrogate or spike was diluted out
E	Estimated concentration due to sample matrix interference
F	Present below nominal reporting limit (AFCEE only)
FL	Free liquid
I	Semiquantitative result, out of instrument calibration range
J	Present below nominal reporting limit
L	Sample reporting limits elevated due to matrix interference
M	Duplicate injection precision not met

Qualifier	Description
N	Tentatively Identified Compound (TIC)
ND	Not detected at or above the reporting limit (RL)
NF	Not found
NFL	No free liquid
NI	Non-ignitable
NR	Analyte is not required to be analyzed
NS	Not spiked
P	Concentration > 25% difference between the two GC columns
QNS	Quantity not sufficient to perform analysis
R	Analyte exceeds regulatory limit
RA	Reanalysis confirms reported results
RE	Reanalysis confirms sample matrix interference
S	Analyzed by method of standard addition
SMI	Sample matrix interference on surrogate
SP	Reported results are for spike compounds only
TNTC	Too numerous to count
U	Analyzed for but not detected
W	Post-digestion spike for furnace AA out of control limits
Z	Can not be resolved from isomer. See below.

Special Notes for Organic Analytes

1. Acrolein and acrylonitrile by method 624 are semiquantitative screens only.
2. 1,2-Diphenylhydrazine is unstable and is reported as azobenzene.
3. N-nitrosodiphenylamine cannot be separated from diphenylamine.
4. 3-Methyphenol and 4-Methyphenol are unresolvable compounds.
5. m-Xylene and p-Xylene are unresolvable compounds.
6. The reporting limits for Appendix II/IX compounds by method 8270 are based on EPA estimated PQLs referenced in 40 CFR Part 264, Appendix IX. They are not always achievable for every compound and are matrix dependent.

Wednesday, July 21, 1999

REQUEST NUMBER: 5824R
ANALYSIS TYPE: ORG

Los Alamos
NATIONAL LABORATORY

AMENDED

ATTN: Maren Beery
KEMRON
109 STARLITE PARK
MARIETTA, OH 45750

Please analyze the enclosed samples according to the schedule indicated:

These samples are on:

SHIP DATE: 7/21/99
REPORT DUE: 8/22/99
TURN AROUND REQ'D: 30 days

LANL Request Number: 5824R
Per Agreement Number: 7797L0014-9S
Project Cost Code: MR3R3M041045

RAD SCREENING: Yes, Received

COMMENTS: 03 - 1114 , GA; TPH BY DIESEL AND GAS. AMENDED: SEE ATTACHED MEMO FOR CORRECTED ID NUMBERS 7/21/99 JV.

LANL ER SMO CONTACT: Joylene Valdez MS H865 5056659968
Signature: Joylene Valdez

ANALYSIS ORDER CODE	ANALYTE(S)	SAMPLE ID	CONT ID	SAMPLE MATRIX	DATE SAMPLED	COMMENTS
PCB		RE03-99-2000	02	S	7/17/99	
TPH		RE03-99-2000	03	S	7/17/99	
VOCECORE		RE03-99-2000	04	S	7/17/99	
VOCECORE		RE03-99-2000	05	S	7/17/99	
VOCECORE		RE03-99-2000	06	S	7/17/99	
VOCECORE		RE03-99-2000	07	S	7/17/99	
PCB		RE03-99-2001	02	S	7/17/99	
TPH		RE03-99-2001	03	S	7/17/99	
VOCECORE		RE03-99-2001	04	S	7/17/99	
VOCECORE		RE03-99-2001	05	S	7/17/99	
VOCECORE		RE03-99-2001	06	S	7/17/99	
VOCECORE		RE03-99-2001	07	S	7/17/99	
PCB		RE03-99-2002	02	S	7/17/99	
TPH		RE03-99-2002	03	S	7/17/99	
VOCECORE		RE03-99-2002	04	S	7/17/99	
VOCECORE		RE03-99-2002	05	S	7/17/99	
VOCECORE		RE03-99-2002	06	S	7/17/99	
VOCECORE		RE03-99-2002	07	S	7/17/99	
PCB		RE03-99-2003	02	S	7/17/99	
TPH		RE03-99-2003	03	S	7/17/99	
VOCECORE		RE03-99-2003	04	S	7/17/99	
VOCECORE		RE03-99-2003	05	S	7/17/99	
VOCECORE		RE03-99-2003	06	S	7/17/99	
VOCECORE		RE03-99-2003	07	S	7/17/99	

ANALYSIS ORDER CODE	ANALYTE(S)	SAMPLE ID	CONT ID	SAMPLE MATRIX	DATE SAMPLED	COMMENTS
PCB		RE03-99-2004	02	S	7/17/99	
TPH		RE03-99-2004	03	S	7/17/99	
VOCECORE		RE03-99-2004	04	S	7/17/99	
VOCECORE		RE03-99-2004	05	S	7/17/99	
VOCECORE		RE03-99-2004	06	S	7/17/99	
VOCECORE		RE03-99-2004	07	S	7/17/99	
PCB		RE03-99-2005	02	S	7/17/99	
TPH		RE03-99-2005	03	S	7/17/99	
VOCECORE		RE03-99-2005	04	S	7/17/99	
VOCECORE		RE03-99-2005	05	S	7/17/99	
VOCECORE		RE03-99-2005	06	S	7/17/99	
VOCECORE		RE03-99-2005	07	S	7/17/99	
PCB		RE03-99-2006	02	S	7/17/99	
TPH		RE03-99-2006	03	S	7/17/99	
VOCECORE		RE03-99-2006	04	S	7/17/99	
VOCECORE		RE03-99-2006	05	S	7/17/99	
VOCECORE		RE03-99-2006	06	S	7/17/99	
VOCECORE		RE03-99-2006	07	S	7/17/99	
PCB		RE03-99-2007	02	S	7/17/99	
TPH		RE03-99-2007	03	S	7/17/99	
VOCECORE		RE03-99-2007	04	S	7/17/99	
VOCECORE		RE03-99-2007	05	S	7/17/99	
VOCECORE		RE03-99-2007	06	S	7/17/99	
VOCECORE		RE03-99-2007	07	S	7/17/99	

To: Joylene Valdez

TA-3-36 Gas Station
Sample ID Crosswalk

Original ID#	ER ID#
36-SSW1	RE03-99-2000
36-SSW2	RE03-99-2001
36-NSW1	RE03-99-2002
36-NSW2	RE03-99-2003
36-SFD1	RE03-99-2004
36-SFD2	RE03-99-2005
36-SSE1	RE03-99-2006
36-NSE1	RE03-99-2007

(Also sent via e-mail.)

Tuesday, July 20, 1999

REQUEST NUMBER: 5824R
ANALYSIS TYPE: ORG

Los Alamos
NATIONAL LABORATORY

ATTN: Maren Beery
KEMRON
109 STARLITE PARK
MARIETTA, OH 45750

Please analyze the enclosed samples according to the schedule indicated:

These samples are on:

SHIP DATE: 7/19/99
REPORT DUE: 8/21/99
TURN AROUND REQ'D: 30 days

LANL Request Number: 5824R
Per Agreement Number: 7797L0014-9S
Project Cost Code: CG9K00000000

RAD SCREENING: Not Required

COMMENTS: 03 - 6666 , JL; TPH 8015 BY DIESEL AND GAS

LANL ER SMO CONTACT: Joylene Valdez MS H865 5056659968
Signature: Joylene Valdez

ANALYSIS ORDER CODE	ANALYTE(S)	SAMPLE ID	CONT ID	SAMPLE MATRIX	DATE SAMPLED	COMMENTS
VOCECORE		36NSE1	01	S	7/17/99	
VOCECORE		36NSE1	02	S	7/17/99	
VOCECORE		36NSE1	03	S	7/17/99	
VOCECORE		36NSE1	04	S	7/17/99	
TPH		36NSE1	05	S	7/17/99	
PCB		36NSE1	06	S	7/17/99	
VOCECORE		36NSW1	01	S	7/17/99	
VOCECORE		36NSW1	02	S	7/17/99	
VOCECORE		36NSW1	03	S	7/17/99	
VOCECORE		36NSW1	04	S	7/17/99	
TPH		36NSW1	05	S	7/17/99	
PCB		36NSW1	06	S	7/17/99	
VOCECORE		36NSW2	01	S	7/17/99	
VOCECORE		36NSW2	02	S	7/17/99	
VOCECORE		36NSW2	03	S	7/17/99	
VOCECORE		36NSW2	04	S	7/17/99	
TPH		36NSW2	05	S	7/17/99	
PCB		36NSW2	06	S	7/17/99	
VOCECORE		36SFD1	01	S	7/17/99	
VOCECORE		36SFD1	02	S	7/17/99	
VOCECORE		36SFD1	03	S	7/17/99	
VOCECORE		36SFD1	04	S	7/17/99	
TPH		36SFD1	05	S	7/17/99	
PCB		36SFD1	06	S	7/17/99	

ANALYSIS ORDER CODE	ANALYTE(S)	SAMPLE ID	CONT ID	SAMPLE MATRIX	DATE SAMPLED	COMMENTS
VOCECORE		36SFD2	01	S	7/17/99	
VOCECORE		36SFD2	02	S	7/17/99	
VOCECORE		[illegible]FD2	03	S	7/17/99	
VOCECORE		[illegible]D2	04	S	7/17/99	
TPH		[illegible]D2	05	S	7/17/99	
PCB		36SFD2	06	S	7/17/99	
VOCECORE		36SSE1	01	S	7/17/99	
VOCECORE		36SSE1	02	S	7/17/99	
VOCECORE		36SSE1	03	S	7/17/99	
VOCECORE		36SSE1	04	S	7/17/99	
TPH		36SSE1	05	S	7/17/99	
PCB		36SSE1	06	S	7/17/99	
VOCECORE		36SSW1	01	S	7/17/99	
VOCECORE		36SSW1	02	S	7/17/99	
VOCECORE		36SSW1	03	S	7/17/99	
VOCECORE		36SSW1	04	S	7/17/99	
TPH		36SSW1	05	S	7/17/99	
PCB		36SSW1	06	S	7/17/99	
VOCECORE		36SSW2	01	S	7/17/99	
VOCECORE		36SSW2	02	S	7/17/99	
VOCECORE		36SSW2	03	S	7/17/99	
VOCECORE		36SSW2	04	S	7/[illegible]	
TPH		36SSW2	05	S	7/[illegible]	
PCB		36SSW2	06	S	7/17/99	

Tuesday, July 20, 1999

Los Alamos
NATIONAL LABORATORY

CHAIN OF CUSTODY DOCUMENT NUMBER: 5924RC

REQUEST NUMBER: 5924R
ANALYSIS TYPE: ORG

ATTN: Maren Beery
KEMRON
109 STARLITE PARK
MARIETTA, OH 45750

SAMPLE ID	CONT ID	CONTAINER DESCRIPTION	ANALYSIS ORDER CODE	PRESERVATIVE	MATRIX
36NSE1	01	EN CORE	VOCECORE	NONE	S
36NSE1	02	EN CORE	VOCECORE	NONE	S
36NSE1	03	EN CORE	VOCECORE	NONE	S
36NSE1	04	125 ml poly	VOCECORE	NONE	S
36NSE1	05	250 ml amber glass	TPH	NONE	S
36NSE1	06	125 ml glass	PCB	NONE	S
36NSW1	01	EN CORE	VOCECORE	NONE	S
36NSW1	02	EN CORE	VOCECORE	NONE	S
36NSW1	03	EN CORE	VOCECORE	NONE	S
36NSW1	04	125 ml poly	VOCECORE	NONE	S
36NSW1	05	250 ml amber glass	TPH	NONE	S
36NSW1	06	125 ml glass	PCB	NONE	S
36NSW2	01	EN CORE	VOCECORE	NONE	S
36NSW2	02	EN CORE	VOCECORE	NONE	S
36NSW2	03	EN CORE	VOCECORE	NONE	S
36NSW2	04	125 ml poly	VOCECORE	NONE	S
36NSW2	05	250 ml amber glass	TPH	NONE	S
36NSW2	06	125 ml glass	PCB	NONE	S
36SFD1	01	EN CORE	VOCECORE	NONE	S
36SFD1	02	EN CORE	VOCECORE	NONE	S

Relinquished By:	Date	Time	Received By:	Date	Time
Jeffrey Lilly (PRINTED NAME / SIGNATURE)	7/20/99	1305	Brenda Gregory (PRINTED NAME) Brenda Gregory (SIGNATURE)	7/21/99	1044
PRINTED NAME / SIGNATURE			PRINTED NAME / SIGNATURE		
PRINTED NAME / SIGNATURE			PRINTED NAME / SIGNATURE		

Received for DISPOSAL By:	Date	Time
PRINTED NAME / SIGNATURE		

Remarks: C of C Dated
Seals intact
solid blue ice present
(bb)

SAMPLE ID	CONT ID	CONTAINER DESCRIPTION	ANALYSIS ORDER CODE		
36SFD1	03	EN CORE	VOCECORE	NONE	S
36SFD1	04	125 ml poly	VOCECORE	NONE	S
36SFD1	05	250 ml amber glass	TPH	NONE	S
36SFD1	06	125 ml glass	PCB	NONE	S
36SFD2	01	EN CORE	VOCECORE	NONE	S
36SFD2	02	EN CORE	VOCECORE	NONE	S
36SFD2	03	EN CORE	VOCECORE	NONE	S
36SFD2	04	125 ml poly	VOCECORE	NONE	S
36SFD2	05	250 ml amber glass	TPH	NONE	S
36SFD2	06	125 ml glass	PCB	NONE	S
36SSE1	01	EN CORE	VOCECORE	NONE	S
36SSE1	02	EN CORE	VOCECORE	NONE	S
36SSE1	03	EN CORE	VOCECORE	NONE	S
36SSE1	04	125 ml poly	VOCECORE	NONE	S
36SSE1	05	250 ml amber glass	TPH	NONE	S
36SSE1	06	125 ml glass	PCB	NONE	S
36SSW1	01	EN CORE	VOCECORE	NONE	S
36SSW1	02	EN CORE	VOCECORE	NONE	S
36SSW1	03	EN CORE	VOCECORE	NONE	S
36SSW1	04	125 ml poly	VOCECORE	NONE	S
36SSW1	05	250 ml amber glass	TPH	NONE	S
36SSW1	06	125 ml glass	PCB	NONE	S
36SSW2	01	EN CORE	VOCECORE	NONE	S
36SSW2	02	EN CORE	VOCECORE	NONE	S
36SSW2	03	EN CORE	VOCECORE	NONE	S
36SSW2	04	125 ml poly	VOCECORE	NONE	S

Relinquished By:	Date	Time	Received By:	Date	Time
Jaylin Jay (PRINTED NAME / SIGNATURE)	7/20/99	13:05	Brenda Gregory (PRINTED NAME) Brenda Gregory (SIGNATURE)	7/21/99	1044
PRINTED NAME / SIGNATURE			PRINTED NAME / SIGNATURE		
PRINTED NAME / SIGNATURE			PRINTED NAME / SIGNATURE		

Received for DISPOSAL By:	Date	Time
PRINTED NAME / SIGNATURE		

Remarks: C of C sealed
Sls intact
Solid blue ice present
(bg)

SAMPLE ID	CONT ID	CONTAINER DESCRIPTION	ANALYSIS ORDER CODE		
36SSW2	05	250 ml amber glass	TPH	NONE	S
36SSW2	06	125 ml glass	PCB	NONE	S

Relinquished By:	Date	Time	Received By:	Date	Time
PRINTED NAME / SIGNATURE	7/20/99	1305	Brenda Gregory / Brenda Gregory	7/21/99	044
PRINTED NAME / SIGNATURE			PRINTED NAME / SIGNATURE		
PRINTED NAME / SIGNATURE			PRINTED NAME / SIGNATURE		

Received for DISPOSAL By:	Date	Time
PRINTED NAME / SIGNATURE		

Remarks: Cyc Dated
Sustant
Solid blue ice present
BG

KEMRON Internal Laboratory Chain of Custody

Work Order: L990738 Client: LANL # of Samples: 8 Due Date: 8/4 Page: ____

Sample #	Analysis	Reason	Removed By ADT	Removed From	Moved To	Reliq. by	Ret'd By ADT	Ret'd To	Rec'd By	Reason
(*) 1-8	826	AN	mcf 7/22/99 0900	109 in	VOA freezer	BLG	CMS 7/29/99 @1400	archive	TCB	archive
1-8	RCB-DRO	EXT	CSH 7-22-99 @1445	WALKIN	E-LAB	BLG	CSH 7/22/99 @1500	ARCHIVE	TCB	ARCHIVE
1-8	GRO	AN	mcf 7-23-99 1145	V-1	VOA	BLG	CMS 8/4/99 @1450	archive	TCB	archive

(*) SXS were placed in VOA freezer upon receipt 7/21/99.
SXS were logged in 7/22/99 due to Amended Chain of Custody BLG 7-22-99

QC SUMMARY

Method 5035 Preservation and Extraction Log
VOA Laboratory

Client	Sample #	Fraction ID	Date Collected	Time Collected (Time Zone)	Date Preserved	Time Preserved (EST)	Sample Weight (g)	Volume of Water	Volume of Methanol	Analyst Initials	Comments
LANL	07-333-01	A	7-15-99	NA	7-21-99	1349	5.87	5ml	—	CMS	No $NaHSO_4$ •
	07-333-02	A				1353	4.69		—		•
	07-333-03	A				1355	6.00		—		•
	07-333-04	A				1357	5.40		—		•
LANL	07-381-01	A	7-17-99	NA	7-22-99	1117	5.31	5ml	—	CMS	No $NaHSO_4$
	07-381-02	A				1119	5.68		—		
	07-381-03	A				1121	5.30		—		
	07-381-04	A				1123	4.96		—		
	07-381-05	A				1125	5.42		—		
	07-381-06	A				1127	5.11		—		
	07-381-07	A				1129	5.69		—		
	07-381-08	A				1131	5.58		—		

Comments:

Supervisor Review: _____

* = improperly sealed cap
• = improperly sealed plunger
▲ = hydrocarbon odor
★ = samples preserved out of hold (past 48 hours from time of collection)

EF = sample effervesced

KEMRON ENVIRONMENTAL SERVICES
Volatile GC/MS Laboratory Maintenance / Runlog

Workgroup #(s) WG61023
Analysis Date 7-15-99

Analyst CMS
Instrument HPMS6

Daily Check	
helium >500 psi	✓
bake out column	✓
check disk space	✓
Preventative Maintenance	
replace septa	NA
replace liner	⊥
clip column (___ cm)	⊥
change helium	⊥

Additional Maintenance

Problem: NA

Action Taken: Replaced Trap: Purge Trap K; VOCARB 3000-Supelco; Lot: 051499

Returned to Control? Yes ____ No ____ Additional Discussion on Page ____

Filename	pH	Station	Sample ID	Sample Amount	Dilution Factor	Comments	SOP Ref	Reanalysis (If applicable)	SOLN #	IS/SS SOLN #	Analysis Time
6M14570	NA	1	WG61023-01 BFB 50PPM STD	5ml	NA	✓	1	NA	S-47-14	NA	0825
6M14571	⊥	1	-01 ⊥ ⊥ ⊥	⊥	⊥	✓	⊥	⊥	⊥	⊥	1019
6M14572	⊥	2	-02 50 PPB STD M8260	5g/5ml	NA	RR: curve	⊥	⊥	VSTD0715	*S-48-8 S-48-9	—
6M14573	⊥	3	-02 50 PPB STD M8260	⊥	⊥	✓ (SOIL)	⊥	⊥	⊥	⊥	—
6M14574	⊥	4	-03 20	⊥	⊥	✓	⊥	⊥	⊥	⊥	—
6M14575	⊥	5	-04 10	⊥	⊥	✓	⊥	⊥	⊥	⊥	—
6M14576	⊥	6	-05 5	⊥	⊥	✓	⊥	⊥	⊥	⊥	—
6M14577	⊥	7	-06 1	⊥	⊥	✓	⊥	⊥	⊥	⊥	—
6M14578	⊥	8	-07 100	⊥	⊥	✓	⊥	⊥	⊥	⊥	—
6M14579	⊥	9	-08 200	⊥	⊥	✓	⊥	⊥	⊥	⊥	—
6M14580	⊥	10	SYSTEM BLANK	⊥	⊥	✓	⊥	⊥	NA	⊥	—

*VSTD0715 =
Calibration STD's S-47-34/S-47-49/S-48-3/S-48-4/S-48-10/S-48-11 Alternate Source/QC STD's NA
Comments:

Reviewed By: ____

√ = Compliant Analysis, Reanalysis complete
RR = Rerun
RR = Rerun at a specified level
IS or SS = Interference with internal and/or surrogate standards

SMI = Sample matrix interference
MT = Missed Tune, beyound method tuning requirements
CC = Continuing calibration failed
C/O = Suspected carryover from previous sample

SOP References
1 MSV01 Revision 0 - (8260B)
2 MSV10 Revision 0 - (624)
3 MSV08ACLP Revision 0 - (CLP 3/90)

KEMRON ENVIRONMENTAL SERVICES
Volatile GC/MS Laboratory Maintenance / Runlog

Workgroup #(s) WG61023
Analysis Date 7-15-99

Analyst CMS
Instrument HPMS6

Filename	pH	Station	Sample ID	Sample Amount	Dilution Factor	Comments	SOP Ref	Reanalysis (if applicable)	SOLN #	IS/SS SOLN #	Analysis Time
			7/15/99 CMS								
~~6M14581~~	~~NA~~	~~11~~	~~WG61023-09 20PPB ALT SRC STD~~	~~5g/5ml~~	~~NA~~		~~1~~		QC0715	*~~S-48-8~~ ~~S-48-9~~	
6M14581	NA	11	WG61023-09 20PPB VOA QC SPIKE	5g/5ml	NA	✓	1	NA	QC0715	S-48-8 S-48-9	—
6M14582	↓	12	↓ -10 VBLK0715 SOIL BLANK	↓	↓	✓	↓	↓	NA	↓	—
6M14583	↓	13	L9907207-04 A LANL 8260LA	4.3g/5ml	1.2	✓	↓	↓	↓	↓	—
6M14584	↓	14	-05 A	4.0g/5ml	1.3	✓	↓	↓	↓	↓	—
6M14585	↓	15	-06 A	4.2g/5ml	1.2	✓	↓	↓	↓	↓	—
6M14586	↓	16	-07 A	2.6g/5ml	1.9	✓	↓	↓	↓	↓	—
6M14587	↓	17	-08 A	3.7g/5ml	1.4	✓	↓	↓	↓	↓	—
6M14588	↓	18	-09 A	4.5g/5ml	1.1	✓	↓	↓	↓	↓	—
6M14589	↓	19	-10 A	↓	↓	✓	↓	↓	↓	↓	—
6M14590	↓	20	-11 B	4.2g/5ml	1.2	✓	↓	↓	↓	↓	2126
6M14591	—	—	BAKEOUT	—	—	—	—	—	—	—	—

7/16/99 CMS

Calibration STD's NA
*QC0715 = Alternate Source/QC STD's S-47-36/S-47-44/S-48-2
Reviewed By:

Comments:

√ = Compliant Analysis, Reanalysis complete
RR = Rerun
RR = Rerun at a specified level
IS or SS = Interference with internal and/or surrogate standards

SMI = Sample matrix interference
MT = Missed Tune, beyound method tuning requirements
CC = Continuing calibration failed
C/O = Suspected carryover from previous sample

SOP References
1 MSV01 Revision 0 - (8260B)
2 MSV10 Revision 0 - (624)
3 MSV08ACLP Revision 0 - (CLP 3/90)

CO

KEMRON ENVIRONMENTAL SERVICES
Volatile GC/MS Laboratory Maintenance / Runlog

Workgroup #(s) WG61351/WG61369-CG
Analysis Date 7-22-99

Analyst CMS
Instrument HPMS6

Daily Check	
helium >500 psi	✓
bake out column	✓
check disk space	✓
Preventative Maintenance	
replace septa	NA
replace liner	
clip column (___ cm)	
change helium	

Additional Maintenance

Problem: _____

Action Taken: 7/23/99 CMS

Returned to Control? Yes ____ No ____ Additional Discussion on Page ____

Filename	pH	Station	Sample ID	Sample Amount	Dilution Factor	Comments	SOP Ref	Reanalysis (if applicable)	SOLN #	IS/SS SOLN #	Analysis Time
6M14652	NA	1	WG61351-01 BFB 50 PPM STD	5ml	NA	✓	1	NA	S-47-14	NA	0900
6M14653		2	-02 50PPB STD M8260	5g/5ml		✓			VSTD0721	S-48-8 S-48-9	—
6M14654		3	-03 VBLK0722 SOIL BLANK			✓			NA		—
6M14655		4	-04 20PPB VOA QC SPIKE			✓			QC0721		—
6M14656		5	L9907250-06 COLGAS 826CGBETX-A3			✓			NA		—
6M14657		6	SYSTEM BLANK			✓					—
6M14658		7	L9907381-01 A LANL 826LA	5.3g/5ml	0.9	✓					—
6M14659		8	-02 A	5.7g/5ml		✓					—
6M14660		9	-03 A	5.3g/5ml		✓					—
6M14661		10	-04 A	5.0g/5ml	1.0	✓					—
6M14662		11	-05 A	5.4g/5m	0.9	✓					—

Calibration STD's VSTD0721 Alternate Source/QC STD's QC0721 Reviewed By: _____

Comments:

✓ = Compliant Analysis, Reanalysis complete
RR = Rerun
RR = Rerun at a specified level
IS or SS = Interference with internal and/or surrogate standards

SMI = Sample matrix interference
MT = Missed Tune, beyound method tuning requirements
CC = Continuing calibration failed
C/O = Suspected carryover from previous sample

SOP References
1 MSV01 Revision 0 - (8260B)
2 MSV10 Revision 0 - (624)
3 MSV08ACLP Revision 0 - (CLP 3/90)

KEMRON ENVIRONMENTAL SERVICES
Volatile GC/MS Laboratory Maintenance / Runlog

Workgroup #(s) WG61351/WG61369-CG
Analysis Date 7-22-99

Analyst CMS
Instrument HPMS6

Filename	pH	Station	Sample ID	Sample Amount	Dilution Factor	Comments	SOP Ref	Reanalysis (if applicable)	SOLN #	IS/SS SOLN #	Analysis Time
6M146663	NA	12	L9907381-06 A LANL 8260A	5.1g/5ml	1.0	✓	1	NA	NA	S-48-8 S-48-9	—
6M146664	↓	13	↓ -07 A ↓ ↓	5.7g/5ml	0.9	✓	↓	↓	↓	↓	—
6M146665	↓	14	↓ -08 A ↓ ↓	5.6g/5ml	0.9	✓	↓	↓	↓	↓	—
6M146666	↓	15	L9907372-02 LANL 8260A	5g/5ml	NA	✓	↓	↓	↓	↓	—
6M146667	↓	16	-02 MS ↓	↓	↓	✓	↓	↓	QC0721	↓	—
6M146668	↓	17	-02 MSD ↓	↓	↓	✓	↓	↓	↓	↓	—
6M146669	↓	18	-03 ↓	↓	↓	✓	↓	↓	NA	↓	—
6M14670	↓	19	-04 ↓	↓	↓	✓	↓	↓	↓	↓	2029
6M14671	↓	20	-05 ↓	↓	↓	MT (✓)	↓	↓	↓	↓	—
6M14672	↓	21	↓ -01 ↓	↓	↓	MT (✓)	↓	↓	↓	↓	—
6M14673	—	—	BAKEOUT	—	—	—	—	—	—	—	—

7/23/99 CMS

Calibration STD's NA
Comments:

Alternate Source/QC STD's QC0721

Reviewed By:

1 ✓ = Compliant Analysis, Reanalysis complete
RR = Rerun
RR = Rerun at a specified level
IS or SS = Interference with internal and/or surrogate standards

SMI = Sample matrix interference
MT = Missed Tune, beyound method tuning requirements
CC = Continuing calibration failed
C/O = Suspected carryover from previous sample

SOP References
1 MSV01 Revision 0 - (8260B)
2 MSV10 Revision 0 - (624)
3 MSV08ACLP Revision 0 - (CLP 3/90)

CJT

Kemron Environmental Services -OVL
Volatile Quality Control Summary

Workgroup #:	WG61351	**Run Date:**	7/22/99	**SMPL Num:**	07-372-02	**LCS DF:**	1
Method:	8260B	**Instrument ID:**	HPMS6	**SMPL FLNM:**	6M14666.D	**SMPL DF:**	1
Matrix:	SOIL	**BLK FLNM:**	6M14654.D	**MS FLNM:**	6M14667.D	**MS DF:**	1
Units:	ug/Kg	**LCS FLNM:**	6M14655.D	**MSD FLNM:**	6M14668.D	**MSD DF:**	1

		CONCENTRATION, PPB							PERCENT RECOVERY									PERCENT RPD		OUTLIERS					
Target Analytes	MDL ug/Kg	Blank ug/Kg	LCS ug/Kg	LCS Spike Level ug/Kg	Sample ug/Kg	MS ug/Kg	MSD ug/Kg	MS Spike Level ug/Kg	BLK %	LCS %	LCS LCL %	LCS UCL %	SMPL %	MS %	MSD %	MS LCL %	MS UCL %	MS RPD %	RPD UCL %	Blank	LCS	Sample	MS	MSD	RPD
dichlorodifluoromethane	0.31	ND	19.6	20.0	ND	20.3	18.4	20.0	ND	98.0	19.0	175.0	ND	101.6	92.0	19.0	175.0	9.9	43.0						
vinyl chloride	0.39	ND	18.9	20.0	ND	18.9	17.0	20.0	ND	94.5	67.0	141.0	ND	94.3	85.1	67.0	141.0	10.3	26.0						
chloromethane	0.34	ND	17.3	20.0	ND	17.3	16.7	20.0	ND	86.5	54.0	144.0	ND	86.5	83.7	54.0	144.0	3.2	25.0						
bromomethane	0.42	ND	21.7	20.0	ND	20.0	19.0	20.0	ND	108.5	67.0	143.0	ND	100.0	94.9	67.0	143.0	5.2	27.0						
chloroethane	0.46	ND	20.1	20.0	ND	19.7	18.9	20.0	ND	100.6	71.0	135.0	ND	98.6	94.4	71.0	135.0	4.4	24.0						
trichlorofluoromethane	0.28	ND	21.6	20.0	ND	37.4	33.9	20.0	ND	108.1	68.0	151.0	ND	187.1	169.3	68.0	151.0	10.0	24.0				H	H	
acetone	2.5	4.8	24.4	20.0	3.9	17.1	19.5	20.0	4.8	122.0	70.0	161.0	3.9	66.3	78.4	70.0	161.0	13.2	51.0				L		
trichlorotrifluoroethane	0.00	ND	NS	NS	ND	NS	NS	NS	ND	NS	NA	NA	ND	NA	NA	NA	NA	NA	NA						
1,1-dichloroethene	0.19	ND	20.5	20.0	ND	19.9	18.3	20.0	ND	102.6	83.0	133.0	ND	99.6	91.6	83.0	133.0	8.4	16.0						
iodomethane	0.63	ND	12.1	20.0	ND	7.0	7.2	20.0	ND	NS	NA	NA	ND	34.8	36.0	NA	NA	3.4	NA				L	L	
methylene chloride	2.21	4.5	20.9	20.0	3.2	16.3	19.9	20.0	4.5	104.5	70.0	130.0	3.2	65.8	83.8	70.0	130.0	19.8	17.0				L		H
carbon disulfide	0.59	ND	11.4	20.0	ND	9.0	7.3	20.0	ND	57.2	65.0	135.0	ND	45.0	36.3	65.0	135.0	21.5	19.0		L		L	L	H
trans-1,2-dichloroethene	0.23	ND	22.3	20.0	ND	18.9	17.6	20.0	ND	111.4	81.0	145.0	ND	94.5	88.1	81.0	145.0	7.1	15.0						
1,1-dichloroethane	0.21	ND	20.7	20.0	ND	18.9	18.7	20.0	ND	103.3	86.0	126.0	ND	94.3	93.6	86.0	126.0	0.7	16.0						
2-butanone	0.6	ND	20.0	20.0	ND	13.4	15.7	20.0	ND	100.2	39.0	159.0	ND	66.9	78.4	39.0	159.0	15.8	47.0						
2,2-dichloropropane	0.20	ND	22.3	20.0	ND	21.1	19.4	20.0	ND	111.4	70.0	134.0	ND	105.5	96.8	70.0	134.0	8.6	20.0						
cis-1,2-dichloroethene	0.19	ND	20.6	20.0	ND	17.5	17.4	20.0	ND	102.8	78.0	129.0	ND	87.3	87.0	78.0	129.0	0.3	16.0						
chloroform	0.17	ND	21.3	20.0	ND	19.2	19.3	20.0	ND	106.5	81.0	126.0	ND	96.2	96.6	81.0	126.0	0.4	15.0						
bromochloromethane	0.31	ND	20.9	20.0	ND	16.7	17.9	20.0	ND	104.3	81.0	129.0	ND	83.5	89.7	81.0	129.0	7.1	15.0						
1,1,1-trichloroethane	0.18	ND	22.2	20.0	ND	21.5	20.1	20.0	ND	110.9	77.0	130.0	ND	107.7	100.6	77.0	130.0	6.8	17.0						
1,1-dichloropropene	0.18	ND	22.9	20.0	ND	21.2	19.5	20.0	ND	114.6	92.0	136.0	ND	105.9	97.3	92.0	136.0	8.5	15.0						
carbon tetrachloride	0.17	ND	24.0	20.0	ND	23.2	21.3	20.0	ND	120.0	76.0	132.0	ND	116.2	106.3	76.0	132.0	8.9	19.0						
1,2-dichloroethane	0.16	ND	21.0	20.0	ND	16.9	18.5	20.0	ND	104.9	78.0	128.0	ND	84.6	92.4	78.0	128.0	8.9	16.0						
benzene	0.18	ND	20.8	20.0	ND	18.5	18.1	20.0	ND	103.8	86.0	122.0	ND	92.4	90.6	86.0	122.0	1.9	15.0						
trichloroethene	0.19	ND	20.9	20.0	ND	18.4	17.2	20.0	ND	104.3	84.0	125.0	ND	92.2	86.2	84.0	125.0	6.7	15.0						
1,2-dichloropropane	0.15	ND	20.3	20.0	ND	17.4	17.9	20.0	ND	101.3	83.0	125.0	ND	86.8	89.7	83.0	125.0	3.3	15.0						
bromodichloromethane	0.15	ND	21.9	20.0	ND	18.1	19.2	20.0	ND	109.3	80.0	130.0	ND	90.3	96.2	80.0	130.0	6.3	15.0						
dibromomethane	0.27	ND	20.5	20.0	ND	15.5	16.9	20.0	ND	102.4	80.0	127.0	ND	77.5	84.5	80.0	127.0	8.7	15.0				L		
4-methyl-2-pentanone	0.5	ND	21.3	20.0	ND	14.9	17.0	20.0	ND	106.3	48.0	158.0	ND	74.7	85.2	48.0	158.0	13.2	42.0						
cis-1,3-dichloropropene	0.30	ND	21.9	20.0	ND	16.0	17.1	20.0	ND	109.3	85.0	127.0	ND	80.2	85.4	85.0	127.0	6.3	15.0				L		
toluene	0.36	ND	20.4	20.0	ND	17.4	17.1	20.0	ND	101.8	85.0	123.0	ND	86.9	85.6	85.0	123.0	1.6	15.0						
trans-1,3-dichloropropene	0.34	ND	20.1	20.0	ND	13.5	15.0	20.0	ND	100.3	82.0	124.0	ND	67.4	74.9	82.0	124.0	10.5	15.0				L	L	
2-hexanone	0.6	ND	19.9	20.0	ND	12.5	14.7	20.0	ND	99.7	38.0	130.0	ND	62.6	73.6	38.0	130.0	16.1	51.0						
1,1,2-trichloroethane	0.54	ND	19.8	20.0	ND	15.3	16.9	20.0	ND	99.2	82.0	126.0	ND	76.3	84.7	82.0	126.0	10.5	16.0				L		
1,3-dichloropropane	0.35	ND	19.6	20.0	ND	14.9	16.7	20.0	ND	98.1	84.0	104.0	ND	74.5	83.7	84.0	104.0	11.6	15.0				L	L	
tetrachloroethene	0.24	ND	20.0	20.0	ND	17.0	15.6	20.0	ND	99.8	83.0	126.0	ND	84.9	78.2	83.0	126.0	8.2	15.0					L	

Kemron Environmental Services -OVL
Volatile Quality Control Summary

Workgroup #:	WG61351	**Run Date:**	7/22/99	SMPL Num:	07-372-02	**LCS DF:**	1
Method:	8260B	**Instrument ID:**	HPMS6	SMPL FLNM:	6M14666.D	**SMPL DF:**	1
Matrix:	SOIL	**BLK FLNM:**	6M14654.D	MS FLNM:	6M14667.D	**MS DF:**	1
Units:	ug/Kg	**LCS FLNM:**	6M14655.D	MSD FLNM:	6M14668.D	**MSD DF:**	1

		CONCENTRATION, PPB							PERCENT RECOVERY									PERCENT RPD		OUTLIERS					
Target Analytes	MDL	BLK	LCS	LCS Spike Level	Sample	MS	MSD	MS Spike Level	BLK	LCS	LCS LCL	LCS UCL	Sample	MS	MSD	MS LCL	MSD UCL	MS RPD	RPD UCL	Blank	LCS	Sample	MS	MSD	RPD
	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	%	%	%	%	%	%	%	%	%	%	%						
chlorodibromomethane	0.47	ND	21.7	20.0	ND	16.0	17.7	20.0	ND	108.7	82.0	126.0	ND	79.9	88.5	82.0	126.0	10.2	17.0				L		
1,2-dibromoethane	0.38	ND	19.6	20.0	ND	13.6	15.5	20.0	ND	97.8	81.0	128.0	ND	68.1	77.3	81.0	128.0	12.7	17.0				L	L	
chlorobenzene	0.23	ND	19.8	20.0	ND	14.5	14.9	20.0	ND	98.9	86.0	125.0	ND	72.7	74.6	86.0	125.0	2.6	15.0				L	L	
1,1,1,2-tetrachloroethane	0.24	ND	22.5	20.0	ND	17.5	18.5	20.0	ND	112.5	83.0	127.0	ND	87.4	92.3	83.0	127.0	5.5	15.0						
ethylbenzene	0.22	ND	20.3	20.0	ND	16.4	15.6	20.0	ND	101.7	86.0	125.0	ND	81.8	78.2	86.0	125.0	4.5	15.0				L	L	
m+p-xylene	0.43	ND	40.2	40.0	ND	31.7	30.5	40.0	ND	100.5	86.0	123.0	ND	79.3	76.3	86.0	123.0	3.9	15.0				L	L	
o-xylene	0.26	ND	20.5	20.0	ND	15.8	15.9	20.0	ND	102.5	87.0	124.0	ND	79.2	79.5	87.0	124.0	0.4	15.0				L	L	
total xylenes	0.69	ND	60.7	60.0	ND	47.5	46.4	60.0	ND	101.1	173.0	247.0	ND	79.2	77.4	173.0	247.0	2.4	30.0						
styrene	0.28	ND	20.5	20.0	ND	13.7	14.5	20.0	ND	102.4	83.0	124.0	ND	68.4	72.3	83.0	124.0	5.6	15.0				L	L	
isopropylbenzene	0.19	ND	20.2	20.0	ND	15.8	14.8	20.0	ND	100.8	85.0	124.0	ND	79.0	73.9	85.0	124.0	6.7	15.0				L	L	
bromoform	0.16	ND	18.2	20.0	ND	12.2	14.2	20.0	ND	91.0	64.0	132.0	ND	61.0	71.2	64.0	132.0	15.4	24.0				L		
1,1,2,2-tetrachloroethane	0.22	ND	18.4	20.0	ND	14.8	12.6	20.0	ND	92.1	72.0	140.0	ND	74.1	63.0	72.0	140.0	16.2	22.0					L	
1,2,3-trichloropropane	0.50	ND	18.9	20.0	ND	13.8	16.1	20.0	ND	94.6	70.0	144.0	ND	68.8	80.5	70.0	144.0	15.6	24.0				L		
propyl-benzene	0.24	ND	19.9	20.0	ND	14.6	13.9	20.0	ND	99.4	84.0	126.0	ND	72.8	69.6	84.0	126.0	4.6	15.0				L	L	
bromobenzene	0.21	ND	19.4	20.0	ND	12.2	13.7	20.0	ND	96.8	85.0	121.0	ND	61.1	68.3	85.0	121.0	11.1	15.0				L	L	
1,3,5-trimethylbenzene	0.25	ND	19.9	20.0	ND	13.5	13.3	20.0	ND	99.4	86.0	124.0	ND	67.5	66.6	86.0	124.0	1.3	15.0				L	L	
2-chlorotoluene	0.35	ND	19.8	20.0	ND	13.2	13.3	20.0	ND	99.0	81.0	127.0	ND	66.2	66.3	81.0	127.0	0.2	15.0				L	L	
4-chlorotoluene	0.38	ND	19.1	20.0	ND	12.7	13.5	20.0	ND	95.6	84.0	125.0	ND	63.5	67.6	84.0	125.0	6.2	15.0				L	L	
tert-butyl-benzene	0.27	ND	19.0	20.0	ND	13.8	13.3	20.0	ND	95.2	83.0	125.0	ND	69.1	66.3	83.0	125.0	4.2	15.0				L	L	
1,2,4-trimethylbenzene	0.27	ND	19.4	20.0	ND	11.9	12.4	20.0	ND	97.2	87.0	124.0	ND	59.4	61.8	87.0	124.0	3.9	18.0				L	L	
sec-butyl-benzene	0.24	ND	19.2	20.0	ND	12.9	12.3	20.0	ND	96.2	83.0	126.0	ND	64.7	61.6	83.0	126.0	4.8	15.0				L	L	
p-isopropyl-toluene	0.23	ND	19.2	20.0	ND	11.6	11.3	20.0	ND	95.9	83.0	122.0	ND	57.9	56.3	83.0	122.0	2.9	15.0				L	L	
1,3-dichlorobenzene	0.23	ND	19.4	20.0	ND	10.5	11.8	20.0	ND	97.1	85.0	121.0	ND	52.7	59.2	85.0	121.0	11.5	15.0				L	L	
1,4-dichlorobenzene	0.22	ND	19.1	20.0	ND	9.8	11.2	20.0	ND	95.4	84.0	119.0	ND	48.9	56.0	84.0	119.0	13.4	15.0				L	L	
n-butyl-benzene	0.29	ND	19.7	20.0	ND	10.6	10.3	20.0	ND	98.6	81.0	128.0	ND	53.0	51.5	81.0	128.0	3.0	15.0				L	L	
1,2-dichlorobenzene	0.27	ND	19.3	20.0	ND	9.7	11.6	20.0	ND	96.3	86.0	123.0	ND	48.4	58.0	86.0	123.0	18.0	15.0				L	L	H
1,2-dibromo-3-chloropropane	0.42	ND	16.0	20.0	ND	9.9	11.4	20.0	ND	80.1	51.0	151.0	ND	49.3	57.0	51.0	151.0	14.6	38.0				L		
Surrogates																									
dibromofluoromethane		45.1	44.8	50.0	46.4	45.7	45.0	50.0	90.1	89.6	80	120	92.8	91.5	90.0										
1,2-dichloroethane-d4		44.8	44.2	50.0	47.8	46.6	45.7	50.0	89.5	88.3	70	121	95.5	93.2	91.4										
toluene-d8		43.8	42.7	50.0	44.0	42.9	43.2	50.0	87.5	85.4	81	117	88.0	85.7	86.4										
p-bromofluorobenzene		43.9	42.7	50.0	44.0	43.8	44.1	50.0	87.8	85.3	74	121	88.0	87.7	88.3										

Notes and Definitions:

MDL= Method Detection Limit
BLK= Method Blank
LCS= Laboratory Control Sample

MS/MSD= Matrix Spike / Matrix Spike Duplicate
LCL= Lower Control Limit
UCL= Upper Control Limit

H=Above control limit
L=Below control limit
ND= Non Detected

RPD= Relative Percent Difference
NS=Not spiked
NA=Not applicable

DF=Dilution Factor

KEMRON ENVIRONMENTAL SERVICES
Volatile GC Laboratory Maintenance / Runlog

Date 6-11-99
Analyst MFB
Subdirectory 061199

Instrument ID HP 5
Column ID ~~502.~~ RTX-1
VMW 6/11/99

Daily Check	
helium >500 psi	✓
bake out column	—
check disk space	—
Preventative Maintenance	
replace septa	—
replace liner	—
clip column (___ cm)	—
change helium	—

Additional Maintenance

Problem:

KTS 6-12-99

Action Taken:

Returned to Control? Yes ____ No ____ Additional Discussion on Page ____

Filename	Station	Sample ID	Dilution Factor	pH	Sample Amount	Comments	SOP Ref	RR, Dil subdir/flnm	SOLN #	IS/SS SOLN #
5G059	1	8015 STD 900PPB	NA	NA	5G	✓	2		S-46-24	S-45-46
060	2	SOIL BLANK				✓			—	
061	3	SOIL LCS 900 PPB				✓			S-46-24	
062	4	06-138-01				RR CC			—	S-46-36
063	5	06-138-02							—	
064	6	06-138-01 MS							S-46-24	S-45-46
065	7	06-138-01 MSD				RR no spike				
066	8	06-167-07				RR CC			—	
067	4	06-138-01 MSD							S-46-24	
068	1	06-138-02							—	
069	2	06-167-07							—	

Comments:

Reviewed By: ____ ____

RR# = Rerun at a specified level
IS or SS = Interference with internal and/or surrogate standards
Conf = Confirmation needed

CC = Continuing calibration failed
AMT = Sample amount analyzed
C/O = Suspected carryover from previous sample
DNR = Do not report

1 GCV01 Revision 0 Method 8021B Purgeable BTEX
2 GCV05 Revision 0 Method 8015B Gasoline Range Organics
3 GCV09 Revision 0 Method 602 Purgeable Aromatic Hydrocarbons

KEMRON ENVIRONMENTAL SERVICES
Volatile GC Laboratory Maintenance / Runlog

Date 6-11-99
Analyst HFB
Subdirectory 061199

Instrument ID HP 5
Column ID BTX - 1

Filename	Station	Sample ID	Dilution Factor	pH	Sample Amount	Comments	SOP Ref	RR, Dil subdir/flnm	SOLN #	IS/SS SOLN #
5G 070	3	8015 STD 900 PPB	NA	NA	5G	SSS high	2		S-45-47	S-45-46
071	4	8015 STD 900 PPB								
072	5	8015 STD 1 90 PPB				✓		NA	S-45-47	S-46-36
073	6	2 360 PPB				✓				
074	7	3 900 PPB				✓				
075	8	4 1800 PPB				✓				
076	9	5 3600 PPB				✓				
077	10	8015 ALT SOURCE 900 PPB				✓		S-46-37		
									UMN 6-12-99	

UMN 6/12/99

Comments:

Reviewed By: _____

√ = Compliant Analysis, Reanalysis complete
RR = Rerun
RR# = Rerun at a specified level
IS or SS = Interference with internal and/or surrogate standards
Conf = Confirmation needed

SMI = Sample matrix interference
CC = Continuing calibration failed
AMT = Sample amount analyzed
C/O = Suspected carryover from previous sample
DNR = Do not report

SOP References
1 GCV01 Revision 0 Method 8021B Purgeable BTEX
2 GCV05 Revision 0 Method 8015B Gasoline Range Organics
3 GCV09 Revision 0 Method 602 Purgeable Aromatic Hydrocarbons

KEMRON ENVIRONMENTAL SERVICES
Volatile GC Laboratory Maintenance / Runlog

Date 7-26-99
Analyst VMN
Subdirectory 072699

WG61593

Instrument ID HP5
Column ID 502.2

Daily Check	
helium >500 psi	✓
bake out column	✓
check disk space	✓
Preventative Maintenance	
replace septa	NA
replace liner	↓
clip column (___ cm)	↓
change helium	↓

Additional Maintenance

Problem: MMB 7-26-99

Action Taken:

Returned to Control? Yes ____ No ____ Additional Discussion on Page ____

Filename	Station	Sample ID	Dilution Factor	pH	Sample Amount	Comments	SOP Ref	RR, Dil subdir/flnm	SOLN #	IS/SS SOLN #
SG763	1	8015 STD 900PPB	NA	NA	5g	SSS Conc. prepared wrong	2	NA	S-48-28	S-48-29
764	2	↓	↓	↓	↓	↓	↓	↓	↓	↓
765	3	↓				✓			↓	S-48-34
766	2	Soil Blank mlb 7-27-99				No injection			NA	NA
767	3	Soil LCS ~~20PPB~~ 900PPB				✓			S-48-28	S-48-34
768	4	Soil Blank				✓			NA	
769	5	07-381-01				✓		↓		
770	6	-02				RR low SSS ✓		SG781		
771	7	-03				✓		NA		
772	8	-04				RR low SSS ✓		SG783		
773	9	-05	↓	↓	↓	✓	↓	NA	↓	↓

Reviewed By: ____

Comments:

√ = Compliant Analysis, Reanalysis complete
RR = Rerun
RR# = Rerun at a specified level
IS or SS = Interference with internal and/or surrogate standards
Conf = Confirmation needed

SMI = Sample matrix interference
CC = Continuing calibration failed
AMT = Sample amount analyzed
C/O = Suspected carryover from previous sample
DNR = Do not report

SOP References
1 GCV01 Revision 0 Method 8021B Purgeable BTEX
2 GCV05 Revision 0 Method 8015B Gasoline Range Organics
3 GCV09 Revision 0 Method 602 Purgeable Aromatic Hydrocarbons

Volatile GC Laboratory Maintenance / Runlog

Date 7-26-99
Analyst VMN
Subdirectory 072699

Instrument ID HP5
Column ID 502.2

Filename	Station	Sample ID	Dilution Factor	pH	Sample Amount	Comments	SOP Ref	RR, Dil subdir/flnm	SOLN #	IS/SS SOLN #
5G774	10	07-381-06	NA	NA	5g	✓	2	NA	NA	5-48-34
775	11	-07				RR low SSS ✓		5G786		
776	12	-08				✓		NA		
777	13	8015 STD 900PPB				✓			5-48-28	
778	1	07-381-08 MS				✓				
779	2	-08 MSD				✓				
780	3	-01				~~✓~~ DNR MFB 7-27-99			NA	
781	4	-02				Confirms low SSS				
782	5	-03				DNR				
783	6	-04				Confirms low SSS				
784	7	-05				DNR				
785	8	-06				DNR				
786	9	-07				Confirms low SSS				
787	10	8015 STD 900PPB				✓			5-48-28	

MFB 7-27-99

Reviewed By: _____

Comments:

√ = Compliant Analysis, Reanalysis complete
RR = Rerun
RR# = Rerun at a specified level
IS or SS = Interference with internal and/or surrogate standards
Conf = Confirmation needed

SMI = Sample matrix interference
CC = Continuing calibration failed
AMT = Sample amount analyzed
C/O = Suspected carryover from previous sample
DNR = Do not report

SOP References

1 GCV01 Revision 0 Method 8021B Purgeable BTEX
2 GCV05 Revision 0 Method 8015B Gasoline Range Organics
3 GCV09 Revision 0 Method 602 Purgeable Aromatic Hydrocarbons

Kemron Environmental Services

Volatile Quality Control Summary
Method 8015B

Workgroup	WG61593
RunDate	26-Jul-99
Matrix:	Soil
Instrument	HP5
Analyst	VMN

BLK FLNM:	5G768
LCS FLNM:	5G767
SMPL Num:	07-381-08
SMPL FLNM:	5G776
MS FLNM:	5G778
MSD FLNM:	5G779

LCS DF:	1
SMPL DF:	1
MS DF:	1
MSD DF:	1

Daily QA Information		Concentration, PPB							Percent Recovery					% RPD		Outliers			
	MDL	BLK	LCS	LCS Spike Level	SMPL	MS	MSD	MS Spike Level	LCS	LCS Limit	MS	MSD	MS Limit	MS RPD	RPD UCL	LCS	MS	MSD	%RPD
Target Analytes	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	%	%	%	%	%	%	%				
GRO	21.7	ND	822.5	900.0	ND	819.0	842.0	900.0	91.4	79 - 113	91.0	93.6	79 - 113	2.8	16.0				
		BLK	LCS		SMPL	MS	MSD	SS Spike Level	BLK	LCS		SMPL	MS	MSD	Surrogate Limit	BLK	LCS	SMPL	MS	MSD
Surrogate Standard		ug/kg	ug/kg		ug/kg	ug/kg	ug/kg	ug/kg	%	%		%	%	%	%					
chlorobenzene		22.5	22.9		20.4	25.1	25.3	30.0	75.0	76.4		68.1	83.6	84.4	64 - 148					

Notes and Definitions

MDL = Method Detection Limit
BLK = Method Blank
LCS = Laboratory Control Sample
SMPL = Sample Results
MS/MSD = Matrix Spike / Matrix Spike Duplicate
UPL = Upper Control Limit
RPD = Relative Percent Difference

ND = Not Detected
NA = Not Applicable
DF = Dilution Factor
DL = Diluted Out
SS = Surrogate Standard
L = Low
H = High

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: KEMRON ENVIRONMENTAL Contract: 7797L0014-

Lab Code: _____ Case No.: L9907381 SAS No.: _____ SDG No.: _____

Lab File ID: 6M14571.D BFB Injection Date: 07/15/99

Instrument ID: HPMS 6 BFB Injection Time: 10:19

GC Column: RESTEK ID: 0.32 (mm) Heated Purge: (Y/N) Y

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	8.0 - 40.0% of mass 95	16.7
75	30.0 - 66.0% of mass 95	47.0
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.5
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	50.0 - 120.0% of mass 95	79.1
175	4.0 - 9.0% of mass 174	5.5 (6.9)1
176	93.0 - 101.0% of mass 174	76.3 (96.5)1
177	5.0 - 9.0% of mass 176	5.2 (6.8)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD050	WG61023-02 50 PPB	6M14573.D	07/15/99	11:46
02	VSTD020	WG61023-03 20 PPB	6M14574.D	07/15/99	12:20
03	VSTD010	WG61023-04 10 PPB	6M14575.D	07/15/99	12:54
04	VSTD005	WG61023-05 5 PPB S	6M14576.D	07/15/99	13:29
05	VSTD001	WG61023-06 1 PPB S	6M14577.D	07/15/99	14:03
06	VSTD100	WG61023-07 100 PPB	6M14578.D	07/15/99	14:38
07	VSTD200	WG61023-08 200 PPB	6M14579.D	07/15/99	15:12
08	VLCS0715	WG61023-09 20 PPB	6M14581.D	07/15/99	16:21
09	VBLK0715	WG61023-10 VBLK071	6M14582.D	07/15/99	16:56
10	RE53-99-134	L9907207-04 A LANL 8	6M14583.D	07/15/99	17:31
11	RE53-99-135	L9907207-05 A LANL 8	6M14584.D	07/15/99	18:05
12	RE53-99-138	L9907207-06 A LANL 8	6M14585.D	07/15/99	18:38
13	RE53-99-139	L9907207-07 A LANL 8	6M14586.D	07/15/99	19:12
14	RE53-99-140	L9907207-08 A LANL 8	6M14587.D	07/15/99	19:45
15	RE53-99-141	L9907207-09 A LANL 8	6M14588.D	07/15/99	20:19
16	RE53-99-158	L9907207-10 A LANL 8	6M14589.D	07/15/99	20:52
17	RE53-99-159	L9907207-11 B LANL 8	6M14590.D	07/15/99	21:26

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

BROMOFLUOROBENZENE (BFB)

Lab Name: KEMRON ENVIRONMENTAL Contract: 7797L0014-

Lab Code: _____ Case No.: L9907381 SAS No.: _____ SDG No.: _____

Lab File ID: 6M14652.D BFB Injection Date: 07/22/99

Instrument ID: HPMS 6 BFB Injection Time: 09:00

GC Column: RESTEK ID: 0.32 (mm) Heated Purge: (Y/N) Y

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	8.0 - 40.0% of mass 95	17.1
75	30.0 - 66.0% of mass 95	46.2
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.9
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	50.0 - 120.0% of mass 95	80.6
175	4.0 - 9.0% of mass 174	6.0 (7.4)1
176	93.0 - 101.0% of mass 174	79.2 (98.3)1
177	5.0 - 9.0% of mass 176	5.4 (6.9)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD050	WG61369-02 50 PPB	6M14653.D	07/22/99	09:29
02	VBLK0722	WG61369-03 VBLK072	6M14654.D	07/22/99	10:10
03	VLCS0722	WG61369-04 20 PPB	6M14655.D	07/22/99	10:45
04	RE03-99-2000	L9907381-01 A LANL 8	6M14658.D	07/22/99	12:50
05	RE03-99-2001	L9907381-02 A LANL 8	6M14659.D	07/22/99	13:27
06	RE03-99-2002	L9907381-03 A LANL 8	6M14660.D	07/22/99	14:05
07	RE03-99-2003	L9907381-04 A LANL 8	6M14661.D	07/22/99	14:45
08	RE03-99-2004	L9907381-05 A LANL 8	6M14662.D	07/22/99	15:25
09	RE03-99-2005	L9907381-06 A LANL 8	6M14663.D	07/22/99	16:04
10	RE03-99-2006	L9907381-07 A LANL 8	6M14664.D	07/22/99	16:43
11	RE03-99-2007	L9907381-08 A LANL 8	6M14665.D	07/22/99	17:22
12	0816-99-1153	WG61351-05 LANL 82	6M14666.D	07/22/99	18:02
13	0816-99-1153 MS	WG61351-06 MS LANL	6M14667.D	07/22/99	18:40
14	0816-99-1153 MSD	WG61351-07 MSD LA	6M14668.D	07/22/99	19:18
15	0816-99-1154	L9907372-03 LANL 826	6M14669.D	07/22/99	19:54
16	0816-99-1155	L9907372-04 LANL 826	6M14670.D	07/22/99	20:29
17	0816-99-1156	L9907372-05 LANL 826	6M14671.D	07/22/99	21:04
18	0816-99-1152	L9907372-01 LANL 826	6M14672.D	07/22/99	21:39

6A

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: KEMRON Contract: 7797L0014-8M

Lab Code: _____ Case No.: L9907381 SDG No.: _____

Instrument ID: HPMS 6 Calibration Date(s): 7/15/99 7/15/99

Heated Purge: Y Calibration Times: 1146 1512

GC Column: _____ ID: 0.32 (mm)

LAB FILE ID: RRF 1= 6M14577 RRF5= 6M14576 RRF10= 6M14575
RRF20= 6M14574 RRF50= 6M14573 RRF100= 6M14578 RRF200= 6M14579

COMPOUND	RRF1	RRF5	RRF10	RRF20	RRF50	RRF100	RRF200	$\overline{RRF}$	% RSD	
Dichlorodifluoromethane	0.305	0.270	0.401	0.375	0.367	0.395	0.411	0.361	14.66	
Chloromethane	0.286	0.185	0.237	0.222	0.206	0.235	0.254	0.232	14.09	
Vinyl chloride *	0.193	0.144	0.179	0.164	0.161	0.153	0.149	0.163	10.55	*
Bromomethane *	0.157	0.109	0.133	0.125	0.125	0.133	0.144	0.132	11.69	*
Chloroethane	0.098	0.091	0.125	0.119	0.117	0.128	0.133	0.116	13.57	
Trichlorofluoromethane	0.310	0.229	0.339	0.312	0.309	0.328	0.327	0.308	11.82	
1,1,2-Trichlorotrifluoroethane	0.308	0.294	0.365	0.358	0.355	0.386	0.403	0.353	11.14	
Acetone		0.129	0.099	0.068	0.062	0.058	0.054	0.079	37.47	
1,1-Dichloroethene *	0.220	0.204	0.254	0.245	0.246	0.265	0.271	0.244	9.89	*
Iodomethane	0.190	0.174	0.220	0.231	0.280	0.295	0.307	0.242	21.51	
Methylene chloride		0.309	0.283	0.260	0.245	0.248	0.251	0.266	9.51	
Carbon disulfide	1.098	0.770	0.881	0.841	0.810	0.856	0.887	0.877	12.02	
trans-1,2-Dichloroethene	0.242	0.222	0.262	0.253	0.255	0.273	0.274	0.255	7.21	
1,1-Dichloroethane *	0.425	0.394	0.453	0.437	0.430	0.463	0.456	0.437	5.41	*
2-Butanone		0.074	0.077	0.066	0.073	0.078	0.079	0.074	6.29	
2,2-Dichloropropane	0.344	0.330	0.401	0.394	0.408	0.431	0.446	0.394	10.87	
cis-1,2-Dichloroethene	0.247	0.239	0.278	0.272	0.275	0.294	0.290	0.271	7.61	
Chloroform *	0.490	0.424	0.467	0.452	0.453	0.485	0.471	0.463	4.91	*
Bromochloromethane	0.125	0.120	0.130	0.125	0.125	0.135	0.131	0.127	4.09	
1,1,1-Trichloroethane	0.427	0.373	0.450	0.443	0.450	0.485	0.482	0.444	8.52	
1,1-Dichloropropene	0.289	0.281	0.353	0.345	0.351	0.377	0.376	0.339	11.43	
Carbon tetrachloride	0.335	0.314	0.391	0.394	0.417	0.452	0.455	0.394	13.67	
1,2-Dichloroethane *	0.327	0.307	0.330	0.313	0.315	0.335	0.316	0.320	3.17	*
Benzene *	0.958	0.847	0.987	0.950	0.945	1.019	0.989	0.957	5.73	*
Trichloroethene	0.307	0.268	0.322	0.309	0.313	0.341	0.334	0.313	7.63	
1,2-Dichloropropane *	0.217	0.204	0.224	0.220	0.219	0.242	0.234	0.223	5.49	*
Dichlorobromomethane	0.295	0.276	0.312	0.309	0.319	0.355	0.340	0.315	8.42	
Dibromomethane	0.138	0.127	0.133	0.128	0.128	0.139	0.132	0.132	3.72	
4-Methyl-2-pentanone		0.049	0.058	0.054	0.060	0.068	0.069	0.060	13.10	
cis-1,3-Dichloropropene	0.276	0.288	0.329	0.336	0.351	0.392	0.376	0.336	12.72	
Toluene *	1.415	1.249	1.454	1.428	1.410	1.521	1.465	1.420	5.95	*
trans-1,3-Dichloropropene *	0.367	0.378	0.431	0.438	0.451	0.497	0.463	0.432	10.70	*
1,1,2-Trichloroethane *	0.263	0.243	0.258	0.248	0.246	0.274	0.251	0.255	4.27	*
2-Hexanone		0.129	0.150	0.138	0.155	0.172	0.177	0.153	12.32	
1,3-Dichloropropane *	0.426	0.406	0.431	0.421	0.421	0.464	0.427	0.428	4.19	*
Tetrachloroethene *	0.362	0.305	0.364	0.348	0.344	0.371	0.358	0.350	6.27	*
Dibromochloromethane	0.287	0.277	0.308	0.313	0.334	0.386	0.356	0.323	11.99	
1,2-Dibromoethane *	0.258	0.246	0.267	0.260	0.264	0.294	0.272	0.266	5.51	*
Chlorobenzene *	1.179	0.956	1.047	1.011	0.996	1.080	1.002	1.039	7.06	*
1,1,1,2-Tetrachloroethane *	0.324	0.306	0.352	0.360	0.366	0.402	0.349	0.351	8.74	*

* Compounds with required minimum RRF and maximum % RSD values.
All other compounds must meet a minimum RRF of 0.010.

FORM VI VOA

6A

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: KEMRON Contract: 7797L0014-8M

Lab Code: _____ Case No.: L9907381 SDG No.: _____

Instrument ID: HPMS 6 Calibration Date(s): 7/15/99 7/15/99

Heated Purge: Y Calibration Times: 1146 1512

GC Column: _____ ID: 0.32 (mm)

LAB FILE ID: RRF 1= 6M14577 RRF5= 6M14576 RRF10= 6M14575
RRF20= 6M14574 RRF50= 6M14573 RRF100= 6M14578 RRF200 6M14579

COMPOUND		RRF1	RRF5	RRF10	RRF20	RRF50	RRF100	RRF200	$\overline{RRF}$	% RSD	
Ethylbenzene	*	0.549	0.472	0.555	0.543	0.537	0.584	0.551	0.542	6.35	*
m+p-Xylene	*	0.679	0.593	0.696	0.669	0.657	0.710	0.658	0.666	5.63	*
o-Xylene	*	0.602	0.551	0.640	0.632	0.629	0.699	0.663	0.631	7.39	*
Styrene	*	0.996	0.907	1.045	1.047	1.047	1.172	1.101	1.045	7.91	*
Bromoform	*	0.133	0.146	0.173	0.177	0.197	0.238	0.220	0.183	20.68	*
Isopropylbenzene	*	1.515	1.406	1.755	1.730	1.724	1.907	1.792	1.690	10.13	*
1,1,2,2-Tetrachloroethane	*	0.580	0.547	0.583	0.545	0.562	0.679	0.598	0.585	7.89	*
1,2,3-Trichloropropane	*	0.193	0.191	0.202	0.188	0.189	0.230	0.201	0.199	7.25	*
propyl-benzene	*	3.511	3.100	3.812	3.711	3.630	4.038	3.674	3.639	7.95	*
Bromobenzene	*	0.820	0.741	0.803	0.783	0.778	0.887	0.796	0.801	5.63	*
1,3,5-Trimethylbenzene	*	2.449	2.202	2.678	2.627	2.608	2.935	2.695	2.599	8.75	*
2-Chlorotoluene	*	2.310	2.018	2.345	2.186	2.183	2.439	2.310	2.256	6.11	*
4-Chlorotoluene	*	2.245	1.956	2.223	2.243	2.197	2.493	2.152	2.216	7.14	*
tert-butyl-benzene	*	2.552	2.257	2.741	2.640	2.590	2.932	2.699	2.630	7.85	*
1,2,4-Trimethylbenzene	*	2.893	2.396	2.772	2.671	2.631	2.946	2.661	2.710	6.76	*
sec-butyl-benzene	*	3.304	2.856	3.585	3.497	3.454	3.877	3.523	3.442	9.05	*
p-isopropyl-toluene	*	2.945	2.665	3.295	3.237	3.207	3.590	3.243	3.169	9.19	*
1,3-Dichlorobenzene	*	1.775	1.468	1.640	1.591	1.587	1.788	1.612	1.637	6.86	*
1,4-Dichlorobenzene	*	1.963	1.522	1.685	1.622	1.603	1.795	1.604	1.685	8.84	*
n-butyl-benzene	*	2.684	2.189	2.762	2.668	2.646	2.945	2.714	2.658	8.66	*
1,2-Dichlorobenzene	*	1.583	1.322	1.453	1.411	1.410	1.620	1.445	1.463	7.12	*
1,2-dibromo-3-chloropropane		0.080	0.106	0.122	0.116	0.131	0.167	0.151	0.125	23.02	
Dibromofluoromethane			0.307	0.319	0.287	0.275	0.291	0.275	0.291	6.32	
1,2-Dichloroethane-d4			0.318	0.318	0.279	0.268	0.284	0.254	0.284	9.73	
Toluene-d8			1.398	1.507	1.381	1.300	1.366	1.287	1.366	6.05	
p-Bromofluorobenzene	*		1.068	1.085	0.984	0.942	0.992	0.920	0.992	6.99	*

* Compounds with required minimum RRF and maximum % RSD values.
All other compounds must meet a minimum RRF of 0.010.

FORM VI VOA

3/90

7A
VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: KEMRON Contract: 7797L0014-8M

Lab Code: Case No.: L9907381 SAS No.: SDG No.:

Instrument ID: HPMS 6 Calibration Date: 7/22/99 Time: 929
Lab File ID: 6M14653 Init. Calib Date(s): 7/15/99 7/15/99
Heated Purge: Y Init. Calib Times: 1146 1512

GC Column: ID: 0.32 (mm)

COMPOUND	$\overline{RRF}$	RRF50	MIN RRF	%D	MAX %D
Dichlorodifluoromethane	0.361	0.358		0.64	
Chloromethane	0.232	0.192	0.100	18.90	
Vinyl chloride	0.163	0.158	0.100	3.54	25.0
Bromomethane	0.132	0.129		2.13	25.0
Chloroethane	0.116	0.116		-0.63	
Trichlorofluoromethane	0.308	0.319		-3.61	
1,1,2-Trichlorotrifluoroethane	0.353	0.297		17.02	
Acetone	0.079	0.058		29.57	
1,1-Dichloroethene	0.244	0.244	0.200	-0.17	25.0
Iodomethane	0.242	0.225		7.33	
Methylene chloride	0.266	0.246		7.98	
Carbon disulfide	0.877	0.800		9.23	
trans-1,2-Dichloroethene	0.255	0.253		0.53	
1,1-Dichloroethane	0.437	0.432	0.100	1.18	25.0
2-Butanone	0.074	0.071		4.74	
2,2-Dichloropropane	0.394	0.421		-6.70	
cis-1,2-Dichloroethene	0.271	0.277		-2.35	
Chloroform	0.463	0.463	0.200	0.05	25.0
Bromochloromethane	0.127	0.128		-0.66	
1,1,1-Trichloroethane	0.444	0.466	0.100	-4.74	25.0
1,1-Dichloropropene	0.339	0.343		-1.16	
Carbon tetrachloride	0.394	0.446	0.100	-12.29	25.0
1,2-Dichloroethane	0.320	0.320	0.100	0.25	25.0
Benzene	0.957	0.954	0.500	0.31	
Trichloroethene	0.313	0.314	0.300	-0.12	25.0
1,2-Dichloropropane	0.223	0.222		0.28	
Dichlorobromomethane	0.315	0.337	0.200	-6.55	25.0
Dibromomethane	0.132	0.131		0.69	
4-Methyl-2-pentanone	0.060	0.058		2.28	
cis-1,3-Dichloropropene	0.336	0.360	0.200	-7.15	25.0
Toluene	1.420	1.390	0.400	2.17	25.0
trans-1,3-Dichloropropene	0.432	0.457	0.100	-5.60	25.0
1,1,2-Trichloroethane	0.255	0.247	0.100	2.98	
2-Hexanone	0.153	0.148		3.89	
1,3-Dichloropropane	0.428	0.417	0.100	2.52	25.0
Tetrachloroethene	0.350	0.337	0.200	3.77	25.0
Dibromochloromethane	0.323	0.352	0.100	-8.51	
1,2-Dibromoethane	0.266	0.260	0.100	2.44	25.0
Chlorobenzene	1.039	0.967	0.500	7.17	25.0
1,1,1,2-Tetrachloroethane	0.351	0.381	0.100	-8.22	25.0

All other compounds must meet a minimum RRF of 0.010.

3/90

FORM VII VOA

7A
VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: KEMRON Contract: 7797L0014-8M

Lab Code: Case No.: L9907381 SAS No.: SDG No.:

Instrument ID: HPMS 6 Calibration Date: 7/22/99 Time: 929
Lab File ID: 6M14653 Init. Calib Date(s): 7/15/99 7/15/99
Heated Purge: Y Init. Calib Times: 1146 1512

GC Column: ID: 0.32 (mm)

COMPOUND	$\overline{RRF}$	RRF50	MIN RRF	%D	MAX %D
Ethylbenzene	0.542	0.519	0.100	4.246	25.0
m+p-Xylene	0.666	0.635	0.300	4.72	25.0
o-Xylene	0.631	0.621	0.300	1.56	25.0
Styrene	1.045	1.027	0.300	1.72	25.0
Bromoform	0.183	0.214	0.100	-15.60	25.0
Isopropylbenzene	1.690	1.649	0.100	2.43	25.0
1,1,2,2-Tetrachloroethane	0.585	0.564	0.300	3.65	25.0
1,2,3-Trichloropropane	0.199	0.193	0.100	3.29	25.0
propyl-benzene	3.639	3.540	0.100	2.76	25.0
Bromobenzene	0.801	0.785	0.100	2.09	25.0
1,3,5-Trimethylbenzene	2.599	2.558	0.100	1.59	25.0
2-Chlorotoluene	2.256	2.151	0.100	4.75	25.0
4-Chlorotoluene	2.216	2.142	0.100	3.37	25.0
tert-butyl-benzene	2.630	2.531	0.100	3.83	25.0
1,2,4-Trimethylbenzene	2.710	2.542	0.100	6.39	25.0
sec-butyl-benzene	3.442	3.311	0.100	3.90	25.0
p-isopropyl-toluene	3.169	3.056	0.100	3.63	25.0
1,3-Dichlorobenzene	1.637	1.552	0.100	5.36	25.0
1,4-Dichlorobenzene	1.685	1.549	0.100	8.41	25.0
n-butyl-benzene	2.658	2.420	0.100	9.38	25.0
1,2-Dichlorobenzene	1.463	1.354	0.100	7.75	25.0
1,2-dibromo-3-chloropropane	0.125	0.123		1.60	
Dibromofluoromethane	0.291	0.269		7.697	
1,2-Dichloroethane-d4	0.284	0.261		8.399	
Toluene-d8	1.366	1.205		12.467	
p-Bromofluorobenzene	0.992	0.904	0.200	9.275	25.00

All other compounds must meet a minimum RRF of 0.010.

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: KEMRON ENVIRONMENTAL Contract: 7797L0014-8M

Lab Code: Case No.: L9907381 SAS No.: SDG No.:

Lab File ID (Standard): 6M14653.D Date Analyzed: 07/22/99

Instrument ID: HPMS 6 Time Analyzed: 09:29

GC Column: RESTEK ID: 0.32 (mm) Heated Purge: (Y/N) Y

		IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
	12 HOUR STD	1647952	11.92	1257892	16.43	656829	20.01
	UPPER LIMIT	3295904	11.42	2515784	15.93	1313658	19.51
	LOWER LIMIT	823976	12.42	628946	16.93	328415	20.51
	EPA SAMPLE NO.						
01	VBLK0722	1587583	11.92	1207547	16.43	640746	20.01
02	VLCS0722	1567304	11.92	1208697	16.43	673091	20.01
03	RE03-99-2000	1419562	11.92	1012598	16.43	393497	20.01
04	RE03-99-2001	1460561	11.92	1081440	16.43	461985	20.01
05	RE03-99-2002	1502416	11.92	1140777	16.43	556032	20.01
06	RE03-99-2003	1472610	11.91	1138659	16.43	617210	20.01
07	RE03-99-2004	1500137	11.91	1152638	16.43	621445	20.01
08	RE03-99-2005	1481480	11.92	1145750	16.43	622575	20.01
09	RE03-99-2006	1439554	11.91	1124795	16.43	621330	20.01
10	RE03-99-2007	1469117	11.91	1132821	16.43	620646	20.01
11	0816-99-1153	1463166	11.91	1126401	16.42	609881	20.01
12	0816-99-1153 MS	1491021	11.91	1158432	16.43	631263	20.01
13	0816-99-1153 MS	1505843	11.92	1151501	16.43	619590	20.01
14	0816-99-1154	1423682	11.92	1094180	16.43	593048	20.01
15	0816-99-1155	1471078	11.91	1122003	16.42	589596	20.00
16	0816-99-1156	1467509	11.91	1130677	16.42	613371	20.00
17	0816-99-1152	1461960	11.92	1127590	16.42	609665	20.00

IS1 = Fluorobenzene
IS2 = Chlorobenzene-d5
IS3 = 1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column to be used to flag values outside QC limit with an asterisk.
* Values outside of contract required QC limits

Sample Extract Log Sheet

Parameter: PCB-S SOP #: EXP02 Revision #: 9
Ext Analyst(s): SPS, MPM TV/KD Analyst(s): MPM
Date/Time Ext: 7/22/99 @1500 Date TV/KD: 7/22/99
Spike/Surrogate Analyst: SPS Witness: MPM
Extract Relinquished By: CSH
Extract Received By: CDB Date Ext. Received: 7/23/99

SW-846 Method			On	Off	On	Off
Continuous L-L	3520C					
Soxhlet	3540C					
Separatory Funnel	3510C					
Sonication	3550B	✓				
Waste	3580A					

Extraction Work Group WG 61385
Analytical Work Group WG 614760

	Client ID	Sample ID	pH ✓ <2	N	>12	Test Code	Initial Vol. / Wt	Amount Surrogated	Amount Spike	Final Volume	Clean Up	Emulsions ✓ A	BN	N	Comments
1		Blank					30.00g	200µl ESS-8028-12		10mL	ACID/FLORISIL				WG 61385-02
2		LCS					30.05g		100µl ESS-8028-30						WG 61385-03
3	LANL B/H	07-381-01				8082-LA	30.08g								
4		-02					30.02g								
5		-02MS					30.06g		100µl ESS-8028-30						WG 61385-04
6		-02MSD					30.04g								WG 61385-05
7		-03					30.10g								
8		-04					30.05g								
9		-05					30.06g								
10		-06					30.10g								
11		-07					30.00g								
12		-08					30.01g								
13															
14															
15															
16															
17															
18															
19															
20															
21															
22															
23															
24															

CSH 7-23-99

Reviewed By: [signature] Date: 7/23/99

Extraction Comments / Notes For Extraction Volume #: 120 Page #: 27

Work Group: WG 61385

Solvent: HEXANE Lot #: BV503
Solvent: — Lot #: —
Acid: H_2SO_4 Lot #: N01022

Florisil Lot #: N18551
Silica Gel Lot #: —
IR A/D/T: —

Reagent: 94:6 Lot #: ER657
Reagent: — Lot #: —

CSH 7-23-99

Supervisor Review: _____ Date: _____

21

KEMRON ENVIRONMENTAL SERVICES
MARIETTA, OH
QUALITY CONTROL SUMMARY / PCB SOILS , FRONT

INSTRUMENT : HP7
EXT'N DATE : 7/22/99 **ANALYST :** CDB **BLK FLNM :** 7G2620 **SMPL ID :** 07-381-02 5X
EXT'N BENCH SHT : V120P27 **RUN DATE :** 7/26/99 **LCS FLNM :** 7G2621 **SMPL FLNM :** 7G2623
EXT'N WORK GRP : WG61385 **ANAL WORK GRP :** WG61476 **MS FLNM :** 7G2624
MSD FLNM : 7G2625

COMPOUND	RDL	CONCENTRATION , ug/Kg					% RECOVERY									PERCENT						
		Blank	LCS	Sample	MS	MSD	Blank	LCS	LCS LCL	LCS UCL	Sample	MS	MSD	MS LCL	MS UCL	MS/MSD RPD	RPD Advisory Limits	Blank	LCS	Sample	MS	MSD
AROCLOR 1016	17.0	ND	75.6	ND	63.3	54.3	NA	90.8	29	131	NA	76.0	65.2	29	131	15.3	0-49					
AROCLOR 1221	17.0	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0-39					
AROCLOR 1232	17.0	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0-36					
AROCLOR 1242	17.0	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0-37					
AROCLOR 1248	17.0	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0-39					
AROCLOR 1254	17.0	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0-37					
AROCLOR 1260	17.0	ND	76.0	ND	46.9	37.1	NA	91.2	29	131	NA	56.3	44.5	29	131	23.3	0-62					
SURROGATES																						
2,4,5,6-TETRACHLORO-M-XYLENE		15.1	16.3	2.26	2.69	2.30	75.7	81.7	29	133	45.3	53.7	46.0	29	133							
DECACHLOROBIPHENYL		24.4	25.9	2.69	3.40	3.04	122	129	30	173	53.8	68.0	60.8	30	173							

NOTES & DEFINITIONS :

LCS, MS & MSD spiked at 83.3 ug/kg — LCS=LABORATORY CONTROL SAMPLE
SURROGATES spiked at 20.0 ug/kg — MS=MATRIX SPIKE
NA = NOT APPLICABLE — MSD=MATRIX SPIKE DUPLICATE
DL = DILUTED OUT
ND = NOT DETECTED
RDL=REPORTING DETECTION LIMIT

PESTICIDE CALIBRATION OF MULTICOMPONENT ANALYTES

Lab Name: Kemron Environmental Services
Lab Code: Case No.
Instrument ID: HP-7
GC Column: DB 17-MS

Contract: 7797L0014-8M
SAS No: SDG. No. L9907381

Date: 7/27/99

COMPOUND	AMOUNT (ppb)	PEAK	RT	RT WINDOW FROM	RT WINDOW TO	MIDPOINT AREA	CALIBRATION FACTOR
AROCLOR 1016	500	1	4.220	4.150	4.290	366246	732.49
		2	4.900	4.830	4.970	840186	1680.37
		3	5.380	5.310	5.450	420196	840.39
		4	5.590	5.520	5.660	1554702	3109.40
		5	5.820	5.750	5.890	737580	1475.16
AROCLOR 1221	500	1	2.660	2.590	2.730	204245	408.49
		2	3.860	3.790	3.930	194039	388.08
		3	4.100	4.030	4.170	130483	260.97
		4	4.220	4.150	4.290	510063	1020.13
		5	4.560	4.490	4.630	72784	145.57
AROCLOR 1232	500	1	4.220	4.150	4.290	418355	836.71
		2	4.900	4.830	4.970	305215	610.43
		3	5.590	5.520	5.660	619038	1238.08
		4	5.820	5.750	5.890	300929	601.86
		5	7.140	7.070	7.210	131256	262.51
AROCLOR 1242	500	1	4.220	4.150	4.290	298726	597.45
		2	4.900	4.830	4.970	634055	1268.11
		3	5.590	5.520	5.660	1157952	2315.90
		4	5.820	5.750	5.890	549734	1099.47
		5	7.690	7.620	7.760	343935	687.87
AROCLOR 1248	500	1	6.620	6.550	6.690	284852	569.70
		2	6.870	6.800	6.940	284344	568.69
		3	7.700	7.630	7.770	574112	1148.22
		4	8.610	8.540	8.680	198472	396.94
		5	9.450	9.380	9.520	210475	420.95
AROCLOR 1254	500	1	8.140	8.070	8.210	404688	809.38
		2	8.320	8.250	8.390	1400909	2801.82
		3	8.610	8.540	8.680	1401895	2803.79
		4	9.460	9.390	9.530	785684	1571.37
		5	9.750	9.680	9.820	913354	1826.71
AROCLOR 1260	500	1	8.610	8.540	8.680	1340976	2681.95
		2	8.810	8.740	8.880	1397758	2795.52
		3	9.240	9.170	9.310	499790	999.58
		4	10.710	10.640	10.780	848080	1696.16
		5	14.150	14.080	14.220	464372	928.74

KEMRON ENVIRONMENTAL SERVICES
Semivolatile GC Laboratory Maintenance / Runlog

Date 7-15-99 Column ID DB 17-MS front Analyst CDB
Instrument ID HP7 Data Subdirectory 071599

SOP # GCS01 Rev. # 0 _____ 8100
SOP # GCS03 Rev. # 0 _____ PRO
SOP # GCS02 Rev. # 0 _____ 8015B Mod (DRO)
SOP # GCS02 Rev. # 0 _____ 8015B Mod (Alcohol)
SOP # GCS09 Rev. # 0 _____ 8081A
SOP # GCS10 Rev. # 1 ✓ 8082
SOP # GCS04 Rev. # 2 _____ 8151
SOP # GCS07 Rev. # 0 _____ 8011

Daily Check	
gases >500 psi	✓
change liner	
change septum	
Preventative Maintenance	
change o-ring	
clip column (___ cm)	
injection port seal (goldseal)	
change gases	

Additional Maintenance

Problem: _____

Action Taken: _____

Returned to Control? Yes _____ No _____

Additional Discussion on Page _____

Run #	Sample Description	Dilution Factor	Method File	Analysis Complete	Comments
7G2331	AR 1660 2.0 PPM		8082		S41-50 ✓
2332	1.0				
2333	0.5				
2334	0.25				
2335	0.10				
2336	0.05				
2337	AR 1221 0.50 PPM				
2338	1232				~~S40-18~~ 39-36
2339	1242				~~S39-40~~ 39-41
2340	1248				~~S41-24~~ 40-16 BAD 7-16-99
2341	1254				~~S39-37~~ 40-17
2342	AIT 1221 0.5 PPM				S40-15
					S40-18

Comments:

Reviewed By: _____ / / /

RE = Re-extraction analysis CC = Continuing calibration failed

KEMRON ENVIRONMENTAL SERVICES
Semivolatile GC Laboratory Maintenance / Runlog

Date 7-15-99 Instrument ID 1187 Data Subdirectory 071599 Column ID DB17-MS-Cont

Run #	Sample Description	Dilution Factor	Method File	Analysis Complete	Comments
762343	AIT 1232 0.5 PPM		8082		S 39-40 ✓
2344	1242				S 41-24
2345	1248				S 39-37
2346	1254				S 41-25
2347	1660				S 41-48
2348	AR 1254 2.0 PPM				S 40-15
2349	1.0				
2350	0.5				
2351	0.25				
2352	0.10				
2353	0.05				
2354	AIT 1254 0.50 PPM				S 41-25
2355	Instrument Blank				S 42-06
2356	07-147-16			✓	
2357	1660 cont. check				✓
2358	Blank WG40988 V119 P105			✓	
2359	LCS				
2360	07-150-04				
2361	07-201-01				
2362	07-207-01				
2363	07-207-02				
2364	-03				
2365	-03 MSD				
2366	-03 MSD				

Comments: BAD 7-16-99

Reviewed By: mdt 7/16/99

✓ = Compliant Analysis, Reanalysis complete
RR = Rerun
RR# = Rerun at a specified level

SMI = Sample matrix interference
MT = Missed Tune, beyound method tuning requirements
RE = Re-extraction analysis

IS or SS = Interference with internal and/or surrogate standards
CC = Continuing calibration failed

KEMRON ENVIRONMENTAL SERVICES
Semivolatile GC Laboratory Maintenance / Runlog

Date July 26, 1999 Column ID DB 17-MS Front Analyst CDB

Instrument ID HP7 Data Subdirectory 072699

SOP # GCS01 Rev. # 0 _____ 8100
SOP # GCS03 Rev. # 0 _____ PRO
SOP # GCS02 Rev. # 0 _____ 8015B Mod (DRO)
SOP # GCS02 Rev. # 0 _____ 8015B Mod (Alcohol)
SOP # GCS09 Rev. # 0 _____ 8081A
SOP # GCS10 Rev. # 1 ✓ 8082
SOP # GCS04 Rev. # 2 _____ 8151
SOP # GCS07 Rev. # 0 _____ 8011

Daily Check	
gases >500 psi	✓
change liner	
change septum	✓
Preventative Maintenance	
change o-ring	
clip column (___ cm)	
injection port seal (goldseal)	
change gases He	✓

Additional Maintenance

Problem: _____

Action Taken: _____

Returned to Control? Yes _____ No _____ Additional Discussion on Page _____

Run #	Sample Description	Dilution Factor	Method File	Analysis Complete	Comments
7G2619	1ldcO Cont. Chk		8082		S 41-50 ✓
2620	Blank WG614716 V120P27			✓	
2621	LCS WG614716 V120P27			✓	
2622	07-381-01	5x		✓	
2623	-02			✓	
2624	-02 MS			✓	
2625	-02 MSD			✓	
2626	-03			✓	
2627	-04			✓	
2628	-05			✓	
2629	1ldcO Cont. Chk.				
2630	1ldcO Cont. Chk.				✓

Comments:

Reviewed By: CLK 7/27/99

KEMRON ENVIRONMENTAL SERVICES
Semivolatile GC Laboratory Maintenance / Runlog

Date July 26, 1999 Instrument ID HP7 Data Subdirectory 072699 Column ID DB 17-MS Front

Run #	Sample Description	Dilution Factor	Method File	Analysis Complete	Comments
762631	07-381-06		8082	✓	
2632	-07			✓	
2633	-08			✓	
2634	Blank V120P45			✓	
2635	LCS V120P45			✓	
2636	07-395-10			✓	
2637	07-400-01			✓	
2638	-01 MS			✓	
2639	-01 MSD			✓	
2640	1100 Cont. Chk.				✓
2641	1100 Cont. Chk.			✓	
2642	07-400-02			✓	
2643	-03			✓	
2644	-04			✓	
2645	-05			✓	
2646	-06			✓	
2647	1100 Cont. Chk.				✓
2648	1100 Cont. Chk.				

CDB 7/27/99

Reviewed By: CLK 7/27/99

Comments:

√ = Compliant Analysis, Reanalysis complete
RR = Rerun
RR# = Rerun at a specified level

SMI = Sample matrix interference
MT = Missed Tune, beyound method tuning requirements
RE = Re-extraction analysis

IS or SS = Interference with internal and/or surrogate standards
CC = Continuing calibration failed

Sample Extract Log Sheet

Volume 120
Page 21

Parameter: DRO-S SOP #: EXD01 Revision #: 6
Ext Analyst(s): CSH, MPM TV/KD Analyst(s): MPM
Date/Time Ext: 7-22-99 @ 1540 Date TV/KD: 7-22-99
Spike/Surrogate Analyst: SPS Witness: MPM
Extract Relinquished By: MW
Extract Received By: RVC Date Ext. Received: 7/23/99

SW-846 Method			On	Off	On	Off
Continuous L-L	3520C					
Soxhlet	3540C					
Separatory Funnel	3510C					
Sonication	3550B	✓				
Waste	3580A					

Extraction Work Group WG 61386
Analytical Work Group WG 61453

	Client ID	Sample ID	pH ✓ <2	N	>12	Test Code	Initial Vol. / Wt	Amount Surrogated	Amount Spike	Final Volume	Clean Up	Emulsions ✓ A	BN	N	Comments
1		Blank					25.03 g	1mL ESS-0028-40		1mL	N/A				WG 61386-02
2		LCS					25.03		1mL ESS-0028-46						WG 61386-03
3	LANL	07-381-01	8/14			DRO	25.00								
4		-02					25.00								
5		-03					25.00								
6		-03MS					25.05		1mL ESS-0028-46						WG 61386-04
7		-03MSD					25.00		↓						WG 61386-05
8		-04					25.04								
9		-05					25.10								
10		-06					25.00								
11		-07					25.00								
12		-08					25.02								
13															
14															
15															
16															
17															
18															
19															
20															
21															
22															
23															
24															

MPM 7-22-99

Reviewed By: [signature] Date: 7-23-99

Sample Extract Log Sheet

Extraction Comments / Notes For Extraction Volume #: 120 Page #: 21 Work Group: WG61386

Solvent: CH_2Cl_2 Lot #: BV181 Florisil Lot #: NA Reagent: NA Lot #: NA
Solvent: NA Lot #: NA Silica Gel Lot #: NA Reagent: NA Lot #: NA
Acid: NA Lot #: NA IR A/D/T: NA

MPM 7-22-99

Supervisor Review: [signature] Date: 7/23/99

KEMRON ENVIRONMENTAL SERVICES , OVL
SEMI-VOLATILES QUALITY CONTROL SUMMARY

ANAL WORK GRP : WG61453
METHOD : 8015
MATRIX : soil
CONCENTRATION UNITS : ug / kg
PREP WORK GRP : WG61386

EXT DATE : 07-22-99
EXT BENCH SHEET : V120-P21
BLK FILENAME : G80010R
LCS FILENAME : G80011R
INSTRUMENT : HP8

RUN DATE : 07-23-99
SMPL ID : 07-381-03
SMPL FLNM : G80014R
MS FLNM : G80022R
MSD FLNM : G80023R

ANALYTE	CONCENTRATION , ug / kg									PERCENT RECOVERY , %										PERCENT		
	RDL	BLANK	LCS SPIKE ADDED	LCS	LCS DUP	SAMPLE	MS SPIKE ADDED	MS	MSD	BLANK	LCS	LCS DUP	LCS LCL	LCS UCL	SAMPLE	MS	MSD	MS LCL	MS UCL	DUP RPD	MSD RPD	RPD UCL
DIESEL	4000	ND	40000	30046	NA	12073	40000	34409	34017	NA	75.1	NA	18.0	173	NA	55.8	54.9	18.0	173	NA	1	20
SURROGATE																						
o-TERPHENYL	800	469	800	673	NA	495	800	610	669	58.7	84.2	NA	43.0	136	61.9	76.2	83.7	43.0	136	NA	9	20
OCTACOSANE	800	644	800	724	NA	284	800	156	194	80.4	90.5	NA	25.0	162	35.5	19.5	24.3	25.0	162	NA	22	20

NOTES & DEFINITIONS :
NA = NOT APPLICABLE
ND = NOT DETECTED
RDL=REPORTING DETECTION LIMIT

KEMRON ENVIRONMENTAL SERVICES
Semivolatile GC Laboratory Maintenance / Runlog

Date July 23 99 Column ID DB-5 ReCu Analyst HV
Instrument ID HP8 Data Subdirectory 072399
SOP # GCS01 Rev. # 0 _____ 8100
SOP # GCS03 Rev. # 0 _____ PRO
SOP # GCS02 Rev. # 0 ✓ 8015B Mod (DRO)
SOP # GCS02 Rev. # 0 _____ 8015B Mod (Alcohol)
SOP # GCS09 Rev. # 0 _____ 8081A
SOP # GCS10 Rev. # 1 _____ 8082
SOP # GCS04 Rev. # 2 _____ 8151
SOP # GCS07 Rev. # 0 _____ 8011

Daily Check	
gases >500 psi	
change liner	✓
change septum	✓
Preventative Maintenance	
change o-ring	
clip column (___ cm)	
injection port seal (goldseal)	
change gases	

Additional Maintenance

Problem: _____

Action Taken: _____

Returned to Control? Yes _____ No _____ Additional Discussion on Page _____

Run #	Sample Description	Dilution Factor	Method File	Analysis Complete	Comments
001RD101	Test		DRDR		
G8001R	MEd				
2	Window Defining Std.				Curve with a new software
3	DRO STD. 100 ppm				DRO STD: MS-10-24
4	500				
5	1000				
6	2500				
7	5000				
8	10,000				
9	ALS-DRO CHK				DRO ALS: S41-17 (10x)
10	DRO BLK 120-21				
11	LCS 1				

Comments:

Reviewed By: MCS 7/27/99

√ = Compliant Analysis, Reanalysis complete

SMI = Sample matrix interference

IS or SS = Interference with internal and/or surrogate standards

KEMRON ENVIRONMENTAL SERVICES
Semivolatile GC Laboratory Maintenance / Runlog

Date _____ Instrument ID _____ Data Subdirectory _____ Column ID _____

Run #	Sample Description	Dilution Factor	Method File	Analysis Complete	Comments
HV 7/22/99 (DW)					
G8012 ~~012 RR 101~~	07-381-01 DRO-S		DROR	✓	
013 R	-02				
014	-03				
015	-04				
016	-05				
017	-06				
018	-07				
019	-08				
020	DRO CONT. CHK				
021					
022	07-381-03 MS				
023	-03 MSD				
024	DRO CHK STD				
025					
		HV	7/22/99		

Reviewed By: MLS 7/22/99

Comments:

√ = Compliant Analysis, Reanalysis complete
RR = Rerun
RR# = Rerun at a specified level

SMI = Sample matrix interference
MT = Missed Tune, beyound method tuning requirements
RE = Re-extraction analysis

IS or SS = Interference with internal and/or surrogate standards
CC = Continuing calibration failed

HARDCOPY DELIVERABLES

VOLATILES

Volatile Organics

Sample Data

Target Compound List Results - See Section 1.0 (c) (Laboratory Report)

Tentatively Identified Compounds (TICs) - See Section 1.0 (c) (if requested)

- Reconstructed total ion chromatogram (RIC) and quantitation report for each sample
- Raw spectra and background subtracted mass spectra of target compounds identified
- Mass spectra of all reported TICs with three best library matches (if requested)

Quantitation Report

Data File : C:\HPCHEM\1\DATA\072299\6M14658.D
Acq On : 22 Jul 1999 12:50
Sample : L9907381-01 A LANL 826LA 5.3G/5ML
Misc : SOLID,0.9
MS Integration Params: rteint.p
Quant Time: Jul 22 13:16 1999

Vial: 7
Operator: CMS
Inst : HPMS_6
Multiplr: 0.90

Quant Results File: 8260BSL.RES

Method : C:\HPCHEM\1\METHODS\8260BSL.M (RTE Integrator)
Title : Method 8260B_SOIL - ICAL 07/15/99
Last Update : Thu Jul 22 09:02:15 1999
Response via : Initial Calibration

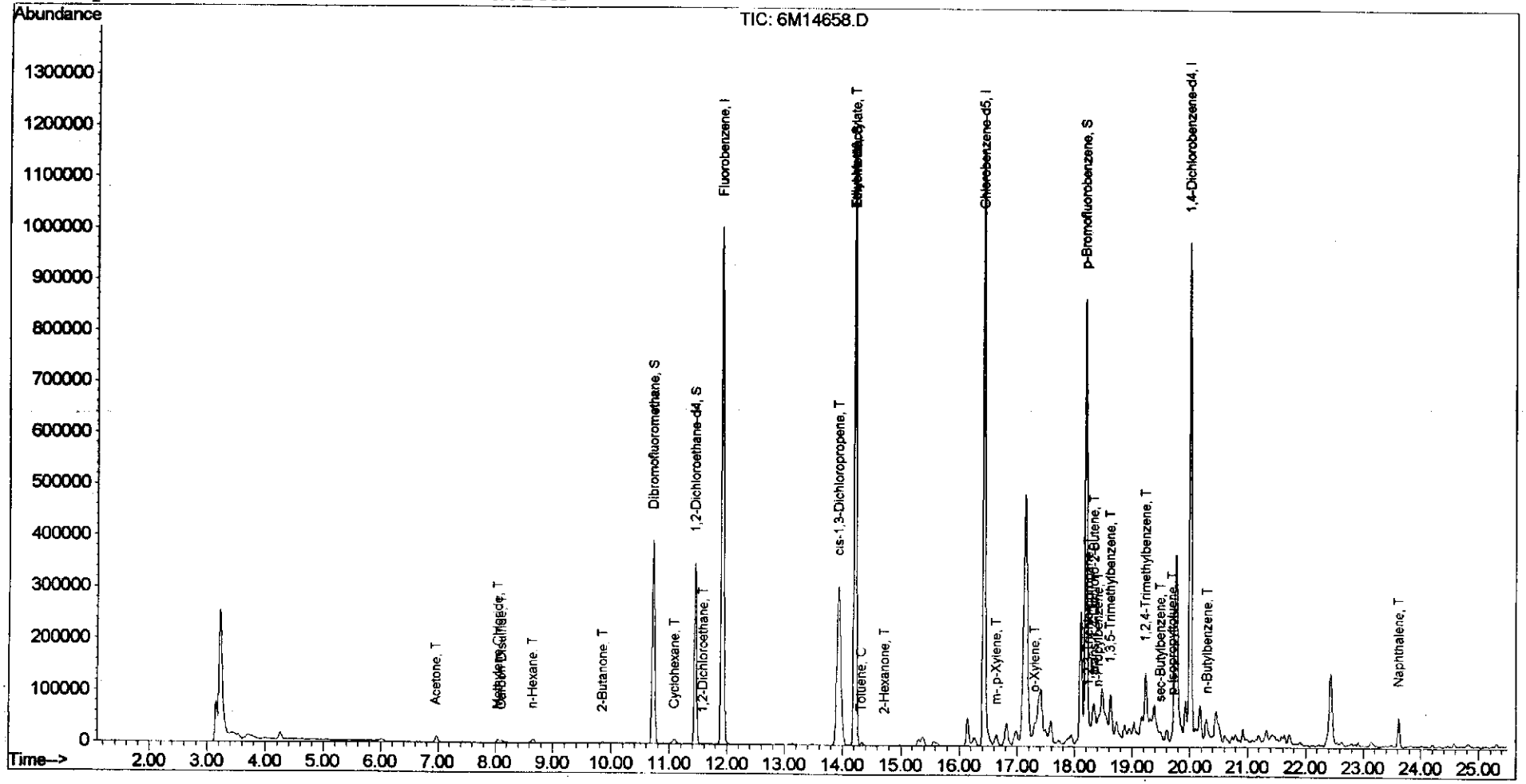

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\07[illegible]\6M1465[illegible] Vial: [illegible]
Acq On : 22 Jul 1999 12:50 Operator: CMS
Sample : L9907381-01 A LANL 826LA 5.3G/5ML Inst : HPMS_6
Misc : SOLID,0.9 Multiplr: 0.90
MS Integration Params: rteint.p
Quant Time: Jul 22 13:16 1999 Quant Results File: 8260BSL.R

Quant Method : C:\HPCHEM\1\METHODS\8260BSL.M (RTE Integrator)
Title : Method 8260B_SOIL - ICAL 07/15/99
Last Update : Thu Jul 22 09:02:15 1999
Response via : Initial Calibration
DataAcq Meth : 8260BSL

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene	11.92	96	1419562	50.00 ug/Kg	0.00
44) Chlorobenzene-d5	16.43	117	1012598	50.00 ug/Kg	0.00
64) 1,4-Dichlorobenzene-d4	20.01	152	393497	50.00 ug/Kg	0.00
System Monitoring Compounds					
28) Dibromofluoromethane	10.73	111	377778	45.78 ug/Kg	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 91.56%		
33) 1,2-Dichloroethane-d4	11.45	65	367447	45.56 ug/Kg	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 91.12%		
45) Toluene-d8	14.22	98	1247673	45.12 ug/Kg	0.00
Spiked Amount 50.000	Range 81 - 117		Recovery = 90.24%		
66) p-Bromofluorobenzene	18.20	95	440757	56.48 ug/Kg	0.00
Spiked Amount 50.000	Range 74 - 121		Recovery = 112.96%		

Target Compounds					Qvalue
11) Acetone	6.96	43	28769	16.42 ug/Kg	98
15) Methylene Chloride	8.05	84	4674	0.56 ug/Kg	80
16) Carbon Disulfide	8.11	76	10933	0.39 ug/Kg#	90
20) n-Hexane	8.65	57	2985	~~0.23 ug/Kg#~~	13
23) 2-Butanone	9.86	43	5420	2.31 ug/Kg J	95
30) Cyclohexane	11.08	56	6076	~~0.48 ug/Kg#~~	25
34) 1,2-Dichloroethane	11.59	62	2133	0.21 ug/Kg#	78
42) cis-1,3-Dichloropropene	13.93	75	10134	0.96 ug/Kg#	53
46) Toluene	14.33	91	8471	0.27 ug/Kg	96
47) Ethyl Methacrylate	14.22	69	3786	0.52 ug/Kg#	1
59) m-,p-Xylene	16.65	106	6783	0.45 ug/Kg J	99
60) o-Xylene	17.30	106	5934	0.42 ug/Kg J	95
67) 1,2,3-Trichloropropane	18.26	110	414	0.24 ug/Kg#	1
68) trans-1,4-Dichloro-2-Buten	18.35	53	4716	3.54 ug/Kg#	16
69) n-Propylbenzene	18.41	91	17469	0.55 ug/Kg# J	93
71) 1,3,5-Trimethylbenzene	18.63	105	69757	3.07 ug/Kg J	97
76) 1,2,4-Trimethylbenzene	19.24	105	85933	3.63 ug/Kg J	96
77) sec-Butylbenzene	19.51	105	8898	0.30 ug/Kg J	95
78) p-Isopropyltoluene	19.70	119	10308	0.37 ug/Kg J	99
81) n-Butylbenzene	20.31	91	14247	0.61 ug/Kg# J	1
86) Naphthalene	23.62	128	66287	3.99 ug/Kg J NTC	97

(#) = qualifier out of range (m) = manual integration

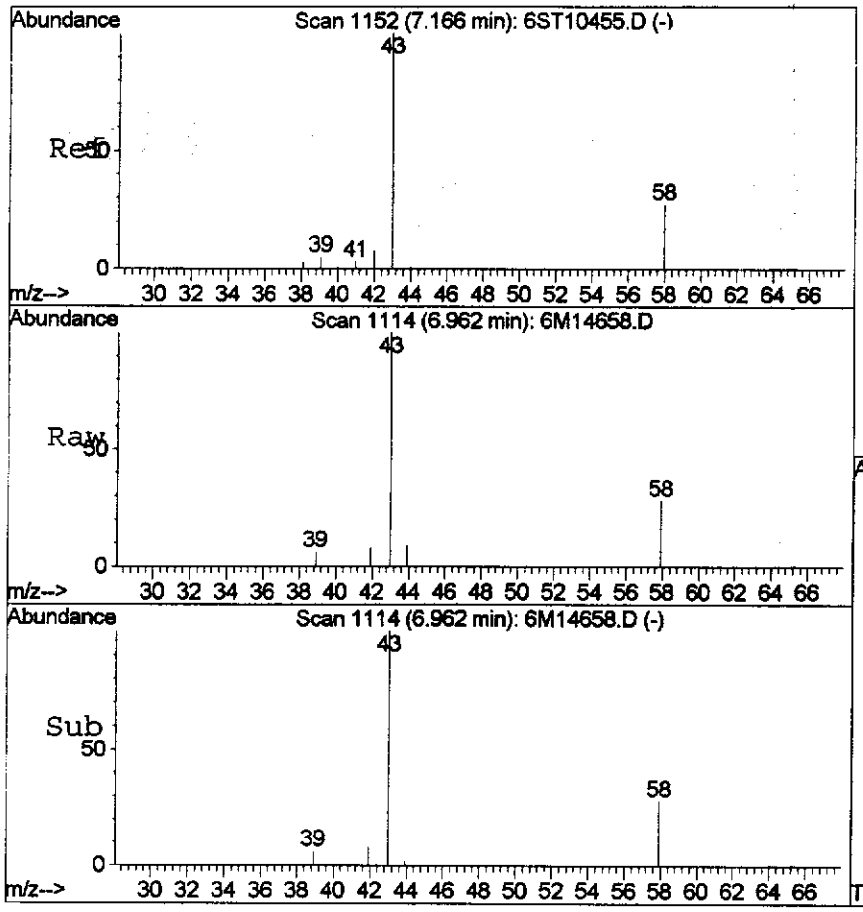

#11
Acetone
Concen: 16.42 ug/Kg
RT: 6.96 min Scan# 1114
Delta R.T. -0.00 min
Lab File: 6M14658.D
Acq: 22 Jul 1999 12:50

Tgt Ion: 43 Resp: 28769

Ion	Ratio	Lower	Upper
43	100		
58	27.5	22.9	34.3

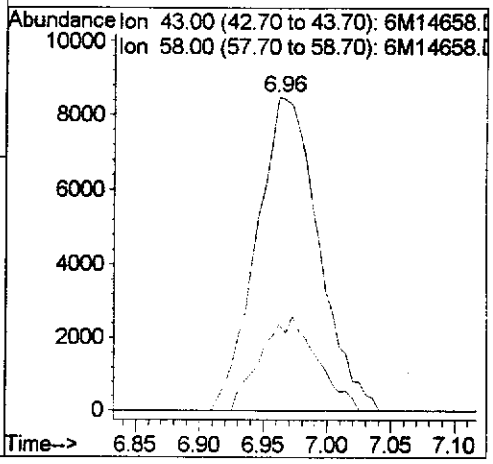

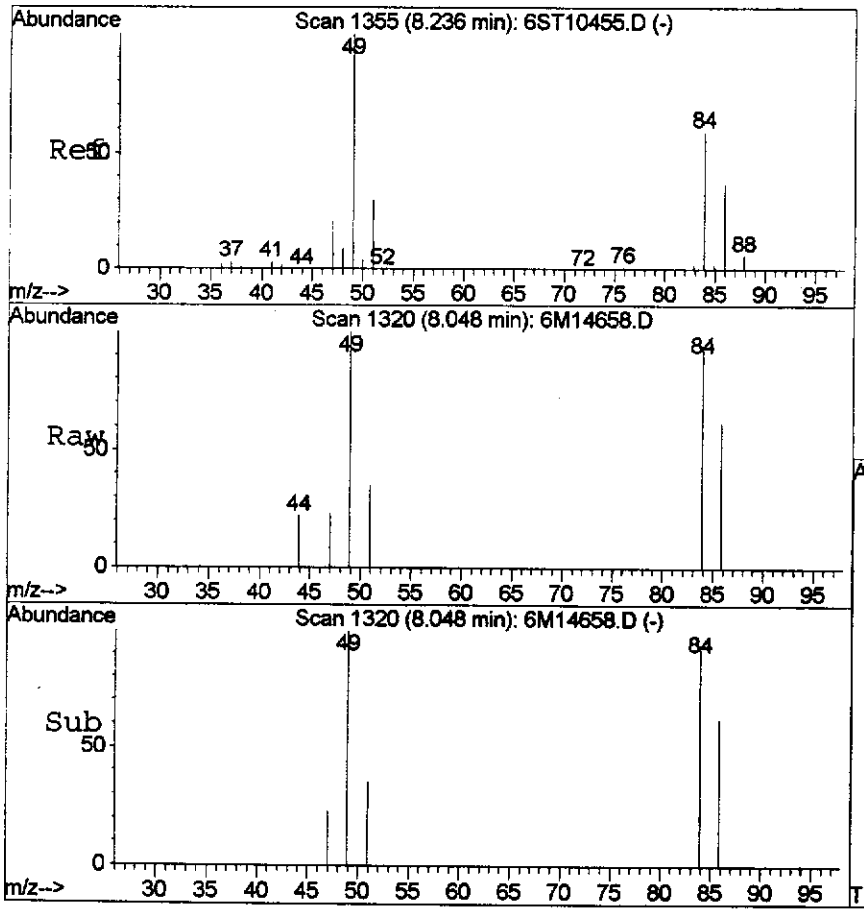

#15
Methylene Chloride
Concen: 0.56 ug/Kg
RT: 8.05 min Scan# 1320
Delta R.T. -0.00 min
Lab File: 6M14658.D
Acq: 22 Jul 1999 12:50

Tgt Ion: 84 Resp: 4674

Ion	Ratio	Lower	Upper
84	100		
49	113.3	110.3	165.5

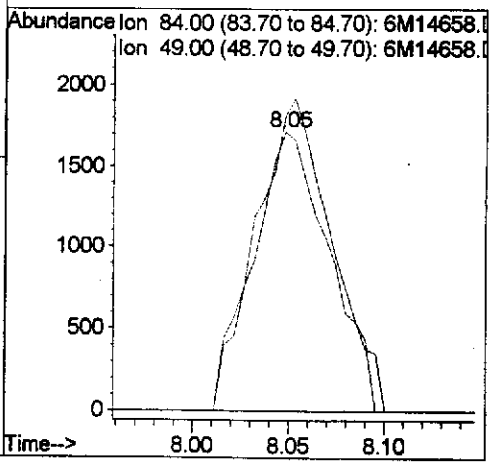

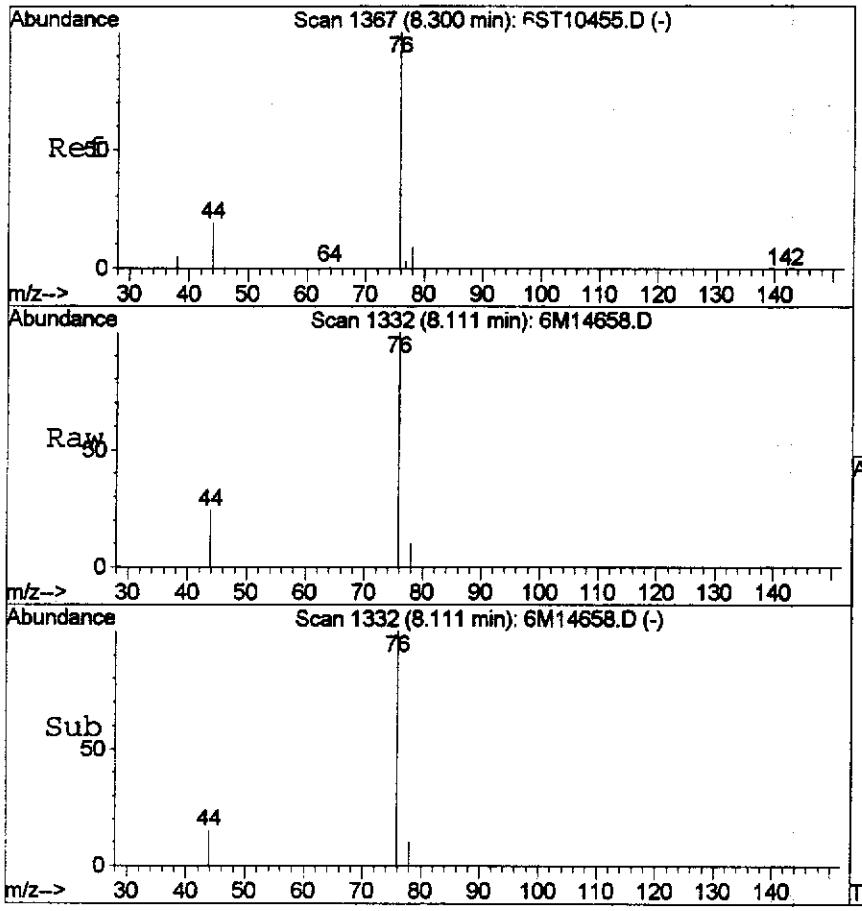

#16
Carbon Disulfide
Concen: 0.39 ug/Kg
RT: 8.11 min Scan# 1332
Delta R.T. -0.00 min
Lab File: 6M14658.D
Acq: 22 Jul 1999 12:50

Tgt Ion: 76 Resp: 10933

Ion	Ratio	Lower	Upper
76	100		
78	5.5	7.2	10.8#

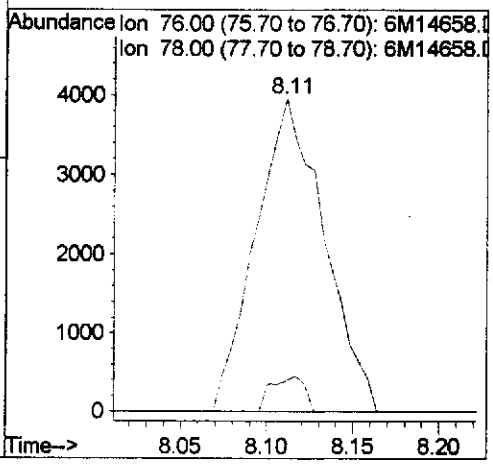

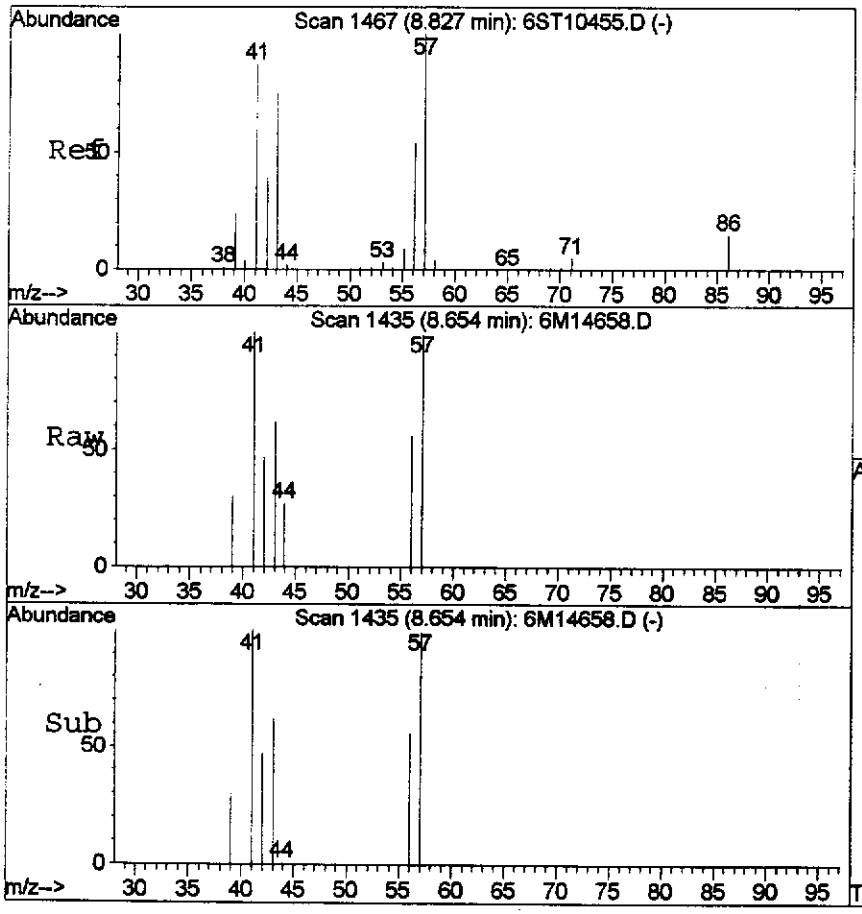

#20
n-Hexane
Concen: 0.23 ug/Kg
RT: 8.65 min Scan# 1435
Delta R.T. -0.01 min
Lab File: 6M14658.D
Acq: 22 Jul 1999 12:50

Tgt Ion: 57 Resp: 2985

Ion	Ratio	Lower	Upper
57	100		
43	143.1	56.7	85.1#

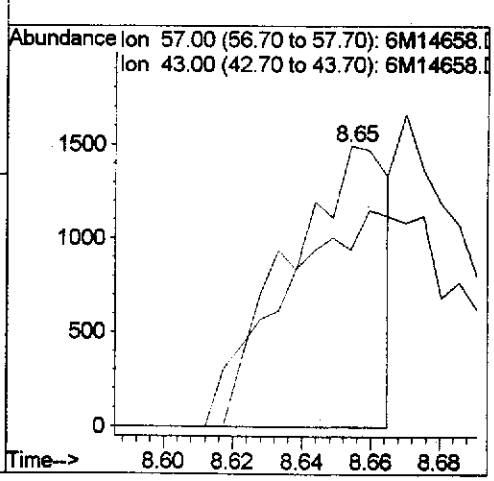

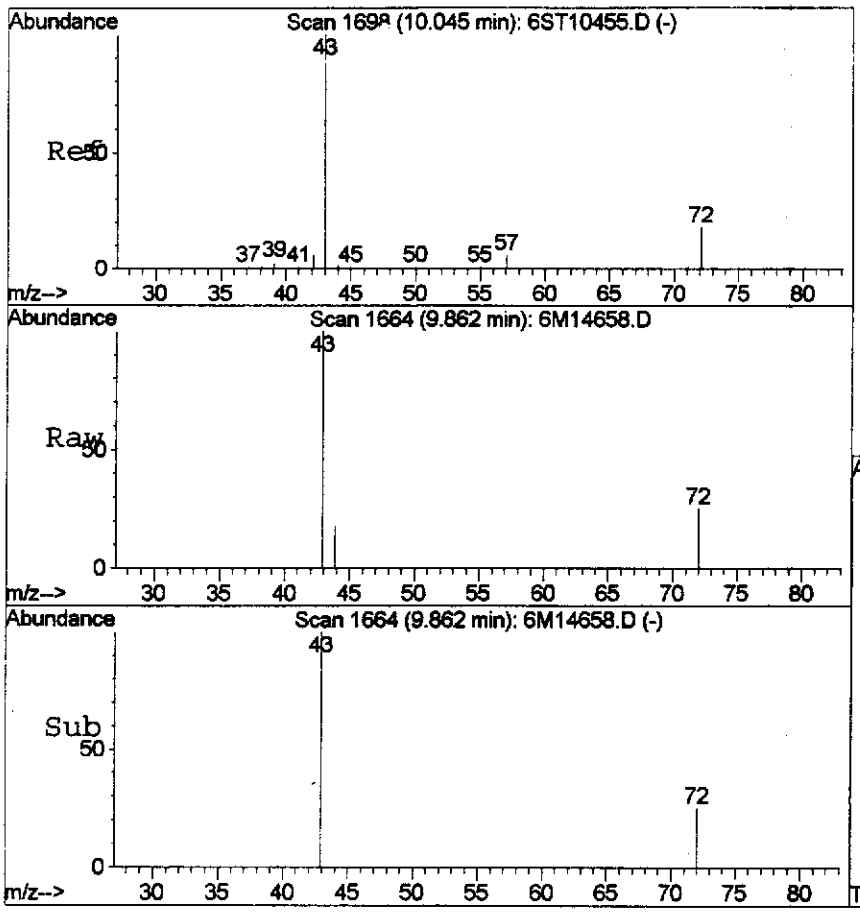

#23
tanone
Concen: 2.31 ug/Kg
RT: 9.86 min Scan# 1664
Delta R.T. 0.01 min
Lab File: 6M14658.D
Acq: 22 Jul 1999 12:50

Tgt Ion: 43 Resp: 5420

Ion	Ratio	Lower	Upper
43	100		
72	19.7	17.6	26.4

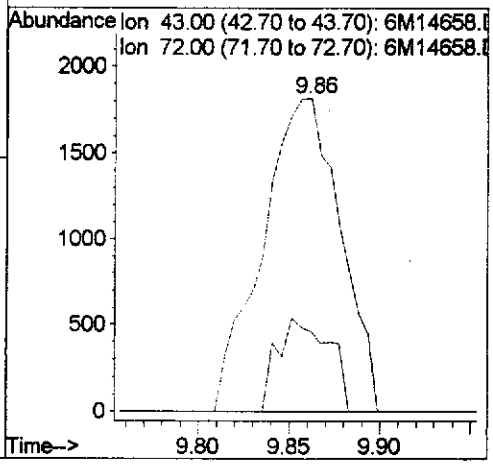

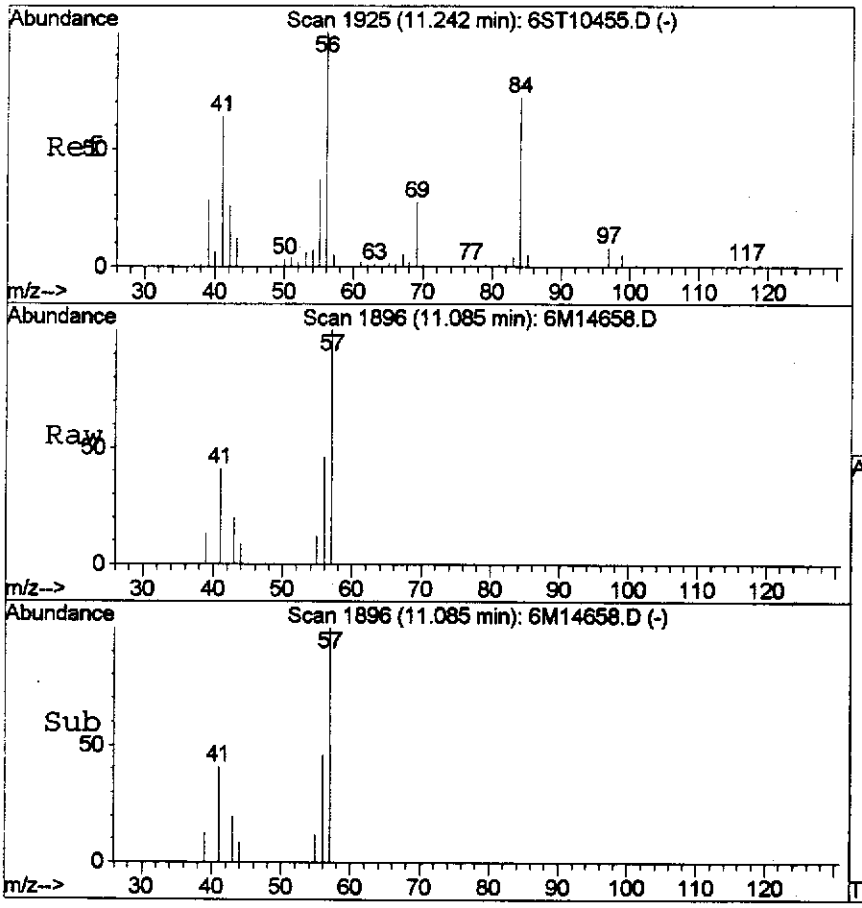

#30
Cyclohexane
Concen: 0.48 ug/Kg
RT: 11.08 min Scan# 1896
Delta R.T. 0.01 min
Lab File: 6M14658.D
Acq: 22 Jul 1999 12:50

Tgt Ion: 56 Resp: 6076

Ion	Ratio	Lower	Upper
56	100		
84	0.0	66.3	99.5#
41	103.8	50.0	75.0#

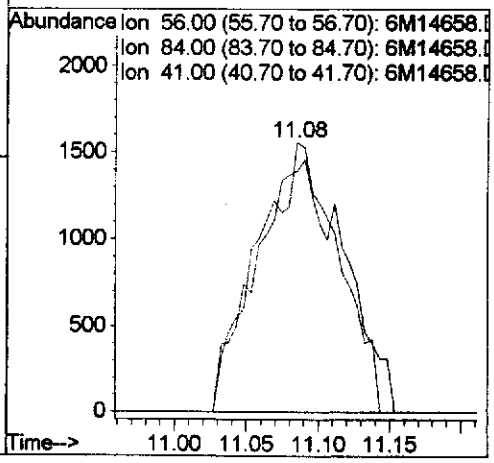

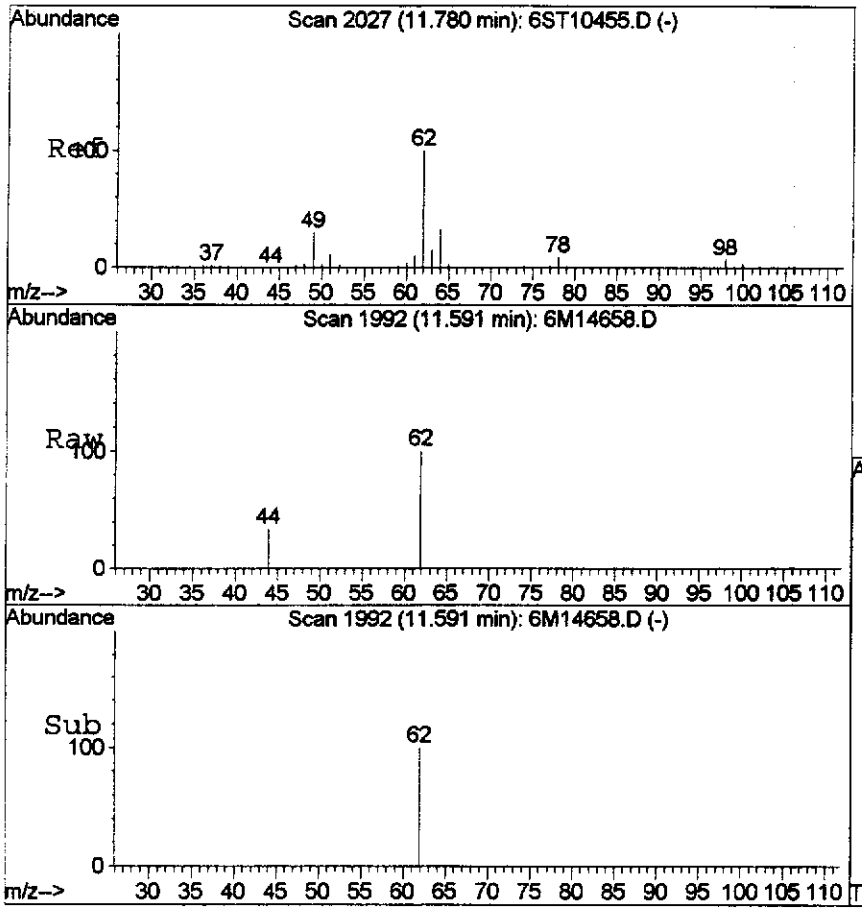

#34
',2-Dichloroethane
Concen: 0.21 ug/Kg
RT: 11.59 min Scan# 1992
Delta R.T. 0.00 min
Lab File: 6M14658.D
Acq: 22 Jul 1999 12:50

Tgt Ion: 62 Resp: 2133

Ion	Ratio	Lower	Upper
62	100		
98	0.0	6.3	9.5#

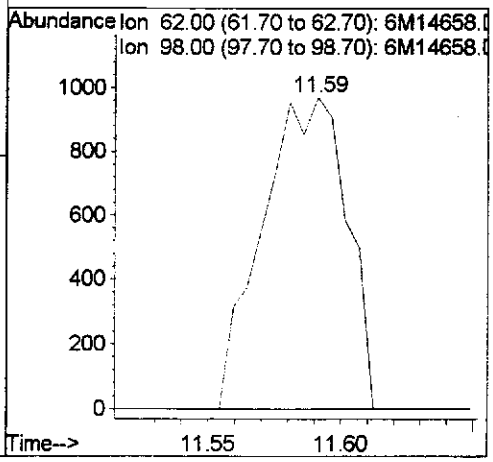

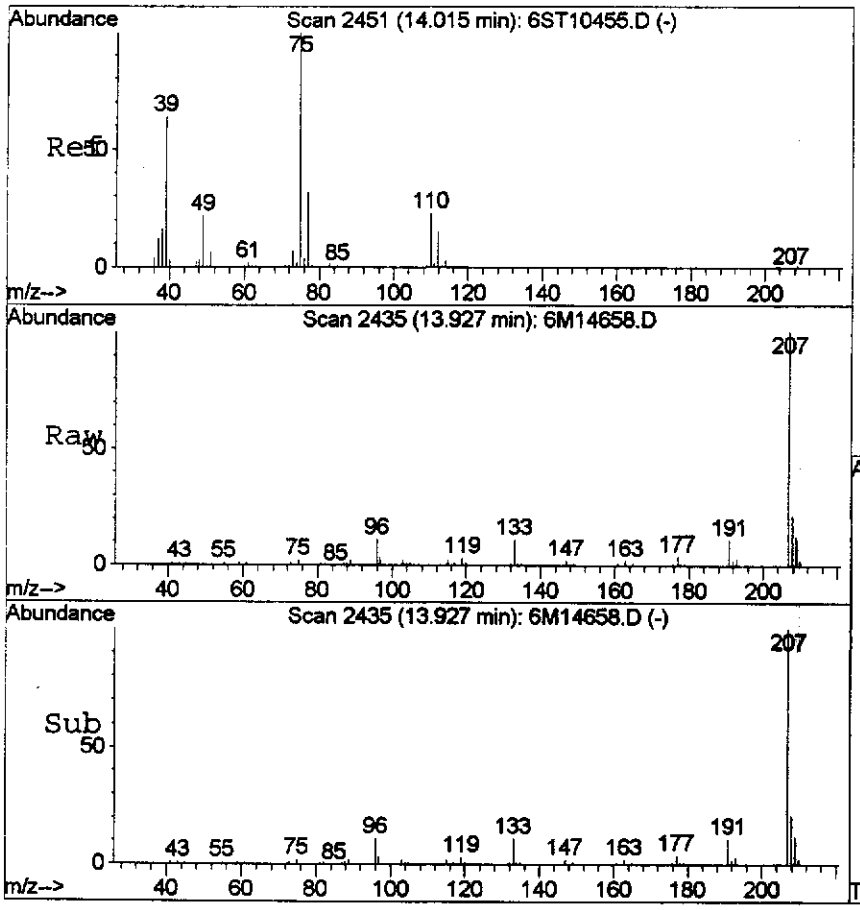

#42
cis-1,3-Dichloropropene
Concen: 0.96 ug/Kg
RT: 13.93 min Scan# 2435
Delta R.T. 0.10 min
Lab File: 6M14658.D
Acq: 22 Jul 1999 12:50

Tgt Ion: 75 Resp: 10134

Ion	Ratio	Lower	Upper
75	100		
110	0.0	18.2	27.4#

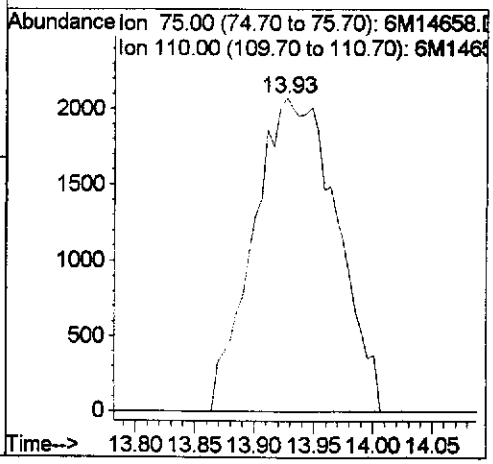

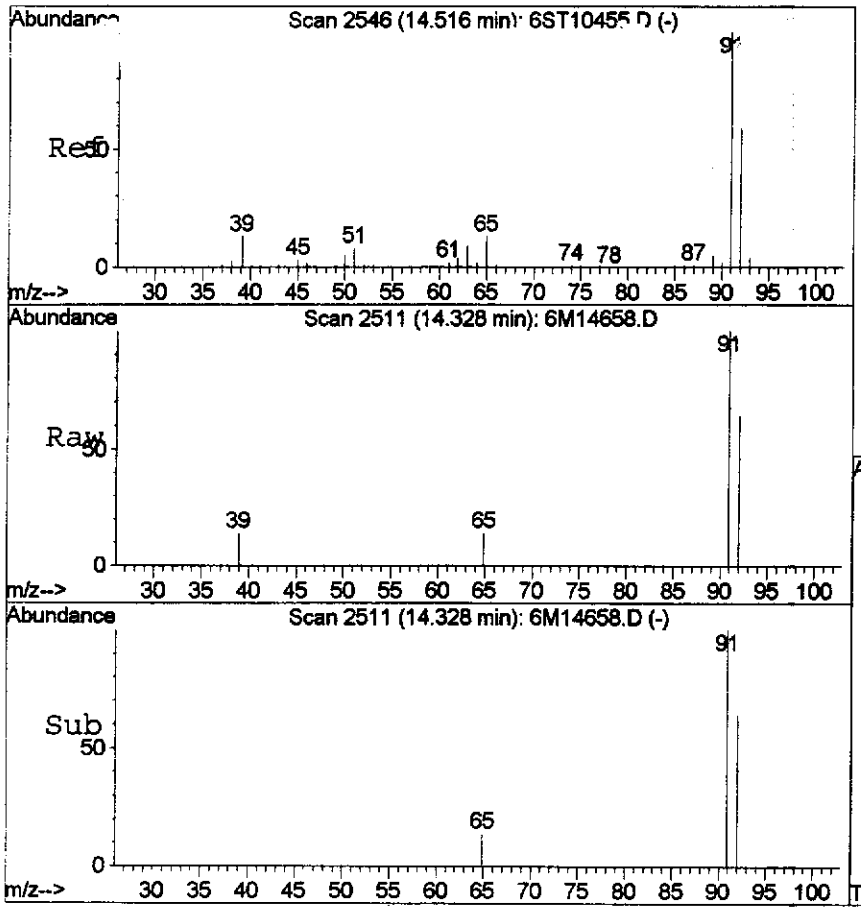

#46
Toluene
Concen: 0.27 ug/Kg
RT: 14.33 min Scan# 2511
Delta R.T. -0.00 min
Lab File: 6M14658.D
Acq: 22 Jul 1999 12:50

Tgt Ion: 91 Resp: 8471

Ion	Ratio	Lower	Upper
91	100		
92	55.3	46.9	70.3

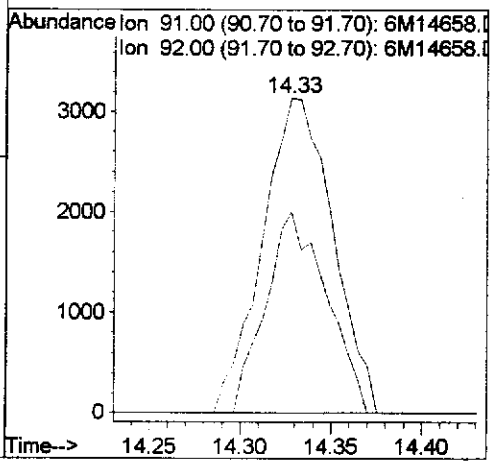

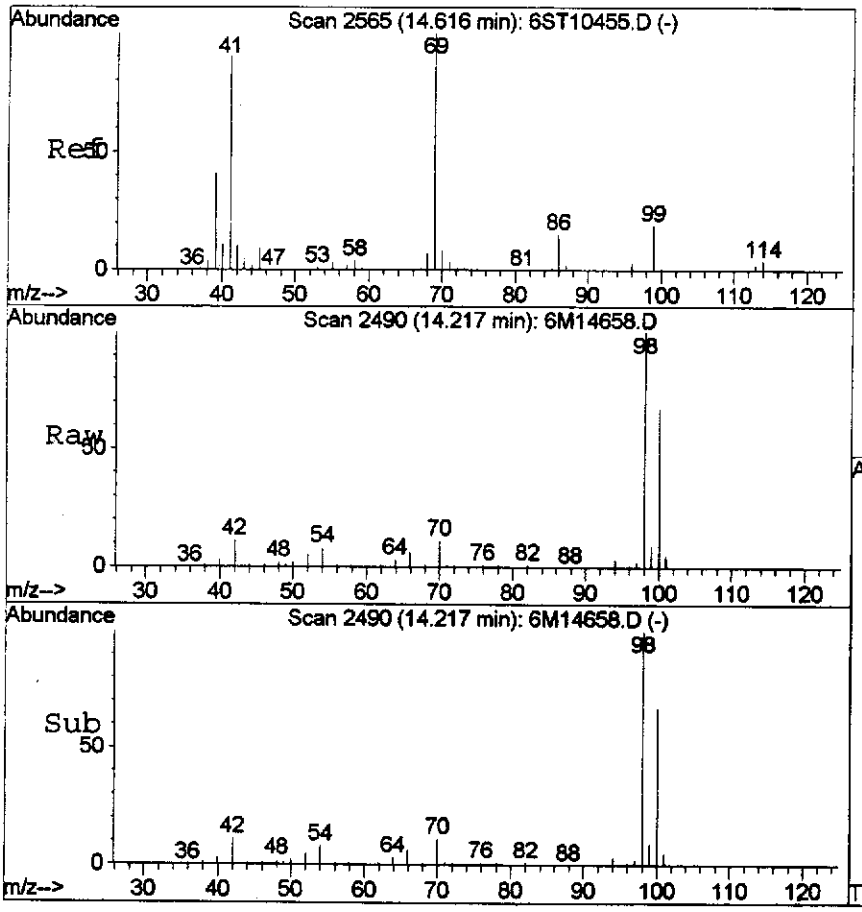

#47
Ethyl Methacrylate
Concen: 0.52 ug/Kg
RT: 14.22 min Scan# 2490
Delta R.T. -0.22 min
Lab File: 6M14658.D
Acq: 22 Jul 1999 12:50

Tgt Ion: 69 Resp: 3786

Ion	Ratio	Lower	Upper
69	100		
99	3189.3	15.2	22.8#

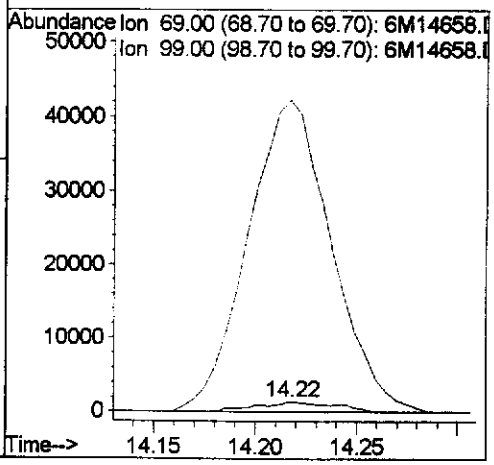

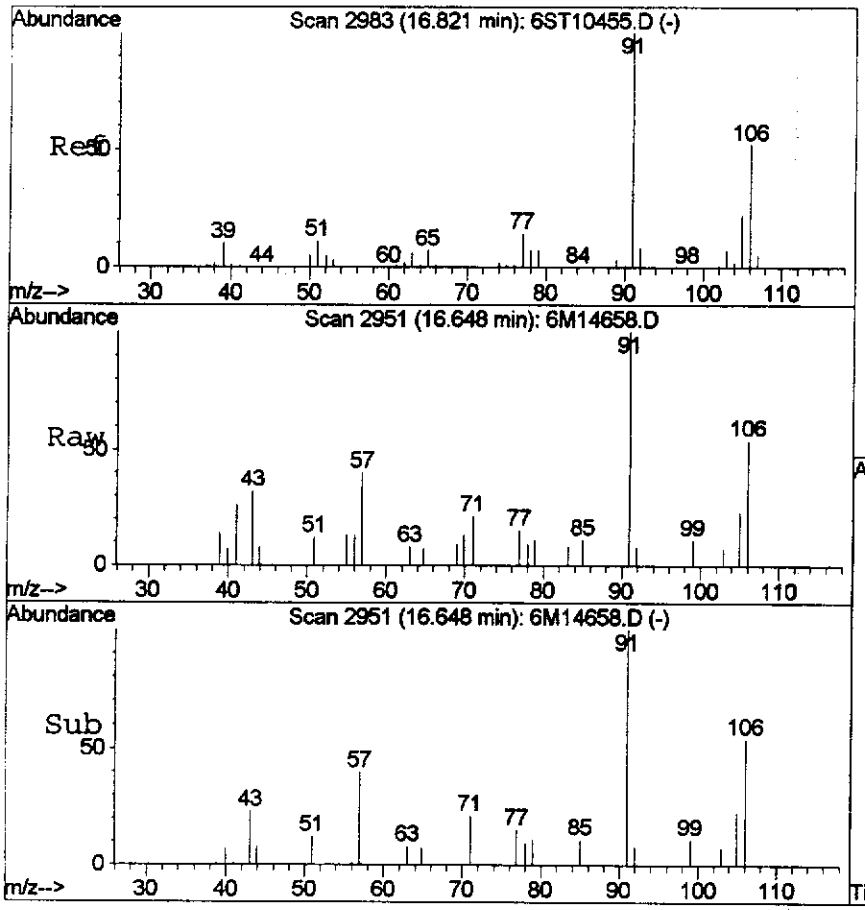

#59
m-,p-Xylene
Concen: 0.45 ug/Kg
RT: 16.65 min Scan# 2951
Delta R.T. 0.01 min
Lab File: 6M14658.D
Acq: 22 Jul 1999 12:50

Tgt Ion:106 Resp: 6783

Ion	Ratio	Lower	Upper
106	100		
91	204.2	161.5	242.3

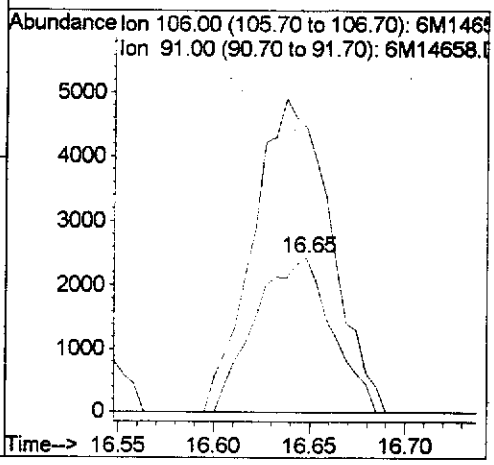

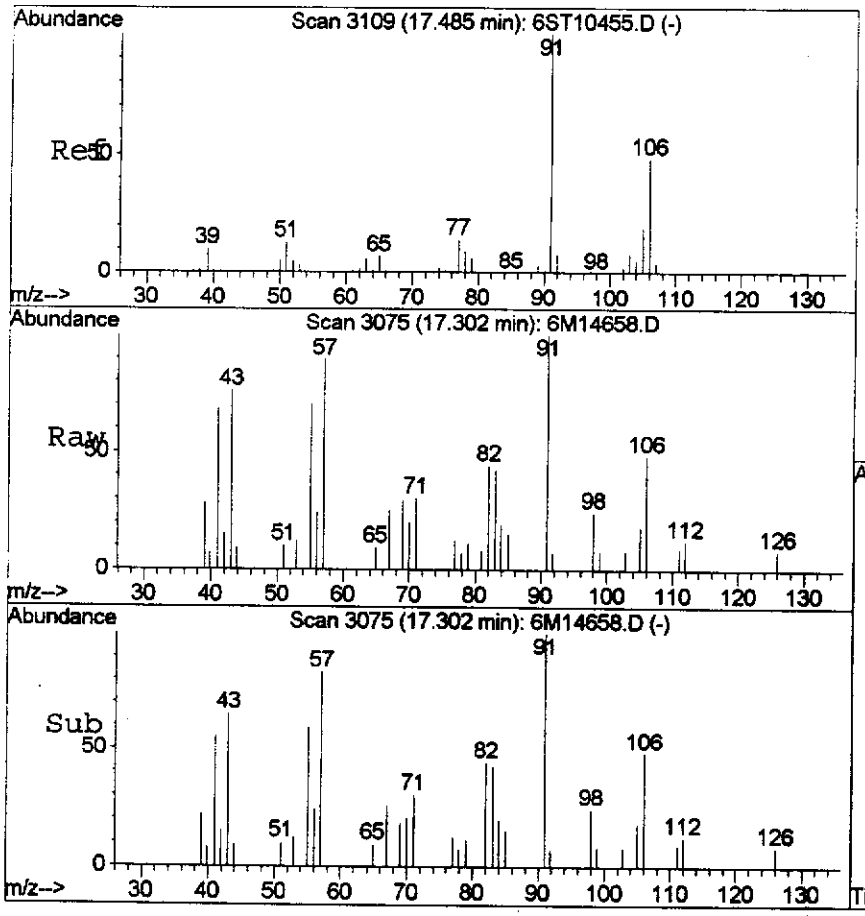

#60
o-Xylene
Concen: 0.42 ug/Kg
RT: 17.30 min Scan# 3075
Delta R.T. -0.00 min
Lab File: 6M14658.D
Acq: 22 Jul 1999 12:50

Tgt Ion:106 Resp: 5934

Ion	Ratio	Lower	Upper
106	100		
91	220.2	170.0	255.0

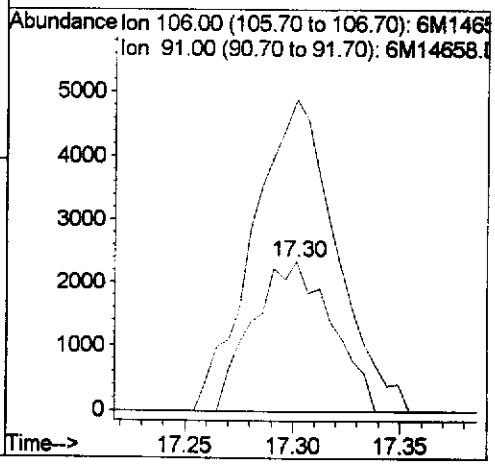

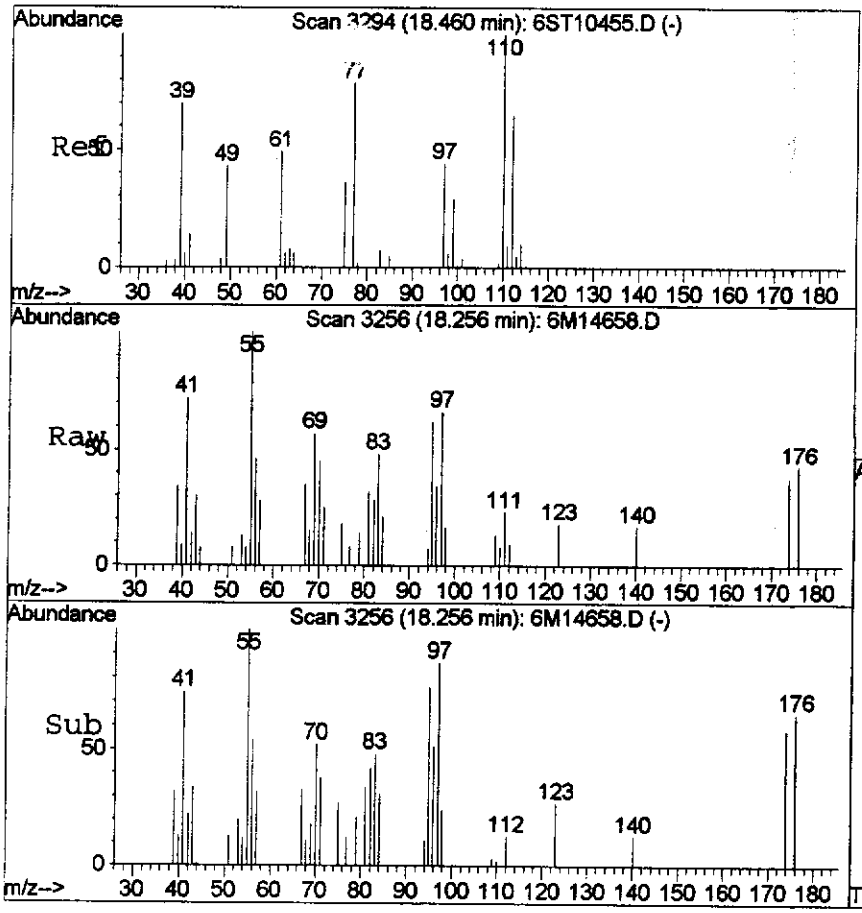

#67
1,2,3-Trichloropropane
Concen: 0.24 ug/Kg
RT: 18.26 min Scan# 3256
Delta R.T. -0.02 min
Lab File: 6M14658.D
Acq: 22 Jul 1999 12:50

Tgt Ion:110 Resp: 414

Ion	Ratio	Lower	Upper
110	100		
61	0.0	58.0	87.0#
97	3181.6	39.4	59.0#

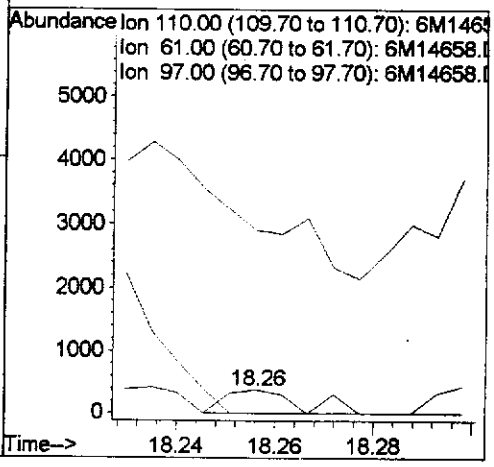

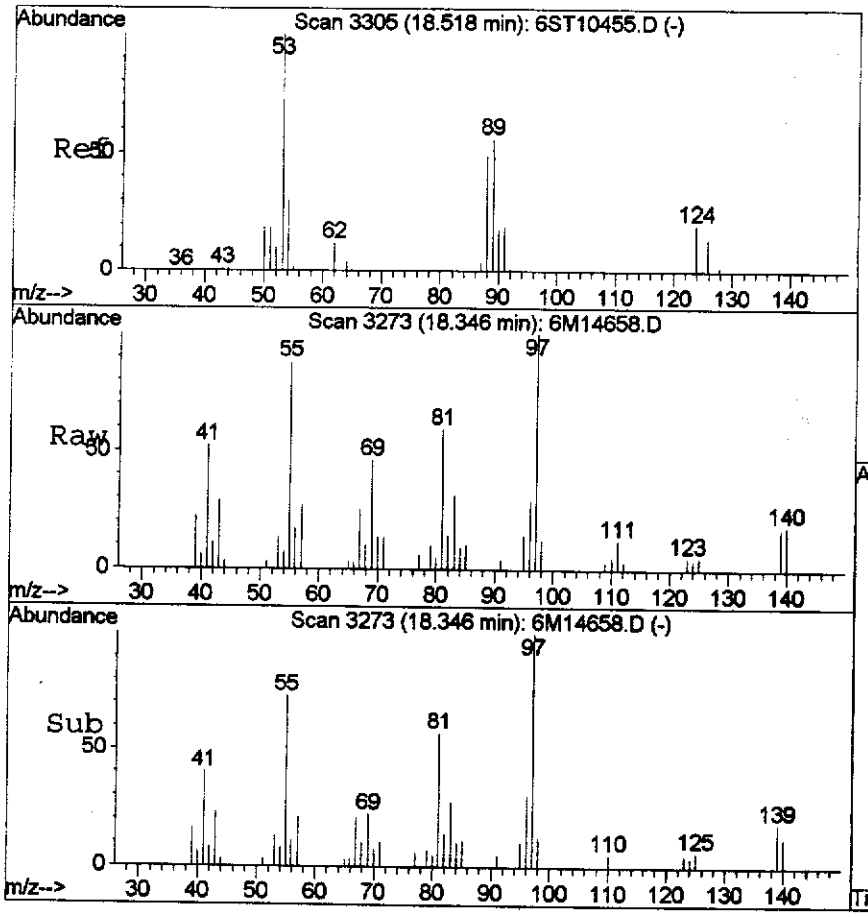

#68
trans-1,4-Dichloro-2-Buten
Concen: 3.54 ug/Kg
RT: 18.35 min Scan# 3273
Delta R.T. 0.02 min
Lab File: 6M14658.D
Acq: 22 Jul 1999 12:50

Tgt Ion: 53 Resp: 4716

Ion	Ratio	Lower	Upper
53	100		
89	0.0	54.2	81.4#

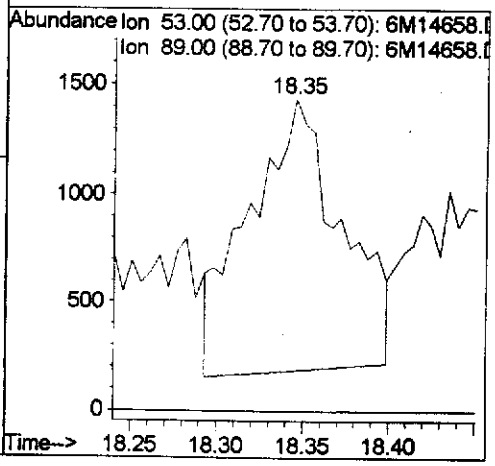

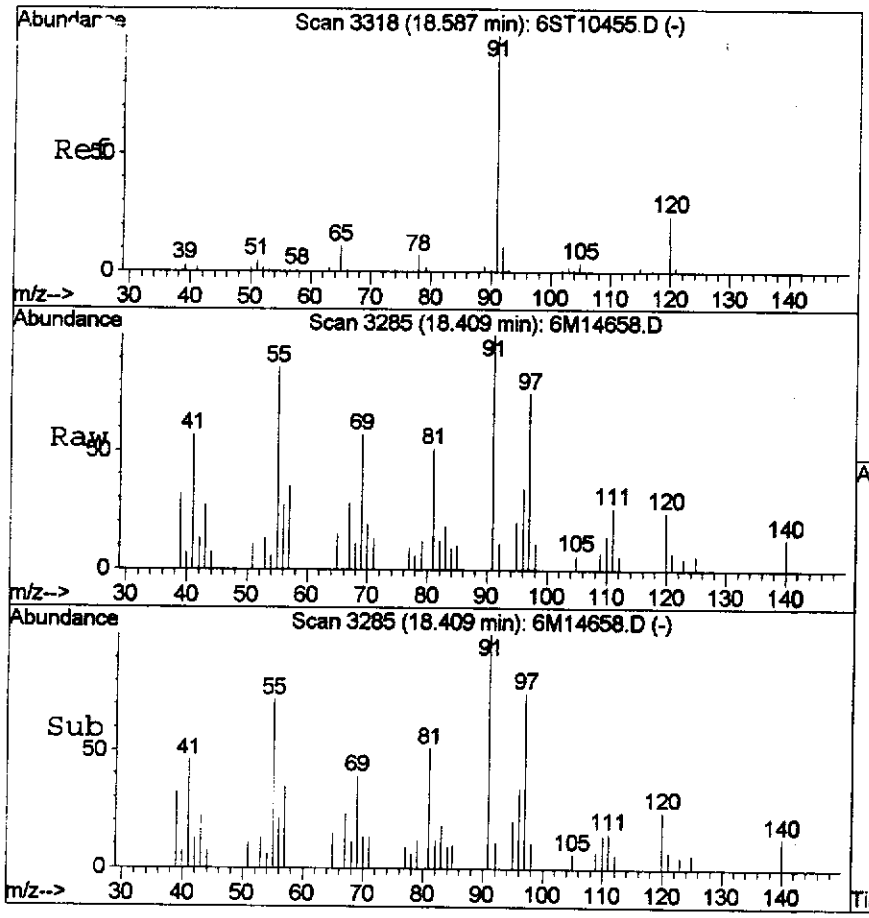

#69
n-Propylbenzene
Concen: 0.55 ug/Kg
RT: 18.41 min Scan# 3285
Delta R.T. 0.00 min
Lab File: 6M14658.D
Acq: 22 Jul 1999 12:50

Tgt Ion: 91 Resp: 17469

Ion	Ratio	Lower	Upper
91	100		
120	19.8	18.4	27.6
105	0.0	3.0	4.4#

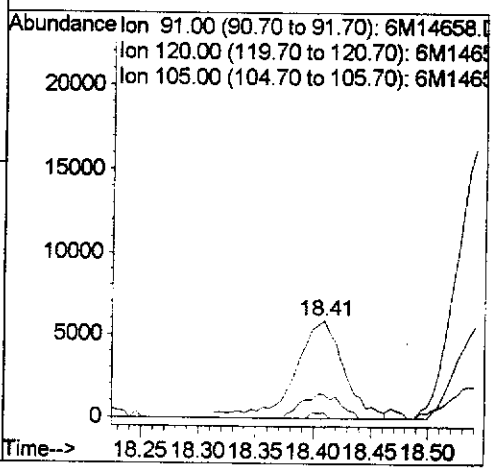

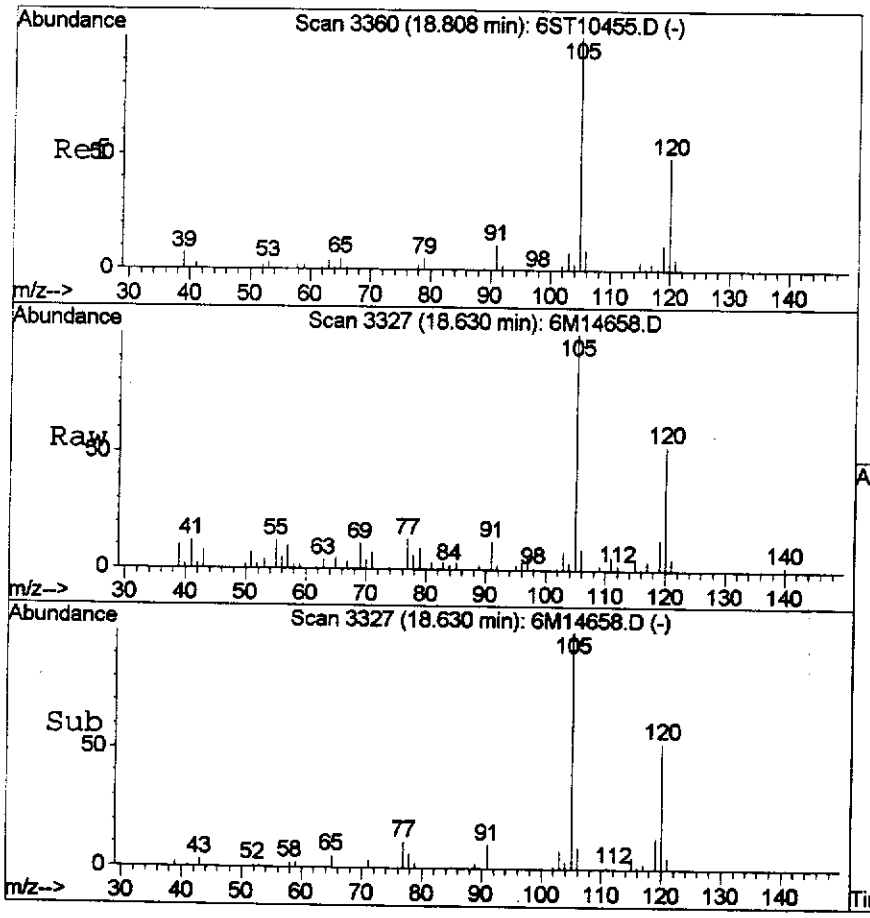

#71
1,3,5-Trimethylbenzene
Concen: 3.07 ug/Kg
RT: 18.63 min Scan# 3327
Delta R.T. -0.00 min
Lab File: 6M14658.D
Acq: 22 Jul 1999 12:50

Tgt Ion:105 Resp: 69757

Ion	Ratio	Lower	Upper
105	100		
120	51.3	39.4	59.0

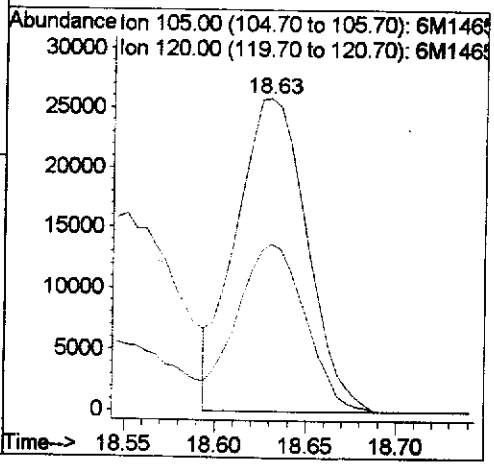

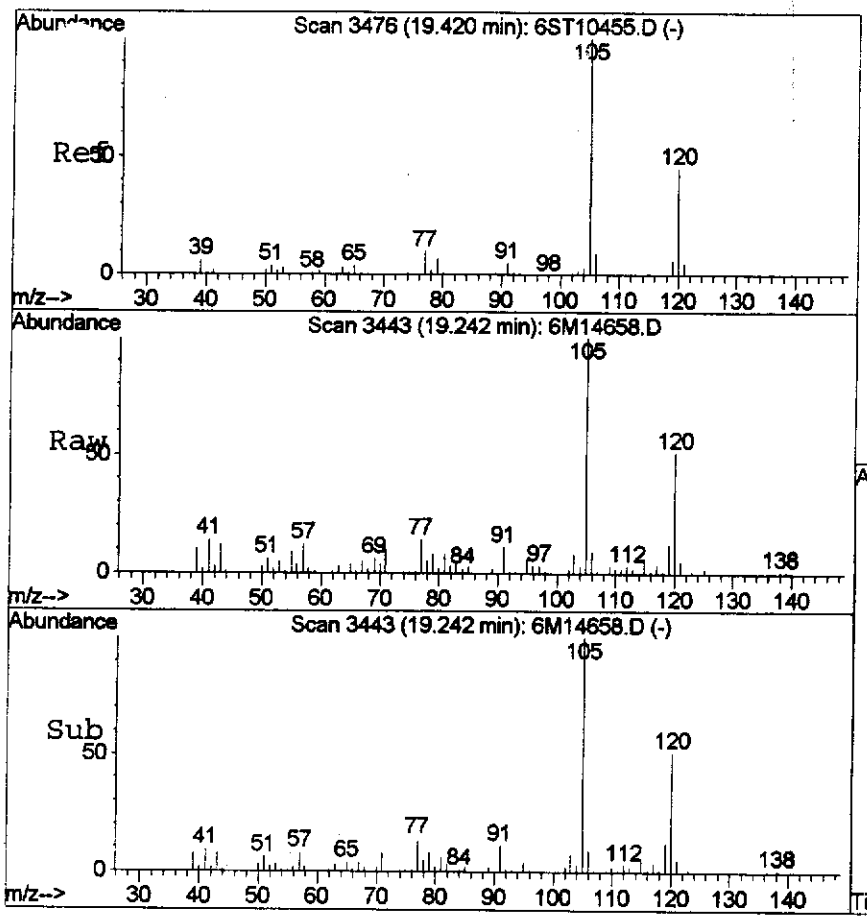

#76
1,2,4-Trimethylbenzene
Concen: 3.63 ug/Kg
RT: 19.24 min Scan# 3443
Delta R.T. -0.00 min
Lab File: 6M14658.D
Acq: 22 Jul 1999 12:50

Tgt Ion:105 Resp: 85933

Ion	Ratio	Lower	Upper
105	100		
120	48.9	37.0	55.6

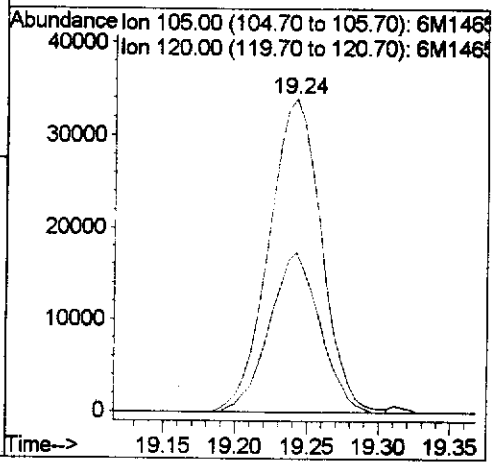

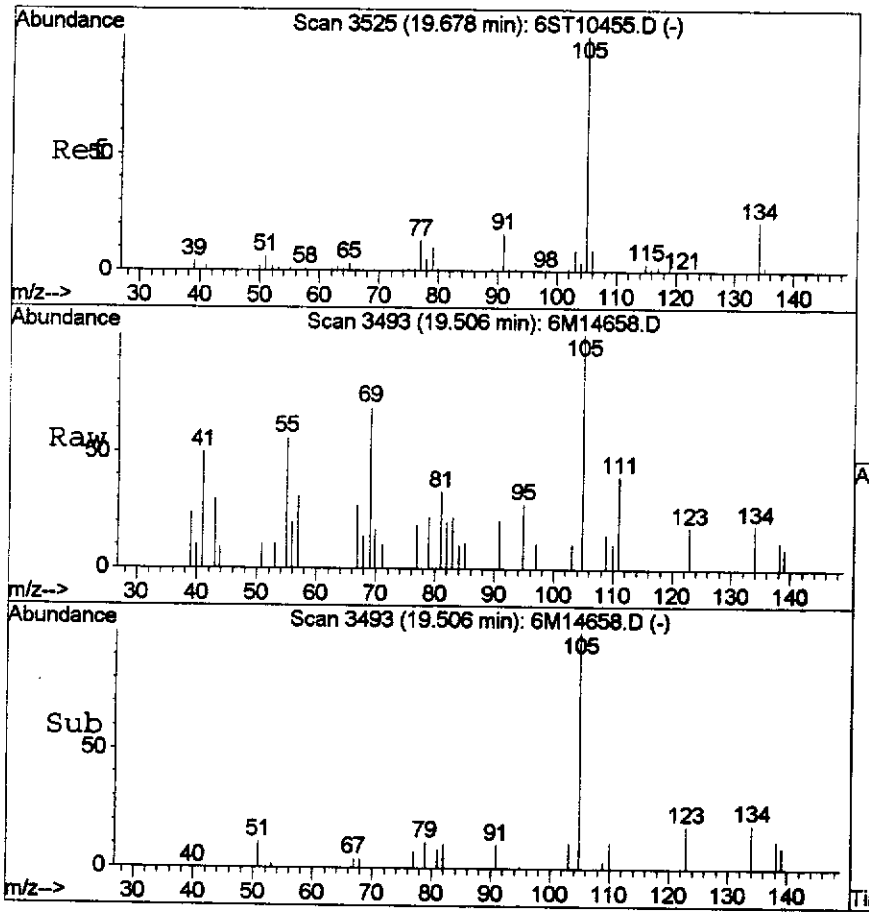

#77
sec-Butylbenzene
Concen: 0.30 ug/Kg
RT: 19.51 min Scan# 3493
Delta R.T. 0.00 min
Lab File: 6M14658.D
Acq: 22 Jul 1999 12:50

Tgt Ion:105 Resp: 8898

Ion	Ratio	Lower	Upper
105	100		
134	18.2	16.2	24.4

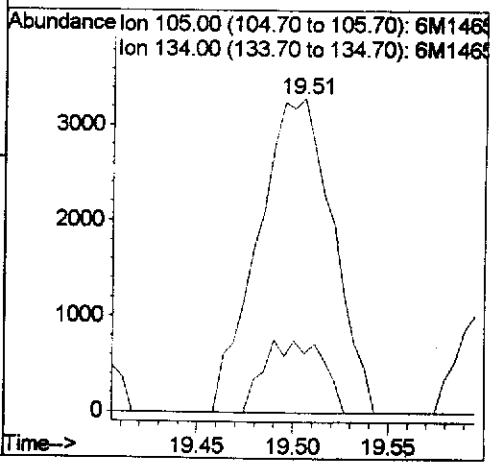

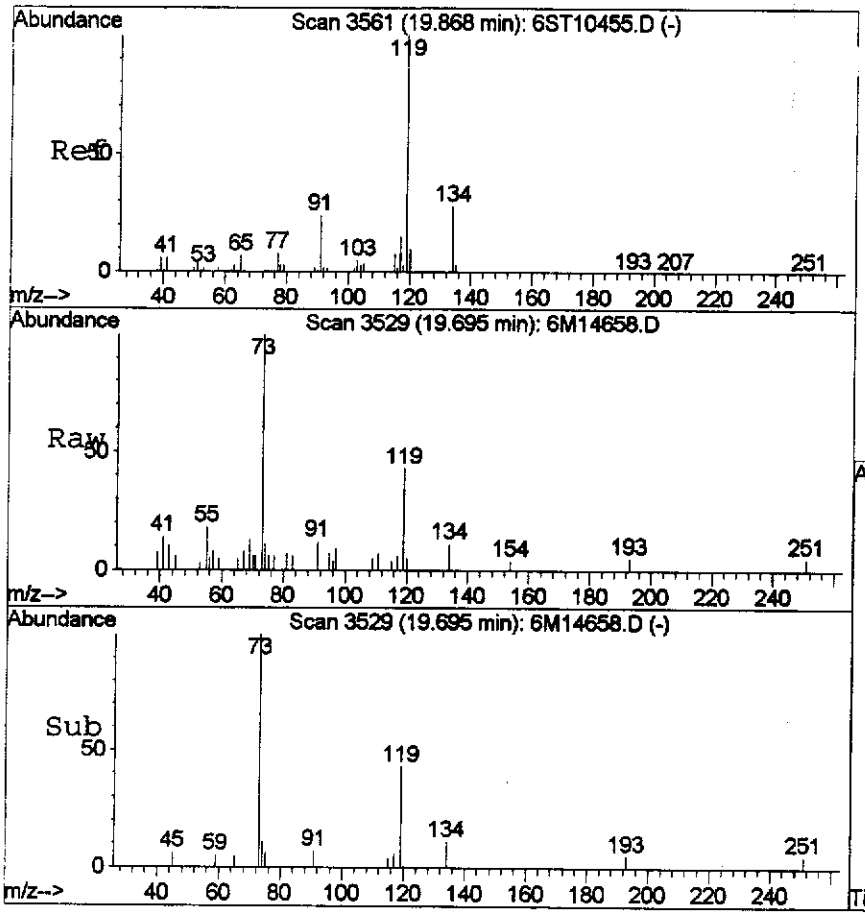

#78
p-Isopropyltoluene
Concen: 0.37 ug/Kg
RT: 19.70 min Scan# 3529
Delta R.T. 0.00 min
Lab File: 6M14658.D
Acq: 22 Jul 1999 12:50

Tgt Ion:119 Resp: 10308

Ion	Ratio	Lower	Upper
119	100		
134	26.5	21.8	32.8

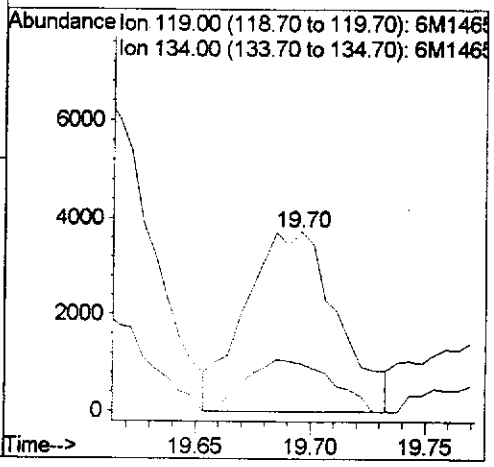

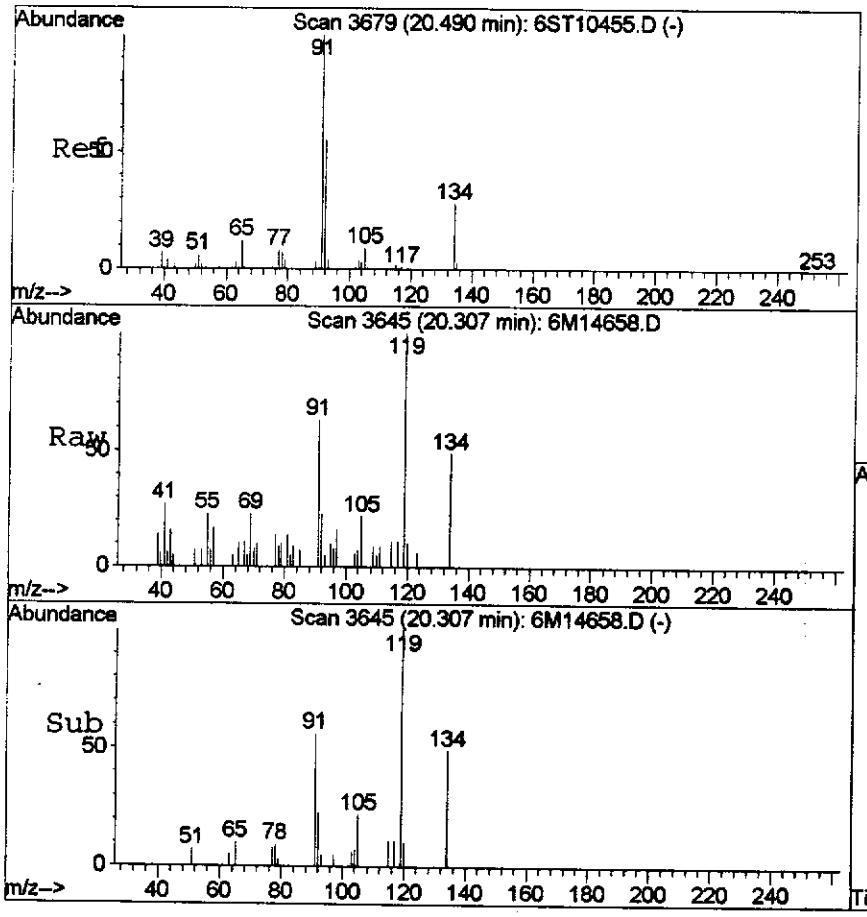

#81
n-Butylbenzene
Concen: 0.61 ug/Kg
RT: 20.31 min Scan# 3645
Delta R.T. -0.01 min
Lab File: 6M14658.D
Acq: 22 Jul 1999 12:50

Tgt Ion: 91 Resp: 14247

Ion	Ratio	Lower	Upper
91	100		
134	108.1	20.6	31.0#

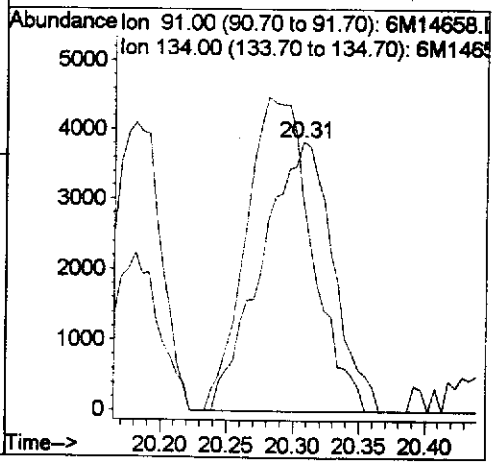

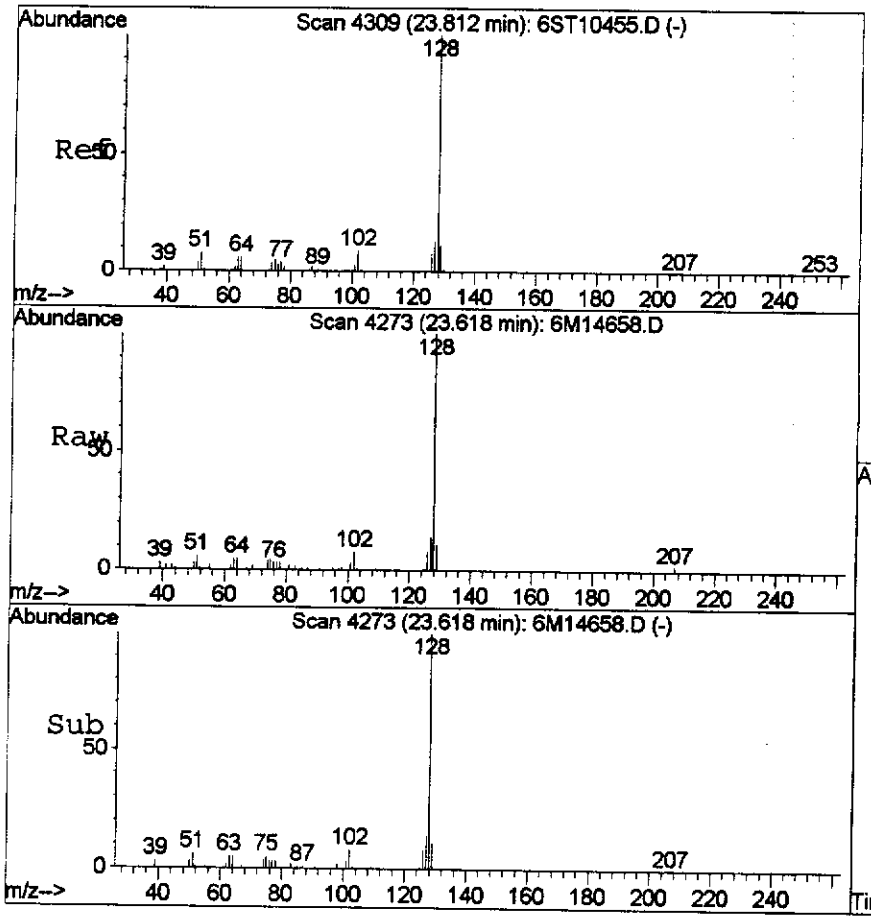

#86
Naphthalene
Concen: 3.99 ug/Kg
RT: 23.62 min Scan# 4273
Delta R.T. -0.00 min
Lab File: 6M14658.D
Acq: 22 Jul 1999 12:50

Tgt Ion:128 Resp: 66287

Ion	Ratio	Lower	Upper
128	100		
102	7.5	6.9	10.3

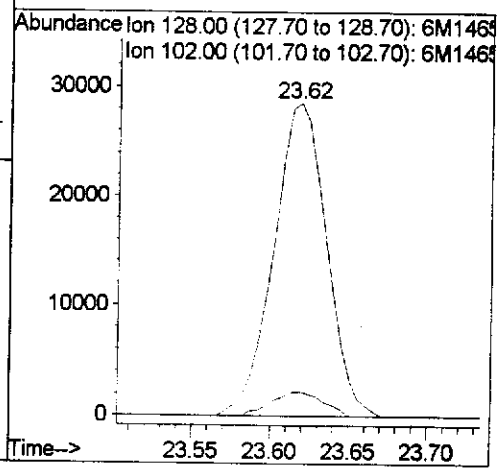

44A

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\072299\6M14658.D
Acq On : 22 Jul 1999 12:50
Sample : L9907381-01 A LANL 826LA 5.3G/5ML
Misc : SOLID,0.9
MS Integration Params: LSCINT.P

Vial : 7
Operator: CMS
Inst : HPMS_6
Multiplr: 0.90

Quant Method : C:\HPCHEM\1\METHODS\8260BSL.M (RTE Integrator)
Title : Method 8260B_SOIL - ICAL 07/15/99
Library : C:\DATABASE\NBS75K.L

****

Peak Number 1 Carbon dioxide — Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
3.23	14.97 ug/Kg	973450	Fluorobenzene	11.92

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qua
1	Carbon dioxide	44	CO2	000124-38-9	4
2	Carbon dioxide	44	CO2	000124-38-9	4
3	Ethylene oxide	44	C2H4O	000075-21-8	3
4	Nitrous Oxide	44	N2O	010024-97-2	3

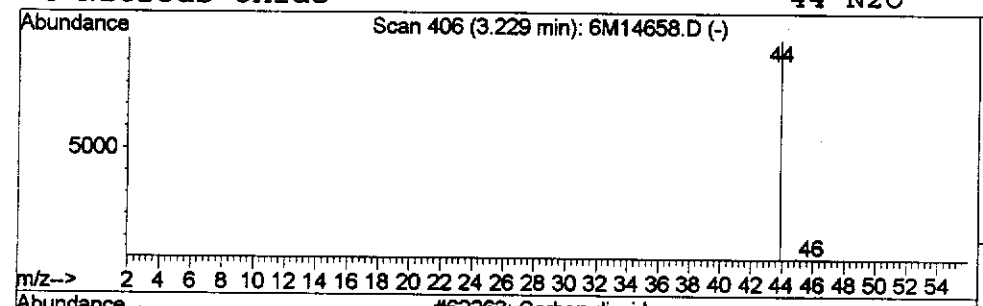

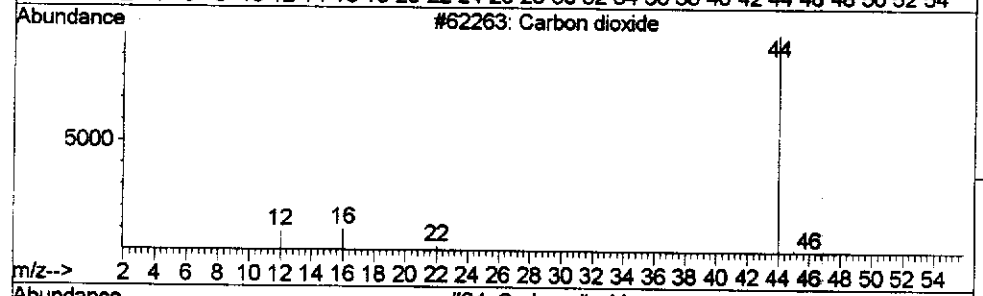

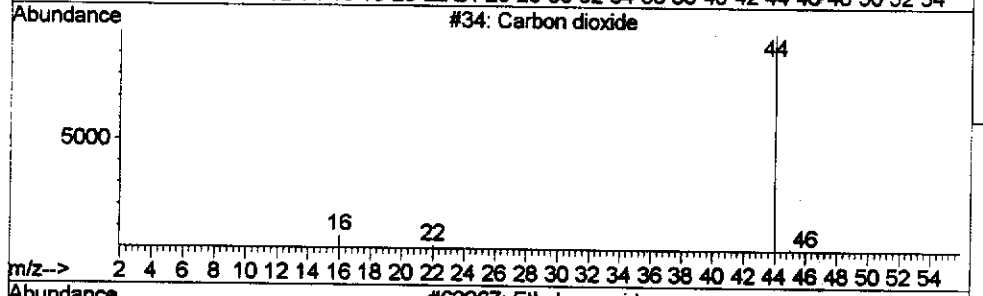

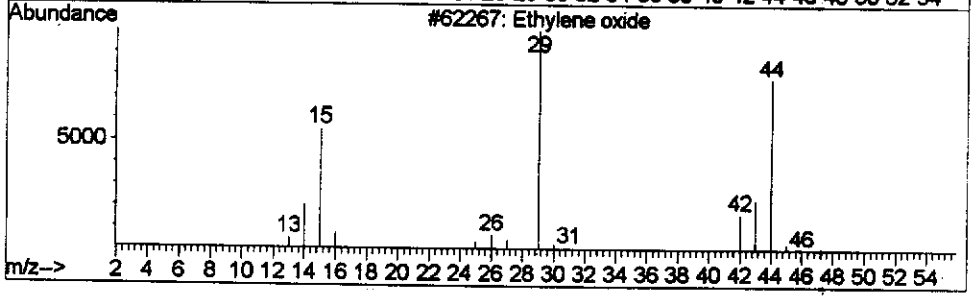

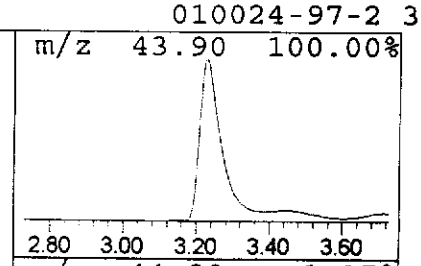

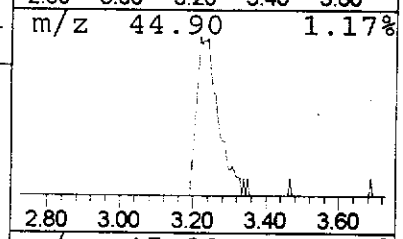

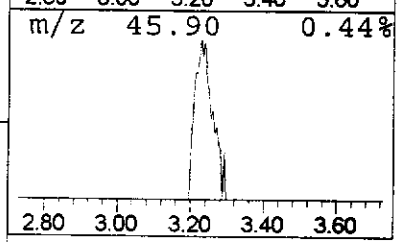

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\072299\6M146[illegible]D
Acq On : 22 Jul 1999 12:50
Sample : L9907381-01 A LANL 826LA 5.3G/5ML
Misc : SOLID,0.9
MS Integration Params: LSCINT.P

Vial: 7
Operator: CMS
Inst : HPMS_6
Multiplr: 0.90

Quant Method : C:\HPCHEM\1\METHODS\8260BSL.M (RTE Integrator)
Title : Method 8260B_SOIL - ICAL 07/15/99
Library : C:\DATABASE\NBS75K.L

****

Peak Number 2 1,2-Bis(trimethylsilyl)benzene Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
17.15	31.93 ug/Kg	2172650	Chlorobenzene-d5	16.43

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qua
1	1,2-Bis(trimethylsilyl)benzene	222	C12H22Si2	017151-09-6	12
2	3-Indolethanamine, N-acetyl-5-fluor	250	C13H15FN2O2	000000-00-0	11
3	Disiloxane, pentamethyl-	148	C5H16OSi2	001438-82-0	11
4	2-Anthracenamine	193	C14H11N	000613-13-8	11

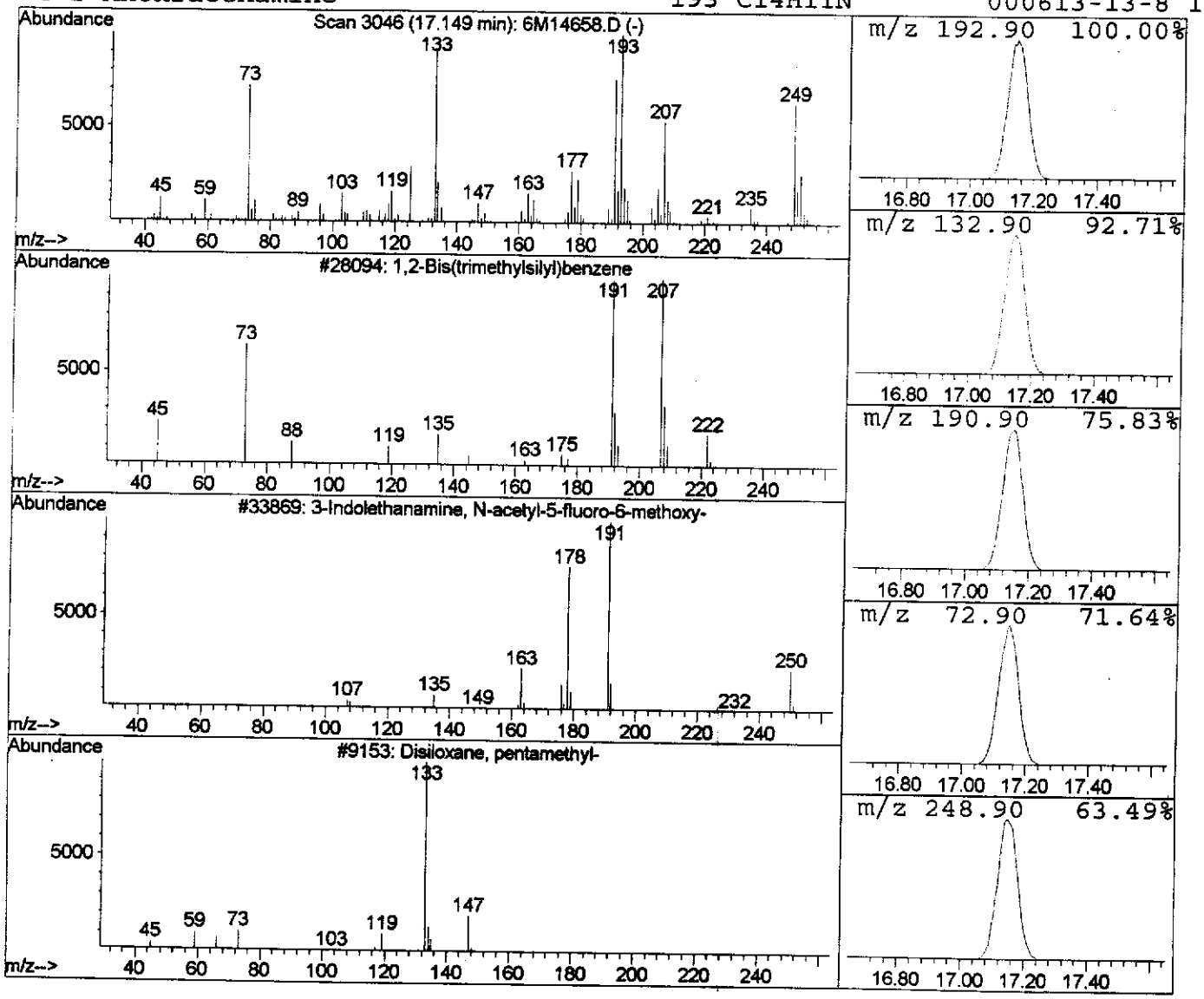

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\0722! M14658.
Acq On : 22 Jul 1999 12:50
Sample : L9907381-01 A LANL 826LA 5.3G/5ML
Misc : SOLID,0.9
MS Integration Params: LSCINT.P

Vial: 7
Operator: CMS
Inst : HPMS_6
Multiplr: 0.90

Quant Method : C:\HPCHEM\1\METHODS\8260BSL.M (RTE Integrator)
Title : Method 8260B_SOIL - ICAL 07/15/99
Library : C:\DATABASE\NBS75K.L

****

Peak Number 3 Cyclohexane, propyl- Concentration Rank 6

R.T.	EstConc	Area	Relative to ISTD	R.T.
17.41	5.73 ug/Kg	389708	Chlorobenzene-d5	16.43

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qua
1	Cyclohexane, propyl-	126	C9H18	001678-92-8	43
2	Cyclohexane, propyl-	126	C9H18	001678-92-8	43
3	Cyclohexane, propyl-	126	C9H18	001678-92-8	43
4	Cyclohexane, (2-methylpropyl)-	140	C10H20	001678-98-4	43

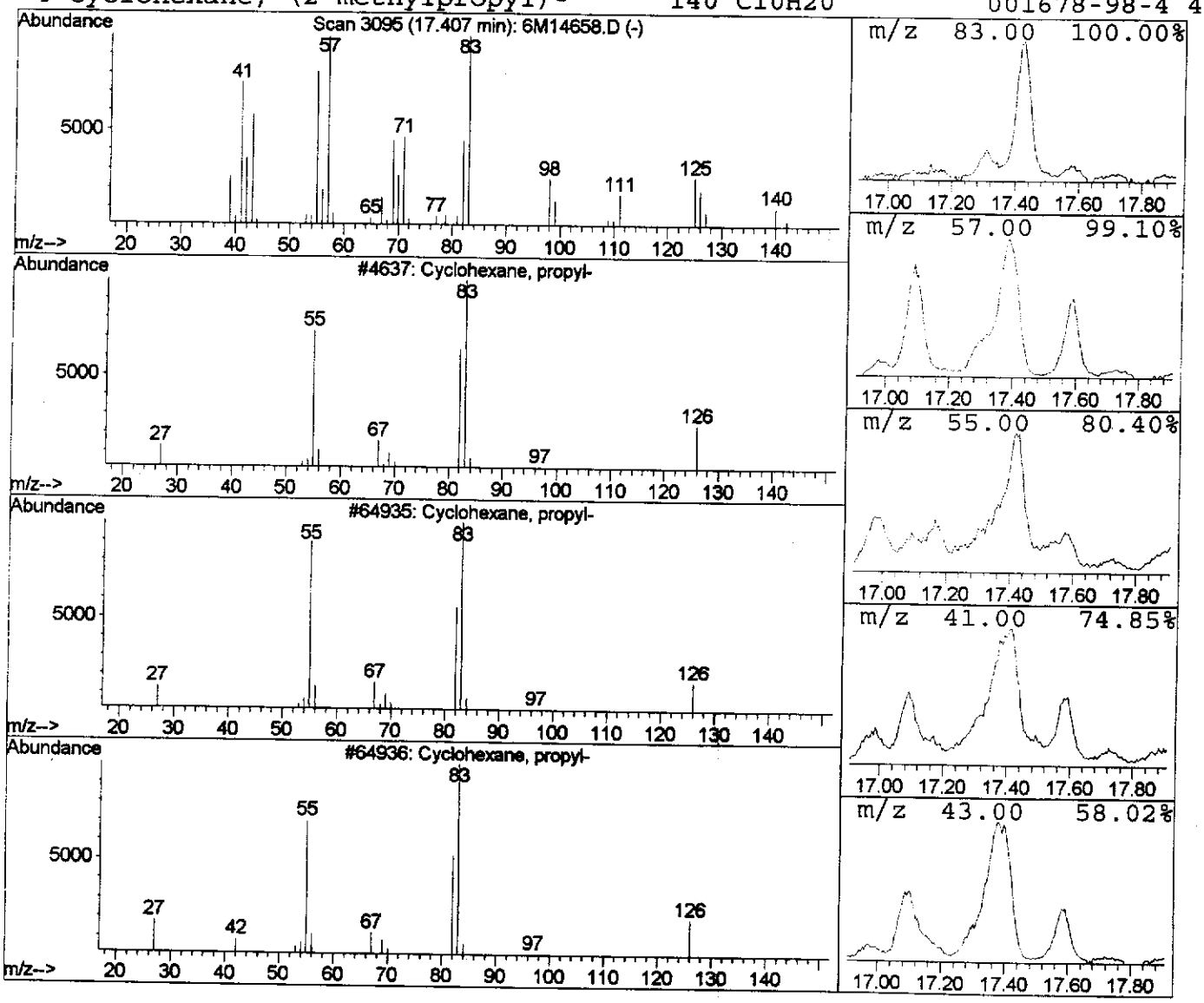

Library Search Compound Report

Data File : C:\HPCHEM\1\DA[illegible]72299\[illegible]658.D
Acq On : 22 Jul 1999 12:50
Sample : L9907381-01 A LANL 826LA 5.3G/5ML
Misc : SOLID,0.9
MS Integration Params: LSCINT.P

Vial: [illegible]
Operator: CMS
Inst : HPMS_6
Multiplr: 0.90

Quant Method : C:\HPCHEM\1\METHODS\8260BSL.M (RTE Integrator)
Title : Method 8260B_SOIL - ICAL 07/15/99
Library : C:\DATABASE\NBS75K.L

****

Peak Number 4 Octadecane, 1-chloro- Concentration Rank 5

R.T.	EstConc	Area	Relative to ISTD	R.T.
18.12	10.62 ug/Kg	722545	Chlorobenzene-d5	16.43

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qua
1	Octadecane, 1-chloro-	288	C18H37Cl	003386-33-2	72
2	Decane	142	C10H22	000124-18-5	64
3	Decane	142	C10H22	000124-18-5	64
4	Decane	142	C10H22	000124-18-5	62

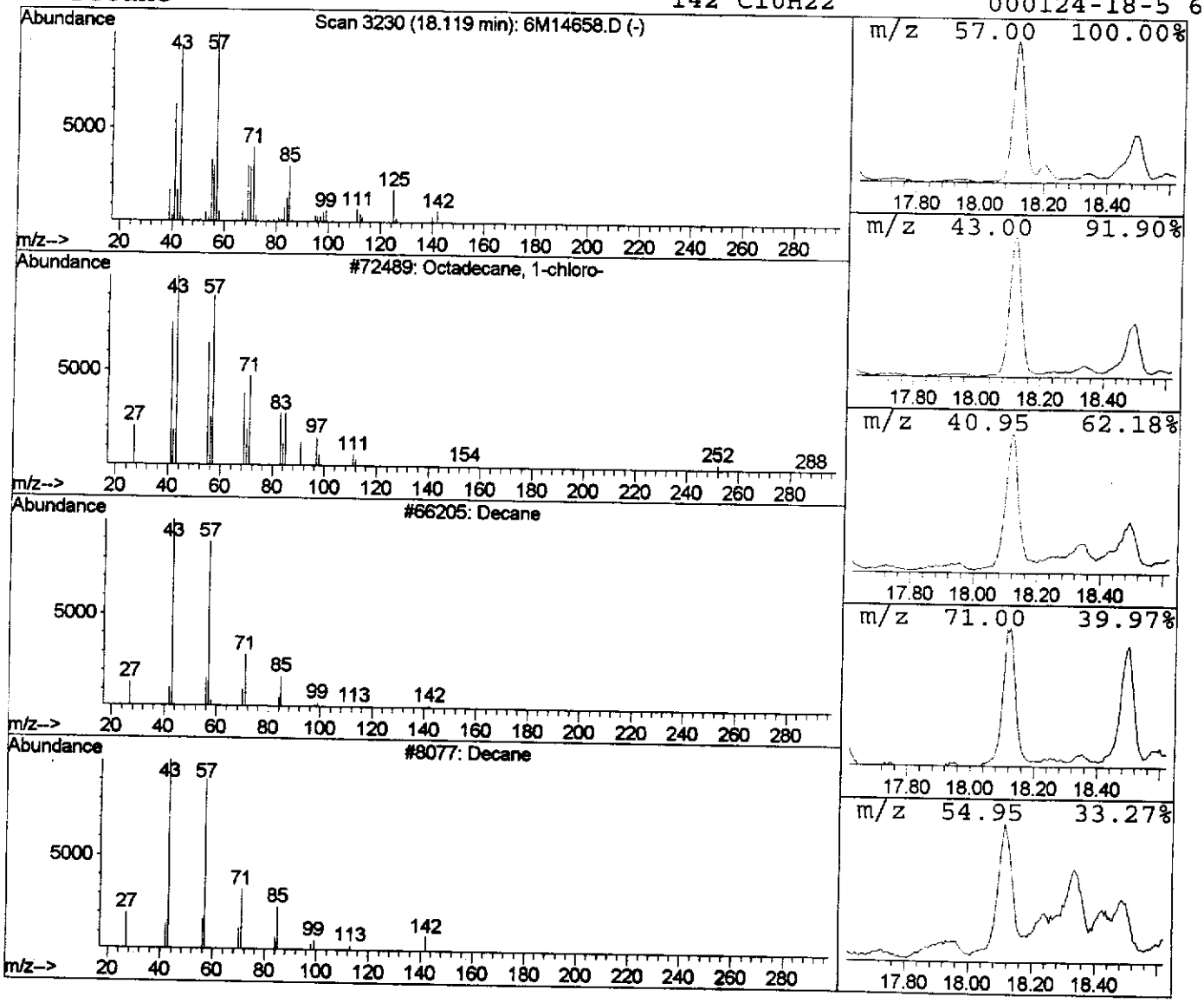

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\299\6M14658.D
Acq On : 22 Jul 1999 12:50
Sample : L9907381-01 A LANL 826LA 5.3G/5ML
Misc : SOLID,0.9
MS Integration Params: LSCINT.P

Vial: 7
Operator: CMS
Inst : HPMS_6
Multiplr: 0.90

Quant Method : C:\HPCHEM\1\METHODS\8260BSL.M (RTE Integrator)
Title : Method 8260B_SOIL - ICAL 07/15/99
Library : C:\DATABASE\NBS75K.L

****

Peak Number 5 1,2-Bis(trimethylsilyl)-4,5-di Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
19.77	30.03 ug/Kg	1556240	1,4-Dichlorobenzene-d4	20.01

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qua
1	1,2-Bis(trimethylsilyl)-4,5-dimethy	252	C14H28Si2	000000-00-0	9
2	Cyanamide, (trimethylphosphoranylid	116	C4H9N2P	066055-10-5	9
3	Silane, 1-cyclohexen-1-yltrimethyl-	154	C9H18Si	017874-17-8	5
4	Benzeneacetic acid, trimethylsilyl	208	C11H16O2Si	002078-18-4	5

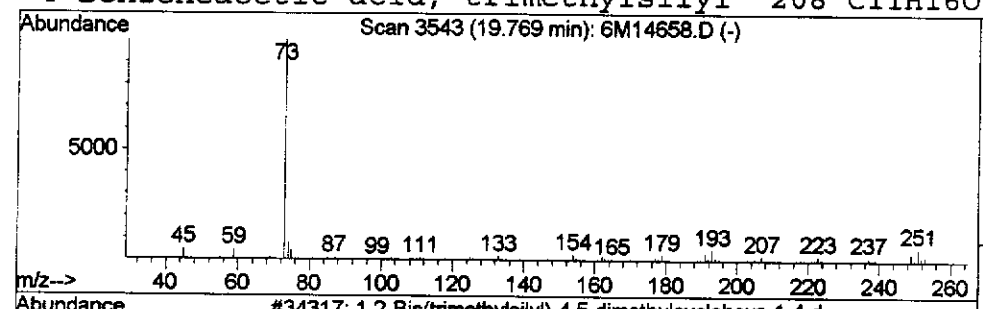

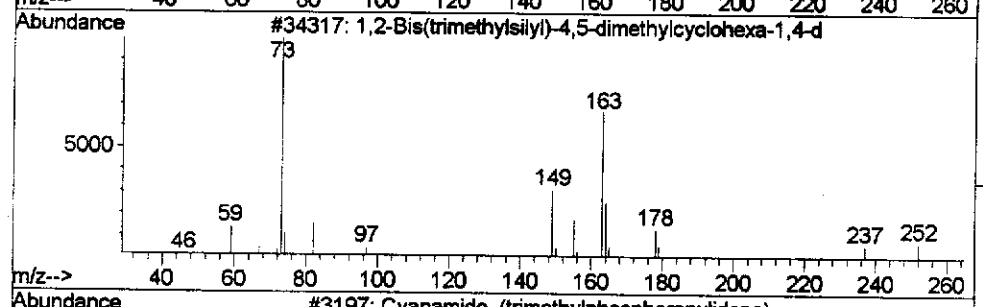

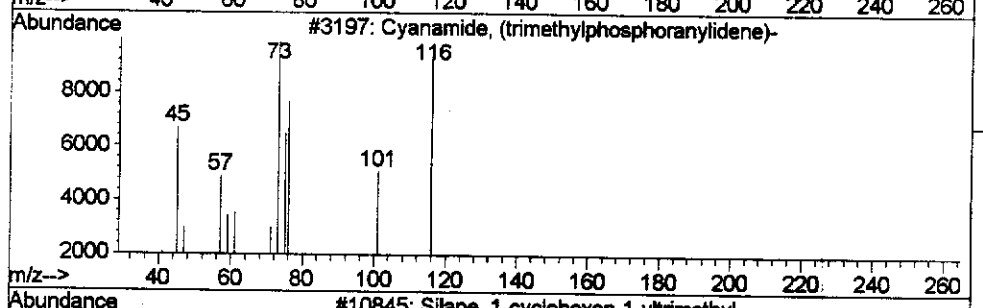

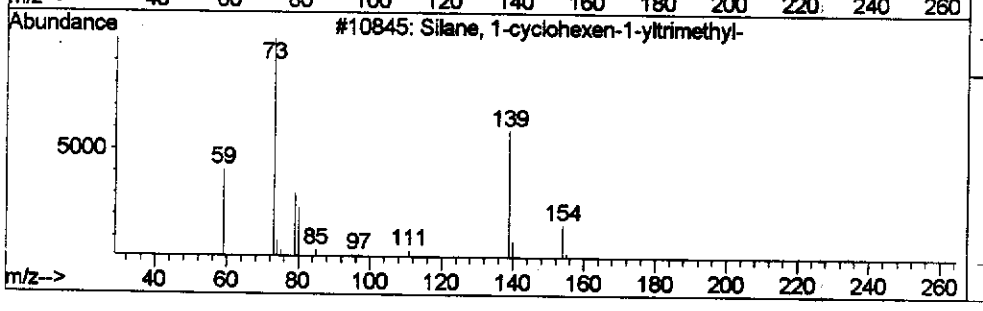

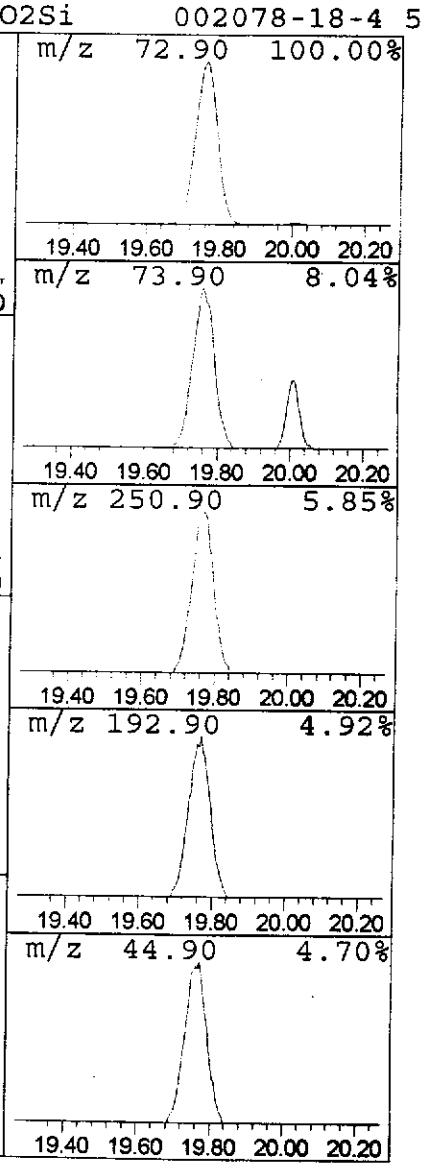

Library Search Compound Report

Data File : \HPCHEM\ ATA\072299\6M14658 Vial: 7
Acq On : 22 Jul 1999 12:50 Operator: CMS
Sample : L9907381-01 A LANL 826LA 5.3G/5ML Inst : HPMS_6
Misc : SOLID,0.9 Multiplr: 0.90
MS Integration Params: LSCINT.P

Quant Method : C:\HPCHEM\1\METHODS\8260BSL.M (RTE Integrator)
Title : Method 8260B_SOIL - ICAL 07/15/99
Library : C:\DATABASE\NBS75K.L

****

Peak Number 6 Bicyclo[2.2.1]heptane, 2-methy Concentration Rank 7

R.T.	EstConc	Area	Relative to ISTD	R.T.
20.45	5.51 ug/Kg	285419	1,4-Dichlorobenzene-d4	20.01

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qua
1	Bicyclo[2.2.1]heptane, 2-methyl-, e	110	C8H14	000872-78-6	90
2	Bicyclo[2.2.1]heptane, 2-methyl-	110	C8H14	015185-11-2	89
3	Naphthalene, decahydro-, trans-	138	C10H18	000493-02-7	81
4	Naphthalene, decahydro-, trans-	138	C10H18	000493-02-7	81

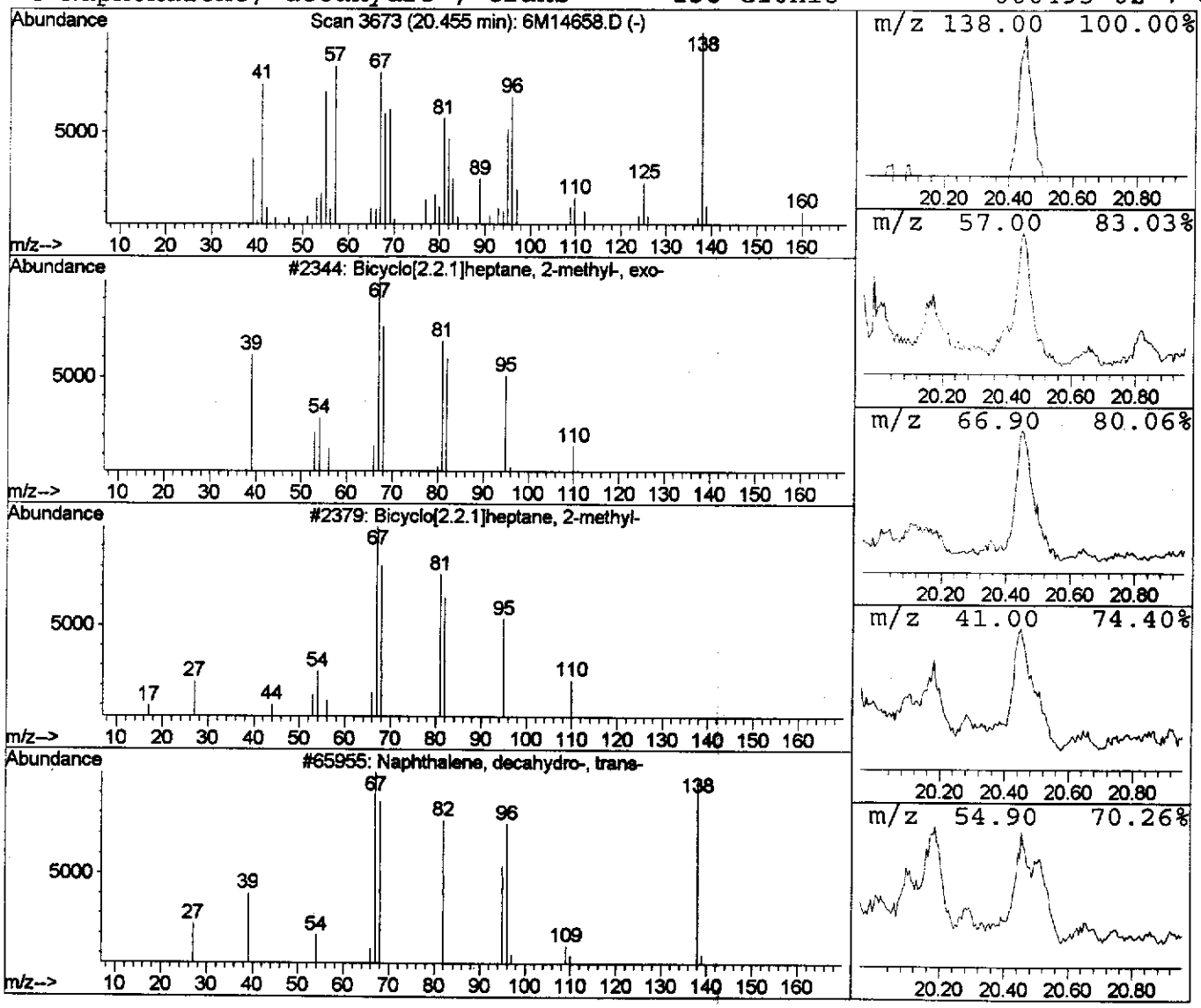

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\071299 146 D
Acq On : 22 Jul 1999 12:50
Sample : L9907381-01 A LANL 826LA 5.3G/5ML
Misc : SOLID,0.9
MS Integration Params: LSCINT.P

Vial: 7
Operator: CMS
Inst : HPMS_6
Multiplr: 0.90

Quant Method : C:\HPCHEM\1\METHODS\8260BSL.M (RTE Integrator)
Title : Method 8260B_SOIL - ICAL 07/15/99
Library : C:\DATABASE\NBS75K.L

****

Peak Number 7 Silane, trimethyl[1-methyl-2-o Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.
22.44	11.22 ug/Kg	581136	1,4-Dichlorobenzene-d4	20.01

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qua
1	Silane, trimethyl[1-methyl-2-oxo-2-	218	C9H22O2Si2	055255-93-1	36
2	Butane, 2-methyl-1,4-bis(trimethyls	248	C11H28O2Si2	000000-00-0	36
3	Ethanedioic acid, bis(trimethylsily	234	C8H18O4Si2	018294-04-7	33
4	Ethanedioic acid, bis(trimethylsily	234	C8H18O4Si2	018294-04-7	23

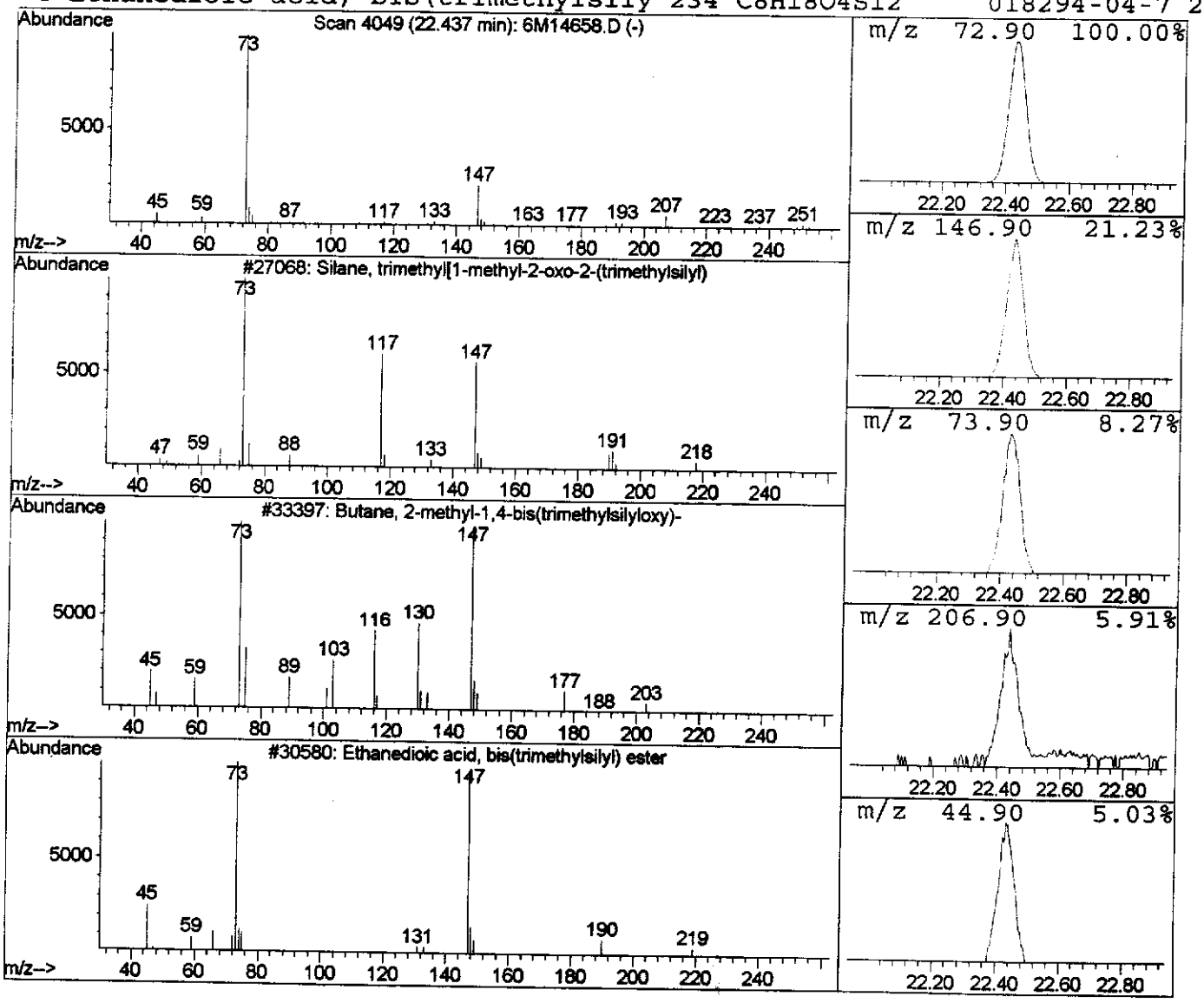

Tentatively Identified Compound (LSC) summary

Operator ID: CMS Date Acquired: 22 Jul 1999 12:50
Data File: C:\HPCHEM\1\DATA\072299\6M14658.D
Name: L9907381-01 A LANL 826LA 5.3G/5ML
Misc: SOLID,0.9
Method: C:\HPCHEM\1\METHODS\8260BSL.M (RTE Integrator)
Title: Method 8260B_SOIL - ICAL 07/15/99
Library Searched: C:\DATABASE\NBS75K.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISCon
Carbon dioxide	3.23	15.0	ug/Kg	973450	ISTD01	11.92	2926460	50
1,2-Bis(trimethylsil	17.15	31.9	ug/Kg	2172650	ISTD02	16.43	3061550	50
Cyclohexane, propyl-	17.41	5.7	ug/Kg	389708	ISTD02	16.43	3061550	50
Octadecane, 1-chloro	18.12	10.6	ug/Kg	722545	ISTD02	16.43	3061550	50
1,2-Bis(trimethylsil	19.77	30.0	ug/Kg	1556240	ISTD03	20.01	2331660	50
Bicyclo[2.2.1]heptan	20.45	5.5	ug/Kg	285419	ISTD03	20.01	2331660	50
Silane, trimethyl[1-	22.44	11.2	ug/Kg	581136	ISTD03	20.01	2331660	50

6M14658.D 8260BSL.M Thu Jul 22 14:40:18 1999 HPMS_6

Quantitation Report

Data File : C:\HPCHEM\1\DATA\072299\6M14659.D
Acq On : 22 Jul 1999 13:27
Sample : L9907381-02 A LANL 826LA 5.7G/5ML
Misc : SOLID,0.9
MS Integration Params: rteint.p
Quant Time: Jul 22 13:53 1999

Vial: 8
Operator: CMS
Inst : HPMS_6
Multiplr: 0.90

Quant Results File: 8260BSL.RES

Method : C:\HPCHEM\1\METHODS\8260BSL.M (RTE Integrator)
Title : Method 8260B_SOIL - ICAL 07/15/99
Last Update : Thu Jul 22 09:02:15 1999
Response via : Initial Calibration

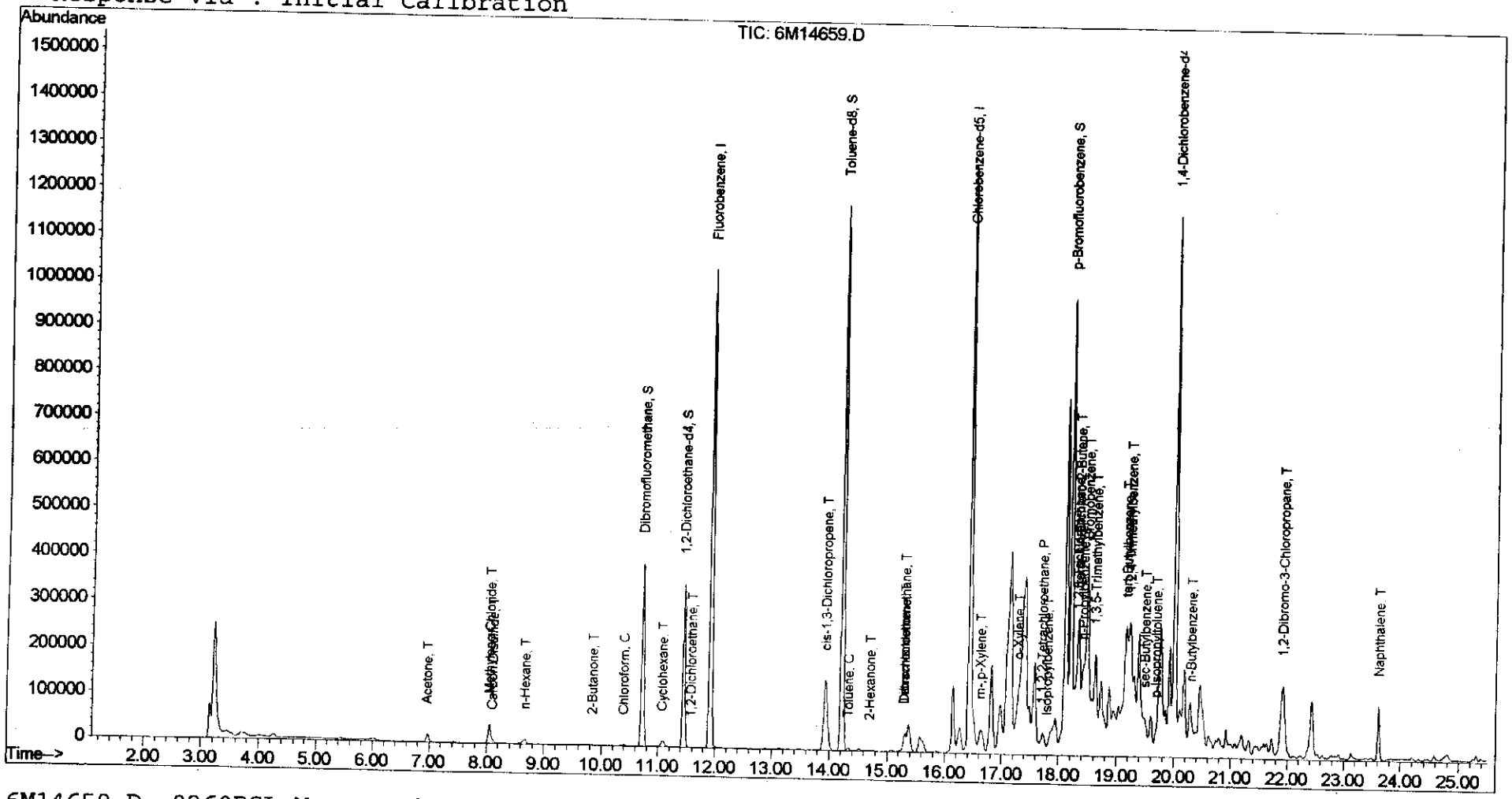

6M14659.D 8260BSL.M Thu Jul 22 13:53:43 1999 HPMS_6

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\072299\6M14659.D
Acq On : 22 Jul 1999 13:27
Sample : L9907381-02 A LANL 826LA 5.7G/5ML
Misc : SOLID,0.9
MS Integration Params: rteint.p
Quant Time: Jul 22 13:53 1999

Vial: 8
Operator: CMS
Inst : HPMS_6
Multiplr: 0.90
Quant Results File: 8260BSL.R

Quant Method : C:\HPCHEM\1\METHODS\8260BSL.M (RTE Integrator)
Title : Method 8260B_SOIL - ICAL 07/15/99
Last Update : Thu Jul 22 09:02:15 1999
Response via : Initial Calibration
DataAcq Meth : 8260BSL

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene	11.92	96	1460561	50.00 ug/Kg	0.00
44) Chlorobenzene-d5	16.43	117	1081440	50.00 ug/Kg	0.00
64) 1,4-Dichlorobenzene-d4	20.01	152	461985	50.00 ug/Kg	0.00
System Monitoring Compounds					
28) Dibromofluoromethane	10.73	111	378976	44.64 ug/Kg	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 89.28%		
33) 1,2-Dichloroethane-d4	11.45	65	371812	44.80 ug/Kg	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 89.60%		
45) Toluene-d8	14.21	98	1278507	43.29 ug/Kg	0.00
Spiked Amount 50.000	Range 81 - 117		Recovery = 86.58%		
66) p-Bromofluorobenzene	18.20	95	480547	52.45 ug/Kg	0.00
Spiked Amount 50.000	Range 74 - 121		Recovery = 104.90%		

Target Compounds					Qvalue
11) Acetone	6.97	43	40826	22.64 ug/Kg	97
15) Methylene Chloride	8.05	84	35657	4.13 ug/Kg B	82
16) Carbon Disulfide	8.11	76	9958	0.35 ug/Kg#	81
20) n-Hexane	8.68	57	8011	0.59 ug/Kg	92
23) 2-Butanone	9.86	43	2624	1.09 ug/Kg#	54
26) Chloroform	10.40	83	3289	0.22 ug/Kg#	78
30) Cyclohexane	11.07	56	4505	0.34 ug/Kg#	1
34) 1,2-Dichloroethane	11.60	62	2175	0.21 ug/Kg#	78
42) cis-1,3-Dichloropropene	13.93	75	4734	0.43 ug/Kg#	53
46) Toluene	14.33	91	9671	0.28 ug/Kg	100
50) 2-Hexanone	14.71	43	921	0.25 ug/Kg#	28
53) Dibromochloromethane	15.29	129	1302	0.17 ug/Kg#	11
59) m-,p-Xylene	16.63	106	6825	0.43 ug/Kg J	98
60) o-Xylene	17.30	106	7156	0.47 ug/Kg J	82
63) Isopropylbenzene	17.80	105	7599	0.19 ug/Kg J	92
65) 1,1,2,2-Tetrachloroethane	17.71	83	5894	0.98 ug/Kg	99
67) 1,2,3-Trichloropropane	18.32	110	2325	1.14 ug/Kg#	19
68) trans-1,4-Dichloro-2-Buten	18.34	53	13619	8.70 ug/Kg#	16
69) n-Propylbenzene	18.41	91	29319	0.78 ug/Kg# J	97
70) Bromobenzene	18.49	156	2894	0.35 ug/Kg#	1
71) 1,3,5-Trimethylbenzene	18.63	105	110891	4.16 ug/Kg J	94
75) tert-Butylbenzene	19.17	119	7276	0.27 ug/Kg#	63
76) 1,2,4-Trimethylbenzene	19.24	105	82142	2.95 ug/Kg J	99
77) sec-Butylbenzene	19.50	105	21713	0.61 ug/Kg J	98
78) p-Isopropyltoluene	19.69	119	22134	0.68 ug/Kg J	99
81) n-Butylbenzene	20.31	91	28029	1.03 ug/Kg# J	1

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\072299\6M14659.D Vial: 3
Acq On : 22 Jul 1999 13:27 Operator: CMS
Sample : L9907381-02 A LANL 826LA 5.7G/5ML Inst : HPMS_6
Misc : SOLID,0.9 Multiplr: 0.90
MS Integration Params: rteint.p
Quant Time: Jul 22 13:53 1999 Quant Results File: 8260BSL.R

Quant Method : C:\HPCHEM\1\METHODS\8260BSL.M (RTE Integrator)
Title : Method 8260B_SOIL - ICAL 07/15/99
Last Update : Thu Jul 22 09:02:15 1999
Response via : Initial Calibration
DataAcq Meth : 8260BSL

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
83)	1,2-Dibromo-3-Chloropropan	21.93	157	2806	1.79 ug/Kg#	4
86)	Naphthalene	23.62	128	133502	6.85 ug/Kg NTC	98

(#) = qualifier out of range (m) = manual integration

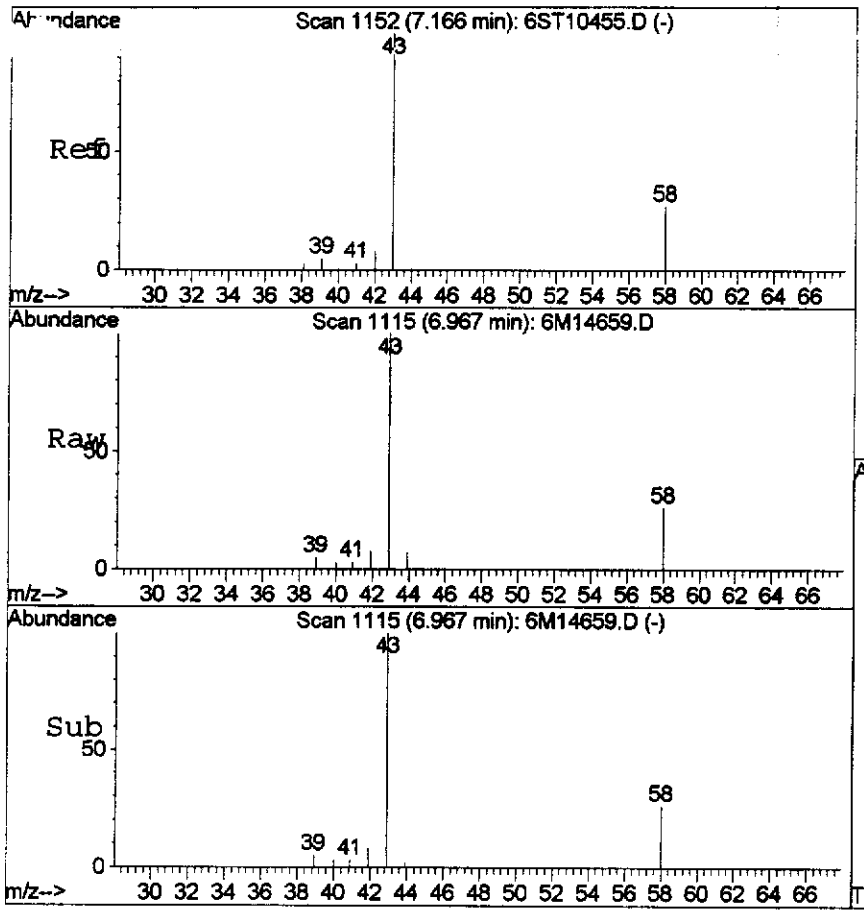

#11
Acetone
Concen: 22.64 ug/Kg
RT: 6.97 min Scan# 1115
Delta R.T. 0.01 min
Lab File: 6M14659.D
Acq: 22 Jul 1999 13:27

Tgt Ion: 43 Resp: 40826

Ion	Ratio	Lower	Upper
43	100		
58	26.8	22.9	34.3

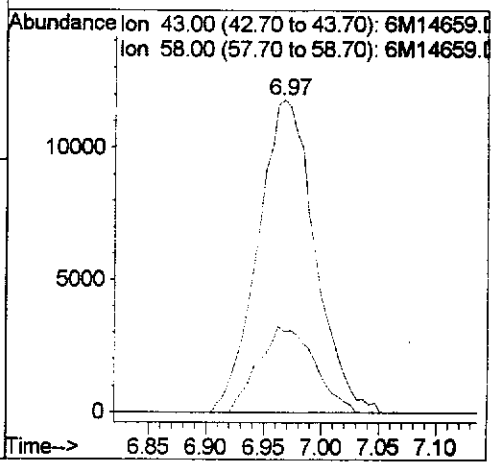

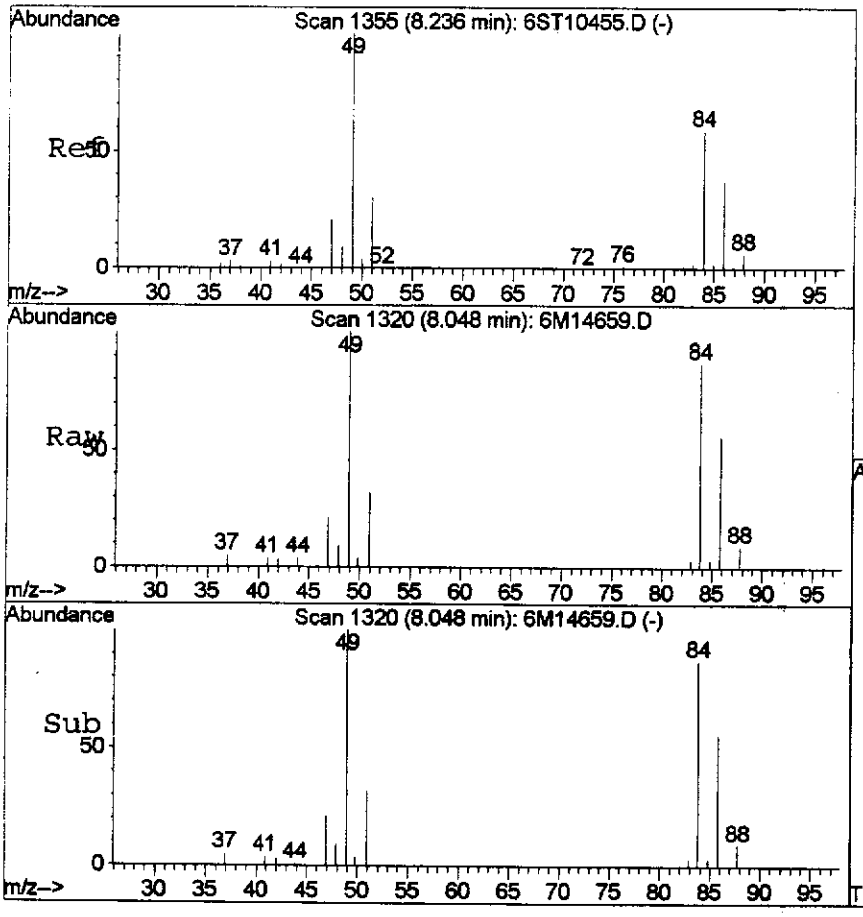

#15
Methylene Chloride
Concen: 4.13 ug/Kg
RT: 8.05 min Scan# 1320
Delta R.T. 0.00 min
Lab File: 6M14659.D
Acq: 22 Jul 1999 13:27

Tgt Ion: 84 Resp: 35657

Ion	Ratio	Lower	Upper
84	100		
49	116.5	110.3	165.5

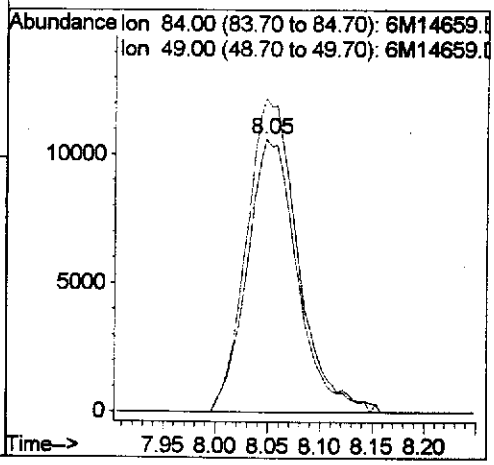

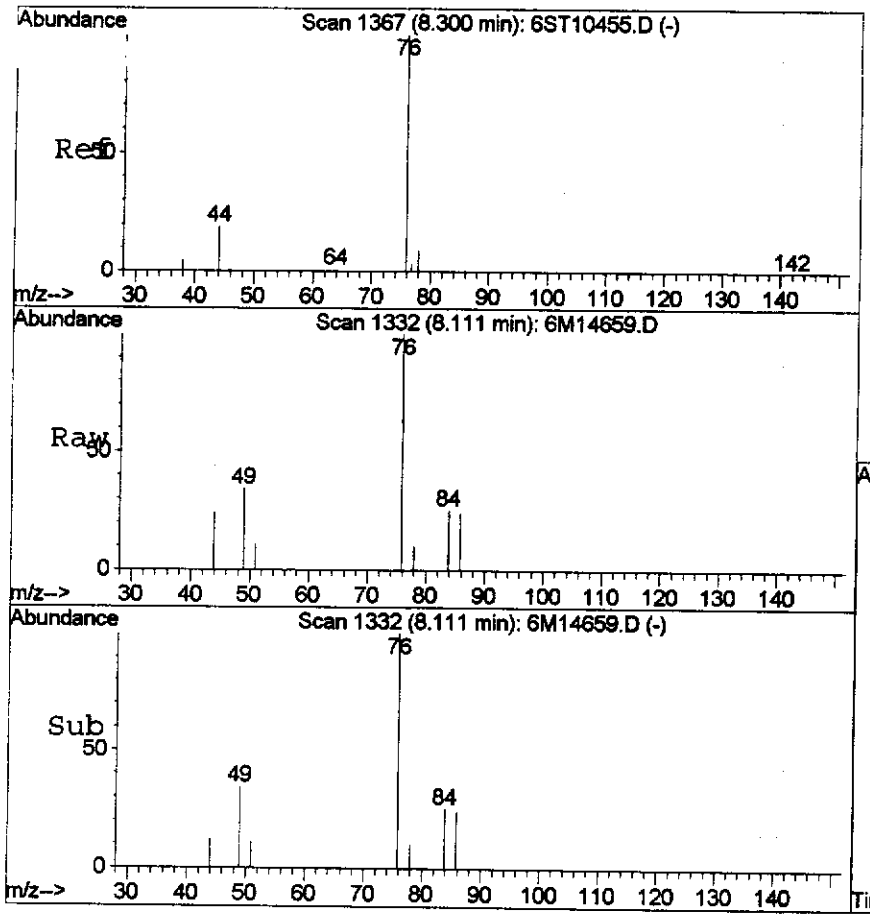

#16
Carbon Disulfide
Concen: 0.35 ug/Kg
RT: 8.11 min Scan# 1332
Delta R.T. -0.00 min
Lab File: 6M14659.D
Acq: 22 Jul 1999 13:27

Tgt Ion: 76 Resp: 9958

Ion	Ratio	Lower	Upper
76	100		
78	2.0	7.2	10.8#

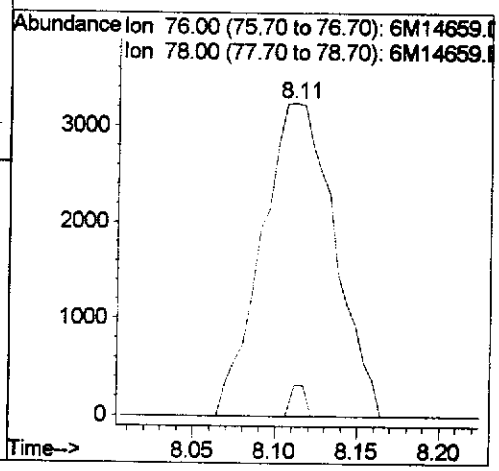

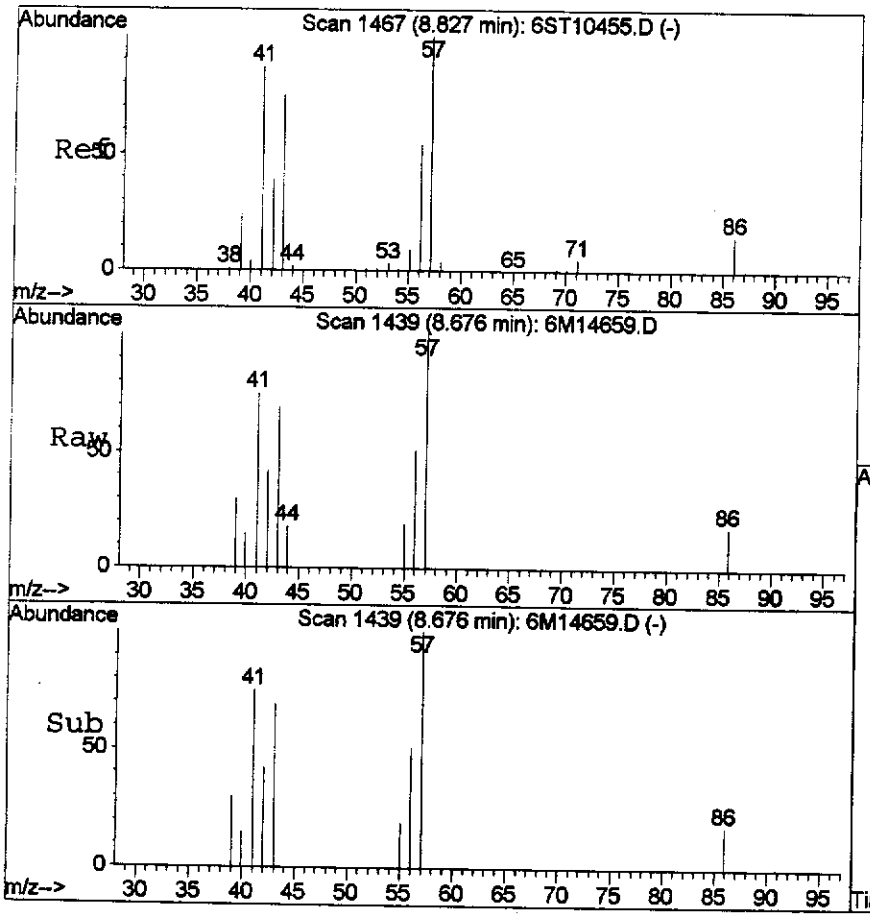

#20
n-Hexane
Concen: 0.59 ug/Kg
RT: 8.68 min Scan# 1439
Delta R.T. 0.02 min
Lab File: 6M14659.D
Acq: 22 Jul 1999 13:27

Tgt Ion: 57 Resp: 8011

Ion	Ratio	Lower	Upper
57	100		
43	77.2	56.7	85.1

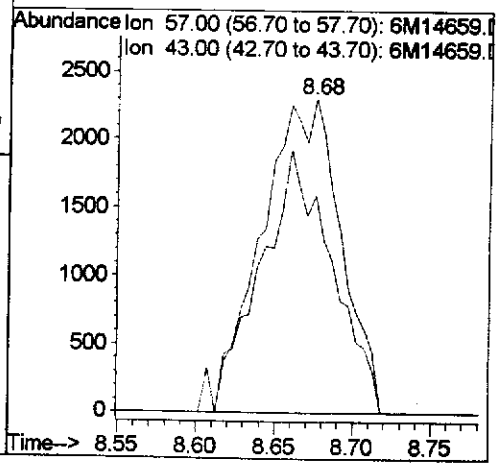

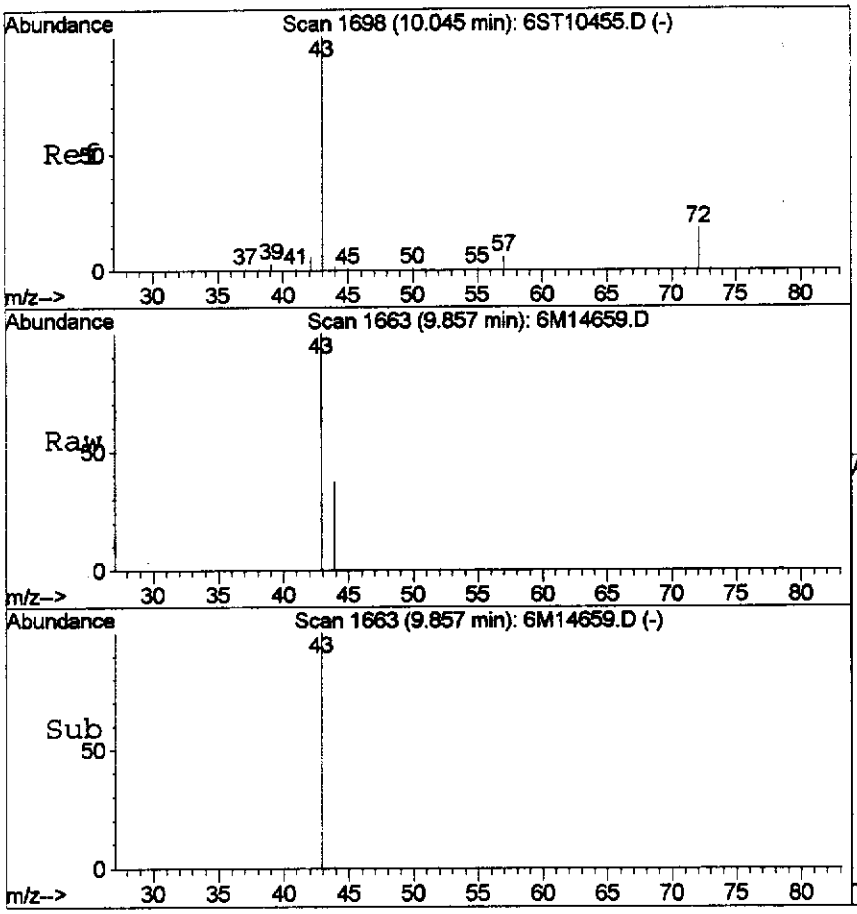

#23
2-Butanone
Concen: 1.09 ug/Kg
RT: 9.86 min Scan# 1663
Delta R.T. 0.00 min
Lab File: 6M14659.D
Acq: 22 Jul 1999 13:27

Tgt Ion: 43 Resp: 2624

Ion	Ratio	Lower	Upper
43	100		
72	0.0	17.6	26.4#

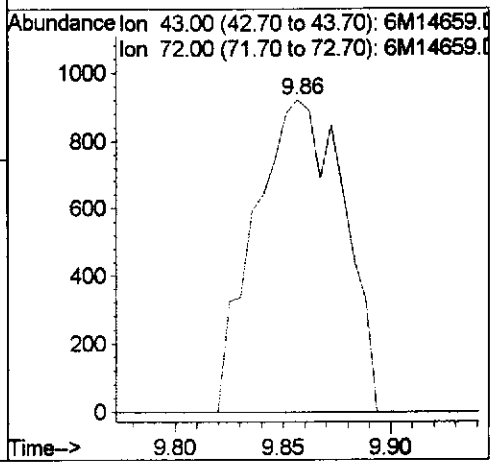

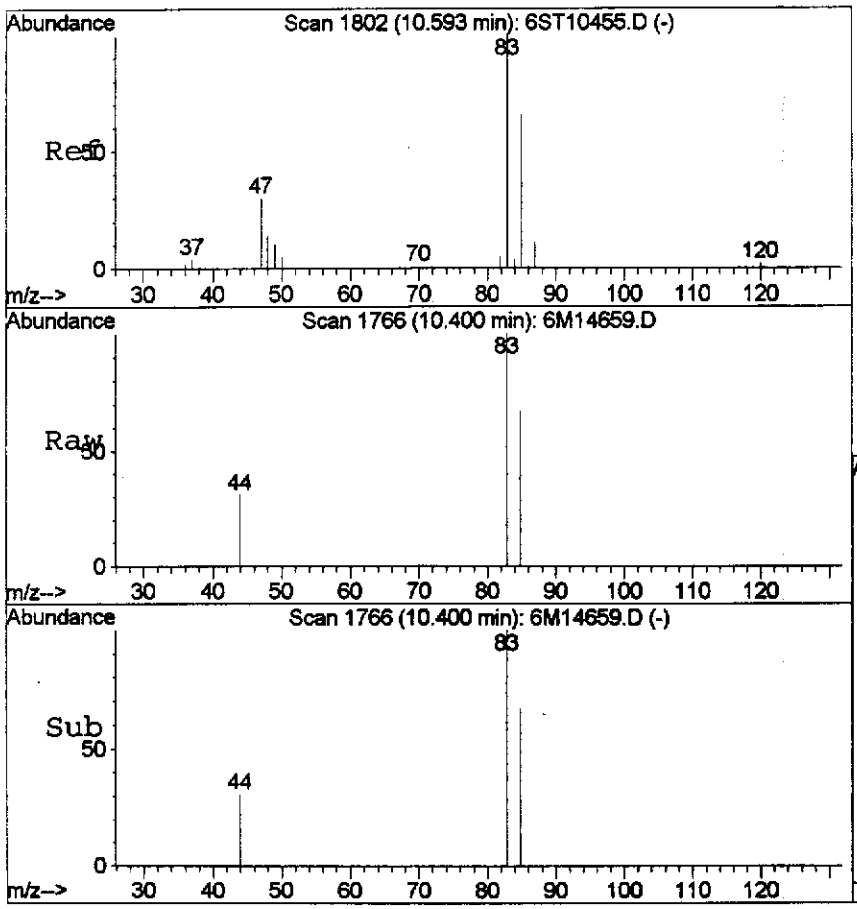

#26
Chloroform
Concen: 0.22 ug/Kg
RT: 10.40 min Scan# 1766
Delta R.T. -0.01 min
Lab File: 6M14659.D
Acq: 22 Jul 1999 13:27

Tgt Ion: 83 Resp: 3289

Ion	Ratio	Lower	Upper
83	100		
85	54.8	52.2	78.2
47	3.0	20.8	31.2#

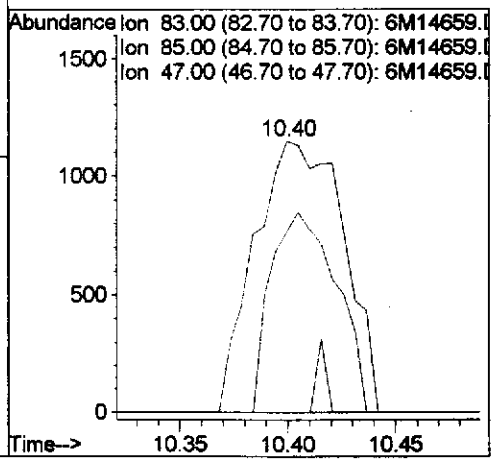

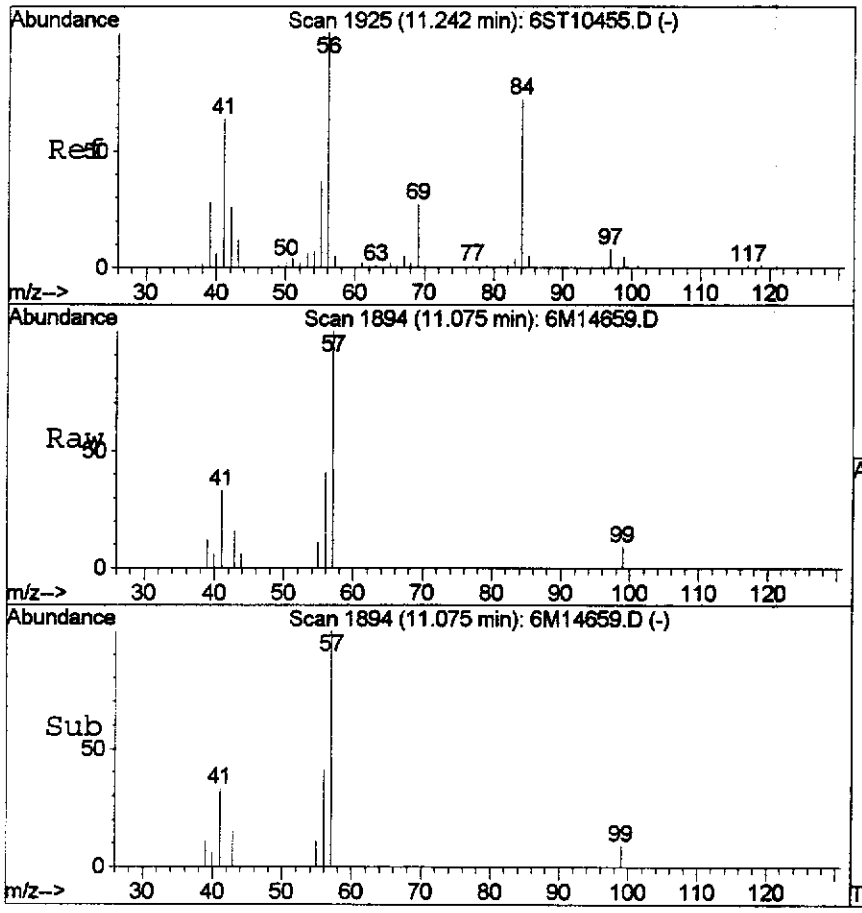

#30
Cyclohex[illegible]
Concen: 0.34 ug/Kg
RT: 11.07 min Scan# 1894
Delta R.T. 0.00 min
Lab File: 6M14659.D
Acq: 22 Jul 1999 13:27

Tgt Ion: 56 Resp: 4505

Ion	Ratio	Lower	Upper
56	100		
84	2.1	66.3	99.5#
41	198.3	50.0	75.0#

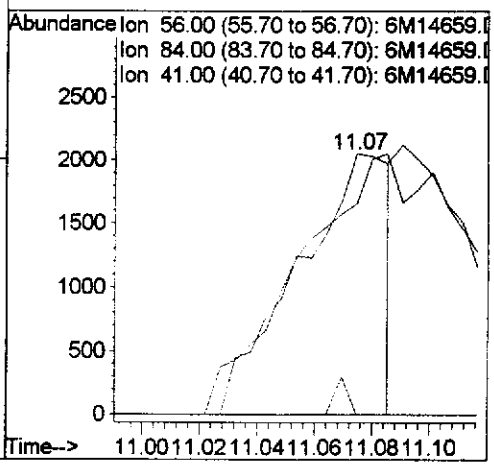

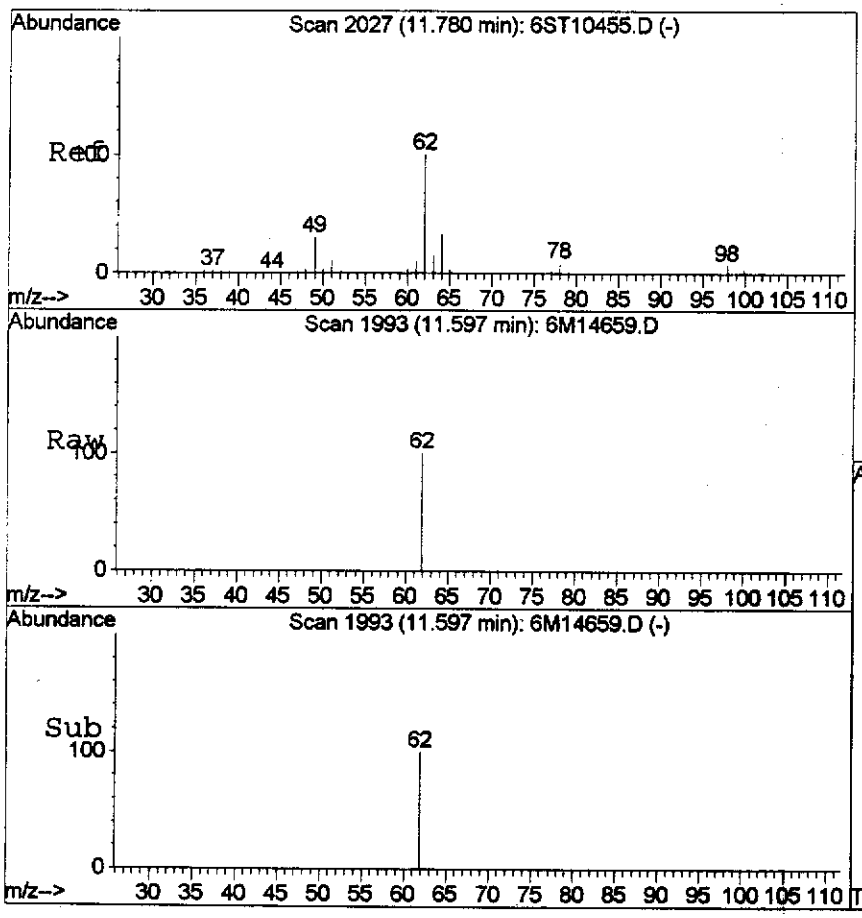

#34
1,2-Dichloroethane
Concen: 0.21 ug/Kg
RT: 11.60 min Scan# 1993
Delta R.T. 0.01 min
Lab File: 6M14659.D
Acq: 22 Jul 1999 13:27

Tgt Ion: 62 Resp: 2175

Ion	Ratio	Lower	Upper
62	100		
98	0.0	6.3	9.5#

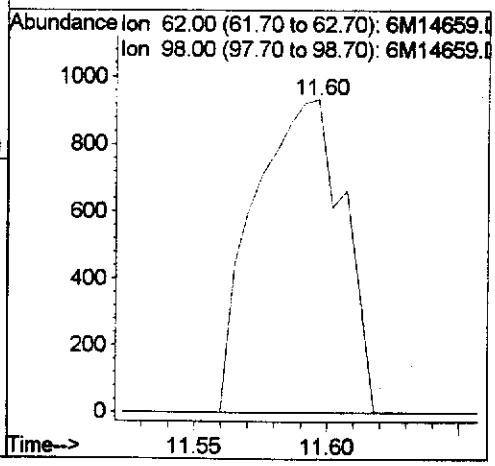

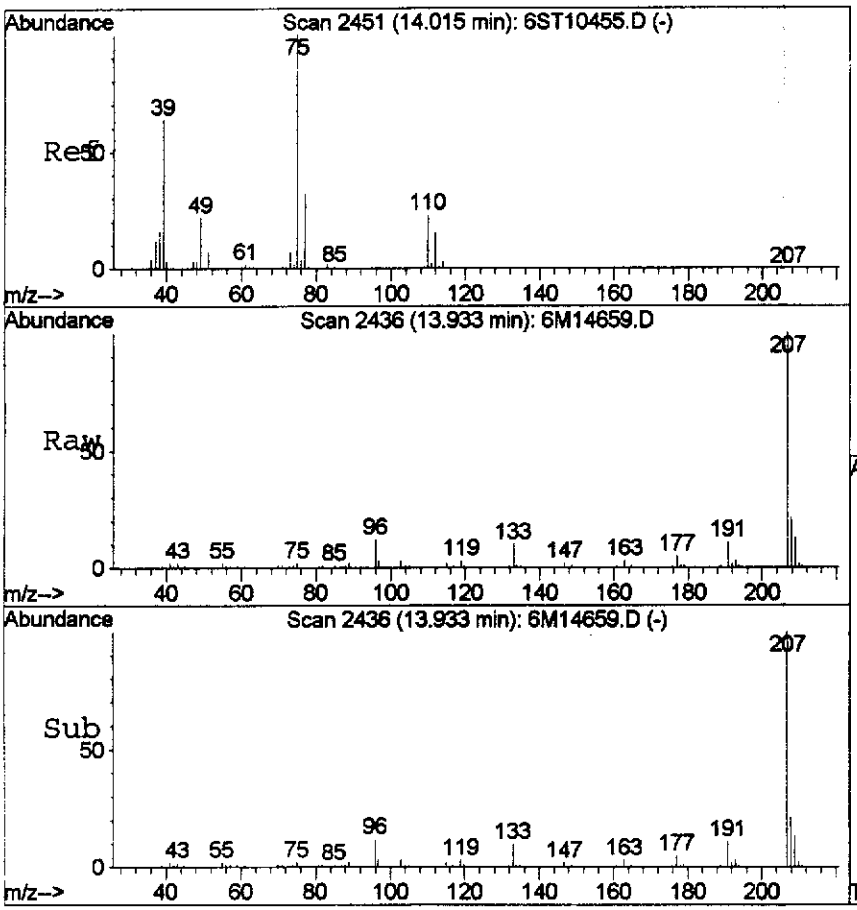

#42
c...-1,3-Dic...ropropene
Concen: 0.43 ug/Kg
RT: 13.93 min Scan# 2436
Delta R.T. 0.10 min
Lab File: 6M14659.D
Acq: 22 Jul 1999 13:27

Tgt Ion: 75 Resp: 4734

Ion	Ratio	Lower	Upper
75	100		
110	0.0	18.2	27.4#

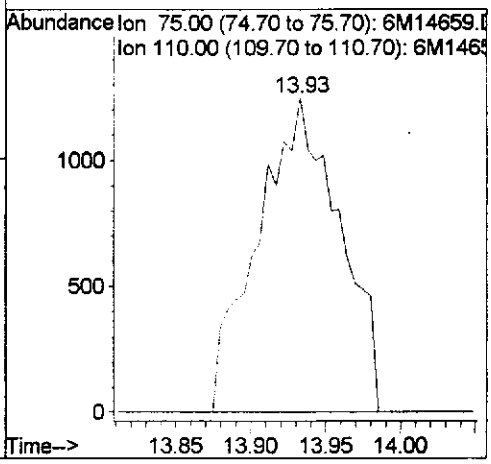

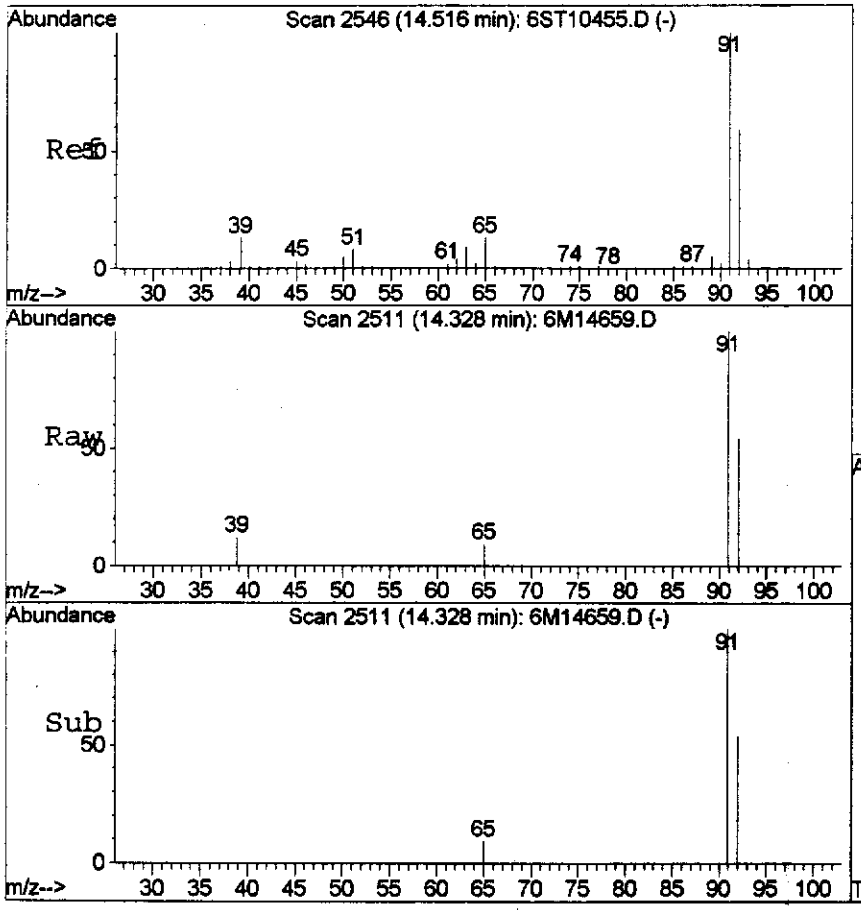

#46
Toluene
Concen: 0.28 ug/Kg
RT: 14.33 min Scan# 2511
Delta R.T. -0.00 min
Lab File: 6M14659.D
Acq: 22 Jul 1999 13:27

Tgt Ion: 91 Resp: 9671

Ion	Ratio	Lower	Upper
91	100		
92	58.6	46.9	70.3

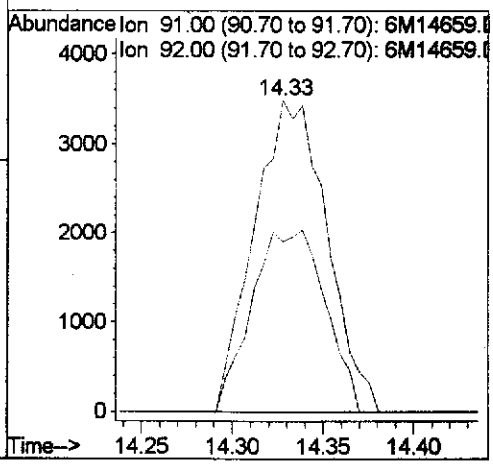

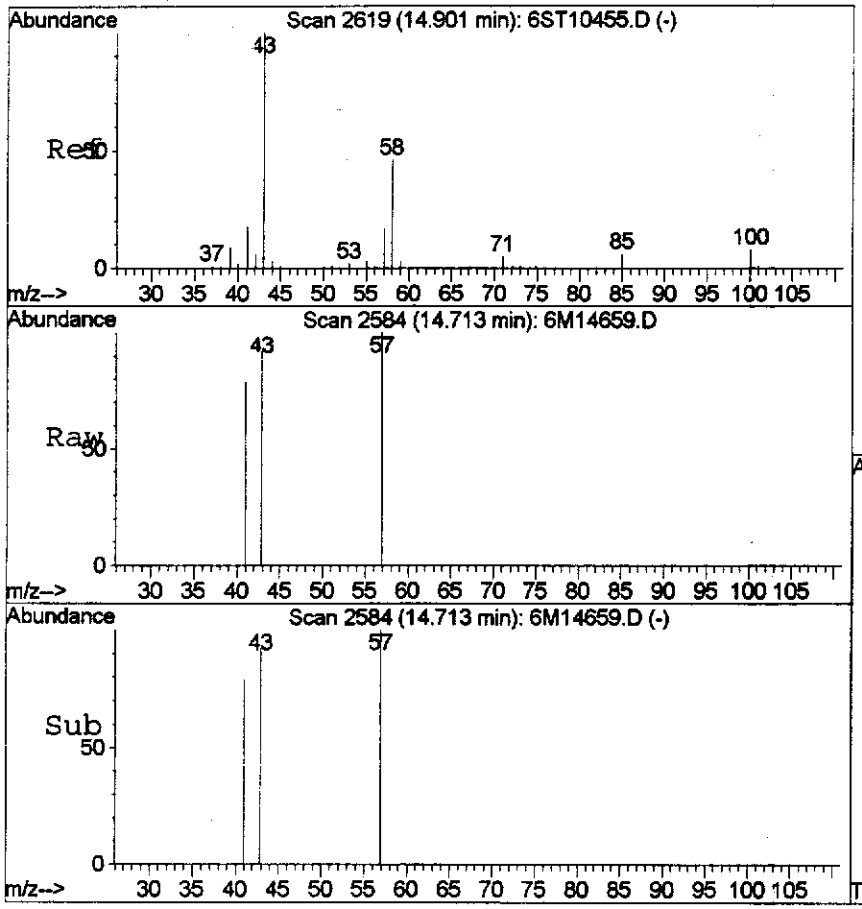

#50
2-He one
Concen: 0.25 ug/Kg
RT: 14.71 min Scan# 2584
Delta R.T. -0.00 min
Lab File: 6M14659.D
Acq: 22 Jul 1999 13:27

Tgt Ion: 43 Resp: 921

Ion	Ratio	Lower	Upper
43	100		
58	0.0	39.0	58.4#

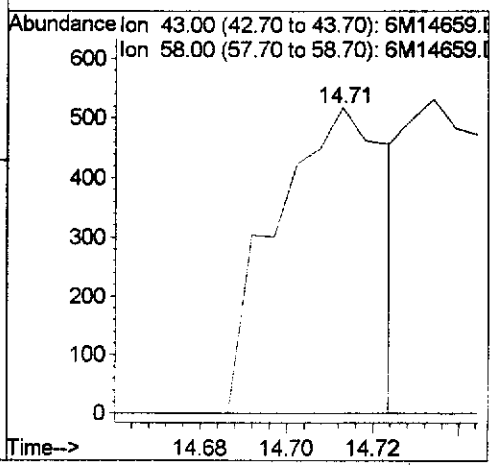

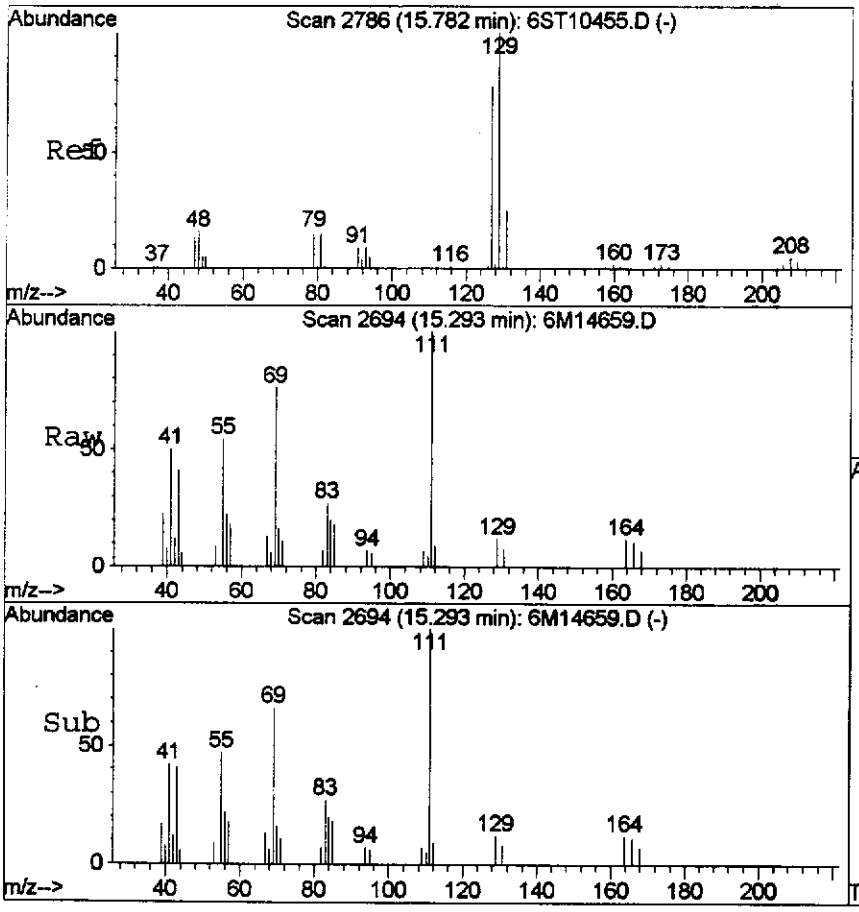

#53
Dibromochloromethane
Concen: 0.17 ug/Kg
RT: 15.29 min Scan# 2694
Delta R.T. -0.29 min
Lab File: 6M14659.D
Acq: 22 Jul 1999 13:27

Tgt Ion:129 Resp: 1302

Ion	Ratio	Lower	Upper
129	100		
127	0.0	62.1	93.1#

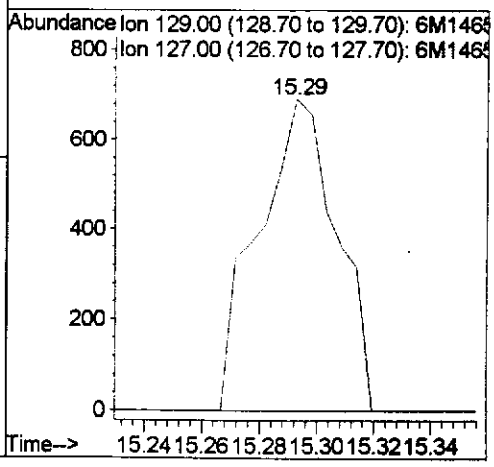

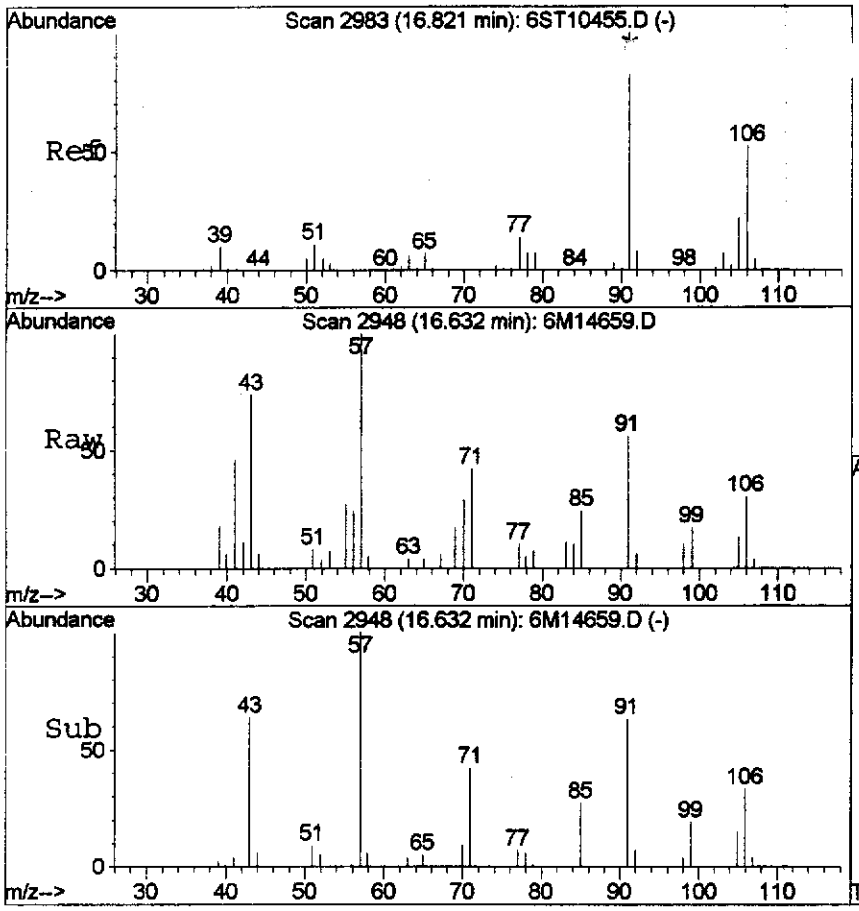

#59
m-,p-Xylene
Concen: 0.43 ug/Kg
RT: 16.63 min Scan# 2948
Delta R.T. -0.01 min
Lab File: 6M14659.D
Acq: 22 Jul 1999 13:27

Tgt Ion:106 Resp: 6825

Ion	Ratio	Lower	Upper
106	100		
91	198.4	161.5	242.3

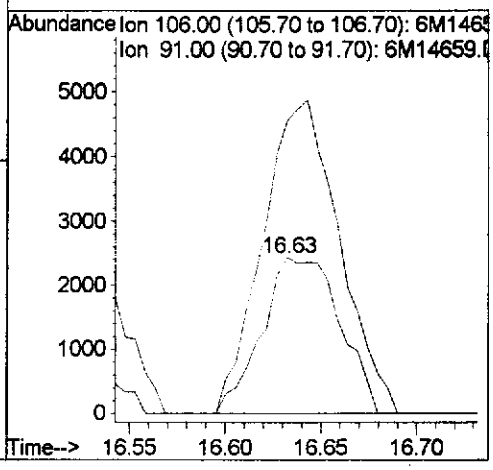

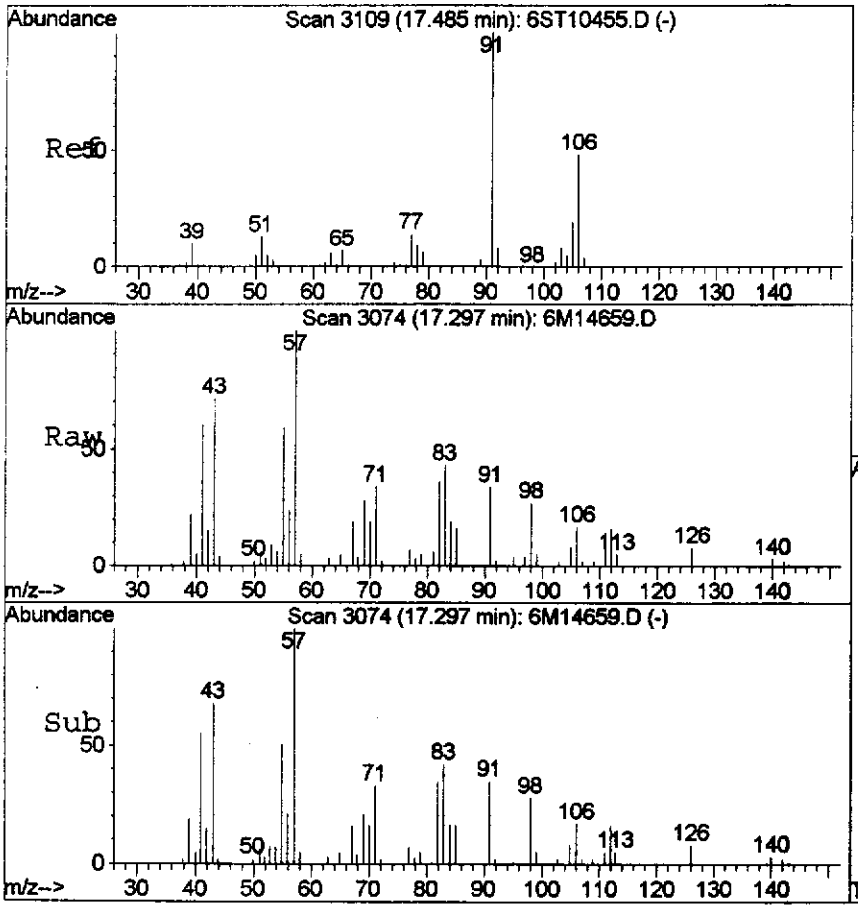

#60
o-Xylene
Concen: 0.47 ug/Kg
RT: 17.30 min Scan# 3074
Delta R.T. -0.01 min
Lab File: 6M14659.D
Acq: 22 Jul 1999 13:27

Tgt Ion:106 Resp: 7156

Ion	Ratio	Lower	Upper
106	100		
91	241.3	170.0	255.0

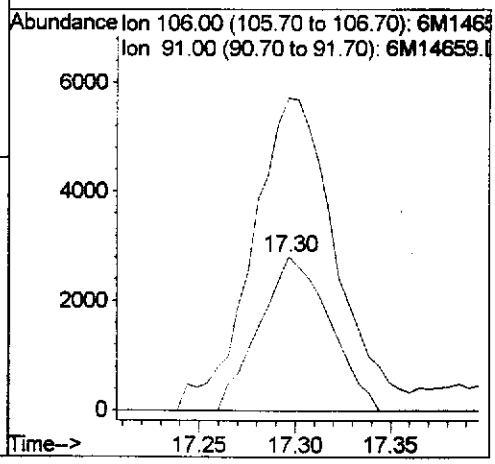

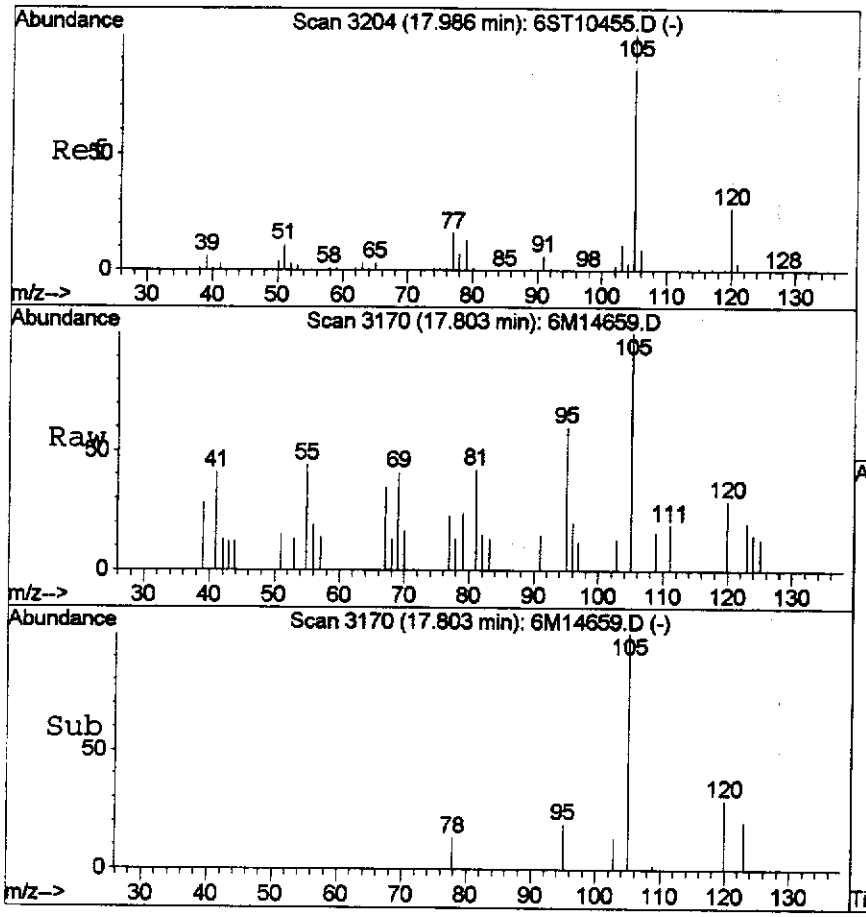

#63
Isopropylbenzene
Concen: 0.19 ug/Kg
RT: 17.80 min Scan# 3170
Delta R.T. -0.00 min
Lab File: 6M14659.D
Acq: 22 Jul 1999 13:27

Tgt Ion:105 Resp: 7599

Ion	Ratio	Lower	Upper
105	100		
120	22.9	21.7	32.5

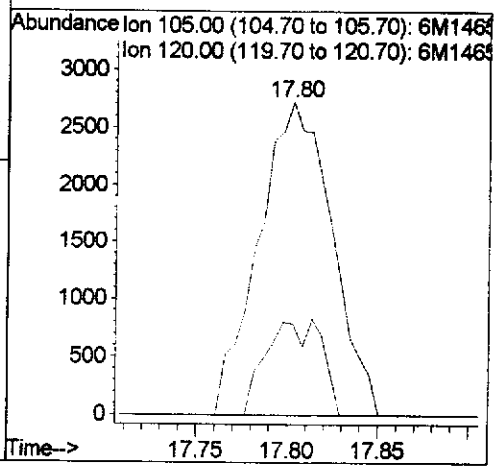

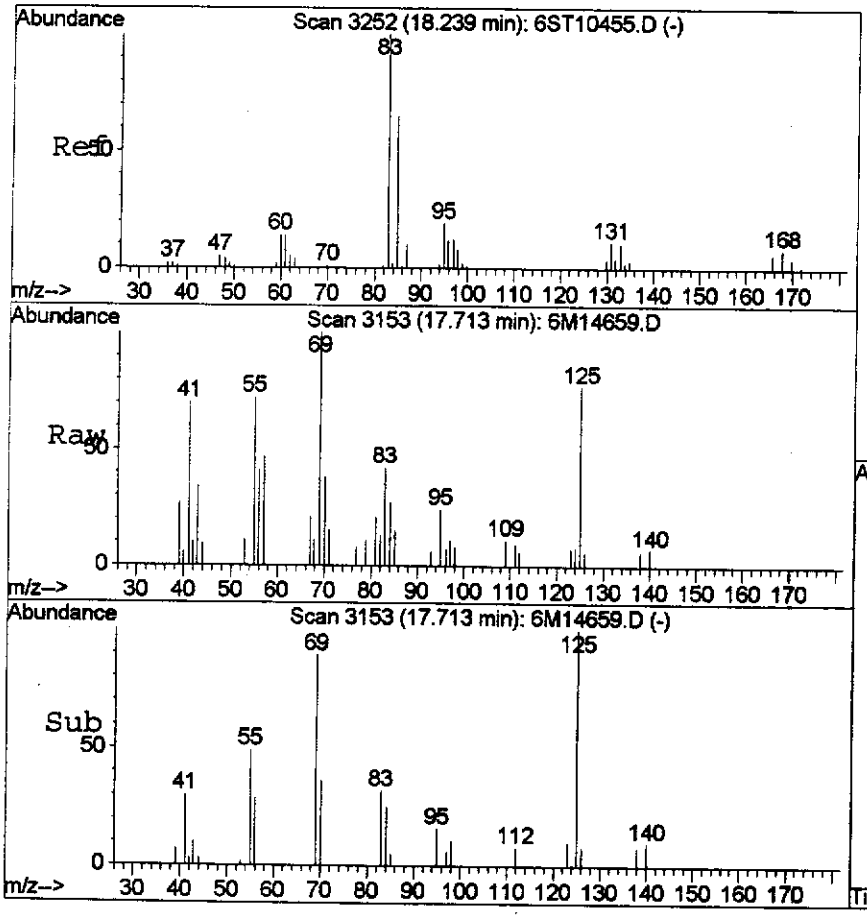

#65
1,1,2,2-Tetrachloroethane
Concen: 0.98 ug/Kg
RT: 17.71 min Scan# 3153
Delta R.T. -0.33 min
Lab File: 6M14659.D
Acq: 22 Jul 1999 13:27

Tgt Ion: 83 Resp: 5894

Ion	Ratio	Lower	Upper
83	100		
85	64.7	51.4	77.2

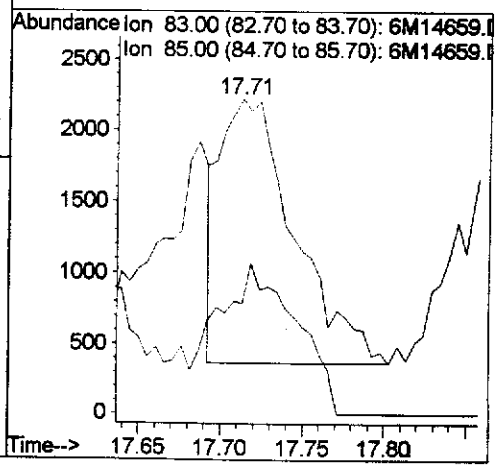

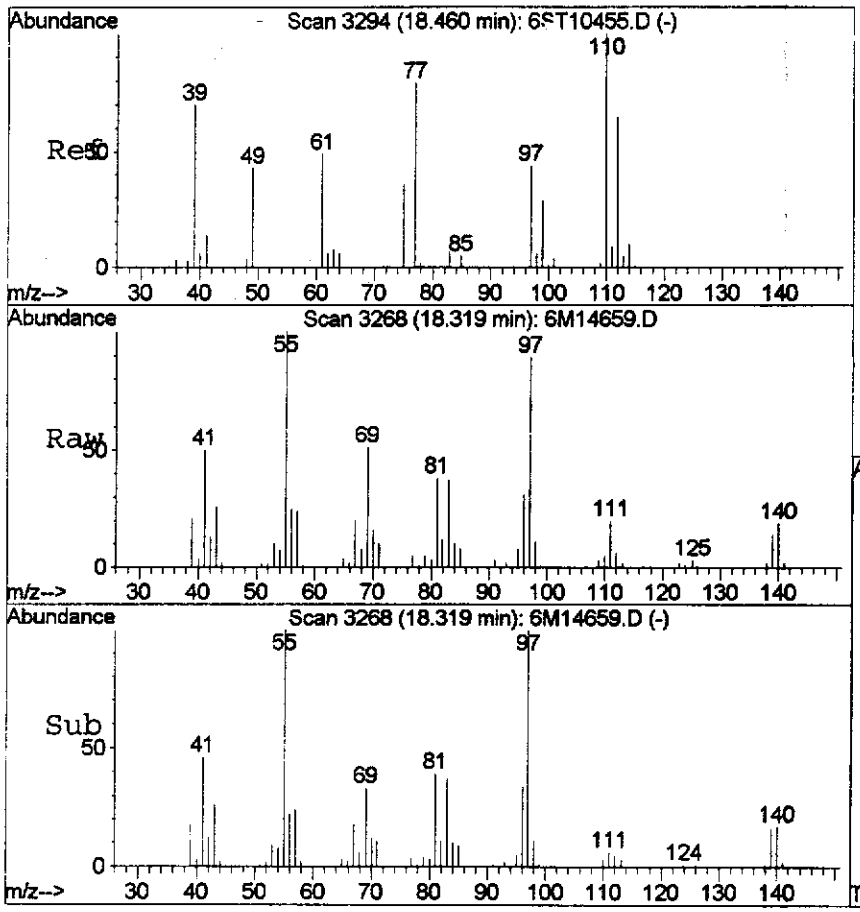

#67
1,2 - Trichloropropane
Concen: 1.14 ug/Kg
RT: 18.32 min Scan# 3268
Delta R.T. 0.05 min
Lab File: 6M14659.D
Acq: 22 Jul 1999 13:27

Tgt Ion:110 Resp: 2325

Ion	Ratio	Lower	Upper
110	100		
61	0.0	58.0	87.0#
97	0.0	39.4	59.0#

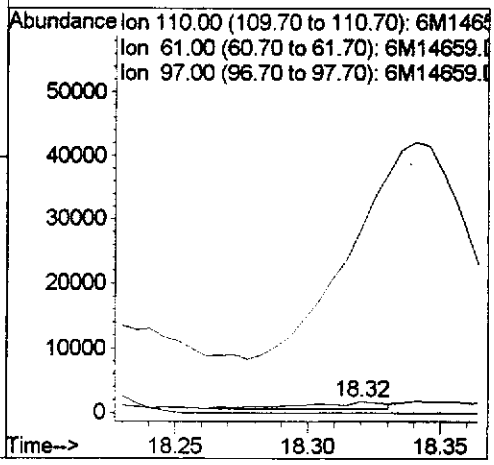

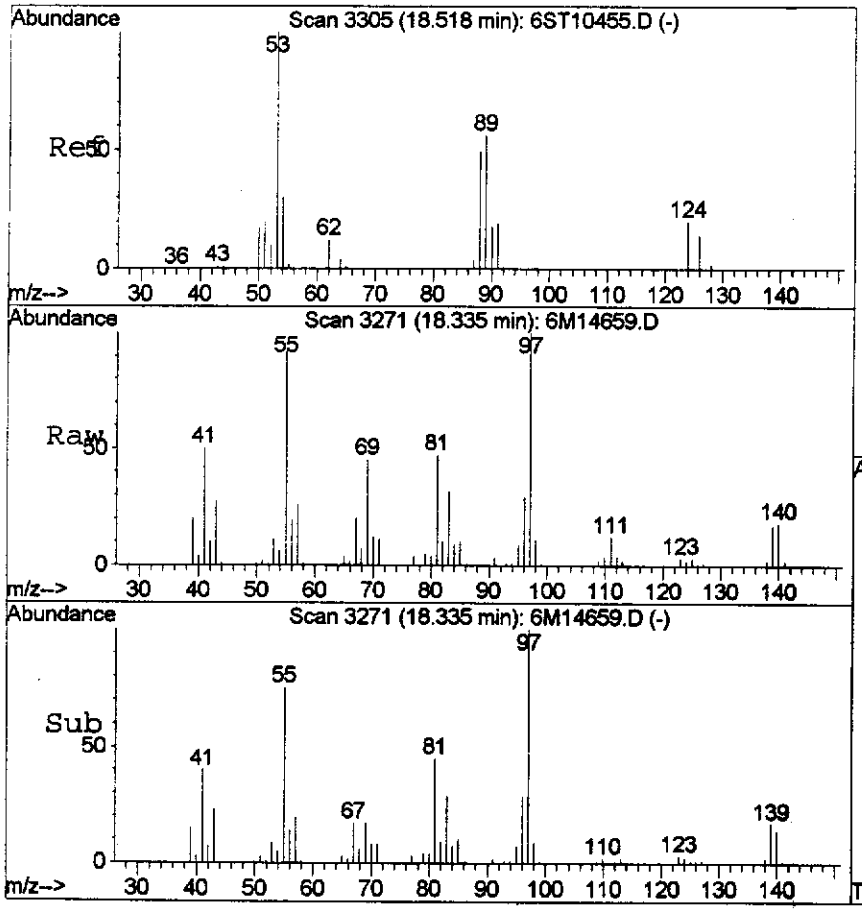

#68
trans-1,4-Dichloro-2-Buten
Concen: 8.70 ug/Kg
RT: 18.34 min Scan# 3271
Delta R.T. 0.01 min
Lab File: 6M14659.D
Acq: 22 Jul 1999 13:27

Tgt Ion: 53 Resp: 13619

Ion	Ratio	Lower	Upper
53	100		
89	0.0	54.2	81.4#

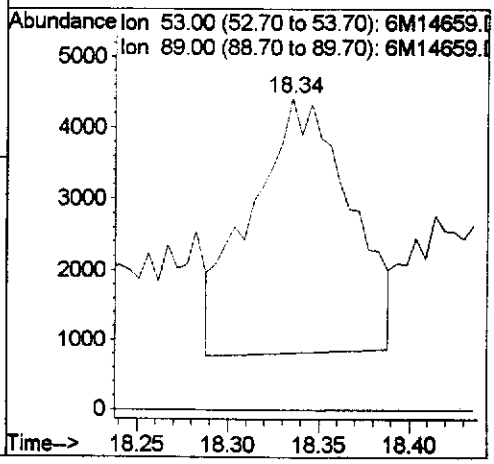

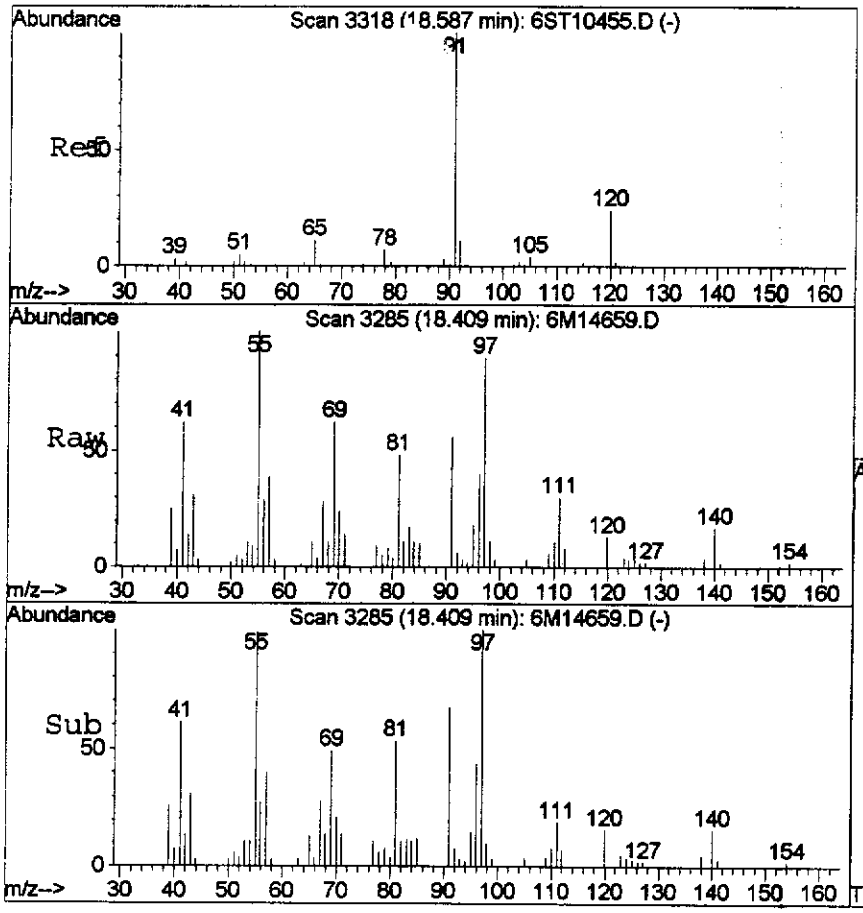

#69
n propylbenzene
Concen: 0.78 ug/Kg
RT: 18.41 min Scan# 3285
Delta R.T. 0.00 min
Lab File: 6M14659.D
Acq: 22 Jul 1999 13:27

Tgt Ion: 91 Resp: 29319

Ion	Ratio	Lower	Upper
91	100		
120	22.0	18.4	27.6
105	0.0	3.0	4.4#

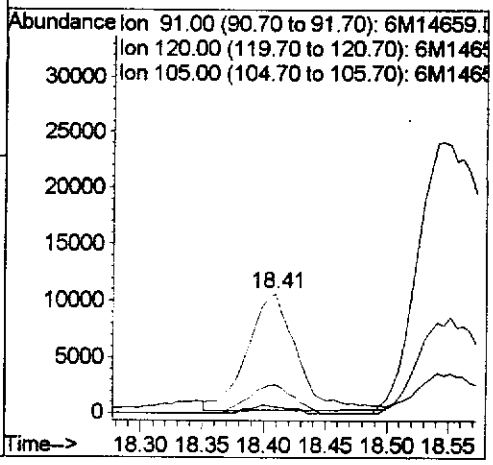

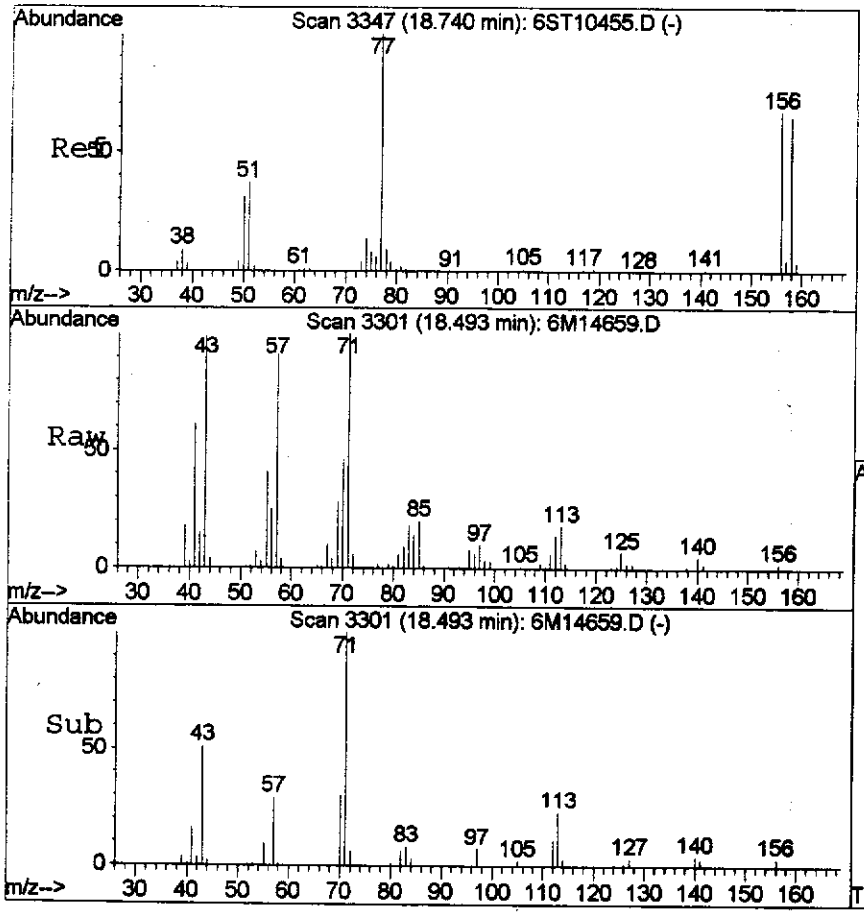

#70
Bromobenzene
Concen: 0.35 ug/Kg
RT: 18.49 min Scan# 3301
Delta R.T. -0.05 min
Lab File: 6M14659.D
Acq: 22 Jul 1999 13:27

Tgt Ion:156 Resp: 2894

Ion	Ratio	Lower	Upper
156	100		
158	0.0	77.7	116.5#

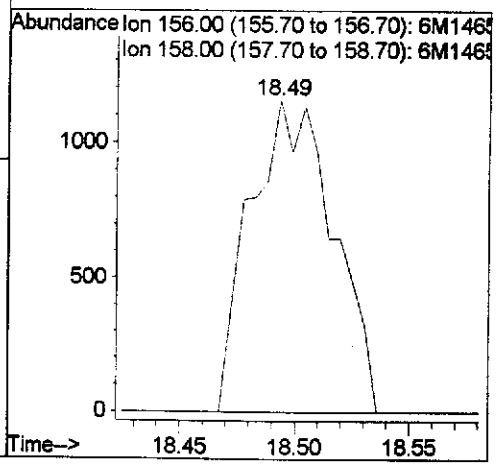

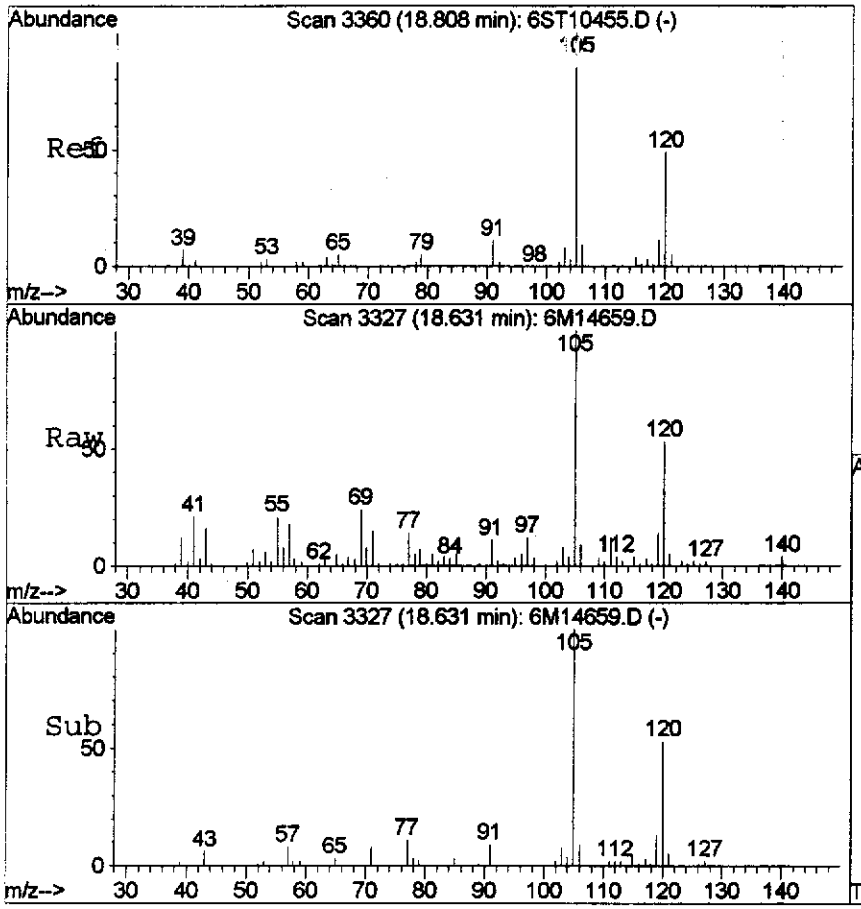

#71
1 3,5-Trimethylbenzene
Concen: 4.16 ug/Kg
RT: 18.63 min Scan# 3327
Delta R.T. -0.00 min
Lab File: 6M14659.D
Acq: 22 Jul 1999 13:27

Tgt Ion:105 Resp: 110891

Ion	Ratio	Lower	Upper
105	100		
120	53.6	39.4	59.0

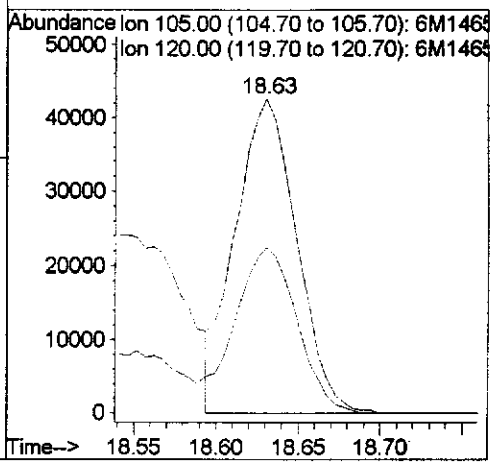

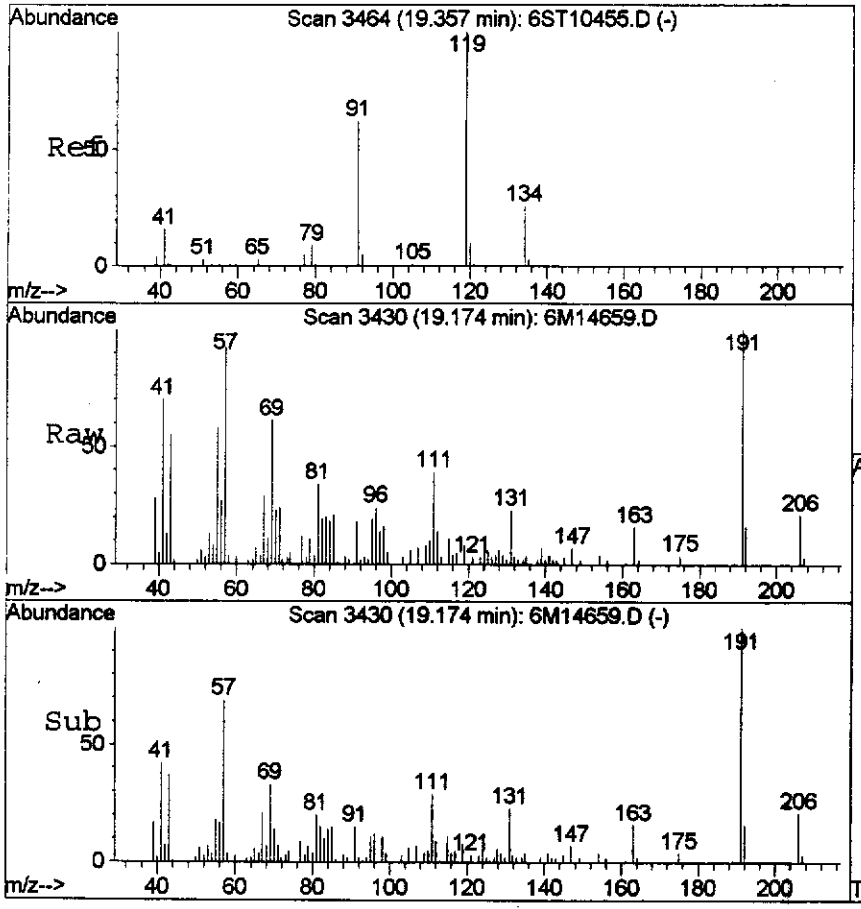

#75
tert-Butylbenzene
Concen: 0.27 ug/Kg
RT: 19.17 min Scan# 3430
Delta R.T. -0.01 min
Lab File: 6M14659.D
Acq: 22 Jul 1999 13:27

Tgt Ion:119 Resp: 7276

Ion	Ratio	Lower	Upper
119	100		
134	6.4	19.7	29.5#

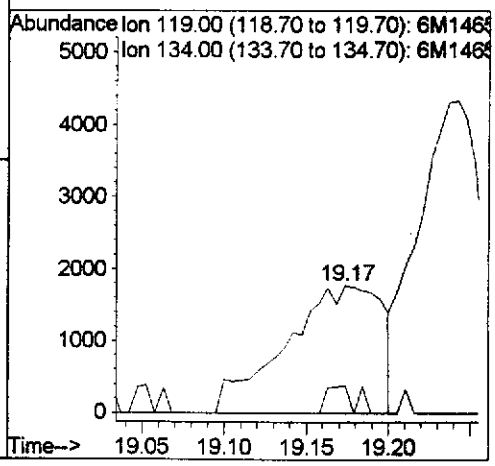

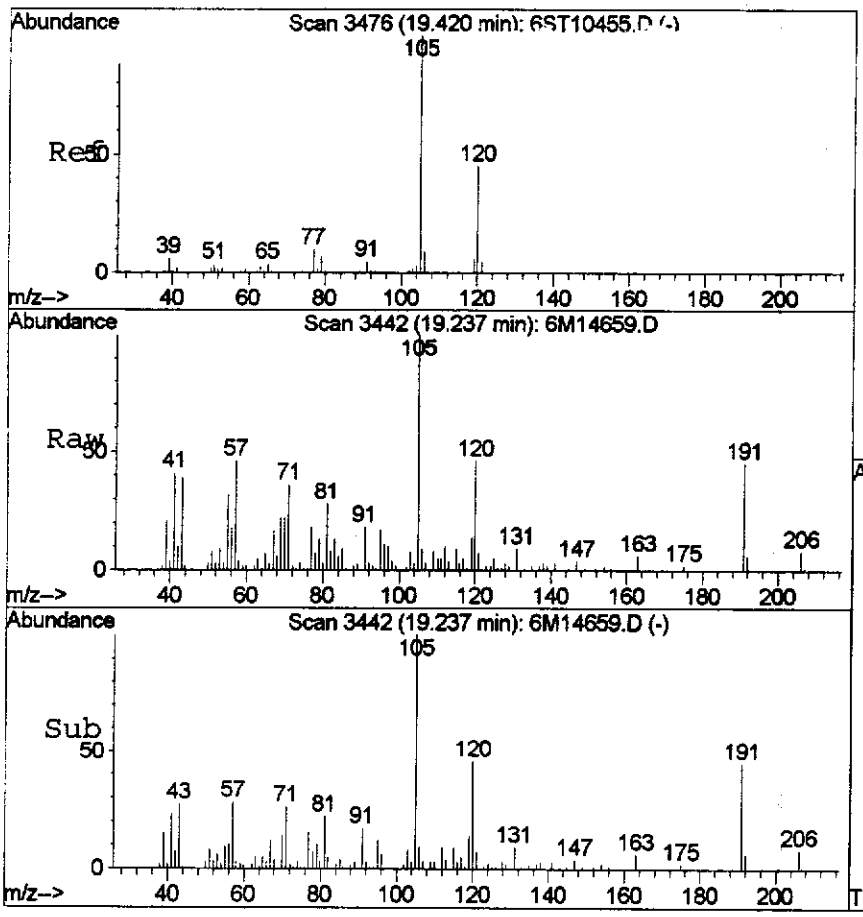

#76
1,2,4-Trimethylbenzene
Concen: 2.95 ug/Kg
RT: 19.24 min Scan# 3442
Delta R.T. -0.01 min
Lab File: 6M14659.D
Acq: 22 Jul 1999 13:27

Tgt Ion:105 Resp: 82142

Ion	Ratio	Lower	Upper
105	100		
120	47.1	37.0	55.6

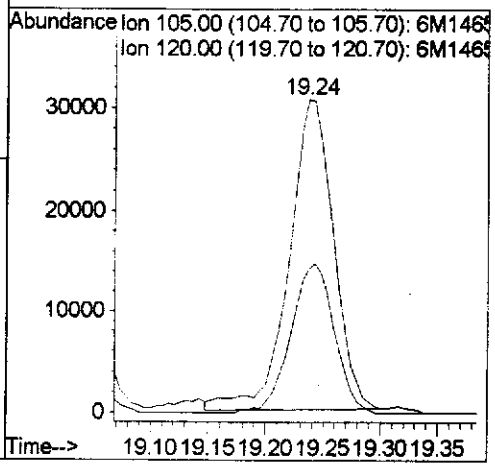

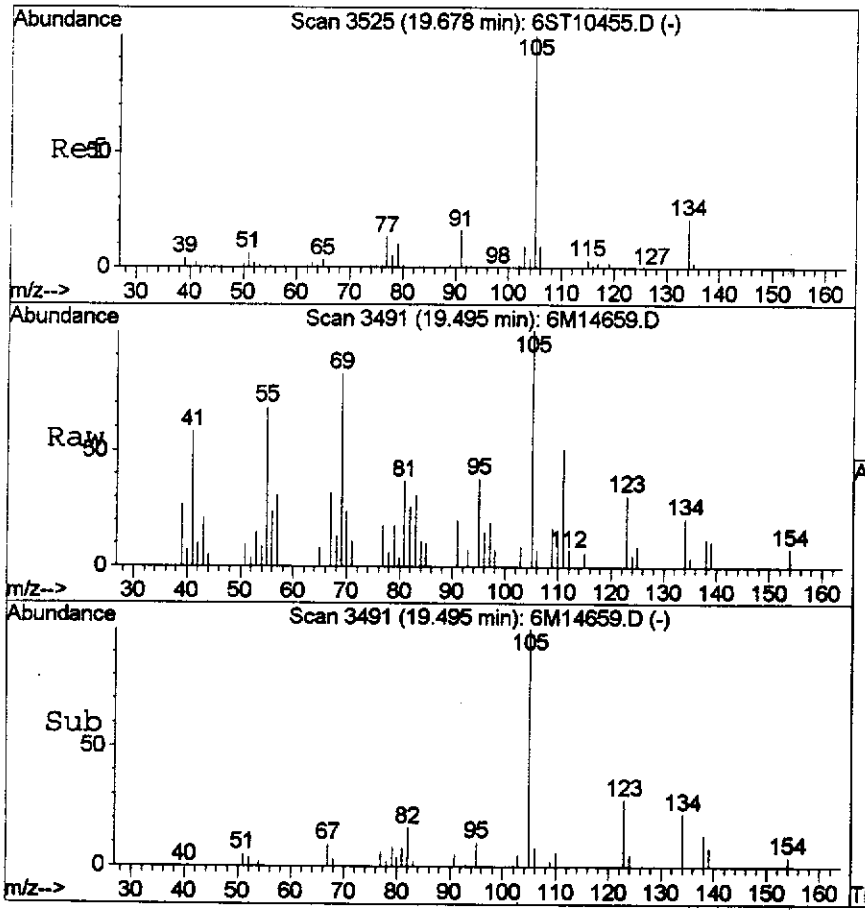

#77
sec-Butylbenzene
Concen: 0.61 ug/Kg
RT: 19.50 min Scan# 3491
Delta R.T. -0.01 min
Lab File: 6M14659.D
Acq: 22 Jul 1999 13:27

Tgt Ion:105 Resp: 21713

Ion	Ratio	Lower	Upper
105	100		
134	19.2	16.2	24.4

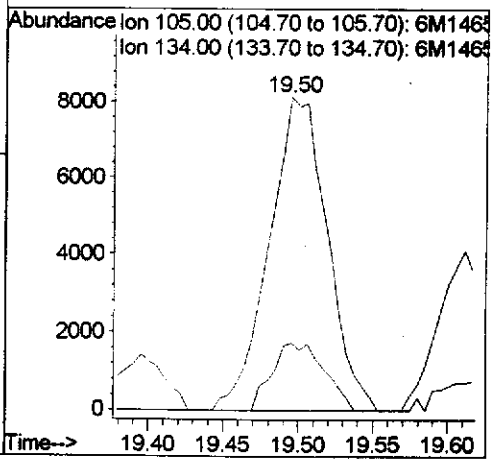

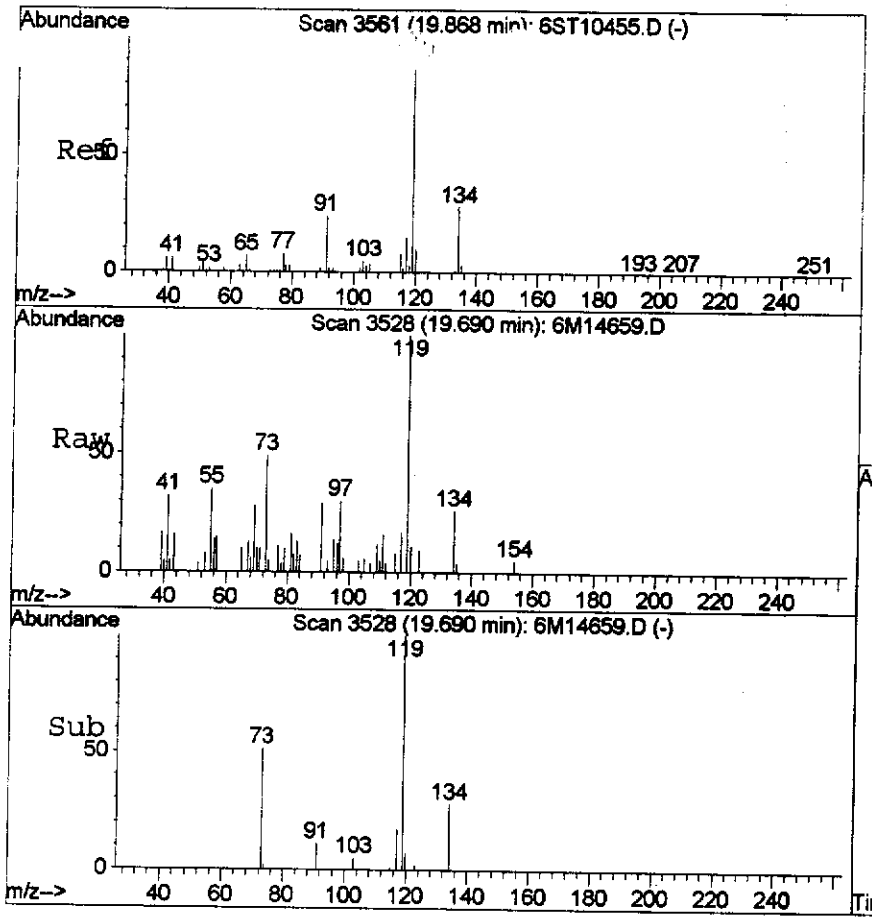

#78
p-Isopropyltoluene
Concen: 0.68 ug/Kg
RT: 19.69 min Scan# 3528
Delta R.T. -0.00 min
Lab File: 6M14659.D
Acq: 22 Jul 1999 13:27

Tgt Ion:119 Resp: 22134

Ion	Ratio	Lower	Upper
119	100		
134	28.0	21.8	32.8

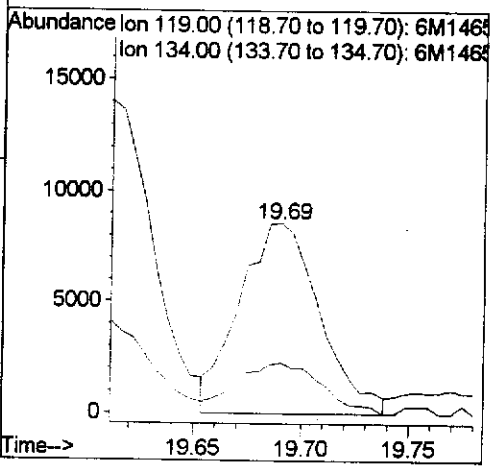

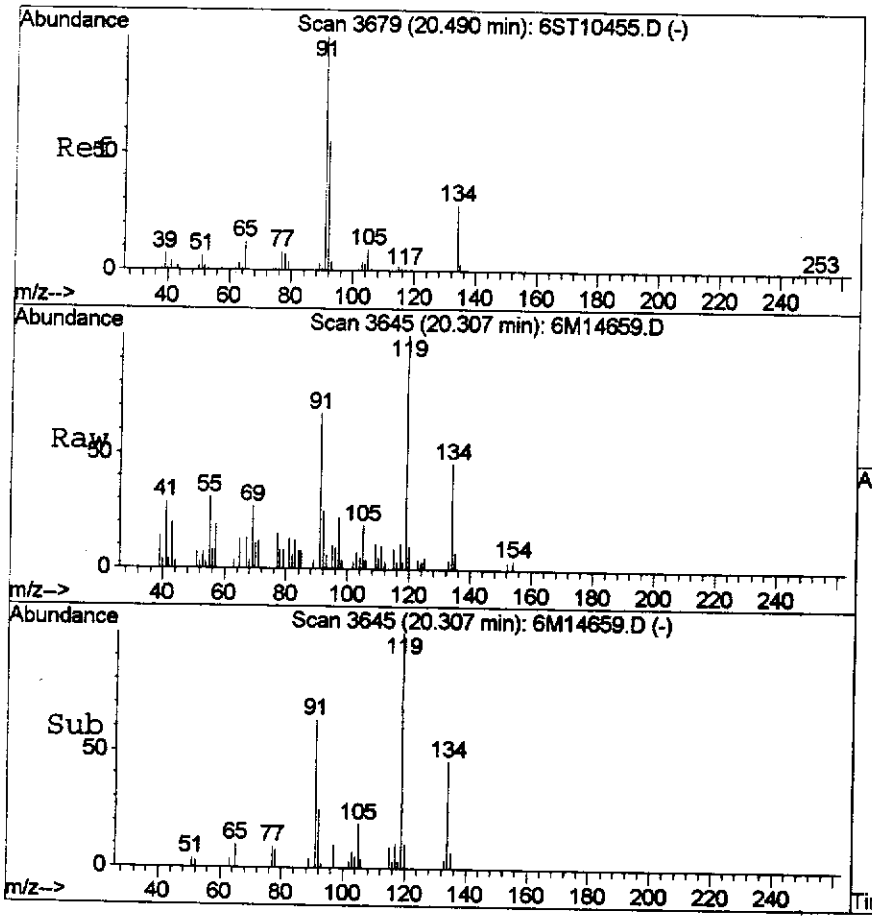

#81
n-Butylbenzene
Concen: 1.03 ug/Kg
RT: 20.31 min Scan# 3645
Delta R.T. -0.01 min
Lab File: 6M14659.D
Acq: 22 Jul 1999 13:27

Tgt Ion: 91 Resp: 28029

Ion	Ratio	Lower	Upper
91	100		
134	111.8	20.6	31.0#

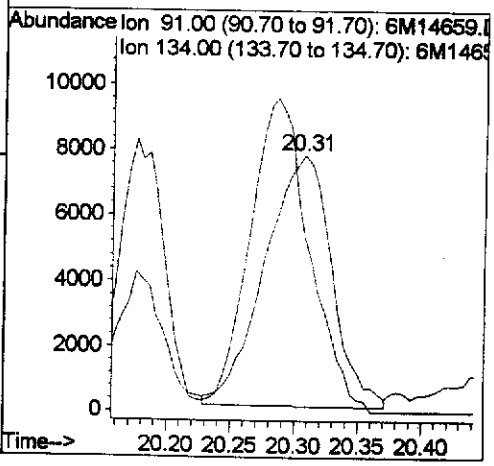

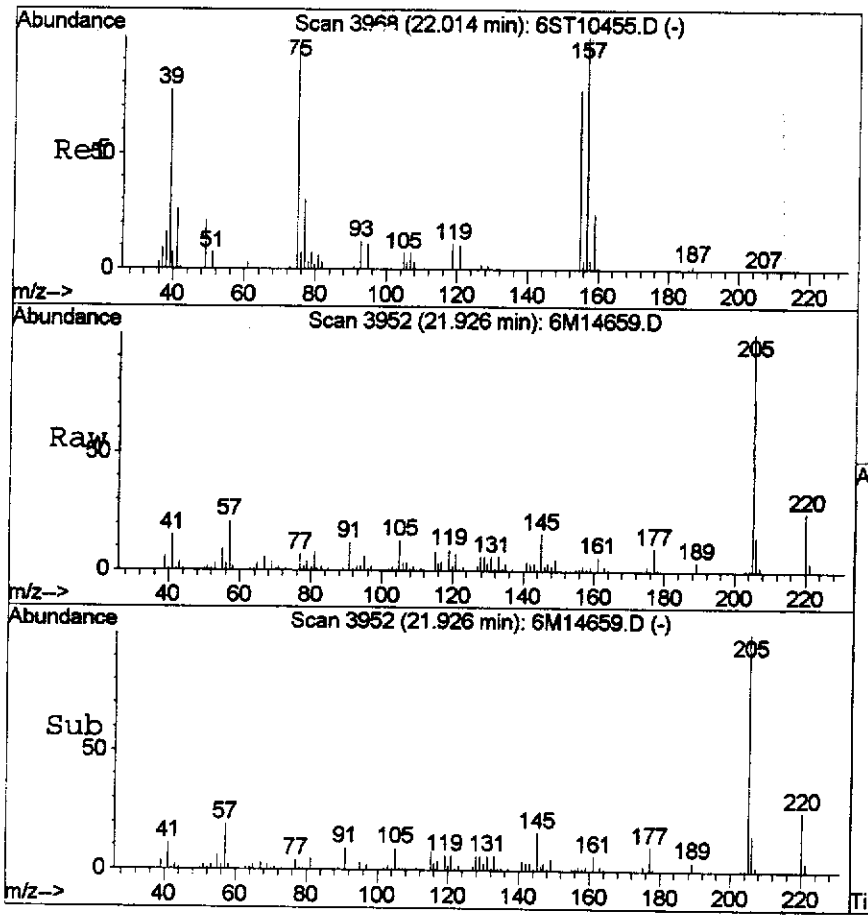

#83
1,2-Dibromo-3-Chloropropan
Concen: 1.79 ug/Kg
RT: 21.93 min Scan# 3952
Delta R.T. 0.10 min
Lab File: 6M14659.D
Acq: 22 Jul 1999 13:27

Tgt Ion:157 Resp: 2806

Ion	Ratio	Lower	Upper
157	100		
75	0.0	73.6	110.4#

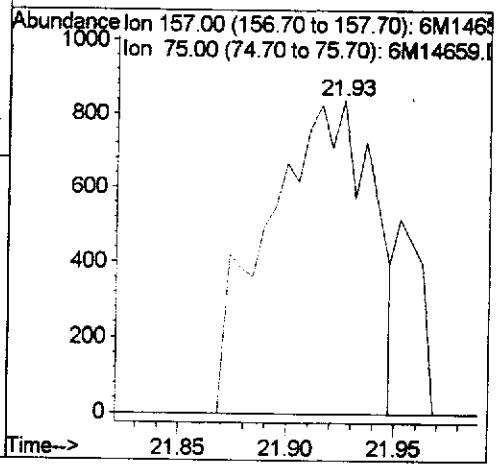

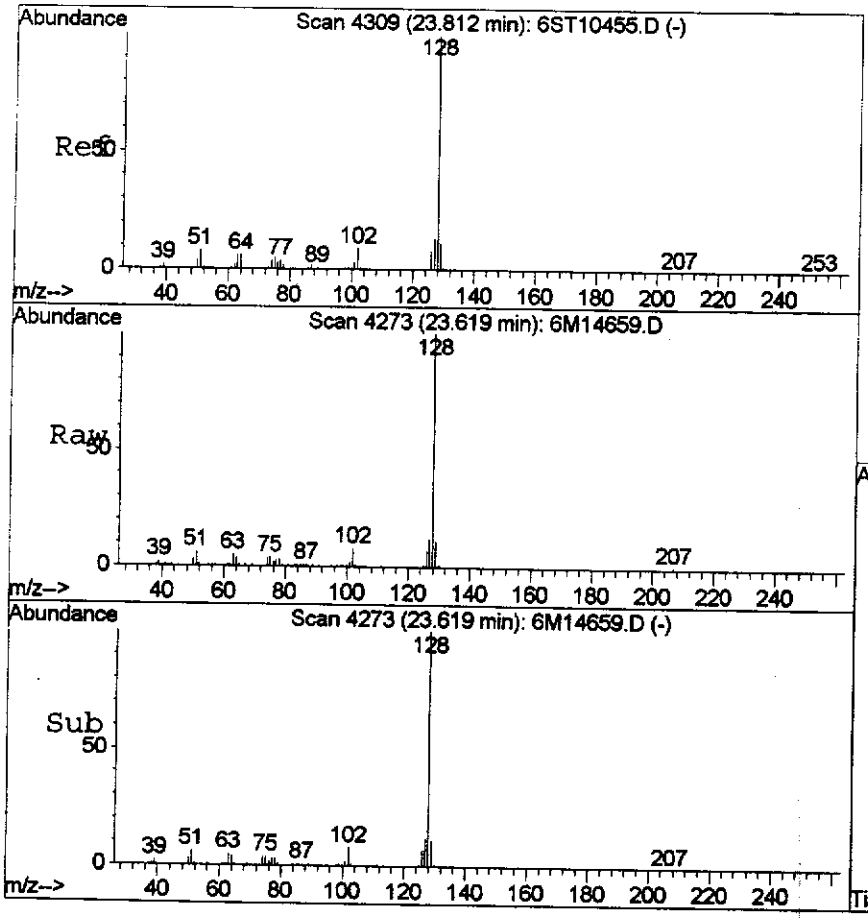

#86
Naphthalene
Concen: 6.85 ug/Kg
RT: 23.62 min Scan# 4273
Delta R.T. -0.00 min
Lab File: 6M14659.D
Acq: 22 Jul 1999 13:27

Tgt Ion:128 Resp: 133502

Ion	Ratio	Lower	Upper
128	100		
102	7.9	6.9	10.3

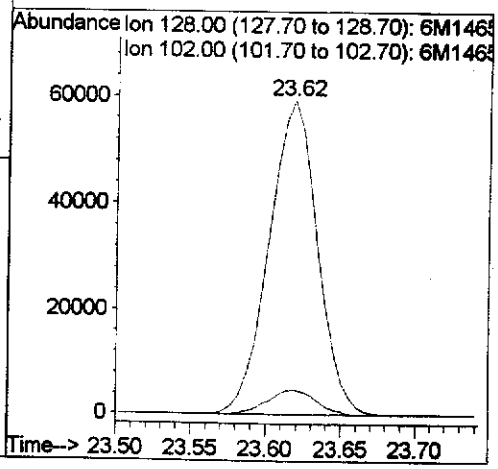

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\072299\6M14659.D
Acq On : 22 Jul 1999 13:27
Sample : L9907381-02 A LANL 826LA 5.7G/5ML
Misc : SOLID,0.9
MS Integration Params: LSCINT.P

Vial: 8
Operator: CMS
Inst : HPMS_6
Multiplr: 0.90

Quant Method : C:\HPCHEM\1\METHODS\8260BSL.M (RTE Integrator)
Title : Method 8260B_SOIL - ICAL 07/15/99
Library : C:\DATABASE\NBS75K.L

****

Peak Number 1 Carbon dioxide Concentration Rank 5

R.T.	EstConc	Area	Relative to ISTD	R.T.
3.23	14.80 ug/Kg	988368	Fluorobenzene	11.92

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qua
1	Carbon dioxide	44	CO2	000124-38-9	4
2	Carbon dioxide	44	CO2	000124-38-9	4
3	Ethylene oxide	44	C2H4O	000075-21-8	3
4	Nitrous Oxide	44	N2O	010024-97-2	3

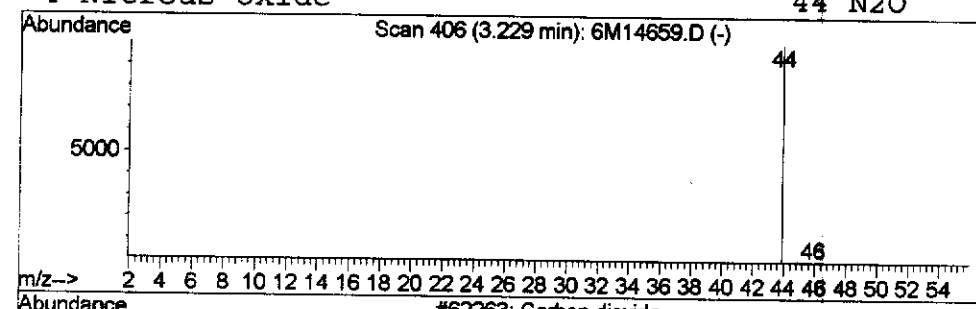

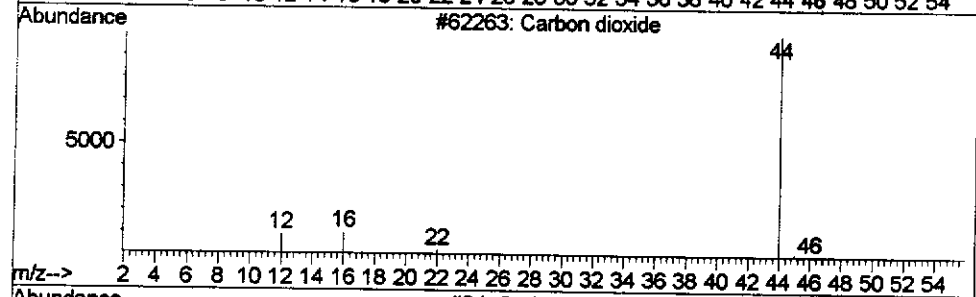

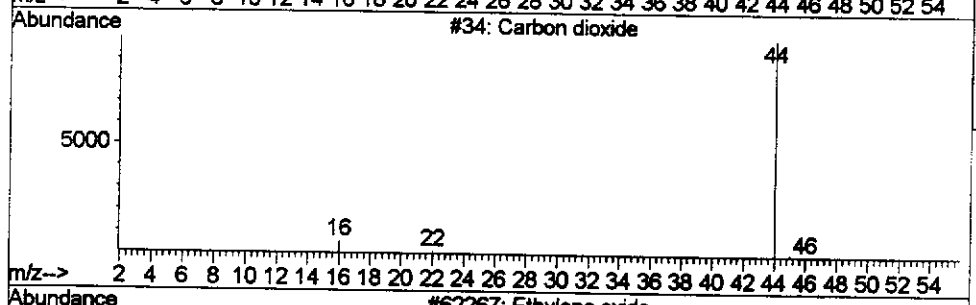

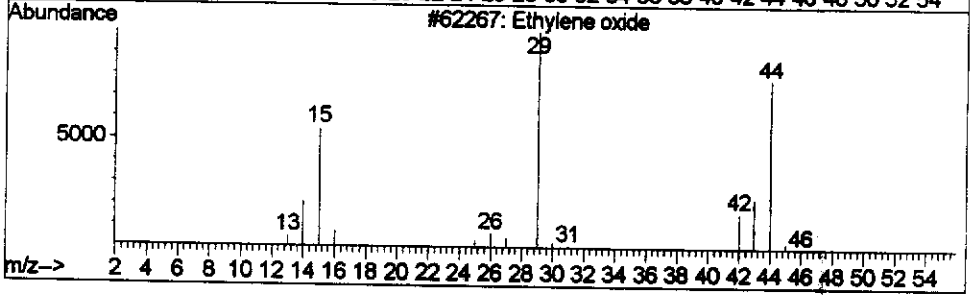

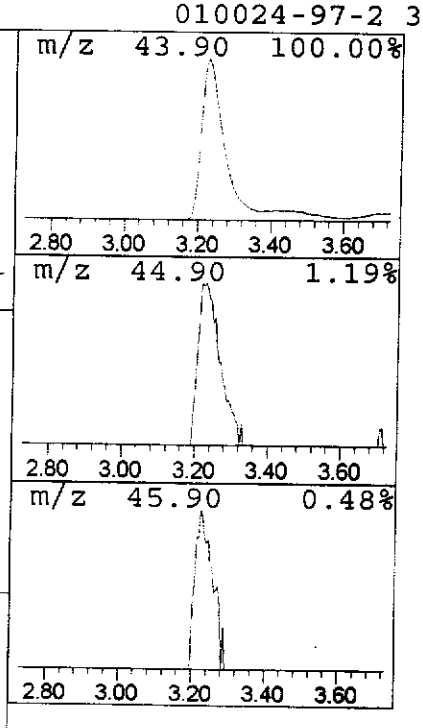

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\072299\6M14659.D
Acq On : 22 Jul 1999 13:27
Sample : L9907381-02 A LANL 826LA 5.7G/5ML
Misc : SOLID,0.9
MS Integration Params: LSCINT.P

Vial: 8
Operator: CMS
Inst : HPMS_6
Multiplr: 0.90

Quant Method : C:\HPCHEM\1\METHODS\8260BSL.M (RTE Integrator)
Title : Method 8260B_SOIL - ICAL 07/15/99
Library : C:\DATABASE\NBS75K.L

****

Peak Number 2 Nonane — Concentration Rank 14

R.T.	EstConc	Area	Relative to ISTD	R.T.
16.14	5.54 ug/Kg	454015	Chlorobenzene-d5	16.43

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qua
1	Nonane	128	C9H20	000111-84-2	97
2	Nonane	128	C9H20	000111-84-2	94
3	Nonane	128	C9H20	000111-84-2	89
4	Nonane	128	C9H20	000111-84-2	83

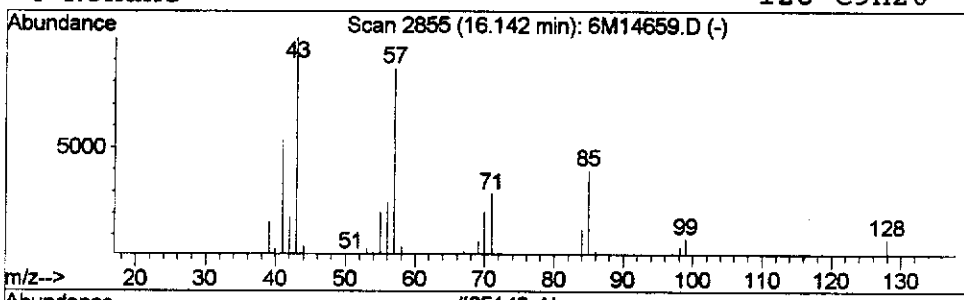

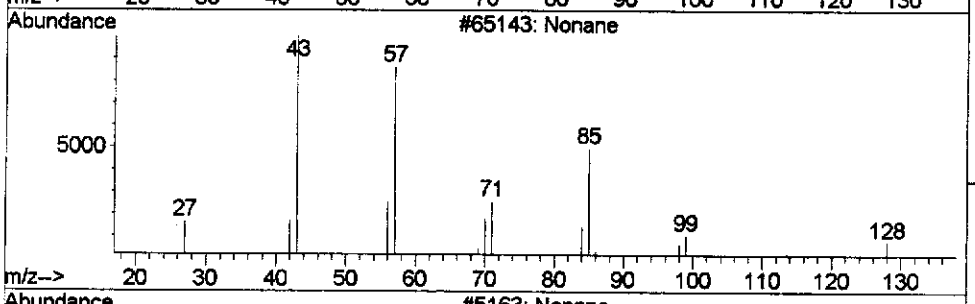

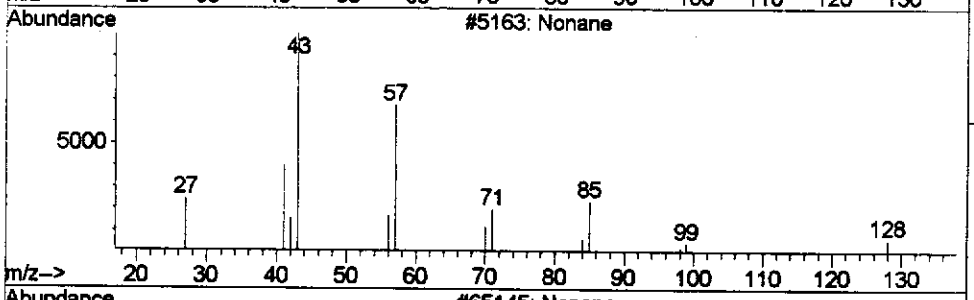

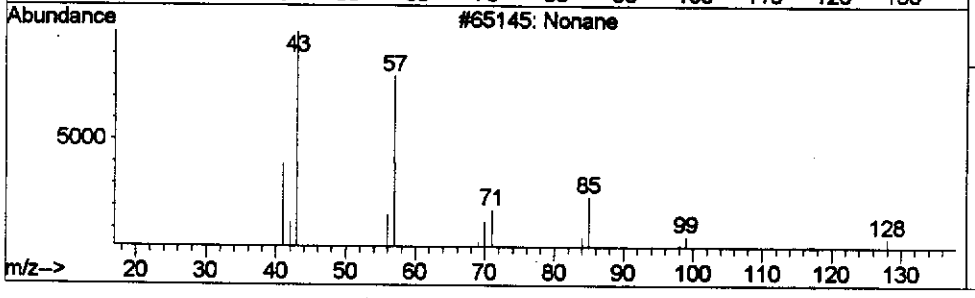

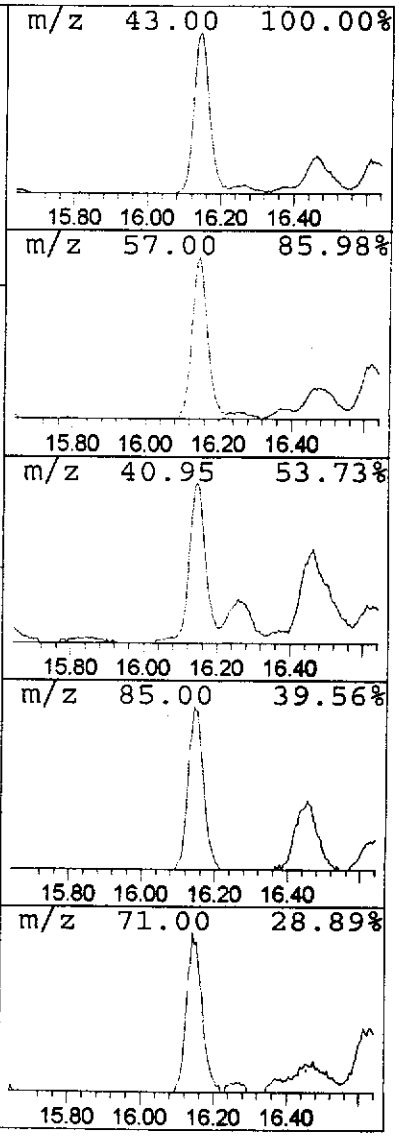

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\072299\6M1465[illegible]
Acq On : 22 Jul 1999 13:27
Sample : L9907381-02 A LANL 826LA 5.7G/5ML
Misc : SOLID,0.9
MS Integration Params: LSCINT.P

Vial: 8
Operator: CMS
Inst : HPMS_6
Multiplr: 0.90

Quant Method : C:\HPCHEM\1\METHODS\8260BSL.M (RTE Integrator)
Title : Method 8260B_SOIL - ICAL 07/15/99
Library : C:\DATABASE\NBS75K.L

****

Peak Number 3 Octane, 2,6-dimethyl- Concentration Rank 8

R.T.	EstConc	Area	Relative to ISTD	R.T.
16.82	8.41 ug/Kg	688952	Chlorobenzene-d5	16.43

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qua
1	Octane, 2,6-dimethyl-	142	C10H22	002051-30-1	95
2	Octane, 2,6-dimethyl-	142	C10H22	002051-30-1	91
3	Nonane, 3-methyl-	142	C10H22	005911-04-6	91
4	Octane, 2,6-dimethyl-	142	C10H22	002051-30-1	78

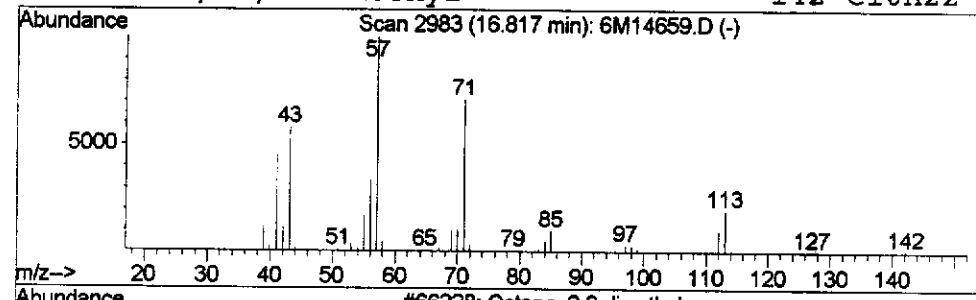

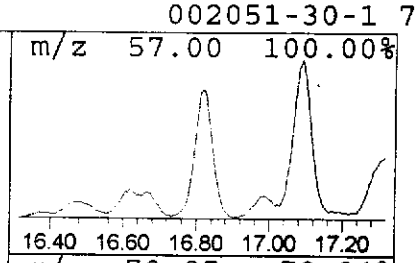

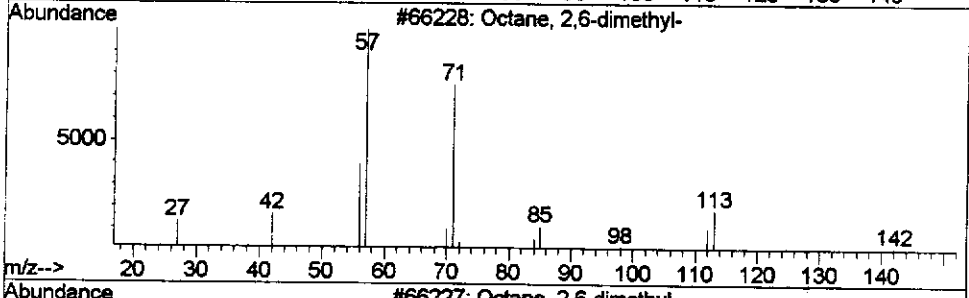

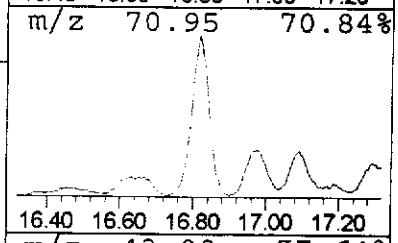

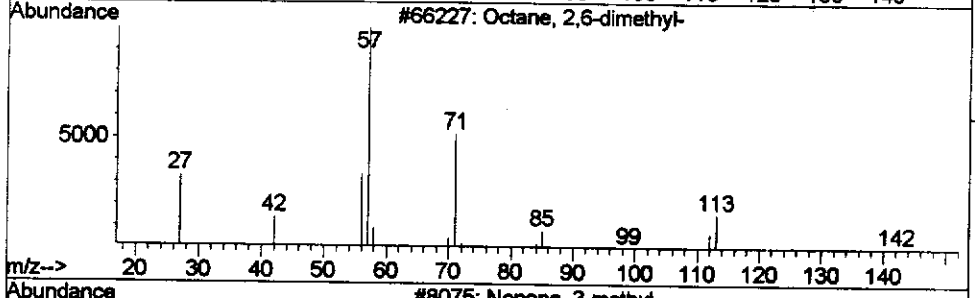

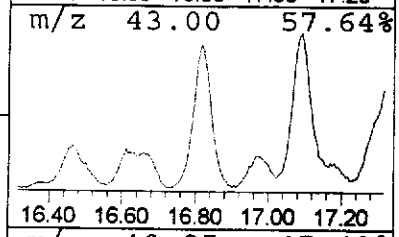

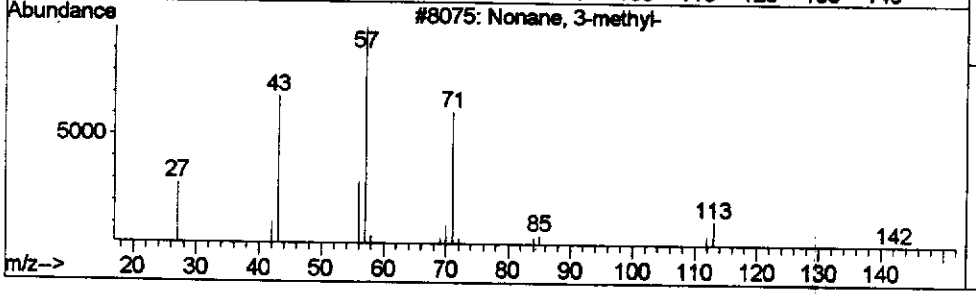

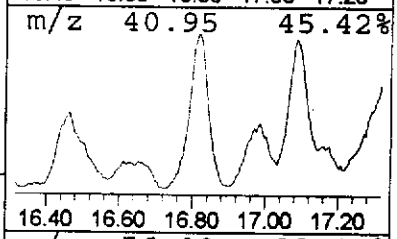

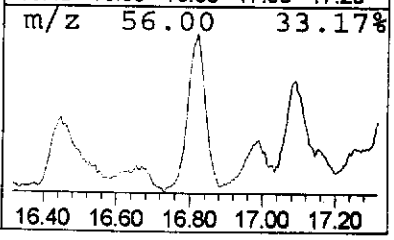

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\072299.6\14659.D l: 8
Acq On : 22 Jul 1999 13:27 Operator: CMS
Sample : L9907381-02 A LANL 826LA 5.7G/5ML Inst : HPMS_6
Misc : SOLID,0.9 Multiplr: 0.90
MS Integration Params: LSCINT.P

Quant Method : C:\HPCHEM\1\METHODS\8260BSL.M (RTE Integrator)
Title : Method 8260B_SOIL - ICAL 07/15/99
Library : C:\DATABASE\NBS75K.L

****

Peak Number 4 Cyclohexane, 1-ethyl-2-methyl- Concentration Rank 15

R.T.	EstConc	Area	Relative to ISTD	R.T.
16.97	5.21 ug/Kg	426906	Chlorobenzene-d5	16.43

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qua
1	Cyclohexane, 1-ethyl-2-methyl-, tra	126	C9H18	004923-78-8	60
2	Cyclohexane, 1-ethyl-2-methyl-	126	C9H18	003728-54-9	58
3	Cyclohexane, 1,1-dimethyl-	112	C8H16	000590-66-9	53
4	Cyclohexane, 1-ethyl-4-methyl-, tra	126	C9H18	006236-88-0	53

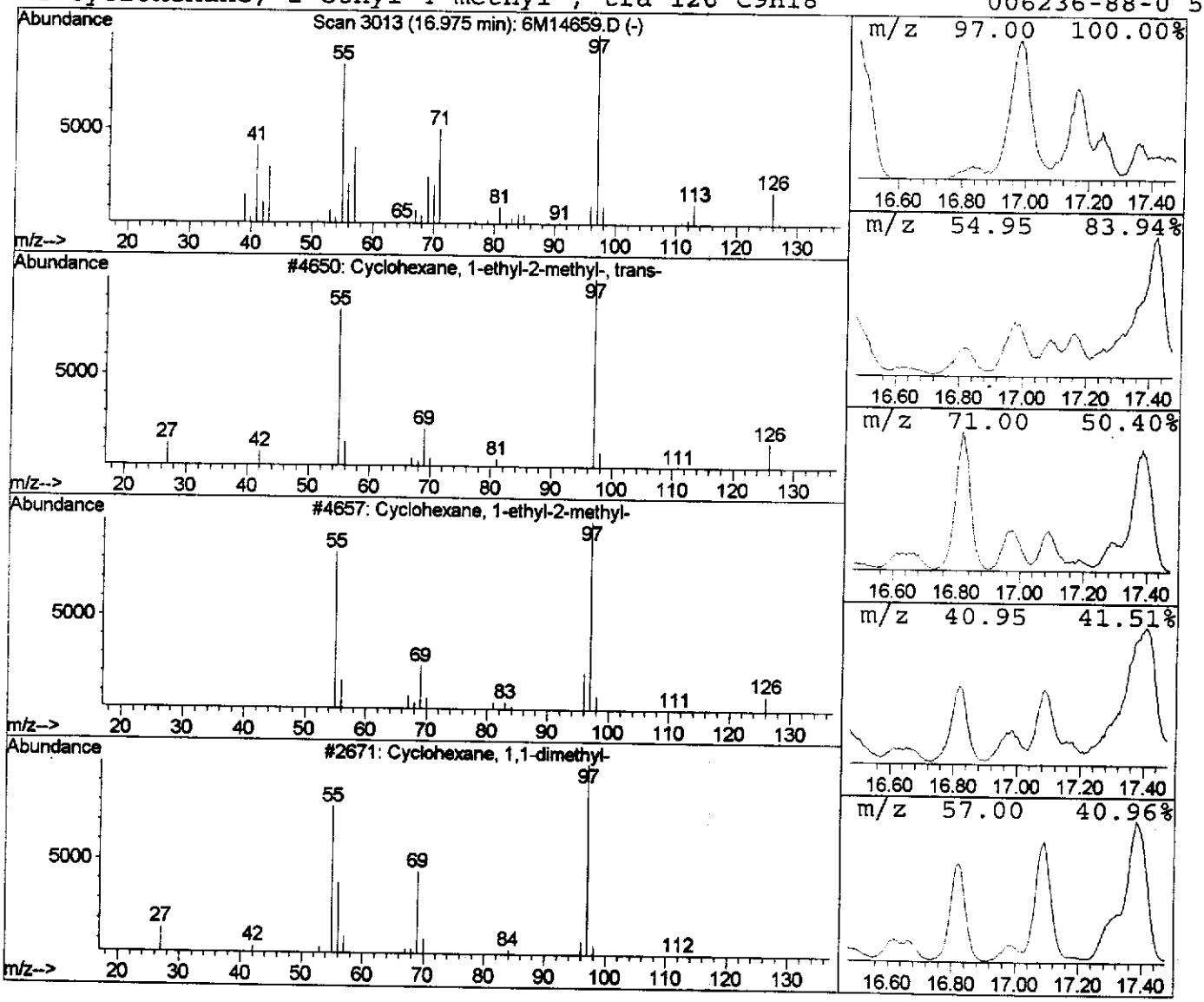

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\072299\6M14659.D
Acq On : 22 Jul 1999 13:27
Sample : L9907381-02 A LANL 826LA 5.7G/5ML
Misc : SOLID,0.9
MS Integration Params: LSCINT.P

Vial : 8
Operator: CMS
Inst : HPMS_6
Multiplr: 0.90

Quant Method : C:\HPCHEM\1\METHODS\8260BSL.M (RTE Integrator)
Title : Method 8260B_SOIL - ICAL 07/15/99
Library : C:\DATABASE\NBS75K.L

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Peak Number 5 Cyclotrisiloxane, hexamethyl- Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
17.15	26.54 ug/Kg	2173620	Chlorobenzene-d5	16.43

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qua
1	Cyclotrisiloxane, hexamethyl-	222	C6H18O3Si3	000541-05-9	22
2	Clopidol	191	C7H7Cl2NO	002971-90-6	12
3	4(1H)-Pteridinone, 6-acetyl-2-amino	207	C8H9N5O2	042310-08-7	12
4	Thiazolo[3,2-a]pyridinium, 3-cyano-	272	C9H9BrN2OS	022989-59-9	11

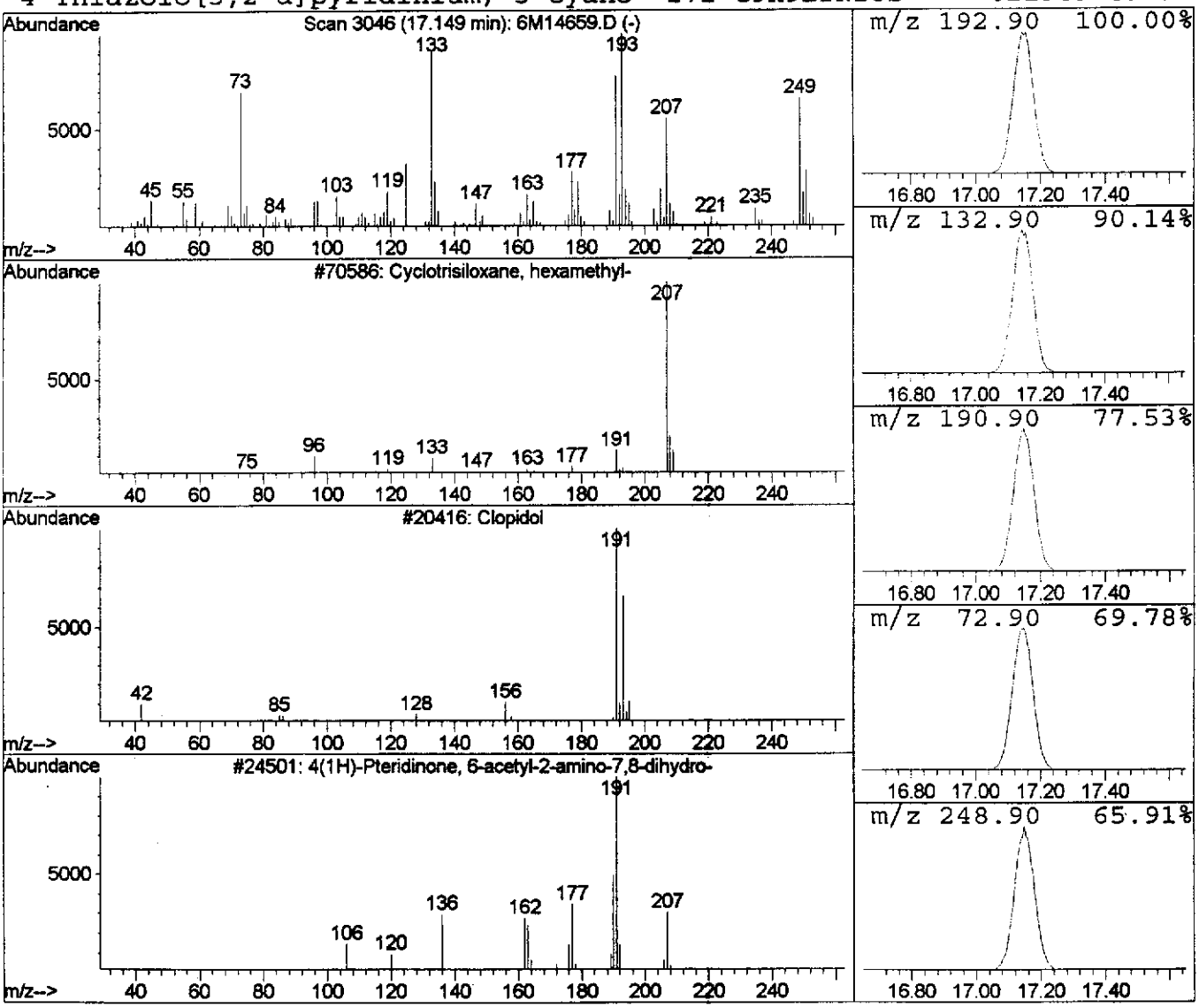

74

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\072299\6M1465[illegible] D Vial: 8
Acq On : 22 Jul 1999 13:27 Operator: CMS
Sample : L9907381-02 A LANL 826LA 5.7G/5ML Inst : HPMS_6
Misc : SOLID,0.9 Multiplr: 0.90
MS Integration Params: LSCINT.P

Quant Method : C:\HPCHEM\1\METHODS\8260BSL.M (RTE Integrator)
Title : Method 8260B_SOIL - ICAL 07/15/99
Library : C:\DATABASE\NBS75K.L

****

Peak Number 6 Cyclohexane, propyl- Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.
17.41	16.46 ug/Kg	1348350	Chlorobenzene-d5	16.43

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qua
1	Cyclohexane, propyl-	126	C9H18	001678-92-8	46
2	2-Hydroxy-2-methyl-but-3-enyl 2-met	184	C10H16O3	080758-67-4	43
3	Cyclohexane, propyl-	126	C9H18	001678-92-8	43
4	Ethanone, 1-cyclohexyl-	126	C8H14O	000823-76-7	43

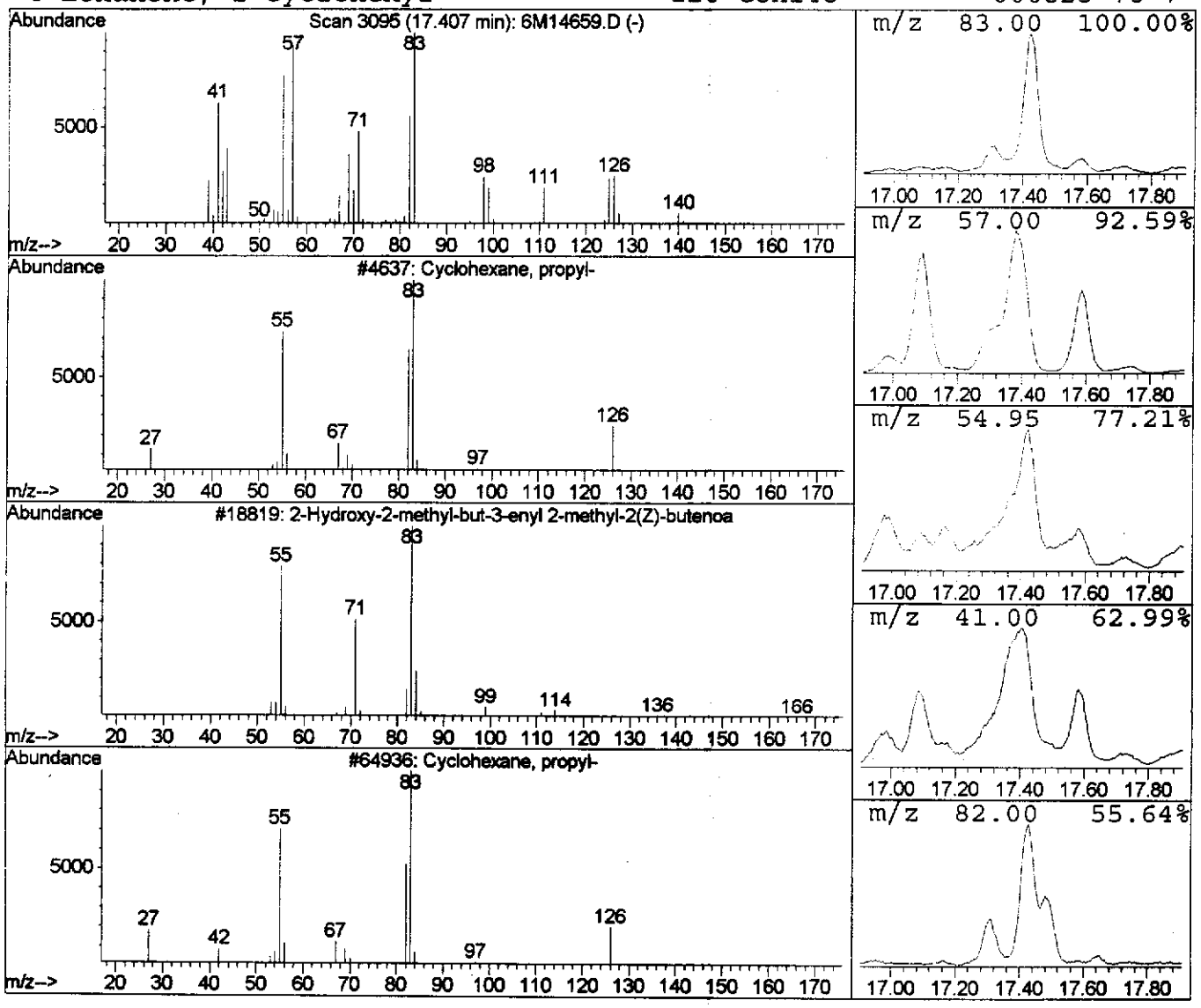

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\ 72295 14659.D Vial: 6
Acq On : 22 Jul 1999 13:27 Operator: CMS
Sample : L9907381-02 A LANL 826LA 5.7G/5ML Inst : HPMS_6
Misc : SOLID,0.9 Multiplr: 0.90
MS Integration Params: LSCINT.P

Quant Method : C:\HPCHEM\1\METHODS\8260BSL.M (RTE Integrator)
Title : Method 8260B SOIL - ICAL 07/15/99
Library : C:\DATABASE\NBS75K.L

****

Peak Number 7 Nonane, 3-methyl- Concentration Rank 11

R.T.	EstConc	Area	Relative to ISTD	R.T.
17.58	6.90 ug/Kg	565026	Chlorobenzene-d5	16.43

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qua
1	Nonane, 3-methyl-	142	C10H22	005911-04-6	87
2	Nonane, 3-methyl-	142	C10H22	005911-04-6	76
3	Octane, 2,6-dimethyl-	142	C10H22	002051-30-1	62
4	Nonane, 3-methyl-	142	C10H22	005911-04-6	62

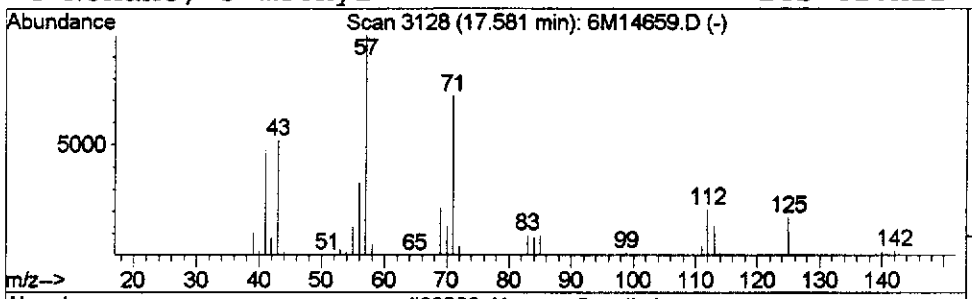

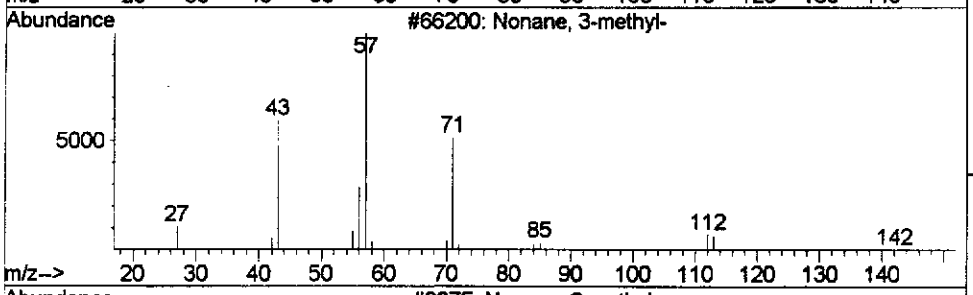

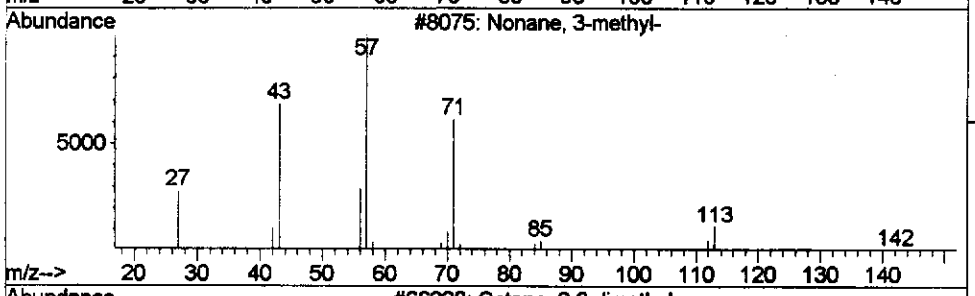

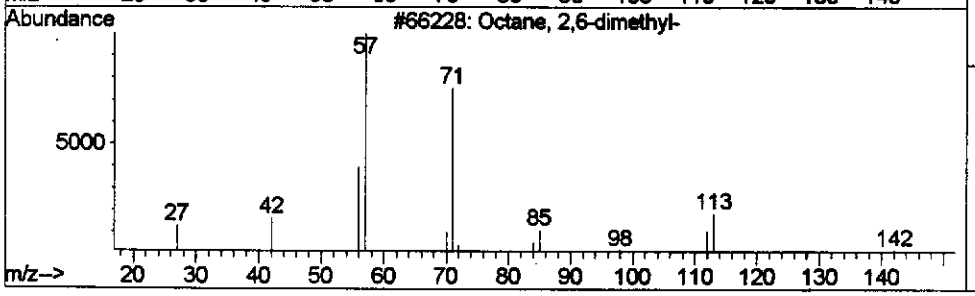

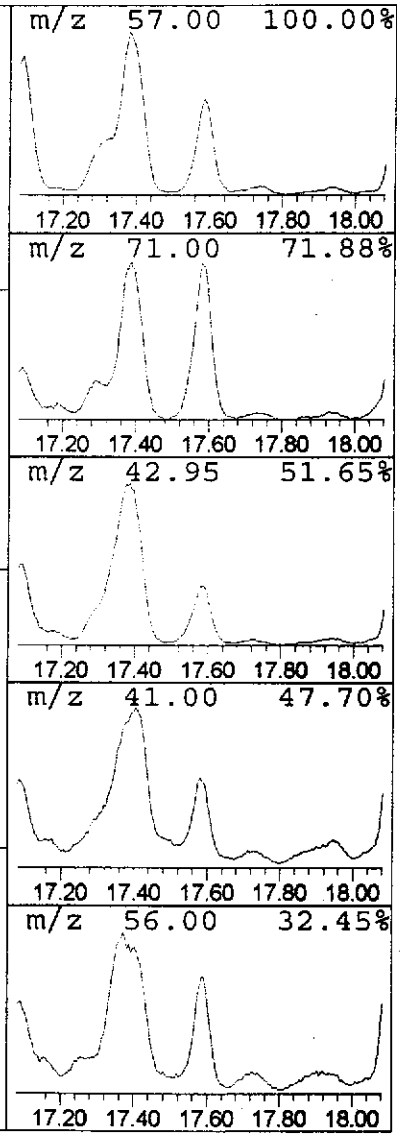

Library Search Compound Report

Data File : C:\HPCHEM\ \DAT 72299\6M 59.D V : 8
Acq On : 22 Jul 1999 13:27 Operator: CMS
Sample : L9907381-02 A LANL 826LA 5.7G/5ML Inst : HPMS_6
Misc : SOLID,0.9 Multiplr: 0.90
MS Integration Params: LSCINT.P

Quant Method : C:\HPCHEM\1\METHODS\8260BSL.M (RTE Integrator)
Title : Method 8260B_SOIL - ICAL 07/15/99
Library : C:\DATABASE\NBS75K.L

****

Peak Number 8 Decane Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
18.12	27.40 ug/Kg	2244310	Chlorobenzene-d5	16.43

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qua
1	Decane	142	C10H22	000124-18-5	64
2	Octadecane, 1-chloro-	288	C18H37Cl	003386-33-2	59
3	Decane	142	C10H22	000124-18-5	58
4	Decane	142	C10H22	000124-18-5	52

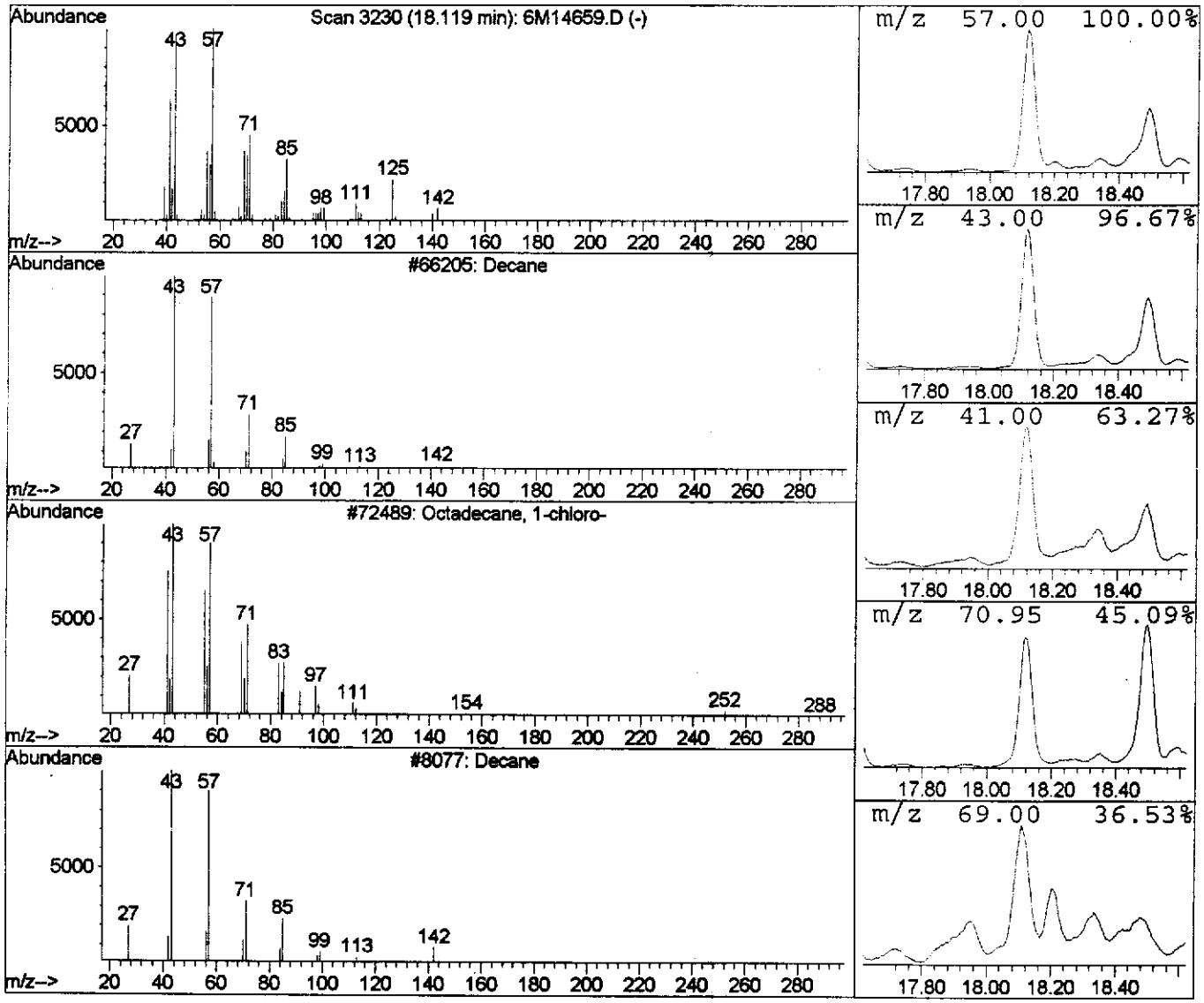

Library Search Compound Report

Data File : C:\HPCHE \DATA\0 99\6M14659.D
Acq On : 22 Jul 1999 13:27
Sample : L9907381-02 A LANL 826LA 5.7G/5ML
Misc : SOLID,0.9
MS Integration Params: LSCINT.P

: 8
Operator: CMS
Inst : HPMS_6
Multiplr: 0.90

Quant Method : C:\HPCHEM\1\METHODS\8260BSL.M (RTE Integrator)
Title : Method 8260B_SOIL - ICAL 07/15/99
Library : C:\DATABASE\NBS75K.L

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Peak Number 9 Cyclohexane, 1-methyl-2-propyl Concentration Rank 13

R.T.	EstConc	Area	Relative to ISTD	R.T.
18.74	5.99 ug/Kg	364545	1,4-Dichlorobenzene-d4	20.01

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qua
1	Cyclohexane, 1-methyl-2-propyl-	140	C10H20	004291-79-6	58
2	Cyclohexane, 1,3-dimethyl-, trans-	112	C8H16	002207-03-6	53
3	Cyclohexane, 1,4-dimethyl-, trans-	112	C8H16	002207-04-7	53
4	4-Hepten-3-one, 2,6-dimethyl-	140	C9H16O	056259-14-4	49

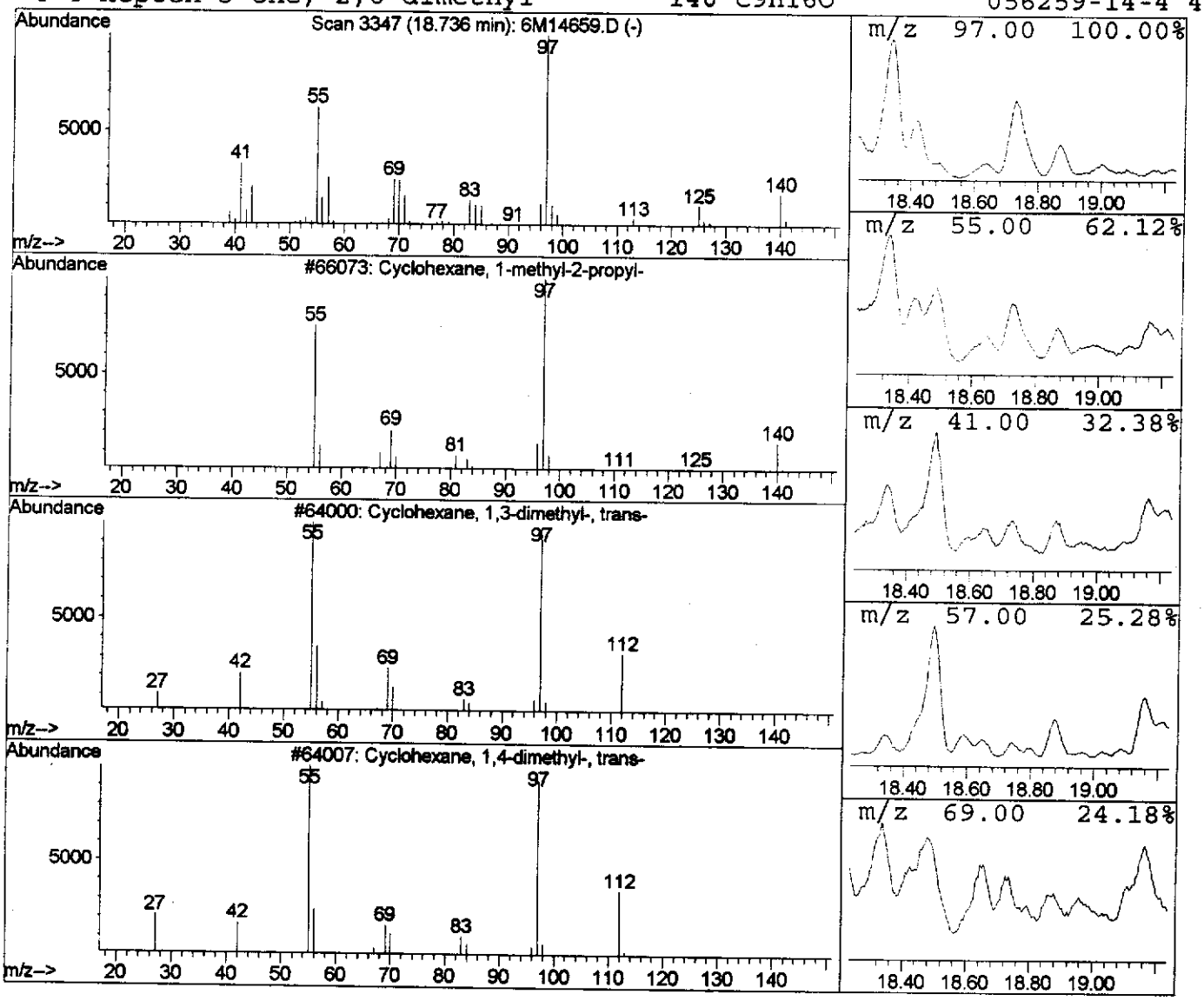

Library Search Compound Report

Data File : C :PCHEM\1 T\072299\6M14659 Vial: 8
Acq On : 22 Jul 1999 13:27 Operator: CMS
Sample : L9907381-02 A LANL 826LA 5.7G/5ML Inst : HPMS_6
Misc : SOLID,0.9 Multiplr: 0.90
MS Integration Params: LSCINT.P

Quant Method : C:\HPCHEM\1\METHODS\8260BSL.M (RTE Integrator)
Title : Method 8260B_SOIL - ICAL 07/15/99
Library : C:\DATABASE\NBS75K.L

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Peak Number 10 Cyclohexane, butyl- Concentration Rank 7

R.T.	EstConc	Area	Relative to ISTD	R.T.
19.39	8.82 ug/Kg	536574	1,4-Dichlorobenzene-d4	20.01

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qua
1	Cyclohexane, butyl-	140	C10H20	001678-93-9	94
2	Cyclohexane, butyl-	140	C10H20	001678-93-9	74
3	Cyclohexane, butyl-	140	C10H20	001678-93-9	74
4	Cyclohexane, butyl-	140	C10H20	001678-93-9	72

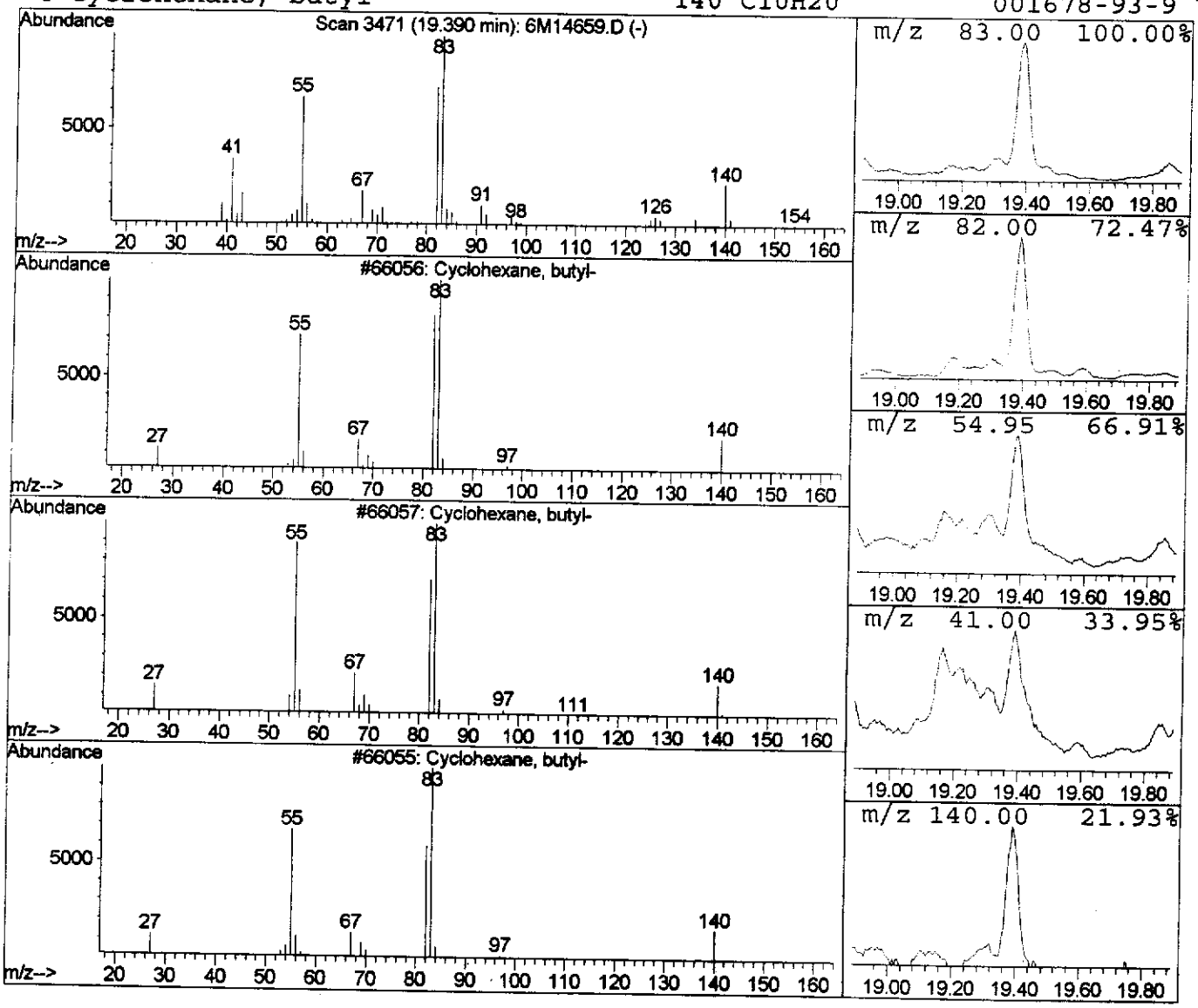

Library Search Compound Report

Data File : C:\H...EM\1\DATA\072299\...4659...
Acq On : 22 Jul 1999 13:27
Sample : L9907381-02 A LANL 826LA 5.7G/5ML
Misc : SOLID,0.9
MS Integration Params: LSCINT.P

Vial: 8
Operator: CMS
Inst : HPMS_6
Multiplr: 0.90

Quant Method : C:\HPCHEM\1\METHODS\8260BSL.M (RTE Integrator)
Title : Method 8260B_SOIL - ICAL 07/15/99
Library : C:\DATABASE\NBS75K.L

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Peak Number 11 Benzeneethanamine, N-[(pentafl Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
19.76	19.15 ug/Kg	1165620	1,4-Dichlorobenzene-d4	20.01

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qua
1	Benzeneethanamine, N-[(pentafluorop	387	C18H18F5NOSi	055334-64-0	9
2	Hydrocinnamic acid, .alpha.-(trimet	252	C13H20O3Si	027854-49-5	9
3	Silanamine, N-ethyl-1,1,1-trimethyl	207	C12H21NSi	014629-66-4	7
4	Benzeneacetic acid, trimethylsilyl	208	C11H16O2Si	002078-18-4	7

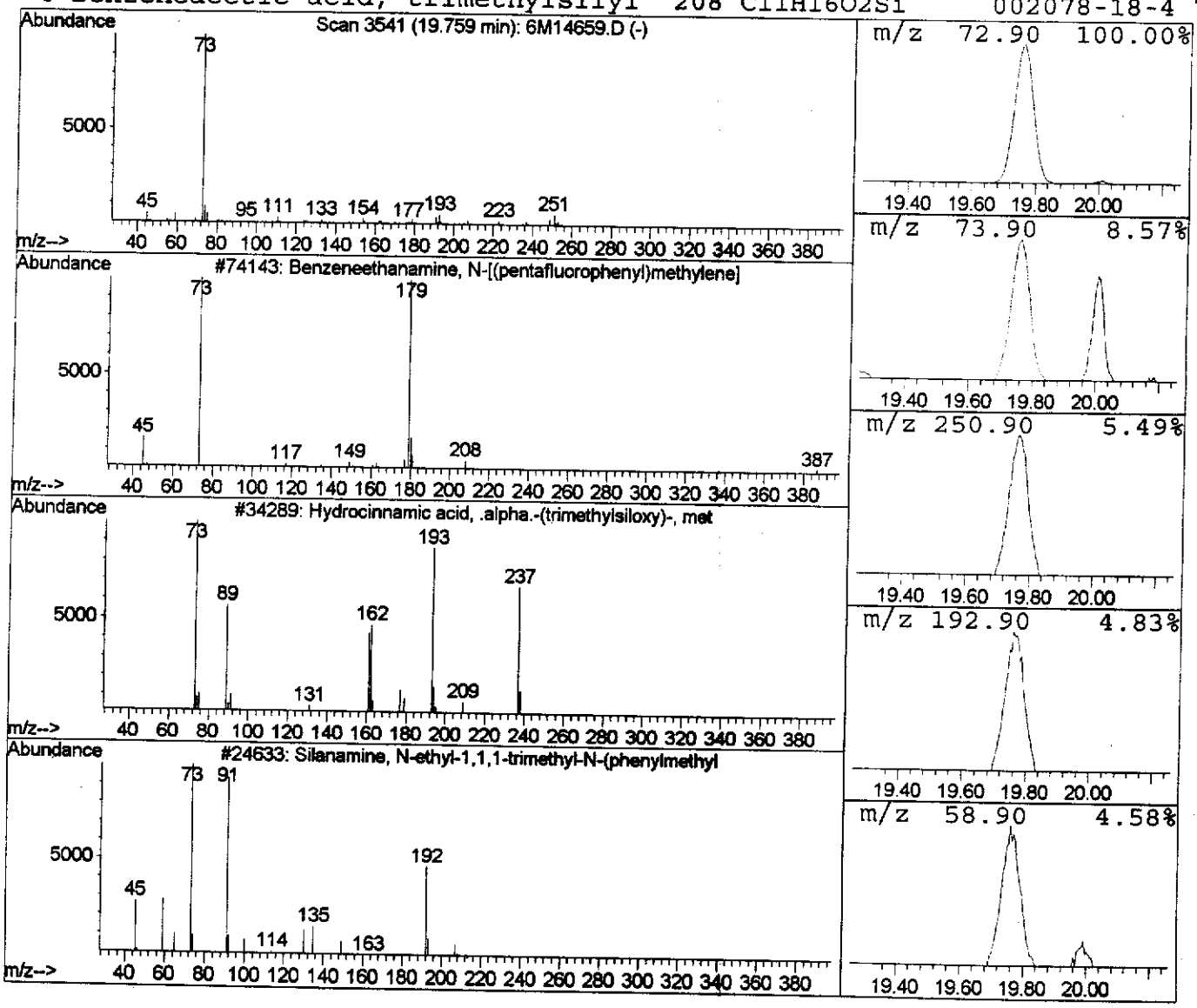

Library Search Compound Report

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Misc : SOLID,0.9
MS Integration Params: LSCINT.P

Vial: 8
Operator: CMS
Inst : HPMS_6
Multiplr: 0.90

Quant Method : C:\HPCHEM\1\METHODS\8260BSL.M (RTE Integrator)
Title : Method 8260B_SOIL - ICAL 07/15/99
Library : C:\DATABASE\NBS75K.L

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Peak Number 12 Undecane — Concentration Rank 12

R.T.	EstConc	Area	Relative to ISTD	R.T.
19.92	6.06 ug/Kg	368874	1,4-Dichlorobenzene-d4	20.01

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qua
1	Undecane	156	C11H24	001120-21-4	95
2	Undecane	156	C11H24	001120-21-4	93
3	Undecane	156	C11H24	001120-21-4	91
4	Undecane	156	C11H24	001120-21-4	91

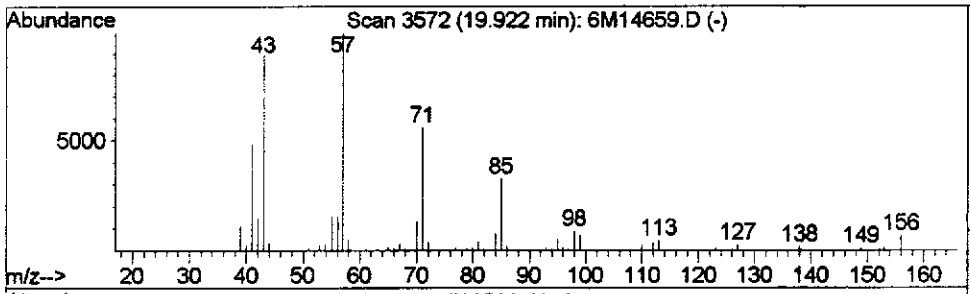

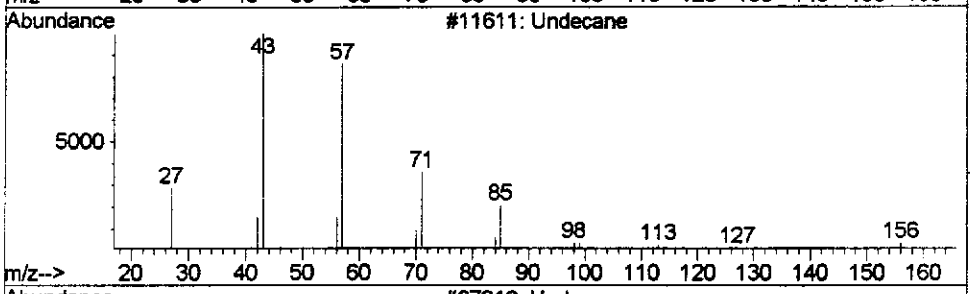

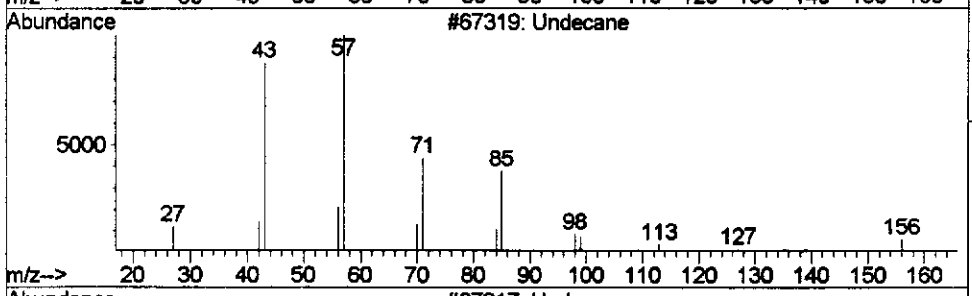

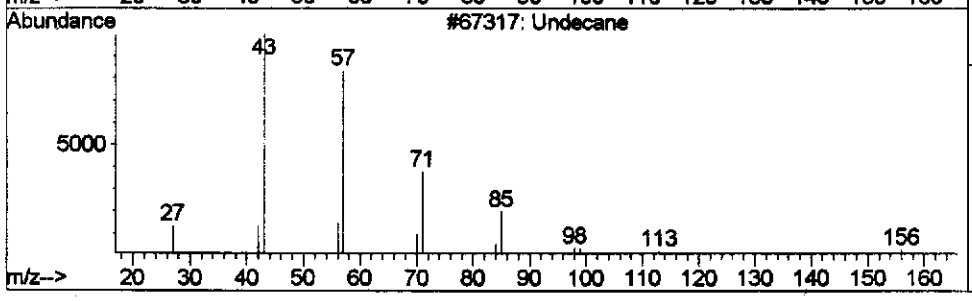

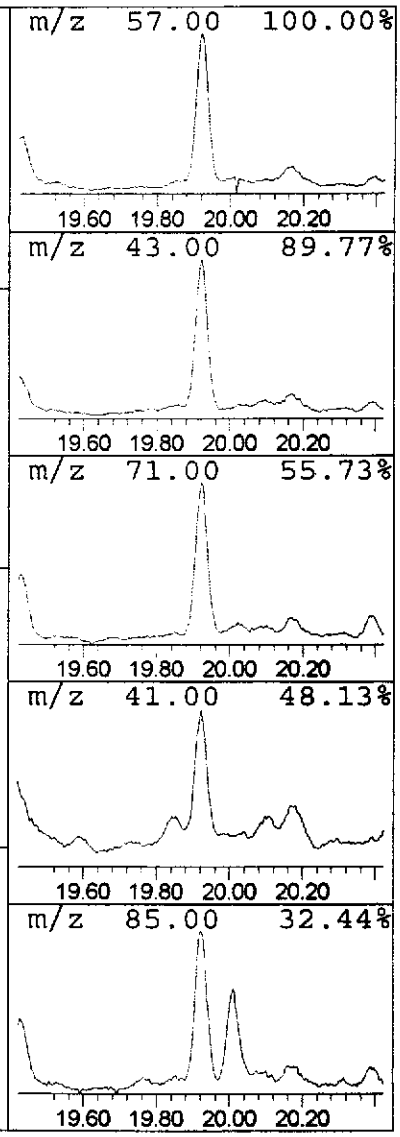

Library Search Compound Report

D File : C:\HPCHEM\ DATA 3299\6M14659.D
Acq On : 22 Jul 1999 13:27
Sample : L9907381-02 A LANL 826LA 5.7G/5ML
Misc : SOLID,0.9
MS Integration Params: LSCINT.P

Vial: 8
Operator: CMS
Inst : HPMS_6
Multiplr: 0.90

Quant Method : C:\HPCHEM\1\METHODS\8260BSL.M (RTE Integrator)
Title : Method 8260B SOIL - ICAL 07/15/99
Library : C:\DATABASE\NBS75K.L

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Peak Number 13 Benzene, 1-methyl-3-propyl- Concentration Rank 9

R.T.	EstConc	Area	Relative to ISTD	R.T.
20.18	7.45 ug/Kg	453520	1,4-Dichlorobenzene-d4	20.01

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qua
1	Benzene, 1-methyl-3-propyl-	134	C10H14	001074-43-7	60
2	Benzene, (1-methylpropyl)-	134	C10H14	000135-98-8	60
3	Benzene, 1-methyl-3-propyl-	134	C10H14	001074-43-7	55
4	Benzene, 1-methyl-3-propyl-	134	C10H14	001074-43-7	55

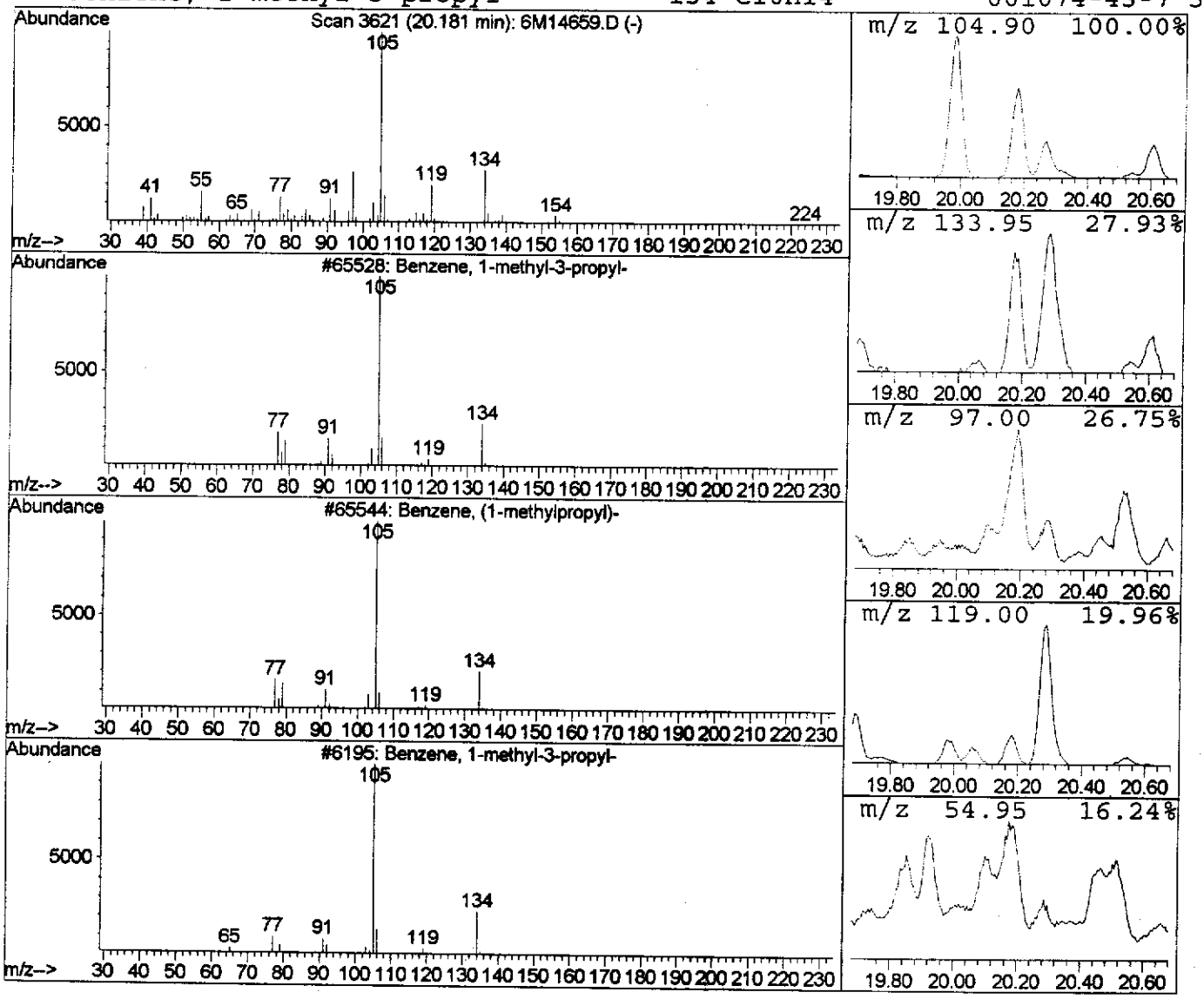

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\072299\6M14659.D
Acq On : 22 Jul 1999 13:27
Sample : L9907381-02 A LANL 826LA 5.7G/5ML
Misc : SOLID,0.9
MS Integration Params: LSCINT.P

Vial: 8
Operator: CMS
Inst : HPMS_6
Multiplr: 0.90

Quant Method : C:\HPCHEM\1\METHODS\8260BSL.M (RTE Integrator)
Title : Method 8260B SOIL - ICAL 07/15/99
Library : C:\DATABASE\NBS75K.L

****

Peak Number 14 Naphthalene, decahydro-, trans Concentration Rank 6

R.T.	EstConc	Area	Relative to ISTD	R.T.
20.46	10.58 ug/Kg	644208	1,4-Dichlorobenzene-d4	20.01

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qua
1	Naphthalene, decahydro-, trans-	138	C10H18	000493-02-7	97
2	Naphthalene, decahydro-	138	C10H18	000091-17-8	95
3	Naphthalene, decahydro-, trans-	138	C10H18	000493-02-7	94
4	Naphthalene, decahydro-, trans-	138	C10H18	000493-02-7	94

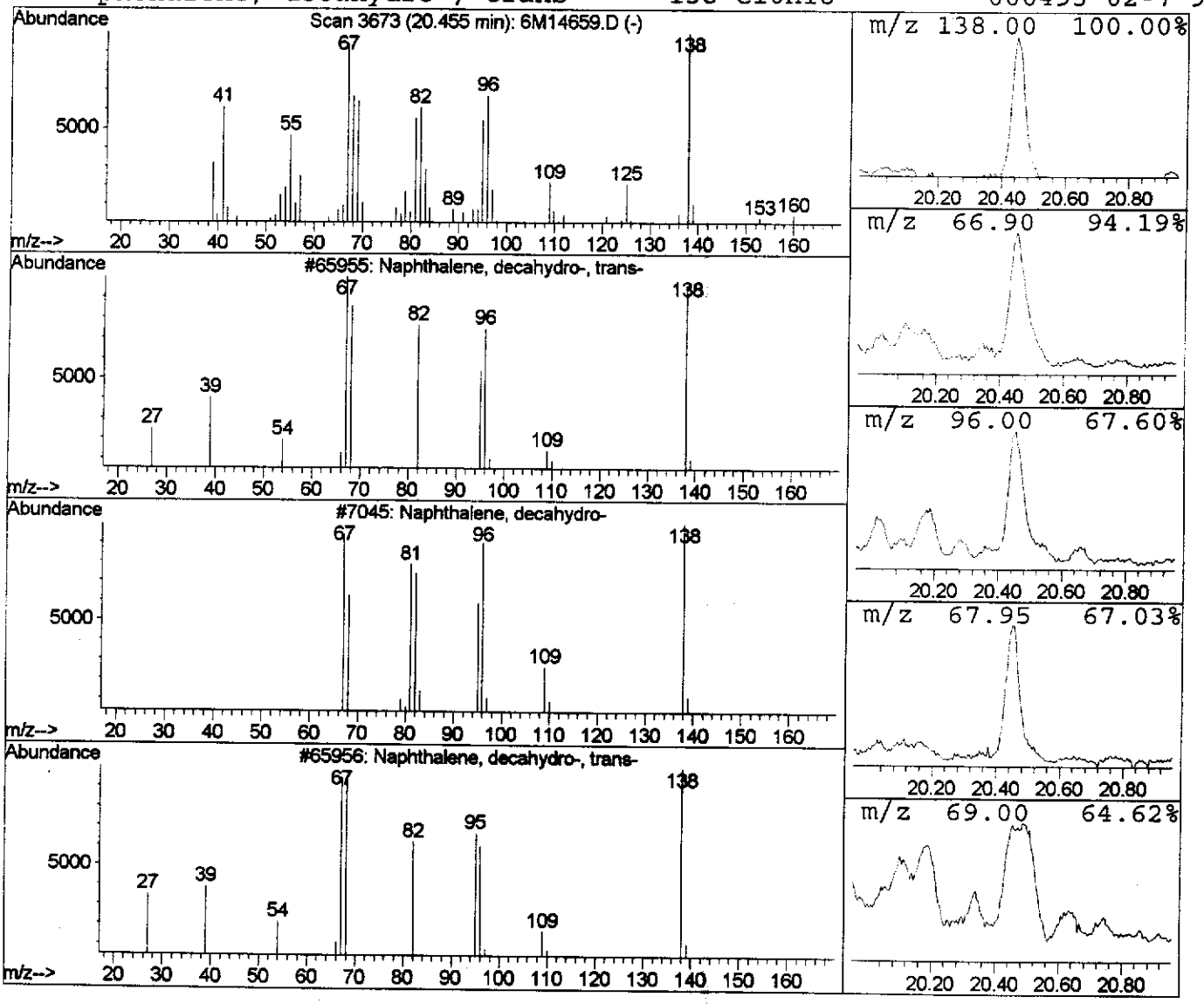

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\072299\6M14659.D
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Sample : L9907381-02 A LANL 826LA 5.7G/5ML
Misc : SOLID,0.9
MS Integration Params: LSCINT.P

Vial. 3
Operator: CMS
Inst : HPMS_6
Multiplr: 0.90

Quant Method : C:\HPCHEM\1\METHODS\8260BSL.M (RTE Integrator)
Title : Method 8260B_SOIL - ICAL 07/15/99
Library : C:\DATABASE\NBS75K.L

****

Peak Number 15 Silane, [(1-methyl-1,3-propane Concentration Rank 10

R.T.	EstConc	Area	Relative to ISTD	R.T.
22.43	7.42 ug/Kg	451710	1,4-Dichlorobenzene-d4	20.01

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qua
1	Silane, [(1-methyl-1,3-propanediyl)	234	C10H26O2Si2	056771-47-2	23
2	Butane, 2-methyl-1,4-bis(trimethyls	248	C11H28O2Si2	000000-00-0	9
3	Butanoic acid, 3-methyl-2-[(trimeth	262	C11H26O3Si2	055124-92-0	9
4	Ethanedioic acid, bis(trimethylsily	234	C8H18O4Si2	018294-04-7	9

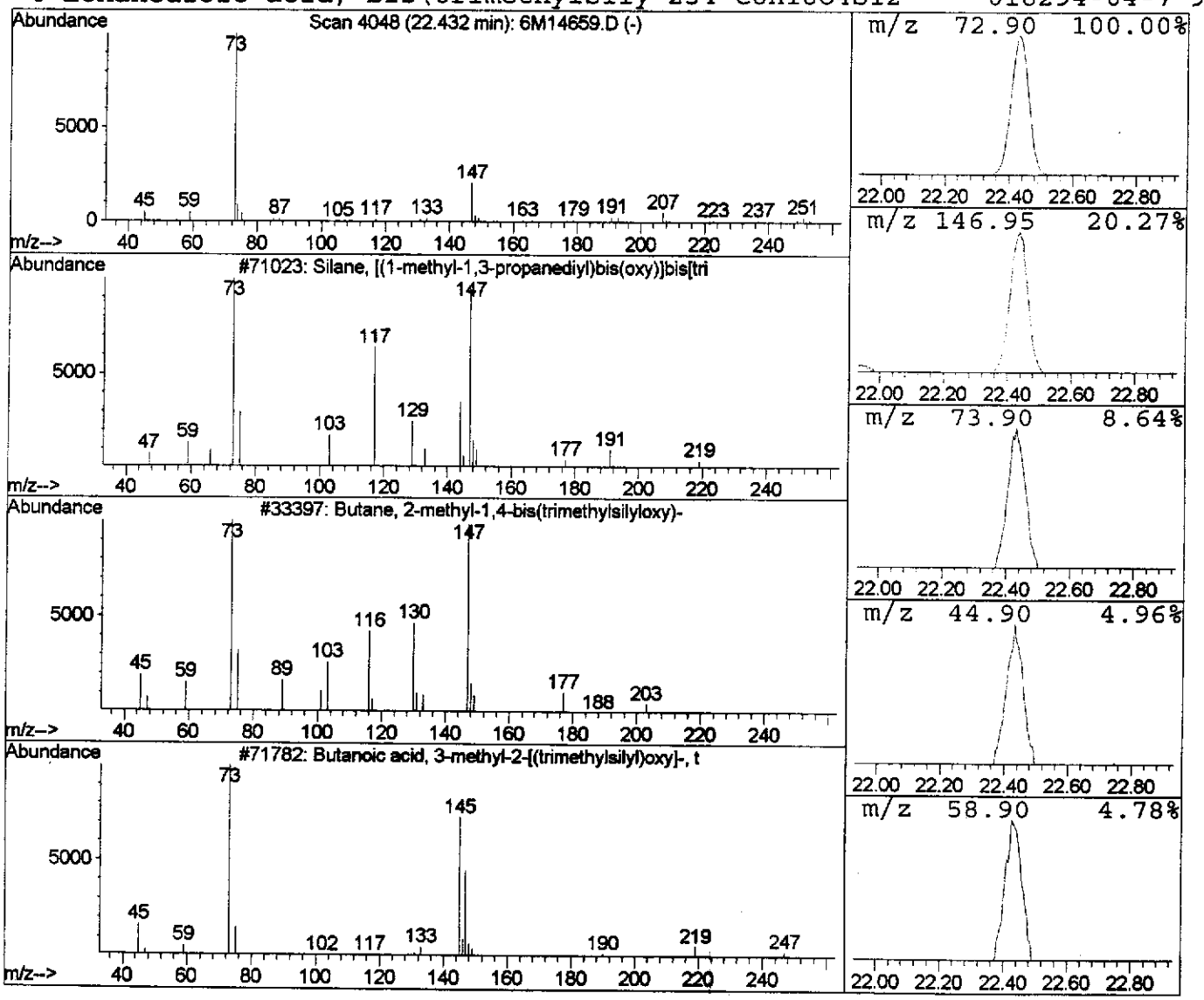

Tentatively Identified Compound (LSC) summary

Operator ID: CMS Date Acquired: 22 Jul 1999 13:27
Data File: C:\HPCHEM\1\DATA\072299\6M14659.D
Name: L9907381-02 A LANL 826LA 5.7G/5ML
Misc: SOLID,0.9
Method: C:\HPCHEM\1\METHODS\8260BSL.M (RTE Integrator)
Title: Method 8260B_SOIL - ICAL 07/15/99
Library Searched: C:\DATABASE\NBS75K.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISCon
Carbon dioxide	3.23	14.8	ug/Kg	988368	ISTD01	11.92	3005430	50
Nonane	16.14	5.5	ug/Kg	454015	ISTD02	16.43	3685310	50
Octane, 2,6-dimethyl	16.82	8.4	ug/Kg	688952	ISTD02	16.43	3685310	50
Cyclohexane, 1-ethyl	16.97	5.2	ug/Kg	426906	ISTD02	16.43	3685310	50
Cyclotrisiloxane, he	17.15	26.5	ug/Kg	2173620	ISTD02	16.43	3685310	50
Cyclohexane, propyl-	17.41	16.5	ug/Kg	1348350	ISTD02	16.43	3685310	50
Nonane, 3-methyl-	17.58	6.9	ug/Kg	565026	ISTD02	16.43	3685310	50
Decane	18.12	27.4	ug/Kg	2244310	ISTD02	16.43	3685310	50
Cyclohexane, 1-methy	18.74	6.0	ug/Kg	364545	ISTD03	20.01	2738970	50
Cyclohexane, butyl-	19.39	8.8	ug/Kg	536574	ISTD03	20.01	2738970	50
Benzeneethanamine, N	19.76	19.2	ug/Kg	1165620	ISTD03	20.01	2738970	50
Undecane	19.92	6.1	ug/Kg	368874	ISTD03	20.01	2738970	50
Benzene, 1-methyl-3-	20.18	7.5	ug/Kg	453520	ISTD03	20.01	2738970	50
Naphthalene, decahyd	20.46	10.6	ug/Kg	644208	ISTD03	20.01	2738970	50
Silane, [(1-methyl-1	22.43	7.4	ug/Kg	451710	ISTD03	20.01	2738970	50

6M14659.D 8260BSL.M Thu Jul 22 14:43:51 1999 HPMS_6

Quantitation Report

Data File : C:\HPCHEM\1\DATA\072299\6M14660.D
Acq On : 22 Jul 1999 14:05
Sample : L9907381-03 A LANL 826LA 5.3G/5ML
Misc : SOLID,0.9
MS Integration Params: rteint.p
Quant Time: Jul 22 14:46 1999

Vial: 9
Operator: CMS
Inst : HPMS_6
Multiplr: 0.90

Quant Results File: 8260BSL.RES

Method : C:\HPCHEM\1\METHODS\8260BSL.M (RTE Integrator)
Title : Method 8260B_SOIL - ICAL 07/15/99
Last Update : Thu Jul 22 09:02:15 1999
Response via : Initial Calibration

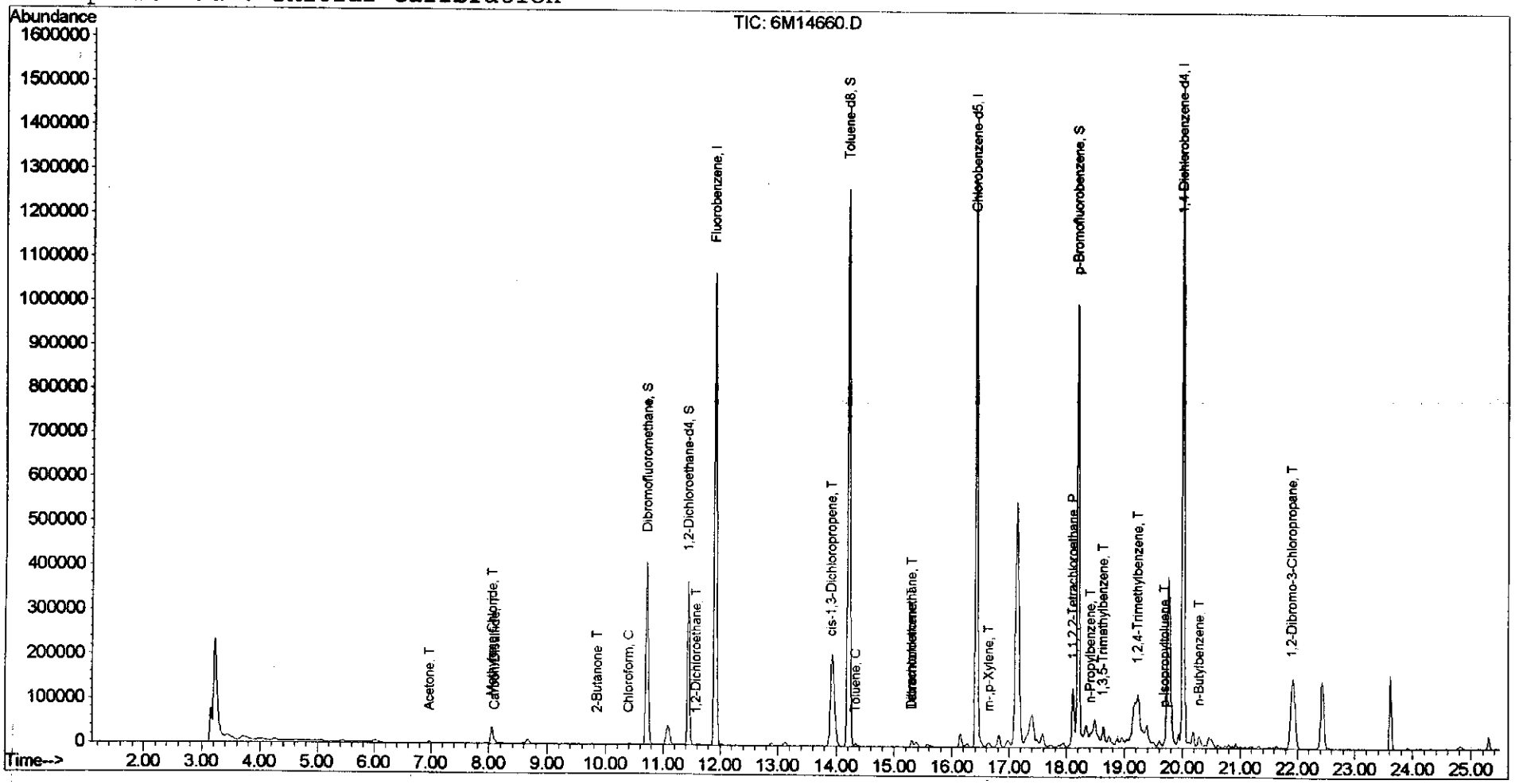

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\072299\6M14660.D Vial:
Acq On : 22 Jul 1999 14:05 Operator: CMS
Sample : L9907381-03 A LANL 826LA 5.3G/5ML Inst : HPMS_6
Misc : SOLID,0.9 Multiplr: 0.90
MS Integration Params: rteint.p
Quant Time: Jul 22 14:46 1999 Quant Results File: 8260BSL.R

Quant Method : C:\HPCHEM\1\METHODS\8260BSL.M (RTE Integrator)
Title : Method 8260B_SOIL - ICAL 07/15/99
Last Update : Thu Jul 22 09:02:15 1999
Response via : Initial Calibration
DataAcq Meth : 8260BSL

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene	11.92	96	1502416	50.00 ug/Kg	0.00
44) Chlorobenzene-d5	16.43	117	1140777	50.00 ug/Kg	0.00
64) 1,4-Dichlorobenzene-d4	20.01	152	556032	50.00 ug/Kg	0.00
System Monitoring Compounds					
28) Dibromofluoromethane	10.73	111	394971	45.23 ug/Kg	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 90.46%		
33) 1,2-Dichloroethane-d4	11.45	65	385251	45.13 ug/Kg	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 90.26%		
45) Toluene-d8	14.21	98	1367861	43.90 ug/Kg	0.00
Spiked Amount 50.000	Range 81 - 117		Recovery = 87.80%		
66) p-Bromofluorobenzene	18.20	95	525134	47.62 ug/Kg	0.00
Spiked Amount 50.000	Range 74 - 121		Recovery = 95.24%		

Target Compounds					Qvalue
11) Acetone	6.97	43	10027	5.41 ug/Kg J	97
15) Methylene Chloride	8.05	84	32162	3.62 ug/Kg B	86
16) Carbon Disulfide	8.11	76	8252	0.28 ug/Kg#	82
23) 2-Butanone	9.85	43	1380	0.56 ug/Kg#	54
26) Chloroform	10.41	83	3145	0.20 ug/Kg#	83
34) 1,2-Dichloroethane	11.59	62	2223	0.21 ug/Kg#	78
42) cis-1,3-Dichloropropene	13.91	75	2109	0.19 ug/Kg#	53
46) Toluene	14.33	91	9823	0.27 ug/Kg	98
52) Tetrachloroethene	15.29	164	4402	0.50 ug/Kg J	95
53) Dibromochloromethane	15.29	129	4059	0.50 ug/Kg#	11
59) m-,p-Xylene	16.64	106	2983	0.18 ug/Kg	77
65) 1,1,2,2-Tetrachloroethane	18.11	83	8752	1.21 ug/Kg#	1
69) n-Propylbenzene	18.41	91	7780	0.17 ug/Kg#	87
71) 1,3,5-Trimethylbenzene	18.63	105	30212	0.94 ug/Kg J	90
76) 1,2,4-Trimethylbenzene	19.24	105	53660	1.60 ug/Kg J	91
78) p-Isopropyltoluene	19.69	119	6513	0.17 ug/Kg	94
81) n-Butylbenzene	20.29	91	8576	0.26 ug/Kg#J	1
83) 1,2-Dibromo-3-Chloropropan	21.90	157	1439	0.76 ug/Kg#	4

(#) = qualifier out of range (m) = manual integration

87

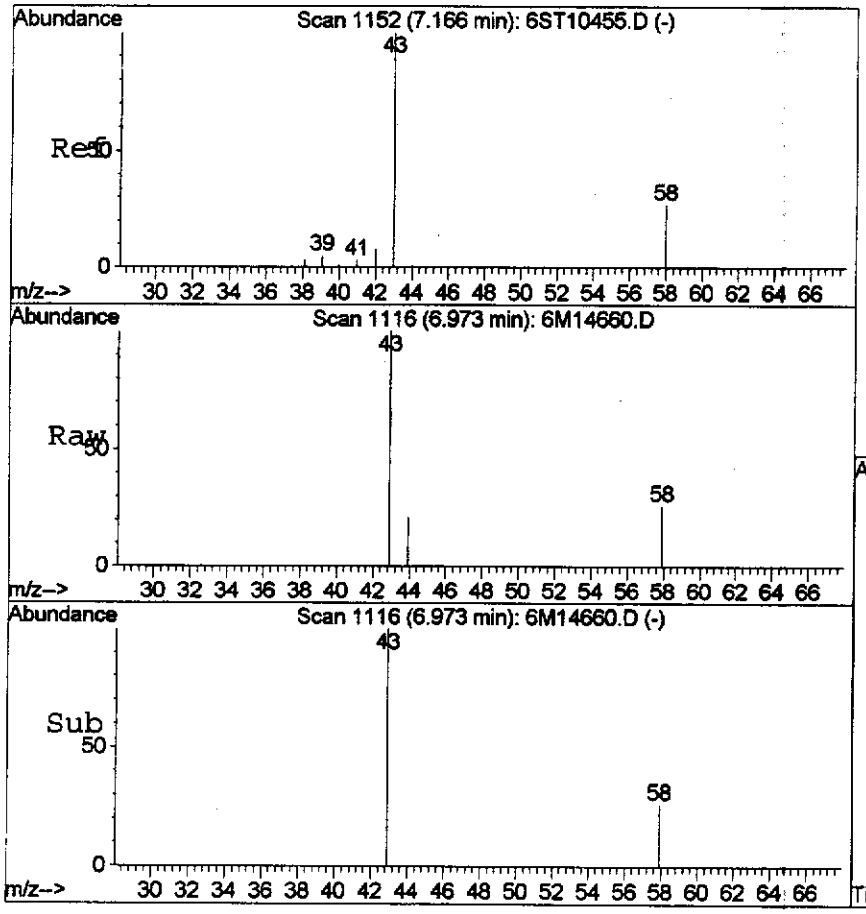

#11
Acetone
Concen: 5.41 ug/Kg
RT: 6.97 min Scan# 1116
Delta R.T. 0.01 min
Lab File: 6M14660.D
Acq: 22 Jul 1999 14:05

Tgt Ion: 43 Resp: 10027

Ion	Ratio	Lower	Upper
43	100		
58	27.2	22.9	34.3

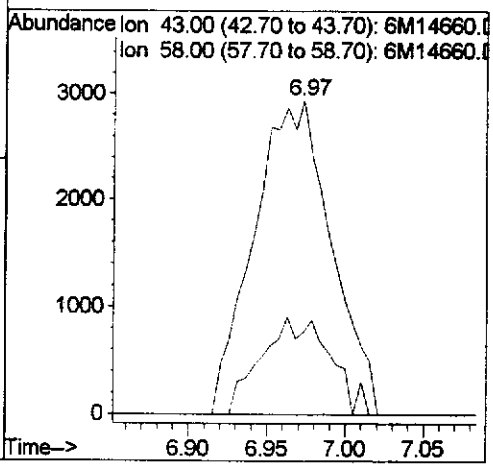

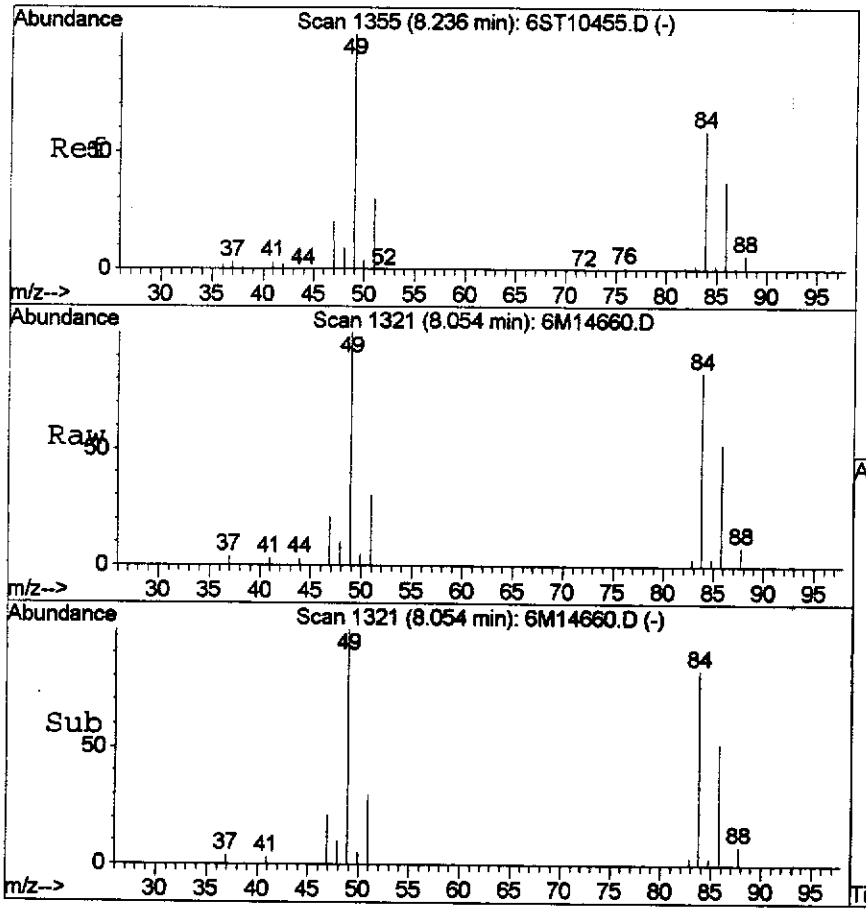

#15
Methylene Chloride
Concen: 3.62 ug/Kg
RT: 8.05 min Scan# 1321
Delta R.T. 0.01 min
Lab File: 6M14660.D
Acq: 22 Jul 1999 14:05

Tgt Ion: 84 Resp: 32162

Ion	Ratio	Lower	Upper
84	100		
49	121.1	110.3	165.5

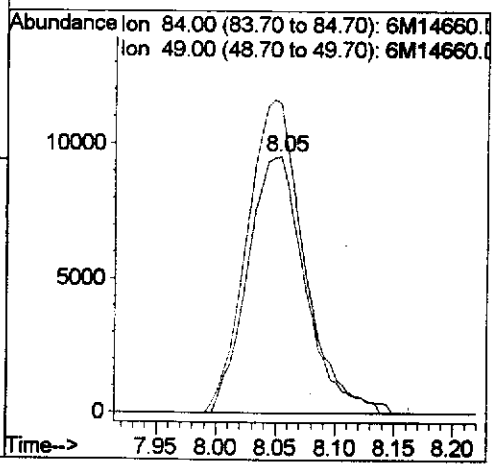

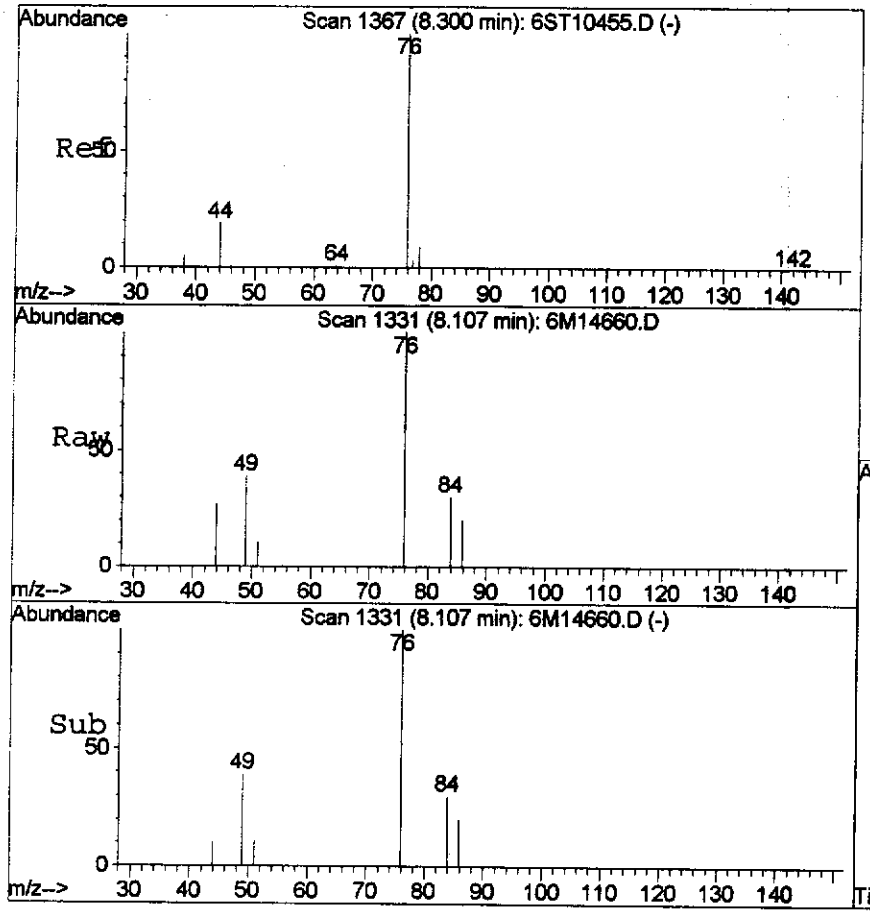

#16
Carbon Disulfide
Concen: 0.28 ug/Kg
RT: 8.11 min Scan# 1331
Delta R.T. -0.01 min
Lab File: 6M14660.D
Acq: 22 Jul 1999 14:05

Tgt Ion: 76 Resp: 8252

Ion	Ratio	Lower	Upper
76	100		
78	2.4	7.2	10.8#

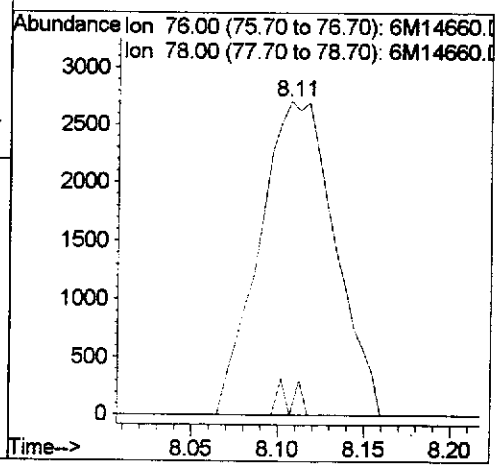

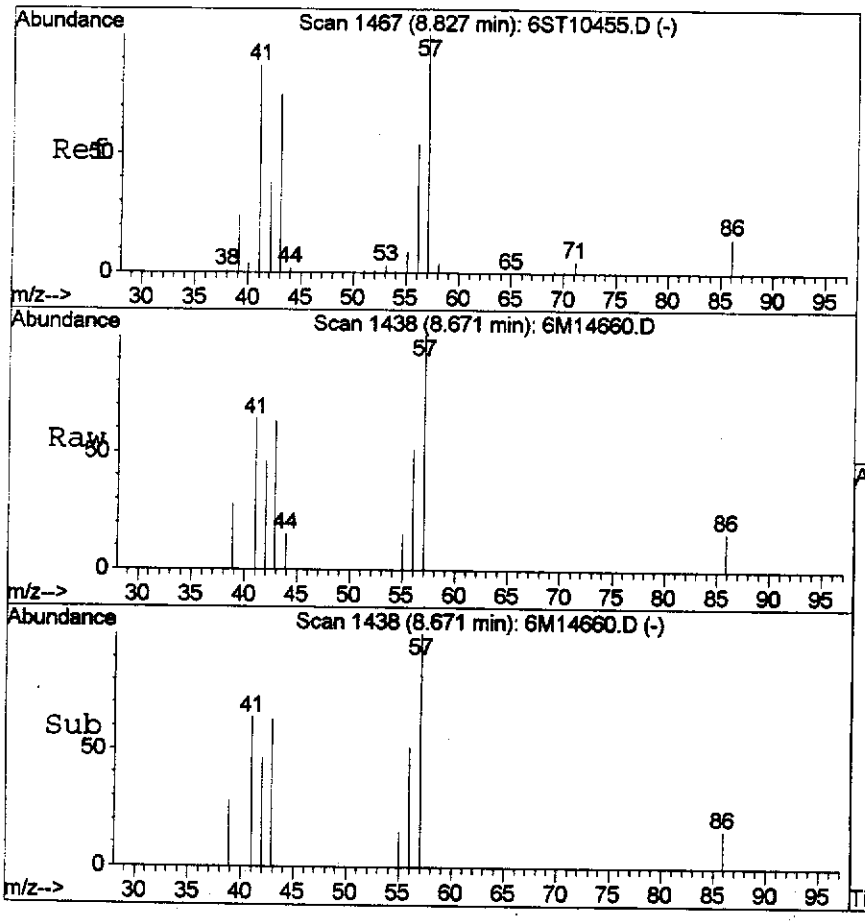

#20
n-Hexane
Concen: 0.56 ug/Kg
RT: 8.67 min Scan# 1438
Delta R.T. 0.01 min
Lab File: 6M14660.D
Acq: 22 Jul 1999 14:05

Tgt Ion: 57 Resp: 7786

Ion	Ratio	Lower	Upper
57	100		
43	70.7	56.7	85.1

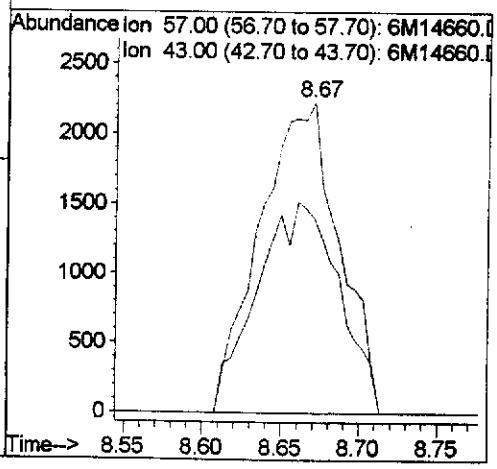

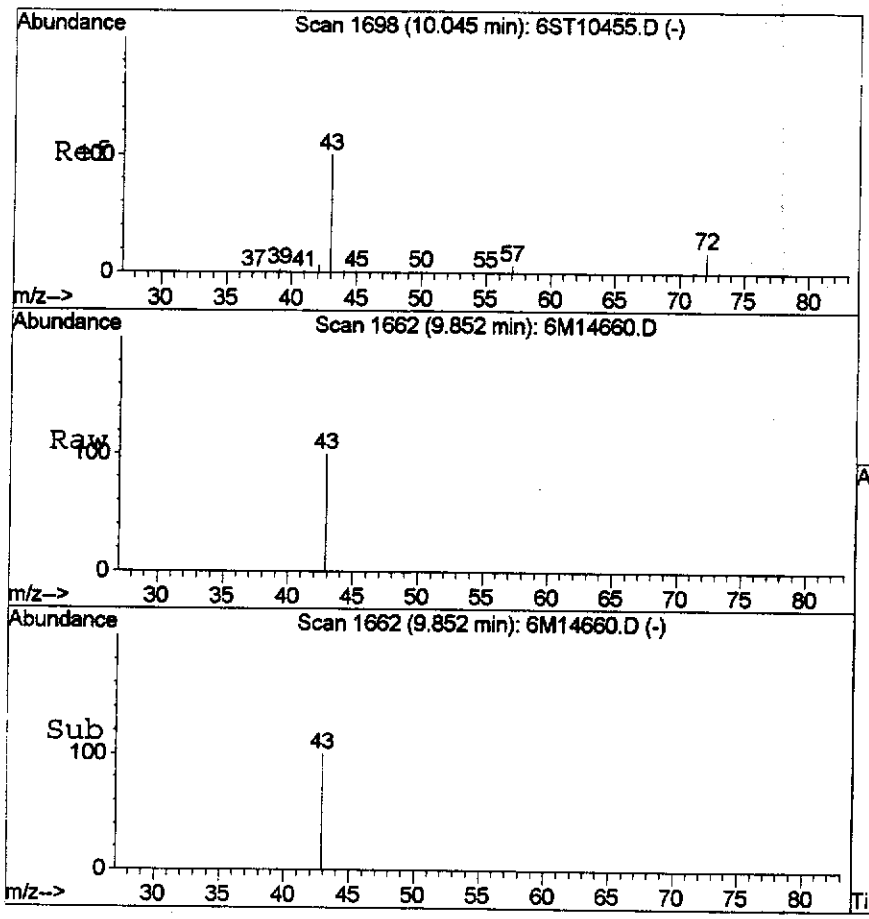

#23
2-But[illegible]ne
Concen: 0.56 ug/Kg
RT: 9.85 min Scan# 1662
Delta R.T. 0.00 min
Lab File: 6M14660.D
Acq: 22 Jul 1999 14:05

Tgt Ion: 43 Resp: 1380

Ion	Ratio	Lower	Upper
43	100		
72	0.0	17.6	26.4#

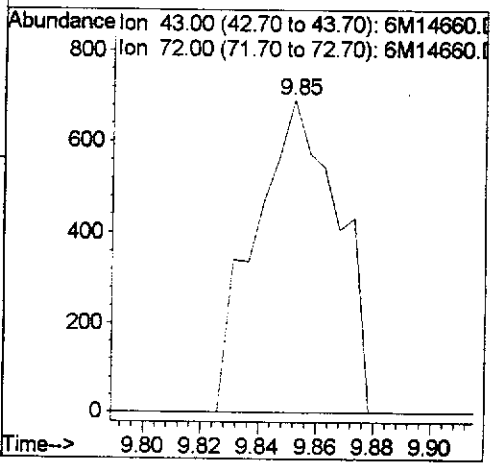

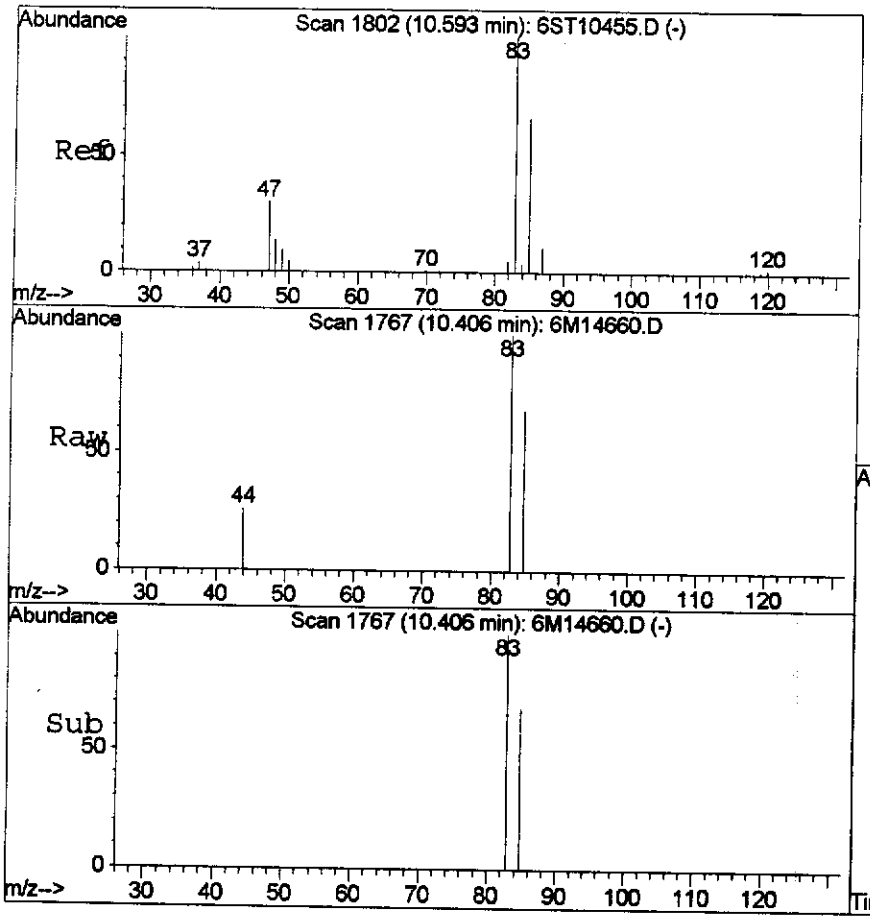

#26
Chloroform
Concen: 0.20 ug/Kg
RT: 10.41 min Scan# 1767
Delta R.T. -0.00 min
Lab File: 6M14660.D
Acq: 22 Jul 1999 14:05

Tgt Ion: 83 Resp: 3145

Ion	Ratio	Lower	Upper
83	100		
85	63.0	52.2	78.2
47	0.0	20.8	31.2#

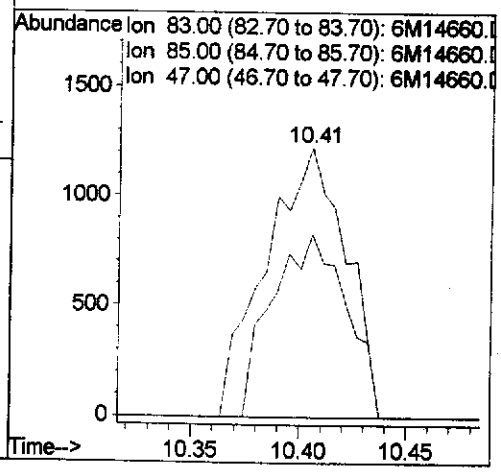

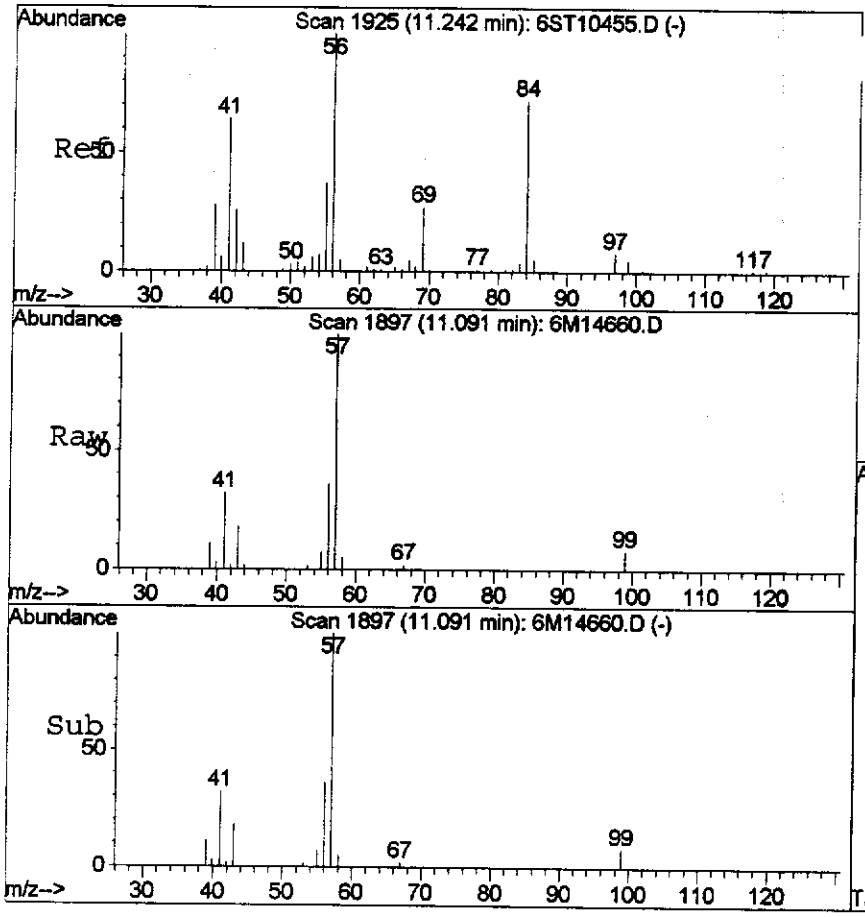

#30
Cyclohexane
Concen: 2.17 ug/Kg
RT: 11.09 min Scan# 1897
Delta R.T. 0.02 min
Lab File: 6M14660.D
Acq: 22 Jul 1999 14:05

Tgt Ion: 56 Resp: 29326

Ion	Ratio	Lower	Upper
56	100		
84	0.0	66.3	99.5#
41	97.7	50.0	75.0#

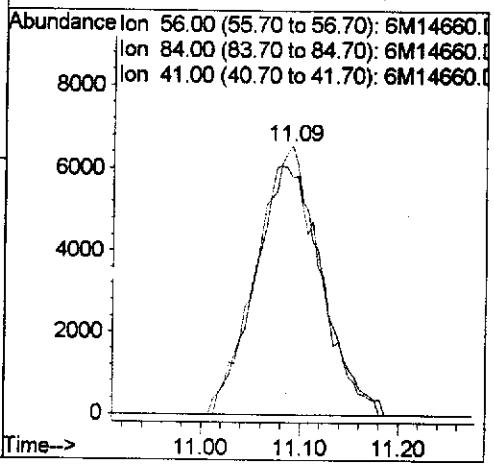

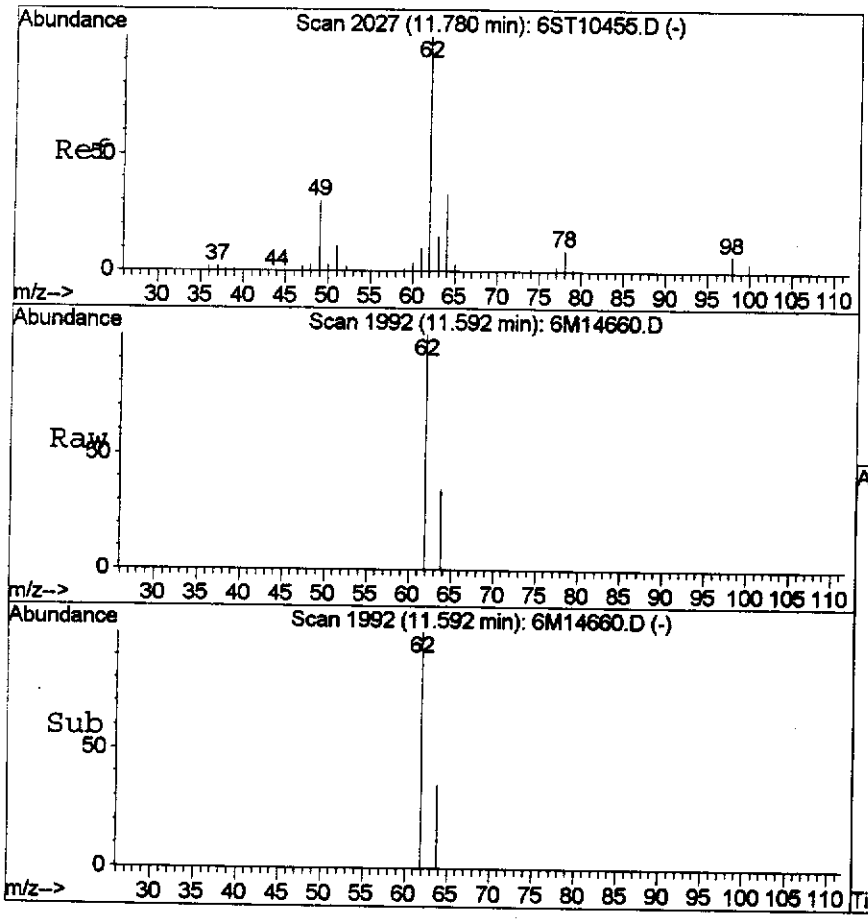

#34
1,2-Dichloroethane
Concen: 0.21 ug/Kg
RT: 11.59 min Scan# 1992
Delta R.T. 0.01 min
Lab File: 6M14660.D
Acq: 22 Jul 1999 14:05

Tgt Ion: 62 Resp: 2223

Ion	Ratio	Lower	Upper
62	100		
98	0.0	6.3	9.5#

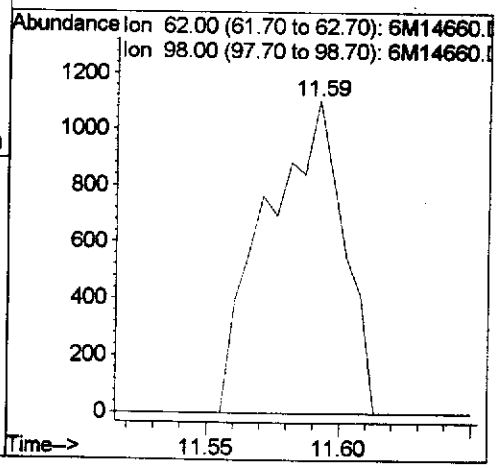

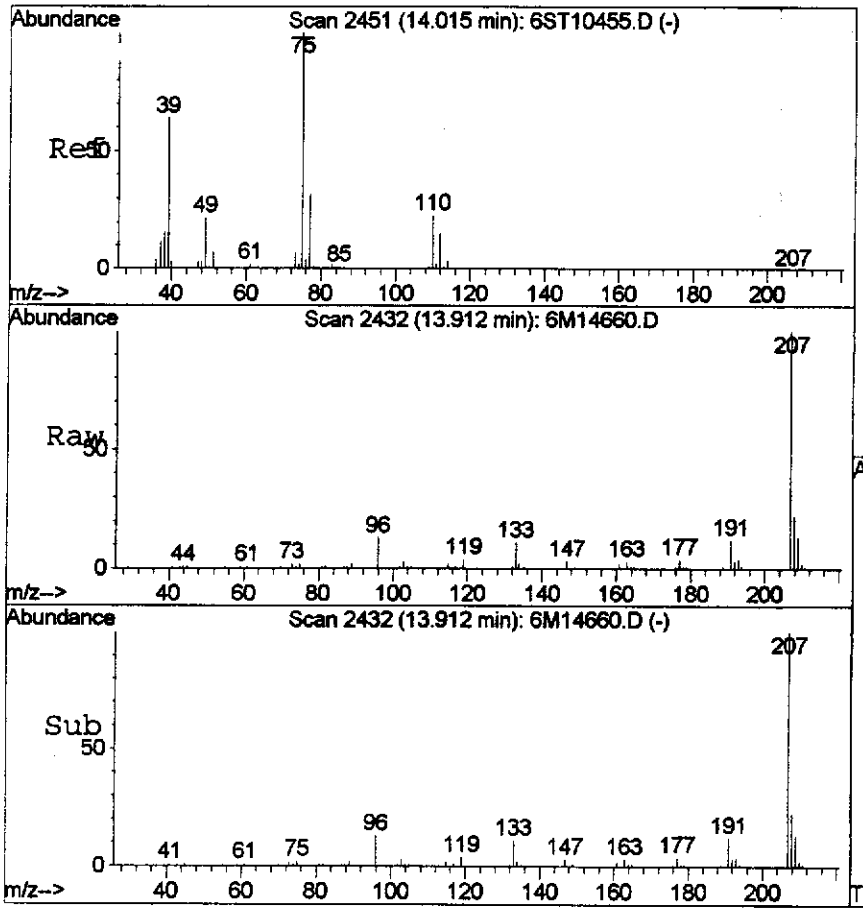

#42
cis-1,3 Di[illegible]ene
Concen: 0.19 ug/Kg
RT: 13.91 min Scan# 2432
Delta R.T. 0.08 min
Lab File: 6M14660.D
Acq: 22 Jul 1999 14:05

Tgt Ion: 75 Resp: 2109

Ion	Ratio	Lower	Upper
75	100		
110	0.0	18.2	27.4#

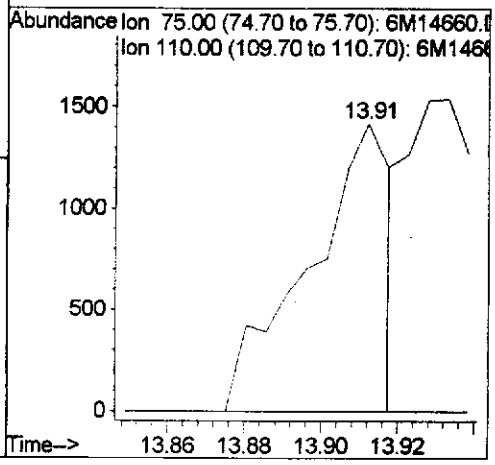

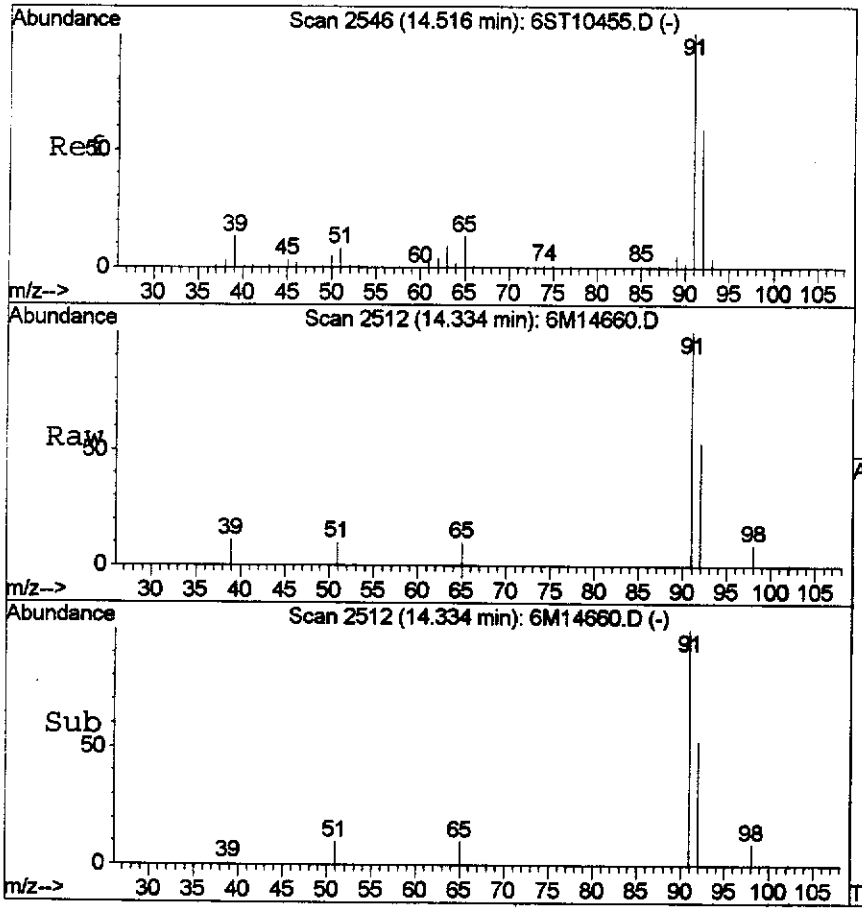

#46
Toluene
Concen: 0.27 ug/Kg
RT: 14.33 min Scan# 2512
Delta R.T. 0.01 min
Lab File: 6M14660.D
Acq: 22 Jul 1999 14:05

Tgt Ion: 91 Resp: 9823

Ion	Ratio	Lower	Upper
91	100		
92	57.4	46.9	70.3

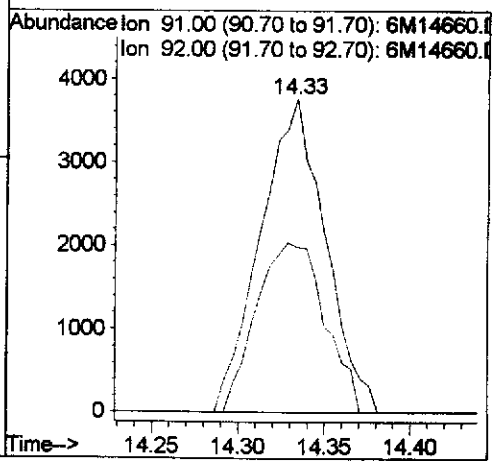

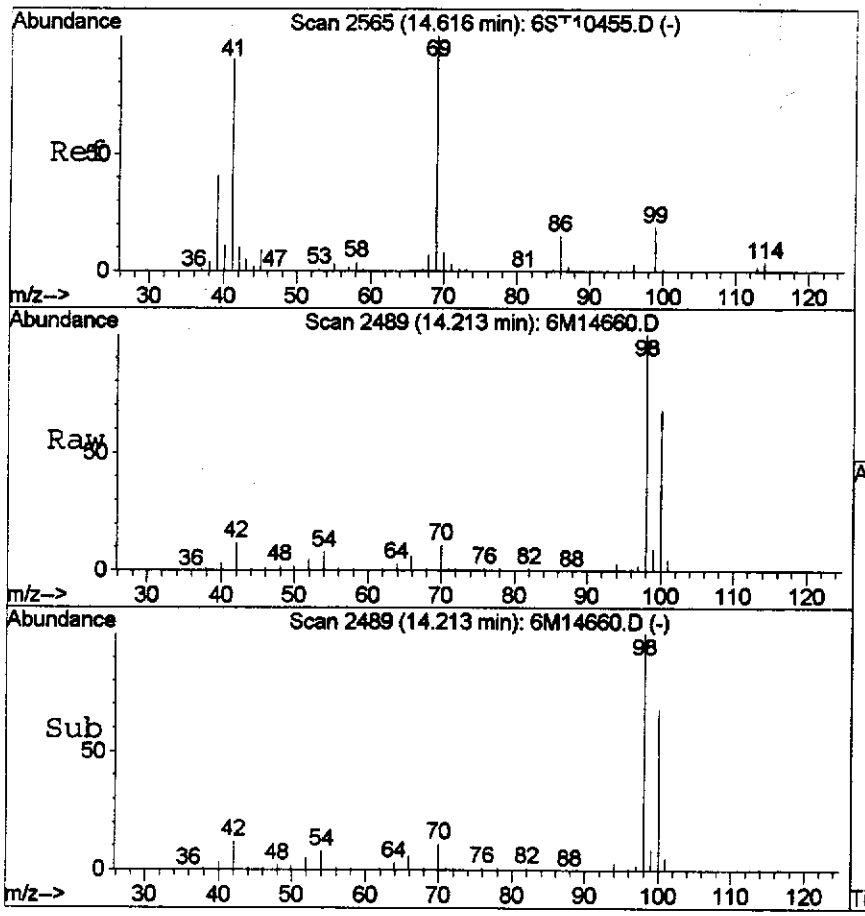

#47
Ethyl Methylate
Concen: 0.45 ug/Kg
RT: 14.21 min Scan# 2489
Delta R.T. -0.23 min
Lab File: 6M14660.D
Acq: 22 Jul 1999 14:05

Tgt Ion: 69 Resp: 3750

Ion	Ratio	Lower	Upper
69	100		
99	3501.9	15.2	22.8#

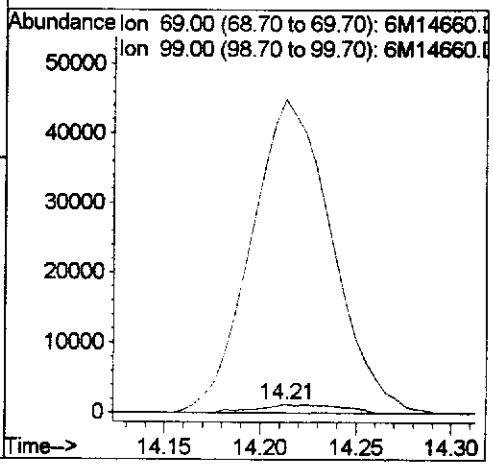

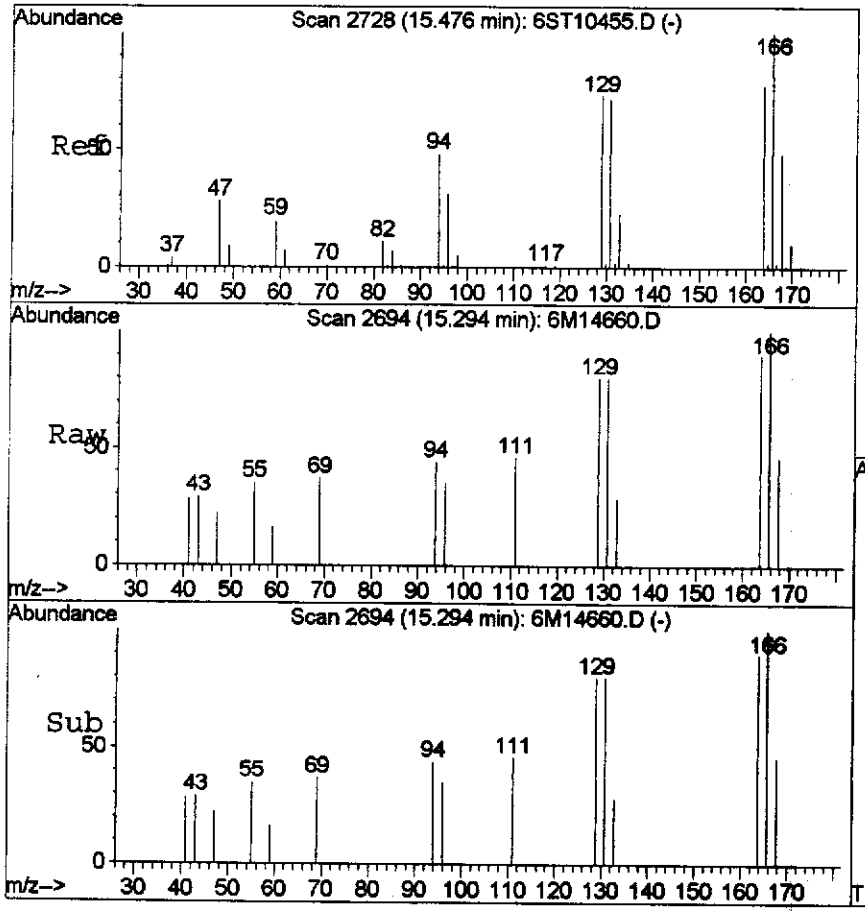

#52
Tetrachloroethene
Concen: 0.50 ug/Kg
RT: 15.29 min Scan# 2694
Delta R.T. -0.00 min
Lab File: 6M14660.D
Acq: 22 Jul 1999 14:05

Tgt Ion:164 Resp: 4402

Ion	Ratio	Lower	Upper
164	100		
129	92.2	74.6	111.8
94	49.8	47.0	70.4

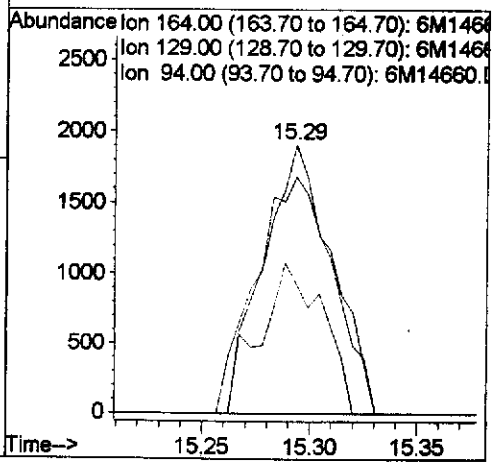

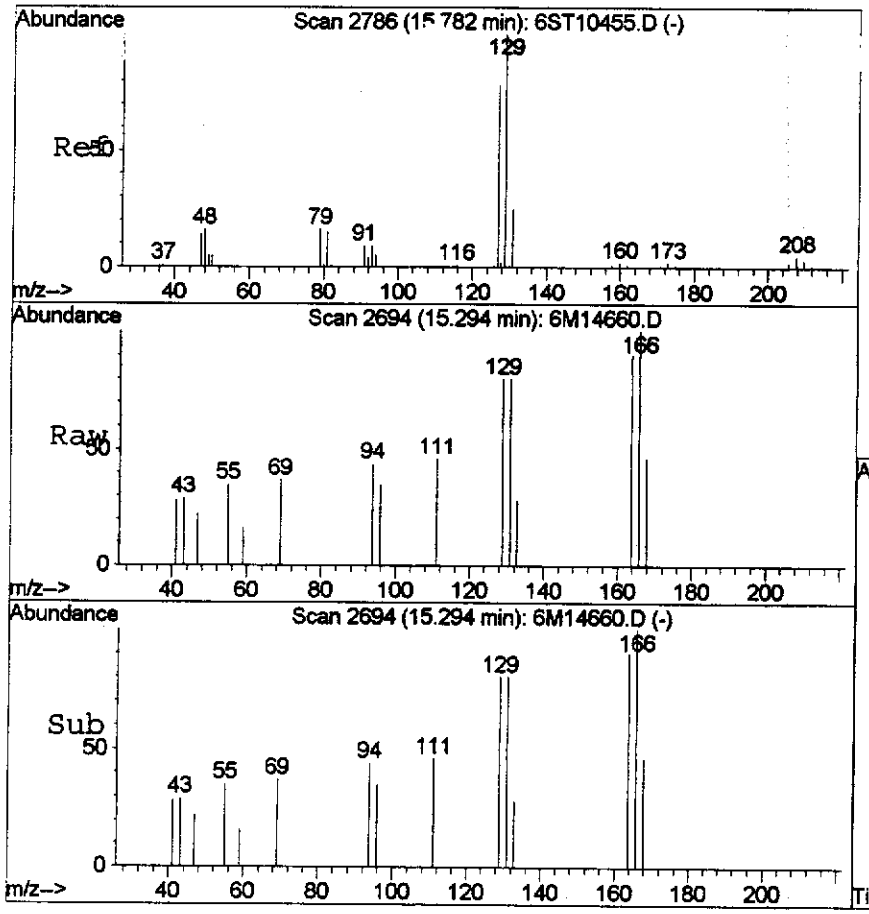

#53
Dil[illegible]ochl[illegible]romethane
Concen: 0.50 ug/Kg
RT: 15.29 min Scan# 2694
Delta R.T. -0.29 min
Lab File: 6M14660.D
Acq: 22 Jul 1999 14:05

Tgt Ion:129 Resp: 4059

Ion	Ratio	Lower	Upper
129	100		
127	0.0	62.1	93.1#

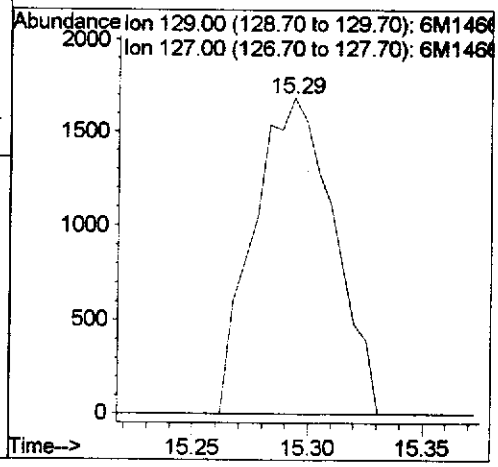

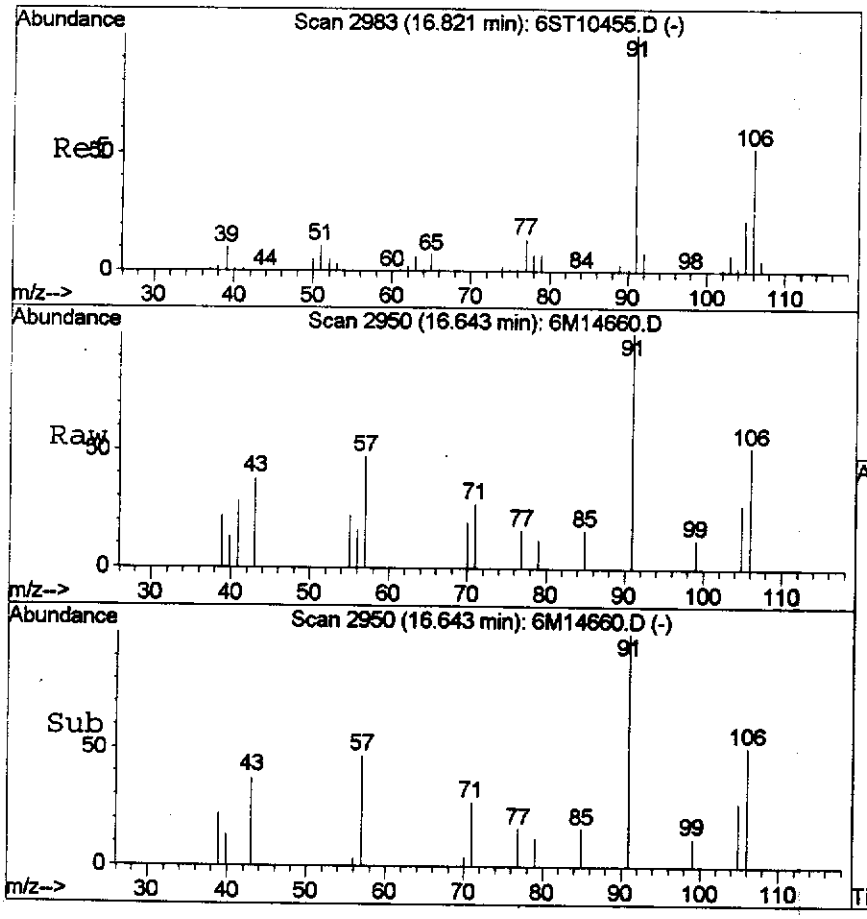

#59
m-,p-Xylene
Concen: 0.18 ug/Kg
RT: 16.64 min Scan# 2950
Delta R.T. 0.01 min
Lab File: 6M14660.D
Acq: 22 Jul 1999 14:05

Tgt Ion:106 Resp: 2983

Ion	Ratio	Lower	Upper
106	100		
91	237.3	161.5	242.3

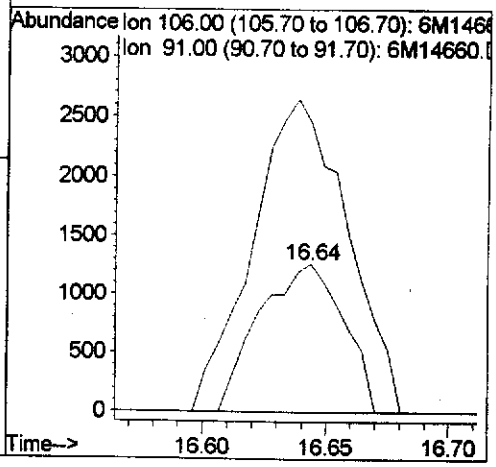

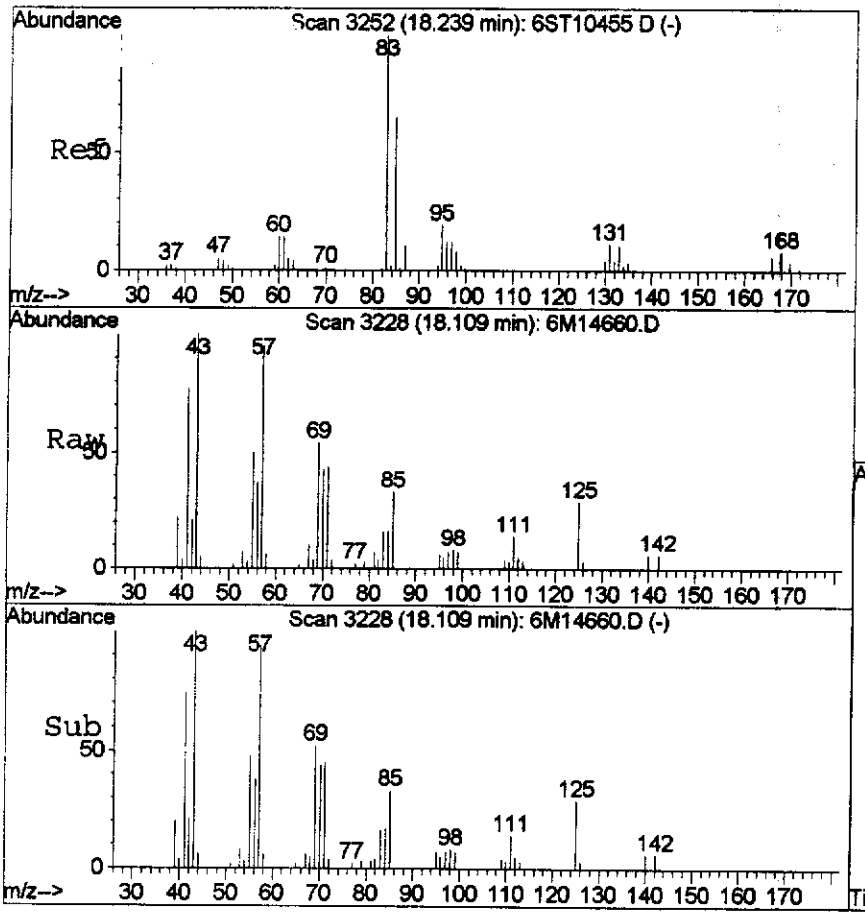

#65
1, ,2,2-Tetrachloroethane
Concen: 1.21 ug/Kg
RT: 18.11 min Scan# 3228
Delta R.T. 0.06 min
Lab File: 6M14660.D
Acq: 22 Jul 1999 14:05

Tgt Ion: 83 Resp: 8752

Ion	Ratio	Lower	Upper
83	100		
85	178.6	51.4	77.2#

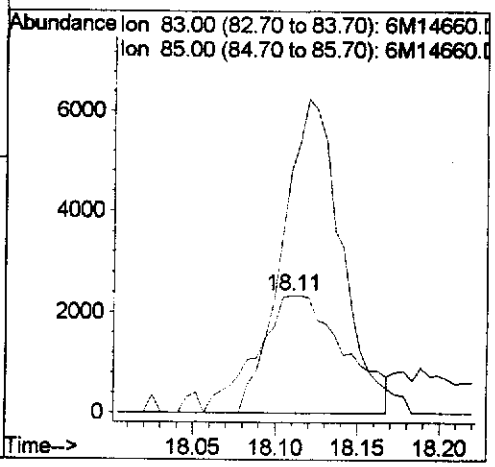

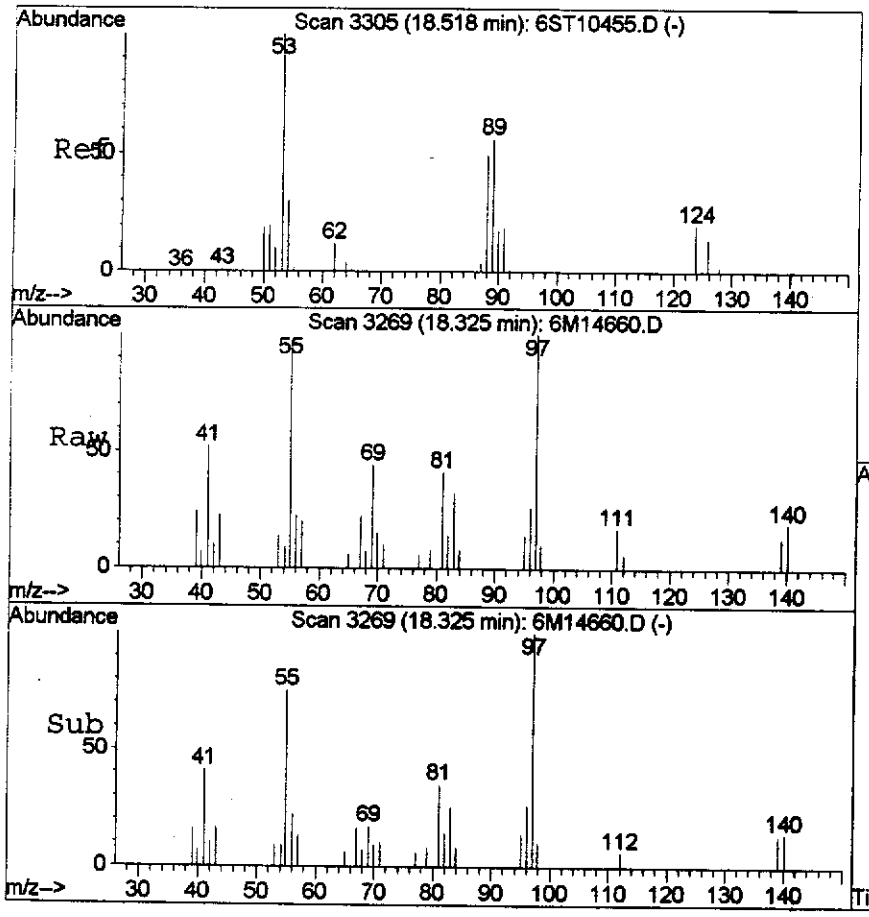

#68
trans-1,4-Dichloro-2-Buten
Concen: 0.22 ug/Kg
RT: 18.33 min Scan# 3269
Delta R.T. -0.00 min
Lab File: 6M14660.D
Acq: 22 Jul 1999 14:05

Tgt Ion: 53 Resp: 415

Ion	Ratio	Lower	Upper
53	100		
89	0.0	54.2	81.4#

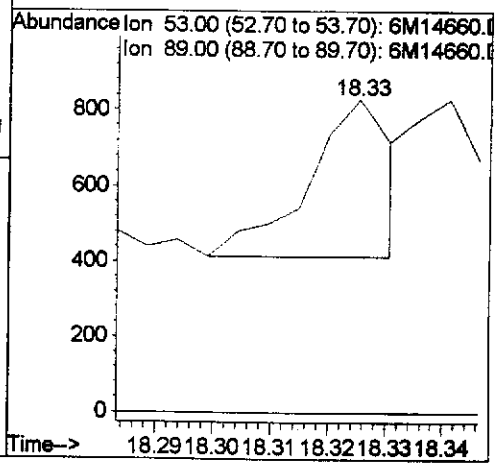

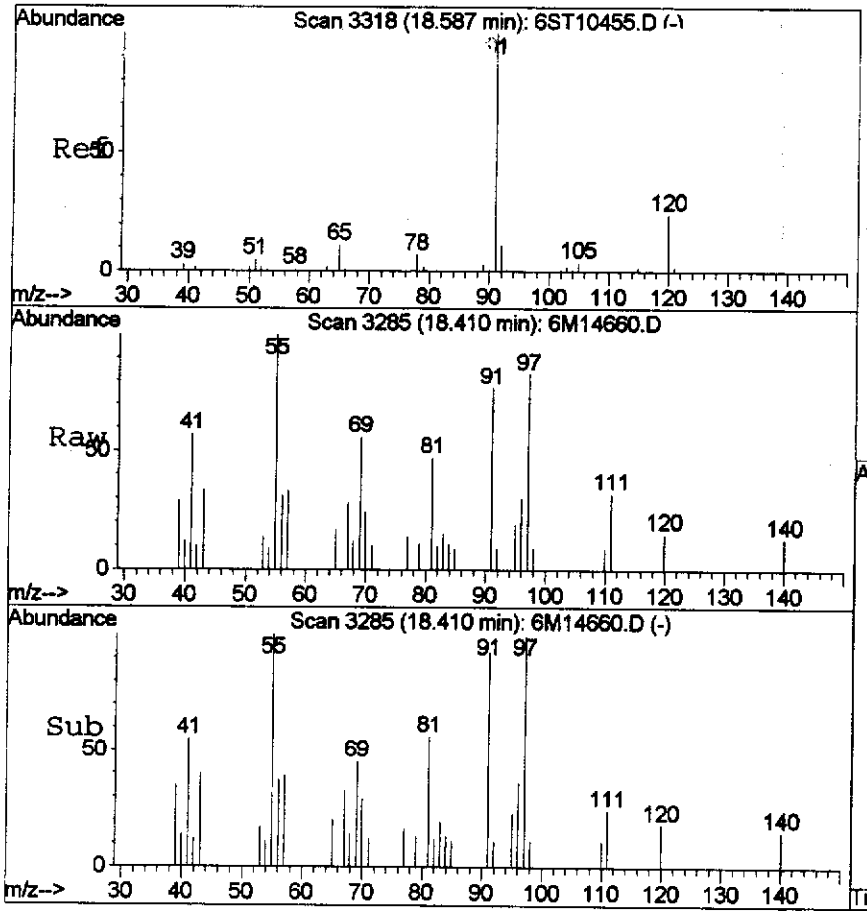

#69
n-Propylbenzene
Concen: 0.17 ug/Kg
RT: 18.41 min Scan# 3285
Delta R.T. 0.01 min
Lab File: 6M14660.D
Acq: 22 Jul 1999 14:05

Tgt Ion: 91 Resp: 7780

Ion	Ratio	Lower	Upper
91	100		
120	16.8	18.4	27.6#
105	0.0	3.0	4.4#

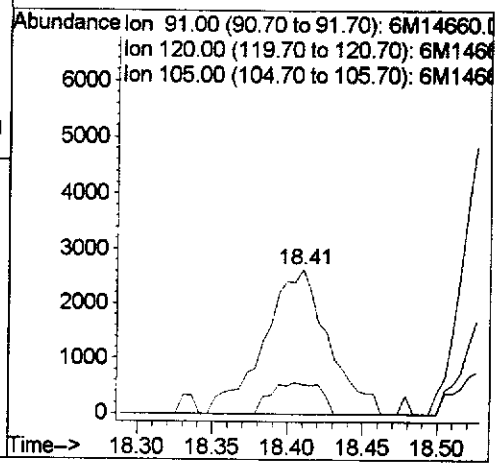

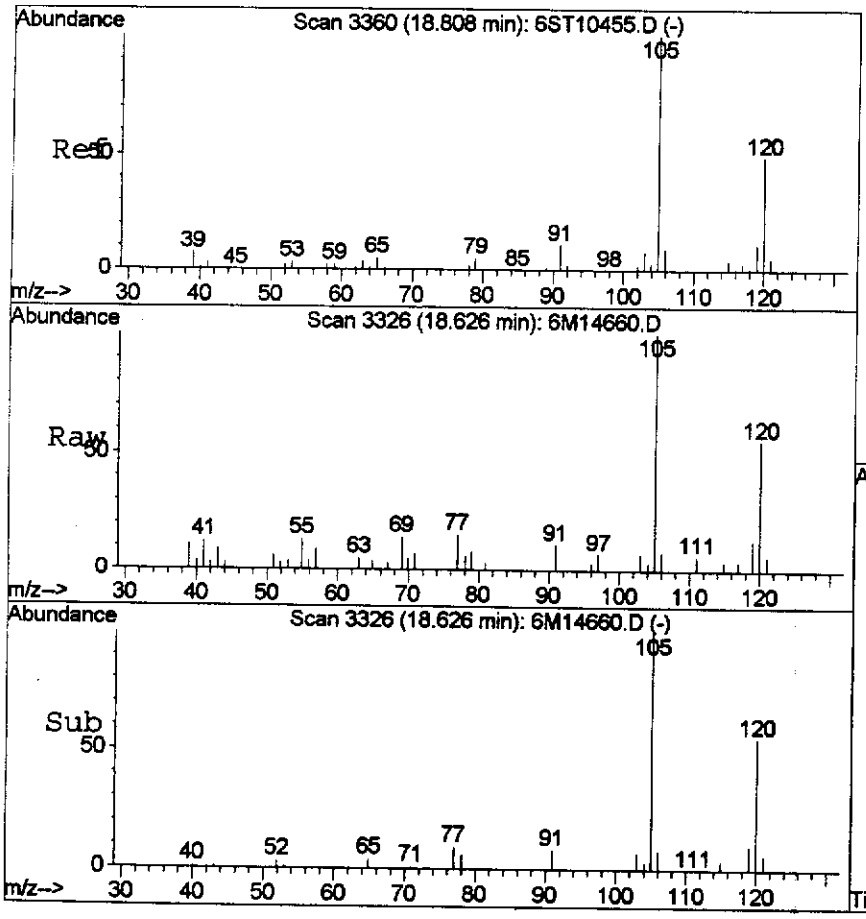

#71
1,3,5-Trimethylbenzene
Concen: 0.94 ug/Kg
RT: 18.63 min Scan# 3326
Delta R.T. -0.01 min
Lab File: 6M14660.D
Acq: 22 Jul 1999 14:05

Tgt Ion:105 Resp: 30212

Ion	Ratio	Lower	Upper
105	100		
120	56.3	39.4	59.0

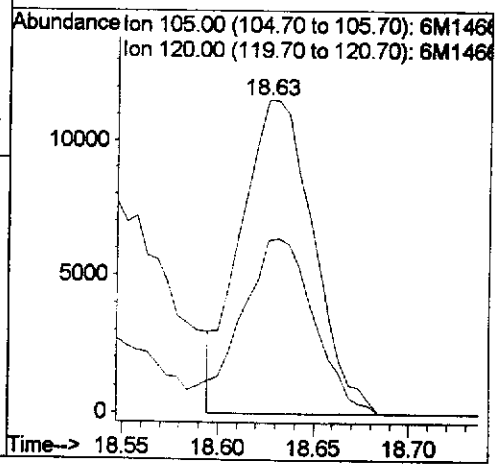

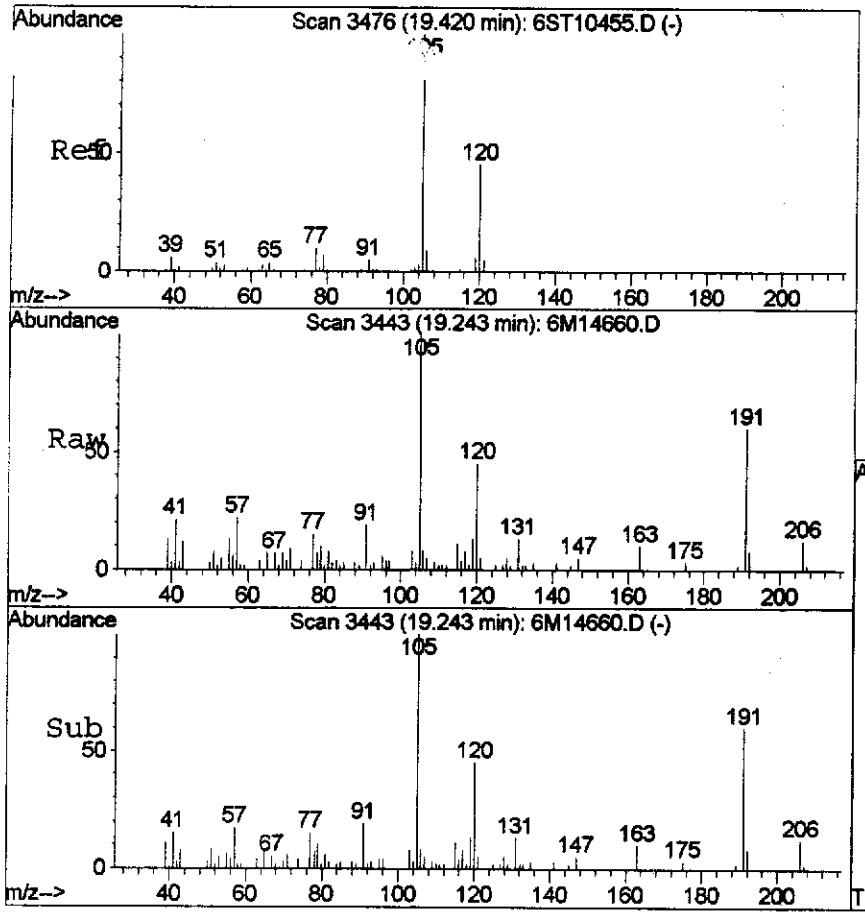

#76
1,2,4-Trimethylbenzene
Concen: 1.60 ug/Kg
RT: 19.24 min Scan# 3443
Delta R.T. -0.00 min
Lab File: 6M14660.D
Acq: 22 Jul 1999 14:05

Tgt Ion:105 Resp: 53660

Ion	Ratio	Lower	Upper
105	100		
120	40.7	37.0	55.6

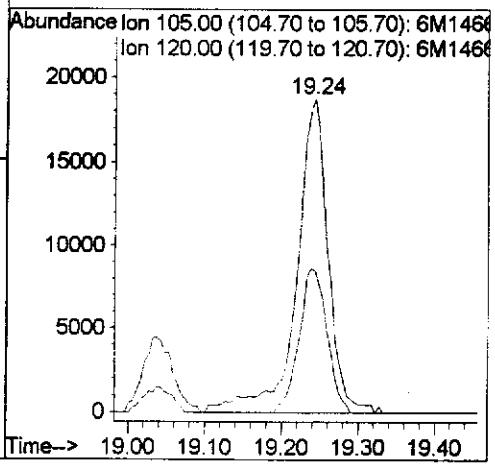

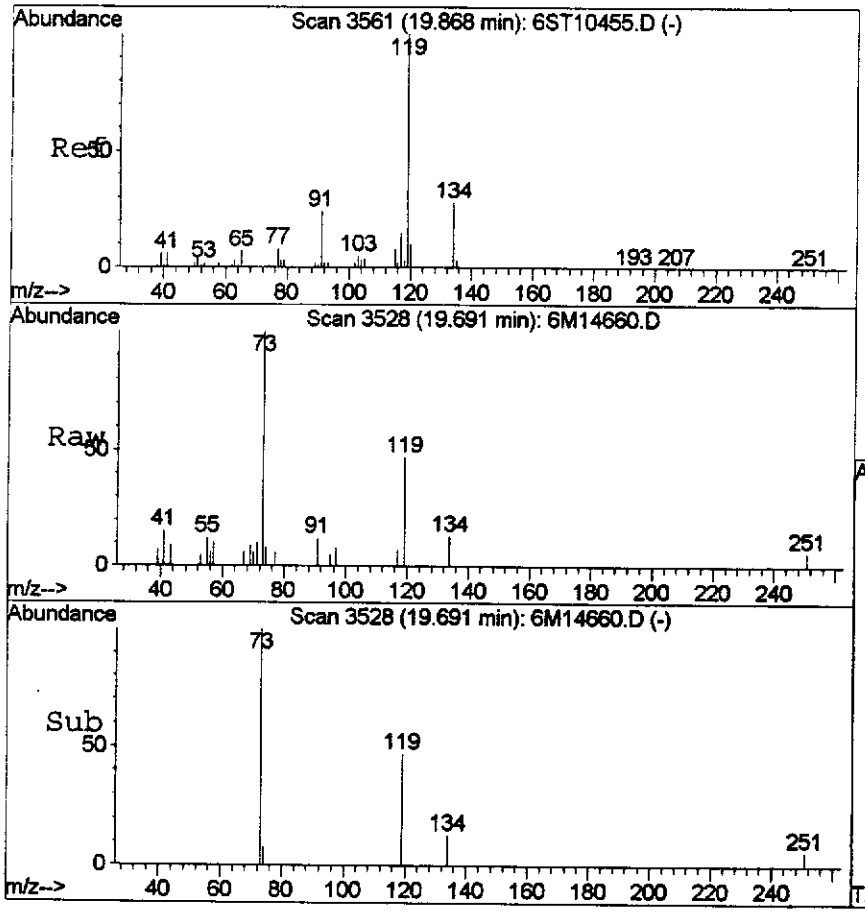

#78
p-Isopropyltoluene
Concen: 0.17 ug/Kg
RT: 19.69 min Scan# 3528
Delta R.T. -0.00 min
Lab File: 6M14660.D
Acq: 22 Jul 1999 14:05

Tgt Ion:119 Resp: 6513

Ion	Ratio	Lower	Upper
119	100		
134	24.1	21.8	32.8

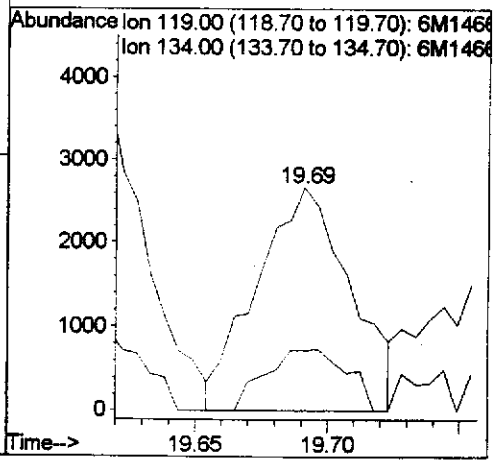

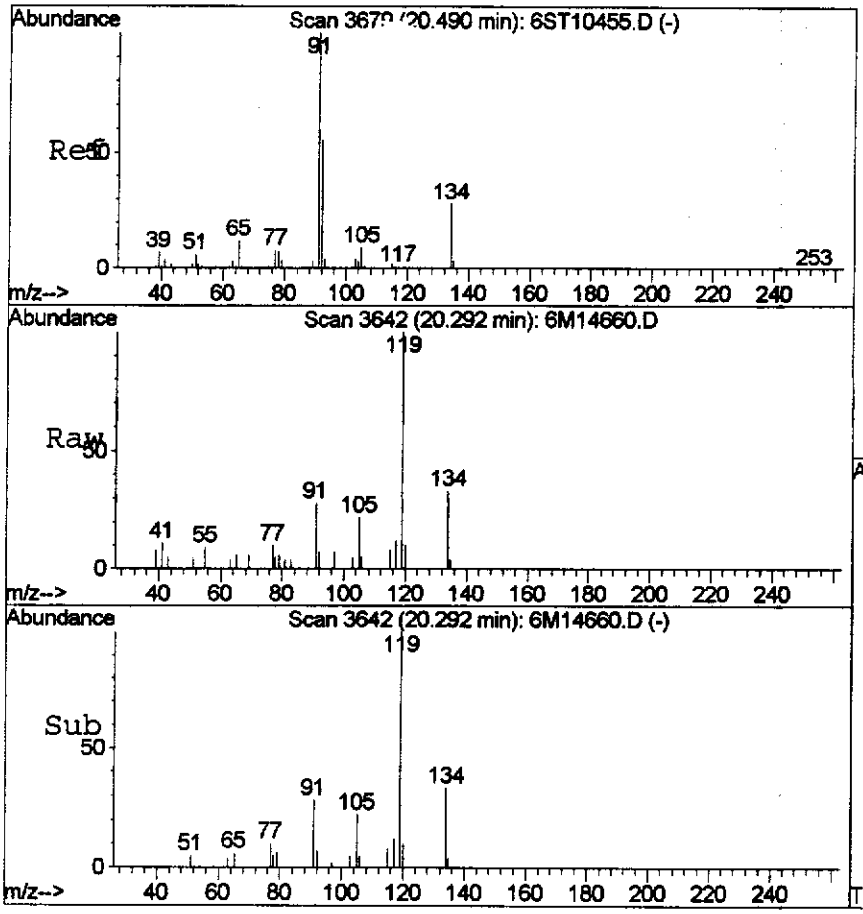

#81
n-Butylbenzene
Concen: 0.26 ug/Kg
RT: 20.29 min Scan# 3642
Delta R.T. -0.02 min
Lab File: 6M14660.D
Acq: 22 Jul 1999 14:05

Tgt Ion: 91 Resp: 8576

Ion	Ratio	Lower	Upper
91	100		
134	106.3	20.6	31.0#

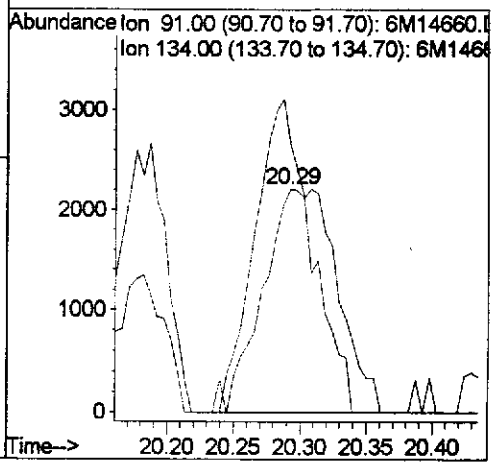

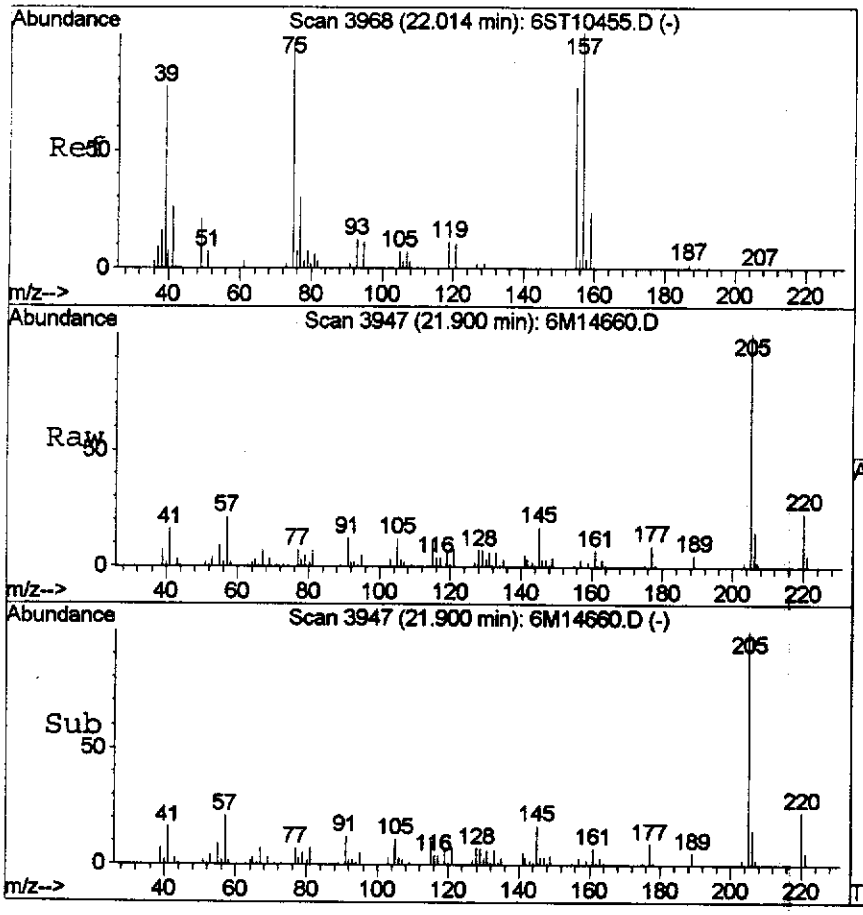

#83
1,2-Dibromo-3-Chloropropan
Concen: 0.76 ug/Kg
RT: 21.90 min Scan# 3947
Delta R.T. 0.07 min
Lab File: 6M14660.D
Acq: 22 Jul 1999 14:05

Tgt Ion:157 Resp: 1439

Ion	Ratio	Lower	Upper
157	100		
75	0.0	73.6	110.4#

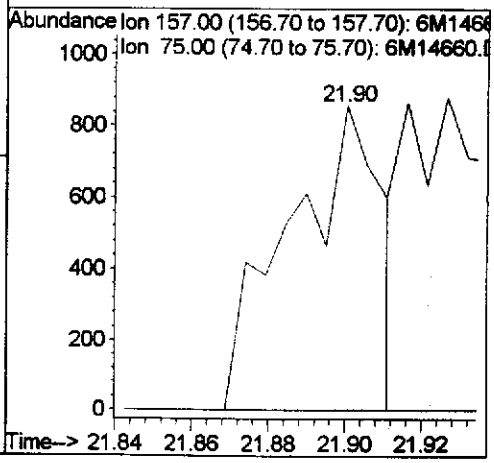

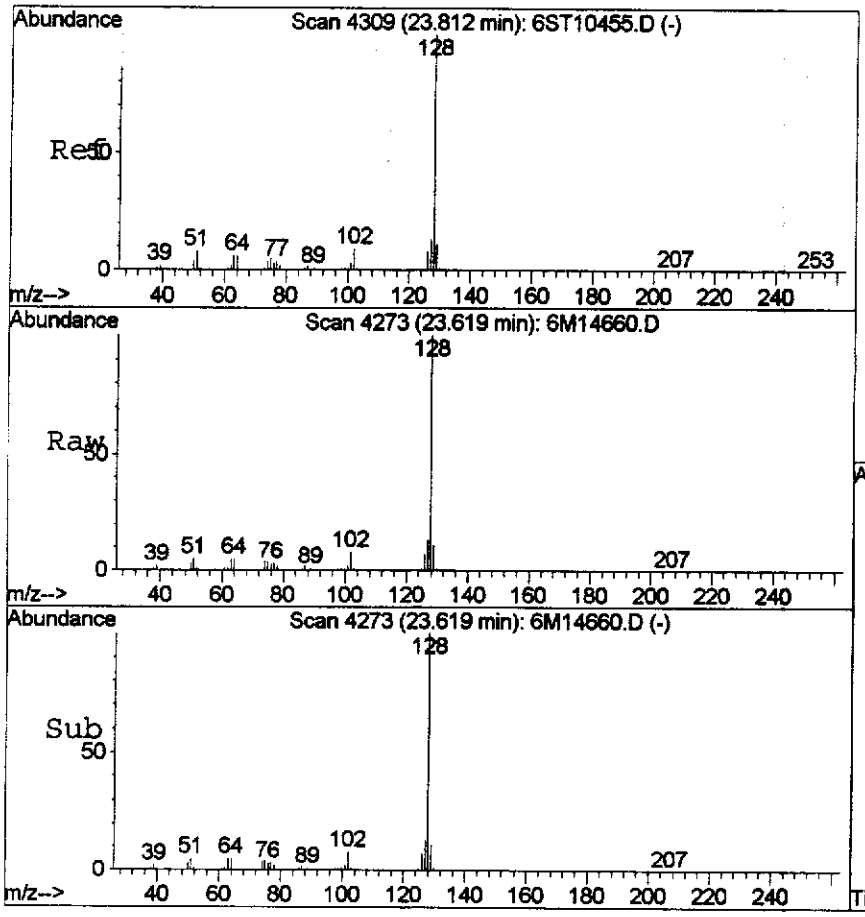

#86
Naphthalene
Concen: 8.35 ug/Kg
RT: 23.62 min Scan# 4273
Delta R.T. -0.00 min
Lab File: 6M14660.D
Acq: 22 Jul 1999 14:05

Tgt Ion:128 Resp: 195735

Ion	Ratio	Lower	Upper
128	100		
102	8.5	6.9	10.3

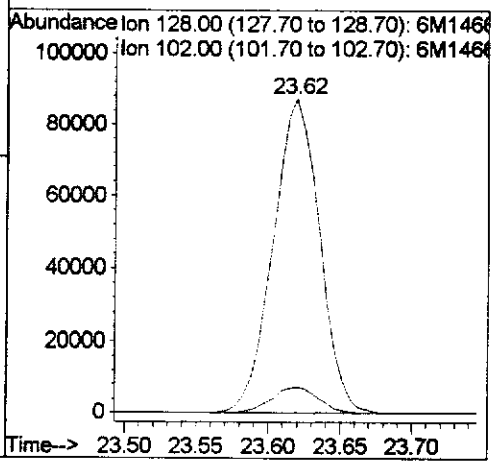

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\072299\6M14660.D Vial: 9
Acq On : 22 Jul 1999 14:05 Operator: CMS
Sample : L9907381-03 A LANL 826LA 5.3G/5ML Inst : HPMS_6
Misc : SOLID,0.9 Multiplr: 0.90
MS Integration Params: LSCINT.P

Quant Method : C:\HPCHEM\1\METHODS\8260BSL.M (RTE Integrator)
Title : Method 8260B_SOIL - ICAL 07/15/99
Library : C:\DATABASE\NBS75K.L

****

Peak Number 1 Carbon dioxide Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
3.23	13.27 ug/Kg	905641	Fluorobenzene	11.92

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qua
1	Carbon dioxide	44	CO2	000124-38-9	4
2	Carbon dioxide	44	CO2	000124-38-9	4
3	Ethylene oxide	44	C2H4O	000075-21-8	3
4	Nitrous Oxide	44	N2O	010024-97-2	3

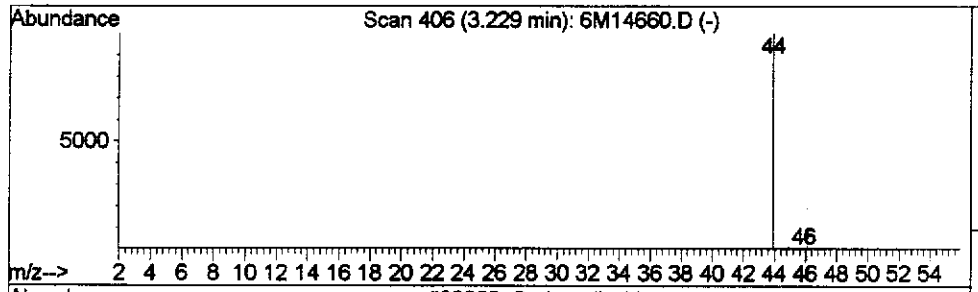

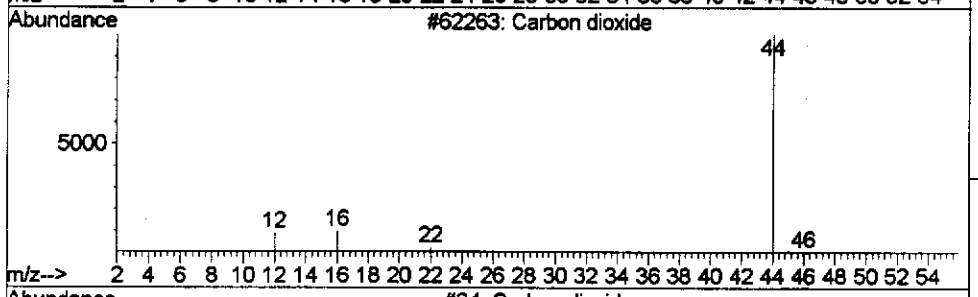

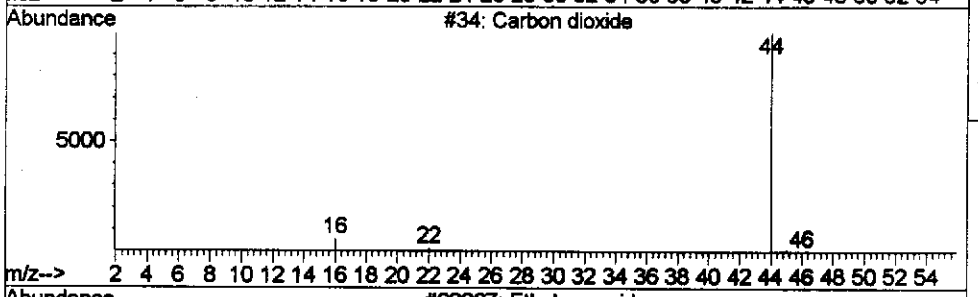

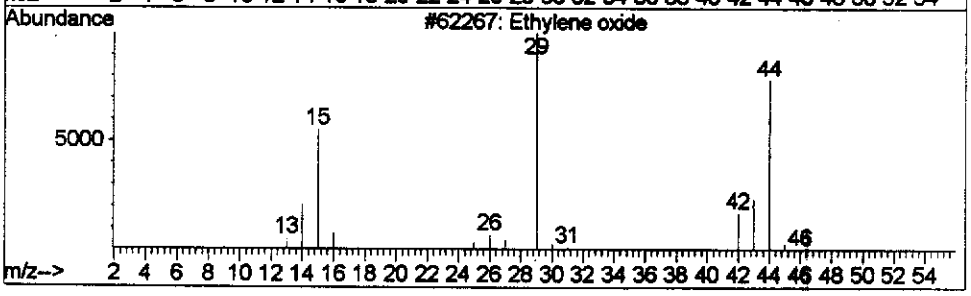

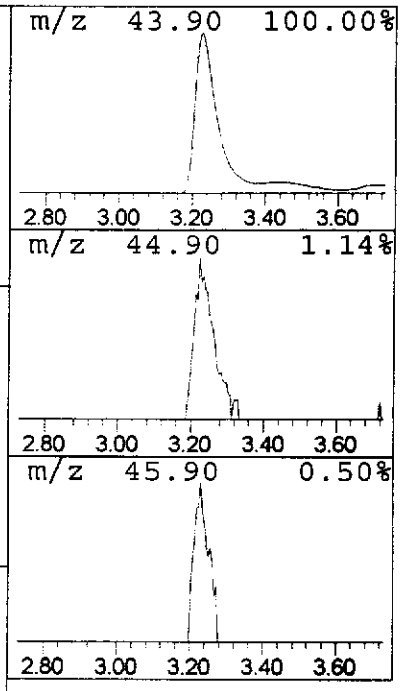

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\072299\6M14660 D Vial: 9
Acq On : 22 Jul 1999 14:05 Operator: CMS
Sample : L9907381-03 A LANL 826LA 5.3G/5ML Inst : HPMS_6
Misc : SOLID,0.9 Multiplr: 0.90
MS Integration Params: LSCINT.P

Quant Method : C:\HPCHEM\1\METHODS\8260BSL.M (RTE Integrator)
Title : Method 8260B_SOIL - ICAL 07/15/99
Library : C:\DATABASE\NBS75K.L

****

Peak Number 2 2-Anthracenamine Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
17.14	32.73 ug/Kg	2438890	Chlorobenzene-d5	16.43

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qua
1	2-Anthracenamine	193	C14H11N	000613-13-8	11
2	3-Indolethanamine, N-acetyl-5-fluor	250	C13H15FN2O2	000000-00-0	11
3	N-Chlorosuccinimide	133	C4H4ClNO2	000128-09-6	11
4	Thiazolo[3,2-a]pyridinium, 3-cyano-	272	C9H9BrN2OS	022989-59-9	10

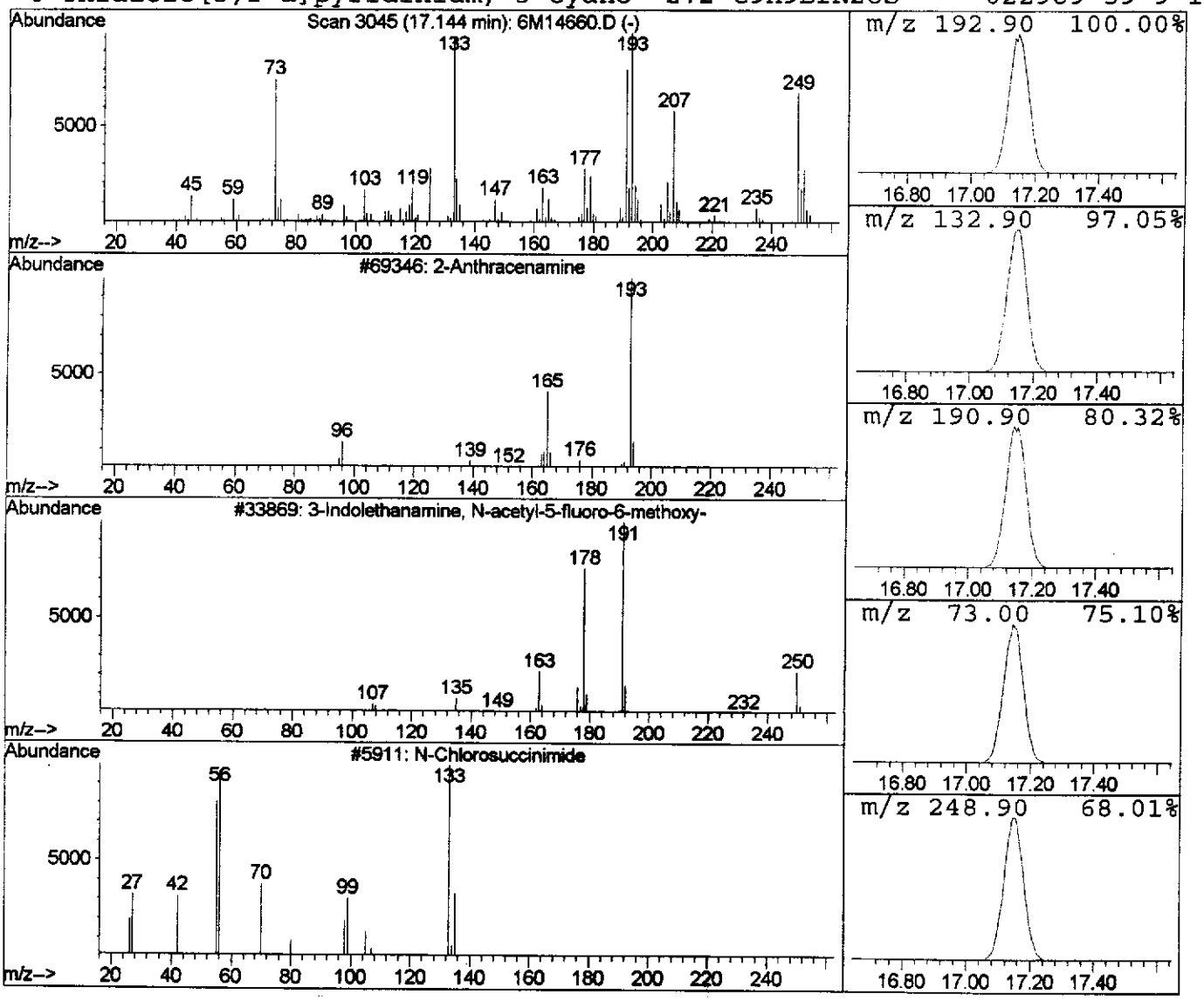

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\072299\6M14660.D Vial: 9
Acq On : 22 Jul 1999 14:05 Operator: CMS
Sample : L9907381-03 A LANL 826LA 5.3G/5ML Inst : HPMS_6
Misc : SOLID,0.9 Multiplr: 0.90
MS Integration Params: LSCINT.P

Quant Method : C:\HPCHEM\1\METHODS\8260BSL.M (RTE Integrator)
Title : Method 8260B_SOIL - ICAL 07/15/99
Library : C:\DATABASE\NBS75K.L

****

Peak Number 3 Ethanone, 1-cyclohexyl- Concentration Rank 6

R.T.	EstConc	Area	Relative to ISTD	R.T.
17.41	4.58 ug/Kg	341239	Chlorobenzene-d5	16.43

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qua
1	Ethanone, 1-cyclohexyl-	126	C8H14O	000823-76-7	46
2	Ethanone, 1-cyclohexyl-	126	C8H14O	000823-76-7	43
3	Tetradecane, 1-chloro-	232	C14H29Cl	002425-54-9	35
4	1-Octanol, 2-butyl-	186	C12H26O	003913-02-8	35

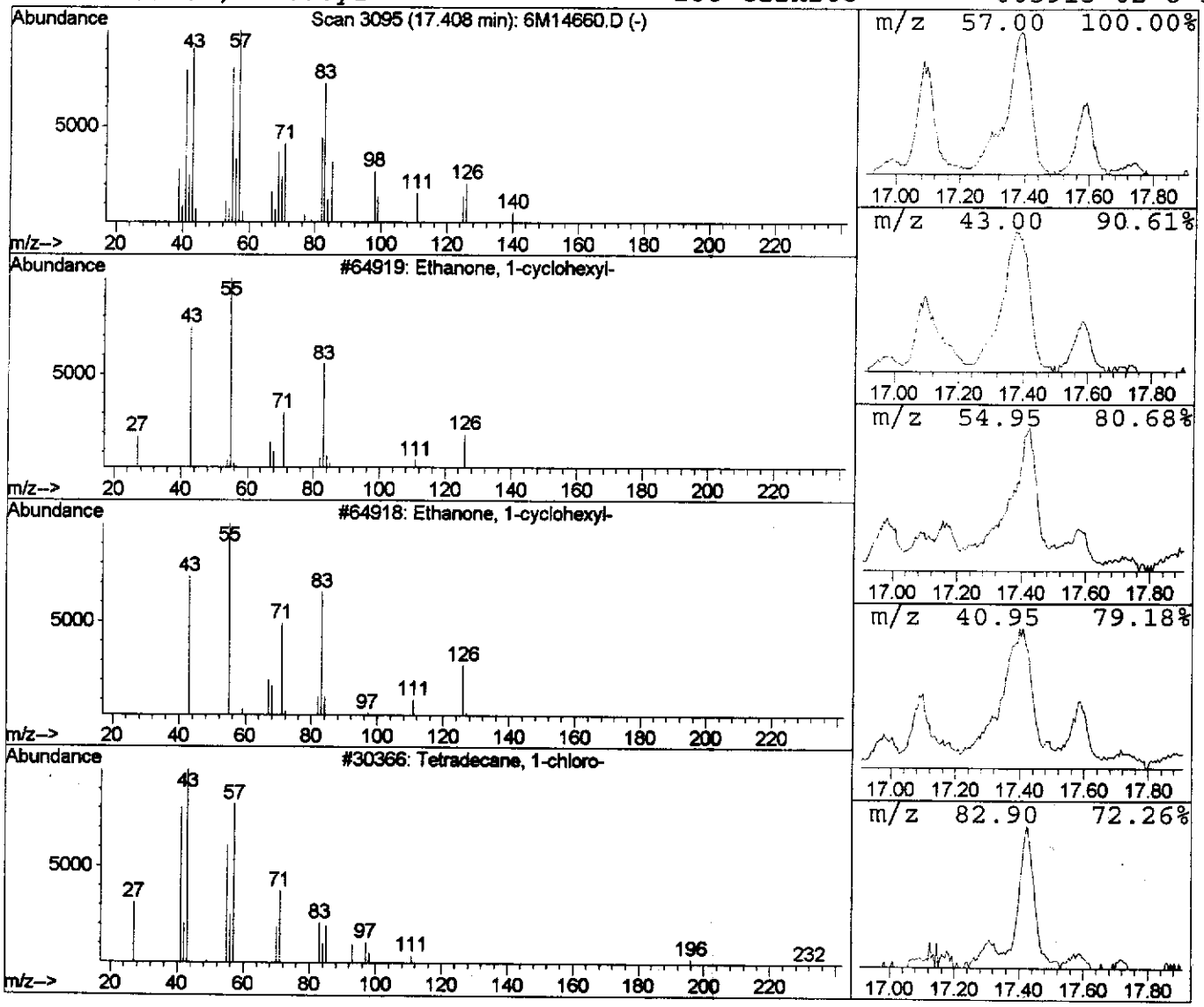

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\0~2299\6M14660.D Vial : 9
Acq On : 22 Jul 1999 14:05 Operator: CMS
Sample : L9907381-03 A LANL 826LA 5.3G/5ML Inst : HPMS_6
Misc : SOLID,0.9 Multiplr: 0.90
MS Integration Params: LSCINT.P

Quant Method : C:\HPCHEM\1\METHODS\8260BSL.M (RTE Integrator)
Title : Method 8260B_SOIL - ICAL 07/15/99
Library : C:\DATABASE\NBS75K.L

****

Peak Number 4 1,2-Bis(trimethylsilyl)-4,5-di Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
19.76	22.57 ug/Kg	1596870	1,4-Dichlorobenzene-d4	20.01

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qua
1	1,2-Bis(trimethylsilyl)-4,5-dimethy	252	C14H28Si2	000000-00-0	9
2	Silane, phenethylidenebis[trimethyl	250	C14H26Si2	018551-87-6	7
3	Benzeneacetic acid, trimethylsilyl	208	C11H16O2Si	002078-18-4	5
4	Thiocyanic acid, methyl ester	73	C2H3NS	000556-64-9	4

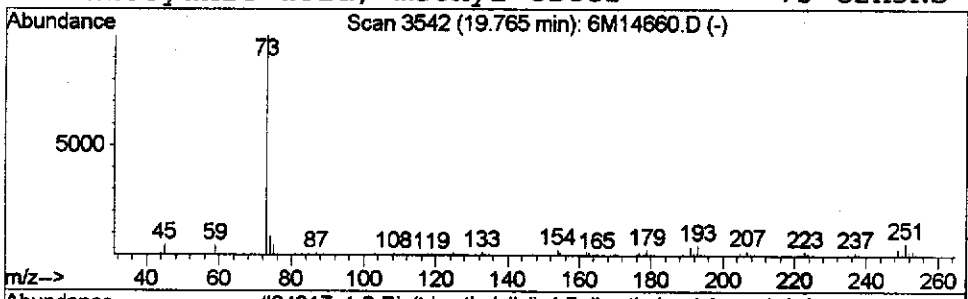

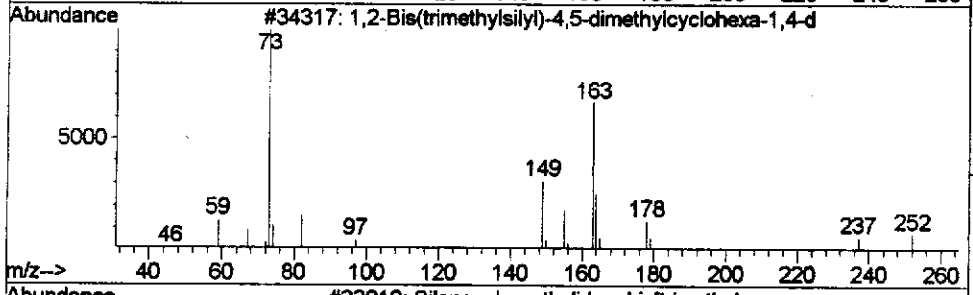

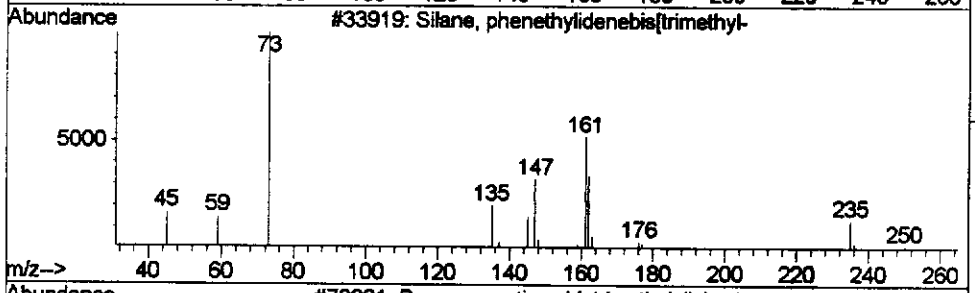

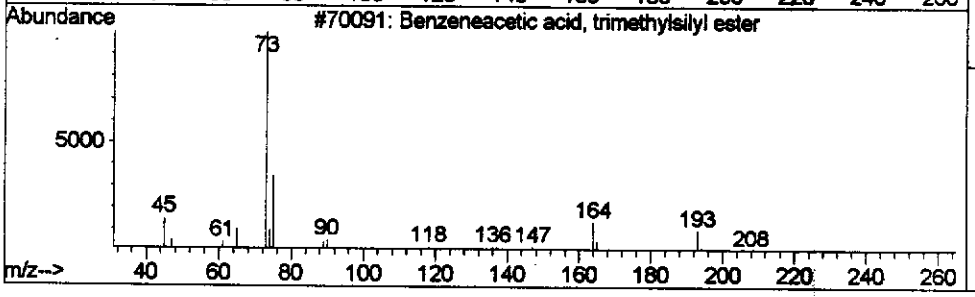

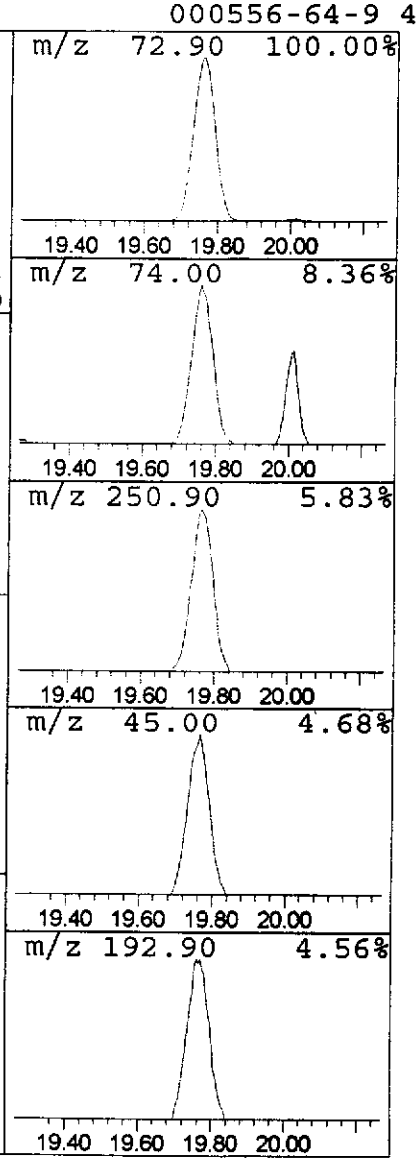

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\072299\6M14660 D
Acq On : 22 Jul 1999 14:05
Sample : L9907381-03 A LANL 826LA 5.3G/5ML
Misc : SOLID,0.9
MS Integration Params: LSCINT.P

Vial: 9
Operator: CMS
Inst : HPMS_6
Multiplr: 0.90

Quant Method : C:\HPCHEM\1\METHODS\8260BSL.M (RTE Integrator)
Title : Method 8260B_SOIL - ICAL 07/15/99
Library : C:\DATABASE\NBS75K.L

****

Peak Number 5 Butane, 2-methyl-1,4-bis(trime Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.
22.43	8.16 ug/Kg	577006	1,4-Dichlorobenzene-d4	20.01

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qua
1	Butane, 2-methyl-1,4-bis(trimethyls	248	C11H28O2Si2	000000-00-0	17
2	Ethanedioic acid, bis(trimethylsily	234	C8H18O4Si2	018294-04-7	13
3	Ribo-hexos-3-ulose, 2,4,5,6-tetraki	524	C20H48N2O6Si4	062108-14-9	9
4	Butanoic acid, 3-methyl-2-[(trimeth	262	C11H26O3Si2	055124-92-0	9

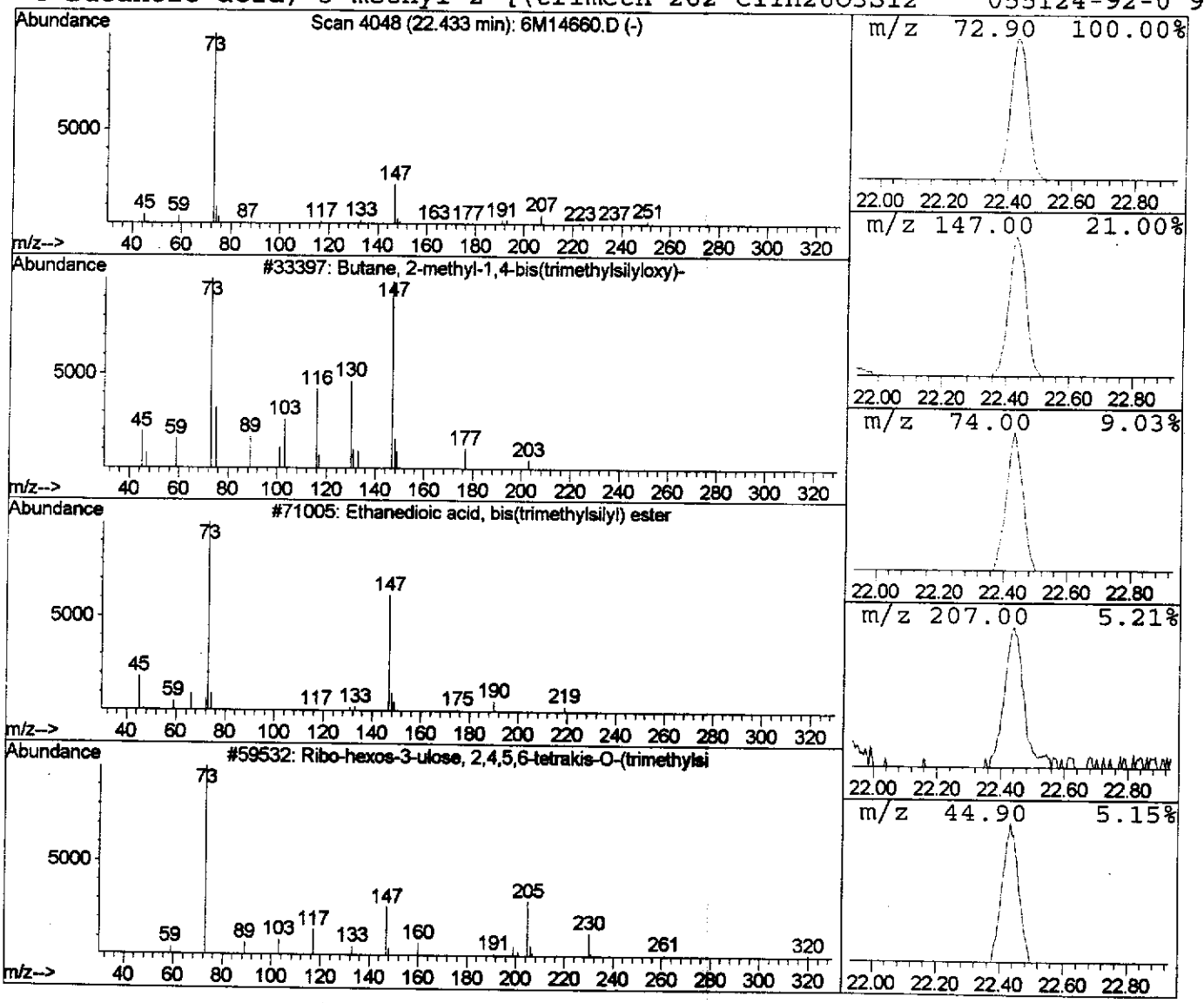

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\0 2299' 4660.D
Acq On : 22 Jul 1999 14:05
Sample : L9907381-03 A LANL 826LA 5.3G/5ML
Misc : SOLID,0.9
MS Integration Params: LSCINT.P

Vial: 9
Operator: CMS
Inst : HPMS_6
Multiplr: 0.90

Quant Method : C:\HPCHEM\1\METHODS\8260BSL.M (RTE Integrator)
Title : Method 8260B_SOIL - ICAL 07/15/99
Library : C:\DATABASE\NBS75K.L

****

Peak Number 6 Naphthalene — Concentration Rank 5

R.T.	EstConc	Area	Relative to ISTD	R.T.
23.62	5.25 ug/Kg	371216	1,4-Dichlorobenzene-d4	20.01

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qua
1	Naphthalene	128	C10H8	000091-20-3	91
2	Azulene	128	C10H8	000275-51-4	91
3	Naphthalene	128	C10H8	000091-20-3	91
4	Naphthalene	128	C10H8	000091-20-3	91

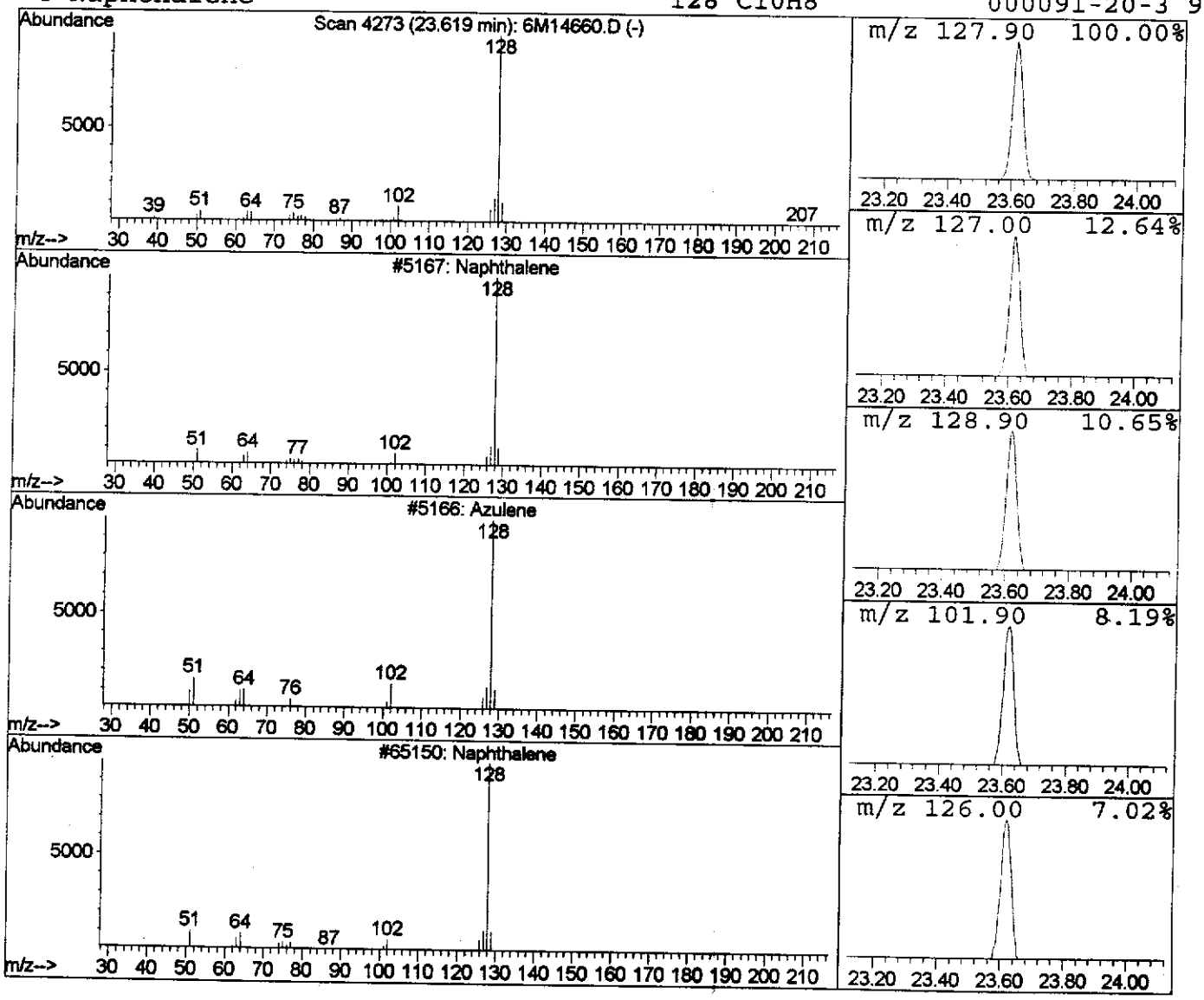

Tentatively Identified Compound (LSC) summary

Operator ID: CMS Date Acquired: 22 Jul 1999 14:05
Data File: C:\HPCHEM\1\DATA\072299\6M14660.D
Name: L9907381-03 A LANL 826LA 5.3G/5ML
Misc: SOLID,0.9
Method: C:\HPCHEM\1\METHODS\8260BSL.M (RTE Integrator)
Title: Method 8260B_SOIL - ICAL 07/15/99
Library Searched: C:\DATABASE\NBS75K.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISCon
Carbon dioxide	3.23	13.3	ug/Kg	905641	ISTD01	11.92	3072120	50
2-Anthracenamine	17.14	32.7	ug/Kg	2438890	ISTD02	16.43	3352740	50
Ethanone, 1-cyclohex	17.41	4.6	ug/Kg	341239	ISTD02	16.43	3352740	50
1,2-Bis(trimethylsil	19.76	22.6	ug/Kg	1596870	ISTD03	20.01	3183500	50
Butane, 2-methyl-1,4	22.43	8.2	ug/Kg	577006	ISTD03	20.01	3183500	50
Naphthalene	23.62	5.2	ug/Kg	371216	ISTD03	20.01	3183500	50

6M14660.D 8260BSL.M Thu Jul 22 14:48:07 1999 HPMS_6

Quantitation Report

Data File : C:\HPCHEM\1\DATA\072299\6M14661.D
Acq On : 22 Jul 1999 14:45
Sample : L9907381-04 A LANL 826LA 5.0G/5ML
Misc : SOLID,1
MS Integration Params: rteint.p
Quant Time: Jul 22 15:11 1999

Vial: 10
Operator: CMS
Inst : HPMS_6
Multiplr: 1.00

Quant Results File: 8260BSL.RES

Method : C:\HPCHEM\1\METHODS\8260BSL.M (RTE Integrator)
Title : Method 8260B_SOIL - ICAL 07/15/99
Last Update : Thu Jul 22 09:02:15 1999
Response via : Initial Calibration

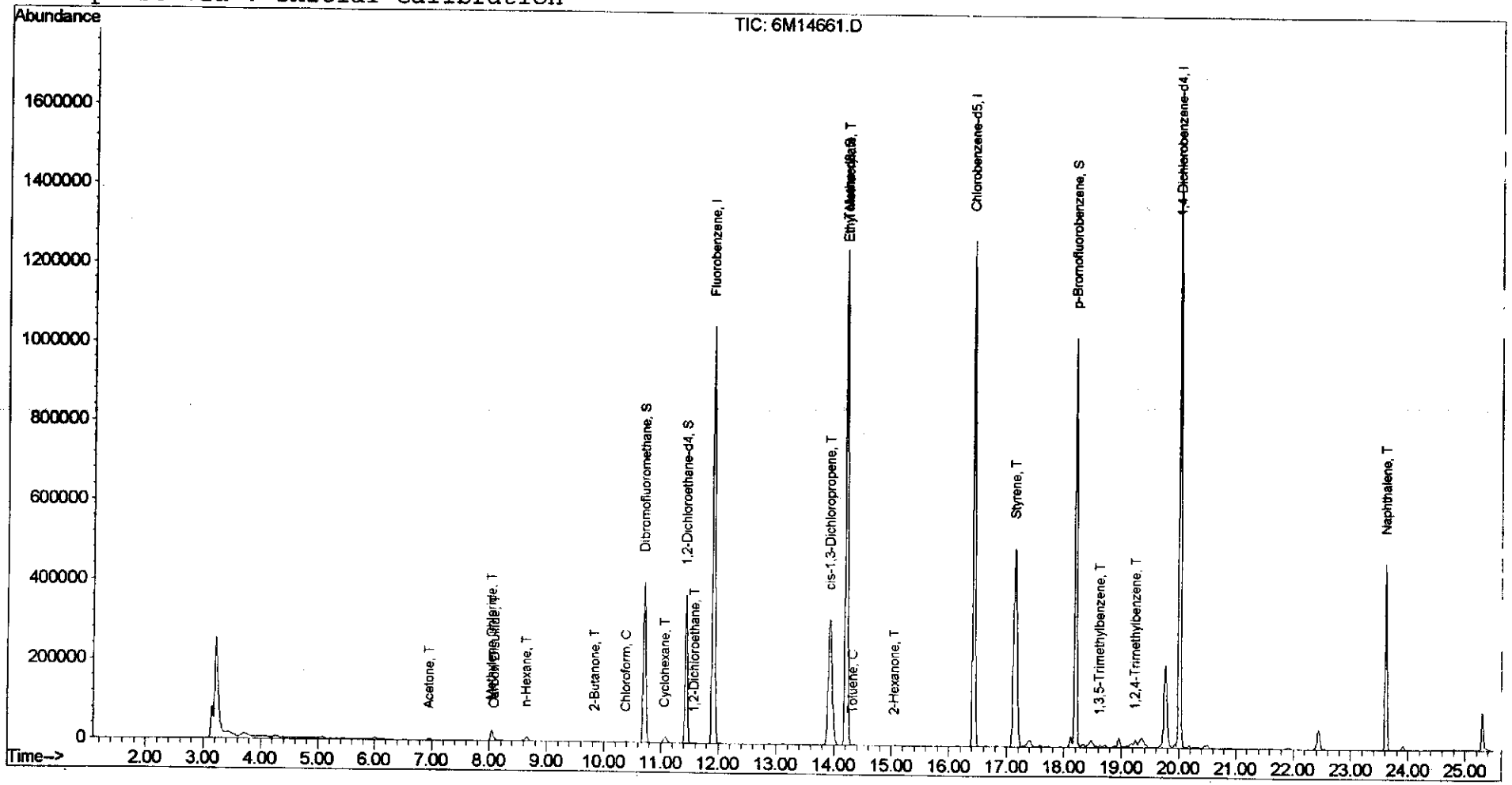

Quantitation Report (Not Reviewed)

Data File C:\HPCHEM\1\DATA\072299\6M14661.D
Acq On : 22 Jul 1999 14:45
Sample : L9907381-04 A LANL 826LA 5.0G/5ML
Misc : SOLID,1
MS Integration Params: rteint.p
Quant Time: Jul 22 15:11 1999

Vial: 10
Operator: CMS
Inst : HPMS_6
Multiplr: 1.00

Quant Results File: 8260BSL.R

Quant Method : C:\HPCHEM\1\METHODS\8260BSL.M (RTE Integrator)
Title : Method 8260B_SOIL - ICAL 07/15/99
Last Update : Thu Jul 22 09:02:15 1999
Response via : Initial Calibration
DataAcq Meth : 8260BSL

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene	11.91	96	1472610	50.00 ug/Kg	0.00
44) Chlorobenzene-d5	16.43	117	1138659	50.00 ug/Kg	0.00
64) 1,4-Dichlorobenzene-d4	20.01	152	617210	50.00 ug/Kg	0.00
System Monitoring Compounds					
28) Dibromofluoromethane	10.72	111	388506	45.39 ug/Kg	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 90.78%		
33) 1,2-Dichloroethane-d4	11.44	65	390175	46.63 ug/Kg	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 93.26%		
45) Toluene-d8	14.21	98	1349420	43.39 ug/Kg	0.00
Spiked Amount 50.000	Range 81 - 117		Recovery = 86.78%		
66) p-Bromofluorobenzene	18.20	95	540549	44.16 ug/Kg	0.00
Spiked Amount 50.000	Range 74 - 121		Recovery = 88.32%		

Target Compounds					Qvalue
11) Acetone	6.95	43	9012	5.51 ug/Kg J	95
15) Methylene Chloride	8.04	84	22697	2.90 ug/Kg B	82
16) Carbon Disulfide	8.10	76	7751	0.30 ug/Kg#	82
20) n-Hexane	8.65	57	7892	~~0.64 ug~~/Kg	100
23) 2-Butanone	9.84	43	1300	0.59 ug/Kg#	54
26) Chloroform	10.39	83	2786	0.20 ug/Kg#	75
30) Cyclohexane	11.08	56	5392	~~0.45 ug~~/Kg#	1
34) 1,2-Dichloroethane	11.58	62	2440	0.26 ug/Kg#	78
42) cis-1,3-Dichloropropene	13.92	75	10642	1.08 ug/Kg#	53
46) Toluene	14.33	91	6609	0.20 ug/Kg	91
47) Ethyl Methacrylate	14.22	69	3600	~~0.49 ug~~/Kg#	1
50) 2-Hexanone	15.05	43	1177	0.34 ug/Kg#	28
61) Styrene	17.14	104	10318	0.43 ug/Kg#	26
71) 1,3,5-Trimethylbenzene	18.63	105	6143	0.19 ug/Kg	98
76) 1,2,4-Trimethylbenzene	19.24	105	12470	0.37 ug/Kg J	99
86) Naphthalene	23.62	128	549936	~~23.47 ug~~/Kg	99

(#) = qualifier out of range (m) = manual integration

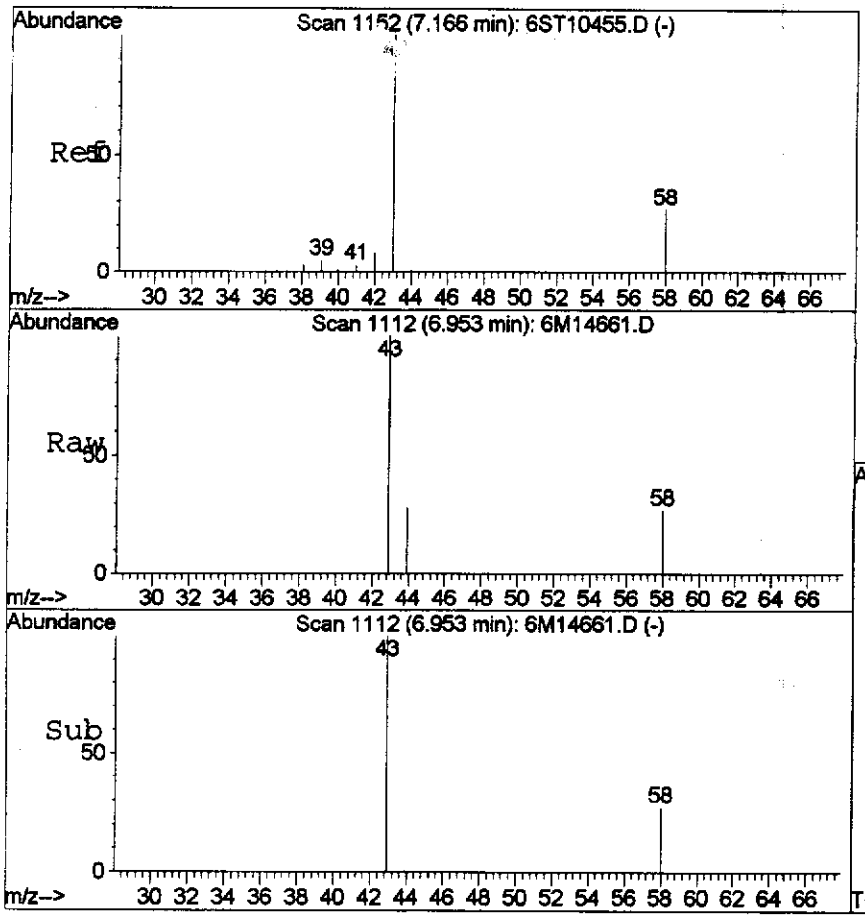

#11
tone
Concen: 5.51 ug/Kg
RT: 6.95 min Scan# 1112
Delta R.T. -0.01 min
Lab File: 6M14661.D
Acq: 22 Jul 1999 14:45

Tgt Ion: 43 Resp: 9012

Ion	Ratio	Lower	Upper
43	100		
58	26.1	22.9	34.3

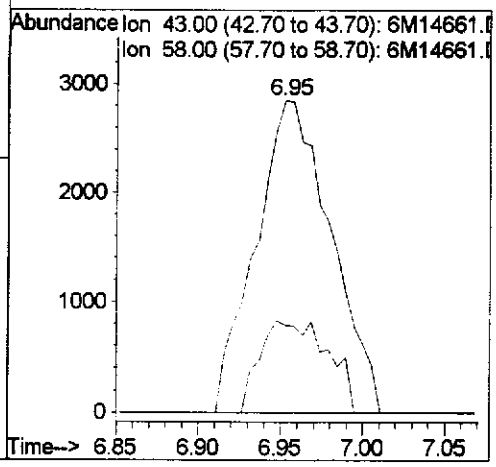

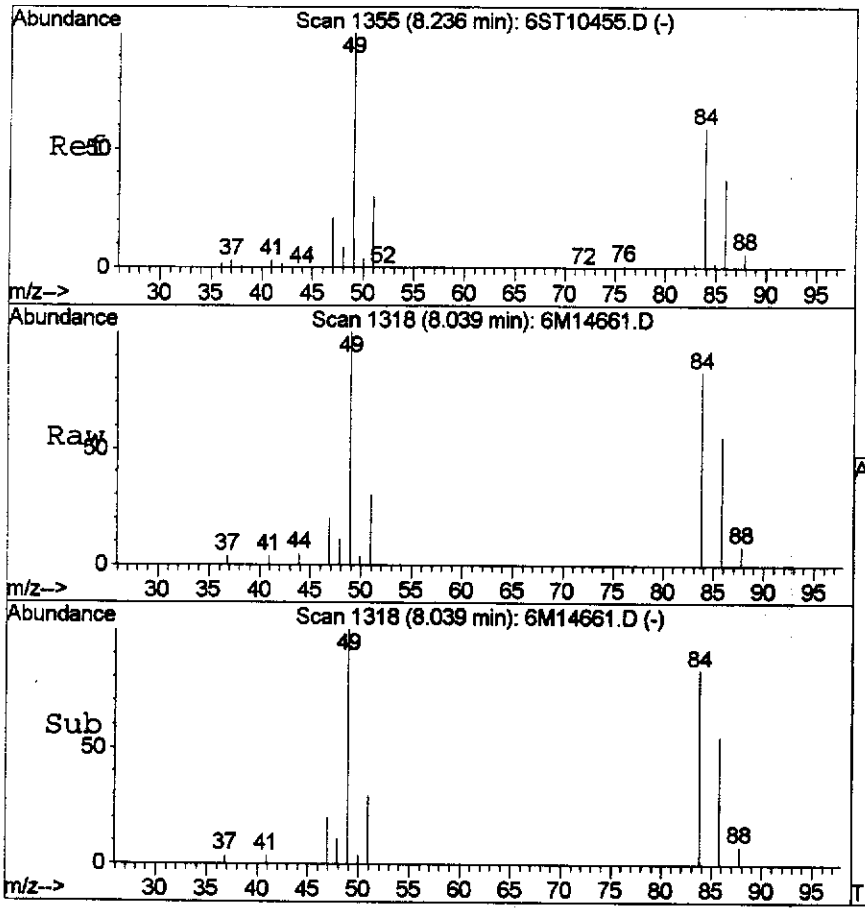

#15
Methylene Chloride
Concen: 2.90 ug/Kg
RT: 8.04 min Scan# 1318
Delta R.T. -0.01 min
Lab File: 6M14661.D
Acq: 22 Jul 1999 14:45

Tgt Ion: 84 Resp: 22697

Ion	Ratio	Lower	Upper
84	100		
49	116.0	110.3	165.5

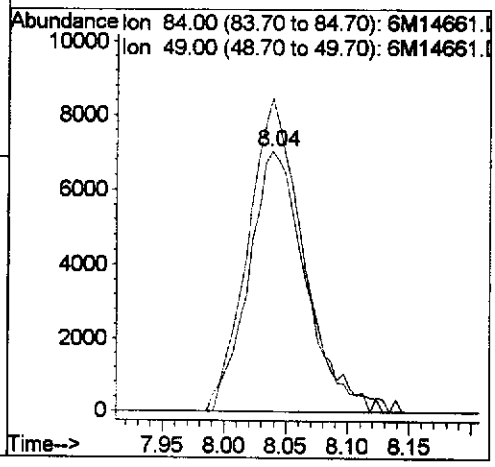

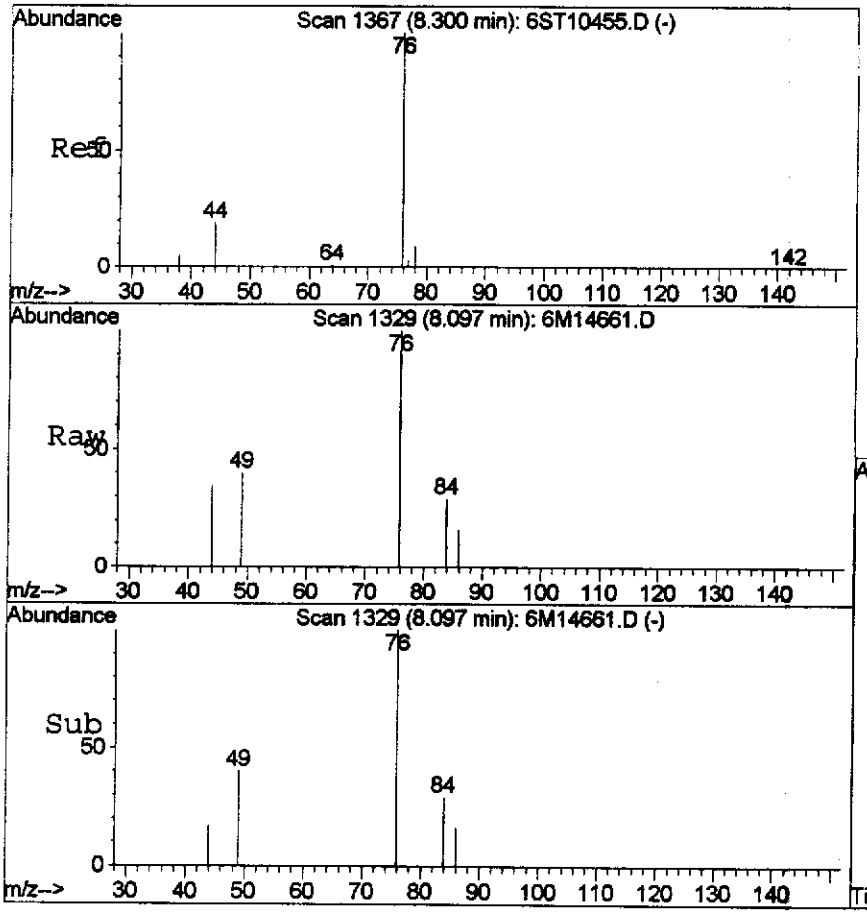

#16
Carbon Disulfide
Concen: 0.30 ug/Kg
RT: 8.10 min Scan# 1329
Delta R.T. -0.02 min
Lab File: 6M14661.D
Acq: 22 Jul 1999 14:45

Tgt Ion: 76 Resp: 7751

Ion	Ratio	Lower	Upper
76	100		
78	2.6	7.2	10.8#

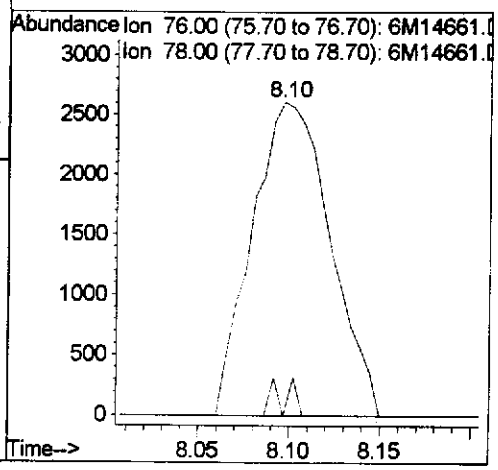

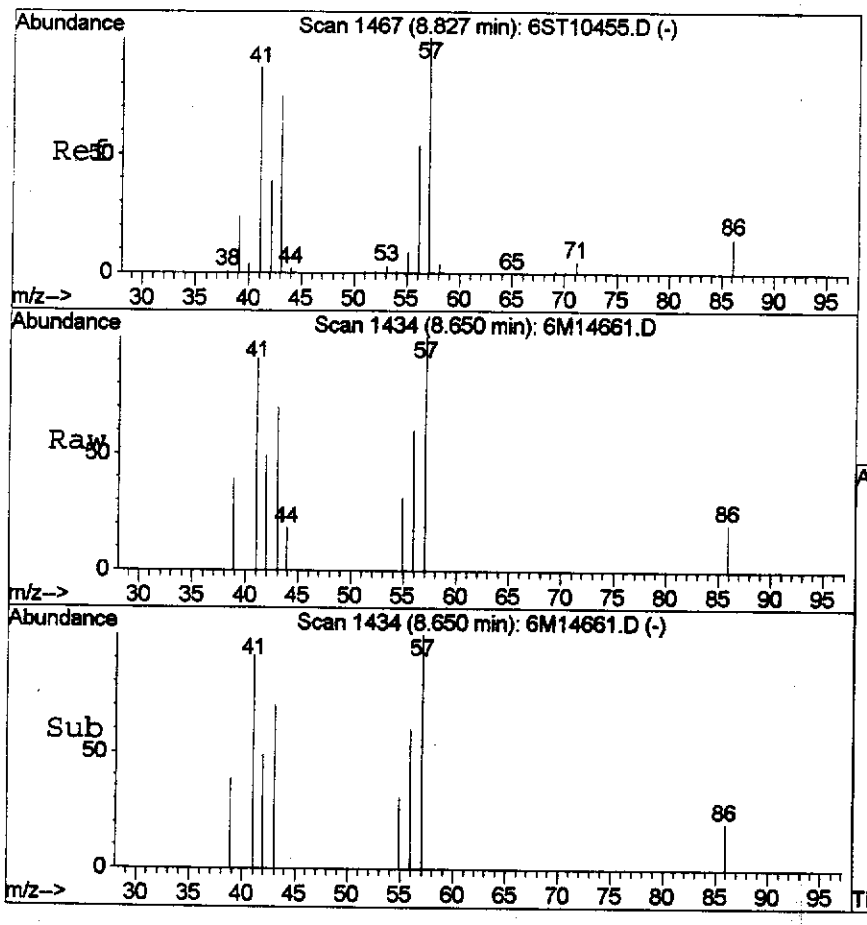

#20
n-Hexane
Concen: 0.64 ug/Kg
RT: 8.65 min Scan# 1434
Delta R.T. -0.01 min
Lab File: 6M14661.D
Acq: 22 Jul 1999 14:45

Tgt Ion: 57 Resp: 7892

Ion	Ratio	Lower	Upper
57	100		
43	70.9	56.7	85.1

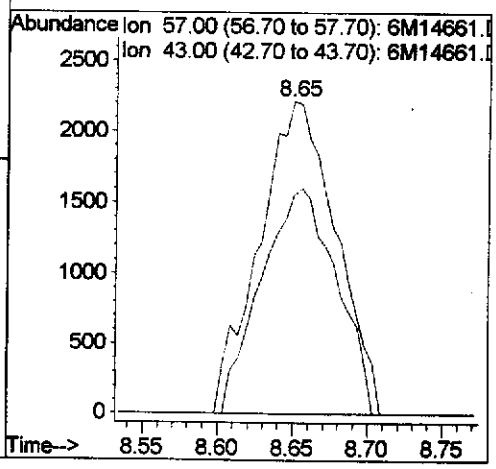

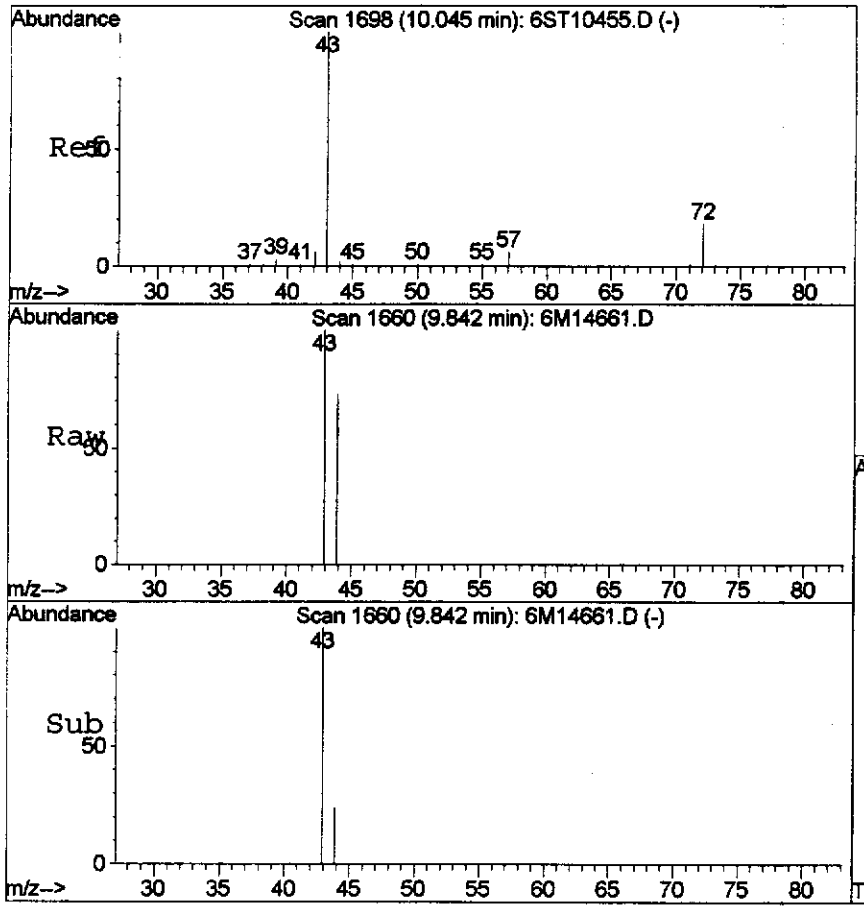

#23
2-Butanone
Concen: 0.59 ug/Kg
RT: 9.84 min Scan# 1660
Delta R.T. -0.01 min
Lab File: 6M14661.D
Acq: 22 Jul 1999 14:45

Tgt Ion: 43 Resp: 1300

Ion	Ratio	Lower	Upper
43	100		
72	0.0	17.6	26.4#

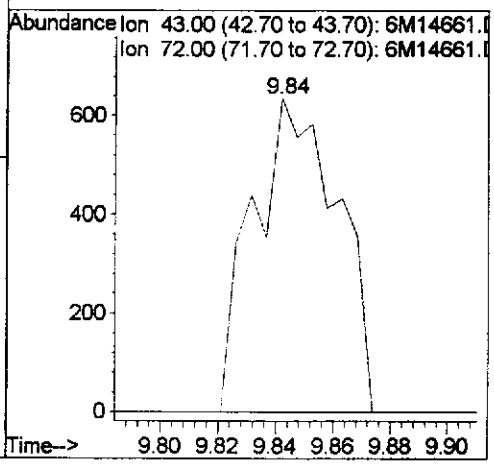

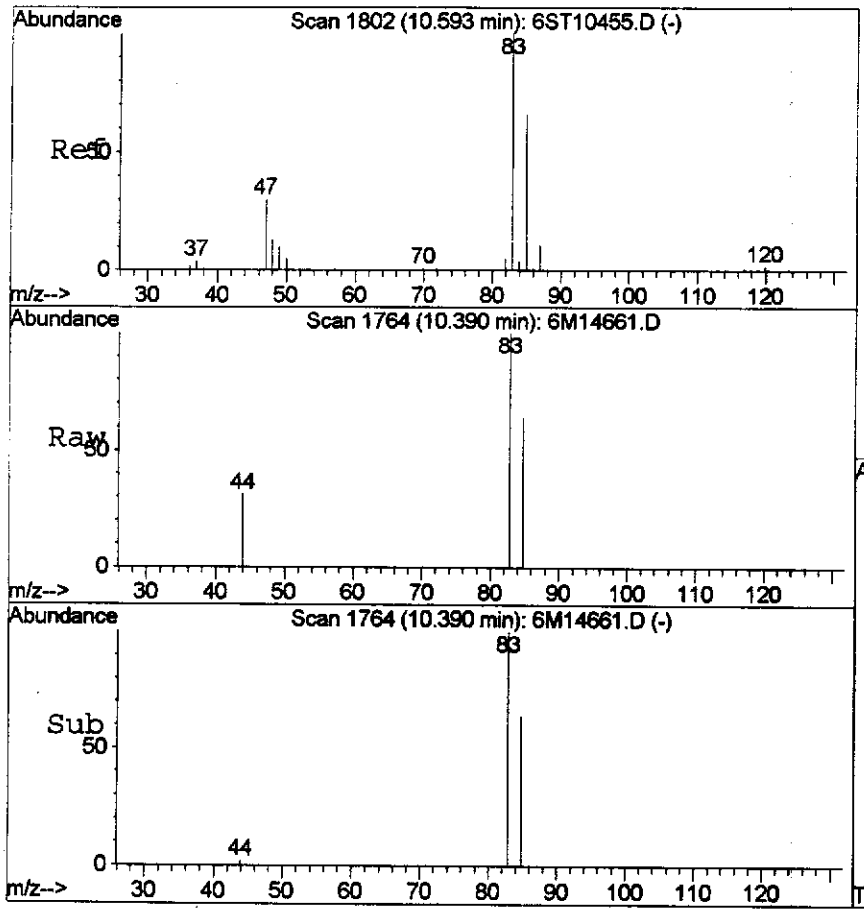

#26
Chloroform
Concen: 0.20 ug/Kg
RT: 10.39 min Scan# 1764
Delta R.T. -0.02 min
Lab File: 6M14661.D
Acq: 22 Jul 1999 14:45

Tgt Ion: 83 Resp: 2786

Ion	Ratio	Lower	Upper
83	100		
85	53.3	52.2	78.2
47	0.0	20.8	31.2#

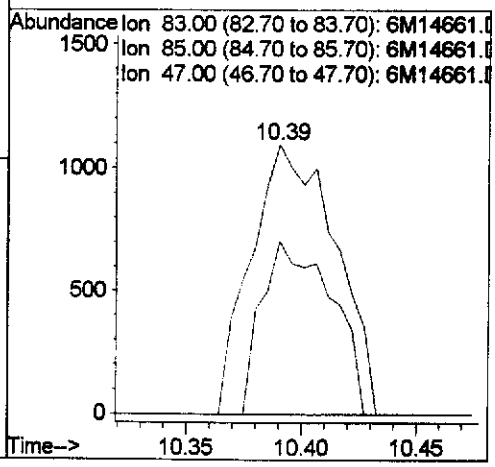

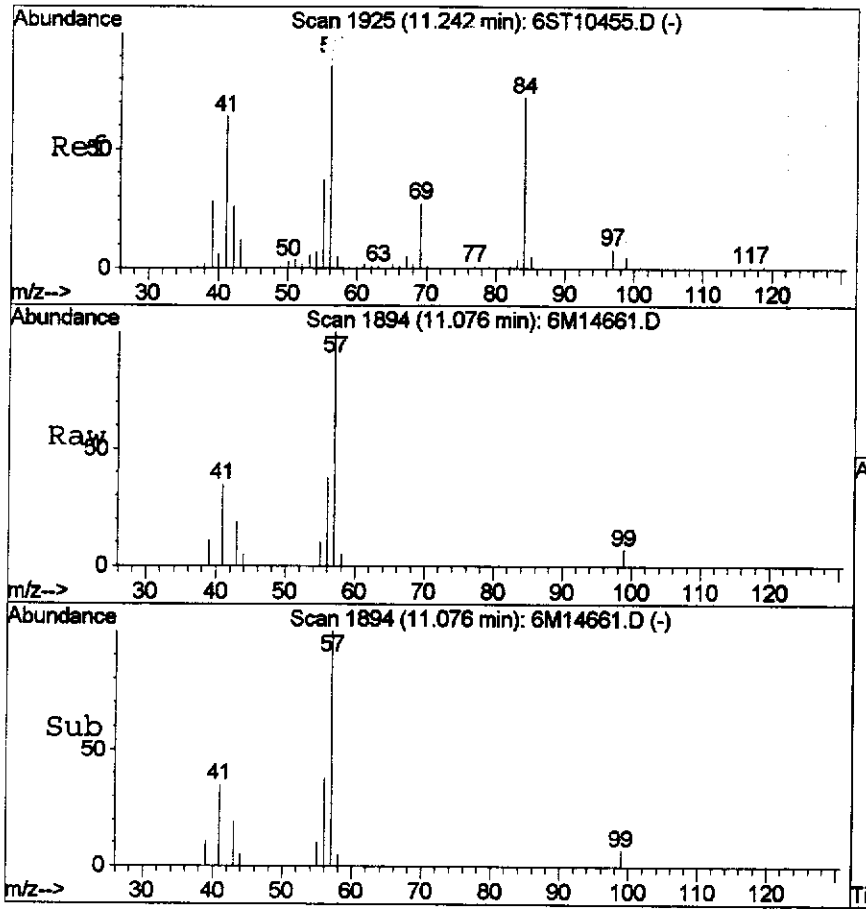

#30
Cyclohexane
Concen: 0.45 ug/Kg
RT: 11.08 min Scan# 1894
Delta R.T. 0.01 min
Lab File: 6M14661.D
Acq: 22 Jul 1999 14:45

Tgt Ion: 56 Resp: 5392

Ion	Ratio	Lower	Upper
56	100		
84	0.0	66.3	99.5#
41	192.5	50.0	75.0#

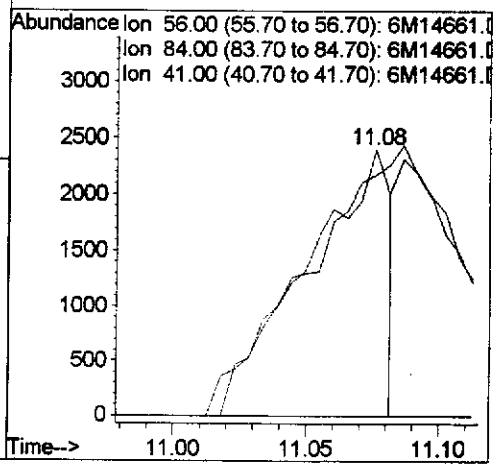

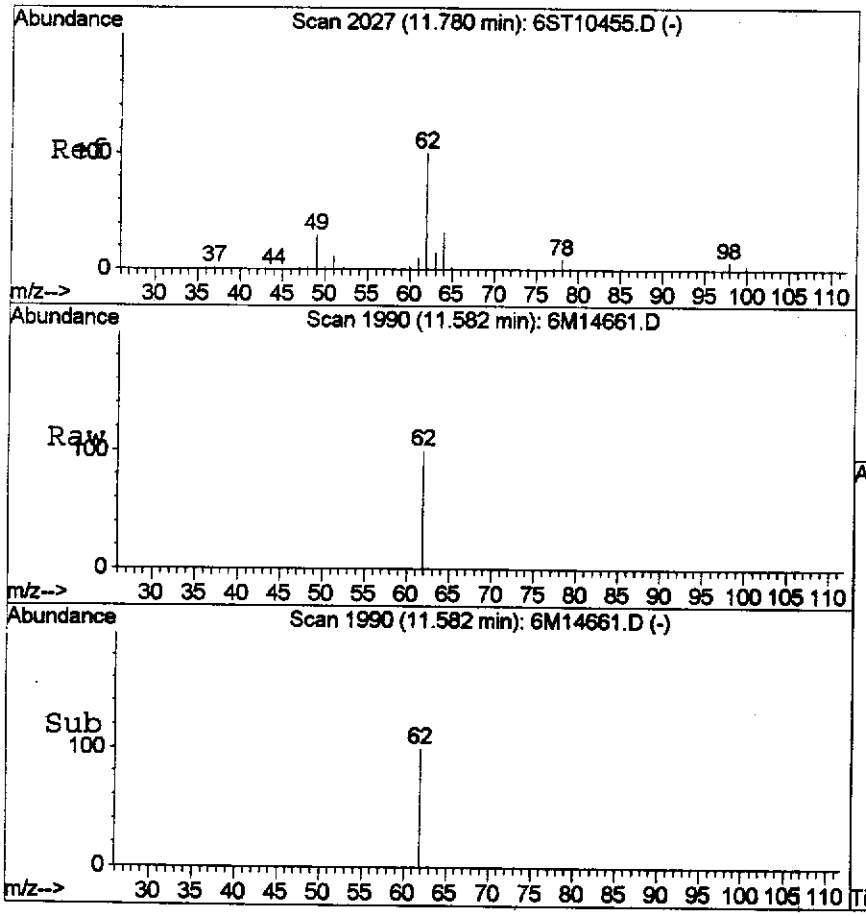

#34
1,2-Dichloroethane
Concen: 0.26 ug/Kg
RT: 11.58 min Scan# 1990
Delta R.T. -0.00 min
Lab File: 6M14661.D
Acq: 22 Jul 1999 14:45

Tgt Ion: 62 Resp: 2440

Ion	Ratio	Lower	Upper
62	100		
98	0.0	6.3	9.5#

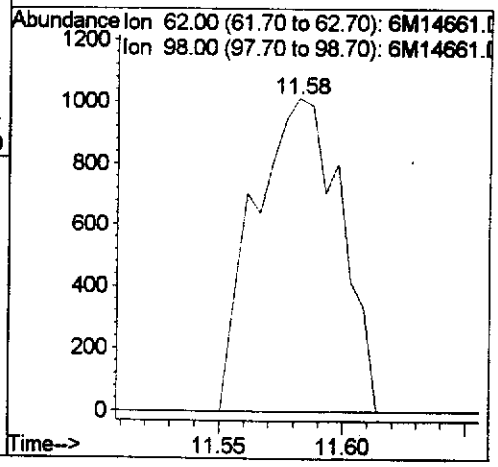

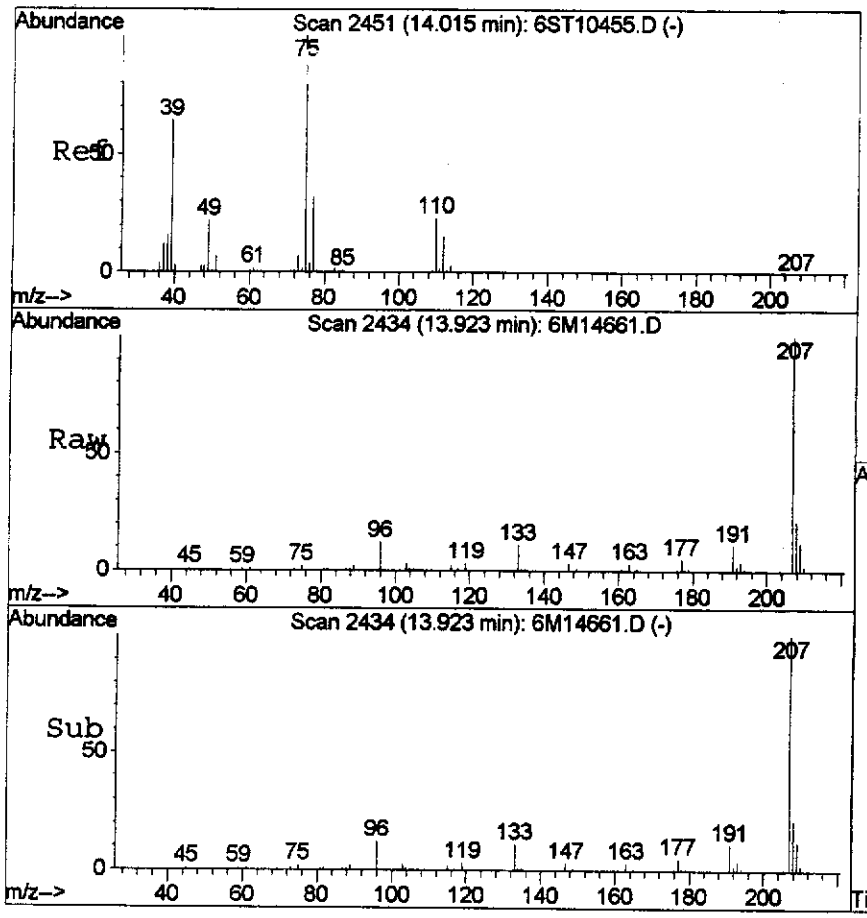

#42
cis-1,3-Dichloropropene
Concen: 1.08 ug/Kg
RT: 13.92 min Scan# 2434
Delta R.T. 0.10 min
Lab File: 6M14661.D
Acq: 22 Jul 1999 14:45

Tgt Ion: 75 Resp: 10642

Ion	Ratio	Lower	Upper
75	100		
110	0.0	18.2	27.4#

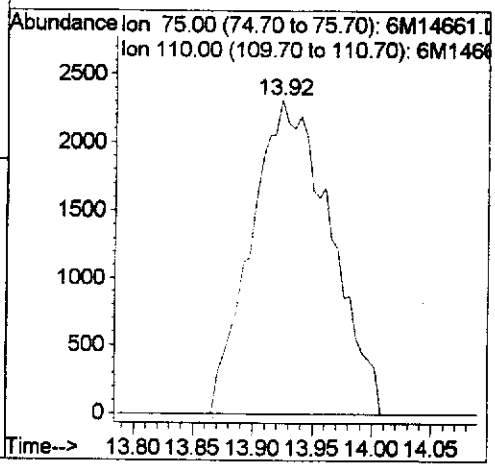

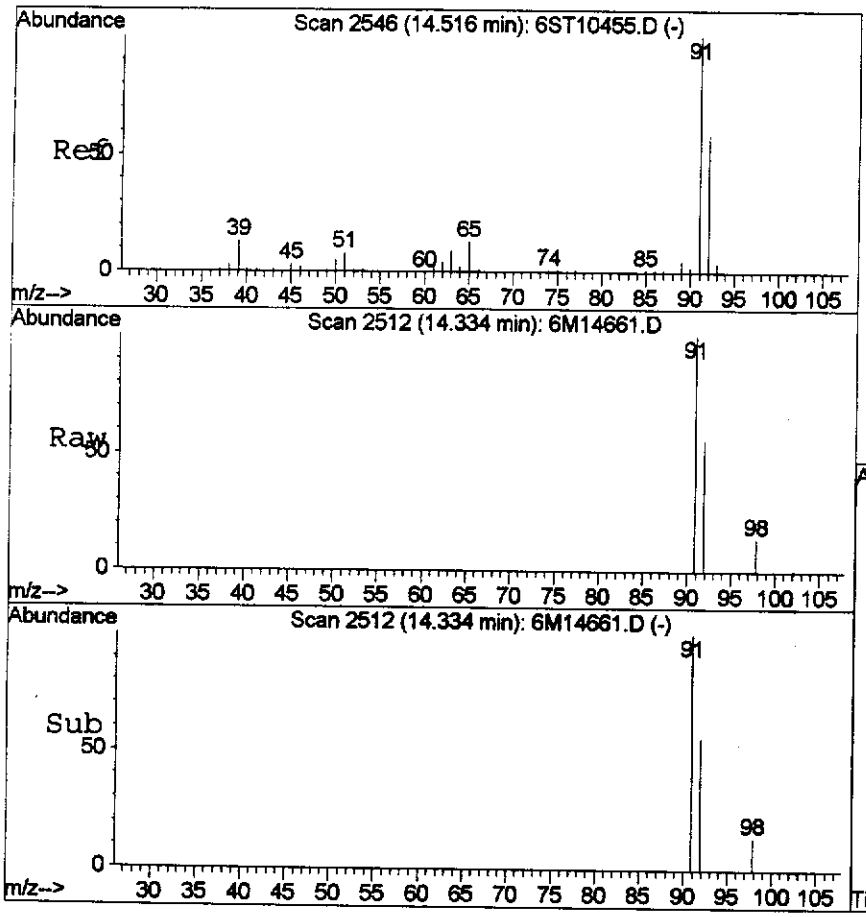

#46
Toluene
Concen: 0.20 ug/Kg
RT: 14.33 min Scan# 2512
Delta R.T. 0.01 min
Lab File: 6M14661.D
Acq: 22 Jul 1999 14:45

Tgt Ion: 91 Resp: 6609

Ion	Ratio	Lower	Upper
91	100		
92	52.1	46.9	70.3

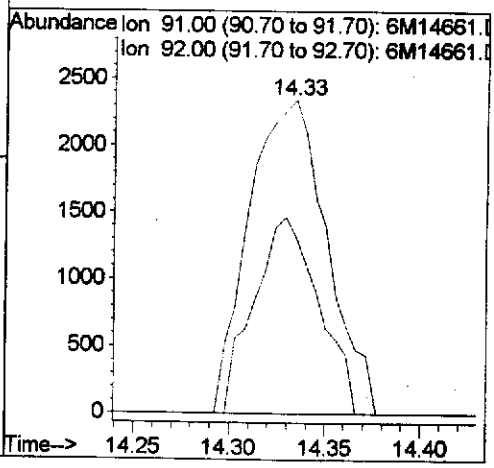

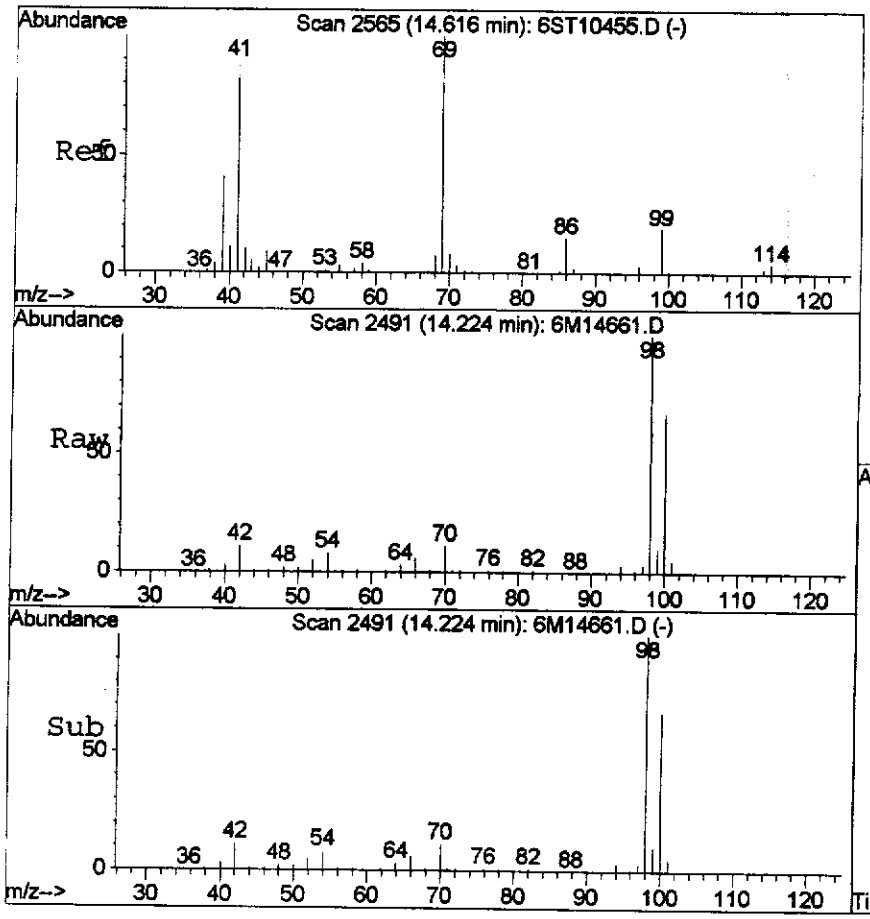

#47
Ethyl Methacrylate
Concen: 0.49 ug/Kg
RT: 14.22 min Scan# 2491
Delta R.T. -0.22 min
Lab File: 6M14661.D
Acq: 22 Jul 1999 14:45

Tgt Ion: 69 Resp: 3600

Ion	Ratio	Lower	Upper
69	100		
99	3630.1	15.2	22.8#

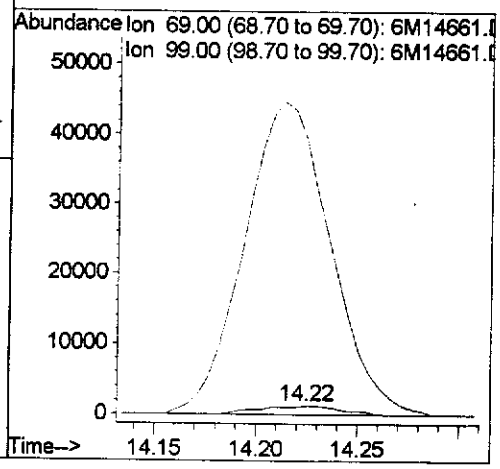

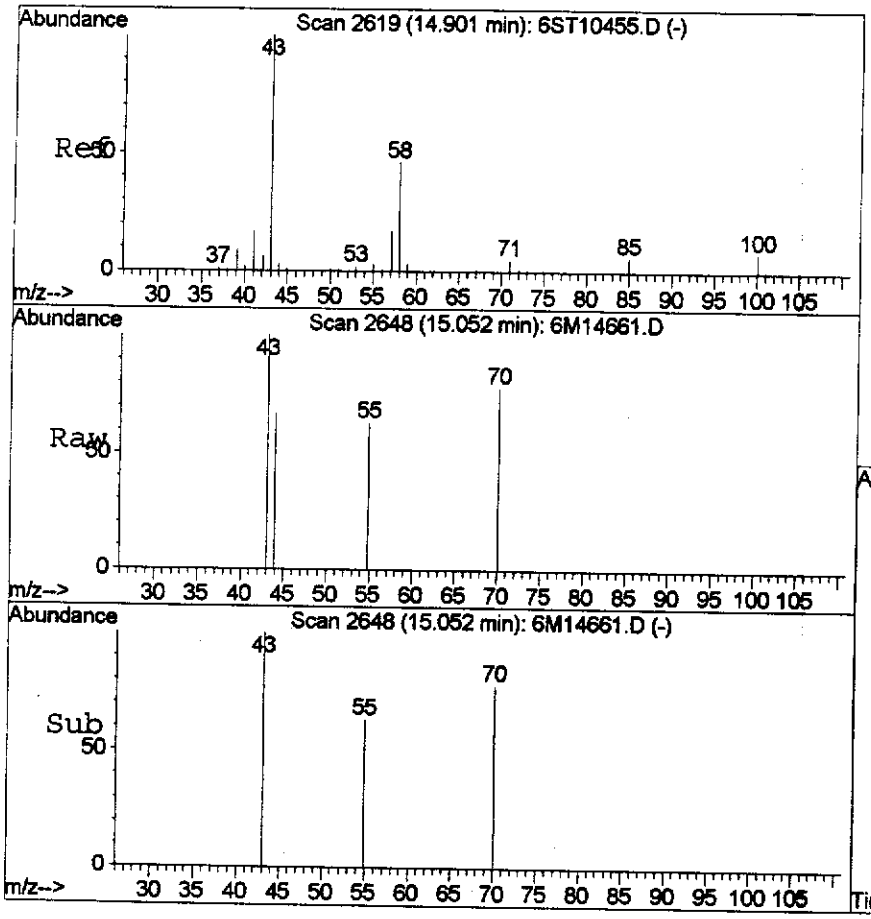

#50
2-Hexanone
Concen: 0.34 ug/Kg
RT: 15.05 min Scan# 2648
Delta R.T. 0.34 min
Lab File: 6M14661.D
Acq: 22 Jul 1999 14:45

Tgt Ion: 43 Resp: 1177

Ion	Ratio	Lower	Upper
43	100		
58	0.0	39.0	58.4#

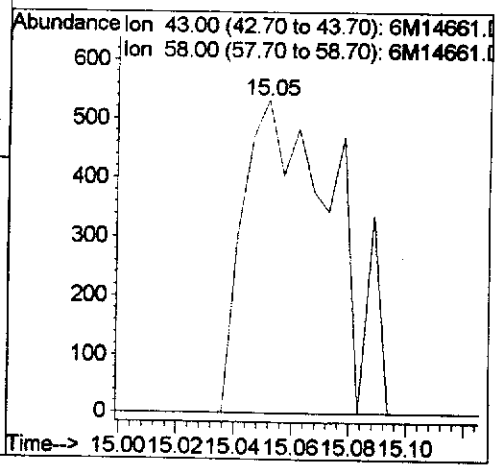

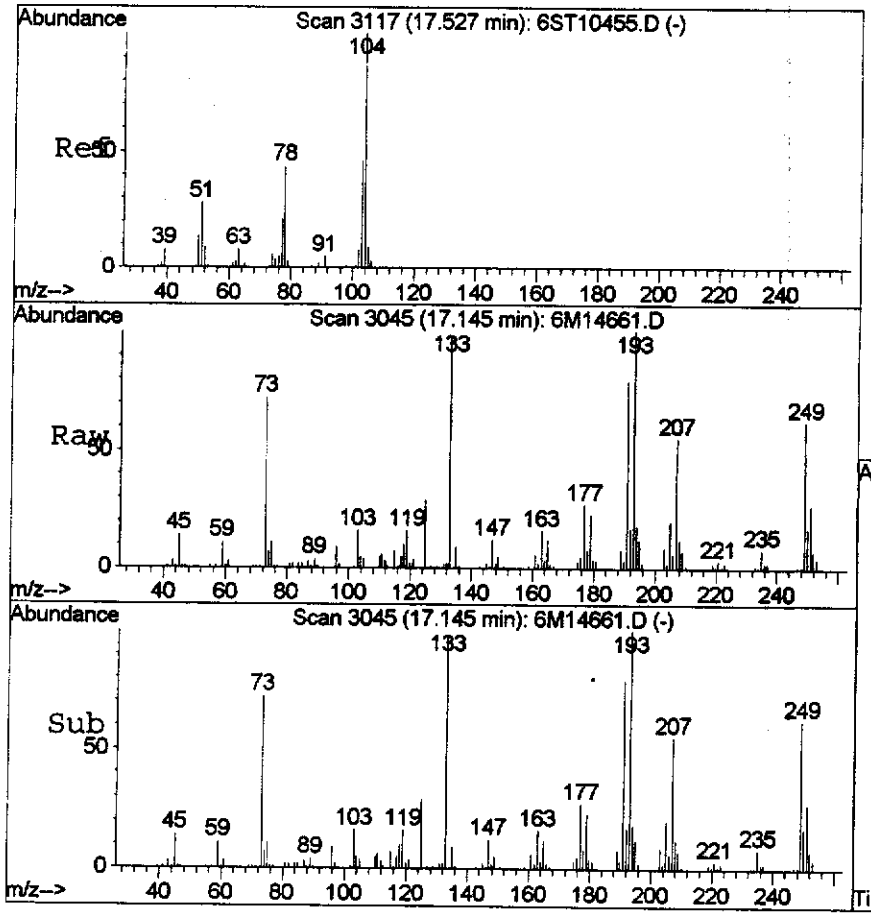

#61
Styrene
Concen: 0.43 ug/Kg
RT: 17.14 min Scan# 3045
Delta R.T. -0.19 min
Lab File: 6M14661.D
Acq: 22 Jul 1999 14:45

Tgt Ion:104 Resp: 10318

Ion	Ratio	Lower	Upper
104	100		
78	0.0	41.4	62.0#

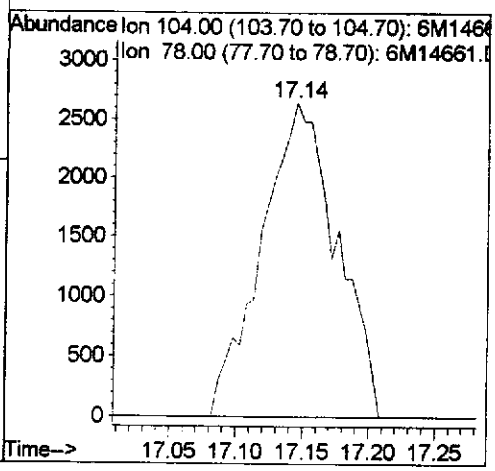

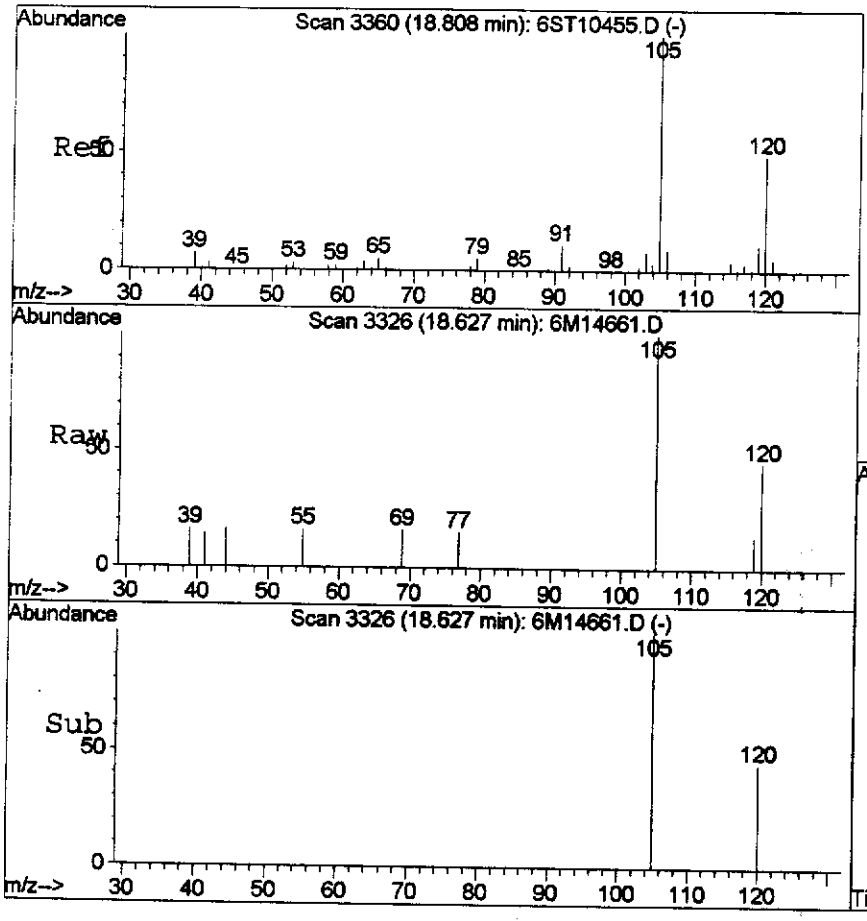

#71
1,3,5-Trimethylbenzene
Concen: 0.19 ug/Kg
RT: 18.63 min Scan# 3326
Delta R.T. -0.00 min
Lab File: 6M14661.D
Acq: 22 Jul 1999 14:45

Tgt Ion:105 Resp: 6143

Ion	Ratio	Lower	Upper
105	100		
120	47.9	39.4	59.0

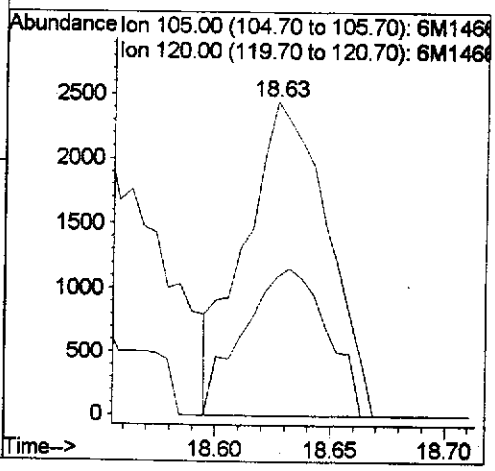

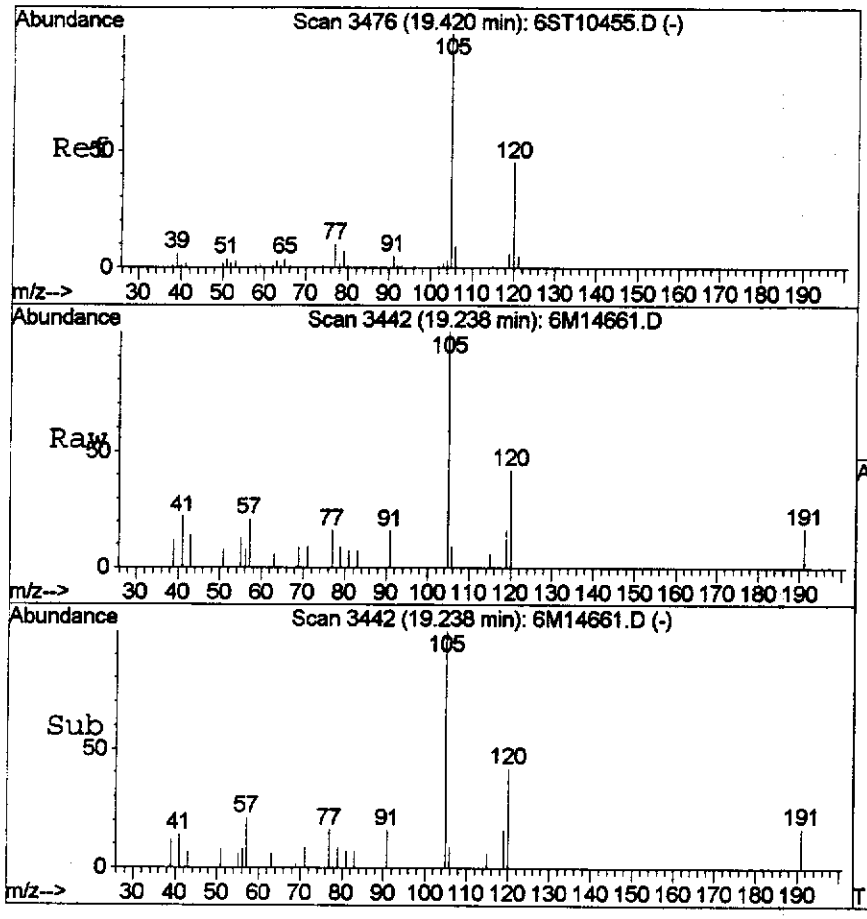

#76
1,2,4-Trimethylbenzene
Concen: 0.37 ug/Kg
RT: 19.24 min Scan# 3442
Delta R.T. -0.00 min
Lab File: 6M14661.D
Acq: 22 Jul 1999 14:45

Tgt Ion:105 Resp: 12470

Ion	Ratio	Lower	Upper
105	100		
120	46.9	37.0	55.6

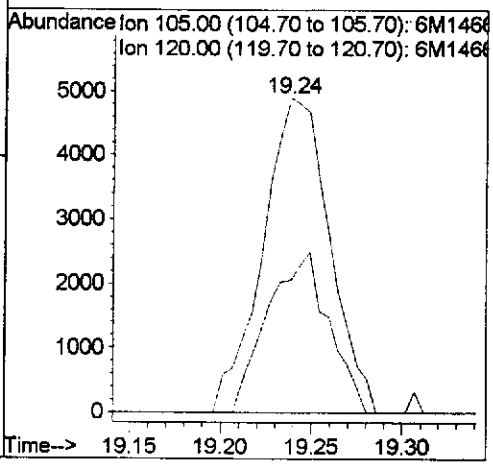

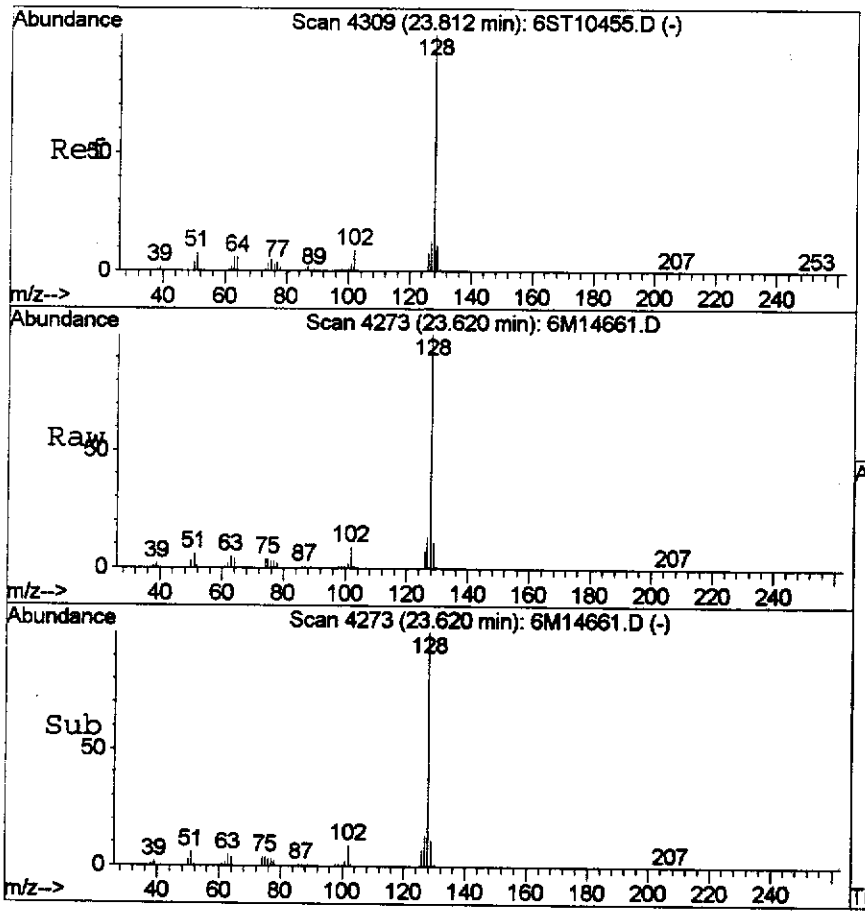

#86
Naphthalene
Concen: 23.47 ug/Kg
RT: 23.62 min Scan# 4273
Delta R.T. 0.00 min
Lab File: 6M14661.D
Acq: 22 Jul 1999 14:45

Tgt Ion:128 Resp: 549936

Ion	Ratio	Lower	Upper
128	100		
102	8.3	6.9	10.3

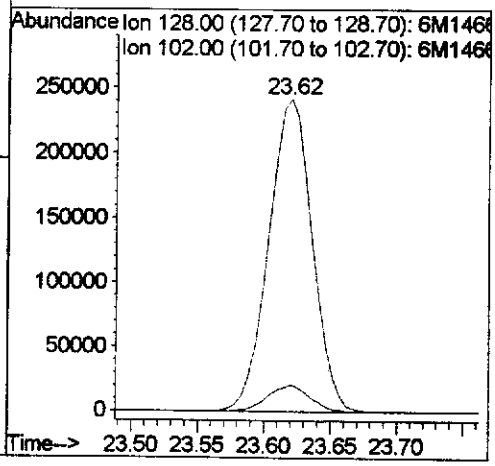

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\072299\6M14661.D
Acq On : 22 Jul 1999 14:45
Sample : L9907381-04 A LANL 826LA 5.0G/5ML
Misc : SOLID,1
MS Integration Params: LSCINT.P

Vial: 10
Operator: CMS
Inst : HPMS_6
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\8260BSL.M (RTE Integrator)
Title : Method 8260B_SOIL - ICAL 07/15/99
Library : C:\DATABASE\NBS75K.L

****

Peak Number 1 Carbon dioxide Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
3.22	16.12 ug/Kg	973371	Fluorobenzene	11.91

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qua
1	Carbon dioxide	44	CO2	000124-38-9	4
2	Carbon dioxide	44	CO2	000124-38-9	4
3	Ethylene oxide	44	C2H4O	000075-21-8	3
4	Nitrous Oxide	44	N2O	010024-97-2	3

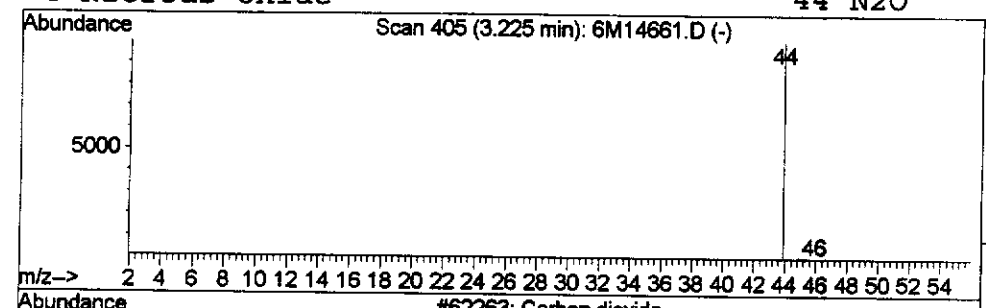

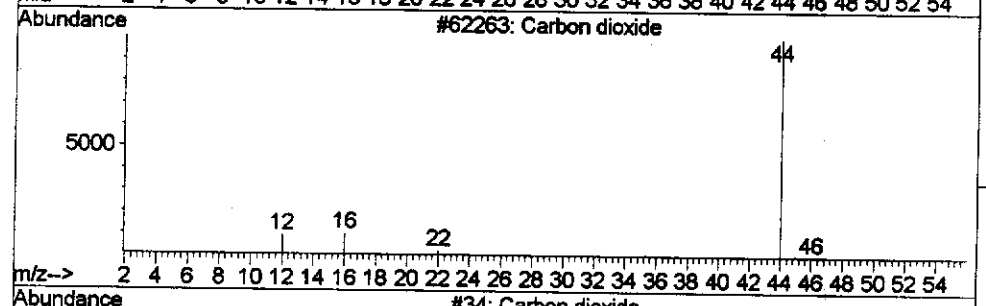

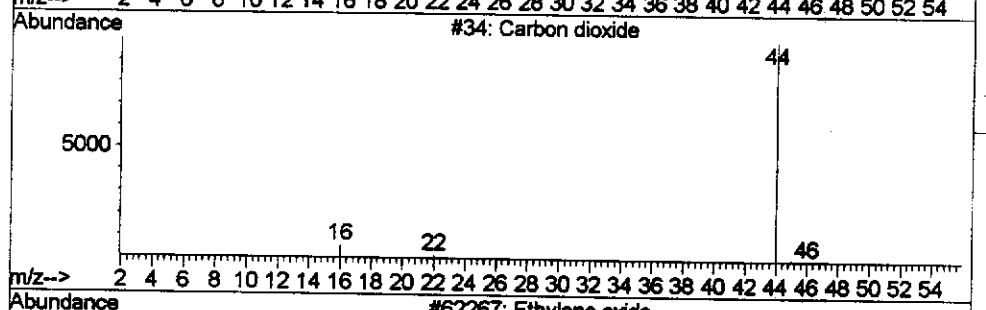

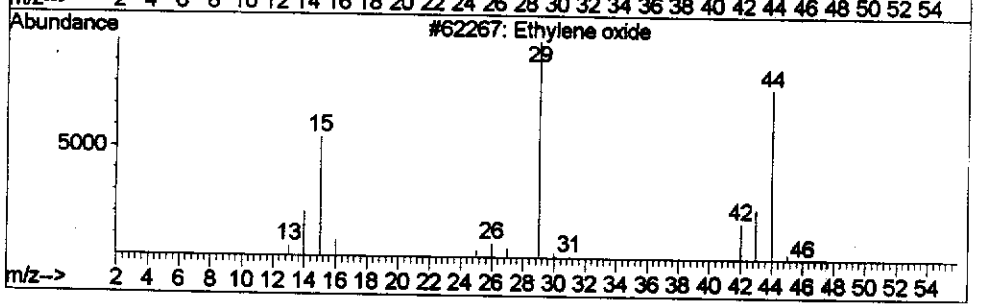

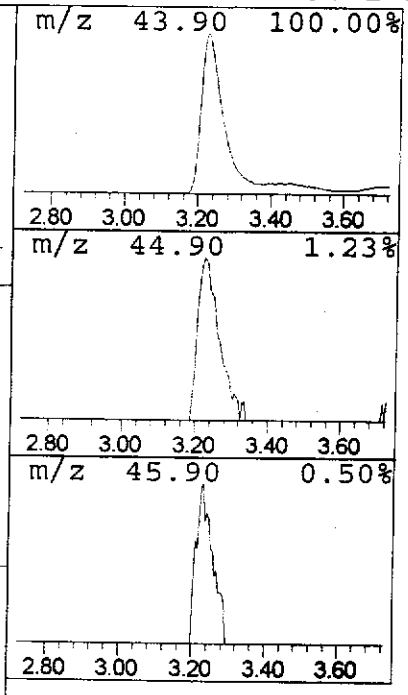

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\072299\6M1466 .D
Acq On : 22 Jul 1999 14:45
Sample : L9907381-04 A LANL 826LA 5.0G/5ML
Misc : SOLID,1
MS Integration Params: LSCINT.P

Vial: 10
Operator: CMS
Inst : HPMS_6
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\8260BSL.M (RTE Integrator)
Title : Method 8260B_SOIL - ICAL 07/15/99
Library : C:\DATABASE\NBS75K.L

****

Peak Number 2 7,9-Diethyl-2,4-bis(dimethylam Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
19.77	11.73 ug/Kg	817724	1,4-Dichlorobenzene-d4	20.01

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qua
1	7,9-Diethyl-2,4-bis(dimethylamino)-	336	C15H24N6OS	000000-00-0	9
2	Benzeneacetic acid, trimethylsilyl	208	C11H16O2Si	002078-18-4	7
3	1,2-Bis(trimethylsilyl)-4,5-dimethy	252	C14H28Si2	000000-00-0	7
4	Benzoic acid, 4-[(trimethylsilyl)ox	252	C13H20O3Si	027739-19-1	5

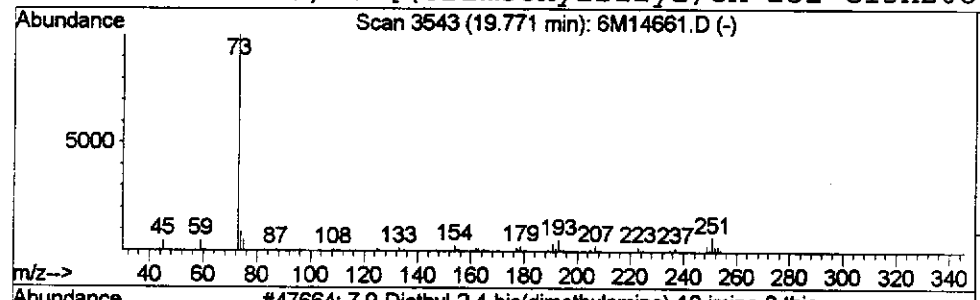

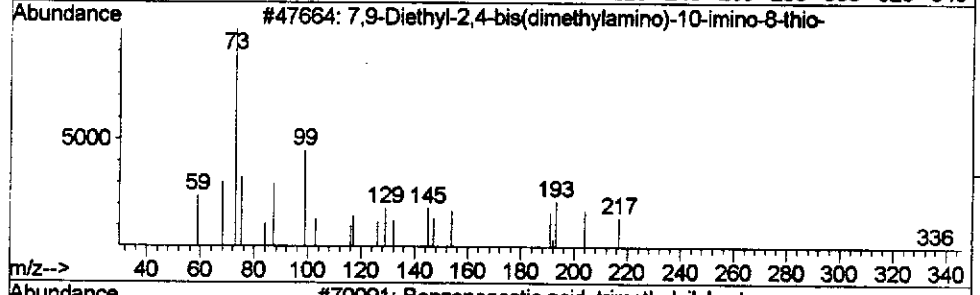

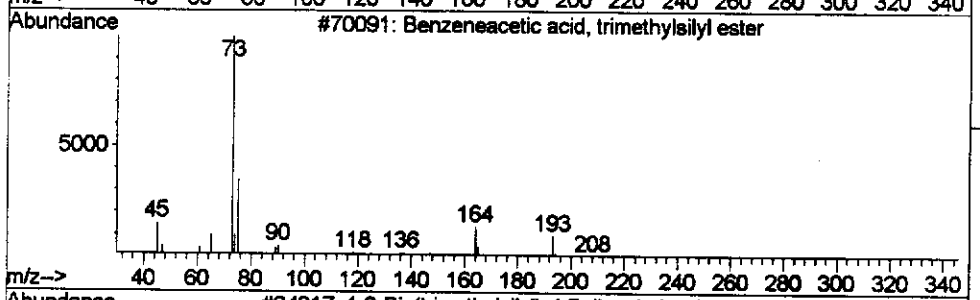

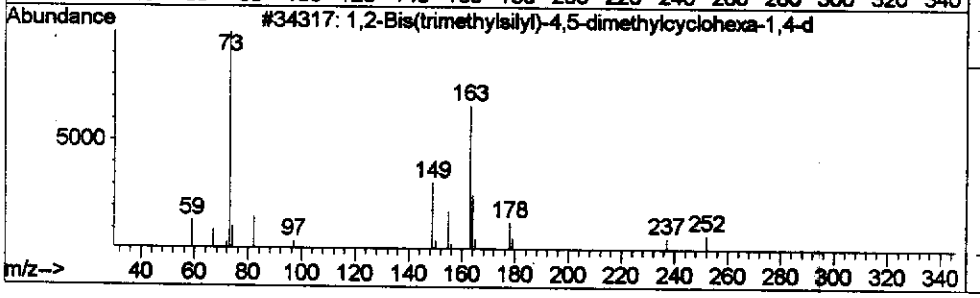

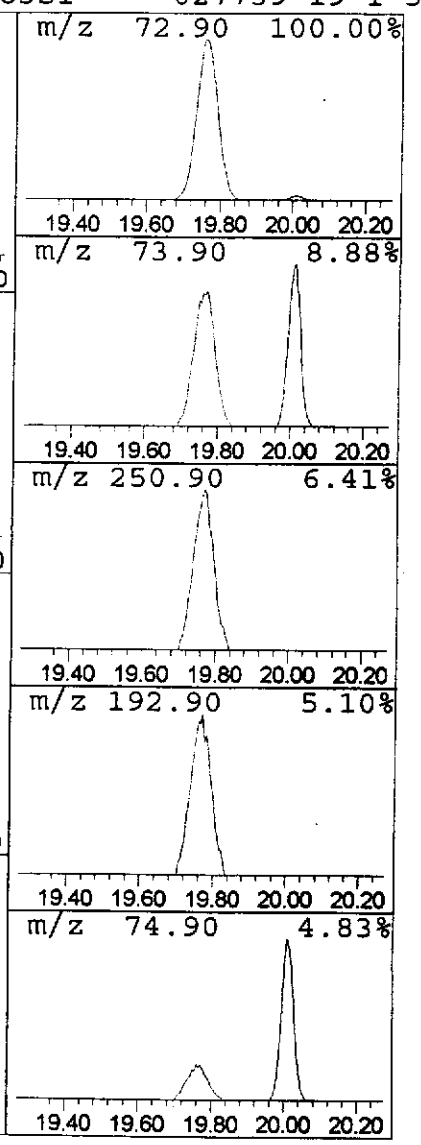

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\07229[illegible]\6M14[illegible].D
Acq On : 22 Jul 1999 14:45
Sample : L9907381-04 A LANL 826LA 5.0G/5ML
Misc : SOLID,1
MS Integration Params: LSCINT.P

Vial: 10
Operator: CMS
Inst : HPMS_6
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\8260BSL.M (RTE Integrator)
Title : Method 8260B_SOIL - ICAL 07/15/99
Library : C:\DATABASE\NBS75K.L

****

Peak Number 3 Azulene — Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
23.62	15.10 ug/Kg	1052230	1,4-Dichlorobenzene-d4	20.01

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qua
1	Azulene	128	C10H8	000275-51-4	94
2	Azulene	128	C10H8	000275-51-4	91
3	Naphthalene	128	C10H8	000091-20-3	91
4	Naphthalene	128	C10H8	000091-20-3	91

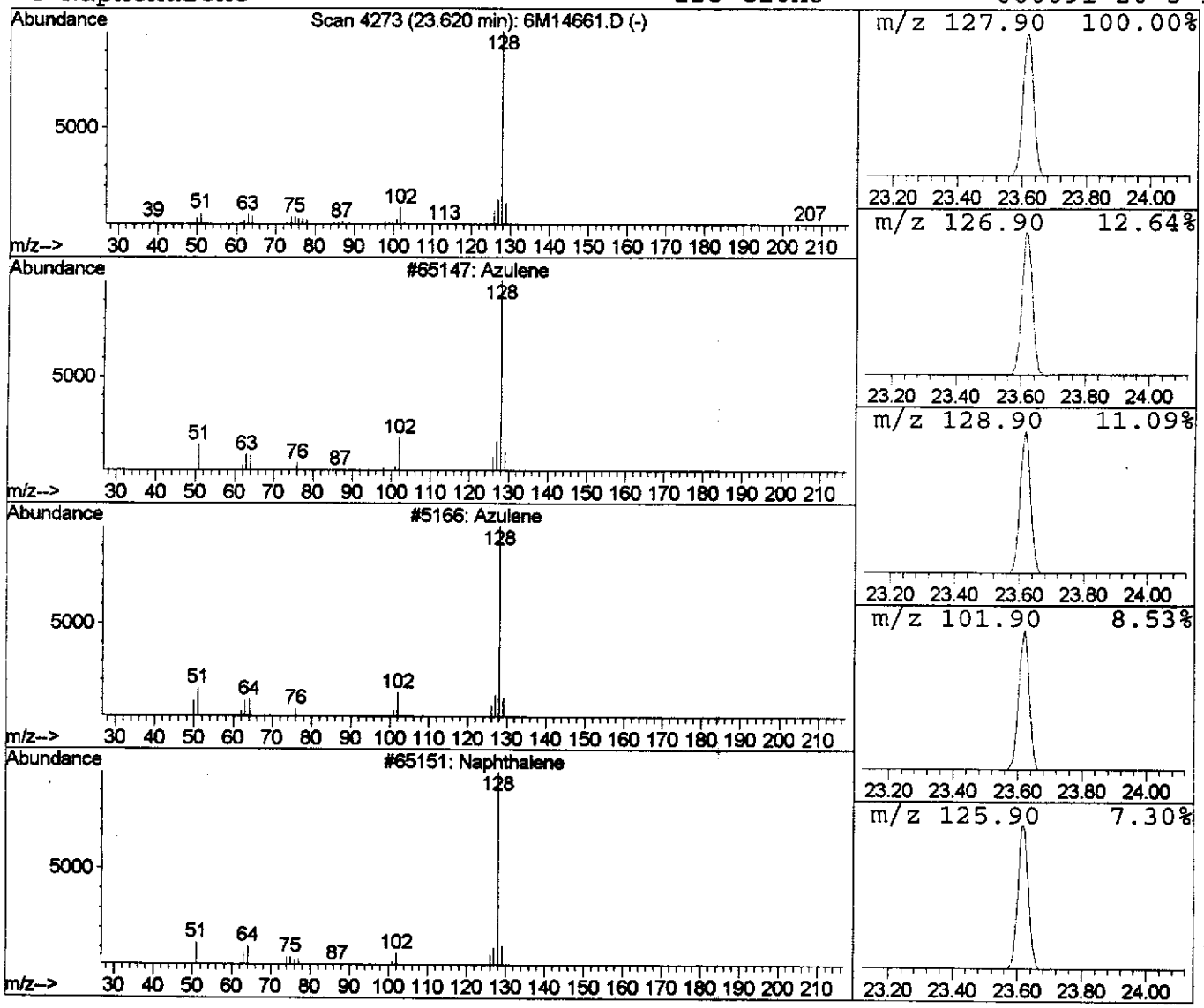

Tentatively Identified Compound (LSC) summary

Operator ID: CMS Date Acquired: 22 Jul 1999 14:45
Data File: C:\HPCHEM\1\DATA\072299\6M14661.D
Name: L9907381-04 A LANL 826LA 5.0G/5ML
Misc: SOLID,1
Method: C:\HPCHEM\1\METHODS\8260BSL.M (RTE Integrator)
Title: Method 8260B_SOIL - ICAL 07/15/99
Library Searched: C:\DATABASE\NBS75K.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISCon
Carbon dioxide	3.22	16.1	ug/Kg	973371	ISTD01	11.91	3018440	50
7,9-Diethyl-2,4-bis(	19.77	11.7	ug/Kg	817724	ISTD03	20.01	3484210	50
Azulene	23.62	15.1	ug/Kg	1052230	ISTD03	20.01	3484210	50

6M14661.D 8260BSL.M Thu Jul 22 15:18:17 1999 HPMS_6

Quantitation Report

Data File : C:\HPCHEM\1\DATA\072299\6M14662.D
Acq On : 22 Jul 1999 15:25
Sample : L9907381-05 A LANL 826LA 5.4G/5ML
Misc : SOLID,0.9
MS Integration Params: rteint.p
Quant Time: Jul 22 15:51 1999

Vial: 11
Operator: CMS
Inst : HPMS_6
Multiplr: 0.90

Quant Results File: 8260BSL.RES

Method : C:\HPCHEM\1\METHODS\8260BSL.M (RTE Integrator)
Title : Method 8260B_SOIL - ICAL 07/15/99
Last Update : Thu Jul 22 09:02:15 1999
Response via : Initial Calibration

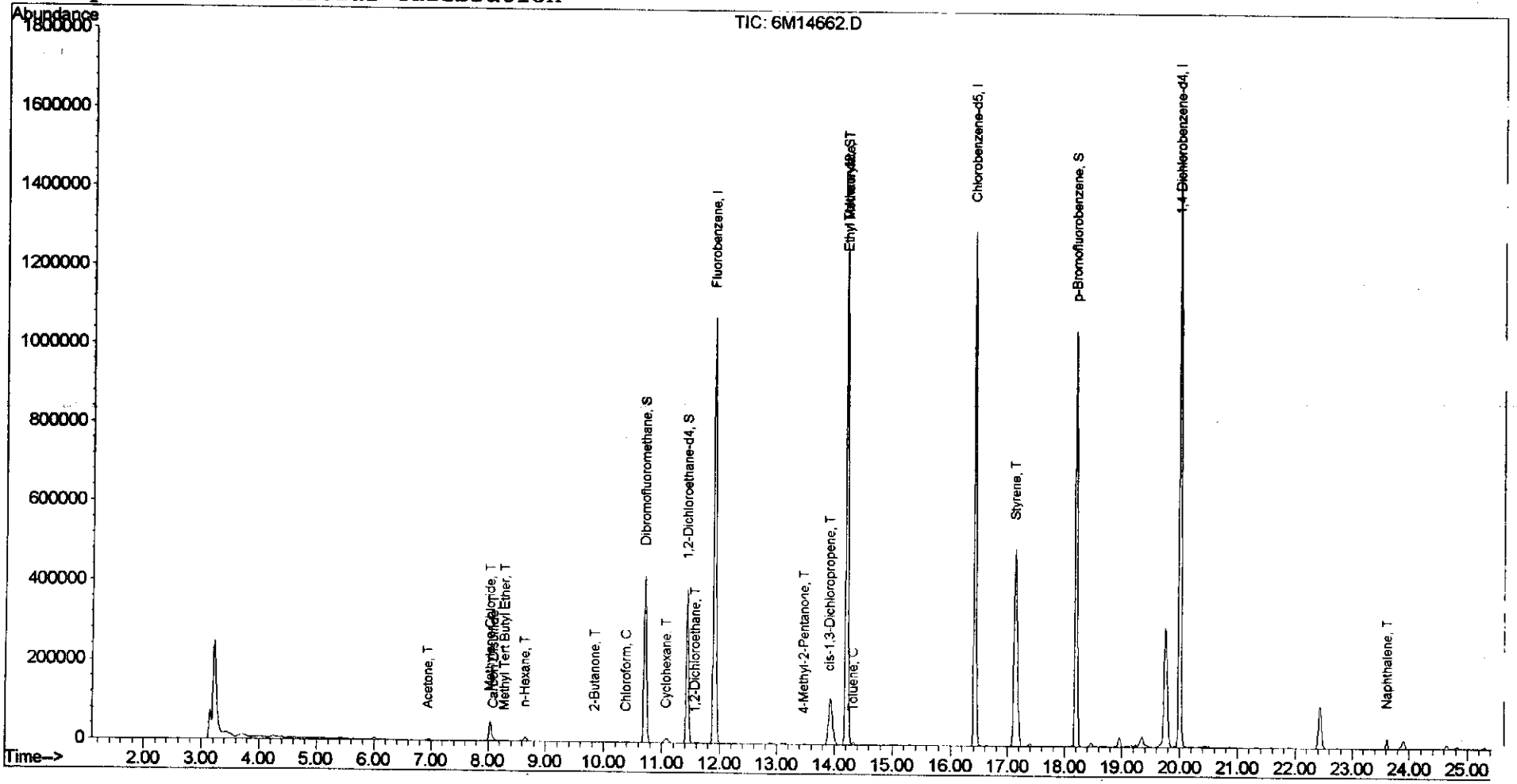

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\J 2299\6M14662.D Vial 1
Acq On : 22 Jul 1999 15:25 Operator: CMS
Sample : L9907381-05 A LANL 826LA 5.4G/5ML Inst : HPMS_6
Misc : SOLID,0.9 Multiplr: 0.90
MS Integration Params: rteint.p
Quant Time: Jul 22 15:51 1999 Quant Results File: 8260BSL.R

Quant Method : C:\HPCHEM\1\METHODS\8260BSL.M (RTE Integrator)
Title : Method 8260B_SOIL - ICAL 07/15/99
Last Update : Thu Jul 22 09:02:15 1999
Response via : Initial Calibration
DataAcq Meth : 8260BSL

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene	11.91	96	1500137	50.00 ug/Kg	0.00
44) Chlorobenzene-d5	16.43	117	1152638	50.00 ug/Kg	0.00
64) 1,4-Dichlorobenzene-d4	20.01	152	621445	50.00 ug/Kg	0.00
System Monitoring Compounds					
28) Dibromofluoromethane	10.72	111	402264	46.13 ug/Kg	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 92.26%		
33) 1,2-Dichloroethane-d4	11.44	65	409881	48.09 ug/Kg	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 96.18%		
45) Toluene-d8	14.21	98	1380876	43.87 ug/Kg	0.00
Spiked Amount 50.000	Range 81 - 117		Recovery = 87.74%		
66) p-Bromofluorobenzene	18.20	95	550526	44.67 ug/Kg	0.00
Spiked Amount 50.000	Range 74 - 121		Recovery = 89.34%		

Target Compounds					Qvalue
11) Acetone	6.95	43	9716	5.25 ug/Kg J	99
15) Methylene Chloride	8.04	84	40016	4.51 ug/Kg B	83
16) Carbon Disulfide	8.11	76	8463	0.29 ug/Kg#	88
20) n-Hexane	8.65	57	7089	~~0.51 ug/Kg~~	97
23) 2-Butanone	9.85	43	543	0.22 ug/Kg#	54
26) Chloroform	10.40	83	3067	0.20 ug/Kg#	84
30) Cyclohexane	11.08	56	8547	~~0.63 ug/Kg#~~	27
34) 1,2-Dichloroethane	11.58	62	2643	0.25 ug/Kg#	78
41) 4-Methyl-2-Pentanone	13.48	58	367	0.18 ug/Kg#	34
46) Toluene	14.33	91	10148	0.28 ug/Kg	98
47) Ethyl Methacrylate	14.22	69	3638	~~0.44 ug/Kg#~~	1
61) Styrene	17.15	104	10128	0.38 ug/Kg#	26
86) Naphthalene	23.62	128	32371	~~1.23 ug/Kg~~	98

(#) = qualifier out of range (m) = manual integration

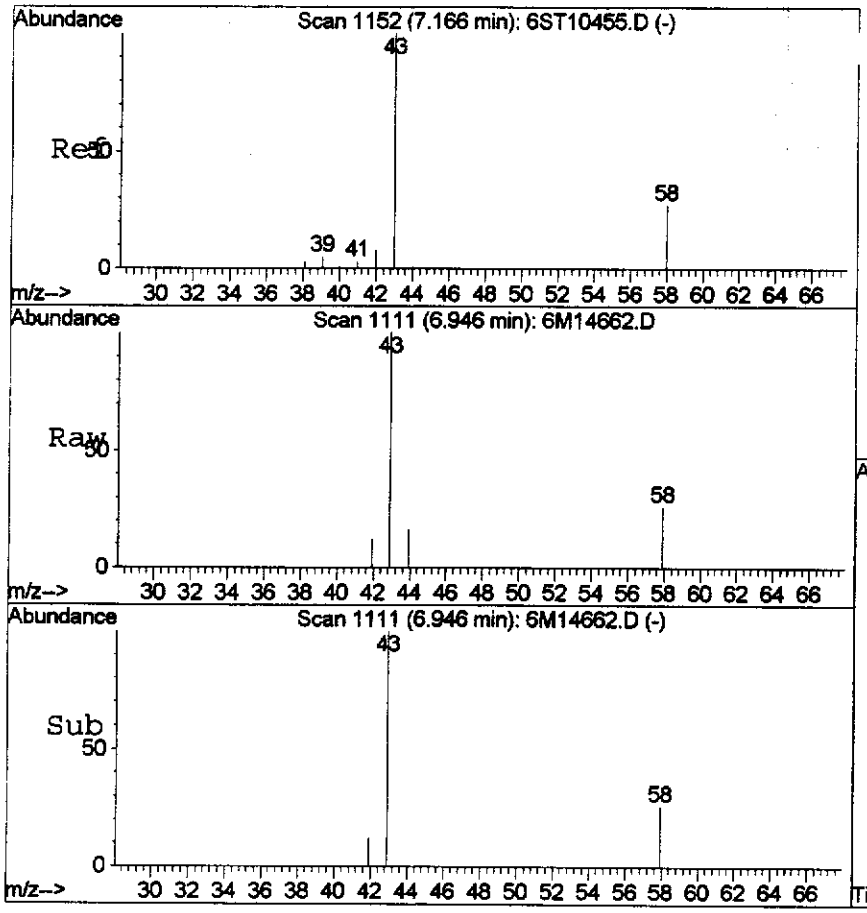

#11
Acetone
Concen: 5.25 ug/Kg
RT: 6.95 min Scan# 1111
Delta R.T. -0.02 min
Lab File: 6M14662.D
Acq: 22 Jul 1999 15:25

Tgt Ion: 43 Resp: 9716

Ion	Ratio	Lower	Upper
43	100		
58	28.0	22.9	34.3

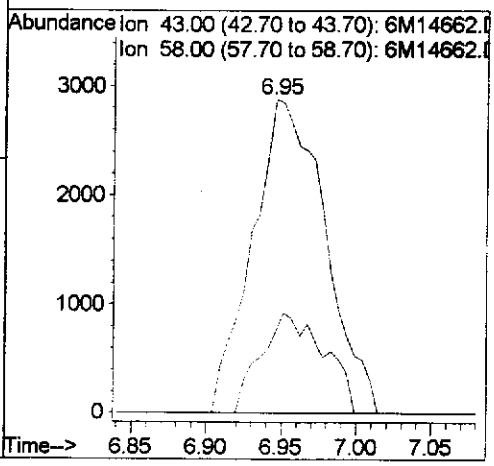

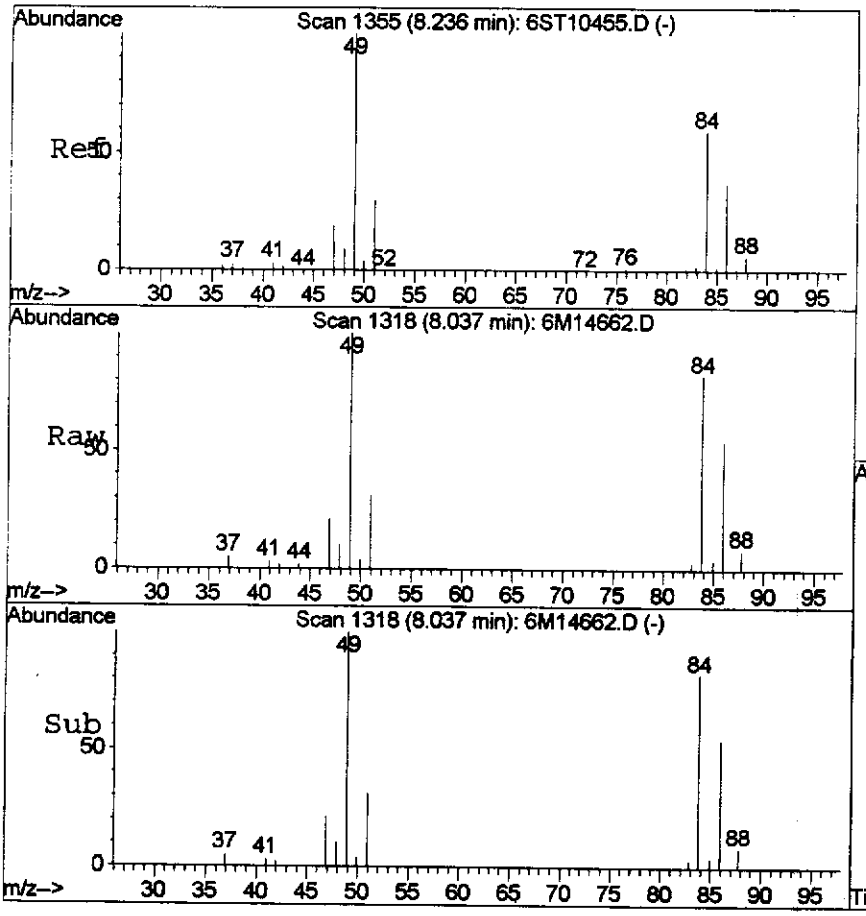

#15
Methylene Chloride
Concen: 4.51 ug/Kg
RT: 8.04 min Scan# 1318
Delta R.T. -0.01 min
Lab File: 6M14662.D
Acq: 22 Jul 1999 15:25

Tgt Ion: 84 Resp: 40016

Ion	Ratio	Lower	Upper
84	100		
49	117.3	110.3	165.5

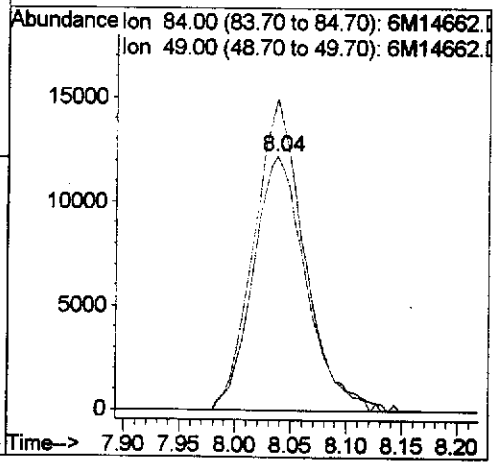

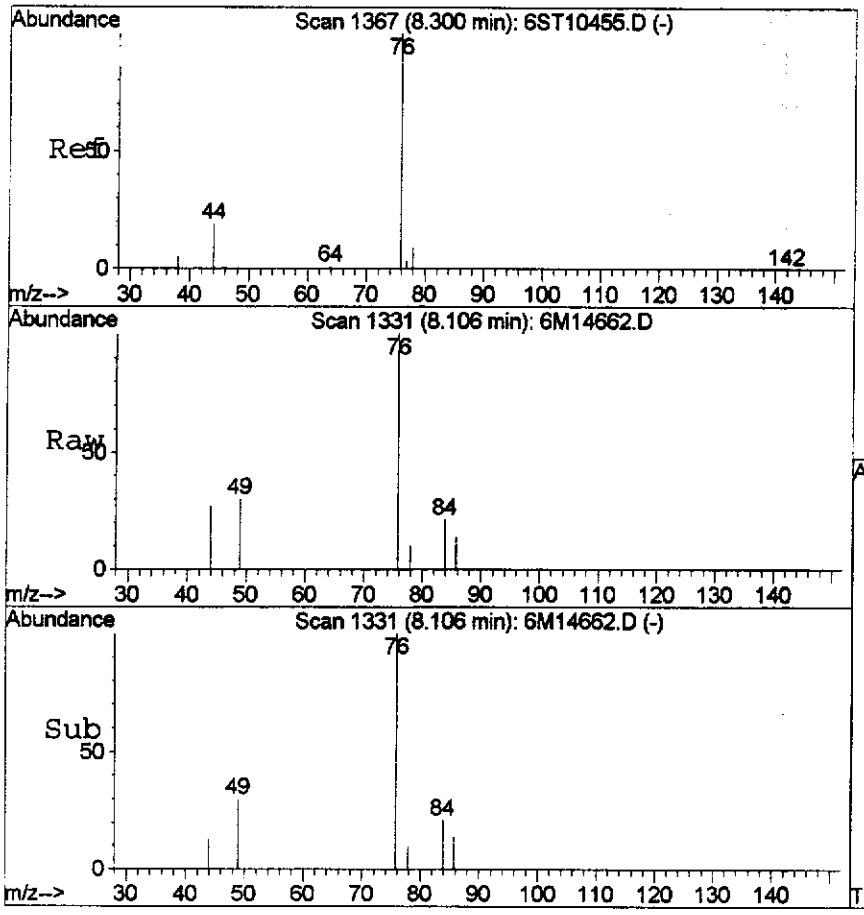

#16
- bon Disulfide
Concen: 0.29 ug/Kg
RT: 8.11 min Scan# 1331
Delta R.T. -0.01 min
Lab File: 6M14662.D
Acq: 22 Jul 1999 15:25

Tgt Ion: 76 Resp: 8463

Ion	Ratio	Lower	Upper
76	100		
78	4.7	7.2	10.8#

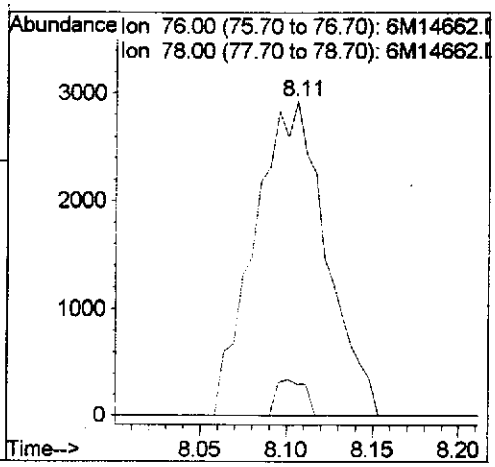

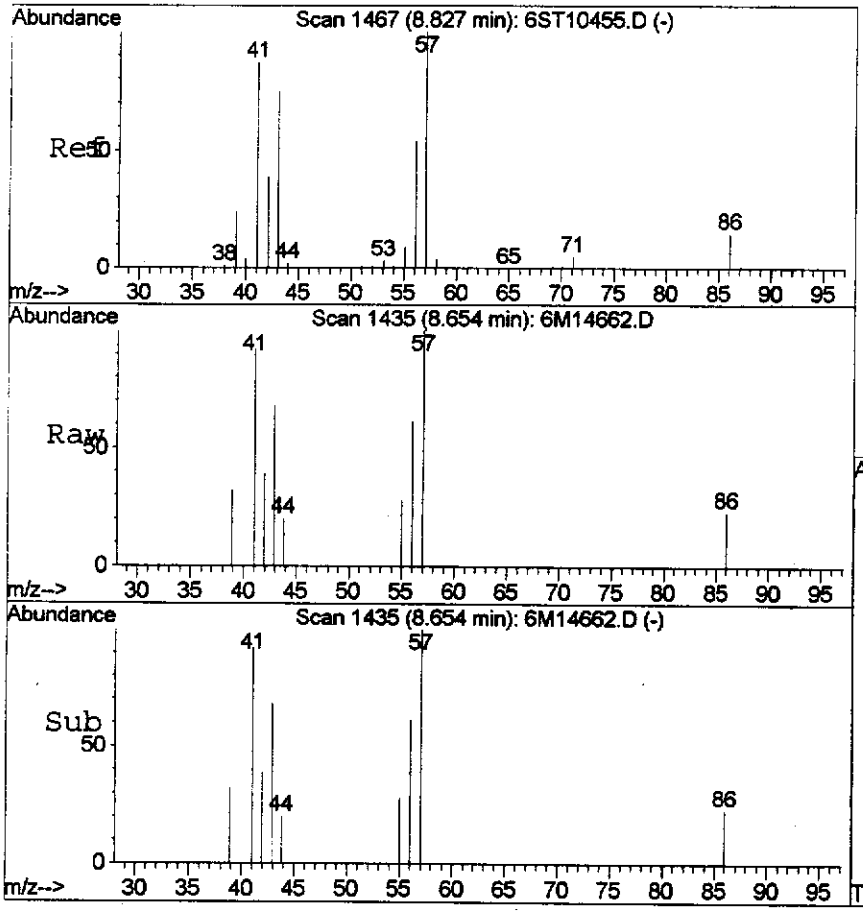

#20
n-Hexane
Concen: 0.51 ug/Kg
RT: 8.65 min Scan# 1435
Delta R.T. -0.01 min
Lab File: 6M14662.D
Acq: 22 Jul 1999 15:25

Tgt Ion: 57 Resp: 7089

Ion	Ratio	Lower	Upper
57	100		
43	68.1	56.7	85.1

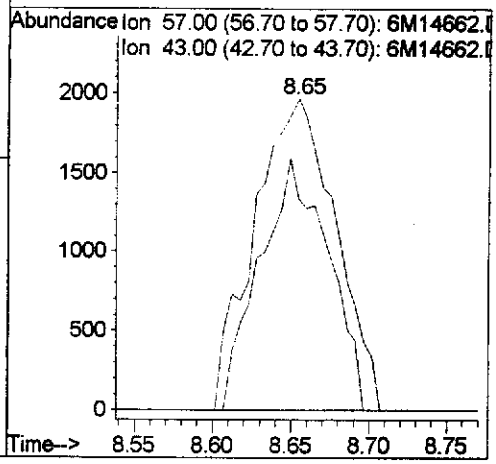

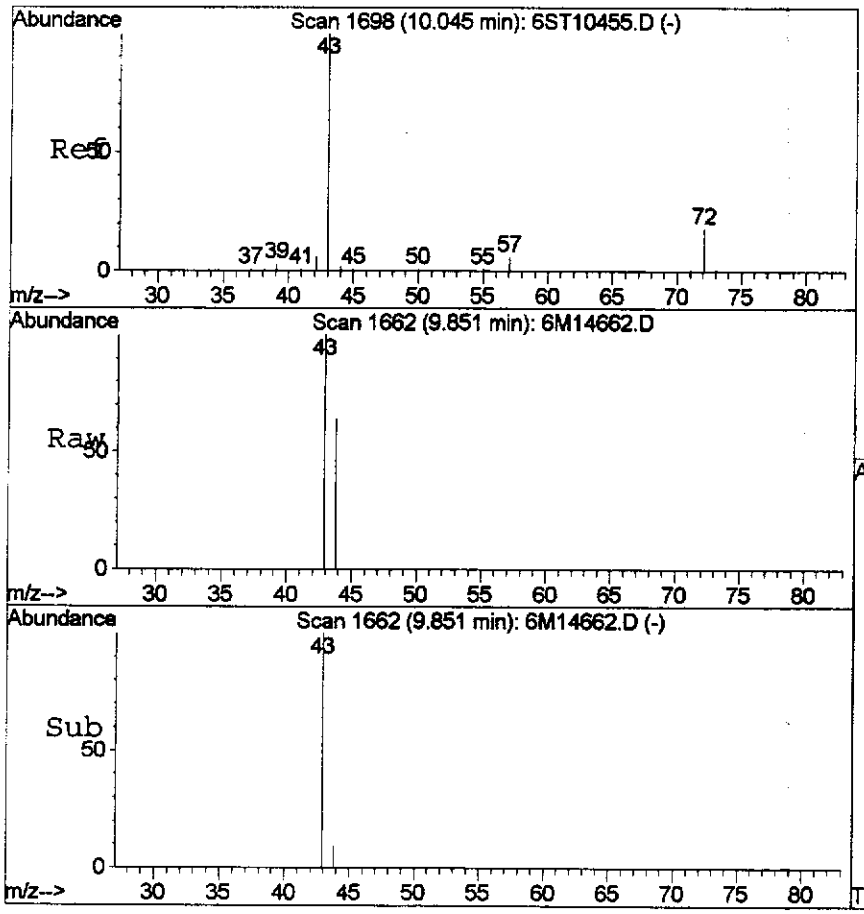

#23
2-Butanone
Concen: 0.22 ug/Kg
RT: 9.85 min Scan# 1662
Delta R.T. -0.00 min
Lab File: 6M14662.D
Acq: 22 Jul 1999 15:25

Tgt Ion: 43 Resp: 543

Ion	Ratio	Lower	Upper
43	100		
72	0.0	17.6	26.4#

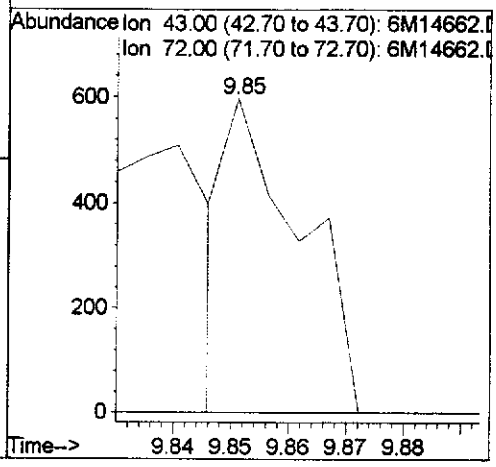

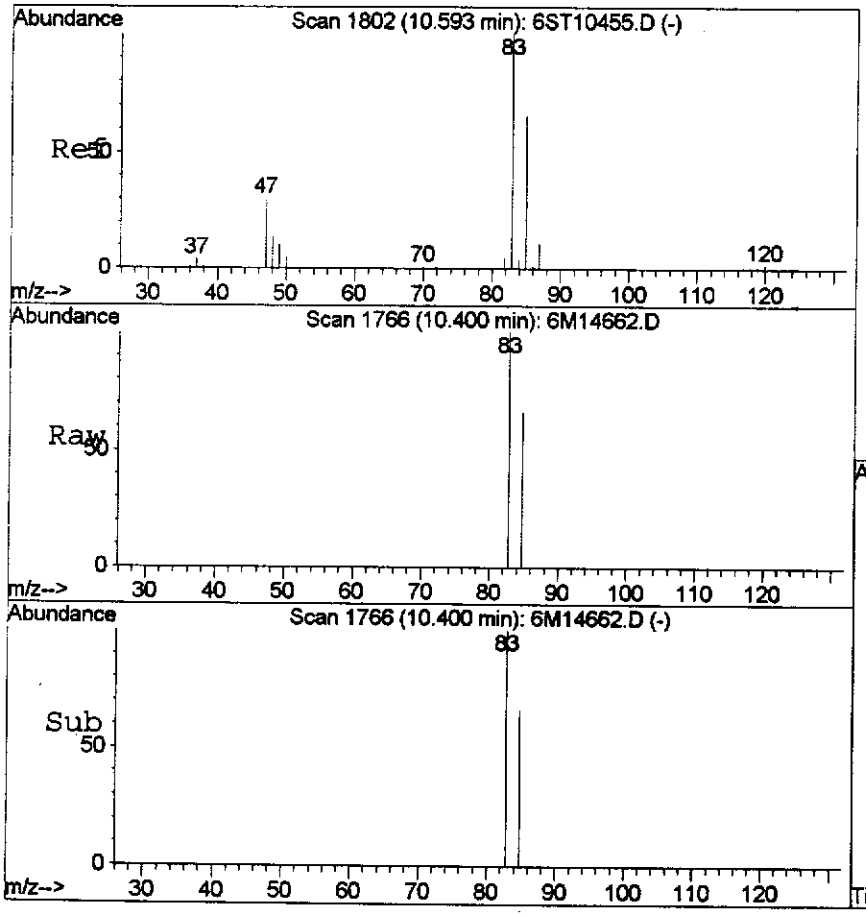

#26
Chloroform
Concen: 0.20 ug/Kg
RT: 10.40 min Scan# 1766
Delta R.T. -0.01 min
Lab File: 6M14662.D
Acq: 22 Jul 1999 15:25

Tgt Ion: 83 Resp: 3067

Ion	Ratio	Lower	Upper
83	100		
85	63.8	52.2	78.2
47	0.0	20.8	31.2#

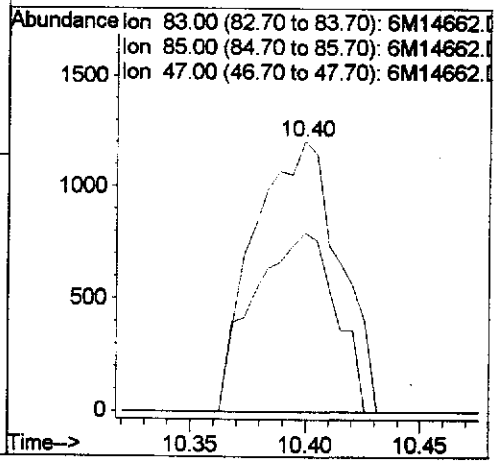

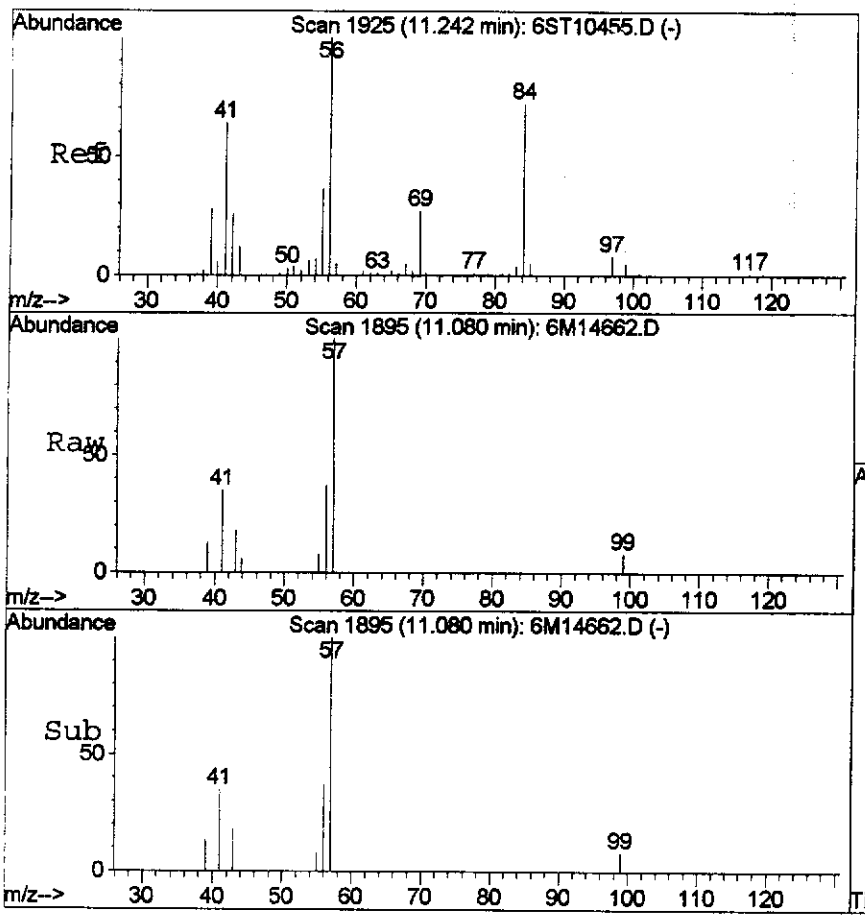

#30
Cyclohexane
Concen: 0.63 ug/Kg
RT: 11.08 min Scan# 1895
Delta R.T. 0.01 min
Lab File: 6M14662.D
Acq: 22 Jul 1999 15:25

Tgt Ion: 56 Resp: 8547

Ion	Ratio	Lower	Upper
56	100		
84	0.0	66.3	99.5#
41	98.8	50.0	75.0#

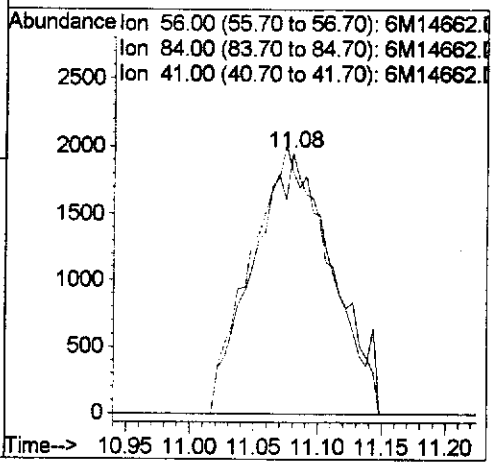

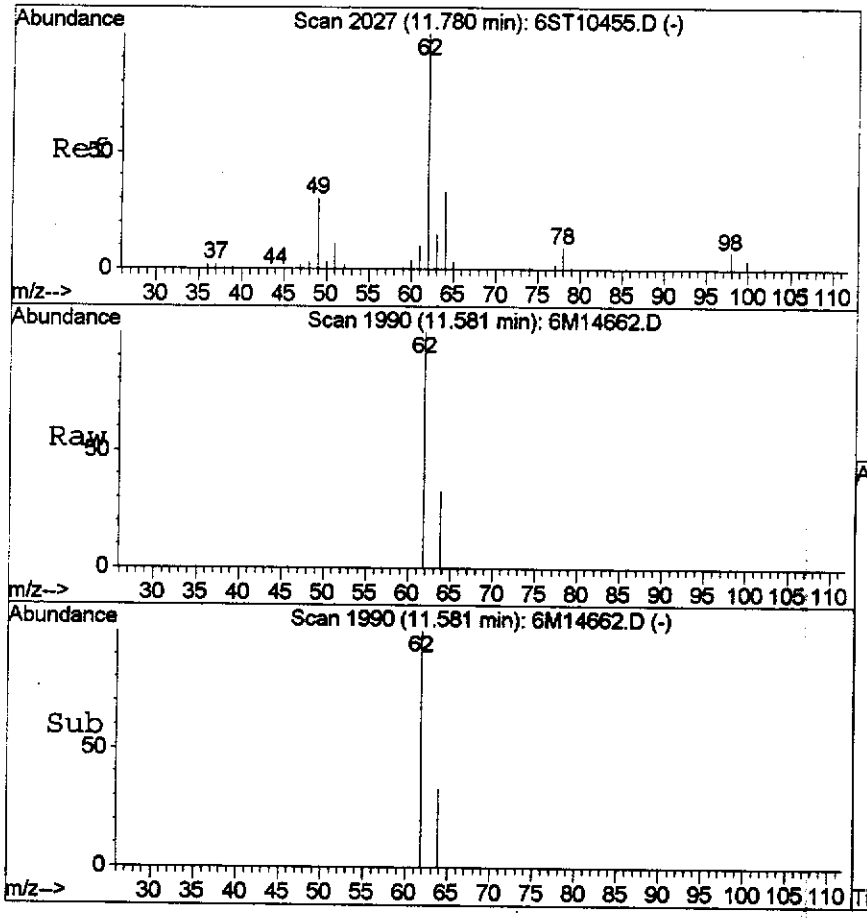

#34
1,2-Dichloroethane
Concen: 0.25 ug/Kg
RT: 11.58 min Scan# 1990
Delta R.T. -0.01 min
Lab File: 6M14662.D
Acq: 22 Jul 1999 15:25

Tgt Ion: 62 Resp: 2643

Ion	Ratio	Lower	Upper
62	100		
98	0.0	6.3	9.5#

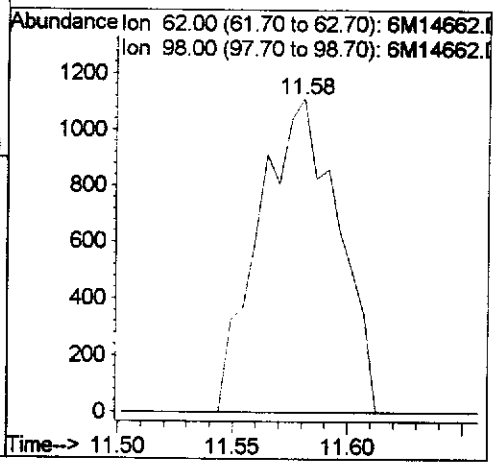

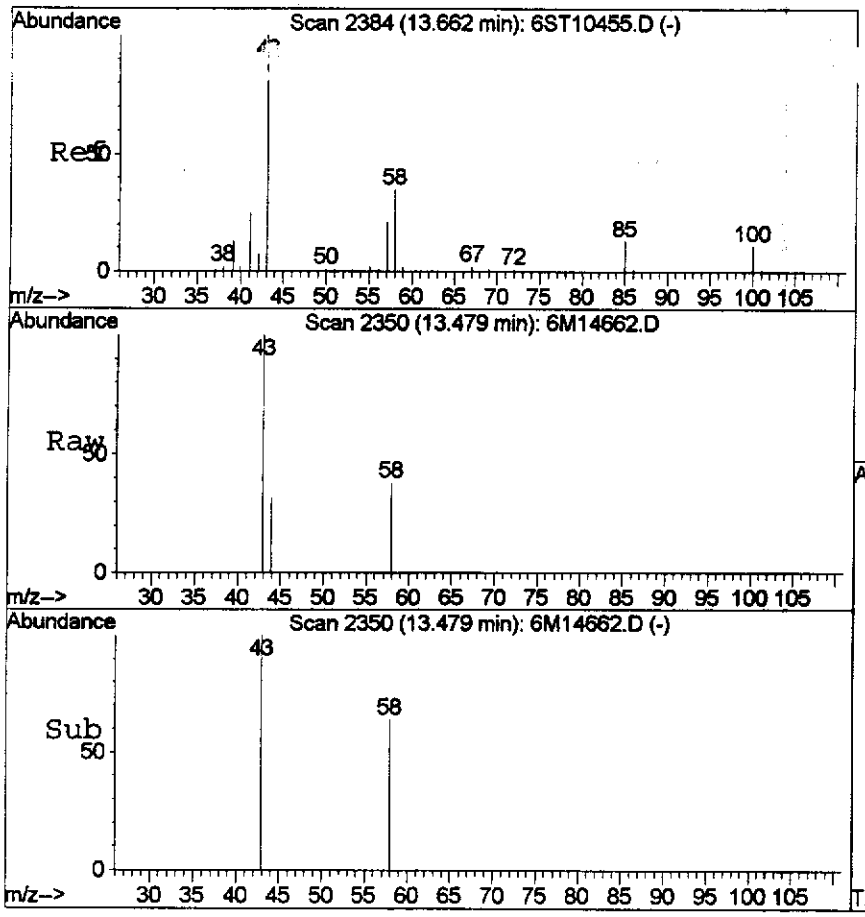

#41
Met[illegible]-2-Pentanone
Concen: 0.18 ug/Kg
RT: 13.48 min Scan# 2350
Delta R.T. -0.00 min
Lab File: 6M14662.D
Acq: 22 Jul 1999 15:25

Tgt Ion: 58 Resp: 367

Ion	Ratio	Lower	Upper
58	100		
85	0.0	32.7	49.1#

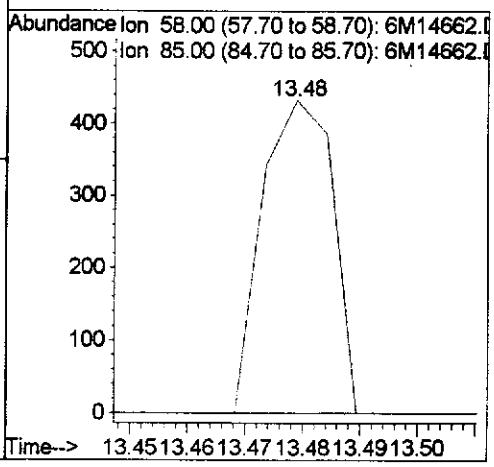

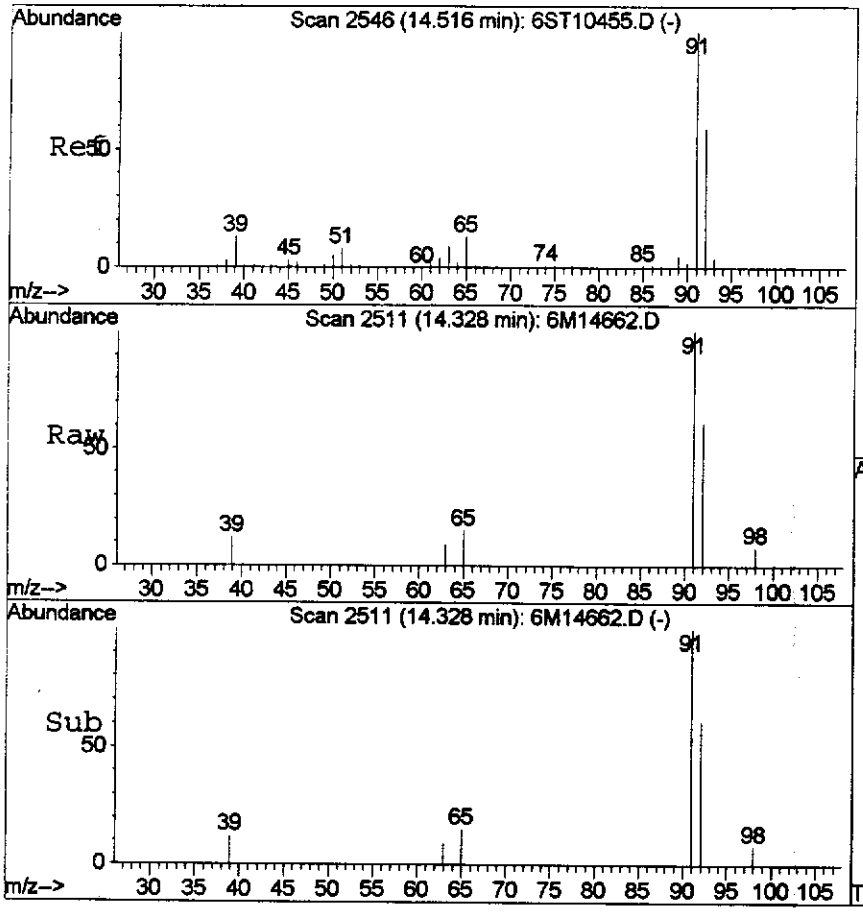

#46
Toluene
Concen: 0.28 ug/Kg
RT: 14.33 min Scan# 2511
Delta R.T. -0.00 min
Lab File: 6M14662.D
Acq: 22 Jul 1999 15:25

Tgt Ion: 91 Resp: 10148

Ion	Ratio	Lower	Upper
91	100		
92	57.1	46.9	70.3

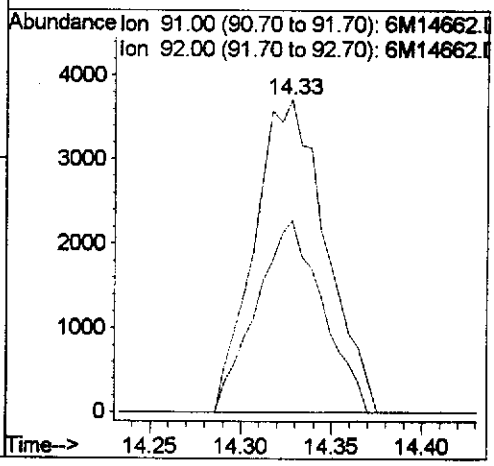

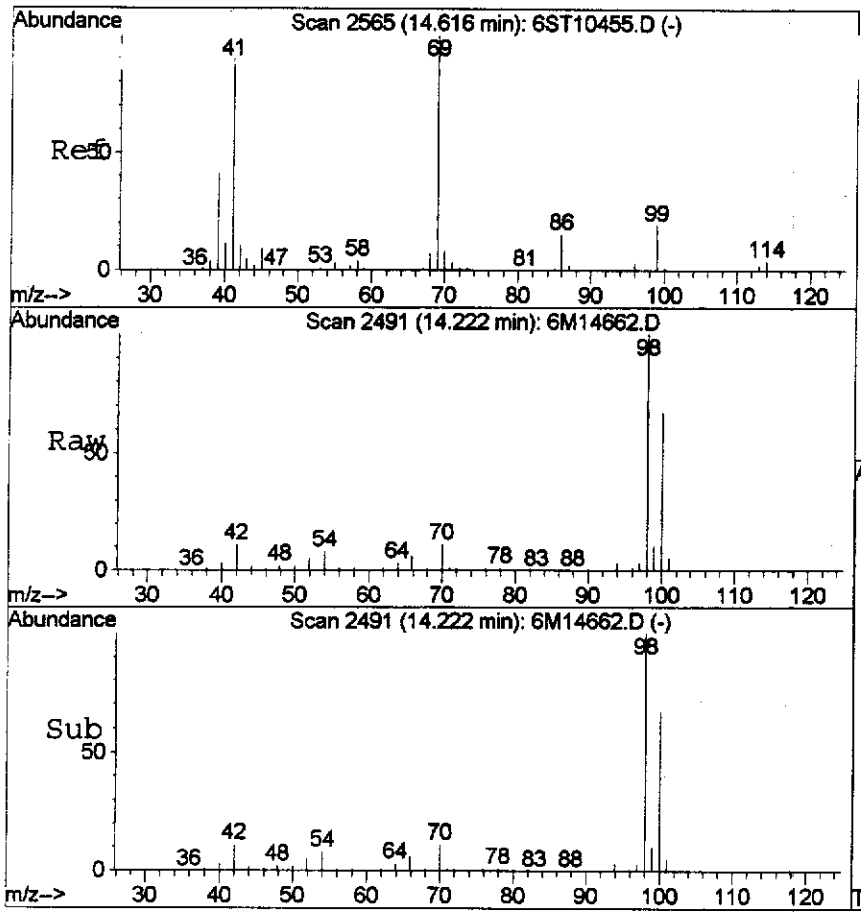

#47
thyl Methacrylate
Concen: 0.44 ug/Kg
RT: 14.22 min Scan# 2491
Delta R.T. -0.22 min
Lab File: 6M14662.D
Acq: 22 Jul 1999 15:25

Tgt Ion: 69 Resp: 3638

Ion	Ratio	Lower	Upper
69	100		
99	3658.5	15.2	22.8#

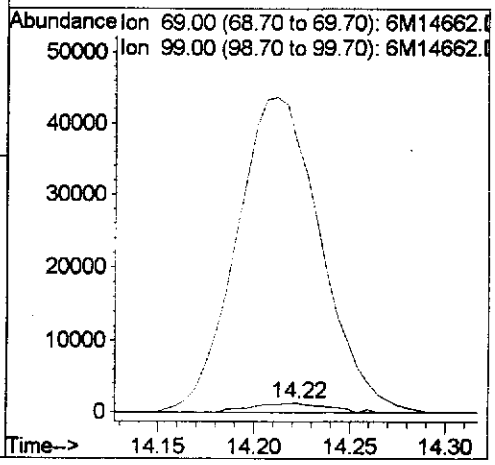

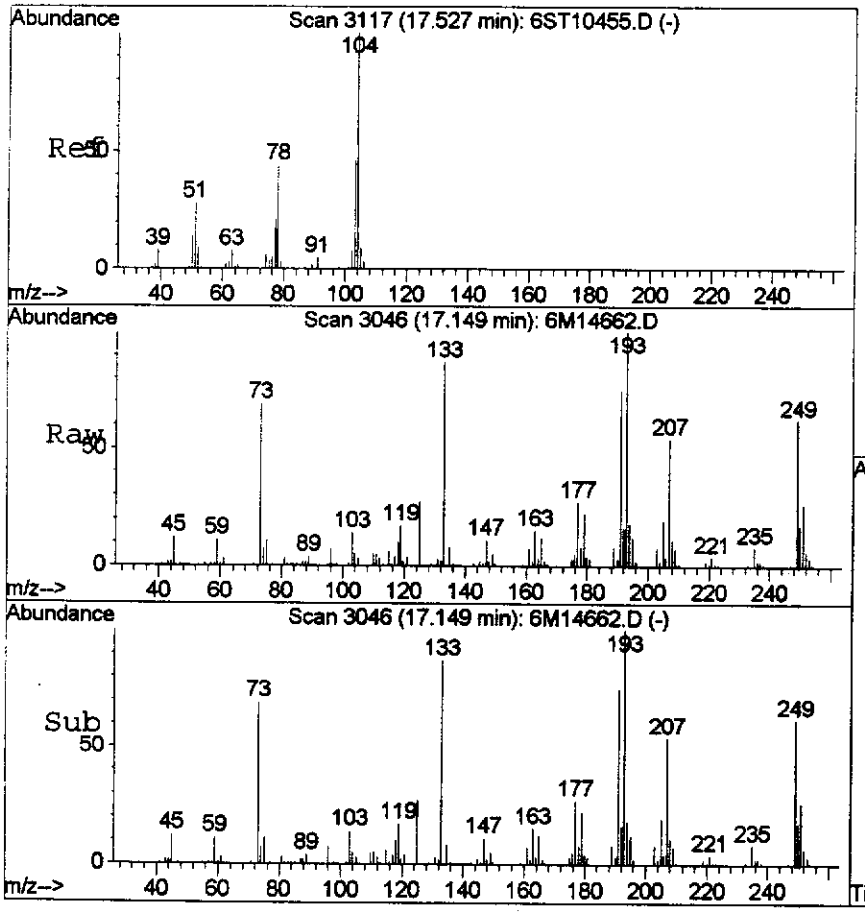

#61
Styrene
Concen: 0.38 ug/Kg
RT: 17.15 min Scan# 3046
Delta R.T. -0.19 min
Lab File: 6M14662.D
Acq: 22 Jul 1999 15:25

Tgt Ion:104 Resp: 10128

Ion	Ratio	Lower	Upper
104	100		
78	0.0	41.4	62.0#

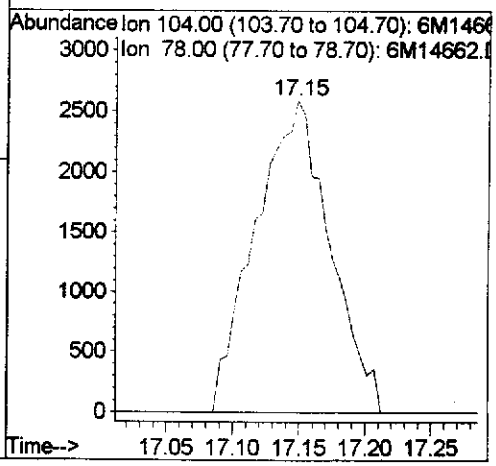

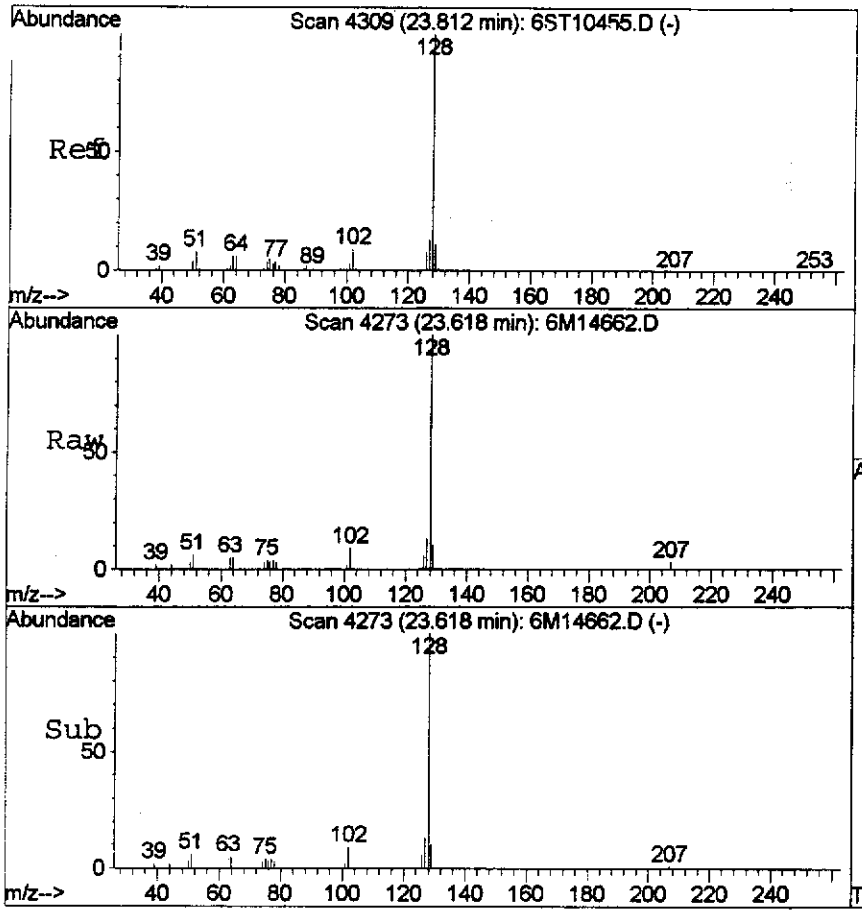

#86
Naphthalene
Concen: 1.23 ug/Kg
RT: 23.62 min Scan# 4273
Delta R.T. -0.00 min
Lab File: 6M14662.D
Acq: 22 Jul 1999 15:25

Tgt Ion:128 Resp: 32371

Ion	Ratio	Lower	Upper
128	100		
102	7.9	6.9	10.3

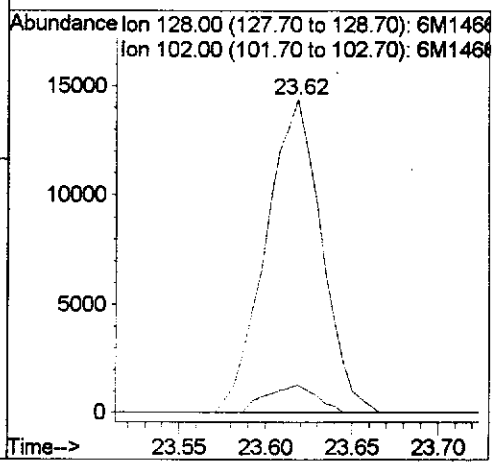

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\72299\6M14662.D
Acq On : 22 Jul 1999 15:25
Sample : L9907381-05 A LANL 826LA 5.4G/5ML
Misc : SOLID,0.9
MS Integration Params: LSCINT.P

Vial: 11
Operator: CMS
Inst : HPMS_6
Multiplr: 0.90

Quant Method : C:\HPCHEM\1\METHODS\8260BSL.M (RTE Integrator)
Title : Method 8260B_SOIL - ICAL 07/15/99
Library : C:\DATABASE\NBS75K.L

****

Peak Number 1 Carbon dioxide — Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
3.22	13.74 ug/Kg	939961	Fluorobenzene	11.91

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qua
1	Carbon dioxide	44	CO2	000124-38-9	4
2	Carbon dioxide	44	CO2	000124-38-9	4
3	Nitrous Oxide	44	N2O	010024-97-2	3
4	Nitrous Oxide	44	N2O	010024-97-2	3

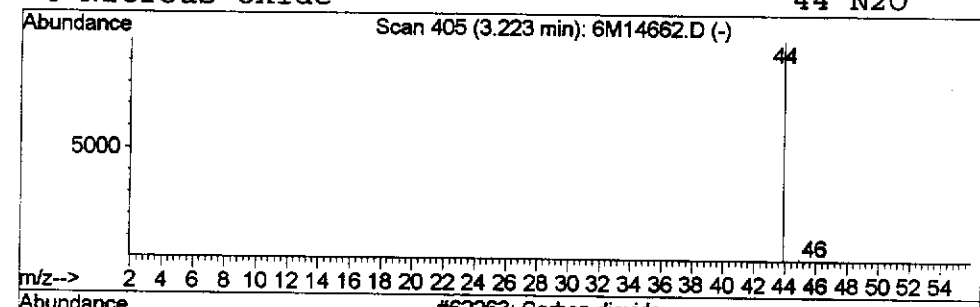

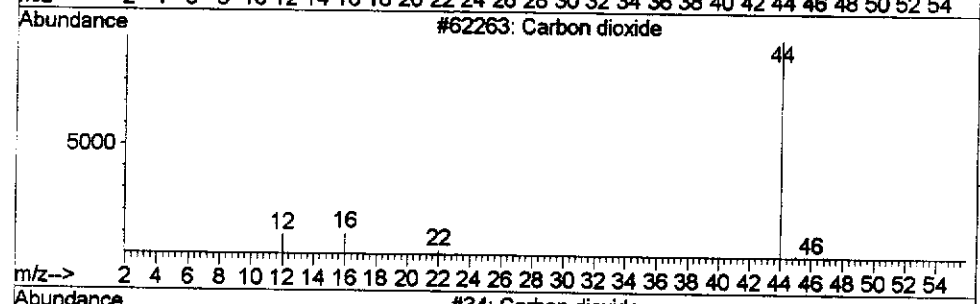

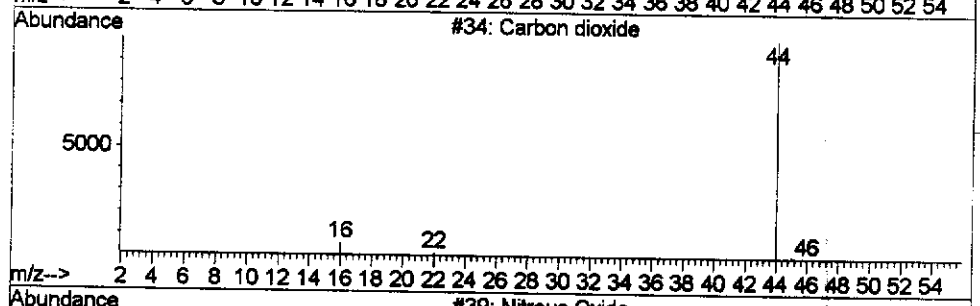

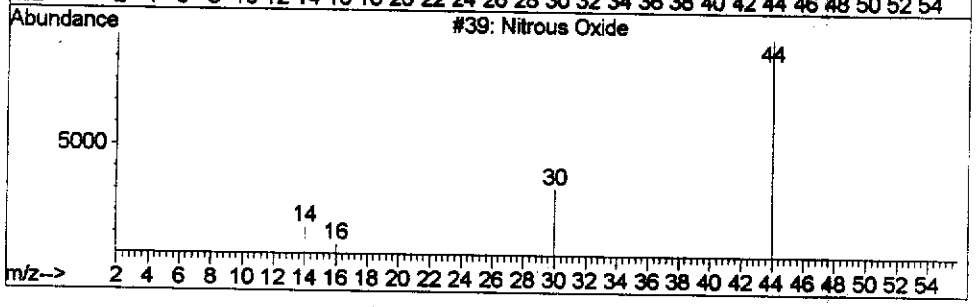

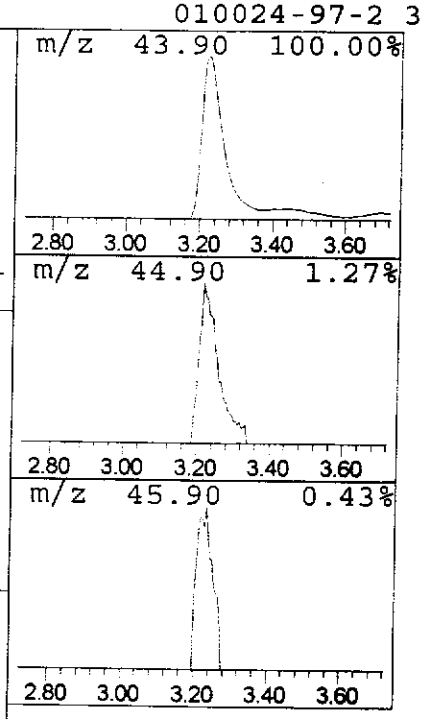

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\072299\6M14662.D
Acq On : 22 Jul 1999 15:25
Sample : L9907381-05 A LANL 826LA 5.4G/5ML
Misc : SOLID,0.9
MS Integration Params: LSCINT.P

Vial: 11
Operator: CMS
Inst : HPMS_6
Multiplr: 0.90

Quant Method : C:\HPCHEM\1\METHODS\8260BSL.M (RTE Integrator)
Title : Method 8260B_SOIL - ICAL 07/15/99
Library : C:\DATABASE\NBS75K.L

****

Peak Number 2 Benzeneacetic acid, trimethyls Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
19.76	15.79 ug/Kg	1227130	1,4-Dichlorobenzene-d4	20.01

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qua
1	Benzeneacetic acid, trimethylsilyl	208	C11H16O2Si	002078-18-4	9
2	Benzenepropanoic acid, .alpha.-oxo-	236	C12H16O3Si	002078-21-9	9
3	7,9-Diethyl-2,4-bis(dimethylamino)-	336	C15H24N6OS	000000-00-0	9
4	Acetic acid, (m-methoxyphenyl)-, tr	238	C12H18O3Si	027750-49-8	9

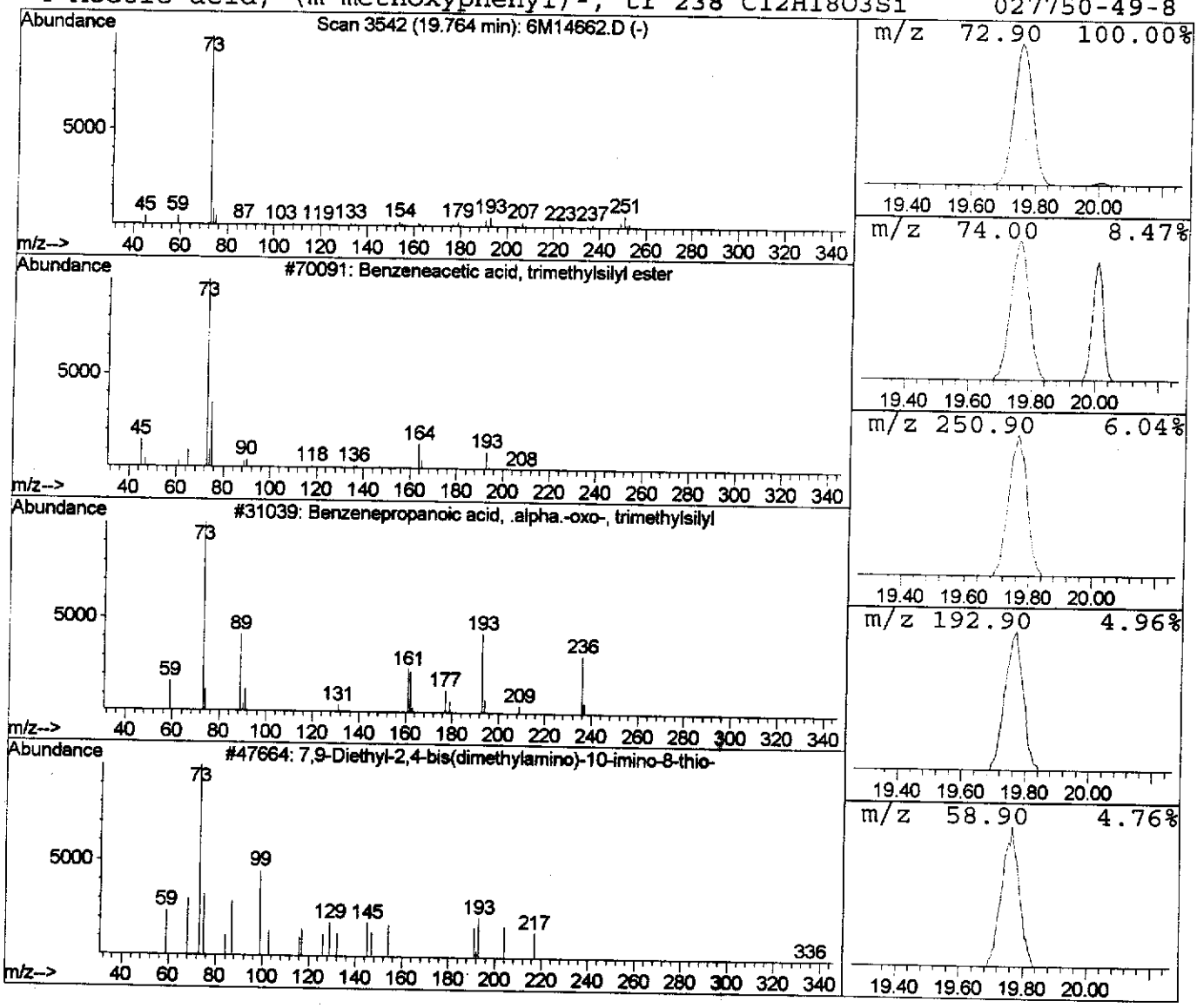

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\072299\6M14662.D
Acq On : 22 Jul 1999 15:25
Sample : L9907381-05 A LANL 826LA 5.4G/5ML
Misc : SOLID,0.9
MS Integration Params: LSCINT.P

Vial: 11
Operator: CMS
Inst : HPMS_6
Multiplr: 0.90

Quant Method : C:\HPCHEM\1\METHODS\8260BSL.M (RTE Integrator)
Title : Method 8260B_SOIL - ICAL 07/15/99
Library : C:\DATABASE\NBS75K.L

****

Peak Number 3 Butane, 2-methyl-1,4-bis(trime Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
22.43	5.08 ug/Kg	394821	1,4-Dichlorobenzene-d4	20.01

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qua
1	Butane, 2-methyl-1,4-bis(trimethyls	248	C11H28O2Si2	000000-00-0	36
2	Trimethylsilyl ether of glycerol	308	C12H32O3Si3	006787-10-6	9
3	Ethanedioic acid, bis(trimethylsily	234	C8H18O4Si2	018294-04-7	9
4	Ribo-hexos-3-ulose, 2,4,5,6-tetraki	524	C20H48N2O6Si4	062108-14-9	9

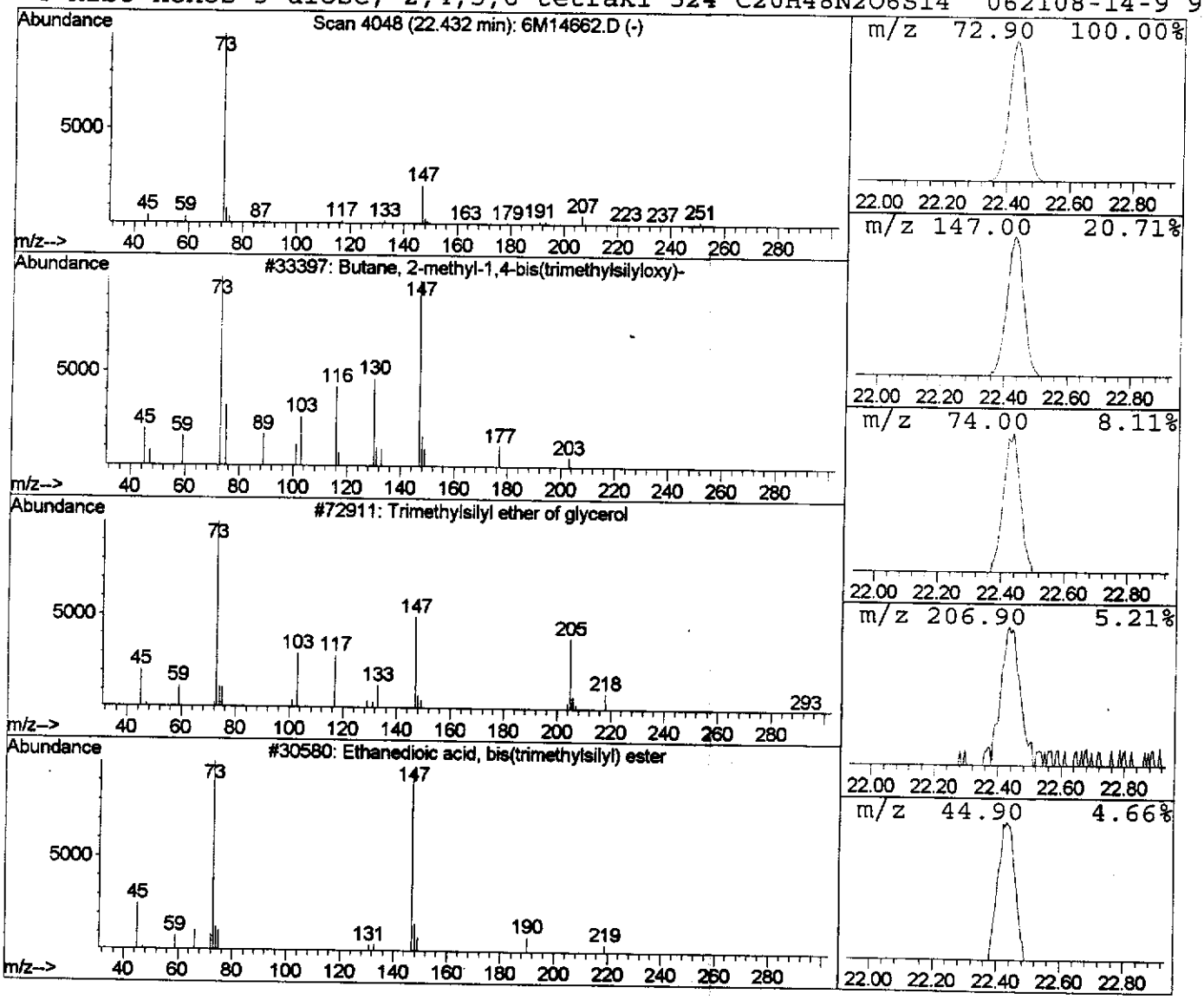

Tentatively Identified Compound (LSC) summary

Operator ID: CMS Date Acquired: 22 Jul 1999 15:25
Data File: C:\HPCHEM\1\DATA\072299\6M14662.D
Name: L9907381-05 A LANL 826LA 5.4G/5ML
Misc: SOLID,0.9
Method: C:\HPCHEM\1\METHODS\8260BSL.M (RTE Integrator)
Title: Method 8260B_SOIL - ICAL 07/15/99
Library Searched: C:\DATABASE\NBS75K.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISCon
Carbon dioxide	3.22	13.7	ug/Kg	939961	ISTD01	11.91	3079270	50
Benzeneacetic acid,	19.76	15.8	ug/Kg	1227130	ISTD03	20.01	3498070	50
Butane, 2-methyl-1,4	22.43	5.1	ug/Kg	394821	ISTD03	20.01	3498070	50

6M14662.D 8260BSL.M Thu Jul 22 16:36:38 1999 HPMS_6

Quantitation Report

Data File : C:\HPCHEM\1\DATA\072299\6M14663.D
Acq On : 22 Jul 1999 16:04
Sample : L9907381-06 A LANL 826LA 5.1G/5ML
Misc : SOLID,1
MS Integration Params: rteint.p
Quant Time: Jul 22 16:30 1999

Vial: 12
Operator: CMS
Inst : HPMS_6
Multiplr: 1.00

Quant Results File: 8260BSL.RES

Method : C:\HPCHEM\1\METHODS\8260BSL.M (RTE Integrator)
Title : Method 8260B_SOIL - ICAL 07/15/99
Last Update : Thu Jul 22 09:02:15 1999
Response via : Initial Calibration

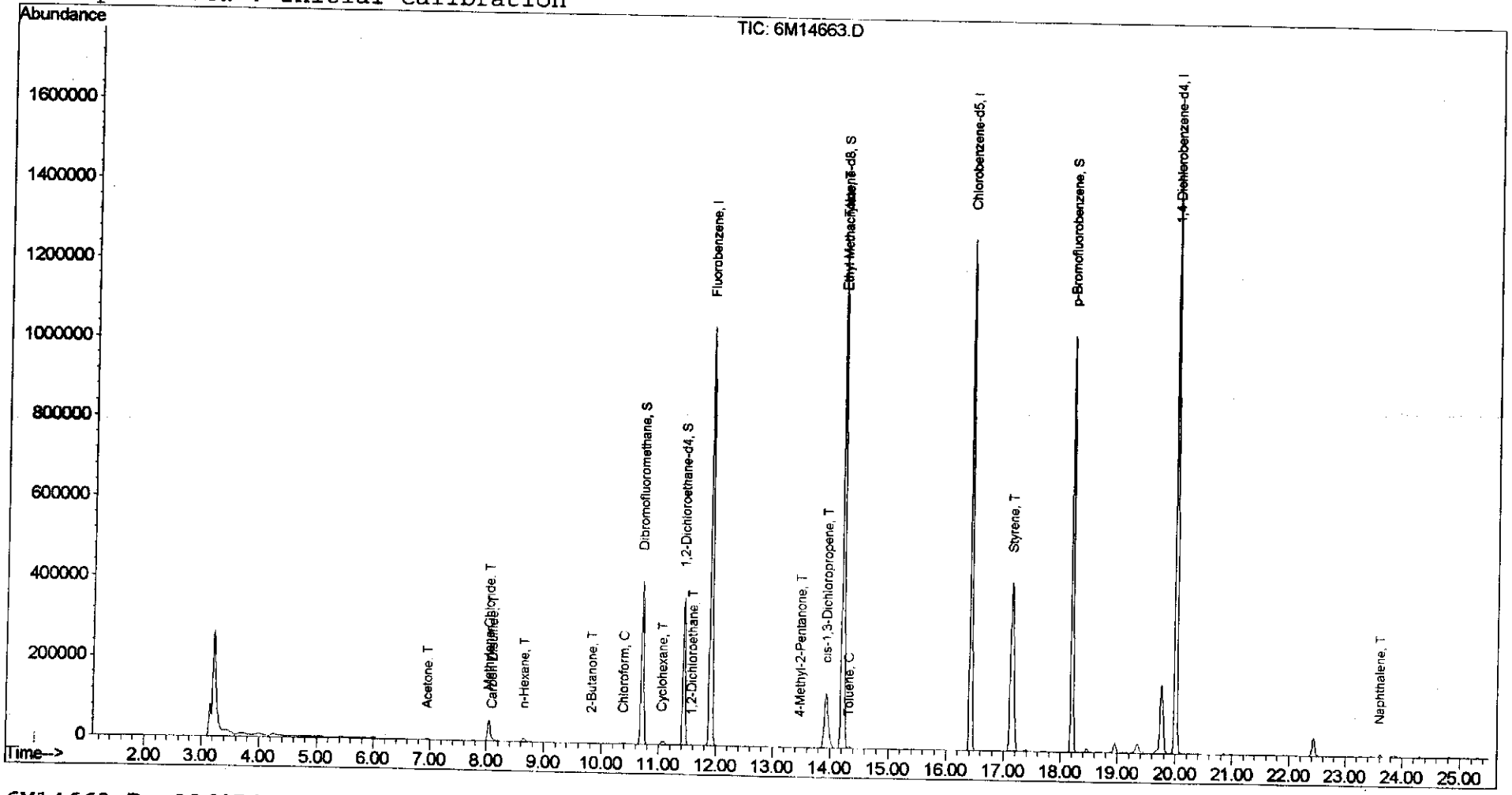

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\072299\6M14663.D
Acq On : 22 Jul 1999 16:04
Sample : L9907381-06 A LANL 826LA 5.1G/5ML
Misc : SOLID,1
MS Integration Params: rteint.p
Quant Time: Jul 22 16:30 1999

Vial: [illegible]
Operator: CMS
Inst : HPMS_6
Multiplr: 1.00

Quant Results File: 8260BSL.R

Quant Method : C:\HPCHEM\1\METHODS\8260BSL.M (RTE Integrator)
Title : Method 8260B_SOIL - ICAL 07/15/99
Last Update : Thu Jul 22 09:02:15 1999
Response via : Initial Calibration
DataAcq Meth : 8260BSL

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene	11.92	96	1481480	50.00 ug/Kg	0.00
44) Chlorobenzene-d5	16.43	117	1145750	50.00 ug/Kg	0.00
64) 1,4-Dichlorobenzene-d4	20.01	152	622575	50.00 ug/Kg	0.00

System Monitoring Compounds					
28) Dibromofluoromethane	10.72	111	392219	45.55 ug/Kg	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 91.10%		
33) 1,2-Dichloroethane-d4	11.45	65	392588	46.64 ug/Kg	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 93.28%		
45) Toluene-d8	14.21	98	1374705	43.93 ug/Kg	0.00
Spiked Amount 50.000	Range 81 - 117		Recovery = 87.86%		
66) p-Bromofluorobenzene	18.20	95	547596	44.35 ug/Kg	0.00
Spiked Amount 50.000	Range 74 - 121		Recovery = 88.70%		

Target Compounds					Qvalue
11) Acetone	6.95	43	9743	5.92 ug/Kg J	99
15) Methylene Chloride	8.04	84	44039	5.59 ug/Kg	83
16) Carbon Disulfide	8.10	76	7679	0.30 ug/Kg#	79
20) n-Hexane	8.66	57	6915	~~0.56 ug/Kg~~	98
23) 2-Butanone	9.84	43	1372	0.62 ug/Kg#	54
26) Chloroform	10.39	83	3408	0.25 ug/Kg#	84
30) Cyclohexane	11.06	56	6410	0~~.53 ug/Kg#~~	40
34) 1,2-Dichloroethane	11.58	62	2192	0.23 ug/Kg#	78
41) 4-Methyl-2-Pentanone	13.48	58	688	0.39 ug/Kg#	34
42) cis-1,3-Dichloropropene	13.94	75	4857	0.49 ug/Kg#	53
46) Toluene	14.32	91	8315	0.26 ug/Kg	100
47) Ethyl Methacrylate	14.23	69	3761	~~0.50 ug/Kg#~~	1
61) Styrene	17.15	104	8659	0.36 ug/Kg#	26
86) Naphthalene	23.62	128	11860	0~~.50 ug/Kg#~~	87

(#) = qualifier out of range (m) = manual integration

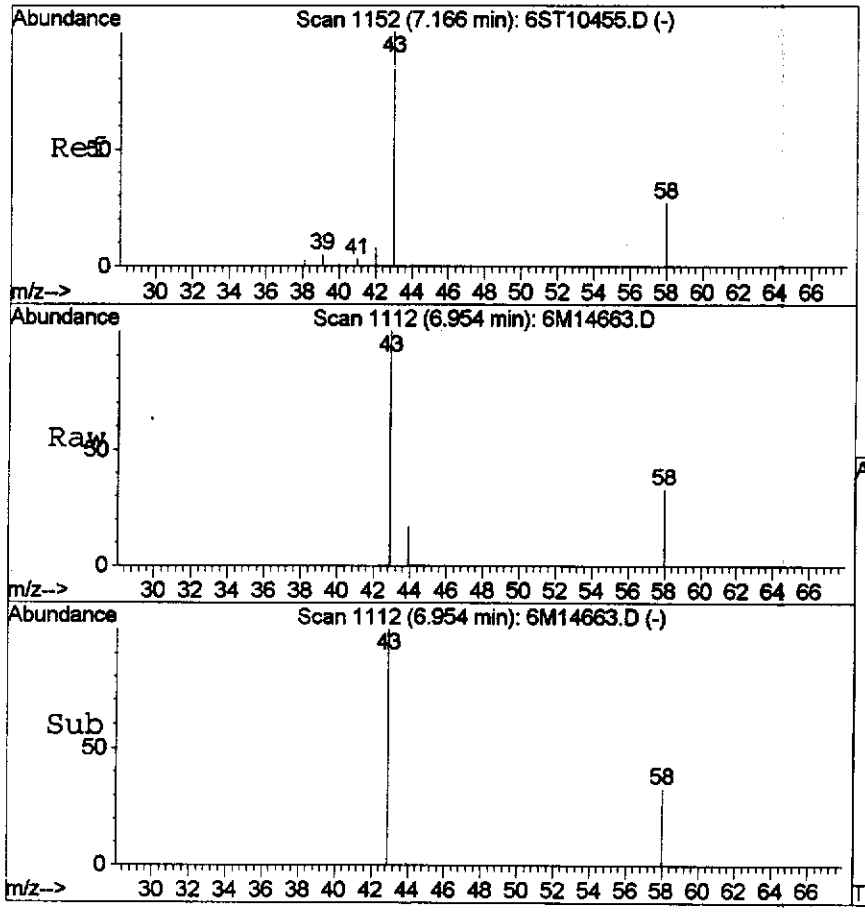

#11
Ace one
Concen: 5.92 ug/Kg
RT: 6.95 min Scan# 1112
Delta R.T. -0.01 min
Lab File: 6M14663.D
Acq: 22 Jul 1999 16:04

Tgt Ion: 43 Resp: 9743

Ion	Ratio	Lower	Upper
43	100		
58	29.3	22.9	34.3

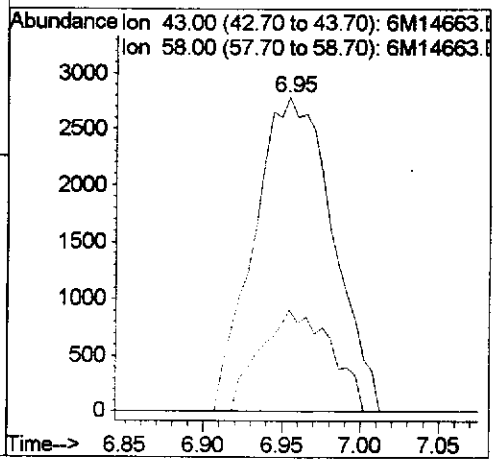

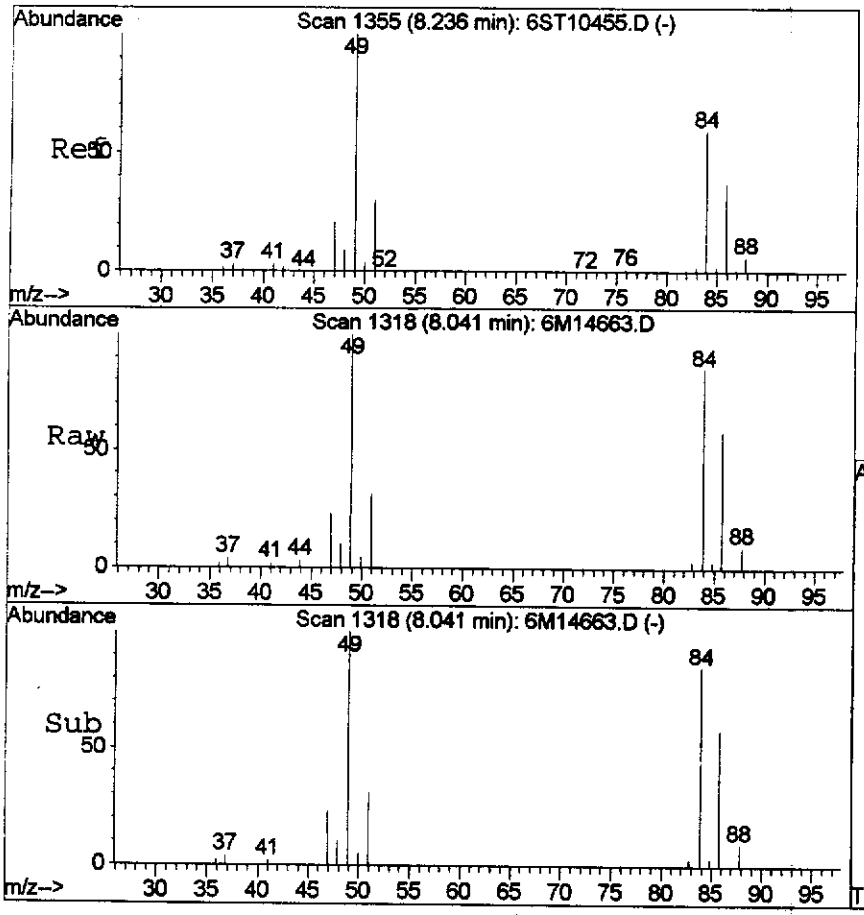

#15
Methylene Chloride
Concen: 5.59 ug/Kg
RT: 8.04 min Scan# 1318
Delta R.T. -0.01 min
Lab File: 6M14663.D
Acq: 22 Jul 1999 16:04

Tgt Ion: 84 Resp: 44039

Ion	Ratio	Lower	Upper
84	100		
49	117.0	110.3	165.5

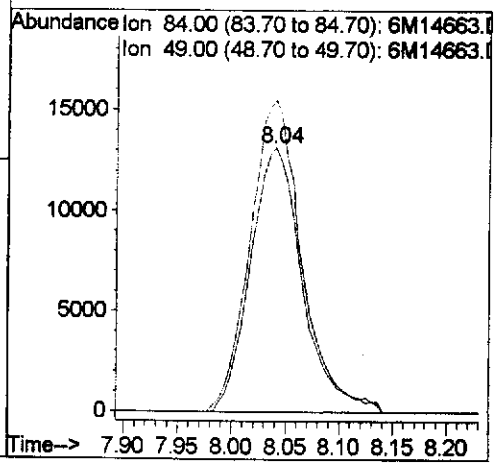

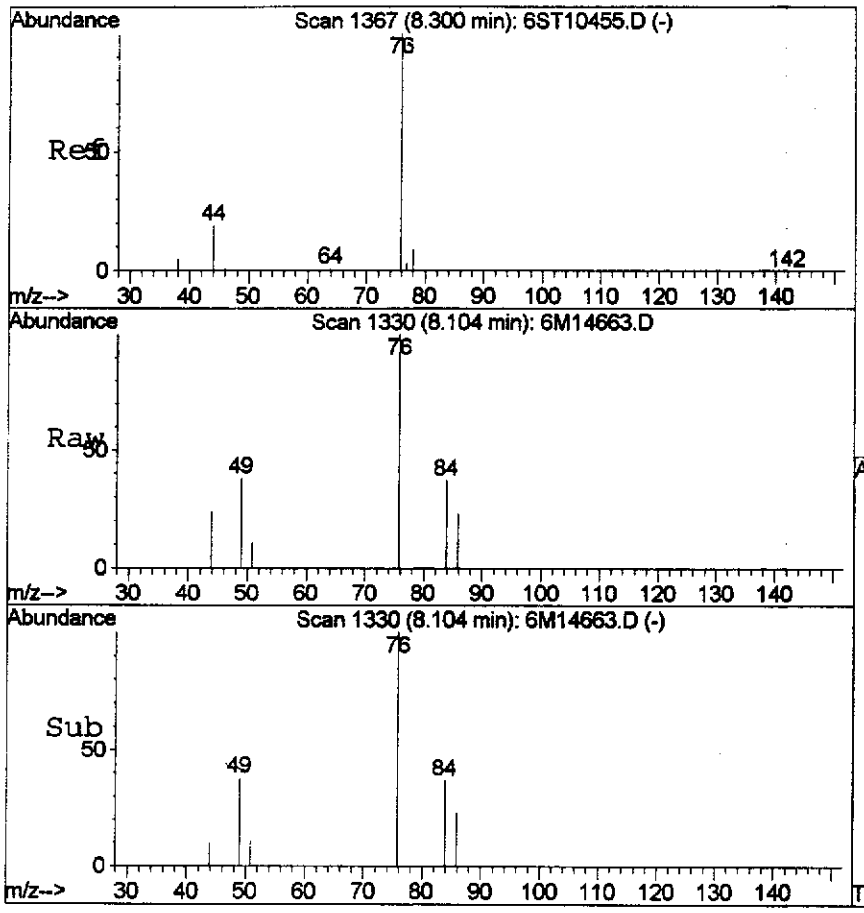

#16
C n Disu le
Concen: 0.30 ug/Kg
RT: 8.10 min Scan# 1330
Delta R.T. -0.01 min
Lab File: 6M14663.D
Acq: 22 Jul 1999 16:04

Tgt Ion: 76 Resp: 7679

Ion	Ratio	Lower	Upper
76	100		
78	1.4	7.2	10.8#

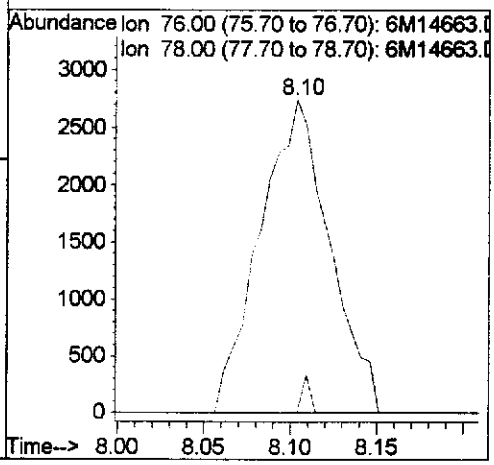

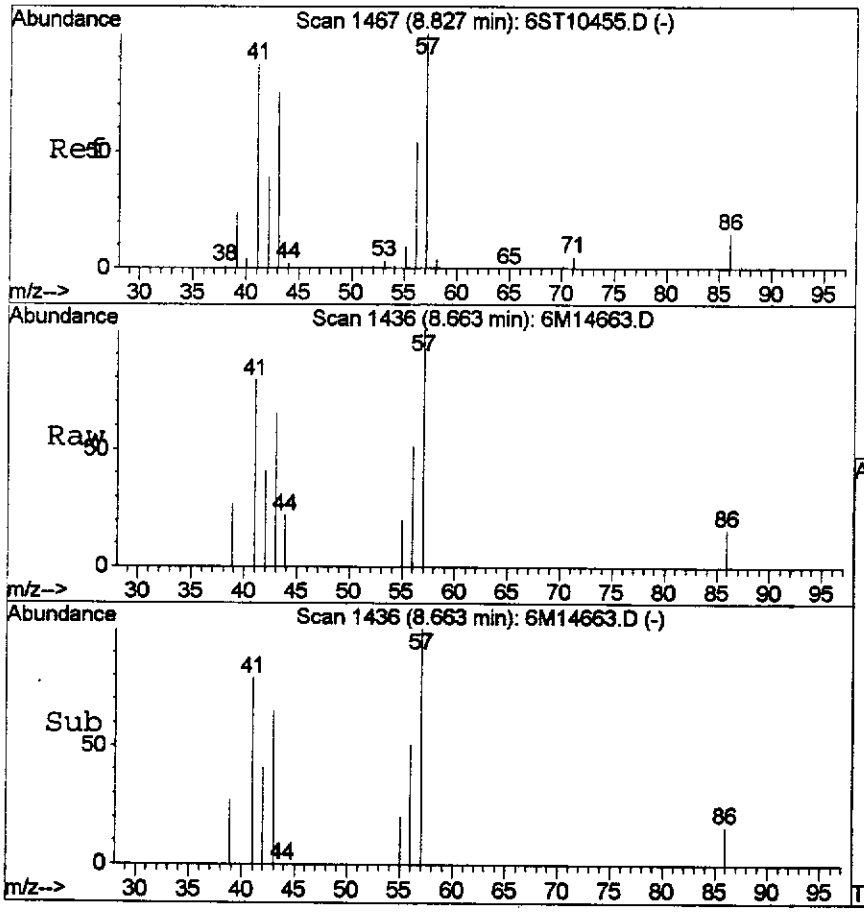

#20
n-Hexane
Concen: 0.56 ug/Kg
RT: 8.66 min Scan# 1436
Delta R.T. 0.00 min
Lab File: 6M14663.D
Acq: 22 Jul 1999 16:04

Tgt Ion: 57 Resp: 6915

Ion	Ratio	Lower	Upper
57	100		
43	72.3	56.7	85.1

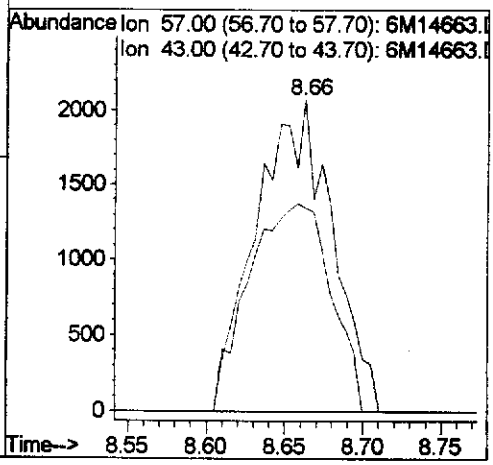

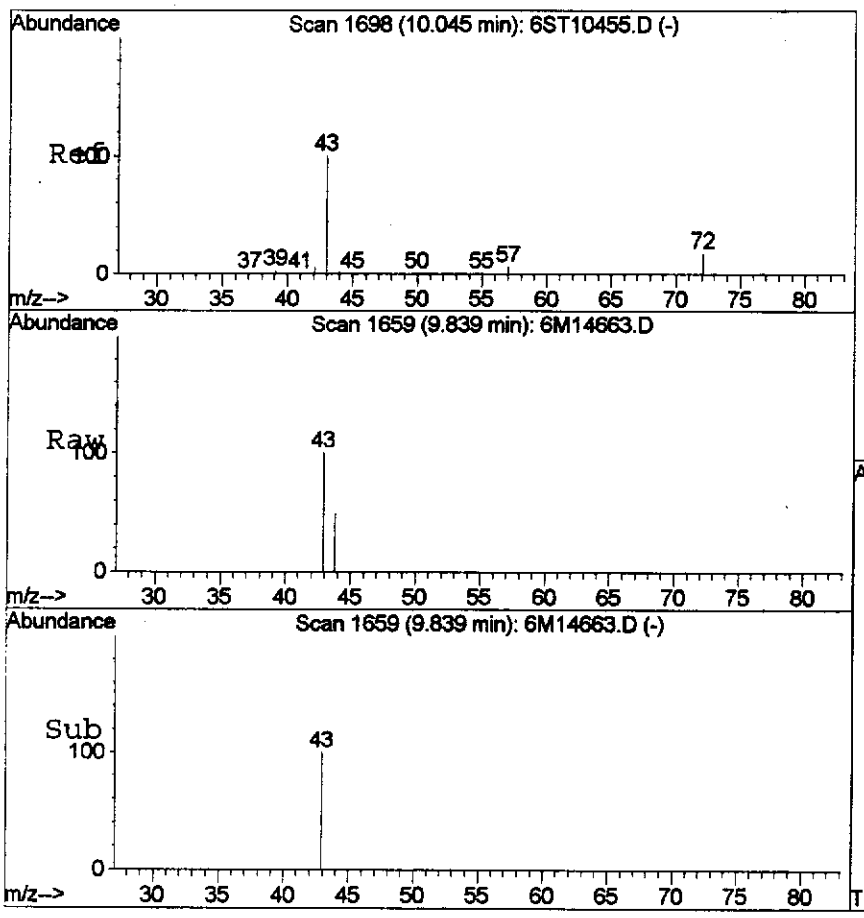

#23
2-Bu one
Concen: 0.62 ug/Kg
RT: 9.84 min Scan# 1659
Delta R.T. -0.01 min
Lab File: 6M14663.D
Acq: 22 Jul 1999 16:04

Tgt Ion: 43 Resp: 1372

Ion	Ratio	Lower	Upper
43	100		
72	0.0	17.6	26.4#

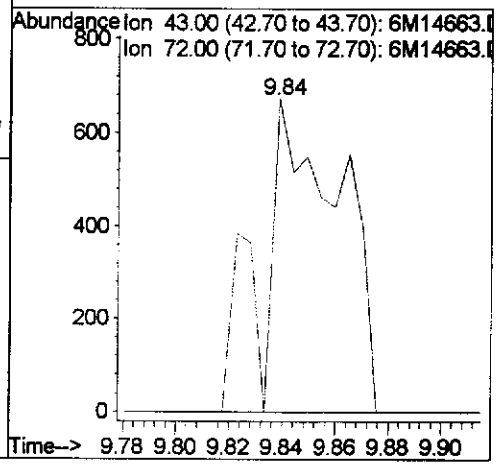

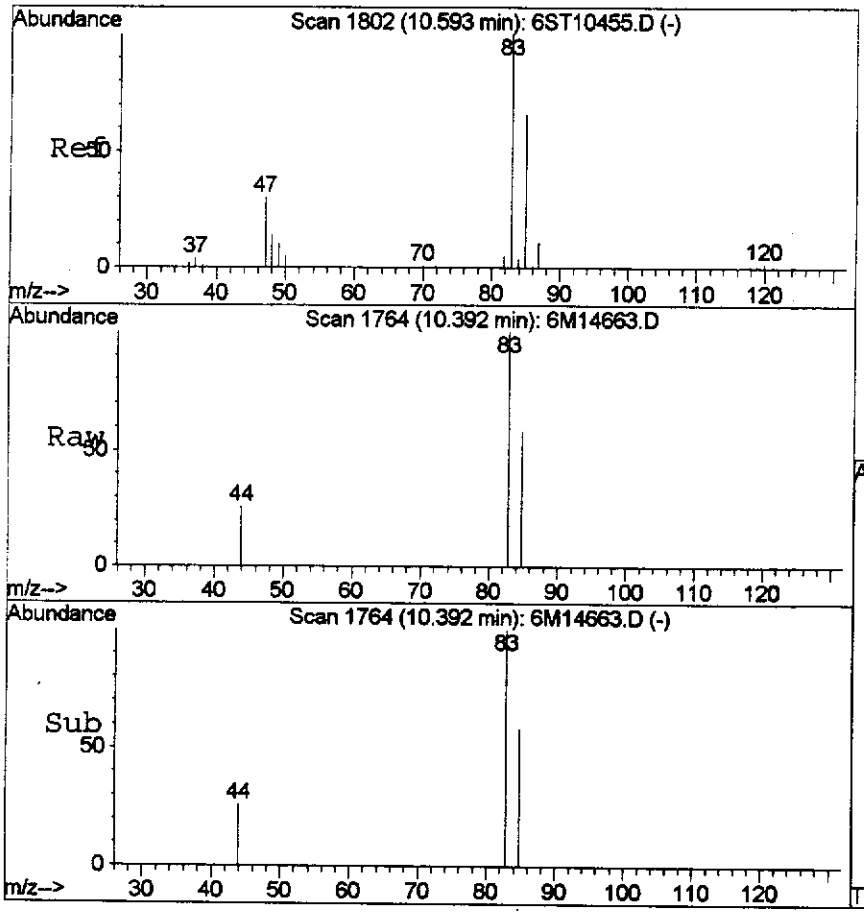

#26
Chloroform
Concen: 0.25 ug/Kg
RT: 10.39 min Scan# 1764
Delta R.T. -0.01 min
Lab File: 6M14663.D
Acq: 22 Jul 1999 16:04

Tgt Ion: 83 Resp: 3408

Ion	Ratio	Lower	Upper
83	100		
85	61.4	52.2	78.2
47	2.8	20.8	31.2#

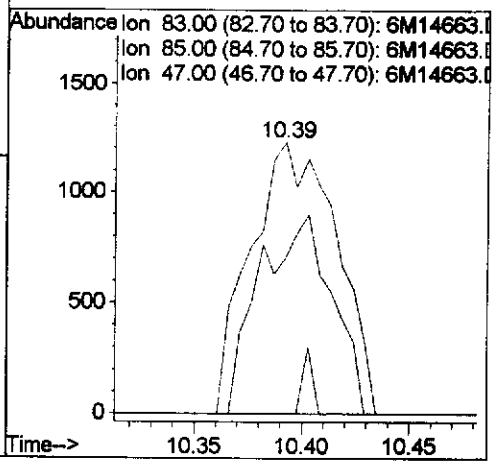

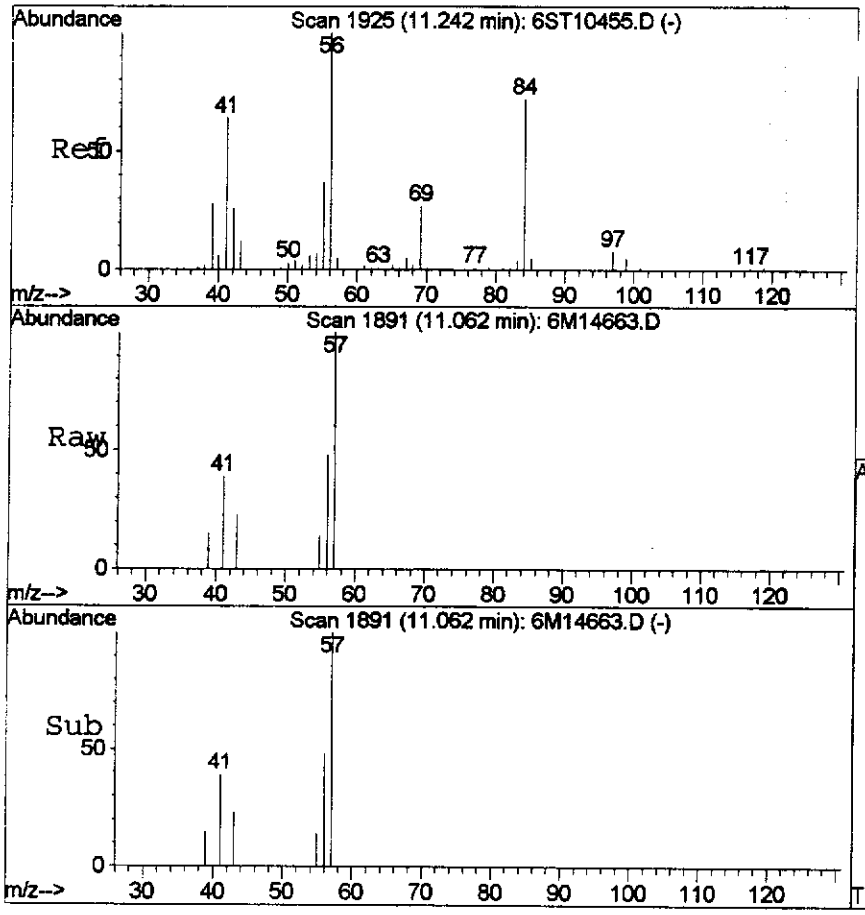

#30
Cyclohexane
Concen: 0.53 ug/Kg
RT: 11.06 min Scan# 1891
Delta R.T. -0.01 min
Lab File: 6M14663.D
Acq: 22 Jul 1999 16:04

Tgt Ion: 56 Resp: 6410

Ion	Ratio	Lower	Upper
56	100		
84	0.0	66.3	99.5#
41	49.4	50.0	75.0#

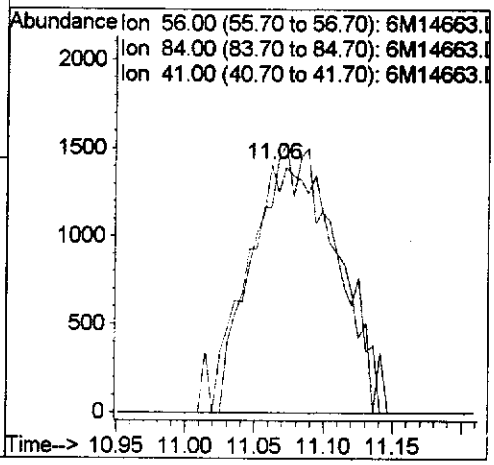

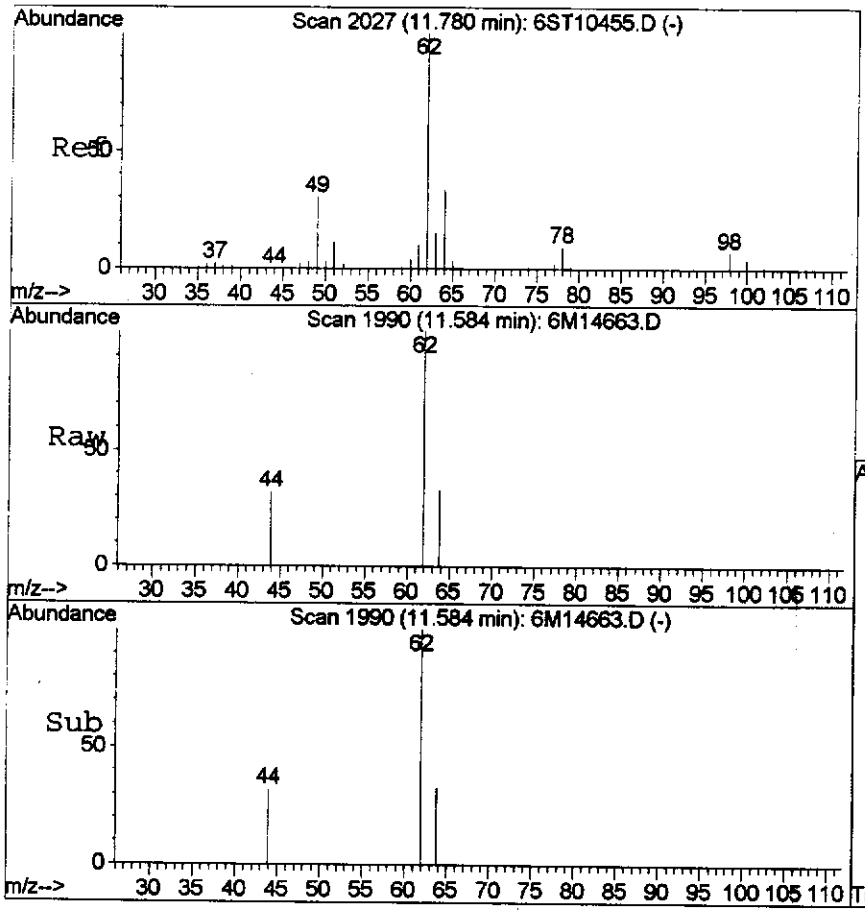

#34
1,2-Dichloroethane
Concen: 0.23 ug/Kg
RT: 11.58 min Scan# 1990
Delta R.T. -0.00 min
Lab File: 6M14663.D
Acq: 22 Jul 1999 16:04

Tgt Ion: 62 Resp: 2192

Ion	Ratio	Lower	Upper
62	100		
98	0.0	6.3	9.5#

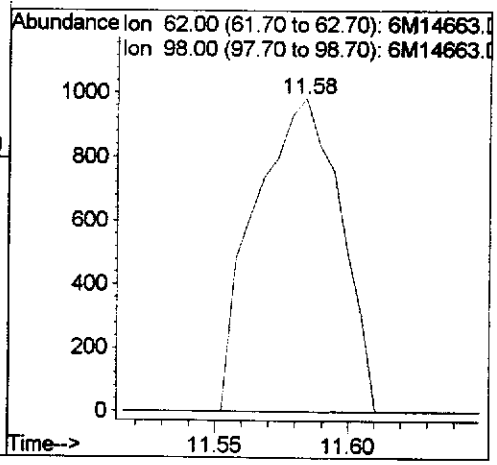

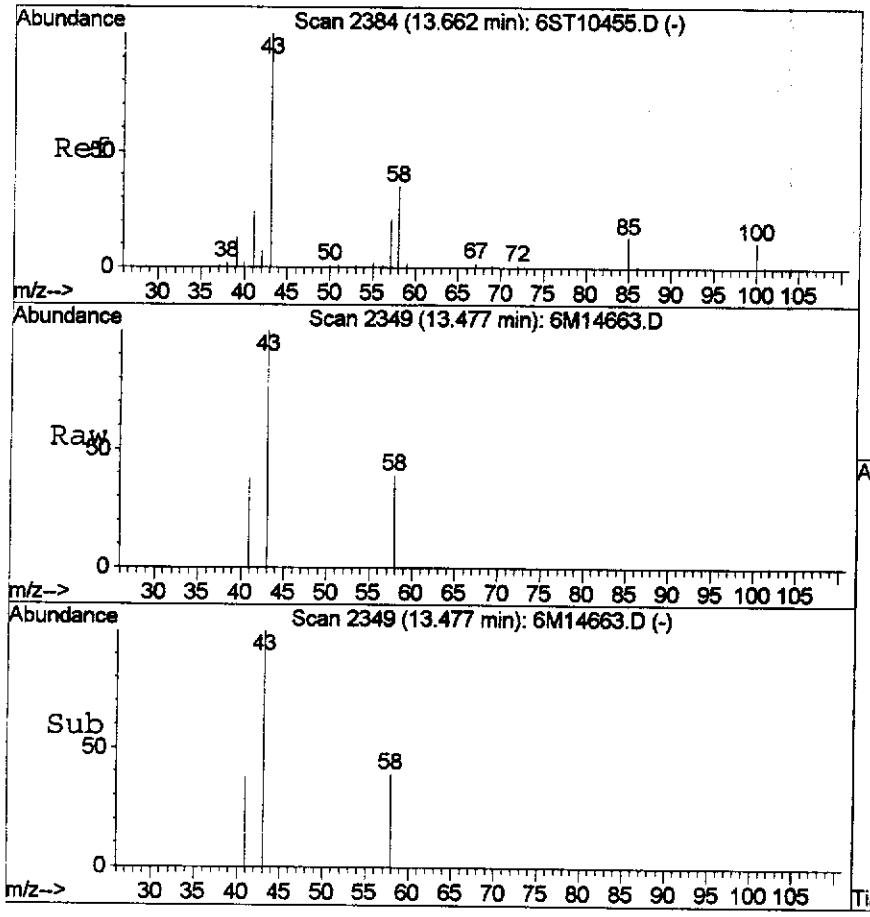

#41
4-Methyl-2-pentanone
Concen: 0.39 ug/Kg
RT: 13.48 min Scan# 2349
Delta R.T. -0.00 min
Lab File: 6M14663.D
Acq: 22 Jul 1999 16:04

Tgt Ion: 58 Resp: 688

Ion	Ratio	Lower	Upper
58	100		
85	0.0	32.7	49.1#

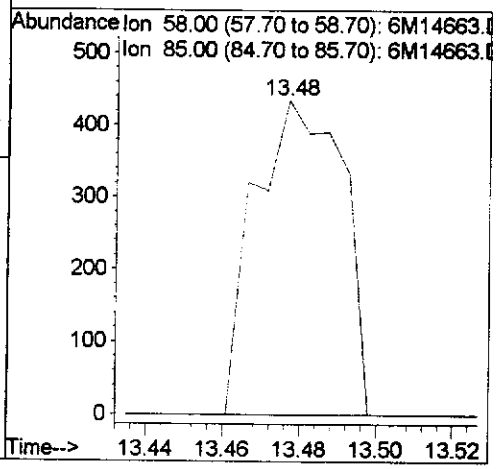

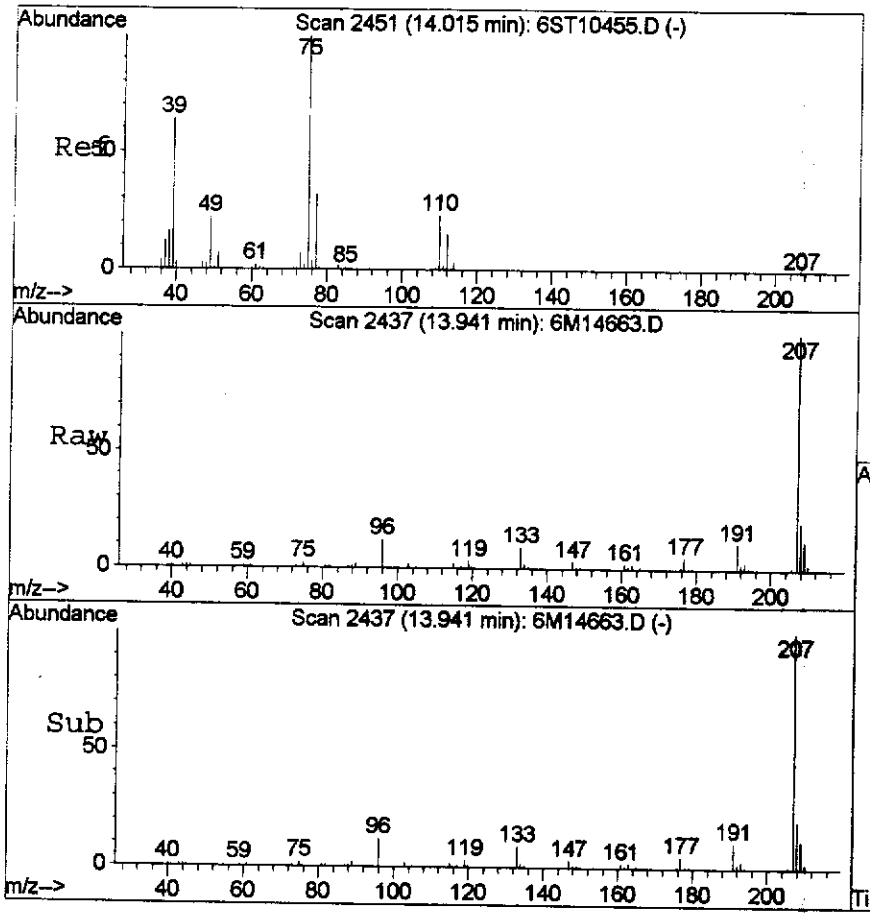

#42
cis-1,3-Dichloropropene
Concen: 0.49 ug/Kg
RT: 13.94 min Scan# 2437
Delta R.T. 0.11 min
Lab File: 6M14663.D
Acq: 22 Jul 1999 16:04

Tgt Ion: 75 Resp: 4857

Ion	Ratio	Lower	Upper
75	100		
110	0.0	18.2	27.4#

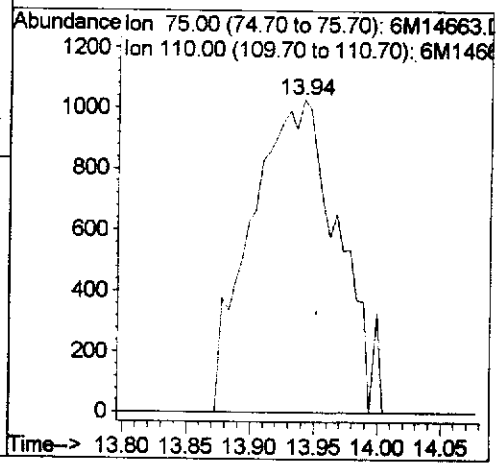

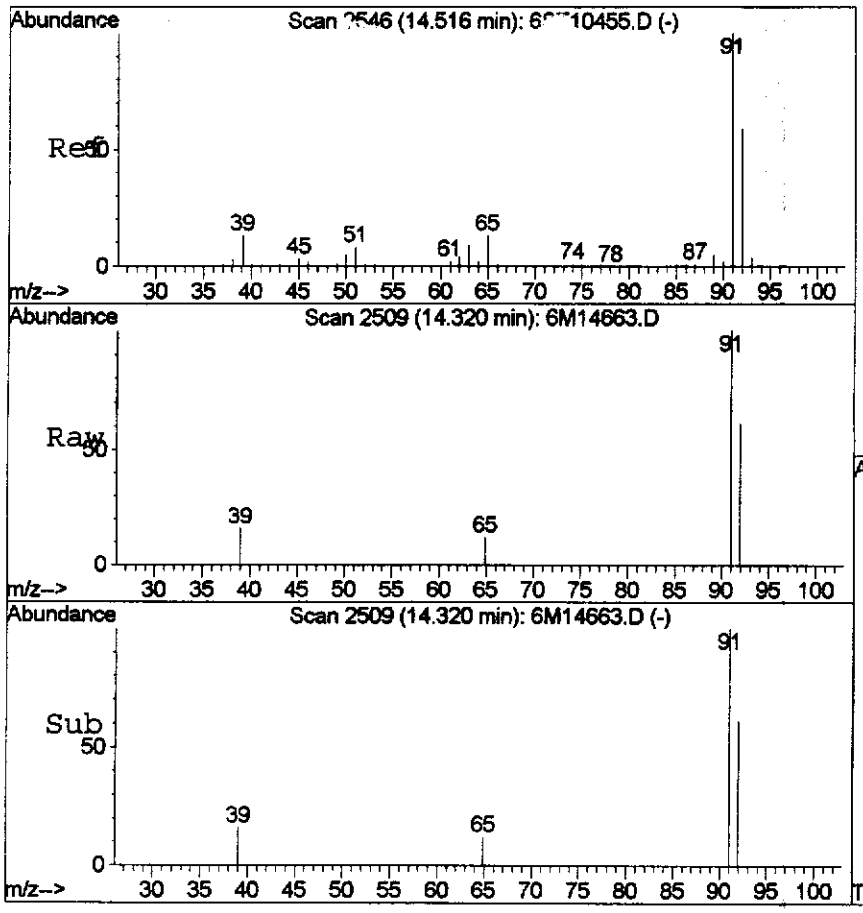

#46
Toluene
Concen: 0.26 ug/Kg
RT: 14.32 min Scan# 2509
Delta R.T. -0.01 min
Lab File: 6M14663.D
Acq: 22 Jul 1999 16:04

Tgt Ion: 91 Resp: 8315

Ion	Ratio	Lower	Upper
91	100		
92	58.3	46.9	70.3

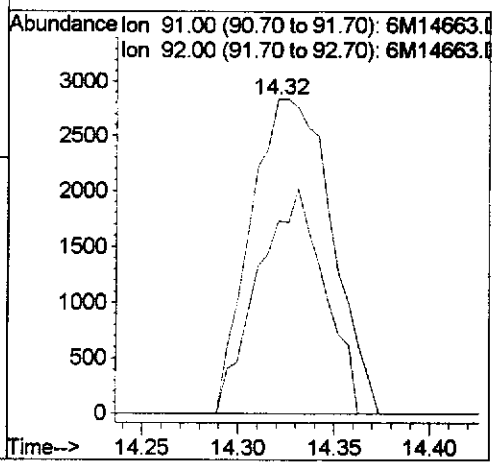

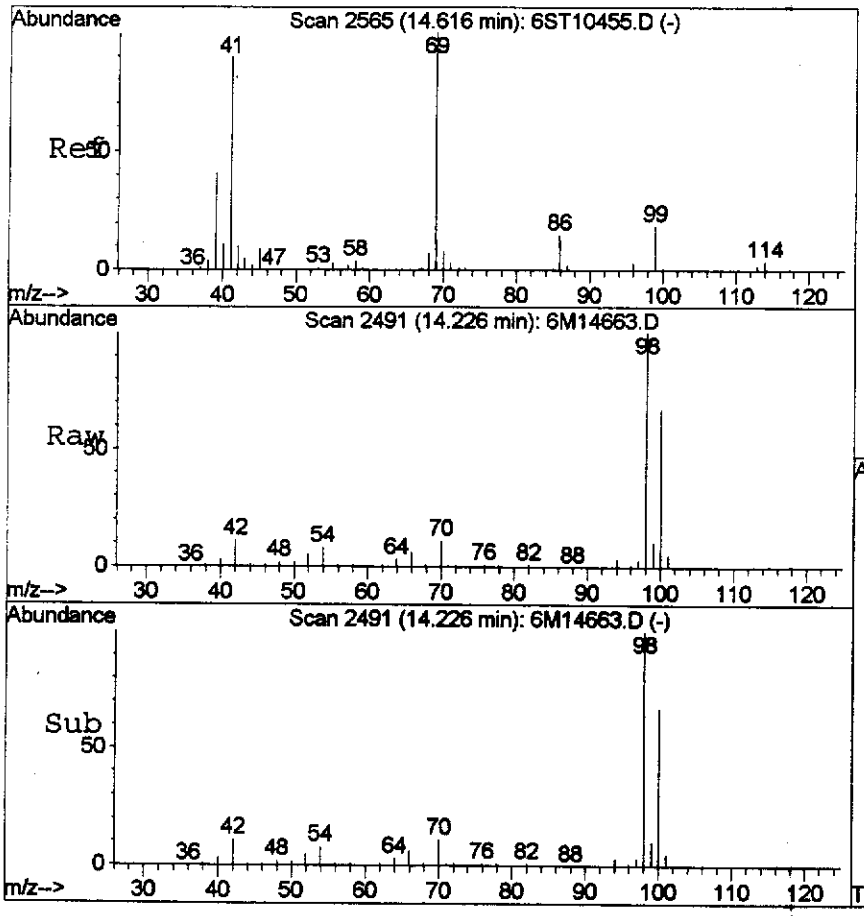

#47
Ethyl Methacrylate
Concen: 0.50 ug/Kg
RT: 14.23 min Scan# 2491
Delta R.T. -0.21 min
Lab File: 6M14663.D
Acq: 22 Jul 1999 16:04

Tgt Ion: 69 Resp: 3761

Ion	Ratio	Lower	Upper
69	100		
99	3545.3	15.2	22.8#

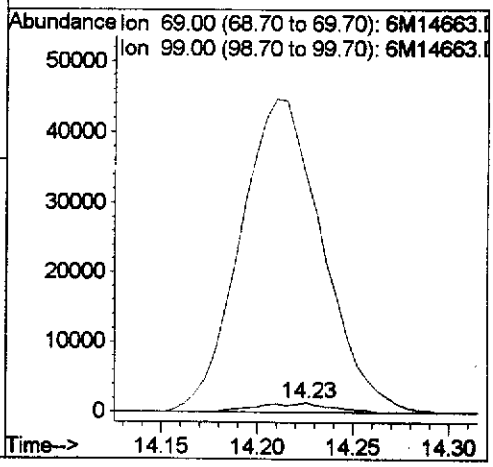

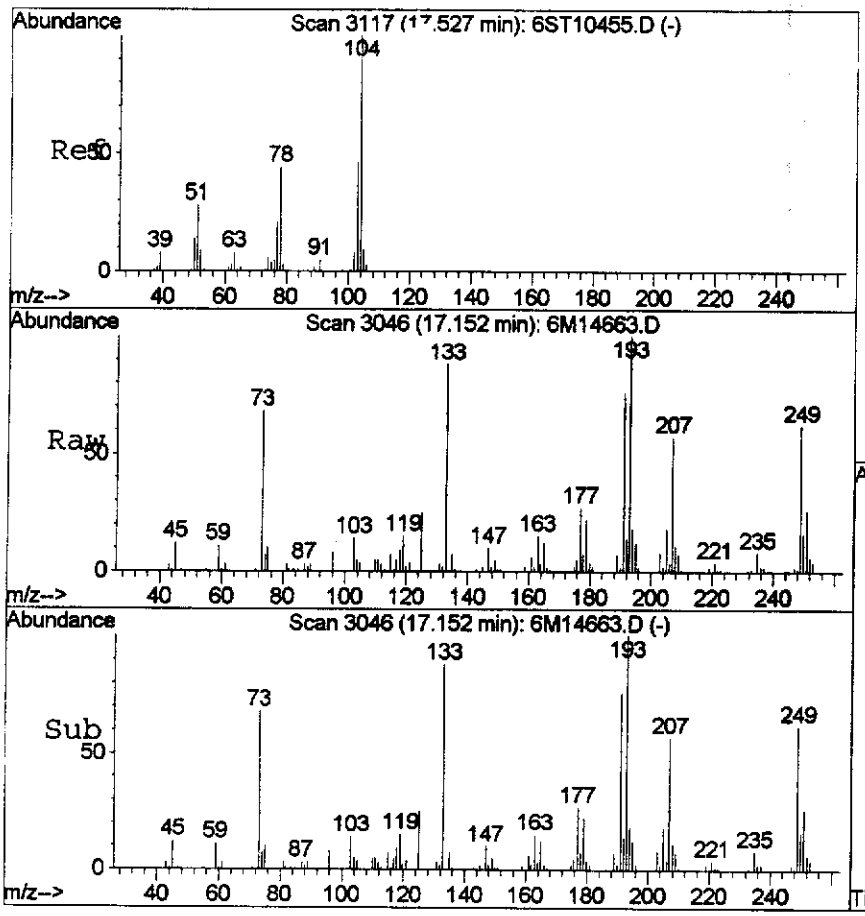

#61
St ne
Concen: 0.36 ug/Kg
RT: 17.15 min Scan# 3046
Delta R.T. -0.19 min
Lab File: 6M14663.D
Acq: 22 Jul 1999 16:04

Tgt Ion:104 Resp: 8659

Ion	Ratio	Lower	Upper
104	100		
78	0.0	41.4	62.0#

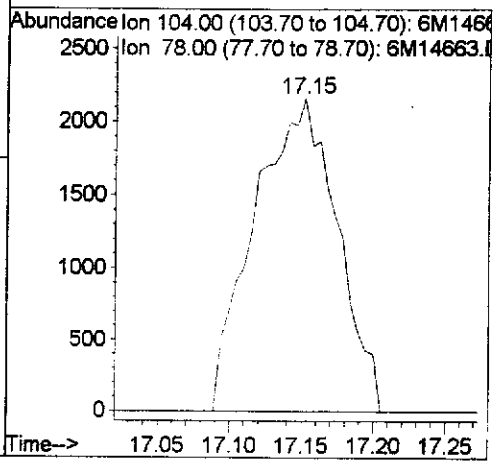

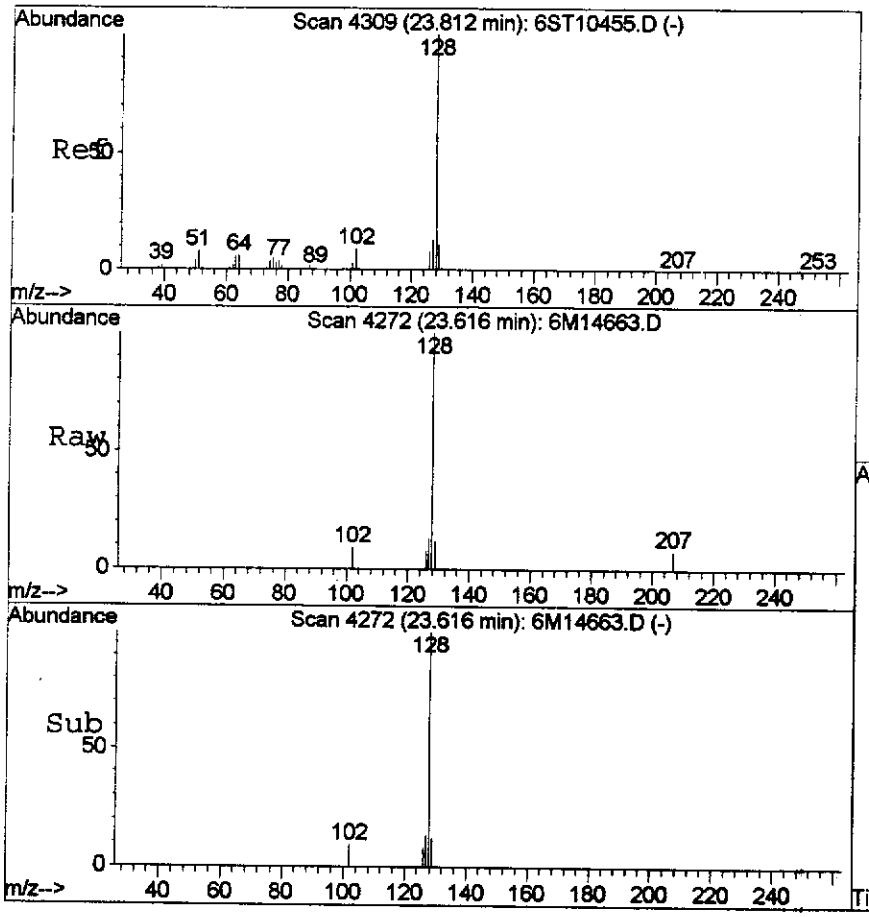

#86
Naphthalene
Concen: 0.50 ug/Kg
RT: 23.62 min Scan# 4272
Delta R.T. -0.00 min
Lab File: 6M14663.D
Acq: 22 Jul 1999 16:04

Tgt Ion:128 Resp: 11860

Ion	Ratio	Lower	Upper
128	100		
102	4.1	6.9	10.3#

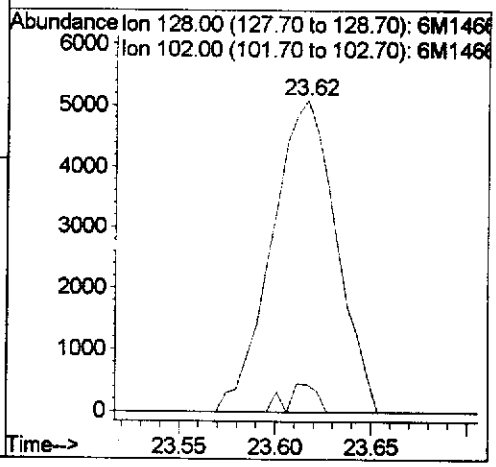

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\[illegible]\6M[illegible]3.D
Acq On : 22 Jul 1999 16:04
Sample : L9907381-06 A LANL 826LA 5.1G/5ML
Misc : SOLID,1
MS Integration Params: LSCINT.P

Vial: 12
Operator: CMS
Inst : HPMS_6
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\8260BSL.M (RTE Integrator)
Title : Method 8260B_SOIL - ICAL 07/15/99
Library : C:\DATABASE\NBS75K.L

****

Peak Number 1 Carbon dioxide — Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
3.22	15.97 ug/Kg	971742	Fluorobenzene	11.92

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qua
1	Carbon dioxide	44	CO2	000124-38-9	4
2	Carbon dioxide	44	CO2	000124-38-9	4
3	Nitrous Oxide	44	N2O	010024-97-2	3
4	Nitrous Oxide	44	N2O	010024-97-2	3

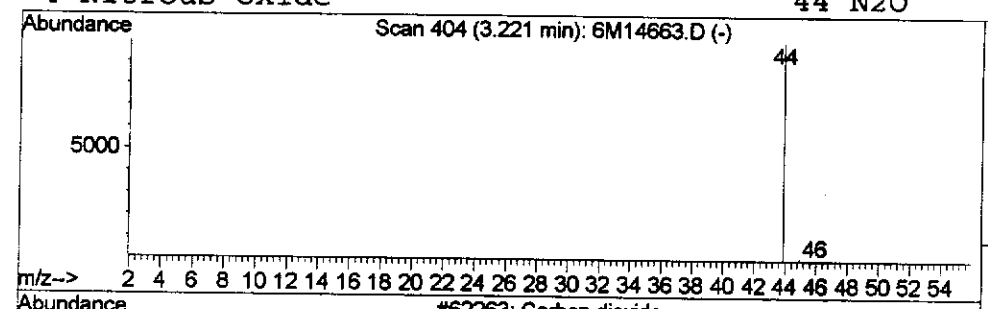

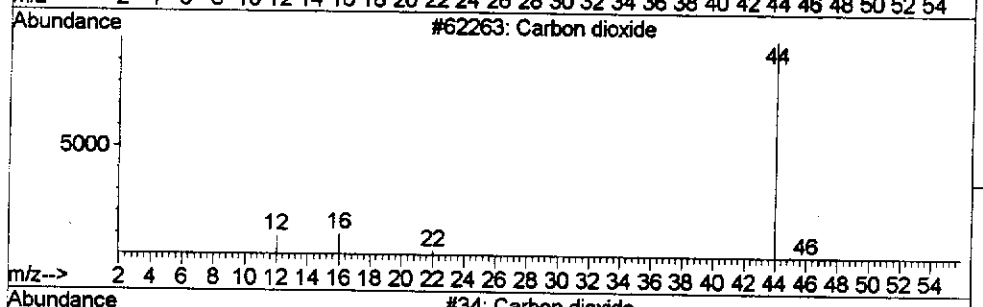

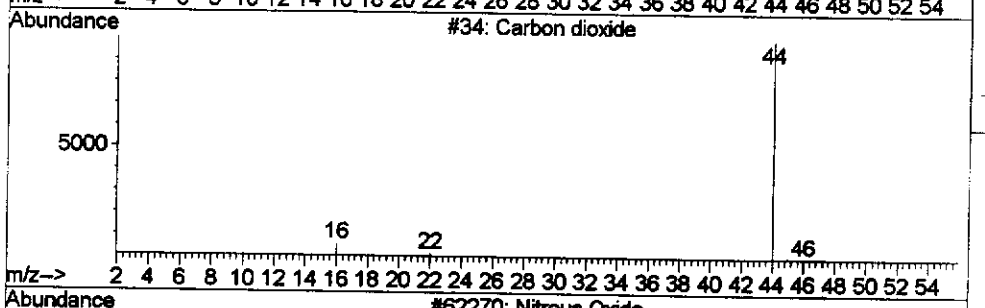

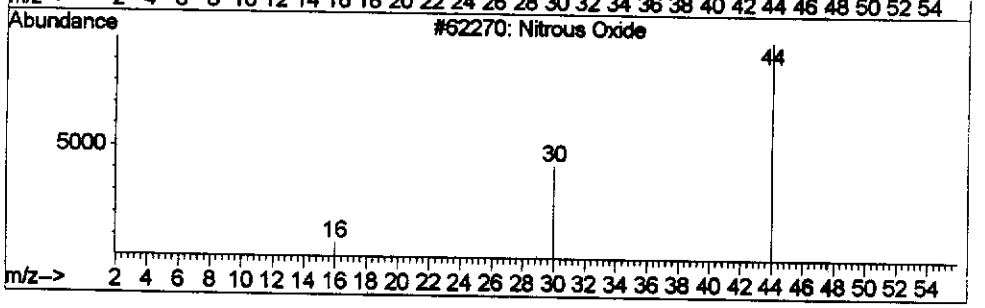

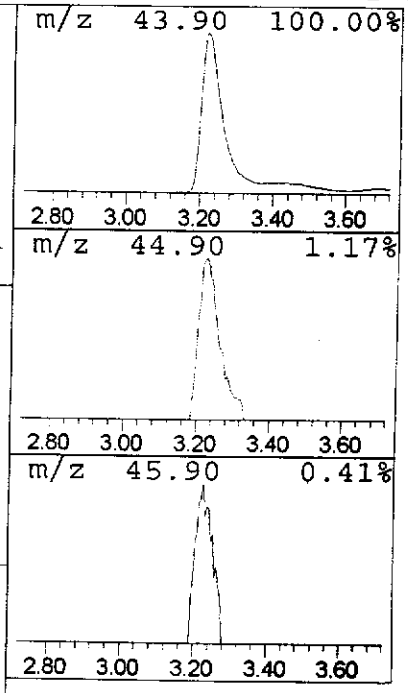

Library Search Compound Report

Data File : C:\HPCHEM\1\D\07\6M14663.D
Acq On : 22 Jul 1999 16:04
Sample : L9907381-06 A LANL 826LA 5.1G/5ML
Misc : SOLID,1
MS Integration Params: LSCINT.P

Vial: 12
Operator: CMS
Inst : HPMS_6
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\8260BSL.M (RTE Integrator)
Title : Method 8260B_SOIL - ICAL 07/15/99
Library : C:\DATABASE\NBS75K.L

****

Peak Number 2 7,9-Diethyl-2,4-bis(dimethylam Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
19.76	10.14 ug/Kg	714574	1,4-Dichlorobenzene-d4	20.01

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qua
1	7,9-Diethyl-2,4-bis(dimethylamino)-	336	C15H24N6OS	000000-00-0	9
2	Benzeneacetic acid, trimethylsilyl	208	C11H16O2Si	002078-18-4	5
3	1,2-Bis(trimethylsilyl)-4-methylcyc	238	C13H26Si2	087226-80-0	5
4	1,2-Bis(trimethylsilyl)-3-methylcyc	238	C13H26Si2	101300-61-2	4

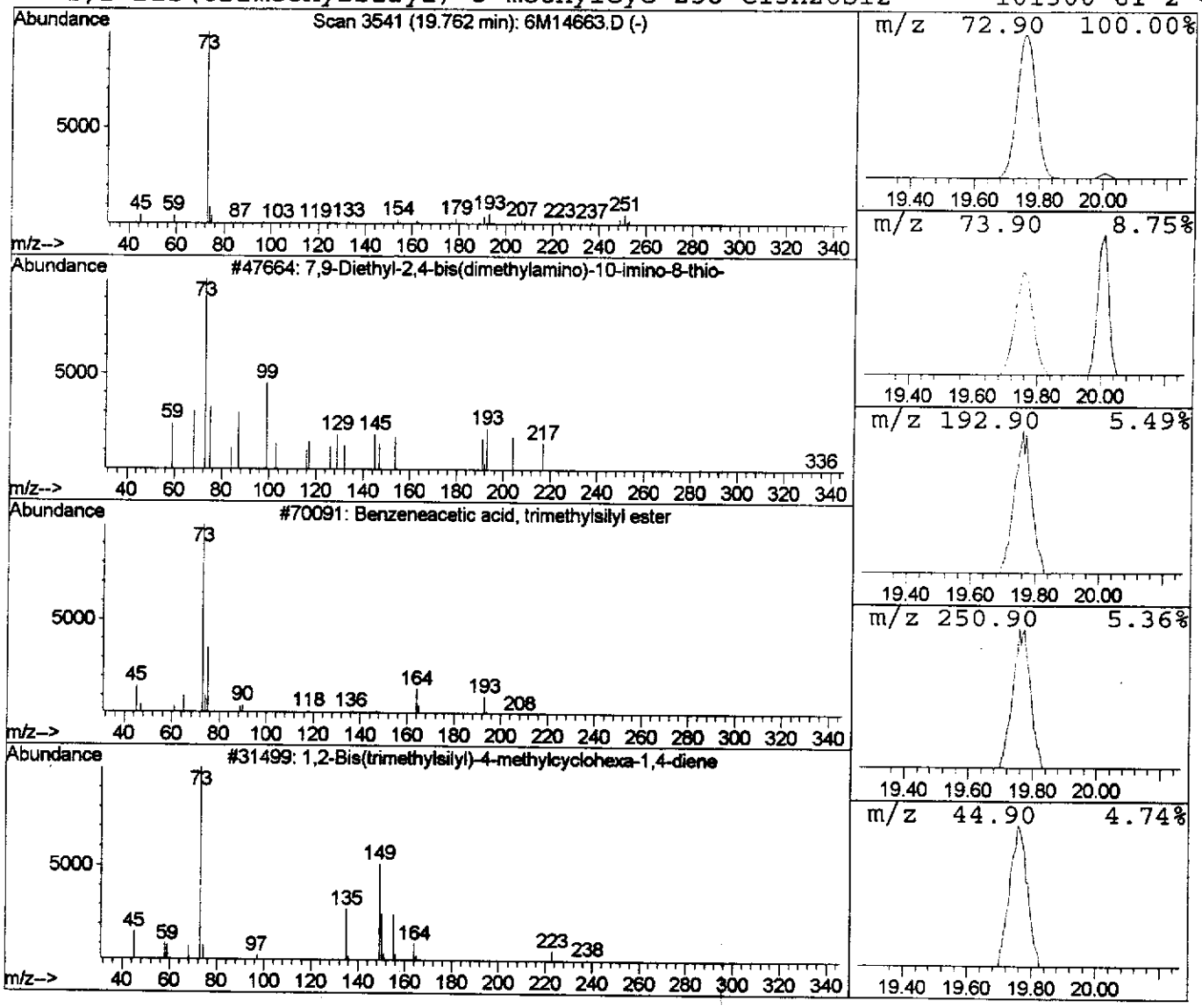

Tentatively Identified Compound (LSC) summary

Operator ID: CMS Date Acquired: 22 Jul 1999 16:04
Data File: C:\HPCHEM\1\DATA\072299\6M14663.D
Name: L9907381-06 A LANL 826LA 5.1G/5ML
Misc: SOLID,1
Method: C:\HPCHEM\1\METHODS\8260BSL.M (RTE Integrator)
Title: Method 8260B_SOIL - ICAL 07/15/99
Library Searched: C:\DATABASE\NBS75K.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISCon
Carbon dioxide	3.22	16.0	ug/Kg	971742	ISTD01	11.92	3043010	50
7,9-Diethyl-2,4-bis(	19.76	10.1	ug/Kg	714574	ISTD03	20.01	3525250	50

6M14663.D 8260BSL.M Thu Jul 22 16:38:22 1999 HPMS_6

Quantitation Report

Data File : C:\HPCHEM\1\DATA\072299\6M14664.D
Acq On : 22 Jul 1999 16:43
Sample : L9907381-07 A LANL 826LA 5.7G/5ML
Misc : SOLID,0.9
MS Integration Params: rteint.p
Quant Time: Jul 22 17:09 1999

Vial: 13
Operator: CMS
Inst : HPMS_6
Multiplr: 0.90

Quant Results File: 8260BSL.RES

Method : C:\HPCHEM\1\METHODS\8260BSL.M (RTE Integrator)
Title : Method 8260B_SOIL - ICAL 07/15/99
Last Update : Thu Jul 22 09:02:15 1999
Response via : Initial Calibration

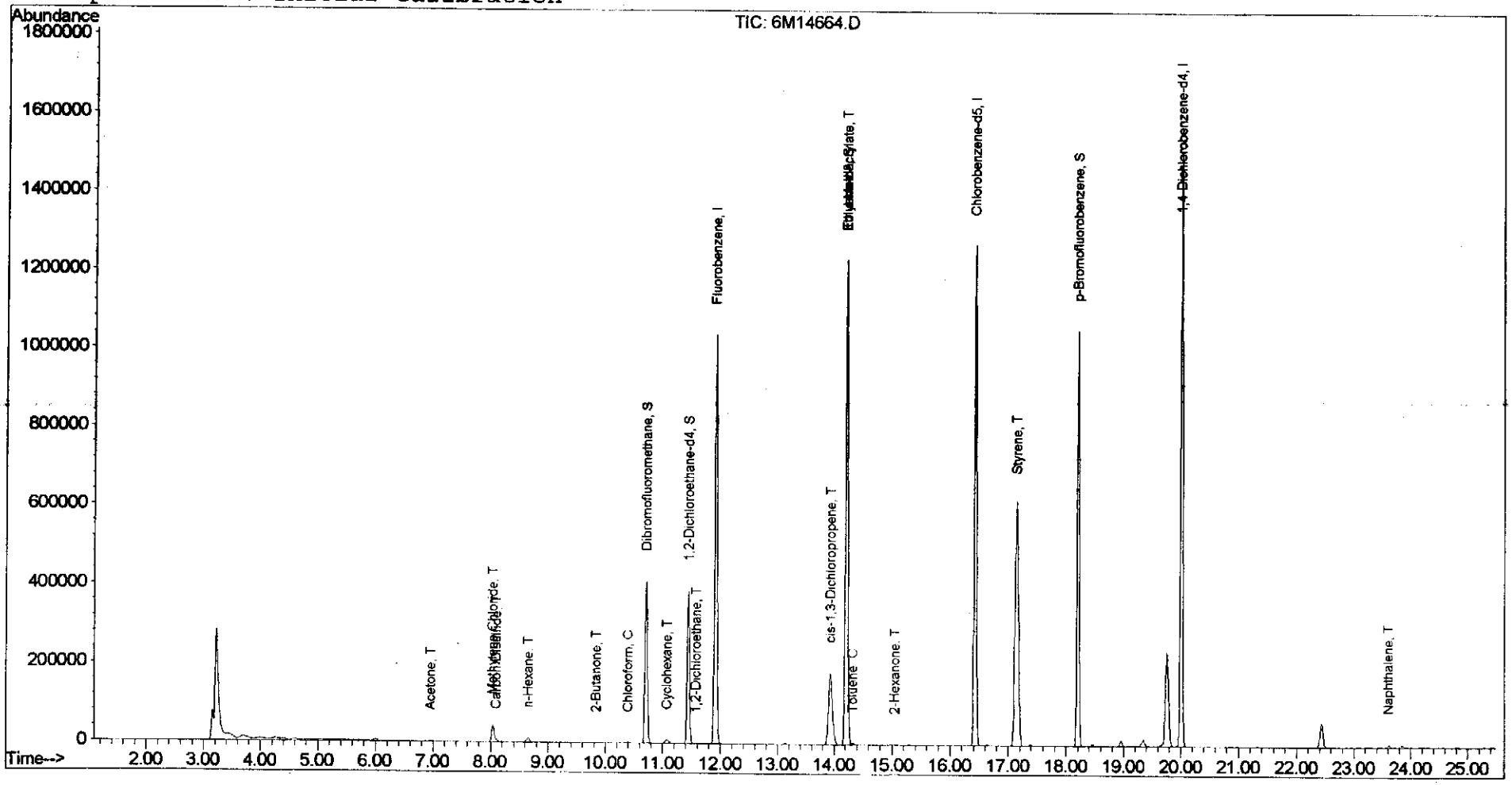

Quantitation Report (Not Reviewed)

Data File : \HPCHEM\1\DATA\072299\6M14664.D
Acq On : 22 Jul 1999 16:43
Sample : L9907381-07 A LANL 826LA 5.7G/5ML
Misc : SOLID,0.9
MS Integration Params: rteint.p
Quant Time: Jul 22 17:09 1999

Vial: 13
Operator: CMS
Inst : HPMS_6
Multiplr: 0.90

Quant Results File: 8260BSL.R

Quant Method : C:\HPCHEM\1\METHODS\8260BSL.M (RTE Integrator)
Title : Method 8260B_SOIL - ICAL 07/15/99
Last Update : Thu Jul 22 09:02:15 1999
Response via : Initial Calibration
DataAcq Meth : 8260BSL

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene	11.91	96	1439554	50.00 ug/Kg	0.00
44) Chlorobenzene-d5	16.43	117	1124795	50.00 ug/Kg	0.00
64) 1,4-Dichlorobenzene-d4	20.01	152	621330	50.00 ug/Kg	0.00

System Monitoring Compounds					
28) Dibromofluoromethane	10.72	111	394005	47.09 ug/Kg	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 94.18%		
33) 1,2-Dichloroethane-d4	11.44	65	409545	50.07 ug/Kg	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.14%		
45) Toluene-d8	14.21	98	1352562	44.03 ug/Kg	0.00
Spiked Amount 50.000	Range 81 - 117		Recovery = 88.06%		
66) p-Bromofluorobenzene	18.20	95	548841	44.54 ug/Kg	0.00
Spiked Amount 50.000	Range 74 - 121		Recovery = 89.08%		

Target Compounds					Qvalue
11) Acetone	6.96	43	7485	4.21 ug/Kg J	91
15) Methylene Chloride	8.04	84	38178	4.49 ug/Kg B	83
16) Carbon Disulfide	8.10	76	7487	0.27 ug/Kg#	80
20) n-Hexane	8.67	57	7865	~~0.59 ug/Kg~~	92
23) 2-Butanone	9.85	43	363	0.15 ug/Kg#	54
26) Chloroform	10.39	83	3409	0.23 ug/Kg#	82
30) Cyclohexane	11.07	56	6252	~~0.48 ug/Kg~~#	47
34) 1,2-Dichloroethane	11.58	62	2376	0.23 ug/Kg#	78
42) cis-1,3-Dichloropropene	13.94	75	6164	0.57 ug/Kg#	53
46) Toluene	14.33	91	8070	0.23 ug/Kg	97
47) Ethyl Methacrylate	14.22	69	3660	~~0.45 ug/~~Kg#	1
50) 2-Hexanone	15.05	43	820	0.21 ug/Kg#	28
61) Styrene	17.15	104	5880	0.23 ug/Kg#	26
86) Naphthalene	23.62	128	13137	~~0.50 ug/Kg~~	95

(#) = qualifier out of range (m) = manual integration

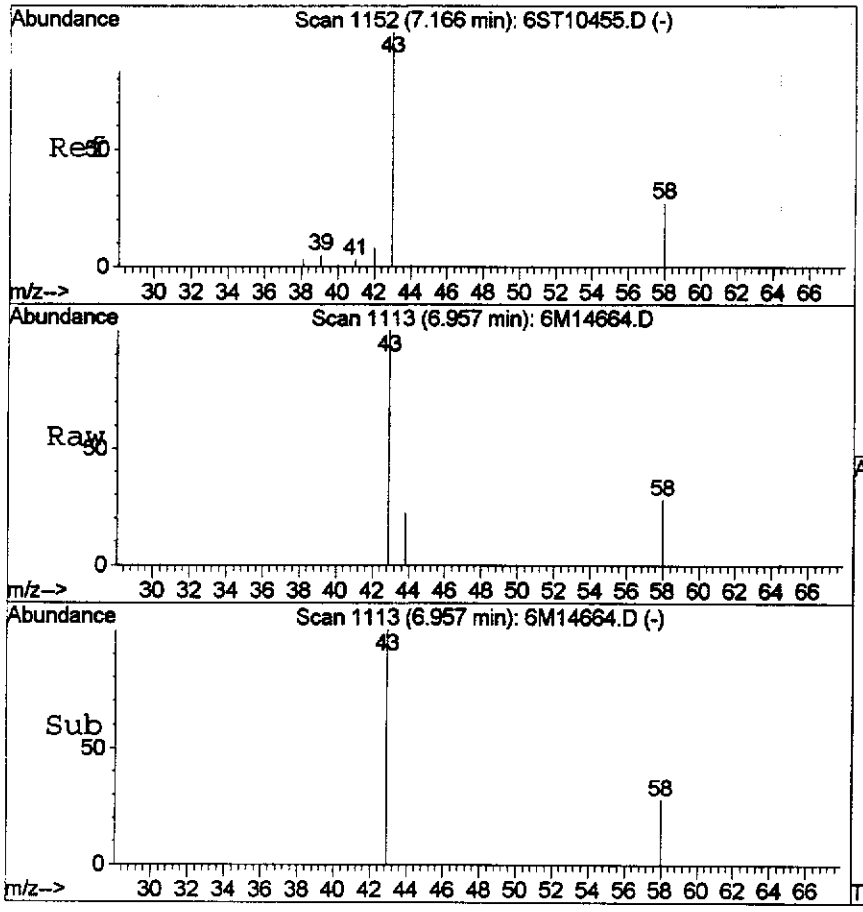

#11
Acetone
Concen: 4.21 ug/Kg
RT: 6.96 min Scan# 1113
Delta R.T. -0.01 min
Lab File: 6M14664.D
Acq: 22 Jul 1999 16:43

Tgt Ion: 43 Resp: 7485

Ion	Ratio	Lower	Upper
43	100		
58	23.7	22.9	34.3

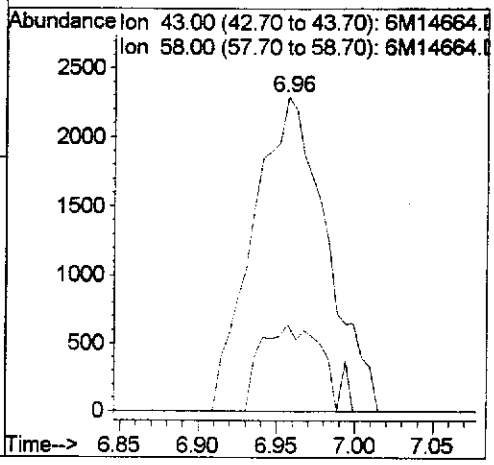

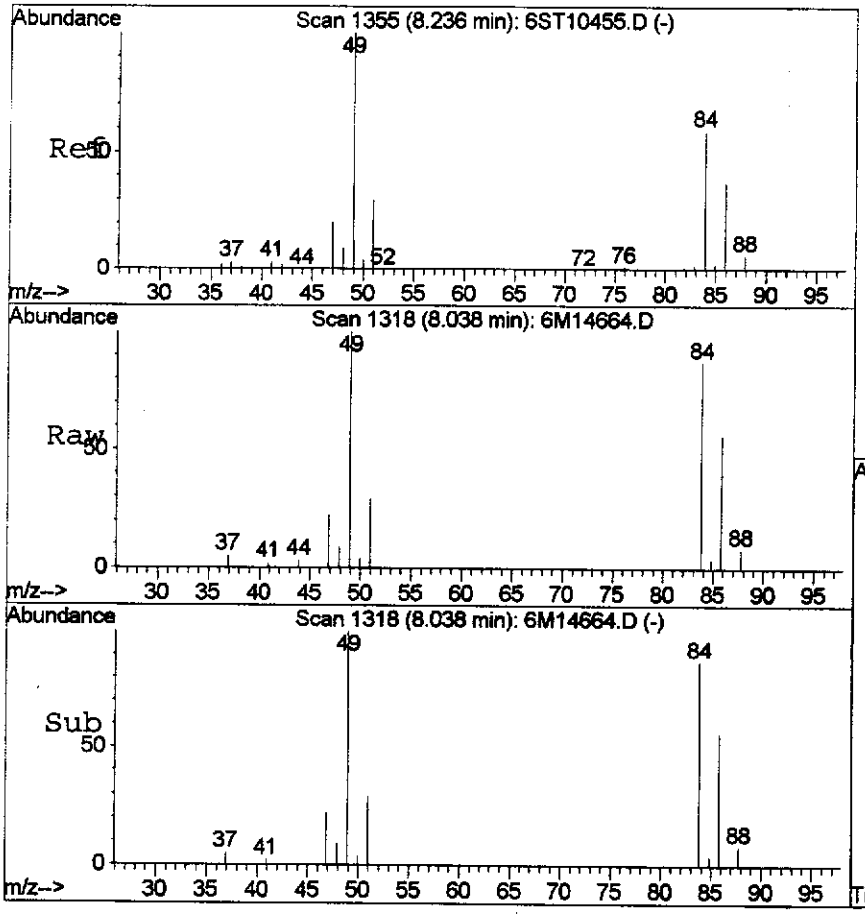

#15
Methylene Chloride
Concen: 4.49 ug/Kg
RT: 8.04 min Scan# 1318
Delta R.T. -0.01 min
Lab File: 6M14664.D
Acq: 22 Jul 1999 16:43

Tgt Ion: 84 Resp: 38178

Ion	Ratio	Lower	Upper
84	100		
49	116.8	110.3	165.5

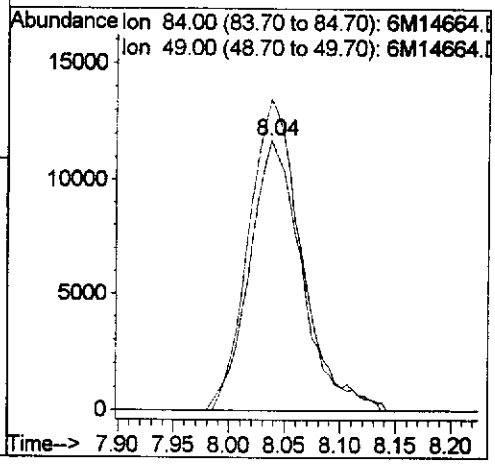

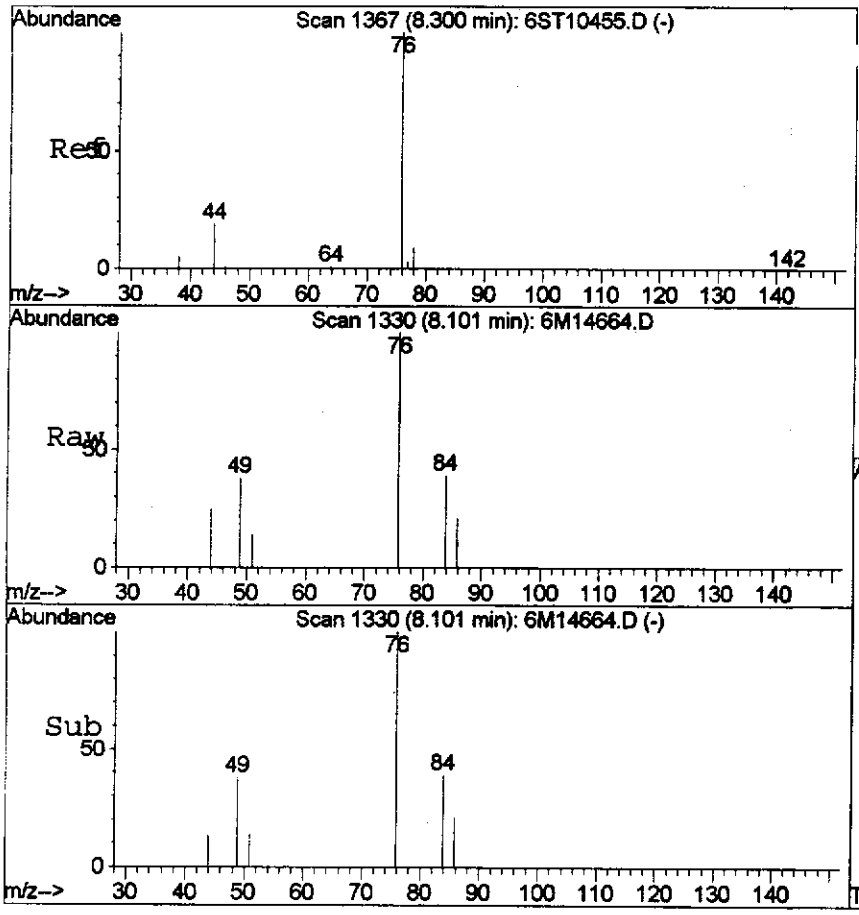

#16
Carbon Disulfide
Concen: 0.27 ug/Kg
RT: 8.10 min Scan# 1330
Delta R.T. -0.01 min
Lab File: 6M14664.D
Acq: 22 Jul 1999 16:43

Tgt Ion: 76 Resp: 7487

Ion	Ratio	Lower	Upper
76	100		
78	1.6	7.2	10.8#

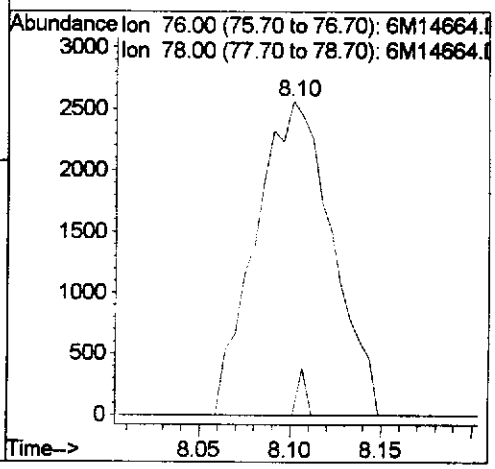

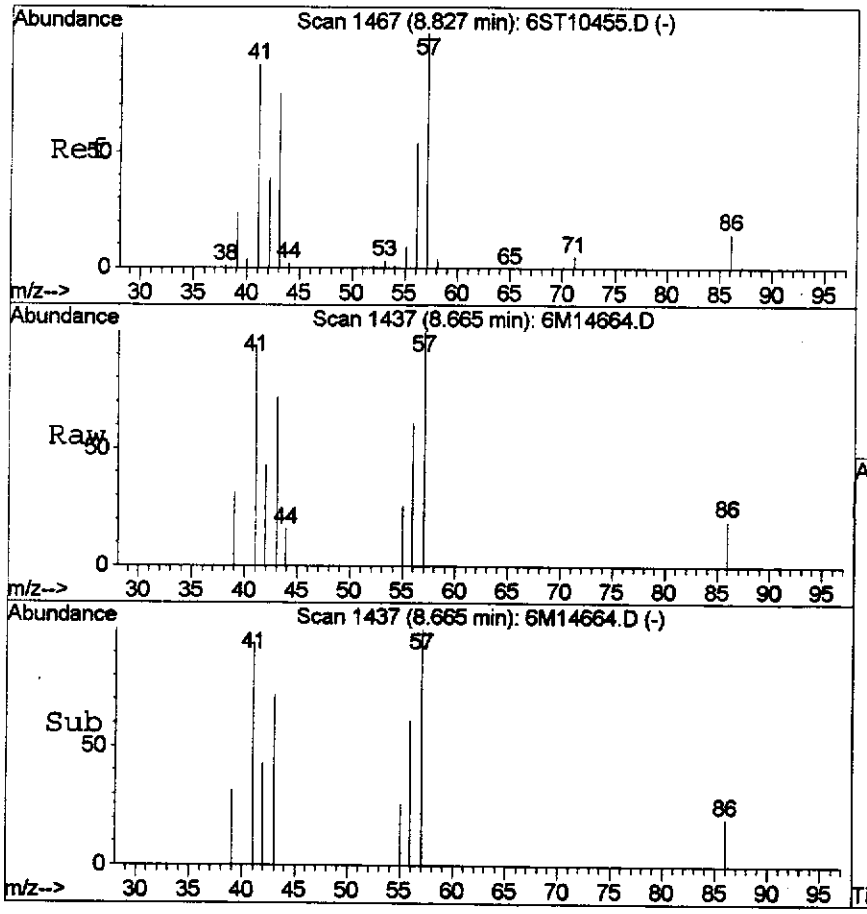

#20
n-Hexane
Concen: 0.59 ug/Kg
RT: 8.67 min Scan# 1437
Delta R.T. 0.00 min
Lab File: 6M14664.D
Acq: 22 Jul 1999 16:43

Tgt Ion: 57 Resp: 7865

Ion	Ratio	Lower	Upper
57	100		
43	77.1	56.7	85.1

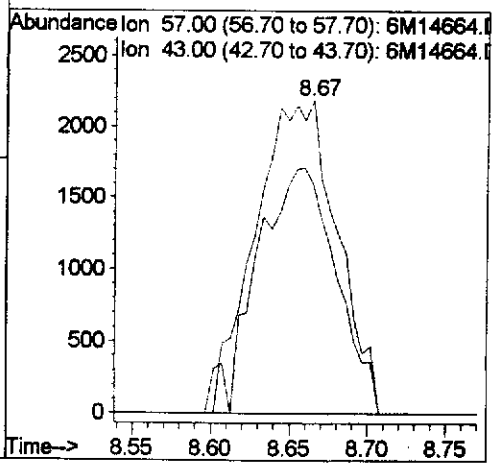

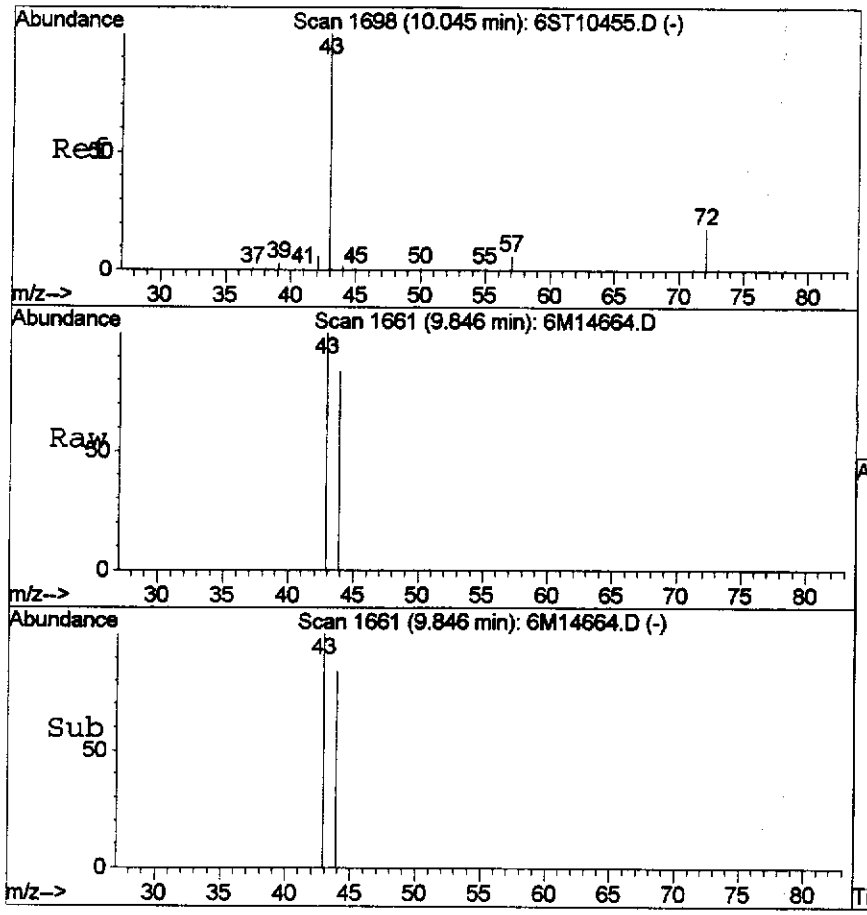

#23
2-Butanone
Concen: 0.15 ug/Kg
RT: 9.85 min Scan# 1661
Delta R.T. -0.01 min
Lab File: 6M14664.D
Acq: 22 Jul 1999 16:43

Tgt Ion: 43 Resp: 363

Ion	Ratio	Lower	Upper
43	100		
72	0.0	17.6	26.4#

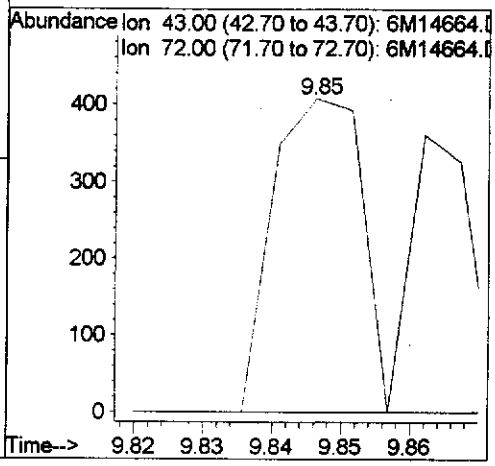

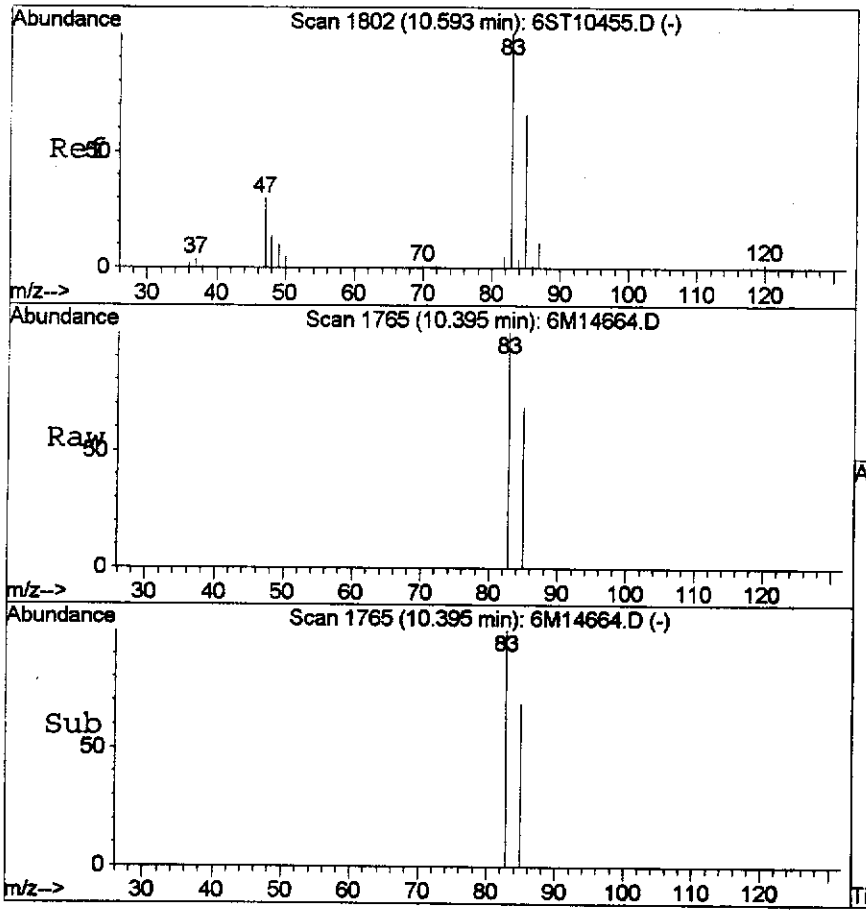

#26
Chloroform
Concen: 0.23 ug/Kg
RT: 10.39 min Scan# 1765
Delta R.T. -0.01 min
Lab File: 6M14664.D
Acq: 22 Jul 1999 16:43

Tgt Ion: 83 Resp: 3409

Ion	Ratio	Lower	Upper
83	100		
85	61.5	52.2	78.2
47	0.0	20.8	31.2#

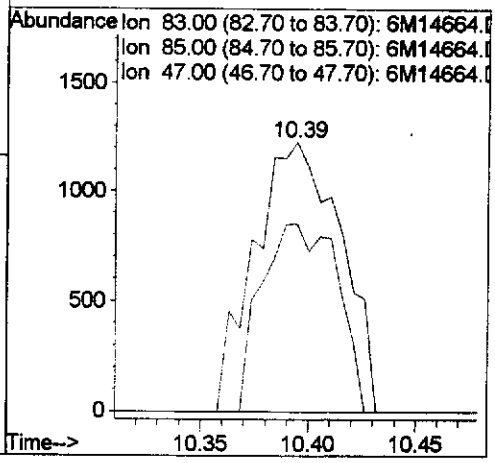

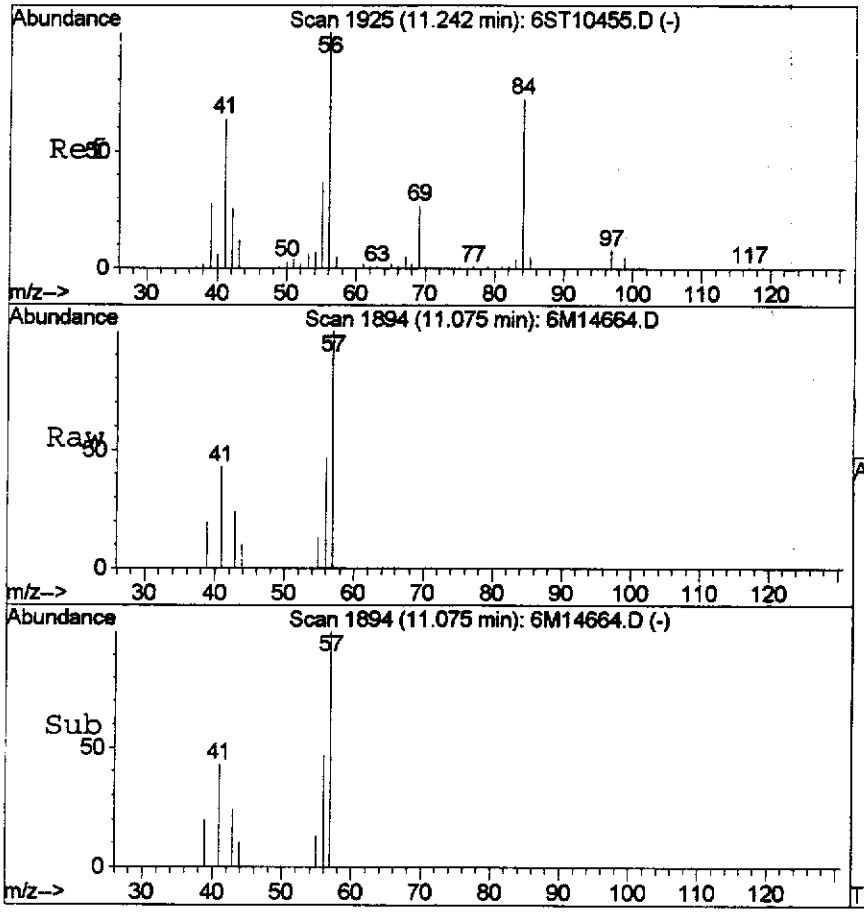

#30
Cyclo[illegible]ne
Concen: 0.48 ug/Kg
RT: 11.07 min Scan# 1894
Delta R.T. 0.00 min
Lab File: 6M14664.D
Acq: 22 Jul 1999 16:43

Tgt Ion: 56 Resp: 6252

Ion	Ratio	Lower	Upper
56	100		
84	0.0	66.3	99.5#
41	62.8	50.0	75.0

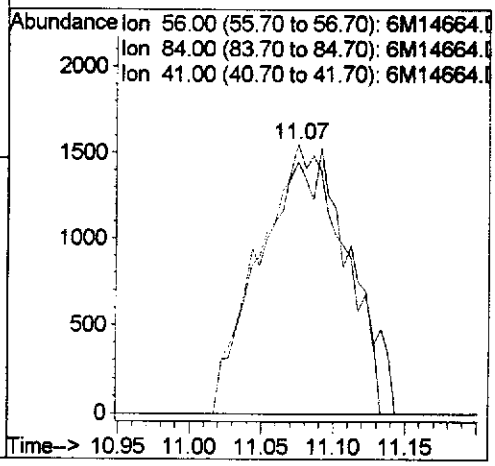

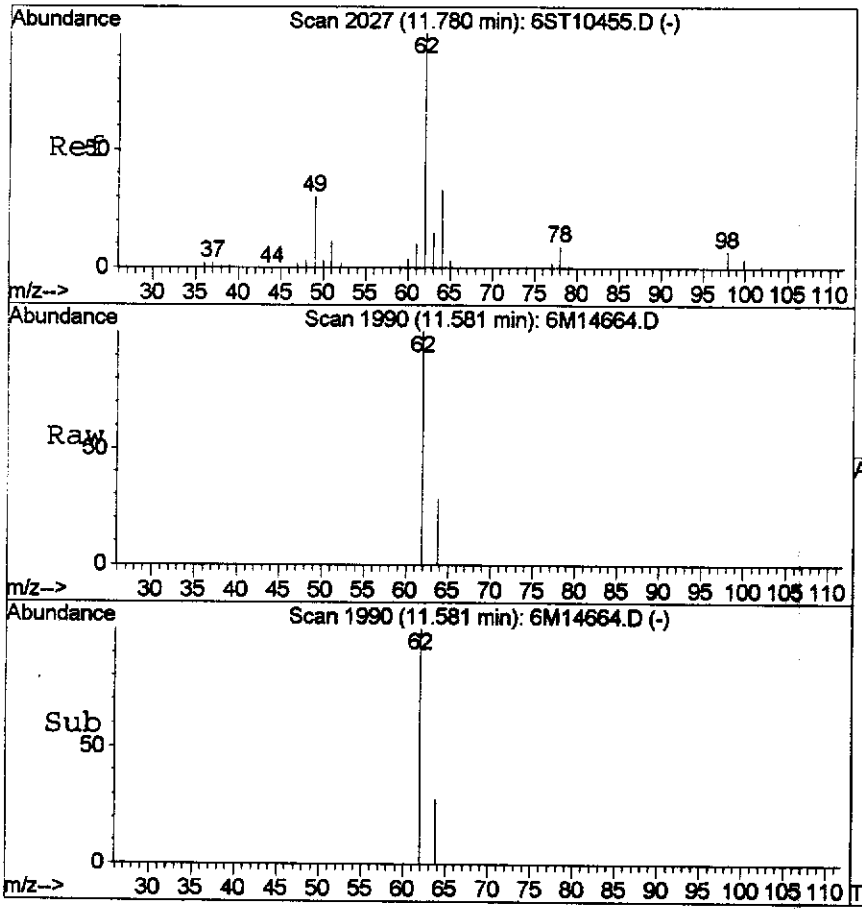

#34
1,2-Dichloroethane
Concen: 0.23 ug/Kg
RT: 11.58 min Scan# 1990
Delta R.T. -0.01 min
Lab File: 6M14664.D
Acq: 22 Jul 1999 16:43

Tgt Ion: 62 Resp: 2376

Ion	Ratio	Lower	Upper
62	100		
98	0.0	6.3	9.5#

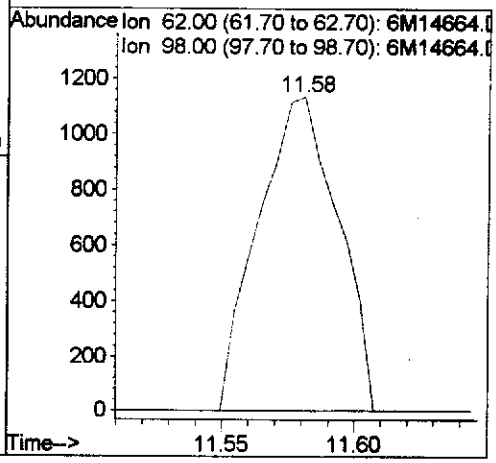

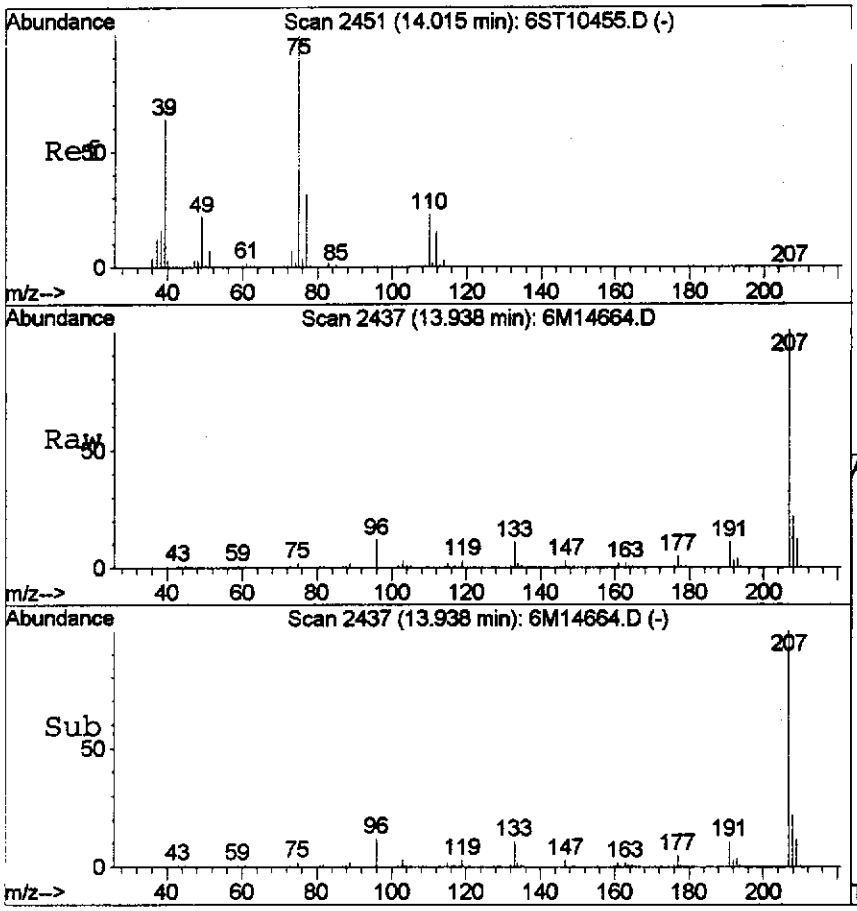

#42
cis-1,3-Dichloropropene
Concen: 0.57 ug/Kg
RT: 13.94 min Scan# 2437
Delta R.T. 0.11 min
Lab File: 6M14664.D
Acq: 22 Jul 1999 16:43

Tgt Ion: 75 Resp: 6164

Ion	Ratio	Lower	Upper
75	100		
110	0.0	18.2	27.4#

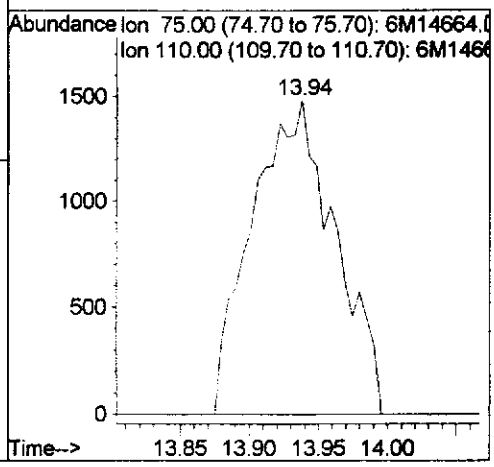

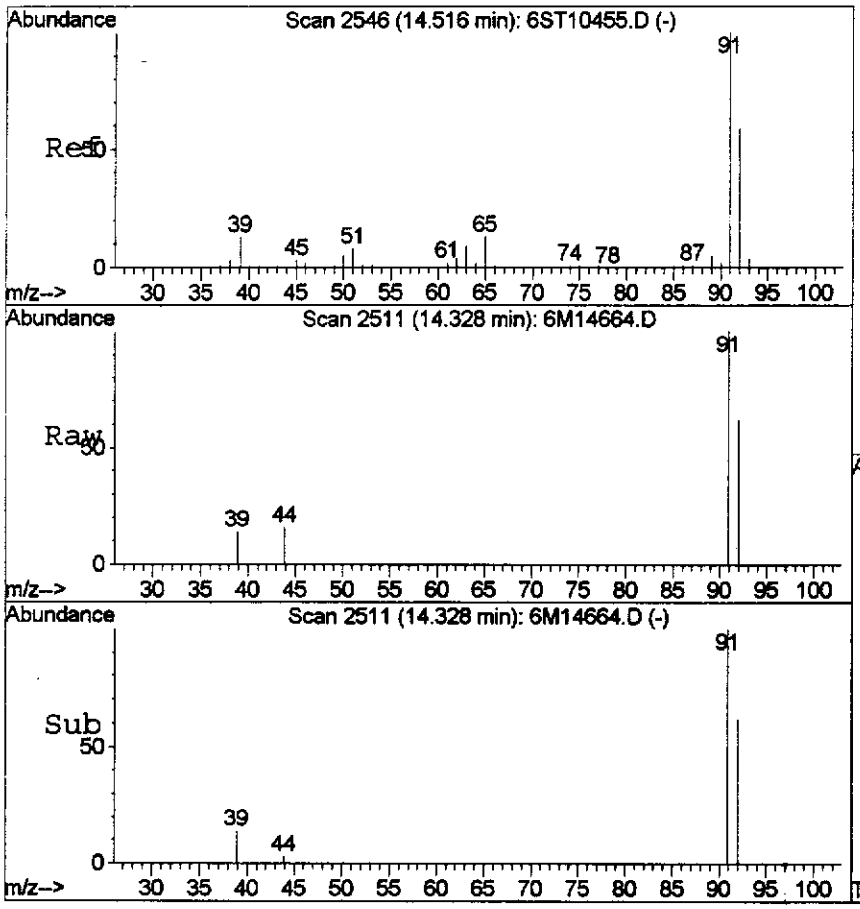

#46
Toluene
Concen: 0.23 ug/Kg
RT: 14.33 min Scan# 2511
Delta R.T. 0.00 min
Lab File: 6M14664.D
Acq: 22 Jul 1999 16:43

Tgt Ion: 91 Resp: 8070

Ion	Ratio	Lower	Upper
91	100		
92	56.0	46.9	70.3

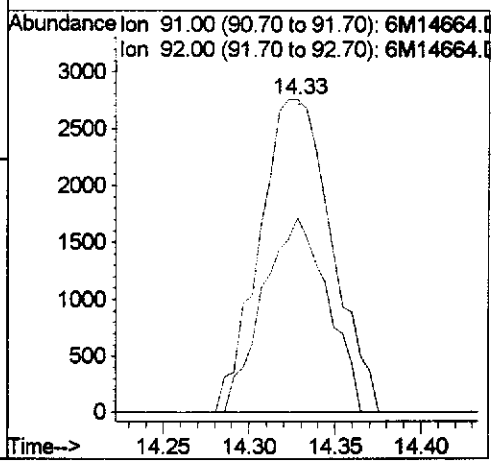

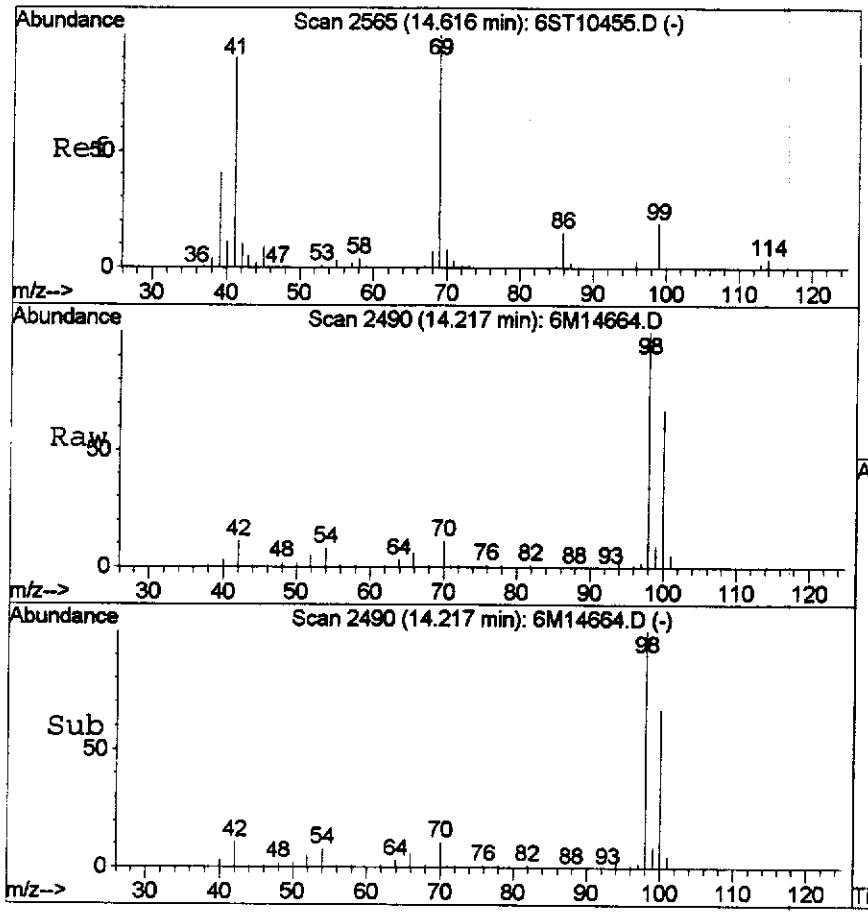

#47
E 1 Methacrylate
Concen: 0.45 ug/Kg
RT: 14.22 min Scan# 2490
Delta R.T. -0.22 min
Lab File: 6M14664.D
Acq: 22 Jul 1999 16:43

Tgt Ion: 69 Resp: 3660

Ion	Ratio	Lower	Upper
69	100		
99	3574.2	15.2	22.8#

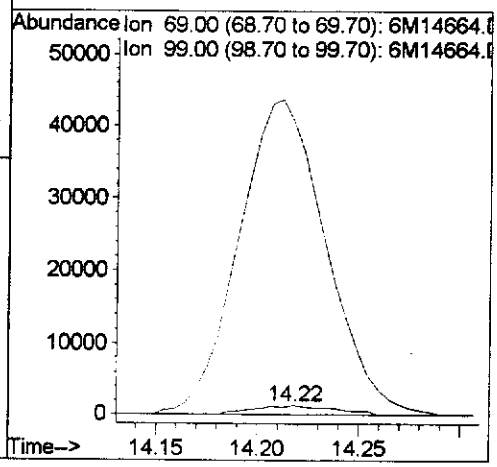

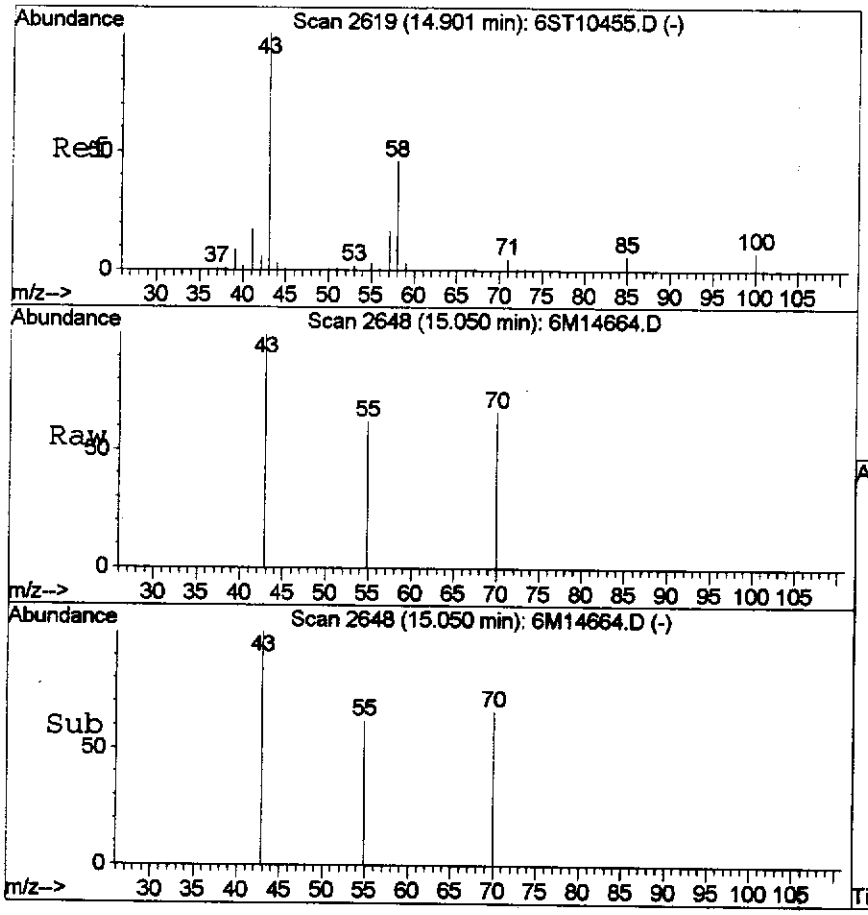

#50
2-Hexanone
Concen: 0.21 ug/Kg
RT: 15.05 min Scan# 2648
Delta R.T. 0.34 min
Lab File: 6M14664.D
Acq: 22 Jul 1999 16:43

Tgt Ion: 43 Resp: 820

Ion	Ratio	Lower	Upper
43	100		
58	0.0	39.0	58.4#

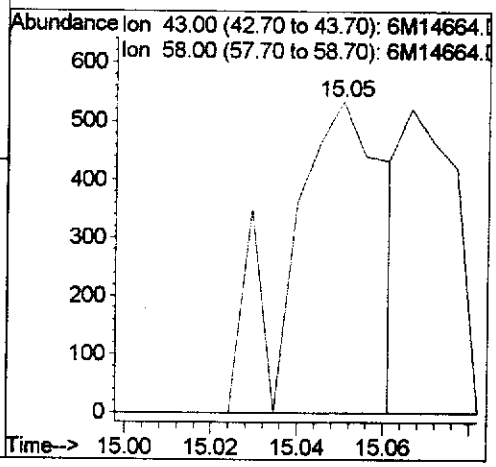

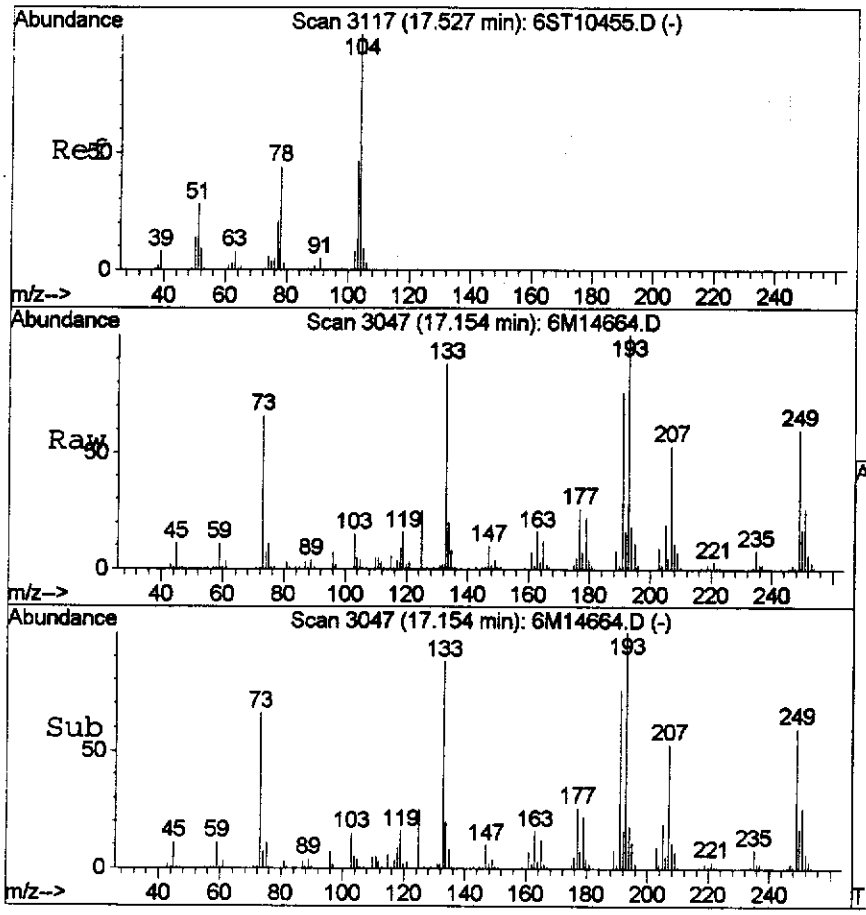

#61
Styrene
Concen: 0.23 ug/Kg
RT: 17.15 min Scan# 3047
Delta R.T. -0.19 min
Lab File: 6M14664.D
Acq: 22 Jul 1999 16:43

Tgt Ion:104 Resp: 5880

Ion	Ratio	Lower	Upper
104	100		
78	0.0	41.4	62.0#

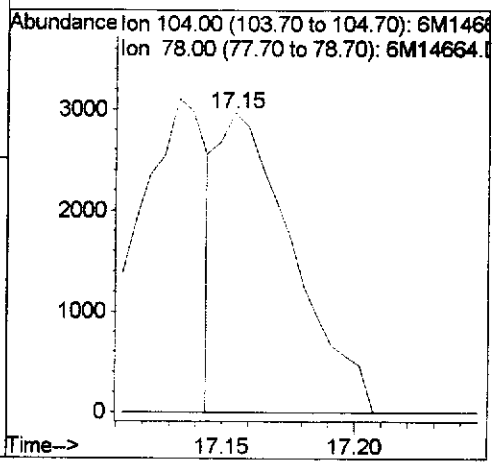

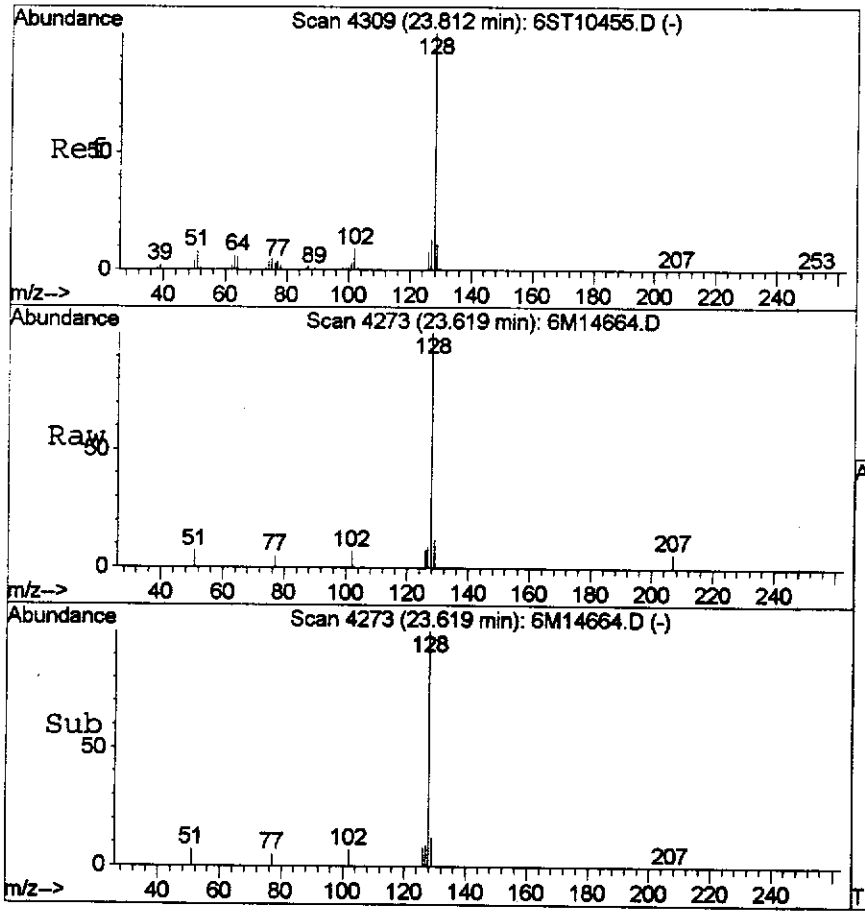

#86
Naphthalene
Concen: 0.50 ug/Kg
RT: 23.62 min Scan# 4273
Delta R.T. -0.00 min
Lab File: 6M14664.D
Acq: 22 Jul 1999 16:43

Tgt Ion:128 Resp: 13137

Ion	Ratio	Lower	Upper
128	100		
102	6.9	6.9	10.3

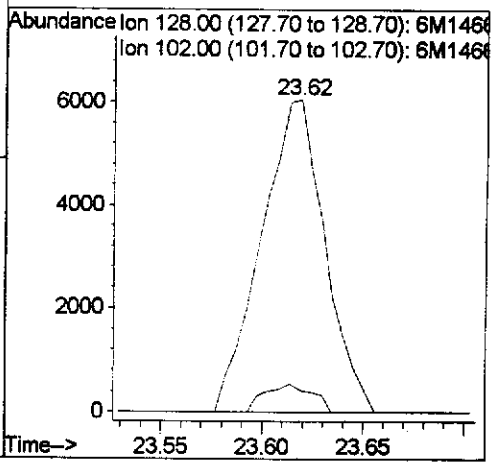

Library Search Compound Report

Data File : C:\HPCHE \ \DATA\0 \ 9\6M14664.D : 1
Acq On : 22 Jul 1999 16:43 Operator: CMS
Sample : L9907381-07 A LANL 826LA 5.7G/5ML Inst : HPMS_6
Misc : SOLID,0.9 Multiplr: 0.90
MS Integration Params: LSCINT.P

Quant Method : C:\HPCHEM\1\METHODS\8260BSL.M (RTE Integrator)
Title : Method 8260B_SOIL - ICAL 07/15/99
Library : C:\DATABASE\NBS75K.L

****

Peak Number 1 Carbon dioxide Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
3.22	16.20 ug/Kg	1067040	Fluorobenzene	11.91

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qua
1	Carbon dioxide	44	CO2	000124-38-9	4
2	Carbon dioxide	44	CO2	000124-38-9	4
3	Ethylene oxide	44	C2H4O	000075-21-8	3
4	Nitrous Oxide	44	N2O	010024-97-2	3

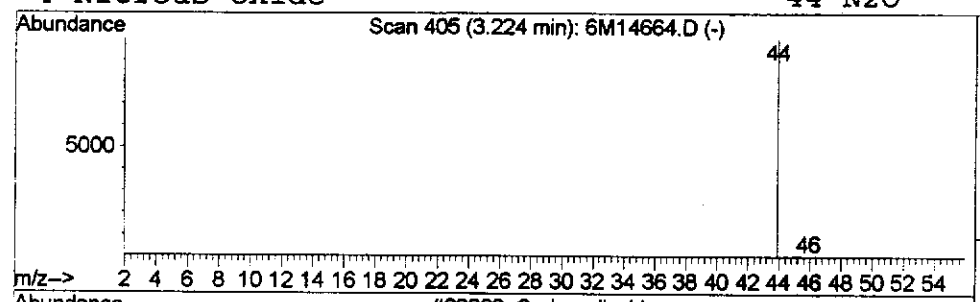

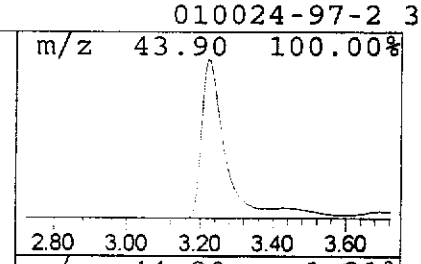

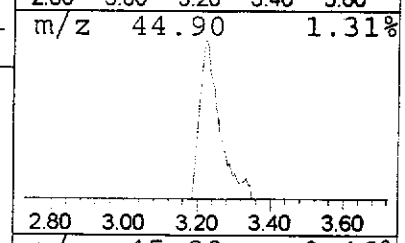

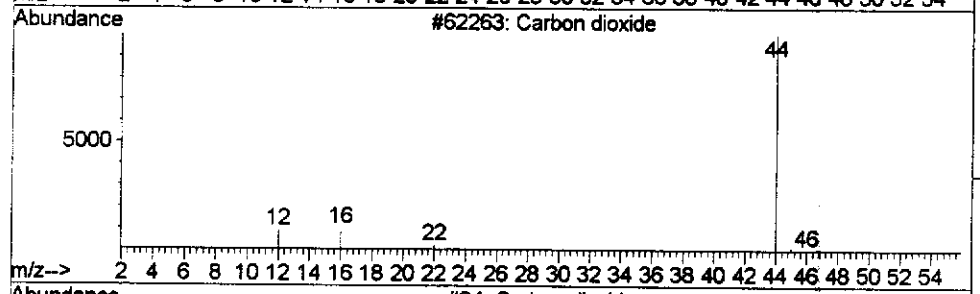

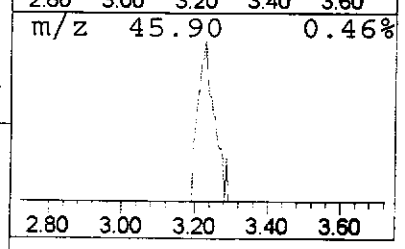

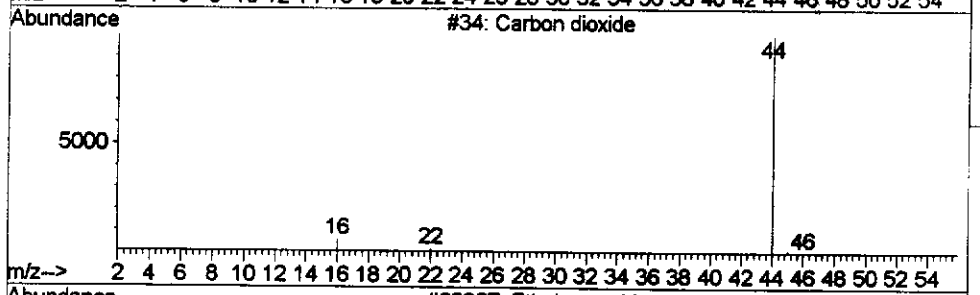

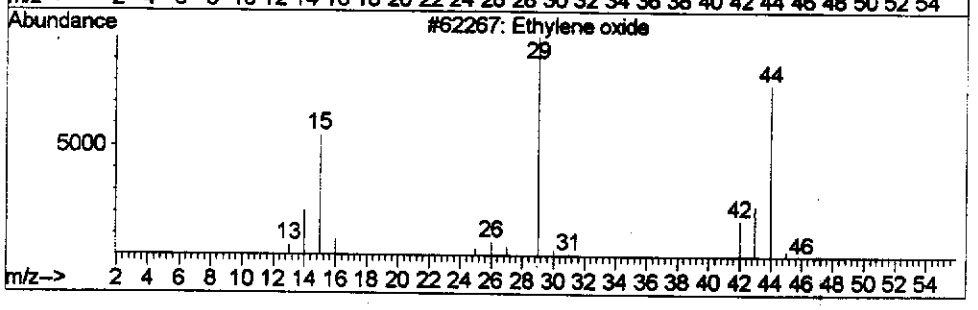

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\072299\6M14664 Vial: 13
Acq On : 22 Jul 1999 16:43 Operator: CMS
Sample : L9907381-07 A LANL 826LA 5.7G/5ML Inst : HPMS_6
Misc : SOLID,0.9 Multiplr: 0.90
MS Integration Params: LSCINT.P

Quant Method : C:\HPCHEM\1\METHODS\8260BSL.M (RTE Integrator)
Title : Method 8260B_SOIL - ICAL 07/15/99
Library : C:\DATABASE\NBS75K.L

****

Peak Number 2 Silane, 9H-fluoren-9-yltrimeth Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
19.76	12.31 ug/Kg	962549	1,4-Dichlorobenzene-d4	20.01

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qua
1	Silane, 9H-fluoren-9-yltrimethyl-	238	C16H18Si	007385-10-6	9
2	Acetamide, 2,2,2-trifluoro-N,N-bis(	257	C8H18F3NOSi2	021149-38-2	9
3	Benzeneacetic acid, trimethylsilyl	208	C11H16O2Si	002078-18-4	7
4	Thiocyanic acid, methyl ester	73	C2H3NS	000556-64-9	4

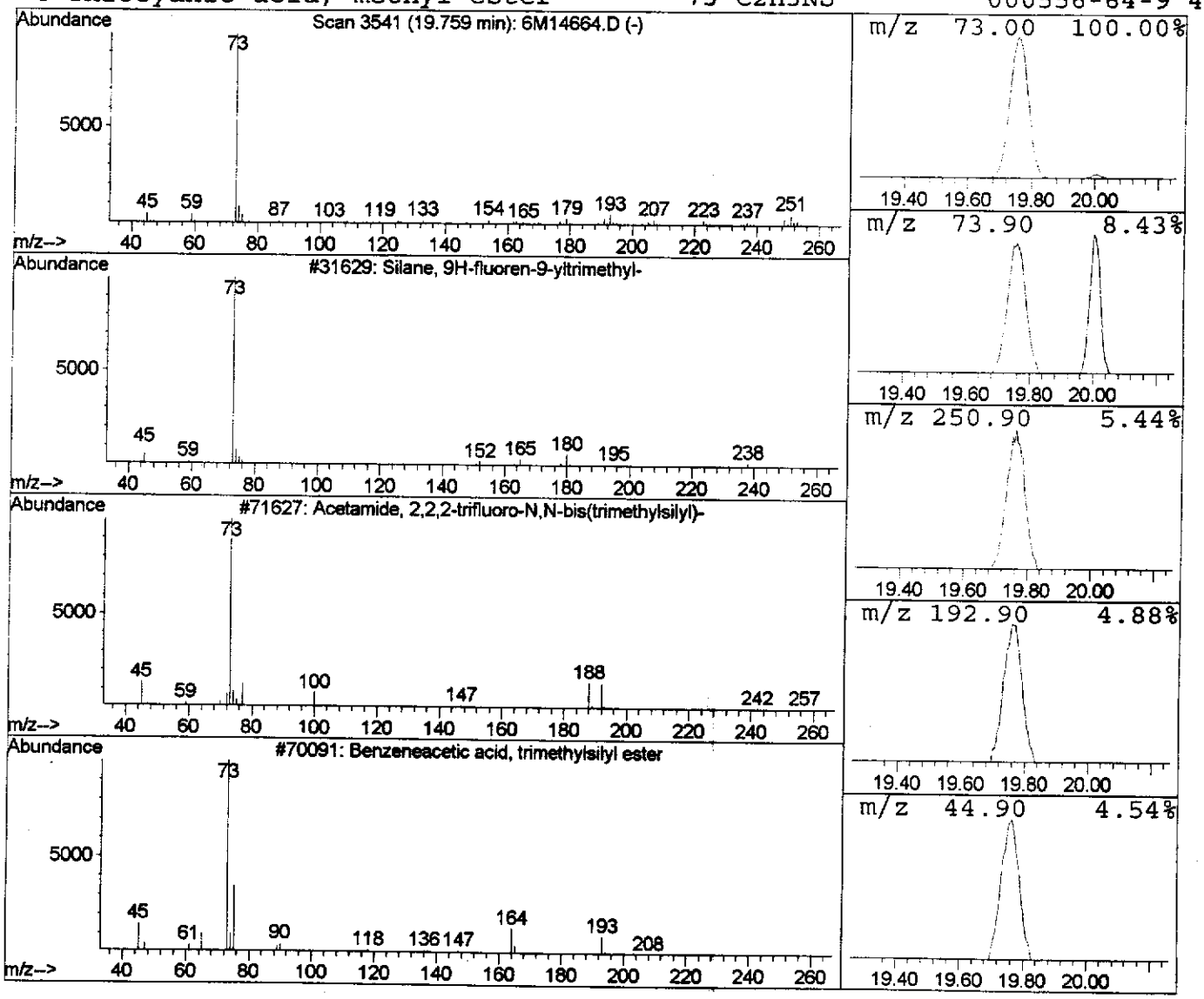

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Tentatively Identified Compound (LSC) summary

Operator ID: CMS Date Acquired: 22 Jul 1999 16:43
Data File: C:\HPCHEM\1\DATA\072299\6M14664.D
Name: L9907381-07 A LANL 826LA 5.7G/5ML
Misc: SOLID,0.9
Method: C:\HPCHEM\1\METHODS\8260BSL.M (RTE Integrator)
Title: Method 8260B_SOIL - ICAL 07/15/99
Library Searched: C:\DATABASE\NBS75K.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISCon
Carbon dioxide	3.22	16.2	ug/Kg	1067040	ISTD01	11.91	2963560	50
Silane, 9H-fluoren-9	19.76	12.3	ug/Kg	962549	ISTD03	20.01	3520090	50

6M14664.D 8260BSL.M Fri Jul 23 08:26:28 1999 HPMS_6

Quantitation Report

Data File : C:\HPCHEM\1\DATA\072299\6M14665.D
Acq On : 22 Jul 1999 17:22
Sample : L9907381-08 A LANL 826LA 5.6G/5ML
Misc : SOLID,0.9
MS Integration Params: rteint.p
Quant Time: Jul 22 17:48 1999

Vial: 14
Operator: CMS
Inst : HPMS_6
Multiplr: 0.90

Quant Results File: 8260BSL.RES

Method : C:\HPCHEM\1\METHODS\8260BSL.M (RTE Integrator)
Title : Method 8260B_SOIL - ICAL 07/15/99
Last Update : Thu Jul 22 09:02:15 1999
Response via : Initial Calibration

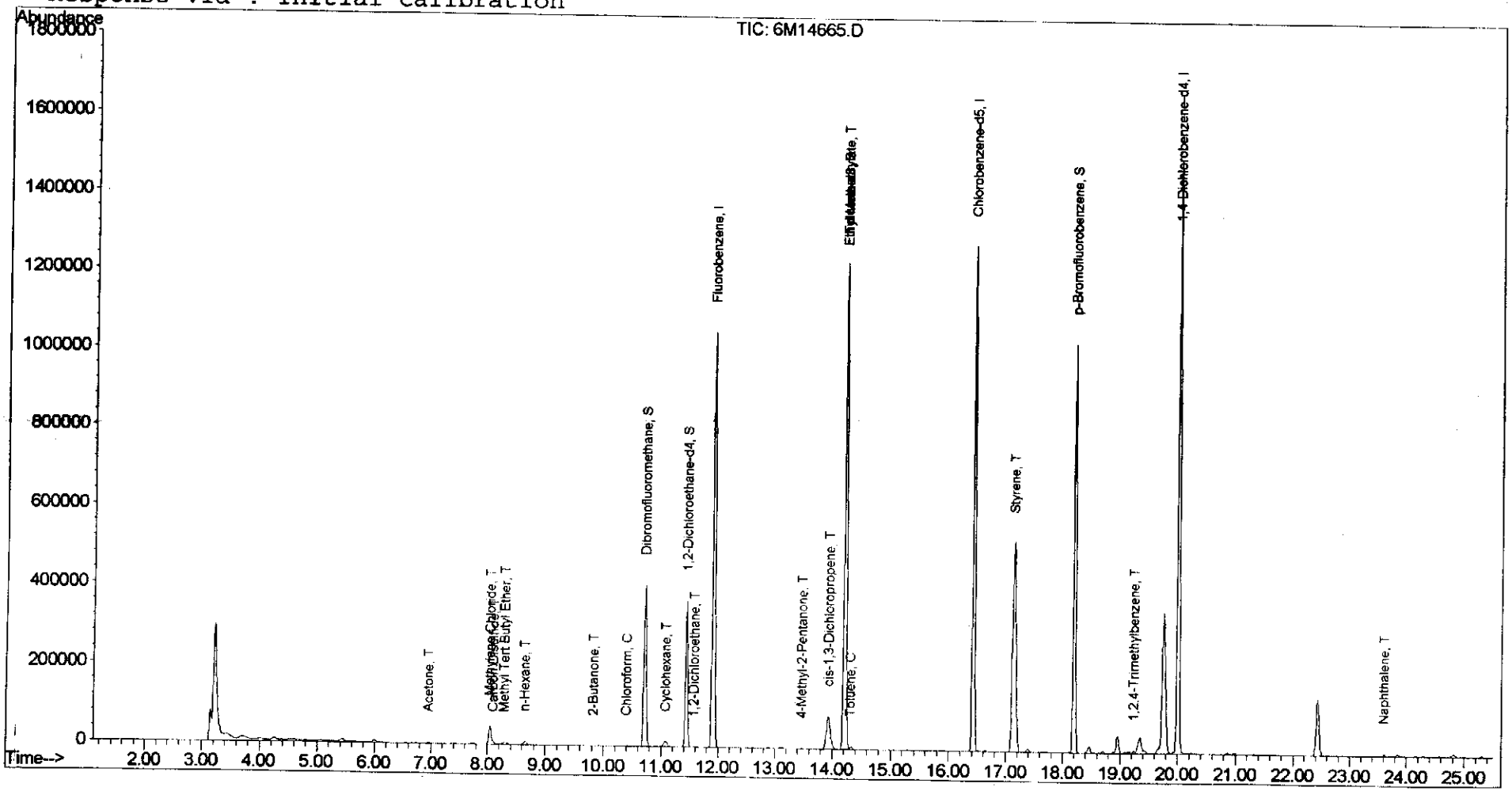

Quantitation Report (Not Reviewed)

Dat ile : C:\HPCHE\1\ A\C 99\6 14665.D
Acq On : 22 Jul 1999 17:22
Sample : L9907381-08 A LANL 826LA 5.6G/5ML
Misc : SOLID,0.9
MS Integration Params: rteint.p
Quant Time: Jul 22 17:48 1999

Vial: 14
Operator: CMS
Inst : HPMS_6
Multiplr: 0.90
Quant Results File: 8260BSL.R

Quant Method : C:\HPCHEM\1\METHODS\8260BSL.M (RTE Integrator)
Title : Method 8260B_SOIL - ICAL 07/15/99
Last Update : Thu Jul 22 09:02:15 1999
Response via : Initial Calibration
DataAcq Meth : 8260BSL

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene	11.91	96	1469117	50.00 ug/Kg	0.00
44) Chlorobenzene-d5	16.43	117	1132821	50.00 ug/Kg	0.00
64) 1,4-Dichlorobenzene-d4	20.01	152	620646	50.00 ug/Kg	0.00
System Monitoring Compounds					
28) Dibromofluoromethane	10.72	111	391284	45.82 ug/Kg	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 91.64%		
33) 1,2-Dichloroethane-d4	11.44	65	388180	46.50 ug/Kg	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 93.00%		
45) Toluene-d8	14.21	98	1341753	43.37 ug/Kg	0.00
Spiked Amount 50.000	Range 81 - 117		Recovery = 86.74%		
66) p-Bromofluorobenzene	18.20	95	532442	43.26 ug/Kg	0.00
Spiked Amount 50.000	Range 74 - 121		Recovery = 86.52%		

Target Compounds					Qvalue
11) Acetone	6.96	43	7861	4.33 ug/Kg J	95
15) Methylene Chloride	8.04	84	39617	4.56 ug/Kg B	82
16) Carbon Disulfide	8.10	76	7550	0.26 ug/Kg#	86
18) Methyl Tert Butyl Ether	8.29	73	5899	0.33 ug/Kg	96
20) n-Hexane	8.64	57	5983	~~0.44 ug/~~Kg	93
23) 2-Butanone	9.84	43	1221	0.50 ug/Kg#	54
26) Chloroform	10.41	83	2757	0.18 ug/Kg#	81
30) Cyclohexane	11.08	56	6317	~~0.48 ug/~~Kg#	41
34) 1,2-Dichloroethane	11.58	62	2290	0.22 ug/Kg#	78
41) 4-Methyl-2-Pentanone	13.48	58	456	0.23 ug/Kg#	34
42) cis-1,3-Dichloropropene	13.93	75	2421	0.22 ug/Kg#	53
46) Toluene	14.32	91	11090	0.31 ug/Kg	98
47) Ethyl Methacrylate	14.22	69	4158	~~0.51 ug/Kg#~~	1
61) Styrene	17.14	104	11271	0.43 ug/Kg#	26
86) Naphthalene	23.61	128	8949	~~0.34 ug/Kg#~~	90

(#) = qualifier out of range (m) = manual integration

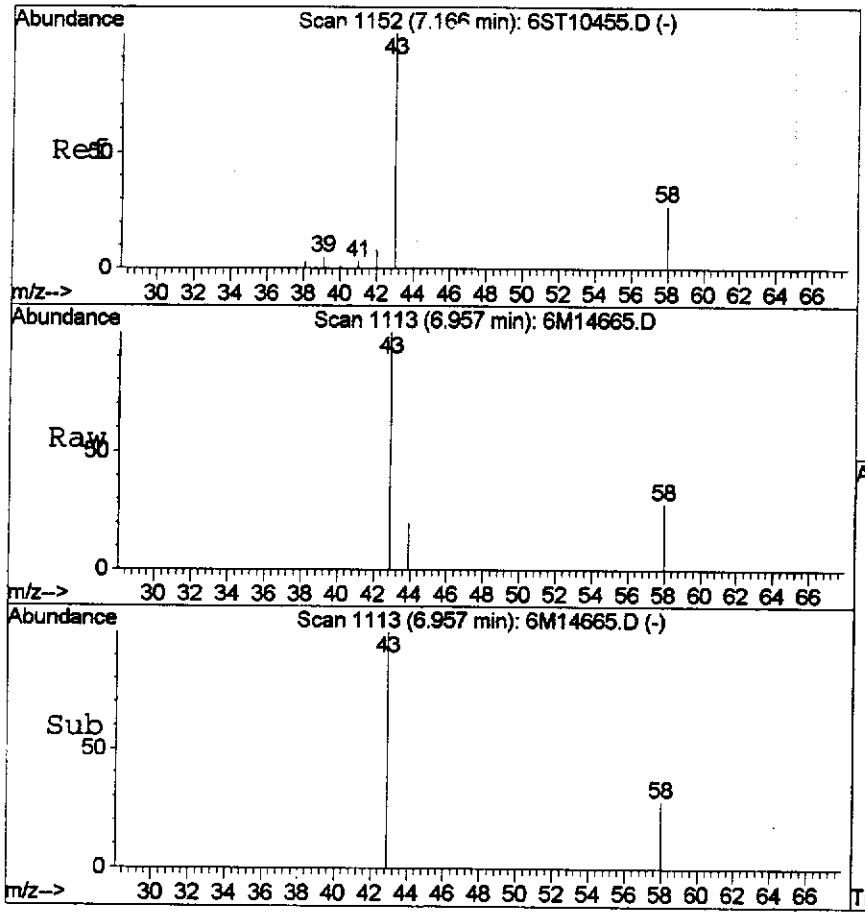

#11
Acetone
Concen: 4.33 ug/Kg
RT: 6.96 min Scan# 1113
Delta R.T. -0.01 min
Lab File: 6M14665.D
Acq: 22 Jul 1999 17:22

Tgt Ion: 43 Resp: 7861

Ion	Ratio	Lower	Upper
43	100		
58	26.1	22.9	34.3

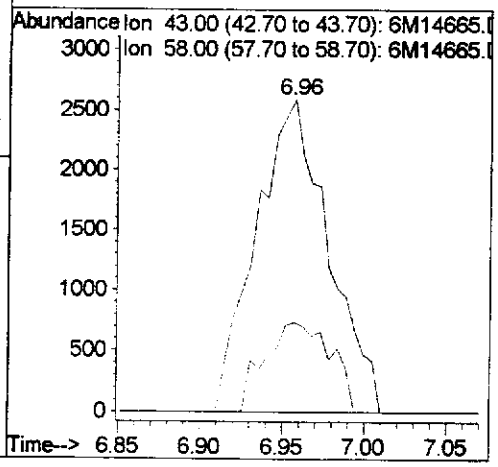

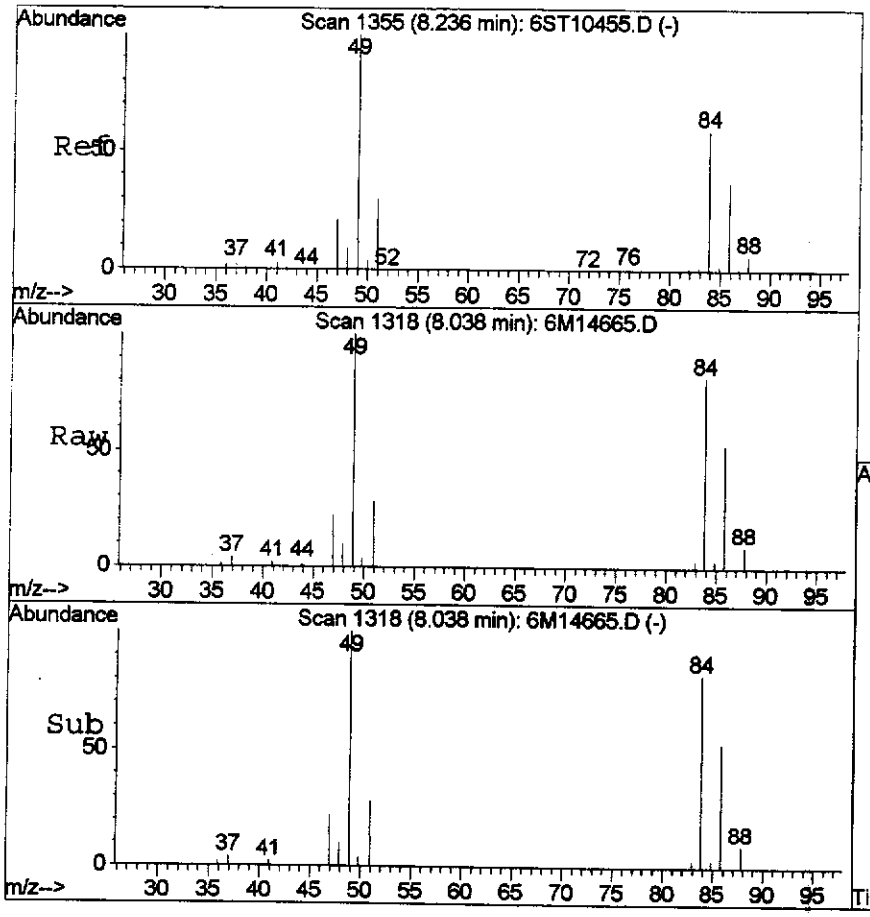

#15
Methylene Chloride
Concen: 4.56 ug/Kg
RT: 8.04 min Scan# 1318
Delta R.T. -0.01 min
Lab File: 6M14665.D
Acq: 22 Jul 1999 17:22

Tgt Ion: 84 Resp: 39617

Ion	Ratio	Lower	Upper
84	100		
49	116.4	110.3	165.5

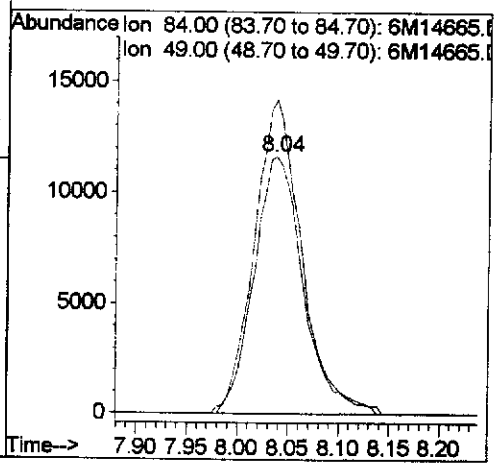

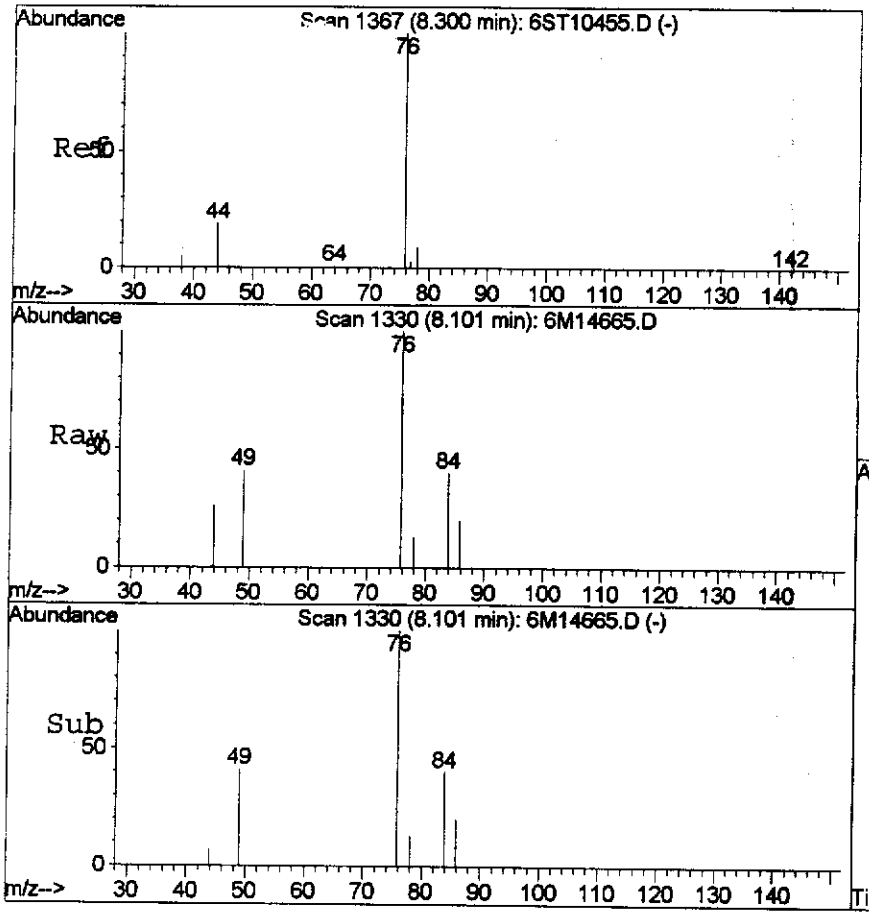

#16
Carbon Disulfide
Concen: 0.26 ug/Kg
RT: 8.10 min Scan# 1330
Delta R.T. -0.01 min
Lab File: 6M14665.D
Acq: 22 Jul 1999 17:22

Tgt Ion: 76 Resp: 7550

Ion	Ratio	Lower	Upper
76	100		
78	4.0	7.2	10.8#

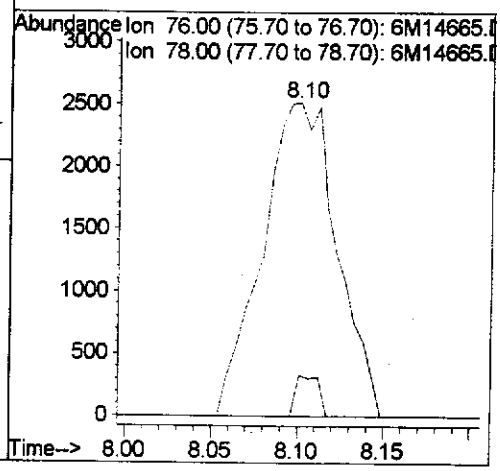

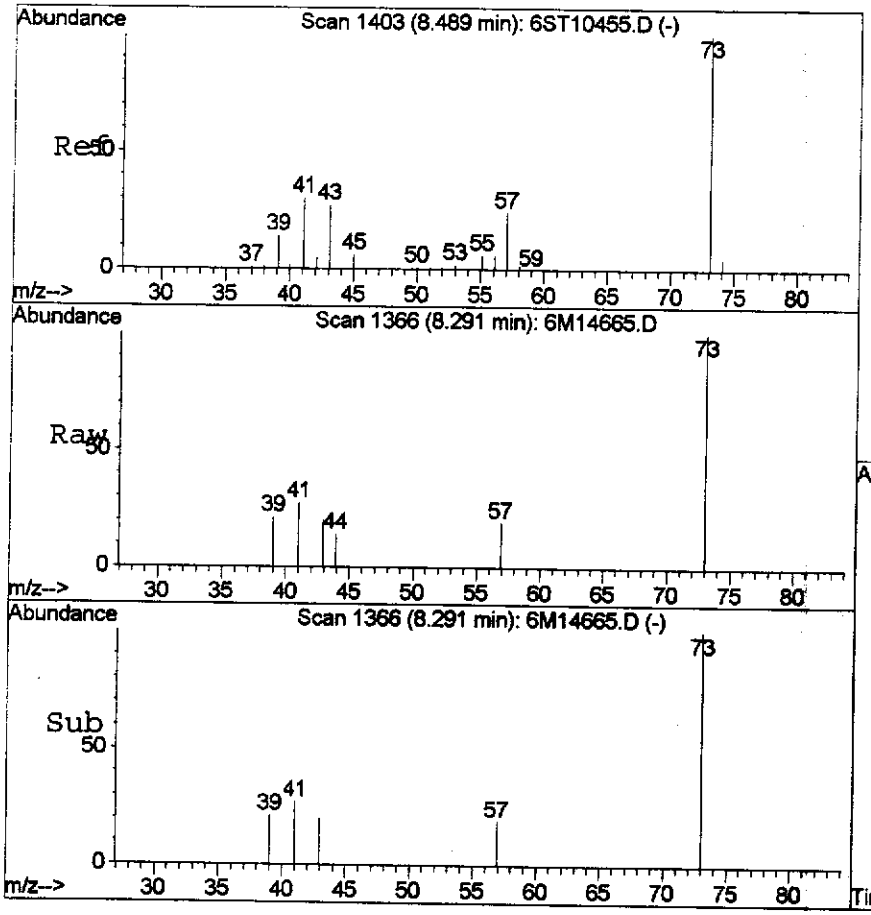

#18
Methyl Tert Butyl Ether
Concen: 0.33 ug/Kg
RT: 8.29 min Scan# 1366
Delta R.T. -0.02 min
Lab File: 6M14665.D
Acq: 22 Jul 1999 17:22

Tgt Ion: 73 Resp: 5899

Ion	Ratio	Lower	Upper
73	100		
57	21.4	18.6	27.8

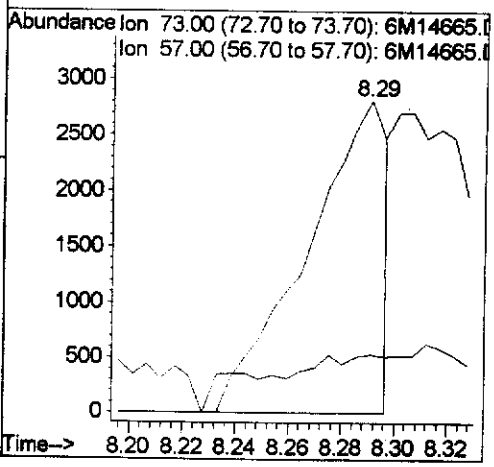

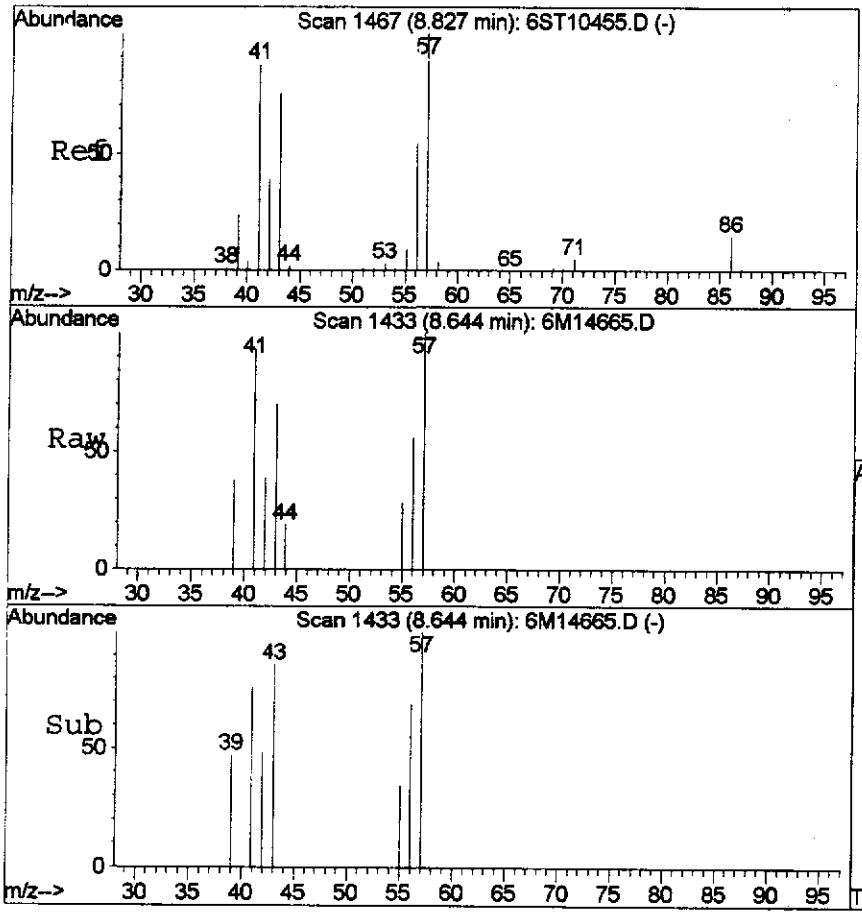

#20
n-Hexane
Concen: 0.44 ug/Kg
RT: 8.64 min Scan# 1433
Delta R.T. -0.02 min
Lab File: 6M14665.D
Acq: 22 Jul 1999 17:22

Tgt Ion: 57 Resp: 5983

Ion	Ratio	Lower	Upper
57	100		
43	76.5	56.7	85.1

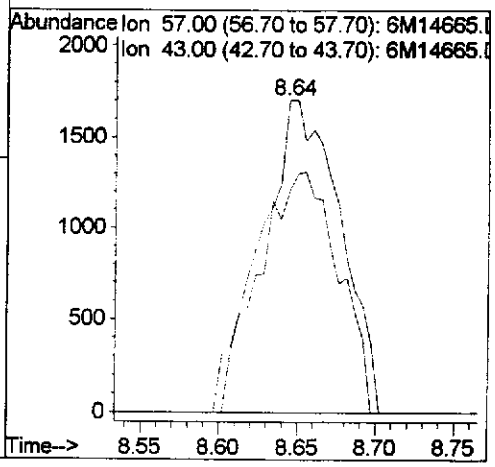

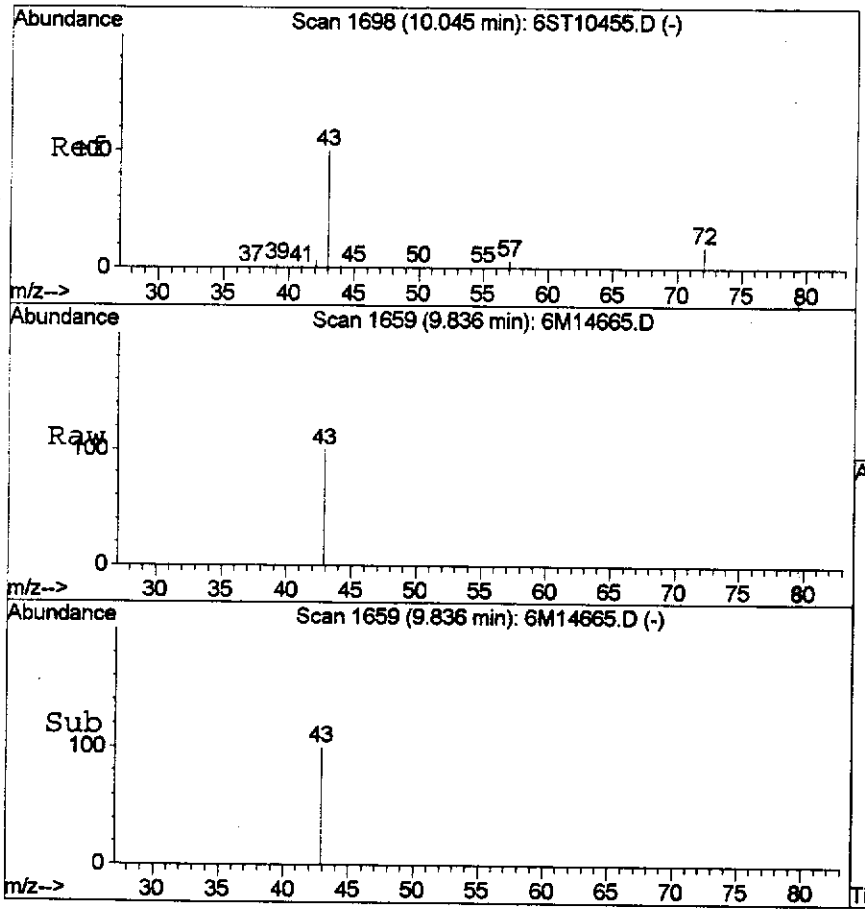

#23
2-Butanone
Concen: 0.50 ug/Kg
RT: 9.84 min Scan# 1659
Delta R.T. -0.02 min
Lab File: 6M14665.D
Acq: 22 Jul 1999 17:22

Tgt Ion: 43 Resp: 1221

Ion	Ratio	Lower	Upper
43	100		
72	0.0	17.6	26.4#

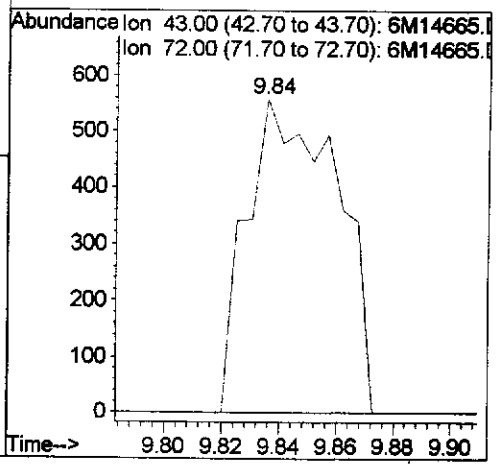

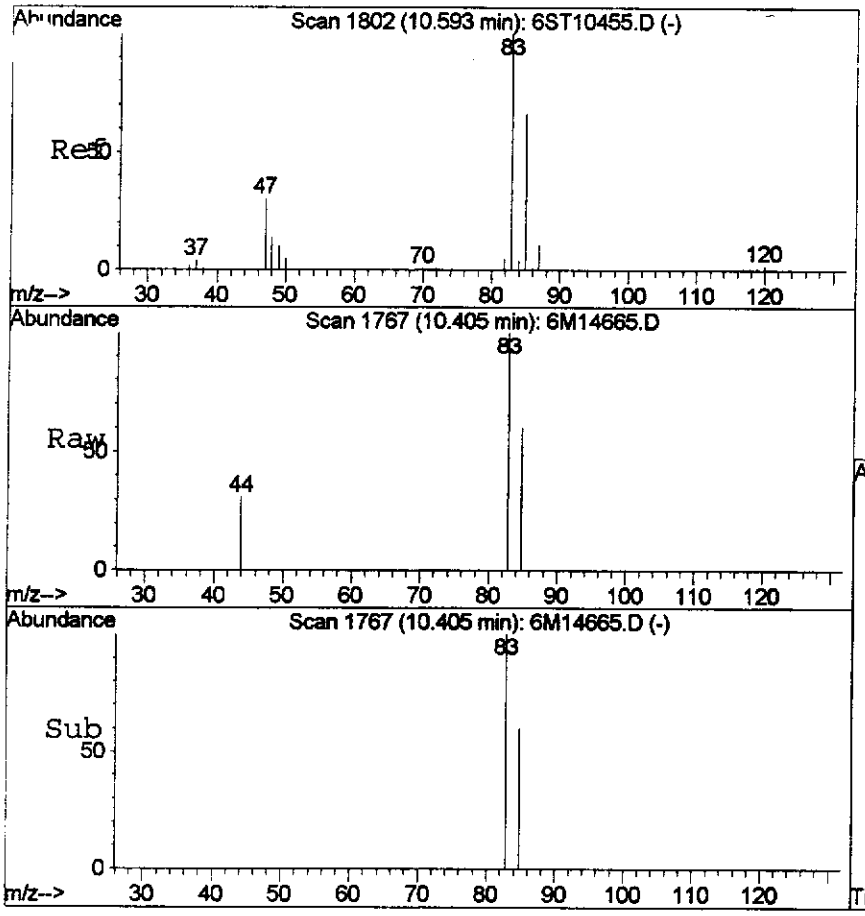

#26
Chloroform
Concen: 0.18 ug/Kg
RT: 10.41 min Scan# 1767
Delta R.T. -0.00 min
Lab File: 6M14665.D
Acq: 22 Jul 1999 17:22

Tgt Ion: 83 Resp: 2757

Ion	Ratio	Lower	Upper
83	100		
85	60.2	52.2	78.2
47	0.0	20.8	31.2#

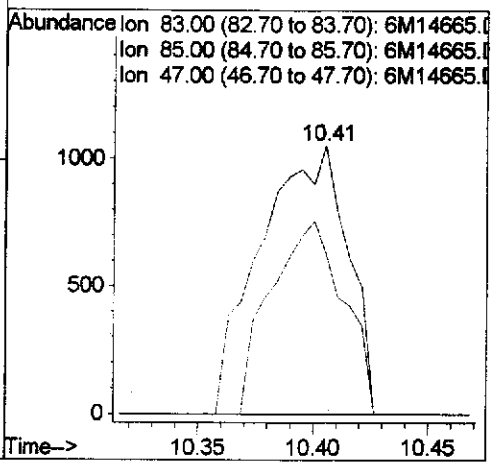

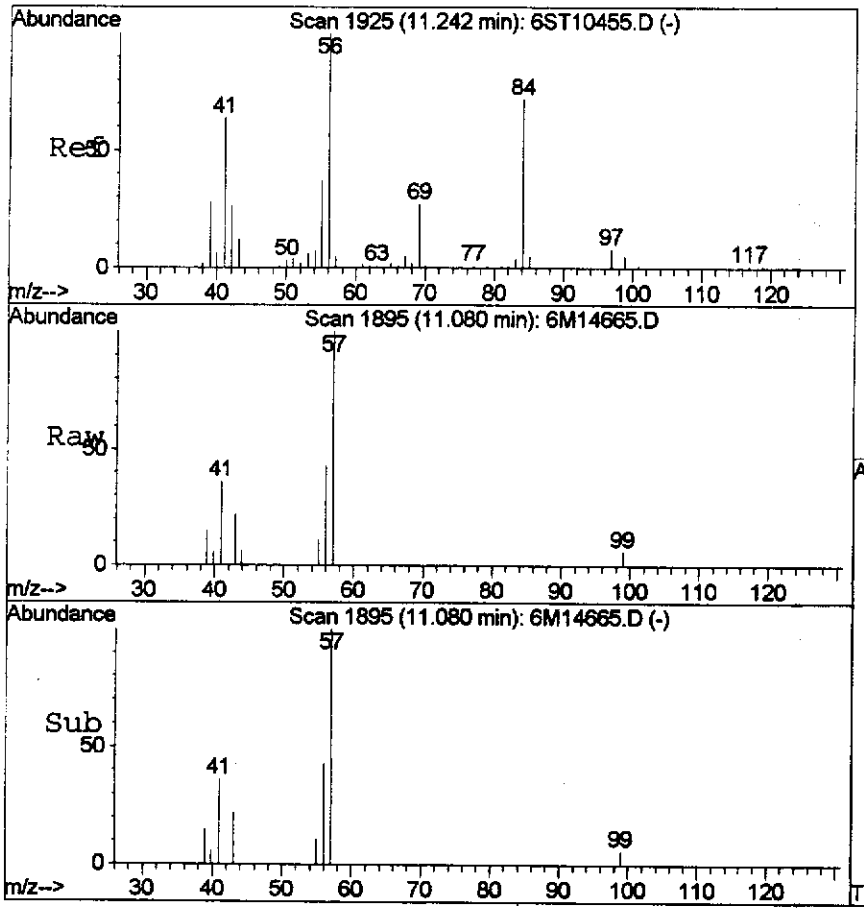

#30
Cyclohexane
Concen: 0.48 ug/Kg
RT: 11.08 min Scan# 1895
Delta R.T. 0.01 min
Lab File: 6M14665.D
Acq: 22 Jul 1999 17:22

Tgt Ion: 56 Resp: 6317

Ion	Ratio	Lower	Upper
56	100		
84	0.0	66.3	99.5#
41	74.6	50.0	75.0

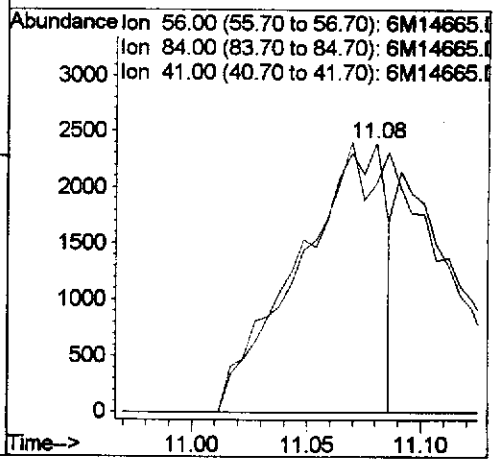

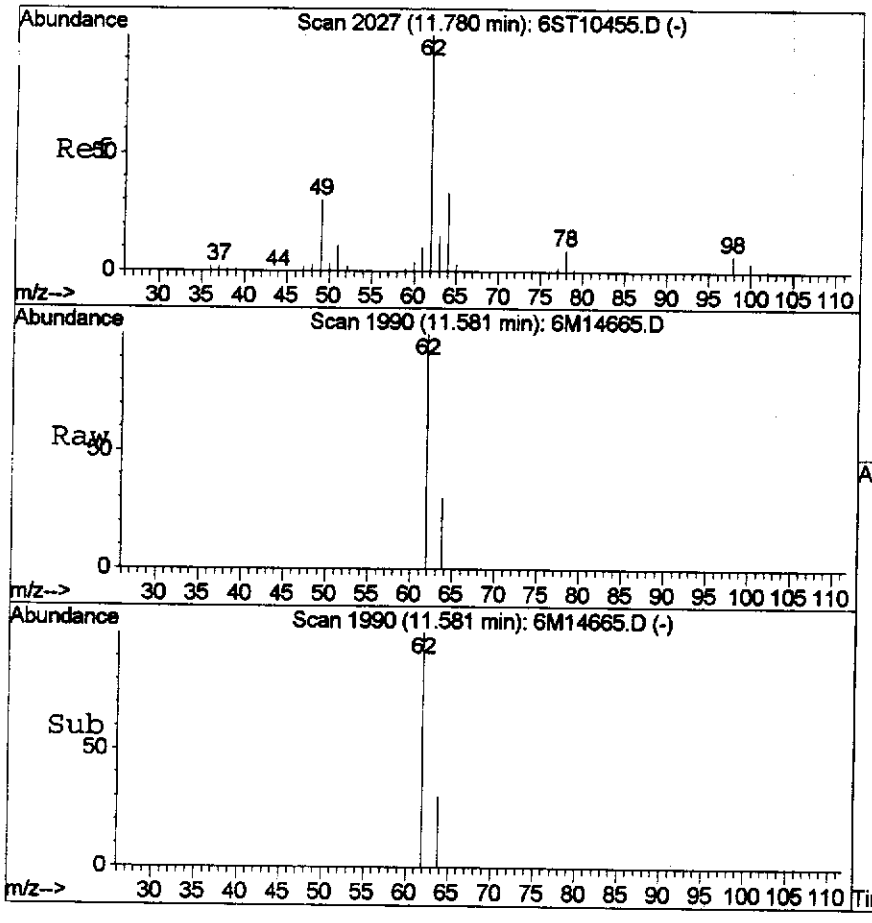

#34
1,2-Dichlor ethar
Concen: 0.22 ug/Kg
RT: 11.58 min Scan# 1990
Delta R.T. -0.01 min
Lab File: 6M14665.D
Acq: 22 Jul 1999 17:22

Tgt Ion: 62 Resp: 2290

Ion	Ratio	Lower	Upper
62	100		
98	0.0	6.3	9.5#

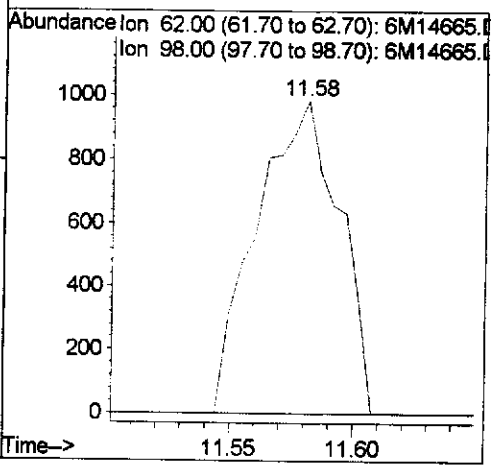

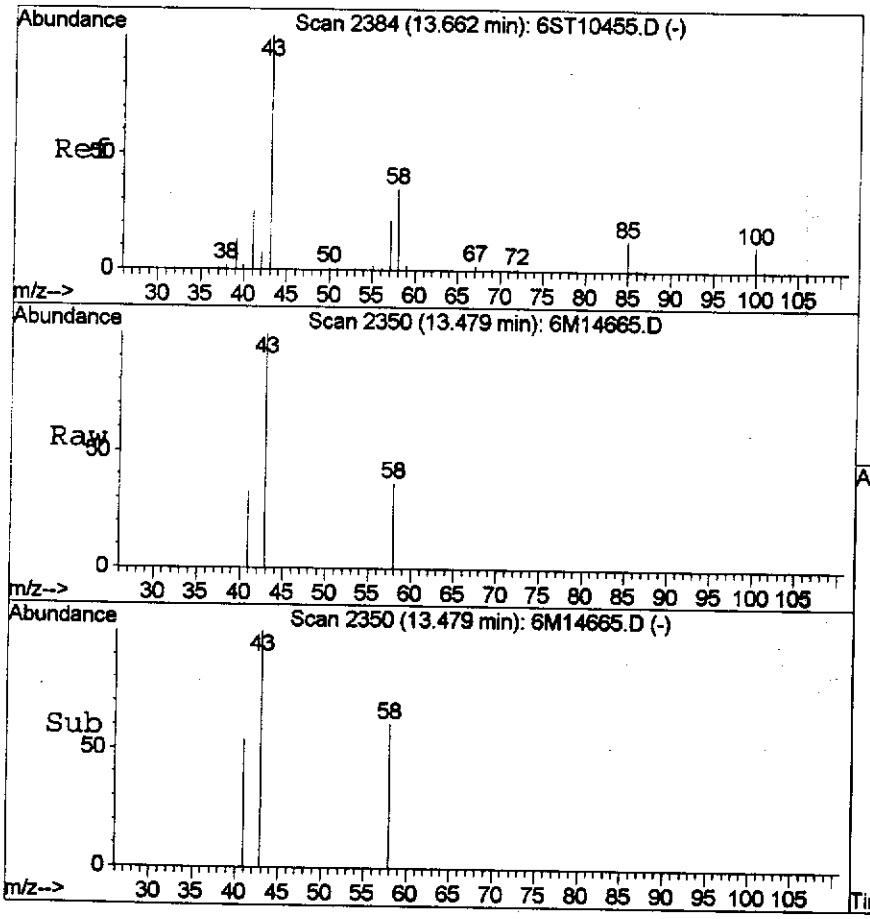

#41
4-Methyl-2-Pentanone
Concen: 0.23 ug/Kg
RT: 13.48 min Scan# 2350
Delta R.T. 0.00 min
Lab File: 6M14665.D
Acq: 22 Jul 1999 17:22

Tgt Ion: 58 Resp: 456

Ion	Ratio	Lower	Upper
58	100		
85	0.0	32.7	49.1#

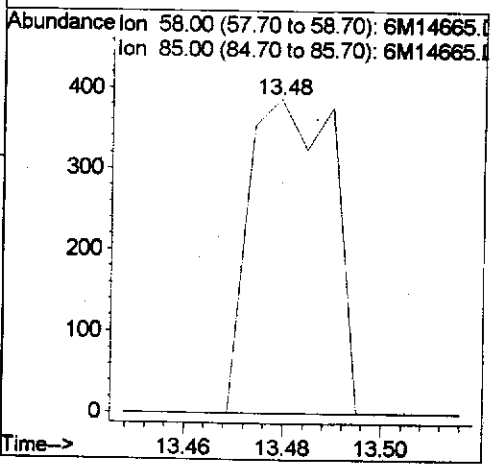

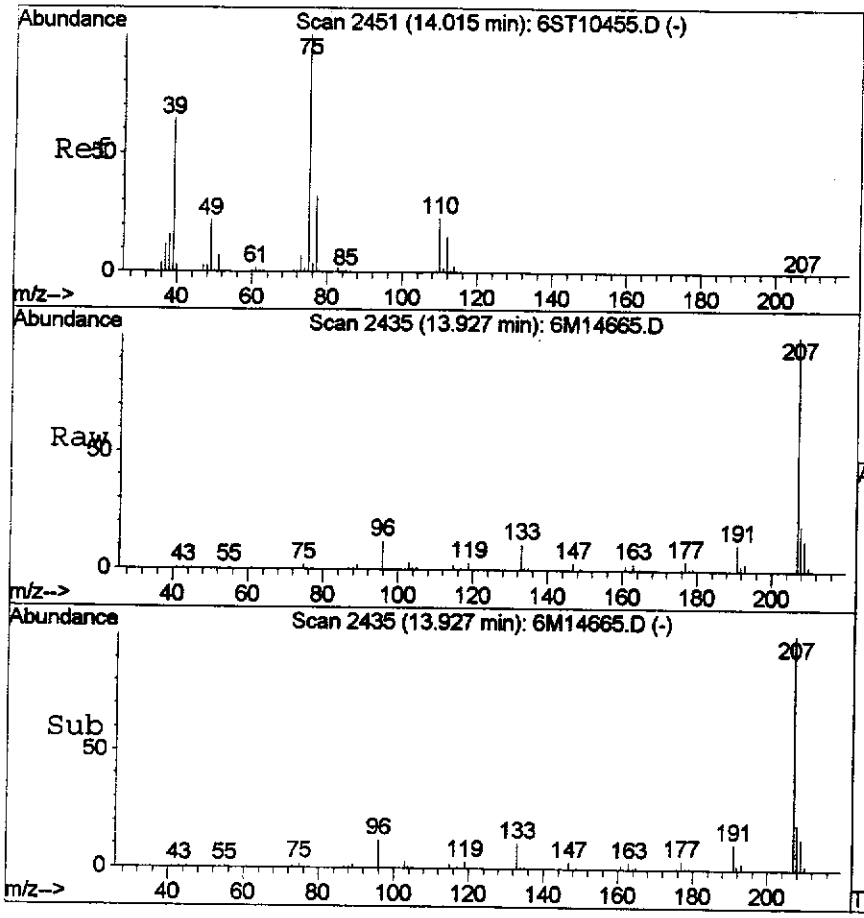

#42
cis-1,3-Dichloropropene
Concen: 0.22 ug/Kg
RT: 13.93 min Scan# 2435
Delta R.T. 0.10 min
Lab File: 6M14665.D
Acq: 22 Jul 1999 17:22

Tgt Ion: 75 Resp: 2421

Ion	Ratio	Lower	Upper
75	100		
110	0.0	18.2	27.4#

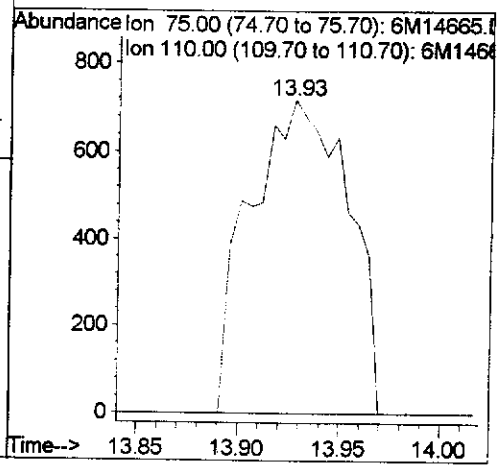

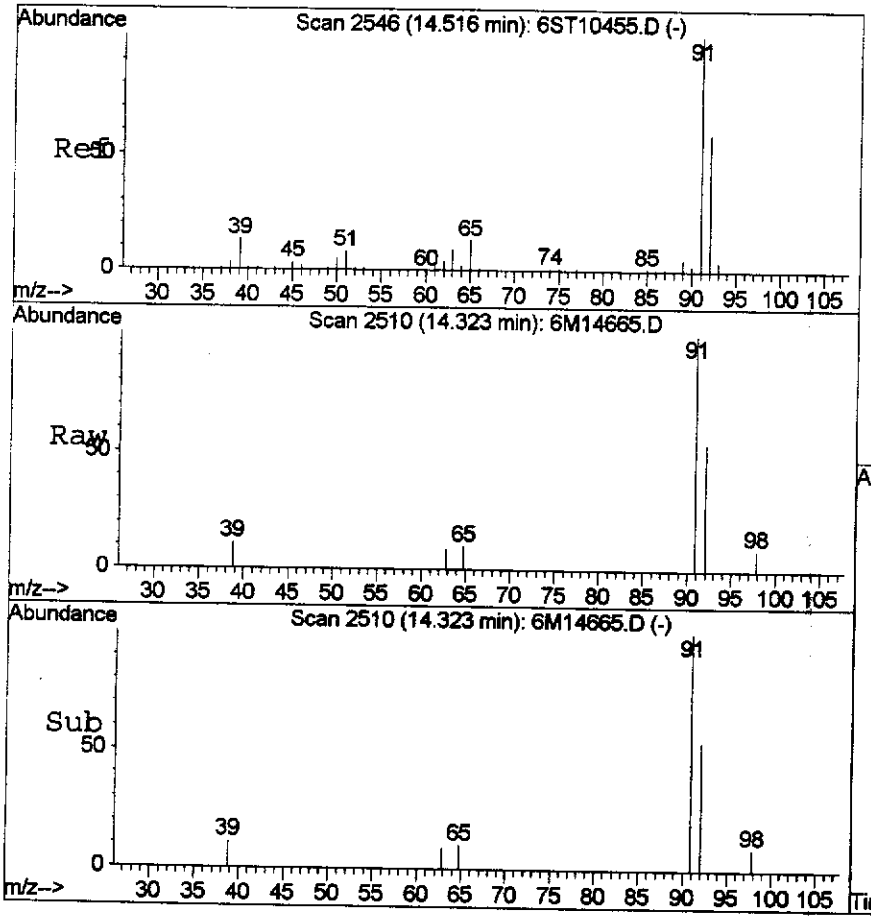

#46
Toluene
Concen: 0.31 ug/Kg
RT: 14.32 min Scan# 2510
Delta R.T. -0.01 min
Lab File: 6M14665.D
Acq: 22 Jul 1999 17:22

Tgt Ion: 91 Resp: 11090

Ion	Ratio	Lower	Upper
91	100		
92	57.2	46.9	70.3

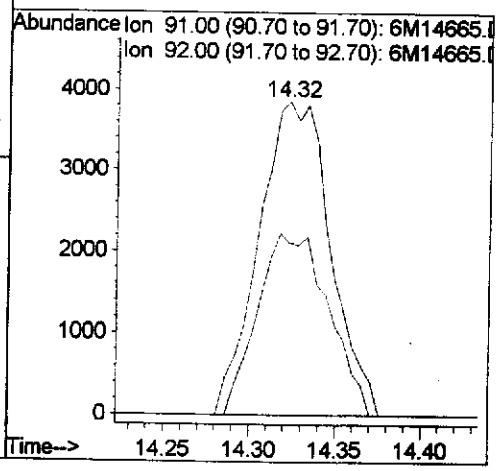

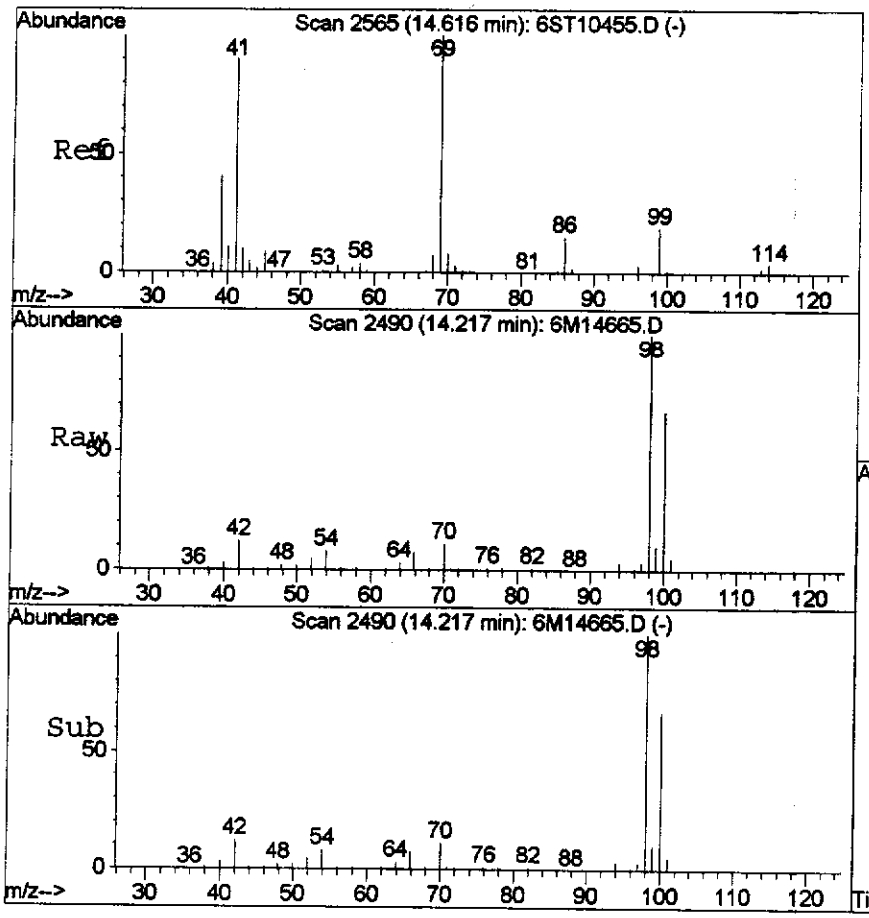

#47
Et[illegible] Methac[illegible]ate
Concen: 0.51 ug/Kg
RT: 14.22 min Scan# 2490
Delta R.T. -0.22 min
Lab File: 6M14665.D
Acq: 22 Jul 1999 17:22

Tgt Ion: 69 Resp: 4158

Ion	Ratio	Lower	Upper
69	100		
99	3146.9	15.2	22.8#

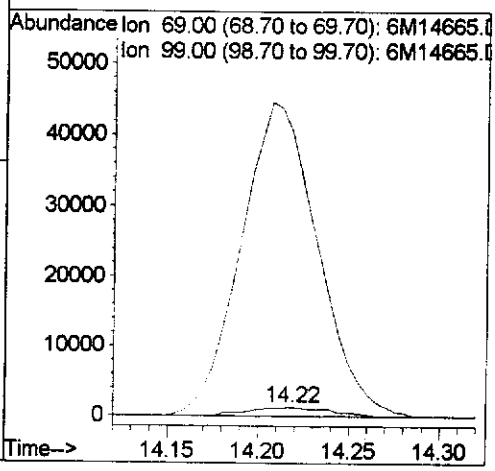

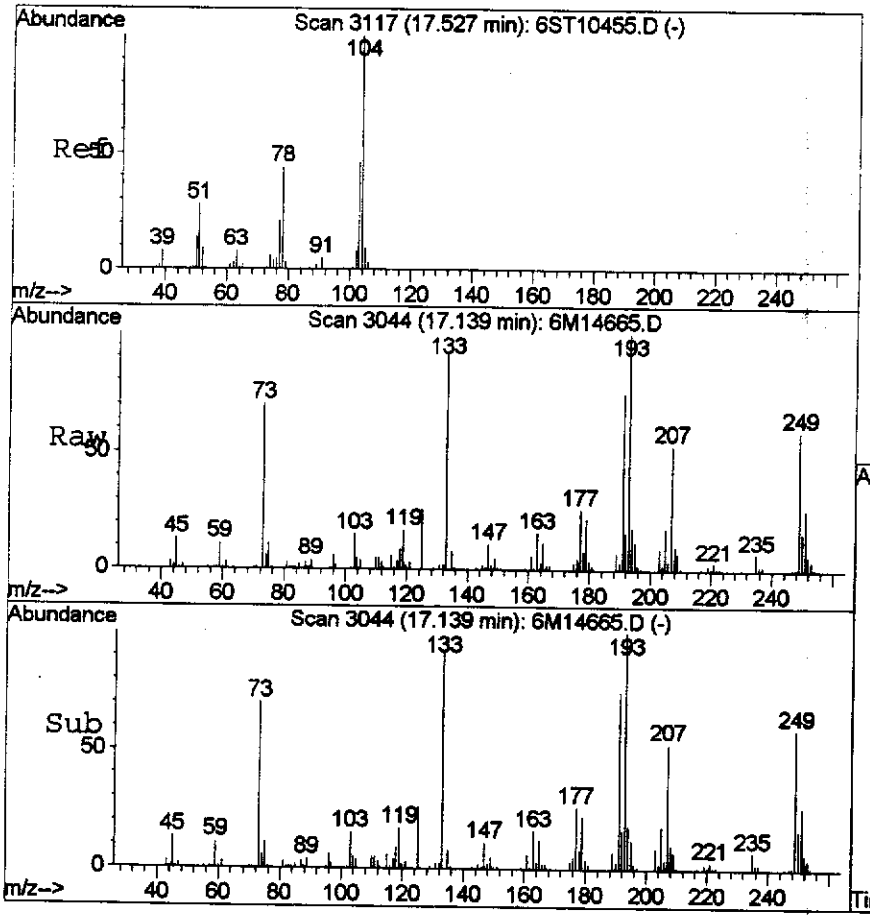

#61
Styrene
Concen: 0.43 ug/Kg
RT: 17.14 min Scan# 3044
Delta R.T. -0.20 min
Lab File: 6M14665.D
Acq: 22 Jul 1999 17:22

Tgt Ion:104 Resp: 11271

Ion	Ratio	Lower	Upper
104	100		
78	0.0	41.4	62.0#

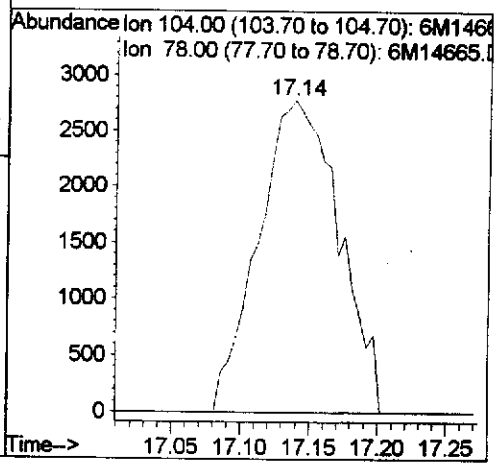

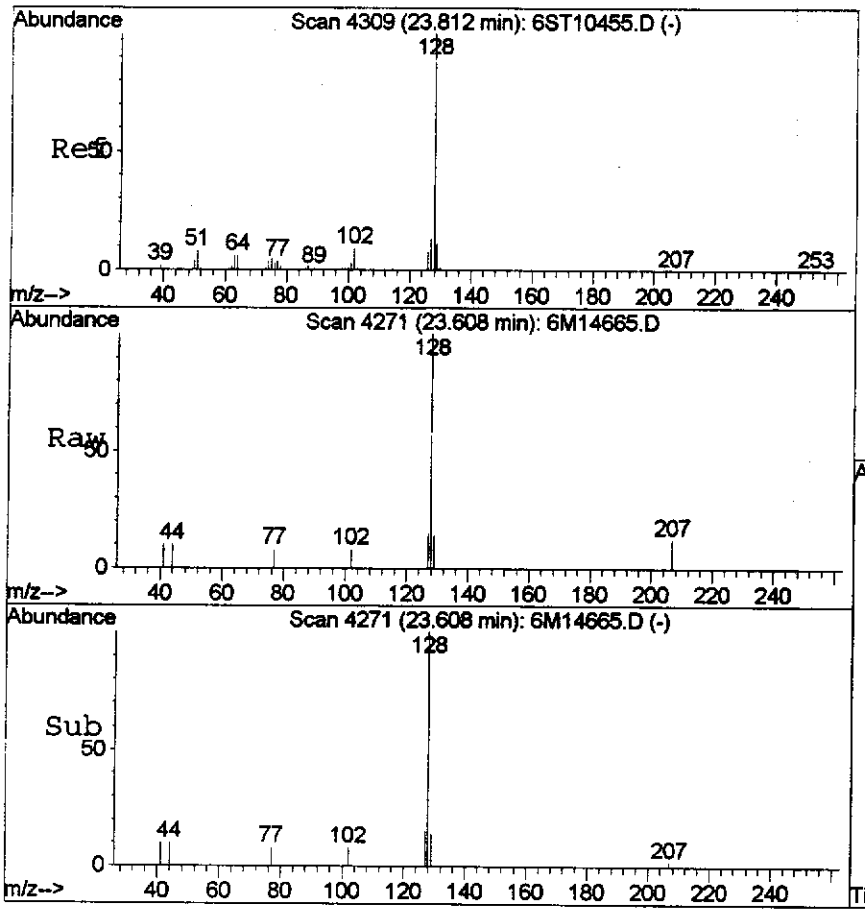

#86
Naph[illegible]ene
Concen: 0.34 ug/Kg
RT: 23.61 min Scan# 4271
Delta R.T. -0.01 min
Lab File: 6M14665.D
Acq: 22 Jul 1999 17:22

Tgt Ion:128 Resp: 8949

Ion	Ratio	Lower	Upper
128	100		
102	5.0	6.9	10.3#

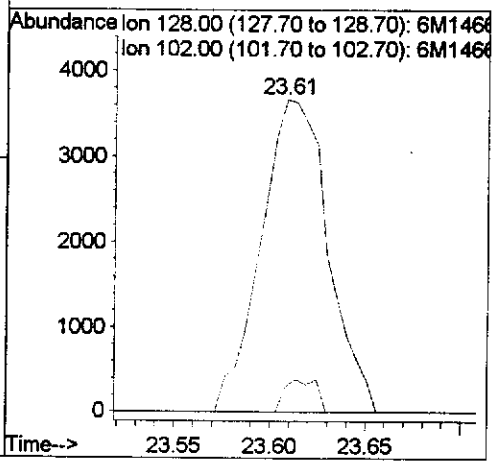

Library Search Compound Report

Data File : C:\HPCHEM\1\DA A\07 \6M1466 Vial:
Acq On : 22 Jul 1999 17:22 Operator: CMS
Sample : L9907381-08 A LANL 826LA 5.6G/5ML Inst : HPMS_6
Misc : SOLID,0.9 Multiplr: 0.90
MS Integration Params: LSCINT.P

Quant Method : C:\HPCHEM\1\METHODS\8260BSL.M (RTE Integrator)
Title : Method 8260B_SOIL - ICAL 07/15/99
Library : C:\DATABASE\NBS75K.L

****

Peak Number 1 Carbon dioxide Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
3.22	16.75 ug/Kg	1128360	Fluorobenzene	11.91

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qua
1	Carbon dioxide	44	CO2	000124-38-9	4
2	Carbon dioxide	44	CO2	000124-38-9	4
3	Ethylene oxide	44	C2H4O	000075-21-8	3
4	Nitrous Oxide	44	N2O	010024-97-2	3

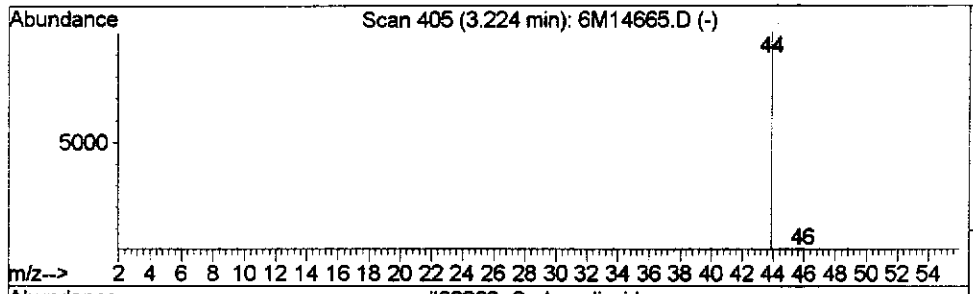

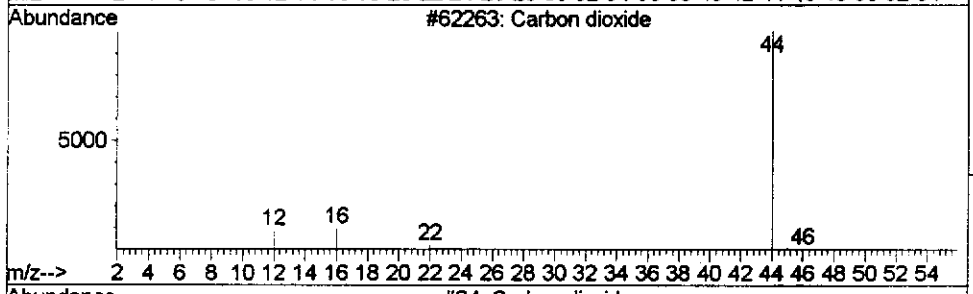

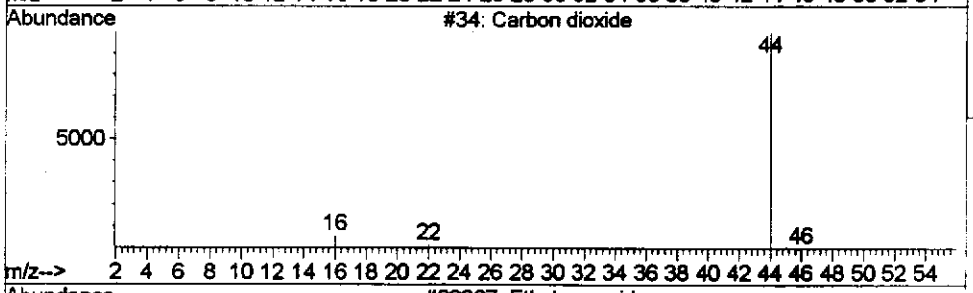

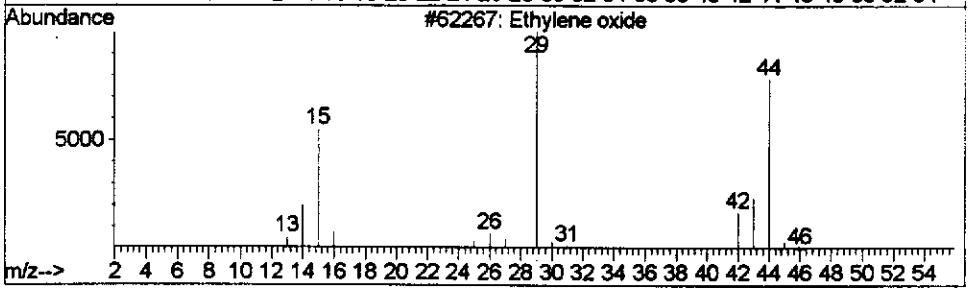

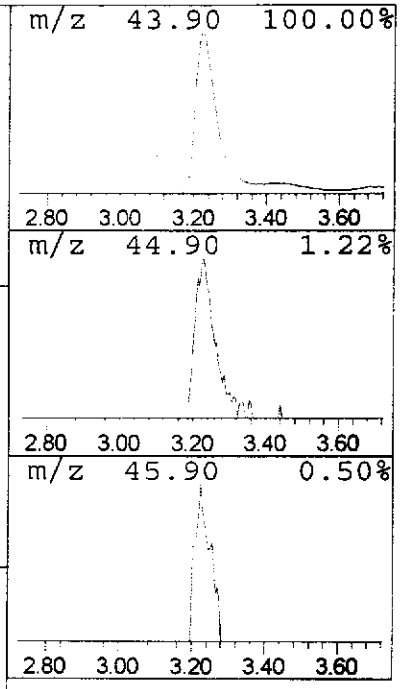

Library Search Compound Report

Data File : C:\HPCHEM\1\ A\07229 14665.D
Acq On : 22 Jul 1999 17:22
Sample : L9907381-08 A LANL 826LA 5.6G/5ML
Misc : SOLID,0.9
MS Integration Params: LSCINT.P

ial
Operator: CMS
Inst : HPMS_6
Multiplr: 0.90

Quant Method : C:\HPCHEM\1\METHODS\8260BSL.M (RTE Integrator)
Title : Method 8260B_SOIL - ICAL 07/15/99
Library : C:\DATABASE\NBS75K.L

****

Peak Number 2 7,9-Diethyl-2,4-bis(dimethylam Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
19.76	17.98 ug/Kg	1410540	1,4-Dichlorobenzene-d4	20.01

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qua
1	7,9-Diethyl-2,4-bis(dimethylamino)-	336	C15H24N6OS	000000-00-0	9
2	Acetamide, N-(3,4-dichlorophenyl)-N	233	C9H9Cl2NO2	000000-00-0	9
3	Benzeneethanamine, N-[(pentafluorop	387	C18H18F5NOSi	055334-64-0	9
4	Benzeneacetic acid, trimethylsilyl	208	C11H16O2Si	002078-18-4	7

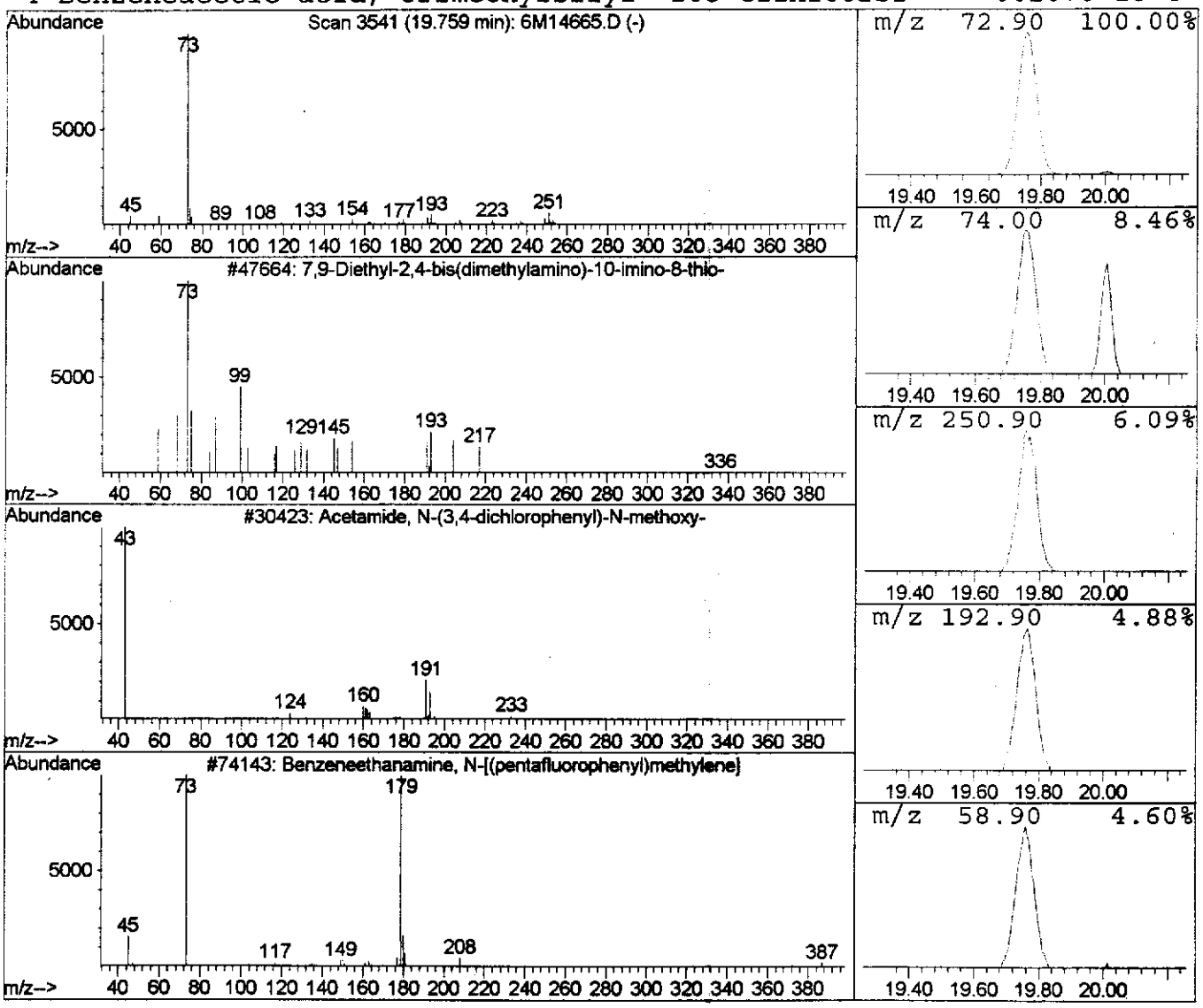

Tentatively Identified Compound (LSC) summary

Operator ID: CMS Date Acquired: 22 Jul 1999 17:22
Data File: C:\HPCHEM\1\DATA\072299\6M14665.D
Name: L9907381-08 A LANL 826LA 5.6G/5ML
Misc: SOLID,0.9
Method: C:\HPCHEM\1\METHODS\8260BSL.M (RTE Integrator)
Title: Method 8260B_SOIL - ICAL 07/15/99
Library Searched: C:\DATABASE\NBS75K.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISCon
Carbon dioxide	3.22	16.7	ug/Kg	1128360	ISTD01	11.91	3031770	50
7,9-Diethyl-2,4-bis(	19.76	18.0	ug/Kg	1410540	ISTD03	20.01	3529720	50

6M14665.D 8260BSL.M Fri Jul 23 08:27:59 1999 HPMS_6

Volatile Organics

Standards Data

- Initial calibration data summary form
- Chromatograms and quantitation reports for all standards
- Continuing calibration data summary form
- Chromatogram and quantitation report for standard
- Internal Standard Area Summary

Calibration Table Report
Method: 8260BSL.M
Title: Method 8260B_SOIL - ICAL 07/15/99 HPMS 6
Last Calibration: Thu Jul 15 15:54:37 1999

Calibration Files

Compound	1 6M14577.D	5 6M14576.D	10 6M14575.D	20 6M14574.D	50 6M14573.D	200 6M14579.D	100 6M14578.D	Avg	%RSD	
Fluorobenzene	ISTD									
Dichlorodifluoromethane	0.305	0.270	0.401	0.375	0.367	0.411	0.395	0.361	14.664	
Chloromethane	0.286	0.185	0.237	0.222	0.206	0.254	0.235	0.232	14.086	
Vinyl Chloride	0.193	0.144	0.179	0.164	0.161	0.149	0.153	0.163	10.553	
Bromomethane	0.157	0.109	0.133	0.125	0.125	0.144	0.133	0.132	11.688	
Chloroethane	0.098	0.091	0.125	0.119	0.117	0.133	0.128	0.116	13.569	
Trichlorofluoromethane	0.310	0.229	0.339	0.312	0.309	0.327	0.328	0.308	11.822	
Isoprene	0.308	0.294	0.365	0.358	0.355	0.403	0.386	0.353	11.137	
Acrolein			0.007	0.008	0.010	0.008		0.008	18.614	QR,F
1,1,2-Trichloro-1,2,2-Trifluoroe	0.287	0.215	0.317	0.296	0.292	0.321	0.310	0.291	12.396	
Acetone		0.129	0.099	0.068	0.062	0.054	0.058	0.079	37.469	LR,F
1,1-Dichloroethene	0.220	0.204	0.254	0.245	0.246	0.271	0.265	0.244	9.893	
Dimethyl Sulfide		0.184	0.215	0.223	0.226	0.257	0.245	0.225	11.224	
Iodomethane	0.190	0.174	0.220	0.231	0.280	0.307	0.295	0.242	21.513	LR,F
Methylene Chloride		0.309	0.283	0.260	0.245	0.251	0.248	0.266	9.505	
Carbon Disulfide	1.098	0.770	0.881	0.841	0.810	0.887	0.856	0.877	12.023	
Acrylonitrile	0.028	0.049	0.054	0.051	0.052	0.061	0.056	0.050	21.098	LR,F
Methyl Tert Butyl Ether	0.490	0.495	0.559	0.549	0.557	0.605	0.590	0.549	7.918	
trans-1,2-Dichloroethene	0.242	0.222	0.262	0.253	0.255	0.274	0.273	0.255	7.208	
n-Hexane	0.533	0.346	0.415	0.398	0.387	0.428	0.407	0.416	13.857	
Vinyl Acetate	0.162	0.194	0.225	0.235	0.255	0.281	0.270	0.232	18.185	LR,F
1,1-Dichloroethane	0.425	0.394	0.453	0.437	0.430	0.456	0.463	0.437	5.406	
2-Butanone		0.074	0.077	0.066	0.073	0.079	0.078	0.074	6.294	
2,2-Dichloropropane	0.344	0.330	0.401	0.394	0.408	0.446	0.431	0.394	10.865	
cis-1,2-Dichloroethene	0.247	0.239	0.278	0.272	0.275	0.290	0.294	0.271	7.614	
Chloroform	0.490	0.424	0.467	0.452	0.453	0.471	0.485	0.463	4.913	
Bromochloromethane	0.125	0.120	0.130	0.125	0.125	0.131	0.135	0.127	4.090	
Dibromofluoromethane		0.307	0.319	0.287	0.275	0.275	0.281	0.291	6.324	
1,1,1-Trichloroethane	0.427	0.373	0.450	0.443	0.450	0.482	0.485	0.444	8.516	
Cyclohexane	0.338	0.330	0.425	0.422	0.414	0.460	0.445	0.405	12.544	
1,1-Dichloropropene	0.289	0.281	0.353	0.345	0.351	0.376	0.377	0.339	11.435	
Carbon Tetrachloride	0.335	0.314	0.391	0.394	0.417	0.455	0.452	0.394	13.668	
1,2-Dichloroethane-d4		0.318	0.318	0.279	0.268	0.254	0.267	0.284	9.735	
1,2-Dichloroethane	0.327	0.307	0.330	0.313	0.315	0.316	0.335	0.320	3.165	
Benzene	0.958	0.847	0.987	0.950	0.945	0.989	1.019	0.957	5.726	
Trichloroethene	0.307	0.268	0.322	0.309	0.313	0.334	0.341	0.313	7.626	
1,2-Dichloropropane	0.217	0.204	0.224	0.220	0.219	0.234	0.242	0.223	5.486	
Bromodichloromethane	0.295	0.276	0.312	0.309	0.319	0.340	0.355	0.315	8.423	
Dibromomethane	0.138	0.127	0.133	0.128	0.128	0.132	0.139	0.132	3.724	
2-Chloroethyl Vinyl Ether		0.050	0.061	0.063	0.072	0.088	0.083	0.069	20.157	LR,F
4-Methyl-2-Pentanone		0.049	0.058	0.054	0.060	0.069	0.068	0.060	13.099	
cis-1,3-Dichloropropene	0.276	0.288	0.329	0.336	0.351	0.376	0.392	0.3355	12.722	
Dimethyl Disulfide		0.108	0.139	0.159	0.185	0.211	0.203	0.1675	23.817	LR,F
Chlorobenzene-d5	ISTD									
Toluene-d8		1.398	1.507	1.381	1.3	1.287	1.32	1.3656	6.0452	
Toluene	1.415	1.249	1.454	1.428	1.41	1.465	1.521	1.4203	5.9457	
Ethyl Methacrylate		0.262	0.312	0.318	0.332	0.37	0.36	0.3255	11.943	
trans-1,3-Dichloropropene	0.367	0.378	0.431	0.438	0.451	0.463	0.497	0.4322	10.695	
1,1,2-Trichloroethane	0.263	0.243	0.258	0.248	0.246	0.251	0.274	0.2548	4.2731	
2-Hexanone		0.129	0.15	0.138	0.155	0.177	0.172	0.1534	12.317	
1,3-Dichloropropane	0.426	0.406	0.431	0.421	0.421	0.427	0.464	0.428	4.1941	
Tetrachloroethene	0.362	0.305	0.364	0.348	0.344	0.358	0.371	0.3504	6.2687	
Dibromochloromethane	0.287	0.277	0.308	0.313	0.334	0.356	0.386	0.323	11.994	
1,2-Dibromoethane	0.258	0.246	0.267	0.26	0.264	0.272	0.294	0.2659	5.5057	
1-Chlorohexane	0.378	0.382	0.502	0.508	0.504	0.549	0.529	0.479	14.508	
Chlorobenzene	1.179	0.956	1.047	1.011	0.996	1.002	1.08	1.0388	7.0593	
1,1,1,2-Tetrachloroethane	0.324	0.306	0.352	0.36	0.366	0.349	0.402	0.3512	8.7399	
Ethylbenzene	0.549	0.472	0.555	0.543	0.537	0.551	0.584	0.5417	6.3481	

m-,p-Xylene	0.679	0.593	0.696	0.669	0.657	0.658	0.71	0.6661	5.6271	
o-Xylene	0.602	0.551	0.64	0.632	0.629	0.663	0.699	0.6309	7.3882	
Styrene	0.996	0.907	1.045	1.047	1.047	1.101	1.172	1.0449	7.9119	
Bromoform	0.133	0.146	0.173	0.177	0.197	0.22	0.238	0.1833	20.681	LR,F
Isopropylbenzene	1.515	1.406	1.755	1.73	1.724	1.792	1.907	1.6898	10.135	
1,4-Dichlorobenzene-d4	ISTD									
1,1,2,2-Tetrachloroethane	0.58	0.547	0.583	0.545	0.562	0.598	0.679	0.5847	7.8891	
p-Bromofluorobenzene		1.068	1.085	0.984	0.942	0.92	0.949	0.9916	6.9888	
1,2,3-Trichloropropane	0.193	0.191	0.202	0.188	0.189	0.201	0.23	0.1992	7.2506	
trans-1,4-Dichloro-2-Butene	0.122	0.132	0.153	0.148	0.16	0.178	0.174	0.1526	13.454	
n-Propylbenzene	3.511	3.1	3.812	3.711	3.63	3.674	4.038	3.6394	7.9538	
Bromobenzene	0.82	0.741	0.803	0.783	0.778	0.796	0.887	0.8012	5.6313	
1,3,5-Trimethylbenzene	2.449	2.202	2.678	2.627	2.608	2.695	2.935	2.5992	8.7451	
2-Chlorotoluene	2.31	2.018	2.345	2.186	2.183	2.31	2.439	2.256	6.1114	
4-Chlorotoluene	2.245	1.956	2.223	2.243	2.197	2.152	2.493	2.2157	7.1441	
a-Methylstyrene	1.318	1.198	1.418	1.448	1.449	1.527	1.53	1.4126	8.404	
tert-Butylbenzene	2.552	2.257	2.741	2.64	2.59	2.699	2.932	2.6301	7.8451	
1,2,4-Trimethylbenzene	2.893	2.396	2.772	2.671	2.631	2.661	2.946	2.7099	6.7599	
sec-Butylbenzene	3.304	2.856	3.585	3.497	3.454	3.523	3.877	3.4423	9.0458	
p-Isopropyltoluene	2.945	2.665	3.295	3.237	3.207	3.243	3.59	3.1688	9.188	
1,3-Dichlorobenzene	1.775	1.468	1.64	1.591	1.587	1.612	1.788	1.6374	6.8631	
1,4-Dichlorobenzene	1.963	1.522	1.685	1.622	1.603	1.604	1.795	1.6847	8.8379	
n-Butylbenzene	2.684	2.189	2.762	2.668	2.646	2.714	2.945	2.6585	8.6582	
1,2-Dichlorobenzene	1.583	1.322	1.453	1.411	1.41	1.445	1.62	1.4633	7.1154	
1,2-Dibromo-3-Chloropropane	0.08	0.106	0.122	0.116	0.131	0.151	0.167	0.1247	23.02	LR,F
1,2,4-Trichlorobenzene	1.124	0.835	0.95	0.942	0.962	0.959	1.041	0.9734	9.2303	
Hexachlorobutadiene	0.581	0.404	0.529	0.497	0.49	0.524	0.542	0.5095	10.86	
Naphthalene	2.034	1.626	1.831	1.759	1.881	1.948	2.208	1.8981	9.9795	
1,2,3-Trichlorobenzene	0.999	0.757	0.856	0.825	0.843	0.839	0.925	0.8633	8.9886	

Thu Jul 15 15:55:37 1999

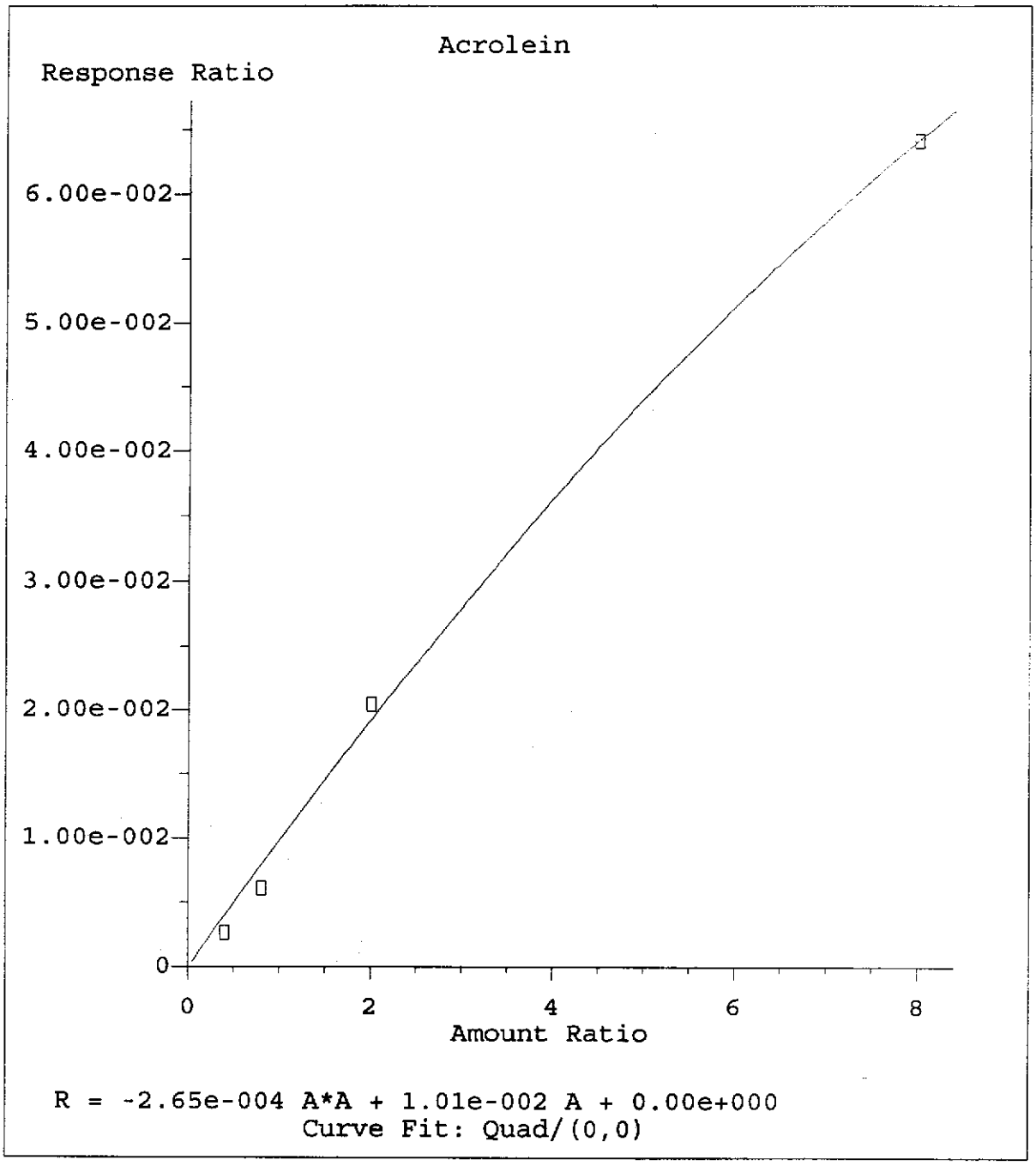

Method Name: C:\HPCHEM\1\METHODS\8260BSL.M
Calibration Table Last Updated: Thu Jul 15 15:48:23 1999

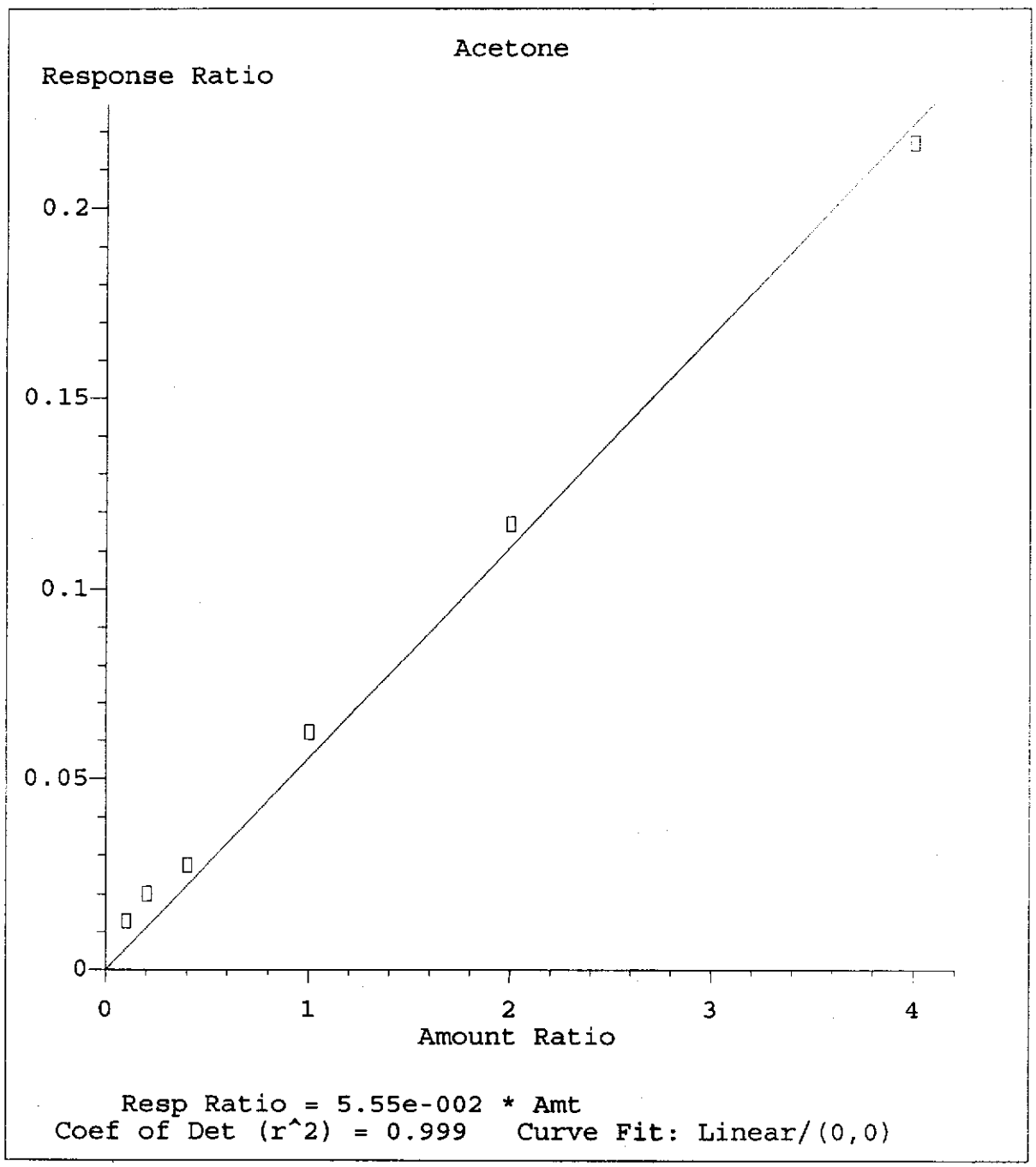

Method Name: C:\HPCHEM\1\METHODS\8260BSL.M
Calibration Table Last Updated: Thu Jul 15 15:51:01 1999

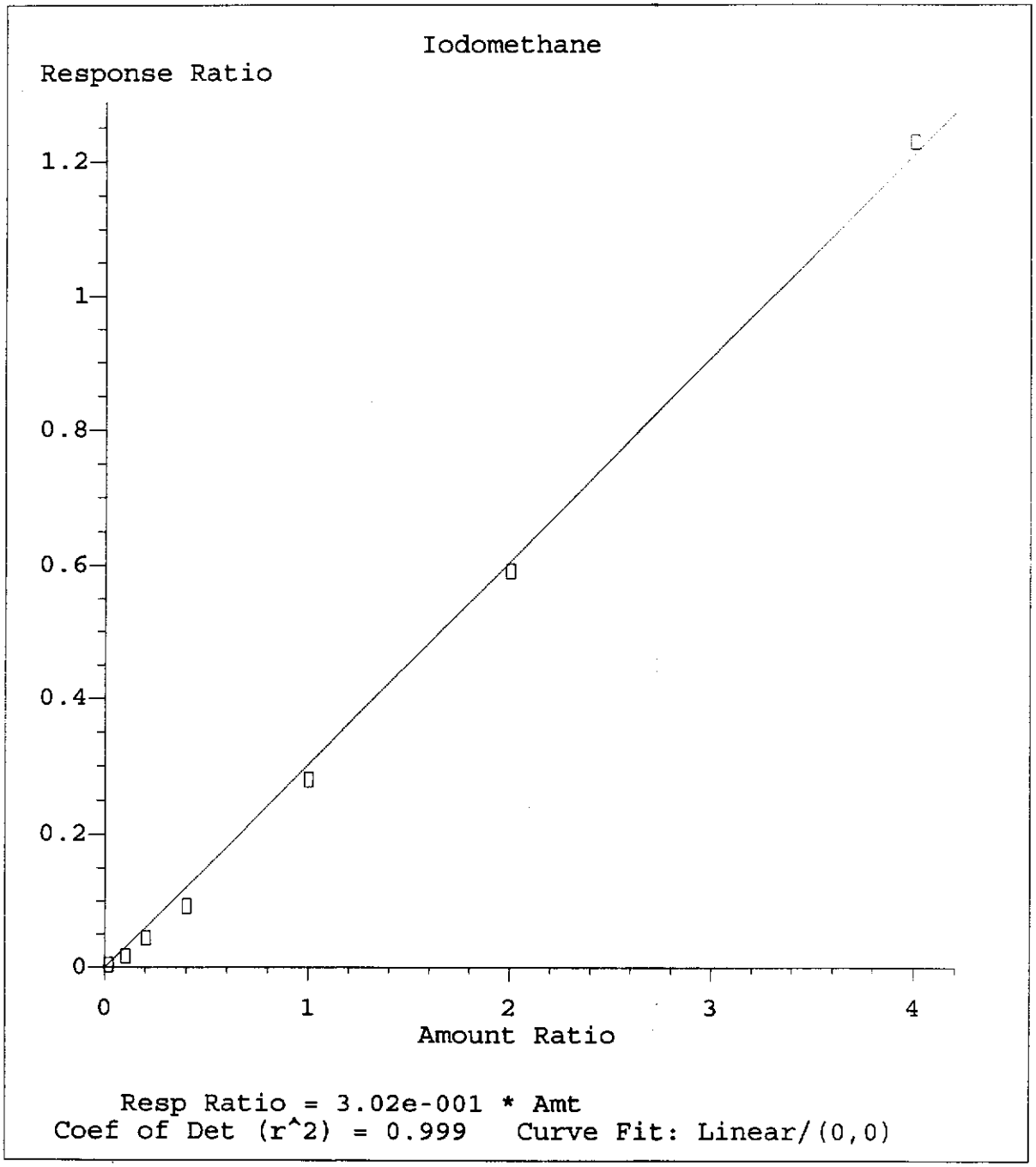

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Calibration Table Last Updated: Thu Jul 15 15:51:20 1999

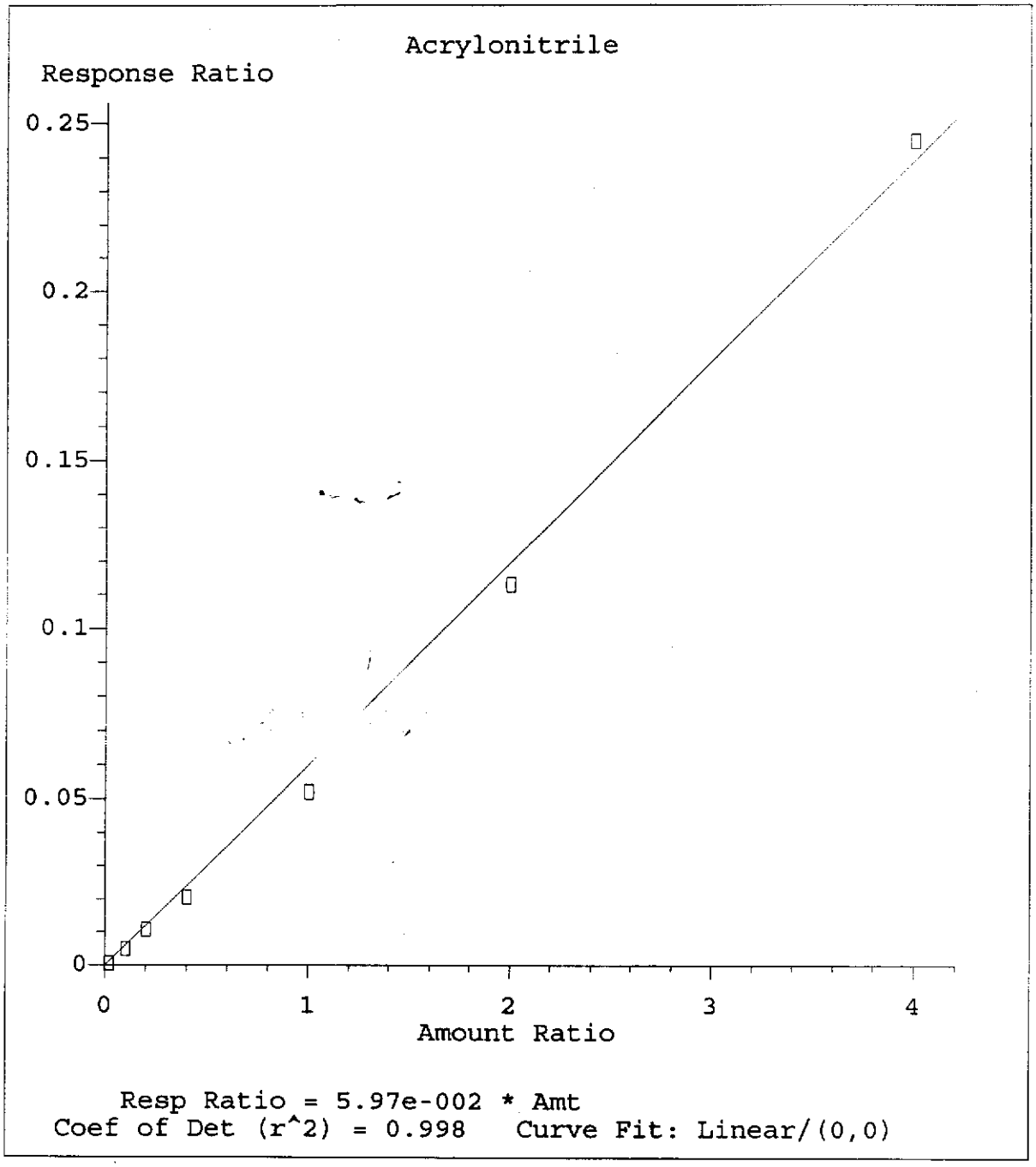

Method Name: C:\HPCHEM\1\METHODS\8260BSL.
Calibration Table Last Updated: Thu Jul 15 .46 1999

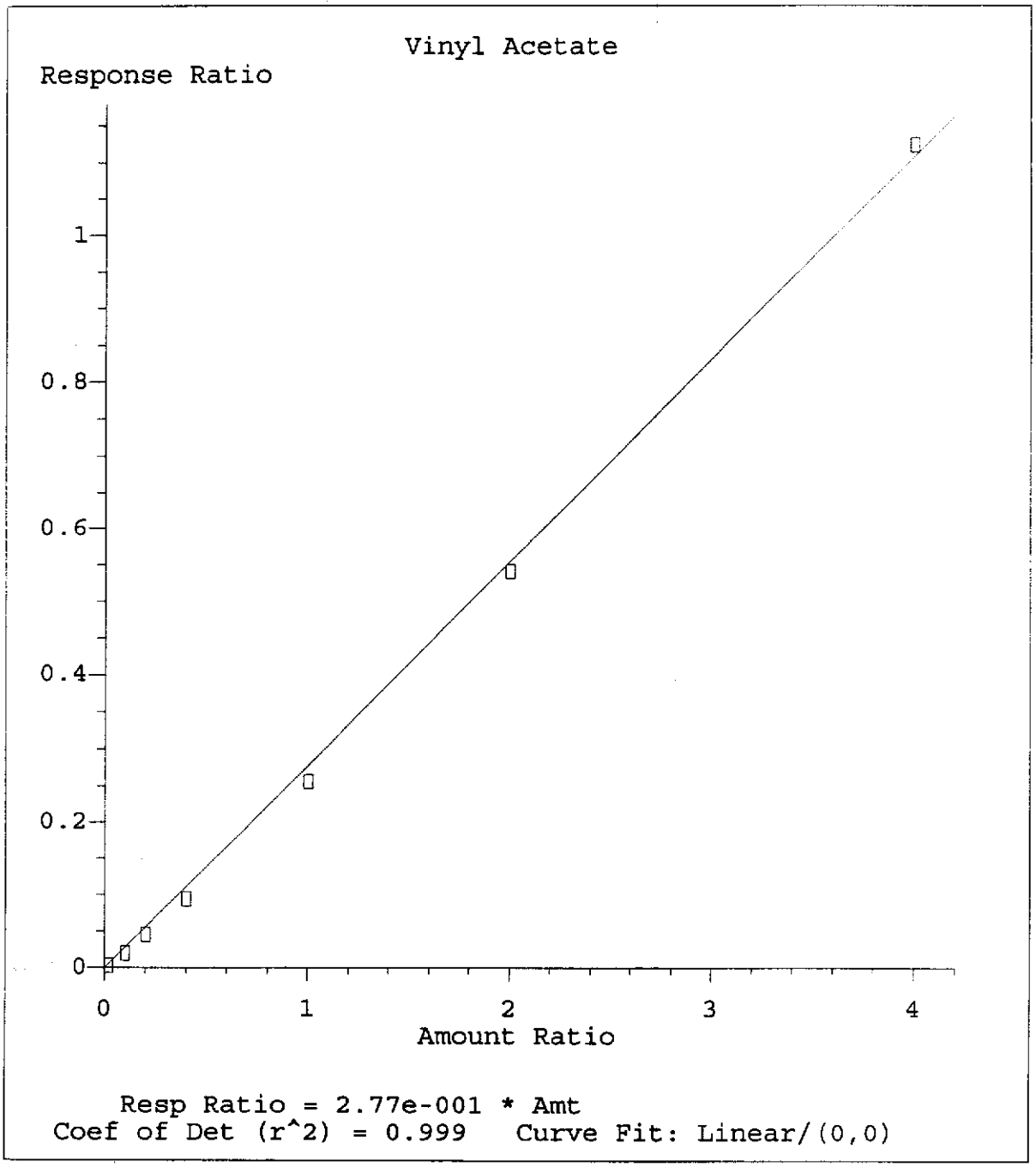

Method Name: C:\HPCHEM\1\METHODS\8260BSL.M
Calibration Table Last Updated: Thu Jul 15 15:51:54 1999

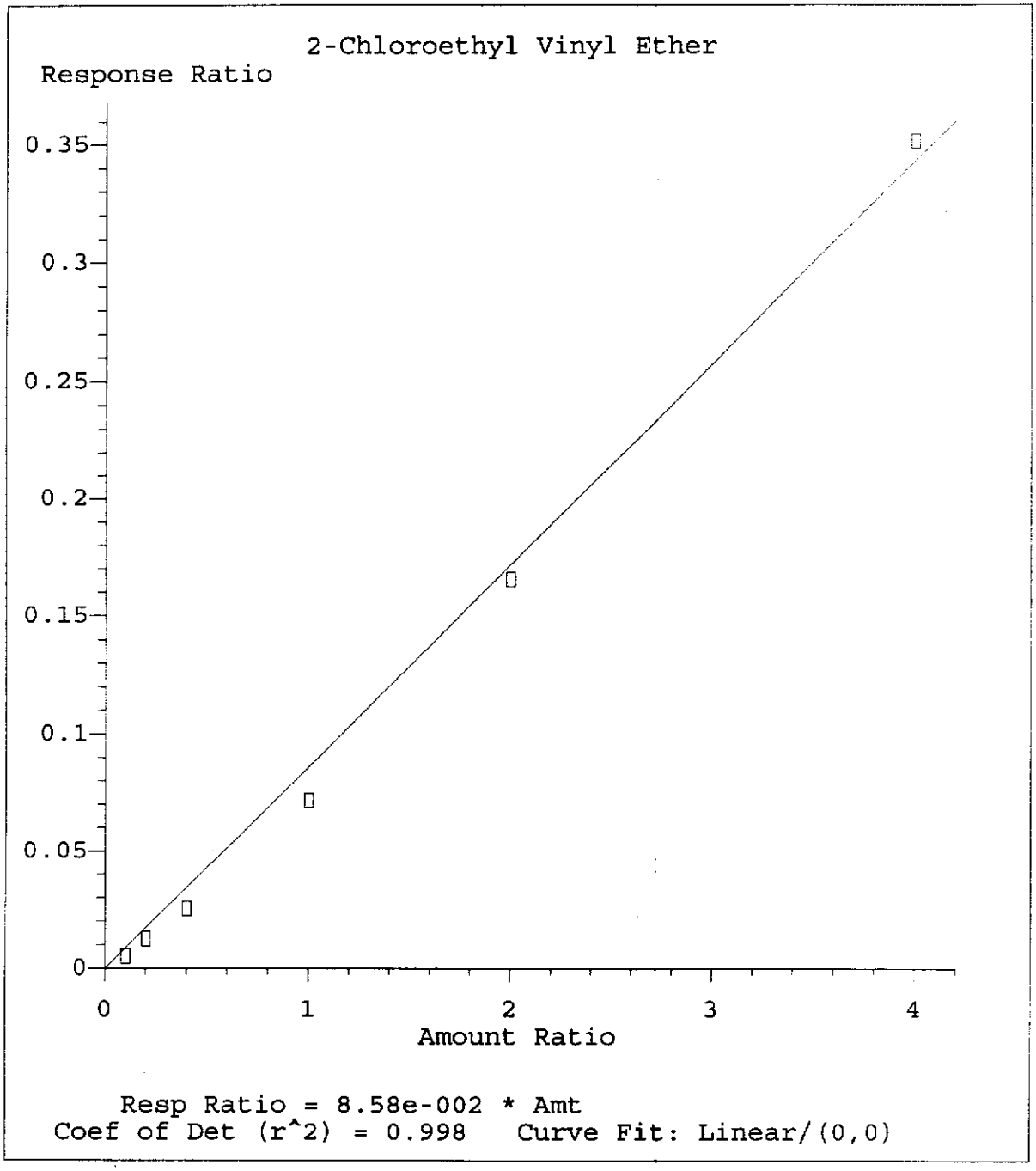

Method Name: C:\HPCHEM\1\METHODS\8260BSL.M
Calibration Table Last Updated: Thu Jul 15 15:52:42 1999

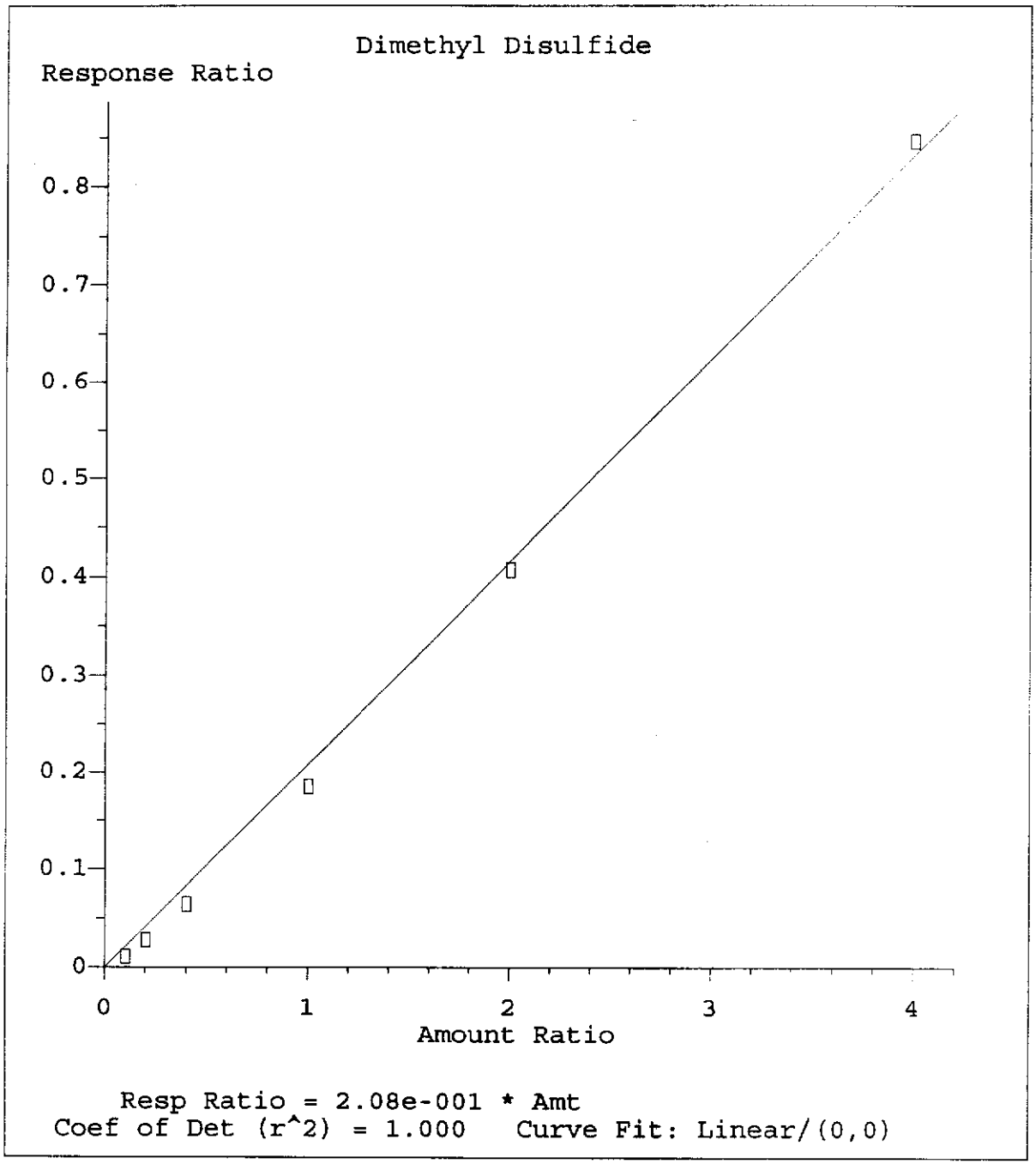

Method Name: C:\HPCHEM\1\METHODS\8260BSL.M
Calibration Table Last Updated: Thu Jul 15 15:53:06 1999

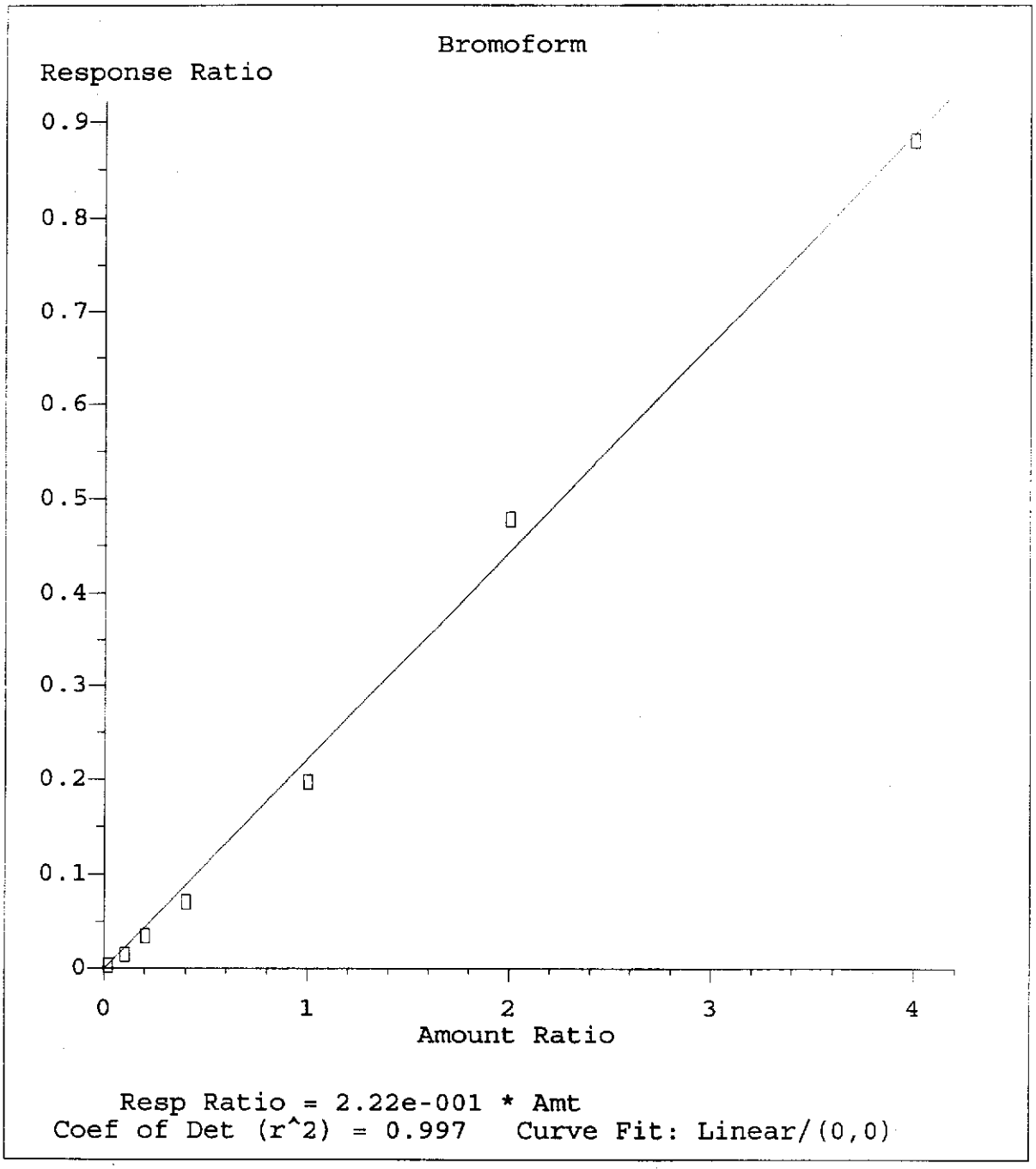

Method Name: C:\HPCHEM\1\METHODS\8260BSL.M
Calibration Table Last Updated: Thu Jul 15 15:53:45 1999

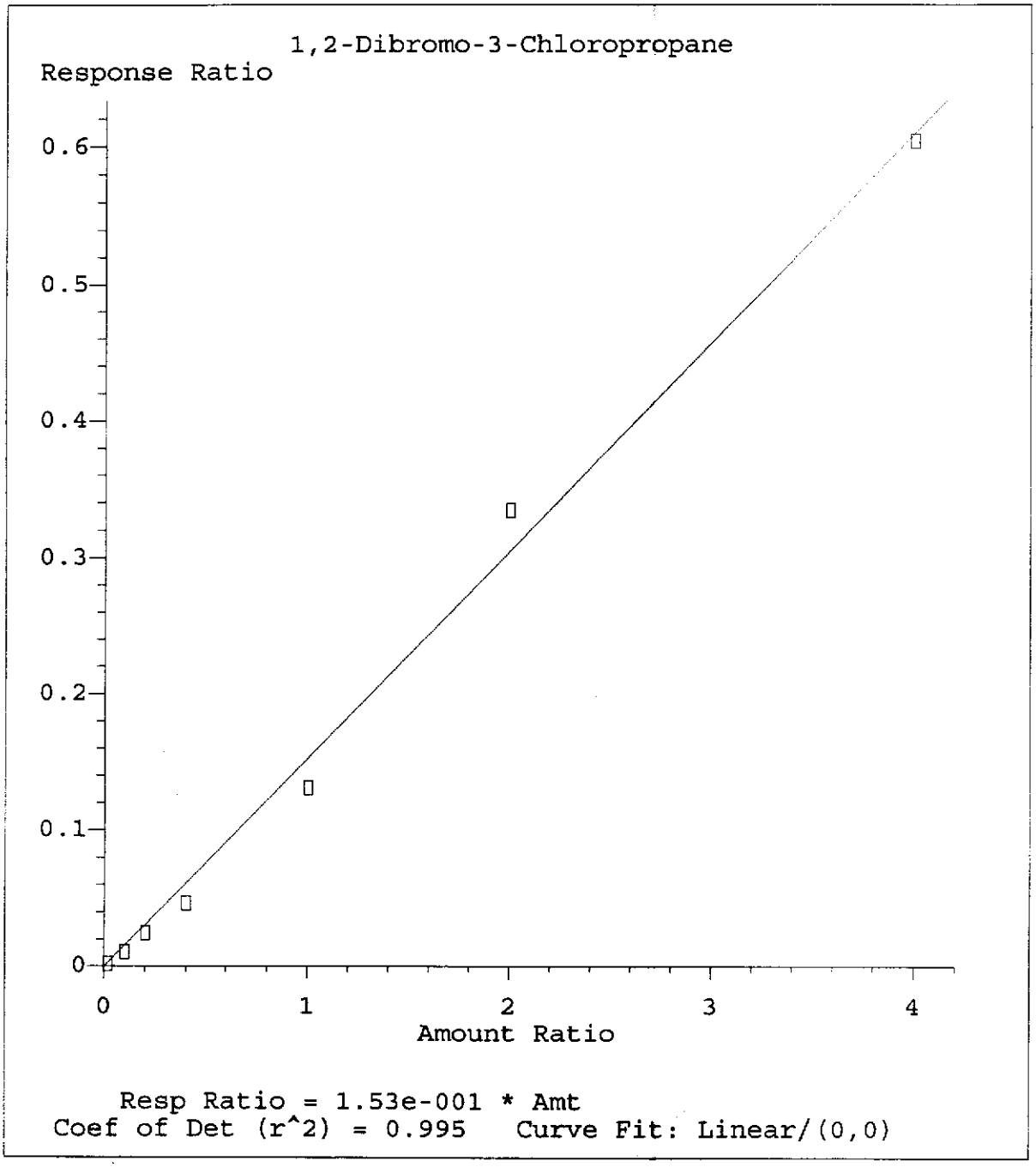

Method Name: C:\HPCHEM\1\METHODS\8260BSL.M
Calibration Table Last Updated: Thu Jul 15 15:54:18 1999

Quantitation Report

Data File : C:\HPCHEM\1\DATA\071599\6M14577.D
Acq On : 15 Jul 1999 14:03
Sample : WG61023-06 1 PPB STD M8260 5G/5ML
Misc : SOLID,1
MS Integration Params: rteint.p
Quant Time: Jul 15 16:19 1999

Vial: 8
Operator: CMS
Inst : HPMS_6
Multiplr: 1.00

Quant Results File: 8260BSL.RES

Method : C:\HPCHEM\1\METHODS\8260BSL.M (RTE Integrator)
Title : Method 8260B_SOIL - ICAL 07/15/99
Last Update : Thu Jul 15 15:54:37 1999
Response via : Initial Calibration

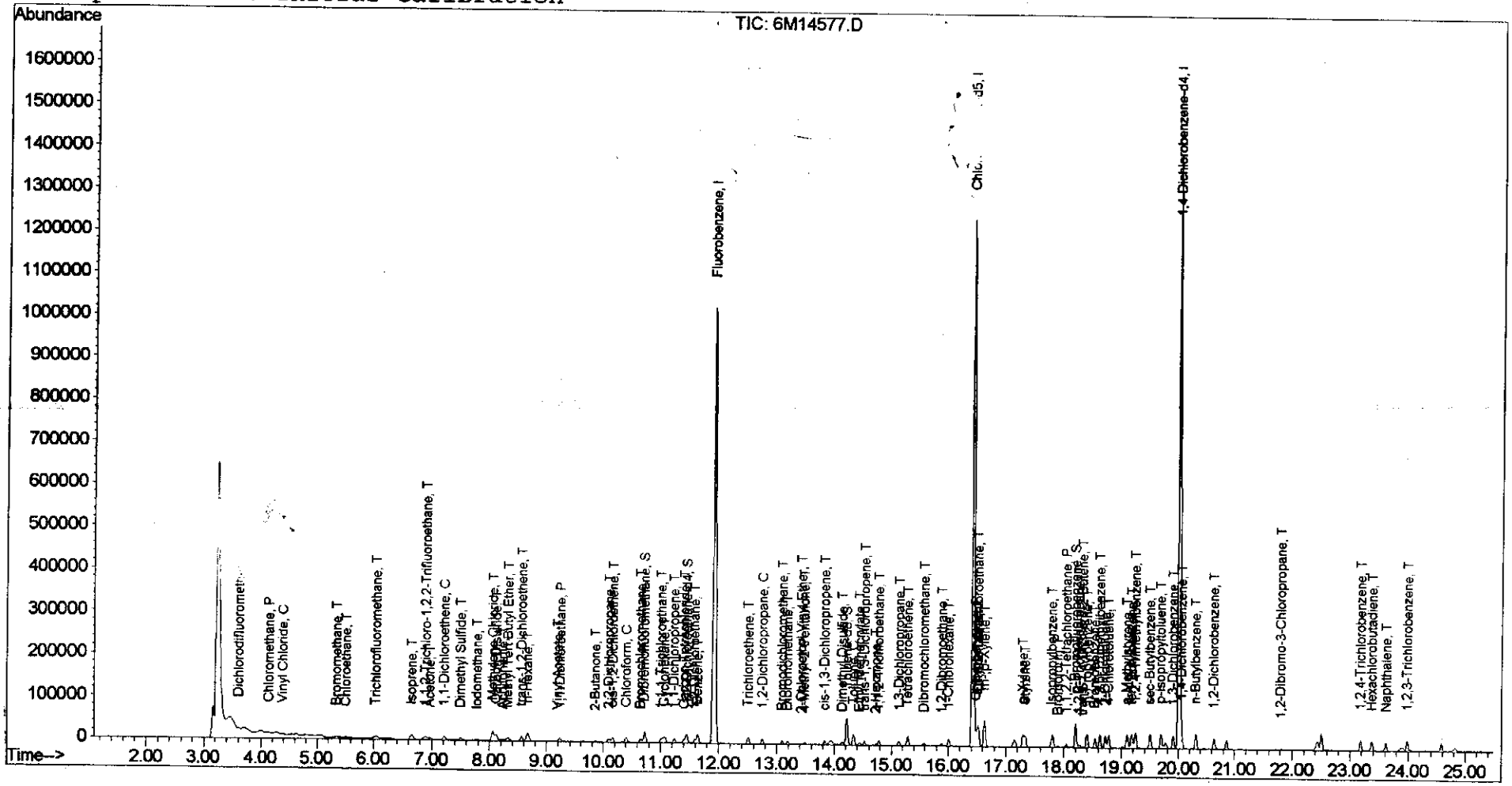

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\071599\6M14577.D
Acq On : 15 Jul 1999 14:03
Sample : WG61023-06 1 PPB STD M8260 5G/5ML
Misc : SOLID,1
MS Integration Params: rteint.p
Quant Time: Jul 15 16:19 1999

Vial: 8
Operator: CMS
Inst : HPMS_6
Multiplr: 1.00

Quant Results File: 8260BSL.R

Quant Method : C:\HPCHEM\1\METHODS\8260BSL.M (RTE Integrator)
Title : Method 8260B_SOIL - ICAL 07/15/99
Last Update : Thu Jul 15 15:54:37 1999
Response via : Initial Calibration
DataAcq Meth : 8260BSL

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene	11.92	96	1447468	50.00 ug/Kg	0.00
44) Chlorobenzene-d5	16.43	117	1071522	50.00 ug/Kg	0.00
64) 1,4-Dichlorobenzene-d4	20.01	152	571722	50.00 ug/Kg	0.00
System Monitoring Compounds					
28) Dibromofluoromethane	10.73	111	20419	2.43 ug/Kg	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 4.86%#		
33) 1,2-Dichloroethane-d4	11.45	65	21872	2.66 ug/Kg	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 5.32%#		
45) Toluene-d8	14.21	98	68538	2.34 ug/Kg	0.00
Spiked Amount 50.000	Range 81 - 117		Recovery = 4.68%#		
66) p-Bromofluorobenzene	18.21	95	29282	2.58 ug/Kg	0.00
Spiked Amount 50.000	Range 74 - 121		Recovery = 5.16%#		

Target Compounds					Qvalue
2) Dichlorodifluoromethane	3.61	85	8823	0.85 ug/Kg#	77
3) Chloromethane	4.14	50	8266	1.23 ug/Kg#	66
4) Vinyl Chloride	4.39	62	5583	1.18 ug/Kg	92
5) Bromomethane	5.35	94	4545	1.19 ug/Kg#	42
6) Chloroethane	5.51	64	2834	0.85 ug/Kg#	43
7) Trichlorofluoromethane	6.04	101	8981	1.01 ug/Kg#	93
8) Isoprene	6.65	67	8926	0.87 ug/Kg	100
10) 1,1,2-Trichloro-1,2,2-Trif	6.89	101	8306	0.99 ug/Kg	93
11) Acetone	6.96	43	12510	7.78 ug/Kg	98
12) 1,1-Dichloroethene	7.22	96	6373	0.90 ug/Kg	92
13) Dimethyl Sulfide	7.49	62	4450	0.68 ug/Kg	98
14) Iodomethane	7.78	142	5503	0.63 ug/Kg#	81
15) Methylene Chloride	8.05	84	20686	2.69 ug/Kg	82
16) Carbon Disulfide	8.11	76	31786	1.25 ug/Kg	99
17) Acrylonitrile	8.23	53	809	0.47 ug/Kg	90
18) Methyl Tert Butyl Ether	8.32	73	14185	0.89 ug/Kg#	66
19) trans-1,2-Dichloroethene	8.56	96	7003	0.95 ug/Kg	92
20) n-Hexane	8.66	57	15419	1.28 ug/Kg	98
21) Vinyl Acetate	9.19	43	4698	0.59 ug/Kg#	76
22) 1,1-Dichloroethane	9.24	63	12317	0.97 ug/Kg	97
23) 2-Butanone	9.85	43	3056	1.42 ug/Kg#	61
24) 2,2-Dichloropropane	10.10	77	9954	0.87 ug/Kg	97
25) cis-1,2-Dichloroethene	10.17	96	7151	0.91 ug/Kg	95
26) Chloroform	10.41	83	14197	1.06 ug/Kg#	96
27) Bromochloromethane	10.66	128	3605	0.98 ug/Kg	88
29) 1,1,1-Trichloroethane	11.01	97	12366	0.96 ug/Kg	91

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\071599\6M14577.D Vial: 8
Acq On : 15 Jul 1999 14:03 Operator: CMS
Sample : WG61023-06 1 PPB STD M8260 5G/5ML Inst : HPMS_6
Misc : SOLID,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 15 16:19 1999 Quant Results File: 8260BSL.R

Quant Method : C:\HPCHEM\1\METHODS\8260BSL.M (RTE Integrator)
Title : Method 8260B_SOIL - ICAL 07/15/99
Last Update : Thu Jul 15 15:54:37 1999
Response via : Initial Calibration
DataAcq Meth : 8260BSL

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
30)	Cyclohexane	11.07	56	9780	0.83 ug/Kg	91
31)	1,1-Dichloropropene	11.24	75	8371	0.85 ug/Kg	97
32)	Carbon Tetrachloride	11.40	117	9698	0.85 ug/Kg	98
34)	1,2-Dichloroethane	11.59	62	9452	1.02 ug/Kg#	92
35)	Benzene	11.64	78	27737	1.00 ug/Kg	95
36)	Trichloroethene	12.51	130	8886	0.98 ug/Kg	91
37)	1,2-Dichloropropane	12.75	63	6271	0.97 ug/Kg#	84
38)	Bromodichloromethane	13.10	83	8541	0.94 ug/Kg	99
39)	Dibromomethane	13.19	93	3991	1.04 ug/Kg	97
40)	2-Chloroethyl Vinyl Ether	13.43	63	955	0.38 ug/Kg#	49
41)	4-Methyl-2-Pentanone	13.47	58	1369	0.79 ug/Kg#	47
42)	cis-1,3-Dichloropropene	13.83	75	7998	0.82 ug/Kg	99
43)	Dimethyl Disulfide	14.14	79	2386	0.40 ug/Kg#	59
46)	Toluene	14.32	91	30324	1.00 ug/Kg	99
47)	Ethyl Methacrylate	14.44	69	5142	0.74 ug/Kg#	89
48)	trans-1,3-Dichloropropene	14.53	75	7865	0.85 ug/Kg	99
49)	1,1,2-Trichloroethane	14.77	97	5626	1.03 ug/Kg	90
50)	2-Hexanone	14.72	43	3786	1.15 ug/Kg#	85
51)	1,3-Dichloropropane	15.13	76	9125	0.99 ug/Kg	95
52)	Tetrachloroethene	15.30	164	7766	1.03 ug/Kg	95
53)	Dibromochloromethane	15.59	129	6140	0.89 ug/Kg	95
54)	1,2-Dibromoethane	15.89	107	5537	0.97 ug/Kg	97
55)	1-Chlorohexane	16.01	91	8099	0.79 ug/Kg	99
56)	Chlorobenzene	16.49	112	25267	1.14 ug/Kg	85
57)	1,1,1,2-Tetrachloroethane	16.52	131	6937	0.92 ug/Kg#	48
58)	Ethylbenzene	16.52	106	11766	1.01 ug/Kg	100
59)	m-,p-Xylene	16.64	106	29117	2.04 ug/Kg	95
60)	o-Xylene	17.30	106	12899	0.95 ug/Kg	99
61)	Styrene	17.34	104	21341	0.95 ug/Kg	95
62)	Bromoform	17.90	173	2843	0.60 ug/Kg#	81
63)	Isopropylbenzene	17.80	105	32467	0.90 ug/Kg	95
65)	1,1,2,2-Tetrachloroethane	18.04	83	6628	0.99 ug/Kg	100
67)	1,2,3-Trichloropropane	18.27	110	2205	0.97 ug/Kg#	69
68)	trans-1,4-Dichloro-2-Buten	18.32	53	1395	0.80 ug/Kg#	49
69)	n-Propylbenzene	18.40	91	40143	0.96 ug/Kg	95
70)	Bromobenzene	18.54	156	9381	1.02 ug/Kg	96
71)	1,3,5-Trimethylbenzene	18.63	105	28004	0.94 ug/Kg	96
72)	2-Chlorotoluene	18.72	91	26415	1.02 ug/Kg	95
73)	4-Chlorotoluene	18.78	91	25670	1.01 ug/Kg	96
74)	a-Methylstyrene	19.10	118	15071	0.93 ug/Kg	96
75)	tert-Butylbenzene	19.18	119	29184	0.97 ug/Kg	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\071599\6M14577.D
Acq On : 15 Jul 1999 14:03
Sample : WG61023-06 1 PPB STD M8260 5G/5ML
Misc : SOLID,1
MS Integration Params: rteint.p
Quant Time: Jul 15 16:19 1999

Vial: 8
Operator: CMS
Inst : HPMS_6
Multiplr: 1.00

Quant Results File: 8260BSL.R

Quant Method : C:\HPCHEM\1\METHODS\8260BSL.M (RTE Integrator)
Title : Method 8260B_SOIL - ICAL 07/15/99
Last Update : Thu Jul 15 15:54:37 1999
Response via : Initial Calibration
DataAcq Meth : 8260BSL

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
76) 1,2,4-Trimethylbenzene	19.23	105	33075	1.07 ug/Kg	94
77) sec-Butylbenzene	19.50	105	37784	0.96 ug/Kg	100
78) p-Isopropyltoluene	19.69	119	33670	0.93 ug/Kg	98
79) 1,3-Dichlorobenzene	19.90	146	20301	1.08 ug/Kg	99
80) 1,4-Dichlorobenzene	20.06	146	22444	1.17 ug/Kg	97
81) n-Butylbenzene	20.31	91	30691	1.01 ug/Kg	93
82) 1,2-Dichlorobenzene	20.64	146	18103	1.08 ug/Kg	98
83) 1,2-Dibromo-3-Chloropropan	21.82	157	911	0.52 ug/Kg	89
84) 1,2,4-Trichlorobenzene	23.18	180	12853	1.15 ug/Kg	98
85) Hexachlorobutadiene	23.37	225	6645	1.14 ug/Kg	99
86) Naphthalene	23.62	128	23262	1.07 ug/Kg	96
87) 1,2,3-Trichlorobenzene	23.98	180	11421	1.16 ug/Kg	98

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\071599\6M14576.D
Acq On : 15 Jul 1999 13:29
Sample : WG61023-05 5 PPB STD M8260 5G/5ML
Misc : SOLID,1
MS Integration Params: rteint.p
Quant Time: Jul 15 16:13 1999

Vial: 7
Operator: CMS
Inst : HPMS_6
Multiplr: 1.00

Quant Results File: 8260BSL.RES

Method : C:\HPCHEM\1\METHODS\8260BSL.M (RTE Integrator)
Title : Method 8260B_SOIL - ICAL 07/15/99
Last Update : Thu Jul 15 15:54:37 1999
Response via : Initial Calibration

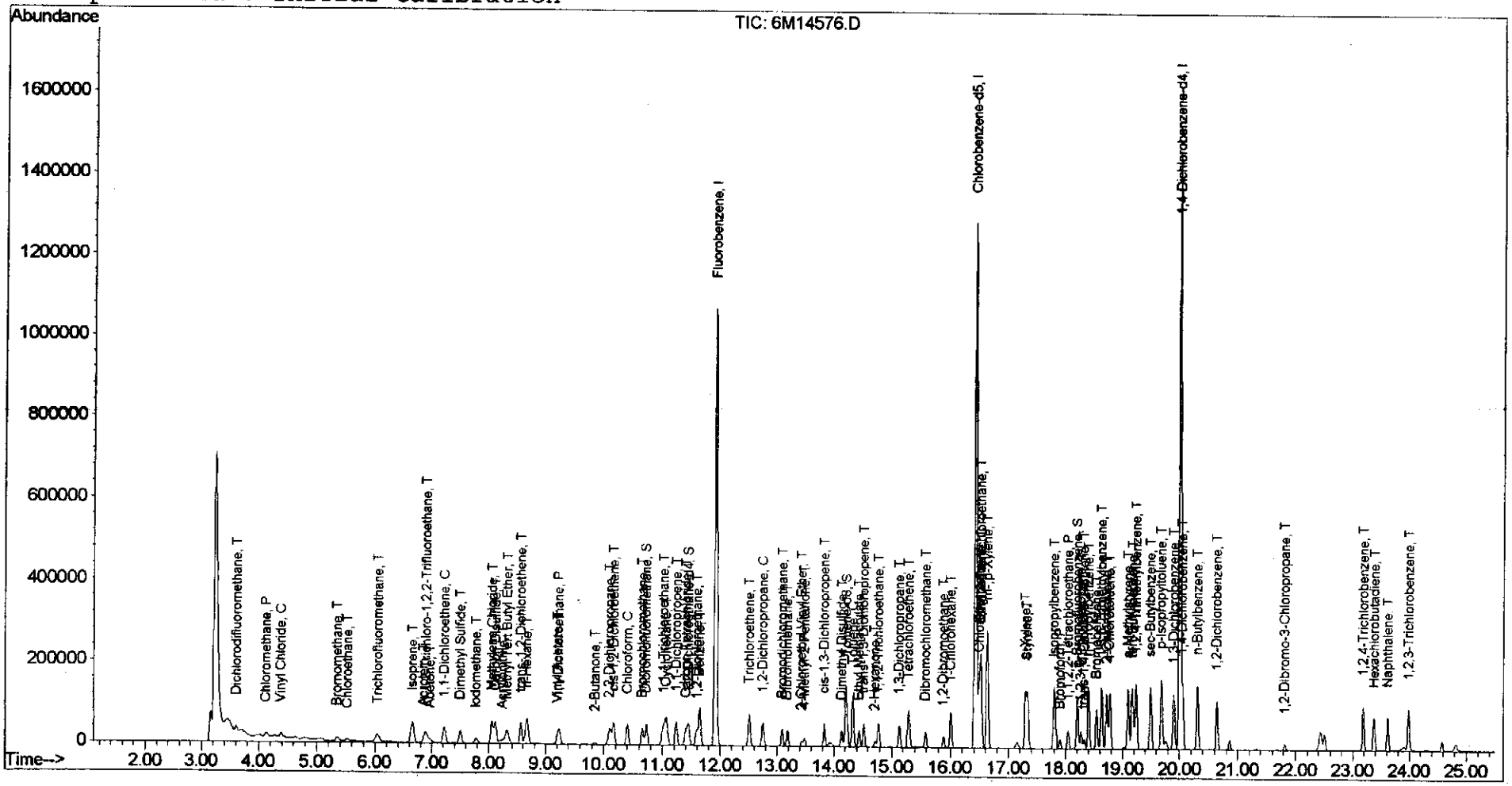

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\071599\6M14576.D
Acq On : 15 Jul 1999 13:29
Sample : WG61023-05 5 PPB STD M8260 5G/5ML
Misc : SOLID,1
MS Integration Params: rteint.p
Quant Time: Jul 15 16:13 1999

Vial: 7
Operator: CMS
Inst : HPMS_6
Multiplr: 1.00

Quant Results File: 8260BSL.R

Quant Method : C:\HPCHEM\1\METHODS\8260BSL.M (RTE Integrator)
Title : Method 8260B_SOIL - ICAL 07/15/99
Last Update : Thu Jul 15 15:54:37 1999
Response via : Initial Calibration
DataAcq Meth : 8260BSL

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene	11.92	96	1511847	50.00 ug/Kg	0.00
44) Chlorobenzene-d5	16.43	117	1121893	50.00 ug/Kg	0.00
64) 1,4-Dichlorobenzene-d4	20.01	152	595071	50.00 ug/Kg	0.00
System Monitoring Compounds					
28) Dibromofluoromethane	10.72	111	46457	5.29 ug/Kg	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 10.58%#		
33) 1,2-Dichloroethane-d4	11.45	65	48074	5.60 ug/Kg	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 11.20%#		
45) Toluene-d8	14.22	98	156852	5.12 ug/Kg	0.00
Spiked Amount 50.000	Range 81 - 117		Recovery = 10.24%#		
66) p-Bromofluorobenzene	18.21	95	63553	5.39 ug/Kg	0.00
Spiked Amount 50.000	Range 74 - 121		Recovery = 10.78%#		

Target Compounds					Qvalue
2) Dichlorodifluoromethane	3.61	85	40888	3.75 ug/Kg#	93
3) Chloromethane	4.13	50	27919	3.98 ug/Kg	96
4) Vinyl Chloride	4.38	62	21793	4.41 ug/Kg	95
5) Bromomethane	5.35	94	16404	4.10 ug/Kg	95
6) Chloroethane	5.52	64	13702	3.92 ug/Kg#	86
7) Trichlorofluoromethane	6.05	101	34669	3.72 ug/Kg#	96
8) Isoprene	6.65	67	44398	4.16 ug/Kg	97
9) Acrolein	6.84	56	1113	3.64 ug/Kg	98
10) 1,1,2-Trichloro-1,2,2-Trif	6.90	101	32472	3.69 ug/Kg	93
11) Acetone	6.97	43	19461	11.59 ug/Kg	97
12) 1,1-Dichloroethene	7.21	96	30827	4.18 ug/Kg	95
13) Dimethyl Sulfide	7.50	62	27821	4.09 ug/Kg	97
14) Iodomethane	7.78	142	26328	2.88 ug/Kg	94
15) Methylene Chloride	8.05	84	46789	5.82 ug/Kg	84
16) Carbon Disulfide	8.11	76	116357	4.39 ug/Kg	99
17) Acrylonitrile	8.24	53	7385	4.09 ug/Kg	94
18) Methyl Tert Butyl Ether	8.32	73	74867	4.51 ug/Kg	93
19) trans-1,2-Dichloroethene	8.56	96	33537	4.36 ug/Kg	91
20) n-Hexane	8.66	57	52290	4.16 ug/Kg	97
21) Vinyl Acetate	9.20	43	29387	3.51 ug/Kg	96
22) 1,1-Dichloroethane	9.23	63	59502	4.50 ug/Kg	99
23) 2-Butanone	9.86	43	11170	4.97 ug/Kg	99
24) 2,2-Dichloropropane	10.11	77	49903	4.19 ug/Kg	98
25) cis-1,2-Dichloroethene	10.17	96	36186	4.42 ug/Kg	85
26) Chloroform	10.41	83	64049	4.57 ug/Kg	97
27) Bromochloromethane	10.66	128	18075	4.70 ug/Kg	94

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\071599\6M14576.D
Acq On : 15 Jul 1999 13:29
Sample : WG61023-05 5 PPB STD M8260 5G/5ML
Misc : SOLID,1
MS Integration Params: rteint.p
Quant Time: Jul 15 16:13 1999

Vial: 7
Operator: CMS
Inst : HPMS_6
Multiplr: 1.00

Quant Results File: 8260BSL.R

Quant Method : C:\HPCHEM\1\METHODS\8260BSL.M (RTE Integrator)
Title : Method 8260B_SOIL - ICAL 07/15/99
Last Update : Thu Jul 15 15:54:37 1999
Response via : Initial Calibration
DataAcq Meth : 8260BSL

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
29) 1,1,1-Trichloroethane	11.01	97	56319	4.19 ug/Kg	96
30) Cyclohexane	11.07	56	49934	4.08 ug/Kg	91
31) 1,1-Dichloropropene	11.24	75	42466	4.15 ug/Kg	93
32) Carbon Tetrachloride	11.41	117	47534	3.99 ug/Kg	98
34) 1,2-Dichloroethane	11.59	62	46384	4.79 ug/Kg	99
35) Benzene	11.64	78	128069	4.43 ug/Kg	96
36) Trichloroethene	12.51	130	40479	4.27 ug/Kg	89
37) 1,2-Dichloropropane	12.75	63	30861	4.58 ug/Kg	88
38) Bromodichlorometh	13.09	83	41735	4.38 ug/Kg	98
39) Dibromomethane	13.19	93	19187	4.80 ug/Kg	90
40) 2-Chloroethyl Viny[illegible]ner	13.43	63	7605	2.93 ug/Kg	94
41) 4-Methyl-2-Pentanone	13.48	58	7414	4.11 ug/Kg	89
42) cis-1,3-Dichloropropene	13.83	75	43493	4.29 ug/Kg	95
43) Dimethyl Disulfide	14.13	79	16253	2.59 ug/Kg	94
46) Toluene	14.33	91	140150	4.40 ug/Kg	98
47) Ethyl Methacrylate	14.44	69	29351	4.02 ug/Kg	96
48) trans-1,3-Dichloropropene	14.52	75	42386	4.37 ug/Kg	98
49) 1,1,2-Trichloroethane	14.77	97	27256	4.77 ug/Kg	96
50) 2-Hexanone	14.72	43	14423	4.19 ug/Kg	98
51) 1,3-Dichloropropane	15.13	76	45510	4.74 ug/Kg	93
52) Tetrachloroethene	15.30	164	34234	4.35 ug/Kg	96
53) Dibromochloromethane	15.59	129	31101	4.29 ug/Kg	100
54) 1,2-Dibromoethane	15.89	107	27652	4.63 ug/Kg	100
55) 1-Chlorohexane	16.01	91	42897	3.99 ug/Kg	97
56) Chlorobenzene	16.49	112	107284	4.60 ug/Kg	90
57) 1,1,1,2-Tetrachloroethane	16.52	131	34350	4.36 ug/Kg#	46
58) Ethylbenzene	16.52	106	52910	4.35 ug/Kg	98
59) m-,p-Xylene	16.64	106	133138	8.91 ug/Kg	95
60) o-Xylene	17.30	106	61797	4.37 ug/Kg	96
61) Styrene	17.34	104	101702	4.34 ug/Kg	98
62) Bromoform	17.90	173	16396	3.30 ug/Kg	98
63) Isopropylbenzene	17.80	105	157[illegible]	4.16 ug/Kg	96
65) 1,1,2,2-Tetrachloroethane	18.04	83	32[illegible]	4.67 ug/Kg	100
67) 1,2,3-Trichloropropane	18.27	110	11[illegible]	4.80 ug/Kg#	86
68) trans-1,4-Dichloro-2-Buten	18.32	53	78[illegible]	4.34 ug/Kg	86
69) n-Propylbenzene	18.40	91	1844[illegible]	4.26 ug/Kg	95
70) Bromobenzene	18.54	156	44116	4.63 ug/Kg	99
71) 1,3,5-Trimethylbenzene	18.63	105	131005	4.24 ug/Kg	95
72) 2-Chlorotoluene	18.72	91	120098	4.47 ug/Kg	95
73) 4-Chlorotoluene	18.78	91	116410	4.41 ug/Kg	95
74) a-Methylstyrene	19.10	118	71278	4.24 ug/Kg	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\071599\6M14576.D Vial: 7
Acq On : 15 Jul 1999 13:29 Operator: CMS
Sample : WG61023-05 5 PPB STD M8260 5G/5ML Inst : HPMS_6
Misc : SOLID,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 15 16:13 1999 Quant Results File: 8260BSL.R

Quant Method : C:\HPCHEM\1\METHODS\8260BSL.M (RTE Integrator)
Title : Method 8260B_SOIL - ICAL 07/15/99
Last Update : Thu Jul 15 15:54:37 1999
Response via : Initial Calibration
DataAcq Meth : 8260BSL

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
75)	tert-Butylbenzene	19.18	119	134304	4.29 ug/Kg	99
76)	1,2,4-Trimethylbenzene	19.24	105	142597	4.42 ug/Kg	96
77)	sec-Butylbenzene	19.50	105	169967	4.15 ug/Kg	96
78)	p-Isopropyltoluene	19.69	119	158610	4.21 ug/Kg	98
79)	1,3-Dichlorobenzene	19.90	146	87366	4.48 ug/Kg	98
80)	1,4-Dichlorobenzene	20.06	146	90594	4.52 ug/Kg	99
81)	n-Butylbenzene	20.31	91	130238	4.12 ug/Kg	92
82)	1,2-Dichlorobenzene	20.64	146	78672	4.52 ug/Kg	100
83)	1,2-Dibromo-3-Chloropropan	21.82	157	6328	3.48 ug/Kg	96
84)	1,2,4-Trichlorobenzene	23.18	180	49664	4.29 ug/Kg	99
85)	Hexachlorobutadiene	23.37	225	24051	3.97 ug/Kg	97
86)	Naphthalene	23.62	128	96739	4.28 ug/Kg	98
87)	1,2,3-Trichlorobenzene	23.99	180	45025	4.38 ug/Kg	98

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\071599\6M14575.D
Acq On : 15 Jul 1999 12:54
Sample : WG61023-04 10 PPB STD M8260 5G/5ML
Misc : SOLID,1
MS Integration Params: rteint.p
Quant Time: Jul 15 16:09 1999

Vial: 6
Operator: CMS
Inst : HPMS_6
Multiplr: 1.00

Quant Results File: 8260BSL.RES

Method : C:\HPCHEM\1\METHODS\8260BSL.M (RTE Integrator)
Title : Method 8260B_SOIL - ICAL 07/15/99
Last Update : Thu Jul 15 15:54:37 1999
Response via : Initial Calibration

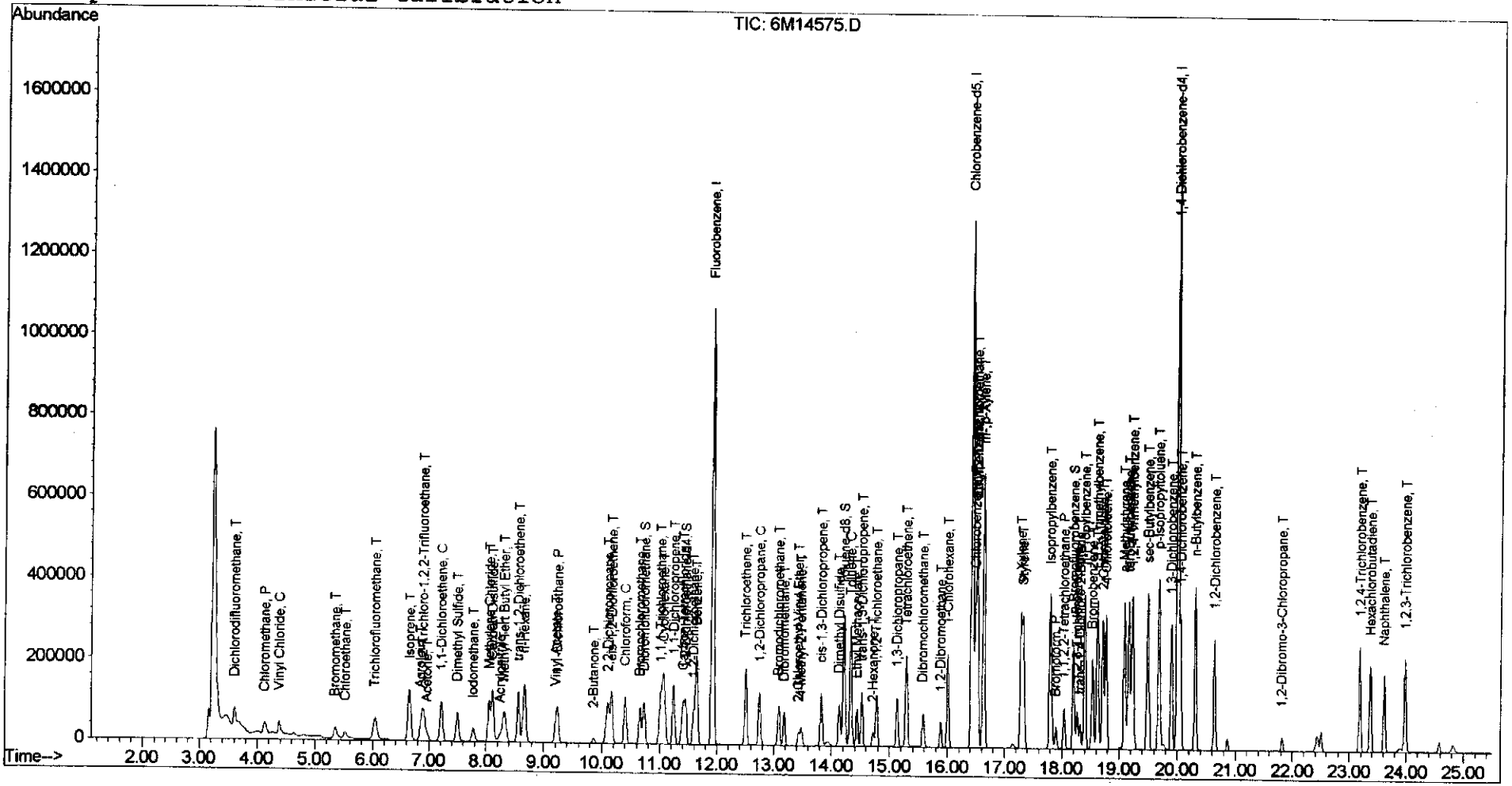

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\071599\6M14575.D
Acq On : 15 Jul 1999 12:54
Sample : WG61023-04 10 PPB STD M8260 5G/5ML
Misc : SOLID,1
MS Integration Params: rteint.p
Quant Time: Jul 15 16:09 1999

Vial: 6
Operator: CMS
Inst : HPMS_6
Multiplr: 1.00
Quant Results File: 8260BSL.R

Quant Method : C:\HPCHEM\1\METHODS\8260BSL.M (RTE Integrator)
Title : Method 8260B_SOIL - ICAL 07/15/99
Last Update : Thu Jul 15 15:54:37 1999
Response via : Initial Calibration
DataAcq Meth : 8260BSL

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene	11.92	96	1525057	50.00 ug/Kg	0.00
44) Chlorobenzene-d5	16.43	117	1138465	50.00 ug/Kg	0.00
64) 1,4-Dichlorobenzene-d4	20.01	152	606314	50.00 ug/Kg	0.00
System Monitoring Compounds					
28) Dibromofluoromethane	10.73	111	97296	10.98 ug/Kg	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 21.96%#		
33) 1,2-Dichloroethane-d4	11.45	65	97141	11.21 ug/Kg	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 22.42%#		
45) Toluene-d8	14.21	98	343243	11.04 ug/Kg	0.00
Spiked Amount 50.000	Range 81 - 117		Recovery = 22.08%#		
66) p-Bromofluorobenzene	18.20	95	131625	10.95 ug/Kg	0.00
Spiked Amount 50.000	Range 74 - 121		Recovery = 21.90%#		

Target Compounds					Qvalue
2) Dichlorodifluoromethane	3.61	85	122164	11.11 ug/Kg	96
3) Chloromethane	4.13	50	72227	10.20 ug/Kg	98
4) Vinyl Chloride	4.38	62	54533	10.94 ug/Kg	96
5) Bromomethane	5.35	94	40539	10.05 ug/Kg	98
6) Chloroethane	5.51	64	38140	10.81 ug/Kg#	87
7) Trichlorofluoromethane	6.04	101	103377	11.01 ug/Kg	99
8) Isoprene	6.65	67	111299	10.34 ug/Kg	99
9) Acrolein	6.85	56	4049	13.20 ug/Kg#	77
10) 1,1,2-Trichloro-1,2,2-Trif	6.89	101	96688	10.89 ug/Kg	95
11) Acetone	6.97	43	30327	17.90 ug/Kg	97
12) 1,1-Dichloroethene	7.22	96	77475	10.42 ug/Kg	92
13) Dimethyl Sulfide	7.50	62	65556	9.56 ug/Kg	98
14) Iodomethane	7.77	142	66967	7.26 ug/Kg	96
15) Methylene Chloride	8.06	84	86190	10.62 ug/Kg	84
16) Carbon Disulfide	8.11	76	268678	10.04 ug/Kg	100
17) Acrylonitrile	8.24	53	16446	9.03 ug/Kg	97
18) Methyl Tert Butyl Ether	8.31	73	170650	10.19 ug/Kg	93
19) trans-1,2-Dichloroethene	8.56	96	80025	10.31 ug/Kg	92
20) n-Hexane	8.66	57	126617	9.98 ug/Kg	95
21) Vinyl Acetate	9.20	43	68643	8.13 ug/Kg	96
22) 1,1-Dichloroethane	9.23	63	138122	10.37 ug/Kg	99
23) 2-Butanone	9.86	43	23515	10.37 ug/Kg	94
24) 2,2-Dichloropropane	10.11	77	122303	10.19 ug/Kg	100
25) cis-1,2-Dichloroethene	10.17	96	84658	10.25 ug/Kg	92
26) Chloroform	10.41	83	142536	10.09 ug/Kg	98
27) Bromochloromethane	10.66	128	39685	10.23 ug/Kg	92

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\071599\6M14575.D
Acq On : 15 Jul 1999 12:54
Sample : WG61023-04 10 PPB STD M8260 5G/5ML
Misc : SOLID,1
MS Integration Params: rteint.p
Quant Time: Jul 15 16:09 1999

Vial: 6
Operator: CMS
Inst : HPMS_6
Multiplr: 1.00

Quant Results File: 8260BSL.R

Quant Method : C:\HPCHEM\1\METHODS\8260BSL.M (RTE Integrator)
Title : Method 8260B_SOIL - ICAL 07/15/99
Last Update : Thu Jul 15 15:54:37 1999
Response via : Initial Calibration
DataAcq Meth : 8260BSL

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
29) 1,1,1-Trichloroethane	11.01	97	137264	10.13 ug/Kg	96
30) Cyclohexane	11.07	56	129753	10.51 ug/Kg	91
31) 1,1-Dichloropropene	11.24	75	107664	10.42 ug/Kg	93
32) Carbon Tetrachloride	11.41	117	119233	9.92 ug/Kg	99
34) 1,2-Dichloroethane	11.59	62	100539	10.29 ug/Kg	98
35) Benzene	11.64	78	300922	10.31 ug/Kg	97
36) Trichloroethene	12.51	130	98228	10.28 ug/Kg	89
37) 1,2-Dichloropropane	12.75	63	68244	10.04 ug/Kg	87
38) Bromodichloromethane	13.09	83	95072	9.89 ug/Kg	100
39) Dibromomethane	13.18	93	40432	10.03 ug/Kg	88
40) 2-Chloroethyl Vinyl Ether	13.43	63	18750	7.17 ug/Kg	90
41) 4-Methyl-2-Pentanone	13.48	58	17567	9.66 ug/Kg#	82
42) cis-1,3-Dichloropropene	13.83	75	100403	9.81 ug/Kg	95
43) Dimethyl Disulfide	14.14	79	42416	6.69 ug/Kg	96
46) Toluene	14.33	91	331062	10.24 ug/Kg	98
47) Ethyl Methacrylate	14.44	69	70975	9.58 ug/Kg	96
48) trans-1,3-Dichloropropene	14.52	75	98056	9.96 ug/Kg	97
49) 1,1,2-Trichloroethane	14.77	97	58715	10.12 ug/Kg	98
50) 2-Hexanone	14.72	43	34066	9.75 ug/Kg	98
51) 1,3-Dichloropropane	15.13	76	98175	10.07 ug/Kg	92
52) Tetrachloroethene	15.29	164	82885	10.39 ug/Kg	96
53) Dibromochloromethane	15.58	129	70154	9.54 ug/Kg	99
54) 1,2-Dibromoethane	15.89	107	60702	10.03 ug/Kg	99
55) 1-Chlorohexane	16.01	91	114318	10.48 ug/Kg	94
56) Chlorobenzene	16.49	112	238453	10.08 ug/Kg	94
57) 1,1,1,2-Tetrachloroethane	16.52	131	80115	10.02 ug/Kg	94
58) Ethylbenzene	16.52	106	126464	10.25 ug/Kg	96
59) m-,p-Xylene	16.63	106	316880	20.89 ug/Kg	95
60) o-Xylene	17.30	106	145629	10.14 ug/Kg	96
61) Styrene	17.34	104	237829	10.00 ug/Kg	97
62) Bromoform	17.90	173	39339	7.80 ug/Kg	99
63) Isopropylbenzene	17.80	105	399568	10.39 ug/Kg	96
65) 1,1,2,2-Tetrachloroethane	18.04	83	70684	9.97 ug/Kg	99
67) 1,2,3-Trichloropropane	18.27	110	24530	10.15 ug/Kg#	88
68) trans-1,4-Dichloro-2-Buten	18.32	53	18555	10.03 ug/Kg	94
69) n-Propylbenzene	18.40	91	462288	10.48 ug/Kg	95
70) Bromobenzene	18.54	156	97330	10.02 ug/Kg	98
71) 1,3,5-Trimethylbenzene	18.63	105	324724	10.30 ug/Kg	94
72) 2-Chlorotoluene	18.72	91	284405	10.40 ug/Kg	94
73) 4-Chlorotoluene	18.78	91	269604	10.03 ug/Kg	95
74) a-Methylstyrene	19.10	118	172001	10.04 ug/Kg	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\071599\6M14575.D
Acq On : 15 Jul 1999 12:54
Sample : WG61023-04 10 PPB STD M8260 5G/5ML
Misc : SOLID,1
MS Integration Params: rteint.p
Quant Time: Jul 15 16:09 1999

Vial: 6
Operator: CMS
Inst : HPMS_6
Multiplr: 1.00

Quant Results File: 8260BSL.R

Quant Method : C:\HPCHEM\1\METHODS\8260BSL.M (RTE Integrator)
Title : Method 8260B_SOIL - ICAL 07/15/99
Last Update : Thu Jul 15 15:54:37 1999
Response via : Initial Calibration
DataAcq Meth : 8260BSL

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
75) tert-Butylbenzene	19.18	119	332424	10.42 ug/Kg	100
76) 1,2,4-Trimethylbenzene	19.24	105	336134	10.23 ug/Kg	96
77) sec-Butylbenzene	19.50	105	434687	10.41 ug/Kg	95
78) p-Isopropyltoluene	19.68	119	399530	10.40 ug/Kg	99
79) 1,3-Dichlorobenzene	19.90	146	198817	10.01 ug/Kg	99
80) 1,4-Dichlorobenzene	20.06	146	204281	10.00 ug/Kg	96
81) n-Butylbenzene	20.31	91	334960	10.39 ug/Kg	91
82) 1,2-Dichlorobenzene	20.64	146	176192	9.93 ug/Kg	98
83) 1,2-Dibromo-3-Chloropropan	21.82	157	14839	8.02 ug/Kg	92
84) 1,2,4-Trichlorobenzene	23.18	180	115246	9.76 ug/Kg	98
85) Hexachlorobutadiene	23.37	225	64127	10.38 ug/Kg	98
86) Naphthalene	23.62	128	222065	9.65 ug/Kg	100
87) 1,2,3-Trichlorobenzene	23.99	180	103766	9.91 ug/Kg	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\071599\6M14574.D
Acq On : 15 Jul 1999 12:20
Sample : WG61023-03 20 PPB STD M8260 5G/5ML
Misc : SOLID,1
MS Integration Params: rteint.p
Quant Time: Jul 15 16:03 1999

Vial: 5
Operator: CMS
Inst : HPMS_6
Multiplr: 1.00

Quant Results File: 8260BSL.RES

Method : C:\HPCHEM\1\METHODS\8260BSL.M (RTE Integrator)
Title : Method 8260B_SOIL - ICAL 07/15/99
Last Update : Thu Jul 15 15:54:37 1999
Response via : Initial Calibration

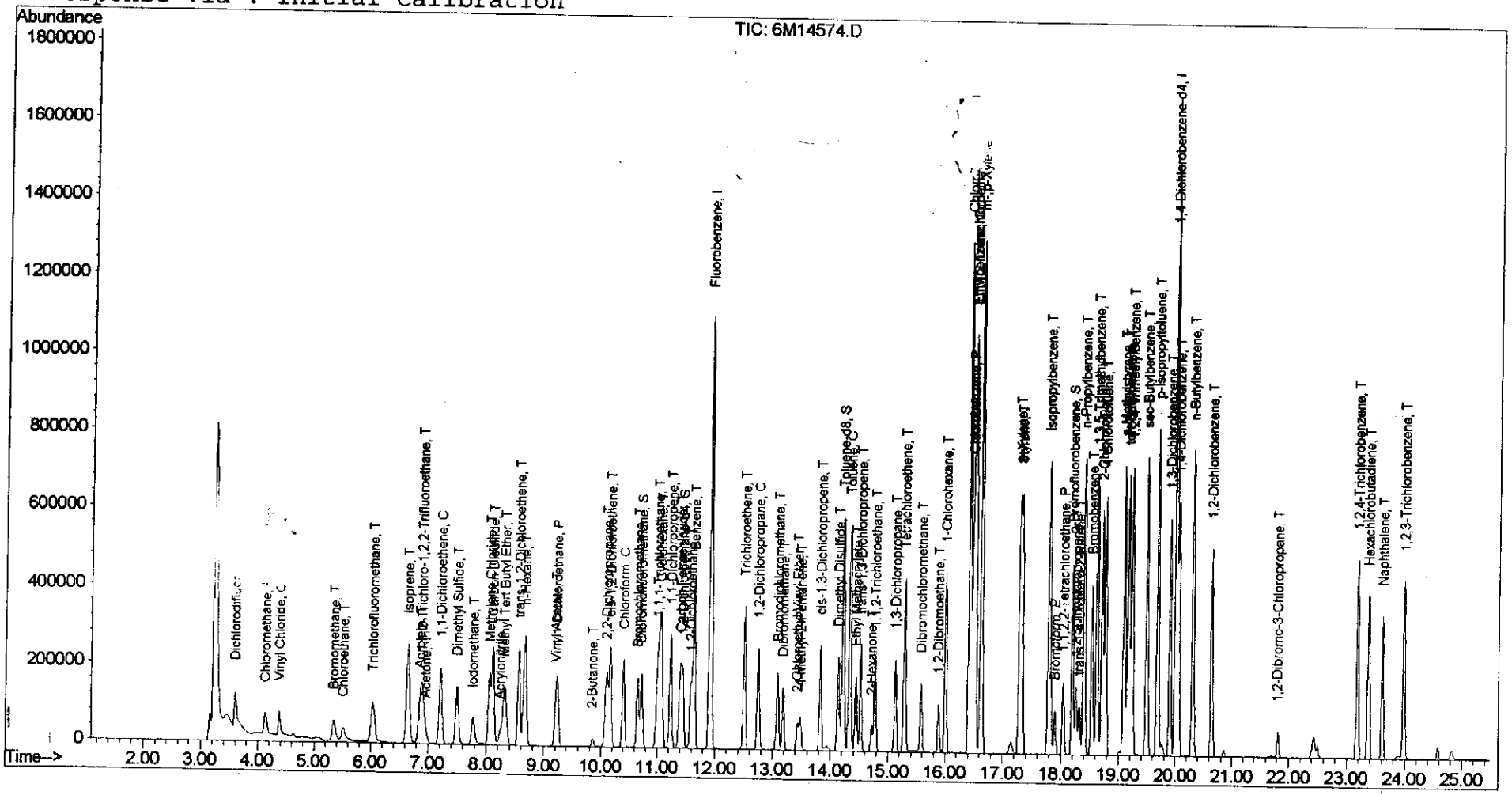

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\071599\6M14574.D
Acq On : 15 Jul 1999 12:20
Sample : WG61023-03 20 PPB STD M8260 5G/5ML
Misc : SOLID,1
MS Integration Params: rteint.p
Quant Time: Jul 15 16:03 1999

Vial: 5
Operator: CMS
Inst : HPMS_6
Multiplr: 1.00

Quant Results File: 8260BSL.R

Quant Method : C:\HPCHEM\1\METHODS\8260BSL.M (RTE Integrator)
Title : Method 8260B_SOIL - ICAL 07/15/99
Last Update : Thu Jul 15 15:54:37 1999
Response via : Initial Calibration
DataAcq Meth : 8260BSL

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene	11.92	96	1568546	50.00 ug/Kg	0.00
44) Chlorobenzene-d5	16.42	117	1161432	50.00 ug/Kg	0.00
64) 1,4-Dichlorobenzene-d4	20.00	152	623336	50.00 ug/Kg	0.00
System Monitoring Compounds					
28) Dibromofluoromethane	10.72	111	180171	19.76 ug/Kg	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 39.52%#		
33) 1,2-Dichloroethane-d4	11.45	65	175215	19.66 ug/Kg	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 39.32%#		
45) Toluene-d8	14.21	98	641755	20.23 ug/Kg	0.00
Spiked Amount 50.000	Range 81 - 117		Recovery = 40.46%#		
66) p-Bromofluorobenzene	18.20	95	245424	19.85 ug/Kg	0.00
Spiked Amount 50.000	Range 74 - 121		Recovery = 39.70%#		

Target Compounds					Qvalue
2) Dichlorodifluoromethane	3.60	85	235496	20.82 ug/Kg	97
3) Chloromethane	4.13	50	139073	19.10 ug/Kg	97
4) Vinyl Chloride	4.38	62	102934	20.08 ug/Kg	100
5) Bromomethane	5.35	94	78173	18.85 ug/Kg	96
6) Chloroethane	5.51	64	74731	20.60 ug/Kg	90
7) Trichlorofluoromethane	6.04	101	195650	20.26 ug/Kg	100
8) Isoprene	6.65	67	224504	20.29 ug/Kg	99
9) Acrolein	6.85	56	9554	30.56 ug/Kg#	67
10) 1,1,2-Trichloro-1,2,2-Trif	6.89	101	185684	20.33 ug/Kg	94
11) Acetone	6.96	43	42903	24.62 ug/Kg	99
12) 1,1-Dichloroethene	7.22	96	153870	20.12 ug/Kg	94
13) Dimethyl Sulfide	7.49	62	139622	19.80 ug/Kg	97
14) Iodomethane	7.77	142	145223	15.31 ug/Kg	97
15) Methylene Chloride	8.06	84	163389	19.58 ug/Kg	84
16) Carbon Disulfide	8.11	76	527713	19.17 ug/Kg	100
17) Acrylonitrile	8.24	53	32025	17.10 ug/Kg	96
18) Methyl Tert Butyl Ether	8.31	73	344308	19.98 ug/Kg	94
19) trans-1,2-Dichloroethene	8.56	96	158879	19.90 ug/Kg	91
20) n-Hexane	8.66	57	249433	19.11 ug/Kg	95
21) Vinyl Acetate	9.20	43	147403	16.96 ug/Kg	96
22) 1,1-Dichloroethane	9.23	63	274262	20.01 ug/Kg	100
23) 2-Butanone	9.85	43	41402	17.75 ug/Kg	93
24) 2,2-Dichloropropane	10.11	77	247263	20.03 ug/Kg	100
25) cis-1,2-Dichloroethene	10.17	96	170890	20.11 ug/Kg	92
26) Chloroform	10.41	83	283662	19.52 ug/Kg	98
27) Bromochloromethane	10.66	128	78503	19.68 ug/Kg	91

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\071599\6M14574.D
Acq On : 15 Jul 1999 12:20
Sample : WG61023-03 20 PPB STD M8260 5G/5ML
Misc : SOLID,1
MS Integration Params: rteint.p
Quant Time: Jul 15 16:03 1999

Vial: 5
Operator: CMS
Inst : HPMS_6
Multiplr: 1.00

Quant Results File: 8260BSL.R

Quant Method : C:\HPCHEM\1\METHODS\8260BSL.M (RTE Integrator)
Title : Method 8260B_SOIL - ICAL 07/15/99
Last Update : Thu Jul 15 15:54:37 1999
Response via : Initial Calibration
DataAcq Meth : 8260BSL

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
29) 1,1,1-Trichloroethane	11.01	97	278071	19.95 ug/Kg	95
30) Cyclohexane	11.07	56	264687	20.84 ug/Kg	91
31) 1,1-Dichloropropene	11.24	75	216540	20.38 ug/Kg	93
32) Carbon Tetrachloride	11.41	117	247229	20.00 ug/Kg	99
34) 1,2-Dichloroethane	11.58	62	196623	19.57 ug/Kg	99
35) Benzene	11.64	78	596357	19.87 ug/Kg	97
36) Trichloroethene	12.51	130	193611	19.69 ug/Kg	90
37) 1,2-Dichloropropane	12.75	63	137878	19.72 ug/Kg	89
38) Bromodichloromethane	13.09	83	193759	19.60 ug/Kg	100
39) Dibromomethane	13.18	93	80451	19.41 ug/Kg	91
40) 2-Chloroethyl Vinyl Ether	13.43	63	39652	14.74 ug/Kg#	87
41) 4-Methyl-2-Pentanone	13.48	58	34060	18.20 ug/Kg#	82
42) cis-1,3-Dichloropropene	13.82	75	210880	20.04 ug/Kg	95
43) Dimethyl Disulfide	14.14	79	99999	15.33 ug/Kg	98
46) Toluene	14.33	91	663277	20.10 ug/Kg	98
47) Ethyl Methacrylate	14.44	69	147517	19.51 ug/Kg	96
48) trans-1,3-Dichloropropene	14.52	75	203517	20.27 ug/Kg	97
49) 1,1,2-Trichloroethane	14.77	97	115446	19.51 ug/Kg	95
50) 2-Hexanone	14.72	43	64062	17.97 ug/Kg	98
51) 1,3-Dichloropropane	15.13	76	195765	19.69 ug/Kg	91
52) Tetrachloroethene	15.29	164	161644	19.86 ug/Kg	95
53) Dibromochloromethane	15.58	129	145250	19.36 ug/Kg	100
54) 1,2-Dibromoethane	15.89	107	120852	19.57 ug/Kg	99
55) 1-Chlorohexane	16.01	91	236226	21.23 ug/Kg	93
56) Chlorobenzene	16.48	112	469914	19.47 ug/Kg	92
57) 1,1,1,2-Tetrachloroethane	16.52	131	167044	20.48 ug/Kg	93
58) Ethylbenzene	16.52	106	252459	20.06 ug/Kg	97
59) m-,p-Xylene	16.63	106	621582	40.17 ug/Kg	97
60) o-Xylene	17.29	106	293793	20.05 ug/Kg	96
61) Styrene	17.34	104	486351	20.04 ug/Kg	97
62) Bromoform	17.90	173	82152	15.96 ug/Kg	99
63) Isopropylbenzene	17.80	105	803524	20.47 ug/Kg	97
65) 1,1,2,2-Tetrachloroethane	18.04	83	135788	18.63 ug/Kg	100
67) 1,2,3-Trichloropropane	18.27	110	46977	18.91 ug/Kg	89
68) trans-1,4-Dichloro-2-Buten	18.32	53	37023	19.47 ug/Kg	99
69) n-Propylbenzene	18.40	91	925328	20.39 ug/Kg	94
70) Bromobenzene	18.54	156	195246	19.55 ug/Kg	100
71) 1,3,5-Trimethylbenzene	18.63	105	654957	20.21 ug/Kg	94
72) 2-Chlorotoluene	18.72	91	545043	19.38 ug/Kg	94
73) 4-Chlorotoluene	18.78	91	559165	20.24 ug/Kg	95
74) a-Methylstyrene	19.10	118	361009	20.50 ug/Kg	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\071599\6M14574.D
Acq On : 15 Jul 1999 12:20
Sample : WG61023-03 20 PPB STD M8260 5G/5ML
Misc : SOLID,1
MS Integration Params: rteint.p
Quant Time: Jul 15 16:03 1999

Vial: 5
Operator: CMS
Inst : HPMS_6
Multiplr: 1.00
Quant Results File: 8260BSL.R

Quant Method : C:\HPCHEM\1\METHODS\8260BSL.M (RTE Integrator)
Title : Method 8260B_SOIL - ICAL 07/15/99
Last Update : Thu Jul 15 15:54:37 1999
Response via : Initial Calibration
DataAcq Meth : 8260BSL

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
75)	tert-Butylbenzene	19.17	119	658134	20.07 ug/Kg	100
76)	1,2,4-Trimethylbenzene	19.23	105	666048	19.72 ug/Kg	96
77)	sec-Butylbenzene	19.49	105	871816	20.32 ug/Kg	96
78)	p-Isopropyltoluene	19.68	119	807149	20.43 ug/Kg	99
79)	1,3-Dichlorobenzene	19.90	146	396739	19.44 ug/Kg	99
80)	1,4-Dichlorobenzene	20.06	146	404321	19.25 ug/Kg	99
81)	n-Butylbenzene	20.31	91	665300	20.07 ug/Kg	91
82)	1,2-Dichlorobenzene	20.64	146	351722	19.28 ug/Kg	99
83)	1,2-Dibromo-3-Chloropropan	21.81	157	28892	15.19 ug/Kg	90
84)	1,2,4-Trichlorobenzene	23.18	180	234826	19.35 ug/Kg	100
85)	Hexachlorobutadiene	23.37	225	123925	19.51 ug/Kg	99
86)	Naphthalene	23.62	128	438503	18.53 ug/Kg	99
87)	1,2,3-Trichlorobenzene	23.99	180	205581	19.10 ug/Kg	98

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\071599\6M14573.D
Acq On : 15 Jul 1999 11:46
Sample : WG61023-02 50 PPB STD M8260 5G/5ML
Misc : SOLID,1
MS Integration Params: rteint.p
Quant Time: Jul 15 16:00 1999

Vial: 4
Operator: CMS
Inst : HPMS_6
Multiplr: 1.00

Quant Results File: 8260BSL.RES

Method : C:\HPCHEM\1\METHODS\8260BSL.M (RTE Integrator)
Title : Method 8260B_SOIL - ICAL 07/15/99
Last Update : Thu Jul 15 15:54:37 1999
Response via : Initial Calibration

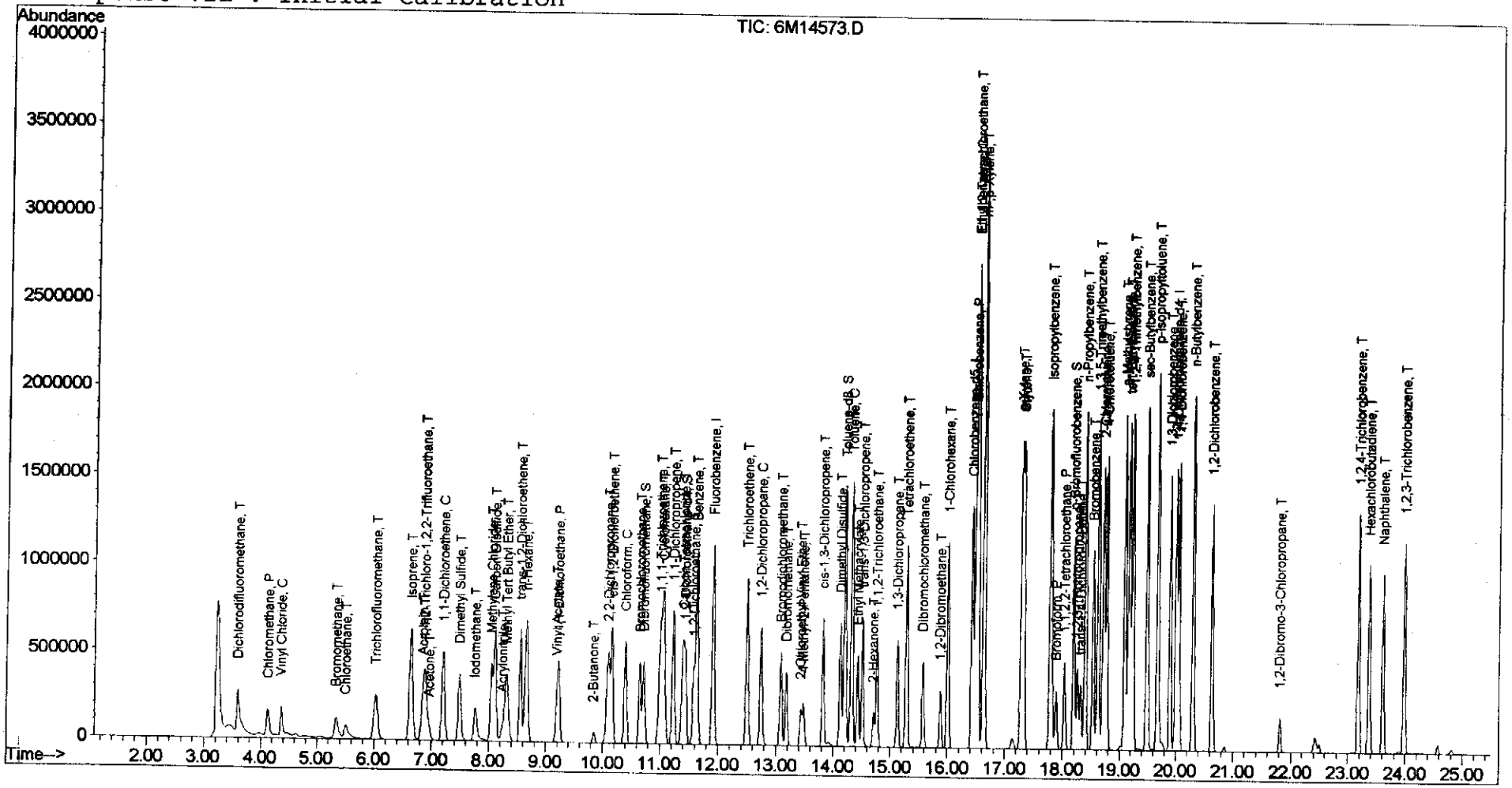

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\071599\6M14573.D
Acq On : 15 Jul 1999 11:46
Sample : WG61023-02 50 PPB STD M8260 5G/5ML
Misc : SOLID,1
MS Integration Params: rteint.p
Quant Time: Jul 15 16:00 1999

Vial: 4
Operator: CMS
Inst : HPMS_6
Multiplr: 1.00

Quant Results File: 8260BSL.R

Quant Method : C:\HPCHEM\1\METHODS\8260BSL.M (RTE Integrator)
Title : Method 8260B_SOIL - ICAL 07/15/99
Last Update : Thu Jul 15 15:54:37 1999
Response via : Initial Calibration
DataAcq Meth : 8260BSL

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene	11.92	96	1612084	50.00 ug/Kg	0.00
44) Chlorobenzene-d5	16.42	117	1208705	50.00 ug/Kg	0.00
64) 1,4-Dichlorobenzene-d4	20.00	152	651411	50.00 ug/Kg	0.00
System Monitoring Compounds					
28) Dibromofluoromethane	10.72	111	443713	47.35 ug/Kg	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 94.70%		
33) 1,2-Dichloroethane-d4	11.45	65	432437	47.21 ug/Kg	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 94.42%		
45) Toluene-d8	14.21	98	1570960	47.59 ug/Kg	0.00
Spiked Amount 50.000	Range 81 - 117		Recovery = 95.18%		
66) p-Bromofluorobenzene	18.20	95	613661	47.50 ug/Kg	0.00
Spiked Amount 50.000	Range 74 - 121		Recovery = 95.00%		

Target Compounds					Qvalue
2) Dichlorodifluoromethane	3.60	85	591657	50.90 ug/Kg	98
3) Chloromethane	4.13	50	332512	44.44 ug/Kg	97
4) Vinyl Chloride	4.36	62	260166	49.39 ug/Kg	100
5) Bromomethane	5.33	94	201305	47.23 ug/Kg	98
6) Chloroethane	5.50	64	187967	50.40 ug/Kg	90
7) Trichlorofluoromethane	6.03	101	498896	50.26 ug/Kg	100
8) Isoprene	6.64	67	573040	50.39 ug/Kg	99
9) Acrolein	6.84	56	32928	106.79 ug/Kg#	64
10) 1,1,2-Trichloro-1,2,2-Trif	6.87	101	470581	50.13 ug/Kg	95
11) Acetone	6.97	43	100167	55.93 ug/Kg	99
12) 1,1-Dichloroethene	7.21	96	397274	50.54 ug/Kg	93
13) Dimethyl Sulfide	7.49	62	363783	50.20 ug/Kg	97
14) Iodomethane	7.77	142	450586	46.22 ug/Kg	97
15) Methylene Chloride	8.04	84	395018	46.06 ug/Kg	84
16) Carbon Disulfide	8.10	76	1305089	46.13 ug/Kg	100
17) Acrylonitrile	8.23	53	83600	43.44 ug/Kg	93
18) Methyl Tert Butyl Ether	8.31	73	897230	50.66 ug/Kg	93
19) trans-1,2-Dichloroethene	8.55	96	411536	50.15 ug/Kg	91
20) n-Hexane	8.66	57	623485	46.47 ug/Kg	95
21) Vinyl Acetate	9.19	43	410453	45.96 ug/Kg	95
22) 1,1-Dichloroethane	9.23	63	693283	49.22 ug/Kg	100
23) 2-Butanone	9.85	43	117310	48.94 ug/Kg	93
24) 2,2-Dichloropropane	10.10	77	657810	51.85 ug/Kg	100
25) cis-1,2-Dichloroethene	10.16	96	443815	50.82 ug/Kg	91
26) Chloroform	10.40	83	730244	48.88 ug/Kg	98
27) Bromochloromethane	10.65	128	201025	49.04 ug/Kg	91

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\071599\6M14573.D
Acq On : 15 Jul 1999 11:46
Sample : WG61023-02 50 PPB STD M8260 5G/5ML
Misc : SOLID,1
MS Integration Params: rteint.p
Quant Time: Jul 15 16:00 1999

Vial: 4
Operator: CMS
Inst : HPMS_6
Multiplr: 1.00

Quant Results File: 8260BSL.R

Quant Method : C:\HPCHEM\1\METHODS\8260BSL.M (RTE Integrator)
Title : Method 8260B_SOIL - ICAL 07/15/99
Last Update : Thu Jul 15 15:54:37 1999
Response via : Initial Calibration
DataAcq Meth : 8260BSL

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
29) 1,1,1-Trichloroethane	11.01	97	724863	50.61 ug/Kg	95
30) Cyclohexane	11.06	56	668040	51.17 ug/Kg	90
31) 1,1-Dichloropropene	11.24	75	565317	51.76 ug/Kg	93
32) Carbon Tetrachloride	11.40	117	672141	52.91 ug/Kg	99
34) 1,2-Dichloroethane	11.58	62	507221	49.12 ug/Kg	98
35) Benzene	11.64	78	1524219	49.42 ug/Kg	97
36) Trichloroethene	12.50	130	505025	49.98 ug/Kg	90
37) 1,2-Dichloropropane	12.74	63	353831	49.25 ug/Kg	89
38) Bromodichlorometh[illegible]	13.09	83	514344	50.62 ug/Kg	99
39) Dibromomethane	13.18	93	206015	48.37 ug/Kg	89
40) 2-Chloroethyl Viny[illegible]er	13.43	63	115511	41.77 ug/Kg#	87
41) 4-Methyl-2-Pentanone	13.48	58	96511	50.19 ug/Kg#	83
42) cis-1,3-Dichloropropene	13.82	75	566348	52.35 ug/Kg	95
43) Dimethyl Disulfide	14.13	79	297706	44.41 ug/Kg	98
46) Toluene	14.32	91	1704501	49.64 ug/Kg	98
47) Ethyl Methacrylate	14.44	69	401041	50.97 ug/Kg	96
48) trans-1,3-Dichloropropene	14.52	75	545622	52.22 ug/Kg	97
49) 1,1,2-Trichloroethane	14.77	97	297933	48.37 ug/Kg	96
50) 2-Hexanone	14.71	43	187874	50.65 ug/Kg	98
51) 1,3-Dichloropropane	15.13	76	508603	49.15 ug/Kg	92
52) Tetrachloroethene	15.29	164	415979	49.11 ug/Kg	95
53) Dibromochloromethane	15.58	129	403202	51.64 ug/Kg	100
54) 1,2-Dibromoethane	15.89	107	319033	49.63 ug/Kg	99
55) 1-Chlorohexane	16.01	91	609378	52.63 ug/Kg	92
56) Chlorobenzene	16.48	112	1203351	47.92 ug/Kg	90
57) 1,1,1,2-Tetrachloroethane	16.52	131	442177	52.08 ug/Kg	93
58) Ethylbenzene	16.52	106	649063	49.56 ug/Kg	95
59) m-,p-Xylene	16.63	106	1588532	98.65 ug/Kg	96
60) o-Xylene	17.29	106	760357	49.86 ug/Kg	97
61) Styrene	17.33	104	1265450	50.10 ug/Kg	97
62) Bromoform	17.90	173	237626	44.35 ug/Kg	99
63) Isopropylbenzene	17.80	105	2083212	51.00 ug/Kg	96
65) 1,1,2,2-Tetrachloroethane	18.04	83	3658[illegible]	48.03 ug/Kg	99
67) 1,2,3-Trichloropropane	18.27	110	12342[illegible]	47.55 ug/Kg	91
68) trans-1,4-Dichloro-2-Buten	18.32	53	104[illegible]	52.34 ug/Kg	96
69) n-Propylbenzene	18.40	91	236454	49.87 ug/Kg	94
70) Bromobenzene	18.54	156	506785	48.55 ug/Kg	100
71) 1,3,5-Trimethylbenzene	18.62	105	1699067	50.18 ug/Kg	94
72) 2-Chlorotoluene	18.72	91	1422287	48.39 ug/Kg	95
73) 4-Chlorotoluene	18.78	91	1430989	49.57 ug/Kg	95
74) a-Methylstyrene	19.10	118	944206	51.30 ug/Kg	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\071599\6M14573.D Vial: 4
Acq On : 15 Jul 1999 11:46 Operator: CMS
Sample : WG61023-02 50 PPB STD M8260 5G/5ML Inst : HPMS_6
Misc : SOLID,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 15 16:00 1999 Quant Results File: 8260BSL.R

Quant Method : C:\HPCHEM\1\METHODS\8260BSL.M (RTE Integrator)
Title : Method 8260B_SOIL - ICAL 07/15/99
Last Update : Thu Jul 15 15:54:37 1999
Response via : Initial Calibration
DataAcq Meth : 8260BSL

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
75)	tert-Butylbenzene	19.17	119	1686984	49.23 ug/Kg	100
76)	1,2,4-Trimethylbenzene	19.23	105	1713706	48.54 ug/Kg	94
77)	sec-Butylbenzene	19.49	105	2249745	50.16 ug/Kg	96
78)	p-Isopropyltoluene	19.68	119	2088887	50.60 ug/Kg	99
79)	1,3-Dichlorobenzene	19.90	146	1033729	48.46 ug/Kg	99
80)	1,4-Dichlorobenzene	20.06	146	1044425	47.58 ug/Kg	99
81)	n-Butylbenzene	20.31	91	1723859	49.77 ug/Kg	91
82)	1,2-Dichlorobenzene	20.64	146	918293	48.17 ug/Kg	99
83)	1,2-Dibromo-3-Chloropropan	21.81	157	85225	42.87 ug/Kg	90
84)	1,2,4-Trichlorobenzene	23.18	180	626969	49.44 ug/Kg	99
85)	Hexachlorobutadiene	23.37	225	319308	48.10 ug/Kg	99
86)	Naphthalene	23.62	128	1225328	49.55 ug/Kg	99
87)	1,2,3-Trichlorobenzene	23.98	180	549337	48.84 ug/Kg	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\071599\6M14578.D Vial: 9
Acq On : 15 Jul 1999 14:38 Operator: CMS
Sample : WG61023-07 100 PPB STD M8260 5G/5ML Inst : HPMS_6
Misc : SOLID,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 15 16:55 1999 Quant Results File: 8260BSL.RES

Method : C:\HPCHEM\1\METHODS\8260BSL.M (RTE Integrator)
Title : Method 8260B_SOIL - ICAL 07/15/99
Last Update : Thu Jul 15 15:54:37 1999
Response via : Initial Calibration

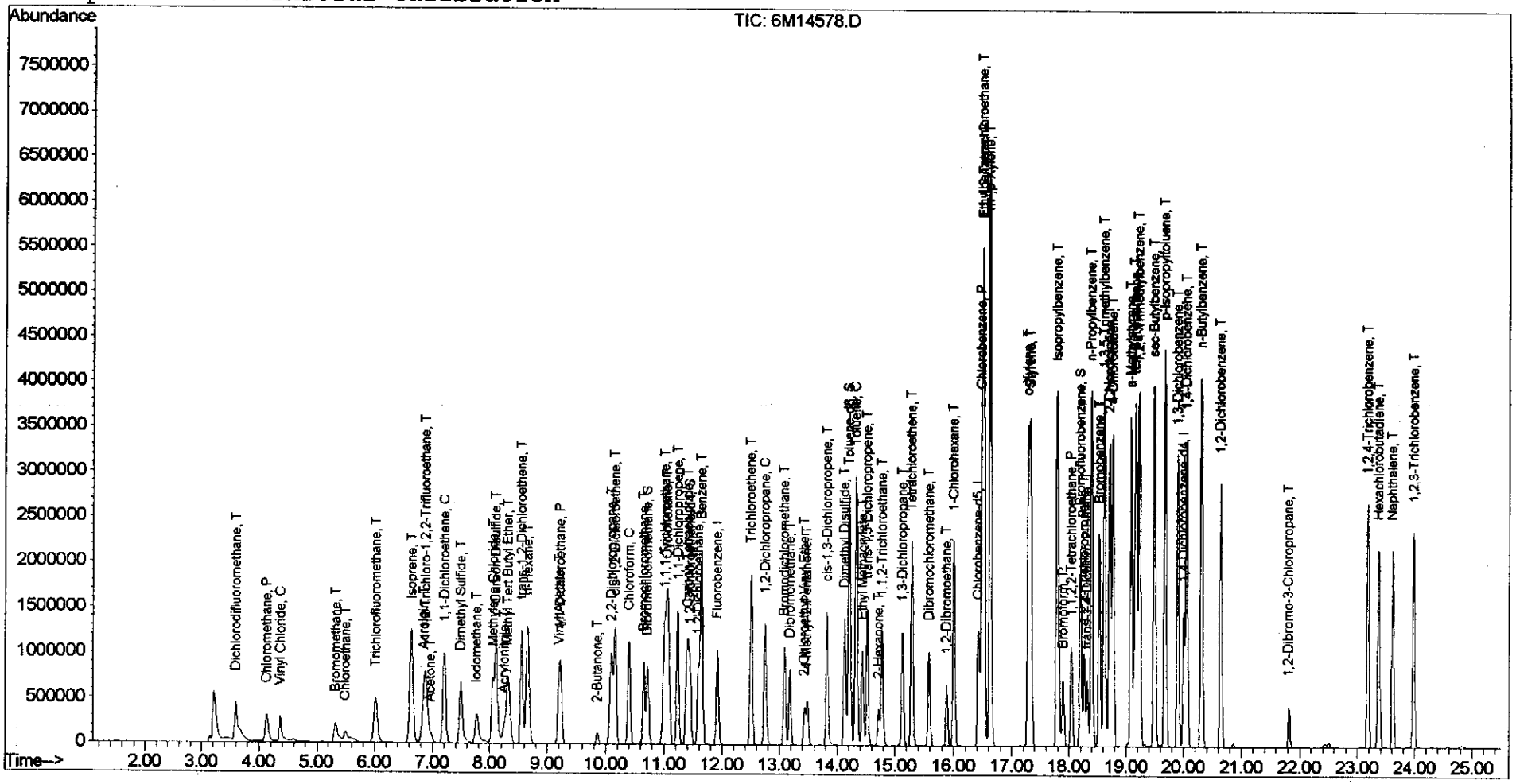

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\071599\6M14578.D
Acq On : 15 Jul 1999 14:38
Sample : WG61023-07 100 PPB STD M8260 5G/5ML
Misc : SOLID,1
MS Integration Params: rteint.p
Quant Time: Jul 15 16:55 1999

Vial: 9
Operator: CMS
Inst : HPMS_6
Multiplr: 1.00

Quant Results File: 8260BSL.R

Quant Method : C:\HPCHEM\1\METHODS\8260BSL.M (RTE Integrator)
Title : Method 8260B_SOIL - ICAL 07/15/99
Last Update : Thu Jul 15 15:54:37 1999
Response via : Initial Calibration
DataAcq Meth : 8260BSL

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	11.92	96	1484145	50.00	ug/Kg	0.00
44) Chlorobenzene-d5	16.43	117	1131466	50.00	ug/Kg	0.00
64) 1,4-Dichlorobenzene-d4	20.01	152	603346	50.00	ug/Kg	0.00

System Monitoring Compounds						
28) Dibromofluoromethane	10.72	111	832938	96.55	ug/Kg	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 193.10%#			
33) 1,2-Dichloroethane-d4	11.45	65	792362	93.96	ug/Kg	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 187.92%#			
45) Toluene-d8	14.21	98	2986518	96.65	ug/Kg	0.00
Spiked Amount 50.000	Range 81 - 117		Recovery = 193.30%#			
66) p-Bromofluorobenzene	18.20	95	1145738	95.75	ug/Kg	0.00
Spiked Amount 50.000	Range 74 - 121		Recovery = 191.50%#			

Target Compounds						Qvalue
2) Dichlorodifluoromethane	3.60	85	1172278	109.55	ug/Kg	98
3) Chloromethane	4.13	50	698104	101.34	ug/Kg	99
4) Vinyl Chloride	4.36	62	454987	93.82	ug/Kg	99
5) Bromomethane	5.32	94	395592	100.82	ug/Kg	93
6) Chloroethane	5.50	64	379056m	110.40	ug/Kg	
7) Trichlorofluoromethane	6.02	101	974008	106.57	ug/Kg	100
8) Isoprene	6.64	67	1147132	109.56	ug/Kg	99
9) Acrolein	6.85	56	32980	116.83	ug/Kg#	62
10) 1,1,2-Trichloro-1,2,2-Trif	6.87	101	920343	106.50	ug/Kg	94
11) Acetone	6.97	43	173235	105.06	ug/Kg	99
12) 1,1-Dichloroethene	7.20	96	787842	108.88	ug/Kg	93
13) Dimethyl Sulfide	7.49	62	726167	108.85	ug/Kg	96
14) Iodomethane	7.76	142	875859	97.59	ug/Kg	91
15) Methylene Chloride	8.05	84	736034	93.21	ug/Kg	84
16) Carbon Disulfide	8.11	76	2539954	97.52	ug/Kg	99
17) Acrylonitrile	8.24	53	167445	94.50	ug/Kg	93
18) Methyl Tert Butyl Ether	8.31	73	1751029	107.40	ug/Kg	93
19) trans-1,2-Dichloroethene	8.55	96	810119	107.22	ug/Kg	91
20) n-Hexane	8.66	57	1207312	97.75	ug/Kg	95
21) Vinyl Acetate	9.20	43	800848	97.41	ug/Kg#	95
22) 1,1-Dichloroethane	9.23	63	1373748	105.94	ug/Kg	99
23) 2-Butanone	9.86	43	230867	104.62	ug/Kg	93
24) 2,2-Dichloropropane	10.10	77	1280319	109.61	ug/Kg	100
25) cis-1,2-Dichloroethene	10.17	96	874017	108.71	ug/Kg	92
26) Chloroform	10.41	83	1440791	104.76	ug/Kg	98
27) Bromochloromethane	10.66	128	401432	106.36	ug/Kg	91

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\071599\6M14578.D
Acq On : 15 Jul 1999 14:38
Sample : WG61023-07 100 PPB STD M8260 5G/5ML
Misc : SOLID,1
MS Integration Params: rteint.p
Quant Time: Jul 15 16:55 1999

Vial: 9
Operator: CMS
Inst : HPMS_6
Multiplr: 1.00

Quant Results File: 8260BSL.R

Quant Method : C:\HPCHEM\1\METHODS\8260BSL.M (RTE Integrator)
Title : Method 8260B_SOIL - ICAL 07/15/99
Last Update : Thu Jul 15 15:54:37 1999
Response via : Initial Calibration
DataAcq Meth : 8260BSL

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
29) 1,1,1-Trichloroethane	11.01	97	1439292	109.15 ug/Kg	94
30) Cyclohexane	11.06	56	1320041	109.83 ug/Kg	90
31) 1,1-Dichloropropene	11.24	75	1118790	111.26 ug/Kg	92
32) Carbon Tetrachloride	11.40	117	1341360	114.69 ug/Kg	99
34) 1,2-Dichloroethane	11.59	62	994087	104.56 ug/Kg	98
35) Benzene	11.64	78	3024838	106.54 ug/Kg	97
36) Trichloroethene	12.50	130	1012844	108.87 ug/Kg	89
37) 1,2-Dichloropropane	12.75	63	717160	108.43 ug/Kg	90
38) Bromodichloromethane	13.09	83	1054197	112.70 ug/Kg	99
39) Dibromomethane	13.18	93	413378	105.41 ug/Kg	89
40) 2-Chloroethyl Vinyl Ether	13.43	63	245008	96.24 ug/Kg#	89
41) 4-Methyl-2-Pentanone	13.48	58	200702	113.37 ug/Kg#	83
42) cis-1,3-Dichloropropene	13.83	75	1164314	116.91 ug/Kg	95
43) Dimethyl Disulfide	14.13	79	603220	97.75 ug/Kg	97
46) Toluene	14.33	91	3442978	107.12 ug/Kg	98
47) Ethyl Methacrylate	14.44	69	814077	110.54 ug/Kg	96
48) trans-1,3-Dichloropropene	14.52	75	1125503	115.07 ug/Kg	97
49) 1,1,2-Trichloroethane	14.78	97	620596	107.64 ug/Kg	97
50) 2-Hexanone	14.71	43	389598	112.20 ug/Kg	97
51) 1,3-Dichloropropane	15.14	76	1050842	108.49 ug/Kg	91
52) Tetrachloroethene	15.29	164	838754	105.79 ug/Kg	95
53) Dibromochloromethane	15.58	129	874455	119.64 ug/Kg	99
54) 1,2-Dibromoethane	15.89	107	664731	110.47 ug/Kg	99
55) 1-Chlorohexane	16.01	91	1197670	110.49 ug/Kg	92
56) Chlorobenzene	16.49	112	2444544	103.99 ug/Kg	90
57) 1,1,1,2-Tetrachloroethane	16.52	131	909725	114.47 ug/Kg	93
58) Ethylbenzene	16.53	106	1322579	107.89 ug/Kg	95
59) m-,p-Xylene	16.63	106	3213392	213.18 ug/Kg	95
60) o-Xylene	17.30	106	1582118	110.82 ug/Kg	96
61) Styrene	17.34	104	2652940	112.19 ug/Kg	97
62) Bromoform	17.90	173	539240	107.51 ug/Kg	99
63) Isopropylbenzene	17.80	105	4315632	112.86 ug/Kg	96
65) 1,1,2,2-Tetrachloroethane	18.05	83	819768	116.20 ug/Kg	100
67) 1,2,3-Trichloropropane	18.27	110	277022	115.22 ug/Kg	90
68) trans-1,4-Dichloro-2-Buten	18.33	53	210496	114.34 ug/Kg	94
69) n-Propylbenzene	18.40	91	4872023	110.94 ug/Kg	93
70) Bromobenzene	18.54	156	1070370	110.71 ug/Kg	99
71) 1,3,5-Trimethylbenzene	18.63	105	3542172	112.94 ug/Kg	93
72) 2-Chlorotoluene	18.72	91	2943333	108.12 ug/Kg	95
73) 4-Chlorotoluene	18.78	91	3008529	112.53 ug/Kg	95
74) a-Methylstyrene	19.10	118	1846694	108.33 ug/Kg	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\071599\6M14578.D
Acq On : 15 Jul 1999 14:38
Sample : WG61023-07 100 PPB STD M8260 5G/5ML
Misc : SOLID,1
MS Integration Params: rteint.p
Quant Time: Jul 15 16:55 1999

Vial: 9
Operator: CMS
Inst : HPMS_6
Multiplr: 1.00
Quant Results File: 8260BSL.R

Quant Method : C:\HPCHEM\1\METHODS\8260BSL.M (RTE Integrator)
Title : Method 8260B_SOIL - ICAL 07/15/99
Last Update : Thu Jul 15 15:54:37 1999
Response via : Initial Calibration
DataAcq Meth : 8260BSL

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
75)	tert-Butylbenzene	19.17	119	3538438	111.49 ug/Kg	100
76)	1,2,4-Trimethylbenzene	19.24	105	3554547	108.70 ug/Kg	94
77)	sec-Butylbenzene	19.50	105	4678926	112.64 ug/Kg	96
78)	p-Isopropyltoluene	19.69	119	4332158	113.30 ug/Kg	99
79)	1,3-Dichlorobenzene	19.91	146	2157848	109.21 ug/Kg	99
80)	1,4-Dichlorobenzene	20.06	146	2165748	106.53 ug/Kg	99
81)	n-Butylbenzene	20.31	91	3554210	110.79 ug/Kg	91
82)	1,2-Dichlorobenzene	20.65	146	1955087	110.72 ug/Kg	100
83)	1,2-Dibromo-3-Chloropropan	21.82	157	201279	109.32 ug/Kg	90
84)	1,2,4-Trichlorobenzene	23.19	180	1256525	106.98 ug/Kg	99
85)	Hexachlorobutadiene	23.38	225	653866	106.35 ug/Kg	98
86)	Naphthalene	23.62	128	2663926	116.31 ug/Kg	99
87)	1,2,3-Trichlorobenzene	23.99	180	1116414	107.17 ug/Kg	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\071599\6M14578.D
Acq On : 15 Jul 1999 14:38
Sample : WG61023-07 100 PPB STD M8260 5G/5ML
Misc : SOLID,1
MS Integration Params: rteint.p

Vial: 9
Operator: CMS
Inst : HPMS_6
Multiplr: 1.00
Quant Results File: temp.re

Method : C:\HPCHEM\1\METHODS\8260BSL.M (RTE Integrator)
Title : Method 8260B_SOIL - ICAL 07/15/99
Last Update : Thu Jul 15 15:54:37 1999
Response via : Multiple Level Calibration

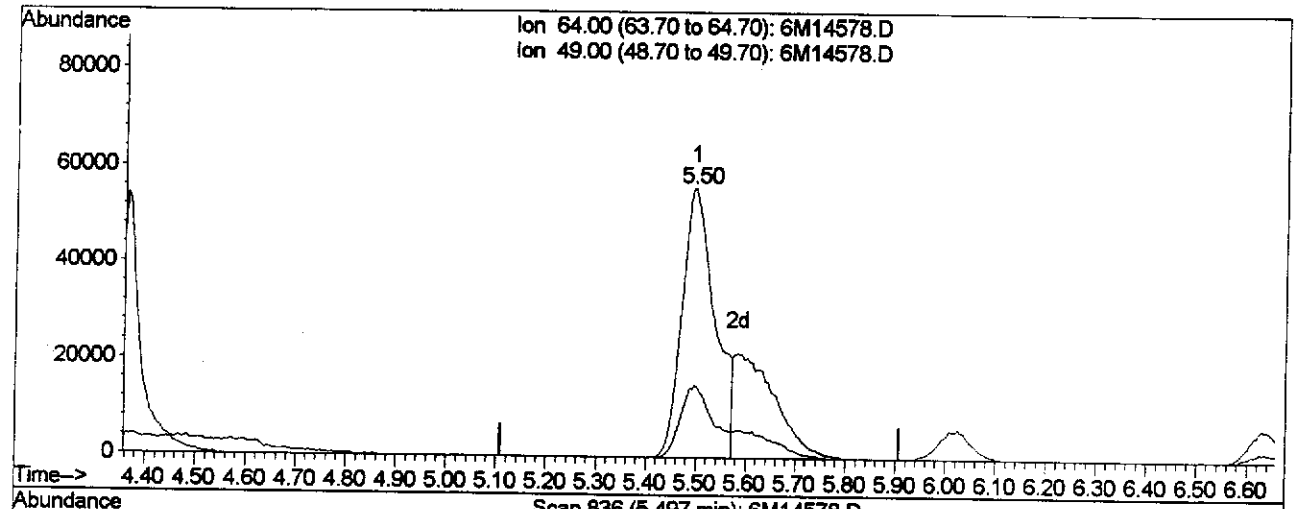

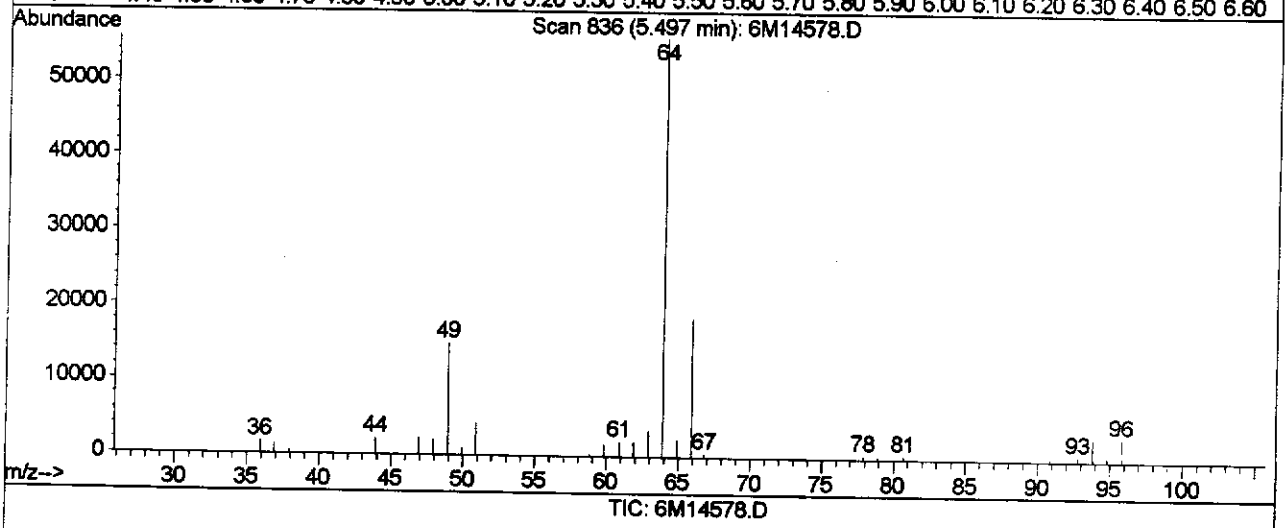

(6) Chloroethane (T)

5.50min 74.09ug/Kg

response 254383

Ion	Exp%	Act%
64.00	100	100
49.00	31.30	25.81
0.00	0.00	0.00
0.00	0.00	0.00

7-15-99
CMS

CMS 7/15/99

Quantitation Report

Data File : C:\HPCHEM\1\DATA\071599\6M14578.D Vial: 9
Acq On : 15 Jul 1999 14:38 Operator: CMS
Sample : WG61023-07 100 PPB STD M8260 5G/5ML Inst : HPMS_6
Misc : SOLID,1 Multiplr: 1.00
MS Integration Params: rtenint.p Quant Results File: temp.re

Method : C:\HPCHEM\1\METHODS\8260BSL.M (RTE Integrator)
Title : Method 8260B_SOIL - ICAL 07/15/99
Last Update : Thu Jul 15 15:54:37 1999
Response via : Multiple Level Calibration

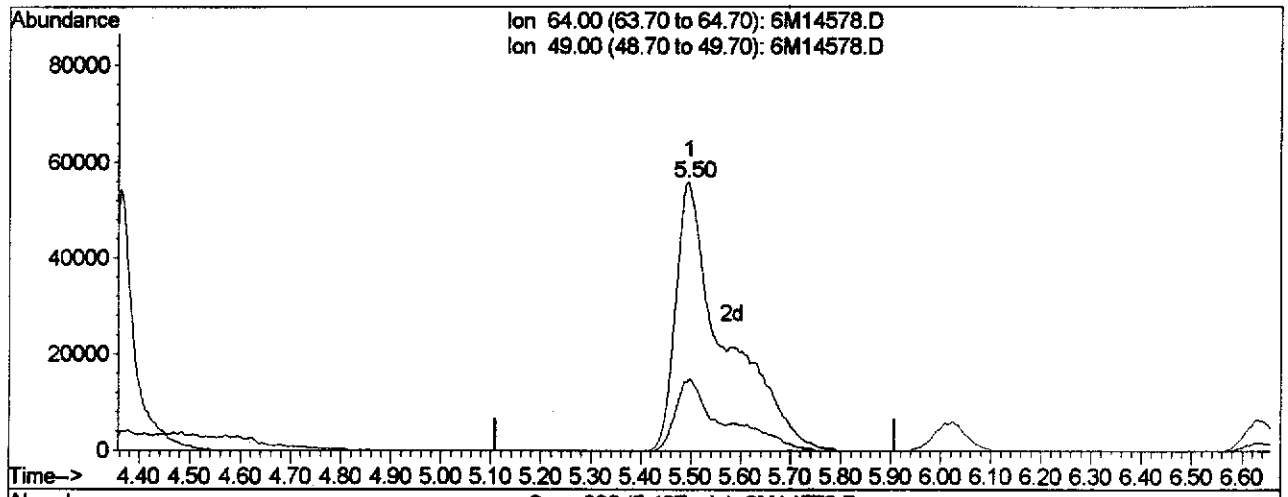

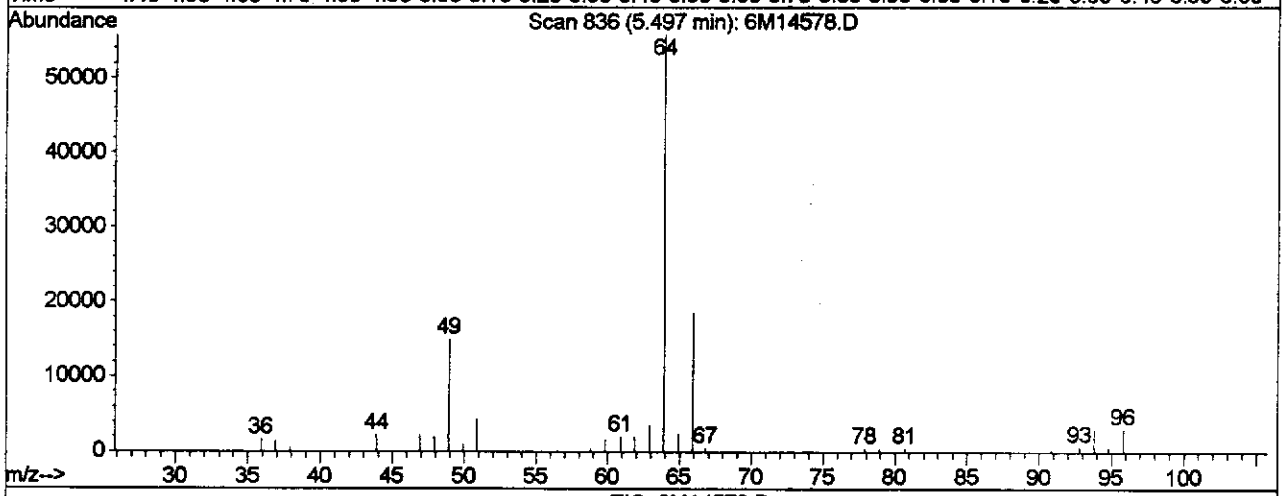

TIC: 6M14578.D

(6) Chloroethane (T)

5.50min 110.40ug/Kg m

response 379056

7-15-99 CMS

Ion	Exp%	Act%
64.00	100	100
49.00	31.30	17.32#
0.00	0.00	0.00
0.00	0.00	0.00

7/15/99

6M14578.D 8260BSL.M Thu Jul 15 16:55:26 1999 HPMS_6

Quantitation Report

Data File : C:\HPCHEM\1\DATA\071599\6M14579.D
Acq On : 15 Jul 1999 15:12
Sample : WG61023-08 200 PPB STD M8260 5G/5ML
Misc : SOLID,1
MS Integration Params: rteint.p
Quant Time: Jul 15 16:58 1999

Vial: 10
Operator: CMS
Inst : HPMS_6
Multiplr: 1.00

Quant Results File: 8260BSL.RES

Method : C:\HPCHEM\1\METHODS\8260BSL.M (RTE Integrator)
Title : Method 8260B_SOIL - ICAL 07/15/99
Last Update : Thu Jul 15 15:54:37 1999
Response via : Initial Calibration

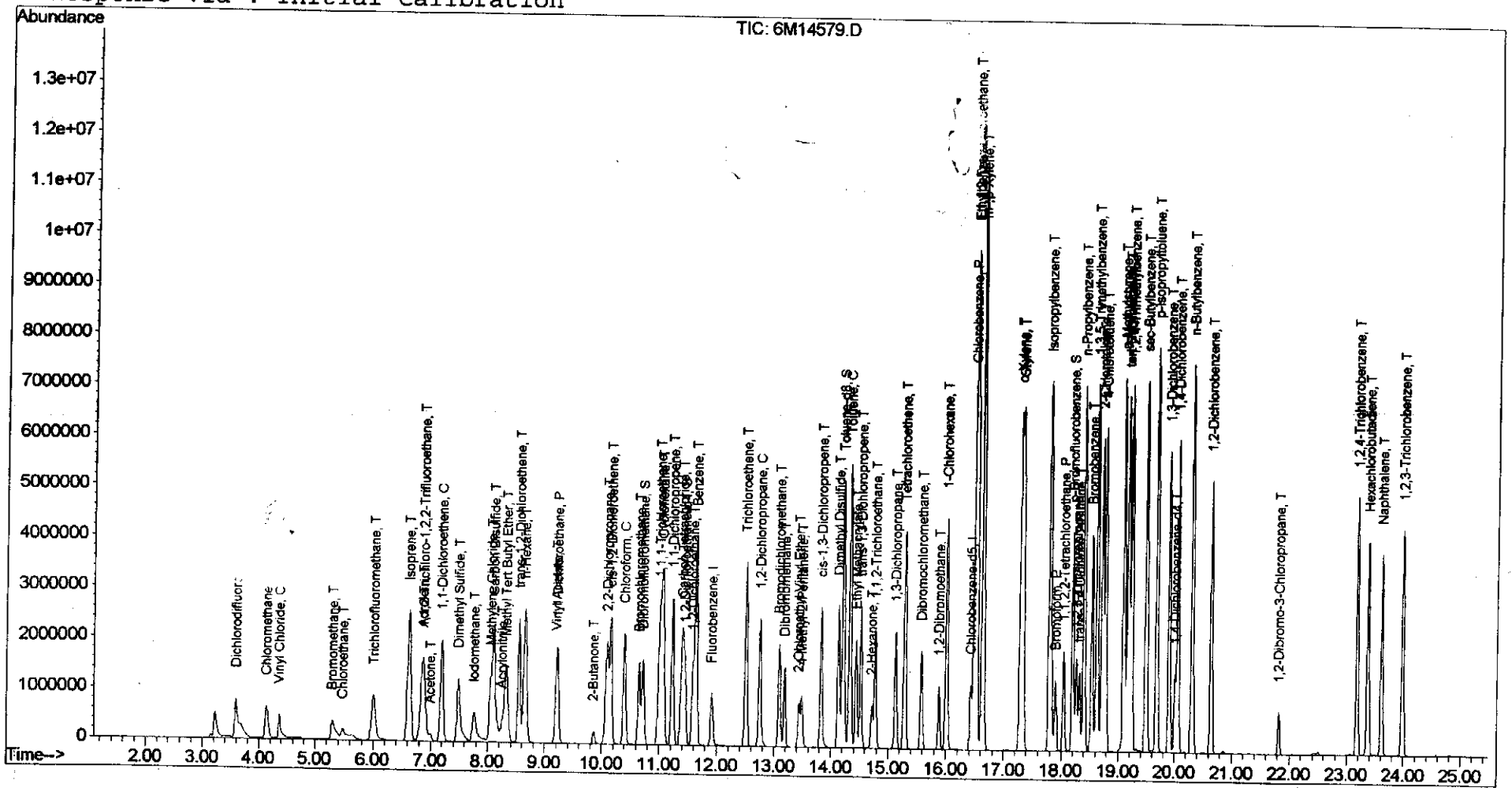

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\071599\6M14579.D
Acq On : 15 Jul 1999 15:12
Sample : WG61023-08 200 PPB STD M8260 5G/5ML
Misc : SOLID,1
MS Integration Params: rteint.p
Quant Time: Jul 15 16:58 1999

Vial: 10
Operator: CMS
Inst : HPMS_6
Multiplr: 1.00
Quant Results File: 8260BSL.R

Quant Method : C:\HPCHEM\1\METHODS\8260BSL.M (RTE Integrator)
Title : Method 8260B_SOIL - ICAL 07/15/99
Last Update : Thu Jul 15 15:54:37 1999
Response via : Initial Calibration
DataAcq Meth : 8260BSL

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	11.92	96	1471584	50.00	ug/Kg	0.00
44) Chlorobenzene-d5	16.43	117	1135686	50.00	ug/Kg	0.00
64) 1,4-Dichlorobenzene-d4	20.01	152	622437	50.00	ug/Kg	0.00
System Monitoring Compounds						
28) Dibromofluoromethane	10.72	111	1616185	188.94	ug/Kg	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 377.88%#			
33) 1,2-Dichloroethane-d4	11.45	65	1493272	178.59	ug/Kg	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 357.18%#			
45) Toluene-d8	14.21	98	5846064	188.48	ug/Kg	0.00
Spiked Amount 50.000	Range 81 - 117		Recovery = 376.96%#			
66) p-Bromofluorobenzene	18.20	95	2291250	185.61	ug/Kg	0.00
Spiked Amount 50.000	Range 74 - 121		Recovery = 371.22%#			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	3.59	85	2416773m	227.77	ug/Kg	
3) Chloromethane	4.13	50	1497699	219.27	ug/Kg	98
4) Vinyl Chloride	4.36	62	878189	182.62	ug/Kg	100
5) Bromomethane	5.30	94	848422	218.08	ug/Kg	95
6) Chloroethane	5.48	64	780961m	229.41	ug/Kg	
7) Trichlorofluoromethane	6.00	101	1926899	212.64	ug/Kg	100
8) Isoprene	6.62	67	2369510	228.24	ug/Kg	99
9) Acrolein	6.85	56	94222	399.53	ug/Kg#	63
10) 1,1,2-Trichloro-1,2,2-Trif	6.86	101	1891969	220.79	ug/Kg	95
11) Acetone	6.99	43	318748	194.96	ug/Kg	99
12) 1,1-Dichloroethene	7.19	96	1597156	222.60	ug/Kg	92
13) Dimethyl Sulfide	7.48	62	1511441	228.49	ug/Kg	95
14) Iodomethane	7.76	142	1804760	202.81	ug/Kg	96
15) Methylene Chloride	8.04	84	1475465	188.45	ug/Kg	83
16) Carbon Disulfide	8.10	76	5222406	202.23	ug/Kg	99
17) Acrylonitrile	8.24	53	359734	204.75	ug/Kg	99
18) Methyl Tert Butyl Ether	8.32	73	3561014	220.28	ug/Kg	94
19) trans-1,2-Dichloroethene	8.55	96	1614285	215.48	ug/Kg	90
20) n-Hexane	8.65	57	2520344	205.79	ug/Kg	95
21) Vinyl Acetate	9.20	43	1652738	202.74	ug/Kg#	95
22) 1,1-Dichloroethane	9.22	63	2684293	208.78	ug/Kg	99
23) 2-Butanone	9.86	43	462307	211.29	ug/Kg	92
24) 2,2-Dichloropropane	10.10	77	2626697	226.79	ug/Kg	100
25) cis-1,2-Dichloroethene	10.16	96	1707159	214.14	ug/Kg	92
26) Chloroform	10.40	83	2774963	203.50	ug/Kg	98
27) Bromochloromethane	10.66	128	770012	205.76	ug/Kg	90

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\071599\6M14579.D
Acq On : 15 Jul 1999 15:12
Sample : WG61023-08 200 PPB STD M8260 5G/5ML
Misc : SOLID,1
MS Integration Params: rteint.p
Quant Time: Jul 15 16:58 1999

Vial: 10
Operator: CMS
Inst : HPMS_6
Multiplr: 1.00

Quant Results File: 8260BSL.R

Quant Method : C:\HPCHEM\1\METHODS\8260BSL.M (RTE Integrator)
Title : Method 8260B_SOIL - ICAL 07/15/99
Last Update : Thu Jul 15 15:54:37 1999
Response via : Initial Calibration
DataAcq Meth : 8260BSL

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
29) 1,1,1-Trichloroethane	11.01	97	2837887	217.06 ug/Kg	94
30) Cyclohexane	11.06	56	2707340	227.17 ug/Kg	89
31) 1,1-Dichloropropene	11.23	75	2210587	221.72 ug/Kg	92
32) Carbon Tetrachloride	11.40	117	2677114	230.86 ug/Kg	99
34) 1,2-Dichloroethane	11.59	62	1861754	197.49 ug/Kg	98
35) Benzene	11.64	78	5821129	206.77 ug/Kg	97
36) Trichloroethene	12.50	130	1966817	213.22 ug/Kg	88
37) 1,2-Dichloropropane	12.75	63	1379816	210.40 ug/Kg	91
38) Bromodichloromethane	13.09	83	2002444	215.89 ug/Kg	99
39) Dibromomethane	13.18	93	777946	200.08 ug/Kg	89
40) 2-Chloroethyl Vinyl Ether	13.43	63	516603	204.66 ug/Kg#	88
41) 4-Methyl-2-Pentanone	13.48	58	408822	232.90 ug/Kg#	83
42) cis-1,3-Dichloropropene	13.83	75	2212210	224.02 ug/Kg	95
43) Dimethyl Disulfide	14.13	79	1243473	203.22 ug/Kg	97
46) Toluene	14.33	91	6653590	206.24 ug/Kg	97
47) Ethyl Methacrylate	14.44	69	1682188	227.56 ug/Kg	96
48) trans-1,3-Dichloropropene	14.52	75	2104052	214.32 ug/Kg	96
49) 1,1,2-Trichloroethane	14.78	97	1140021	196.99 ug/Kg	96
50) 2-Hexanone	14.72	43	804154	230.72 ug/Kg	96
51) 1,3-Dichloropropane	15.14	76	1940388	199.58 ug/Kg	90
52) Tetrachloroethene	15.29	164	1627603	204.52 ug/Kg	94
53) Dibromochloromethane	15.58	129	1618871	220.67 ug/Kg	100
54) 1,2-Dibromoethane	15.89	107	1236323	204.69 ug/Kg	99
55) 1-Chlorohexane	16.01	91	2492594	229.11 ug/Kg	91
56) Chlorobenzene	16.49	112	4549841	192.83 ug/Kg	91
57) 1,1,1,2-Tetrachloroethane	16.52	131	1586772	198.91 ug/Kg	95
58) Ethylbenzene	16.53	106	2503586	203.47 ug/Kg	93
59) m-,p-Xylene	16.64	106	5980121	395.25 ug/Kg	91
60) o-Xylene	17.30	106	3012823	210.25 ug/Kg	95
61) Styrene	17.34	104	5003773	210.82 ug/Kg	97
62) Bromoform	17.90	173	997852	198.21 ug/Kg	99
63) Isopropylbenzene	17.80	105	8142694	212.16 ug/Kg	95
65) 1,1,2,2-Tetrachloroethane	18.05	83	1488828	204.56 ug/Kg	100
67) 1,2,3-Trichloropropane	18.27	110	500503	201.79 ug/Kg	91
68) trans-1,4-Dichloro-2-Buten	18.33	53	442869	233.19 ug/Kg	91
69) n-Propylbenzene	18.40	91	9148330	201.92 ug/Kg	92
70) Bromobenzene	18.55	156	1981807	198.70 ug/Kg	100
71) 1,3,5-Trimethylbenzene	18.63	105	6710170	207.38 ug/Kg	93
72) 2-Chlorotoluene	18.72	91	5750194	204.75 ug/Kg	94
73) 4-Chlorotoluene	18.78	91	5359012	194.29 ug/Kg	95
74) a-Methylstyrene	19.10	118	3800613	216.12 ug/Kg	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\071599\6M14579.D
Acq On : 15 Jul 1999 15:12
Sample : WG61023-08 200 PPB STD M8260 5G/5ML
Misc : SOLID,1
MS Integration Params: rteint.p
Quant Time: Jul 15 16:58 1999

Vial: 10
Operator: CMS
Inst : HPMS_6
Multiplr: 1.00

Quant Results File: 8260BSL.R

Quant Method : C:\HPCHEM\1\METHODS\8260BSL.M (RTE Integrator)
Title : Method 8260B_SOIL - ICAL 07/15/99
Last Update : Thu Jul 15 15:54:37 1999
Response via : Initial Calibration
DataAcq Meth : 8260BSL

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
75) tert-Butylbenzene	19.18	119	6718935	205.21 ug/Kg	100
76) 1,2,4-Trimethylbenzene	19.24	105	6624307	196.36 ug/Kg	94
77) sec-Butylbenzene	19.50	105	8772292	204.71 ug/Kg	95
78) p-Isopropyltoluene	19.69	119	8073133	204.66 ug/Kg	100
79) 1,3-Dichlorobenzene	19.91	146	4013952	196.92 ug/Kg	99
80) 1,4-Dichlorobenzene	20.06	146	3992324	190.36 ug/Kg	99
81) n-Butylbenzene	20.31	91	6757597	204.19 ug/Kg	90
82) 1,2-Dichlorobenzene	20.65	146	3596510	197.43 ug/Kg	100
83) 1,2-Dibromo-3-Chloropropan	21.82	157	375600	197.74 ug/Kg	88
84) 1,2,4-Trichlorobenzene	23.19	180	2387555	197.04 ug/Kg	99
85) Hexachlorobutadiene	23.38	225	1303448	205.49 ug/Kg	99
86) Naphthalene	23.62	128	4850197	205.26 ug/Kg	99
87) 1,2,3-Trichlorobenzene	23.99	180	2088738	194.36 ug/Kg	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\071599\6M14579.D
Acq On : 15 Jul 1999 15:12
Sample : WG61023-08 200 PPB STD M8260 5G/5ML
Misc : SOLID,1
Integration Params: events.p

Vial: 10
Operator: CMS
Inst : HPMS_6
Multiplr: 1.00
Quant Results File: temp.re

Method : C:\HPCHEM\1\METHODS\8260BSL.M (RTE Integrator)
Title : Method 8260B_SOIL - ICAL 07/15/99
Last Update : Thu Jul 15 15:54:37 1999
Response via : Multiple Level Calibration

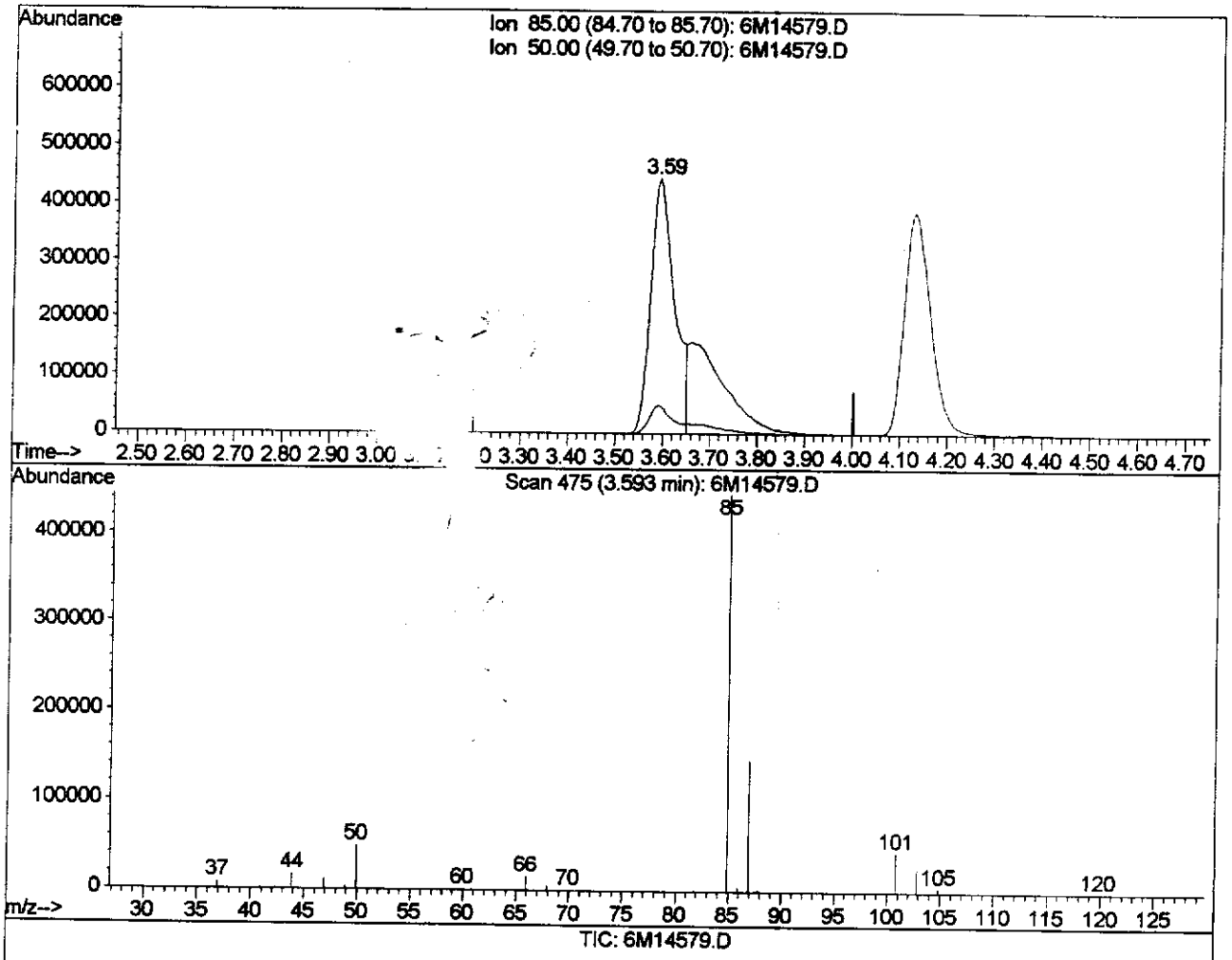

(2) Dichlorodifluoromethane (T)

3.59min 145.82ug/Kg

response 1547215

Ion	Exp%	Act%
85.00	100	100
50.00	11.70	12.01
0.00	0.00	0.00
0.00	0.00	0.00

7-15-99 CMS

7/15/99

Quantitation Report

Data File : C:\HPCHEM\1\DATA\071599\6M14579.D
Acq On : 15 Jul 1999 15:12
Sample : WG61023-08 200 PPB STD M8260 5G/5ML
Misc : SOLID,1
MS Integration Params : rteint.p

Vial: 10
Operator: CMS
Inst : HPMS_6
Multiplr: 1.00
Quant Results File: temp.re

Method : C:\HPCHEM\1\METHODS\8260BSL.M (RTE Integrator)
Title : Method 8260B_SOIL - ICAL 07/15/99
Last Update : Thu Jul 15 15:54:37 1999
Response via : Multiple Level Calibration

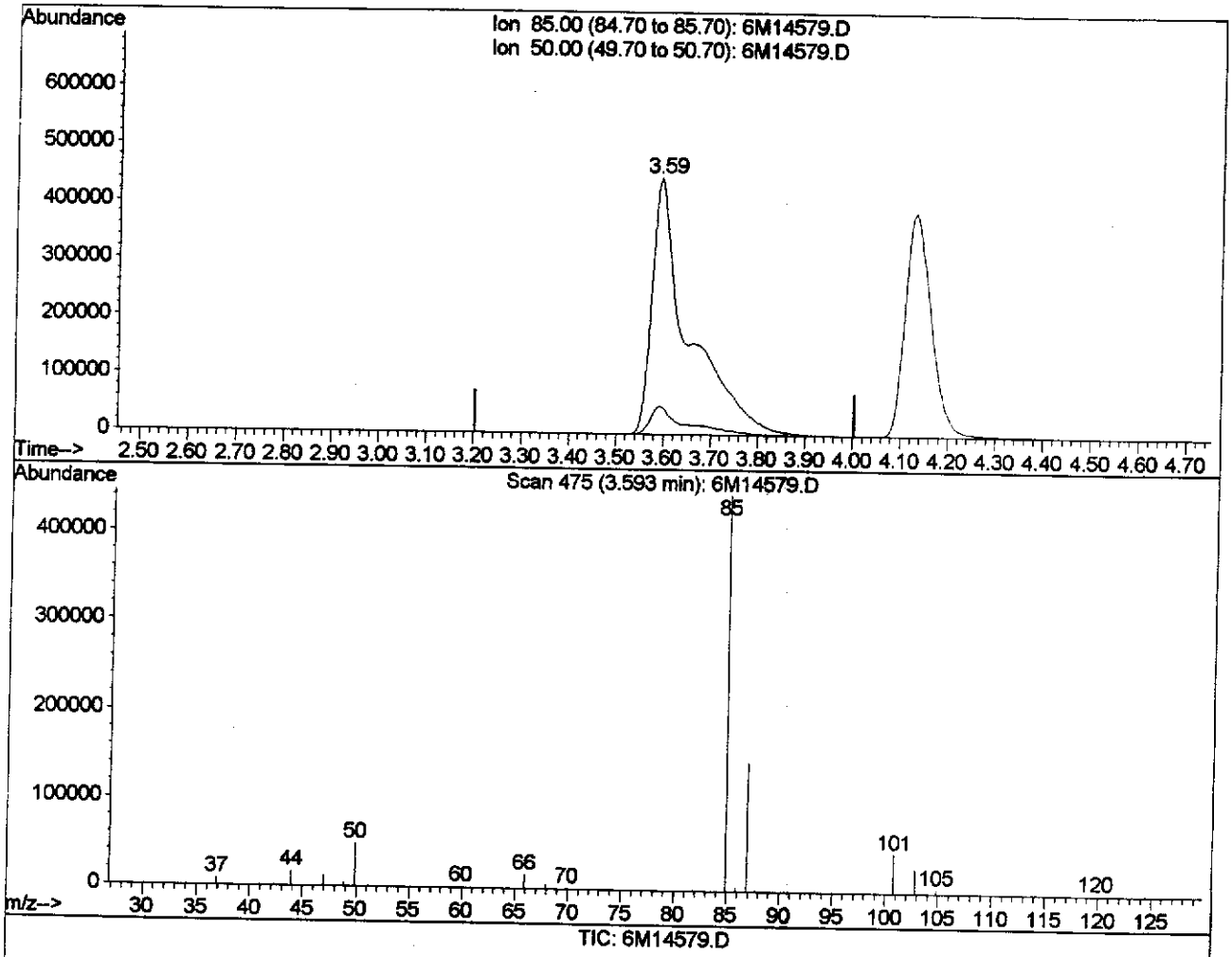

TIC: 6M14579.D

(2) Dichlorodifluoromethane (T)

3.59min 227.77ug/Kg m

response 2416773

7-15-99 CMS

Ion	Exp%	Act%
85.00	100	100
50.00	11.70	7.69#
0.00	0.00	0.00
0.00	0.00	0.00

7/15/99

Quantitation Report

Data File : C:\HPCHEM\1\DATA\071599\6M14579.D
Acq On : 15 Jul 1999 15:12
Sample : WG61023-08 200 PPB STD M8260 5G/5ML
Misc : SOLID,1
MSD Method : C:\HPCHEM\1\METHODS\8260BSL.M
Quant Method : C:\HPCHEM\1\METHODS\8260BSL.M (RTE Integrator)
Title : Method 8260B_SOIL - ICAL 07/15/99
Last Update : Thu Jul 15 15:54:37 1999
Response via : Multiple Level Calibration

Vial: 10
Operator: CMS
Inst : HPMS_6
Multiplr: 1.00
Quant Results File: temp.re

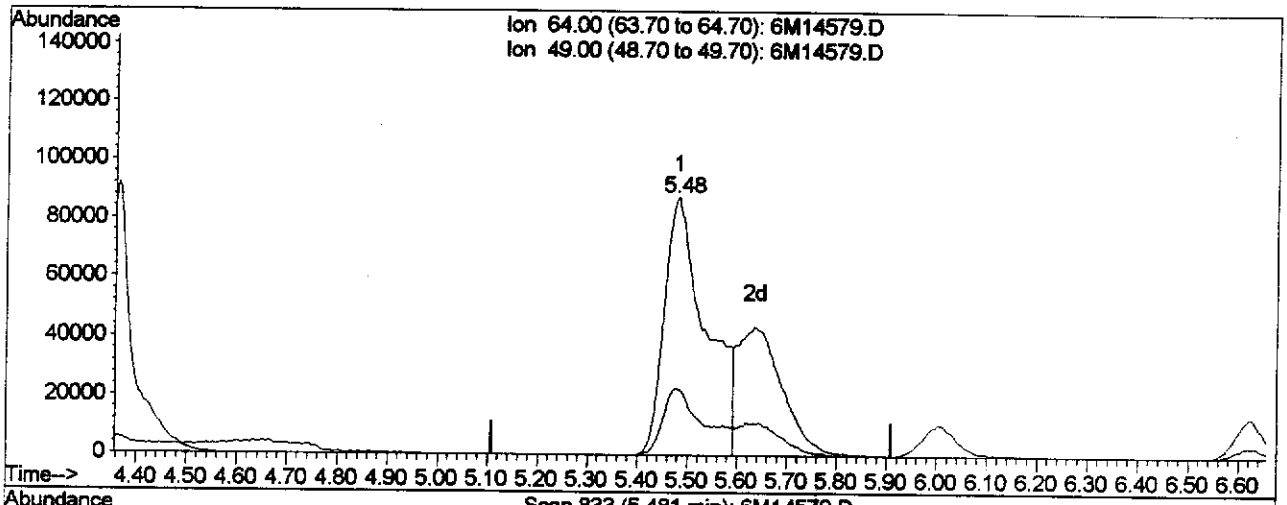

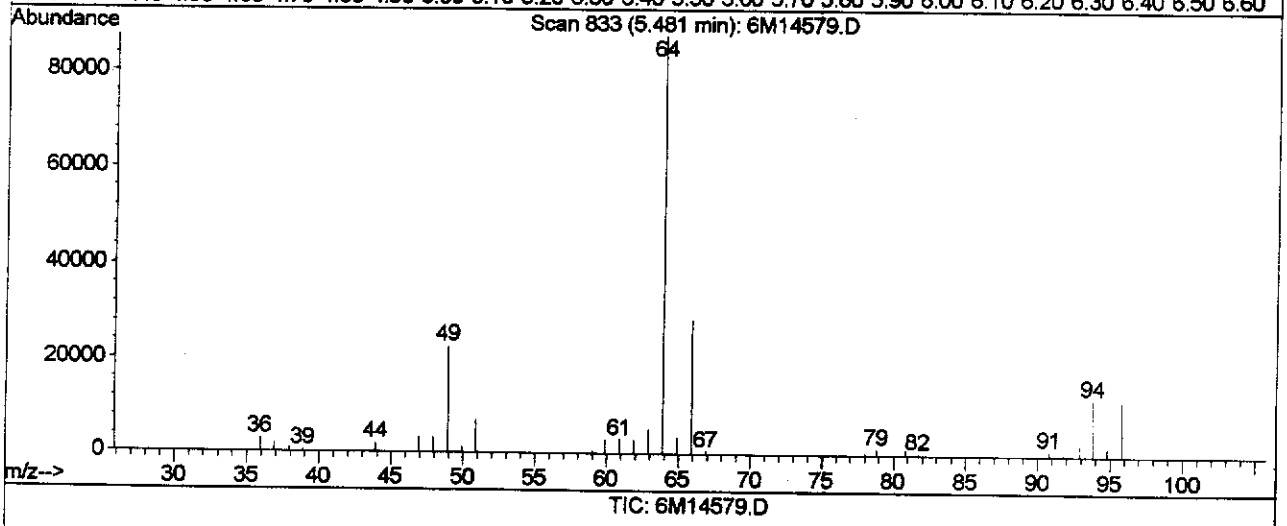

(6) Chloroethane (T)

5.48min 149.34ug/Kg

response 508411

Ion	Exp%	Act%
64.00	100	100
49.00	31.30	22.99#
0.00	0.00	0.00
0.00	0.00	0.00

7-15-99 CMS

7/15/99

6M14579.D 8260BSL.M Thu Jul 15 16:58:13 1999 HPMS_6

Quantitation Report

Data File : C:\HPCHEM\1\DATA\071599\6M14579.D
Acq On : 15 Jul 1999 15:12
Sample : WG61023-08 200 PPB STD M8260 5G/5ML
Misc : SOLID,1
Integration Parameters: events.p

Vial: 10
Operator: CMS
Inst : HPMS_6
Multiplr: 1.00
Quant Results File: temp.re

Method : C:\HPCHEM\1\METHODS\8260BSL.M (RTE Integrator)
Title : Method 8260B_SOIL - ICAL 07/15/99
Last Update : Thu Jul 15 15:54:37 1999
Response via : Multiple Level Calibration

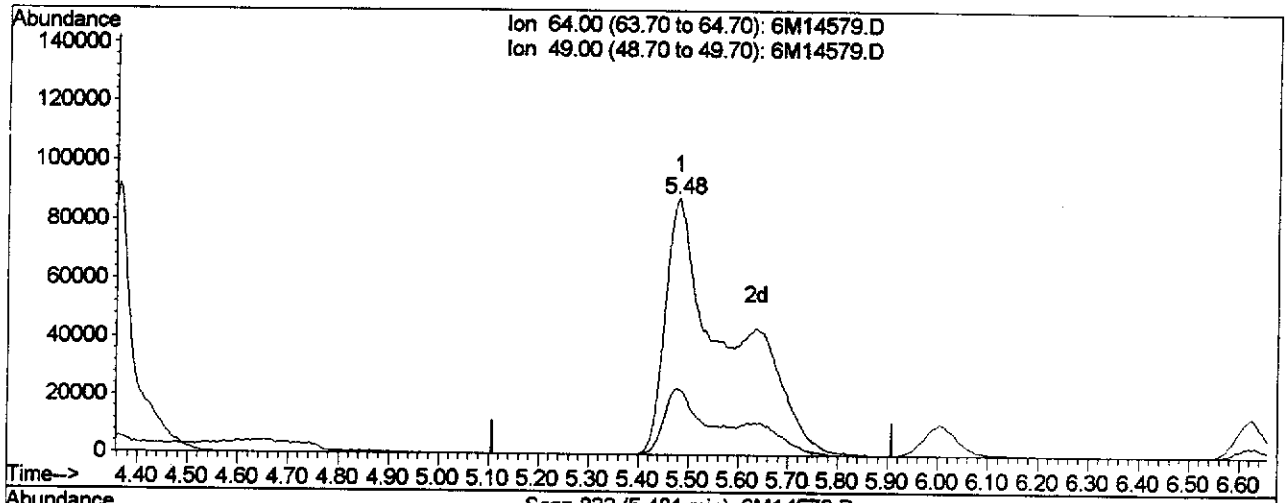

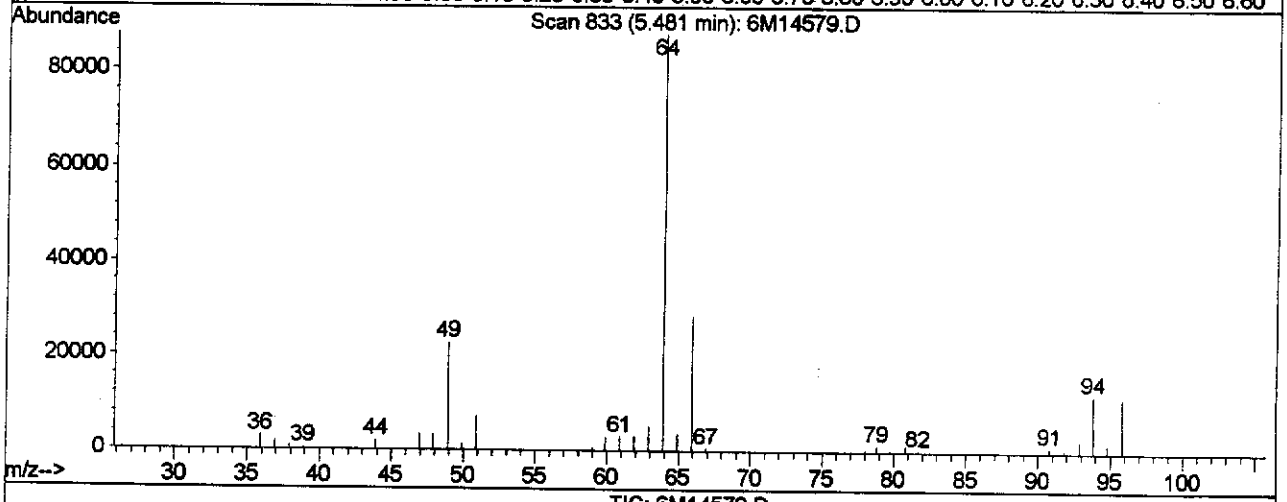

TIC: 6M14579.D

(6) Chloroethane (T)

5.48min 229.41ug/Kg m

response 780961

7-15-99 CMS

7/15/99

Ion	Exp%	Act%
64.00	100	100
49.00	31.30	14.97#
0.00	0.00	0.00
0.00	0.00	0.00

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\072199\6M14636.D Vial: 5
Acq On : 21 Jul 1999 12:05 Operator: CMS
Sample : WG61023-11 20 PPB ALT SOURCE STD M8260 5 Inst : HPMS_6
Misc : SOLID,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\HPCHEM\1\METHODS\8260BSL.M (RTE Integrator)
Title : Method 8260B_SOIL - ICAL 07/15/99
Last Update : Thu Jul 15 15:54:37 1999
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Fluorobenzene	1.000	1.000	0.0	97	0.00
2	T	Dichlorodifluoromethane	0.361	0.361	0.0	94	0.00
3	P	Chloromethane	0.232	0.198	14.7	87	0.00
4	C	Vinyl Chloride	0.163	0.156	4.3	93	0.00
5	T	Bromomethane	0.132	0.136	-3.0	107	0.00
6	T	Chloroethane	0.116	0.115	0.9	94	0.00
7	T	Trichlorofluoromethane	0.308	0.329	-6.8	103	0.00
8	T	Isoprene	0.353	0.000	100.0#	0#	-6.65#
9	T	Acrolein	0.008	0.000	100.0#	0#	-6.85#
10	T	1,1,2-Trichloro-1,2,2-Trifl	0.291	0.000	100.0#	0#	-6.88#
11	T	Acetone	0.079	0.065	17.7	93	0.01
12	C	1,1-Dichloroethene	0.244	0.258	-5.7	102	0.00
13	T	Dimethyl Sulfide	0.225	0.032	85.8#	14#	-0.28
14	T	Iodomethane	0.242	0.225	7.0	95	0.00
15	T	Methylene Chloride	0.266	0.251	5.6	94	0.00
16	T	Carbon Disulfide	0.877	0.580	33.9#	67	0.00
17	T	Acrylonitrile	0.050	0.005	90.0#	10#	0.09
18	T	Methyl Tert Butyl Ether	0.549	0.532	3.1	94	0.00
19	T	trans-1,2-Dichloroethene	0.255	0.286	-12.2	110	0.00
20	T	n-Hexane	0.416	0.010	97.6#	2#	0.00
21	T	Vinyl Acetate	0.232	0.120	48.3#	50#	0.00
22	P	1,1-Dichloroethane	0.437	0.447	-2.3	100	0.00
23	T	2-Butanone	0.074	0.073	1.4	108	0.00
24	T	2,2-Dichloropropane	0.394	0.425	-7.9	105	0.00
25	T	cis-1,2-Dichloroethene	0.271	0.280	-3.3	100	0.00
26	C	Chloroform	0.463	0.483	-4.3	104	0.00
27	T	Bromochloromethane	0.127	0.132	-3.9	103	0.00
28	S	Dibromofluoromethane	0.291	0.646	-122.0#	219#	0.00
29	T	1,1,1-Trichloroethane	0.444	0.483	-8.8	106	0.00
30	T	Cyclohexane	0.405	0.001	99.8#	0#	0.00
31	T	1,1-Dichloropropene	0.339	0.392	-15.6	111	0.00
32	T	Carbon Tetrachloride	0.394	0.461	-17.0	114	0.00
33	S	1,2-Dichloroethane-d4	0.284	0.616	-116.9#	215#	0.00
34	T	1,2-Dichloroethane	0.320	0.327	-2.2	102	0.00
35	T	Benzene	0.957	0.989	-3.3	101	0.00
36	T	Trichloroethene	0.313	0.327	-4.5	103	0.00
37	C	1,2-Dichloropropane	0.223	0.220	1.3	97	0.00
38	T	Bromodichloromethane	0.315	0.332	-5.4	105	0.00
39	T	Dibromomethane	0.132	0.132	0.0	100	0.00
40	T	2-Chloroethyl Vinyl Ether	0.069	0.059	14.5	91	0.00
41	T	4-Methyl-2-Pentanone	0.060	0.061	-1.7	109	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\072199\6M14636.D Vial: 5
Acq On : 21 Jul 1999 12:05 Operator: CMS
Sample : WG61023-11 20 PPB ALT SOURCE STD M8260 5 Inst : HPMS_6
Misc : SOLID,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\HPCHEM\1\METHODS\8260BSL.M (RTE Integrator)
Title : Method 8260B_SOIL - ICAL 07/15/99
Last Update : Thu Jul 15 15:54:37 1999
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
42	T	cis-1,3-Dichloropropene	0.336	0.350	-4.2	102	0.00
43	T	Dimethyl Disulfide	0.168	0.000	100.0#	0#	-14.13#
44	I	Chlorobenzene-d5	1.000	1.000	0.0	99	0.00
45	S	Toluene-d8	1.366	2.977	-117.9#	213#	0.00
46	C	Toluene	1.420	1.457	-2.6	101	0.00
47	T	Ethyl Methacrylate	0.325	0.008	97.5#	2#	-0.23
48	T	trans-1,3-Dichloropropene	0.432	0.424	1.9	96	0.00
49	T	1,1,2-Trichloroethane	0.255	0.252	1.2	101	0.00
50	T	2-Hexanone	0.153	0.143	6.5	103	0.00
51	T	1,3-Dichloropropane	0.428	0.415	3.0	98	0.00
52	T	Tetrachloroethene	0.350	0.364	-4.0	103	0.00
53	T	Dibromochloromethane	0.323	0.340	-5.3	108	0.00
54	T	1,2-Dibromoethane	0.266	0.260	2.3	99	0.00
55	T	1-Chlorohexane	0.479	0.508	-6.1	99	0.00
56	P	Chlorobenzene	1.039	1.014	2.4	99	0.00
57	T	1,1,1,2-Tetrachloroethane	0.351	0.380	-8.3	105	0.00
58	C	Ethylbenzene	0.542	0.554	-2.2	101	0.00
59	T	m-,p-Xylene	0.666	0.672	-0.9	100	0.00
60	T	o-Xylene	0.631	0.641	-1.6	100	0.00
61	T	Styrene	1.045	1.056	-1.1	100	0.00
62	P	Bromoform	0.183	0.196	-7.1	110	0.00
63	T	Isopropylbenzene	1.690	1.697	-0.4	97	0.00
64	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	97	0.00
65	P	1,1,2,2-Tetrachloroethane	0.585	0.558	4.6	100	0.00
66	S	p-Bromofluorobenzene	0.992	2.180	-119.8#	216#	0.00
67	T	1,2,3-Trichloropropane	0.199	0.196	1.5	101	0.00
68	T	trans-1,4-Dichloro-2-Butene	0.153	0.067	56.2#	44#	0.31
69	T	n-Propylbenzene	3.639	3.757	-3.2	99	0.00
70	T	Bromobenzene	0.801	0.796	0.6	99	0.00
71	T	1,3,5-Trimethylbenzene	2.599	2.662	-2.4	99	0.00
72	T	2-Chlorotoluene	2.256	2.238	0.8	100	0.00
73	T	4-Chlorotoluene	2.216	2.232	-0.7	97	0.00
74	T	a-Methylstyrene	1.413	0.041	97.1#	3#	0.07
75	T	tert-Butylbenzene	2.630	2.601	1.1	96	0.00
76	T	1,2,4-Trimethylbenzene	2.710	2.685	0.9	98	0.00
77	T	sec-Butylbenzene	3.442	3.445	-0.1	96	0.00
78	T	p-Isopropyltoluene	3.169	3.112	1.8	94	0.00
79	T	1,3-Dichlorobenzene	1.637	1.599	2.3	98	0.00
80	T	1,4-Dichlorobenzene	1.685	1.607	4.6	96	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\072199\6M14636.D Vial: 5
Acq On : 21 Jul 1999 12:05 Operator: CMS
Sample : WG61023-11 20 PPB ALT SOURCE STD M8260 5 Inst : HPMS_6
Misc : SOLID,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\HPCHEM\1\METHODS\8260BSL.M (RTE Integrator)
Title : Method 8260B_SOIL - ICAL 07/15/99
Last Update : Thu Jul 15 15:54:37 1999
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
81	T	n-Butylbenzene	2.658	2.654	0.2	97	0.00
82	T	1,2-Dichlorobenzene	1.463	1.408	3.8	97	0.00
83	T	1,2-Dibromo-3-Chloropropane	0.125	0.120	4.0	101	0.00
84	T	1,2,4-Trichlorobenzene	0.973	0.883	9.2	91	0.00
85	T	Hexachlorobutadiene	0.510	0.491	3.7	96	0.00
86	T	Naphthalene	1.898	1.729	8.9	96	0.00
87	T	1,2,3-Trichlorobenzene	0.863	0.770	10.8	91	0.00

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\072199\6M14636.D Vial: 5
Acq On : 21 Jul 1999 12:05 Operator: CMS
Sample : WG61023-11 20 PPB ALT SOURCE STD M8260 5 Inst : HPMS_6
Misc : SOLID,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\HPCHEM\1\METHODS\8260BSL.M (RTE Integrator)
Title : Method 8260B_SOIL - ICAL 07/15/99
Last Update : Thu Jul 15 15:54:37 1999
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	Fluorobenzene	50.000	50.000	0.0	97	0.00
2	T	Dichlorodifluoromethane	20.000	20.039	-0.2	94	0.00
3	P	Chloromethane	20.000	17.097	14.5	87	0.00
4	C	Vinyl Chloride	20.000	19.090	4.6	93	0.00
5	T	Bromomethane	20.000	20.632	-3.2	107	0.00
6	T	Chloroethane	20.000	19.904	0.5	94	0.00
7	T	Trichlorofluoromethane	20.000	21.355	-6.8	103	0.00
8	T	Isoprene	20.000	0.000	100.0#	0	-6.65#
9	T	Acrolein	40.000	0.000	100.0#	0	-6.85#
10	T	1,1,2-Trichloro-1,2,2-Trifl	20.000	0.000	100.0#	0	-6.88#
11	T	Acetone	20.000	23.563	-17.8	93	0.01
12	C	1,1-Dichloroethene	20.000	21.143	-5.7	102	0.00
13	T	Dimethyl Sulfide	20.000	2.813	85.9#	14	-0.28
14	T	Iodomethane	20.000	14.889	25.6#	95	0.00
15	T	Methylene Chloride	20.000	18.900	5.5	94	0.00
16	T	Carbon Disulfide	20.000	13.229	33.9#	67	0.00
17	T	Acrylonitrile	20.000	1.786	91.1#	10	0.09
18	T	Methyl Tert Butyl Ether	20.000	19.358	3.2	94	0.00
19	T	trans-1,2-Dichloroethene	20.000	22.482	-12.4	110	0.00
20	T	n-Hexane	20.000	0.467	97.7#	2	0.00
21	T	Vinyl Acetate	20.000	8.680	56.6#	50	0.00
22	P	1,1-Dichloroethane	20.000	20.450	-2.2	100	0.00
23	T	2-Butanone	20.000	19.638	1.8	108	0.00
24	T	2,2-Dichloropropane	20.000	21.603	-8.0	105	0.00
25	T	cis-1,2-Dichloroethene	20.000	20.659	-3.3	100	0.00
26	C	Chloroform	20.000	20.842	-4.2	104	0.00
27	T	Bromochloromethane	20.000	20.833	-4.2	103	0.00
28	S	Dibromofluoromethane	20.000	44.486	-122.4#	219	0.00
29	T	1,1,1-Trichloroethane	20.000	21.761	-8.8	106	0.00
30	T	Cyclohexane	20.000	0.045	99.8#	0	0.00
31	T	1,1-Dichloropropene	20.000	23.142	-15.7	111	0.00
32	T	Carbon Tetrachloride	20.000	23.395	-17.0	114	0.00
33	S	1,2-Dichloroethane-d4	20.000	43.365	-116.8#	215	0.00
34	T	1,2-Dichloroethane	20.000	20.391	-2.0	102	0.00
35	T	Benzene	20.000	20.679	-3.4	101	0.00
36	T	Trichloroethene	20.000	20.884	-4.4	103	0.00
37	C	1,2-Dichloropropane	20.000	19.710	1.4	97	0.00
38	T	Bromodichloromethane	20.000	21.041	-5.2	105	0.00
39	T	Dibromomethane	20.000	19.989	0.1	100	0.00
40	T	2-Chloroethyl Vinyl Ether	20.000	13.797	31.0#	91	0.00
41	T	4-Methyl-2-Pentanone	20.000	20.351	-1.8	109	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\072199\6M14636.D Vial: 5
Acq On : 21 Jul 1999 12:05 Operator: CMS
Sample : WG61023-11 20 PPB ALT SOURCE STD M8260 5 Inst : HPMS_6
Misc : SOLID,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\HPCHEM\1\METHODS\8260BSL.M (RTE Integrator)
Title : Method 8260B_SOIL - ICAL 07/15/99
Last Update : Thu Jul 15 15:54:37 1999
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
42	T	cis-1,3-Dichloropropene	20.000	20.880	-4.4	102	0.00
43	T	Dimethyl Disulfide	20.000	0.000	100.0#	0	-14.13#
44	I	Chlorobenzene-d5	50.000	50.000	0.0	99	0.00
45	S	Toluene-d8	20.000	43.604	-118.0#	213	0.00
46	C	Toluene	20.000	20.517	-2.6	101	0.00
47	T	Ethyl Methacrylate	20.000	0.470	97.7#	2	-0.23
48	T	trans-1,3-Dichloropropene	20.000	19.619	1.9	96	0.00
49	T	1,1,2-Trichloroethane	20.000	19.813	0.9	101	0.00
50	T	2-Hexanone	20.000	18.703	6.5	103	0.00
51	T	1,3-Dichloropropane	20.000	19.414	2.9	98	0.00
52	T	Tetrachloroethene	20.000	20.751	-3.8	103	0.00
53	T	Dibromochloromethane	20.000	21.024	-5.1	108	0.00
54	T	1,2-Dibromoethane	20.000	19.522	2.4	99	0.00
55	T	1-Chlorohexane	20.000	21.201	-6.0	99	0.00
56	P	Chlorobenzene	20.000	19.526	2.4	99	0.00
57	T	1,1,1,2-Tetrachloroethane	20.000	21.647	-8.2	105	0.00
58	C	Ethylbenzene	20.000	20.449	-2.2	101	0.00
59	T	m-,p-Xylene	40.000	40.382	-1.0	100	0.00
60	T	o-Xylene	20.000	20.323	-1.6	100	0.00
61	T	Styrene	20.000	20.204	-1.0	100	0.00
62	P	Bromoform	20.000	17.706	11.5	110	0.00
63	T	Isopropylbenzene	20.000	20.081	-0.4	97	0.00
64	I	1,4-Dichlorobenzene-d4	50.000	50.000	0.0	97	0.00
65	P	1,1,2,2-Tetrachloroethane	20.000	19.097	4.5	100	0.00
66	S	p-Bromofluorobenzene	20.000	43.961	-119.8#	216	0.00
67	T	1,2,3-Trichloropropane	20.000	19.708	1.5	101	0.00
68	T	trans-1,4-Dichloro-2-Butene	20.000	8.790	56.1#	44	0.31
69	T	n-Propylbenzene	20.000	20.644	-3.2	99	0.00
70	T	Bromobenzene	20.000	19.879	0.6	99	0.00
71	T	1,3,5-Trimethylbenzene	20.000	20.481	-2.4	99	0.00
72	T	2-Chlorotoluene	20.000	19.839	0.8	100	0.00
73	T	4-Chlorotoluene	20.000	20.150	-0.7	97	0.00
74	T	a-Methylstyrene	20.000	0.578	97.1#	3	0.07
75	T	tert-Butylbenzene	20.000	19.779	1.1	96	0.00
76	T	1,2,4-Trimethylbenzene	20.000	19.820	0.9	98	0.00
77	T	sec-Butylbenzene	20.000	20.017	-0.1	96	0.00
78	T	p-Isopropyltoluene	20.000	19.642	1.8	94	0.00
79	T	1,3-Dichlorobenzene	20.000	19.534	2.3	98	0.00
80	T	1,4-Dichlorobenzene	20.000	19.082	4.6	96	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\072199\6M14636.D Vial: 5
Acq On : 21 Jul 1999 12:05 Operator: CMS
Sample : WG61023-11 20 PPB ALT SOURCE STD M8260 5 Inst : HPMS_6
Misc : SOLID,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\HPCHEM\1\METHODS\8260BSL.M (RTE Integrator)
Title : Method 8260B_SOIL - ICAL 07/15/99
Last Update : Thu Jul 15 15:54:37 1999
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
81	T	n-Butylbenzene	20.000	19.965	0.2	97	0.00
82	T	1,2-Dichlorobenzene	20.000	19.237	3.8	97	0.00
83	T	1,2-Dibromo-3-Chloropropane	20.000	15.794	21.0#	101	0.00
84	T	1,2,4-Trichlorobenzene	20.000	18.148	9.3	91	0.00
85	T	Hexachlorobutadiene	20.000	19.259	3.7	96	0.00
86	T	Naphthalene	20.000	18.219	8.9	96	0.00
87	T	1,2,3-Trichlorobenzene	20.000	17.849	10.8	91	0.00

Quantitation Report

Data File : C:\HPCHEM\1\DATA\072199\6M14636.D Vial: 5
Acq On : 21 Jul 1999 12:05 Operator: CMS
Sample : WG61023-11 20 PPB ALT SOURCE STD M8260 5 Inst : HPMS_6
Misc : SOLID,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 21 12:31 1999 Quant Results File: 8260BSL.RES

Method : C:\HPCHEM\1\METHODS\8260BSL.M (RTE Integrator)
Title : Method 8260B_SOIL - ICAL 07/15/99
Last Update : Thu Jul 15 15:54:37 1999
Response via : Initial Calibration

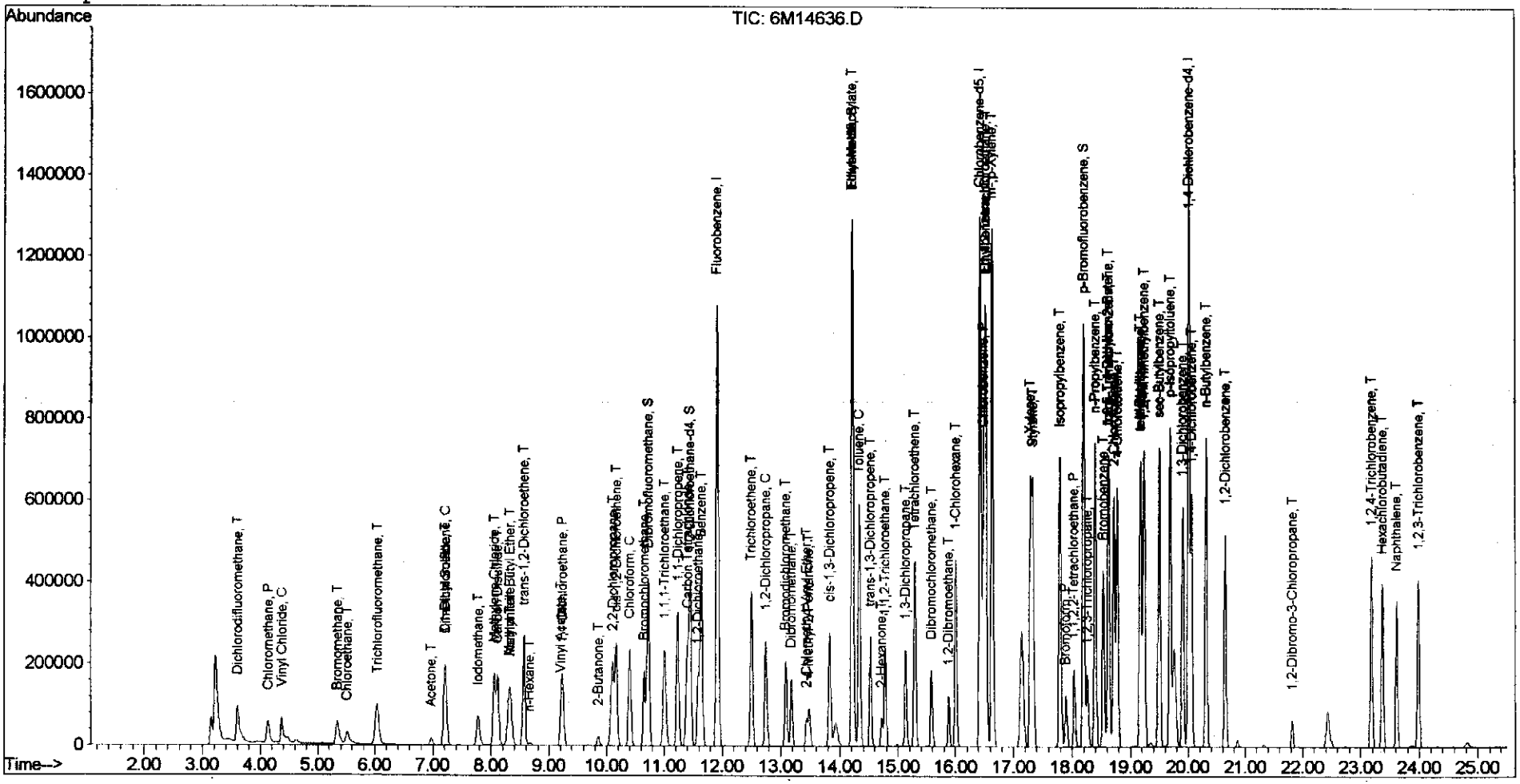

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Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\072199\6M14636.D Vial: 5
Acq On : 21 Jul 1999 12:05 Operator: CMS
Sample : WG61023-11 20 PPB ALT SOURCE STD M8260 5 Inst : HPMS_6
Misc : SOLID,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 21 12:31 1999 Quant Results File: 8260BSL.R

Quant Method : C:\HPCHEM\1\METHODS\8260BSL.M (RTE Integrator)
Title : Method 8260B_SOIL - ICAL 07/15/99
Last Update : Thu Jul 15 15:54:37 1999
Response via : Initial Calibration
DataAcq Meth : 8260BSL

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene	11.92	96	1528205	50.00 ug/Kg	0.00
44) Chlorobenzene-d5	16.43	117	1150239	50.00 ug/Kg	0.00
64) 1,4-Dichlorobenzene-d4	20.01	152	606642	50.00 ug/Kg	0.00
System Monitoring Compounds					
28) Dibromofluoromethane	10.73	111	395179	44.49 ug/Kg	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 88.98%		
33) 1,2-Dichloroethane-d4	11.45	65	376549	43.36 ug/Kg	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 86.72%		
45) Toluene-d8	14.21	98	1369790	43.60 ug/Kg	0.00
Spiked Amount 50.000	Range 81 - 117		Recovery = 87.20%		
66) p-Bromofluorobenzene	18.20	95	528893	43.96 ug/Kg	0.00
Spiked Amount 50.000	Range 74 - 121		Recovery = 87.92%		

Target Compounds					Qvalue
2) Dichlorodifluoromethane	3.60	85	220799	20.04 ug/Kg	98
3) Chloromethane	4.13	50	121273	17.10 ug/Kg	98
4) Vinyl Chloride	4.37	62	95330	19.09 ug/Kg	99
5) Bromomethane	5.34	94	83355	20.63 ug/Kg	96
6) Chloroethane	5.51	64	70366	19.90 ug/Kg#	88
7) Trichlorofluoromethane	6.04	101	200965	21.36 ug/Kg	99
11) Acetone	6.97	43	40005	23.56 ug/Kg	98
12) 1,1-Dichloroethene	7.21	96	157537	21.14 ug/Kg	90
13) Dimethyl Sulfide	7.21	62	19324	2.81 ug/Kg#	62
14) Iodomethane	7.78	142	137589	14.89 ug/Kg	97
15) Methylene Chloride	8.05	84	153669	18.90 ug/Kg	83
16) Carbon Disulfide	8.11	76	354775	13.23 ug/Kg	99
17) Acrylonitrile	8.32	53	3259	1.79 ug/Kg#	11
18) Methyl Tert Butyl Ether	8.31	73	324973	19.36 ug/Kg	93
19) trans-1,2-Dichloroethene	8.56	96	174901	22.48 ug/Kg	88
20) n-Hexane	8.66	57	5942	0.47 ug/Kg	96
21) Vinyl Acetate	9.20	43	73481	8.68 ug/Kg#	94
22) 1,1-Dichloroethane	9.24	63	273038	20.45 ug/Kg	99
23) 2-Butanone	9.86	43	44621	19.64 ug/Kg	94
24) 2,2-Dichloropropane	10.11	77	259828	21.60 ug/Kg	99
25) cis-1,2-Dichloroethene	10.17	96	171032	20.66 ug/Kg	90
26) Chloroform	10.41	83	295148	20.84 ug/Kg	98
27) Bromochloromethane	10.66	128	80965	20.83 ug/Kg	92
29) 1,1,1-Trichloroethane	11.02	97	295454	21.76 ug/Kg	94
31) 1,1-Dichloropropene	11.24	75	239608	23.14 ug/Kg	92
32) Carbon Tetrachloride	11.41	117	281723	23.39 ug/Kg	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\072199\6M14636.D Vial: 5
Acq On : 21 Jul 1999 12:05 Operator: CMS
Sample : WG61023-11 20 PPB ALT SOURCE STD M8260 5 Inst : HPMS_6
Misc : SOLID,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 21 12:31 1999 Quant Results File: 8260BSL.R

Quant Method : C:\HPCHEM\1\METHODS\8260BSL.M (RTE Integrator)
Title : Method 8260B_SOIL - ICAL 07/15/99
Last Update : Thu Jul 15 15:54:37 1999
Response via : Initial Calibration
DataAcq Meth : 8260BSL

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
34) 1,2-Dichloroethane	11.59	62	199629	20.39 ug/Kg	99
35) Benzene	11.64	78	604571	20.68 ug/Kg	97
36) Trichloroethene	12.51	130	200060	20.88 ug/Kg	88
37) 1,2-Dichloropropane	12.75	63	134232	19.71 ug/Kg	88
38) Bromodichloromethane	13.09	83	202666	21.04 ug/Kg	99
39) Dibromomethane	13.19	93	80712	19.99 ug/Kg	87
40) 2-Chloroethyl Vinyl Ether	13.43	63	36168	13.80 ug/Kg#	87
41) 4-Methyl-2-Pentanone	13.48	58	37099	20.35 ug/Kg#	86
42) cis-1,3-Dichloropropene	13.83	75	214119	20.88 ug/Kg	94
46) Toluene	14.33	91	670390	20.52 ug/Kg	98
47) Ethyl Methacrylate	14.21	69	3520	0.47 ug/Kg#	1
48) trans-1,3-Dichloropropene	14.52	75	195068	19.62 ug/Kg	97
49) 1,1,2-Trichloroethane	14.78	97	116131	19.81 ug/Kg	96
50) 2-Hexanone	14.71	43	66022	18.70 ug/Kg	98
51) 1,3-Dichloropropane	15.13	76	191169	19.41 ug/Kg	91
52) Tetrachloroethene	15.29	164	167255	20.75 ug/Kg	95
53) Dibromochloromethane	15.58	129	156211	21.02 ug/Kg	99
54) 1,2-Dibromoethane	15.88	107	119423	19.52 ug/Kg	99
55) 1-Chlorohexane	16.01	91	233613	21.20 ug/Kg	91
56) Chlorobenzene	16.49	112	466616	19.53 ug/Kg	93
57) 1,1,1,2-Tetrachloroethane	16.52	131	174894	21.65 ug/Kg	93
58) Ethylbenzene	16.52	106	254836	20.45 ug/Kg	96
59) m-,p-Xylene	16.63	106	618808	40.38 ug/Kg	96
60) o-Xylene	17.30	106	294948	20.32 ug/Kg	96
61) Styrene	17.33	104	485661	20.20 ug/Kg	96
62) Bromoform	17.90	173	90278	17.71 ug/Kg	98
63) Isopropylbenzene	17.80	105	780591	20.08 ug/Kg	96
65) 1,1,2,2-Tetrachloroethane	18.04	83	135468	19.10 ug/Kg	100
67) 1,2,3-Trichloropropane	18.27	110	47642	19.71 ug/Kg#	83
68) trans-1,4-Dichloro-2-Buten	18.63	53	16270	8.79 ug/Kg	84
69) n-Propylbenzene	18.41	91	911545	20.64 ug/Kg	94
70) Bromobenzene	18.54	156	193245	19.88 ug/Kg	99
71) 1,3,5-Trimethylbenzene	18.63	105	645[illegible]	20.48 ug/Kg	94
72) 2-Chlorotoluene	18.72	91	5430[illegible]	19.84 ug/Kg	95
73) 4-Chlorotoluene	18.78	91	5416[illegible]	20.15 ug/Kg	94
74) a-Methylstyrene	19.18	118	9914	0.58 ug/Kg#	1
75) tert-Butylbenzene	19.18	119	631166	19.78 ug/Kg	100
76) 1,2,4-Trimethylbenzene	19.24	105	651642	19.82 ug/Kg	95
77) sec-Butylbenzene	19.50	105	836015	20.02 ug/Kg	95
78) p-Isopropyltoluene	19.69	119	755147	19.64 ug/Kg	99
79) 1,3-Dichlorobenzene	19.91	146	388059	19.53 ug/Kg	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\072199\6M14636.D
Acq On : 21 Jul 1999 12:05
Sample : WG61023-11 20 PPB ALT SOURCE STD M8260 5
Misc : SOLID,1
MS Integration Params: rteint.p
Quant Time: Jul 21 12:31 1999

Vial: 5
Operator: CMS
Inst : HPMS_6
Multiplr: 1.00

Quant Results File: 8260BSL.R

Quant Method : C:\HPCHEM\1\METHODS\8260BSL.M (RTE Integrator)
Title : Method 8260B_SOIL - ICAL 07/15/99
Last Update : Thu Jul 15 15:54:37 1999
Response via : Initial Calibration
DataAcq Meth : 8260BSL

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
80) 1,4-Dichlorobenzene	20.06	146	390053	19.08 ug/Kg	99
81) n-Butylbenzene	20.31	91	643956	19.96 ug/Kg	91
82) 1,2-Dichlorobenzene	20.64	146	341546	19.24 ug/Kg	99
83) 1,2-Dibromo-3-Chloropropan	21.82	157	29239	15.79 ug/Kg	91
84) 1,2,4-Trichlorobenzene	23.19	180	214322	18.15 ug/Kg	99
85) Hexachlorobutadiene	23.37	225	119059	19.26 ug/Kg	99
86) Naphthalene	23.61	128	419576	18.22 ug/Kg	99
87) 1,2,3-Trichlorobenzene	23.99	180	186958	17.85 ug/Kg	99

(#) = qualifier out of range (m) = manual integration

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\072299\6M14653.D Vial: 2
Acq On : 22 Jul 1999 9:29 Operator: CMS
Sample : WG61351-02 50 PPB STD M8260 5G/5ML Inst : HPMS_6
Misc : SOLID,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\HPCHEM\1\METHODS\8260BSL.M (RTE Integrator)
Title : Method 8260B_SOIL - ICAL 07/15/99
Last Update : Thu Jul 22 09:02:15 1999
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Fluorobenzene	1.000	1.000	0.0	102	0.00
2	T	Dichlorodifluoromethane	0.361	0.358	0.8	100	0.00
3	P	Chloromethane	0.232	0.192	17.2	95	0.00
4	C	Vinyl Chloride	0.163	0.158	3.1	100	0.00
5	T	Bromomethane	0.132	0.129	2.3	106	0.00
6	T	Chloroethane	0.116	0.116	0.0	102	0.00
7	T	Trichlorofluoromethane	0.308	0.319	-3.6	105	0.00
8	T	Isoprene	0.353	0.349	1.1	100	0.00
9	T	Acrolein	0.000	0.000	0.0	0#	0.00
10	T	1,1,2-Trichloro-1,2,2-Trifl	0.291	0.297	-2.1	104	0.00
11	T	Acetone	0.079	0.058	26.6#	96	0.00
12	C	1,1-Dichloroethene	0.244	0.244	0.0	101	0.00
13	T	Dimethyl Sulfide	0.225	0.232	-3.1	105	0.00
14	T	Iodomethane	0.242	0.225	7.0	82	0.00
15	T	Methylene Chloride	0.266	0.246	7.5	102	0.00
16	T	Carbon Disulfide	0.877	0.800	8.8	101	0.00
17	T	Acrylonitrile	0.050	0.049	2.0	96	0.00
18	T	Methyl Tert Butyl Ether	0.549	0.609	-10.9	112	0.00
19	T	trans-1,2-Dichloroethene	0.255	0.253	0.8	101	0.00
20	T	n-Hexane	0.416	0.374	10.1	99	0.00
21	T	Vinyl Acetate	0.232	0.207	10.8	83	0.00
22	P	1,1-Dichloroethane	0.437	0.432	1.1	103	0.00
23	T	2-Butanone	0.074	0.071	4.1	100	0.00
24	T	2,2-Dichloropropane	0.394	0.421	-6.9	105	0.00
25	T	cis-1,2-Dichloroethene	0.271	0.277	-2.2	103	0.00
26	C	Chloroform	0.463	0.463	0.0	105	0.00
27	T	Bromochloromethane	0.127	0.128	-0.8	105	0.00
28	S	Dibromofluoromethane	0.291	0.269	7.6	100	0.00
29	T	1,1,1-Trichloroethane	0.444	0.466	-5.0	106	0.00
30	T	Cyclohexane	0.405	0.408	-0.7	101	0.00
31	T	1,1-Dichloropropene	0.339	0.343	-1.2	100	0.00
32	T	Carbon Tetrachloride	0.394	0.446	-13.2	109	0.00
33	S	1,2-Dichloroethane-d4	0.284	0.261	8.1	100	0.00
34	T	1,2-Dichloroethane	0.320	0.320	0.0	104	0.00
35	T	Benzene	0.957	0.954	0.3	103	0.00
36	T	Trichloroethene	0.313	0.314	-0.3	102	0.00
37	C	1,2-Dichloropropane	0.223	0.222	0.4	103	0.00
38	T	Bromodichloromethane	0.315	0.337	-7.0	108	0.00
39	T	Dibromomethane	0.132	0.131	0.8	105	0.00
40	T	2-Chloroethyl Vinyl Ether	0.069	0.074	-7.2	105	0.00
41	T	4-Methyl-2-Pentanone	0.060	0.058	3.3	100	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\072299\6M14653.D Vial: 2
Acq On : 22 Jul 1999 9:29 Operator: CMS
Sample : WG61351-02 50 PPB STD M8260 5G/5ML Inst : HPMS_6
Misc : SOLID,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\HPCHEM\1\METHODS\8260BSL.M (RTE Integrator)
Title : Method 8260B_SOIL - ICAL 07/15/99
Last Update : Thu Jul 22 09:02:15 1999
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
42	T	cis-1,3-Dichloropropene	0.336	0.360	-7.1	105	0.00
43	T	Dimethyl Disulfide	0.168	0.209	-24.4#	116	0.00
44	I	Chlorobenzene-d5	1.000	1.000	0.0	104	0.00
45	S	Toluene-d8	1.366	1.205	11.8	97	0.00
46	C	Toluene	1.420	1.390	2.1	103	0.00
47	T	Ethyl Methacrylate	0.325	0.333	-2.5	104	0.00
48	T	trans-1,3-Dichloropropene	0.432	0.457	-5.8	105	0.00
49	T	1,1,2-Trichloroethane	0.255	0.247	3.1	104	0.00
50	T	2-Hexanone	0.153	0.148	3.3	99	0.00
51	T	1,3-Dichloropropane	0.428	0.417	2.6	103	0.00
52	T	Tetrachloroethene	0.350	0.337	3.7	102	0.00
53	T	Dibromochloromethane	0.323	0.352	-9.0	110	0.00
54	T	1,2-Dibromoethane	0.266	0.259	2.6	102	0.00
55	T	1-Chlorohexane	0.479	0.485	-1.3	100	0.00
56	P	Chlorobenzene	1.039	0.967	6.9	101	0.00
57	T	1,1,1,2-Tetrachloroethane	0.351	0.381	-8.5	108	0.00
58	C	Ethylbenzene	0.542	0.519	4.2	101	0.00
59	T	m-,p-Xylene	0.666	0.635	4.7	101	0.00
60	T	o-Xylene	0.631	0.621	1.6	103	0.00
61	T	Styrene	1.045	1.027	1.7	102	0.00
62	P	Bromoform	0.183	0.214	-16.9	113	0.00
63	T	Isopropylbenzene	1.690	1.649	2.4	100	0.00
64	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	101	0.00
65	P	1,1,2,2-Tetrachloroethane	0.585	0.564	3.6	101	0.00
66	S	p-Bromofluorobenzene	0.992	0.904	8.9	97	0.00
67	T	1,2,3-Trichloropropane	0.199	0.193	3.0	103	0.00
68	T	trans-1,4-Dichloro-2-Butene	0.153	0.158	-3.3	100	0.00
69	T	n-Propylbenzene	3.639	3.540	2.7	98	0.00
70	T	Bromobenzene	0.801	0.785	2.0	102	0.00
71	T	1,3,5-Trimethylbenzene	2.599	2.558	1.6	99	0.00
72	T	2-Chlorotoluene	2.256	2.151	4.7	99	0.00
73	T	4-Chlorotoluene	2.216	2.142	3.3	98	0.00
74	T	a-Methylstyrene	1.413	1.409	0.3	98	0.00
75	T	tert-Butylbenzene	2.630	2.531	3.8	99	0.00
76	T	1,2,4-Trimethylbenzene	2.710	2.542	6.2	97	0.00
77	T	sec-Butylbenzene	3.442	3.311	3.8	97	0.00
78	T	p-Isopropyltoluene	3.169	3.056	3.6	96	0.00
79	T	1,3-Dichlorobenzene	1.637	1.552	5.2	99	0.00
80	T	1,4-Dichlorobenzene	1.685	1.549	8.1	97	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\072299\6M14653.D Vial: 2
Acq On : 22 Jul 1999 9:29 Operator: CMS
Sample : WG61351-02 50 PPB STD M8260 5G/5ML Inst : HPMS_6
Misc : SOLID,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\HPCHEM\1\METHODS\8260BSL.M (RTE Integrator)
Title : Method 8260B_SOIL - ICAL 07/15/99
Last Update : Thu Jul 22 09:02:15 1999
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
81	T	n-Butylbenzene	2.658	2.420	9.0	92	0.00
82	T	1,2-Dichlorobenzene	1.463	1.354	7.5	97	0.00
83	T	1,2-Dibromo-3-Chloropropane	0.125	0.123	1.6	95	-0.01
84	T	1,2,4-Trichlorobenzene	0.973	0.824	15.3	86	0.00
85	T	Hexachlorobutadiene	0.510	0.415	18.6	85	0.00
86	T	Naphthalene	1.898	1.632	14.0	87	0.00
87	T	1,2,3-Trichlorobenzene	0.863	0.711	17.6	85	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\072299\6M14653.D Vial: 2
Acq On : 22 Jul 1999 9:29 Operator: CMS
Sample : WG61351-02 50 PPB STD M8260 5G/5ML Inst : HPMS_6
Misc : SOLID,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\HPCHEM\1\METHODS\8260BSL.M (RTE Integrator)
Title : Method 8260B_SOIL - ICAL 07/15/99
Last Update : Thu Jul 22 09:02:15 1999
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	Fluorobenzene	50.000	50.000	0.0	102	0.00
2	T	Dichlorodifluoromethane	50.000	49.682	0.6	100	0.00
3	P	Chloromethane	50.000	41.363	17.3	95	0.00
4	C	Vinyl Chloride	50.000	48.268	3.5	100	0.00
5	T	Bromomethane	50.000	48.942	2.1	106	0.00
6	T	Chloroethane	50.000	50.332	-0.7	102	0.00
7	T	Trichlorofluoromethane	50.000	51.841	-3.7	105	0.00
8	T	Isoprene	50.000	49.433	1.1	100	0.00
9	T	Acrolein	-1.000	0.000	0.0	0	0.00
10	T	1,1,2-Trichloro-1,2,2-Trifl	50.000	51.066	-2.1	104	0.00
11	T	Acetone	50.000	52.433	-4.9	96	0.00
12	C	1,1-Dichloroethene	50.000	50.082	-0.2	101	0.00
13	T	Dimethyl Sulfide	50.000	51.505	-3.0	105	0.00
14	T	Iodomethane	50.000	37.240	25.5#	82	0.00
15	T	Methylene Chloride	50.000	46.162	7.7	102	0.00
16	T	Carbon Disulfide	50.000	45.588	8.8	101	0.00
17	T	Acrylonitrile	50.000	40.693	18.6	96	0.00
18	T	Methyl Tert Butyl Ether	50.000	55.455	-10.9	112	0.00
19	T	trans-1,2-Dichloroethene	50.000	49.746	0.5	101	0.00
20	T	n-Hexane	50.000	44.954	10.1	99	0.00
21	T	Vinyl Acetate	50.000	37.399	25.2#	83	0.00
22	P	1,1-Dichloroethane	50.000	49.410	1.2	103	0.00
23	T	2-Butanone	50.000	47.701	4.6	100	0.00
24	T	2,2-Dichloropropane	50.000	53.471	-6.9	105	0.00
25	T	cis-1,2-Dichloroethene	50.000	51.186	-2.4	103	0.00
26	C	Chloroform	50.000	49.978	0.0	105	0.00
27	T	Bromochloromethane	50.000	50.331	-0.7	105	0.00
28	S	Dibromofluoromethane	50.000	46.288	7.4	100	0.00
29	T	1,1,1-Trichloroethane	50.000	52.427	-4.9	106	0.00
30	T	Cyclohexane	50.000	50.347	-0.7	101	0.00
31	T	1,1-Dichloropropene	50.000	50.582	-1.2	100	0.00
32	T	Carbon Tetrachloride	50.000	56.547	-13.1	109	0.00
33	S	1,2-Dichloroethane-d4	50.000	45.965	8.1	100	0.00
34	T	1,2-Dichloroethane	50.000	49.878	0.2	104	0.00
35	T	Benzene	50.000	49.844	0.3	103	0.00
36	T	Trichloroethene	50.000	50.062	-0.1	102	0.00
37	C	1,2-Dichloropropane	50.000	49.852	0.3	103	0.00
38	T	Bromodichloromethane	50.000	53.389	-6.8	108	0.00
39	T	Dibromomethane	50.000	49.638	0.7	105	0.00
40	T	2-Chloroethyl Vinyl Ether	50.000	42.864	14.3	105	0.00
41	T	4-Methyl-2-Pentanone	50.000	48.859	2.3	100	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\072299\6M14653.D Vial: 2
Acq On : 22 Jul 1999 9:29 Operator: CMS
Sample : WG61351-02 50 PPB STD M8260 5G/5ML Inst : HPMS_6
Misc : SOLID,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\HPCHEM\1\METHODS\8260BSL.M (RTE Integrator)
Title : Method 8260B_SOIL - ICAL 07/15/99
Last Update : Thu Jul 22 09:02:15 1999
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
42	T	cis-1,3-Dichloropropene	50.000	53.711	-7.4	105	0.00
43	T	Dimethyl Disulfide	50.000	50.203	-0.4	116	0.00
44	I	Chlorobenzene-d5	50.000	50.000	0.0	104	0.00
45	S	Toluene-d8	50.000	44.131	11.7	97	0.00
46	C	Toluene	50.000	48.925	2.2	103	0.00
47	T	Ethyl Methacrylate	50.000	51.132	-2.3	104	0.00
48	T	trans-1,3-Dichloropropene	50.000	52.878	-5.8	105	0.00
49	T	1,1,2-Trichloroethane	50.000	48.535	2.9	104	0.00
50	T	2-Hexanone	50.000	48.079	3.8	99	0.00
51	T	1,3-Dichloropropane	50.000	48.755	2.5	103	0.00
52	T	Tetrachloroethene	50.000	48.154	3.7	102	0.00
53	T	Dibromochloromethane	50.000	54.439	-8.9	110	0.00
54	T	1,2-Dibromoethane	50.000	48.789	2.4	102	0.00
55	T	1-Chlorohexane	50.000	50.667	-1.3	100	0.00
56	P	Chlorobenzene	50.000	46.540	6.9	101	0.00
57	T	1,1,1,2-Tetrachloroethane	50.000	54.283	-8.6	108	0.00
58	C	Ethylbenzene	50.000	47.923	4.2	101	0.00
59	T	m-,p-Xylene	100.000	95.392	4.6	101	0.00
60	T	o-Xylene	50.000	49.228	1.5	103	0.00
61	T	Styrene	50.000	49.146	1.7	102	0.00
62	P	Bromoform	50.000	48.341	3.3	113	0.00
63	T	Isopropylbenzene	50.000	48.801	2.4	100	0.00
64	I	1,4-Dichlorobenzene-d4	50.000	50.000	0.0	101	0.00
65	P	1,1,2,2-Tetrachloroethane	50.000	48.210	3.6	101	0.00
66	S	p-Bromofluorobenzene	50.000	45.570	8.9	97	0.00
67	T	1,2,3-Trichloropropane	50.000	48.375	3.3	103	0.00
68	T	trans-1,4-Dichloro-2-Butene	50.000	51.881	-3.8	100	0.00
69	T	n-Propylbenzene	50.000	48.641	2.7	98	0.00
70	T	Bromobenzene	50.000	48.963	2.1	102	0.00
71	T	1,3,5-Trimethylbenzene	50.000	49.210	1.6	99	0.00
72	T	2-Chlorotoluene	50.000	47.683	4.6	99	0.00
73	T	4-Chlorotoluene	50.000	48.345	3.3	98	0.00
74	T	a-Methylstyrene	50.000	49.855	0.3	98	0.00
75	T	tert-Butylbenzene	50.000	48.122	3.8	99	0.00
76	T	1,2,4-Trimethylbenzene	50.000	46.903	6.2	97	0.00
77	T	sec-Butylbenzene	50.000	48.088	3.8	97	0.00
78	T	p-Isopropyltoluene	50.000	48.216	3.6	96	0.00
79	T	1,3-Dichlorobenzene	50.000	47.390	5.2	99	0.00
80	T	1,4-Dichlorobenzene	50.000	45.966	8.1	97	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\072299\6M14653.D Vial: 2
Acq On : 22 Jul 1999 9:29 Operator: CMS
Sample : WG61351-02 50 PPB STD M8260 5G/5ML Inst : HPMS_6
Misc : SOLID,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\HPCHEM\1\METHODS\8260BSL.M (RTE Integrator)
Title : Method 8260B_SOIL - ICAL 07/15/99
Last Update : Thu Jul 22 09:02:15 1999
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
81	T	n-Butylbenzene	50.000	45.521	9.0	92	0.00
82	T	1,2-Dichlorobenzene	50.000	46.271	7.5	97	0.00
83	T	1,2-Dibromo-3-Chloropropane	50.000	40.220	19.6	95	-0.01
84	T	1,2,4-Trichlorobenzene	50.000	42.332	15.3	86	0.00
85	T	Hexachlorobutadiene	50.000	40.751	18.5	85	0.00
86	T	Naphthalene	50.000	42.984	14.0	87	0.00
87	T	1,2,3-Trichlorobenzene	50.000	41.169	17.7	85	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report

Data File : C:\HPCHEM\1\DATA\072299\6M14653.D Vial: 2
Acq On : 22 Jul 1999 9:29 Operator: CMS
Sample : WG61351-02 50 PPB STD M8260 5G/5ML Inst : HPMS_6
Misc : SOLID,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 22 9:55 1999 Quant Results File: 8260BSL.RES

Method : C:\HPCHEM\1\METHODS\8260BSL.M (RTE Integrator)
Title : Method 8260B_SOIL - ICAL 07/15/99
Last Update : Thu Jul 22 09:02:15 1999
Response via : Initial Calibration

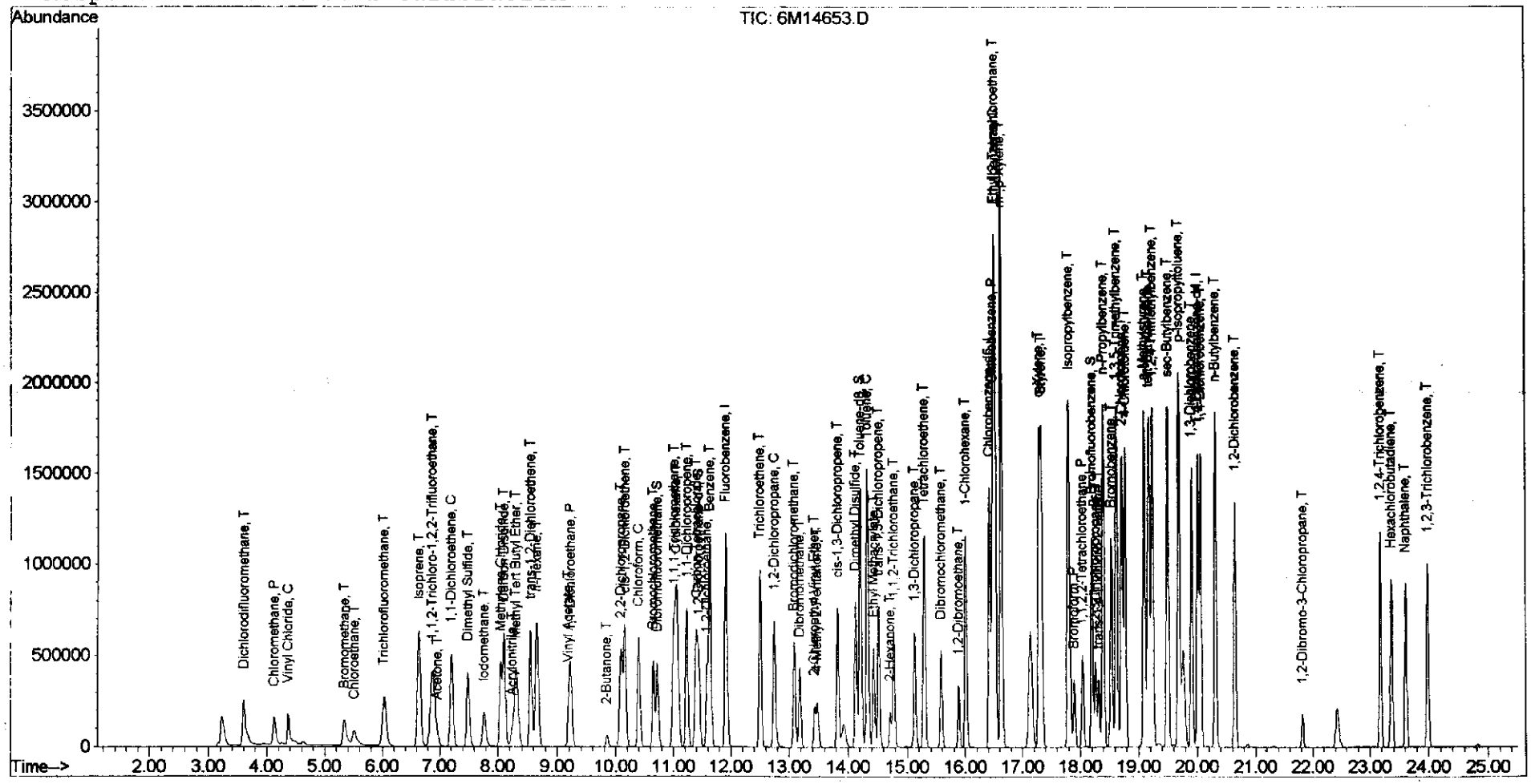

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\072299\6M14653.D Vial: 2
Acq On : 22 Jul 1999 9:29 Operator: CMS
Sample : WG61351-02 50 PPB STD M8260 5G/5ML Inst : HPMS_6
Misc : SOLID,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 22 9:55 1999 Quant Results File: 8260BSL.R

Quant Method : C:\HPCHEM\1\METHODS\8260BSL.M (RTE Integrator)
Title : Method 8260B_SOIL - ICAL 07/15/99
Last Update : Thu Jul 22 09:02:15 1999
Response via : Initial Calibration
DataAcq Meth : 8260BSL

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene	11.92	96	1647952	50.00 ug/Kg	0.00
44) Chlorobenzene-d5	16.43	117	1257892	50.00 ug/Kg	0.00
64) 1,4-Dichlorobenzene-d4	20.01	152	656829	50.00 ug/Kg	0.00
System Monitoring Compounds					
28) Dibromofluoromethane	10.73	111	443409	46.29 ug/Kg	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 92.58%		
33) 1,2-Dichloroethane-d4	11.45	65	430403	45.97 ug/Kg	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 91.94%		
45) Toluene-d8	14.21	98	1516103	44.13 ug/Kg	0.00
Spiked Amount 50.000	Range 81 - 117		Recovery = 88.26%		
66) p-Bromofluorobenzene	18.20	95	593596	45.57 ug/Kg	0.00
Spiked Amount 50.000	Range 74 - 121		Recovery = 91.14%		

Target Compounds					Qvalue
2) Dichlorodifluoromethane	3.60	85	590329	49.68 ug/Kg	98
3) Chloromethane	4.13	50	316391	41.36 ug/Kg	98
4) Vinyl Chloride	4.37	62	259927	48.27 ug/Kg	100
5) Bromomethane	5.34	94	213224	48.94 ug/Kg	93
6) Chloroethane	5.51	64	191881	50.33 ug/Kg	90
7) Trichlorofluoromethane	6.03	101	526079	51.84 ug/Kg	100
8) Isoprene	6.65	67	574715	49.43 ug/Kg	100
10) 1,1,2-Trichloro-1,2,2-Trif	6.88	101	490028	51.07 ug/Kg	94
11) Acetone	6.97	43	95996	52.43 ug/Kg	97
12) 1,1-Dichloroethene	7.20	96	402403	50.08 ug/Kg	92
13) Dimethyl Sulfide	7.49	62	381542	51.51 ug/Kg	96
14) Iodomethane	7.77	142	371109	37.24 ug/Kg	97
15) Methylene Chloride	8.05	84	404746	46.16 ug/Kg	82
16) Carbon Disulfide	8.11	76	1318370	45.59 ug/Kg	99
17) Acrylonitrile	8.24	53	80062	40.69 ug/Kg	93
18) Methyl Tert Butyl Ether	8.31	73	1003917	55.45 ug/Kg	94
19) trans-1,2-Dichloroethene	8.55	96	417337	49.75 ug/Kg	90
20) n-Hexane	8.66	57	616540	44.95 ug/Kg	95
21) Vinyl Acetate	9.19	43	341412	37.40 ug/Kg#	95
22) 1,1-Dichloroethane	9.23	63	711400	49.41 ug/Kg	99
23) 2-Butanone	9.85	43	116880	47.70 ug/Kg	93
24) 2,2-Dichloropropane	10.10	77	693509	53.47 ug/Kg	100
25) cis-1,2-Dichloroethene	10.17	96	456961	51.19 ug/Kg	91
26) Chloroform	10.41	83	763200	49.98 ug/Kg	98
27) Bromochloromethane	10.66	128	210930	50.33 ug/Kg	90
29) 1,1,1-Trichloroethane	11.01	97	767586	52.43 ug/Kg	94

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\072299\6M14653.D Vial: 2
Acq On : 22 Jul 1999 9:29 Operator: CMS
Sample : WG61351-02 50 PPB STD M8260 5G/5ML Inst : HPMS_6
Misc : SOLID,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 22 9:55 1999 Quant Results File: 8260BSL.R

Quant Method : C:\HPCHEM\1\METHODS\8260BSL.M (RTE Integrator)
Title : Method 8260B_SOIL - ICAL 07/15/99
Last Update : Thu Jul 22 09:02:15 1999
Response via : Initial Calibration
DataAcq Meth : 8260BSL

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
30) Cyclohexane	11.06	56	671919	50.35 ug/Kg	89
31) 1,1-Dichloropropene	11.24	75	564755	50.58 ug/Kg	92
32) Carbon Tetrachloride	11.41	117	734309	56.55 ug/Kg	98
34) 1,2-Dichloroethane	11.59	62	526560	49.88 ug/Kg	98
35) Benzene	11.64	78	1571409	49.84 ug/Kg	97
36) Trichloroethene	12.50	130	517141	50.06 ug/Kg	89
37) 1,2-Dichloropropane	12.75	63	366112	49.85 ug/Kg	88
38) Bromodichloromethane	13.09	83	554543	53.39 ug/Kg	99
39) Dibromomethane	13.18	93	216135	49.64 ug/Kg	89
40) 2-Chloroethyl Vinyl Ether	13.43	63	121166	42.86 ug/Kg#	88
41) 4-Methyl-2-Pentanone	13.48	58	96046	48.86 ug/Kg#	83
42) cis-1,3-Dichloropropene	13.83	75	593954	53.71 ug/Kg	95
43) Dimethyl Disulfide	14.13	79	344008	50.20 ug/Kg	98
46) Toluene	14.33	91	1748201	48.93 ug/Kg	98
47) Ethyl Methacrylate	14.44	69	418651	51.13 ug/Kg	95
48) trans-1,3-Dichloropropene	14.52	75	574971	52.88 ug/Kg	96
49) 1,1,2-Trichloroethane	14.78	97	311104	48.53 ug/Kg	97
50) 2-Hexanone	14.71	43	185605	48.08 ug/Kg	98
51) 1,3-Dichloropropane	15.13	76	525022	48.75 ug/Kg	90
52) Tetrachloroethene	15.29	164	424455	48.15 ug/Kg	96
53) Dibromochloromethane	15.58	129	442343	54.44 ug/Kg	99
54) 1,2-Dibromoethane	15.88	107	326392	48.79 ug/Kg	99
55) 1-Chlorohexane	16.01	91	610559	50.67 ug/Kg	90
56) Chlorobenzene	16.48	112	1216258	46.54 ug/Kg	91
57) 1,1,1,2-Tetrachloroethane	16.52	131	479624	54.28 ug/Kg	93
58) Ethylbenzene	16.53	106	653125	47.92 ug/Kg	96
59) m-,p-Xylene	16.63	106	1598608	95.39 ug/Kg	96
60) o-Xylene	17.30	106	781326	49.23 ug/Kg	96
61) Styrene	17.34	104	1291959	49.15 ug/Kg	97
62) Bromoform	17.90	173	269544	48.34 ug/Kg	99
63) Isopropylbenzene	17.80	105	2074556	48.80 ug/Kg	96
65) 1,1,2,2-Tetrachloroethane	18.05	83	370271	48.21 ug/Kg	100
67) 1,2,3-Trichloropropane	18.27	110	126617	48.37 ug/Kg#	87
68) trans-1,4-Dichloro-2-Buten	18.32	53	103977	51.88 ug/Kg	91
69) n-Propylbenzene	18.40	91	2325455	48.64 ug/Kg	93
70) Bromobenzene	18.54	156	515349	48.96 ug/Kg	100
71) 1,3,5-Trimethylbenzene	18.63	105	1680242	49.21 ug/Kg	94
72) 2-Chlorotoluene	18.72	91	1413129	47.68 ug/Kg	94
73) 4-Chlorotoluene	18.78	91	1407135	48.35 ug/Kg	95
74) a-Methylstyrene	19.10	118	925176	49.86 ug/Kg	99
75) tert-Butylbenzene	19.17	119	1662654	48.12 ug/Kg	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\072299\6M14653.D Vial: 2
Acq On : 22 Jul 1999 9:29 Operator: CMS
Sample : WG61351-02 50 PPB STD M8260 5G/5ML Inst : HPMS_6
Misc : SOLID,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 22 9:55 1999 Quant Results File: 8260BSL.R

Quant Method : C:\HPCHEM\1\METHODS\8260BSL.M (RTE Integrator)
Title : Method 8260B_SOIL - ICAL 07/15/99
Last Update : Thu Jul 22 09:02:15 1999
Response via : Initial Calibration
DataAcq Meth : 8260BSL

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
76) 1,2,4-Trimethylbenzene	19.24	105	1669700	46.90 ug/Kg	94
77) sec-Butylbenzene	19.50	105	2174573	48.09 ug/Kg	95
78) p-Isopropyltoluene	19.69	119	2007069	48.22 ug/Kg	99
79) 1,3-Dichlorobenzene	19.91	146	1019334	47.39 ug/Kg	98
80) 1,4-Dichlorobenzene	20.05	146	1017294	45.97 ug/Kg	99
81) n-Butylbenzene	20.31	91	1589741	45.52 ug/Kg	91
82) 1,2-Dichlorobenzene	20.65	146	889472	46.27 ug/Kg	99
83) 1,2-Dibromo-3-Chloropropan	21.82	157	80617	40.22 ug/Kg	90
84) 1,2,4-Trichlorobenzene	23.19	180	541293	42.33 ug/Kg	99
85) Hexachlorobutadiene	23.37	225	272765	40.75 ug/Kg	99
86) Naphthalene	23.61	128	1071800	42.98 ug/Kg	99
87) 1,2,3-Trichlorobenzene	23.99	180	466888	41.17 ug/Kg	99

(#) = qualifier out of range (m) = manual integration

GC/MS QA-QC Check Report

Tune File : C:\HPCHEM\1\DATA\072299\6M14652.D
Tune Time : 22 Jul 1999 9:00

Daily Calibration File : C:\HPCHEM\1\DATA\072299\6M14653.D

		DFM	DCA	TOL	BFB	FBZ	CBZ	
						1647950	1257890	656829
File	Sample	Surrogate Recovery %				Internal Standard Responses		
6M14654.D	WG61351-	90	90	88	88	1587583	1207547	640746
6M14655.D	WG61351-	90	88	85	85	1567304	1208697	673091
6M14656.D	L9907250	93	98	89	114	1502242	1173675	601285
6M14657.D	BLANK	89	88	86	87	1585699	1222871	663834
6M14658.D	L9907381	92	91	90	113	1419562	1012598	393497
6M14659.D	L9907381	89	90	87	105	1460561	1081440	461985
6M14660.D	L9907381	90	90	88	95	1502416	1140777	556032
6M14661.D	L9907381	91	93	87	88	1472610	1138659	617210
6M14662.D	L9907381	92	96	88	89	1500137	1152638	621445
6M14663.D	L9907381	91	93	88	89	1481480	1145750	622575
6M14664.D	L9907381	94	100	88	89	1439554	1124795	621330
6M14665.D	L9907381	92	93	87	87	1469117	1132821	620646
6M14666.D	L9907372	93	96	88	88	1463166	1126401	609881
6M14667.D	L9907372	91	93	86	88	1491021	1158432	631263
6M14668.D	L9907372	90	91	86	88	1505843	1151501	619590
6M14669.D	L9907372	91	94	86	87	1423682	1094180	593048
6M14670.D	L9907372	90	92	87	88	1471078	1122003	589596
6M14671.D	tL9907372	91	95	87	87	1467509	1130677	613371
6M14672.D	tL9907372	90	94	87	87	1461960	1127590	609665

t - fails 12hr time check * - fails criteria

Created: Fri Jul 23 08:13:18 1999 HPMS_6

Ical Date:	7/15/99	Ical Filename:	6M14573.D	Instrument:	HPMS 6
CCV Date:	7/22/99	CCV Filename:	6M14653.D		

	Fluorbenzene		Chlorobenzene-d5		1,4-Dichlorobenzene-d4	
	Ret. Time	Response	Ret. Time	Response	Ret. Time	Response
Ical	11.92	1612084	16.42	1208705	20.00	651411
CCV	11.92	1647952	16.43	1257892	20.01	656829
	Pass	Pass	Pass	Pass	Pass	Pass

Volatile Organics

Raw QC Data

- GC/MS Instrument Performance Check (BFB)
- Blank chromatogram and quantitation report
- Laboratory Control Sample chromatogram and quantitation report
- Matrix Spike/Matrix Spike Duplicate chromatograms and quantitation reports (if not reported as samples)
- Instrument runlogs

BFB

Data File : C:\HPCHEM\1\DATA\071599\6M14571.D Vial: 2
Acq On : 15 Jul 1999 10:19 Operator: CMS
Sample : WG61023-01 BFB 50 PPM STD S-47-14 10UL/5 Inst : HPMS_6
Misc : SOLID,1 Multiplr: 1.00
MS Integration Params: rteint.p
Method : C:\HPCHEM\1\METHODS\8260BSL.M (RTE Integrator)
Title : Method 8260B_SOIL - ICAL 07/15/99

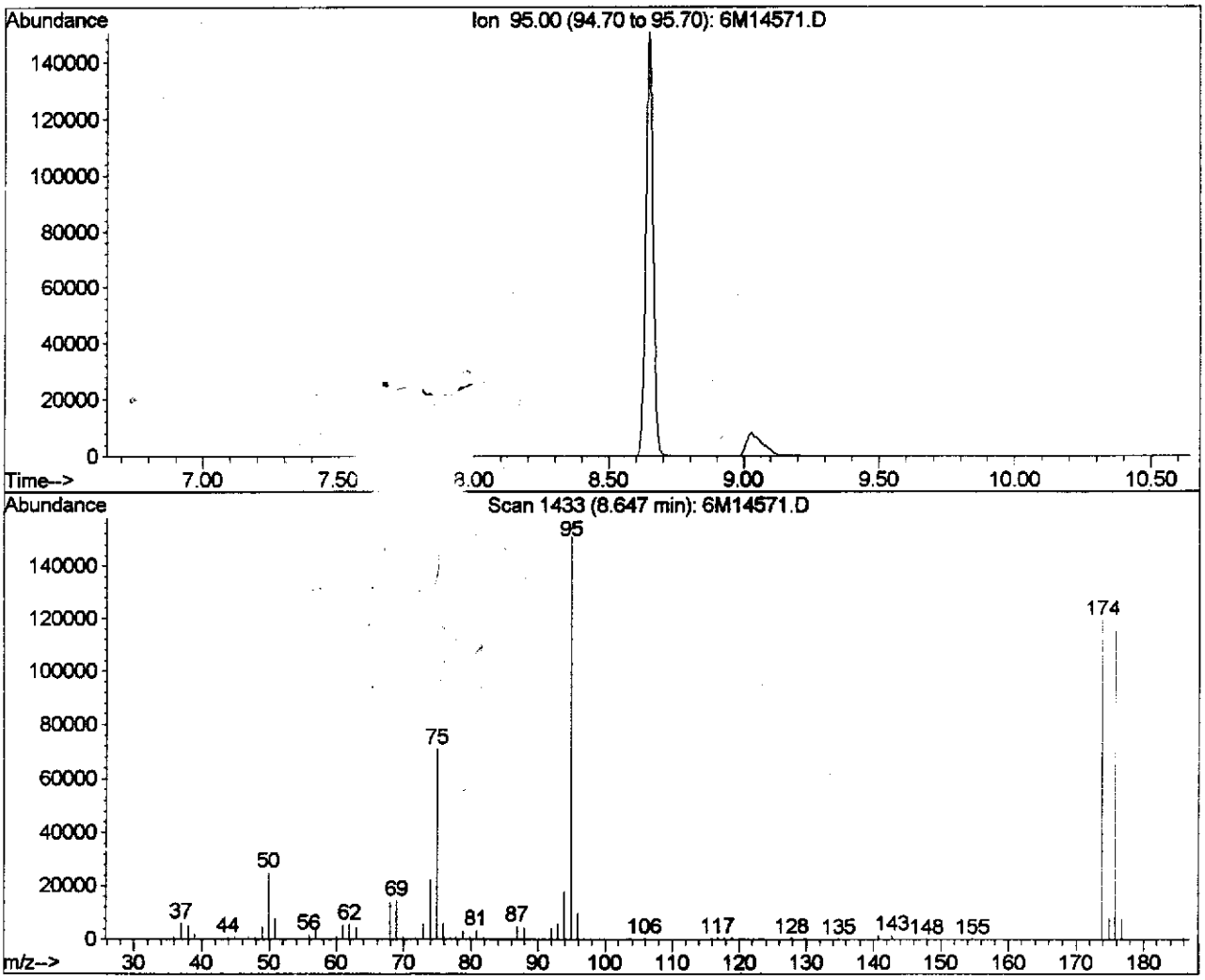

Spectrum Information: Scan 1433

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	16.7	[illegible]112	PASS
75	95	30	60	47.0	[illegible]08	PASS
95	95	100	100	100.0	[illegible]92	PASS
96	95	5	9	6.5	[illegible]721	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	79.1	119096	PASS
175	174	5	9	6.9	8265	PASS
176	174	95	101	96.5	114896	PASS
177	176	5	9	6.8	7850	PASS

BFB

Data File : C:\HPCHEM\1\DATA\072299\6M14652.D Vial: 1
Acq On : 22 Jul 1999 9:00 Operator: CMS
Sample : WG61351-01 BFB 50 PPM STD S-47-14 10UL/5 Inst : HPMS_6
Misc : SOLID,1 Multiplr: 1.00
MS Integration Params: rteint.p
Method : C:\HPCHEM\1\METHODS\8260BSL.M (RTE Integrator)
Title : Method 8260B_SOIL - ICAL 07/15/99

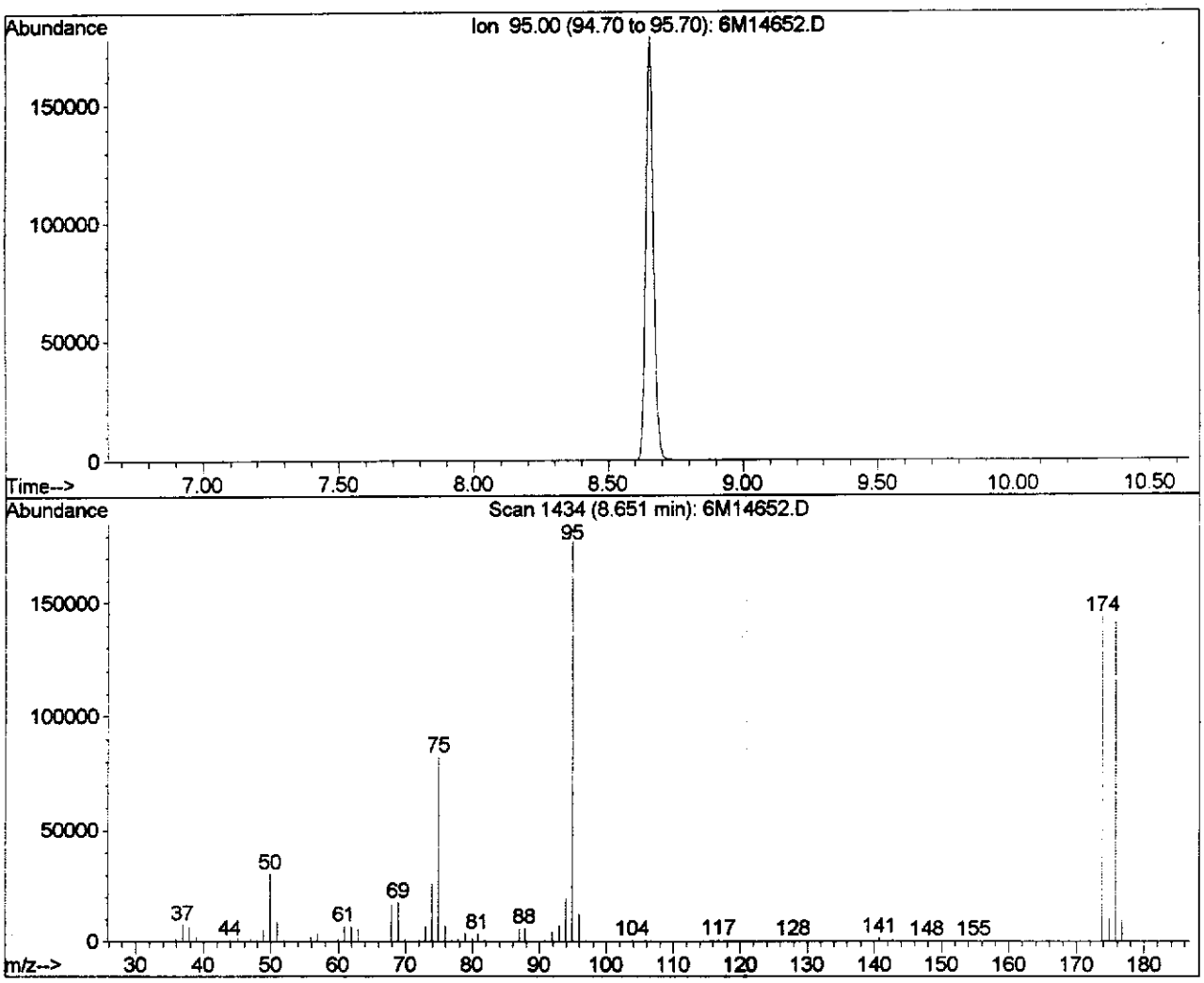

Spectrum Information: Scan 1434

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	17.1	30456	PASS
75	95	30	60	46.2	82064	PASS
95	95	100	100	100.0	177728	PASS
96	95	5	9	6.9	12264	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	80.6	143168	PASS
175	174	5	9	7.4	10595	PASS
176	174	95	101	98.3	140800	PASS
177	176	5	9	6.9	9669	PASS

"14652.D 8260BSL.M Thu Jul 22 09:10:57 1999 HPMS_6

Quantitation Report

Data File : C:\HPCHEM\1\DATA\072299\6M14654.D Vial: 3
Acq On : 22 Jul 1999 10:10 Operator: CMS
Sample : WG61351-03 VBLK0722 SOIL BLANK M8260 5G/ Inst : HPMS_6
Misc : SOLID,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 22 10:36 1999 Quant Results File: 8260BSL.RES

Method : C:\HPCHEM\1\METHODS\8260BSL.M (RTE Integrator)
Title : Method 8260B_SOIL - ICAL 07/15/99
Last Update : Thu Jul 22 09:02:15 1999
Response via : Initial Calibration

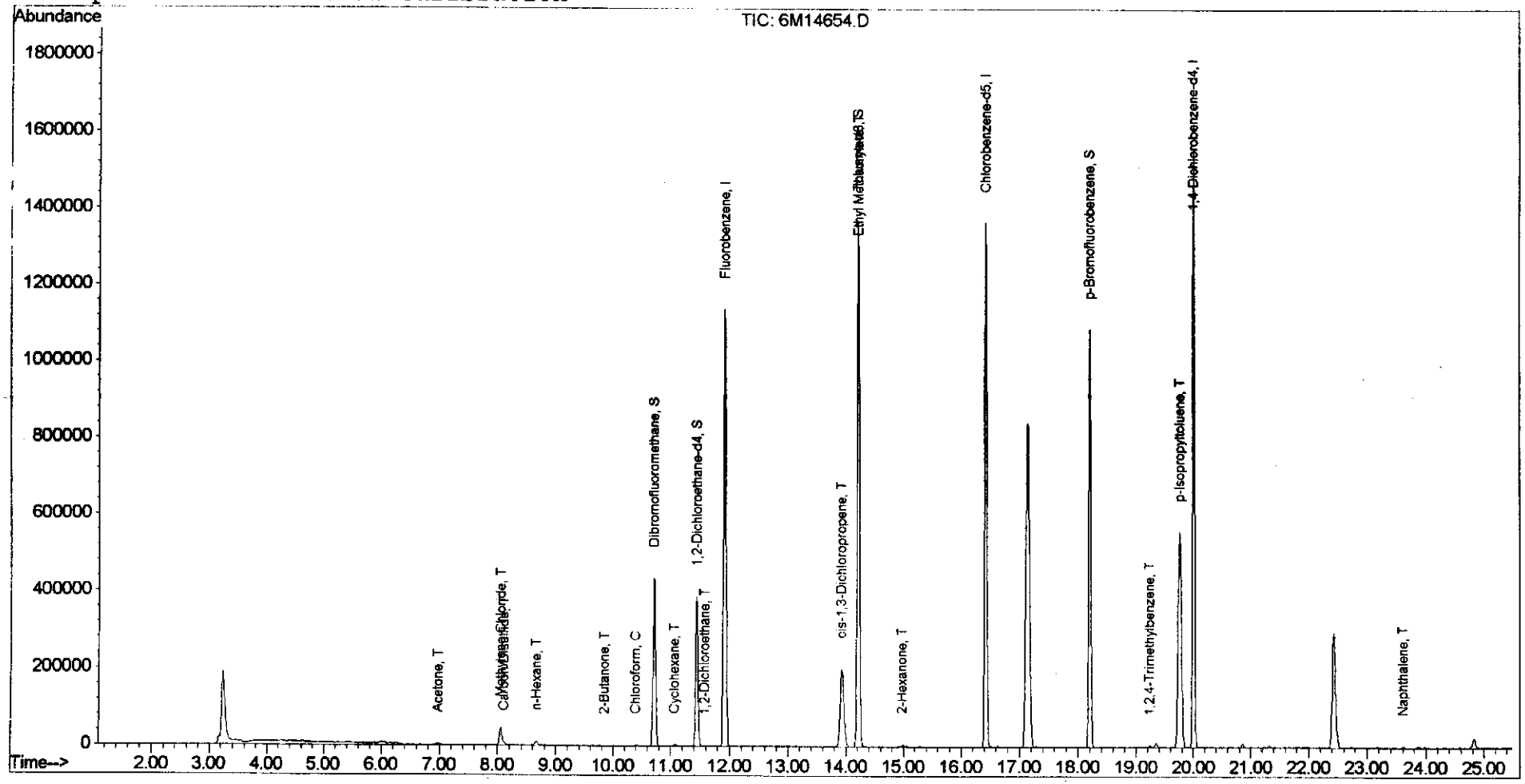

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\072299\6M14654.D Vial: 3
Acq On : 22 Jul 1999 10:10 Operator: CMS
Sample : WG61351-03 VBLK0722 SOIL BLANK M8260 5G/ Inst : HPMS_6
Misc : SOLID,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 22 10:36 1999 Quant Results File: 8260BSL.R

Quant Method : C:\HPCHEM\1\METHODS\8260BSL.M (RTE Integrator)
Title : Method 8260B_SOIL - ICAL 07/15/99
Last Update : Thu Jul 22 09:02:15 1999
Response via : Initial Calibration
DataAcq Meth : 8260BSL

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene	11.92	96	1587583	50.00 ug/Kg	0.00
44) Chlorobenzene-d5	16.43	117	1207547	50.00 ug/Kg	0.00
64) 1,4-Dichlorobenzene-d4	20.01	152	640746	50.00 ug/Kg	0.00
System Monitoring Compounds					
28) Dibromofluoromethane	10.73	111	415808	45.06 ug/Kg	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 90.12%		
33) 1,2-Dichloroethane-d4	11.45	65	403873	44.77 ug/Kg	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 89.54%		
45) Toluene-d8	14.21	98	1443168	43.76 ug/Kg	0.00
Spiked Amount 50.000	Range 81 - 117		Recovery = 87.52%		
66) p-Bromofluorobenzene	18.20	95	557819	43.90 ug/Kg	0.00
Spiked Amount 50.000	Range 74 - 121		Recovery = 87.80%		

Target Compounds					Qvalue
11) Acetone	6.97	43	8380	4.75 ug/Kg J	100
15) Methylene Chloride	8.05	84	37849	4.48 ug/Kg B	82
16) Carbon Disulfide	8.11	76	13088	0.47 ug/Kg	98
20) n-Hexane	8.66	57	7963	0.60 ug/Kg	99
23) 2-Butanone	9.86	43	1296	0.55 ug/Kg#	54
26) Chloroform	10.40	83	3927	0.27 ug/Kg#	84
30) Cyclohexane	11.07	56	2884	0.22 ug/Kg#	30
34) 1,2-Dichloroethane	11.59	62	2853	0.28 ug/Kg#	78
42) cis-1,3-Dichloropropene	13.93	75	6448	0.61 ug/Kg#	53
47) Ethyl Methacrylate	14.22	69	3755	0.48 ug/Kg#	1
50) 2-Hexanone	14.98	43	1298	0.35 ug/Kg#	28
76) 1,2,4-Trimethylbenzene	19.24	105	5462	0.16 ug/Kg	99
78) p-Isopropyltoluene	19.76	119	8868	0.22 ug/Kg	98
86) Naphthalene	23.61	128	6011	0.25 ug/Kg#	76

(#) = qualifier out of range (m) = manual integration

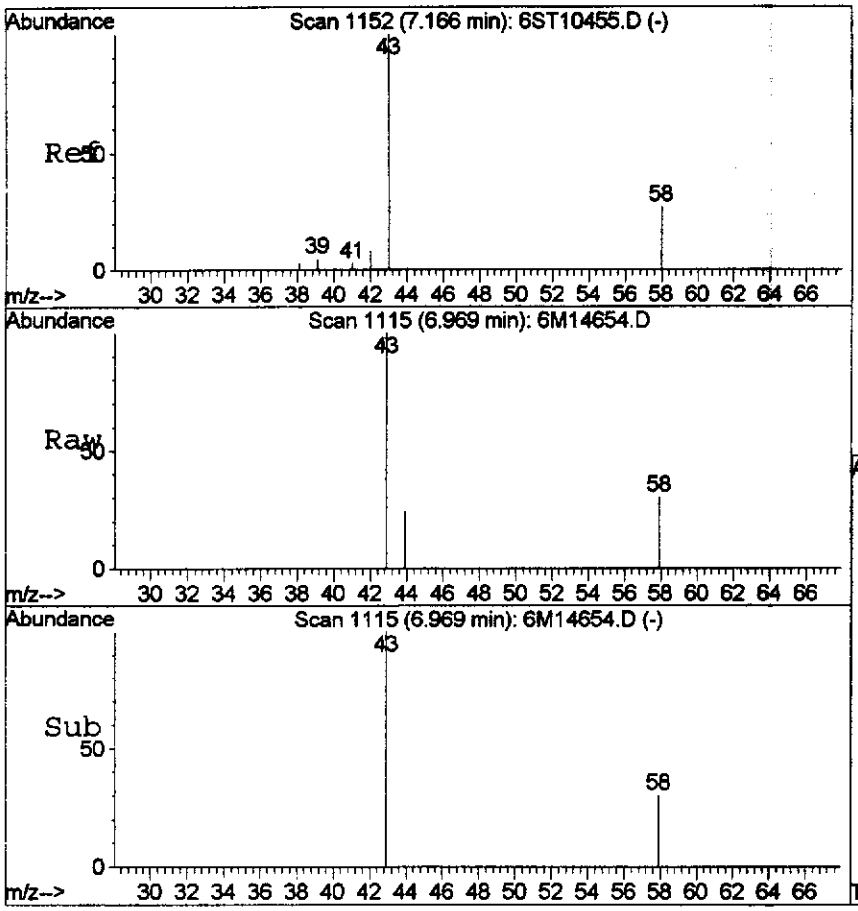

#11
Acetone
Concen: 4.75 ug/Kg
RT: 6.97 min Scan# 1115
Delta R.T. 0.01 min
Lab File: 6M14654.D
Acq: 22 Jul 1999 10:10

Tgt Ion: 43 Resp: 8380

Ion	Ratio	Lower	Upper
43	100		
58	28.5	22.9	34.3

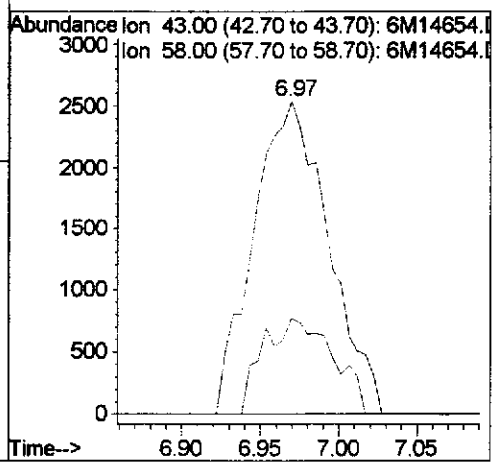

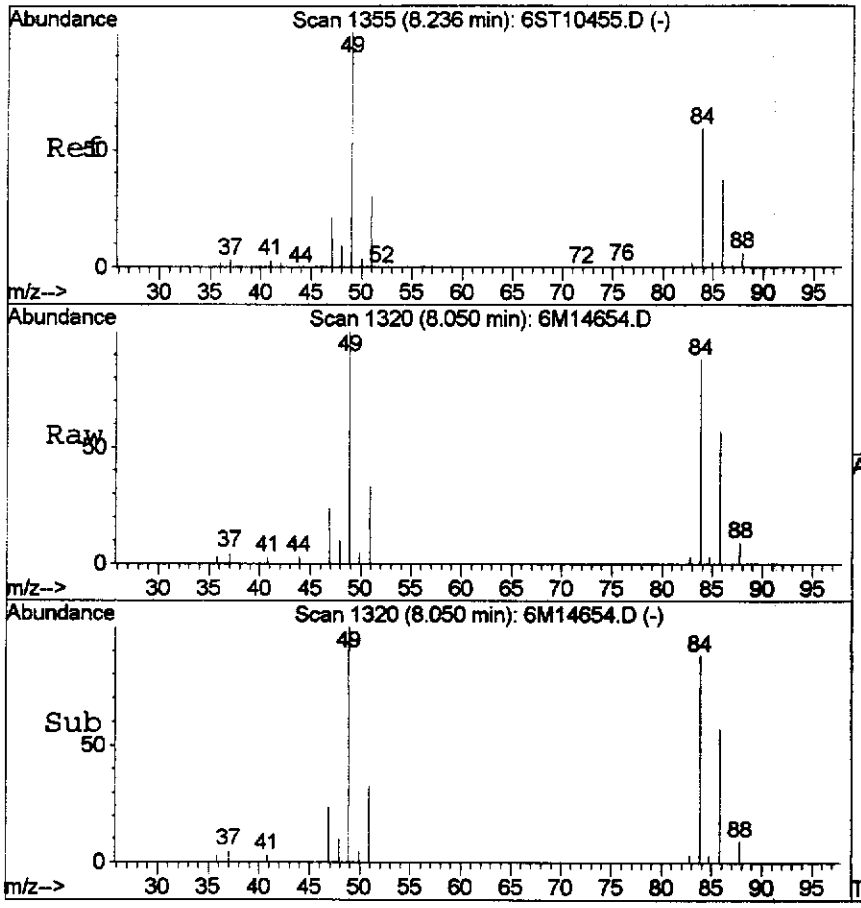

#15
Methylene Chloride
Concen: 4.48 ug/Kg
RT: 8.05 min Scan# 1320
Delta R.T. 0.00 min
Lab File: 6M14654.D
Acq: 22 Jul 1999 10:10

Tgt Ion: 84 Resp: 37849

Ion	Ratio	Lower	Upper
84	100		
49	116.1	110.3	165.5

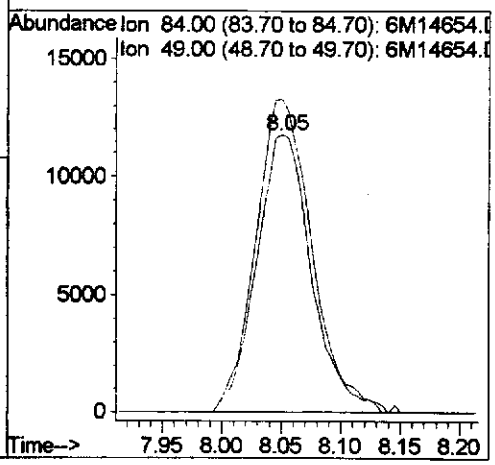

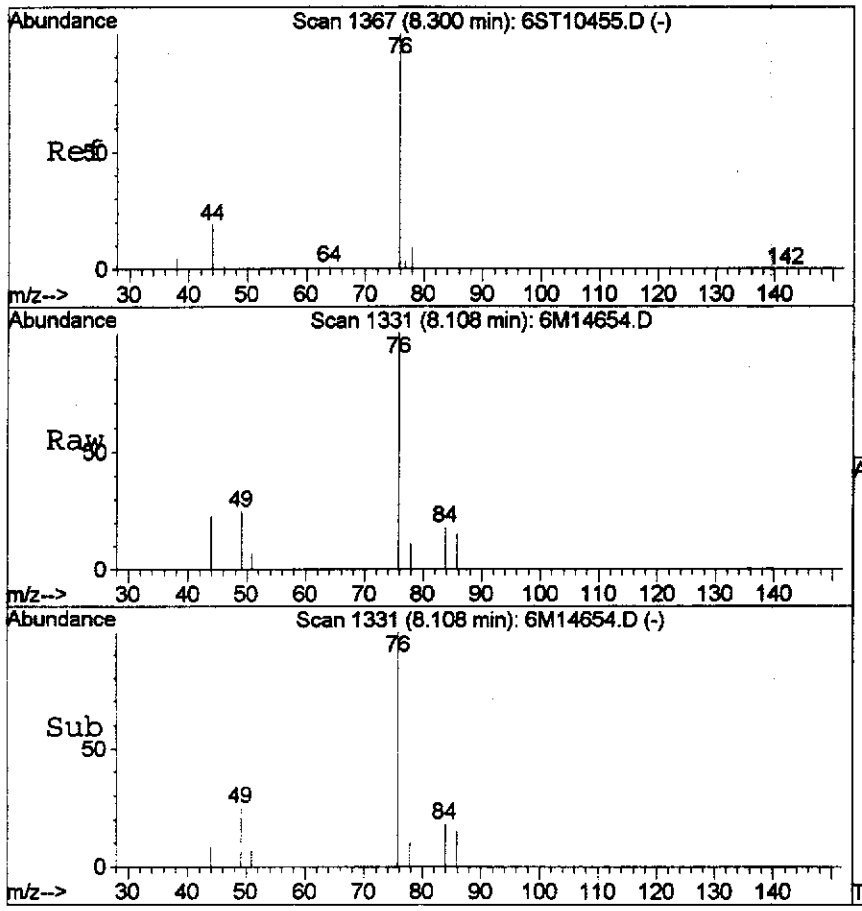

#16
Carbon Disulfide
Concen: 0.47 ug/Kg
RT: 8.11 min Scan# 1331
Delta R.T. -0.00 min
Lab File: 6M14654.D
Acq: 22 Jul 1999 10:10

Tgt Ion: 76 Resp: 13088

Ion	Ratio	Lower	Upper
76	100		
78	8.4	7.2	10.8

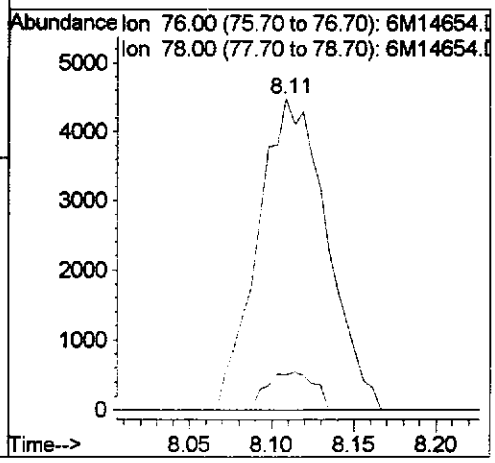

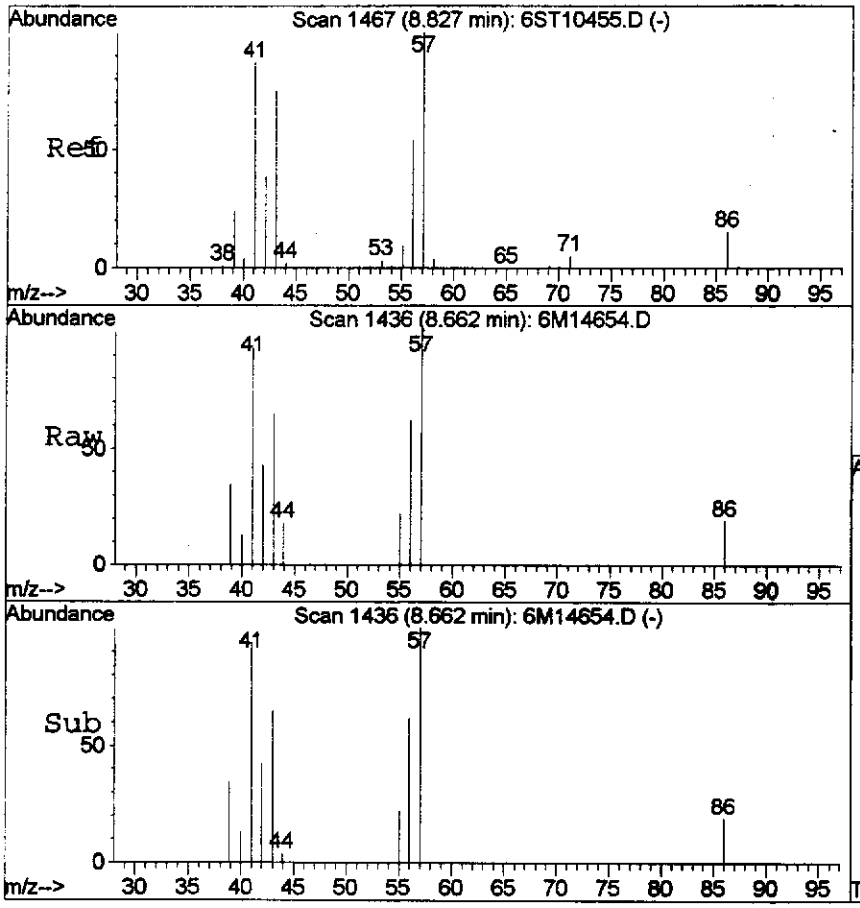

#20
n-Hexane
Concen: 0.60 ug/Kg
RT: 8.66 min Scan# 1436
Delta R.T. 0.00 min
Lab File: 6M14654.D
Acq: 22 Jul 1999 10:10

Tgt Ion: 57 Resp: 7963

Ion	Ratio	Lower	Upper
57	100		
43	72.1	56.7	85.1

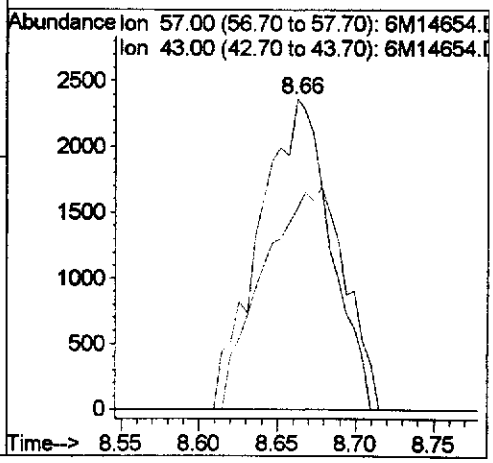

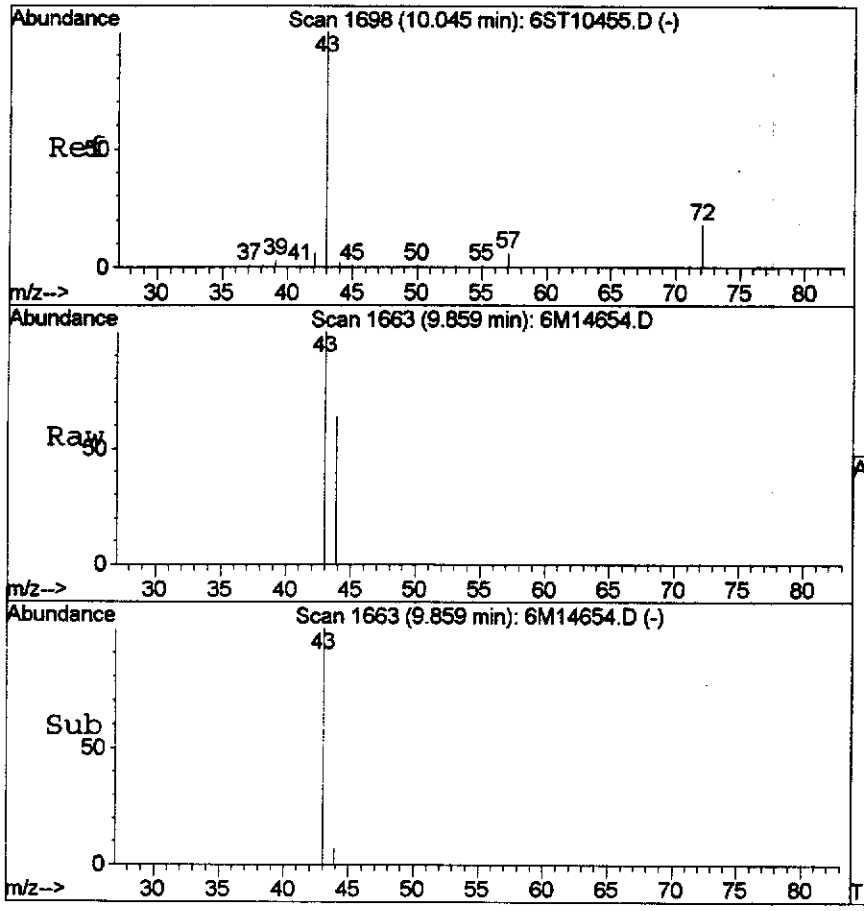

#23
2-Butanone
Concen: 0.55 ug/Kg
RT: 9.86 min Scan# 1663
Delta R.T. 0.01 min
Lab File: 6M14654.D
Acq: 22 Jul 1999 10:10

Tgt Ion: 43 Resp: 1296

Ion	Ratio	Lower	Upper
43	100		
72	0.0	17.6	26.4#

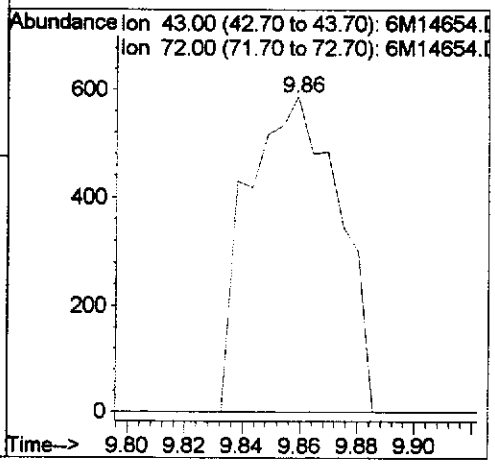

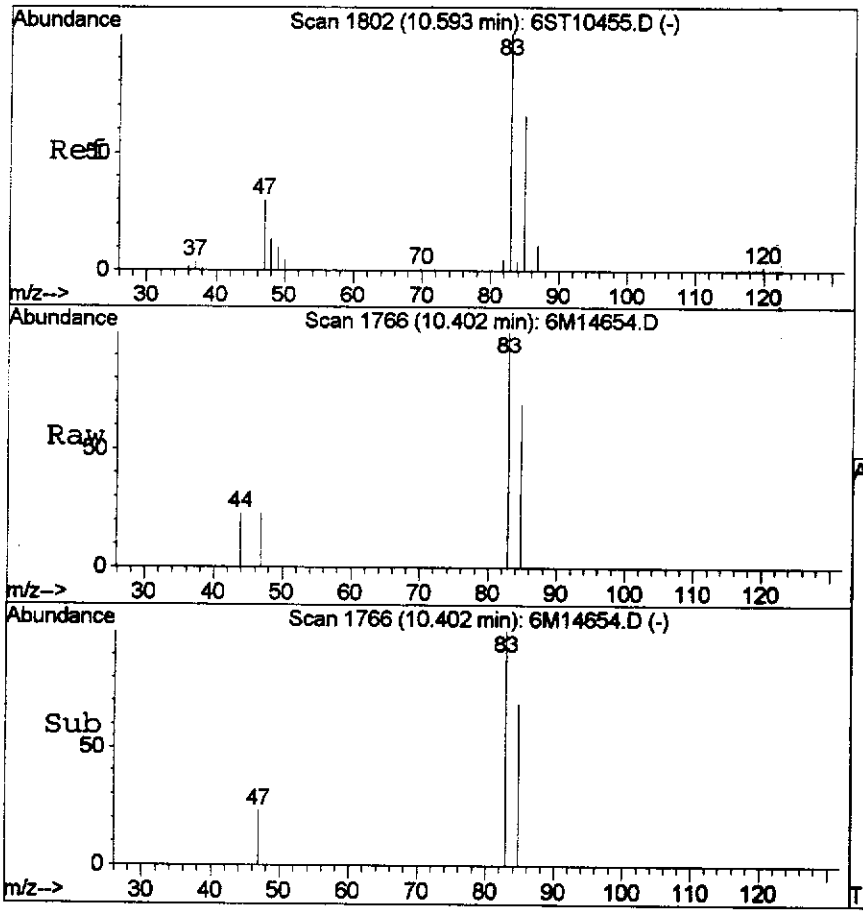

#26
Chloroform
Concen: 0.27 ug/Kg
RT: 10.40 min Scan# 1766
Delta R.T. -0.00 min
Lab File: 6M14654.D
Acq: 22 Jul 1999 10:10

Tgt Ion: 83 Resp: 3927

Ion	Ratio	Lower	Upper
83	100		
85	59.6	52.2	78.2
47	5.6	20.8	31.2#

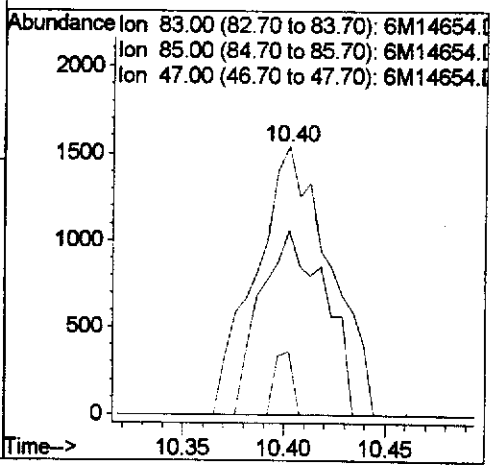

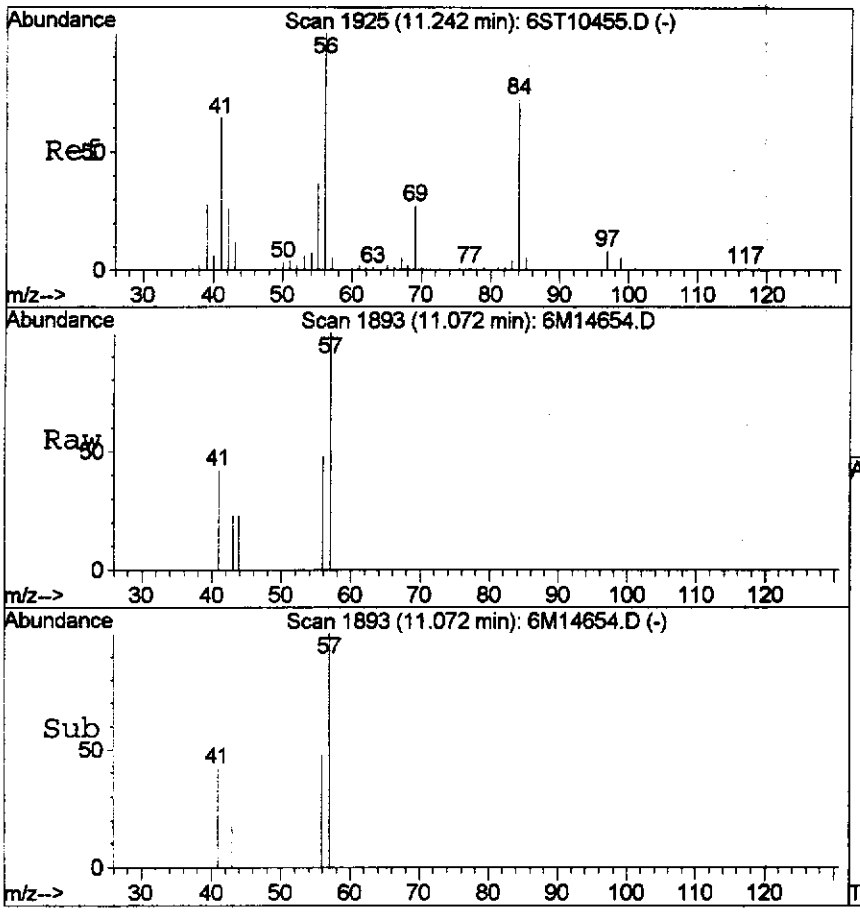

#30
Cyclohexane
Concen: 0.22 ug/Kg
RT: 11.07 min Scan# 1893
Delta R.T. 0.00 min
Lab File: 6M14654.D
Acq: 22 Jul 1999 10:10

Tgt Ion: 56 Resp: 2884

Ion	Ratio	Lower	Upper
56	100		
84	0.0	66.3	99.5#
41	94.6	50.0	75.0#

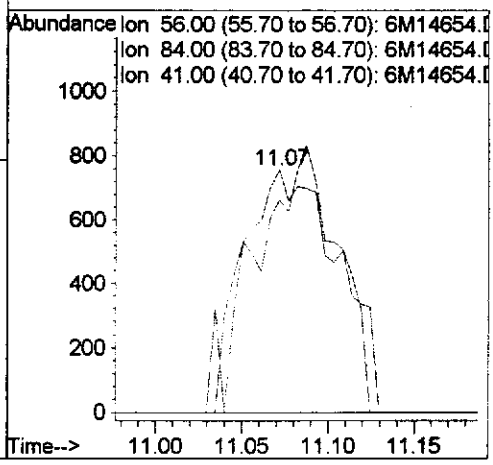

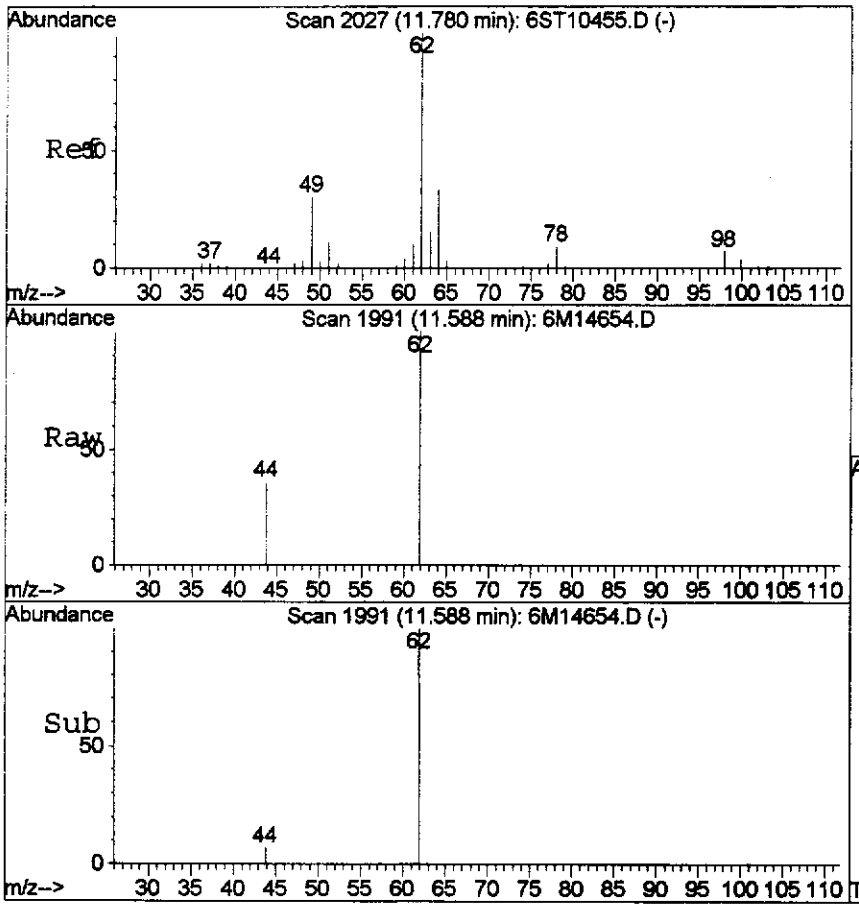

#34
1,2-Dichloroethane
Concen: 0.28 ug/Kg
RT: 11.59 min Scan# 1991
Delta R.T. 0.00 min
Lab File: 6M14654.D
Acq: 22 Jul 1999 10:10

Tgt Ion: 62 Resp: 2853

Ion	Ratio	Lower	Upper
62	100		
98	0.0	6.3	9.5#

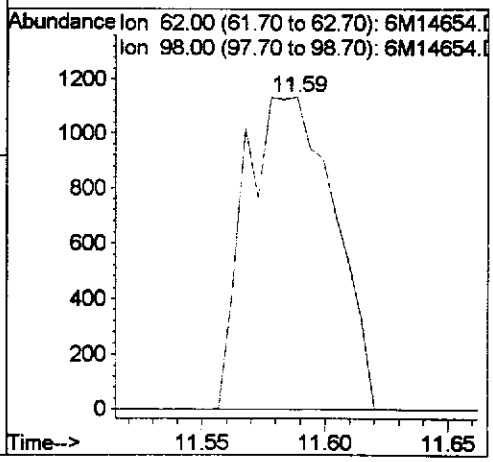

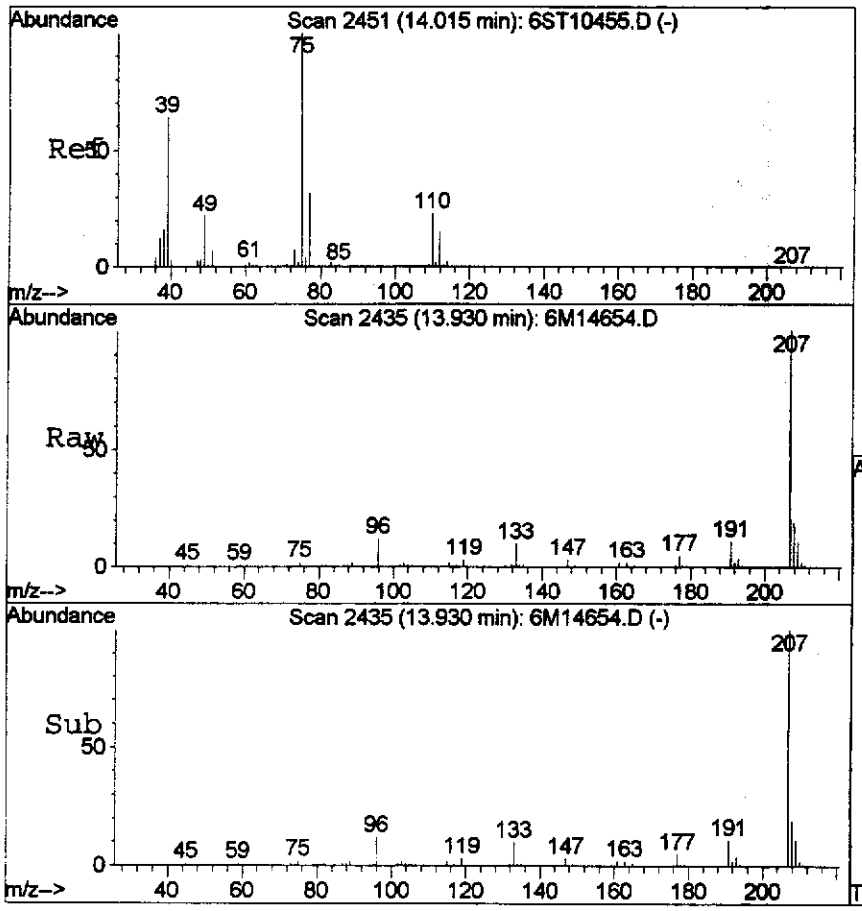

#42
cis-1,3-Dichloropropene
Concen: 0.61 ug/Kg
RT: 13.93 min Scan# 2435
Delta R.T. 0.10 min
Lab File: 6M14654.D
Acq: 22 Jul 1999 10:10

Tgt Ion: 75 Resp: 6448

Ion	Ratio	Lower	Upper
75	100		
110	0.0	18.2	27.4#

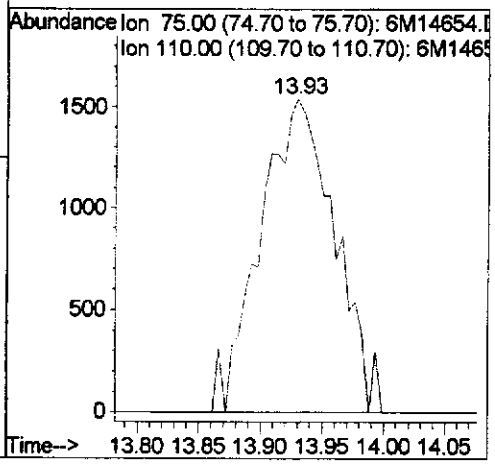

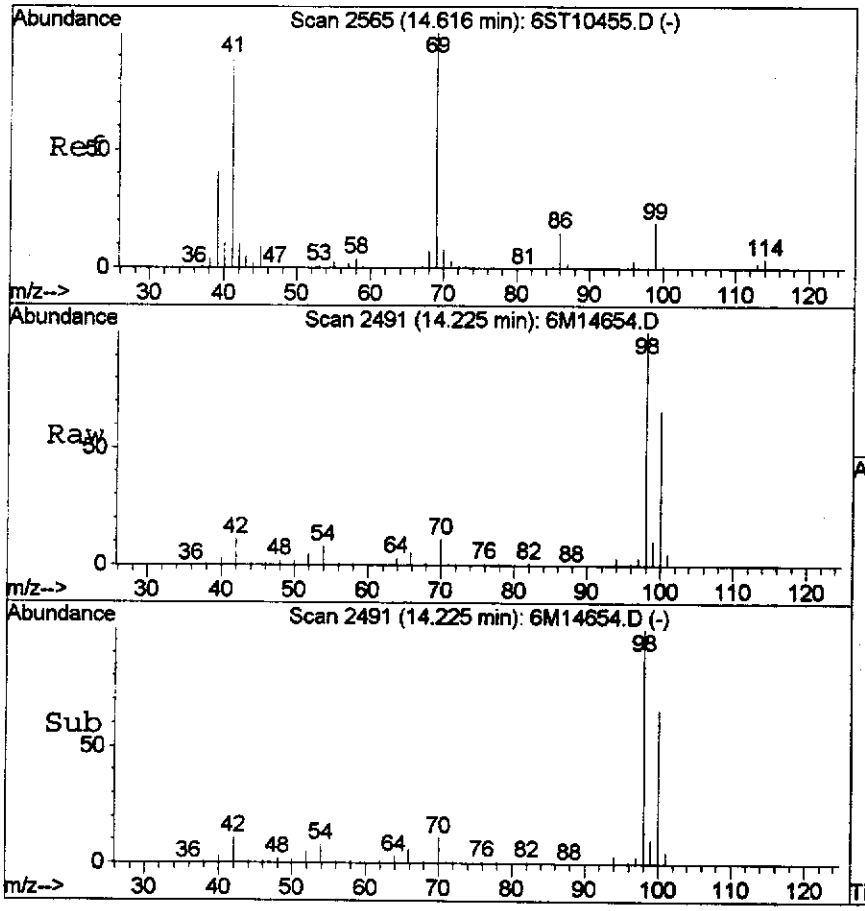

#47
Ethyl Methacrylate
Concen: 0.48 ug/Kg
RT: 14.22 min Scan# 2491
Delta R.T. -0.21 min
Lab File: 6M14654.D
Acq: 22 Jul 1999 10:10

Tgt Ion: 69 Resp: 3755

Ion	Ratio	Lower	Upper
69	100		
99	3697.3	15.2	22.8#

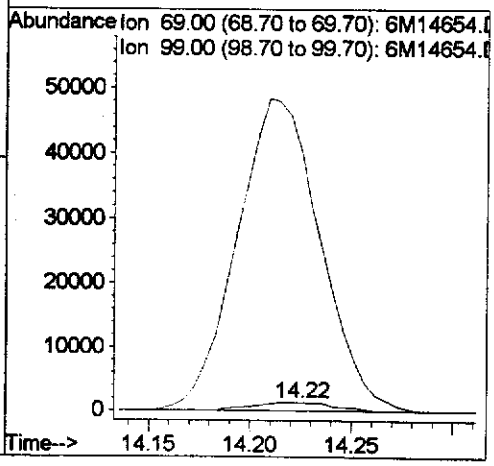

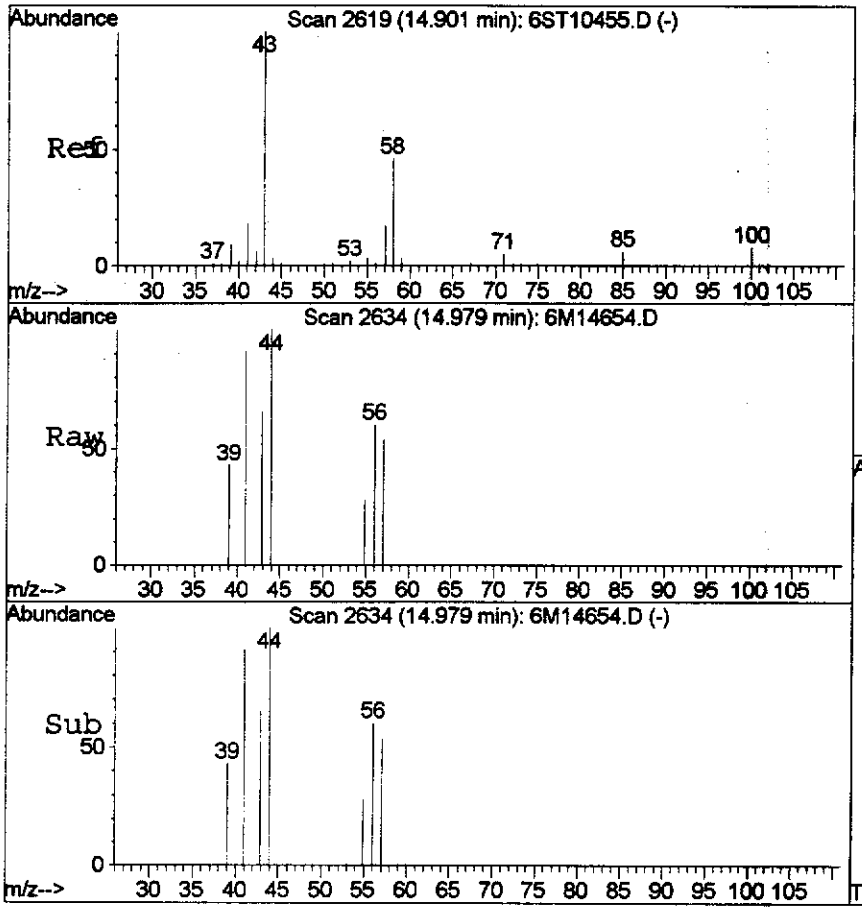

#50
2-Hexanone
Concen: 0.35 ug/Kg
RT: 14.98 min Scan# 2634
Delta R.T. 0.27 min
Lab File: 6M14654.D
Acq: 22 Jul 1999 10:10

Tgt Ion: 43 Resp: 1298

Ion	Ratio	Lower	Upper
43	100		
58	0.0	39.0	58.4#

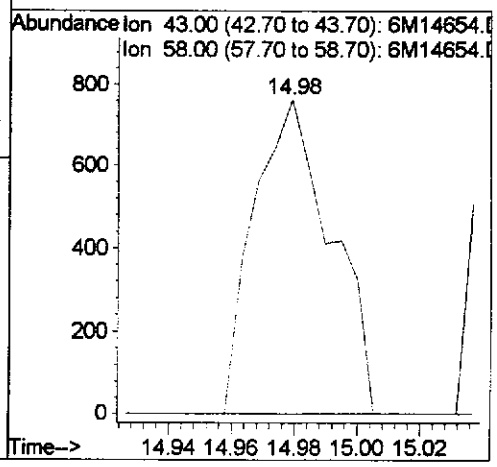

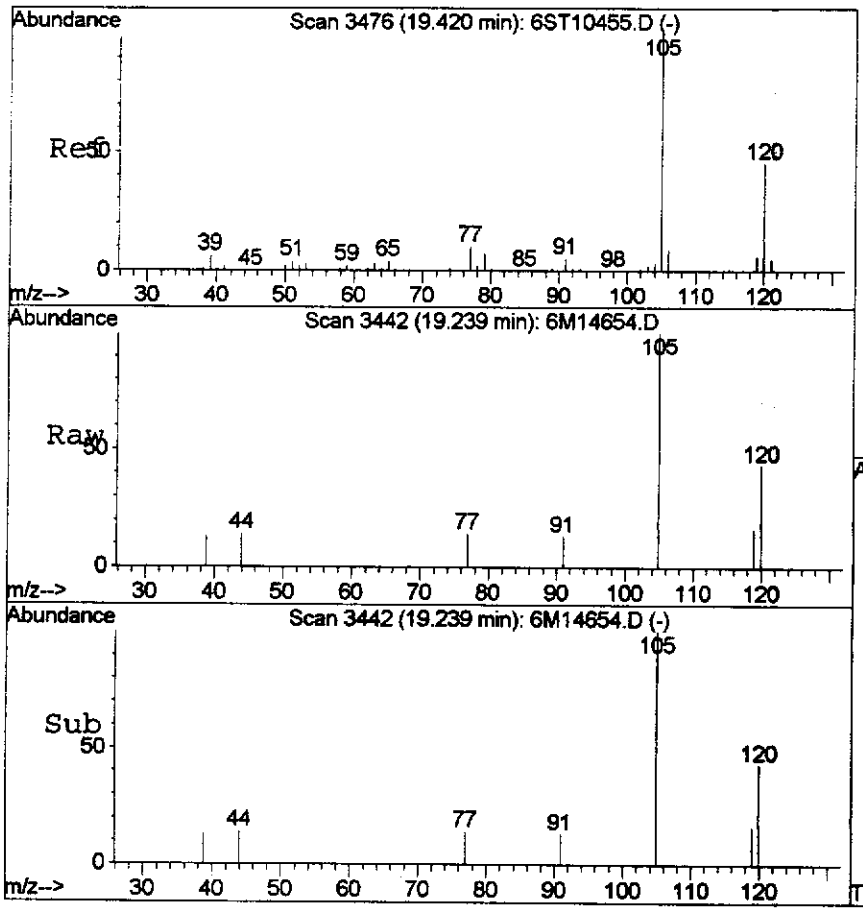

#76
1,2,4-Trimethylbenzene
Concen: 0.16 ug/Kg
RT: 19.24 min Scan# 3442
Delta R.T. -0.00 min
Lab File: 6M14654.D
Acq: 22 Jul 1999 10:10

Tgt Ion:105 Resp: 5462

Ion	Ratio	Lower	Upper
105	100		
120	45.8	37.0	55.6

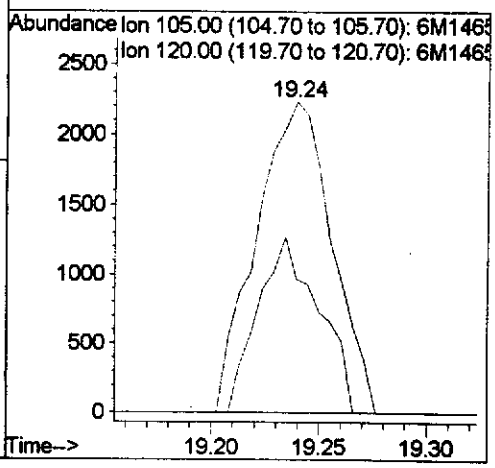

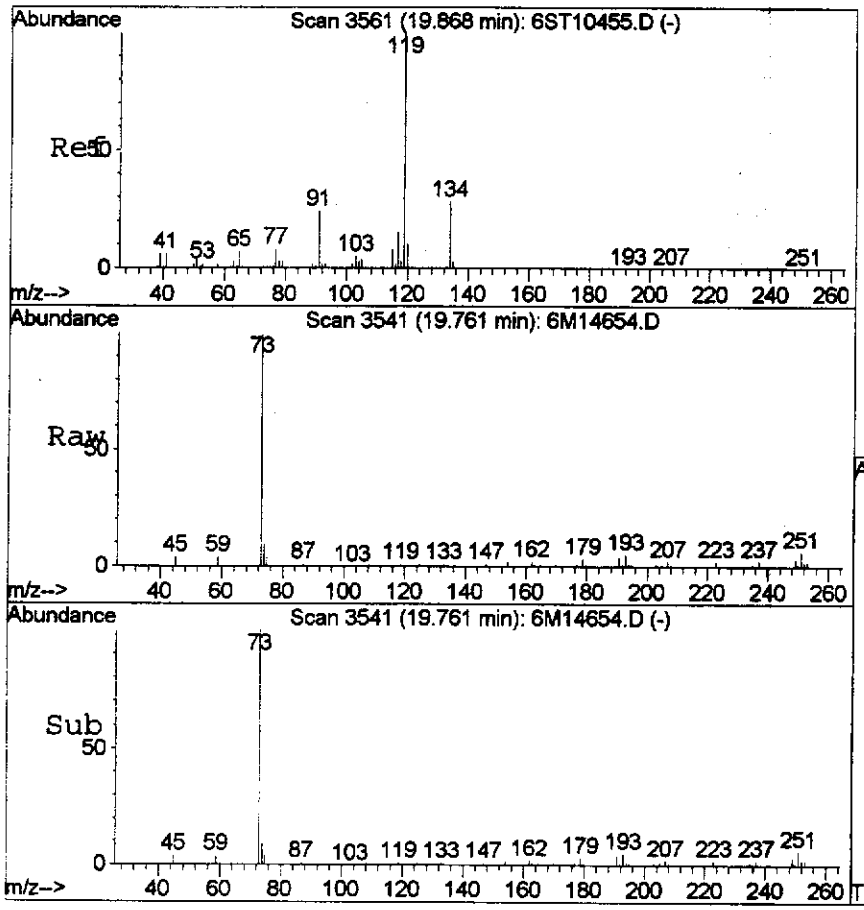

#78
p-Isopropyltoluene
Concen: 0.22 ug/Kg
RT: 19.76 min Scan# 3541
Delta R.T. 0.07 min
Lab File: 6M14654.D
Acq: 22 Jul 1999 10:10

Tgt Ion:119 Resp: 8868

Ion	Ratio	Lower	Upper
119	100		
134	28.1	21.8	32.8

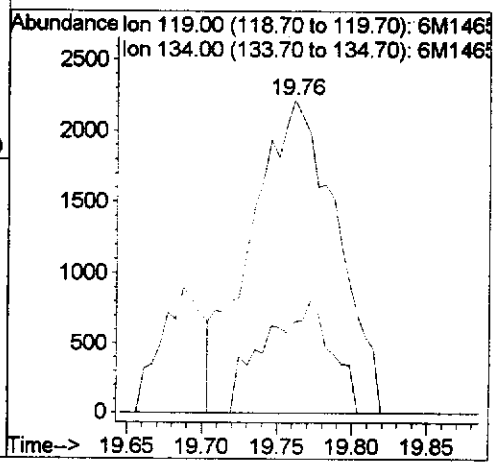

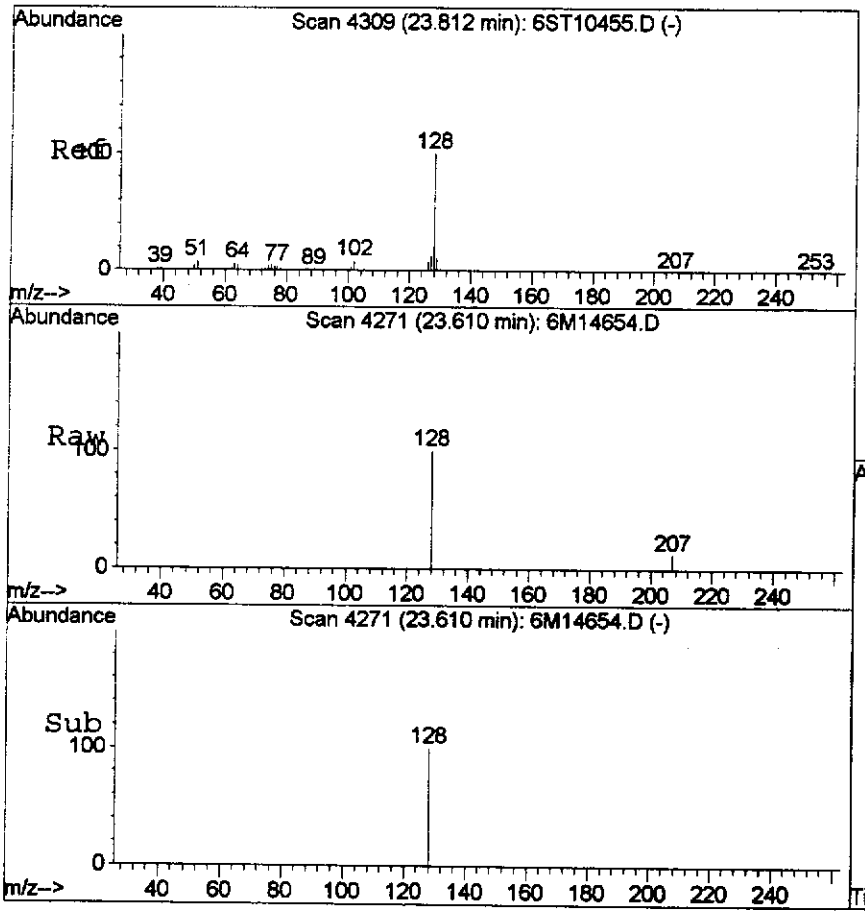

#86
Naphthalene
Concen: 0.25 ug/Kg
RT: 23.61 min Scan# 4271
Delta R.T. -0.01 min
Lab File: 6M14654.D
Acq: 22 Jul 1999 10:10

Tgt Ion:128 Resp: 6011

Ion	Ratio	Lower	Upper
128	100		
102	0.0	6.9	10.3#

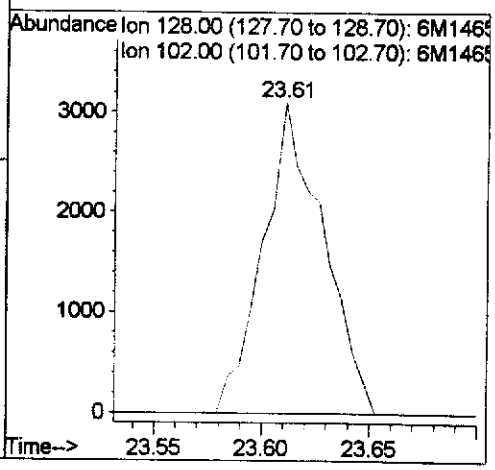

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\072299\6M14654.D Vial: 3
Acq On : 22 Jul 1999 10:10 Operator: CMS
Sample : WG61351-03 VBLK0722 SOIL BLANK M8260 5G/ Inst : HPMS_6
Misc : SOLID,1 Multiplr: 1.00
MS Integration Params: LSCINT.P

Quant Method : C:\HPCHEM\1\METHODS\8260BSL.M (RTE Integrator)
Title : Method 8260B_SOIL - ICAL 07/15/99
Library : C:\DATABASE\NBS75K.L

****

Peak Number 1 Carbon dioxide Concentration Rank 5

R.T.	EstConc	Area	Relative to ISTD	R.T.
3.23	11.58 ug/Kg	753050	Fluorobenzene	11.92

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qua
1	Carbon dioxide	44	CO2	000124-38-9	4
2	Carbon dioxide	44	CO2	000124-38-9	4
3	Nitrous Oxide	44	N2O	010024-97-2	3
4	Nitrous Oxide	44	N2O	010024-97-2	3

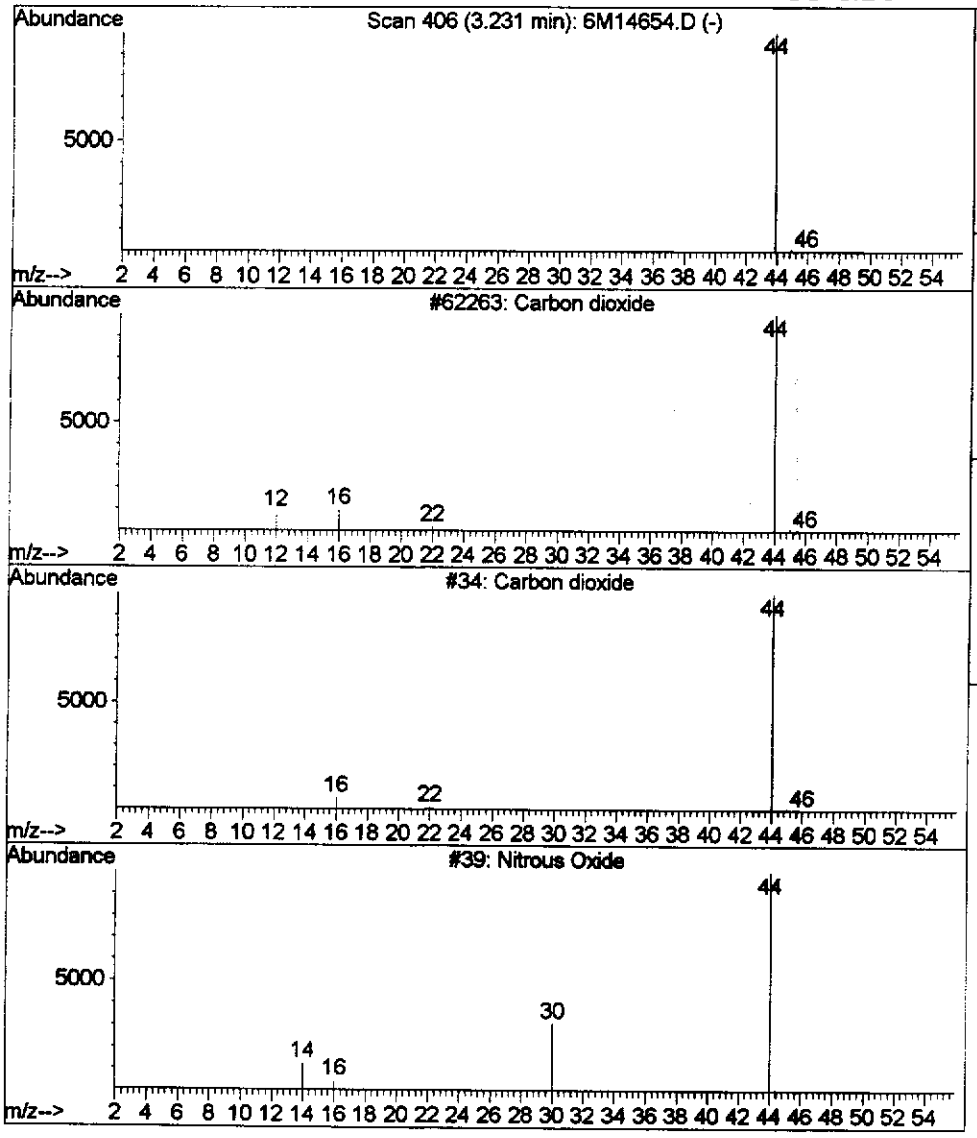

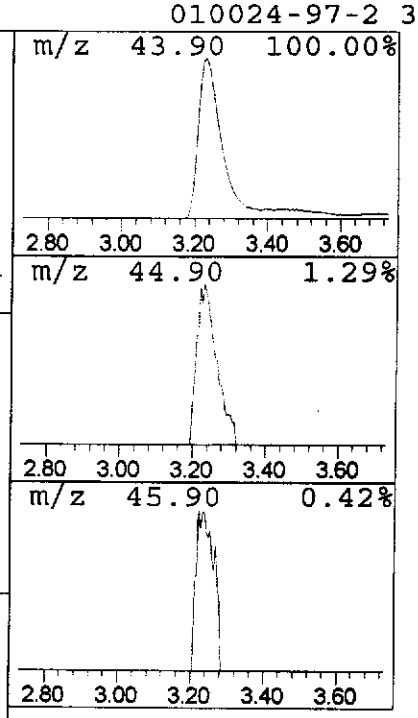

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\072299\6M14654.D Vial: 3
Acq On : 22 Jul 1999 10:10 Operator: CMS
Sample : WG61351-03 VBLK0722 SOIL BLANK M8260 5G/ Inst : HPMS_6
Misc : SOLID,1 Multiplr: 1.00
MS Integration Params: LSCINT.P

Quant Method : C:\HPCHEM\1\METHODS\8260BSL.M (RTE Integrator)
Title : Method 8260B_SOIL - ICAL 07/15/99
Library : C:\DATABASE\NBS75K.L

****

Peak Number 2 Cyclotrisiloxane, hexamethyl- Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.
13.93	14.15 ug/Kg	920624	Fluorobenzene	11.92

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qua
1	Cyclotrisiloxane, hexamethyl-	222	C6H18O3Si3	000541-05-9	80
2	Cyclotrisiloxane, hexamethyl-	222	C6H18O3Si3	000541-05-9	52
3	1H-Isoindole-1,3(2H)-dione, 2-butyl	207	C12H17NO2	054934-85-9	50
4	Arsenous acid, tris(trimethylsilyl)	342	C9H27AsO3Si3	055429-29-3	50

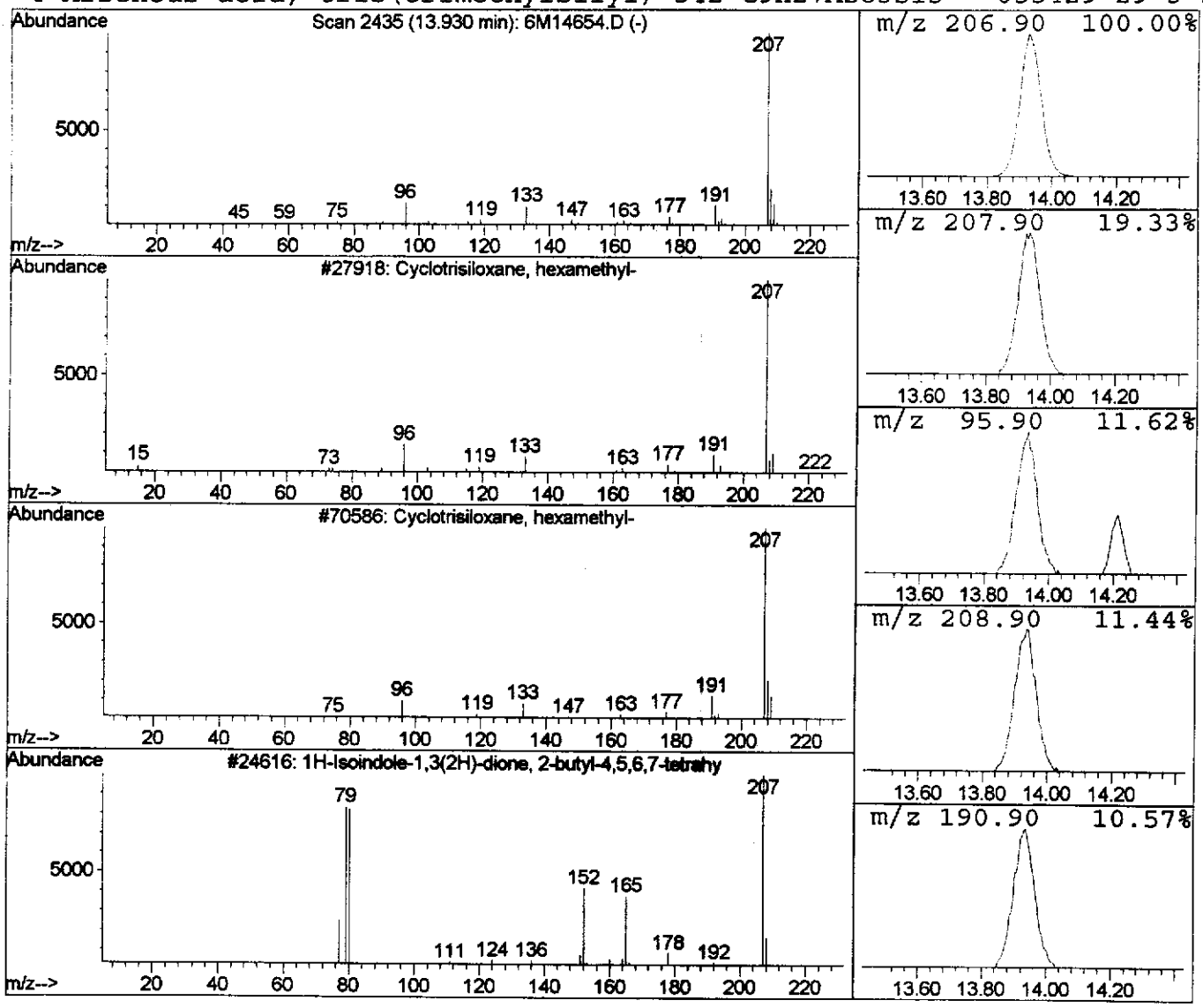

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\072299\6M14654.D Vial: 3
Acq On : 22 Jul 1999 10:10 Operator: CMS
Sample : WG61351-03 VBLK0722 SOIL BLANK M8260 5G/ Inst : HPMS_6
Misc : SOLID,1 Multiplr: 1.00
MS Integration Params: LSCINT.P

Quant Method : C:\HPCHEM\1\METHODS\8260BSL.M (RTE Integrator)
Title : Method 8260B_SOIL - ICAL 07/15/99
Library : C:\DATABASE\NBS75K.L

****

Peak Number 3 N-Chlorosuccinimide Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
17.15	52.73 ug/Kg	3608960	Chlorobenzene-d5	16.43

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qua
1	N-Chlorosuccinimide	133	C4H4ClNO2	000128-09-6	11
2	Valerophenone, 4'-(trimethylsiloxy)	250	C14H22O2Si	033342-92-6	10
3	Acridine, 9-methyl-	193	C14H11N	000611-64-3	10
4	Clopidol	191	C7H7Cl2NO	002971-90-6	10

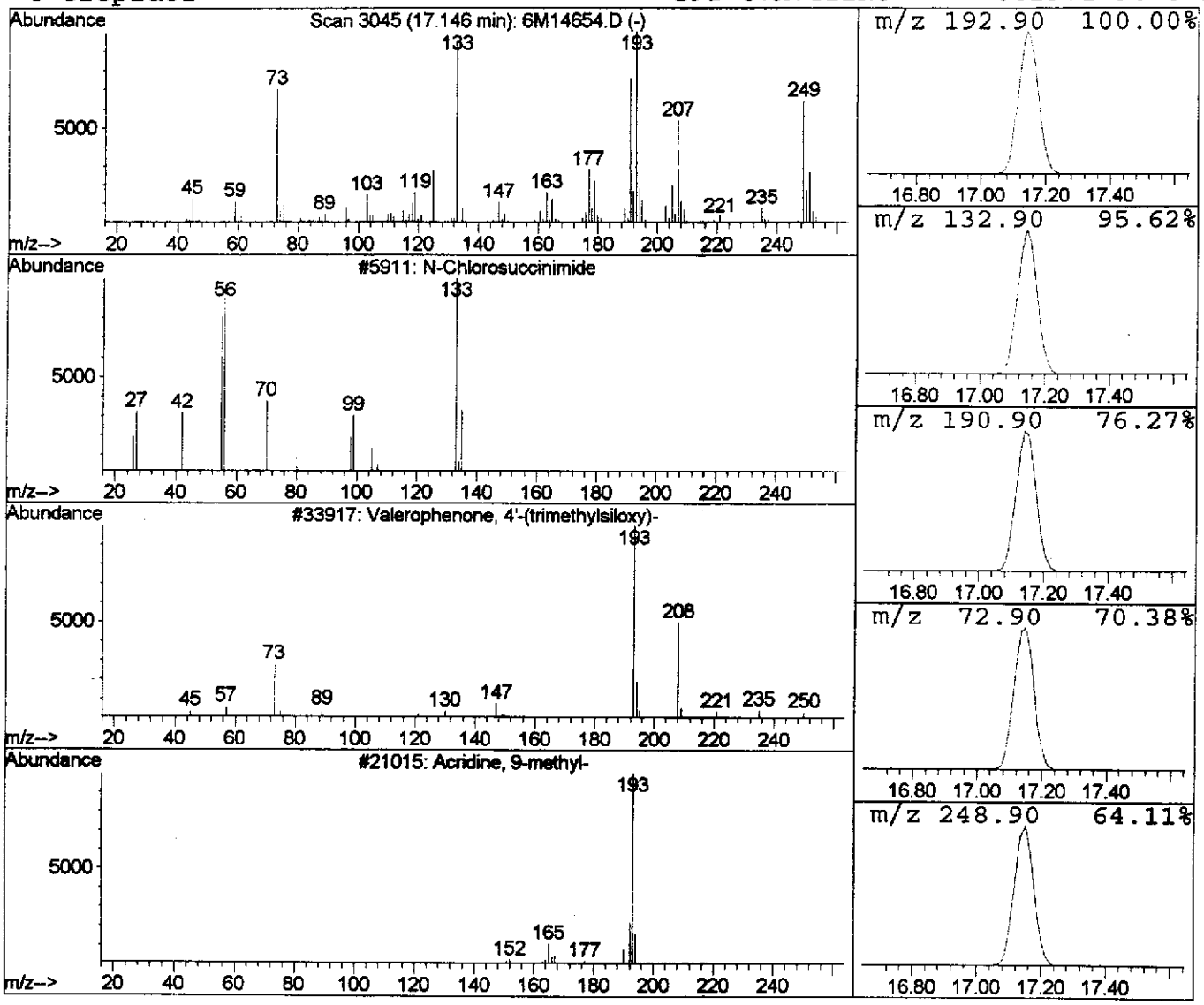

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\072299\6M14654.D Vial: 3
Acq On : 22 Jul 1999 10:10 Operator: CMS
Sample : WG61351-03 VBLK0722 SOIL BLANK M8260 5G/ Inst : HPMS_6
Misc : SOLID,1 Multiplr: 1.00
MS Integration Params: LSCINT.P

Quant Method : C:\HPCHEM\1\METHODS\8260BSL.M (RTE Integrator)
Title : Method 8260B_SOIL - ICAL 07/15/99
Library : C:\DATABASE\NBS75K.L

****

Peak Number 4 1,2-Bis(trimethylsilyl)-4,5-di Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
19.76	31.21 ug/Kg	2242490	1,4-Dichlorobenzene-d4	20.01

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qua
1	1,2-Bis(trimethylsilyl)-4,5-dimethy	252	C14H28Si2	000000-00-0	9
2	Hydrocinnamic acid, .alpha.-(trimet	252	C13H20O3Si	027854-49-5	9
3	7,9-Diethyl-2,4-bis(dimethylamino)-	336	C15H24N6OS	000000-00-0	9
4	Benzeneacetic acid, trimethylsilyl	208	C11H16O2Si	002078-18-4	5

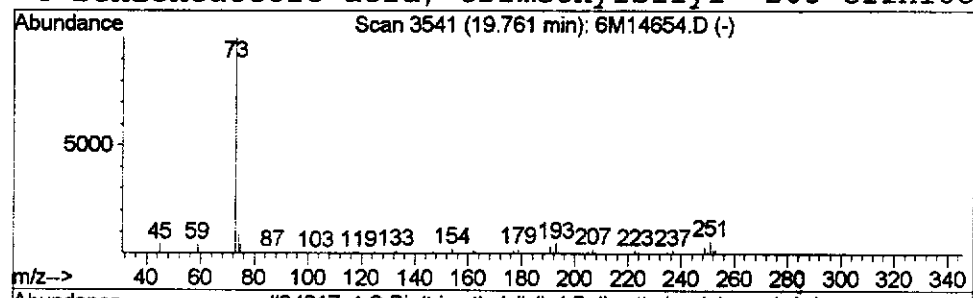

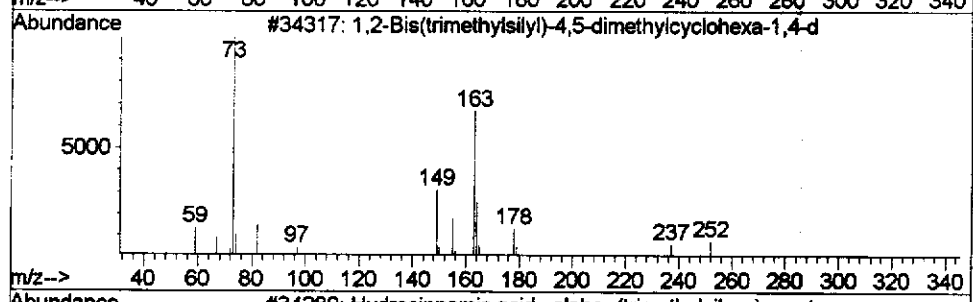

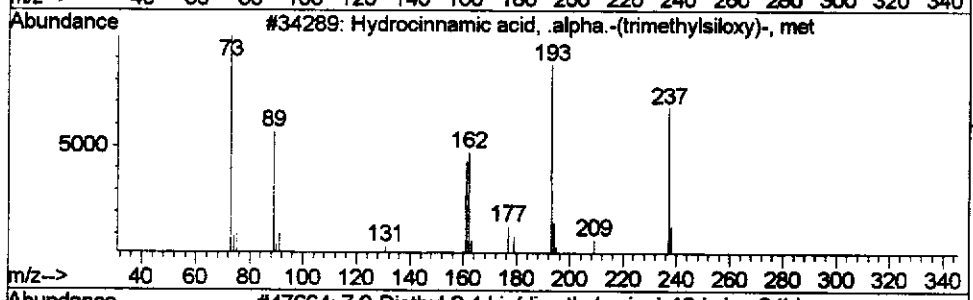

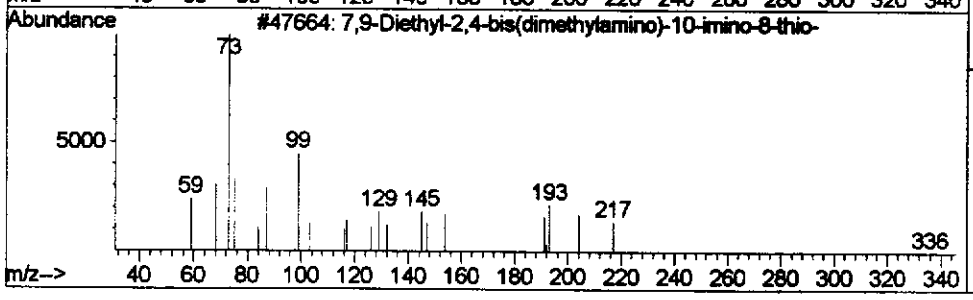

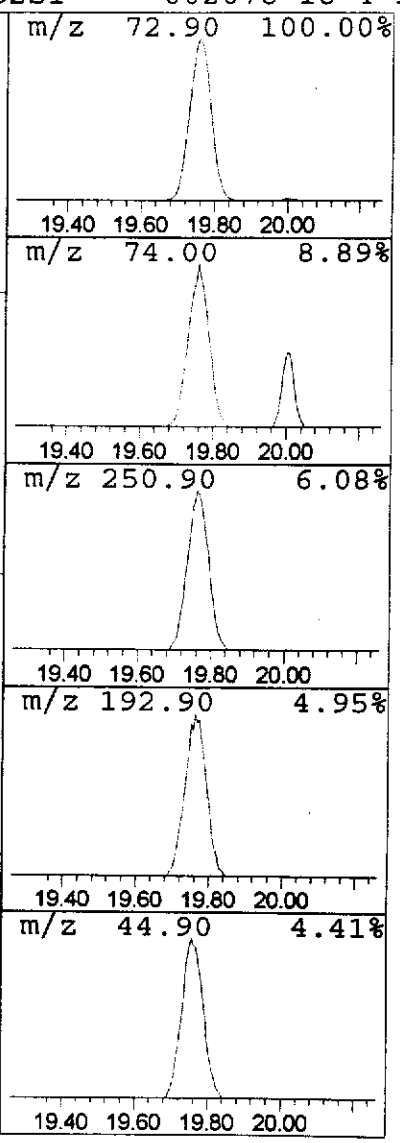

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\072299\6M14654.D Vial: 3
Acq On : 22 Jul 1999 10:10 Operator: CMS
Sample : WG61351-03 VBLK0722 SOIL BLANK M8260 5G/ Inst : HPMS_6
Misc : SOLID,1 Multiplr: 1.00
MS Integration Params: LSCINT.P

Quant Method : C:\HPCHEM\1\METHODS\8260BSL.M (RTE Integrator)
Title : Method 8260B_SOIL - ICAL 07/15/99
Library : C:\DATABASE\NBS75K.L

****

Peak Number 5 Trimethylsilyl ether of glycer Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
22.43	15.88 ug/Kg	1140920	1,4-Dichlorobenzene-d4	20.01

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qua
1	Trimethylsilyl ether of glycerol	308	C12H32O3Si3	006787-10-6	23
2	Silane, [(1-methyl-1,3-propanediyl)	234	C10H26O2Si2	056771-47-2	9
3	Ethanedioic acid, bis(trimethylsily	234	C8H18O4Si2	018294-04-7	9
4	Butanoic acid, 3-methyl-2-[(trimeth	262	C11H26O3Si2	055124-92-0	9

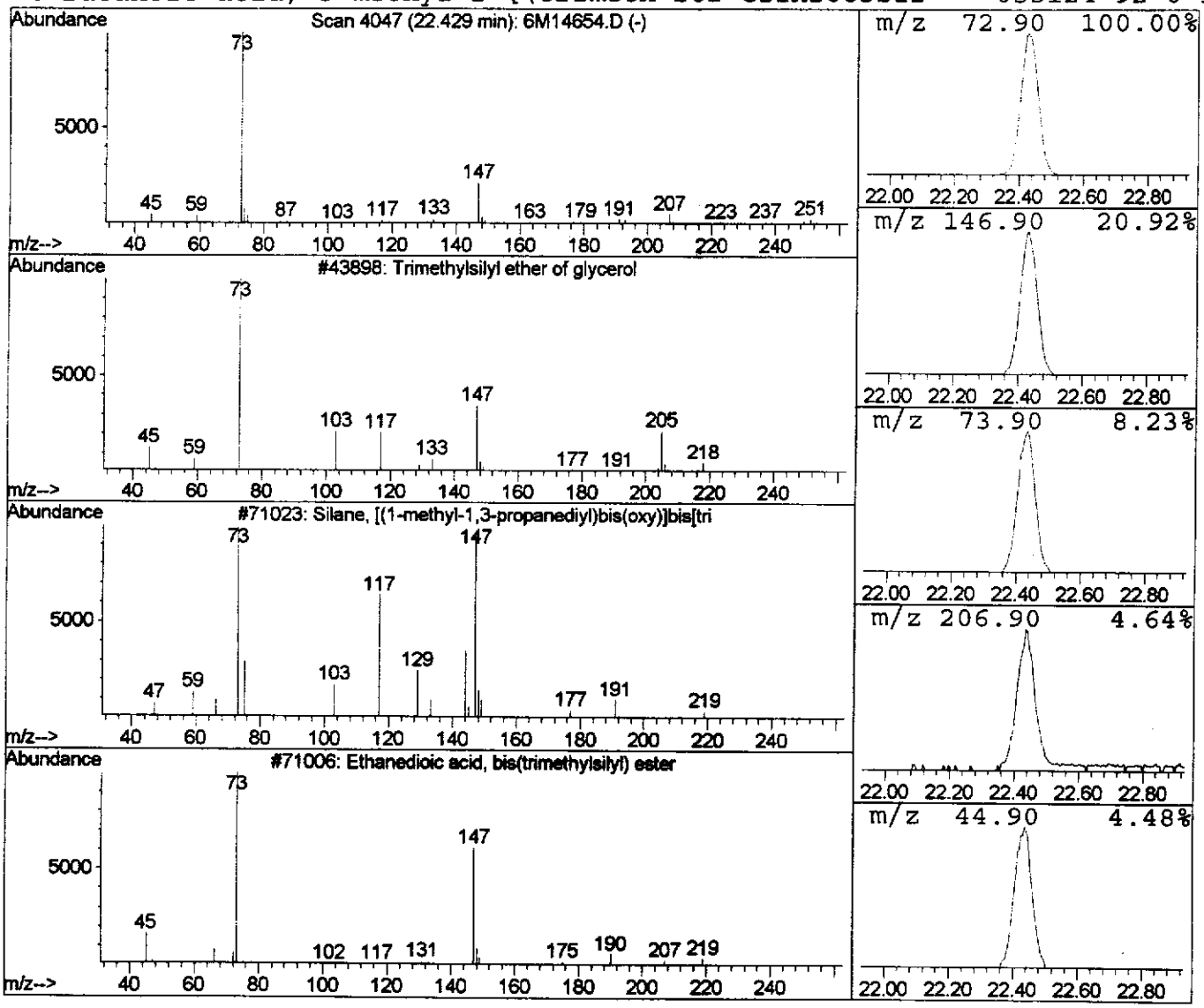

Tentatively Identified Compound (LSC) summary

Operator ID: CMS Date Acquired: 22 Jul 1999 10:10
Data File: C:\HPCHEM\1\DATA\072299\6M14654.D
Name: WG61351-03 VBLK0722 SOIL BLANK M8260 5G/5ML
Misc: SOLID,1
Method: C:\HPCHEM\1\METHODS\8260BSL.M (RTE Integrator)
Title: Method 8260B_SOIL - ICAL 07/15/99
Library Searched: C:\DATABASE\NBS75K.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISCon
Carbon dioxide	3.23	11.6	ug/Kg	753050	ISTD01	11.92	3252050	50
Cyclotrisiloxane, he	13.93	14.2	ug/Kg	920624	ISTD01	11.92	3252050	50
N-Chlorosuccinimide	17.15	52.7	ug/Kg	3608960	ISTD02	16.43	3422190	50
1,2-Bis(trimethylsil	19.76	31.2	ug/Kg	2242490	ISTD03	20.01	3592640	50
Trimethylsilyl ether	22.43	15.9	ug/Kg	1140920	ISTD03	20.01	3592640	50

6M14654.D 8260BSL.M Thu Jul 22 12:16:46 1999 HPMS_6

Quantitation Report

Data File : C:\HPCHEM\1\DATA\072299\6M14655.D Vial: 4
Acq On : 22 Jul 1999 10:45 Operator: CMS
Sample : WG61351-04 20 PPB VOA QC SPIKE M8260 5G/ Inst : HPMS_6
Misc : SOLID,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 22 11:11 1999 Quant Results File: 8260BSL.RES

Method : C:\HPCHEM\1\METHODS\8260BSL.M (RTE Integrator)
Title : Method 8260B_SOIL - ICAL 07/15/99
Last Update : Thu Jul 22 09:02:15 1999
Response via : Initial Calibration

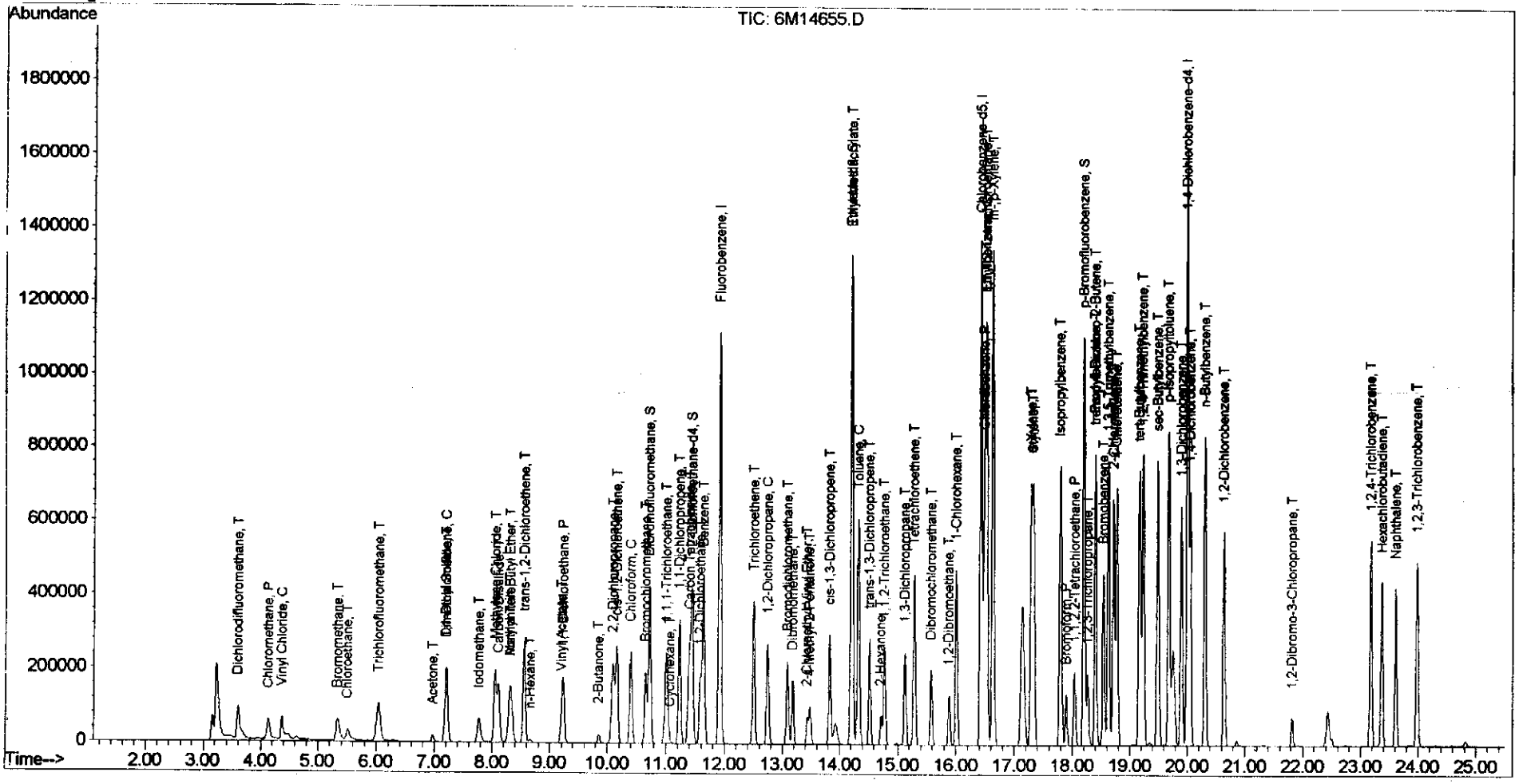

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\072299\6M14655.D Vial: 4
Acq On : 22 Jul 1999 10:45 Operator: CMS
Sample : WG61351-04 20 PPB VOA QC SPIKE M8260 5G/ Inst : HPMS_6
Misc : SOLID,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 22 11:11 1999 Quant Results File: 8260BSL.R

Quant Method : C:\HPCHEM\1\METHODS\8260BSL.M (RTE Integrator)
Title : Method 8260B_SOIL - ICAL 07/15/99
Last Update : Thu Jul 22 09:02:15 1999
Response via : Initial Calibration
DataAcq Meth : 8260BSL

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	11.92	96	1567304	50.00	ug/Kg	0.00
44) Chlorobenzene-d5	16.43	117	1208697	50.00	ug/Kg	0.00
64) 1,4-Dichlorobenzene-d4	20.01	152	673091	50.00	ug/Kg	0.00
System Monitoring Compounds						
28) Dibromofluoromethane	10.73	111	407981	44.78	ug/Kg	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 89.56%			
33) 1,2-Dichloroethane-d4	11.45	65	393246	44.16	ug/Kg	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 88.32%			
45) Toluene-d8	14.21	98	1409505	42.70	ug/Kg	0.00
Spiked Amount 50.000	Range 81 - 117		Recovery = 85.40%			
66) p-Bromofluorobenzene	18.20	95	569300	42.65	ug/Kg	0.00
Spiked Amount 50.000	Range 74 - 121		Recovery = 85.30%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	3.60	85	221539	19.60	ug/Kg	94
3) Chloromethane	4.13	50	125775	17.29	ug/Kg	97
4) Vinyl Chloride	4.37	62	96762	18.89	ug/Kg	99
5) Bromomethane	5.34	94	89874	21.69	ug/Kg	97
6) Chloroethane	5.51	64	72961	20.12	ug/Kg	89
7) Trichlorofluoromethane	6.03	101	208593	21.61	ug/Kg	100
11) Acetone	6.98	43	42474	24.39	ug/Kg	98
12) 1,1-Dichloroethene	7.21	96	156705	20.51	ug/Kg	93
13) Dimethyl Sulfide	7.21	62	19784	2.81	ug/Kg#	63
14) Iodomethane	7.77	142	114752	12.11	ug/Kg	97
15) Methylene Chloride	8.05	84	174186	20.89	ug/Kg	82
16) Carbon Disulfide	8.11	76	314446	11.43	ug/Kg	99
17) Acrylonitrile	8.31	53	3730	1.99	ug/Kg#	11
18) Methyl Tert Butyl Ether	8.32	73	348340	20.23	ug/Kg	93
19) trans-1,2-Dichloroethene	8.56	96	177672	22.27	ug/Kg	89
20) n-Hexane	8.67	57	6091	0.47	ug/Kg	97
21) Vinyl Acetate	9.20	43	56215	6.47	ug/Kg	95
22) 1,1-Dichloroethane	9.23	63	282952	20.66	ug/Kg	100
23) 2-Butanone	9.86	43	46692	20.04	ug/Kg	93
24) 2,2-Dichloropropane	10.11	77	274879	22.28	ug/Kg	99
25) cis-1,2-Dichloroethene	10.17	96	174470	20.55	ug/Kg	92
26) Chloroform	10.40	83	309364	21.30	ug/Kg	98
27) Bromochloromethane	10.66	128	83152	20.86	ug/Kg	91
29) 1,1,1-Trichloroethane	11.01	97	308797	22.18	ug/Kg	94
30) Cyclohexane	11.08	56	2521	0.20	ug/Kg#	47
31) 1,1-Dichloropropene	11.24	75	243335	22.92	ug/Kg	93

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\072299\6M14655.D Vial: 4
Acq On : 22 Jul 1999 10:45 Operator: CMS
Sample : WG61351-04 20 PPB VOA QC SPIKE M8260 5G/ Inst : HPMS_6
Misc : SOLID,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 22 11:11 1999 Quant Results File: 8260BSL.R

Quant Method : C:\HPCHEM\1\METHODS\8260BSL.M (RTE Integrator)
Title : Method 8260B_SOIL - ICAL 07/15/99
Last Update : Thu Jul 22 09:02:15 1999
Response via : Initial Calibration
DataAcq Meth : 8260BSL

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
32)	Carbon Tetrachloride	11.41	117	296421	24.00 ug/Kg	98
34)	1,2-Dichloroethane	11.59	62	210565	20.97 ug/Kg	98
35)	Benzene	11.64	78	622588	20.76 ug/Kg	97
36)	Trichloroethene	12.50	130	204860	20.85 ug/Kg	89
37)	1,2-Dichloropropane	12.75	63	141421	20.25 ug/Kg	88
38)	Bromodichloromethane	13.09	83	215927	21.86 ug/Kg	98
39)	Dibromomethane	13.18	93	84767	20.47 ug/Kg	88
40)	2-Chloroethyl Vinyl Ether	13.43	63	39833	14.82 ug/Kg#	89
41)	4-Methyl-2-Pentanone	13.48	58	39740	21.26 ug/Kg#	82
42)	cis-1,3-Dichloropropene	13.83	75	229870	21.86 ug/Kg	96
46)	Toluene	14.33	91	698934	20.36 ug/Kg	99
47)	Ethyl Methacrylate	14.22	69	3562	0.45 ug/Kg#	1
48)	trans-1,3-Dichloropropene	14.52	75	209561	20.06 ug/Kg	97
49)	1,1,2-Trichloroethane	14.77	97	122119	19.83 ug/Kg	97
50)	2-Hexanone	14.72	43	73970	19.94 ug/Kg	100
51)	1,3-Dichloropropane	15.13	76	202942	19.61 ug/Kg	92
52)	Tetrachloroethene	15.29	164	169068	19.96 ug/Kg	96
53)	Dibromochloromethane	15.58	129	169723	21.74 ug/Kg	99
54)	1,2-Dibromoethane	15.89	107	125647	19.55 ug/Kg	100
55)	1-Chlorohexane	16.01	91	241473	20.85 ug/Kg	92
56)	Chlorobenzene	16.49	112	496531	19.77 ug/Kg	93
57)	1,1,1,2-Tetrachloroethane	16.52	131	191018	22.50 ug/Kg	92
58)	Ethylbenzene	16.53	106	266173	20.33 ug/Kg	96
59)	m-,p-Xylene	16.64	106	647016	40.18 ug/Kg	98
60)	o-Xylene	17.30	106	312592	20.50 ug/Kg	98
61)	Styrene	17.34	104	517148	20.47 ug/Kg	97
62)	Bromoform	17.90	173	97520	18.20 ug/Kg	99
63)	Isopropylbenzene	17.80	105	823626	20.16 ug/Kg	97
65)	1,1,2,2-Tetrachloroethane	18.04	83	144984	18.42 ug/Kg	99
67)	1,2,3-Trichloropropane	18.27	110	50759	18.92 ug/Kg#	83
68)	trans-1,4-Dichloro-2-Buten	18.40	53	4451	2.17 ug/Kg#	1
69)	n-Propylbenzene	18.40	91	974078	19.88 ug/Kg	95
70)	Bromobenzene	18.54	156	208653	19.35 ug/Kg	99
71)	1,3,5-Trimethylbenzene	18.63	105	695182	19.87 ug/Kg	95
72)	2-Chlorotoluene	18.72	91	600925	19.79 ug/Kg	95
73)	4-Chlorotoluene	18.78	91	570347	19.12 ug/Kg	95
75)	tert-Butylbenzene	19.18	119	673684	19.03 ug/Kg	100
76)	1,2,4-Trimethylbenzene	19.24	105	708644	19.43 ug/Kg	94
77)	sec-Butylbenzene	19.50	105	891374	19.24 ug/Kg	96
78)	p-Isopropyltoluene	19.69	119	818044	19.18 ug/Kg	99
79)	1,3-Dichlorobenzene	19.91	146	427922	19.41 ug/Kg	98

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\072299\6M14655.D Vial: 4
Acq On : 22 Jul 1999 10:45 Operator: CMS
Sample : WG61351-04 20 PPB VOA QC SPIKE M8260 5G/ Inst : HPMS_6
Misc : SOLID,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 22 11:11 1999 Quant Results File: 8260BSL.R

Quant Method : C:\HPCHEM\1\METHODS\8260BSL.M (RTE Integrator)
Title : Method 8260B_SOIL - ICAL 07/15/99
Last Update : Thu Jul 22 09:02:15 1999
Response via : Initial Calibration
DataAcq Meth : 8260BSL

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
80) 1,4-Dichlorobenzene	20.06	146	432528	19.07 ug/Kg	100
81) n-Butylbenzene	20.31	91	705361	19.71 ug/Kg	91
82) 1,2-Dichlorobenzene	20.64	146	379130	19.25 ug/Kg	100
83) 1,2-Dibromo-3-Chloropropan	21.82	157	32906	16.02 ug/Kg	93
84) 1,2,4-Trichlorobenzene	23.18	180	254322	19.41 ug/Kg	99
85) Hexachlorobutadiene	23.37	225	132523	19.32 ug/Kg	98
86) Naphthalene	23.62	128	505928	19.80 ug/Kg	99
87) 1,2,3-Trichlorobenzene	23.99	180	225878	19.44 ug/Kg	98

(#) = qualifier out of range (m) = manual integration

Gasoline Range Organics

Sample Data

GASOLINE RANGE ORGANICS 5-POINT CALIBRATION - SOIL

CALIBRATION DATE: 06/11/99
INSTRUMENT: HP5

GRO TOTAL AREA		CONC (ug/kg)	CF	AVERAGE CF	%RSD	LIMIT
AREA STANDARD 1:	5809143	90	64546	57104	7.7	20
AREA STANDARD 2:	20269817	360	56305			
AREA STANDARD 3:	50705700	900	56340			
AREA STANDARD 4:	99953222	1800	55530			
AREA STANDARD 5:	190073691	3600	52798			

CHLOROBENZENE TOTAL AREA		CONC (ug/kg)	CF	AVERAGE CF	%RSD	LIMIT
AREA STANDARD 1:	1278077	15	85205	96046	11.3	20
AREA STANDARD 2:	2703780	30	90126			
AREA STANDARD 3:	4132170	45	91826			
AREA STANDARD 4:	6004155	60	100069			
AREA STANDARD 5:	8475351	75	113005			

GASOLINE RANGE ORGANICS CONTINUING CALIBRATION STANDARD

SAMPLE ID: 8015 STD 900PPB

SUB DIRECTORY: 072699
RESULT FILE: 5G765

		CONC (ug/kg)	CHECK STANDARD CF	AVERAGE CF	%D	LIMIT
GRO AREA:	51490329	900	57211	57104	0.2	15
CHLOROBENZENE AREA:	2506604	30	83553	96046	-13.0	15

GASOLINE RANGE ORGANICS SAMPLE QUANTITATION

SAMPLE ID: 07-381-01 ✓

SUB DIRECTORY: 072699 ✓
RESULT FILE: 5G769 ✓
DILUTION FACTOR: 1 ✓

TOTAL AREA: 4241500 ✓
CHLOROBENZENE AREA: 1875307 ✓
CHLOROBENZENE RT: 18.195 ✓

	SAMPLE AREA	SAMPLE CONC (ug/kg)	LCS % REC
GRO:	2366193	~~41.4~~ 41.4 J ~~BADL~~ mfb 8-3-99	~~4.6~~

	SSS AREA	SSS CONC (ug/kg)	SSS % REC
CHLOROBENZENE:	1875307	19.53	65.1 mfb 7-27-99 ✓

File : C:\HPCHEM\1\DATA\072699\5G769.D
Operator : VMN
Acquired : 26 Jul 1999 3:33 pm using AcqMethod 8015S.M
Instrument : HP5
Sample Name: 07-381-01 S-48-34
Misc Info : 5G
Vial Number: 5

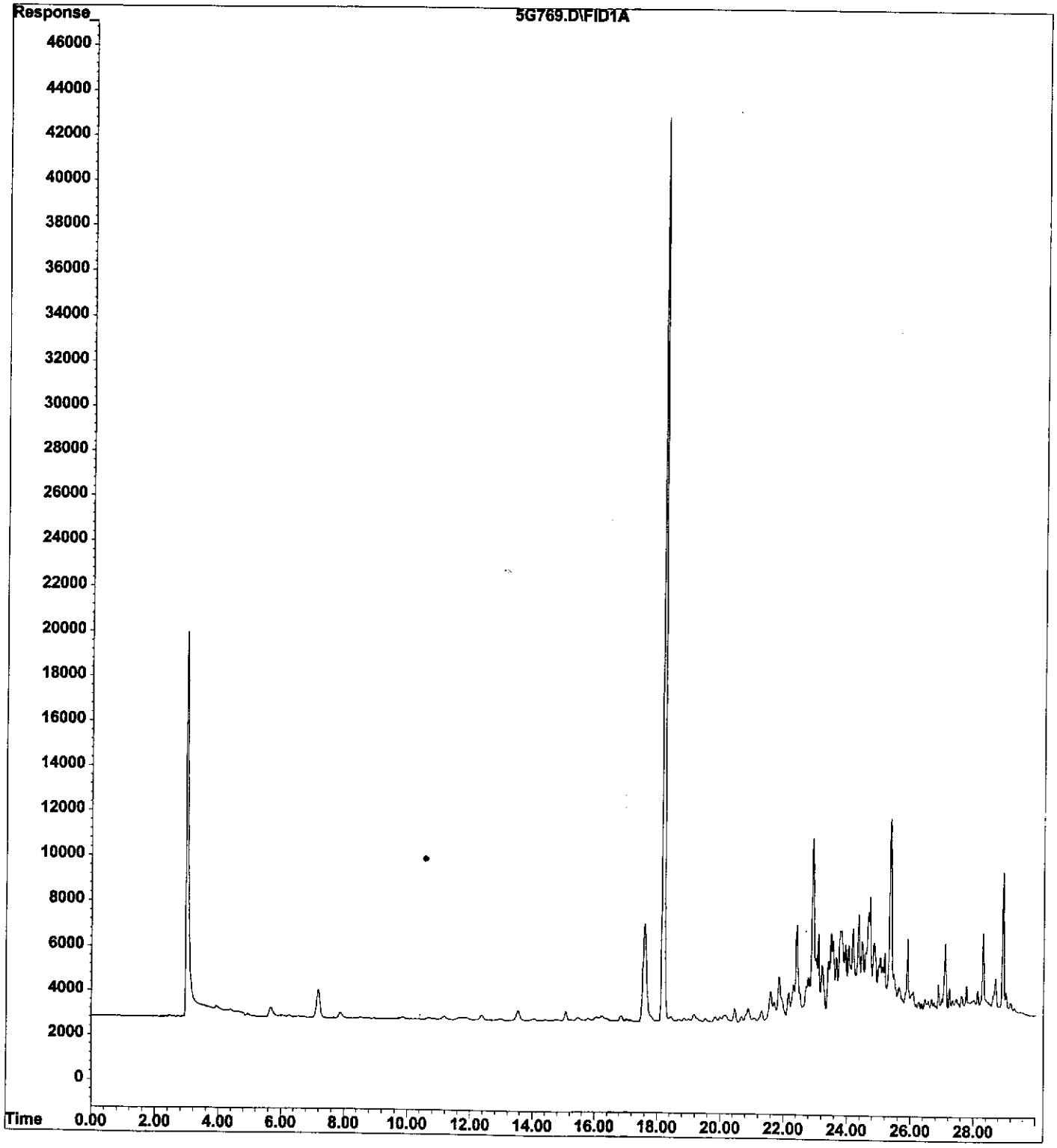

Area Percent Report

Data File : C:\HPCHEM\1\DATA\072699\5G769.D
Acq On : 26 Jul 1999 3:33 pm
Sample : 07-381-01 S-48-34
Misc : 5G
IntFile : events.e

Vial: 5
Operator: VMN
Inst : HP5
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\8015S.M (Chemstation Integrator)
Title : 8015W

Signal : 5G769.D\FID1A

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	5.679	5.525	5.917	BV	448	43074	2.30%	1.016%
2	6.255	6.175	6.393	VV	113	8364	0.45%	0.197%
3	7.186	7.022	7.396	VV	1279	99723	5.32%	2.351%
4	7.895	7.746	8.030	VV	271	22360	1.19%	0.527%
5	9.860	9.683	9.973	VV	105	11908	0.64%	0.281%
6	10.661	10.543	10.824	VV	103	10917	0.58%	0.257%
7	11.170	10.950	11.305	VV	163	16179	0.86%	0.381%
8	11.675	11.467	11.696	VV	119	9438	0.50%	0.223%
9	11.885	11.832	12.066	VV	123	9832	0.52%	0.232%
10	12.370	12.133	12.509	VV	245	21269	1.13%	0.501%
11	13.537	13.302	13.779	VV	469	42174	2.25%	0.994%
12	14.048	13.867	14.157	VV	107	10382	0.55%	0.245%
13	15.074	14.961	15.230	VV	433	26288	1.40%	0.620%
14	15.461	15.354	15.603	VV	158	14622	0.78%	0.345%
15	15.796	15.707	15.920	VV	126	9838	0.52%	0.232%
16	16.050	15.920	16.145	VV	195	17388	0.93%	0.410%
17	16.238	16.145	16.507	VV	249	31616	1.69%	0.745%
18	16.849	16.715	16.964	VV	266	18861	1.01%	0.445%
19	17.603	17.414	17.943	PV	4410	378070	20.16%	8.914%
20	18.195	18.060	18.362	VV	40088	1875307	100.00%	44.213%
21	18.429	18.362	18.582	VV	238	18620	0.99%	0.439%
22	18.685	18.582	18.794	VV	112	9376	0.50%	0.221%
23	18.866	18.794	18.934	VV	178	9677	0.52%	0.228%
24	18.998	18.934	19.067	VV	129	7924	0.42%	0.187%
25	19.175	19.067	19.445	VV	345	33483	1.79%	0.789%
26	19.534	19.445	19.711	VV	165	11041	0.59%	0.260%
27	19.839	19.711	19.941	VV	224	16617	0.89%	0.392%
28	19.994	19.941	20.047	VV	230	11192	0.60%	0.264%
29	20.139	20.047	20.345	VV	329	34972	1.86%	0.825%
30	20.452	20.345	20.568	VV	614	32689	1.74%	0.771%
31	20.670	20.568	20.732	PV	247	12465	0.66%	0.294%
32	20.882	20.732	20.999	VV	580	46657	2.49%	1.100%
33	21.071	20.999	21.155	VV	132	8503	0.45%	0.200%
34	21.306	21.155	21.400	VV	428	24240	1.29%	0.571%
35	21.589	21.400	21.656	PV	1283	81480	4.34%	1.921%
36	21.698	21.656	21.771	VV	773	42173	2.25%	0.994%
37	21.858	21.771	22.073	VV	1907	154080	8.22%	3.633%
38	22.158	22.073	22.218	VV	1131	60095	3.20%	1.417%
39	22.311	22.218	22.344	VV	1468	79807	4.26%	1.882%
40	22.421	22.344	22.585	VV	4132	268727	14.33%	6.336%

41	22.784	22.585	22.829	VV	1748	156722	8.36%	3.695%
42	22.923	22.829	23.003	VBA	7871	443347	23.64%	10.453%

Sum of corrected areas: 4241500

5G769.D 8015S.M Mon Jul 26 17:32:11 1999

GASOLINE RANGE ORGANICS 5-POINT CALIBRATION - SOIL

CALIBRATION DATE: 06/11/99
INSTRUMENT: HP5

GRO TOTAL AREA		CONC (ug/kg)	CF	AVERAGE CF	%RSD	LIMIT
AREA STANDARD 1:	5809143	90	64546	57104	7.7	20
AREA STANDARD 2:	20269817	360	56305			
AREA STANDARD 3:	50705700	900	56340			
AREA STANDARD 4:	99953222	1800	55530			
AREA STANDARD 5:	190073691	3600	52798			

CHLOROBENZENE TOTAL AREA		CONC (ug/kg)	CF	AVERAGE CF	%RSD	LIMIT
AREA STANDARD 1:	1278077	15	85205	96046	11.3	20
AREA STANDARD 2:	2703780	30	90126			
AREA STANDARD 3:	4132170	45	91826			
AREA STANDARD 4:	6004155	60	100069			
AREA STANDARD 5:	8475351	75	113005			

GASOLINE RANGE ORGANICS CONTINUING CALIBRATION STANDARD

SAMPLE ID: 8015 STD 900PPB

SUB DIRECTORY: 072699
RESULT FILE: 5G765

		CONC (ug/kg)	CHECK STANDARD CF	AVERAGE CF	%D	LIMIT
GRO AREA:	51490329	900	57211	57104	0.2	15
CHLOROBENZENE AREA:	2506604	30	83553	96046	-13.0	15

GASOLINE RANGE ORGANICS SAMPLE QUANTITATION

SAMPLE ID: 07-381-02

SUB DIRECTORY: 072699
RESULT FILE: 5G770
DILUTION FACTOR: 1

TOTAL AREA: 10337719
CHLOROBENZENE AREA: 1815719
CHLOROBENZENE RT: 18.200

	SAMPLE AREA	SAMPLE CONC (ug/kg)	LCS % REC
GRO:	8522000	149.2	16.6

	SSS AREA	SSS CONC (ug/kg)	SSS % REC
CHLOROBENZENE:	1815719	18.90	63.0 * , RE

Area Percent Report

Data File : C:\HPCHEM\1\DATA\072699\5G770.D
Acq On : 26 Jul 1999 4:21 pm
Sample : 07-381-02 S-48-34
Misc : 5G
IntFile : events.e

Vial: 6
Operator: VMN
Inst : HP5
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\8015S.M (Chemstation Integrator)
Title : 8015W

Volume Inj. :
Signal Phase :
Signal Info :

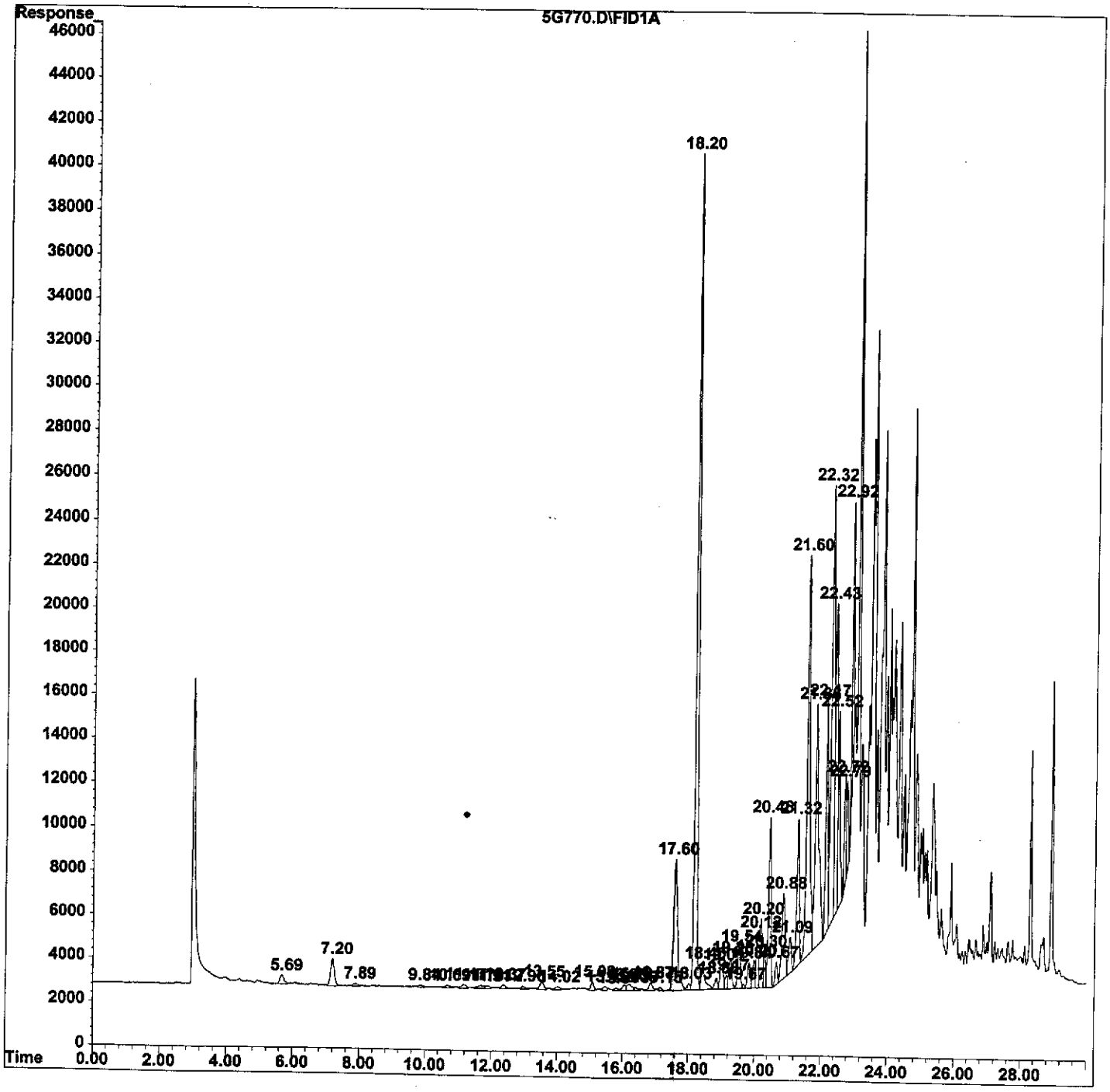

5G770.D 8015S.M Mon Jul 26 16:51:34 1999

Area Percent Report

Data File : C:\HPCHEM\1\DATA\072699\5G770.D
Acq On : 26 Jul 1999 4:21 pm
Sample : 07-381-02 S-48-34
Misc : 5G
IntFile : events.e

Vial: 6
Operator: VMN
Inst : HP5
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\8015S.M (Chemstation Integrator)
Title : 8015W

Signal : 5G770.D\FID1A

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	5.686	5.522	5.866	BV	399	34601	1.91%	0.335%
2	7.195	7.030	7.360	VV	1244	97997	5.40%	0.948%
3	7.893	7.782	8.043	VV	143	12403	0.68%	0.120%
4	9.844	9.780	10.003	VV	111	10329	0.57%	0.100%
5	10.685	10.531	10.869	PV	123	14802	0.82%	0.143%
6	11.172	11.008	11.309	VV	160	17005	0.94%	0.164%
7	11.699	11.473	11.804	VV	135	17797	0.98%	0.172%
8	11.907	11.804	11.997	VV	122	11161	0.61%	0.108%
9	12.371	12.245	12.611	VV	189	18128	1.00%	0.175%
10	12.958	12.890	13.143	VV	133	10186	0.56%	0.099%
11	13.552	13.377	13.691	VV	357	31158	1.72%	0.301%
12	14.019	13.845	14.138	VV	131	13462	0.74%	0.130%
13	15.084	14.966	15.198	VV	381	24046	1.32%	0.233%
14	15.453	15.349	15.542	VV	170	13970	0.77%	0.135%
15	15.807	15.704	15.929	VV	110	9265	0.51%	0.090%
16	16.057	15.929	16.118	VV	254	17796	0.98%	0.172%
17	16.221	16.118	16.333	VV	289	29087	1.60%	0.281%
18	16.392	16.372	16.552	VV	150	10916	0.60%	0.106%
19	16.865	16.648	16.987	VV	364	29893	1.65%	0.289%
20	17.150	17.100	17.254	VV	156	8930	0.49%	0.086%
21	17.605	17.287	17.919	PV	6026	502128	27.65%	4.857%
22	18.028	17.919	18.078	VV	298	18730	1.03%	0.181%
23	18.200	18.078	18.353	VV	37879	1815719	100.00%	17.564%
24	18.449	18.353	18.723	VV	1200	99441	5.48%	0.962%
25	18.856	18.723	18.918	VV	504	31917	1.76%	0.309%
26	19.009	18.918	19.103	VV	1107	79245	4.36%	0.767%
27	19.170	19.103	19.202	VV	628	32585	1.79%	0.315%
28	19.285	19.202	19.420	VV	1433	89645	4.94%	0.867%
29	19.544	19.420	19.648	VV	1938	110289	6.07%	1.067%
30	19.671	19.648	19.735	VV	197	8129	0.45%	0.079%
31	19.842	19.735	19.923	VV	1164	70334	3.87%	0.680%
32	19.997	19.923	20.035	VV	1268	60863	3.35%	0.589%
33	20.122	20.035	20.146	VV	2554	130250	7.17%	1.260%
34	20.203	20.146	20.281	VV	3166	204096	11.24%	1.974%
35	20.296	20.281	20.364	VV	1679	68140	3.75%	0.659%
36	20.457	20.364	20.576	VV	7777	400759	22.07%	3.877%
37	20.674	20.576	20.743	PV	1031	50328	2.77%	0.487%
38	20.883	20.743	20.998	VV	3931	274026	15.09%	2.651%

39	21.087	20.998	21.174	VV	1652	100819	5.55%	0.975%
40	21.315	21.174	21.413	PV	6718	355886	19.60%	3.443%
41	21.599	21.413	21.758	VV	18283	1131499	62.32%	10.945%
42	21.859	21.758	22.078	VV	11045	827923	45.60%	8.009%
43	22.172	22.078	22.231	PV	10560	492972	27.15%	4.769%
44	22.317	22.231	22.385	VV	19833	1139664	62.77%	11.024%
45	22.428	22.385	22.490	VV	14188	709604	39.08%	6.864%
46	22.524	22.490	22.651	VV	8949	384201	21.16%	3.716%
47	22.719	22.651	22.752	PV	4887	173228	9.54%	1.676%
48	22.787	22.752	22.850	VV	4045	156289	8.61%	1.512%
49	22.920	22.850	22.973	PV	12571	386078	21.26%	3.735%

Sum of corrected areas: 10337719

5G770.D 8015S.M Mon Jul 26 16:51:33 1999

GASOLINE RANGE ORGANICS 5-POINT CALIBRATION - SOIL

CALIBRATION DATE: 06/11/99
INSTRUMENT: HP5

GRO TOTAL AREA		CONC (ug/kg)	CF	AVERAGE CF	%RSD	LIMIT
AREA STANDARD 1:	5809143	90	64546	57104	7.7	20
AREA STANDARD 2:	20269817	360	56305			
AREA STANDARD 3:	50705700	900	56340			
AREA STANDARD 4:	99953222	1800	55530			
AREA STANDARD 5:	190073691	3600	52798			

CHLOROBENZENE TOTAL AREA		CONC (ug/kg)	CF	AVERAGE CF	%RSD	LIMIT
AREA STANDARD 1:	1278077	15	85205	96046	11.3	20
AREA STANDARD 2:	2703780	30	90126			
AREA STANDARD 3:	4132170	45	91826			
AREA STANDARD 4:	6004155	60	100069			
AREA STANDARD 5:	8475351	75	113005			

GASOLINE RANGE ORGANICS CONTINUING CALIBRATION STANDARD

SAMPLE ID: 8015 STD 900PPB

SUB DIRECTORY: 072699
RESULT FILE: 5G765

		CONC (ug/kg)	CHECK STANDARD CF	AVERAGE CF	%D	LIMIT
GRO AREA:	51490329	900	57211	57104	0.2	15
CHLOROBENZENE AREA:	2506604	30	83553	96046	-13.0	15

GASOLINE RANGE ORGANICS SAMPLE QUANTITATION

SAMPLE ID: 07-381-03 ✓

SUB DIRECTORY: 072699 ✓
RESULT FILE: ~~5G769~~ 5G771 ✓ mlb 8-3-99
DILUTION FACTOR: 1 ✓

TOTAL AREA: 3104725 ✓
CHLOROBENZENE AREA: 1918037 ✓
CHLOROBENZENE RT: 18.204 ✓

	SAMPLE AREA	SAMPLE CONC (ug/kg)	LCS % REC
GRO:	1186688	~~20.8~~ BRDL	~~2.3~~

	SSS AREA	SSS CONC (ug/kg)	SSS % REC
CHLOROBENZENE:	1918037	19.97	66.6

mlb 7-27-99

Area Percent Report

Data File : C:\HPCHEM\1\DATA\072699\5G771.D
Acq On : 26 Jul 1999 5:13 pm
Sample : 07-381-03 S-48-34
Misc : 5G
IntFile : events.e

Vial: 7
Operator: VMN
Inst : HP5
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\8015S.M (Chemstation Integrator)
Title : 8015W

Volume Inj. :
Signal Phase :
Signal Info :

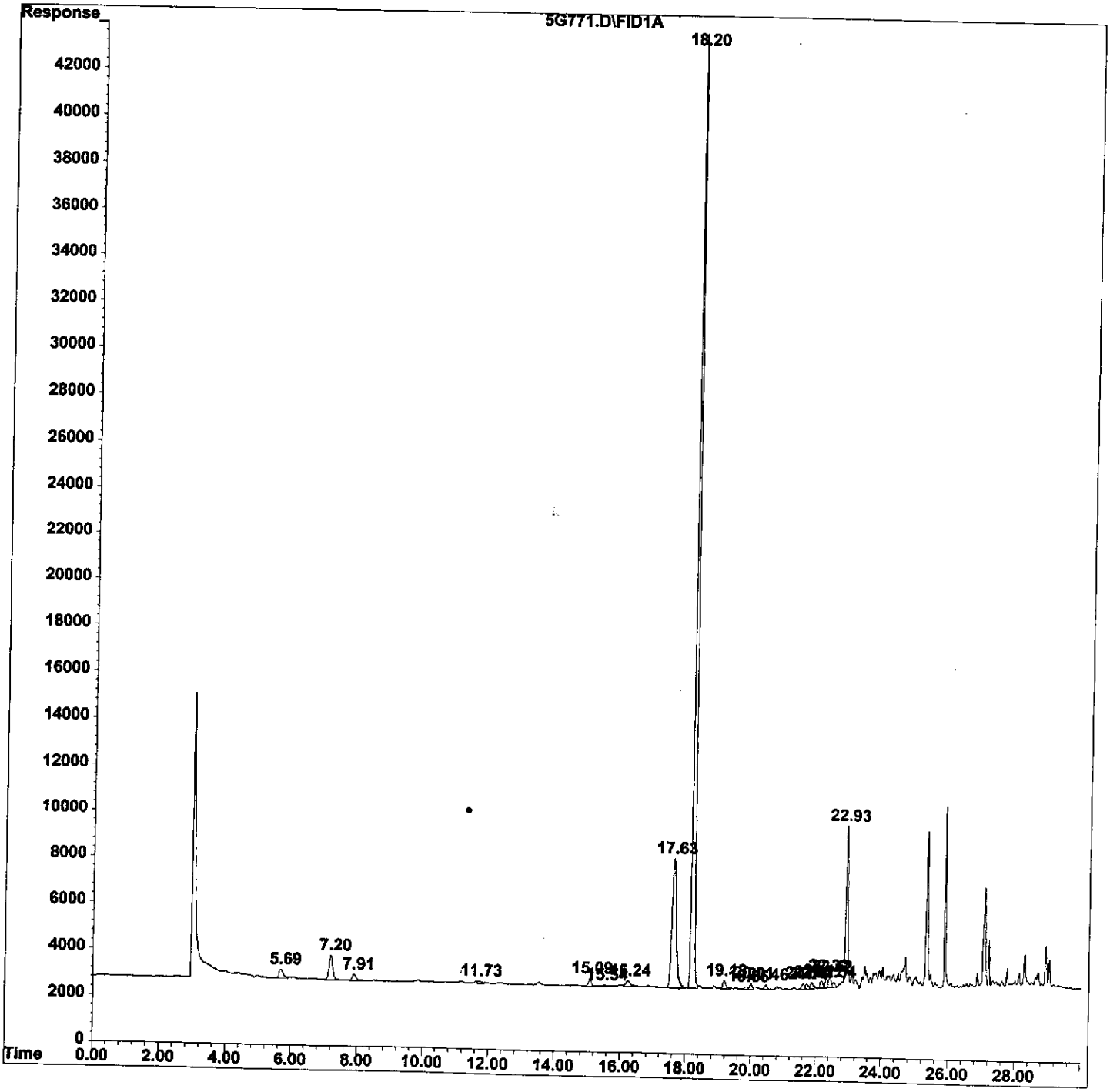

5G771.D 8015S.M Mon Jul 26 17:43:52 1999

Area Percent Report

Data File : C:\HPCHEM\1\DATA\072699\5G771.D
Acq On : 26 Jul 1999 5:13 pm
Sample : 07-381-03 S-48-34
Misc : 5G
IntFile : events.e

Vial: 7
Operator: VMN
Inst : HP5
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\8015S.M (Chemstation Integrator)
Title : 8015W

Signal : 5G771.D\FID1A

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	5.693	5.522	5.903	BV	384	35603	1.86%	1.147%
2	7.199	7.034	7.493	VV	1058	86220	4.50%	2.777%
3	7.905	7.764	8.112	VV	273	24609	1.28%	0.793%
4	11.725	11.660	11.882	VV	116	10340	0.54%	0.333%
5	15.089	14.933	15.264	VV	353	25047	1.31%	0.807%
6	15.537	15.347	15.640	PV	72	8721	0.45%	0.281%
7	16.242	16.099	16.497	VV	242	26122	1.36%	0.841%
8	17.626	17.429	17.972	VV	5565	517416	26.98%	16.665%
9	18.204	18.064	18.384	VV	41056	1918037	100.00%	61.778%
10	19.184	19.068	19.353	VV	352	24461	1.28%	0.788%
11	19.862	19.713	19.920	PV	107	8131	0.42%	0.262%
12	20.008	19.920	20.074	VV	257	13736	0.72%	0.442%
13	20.462	20.354	20.575	VV	195	11581	0.60%	0.373%
14	21.607	21.478	21.667	VV	249	14181	0.74%	0.457%
15	21.712	21.667	21.800	VV	216	11831	0.62%	0.381%
16	21.866	21.800	21.951	VV	277	15613	0.81%	0.503%
17	22.170	22.053	22.245	PV	308	18104	0.94%	0.583%
18	22.322	22.245	22.371	VV	504	22107	1.15%	0.712%
19	22.425	22.371	22.500	VV	460	24398	1.27%	0.786%
20	22.543	22.500	22.647	VV	212	10915	0.57%	0.352%
21	22.932	22.831	23.003	PBA	6376	277552	14.47%	8.940%

Sum of corrected areas: 3104725

5G771.D 8015S.M Mon Jul 26 17:43:49 1999

GASOLINE RANGE ORGANICS 5-POINT CALIBRATION - SOIL

CALIBRATION DATE: 06/11/99
INSTRUMENT: HP5

GRO TOTAL AREA		CONC (ug/kg)	CF	AVERAGE CF	%RSD	LIMIT
AREA STANDARD 1:	5809143	90	64546	57104	7.7	20
AREA STANDARD 2:	20269817	360	56305			
AREA STANDARD 3:	50705700	900	56340			
AREA STANDARD 4:	99953222	1800	55530			
AREA STANDARD 5:	190073691	3600	52798			

CHLOROBENZENE TOTAL AREA		CONC (ug/kg)	CF	AVERAGE CF	%RSD	LIMIT
AREA STANDARD 1:	1278077	15	85205	96046	11.3	20
AREA STANDARD 2:	2703780	30	90126			
AREA STANDARD 3:	4132170	45	91826			
AREA STANDARD 4:	6004155	60	100069			
AREA STANDARD 5:	8475351	75	113005			

GASOLINE RANGE ORGANICS CONTINUING CALIBRATION STANDARD

SAMPLE ID: 8015 STD 900PPB

SUB DIRECTORY: 072699
RESULT FILE: 5G765

		CONC (ug/kg)	CHECK STANDARD CF	AVERAGE CF	%D	LIMIT
GRO AREA:	51490329	900	57211	57104	0.2	15
CHLOROBENZENE AREA:	2506604	30	83553	96046	-13.0	15

GASOLINE RANGE ORGANICS SAMPLE QUANTITATION

SAMPLE ID: 07-381-04

SUB DIRECTORY: 072699
RESULT FILE: 5G772
DILUTION FACTOR: 1

TOTAL AREA: 3560510
CHLOROBENZENE AREA: 1726571
CHLOROBENZENE RT: 18.201

	SAMPLE AREA	SAMPLE CONC (ug/kg)	LCS % REC
GRO:	1833939	~~32.1~~ 32.1 J BRDL	~~3.6~~

	SSS AREA	SSS CONC (ug/kg)	SSS % REC
CHLOROBENZENE:	1726571	17.98	59.9 *, RE

Area Percent Report

Data File : C:\HPCHEM\1\DATA\072699\5G772.D
Acq On : 26 Jul 1999 6:01 pm
Sample : 07-381-04 S-48-34
Misc : 5G
IntFile : events.e

Vial: 8
Operator: VMN
Inst : HP5
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\8015S.M (Chemstation Integrator)
Title : 8015W

Volume Inj. :
Signal Phase :
Signal Info :

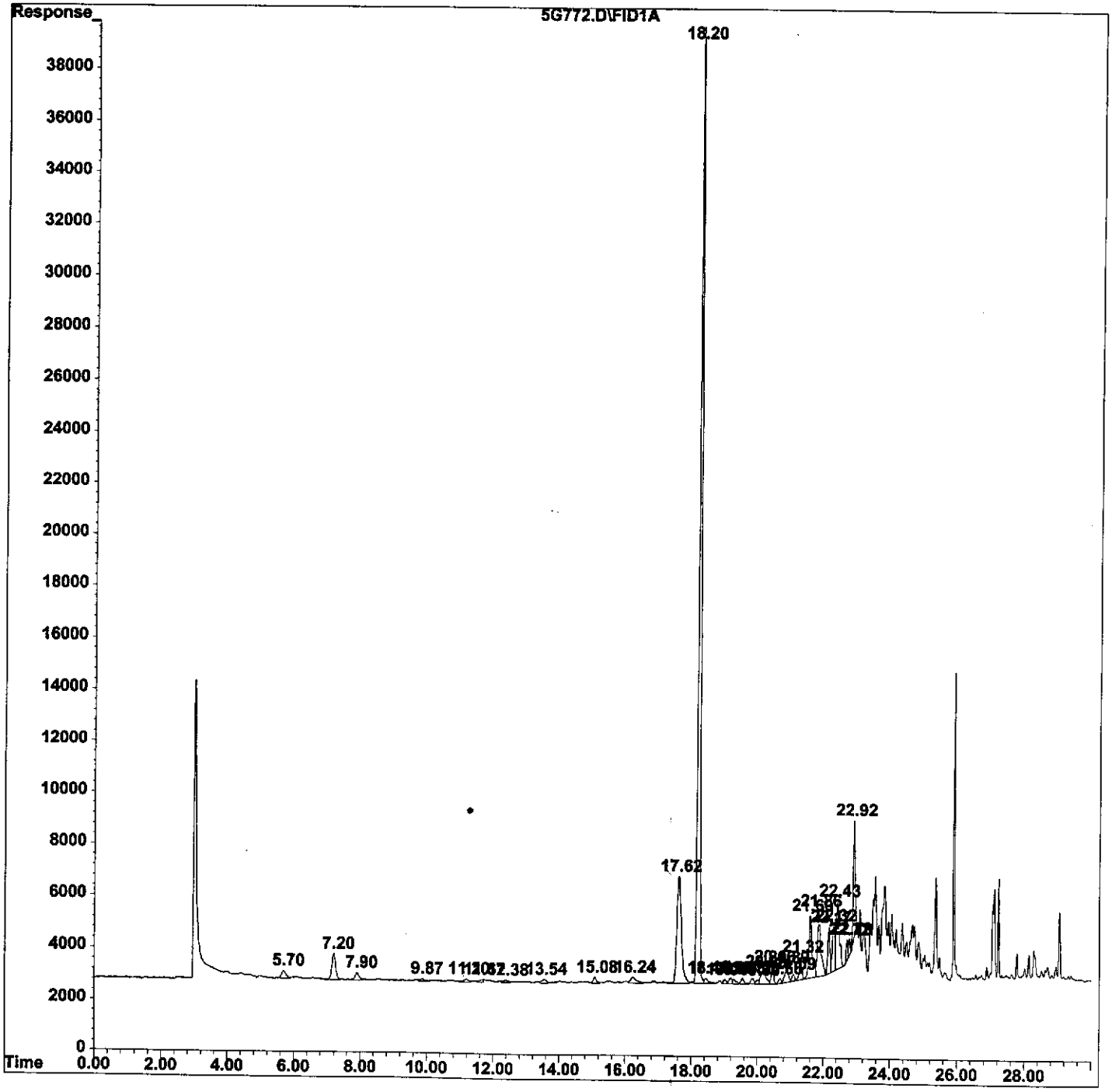

5G772.D 8015S.M Mon Jul 26 18:31:37 1999

Area Percent Report

Data File : C:\HPCHEM\1\DATA\072699\5G772.D
Acq On : 26 Jul 1999 6:01 pm
Sample : 07-381-04 S-48-34
Misc : 5G
IntFile : events.e

Vial: 8
Operator: VMN
Inst : HP5
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\8015S.M (Chemstation Integrator)
Title : 8015W

Signal : 5G772.D\FID1A

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	5.701	5.522	5.903	BV	291	26714	1.55%	0.750%
2	7.198	6.913	7.392	PV	995	79565	4.61%	2.235%
3	7.896	7.773	8.080	VV	291	24592	1.42%	0.691%
4	9.872	9.747	10.045	VV	107	10297	0.60%	0.289%
5	11.195	10.970	11.313	VV	120	13477	0.78%	0.379%
6	11.667	11.508	11.704	VV	111	8648	0.50%	0.243%
7	12.378	12.236	12.508	VV	102	11520	0.67%	0.324%
8	13.543	13.410	13.674	VV	151	15073	0.87%	0.423%
9	15.082	14.988	15.227	VV	233	15842	0.92%	0.445%
10	16.235	16.113	16.554	VV	228	28201	1.63%	0.792%
11	17.620	17.414	17.948	VV	4123	393650	22.80%	11.056%
12	18.201	18.071	18.377	VV	36861	1726571	100.00%	48.492%
13	18.437	18.377	18.721	VV	199	17768	1.03%	0.499%
14	19.009	18.924	19.095	VV	154	10282	0.60%	0.289%
15	19.184	19.095	19.245	VV	224	14428	0.84%	0.405%
16	19.281	19.245	19.450	VV	171	11879	0.69%	0.334%
17	19.546	19.450	19.735	VV	215	14771	0.86%	0.415%
18	19.847	19.735	19.930	VV	208	14400	0.83%	0.404%
19	19.994	19.930	20.041	VV	143	7853	0.45%	0.221%
20	20.199	20.041	20.364	VV	451	53427	3.09%	1.501%
21	20.459	20.364	20.580	VV	650	34613	2.00%	0.972%
22	20.678	20.580	20.742	PV	186	10249	0.59%	0.288%
23	20.887	20.742	21.010	VV	559	43914	2.54%	1.233%
24	21.091	21.010	21.177	VV	268	14428	0.84%	0.405%
25	21.317	21.177	21.414	PV	865	46800	2.71%	1.314%
26	21.600	21.414	21.768	PV	2378	169890	9.84%	4.771%
27	21.860	21.768	22.076	VV	2486	171257	9.92%	4.810%
28	22.168	22.076	22.233	PV	1763	80875	4.68%	2.271%
29	22.315	22.233	22.362	VV	1723	88684	5.14%	2.491%
30	22.428	22.362	22.634	VV	2593	172601	10.00%	4.848%
31	22.719	22.634	22.753	PV	780	27314	1.58%	0.767%
32	22.790	22.753	22.847	VV	631	22447	1.30%	0.630%
33	22.924	22.847	23.003	PBA	4489	178483	10.34%	5.013%

Sum of corrected areas: 3560510

5G772.D 8015S.M Mon Jul 26 18:31:36 1999

GASOLINE RANGE ORGANICS 5-POINT CALIBRATION - SOIL

CALIBRATION DATE: 06/11/99
INSTRUMENT: HP5

GRO TOTAL AREA		CONC (ug/kg)	CF	AVERAGE CF	%RSD	LIMIT
AREA STANDARD 1:	5809143	90	64546	57104	7.7	20
AREA STANDARD 2:	20269817	360	56305			
AREA STANDARD 3:	50705700	900	56340			
AREA STANDARD 4:	99953222	1800	55530			
AREA STANDARD 5:	190073691	3600	52798			

CHLOROBENZENE TOTAL AREA		CONC (ug/kg)	CF	AVERAGE CF	%RSD	LIMIT
AREA STANDARD 1:	1278077	15	85205	96046	11.3	20
AREA STANDARD 2:	2703780	30	90126			
AREA STANDARD 3:	4132170	45	91826			
AREA STANDARD 4:	6004155	60	100069			
AREA STANDARD 5:	8475351	75	113005			

GASOLINE RANGE ORGANICS CONTINUING CALIBRATION STANDARD

SAMPLE ID: 8015 STD 900PPB

SUB DIRECTORY: 072699
RESULT FILE: 5G765

		CONC (ug/kg)	CHECK STANDARD CF	AVERAGE CF	%D	LIMIT
GRO AREA:	51490329	900	57211	57104	0.2	15
CHLOROBENZENE AREA:	2506604	30	83553	96046	-13.0	15

GASOLINE RANGE ORGANICS SAMPLE QUANTITATION

SAMPLE ID: 07-381-05

SUB DIRECTORY: 072699
RESULT FILE: 5G773
DILUTION FACTOR: 1

TOTAL AREA: 2818516
CHLOROBENZENE AREA: 1861562
CHLOROBENZENE RT: 18.196

	SAMPLE AREA	SAMPLE CONC (ug/kg)	LCS % REC
GRO:	956954	~~16.8~~ BRDL	~~1.9~~

	SSS AREA	SSS CONC (ug/kg)	SSS % REC
CHLOROBENZENE:	1861562	19.38	64.6

Area Percent Report

Data File : C:\HPCHEM\1\DATA\072699\5G773.D
Acq On : 26 Jul 1999 6:48 pm
Sample : 07-381-05 S-48-34
Misc : 5G
IntFile : events.e

Vial: 9
Operator: VMN
Inst : HP5
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\8015S.M (Chemstation Integrator)
Title : 8015W

Volume Inj. :
Signal Phase :
Signal Info :

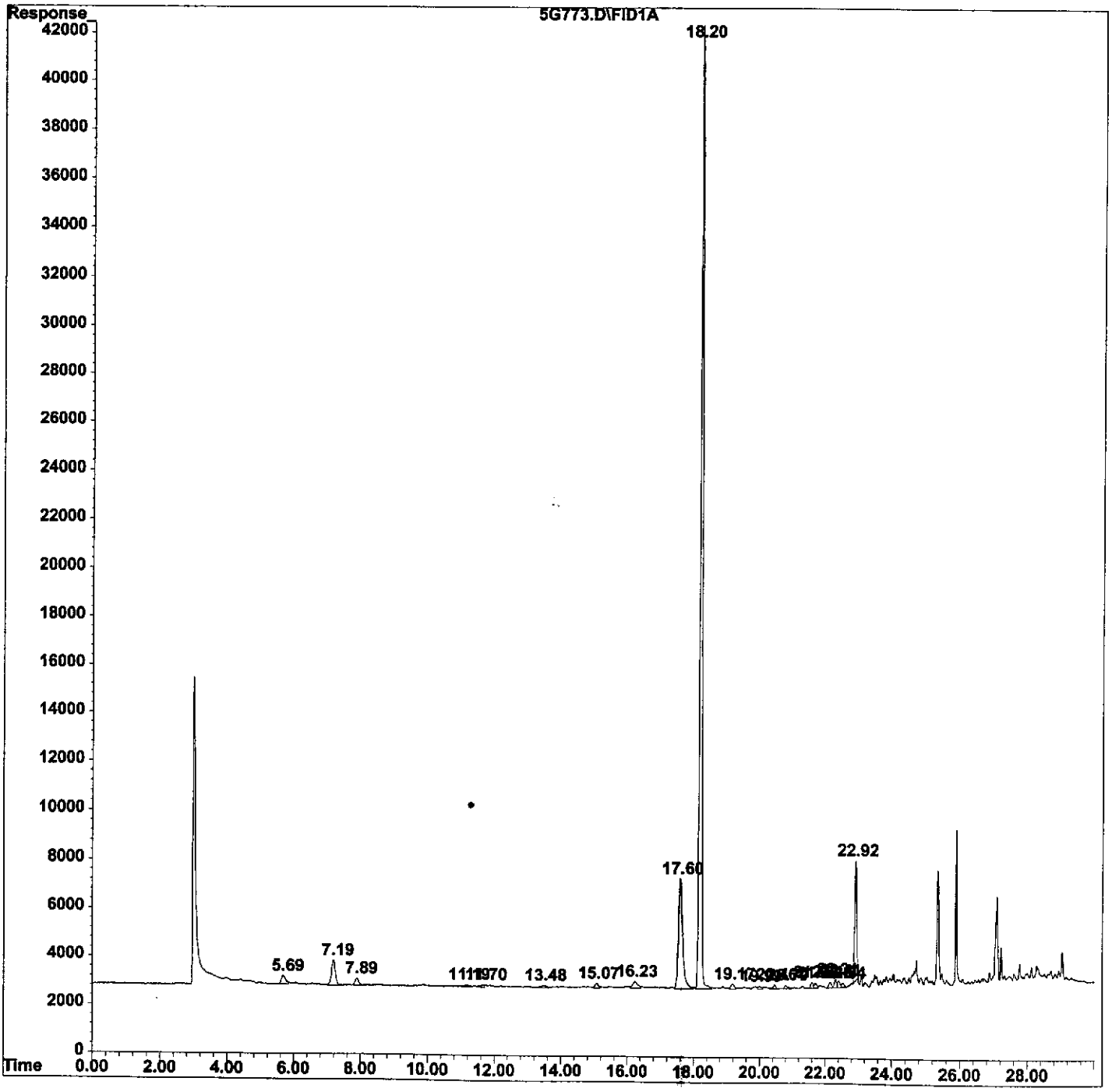

5G773.D 8015S.M Mon Jul 26 19:18:37 1999

Area Percent Report

Data File : C:\HPCHEM\1\DATA\072699\5G773.D
Acq On : 26 Jul 1999 6:48 pm
Sample : 07-381-05 S-48-34
Misc : 5G
IntFile : events.e

Vial: 9
Operator: VMN
Inst : HP5
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\8015S.M (Chemstation Integrator)
Title : 8015W

Signal : 5G773.D\FID1A

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	5.688	5.525	5.842	BV	355	31247	1.68%	1.109%
2	7.189	6.997	7.473	PV	1039	83800	4.50%	2.973%
3	7.892	7.779	8.041	VV	295	22350	1.20%	0.793%
4	11.190	11.059	11.273	VV	91	7705	0.41%	0.273%
5	11.695	11.509	11.719	VV	97	8426	0.45%	0.299%
6	13.476	13.393	13.641	VV	99	8885	0.48%	0.315%
7	15.073	14.970	15.182	VV	192	14015	0.75%	0.497%
8	16.230	16.089	16.417	VV	284	30536	1.64%	1.083%
9	17.604	17.414	17.998	VV	4550	408071	21.92%	14.478%
10	18.196	18.065	18.555	VV	39583	1861562	100.00%	66.048%
11	19.175	19.088	19.279	VV	197	14168	0.76%	0.503%
12	19.994	19.936	20.103	VV	110	8212	0.44%	0.291%
13	20.458	20.303	20.587	VV	166	10270	0.55%	0.364%
14	20.794	20.718	20.991	VV	135	9695	0.52%	0.344%
15	21.594	21.473	21.650	PV	239	12523	0.67%	0.444%
16	21.705	21.650	21.800	VV	207	12062	0.65%	0.428%
17	22.159	22.062	22.235	PV	225	12898	0.69%	0.458%
18	22.314	22.235	22.366	VV	345	15758	0.85%	0.559%
19	22.415	22.366	22.488	VV	279	14378	0.77%	0.510%
20	22.540	22.488	22.654	VV	186	10047	0.54%	0.356%
21	22.925	22.827	23.003	PBA	4933	221909	11.92%	7.873%

Sum of corrected areas: 2818516

5G773.D 8015S.M Mon Jul 26 19:18:34 1999

GASOLINE RANGE ORGANICS 5-POINT CALIBRATION - SOIL

CALIBRATION DATE: 06/11/99
INSTRUMENT: HP5

GRO TOTAL AREA		CONC (ug/kg)	CF	AVERAGE CF	%RSD	LIMIT
AREA STANDARD 1:	5809143	90	64546	57104	7.7	20
AREA STANDARD 2:	20269817	360	56305			
AREA STANDARD 3:	50705700	900	56340			
AREA STANDARD 4:	99953222	1800	55530			
AREA STANDARD 5:	190073691	3600	52798			

CHLOROBENZENE TOTAL AREA		CONC (ug/kg)	CF	AVERAGE CF	%RSD	LIMIT
AREA STANDARD 1:	1278077	15	85205	96046	11.3	20
AREA STANDARD 2:	2703780	30	90126			
AREA STANDARD 3:	4132170	45	91826			
AREA STANDARD 4:	6004155	60	100069			
AREA STANDARD 5:	8475351	75	113005			

GASOLINE RANGE ORGANICS CONTINUING CALIBRATION STANDARD

SAMPLE ID: 8015 STD 900PPB

SUB DIRECTORY: 072699
RESULT FILE: 5G765

		CONC (ug/kg)	CHECK STANDARD CF	AVERAGE CF	%D	LIMIT
GRO AREA:	51490329	900	57211	57104	**0.2**	15
CHLOROBENZENE AREA:	2506604	30	83553	96046	**-13.0**	15

GASOLINE RANGE ORGANICS SAMPLE QUANTITATION

SAMPLE ID: 07-381-06

SUB DIRECTORY: 072699
RESULT FILE: 5G774
DILUTION FACTOR: 1

TOTAL AREA: 3180336
CHLOROBENZENE AREA: 1943977
CHLOROBENZENE RT: 18.191

	SAMPLE AREA	SAMPLE CONC (ug/kg)	LCS % REC
GRO:	1236359	~~21.7~~ BRDL	~~2.4~~

	SSS AREA	SSS CONC (ug/kg)	SSS % REC
CHLOROBENZENE:	1943977	20.24	67.5

Area Percent Report

Data File : C:\HPCHEM\1\DATA\072699\5G774.D
Acq On : 26 Jul 1999 7:33 pm
Sample : 07-381-06 S-48-34
Misc : 5G
IntFile : events.e

Vial: 10
Operator: VMN
Inst : HP5
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\8015S.M (Chemstation Integrator)
Title : 8015W

Volume Inj. :
Signal Phase :
Signal Info :

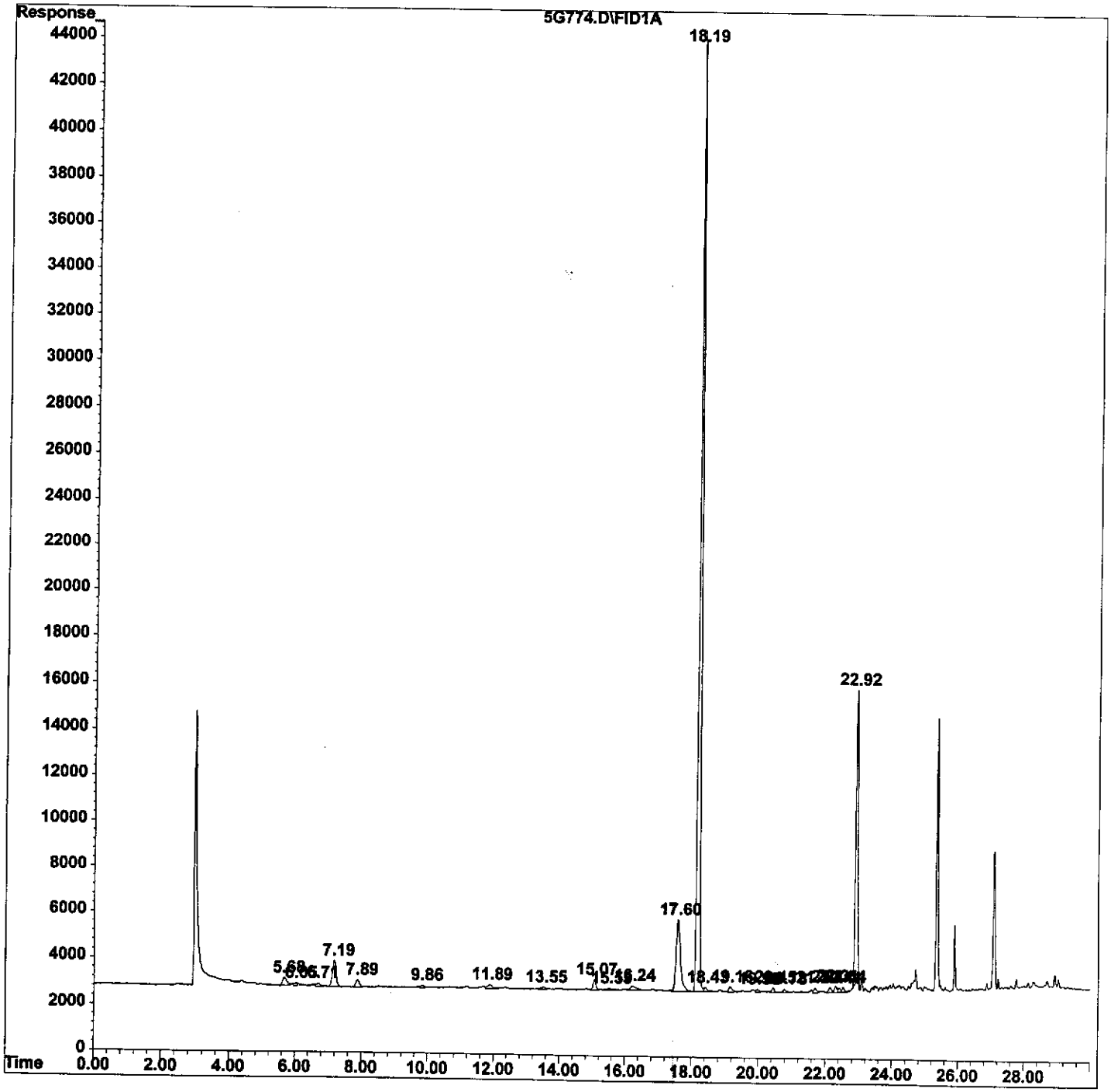

5G774.D 8015S.M Mon Jul 26 20:03:20 1999

Area Percent Report

Data File : C:\HPCHEM\1\DATA\072699\5G774.D
Acq On : 26 Jul 1999 7:33 pm
Sample : 07-381-06 S-48-34
Misc : 5G
IntFile : events.e

Vial: 10
Operator: VMN
Inst : HP5
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\8015S.M (Chemstation Integrator)
Title : 8015W

Signal : 5G774.D\FID1A

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	5.681	5.525	5.853	BV	341	30788	1.58%	0.968%
2	6.049	5.948	6.075	VV	123	7728	0.40%	0.243%
3	6.708	6.619	6.861	VV	155	11170	0.57%	0.351%
4	7.186	7.011	7.407	PV	1143	90629	4.66%	2.850%
5	7.892	7.766	8.037	VV	327	25066	1.29%	0.788%
6	9.856	9.755	9.942	VV	116	7980	0.41%	0.251%
7	11.895	11.742	12.086	VV	168	16922	0.87%	0.532%
8	13.549	13.371	13.623	VV	105	9419	0.48%	0.296%
9	15.075	14.952	15.197	VV	450	28208	1.45%	0.887%
10	15.529	15.314	15.656	VV	80	8528	0.44%	0.268%
11	16.237	16.062	16.557	VV	191	25401	1.31%	0.799%
12	17.603	17.395	18.005	PV	3097	277718	14.29%	8.732%
13	18.191	18.055	18.373	VV	41696	1943977	100.00%	61.125%
14	18.428	18.373	18.567	VV	181	12665	0.65%	0.398%
15	19.164	19.066	19.403	VV	224	18025	0.93%	0.567%
16	19.980	19.924	20.080	VV	124	7691	0.40%	0.242%
17	20.451	20.357	20.555	VV	202	11036	0.57%	0.347%
18	20.779	20.642	20.930	VV	149	9362	0.48%	0.294%
19	21.698	21.633	21.800	VV	210	12265	0.63%	0.386%
20	22.140	22.029	22.228	PV	221	13477	0.69%	0.424%
21	22.310	22.228	22.369	VV	257	14246	0.73%	0.448%
22	22.413	22.369	22.476	VV	190	9619	0.49%	0.302%
23	22.537	22.476	22.649	VV	219	10623	0.55%	0.334%
24	22.923	22.763	23.003	PBA	12695	577792	29.72%	18.168%

Sum of corrected areas: 3180336

5G774.D 8015S.M Mon Jul 26 20:03:18 1999

GASOLINE RANGE ORGANICS 5-POINT CALIBRATION - SOIL

CALIBRATION DATE: 06/11/99
INSTRUMENT: HP5

GRO TOTAL AREA		CONC (ug/kg)	CF	AVERAGE CF	%RSD	LIMIT
AREA STANDARD 1:	5809143	90	64546	57104	7.7	20
AREA STANDARD 2:	20269817	360	56305			
AREA STANDARD 3:	50705700	900	56340			
AREA STANDARD 4:	99953222	1800	55530			
AREA STANDARD 5:	190073691	3600	52798			

CHLOROBENZENE TOTAL AREA		CONC (ug/kg)	CF	AVERAGE CF	%RSD	LIMIT
AREA STANDARD 1:	1278077	15	85205	96046	11.3	20
AREA STANDARD 2:	2703780	30	90126			
AREA STANDARD 3:	4132170	45	91826			
AREA STANDARD 4:	6004155	60	100069			
AREA STANDARD 5:	8475351	75	113005			

GASOLINE RANGE ORGANICS CONTINUING CALIBRATION STANDARD

SAMPLE ID: 8015 STD 900PPB

SUB DIRECTORY: 072699
RESULT FILE: 5G765

		CONC (ug/kg)	CHECK STANDARD CF	AVERAGE CF	%D	LIMIT
GRO AREA:	51490329	900	57211	57104	0.2	15
CHLOROBENZENE AREA:	2506604	30	83553	96046	-13.0	15

GASOLINE RANGE ORGANICS SAMPLE QUANTITATION

SAMPLE ID: 07-381-07

SUB DIRECTORY: 072699
RESULT FILE: 5G775
DILUTION FACTOR: 1

TOTAL AREA: 2376089
CHLOROBENZENE AREA: 1806581
CHLOROBENZENE RT: 18.188

	SAMPLE AREA	SAMPLE CONC (ug/kg)	LCS % REC
GRO:	569508	~~10.0~~ BRDL	~~1.1~~

	SSS AREA	SSS CONC (ug/kg)	SSS % REC
CHLOROBENZENE:	1806581	18.81	62.7 *, RE

Area Percent Report

Data File : C:\HPCHEM\1\DATA\072699\5G775.D
Acq On : 26 Jul 1999 8:17 pm
Sample : 07-381-07 S-48-34
Misc : 5G
IntFile : events.e

Vial: 11
Operator: VMN
Inst : HP5
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\8015S.M (Chemstation Integrator)
Title : 8015W

Volume Inj. :
Signal Phase :
Signal Info :

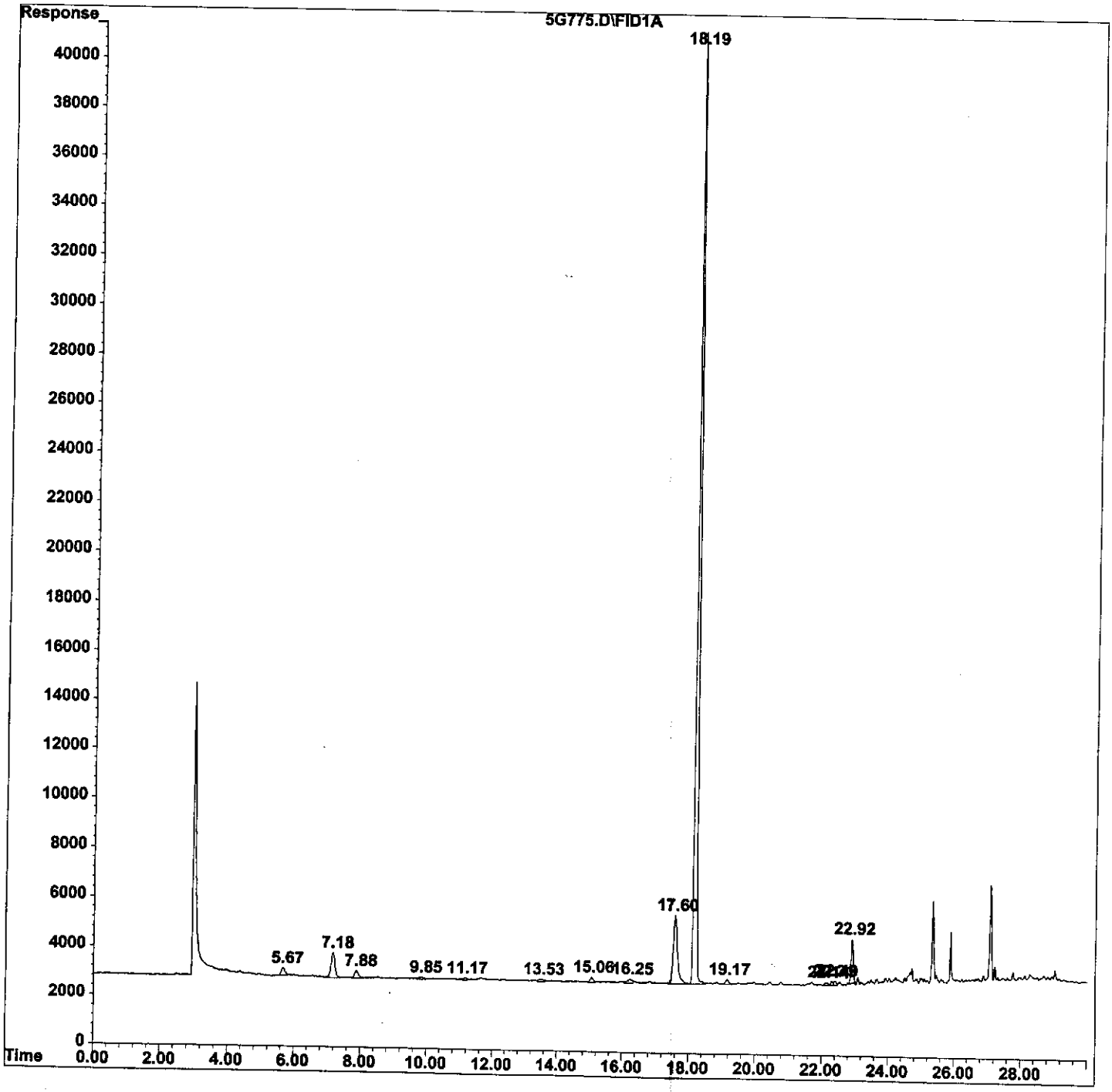

5G775.D 8015S.M Mon Jul 26 20:48:06 1999

Area Percent Report

Data File : C:\HPCHEM\1\DATA\072699\5G775.D
Acq On : 26 Jul 1999 8:17 pm
Sample : 07-381-07 S-48-34
Misc : 5G
IntFile : events.e

Vial: 11
Operator: VMN
Inst : HP5
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\8015S.M (Chemstation Integrator)
Title : 8015W

Signal : 5G775.D\FID1A

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	5.671	5.525	5.810	BV	307	24281	1.34%	1.022%
2	7.181	6.932	7.406	PV	1034	84942	4.70%	3.575%
3	7.877	7.740	8.097	VV	309	26270	1.45%	1.106%
4	9.850	9.705	9.992	VV	85	9962	0.55%	0.419%
5	11.171	11.075	11.263	VV	94	7715	0.43%	0.325%
6	13.530	13.402	13.652	VV	104	11132	0.62%	0.468%
7	15.061	14.949	15.172	VV	224	14468	0.80%	0.609%
8	16.251	16.051	16.342	VV	176	18334	1.01%	0.772%
9	17.600	17.420	17.944	VV	2774	250471	13.86%	10.541%
10	18.188	18.063	18.512	VV	38473	1806581	100.00%	76.032%
11	19.175	19.051	19.327	VV	194	14333	0.79%	0.603%
12	22.143	22.046	22.230	PV	118	8014	0.44%	0.337%
13	22.307	22.230	22.356	VV	172	8212	0.45%	0.346%
14	22.403	22.356	22.474	VV	182	9112	0.50%	0.383%
15	22.921	22.832	23.003	VBA	1793	82262	4.55%	3.462%

Sum of corrected areas: 2376089

5G775.D 8015S.M Mon Jul 26 20:48:04 1999

GASOLINE RANGE ORGANICS 5-POINT CALIBRATION - SOIL

CALIBRATION DATE: 06/11/99
INSTRUMENT: HP5

GRO TOTAL AREA		CONC (ug/kg)	CF	AVERAGE CF	%RSD	LIMIT
AREA STANDARD 1:	5809143	90	64546	57104	7.7	20
AREA STANDARD 2:	20269817	360	56305			
AREA STANDARD 3:	50705700	900	56340			
AREA STANDARD 4:	99953222	1800	55530			
AREA STANDARD 5:	190073691	3600	52798			

CHLOROBENZENE TOTAL AREA		CONC (ug/kg)	CF	AVERAGE CF	%RSD	LIMIT
AREA STANDARD 1:	1278077	15	85205	96046	11.3	20
AREA STANDARD 2:	2703780	30	90126			
AREA STANDARD 3:	4132170	45	91826			
AREA STANDARD 4:	6004155	60	100069			
AREA STANDARD 5:	8475351	75	113005			

GASOLINE RANGE ORGANICS CONTINUING CALIBRATION STANDARD

SAMPLE ID: 8015 STD 900PPB

SUB DIRECTORY: 072699
RESULT FILE: 5G765

		CONC (ug/kg)	CHECK STANDARD CF	AVERAGE CF	%D	LIMIT
GRO AREA:	51490329	900	57211	57104	**0.2**	15
CHLOROBENZENE AREA:	2506604	30	83553	96046	**-13.0**	15

GASOLINE RANGE ORGANICS SAMPLE QUANTITATION

SAMPLE ID: 07-381-08

SUB DIRECTORY: 072699
RESULT FILE: 5G776
DILUTION FACTOR: 1

TOTAL AREA: 2613605
CHLOROBENZENE AREA: 1963410
CHLOROBENZENE RT: 18.187

	SAMPLE AREA	SAMPLE CONC (ug/kg)	LCS % REC
GRO:	650195	~~11.4~~ BRRL	~~1.3~~

	SSS AREA	SSS CONC (ug/kg)	SSS % REC
CHLOROBENZENE:	1963410	20.44	68.1

MAB 7-27-99

Area Percent Report

Data File : C:\HPCHEM\1\DATA\072699\5G776.D
Acq On : 26 Jul 1999 9:01 pm
Sample : 07-381-08 S-48-34
Misc : 5G
IntFile : events.e

Vial: 12
Operator: VMN
Inst : HP5
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\8015S.M (Chemstation Integrator)
Title : 8015W

Volume Inj. :
Signal Phase :
Signal Info :

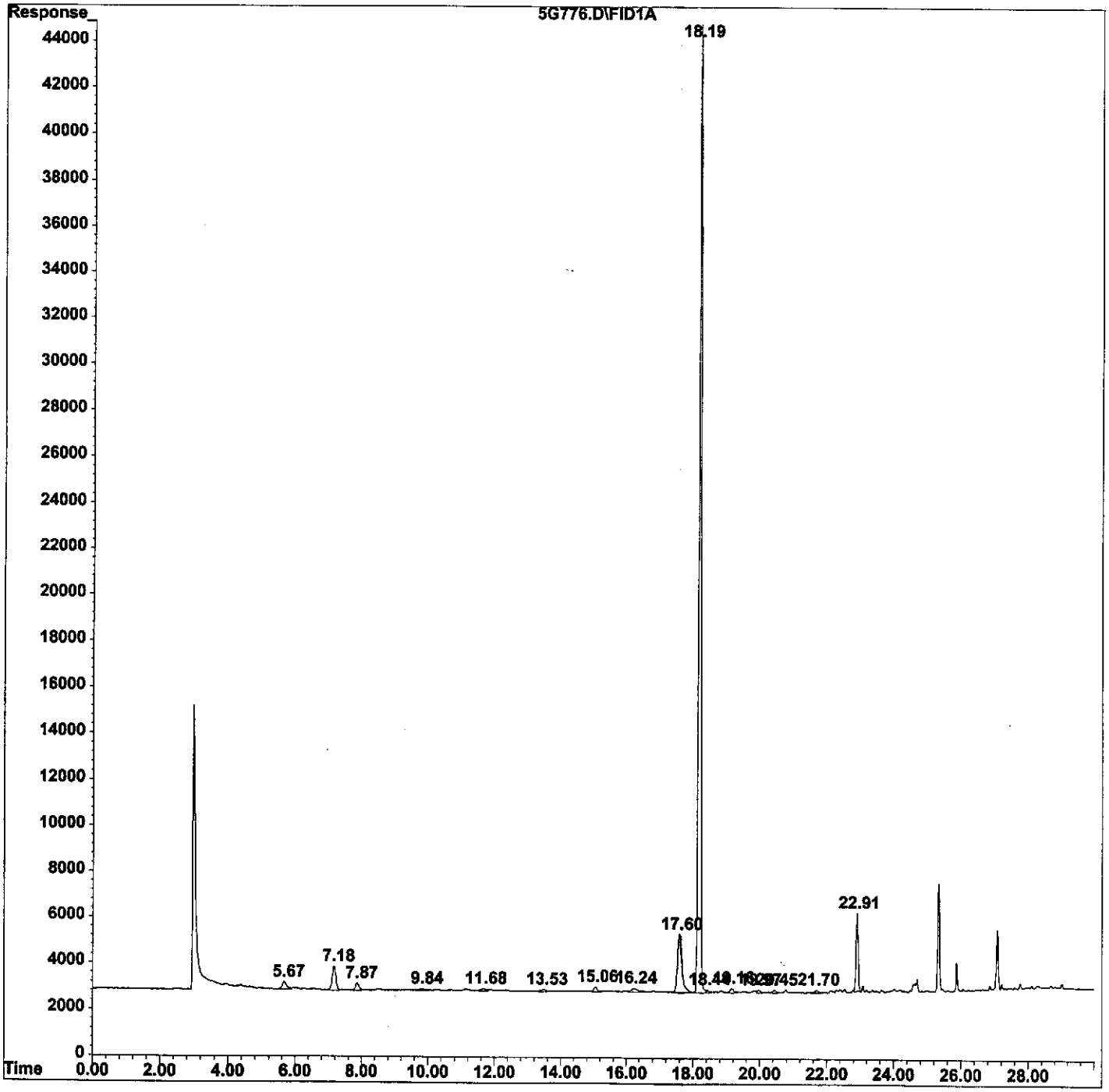

5G776.D 8015S.M Mon Jul 26 21:31:48 1999

Area Percent Report

Data File : C:\HPCHEM\1\DATA\072699\5G776.D
Acq On : 26 Jul 1999 9:01 pm
Sample : 07-381-08 S-48-34
Misc : 5G
IntFile : events.e

Vial: 12
Operator: VMN
Inst : HP5
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\8015S.M (Chemstation Integrator)
Title : 8015W

Signal : 5G776.D\FID1A

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	5.672	5.525	5.890	BV	306	27696	1.41%	1.060%
2	7.177	6.991	7.354	VV	1032	82205	4.19%	3.145%
3	7.874	7.729	8.023	VV	314	24572	1.25%	0.940%
4	9.844	9.732	9.981	VV	80	7581	0.39%	0.290%
5	11.683	11.534	11.830	VV	106	12452	0.63%	0.476%
6	13.532	13.318	13.597	VV	91	9670	0.49%	0.370%
7	15.062	14.958	15.248	VV	226	16119	0.82%	0.617%
8	16.237	16.066	16.485	VV	170	24327	1.24%	0.931%
9	17.604	17.394	17.996	VV	2516	238343	12.14%	9.119%
10	18.187	18.049	18.389	VV	41908	1963410	100.00%	75.123%
11	18.436	18.389	18.555	VV	134	7696	0.39%	0.294%
12	19.162	19.012	19.334	VV	193	15888	0.81%	0.608%
13	19.971	19.913	20.111	VV	110	7944	0.40%	0.304%
14	20.449	20.372	20.551	VV	123	7761	0.40%	0.297%
15	21.700	21.516	21.840	VV	126	10947	0.56%	0.419%
16	22.913	22.813	23.003	VBA	3362	156995	8.00%	6.007%

Sum of corrected areas: 2613605

5G776.D 8015S.M Mon Jul 26 21:31:45 1999

Standards Data

GASOLINE RANGE ORGANICS 5-POINT CALIBRATION - SOIL

CALIBRATION DATE: 06/11/99
INSTRUMENT: HP5

GRO TOTAL AREA		CONC (ug/kg)	CF	AVERAGE CF	%RSD	LIMIT
AREA STANDARD 1:	5809143	90	64546	57104	7.7	20
AREA STANDARD 2:	20269817	360	56305			
AREA STANDARD 3:	50705700	900	56340			
AREA STANDARD 4:	99953222	1800	55530			
AREA STANDARD 5:	190073691	3600	52798			

CHLOROBENZENE TOTAL AREA		CONC (ug/kg)	CF	AVERAGE CF	%RSD	LIMIT
AREA STANDARD 1:	1278077	15	85205	96046	11.3	20
AREA STANDARD 2:	2703780	30	90126			
AREA STANDARD 3:	4132170	45	91826			
AREA STANDARD 4:	6004155	60	100069			
AREA STANDARD 5:	8475351	75	113005			

GASOLINE RANGE ORGANICS CONTINUING CALIBRATION STANDARD

SAMPLE ID: 8015 STD 900PPB

VAFCEE VMN 6/19/99

SUB DIRECTORY: 061199
RESULT FILE: 5G077

		CONC (ug/kg)	CHECK STANDARD CF	AVERAGE CF	%D	LIMIT
GRO AREA:	57783016	900	64203	57104	12.4	15
CHLOROBENZENE AREA:	2603467	30	86782	96046	-9.6	15

✓ VMN 6/12/99

GASOLINE RANGE ORGANICS SAMPLE QUANTITATION

SAMPLE ID:

SUB DIRECTORY:
RESULT FILE:
DILUTION FACTOR:

TOTAL AREA:
CHLOROBENZENE AREA:
CHLOROBENZENE RT:

	SAMPLE AREA	SAMPLE CONC (ug/kg)	LCS % REC
GRO:	#VALUE!	#VALUE!	#VALUE!
	SSS AREA	**SSS CONC (ug/kg)**	**SSS % REC**
CHLOROBENZENE:		#VALUE!	#VALUE!

Area Percent Report

Data File : C:\HPCHEM\1\DATA\061199\5G072.D
Acq On : 11 Jun 1999 8:37 pm
Sample : 8015 STD 1 90PPB S-45-47/S-46-36
Misc : 5G
IntFile : events.e

Vial: 5
Operator: MFB
Inst : HP5
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\8015S.M (Chemstation Integrator)
Title : 8015W

Volume Inj. :
Signal Phase :
Signal Info :

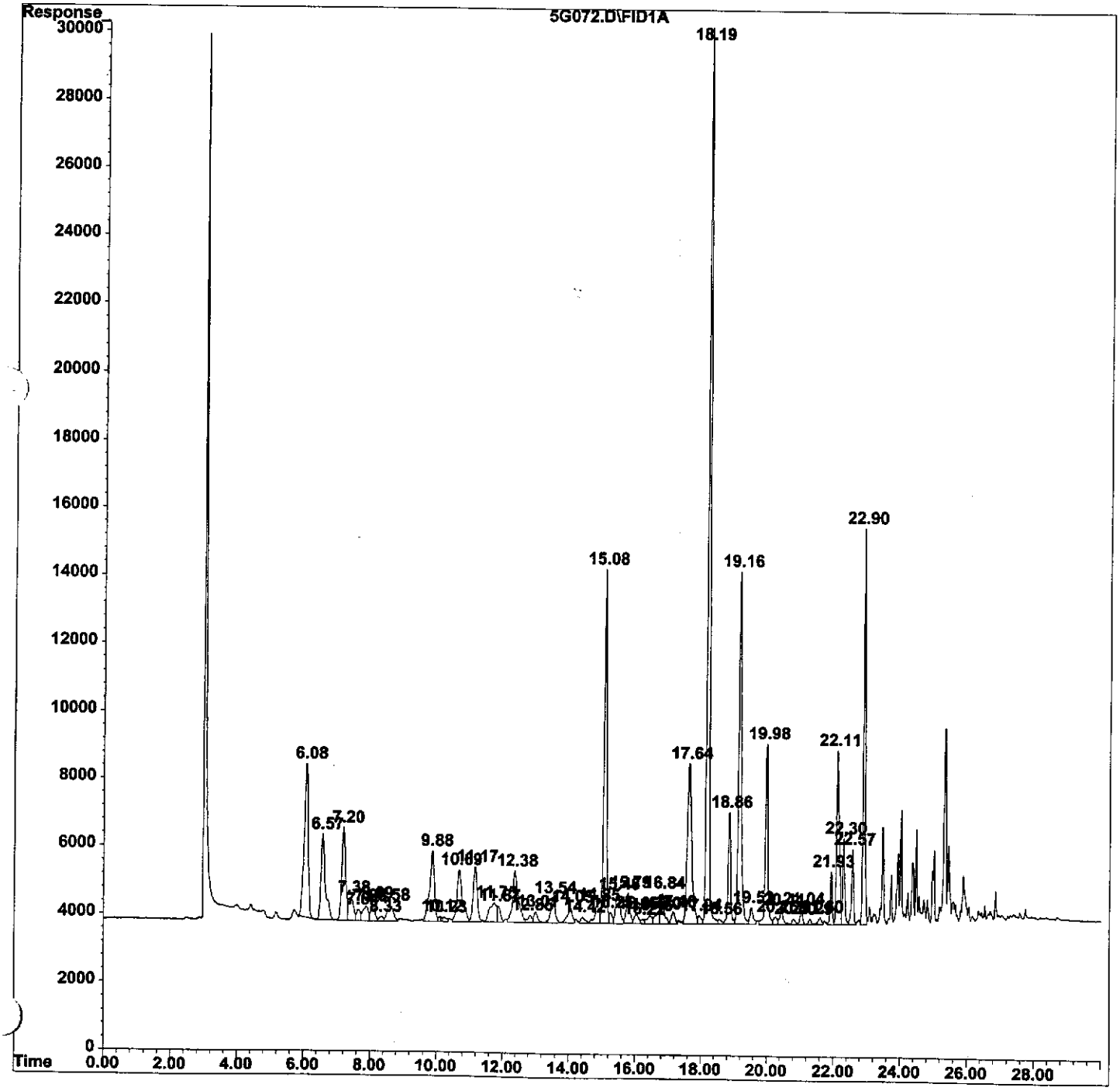

5G072.D 8015S.M Fri Jun 11 21:07:42 1999

Area Percent Report

Data File : C:\HPCHEM\1\DATA\061199\5G072.D
Acq On : 11 Jun 1999 8:37 pm
Sample : 8015 STD 1 90PPB S-45-47/S-46-36
Misc : 5G
IntFile : events.e

Vial: 5
Operator: MFB
Inst : HP5
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\8015S.M (Chemstation Integrator)
Title : 8015W

Signal : 5G072.D\FID1A

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	6.078	5.814	6.346	BV	4552	379496	29.69%	5.355%
2	6.573	6.390	6.880	PV	2520	233159	18.24%	3.290%
3	7.198	6.998	7.326	VV	2728	222132	17.38%	3.134%
4	7.384	7.326	7.558	VV	671	74619	5.84%	1.053%
5	7.636	7.558	7.725	VV	326	26245	2.05%	0.370%
6	7.882	7.725	7.987	VV	426	49976	3.91%	0.705%
7	8.088	7.987	8.230	VV	503	42613	3.33%	0.601%
8	8.328	8.230	8.417	VV	127	10843	0.85%	0.153%
9	8.579	8.417	8.840	VV	448	62343	4.88%	0.880%
10	9.877	9.596	10.042	VV	2069	206736	16.18%	2.917%
11	10.118	10.042	10.138	VV	142	7548	0.59%	0.106%
12	10.230	10.185	10.364	VV	128	10775	0.84%	0.152%
13	10.689	10.472	10.995	VV	1518	177124	13.86%	2.499%
14	11.170	10.995	11.368	VV	1609	137904	10.79%	1.946%
15	11.752	11.436	11.836	VV	551	81124	6.35%	1.145%
16	11.866	11.836	12.036	VV	459	32480	2.54%	0.458%
17	12.381	12.144	12.690	VV	1489	182146	14.25%	2.570%
18	12.847	12.690	12.927	VV	207	17919	1.40%	0.253%
19	13.011	12.927	13.293	VV	315	24440	1.91%	0.345%
20	13.538	13.293	13.738	VV	713	66942	5.24%	0.945%
21	14.049	13.738	14.174	VV	464	47654	3.73%	0.672%
22	14.417	14.319	14.608	VV	173	15782	1.23%	0.223%
23	14.851	14.608	14.951	VV	516	47764	3.74%	0.674%
24	15.076	14.951	15.215	VV	10403	579068	45.31%	8.171%
25	15.255	15.215	15.349	VV	319	20040	1.57%	0.283%
26	15.463	15.349	15.655	VV	839	81459	6.37%	1.149%
27	15.793	15.655	15.942	VV	885	70121	5.49%	0.989%
28	16.052	15.942	16.176	VV	283	26169	2.05%	0.369%
29	16.224	16.176	16.289	VV	125	7541	0.59%	0.106%
30	16.461	16.289	16.546	VV	237	26154	2.05%	0.369%
31	16.705	16.546	16.740	VV	285	27678	2.17%	0.391%
32	16.837	16.740	17.051	VV	884	65168	5.10%	0.920%
33	17.164	17.051	17.275	VV	339	25664	2.01%	0.362%
34	17.638	17.442	17.889	VV	4718	449998	35.21%	6.349%
35	17.944	17.889	18.050	VV	236	17833	1.40%	0.252%
36	18.190	18.050	18.516	VV	26344	1278077	100.00%	18.034%
37	18.557	18.516	18.689	VV	140	10289	0.81%	0.145%
38	18.858	18.689	19.023	VV	3267	171313	13.40%	2.417%

39	19.161	19.023	19.446	VV	10351	637432	49.87%	8.994%
40	19.531	19.446	19.675	VV	476	33999	2.66%	0.480%
41	19.984	19.757	20.169	VV	5323	283327	22.17%	3.998%
42	20.256	20.169	20.331	VV	211	16501	1.29%	0.233%
43	20.442	20.331	20.708	VV	405	32091	2.51%	0.453%
44	20.798	20.708	20.915	VV	162	10849	0.85%	0.153%
45	21.040	20.915	21.171	VV	448	24840	1.94%	0.350%
46	21.293	21.171	21.400	PV	161	9787	0.77%	0.138%
47	21.603	21.400	21.689	VV	207	14950	1.17%	0.211%
48	21.932	21.812	22.019	VV	1546	65553	5.13%	0.925%
49	22.111	22.019	22.235	VV	5121	286683	22.43%	4.045%
50	22.300	22.235	22.457	VV	2506	112314	8.79%	1.585%
51	22.573	22.457	22.675	VV	2188	92242	7.22%	1.302%
52	22.902	22.802	23.003	VBA	11609	452315	35.39%	6.382%

Sum of corrected areas: 7087220

5G072.D 8015S.M Fri Jun 11 21:07:40 1999

Area Percent Report

Data File : C:\HPCHEM\1\DATA\061199\5G073.D
Acq On : 11 Jun 1999 9:21 pm
Sample : 8015 STD 2 360PPB S-45-47/S-46-36
Misc : 5G
IntFile : events.e

Vial: 6
Operator: MFB
Inst : HP5
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\8015S.M (Chemstation Integrator)
Title : 8015W

Volume Inj. :
Signal Phase :
Signal Info :

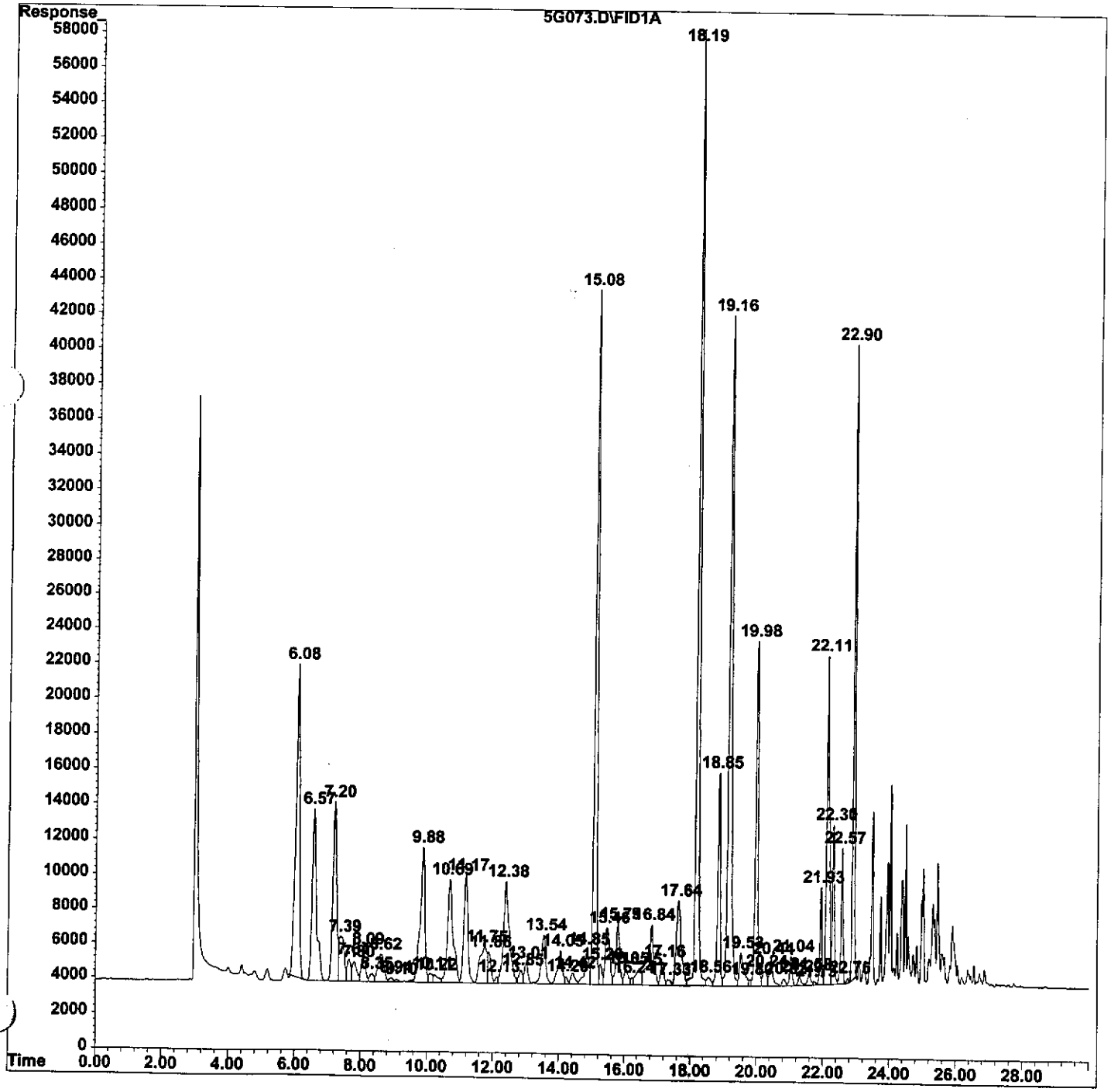

5G073.D 8015S.M Fri Jun 11 21:51:41 1999

Area Percent Report

Data File : C:\HPCHEM\1\DATA\061199\5G073.D
Acq On : 11 Jun 1999 9:21 pm
Sample : 8015 STD 2 360PPB S-45-47/S-46-36
Misc : 5G
IntFile : events.e

Vial: 6
Operator: MFB
Inst : HP5
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\8015S.M (Chemstation Integrator)
Title : 8015W

Signal : 5G073.D\FID1A

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	6.076	5.789	6.388	BV	17937	1482377	54.83%	6.453%
2	6.572	6.388	6.945	PV	9890	908057	33.58%	3.953%
3	7.198	6.945	7.326	PV	10307	837557	30.98%	3.646%
4	7.389	7.326	7.563	VV	2554	284912	10.54%	1.240%
5	7.642	7.563	7.727	VV	1247	96092	3.55%	0.418%
6	7.800	7.727	7.963	VV	1109	106849	3.95%	0.465%
7	8.086	7.963	8.232	VV	1846	153669	5.68%	0.669%
8	8.347	8.232	8.425	VV	448	38929	1.44%	0.169%
9	8.615	8.425	8.826	VV	1565	209113	7.73%	0.910%
10	8.936	8.826	9.018	VV	236	19180	0.71%	0.083%
11	9.100	9.018	9.242	VV	145	11402	0.42%	0.050%
12	9.877	9.376	10.038	VV	7768	780280	28.86%	3.396%
13	10.113	10.038	10.191	VV	497	41143	1.52%	0.179%
14	10.223	10.191	10.450	VV	414	48328	1.79%	0.210%
15	10.690	10.450	10.994	VV	5950	695004	25.70%	3.025%
16	11.172	10.994	11.458	VV	6214	539302	19.95%	2.347%
17	11.747	11.458	11.836	VV	2068	301132	11.14%	1.311%
18	11.863	11.836	12.036	VV	1751	122323	4.52%	0.532%
19	12.128	12.036	12.155	VV	353	18714	0.69%	0.081%
20	12.381	12.155	12.714	VV	5876	714318	26.42%	3.109%
21	12.850	12.753	12.920	VV	766	55298	2.05%	0.241%
22	13.009	12.920	13.182	VV	1159	90211	3.34%	0.393%
23	13.538	13.278	13.793	VV	2781	257880	9.54%	1.123%
24	14.049	13.793	14.175	VV	1870	180544	6.68%	0.786%
25	14.205	14.175	14.306	VV	419	23247	0.86%	0.101%
26	14.418	14.306	14.585	VV	624	56448	2.09%	0.246%
27	14.850	14.585	14.953	VV	1993	186353	6.89%	0.811%
28	15.076	14.953	15.210	VV	39699	2211676	81.80%	9.627%
29	15.257	15.210	15.347	VV	1129	74389	2.75%	0.324%
30	15.462	15.347	15.633	VV	3242	308305	11.40%	1.342%
31	15.793	15.633	15.948	VV	3473	279199	10.33%	1.215%
32	16.052	15.948	16.178	VV	928	81698	3.02%	0.356%
33	16.242	16.178	16.278	VV	405	22393	0.83%	0.097%
34	16.451	16.278	16.544	VV	887	104776	3.88%	0.456%
35	16.835	16.544	17.044	VV	3440	365099	13.50%	1.589%
36	17.158	17.044	17.271	VV	1345	99339	3.67%	0.432%
37	17.331	17.271	17.459	VV	318	26754	0.99%	0.116%
38	17.642	17.459	17.887	VV	4868	509570	18.85%	2.218%

39	18.187	17.887	18.466	VV	54571	2703780	100.00%	11.769%
40	18.555	18.466	18.681	VV	484	46100	1.71%	0.201%
41	18.854	18.681	18.973	VV	12193	626133	23.16%	2.725%
42	19.159	18.973	19.435	VV	38227	2374668	87.83%	10.337%
43	19.530	19.435	19.763	VV	1861	177862	6.58%	0.774%
44	19.803	19.763	19.841	VV	351	16024	0.59%	0.070%
45	19.981	19.841	20.150	VV	19708	1013653	37.49%	4.412%
46	20.239	20.150	20.340	VV	803	74204	2.74%	0.323%
47	20.438	20.340	20.711	VV	1536	115152	4.26%	0.501%
48	20.817	20.711	20.913	PV	399	27414	1.01%	0.119%
49	21.036	20.913	21.183	VV	1688	91097	3.37%	0.397%
50	21.290	21.183	21.438	PV	495	34914	1.29%	0.152%
51	21.580	21.438	21.695	VV	601	44749	1.66%	0.195%
52	21.731	21.695	21.806	VV	200	10389	0.38%	0.045%
53	21.930	21.806	22.015	VV	5626	231698	8.57%	1.009%
54	22.109	22.015	22.233	VV	18773	1033907	38.24%	4.500%
55	22.299	22.233	22.438	VV	9131	399911	14.79%	1.741%
56	22.572	22.438	22.664	VV	7835	315310	11.66%	1.372%
57	22.753	22.664	22.802	PV	275	11490	0.42%	0.050%
58	22.901	22.802	23.003	PBA	36171	1283279	47.46%	5.586%

Sum of corrected areas: 22973597

5G073.D 8015S.M Fri Jun 11 21:51:39 1999

Area Percent Report

Data File : C:\HPCHEM\1\DATA\061199\5G074.D
Acq On : 11 Jun 1999 10:04 pm
Sample : 8015 STD 3 900PPB S-45-47/S-46-36
Misc : 5G
IntFile : events.e

Vial: 7
Operator: MFB
Inst : HP5
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\8015S.M (Chemstation Integrator)
Title : 8015W

Volume Inj. :
Signal Phase :
Signal Info :

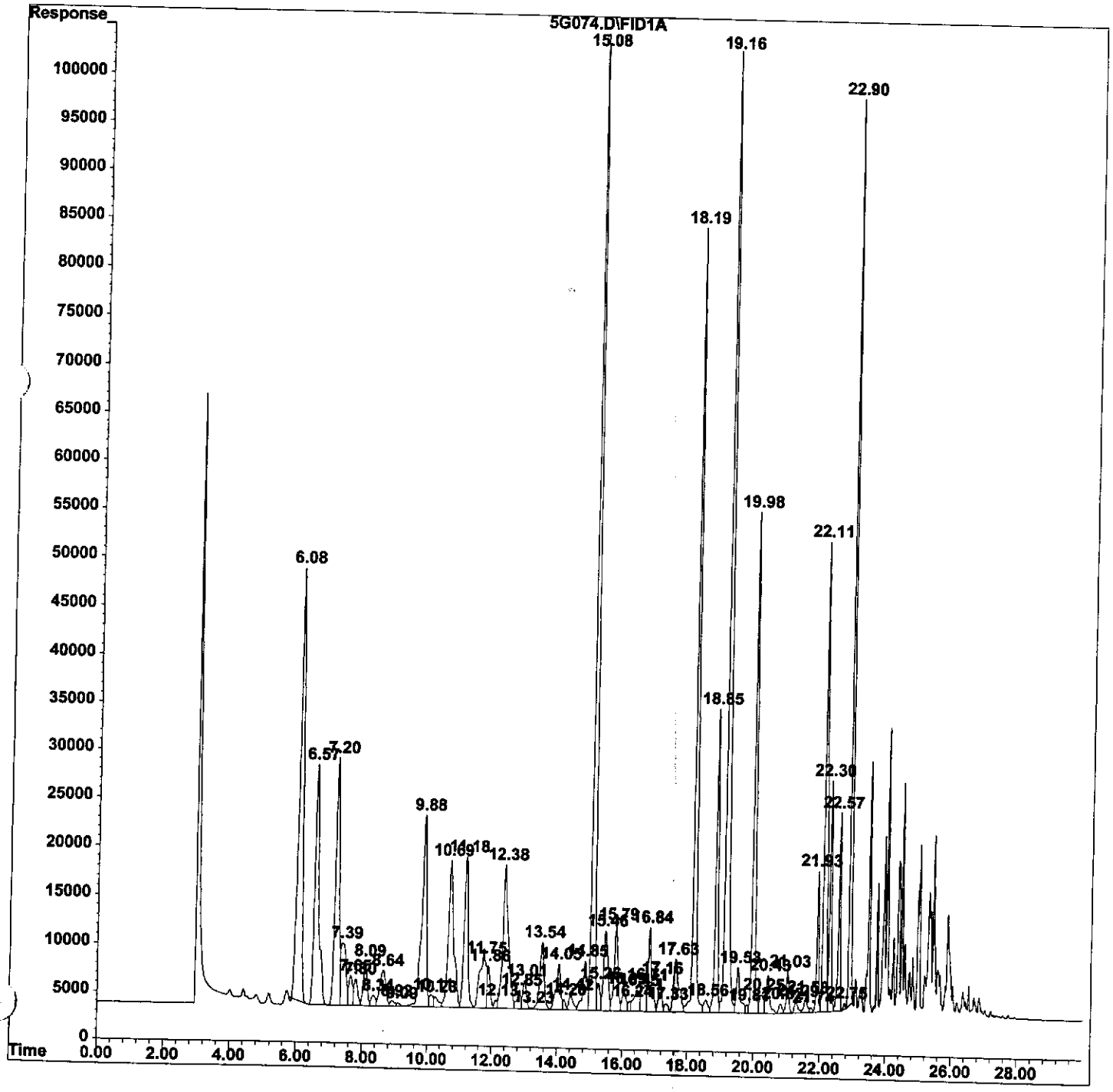

5G074.D 8015S.M Fri Jun 11 22:34:40 1999

Area Percent Report

Data File : C:\HPCHEM\1\DATA\061199\5G074.D
Acq On : 11 Jun 1999 10:04 pm
Sample : 8015 STD 3 900PPB S-45-47/S-46-36
Misc : 5G
IntFile : events.e

Vial: 7
Operator: MFB
Inst : HP5
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\8015S.M (Chemstation Integrator)
Title : 8015W

Signal : 5G074.D\FID1A

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	6.079	5.789	6.374	BV	44802	3704077	60.68%	6.755%
2	6.574	6.374	6.970	PV	24804	2286035	37.45%	4.169%
3	7.200	6.970	7.330	PV	25553	2093926	34.30%	3.818%
4	7.389	7.330	7.566	VV	6493	726403	11.90%	1.325%
5	7.648	7.566	7.730	VV	3104	242846	3.98%	0.443%
6	7.803	7.730	7.948	VV	2800	232433	3.81%	0.424%
7	8.089	7.948	8.235	VV	4683	389847	6.39%	0.711%
8	8.342	8.235	8.439	VV	1110	102193	1.67%	0.186%
9	8.637	8.439	8.831	VV	3700	473179	7.75%	0.863%
10	8.921	8.831	9.053	VV	552	54335	0.89%	0.099%
11	9.086	9.053	9.228	VV	329	22738	0.37%	0.041%
12	9.879	9.377	10.046	VV	19757	1975893	32.37%	3.603%
13	10.115	10.046	10.198	VV	1264	104866	1.72%	0.191%
14	10.225	10.198	10.437	VV	1060	105527	1.73%	0.192%
15	10.693	10.437	10.999	VV	15167	1766826	28.94%	3.222%
16	11.176	10.999	11.451	VV	15594	1349910	22.11%	2.462%
17	11.752	11.451	11.842	VV	5215	770419	12.62%	1.405%
18	11.864	11.842	12.040	VV	4413	297535	4.87%	0.543%
19	12.129	12.040	12.170	VV	845	50468	0.83%	0.092%
20	12.383	12.170	12.699	VV	14829	1794223	29.39%	3.272%
21	12.852	12.699	12.919	VV	1953	162627	2.66%	0.297%
22	13.010	12.919	13.175	VV	2950	231058	3.78%	0.421%
23	13.226	13.175	13.283	VV	163	7776	0.13%	0.014%
24	13.537	13.283	13.784	VV	6983	643698	10.54%	1.174%
25	14.050	13.784	14.169	VV	4776	452841	7.42%	0.826%
26	14.202	14.169	14.306	VV	1061	62085	1.02%	0.113%
27	14.417	14.306	14.603	VV	1574	145361	2.38%	0.265%
28	14.851	14.603	14.953	VV	5132	471998	7.73%	0.861%
29	15.076	14.953	15.204	VV	100928	5610249	91.90%	10.231%
30	15.257	15.204	15.346	VV	2819	193994	3.18%	0.354%
31	15.462	15.346	15.631	VV	8272	785915	12.87%	1.433%
32	15.792	15.631	15.954	VV	8921	723411	11.85%	1.319%
33	16.054	15.954	16.172	VV	2329	194421	3.18%	0.355%
34	16.239	16.172	16.272	VV	1021	56689	0.93%	0.103%
35	16.452	16.272	16.551	VV	2181	272025	4.46%	0.496%
36	16.706	16.551	16.740	VV	2768	267268	4.38%	0.487%
37	16.835	16.740	17.042	VV	8680	644357	10.56%	1.175%
38	17.160	17.042	17.273	VV	3465	257275	4.21%	0.469%

39	17.334	17.273	17.470	VV	820	67463	1.11%	0.123%
40	17.633	17.470	17.887	VV	5464	628981	10.30%	1.147%
41	18.187	17.887	18.464	VV	80836	4132170	67.69%	7.535%
42	18.557	18.464	18.678	VV	1275	117111	1.92%	0.214%
43	18.854	18.678	18.973	VV	31442	1613432	26.43%	2.942%
44	19.159	18.973	19.428	VV	99363	6104756	100.00%	11.132%
45	19.529	19.428	19.763	VV	4716	380436	6.23%	0.694%
46	19.814	19.763	19.847	VV	826	39507	0.65%	0.072%
47	19.980	19.847	20.155	VV	51662	2623050	42.97%	4.783%
48	20.247	20.155	20.331	VV	1915	166030	2.72%	0.303%
49	20.434	20.331	20.709	VV	3970	301292	4.94%	0.549%
50	20.818	20.709	20.914	PV	1006	67951	1.11%	0.124%
51	21.032	20.914	21.170	VV	4341	234499	3.84%	0.428%
52	21.287	21.170	21.450	PV	1258	92587	1.52%	0.169%
53	21.577	21.450	21.692	VV	1576	113673	1.86%	0.207%
54	21.740	21.692	21.807	VV	505	26656	0.44%	0.049%
55	21.928	21.807	22.014	VV	14507	600134	9.83%	1.094%
56	22.108	22.014	22.231	VV	48472	2665068	43.66%	4.860%
57	22.297	22.231	22.429	VV	23733	1031560	16.90%	1.881%
58	22.571	22.429	22.661	VV	20376	822383	13.47%	1.500%
59	22.752	22.661	22.801	PV	669	27093	0.44%	0.049%
60	22.900	22.801	23.003	PBA	93558	3255313	53.32%	5.936%

Sum of corrected areas: 54837870

3074.D 8015S.M Fri Jun 11 22:34:39 1999

Area Percent Report

Data File : C:\HPCHEM\1\DATA\061199\5G075.D
Acq On : 11 Jun 1999 10:46 pm
Sample : 8015 STD 4 1800PPB S-45-47/S-46-36
Misc : 5G
IntFile : events.e

Vial: 8
Operator: MFB
Inst : HP5
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\8015S.M (Chemstation Integrator)
Title : 8015W

Volume Inj. :
Signal Phase :
Signal Info :

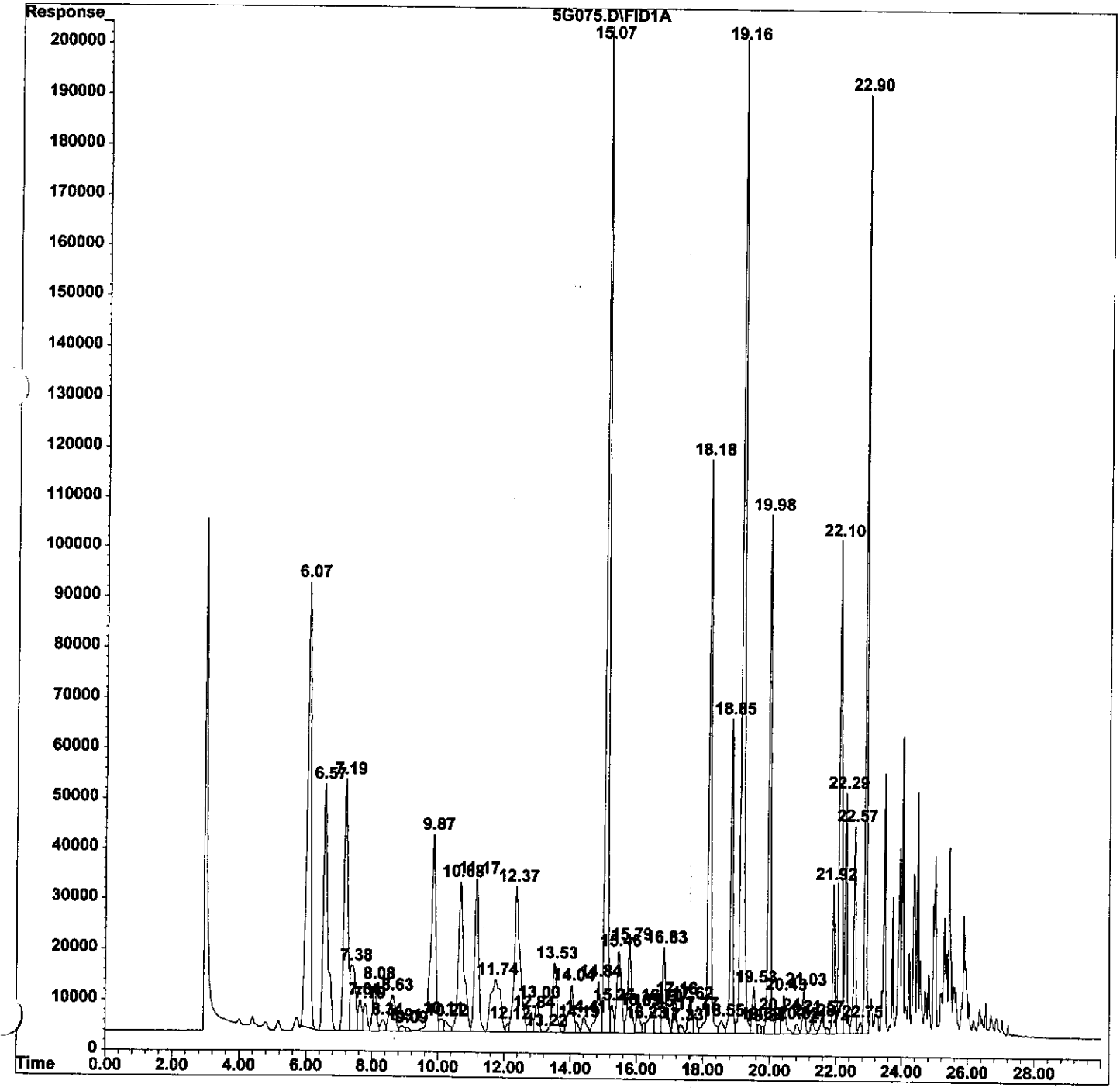

5G075.D 8015S.M Fri Jun 11 23:17:02 1999

Area Percent Report

Data File : C:\HPCHEM\1\DATA\061199\5G075.D
Acq On : 11 Jun 1999 10:46 pm
Sample : 8015 STD 4 1800PPB S-45-47/S-46-36
Misc : 5G
IntFile : events.e

Vial: 8
Operator: MFB
Inst : HP5
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\8015S.M (Chemstation Integrator)
Title : 8015W

Signal : 5G075.D\FID1A

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	6.071	5.792	6.365	BV	88541	7327655	60.56%	6.916%
2	6.566	6.365	6.978	PV	49110	4514653	37.31%	4.261%
3	7.191	6.978	7.320	PV	50112	4094081	33.83%	3.864%
4	7.379	7.320	7.557	VV	12971	1448331	11.97%	1.367%
5	7.638	7.557	7.720	VV	6173	477562	3.95%	0.451%
6	7.793	7.720	7.935	VV	5490	438724	3.63%	0.414%
7	8.079	7.935	8.225	VV	9327	768053	6.35%	0.725%
8	8.335	8.225	8.433	VV	2188	200823	1.66%	0.190%
9	8.632	8.433	8.820	VV	7086	883139	7.30%	0.833%
10	8.910	8.820	9.026	VV	1113	101446	0.84%	0.096%
11	9.085	9.026	9.231	VV	655	48802	0.40%	0.046%
12	9.868	9.231	10.033	VV	39049	3898838	32.22%	3.680%
13	10.106	10.033	10.190	VV	2476	211884	1.75%	0.200%
14	10.217	10.190	10.425	VV	2096	202360	1.67%	0.191%
15	10.683	10.425	10.989	VV	29652	3465687	28.64%	3.271%
16	11.165	10.989	11.445	VV	30346	2628468	21.72%	2.481%
17	11.742	11.445	12.030	VV	10297	2100879	17.36%	1.983%
18	12.122	12.030	12.154	VV	1666	94046	0.78%	0.089%
19	12.374	12.154	12.693	VV	28821	3540926	29.26%	3.342%
20	12.843	12.693	12.912	VV	3866	323450	2.67%	0.305%
21	13.003	12.912	13.166	VV	5860	458324	3.79%	0.433%
22	13.219	13.166	13.265	VV	291	13452	0.11%	0.013%
23	13.530	13.265	13.784	VV	13695	1268462	10.48%	1.197%
24	14.043	13.784	14.163	VV	9344	889140	7.35%	0.839%
25	14.194	14.163	14.299	VV	2119	121646	1.01%	0.115%
26	14.410	14.299	14.586	VV	3128	285281	2.36%	0.269%
27	14.845	14.586	14.943	VV	10152	927625	7.67%	0.875%
28	15.070	14.943	15.198	VV	199674	11083420	91.60%	10.460%
29	15.253	15.198	15.341	VV	5505	377748	3.12%	0.357%
30	15.456	15.341	15.627	VV	16209	1541801	12.74%	1.455%
31	15.787	15.627	15.950	VV	17390	1413656	11.68%	1.334%
32	16.049	15.950	16.167	VV	4523	371531	3.07%	0.351%
33	16.230	16.167	16.267	VV	2012	111006	0.92%	0.105%
34	16.449	16.267	16.546	VV	4284	522479	4.32%	0.493%
35	16.699	16.546	16.740	VV	5446	541716	4.48%	0.511%
36	16.830	16.740	17.041	VV	16922	1238852	10.24%	1.169%
37	17.155	17.041	17.268	VV	6826	503451	4.16%	0.475%
38	17.331	17.268	17.468	VV	1609	132451	1.09%	0.125%

39	17.625	17.468	17.719	VV	5926	516709	4.27%	0.488%
40	17.775	17.719	17.876	VV	3842	251473	2.08%	0.237%
41	18.183	17.876	18.454	VV	113999	6004155	49.62%	5.667%
42	18.553	18.454	18.674	VV	2500	231587	1.91%	0.219%
3	18.850	18.674	18.967	VV	62492	3196921	26.42%	3.017%
4	19.156	18.967	19.425	VV	197125	12100429	100.00%	11.420%
45	19.525	19.425	19.638	VV	9175	583073	4.82%	0.550%
46	19.686	19.638	19.760	VV	1912	123488	1.02%	0.117%
47	19.806	19.760	19.840	VV	1531	70541	0.58%	0.067%
48	19.976	19.840	20.152	VV	102954	5197088	42.95%	4.905%
49	20.243	20.152	20.325	VV	3677	313123	2.59%	0.296%
50	20.429	20.325	20.708	VV	7702	585123	4.84%	0.552%
51	20.816	20.708	20.910	PV	1991	130185	1.08%	0.123%
52	21.027	20.910	21.166	VV	8677	471986	3.90%	0.445%
53	21.283	21.166	21.436	VV	2588	199276	1.65%	0.188%
54	21.572	21.436	21.688	VV	3277	255253	2.11%	0.241%
55	21.737	21.688	21.801	VV	1213	68786	0.57%	0.065%
56	21.924	21.801	22.010	VV	29419	1238417	10.23%	1.169%
57	22.105	22.010	22.228	VV	97542	5354098	44.25%	5.053%
58	22.295	22.228	22.430	VV	47533	2098791	17.34%	1.981%
59	22.568	22.430	22.658	VV	40927	1698977	14.04%	1.603%
60	22.750	22.658	22.800	VV	2238	123454	1.02%	0.117%
61	22.898	22.800	23.003	VBA	186141	6572594	54.32%	6.203%

Sum of corrected areas: 105957377

5G075.D 8015S.M Fri Jun 11 23:17:01 1999

Area Percent Report

Data File : C:\HPCHEM\1\DATA\061199\5G076.D
Acq On : 11 Jun 1999 11:29 pm
Sample : 8015 STD 5 3600PPB S-45-47/S-46-36
Misc : 5G
IntFile : events.e

Vial: 9
Operator: MFB
Inst : HP5
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\8015S.M (Chemstation Integrator)
Title : 8015W

Volume Inj. :
Signal Phase :
Signal Info :

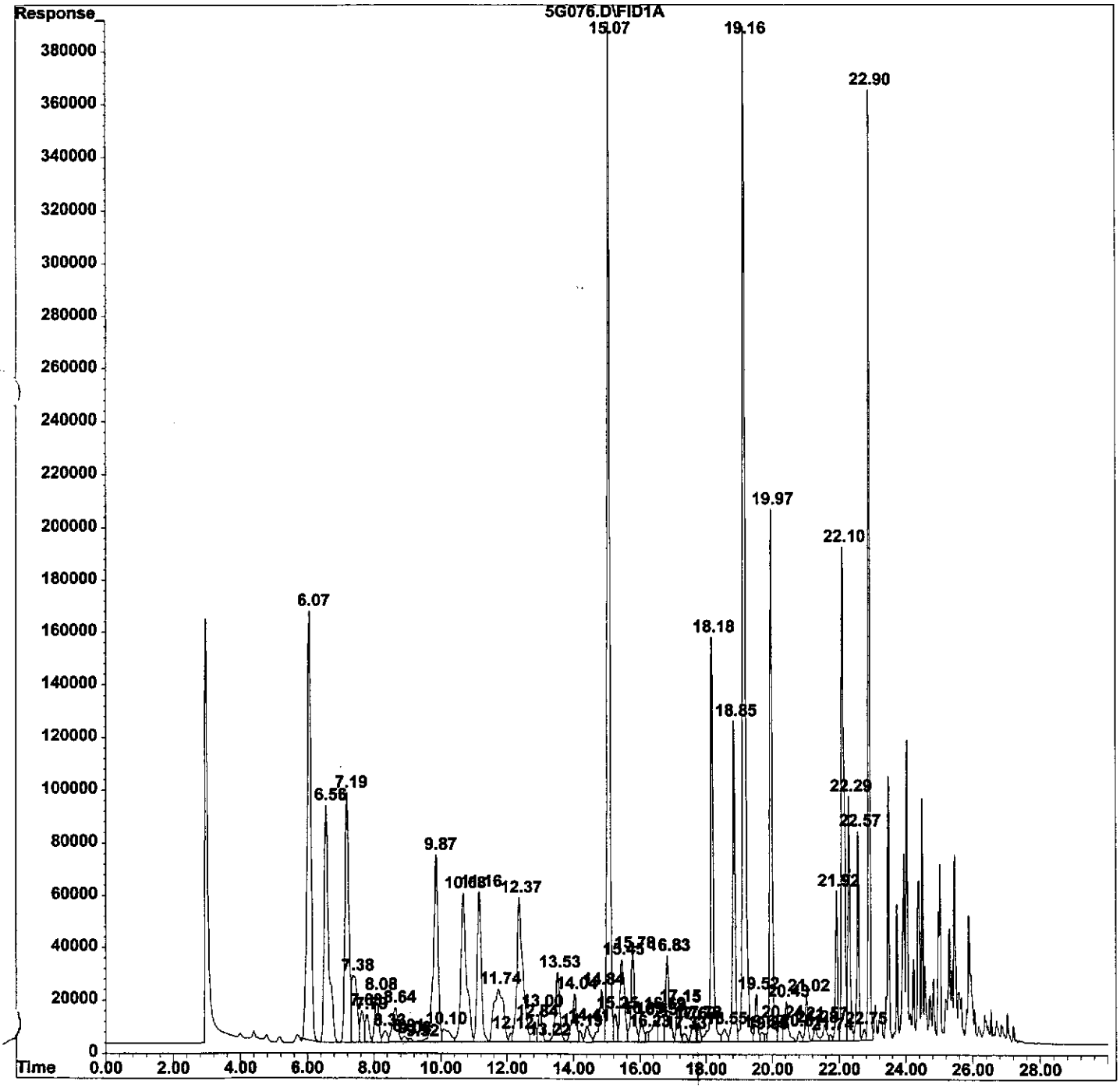

5G076.D 8015S.M Fri Jun 11 23:59:47 1999

Area Percent Report

Data File : C:\HPCHEM\1\DATA\061199\5G076.D
Acq On : 11 Jun 1999 11:29 pm
Sample : 8015 STD 5 3600PPB S-45-47/S-46-36
Misc : 5G
IntFile : events.e

Vial: 9
Operator: MFB
Inst : HP5
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\8015S.M (Chemstation Integrator)
Title : 8015W

Signal : 5G076.D\FID1A

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	6.071	5.770	6.372	BV	163458	13036655	55.54%	6.566%
2	6.565	6.372	6.965	PV	90319	8403069	35.80%	4.232%
3	7.188	6.965	7.317	PV	95088	7800155	33.23%	3.929%
4	7.376	7.317	7.554	VV	25091	2804550	11.95%	1.413%
5	7.635	7.554	7.718	VV	11821	921037	3.92%	0.464%
6	7.791	7.718	7.932	VV	10450	825169	3.52%	0.416%
7	8.077	7.932	8.223	VV	17822	1475176	6.28%	0.743%
8	8.331	8.223	8.441	VV	4217	397647	1.69%	0.200%
9	8.636	8.441	8.818	VV	12916	1492596	6.36%	0.752%
10	8.907	8.818	9.020	VV	2141	193096	0.82%	0.097%
11	9.084	9.020	9.223	VV	1279	98412	0.42%	0.050%
12	9.321	9.223	9.349	VV	283	13769	0.06%	0.007%
13	9.867	9.349	10.033	VV	71550	6953008	29.62%	3.502%
14	10.104	10.033	10.417	VV	4859	786202	3.35%	0.396%
15	10.681	10.417	10.987	VV	56733	6658231	28.37%	3.353%
16	11.163	10.987	11.445	VV	57321	4963376	21.15%	2.500%
17	11.742	11.445	12.027	VV	19885	4047265	17.24%	2.038%
18	12.119	12.027	12.153	VV	3246	183630	0.78%	0.092%
19	12.371	12.153	12.688	VV	55089	6816385	29.04%	3.433%
20	12.841	12.688	12.909	VV	7569	636411	2.71%	0.321%
21	13.000	12.909	13.164	VV	11465	897091	3.82%	0.452%
22	13.219	13.164	13.267	VV	581	29336	0.12%	0.015%
23	13.529	13.267	13.773	VV	26306	2445032	10.42%	1.231%
24	14.042	13.773	14.157	VV	18070	1714774	7.31%	0.864%
25	14.194	14.157	14.297	VV	4191	250313	1.07%	0.126%
26	14.408	14.297	14.585	VV	6063	559379	2.38%	0.282%
27	14.842	14.585	14.941	VV	19654	1799193	7.67%	0.906%
28	15.069	14.941	15.198	VV	386983	21484747	91.53%	10.821%
29	15.250	15.198	15.338	VV	10588	710271	3.03%	0.358%
30	15.453	15.338	15.621	VV	31051	2953449	12.58%	1.488%
31	15.784	15.621	15.948	VV	33488	2722375	11.60%	1.371%
32	16.047	15.948	16.164	VV	8687	704081	3.00%	0.355%
33	16.227	16.164	16.262	VV	3821	208465	0.89%	0.105%
34	16.447	16.262	16.536	VV	8209	972201	4.14%	0.490%
35	16.694	16.536	16.734	VV	10333	1048609	4.47%	0.528%
36	16.827	16.734	17.035	VV	32497	2379988	10.14%	1.199%
37	17.153	17.035	17.264	VV	13161	972569	4.14%	0.490%
38	17.329	17.264	17.467	VV	3080	257042	1.10%	0.129%

39	17.618	17.467	17.702	VV	6677	578661	2.47%	0.291%
40	17.776	17.702	17.870	VV	6968	470178	2.00%	0.237%
41	18.181	17.870	18.449	VV	153353	8475351	36.11%	4.269%
42	18.551	18.449	18.672	VV	4829	451607	1.92%	0.227%
43	18.848	18.672	18.961	VV	121743	6208017	26.45%	3.127%
44	19.156	18.961	19.423	VV	384479	23472634	100.00%	11.822%
45	19.522	19.423	19.627	VV	17717	1069993	4.56%	0.539%
46	19.688	19.627	19.755	VV	3480	231155	0.98%	0.116%
47	19.800	19.755	19.833	VV	2832	127975	0.55%	0.064%
48	19.972	19.833	20.147	VV	201612	10078175	42.94%	5.076%
49	20.240	20.147	20.318	VV	7011	581256	2.48%	0.293%
50	20.425	20.318	20.704	VV	14876	1138656	4.85%	0.573%
51	20.812	20.704	20.910	PV	3824	251896	1.07%	0.127%
52	21.024	20.910	21.161	VV	16840	915554	3.90%	0.461%
53	21.280	21.161	21.434	VV	5006	387626	1.65%	0.195%
54	21.570	21.434	21.687	VV	6271	490286	2.09%	0.247%
55	21.735	21.687	21.798	VV	2299	128091	0.55%	0.065%
56	21.922	21.798	22.008	VV	56943	2397905	10.22%	1.208%
57	22.103	22.008	22.226	VV	187628	10360049	44.14%	5.218%
58	22.292	22.226	22.427	VV	92573	4046306	17.24%	2.038%
59	22.566	22.427	22.656	VV	79575	3278967	13.97%	1.651%
60	22.748	22.656	22.799	VV	4243	232959	0.99%	0.117%
61	22.896	22.799	23.003	VBA	359783	12560991	53.51%	6.326%

Sum of corrected areas: 198549042

5G076.D 8015S.M Fri Jun 11 23:59:45 1999

Area Percent Report

Data File : C:\HPCHEM\1\DATA\061199\5G077.D
Acq On : 12 Jun 1999 12:10 am
Sample : 8015 ALT SOURCE 900PPB S-46-37/S-46-36
Misc : 5G
IntFile : events.e

Vial: 10
Operator: MFB
Inst : HP5
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\8015S.M (Chemstation Integrator)
Title : 8015W

Volume Inj. :
Signal Phase :
Signal Info :

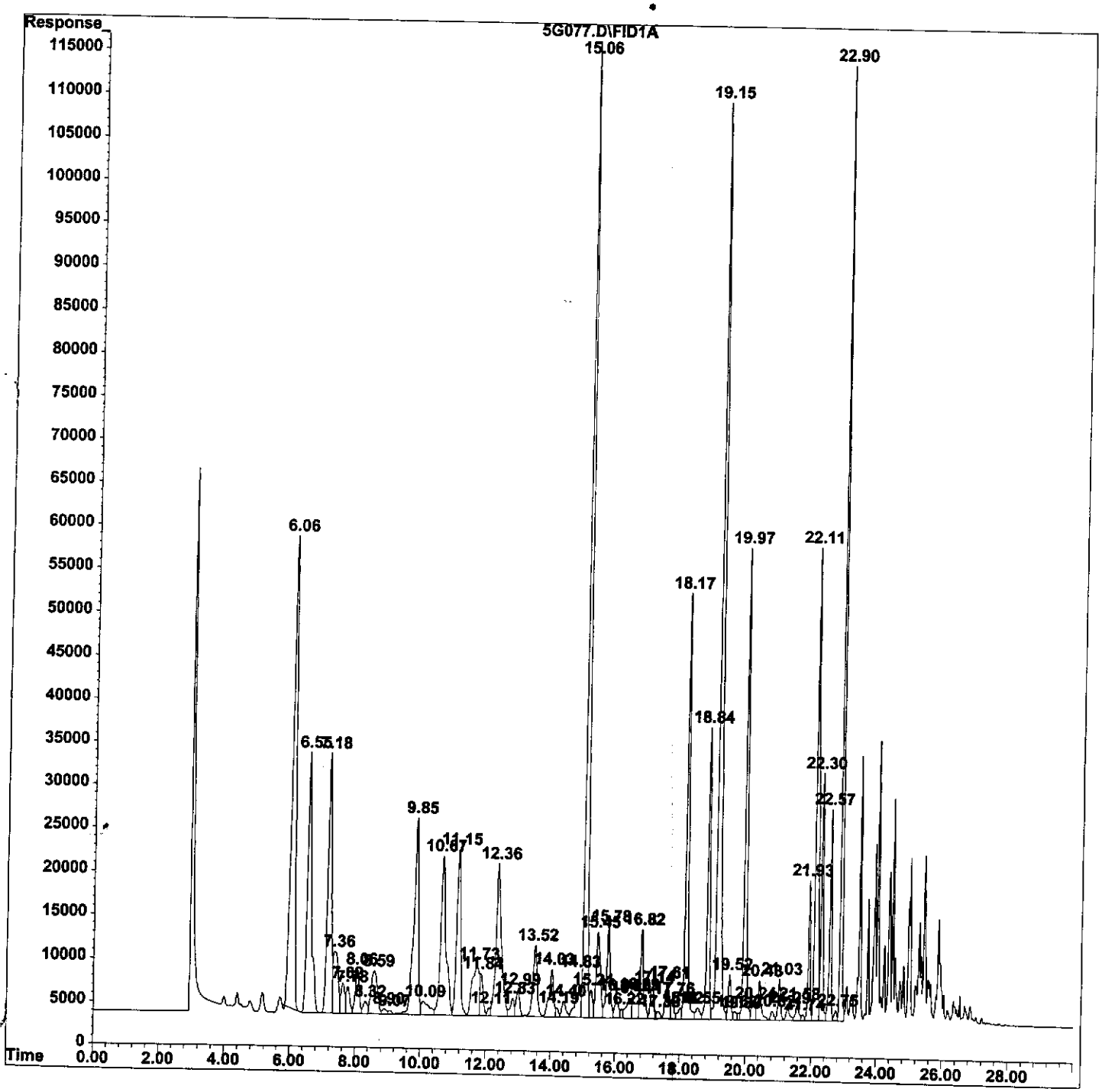

5G077.D 8015S.M Sat Jun 12 00:41:09 1999

Area Percent Report

Data File : C:\HPCHEM\1\DATA\061199\5G077.D
Acq On : 12 Jun 1999 12:10 am
Sample : 8015 ALT SOURCE 900PPB S-46-37/S-46-36
Misc : 5G
IntFile : events.e

Vial: 10
Operator: MFB
Inst : HP5
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\8015S.M (Chemstation Integrator)
Title : 8015W

Signal : 5G077.D\FID1A

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	6.057	5.770	6.363	BV	54541	4559316	69.44%	7.550%
2	6.552	6.363	6.954	PV	30112	2720310	41.43%	4.505%
3	7.176	6.954	7.308	PV	30094	2444332	37.23%	4.048%
4	7.364	7.308	7.542	VV	7136	791003	12.05%	1.310%
5	7.625	7.542	7.711	VV	3527	281590	4.29%	0.466%
6	7.778	7.711	7.924	VV	3113	252853	3.85%	0.419%
7	8.064	7.924	8.206	VV	5131	426588	6.50%	0.706%
8	8.324	8.206	8.413	VV	1429	132783	2.02%	0.220%
9	8.585	8.413	8.813	VV	4981	662490	10.09%	1.097%
10	8.901	8.813	9.010	VV	616	56389	0.86%	0.093%
11	9.073	9.010	9.209	VV	383	30626	0.47%	0.051%
12	9.854	9.209	10.016	VV	22641	2260105	34.42%	3.743%
13	10.093	10.016	10.425	VV	1571	267832	4.08%	0.444%
14	10.669	10.425	10.976	VV	18312	2116055	32.23%	3.504%
15	11.151	10.976	11.433	VV	19104	1649484	25.12%	2.732%
16	11.730	11.433	11.816	VV	5977	860026	13.10%	1.424%
17	11.840	11.816	12.019	VV	4886	343104	5.23%	0.568%
18	12.110	12.019	12.153	VV	912	56033	0.85%	0.093%
19	12.362	12.153	12.677	VV	17557	2039863	31.07%	3.378%
20	12.832	12.677	12.901	VV	2105	177460	2.70%	0.294%
21	12.992	12.901	13.161	VV	3118	243761	3.71%	0.404%
22	13.519	13.256	13.773	VV	8234	771295	11.75%	1.277%
23	14.033	13.773	14.157	VV	5529	533939	8.13%	0.884%
24	14.186	14.157	14.288	VV	1084	60456	0.92%	0.100%
25	14.401	14.288	14.576	VV	1899	169202	2.58%	0.280%
26	14.834	14.576	14.937	VV	5304	496472	7.56%	0.822%
27	15.059	14.937	15.190	VV	112577	6260258	95.34%	10.367%
28	15.241	15.190	15.330	VV	3230	217102	3.31%	0.360%
29	15.446	15.330	15.616	VV	9858	922762	14.05%	1.528%
30	15.777	15.616	15.940	VV	10530	852845	12.99%	1.412%
31	16.039	15.940	16.163	VV	2657	221503	3.37%	0.367%
32	16.220	16.163	16.255	VV	1080	55382	0.84%	0.092%
33	16.439	16.255	16.523	VV	2367	269256	4.10%	0.446%
34	16.690	16.523	16.729	VV	2798	298267	4.54%	0.494%
35	16.822	16.729	17.029	VV	10208	728260	11.09%	1.206%
36	17.144	17.029	17.260	VV	3640	269946	4.11%	0.447%
37	17.327	17.260	17.456	VV	839	69465	1.06%	0.115%
38	17.614	17.456	17.715	VV	4205	372940	5.68%	0.618%

39	17.763	17.715	17.869	VV	2359	151599	2.31%	0.251%
40	18.020	17.869	18.047	VV	1303	99780	1.52%	0.165%
41	18.173	18.047	18.444	VV	49084	2603467	39.65%	4.311%
42	18.547	18.444	18.668	VV	1328	126659	1.93%	0.210%
43	18.841	18.668	18.956	VV	33700	1724311	26.26%	2.855%
44	19.147	18.956	19.417	VV	105832	6566146	100.00%	10.874%
45	19.518	19.417	19.629	VV	5244	322341	4.91%	0.534%
46	19.681	19.629	19.748	VV	942	59797	0.91%	0.099%
47	19.803	19.748	19.835	VV	813	40350	0.61%	0.067%
48	19.969	19.835	20.148	VV	54386	2778549	42.32%	4.601%
49	20.242	20.148	20.325	VV	1899	163641	2.49%	0.271%
50	20.429	20.325	20.707	VV	4544	330044	5.03%	0.547%
51	20.818	20.707	20.921	PV	1051	71771	1.09%	0.119%
52	21.031	20.921	21.171	VV	4786	259985	3.96%	0.431%
53	21.287	21.171	21.455	VV	1449	114137	1.74%	0.189%
54	21.577	21.455	21.691	VV	1896	141013	2.15%	0.234%
55	21.741	21.691	21.812	VV	692	40745	0.62%	0.067%
56	21.930	21.812	22.015	VV	16177	682104	10.39%	1.130%
57	22.110	22.015	22.233	VV	54366	2997811	45.66%	4.964%
58	22.300	22.233	22.446	VV	28564	1256743	19.14%	2.081%
59	22.573	22.446	22.664	VV	24396	997247	15.19%	1.651%
60	22.754	22.664	22.808	VV	1195	68052	1.04%	0.113%
61	22.902	22.808	23.003	VBA	109886	3848840	58.62%	6.374%

Sum of corrected areas: 60386483

5G077.D 8015S.M Sat Jun 12 00:41:08 1999

GASOLINE RANGE ORGANICS 5-POINT CALIBRATION - SOIL

CALIBRATION DATE: 06/11/99
INSTRUMENT: HP5

GRO TOTAL AREA		CONC (ug/kg)	CF	AVERAGE CF	%RSD	LIMIT
AREA STANDARD 1:	5809143	90	64546	57104	7.7	20
AREA STANDARD 2:	20269817	360	56305			
AREA STANDARD 3:	50705700	900	56340			
AREA STANDARD 4:	99953222	1800	55530			
AREA STANDARD 5:	190073691	3600	52798			

CHLOROBENZENE TOTAL AREA		CONC (ug/kg)	CF	AVERAGE CF	%RSD	LIMIT
AREA STANDARD 1:	1278077	15	85205	96046	11.3	20
AREA STANDARD 2:	2703780	30	90126			
AREA STANDARD 3:	4132170	45	91826			
AREA STANDARD 4:	6004155	60	100069			
AREA STANDARD 5:	8475351	75	113005			

GASOLINE RANGE ORGANICS CONTINUING CALIBRATION STANDARD

SAMPLE ID: 8015 STD 900PPB

SUB DIRECTORY: 072699
RESULT FILE: 5G765

		CONC (ug/kg)	CHECK STANDARD CF	AVERAGE CF	%D	LIMIT
GRO AREA:	51490329	900	57211	57104	0.2	15
CHLOROBENZENE AREA:	2506604	30	83553	96046	-13.0	15

GASOLINE RANGE ORGANICS SAMPLE QUANTITATION

~~SAMPLE ID: 07-047-03 MSD~~

SUB DIRECTORY: 071199
RESULT FILE: 5G525
DILUTION FACTOR: 1

TOTAL AREA: 58889030
CHLOROBENZENE AREA: 2560803
CHLOROBENZENE RT: 18.150

	SAMPLE AREA	SAMPLE CONC (ug/kg)	LCS % REC
GRO:	56328227	986.4	109.6

	SSS AREA	SSS CONC (ug/kg)	SSS % REC
CHLOROBENZENE:	2560803	26.66	88.9

File : C:\HPCHEM\1\DATA\072699\5G765.D
Operator : VMN
Acquired : 26 Jul 1999 11:55 am using AcqMethod 8015S.M
Instrument : HP5
Sample Name: 8015 STD 900PPB S-48-28/S-48-34
Misc Info : 5G
Vial Number: 3

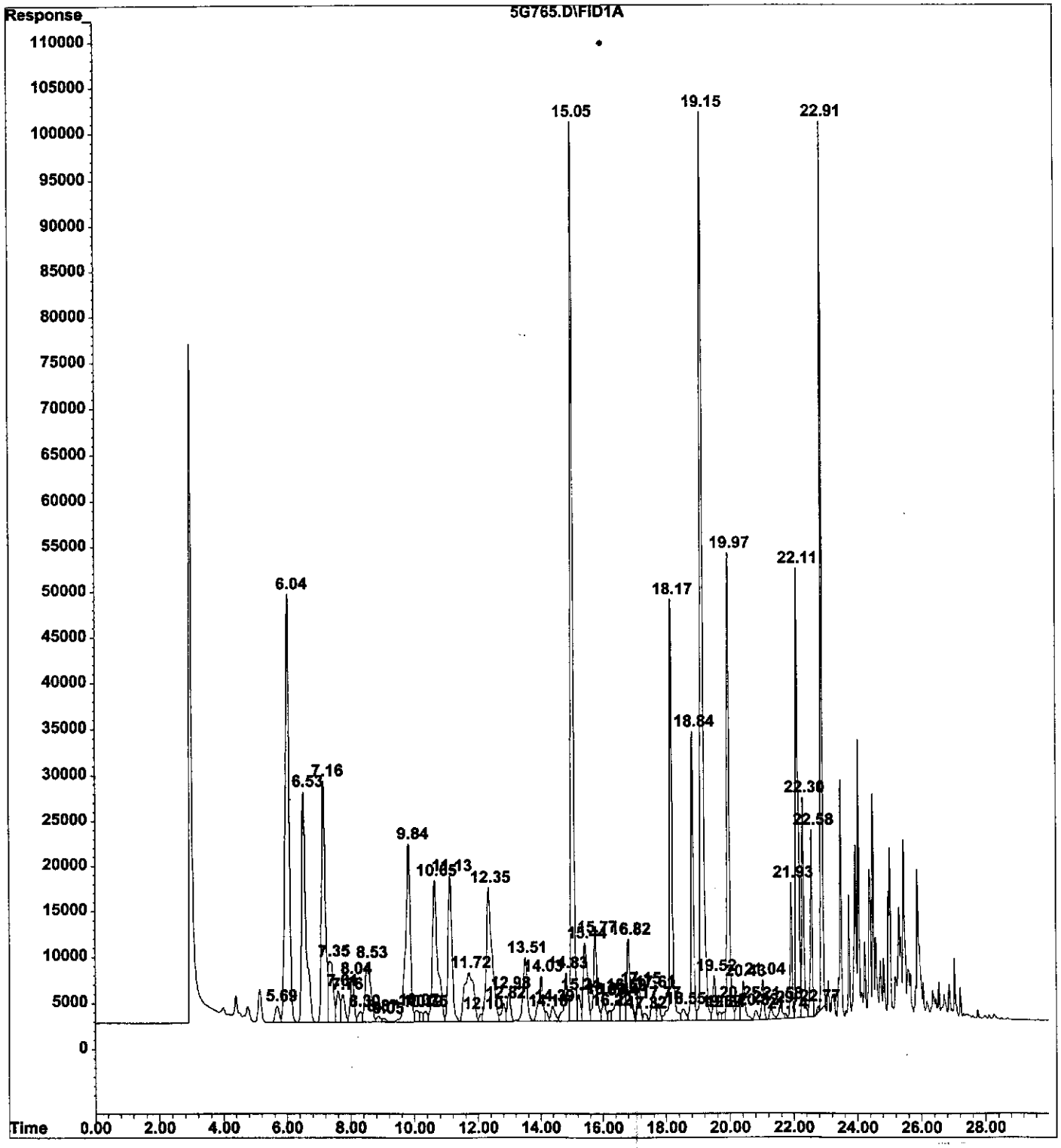

Area Percent Report

Data File : C:\HPCHEM\1\DATA\072699\5G765.D
Acq On : 26 Jul 1999 11:55 am
Sample : 8015 STD 900PPB S-48-28/S-48-34
Misc : 5G
IntFile : events.e

Vial: 3
Operator: VMN
Inst : HP5
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\8015S.M (Chemstation Integrator)
Title : 8015W

Signal : 5G765.D\FID1A

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	5.687	5.522	5.803	BV	1761	150734	2.49%	0.279%
2	6.037	5.803	6.331	VV	46868	4022932	66.44%	7.450%
3	6.532	6.331	6.921	VV	25328	2329782	38.48%	4.315%
4	7.157	6.921	7.287	PV	26507	2162314	35.71%	4.005%
5	7.346	7.287	7.521	VV	6586	724826	11.97%	1.342%
6	7.606	7.521	7.687	VV	3388	268315	4.43%	0.497%
7	7.755	7.687	7.900	VV	3003	242287	4.00%	0.449%
8	8.042	7.900	8.188	VV	4677	388273	6.41%	0.719%
9	8.299	8.188	8.374	VV	1148	99120	1.64%	0.184%
10	8.532	8.374	8.783	VV	6419	790320	13.05%	1.464%
11	8.870	8.783	8.984	VV	618	55868	0.92%	0.103%
12	9.047	8.984	9.196	VV	385	31017	0.51%	0.057%
13	9.835	9.196	10.002	VV	19499	2012104	33.23%	3.726%
14	10.074	10.002	10.162	VV	1245	109997	1.82%	0.204%
15	10.190	10.162	10.275	VV	1110	68894	1.14%	0.128%
16	10.351	10.275	10.433	VV	1131	93652	1.55%	0.173%
17	10.648	10.433	10.958	VV	15411	1783725	29.46%	3.303%
18	11.133	10.958	11.419	VV	15916	1385187	22.88%	2.565%
19	11.722	11.419	12.004	VV	5293	1085443	17.93%	2.010%
20	12.097	12.004	12.129	VV	858	48297	0.80%	0.089%
21	12.348	12.129	12.666	VV	14652	1804152	29.80%	3.341%
22	12.819	12.666	12.889	VV	1976	165884	2.74%	0.307%
23	12.981	12.889	13.143	VV	3020	232586	3.84%	0.431%
24	13.512	13.248	13.755	VV	6893	646026	10.67%	1.196%
25	14.026	13.755	14.144	VV	4841	464466	7.67%	0.860%
26	14.178	14.144	14.280	VV	1094	64672	1.07%	0.120%
27	14.392	14.280	14.570	VV	1624	151547	2.50%	0.281%
28	14.828	14.570	14.931	VV	5178	480679	7.94%	0.890%
29	15.053	14.931	15.182	VV	98201	5451010	90.03%	10.095%
30	15.236	15.182	15.327	VV	2848	197180	3.26%	0.365%
31	15.440	15.327	15.610	VV	8451	795735	13.14%	1.474%
32	15.773	15.610	15.935	VV	9074	737222	12.18%	1.365%
33	16.035	15.935	16.152	VV	2341	197637	3.26%	0.366%
34	16.223	16.152	16.261	VV	1146	67164	1.11%	0.124%
35	16.436	16.261	16.540	VV	2226	274541	4.53%	0.508%
36	16.689	16.540	16.728	VV	2752	266164	4.40%	0.493%
37	16.820	16.728	17.029	VV	8848	639221	10.56%	1.184%
38	17.145	17.029	17.259	VV	3463	258249	4.27%	0.478%
39	17.324	17.259	17.456	VV	836	68667	1.13%	0.127%
40	17.605	17.456	17.706	VV	3063	260825	4.31%	0.483%

41	17.770	17.706	17.870	VV	1893	125200	2.07%	0.232%
42	18.175	17.870	18.454	VV	45992	2506604	41.40%	4.642%
43	18.547	18.454	18.673	VV	1278	119991	1.98%	0.222%
44	18.845	18.673	18.956	VV	31523	1594119	26.33%	2.952%
45	19.150	18.956	19.421	VV	99184	6054785	100.00%	11.213%
46	19.521	19.421	19.624	VV	4799	284804	4.70%	0.527%
47	19.688	19.624	19.746	VV	909	58167	0.96%	0.108%
48	19.809	19.746	19.852	VV	905	52444	0.87%	0.097%
49	19.973	19.852	20.154	VV	51165	2581214	42.63%	4.780%
50	20.248	20.154	20.323	VV	1871	152775	2.52%	0.283%
51	20.434	20.323	20.711	VV	4198	320318	5.29%	0.593%
52	20.820	20.711	20.932	PV	1060	76362	1.26%	0.141%
53	21.037	20.932	21.177	VV	4339	232096	3.83%	0.430%
54	21.294	21.177	21.450	PV	1277	94176	1.56%	0.174%
55	21.583	21.450	21.709	VV	1624	123395	2.04%	0.229%
56	21.745	21.709	21.810	VV	506	24825	0.41%	0.046%
57	21.935	21.810	22.021	VV	14798	608136	10.04%	1.126%
58	22.115	22.021	22.238	VV	49164	2671942	44.13%	4.948%
59	22.305	22.238	22.452	VV	24088	1051190	17.36%	1.947%
60	22.578	22.452	22.669	VV	20531	820912	13.56%	1.520%
61	22.773	22.669	22.819	PV	716	30477	0.50%	0.056%
62	22.908	22.819	23.003	PBA	96587	3336289	55.10%	6.179%

Sum of corrected areas: 53996933

5G765.D 8015S.M Mon Jul 26 12:35:36 1999

GASOLINE RANGE ORGANICS 5-POINT CALIBRATION - SOIL

CALIBRATION DATE: 06/11/99
INSTRUMENT: HP5

GRO TOTAL AREA		CONC (ug/kg)	CF	AVERAGE CF	%RSD	LIMIT
AREA STANDARD 1:	5809143	90	64546	57104	7.7	20
AREA STANDARD 2:	20269817	360	56305			
AREA STANDARD 3:	50705700	900	56340			
AREA STANDARD 4:	99953222	1800	55530			
AREA STANDARD 5:	190073691	3600	52798			

CHLOROBENZENE TOTAL AREA		CONC (ug/kg)	CF	AVERAGE CF	%RSD	LIMIT
AREA STANDARD 1:	1278077	15	85205	96046	11.3	20
AREA STANDARD 2:	2703780	30	90126			
AREA STANDARD 3:	4132170	45	91826			
AREA STANDARD 4:	6004155	60	100069			
AREA STANDARD 5:	8475351	75	113005			

GASOLINE RANGE ORGANICS CONTINUING CALIBRATION STANDARD

SAMPLE ID: 8015 STD 900PPB

SUB DIRECTORY: 072699
RESULT FILE: 5G777

		CONC (ug/kg)	CHECK STANDARD CF	AVERAGE CF	%D	LIMIT
GRO AREA:	48960950	900	54401	57104	-4.7	15
CHLOROBENZENE AREA:	2459478	30	81983	96046	-14.6	15

GASOLINE RANGE ORGANICS SAMPLE QUANTITATION

SAMPLE ID: 07-381-08

SUB DIRECTORY: 072699
RESULT FILE: 5G776
DILUTION FACTOR: 1

TOTAL AREA: 2613605
CHLOROBENZENE AREA: 1963410
CHLOROBENZENE RT: 18.187

	SAMPLE AREA	SAMPLE CONC (ug/kg)	LCS % REC
GRO:	650195	11.4	1.3

	SSS AREA	SSS CONC (ug/kg)	SSS % REC
CHLOROBENZENE:	1963410	20.44	68.1

Area Percent Report

Data File : C:\HPCHEM\1\DATA\072699\5G777.D
Acq On : 26 Jul 1999 9:45 pm
Sample : 8015 STD 900PPB S-48-28/S-48-34
Misc : 5G
IntFile : events.e

Vial: 13
Operator: VMN
Inst : HP5
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\8015S.M (Chemstation Integrator)
Title : 8015W

Volume Inj. :
Signal Phase :
Signal Info :

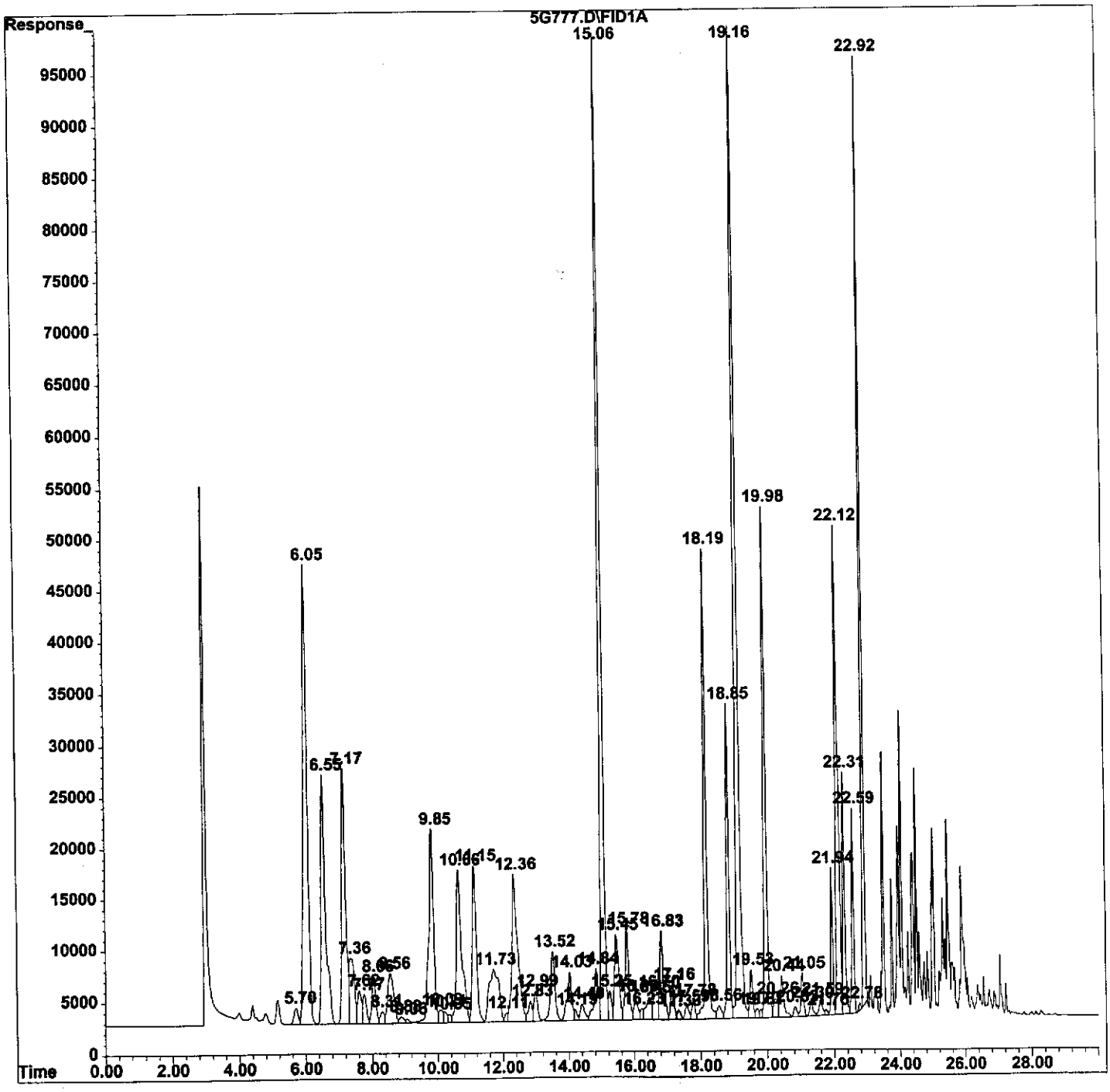

5G777.D 8015S.M Mon Jul 26 22:16:06 1999

Area Percent Report

Data File : C:\HPCHEM\1\DATA\072699\5G777.D
Acq On : 26 Jul 1999 9:45 pm
Sample : 8015 STD 900PPB S-48-28/S-48-34
Misc : 5G
IntFile : events.e

Vial: 13
Operator: VMN
Inst : HP5
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\8015S.M (Chemstation Integrator)
Title : 8015W

Signal : 5G777.D\FID1A

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	5.705	5.522	5.816	BV	1544	130385	2.23%	0.254%
2	6.051	5.816	6.340	VV	44648	3846381	65.79%	7.480%
3	6.546	6.340	6.925	VV	24220	2231483	38.17%	4.340%
4	7.170	6.925	7.301	PV	24813	2029699	34.72%	3.947%
5	7.359	7.301	7.534	VV	6297	695948	11.90%	1.353%
6	7.617	7.534	7.700	VV	3142	248741	4.25%	0.484%
7	7.770	7.700	7.910	VV	2789	220327	3.77%	0.428%
8	8.056	7.910	8.202	VV	4500	375115	6.42%	0.730%
9	8.310	8.202	8.391	VV	1103	95520	1.63%	0.186%
10	8.562	8.391	8.798	VV	4755	624284	10.68%	1.214%
11	8.883	8.798	9.014	VV	586	56030	0.96%	0.109%
12	9.058	9.014	9.220	VV	345	25855	0.44%	0.050%
13	9.847	9.352	10.015	VV	18805	1927077	32.96%	3.748%
14	10.085	10.015	10.172	VV	1213	103984	1.78%	0.202%
15	10.205	10.172	10.310	VV	1051	75612	1.29%	0.147%
16	10.353	10.310	10.425	VV	785	49530	0.85%	0.096%
17	10.663	10.425	10.971	VV	14770	1714313	29.32%	3.334%
18	11.147	10.971	11.427	VV	15160	1324673	22.66%	2.576%
19	11.727	11.427	12.016	VV	5043	1036582	17.73%	2.016%
20	12.108	12.016	12.137	VV	825	45247	0.77%	0.088%
21	12.360	12.137	12.685	VV	14284	1739336	29.75%	3.383%
22	12.831	12.685	12.900	VV	1902	158162	2.71%	0.308%
23	12.991	12.900	13.161	VV	2881	224520	3.84%	0.437%
24	13.520	13.250	13.761	VV	6660	622469	10.65%	1.211%
25	14.034	13.761	14.158	VV	4626	447712	7.66%	0.871%
26	14.188	14.158	14.297	VV	1032	59487	1.02%	0.116%
27	14.403	14.297	14.586	VV	1571	145274	2.48%	0.283%
28	14.838	14.586	14.940	VV	4942	459301	7.86%	0.893%
29	15.064	14.940	15.193	VV	95658	5261205	89.99%	10.232%
30	15.249	15.193	15.338	VV	2752	189030	3.23%	0.368%
31	15.452	15.338	15.621	VV	8211	762742	13.05%	1.483%
32	15.785	15.621	15.948	VV	8800	706859	12.09%	1.375%
33	16.046	15.948	16.164	VV	2241	184917	3.16%	0.360%
34	16.230	16.164	16.265	VV	1027	57160	0.98%	0.111%
35	16.448	16.265	16.544	VV	2109	256678	4.39%	0.499%
36	16.700	16.544	16.739	VV	2632	262809	4.50%	0.511%
37	16.831	16.739	17.041	VV	8499	612063	10.47%	1.190%
38	17.155	17.041	17.270	VV	3340	246776	4.22%	0.480%

39	17.333	17.270	17.470	VV	820	65779	1.13%	0.128%
40	17.585	17.470	17.689	VV	1222	99911	1.71%	0.194%
41	17.782	17.689	17.879	VV	1762	120105	2.05%	0.234%
42	18.185	17.879	18.457	VV	45633	2459478	42.07%	4.783%
43	18.557	18.457	18.682	VV	1234	117080	2.00%	0.228%
44	18.855	18.682	18.967	VV	30505	1538551	26.32%	2.992%
45	19.159	18.967	19.430	VV	95975	5846143	100.00%	11.369%
46	19.530	19.430	19.635	VV	4633	275140	4.71%	0.535%
47	19.700	19.635	19.763	VV	866	56343	0.96%	0.110%
48	19.815	19.763	19.852	VV	790	38172	0.65%	0.074%
49	19.983	19.852	20.163	VV	49725	2501636	42.79%	4.865%
50	20.258	20.163	20.337	VV	1791	150587	2.58%	0.293%
51	20.443	20.337	20.724	VV	3977	298977	5.11%	0.581%
52	20.832	20.724	20.926	PV	983	65102	1.11%	0.127%
53	21.048	20.926	21.183	VV	4195	225372	3.86%	0.438%
54	21.304	21.183	21.461	PV	1260	91134	1.56%	0.177%
55	21.592	21.461	21.711	VV	1550	112573	1.93%	0.219%
56	21.756	21.711	21.821	VV	509	26356	0.45%	0.051%
57	21.944	21.821	22.030	VV	14273	587724	10.05%	1.143%
58	22.124	22.030	22.247	VV	47492	2585999	44.23%	5.029%
59	22.313	22.247	22.455	VV	23510	1014915	17.36%	1.974%
60	22.587	22.455	22.674	VV	19908	796896	13.63%	1.550%
61	22.776	22.674	22.822	PV	674	29143	0.50%	0.057%
62	22.915	22.822	23.003	PBA	91642	3064024	52.41%	5.959%

Sum of corrected areas: 51420428

5G777.D 8015S.M Mon Jul 26 22:16:04 1999

GASOLINE RANGE ORGANICS 5-POINT CALIBRATION - SOIL

CALIBRATION DATE: 06/11/99
INSTRUMENT: HP5

GRO TOTAL AREA		CONC (ug/kg)	CF	AVERAGE CF	%RSD	LIMIT
AREA STANDARD 1:	5809143	90	64546	57104	7.7	20
AREA STANDARD 2:	20269817	360	56305			
AREA STANDARD 3:	50705700	900	56340			
AREA STANDARD 4:	99953222	1800	55530			
AREA STANDARD 5:	190073691	3600	52798			

CHLOROBENZENE TOTAL AREA		CONC (ug/kg)	CF	AVERAGE CF	%RSD	LIMIT
AREA STANDARD 1:	1278077	15	85205	96046	11.3	20
AREA STANDARD 2:	2703780	30	90126			
AREA STANDARD 3:	4132170	45	91826			
AREA STANDARD 4:	6004155	60	100069			
AREA STANDARD 5:	8475351	75	113005			

GASOLINE RANGE ORGANICS CONTINUING CALIBRATION STANDARD

SAMPLE ID: 8015 STD 900PPB

SUB DIRECTORY: 072699
RESULT FILE: 5G787

		CONC (ug/kg)	CHECK STANDARD CF	AVERAGE CF	%D	LIMIT
GRO AREA:	52439666	900	58266	57104	2.0	15
CHLOROBENZENE AREA:	2640961	30	88032	96046	-8.3	15

GASOLINE RANGE ORGANICS SAMPLE QUANTITATION

~~SAMPLE ID: 07-381-08~~

SUB DIRECTORY: 072699
RESULT FILE: 5G776
DILUTION FACTOR: 1

TOTAL AREA: 2613605
CHLOROBENZENE AREA: 1963410
CHLOROBENZENE RT: 18.187

	SAMPLE AREA	SAMPLE CONC (ug/kg)	LCS % REC
GRO:	650195	11.4	1.3

	SSS AREA	SSS CONC (ug/kg)	SSS % REC
CHLOROBENZENE:	1963410	20.44	68.1

Area Percent Report

Data File : C:\HPCHEM\1\DATA\072699\5G787.D
Acq On : 27 Jul 1999 4:48 am
Sample : 8015 STD 900PPB S-48-28/S-48-34
Misc : 5G
IntFile : events.e

Vial: 10
Operator: VMN
Inst : HP5
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\8015S.M (Chemstation Integrator)
Title : 8015W

Volume Inj. :
Signal Phase :
Signal Info :

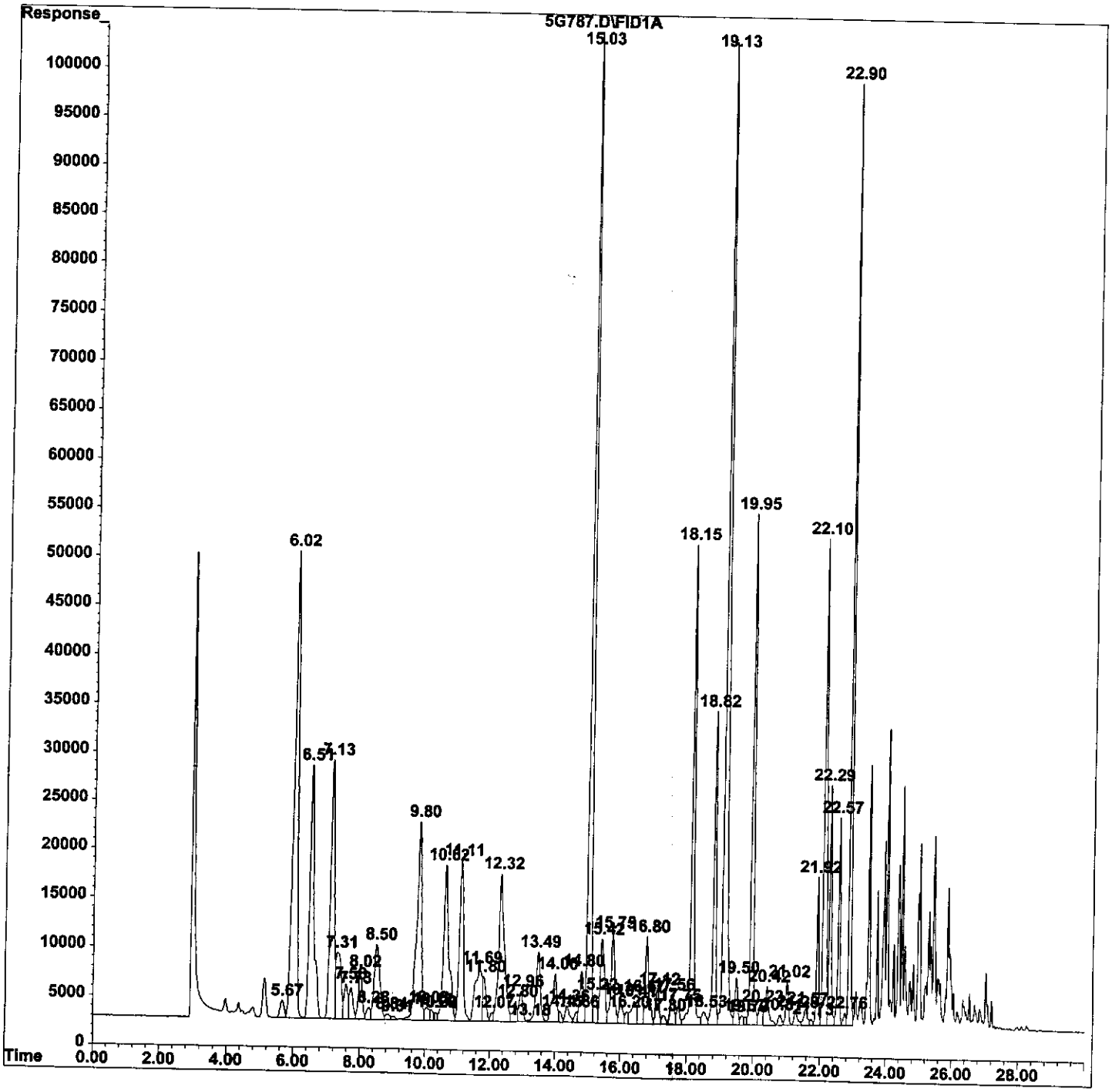

5G787.D 8015S.M Tue Jul 27 05:18:43 1999

Area Percent Report

Data File : C:\HPCHEM\1\DATA\072699\5G787.D
Acq On : 27 Jul 1999 4:48 am
Sample : 8015 STD 900PPB S-48-28/S-48-34
Misc : 5G
IntFile : events.e

Vial: 10
Operator: VMN
Inst : HP5
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\8015S.M (Chemstation Integrator)
Title : 8015W

Signal : 5G787.D\FID1A

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	5.670	5.525	5.781	BV	1719	144087	2.35%	0.262%
2	6.017	5.781	6.323	VV	47791	4076519	66.36%	7.401%
3	6.509	6.323	6.872	VV	25948	2360973	38.44%	4.286%
4	7.133	6.916	7.260	PV	26542	2136562	34.78%	3.879%
5	7.313	7.260	7.494	VV	6739	746147	12.15%	1.355%
6	7.582	7.494	7.661	VV	3579	281557	4.58%	0.511%
7	7.730	7.661	7.873	VV	3153	259731	4.23%	0.472%
8	8.015	7.873	8.160	VV	4837	400526	6.52%	0.727%
9	8.277	8.160	8.337	VV	1172	97617	1.59%	0.177%
10	8.499	8.337	8.762	VV	7581	905727	14.74%	1.644%
11	8.841	8.762	8.947	VV	573	48219	0.78%	0.088%
12	9.008	8.947	9.137	VV	333	27001	0.44%	0.049%
13	9.803	9.298	9.968	VV	20225	2066012	33.63%	3.751%
14	10.047	9.968	10.145	VV	1276	122408	1.99%	0.222%
15	10.168	10.145	10.260	VV	1100	67213	1.09%	0.122%
16	10.283	10.260	10.294	VV	808	16432	0.27%	0.030%
17	10.316	10.294	10.380	VV	816	38436	0.63%	0.070%
18	10.623	10.380	10.934	VV	15751	1817049	29.58%	3.299%
19	11.108	10.934	11.388	VV	16290	1408110	22.92%	2.556%
20	11.691	11.388	11.776	VV	5355	783728	12.76%	1.423%
21	11.799	11.776	11.975	VV	4514	316344	5.15%	0.574%
22	12.073	11.975	12.107	VV	886	51567	0.84%	0.094%
23	12.325	12.107	12.642	VV	14977	1831580	29.82%	3.325%
24	12.796	12.642	12.865	VV	2038	170973	2.78%	0.310%
25	12.957	12.865	13.117	VV	3071	240004	3.91%	0.436%
26	13.183	13.117	13.227	VV	156	7637	0.12%	0.014%
27	13.486	13.227	13.734	VV	7060	661748	10.77%	1.201%
28	14.000	13.734	14.120	VV	4861	464146	7.56%	0.843%
29	14.154	14.120	14.258	VV	1084	63031	1.03%	0.114%
30	14.364	14.258	14.549	VV	1640	150348	2.45%	0.273%
31	14.659	14.549	14.686	VV	1067	62513	1.02%	0.113%
32	14.805	14.686	14.906	VV	5226	423145	6.89%	0.768%
33	15.029	14.906	15.158	VV	101189	5602898	91.21%	10.172%
34	15.216	15.158	15.306	VV	2876	201655	3.28%	0.366%
35	15.419	15.306	15.587	VV	8489	799837	13.02%	1.452%
36	15.752	15.587	15.914	VV	9159	744662	12.12%	1.352%
37	16.013	15.914	16.129	VV	2398	196438	3.20%	0.357%
38	16.203	16.129	16.239	VV	1168	70003	1.14%	0.127%

39	16.414	16.239	16.507	VV	2257	266594	4.34%	0.484%
40	16.666	16.507	16.706	VV	2765	281737	4.59%	0.511%
41	16.799	16.706	17.006	VV	8834	642131	10.45%	1.166%
42	17.123	17.006	17.236	VV	3528	264105	4.30%	0.479%
43	17.302	17.236	17.430	VV	880	71689	1.17%	0.130%
44	17.563	17.430	17.675	VV	2984	247839	4.03%	0.450%
45	17.749	17.675	17.848	VV	1911	128403	2.09%	0.233%
46	18.152	17.848	18.427	VV	49000	2640961	42.99%	4.795%
47	18.526	18.427	18.648	VV	1295	122491	1.99%	0.222%
48	18.822	18.648	18.936	VV	31997	1630093	26.54%	2.959%
49	19.127	18.936	19.400	VV	100353	6142678	100.00%	11.152%
50	19.500	19.400	19.603	VV	4757	285140	4.64%	0.518%
51	19.668	19.603	19.730	VV	924	60141	0.98%	0.109%
52	19.786	19.730	19.822	VV	831	43445	0.71%	0.079%
53	19.952	19.822	20.136	VV	52147	2648991	43.12%	4.809%
54	20.229	20.136	20.309	VV	1877	155650	2.53%	0.283%
55	20.416	20.309	20.695	VV	3903	303264	4.94%	0.551%
56	20.806	20.695	20.902	PV	1036	69655	1.13%	0.126%
57	21.019	20.902	21.166	VV	4417	241821	3.94%	0.439%
58	21.278	21.166	21.433	VV	1324	100691	1.64%	0.183%
59	21.569	21.433	21.693	VV	1651	131157	2.14%	0.238%
60	21.735	21.693	21.806	VV	596	32945	0.54%	0.060%
61	21.922	21.806	22.008	VV	14977	628233	10.23%	1.141%
62	22.103	22.008	22.227	VV	49606	2719258	44.27%	4.937%
63	22.294	22.227	22.441	VV	24455	1076952	17.53%	1.955%
64	22.568	22.441	22.658	VV	21089	859917	14.00%	1.561%
65	22.760	22.658	22.805	VV	1201	67817	1.10%	0.123%
66	22.898	22.805	23.003	VBA	96016	3354246	54.61%	6.090%

Sum of corrected areas: 55080627

5G787.D 8015S.M Tue Jul 27 05:18:40 1999

Raw QC Data

GASOLINE RANGE ORGANICS 5-POINT CALIBRATION - SOIL

CALIBRATION DATE: 06/11/99
INSTRUMENT: HP5

GRO TOTAL AREA		CONC (ug/kg)	CF	AVERAGE CF	%RSD	LIMIT
AREA STANDARD 1:	5809143	90	64546	57104	7.7	20
AREA STANDARD 2:	20269817	360	56305			
AREA STANDARD 3:	50705700	900	56340			
AREA STANDARD 4:	99953222	1800	55530			
AREA STANDARD 5:	190073691	3600	52798			

CHLOROBENZENE TOTAL AREA		CONC (ug/kg)	CF	AVERAGE CF	%RSD	LIMIT
AREA STANDARD 1:	1278077	15	85205	96046	11.3	20
AREA STANDARD 2:	2703780	30	90126			
AREA STANDARD 3:	4132170	45	91826			
AREA STANDARD 4:	6004155	60	100069			
AREA STANDARD 5:	8475351	75	113005			

GASOLINE RANGE ORGANICS CONTINUING CALIBRATION STANDARD

SAMPLE ID: 8015 STD 900PPB

SUB DIRECTORY: 072699
RESULT FILE: 5G765

		CONC (ug/kg)	CHECK STANDARD CF	AVERAGE CF	%D	LIMIT
GRO AREA:	51490329	900	57211	57104	0.2	15
CHLOROBENZENE AREA:	2506604	30	83553	96046	-13.0	15

GASOLINE RANGE ORGANICS SAMPLE QUANTITATION

SAMPLE ID: SOIL BLANK

SUB DIRECTORY: ~~071199~~ 072699 [illegible] 8-3-99
RESULT FILE: 5G768
DILUTION FACTOR: 1

TOTAL AREA: 3200129
CHLOROBENZENE AREA: 2161698
CHLOROBENZENE RT: 18.194

	SAMPLE AREA	SAMPLE CONC (ug/kg)	LCS % REC
GRO:	1038431	~~18.2~~	~~2.0~~

	SSS AREA	SSS CONC (ug/kg)	SSS % REC
CHLOROBENZENE:	2161698	22.51	75.0

File : C:\HPCHEM\1\DATA\072699\5G768.D
Operator : VMN
Acquired : 26 Jul 1999 2:40 pm using AcqMethod 8015S.M
Instrument : HP5
Sample Name: SOIL BLANK S-48-34
Misc Info : 5G
Vial Number: 4

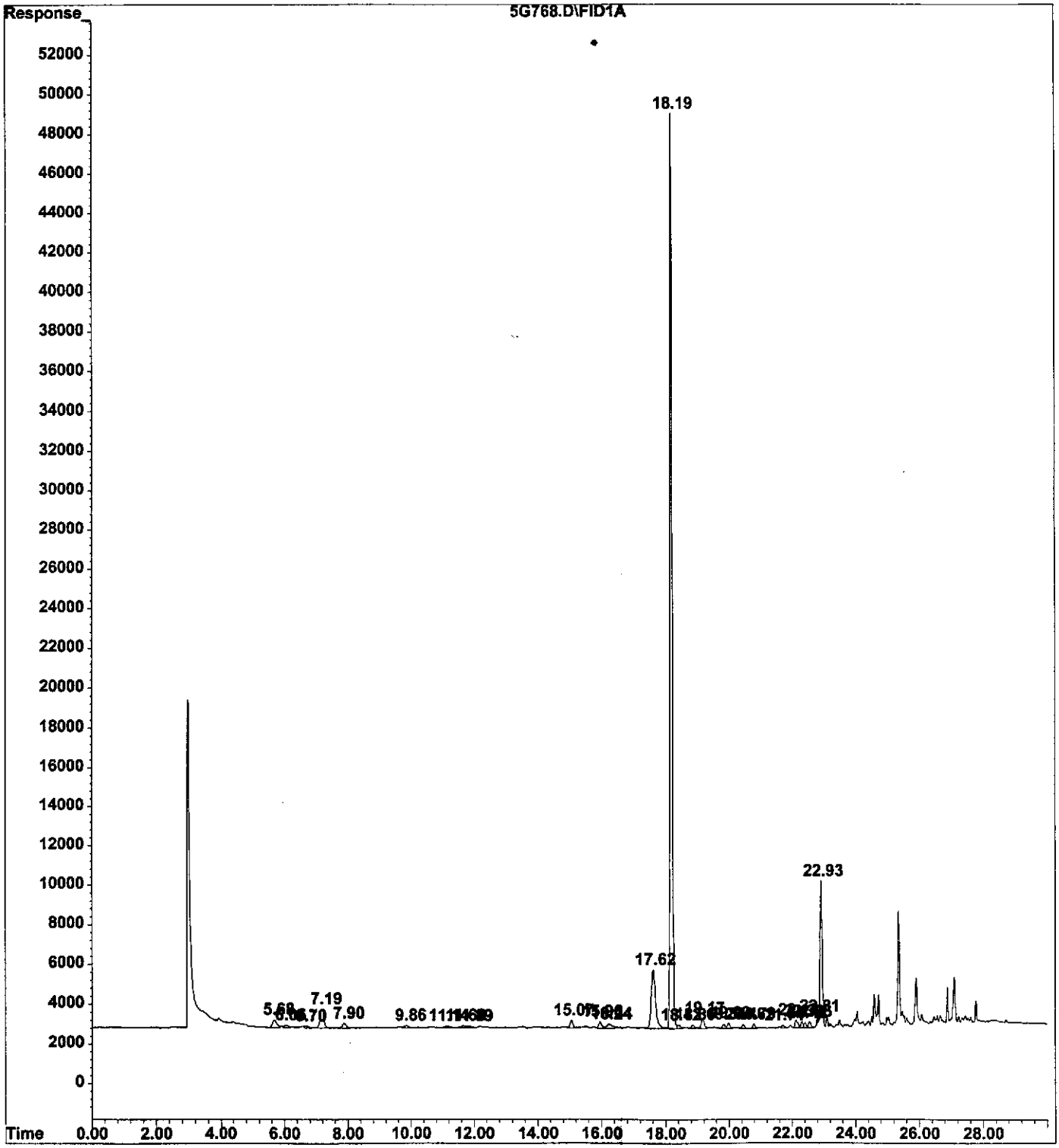

Area Percent Report

Data File : C:\HPCHEM\1\DATA\072699\5G768.D
Acq On : 26 Jul 1999 2:40 pm
Sample : SOIL ~~LCS 20PPB S-48-28~~/S-48-34
BLANK VMN 7/30/99
Misc : 5G
IntFile : events.e

Vial: 4
Operator: VMN
Inst : HP5
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\8015S.M (Chemstation Integrator)
Title : 8015W

Signal : 5G768.D\FID1A

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	5.682	5.525	5.853	BV	389	34995	1.62%	1.094%
2	6.056	5.956	6.172	VV	136	12016	0.56%	0.375%
3	6.701	6.622	6.876	VV	90	7753	0.36%	0.242%
4	7.187	6.981	7.451	VV	948	78047	3.61%	2.439%
5	7.900	7.727	8.070	VV	238	20969	0.97%	0.655%
6	9.859	9.710	9.945	VV	129	12215	0.57%	0.382%
7	11.140	10.946	11.259	VV	104	11557	0.53%	0.361%
8	11.678	11.448	11.793	VV	111	12453	0.58%	0.389%
9	11.895	11.793	12.050	VV	80	7813	0.36%	0.244%
10	15.074	14.947	15.203	VV	392	25375	1.17%	0.793%
11	15.962	15.855	16.099	VV	328	21087	0.98%	0.659%
12	16.245	16.099	16.428	VV	213	26162	1.21%	0.818%
13	17.618	17.425	18.004	VV	2939	278365	12.88%	8.699%
14	18.194	18.047	18.362	VV	46214	2161698	100.00%	67.550%
15	18.422	18.362	18.533	VV	169	12314	0.57%	0.385%
16	18.863	18.726	18.949	VV	184	10954	0.51%	0.342%
17	19.171	19.017	19.318	VV	502	34611	1.60%	1.082%
18	19.841	19.741	19.913	VV	206	12561	0.58%	0.393%
19	19.990	19.913	20.118	VV	270	16126	0.75%	0.504%
20	20.458	20.332	20.588	VV	202	12726	0.59%	0.398%
21	20.791	20.704	20.914	PV	224	10982	0.51%	0.343%
22	21.707	21.647	21.854	VV	145	9392	0.43%	0.293%
23	22.132	22.057	22.246	VV	392	24265	1.12%	0.758%
24	22.318	22.246	22.372	VV	324	14709	0.68%	0.460%
25	22.416	22.372	22.493	VV	253	11926	0.55%	0.373%
26	22.562	22.493	22.669	VV	301	16330	0.76%	0.510%
27	22.809	22.730	22.844	PV	340	8600	0.40%	0.269%
28	22.933	22.844	23.003	VBA	6809	294129	13.61%	9.191%

Sum of corrected areas: 3200129

5G768.D 8015S.M Mon Jul 26 15:11:10 1999

GASOLINE RANGE ORGANICS 5-POINT CALIBRATION - SOIL

CALIBRATION DATE: 06/11/99
INSTRUMENT: HP5

GRO TOTAL AREA		CONC (ug/kg)	CF	AVERAGE CF	%RSD	LIMIT
AREA STANDARD 1:	5809143	90	64546	57104	7.7	20
AREA STANDARD 2:	20269817	360	56305			
AREA STANDARD 3:	50705700	900	56340			
AREA STANDARD 4:	99953222	1800	55530			
AREA STANDARD 5:	190073691	3600	52798			

CHLOROBENZENE TOTAL AREA		CONC (ug/kg)	CF	AVERAGE CF	%RSD	LIMIT
AREA STANDARD 1:	1278077	15	85205	96046	11.3	20
AREA STANDARD 2:	2703780	30	90126			
AREA STANDARD 3:	4132170	45	91826			
AREA STANDARD 4:	6004155	60	100069			
AREA STANDARD 5:	8475351	75	113005			

GASOLINE RANGE ORGANICS CONTINUING CALIBRATION STANDARD

SAMPLE ID: 8015 STD 900PPB

SUB DIRECTORY: 072699
RESULT FILE: 5G765

		CONC (ug/kg)	CHECK STANDARD CF	AVERAGE CF	%D	LIMIT
GRO AREA:	51490329	900	57211	57104	**0.2**	15
CHLOROBENZENE AREA:	2506604	30	83553	96046	**-13.0**	15

GASOLINE RANGE ORGANICS SAMPLE QUANTITATION

SAMPLE ID: SOIL LCS 900PPB ✓

SUB DIRECTORY: ~~071199~~ 072699 mfB 8-3-99
RESULT FILE: 5G767 ✓
DILUTION FACTOR: 1 ✓

TOTAL AREA: 49167984 ✓
CHLOROBENZENE AREA: 2200948 ✓
CHLOROBENZENE RT: 18.196 ✓

	SAMPLE AREA	SAMPLE CONC (ug/kg)	LCS % REC
GRO:	46967036	822.5	91.4 ✓

	SSS AREA	SSS CONC (ug/kg)	SSS % REC
CHLOROBENZENE:	2200948	22.92	76.4 ✓

Area Percent Report

Data File : C:\HPCHEM\1\DATA\072699\5G767.D
Acq On : 26 Jul 1999 1:52 pm
Sample : SOIL LCS 20PPB S-48-28/S-48-34
Misc : 5G
IntFile : events.e

Vial: 3
Operator: VMN
Inst : HP5
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\8015S.M (Chemstation Integrator)
Title : 8015W

Volume Inj. :
Signal Phase :
Signal Info :

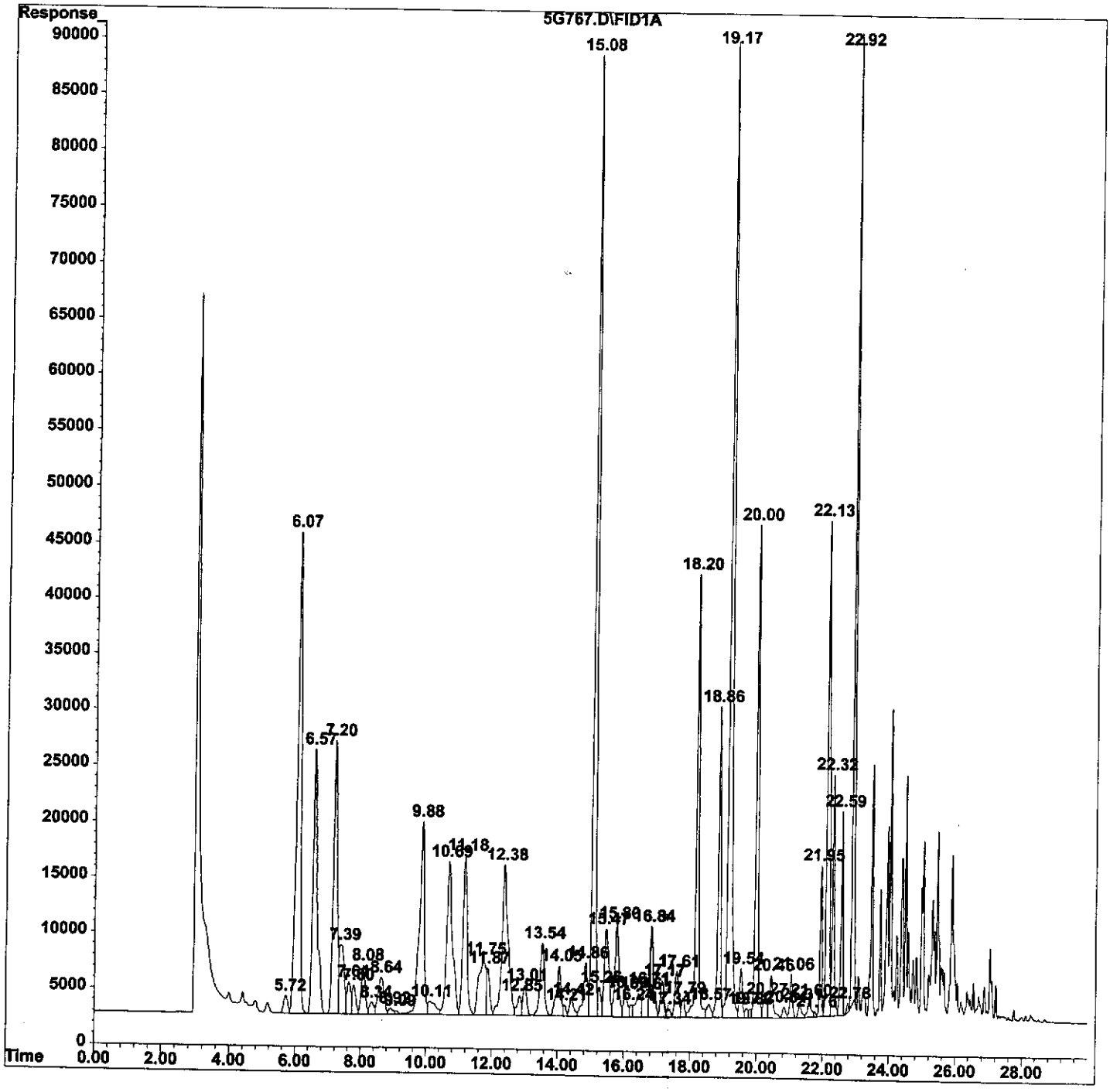

5G767.D 8015S.M Mon Jul 26 14:23:04 1999

Area Percent Report

Data File : C:\HPCHEM\1\DATA\072699\5G767.D
Acq On : 26 Jul 1999 1:52 pm
Sample : SOIL LCS 20PPB S-48-28/S-48-34
Misc : 5G
IntFile : events.e

Vial: 3
Operator: VMN
Inst : HP5
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\8015S.M (Chemstation Integrator)
Title : 8015W

Signal : 5G767.D\FID1A

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	5.717	5.522	5.838	BV	1571	137814	2.54%	0.280%
2	6.075	5.838	6.374	VV	43189	3759636	69.21%	7.647%
3	6.571	6.374	6.962	VV	23684	2220124	40.87%	4.515%
4	7.197	6.962	7.331	PV	24477	2061407	37.95%	4.193%
5	7.388	7.331	7.563	VV	6192	673885	12.41%	1.371%
6	7.641	7.563	7.726	VV	2902	229243	4.22%	0.466%
7	7.797	7.726	7.939	VV	2598	209115	3.85%	0.425%
8	8.085	7.939	8.232	VV	4376	367943	6.77%	0.748%
9	8.339	8.232	8.446	VV	1058	101574	1.87%	0.207%
10	8.639	8.446	8.831	VV	3305	421887	7.77%	0.858%
11	8.919	8.831	9.042	VV	522	49356	0.91%	0.100%
12	9.086	9.042	9.236	VV	310	23164	0.43%	0.047%
13	9.876	9.236	10.045	VV	17317	1804706	33.22%	3.670%
14	10.114	10.045	10.434	VV	1193	198319	3.65%	0.403%
15	10.694	10.434	10.998	VV	13762	1690897	31.13%	3.439%
16	11.178	10.998	11.455	VV	14369	1287241	23.70%	2.618%
17	11.752	11.455	11.839	VV	5021	729642	13.43%	1.484%
18	11.867	11.839	12.042	VV	4219	300106	5.52%	0.610%
19	12.382	12.042	12.704	VV	13546	1755933	32.32%	3.571%
20	12.855	12.704	12.921	VV	1789	152398	2.81%	0.310%
21	13.013	12.921	13.183	VV	2740	221114	4.07%	0.450%
22	13.541	13.277	13.786	VV	6511	609226	11.21%	1.239%
23	14.054	13.786	14.174	VV	4473	433076	7.97%	0.881%
24	14.206	14.174	14.309	VV	1001	57991	1.07%	0.118%
25	14.420	14.309	14.597	VV	1499	139824	2.57%	0.284%
26	14.857	14.597	14.953	VV	4771	444415	8.18%	0.904%
27	15.080	14.953	15.213	VV	85865	4908312	90.35%	9.983%
28	15.262	15.213	15.354	VV	2626	178105	3.28%	0.362%
29	15.468	15.354	15.641	VV	7829	750702	13.82%	1.527%
30	15.799	15.641	15.965	VV	8353	692226	12.74%	1.408%
31	16.061	15.965	16.176	VV	2174	182672	3.36%	0.372%
32	16.239	16.176	16.290	VV	1092	69251	1.27%	0.141%
33	16.461	16.290	16.562	VV	2083	250273	4.61%	0.509%
34	16.711	16.562	16.750	VV	2516	246584	4.54%	0.502%
35	16.845	16.750	17.051	VV	8116	601684	11.08%	1.224%
36	17.169	17.051	17.280	VV	3265	240953	4.44%	0.490%
37	17.344	17.280	17.470	VV	755	61576	1.13%	0.125%
38	17.606	17.470	17.726	VV	4099	325605	5.99%	0.662%

39	17.793	17.726	17.891	VV	1720	112672	2.07%	0.229%
40	18.196	17.891	18.477	VV	39685	2200948	40.52%	4.476%
41	18.569	18.477	18.690	VV	1176	107257	1.97%	0.218%
42	18.865	18.690	18.978	VV	27826	1437441	26.46%	2.924%
43	19.172	18.978	19.443	VV	87100	5432284	100.00%	11.048%
44	19.543	19.443	19.646	VV	4382	264344	4.87%	0.538%
45	19.710	19.646	19.772	VV	840	54161	1.00%	0.110%
46	19.830	19.772	19.865	VV	791	40427	0.74%	0.082%
47	19.996	19.865	20.175	VV	44155	2277873	41.93%	4.633%
48	20.270	20.175	20.348	VV	1711	143111	2.63%	0.291%
49	20.457	20.348	20.737	VV	3801	291611	5.37%	0.593%
50	20.842	20.737	20.943	PV	974	67344	1.24%	0.137%
51	21.059	20.943	21.198	VV	3922	213476	3.93%	0.434%
52	21.315	21.198	21.470	PV	1192	88155	1.62%	0.179%
53	21.604	21.470	21.731	VV	1525	117437	2.16%	0.239%
54	21.763	21.731	21.828	VV	486	22543	0.41%	0.046%
55	21.950	21.828	22.035	VV	13580	557008	10.25%	1.133%
56	22.129	22.035	22.251	VV	44182	2414649	44.45%	4.911%
57	22.317	22.251	22.463	VV	21554	952058	17.53%	1.936%
58	22.588	22.463	22.674	VV	18249	736425	13.56%	1.498%
59	22.778	22.674	22.823	PV	812	32192	0.59%	0.065%
60	22.916	22.823	23.003	PBA	86574	3016589	55.53%	6.135%

Sum of corrected areas: 49167984

5G767.D 8015S.M Mon Jul 26 14:23:03 1999

GASOLINE RANGE ORGANICS 5-POINT CALIBRATION - SOIL

CALIBRATION DATE: 06/11/99
INSTRUMENT: HP5

GRO TOTAL AREA		CONC (ug/kg)	CF	AVERAGE CF	%RSD	LIMIT
AREA STANDARD 1:	5809143	90	64546	57104	7.7	20
AREA STANDARD 2:	20269817	360	56305			
AREA STANDARD 3:	50705700	900	56340			
AREA STANDARD 4:	99953222	1800	55530			
AREA STANDARD 5:	190073691	3600	52798			

CHLOROBENZENE TOTAL AREA		CONC (ug/kg)	CF	AVERAGE CF	%RSD	LIMIT
AREA STANDARD 1:	1278077	15	85205	96046	11.3	20
AREA STANDARD 2:	2703780	30	90126			
AREA STANDARD 3:	4132170	45	91826			
AREA STANDARD 4:	6004155	60	100069			
AREA STANDARD 5:	8475351	75	113005			

GASOLINE RANGE ORGANICS CONTINUING CALIBRATION STANDARD

SAMPLE ID: 8015 STD 900PPB

SUB DIRECTORY: 072699
RESULT FILE: 5G777

		CONC (ug/kg)	CHECK STANDARD CF	AVERAGE CF	%D	LIMIT
GRO AREA:	48960950	900	54401	57104	**-4.7**	15
CHLOROBENZENE AREA:	2459478	30	81983	96046	**-14.6**	15

GASOLINE RANGE ORGANICS SAMPLE QUANTITATION

SAMPLE ID: 07-381-08 MS

SUB DIRECTORY: 072699
RESULT FILE: 5G778
DILUTION FACTOR: 1

TOTAL AREA: 49176679
CHLOROBENZENE AREA: 2407630
CHLOROBENZENE RT: 18.185

	SAMPLE AREA	SAMPLE CONC (ug/kg)	LCS % REC
GRO:	46769049	819.0	91.0

	SSS AREA	SSS CONC (ug/kg)	SSS % REC
CHLOROBENZENE:	2407630	25.07	83.6

Area Percent Report

Data File : C:\HPCHEM\1\DATA\072699\5G778.D
Acq On : 26 Jul 1999 10:50 pm
Sample : 07-381-08 MS S-48-28/S-48-34
Misc : 5G
IntFile : events.e

Vial: 1
Operator: VMN
Inst : HP5
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\8015S.M (Chemstation Integrator)
Title : 8015W

Volume Inj. :
Signal Phase :
Signal Info :

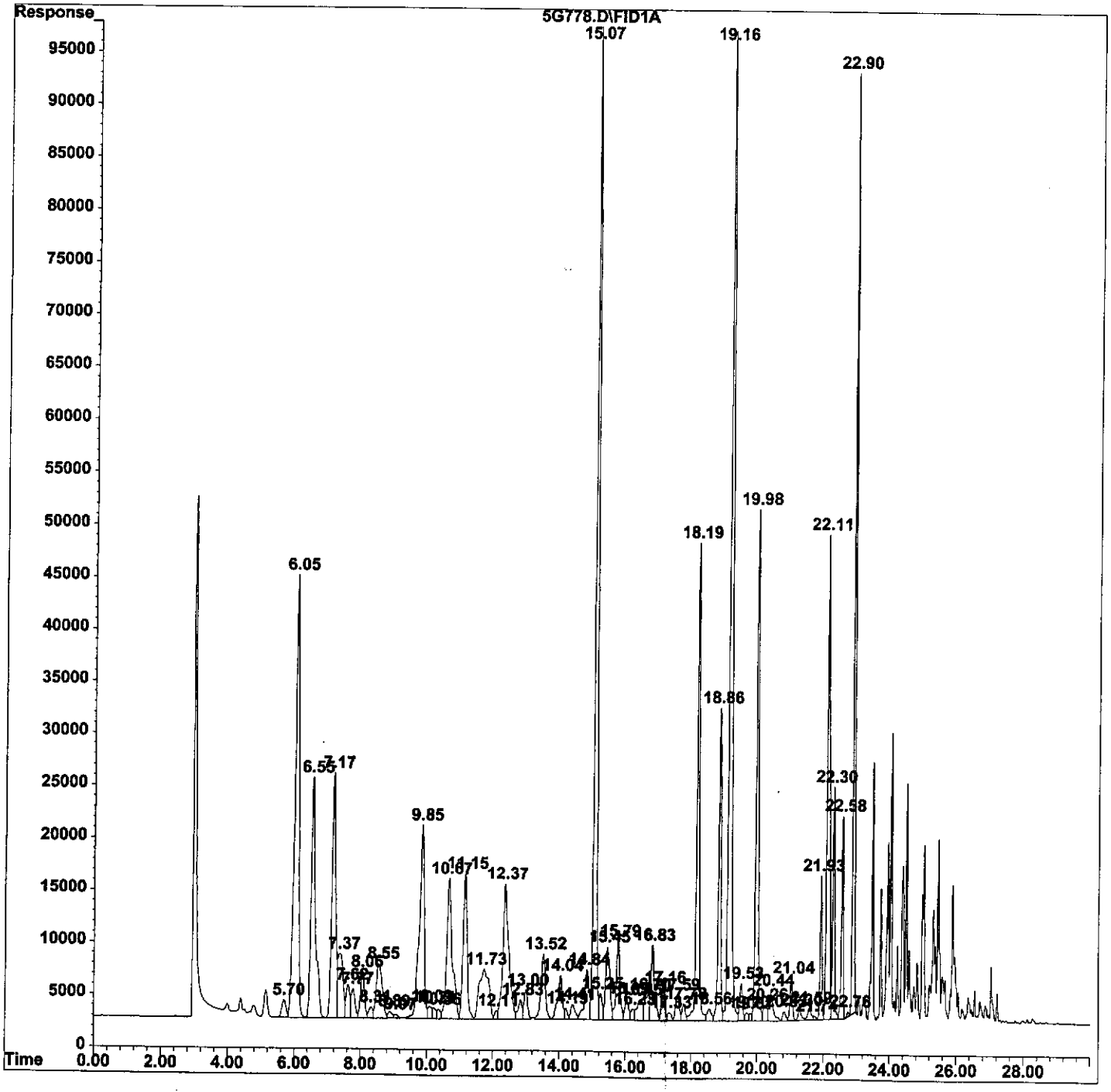

5G778.D 8015S.M Mon Jul 26 23:21:04 1999

Area Percent Report

Data File : C:\HPCHEM\1\DATA\072699\5G778.D
Acq On : 26 Jul 1999 10:50 pm
Sample : 07-381-08 MS S-48-28/S-48-34
Misc : 5G
IntFile : events.e

Vial: 1
Operator: VMN
Inst : HP5
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\8015S.M (Chemstation Integrator)
Title : 8015W

Signal : 5G778.D\FID1A

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	5.700	5.522	5.817	BV	1664	143794	2.54%	0.292%
2	6.052	5.817	6.353	VV	42419	3671602	64.87%	7.466%
3	6.548	6.353	6.962	VV	22957	2129916	37.63%	4.331%
4	7.174	6.962	7.302	VV	23416	1916026	33.85%	3.896%
5	7.370	7.302	7.538	VV	6120	684369	12.09%	1.392%
6	7.622	7.538	7.705	VV	3162	249202	4.40%	0.507%
7	7.774	7.705	7.920	VV	2762	225083	3.98%	0.458%
8	8.060	7.920	8.209	VV	4405	368309	6.51%	0.749%
9	8.313	8.209	8.389	VV	1027	86560	1.53%	0.176%
10	8.555	8.389	8.801	VV	5204	664257	11.74%	1.351%
11	8.892	8.801	9.011	VV	610	56258	0.99%	0.114%
12	9.069	9.011	9.223	VV	366	28845	0.51%	0.059%
13	9.853	9.368	10.022	VV	18502	1900168	33.57%	3.864%
14	10.092	10.022	10.177	VV	1137	97465	1.72%	0.198%
15	10.205	10.177	10.299	VV	999	66513	1.18%	0.135%
16	10.356	10.299	10.443	VV	851	66544	1.18%	0.135%
17	10.669	10.443	10.978	VV	13401	1566823	27.68%	3.186%
18	11.153	10.978	11.441	VV	13905	1213481	21.44%	2.468%
19	11.733	11.441	12.020	VV	4724	968797	17.12%	1.970%
20	12.110	12.020	12.148	VV	776	45765	0.81%	0.093%
21	12.367	12.148	12.682	VV	12920	1602437	28.31%	3.259%
22	12.834	12.682	12.904	VV	1834	154021	2.72%	0.313%
23	12.995	12.904	13.154	VV	2757	215818	3.81%	0.439%
24	13.524	13.259	13.762	VV	6230	583268	10.31%	1.186%
25	14.039	13.762	14.157	VV	4163	400218	7.07%	0.814%
26	14.192	14.157	14.297	VV	1029	61362	1.08%	0.125%
27	14.406	14.297	14.586	VV	1410	134530	2.38%	0.274%
28	14.840	14.586	14.941	VV	4733	432194	7.64%	0.879%
29	15.065	14.941	15.198	VV	94668	5205341	91.97%	10.585%
30	15.249	15.198	15.340	VV	2456	166218	2.94%	0.338%
31	15.454	15.340	15.621	VV	6927	655793	11.59%	1.334%
32	15.786	15.621	15.948	VV	7485	606013	10.71%	1.232%
33	16.046	15.948	16.161	VV	2010	163875	2.90%	0.333%
34	16.235	16.161	16.278	VV	1023	65575	1.16%	0.133%
35	16.448	16.278	16.544	VV	1912	228180	4.03%	0.464%
36	16.699	16.544	16.740	VV	2402	240533	4.25%	0.489%
37	16.831	16.740	17.038	VV	7145	525121	9.28%	1.068%
38	17.157	17.038	17.269	VV	3085	230729	4.08%	0.469%

39	17.331	17.269	17.462	VV	748	61580	1.09%	0.125%
40	17.592	17.462	17.701	VV	2425	193192	3.41%	0.393%
41	17.782	17.701	17.879	VV	1588	108851	1.92%	0.221%
42	18.185	17.879	18.455	VV	45667	2407630	42.54%	4.896%
43	18.558	18.455	18.678	VV	1104	103139	1.82%	0.210%
44	18.856	18.678	18.973	VV	29865	1507185	26.63%	3.065%
45	19.160	18.973	19.433	VV	94290	5659957	100.00%	11.509%
46	19.531	19.433	19.633	VV	3548	214756	3.79%	0.437%
47	19.699	19.633	19.763	VV	768	50650	0.89%	0.103%
48	19.811	19.763	19.852	VV	668	34599	0.61%	0.070%
49	19.984	19.852	20.169	VV	48891	2448463	43.26%	4.979%
50	20.258	20.169	20.336	VV	1495	122811	2.17%	0.250%
51	20.443	20.336	20.725	VV	2877	232939	4.12%	0.474%
52	20.831	20.725	20.932	PV	860	58224	1.03%	0.118%
53	21.044	20.932	21.183	VV	4052	207910	3.67%	0.423%
54	21.297	21.183	21.450	VV	940	66051	1.17%	0.134%
55	21.586	21.450	21.706	VV	1119	83956	1.48%	0.171%
56	21.744	21.706	21.809	VV	352	17189	0.30%	0.035%
57	21.935	21.809	22.019	VV	13739	556464	9.83%	1.132%
58	22.113	22.019	22.237	VV	46355	2497426	44.12%	5.078%
59	22.302	22.237	22.446	VV	22145	918624	16.23%	1.868%
60	22.576	22.446	22.669	VV	19389	744675	13.16%	1.514%
61	22.759	22.669	22.806	PV	473	19097	0.34%	0.039%
62	22.904	22.806	23.003	VBA	89625	3040304	53.72%	6.182%

Sum of corrected areas: 49176679

5G778.D 8015S.M Mon Jul 26 23:21:01 1999

GASOLINE RANGE ORGANICS 5-POINT CALIBRATION - SOIL

CALIBRATION DATE: 06/11/99
INSTRUMENT: HP5

GRO TOTAL AREA		CONC (ug/kg)	CF	AVERAGE CF	%RSD	LIMIT
AREA STANDARD 1:	5809143	90	64546	57104	7.7	20
AREA STANDARD 2:	20269817	360	56305			
AREA STANDARD 3:	50705700	900	56340			
AREA STANDARD 4:	99953222	1800	55530			
AREA STANDARD 5:	190073691	3600	52798			

CHLOROBENZENE TOTAL AREA		CONC (ug/kg)	CF	AVERAGE CF	%RSD	LIMIT
AREA STANDARD 1:	1278077	15	85205	96046	11.3	20
AREA STANDARD 2:	2703780	30	90126			
AREA STANDARD 3:	4132170	45	91826			
AREA STANDARD 4:	6004155	60	100069			
AREA STANDARD 5:	8475351	75	113005			

GASOLINE RANGE ORGANICS CONTINUING CALIBRATION STANDARD

SAMPLE ID: 8015 STD 900PPB

SUB DIRECTORY: 072699
RESULT FILE: 5G777

		CONC (ug/kg)	CHECK STANDARD CF	AVERAGE CF	%D	LIMIT
GRO AREA:	48960950	900	54401	57104	-4.7	15
CHLOROBENZENE AREA:	2459478	30	81983	96046	-14.6	15

GASOLINE RANGE ORGANICS SAMPLE QUANTITATION

SAMPLE ID: 07-381-08 MSD

SUB DIRECTORY: 072699
RESULT FILE: 5G779
DILUTION FACTOR: 1

TOTAL AREA: 50515156
CHLOROBENZENE AREA: 2432066
CHLOROBENZENE RT: 18.182

	SAMPLE AREA	SAMPLE CONC (ug/kg)	LCS % REC
GRO:	48083090	842.0	93.6

	SSS AREA	SSS CONC (ug/kg)	SSS % REC
CHLOROBENZENE:	2432066	25.32	84.4

Area Percent Report

Data File : C:\HPCHEM\1\DATA\072699\5G779.D
Acq On : 26 Jul 1999 11:31 pm
Sample : 07-381-08 MSD S-48-28/S-48-34
Misc : 5G
IntFile : events.e

Vial: 2
Operator: VMN
Inst : HP5
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\8015S.M (Chemstation Integrator)
Title : 8015W

Volume Inj. :
Signal Phase :
Signal Info :

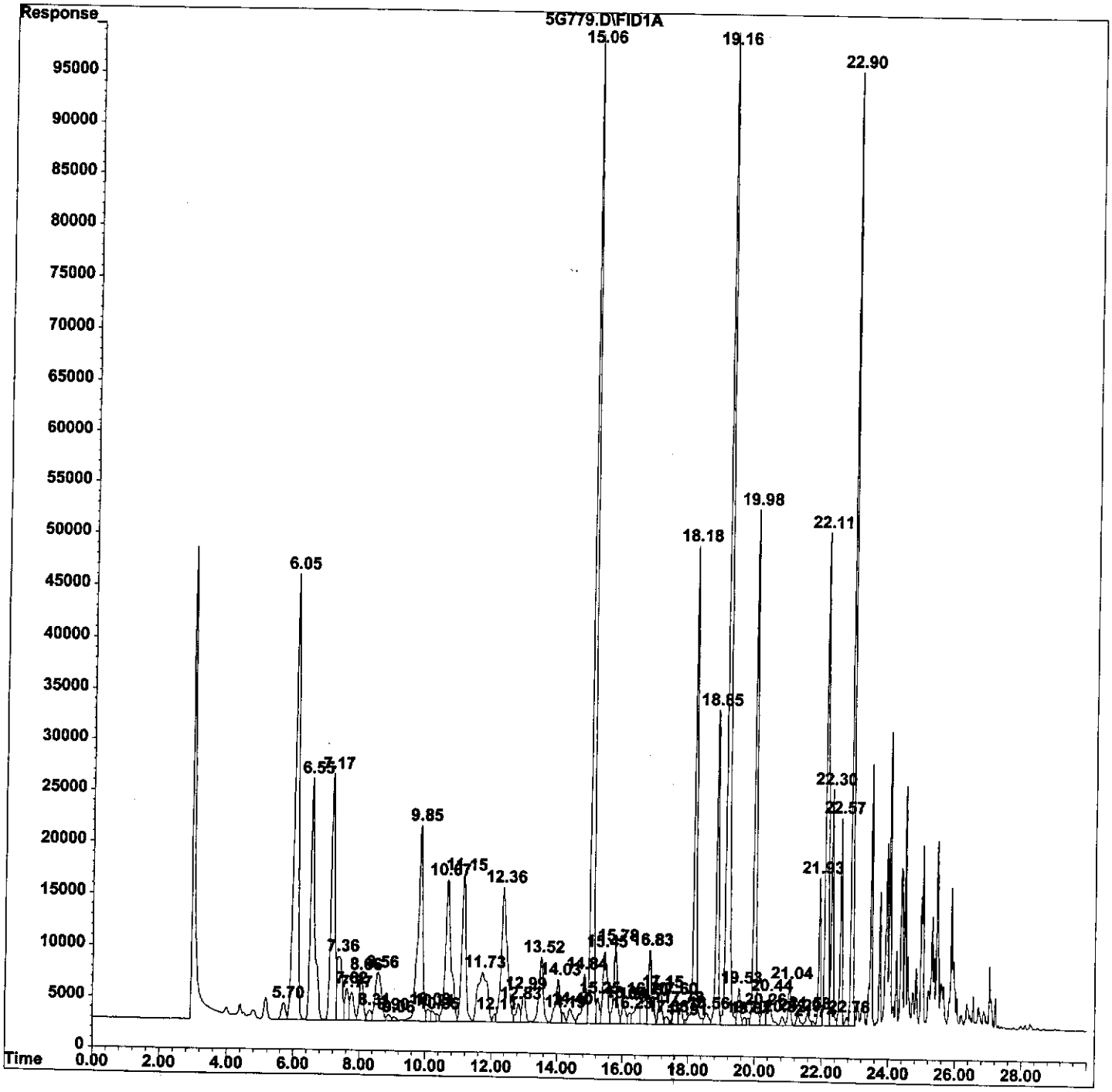

5G779.D 8015S.M Tue Jul 27 00:01:59 1999

Area Percent Report

Data File : C:\HPCHEM\1\DATA\072699\5G779.D
Acq On : 26 Jul 1999 11:31 pm
Sample : 07-381-08 MSD S-48-28/S-48-34
Misc : 5G
IntFile : events.e

Vial: 2
Operator: VMN
Inst : HP5
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\8015S.M (Chemstation Integrator)
Title : 8015W

Signal : 5G779.D\FID1A

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	5.701	5.525	5.818	BV	1669	144135	2.48%	0.285%
2	6.052	5.818	6.357	VV	43315	3748440	64.42%	7.420%
3	6.547	6.357	6.963	VV	23478	2177253	37.42%	4.310%
4	7.172	6.963	7.301	PV	23945	1962181	33.72%	3.884%
5	7.357	7.301	7.536	VV	6257	699272	12.02%	1.384%
6	7.619	7.536	7.701	VV	3146	248202	4.27%	0.491%
7	7.768	7.701	7.923	VV	2778	230782	3.97%	0.457%
8	8.058	7.923	8.206	VV	4511	375041	6.45%	0.742%
9	8.311	8.206	8.392	VV	1043	89693	1.54%	0.178%
10	8.558	8.392	8.799	VV	4746	620926	10.67%	1.229%
11	8.897	8.799	8.984	VV	606	49677	0.85%	0.098%
12	9.062	8.984	9.214	VV	352	32296	0.56%	0.064%
13	9.850	9.359	10.016	VV	18959	1941414	33.37%	3.843%
14	10.085	10.016	10.172	VV	1156	98893	1.70%	0.196%
15	10.207	10.172	10.322	VV	1017	79007	1.36%	0.156%
16	10.348	10.322	10.428	VV	718	42233	0.73%	0.084%
17	10.667	10.428	10.974	VV	13687	1611036	27.69%	3.189%
18	11.152	10.974	11.435	VV	14198	1245566	21.41%	2.466%
19	11.728	11.435	12.020	VV	4870	993198	17.07%	1.966%
20	12.109	12.020	12.137	VV	780	41968	0.72%	0.083%
21	12.361	12.137	12.682	VV	13094	1647554	28.32%	3.262%
22	12.831	12.682	12.898	VV	1856	153808	2.64%	0.304%
23	12.990	12.898	13.153	VV	2826	221241	3.80%	0.438%
24	13.519	13.242	13.757	VV	6418	598116	10.28%	1.184%
25	14.034	13.757	14.152	VV	4254	408911	7.03%	0.809%
26	14.187	14.152	14.291	VV	1065	63196	1.09%	0.125%
27	14.399	14.291	14.577	VV	1420	135125	2.32%	0.267%
28	14.837	14.577	14.935	VV	4851	443936	7.63%	0.879%
29	15.061	14.935	15.193	VV	96066	5343794	91.84%	10.579%
30	15.246	15.193	15.336	VV	2511	172038	2.96%	0.341%
31	15.450	15.336	15.621	VV	7031	678475	11.66%	1.343%
32	15.782	15.621	15.945	VV	7607	622510	10.70%	1.232%
33	16.045	15.945	16.157	VV	2064	167457	2.88%	0.331%
34	16.230	16.157	16.275	VV	1063	67618	1.16%	0.134%
35	16.447	16.275	16.542	VV	1965	235223	4.04%	0.466%
36	16.696	16.542	16.740	VV	2465	251594	4.32%	0.498%
37	16.827	16.740	17.036	VV	7240	532403	9.15%	1.054%
38	17.154	17.036	17.269	VV	3166	236482	4.06%	0.468%

39	17.334	17.269	17.460	VV	739	59530	1.02%	0.118%
40	17.596	17.460	17.706	VV	2501	210522	3.62%	0.417%
41	17.777	17.706	17.875	VV	1624	110197	1.89%	0.218%
42	17.911	17.875	17.937	VV	470	16643	0.29%	0.033%
43	18.182	17.937	18.450	VV	46325	2432066	41.80%	4.815%
44	18.555	18.450	18.676	VV	1105	103971	1.79%	0.206%
45	18.851	18.676	18.970	VV	30637	1548179	26.61%	3.065%
46	19.156	18.970	19.435	VV	96249	5818368	100.00%	11.518%
47	19.527	19.435	19.629	VV	3636	216675	3.72%	0.429%
48	19.696	19.629	19.757	VV	763	49515	0.85%	0.098%
49	19.807	19.757	19.841	VV	660	31410	0.54%	0.062%
50	19.980	19.841	20.162	VV	50017	2517078	43.26%	4.983%
51	20.256	20.162	20.331	VV	1517	124044	2.13%	0.246%
52	20.440	20.331	20.719	VV	2900	233321	4.01%	0.462%
53	20.825	20.719	20.924	PV	843	56450	0.97%	0.112%
54	21.038	20.924	21.173	VV	4153	217244	3.73%	0.430%
55	21.292	21.173	21.446	PV	1005	74834	1.29%	0.148%
56	21.582	21.446	21.711	VV	1216	98283	1.69%	0.195%
57	21.741	21.711	21.823	VV	441	22513	0.39%	0.045%
58	21.931	21.823	22.016	VV	14242	582796	10.02%	1.154%
59	22.110	22.016	22.234	VV	47713	2593364	44.57%	5.134%
60	22.300	22.234	22.452	VV	22891	967315	16.63%	1.915%
61	22.573	22.452	22.663	VV	20091	785009	13.49%	1.554%
62	22.757	22.663	22.808	VV	840	45256	0.78%	0.090%
63	22.902	22.808	23.003	VBA	92403	3189879	54.82%	6.315%

Sum of corrected areas: 50515156

5G779.D 8015S.M Tue Jul 27 00:01:56 1999

PCB's

PCB's

Sample Data

Target Compound List Results - See section 1.0 (c) (laboratory report)

- Chromatograms and GC integration reports for each sample for both primary and confirmation columns (including re-analysis if necessary)

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\072699\7G2622.D Vial: 4
Acq On : 26 Jul 1999 10:53 am Operator: CDB
Sample : 07-381-01 5X Inst : HP7
Misc : SOIL Multiplr: 1.67
IntFile : EVENTS.E
Quant Time: Jul 26 14:47 1999 Quant Results File: 8082.RES

Quant Method : C:\HPCHEM\1\METHODS\8082.M (Chemstation Integrator)
Title : PCB
Last Update : Mon Jul 26 10:45:16 1999
Response via : Initial Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S TETRACHLORO-M-XYL	3.20	83503	2.607 UG/L
Spiked Amount 20.000 Range 29 - 133		Recovery =	13.04%# 105.2%
12) S DECACHLOROBIPHENYL	15.54	71914	2.654 UG/L
Spiked Amount 20.000 Range 30 - 173		Recovery =	13.27%# 106.4%
Target Compounds			
2) L1 PCB1016{1}	0.00	0	N.D. UG/L
3) L1 PCB1016{2}	0.00	0	N.D. UG/L
4) L1 PCB1016{3}	0.00	0	N.D. UG/L
5) L1 PCB1016{4}	0.00	0	N.D. UG/L
6) L1 PCB1016{5}	0.00	0	N.D. UG/L
Sum PCB1016		0	N.D. UG/L
Average PCB1016			0.000 UG/L
7) L2 PCB1260{1}	0.00	0	N.D. UG/L
8) L2 PCB1260{2}	0.00	0	N.D. UG/L
9) L2 PCB1260{3}	0.00	0	N.D. UG/L
10) L2 PCB1260{4}	0.00	0	N.D. UG/L
11) L2 PCB1260{5}	0.00	0	N.D. UG/L
Sum PCB1260		0	N.D. UG/L
Average PCB1260			0.000 UG/L

(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\1\DATA\072699\7G2622.D Vial: 4
Acq On : 26 Jul 1999 10:53 am Operator: CDB
Sample : 07-381-01 5X Inst : HP7
Misc : SOIL Multiplr: 1.67
IntFile : EVENTS.E
Quant Time: Jul 26 14:47 1999 Quant Results File: 8082.RES

Quant Method : C:\HPCHEM\1\METHODS\8082.M (Chemstation Integrator)
Title : PCB
Last Update : Mon Jul 26 10:45:16 1999
Response via : Multiple Level Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :

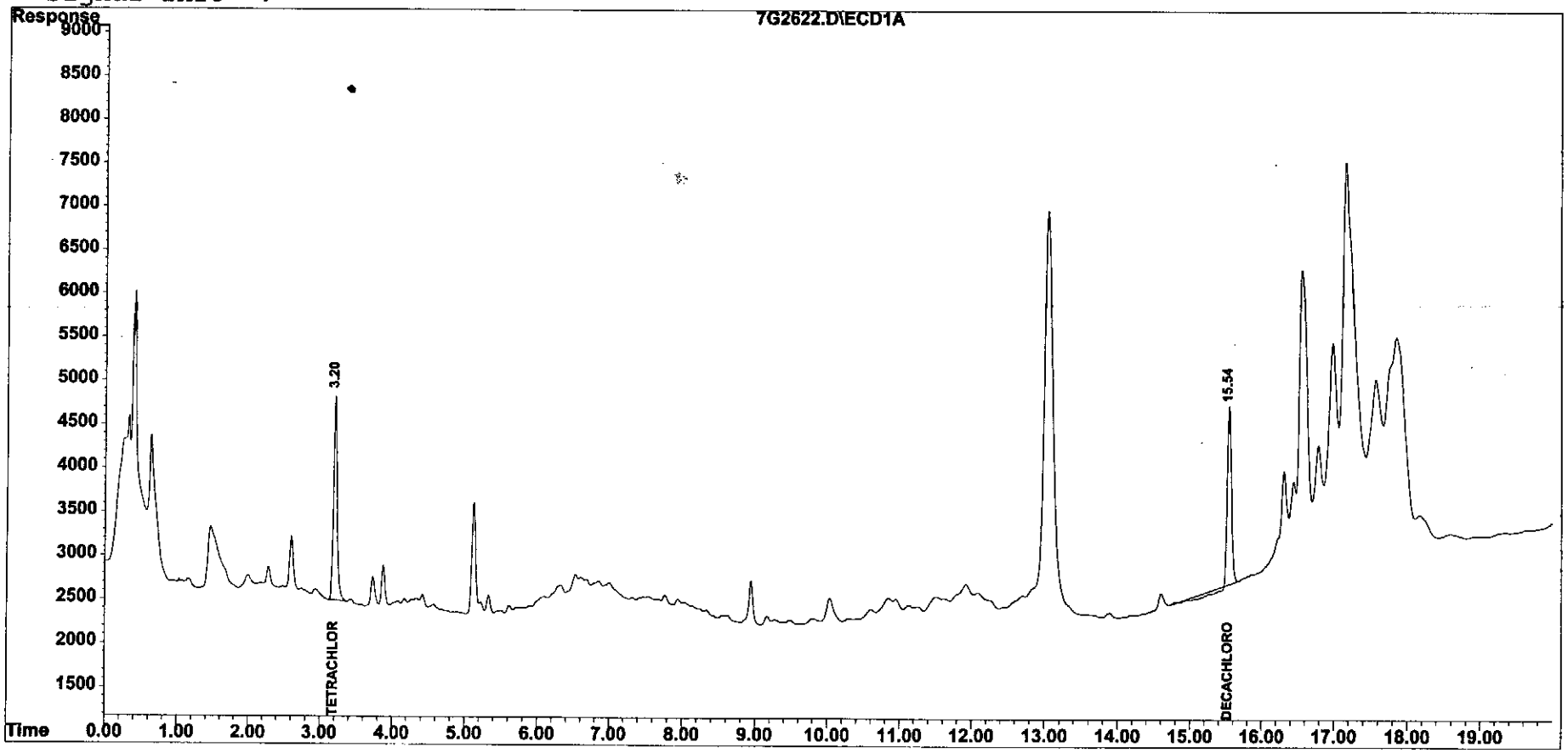

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\072699\7G2623.D
Acq On : 26 Jul 1999 11:19 am
Sample : 07-381-02 5X
Misc : SOIL
IntFile : EVENTS.E
Quant Time: Jul 26 14:47 1999 Quant Results File: 8082.RES

Vial: 5
Operator: CDB
Inst : HP7
Multiplr: 1.67

Quant Method : C:\HPCHEM\1\METHODS\8082.M (Chemstation Integrator)
Title : PCB
Last Update : Mon Jul 26 10:45:16 1999
Response via : Initial Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S TETRACHLORO-M-XYL	3.20	72491	2.263 UG/L
Spiked Amount 20.000 Range 29 - 133		Recovery =	11.32%# 66.6%
12) S DECACHLOROBIPHENYL	15.54	72913	2.691 UG/L
Spiked Amount 20.000 Range 30 - 173		Recovery =	13.46%# 67.3%
Target Compounds			
2) L1 PCB1016{1}	0.00	0	N.D. UG/L
3) L1 PCB1016{2}	0.00	0	N.D. UG/L
4) L1 PCB1016{3}	0.00	0	N.D. UG/L
5) L1 PCB1016{4}	0.00	0	N.D. UG/L
6) L1 PCB1016{5}	0.00	0	N.D. UG/L
Sum PCB1016		0	N.D. UG/L
Average PCB1016			0.000 UG/L
7) L2 PCB1260{1}	8.64	15641	9.670 UG/L
8) L2 PCB1260{2}	0.00	0	N.D. UG/L
9) L2 PCB1260{3}	0.00	0	N.D. UG/L
10) L2 PCB1260{4}	0.00	0	N.D. UG/L
11) L2 PCB1260{5}	0.00	0	N.D. UG/L
Sum PCB1260		15641	9.670 UG/L
Average PCB1260			9.670 UG/L

(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\1\DATA\072699\7G2623.D
Acq On : 26 Jul 1999 11:19 am
Sample : 07-381-02 5X
Misc : SOIL
IntFile : EVENTS.E
Quant Time: Jul 26 14:47 1999 Quant Results File: 8082.RES

Vial: 5
Operator: CDB
Inst : HP7
Multiplr: 1.67

Quant Method : C:\HPCHEM\1\METHODS\8082.M (Chemstation Integrator)
Title : PCB
Last Update : Mon Jul 26 10:45:16 1999
Response via : Multiple Level Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :

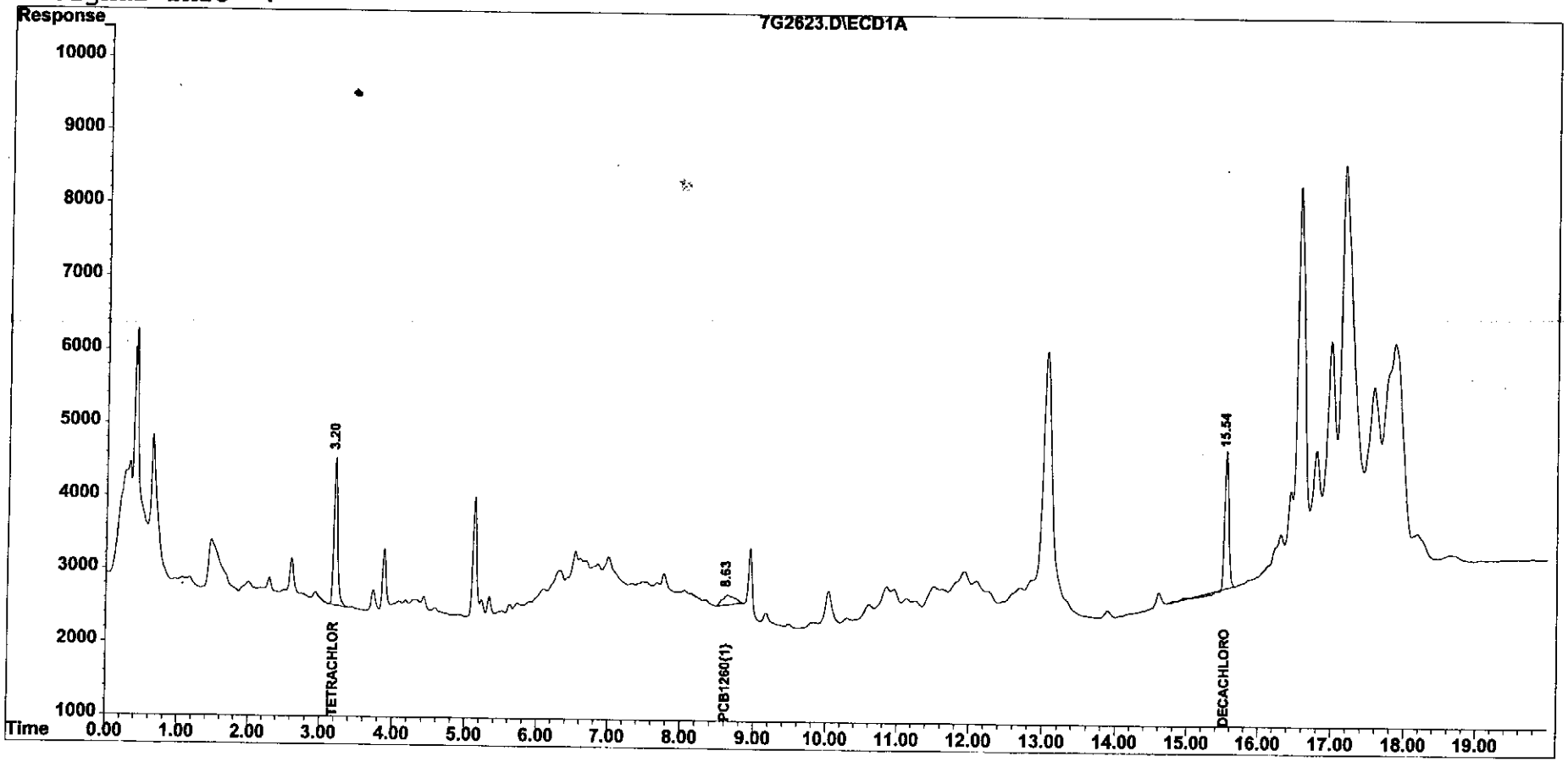

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\072699\7G2626.D Vial: 8
Acq On : 26 Jul 1999 12:35 pm Operator: CDB
Sample : 07-381-03 Inst : HP7
Misc : SOIL Multiplr: 0.33
IntFile : EVENTS.E
Quant Time: Jul 26 14:48 1999 Quant Results File: 8082.RES

Quant Method : C:\HPCHEM\1\METHODS\8082.M (Chemstation Integrator)
Title : PCB
Last Update : Mon Jul 26 10:45:16 1999
Response via : Initial Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S TETRACHLORO-M-XYL	3.20	458828	14.325 UG/L
Spiked Amount 20.000 Range 29 - 133		Recovery =	71.63%
12) S DECACHLOROBIPHENYL	15.54	475772	17.557 UG/L
Spiked Amount 20.000 Range 30 - 173		Recovery =	87.79%
Target Compounds			
2) L1 PCB1016{1}	0.00	0	N.D. UG/L
3) L1 PCB1016{2}	0.00	0	N.D. UG/L
4) L1 PCB1016{3}	0.00	0	N.D. UG/L
5) L1 PCB1016{4}	0.00	0	N.D. UG/L
6) L1 PCB1016{5}	0.00	0	N.D. UG/L
Sum PCB1016		0	N.D. UG/L
Average PCB1016			0.000 UG/L
7) L2 PCB1260{1}	0.00	0	N.D. UG/L
8) L2 PCB1260{2}	8.92f	24232	2.861 UG/L
9) L2 PCB1260{3}	9.27	6587	2.183 UG/L
10) L2 PCB1260{4}	0.00	0	N.D. UG/L
11) L2 PCB1260{5}	0.00	0	N.D. UG/L
Sum PCB1260		30819	5.044 UG/L
Average PCB1260			2.522 UG/L

(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\1\DATA\072699\7G2626.D
Acq On : 26 Jul 1999 12:35 pm
Sample : 07-381-03
Misc : SOIL
IntFile : EVENTS.E
Quant Time: Jul 26 14:48 1999 Quant Results File: 8082.RES

Vial: 8
Operator: CDB
Inst : HP7
Multiplr: 0.33

Quant Method : C:\HPCHEM\1\METHODS\8082.M (Chemstation Integrator)
Title : PCB
Last Update : Mon Jul 26 10:45:16 1999
Response via : Multiple Level Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :

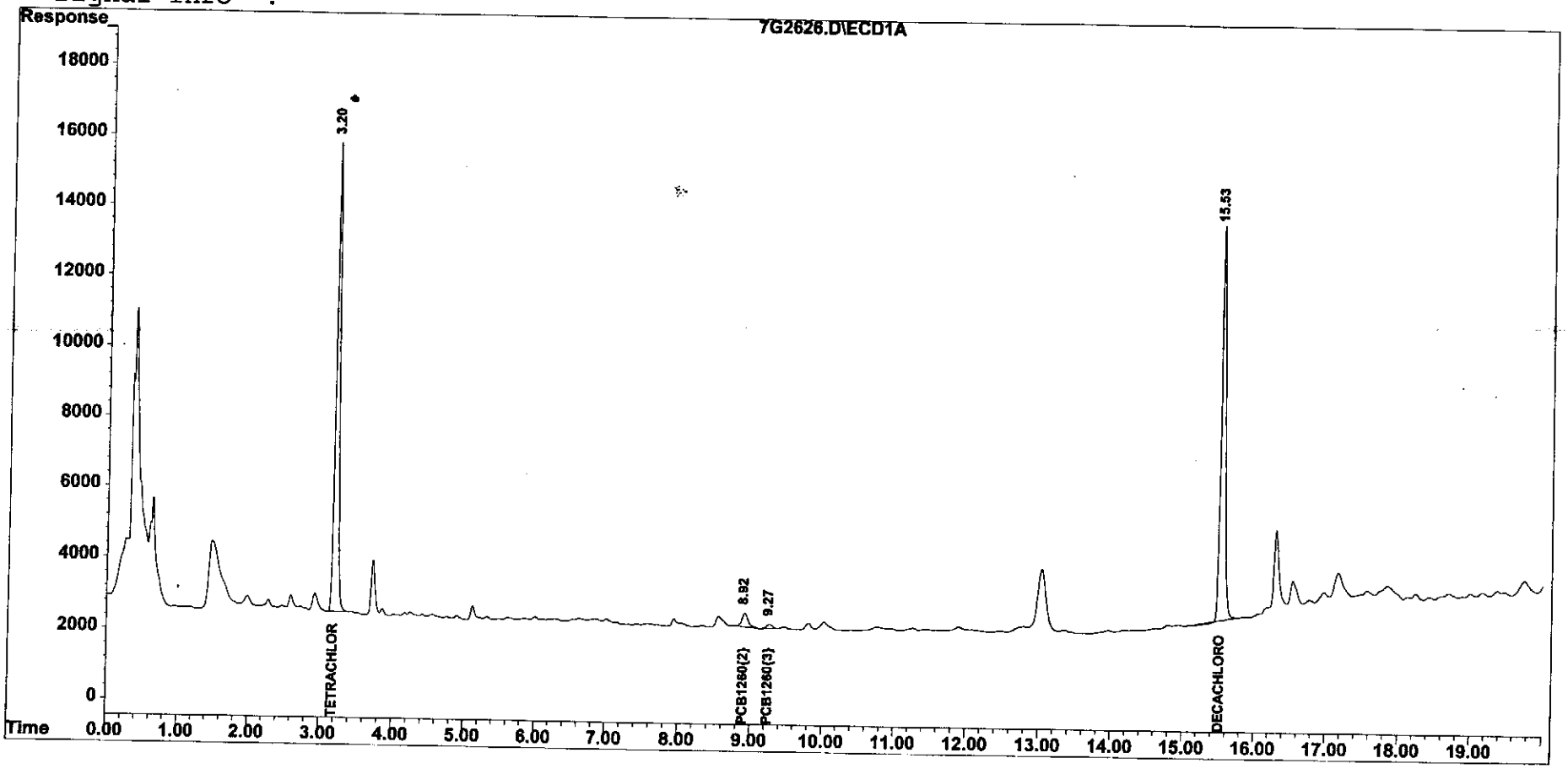

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\072699\7G2627.D
Acq On : 26 Jul 1999 1:01 pm
Sample : 07-381-04
Misc : SOIL
IntFile : EVENTS.E
Quant Time: Jul 26 14:48 1999 Quant Results File: 8082.RES

Vial: 9
Operator: CDB
Inst : HP7
Multiplr: 0.33

Quant Method : C:\HPCHEM\1\METHODS\8082.M (Chemstation Integrator)
Title : PCB
Last Update : Mon Jul 26 10:45:16 1999
Response via : Initial Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S TETRACHLORO-M-XYL	3.20	491768	15.353 UG/L
Spiked Amount 20.000 Range 29 - 133		Recovery =	76.77%
12) S DECACHLOROBIPHENYL	15.54	502292	18.535 UG/L
Spiked Amount 20.000 Range 30 - 173		Recovery =	92.68%
Target Compounds			
2) L1 PCB1016{1}	4.25	3970	1.727 UG/L
3) L1 PCB1016{2}	0.00	0	N.D. UG/L
4) L1 PCB1016{3}	0.00	0	N.D. UG/L
5) L1 PCB1016{4}	0.00	0	N.D. UG/L
6) L1 PCB1016{5}	0.00	0	N.D. UG/L
Sum PCB1016		3970	1.727 UG/L
Average PCB1016			1.727 UG/L
7) L2 PCB1260{1}	8.61	246345	30.094 UG/L
8) L2 PCB1260{2}	8.91f	11632	1.373 UG/L
9) L2 PCB1260{3}	0.00	0	N.D. UG/L
10) L2 PCB1260{4}	10.76	6726	1.326 UG/L
11) L2 PCB1260{5}	0.00	0	N.D. UG/L
Sum PCB1260		264704	32.794 UG/L
Average PCB1260			10.931 UG/L

(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\1\DATA\072699\7G2627.D
Acq On : 26 Jul 1999 1:01 pm
Sample : 07-381-04
Misc : SOIL
IntFile : EVENTS.E
Quant Time: Jul 26 14:48 1999 Quant Results File: 8082.RES

Vial: 9
Operator: CDB
Inst : HP7
Multiplr: 0.33

Quant Method : C:\HPCHEM\1\METHODS\8082.M (Chemstation Integrator)
Title : PCB
Last Update : Mon Jul 26 10:45:16 1999
Response via : Multiple Level Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :

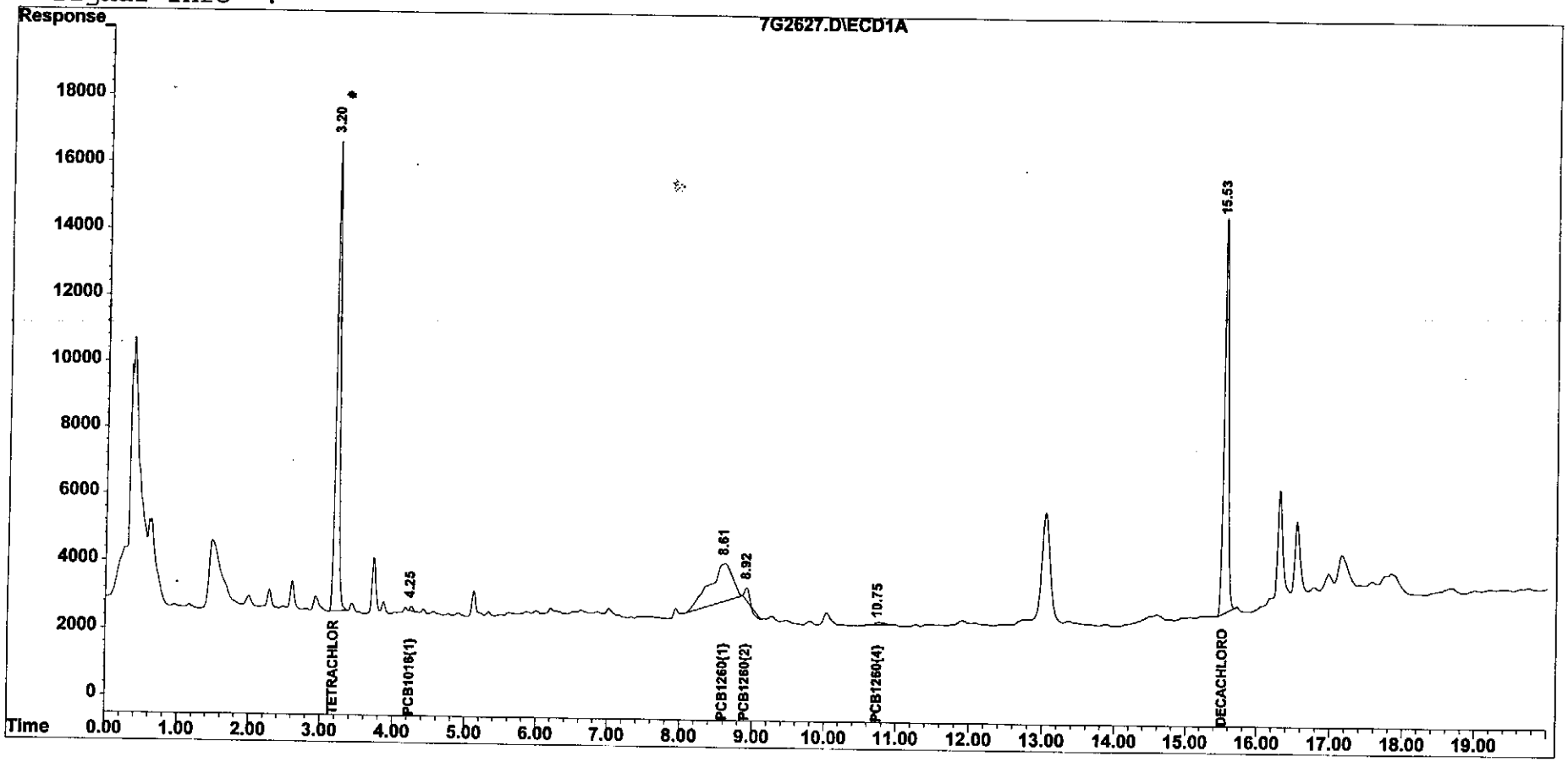

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\072699\7G2628.D Vial: 10
Acq On : 26 Jul 1999 1:26 pm Operator: CDB
Sample : 07-381-05 Inst : HP7
Misc : SOIL Multiplr: 0.33
IntFile : EVENTS.E
Quant Time: Jul 26 14:48 1999 Quant Results File: 8082.RES

Quant Method : C:\HPCHEM\1\METHODS\8082.M (Chemstation Integrator)
Title : PCB
Last Update : Mon Jul 26 10:45:16 1999
Response via : Initial Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S TETRACHLORO-M-XYL	3.20	423045	13.208 UG/L
Spiked Amount 20.000 Range 29 - 133		Recovery =	66.04%
12) S DECACHLOROBIPHENYL	15.54	469536	17.327 UG/L
Spiked Amount 20.000 Range 30 - 173		Recovery =	86.64%
Target Compounds			
2) L1 PCB1016{1}	4.26	4471	1.945 UG/L
3) L1 PCB1016{2}	0.00	0	N.D. UG/L
4) L1 PCB1016{3}	0.00	0	N.D. UG/L
5) L1 PCB1016{4}	0.00	0	N.D. UG/L
6) L1 PCB1016{5}	5.90f	6121	1.366 UG/L
Sum PCB1016		10592	3.311 UG/L
Average PCB1016			1.655 UG/L
7) L2 PCB1260{1}	8.61f	76555	9.352 UG/L
8) L2 PCB1260{2}	0.00	0	N.D. UG/L
9) L2 PCB1260{3}	0.00	0	N.D. UG/L
10) L2 PCB1260{4}	10.74	4464	0.880 UG/L
11) L2 PCB1260{5}	0.00	0	N.D. UG/L
Sum PCB1260		81019	10.232 UG/L
Average PCB1260			5.116 UG/L

(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\1\DATA\072699\7G2628.D Vial: 10
Acq On : 26 Jul 1999 1:26 pm Operator: CDB
Sample : 07-381-05 Inst : HP7
Misc : SOIL Multiplr: 0.33
IntFile : EVENTS.E
Quant Time: Jul 26 14:48 1999 Quant Results File: 8082.RES

Quant Method : C:\HPCHEM\1\METHODS\8082.M (Chemstation Integrator)
Title : PCB
Last Update : Mon Jul 26 10:45:16 1999
Response via : Multiple Level Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :

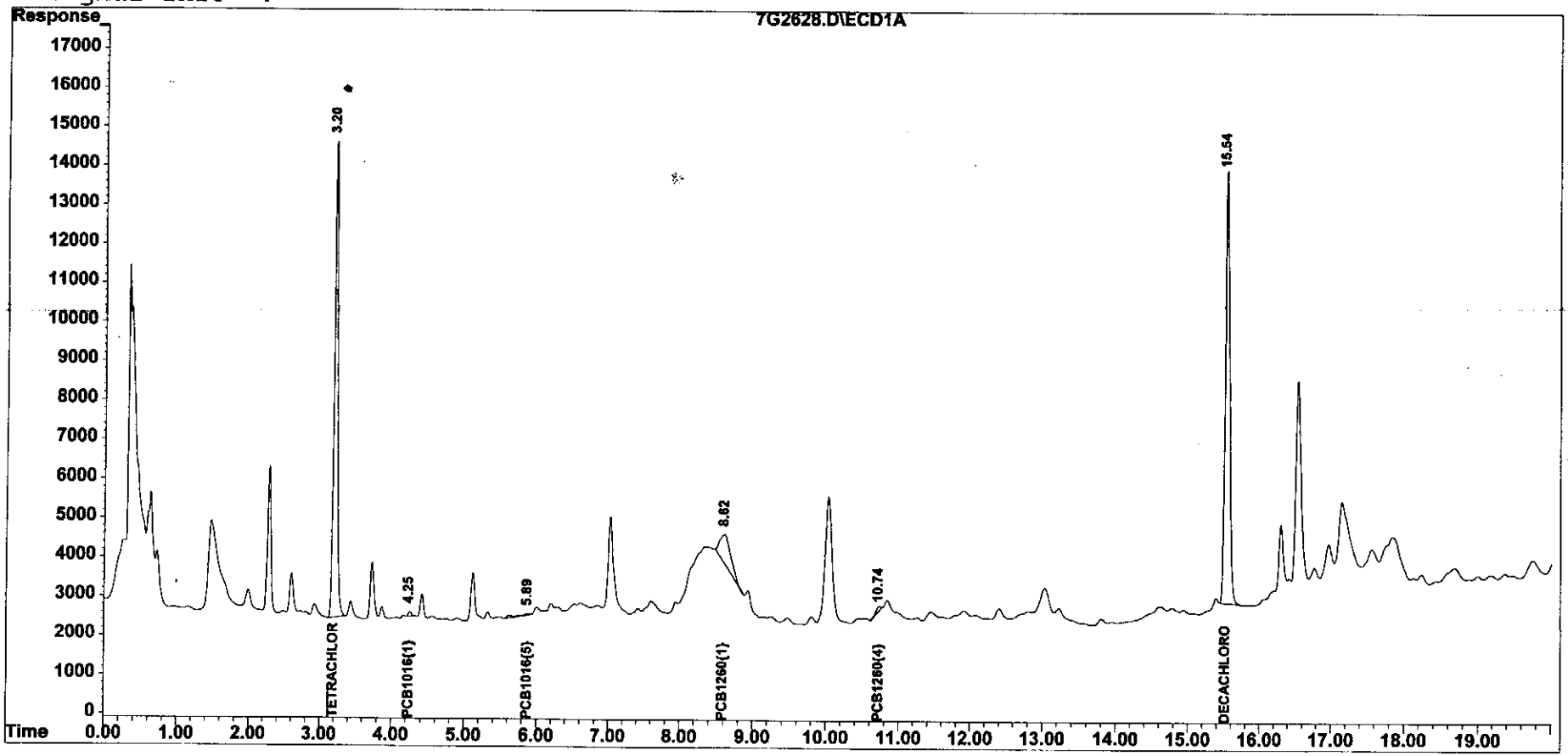

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\072699\7G2631.D
Acq On : 26 Jul 1999 2:43 pm
Sample : 07-381-06
Misc : SOIL
IntFile : EVENTS.E
Quant Time: Jul 26 15:38 1999 Quant Results File: 8082.RES

Vial: 13
Operator: CDB
Inst : HP7
Multiplr: 0.33

Quant Method : C:\HPCHEM\1\METHODS\8082.M (Chemstation Integrator)
Title : PCB
Last Update : Mon Jul 26 10:45:16 1999
Response via : Initial Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S TETRACHLORO-M-XYL	3.20	546452	17.061 UG/L
Spiked Amount 20.000 Range 29 - 133		Recovery =	85.30%
12) S DECACHLOROBIPHENYL	15.53	579225	21.374 UG/L
Spiked Amount 20.000 Range 30 - 173		Recovery =	106.87%
Target Compounds			
2) L1 PCB1016{1}	0.00	0	N.D. UG/L
3) L1 PCB1016{2}	0.00	0	N.D. UG/L
4) L1 PCB1016{3}	0.00	0	N.D. UG/L
5) L1 PCB1016{4}	0.00	0	N.D. UG/L
6) L1 PCB1016{5}	0.00	0	N.D. UG/L
Sum PCB1016		0	N.D. UG/L
Average PCB1016			0.000 UG/L
7) L2 PCB1260{1}	0.00	0	N.D. UG/L
8) L2 PCB1260{2}	0.00	0	N.D. UG/L
9) L2 PCB1260{3}	0.00	0	N.D. UG/L
10) L2 PCB1260{4}	0.00	0	N.D. UG/L
11) L2 PCB1260{5}	0.00	0	N.D. UG/L
Sum PCB1260		0	N.D. UG/L
Average PCB1260			0.000 UG/L

(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\1\DATA\072699\7G2631.D
Acq On : 26 Jul 1999 2:43 pm
Sample : 07-381-06
Misc : SOIL
IntFile : EVENTS.E
Quant Time: Jul 26 15:38 1999 Quant Results File: 8082.RES

Vial: 13
Operator: CDB
Inst : HP7
Multiplr: 0.33

Quant Method : C:\HPCHEM\1\METHODS\8082.M (Chemstation Integrator)
Title : PCB
Last Update : Mon Jul 26 10:45:16 1999
Response via : Multiple Level Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :

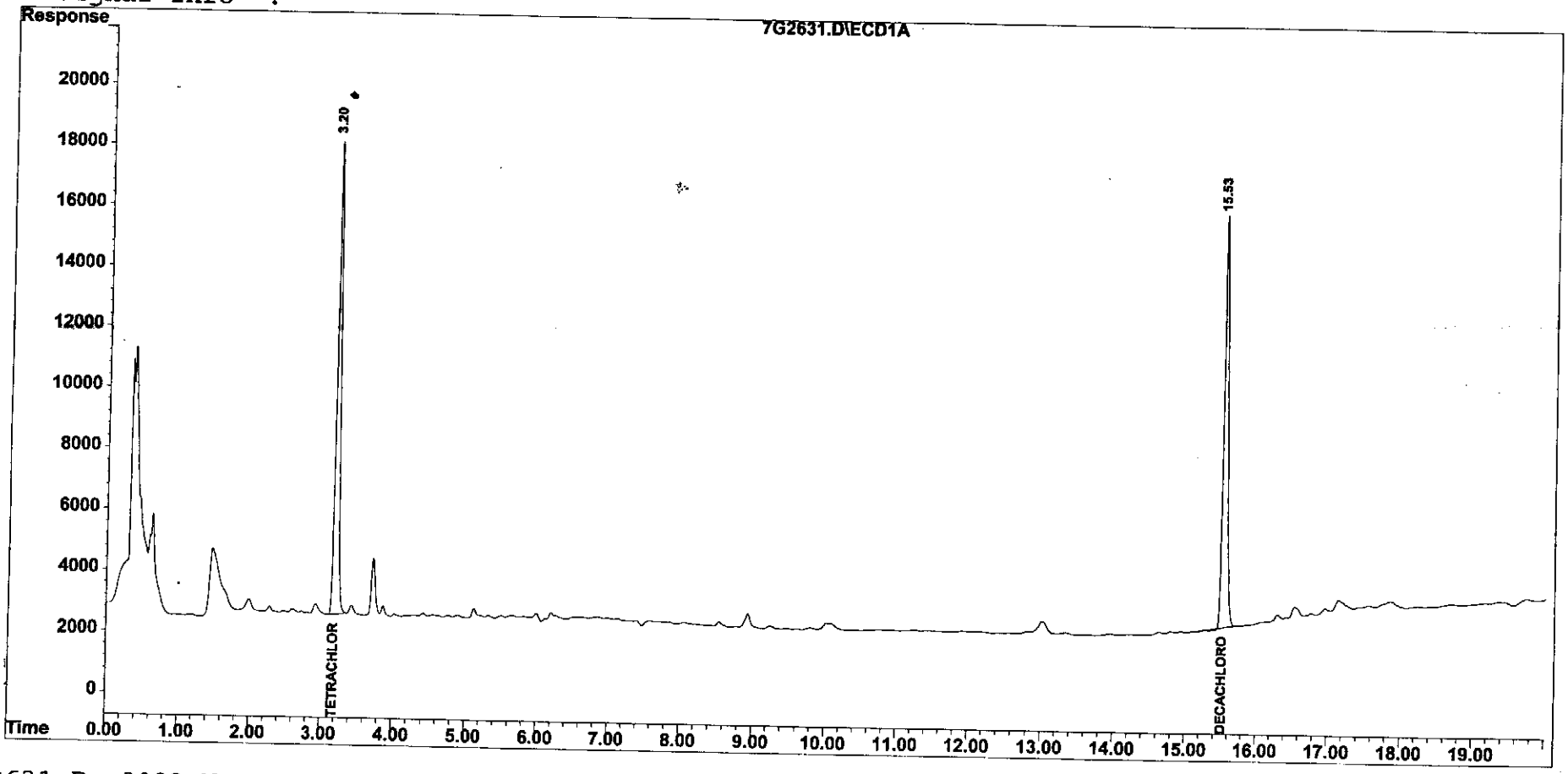

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\072699\7G2632.D Vial: 14
Acq On : 26 Jul 1999 3:08 pm Operator: CDB
Sample : 07-381-07 Inst : HP7
Misc : SOIL Multiplr: 0.33
IntFile : EVENTS.E
Quant Time: Jul 26 15:38 1999 Quant Results File: 8082.RES

Quant Method : C:\HPCHEM\1\METHODS\8082.M (Chemstation Integrator)
Title : PCB
Last Update : Mon Jul 26 10:45:16 1999
Response via : Initial Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S TETRACHLORO-M-XYL	3.20	527434	16.467 UG/L
Spiked Amount 20.000 Range 29 - 133		Recovery =	82.33%
12) S DECACHLOROBIPHENYL	15.53	606749	22.390 UG/L
Spiked Amount 20.000 Range 30 - 173		Recovery =	111.95%
Target Compounds			
2) L1 PCB1016{1}	4.24	5556	2.417 UG/L
3) L1 PCB1016{2}	4.91	5169	0.998 UG/L
4) L1 PCB1016{3}	0.00	0	N.D. UG/L
5) L1 PCB1016{4}	0.00	0	N.D. UG/L
6) L1 PCB1016{5}	0.00	0	N.D. UG/L
Sum PCB1016		10726	3.415 UG/L
Average PCB1016			1.707 UG/L
7) L2 PCB1260{1}	0.00	0	N.D. UG/L
8) L2 PCB1260{2}	0.00	0	N.D. UG/L
9) L2 PCB1260{3}	0.00	0	N.D. UG/L
10) L2 PCB1260{4}	0.00	0	N.D. UG/L
11) L2 PCB1260{5}	0.00	0	N.D. UG/L
Sum PCB1260		0	N.D. UG/L
Average PCB1260			0.000 UG/L

(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\1\DATA\072699\7G2632.D
Acq On : 26 Jul 1999 3:08 pm
Sample : 07-381-07
Misc : SOIL
IntFile : EVENTS.E
Quant Time: Jul 26 15:38 1999 Quant Results File: 8082.RES

Vial: 14
Operator: CDB
Inst : HP7
Multiplr: 0.33

Quant Method : C:\HPCHEM\1\METHODS\8082.M (Chemstation Integrator)
Title : PCB
Last Update : Mon Jul 26 10:45:16 1999
Response via : Multiple Level Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :

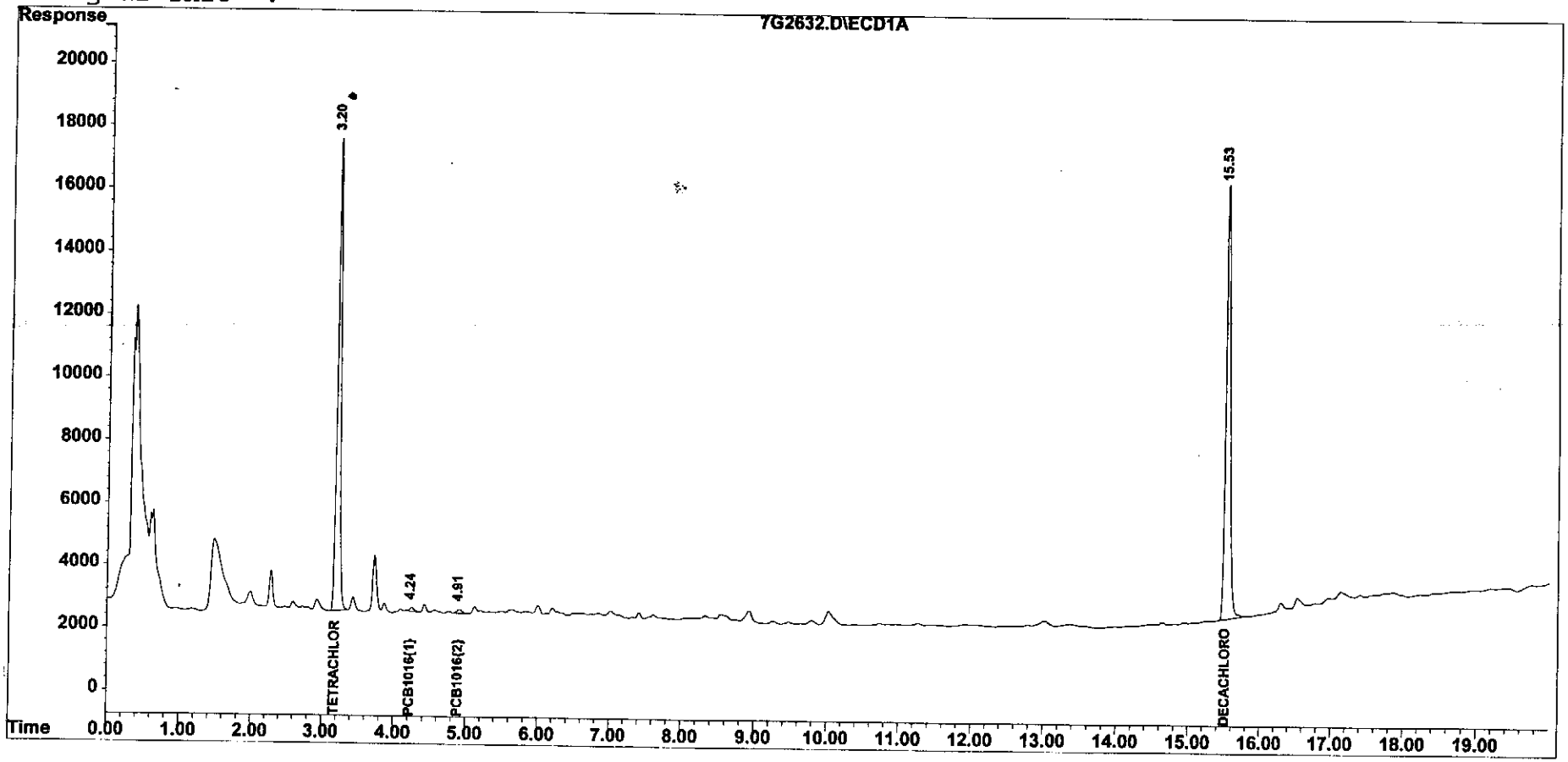

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\072699\7G2633.D
Acq On : 26 Jul 1999 3:34 pm
Sample : 07-381-08
Misc : SOIL
IntFile : EVENTS.E
Quant Time: Jul 26 15:56 1999 Quant Results File: 8082.RES

Vial: 15
Operator: CDB
Inst : HP7
Multiplr: 0.33

Quant Method : C:\HPCHEM\1\METHODS\8082.M (Chemstation Integrator)
Title : PCB
Last Update : Mon Jul 26 10:45:16 1999
Response via : Initial Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S TETRACHLORO-M-XYL	3.20	596182	18.613 UG/L
Spiked Amount 20.000 Range 29 - 133		Recovery =	93.07%
12) S DECACHLOROBIPHENYL	15.53	686907	25.348 UG/L
Spiked Amount 20.000 Range 30 - 173		Recovery =	126.74%
Target Compounds			
2) L1 PCB1016{1}	0.00	0	N.D. UG/L
3) L1 PCB1016{2}	0.00	0	N.D. UG/L
4) L1 PCB1016{3}	0.00	0	N.D. UG/L
5) L1 PCB1016{4}	0.00	0	N.D. UG/L
6) L1 PCB1016{5}	0.00	0	N.D. UG/L
Sum PCB1016		0	N.D. UG/L
Average PCB1016			0.000 UG/L
7) L2 PCB1260{1}	0.00	0	N.D. UG/L
8) L2 PCB1260{2}	8.91f	21347	2.520 UG/L
9) L2 PCB1260{3}	9.25f	6151	2.039 UG/L
10) L2 PCB1260{4}	0.00	0	N.D. UG/L
11) L2 PCB1260{5}	0.00	0	N.D. UG/L
Sum PCB1260		27498	4.559 UG/L
Average PCB1260			2.280 UG/L

(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\1\DATA\072699\7G2633.D
Acq On : 26 Jul 1999 3:34 pm
Sample : 07-381-08
Misc : SOIL
IntFile : EVENTS.E
Quant Time: Jul 26 15:56 1999 Quant Results File: 8082.RES

Vial: 15
Operator: CDB
Inst : HP7
Multiplr: 0.33

Quant Method : C:\HPCHEM\1\METHODS\8082.M (Chemstation Integrator)
Title : PCB
Last Update : Mon Jul 26 10:45:16 1999
Response via : Multiple Level Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :

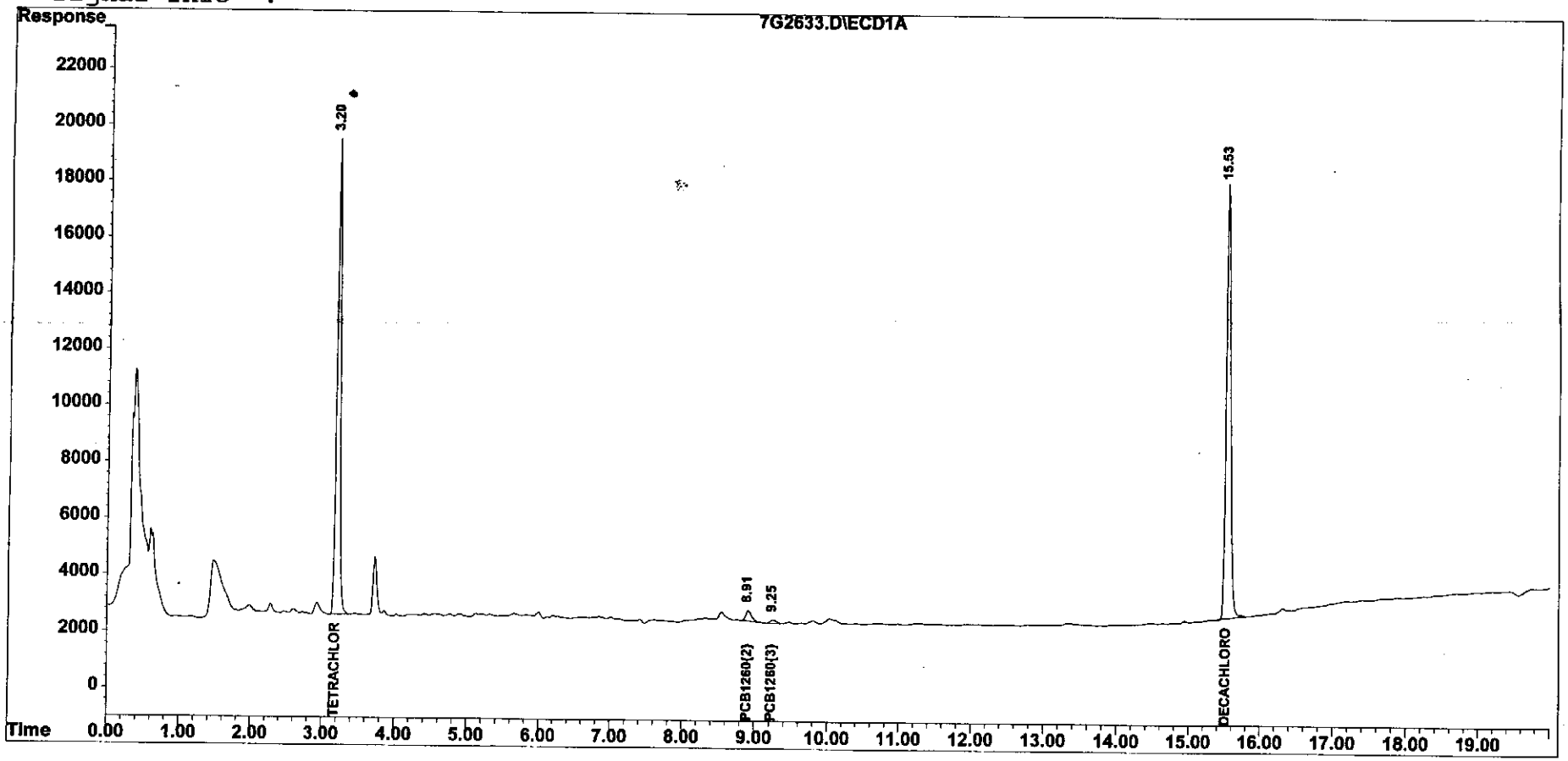

PCB's

Standards Data

- Initial calibration summary forms (Average Response Factor or Higher Order Calibration Data)

  Chromatograms and GC Integration reports of standards for each column

- Calibration check verification standard summary forms, including ending check standards (Continuing Calibration Data)

  Chromatograms and GC Integration reports of standards for each column

- Retention time windows summary for primary and secondary columns (if requested)

Response Factor Report HP7

Method : C:\HPCHEM\1\METHODS\8082.M (Chemstation Integrator)
Title : PCB
Last Update : Thu Jul 15 14:47:59 1999

Calibration Files

50	=7G2336.D	100	=7G2335.D	250	=7G2334.D
500	=7G2333.D	1000	=7G2332.D	2000	=7G2331.D

		Compound	50	100	250	500	1000	2000	Avg		%RSD
1)	S	TETRACHLORO-M-XYL	2.917	2.999	3.138	3.357	3.351	3.456	3.203	E4	6.80
2)	L1	PCB1016{1}	9.145	8.708	7.854	7.325	6.491	5.993	7.586	E2	16.22
3)	L1	PCB1016{2}	1.982	2.001	1.807	1.680	1.467	1.322	1.710	E3	16.09
4)	L1	PCB1016{3}	9.626	9.275	8.687	8.404	7.542	7.297	8.472	E2	10.91
5)	L1	PCB1016{4}	3.270	3.259	3.170	3.109	2.819	2.622	3.041	E3	8.65
6)	L1	PCB1016{5}	1.649	1.607	1.510	1.475	1.360	1.271	1.479	E3	9.74
7)	L2	PCB1260{1}	3.100	3.005	2.801	2.682	2.394	2.226	2.701	E3	12.63
8)	L2	PCB1260{2}	3.154	3.092	2.909	2.796	2.490	2.330	2.795	E3	11.75
9)	L2	PCB1260{3}	1.005	0.993	0.970	1.000	0.982	1.024	0.996	E3	1.89
10)	L2	PCB1260{4}	1.786	1.770	1.701	1.696	1.578	1.511	1.674	E3	6.48
11)	L2	PCB1260{5}	9.382	9.281	9.017	9.287	9.091	9.441	9.250	E2	1.78
12)	S	DECACHLOROBIPHENYL	2.812	2.821	2.743	2.751	2.583	2.550	2.710	E4	4.29

(#) = Out of R

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\071599\7G2331.D
Acq On : 15 Jul 1999 12:16 pm
Sample : AR 1660 2.0 PPM
Misc :
IntFile : EVENTS.E
Quant Time: Jul 15 14:51 1999 Quant Results File: 8082.RES

Vial: 1
Operator: CDB
Inst : HP7
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\8082.M (Chemstation Integrator)
Title : PCB
Last Update : Thu Jul 15 14:47:59 1999
Response via : Initial Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S TETRACHLORO-M-XYL	3.19	3455769	107.891 UG/L
Spiked Amount 20.000 Range 13 - 154		Recovery =	539.46%#
12) S DECACHLOROBIPHENYL	15.52	2549625	94.085 UG/L
Spiked Amount 20.000 Range 25 - 140		Recovery =	470.43%#
Target Compounds			
2) L1 PCB1016{1}	4.22	1198644	1580.075 UG/L
3) L1 PCB1016{2}	4.90	2644165	1546.413 UG/L
4) L1 PCB1016{3}	5.38	1459424	1722.709 UG/L
5) L1 PCB1016{4}	5.60	5243004	1723.853 UG/L
6) L1 PCB1016{5}	5.82	2542667	1719.431 UG/L
Sum PCB1016		13087904	8292.481 UG/L
Average PCB1016			1658.496 UG/L
7) L2 PCB1260{1}	8.61	4452332	1648.195 UG/L
8) L2 PCB1260{2}	8.84	4659714	1667.164 UG/L
9) L2 PCB1260{3}	9.24	2047948	2056.999 UG/L
10) L2 PCB1260{4}	10.71	3021937	1805.564 UG/L
11) L2 PCB1260{5}	14.15	1888202	2041.316 UG/L
Sum PCB1260		16070132	9219.238 UG/L
Average PCB1260			1843.848 UG/L

(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\1\DATA\071599\7G2331.D
Acq On : 15 Jul 1999 12:16 pm
Sample : AR 1660 2.0 PPM
Misc :
IntFile : EVENTS.E
Quant Time: Jul 15 14:51 1999 Quant Results File: 8082.RES

Vial: 1
Operator: CDB
Inst : HP7
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\8082.M (Chemstation Integrator)
Title : PCB
Last Update : Thu Jul 15 14:47:59 1999
Response via : Multiple Level Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :

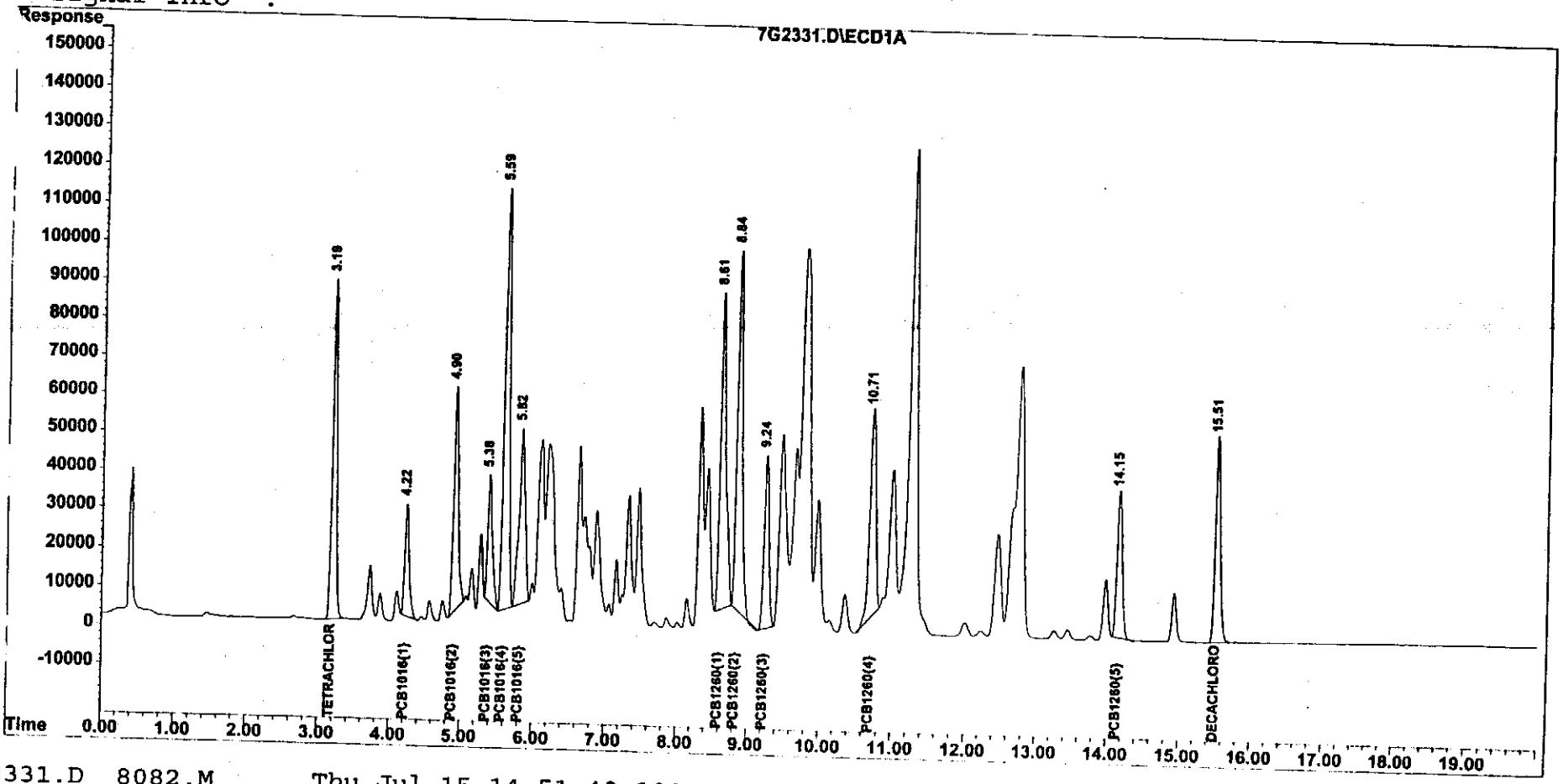

7G2331.D 8082.M Thu Jul 15 14:51:48 1999

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\071599\7G2332.D Vial: 2
Acq On : 15 Jul 1999 12:41 pm Operator: CDB
Sample : AR 1660 1.0 PPM Inst : HP7
Misc : Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: Jul 15 14:51 1999 Quant Results File: 8082.RES

Quant Method : C:\HPCHEM\1\METHODS\8082.M (Chemstation Integrator)
Title : PCB
Last Update : Thu Jul 15 14:47:59 1999
Response via : Initial Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S TETRACHLORO-M-XYL	3.19	1675568	52.312 UG/L
Spiked Amount 20.000 Range 13 - 154		Recovery =	261.56%#
12) S DECACHLOROBIPHENYL	15.51	1291319	47.652 UG/L
Spiked Amount 20.000 Range 25 - 140		Recovery =	238.26%#
Target Compounds			
2) L1 PCB1016{1}	4.22	649066	855.611 UG/L
3) L1 PCB1016{2}	4.90	1466888	857.895 UG/L
4) L1 PCB1016{3}	5.38	754168	890.222 UG/L
5) L1 PCB1016{4}	5.59	2819208	926.931 UG/L
6) L1 PCB1016{5}	5.82	1359747	919.503 UG/L
Sum PCB1016		7049076	4450.161 UG/L
Average PCB1016			890.032 UG/L
7) L2 PCB1260{1}	8.61	2393831	886.165 UG/L
8) L2 PCB1260{2}	8.84	2490073	890.904 UG/L
9) L2 PCB1260{3}	9.24	981524	985.863 UG/L
10) L2 PCB1260{4}	10.71	1577988	942.825 UG/L
11) L2 PCB1260{5}	14.15	909145	982.867 UG/L
Sum PCB1260		8352560	4688.624 UG/L
Average PCB1260			937.725 UG/L

(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\1\DATA\071599\7G2332.D
Acq On : 15 Jul 1999 12:41 pm
Sample : AR 1660 1.0 PPM
Misc :
IntFile : EVENTS.E
Quant Time: Jul 15 14:51 1999 Quant Results File: 8082.RES

Vial: 2
Operator: CDB
Inst : HP7
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\8082.M (Chemstation Integrator)
Title : PCB
Last Update : Thu Jul 15 14:47:59 1999
Response via : Multiple Level Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :

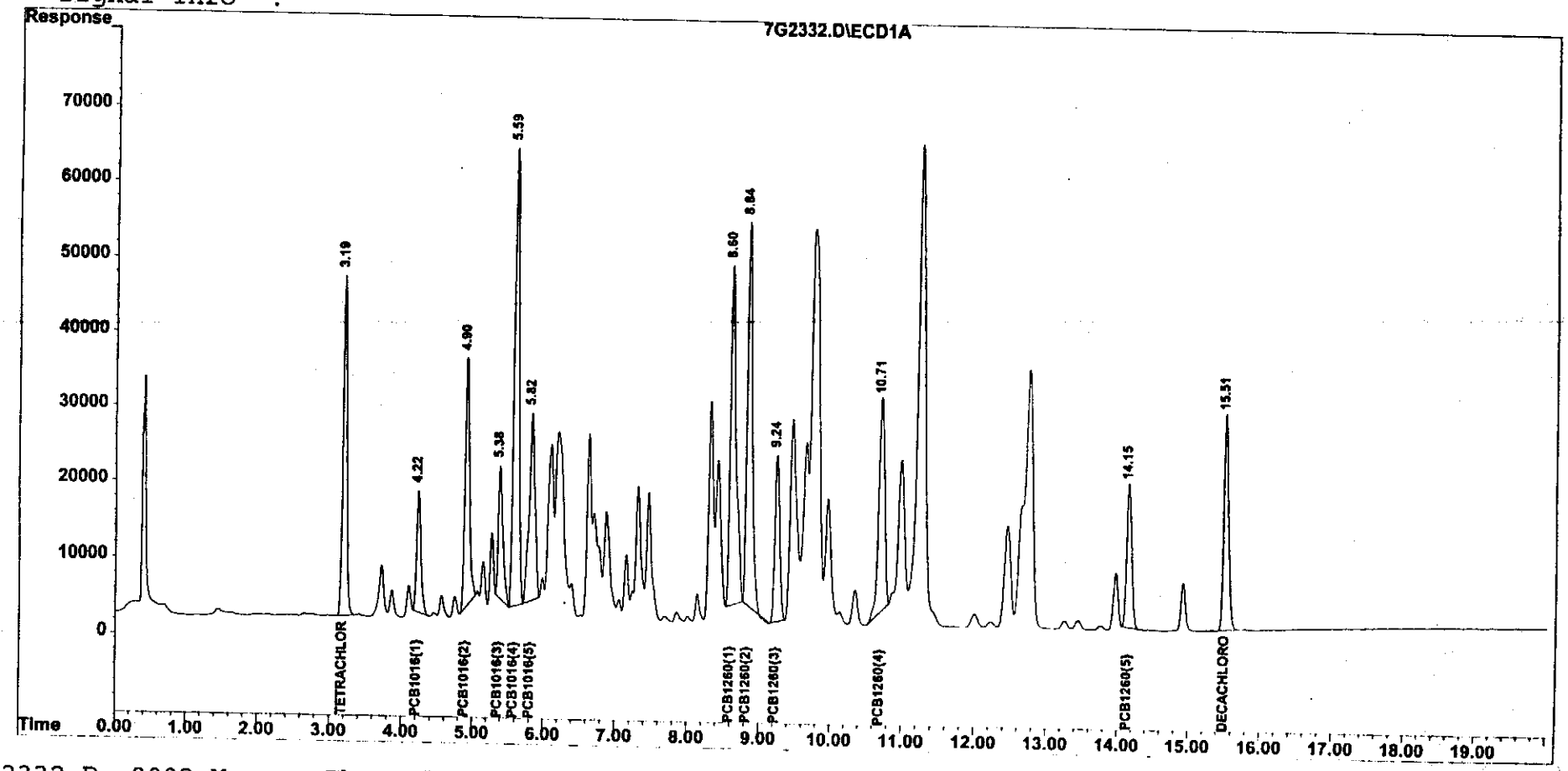

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\071599\7G2333.D
Acq On : 15 Jul 1999 1:06 pm
Sample : AR 1660 .50 PPM
Misc :
IntFile : EVENTS.E
Quant Time: Jul 15 14:52 1999 Quant Results File: 8082.RES

Vial: 3
Operator: CDB
Inst : HP7
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\8082.M (Chemstation Integrator)
Title : PCB
Last Update : Thu Jul 15 14:47:59 1999
Response via : Initial Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S TETRACHLORO-M-XYL	3.19	839294	26.203 UG/L
Spiked Amount 20.000 Range 13 - 154		Recovery =	131.02%
12) S DECACHLOROBIPHENYL	15.51	687667	25.376 UG/L
Spiked Amount 20.000 Range 25 - 140		Recovery =	126.88%
Target Compounds			
2) L1 PCB1016{1}	4.22	366246	482.793 UG/L
3) L1 PCB1016{2}	4.90	840186	491.374 UG/L
4) L1 PCB1016{3}	5.38	420196	496.001 UG/L
5) L1 PCB1016{4}	5.59	1554702	511.172 UG/L
6) L1 PCB1016{5}	5.82	737580	498.774 UG/L
Sum PCB1016		3918910	2480.115 UG/L
Average PCB1016			496.023 UG/L
7) L2 PCB1260{1}	8.61	1340976	496.412 UG/L
8) L2 PCB1260{2}	8.84	1397758	500.093 UG/L
9) L2 PCB1260{3}	9.24	499790	501.999 UG/L
10) L2 PCB1260{4}	10.71	848080	506.716 UG/L
11) L2 PCB1260{5}	14.15	464372	502.028 UG/L
Sum PCB1260		4550976	2507.248 UG/L
Average PCB1260			501.450 UG/L

(f)=RT Delta > 1/2 Window
(m)=manual int.

Data File : C:\HPCHEM\1\DATA\071599\7G2333.D
Acq On : 15 Jul 1999 1:06 pm
Sample : AR 1660 .50 PPM
Misc :
IntFile : EVENTS.E
Quant Time: Jul 15 14:52 1999 Quant Results File: 8082.RES

Vial: 3
Operator: CDB
Inst : HP7
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\8082.M (Chemstation Integrator)
Title : PCB
Last Update : Thu Jul 15 14:47:59 1999
Response via : Multiple Level Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :

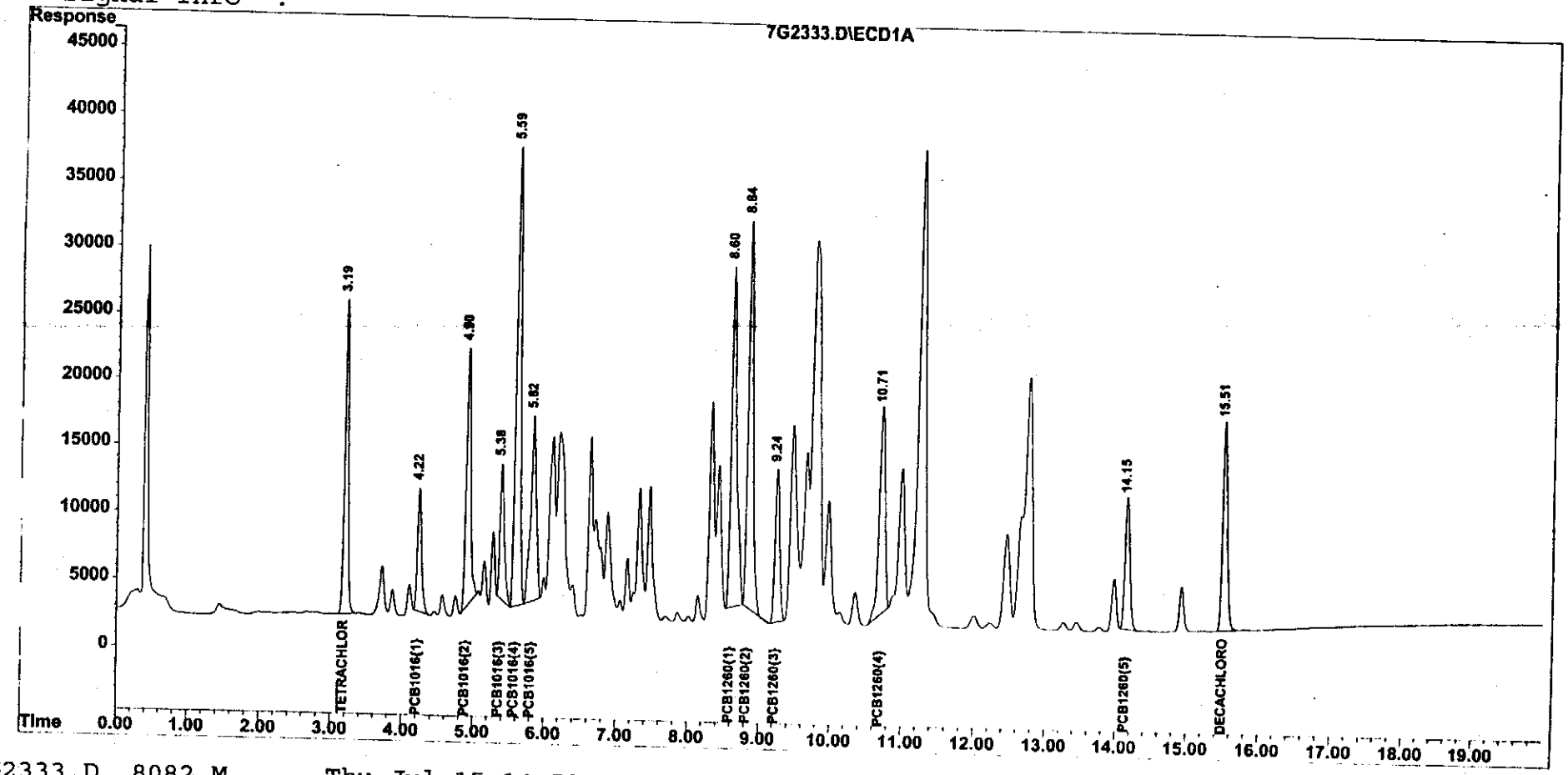

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\071599\7G2334.D
Acq On : 15 Jul 1999 1:32 pm
Sample : AR 1660 .25 PPM
Misc :
IntFile : EVENTS.E
Quant Time: Jul 15 14:52 1999 Quant Results File: 8082.RES

Vial: 4
Operator: CDB
Inst : HP7
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\8082.M (Chemstation Integrator)
Title : PCB
Last Update : Thu Jul 15 14:47:59 1999
Response via : Initial Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S TETRACHLORO-M-XYL	3.19	392249	12.246 UG/L
Spiked Amount 20.000 Range 13 - 154		Recovery =	61.23%
12) S DECACHLOROBIPHENYL	15.51	342865	12.652 UG/L
Spiked Amount 20.000 Range 25 - 140		Recovery =	63.26%
Target Compounds			
2) L1 PCB1016{1}	4.22	196351	258.833 UG/L
3) L1 PCB1016{2}	4.90	451734	264.192 UG/L
4) L1 PCB1016{3}	5.38	217168	256.346 UG/L
5) L1 PCB1016{4}	5.59	792503	260.568 UG/L
6) L1 PCB1016{5}	5.82	377540	255.304 UG/L
Sum PCB1016		2035295	1295.243 UG/L
Average PCB1016			259.049 UG/L
7) L2 PCB1260{1}	8.61	700328	259.252 UG/L
8) L2 PCB1260{2}	8.84	727180	260.172 UG/L
9) L2 PCB1260{3}	9.24	242536	243.608 UG/L
10) L2 PCB1260{4}	10.71	425139	254.015 UG/L
11) L2 PCB1260{5}	14.15	225417	243.696 UG/L
Sum PCB1260		2320601	1260.744 UG/L
Average PCB1260			252.149 UG/L

(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\1\DATA\071599\7G2334.D
Acq On : 15 Jul 1999 1:32 pm
Sample : AR 1660 .25 PPM
Misc :
IntFile : EVENTS.E
Quant Time: Jul 15 14:52 1999 Quant Results File: 8082.RES

Vial: 4
Operator: CDB
Inst : HP7
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\8082.M (Chemstation Integrator)
Title : PCB
Last Update : Thu Jul 15 14:47:59 1999
Response via : Multiple Level Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :

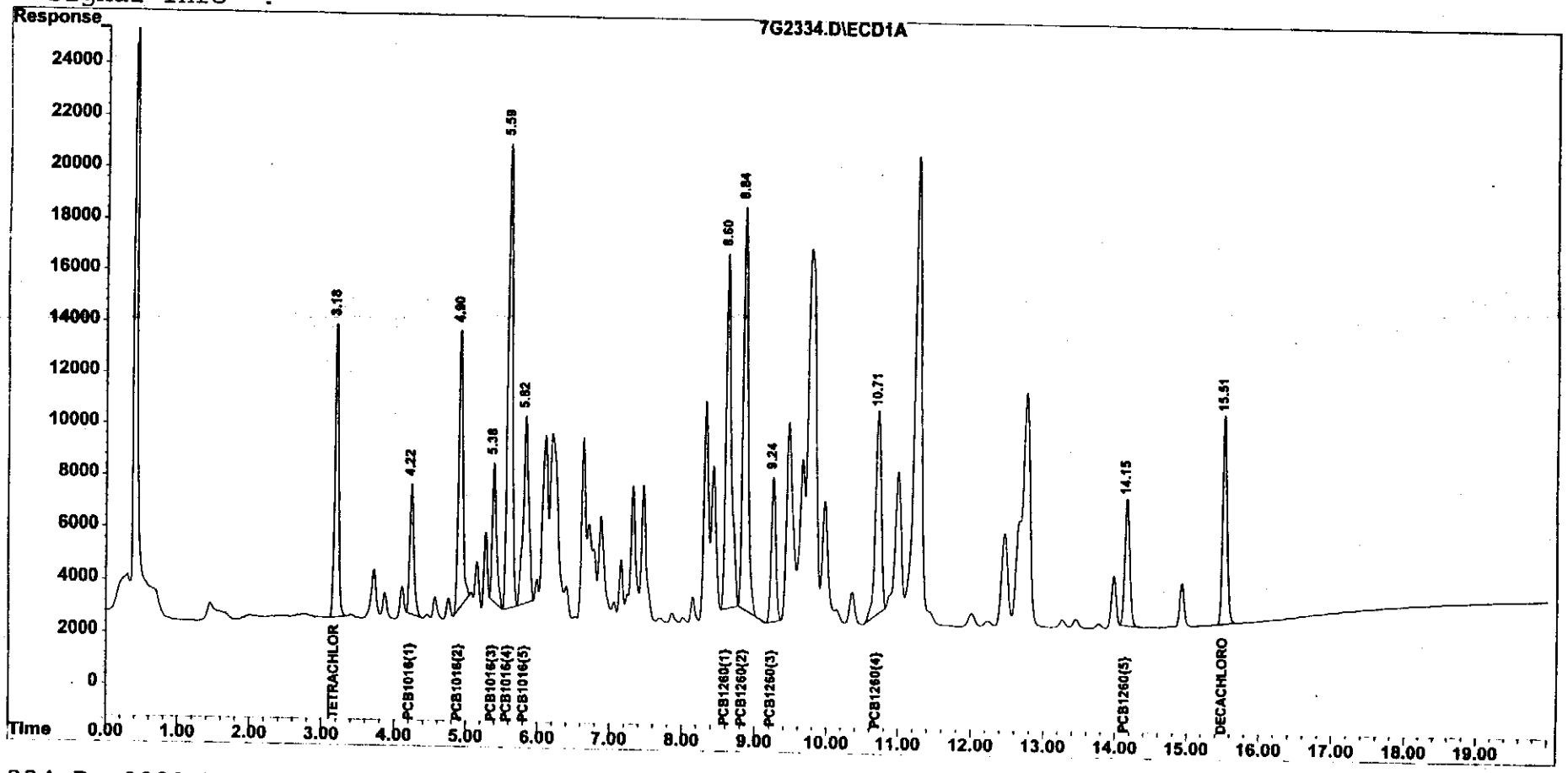

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\071599\7G2335.D
Acq On : 15 Jul 1999 1:57 pm
Sample : AR 1660 .10 PPM
Misc :
IntFile : EVENTS.E
Quant Time: Jul 15 14:52 1999 Quant Results File: 8082.RES

Vial: 5
Operator: CDB
Inst : HP7
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\8082.M (Chemstation Integrator)
Title : PCB
Last Update : Thu Jul 15 14:47:59 1999
Response via : Initial Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S TETRACHLORO-M-XYL	3.19	149963	4.682 UG/L
Spiked Amount 20.000 Range 13 - 154		Recovery =	23.41%
12) S DECACHLOROBIPHENYL	15.51	141070	5.206 UG/L
Spiked Amount 20.000 Range 25 - 140		Recovery =	26.03%
Target Compounds			
2) L1 PCB1016{1}	4.23	87084	114.796 UG/L
3) L1 PCB1016{2}	4.90	200063	117.005 UG/L
4) L1 PCB1016{3}	5.38	92751	109.484 UG/L
5) L1 PCB1016{4}	5.59	325895	107.152 UG/L
6) L1 PCB1016{5}	5.82	160729	108.690 UG/L
Sum PCB1016		866523	557.126 UG/L
Average PCB1016			111.425 UG/L
7) L2 PCB1260{1}	8.61	300511	111.245 UG/L
8) L2 PCB1260{2}	8.84	309165	110.614 UG/L
9) L2 PCB1260{3}	9.24	99328	99.767 UG/L
10) L2 PCB1260{4}	10.71	177019	105.766 UG/L
11) L2 PCB1260{5}	14.15	92814	100.340 UG/L
Sum PCB1260		978837	527.732 UG/L
Average PCB1260			105.546 UG/L

(1)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\1\DATA\071599\7G2335.D
Acq On : 15 Jul 1999 1:57 pm
Sample : AR 1660 .10 PPM
Misc :
IntFile : EVENTS.E
Quant Time: Jul 15 14:52 1999 Quant Results File: 8082.RES

Vial: 5
Operator: CDB
Inst : HP7
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\8082.M (Chemstation Integrator)
Title : PCB
Last Update : Thu Jul 15 14:47:59 1999
Response via : Multiple Level Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :

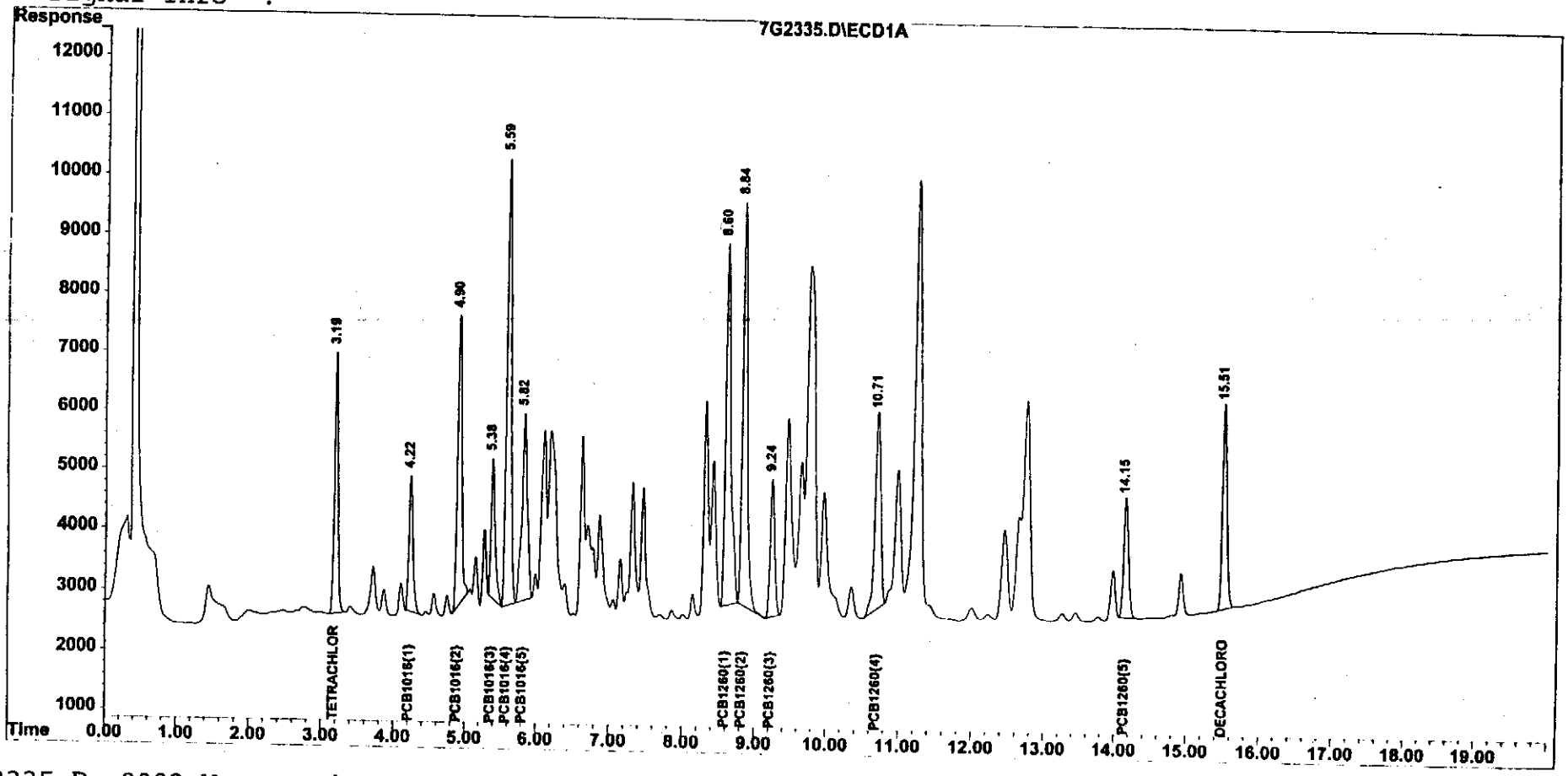

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\071599\7G2336.D
Acq On : 15 Jul 1999 2:23 pm
Sample : AR 1660 .05 PPM
Misc :
IntFile : EVENTS.E
Quant Time: Jul 15 14:52 1999 Quant Results File: 8082.RES

Vial: 6
Operator: CDB
Inst : HP7
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\8082.M (Chemstation Integrator)
Title : PCB
Last Update : Thu Jul 15 14:47:59 1999
Response via : Initial Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S TETRACHLORO-M-XYL	3.19	72919	2.277 UG/L
Spiked Amount 20.000 Range 13 - 154		Recovery =	11.39%#
12) S DECACHLOROBIPHENYL	15.51	70307	2.594 UG/L
Spiked Amount 20.000 Range 25 - 140		Recovery =	12.97%#
Target Compounds			
2) L1 PCB1016{1}	4.23	45723	60.273 UG/L
3) L1 PCB1016{2}	4.90	99115	57.967 UG/L
4) L1 PCB1016{3}	5.38	48128	56.810 UG/L
5) L1 PCB1016{4}	5.59	163479	53.751 UG/L
6) L1 PCB1016{5}	5.83	82451	55.756 UG/L
Sum PCB1016		438897	284.557 UG/L
Average PCB1016			56.911 UG/L
7) L2 PCB1260{1}	8.61	154983	57.373 UG/L
8) L2 PCB1260{2}	8.84	157707	56.425 UG/L
9) L2 PCB1260{3}	9.24	50255	50.477 UG/L
10) L2 PCB1260{4}	10.71	89311	53.362 UG/L
11) L2 PCB1260{5}	14.15	46908	50.712 UG/L
Sum PCB1260		499164	268.348 UG/L
Average PCB1260			53.670 UG/L

(f)=RT Delta > 1,2 Window (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\1\DATA\071599\7G2336.D
Acq On : 15 Jul 1999 2:23 pm
Sample : AR 1660 .05 PPM
Misc :
IntFile : EVENTS.E
Quant Time: Jul 15 14:52 1999 Quant Results File: 8082.RES

Vial: 6
Operator: CDB
Inst : HP7
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\8082.M (Chemstation Integrator)
Title : PCB
Last Update : Thu Jul 15 14:47:59 1999
Response via : Multiple Level Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :

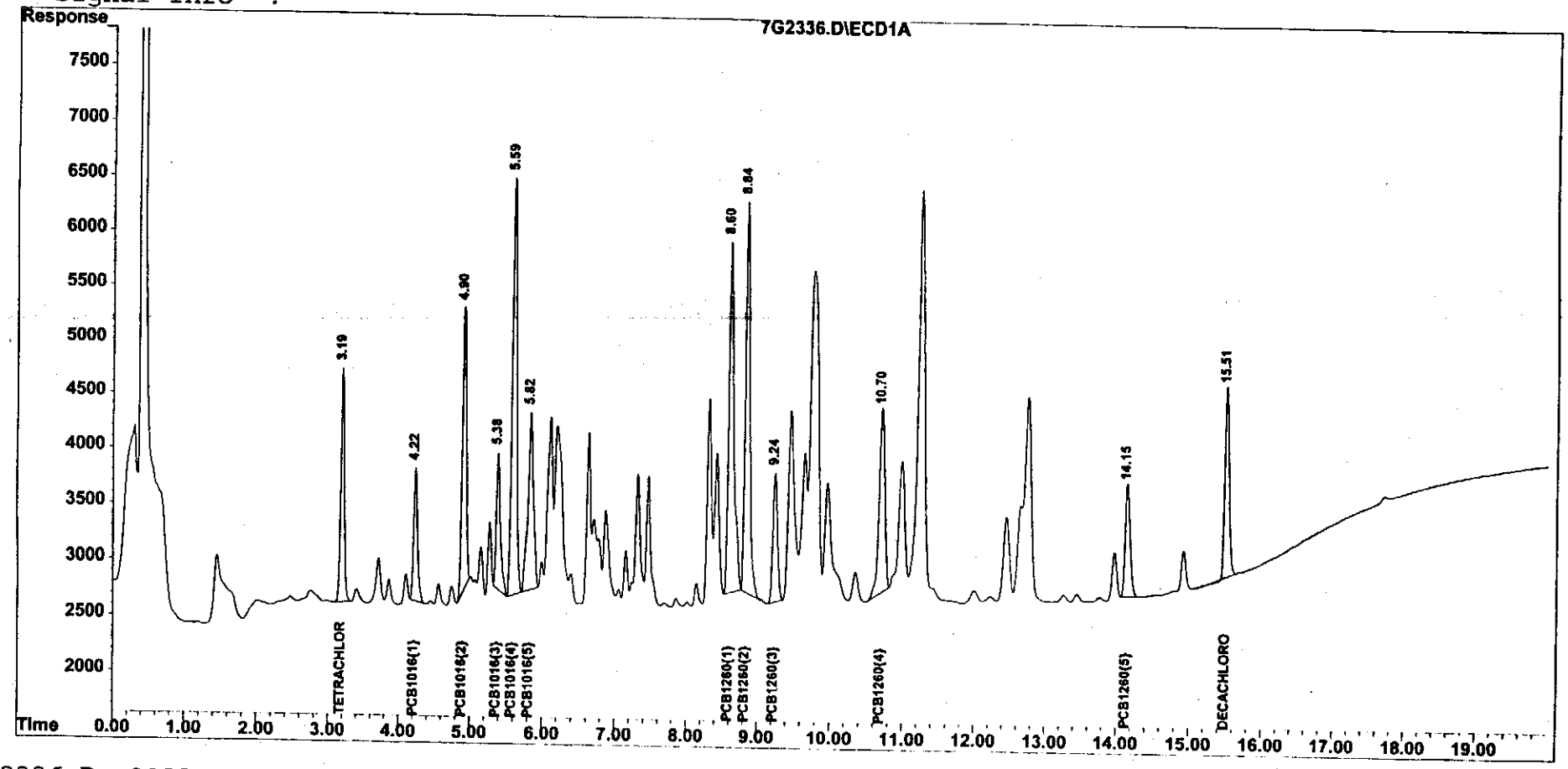

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\071599\7G2337.D
Acq On : 15 Jul 1999 2:48 pm
Sample : AR 1221 .50 PPM
Misc :
IntFile : AUTOINT1.E
Quant Time: Jul 15 15:23 1999 Quant Results File: 1221SF.RES

Vial: 7
Operator: CDB
Inst : HP7
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\1221SF.M (Chemstation Integrator)
Title : PCB
Last Update : Thu Jul 15 15:23:16 1999
Response via : Initial Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S TETRACHLORO-M-XYL	3.19	867633	25.000 UG/L
Spiked Amount 20.000 Range 13 - 154		Recovery =	125.00%
7) S DECACHLOROBIPHENYL	15.51	616744	25.000 UG/L
Spiked Amount 20.000 Range 25 - 140		Recovery =	125.00%
Target Compounds			
2) L1 PCB1221{1}	2.66	204245	500.000 UG/L
3) L1 PCB1221{2}	3.86	194039	500.000 UG/L
4) L1 PCB1221{3}	4.10	130483	500.000 UG/L
5) L1 PCB1221{4}	4.22	510063	500.000 UG/L
6) L1 PCB1221{5}	4.56	72784	500.000 UG/L
Sum PCB1221		1111615	2500.000 UG/L
Average PCB1221			500.000 UG/L

(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\1\DATA\071599\7G2337.D
Acq On : 15 Jul 1999 2:48 pm
Sample : AR 1221 .50 PPM
Misc :
IntFile : AUTOINT1.E
Quant Time: Jul 15 15:23 1999 Quant Results File: 1221SF.RES

Vial: 7
Operator: CDB
Inst : HP7
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\1221SF.M (Chemstation Integrator)
Title : PCB
Last Update : Thu Jul 15 15:23:16 1999
Response via : Single Level Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :

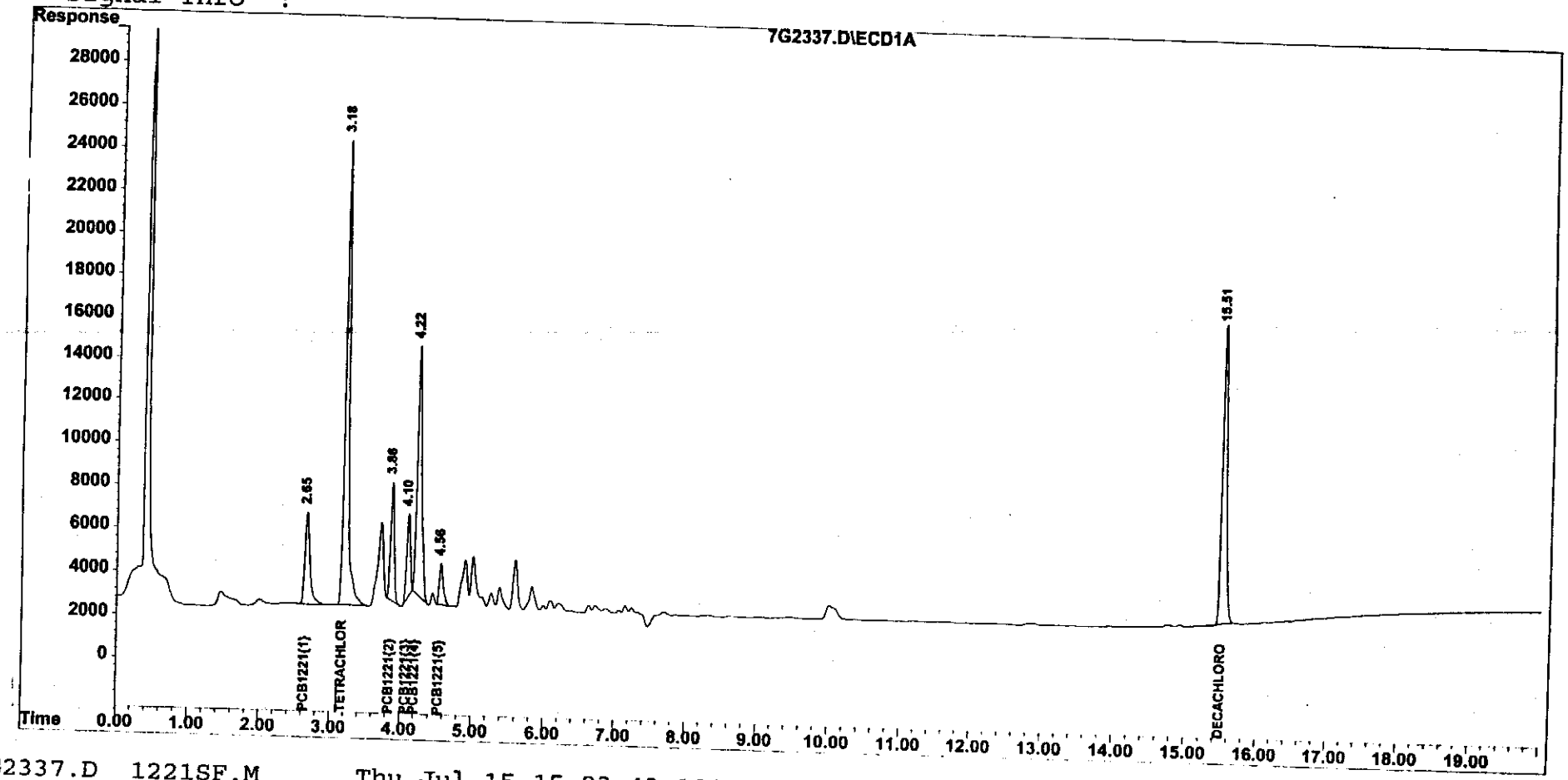

7G2337.D 1221SF.M Thu Jul 15 15:23:43 1999

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\071599\7G2338.D
Acq On : 15 Jul 1999 3:14 pm
Sample : AR 1232 .50 PPM
Misc :
IntFile : AUTOINT1.E
Quant Time: Jul 16 8:33 1999 Quant Results File: 1232SF.RES

Vial: 8
Operator: CDB
Inst : HP7
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\1232SF.M (Chemstation Integrator)
Title : PCB
Last Update : Fri Jul 16 08:32:53 1999
Response via : Initial Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S TETRACHLORO-M-XYL	3.19	883691	25.000 UG/L
Spiked Amount 20.000 Range 13 - 154		Recovery =	125.00%
7) S DECACHLOROBIPHENYL	15.51	709583	25.000 UG/L
Spiked Amount 20.000 Range 25 - 140		Recovery =	125.00%
Target Compounds			
2) L1 PCB1232{1}	4.22	418355	500.000 UG/L
3) L1 PCB1232{2}	4.90	305215	500.000 UG/L
4) L1 PCB1232{3}	5.59	619038	500.000 UG/L
5) L1 PCB1232{4}	5.82	300929	500.000 UG/L
6) L1 PCB1232{5}	7.14	131256	500.000 UG/L
Sum PCB1232		1774792	2500.000 UG/L
Average PCB1232			500.000 UG/L

(f)=RT Delta > 1/2 window (m)=manual int.

Data File : C:\HPCHEM\1\DATA\071599\7G2338.D Vial: 8
Acq On : 15 Jul 1999 3:14 pm Operator: CDB
Sample : AR 1232 .50 PPM Inst : HP7
Misc : Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: Jul 16 8:33 1999 Quant Results File: 1232SF.RES

Quant Method : C:\HPCHEM\1\METHODS\1232SF.M (Chemstation Integrator)
Title : PCB
Last Update : Fri Jul 16 08:32:53 1999
Response via : Single Level Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :

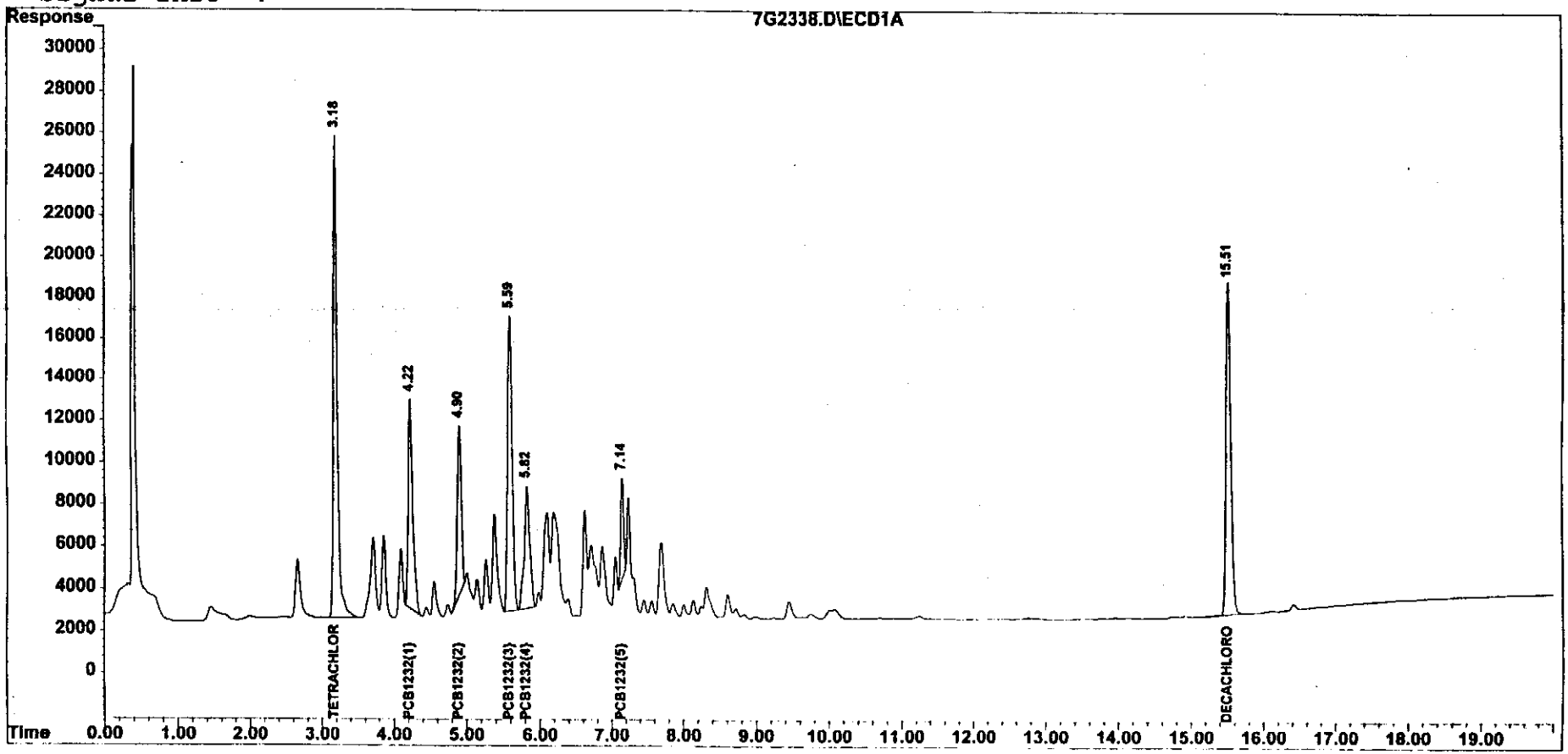

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\071599\7G2339.D
Acq On : 15 Jul 1999 3:39 pm
Sample : AR 1242 .50 PPM
Misc :
IntFile : AUTOINT1.E
Quant Time: Jul 16 8:35 1999 Quant Results File: 1242SF.RES

Vial: 9
Operator: CDB
Inst : HP7
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\1242SF.M (Chemstation Integrator)
Title : PCB
Last Update : Fri Jul 16 08:34:54 1999
Response via : Initial Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S TETRACHLORO-M-XYL	3.19	820996	25.000 UG/L
Spiked Amount 20.000 Range 13 - 154		Recovery =	125.00%
7) S DECACHLOROBIPHENYL	15.51	957734	25.000 UG/L
Spiked Amount 20.000 Range 25 - 140		Recovery =	125.00%
Target Compounds			
2) L1 PCB1242{1}	4.22	298726	500.000 UG/L
3) L1 PCB1242{2}	4.90	634055	500.000 UG/L
4) L1 PCB1242{3}	5.59	1157952	500.000 UG/L
5) L1 PCB1242{4}	5.82	549734	500.000 UG/L
6) L1 PCB1242{5}	7.69	343935	500.000 UG/L
Sum PCB1242		2984401	2500.000 UG/L
Average PCB1242			500.000 UG/L

(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\1\DATA\071599\7G2339.D
Acq On : 15 Jul 1999 3:39 pm
Sample : AR 1242 .50 PPM
Misc :
IntFile : AUTOINT1.E
Quant Time: Jul 16 8:35 1999 Quant Results File: 1242SF.RES

Vial: 9
Operator: CDB
Inst : HP7
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\1242SF.M (Chemstation Integrator)
Title : PCB
Last Update : Fri Jul 16 08:34:54 1999
Response via : Single Level Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :

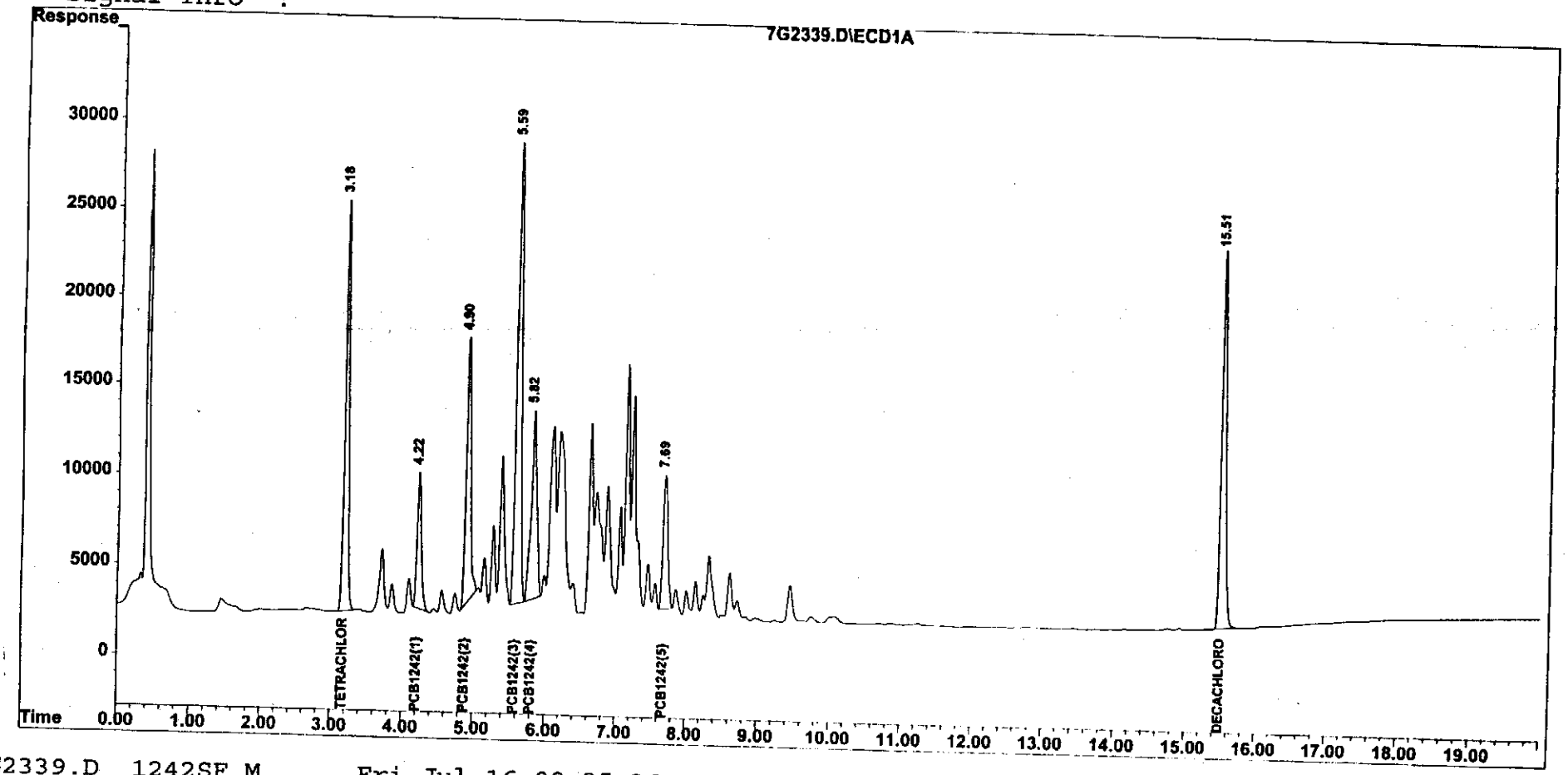

7G2339.D 1242SF.M Fri Jul 16 08:35:26 1999

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\071599\7G2340.D
Acq On : 15 Jul 1999 4:05 pm
Sample : AR 1248 .50 PPM
Misc :
IntFile : AUTOINT1.E
Quant Time: Jul 16 8:36 1999 Quant Results File: 1248SF.RES

Vial: 10
Operator: CDB
Inst : HP7
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\1248SF.M (Chemstation Integrator)
Title : PCB
Last Update : Fri Jul 16 08:36:38 1999
Response via : Initial Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S TETRACHLORO-M-XYL	3.19	799534	25.000 UG/L
Spiked Amount 20.000 Range 13 - 154		Recovery =	125.00%
7) S DECACHLOROBIPHENYL	15.51	934426	25.000 UG/L
Spiked Amount 20.000 Range 25 - 140		Recovery =	125.00%
Target Compounds			
2) L1 PCB1248{1}	6.62	284852	500.000 UG/L
3) L1 PCB1248{2}	6.87	284344	500.000 UG/L
4) L1 PCB1248{3}	7.70	574112	500.000 UG/L
5) L1 PCB1248{4}	8.61	198472	500.000 UG/L
6) L1 PCB1248{5}	9.45	210475	500.000 UG/L
Sum PCB1248		1552255	2500.000 UG/L
Average PCB1248			500.000 UG/L

(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\1\DATA\071599\7G2340.D
Acq On : 15 Jul 1999 4:05 pm
Sample : AR 1248 .50 PPM
Misc :
IntFile : AUTOINT1.E
Quant Time: Jul 16 8:36 1999 Quant Results File: 1248SF.RES

Vial: 10
Operator: CDB
Inst : HP7
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\1248SF.M (Chemstation Integrator)
Title : PCB
Last Update : Fri Jul 16 08:36:38 1999
Response via : Single Level Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :

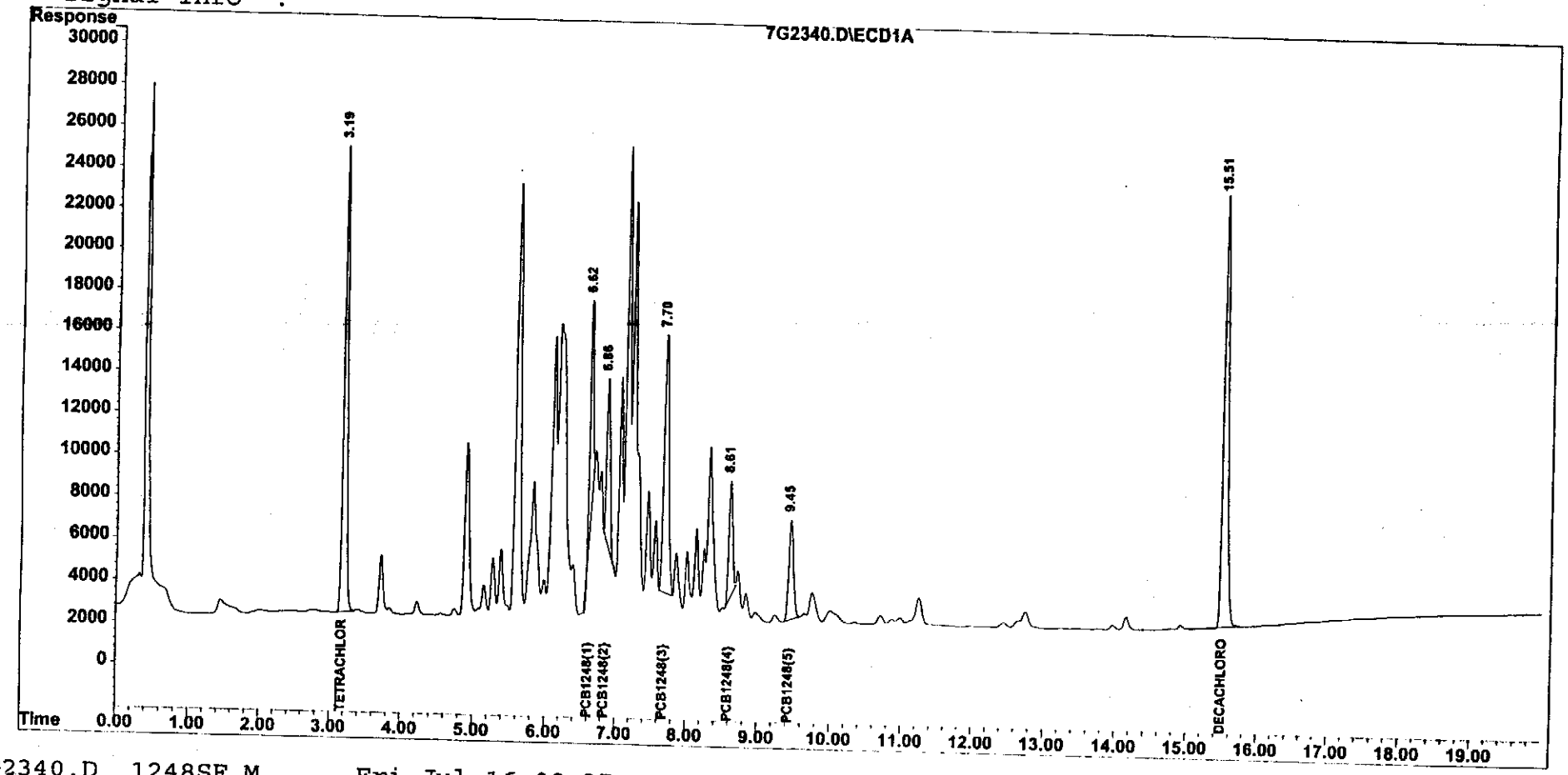

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\071599\7G2341.D
Acq On : 15 Jul 1999 4:30 pm
Sample : AR 1254 .50 PPM
Misc :
IntFile : AUTOINT1.E
Quant Time: Jul 16 8:39 1999

Vial: 11
Operator: CDB
Inst : HP7
Multiplr: 1.00

Quant Results File: 1254SF.RES

Quant Method : C:\HPCHEM\1\METHODS\1254SF.M (Chemstation Integrator)
Title : PCB
Last Update : Fri Jul 16 08:38:41 1999
Response via : Initial Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S TETRACHLORO-M-XYL	3.19	795467	25.000 UG/L
Spiked Amount 20.000 Range 13 - 154		Recovery =	125.00%
7) S DECACHLOROBIPHENYL	15.51	931446	25.000 UG/L
Spiked Amount 20.000 Range 25 - 140		Recovery =	125.00%
Target Compounds			
2) L1 PCB1254{1}	8.14	404688	500.000 UG/L
3) L1 PCB1254{2}	8.32	1400909	500.000 UG/L
4) L1 PCB1254{3}	8.61	1401895	500.000 UG/L
5) L1 PCB1254{4}	9.46	785684	500.000 UG/L
6) L1 PCB1254{5}	9.75	913354	500.000 UG/L
Sum PCB1254		4906530	2500.000 UG/L
Average PCB1254			500.000 UG/L

(f)=RT Delta > 1/2 Window
(m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\1\DATA\071599\7G2341.D
Acq On : 15 Jul 1999 4:30 pm
Sample : AR 1254 .50 PPM
Misc :
IntFile : AUTOINT1.E
Quant Time: Jul 16 8:39 1999 Quant Results File: 1254SF.RES

Vial: 11
Operator: CDB
Inst : HP7
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\1254SF.M (Chemstation Integrator)
Title : PCB
Last Update : Fri Jul 16 08:38:41 1999
Response via : Single Level Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :

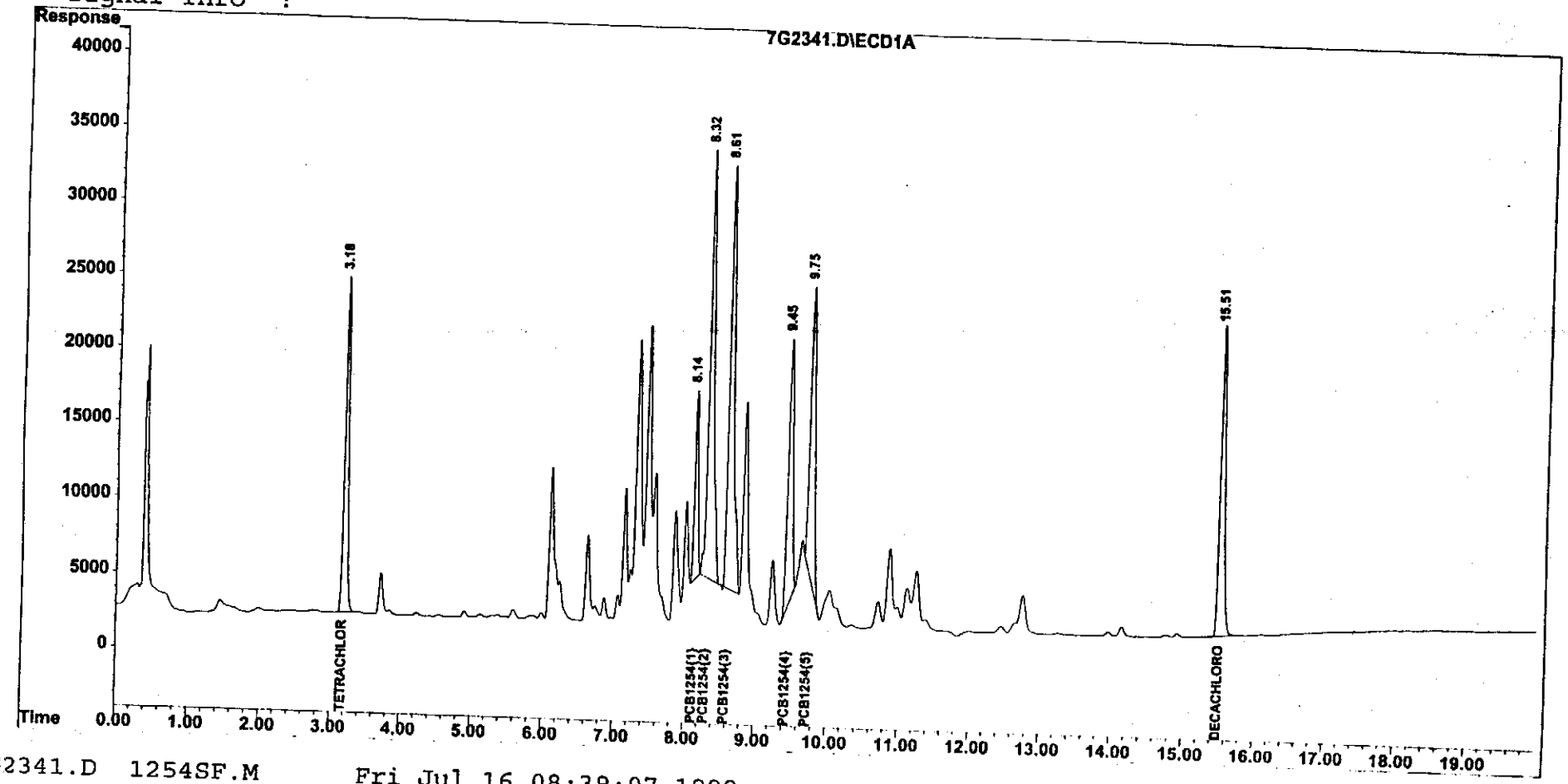

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\071599\7G2342.D
Acq On : 15 Jul 1999 4:56 pm
Sample : ALT 1221 .50 PPM
Misc :
IntFile : AUTOINT1.E
Quant Time: Jul 16 8:31 1999 Quant Results File: 1221SF.RES

Vial: 12
Operator: CDB
Inst : HP7
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\1221SF.M (Chemstation Integrator)
Title : PCB
Last Update : Thu Jul 15 15:23:16 1999
Response via : Initial Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S TETRACHLORO-M-XYL	3.19	849720	24.484 UG/L
Spiked Amount 20.000 Range 13 - 154		Recovery =	122.42%
7) S DECACHLOROBIPHENYL	15.51	692936	28.088 UG/L
Spiked Amount 20.000 Range 25 - 140		Recovery =	140.44%#
Target Compounds			
2) L1 PCB1221{1}	2.66	204962	501.754 UG/L
3) L1 PCB1221{2}	3.86	178510	459.986 UG/L
4) L1 PCB1221{3}	4.10	121535	465.712 UG/L
5) L1 PCB1221{4}	4.22	472479	463.157 UG/L
6) L1 PCB1221{5}	4.56	68368	469.668 UG/L
Sum PCB1221		1045855	2360.276 UG/L
Average PCB1221			472.055 UG/L

(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\1\DATA\071599\7G2342.D
Acq On : 15 Jul 1999 4:56 pm
Sample : ALT 1221 .50 PPM
Misc :
IntFile : AUTOINT1.E
Quant Time: Jul 16 8:31 1999 Quant Results File: 1221SF.RES

Vial: 12
Operator: CDB
Inst : HP7
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\1221SF.M (Chemstation Integrator)
Title : PCB
Last Update : Thu Jul 15 15:23:16 1999
Response via : Single Level Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :

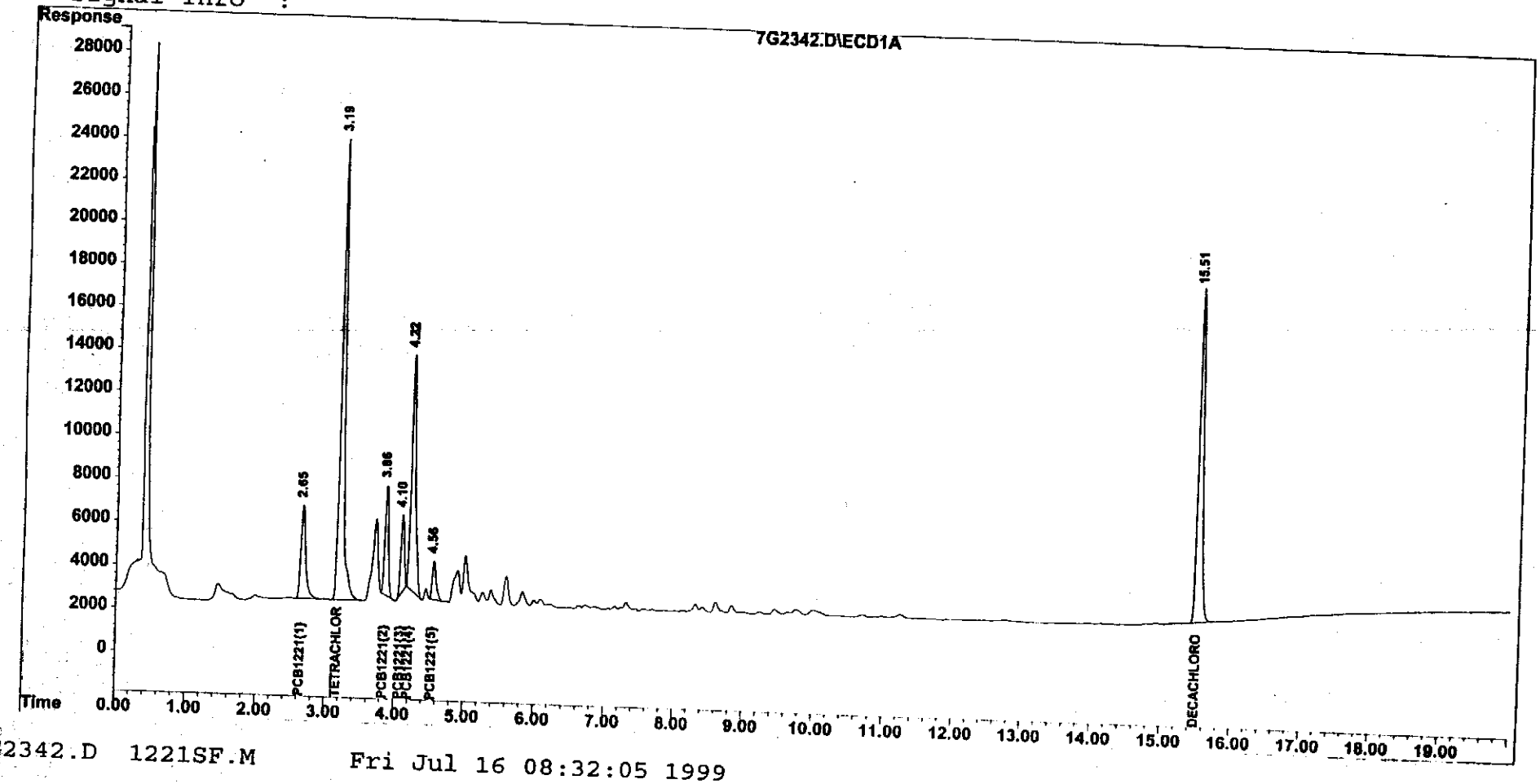

7G2342.D 1221SF.M Fri Jul 16 08:32:05 1999

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\071599\7G2343.D
Acq On : 15 Jul 1999 5:21 pm
Sample : ALT 1232 .50 PPM
Misc :
IntFile : AUTOINT1.E
Quant Time: Jul 16 8:34 1999

Vial: 13
Operator: CDB
Inst : HP7
Multiplr: 1.00

Quant Results File: 1232SF.RES

Quant Method : C:\HPCHEM\1\METHODS\1232SF.M (Chemstation Integrator)
Title : PCB
Last Update : Fri Jul 16 08:32:53 1999
Response via : Initial Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S TETRACHLORO-M-XYL	3.19	4305944	121.817 UG/L
Spiked Amount 20.000 Range 13 - 154		Recovery = 609.08%#	
7) S DECACHLOROBIPHENYL	15.51	3300927	116.298 UG/L
Spiked Amount 20.000 Range 25 - 140		Recovery = 581.49%#	
Target Compounds			
2) L1 PCB1232{1}	4.22	381937	456.475 UG/L
3) L1 PCB1232{2}	4.90	298092	488.331 UG/L
4) L1 PCB1232{3}	5.59	591593	477.833 UG/L
5) L1 PCB1232{4}	5.82	278582	462.870 UG/L
6) L1 PCB1232{5}	7.14	144428	550.178 UG/L
Sum PCB1232		1694632	2435.687 UG/L
Average PCB1232			487.137 UG/L

(f)=RT Delta : 1/2 Window (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\1\DATA\071599\7G2343.D
Acq On : 15 Jul 1999 5:21 pm
Sample : ALT 1232 .50 PPM
Misc :
IntFile : AUTOINT1.E
Quant Time: Jul 16 8:34 1999 Quant Results File: 1232SF.RES

Vial: 13
Operator: CDB
Inst : HP7
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\1232SF.M (Chemstation Integrator)
Title : PCB
Last Update : Fri Jul 16 08:32:53 1999
Response via : Single Level Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :

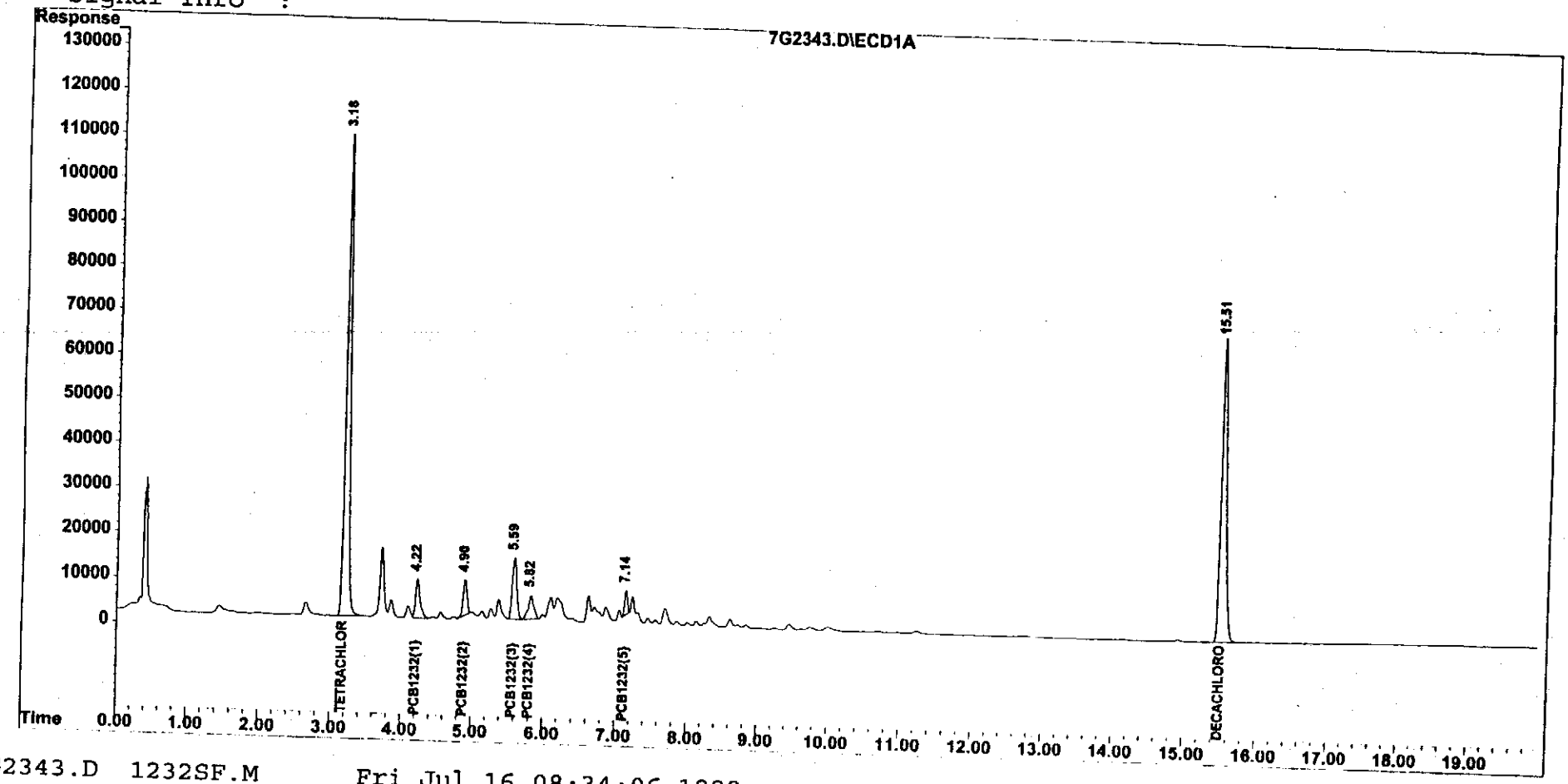

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\071599\7G2344.D
Acq On : 15 Jul 1999 5:47 pm
Sample : ALT 1242 .50 PPM
Misc :
IntFile : AUTOINT1.E
Quant Time: Jul 16 8:35 1999 Quant Results File: 1242SF.RES

Vial: 14
Operator: CDB
Inst : HP7
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\1242SF.M (Chemstation Integrator)
Title : PCB
Last Update : Fri Jul 16 08:34:54 1999
Response via : Initial Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S TETRACHLORO-M-XYL	3.19	811002	24.696 UG/L
Spiked Amount 20.000 Range 13 - 154		Recovery =	123.48%
7) S DECACHLOROBIPHENYL	15.51	588463	15.361 UG/L
Spiked Amount 20.000 Range 25 - 140		Recovery =	76.81%
Target Compounds			
2) L1 PCB1242{1}	4.22	301906	505.323 UG/L
3) L1 PCB1242{2}	4.90	595852	469.874 UG/L
4) L1 PCB1242{3}	5.59	1091251	471.199 UG/L
5) L1 PCB1242{4}	5.82	517981	471.120 UG/L
6) L1 PCB1242{5}	7.69	319226	464.080 UG/L
Sum PCB1242		2826216	2381.596 UG/L
Average PCB1242			476.319 UG/L

(*) =RT Delta > 1/2 Window
(m) =manual int.

Quantitation Report

Data File : C:\HPCHEM\1\DATA\071599\7G2344.D
Acq On : 15 Jul 1999 5:47 pm
Sample : ALT 1242 .50 PPM
Misc :
IntFile : AUTOINT1.E
Quant Time: Jul 16 8:35 1999 Quant Results File: 1242SF.RES

Vial: 14
Operator: CDB
Inst : HP7
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\1242SF.M (Chemstation Integrator)
Title : PCB
Last Update : Fri Jul 16 08:34:54 1999
Response via : Single Level Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :

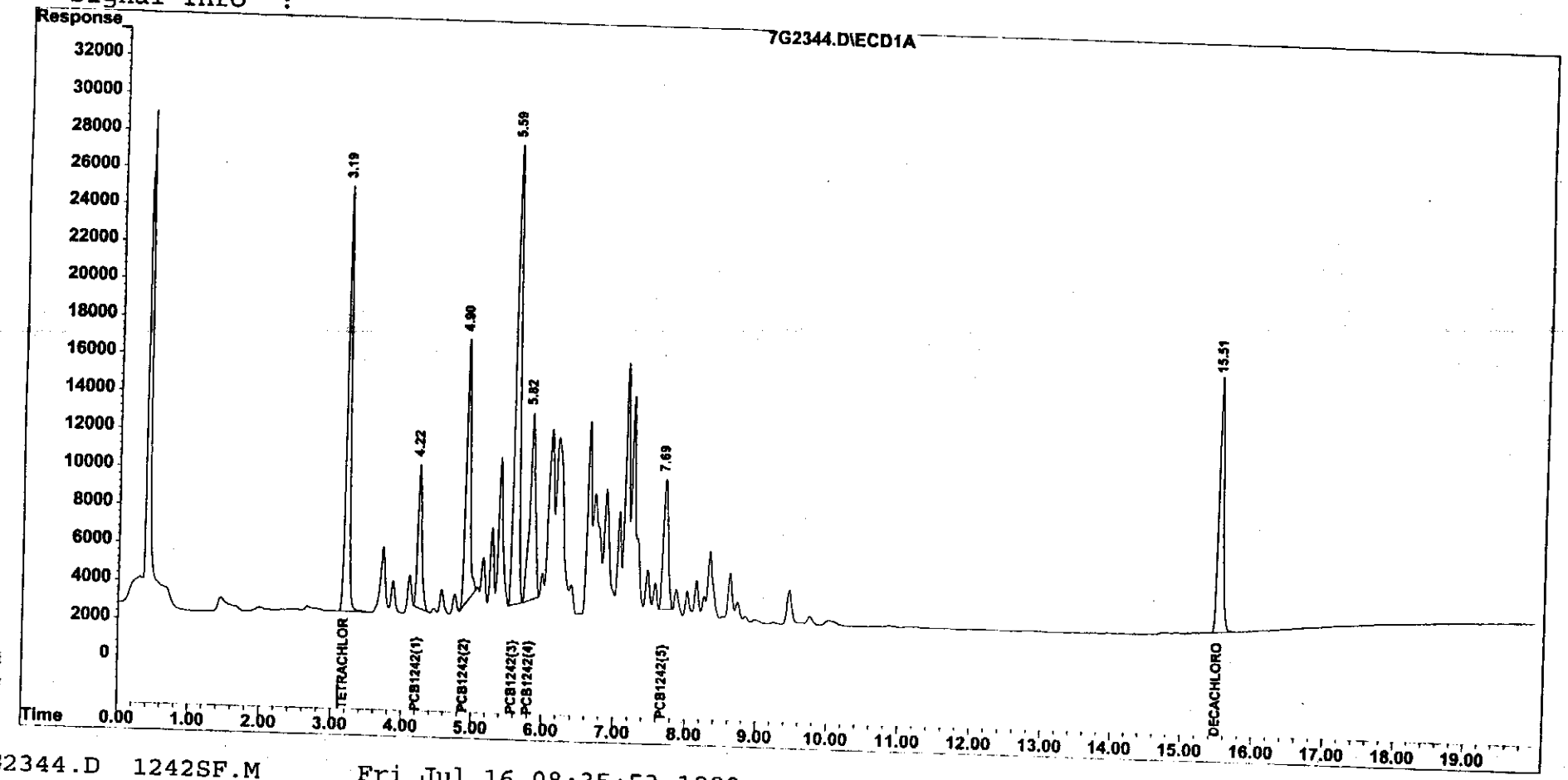

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\071599\7G2345.D
Acq On : 15 Jul 1999 6:12 pm
Sample : ALT 1248 .50 PPM
Misc :
IntFile : AUTOINT1.E
Quant Time: Jul 16 8:37 1999 Quant Results File: 1248SF.RES

Vial: 15
Operator: CDB
Inst : HP7
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\1248SF.M (Chemstation Integrator)
Title : PCB
Last Update : Fri Jul 16 08:36:38 1999
Response via : Initial Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S TETRACHLORO-M-XYL	3.19	779374	24.370 UG/L
Spiked Amount 20.000 Range 13 - 154		Recovery =	121.85%
7) S DECACHLOROBIPHENYL	15.51	617208	16.513 UG/L
Spiked Amount 20.000 Range 25 - 140		Recovery =	82.57%
Target Compounds			
2) L1 PCB1248{1}	6.62	325143	570.722 UG/L
3) L1 PCB1248{2}	6.86	280281	492.856 UG/L
4) L1 PCB1248{3}	7.69	492989	429.349 UG/L
5) L1 PCB1248{4}	8.61	209837	528.631 UG/L
6) L1 PCB1248{5}	9.45	235920	560.448 UG/L
Sum PCB1248		1544170	2582.006 UG/L
Average PCB1248			516.401 UG/L

(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\1\DATA\071599\7G2345.D
Acq On : 15 Jul 1999 6:12 pm
Sample : ALT 1248 .50 PPM
Misc :
IntFile : AUTOINT1.E
Quant Time: Jul 16 8:37 1999 Quant Results File: 1248SF.RES

Vial: 15
Operator: CDB
Inst : HP7
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\1248SF.M (Chemstation Integrator)
Title : PCB
Last Update : Fri Jul 16 08:36:38 1999
Response via : Single Level Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :

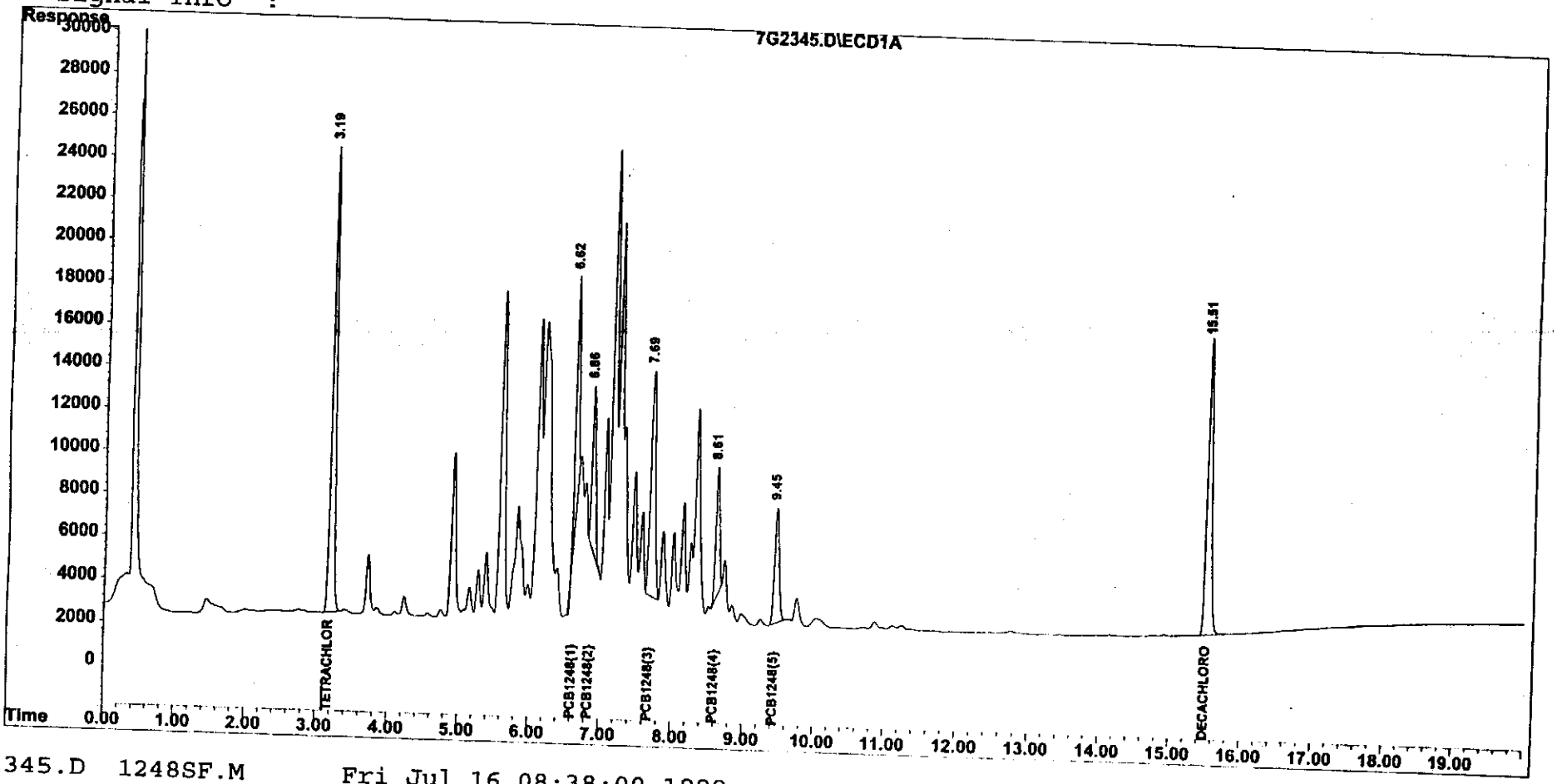

7G2345.D 1248SF.M Fri Jul 16 08:38:00 1999

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\071599\7G2346.D
Acq On : 15 Jul 1999 6:38 pm
Sample : ALT 1254 .50 PPM
Misc :
IntFile : AUTOINT1.E
Quant Time: Jul 16 8:39 1999

Vial: 16
Operator: CDB
Inst : HP7
Multiplr: 1.00

Quant Results File: 1254SF.RES

Quant Method : C:\HPCHEM\1\METHODS\1254SF.M (Chemstation Integrator)
Title : PCB
Last Update : Fri Jul 16 08:38:41 1999
Response via : Initial Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S TETRACHLORO-M-XYL	3.19	767549	24.123 UG/L
Spiked Amount 20.000 Range 13 - 154		Recovery =	120.62%
7) S DECACHLOROBIPHENYL	15.51	558978	15.003 UG/L
Spiked Amount 20.000 Range 25 - 140		Recovery =	75.02%
Target Compounds			
2) L1 PCB1254{1}	8.14	391548	483.765 UG/L
3) L1 PCB1254{2}	8.32	1348623	481.338 UG/L
4) L1 PCB1254{3}	8.61	1346786	480.345 UG/L
5) L1 PCB1254{4}	9.46	765212	486.972 UG/L
6) L1 PCB1254{5}	9.75	811224	444.091 UG/L
Sum PCB1254		4663393	2376.511 UG/L
Average PCB1254			475.302 UG/L

(f)=RT Delta > 1/2 Window
(m)-manual int.

Quantitation Report

Data File : C:\HPCHEM\1\DATA\071599\7G2346.D
Acq On : 15 Jul 1999 6:38 pm
Sample : ALT 1254 .50 PPM
Misc :
IntFile : AUTOINT1.E
Quant Time: Jul 16 8:39 1999 Quant Results File: 1254SF.RES

Vial: 16
Operator: CDB
Inst : HP7
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\1254SF.M (Chemstation Integrator)
Title : PCB
Last Update : Fri Jul 16 08:38:41 1999
Response via : Single Level Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :

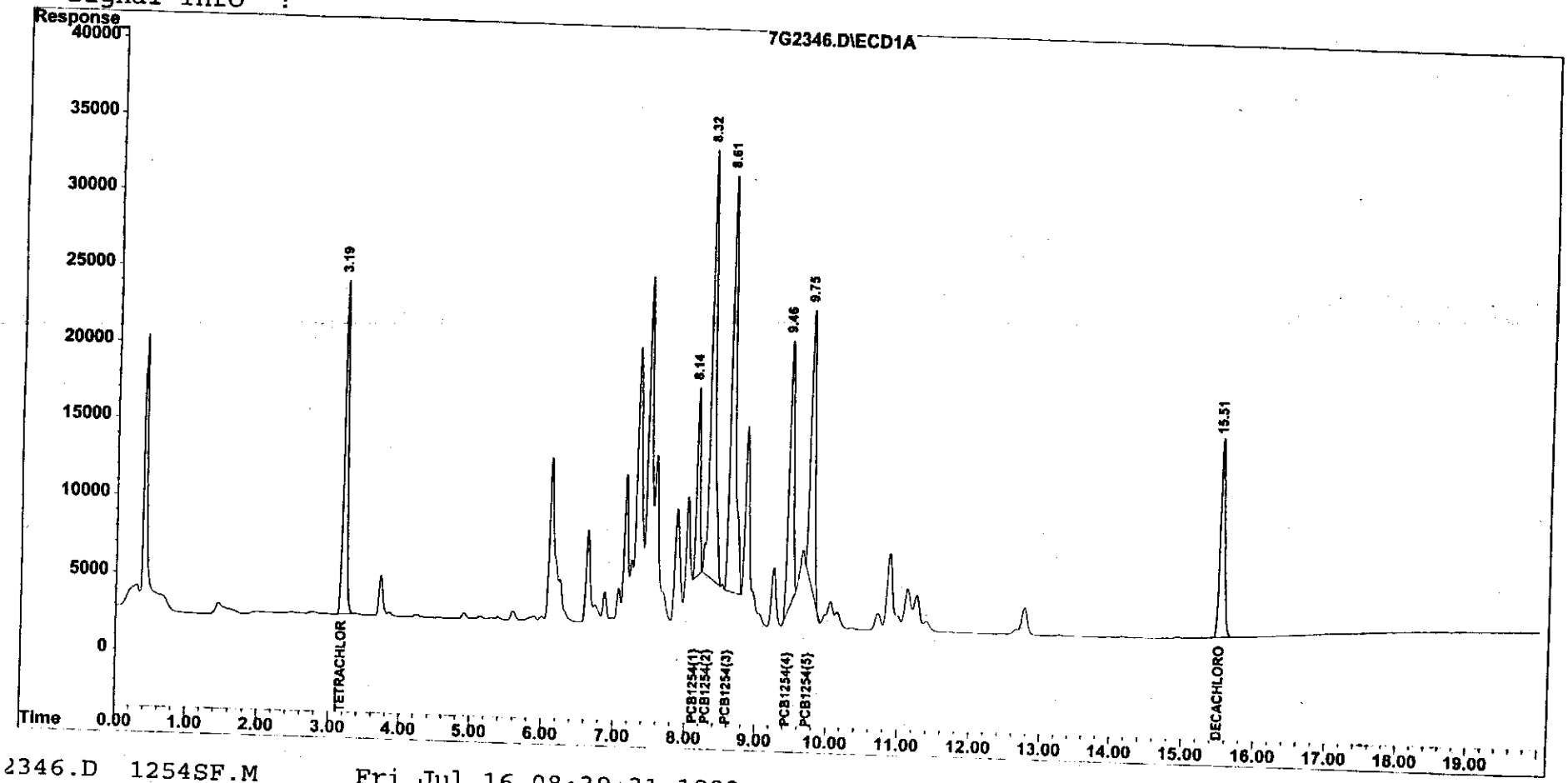

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\071599\7G2347.D
Acq On : 15 Jul 1999 7:03 pm
Sample : ALT 1660 .50 PPM
Misc :
IntFile : EVENTS.E

Vial: 17
Operator: CDB
Inst : HP7
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\8082.M (Chemstation Integrator)
Title : PCB
Last Update : Thu Jul 15 14:47:59 1999
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	S	TETRACHLORO-M-XYL	25.000	23.917	4.3	91	0.00
2	L1	PCB1016{1}	500.000	443.900	11.2	92	0.00
3	L1	PCB1016{2}	500.000	451.435	9.7	92	0.00
4	L1	PCB1016{3}	500.000	455.396	8.9	92	0.00
5	L1	PCB1016{4}	500.000	465.118	7.0	91	0.00
6	L1	PCB1016{5}	500.000	452.717	9.5	91	0.00
7	L2	PCB1260{1}	500.000	459.117	8.2	92	0.00
8	L2	PCB1260{2}	500.000	459.970	8.0	92	0.00
9	L2	PCB1260{3}	500.000	459.309	8.1	91	0.00
10	L2	PCB1260{4}	500.000	464.445	7.1	92	0.00
11	L2	PCB1260{5}	500.000	457.514	8.5	91	0.00
12	S	DECACHLOROBIPHENYL	25.000	22.924	8.3	90	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0
7G2347.D 8082.M Fri Jul 16 08:40:06 1999

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\071599\7G2347.D
Acq On : 15 Jul 1999 7:03 pm
Sample : ALT 1660 .50 PPM
Misc :
IntFile : EVENTS.E
Quant Time: Jul 16 8:39 1999 Quant Results File: 8082.RES

Vial: 17
Operator: CDB
Inst : HP7
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\8082.M (Chemstation Integrator)
Title : PCB
Last Update : Thu Jul 15 14:47:59 1999
Response via : Initial Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S TETRACHLORO-M-XYL	3.19	766081	23.917 UG/L
Spiked Amount 20.000 Range 13 - 154		Recovery =	119.59%
12) S DECACHLOROBIPHENYL	15.52	621218	22.924 UG/L
Spiked Amount 20.000 Range 25 - 140		Recovery =	114.62%
Target Compounds			
2) L1 PCB1016{1}	4.22	336742	443.900 UG/L
3) L1 PCB1016{2}	4.90	771895	451.435 UG/L
4) L1 PCB1016{3}	5.38	385797	455.396 UG/L
5) L1 PCB1016{4}	5.59	1414632	465.118 UG/L
6) L1 PCB1016{5}	5.82	669470	452.717 UG/L
Sum PCB1016		3578535	2268.565 UG/L
Average PCB1016			453.713 UG/L
7) L2 PCB1260{1}	8.61	1240232	459.117 UG/L
8) L2 PCB1260{2}	8.84	1285614	459.970 UG/L
9) L2 PCB1260{3}	9.24	457287	459.309 UG/L
10) L2 PCB1260{4}	10.71	777333	464.445 UG/L
11) L2 PCB1260{5}	14.15	423197	457.514 UG/L
Sum PCB1260		4183663	2300.355 UG/L
Average PCB1260			460.071 UG/L

(f)=RT Delta > 1/2 Window
(m)=manual int.

Quantification Report

Data File : C:\HPCHEM\1\DATA\071599\7G2347.D
Acq On : 15 Jul 1999 7:03 pm
Sample : ALT 1660 .50 PPM
Misc :
IntFile : EVENTS.E
Quant Time: Jul 16 8:39 1999 Quant Results File: 8082.RES

Vial: 17
Operator: CDB
Inst : HP7
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\8082.M (Chemstation Integrator)
Title : PCB
Last Update : Thu Jul 15 14:47:59 1999
Response via : Multiple Level Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :

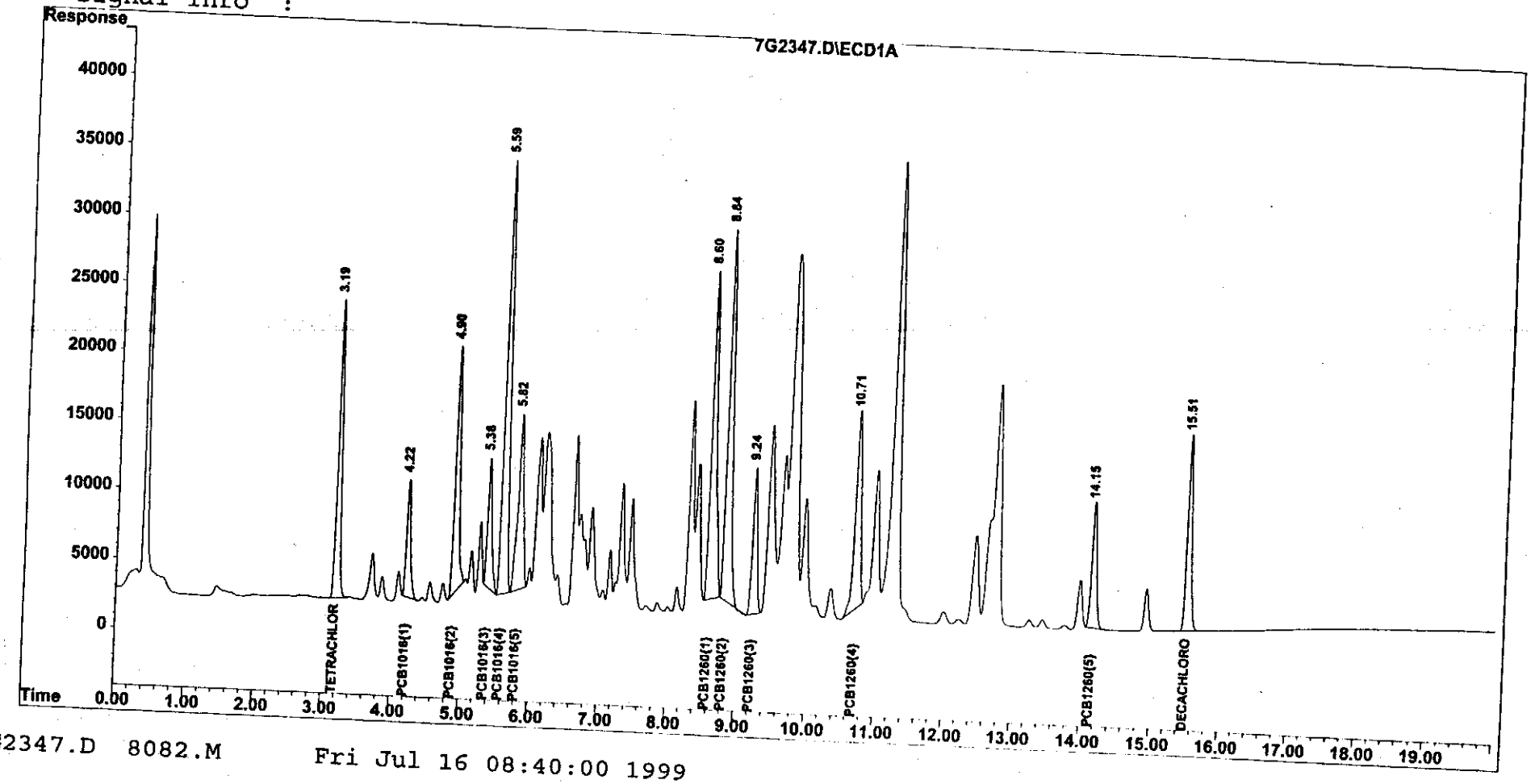

7G2347.D 8082.M Fri Jul 16 08:40:00 1999

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\072699\7G2619.D
Acq On : 26 Jul 1999 9:37 am
Sample : 1660 CONT CHK
Misc :
IntFile : EVENTS.E

Vial: 1
Operator: CDB
Inst : HP7
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\8082.M (Chemstation Integrator)
Title : PCB
Last Update : Mon Jul 26 10:45:16 1999
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	S	TETRACHLORO-M-XYL	25.000	27.836	-11.3	106	0.00
2	L1	PCB1016{1}	500.000	505.361	-1.1	105	0.00
3	L1	PCB1016{2}	500.000	513.790	-2.8	105	0.00
4	L1	PCB1016{3}	500.000	524.847	-5.0	106	0.00
5	L1	PCB1016{4}	500.000	529.614	-5.9	104	0.00
6	L1	PCB1016{5}	500.000	517.635	-3.5	104	0.00
7	L2	PCB1260{1}	500.000	524.764	-5.0	106	0.00
8	L2	PCB1260{2}	500.000	524.063	-4.8	105	0.00
9	L2	PCB1260{3}	500.000	529.141	-5.8	105	0.00
10	L2	PCB1260{4}	500.000	532.421	-6.5	105	0.00
11	L2	PCB1260{5}	500.000	515.042	-3.0	103	0.00
12	S	DECACHLOROBIPHENYL	25.000	24.679	1.3	97	0.00

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\072699\7G2619.D
Acq On : 26 Jul 1999 9:37 am
Sample : 1660 CONT CHK
Misc :
IntFile : EVENTS.E
Quant Time: Jul 26 10:45 1999 Quant Results File: 8082.RES

Vial: 1
Operator: CDB
Inst : HP7
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\8082.M (Chemstation Integrator)
Title : PCB
Last Update : Mon Jul 26 10:45:16 1999
Response via : Initial Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S TETRACHLORO-M-XYL	3.21	891590	27.836 UG/L
Spiked Amount 20.000 Range 13 - 154		Recovery =	139.18%
12) S DECACHLOROBIPHENYL	15.55	668770	24.679 UG/L
Spiked Amount 20.000 Range 25 - 140		Recovery =	123.40%
Target Compounds			
2) L1 PCB1016{1}	4.25	383366	505.361 UG/L
3) L1 PCB1016{2}	4.93	878514	513.790 UG/L
4) L1 PCB1016{3}	5.41	444634	524.847 UG/L
5) L1 PCB1016{4}	5.62	1610791	529.614 UG/L
6) L1 PCB1016{5}	5.85	765471	517.635 UG/L
Sum PCB1016		4082776	2591.247 UG/L
Average PCB1016			518.249 UG/L
7) L2 PCB1260{1}	8.64	1417566	524.764 UG/L
8) L2 PCB1260{2}	8.87	1464753	524.063 UG/L
9) L2 PCB1260{3}	9.28	526812	529.141 UG/L
10) L2 PCB1260{4}	10.75	891103	532.421 UG/L
11) L2 PCB1260{5}	14.19	476410	515.042 UG/L
Sum PCB1260		4776644	2625.431 UG/L
Average PCB1260			525.086 UG/L

(f)=RT Delta > 1/2 Window
(m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\1\DATA\072699\7G2619.D
Acq On : 26 Jul 1999 9:37 am
Sample : 1660 CONT CHK
Misc :
IntFile : EVENTS.E
Quant Time: Jul 26 10:45 1999 Quant Results File: 8082.RES

Vial: 1
Operator: CDB
Inst : HP7
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\8082.M (Chemstation Integrator)
Title : PCB
Last Update : Mon Jul 26 10:45:16 1999
Response via : Multiple Level Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :

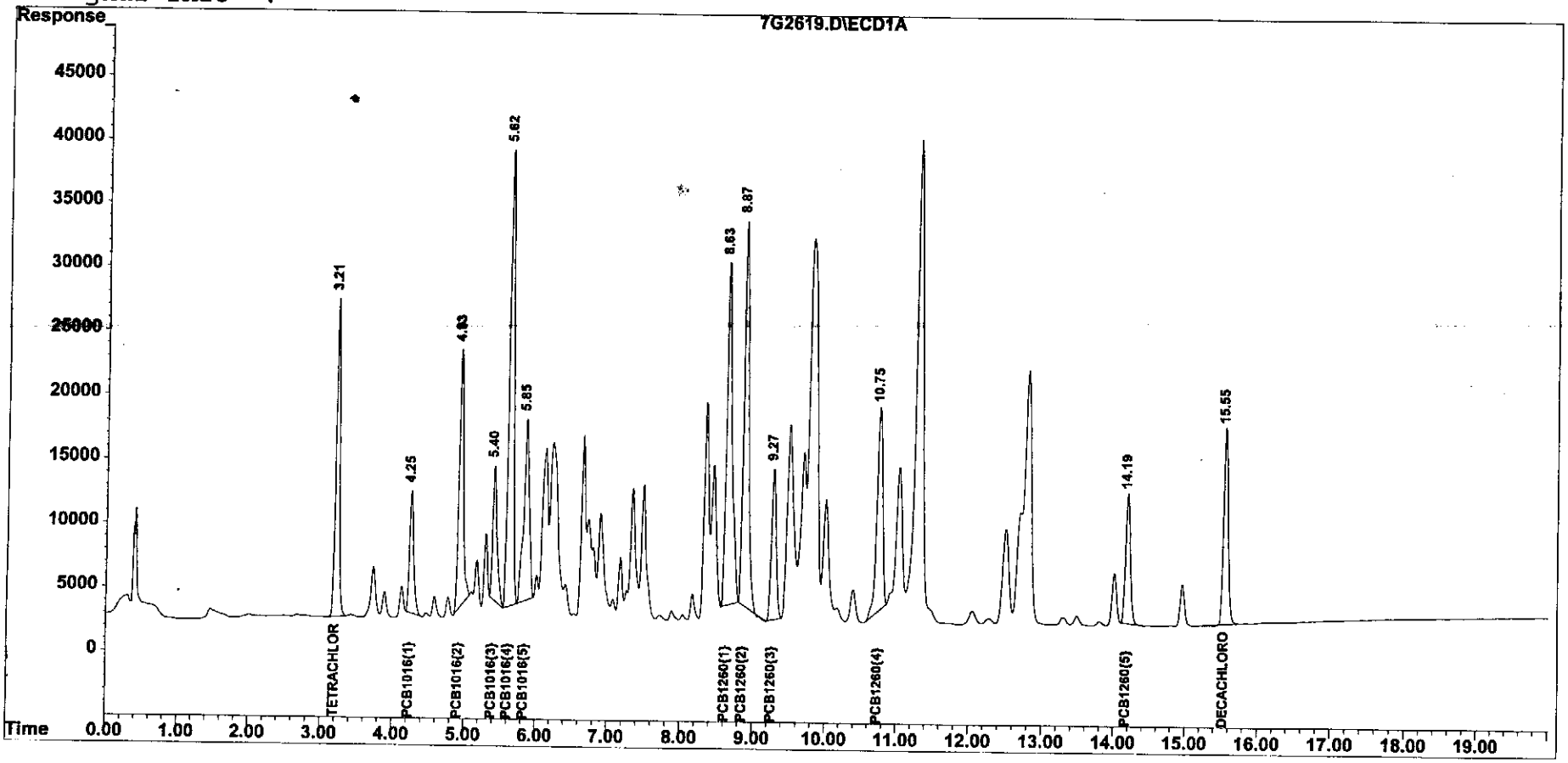

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\072699\7G2630.D
Acq On : 26 Jul 1999 2:17 pm
Sample : 1660 CONT CHK
Misc :
IntFile : EVENTS.E

Vial: 12
Operator: CDB
Inst : HP7
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\8082.M (Chemstation Integrator)
Title : PCB
Last Update : Mon Jul 26 10:45:16 1999
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	S	TETRACHLORO-M-XYL	25.000	29.669	-18.7#	113	-0.01
2	L1	PCB1016{1}	500.000	536.606	-7.3	111	-0.01
3	L1	PCB1016{2}	500.000	538.839	-7.8	110	-0.01
4	L1	PCB1016{3}	500.000	544.252	-8.9	110	-0.01
5	L1	PCB1016{4}	500.000	558.257	-11.7	109	-0.01
6	L1	PCB1016{5}	500.000	541.706	-8.3	109	-0.01
7	L2	PCB1260{1}	500.000	510.953	-2.2	103	-0.01
8	L2	PCB1260{2}	500.000	514.281	-2.9	103	-0.02
9	L2	PCB1260{3}	500.000	521.247	-4.2	104	-0.02
10	L2	PCB1260{4}	500.000	525.034	-5.0	104	-0.02
11	L2	PCB1260{5}	500.000	494.599	1.1	99	-0.02
12	S	DECACHLOROBIPHENYL	25.000	25.413	-1.7	100	-0.01

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\072699\7G2630.D Vial: 12
Acq On : 26 Jul 1999 2:17 pm Operator: CDB
Sample : 1660 CONT CHK Inst : HP7
Misc : Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: Jul 26 14:50 1999 Quant Results File: 8082.RES

Quant Method : C:\HPCHEM\1\METHODS\8082.M (Chemstation Integrator)
Title : PCB
Last Update : Mon Jul 26 10:45:16 1999
Response via : Initial Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S TETRACHLORO-M-XYL	3.20	950292	29.669 UG/L
Spiked Amount 20.000 Range 13 - 154		Recovery =	148.35%
12) S DECACHLOROBIPHENYL	15.53	688683	25.413 UG/L
Spiked Amount 20.000 Range 25 - 140		Recovery =	127.07%
Target Compounds			
2) L1 PCB1016{1}	4.24	407069	536.606 UG/L
3) L1 PCB1016{2}	4.91	921344	538.839 UG/L
4) L1 PCB1016{3}	5.39	461073	544.252 UG/L
5) L1 PCB1016{4}	5.61	1697908	558.257 UG/L
6) L1 PCB1016{5}	5.84	801067	541.706 UG/L
Sum PCB1016		4288460	2719.660 UG/L
Average PCB1016			543.932 UG/L
7) L2 PCB1260{1}	8.62	1380257	510.953 UG/L
8) L2 PCB1260{2}	8.85	1437412	514.281 UG/L
9) L2 PCB1260{3}	9.26	518953	521.247 UG/L
10) L2 PCB1260{4}	10.73	878740	525.034 UG/L
11) L2 PCB1260{5}	14.17	457500	494.599 UG/L
Sum PCB1260		4672862	2566.114 UG/L
Average PCB1260			513.223 UG/L

(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\1\DATA\072699\7G2630.D
Acq On : 26 Jul 1999 2:17 pm
Sample : 1660 CONT CHK
Misc :
IntFile : EVENTS.E
Quant Time: Jul 26 14:50 1999 Quant Results File: 8082.RES

Vial: 12
Operator: CDB
Inst : HP7
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\8082.M (Chemstation Integrator)
Title : PCB
Last Update : Mon Jul 26 10:45:16 1999
Response via : Multiple Level Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :

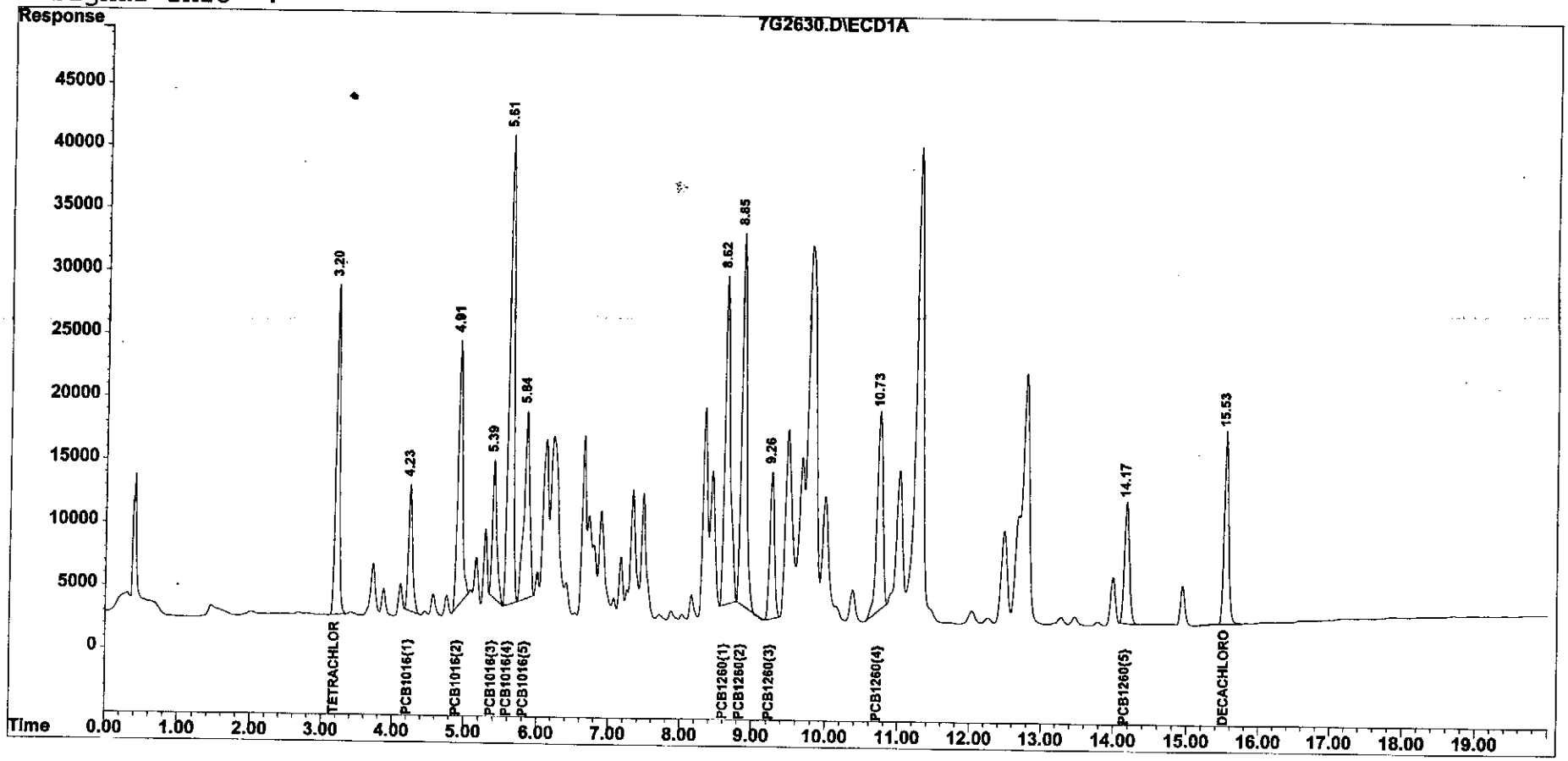

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\072699\7G2641.D
Acq On : 26 Jul 1999 6:58 pm
Sample : 1660 CONT CHK
Misc :
IntFile : EVENTS.E

Vial: 23
Operator: CDB
Inst : HP7
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\8082.M (Chemstation Integrator)
Title : PCB
Last Update : Mon Jul 26 10:45:16 1999
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	S	TETRACHLORO-M-XYL	25.000	26.876	-7.5	103	-0.01
2	L1	PCB1016{1}	500.000	495.632	0.9	103	-0.01
3	L1	PCB1016{2}	500.000	502.527	-0.5	102	-0.01
4	L1	PCB1016{3}	500.000	498.232	0.4	100	-0.01
5	L1	PCB1016{4}	500.000	519.268	-3.9	102	-0.01
6	L1	PCB1016{5}	500.000	508.003	-1.6	102	-0.01
7	L2	PCB1260{1}	500.000	506.764	-1.4	102	-0.01
8	L2	PCB1260{2}	500.000	507.703	-1.5	102	-0.02
9	L2	PCB1260{3}	500.000	516.146	-3.2	103	-0.02
10	L2	PCB1260{4}	500.000	519.523	-3.9	103	-0.02
11	L2	PCB1260{5}	500.000	515.756	-3.2	103	-0.02
12	S	DECACHLOROBIPHENYL	25.000	25.613	-2.5	101	-0.02

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\072699\7G2641.D Vial: 23
Acq On : 26 Jul 1999 6:58 pm Operator: CDB
Sample : 1660 CONT CHK Inst : HP7
Misc : Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: Jul 27 7:43 1999 Quant Results File: 8082.RES

Quant Method : C:\HPCHEM\1\METHODS\8082.M (Chemstation Integrator)
Title : PCB
Last Update : Mon Jul 26 10:45:16 1999
Response via : Initial Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S TETRACHLORO-M-XYL	3.20	860831	26.876 UG/L
Spiked Amount 20.000 Range 13 - 154		Recovery =	134.38%
12) S DECACHLOROBIPHENYL	15.53	694096	25.613 UG/L
Spiked Amount 20.000 Range 25 - 140		Recovery =	128.07%
Target Compounds			
2) L1 PCB1016{1}	4.24	375986	495.632 UG/L
3) L1 PCB1016{2}	4.91	859255	502.527 UG/L
4) L1 PCB1016{3}	5.39	422087	498.232 UG/L
5) L1 PCB1016{4}	5.61	1579325	519.268 UG/L
6) L1 PCB1016{5}	5.84	751227	508.003 UG/L
Sum PCB1016		3987880	2523.662 UG/L
Average PCB1016			504.732 UG/L
7) L2 PCB1260{1}	8.62	1368941	506.764 UG/L
8) L2 PCB1260{2}	8.85	1419026	507.703 UG/L
9) L2 PCB1260{3}	9.26	513875	516.146 UG/L
10) L2 PCB1260{4}	10.73	869515	519.523 UG/L
11) L2 PCB1260{5}	14.17	477071	515.756 UG/L
Sum PCB1260		4648428	2565.892 UG/L
Average PCB1260			513.178 UG/L

(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\1\DATA\072699\7G2641.D
Acq On : 26 Jul 1999 6:58 pm
Sample : 1660 CONT CHK
Misc :
IntFile : EVENTS.E
Quant Time: Jul 27 7:43 1999 Quant Results File: 8082.RES

Vial: 23
Operator: CDB
Inst : HP7
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\8082.M (Chemstation Integrator)
Title : PCB
Last Update : Mon Jul 26 10:45:16 1999
Response via : Multiple Level Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :

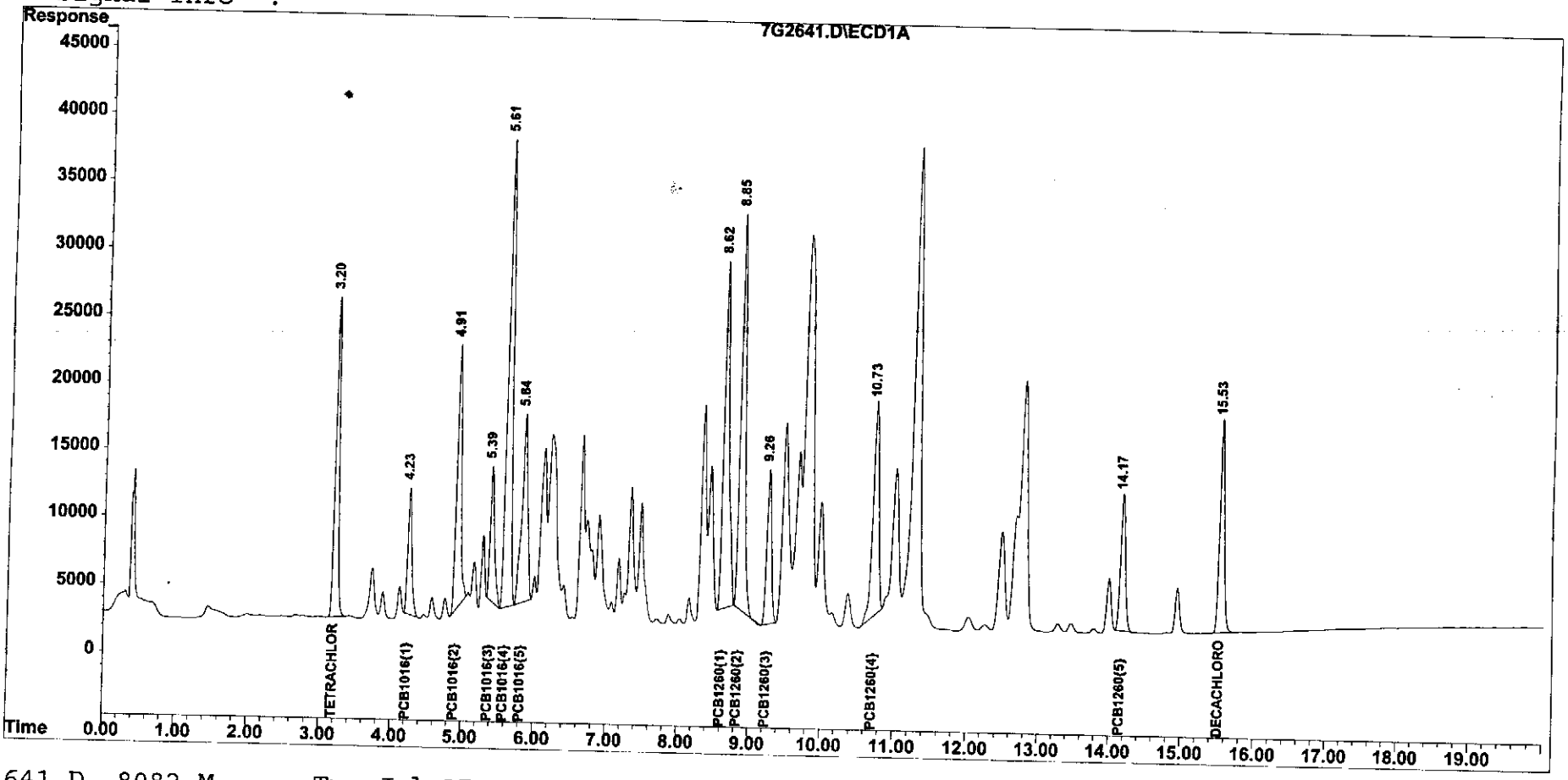

7G2641.D 8082.M Tue Jul 27 07:43:34 1999

PCB's

Raw QC Data

- Method Blank, chromatograms and GC integration reports for each column
- Laboratory Control Sample, chromatograms and GC integration reports for each column
- Matrix Spike/Matrix Spike Duplicate, chromatograms and GC integration reports for each column (if not reported as samples)
- Instrument runlogs
- Extraction bench sheets

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\072699\7G2620.D Vial: 2
Acq On : 26 Jul 1999 10:03 am Operator: CDB
Sample : BLANK WG61476 V120P27 Inst : HP7
Misc : SOIL Multiplr: 0.33
IntFile : EVENTS.E
Quant Time: Jul 26 14:47 1999 Quant Results File: 8082.RES

Quant Method : C:\HPCHEM\1\METHODS\8082.M (Chemstation Integrator)
Title : PCB
Last Update : Mon Jul 26 10:45:16 1999
Response via : Initial Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S TETRACHLORO-M-XYL	3.20	485019	15.143 UG/L
Spiked Amount 20.000 Range 29 - 133		Recovery =	75.72%
12) S DECACHLOROBIPHENYL	15.54	660571	24.376 UG/L
Spiked Amount 20.000 Range 30 - 173		Recovery =	121.88%
Target Compounds			
2) L1 PCB1016{1}	0.00	0	N.D. UG/L
3) L1 PCB1016{2}	0.00	0	N.D. UG/L
4) L1 PCB1016{3}	0.00	0	N.D. UG/L
5) L1 PCB1016{4}	0.00	0	N.D. UG/L
6) L1 PCB1016{5}	0.00	0	N.D. UG/L
Sum PCB1016		0	N.D. UG/L
Average PCB1016			0.000 UG/L
7) L2 PCB1260{1}	0.00	0	N.D. UG/L
8) L2 PCB1260{2}	8.92f	26275	3.102 UG/L
9) L2 PCB1260{3}	9.26	7426	2.461 UG/L
10) L2 PCB1260{4}	0.00	0	N.D. UG/L
11) L2 PCB1260{5}	0.00	0	N.D. UG/L
Sum PCB1260		33701	5.564 UG/L
Average PCB1260			2.782 UG/L

(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\1\DATA\072699\7G2620.D
Acq On : 26 Jul 1999 10:03 am
Sample : BLANK WG61476 V120P27
Misc : SOIL
IntFile : EVENTS.E
Quant Time: Jul 26 14:47 1999 Quant Results File: 8082.RES

Vial: 2
Operator: CDB
Inst : HP7
Multiplr: 0.33

Quant Method : C:\HPCHEM\1\METHODS\8082.M (Chemstation Integrator)
Title : PCB
Last Update : Mon Jul 26 10:45:16 1999
Response via : Multiple Level Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :

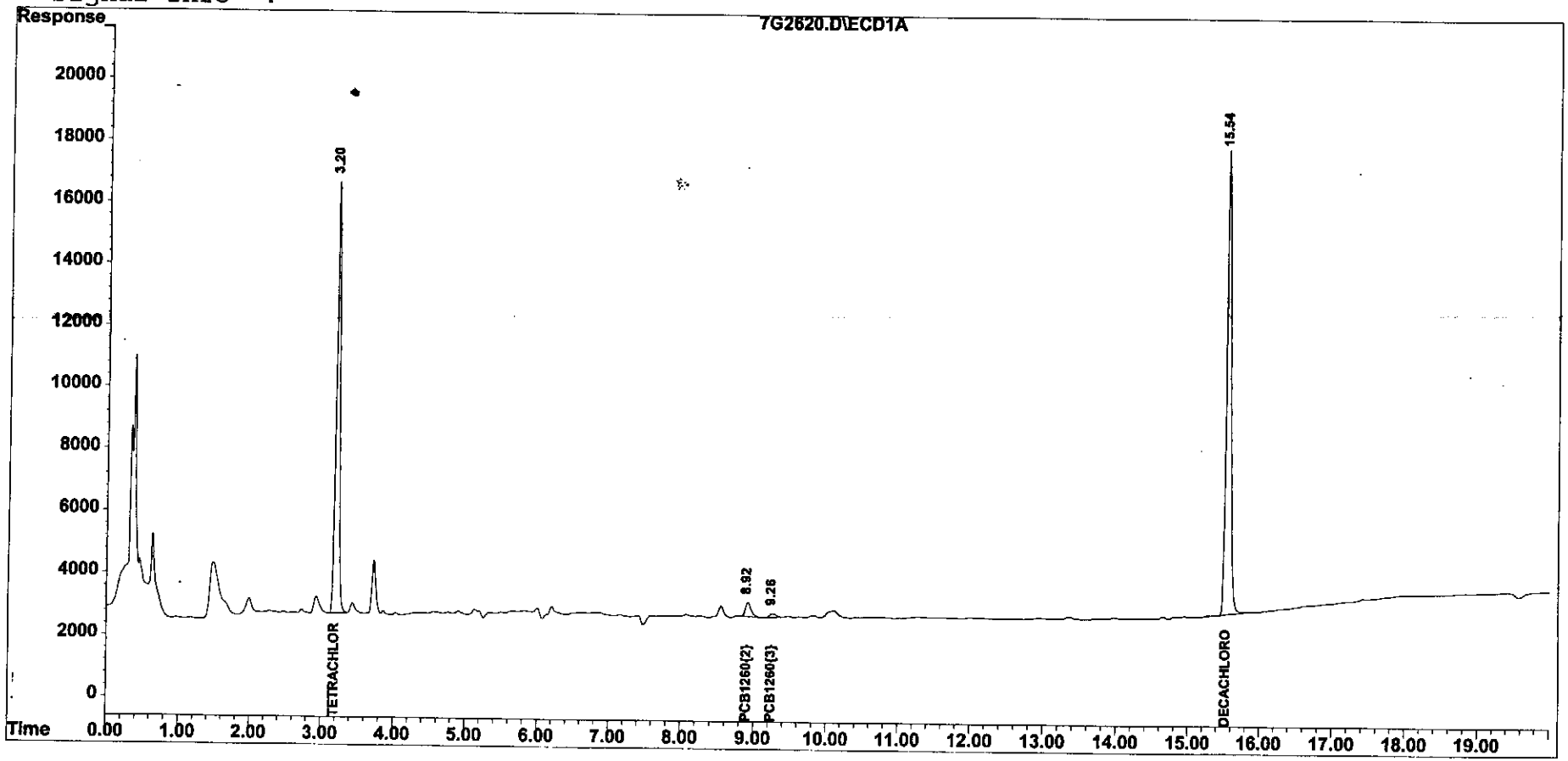

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\072699\7G2621.D
Acq On : 26 Jul 1999 10:28 am
Sample : LCS WG61476 V120P27
Misc : SOIL
IntFile : EVENTS.E
Quant Time: Jul 26 14:47 1999 Quant Results File: 8082.RES

Vial: 3
Operator: CDB
Inst : HP7
Multiplr: 0.33

Quant Method : C:\HPCHEM\1\METHODS\8082.M (Chemstation Integrator)
Title : PCB
Last Update : Mon Jul 26 10:45:16 1999
Response via : Initial Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S TETRACHLORO-M-XYL	3.20	523056	16.330 UG/L
Spiked Amount 20.000 Range 29 - 133		Recovery =	81.65%
12) S DECACHLOROBIPHENYL	15.54	701222	25.876 UG/L
Spiked Amount 20.000 Range 30 - 173		Recovery =	129.38%
Target Compounds			
2) L1 PCB1016{1}	4.24	173193	75.341 UG/L
3) L1 PCB1016{2}	4.92	398750	76.958 UG/L
4) L1 PCB1016{3}	5.40	189360	73.762 UG/L
5) L1 PCB1016{4}	5.61	709340	76.964 UG/L
6) L1 PCB1016{5}	5.84	336543	75.102 UG/L
Sum PCB1016		1807185	378.126 UG/L
Average PCB1016			75.625 UG/L
7) L2 PCB1260{1}	8.63	613268	74.918 UG/L
8) L2 PCB1260{2}	8.86	665558	78.581 UG/L
9) L2 PCB1260{3}	9.27	226552	75.093 UG/L
10) L2 PCB1260{4}	10.74	392259	77.342 UG/L
11) L2 PCB1260{5}	14.18	206950	73.831 UG/L
Sum PCB1260		2104586	379.765 UG/L
Average PCB1260			75.953 UG/L

(f)=RT Delta > 1/2 Window (m)=manual int.
7G2621.D 8082.M Mon Jul 26 14:47:18 1999

Quantitation Report

Data File : C:\HPCHEM\1\DATA\072699\7G2621.D
Acq On : 26 Jul 1999 10:28 am
Sample : LCS WG61476 V120P27
Misc : SOIL
IntFile : EVENTS.E
Quant Time: Jul 26 14:47 1999 Quant Results File: 8082.RES

Vial: 3
Operator: CDB
Inst : HP7
Multiplr: 0.33

Quant Method : C:\HPCHEM\1\METHODS\8082.M (Chemstation Integrator)
Title : PCB
Last Update : Mon Jul 26 10:45:16 1999
Response via : Multiple Level Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :

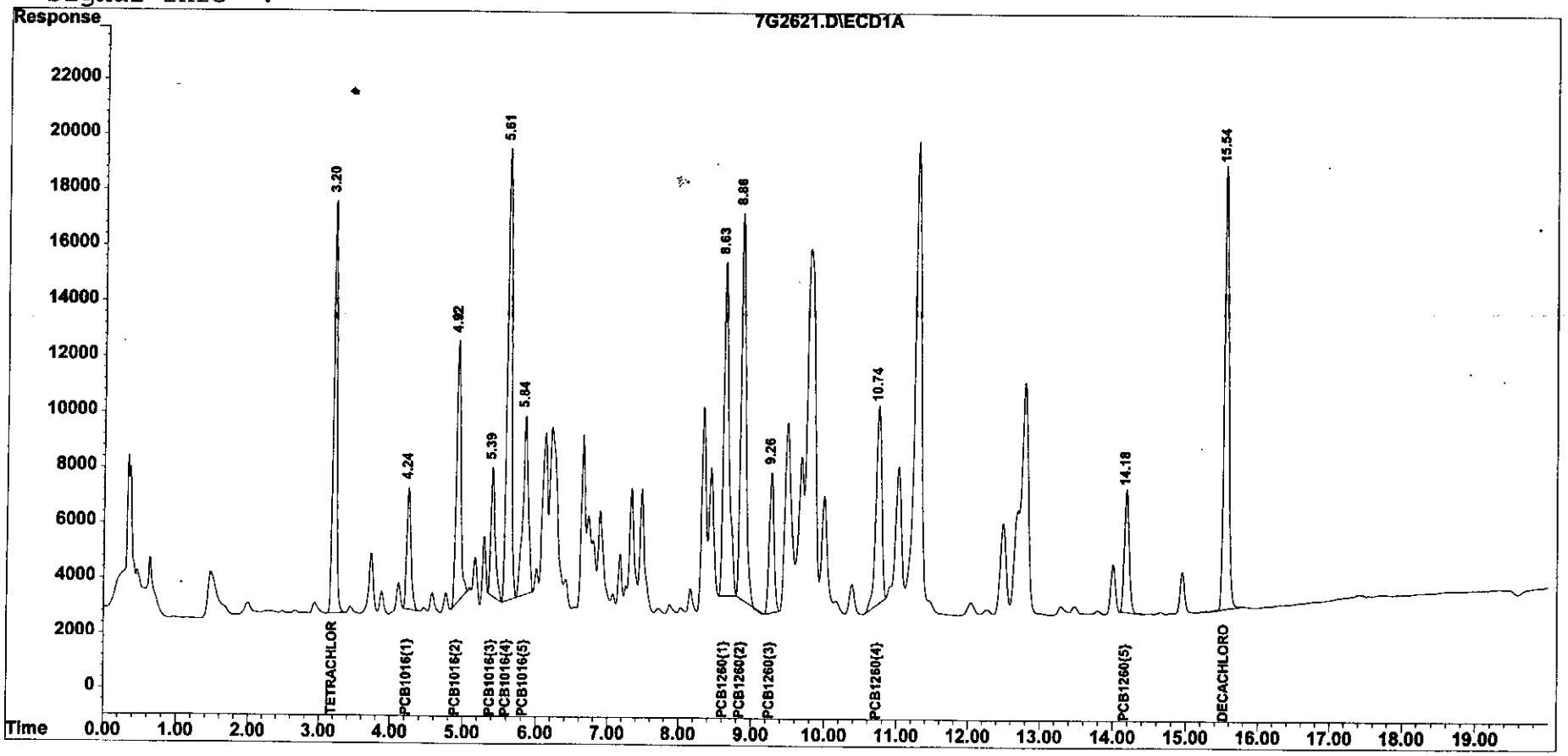

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\072699\7G2624.D Vial: 6
Acq On : 26 Jul 1999 11:44 am Operator: CDB
Sample : 07-381-02 MS 5X Inst : HP7
Misc : SOIL Multiplr: 1.67
IntFile : EVENTS.E
Quant Time: Jul 26 14:47 1999 Quant Results File: 8082.RES

Quant Method : C:\HPCHEM\1\METHODS\8082.M (Chemstation Integrator)
Title : PCB
Last Update : Mon Jul 26 10:45:16 1999
Response via : Initial Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S TETRACHLORO-M-XYL	3.20	85986	2.685 UG/L
Spiked Amount 20.000 Range 29 - 133		Recovery =	13.43%#
12) S DECACHLOROBIPHENYL	15.54	92244	3.404 UG/L
Spiked Amount 20.000 Range 30 - 173		Recovery =	17.02%#
Target Compounds			
2) L1 PCB1016{1}	4.24	35632	78.441 UG/L
3) L1 PCB1016{2}	4.92	69526	67.904 UG/L
4) L1 PCB1016{3}	5.40	23851	47.017 UG/L
5) L1 PCB1016{4}	5.61	115537	63.439 UG/L
6) L1 PCB1016{5}	5.84	52976	59.827 UG/L
Sum PCB1016		297522	316.629 UG/L
Average PCB1016			63.326 UG/L
7) L2 PCB1260{1}	8.63	95527	59.056 UG/L
8) L2 PCB1260{2}	8.86	44011	26.296 UG/L
9) L2 PCB1260{3}	9.27	26673	44.741 UG/L
10) L2 PCB1260{4}	10.74	54146	54.027 UG/L
11) L2 PCB1260{5}	14.18	27805	50.199 UG/L
Sum PCB1260		248162	234.320 UG/L
Average PCB1260			46.864 UG/L

(f)=RT Delta > 1/2 Window (m)=manual Int.
7G2624.D 8082.M Mon Jul 26 14:47:44 1999

Quantitation Report

Data File : C:\HPCHEM\1\DATA\072699\7G2624.D
Acq On : 26 Jul 1999 11:44 am
Sample : 07-381-02 MS 5X
Misc : SOIL
IntFile : EVENTS.E
Quant Time: Jul 26 14:47 1999 Quant Results File: 8082.RES

Vial: 6
Operator: CDB
Inst : HP7
Multiplr: 1.67

Quant Method : C:\HPCHEM\1\METHODS\8082.M (Chemstation Integrator)
Title : PCB
Last Update : Mon Jul 26 10:45:16 1999
Response via : Multiple Level Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :

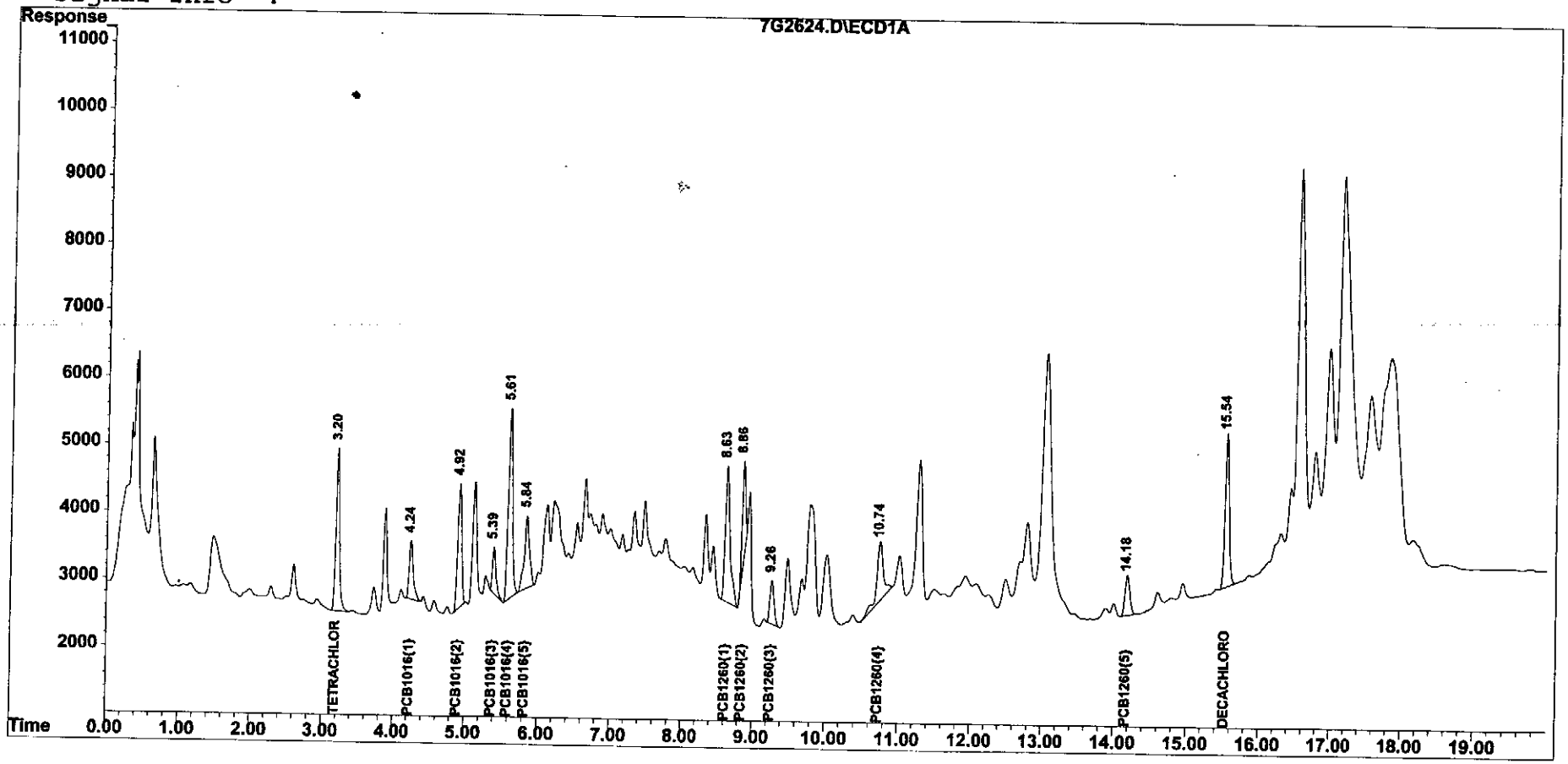

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\072699\7G2625.D
Acq On : 26 Jul 1999 12:10 pm
Sample : 07-381-02 MSD 5X
Misc : SOIL
IntFile : EVENTS.E
Quant Time: Jul 26 14:47 1999 Quant Results File: 8082.RES

Vial: 7
Operator: CDB
Inst : HP7
Multiplr: 1.67

Quant Method : C:\HPCHEM\1\METHODS\8082.M (Chemstation Integrator)
Title : PCB
Last Update : Mon Jul 26 10:45:16 1999
Response via : Initial Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S TETRACHLORO-M-XYL	3.20	73621	2.298 UG/L
Spiked Amount 20.000 Range 29 - 133		Recovery =	11.49%#
12) S DECACHLOROBIPHENYL	15.55	82364	3.039 UG/L
Spiked Amount 20.000 Range 30 - 173		Recovery =	15.20%#
Target Compounds			
2) L1 PCB1016{1}	4.24	33335	73.384 UG/L
3) L1 PCB1016{2}	4.92	60740	59.324 UG/L
4) L1 PCB1016{3}	5.39	16553	32.630 UG/L
5) L1 PCB1016{4}	5.61	101635	55.806 UG/L
6) L1 PCB1016{5}	5.84	44673	50.450 UG/L
Sum PCB1016		256936	271.594 UG/L
Average PCB1016			54.319 UG/L
7) L2 PCB1260{1}	8.63	86327	53.368 UG/L
8) L2 PCB1260{2}	8.86	36534	21.829 UG/L
9) L2 PCB1260{3}	9.27	22129	37.120 UG/L
10) L2 PCB1260{4}	10.74	28592	28.529 UG/L
11) L2 PCB1260{5}	14.18	24728	44.644 UG/L
Sum PCB1260		198309	185.489 UG/L
Average PCB1260			37.098 UG/L

(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\1\DATA\072699\7G2625.D
Acq On : 26 Jul 1999 12:10 pm
Sample : 07-381-02 MSD 5X
Misc : SOIL
IntFile : EVENTS.E
Quant Time: Jul 26 14:47 1999 Quant Results File: 8082.RES

Vial: 7
Operator: CDB
Inst : HP7
Multiplr: 1.67

Quant Method : C:\HPCHEM\1\METHODS\8082.M (Chemstation Integrator)
Title : PCB
Last Update : Mon Jul 26 10:45:16 1999
Response via : Multiple Level Calibration
DataAcq Meth : 8082.M

Volume Inj. :
Signal Phase :
Signal Info :

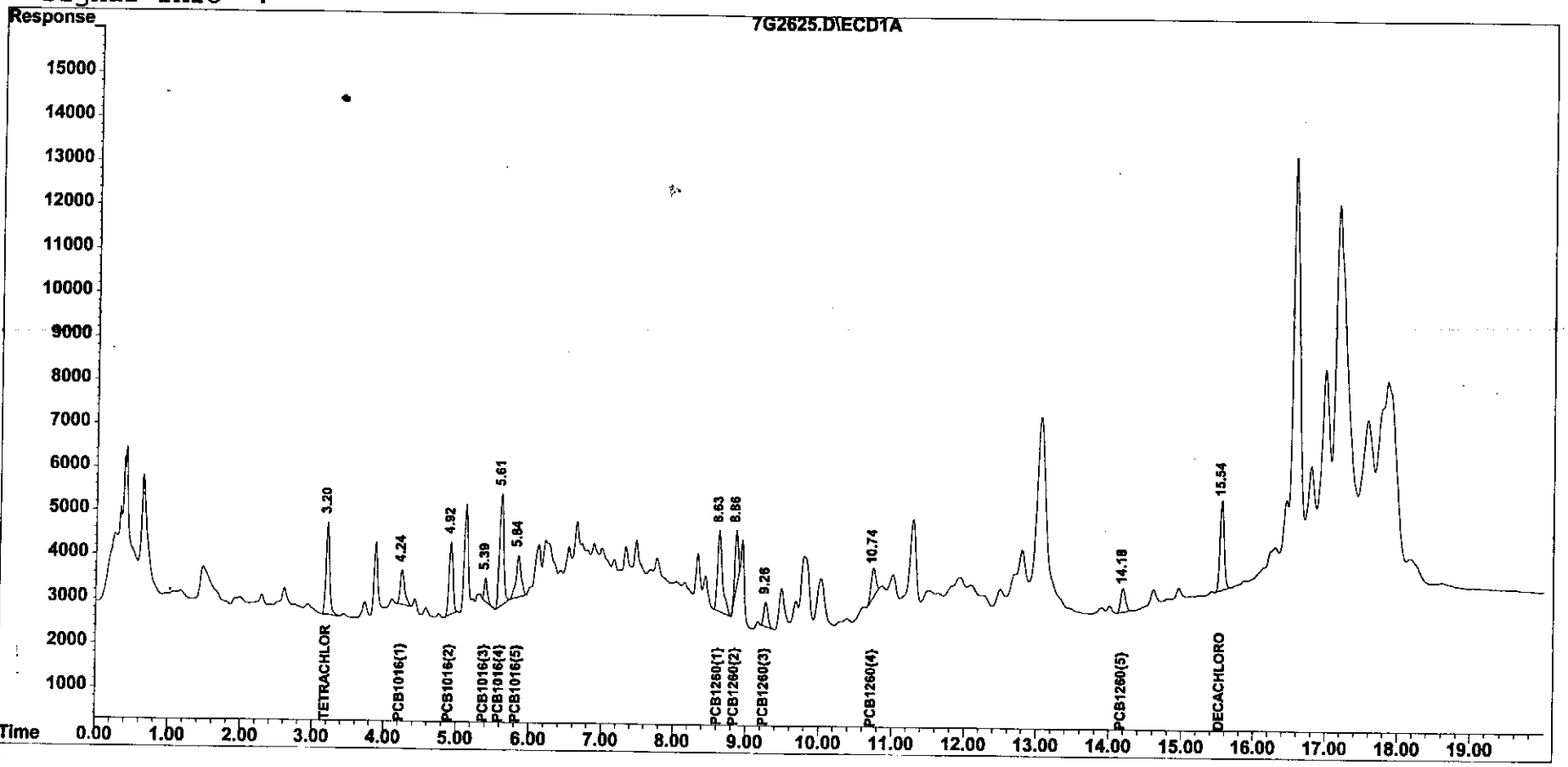

Diesel Range Organics

Sample Data

Target Compound List results - See section 1.0 (c) (laboratory report)

- Chromatograms and GC integration reports for each sample for both primary and confirmation columns

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\072399\G8012R.D
Acq On : 24 Jul 1999 19:49
Sample : 07-381-01 DRO S
Misc : SOIL
IntFile : SURR.E
Quant Time: Jul 29 17:35 1999 Quant Results File: DROR.RES

Vial: 12
Operator: HV
Inst : hp8
Multiplr: 40.00

Quant Method : C:\HPCHEM\2\METHODS\DROR.M (Chemstation Integrator)
Title : DROR 07/23/99
Last Update : Tue Jul 27 08:49:42 1999
Response via : Initial Calibration
DataAcq Meth : DROR.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S O-Terphenyl	37.61	1517803	568.362 ppb
Spiked Amount 800.000		Recovery =	71.05%
3) S Octacosane	60.84	47933	29.178 ppb m
Spiked Amount 800.000		Recovery =	3.65%
Target Compounds			
1) H Diesel Range	28.20	226145699	137629.908 ppb

(f)=RT Delta > 1/2 Window
(m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\2\DATA\072399\G8012R.D
Acq On : 24 Jul 1999 19:49
Sample : 07-381-01 DRO S
Misc : SOIL
IntFile : SURR.E
Quant Time: Jul 29 17:35 1999 Quant Results File: DROR.RES

Vial: 12
Operator: HV
Inst : hp8
Multiplr: 40.00

Quant Method : C:\HPCHEM\2\METHODS\DROR.M (Chemstation Integrator)
Title : DROR 07/23/99
Last Update : Tue Jul 27 08:49:42 1999
Response via : Multiple Level Calibration
DataAcq Meth : DROR.M

Volume Inj. :
Signal Phase :
Signal Info :

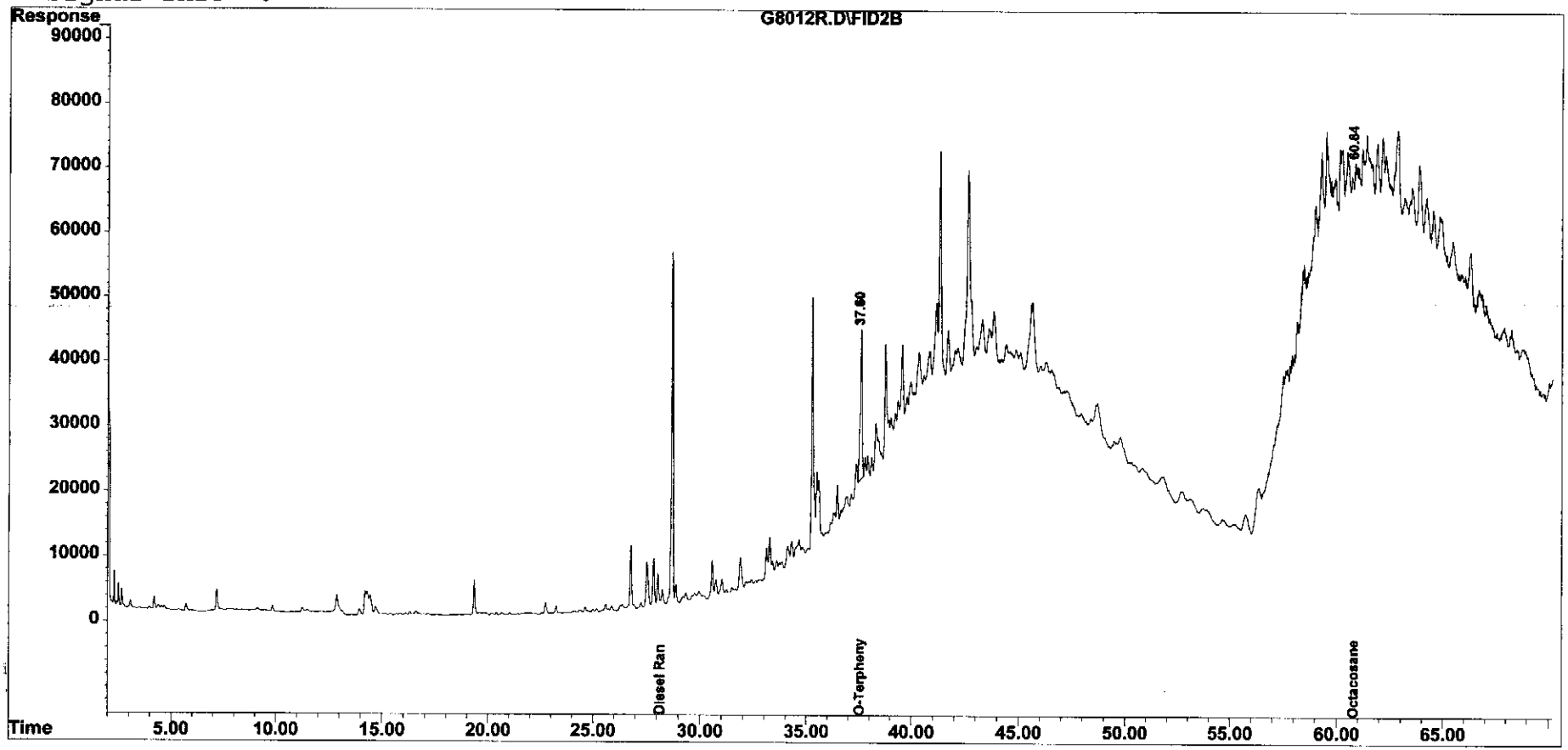

Quantitation Report

Data File : C:\HPCHEM\2\DATA\072399\G8012R.D
Acq On : 24 Jul 1999 19:49
Sample : 07-381-01 DRO S
Misc : SOIL
IntFile : SURR.E
Quant Time: Jul 27 8:55 1999 Quant Results File: DROR.RES

Vial: 12
Operator: HV
Inst : hp8
Multiplr: 40.00

Method : C:\HPCHEM\2\METHODS\DROR.M (Chemstation Integrator)
Title : DROR 07/23/99
Last Update : Tue Jul 27 08:49:42 1999
Response via : Multiple Level Calibration

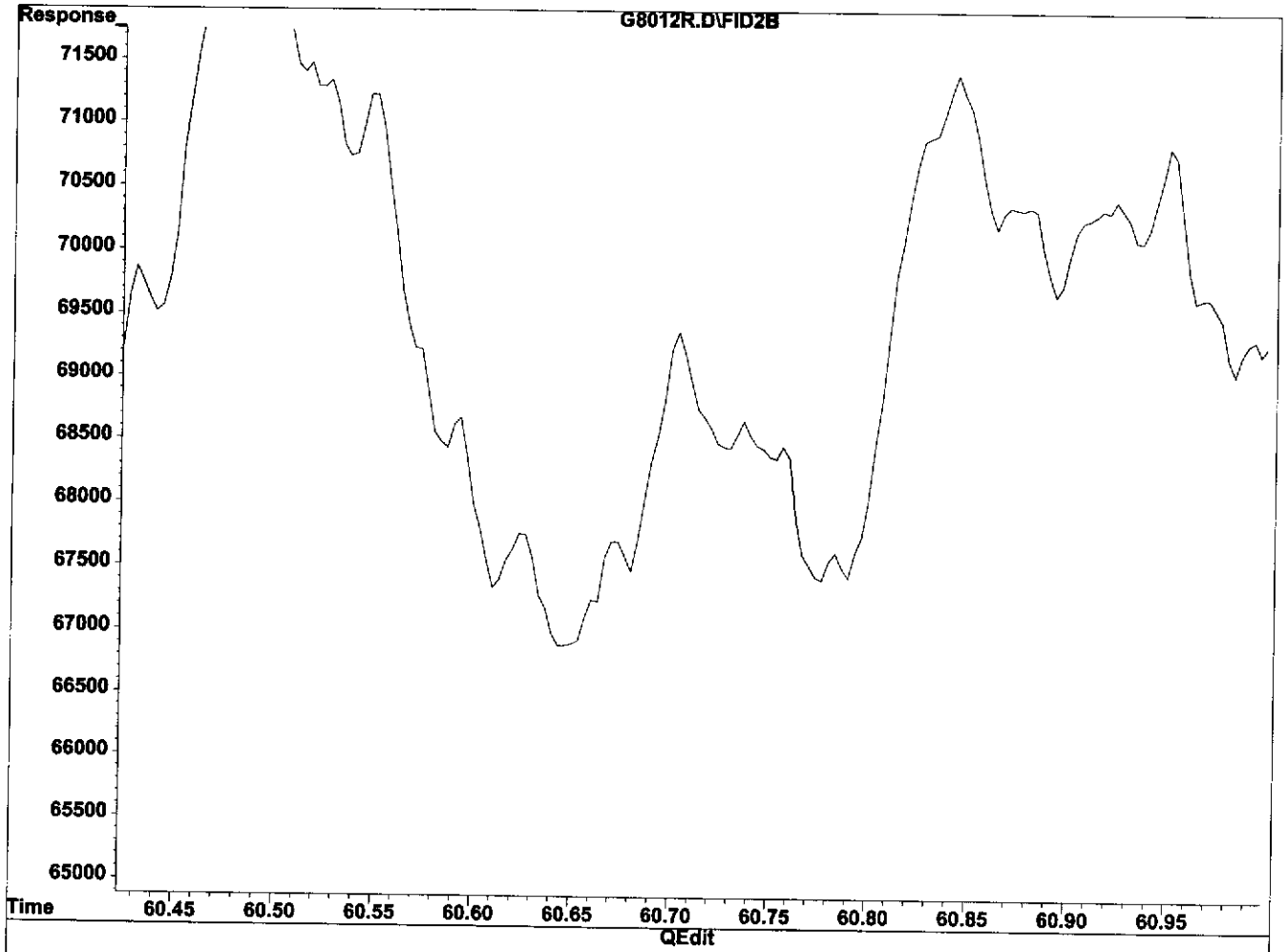

(3) Octacosane (S)

60.84min -11.586ppb

response -19034

(+) = Expected Retention Time

G8012R.D DROR.M Thu Jul 29 17:35:10 1999

Quantitation Report

Data File : C:\HPCHEM\2\DATA\072399\G8012R.D
Acq On : 24 Jul 1999 19:49
Sample : 07-381-01 DRO S
Misc : SOIL
IntFile : SURR.E
Quant Time: Jul 27 8:55 1999 Quant Results File: DROR.RES

Vial: 12
Operator: HV
Inst : hp8
Multiplr: 40.00

Method : C:\HPCHEM\2\METHODS\DROR.M (Chemstation Integrator)
Title : DROR 07/23/99
Last Update : Tue Jul 27 08:49:42 1999
Response via : Multiple Level Calibration

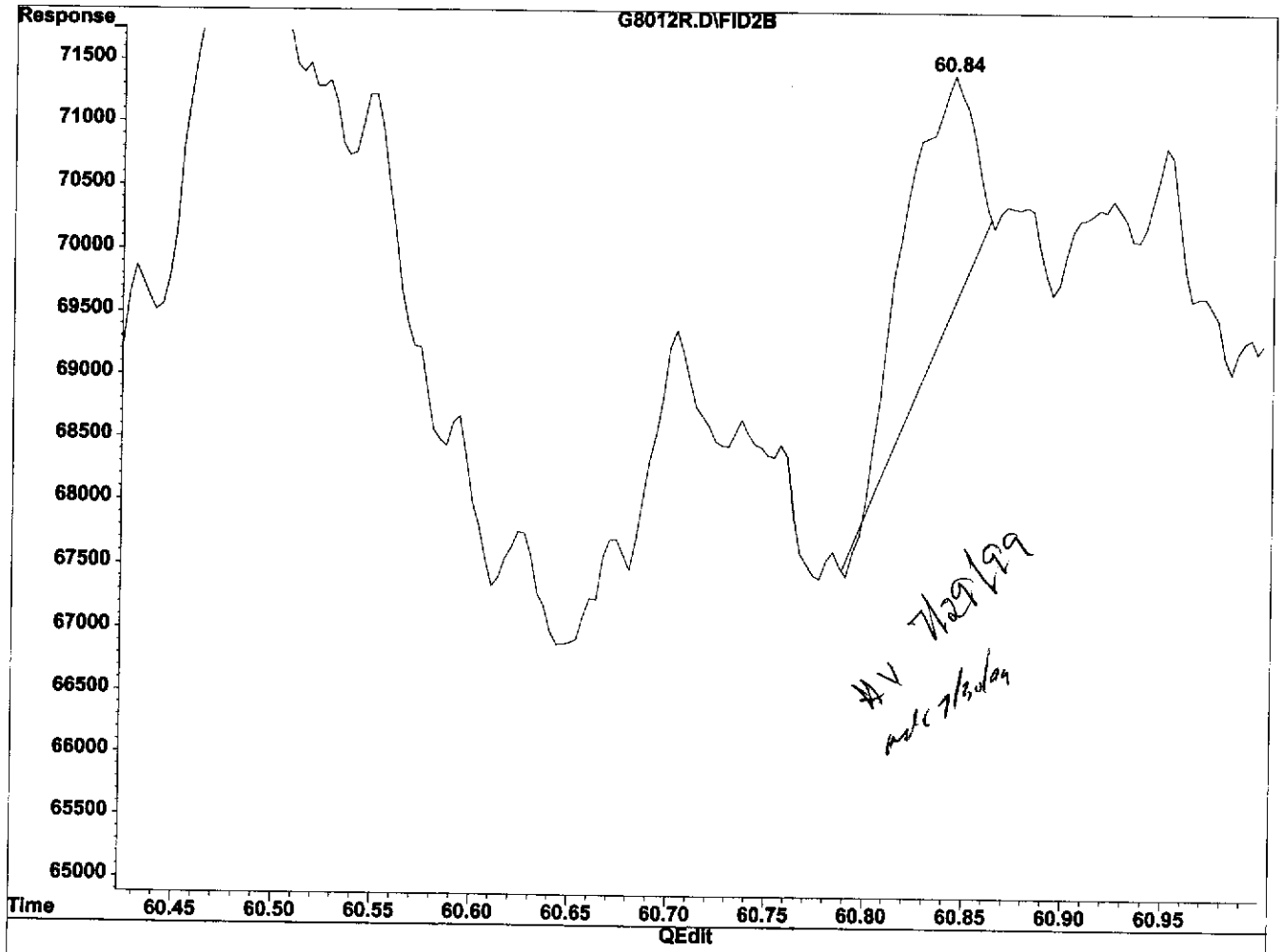

(3) Octacosane (S)

60.84min 29.178ppb m

response 47933

(+) = Expected Retention Time

G8012R.D DROR.M Thu Jul 29 17:35:44 1999

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\072399\G8013R.D
Acq On : 24 Jul 1999 21:08
Sample : 07-381-02 DRO S
Misc : SOIL
IntFile : SURR.E
Quant Time: Jul 27 8:55 1999 Quant Results File: DROR.RES

Vial: 13
Operator: HV
Inst : hp8
Multiplr: 40.00

Quant Method : C:\HPCHEM\2\METHODS\DROR.M (Chemstation Integrator)
Title : DROR 07/23/99
Last Update : Tue Jul 27 08:49:42 1999
Response via : Initial Calibration
DataAcq Meth : DROR.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S O-Terphenyl	37.61	319033	119.466 ppb
Spiked Amount 800.000		Recovery =	14.93%
3) S Octacosane	60.85	41395	25.198 ppb
Spiked Amount 800.000		Recovery =	3.15%
Target Compounds			
1) H Diesel Range	28.20	348273518	211955.622 ppb

(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\2\DATA\072399\G8013R.D Vial: 13
Acq On : 24 Jul 1999 21:08 Operator: HV
Sample : 07-381-02 DRO S Inst : hp8
Misc : SOIL Multiplr: 40.00
IntFile : SURR.E
Quant Time: Jul 27 8:55 1999 Quant Results File: DROR.RES

Quant Method : C:\HPCHEM\2\METHODS\DROR.M (Chemstation Integrator)
Title : DROR 07/23/99
Last Update : Tue Jul 27 08:49:42 1999
Response via : Multiple Level Calibration
DataAcq Meth : DROR.M

Volume Inj. :
Signal Phase :
Signal Info :

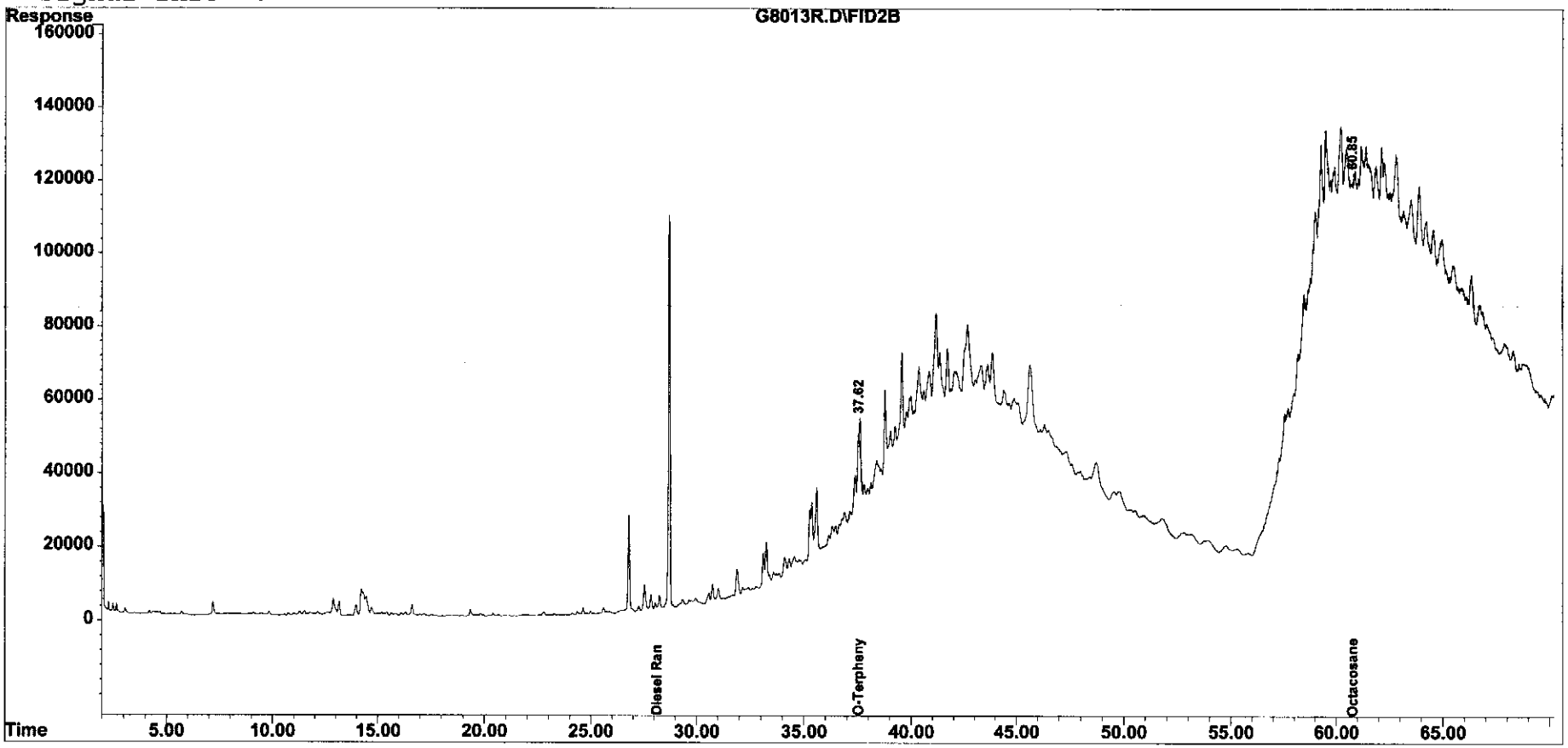

Quantitation Report

Data File : C:\HPCHEM\2\DATA\072399\G8013R.D Vial: 13
Acq On : 24 Jul 1999 21:08 Operator: HV
Sample : 07-381-02 DRO S Inst : hp8
Misc : SOIL Multiplr: 40.00
IntFile : SURR.E
Quant Time: Jul 27 8:55 1999 Quant Results File: DROR.RES

Method : C:\HPCHEM\2\METHODS\DROR.M (Chemstation Integrator)
Title : DROR 07/23/99
Last Update : Tue Jul 27 08:49:42 1999
Response via : Multiple Level Calibration

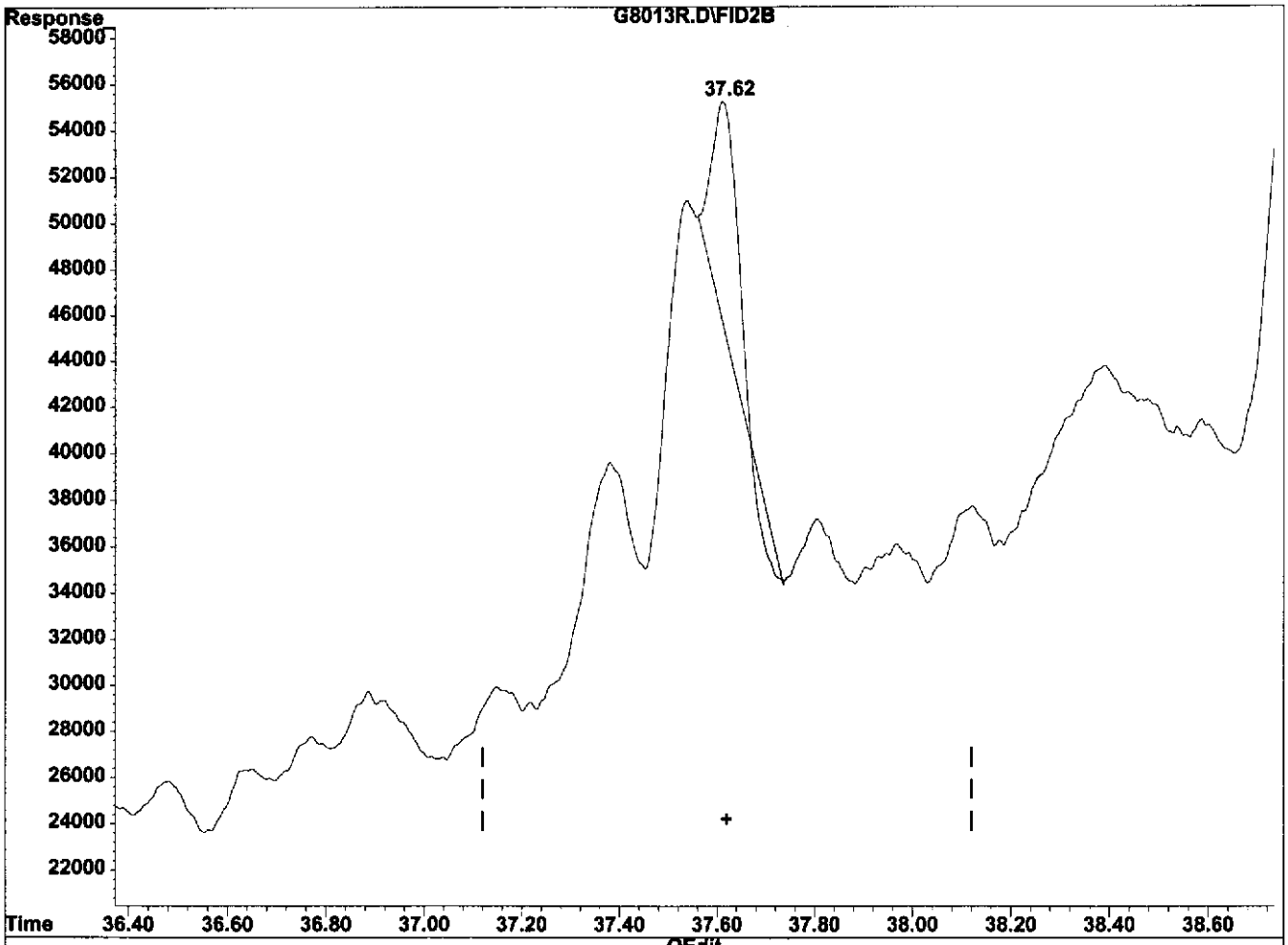

(2) O-Terphenyl (S)

37.61min 119.466ppb

response 319033

(+) = Expected Retention Time

G8013R.D DROR.M Thu Jul 29 17:38:04 1999

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\072399\G8014R.D Vial: 14
Acq On : 24 Jul 1999 22:27 Operator: HV
Sample : 07-381-03 DRO S Inst : hp8
Misc : SOIL Multiplr: 40.00
IntFile : SURR.E
Quant Time: Jul 27 8:55 1999 Quant Results File: DROR.RES

Quant Method : C:\HPCHEM\2\METHODS\DROR.M (Chemstation Integrator)
Title : DROR 07/23/99
Last Update : Tue Jul 27 08:49:42 1999
Response via : Initial Calibration
DataAcq Meth : DROR.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S O-Terphenyl	37.62	1321477	494.845 ppb
Spiked Amount 800.000		Recovery =	61.86%
3) S Octacosane	60.85	466101	283.726 ppb
Spiked Amount 800.000		Recovery =	35.47%
Target Compounds			
1) H Diesel Range	28.20	19836966	12072.570 ppb

(f)=RT Delta > 1/2 Window (m)=manual int.
G8014R.D DROR.M Tue Jul 27 08:55:49 1999

Quantitation Report

Data File : C:\HPCHEM\2\DATA\072399\G8014R.D Vial: 14
Acq On : 24 Jul 1999 22:27 Operator: HV
Sample : 07-381-03 DRO S Inst : hp8
Misc : SOIL Multiplr: 40.00
IntFile : SURR.E
Quant Time: Jul 27 8:55 1999 Quant Results File: DROR.RES

Quant Method : C:\HPCHEM\2\METHODS\DROR.M (Chemstation Integrator)
Title : DROR 07/23/99
Last Update : Tue Jul 27 08:49:42 1999
Response via : Multiple Level Calibration
DataAcq Meth : DROR.M

Volume Inj. :
Signal Phase :
Signal Info :

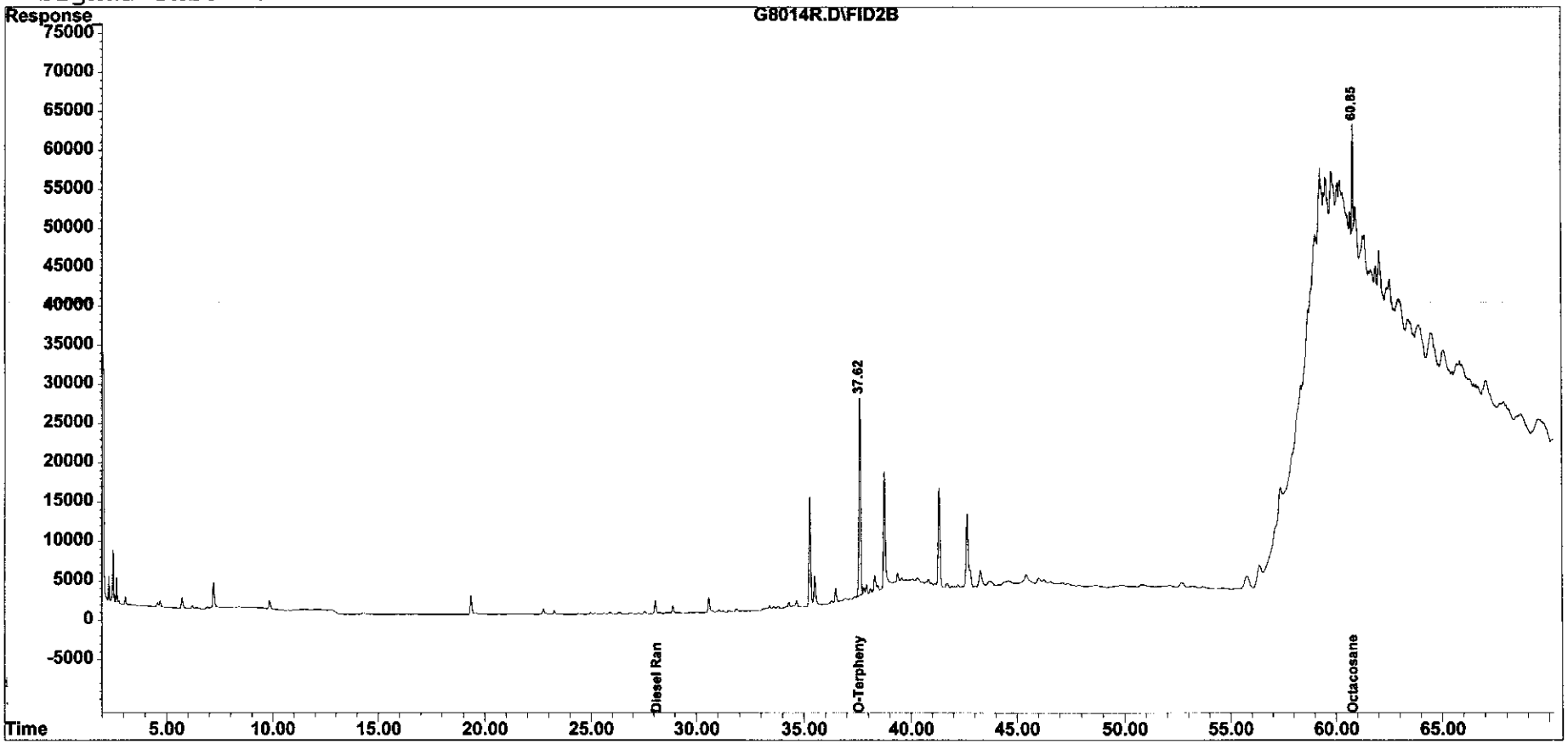

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\072399\G8015R.D Vial: 15
Acq On : 24 Jul 1999 23:46 Operator: HV
Sample : 07-381-04 DRO S Inst : hp8
Misc : SOIL Multiplr: 40.00
IntFile : SURR.E
Quant Time: Jul 27 8:56 1999 Quant Results File: DROR.RES

Quant Method : C:\HPCHEM\2\METHODS\DROR.M (Chemstation Integrator)
Title : DROR 07/23/99
Last Update : Tue Jul 27 08:49:42 1999
Response via : Initial Calibration
DataAcq Meth : DROR.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S O-Terphenyl	37.63	1311324	491.043 ppb
Spiked Amount 800.000		Recovery =	61.38%
3) S Octacosane	60.85	248020	150.975 ppb
Spiked Amount 800.000		Recovery =	18.87%
Target Compounds			
1) H Diesel Range	28.20	37300157	22700.485 ppb

(f)=RT Delta > 1/2 Window (m)=manual_int.
G8015R.D DROR.M Tue Jul 27 08:56:05 1999 Page 1

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Quantitation Report

Data File : C:\HPCHEM\2\DATA\072399\G8015R.D
Acq On : 24 Jul 1999 23:46
Sample : 07-381-04 DRO S
Misc : SOIL
IntFile : SURR.E
Quant Time: Jul 27 8:56 1999 Quant Results File: DROR.RES

Vial: 15
Operator: HV
Inst : hp8
Multiplr: 40.00

Quant Method : C:\HPCHEM\2\METHODS\DROR.M (Chemstation Integrator)
Title : DROR 07/23/99
Last Update : Tue Jul 27 08:49:42 1999
Response via : Multiple Level Calibration
DataAcq Meth : DROR.M

Volume Inj. :
Signal Phase :
Signal Info :

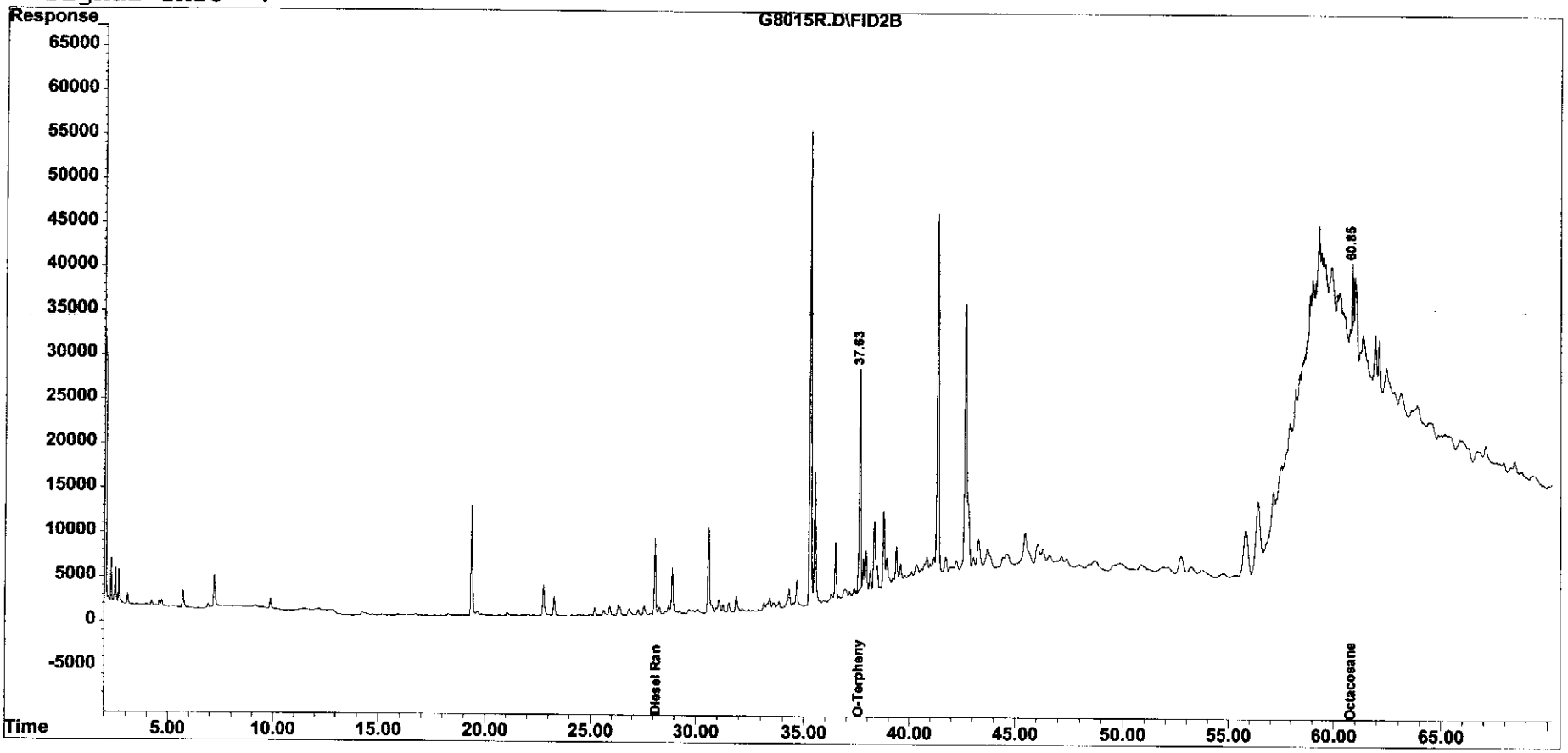

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\072399\G8016R.D
Acq On : 25 Jul 1999 1:04
Sample : 07-381-05 DRO S
Misc : SOIL
IntFile : SURR.E
Quant Time: Jul 27 8:56 1999 Quant Results File: DROR.RES

Vial: 16
Operator: HV
Inst : hp8
Multiplr: 40.00

Quant Method : C:\HPCHEM\2\METHODS\DROR.M (Chemstation Integrator)
Title : DROR 07/23/99
Last Update : Tue Jul 27 08:49:42 1999
Response via : Initial Calibration
DataAcq Meth : DROR.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S O-Terphenyl	37.63	1500110	561.737 ppb
Spiked Amount 800.000		Recovery =	70.22%
3) S Octacosane	60.86	232272	141.389 ppb
Spiked Amount 800.000		Recovery =	17.67%
Target Compounds			
1) H Diesel Range	28.20	41876145	25485.384 ppb

(f)=RT Delta > 1/2 Window (m)=manual int.
G8016R.D DROR.M Tue Jul 27 08:56:21 1999

Quantitation Report

Data File : C:\HPCHEM\2\DATA\072399\G8016R.D
Acq On : 25 Jul 1999 1:04
Sample : 07-381-05 DRO S
Misc : SOIL
IntFile : SURR.E
Quant Time: Jul 27 8:56 1999 Quant Results File: DROR.RES

Vial: 16
Operator: HV
Inst : hp8
Multiplr: 40.00

Quant Method : C:\HPCHEM\2\METHODS\DROR.M (Chemstation Integrator)
Title : DROR 07/23/99
Last Update : Tue Jul 27 08:49:42 1999
Response via : Multiple Level Calibration
DataAcq Meth : DROR.M

Volume Inj. :
Signal Phase :
Signal Info :

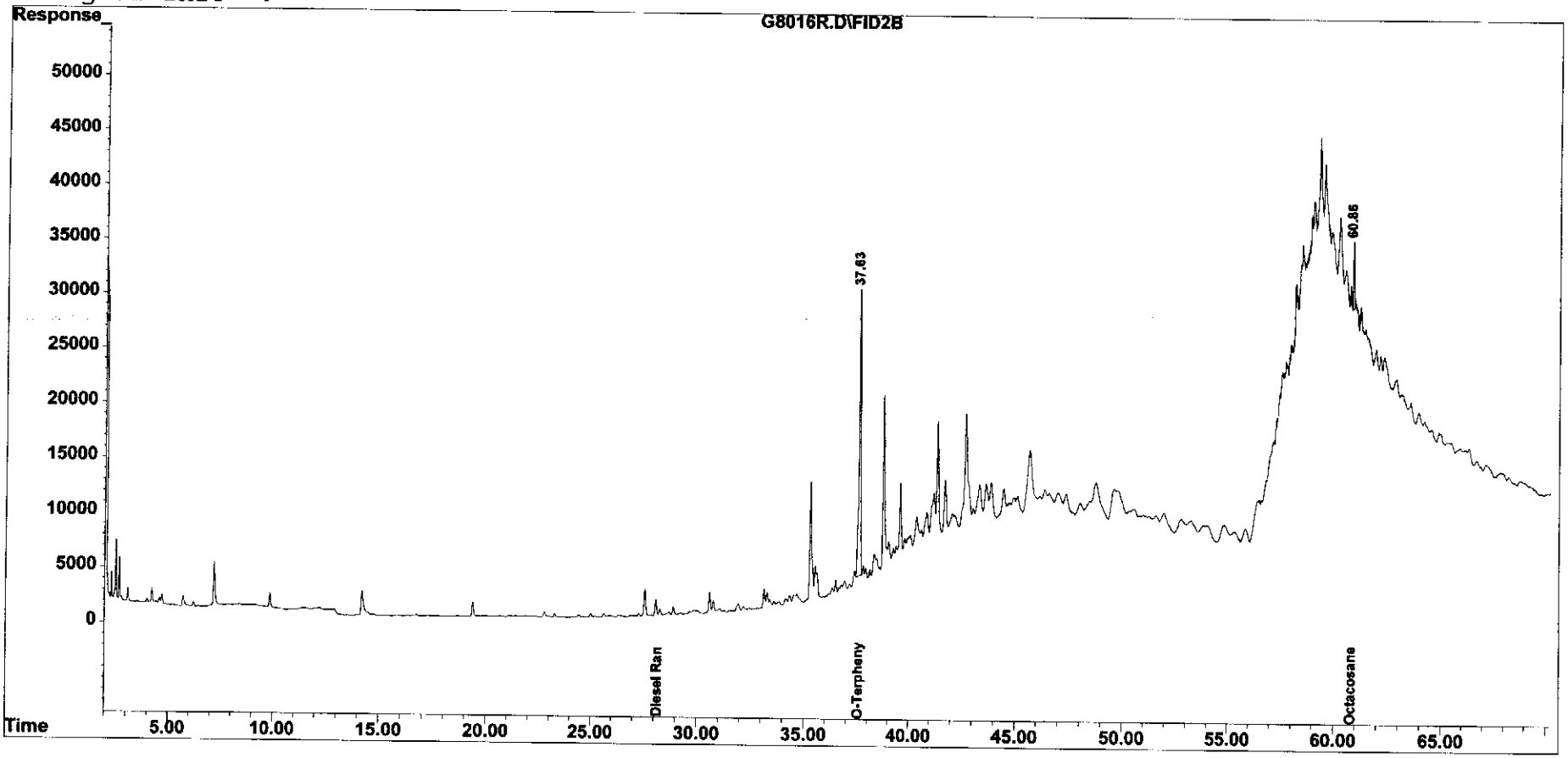

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\072399\G8017R.D
Acq On : 25 Jul 1999 2:24
Sample : 07-381-06 DRO S
Misc : SOIL
IntFile : SURR.E
Quant Time: Jul 27 8:56 1999 Quant Results File: DROR.RES

Vial: 17
Operator: HV
Inst : hp8
Multiplr: 40.00

Quant Method : C:\HPCHEM\2\METHODS\DROR.M (Chemstation Integrator)
Title : DROR 07/23/99
Last Update : Tue Jul 27 08:49:42 1999
Response via : Initial Calibration
DataAcq Meth : DROR.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S O-Terphenyl	37.64	1185666	443.989 ppb
Spiked Amount 800.000		Recovery =	55.50%
3) S Octacosane	60.86	472166	287.418 ppb
Spiked Amount 800.000		Recovery =	35.93%
Target Compounds			
1) H Diesel Range	28.20	7699979	4686.127 ppb

(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\2\DATA\072399\G8017R.D
Acq On : 25 Jul 1999 2:24
Sample : 07-381-06 DRO S
Misc : SOIL
IntFile : SURR.E
Quant Time: Jul 27 8:56 1999 Quant Results File: DROR.RES

Vial: 17
Operator: HV
Inst : hp8
Multiplr: 40.00

Quant Method : C:\HPCHEM\2\METHODS\DROR.M (Chemstation Integrator)
Title : DROR 07/23/99
Last Update : Tue Jul 27 08:49:42 1999
Response via : Multiple Level Calibration
DataAcq Meth : DROR.M

Volume Inj. :
Signal Phase :
Signal Info :

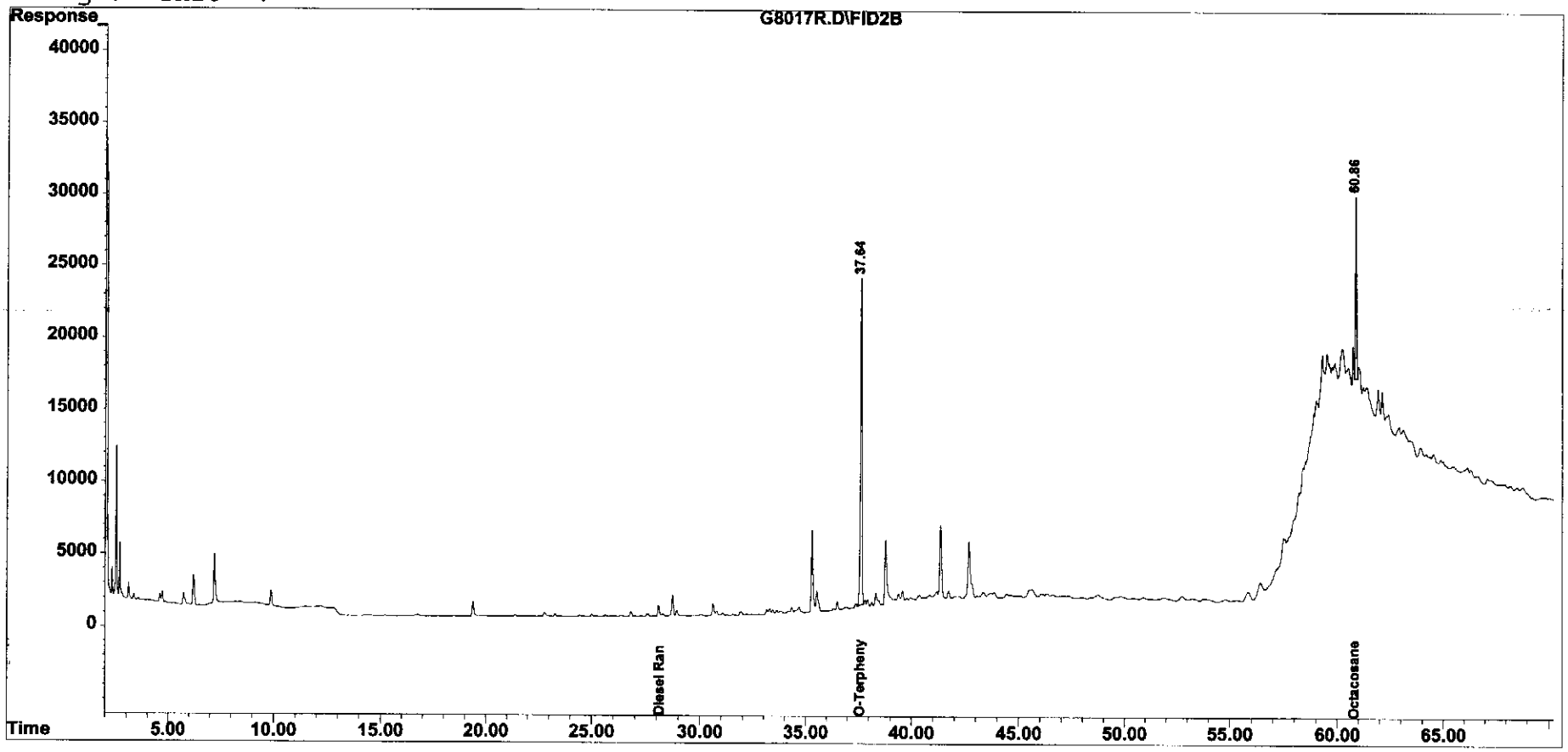

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\072399\G8018R.D
Acq On : 25 Jul 1999 3:42
Sample : 07-381-07 DRO S
Misc : SOIL
IntFile : SURR.E
Quant Time: Jul 27 8:56 1999 Quant Results File: DROR.RES

Vial: 18
Operator: HV
Inst : hp8
Multiplr: 40.00

Quant Method : C:\HPCHEM\2\METHODS\DROR.M (Chemstation Integrator)
Title : DROR 07/23/99
Last Update : Tue Jul 27 08:49:42 1999
Response via : Initial Calibration
DataAcq Meth : DROR.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S O-Terphenyl	37.64	1410197	528.067 ppb
Spiked Amount 800.000		Recovery =	66.01%
3) S Octacosane	60.86	583134	354.966 ppb
Spiked Amount 800.000		Recovery =	44.37%
Target Compounds			
1) H Diesel Range	28.20	7084124	4311.324 ppb

(f)=RT Delta > 1/2 Window
(m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\2\DATA\072399\G8018R.D Vial: 18
Acq On : 25 Jul 1999 3:42 Operator: HV
Sample : 07-381-07 DRO S Inst : hp8
Misc : SOIL Multiplr: 40.00
IntFile : SURR.E
Quant Time: Jul 27 8:56 1999 Quant Results File: DROR.RES

Quant Method : C:\HPCHEM\2\METHODS\DROR.M (Chemstation Integrator)
Title : DROR 07/23/99
Last Update : Tue Jul 27 08:49:42 1999
Response via : Multiple Level Calibration
DataAcq Meth : DROR.M

Volume Inj. :
Signal Phase :
Signal Info :

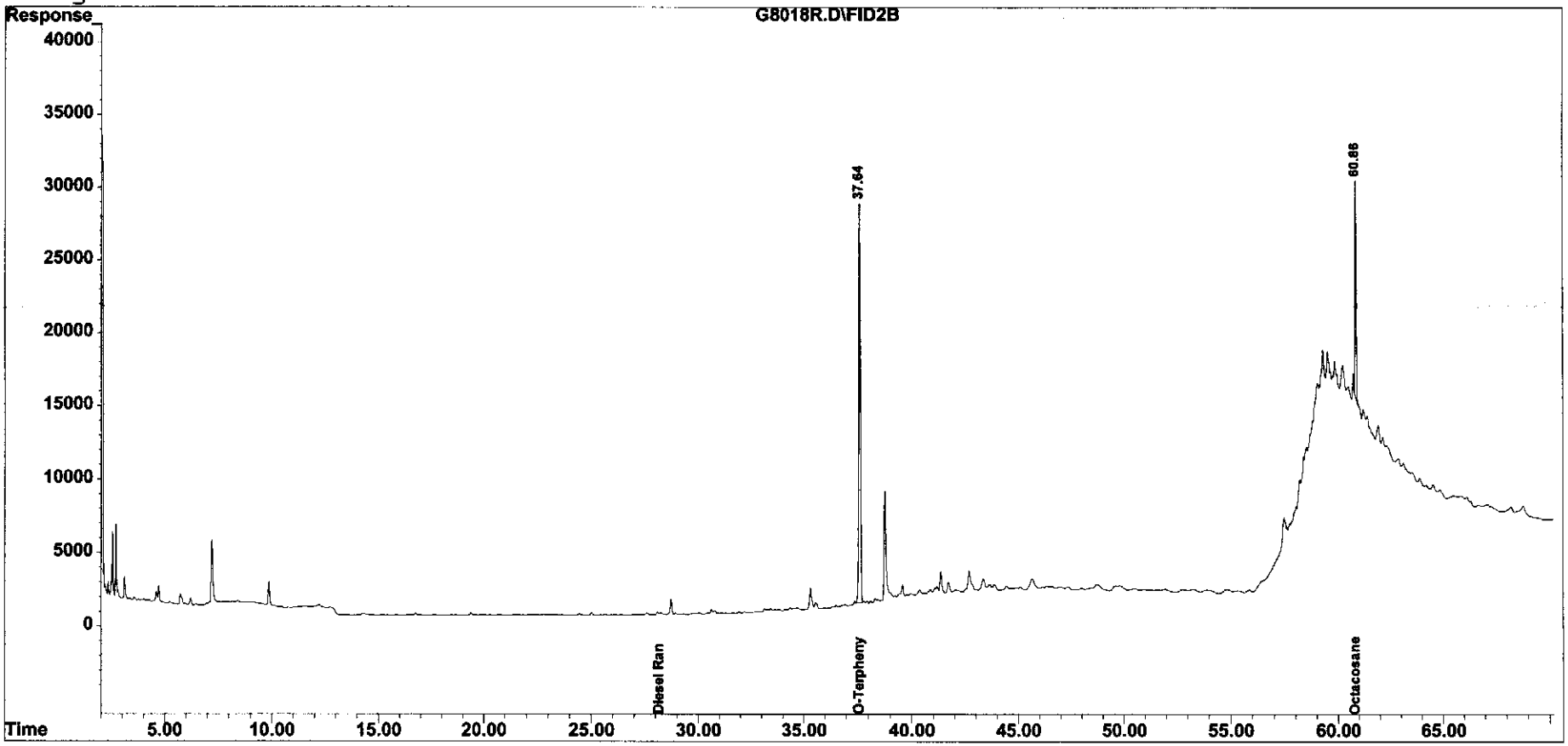

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\072399\G8019R.D
Acq On : 25 Jul 1999 5:01
Sample : 07-381-08 DRO S
Misc : SOIL
IntFile : SURR.E
Quant Time: Jul 27 8:57 1999 Quant Results File: DROR.RES

Vial: 19
Operator: HV
Inst : hp8
Multiplr: 40.00

Quant Method : C:\HPCHEM\2\METHODS\DROR.M (Chemstation Integrator)
Title : DROR 07/23/99
Last Update : Tue Jul 27 08:49:42 1999
Response via : Initial Calibration
DataAcq Meth : DROR.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S O-Terphenyl	37.64	1362358	510.153 ppb
Spiked Amount 800.000		Recovery =	63.77%
3) S Octacosane	60.86	820988	499.754 ppb
Spiked Amount 800.000		Recovery =	62.47%
Target Compounds			
1) H Diesel Range	28.20	3740971	2276.716 ppb

(f)=RT Delta > 1/2 Window
(m)=manual int

Quantitation Report

Data File : C:\HPCHEM\2\DATA\072399\G8019R.D
Acq On : 25 Jul 1999 5:01
Sample : 07-381-08 DRO S
Misc : SOIL
IntFile : SURR.E
Quant Time: Jul 27 8:57 1999 Quant Results File: DROR.RES

Vial: 19
Operator: HV
Inst : hp8
Multiplr: 40.00

Quant Method : C:\HPCHEM\2\METHODS\DROR.M (Chemstation Integrator)
Title : DROR 07/23/99
Last Update : Tue Jul 27 08:49:42 1999
Response via : Multiple Level Calibration
DataAcq Meth : DROR.M

Volume Inj. :
Signal Phase :
Signal Info :

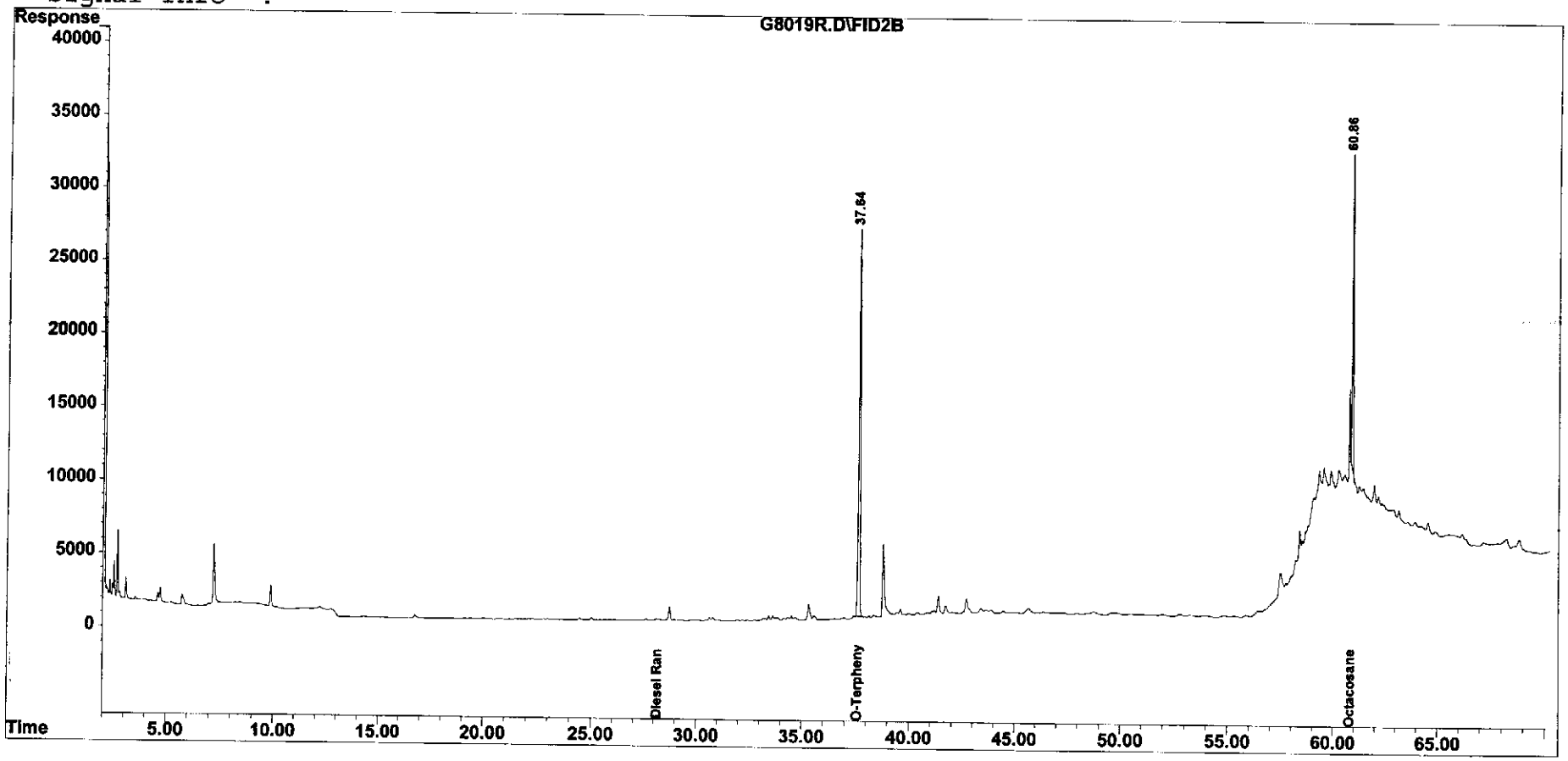

Standards Data

- Initial calibration summary forms (Average Response Factor or Higher Order Calibration Data)

  Chromatograms and GC Integration reports of standards for each column

- Check standards forms, including ending checks (Continuing Calibration Data)

  Chromatograms and GC Integration reports of standards for each column

Response Factor Report hp8

Method : C:\HPCHEM\2\METHODS\DROR.M (Chemstation Integrator)
Title : DROR 07/23/99
Last Update : Tue Jul 27 08:50:16 1999

Calibration Files

100	=G8003R.D	500	=G8004R.D	1000	=G8005R.D
2500	=G8006R.D	5000	=G8007R.D	10k	=G8008R.D

		Compound	100	500	1000	2500	5000	10k	Avg		%RSD
1)	H	Diesel Range	6.070	6.577	6.596	6.664	6.793	6.736	6.573	E4	3.95
2)	S	O-Terphenyl	1.087	1.113	1.067	1.057	1.055	1.030	1.068	E5	2.69
3)	S	Octacosane	6.770	6.929	6.824	6.761	6.613	5.529	6.571	E4	7.93

(#) = Out of Range

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\072399\G8003R.D Vial: 3
Acq On : 24 Jul 1999 7:53 Operator: HV
Sample : DRO STD 100ppm Inst : hp8
Misc : Multiplr: 1.00
IntFile : SURR.E
Quant Time: Jul 27 8:51 1999 Quant Results File: DROR.RES

Quant Method : C:\HPCHEM\2\METHODS\DROR.M (Chemstation Integrator)
Title : DROR 07/23/99
Last Update : Tue Jul 27 08:49:42 1999
Response via : Initial Calibration
DataAcq Meth : DROR.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S O-Terphenyl	37.63	217482	2.036 ppb
Spiked Amount 20.000		Recovery =	10.18%
3) S Octacosane	60.86	135394	2.060 ppb
Spiked Amount 20.000		Recovery =	10.30%
Target Compounds			
1) H Diesel Range	28.20	6070434	92.360 ppb

(f)=RT Delta > 1/2 Window (m)=manual int.

420

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\072399\G8004R.D
Acq On : 24 Jul 1999 9:12
Sample : DRO STD 500ppm
Misc :
IntFile : SURR.E
Quant Time: Jul 27 8:51 1999 Quant Results File: DROR.RES

Vial: 4
Operator: HV
Inst : hp8
Multiplr: 1.00

Quant Method : C:\HPCHEM\2\METHODS\DROR.M (Chemstation Integrator)
Title : DROR 07/23/99
Last Update : Tue Jul 27 08:49:42 1999
Response via : Initial Calibration
DataAcq Meth : DROR.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S O-Terphenyl	37.63	1112804	10.418 ppb
Spiked Amount 20.000		Recovery =	52.09%
3) S Octacosane	60.85	692940	10.545 ppb
Spiked Amount 20.000		Recovery =	52.73%
Target Compounds			
1) H Diesel Range	28.20	32882605	500.300 ppb

(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\2\DATA\072399\G8004R.D
Acq On : 24 Jul 1999 9:12
Sample : DRO STD 500ppm
Misc :
IntFile : SURR.E
Quant Time: Jul 27 8:51 1999 Quant Results File: DROR.RES

Vial: 4
Operator: HV
Inst : hp8
Multiplr: 1.00

Quant Method : C:\HPCHEM\2\METHODS\DROR.M (Chemstation Integrator)
Title : DROR 07/23/99
Last Update : Tue Jul 27 08:49:42 1999
Response via : Multiple Level Calibration
DataAcq Meth : DROR.M

Volume Inj. :
Signal Phase :
Signal Info :

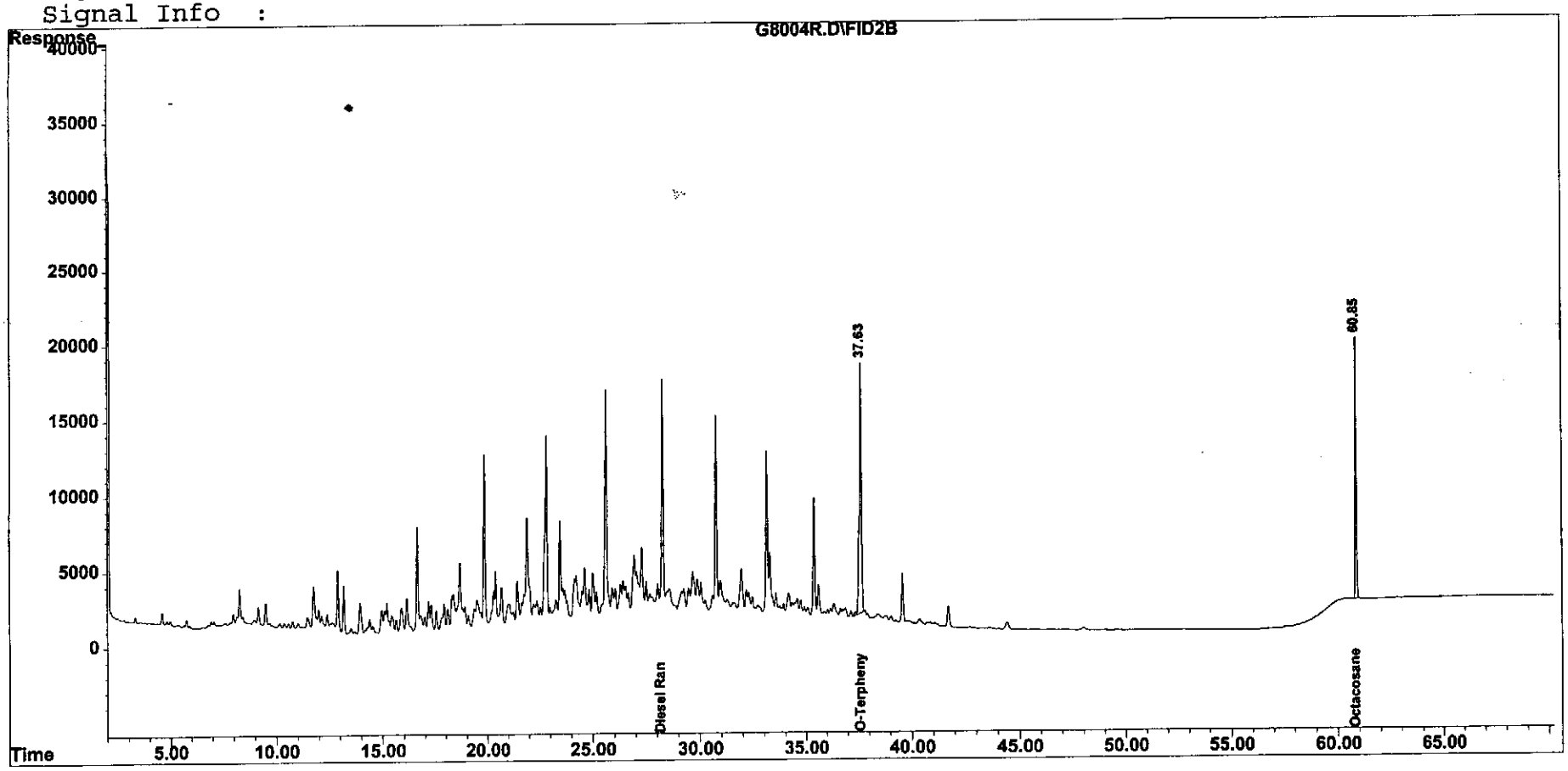

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\072399\G8005R.D
Acq On : 24 Jul 1999 10:31
Sample : DRO STD 1000ppm
Misc :
IntFile : SURR.E
Quant Time: Jul 27 8:51 1999 Quant Results File: DROR.RES

Vial: 5
Operator: HV
Inst : hp8
Multiplr: 1.00

Quant Method : C:\HPCHEM\2\METHODS\DROR.M (Chemstation Integrator)
Title : DROR 07/23/99
Last Update : Tue Jul 27 08:49:42 1999
Response via : Initial Calibration
DataAcq Meth : DROR.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S O-Terphenyl	37.62	2133424	19.972 ppb
Spiked Amount 20.000		Recovery =	99.86%
3) S Octacosane	60.84	1364868	20.771 ppb
Spiked Amount 20.000		Recovery =	103.86%
Target Compounds			
1) H Diesel Range	28.20	65960521	1003.572 ppb

(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\2\DATA\072399\G8005R.D
Acq On : 24 Jul 1999 10:31
Sample : DRO STD 1000ppm
Misc :
IntFile : SURR.E
Quant Time: Jul 27 8:51 1999 Quant Results File: DROR.RES

Vial: 5
Operator: HV
Inst : hp8
Multiplr: 1.00

Quant Method : C:\HPCHEM\2\METHODS\DROR.M (Chemstation Integrator)
Title : DROR 07/23/99
Last Update : Tue Jul 27 08:49:42 1999
Response via : Multiple Level Calibration
DataAcq Meth : DROR.M

Volume Inj. :
Signal Phase :
Signal Info :

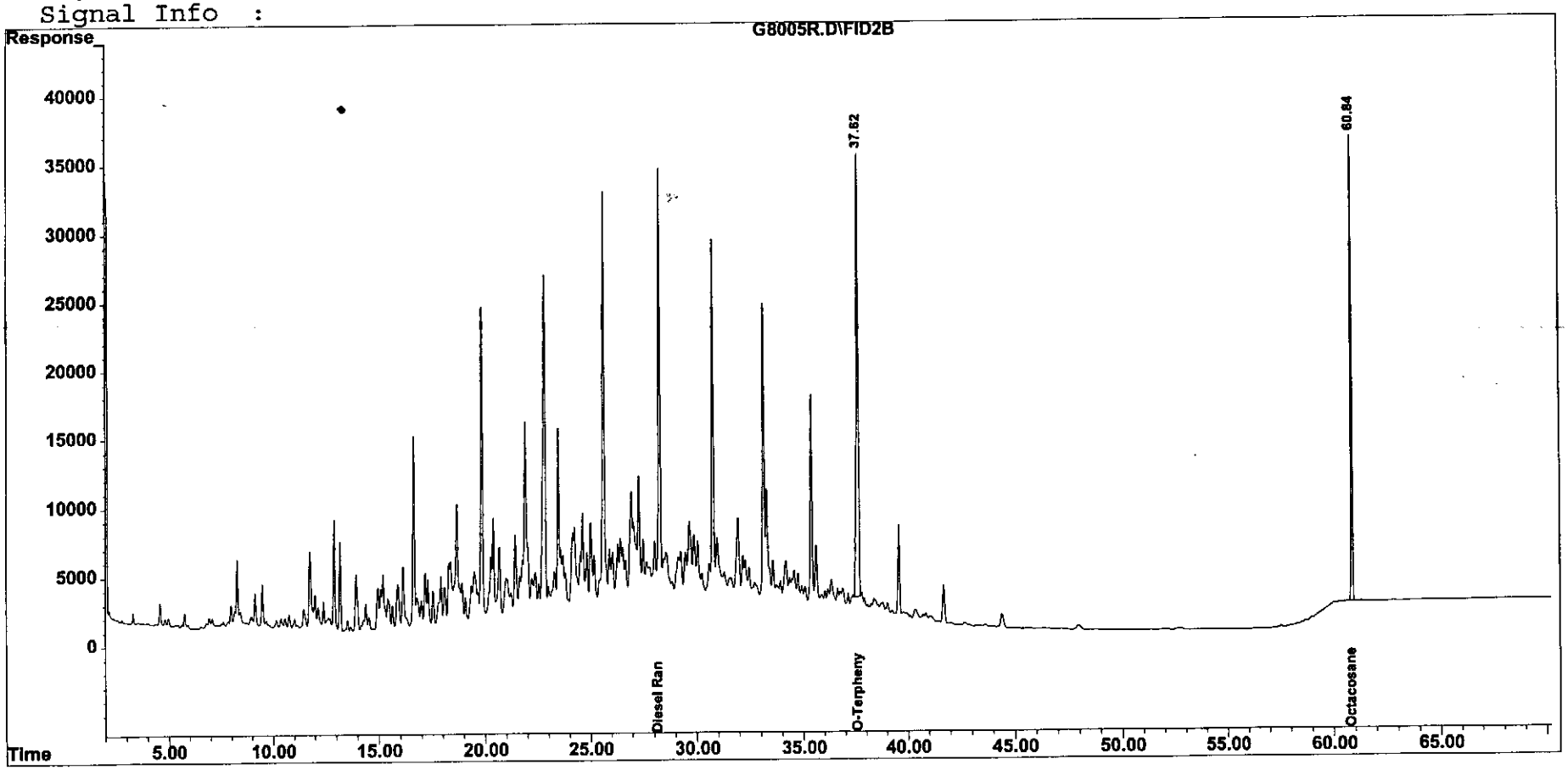

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\072399\G8006R.D Vial: 6
Acq On : 24 Jul 1999 11:50 Operator: HV
Sample : DRO STD 2500ppm Inst : hp8
Misc : Multiplr: 1.00
IntFile : SURR.E
Quant Time: Jul 27 8:52 1999 Quant Results File: DROR.RES

Quant Method : C:\HPCHEM\2\METHODS\DROR.M (Chemstation Integrator)
Title : DROR 07/23/99
Last Update : Tue Jul 27 08:49:42 1999
Response via : Initial Calibration
DataAcq Meth : DROR.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S O-Terphenyl	37.62	5287330	49.498 ppb
Spiked Amount 20.000		Recovery =	247.49%
3) S Octacosane	60.84	3380667	51.447 ppb
Spiked Amount 20.000		Recovery =	257.24%
Target Compounds			
1) H Diesel Range	28.20	166591660	2534.649 ppb

(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\2\DATA\072399\G8006R.D
Acq On : 24 Jul 1999 11:50
Sample : DRO STD 2500ppm
Misc :
IntFile : SURR.E
Quant Time: Jul 27 8:52 1999 Quant Results File: DROR.RES

Vial: 6
Operator: HV
Inst : hp8
Multiplr: 1.00

Quant Method : C:\HPCHEM\2\METHODS\DROR.M (Chemstation Integrator)
Title : DROR 07/23/99
Last Update : Tue Jul 27 08:49:42 1999
Response via : Multiple Level Calibration
DataAcq Meth : DROR.M

Volume Inj. :
Signal Phase :
Signal Info :

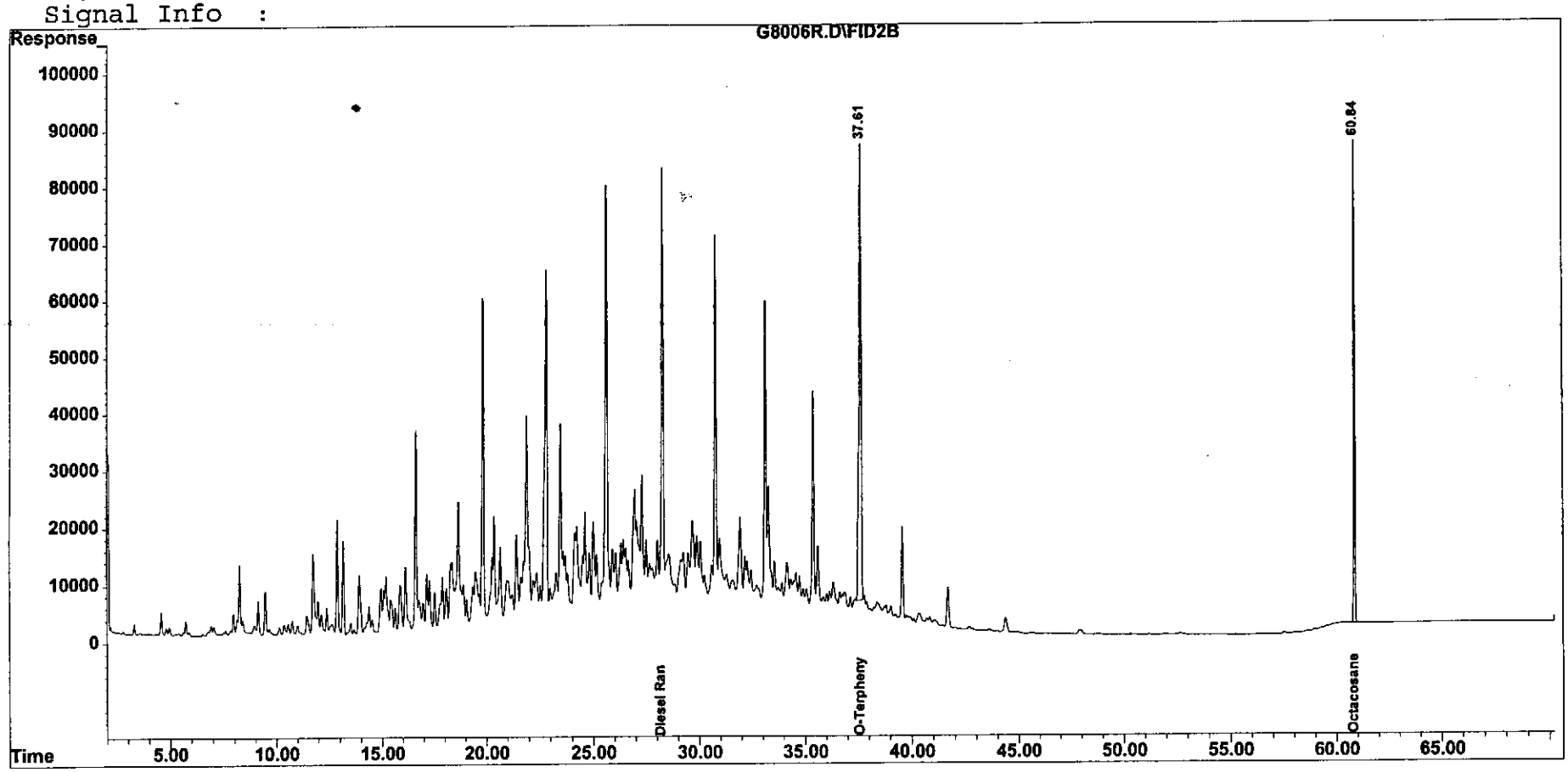

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\072399\G8007R.D Vial: 7
Acq On : 24 Jul 1999 13:10 Operator: HV
Sample : DRO STD 5000ppm Inst : hp8
Misc : Multiplr: 1.00
IntFile : SURR.E
Quant Time: Jul 27 8:52 1999 Quant Results File: DROR.RES

Quant Method : C:\HPCHEM\2\METHODS\DROR.M (Chemstation Integrator)
Title : DROR 07/23/99
Last Update : Tue Jul 27 08:49:42 1999
Response via : Initial Calibration
DataAcq Meth : DROR.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S O-Terphenyl	37.62	10549120	98.757 ppb
Spiked Amount 20.000		Recovery =	493.79%
3) S Octacosane	60.84	6613427	100.643 ppb
Spiked Amount 20.000		Recovery =	503.22%
Target Compounds			
1) H Diesel Range	28.20	339662955	5167.883 ppb

(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\2\DATA\072399\G8007R.D Vial: 7
Acq On : 24 Jul 1999 13:10 Operator: HV
Sample : DRO STD 5000ppm Inst : hp8
Misc : Multiplr: 1.00
IntFile : SURR.E
Quant Time: Jul 27 8:52 1999 Quant Results File: DROR.RES

Quant Method : C:\HPCHEM\2\METHODS\DROR.M (Chemstation Integrator)
Title : DROR 07/23/99
Last Update : Tue Jul 27 08:49:42 1999
Response via : Multiple Level Calibration
DataAcq Meth : DROR.M

Volume Inj. :
Signal Phase :
Signal Info :

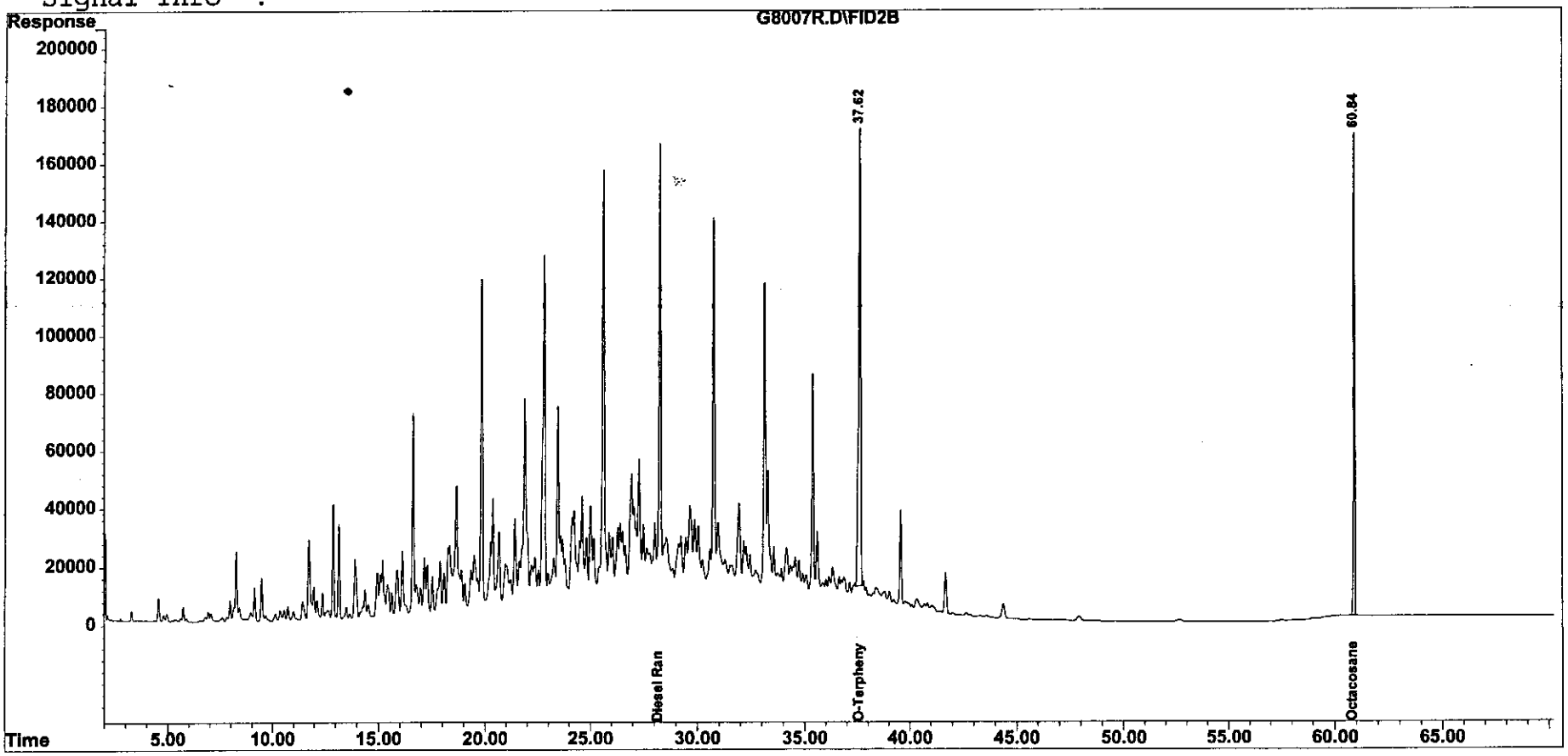

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\072399\G8008R.D Vial: 8
Acq On : 24 Jul 1999 14:30 Operator: HV
Sample : DRO STD 10000ppm Inst : hp8
Misc : Multiplr: 1.00
IntFile : SURR.E
Quant Time: Jul 27 8:52 1999 Quant Results File: DROR.RES

Quant Method : C:\HPCHEM\2\METHODS\DROR.M (Chemstation Integrator)
Title : DROR 07/23/99
Last Update : Tue Jul 27 08:49:42 1999
Response via : Initial Calibration
DataAcq Meth : DROR.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S O-Terphenyl	37.63	20597254	192.823 ppb
Spiked Amount 20.000		Recovery =	964.12%
3) S Octacosane	60.84	11057321	168.271 ppb
Spiked Amount 20.000		Recovery =	841.35%
Target Compounds			
1) H Diesel Range	28.20	673551297	10247.907 ppb

(f)=RT Delta > 1/2 Window (m)=manual int.
G8008R.D DROR.M Tue Jul 27 08:52:46 1999

Quantitation Report

Data File : C:\HPCHEM\2\DATA\072399\G8008R.D Vial: 8
Acq On : 24 Jul 1999 14:30 Operator: HV
Sample : DRO STD 10000ppm Inst : hp8
Misc : Multiplr: 1.00
IntFile : SURR.E
Quant Time: Jul 27 8:52 1999 Quant Results File: DROR.RES

Quant Method : C:\HPCHEM\2\METHODS\DROR.M (Chemstation Integrator)
Title : DROR 07/23/99
Last Update : Tue Jul 27 08:49:42 1999
Response via : Multiple Level Calibration
DataAcq Meth : DROR.M

Volume Inj. :
Signal Phase :
Signal Info :

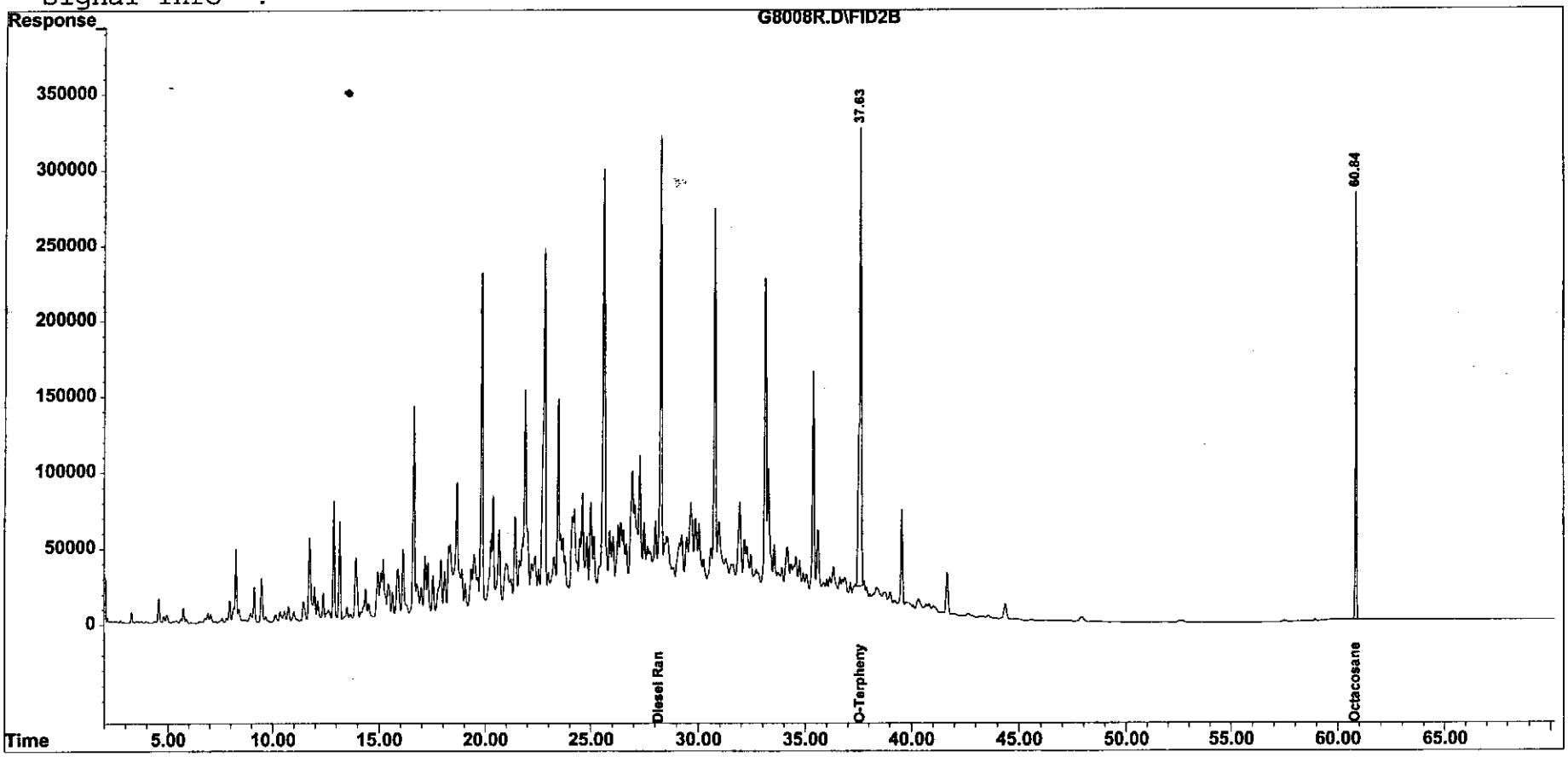

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\2\DATA\072399\G8009R.D Vial: 9
Acq On : 24 Jul 1999 15:50 Operator: HV
Sample : ALT DRO CHK @1000ppm Inst : hp8
Misc : Multiplr: 1.00
IntFile : SURR.E

Method : C:\HPCHEM\2\METHODS\DROR.M (Chemstation Integrator)
Title : DROR 07/23/99
Last Update : Tue Jul 27 08:49:42 1999
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	H	Diesel Range	1000.000	836.599	16.3#	83	0.00
2	S	O-Terphenyl	20.000	4.268	78.7#	21	-0.12

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\072399\G8009R.D Vial: 9
Acq On : 24 Jul 1999 15:50 Operator: HV
Sample : ALT DRO CHK @1000ppm Inst : hp8
Misc : Multiplr: 1.00
IntFile : SURR.E
Quant Time: Jul 27 8:54 1999 Quant Results File: DROR.RES

Quant Method : C:\HPCHEM\2\METHODS\DROR.M (Chemstation Integrator)
Title : DROR 07/23/99
Last Update : Tue Jul 27 08:49:42 1999
Response via : Initial Calibration
DataAcq Meth : DROR.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S O-Terphenyl	37.50	455945	4.268 ppb
Spiked Amount 20.000		Recovery =	21.34%
3) S Octacosane	0.00	0	N.D. ppb
Spiked Amount 20.000		Recovery =	0.00%
Target Compounds			
1) H Diesel Range	28.20	54986075	836.599 ppb

(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\2\DATA\072399\G8009R.D Vial: 9
Acq On : 24 Jul 1999 15:50 Operator: HV
Sample : ALT DRO CHK @1000ppm Inst : hp8
Misc : Multiplr: 1.00
IntFile : SURR.E
Quant Time: Jul 27 8:54 1999 Quant Results File: DROR.RES

Quant Method : C:\HPCHEM\2\METHODS\DROR.M (Chemstation Integrator)
Title : DROR 07/23/99
Last Update : Tue Jul 27 08:49:42 1999
Response via : Multiple Level Calibration
DataAcq Meth : DROR.M

Volume Inj. :
Signal Phase :
Signal Info :

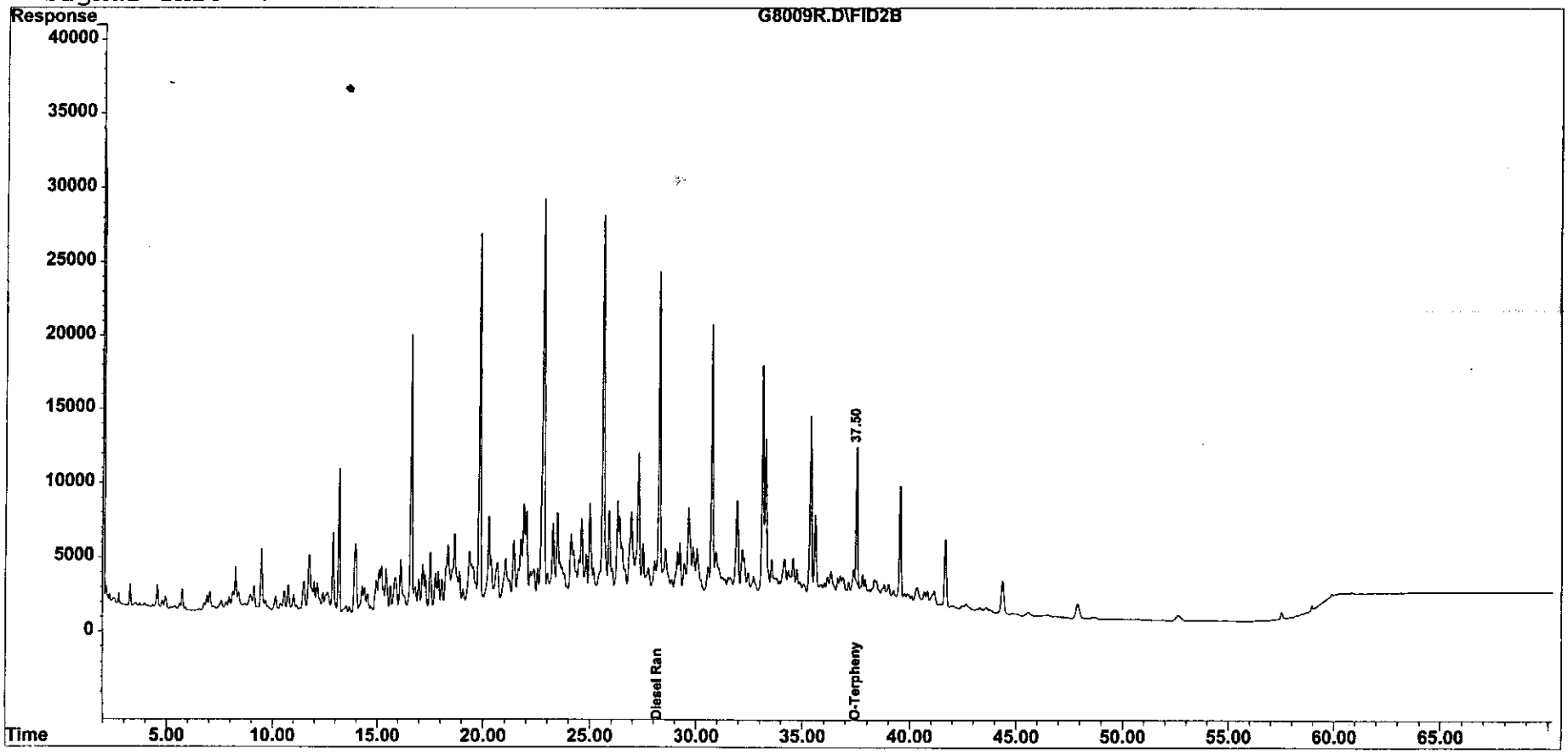

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\2\DATA\072399\G8020R.D
Acq On : 25 Jul 1999 6:20
Sample : DRO CONT CHK
Misc :
IntFile : SURR.E

Vial: 20
Operator: HV
Inst : hp8
Multiplr: 1.00

Method : C:\HPCHEM\2\METHODS\DROR.M (Chemstation Integrator)
Title : DROR 07/23/99
Last Update : Tue Jul 27 08:49:42 1999
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	H	Diesel Range	65.726	66.578 E3	-1.3	101	0.00
2	S	O-Terphenyl	106.819	106.599 E3	0.2	100	0.02
3	S	Octacosane	65.711	67.304 E3	-2.4	99	0.02

(#) = Out of Range SPCC's out = 0 CCC's out = 0
G8020R.D DROR.M Tue Jul 27 09:08:57 1999

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\072399\G8020R.D
Acq On : 25 Jul 1999 6:20
Sample : DRO CONT CHK
Misc :
IntFile : SURR.E
Quant Time: Jul 27 9:07 1999 Quant Results File: DROR.RES

Vial: 20
Operator: HV
Inst : hp8
Multiplr: 1.00

Quant Method : C:\HPCHEM\2\METHODS\DROR.M (Chemstation Integrator)
Title : DROR 07/23/99
Last Update : Tue Jul 27 08:49:42 1999
Response via : Initial Calibration
DataAcq Meth : DROR.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds					
2) S O-Terphenyl	37.65	2131975	19.959	ppb	
Spiked Amount 20.000	Recovery =		99.80%		
3) S Octacosane	60.86	1346075	20.485	ppb	m
Spiked Amount 20.000	Recovery =		102.43%		
Target Compounds					
1) H Diesel Range	28.20	66578217	1012.970	ppb	

(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\2\DATA\072399\G8020R.D Vial: 20
Acq On : 25 Jul 1999 6:20 Operator: HV
Sample : DRO CONT CHK Inst : hp8
Misc : Multiplr: 1.00
IntFile : SURR.E
Quant Time: Jul 27 9:07 1999 Quant Results File: DROR.RES

Quant Method : C:\HPCHEM\2\METHODS\DROR.M (Chemstation Integrator)
Title : DROR 07/23/99
Last Update : Tue Jul 27 08:49:42 1999
Response via : Multiple Level Calibration
DataAcq Meth : DROR.M

Volume Inj. :
Signal Phase :
Signal Info :

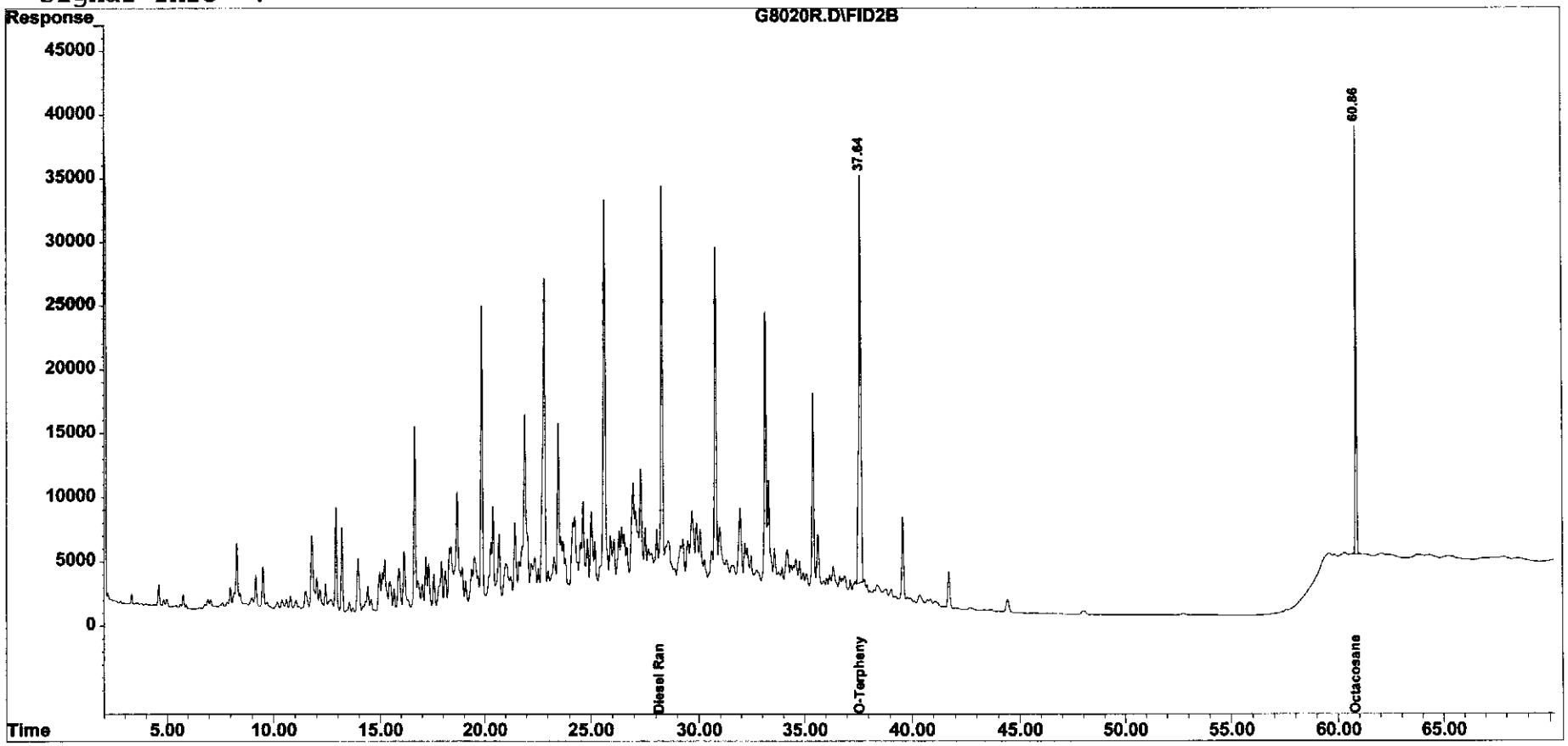

Quantitation Report

Data File : C:\HPCHEM\2\DATA\072399\G8020R.D
Acq On : 25 Jul 1999 6:20
Sample : DRO CONT CHK
Misc :
IntFile : SURR.E
Quant Time: Jul 27 8:57 1999 Quant Results File: DROR.RES

Vial: 20
Operator: HV
Inst : hp8
Multiplr: 1.00

Method : C:\HPCHEM\2\METHODS\DROR.M (Chemstation Integrator)
Title : DROR 07/23/99
Last Update : Tue Jul 27 08:49:42 1999
Response via : Multiple Level Calibration

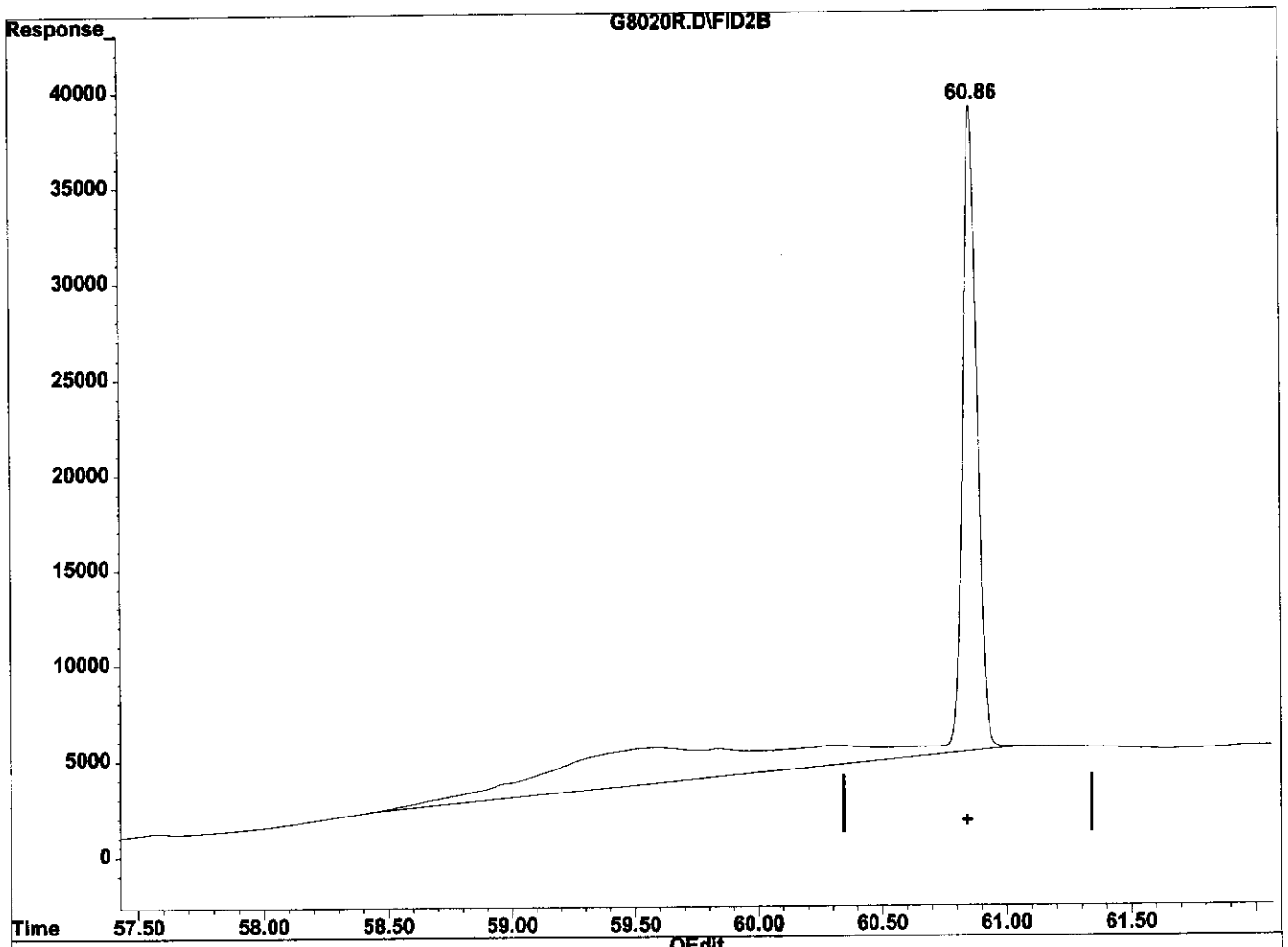

(3) Octacosane (S)

60.86min 41.648ppb

response 2736729

(+) = Expected Retention Time

G8020R.D DROR.M Tue Jul 27 09:07:00 1999

Quantitation Report

Data File : C:\HPCHEM\2\DATA\072399\G8020R.D
Acq On : 25 Jul 1999 6:20
Sample : DRO CONT CHK
Misc :
IntFile : SURR.E
Quant Time: Jul 27 8:57 1999 Quant Results File: DROR.RES

Vial: 20
Operator: HV
Inst : hp8
Multiplr: 1.00

Method : C:\HPCHEM\2\METHODS\DROR.M (Chemstation Integrator)
Title : DROR 07/23/99
Last Update : Tue Jul 27 08:49:42 1999
Response via : Multiple Level Calibration

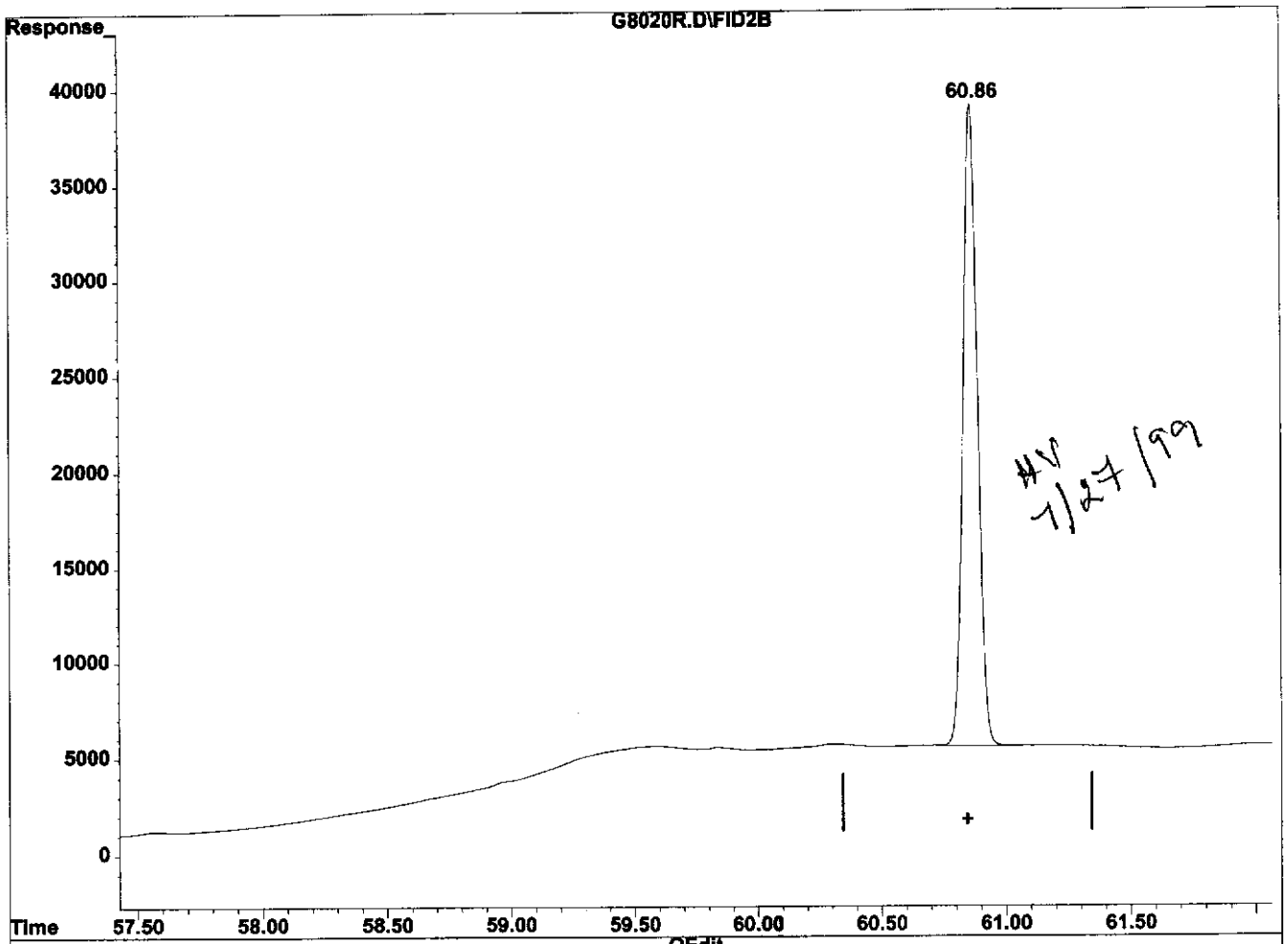

(3) Octacosane (S)

60.86min 20.485ppb m

response 1346075

(+) = Expected Retention Time

G8020R.D DROR.M Tue Jul 27 09:07:40 1999

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\2\DATA\072399\G8024R.D
Acq On : 25 Jul 1999 11:36
Sample : DRO CONT CHK
Misc :
IntFile : SURR.E

Vial: 20
Operator: HV
Inst : hp8
Multiplr: 1.00

Method : C:\HPCHEM\2\METHODS\DROR.M (Chemstation Integrator)
Title : DROR 07/23/99
Last Update : Tue Jul 27 08:49:42 1999
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	H	Diesel Range	1000.000	992.471	0.8	99	0.00
2	S	O-Terphenyl	20.000	20.377	-1.9	102	0.00
3	S	Octacosane	20.000	20.858	-4.3	100	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\072399\G8024R.D
Acq On : 25 Jul 1999 11:36
Sample : DRO CONT CHK
Misc :
IntFile : SURR.E
Quant Time: Jul 27 9:04 1999 Quant Results File: DROR.RES

Vial: 20
Operator: HV
Inst : hp8
Multiplr: 1.00

Quant Method : C:\HPCHEM\2\METHODS\DROR.M (Chemstation Integrator)
Title : DROR 07/23/99
Last Update : Tue Jul 27 08:49:42 1999
Response via : Initial Calibration
DataAcq Meth : DROR.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S O-Terphenyl	37.62	2176646	20.377 ppb
Spiked Amount 20.000		Recovery =	101.89%
3) S Octacosane	60.84	1370589	20.858 ppb m
Spiked Amount 20.000		Recovery =	104.29%
Target Compounds			
1) H Diesel Range	28.20	65230865	992.471 ppb

(f)=RT Delta > 1/2 Window (m)=manual int

Quantitation Report

Data File : C:\HPCHEM\2\DATA\072399\G8024R.D Vial: 20
Acq On : 25 Jul 1999 11:36 Operator: HV
Sample : DRO CONT CHK Inst : hp8
Misc : Multiplr: 1.00
IntFile : SURR.E
Quant Time: Jul 27 9:04 1999 Quant Results File: DROR.RES

Quant Method : C:\HPCHEM\2\METHODS\DROR.M (Chemstation Integrator)
Title : DROR 07/23/99
Last Update : Tue Jul 27 08:49:42 1999
Response via : Multiple Level Calibration
DataAcq Meth : DROR.M

Volume Inj. :
Signal Phase :
Signal Info :

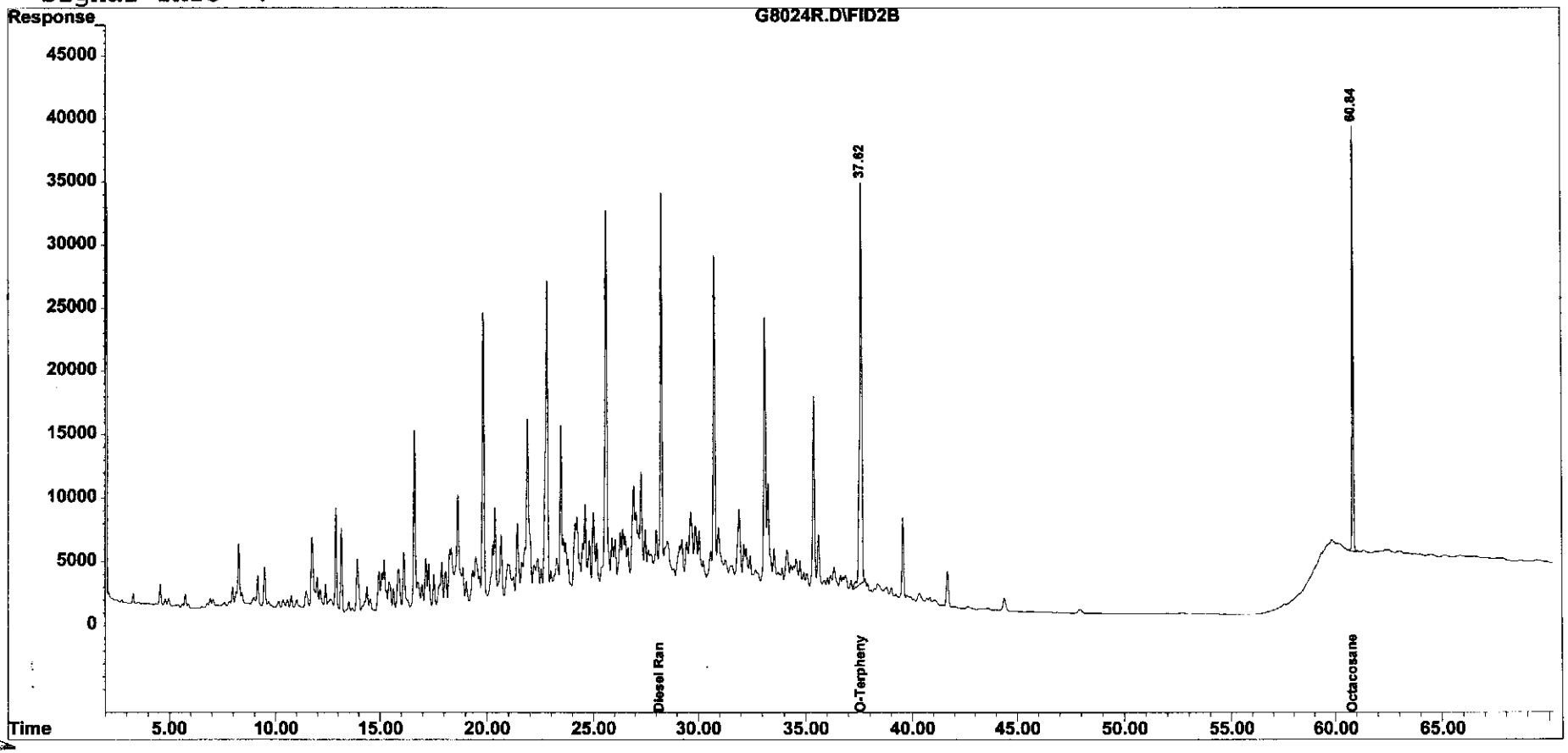

Quantitation Report

Data File : C:\HPCHEM\2\DATA\072399\G8024R.D
Acq On : 25 Jul 1999 11:36
Sample : DRO CONT CHK
Misc :
IntFile : SURR.E
Quant Time: Jul 27 8:58 1999 Quant Results File: DROR.RES

Vial: 20
Operator: HV
Inst : hp8
Multiplr: 1.00

Method : C:\HPCHEM\2\METHODS\DROR.M (Chemstation Integrator)
Title : DROR 07/23/99
Last Update : Tue Jul 27 08:49:42 1999
Response via : Multiple Level Calibration

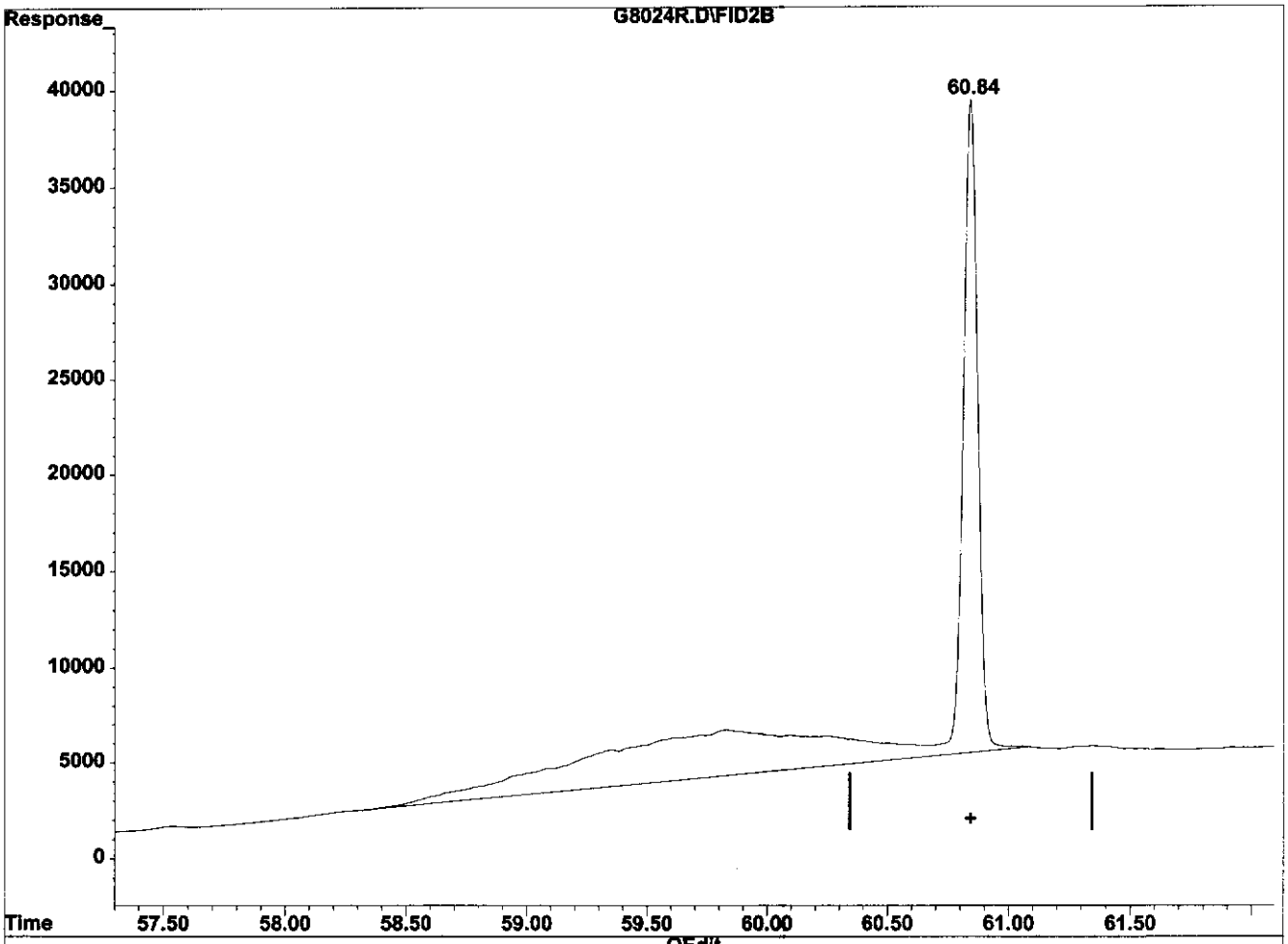

(3) Octacosane (S)

60.84min 49.615ppb

response 3260271

(+) = Expected Retention Time

G8024R.D DROR.M Tue Jul 27 09:04:04 1999

Quantitation Report

Data File : C:\HPCHEM\2\DATA\072399\G8024R.D Vial: 20
Acq On : 25 Jul 1999 11:36 Operator: HV
Sample : DRO CONT CHK Inst : hp8
Misc : Multiplr: 1.00
IntFile : SURR.E
Quant Time: Jul 27 8:58 1999 Quant Results File: DROR.RES

Method : C:\HPCHEM\2\METHODS\DROR.M (Chemstation Integrator)
Title : DROR 07/23/99
Last Update : Tue Jul 27 08:49:42 1999
Response via : Multiple Level Calibration

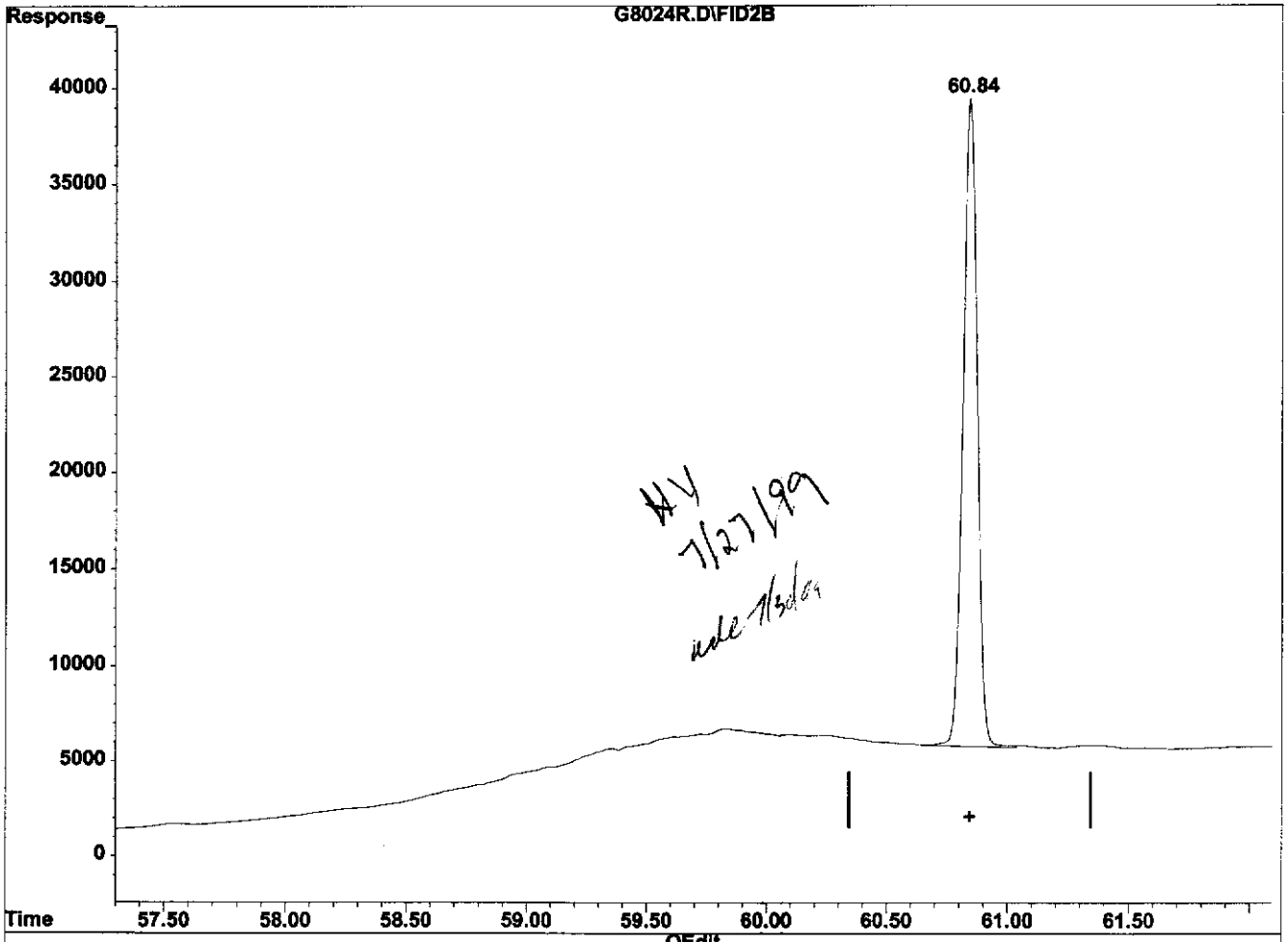

(3) Octacosane (S)

60.84min 20.858ppb m

response 1370589

(+) = Expected Retention Time

G8024R.D DROR.M Tue Jul 27 09:04:15 1999

Raw QC Data

- Method Blank, chromatograms and GC integration reports for each column
- Laboratory Control Sample, chromatograms and GC integration reports for each column
- Matrix Spike/Matrix Spike Duplicate, chromatograms and GC integration reports for each column (if not reported as samples)
- Instrument runlogs
- Extraction bench sheets

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\072399\G8010R.D
Acq On : 24 Jul 1999 17:10
Sample : DRO BLK 120-21
Misc : SOIL
IntFile : SURR.E
Quant Time: Jul 27 8:54 1999 Quant Results File: DROR.RES

Vial: 10
Operator: HV
Inst : hp8
Multiplr: 40.00

Quant Method : C:\HPCHEM\2\METHODS\DROR.M (Chemstation Integrator)
Title : DROR 07/23/99
Last Update : Tue Jul 27 08:49:42 1999
Response via : Initial Calibration
DataAcq Meth : DROR.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S O-Terphenyl	37.60	1253317	469.322 ppb
Spiked Amount 800.000		Recovery =	58.67%
3) S Octacosane	60.83	1057189	643.534 ppb
Spiked Amount 800.000		Recovery =	80.44%
Target Compounds			
1) H Diesel Range	28.20	2161895	1315.707 ppb

(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\2\DATA\072399\G8010R.D Vial: 10
Acq On : 24 Jul 1999 17:10 Operator: HV
Sample : DRO BLK 120-21 Inst : hp8
Misc : SOIL Multiplr: 40.00
IntFile : SURR.E
Quant Time: Jul 27 8:54 1999 Quant Results File: DROR.RES

Quant Method : C:\HPCHEM\2\METHODS\DROR.M (Chemstation Integrator)
Title : DROR 07/23/99
Last Update : Tue Jul 27 08:49:42 1999
Response via : Multiple Level Calibration
DataAcq Meth : DROR.M

Volume Inj. :
Signal Phase :
Signal Info :

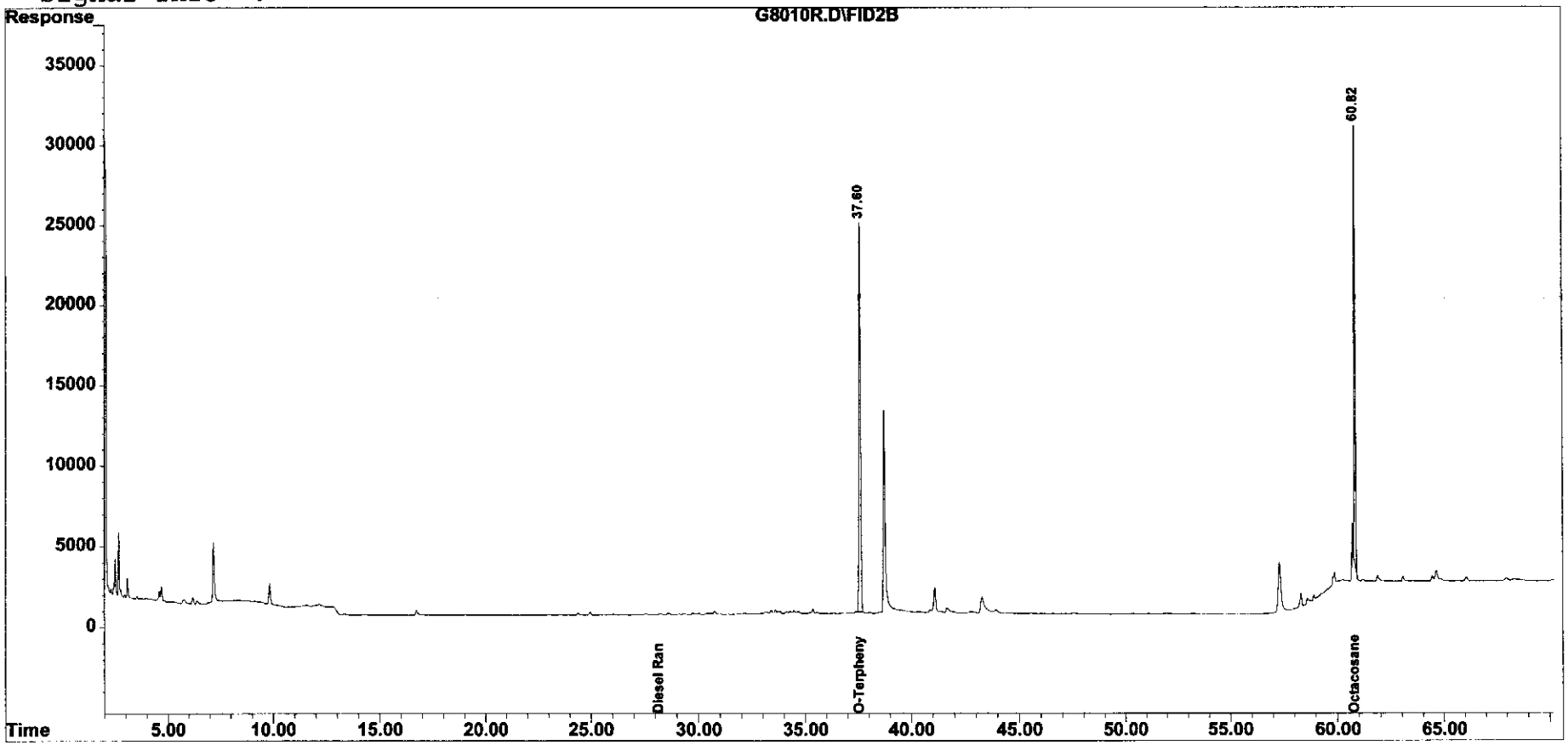

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\072399\G8011R.D Vial: 11
Acq On : 24 Jul 1999 18:29 Operator: HV
Sample : DRO LCS 120-21 Inst : hp8
Misc : SOIL Multiplr: 40.00
IntFile : SURR.E
Quant Time: Jul 27 8:55 1999 Quant Results File: DROR.RES

Quant Method : C:\HPCHEM\2\METHODS\DROR.M (Chemstation Integrator)
Title : DROR 07/23/99
Last Update : Tue Jul 27 08:49:42 1999
Response via : Initial Calibration
DataAcq Meth : DROR.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S O-Terphenyl	37.60	1798547	673.490 ppb
Spiked Amount 800.000		Recovery =	84.19%
3) S Octacosane	60.83	1189284	723.943 ppb
Spiked Amount 800.000		Recovery =	90.49%
Target Compounds			
1) H Diesel Range	28.20	49369650	30045.853 ppb

(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\2\DATA\072399\G8011R.D
Acq On : 24 Jul 1999 18:29
Sample : DRO LCS 120-21
Misc : SOIL
IntFile : SURR.E
Quant Time: Jul 27 8:55 1999 Quant Results File: DROR.RES

Vial: 11
Operator: HV
Inst : hp8
Multiplr: 40.00

Quant Method : C:\HPCHEM\2\METHODS\DROR.M (Chemstation Integrator)
Title : DROR 07/23/99
Last Update : Tue Jul 27 08:49:42 1999
Response via : Multiple Level Calibration
DataAcq Meth : DROR.M

Volume Inj. :
Signal Phase :
Signal Info :

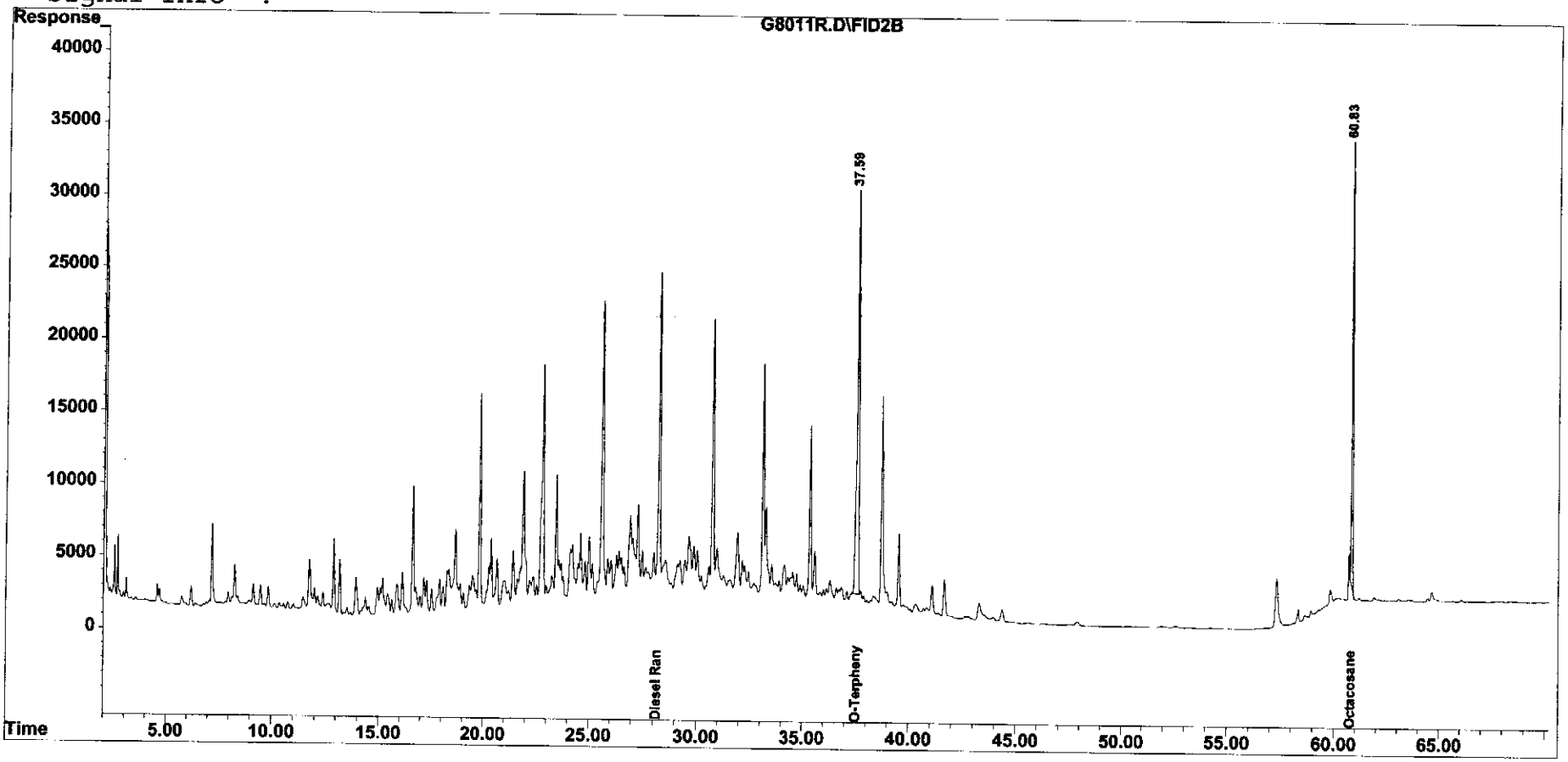

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\072399\G8022R.D
Acq On : 25 Jul 1999 8:59
Sample : 07-381-03 MS
Misc : SOIL
IntFile : SURR.E
Quant Time: Jul 27 9:20 1999 Quant Results File: DROR.RES

Vial: 22
Operator: HV
Inst : hp8
Multiplr: 40.00

Quant Method : C:\HPCHEM\2\METHODS\DROR.M (Chemstation Integrator)
Title : DROR 07/23/99
Last Update : Tue Jul 27 08:49:42 1999
Response via : Initial Calibration
DataAcq Meth : DROR.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S O-Terphenyl	37.64	1628324	609.748 ppb
Spiked Amount 800.000		Recovery =	76.22%
3) S Octacosane	60.85	256883	156.370 ppb
Spiked Amount 800.000		Recovery =	19.55%
Target Compounds			
1) H Diesel Range	28.20	56538303	34408.620 ppb

(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\2\DATA\072399\G8022R.D
Acq On : 25 Jul 1999 8:59
Sample : 07-381-03 MS
Misc : SOIL
IntFile : SURR.E
Quant Time: Jul 27 9:20 1999 Quant Results File: DROR.RES

Vial: 22
Operator: HV
Inst : hp8
Multiplr: 40.00

Quant Method : C:\HPCHEM\2\METHODS\DROR.M (Chemstation Integrator)
Title : DROR 07/23/99
Last Update : Tue Jul 27 08:49:42 1999
Response via : Multiple Level Calibration
DataAcq Meth : DROR.M

Volume Inj. :
Signal Phase :
Signal Info :

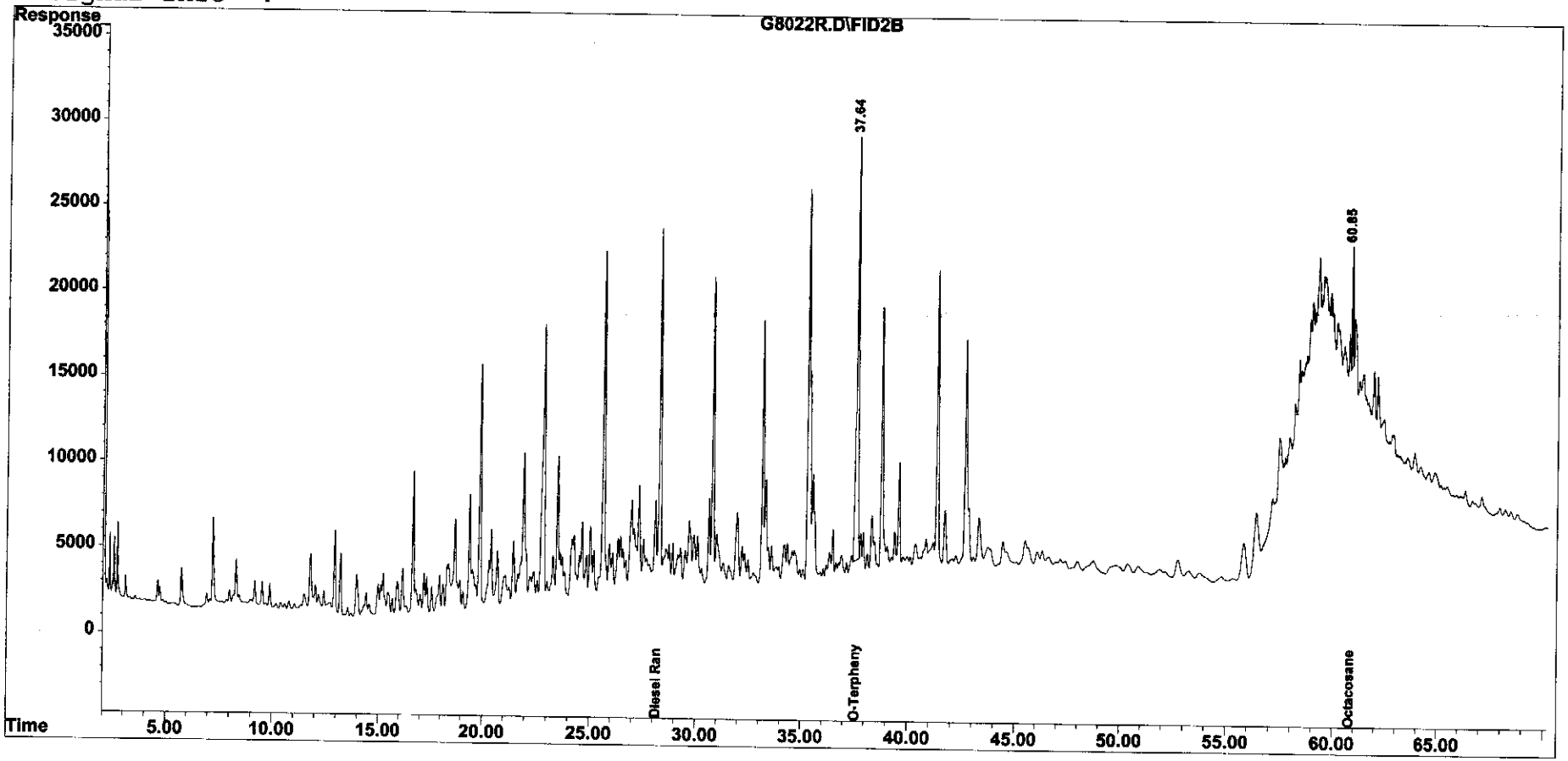

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\072399\G8023R.D
Acq On : 25 Jul 1999 10:17
Sample : 07-381-03 MDS
Misc : SOIL
IntFile : SURR.E
Quant Time: Jul 27 9:20 1999 Quant Results File: DROR.RES

Vial: 23
Operator: HV
Inst : hp8
Multiplr: 40.00

Quant Method : C:\HPCHEM\2\METHODS\DROR.M (Chemstation Integrator)
Title : DROR 07/23/99
Last Update : Tue Jul 27 08:49:42 1999
Response via : Initial Calibration
DataAcq Meth : DROR.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S O-Terphenyl	37.63	1787759	669.450 ppb
Spiked Amount 800.000		Recovery =	83.68%
3) S Octacosane	60.85	319381	194.414 ppb
Spiked Amount 800.000		Recovery =	24.30%
Target Compounds			
1) H Diesel Range	28.20	55895113	34017.181 ppb

(f)=RT Delta > 1/2 Window
(m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\2\DATA\072399\G8023R.D
Acq On : 25 Jul 1999 10:17
Sample : 07-381-03 MDS
Misc : SOIL
IntFile : SURR.E
Quant Time: Jul 27 9:20 1999 Quant Results File: DROR.RES

Vial: 23
Operator: HV
Inst : hp8
Multiplr: 40.00

Quant Method : C:\HPCHEM\2\METHODS\DROR.M (Chemstation Integrator)
Title : DROR 07/23/99
Last Update : Tue Jul 27 08:49:42 1999
Response via : Multiple Level Calibration
DataAcq Meth : DROR.M

Volume Inj. :
Signal Phase :
Signal Info :

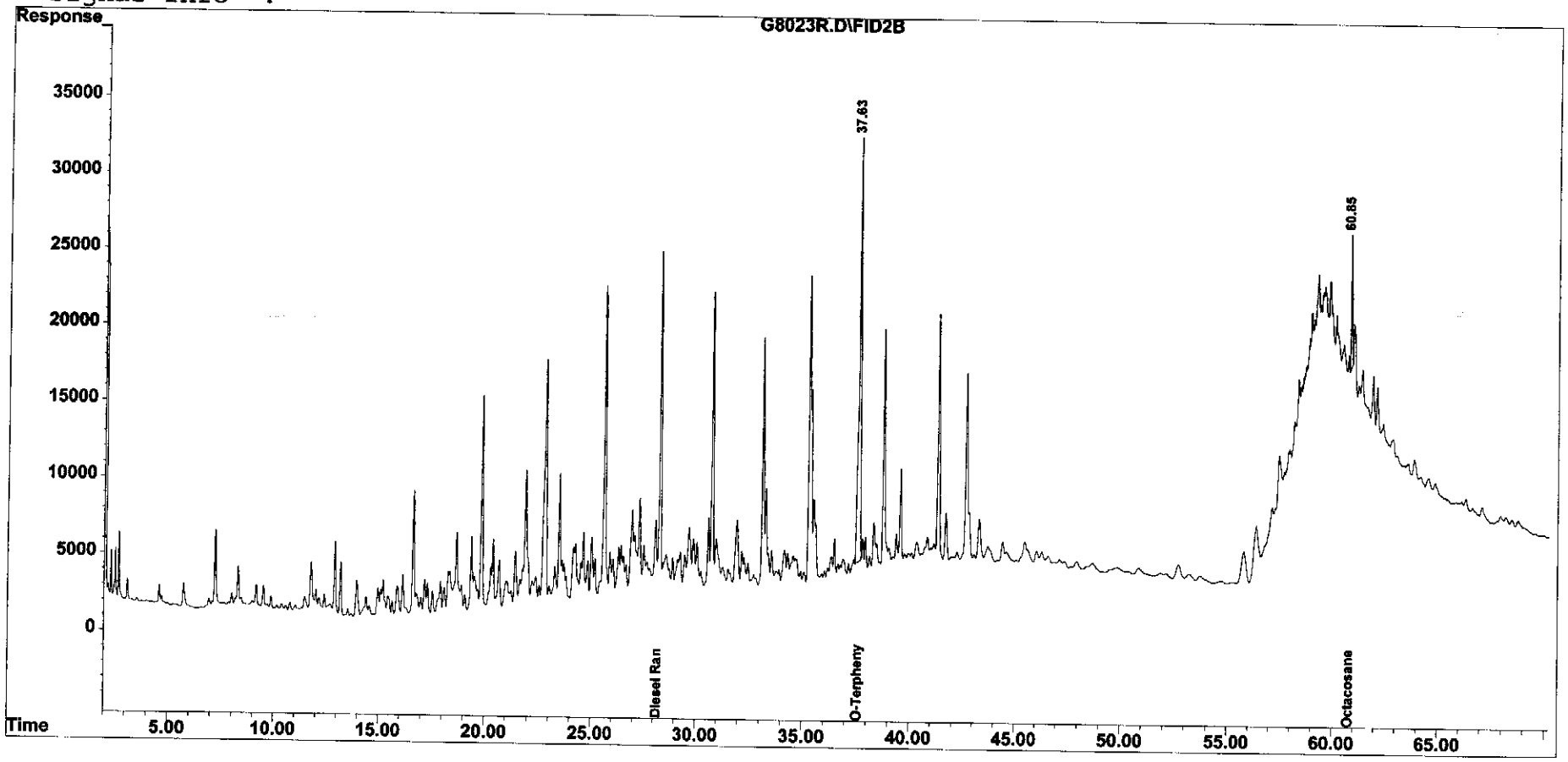

Percent Solids Determination Log

PERCENT SOLIDS

Workgroup: 61694 Approval:
ADT (on): SMW 7-27-99 @ 1630 ADT (off): DLN 7/28/99 @ 0710

Sample	Empty Pan WT 1	WET WT 2	DRY WT 3A	DRY WT 3B	DRY WT 3C
07-332/333-02	1.28	24.56	21.92		
-03	1.28	22.52	18.92		
-04	1.28	23.27	21.14		
07-334/335-01	1.27	26.49	24.95		
-02	1.29	26.26	24.48		
-03	1.29	30.41	28.68		
-04	1.27	20.00	19.15		
-05	1.28	33.48	31.48		
-06	1.27	25.91	24.84		
-07	1.28	21.45	19.42		
-08	1.29	21.40	20.02		
07-365/369-01	1.31	28.17	24.75		
-02	1.31	24.58	21.76		
-03	1.29	26.35	24.10		
-04	1.28	22.90	20.65		
-05	1.27	22.01	20.68		
-06	1.29	20.49	18.97		
07-374/373-01	1.29	28.11	26.56		
-02	1.30	26.10	24.66		
-03	1.30	22.61	21.10		
Duplicate 373-03	1.30	32.39	30.28		

Workgroup: 61696 Approval:
ADT (on): SMW 7-27-99 @ 1640 ADT (off): DLN 7/28/99 @ 0710

Sample	Empty Pan WT 1	WET WT 2	DRY WT 3A	DRY WT 3B	DRY WT 3C
07-374/373-04	1.29	27.52	23.35		
-05	1.29	20.61	17.42		
-06	1.28	26.01	21.43		
07-380/381-01	1.30	20.18	17.57		
-02	1.29	31.32	28.22		
-03	1.28	20.16	17.83		
-04	1.30	25.38	21.51		
-05	1.30	20.67	17.40		
-06	1.30	25.68	21.58		
-07	1.30	31.07	24.39		
-08	1.30	24.14	19.78		
Duplicate 380/381-08	1.30	[illegible]	18.54		

Monday, October 04, 1999

REQUEST NUMBER: 6108R
ANALYSIS TYPE: ORG

Los Alamos
NATIONAL LABORATORY

ATTN: Steve Fry
Paragon/ATI
225 COMMERCE
FT. COLLINS, CO 80524

Please analyze the enclosed samples according to the schedule indicated:

SHIP DATE: 10/4/99
REPORT DUE: 11/5/99
TURN AROUND REQ'D: 30 days

These samples are on:

LANL Request Number: 6108R
Per Agreement Number: 7794L0014-9S
Project Cost Code: MR3R18085311

RAD SCREENING: Not Required

COMMENTS: 03 - 1114 , GA; TPH BY DIESEL AND GASLINE.

LANL ER SMO CONTACT: Joylene Valdez MS H865 5056659968
Signature: Joylene Valdez

ANALYSIS ORDER CODE	ANALYTE(S)	SAMPLE ID	CONT ID	SAMPLE MATRIX	DATE SAMPLED	COMMENTS
TPH		RE03-99-2212	03	S	9/24/99	
TPH		RE03-99-2213	03	S	9/24/99	
TPH		RE03-99-2214	03	S	9/24/99	

Final Page of REQUEST NUMBER 6108R

Monday, October 04, 1999

Los Alamos
NATIONAL LABORATORY

CHAIN OF CUSTODY DOCUMENT NUMBER: 6108RC

REQUEST NUMBER: 6108R
ANALYSIS TYPE: ORG

ATTN: Steve Fry
Paragon/ATI
225 COMMERCE
FT. COLLINS, CO 80524

SAMPLE ID	CONT ID	CONTAINER DESCRIPTION	ANALYSIS ORDER CODE	PRESERVATIVE	MATRIX
RE03-99-2212	03	250 ml Amber Glass	TPH	Ice	S
RE03-99-2213	03	250 ml Amber Glass	TPH	Ice	S
RE03-99-2214	03	250 ml Amber Glass	TPH	Ice	S

Final Page of CHAIN OF CUSTODY DOCUMENT FOR REQUEST NUMBER 6108R

Relinquished By:		Date	Time
Joe Garcia	[signature]	10/4/99	1340
PRINTED NAME	SIGNATURE		
PRINTED NAME	SIGNATURE		

Received By:		Date	Time
PRINTED NAME	SIGNATURE		
PRINTED NAME	SIGNATURE		
PRINTED NAME	SIGNATURE		

Received for DISPOSAL By:		Date	Time
PRINTED NAME	SIGNATURE		

Remarks:

Los Alamos National Laboratory Environmental Restoration (Los Alamos, NM 87545)

CHAIN OF CUSTODY/REQUEST FOR ANALYSIS

Technical Area 03 Operable Unit 1114	Send Lab Report to Gabriela Escobeda-L M992	Field Unit Leader Gabriela Escobeda-L (505)665-7352
Date 09/24/99 OU Contact Gabriela Escobeda-L Contact Phone No (505) 665-7352	LANL Destination SMO LANL Contact Stephanie Hagelberg LANL Mail Stop	Turnaround 30 days Lab Report Required 09/29/99 Charge Code MR3R18085311

Relinquished by: Jeff Linn (Signature): Affiliation: GTS Duratek	Date: 10-4-99	Relinquished by: (Signature): Affiliation:	Date:	Relinquished by: (Signature): Affiliation:	Date:
Received by: (Signature): Affiliation:	Time: 10.55	Received by: (Signature): Affiliation:	Time:	Received by: (Signature): Affiliation:	Time:

POSSIBLE HAZARD IDENTIFICATION: (please indicate if sample(s) are hazardous materials and/or suspected to contain high levels of hazardous substances): Radiological___ Highly Toxic___ Flammable___ Skin Irritant___ Non-Hazard___ Other___

SCREENING METHOD: Rad Van

SAMPLE DISPOSAL: Disposal by Lab

Comments: DIESEL AND GASOLINE

Field Unique Sample #/ID	Cont ID	Date & Time Collected	Sample Container Volume/Material	Matrix	Preserv	ANALYSIS REQUESTED: (SMO Order Codes)	REMARKS (Conditions of receipt, etc.)
RE03-99-2212	03	09/24/99 1445	250 ml Amber Glass	Soil	Ice	TPH	
RE03-99-2213	03	09/24/99 1448	250 ml Amber Glass	Soil	Ice	TPH	
RE03-99-2214	03	09/24/99 1425	250 ml Amber Glass	Soil	Ice	TPH	

Original - LANL Destination

Yellow - RPF

Pink - FTL Copy

Rad Screening Data Release Form

The Following samples were received at the Field Support Facility (FSF) without screening data (list sample number):

These samples will not be shipped until radiological screening data documentation arrives at the FSF. I understand that it is my responsibility to ensure this information arrives at the FSF in a timely manner. If holding times are missed because screening data does not arrive, I will pick up the samples.

The following samples do not require rad screening data for the reasons stated (list sample numbers): Former samples collected from same locations previously screened.

RE03-99-2212
" -2213
" -2214

Reason:

Print Last Name LINN Signature [signature] Date 10/4/99

PARAGON ANALYTICS, INC.

AN EMPLOYEE OWNED SMALL BUSINESS

COPY

225 Commerce Drive Fort Collins, Colorado 80524 (970) 443-1511

Message

Phone (970) 490-1511
Fax (970) 490-1522

Please Direct To:

Company Name: LANL ER-SMO

Attention: Joy Valdez

Date: 10-12-99

Number of Pages: 7

Fax Number: 505 665-9972

Sent From: S. Fry

Message: Hi Joy

Here are the Diesel results (TPH) For 6108R. As we discussed the samples have only small (less than Reporting Limits) amounts of Diesel, and even less gasoline.

Thanks,
Stan

Original to Follow ☒ Yes ☐ No

If you do not receive all the pages, please contact sender at 970 490 1511.

Paragon Analytics, Inc.

Total Extractable Hydrocarbons (Diesel) Case Narrative

Los Alamos National Laboratory SMO

6108R

Order Number - 9910021

1. This report consists of 3 soil samples received by Paragon on 10/05/99.

2. The soil samples were extracted by adding a methanol/water solution to the soil followed by hexane. This mixture is shaken and the hexane portion of the two-phase solution is removed for analysis.

3. The extracts were then analyzed using GC with a DB-5.625 capillary column and a flame ionization detector (FID) according to protocols generally based on SW-846 Method 8000 and Method 8015. The procedures are based on this general method because SW-846 does not have a specific method for TEPH or diesel range organics. The only true modification from this method is that TEPH(diesel) is a multicomponent mixture and is quantitated by summing the entire range, rather than individual peaks. All positive results were quantitated using the responses from the initial calibration curve using the external standard technique. Also, a confirmation column is not used, because the analyte is a multicomponent mixture and the specific carbon range of the peaks detected are specified on the individual sample reporting forms.

4. All initial and continuing calibration criteria were within acceptance criteria.

5. The method blank associated with this project was below the reporting limits for diesel range organics.

6. All laboratory control spike and laboratory control spike duplicate recoveries and RPDs were within the acceptance criteria.

7. Matrix spikes and matrix spike duplicates were performed on an in house sample not provided by the client. The data have not been provided in this package.

8. All samples were extracted and analyzed within the established holding times.

9. All surrogate recoveries were within acceptance criteria.

The data contained in the following report have been reviewed and approved by the personnel listed below. In addition, Paragon Analytics, Inc. certifies that the analyses reported herein are true, complete and correct within the limits of the methods employed.

L.L. Elshof — 10-11-99
GC Analyst — Date

EB — 10/11/99
Reviewer's Initials — Date

Monday, October 04, 1999

REQUEST NUMBER: 6108R
ANALYSIS TYPE: ORG

Los Alamos
NATIONAL LABORATORY

ATTN: Steve Fry
Paragon/ATI
225 COMMERCE
FT. COLLINS, CO 80524

Please analyze the enclosed samples according to the schedule indicated:

SHIP DATE: 10/4/99
REPORT DUE: 11/5/99
TURN AROUND REQ'D: 30 days

These samples are on:

LANL Request Number: 6108R
Per Agreement Number: 7794L0014-9S
Project Cost Code: MR3R18085311

RAD SCREENING: Not Required
COMMENTS: 03 - 1114 , GA; TPH BY DIESEL AND GASLINE.

LANL ER SMO CONTACT: Joylene Valdez MS H865 5056659968
Signature: Joylene Valdez

ANALYSIS ORDER CODE	ANALYTE(S)	SAMPLE ID	CONT ID	SAMPLE MATRIX	DATE SAMPLED	COMMENTS
01	TPH	RE03-99-2212	03	S	9/24/99	
02	TPH	RE03-99-2213	03	S	9/24/99	
03	TPH	RE03-99-2214	03	S	9/24/99	

Diesel Range Organics

Method SW8015M

Sample Results

Lab Name: Paragon Analytics, Inc.
Work Order Number: 9910021
Client Name: Los Alamos National Laboratory SMO
ClientProject ID: 6108R

[redacted]	RE03-99-2212
[redacted]	9910021-1

Sample Matrix: SOIL
% Moisture: 15.7
Date Collected: 24-Sep-99
Date Extracted: 07-Oct-99
Date Analyzed: 07-Oct-99

Prep Batch: EX991007-2
QCBatchID: EX991007-2-2
Run ID: HCD991006-2
Cleanup: NONE
Basis: Dry Weight

Sample Aliquot: 20 G
Final Volume: 5 ML
Result Units: MG/KG
File Name: D1006S29

CASNO	Target Analyte	Dilution Factor	Result	Reporting Limit	Result Qualifier	EPA Qualifier
68334-30-5	Diesel Range Organics	1	1.8	5.9	J	

Surrogate Recovery

CASNO	Surrogate Analyte	Result	Flag	Spike Amount	Percent Recovery	Control Limits
630-01-3	N-HEXACOSANE	8.64		7.41	117	54 - 146

The chromatogram indicates the presence of hydrocarbons in the range of C10-C26.

Data Package ID: *HCD9910021-1*

Diesel Range Organics

Method SW8015M

Sample Results

Lab Name: Paragon Analytics, Inc.
Work Order Number: 9910021
Client Name: Los Alamos National Laboratory SMO
ClientProject ID: 6108R

[redacted]	RE03-99-2213
[redacted]	9910021-2

Sample Matrix: SOIL
% Moisture: 17.2
Date Collected: 24-Sep-99
Date Extracted: 07-Oct-99
Date Analyzed: 07-Oct-99

Prep Batch: EX991007-2
QCBatchID: EX991007-2-2
Run ID: HCD991006-2
Cleanup: NONE
Basis: Dry Weight

Sample Aliquot: 20 G
Final Volume: 5 ML
Result Units: MG/KG
File Name: D1006S30

CASNO	Target Analyte	Dilution Factor	Result	Reporting Limit	Result Qualifier	EPA Qualifier
68334-30-5	Diesel Range Organics	1	3.6	6	J	

Surrogate Recovery

CASNO	Surrogate Analyte	Result	Flag	Spike Amount	Percent Recovery	Control Limits
630-01-3	N-HEXACOSANE	8.85		7.55	117	54 - 146

The chromatogram indicates the presence of hydrocarbons in the range of C10-C26.

Data Package ID: *HCD9910021-1*

Diesel Range Organics

Method SW8015M

Sample Results

Lab Name: Paragon Analytics, Inc.
Work Order Number: 9910021
Client Name: Los Alamos National Laboratory SMO
ClientProject ID: 6108R

Field ID	RE03-99-2214
Lab ID	9910021-3

Sample Matrix: SOIL
% Moisture: 16.7
Date Collected: 24-Sep-99
Date Extracted: 07-Oct-99
Date Analyzed: 07-Oct-99

Prep Batch: EX991007-2
QCBatchID: EX991007-2-2
Run ID: HCD991006-2
Cleanup: NONE
Basis: Dry Weight

Sample Aliquot: 20 G
Final Volume: 5 ML
Result Units: MG/KG
File Name: D1006S31

CASNO	Target Analyte	Dilution Factor	Result	Reporting Limit	Result Qualifier	EPA Qualifier
68334-30-5	Diesel Range Organics	1	3	6	J	

Surrogate Recovery

CASNO	Surrogate Analyte	Result	Flag	Spike Amount	Percent Recovery	Control Limits
630-01-3	N-HEXACOSANE	8.63		7.5	115	54 - 146

The chromatogram indicates the presence of hydrocarbons in the range of C10-C26.

Data Package ID: *HCD9910021-1*

Diesel Range Organics

Method SW8015M
Method Blank

Lab Name: Paragon Analytics, Inc.
Work Order Number: 9910033
Client Name: IT Corporation
ClientProject ID: Vandenberg AFB 776900

EX991007-2MB

Sample Matrix: SOIL
% Moisture: N/A
Date Collected: N/A
Date Extracted: 07-Oct-99
Date Analyzed: 07-Oct-99

Prep Batch: EX991007-2
QCBatchID: EX991007-2-2
Run ID: HCD991006-2
Cleanup: NONE
Basis: N/A

Sample Aliquot: 20 G
Final Volume: 5 ML
Result Units: MG/KG
File Name: D1006S26

CASNO	Target Analyte	DF	Result	Reporting Limit	Result Qualifier	EPA Qualifier
68334-30-5	Diesel Range Organics	1	5	5	U	

Surrogate Recovery

CASNO	Surrogate Analyte	Result	Flag	Spike Amount	Percent Recovery	Control Limits
630-01-3	N-HEXACOSANE	7.92		6.25	127	54 - 148

Data Package ID: *HCD9910021-1*

CHAIN OF CUSTODY FORM (Example)

SECTION I. DATA PACKAGE INFORMATION (Relinquisher completes)

New Issue ☒ Yes ☐ No

Request Number(s): 6055 6108

Data Package Requestor (check one): ☒ Editing/Validation ☐ User

Name (print) Chris Wigg

Phone 667-5755

Focus Area: FFMA

Z Number: 163155

SECTION II. AUTHORIZING SIGNATURES (Relinquished/Received signatures)

Relinquished By: [signature] Date: 10-19-99

I accept custody of the above listed data package(s).

Received By: [signature] Date: 10/20/99

Relinquished By: _____ Date: _____

I accept custody of the above listed data package(s).

Received By: _____ Date: _____

Comments:

Los Alamos
Environmental Restoration Project

ER SOP-15.09

685

CHAIN OF CUSTODY FORM (Example)

SECTION I. DATA PACKAGE INFORMATION (Relinquisher completes)

New Issue ☒ Yes ☐ No

Request Number(s): 6055 6108

Data Package Requestor (check one): ☒ Editing/Validation ☐ User

Name (print) Chris Wagg

Phone 667-5769

Focus Area: FMAA

Z Number: 163155

SECTION II. AUTHORIZING SIGNATURES (Relinquished/Received signatures)

Relinquished By: [signature] Date: 10-19-99

I accept custody of the above listed data package(s).

Received By: [signature] Date: 10/20/99

Relinquished By: Bridget L. Maestas Date: 11-1-99

I accept custody of the above listed data package(s).

Received By: [signature] Date: 11-1-99

Comments:

Los Alamos
Environmental Restoration Project

ER SOP-15.09

PARAGON ANALYTICS, INC.
225 Commerce Drive • Fort Collins, CO 80524 • (800) 443-1511 • (970) 490-1511 • FAX (970) 490-1522

October 18, 1999

Joylene Valdez
Los Alamos National Laboratory SMO
SMO TA-3, Building 271
Los Alamos, NM 87545

RE: Paragon Workorder: 99-10-021
Client Project Name: None Submitted
Client Project Number: 6108R

Dear Ms. Valdez:

Three soil samples were received from LANL on October 5, 1999. The samples were scheduled for Total Extractable Hydrocarbons (Diesel) analysis. The results for this analysis are contained in the enclosed report, pages 1-78.

Please note that an EDD was sent out on October 18, 1999.

Please note that the GRO (gasoline) analysis was canceled, due to instrument failure which caused the samples to go out of hold time, this was discussed and approved by you, per our conversation on October 15, 1999.

Thank you for your confidence in Paragon Analytics, Inc. Should you have any questions, please call.

Sincerely,

Paragon Analytics, Inc.
Lance Steere
Senior Project Manager

LRS/ar
Enclosure: Report

Cab
TO:
Approved By:
11/8/99

D CO

DATA VALIDATION COVER SHEET

SECTION I.

REQUEST NUMBER: **6108R** COST CODE: _____

VALIDATION DATE: **28-Oct-99**

LAB NAME: **Paragon-**

VALIDATOR: **Herman Ramsey** ORGANIZATION: **IT**

ANALYTICAL SUITE: ___ *VOLATILES* ___ *HIGH EXPLOSIVES*

___ SEMIVOLATILES ___ INORGANICS

___ PESTICIDES/AROCLORS ___ RADIOCHEMISTRY

OTHER (describe) **X TPH**

SECTION II. COMPLETENESS CHECKLIST

Item	Present? (Y/N/NA)	Item	Present? (Y/N/NA)
1. COC form(s)		2. Case Narrative	
3. Sample Results		4. Sample Chromatograms	
5. Standard Chromatograms		6. Quantitation Reports	
7. QC Forms			

Identify any samples in the assigned Request Number that are missing:

_____ _____ _____ _____ _____ _____

_____ _____ _____ _____ _____ _____

Comments: include information about requests to the laboratory and agreed upon date of resolution and lab contact: (Attach additional comment sheets as necessary)

TPH analysis. TPH has been baseline validated using the PCB/Pest baseline validation checklist.

Note: GRO (gasoline) analysis was canceled due to instrument failure – LANL approved cancelation by phone.

Signature/1st validation: Herman Ramsey Date/1st validation: 10/28/99

Signature/2nd validation: _____ Date/2nd validation: _____

Los Alamos
Environmental Restoration

CCS AND VALIDATION

Explanation of qualifiers (Q):

U The analyte was analyzed for but not detected above the reported EQL

J The analyte was positively identified, the associated numerical value is the approximate concentration of the analyte in the sample
J+ Likely has a high bias
J- Likely has a low bias

UJ The analyte was analyzed for but not detected. The associated value is an estimate

R The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. Presence or absence cannot be verified. Note: Any results qualified as "R" should be looked at for relevance for data use. Thus, "R" implies "PM" also, and must not be used alone

P Use professional judgement based on data use . It usually has an "M"with it, indicating that a manual check should be made if the data that is qualified with the "P" is important to the data user.

In addition, PM also means that a decision must be made by the project manager/delegee regarding the need for further review of the data. This review should include some consideration of potential impact that could result from using the P qualified data. (For example, in the case of holding time excedance, the project manager/delegee can decide to use the data with no qualification when analyltes of interest are known to not be adversely affected by holding time exceedances. Another example is the case where soil sample duplicate analyses for metals exceed the precision criteria. Since this is likley because of sample non-homogeneity rather than lab error, the manager/delegee must decide how to use the data.)

PM Manual review of raw data is recommended to determine if the defect impacts data use, as in "R" above.

REASON CODES FOR VALIDATION QUALIFIERS

ORGANOCHLORINE PESTICIDES/AROCLORS (P)

3 Surrogate % recovery > upper limit, which indicates a potential high bias in the results and a potential for false positive results.

3a Surrogate % recovery is > 10% but < the lower limit, which indicates a potential low bias in the results.

3b Surrogate % recovery < 10%, which indicates an increased potential low bias in the results..

3c Result is non-detect and the surrogate % recovery > 10 % but < lower limit, which indicates a potential for false negative results.

3d Result is a non-detect and the surrogate recovery < 10%, which indicates a greatly increased potential for false negative results.

4 Sample result > EQL and < 5X the concentration of the related analyte in the blank, which indicates the reported detection is considered to be indistinguishable from blank contamination.

5 Sample result < EQL and < 5X (10X as above) the concentration of the analyte in the blank, which indicates the detected result was indistinguishable from blank contamination and the detected result was changed to non-detected at the EQL.

5a Sample result > EQL and > 5X (10X as above) the concentration of the analyte in the blank, which indicates the reported result is not likely to be related to the contamination in the associated blank.

6 % RSD or % D exceeds the specification - apply to a positive result, which indicates potential quantitation problems in the analyses and the potential for false positive results.

7 % RSD or %D exceeds the specification - apply to a non-detect, which indicates potential quantitation problems in the analyses and the potential false negative results.

8. Analyte concentration exceeds linear range and sample not diluted to within that range. This usually results in a negative bias in the reported concentratiion.

9. Holding time is exceeded. An evaluation of the data of interest with respect to holding time exceedance impact (technically) is recommended. Factors to consider include sample preservation, sample storage practices, use of the data, levels of contamination found in the sample, and the physical, chemical, and biological stability of the target analytes in the sample matrix.

10. Breakdown criteria have been exceeded, indicating poor instrument performance which can result in a low bias in the reported results and potential false negative results for labile compounds and potential false positive results for breakdown procucts.

11. Surrogate retention time has shifted by > 0.05 minutes, possibly affecting analyte identification and causing false positives or negatives.

Total Petroleum Hydrocarbons

Initial calibration: **Present? X yes no** **Daily calibration verification** **Present? X yes no**	**NA** **NA**	**Obtain from lab. Q=A** **Obtain from lab. Q=A**	
Surrogates: **Present? X yes no** **% recovery** ~~**Tetrachloro-m-xylene 50-160**~~ ~~**Decachlorbiphenyl50-160**~~ *N-Hexacosane was used as the surrogate. The QC limits reported by **Paragon** are 54-146%.*	**OK**	**Obtain from lab. Q=A** **If either surrogate's % recovery is more than upper limit, detected target compounds are are qualified with J+.** **If either surrogate's % recovery is ≥ 10% but ≤ lower limit, qualify detected compounds with J-** **and non-detected target analytes as UJ.** **If either surrogate's % recovery <10%, qualify detected compounds as J-** **and non-detects as R, PM.** **Enter % recovery in FIMAD table**	 **P3** **P3a** **P3c** **P3b** **P3d**

HDR
10/28/99

Retention Time Windows **Present? X yes no** ~~**Surrogates' retention time should not shift by ± 0.05 minutes.**~~ **As per a conversation with Steve Fry of Paragon on 28 May 98, there is no retention time window specified in the method (8015 or 8000). Paragon uses a window of ± 0.5 minutes.** *The expected retention time for the surrogate was 21.30 minutes. The retention time for the samples were 21.30.*	**OK**	**Obtain from lab. Q=A** **If either of the surrogate's RT shifts >± 0.05 minutes, qualify the results as PM. (An examination of chromatographic peaks will be required to determine if target analytes are present).**	
Method blanks **Present? X yes no** **Separate for each method, matrix, and/or analytical batch** **Target analytes < EQL** ***Paragon** uses 5.0 mg/kg as the reporting limit.*	**OK**	**Obtain from lab. Q=A** **If target compound found in blank but not in sample, no qualifier.** **Sample result > EQL and < 5 X multiple of blank, elevate EQL to sample result and qualify as U.** **Sample result < EQL and < 5X multiple of blank, elevate sample results to EQL and qualify as U.** **Sample result > 5X multiple, OK**	**P4** **P5**
Holding time **Extraction within 14 days of sample collection for soil and 7 days for water** **Analyses within 40 days of extraction**	**OK**	**Compare date of extraction with sampling date on Analytical Request and date of analysis with date of extraction. Q=PM**	

NOR
10/28/99

Diesel Range Organics

Method SW8015M

Sample Results

Lab Name: Paragon Analytics, Inc.
Work Order Number: 9910021
Client Name: Los Alamos National Laboratory SMO
ClientProject ID: 6108R

Field ID:	RE03-99-2212
Lab ID:	9910021-1

Sample Matrix: SOIL
% Moisture: 15.7
Date Collected: 24-Sep-99
Date Extracted: 07-Oct-99
Date Analyzed: 07-Oct-99

Prep Batch: EX991007-2
QCBatchID: EX991007-2-2
Run ID: HCD991006-2
Cleanup: NONE
Basis: Dry Weight

Sample Aliquot: 20 G
Final Volume: 5 ML
Result Units: MG/KG
File Name: D1006S29

CASNO	Target Analyte	Dilution Factor	Result	Reporting Limit	Result Qualifier	EPA Qualifier
68334-30-5	Diesel Range Organics	1	1.8	5.9	J	

Surrogate Recovery

CASNO	Surrogate Analyte	Result	Flag	Spike Amount	Percent Recovery	Control Limits
630-01-3	N-HEXACOSANE	8.64		7.41	117	54 - 146

The chromatogram indicates the presence of hydrocarbons in the range of C10-C26.

HDR 10/28/99

Data Package ID: *HCD9910021-1*

Diesel Range Organics

Method SW8015M

Sample Results

Lab Name: Paragon Analytics, Inc.
Work Order Number: 9910021
Client Name: Los Alamos National Laboratory SMO
ClientProject ID: 6108R

Field ID:	RE03-99-2213
Lab ID:	9910021-2

Sample Matrix: SOIL
% Moisture: 17.2
Date Collected: 24-Sep-99
Date Extracted: 07-Oct-99
Date Analyzed: 07-Oct-99

Prep Batch: EX991007-2
QCBatchID: EX991007-2-2
Run ID: HCD991006-2
Cleanup: NONE
Basis: Dry Weight

Sample Aliquot: 20 G
Final Volume: 5 ML
Result Units: MG/KG
File Name: D1006S30

CASNO	Target Analyte	Dilution Factor	Result	Reporting Limit	Result Qualifier	EPA Qualifier
68334-30-5	Diesel Range Organics	1	3.6	6	J	

Surrogate Recovery

CASNO	Surrogate Analyte	Result	Flag	Spike Amount	Percent Recovery	Control Limits
630-01-3	N-HEXACOSANE	8.85		7.55	117	54 - 146

The chromatogram indicates the presence of hydrocarbons in the range of C10-C26.

HDR 10/28/99

Data Package ID: *HCD9910021-1*

Diesel Range Organics

Method SW8015M

Sample Results

Lab Name: Paragon Analytics, Inc.
Work Order Number: 9910021
Client Name: Los Alamos National Laboratory SMO
ClientProject ID: 6108R

Field ID:	RE03-99-2214
Lab ID:	9910021-3

Sample Matrix: SOIL
% Moisture: 16.7
Date Collected: 24-Sep-99
Date Extracted: 07-Oct-99
Date Analyzed: 07-Oct-99

Prep Batch: EX991007-2
QCBatchID: EX991007-2-2
Run ID: HCD991006-2
Cleanup: NONE
Basis: Dry Weight

Sample Aliquot: 20 G
Final Volume: 5 ML
Result Units: MG/KG
File Name: D1006S31

CASNO	Target Analyte	Dilution Factor	Result	Reporting Limit	Result Qualifier	EPA Qualifier
68334-30-5	Diesel Range Organics	1	3	6	J	

Surrogate Recovery

CASNO	Surrogate Analyte	Result	Flag	Spike Amount	Percent Recovery	Control Limits
630-01-3	N-HEXACOSANE	8.63		7.5	115	54 - 146

The chromatogram indicates the presence of hydrocarbons in the range of C10-C26.

HDR
10/28/99

Data Package ID: *HCD9910021-1*

PARAGON ANALYTICS,
225 Commerce Drive Fort Collins, CO 80524 (800) 443-1511 (970) 490-1511 FAX (970) 490-1522

October 18, 1999

Joylene Valdez
Los Alamos National Laboratory SMO
SMO TA-3, Building 271
Los Alamos, NM 87545

RE: Paragon Workorder: 99-10-021
Client Project Name: None Submitted
Client Project Number: 6108R

Dear Ms. Valdez:

Three soil samples were received from LANL on October 5, 1999. The samples were scheduled for Total Extractable Hydrocarbons (Diesel) analysis. The results for this analysis are contained in the enclosed report pages 1-78.

Please note that an EDD was sent out on October 18, 1999.

Please note that the GRO (gasoline) analysis was canceled, due to instrument failure which caused the samples to go out of hold time, this was discussed and approved by you, per our conversation on October 15, 1999.

Thank you for your confidence in Paragon Analytics, Inc. Should you have any questions, please call.

Sincerely,

Paragon Analytics, Inc.
Lance Steere
Senior Project Manager

LRS/ar
Enclosure: Report

Paragon Analytics, Incorporated

Sample Number(s) Cross-Reference Table

Paragon OrderNum: 9910021
Client Name: Los Alamos National Laboratory SMO
Client Project Name:
Client Project Number: 6108R
Client PO Number: 7794L0014-9S

Client Sample	Lab Sample Number	COC Number	Matrix	Date Collected	Time Collected
RE03-99-2212	9910021-1		SOIL	9/24/99	
RE03-99-2213	9910021-2		SOIL	9/24/99	
RE03-99-2214	9910021-3		SOIL	9/24/99	

49910021

Monday, October 04, 1999

REQUEST NUMBER: 6108R

ANALYSIS TYPE: ORG

Los Alamos
NATIONAL LABORATORY

ATTN: Steve Fry
Paragon/ATI
225 COMMERCE
FT. COLLINS, CO 80524

Please analyze the enclosed samples according to the schedule indicated:

SHIP DATE: 10/4/99
REPORT DUE: 11/5/99
TURN AROUND REQ'D: 30 days

These samples are on:

LANL Request Number: 6108R
Per Agreement Number: 7794L0014-9S
Project Cost Code: MR3R18085311

RAD SCREENING: Not Required

COMMENTS: 03 - 1114 , GA; TPH BY DIESEL AND GASLINE.

LANL ER SMO CONTACT: Joylene Valdez MS H865 5056659968

Signature: Joylene Valdez

ANALYSIS ORDER CODE	ANALYTE(S)	SAMPLE ID	CONT ID	SAMPLE MATRIX	DATE SAMPLED	COMMENTS
01	TPH	RE03-99-2212	03	S	9/24/99	
02	TPH	RE03-99-2213	03	S	9/24/99	
03	TPH	RE03-99-2214	03	S	9/24/99	

9910021

Monday, October 04, 1999

Los Alamos
NATIONAL LABORATORY

CHAIN OF CUSTODY DOCUMENT NUMBER: 6108RC

REQUEST NUMBER: 6108R
ANALYSIS TYPE: ORG

ATTN: Steve Fry
Paragon/ATI
225 COMMERCE
FT. COLLINS, CO 80524

	SAMPLE ID	CONT ID	CONTAINER DESCRIPTION	ANALYSIS ORDER CODE	PRESERVATIVE	MATRIX
01	RE03-99-2212	03	250 ml Amber Glass	TPH	Ice	S
02	RE03-99-2213	03	250 ml Amber Glass	TPH	Ice	S
03	RE03-99-2214	03	250 ml Amber Glass	TPH	Ice	S

Final Page of CHAIN OF CUSTODY DOCUMENT FOR REQUEST NUMBER 6108R

Relinquished By:		Date	Time
Joe Garcia	Joe Garcia	10/4/99	1340
PRINTED NAME	SIGNATURE		
PRINTED NAME	SIGNATURE		
PRINTED NAME	SIGNATURE		

Received By:		Date	Time
M. Christenson		10.5.99	930
PRINTED NAME	SIGNATURE		
PRINTED NAME	SIGNATURE		
PRINTED NAME	SIGNATURE		

Received for DISPOSAL By:		Date	Time
PRINTED NAME	SIGNATURE		

Remarks:

Paragon Analytics, Inc.

Total Extractable Hydrocarbons (Diesel) Case Narrative

Los Alamos National Laboratory SMO

6108R

Order Number - 9910021

1. This report consists of 3 soil samples received by Paragon on 10/05/99.

2. The soil samples were extracted by adding a methanol/water solution to the soil followed by hexane. This mixture is shaken and the hexane portion of the two-phase solution is removed for analysis.

3. The extracts were then analyzed using GC with a DB-5.625 capillary column and a flame ionization detector (FID) according to protocols generally based on SW-846 Method 8000 and Method 8015. The procedures are based on this general method because SW-846 does not have a specific method for TEPH or diesel range organics. The only true modification from this method is that TEPH(diesel) is a multicomponent mixture and is quantitated by summing the entire range, rather than individual peaks. All positive results were quantitated using the responses from the initial calibration curve using the external standard technique. Also, a confirmation column is not used, because the analyte is a multicomponent mixture and the specific carbon range of the peaks detected are specified on the individual sample reporting forms.

4. All initial and continuing calibration criteria were within acceptance criteria.

5. The method blank associated with this project was below the reporting limits for diesel range organics.

6. All laboratory control spike and laboratory control spike duplicate recoveries and RPDs were within the acceptance criteria.

7. Matrix spikes and matrix spike duplicates were performed on an in house sample not provided by the client. The data have not been provided in this package.

8. All samples were extracted and analyzed within the established holding times.

9. All surrogate recoveries were within acceptance criteria.

The data contained in the following report have been reviewed and approved by the personnel listed below. In addition, Paragon Analytics, Inc. certifies that the analyses reported herein are true, complete and correct within the limits of the methods employed.

L.L. Elshof
GC Analyst

10-11-99
Date

ELS
Reviewer's Initials

10/11/99
Date

Diesel Range Organics

Method SW8015M
Method Blank

Lab Name: Paragon Analytics, Inc.
Work Order Number: 9910033
Client Name: IT Corporation
ClientProject ID: Vandenberg AFB 776900

Lab ID: EX991007-2MB

Sample Matrix: SOIL
% Moisture: N/A
Date Collected: N/A
Date Extracted: 07-Oct-99
Date Analyzed: 07-Oct-99

Prep Batch: EX991007-2
QCBatchID: EX991007-2-2
Run ID: HCD991006-2
Cleanup: NONE
Basis: N/A

Sample Aliquot: 20 G
Final Volume: 5 ML
Result Units: MG/KG
File Name: D1006S26

CASNO	Target Analyte	DF	Result	Reporting Limit	Result Qualifier	EPA Qualifier
68334-30-5	Diesel Range Organics	1	5	5	U	

Surrogate Recovery

CASNO	Surrogate Analyte	Result	Flag	Spike Amount	Percent Recovery	Control Limits
630-01-3	N-HEXACOSANE	7.92		6.25	127	54 - 146

Data Package ID: *HCD9910021-1*

Surrogate Summary for Diesel Range Organics

Method SW8015M

Lab Name: Paragon Analytics, Inc.
Work Order Number: 9910021
Client Name: Los Alamos National Laboratory SMO
ClientProject ID: 6108R

PrepBatch ID:	EX991007-2
QC Batch ID:	EX991007-2-2
Date Extracted:	10/7/99

Surrogate Compound	Control Limits Lower	Control Limits Upper
n-hexacosane	54	146
o-terphenyl		

Lab ID	Client Sample ID	Date Collected	Date Received	NHEX % Recovery	OTERPH % Recovery
9910021-1	RE03-99-2212	9/24/99	10/5/99	117	
9910021-2	RE03-99-2213	9/24/99	10/5/99	117	
9910021-3	RE03-99-2214	9/24/99	10/5/99	115	
EX991007-2LCSD	XXXXXXX	NA	XXXXXXX	126	
EX991007-2LCS	XXXXXXX	NA	XXXXXXX	124	
EX991007-2MB	XXXXXXX	NA	XXXXXXX	127	

Data Package ID: *HCD9910021-1*

Diesel Range Organics

Method SW8015M

Blank Spike And Blank Spike Duplicate

Lab Name: Paragon Analytics, Inc.
Work Order Number: 9910033
Client Name: IT Corporation
ClientProject ID: Vandenberg AFB 776900

Lab ID: EX991007-2LCS

Sample Matrix: SOIL
% Moisture: N/A
Date Collected: N/A
Date Extracted: 07-Oct-99
Date Analyzed: 07-Oct-99

Prep Batch: EX991007-2
QCBatchID: EX991007-2-2
Run ID: HCD991006-2
Cleanup: NONE
Basis: N/A

Sample Aliquot: 20 G
Final Volume: 5 ML
Result Units: MG/KG

CASNO	Target Analyte	Spike Added	LCS Result	Reporting Limit	Result Qualifier	LCS % Rec.	Control Limits
68334-30-5	Diesel Range Organics	50	51.4	5		103	43 - 139%

Lab ID: EX991007-2LCSD

CASNO	Target Analyte	Spike Added	LCSD Result	Reporting Limit	LCSD % Rec.	Result Qualifier	RPD	RPD Limits
68334-30-5	Diesel Range Organics	50	52.4	5	105		2	20

Surrogate Recovery LCS/LCSD

CASNO	Target Analyte	Spike Added	LCS % Rec.	LCS Flag	LCSD % Rec.	LCSD Flag	Control Limits
630-01-3	N-HEXACOSANE	6.25	124		126		54 - 146

Data Package ID: *HCD9910021-1*

Paragon Analytics, Inc.

Inst. ID: FUELS3

C:\HPCHEM\5\METHODS\D100599.M
Calibration Date:10/05/99

1 = D1005S01.D 2 = D1005S02.D 3 = D1005S03.D 4 = D1005S04.D
5 = D1005S05.D 6 = D1005S06.D 7 = D1005S07.D

	Calibration Factors						
Compoumds	1	2	3	4	5	6	7
Hexacosane [S]	2181.00	2225.60	2216.10	2096.64	1734.42	1501.54	1493.22
TEPH	11099.65	6522.54	4967.43	3446.40	3273.95	3135.19	3118.38
O-Terphenyl[S]	3487.00	3450.00	3438.70	3380.88	3383.38	3366.31	3368.25

	Ave. CF	%RSD	Corr.	Curve fit	Linear curve info		
Compoumds			r2	type	slope	y-int	
Hexacosane [S]	1921.2	17.4	0.174	Avg Resp	1921.218	0.00	
TEPH	5080.5	57.9	1.000	Linear	3080.566	174727.11	
O-Terphenyl[S]	3410.6	1.4	1.000	Linear	3366.673	636.50	

	Calibration Level (ppm)						
Compoumds	1	2	3	4	5	6	7
Hexacosane [S]	2.0	5.0	10.0	50.0	100.0	250.0	500.0
TEPH	20	50	100	500	1000	2500	5000
O-Terphenyl[S]	2.0	5.0	10.0	50.0	100.0	250.0	500.0

Independent Surrogate Calibration Verification Summary

Paragon Analytics, Inc.

Sample: ICV SURROGATES

Data File #1: C:\HPCHEM\5\DATA\1005\D1005S08.D Column #1: DB-5.625

COMPOUND	Column #1 Exp. RT (min)	Column #1 Found RT (min)	Column #1 Dev (min)	Nom Conc ug/ml	Col. #1 Conc ug/ml	Col. #1 %D
Hexacosane [S]	21.316	21.303	0.013	125	109	12.77
O-Terphenyl[S]	16.956	16.973	-0.017	375	366	2.37

Calibration Verification Summary

Paragon Analytics, Inc.

Sample: ICV DIESEL

Data File #1: C:\HPCHEM\5\DATA\1005\D1005S09.D Column #1: DB-5.625

	Column #1				Col. #1	Col. #1
COMPOUND	Exp. RT (min)	Found RT (min)	Dev (min)	Nom Conc ug/ml	Conc ug/ml	%D
TEPH	19.700	19.700	0.000	500	558	12

Calibration Verification Summary

Paragon Analytics, Inc.

Sample: 500 ppm CCV

Data File #1: C:\HPCHEM\5\DATA\1006\D1006S25.D Column #1: DB-5.625

	Column #1				Col. #1	Col. #1
COMPOUND	Exp. RT (min)	Found RT (min)	Dev (min)	Nom Conc ug/ml	Conc ug/ml	%D
TEPH	19.700	19.700	0.000	500	497	1
Hexacosane [S]	21.316	21.303	0.013	50	57	14
O-Terphenyl [S]	16.956	16.943	0.013	50	52	4

Calibration Verification Summary

Paragon Analytics, Inc.

Sample: 500 ppm CCV

Data File #1: C:\HPCHEM\5\DATA\1006\D1006S36.D Column #1: DB-5.625

COMPOUND	Column #1 Exp. RT (min)	Column #1 Found RT (min)	Column #1 Dev (min)	Nom Conc ug/ml	Col. #1 Conc ug/ml	Col. #1 %D
TEPH	19.700	19.700	0.000	500	509	2
Hexacosane [S]	21.316	21.297	0.019	50	56	12
O-Terphenyl [S]	16.956	16.940	0.016	50	52	3

Calibration Verification Summary

Paragon Analytics, Inc.

Sample: 500 ppm CCV

Data File #1: C:\HPCHEM\5\DATA\1006\D1006S43.D Column #1: DB-5.625

COMPOUND	Column #1 Exp. RT (min)	Column #1 Found RT (min)	Column #1 Dev (min)	Nom Conc ug/ml	Col. #1 Conc ug/ml	Col. #1 %D
TEPH	19.700	19.700	0.000	500	426	15
Hexacosane [S]	21.316	21.297	0.019	50	53	6
O-Terphenyl [S]	16.956	16.937	0.019	50	48	3

DATA VALIDATION COVER SHEET (Example)

SECTION I.

REQUEST NUMBER: 6108 COST CODE: MR3418085311

VALIDATION DATE: _____

LAB NAME: Paragon LAB CODE: _____

VALIDATOR: _____ ORGANIZATION: _____

ANALYTICAL SUITE: ___ VOLATILES ___ HIGH EXPLOSIVES

___ SEMIVOLATILES ___ INORGANICS

___ PESTICIDES/AROCLORS ___ RADIOCHEMISTRY

OTHER (describe) TPH

SECTION II. COMPLETENESS CHECKLIST

Item	Present? (Y/N/NA)	Item	Present? (Y/N/NA)
1. COC form(s)		2. Case Narrative	
3. Sample Results		4. Sample Chromatograms	
5. Standard Chromatograms		6. Quantitation Reports	
7. QC Forms			

Identify any samples in the assigned Request Number that are missing:

_____ _____ _____ _____ _____ _____

_____ _____ _____ _____ _____ _____

Comments: include information about requests to the laboratory and agreed upon date of resolution and lab contact: (Attach additional comment sheets as necessary)

_____

_____

_____

Signature/1st validation: _____ Date/1st validation: _____

Signature/2nd validation: _____ Date/2nd validation: _____

PARAGON ANALYTICS, INC.
225 Commerce Drive ◆ Fort Collins, CO 80524 ◆ (800) 443-1511 ◆ (970) 490-1511 ◆ FAX (970) 490-1522

October 18, 1999

Joylene Valdez
Los Alamos National Laboratory SMO
SMO TA-3, Building 271
Los Alamos, NM 87545

OCT 2099

RE: Paragon Workorder: 99-10-021
Client Project Name: None Submitted
Client Project Number: 6108R

Dear Ms. Valdez:

Three soil samples were received from LANL on October 5, 1999. The samples were scheduled for Total Extractable Hydrocarbons (Diesel) analysis. The results for this analysis are contained in the enclosed report pages 1-78.

Please note that an EDD was sent out on October 18, 1999.

Please note that the GRO (gasoline) analysis was canceled, due to instrument failure which caused the samples to go out of hold time, this was discussed and approved by you, per our conversation on October 15, 1999.

Thank you for your confidence in Paragon Analytics, Inc. Should you have any questions, please call.

Sincerely,

Paragon Analytics, Inc.
Lance Steere
Senior Project Manager

LRS/ar
Enclosure: Report

Paragon Analytics, Incorporated

Sample Number(s) Cross-Reference Table

Paragon OrderNum: 9910021
Client Name: Los Alamos National Laboratory SMO
Client Project Name:
Client Project Number: 6108R
Client PO Number: 7794L0014-9S

Client Sample	Lab Sample Number	COC Number	Matrix	Date Collected	Time Collected
RE03-99-2212	9910021-1		SOIL	9/24/99	
RE03-99-2213	9910021-2		SOIL	9/24/99	
RE03-99-2214	9910021-3		SOIL	9/24/99	

9910021

Monday, October 04, 1999

REQUEST NUMBER: 6108R
ANALYSIS TYPE: ORG

Los Alamos
NATIONAL LABORATORY

ATTN: Steve Fry
Paragon/ATI
225 COMMERCE
FT. COLLINS, CO 80524

Please analyze the enclosed samples according to the schedule indicated:

SHIP DATE: 10/4/99
REPORT DUE: 11/5/99
TURN AROUND REQ'D: 30 days

These samples are on:

LANL Request Number: 6108R
Per Agreement Number: 7794L0014-9S
Project Cost Code: MR3R18085311

RAD SCREENING: Not Required

COMMENTS: 03 - 1114 , GA; TPH BY DIESEL AND GASLINE.

LANL ER SMO CONTACT: Joylene Valdez MS H865 5056659968
Signature: Joylene Valdez

ANALYSIS ORDER CODE	ANALYTE(S)	SAMPLE ID	CONT ID	SAMPLE MATRIX	DATE SAMPLED	COMMENTS
01	TPH	RE03-99-2212	03	S	9/24/99	
02	TPH	RE03-99-2213	03	S	9/24/99	
03	TPH	RE03-99-2214	03	S	9/24/99	

9910021

Monday, October 04, 1999

Los Alamos
NATIONAL LABORATORY

CHAIN OF CUSTODY DOCUMENT NUMBER: 6108RC

REQUEST NUMBER: 6108R
ANALYSIS TYPE: ORG

ATTN: Steve Fry
Paragon/ATI
225 COMMERCE
FT. COLLINS, CO 80524

	SAMPLE ID	CONT ID	CONTAINER DESCRIPTION	ANALYSIS ORDER CODE	PRESERVATIVE	MATRIX
01	RE03-99-2212	03	250 ml Amber Glass	TPH	Ice	S
02	RE03-99-2213	03	250 ml Amber Glass	TPH	Ice	S
03	RE03-99-2214	03	250 ml Amber Glass	TPH	Ice	S

Final Page of CHAIN OF CUSTODY DOCUMENT FOR REQUEST NUMBER 6108R

Page 1

Relinquished By:		Date	Time
Joe Garcia	[signature]	10/4/99	1340
PRINTED NAME	SIGNATURE		
PRINTED NAME	SIGNATURE		
PRINTED NAME	SIGNATURE		

Received By:		Date	Time
m christenson		10.5.99	930
PRINTED NAME	SIGNATURE		
PRINTED NAME	SIGNATURE		
PRINTED NAME	SIGNATURE		

Received for DISPOSAL By:		Date	Time
PRINTED NAME	SIGNATURE		

Remarks:

Paragon Analytics, Inc. - Fort Collins, Colorado

CONDITION OF SAMPLE UPON RECEIPT FORM

CLIENT: LANL **PROJECT MANAGER:** Lance

WORKORDER NO: 9910021 **INITIALS:** MC **DATE:** 10.5.99

1.	Does this project require any special handling in addition to standard PAI procedures?		Yes	(No)
	PRESCREEN REQUIRED (Rad, DOE, etc.)		Yes	(No)
2.	Are custody seals on the cooler intact? If so, how many 5	N/A	(Yes)	No
3.	Are custody seals on sample containers intact?	N/A	(Yes)	No
4.	Is there a Chain of Custody (COC) or other representative documents, letters, or shipping memos?		(Yes)	No
5.	Is the COC complete? Relinquished: Yes X No ___ Analyses Requested: Yes X No ___	N/A	(Yes)	No
6.	Is the COC in agreement with the samples received? No. of Samples: Yes X No ___ Sample ID's: Yes X No ___ Matrix: Yes X No ___ No. of Containers: Yes X No ___		(Yes)	No
7.	Are all aqueous samples requiring chemical preservation preserved correctly (excluding volatile organics)?	(N/A)	Yes	No
	Are all aqueous **non-preserved** samples at the correct pH?		Yes	No
8.	Is there enough sample? If so, are they in the proper containers?		(Yes)	No
9.	Are all samples within holding times for the requested analyses?		(Yes)	No
10.	Were the sample(s) shipped on ice?	N/A	(Yes)	No
11.	Were all sample containers received intact? (not broken or leaking, etc.)		(Yes)	No
12.	Are samples requiring no headspace, headspace free? (volatiles, reactive cyanide/sulfide) **Size of bubble < green pea > green pea**	(N/A)	Yes	No
13.	Are airbills present and removable?		(Yes)	No
14.	Shall Paragon dispose of samples?		(Yes)	No
15.	Were the cooler temperatures ≤ 6° C ?	N/A	(Yes)	No

Cooler #'s Client ___ ___ ___ ___ ___

Temperature 4° ___ ___ ___ ___ ___ °C

PM Reviewed/Date: 10/15

A NO RESPONSE TO ANY QUESTION (EXCEPT # 1&13) REQUIRES THE COMPLETION OF PAGE 2 OF THE FORM

FORM 20 FC8.frm (05 [illegible])

Paragon Analytics, Inc.

Total Extractable Hydrocarbons (Diesel) Case Narrative

Los Alamos National Laboratory SMO

6108R

Order Number - 9910021

1. This report consists of 3 soil samples received by Paragon on 10/05/99.

2. The soil samples were extracted by adding a methanol/water solution to the soil followed by hexane. This mixture is shaken and the hexane portion of the two-phase solution is removed for analysis.

3. The extracts were then analyzed using GC with a DB-5.625 capillary column and a flame ionization detector (FID) according to protocols generally based on SW-846 Method 8000 and Method 8015. The procedures are based on this general method because SW-846 does not have a specific method for TEPH or diesel range organics. The only true modification from this method is that TEPH(diesel) is a multicomponent mixture and is quantitated by summing the entire range, rather than individual peaks. All positive results were quantitated using the responses from the initial calibration curve using the external standard technique. Also, a confirmation column is not used, because the analyte is a multicomponent mixture and the specific carbon range of the peaks detected are specified on the individual sample reporting forms.

4. All initial and continuing calibration criteria were within acceptance criteria.

5. The method blank associated with this project was below the reporting limits for diesel range organics.

6. All laboratory control spike and laboratory control spike duplicate recoveries and RPDs were within the acceptance criteria.

7. Matrix spikes and matrix spike duplicates were performed on an in house sample not provided by the client. The data have not been provided in this package.

8. All samples were extracted and analyzed within the established holding times.

9. All surrogate recoveries were within acceptance criteria.

The data contained in the following report have been reviewed and approved by the personnel listed below. In addition, Paragon Analytics, Inc. certifies that the analyses reported herein are true, complete and correct within the limits of the methods employed.

L.L. Elshof
GC Analyst

10-11-99
Date

EB
Reviewer's Initials

10/11/99
Date

Monday, October 04, 1999

REQUEST NUMBER: 6108R
ANALYSIS TYPE: ORG

Los Alamos
NATIONAL LABORATORY

ATTN: Steve Fry
Paragon/ATI
225 COMMERCE
FT. COLLINS, CO 80524

Please analyze the enclosed samples according to the schedule indicated:

SHIP DATE: 10/4/99
REPORT DUE: 11/5/99
TURN AROUND REQ'D: 30 days

These samples are on:

LANL Request Number: 6108R
Per Agreement Number: 7794L0014-9S
Project Cost Code: MR3R18085311

RAD SCREENING: Not Required
COMMENTS: 03 - 1114 , GA; TPH BY DIESEL AND GASLINE.

LANL ER SMO CONTACT: Joylene Valdez MS H865 5056659968
Signature: Joylene Valdez

ANALYSIS ORDER CODE	ANALYTE(S)	SAMPLE ID	CONT ID	SAMPLE MATRIX	DATE SAMPLED	COMMENTS
01	TPH	RE03-99-2212	03	S	9/24/99	
02	TPH	RE03-99-2213	03	S	9/24/99	
03	TPH	RE03-99-2214	03	S	9/24/99	

Final Page of REQUEST NUMBER 6108R

Paragon Analytics, Incorporated

Sample Number(s) Cross-Reference Table

Paragon OrderNum: 9910021
Client Name: Los Alamos National Laboratory SMO
Client Project Name:
Client Project Number: 6108R
Client PO Number: 7794L0014-9S

Client Sample	Lab Sample Number	COC Number	Matrix	Date Collected	Time Collected
RE03-99-2212	9910021-1		SOIL	9/24/99	
RE03-99-2213	9910021-2		SOIL	9/24/99	
RE03-99-2214	9910021-3		SOIL	9/24/99	

Monday, October 04, 1999

Los Alamos
NATIONAL LABORATORY

CHAIN OF CUSTODY DOCUMENT NUMBER: 6108RC

REQUEST NUMBER: 6108R
ANALYSIS TYPE: ORG

ATTN: Steve Fry
Paragon/ATI
225 COMMERCE
FT. COLLINS, CO 80524

	SAMPLE ID	CONT ID	CONTAINER DESCRIPTION	ANALYSIS ORDER CODE	PRESERVATIVE	MATRIX
01	RE03-99-2212	03	250 ml Amber Glass	TPH	Ice	S
02	RE03-99-2213	03	250 ml Amber Glass	TPH	Ice	S
03	RE03-99-2214	03	250 ml Amber Glass	TPH	Ice	S

Final Page of CHAIN OF CUSTODY DOCUMENT FOR REQUEST NUMBER 6108R Page 1

Relinquished By:		Date	Time	Received By:		Date	Time
Joe Garcia	[signature]	10/4/99	1340	m christenson		10.5.99	930
PRINTED NAME	SIGNATURE			PRINTED NAME	SIGNATURE		
PRINTED NAME	SIGNATURE			PRINTED NAME	SIGNATURE		
PRINTED NAME	SIGNATURE			PRINTED NAME	SIGNATURE		

Received for DISPOSAL By:		Date	Time
PRINTED NAME	SIGNATURE		

Remarks:

CONDITION OF SAMPLE UPON RECEIPT FORM

CLIENT: LANL **PROJECT MANAGER:** Lance

WORKORDER NO: 9910021 **INITIALS:** MC **DATE:** 10.5.99

1.	Does this project require any special handling in addition to standard PAI procedures? **PRESCREEN REQUIRED (Rad, DOE, etc.)**		Yes Yes	(No) (No)
2.	Are custody seals on the cooler intact? If so, how many 5	N/A	(Yes)	No
3.	Are custody seals on sample containers intact?	N/A	(Yes)	No
4.	Is there a Chain of Custody (COC) or other representative documents, letters, or shipping memos?		(Yes)	No
5.	Is the COC complete? Relinquished: Yes X No Analyses Requested: Yes X No	N/A	(Yes)	No
6.	Is the COC in agreement with the samples received? No. of Samples: Yes X No___ Sample ID's: Yes X No___ Matrix: Yes X No No. of Containers: Yes X No		(Yes)	No
7.	Are all aqueous samples requiring chemical preservation preserved correctly (excluding volatile organics)? Are all aqueous **non-preserved** samples at the correct pH?	(N/A)	Yes Yes	No No
8.	Is there enough sample? If so, are they in the proper containers?		(Yes)	No
9.	Are all samples within holding times for the requested analyses?		(Yes)	No
10.	Were the sample(s) shipped on ice?	N/A	(Yes)	No
11.	Were all sample containers received intact? (not broken or leaking, etc.)		(Yes)	No
12.	Are samples requiring no headspace, headspace free? (volatiles, reactive cyanide/sulfide) **Size of bubble < green pea > green pea**	(N/A)	Yes	No
13.	Are airbills present and removable?		(Yes)	No
14.	Shall Paragon dispose of samples?		(Yes)	No
15.	Were the cooler temperatures ≤ 6° C ?	N/A	(Yes)	No

Cooler #'s Client ____ ____ ____ ____ ____

Temperature 4° ____ ____ ____ ____ ____ °C

PM Reviewed/Date: 10/05

A NO RESPONSE TO ANY QUESTION (EXCEPT # 1&13) REQUIRES THE COMPLETION OF PAGE 2 OF THE FORM

FORM 20 FC8 —11.05.98

ORIGIN ID: (505)665-9968
JOY VALDEZ
LOS ALAMOS NATIONAL LABS
TA 3 BLGD 271 DP 01U

SHIP DATE: 04Oct99
ACCOUNT #: 173219334
ACTUAL WGT: 23 LBS M

LOS ALAMOS NM 87545

TO: STEVE FRY
PARAGON
225 COMMERCE

(888)443-1511

FORT COLLINS CO 80524

4612 5337 3326

FedEx.

4612 5337 3326

REF: 6e20mr3r18885311

PRIORITY OVERNIGHT TUE

cad# 8014176 04Oct99 14:46

Deliver by 05Oct99

Trk# 4612 5337 3326 Form 0201

80524 -CO-US

DEN

XFFTCA

153077-077.SP.T.I. 6/98

Oxford® NO. 152 1/3 GRA

ESSELTE

10%

Analytical Results

Diesel Range Organics

Method SW8015M

Sample Results

Lab Name: Paragon Analytics, Inc.
Work Order Number: 9910021
Client Name: Los Alamos National Laboratory SMO
ClientProject ID: 6108R

	RE03-99-2212
	9910021-1

Sample Matrix: SOIL
% Moisture: 15.7
Date Collected: 24-Sep-99
Date Extracted: 07-Oct-99
Date Analyzed: 07-Oct-99

Prep Batch: EX991007-2
QCBatchID: EX991007-2-2
Run ID: HCD991006-2
Cleanup: NONE
Basis: Dry Weight

Sample Aliquot: 20 G
Final Volume: 5 ML
Result Units: MG/KG
File Name: D1006S29

CASNO	Target Analyte	Dilution Factor	Result	Reporting Limit	Result Qualifier	EPA Qualifier
68334-30-5	Diesel Range Organics	1	1.8	5.9	J	

Surrogate Recovery

CASNO	Surrogate Analyte	Result	Flag	Spike Amount	Percent Recovery	Control Limits
630-01-3	N-HEXACOSANE	8.64		7.41	117	54 - 146

The chromatogram indicates the presence of hydrocarbons in the range of C10-C26.

Data Package ID: *HCD9910021-1*

Diesel Range Organics

Method SW8015M

Sample Results

Lab Name: Paragon Analytics, Inc.
Work Order Number: 9910021
Client Name: Los Alamos National Laboratory SMO
ClientProject ID: 6108R

	RE03-99-2213
	9910021-2

Sample Matrix: SOIL
% Moisture: 17.2
Date Collected: 24-Sep-99
Date Extracted: 07-Oct-99
Date Analyzed: 07-Oct-99

Prep Batch: EX991007-2
QCBatchID: EX991007-2-2
Run ID: HCD991006-2
Cleanup: NONE
Basis: Dry Weight

Sample Aliquot: 20 G
Final Volume: 5 ML
Result Units: MG/KG
File Name: D1006S30

CASNO	Target Analyte	Dilution Factor	Result	Reporting Limit	Result Qualifier	EPA Qualifier
68334-30-5	Diesel Range Organics	1	3.6	6	J	

Surrogate Recovery

CASNO	Surrogate Analyte	Result	Flag	Spike Amount	Percent Recovery	Control Limits
630-01-3	N-HEXACOSANE	8.85		7.55	117	54 - 146

The chromatogram indicates the presence of hydrocarbons in the range of C10-C26.

Data Package ID: *HCD9910021-1*

Diesel Range Organics

Method SW8015M

Sample Results

Lab Name: Paragon Analytics, Inc.
Work Order Number: 9910021
Client Name: Los Alamos National Laboratory SMO
ClientProject ID: 6108R

RE03-99-2214
9910021-3

Sample Matrix: SOIL
% Moisture: 16.7
Date Collected: 24-Sep-99
Date Extracted: 07-Oct-99
Date Analyzed: 07-Oct-99

Prep Batch: EX991007-2
QCBatchID: EX991007-2-2
Run ID: HCD991006-2
Cleanup: NONE
Basis: Dry Weight

Sample Aliquot: 20 G
Final Volume: 5 ML
Result Units: MG/KG
File Name: D1006S31

CASNO	Target Analyte	Dilution Factor	Result	Reporting Limit	Result Qualifier	EPA Qualifier
68334-30-5	Diesel Range Organics	1	3	6	J	

Surrogate Recovery

CASNO	Surrogate Analyte	Result	Flag	Spike Amount	Percent Recovery	Control Limits
630-01-3	N-HEXACOSANE	8.63		7.5	115	54 - 146

The chromatogram indicates the presence of hydrocarbons in the range of C10-C26.

Data Package ID: *HCD9910021-1*

Diesel Range Organics

Method SW8015M
Method Blank

Lab Name: Paragon Analytics, Inc.
Work Order Number: 9910033
Client Name: IT Corporation
ClientProject ID: Vandenberg AFB 776900

EX991007-2MB

Sample Matrix: SOIL
% Moisture: N/A
Date Collected: N/A
Date Extracted: 07-Oct-99
Date Analyzed: 07-Oct-99

Prep Batch: EX991007-2
QCBatchID: EX991007-2-2
Run ID: HCD991006-2
Cleanup: NONE
Basis: N/A

Sample Aliquot: 20 G
Final Volume: 5 ML
Result Units: MG/KG
File Name: D1006S26

CASNO	Target Analyte	DF	Result	Reporting Limit	Result Qualifier	EPA Qualifier
68334-30-5	Diesel Range Organics	1	5	5	U	

Surrogate Recovery

CASNO	Surrogate Analyte	Result	Flag	Spike Amount	Percent Recovery	Control Limits
630-01-3	N-HEXACOSANE	7.92		6.25	127	54 - 146

Data Package ID: *HCD9910021-1*

Supporting QA/QC Data

Surrogate Summary for Diesel Range Organics

Method SW8015M

Lab Name: Paragon Analytics, Inc.
Work Order Number: 9910021
Client Name: Los Alamos National Laboratory SMO
ClientProject ID: 6108R

EX991007-2
EX991007-2-2
10/7/99

Surrogate Compound	Control Limits Lower	Control Limits Upper
n-hexacosane	54	146
o-terphenyl		

Lab ID	Client Sample ID	Date Collected	Date Received	NHEX % Recovery	OTERPH % Recovery
9910021-1	RE03-99-2212	9/24/99	10/5/99	117	
9910021-2	RE03-99-2213	9/24/99	10/5/99	117	
9910021-3	RE03-99-2214	9/24/99	10/5/99	115	
EX991007-2LCSD	XXXXXXX	NA	XXXXXXX	126	
EX991007-2LCS	XXXXXXX	NA	XXXXXXX	124	
EX991007-2MB	XXXXXXX	NA	XXXXXXX	127	

Data Package ID: *HCD9910021-1*

Diesel Range Organics

Method SW8015M

Blank Spike And Blank Spike Duplicate

Lab Name: Paragon Analytics, Inc.
Work Order Number: 9910033
Client Name: IT Corporation
ClientProject ID: Vandenberg AFB 776900

EX991007-2LCS

Sample Matrix: SOIL
% Moisture: N/A
Date Collected: N/A
Date Extracted: 07-Oct-99
Date Analyzed: 07-Oct-99

Prep Batch: EX991007-2
QCBatchID: EX991007-2-2
Run ID: HCD991006-2
Cleanup: NONE
Basis: N/A

Sample Aliquot: 20 G
Final Volume: 5 ML
Result Units: MG/KG

CASNO	Target Analyte	Spike Added	LCS Result	Reporting Limit	Result Qualifier	LCS % Rec.	Control Limits
68334-30-5	Diesel Range Organics	50	51.4	5		103	43 - 139%

EX991007-2LCSD

CASNO	Target Analyte	Spike Added	LCSD Result	Reporting Limit	LCSD % Rec.	Result Qualifier	RPD	RPD Limits
68334-30-5	Diesel Range Organics	50	52.4	5	105		2	20

Surrogate Recovery LCS/LCSD

CASNO	Target Analyte	Spike Added	LCS % Rec.	LCS Flag	LCSD % Rec.	LCSD Flag	Control Limits
630-01-3	N-HEXACOSANE	6.25	124		126		54 - 146

Data Package ID: *HCD9910021-1*

Prep Batch ID: EX991007-2

Start Date: 10/7/99
Start Time: 12:07
Prep Analyst: Heath Linville

End Date: 10/7/99
End Time: 14:00

Concentration Method: NONE
Extract Method: MOD8015
Initial Volume Units: G
Final Volume Units: ML

Batch Created By: egk
Date Created: 10/8/99
Time Created: 12:11
Validated By: egk
Date Validated: 10/8/99
Time Validated: 12:17

Comments:

QC Batch ID: EX991007-2-2

Lab ID	QC Type	Field ID	Matrix	Date Collected	Initial Wt/Vol	Final Wt/Vol	Cleanup Method	Cleanup DF	Order Number
EX991007-2	MB	XXXXXX	SOIL	XXXXXX	20	5	NONE	1	9910033
EX991007-2	LCS	XXXXXX	SOIL	XXXXXX	20	5	NONE	1	9910033
EX991007-2	LCSD	XXXXXX	SOIL	XXXXXX	20	5	NONE	1	9910033
9910033-5	MS	XXXXXX	SOIL	XXXXXX	20	5	NONE	1	9910033
9910033-5	MSD	XXXXXX	SOIL	XXXXXX	20	5	NONE	1	9910033
9910021-1	SMP	RE03-99-2212	SOIL	9/24/99	20	5	NONE	1	9910021
9910021-2	SMP	RE03-99-2213	SOIL	9/24/99	20	5	NONE	1	9910021
9910021-3	SMP	RE03-99-2214	SOIL	9/24/99	20	5	NONE	1	9910021
9910033-5	SMP	XXXXXX	SOIL	XXXXXX	20	5	NONE	1	9910033

QC Types

DUP	Laboratory Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MB	Method Blank
MS	Laboratory Matrix Spike
MSD	Laboratory Matrix Spike Duplicate
SMP	Field Sample

Paragon Analytics Inc.

Date Printed: Monday, October 11, 1999

Initial Calibration Summary

Paragon Analytics, Inc.

Inst. ID: FUELS3

C:\HPCHEM\5\METHODS\D100599.M
Calibration Date:10/05/99

1 = D1005S01.D 2 = D1005S02.D 3 = D1005S03.D 4 = D1005S04.D
5 = D1005S05.D 6 = D1005S06.D 7 = D1005S07.D

	Calibration Factors						
Compoumds	1	2	3	4	5	6	7
Hexacosane [S]	2181.00	2225.60	2216.10	2096.64	1734.42	1501.54	1493.22
TEPH	11099.65	6522.54	4967.43	3446.40	3273.95	3135.19	3118.38
O-Terphenyl[S]	3487.00	3450.00	3438.70	3380.88	3383.38	3366.31	3368.25

Compoumds	Ave. CF	%RSD	Corr. r2	Curve fit type	Linear curve info slope	y-int	
Hexacosane [S]	1921.2	17.4	0.174	Avg Resp	1921.218	0.00	
TEPH	5080.5	57.9	1.000	Linear	3080.566	174727.11	
O-Terphenyl[S]	3410.6	1.4	1.000	Linear	3366.673	636.50	

	Calibration Level (ppm)						
Compoumds	1	2	3	4	5	6	7
Hexacosane [S]	2.0	5.0	10.0	50.0	100.0	250.0	500.0
TEPH	20	50	100	500	1000	2500	5000
O-Terphenyl[S]	2.0	5.0	10.0	50.0	100.0	250.0	500.0

Independent Surrogate Calibration Verification Summary

Paragon Analytics, Inc.

Sample: ICV SURROGATES

Data File #1: C:\HPCHEM\5\DATA\1005\D1005S08.D Column #1: DB-5.625

COMPOUND	Column #1 Exp. RT (min)	Column #1 Found RT (min)	Column #1 Dev (min)	Nom Conc ug/ml	Col. #1 Conc ug/ml	Col. #1 %D
Hexacosane [S]	21.316	21.303	0.013	125	109	12.77
O-Terphenyl[S]	16.956	16.973	-0.017	375	366	2.37

Calibration Verification Summary

Paragon Analytics, Inc.

Sample: ICV DIESEL

Data File #1: C:\HPCHEM\5\DATA\1005\D1005S09.D Column #1: DB-5.625

	Column #1				Col. #1	Col. #1
COMPOUND	Exp. RT (min)	Found RT (min)	Dev (min)	Nom Conc ug/ml	Conc ug/ml	%D
TEPH	19.700	19.700	0.000	500	558	12

Calibration Verification Summary

Paragon Analytics, Inc.

Sample: 500 ppm CCV

Data File #1: C:\HPCHEM\5\DATA\1006\D1006S25.D Column #1: DB-5.625

	Column #1				Col. #1	Col. #1
COMPOUND	Exp. RT (min)	Found RT (min)	Dev (min)	Nom Conc ug/ml	Conc ug/ml	%D
TEPH	19.700	19.700	0.000	500	497	1
Hexacosane [S]	21.316	21.303	0.013	50	57	14
O-Terphenyl [S]	16.956	16.943	0.013	50	52	4

Calibration Verification Summary

Paragon Analytics, Inc.

Sample: 500 ppm CCV

Data File #1: C:\HPCHEM\5\DATA\1006\D1006S36.D Column #1: DB-5.625

	Column #1				Col. #1	Col. #1
COMPOUND	Exp. RT (min)	Found RT (min)	Dev (min)	Nom Conc ug/ml	Conc ug/ml	%D
TEPH	19.700	19.700	0.000	500	509	2
Hexacosane [S]	21.316	21.297	0.019	50	56	12
O-Terphenyl [S]	16.956	16.940	0.016	50	52	3

Calibration Verification Summary

Paragon Analytics, Inc.

Sample: 500 ppm CCV

Data File #1: C:\HPCHEM\5\DATA\1006\D1006S43.D Column #1: DB-5.625

	Column #1				Col. #1	Col. #1
COMPOUND	Exp. RT (min)	Found RT (min)	Dev (min)	Nom Conc ug/ml	Conc ug/ml	%D
TEPH	19.700	19.700	0.000	500	426	15
Hexacosane [S]	21.316	21.297	0.019	50	53	6
O-Terphenyl [S]	16.956	16.937	0.019	50	48	3

Supporting Raw Data

Sequence Name: C:\HPCHEM\5\SEQUENCE\D100599.S
Comment:
Operator: LLELSHOF
Data Path: C:\HPCHEM\5\DATA\1005\
Pre-Seq Cmd:
Post-Seq Cmd:

Method Sections To Run
(X) Full Method
( ) Reprocessing Only

On A Barcode Mismatch
(X) Inject Anyway
( ) Don't Inject

Line	Type	Vial	DataFile	Method	Sample Name
1)	DeleteGC				
2)	GCMethod - TEPH1				
3)	Blank	100	D1005B01	D100599	Hexane
4)	Sample	1	D1005S01	D100599	20 ppm DRO
5)	Sample	2	D1005S02	D100599	50 ppm DRO
6)	Sample	3	D1005S03	D100599	100 ppm DRO
7)	Sample	4	D1005S04	D100599	500 ppm DRO
8)	Sample	5	D1005S05	D100599	1000 ppm DRO
9)	Sample	6	D1005S06	D100599	2500 ppm DRO
10)	Sample	7	D1005S07	D100599	5000 ppm DRO
11)	Blank	100	D1005B02	D100599	Hexane
12)	Blank	8	D1005S08	D100599	ICV SURROGATES
13)	Blank	9	D1005S09	D100599	ICV DIESEL
14)					

Sequence Name: C:\HPCHEM\5\SEQUENCE\D100699.S
Comment:
Operator: LLELSHOF
Data Path: C:\HPCHEM\5\DATA\1006\
Pre-Seq Cmd:
Post-Seq Cmd:

Method Sections To Run
(X) Full Method
( ) Reprocessing Only

On A Barcode Mismatch
(X) Inject Anyway
( ) Don't Inject

Line	Type	Vial	DataFile	Method	Sample Name
1)	DeleteGC				
2)	GCMethod - TEPH1				
3)	Blank	100	D1006B01	D100599	HEXANE
4)	Blank	1	D1006S01	D100599	500 ppm DRO ✓pass
5)	Blank	2	D1006S02	D100599	EX990928-1MB
6)	Blank	3	D1006S03	D100599	EX990928-1LCS
7)	Blank	4	D1006S04	D100599	EX990928-1LCSD
8)	Blank	5	D1006S05	D100599	9909143-2
9)	Blank	6	D1006S06	D100599	9909143-3
10)	Blank	7	D1006S07	D100599	9909143-3MS
11)	Blank	8	D1006S08	D100599	9909143-3MSD
12)	Blank	100	D1006B02	D100599	HEXANE
13)	Blank	9	D1006S09	D100599	500 ppm DRO ✓pass
14)	Blank	10	D1006S10	D100599	EX990928-2MB
15)	Blank	11	D1006S11	D100599	EX990928-2LCS
16)	Blank	12	D1006S12	D100599	EX990928-2LCSD
17)	Blank	13	D1006S13	D100599	9909143-9 HCD991006-1
18)	Blank	14	D1006S14	D100599	9909143-12
19)	Blank	15	D1006S15	D100599	9909143-13
20)	Blank	100	D1006B03	D100599	HEXANE
21)	Blank	16	D1006S16	D100599	500 ppm CCV ✓pass
22)	Blank	17	D1006S17	D100599	9909133-5
23)	Blank	18	D1006S18	D100599	9909143-6 5X
24)	Blank	19	D1006S19	D100599	9909143-7
25)	Blank	20	D1006S20	D100599	9909143-8 2X
26)	Blank	21	D1006S21	D100599	9909143-10 5X
27)	Blank	22	D1006S22	D100599	9909143-11
28)	Blank	23	D1006S23	D100599	9909143-7MS
29)	Blank	24	D1006S24	D100599	9909143-7MSD
30)	Blank	100	D1006B04	D100599	HEXANE
31)	Blank	25	D1006S25	D100599	500 ppm CCV ✓pass
32)	Blank	26	D1006S26	D100599	EX991007-2MB —
33)	Blank	27	D1006S27	D100599	EX991007-2LCS —
34)	Blank	28	D1006S28	D100599	EX991007-2LCSD
35)	Blank	29	D1006S29	D100599	9910021-1
36)	Blank	30	D1006S30	D100599	9910021-2 HCD
37)	Blank	31	D1006S31	D100599	9910021-3 991006-2
38)	Blank	32	D1006S32	D100599	9910033-1 —
39)	Blank	33	D1006S33	D100599	9910033-2 —
40)	Blank	34	D1006S34	D100599	9910033-6 —
41)	Blank	35	D1006S35	D100599	9910033-7 —
42)	Blank	100	D1006B05	D100599	HEXANE
43)	Blank	36	D1006S36	D100599	500 ppm CCV ✓pass

Last Modified: Fri Oct 08 10:24:40 1999

Sequence Name: C:\HPCHEM\5\SEQUENCE\D100699.S

Line	Type	Vial	DataFile	Method	Sample Name	
44)	Blank	37	D1006S37	D100599	9910033-3	
45)	Blank	38	D1006S38	D100599	9910033-4	
46)	Blank	39	D1006S39	D100599	9910033-5	diluted 100X rerun
47)	Blank	40	D1006S40	D100599	9910033-8	dilute 3x rerun
48)	Blank	41	D1006S41	D100599	9910033-5MS	
49)	Blank	42	D1006S42	D100599	9910033-5MSD	
50)	Blank	100	D1006B06	D100599	HEXANE	
51)	Blank	43	D1006S43	D100599	500 ppm CCV	✓ pass
52)	Blank	44	D1006S44	D100599	EX991005-1MB	stopped/baked
53)	Blank	45	D1006S45	D100599	EX991005-1LCS	out + restart.
54)	Blank	46	D1006S46	D100599	EX991005-1LCSD	JJE
55)	Blank	47	D1006S47	D100599	9910013-1	10-8-99
56)	Blank	48	D1006S48	D100599	9910013-2	
57)	Blank	49	D1006S49	D100599	9910013-3	
58)	Blank	50	D1006S50	D100599	9910013-4	
59)	Blank	51	D1006S51	D100599	9910013-5	
60)	Blank	52	D1006S52	D100599	9910013-6	
61)	Blank	53	D1006S53	D100599	9910013-7	
62)	Blank	100	D1006B07	D100599	HEXANE	
63)	Blank	54	D1006S54	D100599	500 ppm CCV	
64)	Blank	55	D1006S55	D100599	EX991002-1MB	
65)	Blank	56	D1006S56	D100599	EX991002-1LCS	
66)	Blank	57	D1006S57	D100599	EX991002-1LCSD	
67)	Blank	58	D1006S58	D100599	9909182-1	
68)	Blank	59	D1006S59	D100599	9909182-2	
69)	Blank	60	D1006S60	D100599	9909182-3	
70)	Blank	61	D1006S61	D100599	9909182-4	
71)	Blank	62	D1006S62	D100599	9909182-5	
72)	Blank	63	D1006S63	D100599	9909182-6	
73)	Blank	100	D1006B08	D100599	HEXANE	
74)	Blank	64	D1006S64	D100599	500 ppm CCV	
75)	Blank	65	D1006S65	D100599	9909182-6MS	
76)	Blank	66	D1006S66	D100599	9909182-6MSD	
77)	Blank	67	D1006S67	D100599	999910013-7MS	
78)	Blank	68	D1006S68	D100599	999910013-7MSD	
79)	Blank	100	D1006B09	D100599	HEXANE	
80)	Blank	69	D1006S69	D100599	500 ppm CCV	
81)	Blank	70	D1006S70	D100599	EX991002-2MB	
82)	Blank	71	D1006S71	D100599	EX991002-2LCS	
83)	Blank	72	D1006S72	D100599	EX991002-2LCSD	
84)	Blank	73	D1006S73	D100599	9909144-1	
85)	Blank	74	D1006S74	D100599	9909144-2	
86)	Blank	75	D1006S75	D100599	9909144-3	
87)	Blank	76	D1006S76	D100599	9909144-4	
88)	Blank	77	D1006S77	D100599	9909144-2MS	
89)	Blank	78	D1006S78	D100599	9909144-2MSD	
90)	Blank	100	D1006B10	D100599	HEXANE	
91)	Blank	79	D1006S79	D100599	500 ppm CCV	
92)						

Calibration Raw Data

Data File : C:\HPCHEM\5\DATA\1005\D1005S01.D
Acq On : 05 Oct 99 04:57 PM
Sample : 20 ppm DRO
Misc : STD # 1091-69-06
Quant Time: Oct 6 14:08 1999

Vial: 1
Operator: LLELSHOF
Inst : FUELS3
Multiplr: 1.00

Method : C:\HPCHEM\5\METHODS\D100599.M
Title : Total Extractable Petroleum Hydrocarbons
Last Update : Wed Oct 06 14:08:08 1999
Response via : Multiple Level Calibration

Volume Inj. : 1uL
Signal Phase : DB-5.625
Signal Info : 0.32

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S Hexacosane [S]	21.30	4362	2.27 ppm
	Recovery	=	9.08%
3) S O-Terphenyl [S]	16.93	6974	1.88 ppm
	Recovery	=	2.51%
Target Compounds			
2) H TEPH	19.70	221993	15.34 ppm

JJE 10-6-99

(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\5\DATA\1005\D1005S01.D
Acq On : 05 Oct 99 04:57 PM
Sample : 20 ppm DRO
Misc : STD # 1091-69-06
Quant Time: Oct 6 14:08 1999

Vial: 1
Operator: LLELSHOF
Inst : FUELS3
Multiplr: 1.00

Method : C:\HPCHEM\5\METHODS\D100599.M
Title : Total Extractable Petroleum Hydrocarbons
Last Update : Wed Oct 06 14:08:08 1999
Response via : Multiple Level Calibration

Volume Inj. : 1uL
Signal Phase : DB-5.625
Signal Info : 0.32

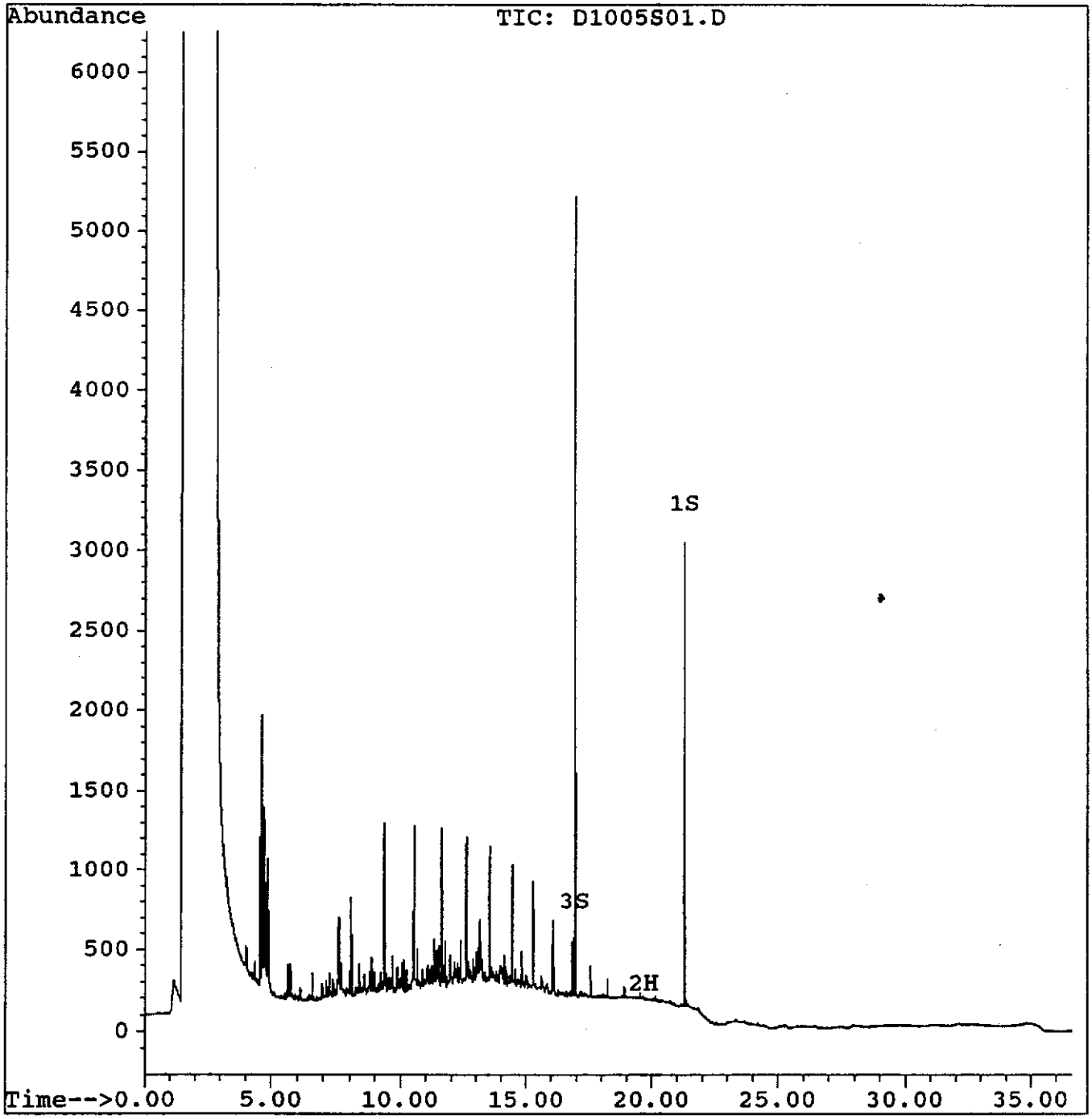

Quantitation Report

Data File : C:\HPCHEM\5\DATA\1005\D1005S02.D
Acq On : 05 Oct 99 05:46 PM
Sample : 50 ppm DRO
Misc : STD # 1091-69-06
Quant Time: Oct 6 14:08 1999

Vial: 2
Operator: LLELSHOF
Inst : FUELS3
Multiplr: 1.00

Method : C:\HPCHEM\5\METHODS\D100599.M
Title : Total Extractable Petroleum Hydrocarbons
Last Update : Wed Oct 06 14:08:08 1999
Response via : Multiple Level Calibration

Volume Inj. : 1uL
Signal Phase : DB-5.625
Signal Info : 0.32

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S Hexacosane [S]	21.30	11128	5.80 ppm
	Recovery	=	23.20%
3) S O-Terphenyl [S]	16.93	17250	4.93 ppm
	Recovery	=	6.57%
Target Compounds			
2) H TEPH	19.70	326127	49.15 ppm

JJE 10-6-99

(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\5\DATA\1005\D1005S02.D
Acq On : 05 Oct 99 05:46 PM
Sample : 50 ppm DRO
Misc : STD # 1091-69-06
Quant Time: Oct 6 14:08 1999

Vial: 2
Operator: LLELSHOF
Inst : FUELS3
Multiplr: 1.00

Method : C:\HPCHEM\5\METHODS\D100599.M
Title : Total Extractable Petroleum Hydrocarbons
Last Update : Wed Oct 06 14:08:08 1999
Response via : Multiple Level Calibration

Volume Inj. : 1uL
Signal Phase : DB-5.625
Signal Info : 0.32

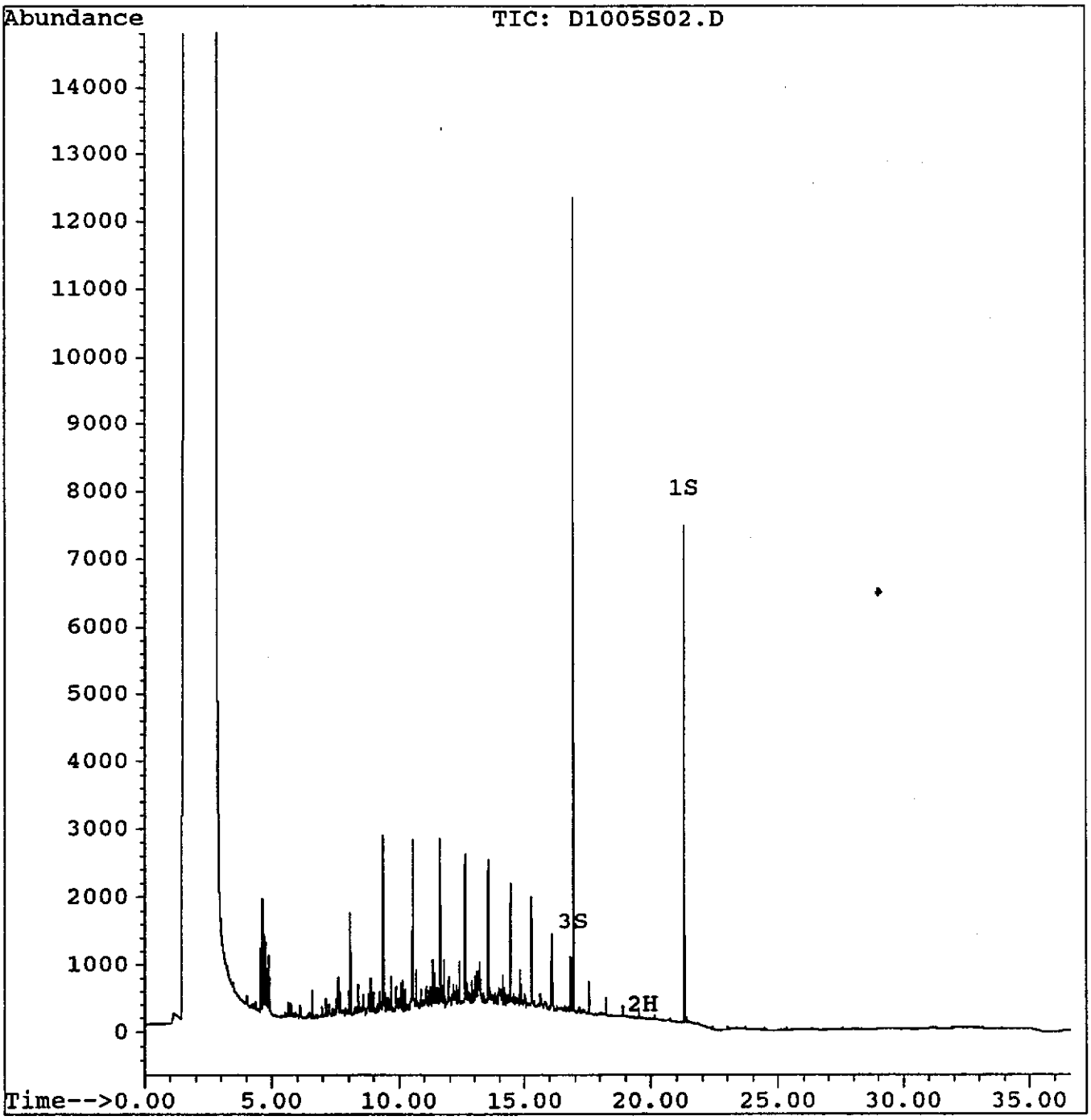

Quantitation Report

Data File : C:\HPCHEM\5\DATA\1005\D1005S03.D
Acq On : 05 Oct 99 06:34 PM
Sample : 100 ppm DRO
Misc : STD # 1091-69-06
Quant Time: Oct 6 14:09 1999

Vial: 3
Operator: LLELSHOF
Inst : FUELS3
Multiplr: 1.00

Method : C:\HPCHEM\5\METHODS\D100599.M
Title : Total Extractable Petroleum Hydrocarbons
Last Update : Wed Oct 06 14:08:08 1999
Response via : Multiple Level Calibration

Volume Inj. : 1uL
Signal Phase : DB-5.625
Signal Info : 0.32

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S Hexacosane [S]	21.30	22161	11.54 ppm
	Recovery	=	46.16%
3) S O-Terphenyl [S]	16.93	34387	10.02 ppm
	Recovery	=	13.36%
Target Compounds			
2) H TEPH	19.70	496743	104.53 ppm

JJE 10-6-99

(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\5\DATA\1005\D1005S03.D
Acq On : 05 Oct 99 06:34 PM
Sample : 100 ppm DRO
Misc : STD # 1091-69-06
Quant Time: Oct 6 14:09 1999

Vial: 3
Operator: LLELSHOF
Inst : FUELS3
Multiplr: 1.00

Method : C:\HPCHEM\5\METHODS\D100599.M
Title : Total Extractable Petroleum Hydrocarbons
Last Update : Wed Oct 06 14:08:08 1999
Response via : Multiple Level Calibration

Volume Inj. : 1uL
Signal Phase : DB-5.625
Signal Info : 0.32

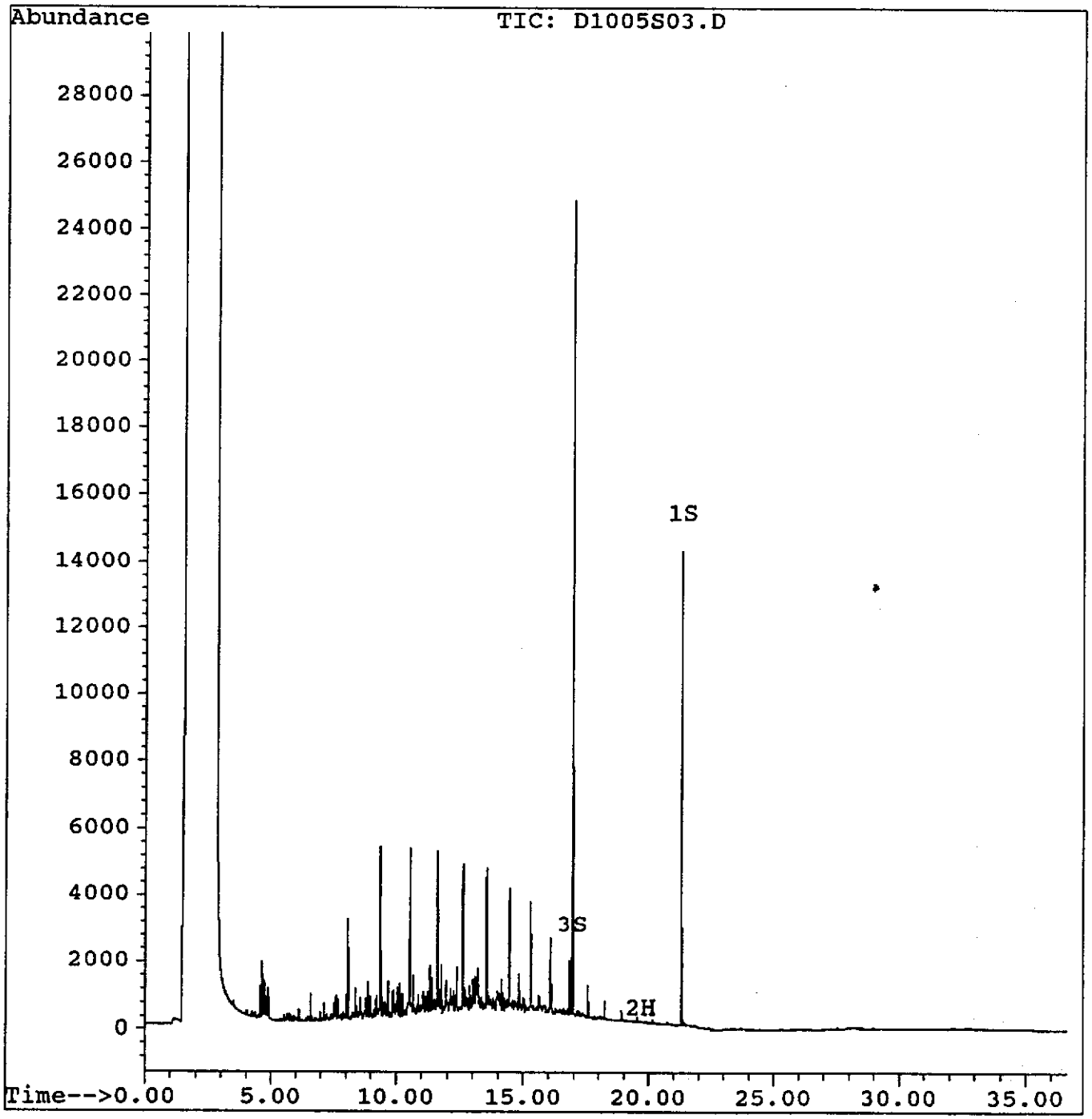

Quantitation Report

Data File : C:\HPCHEM\5\DATA\1005\D1005S04.D
Acq On : 05 Oct 99 07:23 PM
Sample : 500 ppm DRO
Misc : STD # 1091-69-06
Quant Time: Oct 6 14:09 1999

Vial: 4
Operator: LLELSHOF
Inst : FUELS3
Multiplr: 1.00

Method : C:\HPCHEM\5\METHODS\D100599.M
Title : Total Extractable Petroleum Hydrocarbons
Last Update : Wed Oct 06 14:08:08 1999
Response via : Multiple Level Calibration

Volume Inj. : 1uL
Signal Phase : DB-5.625
Signal Info : 0.32

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S Hexacosane [S]	21.30	104832	54.60 ppm
	Recovery	=	218.40%
3) S O-Terphenyl [S]	16.94	169044	50.02 ppm
	Recovery	=	66.69%
Target Compounds			
2) H TEPH	19.70	1723200	502.66 ppm

JJC 10-6-99

(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\5\DATA\1005\D1005S04.D
Acq On : 05 Oct 99 07:23 PM
Sample : 500 ppm DRO
Misc : STD # 1091-69-06
Quant Time: Oct 6 14:09 1999

Vial: 4
Operator: LLELSHOF
Inst : FUELS3
Multiplr: 1.00

Method : C:\HPCHEM\5\METHODS\D100599.M
Title : Total Extractable Petroleum Hydrocarbons
Last Update : Wed Oct 06 14:08:08 1999
Response via : Multiple Level Calibration

Volume Inj. : 1uL
Signal Phase : DB-5.625
Signal Info : 0.32

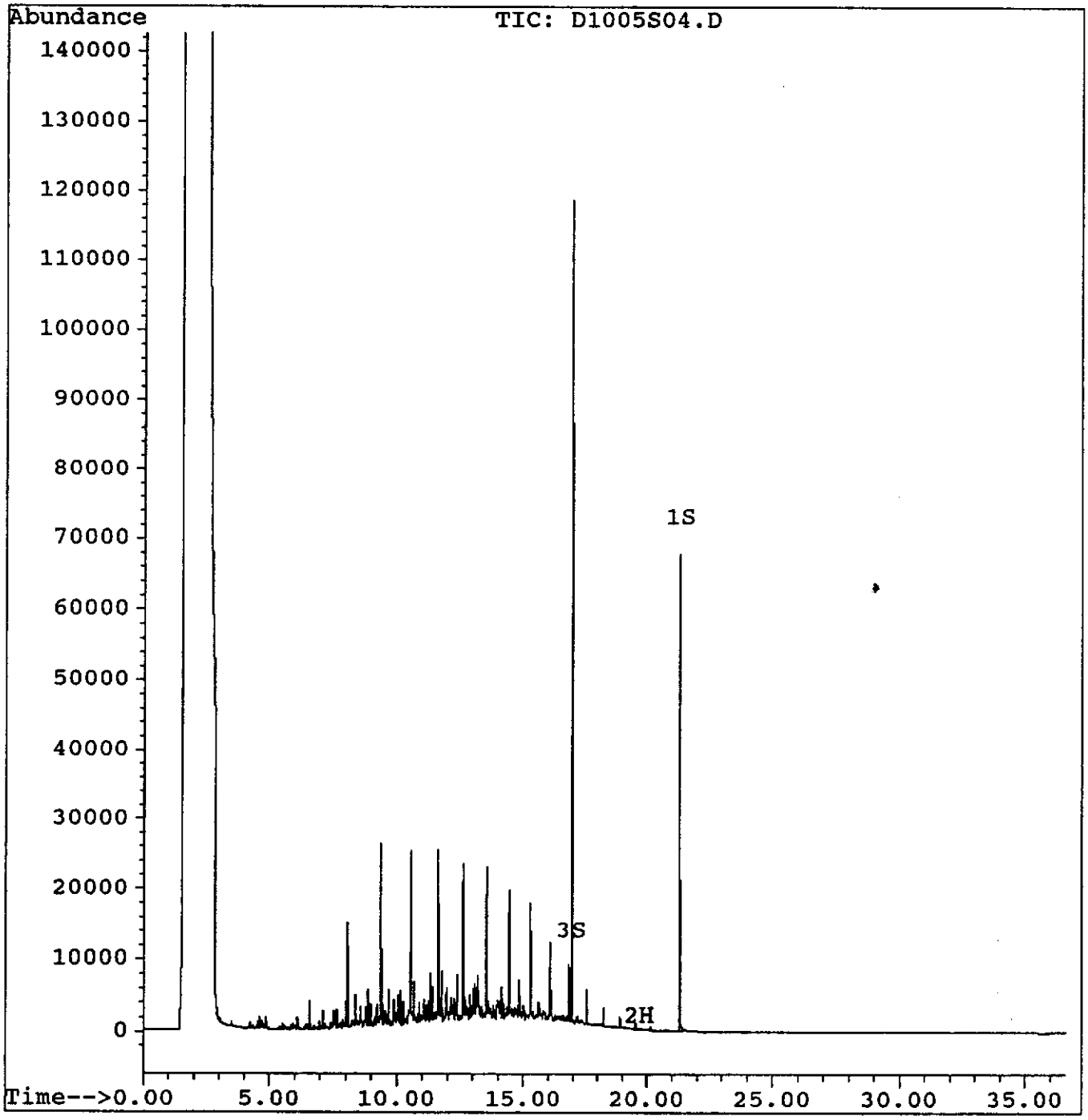

Quantitation Report

Data File : C:\HPCHEM\5\DATA\1005\D1005S05.D
Acq On : 05 Oct 99 08:11 PM
Sample : 1000 ppm DRO
Misc : STD # 1091-69-06
Quant Time: Oct 6 14:09 1999

Vial: 5
Operator: LLELSHOF
Inst : FUELS3
Multiplr: 1.00

Method : C:\HPCHEM\5\METHODS\D100599.M
Title : Total Extractable Petroleum Hydrocarbons
Last Update : Wed Oct 06 14:08:08 1999
Response via : Multiple Level Calibration

Volume Inj. : 1uL
Signal Phase : DB-5.625
Signal Info : 0.32

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S Hexacosane [S]	21.30	173442	90.33 ppm
	Recovery	=	361.32%
3) S O-Terphenyl [S]	16.95	338338	100.31 ppm
	Recovery	=	133.75%
Target Compounds			
2) H TEPH	19.70	3273947	1006.06 ppm

fjE
10-6-99

(f)=RT Delta > 1/2 Window
(m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\5\DATA\1005\D1005S05.D
Acq On : 05 Oct 99 08:11 PM
Sample : 1000 ppm DRO
Misc : STD # 1091-69-06
Quant Time: Oct 6 14:09 1999

Vial: 5
Operator: LLELSHOF
Inst : FUELS3
Multiplr: 1.00

Method : C:\HPCHEM\5\METHODS\D100599.M
Title : Total Extractable Petroleum Hydrocarbons
Last Update : Wed Oct 06 14:08:08 1999
Response via : Multiple Level Calibration

Volume Inj. : 1uL
Signal Phase : DB-5.625
Signal Info : 0.32

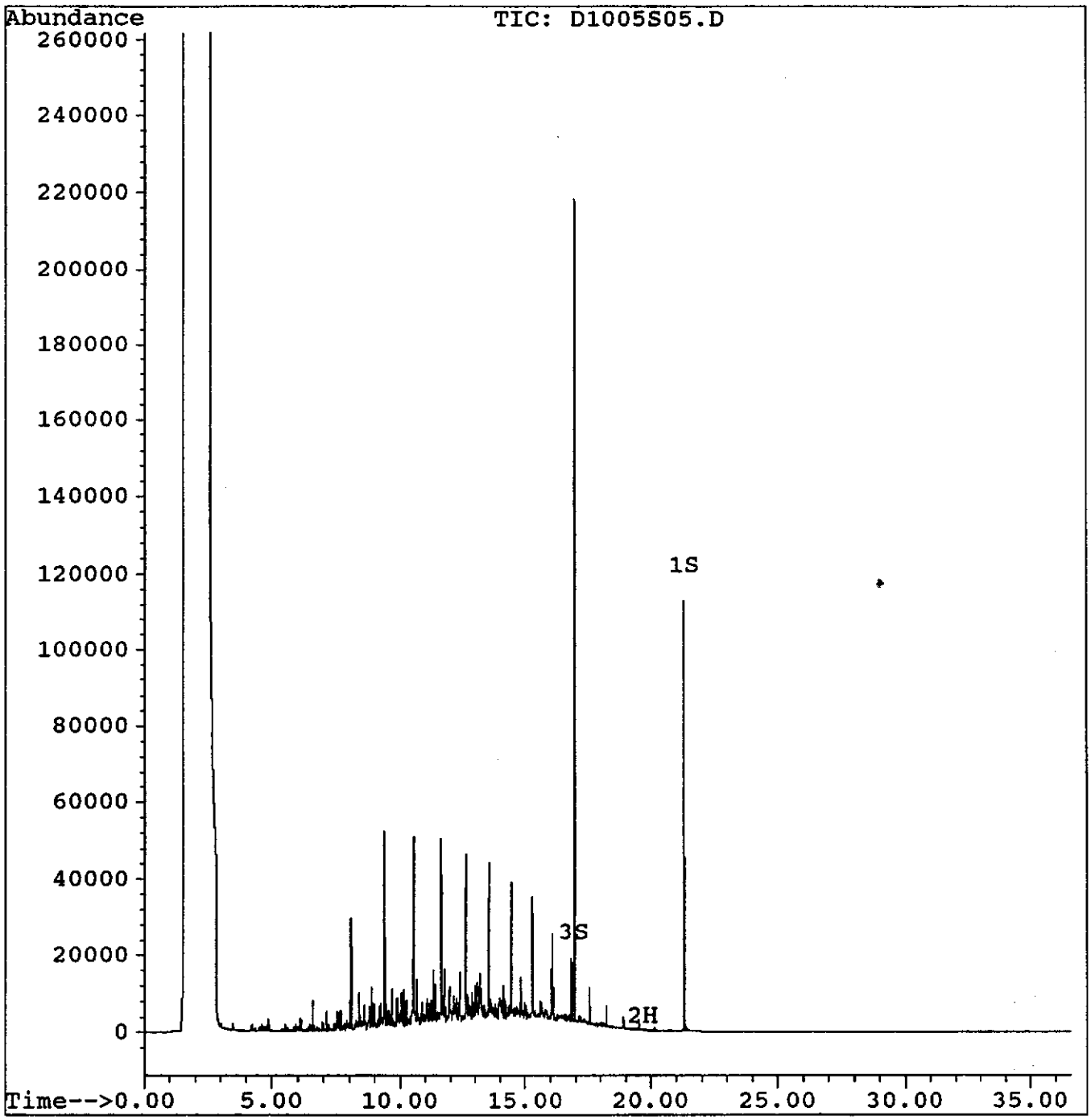

Quantitation Report

Data File : C:\HPCHEM\5\DATA\1005\D1005S06.D
Acq On : 05 Oct 99 09:00 PM
Sample : 2500 ppm DRO
Misc : STD # 1091-69-06
Quant Time: Oct 6 14:09 1999

Vial: 6
Operator: LLELSHOF
Inst : FUELS3
Multiplr: 1.00

Method : C:\HPCHEM\5\METHODS\D100599.M
Title : Total Extractable Petroleum Hydrocarbons
Last Update : Wed Oct 06 14:08:08 1999
Response via : Multiple Level Calibration

Volume Inj. : 1uL
Signal Phase : DB-5.625
Signal Info : 0.32

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S Hexacosane [S]	21.31	375386	195.51 ppm
	Recovery	=	782.04%
3) S O-Terphenyl [S]	16.97	841577	249.78 ppm
	Recovery	=	333.04%
Target Compounds			
2) H TEPH	19.70	7837976	2487.61 ppm

LLE 10-6-99

(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\5\DATA\1005\D1005S06.D
Acq On : 05 Oct 99 09:00 PM
Sample : 2500 ppm DRO
Misc : STD # 1091-69-06
Quant Time: Oct 6 14:09 1999

Vial: 6
Operator: LLELSHOF
Inst : FUELS3
Multiplr: 1.00

Method : C:\HPCHEM\5\METHODS\D100599.M
Title : Total Extractable Petroleum Hydrocarbons
Last Update : Wed Oct 06 14:08:08 1999
Response via : Multiple Level Calibration

Volume Inj. : 1uL
Signal Phase : DB-5.625
Signal Info : 0.32

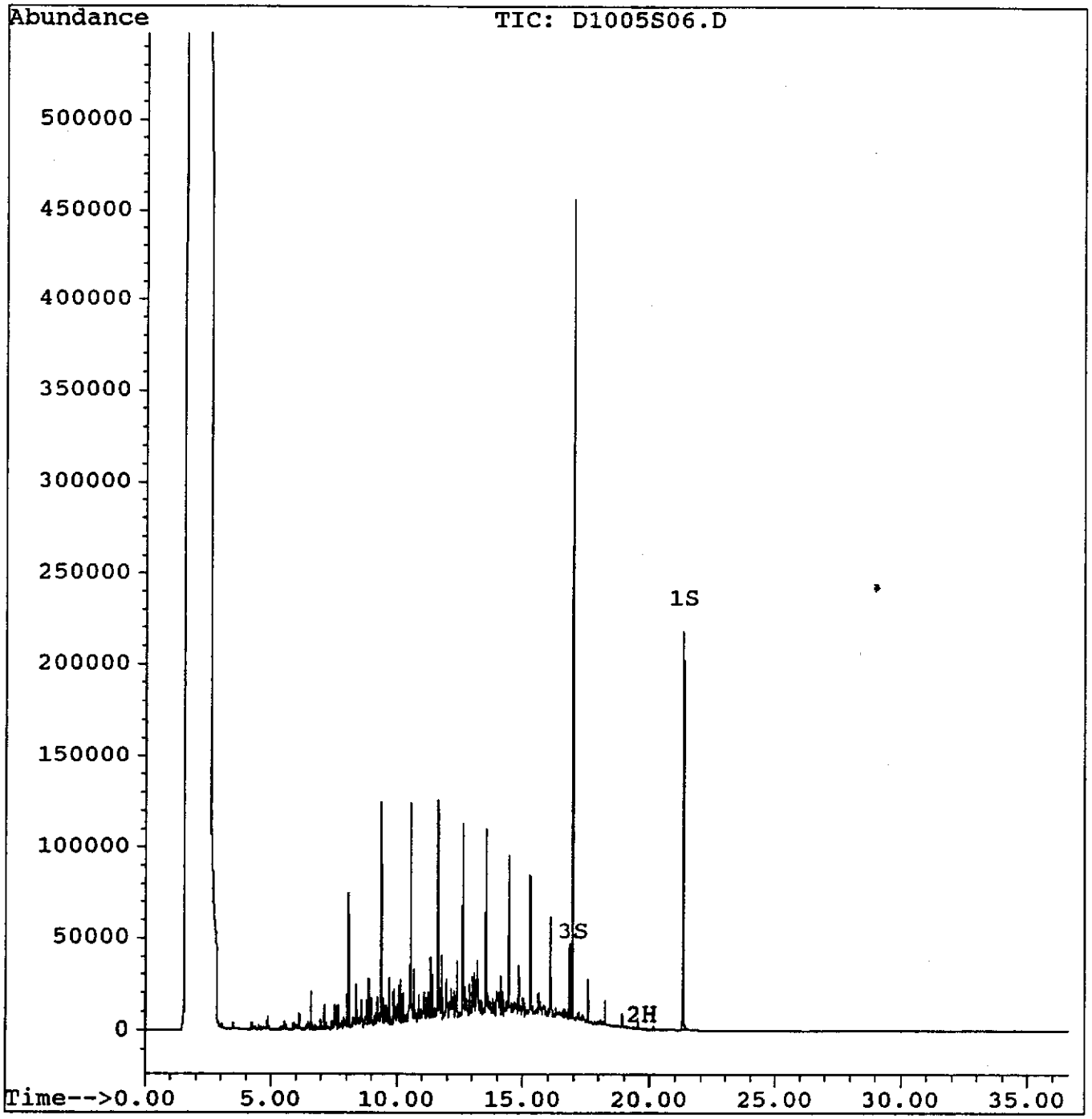

Quantitation Report

Data File : C:\HPCHEM\5\DATA\1005\D1005S07.D
Acq On : 05 Oct 99 09:50 PM
Sample : 5000 ppm DRO
Misc : STD # 1091-69-06
Quant Time: Oct 8 11:53 1999

Vial: 7
Operator: LLELSHOF
Inst : FUELS3
Multiplr: 1.00

Method : C:\HPCHEM\5\METHODS\D100599.M
Title : Total Extractable Petroleum Hydrocarbons
Last Update : Wed Oct 06 14:22:41 1999
Response via : Multiple Level Calibration

Volume Inj. : 1uL
Signal Phase : DB-5.625
Signal Info : 0.32

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S Hexacosane [S]	21.32	746608	388.61 ppm m
	Recovery	=	1554.44%
3) S O-Terphenyl [S]	16.99	1684125	500.05 ppm
	Recovery	=	666.73%
Target Compounds			
2) H TEPH	19.70	15591897	5004.65 ppm

SJC
10-8-99

(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\5\DATA\1005\D1005S07.D
Acq On : 05 Oct 99 09:50 PM
Sample : 5000 ppm DRO
Misc : STD # 1091-69-06
Quant Time: Oct 6 14:10 1999

Vial: 7
Operator: LLELSHOF
Inst : FUELS3
Multiplr: 1.00

Method : C:\HPCHEM\5\METHODS\D100599.M
Title : Total Extractable Petroleum Hydrocarbons
Last Update : Wed Oct 06 14:08:08 1999
Response via : Multiple Level Calibration

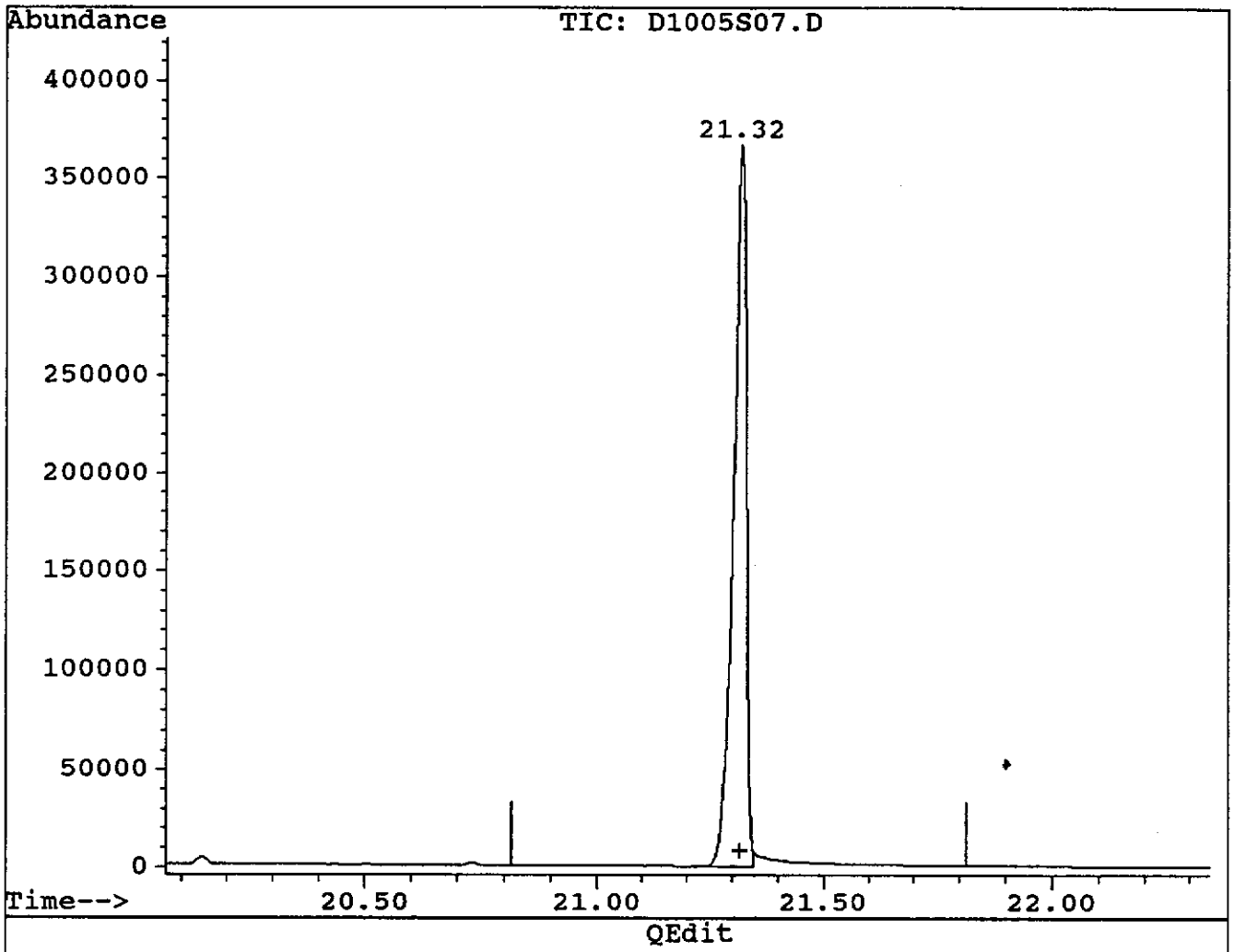

QEdit

(1) Hexacosane [S] (S)
21.32min 367.86ppm
response 706315

(+) = Expected Retention Time
D1005S07.D D100599.M Wed Oct 06 14:20:20 1999

Quantitation Report

Data File : C:\HPCHEM\5\DATA\1005\D1005S07.D
Acq On : 05 Oct 99 09:50 PM
Sample : 5000 ppm DRO
Misc : STD # 1091-69-06
Quant Time: Oct 8 11:53 1999

Vial: 7
Operator: LLELSHOF
Inst : FUELS3
Multiplr: 1.00

Method : C:\HPCHEM\5\METHODS\D100599.M
Title : Total Extractable Petroleum Hydrocarbons
Last Update : Wed Oct 06 14:22:41 1999
Response via : Multiple Level Calibration

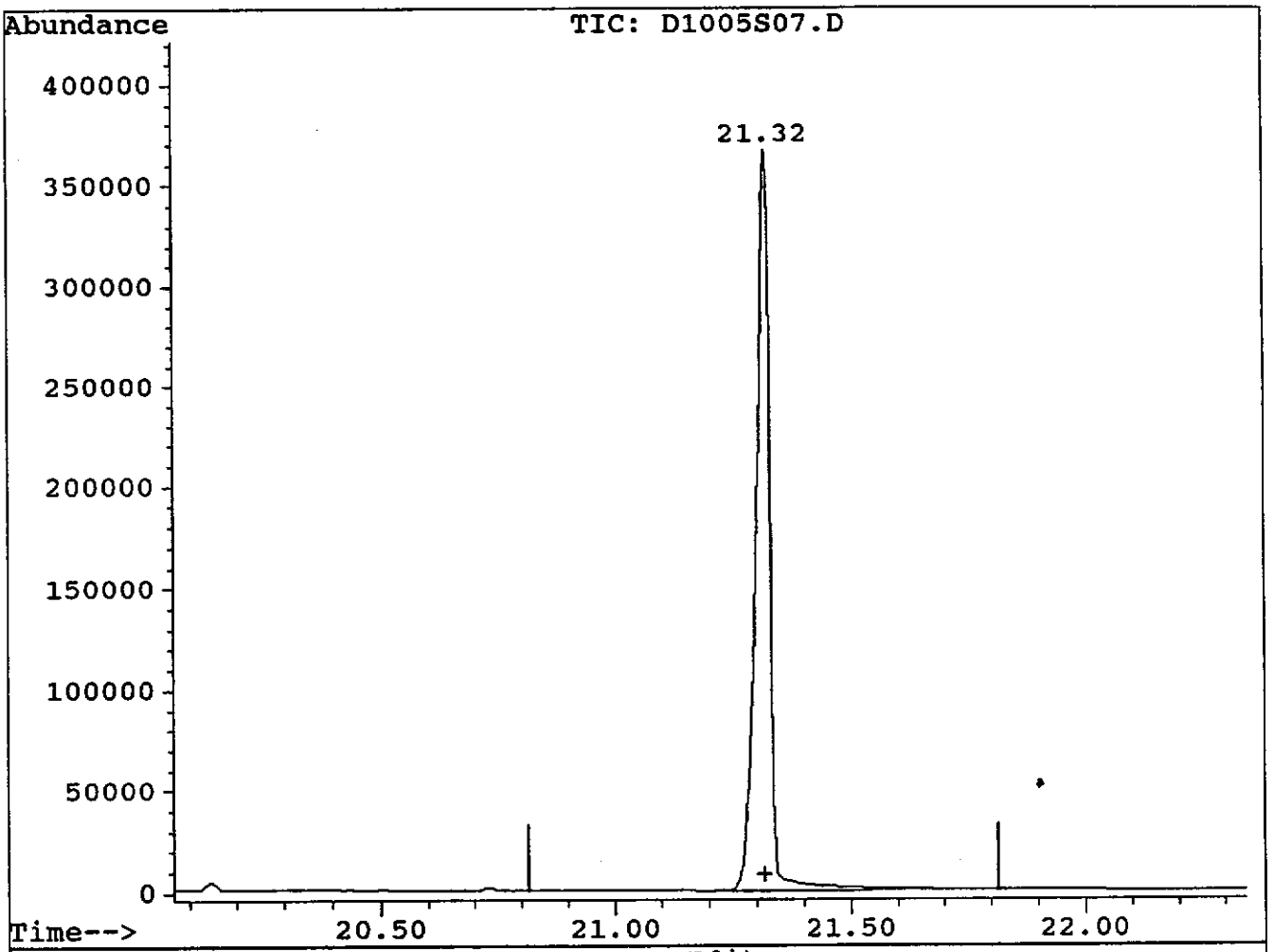

QEdit

(1) Hexacosane [S] (S)
21.32min 388.61ppm m
response 746608

JJC 10-8-99

(+) = Expected Retention Time
D1005S07.D D100599.M Fri Oct 08 11:53:55 1999

Quantitation Report

Data File : C:\HPCHEM\5\DATA\1005\D1005S07.D
Acq On : 05 Oct 99 09:50 PM
Sample : 5000 ppm DRO
Misc : STD # 1091-69-06
Quant Time: Oct 8 11:53 1999

Vial: 7
Operator: LLELSHOF
Inst : FUELS3
Multiplr: 1.00

Method : C:\HPCHEM\5\METHODS\D100599.M
Title : Total Extractable Petroleum Hydrocarbons
Last Update : Wed Oct 06 14:22:41 1999
Response via : Multiple Level Calibration

Volume Inj. : 1uL
Signal Phase : DB-5.625
Signal Info : 0.32

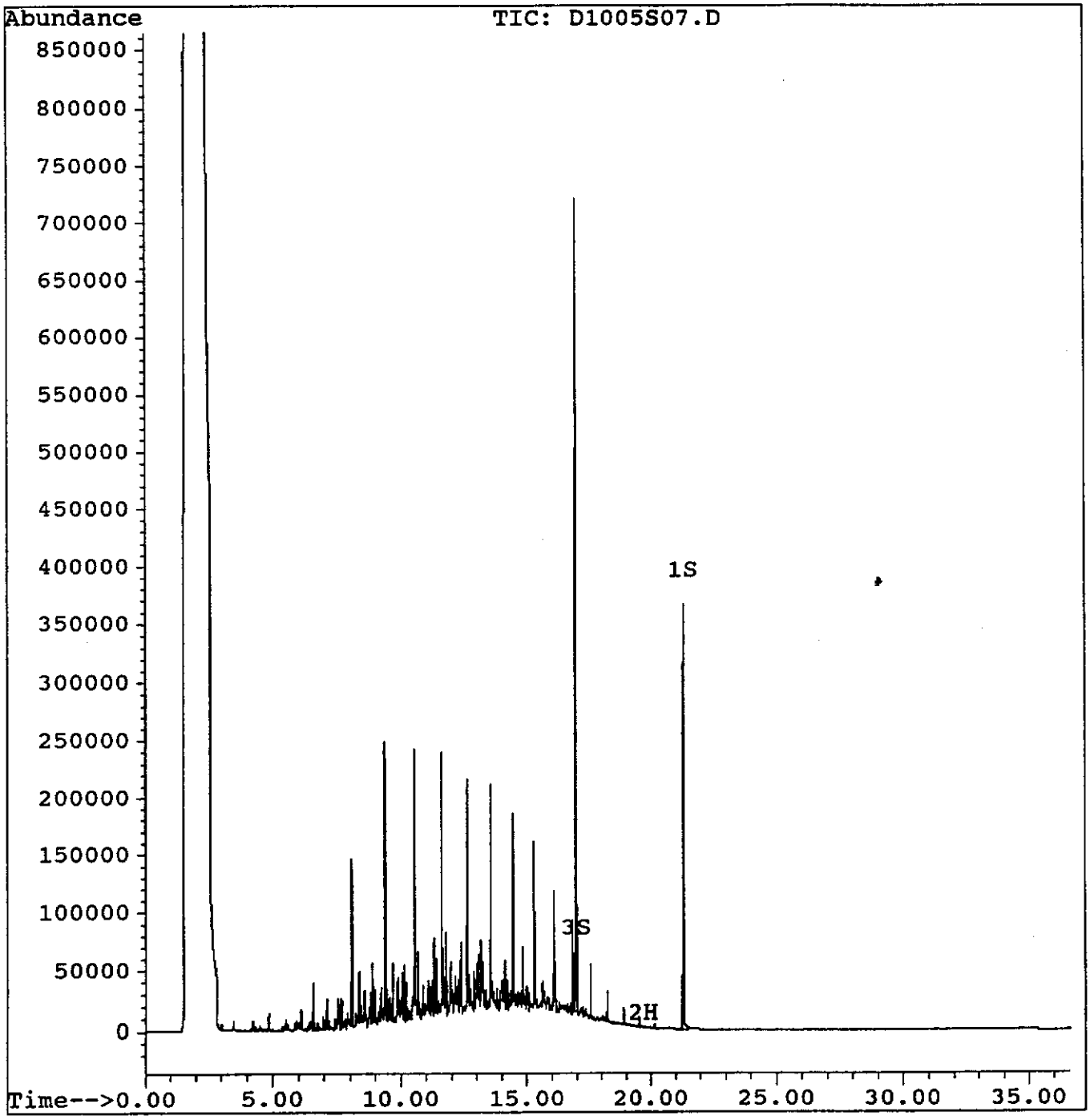

000043

Quantitation Report

Data File : C:\HPCHEM\5\DATA\1005\D1005S08.D
Acq On : 05 Oct 99 11:29 PM
Sample : ICV SURROGATES
Misc :
Quant Time: Oct 6 14:24 1999

Vial: 8
Operator: LLELSHOF
Inst : FUELS3
Multiplr: 1.00

Method : C:\HPCHEM\5\METHODS\D100599.M
Title : Total Extractable Petroleum Hydrocarbons
Last Update : Wed Oct 06 14:22:41 1999
Response via : Multiple Level Calibration

Volume Inj. : 1uL
Signal Phase : DB-5.625
Signal Info : 0.32

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S Hexacosane [S]	21.30	209492	109.04 ppm
	Recovery	=	436.16%
3) S O-Terphenyl [S]	16.97	1233228	366.12 ppm
	Recovery	=	488.16%
Target Compounds			
2) H TEPH	19.70	231371	18.39 ppm

LLE
10-6-99

(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\5\DATA\1005\D1005S08.D
Acq On : 05 Oct 99 11:29 PM
Sample : ICV SURROGATES
Misc :
Quant Time: Oct 6 14:24 1999

Vial: 8
Operator: LLELSHOF
Inst : FUELS3
Multiplr: 1.00

Method : C:\HPCHEM\5\METHODS\D100599.M
Title : Total Extractable Petroleum Hydrocarbons
Last Update : Wed Oct 06 14:22:41 1999
Response via : Multiple Level Calibration

Volume Inj. : 1uL
Signal Phase : DB-5.625
Signal Info : 0.32

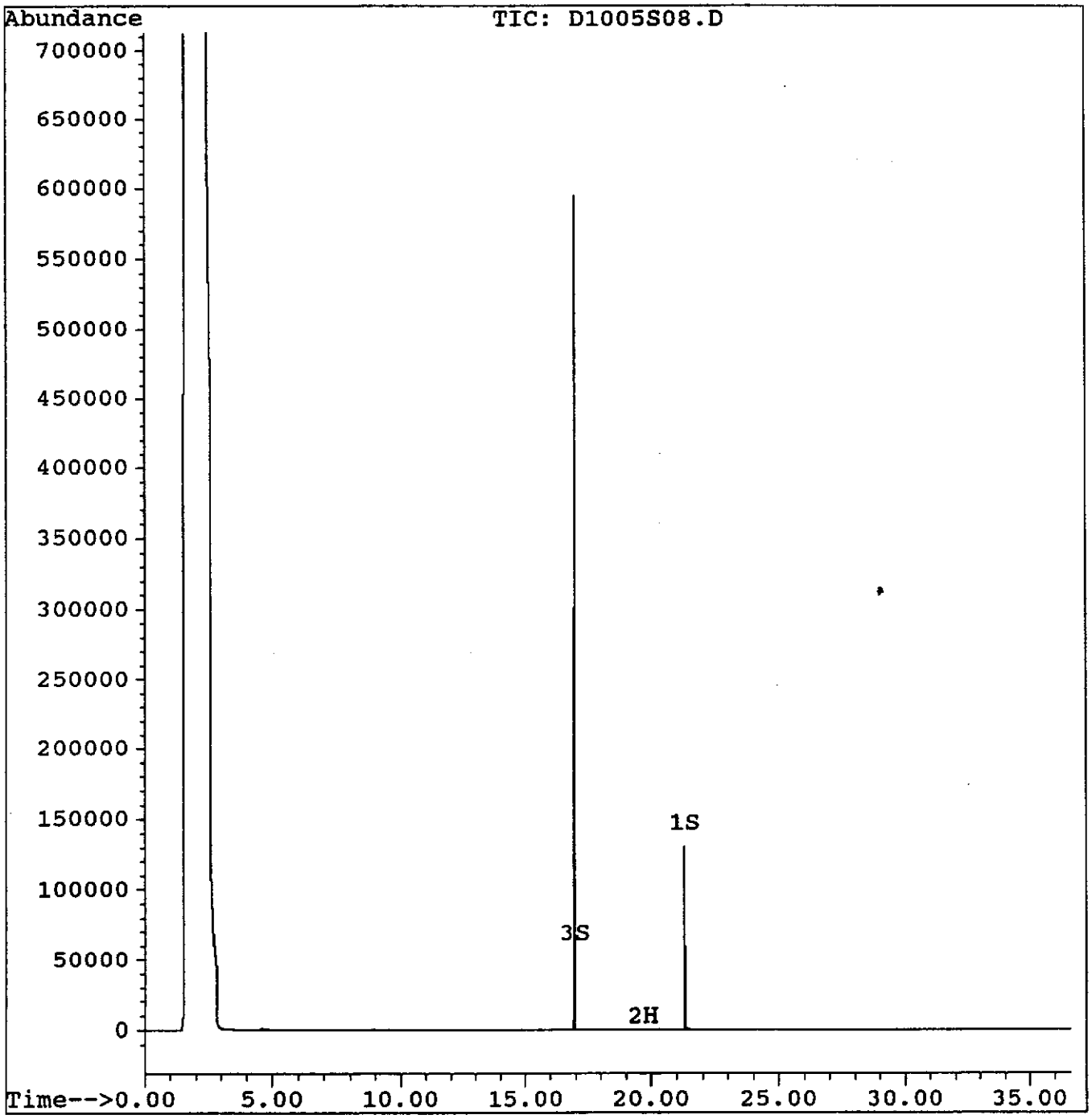

Quantitation Report

Data File : C:\HPCHEM\5\DATA\1005\D1005S09.D
Acq On : 06 Oct 99 00:18 AM
Sample : ICV DIESEL
Misc :
Quant Time: Oct 6 14:27 1999

Vial: 9
Operator: LLELSHOF
Inst : FUELS3
Multiplr: 1.00

Method : C:\HPCHEM\5\METHODS\D100599.M
Title : Total Extractable Petroleum Hydrocarbons
Last Update : Wed Oct 06 14:22:41 1999
Response via : Multiple Level Calibration

Volume Inj. : 1uL
Signal Phase : DB-5.625
Signal Info : 0.32

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S Hexacosane [S]	21.29	324	0.17 ppm
	Recovery	=	0.68%
3) S O-Terphenyl [S]	0.00	0	N.D. ppm
	Recovery	=	0.00%
Target Compounds			
2) H TEPH	19.70	1894777	558.36 ppm

JJC 10-6-99

(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\5\DATA\1005\D1005S09.D
Acq On : 06 Oct 99 00:18 AM
Sample : ICV DIESEL
Misc :
Quant Time: Oct 6 14:27 1999

Vial: 9
Operator: LLELSHOF
Inst : FUELS3
Multiplr: 1.00

Method : C:\HPCHEM\5\METHODS\D100599.M
Title : Total Extractable Petroleum Hydrocarbons
Last Update : Wed Oct 06 14:22:41 1999
Response via : Multiple Level Calibration

Volume Inj. : 1uL
Signal Phase : DB-5.625
Signal Info : 0.32

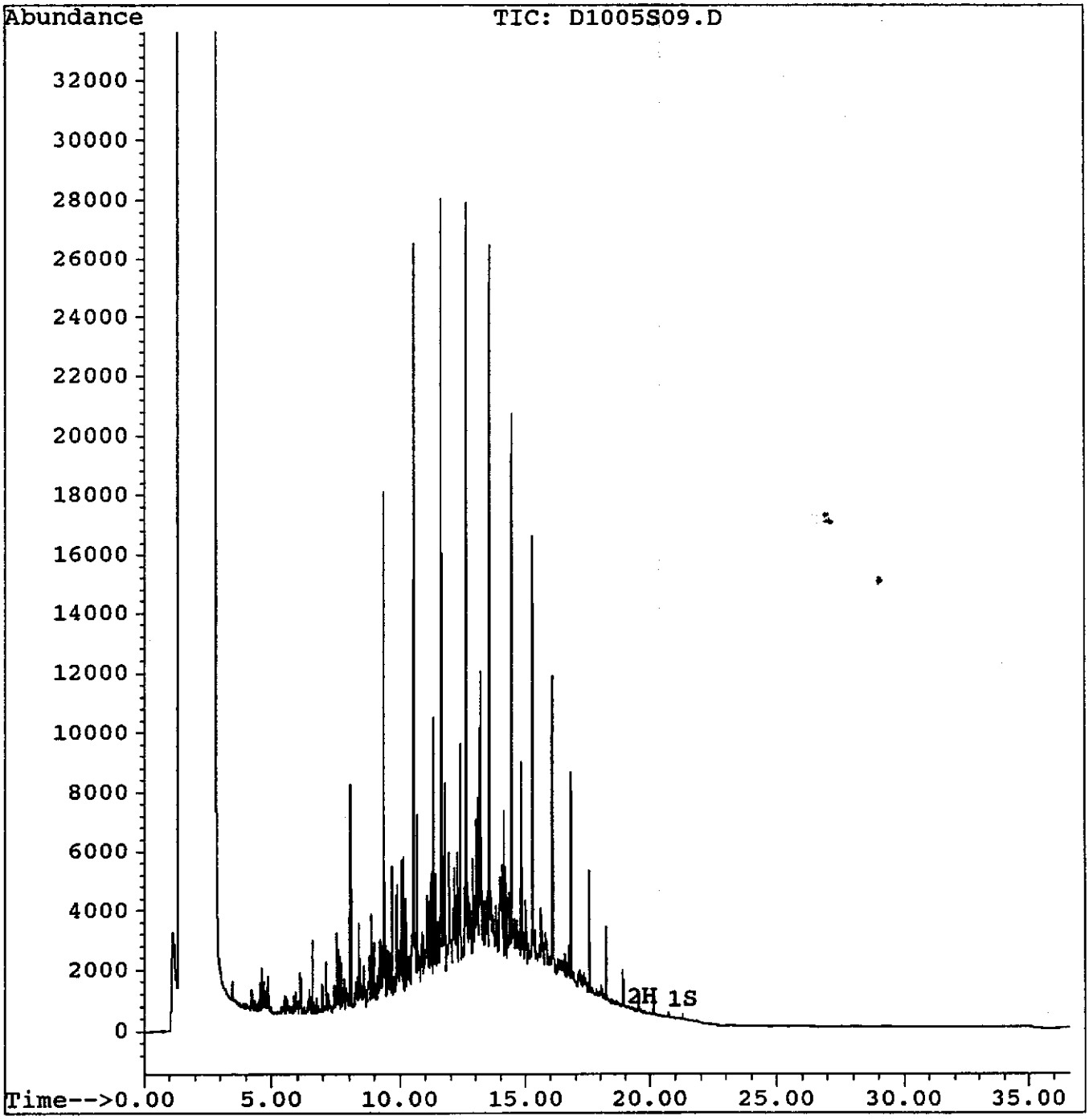

Quantitation Report

Data File : C:\HPCHEM\5\DATA\1006\D1006S25.D
Acq On : 07 Oct 99 03:50 PM
Sample : 500 ppm CCV
Misc :
Quant Time: Oct 8 9:54 1999

Vial: 25
Operator: LLELSHOF
Inst : FUELS3
Multiplr: 1.00

Method : C:\HPCHEM\5\METHODS\D100599.M
Title : Total Extractable Petroleum Hydrocarbons
Last Update : Wed Oct 06 14:22:41 1999
Response via : Multiple Level Calibration

Volume Inj. : 1uL
Signal Phase : DB-5.625
Signal Info : 0.32

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S Hexacosane [S]	21.30	109693	57.10 ppm
	Recovery	=	228.40%
3) S O-Terphenyl [S]	16.94	175980	52.08 ppm
	Recovery	=	69.44%
Target Compounds			
2) H TEPH	19.70	1706061	497.09 ppm

JJE 10-8-99

(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\5\DATA\1006\D1006S25.D
Acq On : 07 Oct 99 03:50 PM
Sample : 500 ppm CCV
Misc :
Quant Time: Oct 8 9:44 1999

Vial: 25
Operator: LLELSHOF
Inst : FUELS3
Multiplr: 1.00

Method : C:\HPCHEM\5\METHODS\D100599.M
Title : Total Extractable Petroleum Hydrocarbons
Last Update : Wed Oct 06 14:22:41 1999
Response via : Multiple Level Calibration

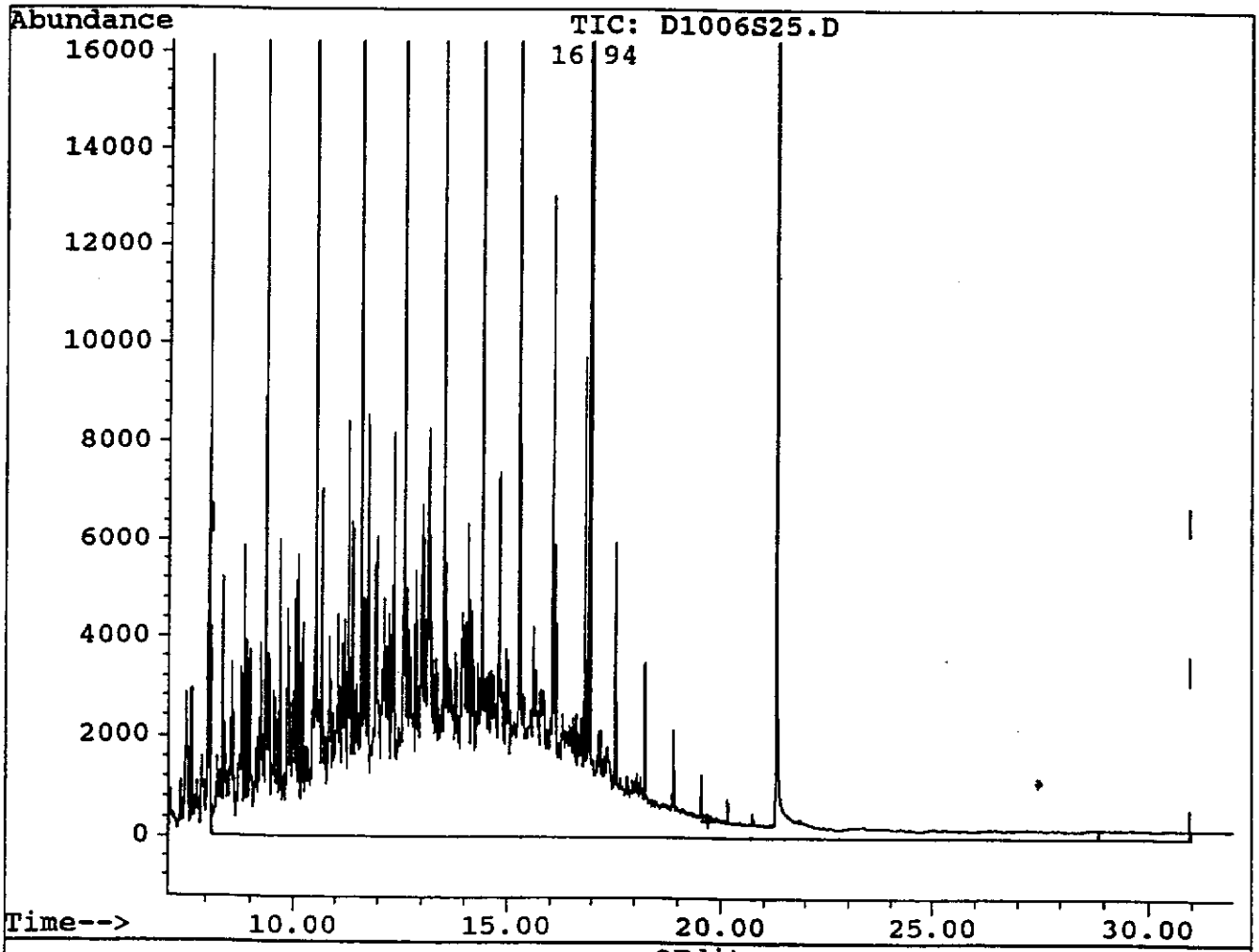

QEdit

(2) TEPH (H)
19.70min 524.71ppm m
response 1791135

(+) = Expected Retention Time

D1006S25.D D100599.M Fri Oct 08 09:54:03 1999

Quantitation Report

Data File : C:\HPCHEM\5\DATA\1006\D1006S25.D
Acq On : 07 Oct 99 03:50 PM
Sample : 500 ppm CCV
Misc :
Quant Time: Oct 8 9:54 1999

Vial: 25
Operator: LLELSHOF
Inst : FUELS3
Multiplr: 1.00

Method : C:\HPCHEM\5\METHODS\D100599.M
Title : Total Extractable Petroleum Hydrocarbons
Last Update : Wed Oct 06 14:22:41 1999
Response via : Multiple Level Calibration

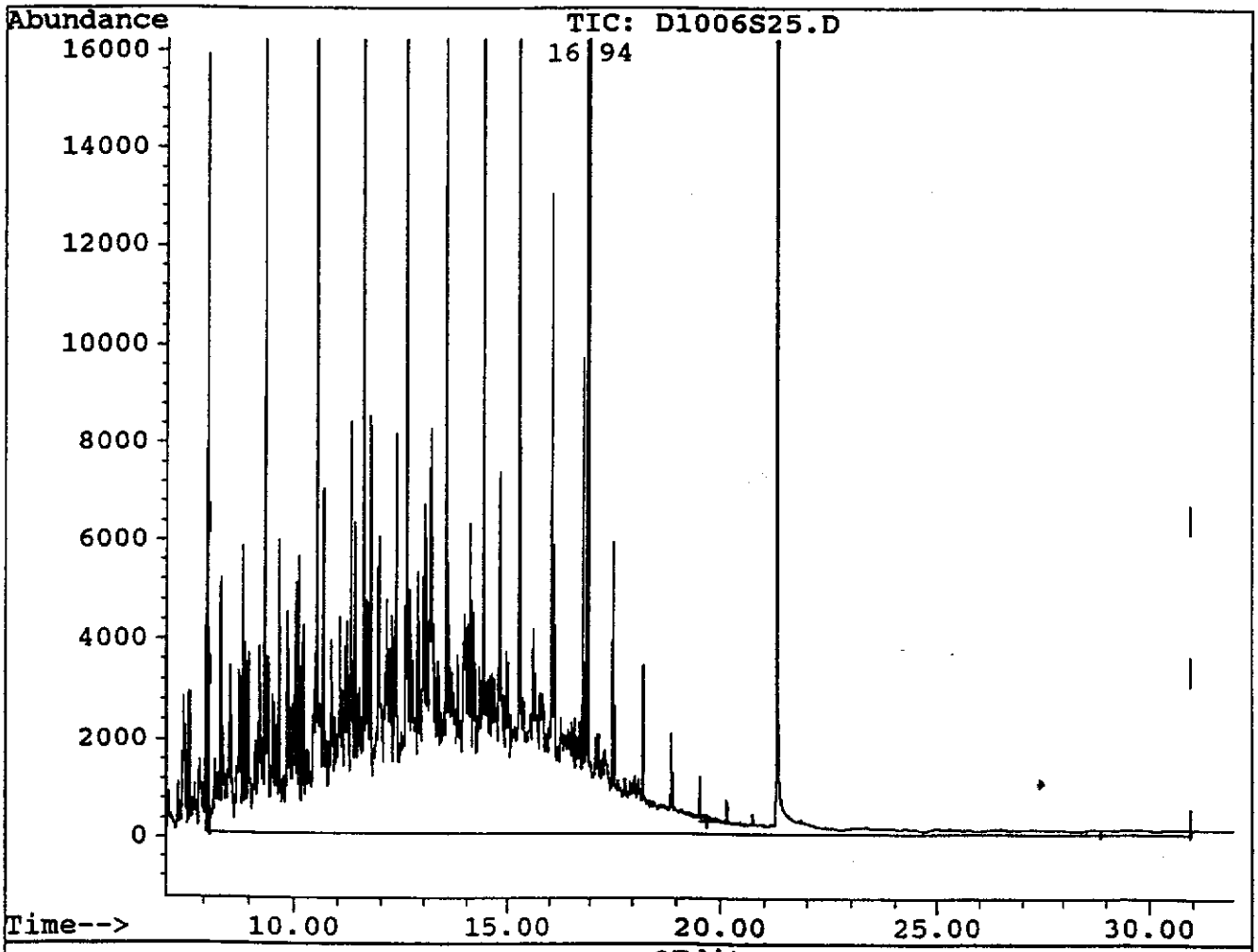

QEdit

(2) TEPH (H)
19.70min 497.09ppm m
response 1706061

JJE 10-8-99

(+) = Expected Retention Time
D1006S25.D D100599.M Fri Oct 08 09:54:19 1999

Quantitation Report

Data File : C:\HPCHEM\5\DATA\1006\D1006S25.D
Acq On : 07 Oct 99 03:50 PM
Sample : 500 ppm CCV
Misc :
Quant Time: Oct 8 9:54 1999

Vial: 25
Operator: LLELSHOF
Inst : FUELS3
Multiplr: 1.00

Method : C:\HPCHEM\5\METHODS\D100599.M
Title : Total Extractable Petroleum Hydrocarbons
Last Update : Wed Oct 06 14:22:41 1999
Response via : Multiple Level Calibration

Volume Inj. : 1uL
Signal Phase : DB-5.625
Signal Info : 0.32

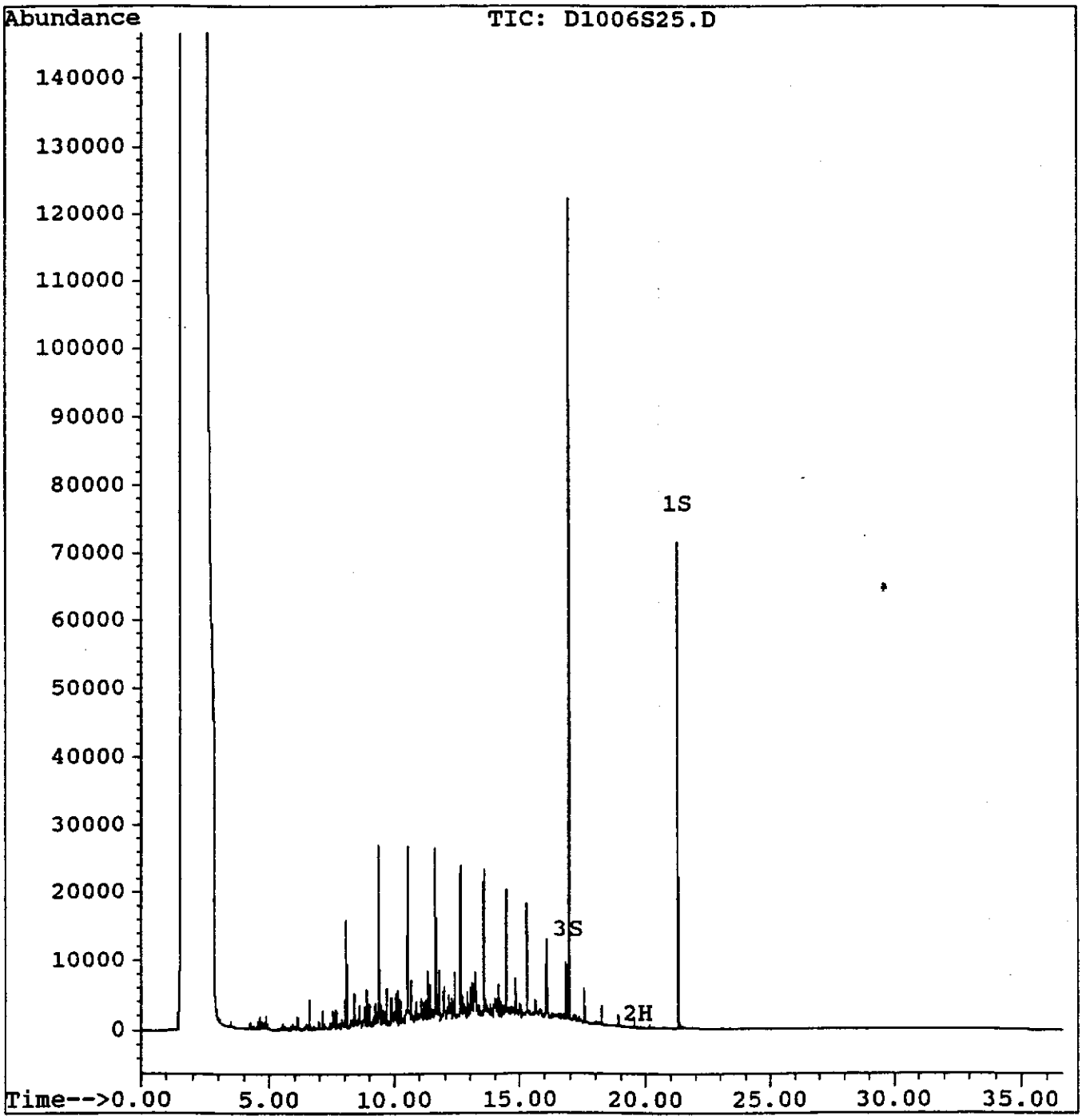

Quantitation Report

Data File : C:\HPCHEM\5\DATA\1006\D1006S36.D
Acq On : 08 Oct 99 01:39 AM
Sample : 500 ppm CCV
Misc :
Quant Time: Oct 8 10:20 1999

Vial: 36
Operator: LLELSHOF
Inst : FUELS3
Multiplr: 1.00

Method : C:\HPCHEM\5\METHODS\D100599.M
Title : Total Extractable Petroleum Hydrocarbons
Last Update : Wed Oct 06 14:22:41 1999
Response via : Multiple Level Calibration

Volume Inj. : 1uL
Signal Phase : DB-5.625
Signal Info : 0.32

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S Hexacosane [S]	21.30	107772	56.10 ppm
	Recovery	=	224.40%
3) S O-Terphenyl [S]	16.94	174370	51.60 ppm
	Recovery	=	68.80%
Target Compounds			
2) H TEPH	19.70	1744122	509.45 ppm

JE
10-8-99

(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\5\DATA\1006\D1006S36.D
Acq On : 08 Oct 99 01:39 AM
Sample : 500 ppm CCV
Misc :
Quant Time: Oct 8 10:20 1999

Vial: 36
Operator: LLELSHOF
Inst : FUELS3
Multiplr: 1.00

Method : C:\HPCHEM\5\METHODS\D100599.M
Title : Total Extractable Petroleum Hydrocarbons
Last Update : Wed Oct 06 14:22:41 1999
Response via : Multiple Level Calibration

Volume Inj. : 1uL
Signal Phase : DB-5.625
Signal Info : 0.32

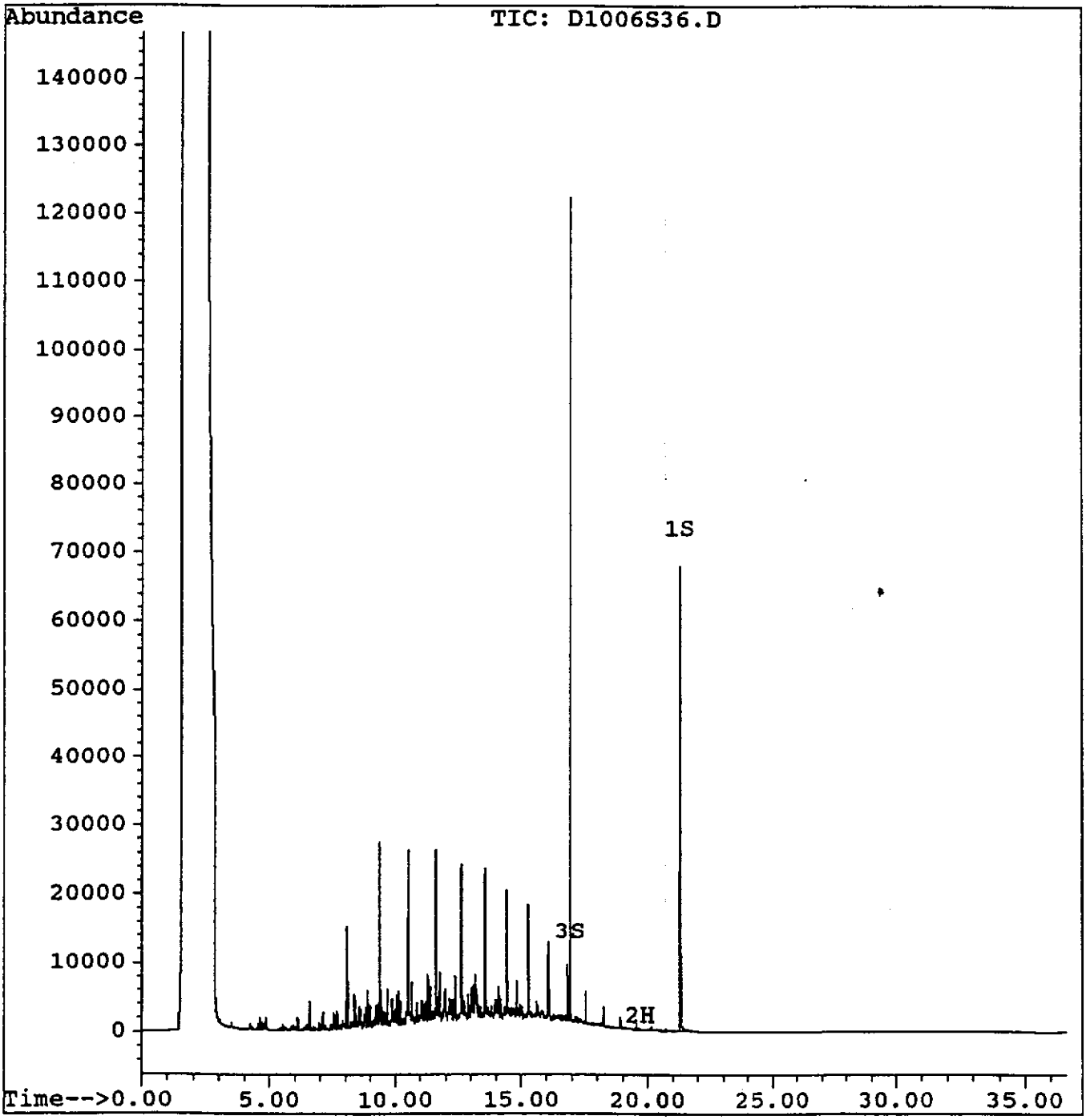

Quantitation Report

Data File : C:\HPCHEM\5\DATA\1006\D1006S43.D
Acq On : 08 Oct 99 08:12 AM
Sample : 500 ppm CCV
Misc :
Quant Time: Oct 8 9:48 1999

Vial: 43
Operator: LLELSHOF
Inst : FUELS3
Multiplr: 1.00

Method : C:\HPCHEM\5\METHODS\D100599.M
Title : Total Extractable Petroleum Hydrocarbons
Last Update : Wed Oct 06 14:22:41 1999
Response via : Multiple Level Calibration

Volume Inj. : 1uL
Signal Phase : DB-5.625
Signal Info : 0.32

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S Hexacosane [S]	21.30	101392	52.77 ppm
	Recovery	=	211.08%
3) S O-Terphenyl [S]	16.94	163592	48.40 ppm
	Recovery	=	64.53%
Target Compounds			
2) H TEPH	19.70	1487396	426.11 ppm

HE
10-8-99

(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\5\DATA\1006\D1006S43.D
Acq On : 08 Oct 99 08:12 AM
Sample : 500 ppm CCV
Misc :
Quant Time: Oct 8 9:48 1999

Vial: 43
Operator: LLELSHOF
Inst : FUELS3
Multiplr: 1.00

Method : C:\HPCHEM\5\METHODS\D100599.M
Title : Total Extractable Petroleum Hydrocarbons
Last Update : Wed Oct 06 14:22:41 1999
Response via : Multiple Level Calibration

Volume Inj. : 1uL
Signal Phase : DB-5.625
Signal Info : 0.32

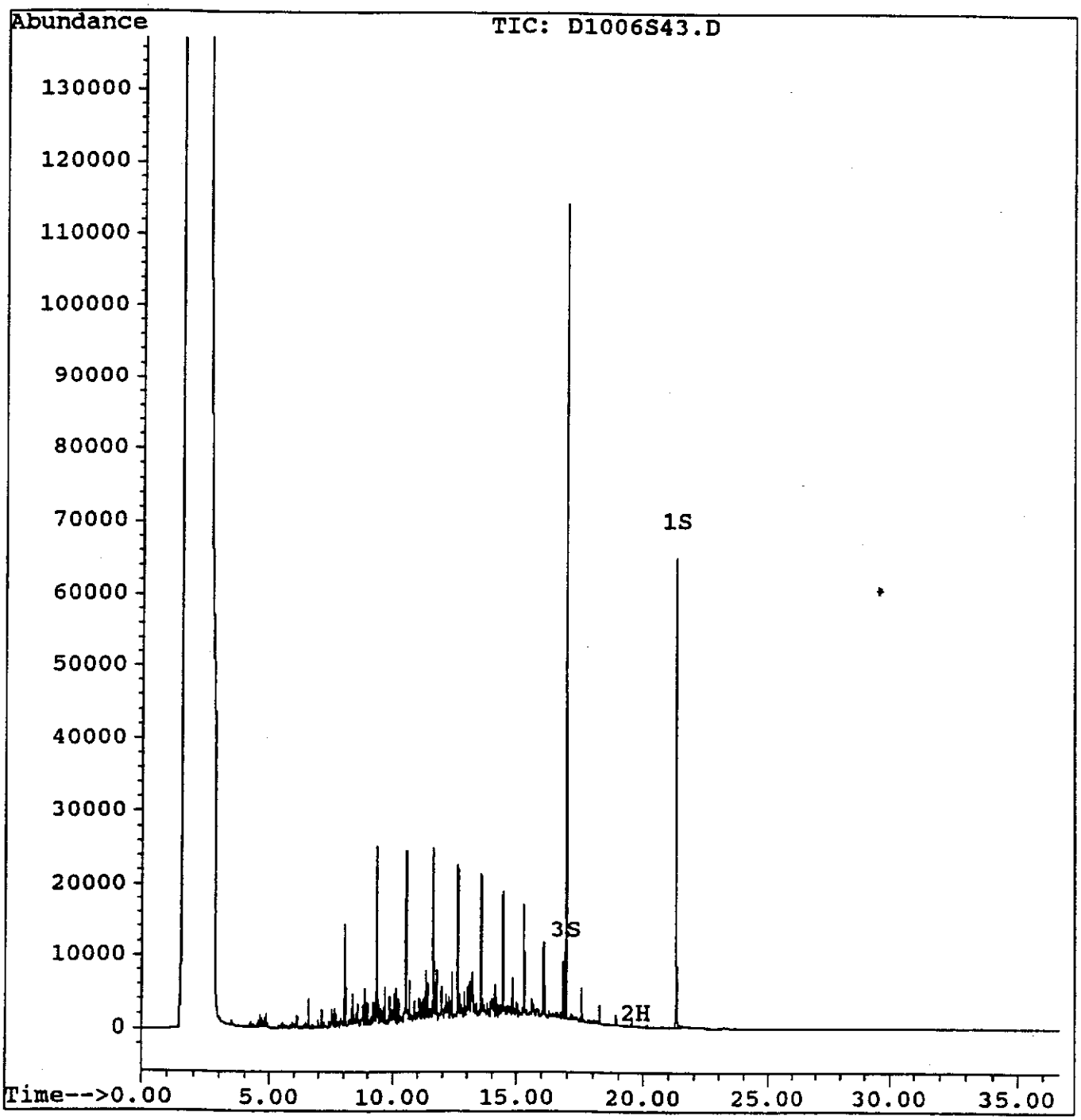

Sample Raw Data

Quantitation Report

Data File : C:\HPCHEM\5\DATA\1006\D1006S26.D
Acq On : 07 Oct 99 04:39 PM
Sample : EX991007-2MB
Misc :
Quant Time: Oct 8 9:44 1999

Vial: 26
Operator: LLELSHOF
Inst : FUELS3
Multiplr: 1.00

Method : C:\HPCHEM\5\METHODS\D100599.M
Title : Total Extractable Petroleum Hydrocarbons
Last Update : Wed Oct 06 14:22:41 1999
Response via : Multiple Level Calibration

Volume Inj. : 1uL
Signal Phase : DB-5.625
Signal Info : 0.32

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S Hexacosane [S]	21.30	60842	31.67 ppm
	Recovery	=	126.68%
3) S O-Terphenyl [S]	16.94	226099	66.97 ppm
	Recovery	=	89.29%
Target Compounds			
2) H TEPH	19.70	153668	N.D. ppm

JJE
10-8-99

(f)=RT Delta > 1/2 Window
(m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\5\DATA\1006\D1006S26.D
Acq On : 07 Oct 99 04:39 PM
Sample : EX991007-2MB
Misc :
Quant Time: Oct 8 9:44 1999

Vial: 26
Operator: LLELSHOF
Inst : FUELS3
Multiplr: 1.00

Method : C:\HPCHEM\5\METHODS\D100599.M
Title : Total Extractable Petroleum Hydrocarbons
Last Update : Wed Oct 06 14:22:41 1999
Response via : Multiple Level Calibration

Volume Inj. : 1uL
Signal Phase : DB-5.625
Signal Info : 0.32

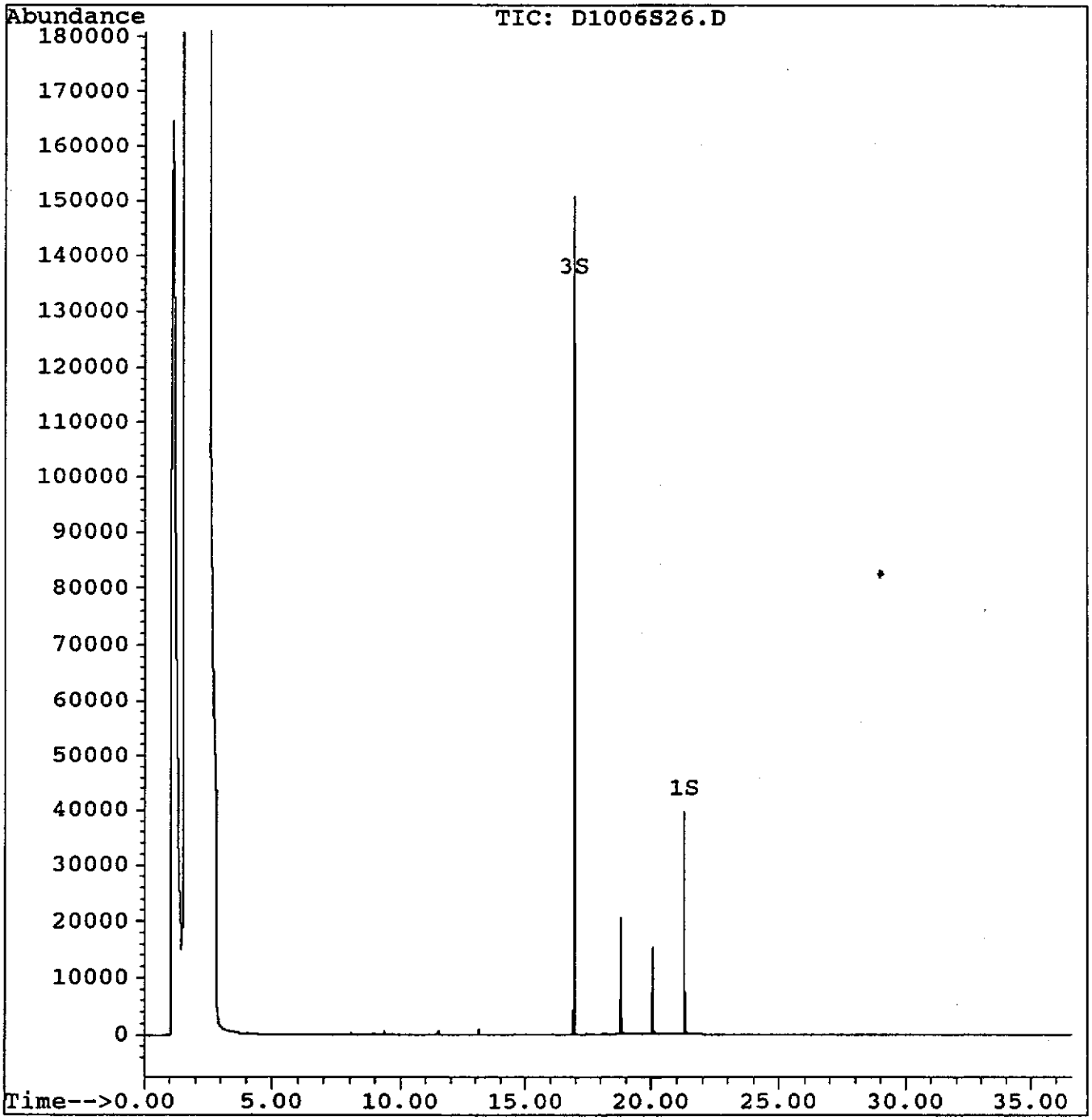

Quantitation Report

Data File : C:\HPCHEM\5\DATA\1006\D1006S29.D
Acq On : 07 Oct 99 07:06 PM
Sample : 9910021-1
Misc :
Quant Time: Oct 8 9:57 1999

Vial: 29
Operator: LLELSHOF
Inst : FUELS3
Multiplr: 1.00

Method : C:\HPCHEM\5\METHODS\D100599.M
Title : Total Extractable Petroleum Hydrocarbons
Last Update : Wed Oct 06 14:22:41 1999
Response via : Multiple Level Calibration

Volume Inj. : 1uL
Signal Phase : DB-5.625
Signal Info : 0.32

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S Hexacosane [S]	21.30	56005	29.15 ppm
	Recovery	=	116.60%
3) S O-Terphenyl [S]	16.94	241602	71.57 ppm
	Recovery	=	95.43%
Target Compounds			
2) H TEPH	19.70	193006	5.93 ppm J

C10 C26

JJC
10-8-99

(f)=RT Delta > 1/2 Window
(m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\5\DATA\1006\D1006S29.D
Acq On : 07 Oct 99 07:06 PM
Sample : 9910021-1
Misc :
Quant Time: Oct 8 9:44 1999

Vial: 29
Operator: LLELSHOF
Inst : FUELS3
Multiplr: 1.00

Method : C:\HPCHEM\5\METHODS\D100599.M
Title : Total Extractable Petroleum Hydrocarbons
Last Update : Wed Oct 06 14:22:41 1999
Response via : Multiple Level Calibration

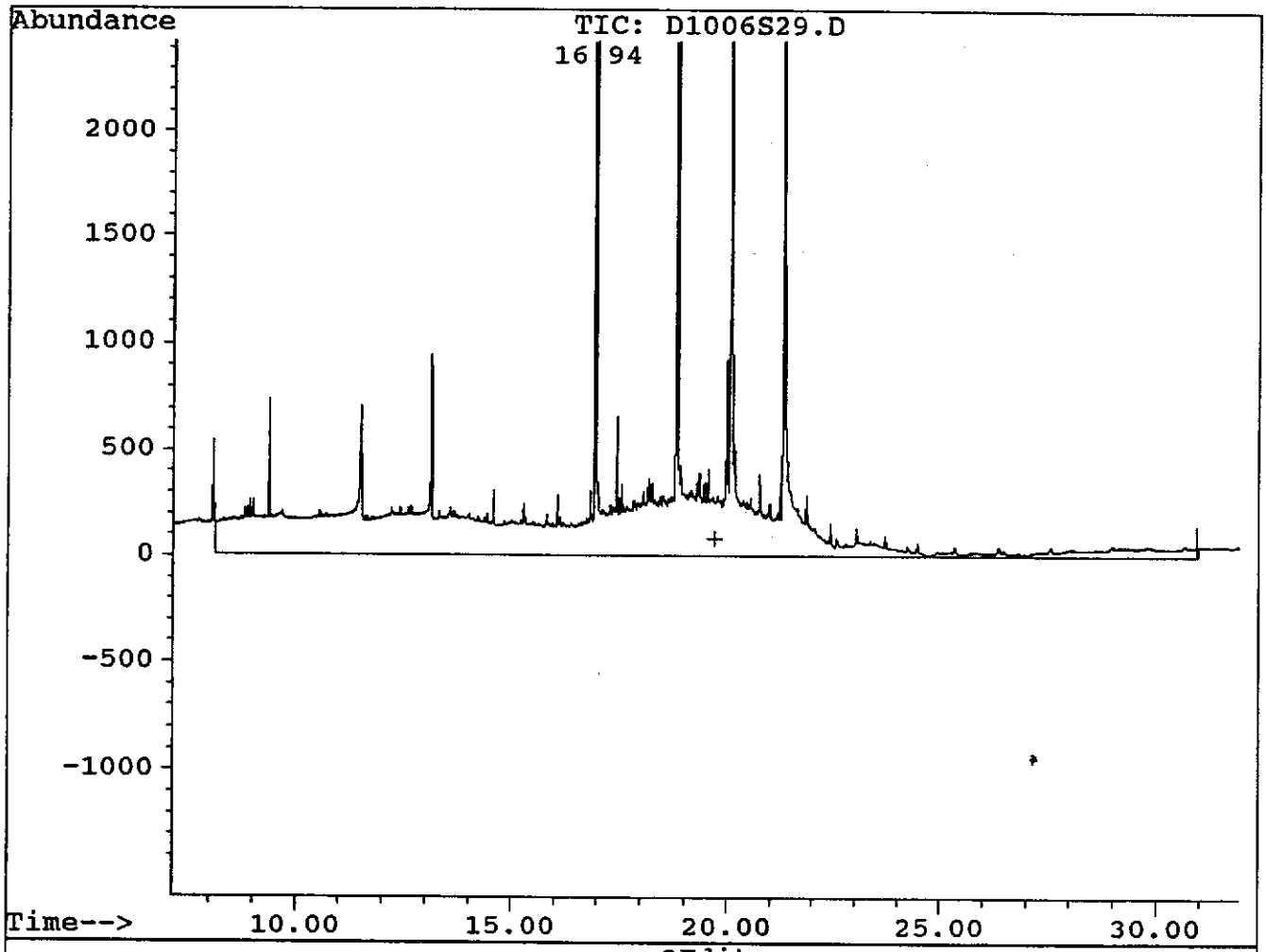

QEdit

(2) TEPH (H)
19.70min 26.06ppm m
response 254996

(+) = Expected Retention Time

D1006S29.D D100599.M Fri Oct 08 09:57:09 1999

Quantitation Report

Data File : C:\HPCHEM\5\DATA\1006\D1006S29.D
Acq On : 07 Oct 99 07:06 PM
Sample : 9910021-1
Misc :
Quant Time: Oct 8 9:57 1999

Vial: 29
Operator: LLELSHOF
Inst : FUELS3
Multiplr: 1.00

Method : C:\HPCHEM\5\METHODS\D100599.M
Title : Total Extractable Petroleum Hydrocarbons
Last Update : Wed Oct 06 14:22:41 1999
Response via : Multiple Level Calibration

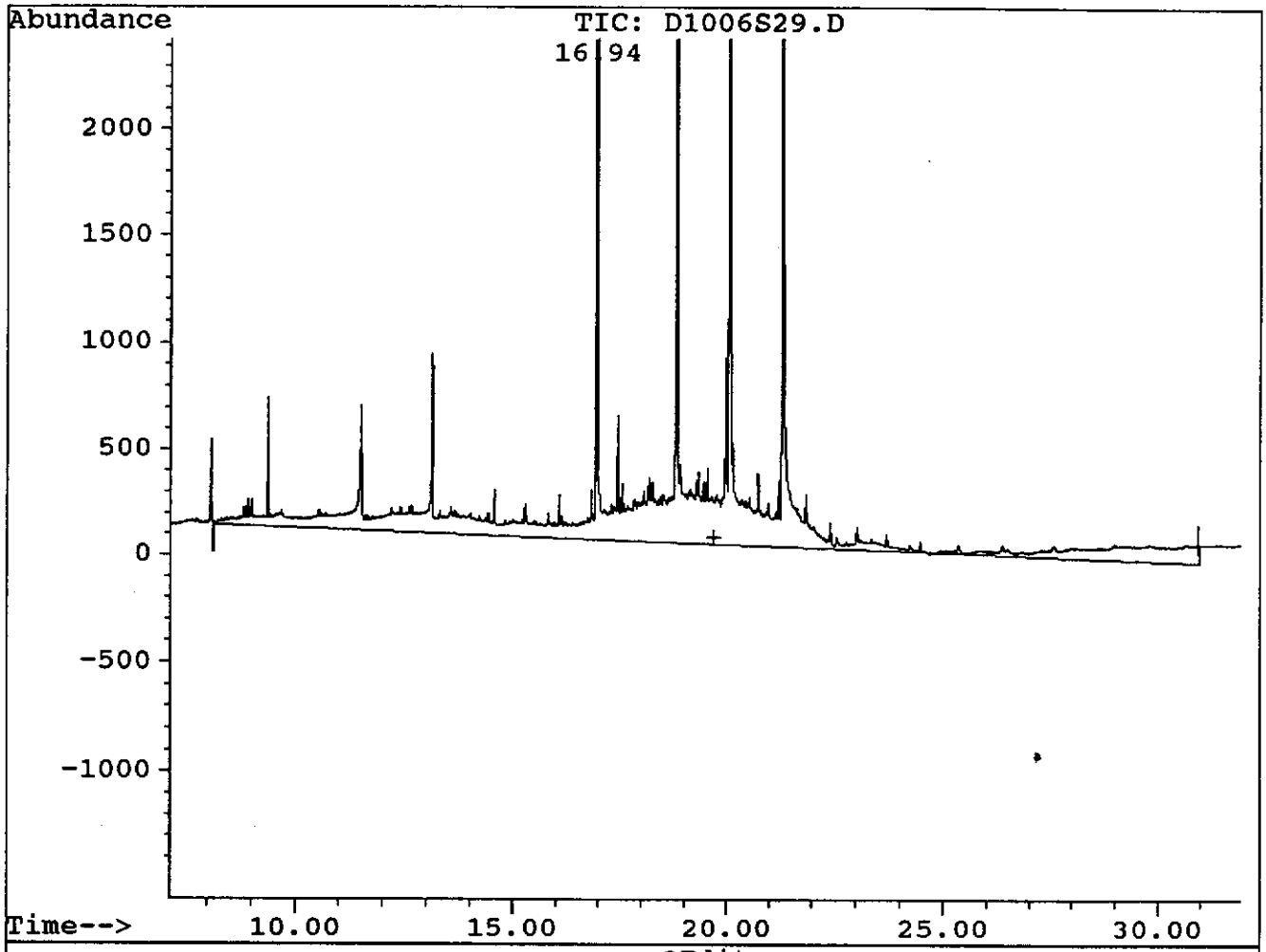

QEdit

(2) TEPH (H)
19.70min 5.93ppm m
response 193006

JLE 10-8-99

(+) = Expected Retention Time
D1006S29.D D100599.M Fri Oct 08 09:57:24 1999

Quantitation Report

Data File : C:\HPCHEM\5\DATA\1006\D1006S29.D
Acq On : 07 Oct 99 07:06 PM
Sample : 9910021-1
Misc :
Quant Time: Oct 8 9:57 1999

Vial: 29
Operator: LLELSHOF
Inst : FUELS3
Multiplr: 1.00

Method : C:\HPCHEM\5\METHODS\D100599.M
Title : Total Extractable Petroleum Hydrocarbons
Last Update : Wed Oct 06 14:22:41 1999
Response via : Multiple Level Calibration

Volume Inj. : 1uL
Signal Phase : DB-5.625
Signal Info : 0.32

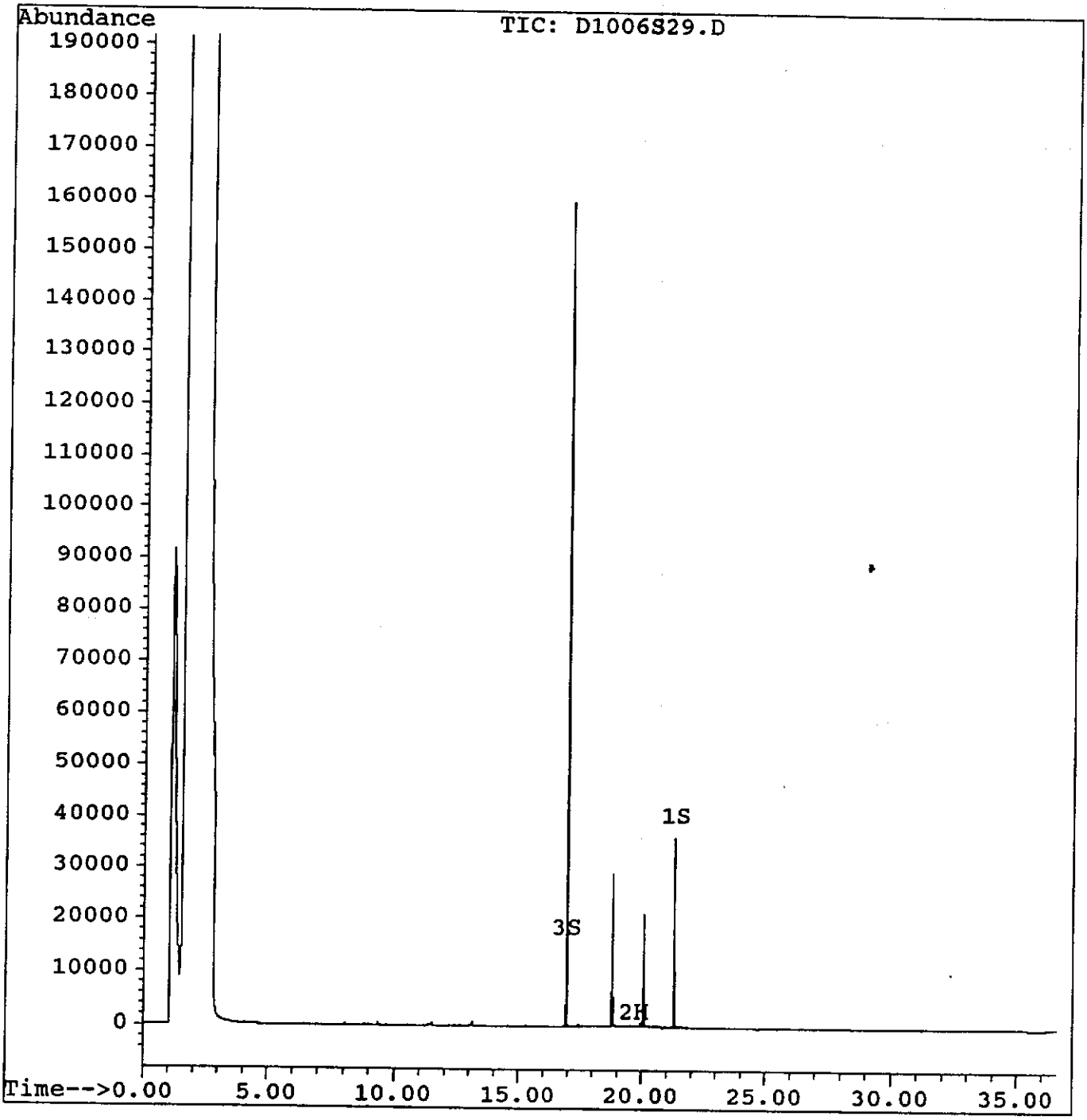

Quantitation Report

Data File : C:\HPCHEM\5\DATA\1006\D1006S30.D
Acq On : 07 Oct 99 07:55 PM
Sample : 9910021-2
Misc :
Quant Time: Oct 8 9:59 1999

Vial: 30
Operator: LLELSHOF
Inst : FUELS3
Multiplr: 1.00

Method : C:\HPCHEM\5\METHODS\D100599.M
Title : Total Extractable Petroleum Hydrocarbons
Last Update : Wed Oct 06 14:22:41 1999
Response via : Multiple Level Calibration

Volume Inj. : 1uL
Signal Phase : DB-5.625
Signal Info : 0.32

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S Hexacosane [S]	21.30	56322	29.32 ppm
	Recovery	=	117.28%
3) S O-Terphenyl [S]	16.95	248117	73.51 ppm
	Recovery	=	98.01%
Target Compounds			
2) H TEPH	19.70	211894	12.06 ppm J

C10 - C26

JLE
10-8-99

(f)=RT Delta > 1/2 Window
(m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\5\DATA\1006\D1006S30.D
Acq On : 07 Oct 99 07:55 PM
Sample : 9910021-2
Misc :
Quant Time: Oct 8 9:45 1999

Vial: 30
Operator: LLELSHOF
Inst : FUELS3
Multiplr: 1.00

Method : C:\HPCHEM\5\METHODS\D100599.M
Title : Total Extractable Petroleum Hydrocarbons
Last Update : Wed Oct 06 14:22:41 1999
Response via : Multiple Level Calibration

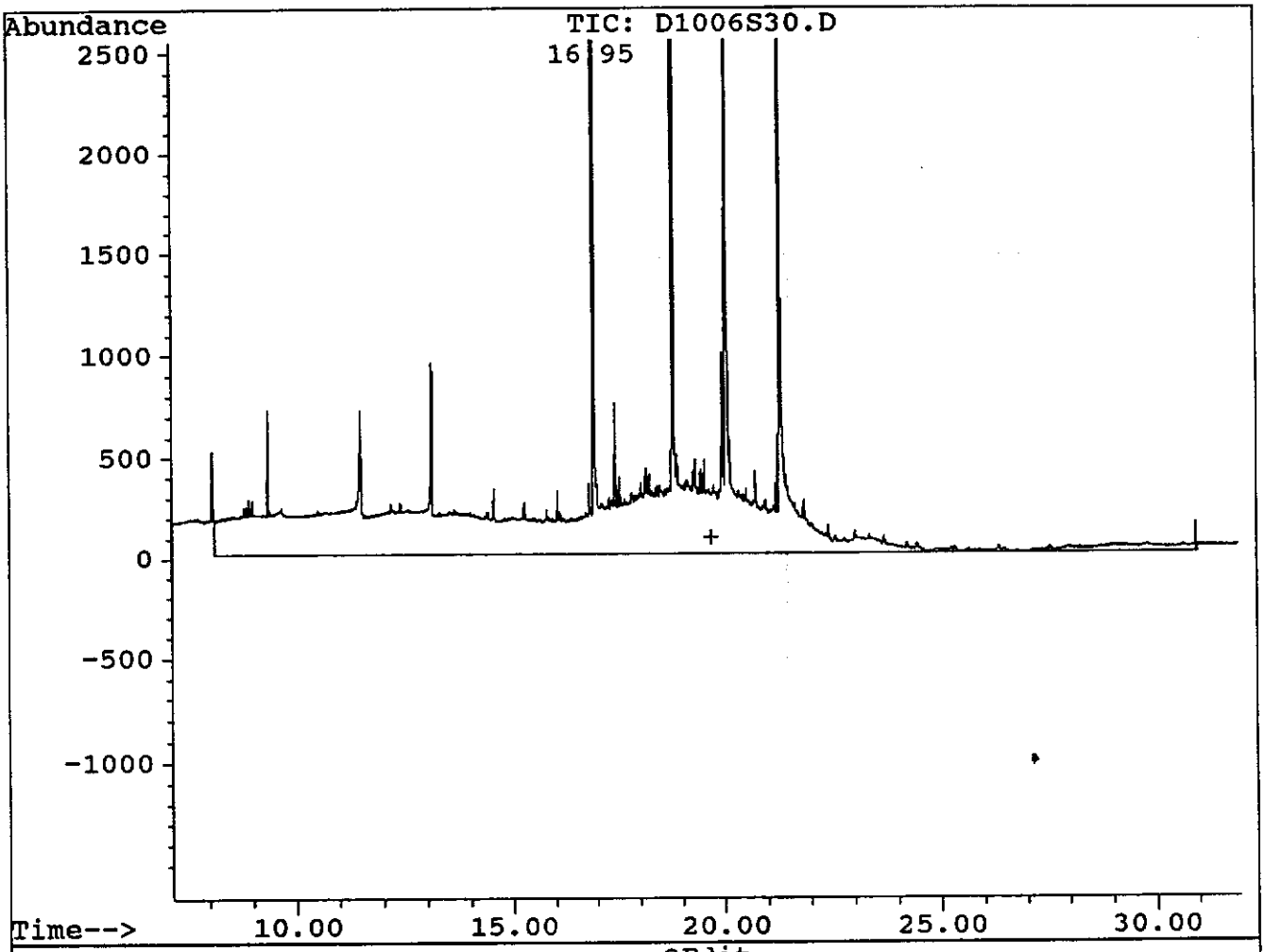

(2) TEPH (H)
19.70min 38.21ppm m
response 292434

(+) = Expected Retention Time
D1006S30.D D100599.M Fri Oct 08 09:59:30 1999

Quantitation Report

Data File : C:\HPCHEM\5\DATA\1006\D1006S30.D
Acq On : 07 Oct 99 07:55 PM
Sample : 9910021-2
Misc :
Quant Time: Oct 8 9:59 1999

Vial: 30
Operator: LLELSHOF
Inst : FUELS3
Multiplr: 1.00

Method : C:\HPCHEM\5\METHODS\D100599.M
Title : Total Extractable Petroleum Hydrocarbons
Last Update : Wed Oct 06 14:22:41 1999
Response via : Multiple Level Calibration

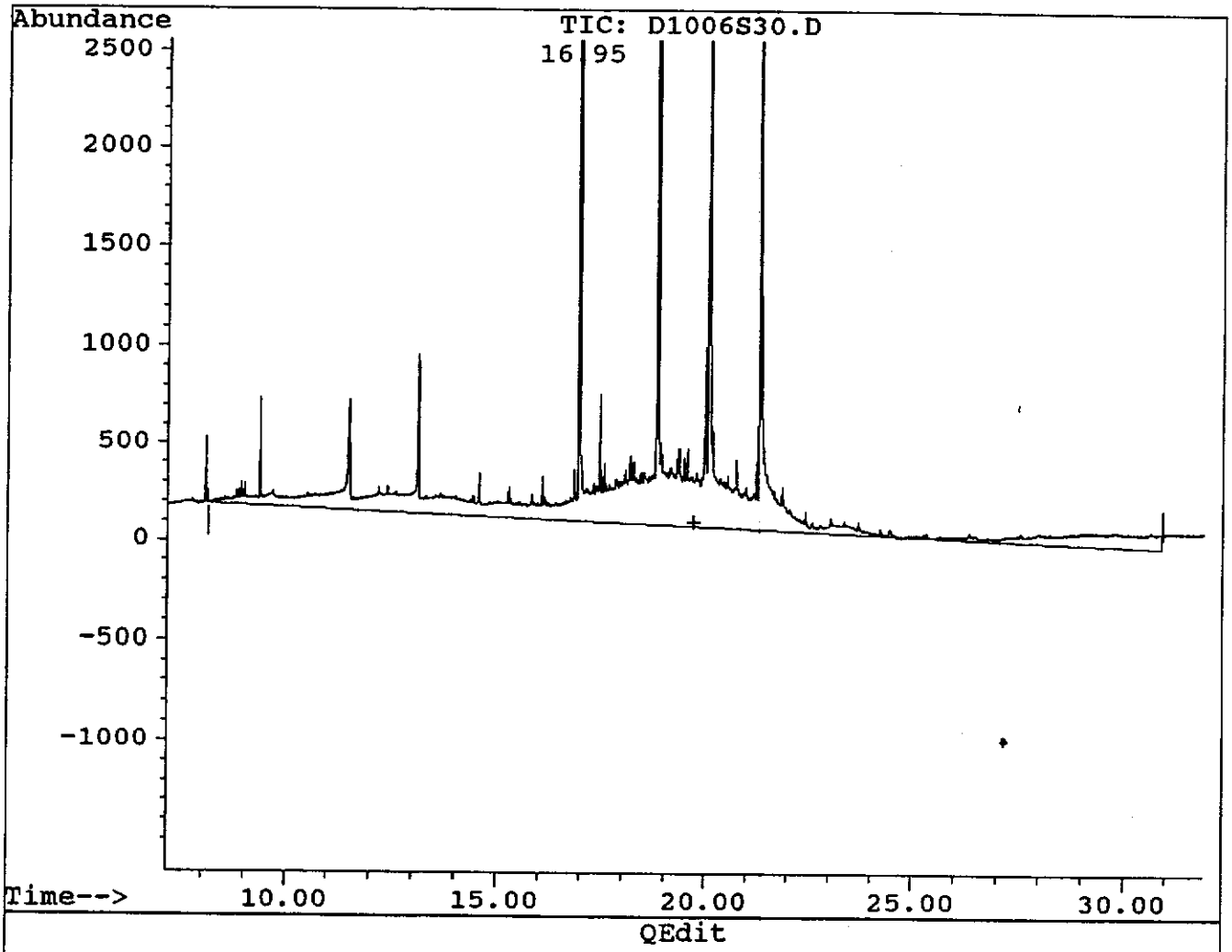

(2) TEPH (H)
19.70min 12.06ppm m
response 211894

JJE 10-8-99

(+) = Expected Retention Time
D1006S30.D D100599.M Fri Oct 08 09:59:56 1999

Quantitation Report

Data File : C:\HPCHEM\5\DATA\1006\D1006S30.D
Acq On : 07 Oct 99 07:55 PM
Sample : 9910021-2
Misc :
Quant Time: Oct 8 9:59 1999

Vial: 30
Operator: LLELSHOF
Inst : FUELS3
Multiplr: 1.00

Method : C:\HPCHEM\5\METHODS\D100599.M
Title : Total Extractable Petroleum Hydrocarbons
Last Update : Wed Oct 06 14:22:41 1999
Response via : Multiple Level Calibration

Volume Inj. : 1uL
Signal Phase : DB-5.625
Signal Info : 0.32

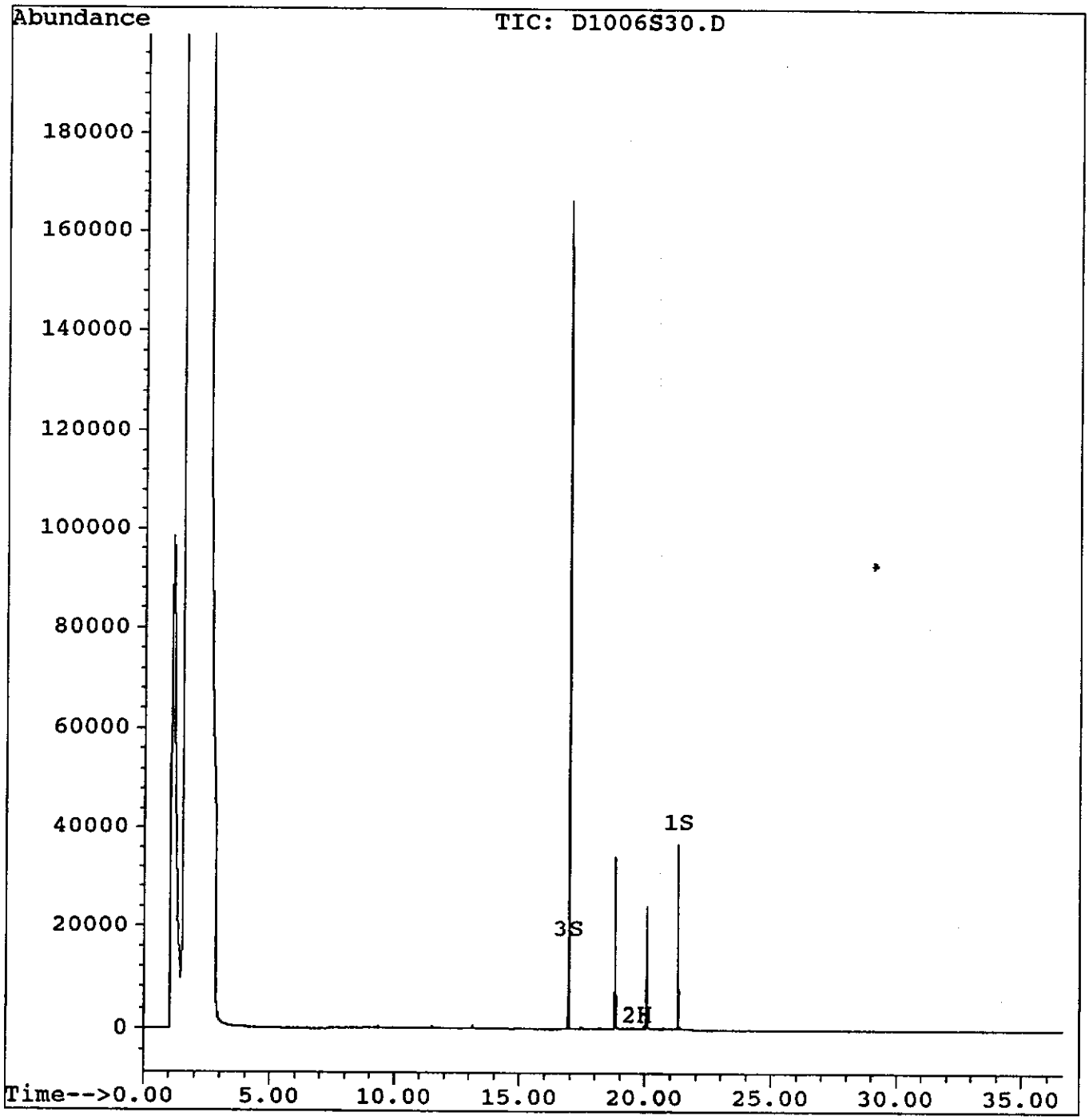

Quantitation Report

Data File : C:\HPCHEM\5\DATA\1006\D1006S31.D
Acq On : 07 Oct 99 08:44 PM
Sample : 9910021-3
Misc :
Quant Time: Oct 8 10:05 1999

Vial: 31
Operator: LLELSHOF
Inst : FUELS3
Multiplr: 1.00

Method : C:\HPCHEM\5\METHODS\D100599.M
Title : Total Extractable Petroleum Hydrocarbons
Last Update : Wed Oct 06 14:22:41 1999
Response via : Multiple Level Calibration

Volume Inj. : 1uL
Signal Phase : DB-5.625
Signal Info : 0.32

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S Hexacosane [S]	21.30	55230	28.75 ppm
	Recovery	=	115.00%
3) S O-Terphenyl [S]	16.94	241795	71.63 ppm
	Recovery	=	95.51%
Target Compounds			
2) H TEPH	19.70	205327	9.93 ppm J

C10-C24

JR 10-8-99

(f)=RT Delta > 1/2 Window
(m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\5\DATA\1006\D1006S31.D
Acq On : 07 Oct 99 08:44 PM
Sample : 9910021-3
Misc :
Quant Time: Oct 8 9:45 1999

Vial: 31
Operator: LLELSHOF
Inst : FUELS3
Multiplr: 1.00

Method : C:\HPCHEM\5\METHODS\D100599.M
Title : Total Extractable Petroleum Hydrocarbons
Last Update : Wed Oct 06 14:22:41 1999
Response via : Multiple Level Calibration

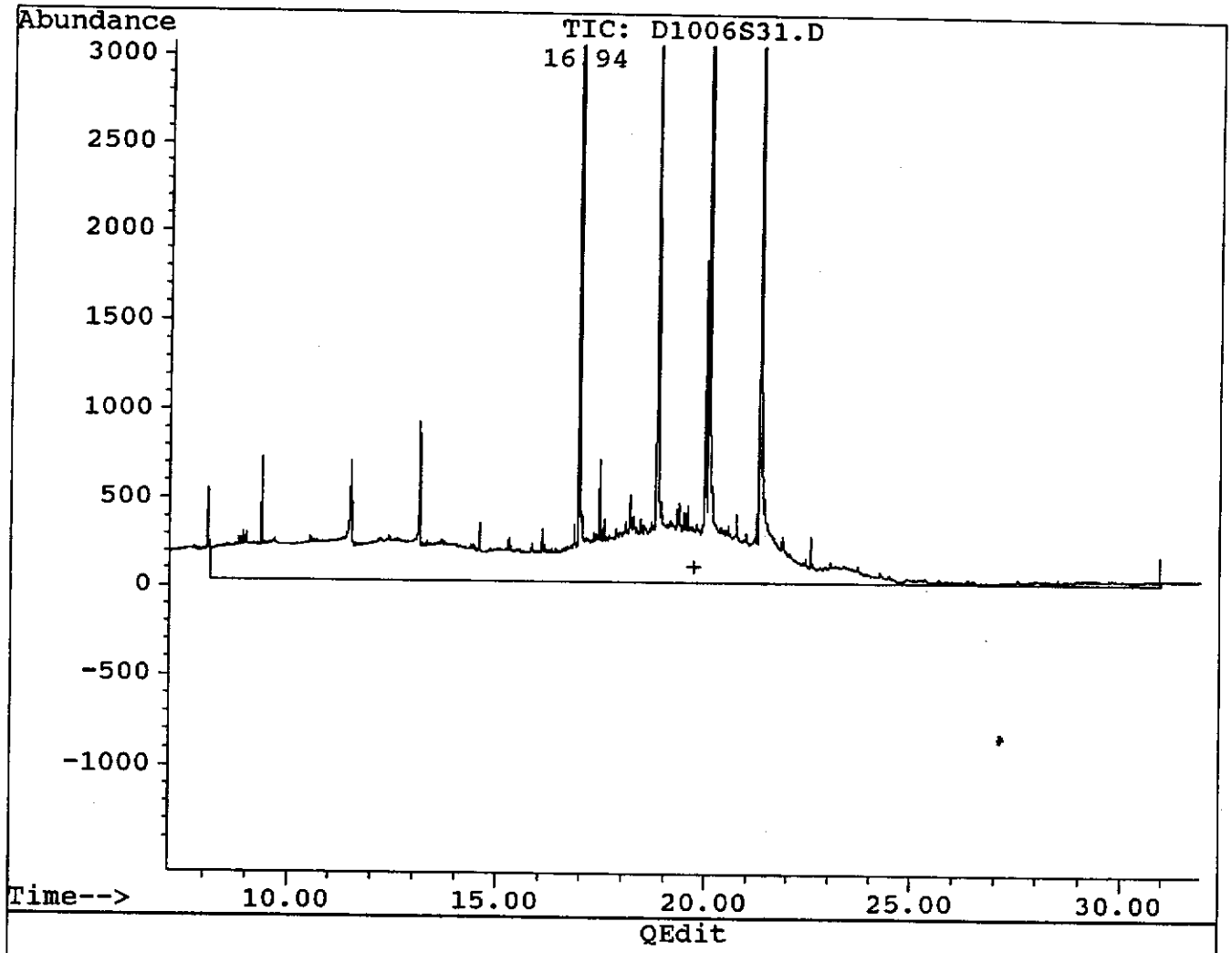

QEdit

(2) TEPH (H)
19.70min 39.23ppm m
response 295580

(+) = Expected Retention Time

D1006S31.D D100599.M Fri Oct 08 10:05:30 1999

Quantitation Report

Data File : C:\HPCHEM\5\DATA\1006\D1006S31.D
Acq On : 07 Oct 99 08:44 PM
Sample : 9910021-3
Misc :
Quant Time: Oct 8 10:05 1999

Vial: 31
Operator: LLELSHOF
Inst : FUELS3
Multiplr: 1.00

Method : C:\HPCHEM\5\METHODS\D100599.M
Title : Total Extractable Petroleum Hydrocarbons
Last Update : Wed Oct 06 14:22:41 1999
Response via : Multiple Level Calibration

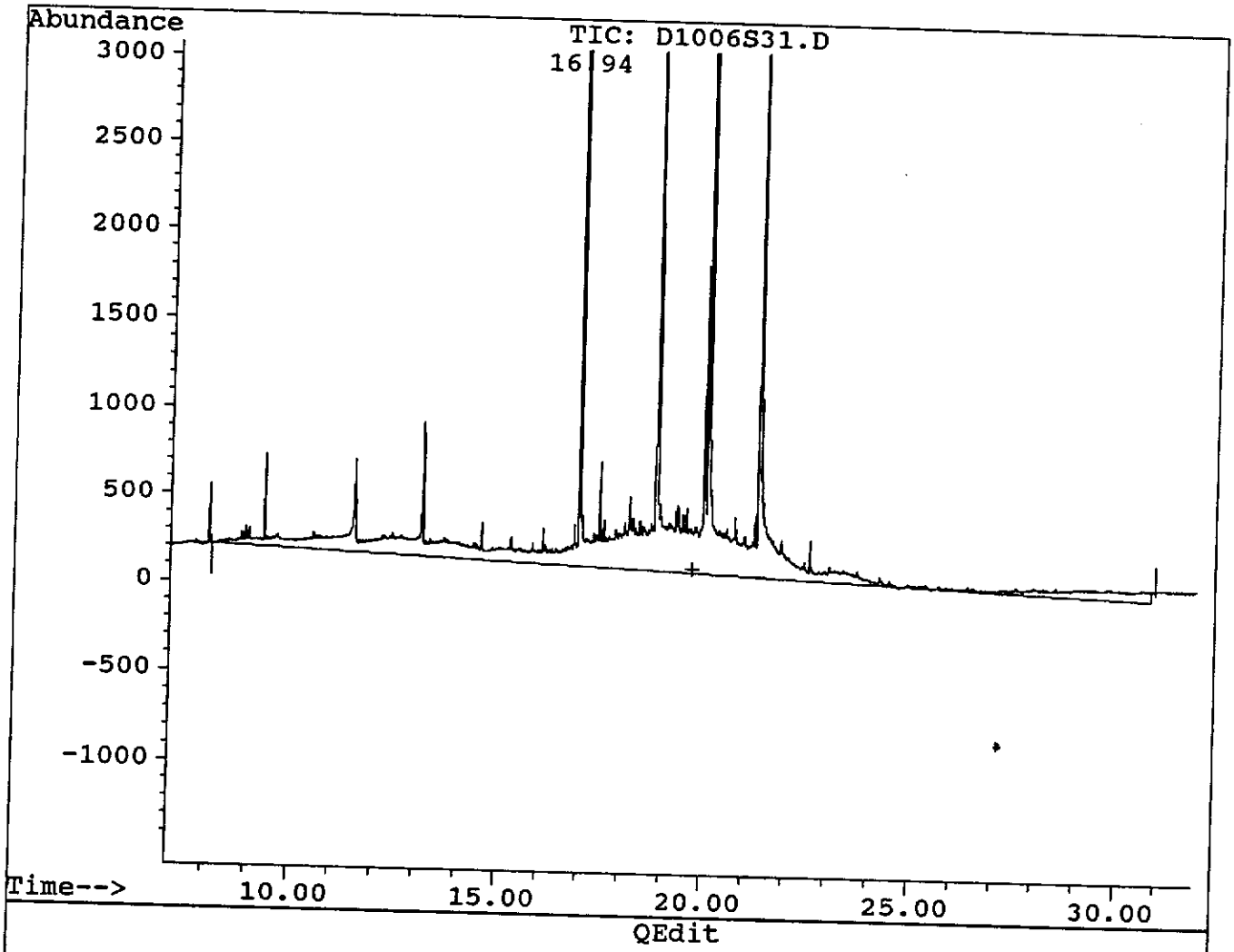

(2) TEPH (H)
19.70min 9.93ppm m
response 205327

JJE
10-8-99

(+) = Expected Retention Time
D1006S31.D D100599.M Fri Oct 08 10:05:53 1999

Quantitation Report

Data File : C:\HPCHEM\5\DATA\1006\D1006S31.D
Acq On : 07 Oct 99 08:44 PM
Sample : 9910021-3
Misc :
Quant Time: Oct 8 10:05 1999

Vial: 31
Operator: LLELSHOF
Inst : FUELS3
Multiplr: 1.00

Method : C:\HPCHEM\5\METHODS\D100599.M
Title : Total Extractable Petroleum Hydrocarbons
Last Update : Wed Oct 06 14:22:41 1999
Response via : Multiple Level Calibration

Volume Inj. : 1uL
Signal Phase : DB-5.625
Signal Info : 0.32

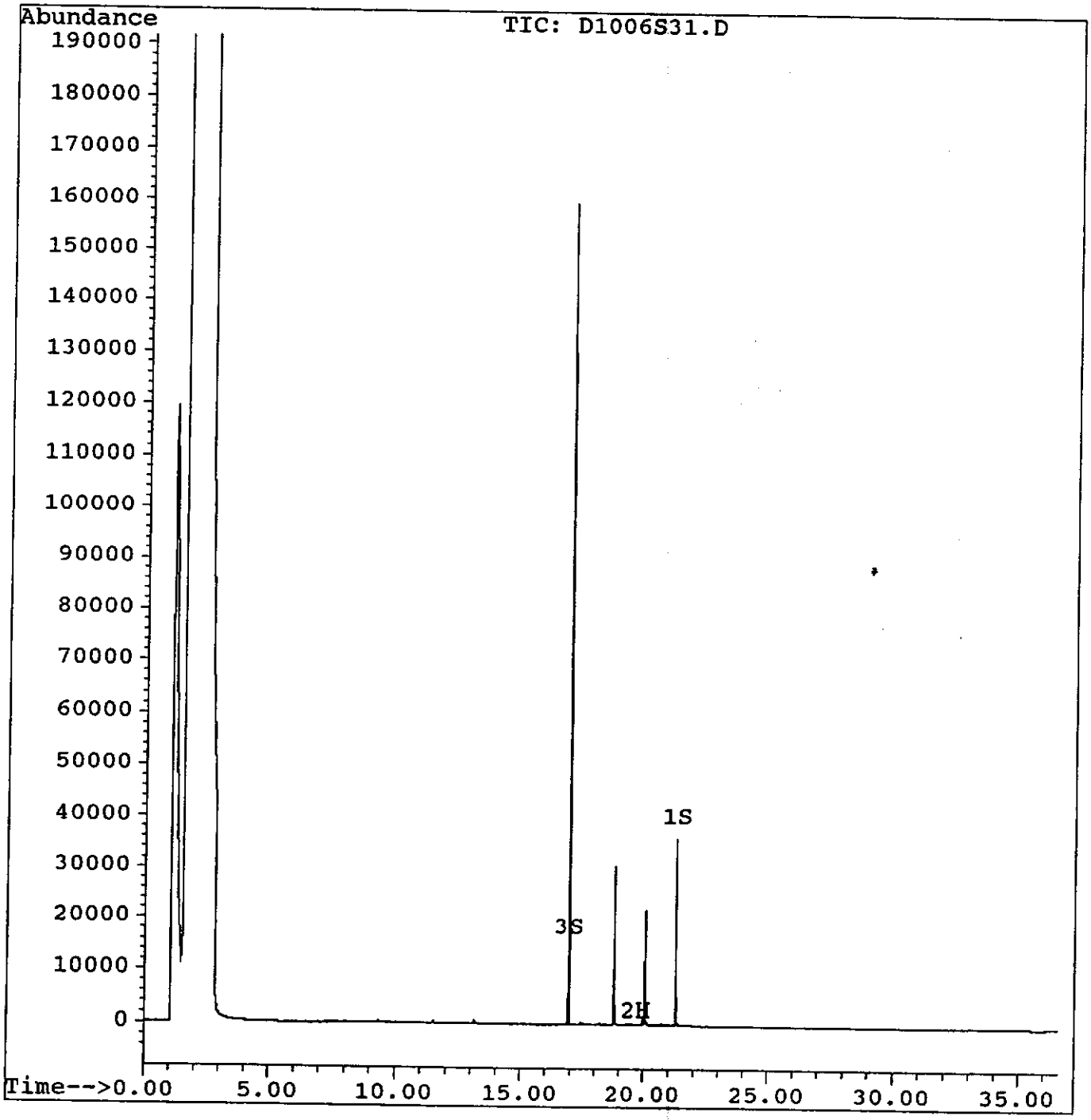

Raw Data Quality Control Samples

Quantitation Report

Data File : C:\HPCHEM\5\DATA\1006\D1006S27.D
Acq On : 07 Oct 99 05:28 PM
Sample : EX991007-2LCS
Misc :
Quant Time: Oct 8 9:44 1999

Vial: 27
Operator: LLELSHOF
Inst : FUELS3
Multiplr: 1.00

Method : C:\HPCHEM\5\METHODS\D100599.M
Title : Total Extractable Petroleum Hydrocarbons
Last Update : Wed Oct 06 14:22:41 1999
Response via : Multiple Level Calibration

Volume Inj. : 1uL
Signal Phase : DB-5.625
Signal Info : 0.32

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S Hexacosane [S]	21.30	59663	31.05 ppm
	Recovery	=	124.20%
3) S O-Terphenyl [S]	16.94	225763	66.87 ppm
	Recovery	=	89.16%
Target Compounds			
2) H TEPH	19.70	808394	205.70 ppm

LLE
10-8-99

(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\5\DATA\1006\D1006S27.D
Acq On : 07 Oct 99 05:28 PM
Sample : EX991007-2LCS
Misc :
Quant Time: Oct 8 9:44 1999

Vial: 27
Operator: LLELSHOF
Inst : FUELS3
Multiplr: 1.00

Method : C:\HPCHEM\5\METHODS\D100599.M
Title : Total Extractable Petroleum Hydrocarbons
Last Update : Wed Oct 06 14:22:41 1999
Response via : Multiple Level Calibration

Volume Inj. : 1uL
Signal Phase : DB-5.625
Signal Info : 0.32

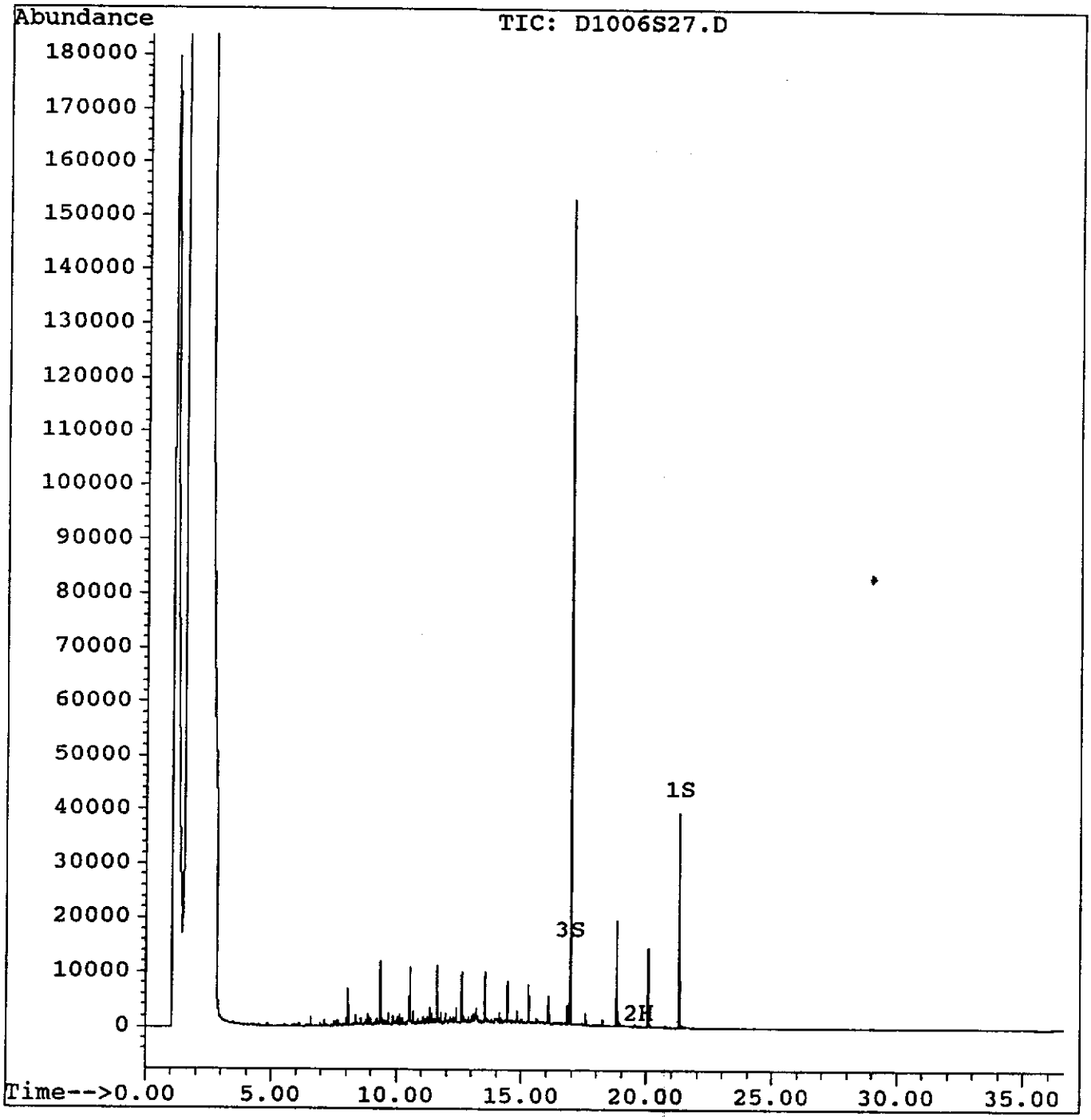

Quantitation Report

Data File : C:\HPCHEM\5\DATA\1006\D1006S28.D
Acq On : 07 Oct 99 06:17 PM
Sample : EX991007-2LCSD
Misc :
Quant Time: Oct 8 9:44 1999

Vial: 28
Operator: LLELSHOF
Inst : FUELS3
Multiplr: 1.00

Method : C:\HPCHEM\5\METHODS\D100599.M
Title : Total Extractable Petroleum Hydrocarbons
Last Update : Wed Oct 06 14:22:41 1999
Response via : Multiple Level Calibration

Volume Inj. : 1uL
Signal Phase : DB-5.625
Signal Info : 0.32

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S Hexacosane [S]	21.30	60558	31.52 ppm
	Recovery	=	126.08%
3) S O-Terphenyl [S]	16.94	226472	67.08 ppm
	Recovery	=	89.44%
Target Compounds			
2) H TEPH	19.70	820487	209.62 ppm

JJE
10-8-99

(f)=RT Delta > 1/2 Window
(m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\5\DATA\1006\D1006S28.D
Acq On : 07 Oct 99 06:17 PM
Sample : EX991007-2LCSD
Misc :
Quant Time: Oct 8 9:44 1999

Vial: 28
Operator: LLELSHOF
Inst : FUELS3
Multiplr: 1.00

Method : C:\HPCHEM\5\METHODS\D100599.M
Title : Total Extractable Petroleum Hydrocarbons
Last Update : Wed Oct 06 14:22:41 1999
Response via : Multiple Level Calibration

Volume Inj. : 1uL
Signal Phase : DB-5.625
Signal Info : 0.32

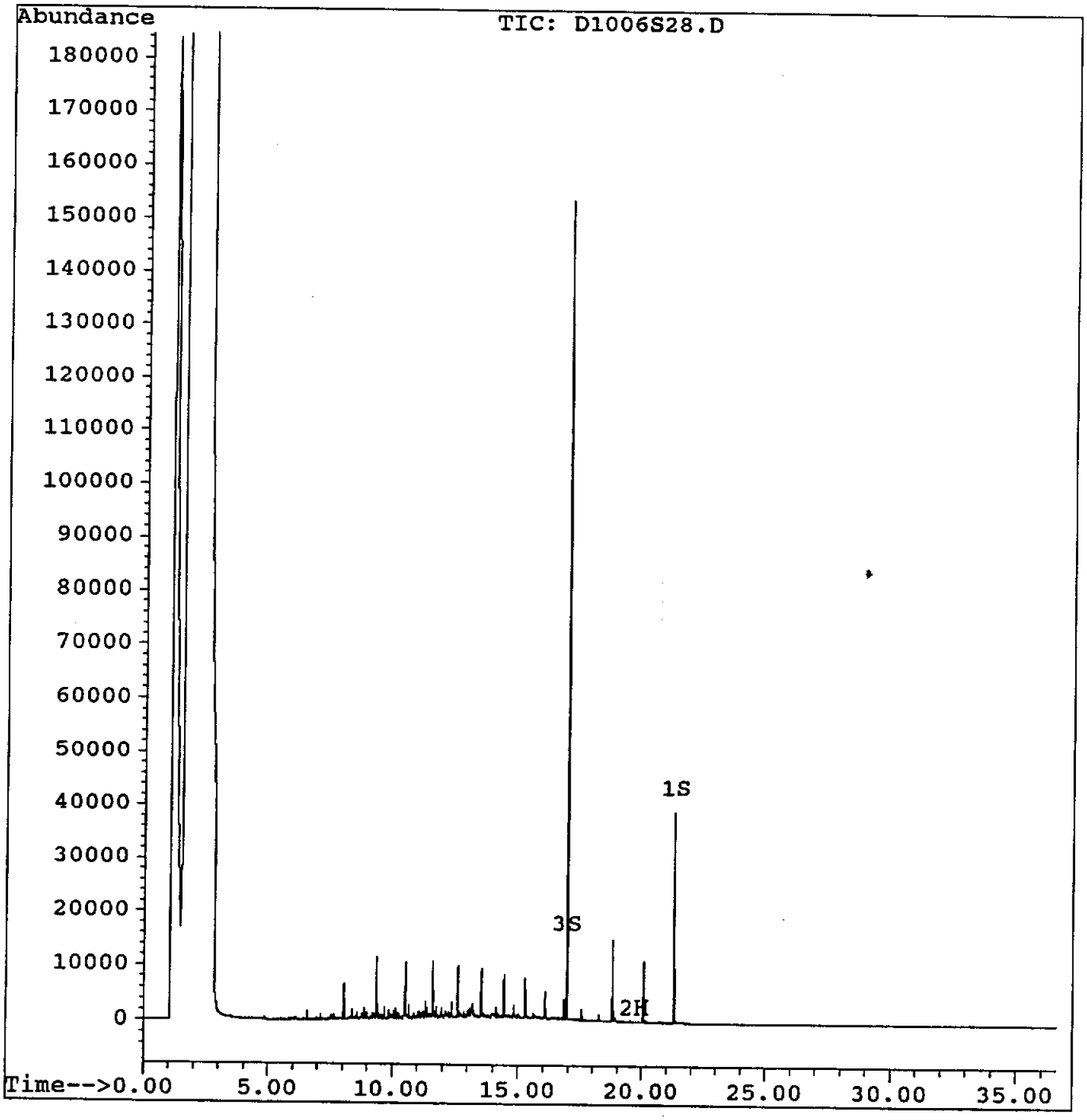

Miscellaneous

1 4603

Diesel Range Organics — Extraction Benchsheet

Paragon Analytics, Inc.

Method: 8015M **Other** **Matrix:** Water Soil Other **SOP** _____ **Rev** ___ **Set Up Date / Initials** 10/7/99

Work Orders 9910021, 9910033 **Batch** EX991007-2 **Surrogate Code A** 1091-79-01 **Spike Code A** 1091-72-04

SAMPLE								EXTRACT		
Sample No.	Amount (ml / g)	Surr Vol (mL)	Surr Wt Initials	Spike Vol (mL)	Spike Wt Initials	Extract Solvent	Solvent Vol (mL)	Final Vol (mL)	Vial Date / Initials	Comments
MB	20g	1ml	HL	1ml		Hexane		5mL	10/7/99	
9910021-1										
-2										
-3										
9910033-1										
-2										
-3										
-4										
-5										
-6										
-7										
-8										
-5MS				2ml	HL		1ml			
-5MSD										
LCS										
LCSD	✓	✓	✓	✓	✓	✓	✓	✓	✓	

MeOH Solvent Lot BV563 **80% MeOH / 20% Water Prep Date** 9-3-99 **Hexane Solvent Lot** HX2298 **Reviewed By / Date** HL 10-7-99

184604

Form 602fc4.frm (08/31/99)

Percent Moisture

Method SOP642

Lab Name: Paragon Analytics, Inc.

Date Extracted: 08-Oct-99
Date Analyzed: 08-Oct-99
Analyst: Heath Linville

Validated By: hgl
Validation Date: 08-Oct-99
Validation Time: 10:10 AM

Run ID	Prep Batch ID	QC Batch ID	Lab ID	QC Type	Dish Wt	Wet Wt	Dry Wt	Dish Wt-Dry Wt	Percent Moisture	Percent Solids
EX991007-5A	EX991007-5	EX991007-5-1	9910021-1	DUP	1.29	11.39	10.95	9.7	15.2	84.8
EX991007-5A	EX991007-5	EX991007-5-1	9910021-1	SMP	1.29	13.87	12.98	11.7	15.7	84.3
EX991007-5A	EX991007-5	EX991007-5-1	9910021-2	SMP	1.29	12.81	11.9	10.6	17.2	82.8
EX991007-5A	EX991007-5	EX991007-5-1	9910021-3	SMP	1.3	11.91	11.22	9.9	16.7	83.3

QC Types

DUP	Laboratory Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MB	Method Blank
MS	Laboratory Matrix Spike
MSD	Laboratory Matrix Spike Duplicate
SMP	Field Sample

Comments:

DUP = Sample Duplicate
Wet Wt = Sample Wet Wt - Dish Wt
Dry Wt = Sample Dry Wt + Dish Wt
Dish Wt - Dry Wt = Sample Dry Wt - Dish Wt
All weight values shown above are expressed in grams.

Wednesday, July 21, 1999

Los Alamos
NATIONAL LABORATORY

AMENDED

REQUEST NUMBER: 5825R
ANALYSIS TYPE: INORG

ATTN: Maren Beery
KEMRON
109 STARLITE PARK
MARIETTA, OH 45750

Please analyze the enclosed samples according to the schedule indicated:

SHIP DATE: 7/21/99
REPORT DUE: 8/22/99
TURN AROUND REQ'D: 30 days

These samples are on:

LANL Request Number: 5825R
Per Agreement Number: 7797L0014-9S
Project Cost Code: MR3R3M041045

RAD SCREENING: Yes, Received

COMMENTS: 03 - 1114 , GA; AMENDED: SEE ATTACHED MEMO FOR CORRECTION ON SAMPLE ID # JV 7/21/99.

LANL ER SMO CONTACT: Joylene Valdez MS H865 5056659968
Signature: Joylene Valdez

ANALYSIS ORDER CODE	ANALYTE(S)	SAMPLE ID	CONT ID	SAMPLE MATRIX	DATE SAMPLED	COMMENTS
METTAL		RE03-99-2000	01	S	7/17/99	
METTAL		RE03-99-2001	01	S	7/17/99	
METTAL		RE03-99-2002	01	S	7/17/99	
METTAL		RE03-99-2003	01	S	7/17/99	
METTAL		RE03-99-2004	01	S	7/17/99	
METTAL		RE03-99-2005	01	S	7/17/99	
METTAL		RE03-99-2006	01	S	7/17/99	
METTAL		RE03-99-2007	01	S	7/17/99	

To: Joylene Valdez

TA-3-36 Gas Station
Sample ID Crosswalk

Original ID#	ER ID#
36-SSW1	RE03-99-2000
36-SSW2	RE03-99-2001
36-NSW1	RE03-99-2002
36-NSW2	RE03-99-2003
36-SFD1	RE03-99-2004
36-SFD2	RE03-99-2005
36-SSE1	RE03-99-2006
36-NSE1	RE03-99-2007

(Also sent via e-mail.)

X-Mailer: Novell GroupWise 4.1
Date: Wed, 21 Jul 1999 09:21:56 -0400
From: Jeffrey Linn <jlinn@gtsduratek.com>
To: jvaldez@eds.lanl.gov
Subject: TA-3 Sample Crosswalk table

Joylene,
Please see table below. Sorry for the confusion. We'll get it right next time.

TA-3-36 Gas Station
Sample ID Crosswalk

Original ID#	ER ID#
36-SSW1	RE03-99-2000
36-SSW2	RE03-99-2001
36-NSW1	RE03-99-2002
36-NSW2	RE03-99-2003
36-SFD1	RE03-99-2004
36-SFD2	RE03-99-2005
36-SSE1	RE03-99-2006
36-NSE1	RE03-99-2007

Jeff Linn
(505) 661-6621
(505) 661-2541 fax
(888) 542-2068 pager
jlinn@gtsduratek.com

!

!

Tuesday, July 20, 1999

REQUEST NUMBER: 5825R

ANALYSIS TYPE: INORG

Los Alamos
NATIONAL LABORATORY

ATTN: Maren Beery
KEMRON
109 STARLITE PARK
MARIETTA, OH 45750

Please analyze the enclosed samples according to the schedule indicated:

These samples are on:

SHIP DATE: 7/19/99
REPORT DUE: 8/21/99
TURN AROUND REQ'D: 30 days

LANL Request Number: 5825R
Per Agreement Number: 7797L0014-9S
Project Cost Code: CG9K00000000

RAD SCREENING: Not Required

COMMENTS: 03 - 6666 , JL;

LANL ER SMO CONTACT: Joylene Valdez MS H865 5056659968

Signature: Joylene Valdez

ANALYSIS ORDER CODE	ANALYTE(S)	SAMPLE ID	CONT ID	SAMPLE MATRIX	DATE SAMPLED	COMMENTS
METTAL		36NSE1	07	S	7/17/99	
METTAL		36NSW1	07	S	7/17/99	
METTAL		36NSW2	07	S	7/17/99	
METTAL		36SFD1	07	S	7/17/99	
METTAL		36SFD2	07	S	7/17/99	
METTAL		36SSE1	07	S	7/17/99	
METTAL		36SSW1	07	S	7/17/99	
METTAL		36SSW2	07	S	7/17/99	

Tuesday, July 20, 1999

Los Alamos
NATIONAL LABORATORY

CHAIN OF CUSTODY DOCUMENT NUMBER: 5825RC

REQUEST NUMBER: 5825R
ANALYSIS TYPE: INORG

ATTN: Maren Beery
KEMRON
109 STARLITE PARK
MARIETTA, OH 45750

SAMPLE ID	CONT ID	CONTAINER DESCRIPTION	ANALYSIS ORDER CODE	PRESERVATIVE	MATRIX
36NSE1	07	125 ml poly	METTAL	NONE	S
36NSW1	07	125 ml Poly	METTAL	NONE	S
36NSW2	07	125 ml poly	METTAL	NONE	S
36SFD1	07	125 ml poly	METTAL	NONE	S
36SFD2	07	125 ml poly	METTAL	NONE	S
36SSE1	07	125 ml poly	METTAL	NONE	S
36SSW1	07	125 ml poly	METTAL	NONE	S
36SSW2	07	125 ml poly	METTAL	NONE	S

Final Page of CHAIN OF CUSTODY DOCUMENT FOR REQUEST NUMBER 5825R

Relinquished By: **Date** **Time**

PRINTED NAME SIGNATURE 7/20/99 1300

PRINTED NAME SIGNATURE

PRINTED NAME SIGNATURE

Received By: **Date** **Time**

PRINTED NAME SIGNATURE

PRINTED NAME SIGNATURE

PRINTED NAME SIGNATURE

Received for DISPOSAL By: **Date** **Time**

PRINTED NAME SIGNATURE

Remarks:

AMERICAN RADIATION SERVICES OF NEW MEXICO

1903 Central Ave. • Los Alamos, New Mexico 87544

(505) 663-0363 • Fax (505) 663-0365

ARSNM Tracking Number:	ARSNM-99-0034	**COC Number:**	0-NONE
Client I.D.:	TA-3-36NSE1	**ARSNM Sample I.D.:**	ARSNM-99-0215
Date Sampled:	7/19/99	**Date Received:**	7/19/99
Time Sampled:	1515	**Time Received:**	1515
Type of Sample:	solid	**Date of Report:**	7/20/99
Contact Person:	Jeff Linn	**Charge Code:**	7002-500

Analysis Description	Analysis Result	Analysis Error ±2 Sigma	Detection Limit	Analysis Units	Analysis Test Method	Analysis Date & Time	Analysis Technician
Gross Alpha	16.69	7.81	9.69	pCi/gm	EPA 900M	7/19/99 2032	wm
Gross Beta	38.29	10.71	19.24	pCi/gm	EPA 900M	7/19/99 2032	wm
Gros Gamma	BDL	N/A	13.97	pCi/gm	EPA 900M	7/19/99 1650	wm

Notes: none

Waylan Metts

Cost Per Sample: 127.28

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the performed analysis itself. Reproduction of this report in less than full requires the written consent of the client.

CG9M 0000 0000

30 day

CHAIN OF CUSTODY

DATE 7/19/99 PAGE 1 OF 1

REPORT TO: GTS DuratekPHONE NUMBER: 661-6621 FAX NUMBER: 661-2541

COMPANY: Los Alamos National Laboratory

ADDRESS: MS M769, P.O. Box 1663, Los Alamos, NM 87545

SAMPLER: Jeff Linn

ANALYSIS REQUESTED

SAMPLE ID	DATE	TIME	MATRIX	8015 Mod - Diesel TPH	8015 Mod - Gasoline TPH	8015/8020 - Gasoline/BTEX	8020 - BTEX	8260 - VOCS	8270 - SVOC's	8081 - PCB	8081 - Pest./PCB	Total Metals	TCLP	Gross Alpha/Beta	Gamma Spec	Iso. Pu	Iso. U	Iso. Am	Iso. Th	Tritium	Sr - 90	% Moisture	Asbestos	Numbers of Containers
TA-3-36 NSE1	7/17/99	2:50pm	SOIL	1	1			4		1		1												7
TA-3-36 NSW1	7/17/99	1:15pm	SOIL	1	1			4		1		1												7
TA-3-36 NSW2	7/17/99	1:30pm	SOIL	1	1			4		1		1												7
TA-3-36 SFD1	7/17/99	2:00pm	SOIL	1	1			4		1		1												7
TA-3-36 SFD2	7/17/99	2:05pm	SOIL	1	1			4		1		1												7
TA-3-36 SSE1	7/17/99	2:35pm	SOIL	1	1			4		1		1												7
TA-3-36 SSW1	7/17/99	12:45pm	SOIL	1	1			4		1		1												7
TA-3-36 SSW2	7/17/99	12:56pm	SOIL	1	1			4		1		1												7

PROJECT ID: TA-3-36 Gas Station

TAT: Standard RAD: Yes ___ No X

OTHER HAZARDS: None

SAMPLE DISPOSAL: By Lab ___ Return ___

COMMENTS: Note that 8015: Diesel/Gas use same container

RELINQUISHED BY: 1	RELINQUISHED BY: 2	RELINQUISHED BY: 3
Sign. Time 11:28	Sign. Time 11:28	Sign. Time
Print Jeff Linn Date 7/19/99	Print Date 7-19-99	Print Date
Company GTS Duratek	Company SMC	Company

RELINQUISHED BY: 1	RELINQUISHED BY: 2	RELINQUISHED BY: 3
Sign. Time	Sign. Time	Sign. Time
Print Date	Print Date	Print Date
Company	Company	Company

Los Alamos National Laboratory Environmental Restoration (Los Alamos, NM 87545)

CHAIN OF CUSTODY/REQUEST FOR ANALYSIS

Technical Area C3 Operable Unit 1114	Send Lab Report to Gabriela Escobeda-L M992	Field Unit Leader Gabriela Escobeda-L (505)665-7352
Date OU Contact Gabriela Escobeda-L Contact Phone No (505) 665-7352	LANL Destination SMO LANL Contact Stephanie Hagelberg LANL Mail Stop	Turnaround 30 days Lab Report Required Charge Code RMR3R3M041045

Relinquished by: Jeff Linn (Signature): Affiliation: GTS Duratek	Date:	Relinquished by: (Signature): Affiliation:	Date:	Relinquished by: (Signature): Affiliation:	Date:
Received by: (Signature): Affiliation:	Time:	Received by: (Signature): Affiliation:	Time:	Received by: (Signature): Affiliation:	Time:

POSSIBLE HAZARD IDENTIFICATION: (please indicate if sample(s) are hazardous materials and/or suspected to contain high levels of hazardous substances): Radiological___ Highly Toxic___ Flammable___ Skin Irritant___ Non-Hazard___ Other___

SCREENING METHOD: Rad Van

SAMPLE DISPOSAL: Disposal by Lab

Comments:

Field Unique Sample #/ID	Cont ID	Date & Time Collected	Sample Container Volume/Material	Matrix	Preserv	ANALYSIS REQUESTED: (SMO Order Codes)	REMARKS (Conditions of receipt, etc.)
RE03-99-2000	05		5 gm Encore Container-A	Soil	Ice	VOCECORE	
RE03-99-2000	03		250 ml Amber Glass	Soil	Ice	TPH	
RE03-99-2000	02		125 ml Glass	Soil	None	PCB	
RE03-99-2000	01		125 ml Polyethylene	Soil	Ice	METTAL	
RE03-99-2001	07		5 gm Encore Container-C	Soil	Ice	VOCECORE	
RE03-99-2001	06		5 gm Encore Container-E	Soil	Ice	VOCECORE	
RE03-99-2001	01		125 ml Polyethylene	Soil	Ice	METTAL	
RE03-99-2001	02		125 ml Glass	Soil	None	PCB	
RE03-99-2000	06		5 gm Encore Containerer-E	Soil	Ice	VOCECORE	
RE03-99-2000	07		5 gm Encore Container-C	Soil	Ice	VOCECORE	
RE03-99-2001	03		250 ml Amber Glass	Soil	Ice	TPH	
RE03-99-2001	05		5 gm Encore Container-A	Soil	Ice	VOCECORE	

Original - LANL Destination Yellow - RPF Pink - FTL Copy

SENT BY: 7-21-99 ;12:51PM ; E-PPC→ 86659972;# 3/ 5

Los Alamos National Laboratory Environmental Restoration (Los Alamos, NM 87545)
CHAIN OF CUSTODY/REQUEST FOR ANALYSIS

Technical Area 03
Operable Unit 1114
Send Lab Report to Gabriela Escobeda-L M992
Field Unit Leader Gabriela Escobeda-L (505)665-7352

Date
OU Contact Gabriela Escobeda-L
Contact Phone No (505) 665-7352
LANL Destination SMO
LANL Contact Stephanie Hagelberg
LANL Mail Stop
Turnaround 30 days
Lab Report Required
Charge Code RMR3R3M041045

Field Unique Sample #/ID	Cont ID	Date & Time Collected	Sample Container Volume/Material	Matrix	Preserv	ANALYSIS REQUESTED: (SMO Order Codes)	REMARKS (Conditions of receipt, etc.)
RE03-99-2000	04		125 mL Polyethylene	Soil	Ice	VOCECORE	
RE03-99-2001	04		125 mL Polyethylene	Soil	Ice	VOCECORE	
RE03-99-2002	05		5 gm Encore Container-/	Soil	Ice	VOCECORE	
RE03-99-2002	03		250 ml Amber Glass	Soil	Ice	TPH	
RE03-99-2002	02		125 ml Glass	Soil	None	PCB	
RE03-99-2002	01		125 ml Polyethylene	Soil	Ice	METTAL	
RE03-99-2002	06		5 gm Encore Container-E	Soil	Ice	VOCECORE	
RE03-99-2002	07		5 gm Encore Container-C	Soil	Ice	VOCECORE	
RE03-99-2002	04		125 mL Polyethylene	Soil	Ice	VOCECORE	
RE03-99-2003	05		5 gm Encore Container-/	Soil	Ice	VOCECORE	
RE03-99-2003	03		250 ml Amber Glass	Soil	Ice	TPH	
RE03-99-2003	02		125 ml Glass	Soil	None	PCB	
RE03-99-2003	01		125 ml Polyethylene	Soil	Ice	METTAL	
RE03-99-2003	06		5 gm Encore Container-E	Soil	Ice	VOCECORE	
RE03-99-2003	07		5 gm Encore Container-C	Soil	Ice	VOCECORE	
RE03-99-2003	04		125 mL Polyethylene	Soil	Ice	VOCECORE	
RE03-99-2004	05		5 gm Encore Container-/	Soil	Ice	VOCECORE	
RE03-99-2004	03		250 ml Amber Glass	Soil	Ice	TPH	
RE03-99-2004	02		125 ml Glass	Soil	None	PCB	
RE03-99-2004	01		125 ml Polyethylene	Soil	Ice	METTAL	
RE03-99-2004	06		5 gm Encore Container-E	Soil	Ice	VOCECORE	
RE03-99-2004	07		5 gm Encore Container-C	Soil	Ice	VOCECORE	
RE03-99-2004	04		125 mL Polyethylene	Soil	Ice	VOCECORE	
RE03-99-2005	05		5 gm Encore Container-/	Soil	Ice	VOCECORE	
RE03-99-2005	03		250 ml Amber Glass	Soil	Ice	TPH	

Original - LANL Destination Yellow - RPF Pink - FTL Copy

SENT BY: 7-21-99 ;12:52PM ; E-PPC→ 86659972;# 4/ 5

Los Alamos National Laboratory Environmental Restoration (Los Alamos, NM 87545)

CHAIN OF CUSTODY/REQUEST FOR ANALYSIS

Technical Area 03	Send Lab Report to Gabriela Escobeda-L	Field Unit Leader Gabriela Escobeda-L
Operable Unit 1114	M992	(505)665-7352
Date	LANL Destination SMO	Turnaround 30 days
OU Contact Gabriela Escobeda-L	LANL Contact Stephanie Hagelberg	Lab Report Required
Contact Phone No (505) 665-7352	LANL Mail Stop	Charge Code RMR3R3M041045

Field Unique Sample #/ID	Cont ID	Date & Time Collected	Sample Container Volume/Material	Matrix	Preserv	ANALYSIS REQUESTED: (SMO Order Codes)	REMARKS (Conditions of receipt, etc.)
RE03-99-2005	02		125 ml Glass	Soil	None	PCB	
RE03-99-2005	01		125 ml Polyethylene	Soil	Ice	METTAL	
RE03-99-2005	06		5 gm Encore Container-E	Soil	Ice	VOCECORE	
RE03-99-2005	07		5 gm Encore Container-C	Soil	Ice	VOCECORE	
RE03-99-2005	04		125 mL Polyethylene	Soil	Ice	VOCECORE	
RE03-99-2006	05		5 gm Encore Container-A	Soil	Ice	VOCECORE	
RE03-99-2006	03		250 ml Amber Glass	Soil	Ice	TPH	
RE03-99-2006	02		125 ml Glass	Soil	None	PCB	
RE03-99-2006	01		125 ml Polyethylene	Soil	Ice	METTAL	
RE03-99-2006	06		5 gm Encore Container-E	Soil	Ice	VOCECORE	
RE03-99-2006	07		5 gm Encore Container-C	Soil	Ice	VOCECORE	
RE03-99-2006	04		125 mL Polyethylene	Soil	Ice	VOCECORE	
RE03-99-2007	05		5 gm Encore Container-A	Soil	Ice	VOCECORE	
RE03-99-2007	03		250 ml Amber Glass	Soil	Ice	TPH	
RE03-99-2007	02		125 ml Glass	Soil	None	PCB	
RE03-99-2007	01		125 ml Polyethylene	Soil	Ice	METTAL	
RE03-99-2007	06		5 gm Encore Container-E	Soil	Ice	VOCECORE	
RE03-99-2007	07		5 gm Encore Container-C	Soil	Ice	VOCECORE	
RE03-99-2007	04		125 mL Polyethylene	Soil	Ice	VOCECORE	
RE03-99-2008	07		5 gm Encore Container-C	Soil	Ice	VOCECORE	
RE03-99-2008	06		5 gm Encore Container-E	Soil	Ice	VOCECORE	
RE03-99-2008	05		5 gm Encore Container-A	Soil	Ice	VOCECORE	
RE03-99-2008	03		250 ml Amber Glass	Soil	Ice	TPH	
RE03-99-2008	02		125 ml Glass	Soil	None	PCB	
RE03-99-2008	01		125 ml Polyethylene	Soil	ice	METTAL	

Original - LANL Destination Yellow - RPF Pink - FTL Copy

SENT BY: 7-21-99 ;12:52PM ; E-PPC→ 86659972;# 5/ 5

Los Alamos National Laboratory Environmental Restoration (Los Alamos, NM 87545)
CHAIN OF CUSTODY/REQUEST FOR ANALYSIS

Technical Area 03	**Send Lab Report to** Gabriela Escobeda-L	**Field Unit Leader** Gabriela Escobeda-L
Operable Unit 1114	M992	(505)665-7352
Date	**LANL Destination** SMO	**Turnaround** 30 days
OU Contact Gabriela Escobeda-L	**LANL Contact** Stephanie Hagelberg	**Lab Report Required**
Contact Phone No (505) 665-7352	**LANL Mail Stop**	**Charge Code** RMR3R3M041045

Field Unique Sample #/ID	Cont ID	Date & Time Collected	Sample Container Volume/Material	Matrix	Preserv	ANALYSIS REQUESTED: (SMO Order Codes)	REMARKS (Conditions of receipt, etc.)
RE03-99-2008	04		125 mL Polyethylene	Soil	Ice	VOCECORE	
RE03-99-2009	07		5 gm Encore Container-C	Soil	Ice	VOCECORE	
RE03-99-2009	06		5 gm Encore Container-E	Soil	Ice	VOCECORE	
RE03-99-2009	05		5 gm Encore Container-A	Soil	Ice	VOCECORE	
RE03-99-2009	03		250 ml Amber Glass	Soil	Ice	TPH	
RE03-99-2009	02		125 ml Glass	Soil	None	PCB	
RE03-99-2009	01		125 ml Polyethylene	Soil	Ice	METTAL	
RE03-99-2009	04		125 mL Polyethylene	Soil	Ice	VOCECORE	
RE03-99-2010	07		5 gm Encore Container-C	Soil	Ice	VOCECORE	
RE03-99-2010	06		5 gm Encore Container-E	Soil	Ice	VOCECORE	
RE03-99-2010	05		5 gm Encore Container-A	Soil	Ice	VOCECORE	
RE03-99-2010	03		250 ml Amber Glass	Soil	Ice	TPH	
RE03-99-2010	02		125 ml Glass	Soil	None	PCB	
RE03-99-2010	01		125 ml Polyethylene	Soil	Ice	METTAL	
RE03-99-2010	04		125 mL Polyethylene	Soil	Ice	VOCECORE	
RE03-99-2011	07		5 gm Encore Container-C	Soil	Ice	VOCECORE	
RE03-99-2011	06		5 gm Encore Container-E	Soil	Ice	VOCECORE	
RE03-99-2011	05		5 gm Encore Container-A	Soil	Ice	VOCECORE	
RE03-99-2011	03		250 ml Amber Glass	Soil	Ice	TPH	
RE03-99-2011	02		125 ml Glass	Soil	None	PCB	
RE03-99-2011	01		125 ml Polyethylene	Soil	Ice	METTAL	
RE03-99-2011	04		125 mL Polyethylene	Soil	Ice	VOCECORE	

Original - LANL Destination Yellow - RPF Pink - FTL Copy

CHAIN OF CUSTODY FORM (Example)

SECTION I. DATA PACKAGE INFORMATION (Relinquisher completes)

New Issue ☑ Yes ☐ No

Request Number(s): 5732 5739 5792 5842
5833 5825 5899

Data Package Requestor (check one): ☐ Editing/Validation ☐ User

Name (print) Joseph Garcia Focus Area: IT

Phone 1-5716 Z Number: 167339

SECTION II. AUTHORIZING SIGNATURES (Reliquished/Received signatures)

Relinquished By: [signature] Date: 8-12-99

I accept custody of the above listed data package(s).

Received By: [signature] Date: 8/16/99

Relinquished By: _____ Date: _____

I accept custody of the above listed data package(s).

Received By: _____ Date: _____

Comments:

Los Alamos
Environmental Restoration Project

ER SOP-15.09

KEMRON Environmental Services
109 Starlite Park
Marietta, Ohio 45750
Phone: (740) 373-4071

Los Alamos National Laboratory
SMO, TA-3, Bldg. 271
MS H865, Drop Point O1U
Los Alamos, NM 87545
Attention: Joylene Valdez

PO Number:
Account Number: LANL-295

Login #: L9907380
Report Date: 08/11/99
Work ID: 5825R/MR3R3M041045
Date Received: 07/21/99

SAMPLE IDENTIFICATION

Sample Number	Sample Description	Sample Number	Sample Description
L9907380-01	RE03-99-2000	L9907380-02	RE03-99-2001
L9907380-03	RE03-99-2002	L9907380-04	RE03-99-2003
L9907380-05	RE03-99-2004	L9907380-06	RE03-99-2005
L9907380-07	RE03-99-2006	L9907380-08	RE03-99-2007

Report Sent To:
Approved By:
Date Sent: 8/18/99

All results on solids/sludges are reported on a dry weight basis, where applicable, unless otherwise specified. This report shall not be reproduced, except in full, without the written approval of KEMRON.

NYSDOH ELAP ID: 10861

Certified By
Deanna Hesson

Report Sent To:
Approved By:
Date Sent:

KEMRON
ENVIRONMENTAL SERVICES

6a4

CHAIN OF CUSTODY FORM (Example)

SECTION I. DATA PACKAGE INFORMATION (Relinquisher completes)

New Issue ☑ Yes ☐ No

Request Number(s): 5732 5739 5792 5842
5833 5825 5899

Data Package Requestor (check one): ☐ Editing/Validation ☐ User

Name (print) Joseph Garcia Focus Area: IT
Phone 1-5716 Z Number: 167339

SECTION II. AUTHORIZING SIGNATURES (Reliquished/Received signatures)

Relinquished By: [signature] Date: 8-12-99

I accept custody of the above listed data package(s).

Received By: [signature] Date: 8/16/99

Relinquished By: [signature] Date: 9/28/99

I accept custody of the above listed data package(s).

Received By: [signature] Date: 9-28-99

Comments:

DATA VALIDATION COVER SHEET

SECTION I.

REQUEST NUMBER: **5825R** COST CODE: _____

VALIDATION DATE: **17-Sept-99**

LAB NAME: **Kemron**

VALIDATOR: **Herman Ramsey** ORGANIZATION: **IT**

ANALYTICAL SUITE: ___ *VOLATILES* ___ *HIGH EXPLOSIVES*

___ SEMIVOLATILES __X_ INORGANICS

___ PESTICIDES/AROCLORS ___ RADIOCHEMISTRY

OTHER (describe) _____

SECTION II. COMPLETENESS CHECKLIST

Item	Present? (Y/N/NA)	Item	Present? (Y/N/NA)
1. COC form(s)		2. Case Narrative	
3. Sample Results		4. Sample Chromatograms	
5. Standard Chromatograms		6. Quantitation Reports	
7. QC Forms			

Identify any samples in the assigned Request Number that are missing:

_____ _____ _____ _____ _____ _____

_____ _____ _____ _____ _____ _____

Comments: include information about requests to the laboratory and agreed upon date of resolution and lab contact: (Attach additional comment sheets as necessary)

_____

_____

_____

Signature/1st validation: Herman Ramsey Date/1st validation: 9/20/99

Signature/2nd validation: _____ Date/2nd validation: _____

ER-SOP-15.09

Los Alamos
Environmental Restoration

CCS AND VALIDATION

Explanation of qualifiers (Q):

U The analyte was analyzed for but not detected above the reported EQL

J The analyte was positively identified, the associated numerical value is the approximate concentration of the analyte in the sample
J+ Likely has a high bias
J- Likely has a low bias

UJ The analyte was analyzed for but not detected. The associated value is an estimate

R The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. Presence or absence cannot be verified. Note: Any results qualified as "R" should be looked at for relevance for data use. Thus, "R" implies "PM" also, and must not be used alone

P Use professional judgement based on data use . It usually has an "M"with it, indicating that a manual check should be made if the data that is qualified with the "P" is important to the data user.

In addition, PM also means that a decision must be made by the project manager/delegee regarding the need for further review of the data. This review should include some consideration of potential impact that could result from using the P qualified data. (For example, in the case of holding time excedance, the project manager/delegee can decide to use the data with no qualification when analyltes of interest are known to not be adversely affected by holding time exceedances. Another example is the case where soil sample duplicate analyses for metals exceed the precision criteria. Since this is likley because of sample non-homogeneity rather than lab error, the manager/delegee must decide how to use the data.)

PM Manual review of raw data is recommended to determine if the defect impacts data use, as in "R" above.

REASON CODES FOR VALIDATION QUALIFIERS

INORGANICS (I)

3 Spike recovery > upper limit (125%) and the results > the EDL.

3a Spike recovery < lower limit (75%) and the results are > the EDL.

3d Spike recovery < 30 % and results < EDL.

3e Spike recovery 30-74% and sample results < EDL.

4 Using the worse case blank, the sample results > the EDL but < 5X the concentration of the related analyte in the blank.

6 Recovery of analyte in the LCS > upper limit.

6a Recovery of analyte in the LCS < lower limit.

7 ICS recovery > 120% and results > EDL.

7a ICS recovery 50-79% .

7b ICS recovery < 50% and result < EDL.

8a For ICV and CCV, recovery is lower than specification

8b For ICV and CCV, recovery is higher than specification

8c For ICV and CCV, results are positive, but < MDL and recovery is lower than the specification.

8d For ICV and CCV, recovery is extremely low and detection may be impaired.

8e For ICV and CCV, recovery is abnormally high - apply to results > MDL.

9 Holding time for Hg has been exceeded. Positive results may be biased low and non-detects may potential be false negatives.

INORGANICS

Calibration Present? Ξ yes no **Initial calibration verification** Present? Ξ yes no **Continuing calibration verification** Present? Ξ yes no	OK	Obtain from lab. Q=A Obtain form lab. Q=A	
Blanks (Applies to each) Present? Ξ yes no **Initial & continuing calibration blanks** Analyze at each wavelength Beginning and end of each run ICB and CCB analyzed at a frequency of 10% or 2 hours If blank results > EDL reanalyze previous 10 samples **Preparation blank** One per batch ≤ EDL, or if concentration of analyte < 10X EDL, repeat all samples in batch	U See comment	Obtain from lab. Q=A Use "worse" case blank. Sample results > EDL but < 5 X amount found in the blank should be qualified as U. *The following analytes were detected in the blank: ManSe.* *The following analytes were detected in the ICB /or CCB: Al, Sb, Mg, and V.*	I4

NDR
9/20/99

ICP Interference check sample Present? Ξ yes no Solution contains Ag, Ba, Be, Cd, Co, Cr, Cu, Mn, Ni, Pb, V, & Zn Analyze at beginning of each run Each wavelength used for samples ICS results must be ± 20%of true value	OK	Obtain from lab. Q=A If the ICS recovery is >120% and the results are >EDL, qualify data as J+ If recovery is 50-79%, qualify data as J- If ICS recovery is < 50% and results are < EDL, qualify results as R, PM	 I7 I7a I7b
Spike sample analysis Present? Ξ yes no One per run, per matrix, concentration, SDG % recovery: 75-125% (unless conc. > 4X spike conc.) Analyte %Recovery *Sb* *19.2* Ba 165.7 *Mn* *292.8* Se 34.1	P,UJ	Obtain from lab. Q=A If spike recovery > 125% and results < EDL, OK If spike recovery < 75% and results are >EDL, qualify results as J- if same matrix, P if not. If spike recovery > 125% and results are >EDL, qualify data as J+ if same matrix, P if not. If spike recovery 30-74% and sample results < EDL, qualify as UJ if same matrix, P if not. If spike recovery results < 30% and results < EDL, qualify as R, PM.	 I3a I3 I3e I3d

NDR
9/20/99

Duplicate **Present? Ξ yes no** **One per batch of sample of like matrix for each SDG** **RPD : ≤ 20% (advisory)** **If either the sample or duplicate value is less than 5 X EDL, there is a control limit of ± EDL**	**(P) See comment**	**Obtain from lab. Q=A** **Q=P because of nature of LANL samples.** ***The following analyte exceeded %rpd limit: Al, As, Ba, Be, Cr, Cu, Fe, Pb, Mg, K, Ag, V and Zn.***	
Laboratory Control Sample (LCS) **Aqueous LCS per batch/SDG** **% recovery : 80-120% (except Ag & Sb)** *The LCS was a solid sample. Recoveries met aqueous criteria.*	**OK** See comment	**If criterion not met, qualify each analyte associated with the LCS in the same batch as J-** **for < 80% and J+ for > 120%**	**I6a** **I6**
Holding time **Analyze water samples for Hg within 28 days of sample collection** **Analyze water samples for CN within 14 days of sample collection**	**NA**	**Compare analysis date with date of sample collection on the Analysis Request.** **Q=PM**	

HDR
9/20/99

Login #L9907380
August 11, 1999 10:34 am

KEMRON ENVIRONMENTAL SERVICES

Lab Sample ID: L9907380-01
Client Sample ID: RE03-99-2000
Site/Work ID: 5825R/MR3R3M041045

Matrix: Soil
Collected: 07/17/99 N/A

% Solid: 86
COC Info: N/A

Analyte	Units	Result	Qualifiers	RL	Dil	Type	Analyst	Analysis Date	Time	Method
Percent Solids.....	% wt.	86		1.0	1	N/A	SMW	07/27/99	16:40	D2216-90
Silver, Total.....	mg/kg	0.15	B	0.58	1	N/A	JYH	07/23/99	11:08	6010B\3050A
Aluminum, Total.....	mg/kg (P)	17000		5.8	1	N/A	JYH	07/23/99	11:08	6010B\3050A
Arsenic, Total.....	mg/kg (P)	5.1		1.2	1	N/A	JYH	07/23/99	11:08	6010B\3050A
Barium, Total.....	mg/kg (J+,I3) (P)	140		0.58	1	N/A	JYH	07/23/99	11:08	6010B\3050A
Beryllium, Total.....	mg/kg	0.95		0.58	1	N/A	JYH	07/23/99	11:08	6010B\3050A
Calcium, Total.....	mg/kg	4800		12	1	N/A	JYH	07/23/99	11:08	6010B\3050A
Cadmium, Total.....	mg/kg	0.10	B	0.12	1	N/A	JYH	07/23/99	11:08	6010B\3050A
Cobalt, Total.....	mg/kg	7.1		1.2	1	N/A	JYH	07/23/99	11:08	6010B\3050A
Chromium, Total.....	mg/kg (P)	10		1.2	1	N/A	JYH	07/23/99	11:08	6010B\3050A
Copper, Total.....	mg/kg	7.0		1.2	1	N/A	JYH	07/23/99	11:08	6010B\3050A
Iron, Total.....	mg/kg (P)	15000		2.3	1	N/A	JYH	07/23/99	11:08	6010B\3050A
Mercury, Total.....	mg/kg	0.01	B	0.12	1	N/A	KAS	07/23/99	13:22	7471A\7471A
Potassium, Total.....	mg/kg	1700		58	1	N/A	JYH	07/23/99	11:08	6010B\3050A
Magnesium, Total.....	mg/kg	2500		29	1	N/A	JYH	07/23/99	11:08	6010B\3050A
Manganese, Total.....	mg/kg (J+,I3)	390		0.58	1	N/A	JYH	07/23/99	11:08	6010B\3050A
Sodium, Total.....	mg/kg	430		29	1	N/A	JYH	07/23/99	11:08	6010B\3050A
Nickel, Total.....	mg/kg	7.4		2.3	1	N/A	JYH	07/23/99	11:08	6010B\3050A
Lead, Total.....	mg/kg (P)	13		1.2	1	N/A	JYH	07/23/99	11:08	6010B\3050A
Antimony, Total.....	mg/kg (R,PM)	0.12	B,S (UJ,I3R)	1.2	2	N/A	CRC	08/04/99	08:50	7041
Selenium, Total.....	mg/kg (U,I4)	0.09	B,S (UJ,I3R)	0.47	2	N/A	RSS	07/26/99	09:59	7740
Thallium, Total.....	mg/kg	0.17	B	0.29	1	N/A	HLC	07/23/99	09:17	7841
Vanadium, Total.....	mg/kg (P)	27		0.58	1	N/A	JYH	07/23/99	11:08	6010B\3050A
Zinc, Total.....	mg/kg (P)	28		1.2	1	N/A	JYH	07/23/99	11:08	6010B\3050A

Lab Sample ID: L9907380-02
Client Sample ID: RE03-99-2001
Site/Work ID: 5825R/MR3R3M041045

Matrix: Soil
Collected: 07/17/99 N/A

% Solid: 90
COC Info: N/A

Analyte	Units	Result	Qualifiers	RL	Dil	Type	Analyst	Analysis Date	Time	Method
Percent Solids.....	% wt.	90		1.0	1	N/A	SMW	07/27/99	16:40	D2216-90
Silver, Total.....	mg/kg		ND	0.56	1	N/A	JYH	07/23/99	11:15	6010B\3050A
Aluminum, Total.....	mg/kg (P)	16000		5.6	1	N/A	JYH	07/23/99	11:15	6010B\3050A
Arsenic, Total.....	mg/kg (P)	4.8		1.1	1	N/A	JYH	07/23/99	11:15	6010B\3050A
Barium, Total.....	mg/kg (J+,I3) (P)	140		0.56	1	N/A	JYH	07/23/99	11:15	6010B\3050A
Beryllium, Total.....	mg/kg	1.6		0.56	1	N/A	JYH	07/23/99	11:15	6010B\3050A

RL = Reporting Limit

HDR 9/20/99

Login #L9907380
August 11, 1999 10:04 am

KEMRON ENVIRONMENTAL SERVICES

Lab Sample ID: L9907380-02
Client Sample ID: RE03-99-2001
Site/Work ID: 5825R/MR3R3M041045

Matrix: Soil
Collected: 07/17/99 N/A

% Solid: 90
COC Info: N/A

Analyte	Units	Result	Qualifiers	RL	Dil	Type	Analyst	Analysis Date	Time	Method
Calcium, Total	mg/kg	4100		11	1	N/A	JYH	07/23/99	11:15	6010B\3050A
Cadmium, Total	mg/kg	0.14		0.11	1	N/A	JYH	07/23/99	11:15	6010B\3050A
Cobalt, Total	mg/kg	6.0		1.1	1	N/A	JYH	07/23/99	11:15	6010B\3050A
Chromium, Total	mg/kg	(P) 10		1.1	1	N/A	JYH	07/23/99	11:15	6010B\3050A
Copper, Total	mg/kg	7.8		1.1	1	N/A	JYH	07/23/99	11:15	6010B\3050A
Iron, Total	mg/kg	(P) 12000		2.2	1	N/A	JYH	07/23/99	11:15	6010B\3050A
Mercury, Total	mg/kg	0.01	B	0.11	1	N/A	KAS	07/23/99	13:22	7471A\7471A
Potassium, Total	mg/kg	2200		56	1	N/A	JYH	07/23/99	11:15	6010B\3050A
Magnesium, Total	mg/kg	3300		28	1	N/A	JYH	07/23/99	11:15	6010B\3050A
Manganese, Total	mg/kg	(J+, I3) 200		0.56	1	N/A	JYH	07/23/99	11:15	6010B\3050A
Sodium, Total	mg/kg	820		28	1	N/A	JYH	07/23/99	11:15	6010B\3050A
Nickel, Total	mg/kg	13		2.2	1	N/A	JYH	07/23/99	11:15	6010B\3050A
Lead, Total	mg/kg	(P) 10		1.1	1	N/A	JYH	07/23/99	11:15	6010B\3050A
Antimony, Total	mg/kg	(R, PM)	ND,S	2.8	5	N/A	CRC	08/04/99	08:50	7041
Selenium, Total	mg/kg	(UJ, I3e)	ND,S	0.44	2	N/A	RSS	07/26/99	09:59	7740
Thallium, Total	mg/kg	0.20	B	0.28	1	N/A	HLC	07/23/99	09:17	7841
Vanadium, Total	mg/kg	(P) 15		0.56	1	N/A	JYH	07/23/99	11:15	6010B\3050A
Zinc, Total	mg/kg	(P) 34		1.1	1	N/A	JYH	07/23/99	11:15	6010B\3050A

Lab Sample ID: L9907380-03
Client Sample ID: RE03-99-2002
Site/Work ID: 5825R/MR3R3M041045

Matrix: Soil
Collected: 07/17/99 N/A

% Solid: 88
COC Info: N/A

Analyte	Units	Result	Qualifiers	RL	Dil	Type	Analyst	Analysis Date	Time	Method
Percent Solids	% wt.	88		1.0	1	N/A	SMW	07/27/99	16:40	D2216-90
Silver, Total	mg/kg		ND	0.57	1	N/A	JYH	07/23/99	11:30	6010B\3050A
Aluminum, Total	mg/kg	(P) 19000		5.7	1	N/A	JYH	07/23/99	11:30	6010B\3050A
Arsenic, Total	mg/kg	(P) 4.1		1.1	1	N/A	JYH	07/23/99	11:30	6010B\3050A
Barium, Total	mg/kg	(J+, I3) (P) 75		0.57	1	N/A	JYH	07/23/99	11:30	6010B\3050A
Beryllium, Total	mg/kg	1.3		0.57	1	N/A	JYH	07/23/99	11:30	6010B\3050A
Calcium, Total	mg/kg	5100		11	1	N/A	JYH	07/23/99	11:30	6010B\3050A
Cadmium, Total	mg/kg	0.06	B	0.11	1	N/A	JYH	07/23/99	11:30	6010B\3050A
Cobalt, Total	mg/kg	4.0		1.1	1	N/A	JYH	07/23/99	11:30	6010B\3050A
Chromium, Total	mg/kg	(P) 11		1.1	1	N/A	JYH	07/23/99	11:30	6010B\3050A
Copper, Total	mg/kg	7.3		1.1	1	N/A	JYH	07/23/99	11:30	6010B\3050A
Iron, Total	mg/kg	(P) 14000		2.3	1	N/A	JYH	07/23/99	11:30	6010B\3050A
Mercury, Total	mg/kg	0.01	B	0.11	1	N/A	KAS	07/23/99	13:22	7471A\7471A

RL = Reporting Limit

HDR 9/29/99

Login #L9907380
August 11, 1999 10:04 am

KEMRON ENVIRONMENTAL SERVICES

Lab Sample ID: L9907380-03
Client Sample ID: RE03-99-2002
Site/Work ID: 5825R/MR3R3M041045

Matrix: Soil
Collected: 07/17/99 N/A

% Solid: 88
COC Info: N/A

Analyte	Units	Result	Qualifiers	RL	Dil	Type	Analyst	Analysis Date	Time	Method
Potassium, Total	mg/kg	2200		57	1	N/A	JYH	07/23/99	11:30	6010B\3050A
Magnesium, Total	mg/kg	3400		28	1	N/A	JYH	07/23/99	11:30	6010B\3050A
Manganese, Total	mg/kg (J+,I3)	170		0.57	1	N/A	JYH	07/23/99	11:30	6010B\3050A
Sodium, Total	mg/kg	590		28	1	N/A	JYH	07/23/99	11:30	6010B\3050A
Nickel, Total	mg/kg	11		2.3	1	N/A	JYH	07/23/99	11:30	6010B\3050A
Lead, Total	mg/kg (P)	11		1.1	1	N/A	JYH	07/23/99	11:30	6010B\3050A
Antimony, Total	mg/kg (R,PM)	0.53	B,S	5.7	10	N/A	CRC	08/04/99	08:50	7041
Selenium, Total	mg/kg (R,J,I3e)		ND,S	0.45	2	N/A	RSS	07/26/99	09:59	7740
Thallium, Total	mg/kg	0.18	B	0.28	1	N/A	CRC	07/27/99	08:50	7841
Vanadium, Total	mg/kg (P)	20		0.57	1	N/A	JYH	07/23/99	11:30	6010B\3050A
Zinc, Total	mg/kg (P)	35		1.1	1	N/A	JYH	07/23/99	11:30	6010B\3050A

Lab Sample ID: L9907380-04
Client Sample ID: RE03-99-2003
Site/Work ID: 5825R/MR3R3M041045

Matrix: Soil
Collected: 07/17/99 N/A

% Solid: 84
COC Info: N/A

Analyte	Units	Result	Qualifiers	RL	Dil	Type	Analyst	Analysis Date	Time	Method
Percent Solids	% wt.	84		1.0	1	N/A	SMW	07/27/99	16:40	D2216-90
Silver, Total	mg/kg		ND	0.60	1	N/A	JYH	07/23/99	11:33	6010B\3050A
Aluminum, Total	mg/kg (P)	24000		6.0	1	N/A	JYH	07/23/99	11:33	6010B\3050A
Arsenic, Total	mg/kg (P)	5.2		1.2	1	N/A	JYH	07/23/99	11:33	6010B\3050A
Barium, Total	mg/kg (J+,I3)	220 (P)		0.60	1	N/A	JYH	07/23/99	11:33	6010B\3050A
Beryllium, Total	mg/kg	1.5		0.60	1	N/A	JYH	07/23/99	11:33	6010B\3050A
Calcium, Total	mg/kg	3900		12	1	N/A	JYH	07/23/99	11:33	6010B\3050A
Cadmium, Total	mg/kg	0.18		0.12	1	N/A	JYH	07/23/99	11:33	6010B\3050A
Cobalt, Total	mg/kg	7.1		1.2	1	N/A	JYH	07/23/99	11:33	6010B\3050A
Chromium, Total	mg/kg (P)	14		1.2	1	N/A	JYH	07/23/99	11:33	6010B\3050A
Copper, Total	mg/kg	10		1.2	1	N/A	JYH	07/23/99	11:33	6010B\3050A
Iron, Total	mg/kg (P)	18000		2.4	1	N/A	JYH	07/23/99	11:33	6010B\3050A
Mercury, Total	mg/kg	0.02	B	0.12	1	N/A	KAS	07/23/99	13:22	7471A\7471A
Potassium, Total	mg/kg	2500		60	1	N/A	JYH	07/23/99	11:33	6010B\3050A
Magnesium, Total	mg/kg	3500		30	1	N/A	JYH	07/23/99	11:33	6010B\3050A
Manganese, Total	mg/kg (J+,I3)	310		0.60	1	N/A	JYH	07/23/99	11:33	6010B\3050A
Sodium, Total	mg/kg	600		30	1	N/A	JYH	07/23/99	11:33	6010B\3050A
Nickel, Total	mg/kg	12		2.4	1	N/A	JYH	07/23/99	11:33	6010B\3050A
Lead, Total	mg/kg (P)	17		1.2	1	N/A	JYH	07/23/99	11:33	6010B\3050A
Antimony, Total	mg/kg (R,PM)		ND,S	3.0	5	N/A	CRC	08/04/99	08:50	7041

RL = Reporting Limit

HDR 9/29/99

Login #L9907380
August 11, 1999 10:04 am

KEMRON ENVIRONMENTAL SERVICES

Lab Sample ID: L9907380-04
Client Sample ID: RE03-99-2003
Site/Work ID: 5825R/MR3R3M041045

Matrix: Soil
Collected: 07/17/99 N/A

% Solid: 84
COC Info: N/A

Analyte	Units	Result	Qualifiers	RL	Dil	Type	Analyst	Analysis Date	Time	Method
Selenium, Total	mg/kg (u,I4)	0.31	B,S (uJ,I3e)	0.48	2	N/A	RSS	07/26/99	09:59	7740
Thallium, Total	mg/kg	0.22	B	0.30	1	N/A	CRC	07/27/99	08:50	7841
Vanadium, Total	mg/kg (P)	26		0.60	1	N/A	JYH	07/23/99	11:33	6010B\3050A
Zinc, Total	mg/kg (P)	45		1.2	1	N/A	JYH	07/23/99	11:33	6010B\3050A

Lab Sample ID: L9907380-05
Client Sample ID: RE03-99-2004
Site/Work ID: 5825R/MR3R3M041045

Matrix: Soil
Collected: 07/17/99 N/A

% Solid: 83
COC Info: N/A

Analyte	Units	Result	Qualifiers	RL	Dil	Type	Analyst	Analysis Date	Time	Method
Percent Solids	% wt.	83		1.0	1	N/A	SMW	07/27/99	16:40	D2216-90
Silver, Total	mg/kg		ND	0.60	1	N/A	JYH	07/23/99	11:48	6010B\3050A
Aluminum, Total	mg/kg (P)	21000		6.0	1	N/A	JYH	07/23/99	11:48	6010B\3050A
Arsenic, Total	mg/kg (P)	4.3		1.2	1	N/A	JYH	07/23/99	11:48	6010B\3050A
Barium, Total	mg/kg (J+,I3)	130 (P)		0.60	1	N/A	JYH	07/23/99	11:48	6010B\3050A
Beryllium, Total	mg/kg	1.1		0.60	1	N/A	JYH	07/23/99	11:48	6010B\3050A
Calcium, Total	mg/kg	3300		12	1	N/A	JYH	07/23/99	11:48	6010B\3050A
Cadmium, Total	mg/kg	0.12		0.12	1	N/A	JYH	07/23/99	11:48	6010B\3050A
Cobalt, Total	mg/kg	5.6		1.2	1	N/A	JYH	07/23/99	11:48	6010B\3050A
Chromium, Total	mg/kg (P)	12		1.2	1	N/A	JYH	07/23/99	11:48	6010B\3050A
Copper, Total	mg/kg	7.5		1.2	1	N/A	JYH	07/23/99	11:48	6010B\3050A
Iron, Total	mg/kg (P)	14000		2.4	1	N/A	JYH	07/23/99	11:48	6010B\3050A
Mercury, Total	mg/kg	0.02	B	0.12	1	N/A	KAS	07/23/99	13:22	7471A\7471A
Potassium, Total	mg/kg	2100		60	1	N/A	JYH	07/23/99	11:48	6010B\3050A
Magnesium, Total	mg/kg	2700		30	1	N/A	JYH	07/23/99	11:48	6010B\3050A
Manganese, Total	mg/kg (J+,I3)	280		0.60	1	N/A	JYH	07/23/99	11:48	6010B\3050A
Sodium, Total	mg/kg	580		30	1	N/A	JYH	07/23/99	11:48	6010B\3050A
Nickel, Total	mg/kg	11		2.4	1	N/A	JYH	07/23/99	11:48	6010B\3050A
Lead, Total	mg/kg (P)	12		1.2	1	N/A	JYH	07/23/99	11:48	6010B\3050A
Antimony, Total	mg/kg (R,PM)	0.21	B,S	1.2	2	N/A	CRC	08/04/99	08:50	7041
Selenium, Total	mg/kg ~~(u,I4)~~ HR (uJ,I3e)		ND,S	1.2	5	N/A	RSS	07/26/99	09:59	7740
Thallium, Total	mg/kg	0.22	B	0.30	1	N/A	CRC	07/27/99	08:50	7841
Vanadium, Total	mg/kg (P)	23		0.60	1	N/A	JYH	07/23/99	11:48	6010B\3050A
Zinc, Total	mg/kg (P)	35		1.2	1	N/A	JYH	07/23/99	11:48	6010B\3050A

RL = Reporting Limit

HDR 9/20/99

Login #L9907380
August 11, 1999 10:04 am

KEMRON ENVIRONMENTAL SERVICES

Lab Sample ID: L9907380-06
Client Sample ID: RE03-99-2005
Site/Work ID: 5825R/MR3R3M041045

Matrix: Soil
Collected: 07/17/99 N/A

% Solid: 83
COC Info: N/A

Analyte	Units	Result	Qualifiers	RL	Dil	Type	Analyst	Analysis Date	Time	Method
Percent Solids.....	% wt.	83		1.0	1	N/A	SMW	07/27/99	16:40	D2216-90
Silver, Total.....	mg/kg		ND	0.60	1	N/A	JYH	07/23/99	11:51	6010B\3050A
Aluminum, Total.....	mg/kg (P)	24000		6.0	1	N/A	JYH	07/23/99	11:51	6010B\3050A
Arsenic, Total.....	mg/kg (P)	3.7		1.2	1	N/A	JYH	07/23/99	11:51	6010B\3050A
Barium, Total.....	mg/kg (J+, I3)	130	(P)	0.60	1	N/A	JYH	07/23/99	11:51	6010B\3050A
Beryllium, Total.....	mg/kg	0.89		0.60	1	N/A	JYH	07/23/99	11:51	6010B\3050A
Calcium, Total.....	mg/kg	2800		12	1	N/A	JYH	07/23/99	11:51	6010B\3050A
Cadmium, Total.....	mg/kg	0.07	B	0.12	1	N/A	JYH	07/23/99	11:51	6010B\3050A
Cobalt, Total.....	mg/kg	9.0		1.2	1	N/A	JYH	07/23/99	11:51	6010B\3050A
Chromium, Total.....	mg/kg (P)	15		1.2	1	N/A	JYH	07/23/99	11:51	6010B\3050A
Copper, Total.....	mg/kg	8.9		1.2	1	N/A	JYH	07/23/99	11:51	6010B\3050A
Iron, Total.....	mg/kg (P)	16000		2.4	1	N/A	JYH	07/23/99	11:51	6010B\3050A
Mercury, Total.....	mg/kg	0.02	B	0.12	1	N/A	KAS	07/23/99	13:22	7471A\7471A
Potassium, Total.....	mg/kg	2000		60	1	N/A	JYH	07/23/99	11:51	6010B\3050A
Magnesium, Total.....	mg/kg	3000		30	1	N/A	JYH	07/23/99	11:51	6010B\3050A
Manganese, Total.....	mg/kg (J+, I3)	280		0.60	1	N/A	JYH	07/23/99	11:51	6010B\3050A
Sodium, Total.....	mg/kg	430		30	1	N/A	JYH	07/23/99	11:51	6010B\3050A
Nickel, Total.....	mg/kg	9.1		2.4	1	N/A	JYH	07/23/99	11:51	6010B\3050A
Lead, Total.....	mg/kg (P)	15		1.2	1	N/A	JYH	07/23/99	11:51	6010B\3050A
Antimony, Total.....	mg/kg (R, PM)	0.31	B,S	1.2	2	N/A	CRC	08/04/99	08:50	7041
Selenium, Total.....	mg/kg (UJ, I3e)		ND,S	1.2	5	N/A	RSS	07/26/99	09:59	7740
Thallium, Total.....	mg/kg	0.17	B	0.30	1	N/A	CRC	07/27/99	08:50	7841
Vanadium, Total.....	mg/kg (P)	28		0.60	1	N/A	JYH	07/23/99	11:51	6010B\3050A
Zinc, Total.....	mg/kg (P)	32		1.2	1	N/A	JYH	07/23/99	11:51	6010B\3050A

Lab Sample ID: L9907380-07
Client Sample ID: RE03-99-2006
Site/Work ID: 5825R/MR3R3M041045

Matrix: Soil
Collected: 07/17/99 N/A

% Solid: 78
COC Info: N/A

Analyte	Units	Result	Qualifiers	RL	Dil	Type	Analyst	Analysis Date	Time	Method
Percent Solids.....	% wt.	78		1.0	1	N/A	SMW	07/27/99	16:40	D2216-90
Silver, Total.....	mg/kg		ND	0.64	1	N/A	JYH	07/23/99	11:55	6010B\3050A
Aluminum, Total.....	mg/kg (P)	24000		6.4	1	N/A	JYH	07/23/99	11:55	6010B\3050A
Arsenic, Total.....	mg/kg (P)	5.6		1.3	1	N/A	JYH	07/23/99	11:55	6010B\3050A
Barium, Total.....	mg/kg (J+, I3)	140	(P)	0.64	1	N/A	JYH	07/23/99	11:55	6010B\3050A
Beryllium, Total.....	mg/kg	1.6		0.64	1	N/A	JYH	07/23/99	11:55	6010B\3050A

RL = Reporting Limit

NDR 9/20/99

Login #L9907380
August 11, 1999 10:04 am

KEMRON ENVIRONMENTAL SERVICES

Lab Sample ID: L9907380-07
Client Sample ID: RE03-99-2006
Site/Work ID: 5825R/MR3R3M041045

Matrix: Soil
Collected: 07/17/99 N/A

% Solid: 78
COC Info: N/A

Analyte	Units	Result	Qualifiers	RL	Dil	Type	Analyst	Analysis Date	Time	Method
Calcium, Total	mg/kg	4400		13	1	N/A	JYH	07/23/99	11:55	6010B\3050A
Cadmium, Total	mg/kg	0.08	B	0.13	1	N/A	JYH	07/23/99	11:55	6010B\3050A
Cobalt, Total	mg/kg	6.0		1.3	1	N/A	JYH	07/23/99	11:55	6010B\3050A
Chromium, Total	mg/kg (P)	14		1.3	1	N/A	JYH	07/23/99	11:55	6010B\3050A
Copper, Total	mg/kg	9.4		1.3	1	N/A	JYH	07/23/99	11:55	6010B\3050A
Iron, Total	mg/kg (P)	19000		2.6	1	N/A	JYH	07/23/99	11:55	6010B\3050A
Mercury, Total	mg/kg	0.02	B	0.13	1	N/A	KAS	07/23/99	13:22	7471A\7471A
Potassium, Total	mg/kg	2500		64	1	N/A	JYH	07/23/99	11:55	6010B\3050A
Magnesium, Total	mg/kg	3600		32	1	N/A	JYH	07/23/99	11:55	6010B\3050A
Manganese, Total	mg/kg (J+, I3)	270		0.64	1	N/A	JYH	07/23/99	11:55	6010B\3050A
Sodium, Total	mg/kg	720		32	1	N/A	JYH	07/23/99	11:55	6010B\3050A
Nickel, Total	mg/kg	13		2.6	1	N/A	JYH	07/23/99	11:55	6010B\3050A
Lead, Total	mg/kg (P)	15		1.3	1	N/A	JYH	07/23/99	11:55	6010B\3050A
Antimony, Total	mg/kg (R, PM)	0.78	B,S	6.4	10	N/A	CRC	08/04/99	08:50	7041
Selenium, Total	mg/kg (U, I4)	0.36	B,S (UJ, I3e)	0.51	2	N/A	RSS	07/26/99	09:59	7740
Thallium, Total	mg/kg	0.23	B	0.32	1	N/A	CRC	07/27/99	08:50	7841
Vanadium, Total	mg/kg (P)	27		0.64	1	N/A	JYH	07/23/99	11:55	6010B\3050A
Zinc, Total	mg/kg (P)	49		1.3	1	N/A	JYH	07/23/99	11:55	6010B\3050A

Lab Sample ID: L9907380-08
Client Sample ID: RE03-99-2007
Site/Work ID: 5825R/MR3R3M041045

Matrix: Soil
Collected: 07/17/99 N/A

% Solid: 81
COC Info: N/A

Analyte	Units	Result	Qualifiers	RL	Dil	Type	Analyst	Analysis Date	Time	Method
Percent Solids	% wt.	81		1.0	1	N/A	SMW	07/27/99	16:40	D2216-90
Silver, Total	mg/kg		ND	0.62	1	N/A	JYH	07/23/99	11:59	6010B\3050A
Aluminum, Total	mg/kg (P)	31000		6.2	1	N/A	JYH	07/23/99	11:59	6010B\3050A
Arsenic, Total	mg/kg (P)	6.3		1.2	1	N/A	JYH	07/23/99	11:59	6010B\3050A
Barium, Total	mg/kg (J+, I3)	140	(P)	0.62	1	N/A	JYH	07/23/99	11:59	6010B\3050A
Beryllium, Total	mg/kg	2.5		0.62	1	N/A	JYH	07/23/99	11:59	6010B\3050A
Calcium, Total	mg/kg	5200		12	1	N/A	JYH	07/23/99	11:59	6010B\3050A
Cadmium, Total	mg/kg	0.10	B	0.12	1	N/A	JYH	07/23/99	11:59	6010B\3050A
Cobalt, Total	mg/kg	7.2		1.2	1	N/A	JYH	07/23/99	11:59	6010B\3050A
Chromium, Total	mg/kg (P)	18		1.2	1	N/A	JYH	07/23/99	11:59	6010B\3050A
Copper, Total	mg/kg	12		1.2	1	N/A	JYH	07/23/99	11:59	6010B\3050A
Iron, Total	mg/kg (P)	22000		2.5	1	N/A	JYH	07/23/99	11:59	6010B\3050A
Mercury, Total	mg/kg	0.03	B	0.12	1	N/A	KAS	07/23/99	13:22	7471A\7471A

RL = Reporting Limit

HDR 9/20/99

Login #L9907380
August 11, 1999 10:04 am

KEMRON ENVIRONMENTAL SERVICES

Lab Sample ID: L9907380-08
Client Sample ID: RE03-99-2007
Site/Work ID: 5825R/MR3R3M041045

Matrix: Soil
Collected: 07/17/99 N/A

% Solid: 81
COC Info: N/A

Analyte	Units	Result	Qualifiers	RL	Dil	Type	Analyst	Analysis Date	Time	Method
Potassium, Total.....	mg/kg	3400		62	1	N/A	JYH	07/23/99	11:59	6010B\3050A
Magnesium, Total.....	mg/kg	5100		31	1	N/A	JYH	07/23/99	11:59	6010B\3050A
Manganese, Total.....	mg/kg (J+, I3)	300		0.62	1	N/A	JYH	07/23/99	11:59	6010B\3050A
Sodium, Total.....	mg/kg	1100		31	1	N/A	JYH	07/23/99	11:59	6010B\3050A
Nickel, Total.....	mg/kg	22		2.5	1	N/A	JYH	07/23/99	11:59	6010B\3050A
Lead, Total.....	mg/kg (P)	17		1.2	1	N/A	JYH	07/23/99	11:59	6010B\3050A
Antimony, Total.....	mg/kg (R, PM)		ND,S	3.1	5	N/A	CRC	08/04/99	08:50	7041
Selenium, Total.....	mg/kg (U, I4)	0.19	B,S (UJ, I3)	0.49	2	N/A	RSS	07/26/99	09:59	7740
Thallium, Total.....	mg/kg	0.22	B	0.31	1	N/A	CRC	07/27/99	08:50	7841
Vanadium, Total.....	mg/kg (P)	28		0.62	1	N/A	JYH	07/23/99	11:59	6010B\3050A
Zinc, Total.....	mg/kg (P)	54		1.2	1	N/A	JYH	07/23/99	11:59	6010B\3050A

HDR 9/20/99

RL = Reporting Limit

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3
BLANKS

Lab Name: KEMRON_ENVIRONMENTAL_SERV Contract: _____

Lab Code: _____ Case No.: 07380_ SAS No.: _____ SDG No.: 5825R_

Preparation Blank Matrix (soil/water): SOIL_

Preparation Blank Concentration Units (ug/L or mg/kg): MG/KG

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Aluminum	-19.7	B	15.4	U	29.7	B	15.4	U	0.770	U	P
Antimony	1.0	U	1.0	U	1.0	U	1.1	B	0.050	U	F
Arsenic	4.9	U	-5.9	B	4.9	U	4.9	U	0.245	U	P
Barium	0.3	U	0.3	U	0.3	U	0.3	U	0.015	U	P
Beryllium	0.1	U	0.1	U	0.1	U	0.1	U	0.004	U	P
Cadmium	0.6	U	0.6	U	0.6	U	0.6	U	0.030	U	P
Calcium	14.4	U	14.4	U	14.4	U	14.4	U	0.720	U	P
Chromium	2.8	U	2.8	U	2.8	U	2.8	U	0.140	U	P
Cobalt	1.5	U	1.5	U	1.5	U	1.5	U	0.075	U	P
Copper	2.7	U	2.7	U	2.7	U	2.7	U	0.135	U	P
Iron	23.7	U	23.7	U	23.7	U	23.7	U	1.185	U	P
Lead	7.0	U	7.0	U	7.0	U	7.0	U	0.350	U	P
Magnesium	38.5	B	61.4	B	46.1	B	53.8	B	3.477	B	P
Manganese	0.5	U	0.5	U	0.5	U	0.5	U	0.025	U	P
Mercury	0.0	U	0.0	U	0.0	U	0.0	U	0.007	U	CV
Nickel	1.9	U	1.9	U	1.9	U	1.9	U	0.095	U	P
Potassium	38.4	U	-41.4	B	38.4	U	38.4	U	1.920	U	P
Selenium	0.8	U	2.5	B	1.6	B	1.5	B	0.125	B	F
Silver	2.4	U	2.4	U	2.4	U	2.4	U	0.120	U	P
Sodium	10.5	U	10.5	U	10.5	U	10.5	U	0.525	U	P
Thallium	0.5	U	0.5	U	0.5	U	0.5	U	0.025	U	F
Vanadium	-3.7	B	6.5	B	3.6	U	3.6	U	0.180	U	P
Zinc	2.2	U	2.2	U	2.2	U	2.2	U	0.110	U	P
Cyanide											NR

U.S. EPA - CLP

3
BLANKS

Lab Name: KEMRON_ENVIRONMENTAL_SERV Contract: _____

Lab Code: _____ Case No.: 07380_ SAS No.: _____ SDG No.: 5825R_

Preparation Blank Matrix (soil/water): _____

Preparation Blank Concentration Units (ug/L or mg/kg): _____

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Aluminum											NR
Antimony			1.0	U	1.3	B	1.0	U			F
Arsenic											NR
Barium											NR
Beryllium											NR
Cadmium											NR
Calcium											NR
Chromium											NR
Cobalt											NR
Copper											NR
Iron											NR
Lead											NR
Magnesium											NR
Manganese											NR
Mercury											NR
Nickel											NR
Potassium											NR
Selenium	0.8	U	0.8	U	0.8	U	0.8	U			F
Silver											NR
Sodium											NR
Thallium	0.5	U	0.5	U	0.5	U	0.5	U			F
Vanadium											NR
Zinc											NR
Cyanide											NR

U.S. EPA - CLP

3
BLANKS

Lab Name: KEMRON_ENVIRONMENTAL_SERV Contract: _____

Lab Code: _____ Case No.: 07380_ SAS No.: _____ SDG No.: 5825R_

Preparation Blank Matrix (soil/water): _____

Preparation Blank Concentration Units (ug/L or mg/kg): _____

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Aluminum											NR
Antimony			1.0	U	1.0	U	1.0	U			F
Arsenic											NR
Barium											NR
Beryllium											NR
Cadmium											NR
Calcium											NR
Chromium											NR
Cobalt											NR
Copper											NR
Iron											NR
Lead											NR
Magnesium											NR
Manganese											NR
Mercury											NR
Nickel											NR
Potassium											NR
Selenium			0.8	U	0.8	U	0.8	U			F
Silver											NR
Sodium											NR
Thallium											NR
Vanadium											NR
Zinc											NR
Cyanide											NR

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3
BLANKS

Lab Name: KEMRON_ENVIRONMENTAL_SERV Contract: _____

Lab Code: _____ Case No.: 07380_ SAS No.: _____ SDG No.: 5825R_

Preparation Blank Matrix (soil/water): _____

Preparation Blank Concentration Units (ug/L or mg/kg): _____

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Aluminum											NR
Antimony			1.0	U							F
Arsenic											NR
Barium											NR
Beryllium											NR
Cadmium											NR
Calcium											NR
Chromium											NR
Cobalt											NR
Copper											NR
Iron											NR
Lead											NR
Magnesium											NR
Manganese											NR
Mercury											NR
Nickel											NR
Potassium											NR
Selenium			0.8	U							F
Silver											NR
Sodium											NR
Thallium											NR
Vanadium											NR
Zinc											NR
Cyanide											NR

U.S. EPA - CLP

4

ICP INTERFERENCE CHECK SAMPLE

Lab Name: KEMRON_ENVIRONMENTAL_SERV Contract: _____

Lab Code: _____ Case No.: 07380_ SAS No: _____ SDG No.: 5825R_

ICP ID Number: IRIS_TJA____ ICS Source: INORGANIC VE

Concentration Units: ug/L

Analyte	True Sol. A	True Sol. AB	Initial Found Sol. A	Initial Found Sol. AB	%R	Final Found Sol. A	Final Found Sol. AB	%R
Aluminum	250000	250000	249522	249544.0	99.8	0		
Antimony								
Arsenic	250	250	8	247.6	99.0			
Barium	250	250	3	246.8	98.7			
Beryllium	250	250	0	238.4	95.4			
Cadmium	500	500	2	479.3	95.9			
Calcium	250000	250000	238701	239308.3	95.7			
Chromium	250	250	1	235.6	94.2			
Cobalt	250	250	3	233.9	93.6			
Copper	250	250	1	247.3	98.9			
Iron	100000	100000	90091	95494.0	95.5			
Lead	500	500	-19	440.6	88.1			
Magnesium	250000	250000	234651	235927.5	94.4			
Manganese	250	250	-1	226.2	90.5			
Mercury								
Nickel	500	500	9	458.6	91.7			
Potassium	2500	2500	-1	2360.5	94.4			
Selenium								
Silver	500	500	1	504.6	100.9			
Sodium	1250	1250	25	1271.3	101.7			
Thallium								
Vanadium	250	250	0	232.0	92.8			
Zinc	500	500	0	484.5	96.9			

U.S. EPA - CLP

5A
SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

RE03-2001S

Lab Name: KEMRON_ENVIRONMENTAL_SERV Contract: _____

Lab Code: _____ Case No.: 07380_ SAS No.: _____ SDG No.: 5825R_

Matrix (soil/water): SOIL__ Level (low/med): LOW___

% Solids for Sample: _90.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Aluminum									NR
Antimony	75-125	20.2646		0.0545	U	105.82	19.2	N	F
Arsenic	75-125	415.8876		4.7637		423.28	97.1		P
Barium	75-125	840.1348		138.7766		423.28	165.7	N	P
Beryllium	75-125	11.5948		1.5811		10.58	94.6		P
Cadmium	75-125	10.7600		0.1422		10.58	100.4		P
Calcium									NR
Chromium	75-125	52.4490		10.2083		42.33	99.8		P
Cobalt	75-125	108.6808		5.9558		105.82	97.1		P
Copper	75-125	60.4790		7.7622		52.91	99.6		P
Iron									NR
Lead	75-125	120.6183		10.2819		105.82	104.3		P
Magnesium									NR
Manganese	75-125	507.1968		197.3072		105.82	292.8	N	P
Mercury									NR
Nickel	75-125	110.7014		12.8993		105.82	92.4		P
Potassium									NR
Selenium	75-125	1.0011		0.2437		2.22	34.1	N	F
Silver	75-125	10.5465		0.1307	U	10.58	99.7		P
Sodium									NR
Thallium	75-125	10.5333		0.2025	B	11.11	93.0		F
Vanadium	75-125	134.3044		15.1644		105.82	112.6		P
Zinc	75-125	136.1509		34.4740		105.82	96.1		P
Cyanide									NR

Comments:

U.S. EPA - CLP

5A
SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

RE03-2002S

Lab Name: KEMRON_ENVIRONMENTAL_SERV Contract: _____

Lab Code: _____ Case No.: 07380_ SAS No.: _____ SDG No.: 5825R_

Matrix (soil/water): SOIL__ Level (low/med): LOW___

% Solids for Sample: _88.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Aluminum									NR
Antimony									NR
Arsenic									NR
Barium									NR
Beryllium									NR
Cadmium									NR
Calcium									NR
Chromium									NR
Cobalt									NR
Copper									NR
Iron									NR
Lead									NR
Magnesium									NR
Manganese									NR
Mercury	75-125	1.1705		0.0146	B	0.95	121.7		CV
Nickel									NR
Potassium									NR
Selenium									NR
Silver									NR
Sodium									NR
Thallium									NR
Vanadium									NR
Zinc									NR
Cyanide									NR

Comments:

U.S. EPA - CLP

6
DUPLICATES

EPA SAMPLE NO.

RE03-2000D

Lab Name: KEMRON_ENVIRONMENTAL_SERV Contract: _____

Lab Code: _____ Case No.: 07380_ SAS No.: _____ SDG No.: 5825R_

Matrix (soil/water): SOIL_ Level (low/med): _LOW__

% Solids for Sample: _86.0 % Solids for Duplicate: __86.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	M
Aluminum		16974.8583		12456.9086		30.7	*	P
Antimony		0.0559	U	0.0581	U			F
Arsenic	1.1180	5.0826		2.6674		62.3	*	P
Barium		138.0868		93.4774		38.5	*	P
Beryllium	0.5590	0.9449		0.7696		20.4		P
Cadmium		0.1011	B	0.0863	B	15.8		P
Calcium		4773.2922		4150.1556		14.0		P
Chromium		10.3784		7.1816		36.4	*	P
Cobalt		7.1164		6.7983		4.6		P
Copper	1.1180	7.0197		5.2242		29.3	*	P
Iron		14944.6103		9149.2551		48.1	*	P
Lead		13.4064		8.7683		41.8	*	P
Magnesium		2459.9233		1798.9113		31.0	*	P
Manganese		385.6135		334.5747		14.2		P
Mercury								NR
Nickel	2.2360	7.4230		7.2700		2.1		P
Potassium		1664.4593		1257.8940		27.8	*	P
Selenium	0.2190	0.2437		0.2727		11.2		F
Silver		0.1480	B	0.1395	U	200.0		P
Sodium		425.8399		359.8663		16.8		P
Thallium		0.1739	B	0.1932	B	10.5		F
Vanadium		27.2336		14.0885		63.6	*	P
Zinc		27.8953		21.2708		26.9	*	P
Cyanide								NR

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6
DUPLICATES

EPA SAMPLE NO.

RE03-2003D

Lab Name: KEMRON_ENVIRONMENTAL_SERV Contract: _____

Lab Code: _____ Case No.: 07380_ SAS No.: _____ SDG No.: 5825R_

Matrix (soil/water): SOIL_ Level (low/med): _LOW__

% Solids for Sample: _84.0 % Solids for Duplicate: __84.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	M
Aluminum								NR
Antimony								NR
Arsenic								NR
Barium								NR
Beryllium								NR
Cadmium								NR
Calcium								NR
Chromium								NR
Cobalt								NR
Copper								NR
Iron								NR
Lead								NR
Magnesium								NR
Manganese								NR
Mercury		0.0206	B	0.0240	B	15.2		CV
Nickel								NR
Potassium								NR
Selenium								NR
Silver								NR
Sodium								NR
Thallium								NR
Vanadium								NR
Zinc								NR
Cyanide								NR

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LABORATORY CONTROL SAMPLE

Lab Name: KEMRON_ENVIRONMENTAL_SERV Contract: _____

Lab Code: _____ Case No.: 07380_ SAS No.: _____ SDG No.: 5825R_

Solid LCS Source: KEM-SPK_____

Aqueous LCS Source: _____

Analyte	Aqueous (ug/L) True	Found	%R	Solid (mg/kg) True	Found	C	Limits		%R
Aluminum				628.0	678.1		503.0	754.0	108.0
Antimony				50.0	51.0		40.0	60.0	102.0
Arsenic				50.0	50.9		40.0	60.0	101.8
Barium				500.0	492.6		400.0	600.0	98.5
Beryllium				50.0	50.3		40.0	60.0	100.6
Cadmium				50.0	50.3		40.0	60.0	100.6
Calcium				500.9	539.8		400.7	601.1	107.8
Chromium				50.0	51.4		40.0	60.0	102.8
Cobalt				50.0	50.3		40.0	60.0	100.6
Copper				50.0	49.5		40.0	60.0	99.0
Iron				109.3	106.4		87.9	130.6	97.3
Lead				50.3	51.6		40.3	60.4	102.6
Magnesium				500.0	509.6		400.0	600.0	101.9
Manganese				50.0	51.9		40.0	60.0	103.8
Mercury				0.167	0.166		0.134	0.200	99.4
Nickel				50.0	50.8		40.0	60.0	101.6
Potassium				2500.0	2485.1		2000.0	3000.0	99.4
Selenium				1.2	1.4		1.0	1.5	116.7
Silver				10.0	10.2		8.0	12.0	102.0
Sodium				2500.0	2541.2		2000.0	3000.0	101.6
Thallium				1.2	1.3		1.0	1.5	108.3
Vanadium				50.0	51.2		40.0	60.0	102.4
Zinc				50.7	50.8		40.6	60.8	100.2
Cyanide									

KEMRON Environmental Services
109 Starlite Park
Marietta, Ohio 45750
Phone: (740) 373-4071

Los Alamos National Laboratory
SMO, TA-3, Bldg. 271
MS H865, Drop Point O1U
Los Alamos, NM 87545
Attention: Joylene Valdez

PO Number:
Account Number: LANL-295

Login #: L9907380
Report Date: 08/11/99
Work ID: 5825R/MR3R3M041045
Date Received: 07/21/99

SAMPLE IDENTIFICATION

Sample Number	Sample Description	Sample Number	Sample Description
L9907380-01	RE03-99-2000	L9907380-02	RE03-99-2001
L9907380-03	RE03-99-2002	L9907380-04	RE03-99-2003
L9907380-05	RE03-99-2004	L9907380-06	RE03-99-2005
L9907380-07	RE03-99-2006	L9907380-08	RE03-99-2007

All results on solids/sludges are reported on a dry weight basis, where applicable, unless otherwise specified. This report shall not be reproduced, except in full, without the written approval of KEMRON.

NYSDOH ELAP ID: 10861

Certified By
Deanna Hesson

KEMRON
ENVIRONMENTAL SERVICES

Order #99-07-380
August 11, 1999 9:56

KEMRON ENVIRONMENTAL SERVICES
REPORT NARRATIVE

Lab ID# 7797L0014-8M

CLIENT: Los Alamos National Laboratory

LANL SDG/RN: 5825R

Sample Management:

Eight soil samples were received at Kemron Environmental Services on July 21, 1999.

Client ID:

RE03-99-2000
-2001
-2002
-2003
-2004
-2005
-2006
-2007

Quality Control:

METALS - 6010/7000:

A post digestion spike was analyzed with the following recoveries:

Barium	95.3% recovery
Manganese	91.1% recovery

The antimony and selenium were analyzed by the method of standard additions.

Some sample non-homogeneity was indicated by the duplicate analysis.

Case Narrative: (Page 2)

Shipment Conditions:

The samples were received intact. Solid blue ice was present.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and in completeness, except as detailed in this QC Report.

Laboratory Manager

Date: 8/11/99

Wednesday, July 21, 1999

REQUEST NUMBER: 5825R
ANALYSIS TYPE: INORG

Los Alamos
NATIONAL LABORATORY

ATTN: Maren Beery
KEMRON
109 STARLITE PARK
MARIETTA, OH 45750

AMENDED

Please analyze the enclosed samples according to the schedule indicated:

These samples are on:

SHIP DATE: 7/21/99
REPORT DUE: 8/22/99
TURN AROUND REQ'D: 30 days

LANL Request Number: 5825R
Per Agreement Number: 7797L0014-9S
Project Cost Code: MR3R3M041045

RAD SCREENING: Yes, Received

COMMENTS: 03 - 1114 , GA; AMENDED: SEE ATTACHED MEMO FOR CORRECTION ON SAMPLE ID # JV 7/21/99.

LANL ER SMO CONTACT: Joylene Valdez MS H865 5056659968
Signature: Joylene Valdez

ANALYSIS ORDER CODE	ANALYTE(S)	SAMPLE ID	CONT ID	SAMPLE MATRIX	DATE SAMPLED	COMMENTS
METTAL		RE03-99-2000	01	S	7/17/99	
METTAL		RE03-99-2001	01	S	7/17/99	
METTAL		RE03-99-2002	01	S	7/17/99	
METTAL		RE03-99-2003	01	S	7/17/99	
METTAL		RE03-99-2004	01	S	7/17/99	
METTAL		RE03-99-2005	01	S	7/17/99	
METTAL		RE03-99-2006	01	S	7/17/99	
METTAL		RE03-99-2007	01	S	7/17/99	

Tuesday, July 20, 1999

REQUEST NUMBER: 5825R

ANALYSIS TYPE: INORG

Los Alamos
NATIONAL LABORATORY

ATTN: Maren Beery
KEMRON
109 STARLITE PARK
MARIETTA, OH 45750

Please analyze the enclosed samples according to the schedule indicated:

SHIP DATE: 7/19/99
REPORT DUE: 8/21/99
TURN AROUND REQ'D: 30 days

These samples are on:

LANL Request Number: 5825R
Per Agreement Number: 7797L0014-9S
Project Cost Code: CG9K00000000

RAD SCREENING: Not Required

COMMENTS: 03 - 6666 , JL;

LANL ER SMO CONTACT: Joylene Valdez MS H865 5056659968

Signature:

ANALYSIS ORDER CODE	ANALYTE(S)	SAMPLE ID	CONT ID	SAMPLE MATRIX	DATE SAMPLED	COMMENTS
METTAL		36NSE1	07	S	7/17/99	
METTAL		36NSW1	07	S	7/17/99	
METTAL		36NSW2	07	S	7/17/99	
METTAL		36SFD1	07	S	7/17/99	
METTAL		36SFD2	07	S	7/17/99	
METTAL		36SSE1	07	S	7/17/99	
METTAL		36SSW1	07	S	7/17/99	
METTAL		36SSW2	07	S	7/17/99	

Tuesday, July 20, 1999

Los Alamos
NATIONAL LABORATORY

CHAIN OF CUSTODY DOCUMENT NUMBER: 5825RC

REQUEST NUMBER: 5825R
ANALYSIS TYPE: INORG

ATTN: Maren Beery
KEMRON
109 STARLITE PARK
MARIETTA, OH 45750

SAMPLE ID	CONT ID	CONTAINER DESCRIPTION	ANALYSIS ORDER CODE	PRESERVATIVE	MATRIX
36NSE1	07	125 ml poly	METTAL	NONE	S
36NSW1	07	125 ml Poly	METTAL	NONE	S
36NSW2	07	125 ml poly	METTAL	NONE	S
36SFD1	07	125 ml poly	METTAL	NONE	S
36SFD2	07	125 ml poly	METTAL	NONE	S
36SSE1	07	125 ml poly	METTAL	NONE	S
36SSW1	07	125 ml poly	METTAL	NONE	S
36SSW2	07	125 ml poly	METTAL	NONE	S

Final Page of CHAIN OF CUSTODY DOCUMENT FOR REQUEST NUMBER 5825R

Relinquished By:		Date	Time	Received By:		Date	Time
[illegible]	[illegible]	7-20-99	1305	Brenda Gregory	Brenda Gregory	7-21-99	1044
PRINTED NAME	SIGNATURE			PRINTED NAME	SIGNATURE		
PRINTED NAME	SIGNATURE			PRINTED NAME	SIGNATURE		
PRINTED NAME	SIGNATURE			PRINTED NAME	SIGNATURE		

Received for DISPOSAL By:		Date	Time
PRINTED NAME	SIGNATURE		

Remarks:
C of C sealed
SXS intact
Solid blue ice present
(bg)

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

RE03-2000

Lab Name: KEMRON_ENVIRONMENTAL_SERV Contract: _____

Lab Code: _____ Case No.: 07380_ SAS No.: _____ SDG No.: 5825R_

Matrix (soil/water): SOIL_ Lab Sample ID: 0738001

Level (low/med): LOW__ Date Received: 02/12/91

% Solids: _86.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	17000		*	P
7440-36-0	Antimony_	0.12	B	N,S	F
7440-38-2	Arsenic__	5.1			P
7440-39-3	Barium___	138		N*	P
7440-41-7	Beryllium	0.94			P
7440-43-9	Cadmium__	0.10	B		P
7440-70-2	Calcium__	4770			P
7440-47-3	Chromium_	10.4		*	P
7440-48-4	Cobalt___	7.1			P
7440-50-8	Copper___	7.0		*	P
7439-89-6	Iron____	14900		*	P
7439-92-1	Lead____	13.4			P
7439-95-4	Magnesium	2460		*	P
7439-96-5	Manganese	386		N	P
7439-97-6	Mercury__	0.01	B		CV
7440-02-0	Nickel___	7.4			P
7440-09-7	Potassium	1660		*	P
7782-49-2	Selenium_	0.09	B	N,S	F
7440-22-4	Silver___	0.15	B		P
7440-23-5	Sodium___	426			P
7440-28-0	Thallium_	0.17	B		F
7440-62-2	Vanadium_	27.2		*	P
7440-66-6	Zinc____	27.9		*	P
	Cyanide__				NR

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

FORM I - IN ILM03.0

U.S. EPA - CLP

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

RE03-2001

Lab Name: KEMRON_ENVIRONMENTAL_SERV Contract: _____

Lab Code: _____ Case No.: 07380_ SAS No.: _____ SDG No.: 5825R_

Matrix (soil/water): SOIL_ Lab Sample ID: 0738002

Level (low/med): LOW__ Date Received: 02/12/91

% Solids: _90.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	15900		*	P
7440-36-0	Antimony_	0.27	U	N,S	F
7440-38-2	Arsenic__	4.8			P
7440-39-3	Barium___	139		N*	P
7440-41-7	Beryllium	1.6			P
7440-43-9	Cadmium__	0.14			P
7440-70-2	Calcium__	4080			P
7440-47-3	Chromium_	10.2		*	P
7440-48-4	Cobalt___	6.0			P
7440-50-8	Copper___	7.8		*	P
7439-89-6	Iron____	12000		*	P
7439-92-1	Lead____	10.3			P
7439-95-4	Magnesium	3320		*	P
7439-96-5	Manganese	197		N	P
7439-97-6	Mercury__	0.01	B		CV
7440-02-0	Nickel___	12.9			P
7440-09-7	Potassium	2190		*	P
7782-49-2	Selenium_	0.08	U	N,S	F
7440-22-4	Silver___	0.13	U		P
7440-23-5	Sodium___	821			P
7440-28-0	Thallium_	0.20	B		F
7440-62-2	Vanadium_	15.2		*	P
7440-66-6	Zinc____	34.5		*	P
	Cyanide__				NR

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

FORM I - IN -ILM03.0

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

RE03-2002

Lab Name: KEMRON_ENVIRONMENTAL_SERV Contract: _____

Lab Code: _____ Case No.: 07380_ SAS No.: _____ SDG No.: 5825R_

Matrix (soil/water): SOIL_ Lab Sample ID: 0738003

Level (low/med): LOW__ Date Received: 02/12/91

% Solids: _88.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	19300		*	P
7440-36-0	Antimony_	0.53	B	N,S	F
7440-38-2	Arsenic__	4.1			P
7440-39-3	Barium___	74.7		N*	P
7440-41-7	Beryllium	1.3			P
7440-43-9	Cadmium__	0.06	B		P
7440-70-2	Calcium__	5110			P
7440-47-3	Chromium_	11.5		*	P
7440-48-4	Cobalt___	4.0			P
7440-50-8	Copper___	7.3		*	P
7439-89-6	Iron_____	13800		*	P
7439-92-1	Lead_____	10.7			P
7439-95-4	Magnesium	3390		*	P
7439-96-5	Manganese	170		N	P
7439-97-6	Mercury__	0.01	B		CV
7440-02-0	Nickel___	11.2			P
7440-09-7	Potassium	2210		*	P
7782-49-2	Selenium_	0.08	U	N,S	F
7440-22-4	Silver___	0.13	U		P
7440-23-5	Sodium___	586			P
7440-28-0	Thallium_	0.18	B		F
7440-62-2	Vanadium_	19.7		*	P
7440-66-6	Zinc_____	35.3		*	P
	Cyanide__				NR

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

FORM I - IN ILM03.0

U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

RE03-2003

Lab Name: KEMRON_ENVIRONMENTAL_SERV Contract: _____

Lab Code: _____ Case No.: 07380_ SAS No.: _____ SDG No.: 5825R_

Matrix (soil/water): SOIL_ Lab Sample ID: 0738004

Level (low/med): LOW__ Date Received: 02/12/91

% Solids: _84.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	23900		*	P
7440-36-0	Antimony	0.29	U	N,S	F
7440-38-2	Arsenic	5.2			P
7440-39-3	Barium	221		N*	P
7440-41-7	Beryllium	1.5			P
7440-43-9	Cadmium	0.18			P
7440-70-2	Calcium	3910			P
7440-47-3	Chromium	13.9		*	P
7440-48-4	Cobalt	7.1			P
7440-50-8	Copper	10.0		*	P
7439-89-6	Iron	17900		*	P
7439-92-1	Lead	17.4			P
7439-95-4	Magnesium	3530		*	P
7439-96-5	Manganese	312		N	P
7439-97-6	Mercury	0.02	B		CV
7440-02-0	Nickel	12.4			P
7440-09-7	Potassium	2530		*	P
7782-49-2	Selenium	0.31	B	N,S	F
7440-22-4	Silver	0.14	U		P
7440-23-5	Sodium	600			P
7440-28-0	Thallium	0.22	B		F
7440-62-2	Vanadium	25.6		*	P
7440-66-6	Zinc	45.1		*	P
	Cyanide				NR

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

FORM I - IN ILM03.0

U.S. EPA - CLP

1
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

RE03-2004

Lab Name: KEMRON_ENVIRONMENTAL_SERV Contract: _____

Lab Code: _____ Case No.: 07380_ SAS No.: _____ SDG No.: 5825R_

Matrix (soil/water): SOIL_ Lab Sample ID: 0738005

Level (low/med): LOW__ Date Received: 02/12/91

% Solids: _83.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	20600		*	P
7440-36-0	Antimony	0.21	B	N,S	F
7440-38-2	Arsenic	4.3			P
7440-39-3	Barium	134		N*	P
7440-41-7	Beryllium	1.1			P
7440-43-9	Cadmium	0.12			P
7440-70-2	Calcium	3320			P
7440-47-3	Chromium	11.7		*	P
7440-48-4	Cobalt	5.6			P
7440-50-8	Copper	7.5		*	P
7439-89-6	Iron	14200		*	P
7439-92-1	Lead	12.4			P
7439-95-4	Magnesium	2720		*	P
7439-96-5	Manganese	283		N	P
7439-97-6	Mercury	0.02	B		CV
7440-02-0	Nickel	10.7			P
7440-09-7	Potassium	2110		*	P
7782-49-2	Selenium	0.24	U	N,S	F
7440-22-4	Silver	0.14	U		P
7440-23-5	Sodium	581			P
7440-28-0	Thallium	0.22	B		F
7440-62-2	Vanadium	22.9		*	P
7440-66-6	Zinc	35.2		*	P
	Cyanide				NR

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

FORM I - IN ILM03.0

U.S. EPA - CLP

1
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

RE03-2005

Lab Name: KEMRON_ENVIRONMENTAL_SERV Contract: _____

Lab Code: _____ Case No.: 07380_ SAS No.: _____ SDG No.: 5825R_

Matrix (soil/water): SOIL_ Lab Sample ID: 0738006

Level (low/med): LOW__ Date Received: 02/12/91

% Solids: _83.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	23900		*	P
7440-36-0	Antimony_	0.31	B	N,S	F
7440-38-2	Arsenic__	3.7			P
7440-39-3	Barium___	133		N*	P
7440-41-7	Beryllium	0.89			P
7440-43-9	Cadmium__	0.07	B		P
7440-70-2	Calcium__	2800			P
7440-47-3	Chromium_	15.3		*	P
7440-48-4	Cobalt___	9.0			P
7440-50-8	Copper___	8.9		*	P
7439-89-6	Iron_____	16200		*	P
7439-92-1	Lead_____	14.7			P
7439-95-4	Magnesium	2990		*	P
7439-96-5	Manganese	280		N	P
7439-97-6	Mercury__	0.02	B		CV
7440-02-0	Nickel___	9.1			P
7440-09-7	Potassium	2000		*	P
7782-49-2	Selenium_	0.22	U	N,S	F
7440-22-4	Silver___	0.14	U		P
7440-23-5	Sodium___	428			P
7440-28-0	Thallium_	0.17	B		F
7440-62-2	Vanadium_	27.7		*	P
7440-66-6	Zinc_____	31.7		*	P
	Cyanide__				NR

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

FORM I - IN ILM03.0

U.S. EPA - CLP

1
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

RE03-2006

Lab Name: KEMRON_ENVIRONMENTAL_SERV Contract: _____

Lab Code: _____ Case No.: 07380_ SAS No.: _____ SDG No.: 5825R_

Matrix (soil/water): SOIL_ Lab Sample ID: 0738007

Level (low/med): LOW__ Date Received: 02/12/91

% Solids: _78.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	23700	_	*	P_
7440-36-0	Antimony_	0.78	B	N,S	F_
7440-38-2	Arsenic__	5.6			P_
7440-39-3	Barium___	138	_	N*	P_
7440-41-7	Beryllium	1.5	_		P_
7440-43-9	Cadmium__	0.08	B		P_
7440-70-2	Calcium__	4360	_		P_
7440-47-3	Chromium_	14.0	_	*	P_
7440-48-4	Cobalt___	6.0	_		P_
7440-50-8	Copper___	9.4	_	*	P_
7439-89-6	Iron_____	18800	_	*	P_
7439-92-1	Lead_____	15.1			P_
7439-95-4	Magnesium	3560	_	*	P_
7439-96-5	Manganese	274	_	N	P_
7439-97-6	Mercury__	0.02	B		CV
7440-02-0	Nickel___	12.6	_		P_
7440-09-7	Potassium	2520	_	*	P_
7782-49-2	Selenium_	0.36	B	N,S	F_
7440-22-4	Silver___	0.15	U		P_
7440-23-5	Sodium___	716	_		P_
7440-28-0	Thallium_	0.23	B		F_
7440-62-2	Vanadium_	26.8	_	*	P_
7440-66-6	Zinc_____	48.7	_	*	P_
_____	Cyanide__		_		NR

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

RE03-2007

Lab Name: KEMRON_ENVIRONMENTAL_SERV Contract: _____

Lab Code: _____ Case No.: 07380_ SAS No.: _____ SDG No.: 5825R_

Matrix (soil/water): SOIL_ Lab Sample ID: 0738008

Level (low/med): LOW__ Date Received: 02/12/91

% Solids: _81.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	30700		*	P_
7440-36-0	Antimony_	0.30	U	N,S	F_
7440-38-2	Arsenic__	6.3			P_
7440-39-3	Barium___	139		N*	P_
7440-41-7	Beryllium	2.5			P_
7440-43-9	Cadmium__	0.10	B		P_
7440-70-2	Calcium__	5200			P_
7440-47-3	Chromium_	17.8		*	P_
7440-48-4	Cobalt___	7.2			P_
7440-50-8	Copper___	11.8		*	P_
7439-89-6	Iron____	22000		*	P_
7439-92-1	Lead____	16.5			P_
7439-95-4	Magnesium	5150		*	P_
7439-96-5	Manganese	302		N	P_
7439-97-6	Mercury__	0.03	B		CV
7440-02-0	Nickel___	21.7			P_
7440-09-7	Potassium	3380		*	P_
7782-49-2	Selenium_	0.19	B	N,S	F_
7440-22-4	Silver___	0.14	U		P_
7440-23-5	Sodium___	1150			P_
7440-28-0	Thallium_	0.22	B		F_
7440-62-2	Vanadium_	28.0		*	P_
7440-66-6	Zinc____	54.0		*	P_
	Cyanide__				NR

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

DATA VALIDATION COVER SHEET (Example)

SECTION I.

REQUEST NUMBER: 5825 COST CODE: MR3R3M04/05

VALIDATION DATE: _____

LAB NAME: Kemron LAB CODE: _____

VALIDATOR: _____ ORGANIZATION: _____

ANALYTICAL SUITE: ___ VOLATILES ___ HIGH EXPLOSIVES

___ SEMIVOLATILES ✓ INORGANICS

___ PESTICIDES/AROCLORS ___ RADIOCHEMISTRY

OTHER (describe) _____

SECTION II. COMPLETENESS CHECKLIST

Item	Present? (Y/N/NA)	Item	Present? (Y/N/NA)
1. COC form(s)		2. Case Narrative	
3. Sample Results		4. Sample Chromatograms	
5. Standard Chromatograms		6. Quantitation Reports	
7. QC Forms			

Identify any samples in the assigned Request Number that are missing:

_____ _____ _____ _____ _____ _____

_____ _____ _____ _____ _____ _____

Comments: include information about requests to the laboratory and agreed upon date of resolution and lab contact: (Attach additional comment sheets as necessary)

_____

_____

_____

Signature/1st validation: _____ Date/1st validation: _____

Signature/2nd validation: _____ Date/2nd validation: _____

KEMRON Environmental Services
109 Starlite Park
Marietta, Ohio 45750
Phone: (740) 373-4071

Los Alamos National Laboratory
SMO, TA-3, Bldg. 271
MS H865, Drop Point O1U
Los Alamos, NM 87545
Attention: Joylene Valdez

PO Number:
Account Number: LANL-295

Login #: L9907380
Report Date: 08/11/99
Work ID: 5825R/MR3R3M041045
Date Received: 07/21/99

AUG 1999

SAMPLE IDENTIFICATION

Sample Number	Sample Description	Sample Number	Sample Description
L9907380-01	RE03-99-2000	L9907380-02	RE03-99-2001
L9907380-03	RE03-99-2002	L9907380-04	RE03-99-2003
L9907380-05	RE03-99-2004	L9907380-06	RE03-99-2005
L9907380-07	RE03-99-2006	L9907380-08	RE03-99-2007

All results on solids/sludges are reported on a dry weight basis, where applicable, unless otherwise specified. This report shall not be reproduced, except in full, without the written approval of KEMRON.

NYSDOH ELAP ID: 10861

Certified By
Deanna Hesson

KEMRON
ENVIRONMENTAL SERVICES

KEMRON ENVIRONMENTAL SERVICES
REPORT NARRATIVE

Lab ID# 7797L0014-8M

CLIENT: Los Alamos National Laboratory

LANL SDG/RN: 5825R

Sample Management:

Eight soil samples were received at Kemron Environmental Services on July 21, 1999.

Client ID:

RE03-99-2000
-2001
-2002
-2003
-2004
-2005
-2006
-2007

Quality Control:

METALS - 6010/7000:

A post digestion spike was analyzed with the following recoveries:

Barium	95.3% recovery
Manganese	91.1% recovery

The antimony and selenium were analyzed by the method of standard additions.

Some sample non-homogeneity was indicated by the duplicate analysis.

Case Narrative: (Page 2)

Shipment Conditions:

The samples were received intact. Solid blue ice was present.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and in completeness, except as detailed in this QC Report.

Laboratory Manager

Date: 8/11/99

Login #L9907380
August 11, 1999 10:34 am

KEMRON ENVIRONMENTAL SERVICES

Lab Sample ID: L9907380-01
Client Sample ID: RE03-99-2000
Site/Work ID: 5825R/MR3R3M041045

Matrix: Soil
Collected: 07/17/99 N/A

% Solid: 86
COC Info: N/A

Analyte	Units	Result	Qualifiers	RL	Dil	Type	Analyst	Analysis Date	Time	Method
Percent Solids.....	% wt.	86		1.0	1	N/A	SMW	07/27/99	16:40	D2216-90
Silver, Total.....	mg/kg	0.15	B	0.58	1	N/A	JYH	07/23/99	11:08	6010B\3050A
Aluminum, Total.....	mg/kg	17000		5.8	1	N/A	JYH	07/23/99	11:08	6010B\3050A
Arsenic, Total.....	mg/kg	5.1		1.2	1	N/A	JYH	07/23/99	11:08	6010B\3050A
Barium, Total.....	mg/kg	140		0.58	1	N/A	JYH	07/23/99	11:08	6010B\3050A
Beryllium, Total.....	mg/kg	0.95		0.58	1	N/A	JYH	07/23/99	11:08	6010B\3050A
Calcium, Total.....	mg/kg	4800		12	1	N/A	JYH	07/23/99	11:08	6010B\3050A
Cadmium, Total.....	mg/kg	0.10	B	0.12	1	N/A	JYH	07/23/99	11:08	6010B\3050A
Cobalt, Total.....	mg/kg	7.1		1.2	1	N/A	JYH	07/23/99	11:08	6010B\3050A
Chromium, Total.....	mg/kg	10		1.2	1	N/A	JYH	07/23/99	11:08	6010B\3050A
Copper, Total.....	mg/kg	7.0		1.2	1	N/A	JYH	07/23/99	11:08	6010B\3050A
Iron, Total.....	mg/kg	15000		2.3	1	N/A	JYH	07/23/99	11:08	6010B\3050A
Mercury, Total.....	mg/kg	0.01	B	0.12	1	N/A	KAS	07/23/99	13:22	7471A\7471A
Potassium, Total.....	mg/kg	1700		58	1	N/A	JYH	07/23/99	11:08	6010B\3050A
Magnesium, Total.....	mg/kg	2500		29	1	N/A	JYH	07/23/99	11:08	6010B\3050A
Manganese, Total.....	mg/kg	390		0.58	1	N/A	JYH	07/23/99	11:08	6010B\3050A
Sodium, Total.....	mg/kg	430		29	1	N/A	JYH	07/23/99	11:08	6010B\3050A
Nickel, Total.....	mg/kg	7.4		2.3	1	N/A	JYH	07/23/99	11:08	6010B\3050A
Lead, Total.....	mg/kg	13		1.2	1	N/A	JYH	07/23/99	11:08	6010B\3050A
Antimony, Total.....	mg/kg	0.12	B,S	1.2	2	N/A	CRC	08/04/99	08:50	7041
Selenium, Total.....	mg/kg	0.09	B,S	0.47	2	N/A	RSS	07/26/99	09:59	7740
Thallium, Total.....	mg/kg	0.17	B	0.29	1	N/A	HLC	07/23/99	09:17	7841
Vanadium, Total.....	mg/kg	27		0.58	1	N/A	JYH	07/23/99	11:08	6010B\3050A
Zinc, Total.....	mg/kg	28		1.2	1	N/A	JYH	07/23/99	11:08	6010B\3050A

Lab Sample ID: L9907380-02
Client Sample ID: RE03-99-2001
Site/Work ID: 5825R/MR3R3M041045

Matrix: Soil
Collected: 07/17/99 N/A

% Solid: 90
COC Info: N/A

Analyte	Units	Result	Qualifiers	RL	Dil	Type	Analyst	Analysis Date	Time	Method
Percent Solids.....	% wt.	90		1.0	1	N/A	SMW	07/27/99	16:40	D2216-90
Silver, Total.....	mg/kg		ND	0.56	1	N/A	JYH	07/23/99	11:15	6010B\3050A
Aluminum, Total.....	mg/kg	16000		5.6	1	N/A	JYH	07/23/99	11:15	6010B\3050A
Arsenic, Total.....	mg/kg	4.8		1.1	1	N/A	JYH	07/23/99	11:15	6010B\3050A
Barium, Total.....	mg/kg	140		0.56	1	N/A	JYH	07/23/99	11:15	6010B\3050A
Beryllium, Total.....	mg/kg	1.6		0.56	1	N/A	JYH	07/23/99	11:15	6010B\3050A

RL = Reporting Limit

Login #L9907380
August 11, 1999 10:04 am

KEMRON ENVIRONMENTAL SERVICES

Lab Sample ID: L9907380-02
Client Sample ID: RE03-99-2001
Site/Work ID: 5825R/MR3R3M041045

Matrix: Soil
Collected: 07/17/99 N/A

% Solid: 90
COC Info: N/A

Analyte	Units	Result	Qualifiers	RL	Dil	Type	Analyst	Analysis Date	Time	Method
Calcium, Total.....	mg/kg	4100		11	1	N/A	JYH	07/23/99	11:15	6010B\3050A
Cadmium, Total.....	mg/kg	0.14		0.11	1	N/A	JYH	07/23/99	11:15	6010B\3050A
Cobalt, Total.....	mg/kg	6.0		1.1	1	N/A	JYH	07/23/99	11:15	6010B\3050A
Chromium, Total.....	mg/kg	10		1.1	1	N/A	JYH	07/23/99	11:15	6010B\3050A
Copper, Total.....	mg/kg	7.8		1.1	1	N/A	JYH	07/23/99	11:15	6010B\3050A
Iron, Total.....	mg/kg	12000		2.2	1	N/A	JYH	07/23/99	11:15	6010B\3050A
Mercury, Total.....	mg/kg	0.01	B	0.11	1	N/A	KAS	07/23/99	13:22	7471A\7471A
Potassium, Total.....	mg/kg	2200		56	1	N/A	JYH	07/23/99	11:15	6010B\3050A
Magnesium, Total.....	mg/kg	3300		28	1	N/A	JYH	07/23/99	11:15	6010B\3050A
Manganese, Total.....	mg/kg	200		0.56	1	N/A	JYH	07/23/99	11:15	6010B\3050A
Sodium, Total.....	mg/kg	820		28	1	N/A	JYH	07/23/99	11:15	6010B\3050A
Nickel, Total.....	mg/kg	13		2.2	1	N/A	JYH	07/23/99	11:15	6010B\3050A
Lead, Total.....	mg/kg	10		1.1	1	N/A	JYH	07/23/99	11:15	6010B\3050A
Antimony, Total.....	mg/kg		ND,S	2.8	5	N/A	CRC	08/04/99	08:50	7041
Selenium, Total.....	mg/kg		ND,S	0.44	2	N/A	RSS	07/26/99	09:59	7740
Thallium, Total.....	mg/kg	0.20	B	0.28	1	N/A	HLC	07/23/99	09:17	7841
Vanadium, Total.....	mg/kg	15		0.56	1	N/A	JYH	07/23/99	11:15	6010B\3050A
Zinc, Total.....	mg/kg	34		1.1	1	N/A	JYH	07/23/99	11:15	6010B\3050A

Lab Sample ID: L9907380-03
Client Sample ID: RE03-99-2002
Site/Work ID: 5825R/MR3R3M041045

Matrix: Soil
Collected: 07/17/99 N/A

% Solid: 88
COC Info: N/A

Analyte	Units	Result	Qualifiers	RL	Dil	Type	Analyst	Analysis Date	Time	Method
Percent Solids.....	% wt.	88		1.0	1	N/A	SMW	07/27/99	16:40	D2216-90
Silver, Total.....	mg/kg		ND	0.57	1	N/A	JYH	07/23/99	11:30	6010B\3050A
Aluminum, Total.....	mg/kg	19000		5.7	1	N/A	JYH	07/23/99	11:30	6010B\3050A
Arsenic, Total.....	mg/kg	4.1		1.1	1	N/A	JYH	07/23/99	11:30	6010B\3050A
Barium, Total.....	mg/kg	75		0.57	1	N/A	JYH	07/23/99	11:30	6010B\3050A
Beryllium, Total.....	mg/kg	1.3		0.57	1	N/A	JYH	07/23/99	11:30	6010B\3050A
Calcium, Total.....	mg/kg	5100		11	1	N/A	JYH	07/23/99	11:30	6010B\3050A
Cadmium, Total.....	mg/kg	0.06	B	0.11	1	N/A	JYH	07/23/99	11:30	6010B\3050A
Cobalt, Total.....	mg/kg	4.0		1.1	1	N/A	JYH	07/23/99	11:30	6010B\3050A
Chromium, Total.....	mg/kg	11		1.1	1	N/A	JYH	07/23/99	11:30	6010B\3050A
Copper, Total.....	mg/kg	7.3		1.1	1	N/A	JYH	07/23/99	11:30	6010B\3050A
Iron, Total.....	mg/kg	14000		2.3	1	N/A	JYH	07/23/99	11:30	6010B\3050A
Mercury, Total.....	mg/kg	0.01	B	0.11	1	N/A	KAS	07/23/99	13:22	7471A\7471A

RL = Reporting Limit

Login #L9907380
August 11, 1999 10:04 am

KEMRON ENVIRONMENTAL SERVICES

Lab Sample ID: L9907380-03
Client Sample ID: RE03-99-2002
Site/Work ID: 5825R/MR3R3M041045

Matrix: Soil
Collected: 07/17/99 N/A

% Solid: 88
COC Info: N/A

Analyte	Units	Result	Qualifiers	RL	Dil	Type	Analyst	Analysis Date	Time	Method
Potassium, Total.....	mg/kg	2200		57	1	N/A	JYH	07/23/99	11:30	6010B\3050A
Magnesium, Total.....	mg/kg	3400		28	1	N/A	JYH	07/23/99	11:30	6010B\3050A
Manganese, Total.....	mg/kg	170		0.57	1	N/A	JYH	07/23/99	11:30	6010B\3050A
Sodium, Total.....	mg/kg	590		28	1	N/A	JYH	07/23/99	11:30	6010B\3050A
Nickel, Total.....	mg/kg	11		2.3	1	N/A	JYH	07/23/99	11:30	6010B\3050A
Lead, Total.....	mg/kg	11		1.1	1	N/A	JYH	07/23/99	11:30	6010B\3050A
Antimony, Total.....	mg/kg	0.53	B,S	5.7	10	N/A	CRC	08/04/99	08:50	7041
Selenium, Total.....	mg/kg		ND,S	0.45	2	N/A	RSS	07/26/99	09:59	7740
Thallium, Total.....	mg/kg	0.18	B	0.28	1	N/A	CRC	07/27/99	08:50	7841
Vanadium, Total.....	mg/kg	20		0.57	1	N/A	JYH	07/23/99	11:30	6010B\3050A
Zinc, Total.....	mg/kg	35		1.1	1	N/A	JYH	07/23/99	11:30	6010B\3050A

Lab Sample ID: L9907380-04
Client Sample ID: RE03-99-2003
Site/Work ID: 5825R/MR3R3M041045

Matrix: Soil
Collected: 07/17/99 N/A

% Solid: 84
COC Info: N/A

Analyte	Units	Result	Qualifiers	RL	Dil	Type	Analyst	Analysis Date	Time	Method
Percent Solids.....	% wt.	84		1.0	1	N/A	SMW	07/27/99	16:40	D2216-90
Silver, Total.....	mg/kg		ND	0.60	1	N/A	JYH	07/23/99	11:33	6010B\3050A
Aluminum, Total.....	mg/kg	24000		6.0	1	N/A	JYH	07/23/99	11:33	6010B\3050A
Arsenic, Total.....	mg/kg	5.2		1.2	1	N/A	JYH	07/23/99	11:33	6010B\3050A
Barium, Total.....	mg/kg	220		0.60	1	N/A	JYH	07/23/99	11:33	6010B\3050A
Beryllium, Total.....	mg/kg	1.5		0.60	1	N/A	JYH	07/23/99	11:33	6010B\3050A
Calcium, Total.....	mg/kg	3900		12	1	N/A	JYH	07/23/99	11:33	6010B\3050A
Cadmium, Total.....	mg/kg	0.18		0.12	1	N/A	JYH	07/23/99	11:33	6010B\3050A
Cobalt, Total.....	mg/kg	7.1		1.2	1	N/A	JYH	07/23/99	11:33	6010B\3050A
Chromium, Total.....	mg/kg	14		1.2	1	N/A	JYH	07/23/99	11:33	6010B\3050A
Copper, Total.....	mg/kg	10		1.2	1	N/A	JYH	07/23/99	11:33	6010B\3050A
Iron, Total.....	mg/kg	18000		2.4	1	N/A	JYH	07/23/99	11:33	6010B\3050A
Mercury, Total.....	mg/kg	0.02	B	0.12	1	N/A	KAS	07/23/99	13:22	7471A\7471A
Potassium, Total.....	mg/kg	2500		60	1	N/A	JYH	07/23/99	11:33	6010B\3050A
Magnesium, Total.....	mg/kg	3500		30	1	N/A	JYH	07/23/99	11:33	6010B\3050A
Manganese, Total.....	mg/kg	310		0.60	1	N/A	JYH	07/23/99	11:33	6010B\3050A
Sodium, Total.....	mg/kg	600		30	1	N/A	JYH	07/23/99	11:33	6010B\3050A
Nickel, Total.....	mg/kg	12		2.4	1	N/A	JYH	07/23/99	11:33	6010B\3050A
Lead, Total.....	mg/kg	17		1.2	1	N/A	JYH	07/23/99	11:33	6010B\3050A
Antimony, Total.....	mg/kg		ND,S	3.0	5	N/A	CRC	08/04/99	08:50	7041

RL = Reporting Limit

Login #L9907380
August 11, 1999 10:04 am

KEMRON ENVIRONMENTAL SERVICES

Lab Sample ID: L9907380-04
Client Sample ID: RE03-99-2003
Site/Work ID: 5825R/MR3R3M041045

Matrix: Soil
Collected: 07/17/99 N/A

% Solid: 84
COC Info: N/A

Analyte	Units	Result	Qualifiers	RL	Dil	Type	Analyst	Analysis Date	Time	Method
Selenium, Total.....	mg/kg	0.31	B,S	0.48	2	N/A	RSS	07/26/99	09:59	7740
Thallium, Total.....	mg/kg	0.22	B	0.30	1	N/A	CRC	07/27/99	08:50	7841
Vanadium, Total.....	mg/kg	26		0.60	1	N/A	JYH	07/23/99	11:33	6010B\3050A
Zinc, Total.....	mg/kg	45		1.2	1	N/A	JYH	07/23/99	11:33	6010B\3050A

Lab Sample ID: L9907380-05
Client Sample ID: RE03-99-2004
Site/Work ID: 5825R/MR3R3M041045

Matrix: Soil
Collected: 07/17/99 N/A

% Solid: 83
COC Info: N/A

Analyte	Units	Result	Qualifiers	RL	Dil	Type	Analyst	Analysis Date	Time	Method
Percent Solids.....	% wt.	83		1.0	1	N/A	SMW	07/27/99	16:40	D2216-90
Silver, Total.....	mg/kg		ND	0.60	1	N/A	JYH	07/23/99	11:48	6010B\3050A
Aluminum, Total.....	mg/kg	21000		6.0	1	N/A	JYH	07/23/99	11:48	6010B\3050A
Arsenic, Total.....	mg/kg	4.3		1.2	1	N/A	JYH	07/23/99	11:48	6010B\3050A
Barium, Total.....	mg/kg	130		0.60	1	N/A	JYH	07/23/99	11:48	6010B\3050A
Beryllium, Total.....	mg/kg	1.1		0.60	1	N/A	JYH	07/23/99	11:48	6010B\3050A
Calcium, Total.....	mg/kg	3300		12	1	N/A	JYH	07/23/99	11:48	6010B\3050A
Cadmium, Total.....	mg/kg	0.12		0.12	1	N/A	JYH	07/23/99	11:48	6010B\3050A
Cobalt, Total.....	mg/kg	5.6		1.2	1	N/A	JYH	07/23/99	11:48	6010B\3050A
Chromium, Total.....	mg/kg	12		1.2	1	N/A	JYH	07/23/99	11:48	6010B\3050A
Copper, Total.....	mg/kg	7.5		1.2	1	N/A	JYH	07/23/99	11:48	6010B\3050A
Iron, Total.....	mg/kg	14000		2.4	1	N/A	JYH	07/23/99	11:48	6010B\3050A
Mercury, Total.....	mg/kg	0.02	B	0.12	1	N/A	KAS	07/23/99	13:22	7471A\7471A
Potassium, Total.....	mg/kg	2100		60	1	N/A	JYH	07/23/99	11:48	6010B\3050A
Magnesium, Total.....	mg/kg	2700		30	1	N/A	JYH	07/23/99	11:48	6010B\3050A
Manganese, Total.....	mg/kg	280		0.60	1	N/A	JYH	07/23/99	11:48	6010B\3050A
Sodium, Total.....	mg/kg	580		30	1	N/A	JYH	07/23/99	11:48	6010B\3050A
Nickel, Total.....	mg/kg	11		2.4	1	N/A	JYH	07/23/99	11:48	6010B\3050A
Lead, Total.....	mg/kg	12		1.2	1	N/A	JYH	07/23/99	11:48	6010B\3050A
Antimony, Total.....	mg/kg	0.21	B,S	1.2	2	N/A	CRC	08/04/99	08:50	7041
Selenium, Total.....	mg/kg		ND,S	1.2	5	N/A	RSS	07/26/99	09:59	7740
Thallium, Total.....	mg/kg	0.22	B	0.30	1	N/A	CRC	07/27/99	08:50	7841
Vanadium, Total.....	mg/kg	23		0.60	1	N/A	JYH	07/23/99	11:48	6010B\3050A
Zinc, Total.....	mg/kg	35		1.2	1	N/A	JYH	07/23/99	11:48	6010B\3050A

RL = Reporting Limit

Login #L9907380
August 11, 1999 10:04 am

KEMRON ENVIRONMENTAL SERVICES

Lab Sample ID: L9907380-06
Client Sample ID: RE03-99-2005
Site/Work ID: 5825R/MR3R3M041045

Matrix: Soil
Collected: 07/17/99 N/A

% Solid: 83
COC Info: N/A

Analyte	Units	Result	Qualifiers	RL	Dil	Type	Analyst	Analysis Date	Time	Method
Percent Solids.....	% wt.	83		1.0	1	N/A	SMW	07/27/99	16:40	D2216-90
Silver, Total.....	mg/kg		ND	0.60	1	N/A	JYH	07/23/99	11:51	6010B\3050A
Aluminum, Total.....	mg/kg	24000		6.0	1	N/A	JYH	07/23/99	11:51	6010B\3050A
Arsenic, Total.....	mg/kg	3.7		1.2	1	N/A	JYH	07/23/99	11:51	6010B\3050A
Barium, Total.....	mg/kg	130		0.60	1	N/A	JYH	07/23/99	11:51	6010B\3050A
Beryllium, Total.....	mg/kg	0.89		0.60	1	N/A	JYH	07/23/99	11:51	6010B\3050A
Calcium, Total.....	mg/kg	2800		12	1	N/A	JYH	07/23/99	11:51	6010B\3050A
Cadmium, Total.....	mg/kg	0.07	B	0.12	1	N/A	JYH	07/23/99	11:51	6010B\3050A
Cobalt, Total.....	mg/kg	9.0		1.2	1	N/A	JYH	07/23/99	11:51	6010B\3050A
Chromium, Total.....	mg/kg	15		1.2	1	N/A	JYH	07/23/99	11:51	6010B\3050A
Copper, Total.....	mg/kg	8.9		1.2	1	N/A	JYH	07/23/99	11:51	6010B\3050A
Iron, Total.....	mg/kg	16000		2.4	1	N/A	JYH	07/23/99	11:51	6010B\3050A
Mercury, Total.....	mg/kg	0.02	B	0.12	1	N/A	KAS	07/23/99	13:22	7471A\7471A
Potassium, Total.....	mg/kg	2000		60	1	N/A	JYH	07/23/99	11:51	6010B\3050A
Magnesium, Total.....	mg/kg	3000		30	1	N/A	JYH	07/23/99	11:51	6010B\3050A
Manganese, Total.....	mg/kg	280		0.60	1	N/A	JYH	07/23/99	11:51	6010B\3050A
Sodium, Total.....	mg/kg	430		30	1	N/A	JYH	07/23/99	11:51	6010B\3050A
Nickel, Total.....	mg/kg	9.1		2.4	1	N/A	JYH	07/23/99	11:51	6010B\3050A
Lead, Total.....	mg/kg	15		1.2	1	N/A	JYH	07/23/99	11:51	6010B\3050A
Antimony, Total.....	mg/kg	0.31	B,S	1.2	2	N/A	CRC	08/04/99	08:50	7041
Selenium, Total.....	mg/kg		ND,S	1.2	5	N/A	RSS	07/26/99	09:59	7740
Thallium, Total.....	mg/kg	0.17	B	0.30	1	N/A	CRC	07/27/99	08:50	7841
Vanadium, Total.....	mg/kg	28		0.60	1	N/A	JYH	07/23/99	11:51	6010B\3050A
Zinc, Total.....	mg/kg	32		1.2	1	N/A	JYH	07/23/99	11:51	6010B\3050A

Lab Sample ID: L9907380-07
Client Sample ID: RE03-99-2006
Site/Work ID: 5825R/MR3R3M041045

Matrix: Soil
Collected: 07/17/99 N/A

% Solid: 78
COC Info: N/A

Analyte	Units	Result	Qualifiers	RL	Dil	Type	Analyst	Analysis Date	Time	Method
Percent Solids.....	% wt.	78		1.0	1	N/A	SMW	07/27/99	16:40	D2216-90
Silver, Total.....	mg/kg		ND	0.64	1	N/A	JYH	07/23/99	11:55	6010B\3050A
Aluminum, Total.....	mg/kg	24000		6.4	1	N/A	JYH	07/23/99	11:55	6010B\3050A
Arsenic, Total.....	mg/kg	5.6		1.3	1	N/A	JYH	07/23/99	11:55	6010B\3050A
Barium, Total.....	mg/kg	140		0.64	1	N/A	JYH	07/23/99	11:55	6010B\3050A
Beryllium, Total.....	mg/kg	1.6		0.64	1	N/A	JYH	07/23/99	11:55	6010B\3050A

RL = Reporting Limit

KEMRON ENVIRONMENTAL SERVICES

Lab Sample ID: L9907380-07
Client Sample ID: RE03-99-2006
Site/Work ID: 5825R/MR3R3M041045

Matrix: Soil
Collected: 07/17/99 N/A

% Solid: 78
COC Info: N/A

Analyte	Units	Result	Qualifiers	RL	Dil	Type	Analyst	Analysis Date	Time	Method
Calcium, Total	mg/kg	4400		13	1	N/A	JYH	07/23/99	11:55	6010B\3050A
Cadmium, Total	mg/kg	0.08	B	0.13	1	N/A	JYH	07/23/99	11:55	6010B\3050A
Cobalt, Total	mg/kg	6.0		1.3	1	N/A	JYH	07/23/99	11:55	6010B\3050A
Chromium, Total	mg/kg	14		1.3	1	N/A	JYH	07/23/99	11:55	6010B\3050A
Copper, Total	mg/kg	9.4		1.3	1	N/A	JYH	07/23/99	11:55	6010B\3050A
Iron, Total	mg/kg	19000		2.6	1	N/A	JYH	07/23/99	11:55	6010B\3050A
Mercury, Total	mg/kg	0.02	B	0.13	1	N/A	KAS	07/23/99	13:22	7471A\7471A
Potassium, Total	mg/kg	2500		64	1	N/A	JYH	07/23/99	11:55	6010B\3050A
Magnesium, Total	mg/kg	3600		32	1	N/A	JYH	07/23/99	11:55	6010B\3050A
Manganese, Total	mg/kg	270		0.64	1	N/A	JYH	07/23/99	11:55	6010B\3050A
Sodium, Total	mg/kg	720		32	1	N/A	JYH	07/23/99	11:55	6010B\3050A
Nickel, Total	mg/kg	13		2.6	1	N/A	JYH	07/23/99	11:55	6010B\3050A
Lead, Total	mg/kg	15		1.3	1	N/A	JYH	07/23/99	11:55	6010B\3050A
Antimony, Total	mg/kg	0.78	B,S	6.4	10	N/A	CRC	08/04/99	08:50	7041
Selenium, Total	mg/kg	0.36	B,S	0.51	2	N/A	RSS	07/26/99	09:59	7740
Thallium, Total	mg/kg	0.23	B	0.32	1	N/A	CRC	07/27/99	08:50	7841
Vanadium, Total	mg/kg	27		0.64	1	N/A	JYH	07/23/99	11:55	6010B\3050A
Zinc, Total	mg/kg	49		1.3	1	N/A	JYH	07/23/99	11:55	6010B\3050A

Lab Sample ID: L9907380-08
Client Sample ID: RE03-99-2007
Site/Work ID: 5825R/MR3R3M041045

Matrix: Soil
Collected: 07/17/99 N/A

% Solid: 81
COC Info: N/A

Analyte	Units	Result	Qualifiers	RL	Dil	Type	Analyst	Analysis Date	Time	Method
Percent Solids	% wt.	81		1.0	1	N/A	SMW	07/27/99	16:40	D2216-90
Silver, Total	mg/kg		ND	0.62	1	N/A	JYH	07/23/99	11:59	6010B\3050A
Aluminum, Total	mg/kg	31000		6.2	1	N/A	JYH	07/23/99	11:59	6010B\3050A
Arsenic, Total	mg/kg	6.3		1.2	1	N/A	JYH	07/23/99	11:59	6010B\3050A
Barium, Total	mg/kg	140		0.62	1	N/A	JYH	07/23/99	11:59	6010B\3050A
Beryllium, Total	mg/kg	2.5		0.62	1	N/A	JYH	07/23/99	11:59	6010B\3050A
Calcium, Total	mg/kg	5200		12	1	N/A	JYH	07/23/99	11:59	6010B\3050A
Cadmium, Total	mg/kg	0.10	B	0.12	1	N/A	JYH	07/23/99	11:59	6010B\3050A
Cobalt, Total	mg/kg	7.2		1.2	1	N/A	JYH	07/23/99	11:59	6010B\3050A
Chromium, Total	mg/kg	18		1.2	1	N/A	JYH	07/23/99	11:59	6010B\3050A
Copper, Total	mg/kg	12		1.2	1	N/A	JYH	07/23/99	11:59	6010B\3050A
Iron, Total	mg/kg	22000		2.5	1	N/A	JYH	07/23/99	11:59	6010B\3050A
Mercury, Total	mg/kg	0.03	B	0.12	1	N/A	KAS	07/23/99	13:22	7471A\7471A

RL = Reporting Limit

Login #L9907380
August 11, 1999 10:04 am

KEMRON ENVIRONMENTAL SERVICES

Lab Sample ID: L9907380-08
Client Sample ID: RE03-99-2007
Site/Work ID: 5825R/MR3R3M041045

Matrix: Soil
Collected: 07/17/99 N/A

% Solid: 81
COC Info: N/A

Analyte	Units	Result	Qualifiers	RL	Dil	Type	Analyst	Analysis Date	Time	Method
Potassium, Total.....	mg/kg	3400		62	1	N/A	JYH	07/23/99	11:59	6010B\3050A
Magnesium, Total.....	mg/kg	5100		31	1	N/A	JYH	07/23/99	11:59	6010B\3050A
Manganese, Total.....	mg/kg	300		0.62	1	N/A	JYH	07/23/99	11:59	6010B\3050A
Sodium, Total.....	mg/kg	1100		31	1	N/A	JYH	07/23/99	11:59	6010B\3050A
Nickel, Total.....	mg/kg	22		2.5	1	N/A	JYH	07/23/99	11:59	6010B\3050A
Lead, Total.....	mg/kg	17		1.2	1	N/A	JYH	07/23/99	11:59	6010B\3050A
Antimony, Total.....	mg/kg		ND,S	3.1	5	N/A	CRC	08/04/99	08:50	7041
Selenium, Total.....	mg/kg	0.19	B,S	0.49	2	N/A	RSS	07/26/99	09:59	7740
Thallium, Total.....	mg/kg	0.22	B	0.31	1	N/A	CRC	07/27/99	08:50	7841
Vanadium, Total.....	mg/kg	28		0.62	1	N/A	JYH	07/23/99	11:59	6010B\3050A
Zinc, Total.....	mg/kg	54		1.2	1	N/A	JYH	07/23/99	11:59	6010B\3050A

RL = Reporting Limit

Order #: 99-07-380
August 11, 1999 10:04 am

KEMRON ENVIRONMENTAL SERVICES
WORK GROUPS

Work Group	Run ID	Sample	Dil Type	Matrix	Product	Method	Date Collected	Department
WG61417	R70395	L9907380-01		Soil	Aluminum, Total	6010B\3050A	17-JUL-1999	Digestion
WG61417	R71167	L9907380-01		Soil	Antimony, Total	7041	17-JUL-1999	Digestion
WG61417	R70395	L9907380-01		Soil	Arsenic, Total	6010B\3050A	17-JUL-1999	Digestion
WG61417	R70395	L9907380-01		Soil	Barium, Total	6010B\3050A	17-JUL-1999	Digestion
WG61417	R70395	L9907380-01		Soil	Beryllium, Total	6010B\3050A	17-JUL-1999	Digestion
WG61417	R70395	L9907380-01		Soil	Cadmium, Total	6010B\3050A	17-JUL-1999	Digestion
WG61417	R70395	L9907380-01		Soil	Calcium, Total	6010B\3050A	17-JUL-1999	Digestion
WG61417	R70395	L9907380-01		Soil	Chromium, Total	6010B\3050A	17-JUL-1999	Digestion
WG61417	R70395	L9907380-01		Soil	Cobalt, Total	6010B\3050A	17-JUL-1999	Digestion
WG61417	R70395	L9907380-01		Soil	Copper, Total	6010B\3050A	17-JUL-1999	Digestion
WG61417	R70395	L9907380-01		Soil	Iron, Total	6010B\3050A	17-JUL-1999	Digestion
WG61417	R70395	L9907380-01		Soil	Lead, Total	6010B\3050A	17-JUL-1999	Digestion
WG61417	R70395	L9907380-01		Soil	Magnesium, Total	6010B\3050A	17-JUL-1999	Digestion
WG61417	R70395	L9907380-01		Soil	Manganese, Total	6010B\3050A	17-JUL-1999	Digestion
WG61417	R70395	L9907380-01		Soil	Nickel, Total	6010B\3050A	17-JUL-1999	Digestion
WG61417	R70395	L9907380-01		Soil	Potassium, Total	6010B\3050A	17-JUL-1999	Digestion
WG61417	R70395	L9907380-01		Soil	Silver, Total	6010B\3050A	17-JUL-1999	Digestion
WG61417	R70395	L9907380-01		Soil	Sodium, Total	6010B\3050A	17-JUL-1999	Digestion
WG61417	R70395	L9907380-01		Soil	Vanadium, Total	6010B\3050A	17-JUL-1999	Digestion
WG61417	R70395	L9907380-01		Soil	Zinc, Total	6010B\3050A	17-JUL-1999	Digestion
WG61417	R70395	L9907380-02		Soil	Aluminum, Total	6010B\3050A	17-JUL-1999	Digestion
WG61417	R71167	L9907380-02		Soil	Antimony, Total	7041	17-JUL-1999	Digestion
WG61417	R70395	L9907380-02		Soil	Arsenic, Total	6010B\3050A	17-JUL-1999	Digestion
WG61417	R70395	L9907380-02		Soil	Barium, Total	6010B\3050A	17-JUL-1999	Digestion
WG61417	R70395	L9907380-02		Soil	Beryllium, Total	6010B\3050A	17-JUL-1999	Digestion
WG61417	R70395	L9907380-02		Soil	Cadmium, Total	6010B\3050A	17-JUL-1999	Digestion
WG61417	R70395	L9907380-02		Soil	Calcium, Total	6010B\3050A	17-JUL-1999	Digestion
WG61417	R70395	L9907380-02		Soil	Chromium, Total	6010B\3050A	17-JUL-1999	Digestion
WG61417	R70395	L9907380-02		Soil	Cobalt, Total	6010B\3050A	17-JUL-1999	Digestion
WG61417	R70395	L9907380-02		Soil	Copper, Total	6010B\3050A	17-JUL-1999	Digestion
WG61417	R70395	L9907380-02		Soil	Iron, Total	6010B\3050A	17-JUL-1999	Digestion
WG61417	R70395	L9907380-02		Soil	Lead, Total	6010B\3050A	17-JUL-1999	Digestion
WG61417	R70395	L9907380-02		Soil	Magnesium, Total	6010B\3050A	17-JUL-1999	Digestion
WG61417	R70395	L9907380-02		Soil	Manganese, Total	6010B\3050A	17-JUL-1999	Digestion
WG61417	R70395	L9907380-02		Soil	Nickel, Total	6010B\3050A	17-JUL-1999	Digestion
WG61417	R70395	L9907380-02		Soil	Potassium, Total	6010B\3050A	17-JUL-1999	Digestion
WG61417	R70395	L9907380-02		Soil	Silver, Total	6010B\3050A	17-JUL-1999	Digestion
WG61417	R70395	L9907380-02		Soil	Sodium, Total	6010B\3050A	17-JUL-1999	Digestion
WG61417	R70395	L9907380-02		Soil	Vanadium, Total	6010B\3050A	17-JUL-1999	Digestion
WG61417	R70395	L9907380-02		Soil	Zinc, Total	6010B\3050A	17-JUL-1999	Digestion
WG61417	R70395	L9907380-03		Soil	Aluminum, Total	6010B\3050A	17-JUL-1999	Digestion
WG61417	R71167	L9907380-03		Soil	Antimony, Total	7041	17-JUL-1999	Digestion
WG61417	R70395	L9907380-03		Soil	Arsenic, Total	6010B\3050A	17-JUL-1999	Digestion
WG61417	R70395	L9907380-03		Soil	Barium, Total	6010B\3050A	17-JUL-1999	Digestion
WG61417	R70395	L9907380-03		Soil	Beryllium, Total	6010B\3050A	17-JUL-1999	Digestion

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WG61417	R70395	L9907380-03		Soil	Cadmium, Total	6010B\3050A	17-JUL-1999	Digestion
WG61417	R70395	L9907380-03		Soil	Calcium, Total	6010B\3050A	17-JUL-1999	Digestion
WG61417	R70395	L9907380-03		Soil	Chromium, Total	6010B\3050A	17-JUL-1999	Digestion
WG61417	R70395	L9907380-03		Soil	Cobalt, Total	6010B\3050A	17-JUL-1999	Digestion
WG61417	R70395	L9907380-03		Soil	Copper, Total	6010B\3050A	17-JUL-1999	Digestion
WG61417	R70395	L9907380-03		Soil	Iron, Total	6010B\3050A	17-JUL-1999	Digestion
WG61417	R70395	L9907380-03		Soil	Lead, Total	6010B\3050A	17-JUL-1999	Digestion
WG61417	R70395	L9907380-03		Soil	Magnesium, Total	6010B\3050A	17-JUL-1999	Digestion
WG61417	R70395	L9907380-03		Soil	Manganese, Total	6010B\3050A	17-JUL-1999	Digestion
WG61417	R70395	L9907380-03		Soil	Nickel, Total	6010B\3050A	17-JUL-1999	Digestion
WG61417	R70395	L9907380-03		Soil	Potassium, Total	6010B\3050A	17-JUL-1999	Digestion
WG61417	R70395	L9907380-03		Soil	Silver, Total	6010B\3050A	17-JUL-1999	Digestion
WG61417	R70395	L9907380-03		Soil	Sodium, Total	6010B\3050A	17-JUL-1999	Digestion
WG61417	R70395	L9907380-03		Soil	Vanadium, Total	6010B\3050A	17-JUL-1999	Digestion
WG61417	R70395	L9907380-03		Soil	Zinc, Total	6010B\3050A	17-JUL-1999	Digestion
WG61417	R70395	L9907380-04		Soil	Aluminum, Total	6010B\3050A	17-JUL-1999	Digestion
WG61417	R71167	L9907380-04		Soil	Antimony, Total	7041	17-JUL-1999	Digestion
WG61417	R70395	L9907380-04		Soil	Arsenic, Total	6010B\3050A	17-JUL-1999	Digestion
WG61417	R70395	L9907380-04		Soil	Barium, Total	6010B\3050A	17-JUL-1999	Digestion
WG61417	R70395	L9907380-04		Soil	Beryllium, Total	6010B\3050A	17-JUL-1999	Digestion
WG61417	R70395	L9907380-04		Soil	Cadmium, Total	6010B\3050A	17-JUL-1999	Digestion
WG61417	R70395	L9907380-04		Soil	Calcium, Total	6010B\3050A	17-JUL-1999	Digestion
WG61417	R70395	L9907380-04		Soil	Chromium, Total	6010B\3050A	17-JUL-1999	Digestion
WG61417	R70395	L9907380-04		Soil	Cobalt, Total	6010B\3050A	17-JUL-1999	Digestion
WG61417	R70395	L9907380-04		Soil	Copper, Total	6010B\3050A	17-JUL-1999	Digestion
WG61417	R70395	L9907380-04		Soil	Iron, Total	6010B\3050A	17-JUL-1999	Digestion
WG61417	R70395	L9907380-04		Soil	Lead, Total	6010B\3050A	17-JUL-1999	Digestion
WG61417	R70395	L9907380-04		Soil	Magnesium, Total	6010B\3050A	17-JUL-1999	Digestion
WG61417	R70395	L9907380-04		Soil	Manganese, Total	6010B\3050A	17-JUL-1999	Digestion
WG61417	R70395	L9907380-04		Soil	Nickel, Total	6010B\3050A	17-JUL-1999	Digestion
WG61417	R70395	L9907380-04		Soil	Potassium, Total	6010B\3050A	17-JUL-1999	Digestion
WG61417	R70395	L9907380-04		Soil	Silver, Total	6010B\3050A	17-JUL-1999	Digestion
WG61417	R70395	L9907380-04		Soil	Sodium, Total	6010B\3050A	17-JUL-1999	Digestion
WG61417	R70395	L9907380-04		Soil	Vanadium, Total	6010B\3050A	17-JUL-1999	Digestion
WG61417	R70395	L9907380-04		Soil	Zinc, Total	6010B\3050A	17-JUL-1999	Digestion
WG61417	R70395	L9907380-05		Soil	Aluminum, Total	6010B\3050A	17-JUL-1999	Digestion
WG61417	R71167	L9907380-05		Soil	Antimony, Total	7041	17-JUL-1999	Digestion
WG61417	R70395	L9907380-05		Soil	Arsenic, Total	6010B\3050A	17-JUL-1999	Digestion
WG61417	R70395	L9907380-05		Soil	Barium, Total	6010B\3050A	17-JUL-1999	Digestion
WG61417	R70395	L9907380-05		Soil	Beryllium, Total	6010B\3050A	17-JUL-1999	Digestion
WG61417	R70395	L9907380-05		Soil	Cadmium, Total	6010B\3050A	17-JUL-1999	Digestion
WG61417	R70395	L9907380-05		Soil	Calcium, Total	6010B\3050A	17-JUL-1999	Digestion
WG61417	R70395	L9907380-05		Soil	Chromium, Total	6010B\3050A	17-JUL-1999	Digestion
WG61417	R70395	L9907380-05		Soil	Cobalt, Total	6010B\3050A	17-JUL-1999	Digestion
WG61417	R70395	L9907380-05		Soil	Copper, Total	6010B\3050A	17-JUL-1999	Digestion

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WG61417	R70395	L9907380-05		Soil	Iron, Total	6010B\3050A	17-JUL-1999	Digestion
WG61417	R70395	L9907380-05		Soil	Lead, Total	6010B\3050A	17-JUL-1999	Digestion
WG61417	R70395	L9907380-05		Soil	Magnesium, Total	6010B\3050A	17-JUL-1999	Digestion
WG61417	R70395	L9907380-05		Soil	Manganese, Total	6010B\3050A	17-JUL-1999	Digestion
WG61417	R70395	L9907380-05		Soil	Nickel, Total	6010B\3050A	17-JUL-1999	Digestion
WG61417	R70395	L9907380-05		Soil	Potassium, Total	6010B\3050A	17-JUL-1999	Digestion
WG61417	R70395	L9907380-05		Soil	Silver, Total	6010B\3050A	17-JUL-1999	Digestion
WG61417	R70395	L9907380-05		Soil	Sodium, Total	6010B\3050A	17-JUL-1999	Digestion
WG61417	R70395	L9907380-05		Soil	Vanadium, Total	6010B\3050A	17-JUL-1999	Digestion
WG61417	R70395	L9907380-05		Soil	Zinc, Total	6010B\3050A	17-JUL-1999	Digestion
WG61417	R70395	L9907380-06		Soil	Aluminum, Total	6010B\3050A	17-JUL-1999	Digestion
WG61417	R71167	L9907380-06		Soil	Antimony, Total	7041	17-JUL-1999	Digestion
WG61417	R70395	L9907380-06		Soil	Arsenic, Total	6010B\3050A	17-JUL-1999	Digestion
WG61417	R70395	L9907380-06		Soil	Barium, Total	6010B\3050A	17-JUL-1999	Digestion
WG61417	R70395	L9907380-06		Soil	Beryllium, Total	6010B\3050A	17-JUL-1999	Digestion
WG61417	R70395	L9907380-06		Soil	Cadmium, Total	6010B\3050A	17-JUL-1999	Digestion
WG61417	R70395	L9907380-06		Soil	Calcium, Total	6010B\3050A	17-JUL-1999	Digestion
WG61417	R70395	L9907380-06		Soil	Chromium, Total	6010B\3050A	17-JUL-1999	Digestion
WG61417	R70395	L9907380-06		Soil	Cobalt, Total	6010B\3050A	17-JUL-1999	Digestion
WG61417	R70395	L9907380-06		Soil	Copper, Total	6010B\3050A	17-JUL-1999	Digestion
WG61417	R70395	L9907380-06		Soil	Iron, Total	6010B\3050A	17-JUL-1999	Digestion
WG61417	R70395	L9907380-06		Soil	Lead, Total	6010B\3050A	17-JUL-1999	Digestion
WG61417	R70395	L9907380-06		Soil	Magnesium, Total	6010B\3050A	17-JUL-1999	Digestion
WG61417	R70395	L9907380-06		Soil	Manganese, Total	6010B\3050A	17-JUL-1999	Digestion
WG61417	R70395	L9907380-06		Soil	Nickel, Total	6010B\3050A	17-JUL-1999	Digestion
WG61417	R70395	L9907380-06		Soil	Potassium, Total	6010B\3050A	17-JUL-1999	Digestion
WG61417	R70395	L9907380-06		Soil	Silver, Total	6010B\3050A	17-JUL-1999	Digestion
WG61417	R70395	L9907380-06		Soil	Sodium, Total	6010B\3050A	17-JUL-1999	Digestion
WG61417	R70395	L9907380-06		Soil	Vanadium, Total	6010B\3050A	17-JUL-1999	Digestion
WG61417	R70395	L9907380-06		Soil	Zinc, Total	6010B\3050A	17-JUL-1999	Digestion
WG61417	R70395	L9907380-07		Soil	Aluminum, Total	6010B\3050A	17-JUL-1999	Digestion
WG61417	R71167	L9907380-07		Soil	Antimony, Total	7041	17-JUL-1999	Digestion
WG61417	R70395	L9907380-07		Soil	Arsenic, Total	6010B\3050A	17-JUL-1999	Digestion
WG61417	R70395	L9907380-07		Soil	Barium, Total	6010B\3050A	17-JUL-1999	Digestion
WG61417	R70395	L9907380-07		Soil	Beryllium, Total	6010B\3050A	17-JUL-1999	Digestion
WG61417	R70395	L9907380-07		Soil	Cadmium, Total	6010B\3050A	17-JUL-1999	Digestion
WG61417	R70395	L9907380-07		Soil	Calcium, Total	6010B\3050A	17-JUL-1999	Digestion
WG61417	R70395	L9907380-07		Soil	Chromium, Total	6010B\3050A	17-JUL-1999	Digestion
WG61417	R70395	L9907380-07		Soil	Cobalt, Total	6010B\3050A	17-JUL-1999	Digestion
WG61417	R70395	L9907380-07		Soil	Copper, Total	6010B\3050A	17-JUL-1999	Digestion
WG61417	R70395	L9907380-07		Soil	Iron, Total	6010B\3050A	17-JUL-1999	Digestion
WG61417	R70395	L9907380-07		Soil	Lead, Total	6010B\3050A	17-JUL-1999	Digestion
WG61417	R70395	L9907380-07		Soil	Magnesium, Total	6010B\3050A	17-JUL-1999	Digestion
WG61417	R70395	L9907380-07		Soil	Manganese, Total	6010B\3050A	17-JUL-1999	Digestion
WG61417	R70395	L9907380-07		Soil	Nickel, Total	6010B\3050A	17-JUL-1999	Digestion

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WG61417	R70395	L9907380-07		Soil	Potassium, Total	6010B\3050A	17-JUL-1999	Digestion
WG61417	R70395	L9907380-07		Soil	Silver, Total	6010B\3050A	17-JUL-1999	Digestion
WG61417	R70395	L9907380-07		Soil	Sodium, Total	6010B\3050A	17-JUL-1999	Digestion
WG61417	R70395	L9907380-07		Soil	Vanadium, Total	6010B\3050A	17-JUL-1999	Digestion
WG61417	R70395	L9907380-07		Soil	Zinc, Total	6010B\3050A	17-JUL-1999	Digestion
WG61417	R70395	L9907380-08		Soil	Aluminum, Total	6010B\3050A	17-JUL-1999	Digestion
WG61417	R71167	L9907380-08		Soil	Antimony, Total	7041	17-JUL-1999	Digestion
WG61417	R70395	L9907380-08		Soil	Arsenic, Total	6010B\3050A	17-JUL-1999	Digestion
WG61417	R70395	L9907380-08		Soil	Barium, Total	6010B\3050A	17-JUL-1999	Digestion
WG61417	R70395	L9907380-08		Soil	Beryllium, Total	6010B\3050A	17-JUL-1999	Digestion
WG61417	R70395	L9907380-08		Soil	Cadmium, Total	6010B\3050A	17-JUL-1999	Digestion
WG61417	R70395	L9907380-08		Soil	Calcium, Total	6010B\3050A	17-JUL-1999	Digestion
WG61417	R70395	L9907380-08		Soil	Chromium, Total	6010B\3050A	17-JUL-1999	Digestion
WG61417	R70395	L9907380-08		Soil	Cobalt, Total	6010B\3050A	17-JUL-1999	Digestion
WG61417	R70395	L9907380-08		Soil	Copper, Total	6010B\3050A	17-JUL-1999	Digestion
WG61417	R70395	L9907380-08		Soil	Iron, Total	6010B\3050A	17-JUL-1999	Digestion
WG61417	R70395	L9907380-08		Soil	Lead, Total	6010B\3050A	17-JUL-1999	Digestion
WG61417	R70395	L9907380-08		Soil	Magnesium, Total	6010B\3050A	17-JUL-1999	Digestion
WG61417	R70395	L9907380-08		Soil	Manganese, Total	6010B\3050A	17-JUL-1999	Digestion
WG61417	R70395	L9907380-08		Soil	Nickel, Total	6010B\3050A	17-JUL-1999	Digestion
WG61417	R70395	L9907380-08		Soil	Potassium, Total	6010B\3050A	17-JUL-1999	Digestion
WG61417	R70395	L9907380-08		Soil	Silver, Total	6010B\3050A	17-JUL-1999	Digestion
WG61417	R70395	L9907380-08		Soil	Sodium, Total	6010B\3050A	17-JUL-1999	Digestion
WG61417	R70395	L9907380-08		Soil	Vanadium, Total	6010B\3050A	17-JUL-1999	Digestion
WG61417	R70395	L9907380-08		Soil	Zinc, Total	6010B\3050A	17-JUL-1999	Digestion
WG61418	R70528	L9907380-01		Soil	Selenium, Total	7740	17-JUL-1999	Digestion
WG61418	R70576	L9907380-01		Soil	Thallium, Total	7841	17-JUL-1999	Digestion
WG61418	R70528	L9907380-02		Soil	Selenium, Total	7740	17-JUL-1999	Digestion
WG61418	R70576	L9907380-02		Soil	Thallium, Total	7841	17-JUL-1999	Digestion
WG61418	R70528	L9907380-03		Soil	Selenium, Total	7740	17-JUL-1999	Digestion
WG61418	R70577	L9907380-03		Soil	Thallium, Total	7841	17-JUL-1999	Digestion
WG61418	R70528	L9907380-04		Soil	Selenium, Total	7740	17-JUL-1999	Digestion
WG61418	R70577	L9907380-04		Soil	Thallium, Total	7841	17-JUL-1999	Digestion
WG61418	R70528	L9907380-05		Soil	Selenium, Total	7740	17-JUL-1999	Digestion
WG61418	R70577	L9907380-05		Soil	Thallium, Total	7841	17-JUL-1999	Digestion
WG61418	R70528	L9907380-06		Soil	Selenium, Total	7740	17-JUL-1999	Digestion
WG61418	R70577	L9907380-06		Soil	Thallium, Total	7841	17-JUL-1999	Digestion
WG61418	R70528	L9907380-07		Soil	Selenium, Total	7740	17-JUL-1999	Digestion
WG61418	R70577	L9907380-07		Soil	Thallium, Total	7841	17-JUL-1999	Digestion
WG61418	R70528	L9907380-08		Soil	Selenium, Total	7740	17-JUL-1999	Digestion
WG61418	R70577	L9907380-08		Soil	Thallium, Total	7841	17-JUL-1999	Digestion
WG61441	R70395	L9907380-01		Soil	Aluminum, Total	6010B\3050A	17-JUL-1999	Metals - ICP
WG61441	R70395	L9907380-01		Soil	Arsenic, Total	6010B\3050A	17-JUL-1999	Metals - ICP

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WG61441	R70395	L9907380-01		Soil	Barium, Total	6010B\3050A	17-JUL-1999	Metals - ICP
WG61441	R70395	L9907380-01		Soil	Beryllium, Total	6010B\3050A	17-JUL-1999	Metals - ICP
WG61441	R70395	L9907380-01		Soil	Cadmium, Total	6010B\3050A	17-JUL-1999	Metals - ICP
WG61441	R70395	L9907380-01		Soil	Calcium, Total	6010B\3050A	17-JUL-1999	Metals - ICP
WG61441	R70395	L9907380-01		Soil	Chromium, Total	6010B\3050A	17-JUL-1999	Metals - ICP
WG61441	R70395	L9907380-01		Soil	Cobalt, Total	6010B\3050A	17-JUL-1999	Metals - ICP
WG61441	R70395	L9907380-01		Soil	Copper, Total	6010B\3050A	17-JUL-1999	Metals - ICP
WG61441	R70395	L9907380-01		Soil	Iron, Total	6010B\3050A	17-JUL-1999	Metals - ICP
WG61441	R70395	L9907380-01		Soil	Lead, Total	6010B\3050A	17-JUL-1999	Metals - ICP
WG61441	R70395	L9907380-01		Soil	Magnesium, Total	6010B\3050A	17-JUL-1999	Metals - ICP
WG61441	R70395	L9907380-01		Soil	Manganese, Total	6010B\3050A	17-JUL-1999	Metals - ICP
WG61441	R70395	L9907380-01		Soil	Nickel, Total	6010B\3050A	17-JUL-1999	Metals - ICP
WG61441	R70395	L9907380-01		Soil	Potassium, Total	6010B\3050A	17-JUL-1999	Metals - ICP
WG61441	R70395	L9907380-01		Soil	Silver, Total	6010B\3050A	17-JUL-1999	Metals - ICP
WG61441	R70395	L9907380-01		Soil	Sodium, Total	6010B\3050A	17-JUL-1999	Metals - ICP
WG61441	R70395	L9907380-01		Soil	Vanadium, Total	6010B\3050A	17-JUL-1999	Metals - ICP
WG61441	R70395	L9907380-01		Soil	Zinc, Total	6010B\3050A	17-JUL-1999	Metals - ICP
WG61441	R70395	L9907380-02		Soil	Aluminum, Total	6010B\3050A	17-JUL-1999	Metals - ICP
WG61441	R70395	L9907380-02		Soil	Arsenic, Total	6010B\3050A	17-JUL-1999	Metals - ICP
WG61441	R70395	L9907380-02		Soil	Barium, Total	6010B\3050A	17-JUL-1999	Metals - ICP
WG61441	R70395	L9907380-02		Soil	Beryllium, Total	6010B\3050A	17-JUL-1999	Metals - ICP
WG61441	R70395	L9907380-02		Soil	Cadmium, Total	6010B\3050A	17-JUL-1999	Metals - ICP
WG61441	R70395	L9907380-02		Soil	Calcium, Total	6010B\3050A	17-JUL-1999	Metals - ICP
WG61441	R70395	L9907380-02		Soil	Chromium, Total	6010B\3050A	17-JUL-1999	Metals - ICP
WG61441	R70395	L9907380-02		Soil	Cobalt, Total	6010B\3050A	17-JUL-1999	Metals - ICP
WG61441	R70395	L9907380-02		Soil	Copper, Total	6010B\3050A	17-JUL-1999	Metals - ICP
WG61441	R70395	L9907380-02		Soil	Iron, Total	6010B\3050A	17-JUL-1999	Metals - ICP
WG61441	R70395	L9907380-02		Soil	Lead, Total	6010B\3050A	17-JUL-1999	Metals - ICP
WG61441	R70395	L9907380-02		Soil	Magnesium, Total	6010B\3050A	17-JUL-1999	Metals - ICP
WG61441	R70395	L9907380-02		Soil	Manganese, Total	6010B\3050A	17-JUL-1999	Metals - ICP
WG61441	R70395	L9907380-02		Soil	Nickel, Total	6010B\3050A	17-JUL-1999	Metals - ICP
WG61441	R70395	L9907380-02		Soil	Potassium, Total	6010B\3050A	17-JUL-1999	Metals - ICP
WG61441	R70395	L9907380-02		Soil	Silver, Total	6010B\3050A	17-JUL-1999	Metals - ICP
WG61441	R70395	L9907380-02		Soil	Sodium, Total	6010B\3050A	17-JUL-1999	Metals - ICP
WG61441	R70395	L9907380-02		Soil	Vanadium, Total	6010B\3050A	17-JUL-1999	Metals - ICP
WG61441	R70395	L9907380-02		Soil	Zinc, Total	6010B\3050A	17-JUL-1999	Metals - ICP
WG61441	R70395	L9907380-03		Soil	Aluminum, Total	6010B\3050A	17-JUL-1999	Metals - ICP
WG61441	R70395	L9907380-03		Soil	Arsenic, Total	6010B\3050A	17-JUL-1999	Metals - ICP
WG61441	R70395	L9907380-03		Soil	Barium, Total	6010B\3050A	17-JUL-1999	Metals - ICP
WG61441	R70395	L9907380-03		Soil	Beryllium, Total	6010B\3050A	17-JUL-1999	Metals - ICP
WG61441	R70395	L9907380-03		Soil	Cadmium, Total	6010B\3050A	17-JUL-1999	Metals - ICP
WG61441	R70395	L9907380-03		Soil	Calcium, Total	6010B\3050A	17-JUL-1999	Metals - ICP
WG61441	R70395	L9907380-03		Soil	Chromium, Total	6010B\3050A	17-JUL-1999	Metals - ICP
WG61441	R70395	L9907380-03		Soil	Cobalt, Total	6010B\3050A	17-JUL-1999	Metals - ICP
WG61441	R70395	L9907380-03		Soil	Copper, Total	6010B\3050A	17-JUL-1999	Metals - ICP

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WG61441	R70395	L9907380-03		Soil	Iron, Total	6010B\3050A	17-JUL-1999	Metals - ICP
WG61441	R70395	L9907380-03		Soil	Lead, Total	6010B\3050A	17-JUL-1999	Metals - ICP
WG61441	R70395	L9907380-03		Soil	Magnesium, Total	6010B\3050A	17-JUL-1999	Metals - ICP
WG61441	R70395	L9907380-03		Soil	Manganese, Total	6010B\3050A	17-JUL-1999	Metals - ICP
WG61441	R70395	L9907380-03		Soil	Nickel, Total	6010B\3050A	17-JUL-1999	Metals - ICP
WG61441	R70395	L9907380-03		Soil	Potassium, Total	6010B\3050A	17-JUL-1999	Metals - ICP
WG61441	R70395	L9907380-03		Soil	Silver, Total	6010B\3050A	17-JUL-1999	Metals - ICP
WG61441	R70395	L9907380-03		Soil	Sodium, Total	6010B\3050A	17-JUL-1999	Metals - ICP
WG61441	R70395	L9907380-03		Soil	Vanadium, Total	6010B\3050A	17-JUL-1999	Metals - ICP
WG61441	R70395	L9907380-03		Soil	Zinc, Total	6010B\3050A	17-JUL-1999	Metals - ICP
WG61441	R70395	L9907380-04		Soil	Aluminum, Total	6010B\3050A	17-JUL-1999	Metals - ICP
WG61441	R70395	L9907380-04		Soil	Arsenic, Total	6010B\3050A	17-JUL-1999	Metals - ICP
WG61441	R70395	L9907380-04		Soil	Barium, Total	6010B\3050A	17-JUL-1999	Metals - ICP
WG61441	R70395	L9907380-04		Soil	Beryllium, Total	6010B\3050A	17-JUL-1999	Metals - ICP
WG61441	R70395	L9907380-04		Soil	Cadmium, Total	6010B\3050A	17-JUL-1999	Metals - ICP
WG61441	R70395	L9907380-04		Soil	Calcium, Total	6010B\3050A	17-JUL-1999	Metals - ICP
WG61441	R70395	L9907380-04		Soil	Chromium, Total	6010B\3050A	17-JUL-1999	Metals - ICP
WG61441	R70395	L9907380-04		Soil	Cobalt, Total	6010B\3050A	17-JUL-1999	Metals - ICP
WG61441	R70395	L9907380-04		Soil	Copper, Total	6010B\3050A	17-JUL-1999	Metals - ICP
WG61441	R70395	L9907380-04		Soil	Iron, Total	6010B\3050A	17-JUL-1999	Metals - ICP
WG61441	R70395	L9907380-04		Soil	Lead, Total	6010B\3050A	17-JUL-1999	Metals - ICP
WG61441	R70395	L9907380-04		Soil	Magnesium, Total	6010B\3050A	17-JUL-1999	Metals - ICP
WG61441	R70395	L9907380-04		Soil	Manganese, Total	6010B\3050A	17-JUL-1999	Metals - ICP
WG61441	R70395	L9907380-04		Soil	Nickel, Total	6010B\3050A	17-JUL-1999	Metals - ICP
WG61441	R70395	L9907380-04		Soil	Potassium, Total	6010B\3050A	17-JUL-1999	Metals - ICP
WG61441	R70395	L9907380-04		Soil	Silver, Total	6010B\3050A	17-JUL-1999	Metals - ICP
WG61441	R70395	L9907380-04		Soil	Sodium, Total	6010B\3050A	17-JUL-1999	Metals - ICP
WG61441	R70395	L9907380-04		Soil	Vanadium, Total	6010B\3050A	17-JUL-1999	Metals - ICP
WG61441	R70395	L9907380-04		Soil	Zinc, Total	6010B\3050A	17-JUL-1999	Metals - ICP
WG61441	R70395	L9907380-05		Soil	Aluminum, Total	6010B\3050A	17-JUL-1999	Metals - ICP
WG61441	R70395	L9907380-05		Soil	Arsenic, Total	6010B\3050A	17-JUL-1999	Metals - ICP
WG61441	R70395	L9907380-05		Soil	Barium, Total	6010B\3050A	17-JUL-1999	Metals - ICP
WG61441	R70395	L9907380-05		Soil	Beryllium, Total	6010B\3050A	17-JUL-1999	Metals - ICP
WG61441	R70395	L9907380-05		Soil	Cadmium, Total	6010B\3050A	17-JUL-1999	Metals - ICP
WG61441	R70395	L9907380-05		Soil	Calcium, Total	6010B\3050A	17-JUL-1999	Metals - ICP
WG61441	R70395	L9907380-05		Soil	Chromium, Total	6010B\3050A	17-JUL-1999	Metals - ICP
WG61441	R70395	L9907380-05		Soil	Cobalt, Total	6010B\3050A	17-JUL-1999	Metals - ICP
WG61441	R70395	L9907380-05		Soil	Copper, Total	6010B\3050A	17-JUL-1999	Metals - ICP
WG61441	R70395	L9907380-05		Soil	Iron, Total	6010B\3050A	17-JUL-1999	Metals - ICP
WG61441	R70395	L9907380-05		Soil	Lead, Total	6010B\3050A	17-JUL-1999	Metals - ICP
WG61441	R70395	L9907380-05		Soil	Magnesium, Total	6010B\3050A	17-JUL-1999	Metals - ICP
WG61441	R70395	L9907380-05		Soil	Manganese, Total	6010B\3050A	17-JUL-1999	Metals - ICP
WG61441	R70395	L9907380-05		Soil	Nickel, Total	6010B\3050A	17-JUL-1999	Metals - ICP
WG61441	R70395	L9907380-05		Soil	Potassium, Total	6010B\3050A	17-JUL-1999	Metals - ICP
WG61441	R70395	L9907380-05		Soil	Silver, Total	6010B\3050A	17-JUL-1999	Metals - ICP

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WG61441	R70395	L9907380-05		Soil	Sodium, Total	6010B\3050A	17-JUL-1999	Metals - ICP
WG61441	R70395	L9907380-05		Soil	Vanadium, Total	6010B\3050A	17-JUL-1999	Metals - ICP
WG61441	R70395	L9907380-05		Soil	Zinc, Total	6010B\3050A	17-JUL-1999	Metals - ICP
WG61441	R70395	L9907380-06		Soil	Aluminum, Total	6010B\3050A	17-JUL-1999	Metals - ICP
WG61441	R70395	L9907380-06		Soil	Arsenic, Total	6010B\3050A	17-JUL-1999	Metals - ICP
WG61441	R70395	L9907380-06		Soil	Barium, Total	6010B\3050A	17-JUL-1999	Metals - ICP
WG61441	R70395	L9907380-06		Soil	Beryllium, Total	6010B\3050A	17-JUL-1999	Metals - ICP
WG61441	R70395	L9907380-06		Soil	Cadmium, Total	6010B\3050A	17-JUL-1999	Metals - ICP
WG61441	R70395	L9907380-06		Soil	Calcium, Total	6010B\3050A	17-JUL-1999	Metals - ICP
WG61441	R70395	L9907380-06		Soil	Chromium, Total	6010B\3050A	17-JUL-1999	Metals - ICP
WG61441	R70395	L9907380-06		Soil	Cobalt, Total	6010B\3050A	17-JUL-1999	Metals - ICP
WG61441	R70395	L9907380-06		Soil	Copper, Total	6010B\3050A	17-JUL-1999	Metals - ICP
WG61441	R70395	L9907380-06		Soil	Iron, Total	6010B\3050A	17-JUL-1999	Metals - ICP
WG61441	R70395	L9907380-06		Soil	Lead, Total	6010B\3050A	17-JUL-1999	Metals - ICP
WG61441	R70395	L9907380-06		Soil	Magnesium, Total	6010B\3050A	17-JUL-1999	Metals - ICP
WG61441	R70395	L9907380-06		Soil	Manganese, Total	6010B\3050A	17-JUL-1999	Metals - ICP
WG61441	R70395	L9907380-06		Soil	Nickel, Total	6010B\3050A	17-JUL-1999	Metals - ICP
WG61441	R70395	L9907380-06		Soil	Potassium, Total	6010B\3050A	17-JUL-1999	Metals - ICP
WG61441	R70395	L9907380-06		Soil	Silver, Total	6010B\3050A	17-JUL-1999	Metals - ICP
WG61441	R70395	L9907380-06		Soil	Sodium, Total	6010B\3050A	17-JUL-1999	Metals - ICP
WG61441	R70395	L9907380-06		Soil	Vanadium, Total	6010B\3050A	17-JUL-1999	Metals - ICP
WG61441	R70395	L9907380-06		Soil	Zinc, Total	6010B\3050A	17-JUL-1999	Metals - ICP
WG61441	R70395	L9907380-07		Soil	Aluminum, Total	6010B\3050A	17-JUL-1999	Metals - ICP
WG61441	R70395	L9907380-07		Soil	Arsenic, Total	6010B\3050A	17-JUL-1999	Metals - ICP
WG61441	R70395	L9907380-07		Soil	Barium, Total	6010B\3050A	17-JUL-1999	Metals - ICP
WG61441	R70395	L9907380-07		Soil	Beryllium, Total	6010B\3050A	17-JUL-1999	Metals - ICP
WG61441	R70395	L9907380-07		Soil	Cadmium, Total	6010B\3050A	17-JUL-1999	Metals - ICP
WG61441	R70395	L9907380-07		Soil	Calcium, Total	6010B\3050A	17-JUL-1999	Metals - ICP
WG61441	R70395	L9907380-07		Soil	Chromium, Total	6010B\3050A	17-JUL-1999	Metals - ICP
WG61441	R70395	L9907380-07		Soil	Cobalt, Total	6010B\3050A	17-JUL-1999	Metals - ICP
WG61441	R70395	L9907380-07		Soil	Copper, Total	6010B\3050A	17-JUL-1999	Metals - ICP
WG61441	R70395	L9907380-07		Soil	Iron, Total	6010B\3050A	17-JUL-1999	Metals - ICP
WG61441	R70395	L9907380-07		Soil	Lead, Total	6010B\3050A	17-JUL-1999	Metals - ICP
WG61441	R70395	L9907380-07		Soil	Magnesium, Total	6010B\3050A	17-JUL-1999	Metals - ICP
WG61441	R70395	L9907380-07		Soil	Manganese, Total	6010B\3050A	17-JUL-1999	Metals - ICP
WG61441	R70395	L9907380-07		Soil	Nickel, Total	6010B\3050A	17-JUL-1999	Metals - ICP
WG61441	R70395	L9907380-07		Soil	Potassium, Total	6010B\3050A	17-JUL-1999	Metals - ICP
WG61441	R70395	L9907380-07		Soil	Silver, Total	6010B\3050A	17-JUL-1999	Metals - ICP
WG61441	R70395	L9907380-07		Soil	Sodium, Total	6010B\3050A	17-JUL-1999	Metals - ICP
WG61441	R70395	L9907380-07		Soil	Vanadium, Total	6010B\3050A	17-JUL-1999	Metals - ICP
WG61441	R70395	L9907380-07		Soil	Zinc, Total	6010B\3050A	17-JUL-1999	Metals - ICP
WG61441	R70395	L9907380-08		Soil	Aluminum, Total	6010B\3050A	17-JUL-1999	Metals - ICP
WG61441	R70395	L9907380-08		Soil	Arsenic, Total	6010B\3050A	17-JUL-1999	Metals - ICP
WG61441	R70395	L9907380-08		Soil	Barium, Total	6010B\3050A	17-JUL-1999	Metals - ICP
WG61441	R70395	L9907380-08		Soil	Beryllium, Total	6010B\3050A	17-JUL-1999	Metals - ICP

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WG61441	R70395	L9907380-08		Soil	Cadmium, Total	6010B\3050A	17-JUL-1999	Metals - ICP
WG61441	R70395	L9907380-08		Soil	Calcium, Total	6010B\3050A	17-JUL-1999	Metals - ICP
WG61441	R70395	L9907380-08		Soil	Chromium, Total	6010B\3050A	17-JUL-1999	Metals - ICP
WG61441	R70395	L9907380-08		Soil	Cobalt, Total	6010B\3050A	17-JUL-1999	Metals - ICP
WG61441	R70395	L9907380-08		Soil	Copper, Total	6010B\3050A	17-JUL-1999	Metals - ICP
WG61441	R70395	L9907380-08		Soil	Iron, Total	6010B\3050A	17-JUL-1999	Metals - ICP
WG61441	R70395	L9907380-08		Soil	Lead, Total	6010B\3050A	17-JUL-1999	Metals - ICP
WG61441	R70395	L9907380-08		Soil	Magnesium, Total	6010B\3050A	17-JUL-1999	Metals - ICP
WG61441	R70395	L9907380-08		Soil	Manganese, Total	6010B\3050A	17-JUL-1999	Metals - ICP
WG61441	R70395	L9907380-08		Soil	Nickel, Total	6010B\3050A	17-JUL-1999	Metals - ICP
WG61441	R70395	L9907380-08		Soil	Potassium, Total	6010B\3050A	17-JUL-1999	Metals - ICP
WG61441	R70395	L9907380-08		Soil	Silver, Total	6010B\3050A	17-JUL-1999	Metals - ICP
WG61441	R70395	L9907380-08		Soil	Sodium, Total	6010B\3050A	17-JUL-1999	Metals - ICP
WG61441	R70395	L9907380-08		Soil	Vanadium, Total	6010B\3050A	17-JUL-1999	Metals - ICP
WG61441	R70395	L9907380-08		Soil	Zinc, Total	6010B\3050A	17-JUL-1999	Metals - ICP
WG61444	R70391	L9907380-01		Soil	Mercury, Total	7471A\7471A	17-JUL-1999	Digestion
WG61444	R70391	L9907380-02		Soil	Mercury, Total	7471A\7471A	17-JUL-1999	Digestion
WG61444	R70391	L9907380-03		Soil	Mercury, Total	7471A\7471A	17-JUL-1999	Digestion
WG61444	R70391	L9907380-04		Soil	Mercury, Total	7471A\7471A	17-JUL-1999	Digestion
WG61444	R70391	L9907380-05		Soil	Mercury, Total	7471A\7471A	17-JUL-1999	Digestion
WG61444	R70391	L9907380-06		Soil	Mercury, Total	7471A\7471A	17-JUL-1999	Digestion
WG61444	R70391	L9907380-07		Soil	Mercury, Total	7471A\7471A	17-JUL-1999	Digestion
WG61444	R70391	L9907380-08		Soil	Mercury, Total	7471A\7471A	17-JUL-1999	Digestion
WG61463	R70528	L9907380-01		Soil	Selenium, Total	7740	17-JUL-1999	Metals - AA
WG61463	R70528	L9907380-02		Soil	Selenium, Total	7740	17-JUL-1999	Metals - AA
WG61463	R70528	L9907380-03		Soil	Selenium, Total	7740	17-JUL-1999	Metals - AA
WG61463	R70528	L9907380-04		Soil	Selenium, Total	7740	17-JUL-1999	Metals - AA
WG61463	R70528	L9907380-05		Soil	Selenium, Total	7740	17-JUL-1999	Metals - AA
WG61463	R70528	L9907380-06		Soil	Selenium, Total	7740	17-JUL-1999	Metals - AA
WG61463	R70528	L9907380-07		Soil	Selenium, Total	7740	17-JUL-1999	Metals - AA
WG61463	R70528	L9907380-08		Soil	Selenium, Total	7740	17-JUL-1999	Metals - AA
WG61465	R70391	L9907380-01		Soil	Mercury, Total	7471A\7471A	17-JUL-1999	Metals - AA
WG61465	R70391	L9907380-02		Soil	Mercury, Total	7471A\7471A	17-JUL-1999	Metals - AA
WG61465	R70391	L9907380-03		Soil	Mercury, Total	7471A\7471A	17-JUL-1999	Metals - AA
WG61465	R70391	L9907380-04		Soil	Mercury, Total	7471A\7471A	17-JUL-1999	Metals - AA
WG61465	R70391	L9907380-05		Soil	Mercury, Total	7471A\7471A	17-JUL-1999	Metals - AA
WG61465	R70391	L9907380-06		Soil	Mercury, Total	7471A\7471A	17-JUL-1999	Metals - AA
WG61465	R70391	L9907380-07		Soil	Mercury, Total	7471A\7471A	17-JUL-1999	Metals - AA
WG61465	R70391	L9907380-08		Soil	Mercury, Total	7471A\7471A	17-JUL-1999	Metals - AA
WG61507	R70576	L9907380-01		Soil	Thallium, Total	7841	17-JUL-1999	Metals - AA
WG61507	R70576	L9907380-02		Soil	Thallium, Total	7841	17-JUL-1999	Metals - AA

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WG61507	R70577	L9907380-03		Soil	Thallium, Total	7841	17-JUL-1999	Metals - AA
WG61507	R70577	L9907380-04		Soil	Thallium, Total	7841	17-JUL-1999	Metals - AA
WG61507	R70577	L9907380-05		Soil	Thallium, Total	7841	17-JUL-1999	Metals - AA
WG61507	R70577	L9907380-06		Soil	Thallium, Total	7841	17-JUL-1999	Metals - AA
WG61507	R70577	L9907380-07		Soil	Thallium, Total	7841	17-JUL-1999	Metals - AA
WG61507	R70577	L9907380-08		Soil	Thallium, Total	7841	17-JUL-1999	Metals - AA
WG61696	R70693	L9907380-01		Soil	Percent Solids	D2216-90	17-JUL-1999	Conventionals
WG61696	R70693	L9907380-02		Soil	Percent Solids	D2216-90	17-JUL-1999	Conventionals
WG61696	R70693	L9907380-03		Soil	Percent Solids	D2216-90	17-JUL-1999	Conventionals
WG61696	R70693	L9907380-04		Soil	Percent Solids	D2216-90	17-JUL-1999	Conventionals
WG61696	R70693	L9907380-05		Soil	Percent Solids	D2216-90	17-JUL-1999	Conventionals
WG61696	R70693	L9907380-06		Soil	Percent Solids	D2216-90	17-JUL-1999	Conventionals
WG61696	R70693	L9907380-07		Soil	Percent Solids	D2216-90	17-JUL-1999	Conventionals
WG61696	R70693	L9907380-08		Soil	Percent Solids	D2216-90	17-JUL-1999	Conventionals
WG62066	R71167	L9907380-01		Soil	Antimony, Total	7041	17-JUL-1999	Metals - AA
WG62066	R71167	L9907380-02		Soil	Antimony, Total	7041	17-JUL-1999	Metals - AA
WG62066	R71167	L9907380-03		Soil	Antimony, Total	7041	17-JUL-1999	Metals - AA
WG62066	R71167	L9907380-04		Soil	Antimony, Total	7041	17-JUL-1999	Metals - AA
WG62066	R71167	L9907380-05		Soil	Antimony, Total	7041	17-JUL-1999	Metals - AA
WG62066	R71167	L9907380-06		Soil	Antimony, Total	7041	17-JUL-1999	Metals - AA
WG62066	R71167	L9907380-07		Soil	Antimony, Total	7041	17-JUL-1999	Metals - AA
WG62066	R71167	L9907380-08		Soil	Antimony, Total	7041	17-JUL-1999	Metals - AA

KEMRON ANALYST LIST

Ohio Valley Laboratory

08/04/99

ALC	--	Ann L. Clark
BAD	--	Becky A. Diehl
CBN	--	C. Brian Noll
CEB	--	Chad E. Barnes
CDB	--	Christy D. Burton
CG	--	Cheryl Graham
CK	--	Carl King
CMS	--	Crystal M. Stevens
CRC	--	Carla R. Cochran
DIH	--	Deanna I. Hesson
DLN	--	Deanna L. Norton
DLP	--	Dorothy L. Payne
DMD	--	David M. Dye
ECL	--	Eric C. Lawson
FEH	--	Fay E. Harmon
GWH	--	George W. Hutchinson
HLC	--	Holly L. Currey
HV	--	Hema Vilasagar
JCR	--	Jennifer C. Randall
JDN	--	Jamie D. Newell
JG	--	Jonathan Graziani
JLH	--	Janice L. Holland
JWR	--	John W. Richards
JYH	--	Ji Y. Hu
KAS	--	Kevin A. Stutler
KHA	--	Kim H. Archer
KJS	--	Kara J. Stump
LKM	--	Laura K. Morris
MDA	--	Mike D. Albertson
MDC	--	Michael D. Cochran
MES	--	Mary E. Schilling
MLS	--	Michael L. Schimmel
MMB	--	Maren M. Beery
RDC	--	Rebecca D. Cutlip
RDS	--	Rebecca D. Sutton
REF	--	Ron E. Fertile
REK	--	Robert E. Kyer
RSS	--	Regina S. Simmons
RWC	--	Rodney W. Campbell
SJK	--	Sindy J. Kinney
SJM	--	Shawn J. Marshall
SLP	--	Sheri L. Pfalzgraf
SMW	--	Shauna M. Welch
SPL	--	Steve P. Learn
SPS	--	Steve P. Swatzel
TMM	--	Tammy M. Morris
TRS	--	Todd R. Stack
VC	--	Vicki Collier
VMN	--	Vincent M. Nedeff

KEMRON Environmental Services, Inc.
LIST OF VALID QUALIFIERS (qual)
December 10, 1998

Qualifier	Description
A	See the report narrative
NA	Not applicable
+	Correlation coefficient for the MSA is less than 0.995
<	Less than
>	Greater than
B	Present in the method blank
C	Confirmed by GC/MS
*	Surrogate or spike compound out of range
CG	Confluent growth
D	The analyte was quantified at a secondary dilution factor
DL	Surrogate or spike was diluted out
E	Estimated concentration due to sample matrix interference
F	Present below nominal reporting limit (AFCEE only)
FL	Free liquid
I	Semiquantitative result, out of instrument calibration range
J	Present below nominal reporting limit
L	Sample reporting limits elevated due to matrix interference
M	Duplicate injection precision not met

Qualifier	Description
N	Tentatively Identified Compound (TIC)
ND	Not detected at or above the reporting limit (RL)
NF	Not found
NFL	No free liquid
NI	Non-ignitable
NR	Analyte is not required to be analyzed
NS	Not spiked
P	Concentration > 25% difference between the two GC columns
QNS	Quantity not sufficient to perform analysis
R	Analyte exceeds regulatory limit
RA	Reanalysis confirms reported results
RE	Reanalysis confirms sample matrix interference
S	Analyzed by method of standard addition
SMI	Sample matrix interference on surrogate
SP	Reported results are for spike compounds only
TNTC	Too numerous to count
U	Analyzed for but not detected
W	Post-digestion spike for furnace AA out of control limits
Z	Can not be resolved from isomer. See below.

Special Notes for Organic Analytes

1. Acrolein and acrylonitrile by method 624 are semiquantitative screens only.
2. 1,2-Diphenylhydrazine is unstable and is reported as azobenzene.
3. N-nitrosodiphenylamine cannot be separated from diphenylamine.
4. 3-Methyphenol and 4-Methyphenol are unresolvable compounds.
5. m-Xylene and p-Xylene are unresolvable compounds.
6. The reporting limits for Appendix II/IX compounds by method 8270 are based on EPA estimated PQLs referenced in 40 CFR Part 264, Appendix IX. They are not always achievable for every compound and are matrix dependent.

Wednesday, July 21, 1999

REQUEST NUMBER: 5825R
ANALYSIS TYPE: INORG

Los Alamos
NATIONAL LABORATORY

ATTN: Maren Beery
KEMRON
109 STARLITE PARK
MARIETTA, OH 45750

AMENDED

Please analyze the enclosed samples according to the schedule indicated:

These samples are on:

SHIP DATE: 7/21/99
REPORT DUE: 8/22/99
TURN AROUND REQ'D: 30 days

LANL Request Number: 5825R
Per Agreement Number: 7797L0014-9S
Project Cost Code: MR3R3M041045

RAD SCREENING: Yes, Received

COMMENTS: 03 - 1114 , GA; AMENDED: SEE ATTACHED MEMO FOR CORRECTION ON SAMPLE ID # JV 7/21/99.

LANL ER SMO CONTACT: Joylene Valdez MS H865 5056659968
Signature: Joylene Valdez

ANALYSIS ORDER CODE	ANALYTE(S)	SAMPLE ID	CONT ID	SAMPLE MATRIX	DATE SAMPLED	COMMENTS
METTAL		RE03-99-2000	01	S	7/17/99	
METTAL		RE03-99-2001	01	S	7/17/99	
METTAL		RE03-99-2002	01	S	7/17/99	
METTAL		RE03-99-2003	01	S	7/17/99	
METTAL		RE03-99-2004	01	S	7/17/99	
METTAL		RE03-99-2005	01	S	7/17/99	
METTAL		RE03-99-2006	01	S	7/17/99	
METTAL		RE03-99-2007	01	S	7/17/99	

Tuesday, July 20, 1999

REQUEST NUMBER: 5825R
ANALYSIS TYPE: INORG

Los Alamos
NATIONAL LABORATORY

ATTN: Maren Beery
KEMRON
109 STARLITE PARK
MARIETTA, OH 45750

Please analyze the enclosed samples according to the schedule indicated:

SHIP DATE: 7/19/99
REPORT DUE: 8/21/99
TURN AROUND REQ'D: 30 days

These samples are on:

LANL Request Number: 5825R
Per Agreement Number: 7797L0014-9S
Project Cost Code: CG9K00000000

RAD SCREENING: Not Required
COMMENTS: 03 - 6666 , JL;

LANL ER SMO CONTACT: Joylene Valdez MS H865 5056659968
Signature: Joylene Valdez

ANALYSIS ORDER CODE	ANALYTE(S)	SAMPLE ID	CONT ID	SAMPLE MATRIX	DATE SAMPLED	COMMENTS
METTAL		36NSE1	07	S	7/17/99	
METTAL		36NSW1	07	S	7/17/99	
METTAL		36NSW2	07	S	7/17/99	
METTAL		36SFD1	07	S	7/17/99	
METTAL		36SFD2	07	S	7/17/99	
METTAL		36SSE1	07	S	7/17/99	
METTAL		36SSW1	07	S	7/17/99	
METTAL		36SSW2	07	S	7/17/99	

Tuesday, July 20, 1999

Los Alamos
NATIONAL LABORATORY

CHAIN OF CUSTODY DOCUMENT NUMBER: 5825RC

REQUEST NUMBER: 5825R
ANALYSIS TYPE: INORG

ATTN: Maren Beery
KEMRON
109 STARLITE PARK
MARIETTA, OH 45750

SAMPLE ID	CONT ID	CONTAINER DESCRIPTION	ANALYSIS ORDER CODE	PRESERVATIVE	MATRIX
36NSE1	07	125 ml poly	METTAL	NONE	S
36NSW1	07	125 ml Poly	METTAL	NONE	S
36NSW2	07	125 ml poly	METTAL	NONE	S
36SFD1	07	125 ml poly	METTAL	NONE	S
36SFD2	07	125 ml poly	METTAL	NONE	S
36SSE1	07	125 ml poly	METTAL	NONE	S
36SSW1	07	125 ml poly	METTAL	NONE	S
36SSW2	07	125 ml poly	METTAL	NONE	S

Final Page of CHAIN OF CUSTODY DOCUMENT FOR REQUEST NUMBER 5825R Page 1

Relinquished By:		Date	Time	Received By:		Date	Time
PRINTED NAME	SIGNATURE	7-20-99	1305	Brenda Gregory	Brenda Gregory	7-21-99	1044
PRINTED NAME	SIGNATURE			PRINTED NAME	SIGNATURE		
PRINTED NAME	SIGNATURE			PRINTED NAME	SIGNATURE		

Received for DISPOSAL By:		Date	Time
PRINTED NAME	SIGNATURE		

Remarks:
C of C blank
S/S intact
Solid blue ice present
(bg)

KEMRON Internal Laboratory Chain of Custody

Work Order: 9907380 Client: LANL # of Samples: 8 Due Date: 8/4 Page: ____

Sample #	Analysis	Reason	Removed By ADT	Removed From	Moved To	Reliq. by	Ret'd By ADT	Ret'd To	Rec'd By	Reason
01-08	MET	DIG	SSK 072299 @1435	walkin	MET	LB	VC 7-23-99 4:05	WALKIN	Big	Archive
1-8	PCT-S	AN	SMW 7-27-99 @1400	WALKIN	WET	Big	SMW 7-27-99 @1400	Archive	Big	Archive

QC SUMMARY

U.S. EPA - CLP

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

RE03-2000

Lab Name: KEMRON_ENVIRONMENTAL_SERV Contract: _____

Lab Code: _____ Case No.: 07380_ SAS No.: _____ SDG No.: 5825R_

Matrix (soil/water): SOIL_ Lab Sample ID: 0738001

Level (low/med): LOW__ Date Received: 02/12/91

% Solids: _86.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	17000		*	P
7440-36-0	Antimony	0.12	B	N,S	F
7440-38-2	Arsenic	5.1			P
7440-39-3	Barium	138		N*	P
7440-41-7	Beryllium	0.94			P
7440-43-9	Cadmium	0.10	B		P
7440-70-2	Calcium	4770			P
7440-47-3	Chromium	10.4		*	P
7440-48-4	Cobalt	7.1			P
7440-50-8	Copper	7.0		*	P
7439-89-6	Iron	14900		*	P
7439-92-1	Lead	13.4			P
7439-95-4	Magnesium	2460		*	P
7439-96-5	Manganese	386		N	P
7439-97-6	Mercury	0.01	B		CV
7440-02-0	Nickel	7.4			P
7440-09-7	Potassium	1660		*	P
7782-49-2	Selenium	0.09	B	N,S	F
7440-22-4	Silver	0.15	B		P
7440-23-5	Sodium	426			P
7440-28-0	Thallium	0.17	B		F
7440-62-2	Vanadium	27.2		*	P
7440-66-6	Zinc	27.9		*	P
	Cyanide				NR

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

U.S. EPA - CLP

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

RE03-2001

Lab Name: KEMRON_ENVIRONMENTAL_SERV Contract: _____

Lab Code: _____ Case No.: 07380_ SAS No.: _____ SDG No.: 5825R_

Matrix (soil/water): SOIL_ Lab Sample ID: 0738002

Level (low/med): LOW__ Date Received: 02/12/91

% Solids: _90.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	15900		*	P_
7440-36-0	Antimony_	0.27	U	N,S	F_
7440-38-2	Arsenic__	4.8			P_
7440-39-3	Barium___	139		N*	P_
7440-41-7	Beryllium	1.6			P_
7440-43-9	Cadmium__	0.14			P_
7440-70-2	Calcium__	4080			P_
7440-47-3	Chromium_	10.2		*	P_
7440-48-4	Cobalt___	6.0			P_
7440-50-8	Copper___	7.8		*	P_
7439-89-6	Iron_____	12000		*	P_
7439-92-1	Lead_____	10.3			P_
7439-95-4	Magnesium	3320		*	P_
7439-96-5	Manganese	197		N	P_
7439-97-6	Mercury__	0.01	B		CV
7440-02-0	Nickel___	12.9			P_
7440-09-7	Potassium	2190		*	P_
7782-49-2	Selenium_	0.08	U	N,S	F_
7440-22-4	Silver___	0.13	U		P_
7440-23-5	Sodium___	821			P_
7440-28-0	Thallium_	0.20	B		F_
7440-62-2	Vanadium_	15.2		*	P_
7440-66-6	Zinc_____	34.5		*	P_
	Cyanide__				NR

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

U.S. EPA - CLP

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

RE03-2002

Lab Name: KEMRON_ENVIRONMENTAL_SERV Contract: _____

Lab Code: _____ Case No.: 07380_ SAS No.: _____ SDG No.: 5825R_

Matrix (soil/water): SOIL_ Lab Sample ID: 0738003

Level (low/med): LOW__ Date Received: 02/12/91

% Solids: _88.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	19300		*	P_
7440-36-0	Antimony_	0.53	B	N,S	F_
7440-38-2	Arsenic__	4.1			P_
7440-39-3	Barium__	74.7		N*	P_
7440-41-7	Beryllium	1.3			P_
7440-43-9	Cadmium__	0.06	B		P_
7440-70-2	Calcium__	5110			P_
7440-47-3	Chromium_	11.5		*	P_
7440-48-4	Cobalt___	4.0			P_
7440-50-8	Copper___	7.3		*	P_
7439-89-6	Iron____	13800		*	P_
7439-92-1	Lead____	10.7			P_
7439-95-4	Magnesium	3390		*	P_
7439-96-5	Manganese	170		N	P_
7439-97-6	Mercury__	0.01	B		CV
7440-02-0	Nickel___	11.2			P_
7440-09-7	Potassium	2210		*	P_
7782-49-2	Selenium_	0.08	U	N,S	F_
7440-22-4	Silver___	0.13	U		P_
7440-23-5	Sodium___	586			P_
7440-28-0	Thallium_	0.18	B		F_
7440-62-2	Vanadium_	19.7		*	P_
7440-66-6	Zinc____	35.3		*	P_
	Cyanide__				NR

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

RE03-2003

Lab Name: KEMRON_ENVIRONMENTAL_SERV Contract: _____

Lab Code: _____ Case No.: 07380_ SAS No.: _____ SDG No.: 5825R_

Matrix (soil/water): SOIL_ Lab Sample ID: 0738004

Level (low/med): LOW__ Date Received: 02/12/91

% Solids: _84.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	23900		*	P_
7440-36-0	Antimony_	0.29	U	N,S	F_
7440-38-2	Arsenic__	5.2			P_
7440-39-3	Barium___	221		N*	P_
7440-41-7	Beryllium	1.5			P_
7440-43-9	Cadmium__	0.18			P_
7440-70-2	Calcium__	3910			P_
7440-47-3	Chromium_	13.9		*	P_
7440-48-4	Cobalt___	7.1			P_
7440-50-8	Copper___	10.0		*	P_
7439-89-6	Iron____	17900		*	P_
7439-92-1	Lead____	17.4			P_
7439-95-4	Magnesium	3530		*	P_
7439-96-5	Manganese	312		N	P_
7439-97-6	Mercury__	0.02	B		CV
7440-02-0	Nickel___	12.4			P_
7440-09-7	Potassium	2530		*	P_
7782-49-2	Selenium_	0.31	B	N,S	F_
7440-22-4	Silver___	0.14	U		P_
7440-23-5	Sodium___	600			P_
7440-28-0	Thallium_	0.22	B		F_
7440-62-2	Vanadium_	25.6		*	P_
7440-66-6	Zinc____	45.1		*	P_
	Cyanide__				NR

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

RE03-2004

Lab Name: KEMRON_ENVIRONMENTAL_SERV Contract: _____

Lab Code: _____ Case No.: 07380_ SAS No.: _____ SDG No.: 5825R_

Matrix (soil/water): SOIL_ Lab Sample ID: 0738005

Level (low/med): LOW__ Date Received: 02/12/91

% Solids: _83.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	20600		*	P
7440-36-0	Antimony_	0.21	B	N,S	F
7440-38-2	Arsenic__	4.3			P
7440-39-3	Barium___	134		N*	P
7440-41-7	Beryllium	1.1			P
7440-43-9	Cadmium__	0.12			P
7440-70-2	Calcium__	3320			P
7440-47-3	Chromium_	11.7		*	P
7440-48-4	Cobalt___	5.6			P
7440-50-8	Copper___	7.5		*	P
7439-89-6	Iron____	14200		*	P
7439-92-1	Lead____	12.4			P
7439-95-4	Magnesium	2720		*	P
7439-96-5	Manganese	283		N	P
7439-97-6	Mercury__	0.02	B		CV
7440-02-0	Nickel___	10.7			P
7440-09-7	Potassium	2110		*	P
7782-49-2	Selenium_	0.24	U	N,S	F
7440-22-4	Silver___	0.14	U		P
7440-23-5	Sodium___	581			P
7440-28-0	Thallium_	0.22	B		F
7440-62-2	Vanadium_	22.9		*	P
7440-66-6	Zinc____	35.2		*	P
	Cyanide__				NR

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

RE03-2005

Lab Name: KEMRON_ENVIRONMENTAL_SERV Contract: _____

Lab Code: _____ Case No.: 07380_ SAS No.: _____ SDG No.: 5825R_

Matrix (soil/water): SOIL_ Lab Sample ID: 0738006

Level (low/med): LOW__ Date Received: 02/12/91

% Solids: _83.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	23900		*	P
7440-36-0	Antimony	0.31	B	N,S	F
7440-38-2	Arsenic	3.7			P
7440-39-3	Barium	133		N*	P
7440-41-7	Beryllium	0.89			P
7440-43-9	Cadmium	0.07	B		P
7440-70-2	Calcium	2800			P
7440-47-3	Chromium	15.3		*	P
7440-48-4	Cobalt	9.0			P
7440-50-8	Copper	8.9		*	P
7439-89-6	Iron	16200		*	P
7439-92-1	Lead	14.7			P
7439-95-4	Magnesium	2990		*	P
7439-96-5	Manganese	280		N	P
7439-97-6	Mercury	0.02	B		CV
7440-02-0	Nickel	9.1			P
7440-09-7	Potassium	2000		*	P
7782-49-2	Selenium	0.22	U	N,S	F
7440-22-4	Silver	0.14	U		P
7440-23-5	Sodium	428			P
7440-28-0	Thallium	0.17	B		F
7440-62-2	Vanadium	27.7		*	P
7440-66-6	Zinc	31.7		*	P
	Cyanide				NR

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

RE03-2006

Lab Name: KEMRON_ENVIRONMENTAL_SERV Contract: _____

Lab Code: _____ Case No.: 07380_ SAS No.: _____ SDG No.: 5825R_

Matrix (soil/water): SOIL_ Lab Sample ID: 0738007

Level (low/med): LOW__ Date Received: 02/12/91

% Solids: _78.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	23700		*	P
7440-36-0	Antimony	0.78	B	N,S	F
7440-38-2	Arsenic	5.6			P
7440-39-3	Barium	138		N*	P
7440-41-7	Beryllium	1.5			P
7440-43-9	Cadmium	0.08	B		P
7440-70-2	Calcium	4360			P
7440-47-3	Chromium	14.0		*	P
7440-48-4	Cobalt	6.0			P
7440-50-8	Copper	9.4		*	P
7439-89-6	Iron	18800		*	P
7439-92-1	Lead	15.1			P
7439-95-4	Magnesium	3560		*	P
7439-96-5	Manganese	274		N	P
7439-97-6	Mercury	0.02	B		CV
7440-02-0	Nickel	12.6			P
7440-09-7	Potassium	2520		*	P
7782-49-2	Selenium	0.36	B	N,S	F
7440-22-4	Silver	0.15	U		P
7440-23-5	Sodium	716			P
7440-28-0	Thallium	0.23	B		F
7440-62-2	Vanadium	26.8		*	P
7440-66-6	Zinc	48.7		*	P
	Cyanide				NR

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

U.S. EPA - CLP

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

RE03-2007

Lab Name: KEMRON_ENVIRONMENTAL_SERV Contract: _____

Lab Code: _____ Case No.: 07380_ SAS No.: _____ SDG No.: 5825R_

Matrix (soil/water): SOIL_ Lab Sample ID: 0738008

Level (low/med): LOW__ Date Received: 02/12/91

% Solids: _81.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	30700		*	P
7440-36-0	Antimony_	0.30	U	N,S	F
7440-38-2	Arsenic__	6.3			P
7440-39-3	Barium___	139		N*	P
7440-41-7	Beryllium	2.5			P
7440-43-9	Cadmium__	0.10	B		P
7440-70-2	Calcium__	5200			P
7440-47-3	Chromium_	17.8		*	P
7440-48-4	Cobalt___	7.2			P
7440-50-8	Copper___	11.8		*	P
7439-89-6	Iron_____	22000		*	P
7439-92-1	Lead_____	16.5			P
7439-95-4	Magnesium	5150		*	P
7439-96-5	Manganese	302		N	P
7439-97-6	Mercury__	0.03	B		CV
7440-02-0	Nickel___	21.7			P
7440-09-7	Potassium	3380		*	P
7782-49-2	Selenium_	0.19	B	N,S	F
7440-22-4	Silver___	0.14	U		P
7440-23-5	Sodium___	1150			P
7440-28-0	Thallium_	0.22	B		F
7440-62-2	Vanadium_	28.0		*	P
7440-66-6	Zinc_____	54.0		*	P
	Cyanide__				NR

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

U.S. EPA - CLP

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: KEMRON_ENVIRONMENTAL_SERV Contract: _____

Lab Code: _____ Case No.: 07380_ SAS No.: _____ SDG No.: 5825R_

Initial Calibration Source: INORGANIC ST

Continuing Calibration Source: INORGANIC VE

Concentration Units: ug/L

Analyte	Initial Calibration True	Initial Calibration Found	Initial Calibration %R(1)	Continuing Calibration True	Continuing Calibration Found	Continuing Calibration %R(1)	Continuing Calibration Found	Continuing Calibration %R(1)	M
Aluminum	10000.0	9941.38	99.4	10000.0	10012.47	100.1	10056.01	100.6	P
Antimony	25.0	25.60	102.4	25.0	25.30	101.2	26.30	105.2	F
Arsenic	400.0	401.95	100.5	400.0	405.21	101.3	407.91	102.0	P
Barium	1000.0	991.15	99.1	1000.0	984.10	98.4	1005.62	100.6	P
Beryllium	50.0	49.15	98.3	50.0	49.56	99.1	50.13	100.3	P
Cadmium	50.0	50.16	100.3	50.0	50.84	101.7	51.02	102.0	P
Calcium	10000.0	9935.27	99.4	10000.0	9996.79	100.0	10172.68	101.7	P
Chromium	500.0	499.69	99.9	500.0	502.43	100.5	508.79	101.8	P
Cobalt	200.0	195.50	97.8	200.0	196.87	98.4	199.41	99.7	P
Copper	500.0	495.12	99.0	500.0	498.96	99.8	505.44	101.1	P
Iron	4000.0	3945.19	98.6	4000.0	3999.35	100.0	4025.53	100.6	P
Lead	500.0	501.46	100.3	500.0	504.54	100.9	513.28	102.7	P
Magnesium	10000.0	9889.65	98.9	10000.0	10046.19	100.5	10265.77	102.7	P
Manganese	500.0	499.59	99.9	500.0	501.19	100.2	509.02	101.8	P
Mercury	1.0	1.06	106.0	1.0	1.01	101.0	1.03	103.0	CV
Nickel	500.0	496.22	99.2	500.0	500.98	100.2	506.54	101.3	P
Potassium	50000.0	50336.66	100.7	50000.0	50291.76	100.6	50933.55	101.9	P
Selenium	25.0	23.85	95.4	25.0	23.18	92.7	24.22	96.9	F
Silver	400.0	397.33	99.3	400.0	403.57	100.9	397.37	99.3	P
Sodium	50000.0	50792.21	101.6	50000.0	50877.13	101.8	51360.23	102.7	P
Thallium	25.0	24.97	99.9	25.0	25.26	101.0	25.99	104.0	F
Vanadium	1000.0	999.46	99.9	1000.0	1019.46	101.9	1008.69	100.9	P
Zinc	1000.0	999.27	99.9	1000.0	1006.65	100.7	1016.51	101.7	P
Cyanide									NR

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

U.S. EPA - CLP

2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: KEMRON_ENVIRONMENTAL_SERV Contract: _____

Lab Code: _____ Case No.: 07380_ SAS No.: _____ SDG No.: 5825R_

Initial Calibration Source: INORGANIC ST

Continuing Calibration Source: INORGANIC VE

Concentration Units: ug/L

Analyte	Initial Calibration True	Initial Calibration Found	Initial Calibration %R(1)	Continuing Calibration True	Continuing Calibration Found	Continuing Calibration %R(1)	Continuing Calibration Found	Continuing Calibration %R(1)	M
Aluminum				10000.0	10096.33	101.0			P
Antimony				25.0	26.30	105.2	26.60	106.4	F
Arsenic				400.0	414.34	103.6			P
Barium				1000.0	992.12	99.2			P
Beryllium				50.0	49.47	98.9			P
Cadmium				50.0	50.96	101.9			P
Calcium				10000.0	10046.71	100.5			P
Chromium				500.0	506.13	101.2			P
Cobalt				200.0	198.47	99.2			P
Copper				500.0	490.93	98.2			P
Iron				4000.0	4016.61	100.4			P
Lead				500.0	515.84	103.2			P
Magnesium				10000.0	9976.61	99.8			P
Manganese				500.0	507.95	101.6			P
Mercury				1.0	1.05	105.0			CV
Nickel				500.0	505.09	101.0			P
Potassium				50000.0	50837.31	101.7			P
Selenium				25.0	24.93	99.7			F
Silver				400.0	401.56	100.4			P
Sodium				50000.0	51070.79	102.1			P
Thallium				25.0	26.72	106.9			F
Vanadium				1000.0	1021.28	102.1			P
Zinc				1000.0	1016.02	101.6			P
Cyanide									NR

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

U.S. EPA - CLP

2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: KEMRON_ENVIRONMENTAL_SERV Contract: _____

Lab Code: _____ Case No.: 07380_ SAS No.: _____ SDG No.: 5825R_

Initial Calibration Source: INORGANIC ST

Continuing Calibration Source: INORGANIC VE

Concentration Units: ug/L

Analyte	Initial Calibration True	Initial Calibration Found	Initial Calibration %R(1)	Continuing Calibration True	Continuing Calibration Found	Continuing Calibration %R(1)	Continuing Calibration Found	Continuing Calibration %R(1)	M
Aluminum									NR
Antimony				25.0	27.20	108.8	25.30	101.2	F
Arsenic									NR
Barium									NR
Beryllium									NR
Cadmium									NR
Calcium									NR
Chromium									NR
Cobalt									NR
Copper									NR
Iron									NR
Lead									NR
Magnesium									NR
Manganese									NR
Mercury									NR
Nickel									NR
Potassium									NR
Selenium	25.0	23.80	95.2	25.0	23.86	95.4	24.87	99.5	F
Silver									NR
Sodium									NR
Thallium	25.0	24.76	99.0	25.0	23.36	93.4	24.75	99.0	F
Vanadium									NR
Zinc									NR
Cyanide									NR

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

U.S. EPA - CLP

2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: KEMRON_ENVIRONMENTAL_SERV Contract: _____

Lab Code: _____ Case No.: 07380_ SAS No.: _____ SDG No.: 5825R_

Initial Calibration Source: INORGANIC ST

Continuing Calibration Source: INORGANIC VE

Concentration Units: ug/L

Analyte	Initial Calibration True	Initial Calibration Found	Initial Calibration %R(1)	Continuing Calibration True	Continuing Calibration Found	Continuing Calibration %R(1)	Continuing Calibration Found	Continuing Calibration %R(1)	M
Aluminum									NR
Antimony				25.0	25.20	100.8	26.10	104.4	F
Arsenic									NR
Barium									NR
Beryllium									NR
Cadmium									NR
Calcium									NR
Chromium									NR
Cobalt									NR
Copper									NR
Iron									NR
Lead									NR
Magnesium									NR
Manganese									NR
Mercury									NR
Nickel									NR
Potassium									NR
Selenium				25.0	24.74	99.0	24.82	99.3	F
Silver									NR
Sodium									NR
Thallium				25.0	25.25	101.0			F
Vanadium									NR
Zinc									NR
Cyanide									NR

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

U.S. EPA - CLP

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: KEMRON_ENVIRONMENTAL_SERV Contract: _____

Lab Code: _____ Case No.: 07380_ SAS No.: _____ SDG No.: 5825R_

Initial Calibration Source: INORGANIC ST

Continuing Calibration Source: INORGANIC VE

Concentration Units: ug/L

Analyte	Initial Calibration True	Initial Calibration Found	Initial Calibration %R(1)	Continuing Calibration True	Continuing Calibration Found	Continuing Calibration %R(1)	Continuing Calibration Found	Continuing Calibration %R(1)	M
Aluminum									NR
Antimony				25.0	26.00	104.0	25.70	102.8	F
Arsenic									NR
Barium									NR
Beryllium									NR
Cadmium									NR
Calcium									NR
Chromium									NR
Cobalt									NR
Copper									NR
Iron									NR
Lead									NR
Magnesium									NR
Manganese									NR
Mercury									NR
Nickel									NR
Potassium									NR
Selenium				25.0	24.95	99.8	24.68	98.7	F
Silver									NR
Sodium									NR
Thallium									NR
Vanadium									NR
Zinc									NR
Cyanide									NR

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

U.S. EPA - CLP

2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: KEMRON_ENVIRONMENTAL_SERV Contract: _____

Lab Code: _____ Case No.: 07380_ SAS No.: _____ SDG No.: 5825R_

Initial Calibration Source: INORGANIC ST

Continuing Calibration Source: INORGANIC VE

Concentration Units: ug/L

Analyte	Initial Calibration True	Initial Calibration Found	Initial Calibration %R(1)	Continuing Calibration True	Continuing Calibration Found	Continuing Calibration %R(1)	Continuing Calibration Found	Continuing Calibration %R(1)	M
Aluminum									NR
Antimony									NR
Arsenic									NR
Barium									NR
Beryllium									NR
Cadmium									NR
Calcium									NR
Chromium									NR
Cobalt									NR
Copper									NR
Iron									NR
Lead									NR
Magnesium									NR
Manganese									NR
Mercury									NR
Nickel									NR
Potassium									NR
Selenium				25.0	26.35	105.4			F
Silver									NR
Sodium									NR
Thallium									NR
Vanadium									NR
Zinc									NR
Cyanide									NR

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

U.S. EPA - CLP

3
BLANKS

Lab Name: KEMRON_ENVIRONMENTAL_SERV Contract: _____

Lab Code: _____ Case No.: 07380_ SAS No.: _____ SDG No.: 5825R_

Preparation Blank Matrix (soil/water): SOIL_

Preparation Blank Concentration Units (ug/L or mg/kg): MG/KG

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Aluminum	-19.7	B	15.4	U	29.7	B	15.4	U	0.770	U	P
Antimony	1.0	U	1.0	U	1.0	U	1.1	B	0.050	U	F
Arsenic	4.9	U	-5.9	B	4.9	U	4.9	U	0.245	U	P
Barium	0.3	U	0.3	U	0.3	U	0.3	U	0.015	U	P
Beryllium	0.1	U	0.1	U	0.1	U	0.1	U	0.004	U	P
Cadmium	0.6	U	0.6	U	0.6	U	0.6	U	0.030	U	P
Calcium	14.4	U	14.4	U	14.4	U	14.4	U	0.720	U	P
Chromium	2.8	U	2.8	U	2.8	U	2.8	U	0.140	U	P
Cobalt	1.5	U	1.5	U	1.5	U	1.5	U	0.075	U	P
Copper	2.7	U	2.7	U	2.7	U	2.7	U	0.135	U	P
Iron	23.7	U	23.7	U	23.7	U	23.7	U	1.185	U	P
Lead	7.0	U	7.0	U	7.0	U	7.0	U	0.350	U	P
Magnesium	38.5	B	61.4	B	46.1	B	53.8	B	3.477	B	P
Manganese	0.5	U	0.5	U	0.5	U	0.5	U	0.025	U	P
Mercury	0.0	U	0.0	U	0.0	U	0.0	U	0.007	U	CV
Nickel	1.9	U	1.9	U	1.9	U	1.9	U	0.095	U	P
Potassium	38.4	U	-41.4	B	38.4	U	38.4	U	1.920	U	P
Selenium	0.8	U	2.5	B	1.6	B	1.5	B	0.125	B	F
Silver	2.4	U	2.4	U	2.4	U	2.4	U	0.120	U	P
Sodium	10.5	U	10.5	U	10.5	U	10.5	U	0.525	U	P
Thallium	0.5	U	0.5	U	0.5	U	0.5	U	0.025	U	F
Vanadium	-3.7	B	6.5	B	3.6	U	3.6	U	0.180	U	P
Zinc	2.2	U	2.2	U	2.2	U	2.2	U	0.110	U	P
Cyanide											NR

U.S. EPA - CLP

3
BLANKS

Lab Name: KEMRON_ENVIRONMENTAL_SERV Contract: _____

Lab Code: _____ Case No.: 07380_ SAS No.: _____ SDG No.: 5825R_

Preparation Blank Matrix (soil/water): _____

Preparation Blank Concentration Units (ug/L or mg/kg): _____

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Aluminum											NR
Antimony			1.0	U	1.3	B	1.0	U			F
Arsenic											NR
Barium											NR
Beryllium											NR
Cadmium											NR
Calcium											NR
Chromium											NR
Cobalt											NR
Copper											NR
Iron											NR
Lead											NR
Magnesium											NR
Manganese											NR
Mercury											NR
Nickel											NR
Potassium											NR
Selenium	0.8	U	0.8	U	0.8	U	0.8	U			F
Silver											NR
Sodium											NR
Thallium	0.5	U	0.5	U	0.5	U	0.5	U			F
Vanadium											NR
Zinc											NR
Cyanide											NR

U.S. EPA - CLP

3
BLANKS

Lab Name: KEMRON_ENVIRONMENTAL_SERV Contract: _____

Lab Code: _____ Case No.: 07380_ SAS No.: _____ SDG No.: 5825R_

Preparation Blank Matrix (soil/water): _____

Preparation Blank Concentration Units (ug/L or mg/kg): _____

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Aluminum											NR
Antimony			1.0	U	1.0	U	1.0	U			F
Arsenic											NR
Barium											NR
Beryllium											NR
Cadmium											NR
Calcium											NR
Chromium											NR
Cobalt											NR
Copper											NR
Iron											NR
Lead											NR
Magnesium											NR
Manganese											NR
Mercury											NR
Nickel											NR
Potassium											NR
Selenium			0.8	U	0.8	U	0.8	U			F
Silver											NR
Sodium											NR
Thallium											NR
Vanadium											NR
Zinc											NR
Cyanide											NR

U.S. EPA - CLP

3
BLANKS

Lab Name: KEMRON_ENVIRONMENTAL_SERV Contract: _____

Lab Code: _____ Case No.: 07380_ SAS No.: _____ SDG No.: 5825R_

Preparation Blank Matrix (soil/water): _____

Preparation Blank Concentration Units (ug/L or mg/kg): _____

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Aluminum											NR
Antimony			1.0	U							F
Arsenic											NR
Barium											NR
Beryllium											NR
Cadmium											NR
Calcium											NR
Chromium											NR
Cobalt											NR
Copper											NR
Iron											NR
Lead											NR
Magnesium											NR
Manganese											NR
Mercury											NR
Nickel											NR
Potassium											NR
Selenium			0.8	U							F
Silver											NR
Sodium											NR
Thallium											NR
Vanadium											NR
Zinc											NR
Cyanide											NR

U.S. EPA - CLP

4

ICP INTERFERENCE CHECK SAMPLE

Lab Name: KEMRON_ENVIRONMENTAL_SERV Contract: _____

Lab Code: _____ Case No.: 07380_ SAS No: _____ SDG No.: 5825R_

ICP ID Number: IRIS_TJA____ ICS Source: INORGANIC VE

Concentration Units: ug/L

Analyte	True Sol. A	True Sol. AB	Initial Found Sol. A	Initial Found Sol. AB	%R	Final Found Sol. A	Final Found Sol. AB	%R
Aluminum	250000	250000	249522	249544.0	99.8	0		
Antimony								
Arsenic	250	250	8	247.6	99.0			
Barium	250	250	3	246.8	98.7			
Beryllium	250	250	0	238.4	95.4			
Cadmium	500	500	2	479.3	95.9			
Calcium	250000	250000	238701	239308.3	95.7			
Chromium	250	250	1	235.6	94.2			
Cobalt	250	250	3	233.9	93.6			
Copper	250	250	1	247.3	98.9			
Iron	100000	100000	90091	95494.0	95.5			
Lead	500	500	-19	440.6	88.1			
Magnesium	250000	250000	234651	235927.5	94.4			
Manganese	250	250	-1	226.2	90.5			
Mercury								
Nickel	500	500	9	458.6	91.7			
Potassium	2500	2500	-1	2360.5	94.4			
Selenium								
Silver	500	500	1	504.6	100.9			
Sodium	1250	1250	25	1271.3	101.7			
Thallium								
Vanadium	250	250	0	232.0	92.8			
Zinc	500	500	0	484.5	96.9			

U.S. EPA - CLP

5A
SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

RE03-2001S

Lab Name: KEMRON_ENVIRONMENTAL_SERV Contract: _____

Lab Code: _____ Case No.: 07380_ SAS No.: _____ SDG No.: 5825R_

Matrix (soil/water): SOIL__ Level (low/med): LOW___

% Solids for Sample: _90.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Aluminum									NR
Antimony	75-125	20.2646		0.0545	U	105.82	19.2	N	F
Arsenic	75-125	415.8876		4.7637		423.28	97.1		P
Barium	75-125	840.1348		138.7766		423.28	165.7	N	P
Beryllium	75-125	11.5948		1.5811		10.58	94.6		P
Cadmium	75-125	10.7600		0.1422		10.58	100.4		P
Calcium									NR
Chromium	75-125	52.4490		10.2083		42.33	99.8		P
Cobalt	75-125	108.6808		5.9558		105.82	97.1		P
Copper	75-125	60.4790		7.7622		52.91	99.6		P
Iron									NR
Lead	75-125	120.6183		10.2819		105.82	104.3		P
Magnesium									NR
Manganese	75-125	507.1968		197.3072		105.82	292.8	N	P
Mercury									NR
Nickel	75-125	110.7014		12.8993		105.82	92.4		P
Potassium									NR
Selenium	75-125	1.0011		0.2437		2.22	34.1	N	F
Silver	75-125	10.5465		0.1307	U	10.58	99.7		P
Sodium									NR
Thallium	75-125	10.5333		0.2025	B	11.11	93.0		F
Vanadium	75-125	134.3044		15.1644		105.82	112.6		P
Zinc	75-125	136.1509		34.4740		105.82	96.1		P
Cyanide									NR

Comments:

U.S. EPA - CLP

5A
SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

RE03-2002S

Lab Name: KEMRON_ENVIRONMENTAL_SERV Contract: _____

Lab Code: _____ Case No.: 07380_ SAS No.: _____ SDG No.: 5825R_

Matrix (soil/water): SOIL__ Level (low/med): LOW___

% Solids for Sample: _88.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Aluminum									NR
Antimony									NR
Arsenic									NR
Barium									NR
Beryllium									NR
Cadmium									NR
Calcium									NR
Chromium									NR
Cobalt									NR
Copper									NR
Iron									NR
Lead									NR
Magnesium									NR
Manganese									NR
Mercury	75-125	1.1705		0.0146	B	0.95	121.7		CV
Nickel									NR
Potassium									NR
Selenium									NR
Silver									NR
Sodium									NR
Thallium									NR
Vanadium									NR
Zinc									NR
Cyanide									NR

Comments:

U.S. EPA - CLP

6
DUPLICATES

EPA SAMPLE NO.

RE03-2000D

Lab Name: KEMRON_ENVIRONMENTAL_SERV Contract: _____

Lab Code: _____ Case No.: 07380_ SAS No.: _____ SDG No.: 5825R_

Matrix (soil/water): SOIL_ Level (low/med): _LOW__

% Solids for Sample: _86.0 % Solids for Duplicate: __86.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	M
Aluminum		16974.8583		12456.9086		30.7	*	P
Antimony		0.0559	U	0.0581	U			F
Arsenic	1.1180	5.0826		2.6674		62.3	*	P
Barium		138.0868		93.4774		38.5	*	P
Beryllium	0.5590	0.9449		0.7696		20.4		P
Cadmium		0.1011	B	0.0863	B	15.8		P
Calcium		4773.2922		4150.1556		14.0		P
Chromium		10.3784		7.1816		36.4	*	P
Cobalt		7.1164		6.7983		4.6		P
Copper	1.1180	7.0197		5.2242		29.3	*	P
Iron		14944.6103		9149.2551		48.1	*	P
Lead		13.4064		8.7683		41.8	*	P
Magnesium		2459.9233		1798.9113		31.0	*	P
Manganese		385.6135		334.5747		14.2		P
Mercury								NR
Nickel	2.2360	7.4230		7.2700		2.1		P
Potassium		1664.4593		1257.8940		27.8	*	P
Selenium	0.2190	0.2437		0.2727		11.2		F
Silver		0.1480	B	0.1395	U	200.0		P
Sodium		425.8399		359.8663		16.8		P
Thallium		0.1739	B	0.1932	B	10.5		F
Vanadium		27.2336		14.0885		63.6	*	P
Zinc		27.8953		21.2708		26.9	*	P
Cyanide								NR

U.S. EPA - CLP

6
DUPLICATES

EPA SAMPLE NO.

RE03-2003D

Lab Name: KEMRON_ENVIRONMENTAL_SERV Contract: _____

Lab Code: _____ Case No.: 07380_ SAS No.: _____ SDG No.: 5825R_

Matrix (soil/water): SOIL_ Level (low/med): _LOW__

% Solids for Sample: _84.0 % Solids for Duplicate: __84.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	M
Aluminum								NR
Antimony								NR
Arsenic								NR
Barium								NR
Beryllium								NR
Cadmium								NR
Calcium								NR
Chromium								NR
Cobalt								NR
Copper								NR
Iron								NR
Lead								NR
Magnesium								NR
Manganese								NR
Mercury		0.0206	B	0.0240	B	15.2		CV
Nickel								NR
Potassium								NR
Selenium								NR
Silver								NR
Sodium								NR
Thallium								NR
Vanadium								NR
Zinc								NR
Cyanide								NR

U.S. EPA - CLP

7

LABORATORY CONTROL SAMPLE

Lab Name: KEMRON_ENVIRONMENTAL_SERV Contract: _____

Lab Code: _____ Case No.: 07380_ SAS No.: _____ SDG No.: 5825R_

Solid LCS Source: KEM-SPK_____

Aqueous LCS Source: _____

Analyte	Aqueous (ug/L) True	Found	%R	Solid (mg/kg) True	Found	C	Limits		%R
Aluminum				628.0	678.1		503.0	754.0	108.0
Antimony				50.0	51.0		40.0	60.0	102.0
Arsenic				50.0	50.9		40.0	60.0	101.8
Barium				500.0	492.6		400.0	600.0	98.5
Beryllium				50.0	50.3		40.0	60.0	100.6
Cadmium				50.0	50.3		40.0	60.0	100.6
Calcium				500.9	539.8		400.7	601.1	107.8
Chromium				50.0	51.4		40.0	60.0	102.8
Cobalt				50.0	50.3		40.0	60.0	100.6
Copper				50.0	49.5		40.0	60.0	99.0
Iron				109.3	106.4		87.9	130.6	97.3
Lead				50.3	51.6		40.3	60.4	102.6
Magnesium				500.0	509.6		400.0	600.0	101.9
Manganese				50.0	51.9		40.0	60.0	103.8
Mercury				0.167	0.166		0.134	0.200	99.4
Nickel				50.0	50.8		40.0	60.0	101.6
Potassium				2500.0	2485.1		2000.0	3000.0	99.4
Selenium				1.2	1.4		1.0	1.5	116.7
Silver				10.0	10.2		8.0	12.0	102.0
Sodium				2500.0	2541.2		2000.0	3000.0	101.6
Thallium				1.2	1.3		1.0	1.5	108.3
Vanadium				50.0	51.2		40.0	60.0	102.4
Zinc				50.7	50.8		40.6	60.8	100.2
Cyanide									

U.S. EPA - CLP

10
Instrument Detection Limits (Quarterly)

Lab Name: KEMRON_ENVIRONMENTAL_SERV Contract: _____

Lab Code: _____ Case No.: 07380_ SAS No.: _____ SDG No.: 5825R_

ICP ID Number: _____ Date: 01/06/99

Flame AA ID Number : _____

Furnace AA ID Number : PERKIN_ELMER

Analyte	Wave-length (nm)	Back-ground	CRDL (ug/L)	IDL (ug/L)	M
Aluminum			100		NR
Antimony			10		NR
Arsenic			20		NR
Barium			10		NR
Beryllium			10		NR
Cadmium			2		NR
Calcium			200		NR
Chromium			20		NR
Cobalt			20		NR
Copper			20		NR
Iron			40		NR
Lead			20		NR
Magnesium			500		NR
Manganese			10		NR
Mercury			0.6		NR
Nickel			40		NR
Potassium			1000		NR
Selenium	196.00	BZ	4	0.8	F
Silver			10		NR
Sodium			500		NR
Thallium			5		NR
Vanadium			10		NR
Zinc			20		NR

Comments:

U.S. EPA - CLP

10
Instrument Detection Limits (Quarterly)

Lab Name: KEMRON_ENVIRONMENTAL_SERV Contract: _____

Lab Code: _____ Case No.: 07380_ SAS No.: _____ SDG No.: 5825R_

ICP ID Number: _____ Date: 12/08/98

Flame AA ID Number : _____

Furnace AA ID Number : ZEEMAN2_____

Analyte	Wave-length (nm)	Back-ground	CRDL (ug/L)	IDL (ug/L)	M
Aluminum			100		NR
Antimony	217.60	BZ	10	1.0	F
Arsenic			20		NR
Barium			10		NR
Beryllium			10		NR
Cadmium			2		NR
Calcium			200		NR
Chromium			20		NR
Cobalt			20		NR
Copper			20		NR
Iron			40		NR
Lead			20		NR
Magnesium			500		NR
Manganese			10		NR
Mercury			0.6		NR
Nickel			40		NR
Potassium			1000		NR
Selenium			4		NR
Silver			10		NR
Sodium			500		NR
Thallium	276.80	BZ	5	0.5	F
Vanadium			10		NR
Zinc			20		NR

Comments:

U.S. EPA - CLP

10
Instrument Detection Limits (Quarterly)

Lab Name: KEMRON_ENVIRONMENTAL_SERV Contract: _____

Lab Code: _____ Case No.: 07380_ SAS No.: _____ SDG No.: 5825R_

ICP ID Number: IRIS_TJA____ Date: 08/07/98

Flame AA ID Number : _____

Furnace AA ID Number : _____

Analyte	Wave-length (nm)	Back-ground	CRDL (ug/L)	IDL (ug/L)	M
Aluminum	308.20		100	15.4	P
Antimony			10		NR
Arsenic	189.00		20	4.9	P
Barium	455.40		10	0.3	P
Beryllium	313.00		10	0.1	P
Cadmium	228.80		2	0.6	P
Calcium	373.60		200	14.4	P
Chromium	267.70		20	2.8	P
Cobalt	228.60		20	1.5	P
Copper	324.70		20	2.7	P
Iron	271.40		40	23.7	P
Lead	220.30		20	7.0	P
Magnesium	277.90		500	33.0	P
Manganese	257.60		10	0.5	P
Mercury			0.6		NR
Nickel	231.60		40	1.9	P
Potassium	766.40		1000	38.4	P
Selenium			4		NR
Silver	328.00		10	2.4	P
Sodium	589.50		500	10.5	P
Thallium			5		NR
Vanadium	292.40		10	3.6	P
Zinc	213.80		20	2.2	P

Comments:

U.S. EPA - CLP

10
Instrument Detection Limits (Quarterly)

Lab Name: KEMRON_ENVIRONMENTAL_SERV Contract: _____

Lab Code: _____ Case No.: 07380_ SAS No.: _____ SDG No.: 5825R_

ICP ID Number: _____ Date: 11/25/98

Flame AA ID Number : LEEMAN_HG_AA

Furnace AA ID Number : _____

Analyte	Wave-length (nm)	Back-ground	CRDL (ug/L)	IDL (ug/L)	M
Aluminum			100		NR
Antimony			10		NR
Arsenic			20		NR
Barium			10		NR
Beryllium			10		NR
Cadmium			2		NR
Calcium			200		NR
Chromium			20		NR
Cobalt			20		NR
Copper			20		NR
Iron			40		NR
Lead			20		NR
Magnesium			500		NR
Manganese			10		NR
Mercury	253.70		0.6	0.0	CV
Nickel			40		NR
Potassium			1000		NR
Selenium			4		NR
Silver			10		NR
Sodium			500		NR
Thallium			5		NR
Vanadium			10		NR
Zinc			20		NR

Comments:

U.S. EPA - CLP

11A
ICP INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Lab Name: KEMRON_ENVIRONMENTAL_SERV Contract: _____

Lab Code: _____ Case No.: 07380_ SAS No.: _____ SDG No.: 5825R_

ICP ID Number: IRIS_TJA____ Date: 09/01/98

Analyte	Wave-length (nm)	Interelement Correction Factors for : Al	Ca	Fe	Mg	BA_
Aluminum	308.20	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Antimony	206.80	0.0000000	0.0000000	0.0000300	0.0000000	0.0000000
Arsenic	189.00	0.0000000	0.0000000	-0.0000400	0.0000000	0.0000000
Barium	455.40	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Beryllium	313.00	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cadmium	228.80	0.0000000	0.0000000	0.0000000	0.0000000	-0.0000970
Calcium	373.60	0.0000000	0.0000000	0.0035200	0.0000000	0.0000000
Chromium	267.70	0.0000000	0.0000000	0.0000160	0.0000000	0.0000000
Cobalt	228.60	0.0000000	0.0000000	-0.0000450	0.0000000	0.0000000
Copper	324.70	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Iron	271.40	0.0000000	0.0000000	0.0000000	0.0002070	0.0000000
Lead	220.30	0.0000220	0.0000000	0.0000000	0.0000000	0.0000000
Magnesium	277.90	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Manganese	257.60	0.0000000	0.0000000	0.0000000	0.0000190	0.0000000
Mercury						
Nickel	231.60	0.0000000	0.0000000	0.0000200	0.0000000	0.0000000
Potassium	766.40	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Selenium	196.00	-0.0000520	0.0000000	0.0000000	0.0000000	0.0000000
Silver	328.00	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Sodium	589.50	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Thallium	190.80	0.0000000	0.0002000	0.0000000	0.0000000	0.0000000
Vanadium	292.40	0.0000000	0.0000000	0.0001020	0.0000000	0.0000000
Zinc	213.80	0.0000000	0.0000000	0.0000760	0.0000000	0.0000000

Comments:

U.S. EPA - CLP

11B
ICP INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Lab Name: KEMRON_ENVIRONMENTAL_SERV Contract: _____

Lab Code: _____ Case No.: 07380_ SAS No.: _____ SDG No.: 5825R_

ICP ID Number: IRIS_TJA____ Date: 09/01/98

Analyte	Wave-length (nm)	Interelement Correction Factors for : BE_	CR_	CU_	MN_	MO_
Aluminum	308.20	0.0000000	0.0000000	0.0000000	0.0018000	0.0202000
Antimony	206.80	0.0000000	0.0154500	0.0000000	0.0000000	-0.0014800
Arsenic	189.00	0.0000000	-0.0085530	0.0000000	0.0000000	-0.0006880
Barium	455.40	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Beryllium	313.00	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cadmium	228.80	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Calcium	373.60	0.0000000	0.0000000	0.0000000	0.0016000	0.0000000
Chromium	267.70	0.0000000	0.0000000	0.0000000	0.0003400	0.0000000
Cobalt	228.60	0.0000000	0.0001260	0.0000000	0.0000000	0.0000000
Copper	324.70	0.0000000	-0.0000890	0.0000000	0.0000000	0.0000000
Iron	271.40	0.0000000	0.0000000	0.0000000	0.0000800	-0.0137000
Lead	220.30	0.0000000	0.0000000	0.0000000	0.0000000	-0.0017000
Magnesium	277.90	0.0000000	-0.0051000	0.0000000	0.0013200	-0.0236000
Manganese	257.60	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Mercury						
Nickel	231.60	0.0128000	0.0000000	0.0000000	0.0000000	0.0000000
Potassium	766.40	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Selenium	196.00	0.0000000	0.0000000	0.0000000	0.0004300	0.0084400
Silver	328.00	0.0000000	0.0000540	0.0000000	0.0000900	-0.0004900
Sodium	589.50	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Thallium	190.80	0.0000000	0.0007840	0.0000000	0.0014900	-0.0029500
Vanadium	292.40	0.0000000	-0.0028800	0.0000000	-0.0014300	-0.0074500
Zinc	213.80	0.0000000	0.0000000	0.0009000	0.0002790	0.0000000

Comments:

U.S. EPA - CLP

11B
ICP INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Lab Name: KEMRON_ENVIRONMENTAL_SERV Contract: _____

Lab Code: _____ Case No.: 07380_ SAS No.: _____ SDG No.: 5825R_

ICP ID Number: IRIS_TJA____ Date: 09/01/98

Analyte	Wave-length (nm)	Interelement Correction Factors for : NI_	TI_	V__	___	___
Aluminum	308.20	0.0000000	0.0013000	0.0674600		
Antimony	206.80	-0.0023400	0.0000000	-0.0010740		
Arsenic	189.00	0.0000000	0.0000000	0.0000000		
Barium	455.40	0.0000000	0.0000000	0.0000000		
Beryllium	313.00	0.0000000	0.0000000	0.0004670		
Cadmium	228.80	0.0000000	0.0000000	0.0000720		
Calcium	373.60	0.0041400	0.0000000	0.0000000		
Chromium	267.70	0.0000000	0.0000000	-0.0001480		
Cobalt	228.60	0.0000000	0.0014800	0.0000000		
Copper	324.70	0.0000000	-0.0007090	-0.0036680		
Iron	271.40	0.0000000	0.0000000	-0.1341610		
Lead	220.30	0.0000000	0.0000000	0.0000000		
Magnesium	277.90	0.0000000	0.0000000	0.0013030		
Manganese	257.60	0.0000000	0.0000000	-0.0000750		
Mercury						
Nickel	231.60	0.0000000	0.0000000	0.0000000		
Potassium	766.40	0.0000000	0.0000000	0.0000000		
Selenium	196.00	0.0000000	0.0000000	0.0000000		
Silver	328.00	0.0000000	0.0030000	0.0000000		
Sodium	589.50	0.0000000	0.0000000	0.0000000		
Thallium	190.80	0.0000000	-0.0027200	-0.0001000		
Vanadium	292.40	0.0000000	0.0008000	0.0000000		
Zinc	213.80	0.0040000	0.0000000	0.0000000		

Comments:

U.S. EPA - CLP

12
ICP LINEAR RANGES (QUARTERLY)

Lab Name: KEMRON_ENVIRONMENTAL_SERV Contract: _____

Lab Code: _____ Case No.: 07380_ SAS No.: _____ SDG No.: 5825R_

ICP ID Number: IRIS_TJA____ Date: 05/05/99

Analyte	Integ. Time (sec.)	Concentration (ug/L)	M
Aluminum	10.00	1000.0	P
Antimony	40.00	10.0	P
Arsenic	40.00	100.0	P
Barium	10.00	50.0	P
Beryllium	10.00	5.0	P
Cadmium	40.00	50.0	P
Calcium	10.00	1000.0	P
Chromium	40.00	100.0	P
Cobalt	40.00	100.0	P
Copper	10.00	40.0	P
Iron	40.00	1000.0	P
Lead	40.00	200.0	P
Magnesium	40.00	1000.0	P
Manganese	40.00	50.0	P
Mercury			NR
Nickel	40.00	100.0	P
Potassium	10.00	400.0	P
Selenium	40.00	10.0	P
Silver	10.00	20.0	P
Sodium	10.00	400.0	P
Thallium	40.00	10.0	P
Vanadium	40.00	100.0	P
Zinc	40.00	50.0	P

Comments:

HARDCOPY DELIVERABLES

METALS

INSTRUMENT DATA

KEMRON ENVIRONMENTAL SERVICES
ICP RUN LOGBOOK

ANALYST JYH DATE 7/23/99 TIME 10:08
METHOD # 6010B SOP # ME600F Rev # 0 WORK GROUP #
CAL STD SOURCE MI-2-39B ICV/CCV SOURCE MI-2-49B
ICS AB SOURCE MI-2-43A ICS A SOURCE MI-2-4B POST SPK SOURCE DSS-09-07

Cup #	Sample No.	Dil	Prep Conc	Autosampler Runs	Cup #	Sample No.	Dil	Prep Conc	Autosampler Runs
	50				27.	0736503		1.00/50	RE00-99-0239
	1 1/200				28.	04		1.02/	0240
	2 1/100				29.	05		1.04/	0241
	3 1/4				30.	06 RE00-99-0242		1.02/	CW/CB
	4 1/2				31.	0737301		1.04/	RE00-99-0243
	5			ICV/ICB	32.	02		1.00/	0244
	ICSA				33.	03		1.01/	0245
	ICSAB			CW/CB	34.	04		1.06/	0246
1.	PBSWH/WG61417				35.	05		1.05/	0249
2.	LCSSWH/WG61417		1.00/50		36.	06		1.08/	0250
3.	0738001		1.04/	RE00-99-2000	37.	0736401		1.00/	CW/CB
4.	01 Dup		1.00/	2000 Dup	38.	02		1.06/	
5.	02		1.02/	2001	39.	03		1.00/	
6.	02 MS		1.05/	2001 MS	40.	03 MS		1.01/	
7.	02/5		1.02/	2001/5	41.	03 MSD		1.01/	
8.	02 .9PS		1.02/	2001 .9PS	42.	04		1.01/	
9.	03		1.07/	2002	43.	05		1.00/	CW/CB
10.	04		1.03/	2003 CW/CB	44.				
11.	05		1.00/	RE00-99-2004	45.				
12.	06		1.05/	2005	46.				
13.	07		1.00/	2006	47.				
14.	08		1.04/	2007	48.				
15.	0739422		1.00/		49.				
16.	22 MS		1.04/		50.				
17.	22 MSD		1.04/		51.				
18.	25		1.07/		52.				
19.	PBSA/WG61360				53.				
20.	LCSSA/WG61360		1.00/50	CW/CB	54.				
21.	0736501		1.04/	RE00-99-0237	55.				
22.	01 Dup		1.01/	0237 Dup	56.				
23.	01 MS		1.00/	0237 MS	57.				
24.	01/5		1.04/	0237/5	58.				
25.	01 .9PS		1.04/	0237 .9PS	59.		JYH	7/23/99	
26.	02		1.04/	0238	60.				

Reviewed by:

Comments:

Note: No entry for Dil represents 1X Dilution

Autosampler Run Key:

CCV - Continuing Calibration Verfication
CCB = Continuing Calibration Blank

FRS = Rull Recalibration Sequence
R = Analyst Rerun

Method: CLP5 Sample Name: S0 Operator:
Comment:
Run Time: 07/23/99 10:08 Type: Std Mode: IR Corr.Fact: 1.000000

Elem	Ag3280	Al3082	As1890	B_2496
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.15797	.12056	.02290	.01562
Stddev	.08229	.00589	.00295	.02208
%RSD	52.093	4.8870	12.861	141.42
#1	.09978	.12472	.02499	.00000
#2	.21616	.11639	.02082	.03123

Elem	Ba4554	Be3130	Ca3736	Cd2288
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.05819	.20786	.22171	.16709
Stddev	.11758	.05881	.04701	.01546
%RSD	202.05	28.294	21.203	9.2556
#1	-.02495	.24945	.18847	.17802
#2	.14133	.16627	.25495	.15615

Elem	Co2286	Cr2677	Cu3247	Fe2714
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	-.24048	-.16240	.04989	.49972
Stddev	.01915	.01767	.07055	.00002
%RSD	7.9627	10.882	141.42	.00378
#1	-.25402	-.17490	.09978	.49974
#2	-.22694	-.14991	.00000	.49971

Elem	K_7664	Li6707	Mg2779	Mn2576
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.84011	1.0977	.03326	-.06038
Stddev	.10916	.4000	.00000	.02061
%RSD	12.993	36.437	.00988	34.141
#1	.91730	1.3805	.03326	-.07496
#2	.76292	.81490	.03325	-.04580

Elem	Mo2020	Na5895	Ni2316	Pb2203
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.00416	.42231	.11451	-.03956
Stddev	.03239	.21354	.05005	.01767
%RSD	777.93	50.566	43.709	44.663
#1	-.01874	.57330	.07912	-.05205
#2	.02707	.27131	.14991	-.02707

Elem	Sb2068	Se1960	Si2516	Sn1899
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.00416	-.00104	.14158	-.00833
Stddev	.00000	.00147	.02944	.01178
%RSD	.00810	141.42	20.793	141.42
#1	.00416	-.00208	.12076	-.01666
#2	.00416	.00000	.16240	.00000

Sample Name: S0 Run Time: 07/23/99 10:08

Elem	Sr2152	Sr3464	Sr4077	Ti3349
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	-.00833	-.05820	.74829	-.09146
Stddev	.01178	.05488	.01184	.01177
%RSD	141.42	94.287	1.5821	12.867
#1	-.01666	-.09701	.75666	-.09978
#2	.00000	-.01940	.73991	-.08314

Elem	Tl1908	V_2924	Zn2138
Units	Cts/S	Cts/S	Cts/S
Avg	-.03193	-.00416	.03435
Stddev	.00491	.00196	.00736
%RSD	15.376	47.131	21.431
#1	-.03540	-.00277	.03956
#2	-.02845	-.00554	.02915

Analysis Report 07/23/99 10:15:32 page 1

Method: CLP5 Sample Name: S1 Operator:
Comment:
Run Time: 07/23/99 10:12 Type: Std Mode: IR Corr.Fact: 1.000000

Elem	Ag3280	Al3082	B_2496	Ba4554
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.39897	.28676	2.3248	3.8733
Stddev	.07055	.01765	.0191	.0472
%RSD	17.683	6.1546	.82001	1.2197
#1	.34908	.27428	2.3382	3.8399
#2	.44886	.29924	2.3113	3.9067

Elem	Be3130	Ca3736	Cr2677	Cu3247
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.85612	.88521	.26027	.15793
Stddev	.01180	.02944	.02649	.05878
%RSD	1.3788	3.3254	10.179	37.222
#1	.84777	.86440	.27901	.11636
#2	.86447	.90603	.24154	.19949

Elem	Fe2714	K_7664	Li6707	Mg2779
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.72672	3.7595	5.0463	.20780
Stddev	.02942	.0899	.0826	.01174
%RSD	4.0490	2.3922	1.6366	5.6510
#1	.74753	3.8231	4.9879	.21610
#2	.70591	3.6959	5.1047	.19949

Elem	Mn2576	Mo2020	Na5895	Ni2316
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2.6631	.15720	24.900	.33523
Stddev	.0058	.01030	.279	.02062
%RSD	.21782	6.5526	1.1210	6.1520
#1	2.6672	.16449	25.098	.32065
#2	2.6590	.14992	24.703	.34982

Elem	Sb2068	Si2516	Sn1899	Sr2152
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.04789	.79019	.06663	.14263
Stddev	.00884	.01911	.00589	.00148
%RSD	18.449	2.4190	8.8355	1.0354
#1	.04164	.80370	.07079	.14159
#2	.05414	.77667	.06247	.14367

Elem	Sr3464	Sr4077	Ti3349	V_2924
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.08312	30.081	1.3964	.07619
Stddev	.00392	.233	.1645	.01371
%RSD	4.7202	.77576	11.779	17.993
#1	.08034	30.246	1.5127	.08589
#2	.08589	29.916	1.2801	.06650

Sample Name: S1 Run Time: 07/23/99 10:12

Elem	Zn2138
Units	Cts/S
Avg	1.0754
Stddev	.0044
%RSD	.41403
#1	1.0723
#2	1.0786

Method: CLP5 Sample Name: S2 Operator:
Comment:
Run Time: 07/23/99 10:15 Type: Std Mode: IR Corr.Fact: 1.000000

Elem	Ag3280	Al3082	As1890	B_2496
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.52363	.44883	.05205	4.6795
Stddev	.03525	.01175	.00883	.0019
%RSD	6.7325	2.6170	16.962	.04032
#1	.49870	.44052	.05830	4.6782
#2	.54856	.45713	.04581	4.6809

Elem	Ba4554	Be3130	Ca3736	Cd2288
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7.8420	1.6374	1.5363	.23424
Stddev	.0178	.0353	.0725	.01769
%RSD	.22674	2.1556	4.7164	7.5513
#1	7.8546	1.6623	1.4850	.22173
#2	7.8294	1.6124	1.5875	.24674

Elem	Co2286	Cr2677	Cu3247	Fe2714
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	-.03331	.63713	.39065	.97447
Stddev	.00000	.01183	.03527	.02641
%RSD	.00962	1.8575	9.0287	2.7106
#1	-.03331	.62876	.41559	.99315
#2	-.03332	.64549	.36571	.95579

Elem	K_7664	Li6707	Mg2779	Mn2576
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6.8325	9.2443	.26597	5.4405
Stddev	.1043	.2820	.02351	.0201
%RSD	1.5272	3.0504	8.8408	.36998
#1	6.7587	9.0449	.28260	5.4548
#2	6.9063	9.4437	.24934	5.4263

Elem	Mo2020	Na5895	Ni2316	Pb2203
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.28525	50.330	.53927	.01457
Stddev	.01180	.586	.02066	.00589
%RSD	4.1380	1.1645	3.8310	40.398
#1	.27690	50.744	.52466	.01874
#2	.29359	49.916	.55387	.01041

Elem	Sb2068	Se1960	Si2516	Sn1899
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.09578	.01249	1.4439	.15408
Stddev	.01766	.00000	.0337	.00588
%RSD	18.438	.00810	2.3363	3.8134
#1	.10826	.01249	1.4678	.15823
#2	.08329	.01249	1.4201	.14992

Sample Name: S2 Run Time: 07/23/99 10:15

Elem	Sr2152	Sr3464	Sr4077	Ti3349
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.28317	.15377	60.421	2.7096
Stddev	.02358	.02939	.125	.0706
%RSD	8.3278	19.113	.20619	2.6048
#1	.26649	.17455	60.509	2.7595
#2	.29984	.13298	60.333	2.6597

Elem	V_2924	Zn2138
Units	Cts/S	Cts/S
Avg	.11913	2.0436
Stddev	.03135	.0190
%RSD	26.313	.92771
#1	.14130	2.0570
#2	.09697	2.0302

Method: CLP5 Sample Name: S3 Operator:
Comment:
Run Time: 07/23/99 10:19 Type: Std Mode: IR Corr.Fact: 1.000000

Elem	Ag3280	Al3082	As1890	B_2496
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	8.2471	8.3803	.78090	117.25
Stddev	.2007	.0582	.00295	.33
%RSD	2.4335	.69467	.37740	.28158
#1	8.1052	8.4214	.78298	117.48
#2	8.3890	8.3391	.77881	117.02

Elem	Ba4554	Be3130	Ca3736	Cd2288
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	192.67	36.267	33.997	1.5555
Stddev	1.02	.191	.142	.0486
%RSD	.52980	.52673	.41717	3.1240
#1	191.95	36.132	33.897	1.5899
#2	193.39	36.402	34.097	1.5212

Elem	Co2286	Cr2677	Cu3247	Fe2714
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	4.8541	21.342	9.3956	11.868
Stddev	.0000	.027	.2714	.015
%RSD	.00029	.12446	2.8886	.12380
#1	4.8541	21.361	9.2037	11.857
#2	4.8541	21.324	9.5875	11.878

Elem	K_7664	Li6707	Mg2779	Mn2576
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	165.69	196.08	5.1846	137.46
Stddev	.18	1.18	.0114	.71
%RSD	.11012	.60175	.21949	.51645
#1	165.56	195.24	5.1927	137.97
#2	165.82	196.91	5.1766	136.96

Elem	Mo2020	Na5895	Ni2316	Pb2203
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6.9833	1251.9	10.606	1.4108
Stddev	.0486	3.7	.085	.0309
%RSD	.69610	.29520	.80555	2.1915
#1	7.0177	1249.3	10.666	1.3890
#2	6.9489	1254.5	10.545	1.4327

Elem	Sb2068	Se1960	Si2516	Sn1899
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2.6051	.42273	33.755	3.8503
Stddev	.0265	.00884	.211	.0089
%RSD	1.0172	2.0903	.62409	.22974
#1	2.5863	.42897	33.904	3.8566
#2	2.6238	.41648	33.606	3.8441

Sample Name: S3 Run Time: 07/23/99 10:19

Elem	Sr2152	Sr3464	Sr4077	Ti3349
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7.5633	6.0515	1482.1	70.088
Stddev	.0059	.1231	2.3	.570
%RSD	.07814	2.0345	.15675	.81352
#1	7.5674	6.1386	1480.5	69.685
#2	7.5591	5.9644	1483.8	70.491

Elem	Tl1908	V_2924	Zn2138
Units	Cts/S	Cts/S	Cts/S
Avg	.49110	2.7366	50.697
Stddev	.00736	.0061	.199
%RSD	1.4994	.22255	.39238
#1	.49631	2.7323	50.838
#2	.48589	2.7409	50.556

Method: CLP5 Sample Name: S4 Operator:
Comment:
Run Time: 07/23/99 10:22 Type: Std Mode: IR Corr.Fact: 1.000000

Elem	Ag3280	Al3082	As1890	B_2496
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	16.663	17.012	1.5555	235.33
Stddev	.106	.200	.0207	.01
%RSD	.63348	1.1736	1.3301	.00635
#1	16.588	16.871	1.5409	235.32
#2	16.737	17.153	1.5701	235.34

Elem	Ba4554	Be3130	Ca3736	Cd2288
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	392.89	73.680	68.918	2.9783
Stddev	3.89	.599	.314	.0068
%RSD	.98960	.81236	.45608	.22734
#1	390.14	73.257	68.695	2.9735
#2	395.64	74.103	69.140	2.9830

Elem	Co2286	Cr2677	Cu3247	Fe2714
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	9.7932	42.902	18.967	23.827
Stddev	.0349	.007	.188	.044
%RSD	.35599	.01572	.99046	.18670
#1	9.8178	42.907	18.834	23.858
#2	9.7685	42.897	19.100	23.796

Elem	K_7664	Li6707	Mg2779	Mn2576
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	334.21	403.22	10.631	276.93
Stddev	1.41	2.33	.117	.44
%RSD	.42099	.57882	1.1046	.16007
#1	333.22	401.57	10.548	276.62
#2	335.21	404.87	10.715	277.25

Elem	Mo2020	Na5895	Ni2316	Pb2203
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	14.109	2513.8	21.115	2.8778
Stddev	.043	6.4	.072	.0060
%RSD	.30752	.25363	.33959	.20954
#1	14.078	2509.3	21.064	2.8735
#2	14.139	2518.4	21.166	2.8820

Elem	Sb2068	Se1960	Si2516	Sn1899
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5.3974	.88707	67.699	7.7338
Stddev	.0238	.01182	.027	.0350
%RSD	.44135	1.3328	.03967	.45206
#1	5.3806	.87871	67.680	7.7585
#2	5.4142	.89543	67.718	7.7090

Sample Name: S4 Run Time: 07/23/99 10:22

Elem	Sr2152	Sr3464	Sr4077	Ti3349
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	15.374	12.446	3033.0	142.62
Stddev	.046	.053	29.8	.66
%RSD	.30161	.42338	.98093	.45997
#1	15.407	12.409	3012.0	142.15
#2	15.341	12.484	3054.1	143.08

Elem	Tl1908	V_2924	Zn2138
Units	Cts/S	Cts/S	Cts/S
Avg	1.0235	5.6346	101.88
Stddev	.0045	.0117	.12
%RSD	.43646	.20682	.11759
#1	1.0203	5.6264	101.80
#2	1.0266	5.6429	101.97

Method: CLP5 Sample Name: S5 Operator:
Comment:
Run Time: 07/23/99 10:26 Type: Std Mode: IR Corr.Fact: 1.000000

Elem	Ag3280	Al3082	As1890	B_2496
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	33.376	33.929	3.1153	470.77
Stddev	.091	.220	.0177	.49
%RSD	.27401	.64946	.56805	.10392
#1	33.441	33.774	3.1278	470.43
#2	33.312	34.085	3.1028	471.12

Elem	Ba4554	Be3130	Ca3736	Cd2288
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	788.77	147.72	138.25	5.7756
Stddev	.41	.31	.19	.0088
%RSD	.05175	.20708	.13847	.15212
#1	788.48	147.51	138.11	5.7694
#2	789.06	147.94	138.38	5.7818

Elem	Co2286	Cr2677	Cu3247	Fe2714
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	19.454	86.011	38.010	47.248
Stddev	.041	.120	.203	.024
%RSD	.21109	.13953	.53417	.05072
#1	19.425	85.926	37.866	47.265
#2	19.483	86.096	38.154	47.231

Elem	K_7664	Li6707	Mg2779	Mn2576
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	671.56	817.37	21.355	555.96
Stddev	.97	4.70	.013	.29
%RSD	.14514	.57475	.06307	.05208
#1	672.25	814.05	21.346	555.75
#2	670.87	820.69	21.365	556.16

Elem	Mo2020	Na5895	Ni2316	Pb2203
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	28.131	4982.0	41.601	5.7163
Stddev	.040	9.0	.044	.0176
%RSD	.14048	.18021	.10533	.30826
#1	28.103	4975.7	41.570	5.7038
#2	28.159	4988.4	41.632	5.7287

Elem	Sb2068	Se1960	Si2516	Sn1899
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	10.806	1.8076	136.47	15.404
Stddev	.015	.0147	.15	.044
%RSD	.13713	.81550	.11200	.28592
#1	10.816	1.8180	136.37	15.373
#2	10.795	1.7971	136.58	15.435

Sample Name: S5 Run Time: 07/23/99 10:26

Elem	Sr2152	Sr3464	Sr4077	Ti3349
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	30.703	24.690	6041.0	287.14
Stddev	.029	.043	24.3	.33
%RSD	.09506	.17475	.40166	.11451
#1	30.683	24.659	6023.8	286.91
#2	30.724	24.720	6058.2	287.37

Elem	Tl1908	V_2924	Zn2138
Units	Cts/S	Cts/S	Cts/S
Avg	2.0821	11.382	205.12
Stddev	.0172	.066	.18
%RSD	.82595	.57649	.08815
#1	2.0942	11.336	205.00
#2	2.0699	11.428	205.25

El Name	Slope	Y-int	Correlation	Date Stdized
Ag3280	41.3769	0.1588	0.9996377	07/23/99 10:29:22

Standard Name	Concentration Stated	Concentration Found	Difference Conc	Difference %	Signal (S)IR
S0	0	-2.1269e-050		0	0.15797
S1	0.004	0.0058033	0.0018	45.1	0.39897
S2	0.008	0.0088161	0.000816	10.2	0.52363
S3	0.2	0.19548	-0.00452	-2.26	8.2471
S4	0.4	0.39887	-0.00113	-0.284	16.663
S5	0.8	0.8028	0.0028	0.35	33.376

El Name	Slope	Y-int	Correlation	Date Stdized
Al3082	1.6705	0.1205	0.9999669	07/23/99 10:29:22

Standard Name	Concentration Stated	Concentration Found	Difference Conc	Difference %	Signal (S)IR
S0	0	5.0987e-050		0	0.12056
S1	0.1	0.099543	-0.000457	-0.457	0.28676
S2	0.2	0.19656	-0.00344	-1.72	0.44883
S3	5	4.9445	-0.0555	-1.11	8.3803
S4	10	10.112	0.112	1.12	17.012
S5	20	20.239	0.239	1.19	33.929

El Name	Slope	Y-int	Correlation	Date Stdized
As1890	3.8945	0.0229	0.9999679	07/23/99 10:29:22

Standard Name	Concentration Stated	Concentration Found	Difference Conc	Difference %	Signal (S)IR
S0	0	4.9802e-060		0	0.022903
S2	0.008	0.0074896	-0.00051	-6.38	0.052052
S3	0.2	0.19464	-0.00536	-2.68	0.7809
S4	0.4	0.39353	-0.00647	-1.62	1.5555
S5	0.8	0.79405	-0.00595	-0.744	3.1153

El Name	Slope	Y-int	Correlation	Date Stdized
B_2496	23.5207	0.0149	0.9999985	07/23/99 10:29:22

Standard Name	Concentration Stated	Concentration Found	Difference Conc	Difference %	Signal (S)IR
S0	0	2.8316e-050		0	0.015615
S1	0.1	0.098203	-0.0018	-1.8	2.3248
S2	0.2	0.19832	-0.00168	-0.841	4.6795
S3	5	4.9844	-0.0156	-0.312	117.25
S4	10	10.005	0.00451	0.0451	235.33
S5	20	20.015	0.0146	0.0729	470.77

El Name	Slope	Y-int	Correlation	Date Stdized
Ba4554	392.5667	0.0563	0.9999679	07/23/99 10:29:22

Standard Name	Concentration Stated	Concentration Found	Difference Conc	Difference %	Signal (S)IR
S0	0	4.9488e-060		0	0.058193
S1	0.01	0.0097234	-0.000277	-2.77	3.8733
S2	0.02	0.019833	-0.000167	-0.835	7.842
S3	0.5	0.49065	-0.00935	-1.87	192.67
S4	1	1.0007	0.00068	0.068	392.89
S5	2	2.0091	0.00912	0.456	788.77

El Name	Slope	Y-int	Correlation	Date Stdized
Be3130	1468.1553	0.2067	0.9999506	07/23/99 10:29:22

Standard Name	Concentration Stated	Concentration Found	Difference Conc	Difference %	Signal (S)IR
S0	0	7.6395e-070		0	0.20786
S1	0.0005	0.00044231	-5.77e-05	-11.5	0.85612
S2	0.001	0.00097445	-2.55e-05	-2.55	1.6374
S3	0.025	0.024562	-0.000438	-1.75	36.267
S4	0.05	0.050045	4.47e-05	0.0894	73.68
S5	0.1	0.10048	0.000477	0.477	147.72

El Name	Slope	Y-int	Correlation	Date Stdized
Ca3736	6.8633	0.2211	0.9999674	07/23/99 10:29:22

Standard Name	Concentration Stated	Concentration Found	Difference Conc	Difference %	Signal (S)IR
S0	0	8.7799e-050		0	0.22171
S1	0.1	0.096761	-0.00324	-3.24	0.88521
S2	0.2	0.19162	-0.00838	-4.19	1.5363
S3	5	4.9212	-0.0788	-1.58	33.997
S4	10	10.009	0.00924	0.0924	68.918
S5	20	20.111	0.111	0.555	138.25

El Name	Slope	Y-int	Correlation	Date Stdized
Cd2288	56.9369	0.1672	0.9998829	07/23/99 10:29:22

Standard Name	Concentration Stated	Concentration Found	Difference Conc	Difference %	Signal (S)IR
S0	0	-1.8364e-060		0	0.16709
S2	0.001	0.0011775	0.000178	17.8	0.23424
S3	0.025	0.024384	-0.000616	-2.46	1.5555
S4	0.05	0.049372	-0.000629	-1.26	2.9783
S5	0.1	0.098503	-0.0015	-1.5	5.7756

El Name	Slope	Y-int	Correlation	Date Stdized
Co2286	49.3867	-0.2404	0.9999140	07/23/99 10:29:22

Standard Name	Concentration Stated	Concentration Found	Difference Conc	Difference %	Signal (S)IR
S0	0	-2.4928e-060		0	-0.24048
S2	0.004	0.0041923	0.000192	4.81	-0.033314
S3	0.1	0.10315	0.00315	3.15	4.8541
S4	0.2	0.20316	0.00316	1.58	9.7932
S5	0.4	0.39878	-0.00122	-0.305	19.454

El Name	Slope	Y-int	Correlation	Date Stdized
Cr2677	86.1398	-0.1628	0.9999849	07/23/99 10:29:22

Standard Name	Concentration Stated	Concentration Found	Difference Conc	Difference %	Signal (S)IR
S0	0	4.3968e-060		0	-0.1624
S1	0.005	0.0049113	-8.87e-05	-1.77	0.26027
S2	0.01	0.0092861	-0.000714	-7.14	0.63713
S3	0.25	0.24966	-0.000345	-0.138	21.342
S4	0.5	0.49994	-5.7e-05	-0.0114	42.902
S5	1	1.0004	0.000393	0.0393	86.011

El Name	Slope	Y-int	Correlation	Date Stdized
Cu3247	38.3721	0.0489	0.9997025	07/23/99 10:29:22

Standard Name	Concentration Stated	Concentration Found	Difference Conc	Difference %	Signal (S)IR
S1	0.005	0.0028412	-0.00216	-43.2	0.15793
S0	0	2.5699e-050		0	0.04989
S2	0.01	0.008906	-0.00109	-10.9	0.39065
S3	0.25	0.24358	-0.00642	-2.57	9.3956
S4	0.5	0.49302	-0.00698	-1.4	18.967
S5	1	0.98929	-0.0107	-1.07	38.01

El Name	Slope	Y-int	Correlation	Date Stdized
Fe2714	6.0932	0.4997	0.9999543	07/23/99 10:29:22

Standard Name	Concentration Stated	Concentration Found	Difference Conc	Difference %	Signal (S)IR
S0	0	6.422e-06	0	0	0.49972
S1	0.04	0.03726	-0.00274	-6.85	0.72672
S2	0.08	0.077921	-0.00208	-2.6	0.97447
S3	2	1.8657	-0.134	-6.72	11.868
S4	4	3.8284	-0.172	-4.29	23.827
S5	8	7.6723	-0.328	-4.1	47.248

El Name	Slope	Y-int	Correlation	Date Stdized
K_7664	6.6736	0.8324	0.9999317	07/23/99 10:29:22

Standard Name	Concentration Stated	Concentration Found	Difference Conc	Difference %	Signal (S)IR
S0	0	0.0011571	0	0	0.84011
S1	0.5	0.43861	-0.0614	-12.3	3.7595
S2	1	0.89909	-0.101	-10.1	6.8325
S3	25	24.703	-0.297	-1.19	165.69
S4	50	49.955	-0.0452	-0.0904	334.21
S5	100	100.5	0.504	0.504	671.56

El Name	Slope	Y-int	Correlation	Date Stdized
Li6707	404.0204	1.0961	0.9998807	07/23/99 10:29:22

Standard Name	Concentration Stated	Concentration Found	Difference Conc	Difference %	Signal (S)IR
S0	0	4.0677e-060		0	1.0977
S1	0.01	0.0097773	-0.000223	-2.23	5.0463
S2	0.02	0.020168	0.000168	0.84	9.2443
S3	0.5	0.4826	-0.0174	-3.48	196.08
S4	1	0.99532	-0.00468	-0.468	403.22
S5	2	2.0204	0.0204	1.02	817.37

El Name	Slope	Y-int	Correlation	Date Stdized
Mg2779	1.0666	0.0340	0.9993321	07/23/99 10:29:22

Standard Name	Concentration Stated	Concentration Found	Difference Conc	Difference %	Signal (S)IR
S0	0	-0.000696880		0	0.033257
S1	0.1	0.16294	0.0629	62.9	0.2078
S2	0.2	0.21748	0.0175	8.74	0.26597
S3	5	4.8288	-0.171	-3.42	5.1846
S4	10	9.9354	-0.0646	-0.646	10.631
S5	20	19.989	-0.011	-0.0552	21.355

El Name	Slope	Y-int	Correlation	Date Stdized
Mn2576	554.4089	-0.0613	0.9999927	07/23/99 10:29:22

Standard Name	Concentration Stated	Concentration Found	Difference Conc	Difference %	Signal (S)IR
S0	0	1.5818e-060		0	-0.06038
S1	0.005	0.004914	-8.6e-05	-1.72	2.6631
S2	0.01	0.0099237	-7.63e-05	-0.763	5.4405
S3	0.25	0.24806	-0.00194	-0.777	137.46
S4	0.5	0.49962	-0.000379	-0.0758	276.93
S5	1	1.0029	0.0029	0.29	555.96

El Name	Slope	Y-int	Correlation	Date Stdized
Mo2020	14.0669	0.0043	0.9999839	07/23/99 10:29:22

Standard Name	Concentration Stated	Concentration Found	Difference Conc	Difference %	Signal (S)IR
S0	0	-8.1747e-060		0	0.0041636
S1	0.01	0.010871	0.000871	8.71	0.1572
S2	0.02	0.019974	-2.61e-05	-0.13	0.28525
S3	0.5	0.49613	-0.00387	-0.773	6.9833
S4	1	1.0027	0.00268	0.268	14.109
S5	2	1.9995	-0.000527	-0.0264	28.131

El Name	Slope	Y-int	Correlation	Date Stdized
Na5895	49.9770	0.4180	0.9999915	07/23/99 10:29:22

Standard Name	Concentration Stated	Concentration Found	Difference Conc	Difference %	Signal (S)IR
S0	0	8.6439e-050		0	0.42231
S1	0.5	0.48987	-0.0101	-2.03	24.9
S2	1	0.9987	-0.0013	-0.13	50.33
S3	25	25.041	0.0414	0.166	1251.9
S4	50	50.292	0.292	0.583	2513.8
S5	100	99.678	-0.322	-0.322	4982

El Name	Slope	Y-int	Correlation	Date Stdized
Ni2316	41.6584	0.1147	0.9999766	07/23/99 10:29:22

Standard Name	Concentration Stated	Concentration Found	Difference Conc	Difference %	Signal (S)IR
S0	0	-4.1559e-060		0	0.11451
S1	0.005	0.0052942	0.000294	5.88	0.33523
S2	0.01	0.010192	0.000192	1.92	0.53927
S3	0.25	0.25183	0.00183	0.733	10.606
S4	0.5	0.5041	0.0041	0.821	21.115
S5	1	0.99587	-0.00413	-0.413	41.601

El Name	Slope	Y-int	Correlation	Date Stdized
Pb2203	5.8260	-0.0396	0.9999701	07/23/99 10:29:22

Standard Name	Concentration Stated	Concentration Found	Difference Conc	Difference %	Signal (S)IR
S0	0	5.5355e-060		0	-0.03956
S2	0.01	0.0092974	-0.000703	-7.03	0.014575
S3	0.25	0.24896	-0.00104	-0.417	1.4108
S4	0.5	0.50075	0.000753	0.151	2.8778
S5	1	0.98797	-0.012	-1.2	5.7163

El Name	Slope	Y-int	Correlation	Date Stdized
Sb2068	4.4662	0.0040	0.9998105	07/23/99 10:29:22

Standard Name	Concentration Stated	Concentration Found	Difference Conc	Difference %	Signal (S)IR
S0	0	4.1166e-050		0	0.0041642
S1	0.012	0.0098317	-0.00217	-18.1	0.047891
S2	0.024	0.020553	-0.00345	-14.4	0.095776
S3	0.6	0.5824	-0.0176	-2.93	2.6051
S4	1.2	1.2076	0.00761	0.634	5.3974
S5	2.4	2.4186	0.0186	0.773	10.806

El Name	Slope	Y-int	Correlation	Date Stdized
Se1960	2.2356	-0.0011	0.9996036	07/23/99 10:29:22

Standard Name	Concentration Stated	Concentration Found	Difference Conc	Difference %	Signal (S)IR
S2	0.008	0.0060754	-0.00192	-24.1	0.012493
S3	0.2	0.18958	-0.0104	-5.21	0.42273
S4	0.4	0.39728	-0.00272	-0.679	0.88707
S0	0	2.1683e-050		0	-0.0010411
S5	0.8	0.80902	0.00902	1.13	1.8076

El Name	Slope	Y-int	Correlation	Date Stdized
Si2516	13.5273	0.1410	0.9999780	07/23/99 10:29:22

Standard Name	Concentration Stated	Concentration Found	Difference Conc	Difference %	Signal (S)IR
S0	0	4.5472e-050		0	0.14158
S1	0.05	0.047993	-0.00201	-4.01	0.79019
S2	0.1	0.096322	-0.00368	-3.68	1.4439
S3	2.5	2.4849	-0.0151	-0.605	33.755
S4	5	4.9942	-0.00583	-0.117	67.699
S5	10	10.078	0.0784	0.784	136.47

El Name	Slope	Y-int	Correlation	Date Stdized
Sn1899	7.7196	-0.0083	0.9999891	07/23/99 10:29:22

Standard Name	Concentration Stated	Concentration Found	Difference Conc	Difference %	Signal (S)IR
S0	0	-2.3424e-060		0	-0.0083286
S1	0.01	0.0097078	-0.000292	-2.92	0.06663
S2	0.02	0.021036	0.00104	5.18	0.15408
S3	0.5	0.49985	-0.000147	-0.0294	3.8503
S4	1	1.0029	0.00291	0.291	7.7338
S5	2	1.9965	-0.00351	-0.175	15.404

El Name	Slope	Y-int	Correlation	Date Stdized
Sr2152	15.3525	-0.0084	0.9999799	07/23/99 10:29:22

Standard Name	Concentration Stated	Concentration Found	Difference Conc	Difference %	Signal (S)IR
S0	0	6.9671e-060		0	-0.0083284
S1	0.01	0.0098397	-0.00016	-1.6	0.14263
S2	0.02	0.018994	-0.00101	-5.03	0.28317
S3	0.5	0.49319	-0.00681	-1.36	7.5633
S4	1	1.0019	0.00194	0.194	15.374
S5	2	2.0004	0.000442	0.0221	30.703

El Name	Slope	Y-int	Correlation	Date Stdized
Sr3464	12.3840	-0.0582	0.9998867	07/23/99 10:29:22

Standard Name	Concentration Stated	Found	Difference Conc	%	Signal (S)IR
S0	0	7.2827e-070		0	-0.058203
S1	0.01	0.011412	0.00141	14.1	0.083118
S2	0.02	0.017117	-0.00288	-14.4	0.15377
S3	0.5	0.49335	-0.00665	-1.33	6.0515
S4	1	1.0097	0.00974	0.974	12.446
S5	2	1.9984	-0.00162	-0.0812	24.69

El Name	Slope	Y-int	Correlation	Date Stdized
Sr4077	3015.0078	0.7342	0.9999720	07/23/99 10:29:22

Standard Name	Concentration Stated	Found	Difference Conc	%	Signal (S)IR
S0	0	4.6713e-060		0	0.74829
S1	0.01	0.0097334	-0.000267	-2.67	30.081
S2	0.02	0.019797	-0.000203	-1.02	60.421
S3	0.5	0.49134	-0.00866	-1.73	1482.1
S4	1	1.0057	0.00573	0.573	3033
S5	2	2.0034	0.0034	0.17	6041

El Name	Slope	Y-int	Correlation	Date Stdized
Ti3349	142.8137	-0.0914	0.9999667	07/23/99 10:29:22

Standard Name	Concentration Stated	Found	Difference Conc	%	Signal (S)IR
S0	0	-7.3001e-070		0	-0.091458
S1	0.01	0.010417	0.000417	4.17	1.3964
S2	0.02	0.019613	-0.000387	-1.94	2.7096
S3	0.5	0.49141	-0.00859	-1.72	70.088
S4	1	0.99927	-0.000727	-0.0727	142.62
S5	2	2.0112	0.0112	0.562	287.14

El Name	Slope	Y-int	Correlation	Date Stdized
Tl1908	2.2327	-0.0320	0.9999937	07/23/99 10:29:22

Standard Name	Concentration Stated	Found	Difference Conc	%	Signal (S)IR
S0	0	1.4476e-050		0	-0.031925
S3	0.25	0.23427	-0.0157	-6.29	0.4911
S4	0.5	0.47271	-0.0273	-5.46	1.0235
S5	1	0.94685	-0.0532	-5.32	2.0821

El Name	Slope	Y-int	Correlation	Date Stdized
V_2924	5.7040	-0.0039	0.9996489	07/23/99 10:29:22

Standard Name	Concentration Stated	Found	Difference Conc	%	Signal (S)IR
S0	0	-4.7129e-050		0	-0.004157
S1	0.01	0.014039	0.00404	40.4	0.076191
S2	0.02	0.021567	0.00157	7.84	0.11913
S3	0.5	0.48044	-0.0196	-3.91	2.7366
S4	1	0.98851	-0.0115	-1.15	5.6346
S5	2	1.9961	-0.00391	-0.196	11.382

El Name	Slope	Y-int	Correlation	Date Stdized
Zn2138	101.9240	0.0343	0.9999886	07/23/99 10:29:22

Standard Name	Concentration Stated	Concentration Found	Difference Conc	Difference %	Signal (S)IR
S0	0	5.3037e-070		0	0.034354
S1	0.01	0.010215	0.000215	2.15	1.0754
S2	0.02	0.019714	-0.000286	-1.43	2.0436
S3	0.5	0.49706	-0.00294	-0.587	50.697
S4	1	0.99927	-0.000727	-0.0727	101.88
S5	2	2.0122	0.0122	0.609	205.12

Method: CLP5 Sample Name: ICV Operator:
Comment:
Run Time: 07/23/99 10:31 Type: QC Mode: CONC Corr.Fact: 1.000000

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554
Units	ppm	ppm	ppm	ppm	ppm
Avg	.39733	9.9414	.40195	9.9358	.99115
Stddev	.00367	.0445	.00227	.0098	.01057
%RSD	.92441	.44803	.56580	.09870	1.0660
#1	.39473	9.9099	.40035	9.9427	.98368
#2	.39993	9.9729	.40356	9.9288	.99863
Check ?	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.40000	10.000	.40000	10.000	1.0000
Range	5.0000%	5.0000%	5.0000%	5.0000%	5.0000%

Elem	Be3130	Ca3736	Cd2288	Co2286	Cr2677
Units	ppm	ppm	ppm	ppm	ppm
Avg	.04915	9.9353	.05016	.19550	.49969
Stddev	.00061	.0924	.00022	.00106	.00157
%RSD	1.2346	.93033	.44815	.54328	.31482
#1	.04873	9.8699	.05032	.19475	.50081
#2	.04958	10.001	.05000	.19625	.49858
Check ?	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.05000	10.000	.05000	.20000	.50000
Range	5.0000%	5.0000%	5.0000%	5.0000%	5.0000%

Elem	Cu3247	Fe2714	K_7664	Li6707	Mg2779
Units	ppm	ppm	ppm	ppm	ppm
Avg	.49512	3.9452	50.337	.98685	9.8897
Stddev	.00683	.0052	.245	.01053	.1100
%RSD	1.3794	.13061	.48695	1.0666	1.1118
#1	.49029	3.9488	50.163	.97941	9.8119
#2	.49995	3.9415	50.510	.99430	9.9674
Check ?	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.50000	4.0000	50.000	1.0000	10.000
Range	5.0000%	5.0000%	5.0000%	5.0000%	5.0000%

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203
Units	ppm	ppm	ppm	ppm	ppm
Avg	.49959	1.0288	50.792	.49622	.50146
Stddev	.00194	.0020	.315	.00147	.00679
%RSD	.38844	.19795	.61931	.29558	1.3546
#1	.50096	1.0302	50.570	.49726	.50626
#2	.49822	1.0273	51.015	.49519	.49665
Check ?	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.50000	1.0000	50.000	.50000	.50000
Range	5.0000%	5.0000%	5.0000%	5.0000%	5.0000%

Sample Name: ICV Run Time: 07/23/99 10:31

Elem	Sb2068	Se1960	Si2516	Sn1899	Sr2152
Units	ppm	ppm	ppm	ppm	ppm
Avg	1.1984	.39153	4.9341	1.0118	.98444
Stddev	.0039	.00656	.0188	.0012	.00197
%RSD	.32304	1.6767	.38022	.11833	.19970
#1	1.2012	.39617	4.9473	1.0110	.98583
#2	1.1957	.38689	4.9208	1.0127	.98305
Check ?	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	1.2000	.40000	5.0000	1.0000	1.0000
Range	5.0000%	5.0000%	5.0000%	5.0000%	5.0000%

Elem	Sr3464	Sr4077	Ti3349	Tl1908	V_2924
Units	ppm	ppm	ppm	ppm	ppm
Avg	.98554	.99309	1.0020	.50616	.99946
Stddev	.01278	.00860	.0144	.00162	.01367
%RSD	1.2969	.86614	1.4424	.32047	1.3681
#1	.97650	.98701	.99175	.50501	.98979
#2	.99458	.99917	1.0122	.50730	1.0091
Check ?	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	1.0000	1.0000	1.0000	.50000	1.0000
Range	5.0000%	5.0000%	5.0000%	5.0000%	5.0000%

Elem	Zn2138
Units	ppm
Avg	.99927
Stddev	.00239
%RSD	.23917
#1	1.0010
#2	.99758
Check ?	QC Pass
Value	1.0000
Range	5.0000%

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Method: CLP5 Sample Name: CCB Operator:
Comment:
Run Time: 07/23/99 10:38 Type: Blank Mode: CONC Corr.Fact: 1.000000

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00239	-.01967	.00214	.00981	-.00023
Stddev	.00085	.01026	.00076	.00050	.00054
%RSD	35.688	52.176	35.336	5.1060	236.45
#1	.00179	-.01241	.00267	.01017	.00015
#2	.00300	-.02692	.00161	.00946	-.00061
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	.00500	.05000	.01000	.05000	.00250
Low Limit	-.00500	-.05000	-.01000	-.05000	-.00250

Elem	Be3130	Ca3736	Cd2288	Co2286	Cr2677
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00000	-.00596	.00008	.00057	-.00060
Stddev	.00001	.00801	.00031	.00036	.00003
%RSD	1019.8	134.26	382.41	63.090	5.3017
#1	.00001	-.01162	-.00014	.00082	-.00062
#2	.00000	-.00030	.00030	.00031	-.00058
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	.00025	.05000	.00100	.00250	.00250
Low Limit	-.00025	-.05000	-.00100	-.00250	-.00250

Elem	Cu3247	Fe2714	K_7664	Li6707	Mg2779
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00087	-.00478	.00832	.00033	.03846
Stddev	.00126	.00424	.01274	.00012	.01099
%RSD	145.43	88.811	153.10	34.684	28.566
#1	.00002	-.00178	.01733	.00042	.03069
#2	-.00176	-.00778	-.00069	.00025	.04623
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	.01000	.02000	.25000	.05000	.10000
Low Limit	-.01000	-.02000	-.25000	-.05000	-.10000

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00005	.00184	.00610	.00130	.00179
Stddev	.00006	.00011	.00679	.00007	.00151
%RSD	130.87	5.7507	111.39	5.4481	84.538
#1	-.00009	.00192	.01090	.00135	.00072
#2	.00000	.00177	.00130	.00125	.00286
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	.00250	.05000	.10000	.01000	.01000
Low Limit	-.00250	-.05000	-.10000	-.01000	-.01000

Sample Name: CCB Run Time: 07/23/99 10:38

Elem	Sb2068	Se1960	Si2516	Sn1899	Sr2152
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00228	-.00278	.00149	-.00027	-.00088
Stddev	.00593	.00066	.00207	.00343	.00048
%RSD	259.72	23.804	139.23	1261.4	54.799
#1	-.00647	-.00231	.00002	-.00270	-.00054
#2	.00191	-.00324	.00296	.00216	-.00122
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	.03000	.01000	.25000	.20000	.00500
Low Limit	-.03000	-.01000	-.25000	-.20000	-.00500

Elem	Sr3464	Sr4077	Ti3349	Tl1908	V_2924
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00101	.00001	.00070	.00276	-.00368
Stddev	.00712	.00003	.00074	.00229	.00481
%RSD	706.65	415.97	106.38	82.904	130.72
#1	-.00403	.00002	.00122	.00437	-.00028
#2	.00604	-.00001	.00017	.00114	-.00708
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	.00500	.00500	.01500	.02000	.00798
Low Limit	-.00500	-.00500	-.01500	-.02000	-.00798

Elem	Zn2138
Units	ppm
Avg	-.00005
Stddev	.00006
%RSD	111.62
#1	-.00010
#2	-.00001
Check ?	LC Pass
High Limit	.01000
Low Limit	-.01000

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Method: CLP5 Sample Name: ICSA Operator:
Comment:
Run Time: 07/23/99 10:42 Type: QC Mode: CONC Corr.Fact: 1.000000

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00119	249.52	.00790	.00915	.00307
Stddev	.00029	1.29	.00983	.00056	.00025
%RSD	24.087	.51646	124.47	6.1657	8.2990
#1	.00099	250.43	.00095	.00955	.00289
#2	.00139	248.61	.01484	.00875	.00325
Check ?	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.00000	250.00	.00000	.00000	.00000
Range	±.01600	±50.000	±.04000	±1.0000	±.02000

Elem	Be3130	Ca3736	Cd2288	Co2286	Cr2677
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00009	238.70	.00165	.00312	.00080
Stddev	.00002	.62	.00012	.00042	.00062
%RSD	26.768	.26169	7.5656	13.401	77.149
#1	-.00007	239.14	.00174	.00283	.00123
#2	-.00011	238.26	.00156	.00342	.00036
Check ?	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.00000	250.00	.00000	.00000	.00000
Range	±.00100	±50.000	±.00400	±.01000	±.01000

Elem	Cu3247	Fe2714	K_7664	Li6707	Mg2779
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00132	90.091	-.00110	.01997	234.65
Stddev	.00124	.056	.05818	.00032	.93
%RSD	94.137	.06252	5288.2	1.6176	.39588
#1	.00044	90.051	-.04224	.02020	235.31
#2	.00220	90.131	.04004	.01974	233.99
Check ?	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.00000	100.00	.00000	.00000	250.00
Range	±.01000	±20.000	±1.0000	±.20000	±50.000

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00084	.00169	.02499	.00855	-.01926
Stddev	.00001	.00031	.00359	.00141	.00051
%RSD	1.1763	18.562	14.352	16.535	2.6245
#1	-.00085	.00147	.02753	.00955	-.01962
#2	-.00084	.00192	.02245	.00755	-.01890
Check ?	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.00000	.00000	.00000	.00000	.00000
Range	±.01000	±.20000	±1.0000	±.04000	±.04000

Sample Name: ICSA Run Time: 07/23/99 10:42

Elem	Sb2068	Se1960	Si2516	Sn1899	Sr2152
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00396	.01592	.02725	-.00729	.00612
Stddev	.01253	.00202	.00315	.00191	.00151
%RSD	316.37	12.697	11.567	26.186	24.630
#1	-.00490	.01735	.02502	-.00864	.00718
#2	.01282	.01449	.02948	-.00594	.00505
Check ?	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.00000	.00000	.00000	.00000	.00000
Range	±.04000	±.04000	±1.0000	±1.0000	±.02000

Elem	Sr3464	Sr4077	Ti3349	Tl1908	V_2924
Units	ppm	ppm	ppm	ppm	ppm
Avg	.01410	Q .03631	-.00659	-.01401	-.00029
Stddev	.00190	.00016	.00003	.00488	.00240
%RSD	13.474	.44669	.43204	34.850	835.21
#1	.01545	.03642	-.00661	-.01746	-.00199
#2	.01276	.03619	-.00657	-.01056	.00141
Check ?	QC Pass	QC Fail	QC Pass	QC Pass	QC Pass
Value	.00000	.00000	.00000	.00000	.00000
Range	±.02000	±.02000	±.06000	±.08000	±.02000

Elem	Zn2138
Units	ppm
Avg	.00035
Stddev	.00061
%RSD	172.93
#1	-.00008
#2	.00078
Check ?	QC Pass
Value	.00000
Range	±.02000

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Method: CLP5 Sample Name: ICSAB Operator:
Comment:
Run Time: 07/23/99 10:45 Type: QC Mode: CONC Corr.Fact: 1.000000

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554
Units	ppm	ppm	ppm	ppm	ppm
Avg	.50460	249.54	.24757	.00689	.24684
Stddev	.00028	1.80	.00378	.00088	.00021
%RSD	.05568	.72014	1.5267	12.719	.08556
#1	.50480	248.27	.24489	.00751	.24669
#2	.50440	250.81	.25024	.00627	.24699
Check ?	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.50000	250.00	.25000	.00000	.25000
Range	±.10000	±50.000	±.05000	±1.0000	±.05000

Elem	Be3130	Ca3736	Cd2288	Co2286	Cr2677
Units	ppm	ppm	ppm	ppm	ppm
Avg	.23840	239.31	.47933	.23388	.23561
Stddev	.00152	.90	.00407	.00144	.00051
%RSD	.63920	.37454	.84812	.61370	.21532
#1	.23732	238.67	.48221	.23287	.23597
#2	.23948	239.94	.47646	.23490	.23525
Check ?	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.25000	250.00	.50000	.25000	.25000
Range	±.05000	±50.000	±.10000	±.05000	±.05000

Elem	Cu3247	Fe2714	K_7664	Li6707	Mg2779
Units	ppm	ppm	ppm	ppm	ppm
Avg	.24730	95.494	2.3605	.01979	235.93
Stddev	.00212	.010	.0073	.00048	.86
%RSD	.85684	.01093	.30722	2.4212	.36532
#1	.24880	95.501	2.3657	.02013	235.32
#2	.24580	95.487	2.3554	.01946	236.54
Check ?	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.25000	100.00	2.5000	.00000	250.00
Range	±.05000	±20.000	±.50000	±.20000	±50.000

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203
Units	ppm	ppm	ppm	ppm	ppm
Avg	.22624	.00153	1.2713	.45865	.44060
Stddev	.00092	.00042	.0021	.00263	.00267
%RSD	.40741	27.438	.16388	.57346	.60550
#1	.22690	.00123	1.2728	.46051	.44249
#2	.22559	.00183	1.2698	.45679	.43872
Check ?	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.25000	.00000	1.2500	.50000	.50000
Range	±.05000	±.20000	±.25000	±.10000	±.10000

Sample Name: ICSAB Run Time: 07/23/99 10:45

Elem	Sb2068	Se1960	Si2516	Sn1899	Sr2152
Units	ppm	ppm	ppm	ppm	ppm
Avg	.49205	.23570	.00232	-.00621	.01760
Stddev	.00658	.00979	.00011	.00038	.00077
%RSD	1.3381	4.1524	4.8078	6.1449	4.4017
#1	.49670	.24263	.00224	-.00648	.01814
#2	.48739	.22878	.00239	-.00594	.01705
Check ?	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.50000	.25000	.00000	.00000	.00000
Range	±.10000	±.05000	±1.0000	±1.0000	±.02000

Elem	Sr3464	Sr4077	Ti3349	Tl1908	V_2924
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00974	Q .03729	-.00721	.44136	.23202
Stddev	.00554	.00033	.00085	.00468	.00378
%RSD	56.904	.89535	11.786	1.0614	1.6312
#1	.00582	.03705	-.00661	.43804	.22935
#2	.01366	.03752	-.00781	.44467	.23470
Check ?	QC Pass	QC Fail	QC Pass	QC Pass	QC Pass
Value	.00000	.00000	.00000	.50000	.25000
Range	±.02000	±.02000	±.06000	±.10000	±.05000

Elem	Zn2138
Units	ppm
Avg	.48450
Stddev	.00072
%RSD	.14853
#1	.48501
#2	.48399
Check ?	QC Pass
Value	.50000
Range	±.10000

Method: CLP5 Sample Name: CCV Operator:
Comment:
Run Time: 07/23/99 10:50 Type: QC Mode: CONC Corr.Fact: 1.000000

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554
Units	ppm	ppm	ppm	ppm	ppm
Avg	.40357	10.012	.40521	9.9412	.98410
Stddev	.00168	.001	.00224	.0303	.00393
%RSD	.41561	.01377	.55397	.30522	.39985
#1	.40239	10.013	.40362	9.9626	.98132
#2	.40476	10.011	.40679	9.9197	.98689
Check ?	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.40000	10.000	.40000	10.000	1.0000
Range	10.000%	10.000%	10.000%	10.000%	10.000%

Elem	Be3130	Ca3736	Cd2288	Co2286	Cr2677
Units	ppm	ppm	ppm	ppm	ppm
Avg	.04956	9.9968	.05084	.19687	.50243
Stddev	.00004	.0590	.00004	.00051	.00229
%RSD	.08817	.59016	.08415	.25772	.45580
#1	.04959	9.9551	.05087	.19723	.50405
#2	.04953	10.039	.05081	.19651	.50081
Check ?	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.05000	10.000	.05000	.20000	.50000
Range	10.000%	10.000%	10.000%	10.000%	10.000%

Elem	Cu3247	Fe2714	K_7664	Li6707	Mg2779
Units	ppm	ppm	ppm	ppm	ppm
Avg	.49896	3.9993	50.292	.98546	10.046
Stddev	.00027	.0104	.205	.00004	.133
%RSD	.05446	.26009	.40759	.00393	1.3232
#1	.49916	4.0067	50.147	.98543	10.140
#2	.49877	3.9920	50.437	.98549	9.9522
Check ?	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.50000	4.0000	50.000	1.0000	10.000
Range	10.000%	10.000%	10.000%	10.000%	10.000%

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203
Units	ppm	ppm	ppm	ppm	ppm
Avg	.50119	1.0351	50.877	.50098	.50454
Stddev	.00108	.0011	.129	.00142	.00253
%RSD	.21502	.11043	.25288	.28317	.50162
#1	.50196	1.0343	50.786	.50199	.50632
#2	.50043	1.0359	50.968	.49998	.50275
Check ?	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.50000	1.0000	50.000	.50000	.50000
Range	10.000%	10.000%	10.000%	10.000%	10.000%

Sample Name: CCV Run Time: 07/23/99 10:50

Elem	Sb2068	Se1960	Si2516	Sn1899	Sr2152
Units	ppm	ppm	ppm	ppm	ppm
Avg	1.2064	.39808	4.9604	1.0224	1.0034
Stddev	.0020	.00923	.0071	.0008	.0053
%RSD	.16256	2.3183	.14376	.07359	.52737
#1	1.2078	.40461	4.9654	1.0218	1.0071
#2	1.2050	.39156	4.9553	1.0229	.99961
Check ?	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	1.2000	.40000	5.0000	1.0000	1.0000
Range	10.000%	10.000%	10.000%	10.000%	10.000%

Elem	Sr3464	Sr4077	Ti3349	Tl1908	V_2924
Units	ppm	ppm	ppm	ppm	ppm
Avg	1.0013	.99817	1.0063	.50705	1.0195
Stddev	.0059	.00401	.0009	.00261	.0102
%RSD	.59357	.40178	.08867	.51385	1.0046
#1	.99715	.99534	1.0069	.50521	1.0122
#2	1.0056	1.0010	1.0057	.50889	1.0267
Check ?	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	1.0000	1.0000	1.0000	.50000	1.0000
Range	10.000%	10.000%	10.000%	10.000%	10.000%

Elem	Zn2138
Units	ppm
Avg	1.0067
Stddev	.0009
%RSD	.09090
#1	1.0073
#2	1.0060
Check ?	QC Pass
Value	1.0000
Range	10.000%

Method: CLP5 Sample Name: CCB Operator:
Comment:
Run Time: 07/23/99 10:57 Type: Blank Mode: CONC Corr.Fact: 1.000000

Elem	Ag3280	Al3082	As1890	B_2496
Units	ppm	ppm	ppm	ppm
Avg	-.00002	-.00040	-.00587	.00499
Stddev	.00142	.01072	.00000	.00119
%RSD	6944.0	2695.2	.00038	23.855
#1	.00098	-.00797	-.00587	.00583
#2	-.00103	.00718	-.00587	.00414
Check ?	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	.00500	.05000	.01000	.05000
Low Limit	-.00500	-.05000	-.01000	-.05000

Elem	Ba4554	Be3130	Ca3736	Cd2288
Units	ppm	ppm	ppm	ppm
Avg	.00018	-.00002	-.00053	.00017
Stddev	.00049	.00002	.00086	.00050
%RSD	267.25	109.92	163.42	298.05
#1	-.00016	.00000	-.00113	.00052
#2	.00053	-.00004	.00008	-.00019
Check ?	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	.00250	.00025	.05000	.00100
Low Limit	-.00250	-.00025	-.05000	-.00100

Elem	Co2286	Cr2677	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm
Avg	.00019	.00003	.00094	.00050
Stddev	.00012	.00004	.00248	.00787
%RSD	64.308	111.95	263.75	1576.0
#1	.00010	.00006	.00269	.00606
#2	.00027	.00001	-.00081	-.00506
Check ?	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	.00250	.00250	.01000	.02000
Low Limit	-.00250	-.00250	-.01000	-.02000

Elem	K_7664	Li6707	Mg2779	Mn2576
Units	ppm	ppm	ppm	ppm
Avg	-.04139	.00009	.06136	-.00006
Stddev	.00120	.00017	.02206	.00002
%RSD	2.9059	201.78	35.950	41.397
#1	-.04224	-.00004	.07696	-.00004
#2	-.04054	.00021	.04576	-.00007
Check ?	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	.25000	.05000	.10000	.00250
Low Limit	-.25000	-.05000	-.10000	-.00250

Sample Name: CCB Run Time: 07/23/99 10:57

Elem	Mo2020	Na5895	Ni2316	Pb2203
Units	ppm	ppm	ppm	ppm
Avg	.00229	.00241	.00090	-.00124
Stddev	.00094	.00112	.00078	.00126
%RSD	41.138	46.343	86.796	101.49
#1	.00162	.00320	.00145	-.00035
#2	.00295	.00162	.00035	-.00213
Check ?	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	.05000	.10000	.01000	.01000
Low Limit	-.05000	-.10000	-.01000	-.01000

Elem	Sb2068	Se1960	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm
Avg	.00052	-.00324	.00079	-.00135
Stddev	.00462	.00263	.00109	.00114
%RSD	889.00	81.292	138.32	84.709
#1	.00379	-.00510	.00156	-.00054
#2	-.00275	-.00138	.00002	-.00216
Check ?	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	.03000	.01000	.25000	.20000
Low Limit	-.03000	-.01000	-.25000	-.20000

Elem	Sr2152	Sr3464	Sr4077	Ti3349
Units	ppm	ppm	ppm	ppm
Avg	-.00087	H .00615	-.00004	.00087
Stddev	.00009	.00490	.00006	.00033
%RSD	10.496	79.695	147.94	37.751
#1	-.00094	.00269	-.00008	.00110
#2	-.00081	.00962	.00000	.00064
Check ?	LC Pass	LC Fail	LC Pass	LC Pass
High Limit	.00500	.00500	.00500	.01500
Low Limit	-.00500	-.00500	-.00500	-.01500

Elem	Tl1908	V_2924	Zn2138
Units	ppm	ppm	ppm
Avg	.00295	.00653	-.00004
Stddev	.00709	.00343	.00012
%RSD	240.50	52.533	284.44
#1	.00796	.00895	.00004
#2	-.00207	.00410	-.00013
Check ?	LC Pass	LC Pass	LC Pass
High Limit	.02000	.00798	.01000
Low Limit	-.02000	-.00798	-.01000

Method: CLP5 Sample Name: PBS UH/WG61417 Operator: JYH
Comment:
Run Time: 07/23/99 11:01 Type: Unk Mode: CONC Corr.Fact: 1.000000

Elem	Ag3280	Al3082	As1890	B_2496
Units	ppm	ppm	ppm	ppm
Avg	-.00022	-.00756	.00108	.00255
Stddev	.00114	.00669	.00227	.00075
%RSD	512.21	88.468	210.77	29.440
#1	.00058	-.00283	-.00053	.00308
#2	-.00103	-.01230	.00268	.00202
Check ?	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	.00800	.10000	.04000	.50000
Low Limit	-.00800	-.10000	-.04000	-.50000

Elem	Ba4554	Be3130	Ca3736	Cd2288
Units	ppm	ppm	ppm	ppm
Avg	-.00004	-.00003	-.00033	-.00017
Stddev	.00009	.00005	.00057	.00004
%RSD	240.27	174.35	171.43	24.473
#1	.00003	.00001	-.00073	-.00014
#2	-.00010	-.00006	.00007	-.00019
Check ?	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	.01000	.00050	.20000	.00200
Low Limit	-.01000	-.00050	-.20000	-.00200

Elem	Co2286	Cr2677	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm
Avg	.00054	.00003	-.00083	.00302
Stddev	.00003	.00011	.00057	.00112
%RSD	5.2994	360.32	68.706	36.959
#1	.00052	.00010	-.00123	.00381
#2	.00057	-.00005	-.00043	.00223
Check ?	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	.00500	.00500	.00500	.02000
Low Limit	-.00500	-.00500	-.00500	-.02000

Elem	K_7664	Li6707	Mg2779	Mn2576
Units	ppm	ppm	ppm	ppm
Avg	-.01254	.00029	.06954	-.00006
Stddev	.01609	.00023	.01090	.00001
%RSD	128.37	79.616	15.676	17.133
#1	-.02392	.00013	.07725	-.00006
#2	-.00116	.00046	.06183	-.00007
Check ?	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	.50000	.10000	.10000	.01000
Low Limit	-.50000	-.10000	-.10000	-.01000

Sample Name: PBS UH/WG61417 Run Time: 07/23/99 11:01

Elem	Mo2020	Na5895	Ni2316	Pb2203
Units	ppm	ppm	ppm	ppm
Avg	.00177	.00185	.00070	-.00035
Stddev	.00042	.00399	.00021	.00607
%RSD	23.589	215.46	30.383	1730.9
#1	.00147	.00468	.00085	.00394
#2	.00206	-.00097	.00055	-.00464
Check ?	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	.10000	.50000	.02000	.04000
Low Limit	-.10000	-.50000	-.02000	-.04000

Elem	Sb2068	Se1960	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm
Avg	-.00322	.00002	-.00020	.00027
Stddev	.00462	.00198	.00055	.00114
%RSD	143.65	8840.9	272.20	427.92
#1	.00005	.00142	.00019	-.00054
#2	-.00648	-.00138	-.00059	.00108
Check ?	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	.02000	.02000	1.0000	.50000
Low Limit	-.02000	-.02000	-1.0000	-.50000

Elem	Sr2152	Sr3464	Sr4077	Ti3349
Units	ppm	ppm	ppm	ppm
Avg	-.00040	.00079	-.00002	.00046
Stddev	.00115	.00554	.00005	.00058
%RSD	288.05	704.62	200.03	124.58
#1	-.00121	.00470	-.00006	.00006
#2	.00041	-.00313	.00001	.00087
Check ?	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	.01000	.01000	.01000	.03000
Low Limit	-.01000	-.01000	-.01000	-.03000

Elem	Tl1908	V_2924	Zn2138
Units	ppm	ppm	ppm
Avg	.00130	.00167	-.00004
Stddev	.00253	.00618	.00001
%RSD	194.76	370.88	33.983
#1	-.00049	.00604	-.00003
#2	.00309	-.00270	-.00005
Check ?	LC Pass	LC Pass	LC Pass
High Limit	.04000	.01000	.02000
Low Limit	-.04000	-.01000	-.02000

Method: CLP5 Sample Name: LCSS UH/WG61417 Operator: JYH
Comment:
Run Time: 07/23/99 11:04 Type: Unk Mode: CONC Corr.Fact: 50.000000

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554
Units	ppm	ppm	ppm	ppm	ppm
Avg	10.213	678.07	50.883	51.603	492.65
Stddev	.071	3.52	.455	.244	2.27
%RSD	.69795	.51855	.89507	.47280	.46174
#1	10.162	675.58	50.561	51.430	491.04
#2	10.263	680.56	51.205	51.775	494.26
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	12.000	754.00	60.000	60.000	600.00
Low Limit	8.0000	503.00	40.000	40.000	400.00

Elem	Be3130	Ca3736	Cd2288	Co2286	Cr2677
Units	ppm	ppm	ppm	ppm	ppm
Avg	50.274	539.80	50.254	50.342	51.385
Stddev	.335	2.72	.186	.260	.229
%RSD	.66568	.50369	.36920	.51699	.44602
#1	50.037	537.88	50.123	50.158	51.223
#2	50.510	541.72	50.385	50.526	51.547
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	60.000	601.09	60.000	60.000	60.000
Low Limit	40.000	400.73	40.000	40.000	40.000

Elem	Cu3247	Fe2714	K_7664	Li6707	Mg2779
Units	ppm	ppm	ppm	ppm	ppm
Avg	49.458	106.37	2485.1	505.52	509.56
Stddev	.343	.10	.6	1.32	5.56
%RSD	.69354	.09852	.02611	.26039	1.0907
#1	49.216	106.44	2485.6	504.59	505.63
#2	49.701	106.30	2484.6	506.45	513.49
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	60.000	130.59	3000.0	600.00	600.00
Low Limit	40.000	87.947	2000.0	400.00	400.00

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203
Units	ppm	ppm	ppm	ppm	ppm
Avg	51.903	51.652	2541.2	50.832	51.606
Stddev	.156	.120	11.1	.158	.278
%RSD	.29980	.23317	.43497	.31086	.53935
#1	51.793	51.737	2533.4	50.720	51.409
#2	52.013	51.566	2549.0	50.943	51.802
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	60.000	60.000	3000.0	60.000	60.384
Low Limit	40.000	40.000	2000.0	40.000	40.256

Sample Name: LCSS UH/WG61417 Run Time: 07/23/99 11:04

Elem	Sb2068	Se1960	Si2516	Sn1899	Sr2152
Units	ppm	ppm	ppm	ppm	ppm
Avg	50.181	50.678	480.12	L .13476	52.392
Stddev	.625	.362	1.54	.03815	.239
%RSD	1.2456	.71464	.32071	28.310	.45674
#1	49.739	50.422	479.03	.16173	52.223
#2	50.622	50.934	481.21	.10778	52.561
Check ?	LC Pass	LC Pass	LC Pass	LC Fail	LC Pass
High Limit	60.000	60.000	600.00	60.000	60.000
Low Limit	40.000	40.000	400.00	40.000	40.000

Elem	Sr3464	Sr4077	Ti3349	Tl1908	V_2924
Units	ppm	ppm	ppm	ppm	ppm
Avg	52.641	52.840	49.044	51.132	51.224
Stddev	.224	.236	.286	.712	.534
%RSD	.42475	.44695	.58256	1.3924	1.0433
#1	52.482	52.673	48.842	50.628	50.846
#2	52.799	53.007	49.246	51.635	51.602
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	60.000	60.000	60.000	60.000	60.000
Low Limit	40.000	40.000	40.000	40.000	40.000

Elem	Zn2138
Units	ppm
Avg	50.829
Stddev	.192
%RSD	.37748
#1	50.693
#2	50.965
Check ?	LC Pass
High Limit	60.828
Low Limit	40.552

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Method: CLP5 Sample Name: 073800I Operator: JYH
Comment: RE03-99-2000
Run Time: 07/23/99 11:08 Type: Unk Mode: CONC Corr.Fact: 48.076923

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554
Units	ppm	ppm	ppm	ppm	ppm
Avg	.12728	14599.	4.3713	2.9044	118.76
Stddev	.01269	45.	.2164	.1054	.72
%RSD	9.9695	.30655	4.9496	3.6279	.60310
#1	.11831	14568.	4.5243	2.8298	118.26
#2	.13625	14631.	4.2183	2.9789	119.27
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	1000.0	50000.	5000.0	5000.0	2500.0
Low Limit	-.50000	-5.0000	-1.0000	-5.0000	-.50000

Elem	Be3130	Ca3736	Cd2288	Co2286	Cr2677
Units	ppm	ppm	ppm	ppm	ppm
Avg	.81266	4105.3	.08698	6.1205	8.9259
Stddev	.00693	26.2	.02004	.0049	.0600
%RSD	.85225	.63821	23.043	.08056	.67269
#1	.80776	4086.8	.10115	6.1240	8.8835
#2	.81755	4123.8	.07280	6.1171	8.9684
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	250.00	50000.	2500.0	5000.0	5000.0
Low Limit	-.02500	-5.0000	-.10000	-.25000	-.25000

Elem	Cu3247	Fe2714	K_7664	Li6707	Mg2779
Units	ppm	ppm	ppm	ppm	ppm
Avg	6.0373	12853.	1431.5	11.231	2115.7
Stddev	.0709	31.	2.5	.043	13.2
%RSD	1.1745	.24438	.17265	.38454	.62483
#1	6.0875	12831.	1433.3	11.201	2106.3
#2	5.9872	12875.	1429.8	11.262	2125.0
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	2000.0	50000.	20000.	2000.0	50000.
Low Limit	-1.0000	-1.0000	-25.000	-5.0000	-5.0000

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203
Units	ppm	ppm	ppm	ppm	ppm
Avg	331.65	.36481	366.25	6.3842	11.530
Stddev	.39	.05532	1.34	.0482	.009
%RSD	.11757	15.164	.36676	.75457	.07734
#1	331.37	.40392	365.30	6.3502	11.524
#2	331.92	.32569	367.20	6.4183	11.537
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	2500.0	1000.0	20000.	5000.0	10000.
Low Limit	-.50000	-5.0000	-25.000	-1.0000	-1.0000

Sample Name: 0738001 Run Time: 07/23/99 11:08

Elem	Sb2068	Se1960	Si2516	Sn1899	Sr2152
Units	ppm	ppm	ppm	ppm	ppm
Avg	.33421	1.7736	337.15	.55756	25.853
Stddev	.06135	.3668	1.73	.05503	.016
%RSD	18.357	20.680	.51254	9.8694	.06328
#1	.29083	2.0330	338.37	.51865	25.864
#2	.37759	1.5143	335.93	.59647	25.841
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	500.00	500.00	2500.0	1000.0	1000.0
Low Limit	-1.0000	-1.0000	-50.000	-5.0000	-.50000

Elem	Sr3464	Sr4077	Ti3349	Tl1908	V_2924
Units	ppm	ppm	ppm	ppm	ppm
Avg	25.121	27.422	210.37	.01195	23.422
Stddev	.068	.092	2.60	.28465	.144
%RSD	.27168	.33552	1.2372	2381.3	.61292
#1	25.072	27.357	208.53	.21323	23.321
#2	25.169	27.487	212.22	-.18932	23.524
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	1000.0	1000.0	1000.0	500.00	5000.0
Low Limit	-.50000	-.50000	-.50000	-2.0000	-.50000

Elem	Zn2138
Units	ppm
Avg	23.991
Stddev	.036
%RSD	.14931
#1	23.966
#2	24.017
Check ?	LC Pass
High Limit	2500.0
Low Limit	-.50000

Method: CLP5 Sample Name: 0738001 DUP Operator: JYH
Comment: RE03-99-2000 DUP
Run Time: 07/23/99 11:12 Type: Unk Mode: CONC Corr.Fact: 50.000000

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554
Units	ppm	ppm	ppm	ppm	ppm
Avg	.07301	10713.	2.2939	2.2215	80.391
Stddev	.05681	179.	.1129	.0375	.177
%RSD	77.811	1.6666	4.9231	1.6898	.22043
#1	.11318	10839.	2.3738	2.2480	80.516
#2	.03284	10587.	2.2141	2.1949	80.265
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	1000.0	50000.	5000.0	5000.0	2500.0
Low Limit	-.50000	-5.0000	-1.0000	-5.0000	-.50000

Elem	Be3130	Ca3736	Cd2288	Co2286	Cr2677
Units	ppm	ppm	ppm	ppm	ppm
Avg	.66185	3569.1	.07426	5.8465	6.1761
Stddev	.00202	5.9	.03325	.0612	.0000
%RSD	.30596	.16445	44.775	1.0472	.00021
#1	.66042	3573.3	.05075	5.8032	6.1761
#2	.66328	3565.0	.09777	5.8898	6.1761
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	250.00	50000.	2500.0	5000.0	5000.0
Low Limit	-.02500	-5.0000	-.10000	-.25000	-.25000

Elem	Cu3247	Fe2714	K_7664	Li6707	Mg2779
Units	ppm	ppm	ppm	ppm	ppm
Avg	4.4928	7868.4	1081.8	8.3056	1547.1
Stddev	.1088	11.0	6.0	.0495	2.3
%RSD	2.4216	.13951	.55502	.59629	.14552
#1	4.4159	7860.6	1077.5	8.3406	1545.5
#2	4.5697	7876.1	1086.0	8.2706	1548.7
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	2000.0	50000.	20000.	2000.0	50000.
Low Limit	-1.0000	-1.0000	-25.000	-5.0000	-5.0000

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203
Units	ppm	ppm	ppm	ppm	ppm
Avg	287.73	.30606	309.48	6.2522	7.5407
Stddev	.38	.05239	1.25	.0144	.1872
%RSD	.13294	17.117	.40463	.22980	2.4828
#1	288.00	.26902	308.60	6.2421	7.6731
#2	287.46	.34311	310.37	6.2624	7.4083
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	2500.0	1000.0	20000.	5000.0	10000.
Low Limit	-.50000	-5.0000	-25.000	-1.0000	-1.0000

Sample Name: 0738001 DUP Run Time: 07/23/99 11:12

Elem	Sb2068	Se1960	Si2516	Sn1899	Sr2152
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.12983	1.5120	274.34	.53940	21.964
Stddev	.00029	.3899	.84	.11445	.159
%RSD	.22387	25.790	.30479	21.219	.72438
#1	-.12962	1.2363	274.93	.45846	21.852
#2	-.13003	1.7877	273.75	.62033	22.077
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	500.00	500.00	2500.0	1000.0	1000.0
Low Limit	-1.0000	-1.0000	-50.000	-5.0000	-.50000

Elem	Sr3464	Sr4077	Ti3349	Tl1908	V_2924
Units	ppm	ppm	ppm	ppm	ppm
Avg	20.471	22.089	144.97	-.40909	12.116
Stddev	.751	.045	.04	.07330	.188
%RSD	3.6706	.20343	.03011	17.918	1.5531
#1	21.002	22.121	144.94	-.35726	11.983
#2	19.940	22.057	145.00	-.46093	12.249
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	1000.0	1000.0	1000.0	500.00	5000.0
Low Limit	-.50000	-.50000	-.50000	-2.0000	-.50000

Elem	Zn2138
Units	ppm
Avg	18.293
Stddev	.019
%RSD	.10244
#1	18.306
#2	18.280
Check ?	LC Pass
High Limit	2500.0
Low Limit	-.50000

Method: CLP5 Sample Name: 0738002 Operator: JYH
Comment: RE03-99-2001
Run Time: 07/23/99 11:15 Type: Unk Mode: CONC Corr.Fact: 49.019608

Elem	Ag3280	Al3082	As1890	B_2496
Units	ppm	ppm	ppm	ppm
Avg	-.32159	14332.	4.2874	2.9179
Stddev	.18137	10.	.0354	.0644
%RSD	56.396	.07197	.82573	2.2082
#1	-.44984	14325.	4.3124	2.8723
#2	-.19335	14339.	4.2624	2.9634
Check ?	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	1000.0	50000.	5000.0	5000.0
Low Limit	-.50000	-5.0000	-1.0000	-5.0000

Elem	Ba4554	Be3130	Ca3736	Cd2288
Units	ppm	ppm	ppm	ppm
Avg	124.90	1.4230	3668.6	.12792
Stddev	.78	.0063	6.5	.02493
%RSD	.62237	.44123	.17823	19.490
#1	125.45	1.4275	3673.3	.14555
#2	124.35	1.4186	3664.0	.11029
Check ?	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	2500.0	250.00	50000.	2500.0
Low Limit	-.50000	-.02500	-5.0000	-.10000

Elem	Co2286	Cr2677	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm
Avg	5.3602	9.1875	6.9860	10814.
Stddev	.0056	.0590	.1999	29.
%RSD	.10467	.64260	2.8621	.26726
#1	5.3563	9.1458	7.1274	10793.
#2	5.3642	9.2293	6.8446	10834.
Check ?	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	5000.0	5000.0	2000.0	50000.
Low Limit	-.25000	-.25000	-1.0000	-1.0000

Elem	K_7664	Li6707	Mg2779	Mn2576
Units	ppm	ppm	ppm	ppm
Avg	1972.5	13.009	2991.2	177.58
Stddev	4.6	.117	10.8	.69
%RSD	.23178	.90187	.36117	.39047
#1	1975.7	13.091	2998.9	177.09
#2	1969.2	12.926	2983.6	178.07
Check ?	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	20000.	2000.0	50000.	2500.0
Low Limit	-25.000	-5.0000	-5.0000	-.50000

Sample Name: 0738002 Run Time: 07/23/99 11:15

Elem	Mo2020	Na5895	Ni2316	Pb2203
Units	ppm	ppm	ppm	ppm
Avg	.30775	739.22	11.610	9.2538
Stddev	.02038	2.78	.039	.1879
%RSD	6.6216	.37599	.33356	2.0307
#1	.29334	741.19	11.582	9.1209
#2	.32216	737.26	11.637	9.3866
Check ?	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	1000.0	20000.	5000.0	10000.
Low Limit	-5.0000	-25.000	-1.0000	-1.0000

Elem	Sb2068	Se1960	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm
Avg	.00976	1.4051	379.29	.40981
Stddev	.19132	.2042	1.57	.05610
%RSD	1960.0	14.531	.41427	13.690
#1	-.12552	1.2607	378.18	.44948
#2	.14505	1.5495	380.40	.37014
Check ?	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	500.00	500.00	2500.0	1000.0
Low Limit	-1.0000	-1.0000	-50.000	-5.0000

Elem	Sr2152	Sr3464	Sr4077	Ti3349
Units	ppm	ppm	ppm	ppm
Avg	38.489	37.463	39.552	137.39
Stddev	.174	.031	.055	.65
%RSD	.45249	.08329	.14029	.47550
#1	38.366	37.441	39.591	137.85
#2	38.612	37.485	39.512	136.93
Check ?	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	1000.0	1000.0	1000.0	1000.0
Low Limit	-.50000	-.50000	-.50000	-.50000

Elem	Tl1908	V_2924	Zn2138
Units	ppm	ppm	ppm
Avg	-.65220	13.648	31.027
Stddev	.63783	.591	.139
%RSD	97.798	4.3287	.44855
#1	-.20118	14.066	30.928
#2	-1.1032	13.230	31.125
Check ?	LC Pass	LC Pass	LC Pass
High Limit	500.00	5000.0	2500.0
Low Limit	-2.0000	-.50000	-.50000

Method: CLP5 Sample Name: 0738002 MS Operator: JYH
Comment: RE03-99-2001 MS
Run Time: 07/23/99 11:19 Type: Unk Mode: CONC Corr.Fact: 47.619049

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554
Units	ppm	ppm	ppm	ppm	ppm
Avg	9.4920	15348.	374.31	3.1233	756.14
Stddev	.0140	28.	1.91	.0298	.21
%RSD	.14761	.18258	.51085	.95443	.02838
#1	9.5019	15328.	372.95	3.1444	756.29
#2	9.4821	15368.	375.66	3.1022	755.98
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	1000.0	50000.	5000.0	5000.0	2500.0
Low Limit	-.50000	-5.0000	-1.0000	-5.0000	-.50000

Elem	Be3130	Ca3736	Cd2288	Co2286	Cr2677
Units	ppm	ppm	ppm	ppm	ppm
Avg	10.436	3814.4	9.6842	97.815	47.205
Stddev	.010	1.5	.0751	.351	.169
%RSD	.09431	.03969	.77590	.35901	.35849
#1	10.443	3815.5	9.6311	97.566	47.085
#2	10.429	3813.4	9.7373	98.063	47.325
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	250.00	50000.	2500.0	5000.0	5000.0
Low Limit	-.02500	-5.0000	-.10000	-.25000	-.25000

Elem	Cu3247	Fe2714	K_7664	Li6707	Mg2779
Units	ppm	ppm	ppm	ppm	ppm
Avg	54.432	14163.	1546.4	11.185	2326.6
Stddev	.044	46.	7.1	.012	5.3
%RSD	.08077	.32319	.45970	.10801	.22771
#1	54.463	14131.	1551.5	11.177	2322.8
#2	54.401	14195.	1541.4	11.194	2330.3
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	2000.0	50000.	20000.	2000.0	50000.
Low Limit	-1.0000	-1.0000	-25.000	-5.0000	-5.0000

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203
Units	ppm	ppm	ppm	ppm	ppm
Avg	456.49	.82248	443.83	99.633	108.56
Stddev	2.10	.04491	1.83	.466	.52
%RSD	.45932	5.4604	.41294	.46726	.48205
#1	455.00	.79072	445.12	99.304	108.19
#2	457.97	.85423	442.53	99.962	108.93
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	2500.0	1000.0	20000.	5000.0	10000.
Low Limit	-.50000	-5.0000	-25.000	-1.0000	-1.0000

Sample Name: 0738002 MS Run Time: 07/23/99 11:19

Elem	Sb2068	Se1960	Si2516	Sn1899	Sr2152
Units	ppm	ppm	ppm	ppm	ppm
Avg	28.730	376.62	399.46	.62932	33.201
Stddev	.531	2.65	2.14	.09083	.118
%RSD	1.8490	.70407	.53457	14.434	.35604
#1	28.354	374.75	397.95	.56509	33.118
#2	29.105	378.50	400.97	.69355	33.285
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	500.00	500.00	2500.0	1000.0	1000.0
Low Limit	-1.0000	-1.0000	-50.000	-5.0000	-.50000

Elem	Sr3464	Sr4077	Ti3349	Tl1908	V_2924
Units	ppm	ppm	ppm	ppm	ppm
Avg	33.656	35.734	162.33	370.05	120.88
Stddev	.203	.083	.03	3.01	.19
%RSD	.60196	.23256	.02110	.81265	.15891
#1	33.513	35.792	162.31	367.92	120.74
#2	33.800	35.675	162.36	372.18	121.01
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	1000.0	1000.0	1000.0	500.00	5000.0
Low Limit	-.50000	-.50000	-.50000	-2.0000	-.50000

Elem	Zn2138
Units	ppm
Avg	122.54
Stddev	.64
%RSD	.52063
#1	122.09
#2	122.99
Check ?	LC Pass
High Limit	2500.0
Low Limit	-.50000

Method: CLP5 Sample Name: 0738002/5 Operator: JYH
Comment: RE03-99-2001/5
Run Time: 07/23/99 11:22 Type: Unk Mode: CONC Corr.Fact: 238.095245

Elem	Ag3280	Al3082	As1890	B_2496
Units	ppm	ppm	ppm	ppm
Avg	-.16246	13644.	5.1073	3.1161
Stddev	.06737	121.	.9021	.0894
%RSD	41.465	.88529	17.662	2.8691
#1	-.11483	13730.	5.7452	3.1793
#2	-.21010	13559.	4.4695	3.0528
Check ?	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	1000.0	50000.	5000.0	5000.0
Low Limit	-.50000	-5.0000	-1.0000	-5.0000

Elem	Ba4554	Be3130	Ca3736	Cd2288
Units	ppm	ppm	ppm	ppm
Avg	119.39	1.3455	3527.5	.20417
Stddev	1.20	.0193	34.8	.03706
%RSD	1.0049	1.4312	.98655	18.151
#1	120.23	1.3591	3552.1	.17797
#2	118.54	1.3319	3502.9	.23038
Check ?	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	2500.0	250.00	50000.	2500.0
Low Limit	-.50000	-.02500	-5.0000	-.10000

Elem	Co2286	Cr2677	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm
Avg	6.4125	9.2629	7.1615	11044.
Stddev	.0909	.0257	.2254	51.
%RSD	1.4174	.27796	3.1475	.46341
#1	6.4768	9.2447	7.3209	11081.
#2	6.3483	9.2811	7.0021	11008.
Check ?	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	5000.0	5000.0	2000.0	50000.
Low Limit	-.25000	-.25000	-1.0000	-1.0000

Elem	K_7664	Li6707	Mg2779	Mn2576
Units	ppm	ppm	ppm	ppm
Avg	1837.9	12.191	2927.0	187.41
Stddev	24.5	.336	31.9	.81
%RSD	1.3351	2.7576	1.0914	.43100
#1	1855.2	12.429	2949.6	187.98
#2	1820.5	11.953	2904.4	186.84
Check ?	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	20000.	2000.0	50000.	2500.0
Low Limit	-25.000	-5.0000	-5.0000	-.50000

Sample Name: 0738002/5 Run Time: 07/23/99 11:22

Elem	Mo2020	Na5895	Ni2316	Pb2203
Units	ppm	ppm	ppm	ppm
Avg	.58292	705.27	12.161	9.1137
Stddev	.12477	6.50	.001	.0243
%RSD	21.405	.92130	.00492	.26671
#1	.67115	709.86	12.162	9.1309
#2	.49469	700.67	12.161	9.0966
Check ?	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	1000.0	20000.	5000.0	10000.
Low Limit	-5.0000	-25.000	-1.0000	-1.0000

Elem	Sb2068	Se1960	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm
Avg	-.19039	.42976	390.62	-.00059
Stddev	.31230	.33770	3.43	.18166
%RSD	164.03	78.578	.87899	30843.
#1	.03044	.66855	393.04	-.12904
#2	-.41122	.19097	388.19	.12786
Check ?	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	500.00	500.00	2500.0	1000.0
Low Limit	-1.0000	-1.0000	-50.000	-5.0000

Elem	Sr2152	Sr3464	Sr4077	Ti3349
Units	ppm	ppm	ppm	ppm
Avg	39.478	36.660	38.414	129.36
Stddev	.546	.419	.463	1.25
%RSD	1.3829	1.1436	1.2049	.96728
#1	39.092	36.956	38.741	130.24
#2	39.864	36.363	38.086	128.47
Check ?	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	1000.0	1000.0	1000.0	1000.0
Low Limit	-.50000	-.50000	-.50000	-.50000

Elem	Tl1908	V_2924	Zn2138
Units	ppm	ppm	ppm
Avg	3.7780	13.260	31.558
Stddev	.7494	.653	.195
%RSD	19.837	4.9212	.61739
#1	4.3079	13.721	31.696
#2	3.2480	12.799	31.420
Check ?	LC Pass	LC Pass	LC Pass
High Limit	500.00	5000.0	2500.0
Low Limit	-2.0000	-.50000	-.50000

Method: CLP5 Sample Name: 0738002 .9PS Operator: JYH
Comment: RE03-99-2001 .9PS
Run Time: 07/23/99 11:26 Type: Unk Mode: CONC Corr.Fact: 47.619049

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554
Units	ppm	ppm	ppm	ppm	ppm
Avg	9.1547	13029.	50.906	47.996	562.93
Stddev	.0401	32.	.363	.075	2.12
%RSD	.43843	.24787	.71235	.15594	.37640
#1	9.1264	13006.	50.649	47.943	561.43
#2	9.1831	13052.	51.162	48.049	564.43
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	1000.0	50000.	5000.0	5000.0	2500.0
Low Limit	-.50000	-5.0000	-1.0000	-5.0000	-.50000

Elem	Be3130	Ca3736	Cd2288	Co2286	Cr2677
Units	ppm	ppm	ppm	ppm	ppm
Avg	47.564	3630.9	46.183	49.028	53.806
Stddev	.257	10.0	.188	.104	.138
%RSD	.54075	.27561	.40656	.21212	.25678
#1	47.382	3623.9	46.050	48.955	53.708
#2	47.746	3638.0	46.316	49.102	53.903
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	250.00	50000.	2500.0	5000.0	5000.0
Low Limit	-.02500	-5.0000	-.10000	-.25000	-.25000

Elem	Cu3247	Fe2714	K_7664	Li6707	Mg2779
Units	ppm	ppm	ppm	ppm	ppm
Avg	51.763	9308.5	4037.9	488.11	3032.3
Stddev	.280	21.3	4.9	1.77	17.8
%RSD	.54023	.22871	.12102	.36213	.58820
#1	51.565	9293.4	4034.4	486.86	3019.6
#2	51.960	9323.5	4041.3	489.36	3044.9
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	2000.0	50000.	20000.	2000.0	50000.
Low Limit	-1.0000	-1.0000	-25.000	-5.0000	-5.0000

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203
Units	ppm	ppm	ppm	ppm	ppm
Avg	198.66	46.772	3002.6	54.940	53.859
Stddev	.63	.220	4.5	.240	.366
%RSD	.31957	.46977	.15115	.43655	.67942
#1	198.21	46.617	3005.8	54.770	54.117
#2	199.11	46.928	2999.4	55.109	53.600
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	2500.0	1000.0	20000.	5000.0	10000.
Low Limit	-.50000	-5.0000	-25.000	-1.0000	-1.0000

Sample Name: 0738002 .9PS Run Time: 07/23/99 11:26

Elem	Sb2068	Se1960	Si2516	Sn1899	Sr2152
Units	ppm	ppm	ppm	ppm	ppm
Avg	48.174	48.723	804.22	.46232	77.271
Stddev	.064	.417	1.92	.03633	.395
%RSD	.13204	.85577	.23932	7.8592	.51067
#1	48.219	48.428	802.86	.43663	76.992
#2	48.129	49.018	805.58	.48802	77.550
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	500.00	500.00	2500.0	1000.0	1000.0
Low Limit	-1.0000	-1.0000	-50.000	-5.0000	-.50000

Elem	Sr3464	Sr4077	Ti3349	Tl1908	V_2924
Units	ppm	ppm	ppm	ppm	ppm
Avg	77.903	81.283	162.16	45.242	57.787
Stddev	.303	.183	1.07	.052	.326
%RSD	.38873	.22473	.66089	.11459	.56482
#1	78.117	81.154	161.40	45.279	57.556
#2	77.689	81.412	162.91	45.206	58.018
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	1000.0	1000.0	1000.0	500.00	5000.0
Low Limit	-.50000	-.50000	-.50000	-2.0000	-.50000

Elem	Zn2138
Units	ppm
Avg	73.538
Stddev	.248
%RSD	.33744
#1	73.363
#2	73.714
Check ?	LC Pass
High Limit	2500.0
Low Limit	-.50000

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Method: CLP5 Sample Name: 0738003 Operator: JYH
Comment: RE03-99-2002
Run Time: 07/23/99 11:30 Type: Unk Mode: CONC Corr.Fact: 46.728970

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554
Units	ppm	ppm	ppm	ppm	ppm
Avg	.03249	16973.	3.6465	2.8601	65.734
Stddev	.09315	67.	.0733	.0380	.077
%RSD	286.71	.39456	2.0096	1.3290	.11667
#1	.09836	16925.	3.5947	2.8870	65.680
#2	-.03338	17020.	3.6983	2.8332	65.788
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	1000.0	50000.	5000.0	5000.0	2500.0
Low Limit	-.50000	-5.0000	-1.0000	-5.0000	-.50000

Elem	Be3130	Ca3736	Cd2288	Co2286	Cr2677
Units	ppm	ppm	ppm	ppm	ppm
Avg	1.1251	4494.6	.04839	3.5574	10.148
Stddev	.0038	10.8	.00187	.0158	.062
%RSD	.33789	.24097	3.8631	.44533	.61210
#1	1.1278	4486.9	.04707	3.5462	10.104
#2	1.1224	4502.2	.04971	3.5686	10.192
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	250.00	50000.	2500.0	5000.0	5000.0
Low Limit	-.02500	-5.0000	-.10000	-.25000	-.25000

Elem	Cu3247	Fe2714	K_7664	Li6707	Mg2779
Units	ppm	ppm	ppm	ppm	ppm
Avg	6.4385	12109.	1945.1	14.023	2981.9
Stddev	.0897	53.	.1	.037	6.3
%RSD	1.3927	.43401	.00675	.26086	.21241
#1	6.5019	12072.	1945.0	13.998	2986.4
#2	6.3751	12146.	1945.2	14.049	2977.4
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	2000.0	50000.	20000.	2000.0	50000.
Low Limit	-1.0000	-1.0000	-25.000	-5.0000	-5.0000

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203
Units	ppm	ppm	ppm	ppm	ppm
Avg	149.73	.37399	515.84	9.8966	9.3833
Stddev	.90	.08327	1.78	.1498	.0723
%RSD	.59818	22.266	.34522	1.5138	.77104
#1	149.09	.43288	514.58	9.7907	9.3321
#2	150.36	.31511	517.10	10.003	9.4345
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	2500.0	1000.0	20000.	5000.0	10000.
Low Limit	-.50000	-5.0000	-25.000	-1.0000	-1.0000

Sample Name: 0738003 Run Time: 07/23/99 11:30

Elem	Sb2068	Se1960	Si2516	Sn1899	Sr2152
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.09975	1.3939	338.68	.59234	28.927
Stddev	.42766	.0092	1.26	.05348	.179
%RSD	428.74	.65713	.37333	9.0294	.61815
#1	-.40215	1.4004	337.78	.55452	28.801
#2	.20266	1.3874	339.57	.63016	29.054
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	500.00	500.00	2500.0	1000.0	1000.0
Low Limit	-1.0000	-1.0000	-50.000	-5.0000	-.50000

Elem	Sr3464	Sr4077	Ti3349	Tl1908	V_2924
Units	ppm	ppm	ppm	ppm	ppm
Avg	28.884	30.895	133.51	-.08523	17.359
Stddev	.024	.041	.02	.28676	.487
%RSD	.08184	.13424	.01238	336.46	2.8070
#1	28.901	30.866	133.50	.11754	17.704
#2	28.867	30.925	133.52	-.28800	17.015
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	1000.0	1000.0	1000.0	500.00	5000.0
Low Limit	-.50000	-.50000	-.50000	-2.0000	-.50000

Elem	Zn2138
Units	ppm
Avg	31.086
Stddev	.170
%RSD	.54619
#1	30.966
#2	31.206
Check ?	LC Pass
High Limit	2500.0
Low Limit	-.50000

Method: CLP5 Sample Name: 0738004 Operator: JYH
Comment: RE03-99-2003
Run Time: 07/23/99 11:33 Type: Unk Mode: CONC Corr.Fact: 48.543690

Elem	Ag3280	Al3082	As1890	B_2496
Units	ppm	ppm	ppm	ppm
Avg	-.01057	20036.	4.3885	3.2420
Stddev	.12386	138.	.1786	.1064
%RSD	1172.2	.68865	4.0697	3.2805
#1	-.09815	19938.	4.5148	3.1668
#2	.07701	20133.	4.2622	3.3172
Check ?	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	1000.0	50000.	5000.0	5000.0
Low Limit	-.50000	-5.0000	-1.0000	-5.0000

Elem	Ba4554	Be3130	Ca3736	Cd2288
Units	ppm	ppm	ppm	ppm
Avg	185.92	1.2381	3283.9	.15361
Stddev	1.45	.0101	25.4	.00105
%RSD	.77787	.81621	.77491	.68591
#1	184.90	1.2309	3265.9	.15436
#2	186.95	1.2452	3301.9	.15287
Check ?	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	2500.0	250.00	50000.	2500.0
Low Limit	-.50000	-.02500	-5.0000	-.10000

Elem	Co2286	Cr2677	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm
Avg	5.9960	11.640	8.4384	15018.
Stddev	.0173	.105	.1339	99.
%RSD	.28896	.89905	1.5870	.66036
#1	5.9837	11.566	8.5331	14948.
#2	6.0083	11.714	8.3437	15089.
Check ?	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	5000.0	5000.0	2000.0	50000.
Low Limit	-.25000	-.25000	-1.0000	-1.0000

Elem	K_7664	Li6707	Mg2779	Mn2576
Units	ppm	ppm	ppm	ppm
Avg	2123.3	15.997	2967.3	261.92
Stddev	13.4	.126	18.2	1.98
%RSD	.63094	.78486	.61243	.75714
#1	2113.8	15.908	2954.5	260.52
#2	2132.8	16.086	2980.2	263.32
Check ?	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	20000.	2000.0	50000.	2500.0
Low Limit	-25.000	-5.0000	-5.0000	-.50000

Sample Name: 0738004 Run Time: 07/23/99 11:33

Elem	Mo2020	Na5895	Ni2316	Pb2203
Units	ppm	ppm	ppm	ppm
Avg	.54030	503.81	10.423	14.584
Stddev	.11686	3.59	.118	.058
%RSD	21.628	.71280	1.1368	.39859
#1	.45767	501.27	10.339	14.625
#2	.62293	506.35	10.506	14.543
Check ?	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	1000.0	20000.	5000.0	10000.
Low Limit	-5.0000	-25.000	-1.0000	-1.0000

Elem	Sb2068	Se1960	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm
Avg	.41341	1.8909	385.80	1.0082
Stddev	.23005	.2652	2.05	.0556
%RSD	55.646	14.023	.53237	5.5101
#1	.57608	1.7034	384.35	.96892
#2	.25074	2.0784	387.26	1.0475
Check ?	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	500.00	500.00	2500.0	1000.0
Low Limit	-1.0000	-1.0000	-50.000	-5.0000

Elem	Sr2152	Sr3464	Sr4077	Ti3349
Units	ppm	ppm	ppm	ppm
Avg	30.103	30.359	32.426	182.22
Stddev	.478	.276	.248	.67
%RSD	1.5874	.91073	.76458	.37001
#1	29.766	30.163	32.250	181.74
#2	30.441	30.554	32.601	182.70
Check ?	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	1000.0	1000.0	1000.0	1000.0
Low Limit	-.50000	-.50000	-.50000	-.50000

Elem	Tl1908	V_2924	Zn2138
Units	ppm	ppm	ppm
Avg	-.65149	21.533	37.878
Stddev	.22206	.057	.241
%RSD	34.084	.26326	.63674
#1	-.49447	21.573	37.707
#2	-.80851	21.493	38.049
Check ?	LC Pass	LC Pass	LC Pass
High Limit	500.00	5000.0	2500.0
Low Limit	-2.0000	-.50000	-.50000

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Method: CLP5 Sample Name: CCV Operator:
Comment:
Run Time: 07/23/99 11:38 Type: QC Mode: CONC Corr.Fact: 1.000000

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554
Units	ppm	ppm	ppm	ppm	ppm
Avg	.39737	10.056	.40791	10.072	1.0056
Stddev	.00029	.101	.00152	.006	.0023
%RSD	.07177	1.0086	.37249	.05908	.22671
#1	.39757	10.128	.40684	10.068	1.0072
#2	.39717	9.9843	.40899	10.076	1.0040
Check ?	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.40000	10.000	.40000	10.000	1.0000
Range	10.000%	10.000%	10.000%	10.000%	10.000%

Elem	Be3130	Ca3736	Cd2288	Co2286	Cr2677
Units	ppm	ppm	ppm	ppm	ppm
Avg	.05013	10.173	.05102	.19941	.50879
Stddev	.00006	.031	.00081	.00045	.00034
%RSD	.12804	.30894	1.5947	.22682	.06764
#1	.05018	10.195	.05160	.19909	.50854
#2	.05009	10.150	.05045	.19973	.50903
Check ?	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.05000	10.000	.05000	.20000	.50000
Range	10.000%	10.000%	10.000%	10.000%	10.000%

Elem	Cu3247	Fe2714	K_7664	Li6707	Mg2779
Units	ppm	ppm	ppm	ppm	ppm
Avg	.50544	4.0255	50.934	1.0004	10.266
Stddev	.00223	.0108	.148	.0034	.044
%RSD	.44076	.26789	.29115	.34380	.43013
#1	.50702	4.0332	51.038	1.0029	10.235
#2	.50387	4.0179	50.829	.99799	10.297
Check ?	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.50000	4.0000	50.000	1.0000	10.000
Range	10.000%	10.000%	10.000%	10.000%	10.000%

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203
Units	ppm	ppm	ppm	ppm	ppm
Avg	.50902	1.0452	51.360	.50654	.51328
Stddev	.00132	.0018	.100	.00013	.00479
%RSD	.25872	.16907	.19561	.02639	.93236
#1	.50995	1.0465	51.431	.50663	.50990
#2	.50809	1.0440	51.289	.50644	.51666
Check ?	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.50000	1.0000	50.000	.50000	.50000
Range	10.000%	10.000%	10.000%	10.000%	10.000%

Sample Name: CCv Run Time: 07/23/99 11:38

Elem	Sb2068	Se1960	Si2516	Sn1899	Sr2152
Units	ppm	ppm	ppm	ppm	ppm
Avg	1.2184	.40039	5.0282	1.0396	1.0079
Stddev	.0073	.01120	.0127	.0008	.0020
%RSD	.59526	2.7971	.25351	.07196	.20069
#1	1.2133	.40831	5.0373	1.0401	1.0065
#2	1.2235	.39247	5.0192	1.0390	1.0093
Check ?	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	1.2000	.40000	5.0000	1.0000	1.0000
Range	10.000%	10.000%	10.000%	10.000%	10.000%

Elem	Sr3464	Sr4077	Ti3349	Tl1908	V_2924
Units	ppm	ppm	ppm	ppm	ppm
Avg	1.0038	1.0068	1.0226	.51393	1.0087
Stddev	.0112	.0072	.0016	.00682	.0114
%RSD	1.1202	.71912	.16145	1.3263	1.1260
#1	1.0117	1.0120	1.0237	.50911	1.0167
#2	.99583	1.0017	1.0214	.51875	1.0007
Check ?	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	1.0000	1.0000	1.0000	.50000	1.0000
Range	10.000%	10.000%	10.000%	10.000%	10.000%

Elem	Zn2138
Units	ppm
Avg	1.0165
Stddev	.0015
%RSD	.14602
#1	1.0176
#2	1.0155
Check ?	QC Pass
Value	1.0000
Range	10.000%

Method: CLP5 Sample Name: CCB Operator:
Comment:
Run Time: 07/23/99 11:44 Type: Blank Mode: CONC Corr.Fact: 1.000000

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00078	.02972	.00000	.00454	-.00004
Stddev	.00085	.05288	.00076	.00044	.00006
%RSD	108.84	177.93	15510.	9.6570	160.17
#1	.00138	-.00767	-.00053	.00485	-.00008
#2	.00018	.06711	.00054	.00423	.00000
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	.00500	.05000	.01000	.05000	.00250
Low Limit	-.00500	-.05000	-.01000	-.05000	-.00250

Elem	Be3130	Ca3736	Cd2288	Co2286	Cr2677
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00000	-.00315	-.00005	.00101	-.00021
Stddev	.00006	.00743	.00004	.00027	.00031
%RSD	7700.2	235.77	77.311	26.614	144.81
#1	.00004	-.00841	-.00002	.00120	-.00043
#2	-.00004	.00210	-.00008	.00082	.00001
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	.00025	.05000	.00100	.00250	.00250
Low Limit	-.00025	-.05000	-.00100	-.00250	-.00250

Elem	Cu3247	Fe2714	K_7664	Li6707	Mg2779
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00191	.00257	.00399	.00029	.04611
Stddev	.00154	.00338	.01354	.00023	.00006
%RSD	80.733	131.56	339.25	79.594	.12310
#1	-.00082	.00496	-.00558	.00046	.04607
#2	-.00300	.00018	.01357	.00013	.04615
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	.01000	.02000	.25000	.05000	.10000
Low Limit	-.01000	-.02000	-.25000	-.05000	-.10000

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00004	.00229	.00062	.00030	.00055
Stddev	.00006	.00011	.00123	.00007	.00226
%RSD	158.06	4.6037	199.51	23.775	410.40
#1	-.00008	.00236	.00149	.00035	.00215
#2	.00000	.00221	-.00025	.00025	-.00105
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	.00250	.05000	.10000	.01000	.01000
Low Limit	-.00250	-.05000	-.10000	-.01000	-.01000

Sample Name: CCB Run Time: 07/23/99 11:44

Elem	Sb2068	Se1960	Si2516	Sn1899	Sr2152
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00135	.00468	.00026	.00000	-.00026
Stddev	.00198	.00329	.00141	.0000	.00115
%RSD	146.91	70.371	552.75	4.6925	435.12
#1	.00005	.00235	-.00074	.00000	-.00108
#2	-.00275	.00701	.00125	.00000	.00055
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	.03000	.01000	.25000	.20000	.00500
Low Limit	-.03000	-.01000	-.25000	-.20000	-.00500

Elem	Sr3464	Sr4077	Ti3349	Tl1908	V_2924
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00112	.00001	.00041	.00131	.00215
Stddev	.00696	.00000	.00033	.00706	.00137
%RSD	623.06	.60638	81.133	538.54	63.746
#1	.00381	.00001	.00017	.00630	.00313
#2	-.00604	.00001	.00064	-.00368	.00118
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	.00500	.00500	.01500	.02000	.00798
Low Limit	-.00500	-.00500	-.01500	-.02000	-.00798

Elem	Zn2138
Units	ppm
Avg	-.00002
Stddev	.00007
%RSD	366.00
#1	.00003
#2	-.00007
Check ?	LC Pass
High Limit	.01000
Low Limit	-.01000

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Method: CLP5 Sample Name: 0[illegible]005 Operator: JYH
Comment: RE03-99-2004
Run Time: 07/23/99 11:48 Type: Unk Mode: CONC Corr.Fact: 50.000000

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554
Units	ppm	ppm	ppm	ppm	ppm
Avg	.06967	17100.	3.6031	4.2202	111.60
Stddev	.02889	165.	.3377	.0595	.81
%RSD	41.471	.96776	9.3712	1.4098	.72585
#1	.09010	16983.	3.8418	4.1781	111.02
#2	.04924	17217.	3.3643	4.2623	112.17
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	1000.0	50000.	5000.0	5000.0	2500.0
Low Limit	-.50000	-5.0000	-1.0000	-5.0000	-.50000

Elem	Be3130	Ca3736	Cd2288	Co2286	Cr2677
Units	ppm	ppm	ppm	ppm	ppm
Avg	.93440	2759.6	.10056	4.6079	9.7073
Stddev	.00445	22.5	.00723	.0278	.0876
%RSD	.47587	.81542	7.1931	.60301	.90219
#1	.93125	2743.7	.10567	4.6276	9.6454
#2	.93754	2775.5	.09544	4.5883	9.7693
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	250.00	50000.	2500.0	5000.0	5000.0
Low Limit	-.02500	-5.0000	-.10000	-.25000	-.25000

Elem	Cu3247	Fe2714	K_7664	Li6707	Mg2779
Units	ppm	ppm	ppm	ppm	ppm
Avg	6.2569	11756.	1748.3	12.067	2254.2
Stddev	.1261	48.	30.9	.128	10.5
%RSD	2.0152	.40679	1.7667	1.0632	.46795
#1	6.1677	11722.	1726.5	11.976	2246.7
#2	6.3460	11790.	1770.2	12.158	2261.6
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	2000.0	50000.	20000.	2000.0	50000.
Low Limit	-1.0000	-1.0000	-25.000	-5.0000	-5.0000

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203
Units	ppm	ppm	ppm	ppm	ppm
Avg	234.85	.35588	482.55	8.8565	10.319
Stddev	1.00	.07842	7.37	.0292	.109
%RSD	.42789	22.035	1.5278	.33005	1.0546
#1	234.14	.41133	477.34	8.8358	10.242
#2	235.56	.30043	487.77	8.8772	10.396
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	2500.0	1000.0	20000.	5000.0	10000.
Low Limit	-.50000	-5.0000	-25.000	-1.0000	-1.0000

Sample Name: 0738005 Run Time: 07/23/99 11:48

Elem	Sb2068	Se1960	Si2516	Sn1899	Sr2152
Units	ppm	ppm	ppm	ppm	ppm
Avg	.22212	1.7023	410.37	.67428	24.990
Stddev	.10196	.2384	1.83	.03815	.067
%RSD	45.904	14.006	.44522	5.6581	.26916
#1	.29422	1.8709	409.08	.64730	24.943
#2	.15002	1.5337	411.66	.70125	25.038
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	500.00	500.00	2500.0	1000.0	1000.0
Low Limit	-1.0000	-1.0000	-50.000	-5.0000	-.50000

Elem	Sr3464	Sr4077	Ti3349	Tl1908	V_2924
Units	ppm	ppm	ppm	ppm	ppm
Avg	25.571	27.061	225.09	-.36555	19.035
Stddev	.191	.311	.97	.07858	.357
%RSD	.74715	1.1483	.43221	21.497	1.8770
#1	25.436	26.842	224.40	-.30998	18.783
#2	25.706	27.281	225.78	-.42112	19.288
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	1000.0	1000.0	1000.0	500.00	5000.0
Low Limit	-.50000	-.50000	-.50000	-2.0000	-.50000

Elem	Zn2138
Units	ppm
Avg	29.202
Stddev	.172
%RSD	.58748
#1	29.081
#2	29.324
Check ?	LC Pass
High Limit	2500.0
Low Limit	-.50000

Analysis Report 07/23/99 11:55:01 page 1

Method: CLP5 Sample Name: 0738006 Operator: JYH
Comment: RE03-99-2005
Run Time: 07/23/99 11:51 Type: Unk Mode: CONC Corr.Fact: 47.619049

Elem	Ag3280	Al3082	As1890	B_2496
Units	ppm	ppm	ppm	ppm
Avg	-.01941	19847.	3.0669	2.8029
Stddev	.05531	4.	.1447	.0537
%RSD	284.97	.02037	4.7198	1.9158
#1	.01970	19850.	3.1692	2.8409
#2	-.05852	19844.	2.9645	2.7649
Check ?	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	1000.0	50000.	5000.0	5000.0
Low Limit	-.50000	-5.0000	-1.0000	-5.0000

Elem	Ba4554	Be3130	Ca3736	Cd2288
Units	ppm	ppm	ppm	ppm
Avg	110.28	.73720	2320.2	.06011
Stddev	.69	.00577	3.2	.08910
%RSD	.62139	.78253	.13611	148.23
#1	109.79	.73312	2318.0	-.00289
#2	110.76	.74128	2322.5	.12312
Check ?	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	2500.0	250.00	50000.	2500.0
Low Limit	-.50000	-.02500	-5.0000	-.10000

Elem	Co2286	Cr2677	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm
Avg	7.4805	12.659	7.4113	13432.
Stddev	.0047	.001	.1492	17.
%RSD	.06288	.01056	2.0125	.12540
#1	7.4772	12.660	7.3059	13444.
#2	7.4838	12.658	7.5168	13420.
Check ?	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	5000.0	5000.0	2000.0	50000.
Low Limit	-.25000	-.25000	-1.0000	-1.0000

Elem	K_7664	Li6707	Mg2779	Mn2576
Units	ppm	ppm	ppm	ppm
Avg	1662.5	14.428	2481.5	232.79
Stddev	4.5	.115	6.4	.03
%RSD	.26767	.79525	.25973	.01486
#1	1659.3	14.347	2476.9	232.81
#2	1665.6	14.509	2486.0	232.76
Check ?	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	20000.	2000.0	50000.	2500.0
Low Limit	-25.000	-5.0000	-5.0000	-.50000

Sample Name. 3738000 Run Time: 07/23/99 11:51

Elem	Mo2020	Na5895	Ni2316	Pb2203
Units	ppm	ppm	ppm	ppm
Avg	.31193	355.08	7.5707	12.191
Stddev	.01496	1.15	.0072	.360
%RSD	4.7967	.32360	.09566	2.9544
#1	.30135	354.27	7.5758	11.937
#2	.32251	355.89	7.5656	12.446
Check ?	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	1000.0	20000.	5000.0	10000.
Low Limit	-5.0000	-25.000	-1.0000	-1.0000

Elem	Sb2068	Se1960	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm
Avg	.08428	1.4385	294.73	.74493
Stddev	.50339	.0566	.75	.00001
%RSD	597.31	3.9378	.25516	.00111
#1	-.27167	1.3985	295.26	.74494
#2	.44022	1.4786	294.20	.74493
Check ?	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	500.00	500.00	2500.0	1000.0
Low Limit	-1.0000	-1.0000	-50.000	-5.0000

Elem	Sr2152	Sr3464	Sr4077	Ti3349
Units	ppm	ppm	ppm	ppm
Avg	26.696	27.856	29.325	292.37
Stddev	.037	.039	.034	3.36
%RSD	.13866	.14134	.11631	1.1484
#1	26.670	27.829	29.300	290.00
#2	26.722	27.884	29.349	294.74
Check ?	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	1000.0	1000.0	1000.0	1000.0
Low Limit	-.50000	-.50000	-.50000	-.50000

Elem	Tl1908	V_2924	Zn2138
Units	ppm	ppm	ppm
Avg	-.20897	22.982	26.296
Stddev	.17566	.050	.016
%RSD	84.062	.21593	.06068
#1	-.08476	22.947	26.285
#2	-.33318	23.017	26.308
Check ?	LC Pass	LC Pass	LC Pass
High Limit	500.00	5000.0	2500.0
Low Limit	-2.0000	-.50000	-.50000

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Method: CLP5 Sample Name: 0738007 Operator: JYH
Comment: RE03-99-2006
Run Time: 07/23/99 11:55 Type: Unk Mode: CONC Corr.Fact: 50.000000

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554
Units	ppm	ppm	ppm	ppm	ppm
Avg	.02499	18489.	4.3439	3.1068	107.97
Stddev	.15681	107.	.1509	.0751	.55
%RSD	627.54	.57765	3.4726	2.4180	.50666
#1	.13587	18414.	4.2373	3.1599	107.58
#2	-.08589	18565.	4.4506	3.0537	108.36
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	1000.0	50000.	5000.0	5000.0	2500.0
Low Limit	-.50000	-5.0000	-1.0000	-5.0000	-.50000

Elem	Be3130	Ca3736	Cd2288	Co2286	Cr2677
Units	ppm	ppm	ppm	ppm	ppm
Avg	1.2078	3397.4	.06571	4.7067	10.958
Stddev	.0072	13.5	.01179	.0234	.027
%RSD	.59792	.39602	17.936	.49809	.24620
#1	1.2027	3387.9	.05737	4.6901	10.978
#2	1.2129	3406.9	.07404	4.7233	10.939
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	250.00	50000.	2500.0	5000.0	5000.0
Low Limit	-.02500	-5.0000	-.10000	-.25000	-.25000

Elem	Cu3247	Fe2714	K_7664	Li6707	Mg2779
Units	ppm	ppm	ppm	ppm	ppm
Avg	7.3058	14635.	1963.4	13.577	2780.0
Stddev	.0589	3.	3.7	.071	20.4
%RSD	.80671	.01823	.19036	.52051	.73510
#1	7.3475	14637.	1960.7	13.527	2765.5
#2	7.2641	14633.	1966.0	13.627	2794.4
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	2000.0	50000.	20000.	2000.0	50000.
Low Limit	-1.0000	-1.0000	-25.000	-5.0000	-5.0000

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203
Units	ppm	ppm	ppm	ppm	ppm
Avg	213.48	.32303	558.49	9.8076	11.759
Stddev	.57	.07322	1.05	.0390	.021
%RSD	.26815	22.668	.18786	.39798	.18064
#1	213.88	.37480	557.75	9.8352	11.744
#2	213.08	.27125	559.23	9.7800	11.774
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	2500.0	1000.0	20000.	5000.0	10000.
Low Limit	-.50000	-5.0000	-25.000	-1.0000	-1.0000

Sample Name: 0738007 Run Time: 07/23/99 11:55

Elem	Sb2068	Se1960	Si2516	Sn1899	Sr2152
Units	ppm	ppm	ppm	ppm	ppm
Avg	.05710	1.7986	310.06	.93053	28.613
Stddev	.23119	.4989	.70	.01907	.119
%RSD	404.87	27.736	.22542	2.0498	.41429
#1	-.10637	1.4458	310.55	.94402	28.529
#2	.22058	2.1513	309.57	.91705	28.697
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	500.00	500.00	2500.0	1000.0	1000.0
Low Limit	-1.0000	-1.0000	-50.000	-5.0000	-.50000

Elem	Sr3464	Sr4077	Ti3349	Tl1908	V_2924
Units	ppm	ppm	ppm	ppm	ppm
Avg	28.219	30.267	156.96	-.38494	20.902
Stddev	.040	.145	1.27	.25628	.204
%RSD	.14105	.48039	.80866	66.576	.97716
#1	28.191	30.164	156.07	-.20372	20.757
#2	28.247	30.369	157.86	-.56615	21.046
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	1000.0	1000.0	1000.0	500.00	5000.0
Low Limit	-.50000	-.50000	-.50000	-2.0000	-.50000

Elem	Zn2138
Units	ppm
Avg	37.979
Stddev	.051
%RSD	.13358
#1	38.015
#2	37.943
Check ?	LC Pass
High Limit	2500.0
Low Limit	-.50000

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Method: CLP5 Sample Name: 0738008 Operator: JYH
Comment: RE03-99-2007
Run Time: 07/23/99 11:59 Type: Unk Mode: CONC Corr.Fact: 48.076923

Elem	Ag3280	Al3082	As1890	B_2496
Units	ppm	ppm	ppm	ppm
Avg	-.03352	24905.	5.1316	3.6684
Stddev	.00025	132.	.2193	.1204
%RSD	.73986	.53151	4.2729	3.2822
#1	-.03334	24811.	4.9765	3.7535
#2	-.03369	24999.	5.2866	3.5832
Check ?	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	1000.0	50000.	5000.0	5000.0
Low Limit	-.50000	-5.0000	-1.0000	-5.0000

Elem	Ba4554	Be3130	Ca3736	Cd2288
Units	ppm	ppm	ppm	ppm
Avg	112.21	2.0426	4215.6	.07980
Stddev	.47	.0096	18.6	.02437
%RSD	.42290	.46879	.44076	30.538
#1	111.88	2.0358	4202.4	.06257
#2	112.55	2.0493	4228.7	.09704
Check ?	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	2500.0	250.00	50000.	2500.0
Low Limit	-.50000	-.02500	-5.0000	-.10000

Elem	Co2286	Cr2677	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm
Avg	5.8184	14.382	9.5579	17821.
Stddev	.0429	.019	.0606	36.
%RSD	.73799	.13259	.63402	.20399
#1	5.7880	14.395	9.5151	17795.
#2	5.8487	14.368	9.6008	17846.
Check ?	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	5000.0	5000.0	2000.0	50000.
Low Limit	-.25000	-.25000	-1.0000	-1.0000

Elem	K_7664	Li6707	Mg2779	Mn2576
Units	ppm	ppm	ppm	ppm
Avg	2736.1	19.107	4174.2	244.64
Stddev	28.8	.111	18.5	.48
%RSD	1.0537	.58097	.44206	.19591
#1	2715.8	19.029	4161.2	244.30
#2	2756.5	19.186	4187.3	244.98
Check ?	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	20000.	2000.0	50000.	2500.0
Low Limit	-25.000	-5.0000	-5.0000	-.50000

Sample Name: 0738008 Run Time: 07/23/99 11:59

Elem	Mo2020	Na5895	Ni2316	Pb2203
Units	ppm	ppm	ppm	ppm
Avg	.35750	929.46	17.547	13.376
Stddev	.20628	10.42	.020	.184
%RSD	57.700	1.1213	.11313	1.3761
#1	.50336	922.09	17.561	13.246
#2	.21164	936.83	17.533	13.507
Check ?	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	1000.0	20000.	5000.0	10000.
Low Limit	-5.0000	-25.000	-1.0000	-1.0000

Elem	Sb2068	Se1960	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm
Avg	.59933	2.7346	265.36	1.0763
Stddev	.28725	.2412	.70	.0550
%RSD	47.927	8.8199	.26197	5.1119
#1	.80245	2.5640	264.87	1.0374
#2	.39622	2.9051	265.85	1.1152
Check ?	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	500.00	500.00	2500.0	1000.0
Low Limit	-1.0000	-1.0000	-50.000	-5.0000

Elem	Sr2152	Sr3464	Sr4077	Ti3349
Units	ppm	ppm	ppm	ppm
Avg	35.816	35.976	38.378	111.34
Stddev	.005	.047	.214	.28
%RSD	.01387	.12965	.55847	.25287
#1	35.820	36.009	38.226	111.14
#2	35.813	35.943	38.529	111.54
Check ?	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	1000.0	1000.0	1000.0	1000.0
Low Limit	-.50000	-.50000	-.50000	-.50000

Elem	Tl1908	V_2924	Zn2138
Units	ppm	ppm	ppm
Avg	-1.0668	22.661	43.750
Stddev	.0249	.242	.087
%RSD	2.3326	1.0700	.19793
#1	-1.0844	22.489	43.688
#2	-1.0492	22.832	43.811
Check ?	LC Pass	LC Pass	LC Pass
High Limit	500.00	5000.0	2500.0
Low Limit	-2.0000	-.50000	-.50000

Method: CLP5 Sample Name. 0739422 Operator: JYH
Comment:
Run Time: 07/23/99 12:02 Type: Unk Mode: CONC Corr.Fact: 50.000000

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554
Units	ppm	ppm	ppm	ppm	ppm
Avg	.15364	7364.5	6.2751	1.7854	58.398
Stddev	.01408	47.4	.0754	.0157	.564
%RSD	9.1671	.64379	1.2010	.87817	.96582
#1	.14368	7331.0	6.3284	1.7744	57.999
#2	.16359	7398.0	6.2218	1.7965	58.797
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	1000.0	50000.	5000.0	5000.0	2500.0
Low Limit	-.50000	-5.0000	-1.0000	-5.0000	-.50000

Elem	Be3130	Ca3736	Cd2288	Co2286	Cr2677
Units	ppm	ppm	ppm	ppm	ppm
Avg	.36013	10229.	.07387	4.4581	7.0662
Stddev	.00160	77.	.00411	.0182	.0051
%RSD	.44324	.74949	5.5693	.40850	.07189
#1	.35900	10175.	.07096	4.4710	7.0626
#2	.36126	10284.	.07678	4.4452	7.0698
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	250.00	50000.	2500.0	5000.0	5000.0
Low Limit	-.02500	-5.0000	-.10000	-.25000	-.25000

Elem	Cu3247	Fe2714	K_7664	Li6707	Mg2779
Units	ppm	ppm	ppm	ppm	ppm
Avg	8.7903	8952.9	639.44	14.380	1378.8
Stddev	.1376	3.4	7.36	.180	9.9
%RSD	1.5659	.03783	1.1508	1.2501	.71785
#1	8.6930	8950.5	634.24	14.253	1371.8
#2	8.8877	8955.3	644.65	14.507	1385.8
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	2000.0	50000.	20000.	2000.0	50000.
Low Limit	-1.0000	-1.0000	-25.000	-5.0000	-5.0000

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203
Units	ppm	ppm	ppm	ppm	ppm
Avg	336.10	.19834	29.861	7.7331	9.6589
Stddev	.14	.02618	.064	.0143	.1926
%RSD	.04308	13.200	.21589	.18507	1.9944
#1	336.00	.21685	29.815	7.7230	9.7951
#2	336.20	.17983	29.906	7.7432	9.5227
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	2500.0	1000.0	20000.	5000.0	10000.
Low Limit	-.50000	-5.0000	-25.000	-1.0000	-1.0000

Sample Name: 0739422 Run Time: 07/23/99 12:02

Elem	Sb2068	Se1960	Si2516	Sn1899	Sr2152
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.03243	.79167	387.51	.63382	16.298
Stddev	.09863	.10236	.28	.09537	.012
%RSD	304.14	12.929	.07131	15.047	.07660
#1	-.10217	.71930	387.32	.70125	16.306
#2	.03731	.86405	387.71	.56638	16.289
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	500.00	500.00	2500.0	1000.0	1000.0
Low Limit	-1.0000	-1.0000	-50.000	-5.0000	-.50000

Elem	Sr3464	Sr4077	Ti3349	Tl1908	V_2924
Units	ppm	ppm	ppm	ppm	ppm
Avg	15.064	17.453	45.500	-.50199	10.505
Stddev	.514	.116	.283	.09884	.052
%RSD	3.4143	.66255	.62222	19.689	.49776
#1	14.700	17.371	45.300	-.57188	10.542
#2	15.427	17.535	45.700	-.43210	10.468
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	1000.0	1000.0	1000.0	500.00	5000.0
Low Limit	-.50000	-.50000	-.50000	-2.0000	-.50000

Elem	Zn2138
Units	ppm
Avg	31.246
Stddev	.012
%RSD	.03938
#1	31.237
#2	31.254
Check ?	LC Pass
High Limit	2500.0
Low Limit	-.50000

Method: CLP5 Sample Name 073[illegible] MS Operator: J[illegible]
Comment:
Run Time: 07/23/99 12:06 Type: Unk Mode: CONC Corr.Fact: 48.076923

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554
Units	ppm	ppm	ppm	ppm	ppm
Avg	9.7849	14133.	54.193	49.018	546.96
Stddev	.0819	21.	.221	.012	3.26
%RSD	.83676	.14796	.40713	.02411	.59535
#1	9.8428	14148.	54.037	49.026	549.26
#2	9.7270	14119.	54.349	49.009	544.65
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	1000.0	50000.	5000.0	5000.0	2500.0
Low Limit	-.50000	-5.0000	-1.0000	-5.0000	-.50000

Elem	Be3130	Ca3736	Cd2288	Co2286	Cr2677
Units	ppm	ppm	ppm	ppm	ppm
Avg	47.452	12446.	45.418	49.756	57.248
Stddev	.118	35.	.001	.134	.133
%RSD	.24933	.28233	.00179	.26996	.23202
#1	47.536	12471.	45.419	49.661	57.154
#2	47.368	12422.	45.417	49.851	57.342
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	250.00	50000.	2500.0	5000.0	5000.0
Low Limit	-.02500	-5.0000	-.10000	-.25000	-.25000

Elem	Cu3247	Fe2714	K_7664	Li6707	Mg2779
Units	ppm	ppm	ppm	ppm	ppm
Avg	58.262	10604.	4289.1	504.24	2381.1
Stddev	.218	28.	14.5	.60	4.2
%RSD	.37424	.26863	.33717	.11816	.17694
#1	58.416	10584.	4299.4	504.66	2384.0
#2	58.108	10625.	4278.9	503.82	2378.1
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	2000.0	50000.	20000.	2000.0	50000.
Low Limit	-1.0000	-1.0000	-25.000	-5.0000	-5.0000

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203
Units	ppm	ppm	ppm	ppm	ppm
Avg	413.76	45.438	2492.0	54.493	55.369
Stddev	.22	.050	8.0	.114	.150
%RSD	.05392	.11007	.32054	.21002	.27064
#1	413.60	45.473	2497.7	54.412	55.475
#2	413.92	45.402	2486.4	54.574	55.263
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	2500.0	1000.0	20000.	5000.0	10000.
Low Limit	-.50000	-5.0000	-25.000	-1.0000	-1.0000

Sample Name: 0739422 MS Run Time: 07/_/'99 12:06

Elem	Sb2068	Se1960	Si2516	Sn1899	Sr2152
Units	ppm	ppm	ppm	ppm	ppm
Avg	34.335	48.413	586.19	.49271	64.656
Stddev	.442	.547	.31	.07337	.282
%RSD	1.2870	1.1307	.05283	14.890	.43594
#1	34.022	48.026	585.97	.44083	64.456
#2	34.647	48.800	586.41	.54459	64.855
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	500.00	500.00	2500.0	1000.0	1000.0
Low Limit	-1.0000	-1.0000	-50.000	-5.0000	-.50000

Elem	Sr3464	Sr4077	Ti3349	Tl1908	V_2924
Units	ppm	ppm	ppm	ppm	ppm
Avg	64.204	68.059	130.98	45.126	64.355
Stddev	.167	.096	.35	.587	.411
%RSD	.26012	.14067	.26532	1.3002	.63922
#1	64.323	68.127	131.23	44.711	64.064
#2	64.086	67.991	130.74	45.541	64.646
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	1000.0	1000.0	1000.0	500.00	5000.0
Low Limit	-.50000	-.50000	-.50000	-2.0000	-.50000

Elem	Zn2138
Units	ppm
Avg	85.300
Stddev	.254
%RSD	.29733
#1	85.121
#2	85.479
Check ?	LC Pass
High Limit	2500.0
Low Limit	-.50000

Method: CLP5 Sample Name: 0.39422 MSD Operator: JYH
Comment:
Run Time: 07/23/99 12:10 Type: Unk Mode: CONC Corr.Fact: 48.076923

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554
Units	ppm	ppm	ppm	ppm	ppm
Avg	9.9129	13662.	55.212	50.123	549.25
Stddev	.0683	26.	.149	.400	.78
%RSD	.68898	.18781	.27024	.79800	.14192
#1	9.8646	13644.	55.107	49.840	548.70
#2	9.9612	13681.	55.318	50.405	549.80
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	1000.0	50000.	5000.0	5000.0	2500.0
Low Limit	-.50000	-5.0000	-1.0000	-5.0000	-.50000

Elem	Be3130	Ca3736	Cd2288	Co2286	Cr2677
Units	ppm	ppm	ppm	ppm	ppm
Avg	47.973	11980.	46.998	50.348	57.798
Stddev	.059	18.	.482	.204	.271
%RSD	.12239	.15022	1.0252	.40543	.46827
#1	48.014	11968.	46.657	50.204	57.606
#2	47.931	11993.	47.339	50.492	57.989
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	250.00	50000.	2500.0	5000.0	5000.0
Low Limit	-.02500	-5.0000	-.10000	-.25000	-.25000

Elem	Cu3247	Fe2714	K_7664	Li6707	Mg2779
Units	ppm	ppm	ppm	ppm	ppm
Avg	57.663	10220.	4292.2	511.76	2314.8
Stddev	.090	40.	9.4	.26	5.8
%RSD	.15689	.39383	.21998	.05131	.25216
#1	57.599	10192.	4285.5	511.95	2310.7
#2	57.727	10249.	4298.9	511.58	2319.0
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	2000.0	50000.	20000.	2000.0	50000.
Low Limit	-1.0000	-1.0000	-25.000	-5.0000	-5.0000

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203
Units	ppm	ppm	ppm	ppm	ppm
Avg	400.90	47.018	2536.7	55.226	56.403
Stddev	2.89	.261	6.1	.375	.007
%RSD	.72035	.55612	.23916	.67897	.01228
#1	398.85	46.833	2541.0	54.961	56.408
#2	402.94	47.203	2532.4	55.491	56.398
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	2500.0	1000.0	20000.	5000.0	10000.
Low Limit	-.50000	-5.0000	-25.000	-1.0000	-1.0000

Sample Name: 0739422 MSD Run Time: 07/23/99 12:10

Elem	Sb2068	Se1960	Si2516	Sn1899	Sr2152
Units	ppm	ppm	ppm	ppm	ppm
Avg	34.422	50.408	780.80	.50568	64.094
Stddev	.035	.271	5.32	.09171	.123
%RSD	.10128	.53763	.68086	18.136	.19255
#1	34.446	50.600	777.04	.57053	64.182
#2	34.397	50.216	784.56	.44083	64.007
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	500.00	500.00	2500.0	1000.0	1000.0
Low Limit	-1.0000	-1.0000	-50.000	-5.0000	-.50000

Elem	Sr3464	Sr4077	Ti3349	Tl1908	V_2924
Units	ppm	ppm	ppm	ppm	ppm
Avg	64.997	68.762	130.39	45.670	63.502
Stddev	.236	.077	.37	.101	.350
%RSD	.36275	.11142	.28000	.22063	.55107
#1	64.830	68.708	130.65	45.599	63.255
#2	65.164	68.816	130.14	45.741	63.750
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	1000.0	1000.0	1000.0	500.00	5000.0
Low Limit	-.50000	-.50000	-.50000	-2.0000	-.50000

Elem	Zn2138
Units	ppm
Avg	85.051
Stddev	.514
%RSD	.60422
#1	84.687
#2	85.414
Check ?	LC Pass
High Limit	2500.0
Low Limit	-.50000

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Method: CLP5 Sample Name: 0[illegible]394[illegible] Operator: JYH
Comment:
Run Time: 07/23/99 12:13 Type: Unk Mode: CONC Corr.Fact: 46.728970

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554
Units	ppm	ppm	ppm	ppm	ppm
Avg	.11630	8900.8	9.7835	2.1896	71.087
Stddev	.10649	9.7	.3192	.0384	.469
%RSD	91.565	.10920	3.2623	1.7521	.65951
#1	.04100	8907.7	10.009	2.2168	71.419
#2	.19161	8893.9	9.5578	2.1625	70.756
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	1000.0	50000.	5000.0	5000.0	2500.0
Low Limit	-.50000	-5.0000	-1.0000	-5.0000	-.50000

Elem	Be3130	Ca3736	Cd2288	Co2286	Cr2677
Units	ppm	ppm	ppm	ppm	ppm
Avg	.46156	10886.	.11957	6.2546	8.6392
Stddev	.00372	39.	.02375	.0247	.0292
%RSD	.80568	.36033	19.862	.39435	.33835
#1	.46419	10913.	.10277	6.2371	8.6185
#2	.45893	10858.	.13636	6.2720	8.6599
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	250.00	50000.	2500.0	5000.0	5000.0
Low Limit	-.02500	-5.0000	-.10000	-.25000	-.25000

Elem	Cu3247	Fe2714	K_7664	Li6707	Mg2779
Units	ppm	ppm	ppm	ppm	ppm
Avg	11.406	11600.	783.28	17.902	1863.0
Stddev	.099	.	2.40	.059	6.1
%RSD	.86502	.00308	.30600	.33240	.32738
#1	11.475	11601.	784.98	17.944	1867.3
#2	11.336	11600.	781.59	17.860	1858.7
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	2000.0	50000.	20000.	2000.0	50000.
Low Limit	-1.0000	-1.0000	-25.000	-5.0000	-5.0000

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203
Units	ppm	ppm	ppm	ppm	ppm
Avg	470.65	.33826	34.875	10.367	11.651
Stddev	.45	.04401	.246	.054	.398
%RSD	.09508	13.010	.70582	.52458	3.4176
#1	470.96	.30714	35.049	10.405	11.370
#2	470.33	.36938	34.701	10.328	11.933
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	2500.0	1000.0	20000.	5000.0	10000.
Low Limit	-.50000	-5.0000	-25.000	-1.0000	-1.0000

Sample Name: 0739425 Run Time: 07/23/99 12:13

Elem	Sb2068	Se1960	Si2516	Sn1899	Sr2152
Units	ppm	ppm	ppm	ppm	ppm
Avg	.24247	1.3751	428.12	.31499	17.748
Stddev	.12298	.3078	.73	.01778	.513
%RSD	50.721	22.381	.17017	5.6460	2.8895
#1	.15551	1.1575	428.64	.30241	18.110
#2	.32943	1.5928	427.60	.32757	17.385
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	500.00	500.00	2500.0	1000.0	1000.0
Low Limit	-1.0000	-1.0000	-50.000	-5.0000	-.50000

Elem	Sr3464	Sr4077	Ti3349	Tl1908	V_2924
Units	ppm	ppm	ppm	ppm	ppm
Avg	16.909	19.237	53.322	-.66749	12.875
Stddev	.280	.042	.343	.24406	.178
%RSD	1.6573	.21768	.64389	36.564	1.3788
#1	17.107	19.267	53.564	-.49491	12.749
#2	16.711	19.207	53.079	-.84006	13.000
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	1000.0	1000.0	1000.0	500.00	5000.0
Low Limit	-.50000	-.50000	-.50000	-2.0000	-.50000

Elem	Zn2138
Units	ppm
Avg	39.925
Stddev	.053
%RSD	.13248
#1	39.887
#2	39.962
Check ?	LC Pass
High Limit	2500.0
Low Limit	-.50000

Method: CLP5 Sample Name: PBS A/WG61360 Operator: JYH
Comment:
Run Time: 07/23/99 12:18 Type: Unk Mode: CONC Corr.Fact: 1.000000

Elem	Ag3280	Al3082	As1890	B_2496
Units	ppm	ppm	ppm	ppm
Avg	-.00042	.01234	.00161	.00007
Stddev	.00085	.00716	.00303	.00088
%RSD	201.35	58.019	188.06	1207.1
#1	-.00102	.01741	.00375	-.00055
#2	.00018	.00728	-.00053	.00069
Check ?	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	.00800	.10000	.04000	.50000
Low Limit	-.00800	-.10000	-.04000	-.50000

Elem	Ba4554	Be3130	Ca3736	Cd2288
Units	ppm	ppm	ppm	ppm
Avg	-.00029	-.00003	-.00700	.00049
Stddev	.00036	.00008	.00713	.00012
%RSD	123.29	290.98	101.96	23.963
#1	-.00004	.00003	-.01204	.00041
#2	-.00055	-.00008	-.00195	.00057
Check ?	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	.01000	.00050	.20000	.00200
Low Limit	-.01000	-.00050	-.20000	-.00200

Elem	Co2286	Cr2677	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm
Avg	.00035	-.00004	-.00061	.00976
Stddev	.00030	.00034	.00152	.00476
%RSD	84.250	787.14	249.15	48.816
#1	.00057	.00020	.00046	.01312
#2	.00014	-.00028	-.00168	.00639
Check ?	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	.00500	.00500	.00500	.02000
Low Limit	-.00500	-.00500	-.00500	-.02000

Elem	K_7664	Li6707	Mg2779	Mn2576
Units	ppm	ppm	ppm	ppm
Avg	-.01708	.00007	.00724	.00009
Stddev	.04866	.00044	.01082	.00002
%RSD	284.90	666.68	149.48	24.244
#1	.01733	-.00024	-.00041	.00010
#2	-.05149	.00037	.01488	.00007
Check ?	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	.50000	.10000	.10000	.01000
Low Limit	-.50000	-.10000	-.10000	-.01000

Sample Name: PBS A/WG61360 Run Time: 07/23/99 12:18

Elem	Mo2020	Na5895	Ni2316	Pb2203
Units	ppm	ppm	ppm	ppm
Avg	.00184	-.00155	.00090	.00412
Stddev	.00052	.00210	.00064	.00126
%RSD	28.384	135.61	71.104	30.607
#1	.00221	-.00006	.00045	.00323
#2	.00147	-.00304	.00135	.00501
Check ?	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	.10000	.50000	.02000	.04000
Low Limit	-.10000	-.50000	-.02000	-.04000

Elem	Sb2068	Se1960	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm
Avg	.00471	-.00184	.00333	-.00027
Stddev	.00131	.00329	.00141	.00191
%RSD	27.880	179.14	42.436	701.15
#1	.00564	-.00416	.00433	.00108
#2	.00378	.00049	.00233	-.00162
Check ?	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	.02000	.02000	1.0000	.50000
Low Limit	-.02000	-.02000	-1.0000	-.50000

Elem	Sr2152	Sr3464	Sr4077	Ti3349
Units	ppm	ppm	ppm	ppm
Avg	-.00114	.00034	-.00004	.00099
Stddev	.00105	.00206	.00000	.00049
%RSD	92.259	610.19	4.6019	49.937
#1	-.00189	.00179	-.00004	.00064
#2	-.00040	-.00112	-.00004	.00134
Check ?	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	.01000	.01000	.01000	.03000
Low Limit	-.01000	-.01000	-.01000	-.03000

Elem	Tl1908	V_2924	Zn2138
Units	ppm	ppm	ppm
Avg	.00566	.00191	-.00034
Stddev	.00261	.00171	.00012
%RSD	46.068	89.759	33.992
#1	.00750	.00070	-.00042
#2	.00382	.00312	-.00026
Check ?	LC Pass	LC Pass	LC Pass
High Limit	.04000	.01000	.02000
Low Limit	-.04000	-.01000	-.02000

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Method: CLP5 Sample Name: LCSS A/WG61360 Operator: JYH
Comment:
Run Time: 07/23/99 12:21 Type: Unk Mode: CONC Corr.Fact: 50.000000

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554
Units	ppm	ppm	ppm	ppm	ppm
Avg	10.222	668.96	48.888	48.756	492.78
Stddev	.028	.34	.001	.002	.10
%RSD	.27547	.05026	.00106	.00331	.02066
#1	10.242	668.72	48.888	48.755	492.85
#2	10.202	669.20	48.887	48.757	492.70
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	12.000	754.00	60.000	60.000	600.00
Low Limit	8.0000	503.00	40.000	40.000	400.00

Elem	Be3130	Ca3736	Cd2288	Co2286	Cr2677
Units	ppm	ppm	ppm	ppm	ppm
Avg	50.196	512.16	48.202	47.892	48.897
Stddev	.027	.41	.201	.125	.091
%RSD	.05304	.08003	.41635	.26180	.18589
#1	50.215	512.45	48.060	47.804	48.832
#2	50.177	511.87	48.344	47.981	48.961
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	60.000	601.09	60.000	60.000	60.000
Low Limit	40.000	400.73	40.000	40.000	40.000

Elem	Cu3247	Fe2714	K_7664	Li6707	Mg2779
Units	ppm	ppm	ppm	ppm	ppm
Avg	49.335	99.579	2482.8	506.64	517.19
Stddev	.013	.579	9.3	.56	3.32
%RSD	.02554	.58173	.37486	.11013	.64219
#1	49.344	99.169	2476.2	507.03	514.84
#2	49.326	99.988	2489.4	506.24	519.54
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	60.000	130.59	3000.0	600.00	600.00
Low Limit	40.000	87.947	2000.0	400.00	400.00

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203
Units	ppm	ppm	ppm	ppm	ppm
Avg	49.451	49.260	2541.2	48.413	49.372
Stddev	.133	.266	1.5	.221	.302
%RSD	.26915	.53900	.05748	.45748	.61236
#1	49.357	49.072	2540.1	48.256	49.158
#2	49.545	49.447	2542.2	48.570	49.586
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	60.000	60.000	3000.0	60.000	60.384
Low Limit	40.000	40.000	2000.0	40.000	40.256

Sample Name: LCSS A/WG61360 Run Time: 07/23/99 12:21

Elem	Sb2068	Se1960	Si2516	Sn1899	Sr2152
Units	ppm	ppm	ppm	ppm	ppm
Avg	47.914	47.818	L 289.26	49.993	49.776
Stddev	.298	.526	.94	.037	.080
%RSD	.62161	1.0993	.32379	.07321	.16096
#1	48.125	47.446	288.59	49.967	49.720
#2	47.703	48.190	289.92	50.019	49.833
Check ?	LC Pass	LC Pass	LC Fail	LC Pass	LC Pass
High Limit	60.000	60.000	600.00	60.000	60.000
Low Limit	40.000	40.000	400.00	40.000	40.000

Elem	Sr3464	Sr4077	Ti3349	Tl1908	V_2924
Units	ppm	ppm	ppm	ppm	ppm
Avg	52.619	52.822	48.796	48.849	50.553
Stddev	.032	.050	.094	.083	.312
%RSD	.06140	.09444	.19322	.16950	.61799
#1	52.596	52.858	48.862	48.908	50.332
#2	52.642	52.787	48.729	48.791	50.774
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	60.000	60.000	60.000	60.000	60.000
Low Limit	40.000	40.000	40.000	40.000	40.000

Elem	Zn2138
Units	ppm
Avg	48.414
Stddev	.230
%RSD	.47586
#1	48.251
#2	48.577
Check ?	LC Pass
High Limit	60.828
Low Limit	40.552

Method: CLP5 Sample Name: CCV Operator:
Comment:
Run Time: 07/23/99 12:25 Type: QC Mode: CONC Corr.Fact: 1.000000

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554
Units	ppm	ppm	ppm	ppm	ppm
Avg	.40156	10.096	.41434	10.035	.99212
Stddev	.00055	.141	.00150	.056	.00505
%RSD	.13672	1.3967	.36216	.55581	.50858
#1	.40195	10.196	.41328	10.074	.99569
#2	.40117	9.9966	.41540	9.9953	.98855
Check ?	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.40000	10.000	.40000	10.000	1.0000
Range	10.000%	10.000%	10.000%	10.000%	10.000%

Elem	Be3130	Ca3736	Cd2288	Co2286	Cr2677
Units	ppm	ppm	ppm	ppm	ppm
Avg	.04947	10.047	.05096	.19847	.50613
Stddev	.00021	.033	.00013	.00179	.00116
%RSD	.41620	.33030	.25095	.90010	.22823
#1	.04962	10.070	.05105	.19973	.50694
#2	.04933	10.023	.05086	.19721	.50531
Check ?	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.05000	10.000	.05000	.20000	.50000
Range	10.000%	10.000%	10.000%	10.000%	10.000%

Elem	Cu3247	Fe2714	K_7664	Li6707	Mg2779
Units	ppm	ppm	ppm	ppm	ppm
Avg	.49093	4.0166	50.837	.99357	9.9766
Stddev	.00173	.0105	.217	.00709	.1660
%RSD	.35291	.26198	.42624	.71324	1.6635
#1	.49216	4.0241	50.991	.99858	9.8593
#2	.48971	4.0092	50.684	.98856	10.094
Check ?	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.50000	4.0000	50.000	1.0000	10.000
Range	10.000%	10.000%	10.000%	10.000%	10.000%

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203
Units	ppm	ppm	ppm	ppm	ppm
Avg	.50795	1.0521	51.071	.50509	.51584
Stddev	.00205	.0023	.237	.00254	.00123
%RSD	.40355	.21856	.46375	.50316	.23882
#1	.50940	1.0537	51.238	.50688	.51497
#2	.50650	1.0504	50.903	.50329	.51671
Check ?	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.50000	1.0000	50.000	.50000	.50000
Range	10.000%	10.000%	10.000%	10.000%	10.000%

Sample Name: CCV Run Time: 07/23/99 12:25

Elem	Sb2068	Se1960	Si2516	Sn1899	Sr2152
Units	ppm	ppm	ppm	ppm	ppm
Avg	1.2106	.39623	5.0489	1.0302	.99712
Stddev	.0092	.00396	.0258	.0073	.00490
%RSD	.76131	.99989	.51034	.70353	.49092
#1	1.2171	.39903	5.0671	1.0353	1.0006
#2	1.2041	.39343	5.0306	1.0251	.99366
Check ?	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	1.2000	.40000	5.0000	1.0000	1.0000
Range	10.000%	10.000%	10.000%	10.000%	10.000%

Elem	Sr3464	Sr4077	Ti3349	Tl1908	V_2924
Units	ppm	ppm	ppm	ppm	ppm
Avg	1.0089	1.0057	.99718	.51758	1.0213
Stddev	.0015	.0035	.00160	.00284	.0121
%RSD	.15202	.34518	.16075	.54898	1.1809
#1	1.0100	1.0081	.99831	.51557	1.0128
#2	1.0078	1.0032	.99604	.51959	1.0298
Check ?	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	1.0000	1.0000	1.0000	.50000	1.0000
Range	10.000%	10.000%	10.000%	10.000%	10.000%

Elem	Zn2138
Units	ppm
Avg	1.0160
Stddev	.0051
%RSD	.50511
#1	1.0196
#2	1.0124
Check ?	QC Pass
Value	1.0000
Range	10.000%

Method: CLP5 Sample Name: CCB Operator:
Comment:
Run Time: 07/23/99 12:31 Type: Blank Mode: CONC Corr.Fact: 1.000000

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00179	.00487	-.00160	.00445	.00011
Stddev	.00227	.02465	.00000	.00244	.00012
%RSD	127.14	505.55	.25258	54.804	108.07
#1	.00018	.02230	-.00160	.00618	.00020
#2	.00339	-.01255	-.00160	.00273	.00003
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	.00500	.05000	.01000	.05000	.00250
Low Limit	-.00500	-.05000	-.01000	-.05000	-.00250

Elem	Be3130	Ca3736	Cd2288	Co2286	Cr2677
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00005	-.00921	.00003	.00054	-.00033
Stddev	.00005	.00172	.00047	.00033	.00062
%RSD	95.622	18.631	1580.2	59.931	184.69
#1	-.00002	-.01042	-.00030	.00031	-.00077
#2	-.00008	-.00799	.00036	.00078	.00010
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	.00025	.05000	.00100	.00250	.00250
Low Limit	-.00025	-.05000	-.00100	-.00250	-.00250

Elem	Cu3247	Fe2714	K_7664	Li6707	Mg2779
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00090	.00093	-.03771	-.00020	.05381
Stddev	.00122	.00180	.00640	.00023	.01099
%RSD	134.92	192.84	16.979	115.09	20.429
#1	.00176	.00220	-.04224	-.00037	.04604
#2	.00004	-.00034	-.03319	-.00004	.06159
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	.01000	.02000	.25000	.05000	.10000
Low Limit	-.01000	-.02000	-.25000	-.05000	-.10000

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00003	.00243	.00413	.00035	.00358
Stddev	.00008	.00178	.00397	.00085	.00353
%RSD	255.87	73.075	96.103	245.01	98.493
#1	-.00009	.00369	.00693	-.00025	.00109
#2	.00003	.00118	.00132	.00095	.00608
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	.00250	.05000	.10000	.01000	.01000
Low Limit	-.00250	-.05000	-.10000	-.01000	-.01000

Sample Name: CCB Run Time: 07/23/99 12:31

Elem	Sb2068	Se1960	Si2516	Sn1899	Sr2152
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00191	.00840	.00225	.00027	-.00094
Stddev	.00132	.00329	.00120	.00114	.00096
%RSD	69.113	39.155	53.408	428.05	101.68
#1	.00285	.00608	.00140	.00108	-.00162
#2	.00098	.01073	.00311	-.00054	-.00026
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	.03000	.01000	.25000	.20000	.00500
Low Limit	-.03000	-.01000	-.25000	-.20000	-.00500

Elem	Sr3464	Sr4077	Ti3349	Tl1908	V_2924
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00123	-.00004	.00058	-.00119	.00143
Stddev	.00016	.00006	.00107	.00396	.00102
%RSD	12.952	169.93	184.36	333.91	71.369
#1	-.00112	-.00008	-.00018	-.00399	.00071
#2	-.00134	.00001	.00134	.00162	.00215
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	.00500	.00500	.01500	.02000	.00798
Low Limit	-.00500	-.00500	-.01500	-.02000	-.00798

Elem	Zn2138
Units	ppm
Avg	-.00008
Stddev	.00002
%RSD	19.000
#1	-.00007
#2	-.00009
Check ?	LC Pass
High Limit	.01000
Low Limit	-.01000

Method: CLP5 Sample Name: 07J6501 Operator: JYH
Comment: RE00-99-0237
Run Time: 07/23/99 12:57 Type: Unk Mode: CONC Corr.Fact: 48.076923

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554
Units	ppm	ppm	ppm	ppm	ppm
Avg	.31178	13349.	4.3609	3.3470	146.98
Stddev	.05524	67.	.1071	.0091	1.07
%RSD	17.718	.49946	2.4556	.27045	.73006
#1	.35084	13302.	4.4367	3.3534	146.23
#2	.27272	13396.	4.2852	3.3406	147.74
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	1000.0	50000.	5000.0	5000.0	2500.0
Low Limit	-.50000	-5.0000	-1.0000	-5.0000	-.50000

Elem	Be3130	Ca3736	Cd2288	Co2286	Cr2677
Units	ppm	ppm	ppm	ppm	ppm
Avg	.77452	2284.9	.14208	8.1682	9.8013
Stddev	.00385	15.3	.00301	.0404	.0440
%RSD	.49708	.67028	2.1167	.49486	.44874
#1	.77180	2274.1	.14421	8.1396	9.7702
#2	.77724	2295.7	.13996	8.1968	9.8324
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	250.00	50000.	2500.0	5000.0	5000.0
Low Limit	-.02500	-5.0000	-.10000	-.25000	-.25000

Elem	Cu3247	Fe2714	K_7664	Li6707	Mg2779
Units	ppm	ppm	ppm	ppm	ppm
Avg	6.7204	13042.	1555.0	11.080	2076.9
Stddev	.0866	41.	24.2	.055	13.8
%RSD	1.2883	.31184	1.5549	.49934	.66305
#1	6.6592	13013.	1537.9	11.041	2067.1
#2	6.7816	13071.	1572.1	11.119	2086.6
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	2000.0	50000.	20000.	2000.0	50000.
Low Limit	-1.0000	-1.0000	-25.000	-5.0000	-5.0000

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203
Units	ppm	ppm	ppm	ppm	ppm
Avg	487.85	.67081	200.25	7.8535	15.371
Stddev	2.27	.00513	2.90	.0061	.011
%RSD	.46483	.76440	1.4486	.07775	.07198
#1	486.25	.67443	198.20	7.8579	15.378
#2	489.45	.66718	202.30	7.8492	15.363
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	2500.0	1000.0	20000.	5000.0	10000.
Low Limit	-.50000	-5.0000	-25.000	-1.0000	-1.0000

Sample Name: 0736501 Run Time: 07/23/99 12:57

Elem	Sb2068	Se1960	Si2516	Sn1899	Sr2152
Units	ppm	ppm	ppm	ppm	ppm
Avg	.31993	1.7753	270.23	1.0374	24.055
Stddev	.31398	.3315	1.58	.1467	.182
%RSD	98.140	18.670	.58363	14.144	.75496
#1	.09791	2.0097	269.11	1.1412	23.926
#2	.54195	1.5409	271.34	.93366	24.183
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	500.00	500.00	2500.0	1000.0	1000.0
Low Limit	-1.0000	-1.0000	-50.000	-5.0000	-.50000

Elem	Sr3464	Sr4077	Ti3349	Tl1908	V_2924
Units	ppm	ppm	ppm	ppm	ppm
Avg	23.565	25.040	278.55	-.26692	23.261
Stddev	.106	.128	1.01	.39838	.365
%RSD	.45190	.51153	.36208	149.25	1.5701
#1	23.490	24.949	277.83	-.54862	23.520
#2	23.640	25.130	279.26	.01478	23.003
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	1000.0	1000.0	1000.0	500.00	5000.0
Low Limit	-.50000	-.50000	-.50000	-2.0000	-.50000

Elem	Zn2138
Units	ppm
Avg	32.389
Stddev	.145
%RSD	.44865
#1	32.286
#2	32.491
Check ?	LC Pass
High Limit	2500.0
Low Limit	-.50000

Method: CLP5 Sample Name: 073[illegible] DUP Operator: JYH
Comment: RE00-99-0237 DUP
Run Time: 07/23/99 13:01 Type: Unk Mode: CONC Corr.Fact: 49.504951

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554
Units	ppm	ppm	ppm	ppm	ppm
Avg	.37167	14642.	4.5942	3.4727	139.78
Stddev	.04221	39.	.0004	.0093	.56
%RSD	11.358	.26863	.00856	.26828	.39987
#1	.34182	14670.	4.5939	3.4793	140.18
#2	.40152	14614.	4.5945	3.4661	139.39
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	1000.0	50000.	5000.0	5000.0	2500.0
Low Limit	-.50000	-5.0000	-1.0000	-5.0000	-.50000

Elem	Be3130	Ca3736	Cd2288	Co2286	Cr2677
Units	ppm	ppm	ppm	ppm	ppm
Avg	.81327	3706.9	.05920	6.5016	10.651
Stddev	.00004	2.4	.01703	.0076	.015
%RSD	.00527	.06580	28.761	.11673	.14070
#1	.81324	3705.2	.04716	6.5069	10.640
#2	.81330	3708.7	.07124	6.4962	10.661
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	250.00	50000.	2500.0	5000.0	5000.0
Low Limit	-.02500	-5.0000	-.10000	-.25000	-.25000

Elem	Cu3247	Fe2714	K_7664	Li6707	Mg2779
Units	ppm	ppm	ppm	ppm	ppm
Avg	7.2221	13917.	1647.5	11.732	2271.7
Stddev	.1373	7.	3.4	.027	11.9
%RSD	1.9015	.04767	.20452	.22724	.52357
#1	7.1249	13912.	1649.9	11.751	2280.1
#2	7.3192	13921.	1645.1	11.713	2263.3
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	2000.0	50000.	20000.	2000.0	50000.
Low Limit	-1.0000	-1.0000	-25.000	-5.0000	-5.0000

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203
Units	ppm	ppm	ppm	ppm	ppm
Avg	348.73	.68722	218.68	8.2976	14.883
Stddev	.11	.03110	.55	.0596	.020
%RSD	.03199	4.5250	.24963	.71813	.13702
#1	348.65	.66523	219.06	8.2555	14.897
#2	348.81	.70921	218.29	8.3397	14.868
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	2500.0	1000.0	20000.	5000.0	10000.
Low Limit	-.50000	-5.0000	-25.000	-1.0000	-1.0000

Sample Name: 0736501 DUP Run Time: 07/23/99 13:01

Elem	Sb2068	Se1960	Si2516	Sn1899	Sr2152
Units	ppm	ppm	ppm	ppm	ppm
Avg	.04506	1.1905	269.11	1.1483	26.870
Stddev	.03236	.2937	.29	.2266	.092
%RSD	71.829	24.674	.10710	19.735	.34147
#1	.02217	.98277	268.90	.98810	26.935
#2	.06794	1.3982	269.31	1.3086	26.805
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	500.00	500.00	2500.0	1000.0	1000.0
Low Limit	-1.0000	-1.0000	-50.000	-5.0000	-.50000

Elem	Sr3464	Sr4077	Ti3349	Tl1908	V_2924
Units	ppm	ppm	ppm	ppm	ppm
Avg	26.311	28.173	266.97	-.54084	24.593
Stddev	.148	.109	.16	.06675	.035
%RSD	.56087	.38561	.06034	12.341	.14237
#1	26.416	28.250	266.86	-.58804	24.568
#2	26.207	28.097	267.09	-.49365	24.618
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	1000.0	1000.0	1000.0	500.00	5000.0
Low Limit	-.50000	-.50000	-.50000	-2.0000	-.50000

Elem	Zn2138
Units	ppm
Avg	34.242
Stddev	.002
%RSD	.00509
#1	34.244
#2	34.241
Check ?	LC Pass
High Limit	2500.0
Low Limit	-.50000

Method: CLP5 Sample Name: 0736501 MS Operator: JYH
Comment: RE00-99-0237 MS
Run Time: 07/23/99 13:05 Type: Unk Mode: CONC Corr.Fact: 50.000000

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554
Units	ppm	ppm	ppm	ppm	ppm
Avg	9.9416	13362.	394.69	3.4809	513.77
Stddev	.0997	55.	.27	.0094	1.33
%RSD	1.0027	.40795	.06728	.26969	.25873
#1	10.012	13324.	394.88	3.4743	512.83
#2	9.8711	13401.	394.50	3.4875	514.71
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	1000.0	50000.	5000.0	5000.0	2500.0
Low Limit	-.50000	-5.0000	-1.0000	-5.0000	-.50000

Elem	Be3130	Ca3736	Cd2288	Co2286	Cr2677
Units	ppm	ppm	ppm	ppm	ppm
Avg	10.572	2621.8	10.131	102.48	49.249
Stddev	.022	2.4	.044	.05	.045
%RSD	.20818	.09167	.43182	.04419	.09187
#1	10.557	2620.1	10.162	102.45	49.281
#2	10.588	2623.5	10.100	102.52	49.217
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	250.00	50000.	2500.0	5000.0	5000.0
Low Limit	-.02500	-5.0000	-.10000	-.25000	-.25000

Elem	Cu3247	Fe2714	K_7664	Li6707	Mg2779
Units	ppm	ppm	ppm	ppm	ppm
Avg	56.132	12635.	1522.6	10.849	2109.3
Stddev	.020	2.	5.8	.006	6.6
%RSD	.03601	.01667	.38288	.05453	.31276
#1	56.147	12637.	1518.4	10.845	2104.6
#2	56.118	12634.	1526.7	10.853	2114.0
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	2000.0	50000.	20000.	2000.0	50000.
Low Limit	-1.0000	-1.0000	-25.000	-5.0000	-5.0000

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203
Units	ppm	ppm	ppm	ppm	ppm
Avg	432.62	1.0505	203.19	105.79	112.80
Stddev	.52	.0101	.80	.08	.34
%RSD	.12074	.96230	.39590	.07643	.30415
#1	432.99	1.0576	202.62	105.73	113.04
#2	432.25	1.0434	203.76	105.85	112.56
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	2500.0	1000.0	20000.	5000.0	10000.
Low Limit	-.50000	-5.0000	-25.000	-1.0000	-1.0000

Sample Name: 0736501 MS Run Time: 07/23/99 13:05

Elem	Sb2068	Se1960	Si2516	Sn1899	Sr2152
Units	ppm	ppm	ppm	ppm	ppm
Avg	32.688	394.45	246.99	.93054	24.974
Stddev	.464	.00	.06	.09537	.090
%RSD	1.4188	.00049	.02270	10.249	.36069
#1	32.360	394.45	246.95	.86311	24.910
#2	33.016	394.45	247.03	.99798	25.038
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	500.00	500.00	2500.0	1000.0	1000.0
Low Limit	-1.0000	-1.0000	-50.000	-5.0000	-.50000

Elem	Sr3464	Sr4077	Ti3349	Tl1908	V_2924
Units	ppm	ppm	ppm	ppm	ppm
Avg	24.317	26.501	254.80	395.18	119.44
Stddev	.554	.114	.54	1.34	1.46
%RSD	2.2786	.42968	.21304	.33797	1.2219
#1	23.926	26.420	254.42	394.23	118.41
#2	24.709	26.581	255.19	396.12	120.47
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	1000.0	1000.0	1000.0	500.00	5000.0
Low Limit	-.50000	-.50000	-.50000	-2.0000	-.50000

Elem	Zn2138
Units	ppm
Avg	133.57
Stddev	.03
%RSD	.02512
#1	133.55
#2	133.59
Check ?	LC Pass
High Limit	2500.0
Low Limit	-.50000

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Method: CLP5 Sample Name: 0736501/5 Operator: JYH
Comment: RE00-99-0237/5
Run Time: 07/23/99 13:08 Type: Unk Mode: CONC Corr.Fact: 240.384628

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554
Units	ppm	ppm	ppm	ppm	ppm
Avg	.57404	13030.	4.8900	3.5930	144.25
Stddev	.00207	158.	1.4426	.0602	2.30
%RSD	.36147	1.2097	29.502	1.6762	1.5974
#1	.57257	13141.	3.8699	3.6356	145.88
#2	.57551	12919.	5.9101	3.5505	142.62
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	1000.0	50000.	5000.0	5000.0	2500.0
Low Limit	-.50000	-5.0000	-1.0000	-5.0000	-.50000

Elem	Be3130	Ca3736	Cd2288	Co2286	Cr2677
Units	ppm	ppm	ppm	ppm	ppm
Avg	.76390	2257.8	.11549	9.5737	10.211
Stddev	.00413	31.5	.15627	.0113	.163
%RSD	.54067	1.3961	135.31	.11820	1.5969
#1	.76682	2280.1	.00499	9.5657	10.327
#2	.76098	2235.5	.22599	9.5817	10.096
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	250.00	50000.	2500.0	5000.0	5000.0
Low Limit	-.02500	-5.0000	-.10000	-.25000	-.25000

Elem	Cu3247	Fe2714	K_7664	Li6707	Mg2779
Units	ppm	ppm	ppm	ppm	ppm
Avg	6.9280	13934.	1490.6	10.895	2085.0
Stddev	.4540	256.	15.9	.013	8.6
%RSD	6.5524	1.8345	1.0676	.11557	.41151
#1	7.2490	14114.	1501.8	10.904	2091.0
#2	6.6070	13753.	1479.3	10.886	2078.9
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	2000.0	50000.	20000.	2000.0	50000.
Low Limit	-1.0000	-1.0000	-25.000	-5.0000	-5.0000

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203
Units	ppm	ppm	ppm	ppm	ppm
Avg	548.89	.96466	199.95	8.6273	15.841
Stddev	10.81	.15075	3.18	.0798	1.611
%RSD	1.9697	15.627	1.5913	.92528	10.170
#1	556.54	.85806	202.20	8.5709	16.980
#2	541.25	1.0713	197.70	8.6838	14.702
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	2500.0	1000.0	20000.	5000.0	10000.
Low Limit	-.50000	-5.0000	-25.000	-1.0000	-1.0000

Sample Name: 0736501/5 Run Time: 07/23/99 13:08

Elem	Sb2068	Se1960	Si2516	Sn1899	Sr2152
Units	ppm	ppm	ppm	ppm	ppm
Avg	.65876	2.2304	309.35	1.1018	28.352
Stddev	.17341	1.9646	6.38	.2751	.082
%RSD	26.324	88.082	2.0639	24.971	.29003
#1	.53614	.84123	313.86	1.2963	28.410
#2	.78138	3.6196	304.83	.90725	28.294
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	500.00	500.00	2500.0	1000.0	1000.0
Low Limit	-1.0000	-1.0000	-50.000	-5.0000	-.50000

Elem	Sr3464	Sr4077	Ti3349	Tl1908	V_2924
Units	ppm	ppm	ppm	ppm	ppm
Avg	23.993	24.693	274.16	2.9917	23.373
Stddev	1.285	.342	4.57	.3482	.902
%RSD	5.3572	1.3867	1.6664	11.640	3.8611
#1	23.084	24.935	277.39	3.2379	24.011
#2	24.902	24.451	270.93	2.7454	22.735
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	1000.0	1000.0	1000.0	500.00	5000.0
Low Limit	-.50000	-.50000	-.50000	-2.0000	-.50000

Elem	Zn2138
Units	ppm
Avg	34.403
Stddev	.537
%RSD	1.5604
#1	34.783
#2	34.023
Check ?	LC Pass
High Limit	2500.0
Low Limit	-.50000

Method: CLP5 Sample Name: 0736501 .9PS Operator: JYH
Comment: RE00-99-0237 .9PS
Run Time: 07/23/99 13:12 Type: Unk Mode: CONC Corr.Fact: 48.076923

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554
Units	ppm	ppm	ppm	ppm	ppm
Avg	9.7129	12597.	50.635	47.530	579.76
Stddev	.1502	94.	.259	.532	8.72
%RSD	1.5461	.74441	.51146	1.1198	1.5047
#1	9.6067	12531.	50.452	47.154	573.59
#2	9.8190	12663.	50.818	47.907	585.93
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	1000.0	50000.	5000.0	5000.0	2500.0
Low Limit	-.50000	-5.0000	-1.0000	-5.0000	-.50000

Elem	Be3130	Ca3736	Cd2288	Co2286	Cr2677
Units	ppm	ppm	ppm	ppm	ppm
Avg	46.864	2506.8	45.577	51.609	54.089
Stddev	.810	21.0	.705	.384	.514
%RSD	1.7278	.83963	1.5478	.74376	.95120
#1	46.292	2492.0	45.078	51.337	53.726
#2	47.437	2521.7	46.075	51.880	54.453
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	250.00	50000.	2500.0	5000.0	5000.0
Low Limit	-.02500	-5.0000	-.10000	-.25000	-.25000

Elem	Cu3247	Fe2714	K_7664	Li6707	Mg2779
Units	ppm	ppm	ppm	ppm	ppm
Avg	51.776	11639.	3712.0	481.92	2319.2
Stddev	.749	.	66.3	9.19	20.1
%RSD	1.4470	.00317	1.7855	1.9069	.86846
#1	51.246	11639.	3665.1	475.42	2304.9
#2	52.306	11639.	3758.9	488.42	2333.4
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	2000.0	50000.	20000.	2000.0	50000.
Low Limit	-1.0000	-1.0000	-25.000	-5.0000	-5.0000

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203
Units	ppm	ppm	ppm	ppm	ppm
Avg	478.16	46.588	2546.0	51.829	59.334
Stddev	.97	.770	54.3	.509	.591
%RSD	.20339	1.6527	2.1324	.98197	.99538
#1	477.47	46.043	2507.6	51.469	58.916
#2	478.85	47.132	2584.4	52.189	59.752
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	2500.0	1000.0	20000.	5000.0	10000.
Low Limit	-.50000	-5.0000	-25.000	-1.0000	-1.0000

Sample Name: 073650l .9PS Run Time: 07/23/99 13:12

Elem	Sb2068	Se1960	Si2516	Sn1899	Sr2152
Units	ppm	ppm	ppm	ppm	ppm
Avg	47.485	48.895	722.55	.86882	66.121
Stddev	1.014	.352	6.91	.05503	.630
%RSD	2.1349	.72035	.95633	6.3341	.95355
#1	46.768	48.645	717.66	.90773	65.676
#2	48.202	49.144	727.43	.82991	66.567
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	500.00	500.00	2500.0	1000.0	1000.0
Low Limit	-1.0000	-1.0000	-50.000	-5.0000	-.50000

Elem	Sr3464	Sr4077	Ti3349	Tl1908	V_2924
Units	ppm	ppm	ppm	ppm	ppm
Avg	67.016	69.241	293.26	45.472	67.261
Stddev	.966	1.297	.79	.461	1.792
%RSD	1.4407	1.8729	.26924	1.0138	2.6636
#1	66.333	68.324	292.70	45.146	65.994
#2	67.699	70.158	293.82	45.798	68.527
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	1000.0	1000.0	1000.0	500.00	5000.0
Low Limit	-.50000	-.50000	-.50000	-2.0000	-.50000

Elem	Zn2138
Units	ppm
Avg	75.352
Stddev	.655
%RSD	.86983
#1	74.888
#2	75.815
Check ?	LC Pass
High Limit	2500.0
Low Limit	-.50000

Method: CLP5 Sample Name: 0736502 Operator: JYH
Comment: RE00-99-0238
Run Time: 07/23/99 13:15 Type: Unk Mode: CONC Corr.Fact: 48.076923

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554
Units	ppm	ppm	ppm	ppm	ppm
Avg	.41947	10758.	4.5680	2.7639	89.772
Stddev	.02755	128.	.2180	.1415	.098
%RSD	6.5670	1.1891	4.7731	5.1186	.10901
#1	.43895	10849.	4.7221	2.8639	89.703
#2	.39999	10668.	4.4138	2.6638	89.841
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	1000.0	50000.	5000.0	5000.0	2500.0
Low Limit	-.50000	-5.0000	-1.0000	-5.0000	-.50000

Elem	Be3130	Ca3736	Cd2288	Co2286	Cr2677
Units	ppm	ppm	ppm	ppm	ppm
Avg	.67185	1573.5	.08485	4.8634	8.0970
Stddev	.00119	6.1	.02644	.0132	.0034
%RSD	.17735	.39001	31.156	.27085	.04234
#1	.67101	1569.1	.06615	4.8541	8.0994
#2	.67269	1577.8	.10354	4.8727	8.0946
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	250.00	50000.	2500.0	5000.0	5000.0
Low Limit	-.02500	-5.0000	-.10000	-.25000	-.25000

Elem	Cu3247	Fe2714	K_7664	Li6707	Mg2779
Units	ppm	ppm	ppm	ppm	ppm
Avg	5.9231	11512.	1354.8	9.7875	1641.8
Stddev	.0583	3.	.9	.0050	2.7
%RSD	.98466	.02715	.06391	.05132	.16602
#1	5.8818	11510.	1354.1	9.7840	1639.9
#2	5.9643	11514.	1355.4	9.7911	1643.8
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	2000.0	50000.	20000.	2000.0	50000.
Low Limit	-1.0000	-1.0000	-25.000	-5.0000	-5.0000

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203
Units	ppm	ppm	ppm	ppm	ppm
Avg	317.69	1.0723	269.49	6.6241	12.971
Stddev	.22	.0301	.23	.0544	.059
%RSD	.06776	2.8106	.08492	.82123	.45868
#1	317.84	1.0510	269.33	6.5856	12.929
#2	317.54	1.0936	269.66	6.6625	13.013
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	2500.0	1000.0	20000.	5000.0	10000.
Low Limit	-.50000	-5.0000	-25.000	-1.0000	-1.0000

Sample Name: 0736502 Run Time: 07/23/99 13:15

Elem	Sb2068	Se1960	Si2516	Sn1899	Sr2152
Units	ppm	ppm	ppm	ppm	ppm
Avg	.10015	1.4870	312.43	1.1282	17.954
Stddev	.00020	.4171	.66	.0183	.035
%RSD	.20414	28.050	.21149	1.6254	.19681
#1	.10029	1.7820	312.90	1.1152	17.979
#2	.10000	1.1921	311.97	1.1412	17.929
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	500.00	500.00	2500.0	1000.0	1000.0
Low Limit	-1.0000	-1.0000	-50.000	-5.0000	-.50000

Elem	Sr3464	Sr4077	Ti3349	Tl1908	V_2924
Units	ppm	ppm	ppm	ppm	ppm
Avg	16.649	17.652	236.47	.14130	20.809
Stddev	.008	.054	.80	.42367	.215
%RSD	.05091	.30656	.33650	299.84	1.0321
#1	16.643	17.614	235.91	.44088	20.960
#2	16.655	17.690	237.04	-.15828	20.657
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	1000.0	1000.0	1000.0	500.00	5000.0
Low Limit	-.50000	-.50000	-.50000	-2.0000	-.50000

Elem	Zn2138
Units	ppm
Avg	32.445
Stddev	.009
%RSD	.02842
#1	32.439
#2	32.452
Check ?	LC Pass
High Limit	2500.0
Low Limit	-.50000

Method: CLP5 Sample Name: 0736505 Operator: JYH
Comment: RE00-99-0239
Run Time: 07/23/99 13:19 Type: Unk Mode: CONC Corr.Fact: 50.000000

Elem	Ag3280	Al3082	As1890	B_2496
Units	ppm	ppm	ppm	ppm
Avg	-.01805	14123.	4.4661	3.0139
Stddev	.07069	60.	.3023	.0063
%RSD	391.55	.42644	6.7688	.20855
#1	-.06804	14080.	4.6799	3.0183
#2	.03193	14166.	4.2523	3.0094
Check ?	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	1000.0	50000.	5000.0	5000.0
Low Limit	-.50000	-5.0000	-1.0000	-5.0000

Elem	Ba4554	Be3130	Ca3736	Cd2288
Units	ppm	ppm	ppm	ppm
Avg	120.82	.78622	2232.0	.05811
Stddev	.52	.00717	15.4	.01608
%RSD	.43040	.91232	.69026	27.665
#1	120.45	.78115	2221.1	.04675
#2	121.18	.79129	2242.9	.06948
Check ?	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	2500.0	250.00	50000.	2500.0
Low Limit	-.50000	-.02500	-5.0000	-.10000

Elem	Co2286	Cr2677	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm
Avg	5.7363	10.478	6.9022	13777.
Stddev	.0104	.007	.2142	4.
%RSD	.18149	.06263	3.1027	.03092
#1	5.7289	10.473	6.7507	13773.
#2	5.7436	10.483	7.0536	13780.
Check ?	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	5000.0	5000.0	2000.0	50000.
Low Limit	-.25000	-.25000	-1.0000	-1.0000

Elem	K_7664	Li6707	Mg2779	Mn2576
Units	ppm	ppm	ppm	ppm
Avg	1457.9	10.872	2273.6	316.32
Stddev	11.3	.018	7.0	.06
%RSD	.77577	.16283	.30956	.01873
#1	1449.9	10.860	2268.6	316.28
#2	1465.9	10.885	2278.6	316.37
Check ?	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	20000.	2000.0	50000.	2500.0
Low Limit	-25.000	-5.0000	-5.0000	-.50000

Sample Name: 0736503 Run Time: 07/23/99 13:19

Elem	Mo2020	Na5895	Ni2316	Pb2203
Units	ppm	ppm	ppm	ppm
Avg	.64964	296.19	8.0259	12.968
Stddev	.03144	1.43	.0107	.252
%RSD	4.8396	.48207	.13305	1.9434
#1	.67187	295.18	8.0334	12.790
#2	.62741	297.19	8.0183	13.146
Check ?	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	1000.0	20000.	5000.0	10000.
Low Limit	-5.0000	-25.000	-1.0000	-1.0000

Elem	Sb2068	Se1960	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm
Avg	.27204	1.7366	303.24	.66078
Stddev	.33020	.4235	.00	.13352
%RSD	121.38	24.386	.00117	20.206
#1	.50553	2.0361	303.24	.56637
#2	.03855	1.4372	303.24	.75519
Check ?	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	500.00	500.00	2500.0	1000.0
Low Limit	-1.0000	-1.0000	-50.000	-5.0000

Elem	Sr2152	Sr3464	Sr4077	Ti3349
Units	ppm	ppm	ppm	ppm
Avg	24.277	23.729	25.377	254.00
Stddev	.137	.197	.151	1.02
%RSD	.56439	.82918	.59475	.40177
#1	24.374	23.590	25.270	253.28
#2	24.180	23.868	25.484	254.72
Check ?	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	1000.0	1000.0	1000.0	1000.0
Low Limit	-.50000	-.50000	-.50000	-.50000

Elem	Tl1908	V_2924	Zn2138
Units	ppm	ppm	ppm
Avg	-.11131	24.667	30.351
Stddev	.05607	.123	.004
%RSD	50.376	.49844	.01438
#1	-.15096	24.754	30.354
#2	-.07166	24.580	30.347
Check ?	LC Pass	LC Pass	LC Pass
High Limit	500.00	5000.0	2500.0
Low Limit	-2.0000	-.50000	-.50000

Method: CLP5 Sample Name: 0736504 Operator: JYH
Comment: RE00-99-0240
Run Time: 07/23/99 13:23 Type: Unk Mode: CONC Corr.Fact: 49.019608

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554
Units	ppm	ppm	ppm	ppm	ppm
Avg	.08125	13587.	4.2668	2.9960	127.57
Stddev	.02864	48.	.0745	.0092	.92
%RSD	35.244	.35534	1.7469	.30736	.71775
#1	.10150	13553.	4.3195	3.0025	126.93
#2	.06100	13622.	4.2141	2.9895	128.22
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	1000.0	50000.	5000.0	5000.0	2500.0
Low Limit	-.50000	-5.0000	-1.0000	-5.0000	-.50000

Elem	Be3130	Ca3736	Cd2288	Co2286	Cr2677
Units	ppm	ppm	ppm	ppm	ppm
Avg	.76058	2510.1	.09088	5.7579	10.104
Stddev	.00275	7.5	.00808	.0143	.037
%RSD	.36145	.29908	8.8943	.24772	.36201
#1	.75864	2504.8	.08516	5.7478	10.130
#2	.76252	2515.4	.09659	5.7680	10.078
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	250.00	50000.	2500.0	5000.0	5000.0
Low Limit	-.02500	-5.0000	-.10000	-.25000	-.25000

Elem	Cu3247	Fe2714	K_7664	Li6707	Mg2779
Units	ppm	ppm	ppm	ppm	ppm
Avg	6.9623	13368.	1464.6	11.174	2261.7
Stddev	.0488	1.	9.9	.066	4.3
%RSD	.70017	.00948	.67870	.59090	.19096
#1	6.9278	13368.	1457.6	11.128	2258.6
#2	6.9968	13367.	1471.7	11.221	2264.7
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	2000.0	50000.	20000.	2000.0	50000.
Low Limit	-1.0000	-1.0000	-25.000	-5.0000	-5.0000

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203
Units	ppm	ppm	ppm	ppm	ppm
Avg	326.73	.74569	270.00	7.8316	14.984
Stddev	.35	.04098	1.69	.0382	.238
%RSD	.10734	5.4954	.62529	.48770	1.5898
#1	326.98	.77466	268.80	7.8586	15.152
#2	326.48	.71671	271.19	7.8045	14.816
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	2500.0	1000.0	20000.	5000.0	10000.
Low Limit	-.50000	-5.0000	-25.000	-1.0000	-1.0000

Sample Name: 0736504 Run Time: 07/23/99 13:23

Elem	Sb2068	Se1960	Si2516	Sn1899	Sr2152
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00131	1.4503	291.96	.72717	25.257
Stddev	.25803	.0345	1.09	.05610	.057
%RSD	19742.	2.3791	.37235	7.7150	.22588
#1	.18376	1.4259	292.73	.68750	25.298
#2	-.18115	1.4747	291.19	.76684	25.217
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	500.00	500.00	2500.0	1000.0	1000.0
Low Limit	-1.0000	-1.0000	-50.000	-5.0000	-.50000

Elem	Sr3464	Sr4077	Ti3349	Tl1908	V_2924
Units	ppm	ppm	ppm	ppm	ppm
Avg	24.418	26.050	272.03	-.09424	23.907
Stddev	.334	.129	2.20	.23911	.301
%RSD	1.3668	.49485	.81041	253.71	1.2580
#1	24.182	25.959	270.48	-.26332	23.694
#2	24.654	26.142	273.59	.07483	24.120
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	1000.0	1000.0	1000.0	500.00	5000.0
Low Limit	-.50000	-.50000	-.50000	-2.0000	-.50000

Elem	Zn2138
Units	ppm
Avg	30.903
Stddev	.041
%RSD	.13215
#1	30.932
#2	30.874
Check ?	LC Pass
High Limit	2500.0
Low Limit	-.50000

Method: CLP5 Sample Name: 0736505 Operator: JYH
Comment: RE00-99-0241
Run Time: 07/23/99 13:26 Type: Unk Mode: CONC Corr.Fact: 48.076923

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554
Units	ppm	ppm	ppm	ppm	ppm
Avg	.16892	10197.	4.0332	2.6575	99.898
Stddev	.05517	197.	.1093	.0752	.413
%RSD	32.662	1.9313	2.7105	2.8311	.41353
#1	.12991	10336.	4.1105	2.7107	100.19
#2	.20794	10057.	3.9559	2.6043	99.606
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	1000.0	50000.	5000.0	5000.0	2500.0
Low Limit	-.50000	-5.0000	-1.0000	-5.0000	-.50000

Elem	Be3130	Ca3736	Cd2288	Co2286	Cr2677
Units	ppm	ppm	ppm	ppm	ppm
Avg	.65847	2194.9	.10490	4.7222	7.6907
Stddev	.00458	12.1	.01858	.0304	.0178
%RSD	.69585	.55350	17.716	.64398	.23134
#1	.66171	2203.5	.11804	4.7007	7.7033
#2	.65523	2186.4	.09176	4.7437	7.6781
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	250.00	50000.	2500.0	5000.0	5000.0
Low Limit	-.02500	-5.0000	-.10000	-.25000	-.25000

Elem	Cu3247	Fe2714	K_7664	Li6707	Mg2779
Units	ppm	ppm	ppm	ppm	ppm
Avg	6.4636	11726.	1386.1	9.8241	1558.9
Stddev	.1774	3.	11.4	.0042	8.4
%RSD	2.7453	.02194	.82205	.04274	.53845
#1	6.5891	11728.	1394.1	9.8211	1564.8
#2	6.3381	11725.	1378.0	9.8270	1553.0
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	2000.0	50000.	20000.	2000.0	50000.
Low Limit	-1.0000	-1.0000	-25.000	-5.0000	-5.0000

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203
Units	ppm	ppm	ppm	ppm	ppm
Avg	306.65	1.0574	145.30	6.6815	21.443
Stddev	.61	.0101	.91	.0136	.179
%RSD	.19902	.95193	.62311	.20326	.83651
#1	307.08	1.0645	145.94	6.6911	21.316
#2	306.22	1.0503	144.66	6.6719	21.570
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	2500.0	1000.0	20000.	5000.0	10000.
Low Limit	-.50000	-5.0000	-25.000	-1.0000	-1.0000

Sample Name: 0736505 Run Time: 07/23/99 13:26

Elem	Sb2068	Se1960	Si2516	Sn1899	Sr2152
Units	ppm	ppm	ppm	ppm	ppm
Avg	.26828	2.7698	277.69	1.0374	19.186
Stddev	.06364	.1376	.42	.0000	.086
%RSD	23.722	4.9663	.14949	.00020	.45022
#1	.22328	2.8671	277.99	1.0374	19.125
#2	.31328	2.6726	277.40	1.0374	19.247
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	500.00	500.00	2500.0	1000.0	1000.0
Low Limit	-1.0000	-1.0000	-50.000	-5.0000	-.50000

Elem	Sr3464	Sr4077	Ti3349	Tl1908	V_2924
Units	ppm	ppm	ppm	ppm	ppm
Avg	17.111	18.511	292.31	-.18466	17.966
Stddev	.070	.048	1.18	.25963	.015
%RSD	.40647	.26053	.40427	140.60	.08435
#1	17.062	18.545	293.14	-.36825	17.977
#2	17.160	18.477	291.47	-.00108	17.956
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	1000.0	1000.0	1000.0	500.00	5000.0
Low Limit	-.50000	-.50000	-.50000	-2.0000	-.50000

Elem	Zn2138
Units	ppm
Avg	87.905
Stddev	.066
%RSD	.07490
#1	87.952
#2	87.859
Check ?	LC Pass
High Limit	2500.0
Low Limit	-.50000

Method: CLP5 Sample Name: 0736506 Operator: JYH
Comment: RE00-99-0242
Run Time: 07/23/99 13:30 Type: Unk Mode: CONC Corr.Fact: 49.019608

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554
Units	ppm	ppm	ppm	ppm	ppm
Avg	.14622	9239.0	3.5994	2.7595	97.728
Stddev	.00006	35.8	.1135	.0184	.131
%RSD	.04198	.38781	3.1521	.66526	.13428
#1	.14626	9213.6	3.5192	2.7724	97.635
#2	.14617	9264.3	3.6796	2.7465	97.821
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	1000.0	50000.	5000.0	5000.0	2500.0
Low Limit	-.50000	-5.0000	-1.0000	-5.0000	-.50000

Elem	Be3130	Ca3736	Cd2288	Co2286	Cr2677
Units	ppm	ppm	ppm	ppm	ppm
Avg	.60301	3773.1	.05583	4.3979	7.1640
Stddev	.00001	15.2	.00013	.0404	.0603
%RSD	.00101	.40267	.23308	.91840	.84214
#1	.60302	3762.4	.05574	4.3694	7.1213
#2	.60301	3783.8	.05593	4.4265	7.2066
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	250.00	50000.	2500.0	5000.0	5000.0
Low Limit	-.02500	-5.0000	-.10000	-.25000	-.25000

Elem	Cu3247	Fe2714	K_7664	Li6707	Mg2779
Units	ppm	ppm	ppm	ppm	ppm
Avg	6.8457	11079.	1298.3	8.9564	1517.1
Stddev	.1982	41.	6.7	.0478	3.8
%RSD	2.8958	.37418	.51823	.53339	.24876
#1	6.9859	11050.	1293.5	8.9226	1514.5
#2	6.7055	11108.	1303.1	8.9902	1519.8
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	2000.0	50000.	20000.	2000.0	50000.
Low Limit	-1.0000	-1.0000	-25.000	-5.0000	-5.0000

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203
Units	ppm	ppm	ppm	ppm	ppm
Avg	283.39	1.0379	193.52	6.1148	15.429
Stddev	1.77	.0051	1.43	.0217	.255
%RSD	.62465	.48753	.73923	.35526	1.6542
#1	282.14	1.0343	192.51	6.0994	15.248
#2	284.64	1.0415	194.53	6.1301	15.609
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	2500.0	1000.0	20000.	5000.0	10000.
Low Limit	-.50000	-5.0000	-25.000	-1.0000	-1.0000

Sample Name: 0736506 Run Time: 07/23/99 13:30

Elem	Sb2068	Se1960	Si2516	Sn1899	Sr2152
Units	ppm	ppm	ppm	ppm	ppm
Avg	.11884	2.5810	264.80	.95197	21.524
Stddev	.03545	.2103	1.62	.11219	.228
%RSD	29.833	8.1485	.61328	11.785	1.0602
#1	.14391	2.7297	263.65	1.0313	21.685
#2	.09377	2.4323	265.95	.87264	21.363
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	500.00	500.00	2500.0	1000.0	1000.0
Low Limit	-1.0000	-1.0000	-50.000	-5.0000	-.50000

Elem	Sr3464	Sr4077	Ti3349	Tl1908	V_2924
Units	ppm	ppm	ppm	ppm	ppm
Avg	19.811	21.592	267.25	-.15061	16.992
Stddev	.015	.102	.29	.02442	.372
%RSD	.07737	.47428	.10983	16.211	2.1896
#1	19.800	21.519	267.46	-.16788	17.255
#2	19.822	21.664	267.04	-.13335	16.729
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	1000.0	1000.0	1000.0	500.00	5000.0
Low Limit	-.50000	-.50000	-.50000	-2.0000	-.50000

Elem	Zn2138
Units	ppm
Avg	55.144
Stddev	.282
%RSD	.51106
#1	54.945
#2	55.344
Check ?	LC Pass
High Limit	2500.0
Low Limit	-.50000

Method: CLP5 Sample Name: CCV Operator:
Comment:
Run Time: 07/23/99 13:34 Type: QC Mode: CONC Corr.Fact: 1.000000

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554
Units	ppm	ppm	ppm	ppm	ppm
Avg	.39814	9.9310	.40523	10.035	.98182
Stddev	.00141	.0807	.00684	.022	.00325
%RSD	.35512	.81269	1.6879	.21780	.33145
#1	.39714	9.8740	.41006	10.050	.97952
#2	.39914	9.9881	.40039	10.019	.98412
Check ?	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.40000	10.000	.40000	10.000	1.0000
Range	10.000%	10.000%	10.000%	10.000%	10.000%

Elem	Be3130	Ca3736	Cd2288	Co2286	Cr2677
Units	ppm	ppm	ppm	ppm	ppm
Avg	.04955	9.9623	.05071	.19845	.50577
Stddev	.00008	.0452	.00015	.00017	.00173
%RSD	.16360	.45417	.29350	.08662	.34212
#1	.04961	9.9303	.05082	.19833	.50699
#2	.04949	9.9943	.05061	.19857	.50454
Check ?	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.05000	10.000	.05000	.20000	.50000
Range	10.000%	10.000%	10.000%	10.000%	10.000%

Elem	Cu3247	Fe2714	K_7664	Li6707	Mg2779
Units	ppm	ppm	ppm	ppm	ppm
Avg	.49952	4.0205	50.283	.98949	9.9915
Stddev	.00429	.0028	.239	.00010	.1648
%RSD	.85849	.06947	.47568	.01011	1.6495
#1	.50255	4.0225	50.452	.98942	9.8750
#2	.49649	4.0185	50.114	.98956	10.108
Check ?	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.50000	4.0000	50.000	1.0000	10.000
Range	10.000%	10.000%	10.000%	10.000%	10.000%

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203
Units	ppm	ppm	ppm	ppm	ppm
Avg	.50327	1.0348	50.978	.50467	.50736
Stddev	.00088	.0014	.319	.00087	.00001
%RSD	.17496	.13591	.62591	.17239	.00163
#1	.50390	1.0358	51.204	.50528	.50737
#2	.50265	1.0338	50.752	.50405	.50736
Check ?	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.50000	1.0000	50.000	.50000	.50000
Range	10.000%	10.000%	10.000%	10.000%	10.000%

Sample Name: CCV Run Time: 07/23/99 13:34

Elem	Sb2068	Se1960	Si2516	Sn1899	Sr2152
Units	ppm	ppm	ppm	ppm	ppm
Avg	1.2152	.39342	4.9921	1.0315	1.0130
Stddev	.0013	.00265	.0139	.0039	.0039
%RSD	.10515	.67318	.27885	.37427	.38310
#1	1.2143	.39529	5.0019	1.0343	1.0158
#2	1.2161	.39155	4.9822	1.0288	1.0103
Check ?	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	1.2000	.40000	5.0000	1.0000	1.0000
Range	10.000%	10.000%	10.000%	10.000%	10.000%

Elem	Sr3464	Sr4077	Ti3349	Tl1908	V_2924
Units	ppm	ppm	ppm	ppm	ppm
Avg	.99183	.98691	1.0043	.51534	1.0063
Stddev	.00331	.00270	.0010	.00440	.0020
%RSD	.33335	.27357	.10073	.85355	.20155
#1	.98949	.98500	1.0050	.51223	1.0049
#2	.99416	.98882	1.0036	.51845	1.0078
Check ?	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	1.0000	1.0000	1.0000	.50000	1.0000
Range	10.000%	10.000%	10.000%	10.000%	10.000%

Elem	Zn2138
Units	ppm
Avg	1.0138
Stddev	.0017
%RSD	.16765
#1	1.0150
#2	1.0126
Check ?	QC Pass
Value	1.0000
Range	10.000%

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Method: CLP5 Sample Name: CCB Operator:
Comment:
Run Time: 07/23/99 13:41 Type: Blank Mode: CONC Corr.Fact: 1.000000

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00058	-.00255	.00321	.00481	.00007
Stddev	.00000	.02804	.00529	.00056	.00015
%RSD	.44073	1098.1	164.73	11.708	218.61
#1	.00058	.01727	.00695	.00521	-.00004
#2	.00058	-.02238	-.00053	.00441	.00017
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	.00500	.05000	.01000	.05000	.00250
Low Limit	-.00500	-.05000	-.01000	-.05000	-.00250

Elem	Be3130	Ca3736	Cd2288	Co2286	Cr2677
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00002	-.00738	-.00014	.00017	-.00021
Stddev	.00001	.00200	.00016	.00015	.00010
%RSD	36.358	27.139	113.24	91.045	47.712
#1	-.00003	-.00597	-.00025	.00027	-.00028
#2	-.00002	-.00880	-.00003	.00006	-.00014
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	.00025	.05000	.00100	.00250	.00250
Low Limit	-.00025	-.05000	-.00100	-.00250	-.00250

Elem	Cu3247	Fe2714	K_7664	Li6707	Mg2779
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00062	.00145	-.08946	.00009	.03073
Stddev	.00032	.00305	.04339	.00029	.00037
%RSD	52.056	211.12	48.501	337.52	1.1898
#1	-.00039	.00360	-.12015	-.00012	.03099
#2	-.00084	-.00071	-.05878	.00029	.03047
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	.01000	.02000	.25000	.05000	.10000
Low Limit	-.01000	-.02000	-.25000	-.05000	-.10000

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00009	.00236	-.00765	-.00015	-.00482
Stddev	.00001	.00105	.00191	.00014	.00227
%RSD	8.5842	44.355	24.922	91.881	47.059
#1	-.00010	.00310	-.00630	-.00005	-.00642
#2	-.00009	.00162	-.00900	-.00025	-.00321
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	.00250	.05000	.10000	.01000	.01000
Low Limit	-.00250	-.05000	-.10000	-.01000	-.01000

Sample Name: CCB Run Time: 07/23/99 13:41

Elem	Sb2068	Se1960	Si2516	Sn1899	Sr2152
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00368	-.00370	.00126	-.00054	-.00033
Stddev	.00001	.00197	.00108	.00229	.00125
%RSD	.13689	53.276	86.391	422.39	374.74
#1	-.00368	-.00510	.00202	.00108	.00055
#2	-.00369	-.00231	.00049	-.00216	-.00121
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	.03000	.01000	.25000	.20000	.00500
Low Limit	-.03000	-.01000	-.25000	-.20000	-.00500

Elem	Sr3464	Sr4077	Ti3349	Tl1908	V_2924
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00459	.00001	.00041	-.00197	.00118
Stddev	.00585	.00003	.00082	.00202	.00207
%RSD	127.63	269.01	202.89	102.68	174.73
#1	.00045	.00003	-.00018	-.00054	.00265
#2	.00873	-.00001	.00099	-.00340	-.00028
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	.00500	.00500	.01500	.02000	.00798
Low Limit	-.00500	-.00500	-.01500	-.02000	-.00798

Elem	Zn2138
Units	ppm
Avg	.00042
Stddev	.00011
%RSD	27.261
#1	.00050
#2	.00034
Check ?	LC Pass
High Limit	.01000
Low Limit	-.01000

Method: CLP5 Sample Name: 0737301 Operator: JYH
Comment: RE00-99-0243
Run Time: 07/23/99 13:44 Type: Unk Mode: CONC Corr.Fact: 48.076923

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554
Units	ppm	ppm	ppm	ppm	ppm
Avg	.01796	9599.0	3.6464	2.3403	80.198
Stddev	.11033	34.1	.0013	.0120	.690
%RSD	614.18	.35490	.03493	.51494	.86013
#1	.09598	9575.0	3.6455	2.3318	79.710
#2	-.06005	9623.1	3.6473	2.3488	80.686
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	1000.0	50000.	5000.0	5000.0	2500.0
Low Limit	-.50000	-5.0000	-1.0000	-5.0000	-.50000

Elem	Be3130	Ca3736	Cd2288	Co2286	Cr2677
Units	ppm	ppm	ppm	ppm	ppm
Avg	.64024	2601.1	.08703	4.0478	7.4332
Stddev	.00350	18.2	.03380	.0094	.0191
%RSD	.54740	.69814	38.840	.23229	.25645
#1	.63776	2588.3	.06313	4.0544	7.4197
#2	.64272	2614.0	.11093	4.0411	7.4466
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	250.00	50000.	2500.0	5000.0	5000.0
Low Limit	-.02500	-5.0000	-.10000	-.25000	-.25000

Elem	Cu3247	Fe2714	K_7664	Li6707	Mg2779
Units	ppm	ppm	ppm	ppm	ppm
Avg	5.2106	10469.	1060.5	9.0934	1737.5
Stddev	.0767	28.	11.2	.0882	12.8
%RSD	1.4716	.27168	1.0585	.97029	.73815
#1	5.1563	10448.	1052.6	9.0310	1728.4
#2	5.2648	10489.	1068.4	9.1558	1746.6
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	2000.0	50000.	20000.	2000.0	50000.
Low Limit	-1.0000	-1.0000	-25.000	-5.0000	-5.0000

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203
Units	ppm	ppm	ppm	ppm	ppm
Avg	238.72	1.0779	162.90	7.3826	18.376
Stddev	.13	.0704	1.24	.0074	.127
%RSD	.05431	6.5333	.76190	.09970	.69049
#1	238.63	1.1277	162.02	7.3774	18.466
#2	238.81	1.0281	163.77	7.3878	18.286
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	2500.0	1000.0	20000.	5000.0	10000.
Low Limit	-.50000	-5.0000	-25.000	-1.0000	-1.0000

Sample Name: 0737301 Run Time: 07/23/99 13:44

Elem	Sb2068	Se1960	Si2516	Sn1899	Sr2152
Units	ppm	ppm	ppm	ppm	ppm
Avg	.53957	1.1149	254.54	.94663	20.250
Stddev	.16020	.3284	.19	.09170	.273
%RSD	29.690	29.457	.07621	9.6872	1.3459
#1	.65285	.88265	254.68	1.0115	20.057
#2	.42630	1.3471	254.40	.88178	20.442
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	500.00	500.00	2500.0	1000.0	1000.0
Low Limit	-1.0000	-1.0000	-50.000	-5.0000	-.50000

Elem	Sr3464	Sr4077	Ti3349	Tl1908	V_2924
Units	ppm	ppm	ppm	ppm	ppm
Avg	18.953	20.650	188.84	-.43093	14.689
Stddev	.204	.092	2.68	.22230	.111
%RSD	1.0788	.44321	1.4207	51.587	.75775
#1	19.097	20.585	186.94	-.58812	14.610
#2	18.808	20.715	190.74	-.27374	14.768
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	1000.0	1000.0	1000.0	500.00	5000.0
Low Limit	-.50000	-.50000	-.50000	-2.0000	-.50000

Elem	Zn2138
Units	ppm
Avg	36.257
Stddev	.067
%RSD	.18575
#1	36.209
#2	36.304
Check ?	LC Pass
High Limit	2500.0
Low Limit	-.50000

Method: CLP5 Sample Name: 0737302 Operator: JYH
Comment: RE00-99-0244
Run Time: 07/23/99 13:48 Type: Unk Mode: CONC Corr.Fact: 50.000000

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554
Units	ppm	ppm	ppm	ppm	ppm
Avg	.20459	7397.0	3.1683	2.0997	71.144
Stddev	.21286	1.7	.1127	.0094	.079
%RSD	104.04	.02247	3.5564	.44758	.11073
#1	.05408	7395.8	3.2480	2.1064	71.088
#2	.35510	7398.2	3.0886	2.0931	71.200
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	1000.0	50000.	5000.0	5000.0	2500.0
Low Limit	-.50000	-5.0000	-1.0000	-5.0000	-.50000

Elem	Be3130	Ca3736	Cd2288	Co2286	Cr2677
Units	ppm	ppm	ppm	ppm	ppm
Avg	.48337	2990.5	.11307	3.7121	7.4060
Stddev	.00281	3.7	.00954	.0056	.0088
%RSD	.58144	.12261	8.4406	.15001	.11917
#1	.48138	2987.9	.11982	3.7082	7.4122
#2	.48536	2993.1	.10632	3.7160	7.3998
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	250.00	50000.	2500.0	5000.0	5000.0
Low Limit	-.02500	-5.0000	-.10000	-.25000	-.25000

Elem	Cu3247	Fe2714	K_7664	Li6707	Mg2779
Units	ppm	ppm	ppm	ppm	ppm
Avg	5.8978	18760.	981.57	7.6724	1341.7
Stddev	.0634	19.	2.75	.0157	10.5
%RSD	1.0757	.10267	.27978	.20512	.78189
#1	5.8529	18747.	983.51	7.6836	1334.3
#2	5.9426	18774.	979.63	7.6613	1349.1
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	2000.0	50000.	20000.	2000.0	50000.
Low Limit	-1.0000	-1.0000	-25.000	-5.0000	-5.0000

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203
Units	ppm	ppm	ppm	ppm	ppm
Avg	214.45	.66572	179.56	5.3510	156.89
Stddev	.47	.09948	.59	.0604	.06
%RSD	.21950	14.943	.32790	1.1291	.04039
#1	214.78	.59538	179.97	5.3083	156.93
#2	214.11	.73607	179.14	5.3938	156.84
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	2500.0	1000.0	20000.	5000.0	10000.
Low Limit	-.50000	-5.0000	-25.000	-1.0000	-1.0000

Sample Name: 0737302 Run Time: 07/23/99 13:48

Elem	Sb2068	Se1960	Si2516	Sn1899	Sr2152
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.13207	1.5365	287.75	.90357	17.787
Stddev	.13241	.1246	.44	.09537	.259
%RSD	100.26	8.1108	.15146	10.555	1.4559
#1	-.03844	1.6246	288.05	.83613	17.604
#2	-.22570	1.4484	287.44	.97101	17.971
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	500.00	500.00	2500.0	1000.0	1000.0
Low Limit	-1.0000	-1.0000	-50.000	-5.0000	-.50000

Elem	Sr3464	Sr4077	Ti3349	Tl1908	V_2924
Units	ppm	ppm	ppm	ppm	ppm
Avg	16.827	18.291	219.03	-.50240	14.831
Stddev	.079	.012	1.39	.07964	.152
%RSD	.46929	.06521	.63680	15.852	1.0241
#1	16.883	18.282	218.04	-.44609	14.724
#2	16.771	18.299	220.01	-.55871	14.938
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	1000.0	1000.0	1000.0	500.00	5000.0
Low Limit	-.50000	-.50000	-.50000	-2.0000	-.50000

Elem	Zn2138
Units	ppm
Avg	35.653
Stddev	.002
%RSD	.00527
#1	35.652
#2	35.655
Check ?	LC Pass
High Limit	2500.0
Low Limit	-.50000

Method: CLP5 Sample Name: 0737303 Operator: JYH
Comment: RE00-99-0245
Run Time: 07/23/99 13:52 Type: Unk Mode: CONC Corr.Fact: 45.454544

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554
Units	ppm	ppm	ppm	ppm	ppm
Avg	.11881	9244.8	3.3537	2.4642	95.828
Stddev	.00052	66.9	.0331	.0256	.692
%RSD	.43991	.72397	.98742	1.0399	.72188
#1	.11844	9292.1	3.3771	2.4461	96.318
#2	.11918	9197.4	3.3303	2.4823	95.339
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	1000.0	50000.	5000.0	5000.0	2500.0
Low Limit	-.50000	-5.0000	-1.0000	-5.0000	-.50000

Elem	Be3130	Ca3736	Cd2288	Co2286	Cr2677
Units	ppm	ppm	ppm	ppm	ppm
Avg	.57080	2932.0	.11372	4.1157	8.1634
Stddev	.00548	15.5	.01389	.0067	.0289
%RSD	.96072	.52999	12.213	.16373	.35342
#1	.57468	2943.0	.10390	4.1109	8.1430
#2	.56692	2921.0	.12354	4.1205	8.1838
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	250.00	50000.	2500.0	5000.0	5000.0
Low Limit	-.02500	-5.0000	-.10000	-.25000	-.25000

Elem	Cu3247	Fe2714	K_7664	Li6707	Mg2779
Units	ppm	ppm	ppm	ppm	ppm
Avg	6.1796	10351.	1171.2	8.6705	1718.5
Stddev	.0151	25.	13.0	.1348	14.1
%RSD	.24409	.23751	1.1072	1.5543	.82049
#1	6.1903	10334.	1180.4	8.7658	1728.5
#2	6.1690	10369.	1162.1	8.5753	1708.5
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	2000.0	50000.	20000.	2000.0	50000.
Low Limit	-1.0000	-1.0000	-25.000	-5.0000	-5.0000

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203
Units	ppm	ppm	ppm	ppm	ppm
Avg	260.54	.63981	190.77	6.3190	19.421
Stddev	.37	.00477	3.52	.0090	.140
%RSD	.14076	.74532	1.8437	.14313	.71906
#1	260.28	.63644	193.25	6.3254	19.520
#2	260.80	.64318	188.28	6.3126	19.323
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	2500.0	1000.0	20000.	5000.0	10000.
Low Limit	-.50000	-5.0000	-25.000	-1.0000	-1.0000

Sample Name: 0737303 Run Time: 07/23/99 13:52

Elem	Sb2068	Se1960	Si2516	Sn1899	Sr2152
Units	ppm	ppm	ppm	ppm	ppm
Avg	.20147	1.2293	287.35	.83368	21.715
Stddev	.48114	.0249	.38	.10404	.230
%RSD	238.81	2.0271	.13347	12.479	1.0609
#1	.54169	1.2469	287.08	.90725	21.552
#2	-.13874	1.2116	287.62	.76011	21.878
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	500.00	500.00	2500.0	1000.0	1000.0
Low Limit	-1.0000	-1.0000	-50.000	-5.0000	-.50000

Elem	Sr3464	Sr4077	Ti3349	Tl1908	V_2924
Units	ppm	ppm	ppm	ppm	ppm
Avg	20.697	22.189	243.49	-.30468	17.409
Stddev	.109	.197	1.63	.35456	.030
%RSD	.52504	.88916	.66768	116.37	.17288
#1	20.774	22.329	244.64	-.55539	17.388
#2	20.621	22.050	242.34	-.05397	17.430
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	1000.0	1000.0	1000.0	500.00	5000.0
Low Limit	-.50000	-.50000	-.50000	-2.0000	-.50000

Elem	Zn2138
Units	ppm
Avg	31.716
Stddev	.108
%RSD	.34027
#1	31.639
#2	31.792
Check ?	LC Pass
High Limit	2500.0
Low Limit	-.50000

Method: CLP5 Sample Name: 0737304 Operator: JYH
Comment: RE00-99-0246
Run Time: 07/23/99 13:55 Type: Unk Mode: CONC Corr.Fact: 47.169815

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554
Units	ppm	ppm	ppm	ppm	ppm
Avg	.06294	6550.8	2.8775	2.4757	70.033
Stddev	.02673	21.7	.0720	.1241	.320
%RSD	42.465	.33121	2.5026	5.0110	.45666
#1	.08184	6566.2	2.9285	2.5635	70.259
#2	.04404	6535.5	2.8266	2.3880	69.807
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	1000.0	50000.	5000.0	5000.0	2500.0
Low Limit	-.50000	-5.0000	-1.0000	-5.0000	-.50000

Elem	Be3130	Ca3736	Cd2288	Co2286	Cr2677
Units	ppm	ppm	ppm	ppm	ppm
Avg	.47686	1205.9	.10885	3.3583	5.3402
Stddev	.00039	3.3	.01071	.0518	.0191
%RSD	.08083	.27733	9.8392	1.5423	.35716
#1	.47713	1208.2	.10128	3.3949	5.3537
#2	.47659	1203.5	.11642	3.3217	5.3267
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	250.00	50000.	2500.0	5000.0	5000.0
Low Limit	-.02500	-5.0000	-.10000	-.25000	-.25000

Elem	Cu3247	Fe2714	K_7664	Li6707	Mg2779
Units	ppm	ppm	ppm	ppm	ppm
Avg	4.5638	8332.6	1072.5	6.4591	1110.1
Stddev	.0146	11.8	8.8	.0140	9.4
%RSD	.31880	.14147	.82055	.21680	.84550
#1	4.5535	8340.9	1078.7	6.4690	1116.8
#2	4.5740	8324.2	1066.3	6.4492	1103.5
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	2000.0	50000.	20000.	2000.0	50000.
Low Limit	-1.0000	-1.0000	-25.000	-5.0000	-5.0000

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203
Units	ppm	ppm	ppm	ppm	ppm
Avg	226.17	.79499	378.37	4.4621	8.8820
Stddev	.09	.00494	1.68	.0131	.0432
%RSD	.03961	.62082	.44310	.29299	.48690
#1	226.24	.79848	379.56	4.4528	8.8514
#2	226.11	.79150	377.19	4.4713	8.9125
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	2500.0	1000.0	20000.	5000.0	10000.
Low Limit	-.50000	-5.0000	-25.000	-1.0000	-1.0000

Sample Name: 0737304 Run Time: 07/23/99 13:55

Elem	Sb2068	Se1960	Si2516	Sn1899	Sr2152
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.17089	.90104	290.48	.94149	15.118
Stddev	.12353	.39867	.08	.03598	.060
%RSD	72.287	44.245	.02717	3.8215	.39873
#1	-.08354	.61914	290.53	.91605	15.160
#2	-.25824	1.1829	290.42	.96693	15.075
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	500.00	500.00	2500.0	1000.0	1000.0
Low Limit	-1.0000	-1.0000	-50.000	-5.0000	-.50000

Elem	Sr3464	Sr4077	Ti3349	Tl1908	V_2924
Units	ppm	ppm	ppm	ppm	ppm
Avg	13.593	14.359	220.37	-.47671	11.440
Stddev	.075	.064	.27	.13465	.050
%RSD	.55094	.44249	.12268	28.245	.43391
#1	13.646	14.404	220.56	-.38150	11.405
#2	13.540	14.314	220.18	-.57192	11.475
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	1000.0	1000.0	1000.0	500.00	5000.0
Low Limit	-.50000	-.50000	-.50000	-2.0000	-.50000

Elem	Zn2138
Units	ppm
Avg	37.189
Stddev	.026
%RSD	.07044
#1	37.207
#2	37.170
Check ?	LC Pass
High Limit	2500.0
Low Limit	-.50000

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Method: CLP5 Sample Name: 0737305 Operator: JYH
Comment: RE00-99-0249
Run Time: 07/23/99 13:59 Type: Unk Mode: CONC Corr.Fact: 47.619049

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554
Units	ppm	ppm	ppm	ppm	ppm
Avg	.21233	8393.7	3.3787	2.9821	87.078
Stddev	.05467	27.3	.2511	.1163	.067
%RSD	25.748	.32475	7.4332	3.8991	.07736
#1	.25099	8374.4	3.5563	2.8998	87.030
#2	.17367	8413.0	3.2011	3.0643	87.125
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	1000.0	50000.	5000.0	5000.0	2500.0
Low Limit	-.50000	-5.0000	-1.0000	-5.0000	-.50000

Elem	Be3130	Ca3736	Cd2288	Co2286	Cr2677
Units	ppm	ppm	ppm	ppm	ppm
Avg	.60687	1530.7	.07763	3.6577	6.2509
Stddev	.00076	1.2	.04040	.0105	.0092
%RSD	.12460	.08106	52.045	.28647	.14685
#1	.60740	1529.8	.10620	3.6651	6.2444
#2	.60633	1531.6	.04906	3.6503	6.2574
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	250.00	50000.	2500.0	5000.0	5000.0
Low Limit	-.02500	-5.0000	-.10000	-.25000	-.25000

Elem	Cu3247	Fe2714	K_7664	Li6707	Mg2779
Units	ppm	ppm	ppm	ppm	ppm
Avg	5.5784	10517.	1324.9	8.1433	1343.2
Stddev	.1031	20.	11.4	.0404	11.0
%RSD	1.8474	.19162	.86059	.49571	.82124
#1	5.5055	10503.	1316.8	8.1147	1335.4
#2	5.6512	10531.	1332.9	8.1718	1351.0
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	2000.0	50000.	20000.	2000.0	50000.
Low Limit	-1.0000	-1.0000	-25.000	-5.0000	-5.0000

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203
Units	ppm	ppm	ppm	ppm	ppm
Avg	264.68	.97604	715.22	5.5305	10.574
Stddev	.25	.02990	6.86	.0004	.427
%RSD	.09268	3.0636	.95873	.00783	4.0360
#1	264.51	.95489	710.37	5.5302	10.272
#2	264.85	.99718	720.07	5.5308	10.876
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	2500.0	1000.0	20000.	5000.0	10000.
Low Limit	-.50000	-5.0000	-25.000	-1.0000	-1.0000

Sample Name: 0737305 Run Time: 07/23/99 13:59

Elem	Sb2068	Se1960	Si2516	Sn1899	Sr2152
Units	ppm	ppm	ppm	ppm	ppm
Avg	.08765	1.0865	341.36	1.1560	17.012
Stddev	.34422	.6357	.02	.0727	.038
%RSD	392.73	58.509	.00570	6.2857	.22081
#1	-.15575	.63700	341.37	1.2074	16.985
#2	.33105	1.5360	341.34	1.1046	17.038
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	500.00	500.00	2500.0	1000.0	1000.0
Low Limit	-1.0000	-1.0000	-50.000	-5.0000	-.50000

Elem	Sr3464	Sr4077	Ti3349	Tl1908	V_2924
Units	ppm	ppm	ppm	ppm	ppm
Avg	14.816	16.301	280.47	-.32677	14.623
Stddev	.370	.017	1.47	.16177	.035
%RSD	2.4947	.10533	.52271	49.506	.24038
#1	14.554	16.289	279.43	-.44116	14.648
#2	15.077	16.313	281.50	-.21238	14.598
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	1000.0	1000.0	1000.0	500.00	5000.0
Low Limit	-.50000	-.50000	-.50000	-2.0000	-.50000

Elem	Zn2138
Units	ppm
Avg	41.459
Stddev	.130
%RSD	.31311
#1	41.367
#2	41.551
Check ?	LC Pass
High Limit	2500.0
Low Limit	-.50000

Method: CLP5 Sample Name: 073/306 Operator: JYH
Comment: RE00-99-0250
Run Time: 07/23/99 14:03 Type: Unk Mode: CONC Corr.Fact: 46.296295

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00466	7087.1	3.1704	2.2639	68.819
Stddev	.01329	14.1	.2787	.0319	.116
%RSD	284.98	.19888	8.7908	1.4077	.16870
#1	-.00473	7077.1	3.3675	2.2864	68.901
#2	.01406	7097.1	2.9733	2.2414	68.737
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	1000.0	50000.	5000.0	5000.0	2500.0
Low Limit	-.50000	-5.0000	-1.0000	-5.0000	-.50000

Elem	Be3130	Ca3736	Cd2288	Co2286	Cr2677
Units	ppm	ppm	ppm	ppm	ppm
Avg	.55616	1314.4	.07699	2.9111	4.9027
Stddev	.00038	1.7	.01464	.0070	.0172
%RSD	.06809	.12927	19.012	.24017	.35124
#1	.55643	1313.2	.06664	2.9061	4.9148
#2	.55589	1315.6	.08734	2.9160	4.8905
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	250.00	50000.	2500.0	5000.0	5000.0
Low Limit	-.02500	-5.0000	-.10000	-.25000	-.25000

Elem	Cu3247	Fe2714	K_7664	Li6707	Mg2779
Units	ppm	ppm	ppm	ppm	ppm
Avg	4.2412	9472.8	1014.3	6.8235	1047.3
Stddev	.0724	38.0	5.3	.0418	3.5
%RSD	1.7081	.40072	.51952	.61262	.33811
#1	4.2925	9446.0	1018.0	6.8530	1044.8
#2	4.1900	9499.7	1010.6	6.7939	1049.8
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	2000.0	50000.	20000.	2000.0	50000.
Low Limit	-1.0000	-1.0000	-25.000	-5.0000	-5.0000

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203
Units	ppm	ppm	ppm	ppm	ppm
Avg	241.80	1.1197	419.81	4.5988	8.7834
Stddev	1.20	.0291	2.45	.0204	.3716
%RSD	.49823	2.5991	.58325	.44415	4.2310
#1	240.95	1.1403	421.54	4.5844	9.0462
#2	242.65	1.0991	418.08	4.6133	8.5207
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	2500.0	1000.0	20000.	5000.0	10000.
Low Limit	-.50000	-5.0000	-25.000	-1.0000	-1.0000

Sample Name: 0737306 Run Time: 07/23/99 14:03

Elem	Sb2068	Se1960	Si2516	Sn1899	Sr2152
Units	ppm	ppm	ppm	ppm	ppm
Avg	.08958	1.0867	348.05	1.0365	12.596
Stddev	.02846	.0136	1.14	.0883	.037
%RSD	31.769	1.2513	.32722	8.5209	.29257
#1	.06946	1.0771	347.25	.97401	12.570
#2	.10970	1.0963	348.86	1.0989	12.622
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	500.00	500.00	2500.0	1000.0	1000.0
Low Limit	-1.0000	-1.0000	-50.000	-5.0000	-.50000

Elem	Sr3464	Sr4077	Ti3349	Tl1908	V_2924
Units	ppm	ppm	ppm	ppm	ppm
Avg	11.372	12.303	241.91	-.62066	11.929
Stddev	.102	.006	.72	.05598	.129
%RSD	.90109	.05130	.29883	9.0197	1.0835
#1	11.299	12.308	242.42	-.58108	12.020
#2	11.444	12.299	241.39	-.66025	11.838
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	1000.0	1000.0	1000.0	500.00	5000.0
Low Limit	-.50000	-.50000	-.50000	-2.0000	-.50000

Elem	Zn2138
Units	ppm
Avg	42.031
Stddev	.228
%RSD	.54357
#1	41.870
#2	42.193
Check ?	LC Pass
High Limit	2500.0
Low Limit	-.50000

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Method: CLP5 Sample Name: 0736401 Operator: JYH
Comment:
Run Time: 07/23/99 14:06 Type: Unk Mode: CONC Corr.Fact: 50.000000

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554
Units	ppm	ppm	ppm	ppm	ppm
Avg	.04128	715.59	18.901	110.52	37.945
Stddev	.07011	2.62	.153	.41	.267
%RSD	169.84	.36651	.80748	.36793	.70484
#1	.09085	717.44	18.793	110.24	38.134
#2	-.00830	713.73	19.008	110.81	37.756
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	1000.0	50000.	5000.0	5000.0	2500.0
Low Limit	-.50000	-5.0000	-1.0000	-5.0000	-.50000

Elem	Be3130	Ca3736	Cd2288	Co2286	Cr2677
Units	ppm	ppm	ppm	ppm	ppm
Avg	3.1481	957.03	.13690	3.8482	7.2986
Stddev	.0252	3.91	.02133	.0639	.0300
%RSD	.79978	.40819	15.583	1.6617	.41111
#1	3.1659	959.80	.12182	3.8030	7.2774
#2	3.1303	954.27	.15198	3.8934	7.3198
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	250.00	50000.	2500.0	5000.0	5000.0
Low Limit	-.02500	-5.0000	-.10000	-.25000	-.25000

Elem	Cu3247	Fe2714	K_7664	Li6707	Mg2779
Units	ppm	ppm	ppm	ppm	ppm
Avg	12.550	6293.0	142.36	2.9224	194.25
Stddev	.140	28.7	.12	.0613	1.64
%RSD	1.1137	.45528	.08276	2.0970	.84466
#1	12.649	6272.7	142.44	2.9658	195.41
#2	12.452	6313.3	142.27	2.8791	193.09
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	2000.0	50000.	20000.	2000.0	50000.
Low Limit	-1.0000	-1.0000	-25.000	-5.0000	-5.0000

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203
Units	ppm	ppm	ppm	ppm	ppm
Avg	10.510	5.7909	53.049	21.596	18.803
Stddev	.064	.0314	.303	.107	.138
%RSD	.60658	.54195	.57056	.49478	.73655
#1	10.465	5.7687	53.263	21.521	18.705
#2	10.555	5.8131	52.835	21.672	18.900
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	2500.0	1000.0	20000.	5000.0	10000.
Low Limit	-.50000	-5.0000	-25.000	-1.0000	-1.0000

Sample Name: 075401 Run Time: 07/23/99 14:06

Elem	Sb2068	Se1960	Si2516	Sn1899	Sr2152
Units	ppm	ppm	ppm	ppm	ppm
Avg	.36434	4.5373	313.72	1.2543	19.660
Stddev	.06438	.1087	.80	.0954	.053
%RSD	17.669	2.3966	.25527	7.6039	.26923
#1	.31882	4.4605	313.15	1.1868	19.698
#2	.40986	4.6142	314.28	1.3217	19.623
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	500.00	500.00	2500.0	1000.0	1000.0
Low Limit	-1.0000	-1.0000	-50.000	-5.0000	-.50000

Elem	Sr3464	Sr4077	Ti3349	Tl1908	V_2924
Units	ppm	ppm	ppm	ppm	ppm
Avg	18.400	19.666	285.68	L -4.4057	12.343
Stddev	.182	.049	2.73	.3726	.017
%RSD	.98759	.24995	.95581	8.4578	.13935
#1	18.528	19.701	287.61	-4.1422	12.355
#2	18.271	19.631	283.75	-4.6692	12.331
Check ?	LC Pass	LC Pass	LC Pass	LC Fail	LC Pass
High Limit	1000.0	1000.0	1000.0	500.00	5000.0
Low Limit	-.50000	-.50000	-.50000	-2.0000	-.50000

Elem	Zn2138
Units	ppm
Avg	77.478
Stddev	.452
%RSD	.58402
#1	77.158
#2	77.798
Check ?	LC Pass
High Limit	2500.0
Low Limit	-.50000

Method. CLP5 Sample Name: CCV Operator:
Comment:
Run Time: 07/23/99 14:12 Type: QC Mode: CONC Corr.Fact: 1.000000

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554
Units	ppm	ppm	ppm	ppm	ppm
Avg	.39837	10.072	.41168	10.090	.99540
Stddev	.00339	.015	.00531	.003	.00239
%RSD	.85020	.15169	1.2893	.02902	.24028
#1	.40076	10.061	.41543	10.092	.99709
#2	.39597	10.083	.40792	10.088	.99371
Check ?	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.40000	10.000	.40000	10.000	1.0000
Range	10.000%	10.000%	10.000%	10.000%	10.000%

Elem	Be3130	Ca3736	Cd2288	Co2286	Cr2677
Units	ppm	ppm	ppm	ppm	ppm
Avg	.04974	10.099	.05118	.19921	.50879
Stddev	.00011	.001	.00066	.00076	.00096
%RSD	.21647	.00704	1.2988	.38233	.18941
#1	.04966	10.098	.05071	.19867	.50811
#2	.04982	10.099	.05165	.19975	.50947
Check ?	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.05000	10.000	.05000	.20000	.50000
Range	10.000%	10.000%	10.000%	10.000%	10.000%

Elem	Cu3247	Fe2714	K_7664	Li6707	Mg2779
Units	ppm	ppm	ppm	ppm	ppm
Avg	.49723	4.0379	50.826	1.0018	10.008
Stddev	.00030	.0016	.265	.0041	.077
%RSD	.05983	.03983	.52233	.40575	.77429
#1	.49702	4.0368	51.014	1.0046	9.9535
#2	.49744	4.0390	50.638	.99889	10.063
Check ?	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.50000	4.0000	50.000	1.0000	10.000
Range	10.000%	10.000%	10.000%	10.000%	10.000%

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203
Units	ppm	ppm	ppm	ppm	ppm
Avg	.50898	1.0519	51.196	.50786	.51671
Stddev	.00078	.0043	.263	.00059	.00003
%RSD	.15297	.41300	.51358	.11659	.00561
#1	.50953	1.0550	51.382	.50828	.51673
#2	.50843	1.0489	51.010	.50744	.51669
Check ?	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.50000	1.0000	50.000	.50000	.50000
Range	10.000%	10.000%	10.000%	10.000%	10.000%

Sample Name: CCV Run Time: 07/23/99 14:12

Elem	Sb2068	Se1960	Si2516	Sn1899	Sr2152
Units	ppm	ppm	ppm	ppm	ppm
Avg	1.2217	.40274	5.0622	1.0304	1.0037
Stddev	.0093	.00660	.0099	.0008	.0004
%RSD	.76236	1.6398	.19594	.07892	.04282
#1	1.2283	.40741	5.0692	1.0310	1.0040
#2	1.2152	.39807	5.0551	1.0299	1.0034
Check ?	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	1.2000	.40000	5.0000	1.0000	1.0000
Range	10.000%	10.000%	10.000%	10.000%	10.000%

Elem	Sr3464	Sr4077	Ti3349	Tl1908	V_2924
Units	ppm	ppm	ppm	ppm	ppm
Avg	1.0098	1.0059	1.0060	.51799	1.0175
Stddev	.0058	.0018	.0026	.00797	.0065
%RSD	.57320	.18307	.26057	1.5385	.63825
#1	1.0139	1.0046	1.0042	.51235	1.0220
#2	1.0057	1.0072	1.0079	.52362	1.0129
Check ?	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	1.0000	1.0000	1.0000	.50000	1.0000
Range	10.000%	10.000%	10.000%	10.000%	10.000%

Elem	Zn2138
Units	ppm
Avg	1.0190
Stddev	.0008
%RSD	.07845
#1	1.0196
#2	1.0184
Check ?	QC Pass
Value	1.0000
Range	10.000%

Analysis Report 07/23/99 14:21:41 page 1

Method: CLP5 Sample Name: CCB Operator:
Comment:
Run Time: 07/23/99 14:18 Type: Blank Mode: CONC Corr.Fact: 1.000000

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00118	.00748	-.00053	.00565	-.00031
Stddev	.00142	.01404	.00454	.00025	.00003
%RSD	119.87	187.79	858.00	4.4346	9.5672
#1	.00219	.01741	.00268	.00547	-.00033
#2	.00018	-.00245	-.00374	.00583	-.00029
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	.00500	.05000	.01000	.05000	.00250
Low Limit	-.00500	-.05000	-.01000	-.05000	-.00250

Elem	Be3130	Ca3736	Cd2288	Co2286	Cr2677
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00001	-.00477	.00003	.00016	-.00004
Stddev	.00002	.01255	.00055	.00015	.00014
%RSD	249.45	263.14	2040.8	90.296	309.56
#1	.00002	.00411	-.00036	.00027	-.00014
#2	.00000	-.01365	.00041	.00006	.00005
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	.00025	.05000	.00100	.00250	.00250
Low Limit	-.00025	-.05000	-.00100	-.00250	-.00250

Elem	Cu3247	Fe2714	K_7664	Li6707	Mg2779
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00046	.00342	-.03924	.00099	.04607
Stddev	.00000	.00393	.01520	.00047	.02230
%RSD	.52384	114.82	38.746	46.963	48.403
#1	.00046	.00619	-.02849	.00132	.06183
#2	.00046	.00064	-.04999	.00066	.03030
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	.01000	.02000	.25000	.05000	.10000
Low Limit	-.01000	-.02000	-.25000	-.05000	-.10000

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00003	.00155	-.00892	.00120	.00180
Stddev	.00009	.00010	.00328	.00078	.00000
%RSD	306.15	6.7679	36.781	65.063	.15609
#1	.00003	.00147	-.00660	.00065	.00180
#2	-.00009	.00162	-.01124	.00175	.00179
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	.00250	.05000	.10000	.01000	.01000
Low Limit	-.00250	-.05000	-.10000	-.01000	-.01000

Sample Name: CCB Run Time: 07/23/99 14:18

Elem	Sb2068	Se1960	Si2516	Sn1899	Sr2152
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00005	.00375	.00718	.00054	.00008
Stddev	.00132	.00198	.00164	.00076	.00029
%RSD	2839.6	52.756	22.764	142.05	379.02
#1	-.00089	.00515	.00603	.00108	.00028
#2	.00098	.00235	.00834	.00000	-.00013
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	.03000	.01000	.25000	.20000	.00500
Low Limit	-.03000	-.01000	-.25000	-.20000	-.00500

Elem	Sr3464	Sr4077	Ti3349	Tl1908	V_2924
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00157	-.00002	.00099	.00065	-.00004
Stddev	.00348	.00001	.00049	.00747	.00034
%RSD	222.13	38.887	49.950	1151.4	927.17
#1	.00403	-.00003	.00134	-.00463	.00020
#2	-.00089	-.00001	.00064	.00593	-.00028
Check ?	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High Limit	.00500	.00500	.01500	.02000	.00798
Low Limit	-.00500	-.00500	-.01500	-.02000	-.00798

Elem	Zn2138
Units	ppm
Avg	.00028
Stddev	.00030
%RSD	106.75
#1	.00007
#2	.00050
Check ?	LC Pass
High Limit	.01000
Low Limit	-.01000

KEMRON ENVIRONMENTAL SERVICES
FURNACE RUN LOGBOOK

ANALYST CRC Sb DATE 8-4-99 TIME 0850
METHOD # 7041 SOP # ME 505 A REV. # 0 WORK GROUP # 620666
CAL STD SOURCE HLC 8-4-99 MW-1-17-13 ICV/CCV SOURCE MI-2-42A
POST SPK SOURCE MI-2.42B

Cup #	Sample No.	Dil	Prep Conc	Autosampler Runs	Cup #	Sample No.	Dil	Prep Conc	Autosampler Runs
	S 0				27.	SPK 20			
	S 10				28.	SPK 30			
	S 20				29.	07-380-05	0.5	1.00/50	-2004
	S 60				30.	SPK 10			
	S100				31.	SPK 20			
					32.	SPK 30			CCV CCB
					33.	07-380-06	0.5	1.05/50	-2005
					34.	SPK 10			
1.	ICV				35.	SPK 20			
2.	ICB			Blank CCV CCB	36.	SPK 30			
3.	PBS UH			LGG1417-03	37.	07-380-07	0.5	1.00/50	-2006
4.	LCSS UH	0.025	1.00/50	-04	38.	SPK 10			
5.	07-380-01	0.9	1.04/50	RE03-99-2000	39.	SPK 20			
6.	Sp01				40.	SPK 30			
7.	dup01		1.00/50	-07	41.	07-380-08	0.5	1.04/50	-2007
8.	02	0.1	1.02/50	-01 -2001	42.	SPK 10			CCV CCB
9.	MS02	0.1	1.05/50	-05	43.	SPK 20			
10.	07-563-06	0.9	1.03/50	RE53-99-0009	44.	SPK 30			Blank CCV CCB
11.	Sp06				45.	07-380-02	0.2	1.02/50	-2001
12.	Sp01 (07-380)	0.9		R Blank CCV CCB	46.	SPK 10			
13.	07-380-01	0.5	1.04/50	RE03-99-2000	47.	SPK 20			
14.	SPK 10				48.	SPK 30			
15.	SPK 20				49.	07-380-03	0.2	1.07/50	-2002
16.	SPK 30				50.	SPK 10			
17.	07-380-02	0.5	1.02/50	-2001	51.	SPK 20			
18.	SPK 10				52.	SPK 30			
19.	SPK 20				53.	07-380-04	0.2	1.03/50	CCV CCB -2003
20.	SPK 30				54.	SPK 10			
21.	07-380-03	0.5	1.07/50	-2002	55.	SPK 20			
22.	SPK 10				56.	SPK 30			
23.	SPK 20				57.	07-380-07	0.2	1.00/50	-2006
24.	SPK 30				58.	SPK 10			
25.	07-380-04	0.5	1.03/50	-2003	59.	SPK 20			
26.	SPK 10				60.	SPK 30			

Comments: Cont. next page →

Note: No entry for Dil represents 1X Dilution

Autosampler Run Key:
CCV - Continuing Calibration Verfication
CCB = Continuing Calibration Blank
FRS = Rull Recalibration Sequence
% D = Automatic Instrument Rerun due to % RSD > 20%
ID = Automatic Instrument Dilution
R = Analyst Rerun
BLK = Blank Rerun
ID2 = 2x Dilution
ID4 = 4x Dilution
ID5 = 5x Dilution
ID10 = 10x Dilution
ID 20 - 20x Dilution

Reviewed by: _____

KEMRON ENVIRONMENTAL SERVICES
FURNACE RUN LOGBOOK

ANALYST CRC Sb DATE 8-4-99 TIME 0850
METHOD # _____ SOP # _____ REV. # _____ WORK GROUP # _____
CAL STD SOURCE _____ ICV/CCV SOURCE _____
POST SPK SOURCE _____

Cup #	Sample No.	Dil	Prep Conc	Autosampler Runs	Cup #	Sample No.	Dil	Prep Conc	Autosampler Runs
					27.				
					28.				
					29.				
					30.				
					31.				
					32.				
					33.				
					34.				
1.	07-380-08	0.2	1.04/50	-2007	35.				
2.	SpK 10				36.				
3.	SpK 20			CCV CCB	37.				
4.	SpK 30				38.				
5.	07-380-06	0.2	1.05/50	-2005	39.				
6.	SpK 10				40.				
7.	SpK 20				41.				
8 26	SpK 30				42.				
9.	07-380-03	0.1	1.07/50	-2002	43.				
10.	SpK 10				44.				
11.	SpK 20				45.				
12.	SpK 30				46.				
13.	07-380-07	0.1	1.00/50	CCVCCB -2006	47.				
14.	SpK 10				48.				
15.	SpK 20				49.				
16.	SpK 30				50.				
17.	07-380-06	0.1	1.05/50	-2005	51.				
18.	SpK 10				52.				
19.	SpK 20				53.				
20 38	SpK 30				54.				
21.	07-380-06	0.05	1.05/50	-2005	55.				
22.	SpK 10				56.				
23.	SpK 20			CCV CCB	57.				
24 42	SpK 30			CCV CCB	58.				
25.	~~CRC 8-11-99~~				59.				
26.					60.				

CRC 8-9-99

Comments: _____

Note: No entry for Dil represents 1X Dilution

Autosampler Run Key:
CCV - Continuing Calibration Verfication
CCB = Continuing Calibration Blank
FRS = Rull Recalibration Sequence
% D = Automatic Instrument Rerun due to % RSD > 20%

ID = Automatic Instrument Dilution
R = Analyst Rerun
BLK = Blank Rerun

ID2 = 2x Dilution
ID4 = 4x Dilution
ID5 = 5x Dilution

ID10 = 10x Dilution
ID 20 - 20x Dilution

Reviewed by: _____

Varian SpectrAA 300/400 Zeeman
QC Protocol Report

Carla R. Cochran
HLC 8-4-99 MW-1-17-13
Box UH
WG 620666

OPERATOR CRC
DATE 08/04/0850/99 Z2
BATCH 08/03/0850/99 Z2 SB

QC PROTOCOL PARAMETERS

IF THERE IS AN ERROR	STOP
QC SPIKE POSITION	52
RECOVERY LIMITS (%)	85 TO 115
RECOVERY MINIMUM LIMIT (%)	40
CORRELATION COEFFICIENT (r)	0.995
OVERRANGE VOLUME REDUCTION	2
REPLICATE RSD LIMIT (%)	20.0

PROGRAM 4 Sb PLATFORM CLP

INSTRUMENT MODE	ABSORBANCE
CALIBRATION MODE	CONCENTRATION
MEASUREMENT MODE	PEAK AREA
LAMP POSITION	3
LAMP CURRENT (mA)	10
SLIT WIDTH (nm)	0.2
SLIT HEIGHT	NORMAL
WAVELENGTH (nm)	217.6
SAMPLE INTRODUCTION	SAMPLER AUTOMIXING
TIME CONSTANT	0.05
MEASUREMENT TIME (sec)	1.0
REPLICATES	2
BACKGROUND CORRECTION	ON
MAXIMUM ABSORBANCE	1.40

FURNACE PARAMETERS

STEP NO.	TEMPERATURE (C)	TIME (sec)	GAS FLOW (L/min)	GAS TYPE	READ COMMAND
1	150	15.0	3.0	NORMAL	NO
2	150	10.0	3.0	NORMAL	NO
3	400	15.0	3.0	NORMAL	NO
4	400	10.0	3.0	NORMAL	NO
5	800	15.0	3.0	NORMAL	NO
6	800	10.0	3.0	NORMAL	NO
7	2000	0.8	0.0	NORMAL	YES
8	2000	2.7	0.0	NORMAL	YES
9	2700	3.0	3.0	NORMAL	NO

SAMPLER PARAMETERS
VOLUMES (fL)

	SOLUTION	BLANK	MODIFIER
BLANK	--	20	8
STANDARD 1	2	18	8
STANDARD 2	4	16	8
STANDARD 3	12	8	8
STANDARD 4	20	0	8
SAMPLE	20	0	8

RECALIBRATION RATE 0
RESLOPE RATE 0

MULTIPLE INJECT NO HOT INJECT YES PRE INJECT NO
TEMPERATURE 130
INJECT RATE 6

QC PROTOCOL PARAMETERS

QC STANDARD RATE	0
QC INITIAL STANDARD POSITION	1
QC INITIAL BLANK POSITION	51
QC CONTINUING STANDARD POSITION	1
QC CONTINUING BLANK POSITION	51
QC STANDARD VOLUME (fL)	20
QC STANDARD CONCENTRATION	25.0 UG/L
QC STANDARD LIMITS (%)	90 TO 110
QC SPIKE RATE	0
QC SPIKE VOLUME (fL)	20
QC SPIKE CONCENTRATION	100.0 UG/L
MATRIX SPIKE CONCENTRATION	0.0 UG/L
INSTRUMENT DETECTION LIMIT	10.0 UG/L
REQUIRED DETECTION LIMIT	10.0 UG/L

CONDITIONS FOR Sb :
Alternative Wavelengths (nm) : 231.2
Spectral Bandwidths (nm) : 0.5
Maximum Ash Temperature : 800xC
Recommended Atomize Temperature : 2000xC
Recommended Chemical Modifiers :
Palladium Chloride (500-2000fg/mL) plus reducing agent such as ascorbic acid, or
Nickel Nitrate (50-1000fg/mL).
Response with Argon : 10fL of 50ng/mL gives about 0.2 Abs.

The modifiers permit the use of a higher ashing temperature and enhance the analyte signal.
Use of a multi-element lamp may require a different slit width, lamp current and wavelength to isolate the analytical line.

SAMPLE	CONC UG/L	%RSD	MEAN ABS	READINGS	
BLANK	0.0		0.016	0.018	0.014
QC				04Aug99	08:45
				CONCENTRATION LESS THAN IDL	

SAMPLE	CONC UG/L	%RSD	MEAN ABS	READINGS	
STANDARD 1 QC	10.0	0.5	0.073	0.073 04Aug99	0.073 08:51
STANDARD 2 QC	20.0	7.4	0.141	0.133 04Aug99	0.148 08:56
STANDARD 3 QC	60.0	0.5	0.421	0.419 04Aug99	0.422 09:01
STANDARD 4 QC	100.0	0.4	0.678	0.676 04Aug99	0.680 09:06

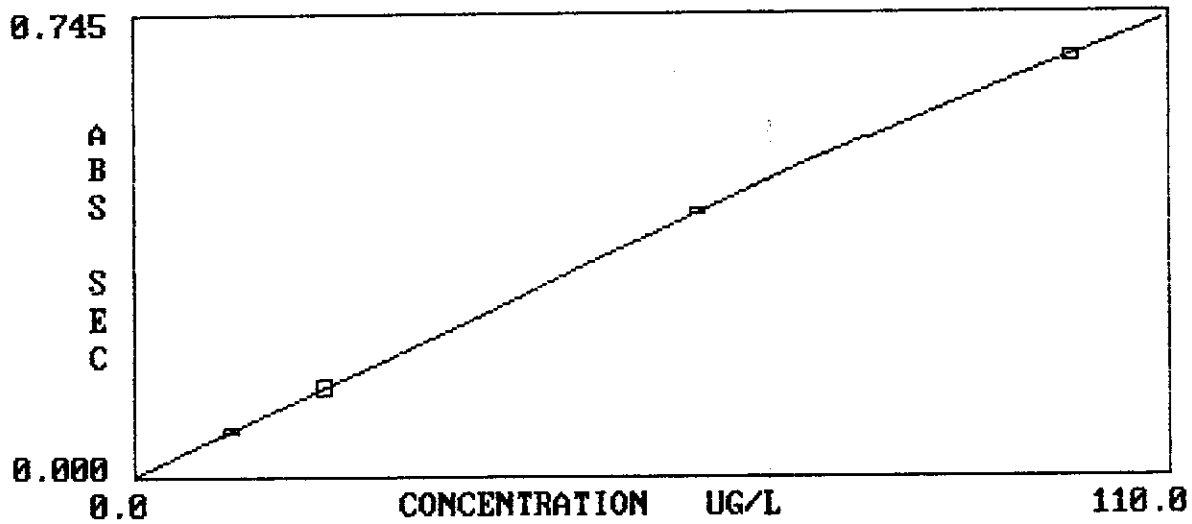

ICV QC	25.6	1.3	0.180	0.182 04Aug99	0.178 09:11
ICB QC	0.3	99.9	0.003	0.005 04Aug99 CONCENTRATION LESS THAN IDL	0.000 09:15
BLANK QC	0.0		-0.010	-0.010 04Aug99 CONCENTRATION LESS THAN IDL	-0.010 09:29
CCV 1 QC	25.3	1.1	0.178	0.179 04Aug99 %R =	0.176 09:34 101.1

SAMPLE	CONC UG/L	%RSD	MEAN ABS	READINGS	
CCB 1 QC	-0.3	99.9	-0.002	-0.007 04Aug99 09:39 ABS = -0.001 CONCENTRATION LESS THAN IDL	0.002
PBS UH QC WG61417-03	0.1	99.9	0.001	-0.001 04Aug99 09:44 CONCENTRATION LESS THAN IDL	0.002
LCSS UH 1.00 QC -04	25.5	0.8	0.179	0.180 04Aug99 09:48	0.178
RE03-99-2000 0738001 1.04 QC -02	~~0.7~~	~~25.8~~	~~0.005~~	~~0.004~~ 04Aug99 09:53 CONCENTRATION LESS THAN IDL	~~0.006~~ CRC 8-4-99
SP 01 QC	~~10.2~~	~~1.5~~	~~0.075~~	~~0.074~~ 04Aug99 09:58	~~0.075~~ Sb-MSA
DUP 01 QC -07	0.5	0.0	0.003	0.003 04Aug99 10:02 CONCENTRATION LESS THAN IDL	0.003
0738002 1.02 QC -01	-0.1	75.0	-0.001	-0.000 04Aug99 10:07 CONCENTRATION LESS THAN IDL	-0.002
MS 02 1.05/50 QC -05	38.3	4.1	0.269	0.277 04Aug99 10:12	0.261
Box P 0756306 1.03 QC ~~RE03-99-2000~~ CRC 8-4-99 RE53-99-0009	~~1.0~~	~~26.1~~	~~0.007~~	~~0.008~~ 04Aug99 10:16 CONCENTRATION LESS THAN IDL	~~0.006~~
SP 06 QC	~~17.9~~	~~0.9~~	~~0.127~~	~~0.126~~ 04Aug99 10:21	~~0.127~~ CRC 8-4-99 Sb-MSA
QC Sp 01 07-380-01	~~10.2~~	14.9	0.074	0.082 04Aug99 10:25	~~0.066~~ CRC 8-4-99
BLANK QC	0.0		-0.004	-0.004 04Aug99 10:33 CONCENTRATION LESS THAN IDL	-0.005
CCV 3 2 QC	26.3	3.8	0.185	0.180 04Aug99 10:38 %R = 105.3	0.190
CCB 3 QC	0.4	80.4	0.003	0.001 04Aug99 10:43 ABS = 0.003 CONCENTRATION LESS THAN IDL	0.004
RE03-99-2000 0738001 0.5 QC 1.04/50	0.8	3.3	0.005	0.005 04Aug99 10:47 CONCENTRATION LESS THAN IDL	0.006

SAMPLE	CONC UG/L	%RSD	MEAN ABS	READINGS	
SPK 10 QC	3.5	9.4	0.026	0.024	0.027
				04Aug99	10:52
				CONCENTRATION LESS THAN IDL	
SPK 20 QC	7.1	5.1	0.052	0.050	0.054
				04Aug99	10:57
				CONCENTRATION LESS THAN IDL	
SPK 30 QC	11.4	3.4	0.083	0.081	0.085
				04Aug99	11:01
0738002 0.5 QC -2001	0.8	58.1	0.006	0.009	0.004
				04Aug99	11:06
				CONCENTRATION LESS THAN IDL	
SPK 10 QC	4.7	8.8	0.034	0.037	0.032
				04Aug99	11:11
				CONCENTRATION LESS THAN IDL	
SPK 20 QC	6.7	5.5	0.049	0.047	0.051
				04Aug99	11:15
				CONCENTRATION LESS THAN IDL	
SPK 30 QC	10.6	15.0	0.077	0.069	0.085
				04Aug99	11:20
0738003 0.5 QC -2002	0.6	59.2	0.005	0.003	0.007
				04Aug99	11:25
				CONCENTRATION LESS THAN IDL	
SPK 10 QC	4.4	1.1	0.032	0.032	0.032
				04Aug99	11:30
				CONCENTRATION LESS THAN IDL	
CCV 4 QC	26.3	1.3	0.185	0.187	0.183
				04Aug99	11:34
				%R =	105.3
CCB 4 QC	1.1	54.9	0.008	0.011	0.005
				04Aug99	11:39
				ABS =	0.009
				CONCENTRATION LESS THAN IDL	
SPK 20 QC	6.3	3.9	0.046	0.047	0.045
				04Aug99	11:44
				CONCENTRATION LESS THAN IDL	
SPK 30 QC	8.5	1.2	0.062	0.062	0.061
				04Aug99	11:49
				CONCENTRATION LESS THAN IDL	
0738004 0.5 QC -2003	1.1	27.5	0.008	0.010	0.007
				04Aug99	11:54
				CONCENTRATION LESS THAN IDL	
SPK 10 QC	2.6	31.2	0.019	0.023	0.015
				04Aug99	11:58
				CONCENTRATION LESS THAN IDL	

r = 0.9949
tv = -1.10

r = 0.9928

CRC 8-4-99 Rerun at a 0.2

r = 0.9868

CRC 8-4-99 Rerun at a 0.2

r = 0.9891

CRC 8-4-99 Rerun at a 0.2

SAMPLE	CONC UG/L	%RSD	MEAN ABS	READINGS
SPK 20 QC	5.6	2.9	0.041	0.040 0.042 04Aug99 12:03 CONCENTRATION LESS THAN IDL
SPK 30 QC	8.7	9.2	0.063	0.067 0.059 04Aug99 12:08 CONCENTRATION LESS THAN IDL
1.00/50 0738005 0.5 QC -2004	0.3	99.9	0.002	0.004 -0.000 04Aug99 12:13 CONCENTRATION LESS THAN IDL
SPK 10 QC	3.6	21.6	0.026	0.022 0.030 04Aug99 12:17 CONCENTRATION LESS THAN IDL r= 0.9959
SPK 20 QC	6.9	27.3	0.050	0.041 0.060 tv = -1.75 04Aug99 12:22 CONCENTRATION LESS THAN IDL
SPK 30 QC	9.1	10.5	0.067	0.062 0.071 04Aug99 12:27 CONCENTRATION LESS THAN IDL
CCV 5 4 QC	26.6	0.4	0.187	0.188 0.186 04Aug99 12:31 %R = 106.4
CCB 5 QC	0.7	51.7	0.005	0.003 0.007 04Aug99 12:36 ABS = 0.005 CONCENTRATION LESS THAN IDL
1.05/50 0738006 0.5 QC -2005	0.6	40.0	0.005	0.003 0.006 04Aug99 12:41 CONCENTRATION LESS THAN IDL
SPK 10 QC	3.9	0.0	0.028	0.028 0.028 04Aug99 12:45 CONCENTRATION LESS THAN IDL r= 0.9983 t= -2.73
SPK20 QC	6.3	13.6	0.046	0.041 0.050 CRC 8-4-99 Reran a 0. 04Aug99 12:50 CONCENTRATION LESS THAN IDL
SPK 30 QC	9.2	1.3	0.067	0.068 0.066 04Aug99 12:54 CONCENTRATION LESS THAN IDL
1.00/50 0738007 0.5 QC -2006	1.6	6.5	0.012	0.011 0.012 04Aug99 12:59 CONCENTRATION LESS THAN IDL T r= 0.9971
SPK 10 QC	4.0	14.0	0.029	0.032 0.026 tv= -6 04Aug99 13:04 CONCENTRATION LESS THAN IDL CRC 8-4-99 Reran at

SAMPLE	CONC UG/L	%RSD	MEAN ABS	READINGS
SPK 20 QC	7.2	1.1	0.052	0.052 0.053 04Aug99 13:08 CONCENTRATION LESS THAN IDL
SPK 30 QC	9.3	2.5	0.068	0.069 0.067 04Aug99 13:13 CONCENTRATION LESS THAN IDL
0738008 0.5 QC -2007	1.8	22.1	0.013	0.011 0.015 04Aug99 13:18 CONCENTRATION LESS THAN IDL
SPK 10 QC	3.6	21.6	0.026	0.030 0.022 04Aug99 13:22 CONCENTRATION LESS THAN IDL r=0.9703 CRC 8-4-99 Reran at a 0.2
CCV 6 5 QC	27.2	1.6	0.191	0.189 0.193 04Aug99 13:27 %R = 108.7
CCB 6 QC	1.3	7.2	0.009	0.009 0.010 04Aug99 13:32 ABS = 0.010 CONCENTRATION LESS THAN IDL
SPK 20 QC	7.4	11.3	0.054	0.049 0.058 04Aug99 13:37 CONCENTRATION LESS THAN IDL
SPK 30 QC	8.1	7.8	0.059	0.055 0.062 04Aug99 13:41 CONCENTRATION LESS THAN IDL
BLANK QC	0.0		0.010	0.008 0.013 04Aug99 13:50 CONCENTRATION LESS THAN IDL
CCV 7 QC	25.3	1.7	0.178	0.180 0.176 04Aug99 13:54 %R = 101.4
CCB 7 QC	0.2	99.9	0.001	-0.003 0.005 04Aug99 13:59 ABS = 0.005 CONCENTRATION LESS THAN IDL
0738002 0.2 QC -2001	0.0	99.9	0.000	0.001 -0.001 04Aug99 14:04 CONCENTRATION LESS THAN IDL
SPK 10 QC	3.3	3.7	0.024	0.024 0.025 04Aug99 14:09 CONCENTRATION LESS THAN IDL r= 0.9967 tv = 0.995
SPK 20 QC	8.1	15.6	0.059	0.053 0.066 04Aug99 14:13 CONCENTRATION LESS THAN IDL

SAMPLE	CONC UG/L	%RSD	MEAN ABS	READINGS
SPK 30 QC	~~13.6~~	~~24.5~~	~~0.098~~	~~0.115 0.081~~ CRC 8-4-99 ~~04Aug99 14:18~~ %RSD GREATER THAN LIMIT
SPK 30 QC	12.8	15.2	0.092	0.102 0.082 04Aug99 14:23
0738003 0.2 QC -2002	-0.1	99.9	-0.000	0.000 -0.001 04Aug99 14:27 CONCENTRATION LESS THAN IDL
SPK 10 QC	4.5	18.5	0.033	0.037 0.028 04Aug99 14:32 CONCENTRATION LESS THAN IDL
SPK 20 QC	6.7	5.4	0.049	0.047 0.051 r= 0.9878 04Aug99 14:36 reran at a 0.1 CONCENTRATION LESS THAN IDL CRC 8-4-99
SPK 30 QC	12.3	0.8	0.089	0.089 0.088 04Aug99 14:41
0738004 0.2 QC -2003	0.2	99.9	0.002	-0.003 0.007 04Aug99 14:45 CONCENTRATION LESS THAN IDL
CCV 8 QC	25.2	0.1	0.177	0.177 0.178 04Aug99 14:50 %R = 101.0
CCB 8 QC	0.4	94.1	0.003	0.005 0.001 04Aug99 14:55 ABS = 0.006 CONCENTRATION LESS THAN IDL
SPK 10 QC	3.0	6.8	0.022	0.021 0.023 04Aug99 15:00 CONCENTRATION LESS THAN IDL
SPK 20 QC	7.2	4.1	0.052	0.054 0.051 r= 0.9968 04Aug99 15:04 tv= 0.118 CONCENTRATION LESS THAN IDL
SPK 30 QC	10.1	13.8	0.073	0.066 0.081 04Aug99 15:09
0738007 0.2 QC -2006	0.2	99.9	0.001	0.000 0.003 04Aug99 15:13 CONCENTRATION LESS THAN IDL
SPK 10 QC	3.1	19.9	0.023	0.026 0.020 r= 0.9887 04Aug99 15:18 Reran at a CONCENTRATION LESS THAN IDL 0.1 CRC 8-4-99
SPK 20	7.7	19.3	0.056	0.049 0.064

CONCENTRATION LESS THAN IDL

SAMPLE	CONC UG/L	%RSD	MEAN ABS	READINGS
SPK 30 QC	~~9.6~~	~~0.7~~	~~0.070~~	~~0.070 0.070~~ CRC 8-4-99 04Aug99 15:28 CONCENTRATION LESS THAN IDL
0738008 0.2 QC -2007	-0.1	99.9	-0.001	0.000 -0.002 04Aug99 15:32 CONCENTRATION LESS THAN IDL
SPK 10 QC	3.2	7.6	0.023	0.022 0.025 r= 0.9986 04Aug99 15:37 CONCENTRATION LESS THAN IDL tv= 0.754
SPK 20 QC	6.6	6.8	0.048	0.046 0.050 04Aug99 15:42 CONCENTRATION LESS THAN IDL
CCV 9 QC	26.1	1.0	0.183	0.182 0.184 04Aug99 15:47 %R = 104.2
CCB 9 QC	0.5	77.1	0.003	0.005 0.002 04Aug99 15:51 ABS = 0.007 CONCENTRATION LESS THAN IDL
SPK 30 QC	10.7	1.8	0.078	0.079 0.077 04Aug99 15:56
QC 07-380-06 -2005 1.05/50	0.0	99.9	0.000	-0.001 0.001 04Aug99 16:01 CONCENTRATION LESS THAN IDL
QC SPK 10	3.6	22.9	0.026	0.030 0.022 04Aug99 16:06 CONCENTRATION LESS THAN IDL
QC SPK 20	7.0	14.7	0.051	0.046 0.057 r= 0.9899 04Aug99 16:11 Reran at a 0.1 CONCENTRATION LESS THAN IDL CRC 8-4-99
QC SPK 30	8.8	26.7	0.064	0.076 0.052 04Aug99 16:15 CONCENTRATION LESS THAN IDL
0.1 QC 07-380-03 -2002 1.07/50	-0.5	93.7	-0.003	-0.001 -0.005 04Aug99 16:20 CONCENTRATION LESS THAN IDL
QC SPK 10	4.6	22.7	0.033	0.039 0.028 r= 0.9951 04Aug99 16:25 CONCENTRATION LESS THAN IDL tv= 1.00
QC SPK 20	7.9	16.5	0.058	0.051 0.064 04Aug99 16:30 CONCENTRATION LESS THAN IDL

QC SPK30	13.7	11.8	0.099	0.091	0.107
				04Aug99	16:34

SAMPLE	CONC UG/L	%RSD	MEAN ABS	READINGS	
QC 07-380-07 1.00/50 -2006	-0.3	98.4	-0.002	-0.001	-0.004
				04Aug99	16:39
				CONCENTRATION LESS THAN IDL	
CCV 10 9 QC	26.0	0.0	0.183	0.183	0.183
				04Aug99	16:44
				%R =	103.9
CCB 10 QC	-0.0	98.0	-0.000	-0.000	-0.000
				04Aug99	16:48
				ABS =	0.003
				CONCENTRATION LESS THAN IDL	
QC SPK 10	3.5	5.3	0.026	0.027	0.025
				04Aug99	16:53
				CONCENTRATION LESS THAN IDL	
QC SPK20	7.6	21.6	0.056	0.047	0.064 r= 0.9988
				04Aug99	16:58 tv=1.22
				CONCENTRATION LESS THAN IDL	
QC SPK 30	12.3	19.8	0.089	0.076	0.101
				04Aug99	17:02
QC 07-380-06 1.05/50 - 2005	-0.2	51.4	-0.002	-0.002	-0.001
				04Aug99	17:07
				CONCENTRATION LESS THAN IDL	
QC SPK 10	3.5	9.9	0.025	0.024	0.027 r= 0.9941
				04Aug99	17:11
				CONCENTRATION LESS THAN IDL	
QC SPK 20	6.4	13.5	0.047	0.042	0.051 CRC 8-4-99 Reran at a 0.05
				04Aug99	17:16
				CONCENTRATION LESS THAN IDL	
QC SPK30	11.4	11.9	0.083	0.090	0.076
				04Aug99	17:21
QC 07-380-06 1.05/50 -2005	0.2	7.5	0.001	0.001	0.001
				04Aug99	17:25
				CONCENTRATION LESS THAN IDL	
QC SPK10	6.2	13.3	0.045	0.050	0.041
				04Aug99	17:30
				CONCENTRATION LESS THAN IDL	

QC SpK20	10.7	5.7	0.078	0.074 04Aug99	0.081 17:35
CCV 11 10 QC	25.7	2.7	0.181	0.184 04Aug99 %R =	0.177 17:39 102.9
CCB 11 QC	-0.0	99.9	-0.000	0.002 04Aug99 ABS =	-0.003 17:44 0.003

CONCENTRATION LESS THAN IDL

r= 0.9986
tv= -0.814

SAMPLE	CONC UG/L	%RSD	MEAN ABS	READINGS	
QC SpK 30	16.3	1.3	0.116	0.115 04Aug99	0.117 17:49
QC CCV	26.0	3.5	0.183	0.178 04Aug99	0.187 17:54
QC CCB	-0.3	36.2	-0.003	-0.002 04Aug99	-0.003 17:58

CONCENTRATION LESS THAN IDL

KEMRON ENVIRONMENTAL SERVICES
FURNACE RUN LOGBOOK

ANALYST [signature] SE DATE 07/23/95 TIME 0942
METHOD # 7740 SOP # ME5036 REV. # 2 WORK GROUP # W661421 W661461 W6614
CAL STD SOURCE MW-1-16-14 ICV/CCV SOURCE ME2-92A W661461
POST SPK SOURCE MI-1-42B

Cup #	Sample No.	Dil	Prep Conc	Autosampler Runs	Cup #	Sample No.	Dil	Prep Conc	Autosampler Runs
					27.	PBS HU W661418-03			
					28.	LCSS -04		1.00/50	
					29.	07360-01 2003-95-2000 02		1.06/50	
					30.	DUP01 -07			
					31.	07380-02.5 2003-95-2001	0.5	1.07/50	
					32.	SP02			
					33.	MS02			CCV CCB CCV CCB
					34.	07337-01.5	0.5	1.07/50	
1.	SD			S4 S10	35.	SP10			
2.	S20				36.	SP20			
3.	S50				37.	SP30			
4.	ICV				38.	07337-02.5	0.5	1.00/50	
5.	ICB			CCV CCB	39.	SP10			
6.	07283-01.5 2016-95-1220	0.5			40.	SP20			
7.	SP10				41.	SP30			
8.	SP20				42.	07362-01.5	0.5	1.03/50	
9.	SP30				43.	SP10			CCV CCB
10.	PBS K W661365-03				44.	SP20			
11.	LCSS -04		1.00/50		45.	SP30			
12.	07362-01.5 -01	0.5	1.03/50		46.	07362-04.5	0.5	1.06/50	
13.	SP01				47.	SP10			
14.	07362-02MS -05		1.07/50		48.	SP20			
15.	07362-03MSD -06		1.04/50	CCV CCB	49.	SP30			
16.	07377-02.5 -02	0.5	1.00/50		50.	07362-05.5	0.5	1.01/50	
17.	SP02				51.	SP10			
18.	DUP02 -07		1.04/50		52.	SP20			
19.	PBS E W661361-07				53.	SP30			CCV CCB
20.	LCSS -03		1.00/50		54.	07362-06.5	0.5	1.01/50	
21.	07365-01.5 2000-95-0237 -01	0.5	1.01/50		55.	SP10			
22.	SP01				56.	SP20			
23.	MS01 -04		1.01/50		57.	SP30			
24.	DUP01 -05		1.02/50		58.	07362-07.5	0.5	1.03/50	
25.	07373-03.5 2000-95-0245	0.5	1.01/50	CCV CCB	59.	SP10			
26.	SP03				60.	SP20			
						SP30			BLK2 CCV CCB

Comments: [signature] 07/23/95

Note: No entry for Dil represents 1X Dilution

Autosampler Run Key:
CCV - Continuing Calibration Verfication
CCB = Continuing Calibration Blank
FRS = Rull Recalibration Sequence
% D = Automatic Instrument Rerun due to % RSD > 20%

ID = Automatic Instrument Dilution
R = Analyst Rerun
BLK = Blank Rerun

ID2 = 2x Dilution
ID4 = 4x Dilution
ID5 = 5x Dilution

ID10 = 10x Dilution
ID 20 - 20x Dilution

Reviewed by: _____

nw-1-16-14 WL61421 WL61461 WL61462 WL61463

Method Name: SEKEM
Method Description: SEKEM

Element: Se

Date: 07/23/1999
Technique: Furnace
Wavelength: 196.0 nm
Lamp Current: 0
Sample Info File: SE072399.SIF

Calibration Equation: Zero Intercept: Linear
Slit Width: 2.00 nm
Energy: 45
Results Data Set: SE072399

Element: Se Seq. No.: 1 AS Loc.: 1 Date: 07/23/1999
Sample ID: S0
µL dispensed: 3 from 40, 20 from 1

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1			-0.003	-0.003	0.014	0.016	0.012	09:42:25	No
2			-0.002	-0.002	0.009	0.019	0.011	09:45:14	Yes
Mean:			-0.003						
SD :			0.001						
%RSD:			43.07						

Auto-zero performed.

Element: Se Seq. No.: 2 AS Loc.: 2 Date: 07/23/1999
Sample ID: S4
µL dispensed: 16 from 1, 3 from 40, 4 from 2

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1			0.018	0.016	0.044	0.022	0.015	09:48:10	No
2			0.018	0.016	0.043	0.022	0.015	09:51:04	Yes
Mean:			0.018						
SD :			0.000						
%RSD:			0.20						

Standard number 1 applied. [4.000]
Correlation Coefficient: 1.0000 Slope: 0.0046

Element: Se Seq. No.: 3 AS Loc.: 2 Date: 07/23/1999
Sample ID: S10
µL dispensed: 10 from 1, 3 from 40, 10 from 2

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1			0.040	0.037	0.092	0.027	0.026	09:54:00	No
2			0.038	0.036	0.085	0.026	0.025	09:56:55	Yes
Mean:			0.039						
SD :			0.001						
%RSD:			2.91						

Standard number 2 applied. [10.000]
Correlation Coefficient: 0.9901 Slope: 0.0040

Element: Se Seq. No.: 4 AS Loc.: 2 Date: 07/23/1999
Sample ID: S20
µL dispensed: 3 from 40, 20 from 2

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1			0.063	0.060	0.172	0.035	0.046	09:59:45	No
2			0.071	0.068	0.167	0.029	0.042	10:02:35	Yes
Mean:			0.067						
SD :			0.006						
%RSD:			8.30						

Standard number 3 applied. [20.000]
Correlation Coefficient: 0.9854 Slope: 0.0035

Element: Se Seq. No.: 5 AS Loc.: 3 Date: 07/23/1999
Sample ID: S50
µL dispensed: 3 from 40, 20 from 3

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1			0.170	0.167	0.464	0.051	0.112	10:05:26	No
2			0.168	0.165	0.403	0.050	0.103	10:08:17	Yes
Mean:			0.169						
SD :			0.001						
%RSD:			0.75						

The calibration curve may not be linear.
Standard number 4 applied. [50.000]
Correlation Coefficient: 0.9982 Slope: 0.0034

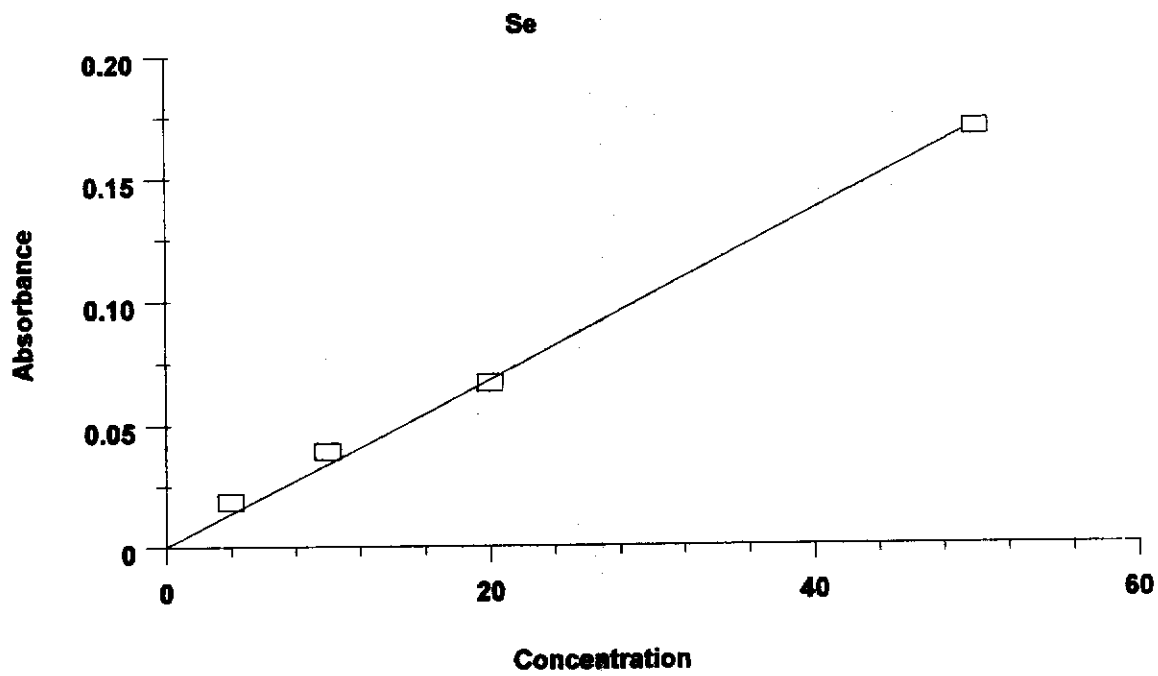

Calibration data for Se

Standard ID	Mean Signal (Pk Area)	Entered Concentration (µg/L)	Calculated Concentration (µg/L)	Standard Deviation	%RSD
S0	0.000	----	0.000	0.001	43.072
S4	0.018	4.000	5.367	0.000	0.205
S10	0.039	10.000	11.52	0.001	2.908
S20	0.067	20.000	19.61	0.006	8.300
S50	0.169	50.000	49.65	0.001	0.752

Correlation Coefficient: 0.99822 Slope: 0.00340

Element: Se Seq. No.: 6 AS Loc.: 4 Date: 07/23/1999
Sample ID: ICV
µL dispensed: 3 from 40, 20 from 4

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	24.26	24.26	0.083	0.080	0.180	0.032	0.047	10:11:10	No
2	23.43	23.43	0.080	0.077	0.178	0.032	0.048	10:14:02	Yes
Mean:	23.85	23.85	0.081						
SD :	0.581	0.581	0.002						
%RSD:	2.44	2.44	2.44						

QC value within specified limits.

Element: Se Seq. No.: 7 AS Loc.: 5 Date: 07/23/1999
Sample ID: ICB
µL dispensed: 3 from 40, 20 from 5

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	1.306	1.306	0.004	0.002	0.012	0.016	0.013	10:16:56	No
2	0.269	0.269	0.001	-0.002	0.010	0.017	0.013	10:19:49	Yes
Mean:	0.788	0.788	0.003						
SD :	0.734	0.734	0.002						
%RSD:	93.15	93.15	93.15						

QC value within specified limits.

Element: Se Seq. No.: 8 AS Loc.: 4 Date: 07/23/1999
Sample ID: CCV
µL dispensed: 3 from 40, 20 from 4

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	22.61	22.61	0.077	0.074	0.180	0.034	0.047	10:22:43	No
2	23.76	23.76	0.081	0.078	0.176	0.031	0.052	10:25:35	Yes
Mean:	23.18	23.18	0.079						
SD :	0.816	0.816	0.003						
%RSD:	3.52	3.52	3.52						

QC value within specified limits.

Element: Se Seq. No.: 9 AS Loc.: 5 Date: 07/23/1999
Sample ID: CCB
µL dispensed: 3 from 40, 20 from 5

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	3.262	3.262	0.011	0.009	0.012	0.008	0.010	10:28:29	No
2	1.656	1.656	0.006	0.003	0.013	0.010	0.011	10:31:22	Yes
Mean:	2.459	2.459	0.008						
SD :	1.136	1.136	0.004						
%RSD:	46.20	46.20	46.20						

QC value within specified limits.

Element: Se Seq. No.: 10 AS Loc.: 6 Date: 07/23/1999
Sample ID: 07283-01.5 0816-99-1220
µL dispensed: 3 from 40, 20 from 6 r=0.99768 x'=-3.675

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	1.721	1.721	0.006	0.003	0.011	0.029	0.019	10:34:17	No
2	1.673	1.673	0.006	0.003	0.015	0.028	0.020	10:37:11	Yes
Mean:	1.697	1.697	0.006						
SD :	0.034	0.034	0.000						
%RSD:	2.01	2.01	2.01						

Element: Se Seq. No.: 11 AS Loc.: 7 Date: 07/23/1999
Sample ID: SP10
µL dispensed: 3 from 40, 20 from 7

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	6.342	6.342	0.022	0.019	0.045	0.039	0.024	10:40:06	No
2	6.115	6.115	0.021	0.018	0.043	0.035	0.022	10:43:03	Yes
Mean:	6.228	6.228	0.021						
SD :	0.161	0.161	0.001						
%RSD:	2.58	2.58	2.58						

Element: Se Seq. No.: 12 AS Loc.: 8 Date: 07/23/1999
Sample ID: SP20
µL dispensed: 3 from 40, 20 from 8

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	9.793	9.793	0.033	0.031	0.078	0.044	0.029	10:45:57	No
2	10.03	10.03	0.034	0.032	0.077	0.042	0.034	10:48:50	Yes
Mean:	9.913	9.913	0.034						
SD :	0.169	0.169	0.001						
%RSD:	1.70	1.70	1.70						

Element: Se Seq. No.: 13 AS Loc.: 9 Date: 07/23/1999
Sample ID: SP30
µL dispensed: 3 from 40, 20 from 9

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	16.04	16.04	0.055	0.052	0.114	0.041	0.040	10:51:44	No
2	14.39	14.39	0.049	0.046	0.114	0.047	0.039	10:54:36	Yes
Mean:	15.22	15.22	0.052						
SD :	1.165	1.165	0.004						
%RSD:	7.66	7.66	7.66						

Element: Se Seq. No.: 14 AS Loc.: 10 Date: 07/23/1999
Sample ID: PBS K WG61365-03
µL dispensed: 3 from 40, 20 from 10

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	0.585	0.585	0.002	-0.001	0.012	0.020	0.014	10:57:29	No
2	1.582	1.582	0.005	0.003	0.010	0.012	0.013	11:00:20	Yes
Mean:	1.083	1.083	0.004						
SD :	0.705	0.705	0.002						
%RSD:	65.09	65.09	65.09						

Element: Se Seq. No.: 15 AS Loc.: 11 Date: 07/23/1999
Sample ID: LCSS WG61365-04 1.00/50
µL dispensed: 3 from 40, 20 from 11

Repl #	SampleConc mg/kg	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	1.285	25.71	0.087	0.085	0.238	0.036	0.062	11:03:11	No
2	1.255	25.09	0.085	0.083	0.239	0.039	0.059	11:06:00	Yes
Mean:	1.270	25.40	0.086						
SD :	0.022	0.434	0.001						
%RSD:	1.71	1.71	1.71						

Element: Se Seq. No.: 16 AS Loc.: 12 Date: 07/23/1999
Sample ID: 07362-01.9 WG61365-01
µL dispensed: 3 from 40, 20 from 12 1.03/50 QA ONLY

Repl #	SampleConc mg/kg	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	0.154	3.164	0.011	0.008	0.020	0.604	0.635	11:08:50	No
2	0.167	3.431	0.012	0.009	0.030	0.672	0.647	11:11:39	Yes
Mean:	0.160	3.297	0.011						
SD :	0.009	0.189	0.001						
%RSD:	5.73	5.73	5.73						

Element: Se Seq. No.: 17 AS Loc.: 13 Date: 07/23/1999
Sample ID: SP01
µL dispensed: 3 from 40, 20 from 13

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	12.62	12.62	0.043	0.040	0.114	0.703	0.683	11:14:27	No
2	13.18	13.18	0.045	0.042	0.129	0.696	0.675	11:17:14	Yes
Mean:	12.90	12.90	0.044						
SD :	0.402	0.402	0.001						
%RSD:	3.12	3.12	3.12						

Element: Se Seq. No.: 18 AS Loc.: 14 Date: 07/23/1999
Sample ID: 07362-02MS WG61365-05 1.07/50
µL dispensed: 3 from 40, 20 from 14

Repl #	SampleConc mg/kg	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	0.540	11.57	0.039	0.037	0.102	0.877	0.930	11:20:02	No
2	0.548	11.73	0.040	0.037	0.091	0.891	0.937	11:22:47	Yes
Mean:	0.544	11.65	0.040						
SD :	0.005	0.114	0.000						
%RSD:	0.98	0.98	0.98						

Element: Se Seq. No.: 19 AS Loc.: 15 Date: 07/23/1999
Sample ID: 07362-03MSD WG61365-06 1.04/50
µL dispensed: 3 from 40, 20 from 15

Repl #	SampleConc mg/kg	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	0.550	11.44	0.039	0.036	0.108	0.970	1.005	11:25:34	No
2	0.598	12.43	0.042	0.040	0.108	0.992	1.017	11:28:20	Yes
Mean:	0.574	11.94	0.041						
SD :	0.034	0.697	0.002						
%RSD:	5.84	5.84	5.84						

Element: Se Seq. No.: 20 AS Loc.: 4 Date: 07/23/1999
Sample ID: CCV
µL dispensed: 3 from 40, 20 from 4

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	22.48	22.48	0.076	0.074	0.199	0.114	0.211	11:31:09	No
2	23.36	23.36	0.079	0.077	0.187	0.045	0.051	11:34:01	Yes
Mean:	22.92	22.92	0.078						
SD :	0.618	0.618	0.002						
%RSD:	2.70	2.70	2.70						

QC value within specified limits.

Element: Se Seq. No.: 21 AS Loc.: 5 Date: 07/23/1999
Sample ID: CCB
µL dispensed: 3 from 40, 20 from 5

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	1.567	1.567	0.005	0.003	0.012	0.018	0.014	11:36:55	No
2	1.067	1.067	0.004	0.001	0.009	0.015	0.012	11:39:48	Yes
Mean:	1.317	1.317	0.004						
SD :	0.353	0.353	0.001						
%RSD:	26.82	26.82	26.82						

QC value within specified limits.

Element: Se Seq. No.: 22 AS Loc.: 16 Date: 07/23/1999
Sample ID: 07377-02.9 WG61365-02
µL dispensed: 3 from 40, 20 from 16 1.00/50 QA only

Repl #	SampleConc mg/kg	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	0.166	3.326	0.011	0.009	0.028	0.810	0.926	11:42:37	No
2	0.151	3.014	0.010	0.008	0.037	0.872	0.941	11:45:20	Yes
Mean:	0.158	3.170	0.011						
SD :	0.011	0.221	0.001						
%RSD:	6.97	6.97	6.97						

Element: Se Seq. No.: 23 AS Loc.: 17 Date: 07/23/1999
Sample ID: SP02
µL dispensed: 3 from 40, 20 from 17

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	10.86	10.86	0.037	0.034	0.092	0.894	0.949	11:48:04	No
2	8.712	8.712	0.030	0.027	0.097	0.906	0.949	11:50:48	Yes
Mean:	9.788	9.788	0.033						
SD :	1.521	1.521	0.005						
%RSD:	15.54	15.54	15.54						

Element: Se Seq. No.: 24 AS Loc.: 18 Date: 07/23/1999
Sample ID: DUP02 WG61365-07
µL dispensed: 3 from 40, 20 from 18 1.04/50

Repl #	SampleConc mg/kg	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	0.162	3.371	0.011	0.009	0.037	1.036	1.085	11:53:33	No
2	0.133	2.775	0.009	0.007	0.047	1.045	1.072	11:56:20	Yes
Mean:	0.148	3.073	0.010						
SD :	0.020	0.422	0.001						
%RSD:	13.72	13.72	13.72						

Element: Se Seq. No.: 25 AS Loc.: 19 Date: 07/23/1999
Sample ID: PBS E WG61361-02
µL dispensed: 3 from 40, 20 from 19

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	0.523	0.523	0.002	-0.001	0.012	0.096	0.142	11:59:06	No
2	1.832	1.832	0.006	0.004	0.010	0.027	0.037	12:01:52	Yes
Mean:	1.177	1.177	0.004						
SD :	0.926	0.926	0.003						
%RSD:	78.65	78.65	78.65						

Element: Se Seq. No.: 26 AS Loc.: 20 Date: 07/23/1999
Sample ID: LCSS WG61361-03
µL dispensed: 3 from 40, 20 from 20 1.00/50

Repl #	SampleConc mg/kg	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	1.282	25.65	0.087	0.085	0.248	0.039	0.058	12:04:40	No
2	1.309	26.18	0.089	0.086	0.245	0.039	0.063	12:07:26	Yes
Mean:	1.296	25.92	0.088						
SD :	0.019	0.379	0.001						
%RSD:	1.46	1.46	1.46						

Element: Se Seq. No.: 27 AS Loc.: 21 Date: 07/23/1999
Sample ID: 07365-01.9 RE00-99-0237
µL dispensed: 3 from 40, 20 from 21 1.01/50 QA only

Repl #	SampleConc mg/kg	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	0.166	3.356	0.011	0.009	0.025	0.733	0.699	12:10:15	No
2	0.195	3.941	0.013	0.011	0.036	0.787	0.714	12:13:04	Yes
Mean:	0.181	3.648	0.012						
SD :	0.020	0.414	0.001						
%RSD:	11.34	11.34	11.34						

Element: Se Seq. No.: 28 AS Loc.: 22 Date: 07/23/1999
Sample ID: SP01
µL dispensed: 3 from 40, 20 from 22

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	14.47	14.47	0.049	0.047	0.131	0.788	0.894	12:15:55	No
2	16.90	16.90	0.057	0.055	0.151	0.802	0.736	12:18:45	Yes
Mean:	15.69	15.69	0.053						
SD :	1.716	1.716	0.006						
%RSD:	10.94	10.94	10.94						

Element: Se Seq. No.: 29 AS Loc.: 23 Date: 07/23/1999
Sample ID: MS01 WG61361-04
µL dispensed: 3 from 40, 20 from 23 1.01/50

Repl #	SampleConc mg/kg	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	0.870	17.57	0.060	0.057	0.159	0.970	0.882	12:21:36	No
2	0.973	19.65	0.067	0.064	0.164	0.945	1.033	12:24:28	Yes
Mean:	0.921	18.61	0.063						
SD :	0.073	1.470	0.005						
%RSD:	7.90	7.90	7.90						

Element: Se Seq. No.: 30 AS Loc.: 24 Date: 07/23/1999
Sample ID: DUP01 WG61361-05
µL dispensed: 3 from 40, 20 from 24 1.02/50

Repl #	SampleConc mg/kg	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	0.266	5.423	0.018	0.016	0.035	0.976	0.911	12:27:21	No
2	0.219	4.474	0.015	0.013	0.035	0.973	0.908	12:30:17	Yes
Mean:	0.243	4.949	0.017						
SD :	0.033	0.671	0.002						
%RSD:	13.56	13.56	13.56						

Element: Se Seq. No.: 31 AS Loc.: 25 Date: 07/23/1999
Sample ID: 07373-03.9 RE00-99-0245
µL dispensed: 3 from 40, 20 from 25

Repl #	SampleConc mg/kg	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	0.175	3.542	0.012	0.009	0.027	0.626	0.573	12:33:13	No
2	0.153	3.089	0.011	0.008	0.027	0.593	0.548	12:36:11	Yes
Mean:	0.164	3.315	0.011						
SD :	0.016	0.320	0.001						
%RSD:	9.65	9.65	9.65						

Element: Se Seq. No.: 32 AS Loc.: 4 Date: 07/23/1999
Sample ID: CCV
µL dispensed: 3 from 40, 20 from 4

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	24.35	24.35	0.083	0.080	0.210	0.083	0.154	12:39:06	No
2	24.09	24.09	0.082	0.079	0.191	0.039	0.048	12:41:58	Yes
Mean:	24.22	24.22	0.082						
SD :	0.181	0.181	0.001						
%RSD:	0.75	0.75	0.75						

QC value within specified limits.

Element: Se Seq. No.: 33 AS Loc.: 5 Date: 07/23/1999
Sample ID: CCB
µL dispensed: 3 from 40, 20 from 5

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	1.908	1.908	0.006	0.004	0.011	0.017	0.013	12:44:52	No
2	1.331	1.331	0.005	0.002	0.010	0.017	0.011	12:47:44	Yes
Mean:	1.620	1.620	0.006						
SD :	0.408	0.408	0.001						
%RSD:	25.18	25.18	25.18						

QC value within specified limits.

Element: Se Seq. No.: 34 AS Loc.: 26 Date: 07/23/1999
Sample ID: SP03
µL dispensed: 3 from 40, 20 from 26

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	14.42	14.42	0.049	0.046	0.138	0.555	0.539	12:50:39	No
2	15.00	15.00	0.051	0.048	0.134	0.596	0.556	12:53:33	Yes
Mean:	14.71	14.71	0.050						
SD :	0.415	0.415	0.001						
%RSD:	2.82	2.82	2.82						

Element: Se Seq. No.: 35 AS Loc.: 27 Date: 07/23/1999
Sample ID: PBS HU WG61418-03
µL dispensed: 3 from 40, 20 from 27

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	2.471	2.471	0.008	0.006	0.022	0.060	0.132	12:56:27	No
2	2.527	2.527	0.009	0.006	0.010	0.021	0.017	12:59:20	Yes
Mean:	2.499	2.499	0.009						
SD :	0.040	0.040	0.000						
%RSD:	1.59	1.59	1.59						

Element: Se Seq. No.: 36 AS Loc.: 28 Date: 07/23/1999
Sample ID: LCSS WG61418-04
µL dispensed: 3 from 40, 20 from 28 1.00/12

Repl #	SampleConc mg/kg	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	1.341	26.82	0.091	0.089	0.251	0.039	0.060	13:02:12	No
2	1.398	27.96	0.095	0.093	0.261	0.038	0.065	13:05:02	Yes
Mean:	1.370	27.39	0.093						
SD :	0.041	0.810	0.003						
%RSD:	2.96	2.96	2.96						

Element: Se Seq. No.: 37 AS Loc.: 29 Date: 07/23/1999
Sample ID: 07380-01 RE03-99-2000
µL dispensed: 3 from 40, 20 from 29 1.06/50 QA only

Repl #	SampleConc mg/kg	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	0.216	4.584	0.016	0.013	0.037	0.886	0.886	13:07:53	No
2	0.203	4.302	0.015	0.012	0.031	0.958	0.952	13:10:42	Yes
Mean:	0.210	4.443	0.015						
SD :	0.009	0.199	0.001						
%RSD:	4.48	4.48	4.48						

Element: Se Seq. No.: 38 AS Loc.: 30 Date: 07/23/1999
Sample ID: DUP01 WG61418-07
µL dispensed: 3 from 40, 20 from 30 102/50

Repl #	SampleConc mg/kg	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	0.208	4.240	0.014	0.012	0.035	1.044	1.040	13:13:31	No
2	0.261	5.330	0.018	0.016	0.041	1.048	1.038	13:16:17	Yes
Mean:	0.235	4.785	0.016						
SD :	0.038	0.771	0.003						
%RSD:	16.11	16.11	16.11						

Element: Se Seq. No.: 39 AS Loc.: 31 Date: 07/23/1999
Sample ID: 07380-02.9 RE03-99-2001
µL dispensed: 3 from 40, 20 from 31 1.07/50 QA only

Repl #	SampleConc mg/kg	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	0.175	3.745	0.013	0.010	0.040	1.041	1.056	13:19:04	No
2	0.220	4.706	0.016	0.013	0.043	1.021	1.036	13:21:49	Yes
Mean:	0.197	4.225	0.014						
SD :	0.032	0.680	0.002						
%RSD:	16.09	16.09	16.09						

Element: Se Seq. No.: 40 AS Loc.: 32 Date: 07/23/1999
Sample ID: SP02
µL dispensed: 3 from 40, 20 from 32

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	14.25	14.25	0.048	0.046	0.117	1.046	1.076	13:24:35	No
2	13.73	13.73	0.047	0.044	0.115	1.037	1.058	13:27:19	Yes
Mean:	13.99	13.99	0.048						
SD :	0.369	0.369	0.001						
%RSD:	2.64	2.64	2.64						

Element: Se Seq. No.: 41 AS Loc.: 33 Date: 07/23/1999
Sample ID: MS02
µL dispensed: 3 from 40, 20 from 33

Repl #	SampleConc mg/kg	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	0.895	17.91	0.061	0.058	0.175	0.959	0.903	13:30:06	No
2	0.906	18.13	0.062	0.059	0.162	0.954	0.900	13:32:50	Yes
Mean:	0.901	18.02	0.061						
SD :	0.008	0.156	0.001						
%RSD:	0.87	0.87	0.87						

Element: Se Seq. No.: 42 AS Loc.: 4 Date: 07/23/1999
Sample ID: CCV
µL dispensed: 3 from 40, 20 from 4

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	24.43	24.43	0.083	0.081	0.203	0.106	0.210	13:35:39	No
2	25.42	25.42	0.086	0.084	0.197	0.044	0.056	13:38:31	Yes
Mean:	24.93	24.93	0.085						
SD :	0.701	0.701	0.002						
%RSD:	2.81	2.81	2.81						

QC value within specified limits.

Element: Se Seq. No.: 43 AS Loc.: 5 Date: 07/23/1999
Sample ID: CCB
µL dispensed: 3 from 40, 20 from 5

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	2.425	2.425	0.008	0.006	0.012	0.016	0.012	13:41:25	No
2	0.639	0.639	0.002	0.000	0.013	0.018	0.012	13:44:20	Yes
Mean:	1.532	1.532	0.005						
SD :	1.262	1.262	0.004						
%RSD:	82.42	82.42	82.42						

QC value within specified limits.

Method Name: SEKEM Element: Se
Method Description: SEKEM

Date: 07/23/1999
Technique: Furnace Calibration Equation: Zero Intercept: Linear
Wavelength: 196.0 nm Slit Width: 2.00 nm
Lamp Current: 0 Energy: 46
Sample Info File: SE0723A.SIF Results Data Set: SE072399

Element: Se Seq. No.: 44 AS Loc.: 4 Date: 07/23/1999
Sample ID: CCV
µL dispensed: 3 from 40, 20 from 4

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	25.45	25.45	0.087	0.084	0.186	0.041	0.050	14:55:49	No
2	25.42	25.42	0.086	0.084	0.190	0.040	0.056	14:58:41	Yes
Mean:	25.43	25.43	0.087						
SD :	0.021	0.021	0.000						
%RSD:	0.08	0.08	0.08						

QC value within specified limits.

Element: Se Seq. No.: 45 AS Loc.: 5 Date: 07/23/1999
Sample ID: CCB
µL dispensed: 3 from 40, 20 from 5

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	1.786	1.786	0.006	0.003	0.009	0.018	0.013	15:01:35	No
2	2.738	2.738	0.009	0.007	0.014	0.015	0.011	15:04:28	Yes
Mean:	2.262	2.262	0.008						
SD :	0.673	0.673	0.002						
%RSD:	29.77	29.77	29.77						

QC value within specified limits.

Element: Se Seq. No.: 46 AS Loc.: 6 Date: 07/23/1999
Sample ID: 07337-01.5
µL dispensed: 3 from 40, 20 from 6 r=0.99502 1.09/50 X' = -5.512

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	2.083	2.083	0.007	0.004	0.013	0.277	0.213	15:07:23	No
2	3.604	3.604	0.012	0.010	0.013	0.315	0.223	15:10:18	Yes
Mean:	2.844	2.844	0.010						
SD :	1.075	1.075	0.004						
%RSD:	37.80	37.80	37.80						

Element: Se Seq. No.: 47 AS Loc.: 7 Date: 07/23/1999
Sample ID: SP10
µL dispensed: 3 from 40, 20 from 7

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	7.347	7.347	0.025	0.022	0.065.	0.323	0.227	15:13:13	No
2	8.522	8.522	0.029	0.026	0.070	0.323	0.230	15:16:08	Yes
Mean:	7.935	7.935	0.027						
SD :	0.830	0.830	0.003						
%RSD:	10.47	10.47	10.47						

Element: Se Seq. No.: 48 AS Loc.: 8 Date: 07/23/1999
Sample ID: SP20
µL dispensed: 3 from 40, 20 from 8

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	13.55	13.55	0.046	0.044	0.130	0.329	0.240	15:19:03	No
2	13.94	13.94	0.047	0.045	0.125	0.327	0.242	15:21:56	Yes
Mean:	13.75	13.75	0.047						
SD :	0.275	0.275	0.001						
%RSD:	2.00	2.00	2.00						

Element: Se Seq. No.: 49 AS Loc.: 9 Date: 07/23/1999
Sample ID: SP30
µL dispensed: 3 from 40, 20 from 9

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	18.79	18.79	0.064	0.061	0.173	0.332	0.248	15:24:49	No
2	17.84	17.84	0.061	0.058	0.183	0.331	0.250	15:27:41	Yes
Mean:	18.31	18.31	0.062						
SD :	0.679	0.679	0.002						
%RSD:	3.70	3.70	3.70						

Element: Se Seq. No.: 50 AS Loc.: 10 Date: 07/23/1999
Sample ID: 07337-02.5
µL dispensed: 3 from 40, 20 from 10 r=0.99940 1.00/50 X'=-4.287

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	1.921	1.921	0.007	0.004	0.018	0.488	0.420	15:30:33	No
2	2.072	2.072	0.007	0.004	0.016	0.498	0.431	15:33:24	Yes
Mean:	1.996	1.996	0.007						
SD :	0.107	0.107	0.000						
%RSD:	5.35	5.35	5.35						

Element: Se Seq. No.: 51 AS Loc.: 11 Date: 07/23/1999
Sample ID: SP10
µL dispensed: 3 from 40, 20 from 11

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	6.938	6.938	0.024	0.021	0.065	0.504	0.437	15:36:16	No
2	8.096	8.096	0.028	0.025	0.061	0.509	0.441	15:39:06	Yes
Mean:	7.517	7.517	0.026						
SD :	0.818	0.818	0.003						
%RSD:	10.89	10.89	10.89						

Element: Se Seq. No.: 52 AS Loc.: 12 Date: 07/23/1999
Sample ID: SP20
µL dispensed: 3 from 40, 20 from 12

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	12.77	12.77	0.043	0.041	0.112	0.505	0.440	15:41:56	No
2	12.48	12.48	0.042	0.040	0.103	0.505	0.446	15:44:44	Yes
Mean:	12.63	12.63	0.043						
SD :	0.207	0.207	0.001						
%RSD:	1.64	1.64	1.64						

Element: Se Seq. No.: 53 AS Loc.: 13 Date: 07/23/1999
Sample ID: SP30
µL dispensed: 3 from 40, 20 from 13

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	17.03	17.03	0.058	0.055	0.163	0.510	0.460	15:47:33	No
2	17.69	17.69	0.060	0.058	0.154	0.504	0.453	15:50:20	Yes
Mean:	17.36	17.36	0.059						
SD :	0.465	0.465	0.002						
%RSD:	2.68	2.68	2.68						

Element: Se Seq. No.: 54 AS Loc.: 14 Date: 07/23/1999
Sample ID: 07362-01.5
µL dispensed: 3 from 40, 20 from 14 r=0.998 77 1.03/50 x' = -4.363

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	1.872	1.872	0.006	0.004	0.015	0.393	0.323	15:53:07	No
2	3.560	3.560	0.012	0.010	0.018	0.383	0.320	15:55:54	Yes
Mean:	2.716	2.716	0.009						
SD :	1.193	1.193	0.004						
%RSD:	43.94	43.94	43.94						

Element: Se Seq. No.: 55 AS Loc.: 15 Date: 07/23/1999
Sample ID: SP10
µL dispensed: 3 from 40, 20 from 15

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	7.074	7.074	0.024	0.021	0.068	0.393	0.333	15:58:40	No
2	8.170	8.170	0.028	0.025	0.072	0.392	0.334	16:01:24	Yes
Mean:	7.622	7.622	0.026						
SD :	0.775	0.775	0.003						
%RSD:	10.17	10.17	10.17						

Element: Se Seq. No.: 56 AS Loc.: 4 Date: 07/23/1999
Sample ID: CCV
µL dispensed: 3 from 40, 20 from 4

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	25.71	25.71	0.087	0.085	0.196	0.075	0.148	16:04:13	No
2	24.96	24.96	0.085	0.082	0.178	0.039	0.051	16:07:06	Yes
Mean:	25.33	25.33	0.086						
SD :	0.531	0.531	0.002						
%RSD:	2.10	2.10	2.10						

QC value within specified limits.

Element: Se Seq. No.: 57 AS Loc.: 5 Date: 07/23/1999
Sample ID: CCB
µL dispensed: 3 from 40, 20 from 5

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	1.814	1.814	0.006	0.004	0.009	0.013	0.012	16:09:59	No
2	2.042	2.042	0.007	0.004	0.010	0.016	0.013	16:12:53	Yes
Mean:	1.928	1.928	0.007						
SD :	0.161	0.161	0.001						
%RSD:	8.35	8.35	8.35						

QC value within specified limits.

Element: Se Seq. No.: 58 AS Loc.: 16 Date: 07/23/1999
Sample ID: SP20
µL dispensed: 3 from 40, 20 from 16

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	12.72	12.72	0.043	0.041	0.127	0.341	0.323	16:15:42	No
2	13.59	13.59	0.046	0.044	0.136	0.386	0.339	16:18:25	Yes
Mean:	13.15	13.15	0.045						
SD :	0.614	0.614	0.002						
%RSD:	4.67	4.67	4.67						

Element: Se Seq. No.: 59 AS Loc.: 17 Date: 07/23/1999
Sample ID: SP30
µL dispensed: 3 from 40, 20 from 17

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	19.19	19.19	0.065	0.063	0.185	0.389	0.345	16:21:09	No
2	19.37	19.37	0.066	0.063	0.185	0.391	0.350	16:23:52	Yes
Mean:	19.28	19.28	0.066						
SD :	0.121	0.121	0.000						
%RSD:	0.63	0.63	0.63						

Element: Se Seq. No.: 60 AS Loc.: 18 Date: 07/23/1999
Sample ID: 07362-04.5
µL dispensed: 3 from 40, 20 from 18 r=0.99903 1.06/50 X' = -5.610

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	2.560	2.560	0.009	0.006	0.014	0.409	0.350	16:26:37	No
2	2.323	2.323	0.008	0.005	0.013	0.402	0.337	16:29:21	Yes
Mean:	2.442	2.442	0.008						
SD :	0.167	0.167	0.001						
%RSD:	6.85	6.85	6.85						

Element: Se Seq. No.: 61 AS Loc.: 19 Date: 07/23/1999
Sample ID: SP10
µL dispensed: 3 from 40, 20 from 19

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	7.355	7.355	0.025	0.022	0.067	0.414	0.352	16:32:08	No
2	7.986	7.986	0.027	0.025	0.071	0.417	0.351	16:34:53	Yes
Mean:	7.670	7.670	0.026						
SD :	0.446	0.446	0.002						
%RSD:	5.82	5.82	5.82						

Element: Se Seq. No.: 62 AS Loc.: 20 Date: 07/23/1999
Sample ID: SP20
µL dispensed: 3 from 40, 20 from 20

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	12.58	12.58	0.043	0.040	0.121	0.418	0.364	16:37:41	No
2	12.32	12.32	0.042	0.039	0.119	0.421	0.370	16:40:29	Yes
Mean:	12.45	12.45	0.042						
SD :	0.178	0.178	0.001						
%RSD:	1.43	1.43	1.43						

Element: Se Seq. No.: 63 AS Loc.: 21 Date: 07/23/1999
Sample ID: SP30
µL dispensed: 3 from 40, 20 from 21

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	16.33	16.33	0.056	0.053	0.173	0.426	0.377	16:43:18	No
2	17.14	17.14	0.058	0.056	0.163	0.428	0.370	16:46:07	Yes
Mean:	16.74	16.74	0.057						
SD :	0.574	0.574	0.002						
%RSD:	3.43	3.43	3.43						

Element: Se Seq. No.: 64 AS Loc.: 22 Date: 07/23/1999
Sample ID: 07362-05.5
µL dispensed: 3 from 40, 20 from 22 r=0.99714 1.01/50 x'=-7.134

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	3.694	3.694	0.013	0.010	0.020	0.509	0.444	16:48:57	No
2	1.996	1.996	0.007	0.004	0.015	0.517	0.435	16:51:47	Yes
Mean:	2.845	2.845	0.010						
SD :	1.200	1.200	0.004						
%RSD:	42.19	42.19	42.19						

Element: Se Seq. No.: 65 AS Loc.: 23 Date: 07/23/1999
Sample ID: SP10
µL dispensed: 3 from 40, 20 from 23

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	5.528	5.528	0.019	0.016	0.053	0.526	0.447	16:54:39	No
2	7.078	7.078	0.024	0.021	0.046	0.525	0.446	16:57:30	Yes
Mean:	6.303	6.303	0.021						
SD :	1.096	1.096	0.004						
%RSD:	17.39	17.39	17.39						

Element: Se Seq. No.: 66 AS Loc.: 24 Date: 07/23/1999
Sample ID: SP20
µL dispensed: 3 from 40, 20 from 24

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	8.968	8.968	0.031	0.028	0.090	0.526	0.459	17:00:24	No
2	10.20	10.20	0.035	0.032	0.085	0.531	0.459	17:03:17	Yes
Mean:	9.582	9.582	0.033						
SD :	0.868	0.868	0.003						
%RSD:	9.06	9.06	9.06						

Element: Se Seq. No.: 67 AS Loc.: 25 Date: 07/23/1999
Sample ID: SP30
µL dispensed: 3 from 40, 20 from 25

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	13.66	13.66	0.046	0.044	0.128	0.537	0.462	17:06:13	No
2	14.59	14.59	0.050	0.047	0.127	0.529	0.460	17:09:08	Yes
Mean:	14.12	14.12	0.048						
SD :	0.657	0.657	0.002						
%RSD:	4.65	4.65	4.65						

Element: Se Seq. No.: 68 AS Loc.: 4 Date: 07/23/1999
Sample ID: CCV
µL dispensed: 3 from 40, 20 from 4

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	24.71	24.71	0.084	0.081	0.203	0.083	0.109	17:12:03	No
2	25.10	25.10	0.085	0.083	0.188	0.044	0.054	17:14:55	Yes
Mean:	24.91	24.91	0.085						
SD :	0.272	0.272	0.001						
%RSD:	1.09	1.09	1.09						

QC value within specified limits.

Element: Se Seq. No.: 69 AS Loc.: 5 Date: 07/23/1999
Sample ID: CCB
µL dispensed: 3 from 40, 20 from 5

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	2.314	2.314	0.008	0.005	0.009	0.017	0.016	17:17:49	No
2	2.237	2.237	0.008	0.005	0.011	0.013	0.014	17:20:42	Yes
Mean:	2.276	2.276	0.008						
SD :	0.054	0.054	0.000						
%RSD:	2.39	2.39	2.39						

QC value within specified limits.

Element: Se Seq. No.: 70 AS Loc.: 26 Date: 07/23/1999
Sample ID: 07362-06.5
µL dispensed: 3 from 40, 20 from 26 r=0.99857 1.01/50 X' = -4.689

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	3.365	3.365	0.011	0.009	0.024	0.422	0.386	17:23:37	No
2	2.340	2.340	0.008	0.005	0.022	0.467	0.405	17:26:31	Yes
Mean:	2.852	2.852	0.010						
SD :	0.724	0.724	0.002						
%RSD:	25.39	25.39	25.39						

Element: Se Seq. No.: 71 AS Loc.: 27 Date: 07/23/1999
Sample ID: SP10
µL dispensed: 3 from 40, 20 from 27

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	8.969	8.969	0.031	0.028	0.076	0.475	0.420	17:29:25	No
2	6.966	6.966	0.024	0.021	0.067	0.480	0.411	17:32:16	Yes
Mean:	7.967	7.967	0.027						
SD :	1.416	1.416	0.005						
%RSD:	17.78	17.78	17.78						

Element: Se Seq. No.: 72 AS Loc.: 28 Date: 07/23/1999
Sample ID: SP20
µL dispensed: 3 from 40, 20 from 28

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	14.76	14.76	0.050	0.048	0.137	0.478	0.421	17:35:07	No
2	14.50	14.50	0.049	0.047	0.130	0.476	0.422	17:37:57	Yes
Mean:	14.63	14.63	0.050						
SD :	0.186	0.186	0.001						
%RSD:	1.27	1.27	1.27						

Element: Se Seq. No.: 73 AS Loc.: 29 Date: 07/23/1999
Sample ID: SP30
µL dispensed: 3 from 40, 20 from 29

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	19.53	19.53	0.066	0.064	0.180	0.480	0.430	17:40:50	No
2	20.00	20.00	0.068	0.065	0.186	0.477	0.432	17:43:39	Yes
Mean:	19.77	19.77	0.067						
SD :	0.332	0.332	0.001						
%RSD:	1.68	1.68	1.68						

Element: Se Seq. No.: 74 AS Loc.: 30 Date: 07/23/1999
Sample ID: 07362-07.5
µL dispensed: 3 from 40, 20 from 30 r=0.99996 1.03/50 x'= -3.921

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	2.428	2.428	0.008	0.006	0.012	0.185	0.116	17:46:27	No
2	2.460	2.460	0.008	0.006	0.011	0.152	0.095	17:49:16	Yes
Mean:	2.444	2.444	0.008						
SD :	0.023	0.023	0.000						
%RSD:	0.93	0.93	0.93						

Element: Se Seq. No.: 75 AS Loc.: 31 Date: 07/23/1999
Sample ID: SP10
µL dispensed: 3 from 40, 20 from 31

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	8.179	8.179	0.028	0.025	0.068	0.153	0.100	17:52:04	No
2	9.266	9.266	0.032	0.029	0.067	0.146	0.095	17:54:49	Yes
Mean:	8.723	8.723	0.030						
SD :	0.769	0.769	0.003						
%RSD:	8.81	8.81	8.81						

Element: Se Seq. No.: 76 AS Loc.: 32 Date: 07/23/1999
Sample ID: SP20
µL dispensed: 3 from 40, 20 from 32

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	15.25	15.25	0.052	0.049	0.131	0.153	0.101	17:57:34	No
2	15.03	15.03	0.051	0.049	0.132	0.153	0.101	18:00:19	Yes
Mean:	15.14	15.14	0.051						
SD :	0.155	0.155	0.001						
%RSD:	1.02	1.02	1.02						

Element: Se Seq. No.: 77 AS Loc.: 33 Date: 07/23/1999
Sample ID: SP30
µL dispensed: 3 from 40, 20 from 33

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	20.96	20.96	0.071	0.069	0.200	0.161	0.104	18:03:04	No
2	21.55	21.55	0.073	0.071	0.193	0.160	0.101	18:05:48	Yes
Mean:	21.25	21.25	0.072						
SD :	0.420	0.420	0.001						
%RSD:	1.98	1.98	1.98						

Element: Se Seq. No.: 78 AS Loc.: 34 Date: 07/23/1999
Sample ID: ~~07362-08.5~~ BLK 255072355
µL dispensed: 3 from 40, 20 from 34

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	1.724	1.724	0.006	0.003	0.018	0.025	0.057	18:08:33	No
2	0.772	0.772	0.003	0.000	0.010	0.009	0.012	18:11:18	Yes
Mean:	1.248	1.248	0.004						
SD :	0.673	0.673	0.002						
%RSD:	53.95	53.95	53.95						

Element: Se Seq. No.: 79 AS Loc.: 35 Date: 07/23/1999
Sample ID: ~~SP10~~ BLK 255072355
µL dispensed: 3 from 40, 20 from 35

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	1.992	1.992	0.007	0.004	0.013	0.007	0.013	18:14:04	No
2	1.689	1.689	0.006	0.003	0.010	0.010	0.012	18:16:51	Yes
Mean:	1.840	1.840	0.006						
SD :	0.214	0.214	0.001						
%RSD:	11.65	11.65	11.65						

Element: Se Seq. No.: 80 AS Loc.: 4 Date: 07/23/1999
Sample ID: CCV
µL dispensed: 3 from 40, 20 from 4

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	24.29	24.29	0.083	0.080	0.176	0.034	0.045	18:19:41	No
2	26.45	26.45	0.090	0.087	0.178	0.033	0.050	18:22:33	Yes
Mean:	25.37	25.37	0.086						
SD :	1.524	1.524	0.005						
%RSD:	6.01	6.01	6.01						

QC value within specified limits.

Element: Se Seq. No.: 81 AS Loc.: 5 Date: 07/23/1999
Sample ID: CCB
µL dispensed: 3 from 40, 20 from 5

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	1.437	1.437	0.005	0.002	0.008	0.015	0.012	18:25:27	No
2	1.353	1.353	0.005	0.002	0.012	0.014	0.011	18:28:23	Yes
Mean:	1.395	1.395	0.005						
SD :	0.059	0.059	0.000						
%RSD:	4.26	4.26	4.26						

QC value within specified limits.

Element: Se Seq. No.: 82 AS Loc.: 36 Date: 07/23/1999
Sample ID: SP20
µL dispensed: 3 from 40, 20 from 36

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	2.142	2.142	0.007	0.005	0.010	0.009	0.011	18:31:14	No
2	1.552	1.552	0.005	0.003	0.009	0.021	0.043	18:34:02	Yes
Mean:	1.847	1.847	0.006						
SD :	0.417	0.417	0.001						
%RSD:	22.60	22.60	22.60						

Element: Se Seq. No.: 83 AS Loc.: 37 Date: 07/23/1999
Sample ID: SP30
µL dispensed: 3 from 40, 20 from 37

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	1.685	1.685	0.006	0.003	0.009	0.008	0.011	18:36:54	No
2	1.282	1.282	0.004	0.002	0.012	0.009	0.011	18:39:47	Yes
Mean:	1.484	1.484	0.005						
SD :	0.285	0.285	0.001						
%RSD:	19.19	19.19	19.19						

KEMRON ENVIRONMENTAL SERVICES
FURNACE RUN LOGBOOK

ANALYST [illegible] SE DATE 07/26/95 TIME 0959
METHOD # 7740 SOP # ME503C REV. # 2 WORK GROUP # WG 6518 WG 6463
CAL STD SOURCE MW-1-16-18 ICV/CCV SOURCE MS-2-42A
POST SPK SOURCE MS-2-42B

Cup #	Sample No.	Dil	Prep Conc	Autosampler Runs	Cup #	Sample No.	Dil	Prep Conc	Autosampler Runs
					27.	KE03-95-2002 07380-03.5	0.5	1.07/50	
					28.	SP10			CCV SD CCV CCB
					29.	SP20			
					30.	SP30			
					31.	KE03-95-2003 07380-04.5	0.5	1.08/50	
					32.	SP10			
					33.	SP20			
					34.	SP30			
1.	SQ			S4 S10	35.	KE03-95-2004 07380-05.5	0.5	1.01/50	
2.	S20				36.	SP10			
3.	S50				37.	SP20			
4.	ICV				38.	SP30			CCV CCB
5.	ICB			CCV CCB	39.	KE03-95-2005 07380-06.5	0.5	1.08/50	
6.	PBW CL WG6971-03				40.	SP10			SD
7.	CLSW -04				41.	SP20			
8.	07404-01				42.	SP30			
9.	07406-04 -02			SD	43.	KE03-95-2006 07380-07.5	0.5	1.05/50	
10.	DU004 -07				44.	SP10			
11.	07406-09				45.	SP20			
12.	07406-51.5	0.5			46.	SP30			
13.	SP051				47.	KE03-95-2007 07380-08.5	0.5	1.00/50	CCV CCB
14.	07406-56			CCV CCB	48.	SP10			
15.	07399-01 -01				49.	SP20			
16.	MS01 -05				50.	SP30			CCV CCB
17.	MSD01 -06			CCV CCB	51.	KE03-95-2004 07380-05.2	0.2	1.01/10	
18.	07406-46			CCV CCB	52.	SP10			
19.	KE03-95-2000 07380-01.5	0.5	1.06/50		53.	SP20			
20.	SP10				54.	SP30			
21.	SP20		✓		55.	KE03-95-2005 07380-06.2	0.2	1.08/50	
22.	SP30				56.	SP10			
23.	KE03-95-2001 07380-02.5	0.5	1.07/50		57.	SP20			
24.	SP10				58.	SP30			CCV CCB
25.	SP20				59.				
26.	SP30				60.	1155 07/26/95			

Comments: _____

Note: No entry for Dil represents 1X Dilution

Autosampler Run Key:
CCV - Continuing Calibration Verfication
CCB = Continuing Calibration Blank
FRS = Rull Recalibration Sequence
% D = Automatic Instrument Rerun due to % RSD > 20%

ID = Automatic Instrument Dilution
R = Analyst Rerun
BLK = Blank Run

ID2 = 2x Dilution
ID4 = 4x Dilution
ID5 = 5x Dilution
ID10 = 10x Dilution
ID 20 - 20x Dilution

Reviewed by: _____

mw-1-16-18 w6/5/8 w61463

Method Name: SEKEM
Method Description: SEKEM

Element: Se

Date: 07/26/1999
Technique: Furnace
Wavelength: 196.0 nm
Lamp Current: 0
Sample Info File: SE072699.SIF

Calibration Equation: Zero Intercept: Linear
Slit Width: 2.00 nm
Energy: 48
Results Data Set: SE072699

Element: Se Seq. No.: 1 AS Loc.: 1 Date: 07/26/1999
Sample ID: S0
µL dispensed: 3 from 40, 20 from 1

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1			0.006	0.006	0.012	0.035	0.019	09:59:00	No
2			0.005	0.005	0.013	0.025	0.014	10:01:48	Yes
Mean:			0.006						
SD :			0.001						
%RSD:			12.18						

Auto-zero performed.

Element: Se Seq. No.: 2 AS Loc.: 2 Date: 07/26/1999
Sample ID: S4
µL dispensed: 16 from 1, 3 from 40, 4 from 2

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1			0.013	0.019	0.035	0.030	0.019	10:04:44	No
2			0.015	0.021	0.032	0.028	0.016	10:07:39	Yes
Mean:			0.014						
SD :			0.002						
%RSD:			11.28						

Standard number 1 applied. [4.000]
Correlation Coefficient: 1.0000 Slope: 0.0035

Element: Se Seq. No.: 3 AS Loc.: 2 Date: 07/26/1999
Sample ID: S10
µL dispensed: 10 from 1, 3 from 40, 10 from 2

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1			0.035	0.041	0.074	0.031	0.027	10:10:35	No
2			0.036	0.042	0.073	0.028	0.026	10:13:30	Yes
Mean:			0.036						
SD :			0.001						
%RSD:			2.10						

Standard number 2 applied. [10.000]
Correlation Coefficient: 0.9996 Slope: 0.0036

Element: Se Seq. No.: 4 AS Loc.: 2 Date: 07/26/1999
Sample ID: S20
µL dispensed: 3 from 40, 20 from 2

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1			0.071	0.077	0.151	0.034	0.039	10:16:20	No
2			0.069	0.075	0.156	0.035	0.041	10:19:10	Yes
Mean:			0.070						
SD :			0.002						
%RSD:			2.67						

Standard number 3 applied. [20.000]
Correlation Coefficient: 0.9999 Slope: 0.0035

Element: Se Seq. No.: 5 AS Loc.: 3 Date: 07/26/1999
Sample ID: S50
µL dispensed: 3 from 40, 20 from 3

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1			0.171	0.177	0.360	0.059	0.087	10:22:00	No
2			0.177	0.182	0.363	0.058	0.092	10:24:51	Yes
Mean:			0.174						
SD :			0.004						
%RSD:			2.21						

Standard number 4 applied. [50.000]
Correlation Coefficient: 1.0000 Slope: 0.0035

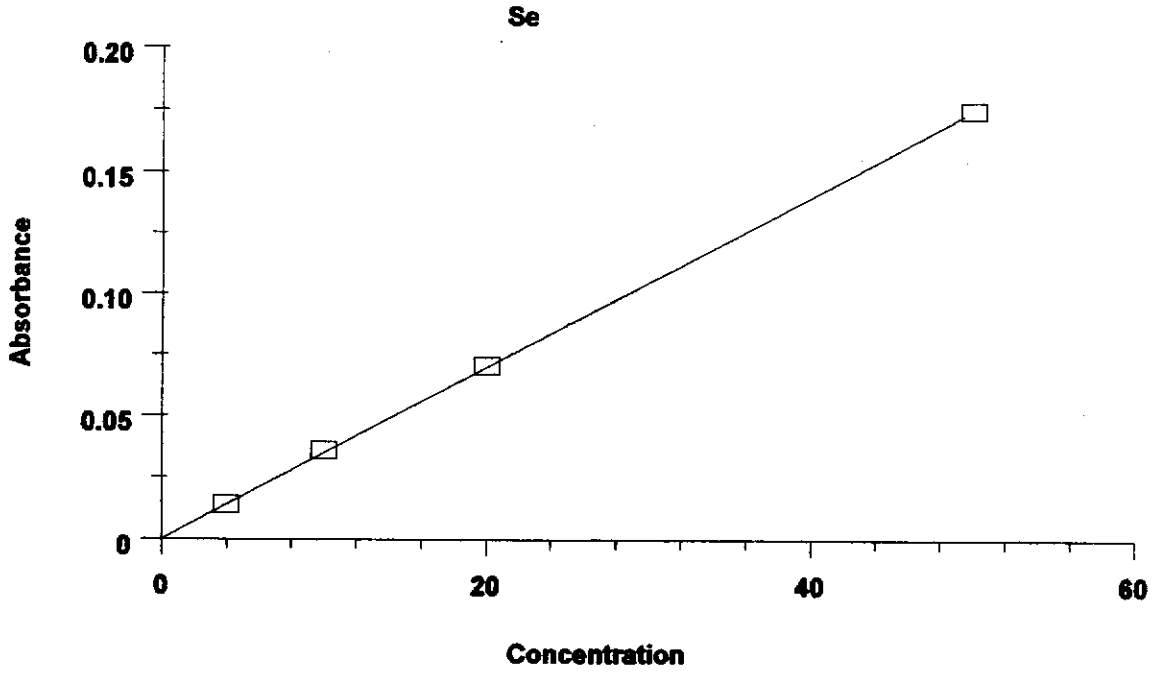

Calibration data for Se

Standard ID	Mean Signal (Pk Area)	Entered Concentration (µg/L)	Calculated Concentration (µg/L)	Standard Deviation	%RSD
S0	0.000	----	0.000	0.001	12.176
S4	0.014	4.000	3.963	0.002	11.277
S10	0.036	10.000	10.25	0.001	2.103
S20	0.070	20.000	20.11	0.002	2.675
S50	0.174	50.000	49.91	0.004	2.205

Correlation Coefficient: 0.99997 Slope: 0.00349

Element: Se Seq. No.: 6 AS Loc.: 4 Date: 07/26/1999
Sample ID: ICV
µL dispensed: 3 from 40, 20 from 4

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	24.14	24.14	0.084	0.090	0.158	0.037	0.041	10:27:45	No
2	23.45	23.45	0.082	0.088	0.161	0.040	0.043	10:30:37	Yes
Mean:	23.80	23.80	0.083						
SD :	0.489	0.489	0.002						
%RSD:	2.05	2.05	2.05						

QC value within specified limits.

Element: Se Seq. No.: 7 AS Loc.: 5 Date: 07/26/1999
Sample ID: ICB
µL dispensed: 3 from 40, 20 from 5

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	-0.031	-0.031	0.000	0.006	0.010	0.018	0.012	10:33:31	No
2	-0.178	-0.178	-0.001	0.005	0.012	0.017	0.011	10:36:24	Yes
Mean:	-0.104	-0.104	0.000						
SD :	0.104	0.104	0.000						
%RSD:	99.83	99.83	99.83						

QC value within specified limits.

Element: Se Seq. No.: 8 AS Loc.: 4 Date: 07/26/1999
Sample ID: CCV
µL dispensed: 3 from 40, 20 from 4

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	23.90	23.90	0.083	0.089	0.157	0.040	0.048	10:39:18	No
2	23.82	23.82	0.083	0.089	0.158	0.039	0.042	10:42:12	Yes
Mean:	23.86	23.86	0.083						
SD :	0.054	0.054	0.000						
%RSD:	0.23	0.23	0.23						

QC value within specified limits.

Element: Se Seq. No.: 9 AS Loc.: 5 Date: 07/26/1999
Sample ID: CCB
µL dispensed: 3 from 40, 20 from 5

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	0.409	0.409	0.001	0.007	0.010	0.016	0.010	10:45:06	No
2	-0.485	-0.485	-0.002	0.004	0.009	0.018	0.009	10:48:00	Yes
Mean:	-0.038	-0.038	0.000						
SD :	0.632	0.632	0.002						
%RSD:	1664	1664	1664.43						

QC value within specified limits.

Element: Se Seq. No.: 10 AS Loc.: 6 Date: 07/26/1999
Sample ID: PBW CL WG61471-03
µL dispensed: 3 from 40, 20 from 6

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	-0.624	-0.624	-0.002	0.004	0.009	0.017	0.012	10:50:54	No
2	-1.183	-1.183	-0.004	0.002	0.008	0.015	0.013	10:53:49	Yes
Mean:	-0.903	-0.903	-0.003						
SD :	0.396	0.396	0.001						
%RSD:	43.80	43.80	43.80						

Element: Se Seq. No.: 11 AS Loc.: 7 Date: 07/26/1999
Sample ID: LCSW WG61471-04
µL dispensed: 3 from 40, 20 from 7

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	25.45	25.45	0.089	0.095	0.210	0.036	0.052	10:56:44	No
2	24.82	24.82	0.087	0.092	0.211	0.037	0.054	10:59:39	Yes
Mean:	25.14	25.14	0.088						
SD :	0.446	0.446	0.002						
%RSD:	1.77	1.77	1.77						

Element: Se Seq. No.: 12 AS Loc.: 8 Date: 07/26/1999
Sample ID: 07404-01
µL dispensed: 3 from 40, 20 from 8

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	45.34	45.34	0.158	0.164	0.173	0.684	0.261	11:02:33	No
2	47.67	47.67	0.166	0.172	0.181	0.759	0.339	11:05:26	Yes
Mean:	46.51	46.51	0.162						
SD :	1.643	1.643	0.006						
%RSD:	3.53	3.53	3.53						

Element: Se Seq. No.: 13 AS Loc.: 9 Date: 07/26/1999
Sample ID: 07406-04 WG61471-02
µL dispensed: 3 from 40, 20 from 9

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	9.588	9.588	0.033	0.039	0.046	0.112	0.100	11:08:20	No
2	4.792	4.792	0.017	0.023	0.025	0.060	0.061	11:11:12	Yes
Mean:	7.190	7.190	0.025						
SD :	3.392	3.392	0.012						
%RSD:	47.17	47.17	47.17						

RSD is over the limit.

Element: Se Seq. No.: 14 AS Loc.: 9 Date: 07/26/1999
Sample ID: 07406-04 WG61471-02
µL dispensed: 3 from 40, 20 from 9

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	2.018	2.018	0.007	0.013	0.019	0.053	0.049	11:14:04	No
2	1.210	1.210	0.004	0.010	0.017	0.044	0.036	11:16:56	Yes
Mean:	1.614	1.614	0.006						
SD :	0.571	0.571	0.002						
%RSD:	35.40	35.40	35.40						

Element: Se Seq. No.: 15 AS Loc.: 10 Date: 07/26/1999
Sample ID: DUP04 WG61471-07
µL dispensed: 3 from 40, 20 from 10

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	0.227	0.227	0.001	0.007	0.016	0.037	0.033	11:19:48	No
2	0.472	0.472	0.002	0.007	0.012	0.030	0.029	11:22:38	Yes
Mean:	0.350	0.350	0.001						
SD :	0.173	0.173	0.001						
%RSD:	49.54	49.54	49.54						

Element: Se Seq. No.: 16 AS Loc.: 11 Date: 07/26/1999
Sample ID: 07406-09
µL dispensed: 3 from 40, 20 from 11

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	0.213	0.213	0.001	0.007	0.012	0.035	0.022	11:25:29	No
2	0.548	0.548	0.002	0.008	0.011	0.031	0.017	11:28:18	Yes
Mean:	0.381	0.381	0.001						
SD :	0.237	0.237	0.001						
%RSD:	62.24	62.24	62.24						

Element: Se Seq. No.: 17 AS Loc.: 12 Date: 07/26/1999
Sample ID: 07406-51.9
µL dispensed: 3 from 40, 20 from 12

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	-0.019	-0.019	0.000	0.006	0.011	0.025	0.018	11:31:07	No
2	0.034	0.034	0.000	0.006	0.010	0.023	0.014	11:33:56	Yes
Mean:	0.008	0.008	0.000						
SD :	0.038	0.038	0.000						
%RSD:	493.3	493.3	493.31						

Element: Se Seq. No.: 18 AS Loc.: 13 Date: 07/26/1999
Sample ID: SP51
µL dispensed: 3 from 40, 20 from 13

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	25.96	25.96	0.090	0.096	0.203	0.043	0.056	11:36:45	No
2	25.28	25.28	0.088	0.094	0.210	0.048	0.055	11:39:32	Yes
Mean:	25.62	25.62	0.089						
SD :	0.480	0.480	0.002						
%RSD:	1.87	1.87	1.87						

Element: Se Seq. No.: 19 AS Loc.: 14 Date: 07/26/1999
Sample ID: 07406-56
µL dispensed: 3 from 40, 20 from 14

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	-0.085	-0.085	0.000	0.006	0.011	0.024	0.015	11:42:19	No
2	-0.890	-0.890	-0.003	0.003	0.010	0.025	0.014	11:45:05	Yes
Mean:	-0.487	-0.487	-0.002						
SD :	0.569	0.569	0.002						
%RSD:	116.7	116.7	116.73						

Element: Se Seq. No.: 20 AS Loc.: 4 Date: 07/26/1999
Sample ID: CCV
µL dispensed: 3 from 40, 20 from 4

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	23.14	23.14	0.081	0.087	0.153	0.042	0.040	11:47:54	No
2	23.59	23.59	0.082	0.088	0.151	0.041	0.045	11:50:47	Yes
Mean:	23.37	23.37	0.081						
SD :	0.317	0.317	0.001						
%RSD:	1.36	1.36	1.36						

QC value within specified limits.

Element: Se Seq. No.: 21 AS Loc.: 5 Date: 07/26/1999
Sample ID: CCB
µL dispensed: 3 from 40, 20 from 5

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	-0.368	-0.368	-0.001	0.005	0.010	0.018	0.012	11:53:41	No
2	-0.048	-0.048	0.000	0.006	0.009	0.015	0.010	11:56:34	Yes
Mean:	-0.208	-0.208	-0.001						
SD :	0.226	0.226	0.001						
%RSD:	108.7	108.7	108.72						

QC value within specified limits.

Element: Se Seq. No.: 22 AS Loc.: 15 Date: 07/26/1999
Sample ID: 07399-01 WG61471-01
µL dispensed: 3 from 40, 20 from 15

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	-0.462	-0.462	-0.002	0.004	0.008	0.046	0.031	11:59:24	No
2	0.290	0.290	0.001	0.007	0.008	0.049	0.030	12:02:09	Yes
Mean:	-0.086	-0.086	0.000						
SD :	0.532	0.532	0.002						
%RSD:	619.4	619.4	619.45						

Element: Se Seq. No.: 23 AS Loc.: 16 Date: 07/26/1999
Sample ID: MS01 WG61471-05
µL dispensed: 3 from 40, 20 from 16

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	20.44	20.44	0.071	0.077	0.119	0.070	0.057	12:04:54	No
2	21.02	21.02	0.073	0.079	0.119	0.073	0.059	12:07:39	Yes
Mean:	20.73	20.73	0.072						
SD :	0.406	0.406	0.001						
%RSD:	1.96	1.96	1.96						

Element: Se Seq. No.: 24 AS Loc.: 17 Date: 07/26/1999
Sample ID: MSD01 WG61471-06
µL dispensed: 3 from 40, 20 from 17

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	20.43	20.43	0.071	0.077	0.113	0.075	0.055	12:10:22	No
2	21.14	21.14	0.074	0.080	0.115	0.075	0.060	12:13:05	Yes
Mean:	20.79	20.79	0.072						
SD :	0.502	0.502	0.002						
%RSD:	2.42	2.42	2.42						

Element: Se Seq. No.: 25 AS Loc.: 4 Date: 07/26/1999
Sample ID: CCV
µL dispensed: 3 from 40, 20 from 4

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	24.59	24.59	0.086	0.092	0.165	0.043	0.043	12:15:54	No
2	24.60	24.60	0.086	0.092	0.162	0.042	0.044	12:18:46	Yes
Mean:	24.59	24.59	0.086						
SD :	0.012	0.012	0.000						
%RSD:	0.05	0.05	0.05						

QC value within specified limits.

Element: Se Seq. No.: 26 AS Loc.: 5 Date: 07/26/1999
Sample ID: CCB
µL dispensed: 3 from 40, 20 from 5

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	-0.376	-0.376	-0.001	0.005	0.011	0.020	0.017	12:21:40	No
2	0.386	0.386	0.001	0.007	0.009	0.019	0.013	12:24:33	Yes
Mean:	0.005	0.005	0.000						
SD :	0.539	0.539	0.002						
%RSD:	11430	11430	11429.15						

QC value within specified limits.

Method Name: SEKEM Element: Se
Method Description: SEKEM

Date: 07/26/1999
Technique: Furnace Calibration Equation: Zero Intercept: Linear
Wavelength: 196.0 nm Slit Width: 2.00 nm
Lamp Current: 0 Energy: 49
Sample Info File: SE072699.SIF Results Data Set: SE072699

Element: Se Seq. No.: 27 AS Loc.: 6 Date: 07/26/1999
Sample ID: 07406-~~4846~~ [illegible]
µL dispensed: 3 from 40, 20 from 6

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	-0.281	-0.281	-0.001	0.005	0.008	0.021	0.011	12:31:14	No
2	-0.584	-0.584	-0.002	0.004	0.008	0.033	0.026	12:34:09	Yes
Mean:	-0.433	-0.433	-0.002						
SD :	0.214	0.214	0.001						
%RSD:	49.38	49.38	49.38						

Element: Se Seq. No.: 28 AS Loc.: 4 Date: 07/26/1999
Sample ID: CCV
µL dispensed: 3 from 40, 20 from 4

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	24.81	24.81	0.086	0.092	0.159	0.039	0.044	12:37:03	No
2	24.93	24.93	0.087	0.093	0.163	0.036	0.045	12:39:55	Yes
Mean:	24.87	24.87	0.087						
SD :	0.081	0.081	0.000						
%RSD:	0.33	0.33	0.33						

QC value within specified limits.

Element: Se Seq. No.: 29 AS Loc.: 5 Date: 07/26/1999
Sample ID: CCB
µL dispensed: 3 from 40, 20 from 5

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	0.017	0.017	0.000	0.006	0.010	0.013	0.009	12:42:49	No
2	-0.255	-0.255	-0.001	0.005	0.009	0.014	0.010	12:45:42	Yes
Mean:	-0.119	-0.119	0.000						
SD :	0.192	0.192	0.001						
%RSD:	161.3	161.3	161.27						

QC value within specified limits.

Element: Se Seq. No.: 30 AS Loc.: 6 Date: 07/26/1999
Sample ID: 07380-01.5 RE03-99-2000
µL dispensed: 3 from 40, 20 from 6 r=0.55533 1.06/50 X=0.808

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	-0.410	-0.410	-0.001	0.004	0.015	0.376	0.312	12:52:23	No
2	-0.674	-0.674	-0.002	0.004	0.014	0.444	0.346	12:55:20	Yes
Mean:	-0.542	-0.542	-0.002						
SD :	0.186	0.186	0.001						
%RSD:	34.35	34.35	34.35						

Element: Se Seq. No.: 31 AS Loc.: 7 Date: 07/26/1999
Sample ID: SP10
µL dispensed: 3 from 40, 20 from 7

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	5.354	5.354	0.019	0.025	0.058	0.443	0.349	12:58:15	No
2	4.830	4.830	0.017	0.023	0.053	0.445	0.347	13:01:10	Yes
Mean:	5.092	5.092	0.018						
SD :	0.371	0.371	0.001						
%RSD:	7.28	7.28	7.28						

Element: Se Seq. No.: 32 AS Loc.: 8 Date: 07/26/1999
Sample ID: SP20
µL dispensed: 3 from 40, 20 from 8

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	9.677	9.677	0.034	0.040	0.101	0.445	0.349	13:04:04	No
2	9.774	9.774	0.034	0.040	0.097	0.449	0.347	13:06:57	Yes
Mean:	9.726	9.726	0.034						
SD :	0.068	0.068	0.000						
%RSD:	0.70	0.70	0.70						

Element: Se Seq. No.: 33 AS Loc.: 9 Date: 07/26/1999
Sample ID: SP30
µL dispensed: 3 from 40, 20 from 9

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	15.51	15.51	0.054	0.060	0.145	0.448	0.350	13:09:53	No
2	14.99	14.99	0.052	0.058	0.144	0.453	0.361	13:12:44	Yes
Mean:	15.25	15.25	0.053						
SD :	0.365	0.365	0.001						
%RSD:	2.39	2.39	2.39						

Element: Se Seq. No.: 34 AS Loc.: 10 Date: 07/26/1999
Sample ID: 07380-02.5 RE03-99-2001
µL dispensed: 3 from 40, 20 from 10 r=0.55590 1.07/50 x'= -0.5578

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	-0.090	-0.090	0.000	0.006	0.012	0.532	0.412	13:15:37	No
2	0.781	0.781	0.003	0.009	0.015	0.527	0.417	13:18:28	Yes
Mean:	0.345	0.345	0.001						
SD :	0.615	0.615	0.002						
%RSD:	178.2	178.2	178.17						

Element: Se Seq. No.: 35 AS Loc.: 11 Date: 07/26/1999
Sample ID: SP10
µL dispensed: 3 from 40, 20 from 11

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	5.006	5.006	0.017	0.023	0.046	0.541	0.428	13:21:18	No
2	5.556	5.556	0.019	0.025	0.049	0.533	0.423	13:24:10	Yes
Mean:	5.281	5.281	0.018						
SD :	0.389	0.389	0.001						
%RSD:	7.36	7.36	7.36						

Element: Se Seq. No.: 36 AS Loc.: 12 Date: 07/26/1999
Sample ID: SP20
µL dispensed: 3 from 40, 20 from 12

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	10.47	10.47	0.036	0.042	0.087	0.536	0.429	13:27:00	No
2	10.77	10.77	0.038	0.043	0.081	0.541	0.432	13:29:48	Yes
Mean:	10.62	10.62	0.037						
SD :	0.212	0.212	0.001						
%RSD:	2.00	2.00	2.00						

Element: Se Seq. No.: 37 AS Loc.: 13 Date: 07/26/1999
Sample ID: SP30
µL dispensed: 3 from 40, 20 from 13

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	15.93	15.93	0.056	0.061	0.117	0.545	0.442	13:32:37	No
2	15.36	15.36	0.054	0.059	0.115	0.547	0.442	13:35:24	Yes
Mean:	15.65	15.65	0.055						
SD :	0.402	0.402	0.001						
%RSD:	2.57	2.57	2.57						

Element: Se Seq. No.: 38 AS Loc.: 14 Date: 07/26/1999
Sample ID: 07380-03.5 RE03-99-2002
µL dispensed: 3 from 40, 20 from 14 r=.999920 1.07/50 X' = -0.6855

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	0.298	0.298	0.001	0.007	0.022	0.557	0.430	13:38:12	No
2	0.569	0.569	0.002	0.008	0.021	0.565	0.429	13:40:57	Yes
Mean:	0.434	0.434	0.002						
SD :	0.192	0.192	0.001						
%RSD:	44.17	44.17	44.17						

Element: Se Seq. No.: 39 AS Loc.: 15 Date: 07/26/1999
Sample ID: SP10
µL dispensed: 3 from 40, 20 from 15

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	4.098	4.098	0.014	0.020	0.047	0.569	0.435	13:43:43	No
2	5.007	5.007	0.017	0.023	0.051	0.559	0.435	13:46:27	Yes
Mean:	4.553	4.553	0.016						
SD :	0.642	0.642	0.002						
%RSD:	14.11	14.11	14.11						

Element: Se Seq. No.: 40 AS Loc.: 4 Date: 07/26/1999
Sample ID: CCV
µL dispensed: 3 from 40, 20 from 4

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	24.24	24.24	0.084	0.090	0.188	0.090	0.192	13:49:16	No
2	11.14	11.14	0.039	0.045	0.070	0.419	0.441	13:58:47	Yes
Mean:	17.69	17.69	0.062						
SD :	9.268	9.268	0.032						
%RSD:	52.39	52.39	52.39						

RSD is over the limit.

Computer back up at for verification ASS 07/26/99

Element: Se Seq. No.: 41 AS Loc.: 4 Date: 07/26/1999
Sample ID: CCV
µL dispensed: 3 from 40, 20 from 4

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	21.80	21.80	0.076	0.082	0.168	0.075	0.072	14:01:42	No
2	22.85	22.85	0.080	0.086	0.158	0.052	0.047	14:04:37	Yes
Mean:	22.32	22.32	0.078						
SD :	0.748	0.748	0.003						
%RSD:	3.35	3.35	3.35						

QC out of limits. An alarm was sounded and the system waits for operator action.

Method Name: SEKEM Element: Se
Method Description: SEKEM

Date: 07/26/1999
Technique: Furnace Calibration Equation: Zero Intercept: Linear
Wavelength: 196.0 nm Slit Width: 2.00 nm
Lamp Current: 0 Energy: 50
Sample Info File: SE0726A.SIF Results Data Set: SE072699

Element: Se Seq. No.: 42 AS Loc.: 4 Date: 07/26/1999
Sample ID: CCV
µL dispensed: 3 from 40, 20 from 4

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	23.80	23.80	0.083	0.089	0.159	0.049	0.045	14:10:03	No
2	25.68	25.68	0.089	0.095	0.165	0.042	0.049	14:12:55	Yes
Mean:	24.74	24.74	0.086						
SD :	1.327	1.327	0.005						
%RSD:	5.36	5.36	5.36						

QC value within specified limits.

Element: Se Seq. No.: 43 AS Loc.: 5 Date: 07/26/1999
Sample ID: CCB
µL dispensed: 3 from 40, 20 from 5

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	0.209	0.209	0.001	0.007	0.009	0.019	0.012	14:15:52	No
2	-0.150	-0.150	-0.001	0.005	0.009	0.019	0.012	14:18:45	Yes
Mean:	0.029	0.029	0.000						
SD :	0.254	0.254	0.001						
%RSD:	872.4	872.4	872.36						

QC value within specified limits.

Element: Se Seq. No.: 44 AS Loc.: 16 Date: 07/26/1999
Sample ID: SP20
µL dispensed: 3 from 40, 20 from 16

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	9.298	9.298	0.032	0.038	0.093	0.481	0.406	14:21:34	No
2	8.006	8.006	0.028	0.034	0.095	0.549	0.432	14:24:17	Yes
Mean:	8.652	8.652	0.030						
SD :	0.914	0.914	0.003						
%RSD:	10.57	10.57	10.57						

Element: Se Seq. No.: 45 AS Loc.: 17 Date: 07/26/1999
Sample ID: SP30
µL dispensed: 3 from 40, 20 from 17

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	13.65	13.65	0.048	0.053	0.134	0.553	0.449	14:27:01	No
2	13.29	13.29	0.046	0.052	0.125	0.556	0.447	14:29:44	Yes
Mean:	13.47	13.47	0.047						
SD :	0.256	0.256	0.001						
%RSD:	1.90	1.90	1.90						

Element: Se Seq. No.: 46 AS Loc.: 18 Date: 07/26/1999
Sample ID: 07380-04.5 RE03-99-2003
µL dispensed: 3 from 40, 20 from 18 r=0.99951 1.08/50 X'=-2.810

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	0.569	0.569	0.002	0.008	0.022	0.742	0.592	14:32:29	No
2	1.559	1.559	0.005	0.011	0.027	0.761	0.601	14:35:14	Yes
Mean:	1.064	1.064	0.004						
SD :	0.700	0.700	0.002						
%RSD:	65.79	65.79	65.79						

Element: Se Seq. No.: 47 AS Loc.: 19 Date: 07/26/1999
Sample ID: SP10
µL dispensed: 3 from 40, 20 from 19

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	4.336	4.336	0.015	0.021	0.047	0.779	0.600	14:38:02	No
2	4.219	4.219	0.015	0.021	0.055	0.773	0.604	14:40:47	Yes
Mean:	4.277	4.277	0.015						
SD :	0.083	0.083	0.000						
%RSD:	1.94	1.94	1.94						

Element: Se Seq. No.: 48 AS Loc.: 20 Date: 07/26/1999
Sample ID: SP20
µL dispensed: 3 from 40, 20 from 20

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	7.870	7.870	0.027	0.033	0.085	0.797	0.618	14:43:35	No
2	8.295	8.295	0.029	0.035	0.080	0.787	0.615	14:46:22	Yes
Mean:	8.082	8.082	0.028						
SD :	0.300	0.300	0.001						
%RSD:	3.72	3.72	3.72						

Element: Se Seq. No.: 49 AS Loc.: 21 Date: 07/26/1999
Sample ID: SP30
µL dispensed: 3 from 40, 20 from 21

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	11.67	11.67	0.041	0.047	0.116	0.786	0.624	14:49:11	No
2	11.17	11.17	0.039	0.045	0.111	0.784	0.622	14:52:01	Yes
Mean:	11.42	11.42	0.040						
SD :	0.355	0.355	0.001						
%RSD:	3.11	3.11	3.11						

Element: Se Seq. No.: 50 AS Loc.: 22 Date: 07/26/1999
Sample ID: 07380-05.5 RE03-99-2004
µL dispensed: 3 from 40, 20 from 22 r=0.99286

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	1.010	1.010	0.004	0.009	0.018	0.588	0.604	14:54:52	No
2	0.955	0.955	0.003	0.009	0.019	0.621	0.473	14:57:41	Yes
Mean:	0.983	0.983	0.003						
SD :	0.039	0.039	0.000						
%RSD:	3.96	3.96	3.96						

Element: Se Seq. No.: 51 AS Loc.: 23 Date: 07/26/1999
Sample ID: SP10
µL dispensed: 3 from 40, 20 from 23

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	4.604	4.604	0.016	0.022	0.057	0.626	0.466	15:00:33	No
2	4.404	4.404	0.015	0.021	0.054	0.631	0.465	15:03:25	Yes
Mean:	4.504	4.504	0.016						
SD :	0.141	0.141	0.000						
%RSD:	3.13	3.13	3.13						

Element: Se Seq. No.: 52 AS Loc.: 24 Date: 07/26/1999
Sample ID: SP20
µL dispensed: 3 from 40, 20 from 24

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	7.291	7.291	0.025	0.031	0.087	0.596	0.624	15:06:18	No
2	9.527	9.527	0.033	0.039	0.098	0.624	0.469	15:09:12	Yes
Mean:	8.409	8.409	0.029						
SD :	1.581	1.581	0.006						
%RSD:	18.80	18.80	18.80						

Element: Se Seq. No.: 53 AS Loc.: 25 Date: 07/26/1999
Sample ID: SP30
µL dispensed: 3 from 40, 20 from 25

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	14.17	14.17	0.049	0.055	0.134	0.633	0.479	15:12:07	No
2	14.17	14.17	0.049	0.055	0.135	0.639	0.482	15:15:02	Yes
Mean:	14.17	14.17	0.049						
SD :	0.002	0.002	0.000						
%RSD:	0.01	0.01	0.01						

Element: Se Seq. No.: 54 AS Loc.: 4 Date: 07/26/1999
Sample ID: CCV
µL dispensed: 3 from 40, 20 from 4

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	24.52	24.52	0.085	0.091	0.209	0.093	0.182	15:17:57	No
2	25.12	25.12	0.088	0.093	0.196	0.047	0.053	15:20:49	Yes
Mean:	24.82	24.82	0.086						
SD :	0.422	0.422	0.001						
%RSD:	1.70	1.70	1.70						

QC value within specified limits.

Element: Se Seq. No.: 55 AS Loc.: 5 Date: 07/26/1999
Sample ID: CCB
µL dispensed: 3 from 40, 20 from 5

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	-0.182	-0.182	-0.001	0.005	0.009	0.017	0.011	15:23:45	No
2	-0.883	-0.883	-0.003	0.003	0.006	0.014	0.009	15:26:38	Yes
Mean:	-0.532	-0.532	-0.002						
SD :	0.496	0.496	0.002						
%RSD:	93.18	93.18	93.18						

QC value within specified limits.

Element: Se Seq. No.: 56 AS Loc.: 26 Date: 07/26/1999
Sample ID: 07380-06.5 RE03-99-2005
µL dispensed: 3 from 40, 20 from 26 r=0.95467

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	1.076	1.076	0.004	0.010	0.022	0.662	0.540	15:29:33	No
2	1.134	1.134	0.004	0.010	0.019	0.734	0.578	15:32:26	Yes
Mean:	1.105	1.105	0.004						
SD :	0.040	0.040	0.000						
%RSD:	3.66	3.66	3.66						

Element: Se Seq. No.: 57 AS Loc.: 27 Date: 07/26/1999
Sample ID: SP10
µL dispensed: 3 from 40, 20 from 27

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	4.469	4.469	0.016	0.021	0.059	0.752	0.588	15:35:20	No
2	6.074	6.074	0.021	0.027	0.056	0.757	0.586	15:38:11	Yes
Mean:	5.271	5.271	0.018						
SD :	1.134	1.134	0.004						
%RSD:	21.52	21.52	21.52						

RSD is over the limit.

Element: Se Seq. No.: 58 AS Loc.: 27 Date: 07/26/1999
Sample ID: SP10
µL dispensed: 3 from 40, 20 from 27

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	4.577	4.577	0.016	0.022	0.053	0.741	0.571	15:41:02	No
2	3.909	3.909	0.014	0.019	0.056	0.743	0.580	15:43:53	Yes
Mean:	4.243	4.243	0.015						
SD :	0.472	0.472	0.002						
%RSD:	11.13	11.13	11.13						

Element: Se Seq. No.: 59 AS Loc.: 28 Date: 07/26/1999
Sample ID: SP20
µL dispensed: 3 from 40, 20 from 28

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	10.22	10.22	0.036	0.041	0.093	0.726	0.571	15:46:45	No
2	9.399	9.399	0.033	0.039	0.093	0.727	0.567	15:49:36	Yes
Mean:	9.810	9.810	0.034						
SD :	0.581	0.581	0.002						
%RSD:	5.92	5.92	5.92						

Element: Se Seq. No.: 60 AS Loc.: 29 Date: 07/26/1999
Sample ID: SP30
µL dispensed: 3 from 40, 20 from 29

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	13.57	13.57	0.047	0.053	0.127	0.730	0.580	15:52:26	No
2	13.59	13.59	0.047	0.053	0.125	0.735	0.577	15:55:15	Yes
Mean:	13.58	13.58	0.047						
SD :	0.010	0.010	0.000						
%RSD:	0.07	0.07	0.07						

Element: Se Seq. No.: 61 AS Loc.: 30 Date: 07/26/1999
Sample ID: 07380-07.5 RE03-99-2006
µL dispensed: 3 from 40, 20 from 30 r=0.95580 1.05/50 x'=-2.912

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	0.676	0.676	0.002	0.008	0.028	0.812	0.619	15:58:06	No
2	0.714	0.714	0.002	0.008	0.022	0.746	0.745	16:00:55	Yes
Mean:	0.695	0.695	0.002						
SD :	0.027	0.027	0.000						
%RSD:	3.90	3.90	3.90						

Element: Se Seq. No.: 62 AS Loc.: 31 Date: 07/26/1999
Sample ID: SP10
µL dispensed: 3 from 40, 20 from 31

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	5.828	5.828	0.020	0.026	0.051	0.809	0.622	16:03:41	No
2	5.230	5.230	0.018	0.024	0.054	0.813	0.606	16:06:27	Yes
Mean:	5.529	5.529	0.019						
SD :	0.423	0.423	0.001						
%RSD:	7.64	7.64	7.64						

Element: Se Seq. No.: 63 AS Loc.: 32 Date: 07/26/1999
Sample ID: SP20
µL dispensed: 3 from 40, 20 from 32

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	8.009	8.009	0.028	0.034	0.082	0.752	0.757	16:09:12	No
2	9.254	9.254	0.032	0.038	0.093	0.816	0.616	16:11:55	Yes
Mean:	8.631	8.631	0.030						
SD :	0.880	0.880	0.003						
%RSD:	10.19	10.19	10.19						

Element: Se Seq. No.: 64 AS Loc.: 33 Date: 07/26/1999
Sample ID: SP30
µL dispensed: 3 from 40, 20 from 33

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	11.37	11.37	0.040	0.045	0.111	0.753	0.768	16:14:40	No
2	13.21	13.21	0.046	0.052	0.124	0.809	0.617	16:17:24	Yes
Mean:	12.29	12.29	0.043						
SD :	1.302	1.302	0.005						
%RSD:	10.59	10.59	10.59						

Element: Se Seq. No.: 65 AS Loc.: 34 Date: 07/26/1999
Sample ID: 07380-08.5 RE03-99-2007
µL dispensed: 3 from 40, 20 from 34 r=0.99533 1.08/50 x'=-1.535

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	0.594	0.594	0.002	0.008	0.026	0.804	0.610	16:20:10	No
2	0.354	0.354	0.001	0.007	0.018	0.800	0.611	16:22:56	Yes
Mean:	0.474	0.474	0.002						
SD :	0.169	0.169	0.001						
%RSD:	35.76	35.76	35.76						

Element: Se Seq. No.: 66 AS Loc.: 4 Date: 07/26/1999
Sample ID: CCV
µL dispensed: 3 from 40, 20 from 4

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	24.62	24.62	0.086	0.092	0.211	0.097	0.217	16:25:45	No
2	25.28	25.28	0.088	0.094	0.207	0.046	0.056	16:28:37	Yes
Mean:	24.95	24.95	0.087						
SD :	0.467	0.467	0.002						
%RSD:	1.87	1.87	1.87						

QC value within specified limits.

Element: Se Seq. No.: 67 AS Loc.: 5 Date: 07/26/1999
Sample ID: CCB
µL dispensed: 3 from 40, 20 from 5

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	0.179	0.179	0.001	0.006	0.009	0.015	0.010	16:31:30	No
2	-1.089	-1.089	-0.004	0.002	0.008	0.016	0.009	16:34:26	Yes
Mean:	-0.455	-0.455	-0.002						
SD :	0.897	0.897	0.003						
%RSD:	197.1	197.1	197.06						

QC value within specified limits.

Element: Se Seq. No.: 68 AS Loc.: 35 Date: 07/26/1999
Sample ID: SP10
µL dispensed: 3 from 40, 20 from 35

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	5.583	5.583	0.019	0.025	0.054	0.730	0.574	16:37:16	No
2	4.970	4.970	0.017	0.023	0.058	0.810	0.612	16:40:03	Yes
Mean:	5.277	5.277	0.018						
SD :	0.434	0.434	0.002						
%RSD:	8.22	8.22	8.22						

Element: Se Seq. No.: 69 AS Loc.: 36 Date: 07/26/1999
Sample ID: SP20
µL dispensed: 3 from 40, 20 from 36

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	9.174	9.174	0.032	0.038	0.090	0.814	0.614	16:42:51	No
2	9.514	9.514	0.033	0.039	0.092	0.816	0.616	16:45:39	Yes
Mean:	9.344	9.344	0.033						
SD :	0.240	0.240	0.001						
%RSD:	2.57	2.57	2.57						

Element: Se Seq. No.: 70 AS Loc.: 37 Date: 07/26/1999
Sample ID: SP30
µL dispensed: 3 from 40, 20 from 37

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	13.49	13.49	0.047	0.053	0.124	0.822	0.626	16:48:30	No
2	13.63	13.63	0.048	0.053	0.122	0.812	0.624	16:51:22	Yes
Mean:	13.56	13.56	0.047						
SD :	0.099	0.099	0.000						
%RSD:	0.73	0.73	0.73						

Element: Se Seq. No.: 71 AS Loc.: 4 Date: 07/26/1999
Sample ID: CCV
µL dispensed: 3 from 40, 20 from 4

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	24.14	24.14	0.084	0.090	0.217	0.096	0.214	16:54:16	No
2	25.23	25.23	0.088	0.094	0.206	0.043	0.056	16:57:10	Yes
Mean:	24.68	24.68	0.086						
SD :	0.775	0.775	0.003						
%RSD:	3.14	3.14	3.14						

QC value within specified limits.

Element: Se Seq. No.: 72 AS Loc.: 5 Date: 07/26/1999
Sample ID: CCB
µL dispensed: 3 from 40, 20 from 5

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	0.545	0.545	0.002	0.008	0.013	0.014	0.009	17:00:04	No
2	-1.005	-1.005	-0.004	0.002	0.007	0.013	0.009	17:02:58	Yes
Mean:	-0.230	-0.230	-0.001						
SD :	1.096	1.096	0.004						
%RSD:	476.7	476.7	476.74						

QC value within specified limits.

Method Name: SEKEM
Method Description: SEKEM

Element: Se

Date: 07/26/1999
Technique: Furnace
Wavelength: 196.0 nm
Lamp Current: 0
Sample Info File: SE0726A.SIF

Calibration Equation: Zero Intercept: Linear
Slit Width: 2.00 nm
Energy: 50
Results Data Set: SE072699

Element: Se Seq. No.: 73 AS Loc.: 22 Date: 07/26/1999
Sample ID: 07380-05.2 RE03-99-2004
µL dispensed: 3 from 40, 20 from 22 r=0.99989 1.0/50 X̄= 0.2067

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	-0.414	-0.414	-0.001	0.004	0.010	0.191	0.143	17:07:14	No
2	-0.140	-0.140	0.000	0.005	0.009	0.220	0.155	17:10:04	Yes
Mean:	-0.277	-0.277	-0.001						
SD :	0.194	0.194	0.001						
%RSD:	69.89	69.89	69.89						

Element: Se Seq. No.: 74 AS Loc.: 23 Date: 07/26/1999
Sample ID: SP10
µL dispensed: 3 from 40, 20 from 23

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	7.161	7.161	0.025	0.031	0.076	0.232	0.168	17:12:56	No
2	7.366	7.366	0.026	0.032	0.078	0.230	0.165	17:15:47	Yes
Mean:	7.264	7.264	0.025						
SD :	0.145	0.145	0.001						
%RSD:	2.00	2.00	2.00						

Element: Se Seq. No.: 75 AS Loc.: 24 Date: 07/26/1999
Sample ID: SP20
µL dispensed: 3 from 40, 20 from 24

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	14.34	14.34	0.050	0.056	0.145	0.245	0.187	17:18:40	No
2	14.61	14.61	0.051	0.057	0.146	0.247	0.188	17:21:34	Yes
Mean:	14.48	14.48	0.050						
SD :	0.192	0.192	0.001						
%RSD:	1.33	1.33	1.33						

Element: Se Seq. No.: 76 AS Loc.: 25 Date: 07/26/1999
Sample ID: SP30
µL dispensed: 3 from 40, 20 from 25

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	22.01	22.01	0.077	0.083	0.220	0.244	0.190	17:24:30	No
2	21.09	21.09	0.074	0.079	0.212	0.242	0.188	17:27:28	Yes
Mean:	21.55	21.55	0.075						
SD :	0.653	0.653	0.002						
%RSD:	3.03	3.03	3.03						

Element: Se Seq. No.: 77 AS Loc.: 26 Date: 07/26/1999
Sample ID: 07380-06.2 RE03-99-2005
µL dispensed: 3 from 40, 20 from 26 r=0.99974 1.00/50 x'=0.3482

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	-0.021	-0.021	0.000	0.006	0.014	0.258	0.190	17:30:23	No
2	-0.404	-0.404	-0.001	0.004	0.014	0.275	0.195	17:33:17	Yes
Mean:	-0.213	-0.213	-0.001						
SD :	0.271	0.271	0.001						
%RSD:	127.6	127.6	127.57						

Element: Se Seq. No.: 78 AS Loc.: 27 Date: 07/26/1999
Sample ID: SP10
µL dispensed: 3 from 40, 20 from 27

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	7.032	7.032	0.025	0.030	0.079	0.278	0.206	17:36:11	No
2	7.458	7.458	0.026	0.032	0.078	0.274	0.202	17:39:02	Yes
Mean:	7.245	7.245	0.025						
SD :	0.301	0.301	0.001						
%RSD:	4.15	4.15	4.15						

Element: Se Seq. No.: 79 AS Loc.: 28 Date: 07/26/1999
Sample ID: SP20
µL dispensed: 3 from 40, 20 from 28

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	13.86	13.86	0.048	0.054	0.140	0.281	0.214	17:41:53	No
2	14.65	14.65	0.051	0.057	0.136	0.279	0.215	17:44:45	Yes
Mean:	14.25	14.25	0.050						
SD :	0.563	0.563	0.002						
%RSD:	3.95	3.95	3.95						

Element: Se Seq. No.: 80 AS Loc.: 29 Date: 07/26/1999
Sample ID: SP30
µL dispensed: 3 from 40, 20 from 29

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	22.57	22.57	0.079	0.084	0.203	0.280	0.223	17:47:35	No
2	21.76	21.76	0.076	0.082	0.206	0.287	0.229	17:50:24	Yes
Mean:	22.16	22.16	0.077						
SD :	0.568	0.568	0.002						
%RSD:	2.56	2.56	2.56						

Element: Se Seq. No.: 81 AS Loc.: 4 Date: 07/26/1999
Sample ID: CCV
µL dispensed: 3 from 40, 20 from 4

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	26.15	26.15	0.091	0.097	0.221	0.064	0.110	17:53:16	No
2	26.55	26.55	0.093	0.098	0.199	0.034	0.053	17:56:08	Yes
Mean:	26.35	26.35	0.092						
SD :	0.283	0.283	0.001						
%RSD:	1.07	1.07	1.07						

QC value within specified limits.

Element: Se Seq. No.: 82 AS Loc.: 5 Date: 07/26/1999
Sample ID: CCB
µL dispensed: 3 from 40, 20 from 5

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	0.198	0.198	0.001	0.007	0.010	0.011	0.010	17:59:02	No
2	-0.809	-0.809	-0.003	0.003	0.010	0.013	0.011	18:01:55	Yes
Mean:	-0.305	-0.305	-0.001						
SD :	0.712	0.712	0.002						
%RSD:	233.3	233.3	233.32						

QC value within specified limits.

KEMRON ENVIRONMENTAL SERVICES
FURNACE RUN LOGBOOK

ANALYST HLC TI DATE 7-23-99 TIME 09:17
METHOD # 7841 SOP # ME5C4A REV. # 0 WORK GROUP # 61442, 61507
CAL STD SOURCE MW-1-16-14 ICV/CCV SOURCE MI-Z-42A
POST SPK SOURCE MI-Z-42B

Cup #	Sample No.	Dil	Prep Conc	Autosampler Runs	Cup #	Sample No.	Dil	Prep Conc	Autosampler Runs
	S 0				27.	07-380 -02	0.9	1.07/50	-2001
	S 2				28.	SP02			
	S 10				29.	MS 02	0.1	1.00/50	CCV,CCB -2001
	S 20				30.				
	S 50				31.				
					32.				
					33.				
					34.				
1.	ICV				35.				
2.	ICB			BI, CCV, CCB	36.				
3.	PBS-E			WG61361-02	37.				
4.	LCSS		1.00/50	-03	38.				
5.	07-365-02	0.9	1.01/50	RE00-99-0238	39.				
6.	SP 02				40.				
7.	07-373-03	0.9	1.01/50	-0245	41.				
8.	SP 03				42.				
9.	07-365-01		1.01/50	-0237, -01	43.				
10.	MS 01		1.01/50	ID4 -04 CCV,CCB	44.				
11.	DUP 01		1.02/50	-05	45.				
12.	-03		1.08/50	-0239	46.				
13.	-04		1.02/50	-0240	47.				
14.	-05		1.02/50	-0241	48.				
15.	-06		1.08/50	-0242	49.				
16.	07-373-01		1.04/50	-0243	50.				
17.	-02		1.06/50	-0244	51.				
18.	-04		1.00/50	-0246	52.				
19.	-05		1.00/50	-0249	53.				
20.	-06		1.00/50	-0250 CCV,CCB	54.				
21.	R SP02				55.				
22.	R SP03				56.				
23.	PBS-HU			-03	57.				
24.	LCSS		1.00/50	RE03-99, -04	58.				
25.	07-380-01		1.06/50	-2000, -02	59.				
26.	DUP 01		1.02/50	-07	60.				

HLC 7/23/99

Comments: _____

Note: No entry for Dil represents 1X Dilution

Autosampler Run Key:
CCV - Continuing Calibration Verfication
CCB = Continuing Calibration Blank
FRS = Rull Recalibration Sequence
% D = Automatic Instrument Rerun due to % RSD > 20%
ID = Automatic Instrument Dilution
R = Analyst Rerun
BLK = Blank Rerun
ID2 = 2x Dilution
ID4 = 4x Dilution
ID5 = 5x Dilution
ID10 = 10x Dilution
ID 20 - 20x Dilution

Reviewed by: _____

Varian SpectrAA 300/400 Zeeman
QC Protocol Report

OPERATOR HLC
DATE 07/23/0917/99 Z2
BATCH 07/23/0917/99 Z2 TL

QC PROTOCOL PARAMETERS

Holly Curry
MW-9-16-14
Box E WG 61442
Box HU WG 61507

IF THERE IS AN ERROR	STOP
QC SPIKE POSITION	52
RECOVERY LIMITS (%)	85 TO 115
RECOVERY MINIMUM LIMIT (%)	40
CORRELATION COEFFICIENT (r)	0.995
OVERRANGE VOLUME REDUCTION	2
REPLICATE RSD LIMIT (%)	20.0

PROGRAM 12 T1 PLATFORM CLP

INSTRUMENT MODE	ABSORBANCE
CALIBRATION MODE	CONCENTRATION
MEASUREMENT MODE	PEAK AREA
LAMP POSITION	4
LAMP CURRENT (mA)	10
SLIT WIDTH (nm)	0.5
SLIT HEIGHT	NORMAL
WAVELENGTH (nm)	276.8
SAMPLE INTRODUCTION	SAMPLER AUTOMIXING
TIME CONSTANT	0.05
MEASUREMENT TIME (sec)	3.0
REPLICATES	2
BACKGROUND CORRECTION	ON
MAXIMUM ABSORBANCE	0.55

FURNACE PARAMETERS

STEP NO.	TEMPERATURE (C)	TIME (sec)	GAS FLOW (L/min)	GAS TYPE	READ COMMAND
1	135	10.0	3.0	NORMAL	NO
2	135	20.0	3.0	NORMAL	NO
3	250	10.0	3.0	NORMAL	NO
4	250	10.0	3.0	NORMAL	NO
5	450	15.0	3.0	NORMAL	NO
6	450	15.0	3.0	NORMAL	NO
7	2200	1.0	0.0	NORMAL	YES
8	2200	4.0	0.0	NORMAL	YES
9	2500	5.0	3.0	NORMAL	NO
10	50	13.5	3.0	NORMAL	NO
11	40	13.0	3.0	NORMAL	NO

SAMPLER PARAMETERS
VOLUMES (fL)

	SOLUTION	BLANK	MODIFIER
BLANK	--	25	3
STANDARD 1	1	24	3
STANDARD 2	5	20	3
STANDARD 3	10	15	3
STANDARD 4	25	0	3
SAMPLE	25	0	3

RECALIBRATION RATE 0
RESLOPE RATE 0

MULTIPLE INJECT NO HOT INJECT YES PRE INJECT NO
TEMPERATURE 100
INJECT RATE 2

QC PROTOCOL PARAMETERS

QC STANDARD RATE	0
QC INITIAL STANDARD POSITION	1
QC INITIAL BLANK POSITION	51
QC CONTINUING STANDARD POSITION	1
QC CONTINUING BLANK POSITION	51
QC STANDARD VOLUME (fL)	25
QC STANDARD CONCENTRATION	25.00 ug/L
QC STANDARD LIMITS (%)	80 TO 120
QC SPIKE RATE	0
QC SPIKE VOLUME (fL)	10
QC SPIKE CONCENTRATION	50.00 ug/L
MATRIX SPIKE CONCENTRATION	0.00 ug/L
INSTRUMENT DETECTION LIMIT	5.00 ug/L
REQUIRED DETECTION LIMIT	5.00 ug/L

CONDITIONS FOR Tl :
Alternative Wavelengths (nm) : 258.0
Spectral Bandwidths (nm) : 1.0
Maximum Ash Temperature : 400xC
Recommended Atomize Temperature : 2200xC
Recommended Chemical Modifiers :
1% sulphuric acid solution, or
Palladium CHloride solution (500-2000fg/mL) plus reducing agent such as ascorbic acid.
Response with Argon : 10fL of 75ng/mL gives about 0.2 Abs.

The 1% sulphuric acid overcomes severe interferences from hydrochloric acid, perchloric acid and sodium chloride. The palladium permits higher ashing temperatures.
Use of a multi-element lamp may require a different slit width, lamp current and wavelength to isolate the analytical line.

SAMPLE	CONC ug/L	%RSD	MEAN ABS	READINGS	
BLANK	0.00		-0.004	-0.004	-0.004
QC				23Jul99 09:13	
				CONCENTRATION LESS THAN IDL	

SAMPLE	CONC ug/L	%RSD	MEAN ABS	READINGS	
STANDARD 1 QC	2.00	3.7	0.009	0.008	0.009
				23Jul99	09:19
				CONCENTRATION LESS THAN IDL	
STANDARD 2 QC	10.00	1.0	0.047	0.046	0.047
				23Jul99	09:25
STANDARD 3 QC	20.00	1.6	0.089	0.090	0.088
				23Jul99	09:31
STANDARD 4 QC	50.00	1.2	0.197	0.199	0.195
				23Jul99	09:36

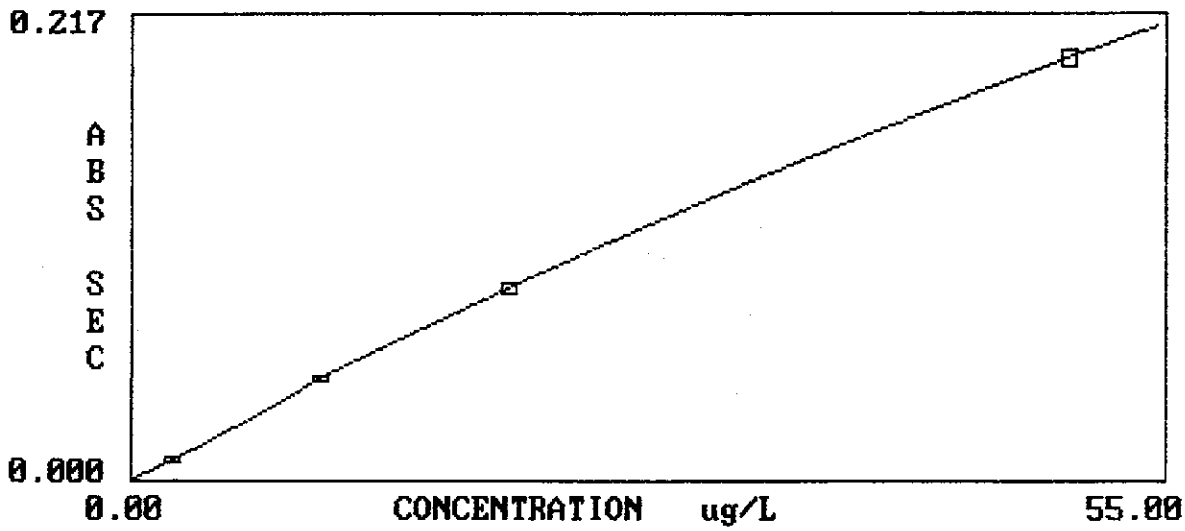

ICV QC	24.97	0.6	0.109	0.108	0.109
				23Jul99	09:42
ICB QC	-0.22	62.0	-0.001	-0.001	-0.001
				23Jul99	09:47
				CONCENTRATION LESS THAN IDL	
BLANK QC	0.00		0.002	0.002	0.002
				23Jul99	09:57
				CONCENTRATION LESS THAN IDL	
CCV 1 QC	25.26	0.7	0.110	0.110	0.111
				23Jul99	10:02
				%R =	101.0

SAMPLE	CONC ug/L	%RSD	MEAN ABS	READINGS	
CCB 1 QC	-0.03	99.9	-0.000	-0.001 23Jul99 ABS = CONCENTRATION LESS THAN IDL	0.000 10:08 -0.001
PBS E QC WG61361-02	-0.16	15.4	-0.001	-0.001 23Jul99 CONCENTRATION LESS THAN IDL	-0.001 10:13
1.00/50 LCSS QC -03	25.42	0.2	0.111	0.111 23Jul99	0.111 10:19
1.01/50 0736502.9 QC RECO 99-0238	3.49	0.7	0.015	0.015 23Jul99 CONCENTRATION LESS THAN IDL	0.015 10:24
SP 02 QC	18.51	0.0	~~0.083~~	~~0.083~~ 23Jul99	0.083 10:30 HLC 7-23-99 re-ran to verify
1.01/50 0737303.9 QC -0245	2.42	7.7	0.010	0.011 23Jul99 CONCENTRATION LESS THAN IDL	0.010 10:35
SP 03 QC	20.66	3.1	~~0.092~~	~~0.090~~ 23Jul99	0.094 10:40 HLC 7-23-99 re-ran to verify
1.01/50 0736501 QC -0237 -01	4.12	5.3	0.018	0.017 23Jul99 CONCENTRATION LESS THAN IDL	0.019 10:46
1.01/50 MS 01 QC -04	OVER	0.6	0.312	0.311 23Jul99	0.313 10:51
MS 01 QC	OVER	0.9	0.279	0.277 23Jul99 DF =	0.281 10:56 2.08
MS 01 QC	196.25	1.3	0.188	0.186 23Jul99 DF =	0.190 11:01 4.17
CCV 2 QC	25.55	0.5	0.111	0.111 23Jul99 %R =	0.112 11:06 102.2
CCB 2 QC	-0.17	99.9	-0.001	0.001 23Jul99 ABS = CONCENTRATION LESS THAN IDL	-0.002 11:12 -0.001
.02/50 DUP 01 QC -05	3.67	0.7	0.016	0.016 23Jul99 CONCENTRATION LESS THAN IDL	0.016 11:17
.05/50 0736503 QC -0239	5.39	4.9	0.024	0.025 23Jul99	0.023 11:23

SAMPLE	CONC ug/L	%RSD	MEAN ABS	READINGS
1.02/50 0736504 QC -0240	5.32	6.8	0.024	0.023 0.025 23Jul99 11:28
1.02/50 0736505 QC -0241	3.05	7.3	0.013	0.013 0.014 23Jul99 11:33 CONCENTRATION LESS THAN IDL
1.03/50 0736506 QC -0242	3.05	6.1	0.013	0.013 0.014 23Jul99 11:39 CONCENTRATION LESS THAN IDL
1.04/50 0737301 QC -0243	3.05	9.8	0.013	0.014 0.012 23Jul99 11:44 CONCENTRATION LESS THAN IDL
1.06/50 0737302 QC -0244	2.79	1.7	0.012	0.012 0.012 23Jul99 11:50 CONCENTRATION LESS THAN IDL
1.00/50 0737304 QC -0246	2.53	2.4	0.011	0.011 0.011 23Jul99 11:55 CONCENTRATION LESS THAN IDL
1.00/50 0737305 QC -0249	3.00	6.6	0.013	0.014 0.012 23Jul99 12:01 CONCENTRATION LESS THAN IDL
1.00/50 0737306 QC -0250	2.69	9.2	0.012	0.011 0.012 23Jul99 12:06 CONCENTRATION LESS THAN IDL
CCV 3 QC	25.99	0.5	0.113	0.113 0.113 23Jul99 12:12 %R = 104.0
CCB 3 QC	0.12	99.9	0.001	0.000 0.001 23Jul99 12:17 ABS = 0.000 CONCENTRATION LESS THAN IDL
SPO2 QC	19.31	1.0	0.086	0.087 0.086 23Jul99 12:23
SPO3 QC	20.69	0.6	0.092	0.092 0.092 23Jul99 12:28
~~Blank~~ HLC 7-23-99 QC PBS-HCl	0.11	23.1	0.000	0.000 0.001 23Jul99 12:34 CONCENTRATION LESS THAN IDL
1.00/50 LCSS QC	26.63	1.8	0.115	0.114 0.117 23Jul99 12:39
1.00/50 07-380-01 QC RE03-99-2000 -02	3.17	12.5	0.014	0.013 0.015 23Jul99 12:45 CONCENTRATION LESS THAN IDL

SAMPLE	CONC ug/L	%RSD	MEAN ABS	READINGS
DUP01 HLC ~~07-380-02~~ 27-3399	3.39	1.8	0.015	0.015 0.015 23Jul99 12:50 CONCENTRATION LESS THAN IDL
QC				
.01/50 07-380-02.9 QC -2001	3.51	8.4	0.015	0.016 0.014 23Jul99 12:56 CONCENTRATION LESS THAN IDL
SP 02 QC	21.16	0.2	0.094	0.094 0.094 23Jul99 13:01
100/50 MS02.1 QC	18.96	0.2	0.085	0.085 0.085 23Jul99 13:07
Blank QC	0.02	99.9	0.000	-0.001 0.001 23Jul99 13:12 CONCENTRATION LESS THAN IDL
CCV 4 QC	26.72	1.1	0.116	0.117 0.115 23Jul99 13:18 %R = 106.9
CCB 4 QC	0.27	50.0	0.001	0.002 0.001 23Jul99 13:23 ABS = 0.001 CONCENTRATION LESS THAN IDL

KEMRON ENVIRONMENTAL SERVICES
FURNACE RUN LOGBOOK

ANALYST CRC TL DATE ~~7-26-99~~ 7-27-99 CRC 7-27-99 TIME 0850
METHOD # 7841 SOP # ME504A REV. # 0 WORK GROUP # 61442, 61639, 61507,
CAL STD SOURCE HLC 7-27-99 MW-1-16- ICV/CCV SOURCE MI 2-42A
POST SPK SOURCE MI 2-42B 61641, 61642, 61643

Cup #	Sample No.	Dil	Prep Conc	Autosampler Runs	Cup #	Sample No.	Dil	Prep Conc	Autosampler Runs
	S 0				27.	05		1.01/50	
	S 2				28.	06		1.08/50	
	S 10				29.	07		1.05/50	
	S 20				30.	08		1.00/50	Blank CCV CCB
	S 50				31 03	Sp010 (07-379)	0.9		R
					32.	PBW P			WG 61467-03
					33.	LCSWP			-04
					34.	07-351-02			-02
.	ICV				35.	dup 02			-07
.	ICB			Blank CCV CCB	36.	07-399-01	0.9		
.	07-365-02	0.9	1.01/50	RE00-99-0238	37.	sp01			
.	Sp02				38.	07-406-19			-01
.	07-373-03	0.9	1.01/50	-0245	39.	ms20			-05
.	Sp03				40.	msD 21			CCV CCB -06
.	PBW BP			WG 61533-03	41.	PBS K			WG 61365-03
.	LCSW BP			-04	42.	LCSS K		1.00/50	-04
.	07-362-08			-01	43.	07-362-07	0.9	1.03/50	
0.	ms08			-05	44.	sp07			
1.	msD08			-06	45.	07-337-01	0.9	1.09/50	
2.	07-379-01T			CCV CCB	46.	Sp01			Blank CCV CCB
3.	02T				47 03	PBS CP			WG 61533-03
4.	04T				48.	LCSSCP		1.00/50	-04
5.	06T				49.	07-395-03	0.9	1.02/50	
6.	08T				50.	sp03			
7.	01D	0.9		-02	51.	07-446-01	0.9	1.04/50	
8.	Sp01D				52.	Sp01			
9.	Dup01D			-07	53.	07-362-01		1.03/50	WG 61365-01
0.	03D				54.	ms02		1.07/50	-05
1.	05D				55.	msD03		1.04/50	-06
2.	07D			CCV CCB	56.	04		1.06/50	CCV CCB
3.	07-395-10				57.	05		1.01/50	
4.	07-415-02				58.	06		1.01/50	
5.	07-380-03		1.07/50		59.	07-337-02		1.00/50	-02
6.	04		1.08/50		60.	dup02		1.04/50	-07

Comments: Cont. next page →

Note: No entry for Dil represents 1X Dilution

Autosampler Run Key:
CCV - Continuing Calibration Verfication
CCB = Continuing Calibration Blank
FRS = Rull Recalibration Sequence
% D = Automatic Instrument Rerun due to % RSD > 20%
ID = Automatic Instrument Dilution
R = Analyst Rerun
BLK = Blank Rerun
ID2 = 2x Dilution
ID4 = 4x Dilution
ID5 = 5x Dilution
ID10 = 10x Dilution
ID 20 - 20x Dilution

Reviewed by:

KEMRON ENVIRONMENTAL SERVICES
FURNACE RUN LOGBOOK

ANALYST CRC TL DATE 7-27-99 TIME 0850
METHOD # _____ SOP # _____ REV. # _____ WORK GROUP # _____
CAL STD SOURCE _____ ICV/CCV SOURCE _____
POST SPK SOURCE _____

Cup #	Sample No.	Dil	Prep Conc	Autosampler Runs	Cup #	Sample No.	Dil	Prep Conc	Autosampler Runs
					27.				
					28.				
					29.				
					30.				
					31.				
					32.				
					33.				
					34.				
.	07-362-08SPK	0.9			35.				
.	07-395-10SPK	0.9			36.				
.	07-415-02SPK	0.9			37.				
.	07-379-01TSPK				38.				
.	02TSPK				39.				
.	04TSPK			CCV CCB	40.				
.	06TSPK				41.				
.	08TSPK				42.				
.	03DSPK				43.				
0.	05DSPK				44.				
1.	07DSPK				45.				
2.	07-337-03	0.9			46.				
3.	S03				47.				
4.	07-395-01		1.00/50		48.				
5.	02		1.00/50		49.				
6.	dup 03		1.06/50	CCV CCB LWG	50.	07-553-07			
7.	04		1.06/50		51.				
8.	05		1.05/50	-01	52.				
9.	MS 06		1.06/50	-05	53.				
0.	MSD 07		1.01/50	-06	54.				
1.	08		1.00/50		55.				
2.	09		1.05/50	Blank x4 CCV CCB	56.				
3.				Blank x3 CCV CCB	57.				
4.					58.				
5.					59.				
6.					60.				

CRC 7-27-99

CRC 7-27-99

Comments: _____

Note: No entry for Dil represents 1X Dilution

Autosampler Run Key:
CCV - Continuing Calibration Verfication
CCB = Continuing Calibration Blank
FRS = Rull Recalibration Sequence
% D = Automatic Instrument Rerun due to % RSD > 20%

ID = Automatic Instrument Dilution
R = Analyst Rerun
BLK = Blank Rerun

ID2 = 2x Dilution
ID4 = 4x Dilution
ID5 = 5x Dilution
ID10 = 10x Dilution
ID 20 - 20x Dilution

Reviewed by: _____

Varian SpectrAA 300/400 Zeeman
QC Protocol Report

OPERATOR	CRC
DATE	07/27/0850/99 Z2
BATCH	07/27/0850/99 Z2 TL

Carla R. Cochran
HLC 7-27-99 MW-1-16-19
Box E (spikes only) BP, HU, P, K, CP
WG: 61442, 61639, 61507, 61641, 61642, 61643

QC PROTOCOL PARAMETERS

IF THERE IS AN ERROR	STOP
QC SPIKE POSITION	52
RECOVERY LIMITS (%)	85 TO 115
RECOVERY MINIMUM LIMIT (%)	40
CORRELATION COEFFICIENT (r)	0.995
OVERRANGE VOLUME REDUCTION	2
REPLICATE RSD LIMIT (%)	20.0

PROGRAM 12 T1 PLATFORM CLP

INSTRUMENT MODE	ABSORBANCE
CALIBRATION MODE	CONCENTRATION
MEASUREMENT MODE	PEAK AREA
LAMP POSITION	4
LAMP CURRENT (mA)	10
SLIT WIDTH (nm)	0.5
SLIT HEIGHT	NORMAL
WAVELENGTH (nm)	276.8
SAMPLE INTRODUCTION	SAMPLER AUTOMIXING
TIME CONSTANT	0.05
MEASUREMENT TIME (sec)	3.0
REPLICATES	2
BACKGROUND CORRECTION	ON
MAXIMUM ABSORBANCE	0.55

FURNACE PARAMETERS

STEP NO.	TEMPERATURE (C)	TIME (sec)	GAS FLOW (L/min)	GAS TYPE	READ COMMAND
1	135	10.0	3.0	NORMAL	NO
2	135	20.0	3.0	NORMAL	NO
3	250	10.0	3.0	NORMAL	NO
4	250	10.0	3.0	NORMAL	NO
5	450	15.0	3.0	NORMAL	NO
6	450	15.0	3.0	NORMAL	NO
7	2200	1.0	0.0	NORMAL	YES
8	2200	4.0	0.0	NORMAL	YES
9	2500	5.0	3.0	NORMAL	NO
10	50	13.5	3.0	NORMAL	NO
11	40	13.0	3.0	NORMAL	NO

SAMPLER PARAMETERS
VOLUMES (fL)

	SOLUTION	BLANK	MODIFIER
BLANK	--	25	3
STANDARD 1	1	24	3
STANDARD 2	5	20	3
STANDARD 3	10	15	3
STANDARD 4	25	0	3
SAMPLE	25	0	3

RECALIBRATION RATE 0
RESLOPE RATE 0

MULTIPLE INJECT NO HOT INJECT YES PRE INJECT NO
TEMPERATURE 100
INJECT RATE 2

QC PROTOCOL PARAMETERS

QC STANDARD RATE	0
QC INITIAL STANDARD POSITION	1
QC INITIAL BLANK POSITION	51
QC CONTINUING STANDARD POSITION	1
QC CONTINUING BLANK POSITION	51
QC STANDARD VOLUME (fL)	25
QC STANDARD CONCENTRATION	25.00 ug/L
QC STANDARD LIMITS (%)	80 TO 120
QC SPIKE RATE	0
QC SPIKE VOLUME (fL)	10
QC SPIKE CONCENTRATION	50.00 ug/L
MATRIX SPIKE CONCENTRATION	0.00 ug/L
INSTRUMENT DETECTION LIMIT	5.00 ug/L
REQUIRED DETECTION LIMIT	5.00 ug/L

CONDITIONS FOR Tl :
Alternative Wavelengths (nm) : 258.0
Spectral Bandwidths (nm) : 1.0
Maximum Ash Temperature : 400xC
Recommended Atomize Temperature : 2200xC
Recommended Chemical Modifiers :
1% sulphuric acid solution, or
Palladium CHloride solution (500-2000fg/mL) plus reducing agent such as ascorbic acid.
Response with Argon : 10fL of 75ng/mL gives about 0.2 Abs.

The 1% sulphuric acid overcomes severe interferences from hydrochloric acid, perchloric acid and sodium chloride. The palladium permits higher ashing temperatures.
Use of a multi-element lamp may require a different slit width, lamp current and wavelength to isolate the analytical line.

SAMPLE	CONC ug/L	%RSD	MEAN ABS	READINGS	
BLANK	0.00		0.003	0.002	0.003
QC				27Jul99	08:43
				CONCENTRATION LESS THAN IDL	

SAMPLE	CONC ug/L	%RSD	MEAN ABS	READINGS	
STANDARD 1 QC	2.00	4.3	0.013	0.012	0.013
				27Jul99	08:48
				CONCENTRATION LESS THAN IDL	
STANDARD 2 QC	10.00	2.1	0.049	0.048	0.050
				27Jul99	08:54
STANDARD 3 QC	20.00	0.2	0.091	0.091	0.091
				27Jul99	09:00
STANDARD 4 QC	50.00	1.2	0.195	0.193	0.197
				27Jul99	09:06

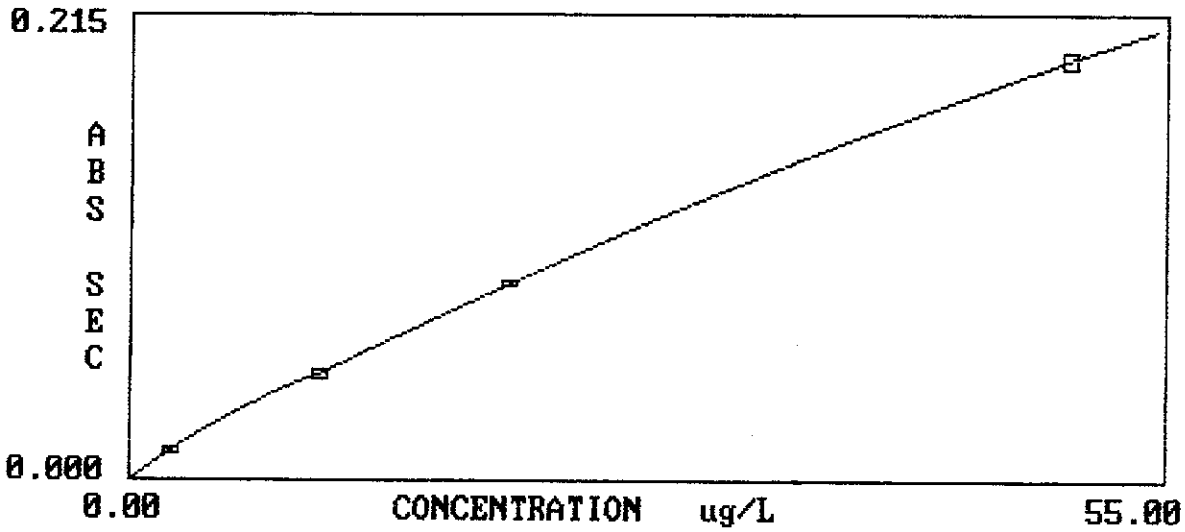

ICV QC	24.76	0.9	0.110	0.111	0.109
				27Jul99	09:11
ICB QC	0.41	79.9	0.003	0.004	0.001
				27Jul99	09:17
				CONCENTRATION LESS THAN IDL	
BLANK QC	0.00		0.003	0.003	0.003
				27Jul99	09:31
				CONCENTRATION LESS THAN IDL	
CCV 1 QC	23.36	0.0	0.105	0.105	0.105
				27Jul99	09:37
				%R =	93.5

SAMPLE	CONC ug/L	%RSD	MEAN ABS	READINGS	
CCB 1 QC	0.01	99.9	0.000	-0.000 27Jul99 ABS =	0.001 09:42 0.001
				CONCENTRATION LESS THAN IDL	
Box E					
.9 0736502 1.01 QC KE00-99-0238	~~7.66~~	~~0.9~~	~~0.040~~	~~0.040~~ 27Jul99	~~0.040~~ 09:48
SP 02 QC	~~25.04~~	~~0.1~~	~~0.114~~	~~0.114~~ 27Jul99	0.114 09:53
.9 0737303 1.01 QC -0245	~~5.06~~	~~0.4~~	~~0.029~~	~~0.029~~ 27Jul99	~~0.029~~ 09:59
SP 03 QC	~~24.80~~	~~1.2~~	~~0.110~~	~~0.111~~ 27Jul99	~~0.109~~ 10:04
PBW BP QC WG61533-03	0.59	28.8	0.004	0.005 27Jul99 CONCENTRATION LESS THAN IDL	0.003 10:09
LCSW BP QC -04	24.68	0.7	0.110	0.109 27Jul99	0.110 10:15
0736208 QC -01	1.40	12.2	0.009	0.010 27Jul99 CONCENTRATION LESS THAN IDL	0.008 10:20
MS 08 QC -05	26.59	0.5	0.117	0.116 27Jul99	0.117 10:25
MSD 08 QC -06	26.60	1.6	0.117	0.118 27Jul99	0.115 10:30
0737901T QC	1.34	51.4	0.009	0.012 27Jul99 CONCENTRATION LESS THAN IDL	0.005 10:36
CCV 2 QC	25.58	0.5	0.113	0.113 27Jul99 %R =	0.113 10:41 102.3
CCB 2 QC	0.69	19.8	0.004	0.004 27Jul99 ABS = CONCENTRATION LESS THAN IDL	0.005 10:47 0.005
0737902T QC	0.22	39.2	0.001	0.002 27Jul99 CONCENTRATION LESS THAN IDL	0.001 10:52
0737904T QC	0.63	4.0	0.004	0.004 27Jul99 CONCENTRATION LESS THAN IDL	0.004 10:58
0737906T QC	0.53	55.6	0.003	0.005 27Jul99 CONCENTRATION LESS THAN IDL	0.002 11:03

CRC
7-27-99
TL-MSA

SAMPLE	CONC ug/L	%RSD	MEAN ABS	READINGS
0737908T QC	0.57	31.2	0.004	0.004 0.003 27Jul99 11:08 CONCENTRATION LESS THAN IDL
0737901D .9 QC -02	0.55	52.3	0.004	0.005 0.002 27Jul99 11:14 CONCENTRATION LESS THAN IDL
SP 01D QC	~~10.04~~	~~0.4~~	~~0.083~~	~~0.083 0.084~~ 27Jul99 11:19 CRC 7-27-99 Reran to verify
DUP 01D QC ~~-09~~ -07 CRC 7-27-99	0.16	54.3	0.001	0.001 0.001 27Jul99 11:25 CONCENTRATION LESS THAN IDL
0737903D QC	-0.11	62.8	-0.001	-0.001 -0.000 27Jul99 11:30 CONCENTRATION LESS THAN IDL
0737905D QC	0.31	47.1	0.002	0.001 0.003 27Jul99 11:36 CONCENTRATION LESS THAN IDL
0737907D QC	-0.09	28.2	-0.001	-0.001 -0.000 27Jul99 11:41 CONCENTRATION LESS THAN IDL
CCV 3 QC	24.75	0.3	0.110	0.110 0.110 27Jul99 11:47 %R = 99.0
CCB 3 QC	-0.01	99.9	-0.000	0.000 -0.000 27Jul99 11:52 ABS = 0.001 CONCENTRATION LESS THAN IDL
0739510 QC	0.23	68.9	0.001	0.002 0.001 27Jul99 11:58 CONCENTRATION LESS THAN IDL
0741502 QC	-0.22	99.9	-0.001	-0.000 -0.002 27Jul99 12:03 CONCENTRATION LESS THAN IDL
Box HU				
0738003 1.07 QC	3.38	10.1	0.020	0.022 0.019 27Jul99 12:09 CONCENTRATION LESS THAN IDL
0738004 1.08 QC	3.99	16.7	0.024	0.026 0.021 27Jul99 12:14 CONCENTRATION LESS THAN IDL
0738005 1.01 QC	3.62	1.2	0.022	0.021 0.022 27Jul99 12:20 CONCENTRATION LESS THAN IDL
0738006 1.08 QC	3.12	2.0	0.019	0.019 0.019 27Jul99 12:25 CONCENTRATION LESS THAN IDL

SAMPLE	CONC ug/L	%RSD	MEAN ABS	READINGS
0738007 1.05 QC	3.80	0.0	0.023	0.023 0.023 27Jul99 12:31 CONCENTRATION LESS THAN IDL
0738008 1.00 QC	3.60	7.5	0.022	0.020 0.023 27Jul99 12:36 CONCENTRATION LESS THAN IDL
BLANK QC	0.00		-0.003	-0.003 -0.003 27Jul99 13:08 CONCENTRATION LESS THAN IDL
CCV 4 QC	25.25	0.9	0.112	0.112 0.111 27Jul99 13:13 %R = 101.0
CCB 4 QC	-0.11	47.0	-0.001	-0.000 -0.001 27Jul99 13:19 ABS = -0.000 CONCENTRATION LESS THAN IDL
Box BP 0.9 SP 01D(07379) QC	18.59 0.744	3.3	0.086	0.084 0.088 27Jul99 13:24
PBW P QC LCG 61467-03	0.18	18.5	0.001	0.001 0.001 27Jul99 13:29 CONCENTRATION LESS THAN IDL
LCSW P QC -04	24.56	0.7	0.109	0.109 0.110 27Jul99 13:35
0735102 QC -02	0.09	84.6	0.001	0.001 0.000 27Jul99 13:40 CONCENTRATION LESS THAN IDL
DUP 02 QC -07	-0.08	99.9	-0.001	-0.001 0.000 27Jul99 13:46 CONCENTRATION LESS THAN IDL
0739901 0.9 QC	0.11	36.7	0.001	0.001 0.001 27Jul99 13:51 CONCENTRATION LESS THAN IDL
SP 01 QC	24.77	0.0	0.110	0.110 0.110 27Jul99 13:56
0740619 QC -01	0.10	88.3	0.001	0.000 0.001 27Jul99 14:01 CONCENTRATION LESS THAN IDL
MS 20 QC -05	16.41	1.8	0.077	0.078 0.076 27Jul99 14:07
MSD 21 QC -06	16.95	0.5	0.079	0.079 0.079 27Jul99 14:12
CCV 5 QC	24.90	0.5	0.110	0.110 0.111 27Jul99 14:18 %R = 99.6

SAMPLE	CONC ug/L	%RSD	MEAN ABS	READINGS
CCB 5 QC	-0.07	99.9	-0.000	0.000 -0.001 27Jul99 14:23 ABS = -0.000 CONCENTRATION LESS THAN IDL
PBS K QC UG61365-03	0.16	76.1	0.001	0.000 0.002 27Jul99 14:28 CONCENTRATION LESS THAN IDL
LCSS K 1.00 QC -04	25.72	0.0	0.113	0.114 0.113 27Jul99 14:34
0736207 1.03 QC	1.47	2.8	0.009	0.009 0.010 27Jul99 14:39 CONCENTRATION LESS THAN IDL
SP 07 QC	26.11	0.8	0.115	0.114 0.116 27Jul99 14:45
0733701 1.09 QC	2.13	11.2	0.013	0.014 0.012 27Jul99 14:50 CONCENTRATION LESS THAN IDL
SP 01 QC	25.41	0.4	0.112	0.112 0.113 27Jul99 14:56
BLANK QC	0.00		-0.002	-0.001 -0.003 27Jul99 15:29 CONCENTRATION LESS THAN IDL
CCV 6 QC	25.37	0.2	0.112	0.112 0.112 27Jul99 15:34 %R = 101.5
CCB 6 QC	0.22	41.9	0.001	0.002 0.001 27Jul99 15:40 ABS = 0.001 CONCENTRATION LESS THAN IDL
PBS CP QC UG 61553-03	0.22	49.7	0.001	0.002 0.001 27Jul99 15:45 CONCENTRATION LESS THAN IDL
LCSS CP 1.00 QC -04	24.81	0.6	0.110	0.110 0.111 27Jul99 15:51
0739503 1.02 QC -02	2.54	2.7	0.016	0.016 0.015 27Jul99 15:56 CONCENTRATION LESS THAN IDL
SP 03 QC	23.79	0.2	0.106	0.106 0.106 27Jul99 16:01
0744601 1.04 QC	2.74	6.1	0.017	0.018 0.016 27Jul99 16:07 CONCENTRATION LESS THAN IDL

SAMPLE	CONC ug/L	%RSD	MEAN ABS	READINGS	
SP 01 QC	23.20	1.3	0.104	0.105	0.103
BOX K				27Jul99	16:12
0736201 1.03 QC	2.44	1.4	0.015	0.015	0.015
0661365-01				27Jul99	16:17
				CONCENTRATION LESS THAN IDL	
MS 02 1.07 QC -05	24.24	1.4	0.108	0.109	0.107
				27Jul99	16:23
MSD 03 1.04 QC -06	24.56	1.0	0.109	0.110	0.108
				27Jul99	16:28
0736204 1.06 QC	2.41	3.6	0.015	0.015	0.015
				27Jul99	16:33
				CONCENTRATION LESS THAN IDL	
CCV 7 QC	26.08	0.6	0.115	0.114	0.115
				27Jul99	16:39
				%R =	104.3
CCB 7 QC	0.17	30.2	0.001	0.001	0.001
				27Jul99	16:44
				ABS =	0.001
				CONCENTRATION LESS THAN IDL	
0736205 1.01 QC	2.32	3.0	0.014	0.015	0.014
				27Jul99	16:50
				CONCENTRATION LESS THAN IDL	
0736206 1.01 QC	2.89	0.0	0.018	0.018	0.018
				27Jul99	16:55
				CONCENTRATION LESS THAN IDL	
0733702 1.00 QC -02	2.73	1.6	0.017	0.017	0.017
				27Jul99	17:00
				CONCENTRATION LESS THAN IDL	
DUP 02 1.04 QC -07	2.67	6.9	0.017	0.016	0.017
				27Jul99	17:06
				CONCENTRATION LESS THAN IDL	
BOX BP					
0736208SPK QC	27.17	0.2	0.119	0.119	0.119
				27Jul99	17:11
0739510SPK QC	27.13	0.9	0.119	0.118	0.119
				27Jul99	17:17
0741502SPK QC	25.55	0.9	0.113	0.114	0.112
				27Jul99	17:22
0737901TSPK QC	19.15 0.766	3.7	0.088	0.090	0.086
				27Jul99	17:28
0737902TSPK QC	24.91	0.8	0.110	0.111	0.110
				27Jul99	17:33

SAMPLE	CONC ug/L	%RSD	MEAN ABS	READINGS	
9 0737904TSPK QC	24.99	0.3	0.111	0.111	0.110
				27Jul99	17:39
CCV 8 QC	26.69	0.7	0.117	0.117	0.118
				27Jul99	17:44
				%R =	106.8
CCB 8 QC	0.31	21.8	0.002	0.002	0.002
				27Jul99	17:50
				ABS =	0.002
				CONCENTRATION LESS THAN IDL	
0737906TSPK QC	26.35	0.0	0.116	0.116	0.116
				27Jul99	17:55
0737908TSPK QC	26.65	1.5	0.117	0.116	0.118
				27Jul99	18:01
9 0737903DSPK QC	26.73	0.3	0.117	0.117	0.117
				27Jul99	18:06
9 0737905DSPK QC	26.54	1.0	0.117	0.117	0.116
				27Jul99	18:12
9 0737907DSPK QC	25.13	1.0	0.111	0.110	0.112
				27Jul99	18:17
QC 07-337-03	0.34	25.2	0.002	0.003	0.002
				27Jul99	18:23
				CONCENTRATION LESS THAN IDL	
QC SP03 Box CP	25.48	0.3	0.113	0.112	0.113
				27Jul99	18:28
QC 07-395-01	2.75	9.6	0.017	0.018	0.016
				27Jul99	18:34
				CONCENTRATION LESS THAN IDL	
QC 07-395-02	2.71	2.6	0.017	0.017	0.016
				27Jul99	18:39
				CONCENTRATION LESS THAN IDL	
QC dup 03 WG61553-07	2.58	3.7	0.016	0.016	0.016
				27Jul99	18:44
				CONCENTRATION LESS THAN IDL	
CCV 9 QC	26.28	0.0	0.116	0.116	0.116
				27Jul99	18:50
				%R =	105.1
CCB 9 QC	0.17	30.2	0.001	0.001	0.001
				27Jul99	18:55
				ABS =	0.001
				CONCENTRATION LESS THAN IDL	
QC 07-395-04	2.48	1.7	0.015	0.016	0.015
				27Jul99	19:01
				CONCENTRATION LESS THAN IDL	

SAMPLE	CONC ug/L	%RSD	MEAN ABS	READINGS
QC 07-395-05 -01	2.52	6.5	0.016	0.015 0.016 27Jul99 19:06 CONCENTRATION LESS THAN IDL
QC MS 06 -05	23.36	1.7	0.105	0.103 0.106 27Jul99 19:11
QC MSD 07 -06	23.01	0.1	0.103	0.103 0.103 27Jul99 19:17
QC 07-395-08	2.73	8.0	0.017	0.016 0.018 27Jul99 19:22 CONCENTRATION LESS THAN IDL
QC 07-395-09	2.06	9.5	0.013	0.014 0.012 27Jul99 19:27 CONCENTRATION LESS THAN IDL
QC Blank	0.27	40.8	0.002	0.001 0.002 27Jul99 19:33 CONCENTRATION LESS THAN IDL
QC Blank	0.04	99.9	0.000	0.001 -0.000 27Jul99 19:38 CONCENTRATION LESS THAN IDL
QC Blank	0.20	99.9	0.001	0.000 0.002 27Jul99 19:43 CONCENTRATION LESS THAN IDL
QC Blank	0.28	67.6	0.002	0.003 0.001 27Jul99 19:49 CONCENTRATION LESS THAN IDL
CCV 10 QC	26.67	1.6	0.117	0.116 0.118 27Jul99 19:54 %R = 106.7
CCB 10 QC	0.20	99.9	0.001	0.003 0.000 27Jul99 20:00 ABS = 0.001 CONCENTRATION LESS THAN IDL
QC Blank	0.28	21.0	0.002	0.002 0.002 27Jul99 20:05 CONCENTRATION LESS THAN IDL
QC Blank	-0.01	99.9	-0.000	0.001 -0.001 27Jul99 20:11 CONCENTRATION LESS THAN IDL
QC Blank	0.10	99.9	0.001	-0.000 0.002 27Jul99 20:16 CONCENTRATION LESS THAN IDL
CCV 11 QC	26.65	1.4	0.117	0.116 0.118 27Jul99 20:22 %R = 106.6

SAMPLE	CONC ug/L	%RSD	MEAN ABS	READINGS	
CCB 11 QC	0.27	0.0	0.002	0.002	0.002
				27Jul99	20:27
				ABS =	0.002
				CONCENTRATION LESS THAN IDL	

KEMRON ENVIRONMENTAL SERVICES
MERCURY RUN LOGBOOK

ANALYST KAS DATE 7/23/99 TIME 1322
METHOD # 7471 SOP # 405 REV. # 1 WORK GROUP # WG61465
CAL STD SOURCE DSS-10-40 ICV/CCV SOURCE DSS-10-41
POST SPK SOURCE (10ppb) DSS-10-40

Cup #	Sample No.	Dil	Prep Conc	Autosampler Runs	Cup #	Sample No.	Dil	Prep Conc	Autosampler Runs
	S0				27.				
	S0.2				28.				
	S1.0				29.				
	S2.0				30.				
	S5.0				31.				
	S10.0				32.				
					33.				
					34.				
1.	ICV				35.				
2.	ICB			CCV, CCB	36.				
3.	PBS-F			WG61444-03	37.				
4.	LCSS-F		.6/100	KAS 7/23/99 ~~04~~ -07	38.				
5.	07 380-01	0.9		RE03-99-2000	39.				
6.	SPK01			⊥	40.				
7.	02			2001	41.				
8.	03			2002	42.				
9.	03MS			⊥	43.				
10.	04			2003 -02	44.	KAS 7/23/99			
11.	04Dup			⊥ ~~06~~ -07	45.				
12.	05		CCV,CCB	2004	46.				
13.	06			2005	47.				
14.	07			2006	48.				
15.	08			⊥ 2007	49.				
16.	07 395-01				50.				
17.	02				51.				
18.	03	0.9			52.				
19.	SPK03				53.				
20.	04				54.				
21.	05			-01	55.				
22.	06MS			~~-05~~ 04CCV,CCB	56.				
23.	07MSD			-06 05	57.				
24.	08			KAS 7/23/99	58.				
25.	09			CCV, CCB	59.				
26.					60.				

KAS 7/23/99

KAS 7/23/99

Comments:

Note: No entry for Dil represents 1X Dilution

Autosampler Run Key:

CCV - Continuing Calibration Verfication
CCB = Continuing Calibration Blank
% D = Automatic Instrument Rerun due to % RSD > 20%
FRS = Rull Recalibration Sequence

ID = Automatic Instrument Dilution
R = Analyst Rerun
BLK = Blank Rerun

Reviewed By:

Line	Conc.	Units	SD/RSD	1	2	3	4	5

*** Standard: 1 Rep: 1 Seq: 662 13:22:52 23 Jul 1999 HG

Hg .000 ppb -147
Ave. Int. = -147 S. D. = 0

*** Standard: 2 Rep: 1 Seq: 663 13:25:28 23 Jul 1999 HG

Hg .200 ppb 4360
Ave. Int. = 4360 S. D. = 0

*** Standard: 3 Rep: 1 Seq: 664 13:28:04 23 Jul 1999 HG

Hg 1.00 ppb 23258
Ave. Int. = 23258 S. D. = 0

*** Standard: 4 Rep: 1 Seq: 665 13:30:41 23 Jul 1999 HG

Hg 2.00 ppb 45790
Ave. Int. = 45790 S. D. = 0

*** Standard: 5 Rep: 1 Seq: 666 13:33:18 23 Jul 1999 HG

Hg 5.00 ppb 115392
Ave. Int. = 115392 S. D. = 0

*** Standard: 6 Rep: 1 Seq: 667 13:35:56 23 Jul 1999 HG

Hg 10.0 ppb 224017
Ave. Int. = 224017 S. D. = 0

x
d

Line Conc. Units SD/RSD 1 2 3 4 5

*** Sample ID: ICV Seq: 668 13:43:24 23 Jul 1999 HG

Hg 1.06 ppb .000 % 1.06

*** Sample ID: ICB Seq: 669 13:45:55 23 Jul 1999 HG

Hg -.016 ppb .000 % -.016

*** Check Standard: 2 Ck2 Seq: 670 13:48:28 23 Jul 1999 HG

Line	Flag	%Rcv.	Found	True	Units	SD/RSD
Hg		101.	1.01	1.00	ppb	.000 %

*** Check Standard: 3 Ck3 Seq: 671 13:51:02 23 Jul 1999 HG

Line	Flag	%Rcv.	Found	True	Units	SD/RSD
Hg		-12.5	-.025	.200	ppb	.000 %

*** Sample ID: PBS-F Seq: 672 14:06:14 23 Jul 1999 HG

WG61444-03

Hg -.022 ppb .000 % -.022

*** Sample ID: LCSS-F Seq: 673 14:08:45 23 Jul 1999 HG

WG61444-~~04~~ 07 Dil. Weight .60000 Volume 100.00

Hg 166. ppb .000 % 166. KAS7/23/99

*** Sample ID: 07380-01 Seq: 674 14:11:16 23 Jul 1999 HG

UNSPIKED 0.9 RE03-99-2000 Dil. Weight .60000 Volume 111.00

Hg 13.3 ppb .000 % 13.3

*** Sample ID: SPK01 Seq: 675 14:13:47 23 Jul 1999 HG

SPIKED Dil. Weight .60000 Volume 100.00

Hg 185. ppb .000 % 185.

*** %Rec. ID: SPK01 Seq: 676 14:13:47 23 Jul 1999 HG

Spikes =1 Unspiked =1

	Spike		%Rcv.	Avg(U)	SD(U)	Avg(S)	SD(S)
Hg	1.00	ppb	104.	.072	.000	1.11	.000

*** Sample ID: 07380-02 Seq: 677 14:16:19 23 Jul 1999 HG

RE03-99-2001 Dil. Weight .60000 Volume 100.00

Hg 8.81 ppb .000 % 8.81

*** Sample ID: 07380-03 Seq: 678 14:18:50 23 Jul 1999 HG

RE03-99-2002 Dil. Weight .60000 Volume 100.00

Hg 12.8 ppb .000 % 12.8

*** Sample ID: 0738003MS Seq: 679 14:21:21 23 Jul 1999 HG

RE03-99-2002 Dil. Weight .60000 Volume 100.00

Hg 1030 ppb .000 % 1030

Line Conc. Units SD/RSD 1 2 3 4 5

*** Sample ID: 07380-04 Seq: 680 14:23:54 23 Jul 1999 HG
RE03-99-2003 WG-02 Dil. Weight .60000 Volume 100.00
Hg 17.4 ppb .000 % 17.4

*** Sample ID: 0738004DUP Seq: 681 14:26:26 23 Jul 1999 HG
DUP RE03-99-2003 WG-~~07~~ Dil. Weight .60000 Volume 100.00
Hg 20.2 ppb .000 % 20.2 06 KAS 7/23/99

*** DUP ID: 0738004DUP Seq: 682 14:26:26 23 Jul 1999 HG
RPD Orig. Dup.
Hg 14.9 % 17.4 20.2

*** Sample ID: 07380-05 Seq: 683 14:28:59 23 Jul 1999 HG
RE03-99-2004 Dil. Weight .60000 Volume 100.00
Hg 15.9 ppb .000 % 15.9

*** Check Standard: 2 Ck2 Seq: 684 14:31:31 23 Jul 1999 HG

Line	Flag	%Rcv.	Found	True	Units	SD/RSD
Hg		103.	1.03	1.00	ppb	.000 %

*** Check Standard: 3 Ck3 Seq: 685 14:34:05 23 Jul 1999 HG

Line	Flag	%Rcv.	Found	True	Units	SD/RSD
Hg		-12.1	-.024	.200	ppb	.000 %

*** Sample ID: 07380-06 Seq: 686 14:36:37 23 Jul 1999 HG
RE03-99-2005 Dil. Weight .60000 Volume 100.00
Hg 12.6 ppb .000 % 12.6

*** Sample ID: 07380-07 Seq: 687 14:39:07 23 Jul 1999 HG
RE03-99-2006 Dil. Weight .60000 Volume 100.00
Hg 17.4 ppb .000 % 17.4

*** Sample ID: 07380-08 Seq: 688 14:41:37 23 Jul 1999 HG
RE03-99-2007 Dil. Weight .60000 Volume 100.00
Hg 24.1 ppb .000 % 24.1

*** Sample ID: 07395-01 Seq: 689 14:44:07 23 Jul 1999 HG
Dil. Weight .60000 Volume 100.00
Hg 13.6 ppb .000 % 13.6

*** Sample ID: 07395-02 Seq: 690 14:46:37 23 Jul 1999 HG
Dil. Weight .60000 Volume 100.00
Hg 13.3 ppb .000 % 13.3

*** Sample ID: 07395-03 Seq: 691 14:49:07 23 Jul 1999 HG
UNSPIKED 0.9 Dil. Weight .60000 Volume 111.00
Hg 2.64 ppb .000 % 2.64

Line	Conc.	Units	SD/RSD	1	2	3	4	5

*** Sample ID: 07395-09 Seq: 703 15:11:47 23 Jul 1999 HG
Dil. Weight .60000 Volume 100.0

Hg	12.8	ppb	.000 %	12.8

*** Check Standard: 2 Ck2 Seq: 704 15:14:18 23 Jul 1999 HG

Line	Flag	%Rcv.	Found	True	Units	SD/RSD
Hg		105.	1.05	1.00	ppb	.000 %

*** Check Standard: 3 Ck3 Seq: 705 15:16:52 23 Jul 1999 HG

Line	Flag	%Rcv.	Found	True	Units	SD/RSD
Hg		-10.7	-.021	.200	ppb	.000 %

DIGESTION DATA

Metals Digestion Log

Analyst(s): DMD
Date: 07/22/99 @ 430 pm
LCS: 5 mL DSS-09-07
MS/MSD: 5 mL DSS-09-07
Witness: SJK

Box: UH
HNO_3 Lot #: N05066
HCl Lot #: M42053
H_2O_2 Lot#: M38616
Earliest Sample Due Date: 08-04-99

Digestion Work Group: WG61417
Analytical Work Group: WG

#	KEMRON Number	Initial Wt / Vol	Final Volume	Due Date	Comments
1	PBS		50 mL		03
2	LCSS	1.00 g			04
3	07-380-01	1.04 g		08-04-99	Level 4: LANL RE03-99-2000 02
4	-01 Dup	1.00 g			2000 07
5	-02	1.02 g			RE03-99-2001 ~~2007~~ DMD 7/22/99
6	-02 MS*	1.05 g			2001 ~~2003~~
7	-03	1.07 g			2002 ~~2004~~
8	-04	1.03 g			2003 ~~2005~~
9	-05	1.00 g			2004 ~~2006~~
10	-06	1.05 g			2005 ~~2007~~
11	-07	1.00 g			2006 ~~200~~
12	-08	1.04 g			2007 ~~200~~
13	07-394-22	1.00 g		08-05-99	~~NPDES~~ DMD 7/22/99 01
14	22 MS	1.04 g			05
15	22 MSD	1.04 g			06
16	25	1.07 g			
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					

DMD 07/22/99

General Digestion

ME401 Revision # _____ - Method 3005A - Water ☐
ME403 Revision # 6 - Method 3050B - Soil ☒

Furnace Digestion

ME402 Revision # _____ - Method 3020A - Water ☐
ME403 Revision # _____ - Method 3050B - Soil ☐

As / Se Digestion

ME410 Revision # _____ - Method 7060/7740 - Water ☐

Comments:
*200µL CLPP-SPK-1, 2, and 3 / LANL SPK #1, #2, and #3

Reviewed By: [signature] 7/23/99

240

Metals Digestion Log

Analyst(s): DMD
Date: 07/22/99 @ 430 PM
LCS: 2.5mL DSS-09-86
MS/MSD: 2.5mL DSS-09-86
Witness: SJK

Box: HU
HNO_3 Lot #: N05066
HCl Lot #: NA
H_2O_2 Lot#: M38616
Earliest Sample Due Date: 08-04-99

Digestion Work Group: WG61418
Analytical Work Group: WG

#	KEMRON Number	Initial Wt / Vol	Final Volume	Due Date	Comments	
1	PBS		50mL			03
2	LCSS	1.00g				04
3	07-380-01	1.06g		08-04-99	Level4: LANL RE03-99-2000	02
4	01 Dup	1.02g			-2000	07
5	02	1.07g			-2001	
6	02 MS*	1.00g			-2001	
7	03	1.07g			-2002	
8	04	1.08g			-2003	
9	05	1.01g			-2004	
10	06	1.08g			-2005	
11	07	1.05g			-2006	
12	08	1.00g			-2007	
13	07-394-22	1.07g		08-05-99		01
14	22 MS	1.06g				05
15	22 MSD	1.06g				06
16	25	1.07g				
17						
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						

DMD 07/22/99

General Digestion

ME401 Revision # _____ - Method 3005A - Water ☐
ME403 Revision # _____ - Method 3050B - Soil ☐

Furnace Digestion

ME402 Revision # _____ - Method 3020A - Water ☐
ME403 Revision # 6 - Method 3050B - Soil ☒

As / Se Digestion

ME410 Revision # _____ - Method 7060/7740 - Water ☐

Comments:
* 200µL CLPF-PSPK-1 / DSS-01-09

Reviewed By: [signature] 7/23/99

Mercury Preparation Log

Volume # 58
Page # 39

Analyst(s): DMD
Date: 07/23/99 @ 1010
LCS: 1mL DSS-09-96
MS/MSD: 1mL DSS-09-96
Witness: VC

ME404 Revision # ____ - Method 7470A - Water [ ]
ME405 Revision # 1 - Method 7471A - Soil [X]
H_2SO_4 Lot #: N01038
$K_2S_2O_8$ Lot #: NA
$KMnO_4$ Lot #: N02646
HNO_3 Lot #: N05066

Box: F
Due Date: 08-04-99
Digestion Work Group #: WG61444
Pressure & Time 15 PSI and 15 min
Bath Temp/Time@ start: NA
Bath Temp/Time @ end: NA

KEMRON Number	Initial Wt/Vol	Final Volume	Hg, TC Hg, Hg-D	Comments			Due Date
PBS		100mL					
LCSS	.6g				03	03	
					07	04	
07-380-01			HGSL	Level 4: LANL RE03-99-2000			08-04-99
02				-2001			
03				-2002			
03 MS*				-2002			
04				-2003	02	02	
04 Dup				-2003	06	07	
05				-2004			
06				-2005			
07				-2006			
08				-2007			
07-395-01			HG-AF98-FEW	Level 4: ETECH			08-05-99
02							
03							
04							
05							
06 MS					01	01	
07 MSD					04	05	
08					05	06	
09							

DMD 07/23/99

DMD 07/23/99

ICV / CCV: DSS-10-41
Stds: 0, 0.2, 1.0, 2.0, 5.0, 10: DSS-10-40
Reviewed By: [signature] 7/23/99

*6mL DSS-09-96

Percent Solids Determination Log

PERCENT SOLIDS

Workgroup: 61694 Approval:
ADT (on): SMW 7-27-99 @ 1630 ADT (off): DLN 7/28/99 @ 0710

Sample	Empty Pan WT 1	WET WT 2	DRY WT 3A	DRY WT 3B	DRY WT 3C
07-332/333-02	1.28	24.56	21.92		
-03	1.28	22.52	18.92		
-04	1.28	23.27	21.14		
07-334/335-01	1.27	26.49	24.95		
-02	1.29	26.26	24.48		
-03	1.29	30.41	28.68		
-04	1.27	20.00	19.15		
-05	1.28	33.48	31.48		
-06	1.27	25.91	24.84		
-07	1.28	21.45	19.42		
-08	1.29	21.40	20.02		
07-365/369-01	1.31	28.17	24.75		
-02	1.31	24.58	21.76		
-03	1.29	26.35	24.10		
-04	1.28	22.90	20.65		
-05	1.27	22.01	20.68		
-06	1.29	20.49	18.97		
07-374/373-01	1.29	28.11	26.56		
-02	1.30	26.10	24.66		
-03	1.30	22.61	21.10		
Duplicate 373-03	1.30	32.39	30.28		

Workgroup: 61696 Approval:
ADT (on): SMW 7-27-99 @ 1640 ADT (off): DLN 7/28/99 @ 0710

Sample	Empty Pan WT 1	WET WT 2	DRY WT 3A	DRY WT 3B	DRY WT 3C
07-374/373-04	1.29	27.52	23.35		
-05	1.29	20.61	17.42		
-06	1.28	26.01	21.43		
07-380/381-01	1.30	20.18	17.57		
-02	1.29	31.32	28.22		
-03	1.28	20.16	17.83		
-04	1.30	25.38	21.51		
-05	1.30	20.67	17.40		
-06	1.30	25.68	21.58		
-07	1.30	31.07	24.39		
-08	1.30	24.14	19.78		
Duplicate 380/381-08	1.30	[illegible]	18.54		

Tuesday, July 24, 2001

REQUEST NUMBER: 9407R

ANALYSIS TYPE: ORG

Los Alamos
NATIONAL LABORATORY

ATTN: Judy Stone
Lionville Laboratory Inc
208 Welsh Pool Rd
Lionville, pa 19341

Please analyze the enclosed samples according to the schedule indicated:

These samples are on:

SHIP DATE: 7/24/01
REPORT DUE: 8/25/01
TURN AROUND REQ'D: 30 day

LANL Request Number: 9407R
Per Agreement Number:
Project Cost Code: MR0R0001E000

RAD SCREENING: Not Required

COMMENTS: 60 - 1114 , GA; TPH BY DIESEL ORGANICS ONLY

LANL ER SMO CONTACT: Joylene Valdez MS H865 5056659968

Signature:

ANALYSIS ORDER CODE	ANALYTE(S)	SAMPLE ID	CONT ID	SAMPLE MATRIX	DATE SAMPLED	COMMENTS
PCB		RC60-01-0003	02	S	7/23/1901	
TPH		RC60-01-0003	03	S	7/23/1901	
PCB		RC60-01-0004	02	S	7/23/1901	
TPH		RC60-01-0004	03	S	7/23/1901	
PCB		RC60-01-0005	02	S	7/23/1901	
TPH		RC60-01-0005	03	S	7/23/1901	
PCB		RC60-01-0006	02	S	7/23/1901	
TPH		RC60-01-0006	03	S	7/23/1901	
PCB		RC60-01-0007	02	S	7/23/1901	
TPH		RC60-01-0007	03	S	7/23/1901	
PCB		RC60-01-0008	02	S	7/23/1901	
TPH		RC60-01-0008	03	S	7/23/1901	

Los Alamos National Laboratory Environmental Restoration (Los Alamos, NM 87545)

CHAIN OF CUSTODY/REQUEST FOR ANALYSIS

Technical Area	60	Send Lab Report to	Roy Bohn M992	Field Unit Leader	Dave McInroy (505)667-0819
Operable Unit	1114				
Date		LANL Destination	SMO	Turnaround	30 days
OU Contact	Roy Bohn	LANL Contact	Joylene Valdez	Lab Report Required	
Contact Phone No	(505) 665-5138	LANL Mail Stop		Charge Code	MR0R0001E000

Relinquished by: Roy Bohn (Signature): Roy Bohn Affiliation: E-ER	Date: 7/23/01	Relinquished by: (Signature): Affiliation:	Date:	Relinquished by: (Signature): Affiliation:	Date:
Received by: (Signature): Affiliation:	Time: 1510	Received by: (Signature): Affiliation:	Time:	Received by: (Signature): Affiliation:	Time:

POSSIBLE HAZARD IDENTIFICATION: (please indicate if sample(s) are hazardous materials and/or suspected to contain high levels of hazardous substances):
Radiological___ Highly Toxic___
Flammable___ Skin Irritant___ Non-Hazard___ Other___

SCREENING METHOD: None

SAMPLE DISPOSAL: Disposal by Lab

Comments: TPH Diesel Range Organics Only

Field Unique Sample #/ID	Cont ID	Date & Time Collected		Sample Container Volume/Material	Matrix	Preservat	ANALYSIS REQUESTED: (SMO Order Codes)	REMARKS (Conditions of receipt, etc.)
RC60-01-0004	03	7/23/01	0955	125 ml Amber Glass	Soil	Ice	TPH	
RC60-01-0004	01			125 ml Polyethylene	Soil	Ice	METTAL	
RC60-01-0003	02		0950	125 ml Glass	Soil	None	PCB	
RC60-01-0003	01			125 ml Polyethylene	Soil	Ice	METTAL	
RC60-01-0003	03			125 ml Amber Glass	Soil	Ice	TPH	
RC60-01-0004	02		0955	125 ml Glass	Soil	None	PCB	

Original - LANL Destination Yellow - RPF Pink - FTL Copy

Los Alamos National Laboratory Environmental Restoration (Los Alamos, NM 87545)
CHAIN OF CUSTODY/REQUEST FOR ANALYSIS

Technical Area	60	**Send Lab Report to**	Roy Bohn M992	**Field Unit Leader**	Dave McInroy (505)667-0819
Operable Unit	1114				
Date		**LANL Destination**	SMO	**Turnaround**	30 days
OU Contact	Roy Bohn	**LANL Contact**	Joylene Valdez	**Lab Report Required**	
Contact Phone No	(505) 665-5138	**LANL Mail Stop**		**Charge Code**	MR0R0001E000

Relinquished by: Roy Bohn **(Signature):** **Affiliation:** E-ER	**Date:** 7/23/01	**Relinquished by:** **(Signature):** 7/23/01 **Affiliation:**	**Date:**	**Relinquished by:** **(Signature):** **Affiliation:**	**Date:**
Received by: **(Signature):** **Affiliation:**	**Time:** 1510	**Received by:** **(Signature):** 1510 **Affiliation:**	**Time:**	**Received by:** **(Signature):** **Affiliation:**	**Time:**

POSSIBLE HAZARD IDENTIFICATION: (please indicate if sample(s) are hazardous materials and/or suspected to contain high levels of hazardous substances):
Radiological___ Highly Toxic___
Flammable___ Skin Irritant___ Non-Hazard___ Other___

SCREENING METHOD: None
SAMPLE DISPOSAL: Disposal by Lab

Comments: TPH Diesel Range Organics Only

Field Unique Sample #/ID	Cont ID	Date & Time Collected		Sample Container Volume/Material	Matrix	Preservat	ANALYSIS REQUESTED: (SMO Order Codes)	REMARKS (Conditions of receipt, etc.)
RC60-01-0006	01	7/23/01	1000	125 ml Polyethylene	Soil	Ice	METTAL	
RC60-01-0006	02			125 ml Glass	Soil	None	PCB	
RC60-01-0005	03		1005	125 ml Amber Glass	Soil	Ice	TPH	
RC60-01-0005	01			125 ml Polyethylene	Soil	Ice	METTAL	
RC60-01-0005	02			125 ml Glass	Soil	None	PCB	
RC60-01-0006	03		1000	125 ml Amber Glass	Soil	Ice	TPH	

Los Alamos National Laboratory Environmental Restoration (Los Alamos, NM 87545)

CHAIN OF CUSTODY/REQUEST FOR ANALYSIS

Technical Area	60	**Send Lab Report to**	Roy Bohn M992	**Field Unit Leader**	Dave McInroy (505)667-0819
Operable Unit	1114				
Date		**LANL Destination**	SMO	**Turnaround**	30 days
OU Contact	Roy Bohn	**LANL Contact**	Joylene Valdez	**Lab Report Required**	
Contact Phone No	(505) 665-5138	**LANL Mail Stop**		**Charge Code**	MR0R0001E000

Relinquished by: Roy Bohn **(Signature):** Roy Bohn **Affiliation:** E-ER	**Date:** 7/23/01	**Relinquished by:** **(Signature):** **Affiliation:**	**Date:**	**Relinquished by:** **(Signature):** **Affiliation:**	**Date:**
Received by: **(Signature):** **Affiliation:**	**Time:** 1510	**Received by:** **(Signature):** **Affiliation:**	**Time:**	**Received by:** **(Signature):** **Affiliation:**	**Time:**

POSSIBLE HAZARD IDENTIFICATION: (please indicate if sample(s) are hazardous materials and/or suspected to contain high levels of hazardous substances):
Radiological___ Highly Toxic___
Flammable___ Skin Irritant___ Non-Hazard___ Other___

SCREENING METHOD: None

SAMPLE DISPOSAL: Disposal by Lab

Comments: TPH Diesel Range Organics Only

Field Unique Sample #/ID	Cont ID	Date & Time Collected	Sample Container Volume/Material	Matrix	Preservat	ANALYSIS REQUESTED: (SMO Order Codes)	REMARKS (Conditions of receipt, etc.)
RC60-01-0007	02	7/23/01 1012	125 ml Glass	Soil	None	PCB	
RC60-01-0007	01	↓ ↓	125 ml Polyethylene	Soil	Ice	METTAL	
RC60-01-0007	03		125 ml Amber Glass	Soil	Ice	TPH	
RC60-01-0008	02	1010	125 ml Glass	Soil	None	PCB	
RC60-01-0008	01	↓ ↓	125 ml Polyethylene	Soil	Ice	METTAL	
RC60-01-0008	03		125 ml Amber Glass	Soil	Ice	TPH	

Original - LANL Destination Yellow - RPF Pink - FTL Copy

RADIOLOGICAL SCREENING DATA RELEASE FORM

The following samples (list samples by number) were received at the Field Support Facility (FSF) without radiological screening data. These samples will not be shipped until radiological screening documentation arrives at the FSF. I understand that it is my responsibility to ensure that this information arrives at the FSF in a timely manner. **If holding times are missed because screening data do not arrive, I will pick up the samples when called to do so.**

~~RC60-01-0003 thru 0008~~

RC60-01-0003 ~~thru 0008~~

****

The following samples (list samples by number) do not require radiological screening for the reason stated.

RC60-01-0003 thru 0008

Reason: No historic rad at site or in previous data

Signature Roy Bohn

Printed name Roy Bohn

Telephone number 5-5138 Date 7/23/01

LVLI
LIONVILLE LABORATORY INC.

27 August 2001

Ms. Joylene Valdez
Los Alamos National Laboratory
TA-3, Building 271
DP. O1U MS-H865
Los Alamos, NM 87545

Ref: Subcontract No. 7791L0014-AA
Data Report for LVL Batch 0107L389
LANL Request No. 9407R

Dear Ms. Valdez:

Enclosed please find the data report for 12 soil samples received 25 July 2001. These were analyzed for PCBs and TPH DRO on a 30 day turnaround. The EDD will follow shortly. – enclosed JL

Please do not hesitate to contact me at (610) 280-3029 with any question you may have regarding either the hard copy or electronic report.

Very truly yours,

Lionville Laboratory Incorporated

Judith L. Stone
Senior Project Manager

Report Sent To: _____

Approved By: _____

Date Sent: _____ 8-30-01

Enclosure:

FIELD COPY

208 Welsh Pool Road • Exton, PA 19341-1313 • (610) 280-3000 • Fax (610) 280-3041

Analytical Data Package Chain of Custody

Section I. Data Package Information (relinquisher completes)

New issue? ☐ Yes ☐ No

Request Number(s): 9262R 9347R 9308R 9318R 9279R
9407R 9248

Data package requestor (check one): ☐ Editing/validation ☐ User ☐ SMO

Name (print): Jaylene VAldc Telephone: 5-9968

Focus area: SMC Z number: 114121

Section II. Authorizing Signatures (relinquisher and receiver both complete)

Relinquished by: John Wilcox John a wilcox (print name, then sign) Date: 9/19/01

I accept custody of the above listed data package(s).

Received by: Jaylene Vs (print name, then sign) Date: 9-19-01

Relinquished by: _____ (print name, then sign) Date: _____

I accept custody of the above listed data package(s).

Received by: _____ (print name, then sign) Date: _____

Comments:

CHAIN OF CUSTODY FORM (Example)

SECTION I. DATA PACKAGE INFORMATION (Relinquisher completes)

New Issue ☑ Yes ☐ No

Request Number(s): 9427 ✓ 9407 ✓ 9431 ✓ 9448 ✓ 9425 ✓ 9449 ✓

Data Package Requestor (check one): ☐ Editing/Validation ☐ User

Name (print) John Wilcox Focus Area: A^3

Phone 7-4086 Z Number: 153002

SECTION II. AUTHORIZING SIGNATURES (Reliquished/Received signatures)

Relinquished By: [signature] Date: 8-28-01

I accept custody of the above listed data package(s).

Received By: John A Wilcox Date: 8/30/01

Relinquished By: _____ Date: _____

I accept custody of the above listed data package(s).

Received By: _____ Date: _____

Comments:

Data Validation Cover Sheet

Section I. Data Record Package Identification

Request Number: 9407B Validation Date: 17-Sep-01 Lab Code: _____

Contract Laboratory Name: Lionville

Validator: Nita P. Patel Organization: EES-9

Analytical Suite(s): (check all that apply)

- ☐ Volatile Organics
- ☐ Semivolatile Organics
- ☒ Organochlorine Pesticides/Polychlorinated Biphenyls
- ☒ Other: DRO (describe)
- ☐ High Explosives
- ☐ Inorganics
- ☐ Radiochemistry

Section II. Completeness Check

Yes	No	n/a	(check one)	Yes	No	n/a	(check one)
☒	☐	☐	1. Chain-of-custody form(s)	☒	☐	☐	6. Raw/BSS data
☒	☐	☐	2. Case narrative	☒	☐	☐	7. Quality control forms
☒	☐	☐	3. Sample result forms	☒	☐	☐	8. Quantitation reports
☒	☐	☐	4. Sample chromatograms	☐	☐	☒	9. TICs forms
☒	☐	☐	5. Standard chromatograms	☐	☐	☒	10. TICs mass spectra

Identify any samples in the assigned Request Number that are missing:

_____ _____ _____ _____ _____ _____ _____ _____

_____ _____ _____ _____ _____ _____ _____ _____

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed upon date of resolution and contract laboratory point of contact): DRO: Sample -0006 contained surrogate not within limits due to DF=50; however, no qualification. All other QC were within limits.

PCBs: All QC were within limits.

(Attach additional comment sheets as necessary)

Validator's signature: Nita Patel Date: 9/17/01

ER-SOPs 15.01–15.06, 15.14

Los Alamos
Environmental Restoration Project

Organochlorine Pesticide and Polychlorinated Biphenyl Data Validation Checklist

Part Ia. Instrument Calibrations

Criteria	Criterion true? (y, n, or n/a)	Action if "criterion true?" = no	Actual time lapse
Was the initial calibration completed?	1a. yes	1b. Return the data record package to the SMO.	1c. n/a
Was the continuing calibration check performed at the beginning of each 24-hr analysis period following the analysis of the instrument performance check and before the analysis of blanks and samples? **Attention:** A continuing calibration check is not required if all samples are analyzed within 24 hrs of initial calibration—record "n/a" in blocks 2a and 2c.	2a. yes	2b. Assign the qualifier and reason code "**A, P16**" to all results. In block 2c, record the actual time lapse.	2c. na

Part Ib. Instrument Calibrations (continued)

Criteria	Criterion true? (y, n, or n/a)	Action if "criterion true?" = no	List noncompliant analyte(s) and affected samples.
Is there a standard analysis for each multicomponent analyte detected within 72 hours of the sample analysis where the multicomponent analyte was detected?	3a. na	3b. Assign the qualifier and reason code "**J, P7a**" to the detected results.	3c. na

Organochlorine Pesticide and Polychlorinated Biphenyl Data Validation Checklist

Part Ic. Analyte Breakdown Criteria

Criteria	Criterion true? (yes or no)	Action if "criterion true?" = yes Identify noncompliant LCS analytes *and* assign qualifier & reason code...	List noncompliant analyte(s) and affected samples.	Percent breakdown
Are any required analyte percent breakdowns *not* reported?	1a. no	1b. **"A, P10b"** for any missing documentation. In block 1c, record • noncompliant analytes and • all affected samples.	1c. na	1d. n/a
Is 4,4'-DDT breakdown > 20% **AND** was 4,4'-DDT detected in the samples?	2a. no	2b. **"J-, P10"** to 4,4'-DDT results. In block 2c, record affected samples. In block 2d, record the percent breakdown of affected 4,4'-DDT. Assign qualifier & reason code **"J+, P10a"** to detected DDD and DDE results.	2c. na	2d. na
Is 4,4'-DDT breakdown > 20% **AND** **was 4,4'-DDT *not detected* in the samples** **AND** Was either DDD and/or DDE *detected* in the samples?	3a. no	3b. **"RPM, P10"** to 4,4'-DDT results. In block 3c, record affected samples. In block 3d, record the percent breakdown of affected 4,4'-DDT. Assign qualifier & reason code **"J+, P10a"** to detected DDD and DDE results.	3c. na	3d. na

Organochlorine Pesticide and Polychlorinated Biphenyl Data Validation Checklist

Part Ic. Analyte Breakdown Criteria (continued)

Criteria	Criterion true? (yes or no)	Action if "criterion true?" = yes Identify noncompliant LCS analytes *and* assign qualifier & reason code...	List noncompliant analyte(s) and affected samples.	Percent breakdown
Is Endrin breakdown > 20% **AND** was Endrin detected in the samples?	4a. no	4b. **"J-, P10"** to Endrin results. In block 4c, record affected samples. In block 4d, record the percent breakdown of affected Endrin. Assign qualifier & reason code **"J+, P10a"** to detected Endrin ketone and Endrin aldehyde results.	4c. na	4d. na
Is Endrin breakdown > 20% **AND** are 4,4'-DDT or Endrin *not detected* in the samples **AND** were either Endrin ketone and/or Endrin aldehyde *detected* in the samples?	5a. no	5b. **"RPM, P10"** to Endrin results. In block 5c, record affected samples. In block 5d, record the combined percent breakdown of affected 4,4'-DDT. Assign qualifier & reason code **"J+, P10a"** to detected Endrin ketone and Endrin aldehyde results.	5c. na	5d. na
Is the combined breakdown > 30% **AND** were either 4,4'-DDT or Endrin detected in the samples?	6a. no	6b. **"J-, P10"** to 4,4'-DDT and/or Endrin results. In block 6c, record affected samples. In block 6d, record the combined percent breakdown. Assign qualifier & reason code **"J+, P10a"** to detected DDD and DDE and/or Endrin ketone and Endrin aldehyde results.	6c. na	6d. na

Organochlorine Pesticide and Polychlorinated Biphenyl Data Validation Checklist

Part Ic. Analyte Breakdown Criteria (continued)

Criteria	Criterion true? (yes or no)	Action if "criterion true?" = yes Identify noncompliant LCS analytes *and* assign qualifier & reason code...	List noncompliant analyte(s) and affected samples.	Percent breakdown
Is the combined breakdown > 30% **AND** were 4,4'-DDT or Endrin *not detected* in the samples **AND** were DDD and/or DDE or Endrin ketone and/or Endrin aldehyde *detected* in the samples?	7a. no	7b. **"RPM, P10"** to 4,4'-DDT and/or Endrin results. In block 7c, record affected samples. In block 7d, record the percent breakdown of Endrin. Assign qualifier & reason code **"J+, P10a"** to detected DDD, DDE, Endrin ketone, and Endrin aldehyde results.	7c. na	7d. na

Organochlorine Pesticide and Polychlorinated Biphenyl Data Validation Checklist

Part IIa. Method and Instrument Blanks Validation Criteria

Criteria	Criterion true? (yes/no)	Action if "criterion true?" = no Assign qualifier & reason code...	List all affected sample matrices and/or analytical batches.
Was a method blank analyzed for each sample matrix and batch?	1a. yes	1b. "**A, P4a**" to any samples with results > EQL that have any missing documentation. In block 1c, record all sample matrices and/or analytical batches that *did not* include a method blank.	1c. na
Was an instrument blank analyzed every 12 hours?	2a. yes	2b. "**A, P4a**" to any samples with results > EQL that have any missing documentation. In block 2c, record all sample matrices and/or analytical batches that *were not* covered by an instrument blank.	2c. na

Part IIb. Method and Instrument Blanks Validation Criteria (continued)

Criteria	Criterion true? (yes or no)	Action if "criterion true?" = yes Assign qualifier & reason code...	List detected blank analyte(s) and affected samples.	Analyte concentration (mg/kg)
Is the sample result > the EQL but < 5 times the blank concentration?	3a. no	3b. "**U, P4**" to sample results > the EQL. In block 3c, record blank (method or instrument), samples, and analyte(s) in question. In block 3d, record the analyte concentration(s).	3c. na	3d. na

Organochlorine Pesticide and Polychlorinated Biphenyl Data Validation Checklist

Part III. Laboratory Control Sample Criteria

Criteria	Criterion true? (yes or no)	Action if "criterion true?" = yes Assign qualifier & reason code...	List noncompliant analyte(s) and affected samples.	Percent recovery
Is any required analyte percent recovery *not* reported?	1a. no	1b. "**A, P12**" for any missing documentation. In block 1c, record • noncompliant analytes and • all affected samples.	1c. na	1d. n/a
Is any required analyte recovery < 10%?	2a. no	2b. "**RPM, P12a**" to all analyte results. In block 2c, record • noncompliant analytes and • all affected samples. In block 2d, record the percent recoveries of all affected analytes.	2c. na	2d. na
Is any required analyte recovery < 80% but > 10%?	3a. no	3b. "**J-, P12b**" to *detected* sample analytes and "**UJ-, P12c**" to all *nondetected* sample analytes. In block 3c, record • noncompliant analytes and • all affected samples. In block 3d, record the percent recoveries of all affected analytes.	3c. na	3d. na
Is any required analyte recovery > 120%?	4a. no	4b. "**J+, P12d**" to detected sample analytes. In block 4c, record • noncompliant analytes and • all affected samples. In block 4d, record the percent recoveries of all affected analytes.	4c. na	4d. na

Organochlorine Pesticide and Polychlorinated Biphenyl Data Validation Checklist

Required Pesticide Surrogate Compounds and Recovery Acceptance Ranges

Surrogate name	Soil matrix recovery acceptance range	Water matrix recovery acceptance range
Tetrachloro-*m*-xylene	60%–150%	60%–150%
Decachlorobiphenyl	60%–150%	60%–150%

Part IV. Surrogate Validation Criteria

Criteria	Criterion true? (yes/no)	Action if "criterion true?" = yes Identify noncompliant surrogates *and* assign qualifier & reason code...	List all noncompliant surrogates and samples.	Percent recovery
Are any required surrogate percent recoveries *not* reported?	1a. no	1b. **"A, P11a"** for any missing documentation. In block 1c, record • noncompliant surrogates and • all affected samples.	1c. na	1d. n/a
Is at least one surrogate recovery <10%?	2a. no	2b. **"J-, P3b"** to all *detected* sample analytes and **"RPM, P3d"** to all *nondetected* sample analytes.	2c. na	2d. na
Is at least one surrogate percent recovery > UAL **AND** no surrogate percent recoveries < LAL?	3a. no	3b. **"J+, P3"** to all detected sample analytes.	3c. na	3d. na

Organochlorine Pesticide and Polychlorinated Biphenyl Data Validation Checklist

Part IV. Surrogate Validation Criteria (continued)

Criteria	Criterion true? (yes/no)	Action if "criterion true?" = yes Identify noncompliant surrogates *and* assign qualifier & reason code...	List all noncompliant surrogates and samples.	Percent recovery
Is at least one surrogate percent recovery > UAL **AND** at least one surrogate percent recovery <LAL?	4a. no	4b. **"J, P3e"** to all *detected* sample analytes and **"UJ, P3e"** to all *nondetected* sample analytes.	4c. na	4d. na
Is at least one surrogate percent recovery < LAL **AND** *the same* surrogate percent recovery > 10%?	5a. no	5b. **"J-, P3a"** to all *detected* sample analytes and **"UJ, P3c"** to all *nondetected* sample analytes.	5c. na	5d. na
Does at least one surrogate have a retention time outside of the ±0.05 minute window?	6a. no	6b. **"PM, P11"** to all *detected* sample analytes and **"RPM, P11"** to all *nondetected* sample analytes.	6c. na	6d. n/a

Organochlorine Pesticide and Polychlorinated Biphenyl Data Validation Checklist

Part V. Holding Time Validation Criteria

Criteria	Criterion true? (yes/no)	Action if "criterion true?" = no Assign qualifier & reason code...	List samples for which holding times were exceeded.	List the number of days by which holding times were exceeded.
Was each sample prepared within its extraction holding time?	1a. yes	1b. "**PM, P9**" to all analytes in affected samples.	1c. na	1d. na
Was each sample analyzed within its analytical holding time?	2a. yes	2b. "**PM, P9**" to all analytes in affected samples.	2c. na	2d. na

Organochlorine Pesticide and Polychlorinated Biphenyl Data Validation Checklist

Part VIa. Required Cleanup Criteria

Criteria	Criterion true? (yes/no)	Action if "criterion true?" = yes List the type of cleanup required.	List samples that required cleanup.
Is cleanup required on any samples?	1a. no	1b. na	1c. na

Part VIb. Required Cleanup Criteria

Criteria	Criterion true? (yes/no)	Action if "criterion true?" = no Assign qualifier & reason code...	List noncompliant samples that required cleanup.
Was florisil cartridge cleanup conducted?	1a. na	1b. **"A, P13"** for any missing documentation. In block 1c, record all affected samples.	1c. na
Was gel permeation chromatography (GPC) cleanup conducted on soil samples?	2a. na	2b. **"A, P13a"** for any missing documentation. In block 2c, record all affected samples.	2c. na
Were other required cleanups conducted as required?	3a. yes	3b. **"A, P13b"** for any missing documentation. In block 3c, record all affected samples and missing cleanup.	3c. H2SO4 cleanup performed on PCBs.

1D
PESTICIDE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

RC60-01-0003 02

Lab Name: Lionville Labs, Inc. Work Order: 02744064001

Client: LANL REQ #9407R

Matrix: SOIL

Lab Sample ID: 0107L389-001

Sample wt/vol: 30.2 (g/mL) G

Lab File ID: 08030135.06

Level: (low/med) LOW

Date Received: 07/25/01

% Moisture: not dec. 7 dec.

Date Extracted: 07/26/01

Extraction: (SepF/Cont/Sonc) SONC

Date Analyzed: 08/03/01

GPC Cleanup: (Y/N) N pH: 7.0

Dilution Factor: 1.00

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NO.	COMPOUND		
12674-11-2	Aroclor-1016	36	U
11104-28-2	Aroclor-1221	71	U
11141-16-5	Aroclor-1232	36	U
53469-21-9	Aroclor-1242	36	U
12672-29-6	Aroclor-1248	36	U
11097-69-1	Aroclor-1254	36	U
11096-82-5	Aroclor-1260	36	U

FORM 1 PEST

12/88 Rev.

1D
PESTICIDE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

RC60-01-0004 02

Lab Name: Lionville Labs, Inc. Work Order: 02744064001

Client: LANL REQ #9407R

Matrix: SOIL

Lab Sample ID: 0107L389-002

Sample wt/vol: 30.2 (g/mL) G

Lab File ID: 08030135.07

Level: (low/med) LOW

Date Received: 07/25/01

% Moisture: not dec. 6 dec.

Date Extracted: 07/26/01

Extraction: (SepF/Cont/Sonc) SONC

Date Analyzed: 08/03/01

GPC Cleanup: (Y/N) N pH: 7.0

Dilution Factor: 1.00

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NO.	COMPOUND		
12674-11-2	Aroclor-1016	35	U
11104-28-2	Aroclor-1221	71	U
11141-16-5	Aroclor-1232	35	U
53469-21-9	Aroclor-1242	35	U
12672-29-6	Aroclor-1248	35	U
11097-69-1	Aroclor-1254	35	U
11096-82-5	Aroclor-1260	35	U

Flags 8/17/01

FORM 1 PEST 12/88 Rev.

1D
PESTICIDE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

RC60-01-0005 02

Lab Name: Lionville Labs, Inc. Work Order: 02744064001

Client: LANL REQ #9407R

Matrix: SOIL

Lab Sample ID: 0107L389-003

Sample wt/vol: 30.0 (g/mL) G

Lab File ID: 08030135.08

Level: (low/med) LOW

Date Received: 07/25/01

% Moisture: not dec. 6 dec.

Date Extracted: 07/26/01

Extraction: (SepF/Cont/Sonc) SONC

Date Analyzed: 08/03/01

GPC Cleanup: (Y/N) N pH: 7.0

Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	
12674-11-2	Aroclor-1016	36	U
11104-28-2	Aroclor-1221	71	U
11141-16-5	Aroclor-1232	36	U
53469-21-9	Aroclor-1242	36	U
12672-29-6	Aroclor-1248	36	U
11097-69-1	Aroclor-1254	36	U
11096-82-5	Aroclor-1260	36	U

FORM 1 PEST 12/88 Rev.

1D
PESTICIDE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

RC60-01-0006 02

Lab Name: Lionville Labs, Inc. Work Order: 02744064001

Client: LANL REQ #9407R

Matrix: SOIL

Lab Sample ID: 0107L389-004

Sample wt/vol: 30.1 (g/mL) G

Lab File ID: 08030135.09

Level: (low/med) LOW

Date Received: 07/25/01

% Moisture: not dec. 4 dec.

Date Extracted: 07/26/01

Extraction: (SepF/Cont/Sonc) SONC

Date Analyzed: 08/03/01

GPC Cleanup: (Y/N) N pH: 7.0

Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	
12674-11-2	Aroclor-1016	35	U
11104-28-2	Aroclor-1221	69	U
11141-16-5	Aroclor-1232	35	U
53469-21-9	Aroclor-1242	35	U
12672-29-6	Aroclor-1248	35	U
11097-69-1	Aroclor-1254	35	U
11096-82-5	Aroclor-1260	35	U

FORM 1 PEST 12/88 Rev.

1D
PESTICIDE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

RC60-01-0007 02

Lab Name: Lionville Labs, Inc. Work Order: 02744064001

Client: LANL REQ #9407R

Matrix: SOIL

Lab Sample ID: 0107L389-005

Sample wt/vol: 30.6 (g/mL) G

Lab File ID: 08030135.10

Level: (low/med) LOW

Date Received: 07/25/01

% Moisture: not dec. 3 dec.

Date Extracted: 07/26/01

Extraction: (SepF/Cont/Sonc) SONC

Date Analyzed: 08/03/01

GPC Cleanup: (Y/N) N pH: 7.0

Dilution Factor: 1.00

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NO.	COMPOUND		
12674-11-2------	Aroclor-1016	34	U
11104-28-2------	Aroclor-1221	68	U
11141-16-5------	Aroclor-1232	34	U
53469-21-9------	Aroclor-1242	34	U
12672-29-6------	Aroclor-1248	34	U
11097-69-1------	Aroclor-1254	34	U
11096-82-5------	Aroclor-1260	34	U

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FORM 1 PEST 12/88 Rev.

1D
PESTICIDE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

RC60-01-0008 02

Lab Name: Lionville Labs, Inc. Work Order: 02744064001

Client: LANL REO #9407R

Matrix: SOIL

Lab Sample ID: 0107L389-006

Sample wt/vol: 30.1 (g/mL) G

Lab File ID: 08030135.11

Level: (low/med) LOW

Date Received: 07/25/01

% Moisture: not dec. 2 dec.

Date Extracted: 07/26/01

Extraction: (SepF/Cont/Sonc) SONC

Date Analyzed: 08/03/01

GPC Cleanup: (Y/N) N pH: 7.0

Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	
12674-11-2	Aroclor-1016	34	U
11104-28-2	Aroclor-1221	68	U
11141-16-5	Aroclor-1232	34	U
53469-21-9	Aroclor-1242	34	U
12672-29-6	Aroclor-1248	34	U
11097-69-1	Aroclor-1254	34	U
11096-82-5	Aroclor-1260	34	U

FORM 1 PEST 12/88 Rev.

LIONVILLE LABORATORY INC.

Analytical Report

Client: LANL REQ.#9407R
LVL#: 0107L389
Subcontract #: 7791L0014-AA

W.O.#: 02744-064-001-9999-00
Date Received: 07-25-2001

PCB

The set of samples consisted of six (6) soil samples collected on 07-23-2001.

The samples and their associated QC samples were extracted on 07-26-2001 and analyzed according to Lionville Laboratory OPs based on SW846, 3rd Edition procedures on 08-03,04-2001. The extraction procedure was based on method 3540 and the extracts were analyzed based on method 8082 for Aroclors only.

The following is a summary of the QC results accompanying the sample results and a description of any problems encountered during their analyses:

1. The cooler temperature has been recorded on the chain-of-custody.
2. All required holding times for extraction and analysis have been met.
3. The samples and their associated QC samples received a sulfuric acid cleanup.
4. The method blank was below the reporting limits for all target compounds.
5. All surrogate recoveries were within acceptance criteria.
6. The blank spike recovery was within acceptance criteria.
7. The matrix spike recoveries were within acceptance criteria.
8. All initial calibrations associated with this data set were within acceptance criteria.
9. All continuing calibration standards analyzed prior to sample extracts were within acceptance criteria.
10. I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, except as detailed in this QC Report.

Jain Daniels
Deputy Laboratory Manager
Lionville Laboratory Incorporated

8/21/01
Date

som\r:\group\data\gest\lanl\07L389.pcb

The results presented in this report relate only to the analytical testing and conditions of the samples at receipt and during storage. All pages of this report are integral parts of the analytical data. Therefore, this report should only be reproduced in its entirety of 2 5 1 pages.

208 Welsh Pool Road • Exton, PA 19341-1313 • (610) 280-3000 • Fax (610) 280-3041

8H

PESTICIDE ANALYSIS SEQUENCE

Lab Name: Lionville Labs, Inc. Contract: 02744-064-001-9999-00

Client: LANL REQ #9407R GC Sample ID: 07190135

Instrument ID: 35 GC Column ID: DB608

Dates of Analyses: 07/19/01 to 07/20/01

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED
01	ZZZZZ	AR1660 2801 A	07/19/01	1759
02	ZZZZZ	AR1660 2802 B	07/19/01	1847
03	ZZZZZ	AR1660 2803 C	07/19/01	1935
04	ZZZZZ	AR1660 2804 D	07/19/01	2023
05	ZZZZZ	AR1660 2805 E	07/19/01	2111
06	ZZZZZ	AR1221 1108	07/19/01	2159
07	ZZZZZ	AR1232 1205	07/19/01	2247
08	ZZZZZ	AR1242 1304	07/19/01	2335
09	ZZZZZ	AR1248 1101	07/20/01	0022
10	ZZZZZ	AR1254 9403 C	07/20/01	0110

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FORM VIII PEST

8H

PESTICIDE ANALYSIS SEQUENCE

Lab Name: Lionville Labs, Inc. Contract: 02744-064-001-9999-00

Client: LANL REQ #9407R GC Sample ID: 08030135

Instrument ID: 35 GC Column ID: DB608

Dates of Analyses: 08/03/01 to 08/04/01

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED
01	ZZZZZ	AR1660 2803 C	08/03/01	1307
02	PBLKLZLE0890	01LE0890-MB1	08/03/01	1405
03	PBLKLZLE0890 MS	01LE0890-MB1S	08/03/01	1503
04	ZZZZZ	01LE0907-MB1	08/03/01	1601
05	ZZZZZ	01LE0907-MB1S	08/03/01	1659
06	RC60-01-0003 02	0107L389-001	08/03/01	1757
07	RC60-01-0004 02	0107L389-002	08/03/01	1855
08	RC60-01-0005 02	0107L389-003	08/03/01	1953
09	RC60-01-0006 02	0107L389-004	08/03/01	2050
10	RC60-01-0007 02	0107L389-005	08/03/01	2148
11	RC60-01-0008 02	0107L389-006	08/03/01	2246
12	ZZZZZ	HEXANE	08/03/01	2344
13	ZZZZZ	AR1660 2803 C	08/04/01	0042
14	RC60-01-0008 02MS	0107L389-006S	08/04/01	0140
15	RC60-01-0008 02MSD	0107L389-006T	08/04/01	0238
16	ZZZZZ	0107L397-001	08/04/01	0336
17	ZZZZZ	0107L397-001S	08/04/01	0434
18	ZZZZZ	0107L397-001T	08/04/01	0532
19	ZZZZZ	0107L397-002	08/04/01	0629
20	ZZZZZ	0107L397-003	08/04/01	0727
21	ZZZZZ	0107L397-004	08/04/01	0825
22	ZZZZZ	0107L397-005	08/04/01	0923
23	ZZZZZ	0107L397-006	08/04/01	1021
24	ZZZZZ	HEXANE	08/04/01	1119
25	ZZZZZ	AR1660 2803 C	08/04/01	1217

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FORM VIII PEST

8H

PESTICIDE ANALYSIS SEQUENCE

Lab Name: Lionville Labs, Inc. Contract: 02744-064-001-9999-00

Client: LANL REQ #9407R GC Sample ID: 07190136

Instrument ID: 36 GC Column ID: RTX1701

Dates of Analyses: 07/19/01 to 07/20/01

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED
01	ZZZZZ	AR1660 2801 A	07/19/01	1759
02	ZZZZZ	AR1660 2802 B	07/19/01	1847
03	ZZZZZ	AR1660 2803 C	07/19/01	1935
04	ZZZZZ	AR1660 2804 D	07/19/01	2023
05	ZZZZZ	AR1660 2805 E	07/19/01	2111
06	ZZZZZ	AR1221 1108	07/19/01	2159
07	ZZZZZ	AR1232 1205	07/19/01	2247
08	ZZZZZ	AR1242 1304	07/19/01	2335
09	ZZZZZ	AR1248 1101	07/20/01	0022
10	ZZZZZ	AR1254 9403 C	07/20/01	0110

FORM VIII PEST

8H

PESTICIDE ANALYSIS SEQUENCE

Lab Name: Lionville Labs, Inc. Contract: 02744-064-001-9999-00

Client: LANL REQ #9407R GC Sample ID: 08030136

Instrument ID: 36 GC Column ID: RTX1701

Dates of Analyses: 08/03/01 to 08/04/01

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED
01	ZZZZZ	AR1660 2803 C	08/03/01	1307
02	PBLKLZLE0890	01LE0890-MB1	08/03/01	1405
03	PBLKLZLE0890 MS	01LE0890-MB1S	08/03/01	1503
04	ZZZZZ	01LE0907-MB1	08/03/01	1601
05	ZZZZZ	01LE0907-MB1S	08/03/01	1659
06	RC60-01-0003 02	0107L389-001	08/03/01	1757
07	RC60-01-0004 02	0107L389-002	08/03/01	1855
08	RC60-01-0005 02	0107L389-003	08/03/01	1953
09	RC60-01-0006 02	0107L389-004	08/03/01	2050
10	RC60-01-0007 02	0107L389-005	08/03/01	2148
11	RC60-01-0008 02	0107L389-006	08/03/01	2246
12	ZZZZZ	HEXANE	08/03/01	2344
13	ZZZZZ	AR1660 2803 C	08/04/01	0042
14	RC60-01-0008 02MS	0107L389-006S	08/04/01	0140
15	RC60-01-0008 02MSD	0107L389-006T	08/04/01	0238
16	ZZZZZ	0107L397-001	08/04/01	0336
17	ZZZZZ	0107L397-001S	08/04/01	0434
18	ZZZZZ	0107L397-001T	08/04/01	0532
19	ZZZZZ	0107L397-002	08/04/01	0629
20	ZZZZZ	0107L397-003	08/04/01	0727
21	ZZZZZ	0107L397-004	08/04/01	0825
22	ZZZZZ	0107L397-005	08/04/01	0923
23	ZZZZZ	0107L397-006	08/04/01	1021
24	ZZZZZ	HEXANE	08/04/01	1119
25	ZZZZZ	AR1660 2803 C	08/04/01	1217

Flag 8/10

FORM VIII PEST

CALIBRATION VERIFICATION SUMMARY

Lab Name: Lionville Labs, Inc. Contract: 02744064001

Client: LANL REQ #9407R GC Sample ID: 08030135.01

RFW Lot No.: 0107L389 GC Column: DB608

Instrument ID: 35 | DATE(S) OF INIT. CALIB FROM: 07/19/01 TO: 07/20/01 | DATE OF ANALYSIS 08/03/01 TIME OF ANALYSIS 1307 STANDARD ID: AR1660 2803 C

Method: A352

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	INITIAL RESP. FACT.	RT	CONTINUING RESP. FACT.	FL	%D
Aroclor-1016	11.72	11.65	11.79	95588	11.72	87090		- 8.9
Aroclor-1016	13.35	13.28	13.42	191345	13.35	171570		- 10
Aroclor-1016	14.88	14.81	14.95	252748	14.88	223040		- 12
Aroclor-1016	15.43	15.36	15.50	122443	15.43	108300		- 12
Aroclor-1016	17.22	17.14	17.28	117229	17.22	98930	+	- 16
Total				**779353**		**688930**		**- 12**
Aroclor-1260	21.59	21.52	21.66	269261	21.59	238240		- 12
Aroclor-1260	22.05	21.98	22.12	302621	22.05	265590		- 12
Aroclor-1260	23.70	23.63	23.77	199965	23.70	176040		- 12
Aroclor-1260	24.89	24.82	24.96	220908	24.89	195500		- 12
Aroclor-1260	25.50	25.43	25.57	404109	25.50	355290		- 12
Total				**1396864**		**1230660**		**- 12**
Toxaphene								
Toxaphene								
Toxaphene								
Toxaphene								
Toxaphene								
Total								

%D should not exceed 15%

CALIBRATION VERIFICATION SUMMARY

Lab Name: Lionville Labs, Inc.

Contract: 02744064001

Client: LANL REQ #9407R

GC Sample ID: 08030135.13

RFW Lot No.: 0107L389

GC Column: DB608

Instrument ID: 35

Method: A352

DATE(S) OF INIT. CALIB FROM: 07/19/01 TO: 07/20/01

DATE OF ANALYSIS 08/04/01
TIME OF ANALYSIS 0042
STANDARD ID: AR1660 2803 C

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	INITIAL RESP. FACT.	RT	CONTINUING RESP. FACT.	FL	%D
Aroclor-1016	11.72	11.65	11.79	95588	11.69	86460		- 9.5
Aroclor-1016	13.35	13.28	13.42	191345	13.32	171900		- 10
Aroclor-1016	14.88	14.81	14.95	252748	14.85	225070		- 11
Aroclor-1016	15.43	15.36	15.50	122443	15.40	108060		- 12
Aroclor-1016	17.22	17.14	17.28	117229	17.19	98910	+	- 16
Total				**779353**		**690400**		**- 11**
Aroclor-1260	21.59	21.52	21.66	269261	21.57	239670		- 11
Aroclor-1260	22.05	21.98	22.12	302621	22.03	269220		- 11
Aroclor-1260	23.70	23.63	23.77	199965	23.69	173980		- 13
Aroclor-1260	24.89	24.82	24.96	220908	24.88	196550		- 11
Aroclor-1260	25.50	25.43	25.57	404109	25.49	360100		- 11
Total				**1396864**		**1239520**		**- 11**
Toxaphene								
Toxaphene								
Toxaphene								
Toxaphene								
Toxaphene								
Total								

%D should not exceed 15%

CALIBRATION VERIFICATION SUMMARY

Lab Name: Lionville Labs, Inc.

Contract: 02744064001

Client: LANL REQ #9407R

GC Sample ID: 08030135.25

RFW Lot No.: 0107L389

GC Column: DB608

Instrument ID: 35

Method: A352

DATE(S) OF INIT. CALIB FROM: 07/19/01 TO: 07/20/01

DATE OF ANALYSIS 08/04/01
TIME OF ANALYSIS 1217
STANDARD ID: AR1660 2803 C

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	INITIAL RESP. FACT.	RT	CONTINUING RESP. FACT.	FL	%D
Aroclor-1016	11.72	11.65	11.79	95588	11.69	86620		- 9.4
Aroclor-1016	13.35	13.28	13.42	191345	13.32	169990		- 11
Aroclor-1016	14.88	14.81	14.95	252748	14.85	222430		- 12
Aroclor-1016	15.43	15.36	15.50	122443	15.40	106930		- 13
Aroclor-1016	17.22	17.14	17.28	117229	17.20	94790	+	- 19
Total				**779353**		**680760**		**- 13**
Aroclor-1260	21.59	21.52	21.66	269261	21.57	236520		- 12
Aroclor-1260	22.05	21.98	22.12	302621	22.04	265040		- 12
Aroclor-1260	23.70	23.63	23.77	199965	23.69	169770		- 15
Aroclor-1260	24.89	24.82	24.96	220908	24.88	191760		- 13
Aroclor-1260	25.50	25.43	25.57	404109	25.49	354960		- 12
Total				**1396864**		**1218050**		**- 13**
Toxaphene								
Toxaphene								
Toxaphene								
Toxaphene								
Toxaphene								
Total								

%D should not exceed 15%

[illegible] 8/17/01

CALIBRATION VERIFICATION SUMMARY

Lab Name: Lionville Labs, Inc.

Contract: _____

Client: _____

GC Sample ID: 08030136.01

RFW Lot No.: 0107L389

GC Column: RTX1701

Instrument ID: 36

Method: A362

DATE(S) OF INIT. CALIB FROM: 07/19/01 TO: 07/20/01

DATE OF ANALYSIS 08/03/01
TIME OF ANALYSIS 1307
STANDARD ID: AR1660 2803 C

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	INITIAL RESP. FACT.	RT	CONTINUING RESP. FACT.	FL	%D
Aroclor-1016	9.76	9.69	9.83	39475	9.76	42560		7.8
Aroclor-1016	11.21	11.14	11.28	68176	11.21	69830		2.4
Aroclor-1016	12.82	12.75	12.89	100443	12.82	102640		2.2
Aroclor-1016	13.29	13.22	13.36	60531	13.29	61480		1.6
Aroclor-1016	14.92	14.85	14.99	50904	14.92	49770		- 2.2
Total				**319529**		**326280**		**- 2.1**
Aroclor-1260	19.23	19.16	19.30	120298	19.23	118910		- 1.2
Aroclor-1260	19.93	19.86	20.00	136464	19.93	136600		0
Aroclor-1260	21.44	21.37	21.51	92619	21.44	92910		0.3
Aroclor-1260	22.43	22.36	22.50	90480	22.43	92100		1.8
Aroclor-1260	23.26	23.19	23.33	188704	23.26	189130		0.2
Total				**628565**		**629650**		**0.2**
Toxaphene								
Toxaphene								
Toxaphene								
Toxaphene								
Toxaphene								
Total								

%D should not exceed 15%

Flag data

RFW 9/93 A

CALIBRATION VERIFICATION SUMMARY

Lab Name: Lionville Labs, Inc.

Contract: _____

Client: _____

GC Sample ID: 08030136.13

RFW Lot No.: 0107L389

GC Column: RTX1701

Instrument ID: 36

Method: A362

DATE(S) OF INIT. CALIB FROM: 07/19/01 TO: 07/20/01

DATE OF ANALYSIS 08/04/01
TIME OF ANALYSIS 0042
STANDARD ID: AR1660 2803 C

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	INITIAL RESP. FACT.	RT	CONTINUING RESP. FACT.	FL	%D
Aroclor-1016	9.76	9.69	9.83	39475	9.75	42860		8.6
Aroclor-1016	11.21	11.14	11.28	68176	11.21	71660		5.1
Aroclor-1016	12.82	12.75	12.89	100443	12.81	105160		4.7
Aroclor-1016	13.29	13.22	13.36	60531	13.28	62350		3.0
Aroclor-1016	14.92	14.85	14.99	50904	14.91	50490		- 0.8
Total				**319529**		**332520**		**- 4.1**
Aroclor-1260	19.23	19.16	19.30	120298	19.22	123940		3.0
Aroclor-1260	19.93	19.86	20.00	136464	19.93	139860		2.5
Aroclor-1260	21.44	21.37	21.51	92619	21.43	94490		2.0
Aroclor-1260	22.43	22.36	22.50	90480	22.42	94600		4.6
Aroclor-1260	23.26	23.19	23.33	188704	23.26	193980		2.8
Total				**628565**		**646870**		**2.9**
Toxaphene								
Toxaphene								
Toxaphene								
Toxaphene								
Toxaphene								
Total								

%D should not exceed 15%

Flagged 8/7/01

CALIBRATION VERIFICATION SUMMARY

Lab Name: Lionville Labs, Inc.

Contract: _____

Client: _____

GC Sample ID: 08030136.25

RFW Lot No.: 0107L389

GC Column: RTX1701

Instrument ID: 36

Method: A362

DATE(S) OF INIT. CALIB FROM: 07/19/01 TO: 07/20/01

DATE OF ANALYSIS 08/04/01
TIME OF ANALYSIS 1217
STANDARD ID: AR1660 2803 C

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	INITIAL RESP. FACT.	RT	CONTINUING RESP. FACT.	FL	%D
Aroclor-1016	9.76	9.69	9.83	39475	9.75	43210		9.5
Aroclor-1016	11.21	11.14	11.28	68176	11.21	71320		4.6
Aroclor-1016	12.82	12.75	12.89	100443	12.81	104740		4.3
Aroclor-1016	13.29	13.22	13.36	60531	13.28	61970		2.4
Aroclor-1016	14.92	14.85	14.99	50904	14.91	49970		- 1.8
Total				**319529**		**331210**		**- 3.7**
Aroclor-1260	19.23	19.16	19.30	120298	19.22	121930		1.4
Aroclor-1260	19.93	19.86	20.00	136464	19.93	140040		2.6
Aroclor-1260	21.44	21.37	21.51	92619	21.43	93540		1
Aroclor-1260	22.43	22.36	22.50	90480	22.42	94130		4.0
Aroclor-1260	23.26	23.19	23.33	188704	23.25	192330		1.9
Total				**628565**		**641970**		**2.1**
Toxaphene								
Toxaphene								
Toxaphene								
Toxaphene								
Toxaphene								
Total								

%D should not exceed 15%

Flags 8/7/01

Multilevel Calibration Method

calibrated using height
Lionville Laboratory, Incorporated

% RSD TCX

INJECTION #		PEAK HEIGHT	CONC. (ug/mL)	PEAK HT. / CONC	MEAN	DEV.	%RSD
07170135.04	LEVEL A	15118	0.04	377950			
07170135.05	LEVEL B	35936	0.1	359360			
07170135.06	LEVEL C	69995	0.2	349975	353680.3	23312.7479	6.5914748
07170135.07	LEVEL D	145999	0.4	364997.5			
07170135.08	LEVEL E	316119	1	316119			

% RSD DCB

INJECTION #		PEAK HEIGHT	CONC. (ug/mL)	PEAK HT. / CONC	MEAN	DEV.	%RSD
07170135.04	LEVEL A	13012	0.008	1626500			
07170135.05	LEVEL B	30312	0.02	1515600			
07170135.06	LEVEL C	57030	0.04	1425750	1426499	154979.918	10.8643552
07170135.07	LEVEL D	107168	0.08	1339600			
07170135.08	LEVEL E	245009	0.2	1225045			

AR1016

$\bar{x}$ = 551758.9

σ_{n-1} = 86401.577

%RSD = 15.66%

AR1260

$\bar{x}$ = 1022106.8

σ_{n-1} = 110851.13

%RSD = 10.85%

AR1254

RF = 0.1436×10^{-5}

7/20/01

Multilevel Calibration Method

calibrated using height
Lionville Laboratory, Incorporated

% RSD TCX

INJECTION #		PEAK HEIGHT	CONC. (ug/mL)	PEAK HT. / CONC	MEAN	DEV.	%RSD
07170136.04	LEVEL A	6000	0.04	150000			
07170136.05	LEVEL B	14349	0.1	143490			
07170136.06	LEVEL C	28690	0.2	143450	153338	11091.3686	7.23328112
07170136.07	LEVEL D	67214	0.4	168035			
07170136.08	LEVEL E	161715	1	161715			

% RSD DCB

INJECTION #		PEAK HEIGHT	CONC. (ug/mL)	PEAK HT. / CONC	MEAN	DEV.	%RSD
07170136.04	LEVEL A	7621	0.008	952625			
07170136.05	LEVEL B	18490	0.02	924500			
07170136.06	LEVEL C	35664	0.04	891600	886117	58690.8421	6.6233739
07170136.07	LEVEL D	68848	0.08	860600			
07170136.08	LEVEL E	160252	0.2	801260			

AR1016
$\bar{x}$ = 233204.7
σ^{-1} = 17524.724
%RSD = 7.51%

AR1260
$\bar{x}$ = 467671.6
σ^{-1} = 24612.199
%RSD = 5.26%

AR1254
RF = 0.3190 x10^{-5}

7/20/01

2F

SOIL PESTICIDE SURROGATE RECOVERY

Lab Name: Lionville Labs, Inc. Contract: ~~2744-64-01~~ 02744-064-001-9999-0P KLW 8/21/01

Case No.: LANL REQ #9407R

RFW Lot No.: 0107L389

	CLIENT SAMPLE NO.	S1 ( )#	OTHER
01	RC60-01-0003 02	75	71
02	RC60-01-0004 02	90	80
03	RC60-01-0005 02	90	82
04	RC60-01-0006 02	95	101
05	RC60-01-0007 02	92	91
06	RC60-01-0008 02	108	94
07	RC60-01-0008 02MS	105	93
08	RC60-01-0008 02MSD	85	66
09	PBLKLZLE0890-MB1	90	99
10	PBLKLZLE0890-MB1 BS	100	95

	ADVISORY QC LIMITS
S1 ( ) = Tetrachloro-m-xylene	(28-118)
S2 ( ) = Decachlorobiphenyl	(38-122)

Flood 8/21/01

Column to be used to flag recovery values
* Values outside of QC limits
D Surrogates diluted out

FORM II PEST-2

01/89 Rev.

3F

SOIL PESTICIDE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Lionville Labs, Inc. Contract: ~~2744-64-01~~ 02744-064-001-9999-00 LSW 8/16/01

Case No.: LANL REQ #9407R RFW Lot No.: 0107L389-006

MATRIX Spike - Sample No.: RC60-01-0008 02 Level:(low/med) LOW

COMPOUND	SPIKE ADDED UG/KG	SAMPLE CONCENTRATION UG/KG	MS CONCENTRATION UG/KG	MS % REC #	QC LIMITS REC
Aroclor-1254	128	0	109	85	30 -146

COMPOUND	SPIKE ADDED UG/KG	MSD CONCENTRATION UG/KG	MSD % REC #	% RPD #	QC LIMITS RPD	REC
Aroclor-1254	127	104	81	4	50	30 -146

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

flagged in ...

RPD: 0 out of 1 outside limits
Spike Recovery: 0 out of 2 outside limits

COMMENTS:

FORM III PEST-2 5/88 Rev.

3F

SOIL PESTICIDE MATRIX SPIKE RECOVERY

Lab Name: Lionville Labs, Inc. Contract: ~~2744-64-01~~ 02744-064-001-9999-00 LAW 5/16/01

Case No.: LANL REQ #9407R RFW Lot No.: 0107L389

MATRIX Spike - Sample No.: PBLKLZLE0890-MB1 Level:(low/med) LOW

COMPOUND	SPIKE ADDED UG/KG	SAMPLE CONCENTRATION UG/KG	MS CONCENTRATION UG/KG	MS % REC #	QC LIMITS REC
Aroclor-1254	125	0	112	90	30 -146

Column to be used to flag recovery value with an asterisk
* Values outside of QC limits

Spike Recovery: 0 out of 1 outside limits

Floyd 5/16/01

COMMENTS:

FORM III PEST-2 5/88 Rev.

4C

PESTICIDE METHOD BLANK SUMMARY

Lab Name: Lionville Labs, Inc. Contract: ~~2744-64-01~~ 02744-064-001-9999-00 Rev 8/10/01

Case No.: LANL REQ #9407R

Lab Sample ID: 01LE0890-MB1 Lab File ID: 08030135 .02

Matrix: (Soil/Water) SOIL Level: (low/med) LOW

Date Extracted: 07/26/01 Extraction: (SepF/Cont/Sonc) SONC

Date Analyzed (1): 08/03/01 Date Analyzed (2): 08/03/01

Time Analyzed (1): 1405 Time Analyzed (2): 1405

Instrument ID (1): 35 Instrument ID (2): 36

GC Column ID (1): B608 GC Column ID (2): RTX1701

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
01	RC60-01-0003 02	0107L389-001	08/03/01	08/03/01
02	RC60-01-0004 02	0107L389-002	08/03/01	08/03/01
03	RC60-01-0005 02	0107L389-003	08/03/01	08/03/01
04	RC60-01-0006 02	0107L389-004	08/03/01	08/03/01
05	RC60-01-0007 02	0107L389-005	08/03/01	08/03/01
06	RC60-01-0008 02	0107L389-006	08/03/01	08/03/01
07	RC60-01-0008 02MS	0107L389-006S	08/04/01	08/04/01
08	RC60-01-0008 02MSD	0107L389-006T	08/04/01	08/04/01
09	PBLKLZLE0890-MB1 BS	01LE0890-MB1S	08/03/01	08/03/01

COMMENTS:

8H

PESTICIDE ANALYSIS SEQUENCE

Lab Name: Lionville Labs, Inc. Contract: 02744-064-001-9999-00

Client: LANL REQ #9407R GC Sample ID: 07190135

Instrument ID: 35 GC Column ID: DB608

Dates of Analyses: 07/19/01 to 07/20/01

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED
01	ZZZZZ	AR1660 2801 A	07/19/01	1759
02	ZZZZZ	AR1660 2802 B	07/19/01	1847
03	ZZZZZ	AR1660 2803 C	07/19/01	1935
04	ZZZZZ	AR1660 2804 D	07/19/01	2023
05	ZZZZZ	AR1660 2805 E	07/19/01	2111
06	ZZZZZ	AR1221 1108	07/19/01	2159
07	ZZZZZ	AR1232 1205	07/19/01	2247
08	ZZZZZ	AR1242 1304	07/19/01	2335
09	ZZZZZ	AR1248 1101	07/20/01	0022
10	ZZZZZ	AR1254 9403 C	07/20/01	0110

8H

PESTICIDE ANALYSIS SEQUENCE

Lab Name: Lionville Labs, Inc. Contract: 02744-064-001-9999-00

Client: LANL REQ #9407R GC Sample ID: 08030135

Instrument ID: 35 GC Column ID: DB608

Dates of Analyses: 08/03/01 to 08/04/01

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED
01	ZZZZZ	AR1660 2803 C	08/03/01	1307
02	PBLKLZLE0890	01LE0890-MB1	08/03/01	1405
03	PBLKLZLE0890 MS	01LE0890-MB1S	08/03/01	1503
04	ZZZZZ	01LE0907-MB1	08/03/01	1601
05	ZZZZZ	01LE0907-MB1S	08/03/01	1659
06	RC60-01-0003 02	0107L389-001	08/03/01	1757
07	RC60-01-0004 02	0107L389-002	08/03/01	1855
08	RC60-01-0005 02	0107L389-003	08/03/01	1953
09	RC60-01-0006 02	0107L389-004	08/03/01	2050
10	RC60-01-0007 02	0107L389-005	08/03/01	2148
11	RC60-01-0008 02	0107L389-006	08/03/01	2246
12	ZZZZZ	HEXANE	08/03/01	2344
13	ZZZZZ	AR1660 2803 C	08/04/01	0042
14	RC60-01-0008 02MS	0107L389-006S	08/04/01	0140
15	RC60-01-0008 02MSD	0107L389-006T	08/04/01	0238
16	ZZZZZ	0107L397-001	08/04/01	0336
17	ZZZZZ	0107L397-001S	08/04/01	0434
18	ZZZZZ	0107L397-001T	08/04/01	0532
19	ZZZZZ	0107L397-002	08/04/01	0629
20	ZZZZZ	0107L397-003	08/04/01	0727
21	ZZZZZ	0107L397-004	08/04/01	0825
22	ZZZZZ	0107L397-005	08/04/01	0923
23	ZZZZZ	0107L397-006	08/04/01	1021
24	ZZZZZ	HEXANE	08/04/01	1119
25	ZZZZZ	AR1660 2803 C	08/04/01	1217

Flagostrla

FORM VIII PEST

8H

PESTICIDE ANALYSIS SEQUENCE

Lab Name: Lionville Labs, Inc. Contract: 02744-064-001-9999-00

Client: LANL REQ #9407R GC Sample ID: 07190136

Instrument ID: 36 GC Column ID: RTX1701

Dates of Analyses: 07/19/01 to 07/20/01

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED
01	ZZZZZ	AR1660 2801 A	07/19/01	1759
02	ZZZZZ	AR1660 2802 B	07/19/01	1847
03	ZZZZZ	AR1660 2803 C	07/19/01	1935
04	ZZZZZ	AR1660 2804 D	07/19/01	2023
05	ZZZZZ	AR1660 2805 E	07/19/01	2111
06	ZZZZZ	AR1221 1108	07/19/01	2159
07	ZZZZZ	AR1232 1205	07/19/01	2247
08	ZZZZZ	AR1242 1304	07/19/01	2335
09	ZZZZZ	AR1248 1101	07/20/01	0022
10	ZZZZZ	AR1254 9403 C	07/20/01	0110

Flag 8/7/01

FORM VIII PEST

8H

PESTICIDE ANALYSIS SEQUENCE

Lab Name: Lionville Labs, Inc. Contract: 02744-064-001-9999-00

Client: LANL REQ #9407R GC Sample ID: 08030136

Instrument ID: 36 GC Column ID: RTX1701

Dates of Analyses: 08/03/01 to 08/04/01

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED
01	ZZZZZ	AR1660 2803 C	08/03/01	1307
02	PBLKLZLE0890	01LE0890-MB1	08/03/01	1405
03	PBLKLZLE0890 MS	01LE0890-MB1S	08/03/01	1503
04	ZZZZZ	01LE0907-MB1	08/03/01	1601
05	ZZZZZ	01LE0907-MB1S	08/03/01	1659
06	RC60-01-0003 02	0107L389-001	08/03/01	1757
07	RC60-01-0004 02	0107L389-002	08/03/01	1855
08	RC60-01-0005 02	0107L389-003	08/03/01	1953
09	RC60-01-0006 02	0107L389-004	08/03/01	2050
10	RC60-01-0007 02	0107L389-005	08/03/01	2148
11	RC60-01-0008 02	0107L389-006	08/03/01	2246
12	ZZZZZ	HEXANE	08/03/01	2344
13	ZZZZZ	AR1660 2803 C	08/04/01	0042
14	RC60-01-0008 02MS	0107L389-006S	08/04/01	0140
15	RC60-01-0008 02MSD	0107L389-006T	08/04/01	0238
16	ZZZZZ	0107L397-001	08/04/01	0336
17	ZZZZZ	0107L397-001S	08/04/01	0434
18	ZZZZZ	0107L397-001T	08/04/01	0532
19	ZZZZZ	0107L397-002	08/04/01	0629
20	ZZZZZ	0107L397-003	08/04/01	0727
21	ZZZZZ	0107L397-004	08/04/01	0825
22	ZZZZZ	0107L397-005	08/04/01	0923
23	ZZZZZ	0107L397-006	08/04/01	1021
24	ZZZZZ	HEXANE	08/04/01	1119
25	ZZZZZ	AR1660 2803 C	08/04/01	1217

7/08/01

FORM VIII PEST

1D
PESTICIDE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

PBLKLZ

Lab Name: Lionville Labs, Inc. Work Order: 02744064001

Client: LANL REQ #9407R

Matrix: SOIL

Lab Sample ID: 01LE0890-MB1

Sample wt/vol: 30.0 (g/mL) G

Lab File ID: 08030135.02

Level: (low/med) LOW

Date Received: 07/26/01

% Moisture: not dec. 0 dec.

Date Extracted: 07/26/01

Extraction: (SepF/Cont/Sonc) SONC

Date Analyzed: 08/03/01

GPC Cleanup: (Y/N) N pH: 7.0

Dilution Factor: 1.00

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NO.	COMPOUND		
12674-11-2	Aroclor-1016	33	U
11104-28-2	Aroclor-1221	67	U
11141-16-5	Aroclor-1232	33	U
53469-21-9	Aroclor-1242	33	U
12672-29-6	Aroclor-1248	33	U
11097-69-1	Aroclor-1254	33	U
11096-82-5	Aroclor-1260	33	U

FORM 1 PEST

12/88 Rev.

1D
PESTICIDE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

PBLKLZMS

Lab Name: Lionville Labs, Inc. Work Order: 02744064001

Client: LANL REQ #9407R

Matrix: SOIL

Lab Sample ID: 01LE0890-MB1 BS

Sample wt/vol: 30.0 (g/mL) G

Lab File ID: 08030135.03

Level: (low/med) LOW

Date Received: 07/26/01

% Moisture: not dec. 0 dec.

Date Extracted: 07/26/01

Extraction: (SepF/Cont/Sonc) SONC

Date Analyzed: 08/03/01

GPC Cleanup: (Y/N) N pH: 7.0

Dilution Factor: 1.00

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NO.	COMPOUND		
12674-11-2	Aroclor-1016	33	U
11104-28-2	Aroclor-1221	67	U
11141-16-5	Aroclor-1232	33	U
53469-21-9	Aroclor-1242	33	U
12672-29-6	Aroclor-1248	33	U
11097-69-1	Aroclor-1254		SP
11096-82-5	Aroclor-1260	33	U

Flagged data

SP: SPIKE COMPOUND

FORM 1 PEST

12/88 Rev.

1D
PESTICIDE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

RC60-01-0008 02MS

Lab Name: Lionville Labs, Inc. Work Order: 02744064001

Client: LANL REQ #9407R

Matrix: SOIL

Lab Sample ID: 0107L389-006 MS

Sample wt/vol: 30.0 (g/mL) G

Lab File ID: 08030135.14

Level: (low/med) LOW

Date Received: 07/25/01

% Moisture: not dec. 2 dec.

Date Extracted: 07/26/01

Extraction: (SepF/Cont/Sonc) SONC

Date Analyzed: 08/04/01

GPC Cleanup: (Y/N) N pH: 7.0

Dilution Factor: 1.00

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NO.	COMPOUND		
12674-11-2	Aroclor-1016	34	U
11104-28-2	Aroclor-1221	68	U
11141-16-5	Aroclor-1232	34	U
53469-21-9	Aroclor-1242	34	U
12672-29-6	Aroclor-1248	34	U
11097-69-1	Aroclor-1254		SP
11096-82-5	Aroclor-1260	34	U

7/19/01

SP: SPIKE COMPOUND

FORM 1 PEST

12/88 Rev.

1D
PESTICIDE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

RC60-01-0008 02MSD

Lab Name: Lionville Labs, Inc. Work Order: 02744064001

Client: LANL REQ #9407R

Matrix: SOIL

Lab Sample ID: 0107L389-006 MSD

Sample wt/vol: 30.1 (g/mL) G

Lab File ID: 08030135.15

Level: (low/med) LOW

Date Received: 07/25/01

% Moisture: not dec. 2 dec.

Date Extracted: 07/26/01

Extraction: (SepF/Cont/Sonc) SONC

Date Analyzed: 08/04/01

GPC Cleanup: (Y/N) N pH: 7.0

Dilution Factor: 1.00

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NO.	COMPOUND		
12674-11-2------	Aroclor-1016	34	U
11104-28-2------	Aroclor-1221	68	U
11141-16-5------	Aroclor-1232	34	U
53469-21-9------	Aroclor-1242	34	U
12672-29-6------	Aroclor-1248	34	U
11097-69-1------	Aroclor-1254		SP
11096-82-5------	Aroclor-1260	34	U

Flag dilution

SP: SPIKE COMPOUND

FORM 1 PEST

12/88 Rev.

ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

RC60-01-0003 03

Lab Name: Lionville Labs, Inc. Work Order: 02744064001

Client: LANL REQ #9407R

Matrix: SOIL

Lab Sample ID: 0107L389-007

Sample wt/vol: 25.0 (g/mL) G

Lab File ID: BLK00PPB

Level: (low/med) LOW

Date Received: 07/25/01

% Moisture: not dec. 100

Date Analyzed: 08/16/01

Column: (pack/cap) CAP

Dilution Factor: 1.00

CONCENTRATION UNITS:
(ug/L or ug/Kg) mg/kg

CAS NO.	COMPOUND		
68334-30-5	Diesel Range Organics	12.0	U
00-00-0000	Motor Oil	130	

Please validate

12/88 Rev.

ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

RC60-01-0004 03

Lab Name: Lionville Labs, Inc. Work Order: 02744064001

Client: LANL REQ #9407R

Matrix: SOIL

Lab Sample ID: 0107L389-008

Sample wt/vol: 25.0 (g/mL) G

Lab File ID: BLKOOPPB

Level: (low/med) LOW

Date Received: 07/25/01

% Moisture: not dec. 100

Date Analyzed: 08/07/01

Column: (pack/cap) CAP

Dilution Factor: 1.00

CONCENTRATION UNITS: (ug/L or ug/Kg) mg/kg

CAS NO.	COMPOUND		
68334-30-5	Diesel Range Organics	12.0	U
00-00-0000	Motor Oil	12.0	U

12/88 Rev.

CLIENT SAMPLE NO.

RC60-01-0005 03

ORGANICS ANALYSIS SHEET

Lab Name: Lionville Labs, Inc. Work Order: 02744064001

Client: LANL REQ #9407R

Matrix: SOIL

Lab Sample ID: 0107L389-009

Sample wt/vol: 25.1 (g/mL) G

Lab File ID: BLKOOPPB

Level: (low/med) LOW

Date Received: 07/25/01

% Moisture: not dec. 100

Date Analyzed: 08/07/01

Column: (pack/cap) CAP

Dilution Factor: 1.00

CONCENTRATION UNITS:
(ug/L or ug/Kg) mg/kg

CAS NO.	COMPOUND		
68334-30-5	Diesel Range Organics	12.0	U
00-00-0000	Motor Oil	12.0	U

12/88 Rev.

ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

RC60-01-0006 03

Lab Name: Lionville Labs, Inc. Work Order: 02744064001

Client: LANL REQ #9407R

Matrix: SOIL

Lab Sample ID: 0107L389-010

Sample wt/vol: 25.3 (g/mL) G

Lab File ID: BLKOOPPB

Level: (low/med) LOW

Date Received: 07/25/01

% Moisture: not dec. 100

Date Analyzed: 08/24/01

Column: (pack/cap) CAP

Dilution Factor: 50.0

CONCENTRATION UNITS:
(ug/L or ug/Kg) mg/kg

CAS NO.	COMPOUND		
68334-30-5	Diesel Range Organics	1100	
00-00-0000	Motor Oil	593	U

12/88 Rev.

CLIENT SAMPLE NO.

RC60-01-0007 03

ORGANICS ANALYSIS SHEET

Lab Name: Lionville Labs, Inc. Work Order: 02744064001

Client: LANL REQ #9407R

Matrix: SOIL

Lab Sample ID: 0107L389-011

Sample wt/vol: 25.4 (g/mL) G

Lab File ID: BLK00PPB

Level: (low/med) LOW

Date Received: 07/25/01

% Moisture: not dec. 100

Date Analyzed: 08/13/01

Column: (pack/cap) CAP

Dilution Factor: 5.00

CONCENTRATION UNITS:
(ug/L or ug/Kg) mg/kg

CAS NO.	COMPOUND		
68334-30-5	Diesel Range Organics	350	
00-00-0000	Motor Oil	160	

Flag standard

12/88 Rev.

ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

RC60-01-0008 03

Lab Name: Lionville Labs, Inc. Work Order: 02744064001

Client: LANL REQ #9407R

Matrix: SOIL

Lab Sample ID: 0107L389-012

Sample wt/vol: 25.5 (g/mL) G

Lab File ID: BLKOOPPB

Level: (low/med) LOW

Date Received: 07/25/01

% Moisture: not dec. 100

Date Analyzed: 08/07/01

Column: (pack/cap) CAP

Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) mg/kg	
68334-30-5	Diesel Range Organics	11.8	U
00-00-0000	Motor Oil	41	

Flag 1 2 4 6

12/88 Rev.

CALIBRATION VERIFICATION SUMMARY

Lab Name: Recra LabNet-Philadelphia

Contract:

Client:

GC Sample ID: 80701GC18icala . 5

RFW Lot ID:

Millennium Result ID: 3098

Instrument ID: GC 18

Initial Calibration Start Date: 7/30/01

Date of Analysis: 8/7/01

Processing Method: 073001GC18_ical

Time of Analysis: 1:31:03 PM

Standard ID: CCV 64888104 D

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	INITIAL RESPONSE	RT	CONT. RESPONSE	%D	FL
Diesel Fuel	17.65	17.48	17.83	712364	17.65	715828	0.5 ✓	
p-Terphenyl	24.78	24.54	25.03	8346	24.78	7003	-16.1 ✓	
Motor oil	27.79	27.51	28.07	244629	27.79	237086	-3.1 ✓	

LK 8-8-01

A

CALIBRATION VERIFICATION SUMMARY

Lab Name: Recra LabNet-Philadelphia

Contract:

Client:

GC Sample ID: 80701GC18icala .17

RFW Lot ID:

Millennium Result ID: 3099

Instrument ID: GC 18

Initial Calibration Start Date: 7/30/01

Date of Analysis: 8/8/01

Processing Method: 073001GC18_ical

Time of Analysis: 12:17:14 AM

Standard ID: CCV 64888104 D

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	INITIAL RESPONSE	RT	CONT. RESPONSE	%D	FL
Diesel Fuel	17.65	17.48	17.83	712364	15.63	732986	2.9 ✓	
p-Terphenyl	24.78	24.54	25.03	8346	24.72	8201	-1.7 ✓	
Motor oil	27.79	27.51	28.07	244629	27.74	229110	-6.3 ✓	

LK 8-8-01

CALIBRATION VERIFICATION SUMMARY

Lab Name: Recra LabNet-Philadelphia

Contract:

Client:

GC Sample ID: 80701GC18icala .29

RFW Lot ID:

Millennium Result ID: 3146

Instrument ID: GC 18

Initial Calibration Start Date: 7/30/01

Date of Analysis: 8/8/01

Processing Method: 073001GC18_ical

Time of Analysis: 11:03:15 AM

Standard ID: CCV 64888104 D

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	INITIAL RESPONSE	RT	CONT. RESPONSE	%D	FL
Diesel Fuel	15.63	15.47	15.78	712364	15.63	692060	-2.9	
p-Terphenyl	24.73	24.48	24.98	8346	24.73	6110	-26.8	+
Motor oil	27.74	27.46	28.02	244629	27.74	141880	-42.0	+

LK 8-8-01

CALIBRATION VERIFICATION SUMMARY

Lab Name: Recra LabNet-Philadelphia

Contract:

Client:

GC Sample ID: 81301GC18ical .21

RFW Lot ID:

Millennium Result ID: 3459

Instrument ID: GC 18

Processing Method: 081401GC18ical

Initial Calibration Start Date: 8/13/01

Date of Analysis: 8/14/01

Time of Analysis: 3:28:04 AM

Standard ID: CCV 64888104 D

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	INITIAL RESPONSE	RT	CONT. RESPONSE	%D	FL
Diesel Fuel	8.18	8.09	8.26	1035372	8.18	1234280	19.2 ✓	+
o-Terphenyl	24.42	24.17	24.66	15582	24.42	16582	6.4 ✓	
Motor oil	28.87	28.58	29.16	531126	28.87	630762	18.8 ✓	+

LK 8-14-01

CALIBRATION VERIFICATION SUMMARY

Lab Name: Recra LabNet-Philadelphia

Contract:

Client:

GC Sample ID: 081401GC18 .21

RFW Lot ID:

Millennium Result ID: 3649

Instrument ID: GC 18

Processing Method: 081501GC18ical

Initial Calibration Start Date: 8/15/01

Date of Analysis: 8/16/01

Time of Analysis: 10:46:34 AM

Standard ID: CCV 64888104

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	INITIAL RESPONSE	RT	CONT. RESPONSE	%D	FL
Diesel Fuel	9.28	9.19	9.37	676888	9.48	631639	-6.7	
p-Terphenyl	24.48	24.24	24.73	10792	24.50	9416	-12.8	
Motor oil	28.89	28.60	29.17	343224	25.85	346872	1.1 ✓	

JR 8/16/01

CALIBRATION VERIFICATION SUMMARY

Lab Name: Recra LabNet-Philadelphia

Contract:

Client:

GC Sample ID: zzwashtest . 4

RFW Lot ID:

Millennium Result ID: 4084

Instrument ID: GC 18

Processing Method: 082101GC18ical

Initial Calibration Start Date: 8/21/01

Date of Analysis: 8/24/01

Time of Analysis: 10:44:49 AM

Standard ID: CCV 64888104 D

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	INITIAL RESPONSE	RT	CONT. RESPONSE	%D	FL
Diesel Fuel	9.24	9.15	9.33	1001826	9.24	1094347	9.2	
p-Terphenyl	24.44	24.19	24.68	14562	24.44	17752	21.9	
Motor oil	25.80	25.54	26.06	479243	25.80	511070	6.6	✓

JS 8/24/01

CALIBRATION VERIFICATION SUMMARY

Lab Name: Recra LabNet-Philadelphia

Contract:

Client:

GC Sample ID: 082401GC18 .10

RFW Lot ID:

Millennium Result ID: 4111

Instrument ID: GC 18

Processing Method: 082101GC18ical

Initial Calibration Start Date: 8/21/01

Date of Analysis: 8/24/01

Time of Analysis: 4:20:20 PM

Standard ID: CCV 64888104 D

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	INITIAL RESPONSE	RT	CONT. RESPONSE	%D	FL
Diesel Fuel	9.24	9.15	9.33	1001826	9.24	1021223	1.9	
p-Terphenyl	24.44	24.19	24.68	14562	24.44	12444	-14.5	[illegible]
Motor oil	25.80	25.54	26.06	479243	25.80	289264	-39.6	+

ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

BLK

Lab Name: Lionville Labs, Inc. Work Order: 02744064001

Client: LANL REQ #9407R

Matrix: SOIL

Lab Sample ID: 01LE0891-MB1

Sample wt/vol: 25.0 (g/mL) G

Lab File ID: BLK00PPB

Level: (low/med) LOW

Date Received: 07/26/01

% Moisture: not dec. 0

Date Analyzed: 08/07/01

Column: (pack/cap) CAP

Dilution Factor: 1.00

CONCENTRATION UNITS:
(ug/L or ug/Kg) mg/kg

CAS NO.	COMPOUND		
68334-30-5	Diesel Range Organics	12.0	U
00-00-0000	Motor Oil	12.0	U

12/88 Rev.

ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

BLKMS

Lab Name: Lionville Labs, Inc. Work Order: 02744064001

Client: LANL REQ #9407R

Matrix: SOIL

Lab Sample ID: 01LE0891-MB1 BS

Sample wt/vol: 25.0 (g/mL) G

Lab File ID: BLK00PPB

Level: (low/med) LOW

Date Received: 07/26/01

% Moisture: not dec. 0

Date Analyzed: 08/07/01

Column: (pack/cap) CAP

Dilution Factor: 1.00

CONCENTRATION UNITS:
(ug/L or ug/Kg) mg/kg

CAS NO.	COMPOUND		
68334-30-5	Diesel Range Organics		SP
00-00-0000	Motor Oil	12.0	U

SP: SPIKE COMPOUND

12/88 Rev.

ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

RC60-01-0005 03MS

Lab Name: Lionville Labs, Inc. Work Order: 02744064001

Client: LANL REQ #9407R

Matrix: SOIL

Lab Sample ID: 0107L389-009 MS

Sample wt/vol: 25.0 (g/mL) G

Lab File ID: BLK00PPB

Level: (low/med) LOW

Date Received: 07/25/01

% Moisture: not dec. 100

Date Analyzed: 08/07/01

Column: (pack/cap) CAP

Dilution Factor: 1.00

CONCENTRATION UNITS:
(ug/L or ug/Kg) mg/kg

CAS NO.	COMPOUND			
68334-30-5	Diesel Range Organics			SP
00-00-0000	Motor Oil	12.0		U

SP: SPIKE COMPOUND

12/88 Rev.

ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

RC60-01-0005 03MSD

Lab Name: Lionville Labs, Inc. Work Order: 02744064001

Client: LANL REQ #9407R

Matrix: SOIL

Lab Sample ID: 0107L389-009 MSD

Sample wt/vol: 25.0 (g/mL) G

Lab File ID: BLKOOPPB

Level: (low/med) LOW

Date Received: 07/25/01

% Moisture: not dec. 100

Date Analyzed: 08/07/01

Column: (pack/cap) CAP

Dilution Factor: 1.00

CONCENTRATION UNITS:
(ug/L or ug/Kg) mg/kg

CAS NO.	COMPOUND		
68334-30-5	Diesel Range Organics		SP
00-00-0000	Motor Oil	12.0	U

SP: SPIKE COMPOUND

12/88 Rev.

LIONVILLE LABORATORY INC.

Analytical Report

Client : LANL REQ# 9407R
LVL# : 0107L389
Subcontract #: 7791L0014-8S

W.O #: 02744-064-001-9999-00
Date Received: 07-25-01

DIESEL RANGE ORGANICS

The set of samples consisted of six (6) soil samples collected on 07-23-01.

The samples and their associated QC samples were prepared on 07-26-01 and analyzed according to Lionville Laboratory OPs based on EPA Method 8015B for Diesel and Oil Range Petroleum Hydrocarbons on 08-07,13,16.24-01.

1. The cooler temperature has been recorded on the chain-of-custody.

2. All required holding times for extraction and analysis have been met.

3. All obtainable surrogate recoveries were within acceptance criteria.

4. The blank spike recovery was within acceptance criteria.

5. All matrix spike recoveries were within acceptance criteria.

6. All initial calibrations associated with this data set were within acceptance criteria.

7. Several samples required instrument dilutions due to the high concentrations of target analytes and non-target analytes. Reporting limits have been adjusted to reflect the necessary dilutions.

8. All diesel continuing calibration standards analyzed prior to the sample extracts were within acceptance criteria.

9. I certify that this package is in compliance with the terms and conditions of the contract, both technically and for completeness, except as detailed in this QC Report.

Iain Daniels for
Iain Daniels
Deputy Laboratory Manager
Lionville Laboratory Incorporated

8/27/01
Date

R:\share\\gcpest\\narrtemp\lanl389dro.doc

The results presented in this report relate only to the analytical testing and conditions of the samples at receipt and during storage. All pages of this report are integral parts of the analytical data. Therefore, this report should only be reproduced in its entirety of 112 pages.

Lionville Laboratory Use Only

01074389

Custody Transfer Record/Lab Work Request

Page 1 of 12

TL 7-25-01

LVLI — LIONVILLE LABORATORY INC.

ALL FIELD PERSONNEL: COMPLETE ONLY SHADED AREAS

Client: LANL Reg # 9407R

Est. Final Proj. Sampling Date:

Project #: 02744-0004-001-9999-00

Project Contact/Phone #:

Lionville Laboratory Project Manager: JS

QC: Spec Del: CP TAT: 30 day

Date Rec'd: 7-25-01 Date Due: 8-24-01

		A	B
Refrigerator #		S	S
#/Type Container	Liquid	2x250	
	Solid	1G	1AG
Volume	Liquid		
	Solid	125	125
Preservatives		–	–
ANALYSES REQUESTED →	ORGANIC: VOA		
	BNA		
	Pest/PCB	OPCB	
	Herb		
	TPH		ODRO
	INORG: Metal		
	CN		

Lionville Laboratory Use Only

MATRIX CODES:
S - Soil
SE - Sediment
SO - Solid
SL - Sludge
W - Water
O - Oil
A - Air
DS - Drum Solids
DL - Drum Liquids
L - EP/TCLP Leachate
WI - Wipe
X - Other
F - Fish

Lab ID	Client ID/Description	Matrix QC Chosen (✓) MS	MSD	Matrix	Date Collected	Time Collected	OPCB	ODRO
001	RC60-01-0003 02			S	7-23-01	0950	X	X
002	-0004					0955	X	X
003	-0005					1005	X	X
004	-0006					1000	X	X
005	-0007					1012	X	X
006	-0008					1010	X	X
007	-0003 03					0950		X
008	-0004					0955		X
009	-0005					1005		X
010	-0006					1000		X

Special Instructions:

MC OPCB A

LK ODRO B (w/ motor oil)

DATE/REVISIONS:

1.
2.
3.
4.
5.
6.

Lionville Laboratory Use Only

Samples were: ✓
1) Shipped ___ or Hand Delivered ___
Airbill # 484732499976
2) Ambient or Chilled
3) Received in Good Condition (Y) or N
4) Samples Properly Preserved (Y) or N
5) Received Within Holding Times (Y) or N

Tamper Resistant Seal was:
1) Present on Outer Package (Y) or N
2) Unbroken on Outer Package (Y) or N
3) Present on Sample (Y) or N
4) Unbroken on Sample (Y) or N

COC Record Present Upon Sample Rec't (Y) or N

Cooler Temp. 6.6 °C

Discrepancies Between Samples Labels and COC Record? Y or (N)

NOTES:

Relinquished by	Received by	Date	Time
Fed Ex	Inc Sto Hefus	7-25-01	1010

Relinquished by	Received by	Date	Time

COMPOSITE ORIGINAL

Lionville Laboratory Use Only
0107L389

Custody Transfer Record/Lab Work Request

LVLI Lionville Laboratory Inc.

FIELD PERSONNEL: COMPLETE ONLY SHADED AREAS

Client: LANL Proj # 9407R
Est. Final Proj. Sampling Date:
Project #: See
Project Contact/Phone #:
Lionville Laboratory Project Manager:
QC: Del TAT:
Date Rec'd: Date Due:

Refrigerator #						B										
#/Type Container	Liquid					5										
	Solid					1pg										
Volume	Liquid															
	Solid					125										
Preservatives						-										
ANALYSES REQUESTED →		ORGANIC							INORG							
		VOA	BNA	Pest/PCB	Herb				Metal	CN						
		Lionville Laboratory Use Only														
						GDRO										

MATRIX CODES:
S - Soil
SE - Sediment
SO - Solid
SL - Sludge
W - Water
O - Oil
A - Air
DS - Drum Solids
DL - Drum Liquids
L - EP/TCLP Leachate
WI - Wipe
X - Other
F - Fish

Lab ID	Client ID/Description	Matrix QC Chosen (✓) MS	MSD	Matrix	Date Collected	Time Collected													
011	BC100-01-0007 03			S	72301	1012					✓								
012	1 -0008 1			1	1	1010					✓								

Special Instructions:

DATE/REVISIONS:
1.
2.
3.
4.
5.
6.

Lionville Laboratory Use Only

Samples were:
1) Shipped ___ or Hand Delivered ___
Airbill # ___
2) Ambient or Chilled
3) Received in Good Condition Y or N
4) Samples Properly Preserved Y or N
5) Received Within Holding Times Y or N

Tamper Resistant Seal was:
1) Present on Outer Package Y or N
2) Unbroken on Outer Package Y or N
3) Present on Sample Y or N
4) Unbroken on Sample Y or N
COC Record Present Upon Sample Rec't Y or N
Cooler Temp. ___ °C

Relinquished by	Received by	Date	Time
FedEx	I. Stoltzfus	72501	1010

Relinquished by	Received by	Date	Time

Discrepancies Between Samples Labels and COC Record? Y or N
NOTES:

Tuesday, July 24, 2001

Los Alamos
NATIONAL LABORATORY

CHAIN OF CUSTODY DOCUMENT NUMBER: 9407RC

REQUEST NUMBER: 9407R
ANALYSIS TYPE: ORG

ATTN: Judy Stone
Lionville Laboratory Inc
208 Welsh Pool Rd
Lionville, pa 19341

SAMPLE ID	CONT ID	CONTAINER DESCRIPTION	ANALYSIS ORDER CODE	PRESERVATIVE	MATRIX
RC60-01-0003	02	125 ml Glass	PCB	None	S
RC60-01-0003	03	125 ml Amber Glass	TPH	Ice	S
RC60-01-0004	02	125 ml Glass	PCB	None	S
RC60-01-0004	03	125 ml Amber Glass	TPH	Ice	S
RC60-01-0005	02	125 ml Glass	PCB	None	S
RC60-01-0005	03	125 ml Amber Glass	TPH	Ice	S
RC60-01-0006	02	125 ml Glass	PCB	None	S
RC60-01-0006	03	125 ml Amber Glass	TPH	Ice	S
RC60-01-0007	02	125 ml Glass	PCB	None	S
RC60-01-0007	03	125 ml Amber Glass	TPH	Ice	S
RC60-01-0008	02	125 ml Glass	PCB	None	S
RC60-01-0008	03	125 ml Amber Glass	TPH	Ice	S

Final Page of CHAIN OF CUSTODY DOCUMENT FOR REQUEST NUMBER 9407R

Relinquished By:		Date	Time
D Jackson (PRINTED NAME)	(SIGNATURE)	7/24/01	1407
Fed Ex (PRINTED NAME)	(SIGNATURE)	7-25-01	1010
(PRINTED NAME)	(SIGNATURE)		

Received By:		Date	Time
(PRINTED NAME)	(SIGNATURE)		
Inec Stoltzfus (PRINTED NAME)	Amy Stoltzfus (SIGNATURE)	7-25-01	1010
(PRINTED NAME)	(SIGNATURE)		

Received for DISPOSAL By:		Date	Time
(PRINTED NAME)	(SIGNATURE)		

Remarks:

Tuesday, July 24, 2001

REQUEST NUMBER: 9407R

ANALYSIS TYPE: ORG

Los Alamos
NATIONAL LABORATORY

ATTN: Judy Stone
Lionville Laboratory Inc
208 Welsh Pool Rd
Lionville, pa 19341

Please analyze the enclosed samples according to the schedule indicated:

These samples are on:

SHIP DATE: 7/24/01
REPORT DUE: 8/25/01
TURN AROUND REQ'D: 30 day

LANL Request Number: 9407R
Per Agreement Number:
Project Cost Code: MR0R0001E000

RAD SCREENING: Not Required

COMMENTS: 60 - 1114 , GA; TPH BY DIESEL ORGANICS ONLY

LANL ER SMO CONTACT: Joylene Valdez MS H865 5056659968

Signature: Joylene Valdez

ANALYSIS ORDER CODE	ANALYTE(S)	SAMPLE ID	CONT ID	SAMPLE MATRIX	DATE SAMPLED	COMMENTS
PCB		RC60-01-0003	02	S	7/23/1901	
TPH		RC60-01-0003	03	S	7/23/1901	
PCB		RC60-01-0004	02	S	7/23/1901	
TPH		RC60-01-0004	03	S	7/23/1901	
PCB		RC60-01-0005	02	S	7/23/1901	
TPH		RC60-01-0005	03	S	7/23/1901	
PCB		RC60-01-0006	02	S	7/23/1901	
TPH		RC60-01-0006	03	S	7/23/1901	
PCB		RC60-01-0007	02	S	7/23/1901	
TPH		RC60-01-0007	03	S	7/23/1901	
PCB		RC60-01-0008	02	S	7/23/1901	
TPH		RC60-01-0008	03	S	7/23/1901	

Lionville Laboratories Inc.

COOLER RECEIPT FORM

LVLI COC Batch #: 0107L389 Date Cooler Received: 7-25-01

Client/Project: LANL

A. Preliminary Examination Phase

Date Cooler Opened 7-25-01 Sample Receipt Custodian Signature: [illegible]

1. Did the cooler come with a shipping slip? (airbill, etc.) YES NO

If YES, enter carrier name & airbill # here: 4847 3249 9976

2. Were custody seals present on the outside of cooler? YES NO
3. Were custody seals unbroken & intact at the date & time of arrival? YES NO
4. Were samples screened for radioactivity? YES NO
5. Were custody papers sealed in a plastic bag and taped to the inside of the cooler lid? YES NO
6. Were COC papers filled out properly? (ink, signed, etc.) YES NO
7. Did the lab sample custodian sign the COC in the appropriate place? YES NO
8. Was the project identifiable from custody papers? If YES, enter at the top of this form. YES NO
9. If required, was enough ice used? YES NO

Type of ice: blue Cooler Temperature: 6.6° C

B. Log-In Phase:

Date Samples Logged In: 7-25-01 By: (Signature): [illegible]

10. Packing Description:
11. Were all bottles sealed in plastic bags? YES NO
12. Did all bottles arrive unbroken & were labels in good condition? YES NO
13. Were all bottle labels complete? (ID, date/time, preservative, etc.) YES NO
14. Did all bottle labels agree with COC? YES NO
15. Were correct containers used for the tests indicated? YES NO
16. ***Did the labels indicate the correct preservatives were added to samples?*** ***YES NO***
17. *Was the pH checked and any out of expected range documented?* *YES NO*
18. Was a sufficient amount of sample sent for tests indicated? YES NO
19. Were bubbles present in volatile samples? If YES, list sample ID: YES NO

20. If discrepancies were noted, was the PM called? YES NO
21. PM notified: _____ Date: _____

COMMENTS:

Lionville Laboratory, Inc.

DIESEL RANGE ORGANICS BY GC

RFW Batch Number: **0107L389** Client: **LANL REQ #9407R** Work Order: 02744064001 Page: 1 Report Date: 08/24/01 17:55

13

Sample Information							
Cust ID:	**RC60-01-0003**	**RC60-01-0004**	**RC60-01-0005**	**RC60-01-0005**	**RC60-01-0005**	**RC60-01-0006**	
	03	**03**	**03**	**03**	**03**	**03**	
RFW#:	**007**	**008**	**009**	**009 MS**	**009 MSD**	**010**	
Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	
D.F.:	1.00	1.00	1.00	1.00	1.00	50.0	
Units:	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	
p-Terphenyl	69	%	69	%	85	%	75	%	87	%	D	%
Diesel Range Organics	12.0	U	12.0	U	12.0	U	74	%	85	%	1100	
Motor Oil	130		12.0	U	12.0	U	12.0	U	12.0	U	593	U

Sample Information				
Cust ID:	**RC60-01-0007**	**RC60-01-0008**	**BLK**	**BLK BS**
	03	**03**		
RFW#:	**011**	**012**	**01LE0891-MB1**	**01LE0891-MB1**
Matrix:	SOIL	SOIL	SOIL	SOIL
D.F.:	5.00	1.00	1.00	1.00
Units:	mg/kg	mg/kg	mg/kg	mg/kg
p-Terphenyl	94 %	97 %	55 %	63 %
Diesel Range Organics	350	11.8 U	12.0 U	69 %
Motor Oil	160	41	12.0 U	12.0 U

U= Analyzed, not detected. J= Present below detection limit. B= Present in blank. NR= Not reported. NS= Not spiked.
%= Percent recovery. D= Diluted out. I= Interference. NA= Not Applicable. *= Outside of EPA CLP QC

LIONVILLE LABORATORY INC.

27 August 2001

Ms. Joylene Valdez
Los Alamos National Laboratory
TA-3, Building 271
DP. O1U MS-H865
Los Alamos, NM 87545

Ref: Subcontract No. 7791L0014-AA
Data Report for LVL Batch 0107L389
LANL Request No. 9407R

Dear Ms. Valdez:

Enclosed please find the data report for 12 soil samples received 25 July 2001. These were analyzed for PCBs and TPH DRO on a 30 day turnaround. The EDD will follow shortly. – enclosed JL

Please do not hesitate to contact me at (610) 280-3029 with any question you may have regarding either the hard copy or electronic report.

Very truly yours,

Lionville Laboratory Incorporated

Judith L. Stone
Senior Project Manager

Enclosure:

208 Welsh Pool Road • Exton, PA 19341-1313 • (610) 280-3000 • Fax (610) 280-3041

Tuesday, July 24, 2001

REQUEST NUMBER: 9407R

ANALYSIS TYPE: ORG

Los Alamos
NATIONAL LABORATORY

ATTN: Judy Stone
Lionville Laboratory Inc
208 Welsh Pool Rd
Lionville, pa 19341

Please analyze the enclosed samples according to the schedule indicated:

These samples are on:

SHIP DATE: 7/24/01
REPORT DUE: 8/25/01
TURN AROUND REQ'D: 30 day

LANL Request Number: 9407R
Per Agreement Number:
Project Cost Code: MR0R0001E000

RAD SCREENING: Not Required

COMMENTS: 60 - 1114 , GA; TPH BY DIESEL ORGANICS ONLY

LANL ER SMO CONTACT: Joylene Valdez MS H865 5056659968

Signature: Joylene Valdez

ANALYSIS ORDER CODE	ANALYTE(S)	SAMPLE ID	CONT ID	SAMPLE MATRIX	DATE SAMPLED	COMMENTS
PCB		RC60-01-0003	02	S	7/23/1901	
TPH		RC60-01-0003	03	S	7/23/1901	
PCB		RC60-01-0004	02	S	7/23/1901	
TPH		RC60-01-0004	03	S	7/23/1901	
PCB		RC60-01-0005	02	S	7/23/1901	
TPH		RC60-01-0005	03	S	7/23/1901	
PCB		RC60-01-0006	02	S	7/23/1901	
TPH		RC60-01-0006	03	S	7/23/1901	
PCB		RC60-01-0007	02	S	7/23/1901	
TPH		RC60-01-0007	03	S	7/23/1901	
PCB		RC60-01-0008	02	S	7/23/1901	
TPH		RC60-01-0008	03	S	7/23/1901	

Tuesday, July 24, 2001

Los Alamos
NATIONAL LABORATORY

CHAIN OF CUSTODY DOCUMENT NUMBER: 9407RC

REQUEST NUMBER: 9407R
ANALYSIS TYPE: ORG

ATTN: Judy Stone
Lionville Laboratory Inc
208 Welsh Pool Rd
Lionville, pa 19341

SAMPLE ID	CONT ID	CONTAINER DESCRIPTION	ANALYSIS ORDER CODE	PRESERVATIVE	MATRIX
RC60-01-0003	02	125 ml Glass	PCB	None	S
RC60-01-0003	03	125 ml Amber Glass	TPH	Ice	S
RC60-01-0004	02	125 ml Glass	PCB	None	S
RC60-01-0004	03	125 ml Amber Glass	TPH	Ice	S
RC60-01-0005	02	125 ml Glass	PCB	None	S
RC60-01-0005	03	125 ml Amber Glass	TPH	Ice	S
RC60-01-0006	02	125 ml Glass	PCB	None	S
RC60-01-0006	03	125 ml Amber Glass	TPH	Ice	S
RC60-01-0007	02	125 ml Glass	PCB	None	S
RC60-01-0007	03	125 ml Amber Glass	TPH	Ice	S
RC60-01-0008	02	125 ml Glass	PCB	None	S
RC60-01-0008	03	125 ml Amber Glass	TPH	Ice	S

Final Page of CHAIN OF CUSTODY DOCUMENT FOR REQUEST NUMBER 9407R Page 1

Relinquished By: Date Time
PRINTED NAME SIGNATURE
Fed Ex 7-25-01 1010
PRINTED NAME SIGNATURE
PRINTED NAME SIGNATURE

Received By: Date Time
PRINTED NAME SIGNATURE
Inez Stoltefus 7-25-01 1010
PRINTED NAME SIGNATURE
PRINTED NAME SIGNATURE

Received for DISPOSAL By: Date Time
PRINTED NAME SIGNATURE

Remarks:

Lionville Laboratories Inc.

COOLER RECEIPT FORM

LVLI COC Batch #: 0107L389 Date Cooler Received: 7-25-01

Client/Project: LANL

A. Preliminary Examination Phase

Date Cooler Opened 7-25-01 Sample Receipt Custodian Signature: [signature]

1. Did the cooler come with a shipping slip? (airbill, etc.) YES NO
If YES, enter carrier name & airbill # here: 4847 3249 9976
2. Were custody seals present on the outside of cooler? YES NO
3. Were custody seals unbroken & intact at the date & time of arrival? YES NO
4. Were samples screened for radioactivity? YES NO
5. Were custody papers sealed in a plastic bag and taped to the inside of the cooler lid? YES NO
6. Were COC papers filled out properly? (ink, signed, etc.) YES NO
7. Did the lab sample custodian sign the COC in the appropriate place? YES NO
8. Was the project identifiable from custody papers? If YES, enter at the top of this form. YES NO
9. If required, was enough ice used? YES NO
Type of ice: blue Cooler Temperature: 6.6° C

B. Log-In Phase:

Date Samples Logged In: 7-25-01 By: (Signature): [signature]

10. Packing Description:
11. Were all bottles sealed in plastic bags? YES NO
12. Did all bottles arrive unbroken & were labels in good condition? YES NO
13. Were all bottle labels complete? (ID, date/time, preservative, etc.) YES NO
14. Did all bottle labels agree with COC? YES NO
15. Were correct containers used for the tests indicated? YES NO
16. Did the labels indicate the correct preservatives were added to samples? ***YES NO***
17. Was the pH checked and any out of expected range documented? *YES NO*
18. Was a sufficient amount of sample sent for tests indicated? YES NO
19. Were bubbles present in volatile samples? If YES, list sample ID: YES NO

20. If discrepancies were noted, was the PM called? YES NO
21. PM notified: _____ Date: _____

COMMENTS:

GC FID SCAN:
COMPLETE SDG FILE (CSF) INVENTORY SHEET

LABORATORY NAME:	Recra LabNet Philadelphia
CITY/STATE:	Lionville, PA
RFW NO.:	01676389
CLIENT NAME:	LANL Req # 9407R
WORK ORDER NO.:	02744-064-001-9999-00
METHOD BASED ON:	EPA Method 8015B (1/95) by GC-FID

All documents in the Client's copy of the complete SDG file must be legible, clearly labeled, paginated, single-sided original documents; or of sufficient copy quality to be reproducible to fourth generation copies. (Purge file documents, e.g., original-copy chain-of-custody, etc. assembled per specific contract request only.)

		Page Nos		Check (initials/date)	
		From	To	Lab	Client
1	Cover Page (Lab Chron)	1	1	J 8/24/00	
2	Table of Contents	2	2	J 8/24/00	
3	Case Narrative	3	5	J 8/24/00	
4	Shipping, Receiving, and Custody Records	6	11		
	• Lab Chain of Custody/Work Request			J 8/24/00	
	• Client Custody Reports/Packing Lists				
	• Sample Tags, if applicable				
	• Airbills				
5	GC Scan Sample Data/QC Summary	12	17		
	• Data Summary (LIMS Summary Report)			J 8/24/00	
	• Surrogate %Recovery Summary (Form II)				
	• MS/MSD Summary (Form III)				
	• BS/BSD Summary (Form III)				
	• Method Blank Summary (Form IV)				
6	Sample Data, for each Sample:	18	30		
	• GC Scan Results (Form I)			J 8/24/00	
	• Chromatograms/Quant Reports				
7	Calibration Standard Data	31	78		
	Standards Data				
	• Initial Multi-Level Calibration (ICAL): Chromatograms/Quant Reports			J 8/24/00	
	• Daily Calibration:				
	Initial: Chromatograms/Quant Reports				
	Continuing: Chromatograms/Quant Reports				
8	Raw QC Data: Blank, Blank Spike, Matrix Spike Data	79	87		
	Method Blank Data				
	• GC Scan Results (Form I)				
	• Chromatograms/Quant Reports			J 8/24/00	
	Blank Spike/Blank Spike Duplicate				
	• GC Scan Results (Form I)			J 8/24/00	

		Page Nos		Check (initials/date)	
		From	To	Lab	Client
	• Chromatograms/Quant Reports			8/24/01	
	Matrix Spike/Matrix Spike Duplicate				
	• GC Scan Results (Form I)				
	• Chromatograms/Quant Reports			8/24/01	
9	Analysis Run Logs	88	96	8/24/01	
10	Standards Preparation Records	97	106		
	• Surrogate and Target Analyte Spike Solutions			BF 8/14/01	
	• Analysis Standards				
11	Preparation Logs	107	110		
	• Sample Prep Records (Extraction notebook pages)			BF 8/14/01	
	• LIMS Extraction Record			BF 8/14/01	
	• % Moisture and/or % Solids Records				
12	Other/Miscellaneous	111	112		

COMMENTS: _____

Checked by: (Laboratory) Signature: Pat G. Printed Name/Title: Patricia Eldridge, Data Mgt Unit Leader Date: 08/23/01

Checked by: (Client) Signature: _____ Printed Name/Title: _____ Date: _____

Lionville Laboratory, Inc.

DRO ANALYTICAL DATA PACKAGE FOR

LANL REQ #9407R

DATE RECEIVED: 07/25/01 LVL LOT # :0107L389

CLIENT ID	LVL #	MTX	PREP #	COLLECTION	EXTR/PREP	ANALYSIS
RC60-01-0003 03	007	S	01LE0891	07/23/01	07/26/01	08/16/01
RC60-01-0004 03	008	S	01LE0891	07/23/01	07/26/01	08/07/01
RC60-01-0005 03	009	S	01LE0891	07/23/01	07/26/01	08/07/01
RC60-01-0005 03	009 MS	S	01LE0891	07/23/01	07/26/01	08/07/01
RC60-01-0005 03	009 MSD	S	01LE0891	07/23/01	07/26/01	08/07/01
RC60-01-0006 03	010	S	01LE0891	07/23/01	07/26/01	08/24/01
RC60-01-0007 03	011	S	01LE0891	07/23/01	07/26/01	08/13/01
RC60-01-0008 03	012	S	01LE0891	07/23/01	07/26/01	08/07/01

LAB QC:

BLK	MB1	S	01LE0891	N/A	07/26/01	08/07/01
BLK	MB1 BS	S	01LE0891	N/A	07/26/01	08/07/01

LIONVILLE LABORATORY INC.

Analytical Report

Client : LANL REQ# 9407R
LVL# : 0107L389
Subcontract #: 7791L0014-8S

W.O #: 02744-064-001-9999-00
Date Received: 07-25-01

DIESEL RANGE ORGANICS

The set of samples consisted of six (6) soil samples collected on 07-23-01.

The samples and their associated QC samples were prepared on 07-26-01 and analyzed according to Lionville Laboratory OPs based on EPA Method 8015B for Diesel and Oil Range Petroleum Hydrocarbons on 08-07,13,16.24-01.

1. The cooler temperature has been recorded on the chain-of-custody.

2. All required holding times for extraction and analysis have been met.

3. All obtainable surrogate recoveries were within acceptance criteria.

4. The blank spike recovery was within acceptance criteria.

5. All matrix spike recoveries were within acceptance criteria.

6. All initial calibrations associated with this data set were within acceptance criteria.

7. Several samples required instrument dilutions due to the high concentrations of target analytes and non-target analytes. Reporting limits have been adjusted to reflect the necessary dilutions.

8. All diesel continuing calibration standards analyzed prior to the sample extracts were within acceptance criteria.

9. I certify that this package is in compliance with the terms and conditions of the contract, both technically and for completeness, except as detailed in this QC Report.

Iain Daniels, for
Iain Daniels
Deputy Laboratory Manager
Lionville Laboratory Incorporated

8/27/01
Date

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The results presented in this report relate only to the analytical testing and conditions of the samples at receipt and during storage. All pages of this report are integral parts of the analytical data. Therefore, this report should only be reproduced in its entirety of 112 pages.

208 Welsh Pool Road • Exton, PA 19341-1313 • (610) 280-3000 • Fax (610) 280-3041

Lionville Laboratory, Inc.

DIESEL RANGE ORGANICS BY GC

Report Date: 08/24/01 17:55

RFW Batch Number: 0107L389 Client: LANL REQ #9407R Work Order: 02744064001 Page: 1

13

	Cust ID:	RC60-01-0003 03	RC60-01-0004 03	RC60-01-0005 03	RC60-01-0005 03	RC60-01-0005 03	RC60-01-0006 03
Sample Information	RFW#:	007	008	009	009 MS	009 MSD	010
	Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	D.F.:	1.00	1.00	1.00	1.00	1.00	50.0
	Units:	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
	p-Terphenyl	69 %	69 %	85 %	75 %	87 %	D %
Diesel Range Organics		12.0 U	12.0 U	12.0 U	74 %	85 %	1100
Motor Oil		130	12.0 U	12.0 U	12.0 U	12.0 U	593 U

	Cust ID:	RC60-01-0007 03	RC60-01-0008 03	BLK	BLK BS
Sample Information	RFW#:	011	012	01LE0891-MB1	01LE0891-MB1
	Matrix:	SOIL	SOIL	SOIL	SOIL
	D.F.:	5.00	1.00	1.00	1.00
	Units:	mg/kg	mg/kg	mg/kg	mg/kg
	p-Terphenyl	94 %	97 %	55 %	63 %
Diesel Range Organics		350	11.8 U	12.0 U	69 %
Motor Oil		160	41	12.0 U	12.0 U

U= Analyzed, not detected. J= Present below detection limit. B= Present in blank. NR= Not reported. NS= Not spiked.
%= Percent recovery. D= Diluted out. I= Interference. NA= Not Applicable. *= Outside of EPA CLP QC

2B

SOIL VOLATILE SURROGATE RECOVERY

Lab Name: Lionville Labs, Inc. Contract: 2744-64-01

Case No.: LANL REQ #9407R

RFW Lot No.: 0107L389

	CLIENT SAMPLE NO.	S1 ( )#	S2 ( )#	S3 ( )#	OTHER	TOT OUT
01	RC60-01-0003 03	69				0
02	RC60-01-0004 03	69				0
03	RC60-01-0005 03	85				0
04	RC60-01-0005 03MS	75				0
05	RC60-01-0005 03MSD	87				0
06	RC60-01-0006 03	D				0
07	RC60-01-0007 03	94				0
08	RC60-01-0008 03	97				0
09	BLKLE0891-MB1	55				0
10	BLKLE0891-MB1 BS	63				0

S1 ( ) = p-Terphenyl

QC LIMITS
(35-130)

flag standard

Column to be used to flag recovery values
* Values outside of QC limits
D Surrogates diluted out

3B

SOIL VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Lionville Labs, Inc. Contract: 2744-64-01

Case No.: LANL REQ #9407R RFW Lot No.: 0107L389-009

MATRIX Spike - Sample No.: RC60-01-0005 03 Level:(low/med) LOW

COMPOUND	SPIKE ADDED (mg/kg)	SAMPLE CONCENTRATION (mg/kg)	MS CONCENTRATION (mg/kg)	MS % REC #	QC LIMITS REC
Diesel Range Organics	60.0	0	44.7	74	30 -130

COMPOUND	SPIKE ADDED (mg/kg)	MSD CONCENTRATION (mg/kg)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC
Diesel Range Organics	60.0	51.2	85	13	99	30 -130

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

RPD: 0 out of 1 outside limits
Spike Recovery: 0 out of 2 outside limits

COMMENTS:

FORM III VOA-2 5/88 Rev.

3B

SOIL VOLATILE BLANK SPIKE RECOVERY

Lab Name: Lionville Labs, Inc. Contract: 2744-64-01

Case No.: LANL REQ #9407R RFW Lot No.: 0107L389

BLANK Spike - Sample No.: BLKLE0891-MB1 Level:(low/med) LOW

COMPOUND	SPIKE ADDED (mg/kg)	SAMPLE CONCENTRATION (mg/kg)	BS CONCENTRATION (mg/kg)	BS % REC #	QC LIMITS REC
Diesel Range Organics	60.0	0	41.4	69	30 -130

Column to be used to flag recovery value with an asterisk
* Values outside of QC limits

Spike Recovery: 0 out of 1 outside limits

Flagged

COMMENTS:

FORM III VOA-2 5/88 Rev.

4A

VOLATILE METHOD BLANK SUMMARY

Lab Name: Lionville Labs, Inc. Contract: 2744-64-01

Case No.: LANL REQ #9407R

Lab File ID: RAW3:BLKOOPPB Lab Sample ID: 01LE0891-MB1

Date Analyzed: 08/07/01 Time Analyzed: 00

Matrix:(Soil/Water) SOIL Level:(low/med) LOW

Instrument ID: _____

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	CLIENT SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	RC60-01-0003 03	0107L389-007	08/16/01	
02	RC60-01-0004 03	0107L389-008	08/07/01	
03	RC60-01-0005 03	0107L389-009	08/07/01	
04	RC60-01-0005 03MS	0107L389-009S	08/07/01	
05	RC60-01-0005 03MSD	0107L389-009T	08/07/01	
06	RC60-01-0006 03	0107L389-010	08/24/01	
07	RC60-01-0007 03	0107L389-011	08/13/01	
08	RC60-01-0008 03	0107L389-012	08/07/01	
09	BLKLE0891-MB1 BS	01LE0891-MB1S	08/07/01	

COMMENTS:

Hgs 8/24/01

LIONVILLE LABORATORY INC.

27 August 2001

Ms. Joylene Valdez
Los Alamos National Laboratory
TA-3, Building 271
DP. O1U MS-H865
Los Alamos, NM 87545

Ref: Subcontract No. 7791L0014-AA
Data Report for LVL Batch 0107L389
LANL Request No. 9407R

Dear Ms. Valdez:

Enclosed please find the data report for 12 soil samples received 25 July 2001. These were analyzed for PCBs and TPH DRO on a 30 day turnaround. The EDD will follow shortly. – enclosed JV

Please do not hesitate to contact me at (610) 280-3029 with any question you may have regarding either the hard copy or electronic report.

Very truly yours,

Lionville Laboratory Incorporated

Judith L. Stone
Senior Project Manager

Enclosure:

208 Welsh Pool Road • Exton, PA 19341-1313 • (610) 280-3000 • Fax (610) 280-3041

DATA VALIDATION COVER SHEET (Example)

SECTION I.

REQUEST NUMBER: 9407 COST CODE: _____

VALIDATION DATE: _____

LAB NAME: LULI LAB CODE: _____

VALIDATOR: _____ ORGANIZATION: _____

ANALYTICAL SUITE: ___ VOLATILES ___ HIGH EXPLOSIVES

___ SEMIVOLATILES ___ INORGANICS

___ PESTICIDES/AROCLORS ___ RADIOCHEMISTRY

OTHER (describe) _____

SECTION II. COMPLETENESS CHECKLIST

Item	Present? (Y/N/NA)	Item	Present? (Y/N/NA)
1. COC form(s)		2. Case Narrative	
3. Sample Results		4. Sample Chromatograms	
5. Standard Chromatograms		6. Quantitation Reports	
7. QC Forms			

Identify any samples in the assigned Request Number that are missing:

_____ _____ _____ _____ _____ _____

_____ _____ _____ _____ _____ _____

Comments: include information about requests to the laboratory and agreed upon date of resolution and lab contact: (Attach additional comment sheets as necessary)

_____

_____

_____

Signature/1st validation: _____ Date/1st validation: _____

Signature/2nd validation: _____ Date/2nd validation: _____

LIONVILLE LABORATORY INC.

27 August 2001

Ms. Joylene Valdez
Los Alamos National Laboratory
TA-3, Building 271
DP. O1U MS-H865
Los Alamos, NM 87545

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Very truly yours,

Lionville Laboratory Incorporated

Judith L. Stone
Senior Project Manager

Enclosure:

208 Welsh Pool Road • Exton, PA 19341-1313 • (610) 280-3000 • Fax (610) 280-3041

Tuesday, July 24, 2001

REQUEST NUMBER: 9407R

ANALYSIS TYPE: ORG

Los Alamos
NATIONAL LABORATORY

ATTN: Judy Stone
Lionville Laboratory Inc
208 Welsh Pool Rd
Lionville, pa 19341

Please analyze the enclosed samples according to the schedule indicated:

SHIP DATE: 7/24/01
REPORT DUE: 8/25/01
TURN AROUND REQ'D: 30 day

These samples are on:

LANL Request Number: 9407R
Per Agreement Number:
Project Cost Code: MR0R0001E000

RAD SCREENING: Not Required

COMMENTS: 60 - 1114 , GA; TPH BY DIESEL ORGANICS ONLY

LANL ER SMO CONTACT: Joylene Valdez MS H865 5056659968

Signature: Joylene Valdez

ANALYSIS ORDER CODE	ANALYTE(S)	SAMPLE ID	CONT ID	SAMPLE MATRIX	DATE SAMPLED	COMMENTS
PCB		RC60-01-0003	02	S	7/23/1901	
TPH		RC60-01-0003	03	S	7/23/1901	
PCB		RC60-01-0004	02	S	7/23/1901	
TPH		RC60-01-0004	03	S	7/23/1901	
PCB		RC60-01-0005	02	S	7/23/1901	
TPH		RC60-01-0005	03	S	7/23/1901	
PCB		RC60-01-0006	02	S	7/23/1901	
TPH		RC60-01-0006	03	S	7/23/1901	
PCB		RC60-01-0007	02	S	7/23/1901	
TPH		RC60-01-0007	03	S	7/23/1901	
PCB		RC60-01-0008	02	S	7/23/1901	
TPH		RC60-01-0008	03	S	7/23/1901	

Tuesday, July 24, 2001

Los Alamos
NATIONAL LABORATORY

CHAIN OF CUSTODY DOCUMENT NUMBER: 9407RC

REQUEST NUMBER: 9407R
ANALYSIS TYPE: ORG

ATTN: Judy Stone
Lionville Laboratory Inc
208 Welsh Pool Rd
Lionville, pa 19341

SAMPLE ID	CONT ID	CONTAINER DESCRIPTION	ANALYSIS ORDER CODE	PRESERVATIVE	MATRIX
RC60-01-0003	02	125 ml Glass	PCB	None	S
RC60-01-0003	03	125 ml Amber Glass	TPH	Ice	S
RC60-01-0004	02	125 ml Glass	PCB	None	S
RC60-01-0004	03	125 ml Amber Glass	TPH	Ice	S
RC60-01-0005	02	125 ml Glass	PCB	None	S
RC60-01-0005	03	125 ml Amber Glass	TPH	Ice	S
RC60-01-0006	02	125 ml Glass	PCB	None	S
RC60-01-0006	03	125 ml Amber Glass	TPH	Ice	S
RC60-01-0007	02	125 ml Glass	PCB	None	S
RC60-01-0007	03	125 ml Amber Glass	TPH	Ice	S
RC60-01-0008	02	125 ml Glass	PCB	None	S
RC60-01-0008	03	125 ml Amber Glass	TPH	Ice	S

Relinquished By: Date Time
Jackson — 7/24/01 1407
PRINTED NAME SIGNATURE
Fed Ex — 7-25-01 1010
PRINTED NAME SIGNATURE
PRINTED NAME SIGNATURE

Received By: Date Time
PRINTED NAME SIGNATURE
Inez Stokes — 7-25-01 1010
PRINTED NAME SIGNATURE
PRINTED NAME SIGNATURE

Received for DISPOSAL By: Date Time
PRINTED NAME SIGNATURE

Remarks:

Lionville Laboratories Inc.

COOLER RECEIPT FORM

LVLI COC Batch #: 0107L389 Date Cooler Received: 7-25-01

Client/Project: LANL

A. Preliminary Examination Phase

Date Cooler Opened 7-25-01 Sample Receipt Custodian Signature: [signature]

1. Did the cooler come with a shipping slip? (airbill, etc.) YES NO
If YES, enter carrier name & airbill # here: 4847 3249 9976
2. Were custody seals present on the outside of cooler? YES NO
3. Were custody seals unbroken & intact at the date & time of arrival? YES NO
4. Were samples screened for radioactivity? YES NO
5. Were custody papers sealed in a plastic bag and taped to the inside of the cooler lid? YES NO
6. Were COC papers filled out properly? (ink, signed, etc.) YES NO
7. Did the lab sample custodian sign the COC in the appropriate place? YES NO
8. Was the project identifiable from custody papers? If YES, enter at the top of this form. YES NO
9. If required, was enough ice used? YES NO
Type of ice: blue Cooler Temperature: 6.6° C

B. Log-In Phase:

Date Samples Logged In: 7-25-01 By: (Signature): [signature]

10. Packing Description:
11. Were all bottles sealed in plastic bags? YES NO
12. Did all bottles arrive unbroken & were labels in good condition? YES NO
13. Were all bottle labels complete? (ID, date/time, preservative, etc.) YES NO
14. Did all bottle labels agree with COC? YES NO
15. Were correct containers used for the tests indicated? YES NO
16. ***Did the labels indicate the correct preservatives were added to samples?*** ***YES NO***
17. *Was the pH checked and any out of expected range documented?* *YES NO*
18. Was a sufficient amount of sample sent for tests indicated? YES NO
19. Were bubbles present in volatile samples? If YES, list sample ID: YES NO

20. If discrepancies were noted, was the PM called? YES NO
21. PM notified: Date:

COMMENTS:

GC FID SCAN:
COMPLETE SDG FILE (CSF) INVENTORY SHEET

LABORATORY NAME:	Recra LabNet Philadelphia
CITY/STATE:	Lionville, PA
RFW NO.:	01671389
CLIENT NAME:	LANL Req # 9407R
WORK ORDER NO.:	02744-064-001-9999-00
METHOD BASED ON:	EPA Method 8015B (1/95) by GC-FID

All documents in the Client's copy of the complete SDG file must be legible, clearly labeled, paginated, single-sided original documents; or of sufficient copy quality to be reproducible to fourth generation copies. (Purge file documents, e.g., original-copy chain-of-custody, etc. assembled per specific contract request only.)

		Page Nos		Check (initials/date)	
		From	To	Lab	Client
1	Cover Page (Lab Chron)	1	1	J 8/24/01	
2	Table of Contents	2	2	J 8/24/01	
3	Case Narrative	3	5	J 8/24/01	
4	Shipping, Receiving, and Custody Records	6	11		
	• Lab Chain of Custody/Work Request			J 8/24/01	
	• Client Custody Reports/Packing Lists				
	• Sample Tags, if applicable				
	• Airbills				
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	• Surrogate %Recovery Summary (Form II)				
	• MS/MSD Summary (Form III)				
	• BS/BSD Summary (Form III)				
	• Method Blank Summary (Form IV)				
6	Sample Data, for each Sample:	18	30		
	• GC Scan Results (Form I)			J 8/24/01	
	• Chromatograms/Quant Reports				
7	Calibration Standard Data	31	78		
	Standards Data				
	• Initial Multi-Level Calibration (ICAL): Chromatograms/Quant Reports			J 8/24/01	
	• Daily Calibration:				
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	• Chromatograms/Quant Reports				
	Blank Spike/Blank Spike Duplicate				
	• GC Scan Results (Form I)			J 8/24/01	

		Page Nos		Check (initials/date)	
		From	To	Lab	Client
	• Chromatograms/Quant Reports			2-8/24/01	
	Matrix Spike/Matrix Spike Duplicate	—	—		
	• GC Scan Results (Form I)			8/24/01	
	• Chromatograms/Quant Reports				
9	Analysis Run Logs	88	96	8/24/01	
10	Standards Preparation Records	97	106		
	• Surrogate and Target Analyte Spike Solutions			BE 8/14/01	
	• Analysis Standards				
11	Preparation Logs	107	110		
	• Sample Prep Records (Extraction notebook pages)			BE 8/14/01	
	• LIMS Extraction Record			BE 8/14/01	
	• % Moisture and/or % Solids Records				
12	Other/Miscellaneous	111	112		

COMMENTS: _____

Checked by: (Laboratory) Signature: Pat G. Printed Name/Title: Patricia Eberdman Data Mgt Unit Leader Date: 08/23/01

Checked by: (Client) Signature: _____ Printed Name/Title: _____ Date: _____

Lionville Laboratory, Inc.

DRO ANALYTICAL DATA PACKAGE FOR

LANL REQ #9407R

DATE RECEIVED: 07/25/01 LVL LOT # :0107L389

CLIENT ID	LVL #	MTX	PREP #	COLLECTION	EXTR/PREP	ANALYSIS
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RC60-01-0005 03	009 MS	S	01LE0891	07/23/01	07/26/01	08/07/01
RC60-01-0005 03	009 MSD	S	01LE0891	07/23/01	07/26/01	08/07/01
RC60-01-0006 03	010	S	01LE0891	07/23/01	07/26/01	08/24/01
RC60-01-0007 03	011	S	01LE0891	07/23/01	07/26/01	08/13/01
RC60-01-0008 03	012	S	01LE0891	07/23/01	07/26/01	08/07/01

LAB QC:

BLK	MB1	S	01LE0891	N/A	07/26/01	08/07/01
BLK	MB1 BS	S	01LE0891	N/A	07/26/01	08/07/01

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I. Lab Chron 001

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VIII. Raw QC Data: Blank and Matrix Spike Data 079

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X. Standards Preparation Record 097

XI. Preparation Logs 107

XII. Other/Miscellaneous 111

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Case Narrative

LIONVILLE LABORATORY INC.

Analytical Report

Client : LANL REQ# 9407R
LVL# : 0107L389
Subcontract #: 7791L0014-8S

W.O #: 02744-064-001-9999-00
Date Received: 07-25-01

DIESEL RANGE ORGANICS

The set of samples consisted of six (6) soil samples collected on 07-23-01.

The samples and their associated QC samples were prepared on 07-26-01 and analyzed according to Lionville Laboratory OPs based on EPA Method 8015B for Diesel and Oil Range Petroleum Hydrocarbons on 08-07,13,16.24-01.

1. The cooler temperature has been recorded on the chain-of-custody.
2. All required holding times for extraction and analysis have been met.
3. All obtainable surrogate recoveries were within acceptance criteria.
4. The blank spike recovery was within acceptance criteria.
5. All matrix spike recoveries were within acceptance criteria.
6. All initial calibrations associated with this data set were within acceptance criteria.
7. Several samples required instrument dilutions due to the high concentrations of target analytes and non-target analytes. Reporting limits have been adjusted to reflect the necessary dilutions.
8. All diesel continuing calibration standards analyzed prior to the sample extracts were within acceptance criteria.
9. I certify that this package is in compliance with the terms and conditions of the contract, both technically and for completeness, except as detailed in this QC Report.

Iain Daniels, for
Deputy Laboratory Manager
Lionville Laboratory Incorporated

8/27/01
Date

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The results presented in this report relate only to the analytical testing and conditions of the samples at receipt and during storage. All pages of this report are integral parts of the analytical data. Therefore, this report should only be reproduced in its entirety of 112 pages.

GLOSSARY OF DIESEL RANGE ORGANICS DATA

DATA QUALIFIERS

U = Indicates that the compound was analyzed for but not detected. The minimum detection limit for the sample (not the method detection limit) is reported with the U (e.g. 10U).

J = Indicates an estimated value. This flag is used in cases where a target analyte is detected at a level less than the lower quantification level. If the limit of quantification is 10ug/L and a concentration of 3 ug/L is calculated, it is reported as 3J.

B = This flag is used when the analyte is found in the associated blank as well as in the sample. It indicates possible/probable blank contamination.

E = Indicates a compound was detected beyond the calibration range and was subsequently analyzed at a dilution.

I = Interference.

ABBREVIATIONS

BS = Indicates blank spike reagent grade water spiked with the matrix spiking solution. Spike recoveries are reported.

BSD = Indicates a blank spike duplicate.

MS = Indicates a matrix spike.

MSD = Indicates a matrix spike duplicate.

NA = Not Applicable.

NS = Not spiked.

DF = Dilution factor.

NR = Not required.

SP = Indicates a spiked compound.

SHIPPING, RECEIVING AND CUSTODY RECORD

Lionville Laboratory Use Only
01074389

Custody Transfer Record/Lab Work Request

Page 1 of 12

ALL FIELD PERSONNEL: COMPLETE ONLY SHADED AREAS

Client: LANL Proj # 9407R
Est. Final Proj. Sampling Date:
Project #: 02744-004-001-9999-00
Project Contact/Phone #:
Lionville Laboratory Project Manager: JS
QC: Spec Del: CP TAT: 30 day
[redacted]
Date Rec'd: 7-25-01 Date Due: 8-24-01

		A	B
Refrigerator #		S	S
#/Type Container	Liquid		
	Solid	1G	1AG
Volume	Liquid		
	Solid	125	125
Preservatives		—	—
ANALYSES REQUESTED →		ORGANIC: VOA, BNA, Pest/PCB, Herb	ORGANIC: TPH; INORG: Metal, CN
Lionville Laboratory Use Only		OPCB	ODRO

MATRIX CODES:
S - Soil
SE - Sediment
SO - Solid
SL - Sludge
W - Water
O - Oil
A - Air
DS - Drum Solids
DL - Drum Liquids
L - EP/TCLP Leachate
Wi - Wipe
X - Other
F - Fish

Lab ID	Client ID/Description	Matrix QC Chosen (✓) MS	MSD	Matrix	Date Collected	Time Collected	OPCB	ODRO
001	RC60-01-0003 02			S	7-23-01	0950	X	X
002	-0004					0955	X	X
003	-0005					1005	X	X
004	-0006					1000	X	X
005	-0007					1012	X	X
006	-0008					1010	X	X
007	-0003 03					0950		X
008	-0004					0955		X
009	-0005					1005		X
010	-0006					1000		X

Special Instructions:
MK OPCB A
LK ODRO B (w/ motor oil)

DATE/REVISIONS:
1.
2.
3.
4.
5.
6.

Lionville Laboratory Use Only
Samples were: 1) Shipped ✓ or Hand Delivered
Airbill # 484732499976
2) Ambient or Chilled
3) Received In Good Condition Y or N
4) Samples Properly Preserved Y or N
5) Received Within Holding Times Y or N
Tamper Resistant Seal was: 1) Present on Outer Package Y or N
2) Unbroken on Outer Package Y or N
3) Present on Sample Y or N
4) Unbroken on Sample Y or N
COC Record Present Upon Sample Rec't Y or N
Cooler Temp. 6.6 °C

Discrepancies Between Samples Labels and COC Record? Y or N
NOTES:

Relinquished by	Received by	Date	Time
Fed Ex	Inec Sto Hefus	7-25-01	1010

Relinquished by	Received by	Date	Time

COMPOSITE ORIGINAL

Lionville Laboratory Use Only

0107L389

Custody Transfer Record/Lab Work Request

FIELD PERSONNEL: COMPLETE ONLY SHADED AREAS

LVLI Lionville Laboratory Inc.

Client: LANL Proj # 9407R

Est. Final Proj. Sampling Date:

Project #: See

Project Contact/Phone #:

Lionville Laboratory Project Manager:

QC: Del TAT:

Date Rec'd: Date Due:

Refrigerator #						B											
#/Type Container	Liquid					5											
	Solid					1AG											
Volume	Liquid																
	Solid					125											
Preservatives						-											
ANALYSES REQUESTED →		ORGANIC							INORG								
		VOA	BNA	Pest/ PCB	Herb				Metal	CN							
						Lionville Laboratory Use Only											
						GDRO											

MATRIX CODES:
S - Soil
SE - Sediment
SO - Solid
SL - Sludge
W - Water
O - Oil
A - Air
DS - Drum Solids
DL - Drum Liquids
L - EP/TCLP Leachate
WI - Wipe
X - Other
F - Fish

Lab ID	Client ID/Description	Matrix QC Chosen (✓) MS	MSD	Matrix	Date Collected	Time Collected	GDRO
011	BC60-01-0007 03			S	72301	1012	✓
012	1 -0008 1			1	1	1010	✓

Special Instructions:

DATE/REVISIONS:

1.
2.
3.
4.
5.
6.

Lionville Laboratory Use Only

Samples were:
1) Shipped ___ or Hand Delivered ___
Airbill # ___
2) Ambient or Chilled
3) Received in Good Condition Y or N
4) Samples Properly Preserved Y or N
5) Received Within Holding Times Y or N

Tamper Resistant Seal was:
1) Present on Outer Package Y or N
2) Unbroken on Outer Package Y or N
3) Present on Sample Y or N
4) Unbroken on Sample Y or N

COC Record Present Upon Sample Rec't Y or N

Cooler Temp. ___ °C

Relinquished by	Received by	Date	Time
FedEx	I. Stoltzfus	72501	1010

Relinquished by	Received by	Date	Time

Discrepancies Between Samples Labels and COC Record? Y or N

NOTES:

Tuesday, July 24, 2001

Los Alamos
NATIONAL LABORATORY

CHAIN OF CUSTODY DOCUMENT NUMBER: 9407RC

REQUEST NUMBER: 9407R
ANALYSIS TYPE: ORG

ATTN: Judy Stone
Lionville Laboratory Inc
208 Welsh Pool Rd
Lionville, pa 19341

SAMPLE ID	CONT ID	CONTAINER DESCRIPTION	ANALYSIS ORDER CODE	PRESERVATIVE	MATRIX
RC60-01-0003	02	125 ml Glass	PCB	None	S
RC60-01-0003	03	125 ml Amber Glass	TPH	Ice	S
RC60-01-0004	02	125 ml Glass	PCB	None	S
RC60-01-0004	03	125 ml Amber Glass	TPH	Ice	S
RC60-01-0005	02	125 ml Glass	PCB	None	S
RC60-01-0005	03	125 ml Amber Glass	TPH	Ice	S
RC60-01-0006	02	125 ml Glass	PCB	None	S
RC60-01-0006	03	125 ml Amber Glass	TPH	Ice	S
RC60-01-0007	02	125 ml Glass	PCB	None	S
RC60-01-0007	03	125 ml Amber Glass	TPH	Ice	S
RC60-01-0008	02	125 ml Glass	PCB	None	S
RC60-01-0008	03	125 ml Amber Glass	TPH	Ice	S

Final Page of CHAIN OF CUSTODY DOCUMENT FOR REQUEST NUMBER 9407R

Relinquished By: Date Time
J Jackson — 7/24/01 1407
PRINTED NAME SIGNATURE

Fed Ex — 7-25-01 1010
PRINTED NAME SIGNATURE

PRINTED NAME SIGNATURE

Received By: Date Time
PRINTED NAME SIGNATURE

Inez Stoltzfus — 7-25-01 1010
PRINTED NAME SIGNATURE

PRINTED NAME SIGNATURE

Received for DISPOSAL By: Date Time
PRINTED NAME SIGNATURE

Remarks:

Tuesday, July 24, 2001

REQUEST NUMBER: 9407R
ANALYSIS TYPE: ORG

Los Alamos
NATIONAL LABORATORY

ATTN: Judy Stone
Lionville Laboratory Inc
208 Welsh Pool Rd
Lionville, pa 19341

Please analyze the enclosed samples according to the schedule indicated:

SHIP DATE: 7/24/01
REPORT DUE: 8/25/01
TURN AROUND REQ'D: 30 day

These samples are on:

LANL Request Number: 9407R
Per Agreement Number:
Project Cost Code: MR0R0001E000

RAD SCREENING: Not Required
COMMENTS: 60 - 1114 , GA; TPH BY DIESEL ORGANICS ONLY

LANL ER SMO CONTACT: Joylene Valdez MS H865 5056659968
Signature:

ANALYSIS ORDER CODE	ANALYTE(S)	SAMPLE ID	CONT ID	SAMPLE MATRIX	DATE SAMPLED	COMMENTS
PCB		RC60-01-0003	02	S	7/23/1901	
TPH		RC60-01-0003	03	S	7/23/1901	
PCB		RC60-01-0004	02	S	7/23/1901	
TPH		RC60-01-0004	03	S	7/23/1901	
PCB		RC60-01-0005	02	S	7/23/1901	
TPH		RC60-01-0005	03	S	7/23/1901	
PCB		RC60-01-0006	02	S	7/23/1901	
TPH		RC60-01-0006	03	S	7/23/1901	
PCB		RC60-01-0007	02	S	7/23/1901	
TPH		RC60-01-0007	03	S	7/23/1901	
PCB		RC60-01-0008	02	S	7/23/1901	
TPH		RC60-01-0008	03	S	7/23/1901	

Lionville Laboratories Inc.

COOLER RECEIPT FORM

LVLI COC Batch #: 0107L389 Date Cooler Received: 7-25-01

Client/Project: LANL

A. Preliminary Examination Phase

Date Cooler Opened 7-25-01 Sample Receipt Custodian Signature: [signature]

1. Did the cooler come with a shipping slip? (airbill, etc.) YES NO
If YES, enter carrier name & airbill # here: 4847 3249 9976
2. Were custody seals present on the outside of cooler? YES NO
3. Were custody seals unbroken & intact at the date & time of arrival? YES NO
4. Were samples screened for radioactivity? YES NO
5. Were custody papers sealed in a plastic bag and taped to the inside of the cooler lid? YES NO
6. Were COC papers filled out properly? (ink, signed, etc.) YES NO
7. Did the lab sample custodian sign the COC in the appropriate place? YES NO
8. Was the project identifiable from custody papers? If YES, enter at the top of this form. YES NO
9. If required, was enough ice used? YES NO
Type of ice: blue Cooler Temperature: 6.6° C

B. Log-In Phase:

Date Samples Logged In: 7-25-01 By: (Signature): [signature]

10. Packing Description:
11. Were all bottles sealed in plastic bags? YES NO
12. Did all bottles arrive unbroken & were labels in good condition? YES NO
13. Were all bottle labels complete? (ID, date/time, preservative, etc.) YES NO
14. Did all bottle labels agree with COC? YES NO
15. Were correct containers used for the tests indicated? YES NO
16. *Did the labels indicate the correct preservatives were added to samples?* YES NO
17. *Was the pH checked and any out of expected range documented?* YES NO
18. Was a sufficient amount of sample sent for tests indicated? YES NO
19. Were bubbles present in volatile samples? If YES, list sample ID: YES NO
20. If discrepancies were noted, was the PM called? YES NO
21. PM notified: Date:

COMMENTS:

ODRO DATA SUMMARY / SAMPLE QC

Lionville Laboratory, Inc.

DIESEL RANGE ORGANICS BY GC

Report Date: 08/24/01 17:55

RFW Batch Number: 0107L389 Client: LANL REQ #9407R Work Order: 02744064001 Page: 1

13

	Cust ID:	RC60-01-0003 03	RC60-01-0004 03	RC60-01-0005 03	RC60-01-0005 03	RC60-01-0005 03	RC60-01-0006 03
Sample Information	RFW#:	007	008	009	009 MS	009 MSD	010
	Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	D.F.:	1.00	1.00	1.00	1.00	1.00	50.0
	Units:	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
	p-Terphenyl	69 %	69 %	85 %	75 %	87 %	D %
Diesel Range Organics		12.0 U	12.0 U	12.0 U	74 %	85 %	1100
Motor Oil		130	12.0 U	12.0 U	12.0 U	12.0 U	593 U

	Cust ID:	RC60-01-0007 03	RC60-01-0008 03	BLK	BLK BS
Sample Information	RFW#:	011	012	01LE0891-MB1	01LE0891-MB1
	Matrix:	SOIL	SOIL	SOIL	SOIL
	D.F.:	5.00	1.00	1.00	1.00
	Units:	mg/kg	mg/kg	mg/kg	mg/kg
	p-Terphenyl	94 %	97 %	55 %	63 %
Diesel Range Organics		350	11.8 U	12.0 U	69 %
Motor Oil		160	41	12.0 U	12.0 U

U= Analyzed, not detected. J= Present below detection limit. B= Present in blank. NR= Not reported. NS= Not spiked.
%= Percent recovery. D= Diluted out. I= Interference. NA= Not Applicable. *= Outside of EPA CLP QC

2B

SOIL VOLATILE SURROGATE RECOVERY

Lab Name: Lionville Labs, Inc. Contract: 2744-64-01

Case No.: LANL REQ #9407R

RFW Lot No.: 0107L389

	CLIENT SAMPLE NO.	S1 ( )#	S2 ( )#	S3 ( )#	OTHER	TOT OUT
01	RC60-01-0003 03	69				0
02	RC60-01-0004 03	69				0
03	RC60-01-0005 03	85				0
04	RC60-01-0005 03MS	75				0
05	RC60-01-0005 03MSD	87				0
06	RC60-01-0006 03	D				0
07	RC60-01-0007 03	94				0
08	RC60-01-0008 03	97				0
09	BLKLE0891-MB1	55				0
10	BLKLE0891-MB1 BS	63				0

S1 ( ) = p-Terphenyl

QC LIMITS
(35-130)

flag stat..

Column to be used to flag recovery values
* Values outside of QC limits
D Surrogates diluted out

3B

SOIL VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Lionville Labs, Inc. Contract: 2744-64-01

Case No.: LANL REQ #9407R RFW Lot No.: 0107L389-009

MATRIX Spike - Sample No.: RC60-01-0005 03 Level:(low/med) LOW

COMPOUND	SPIKE ADDED (mg/kg)	SAMPLE CONCENTRATION (mg/kg)	MS CONCENTRATION (mg/kg)	MS % REC #	QC LIMITS REC
Diesel Range Organics	60.0	0	44.7	74	30 -130

COMPOUND	SPIKE ADDED (mg/kg)	MSD CONCENTRATION (mg/kg)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC
Diesel Range Organics	60.0	51.2	85	13	99	30 -130

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

RPD: 0 out of 1 outside limits
Spike Recovery: 0 out of 2 outside limits

COMMENTS:

3B

SOIL VOLATILE BLANK SPIKE RECOVERY

Lab Name: Lionville Labs, Inc. Contract: 2744-64-01

Case No.: LANL REQ #9407R RFW Lot No.: 0107L389

BLANK Spike - Sample No.: BLKLE0891-MB1 Level:(low/med) LOW

COMPOUND	SPIKE ADDED (mg/kg)	SAMPLE CONCENTRATION (mg/kg)	BS CONCENTRATION (mg/kg)	BS % REC #	QC LIMITS REC
Diesel Range Organics	60.0	0	41.4	69	30 -130

Column to be used to flag recovery value with an asterisk
* Values outside of QC limits

Spike Recovery: 0 out of 1 outside limits

Flagged/ok

COMMENTS:

FORM III VOA-2 5/88 Rev.

4A

VOLATILE METHOD BLANK SUMMARY

Lab Name: Lionville Labs, Inc. Contract: 2744-64-01

Case No.: LANL REQ #9407R

Lab File ID: RAW3:BLKOOPPB Lab Sample ID: 01LE0891-MB1

Date Analyzed: 08/07/01 Time Analyzed: 00

Matrix:(Soil/Water) SOIL Level:(low/med) LOW

Instrument ID: _____

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	CLIENT SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	RC60-01-0003 03	0107L389-007	08/16/01	
02	RC60-01-0004 03	0107L389-008	08/07/01	
03	RC60-01-0005 03	0107L389-009	08/07/01	
04	RC60-01-0005 03MS	0107L389-009S	08/07/01	
05	RC60-01-0005 03MSD	0107L389-009T	08/07/01	
06	RC60-01-0006 03	0107L389-010	08/24/01	
07	RC60-01-0007 03	0107L389-011	08/13/01	
08	RC60-01-0008 03	0107L389-012	08/07/01	
09	BLKLE0891-MB1 BS	01LE0891-MB1S	08/07/01	

COMMENTS:

Flags 8/24/01

SAMPLE DATA FOR EACH SAMPLE

ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

RC60-01-0003 03

Lab Name: Lionville Labs, Inc. Work Order: 02744064001

Client: LANL REQ #9407R

Matrix: SOIL

Lab Sample ID: 0107L389-007

Sample wt/vol: 25.0 (g/mL) G

Lab File ID: BLKOOPPB

Level: (low/med) LOW

Date Received: 07/25/01

% Moisture: not dec. 100

Date Analyzed: 08/16/01

Column: (pack/cap) CAP

Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) mg/kg	
68334-30-5	Diesel Range Organics	12.0	U
00-00-0000	Motor Oil	130	

Flagged in error

12/88 Rev.

Recra LabNet-Lionville Laborator

0107L389-007

Queue: 081401GC18

Vial: 11

Channel Description: FID

Dilution Factor: 1.0

Project Name DRO_01C

Acq Method Set: DRO_OIL_BLANK814

Processing Method: 081501GC18ical

Date Acquired: 8/16/01 1:50:21 AM

Date Processed: 8/16/01 12:12:55 PM

Injection Id: 3582 Result Id: 3654

DIESEL RANGE ORGANICS

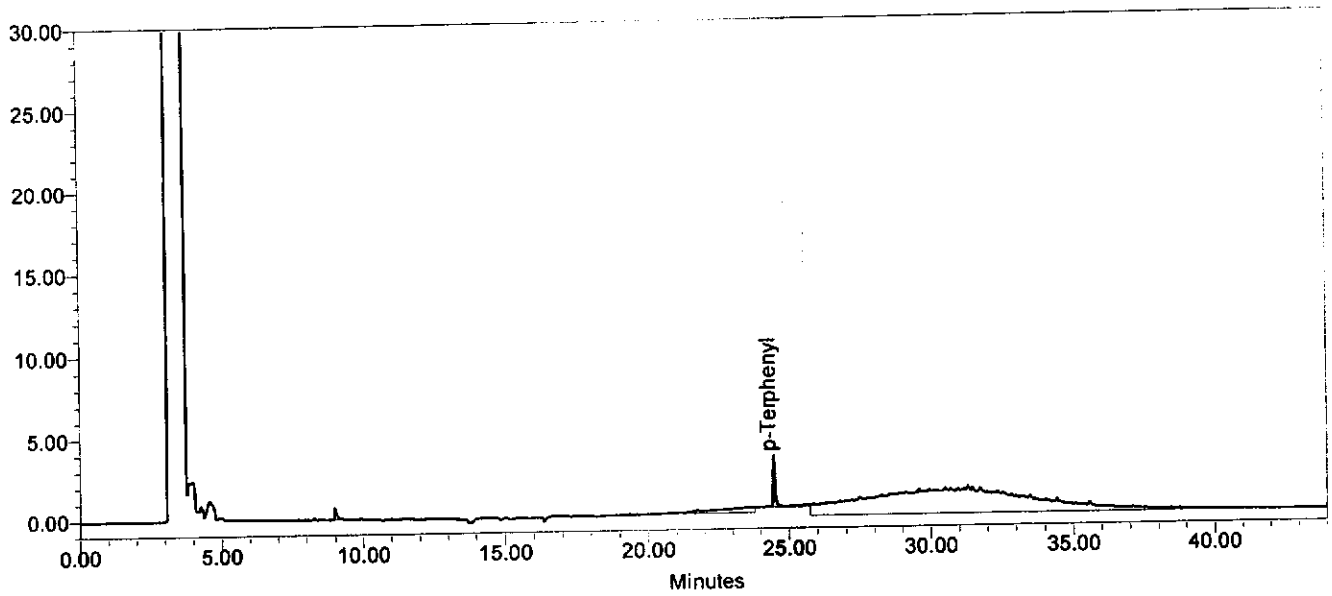

Processed By lachj

Manual Yes

JL 8/16/01
JL 8/16/01

Peak Results

	RT	Area	Height	Name	Amount
1	8.987	60616	4363	Diesel Fuel	216.173
2	24.463	14908	3153	p-Terphenyl	34.747
3	31.298	653441	1668	Motor oil	3276.209

PI

65.2%

ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

RC60-01-0004 03

Lab Name: Lionville Labs, Inc. Work Order: 02744064001

Client: LANL REQ #9407R

Matrix: SOIL

Lab Sample ID: 0107L389-008

Sample wt/vol: 25.0 (g/mL) G

Lab File ID: BLKOOPPB

Level: (low/med) LOW

Date Received: 07/25/01

% Moisture: not dec. 100

Date Analyzed: 08/07/01

Column: (pack/cap) CAP

Dilution Factor: 1.00

CONCENTRATION UNITS:
(ug/L or ug/Kg) mg/kg

CAS NO.	COMPOUND		
68334-30-5	Diesel Range Organics	12.0	U
00-00-0000	Motor Oil	12.0	U

12/88 Rev.

Recra LabNet-Lionville Laboratory

0107L389-008

Queue: 080701GC18icala

Acq Method Set: DRO_BLANK705

Vial: 9

Processing Method: 073001GC18_ical

Channel Description: FID

Date Acquired: 8/7/01 5:06:27 PM

Dilution Factor: 1.0

Date Processed: 8/8/01 6:03:46 AM

Project Name DRO_01C

Injection Id: 3049

Result Id: 3104

DIESEL RANGE ORGANICS

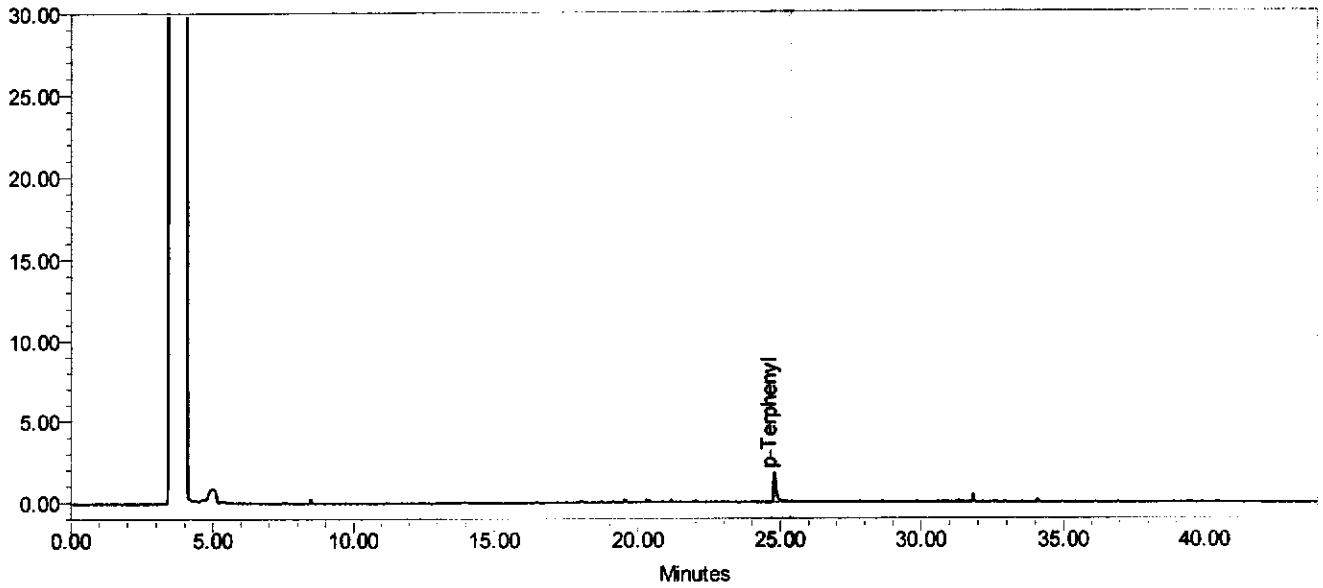

Processed By kauffmal

Manual Yes

Flag 12/01

Peak Results

	RT	Area	Height	Name	Amount
1	8.469	16996	453	Diesel Fuel	34.012
2	24.798	11826	1771	p-Terphenyl	34.331
3	31.841	53465	488	Motor oil	~~276.917~~

< RL 11/22/01

LF 8-8-01

ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

RC60-01-0005 03

Lab Name: Lionville Labs, Inc. Work Order: 02744064001

Client: LANL REQ #9407R

Matrix: SOIL

Lab Sample ID: 0107L389-009

Sample wt/vol: 25.1 (g/mL) G

Lab File ID: BLKOOPPB

Level: (low/med) LOW

Date Received: 07/25/01

% Moisture: not dec. 100

Date Analyzed: 08/07/01

Column: (pack/cap) CAP

Dilution Factor: 1.00

CONCENTRATION UNITS:
(ug/L or ug/Kg) mg/kg

CAS NO.	COMPOUND		
68334-30-5	Diesel Range Organics	12.0	U
00-00-0000	Motor Oil	12.0	U

12/88 Rev.

Recra LabNet-Lionville Laboratory

0107L389-009

Queue: 080701GC18icala

Vial: 10

Channel Description: FID

Dilution Factor: 1.0

Project Name DRO_01C

Acq Method Set: DRO_BLANK705

Processing Method: 073001GC18_ical

Date Acquired: 8/7/01 6:00:23 PM

Date Processed: 8/8/01 6:03:46 AM

Injection Id: 3056 Result Id: 3105

DIESEL RANGE ORGANICS

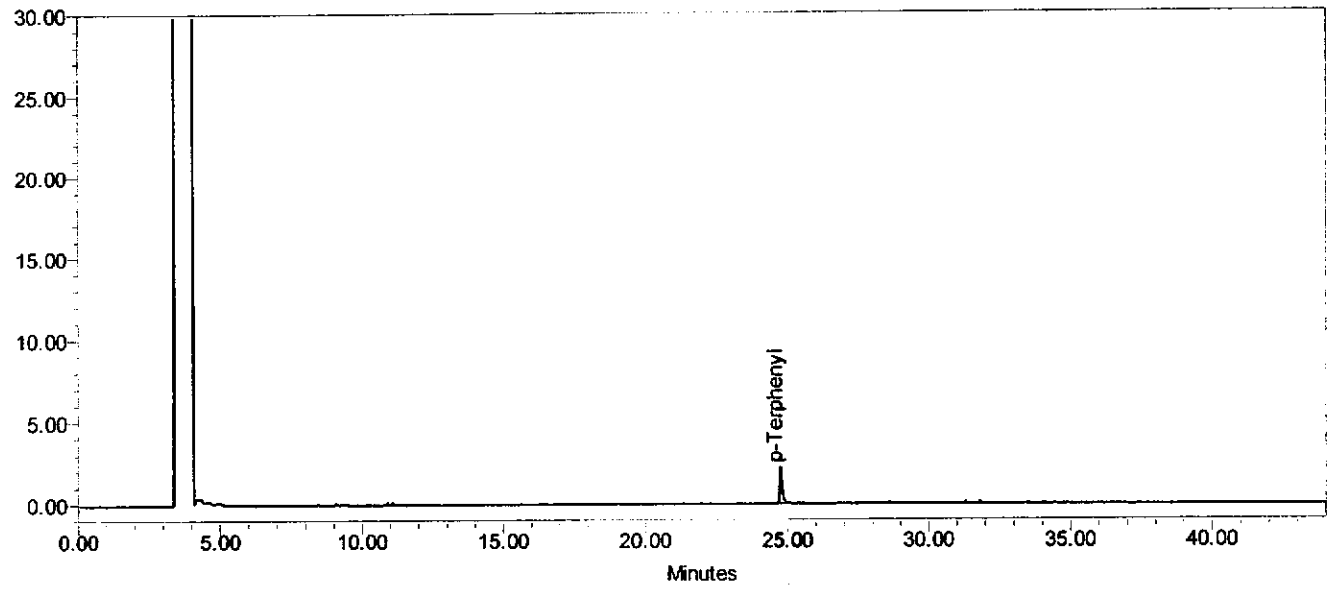

Processed By kauffmal

Manual Yes

Peak Results

	RT	Area	Height	Name	Amount
1	8.443	4476	262	Diesel Fuel	7.667 <
2	24.758	14827	2228	p-Terphenyl	42.346 852
3	31.817	45158	190	Motor oil	~~217.502~~ <RL 2-8/22/01

SK 8-8-01

7/30/01

ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

RC60-01-0006 03

Lab Name: Lionville Labs, Inc. Work Order: 02744064001

Client: LANL REQ #9407R

Matrix: SOIL

Lab Sample ID: 0107L389-010

Sample wt/vol: 25.3 (g/mL) G

Lab File ID: BLKOOPPB

Level: (low/med) LOW

Date Received: 07/25/01

% Moisture: not dec. 100

Date Analyzed: 08/24/01

Column: (pack/cap) CAP

Dilution Factor: 50.0

CONCENTRATION UNITS:
(ug/L or ug/Kg) mg/kg

CAS NO.	COMPOUND			
68334-30-5	Diesel Range Organics	1100		
00-00-0000	Motor Oil	593	U	

12/88 Rev.

Recra LabNet-Lionville Laborator

0107L389-010

Queue: 082401GC18

Vial: 6

Channel Description: FID

Dilution Factor: 50.0

Project Name DRO_01C

Acq Method Set: DRO_OIL_BLANK821

Processing Method: 082101GC18ical

Date Acquired: 8/24/01 12:44:47 PM

Date Processed: 8/24/01 2:09:59 PM

Injection Id: 4091 Result Id: 4098

DIESEL RANGE ORGANICS

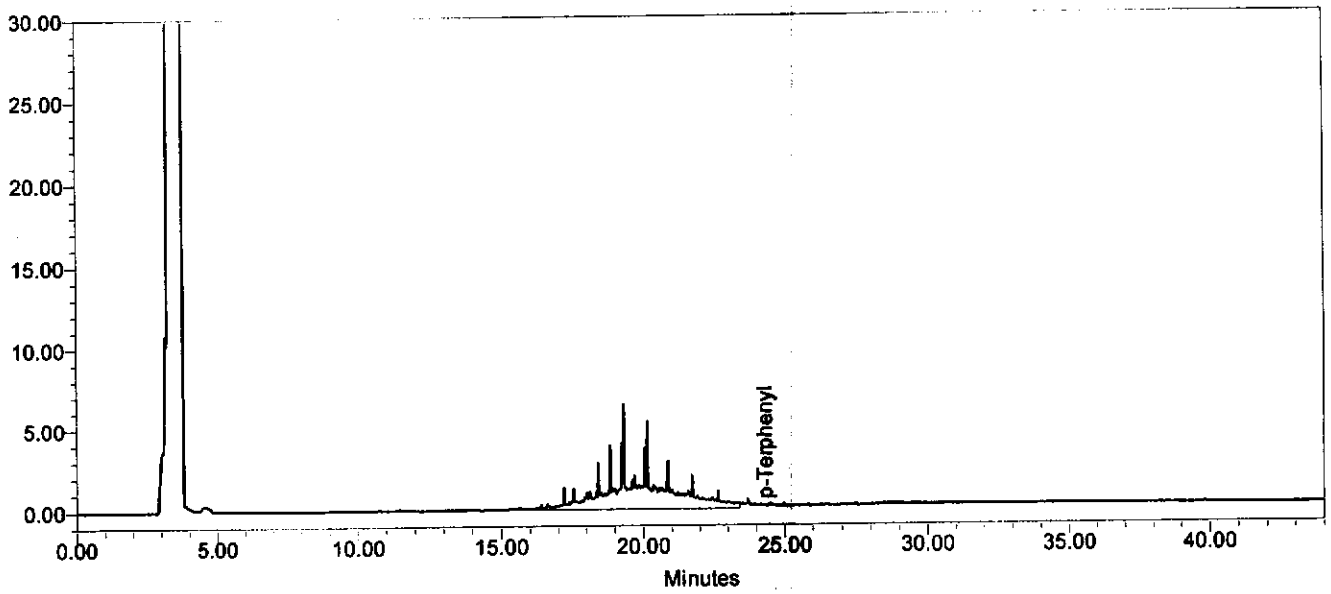

Processed By lachj

Manual Yes

J 8/24/01

Peak Results

	RT	Int Type	Area	Height	Name	Amount
1	19.308	Group	370195	6002	Diesel Fuel	29080.556
2	24.497	BB	473	94	p-Terphenyl	146.488
3	25.816	Group	31512	587	Motor oil	2584.302

D

2 pl.

8/24/01

ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

RC60-01-0007 03

Lab Name: Lionville Labs, Inc. Work Order: 02744064001

Client: LANL REQ #9407R

Matrix: SOIL

Lab Sample ID: 0107L389-011

Sample wt/vol: 25.4 (g/mL) G

Lab File ID: BLKOOPPB

Level: (low/med) LOW

Date Received: 07/25/01

% Moisture: not dec. 100

Date Analyzed: 08/13/01

Column: (pack/cap) CAP

Dilution Factor: 5.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) mg/kg		
68334-30-5	Diesel Range Organics	350		
00-00-0000	Motor Oil	160		

Flammable

12/88 Rev.

Recra LabNet-Lionville Laboratory

0107L389-011

Queue: 081301GC18ical

Acq Method Set: DRO_BLANK705

Vial: 19

Processing Method: 081401GC18ical

Channel Description: FID

Date Acquired: 8/14/01 1:40:49 AM

Dilution Factor: 5.0

Date Processed: 8/14/01 8:04:23 AM

Project Name DRO_01C

Injection Id: 3380

Result Id: 3468

DIESEL RANGE ORGANICS

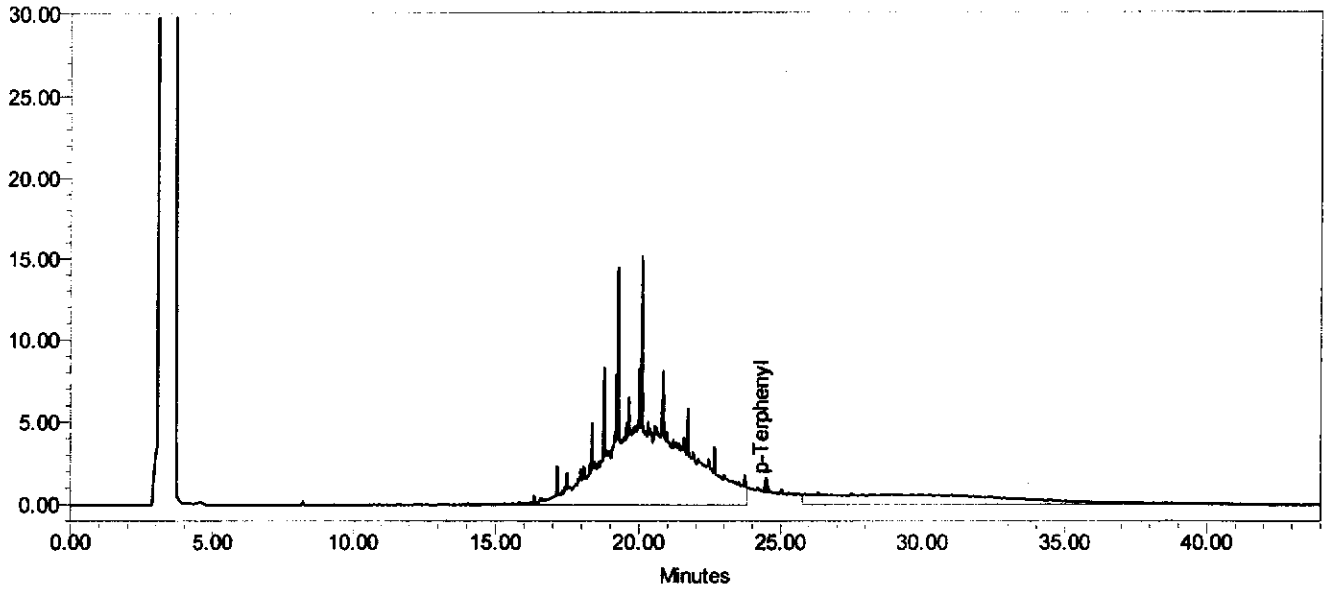

Processed By kauffmal

Manual Yes

Peak Results

	RT	Area	Height	Name	Amount
1	8.212	1230437	15346	Diesel Fuel	8871.242
2	24.490	4988	817	p-Terphenyl	67.124
3	25.707	284193	771	Motor oil	4116.016

9418

LK 8-14-01

ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

RC60-01-0008 03

Lab Name: Lionville Labs, Inc. Work Order: 02744064001

Client: LANL REQ #9407R

Matrix: SOIL

Lab Sample ID: 0107L389-012

Sample wt/vol: 25.5 (g/mL) G

Lab File ID: BLKOOPPB

Level: (low/med) LOW

Date Received: 07/25/01

% Moisture: not dec. 100

Date Analyzed: 08/07/01

Column: (pack/cap) CAP

Dilution Factor: 1.00

CONCENTRATION UNITS:
(ug/L or ug/Kg) mg/kg

CAS NO.	COMPOUND		
68334-30-5	Diesel Range Organics	11.8	U
00-00-0000	Motor Oil	41	

12/88 Rev.

Recra LabNet-Lionville Laboratory

0107L389-012

Queue: 080701GC18icala

Vial: 15

Channel Description: FID

Dilution Factor: 1.0

Project Name DRO_01C

Acq Method Set: DRO_BLANK705

Processing Method: 073001GC18_ical

Date Acquired: 8/7/01 10:29:38 PM

Date Processed: 8/8/01 6:03:48 AM

Injection Id: 3071 Result Id: 3110

DIESEL RANGE ORGANICS

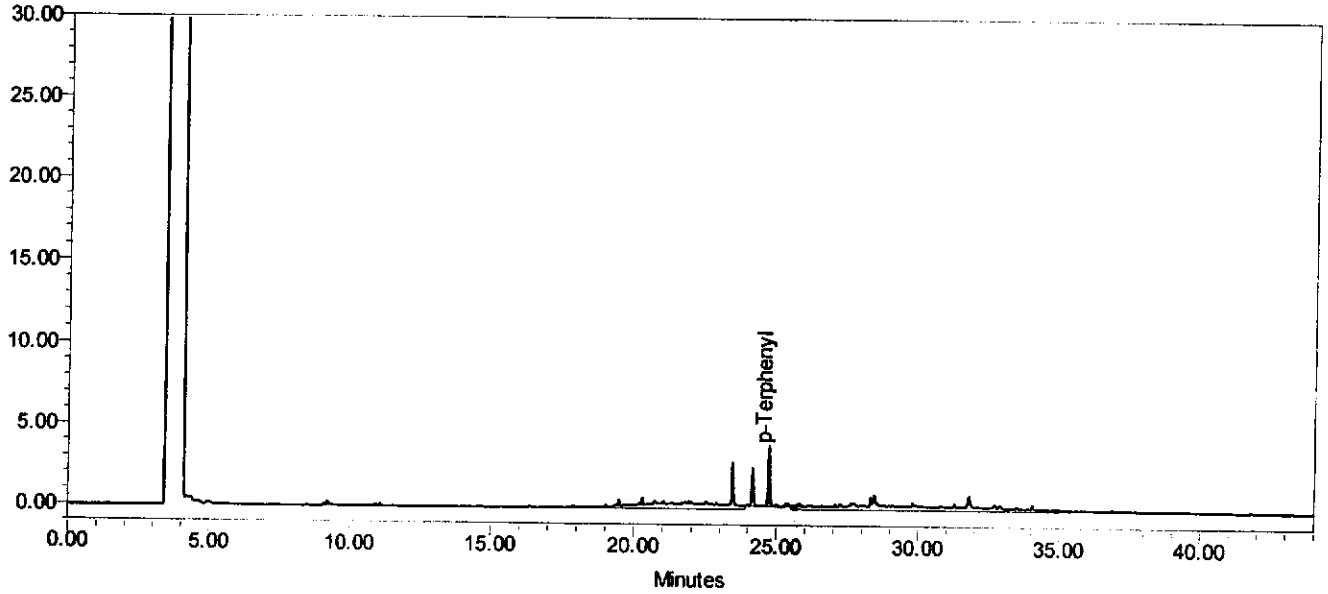

Processed By kauffmal

Manual Yes

Peak Results

	RT	Area	Height	Name	Amount
1	9.193	113284	5916	Diesel Fuel	236.631
2	24.731	17082	3681	p-Terphenyl	48.369
3	31.801	162201	919	Motor oil	1054.701

<RL 11 8/22/01

972

8-8-01

CALIBRATION STANDARD DATA

CALIBRATION VERIFICATION SUMMARY

Lab Name: Recra LabNet-Philadelphia

Contract:

Client:

GC Sample ID: 80701GC18icala . 5

RFW Lot ID:

Millennium Result ID: 3098

Instrument ID: GC 18

Processing Method: 073001GC18_ical

Initial Calibration Start Date: 7/30/01

Date of Analysis: 8/7/01

Time of Analysis: 1:31:03 PM

Standard ID: CCV 64888104 D

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	INITIAL RESPONSE	RT	CONT. RESPONSE	%D	FL
Diesel Fuel	17.65	17.48	17.83	712364	17.65	715828	0.5 ✓	
p-Terphenyl	24.78	24.54	25.03	8346	24.78	7003	-16.1 ✓	
Motor oil	27.79	27.51	28.07	244629	27.79	237086	-3.1 ✓	

LK 8-8-01

CALIBRATION VERIFICATION SUMMARY

Lab Name: Recra LabNet-Philadelphia

Contract:

Client:

GC Sample ID: 80701GC18icala .17

RFW Lot ID:

Millennium Result ID: 3099

Instrument ID: GC 18

Processing Method: 073001GC18_ical

Initial Calibration Start Date: 7/30/01

Date of Analysis: 8/8/01

Time of Analysis: 12:17:14 AM

Standard ID: CCV 64888104 D

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	INITIAL RESPONSE	RT	CONT. RESPONSE	%D	FL
Diesel Fuel	17.65	17.48	17.83	712364	15.63	732986	2.9 ✓	
p-Terphenyl	24.78	24.54	25.03	8346	24.72	8201	-1.7 ✓	
Motor oil	27.79	27.51	28.07	244629	27.74	229110	-6.3 ✓	

LK 8-8-01

CALIBRATION VERIFICATION SUMMARY

Lab Name: Recra LabNet-Philadelphia

Contract:

Client:

GC Sample ID: 80701GC18icala .29

RFW Lot ID:

Millennium Result ID: 3146

Instrument ID: GC 18

Initial Calibration Start Date: 7/30/01

Date of Analysis: 8/8/01

Processing Method: 073001GC18_ical

Time of Analysis: 11:03:15 AM

Standard ID: CCV 64888104 D

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	INITIAL RESPONSE	RT	CONT. RESPONSE	%D	FL
Diesel Fuel	15.63	15.47	15.78	712364	15.63	692060	-2.9	
p-Terphenyl	24.73	24.48	24.98	8346	24.73	6110	-26.8	+
Motor oil	27.74	27.46	28.02	244629	27.74	141880	-42.0	+

LK 8-8-01

CALIBRATION VERIFICATION SUMMARY

Lab Name: Recra LabNet-Philadelphia

Contract:

Client:

GC Sample ID: 81301GC18ical .21

RFW Lot ID:

Millennium Result ID: 3459

Instrument ID: GC 18

Processing Method: 081401GC18ical

Initial Calibration Start Date: 8/13/01

Date of Analysis: 8/14/01

Time of Analysis: 3:28:04 AM

Standard ID: CCV 64888104 D

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	INITIAL RESPONSE	RT	CONT. RESPONSE	%D	FL
Diesel Fuel	8.18	8.09	8.26	1035372	8.18	1234280	19.2 ✓	+
p-Terphenyl	24.42	24.17	24.66	15582	24.42	16582	6.4 ✓	
Motor oil	28.87	28.58	29.16	531126	28.87	630762	18.8 ✓	+

LC 8-14-01

CALIBRATION VERIFICATION SUMMARY

Lab Name: Recra LabNet-Philadelphia

Contract:

Client:

GC Sample ID: 081401GC18 .21

RFW Lot ID:

Millennium Result ID: 3649

Instrument ID: GC 18

Processing Method: 081501GC18ical

Initial Calibration Start Date: 8/15/01

Date of Analysis: 8/16/01

Time of Analysis: 10:46:34 AM

Standard ID: CCV 64888104

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	INITIAL RESPONSE	RT	CONT. RESPONSE	%D	FL
Diesel Fuel	9.28	9.19	9.37	676888	9.48	631639	-6.7	
p-Terphenyl	24.48	24.24	24.73	10792	24.50	9416	-12.8	
Motor oil	28.89	28.60	29.17	343224	25.85	346872	1.1 ✓	

JR 8/16/01

CALIBRATION VERIFICATION SUMMARY

Lab Name: Recra LabNet-Philadelphia

Contract:

Client:

GC Sample ID: zzwashtest . 4

RFW Lot ID:

Millennium Result ID: 4084

Instrument ID: GC 18

Processing Method: 082101GC18ical

Initial Calibration Start Date: 8/21/01

Date of Analysis: 8/24/01

Time of Analysis: 10:44:49 AM

Standard ID: CCV 64888104 D

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	INITIAL RESPONSE	RT	CONT. RESPONSE	%D	FL
Diesel Fuel	9.24	9.15	9.33	1001826	9.24	1094347	9.2	
p-Terphenyl	24.44	24.19	24.68	14562	24.44	17752	21.9	
Motor oil	25.80	25.54	26.06	479243	25.80	511070	6.6	

Jshylm

CALIBRATION VERIFICATION SUMMARY

Lab Name: Recra LabNet-Philadelphia

Contract:

Client:

GC Sample ID: 082401GC18 .10

RFW Lot ID:

Millennium Result ID: 4111

Instrument ID: GC 18

Processing Method: 082101GC18ical

Initial Calibration Start Date: 8/21/01

Date of Analysis: 8/24/01

Time of Analysis: 4:20:20 PM

Standard ID: CCV 64888104 D

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	INITIAL RESPONSE	RT	CONT. RESPONSE	%D	FL
Diesel Fuel	9.24	9.15	9.33	1001826	9.24	1021223	1.9	
p-Terphenyl	24.44	24.19	24.68	14562	24.44	12444	-14.5	[illegible]
Motor oil	25.80	25.54	26.06	479243	25.80	289264	-39.6	+

Addendum

Multilevel Calibration Method Report

Calibration curve statistics are presented on the Multilevel Calibration Method reports. This report includes the type of calibration preformed, the file reference (i.e. 06209811.06) of the calibration standards used, the slope and intercept of the curve for each analyte, and the curve fit statistics. The column labeled as "CORR COEFF" presents the coefficient of determination (r^2) for each analyte. Our laboratory acceptance criteria are based on the correlation coefficient ® being at least 0.996. Therefore, the minimum acceptance value for "CORR COEFF" (r^2) on the Multilevel Calibration Method report is 0.992.

208 Welsh Pool Road • Lionville, PA 19341-1333 • (610)-280-3000 • Fax (610)-280-3041

Processing Method: 073001GC18_ical

Type: GC *Stored: 7/31/01 8:18:46 AM*

Method Information

Comments	OIL_DRO iCAL
Modified User	kauffmal
Locked	No
Method Id	2726
Method Version	2
Edit User	
Average By	None
RT Window %	2.00
Update RT	Average Stds
CCalRef1	
Include Internal Standard Amounts in Amount Calculation	Yes
Vial/Default Value Type	Amount

Integration Parameters

Minimum Area	100
Minimum Height	100
Threshold	1.000
Peak Width	84.00

Integration Events

Time	Event	Value	Time
0.000	Inhibit Integration		6.776
7.000	Allow Negative Peaks		24.208
7.108	Forward Horizontal by Time		24.208
7.144	Force Drop Line		24.208
23.386	Set Peak Width	5.000	
23.883	Set Minimum Height	20.000	
24.208	Valley to Valley		25.690
25.700	Force Drop Line		44.000
25.700	Reverse Horizontal by Time		44.000
25.700	Allow Negative Peaks		

Noise and Drift Parameters

Calculate Detector Noise and Drift	No
Detector Noise and Drift Start Time	(Minutes)
Detector Noise and Drift End Time	(Minutes)
Detector Noise and Drift Segment Width	60(sec)

Peak p-Terphenyl

	Name	Retention Time	Conc (ppm)	Ignore	Response	A	B	C	R^2	Injection Id	Order
1	p-Terphenyl	24.933	5.000	No	1226.0	-1.0261e+003	3.7437e+002	0.000000e+000	0.99959	2670	1
2	p-Terphenyl	24.835	10.000	No	2275.2	-1.0261e+003	3.7437e+002	0.000000e+000	0.99959	2673	1
3	p-Terphenyl	24.764	25.000	No	8346.4	-1.0261e+003	3.7437e+002	0.000000e+000	0.99959	2676	1
4	p-Terphenyl	24.734	50.000	No	17746.0	-1.0261e+003	3.7437e+002	0.000000e+000	0.99959	2679	1
5	p-Terphenyl	24.730	100.000	No	36405.6	-1.0261e+003	3.7437e+002	0.000000e+000	0.99959	2682	1

LK 7-31-01

Peak Diesel Fuel

	Name	Retention Time	Conc (ppm)	Ignore	Response	A	B	C	R^2	Injection Id	Order
1	Diesel Fuel	8.465	100.000	No	41458.6	8.3248e+002	4.7522e+002	0.000000e+000	0.99988	2667	1
2	Diesel Fuel	8.496	300.000	No	129260.2	8.3248e+002	4.7522e+002	0.000000e+000	0.99988	2670	1
3	Diesel Fuel	8.504	600.000	No	303791.2	8.3248e+002	4.7522e+002	0.000000e+000	0.99988	2673	1
4	Diesel Fuel	8.476	1500.000	No	712363.6	8.3248e+002	4.7522e+002	0.000000e+000	0.99988	2676	1
5	Diesel Fuel	8.468	3000.000	No	1436758.4	8.3248e+002	4.7522e+002	0.000000e+000	0.99988	2679	1
6	Diesel Fuel	7.428	6000.000	No	2846362.2	8.3248e+002	4.7522e+002	0.000000e+000	0.99988	2682	1

LK 7-31-01

Peak Motor oil

	Name	Retention Time	Conc (ppm)	Ignore	Response	A	B	C	R^2	Injection Id	Order
1	Motor oil	27.838	100.000	No	12150.4	1.4751e+004	1.3980e+002	0.000000e+000	0.99494	2667	1
2	Motor oil	27.837	300.000	No	41118.8	1.4751e+004	1.3980e+002	0.000000e+000	0.99494	2670	1
3	Motor oil	27.810	600.000	Yes	156140.8	1.4751e+004	1.3980e+002	0.000000e+000	0.99494	2673	1
4	Motor oil	27.773	1500.000	No	244629.2	1.4751e+004	1.3980e+002	0.000000e+000	0.99494	2676	1
5	Motor oil	28.123	3000.000	No	466096.8	1.4751e+004	1.3980e+002	0.000000e+000	0.99494	2679	1
6	Motor oil	28.124	6000.000	No	833611.6	1.4751e+004	1.3980e+002	0.000000e+000	0.99494	2682	1

LK 7-31-01

Recra LabNet-Lionville Laboratory

STD 64888101 A

Queue: 073001GC18ical

Vial: 4

Channel Description: FID

Dilution Factor: 1.0

Project Name DRO_01C

Acq Method Set: DRO_BLANK705

Processing Method: 073001GC18_ical

Date Acquired: 7/30/01 3:55:56 PM

Date Processed: 7/31/01 8:46:14 AM

Injection Id: 2667

Result Id: 2783

DIESEL RANGE ORGANICS

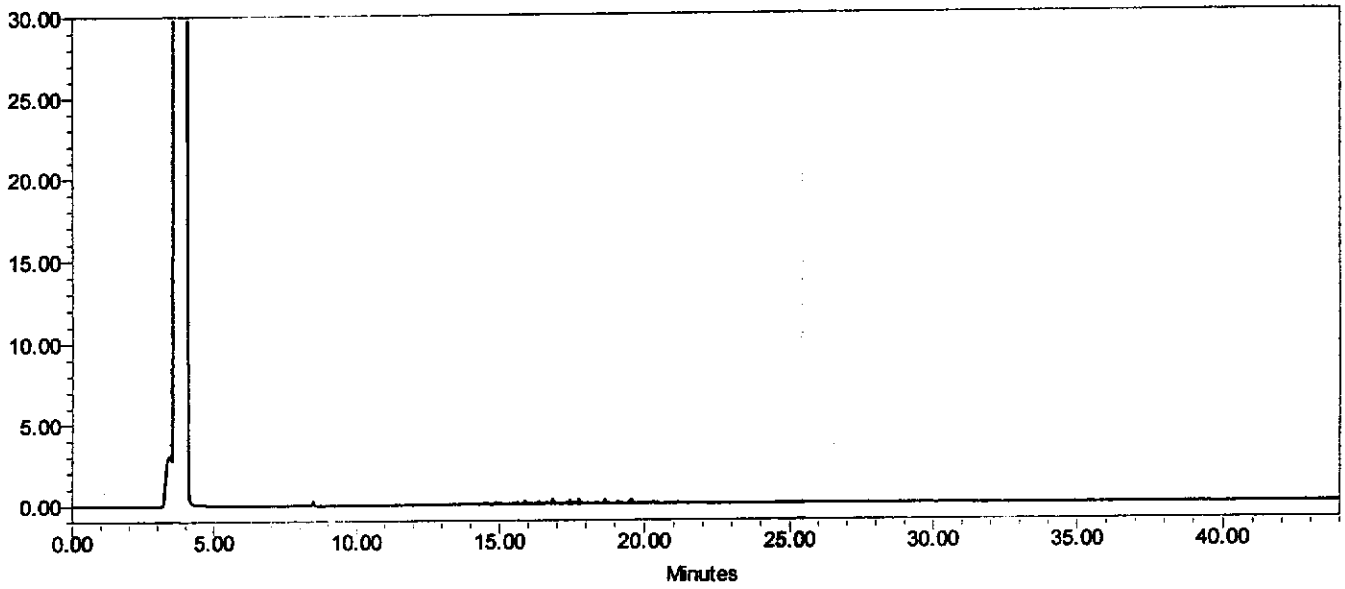

Processed By kauffmal

Manual Yes

Peak Results

	RT	Area	Height	Name	Amount
1	8.465	41459	717	Diesel Fuel	100.000
2	24.780			p-Terphenyl	
3	27.838	12150	50	Motor oil	100.000

LC 7-31-01

Recra LabNet-Lionville Laboratory

STD 64888102 B

Queue: 073001GC18ical

Vial: 5

Channel Description: FID

Dilution Factor: 1.0

Project Name DRO_01C

Acq Method Set: DRO_BLANK705

Processing Method: 073001GC18_ical

Date Acquired: 7/30/01 4:49:52 PM

Date Processed: 7/31/01 8:46:14 AM

Injection Id: 2670 Result Id: 2784

DIESEL RANGE ORGANICS

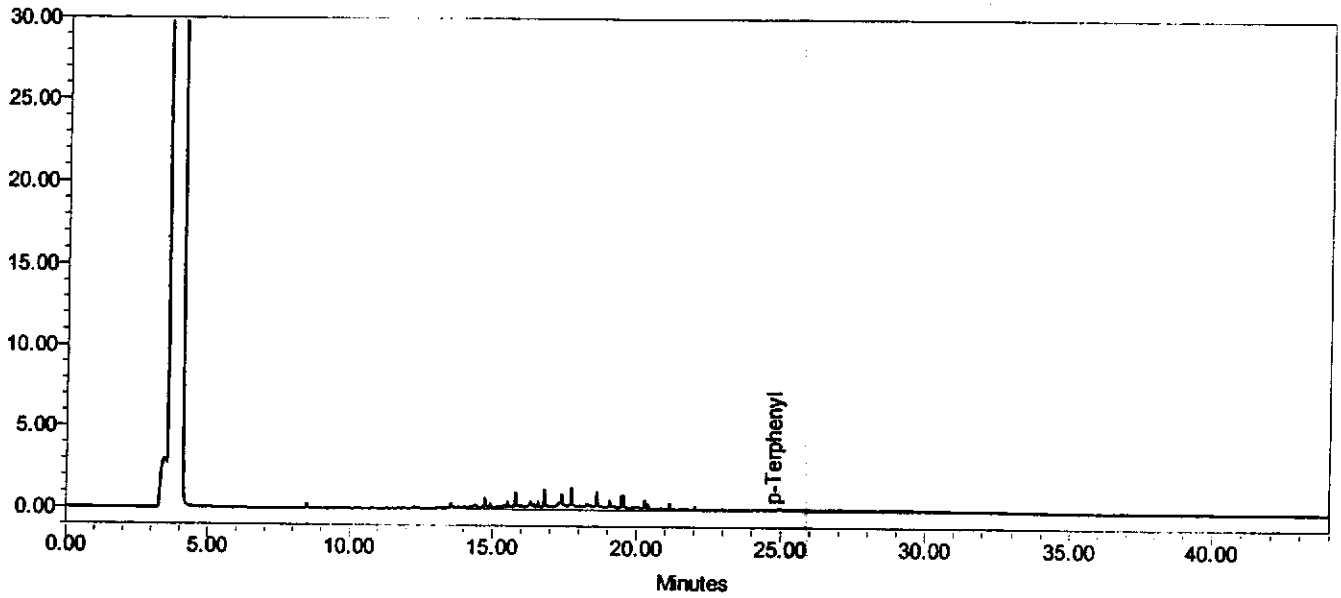

Processed By kauffmal

Manual Yes

Peak Results

	RT	Area	Height	Name	Amount
1	8.496	129260	1574	Diesel Fuel	300.000
2	24.933	1226	108	p-Terphenyl	5.000
3	27.837	41119	151	Motor oil	300.000

LK 7-31-01

Recra LabNet-Lionville Laboratory

STD 64888103 C

Queue: 073001GC18ical

Acq Method Set: DRO_BLANK705

Vial: 6

Processing Method: 073001GC18_ical

Channel Description: FID

Date Acquired: 7/30/01 5:43:43 PM

Dilution Factor: 1.0

Date Processed: 7/31/01 8:46:14 AM

Project Name DRO_01C

Injection Id: 2673

Result Id: 2785

DIESEL RANGE ORGANICS

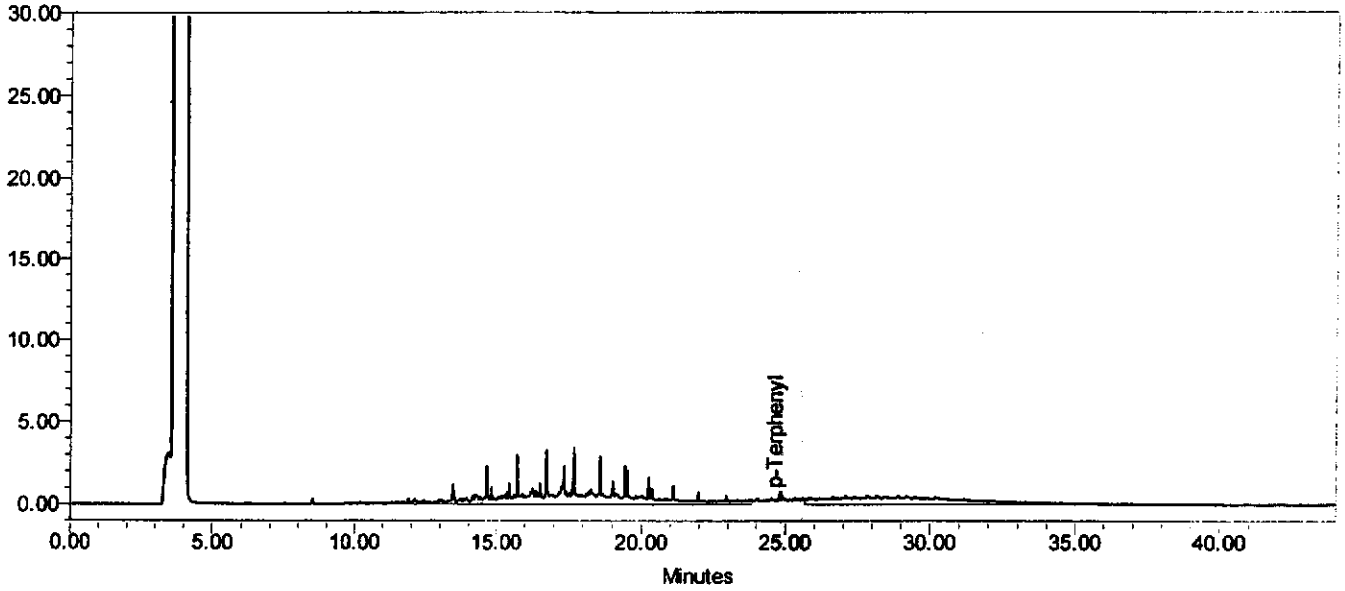

Processed By kauffmal

Manual Yes

Peak Results

	RT	Area	Height	Name	Amount
1	8.504	303791	3484	Diesel Fuel	600.000
2	24.835	2275	455	p-Terphenyl	10.000
3	27.810	156141	536	Motor oil	600.000

LK 7-31-01

Recra LabNet-Lionville Laboratory

STD 64888104 D

Queue: 073001GC18ical

Vial: 7

Channel Description: FID

Dilution Factor: 1.0

Project Name DRO_01C

Acq Method Set: DRO_BLANK705

Processing Method: 073001GC18_ical

Date Acquired: 7/30/01 6:37:32 PM

Date Processed: 7/31/01 8:46:14 AM

Injection Id: 2676

Result Id: 2786

DIESEL RANGE ORGANICS

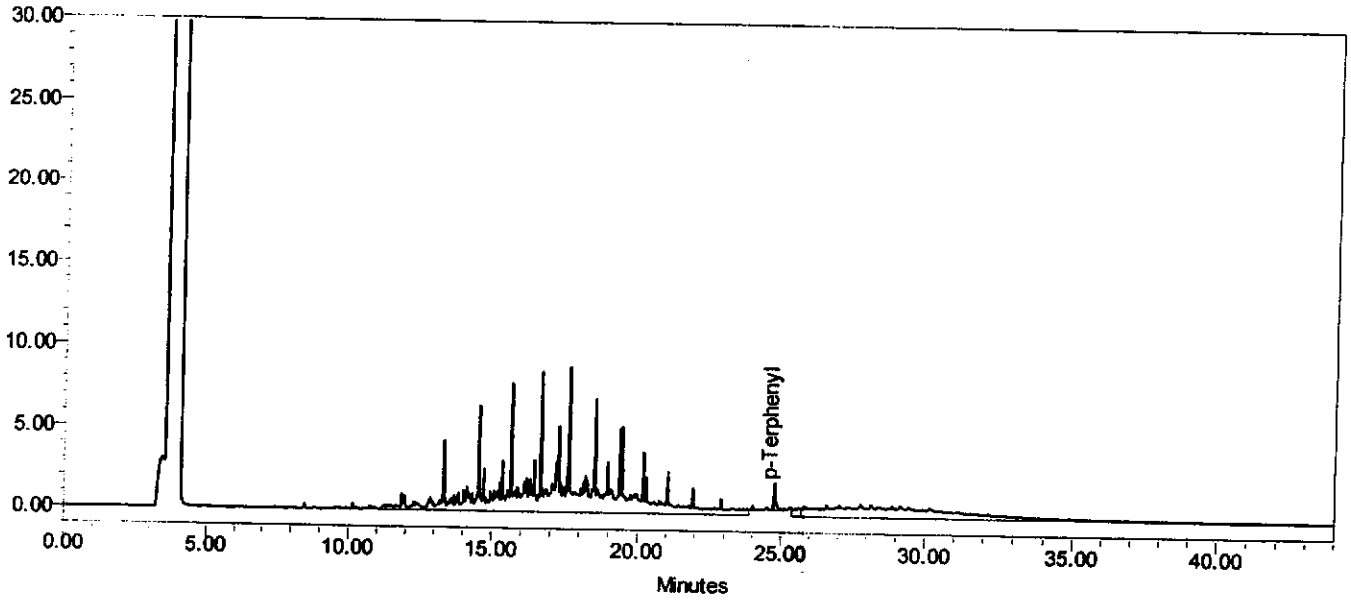

Processed By kauffmal

Manual Yes

Peak Results

	RT	Area	Height	Name	Amount
1	8.476	712364	8493	Diesel Fuel	1500.000
2	24.764	8346	1620	p-Terphenyl	25.000
3	27.773	244629	811	Motor oil	1500.000

LL 7-31-01

Recra LabNet-Lionville Laboratory

STD 64888105 E

Queue: 073001GC18ical

Acq Method Set: DRO_BLANK705

Vial: 8

Processing Method: 073001GC18_ical

Channel Description: FID

Date Acquired: 7/30/01 7:31:17 PM

Dilution Factor: 1.0

Date Processed: 7/31/01 8:46:14 AM

Project Name DRO_01C

Injection Id: 2679

Result Id: 2787

DIESEL RANGE ORGANICS

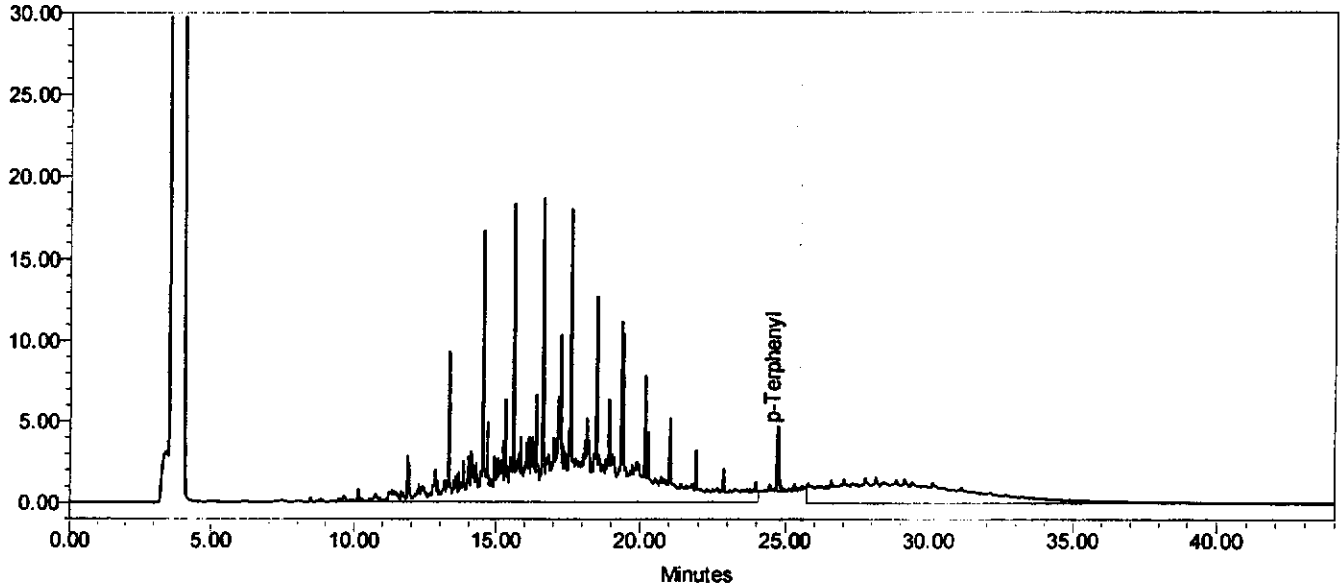

Processed By kauffmal

Manual Yes

Peak Results

	RT	Area	Height	Name	Amount
1	8.468	1436758	16735	Diesel Fuel	3000.000
2	24.734	17746	3875	p-Terphenyl	50.000
3	28.123	466097	1540	Motor oil	3000.000

LK 7/31/01

Recra LabNet-Lionville Laboratory

STD 64888106 F

Queue: 073001GC18ical

Vial: 9

Channel Description: FID

Dilution Factor: 1.0

Project Name DRO_01C

Acq Method Set: DRO_BLANK705

Processing Method: 073001GC18_ical

Date Acquired: 7/30/01 8:25:03 PM

Date Processed: 7/31/01 8:46:14 AM

Injection Id: 2682 Result Id: 2788

DIESEL RANGE ORGANICS

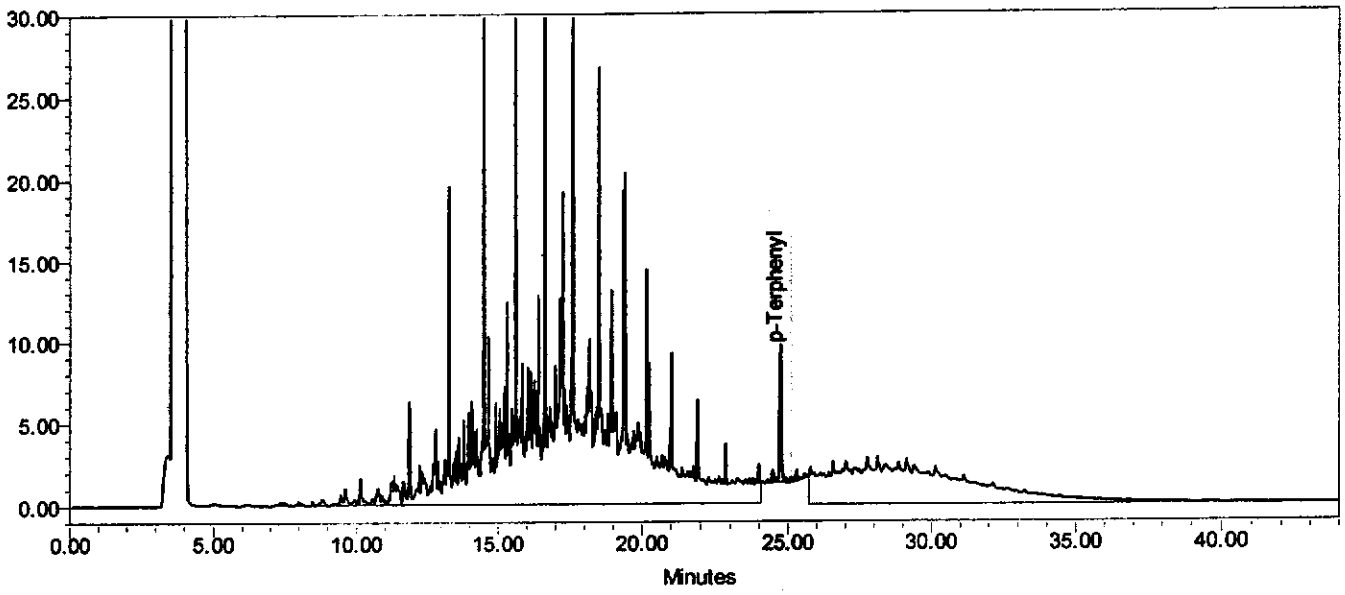

Processed By kauffmal

Manual Yes

Peak Results

	RT	Area	Height	Name	Amount
1	7.428	2846362	32472	Diesel Fuel	6000.000
2	24.730	36406	8248	p-Terphenyl	100.000
3	28.124	833612	2793	Motor oil	6000.000

LK 7-31-01

Processing Method: 081401GC18ical

Type: GC *Stored: 8/14/01 7:36:43 AM*

Method Information

Comments	OIL_DRO iCAL
Modified User	kauffmal
Locked	No
Method Id	3449
Method Version	3
Edit User	
Average By	None
RT Window %	2.00
Update RT	Average Stds
CCalRef1	
Include Internal Standard Amounts in Amount Calculation	Yes
Vial/Default Value Type	Amount

Integration Parameters

Minimum Area	20
Minimum Height	100
Threshold	1.000
Peak Width	84.00

Integration Events

Time	Event	Value	Stop
0.000	Inhibit Integration		6.776
7.000	Allow Negative Peaks		24.208
7.108	Forward Horizontal by Time		24.208
7.144	Force Drop Line		24.208
23.386	Set Peak Width	5.000	
23.883	Set Minimum Height	20.000	
24.208	Valley to Valley		25.690
25.700	Force Drop Line		44.000
25.700	Reverse Horizontal by Time		44.000
25.700	Allow Negative Peaks		

Noise and Drift Parameters

Calculate Detector Noise and Drift	No
Detector Noise and Drift Start Time	(Minutes)
Detector Noise and Drift End Time	(Minutes)
Detector Noise and Drift Segment Width	60(sec)

Peak Diesel Fuel

	Name	Retention Time	Conc (ppm)	Ignore	Response	A	B	C	R^2	Injection Id	Order
1	Diesel Fuel	8.195	100.000	No	54446.6	-2.4112e+004	7.0709e+002	0.000000e+000	0.99945	3337	1
2	Diesel Fuel	6.993	300.000	No	185561.8	-2.4112e+004	7.0709e+002	0.000000e+000	0.99945	3340	1
3	Diesel Fuel	8.185	600.000	No	433898.4	-2.4112e+004	7.0709e+002	0.000000e+000	0.99945	3344	1
4	Diesel Fuel	8.203	1500.000	No	1035372.0	-2.4112e+004	7.0709e+002	0.000000e+000	0.99945	3347	1
5	Diesel Fuel	6.947	3000.000	No	2027328.6	-2.4112e+004	7.0709e+002	0.000000e+000	0.99945	3350	1

LK 8-15-01

LK 8-14-01

Peak: Diesel Fuel

	Name	Retention Time	Conc (ppm)	Ignore	Response	A	B	C	R^2	Injection Id	Order
6	Diesel Fuel	6.906	6000.000	No	4250227.4	-2.4112e+004	7.0709e+002	0.000000e+000	0.99945	3353	1

Peak: p-Terphenyl

	Name	Retention Time	Conc (ppm)	Ignore	Response	A	B	C	R^2	Injection Id	Order
1	p-Terphenyl	24.288	1.670	No	147.0	-1.7603e+003	7.1601e+002	0.000000e+000	0.99869	3337	1
2	p-Terphenyl	24.565	5.000	No	2003.2	-1.7603e+003	7.1601e+002	0.000000e+000	0.99869	3340	1
3	p-Terphenyl	24.472	10.000	No	5840.8	-1.7603e+003	7.1601e+002	0.000000e+000	0.99869	3344	1
4	p-Terphenyl	24.459	25.000	No	15581.5	-1.7603e+003	7.1601e+002	0.000000e+000	0.99869	3347	1
5	p-Terphenyl	24.456	50.000	No	32336.9	-1.7603e+003	7.1601e+002	0.000000e+000	0.99869	3350	1
6	p-Terphenyl	24.452	100.000	No	70767.4	-1.7603e+003	7.1601e+002	0.000000e+000	0.99869	3353	1

Peak: Motor oil

	Name	Retention Time	Conc (ppm)	Ignore	Response	A	B	C	R^2	Injection Id	Order
1	Motor oil	27.576	100.000	No	29895.2	1.4998e+004	3.2701e+002	0.000000e+000	0.99928	3337	1
2	Motor oil	25.883	300.000	No	100450.2	1.4998e+004	3.2701e+002	0.000000e+000	0.99928	3340	1
3	Motor oil	28.884	600.000	Yes	364615.2	1.4998e+004	3.2701e+002	0.000000e+000	0.99928	3344	1
4	Motor oil	28.903	1500.000	No	531126.4	1.4998e+004	3.2701e+002	0.000000e+000	0.99928	3347	1
5	Motor oil	28.912	3000.000	No	1016632.0	1.4998e+004	3.2701e+002	0.000000e+000	0.99928	3350	1
6	Motor oil	28.911	6000.000	No	1961273.2	1.4998e+004	3.2701e+002	0.000000e+000	0.99928	3353	1

JK 8-14-01

Recra LabNet-Lionville Laboratory

STD 64888101 A

Queue: 081301GC18ical

Acq Method Set: DRO_BLANK705

Vial: 5

Processing Method: 081401GC18ical

Channel Description: FID

Date Acquired: 8/13/01 1:07:11 PM

Dilution Factor: 1.0

Date Processed: 8/14/01 7:36:54 AM

Project Name DRO_01C

Injection Id: 3337

Result Id: 3442

DIESEL RANGE ORGANICS

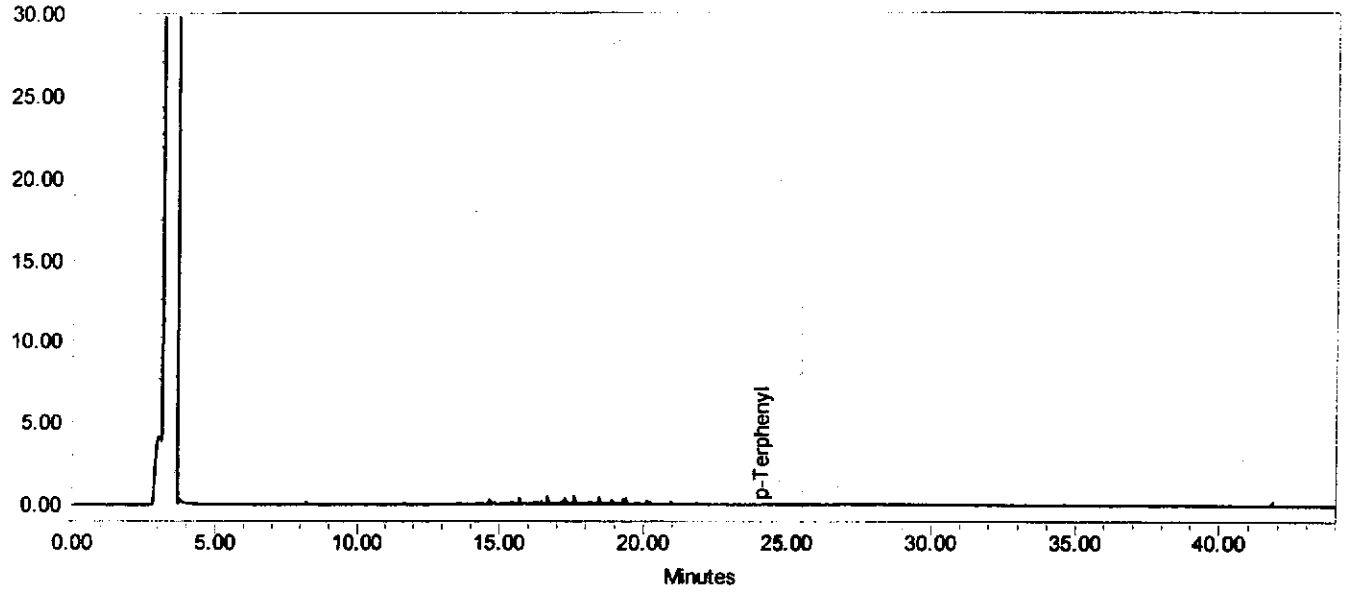

Processed By kauffmal

Manual Yes

Peak Results

	RT	Area	Height	Name	Amount
1	8.195	54447	798	Diesel Fuel	100.000
2	24.288	147	22	p-Terphenyl	1.670
3	27.576	29895	104	Motor oil	100.000

LKS-14-01

Recra LabNet-Lionville Laboratory

STD 64888102 B

Queue: 081301GC18ical

Acq Method Set: DRO_BLANK705

Vial: 6

Processing Method: 081401GC18ical

Channel Description: FID

Date Acquired: 8/13/01 2:01:16 PM

Dilution Factor: 1.0

Date Processed: 8/14/01 7:36:55 AM

Project Name DRO_01C

Injection Id: 3340

Result Id: 3444

DIESEL RANGE ORGANICS

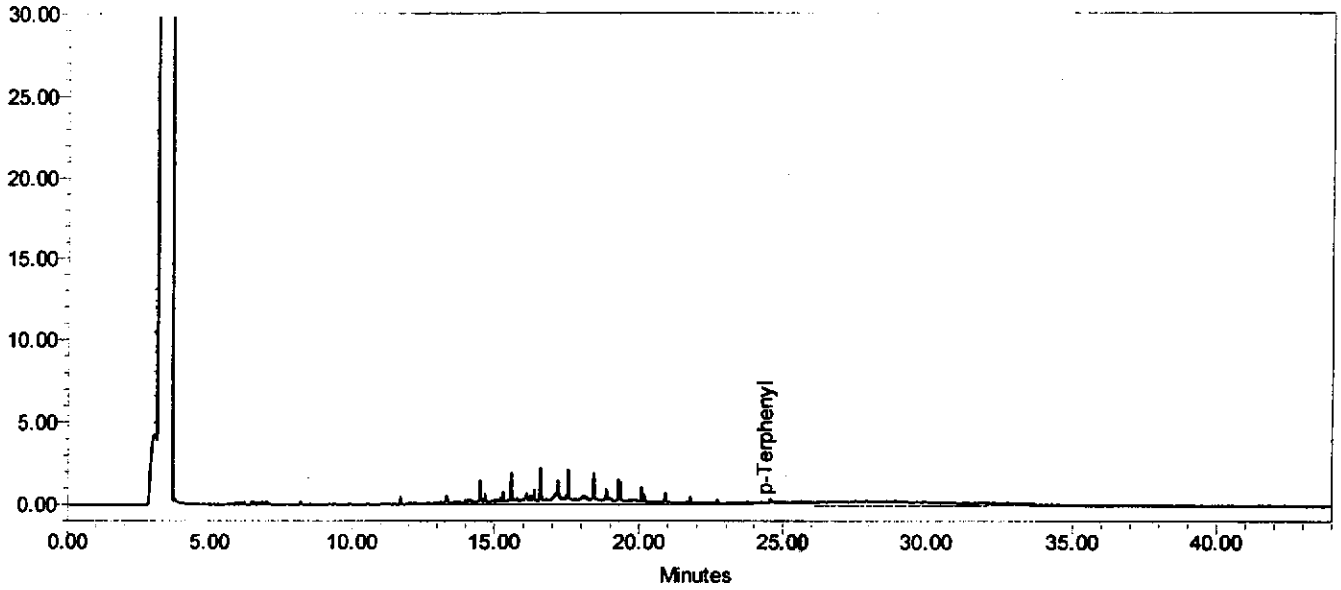

Processed By kauffmal

Manual Yes

Peak Results

	RT	Area	Height	Name	Amount
1	6.993	185562	2795	Diesel Fuel	300.000
2	24.565	2003	259	p-Terphenyl	5.000
3	25.883	100460	364	Motor oil	300.000

JK 8-14-01

Recra LabNet-Lionville Laboratory

STD 64888103 C

Queue: 081301GC18ical

Acq Method Set: DRO_BLANK705

Vial: 7

Processing Method: 081401GC18ical

Channel Description: FID

Date Acquired: 8/13/01 2:55:00 PM

Dilution Factor: 1.0

Date Processed: 8/14/01 7:36:55 AM

Project Name DRO_01C

Injection Id: 3344

Result Id: 3445

DIESEL RANGE ORGANICS

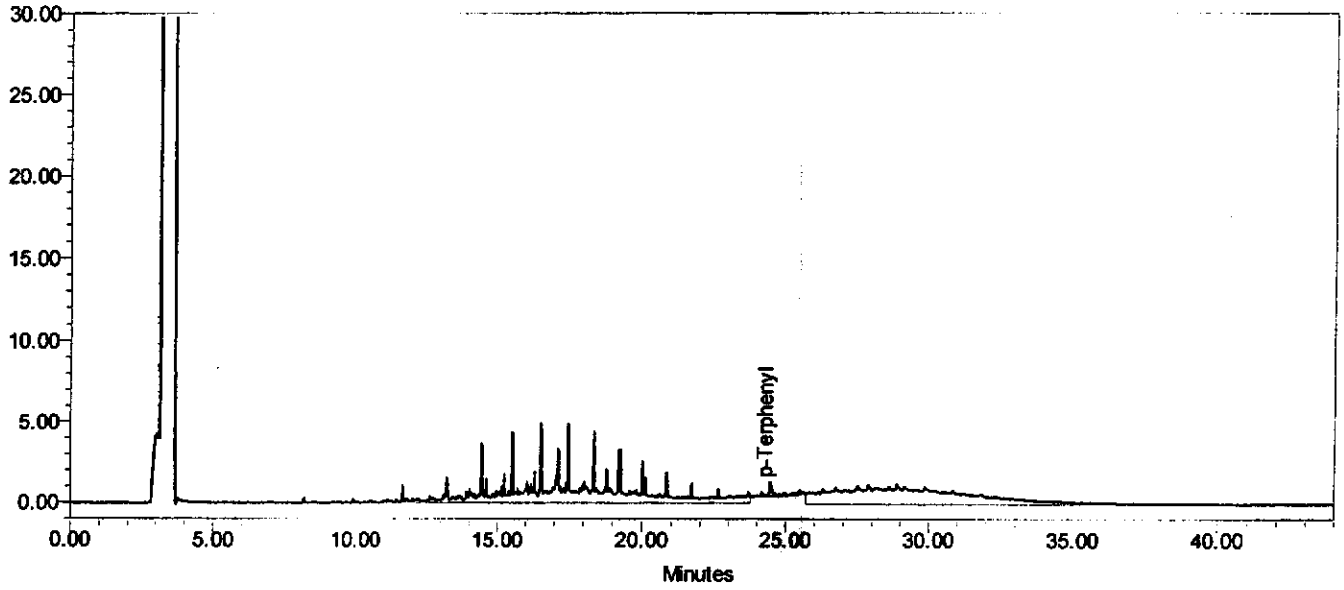

Processed By kauffmal

Manual Yes

Peak Results

	RT	Area	Height	Name	Amount
1	8.185	433898	6279	Diesel Fuel	600.000
2	24.472	5841	899	p-Terphenyl	10.000
3	28.884	364615	1232	Motor oil	600.000

LK 8-14-01

Recra LabNet-Lionville Laboratory

STD 64888104 D

Queue: 081301GC18ical

Acq Method Set: DRO_BLANK705

Vial: 8

Processing Method: 081401GC18ical

Channel Description: FID

Date Acquired: 8/13/01 3:48:46 PM

Dilution Factor: 1.0

Date Processed: 8/14/01 7:36:56 AM

Project Name DRO_01C

Injection Id: 3347

Result Id: 3446

DIESEL RANGE ORGANICS

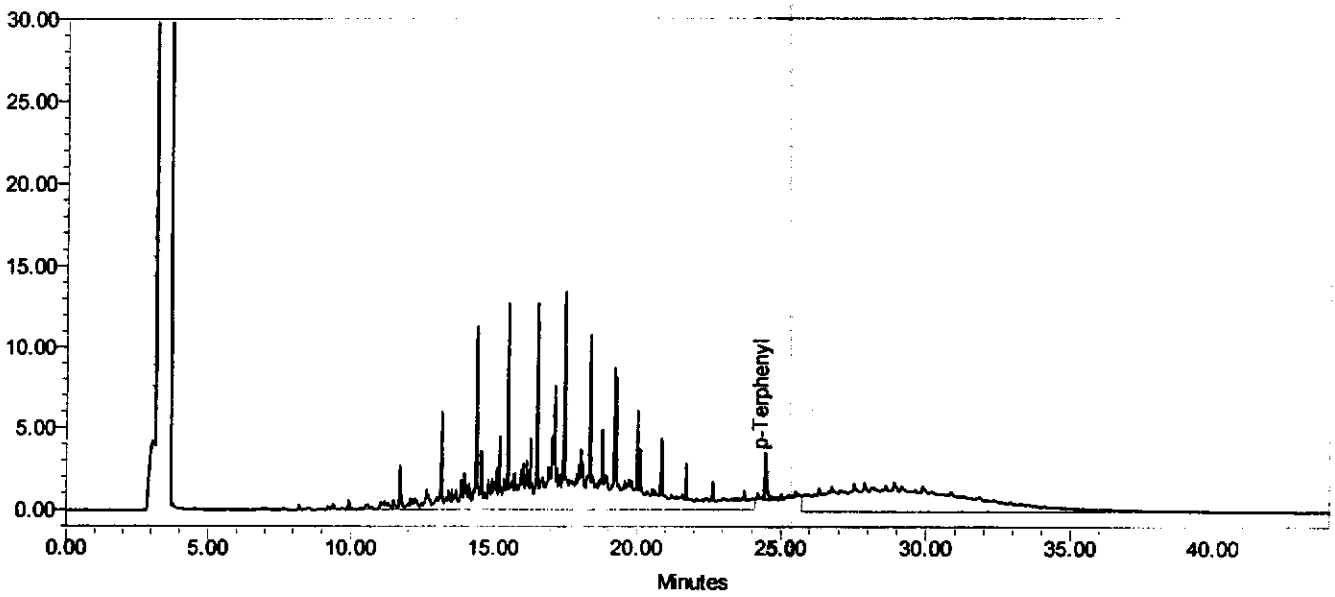

Processed By kauffmal

Manual Yes

Peak Results

	RT	Area	Height	Name	Amount
1	8.203	1035372	16288	Diesel Fuel	1500.000
2	24.459	15582	2812	p-Terphenyl	25.000
3	28.903	531126	1746	Motor oil	1500.000

JK 8-14-01

Recra LabNet-Lionville Laboratory

STD 64888105 E

Queue: 081301GC18ical

Vial: 9

Channel Description: FID

Dilution Factor: 1.0

Project Name DRO_01C

Acq Method Set: DRO_BLANK705

Processing Method: 081401GC18ical

Date Acquired: 8/13/01 4:42:48 PM

Date Processed: 8/14/01 7:36:56 AM

Injection Id: 3350 Result Id: 3447

DIESEL RANGE ORGANICS

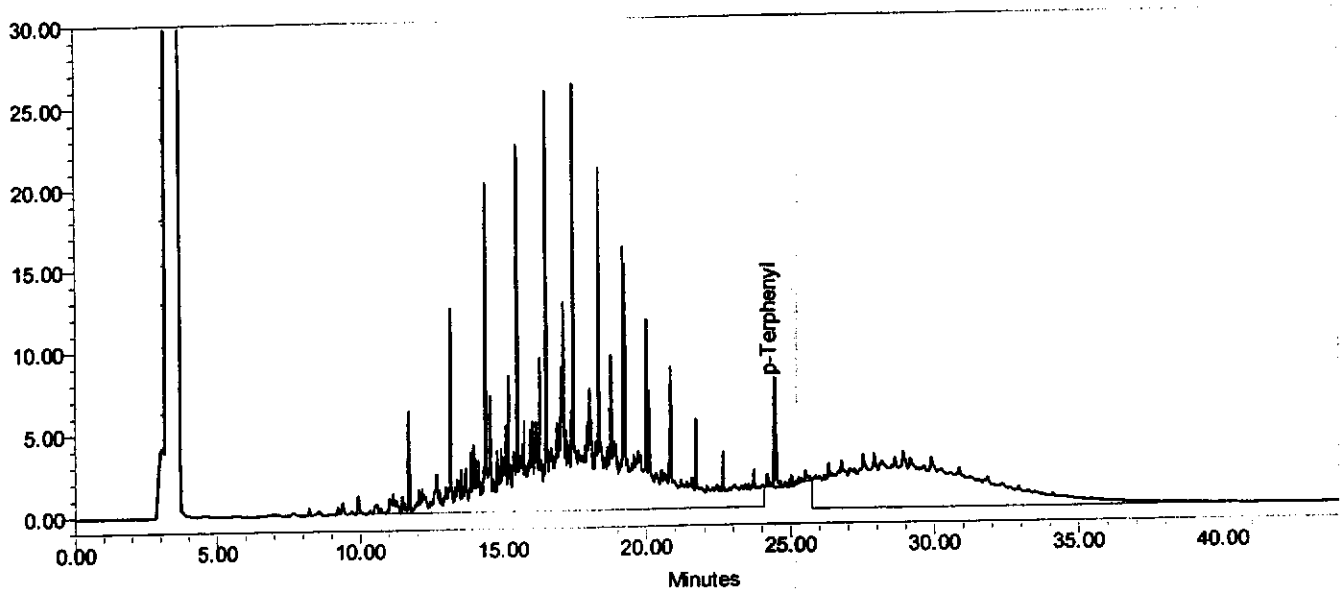

Processed By kauffmal

Manual Yes

Peak Results

	RT	Area	Height	Name	Amount
1	6.947	2027329	33949	Diesel Fuel	3000.000
2	24.456	32337	6468	p-Terphenyl	50.000
3	28.912	1016632	3381	Motor oil	3000.000

LK 8-14-01

Recra LabNet-Lionville Laboratory

STD 64888106 F

Queue: 081301GC18ical

Acq Method Set: DRO_BLANK705

Vial: 10

Processing Method: 081401GC18ical

Channel Description: FID

Date Acquired: 8/13/01 5:36:49 PM

Dilution Factor: 1.0

Date Processed: 8/14/01 7:36:54 AM

Project Name DRO_01C

Injection Id: 3353

Result Id: 3448

DIESEL RANGE ORGANICS

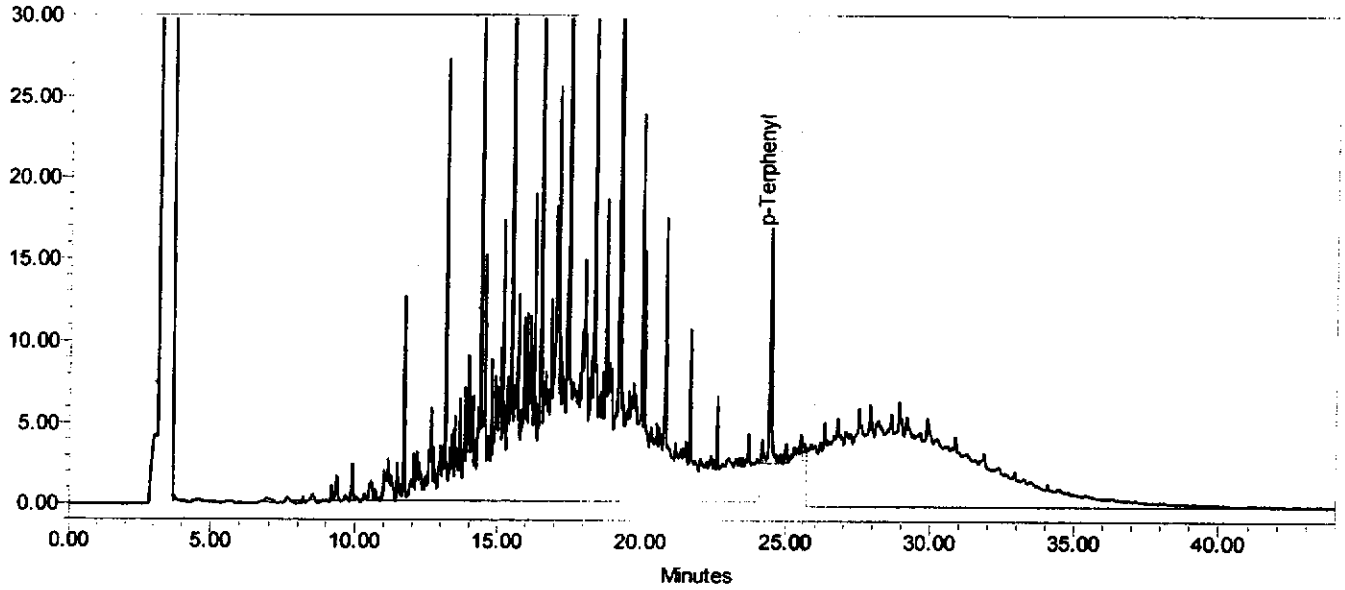

Processed By kauffmal

Manual Yes

Peak Results

	RT	Area	Height	Name	Amount
1	6.906	4250227	69378	Diesel Fuel	6000.000
2	24.452	70767	14131	p-Terphenyl	100.000
3	28.911	1961273	6482	Motor oil	6000.000

LK 8-14-01

Processing Method: 081501GC18ical

Type: GC *Stored: 8/16/01 6:54:56 AM*

Method Information

Comments	OIL DRO iCAL
Modified User	lachj
Locked	No
Method Id	3599
Method Version	1
Edit User	
Average By	None
RT Window %	2.00
Update RT	Average Stds
CCalRef1	
Include Internal Standard Amounts in Amount Calculation	Yes
Vial/Default Value Type	Amount

Integration Parameters

Minimum Area	20
Minimum Height	100
Threshold	1.000
Peak Width	84.00

Integration Events

	Time	Type	Value	Start
	0.000	Inhibit Integration		6.776
	7.000	Allow Negative Peaks		24.208
	7.108	Forward Horizontal by Time		24.208
	7.144	Force Drop Line		24.208
	23.386	Set Peak Width	5.000	
	23.883	Set Minimum Height	20.000	
	24.208	Valley to Valley		25.690
	25.700	Force Drop Line		44.000
	25.700	Reverse Horizontal by Time		44.000
	25.700	Allow Negative Peaks		

Noise and Drift Parameters

Calculate Detector Noise and Drift	No
Detector Noise and Drift Start Time	(Minutes)
Detector Noise and Drift End Time	(Minutes)
Detector Noise and Drift Segment Width	60(sec)

Peak p-Terphenyl

	Name	Retention Time	Conc (ppm)	Ignore	Response	A	B	C	R^2	Injection Id	Order
1	p-Terphenyl	24.802	1.670	No	73.6	-1.4681e+002	4.3327e+002	0.000000e+000	0.99896	3573	1
2	p-Terphenyl	24.582	5.000	No	1948.0	-1.4681e+002	4.3327e+002	0.000000e+000	0.99896	3570	1
3	p-Terphenyl	24.528	10.000	No	4198.4	-1.4681e+002	4.3327e+002	0.000000e+000	0.99896	3567	1
4	p-Terphenyl	24.482	25.000	No	10792.0	-1.4681e+002	4.3327e+002	0.000000e+000	0.99896	3564	1

Peak p-Terphenyl

	Name	Retention Time	Conc (ppm)	Ignore	Response	A	B	C	R^2	Injection Id	Order
5	p-Terphenyl	24.442	50.000	No	22458.6	-1.4681e+002	4.3327e+002	0.000000e+000	0.99896	3581	1
6	p-Terphenyl	24.475	100.000	No	42692.8	-1.4681e+002	4.3327e+002	0.000000e+000	0.99896	3557	1

Peak Diesel Fuel

	Name	Retention Time	Conc (ppm)	Ignore	Response	A	B	C	R^2	Injection Id	Order
1	Diesel Fuel	13.834	100.000	No	22490.5	-4.1726e+004	4.7343e+002	0.000000e+000	0.99985	3573	1
2	Diesel Fuel	11.747	300.000	No	79040.4	-4.1726e+004	4.7343e+002	0.000000e+000	0.99985	3570	1
3	Diesel Fuel	9.466	600.000	No	237319.7	-4.1726e+004	4.7343e+002	0.000000e+000	0.99985	3567	1
4	Diesel Fuel	9.281	1500.000	No	676888.0	-4.1726e+004	4.7343e+002	0.000000e+000	0.99985	3564	1
5	Diesel Fuel	6.974	3000.000	No	1382095.6	-4.1726e+004	4.7343e+002	0.000000e+000	0.99985	3561	1
6	Diesel Fuel	6.998	6000.000	No	2796255.9	-4.1726e+004	4.7343e+002	0.000000e+000	0.99985	3557	1

J 12/22/01

Peak Motor oil

	Name	Retention Time	Conc (ppm)	Ignore	Response	A	B	C	R^2	Injection Id	Order
1	Motor oil	25.739	100.000	No	60240.0	4.7455e+004	1.8497e+002	0.000000e+000	0.99874	3573	1
2	Motor oil	25.911	300.000	No	86224.0	4.7455e+004	1.8497e+002	0.000000e+000	0.99874	3570	1
3	Motor oil	25.877	600.000	Yes	201535.6	4.7455e+004	1.8497e+002	0.000000e+000	0.99874	3567	1
4	Motor oil	28.685	1500.000	No	343224.4	4.7455e+004	1.8497e+002	0.000000e+000	0.99874	3564	1
5	Motor oil	27.842	3000.000	No	617872.4	4.7455e+004	1.8497e+002	0.000000e+000	0.99874	3561	1
6	Motor oil	28.903	6000.000	No	1145840.0	4.7455e+004	1.8497e+002	0.000000e+000	0.99874	3557	1

Recra LabNet-Lionville Laborator

STD 64888106 F

Queue: 081401GC18

Vial: 3

Channel Description: FID

Dilution Factor: 1.0

Project Name DRO_01C

Acq Method Set: DRO_OIL_BLANK814

Processing Method: 081501GC18ical

Date Acquired: 8/15/01 6:40:40 PM

Date Processed: 8/16/01 7:29:33 AM

Injection Id: 3557 Result Id: 3615

DIESEL RANGE ORGANICS

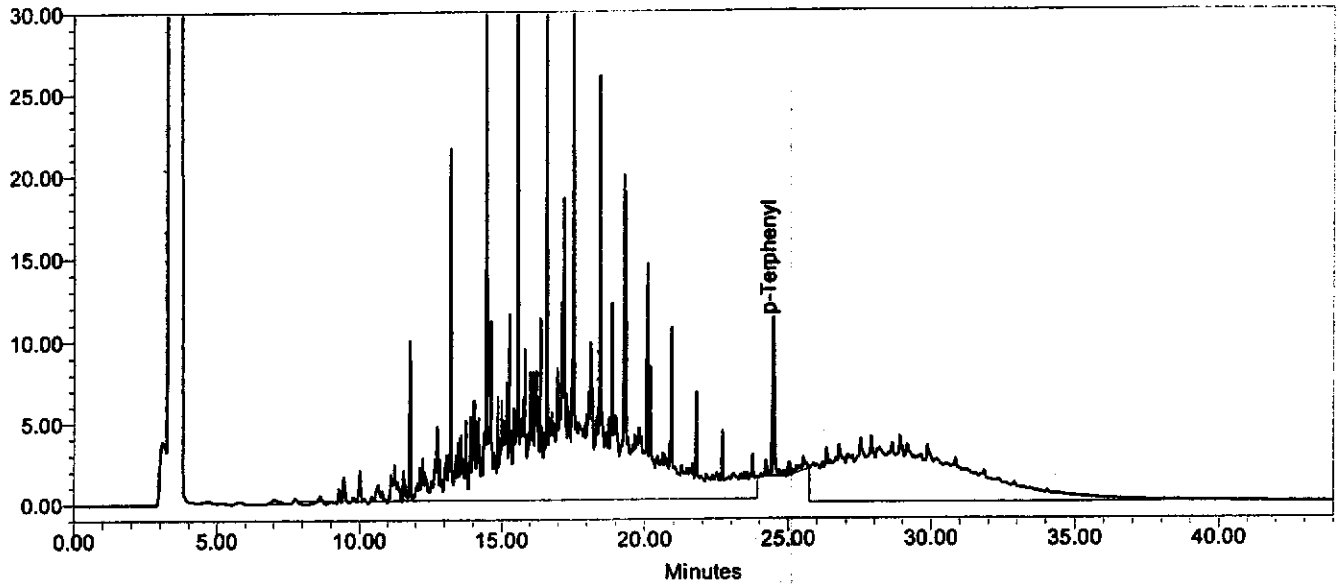

Processed By lachj

Manual Yes

J-8/22/01

Peak Results

	RT	Area	Height	Name	Amount
1	6.998	2796256	51049	Diesel Fuel	6000.000
2	24.475	42693	9655	p-Terphenyl	100.000
3	28.903	1145840	4038	Motor oil	6000.000

Recra LabNet-Lionville Laborator

STD 64888105 E

Queue: 081401GC18

Vial: 4

Channel Description: FID

Dilution Factor: 1.0

Project Name DRO_01C

Acq Method Set: DRO_OIL_BLANK814

Processing Method: 081501GC18ical

Date Acquired: 8/15/01 7:34:36 PM

Date Processed: 8/16/01 7:29:40 AM

Injection Id: 3561 Result Id: 3617

DIESEL RANGE ORGANICS

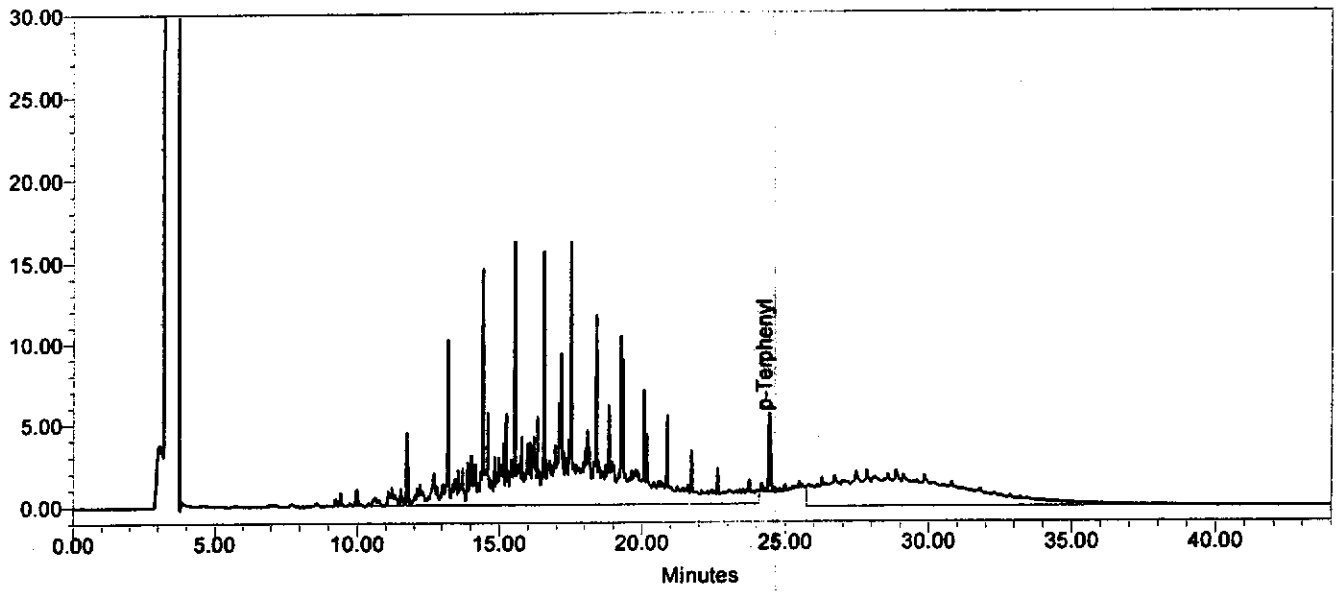

Processed By lachj

Manual Yes

J-8/22/01

Peak Results

	RT	Area	Height	Name	Amount
1	6.974	1382096	23779	Diesel Fuel	3000.000
2	24.442	22459	4619	p-Terphenyl	50.000
3	27.842	617872	2100	Motor oil	3000.000

Recra LabNet-Lionville Laborator

STD 64888104 D

Queue: 081401GC18

Vial: 5

Channel Description: FID

Dilution Factor: 1.0

Project Name DRO_01C

Acq Method Set: DRO_OIL_BLANK814

Processing Method: 081501GC18ical

Date Acquired: 8/15/01 8:28:19 PM

Date Processed: 8/16/01 7:29:45 AM

Injection Id: 3564 Result Id: 3618

DIESEL RANGE ORGANICS

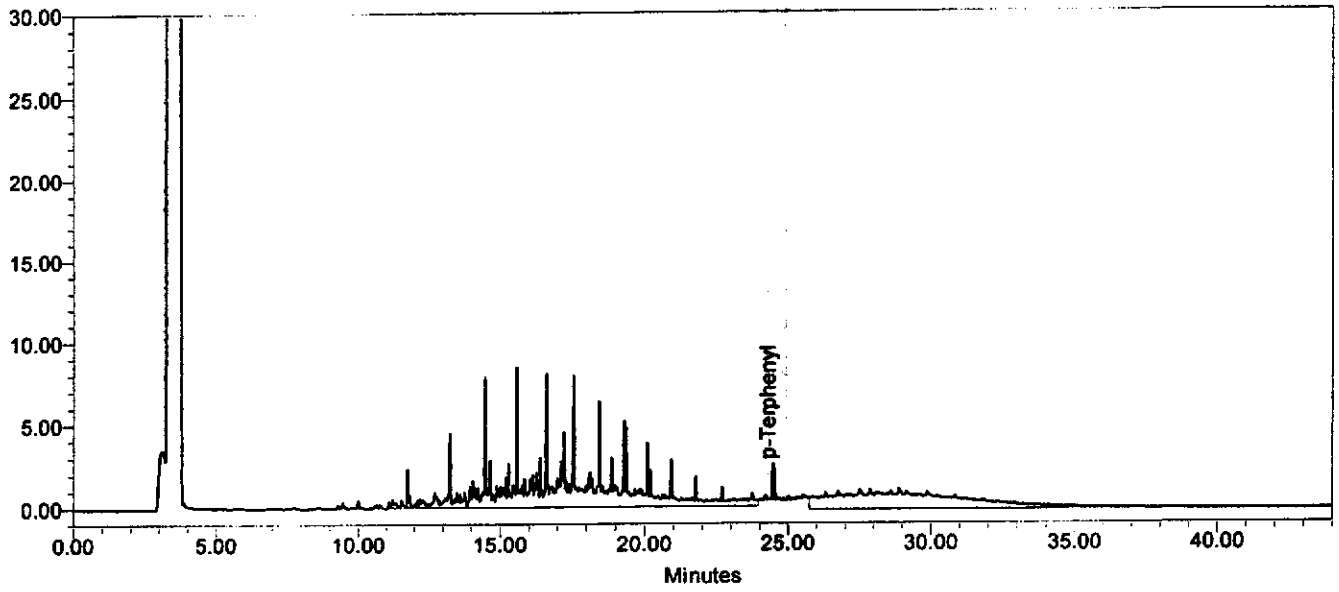

Processed By lachj

Manual Yes

Peak Results

	RT	Area	Height	Name	Amount
1	9.281	676888	11807	Diesel Fuel	1500.000
2	24.482	10792	2155	p-Terphenyl	25.000
3	28.885	343224	1201	Motor oil	1500.000

JR 8/22/01

Recra LabNet-Lionville Laborator

STD 64888103 C

Queue: 081401GC18

Vial: 6

Channel Description: FID

Dilution Factor: 1.0

Project Name DRO_01C

Acq Method Set: DRO_OIL_BLANK814

Processing Method: 081501GC18ical

Date Acquired: 8/15/01 9:22:05 PM

Date Processed: 8/16/01 7:29:48 AM

Injection Id: 3567 Result Id: 3619

DIESEL RANGE ORGANICS

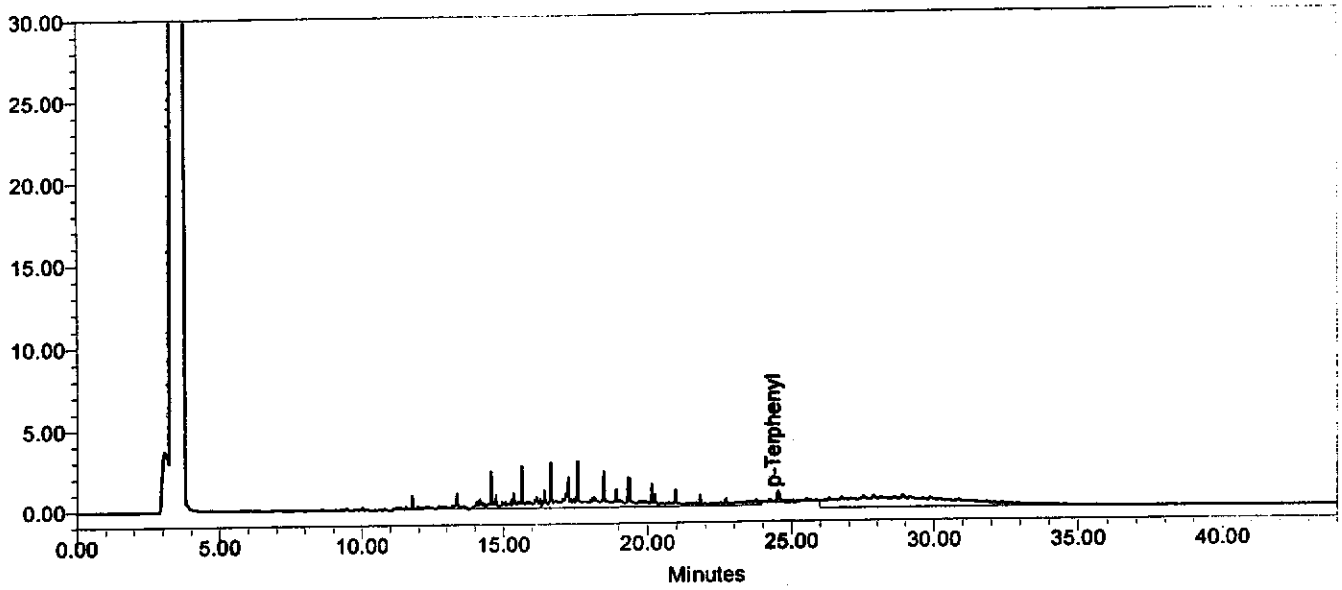

Processed By lachj

Manual Yes

JK 8/21/01

Peak Results

	RT	Area	Height	Name	Amount
1	9.466	237320	4872	Diesel Fuel	600.000
2	24.528	4198	665	p-Terphenyl	10.000
3	25.877	201536	810	Motor oil	600.000

Recra LabNet-Lionville Laborator

STD 64888102 B

Queue: 081401GC18

Vial: 7

Channel Description: FID

Dilution Factor: 1.0

Project Name DRO_01C

Acq Method Set: DRO_OIL_BLANK814

Processing Method: 081501GC18ical

Date Acquired: 8/15/01 10:15:43 PM

Date Processed: 8/16/01 7:29:52 AM

Injection Id: 3570 Result Id: 3620

DIESEL RANGE ORGANICS

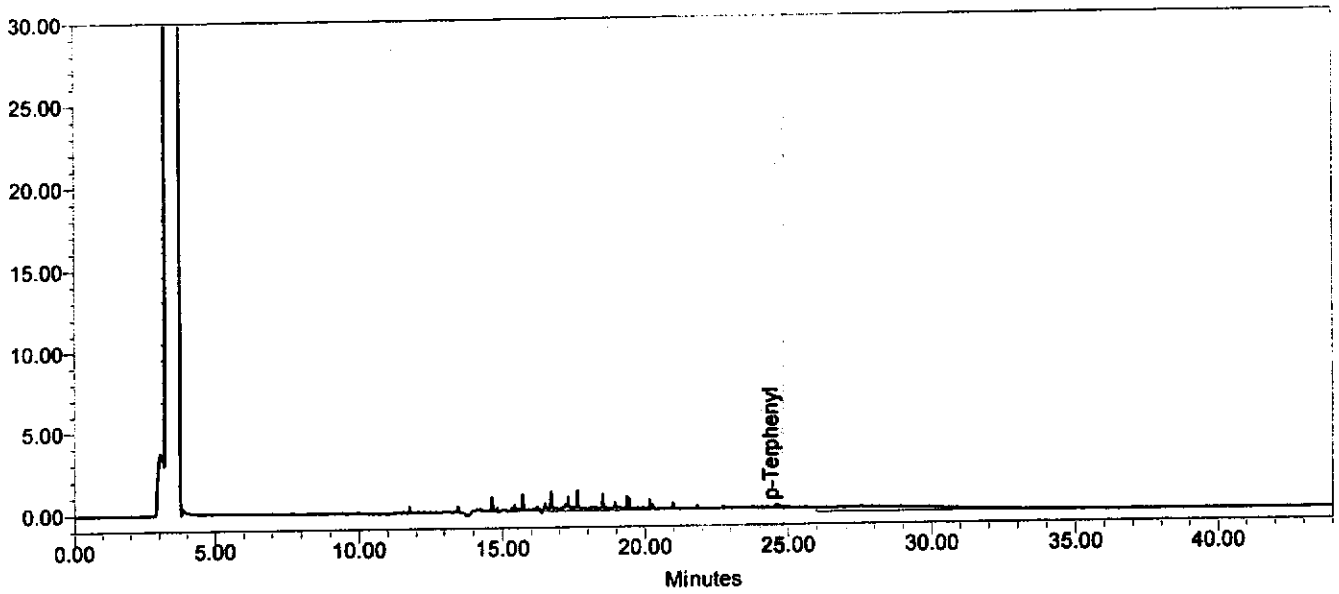

Processed By lachj

Manual Yes

ms 8/22/01

Peak Results

	RT	Area	Height	Name	Amount
1	11.747	79040	3901	Diesel Fuel	300.000
2	24.582	1948	213	p-Terphenyl	5.000
3	25.911	86224	372	Motor oil	300.000

Recra LabNet-Lionville Laborator

STD 64888101 A

Queue: 081401GC18

Vial: 8

Channel Description: FID

Dilution Factor: 1.0

Project Name DRO_01C

Acq Method Set: DRO_OIL_BLANK814

Processing Method: 081501GC18ical

Date Acquired: 8/15/01 11:09:20 PM

Date Processed: 8/16/01 7:29:57 AM

Injection Id: 3573 Result Id: 3621

DIESEL RANGE ORGANICS

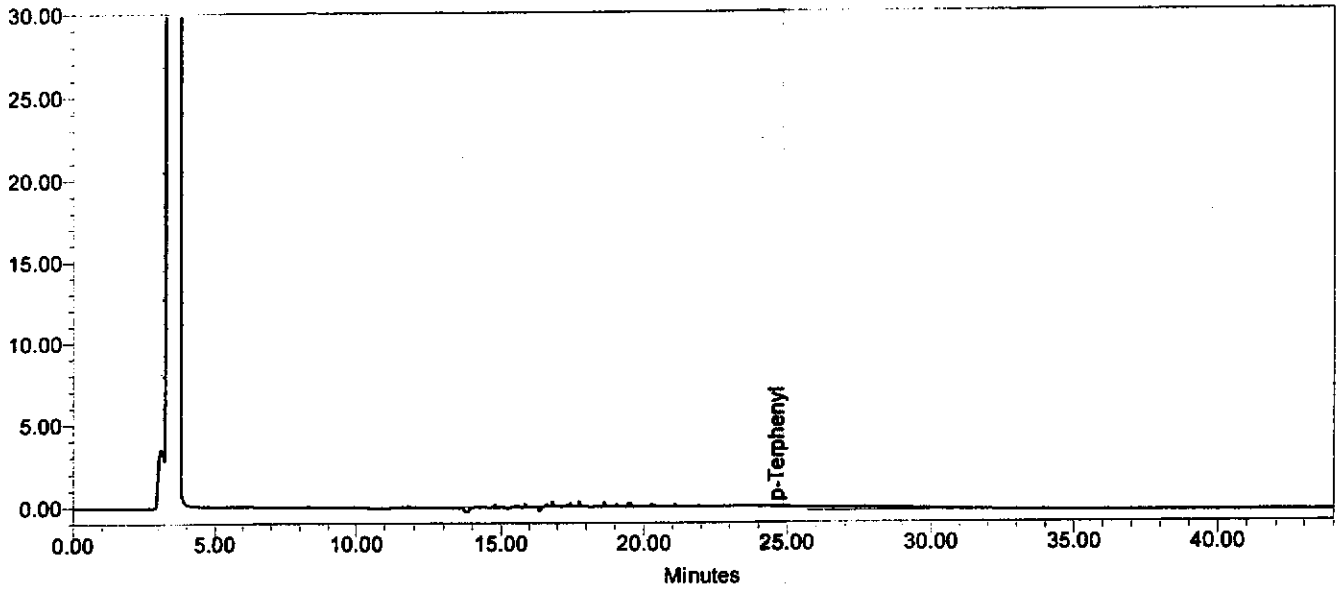

Processed By lachj

Manual Yes

J-8/22/01

Peak Results

	RT	Area	Height	Name	Amount
1	13.834	22490	2437	Diesel Fuel	100.000
2	24.802	74	20	p-Terphenyl	1.670
3	25.739	60240	256	Motor oil	100.000

Processing Method: 082101GC18ical

Type: GC *Stored: 8/22/01 7:28:43 AM*

Method Information

Comments	OIL DRO iCAL
Modified User	lachj
Locked	No
Method Id	3876
Method Version	1
Edit User	
Average By	None
RT Window %	2.00
Update RT	Average Stds
CCalRef1	
Include Internal Standard Amounts in Amount Calculation	Yes
Vial/Default Value Type	Amount

Integration Parameters

Minimum Area	20
Minimum Height	100
Threshold	1.000
Peak Width	84.00

Integration Events

	Time	Type	Value	Stop
1	0.000	Inhibit Integration		6.776
2	7.000	Allow Negative Peaks		24.208
3	7.108	Forward Horizontal by Time		24.208
4	7.144	Force Drop Line		24.208
5	23.386	Set Peak Width	5.000	
6	23.883	Set Minimum Height	20.000	
7	24.208	Valley to Valley		25.690
8	25.700	Force Drop Line		44.000
9	25.700	Reverse Horizontal by Time		44.000
10	25.700	Allow Negative Peaks		

Noise and Drift Parameters

Calculate Detector Noise and Drift	No
Detector Noise and Drift Start Time	(Minutes)
Detector Noise and Drift End Time	(Minutes)
Detector Noise and Drift Segment Width	60(sec)

Peak p-Terphenyl

	Name	Retention Time	Conc (ppm)	Ignore	Response	A	B	C	R^2	Injection Id	Order
1	p-Terphenyl	24.299	1.670	No	162.8	-1.3954e+003	6.3767e+002	0.000000e+000	0.99944	3844	1
2	p-Terphenyl	24.633	5.000	No	1685.6	-1.3954e+003	6.3767e+002	0.000000e+000	0.99944	3840	1
3	p-Terphenyl	24.446	10.000	No	5123.2	-1.3954e+003	6.3767e+002	0.000000e+000	0.99944	3834	1
4	p-Terphenyl	24.420	25.000	No	14561.6	-1.3954e+003	6.3767e+002	0.000000e+000	0.99944	3830	1

J 8/24/01

Peak p-Terphenyl

	Name	Retention Time	Conc (ppm)	Ignore	Response	A	B	C	R^2	Injection Id	Order
5	p-Terphenyl	24.389	50.000	No	29443.6	-1.3954e+003	6.3767e+002	0.000000e+000	0.99944	3826	1
6	p-Terphenyl	24.384	100.000	No	62873.2	-1.3954e+003	6.3767e+002	0.000000e+000	0.99944	3822	1

Peak Diesel Fuel

	Name	Retention Time	Conc (ppm)	Ignore	Response	A	B	C	R^2	Injection Id	Order
1	Diesel Fuel	8.225	100.000	No	47847.1	-2.7829e+004	6.8435e+002	0.000000e+000	0.99971	3844	1
2	Diesel Fuel	8.201	300.000	No	169573.9	-2.7829e+004	6.8435e+002	0.000000e+000	0.99971	3840	1
3	Diesel Fuel	8.182	600.000	No	407344.9	-2.7829e+004	6.8435e+002	0.000000e+000	0.99971	3834	1
4	Diesel Fuel	9.224	1500.000	No	1001825.6	-2.7829e+004	6.8435e+002	0.000000e+000	0.99971	3830	1
5	Diesel Fuel	7.043	3000.000	No	1977063.9	-2.7829e+004	6.8435e+002	0.000000e+000	0.99971	3826	1
6	Diesel Fuel	6.907	6000.000	No	4099358.9	-2.7829e+004	6.8435e+002	0.000000e+000	0.99971	3822	1

Peak Motor oil

	Name	Retention Time	Conc (ppm)	Ignore	Response	A	B	C	R^2	Injection Id	Order
1	Motor oil	27.574	100.000	No	26601.6	1.6537e+004	2.8972e+002	0.000000e+000	0.99877	3844	1
2	Motor oil	25.828	300.000	No	67255.5	1.6537e+004	2.8972e+002	0.000000e+000	0.99877	3840	1
3	Motor oil	28.827	600.000	Yes	316452.8	1.6537e+004	2.8972e+002	0.000000e+000	0.99877	3834	1
4	Motor oil	28.851	1500.000	No	479242.8	1.6537e+004	2.8972e+002	0.000000e+000	0.99877	3830	1
5	Motor oil	28.839	3000.000	No	911489.6	1.6537e+004	2.8972e+002	0.000000e+000	0.99877	3826	1
6	Motor oil	28.840	6000.000	No	1736082.8	1.6537e+004	2.8972e+002	0.000000e+000	0.99877	3822	1

Recra LabNet-Lionville Laborator

STD 64888101 A

Queue: 082101GC18_ICAL

Vial: 8

Channel Description: FID

Dilution Factor: 1.0

Project Name DRO_01C

Acq Method Set: DRO_OIL_BLANK815

Processing Method: 082101GC18ical

Date Acquired: 8/21/01 6:17:40 PM

Date Processed: 8/22/01 7:56:36 AM

Injection Id: 3844 Result Id: 3884

DIESEL RANGE ORGANICS

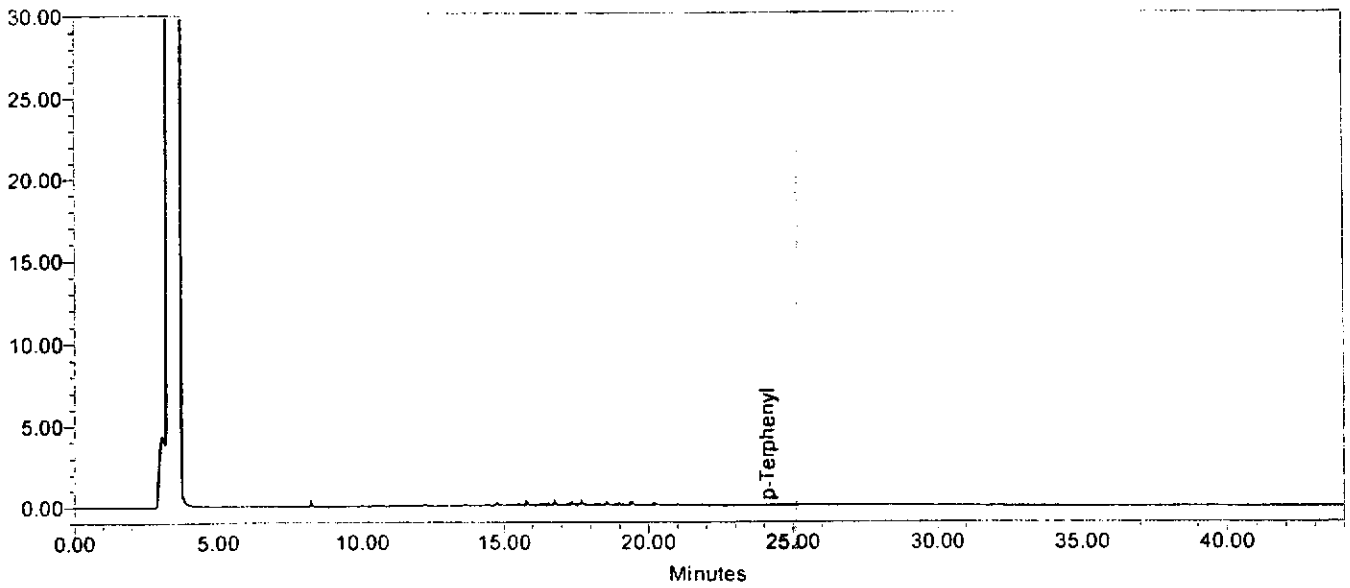

Processed By lachj

Manual Yes

Peak Results

	RT	Int Type	Area	Height	Name	Amount
1	8.225	Group	47847	795	Diesel Fuel	100.000
2	24.299	VB	163	21	p-Terphenyl	1.670
3	27.574	Group	26602	118	Motor oil	100.000

Recra LabNet-Lionville Laborator

STD 64888102 B

Queue: 082101GC18_ICAL

Acq Method Set: DRO_OIL_BLANK815

Vial: 7

Processing Method: 082101GC18ical

Channel Description: FID

Date Acquired: 8/21/01 5:24:03 PM

Dilution Factor: 1.0

Date Processed: 8/22/01 7:56:32 AM

Project Name DRO_01C

Injection Id: 3840

Result Id: 3883

DIESEL RANGE ORGANICS

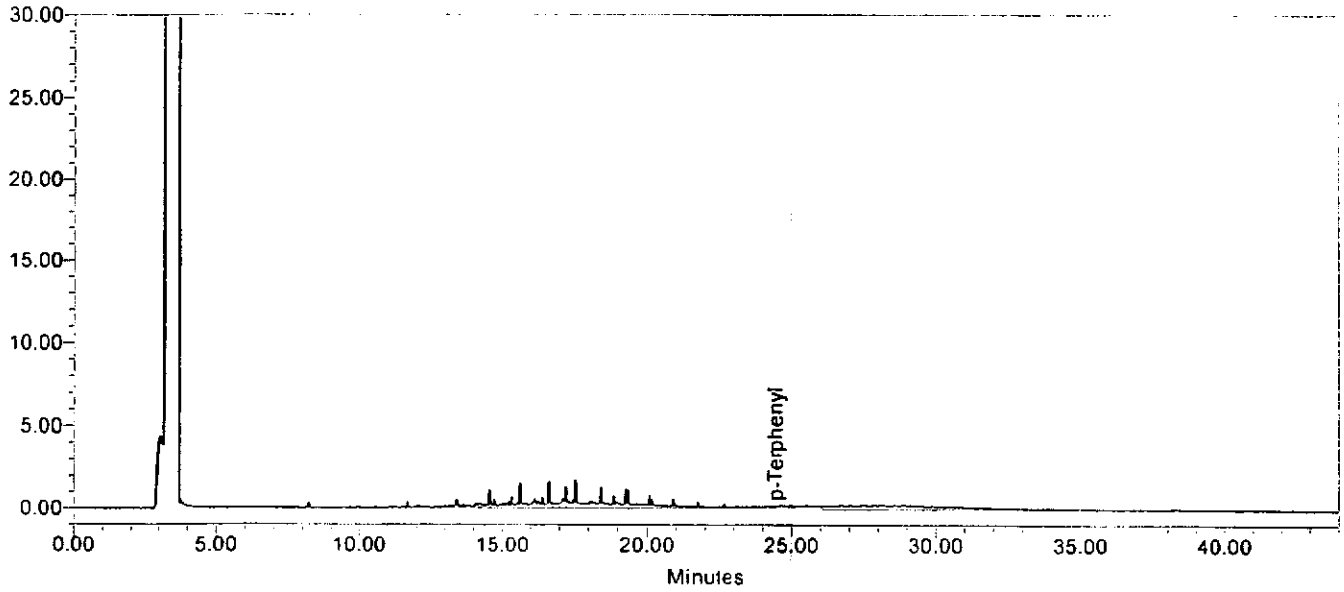

Processed By lachj

Manual Yes

Peak Results

	RT	Int Type	Area	Height	Name	Amount
1	8.201	Group	169574	2341	Diesel Fuel	300.000
2	24.633	BB	1686	110	p-Terphenyl	5.000
3	25.828	Group	87255	339	Motor oil	300.000

Recra LabNet-Lionville Laborator

STD 64888103 C

Queue: 082101GC18_ICAL

Acq Method Set: DRO_OIL_BLANK815

Vial: 6

Processing Method: 082101GC18ical

Channel Description: FID

Date Acquired: 8/21/01 4:30:09 PM

Dilution Factor: 1.0

Date Processed: 8/22/01 7:56:26 AM

Project Name DRO_01C

Injection Id: 3834

Result Id: 3882

DIESEL RANGE ORGANICS

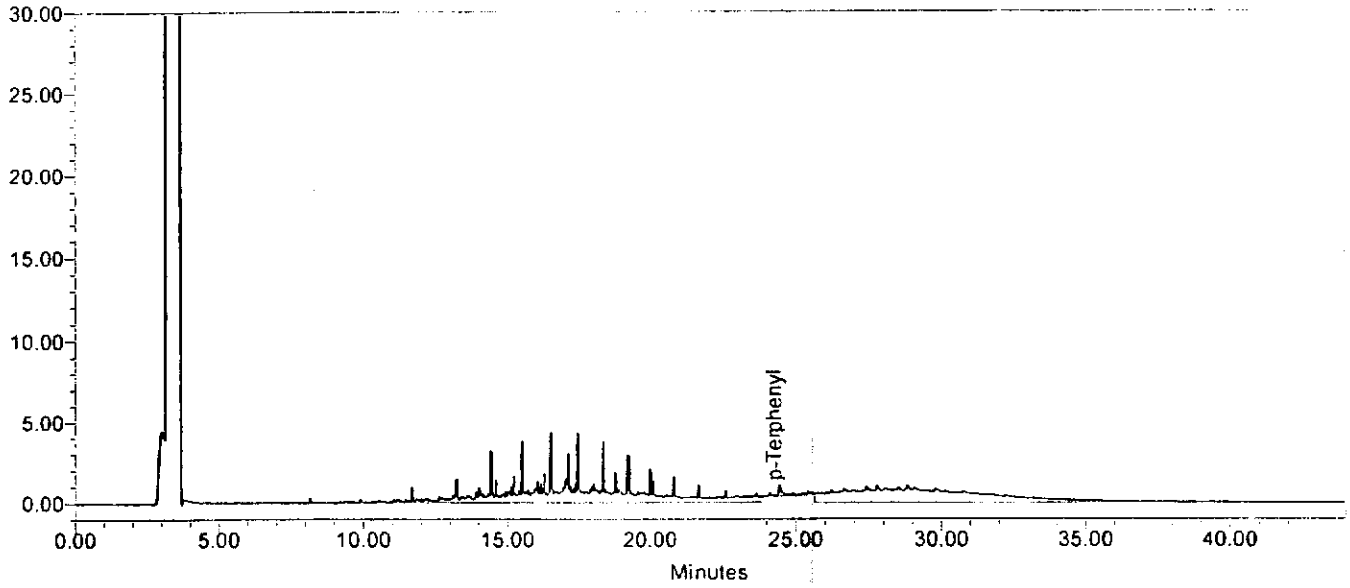

Processed By lachj

Manual Yes

Peak Results

	RT	Int Type	Area	Height	Name	Amount
1	8.182	Group	407345	5451	Diesel Fuel	600.000
2	24.446	BB	5123	679	p-Terphenyl	10.000
3	28.827	Group	316453	1063	Motor oil	600.000

STD 64888104 D

Queue: 082101GC18_ICAL

Vial: 5

Channel Description: FID

Dilution Factor: 1.0

Project Name DRO_01C

Acq Method Set: DRO_OIL_BLANK815

Processing Method: 082101GC18ical

Date Acquired: 8/21/01 3:36:13 PM

Date Processed: 8/22/01 7:56:23 AM

Injection Id: 3830 Result Id: 3881

DIESEL RANGE ORGANICS

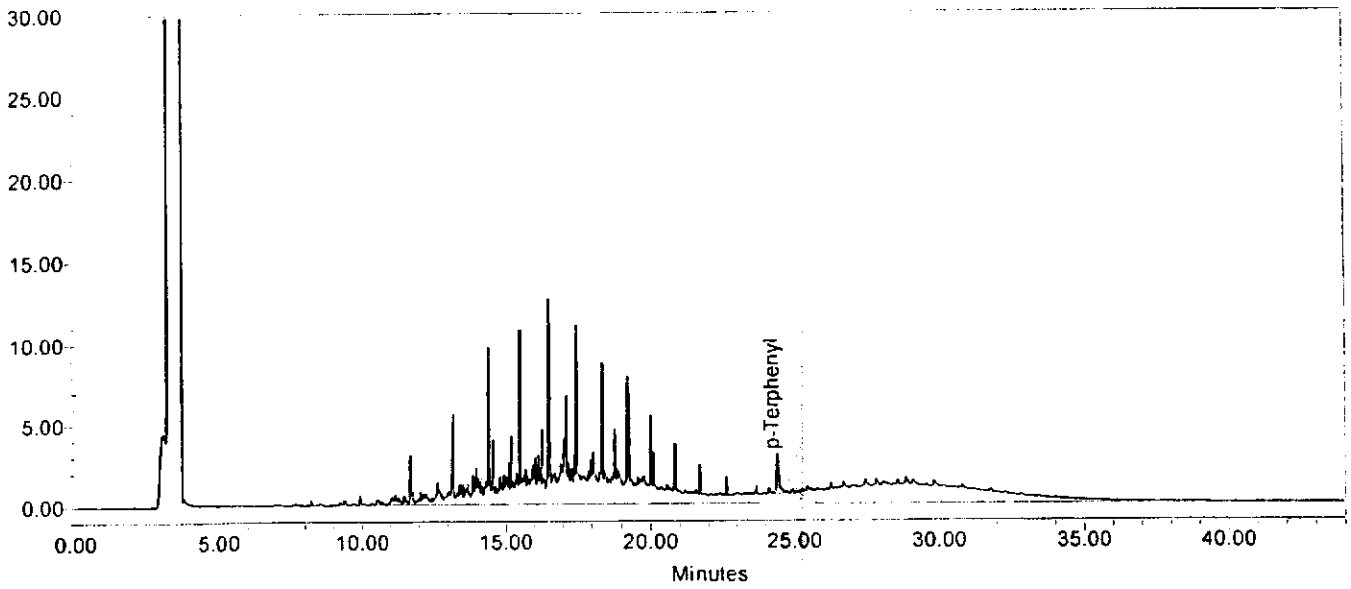

Processed By lachj

Manual Yes

Peak Results

	RT	Int Type	Area	Height	Name	Amount
1	9.224	Group	1001826	14989	Diesel Fuel	1500.000
2	24.420	BB	14562	2493	p-Terphenyl	25.000
3	28.851	Group	479243	1588	Motor oil	1500.000

Recra LabNet-Lionville Laborator

STD 64888105 E

Queue: 082101GC18_ICAL

Acq Method Set: DRO_OIL_BLANK815

Vial: 4

Processing Method: 082101GC18ical

Channel Description: FID

Date Acquired: 8/21/01 2:42:21 PM

Dilution Factor: 1.0

Date Processed: 8/22/01 7:56:18 AM

Project Name DRO_01C

Injection Id: 3826

Result Id: 3880

DIESEL RANGE ORGANICS

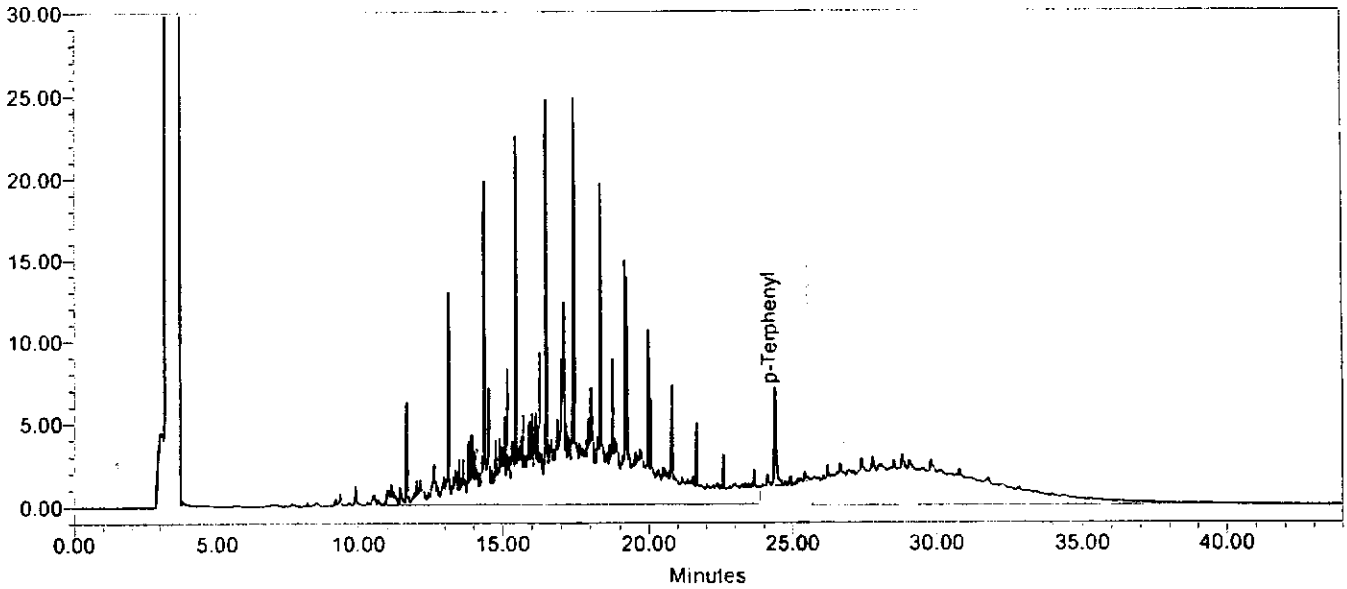

Processed By lachj

Manual Yes

Peak Results

	RT	Int Type	Area	Height	Name	Amount
1	7.043	Group	1977064	32304	Diesel Fuel	3000.000
2	24.389	BB	29444	5829	p-Terphenyl	50.000
3	28.639	Group	911490	2994	Motor oil	3000.000

Recra LabNet-Lionville Laborator

STD 64888106 F

Queue: 082101GC18_ICAL

Vial: 3

Channel Description: FID

Dilution Factor: 1.0

Project Name DRO_01C

Acq Method Set: DRO_OIL_BLANK815

Processing Method: 082101GC18ical

Date Acquired: 8/21/01 1:48:40 PM

Date Processed: 8/22/01 7:56:11 AM

Injection Id: 3822 Result Id: 3878

DIESEL RANGE ORGANICS

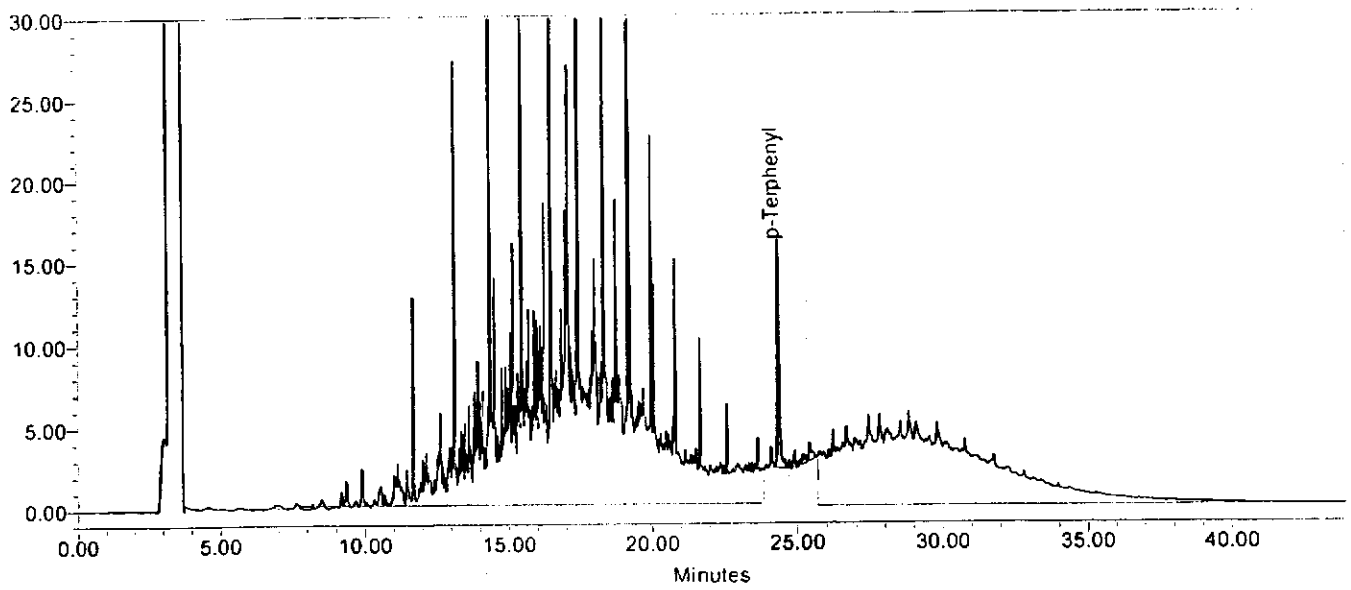

Processed By lachj

Manual Yes

Peak Results

	RT	Int Type	Area	Height	Name	Amount
1	6.907	Group	4099359	66997	Diesel Fuel	6000.000
2	24.384	BB	62873	13480	p-Terphenyl	100.000
3	28.840	Group	1736083	5689	Motor oil	6000.000

Recra LabNet-Lionville Laboratory

CCV 64888104 D

Queue: 080701GC18icala

Vial: 5

Channel Description: FID

Dilution Factor: 1.0

Project Name DRO_01C

Acq Method Set: DRO_BLANK705

Processing Method: 073001GC18_ical

Date Acquired: 8/7/01 1:31:03 PM

Date Processed: 8/8/01 5:55:25 AM

Injection Id: 3036 Result Id: 3098

DIESEL RANGE ORGANICS

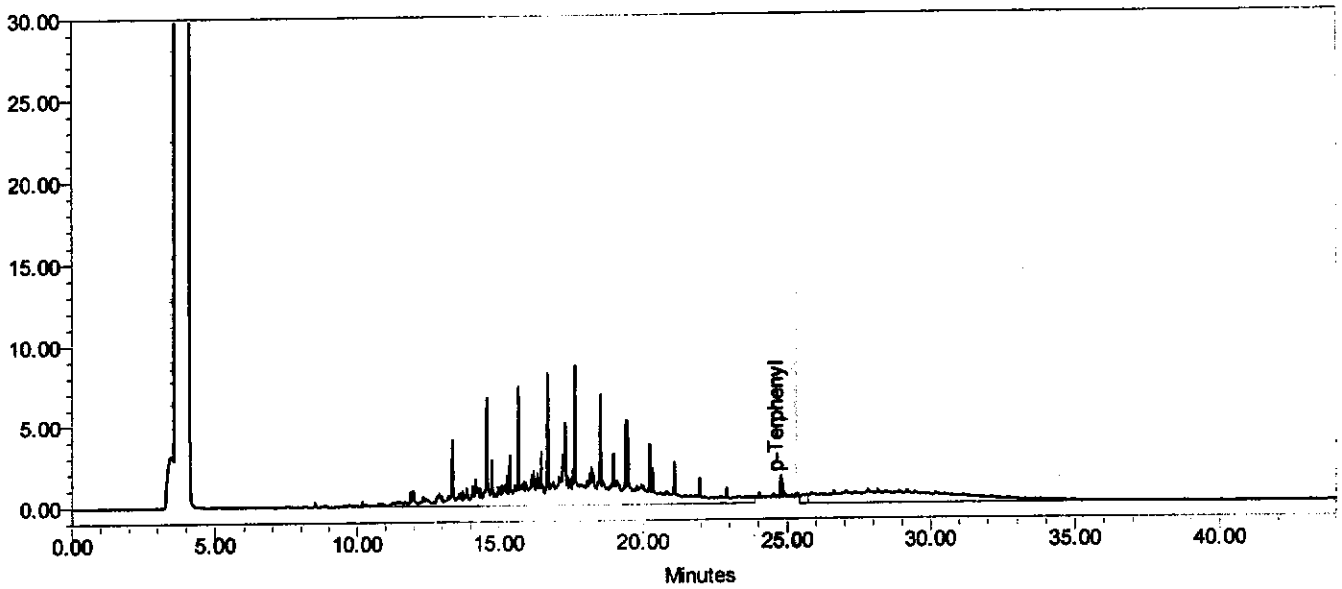

Processed By kauffmal

Manual Yes

Peak Results

	RT	Area	Height	Name	Amount
1	17.654	715828	7859	Diesel Fuel	1504.565
2	24.784	7003	1262	p-Terphenyl	21.447
3	27.788	237086	802	Motor oil	1590.349

LC 8-8-01

Recra LabNet-Lionville Laboratory

CCV 64888104 D

Queue: 080701GC18icala

Vial: 17

Channel Description: FID

Dilution Factor: 1.0

Project Name DRO_01C

Acq Method Set: DRO_BLANK705

Processing Method: 073001GC18_ical

Date Acquired: 8/8/01 12:17:14 AM

Date Processed: 8/8/01 5:55:26 AM

Injection Id: 3077 Result Id: 3099

DIESEL RANGE ORGANICS

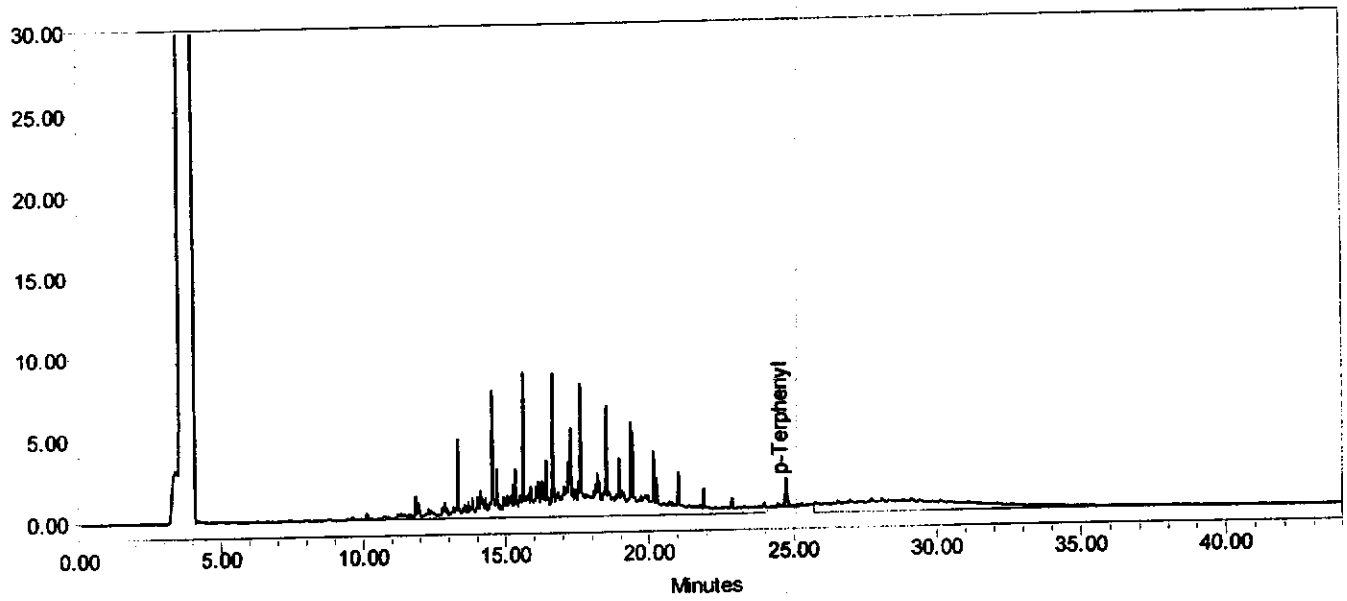

Processed By kauffmal

Manual Yes

Peak Results

	RT	Area	Height	Name	Amount
1	15.626	732986	7862	Diesel Fuel	1540.671
2	24.723	8201	1685	p-Terphenyl	24.647
3	27.738	229110	765	Motor oil	1533.294

LK 8-8-01

Recra LabNet-Lionville Laboratory

CCV 64888104 D

Queue: 080701GC18icala

Vial: 29

Channel Description: FID

Dilution Factor: 1.0

Project Name DRO_01C

Acq Method Set: DRO_BLANK705

Processing Method: 073001GC18_ical

Date Acquired: 8/8/01 11:03:15 AM

Date Processed: 8/8/01 11:49:42 AM

Injection Id: 3140 Result Id: 3146

DIESEL RANGE ORGANICS

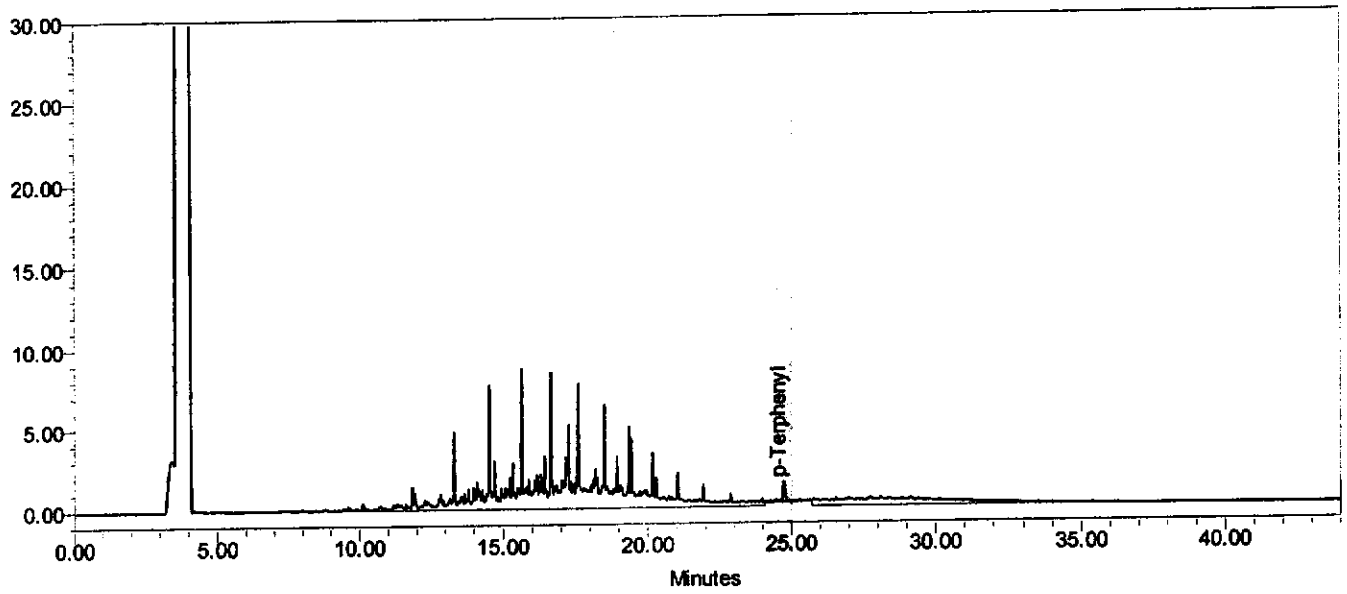

Processed By kauffmal

Manual Yes

Peak Results

	RT	Area	Height	Name	Amount
1	15.626	692060	7691	Diesel Fuel	1454.550
2	24.730	6110	1199	p-Terphenyl	19.061
3	27.741	141880	523	Motor oil	909.345

JF 8-8-01

Recra LabNet-Lionville Laboratory

CCV 64888104 D

Queue: 081301GC18ical

Vial: 21

Channel Description: FID

Dilution Factor: 1.0

Project Name DRO_01C

Acq Method Set: DRO_BLANK705

Processing Method: 081401GC18ical

Date Acquired: 8/14/01 3:28:04 AM

Date Processed: 8/14/01 8:04:20 AM

Injection Id: 3386 Result Id: 3459

DIESEL RANGE ORGANICS

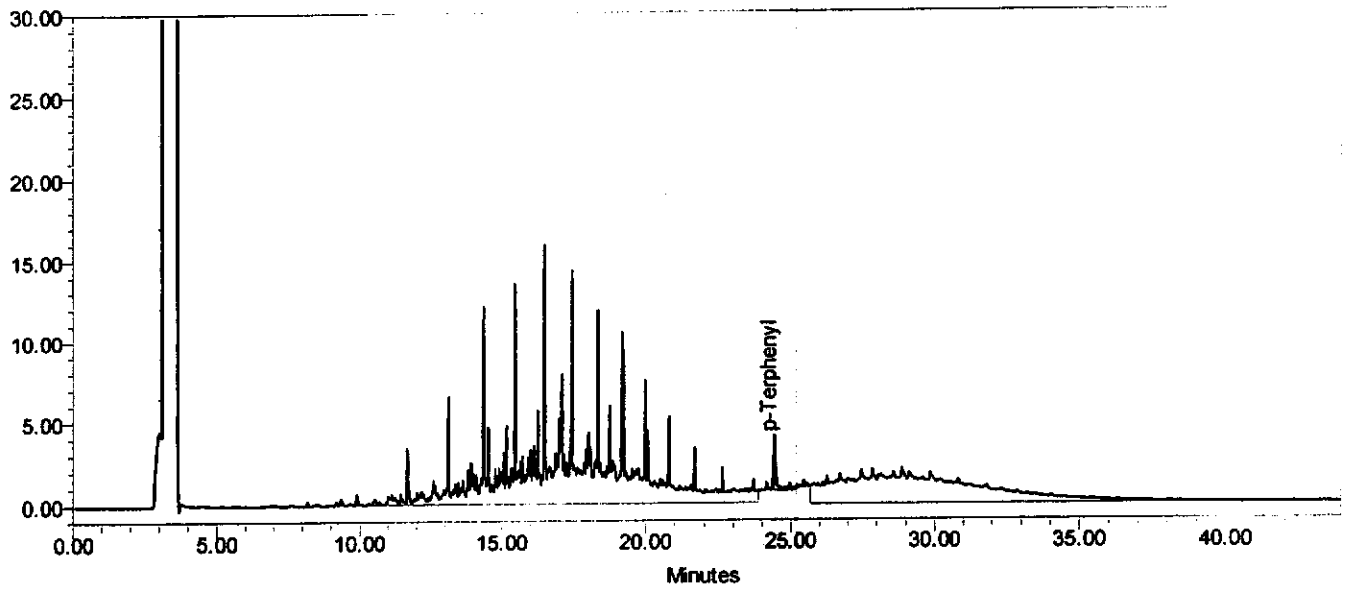

Processed By kauffmal

Manual Yes

Peak Results

	RT	Area	Height	Name	Amount
1	8.175	1234280	19176	Diesel Fuel	1779.683
2	24.419	16582	3294	p-Terphenyl	25.617
3	28.871	630762	2093	Motor oil	1883.018

LK 8-14-01

Recra LabNet-Lionville Laborator

CCV 64888104

Queue: 081401GC18

Vial: 21

Channel Description: FID

Dilution Factor: 1.0

Project Name DRO_01C

Acq Method Set: DRO_OIL_BLANK814

Processing Method: 081501GC18ical

Date Acquired: 8/16/01 10:46:34 AM

Date Processed: 8/16/01 12:03:15 PM

Injection Id: 3643 Result Id: 3649

DIESEL RANGE ORGANICS

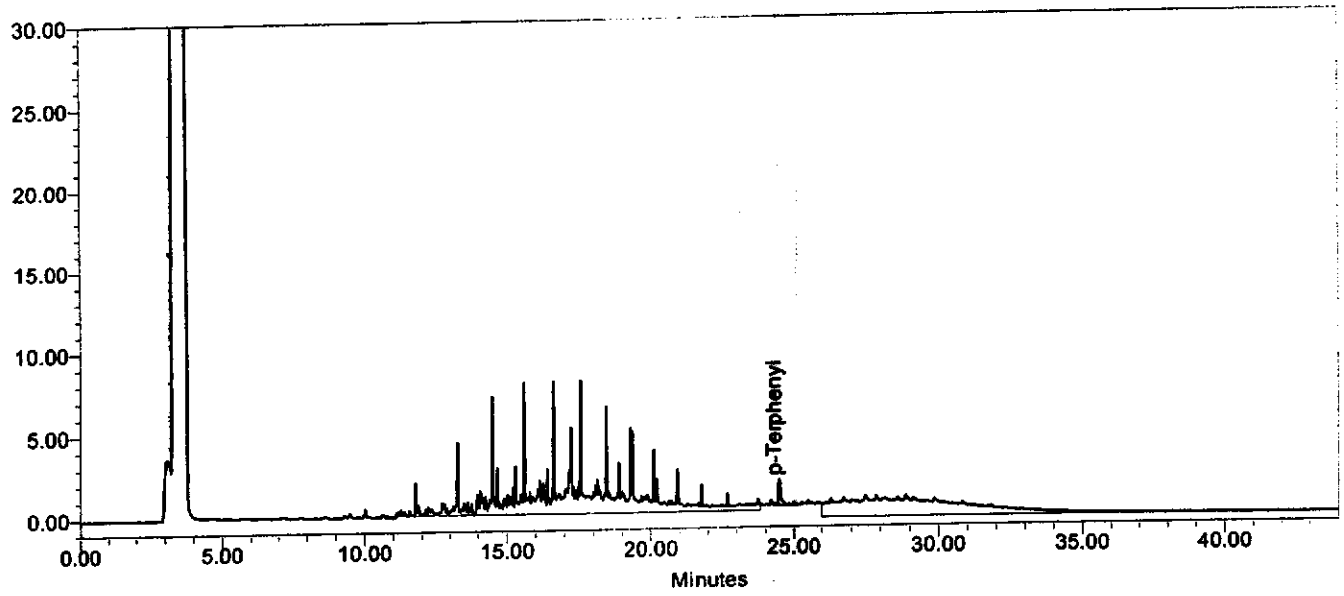

Processed By lachj

Manual Yes

JS 8/22/01

Peak Results

	RT	Area	Height	Name	Amount
1	9.480	631639	14695	Diesel Fuel	1422.313
2	24.497	9416	1562	p-Terphenyl	22.071
3	25.850	346872	1329	Motor oil	1618.771

Recra LabNet-Lionville Laborator

CCV 64888104 D

Queue: zzwashtest

Acq Method Set: DRO_OIL_BLANK821

Vial: 4

Processing Method: 082101GC18ical

Channel Description: FID

Date Acquired: 8/24/01 10:44:49 AM

Dilution Factor: 1.0

Date Processed: 8/24/01 11:59:21 AM

Project Name DRO_01C

Injection Id: 4081

Result Id: 4084

DIESEL RANGE ORGANICS

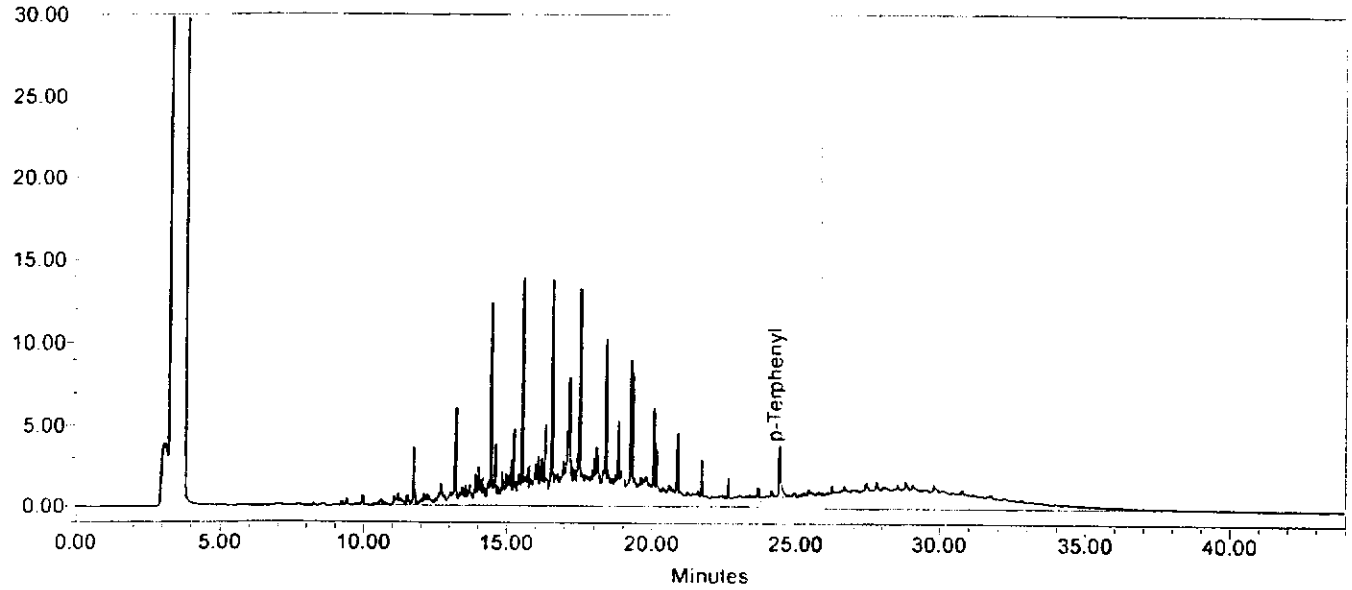

Processed By lachj

Manual Yes

Peak Results

	RT	Int Type	Area	Height	Name	Amount
1	9.240	Group	1094347	17478	Diesel Fuel	1639.777
2	24.438	BB	17752	3156	p-Terphenyl	30.028
3	25.798	Group	511070	1939	Motor oil	1706.913

Recra LabNet-Lionville Laborator

CCV 64888104 D

Queue: 082401GC18

Vial: 10

Channel Description: FID

Dilution Factor: 1.0

Project Name DRO_01C

Acq Method Set: DRO_OIL_BLANK821

Processing Method: 082101GC18ical

Date Acquired: 8/24/01 4:20:20 PM

Date Processed: 8/24/01 5:31:47 PM

Injection Id: 4109 Result Id: 4111

DIESEL RANGE ORGANICS

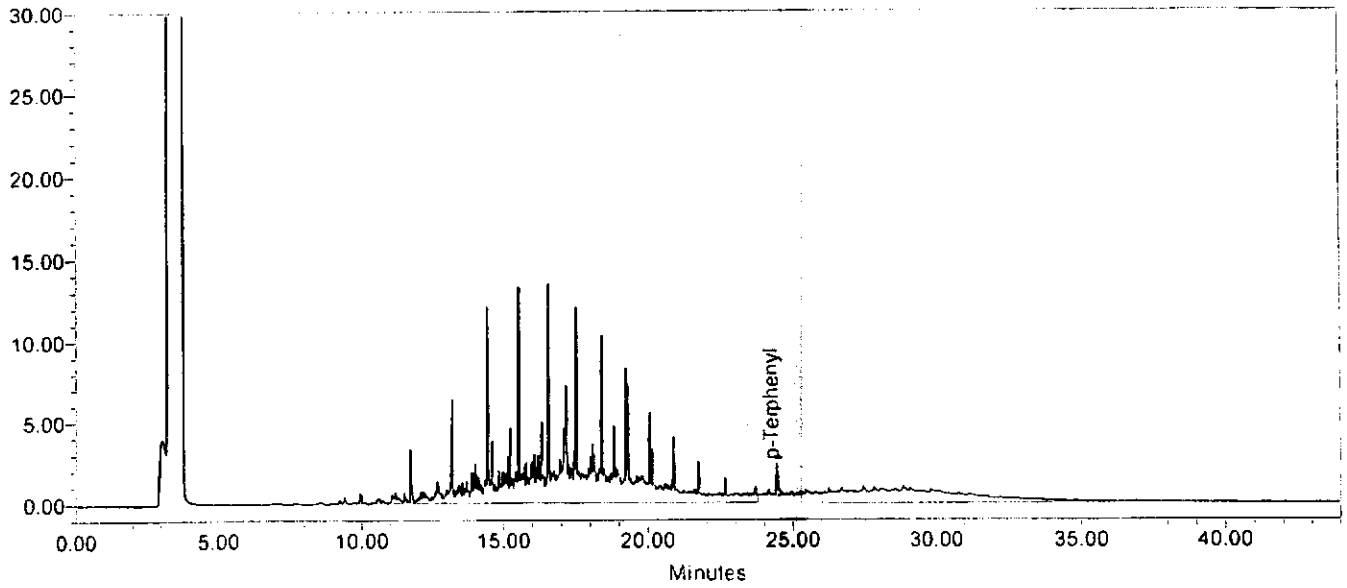

Processed By lachj

Manual Yes

Peak Results

	RT	Int Type	Area	Height	Name	Amount
1	9.242	Group	1021223	16071	Diesel Fuel	1532.924
2	24.443	BB	12444	1889	p-Terphenyl	21.703
3	25.801	Group	289264	1184	Motor oil	941.336

RAW QC DATA: BLANK, AND MATRIX SPIKE DATA

CLIENT SAMPLE NO.

ORGANICS ANALYSIS SHEET

BLK

Lab Name: Lionville Labs, Inc. Work Order: 02744064001

Client: LANL REQ #9407R

Matrix: SOIL

Lab Sample ID: 01LE0891-MB1

Sample wt/vol: 25.0 (g/mL) G

Lab File ID: BLK00PPB

Level: (low/med) LOW

Date Received: 07/26/01

% Moisture: not dec. 0

Date Analyzed: 08/07/01

Column: (pack/cap) CAP

Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) mg/kg	
68334-30-5	Diesel Range Organics	12.0	U
00-00-0000	Motor Oil	12.0	U

12/88 Rev.

Recra LabNet-Lionville Laboratory

01LE0891-MB1

Queue: 080701GC18icala

Vial: 6

Channel Description: FID

Dilution Factor: 1.0

Project Name DRO_01C

Acq Method Set: DRO_BLANK705

Processing Method: 073001GC18_ical

Date Acquired: 8/7/01 2:24:51 PM

Date Processed: 8/8/01 6:03:44 AM

Injection Id: 3039 Result Id: 3101

DIESEL RANGE ORGANICS

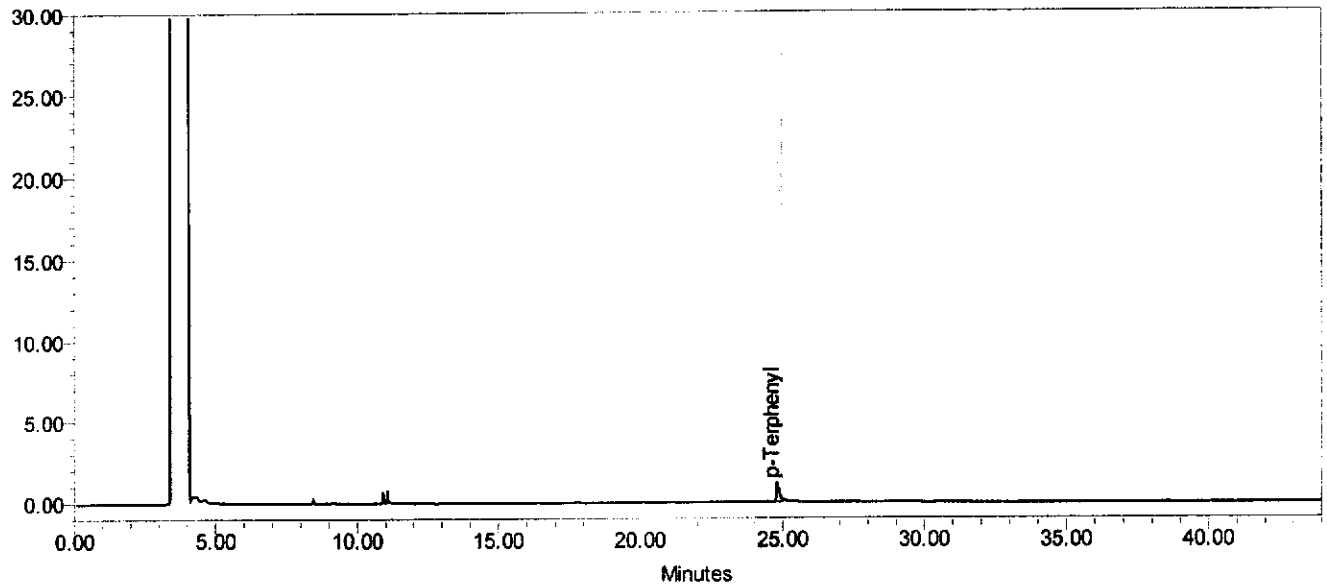

Processed By kauffmal

Manual Yes

Peak Results

	RT	Area	Height	Name	Amount	
1	8.448	5641	893	Diesel Fuel	10.119	<
2	24.805	9217	1178	p-Terphenyl	27.361	55 B
3	28.782	14503	92	Motor oil		<

8/2/01

ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

BLKMS

Lab Name: Lionville Labs, Inc. Work Order: 02744064001

Client: LANL REQ #9407R

Matrix: SOIL

Lab Sample ID: 01LE0891-MB1 BS

Sample wt/vol: 25.0 (g/mL) G

Lab File ID: BLKOOPPB

Level: (low/med) LOW

Date Received: 07/26/01

% Moisture: not dec. 0

Date Analyzed: 08/07/01

Column: (pack/cap) CAP

Dilution Factor: 1.00

CONCENTRATION UNITS:
(ug/L or ug/Kg) mg/kg

CAS NO.	COMPOUND		
68334-30-5	Diesel Range Organics		SP
00-00-0000	Motor Oil	12.0	U

SP: SPIKE COMPOUND

12/88 Rev.

Recra LabNet-Lionville Laboratory

01LE0891-MB1-S

Queue: 080701GC18icala

Vial: 7

Channel Description: FID

Dilution Factor: 1.0

Project Name DRO_01C

Acq Method Set: DRO_BLANK705

Processing Method: 073001GC18_ical

Date Acquired: 8/7/01 3:18:51 PM

Date Processed: 8/8/01 6:03:45 AM

Injection Id: 3042 Result Id: 3102

DIESEL RANGE ORGANICS

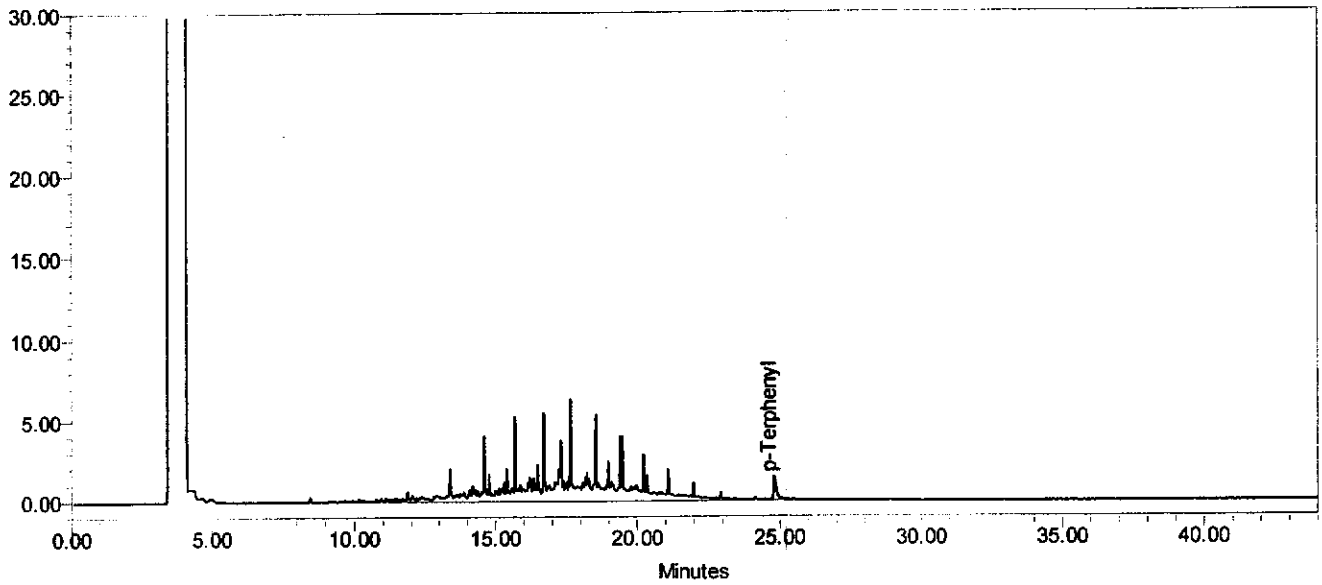

Processed By kauffmal

Manual Yes

7/8/01

Peak Results

	RT	Area	Height	Name	Amount	
1	8.477	493083	6056	Diesel Fuel	1035.842	69%
2	24.817	10833	1475	p-Terphenyl	31.677	63%
3	26.775	12839	136	Motor oil		NS

LK 8-8-01

ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

RC60-01-0005 03MS

Lab Name: Lionville Labs, Inc. Work Order: 02744064001

Client: LANL REQ #9407R

Matrix: SOIL

Lab Sample ID: 0107L389-009 MS

Sample wt/vol: 25.0 (g/mL) G

Lab File ID: BLK00PPB

Level: (low/med) LOW

Date Received: 07/25/01

% Moisture: not dec. 100

Date Analyzed: 08/07/01

Column: (pack/cap) CAP

Dilution Factor: 1.00

CONCENTRATION UNITS:
(ug/L or ug/Kg) mg/kg

CAS NO.	COMPOUND		
68334-30-5	Diesel Range Organics	12.0	SP
00-00-0000	Motor Oil		U

SP: SPIKE COMPOUND

12/88 Rev.

Recra LabNet-Lionville Laboratory

0107L389-009-S

Queue: 080701GC18icala

Acq Method Set: DRO_BLANK705

Vial: 11

Processing Method: 073001GC18_ical

Channel Description: FID

Date Acquired: 8/7/01 6:54:27 PM

Dilution Factor: 1.0

Date Processed: 8/8/01 6:03:46 AM

Project Name DRO_01C

Injection Id: 3059

Result Id: 3106

DIESEL RANGE ORGANICS

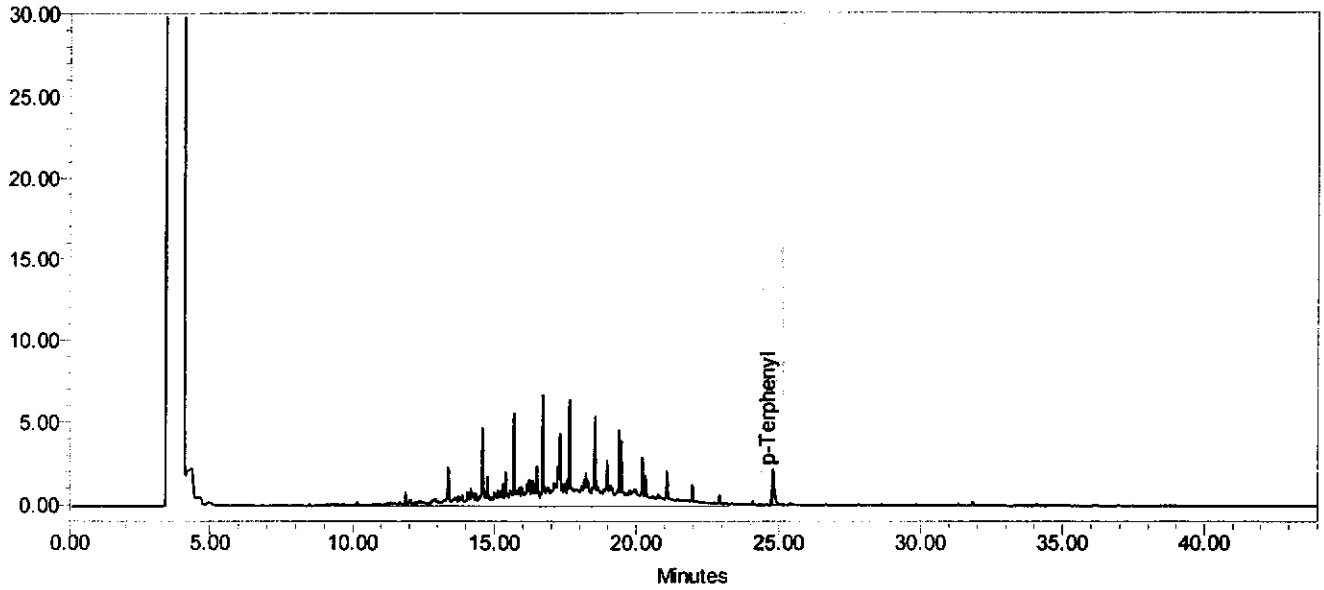

Processed By kauffmal

Manual Yes

Peak Results

	RT	Area	Height	Name	Amount
1	16.694	531622	6180	Diesel Fuel	1116.941
2	24.787	12953	2115	p-Terphenyl	37.340
3	31.846	32563	261	Motor oil	127.410

74%

75%

~~5 < RL~~

UC 8-8-01

ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

RC60-01-0005 03MSD

Lab Name: Lionville Labs, Inc. Work Order: 02744064001

Client: LANL REQ #9407R

Matrix: SOIL

Lab Sample ID: 0107L389-009 MSD

Sample wt/vol: 25.0 (g/mL) G

Lab File ID: BLKOOPPB

Level: (low/med) LOW

Date Received: 07/25/01

% Moisture: not dec. 100

Date Analyzed: 08/07/01

Column: (pack/cap) CAP

Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) mg/kg	
68334-30-5	Diesel Range Organics		SP
00-00-0000	Motor Oil	12.0	U

SP: SPIKE COMPOUND

12/88 Rev.

Recra LabNet-Lionville Laboratory

0107L389-009-T

Queue: 080701GC18icala

Acq Method Set: DRO_BLANK705

Vial: 12

Processing Method: 073001GC18_ical

Channel Description: FID

Date Acquired: 8/7/01 7:48:11 PM

Dilution Factor: 1.0

Date Processed: 8/8/01 6:03:47 AM

Project Name DRO_01C

Injection Id: 3062

Result Id: 3107

DIESEL RANGE ORGANICS

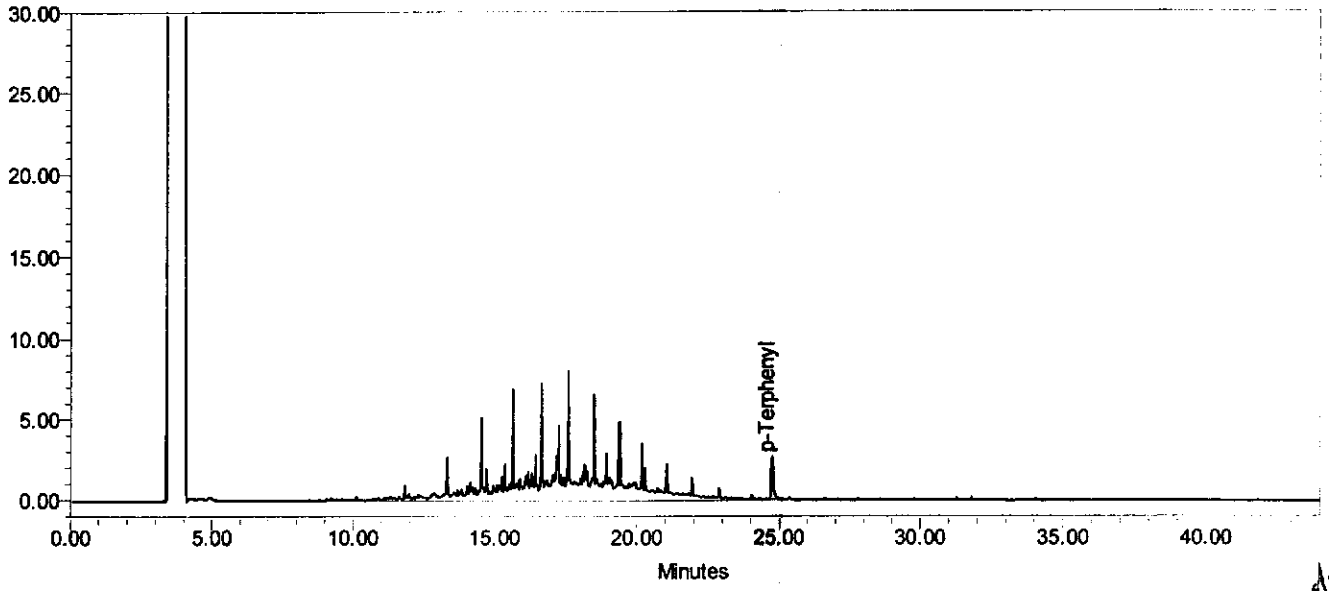

Processed By kauffmal

Manual Yes

Peak Results

	RT	Area	Height	Name	Amount
1	17.613	609553	7122	Diesel Fuel	1280.930
2	24.747	15211	2632	p-Terphenyl	43.372
3	31.813	50352	226	Motor oil	254.654

85%

87%

NS < RL 8/22/01

LF 8-8-01

ANALYSIS RUN LOGS

INSTRUMENT ID: 18
DETECTOR TYPE: FID
INJECT VOLUME: 1uL

COLUMN TYPE: RTI-5
COLUMN SERIAL #: 8561-012
OVEN TEMP PROGRAM: #2

ANALYST: JL
CALIBRATION DATE: 8/15/01
ANALYSIS METHOD: ODRO

00

#	SAMPLE SET ID.VIAL #	INJECTION ID	ANALYSIS DATE/TIME	RECRA SAMPLE # DESCRIPTION	DF
1	081401GC18 .30	3530	8/15/01 1:53:25 PM	CCV	
2	081401GC18 .31	3534	8/15/01 2:46:59 PM	WASH	
3	081401GC18 .31	3538	8/15/01 3:41:04 PM	WASH	
4	081401GC18 .1	3551	8/15/01 4:53:11 PM	wash	
5	081401GC18 .2	3554	8/15/01 5:46:54 PM	BLANK	
6	081401GC18 .3	3557	8/15/01 6:40:40 PM	STD 64888106 F	
7	081401GC18 .4	3561	8/15/01 7:34:36 PM	STD 64888105 E	
8	081401GC18 .5	3564	8/15/01 8:28:19 PM	STD 64888104 D	
9	081401GC18 .6	3567	8/15/01 9:22:05 PM	STD 64888103 C	
10	081401GC18 .7	3570	8/15/01 10:15:43 PM	STD 64888102 B	
11	081401GC18 .8	3573	8/15/01 11:09:20 PM	STD 64888101 A	
12	081401GC18 .9	3576	8/16/01 12:02:55 AM	KEROSENE 82752701	
13	081401GC18 .10	3579	8/16/01 12:56:38 AM	0107L410-002T	
14	081401GC18 .11	3582	8/16/01 1:50:21 AM	0107L389-007	
15	081401GC18 .12	3585	8/16/01 2:43:44 AM	0107L416-018	
16	081401GC18 .13	3588	8/16/01 3:37:13 AM	0107L416-015	10
17	081401GC18 .14	3591	8/16/01 4:30:47 AM	iblk	
18	081401GC18 .15	3594	8/16/01 5:24:23 AM	01LE0933-MB1	
19	081401GC18 .16	3597	8/16/01 6:17:51 AM	01LE0933-MBS	
20	081401GC18 .17	3612	8/16/01 7:11:36 AM	0108L477-001	
21	081401GC18 .18	3633	8/16/01 8:05:14 AM	0108L477-001R	
22	081401GC18 .19	3637	8/16/01 8:59:00 AM	0108L477-001S	
23	081401GC18 .20	3640	8/16/01 9:52:41 AM	IBLK	
24	081401GC18 .21	3643	8/16/01 10:46:34 AM	CCV 64888104	
25	081401GC18 .22	3646	8/16/01 11:40:21 AM	0108L477-002	
26	081401GC18 .23	3662	8/16/01 12:34:02 PM	01LE0925-MB1	
27	081401GC18 .24	3666	8/16/01 1:27:54 PM	01LE0925-MB1S	
28	081401GC18 .25	3669	8/16/01 2:21:41 PM	0107L343-001-R1	
29	081401GC18 .26	3672	8/16/01 3:15:33 PM	0107L343-001S-R1	
30	081401GC18 .27	3675	8/16/01 4:09:21 PM	0107L343-001T-R1	
31	081401GC18 .28	3678	8/16/01 5:03:10 PM	0107L343-002-R1	
32	081401GC18 .29	3681	8/16/01 5:56:56 PM	0107L397-013	10

JL 8/22/01

R 8/23/01

COMMENTS

All Standards May Be Referenced To Standard Logbook #: 6488

Millennium Project ID: ODRO-01C
DCM-U19E25

LOGBOOK # 8460

REVIEWED BY/DATE: MK 8/23/01

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PAGE #

Recra LabNet Philadelphia

GC ANALYSIS LOG

INSTRUMENT ID: 18	COLUMN TYPE: XTI 5	ANALYST: JL
DETECTOR TYPE: FID.	COLUMN SERIAL #: 8561-012	CALIBRATION DATE: 8/15/01
INJECT VOLUME: 1uL	OVEN TEMP PROGRAM: #2	ANALYSIS METHOD: DDRO

#	SAMPLE SET ID.VIAL #	INJECTION ID	ANALYSIS DATE/TIME	RECRA SAMPLE # DESCRIPTION	DF	COMMENTS
33	081401GC18 .30 JL 8/23/01	3684	8/16/01 6:50:46 PM	0107L397-013S	10	All Standards May Be Referenced To Standard Logbook #: 6488
34	081401GC18 .31	3688	8/16/01 7:44:36 PM	0107L397-013T	10	
35	081401GC18 .32	3691	8/16/01 8:38:11 PM	IBLK		Millennium Project ID: DDRO-01C
36	081401GC18 .33	3694	8/16/01 9:31:55 PM	CCV 64888104		
	JL 8/23/01					
						Continued From Pg. 70
						End of Queue

LOGBOOK # 8460

REVIEWED BY/DATE: MC 8/23/01

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PAGE # 071

INSTRUMENT ID: GC-18
DETECTOR TYPE: FID
INJECT VOLUME: 1ul

COLUMN TYPE: XTI-5
COLUMN SERIAL #: 8561-012
OVEN TEMP PROGRAM: #2

ANALYST: LK
CALIBRATION DATE: 7-30-01
ANALYSIS METHOD: OQRO

91

#	SAMPLE SET ID.VIAL #	INJECTION ID	ANALYSIS DATE/TIME	RECRA SAMPLE # DESCRIPTION	DF	COMMENTS
1	080701GC18icala .2 LK	3026 8/1/01	8/7/01 10:49:47 AM	WASH		All Standards May Be Referenced To Standard Logbook #: 6488
2	080701GC18icala .3	3029	8/7/01 11:43:34 AM	WASH		
3	080701GC18icala .4	3032	8/7/01 12:37:25 PM	BLANK		Millennium Project ID: OQRO - 01C
4	080701GC18icala .5	3036	8/7/01 1:31:03 PM	CCV 64888104 D		
5	080701GC18icala .6	3039	8/7/01 2:24:51 PM	01LE0891-MB1		DCM - V19E25
6	080701GC18icala .7	3042	8/7/01 3:18:51 PM	01LE0891-MB1-S		
7	080701GC18icala .8	3046	8/7/01 4:12:43 PM	0106L189-002		
8	080701GC18icala .9	3049	8/7/01 5:06:27 PM	0107L389-008		
9	080701GC18icala .10	3056	8/7/01 6:00:23 PM	0107L389-009		
10	080701GC18icala .11	3059	8/7/01 6:54:27 PM	0107L389-009-S		
11	080701GC18icala .12	3062	8/7/01 7:48:11 PM	0107L389-009-T		
12	080701GC18icala .13	3065	8/7/01 8:41:58 PM	0107L389-010		
13	080701GC18icala .14	3068	8/7/01 9:35:52 PM	0107L389-011		
14	080701GC18icala .15	3071	8/7/01 10:29:38 PM	0107L389-012		
15	080701GC18icala .16	3074	8/7/01 11:23:21 PM	IBLK		
16	080701GC18icala .17	3077	8/8/01 12:17:14 AM	CCV 64888104 D		
17	080701GC18icala .18	3080	8/8/01 1:11:07 AM	01LE0914-MB1		
18	080701GC18icala .19	3083	8/8/01 2:05:03 AM	01LE0914-MB1-S		
19	080701GC18icala .20	3086	8/8/01 2:58:53 AM	0107L410-002		
20	080701GC18icala .21	3089	8/8/01 3:52:44 AM	0107L410-002-S		
21	080701GC18icala .22	3092	8/8/01 4:46:35 AM	0107L410-002-T		
22	080701GC18icala .23	3095	8/8/01 5:40:17 AM	0107L410-005		
23	080701GC18icala .24	3117	8/8/01 6:34:04 AM	0107L423-016	50	
24	080701GC18icala .25	3120	8/8/01 7:27:51 AM	0107L423-017	50	
25	080701GC18icala .26	3124	8/8/01 8:21:42 AM	0107L423-018	50	
26	080701GC18icala .27	3128	8/8/01 9:15:46 AM	0107L423-019	50	
27	080701GC18icala .28	3136	8/8/01 10:09:30 AM	IBLK		
28	080701GC18icala .29	3140	8/8/01 11:03:15 AM	CCV 64888104 D	→	CCV Oct
29	080701GC18icala .2	3150	8/8/01 2:06:34 PM	WASH		
30	080701GC18icala .3 LK	3153 8/1/01	8/8/01 3:00:18 PM	WASH		
			Run continued on Page 67			

LOGBOOK # 8460

REVIEWED BY/DATE: JL 8/22/01

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INSTRUMENT ID: GC-18
DETECTOR TYPE: FID
INJECT VOLUME: 1ul

COLUMN TYPE: XTI-5
COLUMN SERIAL #: 8561-012
OVEN TEMP PROGRAM: #2

ANALYST: LK
CALIBRATION DATE: 7-30-01
ANALYSIS METHOD: ODRO

92

#	SAMPLE SET ID.VIAL #	INJECTION ID	ANALYSIS DATE/TIME	RECRA SAMPLE # DESCRIPTION	DF
31	080701GC18icala .4 LK	3156 8/9/01	8/8/01 3:54:09 PM	WASH	
32	080701GC18icala .30	3159	8/8/01 4:48:03 PM	IBLK	
33	080701GC18icala .31	3162	8/8/01 5:41:45 PM	CCV 64888104 D	OUT
34	080701GC18icala .32	3165	8/8/01 6:35:51 PM	0107L416-003	
35	080701GC18icala .33	3168	8/8/01 7:29:49 PM	0107L416-006	
36	080701GC18icala .34	3171	8/8/01 8:23:39 PM	0107L416-009	100
37	080701GC18icala .35	3174	8/8/01 9:17:24 PM	0107L416-012	
38	080701GC18icala .36	3177	8/8/01 10:11:15 PM	0107L416-015	50
39	080701GC18icala .37	3180	8/8/01 11:05:02 PM	0107L416-018	
40	080701GC18icala .38	3183	8/8/01 11:58:45 PM	0107L389-007	
41	080701GC18icala .39	3186	8/9/01 12:52:32 AM	0107I389-010	100
42	080701GC18icala .40	3189	8/9/01 1:46:30 AM	0107I389-011	5
43	080701GC18icala .41	3192	8/9/01 2:40:16 AM	IBLK	
44	080701GC18icala .42 LK	3195 8/9/01	8/9/01 3:34:14 AM	CCV 64888104 D	OUT

LK 8/9/01

COMMENTS

All Standards May Be Referenced To Standard Logbook #: 6488

Millennium Project ID: ODRO-01C

Run continued From Page 66

DCM- V19625

LOGBOOK # 8460

REVIEWED BY/DATE: JL 8/22/01

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INSTRUMENT ID: GC-18
DETECTOR TYPE: FID
INJECT VOLUME: 1ul

COLUMN TYPE: XTI-5
COLUMN SERIAL #: 0561-012
OVEN TEMP PROGRAM: #2

ANALYST: LK
CALIBRATION DATE: 8/12/01
ANALYSIS METHOD: 0DRO

#	SAMPLE SET ID.VIAL #	INJECTION ID	ANALYSIS DATE/TIME	RECRA SAMPLE # DESCRIPTION	DF	COMMENTS
1	081301GC18ical .1 LK	3323 8/14/01	8/13/01 9:31:37 AM	WASH		All Standards May Be Referenced To Standard Logbook #: 6488
2	081301GC18ical .2	3328	8/13/01 10:25:21 AM	WASH		
3	081301GC18ical .3	3331	8/13/01 11:19:22 AM	WASH		Millennium Project ID: 0DRO_01C
4	081301GC18ical .4	3334	8/13/01 12:13:25 PM	BLANK		
5	081301GC18ical .5	3337	8/13/01 1:07:11 PM	STD 64888101 A		DCM - V19E25
6	081301GC18ical .6	3340	8/13/01 2:01:16 PM	STD 64888102 B		
7	081301GC18ical .7	3344	8/13/01 2:55:00 PM	STD 64888103 C		
8	081301GC18ical .8	3347	8/13/01 3:48:46 PM	STD 64888104 D		
9	081301GC18ical .9	3350	8/13/01 4:42:48 PM	STD 64888105 E		
~~10~~	~~081301GC18ical .10~~	~~3353~~	~~8/13/01 5:36:49 PM~~	~~STD 64888106 F~~		
11	081301GC18ical .11	3356	8/13/01 6:30:34 PM	0107L416-003	2	
12	081301GC18ical .12	3359	8/13/01 7:24:28 PM	0107L416-006	5	
13	081301GC18ical .13	3362	8/13/01 8:18:18 PM	0107L416-009	50	
14	081301GC18ical .14	3365	8/13/01 9:12:05 PM	0107L416-012		
15	081301GC18ical .15	3368	8/13/01 10:05:58 PM	0107L416-015	50	
16	081301GC18ical .16	3371	8/13/01 10:59:43 PM	0107L416-018	5	
17	081301GC18ical .17	3374	8/13/01 11:53:34 PM	0107L389-007	5	
18	081301GC18ical .18	3377	8/14/01 12:47:09 AM	0107L389-010	100	
19	081301GC18ical .19	3380	8/14/01 1:40:49 AM	0107L389-011	5	
20	081301GC18ical .20	3383	8/14/01 2:34:27 AM	IBLK		
21	081301GC18ical .21 LK	3386 8/14/01	8/14/01 3:28:04 AM	CCV 64888104 D	—	Out High 0DRO + 0.1

LK 8-14-01

LOGBOOK # 8460

REVIEWED BY/DATE: 8/22/01

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INSTRUMENT ID: 18
DETECTOR TYPE: FID
INJECT VOLUME: 1uL

COLUMN TYPE: XTI-5
COLUMN SERIAL #: 8561-012
OVEN TEMP PROGRAM: #2

ANALYST: JL
CALIBRATION DATE: 8/21/01
ANALYSIS METHOD: ODRO

#	SAMPLE SET ID.VIAL #	INJECTION ID	ANALYSIS DATE/TIME	RECRA SAMPLE # DESCRIPTION	DF	COMMENTS
1	082101GC18_ICAL .1	3813 JL 8/23/01	8/21/01 12:00:33 PM	WASH		All Standards May Be Referenced To Standard Logbook #: 6488
2	082101GC18_ICAL .2	3819	8/21/01 12:54:44 PM	BLANK		
3	082101GC18_ICAL .3	3822	8/21/01 1:48:40 PM	STD 64888106 F		Millennium Project ID: ODRO_01C
4	082101GC18_ICAL .4	3826	8/21/01 2:42:21 PM	STD 64888105 E		
5	082101GC18_ICAL .5	3830	8/21/01 3:36:13 PM	STD 64888104 D		
6	082101GC18_ICAL .6	3834	8/21/01 4:30:09 PM	STD 64888103 C		
7	082101GC18_ICAL .7	3840	8/21/01 5:24:03 PM	STD 64888102 B		
8	082101GC18_ICAL .8	3844	8/21/01 6:17:40 PM	STD 64888101 A		
9	082101GC18_ICAL .9	3847	8/21/01 7:11:33 PM	0107L397-013		
10	082101GC18_ICAL .10	3850	~~8/21/01 8:05:06 PM~~	~~0107L397-013S~~		
11	082101GC18_ICAL .11	3853	8/21/01 8:58:41 PM	0107L397-013T		
12	082101GC18_ICAL .12	3856	8/21/01 9:52:09 PM	0107L397-014		
13	082101GC18_ICAL .13	3859	8/21/01 10:45:45 PM	0107L397-015		
14	082101GC18_ICAL .14	3862	8/21/01 11:39:24 PM	0107L397-016		
15	082101GC18_ICAL .15	3865	8/22/01 12:33:04 AM	0107L397-017		
16	082101GC18_ICAL .16	3868	8/22/01 1:26:44 AM	0107L397-018		
17	082101GC18_ICAL .17	3871	8/22/01 2:20:27 AM	IBLK		
18	082101GC18_ICAL .18	3874 JL 8/23/01	8/22/01 3:14:12 AM	CCV 64888104 D		

End of Queue.

LOGBOOK # 8460

REVIEWED BY/DATE: MK 8/23/01

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Recra LabNet Philadelphia

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INSTRUMENT ID: 18
DETECTOR TYPE: FID
INJECT VOLUME: 1uL

COLUMN TYPE: XTI-5
COLUMN SERIAL #: 8561-012
OVEN TEMP PROGRAM: #2

ANALYST: JC
CALIBRATION DATE: 8/21/01
ANALYSIS METHOD: ODRO

#	SAMPLE SET ID.VIAL #	INJECTION ID	ANALYSIS DATE/TIME	RECRA SAMPLE # DESCRIPTION	DF	COMMENTS
1	082301GC18 . 1	3943 8/24/01	8/23/01 4:53:25 AM	BLANK		All Standards May Be Referenced To Standard Logbook #: 64888
2	082301GC18 . 2	3944	8/23/01 5:47:11 AM	CCV 64888104 D		
3	082301GC18 . 3	3950	8/23/01 6:48:58 AM	0107L397-018R1		Millennium Project ID: ODRO-01C
4	082301GC18 . 4	3953	8/23/01 7:42:37 AM	0107L397-017R1		
5	082301GC18 . 5	3957	8/23/01 8:36:24 AM	0107L397-016R1		
6	082301GC18 . 6	3961	8/23/01 9:30:10 AM	0107L397-015R1		
7	082301GC18 . 7	3966	8/23/01 10:24:10 AM	0107L397-014R1		
8	082301GC18 . 11	3974	8/23/01 11:18:18 AM	IBLK		
9	082301GC18 . 12	3979	8/23/01 12:12:16 PM	CCV 64888104 D		
10	082301GC18 . 1	3986	8/23/01 1:15:32 PM	wash		
11	082301GC18 . 1	3990	8/23/01 2:09:36 PM	wash		
12	082301GC18 . 1	3994	8/23/01 3:03:32 PM	wash		
13	082301GC18 . 2	3997	8/23/01 3:57:31 PM	BLANK		
14	082301GC18 . 1	4001	8/23/01 4:51:40 PM	wash		
15	082301GC18 . 1	4003	8/23/01 5:45:46 PM	wash		
16	082301GC18 . 1	4007	8/23/01 6:39:44 PM	wash		
17	082301GC18 . 1	4009	8/23/01 7:33:33 PM	wash		
18	082301GC18 . 1	4011	8/23/01 8:27:32 PM	wash		
19	082301GC18 . 1	4013	8/23/01 9:21:25 PM	wash		
20	082301GC18 . 2	4016	8/23/01 10:15:13 PM	BLANK		
21	082301GC18 . 3	4019	8/23/01 11:08:53 PM	CCV 64889104 D		
22	082301GC18 . 4	4022	8/24/01 12:02:32 AM	0107L397-015R1		
23	082301GC18 . 5	4025	8/24/01 12:56:13 AM	0107L397-014R1		
24	082301GC18 . 6	4028	8/24/01 1:49:59 AM	0107L397-013TR1		
25	082301GC18 . 7	4031	8/24/01 2:43:33 AM	0107L397-013SR1		
26	082301GC18 . 8	4034	8/24/01 3:37:15 AM	0107L397-013R1		
27	082301GC18 . 9	4037	8/24/01 4:30:45 AM	IBLK		
28	082301GC18 . 10	4040 8/24/01	8/24/01 5:24:19 AM	CCV 64888104 D		
			End of Queue			

LOGBOOK # 8460

REVIEWED BY/DATE: BS 8/24/01

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Recra LabNet Philadelphia

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INSTRUMENT ID: 18
DETECTOR TYPE: FID
INJECT VOLUME: 1uL.

COLUMN TYPE: XTI - 5
COLUMN SERIAL #: 8561-012.
OVEN TEMP PROGRAM: #2

ANALYST: JL
CALIBRATION DATE: 8/21/01
ANALYSIS METHOD: ODRO

#	SAMPLE SET ID.VIAL #	INJECTION ID	ANALYSIS DATE/TIME	RECRA SAMPLE # DESCRIPTION	DF	COMMENTS
1	zzwashtest . 1	JL 8/24/01 4063	8/24/01 8:26:48 AM	wash		All Standards May Be Referenced To Standard Logbook #: 6488
2	zzwashtest . 1	4065	8/24/01 8:34:12 AM	wash		
3	zzwashtest . 1	4071	8/24/01 8:41:46 AM	wash		Millennium Project ID: ODRO-01C
4	zzwashtest . 2	4074	8/24/01 8:57:23 AM	wash		
5	zzwashtest . 3	4078	8/24/01 9:51:03 AM	BLANK		
6	zzwashtest . 4	4081	8/24/01 10:44:49 AM	CCV 64888104 D		
7	082401GC18 . 5	4088	8/24/01 11:50:55 AM	0107L297-015		
8	082401GC18 . 6	4091	8/24/01 12:44:47 PM	0107L389-010	50	
9	082401GC18 . 7	4096	8/24/01 1:38:40 PM	0107L297-013T		
10	082401GC18 . 8	4100	8/24/01 2:32:32 PM	0107L297-013	5	
11	082401GC18 . 9	4104	8/24/01 3:26:26 PM	IBLK		
12	082401GC18 . 10	JL 8/24/01 4109	8/24/01 4:20:20 PM	CCV 64888104 D		

end of Queue

LOGBOOK # 8460

REVIEWED BY/DATE: 8/24/01

PAGE #

L-WI-022/A-11/00

STANDARDS PREPARATION RECORDS

Recra LabNet Philadelphia

GC ANALYSIS
STANDARD RECEIPT LOG

Compound	Date Received	Standard ID	Source and Lot	%Purity	Solvent	Final Volume (mL)	Final Conc. (w/units)	Exp/ Date	Date/Analyst Date Opened/ Analyst	Reviewed By/ Date
Custom Pest Mix B	4/18/01	64393201 A	Restek Lot# A019342 exp 4/04 Cat# 50802	Amp	Tol/Hex	1mL	80-400 ug/mL	4/20/02	MK 4/18/01 BS 4/20/01	4/21/01 MK
		64393201 B							MK 4/18/01	
		64393201 C							MK 4/18/01	
		64393201 D							MK 4/18/01	
		64393201 E							MK 4/18/01	
log in ed 5/4 Diesel Fuel #2		64393202	Tom's Atlantic Chester Springs, PA 3M4005 21.31	—	—	946 mL	10W30 100%	—	5/3/01 BS	LK 5/3/01
Bromacil	8/1/01	64393203	Chem. Service Lot# 27030A Exp. 2/03	Amp	MTBE	5mL	100 mg/mL		BS 8/9/01 BS 8/9/01	
Butachlor	8/1/01	64393204	Chem Service Lot# 255-39B Exp. 6/02	Amp	MTBE	5mL	100 mg/mL		BS 8/9/01 BS 8/9/01	
Demeton S	↓	64393205	Chem Service Lot# 266-27B Exp. 12/02	↓	Toluene BS 8/9/01	↓	↓		BS 8/9/01	
Demeton O+S	8/1/01	64393206	Chem. Service Lot# 251-131B Exp 12/03	32.6 BS 8/9/01 ~~Amp~~	—	100mg	—		BS 8/9/01	
Alachlor	8/1/01	64393207	Chem Service Lot# 267-114B Exp 2/03	Amp	MeOH	5mL	100 mg/mL	8/10/02	BS 8/9/01 BS 8/10/01	

L-WI-008/N-03/98

LOGBOOK # 6439, PAGE # 032

Recra LabNet Philadelphia

GC ANALYSIS
Preparation of Stock Standard (Multi - Component)

NAME Diesel Fuel #2
I.D.# 54323301

EXPIRATION DATE 5/3/02

DATE/ANALYST 5/3/01 BS

Component	Parent ID#	Parent Concentration	Purity Adj.? Y/N*	Parent Volume (w/units)	Total Volume (mL)	Solvent	Component Concentration (w/units)
Diesel Fuel #2	64393202	100%	–	1250 mL	25 mL	DCM	50,000 µM

* Purity adjustment required if not greater than 95%

Reviewed By/Date: LK 5/3/01
(includes calculation verification)

RFW 21-21-008/P-06/97

LOGBOOK # 8432, PAGE # 033

WESTON®

HPLC STANDARDS LOGBOOK
Neat Standards Documentation

Logbook #: 5416

Compound	WESTON Standard ID	Vendor	Vendor Lot ID	Purity %	Expiration Date	Date Received	Date Removed[a]
2,3-Dichlorobenzoic acid	54163201	chem service	55-89K	Neat	5/5/03	5/5/00.	
2,4-Dichlorobenzoic acid	54163202	chem service	55-610		5/5/03	5/5/00.	
2,5-Dichlorobenzoic acid	54163203	chem service	55-197C		5/5/03	5/5/00.	
Triphenylene	54163204	chem service	242-118A	100ug/mL	11/01	5/19/00	
Triphenylene	54163205	chem service	242-118A	100ug/mL	11/01	5/19/00	
Tetryl	54163206	chem service	P238-101B	100ug/mL	7/01	6/13/00.	
Diesel Fuel #2	54163207	Restek	A016063	10,000ug/mL	10/02	6/19/00.	
Diesel Fuel #2	54163208						
Diesel Fuel #2	54163209						
Diesel Fuel #2	54163210						
Diesel Fuel #2	54163211						
1,3,5-TNB	54163212	chem service	245-61A	100ug/mL	6/01	6/14/00.	

[a]Date removed is the date the standards are given to the Waste Disposal Unit for disposal.

Reviewed By/Date: 6/5/00

RFW 21-21-036/F-12/94

PAGE # 32

Lionville Laboratory

HPLC ANALYSIS
STANDARDS RECEIPT LOG

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Compound	Date Received	Standard ID	Source and Lot	%Purity	Solvent	Final Volume (mL)	Final Conc. (w/units)	Exp/ Date	Date/Analyst Date Opened/ Analyst	Reviewed By/ Date
8330 Calibration mix #2	3/15/01	85650301 A-E	Restek - 31451 LOT# A016290	—	ACN	LK 3/15/01 ~~1000 ug/mL~~	1000 ug/mL	12/04		AS 4/7/01
Custom Herbicide Mix	4/5/01	85650302 A-E	Restek - #56919 Lot A018836	—	Hex	5mL	25-255 mg/mL	2/03	MK 10/7/01	
2-CEVE	4/30/01	85650303 A-B	Restek - 30265 LOT - A017909	—	MeOH	1mL	2000 ug/mL	8/04		
1,2-Dinitrobenzene	5-14-01	85650304 A-B	Ultra - IST-600 LOT - P0813	—	MeOH	1mL	1000 ug/mL	7/03		
p-Terphenyl Mix	6-15-01	85650305 A-B-C	Restek - 31095 LOT - A016288	—	DCM	1mL	10,000 ug/ml	6/03		
Diesel Fuel #2	6-15-01	85650306 A-B-C	Restek - 31259 LOT - A017704	—	DCM	5mL	50,000 ug/ml	12/03		
502.2 Cal200 mesa mix	6/15/01	85650307 A-B-C-D-E	Restek - A018484 LOT # cat# 30432	—	meoH	1ml	200 ug/ml	4/03		
Pesticide Surrogate mix	6/15/01	85650308 ~~A-E~~ 11 vials	Restek cat - 32000 exp. 11/03 Lot A018648	—	Ace	1ml	200ug/ml	11/01/01 ~~11/03~~ 7/27/02	MK 7/27/01 MK 7/27/01	AS 7/27/01
		85650309		—					MK 7/27/01	
		85650310		—					MK 7/27/01	
		85650311		—					MK 7/27/01	

L-WI-008/N-01/01

LOGBOOK # 8565, PAGE # 003

Lionville Laboratory

HPLC ANALYSIS
STANDARDS RECEIPT LOG

Compound	Date Received	Standard ID	Source and Lot	%Purity	Solvent	Final Volume (mL)	Final Conc. (w/units)	Exp/ Date	Date/Analyst Date Opened/ Analyst	Reviewed By/ Date
EPA 601/602 Purg. Halo mix	7/13/01	85650501 ~~A-B~~ 7/13/01	Supelco. Lot LA97562	Amp	meOH	1 ml	2000ug/ml	4/02.	JL 7/17/01	8/14/01
⊥	⊥	85650502	⊥	⊥	⊥	⊥	⊥	⊥	JL 7/17/01	⊥
m-xylene	7/13/01	85650503	Chem Service Lot 235-123A	99.5	—	5g	99.5%	2/06.	JL 7/17/01	
Cis-1,2 Dichloroethene	7/13/01	85650504	Chem Service. Lot 258-37A	99.3	—	500mg.	99.3%	1/04	JL 7/17/01	
502.2 (gas) calmix 1	7/13/01	85650505	Restek. Lot A018167	Amp	meOH	1 ml	2000ug/ml	11/07	JL 7/17/01	
2-CEVE	7/13/01	85650506.	Restek Lot A018694	Amp	meOH	1 ml	2000ug/ml	11/04	JL 7/17/01	
⊥	⊥	85650507	⊥	⊥	⊥	⊥	⊥	⊥	JL 7/17/01	
1,1,2 trichloro trifluoro ethane Freon 113	7/13/01	85650508	Restek. Lot A019665	⊥	⊥	⊥	⊥	5/02	JL 7/17/01	
⊥	⊥	⊥ 85650509	⊥	⊥	⊥	⊥	⊥	⊥	JL 7/17/01	⊥
p-Terphenyl	7-23-01	85650510AC	Restek #31095 Lot # A019187	—	DCM	1ml	10,000 ug/ml	5/04		
Picloram	8-2-01	85650511	Restek #32265 exp. 5/12 Lot# A017956	Amp	MeOH	1mL	1000 ug/mL	MK 8/7/01 ~~5/02~~ 8/7/02	MK 8/2/01 BS ~~8/6/01~~ 8/7/01	MK 8/7/01

LOGBOOK # 8565, PAGE # 00

L-WI-008/N-01/01

Recra LabNet Philadelphia

HPLC STANDARDS PREPARATION LOGBOOK

Preparation of Standard Dilutions (Single Component)

Logbook #: 6492

COMPOUND	STANDARD DILUTION I.D.	PARENT STANDARD I.D.	PARENT CONC. (w/units)	PARENT VOLUME (mL)	TOTAL VOLUME (mL)	SOLVENT	PREPARED STANDARD CONC. (w/units)	DATE/ ANALYST	REVIEWED BY/DATE	DATE REMOVED[1]
p-Terphenyl	64921301	54163506	10,000 ug/mL	0.5 mL	100 mL	Acetone	50 ug/mL	12/13/00 LK	MK 12/13/00	
p-Terphenyl	64921302	54163507	10,000 ug/ml	0.5 mL	100 mL	Acetone	50 ug/ml	3/30/01 C	4/5/01	
Diesel Spike	64921303	54163208	50000 ug/m	3 ml	100 ml	Acetone	1500 ug/m	BF 5/7/01	LK 5/7/01	
Oxy Surrogate	64921304	54163202	neat	0.0054 g	100 mL	12 1 N NaOH 99% DI H2O	54 ug/ml	5/16/01 LK	8/14/01	
Benzoic Acid Spik	64921305	Benzoic Acid 54160108	neat	0.0055 g.	100 ml	12 1 N NaOH 99% DI H2O	55 ug/ml	5/16/01 LK	8/14/01	
		2-Chlorobenzoic Acid 54160109		0.0056 g.			56 ug/ml			
		3-Chlorobenzoic Acid 54160110		0.0065 g			65 ug/ml			
		4-Chlorobenzoic Acid 54160111		0.0054 g			54 ug/ml			
		Chlorobenzoic Acid 54160112		0.0250 g			250 ug/ml			
P-TERPHENYL	64921306	54163508	10000 ug/m	0.5 ml	100 ml	Acetone	50 ug/m ~~1500~~ BF 5/17/01	BF 5/17/01	6/5/01	
P-TERPHENYL	64921307	85650305	10000 ug/m	0.5 ml	100 ml	Acetone	50 ug/m BF	BF 7/6/01	8/14/01	

[1]Date removed is the date standards are given to the Waste Disposal Unit for disposition.

L-WI- 036/C-05/98

Recra LabNet Philadelphia

HPLC STANDARDS PREPARATION LOGBOOK

Preparation of Standard Dilutions (Single Component)

104

Logbook #: 6492

COMPOUND	STANDARD DILUTION I.D.	PARENT STANDARD I.D.	PARENT CONC. (w/units)	PARENT VOLUME (mL)	TOTAL VOLUME (mL)	SOLVENT	PREPARED STANDARD CONC. (w/units)	DATE/ ANALYST	REVIEWED BY/DATE	DATE REMOVED[1]
p-Terphenyl Surrogate	64921401	85650305 C	10,000 ug/ml	0.5 ml	100 ml	Ace	50 ug/ml	7/19/01 LK	8/14/01	
Benzoic Acid Spike	64921402	Benzoic Acid 54160108	neat	.0055 g.	100 ml	1% 1N NaOH 99% H_2O	55 ug/ml	7-30-01 LK	8/14/01	
		2-Chlorobenzoic Acid 54160109		.0054 g.			54 ug/ml			
		3-Chlorobenzoic Acid 54160110		.0068 g.			68 ug/ml			
		4-Chlorobenzoic Acid 54160111		.0060 g.			60 ug/ml			
		Chloroadic Acid 54160112		0.0255 g.			225 ug/ml			

[1]Date removed is the date standards are given to the Waste Disposal Unit for disposition.

L-WI- 036/C-05/98

Recra LabNet
Philadelphia

HPLC STANDARDS PREPARATION LOGBOOK
Preparation of Mixture Dilutions (Multi-Component)

ODRO/Motor Oil Calibration Curve

Logbook #: 6458 105

DATE/ANALYST		7/24/01 JC									
DILUTION MIX ID	////////	64888101 A	64888102 B	64888103 C	64888104 D	64888105 E	64888106 F				
PARENT MIX ID	See below										
PARENT VOLUME (w/units)	Diesel Fuel + Motor Oil p-Terphenyl	50 ul 4.2 ul	150 ul 12.5 ul	300 ul 25 ul	1500 ul 125 ul	1500 ul 125 ul	3000 ul 250 ul				
TOTAL VOLUME (w/units)	////////	25 ml	25 ml	25 ml	50 ml	25 ml	25 ml				
SOLVENT		DCM	DCM	DCM	DCM	DCM	DCM				
UNITS →	ug/ml										
COMPONENT ↓	PARENT↓	CONC.↓	CONC.↓	CONC.↓	CONC.↓	CONC.↓	CONC.↓	CONC.↓	CONC.↓	CONC.↓	CONC.↓
Diesel Fuel #2 60742110A,C	50,000	100	300	600	1500	3000	6000				
Motor Oil 84323301	50,000	100	300	600	1500	3000	6000				
p-Terphenyl 85650510A	10,000	7/24/01 JC 1.68	7/24/01 JC 5	10	25	50	100				
EXPIRATION DATE		1/24/02									
DATE REMOVED[1]											

[1]Date removed is the date the standard is given to the Waste Disposal Unit for disposition.

REVIEWED BY/DATE: [illegible] 8/14/01

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Recra LabNet
Philadelphia

Logbook #: 6074

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ORGANIC PREPARATION UNIT
AMPULE STANDARDS TRACKING LOGBOOK

Compound Mix Name	Standard ID	Source	Lot #	CONC w/units	Volume/ Solvent	Receipt Date	Expiration Date	Reviewed By/Date	
B/N	60742101	Restek	A012925	750ug/ml	Methanol	3/12/01	1/02	BF 3/12/01	
BNA LCS	60742102	NSI	032201-CC	100ug/ml	Meoh	3/23/01	3/22/03	BF 3/23/01	A-J
PEST SURR MIX	60742103	Restek	A017786	200ug/ml	Acetone	3/29/01	6/03	BF 3/29/01	A-J
AR1254	60742104	Restek	A18671	1000ug/ml	hexane	3/29/01	6/05	P 5/25/01	A-E
BNA TCLP	60742105	Supelco	LA97047	100/500ug	Acetone	3/29/01			A-B
TRIPHENYLPHOSPHATE	60742106	Chemservice	262-17C	2000ug/ml	Acetonitrile	4/2/01	4/02		
DCBP BF 4/11/01	60742107	Chemservice	251-108B	1000ug/ml	Hexane BF 4/12/01	~~11/02~~ 4/12/01	11/02		A-B
Toxaphene	60742108	Supelco	LA88571	200ug/ml	Isooctane	5/10/01	2/03		A-B
Chlordane	60742109	Supelco	LA92619	500ug/ml	Methanol	⊥	8/03		A-B
Diesel Fuel #2	60742110	Restek	A017704	50000ug/ml	Methylene Chloride	5/14/01	12/03		A,B
Pest Matrix Spike	60742111	Restek	A017302	2550ug/ml	Acetone	~~5/14/01~~ 5/14/01	9/03		A,B
B/N SURROGATE (LL)	60742112	Restek	A016727	1000ug/ml	Methylene Chloride	5/23/01	8/03		A-E
L/C ACID SURROGATE (LL)	60742113	RESTEK	A019075	1000-3000ug/ml	MeOH	5/23/01	12/04		A-E
BF 6/21/01 ~~BNA LCS~~									
GPC CAL MIX	60742114	Restek	A07257	02-250ug/ml	Methylene Chloride	6/21/01	10/07	BF 6/21/01	A-E
Grain Alcohol	60742115	GRAVES	—			6/27/01	—	BF 6/27/01	A-B

RFW 21-21-008/Z-07/97

PREPARATION LOGS

Lionville Laboratory, Inc.

SAMPLE EXTRACTION RECORD

Sheet no.: 1

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Extract. Date: 07/26/01 Extraction Batch No: 01LE0891 Analyst: MB Method: ****

Test: ODRO Cleanup Date: Analyst: Client: LANL REQ #9407R

LIMS Report Date: 07/27/01 Solvent: DCM Adsorbent:

Sample No:	Client Name Client ID	pH	Initial WT/VOL	Surr. Mult.	Spike Mult.	Final VOL	Final VOL	Split Mult.	GPC Y/N	% Solids	C/D FACTOR
0107L389-	LANL REQ #9407R										
007	RC60-01-0003 03	7	25.0	1.0		1.0		1.0	N	0.00	40.00
008	RC60-01-0004 03	7	25.0	1.0		1.0		1.0	N	0.00	40.00
009	RC60-01-0005 03	7	25.1	1.0		1.0		1.0	N	0.00	39.84
009 -S	RC60-01-0005 03	7	25.0	1.0	1.0	1.0		1.0	N	0.00	40.00
009 -T	RC60-01-0005 03	7	25.0	1.0	1.0	1.0		1.0	N	0.00	40.00
010	RC60-01-0006 03	7	25.3	1.0		1.0		1.0	N	0.00	39.53
011	RC60-01-0007 03	7	25.4	1.0		1.0		1.0	N	0.00	39.37
012	RC60-01-0008 03	7	25.5	1.0		1.0		1.0	N	0.00	39.22
01LE0891-MB1	BLK	7	25.0	1.0		1.0		1.0	N	100.00	40.00
01LE0891-MB1 -S	BLK	7	25.0	1.0	1.0	1.0		1.0	N	100.00	40.00

Comments:
Surrogate: 1000UL P-TERP 64921401
Spike: 1000 UL DIESEL SPIKE 64921303

Extracts Transferred	Relinquished By	Date Time	Received By	Date Time	Reason for Transfer
all	EY	7/27/01 1500	LK	7/30/01 1630	Analysis

Lionville Laboratory, Inc.

SOIL EXTRACTABLES

Extract Date: 7/26/01 Extraction Batch #: 01LE0891 Logbook # 8672

Analyst: MB Test: ODEO

Extraction Method Used:

- ☐ L-SP-3510, Rev. 03; Sep Funnel
- ☐ L-SP-3520, Rev. 00A; Cont. Liq/Liq
- ☒ L-SP-3540, Rev. 00; Soxhlet
- ☐ L-SP-3550, Rev. 03; Sonication
- ☐ L-SP-3580, Rev. 01; Waste Dilution
- ☐ N/A - Special Project

OBSERVATIONS:

Recorded by/Date: MB 7/27/01 Reviewed by/Date: EG 7/27/01

Lionville Laboratory, Inc.

SOIL EXTRACTABLES

Logbook # 8672

Extract Date: 7/26/01 Extraction Batch #: 01LE0891

Analyst: MB Test: ODEO Method: SOX Solvent: DCM AAPrep:

	RFW #	Mtx	pH	Initial Wt/Vol (g/mL)	Surr/ Spike Mult	Pre GPC Vol (ml)	After GPC Vol (ml)	Split Mult
1	01072389-007	S	NA	25.0	1	N/A	1.0	1.0
2	01072389-008	S		25.0	1			
3	-009	S		25.1	1			
	-009MS	S		25.0	11			
4	-009MSD	S		25.0	11			
5	-010	S		25.3	1			
6	-011	S		25.4	1			
7	-012	S		25.2	1			
8	B	S		25.0	1			
9	BS	S		25.0	11			
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								

7/26/01

MB

DCM Solvent Lot: V19469
Acetone Solvent Lot: —
Hexane Solvent Lot: —
Ether Solvent Lot: —
Sodium Sulfate Lot: 8403300
Other: —

Extraction Information

(Date/Analyst)

Start time: MB 7/26/01 12:
End time: BF 7/27/01 600
Filtration: EG 7/27/01
Boildown: —
Blowdown: —
GPC Ready: —
GPC Cleanup: —
GPC #: —
After GPC Boildown: —
After GPC Blowdown: —
Acid/Florisil Cleanup: (circle)

Prep Sheet: 7/27/01 EG
GPC Lab ID #: —
Florisil Lot #: —
Florisil Lab ID #: —
Acid Lot #: —

Balance #: 89
Balance Cal Check Y/NA (circle)
pH Meter Calibrated Y/NA (circle)

Spiked by: MB
Surrogate: 1ml p-Terp 64921401
Spike: 1ml Diesel Spk 64921303

Witness: —
Pipette ID: YP03074
Pipette ID: —
This Page Reviewed By/Date: EG 7/27/01

OTHER MISCELLANEOUS

END OF DATA PACKAGE

PESTICIDES/PCBs: COMPLETE SDG FILE (CSF) INVENTORY SHEET

LABORATORY NAME:	Recra LabNet Philadelphia
CITY/STATE:	Lionville, PA
CASE/SDG NO.:	0107L389
CLIENT NAME:	LANL Req. # 9407R
WORK ORDER NO.:	02744-064-001-9999-00
METHOD BASED ON:	SW-846, Method 8080; EPA CLP SOW 2/88

All documents in the Client's copy of the complete SDG file must be legible, clearly labeled, paginated, single-sided original documents; or of sufficient copy quality to be reproducible to fourth generation copies. (Purge file documents, e.g., original-copy chain-of-custody, etc. assembled per specific contract request only.)

CLIENT: LANL Req. # 9407R SDG No.: 0107L389		Page Nos		Check (initials/date)	
		From	To	Lab	Client
1	Cover Page (Lab Chron)	01	—	[illegible]	
2	Table of Contents (Document Inventory Sheet)	02	—	8/20/01	
3	Case Narrative	03	06		
4	Shipping, Receiving, and Custody Records	07	11		
	• Lab Chain of Custody/Work Request				
	• Client Custody Reports/Packing Lists				
	• Airbills				
5	Pesticide/PCB Sample QC/Data Summary	12	17		
	• Data Summary (LIMS Summary Report)				
	• Surrogate % Recovery Form				
	• MS/MSD Summary Form				
	• Method Blank Summary				
6	Sample Data, for each Sample:	18	60		
	• Target Compound Results (single sample summary)				
	• Chromatogram/Quant Report, 1° column				
	• Chromatogram/Quant Report, 2° column confirmation				
7	Calibration Standard Data	61	151		
	1° Column Standards Data				
	Analytical Sequence				
	Continuing Calibration Verification Form				
	Pesticide Identification Summary, if applicable				
	Standards Concentration Sheets				
	• Surrogate and Spike Concentration Sheet				
	• Analytical Standard Concentration Sheet				
	Chromatograms/Quant Reports				
	2° Column Standards Data				
	Analytical Sequence				
	Continuing Calibration Verification Form				
	Chromatograms/Quant Reports				
	Pesticide GPC calibration data: notebook pages and				

CLIENT: LANL Req. # 9407R SDG No.: 0107L389		Page Nos		Check (initials/date)	
		From	To	Lab	Client
	UV detector traces				
8	Raw QC Data: Blank and Matrix Spike Data	152	186		
	Method Blank Data	—	—		
	• Target Compound Results (single sample summary)			KBW 8/14/01	—
	• Chromatogram/Quant Report, 1° column				—
	• Chromatogram/Quant Report, 2° column confirmation				—
	Blank Spike/Blank Spike Duplicate	—	—		
	• Target Compound Results (single sample summary)			KBW 8/14/01	—
	• Chromatogram/Quant Report, 1° column				—
	• Chromatogram/Quant Report, 2° column confirmation				—
	Matrix Spike/Matrix Spike Duplicate	—	—		
	• Target Compound Results (single sample summary)			KBW 8/14/01	—
	• Chromatogram/Quant Report, 1° column				—
	• Chromatogram/Quant Report, 2° column confirmation				—
9	Analysis Logbook Pages	187	197	KBW 8/14/01	—
10	Standards Preparation Records	198	243		
	• Surrogate and Target Analyte Spike Solutions			KBW 8/14/01	—
	• Analysis Standards				—
11	Preparation Logs	244	249		
	• Sample Prep Records (Extraction notebook pages)			KBW 8/14/01	—
	• Extract Chain of Custody (LIMS record, with COC section signed)				—
	• Screening Records (Logs, Chromatograms), if applicable			—	—
	• Other Sample Cleanup Records			KBW 8/14/01	—
	• % Moisture and/or % Solids Records			—	—
12	Other/Miscellaneous	250	251		
	• MDL / IDL Table (circle one)			—	—
				—	—

COMMENTS: _____

Checked by: (Laboratory) Signature: Kristin Weiter — Printed Name/Title: Kristin Weiter / Chemist — Date: 8/16/01

Checked by: (Client) Signature: _____ Printed Name/Title: _____ Date: _____

Lionville Laboratory, Inc.
PCB ANALYTICAL DATA PACKAGE FOR
LANL REQ #9407R

DATE RECEIVED: 07/25/01 LVL LOT # :0107L389

CLIENT ID	LVL #	MTX	PREP #	COLLECTION	EXTR/PREP	ANALYSIS
RC60-01-0003 02	001	S	01LE0890	07/23/01	07/26/01	08/03/01
RC60-01-0004 02	002	S	01LE0890	07/23/01	07/26/01	08/03/01
RC60-01-0005 02	003	S	01LE0890	07/23/01	07/26/01	08/03/01
RC60-01-0006 02	004	S	01LE0890	07/23/01	07/26/01	08/03/01
RC60-01-0007 02	005	S	01LE0890	07/23/01	07/26/01	08/03/01
RC60-01-0008 02	006	S	01LE0890	07/23/01	07/26/01	08/03/01
RC60-01-0008 02	006 MS	S	01LE0890	07/23/01	07/26/01	08/04/01
RC60-01-0008 02	006 MSD	S	01LE0890	07/23/01	07/26/01	08/04/01

LAB QC:

PBLKLZ	MB1	S	01LE0890	N/A	07/26/01	08/03/01
PBLKLZ	MB1 BS	S	01LE0890	N/A	07/26/01	08/03/01

8/7/01

TABLE OF CONTENTS

Pcb

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I.	Cover Page (Lab Chron)	001
II.	Table of Contents	002
III.	Case Narrative	003
IV.	Shipping, Receiving and Custody Record..	007
V.	Sample QC/Data Summary	012
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Case Narrative

LIONVILLE LABORATORY INC.

Analytical Report

Client: LANL REQ.#9407R
LVL#: 0107L389
Subcontract #: 7791L0014-AA

W.O.#: 02744-064-001-9999-00
Date Received: 07-25-2001

PCB

The set of samples consisted of six (6) soil samples collected on 07-23-2001.

The samples and their associated QC samples were extracted on 07-26-2001 and analyzed according to Lionville Laboratory OPs based on SW846, 3rd Edition procedures on 08-03,04-2001. The extraction procedure was based on method 3540 and the extracts were analyzed based on method 8082 for Aroclors only.

The following is a summary of the QC results accompanying the sample results and a description of any problems encountered during their analyses:

1. The cooler temperature has been recorded on the chain-of-custody.
2. All required holding times for extraction and analysis have been met.
3. The samples and their associated QC samples received a sulfuric acid cleanup.
4. The method blank was below the reporting limits for all target compounds.
5. All surrogate recoveries were within acceptance criteria.
6. The blank spike recovery was within acceptance criteria.
7. The matrix spike recoveries were within acceptance criteria.
8. All initial calibrations associated with this data set were within acceptance criteria.
9. All continuing calibration standards analyzed prior to sample extracts were within acceptance criteria.
10. I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, except as detailed in this QC Report.

Iain Daniels
Deputy Laboratory Manager
Lionville Laboratory Incorporated

8/21/01
Date

som\r:\group\data\pest\lanl\07L389.pcb

The results presented in this report relate only to the analytical testing and conditions of the samples at receipt and during storage. All pages of this report are integral parts of the analytical data. Therefore, this report should only be reproduced in its entirety of 2 5 1 pages.

208 Welsh Pool Road • Exton, PA 19341-1313 • (610) 280-3000 • Fax (610) 280-3041

GLOSSARY OF PESTICIDE/PCB DATA

DATA QUALIFIERS

U = Indicates that the compound was analyzed for but not detected. The minimum detection limit for the sample (not the method detection limit) is reported with the U (e.g., 10U).

J = Indicates an estimated value. This flag is used in cases where a target analyte is detected at a level less than the lower quantification level. If the limit of quantification is 10 ug/L and a concentration of 3 ug/L is calculated, it is reported as 3J.

B = This flag is used when the analyte is found in the associated blank as well as in the sample. It indicates possible/probable blank contamination.

E = Indicates that the compound was detected beyond the calibration range and was subsequently analyzed at a dilution.

I = Interference.

ABBREVIATIONS

BS = Indicates blank spike in which reagent grade water is spiked with the CLP matrix spiking solutions and carried through all the steps in the method. Spike recoveries are reported.

BSD = Indicates blank spike duplicate.

MS = Indicates matrix spike.

MSD = Indicates matrix spike duplicate.

DL = Indicates that recoveries were not obtained because the extract had to be diluted for analysis.

NA = Not Applicable.

DF = Dilution Factor.

NR = Not Required.

SP = Indicates Spiked Compound.

GLOSSARY OF PESTICIDE/PCB DATA

P = This flag is used for an PESTICIDE/PCB target analyte when there is greater than 25% difference for detected concentrations between the two GC columns (see Form X). The lower of the two values is reported on Form I and flagged with a "P".

D = This flag identifies all compounds identified in an analysis at a secondary dilution factor.

C = This flag applies to a compound that has been confirmed by GC/MS.

R:/SHARE/HPLC/PESTICIDE/PCBGLOS

Shipping, Receiving, and Custody Records

Lionville Laboratory Use Only
01074389

Custody Transfer Record/Lab Work Request

Page 1 of 12

TL 7-25-01

LVLI — Lionville Laboratory Inc.

ALL FIELD PERSONNEL: COMPLETE ONLY SHADED AREAS

Client: LANL Reg # 9407R
Est. Final Proj. Sampling Date:
Project #: 02744-004-001-9999-00
Project Contact/Phone #:
Lionville Laboratory Project Manager: JS
QC: Spec Del: CP TAT: 30 day
Date Rec'd: 7-25-01 Date Due: 8-24-01

		A		B
Refrigerator #		S		S
#/Type Container	Liquid	1 250		
	Solid	1G		1AG
Volume	Liquid			
	Solid	125		125
Preservatives		–		–
ANALYSES REQUESTED →	ORGANIC: VOA			
	BNA			
	Pest/PCB	ORGB		
	Herb			
	TPH			ORGO
	INORG: Metal			
	CN			

MATRIX CODES:
S - Soil
SE - Sediment
SO - Solid
SL - Sludge
W - Water
O - Oil
A - Air
DS - Drum Solids
DL - Drum Liquids
L - EP/TCLP Leachate
WI - Wipe
X - Other
F - Fish

Lab ID	Client ID/Description	Matrix QC Chosen (✓) MS	MSD	Matrix	Date Collected	Time Collected	ORGB	ORGO
001	RC60-01-0003 02			S	7-23-01	0950	X	X
002	-0004					0955	X	X
003	-0005					1005	X	X
004	-0006					1000	X	X
005	-0007					1012	X	X
006	-0008					1010	X	X
007	-0003 03					0950		X
008	-0004					0955		X
009	-0005					1005		X
010	-0006					1000		X

Special Instructions:

DATE/REVISIONS:
1.
2.
3.
4.
5.
6.

Lionville Laboratory Use Only

Samples were: ✓
1) Shipped ___ or Hand Delivered ___
Airbill # 484732499976
2) Ambient or Chilled
3) Received in Good Condition (Y) or N
4) Samples Properly Preserved (Y) or N
5) Received Within Holding Times (Y) or N

Tamper Resistant Seal was:
1) Present on Outer Package (Y) or N
2) Unbroken on Outer Package (Y) or N
3) Present on Sample (Y) or N
4) Unbroken on Sample (Y) or N

COC Record Present Upon Sample Rec't (Y) or N

Cooler Temp. 6.6 °C

Discrepancies Between Samples Labels and COC Record? Y or (N)
NOTES:

Relinquished by	Received by	Date	Time
Fed Ex	Inec Sto Hchs	7-25-01	1010

Relinquished by	Received by	Date	Time
COMPOSITE WASTE	ORIGINAL DEWDITEM		

Lionville Laboratory Use Only
01071389

Custody Transfer Record/Lab Work Request

FIELD PERSONNEL: COMPLETE ONLY SHADED AREAS

LVLI LIONVILLE LABORATORY INC

Client: LANL Prg # 9407B
Est. Final Proj. Sampling Date:
Project #: See
Project Contact/Phone #:
Lionville Laboratory Project Manager:
QC: Del: TAT:
Date Rec'd: Date Due:

Refrigerator #						B										
#/Type Container	Liquid					S										
	Solid					1Pg										
Volume	Liquid															
	Solid					125										
Preservatives						-										
ANALYSES REQUESTED		ORGANIC							INORG							
		VOA	BNA	Pest/ PCB	Herb				Metal	CN						
		Lionville Laboratory Use Only														
						GDRO										

MATRIX CODES:
S - Soil
SE - Sediment
[illegible] - [illegible]
SL - Sludge
W - Water
O - Oil
A - Air
DS - Drum Solids
DL - Drum Liquids
L - EP/TCLP Leachate
WI - Wipe
X - Other
F - Fish

Lab ID	Client ID/Description	Matrix QC Chosen (✓) MS	MSD	Matrix	Date Collected	Time Collected	GDRO
011	BCL60-01-0007 03			S	7230'	1012	✓
012	↓ -0008 ↓			↓	↓	1010	✓

Special Instructions:

DATE/REVISIONS:
1.
2.
3.
4.
5.
6.

Lionville Laboratory Use Only

Samples were:
1) Shipped ____ or Hand Delivered ____
Airbill # ____
2) Ambient or Chilled
3) Received in Good Condition Y or N
4) Samples Properly Preserved Y or N
5) Received Within Holding Times Y or N

Tamper Resistant Seal was:
1) Present on Outer Package Y or N
2) Unbroken on Outer Package Y or N
3) Present on Sample Y or N
4) Unbroken on Sample Y or N
COC Record Present Upon Sample Rec't Y or N
Cooler Temp. ____ °C

Relinquished by	Received by	Date	Time
FedEx	I. Stoltzfus	7-25-01	1010

Relinquished by	Received by	Date	Time

Discrepancies Between Samples Labels and COC Record? Y or N
NOTES:

Tuesday, July 24, 2001

Los Alamos
NATIONAL LABORATORY

CHAIN OF CUSTODY DOCUMENT NUMBER: 9407RC

REQUEST NUMBER: 9407R
ANALYSIS TYPE: ORG

ATTN: Judy Stone
Lionville Laboratory Inc
208 Welsh Pool Rd
Lionville, pa 19341

SAMPLE ID	CONT ID	CONTAINER DESCRIPTION	ANALYSIS ORDER CODE	PRESERVATIVE	MATRIX
RC60-01-0003	02	125 ml Glass	PCB	None	S
RC60-01-0003	03	125 ml Amber Glass	TPH	Ice	S
RC60-01-0004	02	125 ml Glass	PCB	None	S
RC60-01-0004	03	125 ml Amber Glass	TPH	Ice	S
RC60-01-0005	02	125 ml Glass	PCB	None	S
RC60-01-0005	03	125 ml Amber Glass	TPH	Ice	S
RC60-01-0006	02	125 ml Glass	PCB	None	S
RC60-01-0006	03	125 ml Amber Glass	TPH	Ice	S
RC60-01-0007	02	125 ml Glass	PCB	None	S
RC60-01-0007	03	125 ml Amber Glass	TPH	Ice	S
RC60-01-0008	02	125 ml Glass	PCB	None	S
RC60-01-0008	03	125 ml Amber Glass	TPH	Ice	S

Final Page of CHAIN OF CUSTODY DOCUMENT FOR REQUEST NUMBER 9407R Page 1

Relinquished By:		Date	Time	Received By:		Date	Time
D Jackson	[signature]	7/24/01	1407				
PRINTED NAME	SIGNATURE			PRINTED NAME	SIGNATURE		
Fed Ex		7-25-01	1010	Inez Stokes	[signature]	7-25-01	1010
PRINTED NAME	SIGNATURE			PRINTED NAME	SIGNATURE		
PRINTED NAME	SIGNATURE			PRINTED NAME	SIGNATURE		

Received for DISPOSAL By:		Date	Time	Remarks:
PRINTED NAME	SIGNATURE			

Tuesday, July 24, 2001

REQUEST NUMBER: 9407R
ANALYSIS TYPE: ORG

Los Alamos
NATIONAL LABORATORY

ATTN: Judy Stone
Lionville Laboratory Inc
208 Welsh Pool Rd
Lionville, pa 19341

Please analyze the enclosed samples according to the schedule indicated:

These samples are on:

SHIP DATE: 7/24/01
REPORT DUE: 8/25/01
TURN AROUND REQ'D: 30 day

LANL Request Number: 9407R
Per Agreement Number:
Project Cost Code: MR0R0001E000

RAD SCREENING: Not Required

COMMENTS: 60 - 1114 , GA; TPH BY DIESEL ORGANICS ONLY

LANL ER SMO CONTACT: Joylene Valdez MS H865 5056659968
Signature:

ANALYSIS ORDER CODE	ANALYTE(S)	SAMPLE ID	CONT ID	SAMPLE MATRIX	DATE SAMPLED	COMMENTS
PCB		RC60-01-0003	02	S	7/23/1901	
TPH		RC60-01-0003	03	S	7/23/1901	
PCB		RC60-01-0004	02	S	7/23/1901	
TPH		RC60-01-0004	03	S	7/23/1901	
PCB		RC60-01-0005	02	S	7/23/1901	
TPH		RC60-01-0005	03	S	7/23/1901	
PCB		RC60-01-0006	02	S	7/23/1901	
TPH		RC60-01-0006	03	S	7/23/1901	
PCB		RC60-01-0007	02	S	7/23/1901	
TPH		RC60-01-0007	03	S	7/23/1901	
PCB		RC60-01-0008	02	S	7/23/1901	
TPH		RC60-01-0008	03	S	7/23/1901	

Data Summary/Sample QC

Lionville Laboratory, Inc.

PCBs by GC

Report Date: 08/16/01 21:46

RFW Batch Number: **0107L389** Client: **LANL REQ #9407R** Work Order: 02744064001 Page: 1

Sample Information	Cust ID:	RC60-01-0003 02	RC60-01-0004 02	RC60-01-0005 02	RC60-01-0006 02	RC60-01-0007 02	RC60-01-0008 02
	RFW#:	001	002	003	004	005	006
	Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	D.F.:	1.00	1.00	1.00	1.00	1.00	1.00
	Units:	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG
Surrogate:	Tetrachloro-m-xylene	75 %	90 %	90 %	95 %	92 %	108 %
	Decachlorobiphenyl	71 %	80 %	82 %	101 %	91 %	94 %
Aroclor-1016		36 U	35 U	36 U	35 U	34 U	34 U
Aroclor-1221		71 U	71 U	71 U	69 U	68 U	68 U
Aroclor-1232		36 U	35 U	36 U	35 U	34 U	34 U
Aroclor-1242		36 U	35 U	36 U	35 U	34 U	34 U
Aroclor-1248		36 U	35 U	36 U	35 U	34 U	34 U
Aroclor-1254		36 U	35 U	36 U	35 U	34 U	34 U
Aroclor-1260		36 U	35 U	36 U	35 U	34 U	34 U

Sample Information	Cust ID:	RC60-01-0008 02	RC60-01-0008 02	PBLKLZ	PBLKLZ BS
	RFW#:	006 MS	006 MSD	01LE0890-MB1	01LE0890-MB1
	Matrix:	SOIL	SOIL	SOIL	SOIL
	D.F.:	1.00	1.00	1.00	1.00
	Units:	UG/KG	UG/KG	UG/KG	UG/KG
Surrogate:	Tetrachloro-m-xylene	105 %	85 %	90 %	100 %
	Decachlorobiphenyl	93 %	66 %	99 %	95 %
Aroclor-1016		34 U	34 U	33 U	33 U
Aroclor-1221		68 U	68 U	67 U	67 U
Aroclor-1232		34 U	34 U	33 U	33 U
Aroclor-1242		34 U	34 U	33 U	33 U
Aroclor-1248		34 U	34 U	33 U	33 U
Aroclor-1254		85 %	81 %	33 U	90 %
Aroclor-1260		34 U	34 U	33 U	33 U

U= Analyzed, not detected. J= Present below detection limit. B= Present in blank. NR= Not reported. NS= Not spiked.
%= Percent recovery. D= Diluted out. I= Interference. NA= Not Applicable. *= Outside of EPA CLP QC

2F

SOIL PESTICIDE SURROGATE RECOVERY

Lab Name: Lionville Labs, Inc. Contract: ~~2744-64-01~~ 02744-064-001-9999-00 KBW 8/14/01

Case No.: LANL REQ #9407R

RFW Lot No.: 0107L389

	CLIENT SAMPLE NO.	S1 ( )#	OTHER
01	RC60-01-0003 02	75	71
02	RC60-01-0004 02	90	80
03	RC60-01-0005 02	90	82
04	RC60-01-0006 02	95	101
05	RC60-01-0007 02	92	91
06	RC60-01-0008 02	108	94
07	RC60-01-0008 02MS	105	93
08	RC60-01-0008 02MSD	85	66
09	PBLKLZLE0890-MB1	90	99
10	PBLKLZLE0890-MB1 BS	100	95

	ADVISORY QC LIMITS
S1 ( ) = Tetrachloro-m-xylene	(28-118)
S2 ( ) = Decachlorobiphenyl	(38-122)

Column to be used to flag recovery values
* Values outside of QC limits
D Surrogates diluted out

12

3F

SOIL PESTICIDE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Lionville Labs, Inc. Contract: 02744-064-001-9999-00 ~~2744-64-01~~ KBW 8/16/01

Case No.: LANL REQ #9407R RFW Lot No.: 0107L389-006

MATRIX Spike - Sample No.: RC60-01-0008 02 Level:(low/med) LOW

COMPOUND	SPIKE ADDED UG/KG	SAMPLE CONCENTRATION UG/KG	MS CONCENTRATION UG/KG	MS % REC #	QC LIMITS REC
Aroclor-1254	128	0	109	85	30 -146

COMPOUND	SPIKE ADDED UG/KG	MSD CONCENTRATION UG/KG	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC
Aroclor-1254	127	104	81	4	50	30 -146

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

flagged info

RPD: 0 out of 1 outside limits
Spike Recovery: 0 out of 2 outside limits

COMMENTS:

FORM III PEST-2 5/88 Rev.

3F

SOIL PESTICIDE MATRIX SPIKE RECOVERY

Lab Name: Lionville Labs, Inc. Contract: ~~2744-64-01~~ 02744-064-001-9999-00 RAW 8/16/01

Case No.: LANL REQ #9407R RFW Lot No.: 0107L389

MATRIX Spike - Sample No.: PBLKLZLE0890-MB1 Level:(low/med) LOW

COMPOUND	SPIKE ADDED UG/KG	SAMPLE CONCENTRATION UG/KG	MS CONCENTRATION UG/KG	MS % REC #	QC LIMITS REC
Aroclor-1254	125	0	112	90	30 -146

Column to be used to flag recovery value with an asterisk
* Values outside of QC limits

Spike Recovery: 0 out of 1 outside limits

COMMENTS:

FORM III PEST-2 5/88 Rev.

4C

PESTICIDE METHOD BLANK SUMMARY

Lab Name: Lionville Labs, Inc.

Contract: ~~2744-64-01~~ 02744-064-001-9999-00 Kaw 8/16/01

Case No.: LANL REQ #9407R

Lab Sample ID: 01LE0890-MB1

Lab File ID: 08030135 .02

Matrix: (Soil/Water) SOIL

Level: (low/med) LOW

Date Extracted: 07/26/01

Extraction: (SepF/Cont/Sonc) SONC

Date Analyzed (1): 08/03/01

Date Analyzed (2): 08/03/01

Time Analyzed (1): 1405

Time Analyzed (2): 1405

Instrument ID (1): 35

Instrument ID (2): 36

GC Column ID (1): B608

GC Column ID (2): RTX1701

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
01	RC60-01-0003 02	0107L389-001	08/03/01	08/03/01
02	RC60-01-0004 02	0107L389-002	08/03/01	08/03/01
03	RC60-01-0005 02	0107L389-003	08/03/01	08/03/01
04	RC60-01-0006 02	0107L389-004	08/03/01	08/03/01
05	RC60-01-0007 02	0107L389-005	08/03/01	08/03/01
06	RC60-01-0008 02	0107L389-006	08/03/01	08/03/01
07	RC60-01-0008 02MS	0107L389-006S	08/04/01	08/04/01
08	RC60-01-0008 02MSD	0107L389-006T	08/04/01	08/04/01
09	PBLKLZLE0890-MB1 BS	01LE0890-MB1S	08/03/01	08/03/01

COMMENTS:

[illegible] 8/16/01

FORM IV PEST

5/88 Rev.

Sample Data

1D
PESTICIDE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

RC60-01-0003 02

Lab Name: Lionville Labs, Inc. Work Order: 02744064001

Client: LANL REQ #9407R

Matrix: SOIL

Lab Sample ID: 0107L389-001

Sample wt/vol: 30.2 (g/mL) G

Lab File ID: 08030135.06

Level: (low/med) LOW

Date Received: 07/25/01

% Moisture: not dec. 7 dec.

Date Extracted: 07/26/01

Extraction: (SepF/Cont/Sonc) SONC

Date Analyzed: 08/03/01

GPC Cleanup: (Y/N) N pH: 7.0

Dilution Factor: 1.00

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NO.	COMPOUND		
12674-11-2------	Aroclor-1016	36	U
11104-28-2------	Aroclor-1221	71	U
11141-16-5------	Aroclor-1232	36	U
53469-21-9------	Aroclor-1242	36	U
12672-29-6------	Aroclor-1248	36	U
11097-69-1------	Aroclor-1254	36	U
11096-82-5------	Aroclor-1260	36	U

Negative

FORM 1 PEST

12/88 Rev.

0107L389-001

SAMPLE NO. : 08030135 . 06
TEST NO. :
METHOD NO. : P35 / P35

INSTRUMENT: 35
DATE TIME: 08/03/01 17:57:25
PAGE NO. : 01

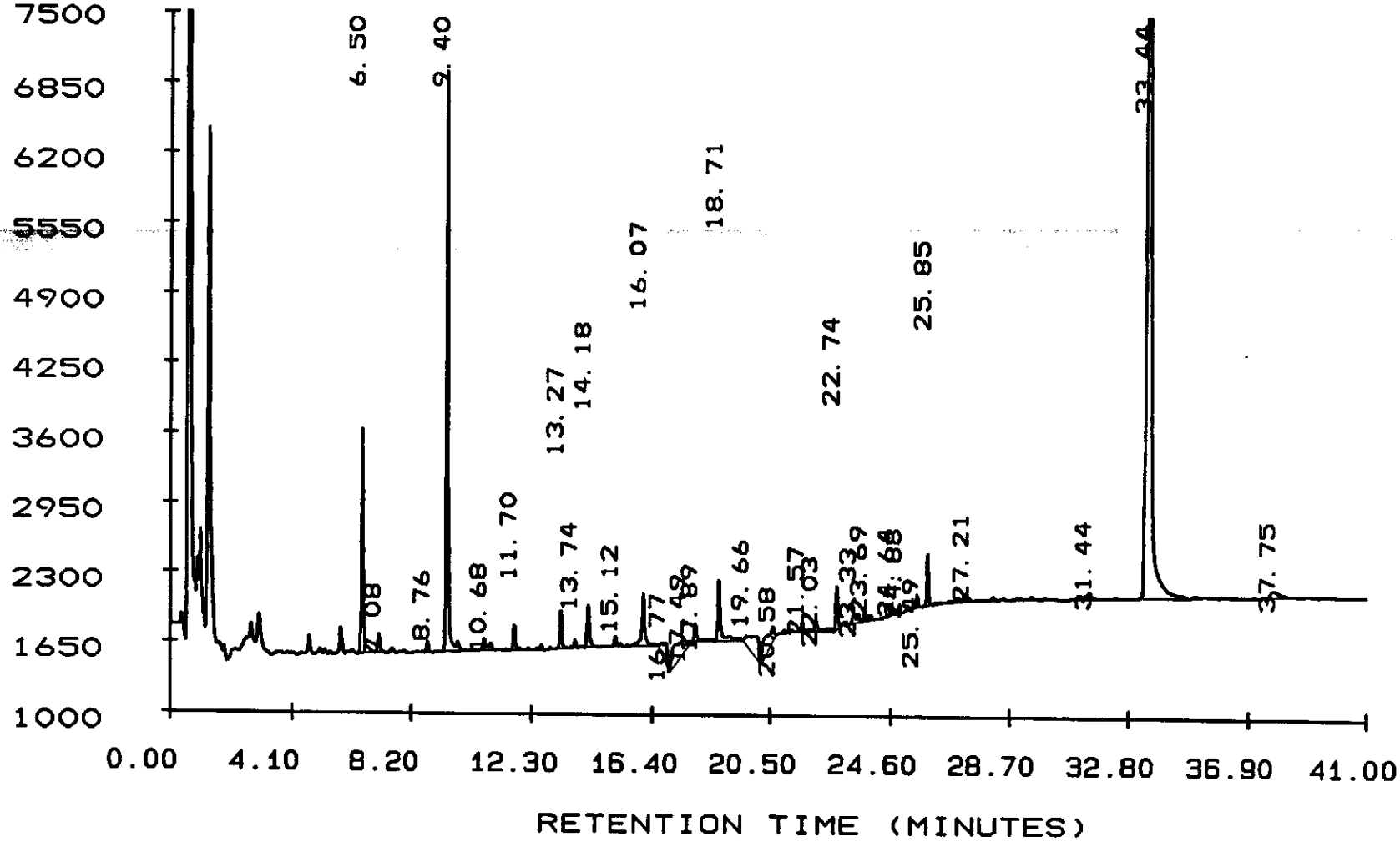

Y MAXIMUM: 7500.
Y MINIMUM: 1000.

START TIME: 0.00
END TIME: 41.00

Lionville Laboratory, Inc. 08/06/01 12:12:55

EXTERNAL STANDARD

SAMPLE: 08030135 .06 INST:35 VIAL:F0 SEQ NUMBER:006
TEST : OPCB DATE-TIME INJECTED : 08/03/01 17:57:25
COLLECTION TIME : 40.97 DATE-TIME PROCESSED : 08/06/01 12:12:55
METHOD: P35 / PCBBS REV #: 00220 ANALYST: KOBELM SAMP RATE: 1.56
CLIENT ID: RC60-01-0003 02 SAMPLE VOL: 1.0 uL
CLIENT: LANL REQ #9407R COLUMN TYPE: DB608
LAB ID: 0107L389-001 RAW FILE: RAW3:H3144875
SAMPLE WT : % MOISTURE : DILUTION FACTOR : 1.0000
COLUMN ID: 0.53 mm I CAL ID : TEMP:L071901.35/25

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
001	1936	305	V	6.170			
002	94271	20355	V	6.500			
003	912	173	V	6.704			
004	9474	1633	V	7.076			
005	2630	442	V	7.529			
006	1731	245	V	7.965			
007	1122	62	V	8.581			
008	5203	996	V	8.758			
009	834	92	V	9.158			
010	256104	52854	V	9.405	1	TCX	0.030 75 L
011	2765	574	V	9.775			
012	621	70	V	10.347			
013	5411	942	V	10.676			
014	2250	543	V	10.895			
015	1150	152	V	11.416			
016	13094	2325	V	11.697			
017	1072	133	V	12.175			
018	622	107	V	12.469			
019	1903	453	V	12.625			
020	1562	203	V	12.924			
021	16742	3477	V	13.270			
022	557	153	V	13.619			
023	3098	698	V	13.745			
024	862	117	V	13.940			
025	23962	3914	V	14.184			
026	813	78	V	14.773			
027	4477	889	V	15.118			
028	949	244	V	15.302			
029	355	73	V	15.546			
030	37245	4837	V	16.073			
031	23494	1386	V	16.773			
032	11737	557	V	17.216			
033	5212	419	V	17.495			
034	8845	1614	V	17.892			
035	2146	112	V	18.411			
036	31301	5505	V	18.707			
037	1015	134	V	19.077			
038	937	173	V	19.456			
039	949	182	V	19.659			
040	25895	1571	V	19.963			

Flags 8/7/01

8/6/01 MK

SAMPLE: 08030135 .06 PAGE NUMBER: 2
DATE-TIME INJECTED : 08/03/01 17:57:25
DATE-TIME PROCESSED : 08/06/01 12:12:55

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
041	37443	1316	V	20.579			
042	1969	260	V	20.964			
043	1372	188	V	21.233			
044	5514	915	V	21.570			
045	1190	205	V	21.796			
046	4237	828	V	22.034			
047	4666	354	V	22.517			
048	19910	3985	V	22.735			
049	2656	322	V	23.052			
050	4622	728	V	23.327			
051	2550	580	V	23.476			
052	2135	548	V	23.690			
053	453	152	V	23.792			
054	838	224	V	23.899			
055	4190	744	V	24.637			
056	3798	756	V	24.875			
057	2309	407	V	25.173			
058	6304	1238	V	25.487			
059	22416	4694	V	25.845			
060	2761	129	V	26.334			
061	973	134	V	26.630			
062	2128	356	V	26.902			
063	7408	574	V	27.205			
064	1262	78	V	27.576			
065	2739	359	V	28.127			
066	1370	157	V	28.474			
067	2074	168	V	29.071			
068	2851	303	V	29.461			
069	1010	140	V	29.917			
071	6477	662	V	31.441			
072	1190	103	V	32.341			
073	517	50	V	32.859			
074	1001827	100551	V	33.436	1	DCB	0.071
075	5417	235		35.042			
076	2416	69		36.139			
077	624	69	V	37.077			
078	15316	634		37.749			
079	1198	63		38.976			

Flag 4/10x

TC

8/6/01
MK

0107L389-001

SAMPLE NO. : 08030136 .06 INSTRUMENT: 36
TEST NO. : DATE TIME: 08/03/01 17:57:25
METHOD NO. : P36 / P36 PAGE NO. : 01

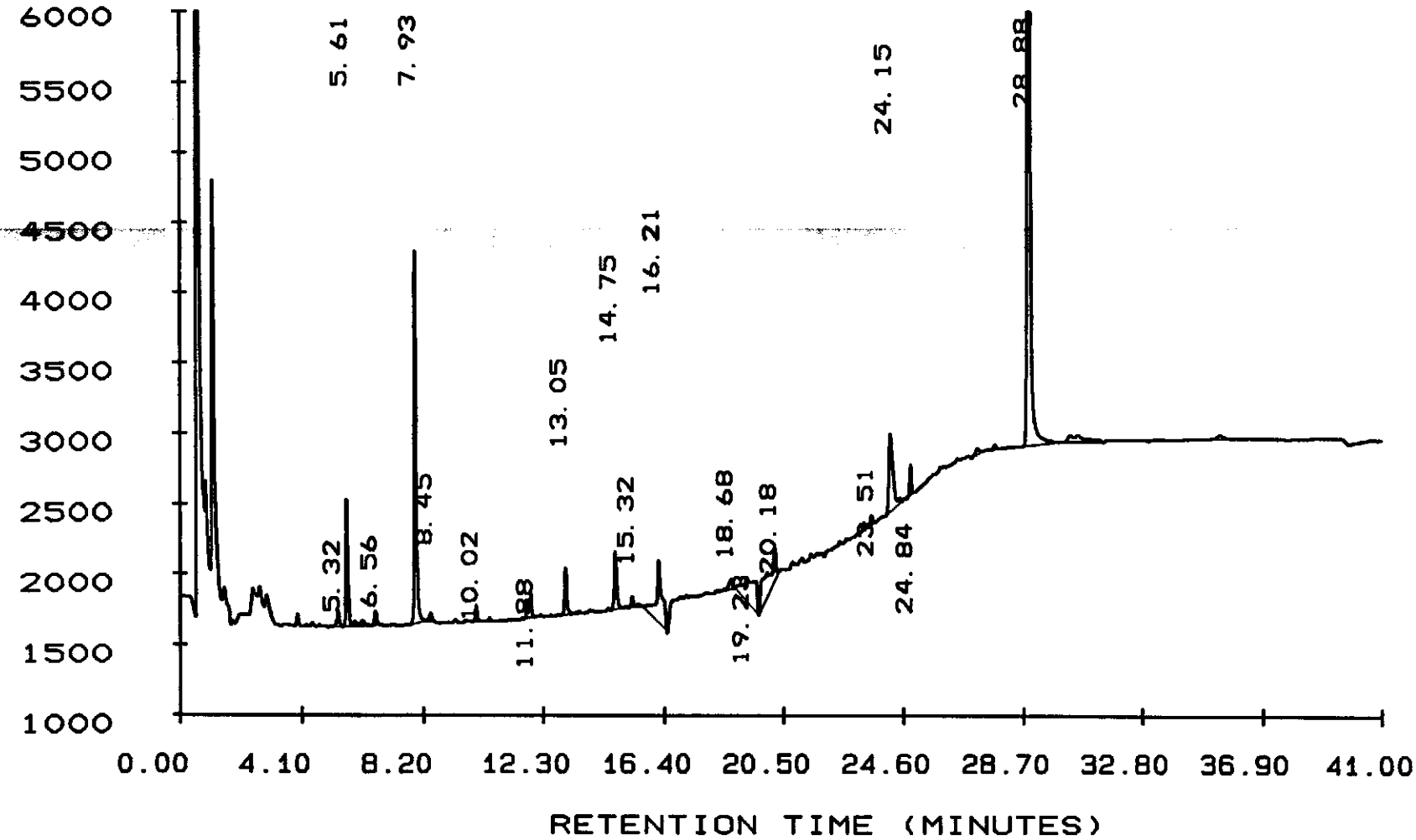

Y MAXIMUM: 6000. START TIME: 0.00
Y MINIMUM: 1000. END TIME: 41.00

Lionville Laboratory, Inc. 08/06/01 12:32:51

EXTERNAL STANDARD

SAMPLE: 08030136 .06 INST:36 VIAL:F0 SEQ NUMBER:006
TEST : OPCB DATE-TIME INJECTED : 08/03/01 17:57:25
COLLECTION TIME : 40.97 DATE-TIME PROCESSED : 08/06/01 12:32:51
METHOD: P36 / PCBMK REV #: 00212 ANALYST: KOBELM SAMP RATE: 1.56
CLIENT ID: RC60-01-0003 02 SAMPLE VOL: 1.0 uL
CLIENT: LANL REQ #9407R COLUMN TYPE: RTX1701
LAB ID: 0107L389-001 RAW FILE: RAW3:H3144876
SAMPLE WT : % MOISTURE : DILUTION FACTOR : 1.0000
COLUMN ID: 0.53 mm I CAL ID : TEMP:L071901.36/25

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
001	7096	1070	V	5.318			
002	41058	8735	V	5.609			
003	1131	239	V	5.880			
004	2163	305	V	6.144			
005	6422	1038	V	6.563			
006	1077	121	V	7.147			
007	130090	25940	V	7.930	1	TCX	0.036 96 C
008	4245	596	V	8.449			
009	1888	240	V	9.301			
010	1659	187	V	9.673			
011	6170	1126	V	10.016			
012	1082	218	V	10.477			
015	467	84	V	11.598			
016	2889	766	V	11.760			
017	5657	1437	V	11.880			
018	979	122	V	12.219			
019	580	86	V	12.568			
020	17775	3237	V	13.054			
021	1471	170	V	13.516			
022	1713	170	V	13.898			
023	848	203	V	14.512			
024	23804	4002	V	14.751			
025	442	90	V	15.127			
026	3430	717	V	15.325			
027	931	144	V	15.533			
028	65127	4427	V	16.206			
029	30372	612	V	16.948			
030	895	161	V	17.146			
031	1054	109	V	17.845			
032	8534	699	V	18.677			
033	3834	450	V	19.225			
034	10614	1452	V	19.531			
035	20239	678	V	19.928			
036	9277	1832	V	20.176			
037	1184	107	V	20.508			
038	3129	372	V	20.807			
039	2467	346	V	21.127			
040	1532	334	V	21.432			
041	3506	248	V	21.735			
042	5459	294	V	22.416			

8/6/01
MK

SAMPLE: 08030136 .06 PAGE NUMBER: 2
DATE-TIME INJECTED : 08/03/01 17:57:25
DATE-TIME PROCESSED : 08/06/01 12:32:51

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
043	874	181	V	22.661			
044	2253	515	V	23.253			
045	3278	666	V	23.513			
046	47050	5369	V	24.149			
047	994	231	V	24.471			
048	9104	2102	V	24.840			
049	868	198	V	25.866			
050	1256	175	V	26.448			
051	2717	183	V	26.837			
052	4558	470	V	27.124			
053	2770	349		27.724			
054	477627	71533		28.885	1	DCB	0.080 80%
055	2885	269	V	30.305			
056	1582	179	V	30.586			
057	2936	103	V	30.955			
058	1640	107	V	31.637			
060	1971	53	V	32.469			
061	2274	66	V	33.461			
063	5623	277		35.477			
065	594	56		37.984			

8/6/01
MK

1D
PESTICIDE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

RC60-01-0004 02

Lab Name: Lionville Labs, Inc. Work Order: 0274406400 1

Client: LANL REQ #9407R

Matrix: SOIL

Lab Sample ID: 0107L389-002

Sample wt/vol: 30.2 (g/mL) G

Lab File ID: 08030135.07

Level: (low/med) LOW

Date Received: 07/25/01

% Moisture: not dec. 6 dec.

Date Extracted: 07/26/01

Extraction: (SepF/Cont/Sonc) SONC

Date Analyzed: 08/03/01

GPC Cleanup: (Y/N) N pH: 7.0

Dilution Factor: 1.00

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NO.	COMPOUND		
12674-11-2	Aroclor-1016	35	U
11104-28-2	Aroclor-1221	71	U
11141-16-5	Aroclor-1232	35	U
53469-21-9	Aroclor-1242	35	U
12672-29-6	Aroclor-1248	35	U
11097-69-1	Aroclor-1254	35	U
11096-82-5	Aroclor-1260	35	U

Flags 4/17/02

FORM 1 PEST

12/88 Rev.

0107L389-002

SAMPLE NO. : 08030135 . 07 INSTRUMENT: 35
TEST NO. : DATE TIME: 08/03/01 18:55:13
METHOD NO. : P35 / P35 PAGE NO. : 01

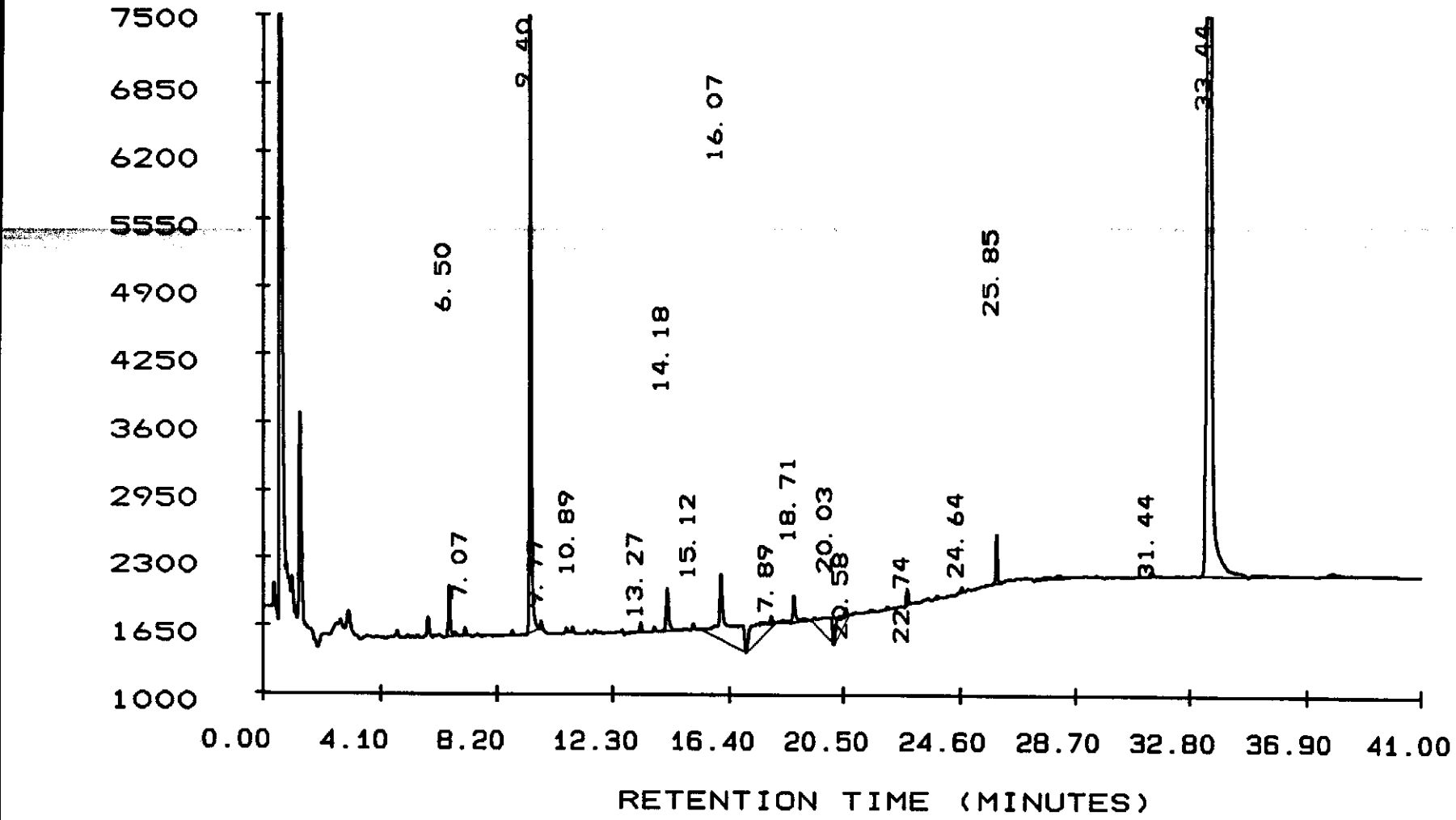

Y MAXIMUM: 7500. START TIME: 0.00
Y MINIMUM: 1000. END TIME: 41.00

Lionville Laboratory, Inc. 08/06/01 12:13:10

EXTERNAL STANDARD

SAMPLE: 08030135 .07 INST:35 VIAL:F0 SEQ NUMBER:007
TEST : OPCB DATE-TIME INJECTED : 08/03/01 18:55:13
COLLECTION TIME : 40.97 DATE-TIME PROCESSED : 08/06/01 12:13:10
METHOD: P35 / PCBBS REV #: 00220 ANALYST: KOBELM SAMP RATE: 1.56
CLIENT ID: RC60-01-0004 02 SAMPLE VOL: 1.0 uL
CLIENT: LANL REQ #9407R COLUMN TYPE: DB608
LAB ID: 0107L389-002 RAW FILE: RAW3:H3144886
SAMPLE WT : % MOISTURE : DILUTION FACTOR : 1.0000
COLUMN ID: 0.53 mm I CAL ID : TEMP:L071901.35/25

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
001	1305	199	V	6.158			
002	21912	4654	V	6.496			
003	1627	250	V	6.713			
004	4814	795	V	7.072			
005	1282	208	V	7.523			
006	1637	145	V	7.863			
007	3331	457	V	8.754			
008	913	86	V	9.154			
009	297591	62256	V	9.401	1	TCX	0.036 90%
010	4247	861	V	9.773			
012	2572	499	V	10.673			
013	2478	559	V	10.891			
014	1312	244	V	11.436			
015	2708	330	V	11.687			
016	768	67	V	12.192			
017	444	82	V	12.481			
018	1466	360	V	12.620			
019	8126	918	V	13.269			
020	2260	474	V	13.745			
021	25201	4000	V	14.183			
022	1180	98	V	14.848			
023	3087	580	V	15.117			
024	560	86	V	15.544			
025	35287	5079	V	16.073			
026	17342	1003	V	16.773			
027	11648	655	V	17.212			
028	1899	182	V	17.501			
029	445	118	V	17.672			
030	3901	706	V	17.892			
031	1962	219	V	18.319			
032	868	225	V	18.518			
033	14330	2493	V	18.708			
034	2049	196	V	19.102			
035	1738	283	V	19.465			
036	39088	2151	V	20.032			
037	36605	1146	V	20.579			
038	870	154	V	20.910			
039	2718	244	V	21.472			
040	1478	233	V	22.047			
041	454	96	V	22.285			

Flagged n/a

8/6/01
MK

SAMPLE: 08030135 .07 PAGE NUMBER: 2
DATE-TIME INJECTED : 08/03/01 18:55:13
DATE-TIME PROCESSED : 08/06/01 12:13:10

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
042	2106	170	V	22.549			
043	8060	1629	V	22.737			
044	914	111	V	23.046			
045	3730	296	V	23.467			
046	2908	309	V	23.802			
047	3675	559	V	24.637			
048	1058	167		24.880			
049	22077	4689	V	25.847			
050	2787	189	V	26.251			
051	1094	140	V	26.624			
052	4115	236	V	26.898			
053	5826	224	V	27.567			
054	2697	242	V	28.045			
055	403	70	V	28.469			
056	1133	85	V	29.045			
057	1347	120	V	29.467			
058	463	64	V	29.911			
060	6618	567	V	31.439			
061	1389	81	V	32.334			
062	1137141	113748	V	33.436	1	DCB	0.080 80% flagged
063	6658	257	V	35.066			
064	1982	71	V	35.906			
066	1094	74	V	37.045			
067	7622	304	V	37.777			
069	1514	63		38.965			

8/6/01
MK

0107L389-002

SAMPLE NO. : 08030136 .07
TEST NO. :
METHOD NO. : P36 / P36

INSTRUMENT: 36
DATE TIME: 08/03/01 18:55:13
PAGE NO. : 01

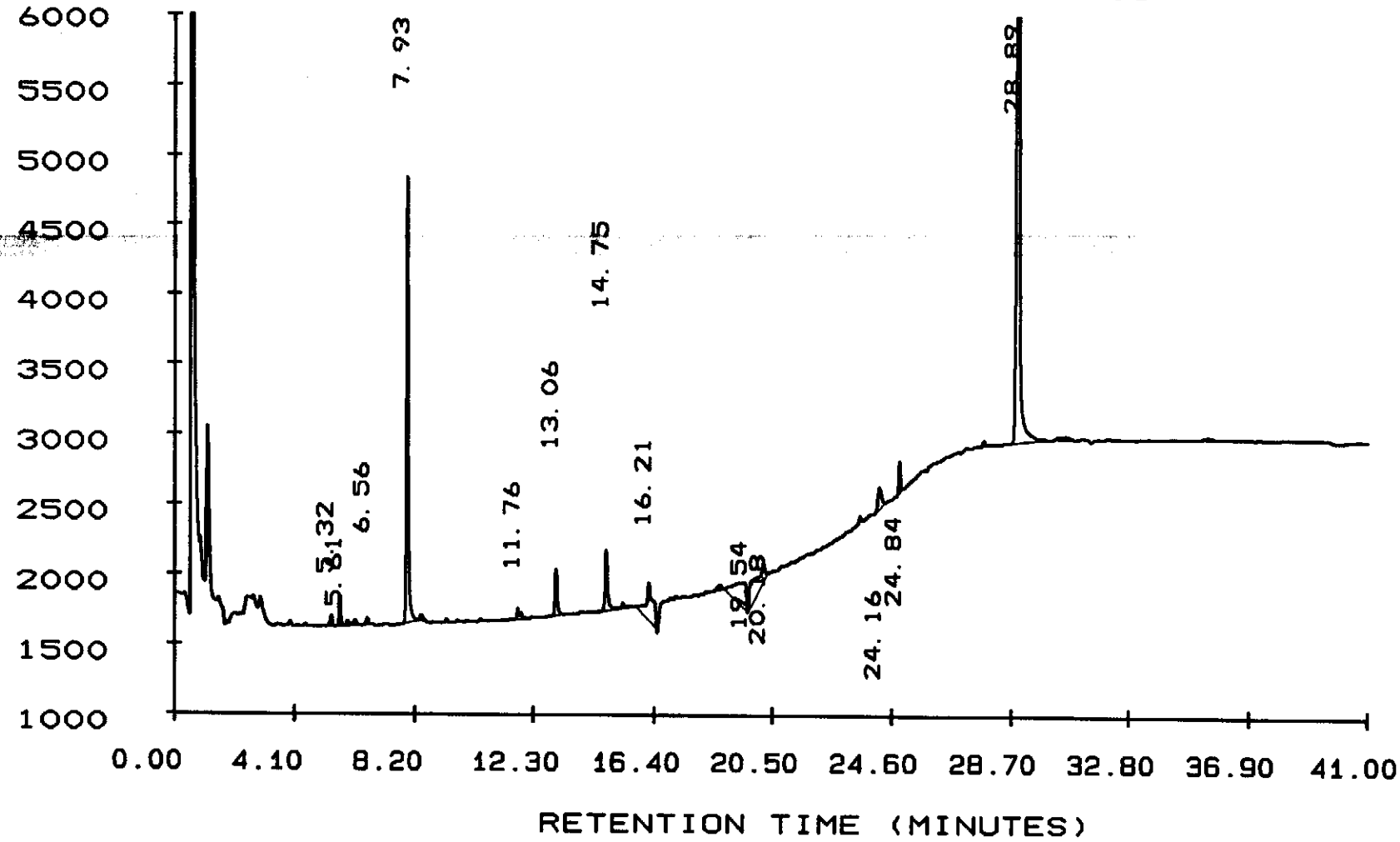

Y MAXIMUM: 6000.
Y MINIMUM: 1000.

START TIME: 0.00
END TIME: 41.00

Lionville Laboratory, Inc. 08/06/01 12:33:03

EXTERNAL STANDARD

SAMPLE: 08030136 .07 INST:36 VIAL:F0 SEQ NUMBER:007
TEST : OPCB DATE-TIME INJECTED : 08/03/01 18:55:13
COLLECTION TIME : 40.97 DATE-TIME PROCESSED : 08/06/01 12:33:03
METHOD: P36 / PCBMK REV #: 00212 ANALYST: KOBELM SAMP RATE: 1.56
CLIENT ID: RC60-01-0004 02 SAMPLE VOL: 1.0 uL
CLIENT: LANL REQ #9407R COLUMN TYPE: RTX1701
LAB ID: 0107L389-002 RAW FILE: RAW3:H3144885
SAMPLE WT : % MOISTURE : DILUTION FACTOR : 1.0000
COLUMN ID: 0.53 mm I CAL ID : TEMP:L071901.36/25

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
001	277	71	V	5.071			
002	4447	794	V	5.321			
003	9518	2107	V	5.612			
004	1445	307	V	5.882			
005	2133	323	V	6.147			
006	3254	518	V	6.563			
007	1072	90	V	7.205			
008	150557	31266	V	7.931	1	TCX	0.044
009	3630	446	V	8.427			
010	787	65	V	8.826			
011	1456	282	V	9.301			
012	1191	176	V	9.667			
013	538	110	V	10.016			
014	785	163		10.481			
015	2489	622	V	11.760			
016	1015	289	V	11.880			
017	544	125	V	12.237			
018	18047	3259	V	13.055			
019	1239	136	V	13.898			
020	27446	4250	V	14.752			
021	1759	379	V	15.325			
022	740	93	V	15.527			
023	49137	2804	V	16.207			
024	28318	502	V	16.960			
025	1118	209	V	17.148			
026	836	94	V	17.842			
027	5384	376		18.676			
028	39739	1258		20.181			
029	3039	468	V	23.516			
030	12520	1542	V	24.159			
031	9408	2162		24.842			
032	1631	169	V	27.139			
033	4572	415	V	27.726			
034	544310	81147	V	28.886	1	DCB	0.091
035	7689	261	V	30.603			
036	3873	169	V	31.191			
037	1757	109	V	31.685			
038	1142	83	V	32.064			
040	483	52	V	33.200			
043	4267	177		35.455			

8/6/01
MK

SAMPLE: 08030136 .07 PAGE NUMBER: 2
DATE-TIME INJECTED : 08/03/01 18:55:13
DATE-TIME PROCESSED : 08/06/01 12:33:03

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
046	9068	88		38.613			

8/6/01
MK

1D
PESTICIDE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

RC60-01-0005 02

Lab Name: Lionville Labs, Inc. Work Order: 02744064001

Client: LANL REQ #9407R

Matrix: SOIL

Lab Sample ID: 0107L389-003

Sample wt/vol: 30.0 (g/mL) G

Lab File ID: 08030135.08

Level: (low/med) LOW

Date Received: 07/25/01

% Moisture: not dec. 6 dec.

Date Extracted: 07/26/01

Extraction: (SepF/Cont/Sonc) SONC

Date Analyzed: 08/03/01

GPC Cleanup: (Y/N) N pH: 7.0

Dilution Factor: 1.00

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NO.	COMPOUND		
12674-11-2------	Aroclor-1016	36	U
11104-28-2------	Aroclor-1221	71	U
11141-16-5------	Aroclor-1232	36	U
53469-21-9------	Aroclor-1242	36	U
12672-29-6------	Aroclor-1248	36	U
11097-69-1------	Aroclor-1254	36	U
11096-82-5------	Aroclor-1260	36	U

FORM 1 PEST 12/88 Rev.

0107L389-003

SAMPLE NO. : 08030135 . 08 INSTRUMENT: 35
TEST NO. : DATE TIME: 08/03/01 19:53:04
METHOD NO. : P35 / P35 PAGE NO. : 01

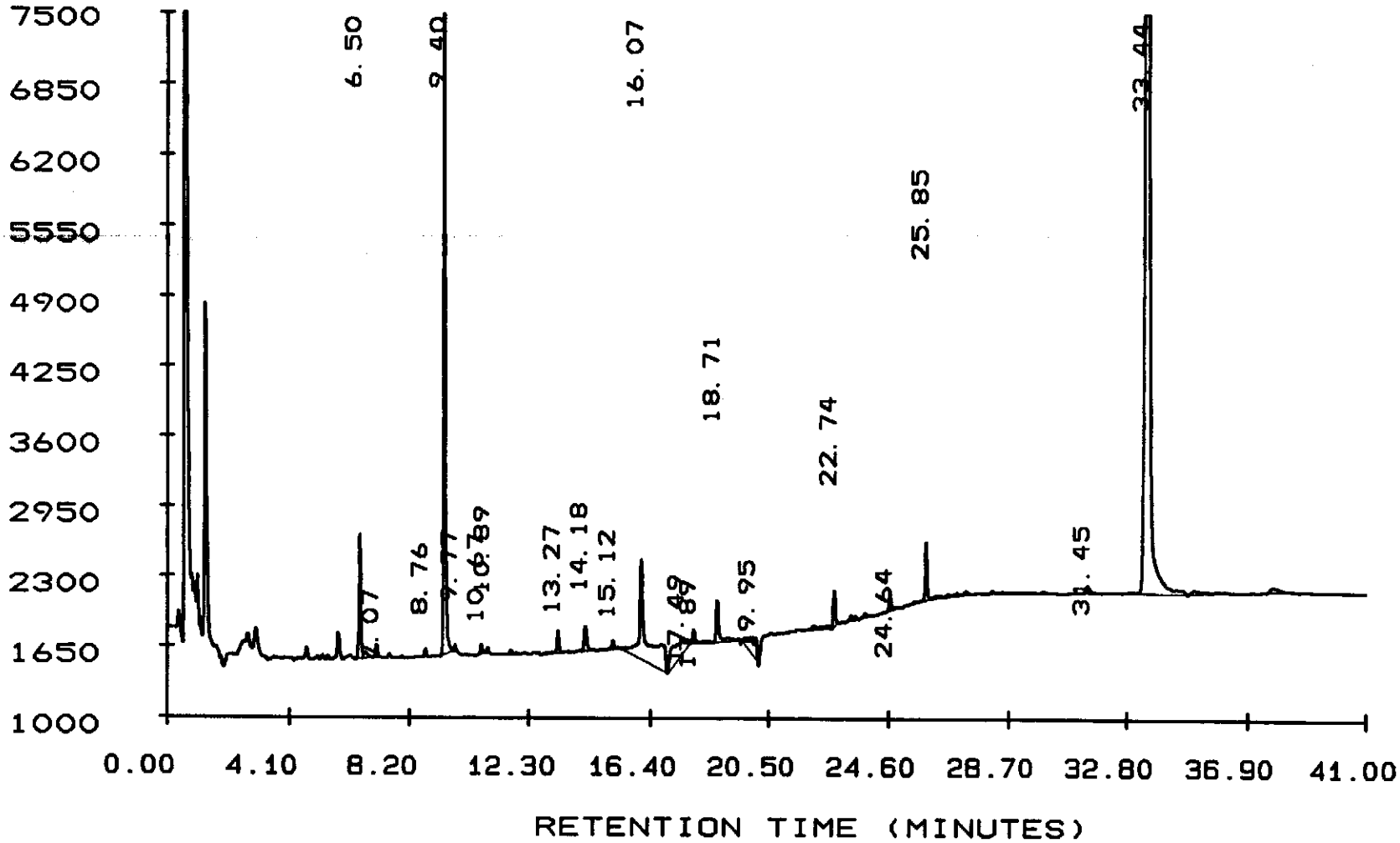

Y MAXIMUM: 7500. START TIME: 0.00
Y MINIMUM: 1000. END TIME: 41.00

Lionville Laboratory, Inc. 08/06/01 12:13:23

EXTERNAL STANDARD

SAMPLE: 08030135 .08
TEST : OPCB
COLLECTION TIME : 40.97
METHOD: P35 / PCBBS REV #: 00220
CLIENT ID: RC60-01-0005 02
CLIENT: LANL REQ #9407R
LAB ID: 0107L389-003
SAMPLE WT : % MOISTURE :
COLUMN ID: 0.53 mm I

INST:35 VIAL:F0 SEQ NUMBER:008
DATE-TIME INJECTED : 08/03/01 19:53:04
DATE-TIME PROCESSED : 08/06/01 12:13:23
ANALYST: KOBELM SAMP RATE: 1.56
SAMPLE VOL: 1.0 uL
COLUMN TYPE: DB608
RAW FILE: RAW3:H3144897
DILUTION FACTOR : 1.0000
CAL ID : TEMP:L071901.35/25

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
001	2438	297	V	6.171			
002	49808	11083	V	6.498			
003	1432	232	V	6.709			
004	6596	1175	V	7.073			
005	2104	388	V	7.525			
006	1295	169	V	7.961			
007	888	75	V	8.420			
008	3679	736	V	8.755			
009	297216	63199	V	9.402	1	TCX	0.036 90%
010	3023	627	V	9.773			
012	4208	824	V	10.673			
013	2559	567	V	10.891			
014	801	96	V	11.410			
015	3413	416	V	11.688			
016	830	90	V	12.169			
017	599	105	V	12.473			
018	755	190	V	12.619			
019	12907	2009	V	13.268			
020	658	89	V	13.618			
021	1037	132	V	13.990			
022	13516	2251	V	14.183			
023	408	96	V	14.442			
024	618	61	V	14.767			
025	4416	745	V	15.117			
026	538	141	V	15.300			
027	465	94	V	15.544			
028	51093	7989	V	16.071			
029	21827	1263	V	16.768			
030	50224	1196	V	17.493			
031	6563	1204	V	17.892			
032	1770	101	V	18.405			
033	21146	3760	V	18.706			
034	1401	150	V	19.074			
035	897	142	V	19.464			
036	41589	1862	V	19.951			
037	35322	720		20.577			
038	2194	291	V	22.041			
039	492	99	V	22.284			
040	2765	258	V	22.528			
041	16160	3269	V	22.736			

8/6/01 MK

SAMPLE: 08030135 .08 PAGE NUMBER: 2
DATE-TIME INJECTED : 08/03/01 19:53:04
DATE-TIME PROCESSED : 08/06/01 12:13:23

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
042	496	106	V	23.047			
043	1826	300	V	23.322			
044	736	165	V	23.464			
045	3393	388	V	23.797			
046	8574	1677	V	24.637			
047	979	169	V	24.878			
048	1724	149	V	25.492			
049	26276	5322	V	25.847			
050	4003	248	V	26.264			
051	1235	162	V	26.608			
052	1414	204	V	26.902			
053	3262	300	V	27.232			
054	1716	96	V	27.573			
055	1324	192	V	28.128			
056	1014	117	V	28.476			
057	1784	88	V	29.062			
058	885	103	V	29.463			
059	2755	176	V	29.918			
060	1056	57	V	30.880			
061	7170	709	V	31.445			
062	1158	77	V	32.341			
063	981	96	V	32.928			
064	1144329	116287	V	33.439	1	DCB	0.082 82%
065	8631	345	V	35.061			
066	1795	74	V	36.075			
069	12144	502		37.763			

Flushed 1/02

8/6/01
MK

0107L389-003

SAMPLE NO. : 08030136 .08
TEST NO. :
METHOD NO. : P36 / P36

INSTRUMENT: 36
DATE TIME: 08/03/01 19:53:04
PAGE NO. : 01

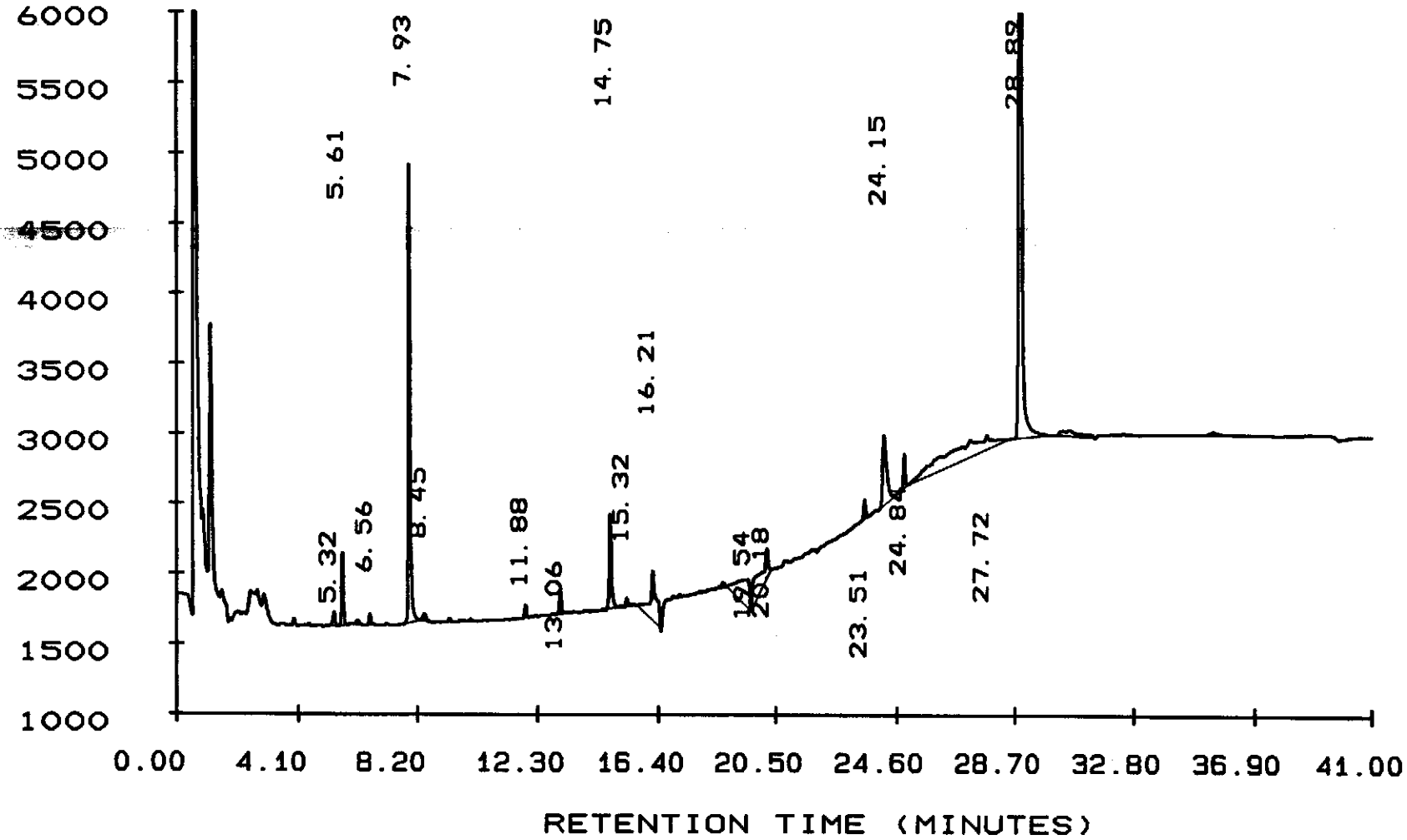

Y MAXIMUM: 6000.
Y MINIMUM: 1000.

START TIME: 0.00
END TIME: 41.00

Lionville Laboratory, Inc. 08/06/01 12:33:14

EXTERNAL STANDARD

SAMPLE: 08030136 .08 INST:36 VIAL:F0 SEQ NUMBER:008
TEST : OPCB DATE-TIME INJECTED : 08/03/01 19:53:04
COLLECTION TIME : 40.97 DATE-TIME PROCESSED : 08/06/01 12:33:14
METHOD: P36 / PCBMK REV #: 00212 ANALYST: KOBELM SAMP RATE: 1.56
CLIENT ID: RC60-01-0005 02 SAMPLE VOL: 1.0 uL
CLIENT: LANL REQ #9407R COLUMN TYPE: RTX1701
LAB ID: 0107L389-003 RAW FILE: RAW3:H3144898
SAMPLE WT : % MOISTURE : DILUTION FACTOR : 1.0000
COLUMN ID: 0.53 mm I CAL ID : TEMP:L071901.36/25

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
001	294	72	V	5.072			
002	6045	1011	V	5.322			
003	22587	5043	V	5.613			
004	369	85	V	5.889			
005	2368	310	V	6.143			
006	4701	803	V	6.565			
007	860	97	V	7.148			
008	150904	31969	V	7.932	1	TCX	0.045
009	4053	564	V	8.448			
011	1555	292	V	9.302			
012	1312	152	V	9.675			
013	1082	154	V	10.017			
014	365	72		10.484			
015	4033	909	V	11.881			
016	689	109	V	12.234			
017	672	71	V	12.565			
018	650	110	V	12.798			
019	10111	1823	V	13.055			
020	794	93	V	13.517			
021	1242	107	V	13.985			
022	398	103	V	14.511			
023	37359	6614	V	14.750			
024	365	70	V	15.125			
025	2595	566	V	15.324			
026	701	115	V	15.535			
027	58776	3594	V	16.205			
028	29759	590	V	16.944			
029	941	167	V	17.146			
030	5270	361		18.689			
031	44908	2023	V	20.177			
032	2530	287		20.811			
033	7669	1399	V	23.512			
034	48540	5005	V	24.151			
035	10147	2352		24.841			
036	3096	357	V	27.132			
037	2035	381	V	27.723			
038	282	56	V	27.889			
039	547262	82803	V	28.886	1	DCB	0.093
040	1947	187	V	30.308			
041	2100	170	V	30.584			

8/16/01
MK

SAMPLE: 08030136 .08 PAGE NUMBER: 2
DATE-TIME INJECTED : 08/03/01 19:53:04
DATE-TIME PROCESSED : 08/06/01 12:33:14

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
042	4442	237	V	31.311			
043	2344	171	V	31.629			
044	1056	70	V	32.085			
045	1363	61	V	32.437			
048	1568	128		35.475			

8/6/01
MK

1D
PESTICIDE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

RC60-01-0006 02

Lab Name: Lionville Labs, Inc. Work Order: 02744064001

Client: LANL REQ #9407R

Matrix: SOIL

Lab Sample ID: 0107L389-004

Sample wt/vol: 30.1 (g/mL) G

Lab File ID: 08030135.09

Level: (low/med) LOW

Date Received: 07/25/01

% Moisture: not dec. 4 dec.

Date Extracted: 07/26/01

Extraction: (SepF/Cont/Sonc) SONC

Date Analyzed: 08/03/01

GPC Cleanup: (Y/N) N pH: 7.0

Dilution Factor: 1.00

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NO.	COMPOUND		
12674-11-2	Aroclor-1016	35	U
11104-28-2	Aroclor-1221	69	U
11141-16-5	Aroclor-1232	35	U
53469-21-9	Aroclor-1242	35	U
12672-29-6	Aroclor-1248	35	U
11097-69-1	Aroclor-1254	35	U
11096-82-5	Aroclor-1260	35	U

FORM 1 PEST

12/88 Rev.

0107L389-004

SAMPLE NO. : 08030135 .09 INSTRUMENT: 35
TEST NO. : DATE TIME: 08/03/01 20:50:52
METHOD NO. : P35 / P35 PAGE NO. : 01

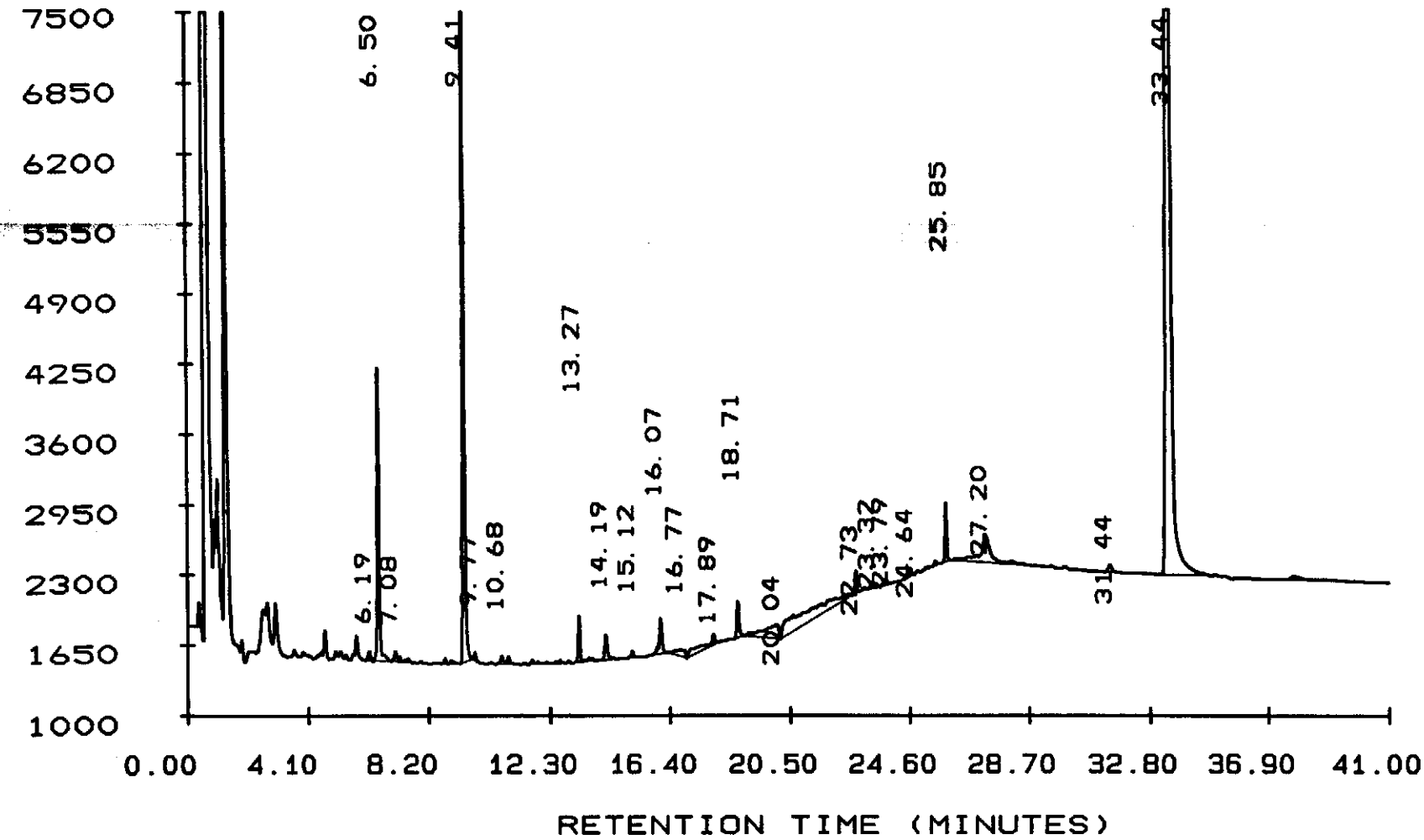

Y MAXIMUM: 7500. START TIME: 0.00
Y MINIMUM: 1000. END TIME: 41.00

Lionville Laboratory, Inc. 08/06/01 12:13:36

EXTERNAL STANDARD

SAMPLE: 08030135 .09 INST:35 VIAL:F0 SEQ NUMBER:009
TEST : OPCB DATE-TIME INJECTED : 08/03/01 20:50:52
COLLECTION TIME : 40.97 DATE-TIME PROCESSED : 08/06/01 12:13:36
METHOD: P35 / PCBBS REV #: 00220 ANALYST: KOBELM SAMP RATE: 1.56
CLIENT ID: RC60-01-0006 02 SAMPLE VOL: 1.0 uL
CLIENT: LANL REQ #9407R COLUMN TYPE: DB608
LAB ID: 0107L389-004 RAW FILE: RAW3:H3144908
SAMPLE WT : % MOISTURE : DILUTION FACTOR : 1.0000
COLUMN ID: 0.53 mm I CAL ID : TEMP:L071901.35/25

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
001	5263	900	V	6.191			
002	128555	26551	V	6.498			
003	3292	738	V	7.076			
004	1376	297	V	7.218			
005	3027	357	V	7.517			
006	1478	178	V	7.953			
007	326	85	V	8.111			
008	710	53	V	8.568			
009	2514	535	V	8.755			
010	3727	357	V	8.977			
011	320204	67050	V	9.406	1	TCX	0.038 95 l
012	3579	745	V	9.773			
013	1583	178	V	10.336			
014	3597	638	V	10.675			
015	2222	539	V	10.895			
016	924	142	V	11.428			
017	1972	349	V	11.690			
018	528	119	V	11.888			
019	1062	152	V	12.179			
020	920	143	V	12.491			
021	1174	241	V	12.627			
022	759	181	V	12.921			
023	18668	4141	V	13.271			
024	493	108	V	13.482			
025	1075	288	V	13.623			
026	768	187	V	13.745			
027	806	117	V	13.947			
028	14113	2295	V	14.187			
029	730	154	V	14.439			
030	930	77	V	14.773			
031	3853	632	V	15.117			
032	801	254	V	15.964			
033	14432	2834	V	16.073			
034	15069	643	V	16.768			
035	12584	235	V	17.502			
036	4322	832	V	17.891			
037	18057	3326	V	18.707			
038	45849	1291	V	20.043			
039	20214	482	V	20.584			
040	6002	238	V	21.567			

Flags 8/7/01

8/6/01
MK

SAMPLE: 08030135 .09 PAGE NUMBER: 2
DATE-TIME INJECTED : 08/03/01 20:50:52
DATE-TIME PROCESSED : 08/06/01 12:13:36

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
041	4486	185	V	22.039			
042	2486	162	V	22.534			
043	10314	2091	V	22.734			
044	1810	226	V	23.050			
045	2775	400	V	23.316			
046	1140	232	V	23.467			
047	5059	563	V	23.793			
048	3916	662	V	24.638			
049	1311	225	V	24.878			
050	1846	387	V	25.487			
051	25682	5459	V	25.846			
052	1331	92	V	26.325			
053	1470	158	V	26.642			
054	921	132	V	26.902			
055	29547	2245	V	27.201			
056	3262	237		28.123			
057	902	127	V	29.461			
058	2635	250		29.920			
059	6947	725	V	31.439			
060	1493	67		32.341			
061	1396611	143829		33.437	1	DCB	0.101 101 L
062	3054	94	V	35.035			
063	3884	97		36.043			
064	8232	325		37.755			

8/6/01
MK

0107L389-004

SAMPLE NO. : 08030136 . 09
TEST NO. :
METHOD NO. : P36 / P36

INSTRUMENT: 36
DATE TIME: 08/03/01 20:50:52
PAGE NO. : 01

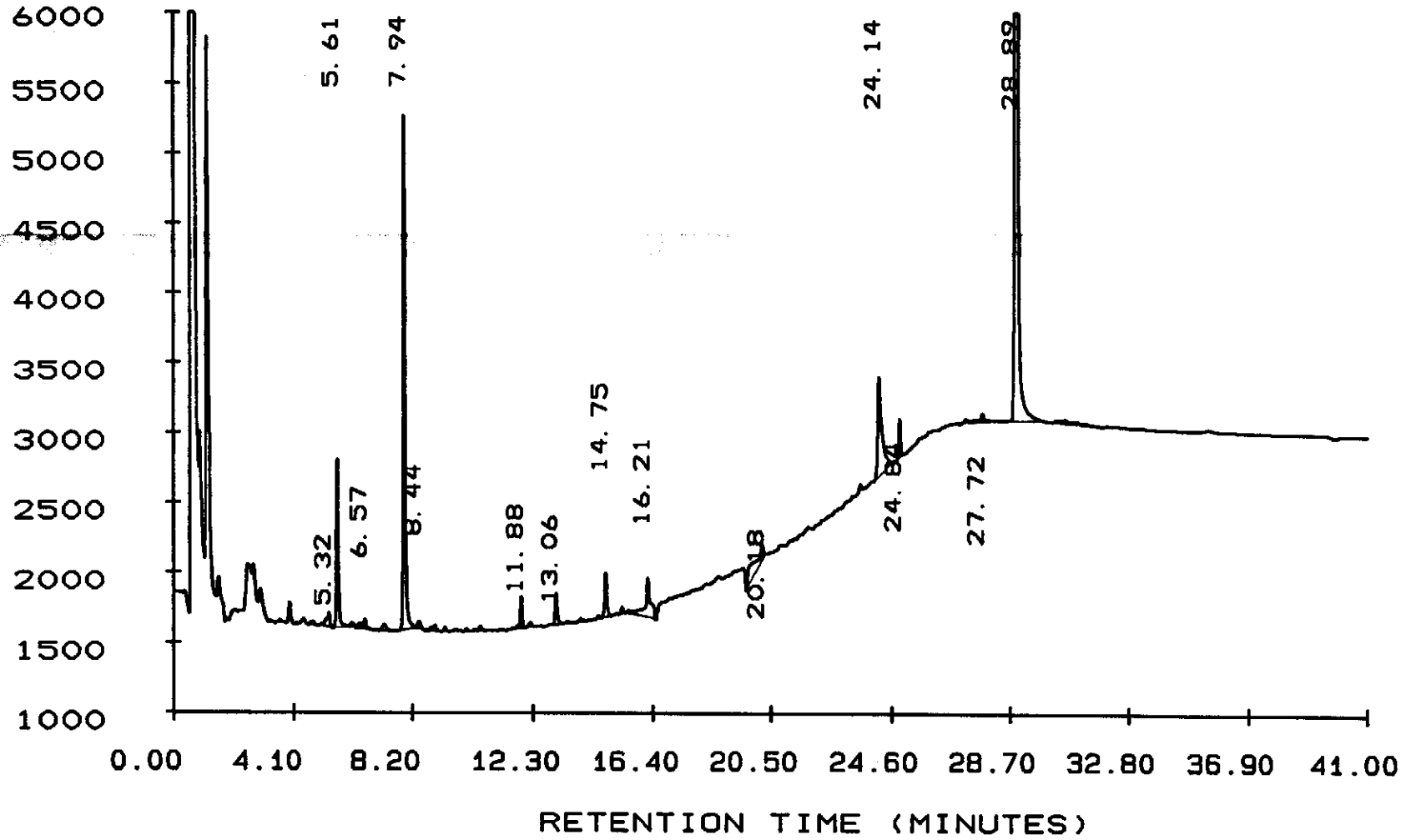

Y MAXIMUM: 6000.
Y MINIMUM: 1000.

START TIME: 0.00
END TIME: 41.00

Lionville Laboratory, Inc. 08/06/01 12:33:25

EXTERNAL STANDARD

SAMPLE: 08030136 .09 INST:36 VIAL:F0 SEQ NUMBER:009
TEST : OPCB DATE-TIME INJECTED : 08/03/01 20:50:52
COLLECTION TIME : 40.97 DATE-TIME PROCESSED : 08/06/01 12:33:25
METHOD: P36 / PCBMK REV #: 00212 ANALYST: KOBELM SAMP RATE: 1.56
CLIENT ID: RC60-01-0006 02 SAMPLE VOL: 1.0 uL
CLIENT: LANL REQ #9407R COLUMN TYPE: RTX1701
LAB ID: 0107L389-004 RAW FILE: RAW3:H3144907
SAMPLE WT : % MOISTURE : DILUTION FACTOR : 1.0000
COLUMN ID: 0.53 mm I CAL ID : TEMP:L071901.36/25

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
001	476	126	V	5.064			
002	7740	1003	V	5.321			
003	55395	11700	V	5.612			
004	2509	315	V	6.134			
005	1891	321	V	6.390			
006	3263	609	V	6.566			
007	4428	462	V	7.251			
008	174571	35951	V	7.936	1	TCX	0.050
009	4106	530	V	8.439			
010	811	194	V	8.834			
011	1737	327	V	8.966			
012	1728	334	V	9.305			
013	2110	183	V	9.672			
014	941	203	V	10.024			
015	669	124	V	10.336			
016	1870	318	V	10.500			
017	550	53	V	10.844			
018	640	74	V	11.162			
019	603	94	V	11.602			
020	561	159	V	11.760			
021	9004	2131	V	11.884			
022	2903	349	V	12.203			
023	536	71	V	12.562			
024	12350	2133	V	13.058			
025	822	96	V	13.445			
026	1998	244	V	13.894			
027	1177	243	V	14.515			
028	17792	3073	V	14.753			
029	1974	432	V	15.324			
030	1165	156	V	15.546			
031	29672	2615		16.207			
032	5035	243	V	18.688			
033	38858	1512	V	19.541			
034	31424	1157	V	20.178			
035	2362	248	V	20.804			
036	7149	338		21.748			
037	2333	495	V	23.513			
038	67311	7027	V	24.137			
039	11335	2693	V	24.840			
040	44911	212	V	26.859			

8/6/01
MK

SAMPLE: 08030136 .09 PAGE NUMBER: 2
DATE-TIME INJECTED : 08/03/01 20:50:52
DATE-TIME PROCESSED : 08/06/01 12:33:25

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
041	2272	236	V	27.142			
042	908	77	V	27.513			
043	4077	514	V	27.723			
044	686584	102665		28.886	1	DCB	0.115
045	1181	110	V	30.327			
046	1088	132	V	30.577			
047	1635	96		30.965			
048	3134	125		32.021			
049	3029	167		35.462			
051	7676	65		38.693			

8/6/01
MK

1D
PESTICIDE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

RC60-01-0007 02

Lab Name: Lionville Labs, Inc. Work Order: 02744064001

Client: LANL REQ #9407R

Matrix: SOIL

Lab Sample ID: 0107L389-005

Sample wt/vol: 30.6 (g/mL) G

Lab File ID: 08030135.10

Level: (low/med) LOW

Date Received: 07/25/01

% Moisture: not dec. 3 dec.

Date Extracted: 07/26/01

Extraction: (SepF/Cont/Sonc) SONC

Date Analyzed: 08/03/01

GPC Cleanup: (Y/N) N pH: 7.0

Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	
12674-11-2	Aroclor-1016	34	U
11104-28-2	Aroclor-1221	68	U
11141-16-5	Aroclor-1232	34	U
53469-21-9	Aroclor-1242	34	U
12672-29-6	Aroclor-1248	34	U
11097-69-1	Aroclor-1254	34	U
11096-82-5	Aroclor-1260	34	U

FORM 1 PEST 12/88 Rev.

0107L389-005

SAMPLE NO. : 08030135 . 10
TEST NO. :
METHOD NO. : P35 / P35

INSTRUMENT: 35
DATE TIME: 08/03/01 21:48:40
PAGE NO. : 01

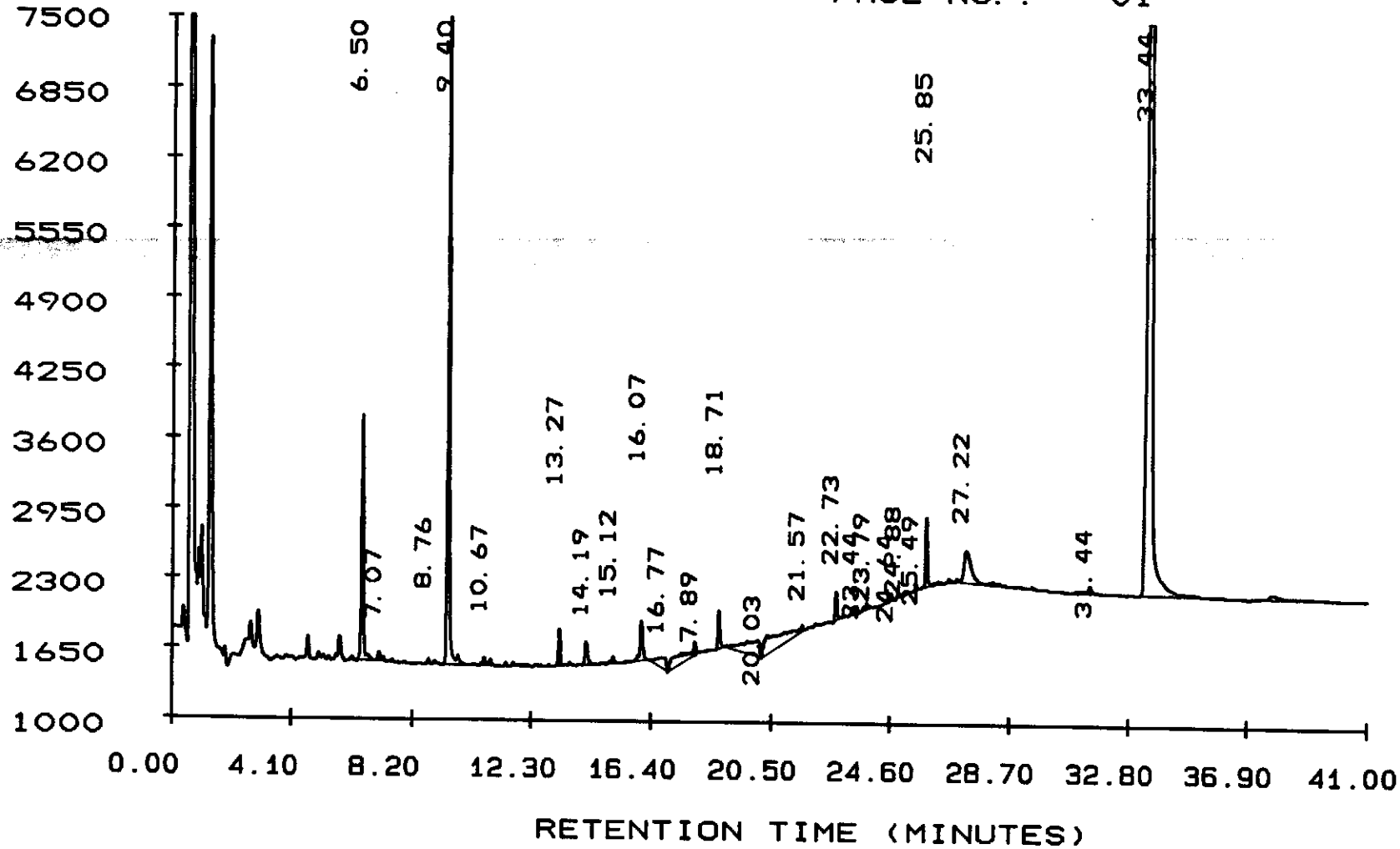

Y MAXIMUM: 7500.
Y MINIMUM: 1000.

START TIME: 0.00
END TIME: 41.00

Lionville Laboratory, Inc. 08/06/01 12:13:48

EXTERNAL STANDARD

SAMPLE: 08030135 .10 INST:35 VIAL:F0 SEQ NUMBER:010
TEST : OPCB DATE-TIME INJECTED : 08/03/01 21:48:40
COLLECTION TIME : 40.97 DATE-TIME PROCESSED : 08/06/01 12:13:48
METHOD: P35 / PCBBS REV #: 00220 ANALYST: KOBELM SAMP RATE: 1.56
CLIENT ID: RC60-01-0007 02 SAMPLE VOL: 1.0 uL
CLIENT: LANL REQ #9407R COLUMN TYPE: DB608
LAB ID: 0107L389-005 RAW FILE: RAW3:H3144918
SAMPLE WT : % MOISTURE : DILUTION FACTOR : 1.0000
COLUMN ID: 0.53 mm I CAL ID : TEMP:L071901.35/25

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
001	3088	414	V	6.182			
002	97594	21982	V	6.498			
003	1168	192	V	6.707			
004	2981	666	V	7.075			
005	1130	274	V	7.214			
006	1955	260	V	7.522			
007	1094	149	V	7.957			
008	614	51	V	8.478			
009	2427	513	V	8.755			
010	2838	331	V	8.971			
011	300686	64068	V	9.404	1	TCX	0.037 92.50 L
012	2923	598	V	9.775			
013	1209	156	V	10.335			
014	4552	666	V	10.674			
015	2086	514	V	10.895			
016	1981	387	V	11.431			
017	1858	339	V	11.690			
018	441	108	V	11.888			
019	326	79	V	12.038			
020	691	125	V	12.176			
021	749	112	V	12.483			
022	421	84	V	12.624			
023	618	151	V	12.920			
024	15096	3304	V	13.270			
025	502	111	V	13.479			
026	1450	291	V	13.623			
027	868	105	V	13.984			
028	13894	2119	V	14.186			
029	658	74	V	14.776			
030	4763	617	V	15.118			
031	23312	3559	V	16.074			
032	21912	949	V	16.775			
033	19576	341	V	17.499			
034	5264	1010	V	17.891			
035	17931	3442	V	18.707			
036	393	108	V	18.953			
037	667	85	V	19.162			
038	985	146	V	19.498			
039	887	209	V	19.659			
040	16062	1220	V	20.030			

8/6/01
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SAMPLE: 08030135 .10 PAGE NUMBER: 2
DATE-TIME INJECTED : 08/03/01 21:48:40
DATE-TIME PROCESSED : 08/06/01 12:13:48

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
041	9814	709	V	20.348			
042	1014	134	V	20.583			
043	1013	123	V	20.964			
044	1646	106	V	21.314			
045	2980	478	V	21.568			
046	2608	243	V	22.038			
047	2611	153	V	22.547			
048	12933	2656	V	22.734			
049	1276	145	V	23.062			
050	2557	404	V	23.327			
051	2031	439	V	23.441			
052	6845	613	V	23.794			
053	4726	800	V	24.637			
054	3306	547	V	24.880			
055	2007	354	V	25.169			
056	2880	635	V	25.488			
057	30963	6377	V	25.845			
058	678	158	V	26.101			
059	1636	209	V	26.265			
060	2791	357	V	26.618			
061	1109	231	V	26.907			
062	46226	2888	V	27.216			
063	4748	236		28.128			
064	845	122	V	29.052			
065	1373	170	V	29.458			
066	861	118		29.915			
067	954	57	V	30.891			
068	7123	736		31.441			
069	468	56	V	32.853			
070	1256533	129961	V	33.437	1	DCB	0.091 91 L
071	854	89		35.035			
072	10286	407	V	37.749			
074	1665	60		38.976			

Flag 4to

8/6/01
MK

0107L389-005

SAMPLE NO. : 08030136 . 10
TEST NO. :
METHOD NO. : P36 / P36

INSTRUMENT: 36
DATE TIME: 08/03/01 21:48:41
PAGE NO. : 01

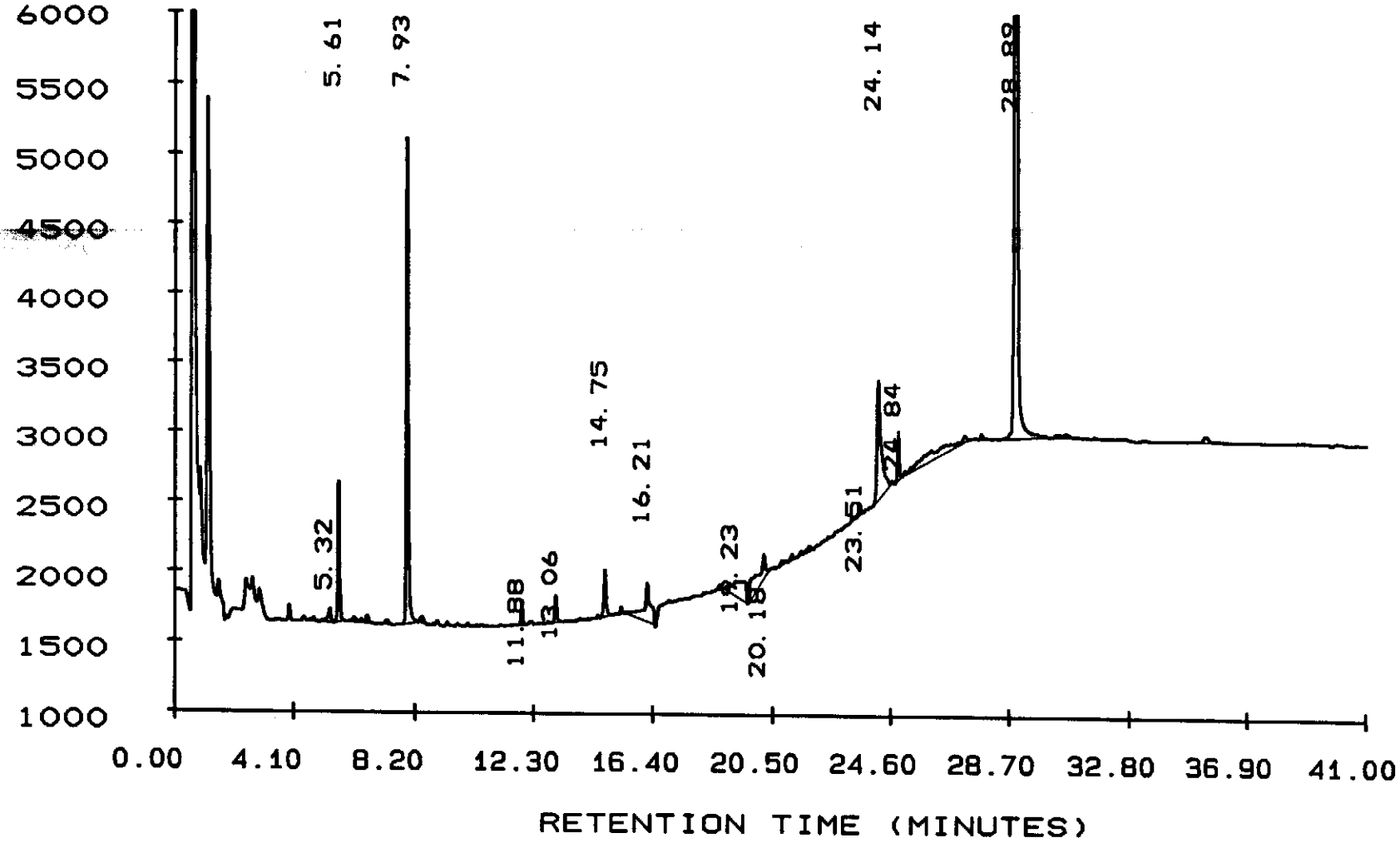

Y MAXIMUM: 6000.
Y MINIMUM: 1000.

START TIME: 0.00
END TIME: 41.00

Lionville Laboratory, Inc. 08/06/01 12:33:36

EXTERNAL STANDARD

SAMPLE: 08030136 .10 INST:36 VIAL:F0 SEQ NUMBER:010
TEST : OPCB DATE-TIME INJECTED : 08/03/01 21:48:41
COLLECTION TIME : 40.97 DATE-TIME PROCESSED : 08/06/01 12:33:36
METHOD: P36 / PCBMK REV #: 00212 ANALYST: KOBELM SAMP RATE: 1.56
CLIENT ID: RC60-01-0007 02 SAMPLE VOL: 1.0 uL
CLIENT: LANL REQ #9407R COLUMN TYPE: RTX1701
LAB ID: 0107L389-005 RAW FILE: RAW3:H3144917
SAMPLE WT : % MOISTURE : DILUTION FACTOR : 1.0000
COLUMN ID: 0.53 mm I CAL ID : TEMP:L071901.36/25

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
001	443	111	V	5.066			
002	6054	953	V	5.321			
003	44685	9811	V	5.613			
004	2600	299	V	6.139			
005	1122	202	V	6.386			
006	2663	505	V	6.566			
007	2841	335	V	7.251			
008	161830	34093	V	7.934	1	TCX	0.048
009	3543	484	V	8.445			
010	354	96	V	8.829			
011	1676	302	V	8.960			
012	1840	314	V	9.302			
013	1353	189	V	9.670			
014	1264	252	V	10.019			
015	457	91	V	10.326			
016	756	130	V	10.498			
018	602	89	V	11.157			
019	469	75	V	11.600			
020	7586	1711	V	11.883			
021	1978	228	V	12.192			
022	700	79	V	12.559			
023	721	118	V	12.794			
024	10248	1900	V	13.057			
025	1017	133	V	13.895			
026	928	221	V	14.515			
027	18663	3284	V	14.753			
028	2085	466	V	15.325			
029	376	74	V	15.546			
030	41452	2752	V	16.207			
031	20888	439	V	16.952			
032	1323	79	V	17.477			
033	4695	359	V	18.686			
034	925	192	V	19.230			
035	11772	1219	V	19.541			
036	38680	1659	V	20.176			
037	3335	337	V	20.808			
038	2287	396	V	21.138			
039	1355	230	V	21.442			
040	3186	339		21.742			
041	2039	309	V	23.256			

8/6/01
MK

SAMPLE: 08030136 .10 PAGE NUMBER: 2
DATE-TIME INJECTED : 08/03/01 21:48:41
DATE-TIME PROCESSED : 08/06/01 12:33:36

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
042	4078	799	V	23.505			
043	82998	8478	V	24.136			
044	1387	254	V	24.636			
045	14215	3157	V	24.839			
046	885	167		25.078			
047	769	174	V	25.984			
048	9581	399	V	27.152			
049	1103	122	V	27.505			
050	1663	355	V	27.724			
051	662	63	V	27.904			
052	565	84	V	28.235			
053	625750	94717	V	28.887	1	DCB	0.106
054	902	130	V	29.866			
055	1766	138	V	30.336			
056	1752	157		30.607			
057	1180	110	V	31.588			
059	1742	118	V	32.619			
060	1996	83		33.280			
061	5196	415	V	35.443			
063	2101	83	V	39.456			
064	3316	174		40.000			

8/6/01
MK

1D
PESTICIDE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

RC60-01-0008 02

Lab Name: Lionville Labs, Inc. Work Order: 02744064001

Client: LANL REQ #9407R

Matrix: SOIL

Lab Sample ID: 0107L389-006

Sample wt/vol: 30.1 (g/mL) G

Lab File ID: 08030135.11

Level: (low/med) LOW

Date Received: 07/25/01

% Moisture: not dec. 2 dec.

Date Extracted: 07/26/01

Extraction: (SepF/Cont/Sonc) SONC

Date Analyzed: 08/03/01

GPC Cleanup: (Y/N) N pH: 7.0

Dilution Factor: 1.00

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NO.	COMPOUND		
12674-11-2	Aroclor-1016	34	U
11104-28-2	Aroclor-1221	68	U
11141-16-5	Aroclor-1232	34	U
53469-21-9	Aroclor-1242	34	U
12672-29-6	Aroclor-1248	34	U
11097-69-1	Aroclor-1254	34	U
11096-82-5	Aroclor-1260	34	U

FORM 1 PEST 12/88 Rev.

0107L389-006

SAMPLE NO. : 08030135 . 11 INSTRUMENT: 35

TEST NO. : DATE TIME: 08/03/01 22:46:29

METHOD NO. : P35 / P35 PAGE NO. : 01

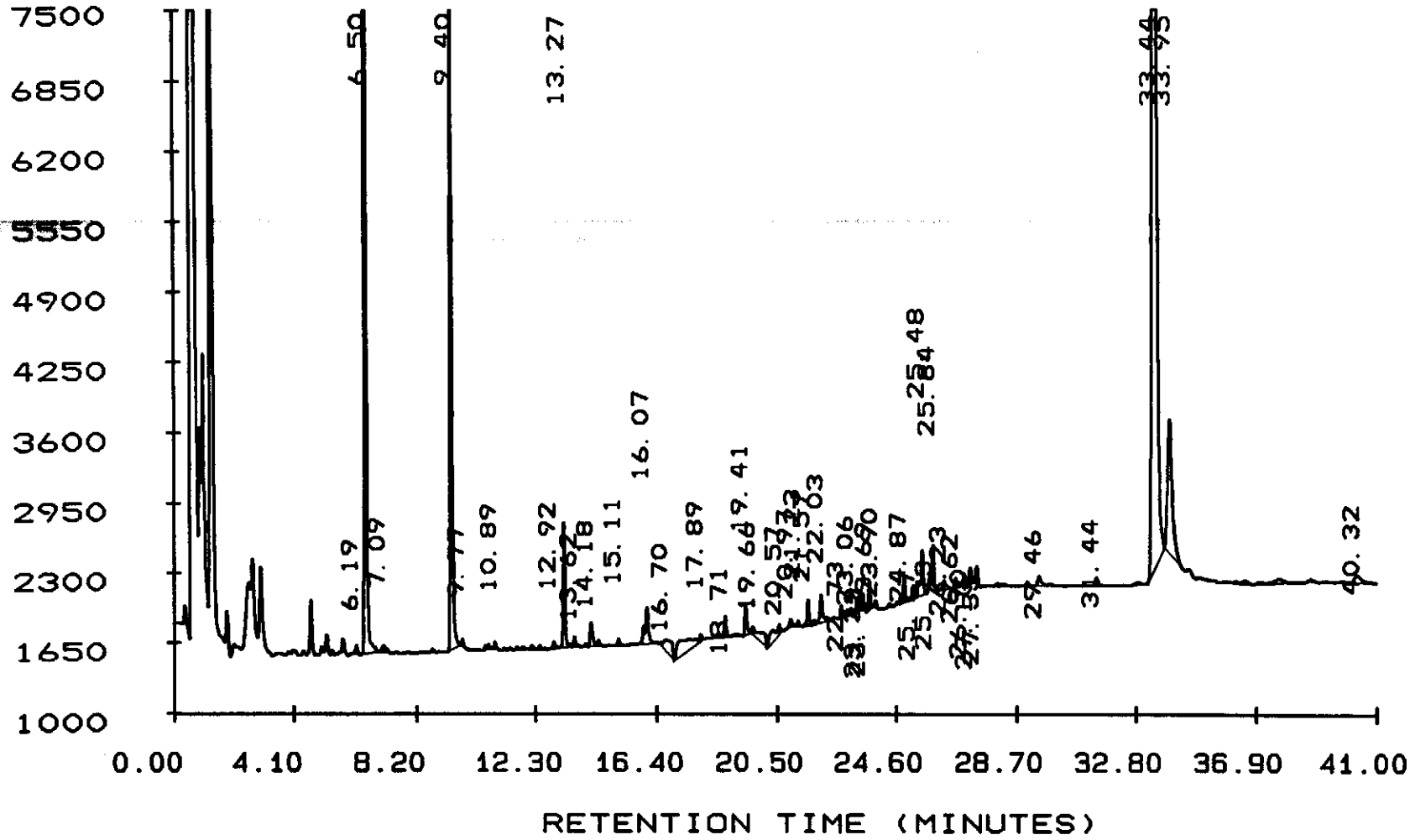

Y MAXIMUM: 7500. START TIME: 0.00

Y MINIMUM: 1000. END TIME: 41.00

Lionville Laboratory, Inc. 08/06/01 12:13:59

EXTERNAL STANDARD

SAMPLE: 08030135 .11 INST:35 VIAL:F0 SEQ NUMBER:011
TEST : OPCB DATE-TIME INJECTED : 08/03/01 22:46:29
COLLECTION TIME : 40.97 DATE-TIME PROCESSED : 08/06/01 12:13:59
METHOD: P35 / PCBBS REV #: 00220 ANALYST: KOBELM SAMP RATE: 1.56
CLIENT ID: RC60-01-0008 02 SAMPLE VOL: 1.0 uL
CLIENT: LANL REQ #9407R COLUMN TYPE: DB608
LAB ID: 0107L389-006 RAW FILE: RAW3:H3144929
SAMPLE WT : % MOISTURE : DILUTION FACTOR : 1.0000
COLUMN ID: 0.53 mm I CAL ID : TEMP:L071901.35/25

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
001	4496	816	V	6.194			
002	372971	82731	V	6.498			
003	5805	609	V	7.090			
004	565	106	V	7.521			
005	895	73	V	7.957			
007	1542	312	V	8.754			
008	869	89	V	8.974			
009	351441	74763	V	9.402	1	TCX	0.043 107.50 L
010	3283	694	V	9.773			
011	982	244	V	10.582			
012	835	236	V	10.675			
013	3073	650	V	10.893			
014	845	185	V	11.230			
015	1197	234	V	11.424			
016	1239	228	V	11.678			
017	1277	255	V	11.881			
018	2298	337	V	12.173			
019	1531	320	V	12.444			
020	448	115	V	12.621			
021	4181	636	V	12.922			
022	50990	11322	V	13.268			
023	907	237	V	13.474			
024	3704	894	V	13.622			
025	529	131	V	13.757			
026	1286	301	V	13.999			
027	12822	2141	V	14.184			
028	2329	509	V	14.441			
029	3916	585	V	15.114			
030	537	68	V	15.547			
031	3151	926	V	15.964			
032	11305	2565	V	16.072			
033	24618	1026	V	16.703			
034	11544	560	V	17.223			
035	1580	136	V	17.494			
036	2203	427	V	17.891			
037	8715	1664	V	18.709			
038	3190	251	V	19.108			
039	16283	2867	V	19.410			
040	22726	821	V	19.656			
041	11241	750	V	20.344			

8/6/01
MK

SAMPLE: 08030135 .11 PAGE NUMBER: 2
DATE-TIME INJECTED : 08/03/01 22:46:29
DATE-TIME PROCESSED : 08/06/01 12:13:59

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
042	2997	698	V	20.566			
043	3954	705	V	20.968			
044	392	128	V	21.086			
045	2571	487	V	21.226			
046	12712	2407	V	21.569			
047	1715	394	V	21.793			
048	13406	2393	V	22.028			
049	1227	208	V	22.238			
050	2721	291	V	22.470			
051	6226	1206	V	22.729			
052	1094	314	V	22.972			
053	1537	450	V	23.061			
054	8402	1520	V	23.324			
055	6145	1427	V	23.474			
056	10180	2139	V	23.689			
057	2694	689	V	23.896			
058	1884	341	V	24.380			
059	1809	324	V	24.638			
060	11714	2226	V	24.873			
061	7516	1277	V	25.171			
062	2743	668	V	25.370			
063	14590	3474	V	25.484			
064	4237	1179	V	25.732			
065	14995	3765	V	25.844			
066	8034	859	V	26.229			
067	5935	930	V	26.616			
068	6870	1259	V	26.903			
069	8230	1599	V	27.104			
070	8099	1644	V	27.327			
071	1086	83	V	27.739			
072	1496	231	V	28.040			
073	1146	103	V	28.272			
074	3283	423	V	29.071			
075	7149	860	V	29.459			
076	1283	86	V	29.880			
077	1198	52	V	30.688			
078	7808	796	V	31.436			
079	1581	70	V	32.320			
080	3581	225	V	32.885			
081	1235443	134579	V	33.436	1	DCB	0.094 94 L
082	139238	12420	V	33.951			
083	3404	396		34.613			
084	1852	163	V	36.544			
085	2861	177	V	37.067			
086	9174	373	V	37.685			
087	3917	266	V	38.741			
088	1587	102	V	39.228			
089	1786	117	V	39.801			
090	11140	638		40.320			

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8/6/01
MK

0107L389-006

SAMPLE NO. : 08030136 . 11
TEST NO. :
METHOD NO. : P36 / P36

INSTRUMENT: 36
DATE TIME: 08/03/01 22:46:30
PAGE NO. : 01

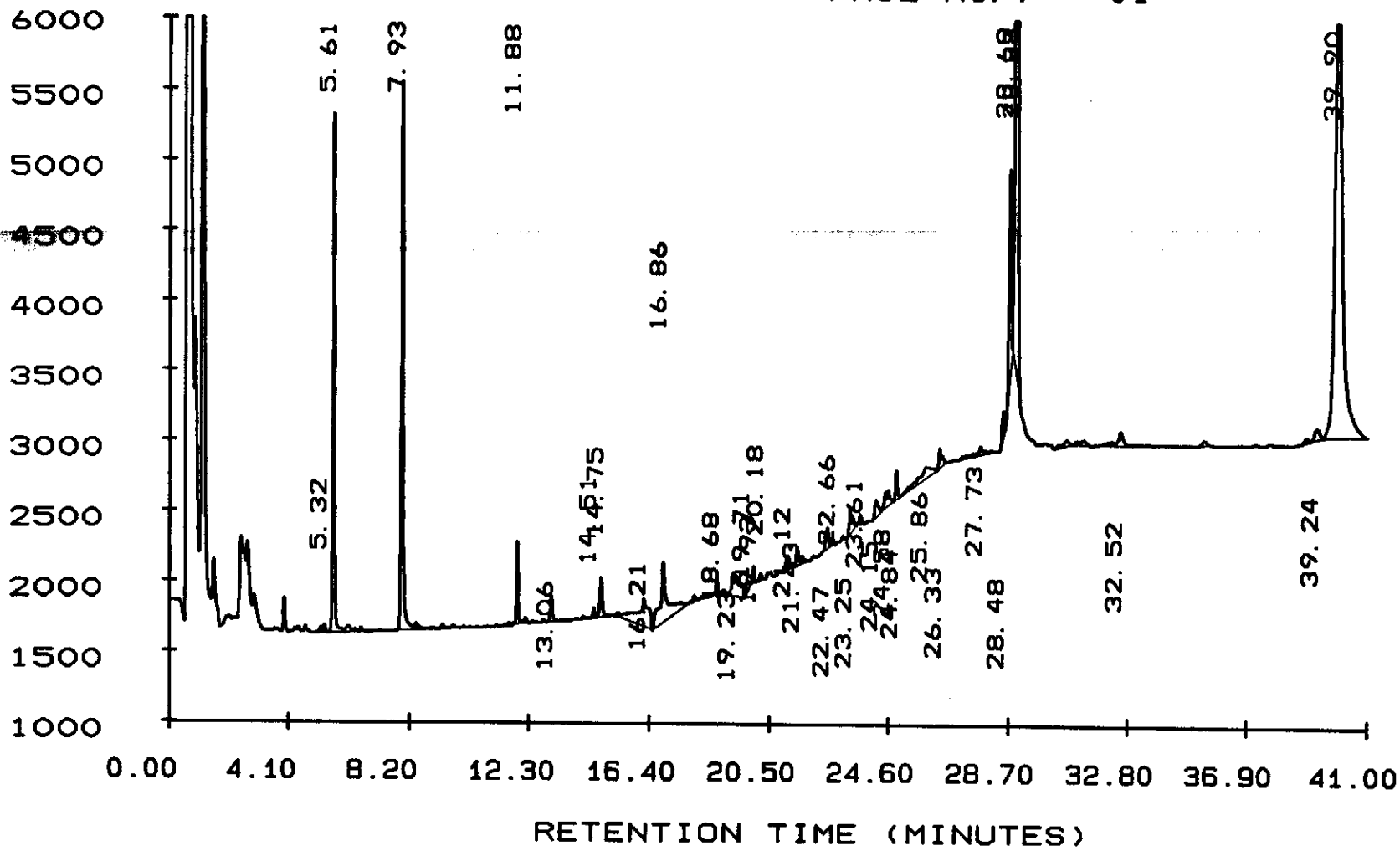

Y MAXIMUM: 6000.
Y MINIMUM: 1000.

START TIME: 0.00
END TIME: 41.00

Lionville Laboratory, Inc. 08/06/01 12:33:47

EXTERNAL STANDARD

SAMPLE: 08030136 .11 INST:36 VIAL:F0 SEQ NUMBER:011
TEST : OPCB DATE-TIME INJECTED : 08/03/01 22:46:30
COLLECTION TIME : 40.97 DATE-TIME PROCESSED : 08/06/01 12:33:47
METHOD: P36 / PCBMK REV #: 00212 ANALYST: KOBELM SAMP RATE: 1.56
CLIENT ID: RC60-01-0008 02 SAMPLE VOL: 1.0 uL
CLIENT: LANL REQ #9407R COLUMN TYPE: RTX1701
LAB ID: 0107L389-006 RAW FILE: RAW3:H3144930
SAMPLE WT : % MOISTURE : DILUTION FACTOR : 1.0000
COLUMN ID: 0.53 mm I CAL ID : TEMP:L071901.36/25

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
001	958	265	V	5.201			
002	1986	483	V	5.323			
003	152474	35857	V	5.612			
004	2483	294	V	6.136			
005	938	163	V	6.351			
006	1718	309	V	6.564			
007	1222	90	V	7.239			
008	178425	38103	V	7.932	1	TCX	0.053
009	2216	312	V	8.410			
010	1065	122	V	8.954			
011	1911	348	V	9.302			
012	2014	262	V	9.667			
013	651	136	V	10.019			
014	339	61	V	10.231			
015	907	52	V	10.861			
016	718	136	V	11.153			
017	568	127	V	11.471			
018	1037	261	V	11.601			
019	26034	5734	V	11.881			
020	2673	406	V	12.171			
021	688	157	V	12.411			
022	390	79	V	12.561			
023	1197	247	V	12.786			
024	9465	1767	V	13.055			
025	813	83	V	13.897			
026	1406	187	V	14.160			
027	3055	729	V	14.512			
028	16896	2724	V	14.752			
029	691	170	V	15.326			
030	46576	1861	V	16.206			
031	37970	3625	V	16.857			
032	371	79	V	17.145			
033	1501	134	V	17.483			
034	1484	354	V	17.914			
035	5015	977	V	18.682			
036	1640	243	V	18.913			
037	3360	854	V	19.225			
038	2549	548	V	19.337			
039	1491	511	V	19.563			
040	5291	824	V	19.713			

8/6/01
MK

SAMPLE: 08030136 .11

DATE-TIME INJECTED : 08/03/01 22:46:30
DATE-TIME PROCESSED : 08/06/01 12:33:47

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
041	4742	1006	V	19.926			
042	2355	504	V	20.177			
043	4046	393	V	20.509			
044	7162	945	V	21.122			
045	5754	1128	V	21.431			
046	2368	426	V	21.614			
047	890	149	V	21.998			
048	11672	1506	V	22.472			
049	2468	570	V	22.657			
050	1830	286	V	23.009			
051	5148	1408	V	23.250			
052	2120	526	V	23.359			
053	5090	734	V	23.612			
054	9597	1179	V	24.153			
055	2932	623	V	24.474			
056	2746	635	V	24.576			
057	9564	2017	V	24.840			
058	10394	486	V	25.860			
059	722	134	V	26.147			
060	4404	1036	V	26.333			
061	762	259	V	26.436			
062	1081	103	V	26.873			
063	1887	176	V	27.141			
064	2150	426	V	27.725			
065	378	84	V	27.870			
066	563	87	V	28.081			
067	9624	1811	V	28.481			
068	84683	14855	V	28.687			
069	555404	93679	V	28.885	1	DCB	0.105
070	5633	274	V	29.909			
071	8352	413	V	30.656			
072	1203	199	V	30.992			
073	3217	270	V	31.232			
074	2418	123	V	32.218			
075	8977	875	V	32.519			
076	1138	97	V	33.227			
077	659	61	V	33.472			
078	572	59	V	33.792			
080	5580	401	V	35.413			
083	1561	93	V	37.179			
084	2167	139		37.664			
085	3463	348	V	38.887			
086	9728	825	V	39.240			
087	571769	33485		39.902			

8/6/01
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Calibration Standard Data

Addendum

Multilevel Calibration Method Report

Calibration curve statistics are presented on the Multilevel Calibration Method reports. This report includes the type of calibration preformed, the file reference (i.e. 06209811.06) of the calibration standards used, the slope and intercept of the curve for each analyte, and the curve fit statistics. The column labeled as "CORR COEFF" presents the coefficient of determination (r^2) for each analyte. Our laboratory acceptance criteria are based on the correlation coefficient ® being at least 0.996. Therefore, the minimum acceptance value for "CORR COEFF" (r^2) on the Multilevel Calibration Method report is 0.992.

208 Welsh Pool Road • Lionville, PA 19341-1333 • (610)-280-3000 • Fax (610)-280-3041

8H

PESTICIDE ANALYSIS SEQUENCE

Lab Name: Lionville Labs, Inc. Contract: 02744-064-001-9999-00

Client: LANL REQ #9407R GC Sample ID: 07190135

Instrument ID: 35 GC Column ID: DB608

Dates of Analyses: 07/19/01 to 07/20/01

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED
01	ZZZZZ	AR1660 2801 A	07/19/01	1759
02	ZZZZZ	AR1660 2802 B	07/19/01	1847
03	ZZZZZ	AR1660 2803 C	07/19/01	1935
04	ZZZZZ	AR1660 2804 D	07/19/01	2023
05	ZZZZZ	AR1660 2805 E	07/19/01	2111
06	ZZZZZ	AR1221 1108	07/19/01	2159
07	ZZZZZ	AR1232 1205	07/19/01	2247
08	ZZZZZ	AR1242 1304	07/19/01	2335
09	ZZZZZ	AR1248 1101	07/20/01	0022
10	ZZZZZ	AR1254 9403 C	07/20/01	0110

FORM VIII PEST

8H

PESTICIDE ANALYSIS SEQUENCE

Lab Name: Lionville Labs, Inc. Contract: 02744-064-001-9999-00

Client: LANL REQ #9407R GC Sample ID: 08030135

Instrument ID: 35 GC Column ID: DB608

Dates of Analyses: 08/03/01 to 08/04/01

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED
01	ZZZZZ	AR1660 2803 C	08/03/01	1307
02	PBLKLZLE0890	01LE0890-MB1	08/03/01	1405
03	PBLKLZLE0890 MS	01LE0890-MB1S	08/03/01	1503
04	ZZZZZ	01LE0907-MB1	08/03/01	1601
05	ZZZZZ	01LE0907-MB1S	08/03/01	1659
06	RC60-01-0003 02	0107L389-001	08/03/01	1757
07	RC60-01-0004 02	0107L389-002	08/03/01	1855
08	RC60-01-0005 02	0107L389-003	08/03/01	1953
09	RC60-01-0006 02	0107L389-004	08/03/01	2050
10	RC60-01-0007 02	0107L389-005	08/03/01	2148
11	RC60-01-0008 02	0107L389-006	08/03/01	2246
12	ZZZZZ	HEXANE	08/03/01	2344
13	ZZZZZ	AR1660 2803 C	08/04/01	0042
14	RC60-01-0008 02MS	0107L389-006S	08/04/01	0140
15	RC60-01-0008 02MSD	0107L389-006T	08/04/01	0238
16	ZZZZZ	0107L397-001	08/04/01	0336
17	ZZZZZ	0107L397-001S	08/04/01	0434
18	ZZZZZ	0107L397-001T	08/04/01	0532
19	ZZZZZ	0107L397-002	08/04/01	0629
20	ZZZZZ	0107L397-003	08/04/01	0727
21	ZZZZZ	0107L397-004	08/04/01	0825
22	ZZZZZ	0107L397-005	08/04/01	0923
23	ZZZZZ	0107L397-006	08/04/01	1021
24	ZZZZZ	HEXANE	08/04/01	1119
25	ZZZZZ	AR1660 2803 C	08/04/01	1217

FORM VIII PEST

8H

PESTICIDE ANALYSIS SEQUENCE

Lab Name: Lionville Labs, Inc. Contract: 02744-064-001-9999-00

Client: LANL REQ #9407R GC Sample ID: 07190136

Instrument ID: 36 GC Column ID: RTX1701

Dates of Analyses: 07/19/01 to 07/20/01

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED
01	ZZZZZ	AR1660 2801 A	07/19/01	1759
02	ZZZZZ	AR1660 2802 B	07/19/01	1847
03	ZZZZZ	AR1660 2803 C	07/19/01	1935
04	ZZZZZ	AR1660 2804 D	07/19/01	2023
05	ZZZZZ	AR1660 2805 E	07/19/01	2111
06	ZZZZZ	AR1221 1108	07/19/01	2159
07	ZZZZZ	AR1232 1205	07/19/01	2247
08	ZZZZZ	AR1242 1304	07/19/01	2335
09	ZZZZZ	AR1248 1101	07/20/01	0022
10	ZZZZZ	AR1254 9403 C	07/20/01	0110

FORM VIII PEST

8H

PESTICIDE ANALYSIS SEQUENCE

Lab Name: Lionville Labs, Inc. Contract: 02744-064-001-9999-00

Client: LANL REQ #9407R GC Sample ID: 08030136

Instrument ID: 36 GC Column ID: RTX1701

Dates of Analyses: 08/03/01 to 08/04/01

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED
01	ZZZZZ	AR1660 2803 C	08/03/01	1307
02	PBLKLZLE0890	01LE0890-MB1	08/03/01	1405
03	PBLKLZLE0890 MS	01LE0890-MB1S	08/03/01	1503
04	ZZZZZ	01LE0907-MB1	08/03/01	1601
05	ZZZZZ	01LE0907-MB1S	08/03/01	1659
06	RC60-01-0003 02	0107L389-001	08/03/01	1757
07	RC60-01-0004 02	0107L389-002	08/03/01	1855
08	RC60-01-0005 02	0107L389-003	08/03/01	1953
09	RC60-01-0006 02	0107L389-004	08/03/01	2050
10	RC60-01-0007 02	0107L389-005	08/03/01	2148
11	RC60-01-0008 02	0107L389-006	08/03/01	2246
12	ZZZZZ	HEXANE	08/03/01	2344
13	ZZZZZ	AR1660 2803 C	08/04/01	0042
14	RC60-01-0008 02MS	0107L389-006S	08/04/01	0140
15	RC60-01-0008 02MSD	0107L389-006T	08/04/01	0238
16	ZZZZZ	0107L397-001	08/04/01	0336
17	ZZZZZ	0107L397-001S	08/04/01	0434
18	ZZZZZ	0107L397-001T	08/04/01	0532
19	ZZZZZ	0107L397-002	08/04/01	0629
20	ZZZZZ	0107L397-003	08/04/01	0727
21	ZZZZZ	0107L397-004	08/04/01	0825
22	ZZZZZ	0107L397-005	08/04/01	0923
23	ZZZZZ	0107L397-006	08/04/01	1021
24	ZZZZZ	HEXANE	08/04/01	1119
25	ZZZZZ	AR1660 2803 C	08/04/01	1217

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FORM VIII PEST

CALIBRATION VERIFICATION SUMMARY

Lab Name: Lionville Labs, Inc.

Contract: 02744064001

Client: LANL REQ #9407R

GC Sample ID: 08030135.01

RFW Lot No.: 0107L389

GC Column: DB608

Instrument ID: 35

Method: A352

DATE(S) OF INIT. CALIB FROM: 07/19/01 TO: 07/20/01

DATE OF ANALYSIS 08/03/01
TIME OF ANALYSIS 1307
STANDARD ID: AR1660 2803 C

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	INITIAL RESP. FACT.	RT	CONTINUING RESP. FACT.	FL	%D
Aroclor-1016	11.72	11.65	11.79	95588	11.72	87090		- 8.9
Aroclor-1016	13.35	13.28	13.42	191345	13.35	171570		- 10
Aroclor-1016	14.88	14.81	14.95	252748	14.88	223040		- 12
Aroclor-1016	15.43	15.36	15.50	122443	15.43	108300		- 12
Aroclor-1016	17.22	17.14	17.28	117229	17.22	98930	+	- 16
Total				**779353**		**688930**		**- 12**
Aroclor-1260	21.59	21.52	21.66	269261	21.59	238240		- 12
Aroclor-1260	22.05	21.98	22.12	302621	22.05	265590		- 12
Aroclor-1260	23.70	23.63	23.77	199965	23.70	176040		- 12
Aroclor-1260	24.89	24.82	24.96	220908	24.89	195500		- 12
Aroclor-1260	25.50	25.43	25.57	404109	25.50	355290		- 12
Total				**1396864**		**1230660**		**- 12**
Toxaphene								
Toxaphene								
Toxaphene								
Toxaphene								
Toxaphene								
Total								

%D should not exceed 15%

CALIBRATION VERIFICATION SUMMARY

Lab Name: Lionville Labs, Inc.

Contract: 02744064001

Client: LANL REQ #9407R

GC Sample ID: 08030135.13

RFW Lot No.: 0107L389

GC Column: DB608

Instrument ID: 35

Method: A352

DATE(S) OF INIT. CALIB FROM: 07/19/01 TO: 07/20/01

DATE OF ANALYSIS 08/04/01
TIME OF ANALYSIS 0042
STANDARD ID: AR1660 2803 C

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	INITIAL RESP. FACT.	RT	CONTINUING RESP. FACT.	FL	%D
Aroclor-1016	11.72	11.65	11.79	95588	11.69	86460		- 9.5
Aroclor-1016	13.35	13.28	13.42	191345	13.32	171900		- 10
Aroclor-1016	14.88	14.81	14.95	252748	14.85	225070		- 11
Aroclor-1016	15.43	15.36	15.50	122443	15.40	108060		- 12
Aroclor-1016	17.22	17.14	17.28	117229	17.19	98910	+	- 16
Total				**779353**		**690400**		**- 11**
Aroclor-1260	21.59	21.52	21.66	269261	21.57	239670		- 11
Aroclor-1260	22.05	21.98	22.12	302621	22.03	269220		- 11
Aroclor-1260	23.70	23.63	23.77	199965	23.69	173980		- 13
Aroclor-1260	24.89	24.82	24.96	220908	24.88	196550		- 11
Aroclor-1260	25.50	25.43	25.57	404109	25.49	360100		- 11
Total				**1396864**		**1239520**		**- 11**
Toxaphene								
Toxaphene								
Toxaphene								
Toxaphene								
Toxaphene								
Total								

%D should not exceed 15%

7/08/01

CALIBRATION VERIFICATION SUMMARY

Lab Name: Lionville Labs, Inc.

Contract: 02744064001

Client: LANL REQ #9407R

GC Sample ID: 08030135.25

RFW Lot No.: 0107L389

GC Column: DB608

Instrument ID: 35

Method: A352

DATE(S) OF INIT. CALIB FROM: 07/19/01 TO: 07/20/01

DATE OF ANALYSIS 08/04/01
TIME OF ANALYSIS 1217
STANDARD ID: AR1660 2803 C

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	INITIAL RESP. FACT.	RT	CONTINUING RESP. FACT.	FL	%D
Aroclor-1016	11.72	11.65	11.79	95588	11.69	86620		- 9.4
Aroclor-1016	13.35	13.28	13.42	191345	13.32	169990		- 11
Aroclor-1016	14.88	14.81	14.95	252748	14.85	222430		- 12
Aroclor-1016	15.43	15.36	15.50	122443	15.40	106930		- 13
Aroclor-1016	17.22	17.14	17.28	117229	17.20	94790	+	- 19
Total				**779353**		**680760**		**- 13**
Aroclor-1260	21.59	21.52	21.66	269261	21.57	236520		- 12
Aroclor-1260	22.05	21.98	22.12	302621	22.04	265040		- 12
Aroclor-1260	23.70	23.63	23.77	199965	23.69	169770		- 15
Aroclor-1260	24.89	24.82	24.96	220908	24.88	191760		- 13
Aroclor-1260	25.50	25.43	25.57	404109	25.49	354960		- 12
Total				**1396864**		**1218050**		**- 13**
Toxaphene								
Toxaphene								
Toxaphene								
Toxaphene								
Toxaphene								
Total								

%D should not exceed 15%

Hegd 8/7/01

CALIBRATION VERIFICATION SUMMARY

Lab Name: Lionville Labs, Inc.

Contract: _____

Client: _____

GC Sample ID: 08030136.01

RFW Lot No.: 0107L389

GC Column: RTX1701

Instrument ID: 36

Method: A362

DATE(S) OF INIT. CALIB FROM: 07/19/01 TO: 07/20/01

DATE OF ANALYSIS 08/03/01
TIME OF ANALYSIS 1307
STANDARD ID: AR1660 2803 C

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	INITIAL RESP. FACT.	RT	CONTINUING RESP. FACT.	FL	%D
Aroclor-1016	9.76	9.69	9.83	39475	9.76	42560		7.8
Aroclor-1016	11.21	11.14	11.28	68176	11.21	69830		2.4
Aroclor-1016	12.82	12.75	12.89	100443	12.82	102640		2.2
Aroclor-1016	13.29	13.22	13.36	60531	13.29	61480		1.6
Aroclor-1016	14.92	14.85	14.99	50904	14.92	49770		- 2.2
Total				**319529**		**326280**		**- 2.1**
Aroclor-1260	19.23	19.16	19.30	120298	19.23	118910		- 1.2
Aroclor-1260	19.93	19.86	20.00	136464	19.93	136600		0
Aroclor-1260	21.44	21.37	21.51	92619	21.44	92910		0.3
Aroclor-1260	22.43	22.36	22.50	90480	22.43	92100		1.8
Aroclor-1260	23.26	23.19	23.33	188704	23.26	189130		0.2
Total				**628565**		**629650**		**0.2**
Toxaphene								
Toxaphene								
Toxaphene								
Toxaphene								
Toxaphene								
Total								

%D should not exceed 15%

Flag data

RFW 9/93 A

69

CALIBRATION VERIFICATION SUMMARY

Lab Name: Lionville Labs, Inc.

Contract: _____

Client: _____

GC Sample ID: 08030136.13

RFW Lot No.: 0107L389

GC Column: RTX1701

Instrument ID: 36

Method: A362

DATE(S) OF INIT. CALIB FROM: 07/19/01 TO: 07/20/01

DATE OF ANALYSIS 08/04/01
TIME OF ANALYSIS 0042
STANDARD ID: AR1660 2803 C

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	INITIAL RESP. FACT.	RT	CONTINUING RESP. FACT.	FL	%D
Aroclor-1016	9.76	9.69	9.83	39475	9.75	42860		8.6
Aroclor-1016	11.21	11.14	11.28	68176	11.21	71660		5.1
Aroclor-1016	12.82	12.75	12.89	100443	12.81	105160		4.7
Aroclor-1016	13.29	13.22	13.36	60531	13.28	62350		3.0
Aroclor-1016	14.92	14.85	14.99	50904	14.91	50490		- 0.8
Total				**319529**		**332520**		**- 4.1**
Aroclor-1260	19.23	19.16	19.30	120298	19.22	123940		3.0
Aroclor-1260	19.93	19.86	20.00	136464	19.93	139860		2.5
Aroclor-1260	21.44	21.37	21.51	92619	21.43	94490		2.0
Aroclor-1260	22.43	22.36	22.50	90480	22.42	94600		4.6
Aroclor-1260	23.26	23.19	23.33	188704	23.26	193980		2.8
Total				**628565**		**646870**		**2.9**
Toxaphene								
Toxaphene								
Toxaphene								
Toxaphene								
Toxaphene								
Total								

%D should not exceed 15%

Flagged 17/61

CALIBRATION VERIFICATION SUMMARY

Lab Name: Lionville Labs, Inc.

Contract: _____

Client: _____

GC Sample ID: 08030136.25

RFW Lot No.: 0107L389

GC Column: RTX1701

Instrument ID: 36

Method: A362

DATE(S) OF INIT. CALIB FROM: 07/19/01 TO: 07/20/01

DATE OF ANALYSIS 08/04/01
TIME OF ANALYSIS 1217
STANDARD ID: AR1660 2803 C

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	INITIAL RESP. FACT.	RT	CONTINUING RESP. FACT.	FL	%D
Aroclor-1016	9.76	9.69	9.83	39475	9.75	43210		9.5
Aroclor-1016	11.21	11.14	11.28	68176	11.21	71320		4.6
Aroclor-1016	12.82	12.75	12.89	100443	12.81	104740		4.3
Aroclor-1016	13.29	13.22	13.36	60531	13.28	61970		2.4
Aroclor-1016	14.92	14.85	14.99	50904	14.91	49970		- 1.8
Total				**319529**		**331210**		**- 3.7**
Aroclor-1260	19.23	19.16	19.30	120298	19.22	121930		1.4
Aroclor-1260	19.93	19.86	20.00	136464	19.93	140040		2.6
Aroclor-1260	21.44	21.37	21.51	92619	21.43	93540		1
Aroclor-1260	22.43	22.36	22.50	90480	22.42	94130		4.0
Aroclor-1260	23.26	23.19	23.33	188704	23.25	192330		1.9
Total				**628565**		**641970**		**2.1**
Toxaphene								
Toxaphene								
Toxaphene								
Toxaphene								
Toxaphene								
Total								

%D should not exceed 15%

Jhg 8/7/01

Multilevel Calibration Method

calibrated using height
Lionville Laboratory, Incorporated

% RSD TCX

INJECTION #		PEAK HEIGHT	CONC. (ug/mL)	PEAK HT. / CONC	MEAN	DEV.	%RSD
07170135.04	LEVEL A	15118	0.04	377950			
07170135.05	LEVEL B	35936	0.1	359360			
07170135.06	LEVEL C	69995	0.2	349975	353680.3	23312.7479	6.5914748
07170135.07	LEVEL D	145999	0.4	364997.5			
07170135.08	LEVEL E	316119	1	316119			

% RSD DCB

INJECTION #		PEAK HEIGHT	CONC. (ug/mL)	PEAK HT. / CONC	MEAN	DEV.	%RSD
07170135.04	LEVEL A	13012	0.008	1626500			
07170135.05	LEVEL B	30312	0.02	1515600			
07170135.06	LEVEL C	57030	0.04	1425750	1426499	154979.918	10.8643552
07170135.07	LEVEL D	107168	0.08	1339600			
07170135.08	LEVEL E	245009	0.2	1225045			

AR1016

$\bar{x}$ = 551758.9

σ_{n-1} = 86401.577

%RSD = 15.66%

AR1260

$\bar{x}$ = 1022106.8

σ_{n-1} = 110851.13

%RSD = 10.85%

AR1254

RF = 0.1436×10^{-5}

7/20/01

Multilevel Calibration Method

calibrated using height
Lionville Laboratory, Incorporated

% RSD TCX

INJECTION #		PEAK HEIGHT	CONC. (ug/mL)	PEAK HT. / CONC	MEAN	DEV.	%RSD
07170136.04	LEVEL A	6000	0.04	150000			
07170136.05	LEVEL B	14349	0.1	143490			
07170136.06	LEVEL C	28690	0.2	143450	153338	11091.3686	7.23328112
07170136.07	LEVEL D	67214	0.4	168035			
07170136.08	LEVEL E	161715	1	161715			

% RSD DCB

INJECTION #		PEAK HEIGHT	CONC. (ug/mL)	PEAK HT. / CONC	MEAN	DEV.	%RSD
07170136.04	LEVEL A	7621	0.008	952625			
07170136.05	LEVEL B	18490	0.02	924500			
07170136.06	LEVEL C	35664	0.04	891600	886117	58690.8421	6.6233739
07170136.07	LEVEL D	68848	0.08	860600			
07170136.08	LEVEL E	160252	0.2	801260			

AR1016
$\bar{x}$ = 233204.7
σ^{-1} = 17524.724
%RSD = 7.51%

AR1260
$\bar{x}$ = 467671.6
σ^{-1} = 24612.199
%RSD = 5.26%

AR1254
RF = 0.3190 x10^{-5}

7/20/01
MK

MULTI-COMPONENT STANDARD CONCENTRATIONS

COMPOUND	ID #	CONC (ng/ul)
TOXAPHENE	80481005	0.5
AROCLOR 1016	80480704; 0705	0.1
AROCLOR 1221	80481106	0.2
AROCLOR 1232	80481203	0.1
AROCLOR 1242	80481302	0.1
AROCLOR 1248	80481702	0.1
AROCLOR 1254	80480803	0.1
AROCLOR 1260	80480704; 0705	0.1

BREAKDOWN EVALUATION MIX CONCENTRATION

EVAL
80481504, 1506

COMPOUND	CONC (ng/ul)
ENDRIN	0.025
4,4'-DDT	0.05

PESTICIDE STANDARD CONCENTRATIONS

INDA MIXTURES
(NG/UL)

COMPOUND	80487301 A	80487302 B	80487303 C	80487304 D	80487305 E
TETRACHLORO-M-XYLENE	0.010	0.024	0.040	0.080	0.120
ALPHA-BHC	0.005	0.012	0.020	0.040	0.060
GAMMA-BHC	0.005	0.012	0.020	0.040	0.060
HEPTACHLOR	0.005	0.012	0.020	0.040	0.060
ENDOSULFAN I	0.005	0.012	0.020	0.040	0.060
DIELDRIN	0.010	0.024	0.040	0.080	0.120
ENDRIN	0.010	0.024	0.040	0.080	0.120
4,4'-DDD	0.010	0.024	0.040	0.080	0.120
4,4'-DDT	0.010	0.024	0.040	0.080	0.120
METHOXYCHLOR	0.050	0.120	0.200	0.400	0.600
DECACHLOROBIPHENYL	0.024	0.060	0.100	0.200	0.300

INDB MIXTURES
(NG/UL)

COMPOUND	80486301 A	80486302 B	80486303 C	80486304 D	80486305 E
TETRACHLORO-M-XYLENE	0.010	0.024	0.040	0.080	0.120
BETA-BHC	0.005	0.012	0.020	0.040	0.060
DELTA-BHC	0.005	0.012	0.020	0.040	0.060
ALDRIN	0.005	0.012	0.020	0.040	0.060
HEPTACHLOREPOXIDE	0.005	0.012	0.020	0.040	0.060
G-CHLORDANE	0.005	0.012	0.020	0.040	0.060
A-CHLORDANE	0.005	0.012	0.020	0.040	0.060
4,4'-DDE	0.010	0.024	0.040	0.080	0.120
ENDOSULFAN II	0.010	0.024	0.040	0.080	0.120
ENDRIN ALDEHYDE	0.010	0.024	0.040	0.080	0.120
ENDOSULFAN SULFATE	0.010	0.024	0.040	0.080	0.120
ENDRIN KETONE	0.010	0.024	0.040	0.080	0.120
DECACHLOROBIPHENYL	0.024	0.060	0.100	0.200	0.300

MULTICOMPONENT STANDARD CONCENTRACTION

AR1660
(NG/UL)

	80486101 A	80486102 B	80486103 C	80486104 D	80486105 E
Aroclor-1016	0.04	0.10	0.20	0.40	1.0
Aroclor-1260	0.04	0.10	0.20	0.40	1.0
TCX	0.008	0.02	0.04	0.08	0.2
DCB	0.008	0.02	0.04	0.08	0.2

AR1242
(NG/UL)

Aroclor-1242	0.04	0.10	0.20	0.40	1.0
TCX	0.008	0.02	0.04	0.08	0.2
DCB	0.008	0.02	0.04	0.08	0.2

AR1248
(NG/UL)

Aroclor-1248	0.04	0.10	0.20	0.40	1.0
TCX	0.008	0.02	0.04	0.08	0.2
DCB	0.008	0.02	0.04	0.08	0.2

AR1254
(NG/UL)

	80486501 A	80486502 B	80486503 C	80486504 D	80486505 E
Aroclor-1254	0.04	0.10	0.20	0.40	1.0
TCX	0.008	0.02	0.04	0.08	0.2
DCB	0.008	0.02	0.04	0.08	0.2

MULTICOMPONENT STANDARD CONCENTRACTION

	AR1232 (NG/UL)
Aroclor-1232	0.20
TCX	0.04
DCB	0.04

	AR1221 (NG/UL)
	80481107 A
Aroclor-1221	0.04
TCX	0.008
DCB	0.008

TOXAPHENE (NG/UL)

Toxaphene	0.1	0.25	0.5	0.75	1
TCX	0.02	0.05	0.1	0.15	0.2
DCB	0.02	0.05	0.1	0.15	0.2

CHLORDANE (NG/UL)

CHLORDANE	0.04	0.10	0.20	0.40	1.0
TCX	0.008	0.02	0.04	0.08	0.20
DCB	0.008	0.02	0.04	0.08	0.20

AR1660 2801 A

SAMPLE NO. : 07190135 .03
TEST NO. :
METHOD NO. : P3560 / P3560

INSTRUMENT: 35
DATE TIME: 07/19/01 17:59:35
PAGE NO. : 01

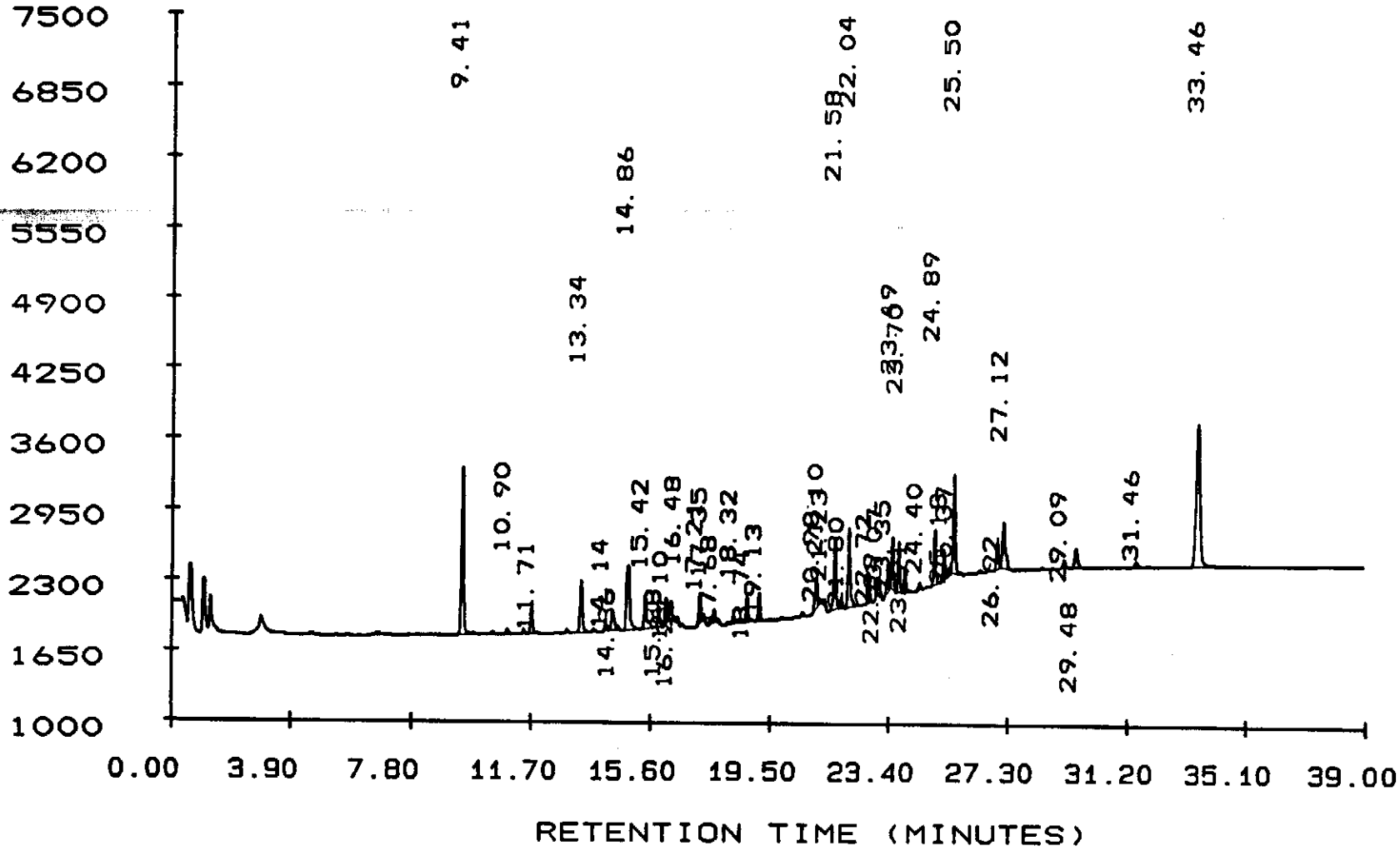

Y MAXIMUM: 7500.
Y MINIMUM: 1000.

START TIME: 0.00
END TIME: 39.00

Lionville Laboratory, Inc. 07/20/01 10:39:49

EXTERNAL STANDARD

SAMPLE: 07190135 .03
TEST :
COLLECTION TIME : 38.84
METHOD: P3560 / P3560 REV #: 00218 ANALYST: KOBELM
CLIENT ID:
CLIENT:
LAB ID: AR1660 2801 A
SAMPLE WT : % MOISTURE :
COLUMN ID: 0.53 mm I

INST:35 VIAL:F0 SEQ NUMBER:003
DATE-TIME INJECTED : 07/19/01 17:59:35
DATE-TIME PROCESSED : 07/20/01 10:39:49
SAMP RATE: 1.56
SAMPLE VOL: 1.0 uL
COLUMN TYPE: DB608
RAW FILE: RAW2:GJ150342
DILUTION FACTOR : 1.0000
CAL ID : TEMP:L071901.35/25

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
002	77338	15118	V	9.415	1	TCX	0.009
004	2711	521	V	10.902			
006	13386	2332		11.706	1	AR1016-1	0.024
008	28685	4776	V	13.338	1	AR1016-2	0.025
010	5501	1211	V	14.141			
011	14418	1896	V	14.363			
012	47582	5962	V	14.862	1	AR1016-3	0.024
013	19337	2904	V	15.417	1	AR1016-4	0.024
014	9267	1897	V	15.876			
015	9404	2247	V	16.100			
016	10795	1808	V	16.270			
017	2262	632	V	16.480			
018	12960	2706	V	17.207	1	AR1016-5	0.023
019	2741	739	V	17.351			
020	7728	1174	V	17.682			
022	6784	753	V	18.316			
023	12341	2259	V	18.737			
024	12674	2496	V	19.127			
026	14407	2621	V	20.981			
027	1620	512	V	21.099			
028	3134	747	V	21.233			
029	33700	6477	V	21.582	1	AR1260-1	0.024
030	4582	994	V	21.805			
031	39450	7152	V	22.044	1	AR1260-2	0.024
032	12701	2603	V	22.720			
033	4813	1324	V	22.986			
034	2443	907	V	23.073			
035	13742	2725	V	23.347			
036	21579	4708	V	23.491			
037	20646	4527	V	23.702	1	AR1260-3	0.023
038	11334	2347	V	23.910			
039	3114	681	V	24.396			
040	24970	5008	V	24.888	1	AR1260-4	0.023
041	15921	2796	V	25.183			
042	2653	707	V	25.366			
043	44544	8916	V	25.501	1	AR1260-5	0.022
045	12915	2406	V	26.922			
046	28117	4097		27.123			
048	4932	744	V	29.094			
049	13124	1756		29.476			

SAMPLE: 07190135 .03

PAGE NUMBER: 2

DATE-TIME INJECTED : 07/19/01 17:59:35

DATE-TIME PROCESSED : 07/20/01 10:39:49

PK NO	PEAK AREA	PEAK HEIGHT	BL RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL	
050	5442	546	31.459				
051	122876	13012	33.462	1	DCB	0.009	
MPK		2332	11.706		AROCLOR-1016-1	0.049	RW:11.63-11.77
MPK		4776	13.338		AROCLOR-1016-2	0.050	RW:13.27-13.41
MPK		1896	14.363		AROCLOR-1016-3	0.050	RW:14.29-14.43
MPK		5962	14.862		AROCLOR-1016-4	0.047	RW:14.79-14.93
MPK		2904	15.417		AROCLOR-1016-5	0.047	RW:15.34-15.48
MPK		1897	15.876		AROCLOR-1016-6	0.045	RW:15.80-15.94
MPK		2247	16.100		AROCLOR-1016-7	0.050	RW:16.03-16.17
MPK		1808	16.270		AROCLOR-1016-8	0.048	RW:16.20-16.34
MPK		2706	17.207		AROCLOR-1016-9	0.046	RW:17.13-17.27
MPK		6477	21.582		AROCLOR-1260-1	0.048	RW:21.51-21.65
MPK		7152	22.044		AROCLOR-1260-2	0.047	RW:21.97-22.11
MPK		2725	23.347		AROCLOR-1260-3	0.044	RW:23.27-23.41
MPK		4708	23.491		AROCLOR-1260-4	0.046	RW:23.42-23.56
MPK		4527	23.702		AROCLOR-1260-5	0.045	RW:23.63-23.77
MPK		5008	24.888		AROCLOR-1260-6	0.045	RW:24.81-24.96
MPK		2796	25.183		AROCLOR-1260-7	0.043	RW:25.11-25.25
MPK		8916	25.501		AROCLOR-1260-8	0.044	RW:25.43-25.57
MPK		4097	27.123		AROCLOR-1260-9	0.043	RW:27.05-27.19

0.04

7/20/01
MK

AR1660 2802 B

SAMPLE NO. : 07190135 .04
TEST NO. :
METHOD NO. : P3560 / P3560

INSTRUMENT: 35
DATE TIME: 07/19/01 18:47:24
PAGE NO. : 01

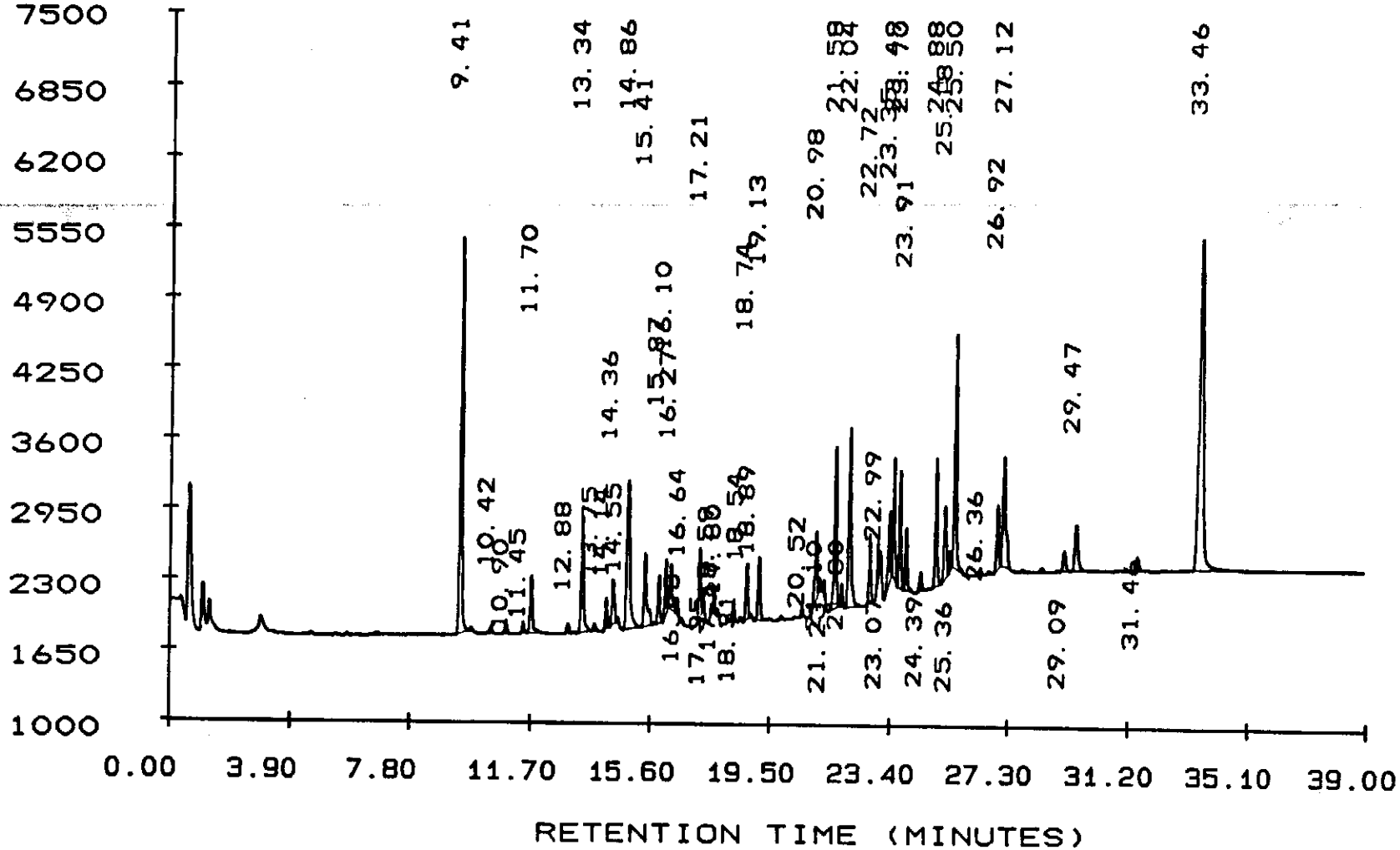

Y MAXIMUM: 7500.
Y MINIMUM: 1000.

START TIME: 0.00
END TIME: 39.00

Lionville Laboratory, Inc. 07/20/01 10:40:10

EXTERNAL STANDARD

SAMPLE: 07190135 .04
TEST :
COLLECTION TIME : 38.84
METHOD: P3560 / P3560 REV #: 00218 ANALYST: KOBELM
CLIENT ID:
CLIENT:
LAB ID: AR1660 2802 B
SAMPLE WT : % MOISTURE :
COLUMN ID: 0.53 mm I

INST:35 VIAL:F0 SEQ NUMBER:004
DATE-TIME INJECTED : 07/19/01 18:47:24
DATE-TIME PROCESSED : 07/20/01 10:40:10
SAMP RATE: 1.56
SAMPLE VOL: 1.0 uL
COLUMN TYPE: DB608
RAW FILE: RAW2:GJ150347
DILUTION FACTOR : 1.0000
CAL ID : TEMP:L071901.35/25

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
003	181280	35936	V	9.414	1	TCX	0.021
005	4144	654	V	10.418			
006	6501	1222	V	10.900			
007	5555	1123	V	11.450			
008	31238	5237		11.704	1	AR1016-1	0.055
009	4906	867	V	12.884			
010	66176	10637	V	13.336	1	AR1016-2	0.056
011	4416	729	V	13.751			
012	12945	2824	V	14.139			
013	24682	4085	V	14.362			
014	2444	693	V	14.545			
015	110205	13621	V	14.861	1	AR1016-3	0.054
016	45646	6607	V	15.414	1	AR1016-4	0.054
017	21711	4394	V	15.874			
018	20787	4911	V	16.098			
019	24625	4096	V	16.269			
020	5529	1519	V	16.478			
021	2169	545	V	16.640			
022	30309	6274	V	17.205	1	AR1016-5	0.054
023	6310	1728	V	17.350			
024	3022	902	V	17.587			
025	7653	2150	V	17.680			
026	3072	882	V	17.805			
028	9391	1698	V	18.313			
029	2629	577	V	18.537			
030	23881	5093	V	18.735			
031	1892	515	V	18.890			
032	29849	5702	V	19.125			
035	6141	988	V	20.523			
036	33971	6132	V	20.980			
037	3748	1202	V	21.098			
038	7321	1792	V	21.231			
039	77280	14807	V	21.581	1	AR1260-1	0.055
040	10970	2369	V	21.803			
041	92228	16354	V	22.043	1	AR1260-2	0.054
042	30782	6337	V	22.719			
043	11715	3188	V	22.985			
044	5504	1832	V	23.071			
045	32968	6515	V	23.345			
046	50483	10984	V	23.488			

SAMPLE: 07190135 .04

DATE-TIME INJECTED : 07/19/01 18:47:24

DATE-TIME PROCESSED : 07/20/01 10:40:10

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
047	49098	10668	V	23.700	1	AR1260-3	0.053
048	27817	5699	V	23.908			
049	7753	1706	V	24.393			
050	59656	11699	V	24.885	1	AR1260-4	0.053
051	38556	6721	V	25.182			
052	6593	1811	V	25.363			
053	105584	21132	V	25.498	1	AR1260-5	0.052
054	3902	728	V	26.360			
056	31549	5879	V	26.920			
057	68577	9999	V	27.121			
060	12690	1850	V	29.091			
061	31529	4195		29.472			
062	11838	1341		31.456			
063	292196	30312		33.460	1	DCB	0.021

MPK	5237	11.704	AROCLOR-1016-1	0.110	RW:11.63-11.77
MPK	10637	13.336	AROCLOR-1016-2	0.111	RW:13.27-13.41
MPK	4085	14.362	AROCLOR-1016-3	0.108	RW:14.29-14.43
MPK	13621	14.861	AROCLOR-1016-4	0.108	RW:14.79-14.93
MPK	6607	15.414	AROCLOR-1016-5	0.108	RW:15.34-15.48
MPK	4394	15.874	AROCLOR-1016-6	0.105	RW:15.80-15.94
MPK	4911	16.098	AROCLOR-1016-7	0.110	RW:16.03-16.17
MPK	4096	16.269	AROCLOR-1016-8	0.109	RW:16.20-16.34
MPK	6274	17.205	AROCLOR-1016-9	0.107	RW:17.13-17.27
MPK	14807	21.581	AROCLOR-1260-1	0.110	RW:21.51-21.65
MPK	16354	22.043	AROCLOR-1260-2	0.108	RW:21.97-22.11
MPK	6515	23.345	AROCLOR-1260-3	0.105	RW:23.27-23.41
MPK	10984	23.488	AROCLOR-1260-4	0.107	RW:23.42-23.56
MPK	10668	23.700	AROCLOR-1260-5	0.107	RW:23.63-23.77
MPK	11699	24.885	AROCLOR-1260-6	0.106	RW:24.81-24.96
MPK	6721	25.182	AROCLOR-1260-7	0.104	RW:25.11-25.25
MPK	21132	25.498	AROCLOR-1260-8	0.105	RW:25.43-25.57
MPK	9999	27.121	AROCLOR-1260-9	0.104	RW:27.05-27.19

0.10

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84

AR1660 2803 C

SAMPLE NO. : 07190135 .05
TEST NO. :
METHOD NO. : P3560 / P3560

INSTRUMENT: 35
DATE TIME: 07/19/01 19:35:12
PAGE NO. : 01

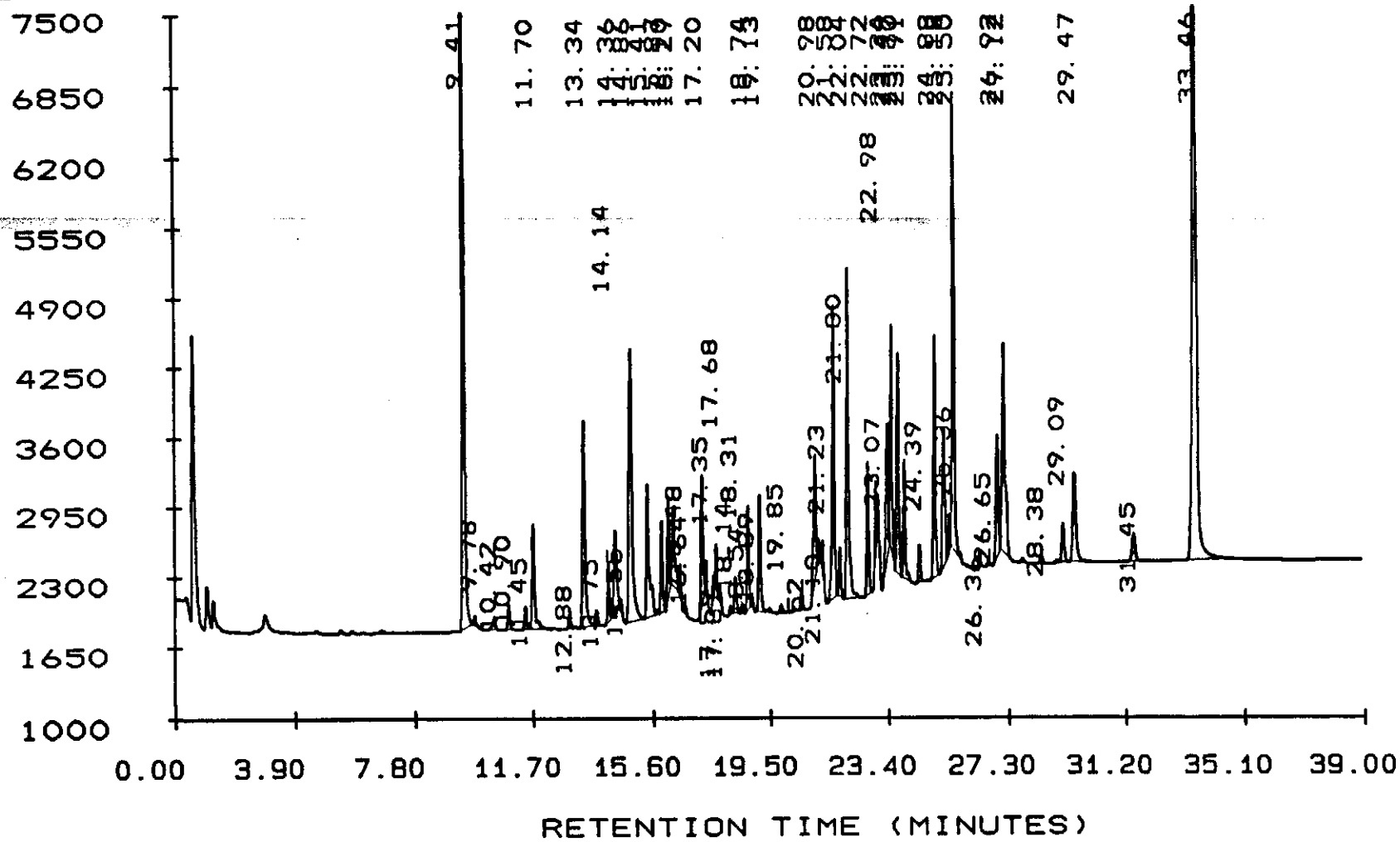

Y MAXIMUM: 7500.
Y MINIMUM: 1000.

START TIME: 0.00
END TIME: 39.00

Lionville Laboratory, Inc. 07/20/01 10:40:30

EXTERNAL STANDARD

SAMPLE: 07190135 .05 INST:35 VIAL:F0 SEQ NUMBER:005
TEST : DATE-TIME INJECTED : 07/19/01 19:35:12
COLLECTION TIME : 38.84 DATE-TIME PROCESSED : 07/20/01 10:40:30
METHOD: P3560 / P3560 REV #: 00218 ANALYST: KOBELM SAMP RATE: 1.56
CLIENT ID: SAMPLE VOL: 1.0 uL
CLIENT: COLUMN TYPE: DB608
LAB ID: AR1660 2803 C RAW FILE: RAW2:GJ150354
SAMPLE WT : % MOISTURE : DILUTION FACTOR : 1.0000
COLUMN ID: 0.53 mm I CAL ID : TEMP:L071901.35/25

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
002	360470	69995	V	9.413	1	TCX	0.040
003	4774	891	V	9.782			
004	8120	1265	V	10.419			
005	12979	2343	V	10.900			
006	10723	2132	V	11.450			
007	58285	9559		11.703	1	AR1016-1	0.100
008	9488	1671	V	12.884			
009	122352	19135	V	13.336	1	AR1016-2	0.100
010	8867	1431	V	13.750			
011	25436	5413	V	14.139			
012	46578	7592	V	14.360			
013	4689	1330	V	14.545			
014	206368	25275	V	14.861	1	AR1016-3	0.100
015	86067	12244	V	15.413	1	AR1016-4	0.100
017	40019	8408	V	15.874			
018	38275	8966	V	16.098			
019	45803	7488	V	16.269			
020	9971	2806	V	16.478			
021	4088	1028	V	16.640			
022	56765	11723	V	17.204	1	AR1016-5	0.100
023	11970	3253	V	17.349			
024	5834	1720	V	17.586			
025	14750	4156	V	17.680			
026	5954	1713	V	17.806			
027	3875	898	V	18.139			
028	18246	3304	V	18.313			
029	5120	1138	V	18.536			
030	44812	9430	V	18.735			
031	3742	1011	V	18.890			
032	56053	10680	V	19.125			
034	4346	738	V	19.852			
036	9713	1939	V	20.522			
037	64078	11409	V	20.978			
038	6722	2159	V	21.097			
039	13698	3359	V	21.231			
040	142951	26926	V	21.580	1	AR1260-1	0.100
041	21306	4565	V	21.803			
042	172157	30262	V	22.042	1	AR1260-2	0.100
043	59140	12171	V	22.718			
044	22424	6043	V	22.984			

SAMPLE: 07190135 .05 PAGE NUMBER: 2
DATE-TIME INJECTED : 07/19/01 19:35:12
DATE-TIME PROCESSED : 07/20/01 10:40:30

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
045	10125	3423	V	23.071			
046	62628	12366	V	23.344			
047	95791	20611	V	23.487			
048	92532	19996	V	23.699	1	AR1260-3	0.100
049	53418	10887	V	23.907			
050	15523	3386	V	24.393			
051	112481	22091	V	24.885	1	AR1260-4	0.100
052	73868	12974	V	25.180			
053	12793	3524	V	25.362			
054	201480	40411	V	25.497	1	AR1260-5	0.100
055	7503	1418	V	26.359			
056	3322	644	V	26.649			
057	61344	11335	V	26.920			
058	131540	19202	V	27.120			
060	4688	776	V	28.378			
062	22912	3615	V	29.089			
063	61789	8276		29.470			
064	21232	2629		31.454			
065	552061	57030		33.456	1	DCB	0.040

MPK	9559	11.703	AROCLOR-1016-1	0.200	RW:11.63-11.77
MPK	19135	13.336	AROCLOR-1016-2	0.200	RW:13.27-13.41
MPK	7592	14.360	AROCLOR-1016-3	0.200	RW:14.29-14.43
MPK	25275	14.861	AROCLOR-1016-4	0.200	RW:14.79-14.93
MPK	12244	15.413	AROCLOR-1016-5	0.200	RW:15.34-15.48
MPK	8408	15.874	AROCLOR-1016-6	0.200	RW:15.80-15.94
MPK	8966	16.098	AROCLOR-1016-7	0.200	RW:16.03-16.17
MPK	7488	16.269	AROCLOR-1016-8	0.200	RW:16.20-16.34
MPK	11723	17.204	AROCLOR-1016-9	0.200	RW:17.13-17.27
MPK	26926	21.580	AROCLOR-1260-1	0.200	RW:21.51-21.65
MPK	30262	22.042	AROCLOR-1260-2	0.200	RW:21.97-22.11
MPK	12366	23.344	AROCLOR-1260-3	0.200	RW:23.27-23.41
MPK	20611	23.487	AROCLOR-1260-4	0.200	RW:23.42-23.56
MPK	19996	23.699	AROCLOR-1260-5	0.200	RW:23.63-23.77
MPK	22091	24.885	AROCLOR-1260-6	0.200	RW:24.81-24.96
MPK	12974	25.180	AROCLOR-1260-7	0.200	RW:25.11-25.25
MPK	40411	25.497	AROCLOR-1260-8	0.200	RW:25.43-25.57
MPK	19202	27.120	AROCLOR-1260-9	0.200	RW:27.05-27.19

AR1660 2804 D

SAMPLE NO. : 07190135 .06
TEST NO. :
METHOD NO. : P3560 / P3560

INSTRUMENT: 35
DATE TIME: 07/19/01 20:23:12
PAGE NO. : 01

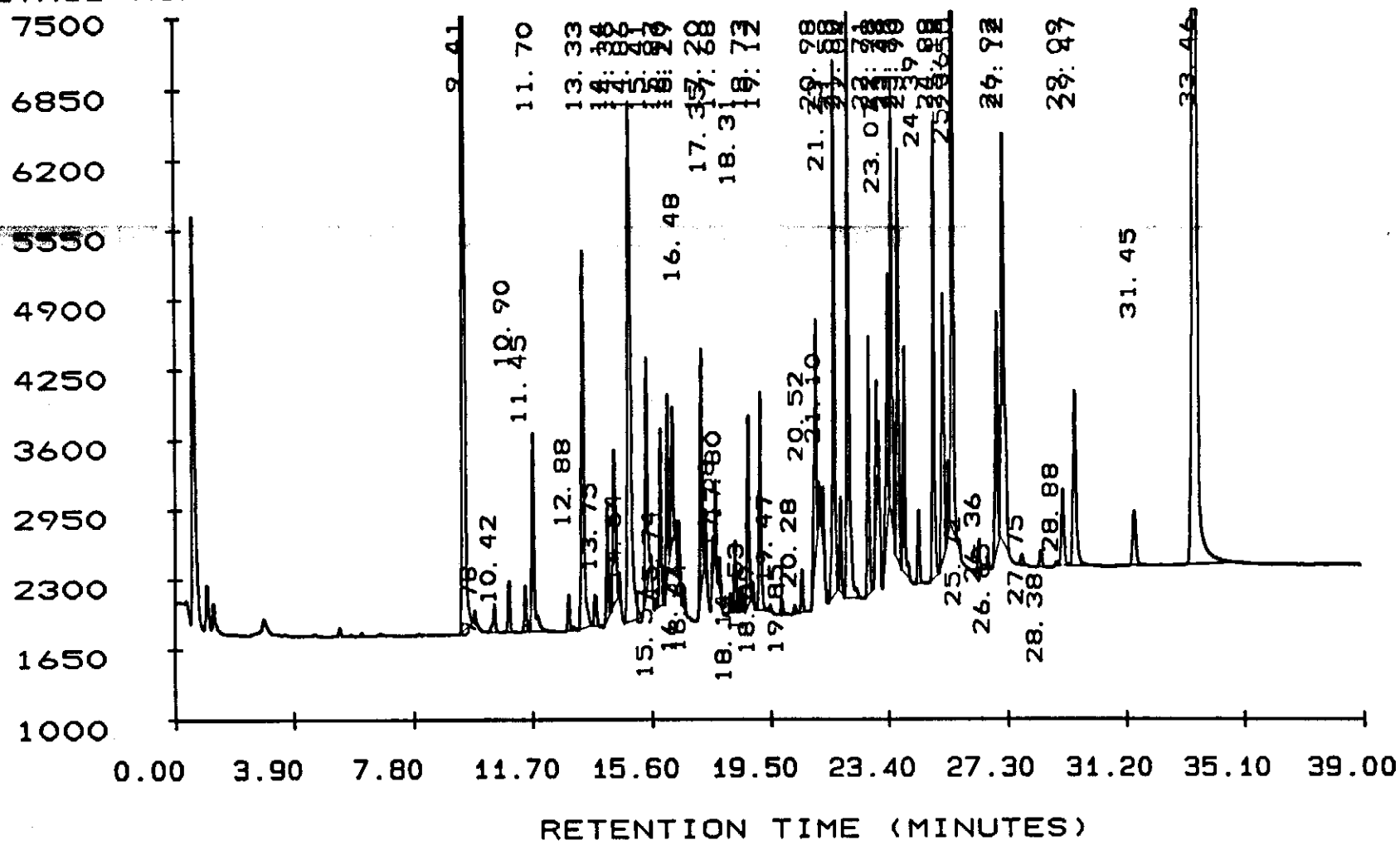

Y MAXIMUM: 7500.
Y MINIMUM: 1000.

START TIME: 0.00
END TIME: 39.00

Lionville Laboratory, Inc. 07/20/01 10:40:51

EXTERNAL STANDARD

SAMPLE: 07190135 .06 INST:35 VIAL:F0 SEQ NUMBER:006
TEST : DATE-TIME INJECTED : 07/19/01 20:23:12
COLLECTION TIME : 38.84 DATE-TIME PROCESSED : 07/20/01 10:40:51
METHOD: P3560 / P3560 REV #: 00218 ANALYST: KOBELM SAMP RATE: 1.56
CLIENT ID: SAMPLE VOL: 1.0 uL
CLIENT: COLUMN TYPE: DB608
LAB ID: AR1660 2804 D RAW FILE: RAW2:GJ150359
SAMPLE WT : % MOISTURE : DILUTION FACTOR : 1.0000
COLUMN ID: 0.53 mm I CAL ID : TEMP:L071901.35/25

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
004	724399	145999	V	9.412	1	TCX	0.083
005	6840	1286	V	9.782			
006	15983	2555	V	10.417			
007	25242	4737	V	10.898			
008	20911	4221	V	11.448			
009	108592	18098	V	11.701	1	AR1016-1	0.189
010	15667	3262	V	12.882			
012	223062	34951	V	13.333	1	AR1016-2	0.183
013	17581	2852	V	13.748			
014	48908	10465	V	14.137			
015	88244	14253	V	14.358			
016	9632	2750	V	14.543			
017	387174	47948	V	14.860	1	AR1016-3	0.190
018	106933	21388	V	15.411	1	AR1016-4	0.175
019	4499	1681	V	15.569			
020	3078	944	V	15.742			
021	77702	16242	V	15.871			
022	71371	16713	V	16.095			
023	58159	12205	V	16.267			
024	4464	2096	V	16.365			
025	19776	5526	V	16.475			
026	8369	2103	V	16.637			
027	105748	21865	V	17.202	1	AR1016-5	0.187
028	24235	6521	V	17.347			
029	10477	3061	V	17.584			
030	28747	8099	V	17.677			
031	11520	3328	V	17.803			
032	7872	1820	V	18.136			
033	35379	6409	V	18.310			
034	10400	2282	V	18.534			
035	83701	17392	V	18.732			
036	7669	2078	V	18.887			
037	104344	19946	V	19.122			
038	4661	801	V	19.470			
039	8180	1455	V	19.849			
040	4281	842	V	20.282			
041	18992	3870	V	20.519			
042	120859	21340	V	20.977			
043	12173	4037	V	21.095			
044	27937	6544	V	21.228			

SAMPLE: 07190135 .06 PAGE NUMBER: 2
DATE-TIME INJECTED : 07/19/01 20:23:12
DATE-TIME PROCESSED : 07/20/01 10:40:51

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
045	261443	48660	V	21.578	1	AR1260-1	0.181
046	40819	8864	V	21.799			
047	319366	55563	V	22.040	1	AR1260-2	0.184
048	113578	23541	V	22.715			
049	42826	11388	V	22.981			
050	17376	6338	V	23.068			
051	116874	23018	V	23.342			
052	182746	39702	V	23.485			
053	173946	37507	V	23.697	1	AR1260-3	0.188
054	103029	20654	V	23.905			
055	31814	6757	V	24.390			
056	212193	41664	V	24.882	1	AR1260-4	0.189
057	140963	24579	V	25.180			
058	24683	6788	V	25.360			
059	380014	77789	V	25.496	1	AR1260-5	0.192
060	2896	1012	V	25.718			
061	14158	2743	V	26.357			
062	6534	1267	V	26.646			
063	117400	21896	V	26.918			
064	254804	37456	V	27.118			
065	6324	999	V	27.752			
066	9326	1538	V	28.376			
067	2725	518	V	28.884			
068	44781	7080	V	29.087			
069	119779	16095		29.468			
070	41655	5170		31.451			
071	1046611	107168		33.456	1	DCB	0.075

MPK	18098	11.701	AROCLOR-1016-1	0.379	RW:11.63-11.77
MPK	34951	13.333	AROCLOR-1016-2	0.365	RW:13.27-13.41
MPK	14253	14.358	AROCLOR-1016-3	0.375	RW:14.29-14.43
MPK	47948	14.860	AROCLOR-1016-4	0.379	RW:14.79-14.93
MPK	21388	15.411	AROCLOR-1016-5	0.349	RW:15.34-15.48
MPK	16242	15.871	AROCLOR-1016-6	0.386	RW:15.80-15.94
MPK	16713	16.095	AROCLOR-1016-7	0.373	RW:16.03-16.17
MPK	12205	16.267	AROCLOR-1016-8	0.325	RW:16.20-16.34
MPK	21865	17.202	AROCLOR-1016-9	0.373	RW:17.13-17.27
MPK	48660	21.578	AROCLOR-1260-1	0.361	RW:21.51-21.65
MPK	55563	22.040	AROCLOR-1260-2	0.367	RW:21.97-22.11
MPK	23018	23.342	AROCLOR-1260-3	0.372	RW:23.27-23.41
MPK	39702	23.485	AROCLOR-1260-4	0.385	RW:23.42-23.56
MPK	37507	23.697	AROCLOR-1260-5	0.375	RW:23.63-23.77
MPK	41664	24.882	AROCLOR-1260-6	0.377	RW:24.81-24.96
MPK	24579	25.180	AROCLOR-1260-7	0.379	RW:25.11-25.25
MPK	77789	25.496	AROCLOR-1260-8	0.385	RW:25.43-25.57
MPK	37456	27.118	AROCLOR-1260-9	0.390	RW:27.05-27.19

0.40

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AR1660 2805 E

SAMPLE NO. : 07190135 .07
TEST NO. :
METHOD NO. : P3560 / P3560

INSTRUMENT: 35
DATE TIME: 07/19/01 21:11:18
PAGE NO. : 01

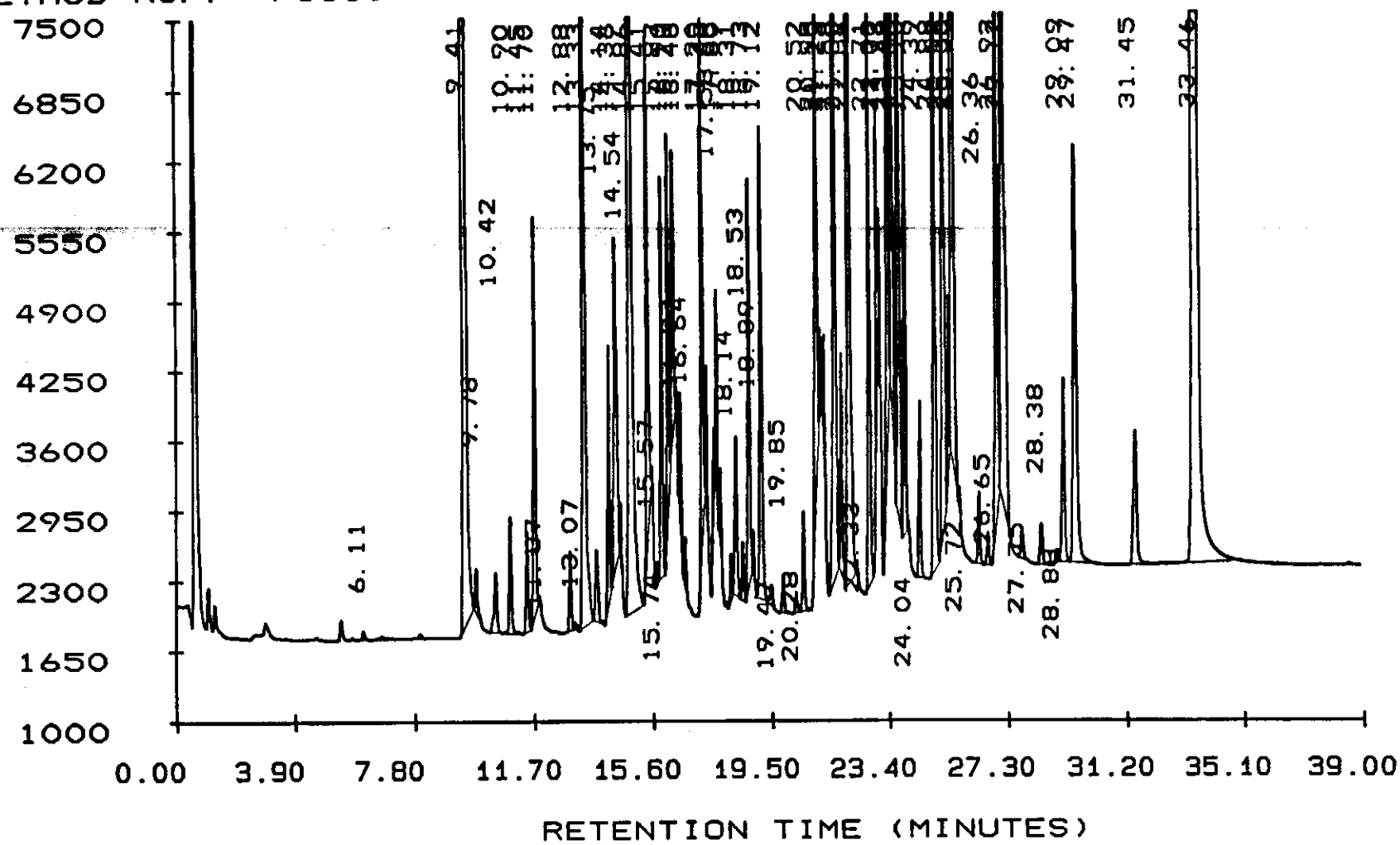

Y MAXIMUM: 7500.
Y MINIMUM: 1000.

START TIME: 0.00
END TIME: 39.00

Lionville Laboratory, Inc. 07/20/01 10:41:21

EXTERNAL STANDARD

SAMPLE: 07190135 .07 INST:35 VIAL:F0 SEQ NUMBER:007
TEST : DATE-TIME INJECTED : 07/19/01 21:11:18
COLLECTION TIME : 38.84 DATE-TIME PROCESSED : 07/20/01 10:41:21
METHOD: P3560 / P3560 REV #: 00218 ANALYST: KOBELM SAMP RATE: 1.56
CLIENT ID: SAMPLE VOL: 1.0 uL
CLIENT: COLUMN TYPE: DB608
LAB ID: AR1660 2805 E RAW FILE: RAW2:GJ150364
SAMPLE WT : % MOISTURE : DILUTION FACTOR : 1.0000
COLUMN ID: 0.53 mm I CAL ID : TEMP:L071901.35/25

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
001	4648	837	V	6.115			
004	1702437	316119	V	9.412	1	TCX	0.181
005	22316	4011	V	9.781			
006	36381	5491	V	10.417			
007	58355	10591	V	10.898			
008	47590	9199	V	11.448			
009	192130	36692	V	11.700	1	AR1016-1	0.384
010	3412	988	V	11.873			
011	35802	7249	V	12.882			
012	4026	811	V	13.074			
013	480998	72463	V	13.333	1	AR1016-2	0.379
014	41158	6512	V	13.749			
015	111777	23837	V	14.137			
016	191664	30465	V	14.359			
017	21552	6101	V	14.544			
018	860947	105069	V	14.862	1	AR1016-3	0.416
019	236879	46522	V	15.411	1	AR1016-4	0.380
020	8766	3427	V	15.567			
021	6470	2013	V	15.742			
022	178681	36645	V	15.872			
023	149206	34639	V	16.095			
024	121936	25526	V	16.266			
025	9453	4544	V	16.365			
026	43056	11856	V	16.475			
027	18404	4575	V	16.637			
028	236228	47846	V	17.201	1	AR1016-5	0.408
029	50802	13891	V	17.347			
030	23385	6662	V	17.584			
031	67782	18784	V	17.678			
032	26258	7673	V	17.803			
034	18567	4260	V	18.136			
035	81389	14547	V	18.310			
036	24640	5376	V	18.534			
037	183358	37219	V	18.732			
038	16175	4528	V	18.887			
039	230767	43145	V	19.122			
040	11346	1932	V	19.469			
041	18695	3419	V	19.848			
042	10058	2019	V	20.280			
043	44928	9024	V	20.519			

SAMPLE: 07190135 .07 PAGE NUMBER: 2
DATE-TIME INJECTED : 07/19/01 21:11:18
DATE-TIME PROCESSED : 07/20/01 10:41:21

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
044	269889	46240	V	20.976			
045	22775	7682	V	21.095			
046	61187	14124	V	21.227			
047	573423	104038	V	21.577	1	AR1260-1	0.386
048	93530	20196	V	21.799			
049	680810	120360	V	22.039	1	AR1260-2	0.398
050	2796	853	V	22.330			
051	266891	54922	V	22.715			
052	97641	25529	V	22.981			
053	36575	13009	V	23.068			
054	269011	52706	V	23.342			
055	424482	91194	V	23.485			
056	394787	83374	V	23.697	1	AR1260-3	0.417
057	213344	46342	V	23.905			
058	3903	1547	V	24.036			
059	76518	16113	V	24.390			
060	487211	94071	V	24.883	1	AR1260-4	0.426
061	328436	55989	V	25.180			
062	58238	16056	V	25.360			
063	904978	182111	V	25.496	1	AR1260-5	0.451
064	7090	2473	V	25.718			
065	33528	6596	V	26.357			
066	15776	3085	V	26.646			
067	278926	51545	V	26.918			
068	607630	88711	V	27.118			
069	15853	2455	V	27.752			
070	22618	3736	V	28.376			
071	6716	1296	V	28.884			
072	108070	16947	V	29.087			
073	287808	38257		29.468			
074	100541	12344		31.451			
075	2392183	245009		33.457	1	DCB	0.172

MPK	36692	11.700	AROCLOR-1016-1	0.768	RW:11.63-11.77
MPK	72463	13.333	AROCLOR-1016-2	0.757	RW:13.27-13.41
MPK	30465	14.359	AROCLOR-1016-3	0.803	RW:14.29-14.43
MPK	105069	14.862	AROCLOR-1016-4	0.831	RW:14.79-14.93
MPK	46522	15.411	AROCLOR-1016-5	0.760	RW:15.34-15.48
MPK	36645	15.872	AROCLOR-1016-6	0.872	RW:15.80-15.94
MPK	34639	16.095	AROCLOR-1016-7	0.773	RW:16.03-16.17
MPK	25526	16.266	AROCLOR-1016-8	0.682	RW:16.20-16.34
MPK	47846	17.201	AROCLOR-1016-9	0.816	RW:17.13-17.27
MPK	104038	21.577	AROCLOR-1260-1	0.773	RW:21.51-21.65
MPK	120360	22.039	AROCLOR-1260-2	0.795	RW:21.97-22.11
MPK	52706	23.342	AROCLOR-1260-3	0.852	RW:23.27-23.41
MPK	91194	23.485	AROCLOR-1260-4	0.885	RW:23.42-23.56
MPK	83374	23.697	AROCLOR-1260-5	0.834	RW:23.63-23.77
MPK	94071	24.883	AROCLOR-1260-6	0.852	RW:24.81-24.96

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SAMPLE: 07190135 .07 PAGE NUMBER: 3
DATE-TIME INJECTED : 07/19/01 21:11:18
DATE-TIME PROCESSED : 07/20/01 10:41:21

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL	
MPK	55989	25.180				AROCLOR-1260-7	0.863	RW:25.11-25.25
MPK	182111	25.496				AROCLOR-1260-8	0.901	RW:25.43-25.57
MPK	88711	27.118				AROCLOR-1260-9	0.924	RW:27.05-27.19

1.0

7/20/01
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AR1221 1108

SAMPLE NO. : 07190135 .08

TEST NO. :

METHOD NO. : P35 / P35

INSTRUMENT: 35

DATE TIME: 07/19/01 21:59:30

PAGE NO. : 01

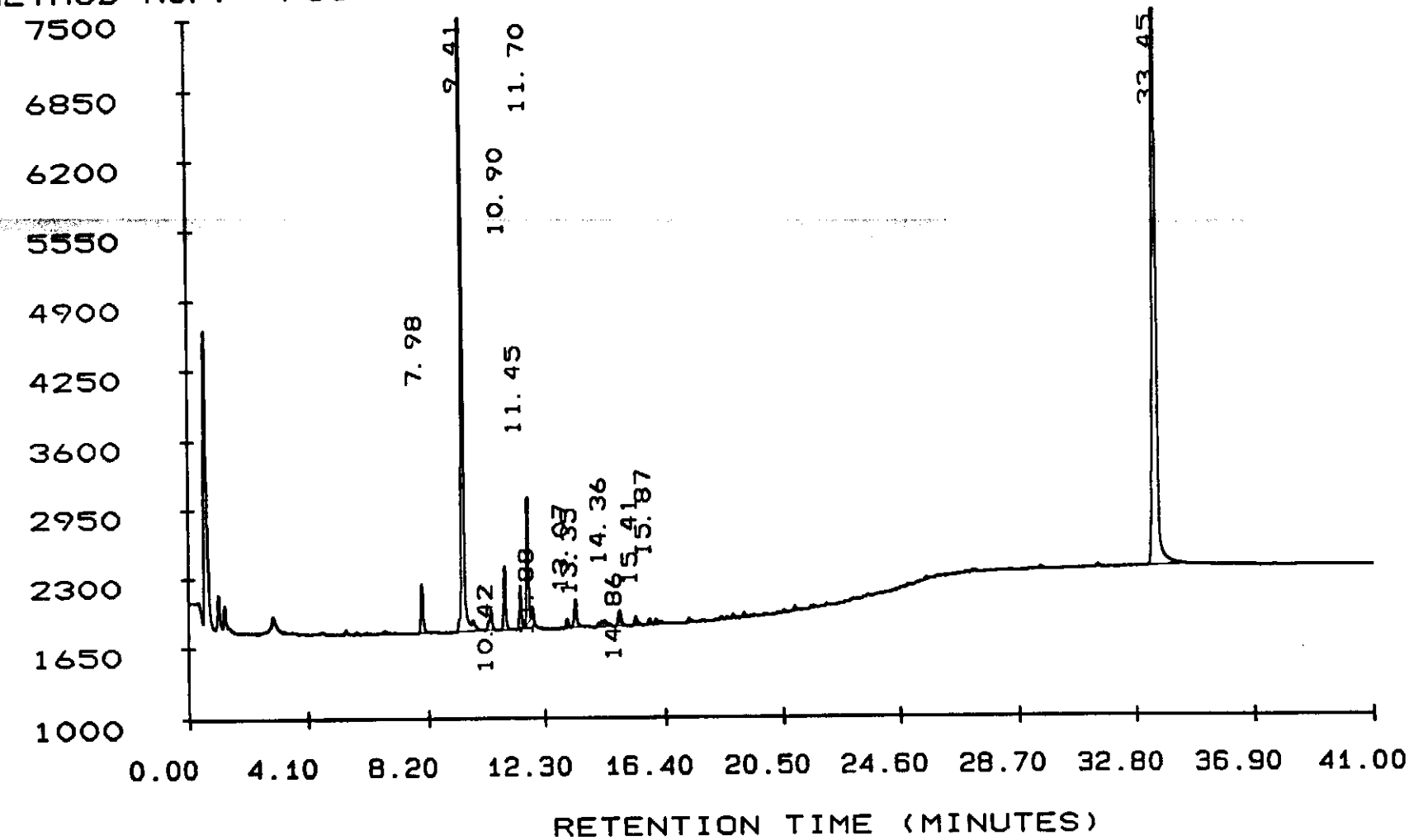

Y MAXIMUM: 7500.

Y MINIMUM: 1000.

START TIME: 0.00

END TIME: 41.00

Lionville Laboratory, Inc. 07/20/01 11:23:53

EXTERNAL STANDARD

SAMPLE: 07190135 .08 INST:35 VIAL:F0 SEQ NUMBER:008
TEST : DATE-TIME INJECTED : 07/19/01 21:59:30
COLLECTION TIME : 40.97 DATE-TIME PROCESSED : 07/20/01 11:23:53
METHOD: P35 / PCBBS REV #: 00219 ANALYST: KOBELM SAMP RATE: 1.56
CLIENT ID: SAMPLE VOL: 1.0 uL
CLIENT: COLUMN TYPE: DB608
LAB ID: AR1221 1108 RAW FILE: RAW2:GJ150367
SAMPLE WT : % MOISTURE : DILUTION FACTOR : 1.0000
COLUMN ID: 0.53 mm I CAL ID : TEMP:L071901.35/25

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
002	28186	4590		7.981			
003	373628	72897	V	9.413	1	TCX	0.042
004	3427	626	V	9.781			
005	14413	1893	V	10.417			
006	32925	5964	V	10.896			
007	20941	4121	V	11.449			
008	58803	11669	V	11.702			
009	5248	1307		11.875			
010	4949	893	V	13.075			
011	18648	2609	V	13.353			
012	10358	645	V	14.360			
013	12020	1542	V	14.863			
014	6103	837	V	15.414			
015	2637	547	V	15.873			
031	579890	59833		33.454	1	DCB	0.042

MPK	4590	7.981	AROCLOR-1221-1	0.200	RW: 7.91- 8.05
MPK	1893	10.417	AROCLOR-1221-2	0.200	RW:10.35-10.49
MPK	5964	10.896	AROCLOR-1221-3	0.200	RW:10.83-10.97
MPK	4121	11.449	AROCLOR-1221-4	0.200	RW:11.38-11.52
MPK	11669	11.702	AROCLOR-1221-5	0.200	RW:11.63-11.77
MPK	1307	11.875	AROCLOR-1221-6	0.200	RW:11.81-11.94
MPK	2609	13.353	AROCLOR-1221-7	0.200	RW:13.28-13.42
MPK	1542	14.863	AROCLOR-1221-8	0.200	RW:14.79-14.93

AR1232 1205

SAMPLE NO. : 07190135 .09
TEST NO. :
METHOD NO. : P35 / P35

INSTRUMENT: 35
DATE TIME: 07/19/01 22:47:16
PAGE NO. : 01

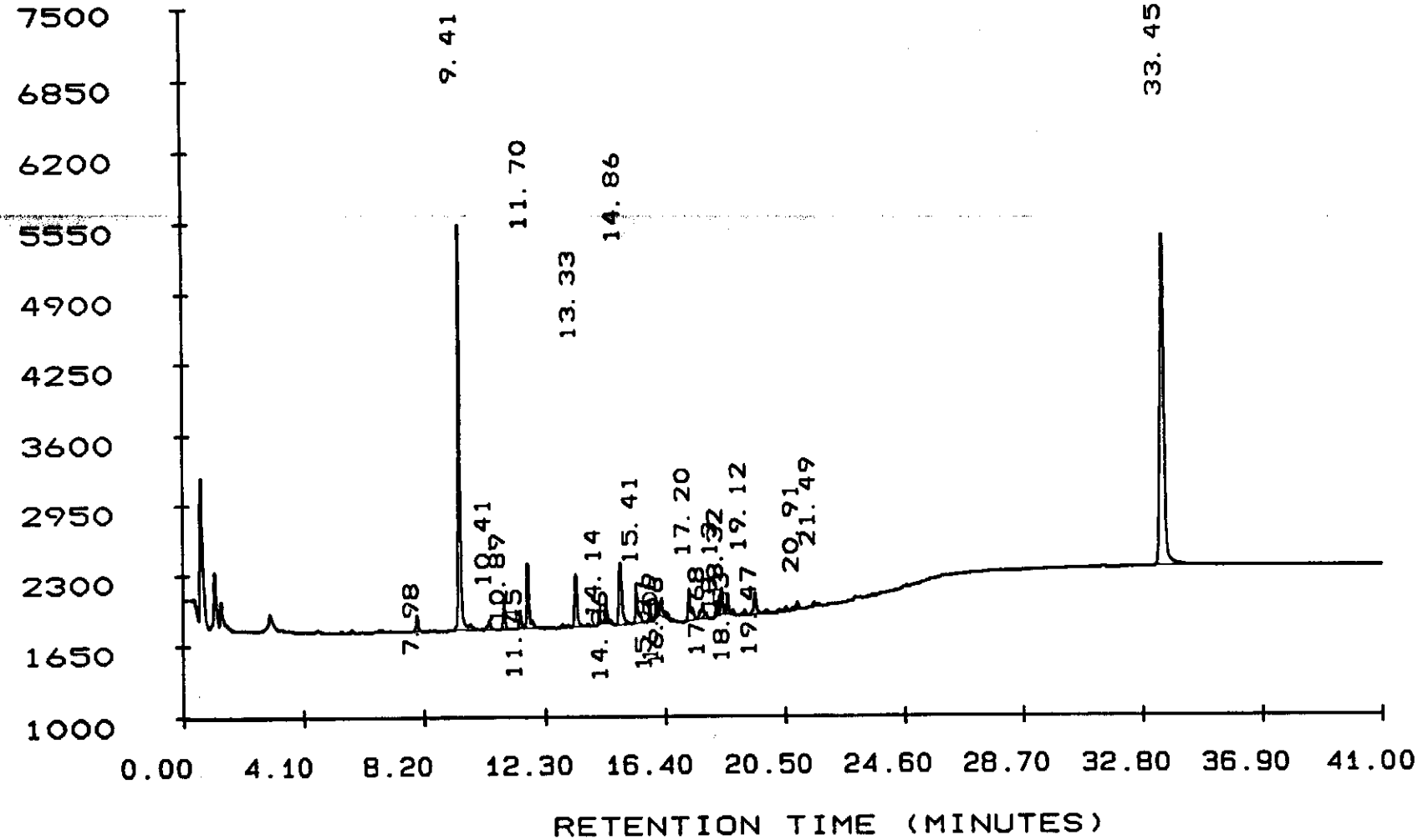

Y MAXIMUM: 7500.
Y MINIMUM: 1000.

START TIME: 0.00
END TIME: 41.00

Lionville Laboratory, Inc. 07/20/01 11:24:13

EXTERNAL STANDARD

SAMPLE: 07190135 .09 INST:35 VIAL:F0 SEQ NUMBER:009
TEST : DATE-TIME INJECTED : 07/19/01 22:47:16
COLLECTION TIME : 40.97 DATE-TIME PROCESSED : 07/20/01 11:24:13
METHOD: P35 / PCBBS REV #: 00219 ANALYST: KOBELM SAMP RATE: 1.56
CLIENT ID: SAMPLE VOL: 1.0 uL
CLIENT: COLUMN TYPE: DB608
LAB ID: AR1232 1205 RAW FILE: RAW2:GJ150371
SAMPLE WT : % MOISTURE : DILUTION FACTOR : 1.0000
COLUMN ID: 0.53 mm I CAL ID : TEMP:L071901.35/25

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
002	8724	1485		7.978			
003	181987	36763	V	9.409	1	TCX	0.021
005	6016	866	V	10.415			
006	12290	2327	V	10.893			
007	8494	1713	V	11.446			
008	28060	5733	V	11.699			
012	30792	4919	V	13.334			
014	5565	1158	V	14.136			
015	13425	1793	V	14.357			
016	46880	5820	V	14.858			
017	19284	2869	V	15.411			
018	9051	1887	V	15.871			
019	8103	1962	V	16.094			
020	9504	1548	V	16.265			
021	1872	548	V	16.474			
022	12464	2553	V	17.204			
023	2118	633	V	17.345			
024	13696	1517	V	17.677			
025	4951	1107	V	18.135			
026	13299	2554	V	18.323			
027	9322	1935	V	18.533			
029	3833	552	V	19.123			
030	12987	1970	V	19.472			
034	5958	746	V	20.912			
035	4567	504		21.487			
038	291318	30146		33.453	1	DCB	0.021

MPK	2327	10.893	AROCLOR-1232-1	0.100	RW:10.82-10.96
MPK	5733	11.699	AROCLOR-1232-2	0.100	RW:11.63-11.77
MPK	4919	13.334	AROCLOR-1232-3	0.100	RW:13.26-13.40
MPK	5820	14.858	AROCLOR-1232-4	0.100	RW:14.79-14.93
MPK	2869	15.411	AROCLOR-1232-5	0.100	RW:15.34-15.48
MPK	2553	17.204	AROCLOR-1232-6	0.100	RW:17.13-17.27
MPK	2554	18.323	AROCLOR-1232-7	0.100	RW:18.25-18.39
MPK	1970	19.472	AROCLOR-1232-8	0.100	RW:19.40-19.54

AR1242 1304

SAMPLE NO. : 07190135 . 10
TEST NO. :
METHOD NO. : P35 / P35

INSTRUMENT: 35
DATE TIME: 07/19/01 23:35:05
PAGE NO. : 01

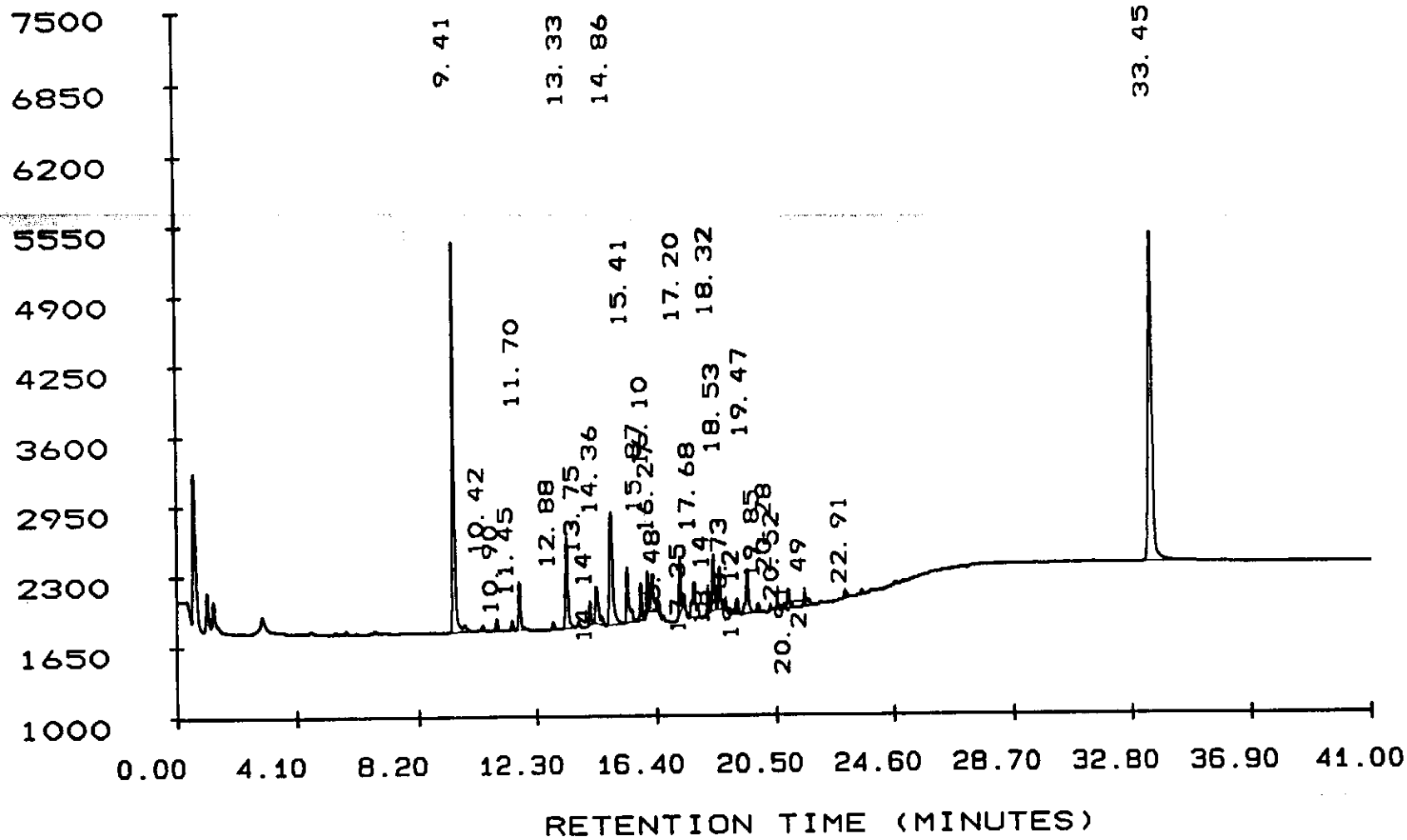

Y MAXIMUM: 7500.
Y MINIMUM: 1000.

START TIME: 0.00
END TIME: 41.00

Lionville Laboratory, Inc. 07/20/01 11:24:33

EXTERNAL STANDARD

SAMPLE: 07190135 .10 INST:35 VIAL:F0 SEQ NUMBER:010
TEST : DATE-TIME INJECTED : 07/19/01 23:35:05
COLLECTION TIME : 40.97 DATE-TIME PROCESSED : 07/20/01 11:24:33
METHOD: P35 / PCBBS REV #: 00219 ANALYST: KOBELM SAMP RATE: 1.56
CLIENT ID: SAMPLE VOL: 1.0 uL
CLIENT: COLUMN TYPE: DB608
LAB ID: AR1242 1304 RAW FILE: RAW2:GJ150376
SAMPLE WT : % MOISTURE : DILUTION FACTOR : 1.0000
COLUMN ID: 0.53 mm I CAL ID : TEMP:L071901.35/25

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
002	180238	35466	V	9.410	1	TCX	0.020
004	3626	565	V	10.416			
005	5813	1109	V	10.897			
006	4676	946	V	11.447			
007	25914	4324		11.701			
008	3853	686	V	12.882			
009	52371	8314	V	13.333			
010	3379	561	V	13.748			
011	10152	2156	V	14.137			
012	19090	3143	V	14.359			
013	1837	531	V	14.543			
014	85328	10420	V	14.859			
015	35177	5068	V	15.412			
016	16581	3345	V	15.872			
017	15986	3781	V	16.096			
018	19524	3162	V	16.266			
019	4188	1180	V	16.475			
021	24994	5097	V	17.204			
022	4447	1298	V	17.347			
023	17048	2652	V	17.678			
024	2556	711	V	17.803			
025	10350	2306	V	18.136			
026	27021	5149	V	18.324			
027	18765	3890	V	18.533			
028	4461	1064	V	18.731			
029	9289	1358	V	19.123			
030	28429	4031	V	19.472			
031	4954	802	V	19.850			
032	3700	743	V	20.282			
033	4773	1005	V	20.519			
034	2410	563	V	20.745			
035	9139	1730	V	20.912			
036	11463	1259	V	21.489			
038	5883	856	V	22.909			
042	289856	30057		33.453	1	DCB	0.021

MPK	4324	11.701	AROCLOR-1242-1	0.100	RW:11.63-11.77
MPK	8314	13.333	AROCLOR-1242-2	0.100	RW:13.26-13.40
MPK	10420	14.859	AROCLOR-1242-3	0.100	RW:14.79-14.93

SAMPLE: 07190135 .10 PAGE NUMBER: 2
DATE-TIME INJECTED : 07/19/01 23:35:05
DATE-TIME PROCESSED : 07/20/01 11:24:33

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL	
MPK		5068		15.412		AROCLOR-1242-4	0.100	RW:15.34-15.48
MPK		5097		17.204		AROCLOR-1242-5	0.100	RW:17.13-17.27
MPK		5149		18.324		AROCLOR-1242-6	0.100	RW:18.25-18.39
MPK		3890		18.533		AROCLOR-1242-7	0.100	RW:18.46-18.60
MPK		4031		19.472		AROCLOR-1242-8	0.100	RW:19.40-19.54

AR1248 1101

SAMPLE NO. : 07190135 . 11
TEST NO. :
METHOD NO. : P35 / P35

INSTRUMENT: 35
DATE TIME: 07/20/01 00:22:52
PAGE NO. : 01

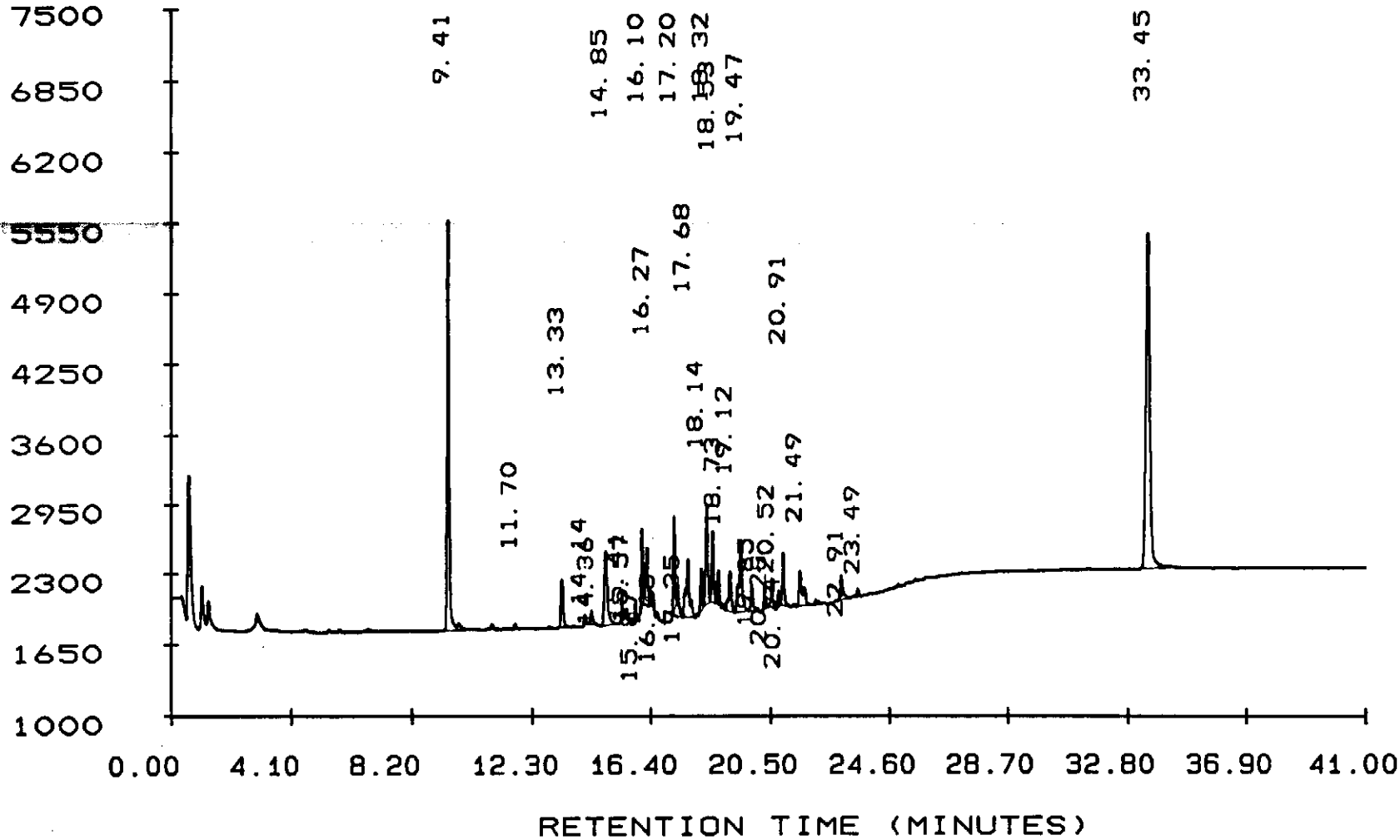

Y MAXIMUM: 7500.
Y MINIMUM: 1000.

START TIME: 0.00
END TIME: 41.00

Lionville Laboratory, Inc. 07/20/01 11:24:53

EXTERNAL STANDARD

SAMPLE: 07190135 .11 INST:35 VIAL:F0 SEQ NUMBER:011
TEST : DATE-TIME INJECTED : 07/20/01 00:22:52
COLLECTION TIME : 40.97 DATE-TIME PROCESSED : 07/20/01 11:24:53
METHOD: P35 / PCBBS REV #: 00219 ANALYST: KOBELM SAMP RATE: 1.56
CLIENT ID: SAMPLE VOL: 1.0 uL
CLIENT: COLUMN TYPE: DB608
LAB ID: AR1248 1101 RAW FILE: RAW2:GK150379
SAMPLE WT : % MOISTURE : DILUTION FACTOR : 1.0000
COLUMN ID: 0.53 mm I CAL ID : TEMP:L071901.35/25

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
002	184825	37259	V	9.409	1	TCX	0.021
005	2944	521	V	11.699			
007	27033	4417	V	13.328			
008	4549	1046	V	14.136			
009	8492	1229	V	14.357			
010	57485	6947	V	14.848			
011	10549	2341	V	15.411			
012	5043	1208	V	15.575			
013	9286	1748	V	15.871			
014	31977	7395	V	16.095			
015	28999	4970	V	16.267			
016	5487	1595	V	16.475			
017	2310	588	V	16.637			
018	40290	8672	V	17.202			
019	7883	2126	V	17.347			
020	3904	1138	V	17.584			
021	13784	3727	V	17.678			
022	2630	791	V	17.801			
023	17666	3929	V	18.136			
024	49226	9386	V	18.325			
025	31869	6650	V	18.534			
026	14384	3235	V	18.731			
027	1836	523	V	18.886			
028	23872	3690	V	19.122			
029	51942	6719	V	19.471			
030	11597	2258	V	19.850			
032	10785	2119	V	20.281			
033	12845	2777	V	20.519			
034	6931	1613	V	20.744			
035	25722	4897	V	20.912			
037	13222	2733	V	21.488			
038	3673	990	V	21.652			
040	16362	2371	V	22.908			
041	4362	758		23.486			
044	296201	30805		33.453	1	DCB	0.022

MPK	6947	14.848	AROCLOR-1248-1	0.100	RW:14.78-14.92
MPK	7395	16.095	AROCLOR-1248-2	0.100	RW:16.02-16.17
MPK	4970	16.267	AROCLOR-1248-3	0.100	RW:16.20-16.34

SAMPLE: 07190135 .11 PAGE NUMBER: 2
DATE-TIME INJECTED : 07/20/01 00:22:52
DATE-TIME PROCESSED : 07/20/01 11:24:53

PK NO	PEAK AREA	PEAK HEIGHT	BL MINUTES	RT	GR #	COMPONENT NAME	HEIGHT CONC NG/UL	
MPK		8672	17.202			AROCLOR-1248-4	0.100	RW:17.13-17.27
MPK		9386	18.325			AROCLOR-1248-5	0.100	RW:18.25-18.40
MPK		6650	18.534			AROCLOR-1248-6	0.100	RW:18.46-18.60
MPK		6719	19.471			AROCLOR-1248-7	0.100	RW:19.40-19.54
MPK		4897	20.912			AROCLOR-1248-8	0.100	RW:20.84-20.98

AR1254 9403 C

SAMPLE NO. : 07190135 . 12
TEST NO. :
METHOD NO. : P35 / P35

INSTRUMENT: 35
DATE TIME: 07/20/01 01:10:40
PAGE NO. : 01

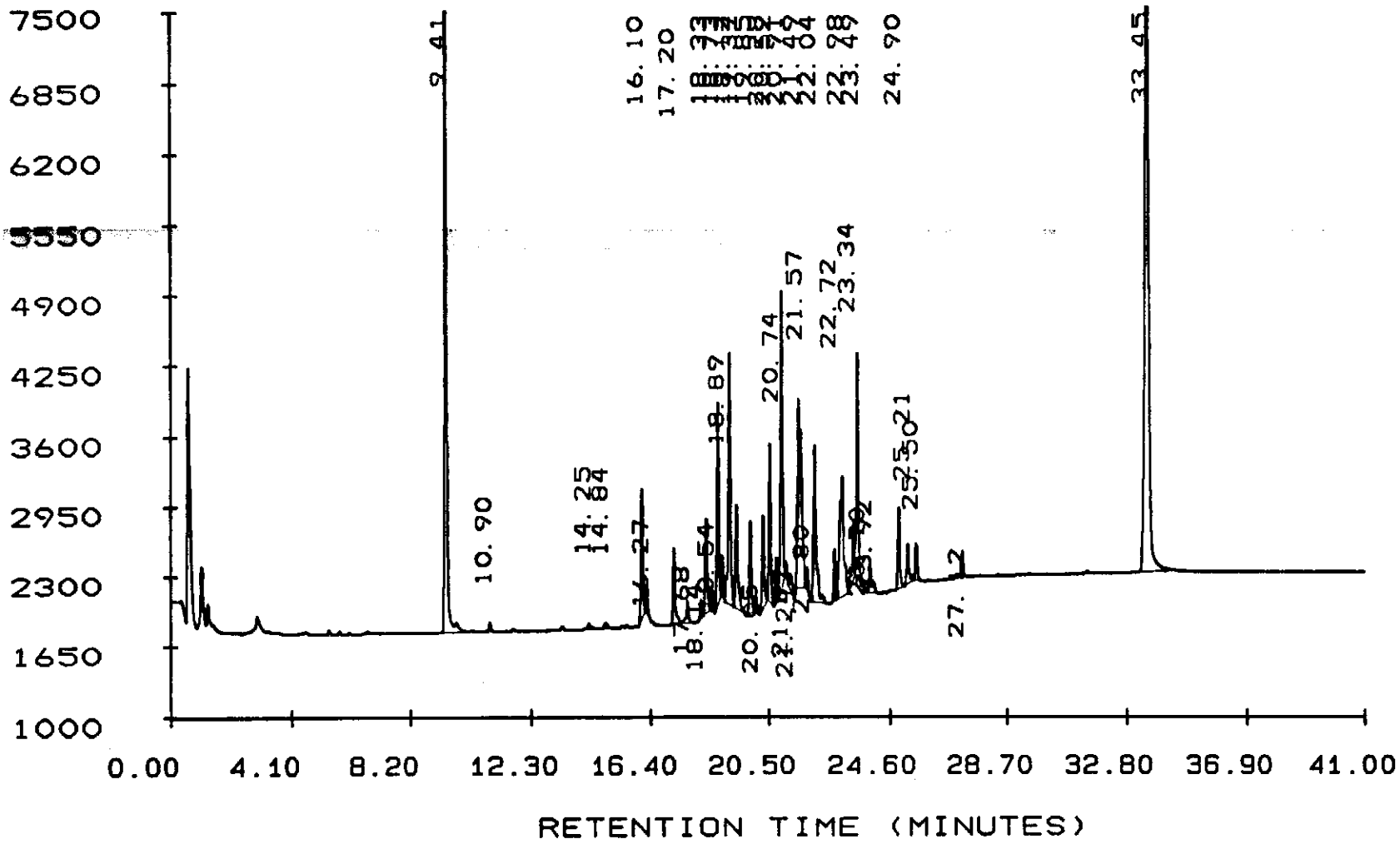

Y MAXIMUM: 7500.
Y MINIMUM: 1000.

START TIME: 0.00
END TIME: 41.00

Lionville Laboratory, Inc. 07/20/01 13:43:50

EXTERNAL STANDARD

SAMPLE: 07190135 .12 INST:35 VIAL:F0 SEQ NUMBER:012
TEST : DATE-TIME INJECTED : 07/20/01 01:10:40
COLLECTION TIME : 40.97 DATE-TIME PROCESSED : 07/20/01 13:43:50
METHOD: P35 / PCBBS REV #: 00220 ANALYST: KOBELM SAMP RATE: 1.56
CLIENT ID: SAMPLE VOL: 1.0 uL
CLIENT: COLUMN TYPE: DB608
LAB ID: AR1254 9403 C RAW FILE: RAW2:GK150383
SAMPLE WT : % MOISTURE : DILUTION FACTOR : 1.0000
COLUMN ID: 0.53 mm I CAL ID : TEMP:L071901.35/25

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
001	1015	185	V	6.113			
002	4656	282		6.727			
003	367966	73273	V	9.409	1	TCX	0.042
004	2776	528		9.779			
005	4009	820	V	10.900			
006	1318	223		11.690			
007	2296	360	V	13.333			
008	4552	551	V	14.252			
009	4690	555	V	14.839			
010	651	160	V	15.411			
011	1197	260	V	15.576			
012	544	125	V	15.872			
013	57061	11965	V	16.095			
014	10501	2472	V	16.267			
015	39092	6971	V	17.202			
016	12253	2031	V	17.679			
017	8507	1876	V	18.136			
018	44410	8695	V	18.328			
019	10982	2441	V	18.535			
020	87778	18407	V	18.731			
021	15130	3976	V	18.887			
022	128541	22943	V	19.122			
023	56958	9582	V	19.372			
024	41907	8442	V	19.848			
025	7488	1647	V	20.052			
026	42714	8457	V	20.280			
027	69428	14514	V	20.519			
028	18701	4373	V	20.744			
029	139382	27134	V	20.912			
030	4986	1508	V	21.086			
031	9959	1827	V	21.238			
032	34458	9086	V	21.489			
033	14003	4936	V	21.572			
034	9661	2415	V	21.799			
035	82160	14270	V	22.040			
036	2374	545	V	22.331			
037	22166	4863	V	22.716			
038	72161	9263	V	22.975			
039	1777	661	V	23.081			
040	26477	5191	V	23.343			

SAMPLE: 07190135 .12 PAGE NUMBER: 2
DATE-TIME INJECTED : 07/20/01 01:10:40
DATE-TIME PROCESSED : 07/20/01 13:43:50

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL	
041	97901	20509	V	23.485				
042	3502	931	V	23.695				
043	10180	2320	V	23.923				
044	2853	739	V	24.047				
045	598	142	V	24.393				
046	966	101	V	24.656				
047	38646	7487	V	24.902				
048	18378	3440	V	25.206				
049	1408	441	V	25.358				
050	18685	3383	V	25.500				
051	957	81	V	25.995				
052	2058	393	V	26.938				
053	12362	2138	V	27.124				
054	764	81	V	27.758				
055	451	76	V	28.381				
056	322	54	V	29.081				
057	891	121		29.470				
058	1609	205		31.456				
059	555414	57298		33.454	1	DCB	0.040	
MPK		11965		16.095		AROCLOR-1254-1	0.200	RW:16.02-16.17
MPK		18407		18.731		AROCLOR-1254-2	0.200	RW:18.66-18.80
MPK		22943		19.122		AROCLOR-1254-3	0.200	RW:19.05-19.19
MPK		9582		19.372		AROCLOR-1254-4	0.200	RW:19.30-19.44
MPK		14514		20.519		AROCLOR-1254-5	0.200	RW:20.45-20.59
MPK		27134		20.912		AROCLOR-1254-6	0.200	RW:20.84-20.98
MPK		14270		22.040		AROCLOR-1254-7	0.200	RW:21.97-22.11
MPK		20509		23.485		AROCLOR-1254-8	0.200	RW:23.41-23.56

AR1660 2803 C

SAMPLE NO. : 08030135 .01 INSTRUMENT: 35

TEST NO. : DATE TIME: 08/03/01 13:07:18

METHOD NO. : P3560 / P3560 PAGE NO. : 01

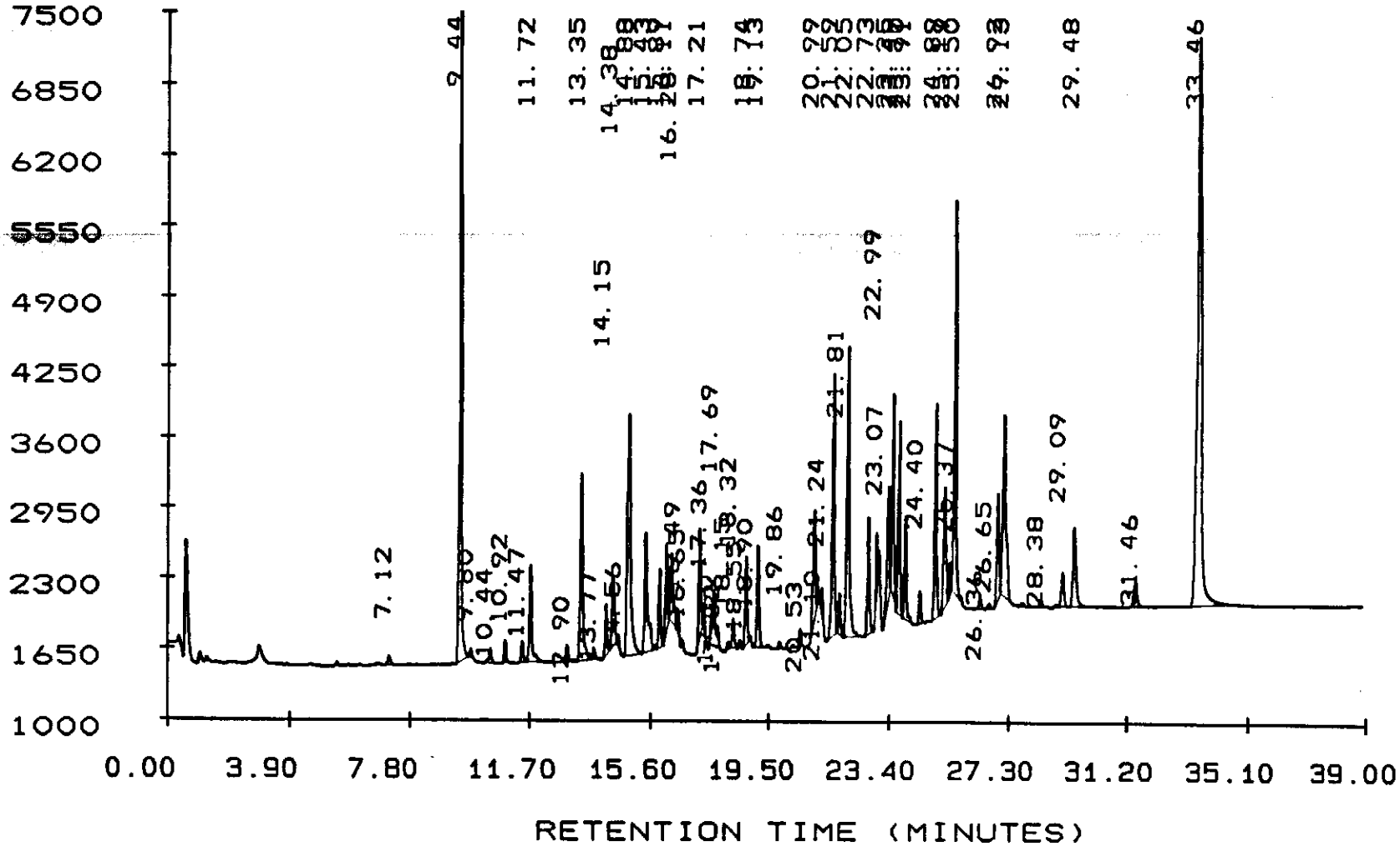

Y MAXIMUM: 7500. START TIME: 0.00

Y MINIMUM: 1000. END TIME: 39.00

Lionville Laboratory, Inc. 08/03/01 13:46:55

MULTILEVEL EXTERNAL STANDARD

SAMPLE: 08030135 .01 INST:35 VIAL:F0 SEQ NUMBER:001
TEST : DATE-TIME INJECTED : 08/03/01 13:07:18
COLLECTION TIME : 38.84 DATE-TIME PROCESSED : 08/03/01 13:46:55
METHOD: P3560 / P3560 REV #: 00218 ANALYST: KOBELM SAMP RATE: 1.56
CLIENT ID: SAMPLE VOL: 1.0 uL
CLIENT: COLUMN TYPE: DB608
LAB ID: AR1660 2803 C RAW FILE: RAW3:H3144830
SAMPLE WT : % MOISTURE : DILUTION FACTOR : 1.0000
COLUMN ID: 0.53 mm I CAL ID : TEMP:L071901.35/25

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
002	5618	857	V	7.120			
004	318705	66709	V	9.438	1	TCX	0.038
005	4470	873	V	9.803			
006	7581	1211	V	10.441			
007	10808	2075	V	10.922			
008	9622	1942	V	11.471			
009	51669	8709		11.723	1	AR1016-1	0.091
010	8402	1507	V	12.902			
011	108958	17157	V	13.352	1	AR1016-2	0.090
012	7702	1238	V	13.767			
013	22714	4611	V	14.155			
014	39704	6565	V	14.376			
015	3780	1152	V	14.560			
016	181990	22304	V	14.876	1	AR1016-3	0.088
017	75251	10830	V	15.428	1	AR1016-4	0.088
019	34099	7176	V	15.887			
020	33303	7902	V	16.110			
021	38135	6321	V	16.281			
022	8499	2377	V	16.489			
023	3161	846	V	16.651			
024	47787	9893	V	17.215	1	AR1016-5	0.084
025	9330	2584	V	17.360			
026	4187	1267	V	17.597			
027	12468	3464	V	17.690			
028	4546	1342	V	17.815			
029	3221	743	V	18.150			
030	15938	2795	V	18.324			
031	4455	956	V	18.547			
032	39226	8069	V	18.744			
033	2585	749	V	18.898			
034	49726	9240	V	19.134			
036	3663	632	V	19.859			
038	8285	1646	V	20.530			
039	54808	9734	V	20.985			
040	5212	1756	V	21.104			
041	12460	2796	V	21.237			
042	126444	23824	V	21.587	1	AR1260-1	0.088
043	18567	3989	V	21.809			
044	154189	26559	V	22.049	1	AR1260-2	0.088
045	52081	10599	V	22.725			

SAMPLE: 08030135 .01 PAGE NUMBER: 2
DATE-TIME INJECTED : 08/03/01 13:07:18
DATE-TIME PROCESSED : 08/03/01 13:46:55

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
046	18422	4892	V	22.990			
047	9189	3273	V	23.075			
048	54338	10465	V	23.351			
049	84412	18378	V	23.494			
050	80896	17604	V	23.704	1	AR1260-3	0.088
051	46281	9352	V	23.912			
052	13827	2964	V	24.398			
053	99327	19550	V	24.889	1	AR1260-4	0.089
054	63935	11025	V	25.186			
055	10576	2940	V	25.366			
056	179212	35529	V	25.502	1	AR1260-5	0.088
057	6448	1208	V	26.363			
058	3155	582	V	26.653			
059	53130	9718	V	26.924			
060	115768	16547	V	27.125			
062	4528	707	V	28.381			
063	22582	3217	V	29.094			
064	54470	7222		29.476			
065	19110	2281		31.460			
066	506403	51914		33.460	1	DCB	0.036

AR1660 2803 C

SAMPLE NO. : 08030135 . 13
TEST NO. :
METHOD NO. : P3560 / P3560

INSTRUMENT: 35
DATE TIME: 08/04/01 00:42:14
PAGE NO. : 01

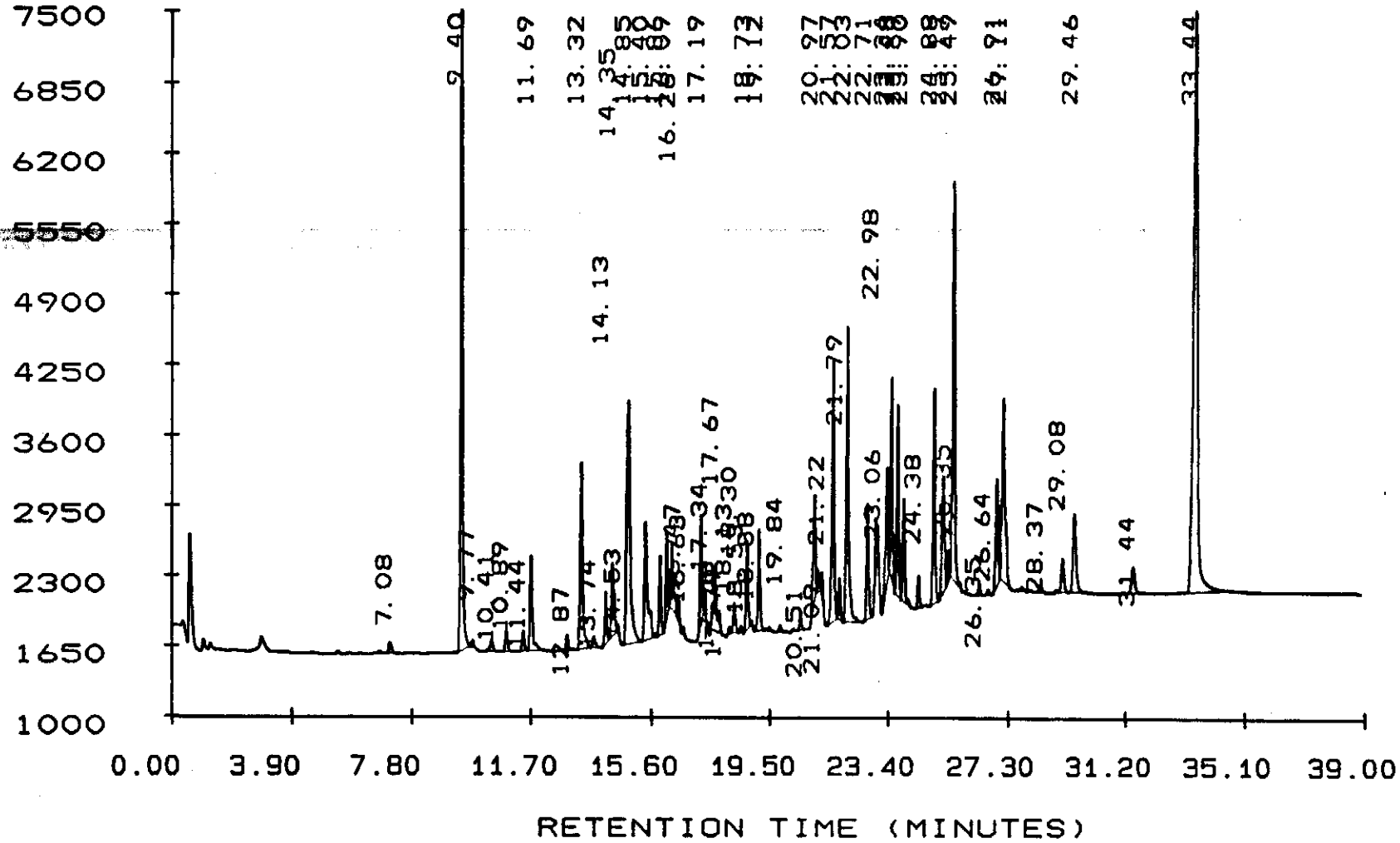

Y MAXIMUM: 7500.
Y MINIMUM: 1000.

START TIME: 0.00
END TIME: 39.00

Lionville Laboratory, Inc. 08/04/01 01:21:49

MULTILEVEL EXTERNAL STANDARD

SAMPLE: 08030135 .13 INST:35 VIAL:F0 SEQ NUMBER:013
TEST : DATE-TIME INJECTED : 08/04/01 00:42:14
COLLECTION TIME : 38.84 DATE-TIME PROCESSED : 08/04/01 01:21:49
METHOD: P3560 / P3560 REV #: 00218 ANALYST: KOBELM SAMP RATE: 1.56
CLIENT ID: SAMPLE VOL: 1.0 uL
CLIENT: COLUMN TYPE: DB608
LAB ID: AR1660 2803 C RAW FILE: RAW3:H4144952
SAMPLE WT : % MOISTURE : DILUTION FACTOR : 1.0000
COLUMN ID: 0.53 mm I CAL ID : TEMP:L071901.35/25

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
002	6922	1020	V	7.081			
004	325672	66169	V	9.403	1	TCX	0.038
005	4082	788	V	9.775			
006	7731	1168	V	10.407			
007	11104	2063	V	10.889			
008	9613	1901	V	11.439			
009	51894	8646		11.692	1	AR1016-1	0.090
010	8358	1490	V	12.873			
011	109884	17190	V	13.324	1	AR1016-2	0.090
012	7797	1233	V	13.739			
013	23229	4698	V	14.128			
014	40230	6598	V	14.350			
015	3964	1137	V	14.534			
016	187011	22507	V	14.851	1	AR1016-3	0.089
017	76619	10806	V	15.404	1	AR1016-4	0.088
019	34586	7211	V	15.864			
020	33531	7822	V	16.087			
021	38759	6373	V	16.258			
022	8502	2417	V	16.467			
023	3158	815	V	16.628			
024	48198	9891	V	17.194	1	AR1016-5	0.084
025	9467	2614	V	17.339			
026	4075	1242	V	17.577			
027	12358	3406	V	17.669			
028	4453	1318	V	17.794			
029	3107	720	V	18.130			
030	15824	2760	V	18.304			
031	4179	906	V	18.528			
032	39554	8169	V	18.725			
033	2751	792	V	18.880			
034	50003	9239	V	19.116			
036	4976	653	V	19.842			
038	8586	1646	V	20.513			
039	54683	9808	V	20.969			
040	5134	1682	V	21.087			
041	12080	2865	V	21.221			
042	128797	23967	V	21.571	1	AR1260-1	0.089
043	18605	3972	V	21.794			
044	157043	26922	V	22.034	1	AR1260-2	0.089
045	52950	10549	V	22.710			

SAMPLE: 08030135 .13 PAGE NUMBER: 2
DATE-TIME INJECTED : 08/04/01 00:42:14
DATE-TIME PROCESSED : 08/04/01 01:21:49

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
046	18790	5127	V	22.975			
047	8956	2926	V	23.061			
048	55070	10823	V	23.336			
049	85636	18350	V	23.480			
050	81568	17398	V	23.690	1	AR1260-3	0.087
051	46420	9459	V	23.898			
052	13539	2880	V	24.384			
053	100896	19655	V	24.877	1	AR1260-4	0.089
054	64591	10962	V	25.172			
055	10682	2968	V	25.354			
056	182973	36010	V	25.490	1	AR1260-5	0.089
057	6320	1203	V	26.349			
058	3285	598	V	26.639			
059	53837	9887	V	26.910			
060	117338	16789	V	27.111			
062	4204	694	V	28.366			
064	20400	3195	V	29.078			
065	54886	7229		29.460			
066	19693	2320		31.440			
067	519428	53023		33.439	1	DCB	0.037

AR1660 2803 C

SAMPLE NO. : 08030135 .25 INSTRUMENT: 35
TEST NO. : DATE TIME: 08/04/01 12:17:00
METHOD NO. : P3560 / P3560 PAGE NO. : 01

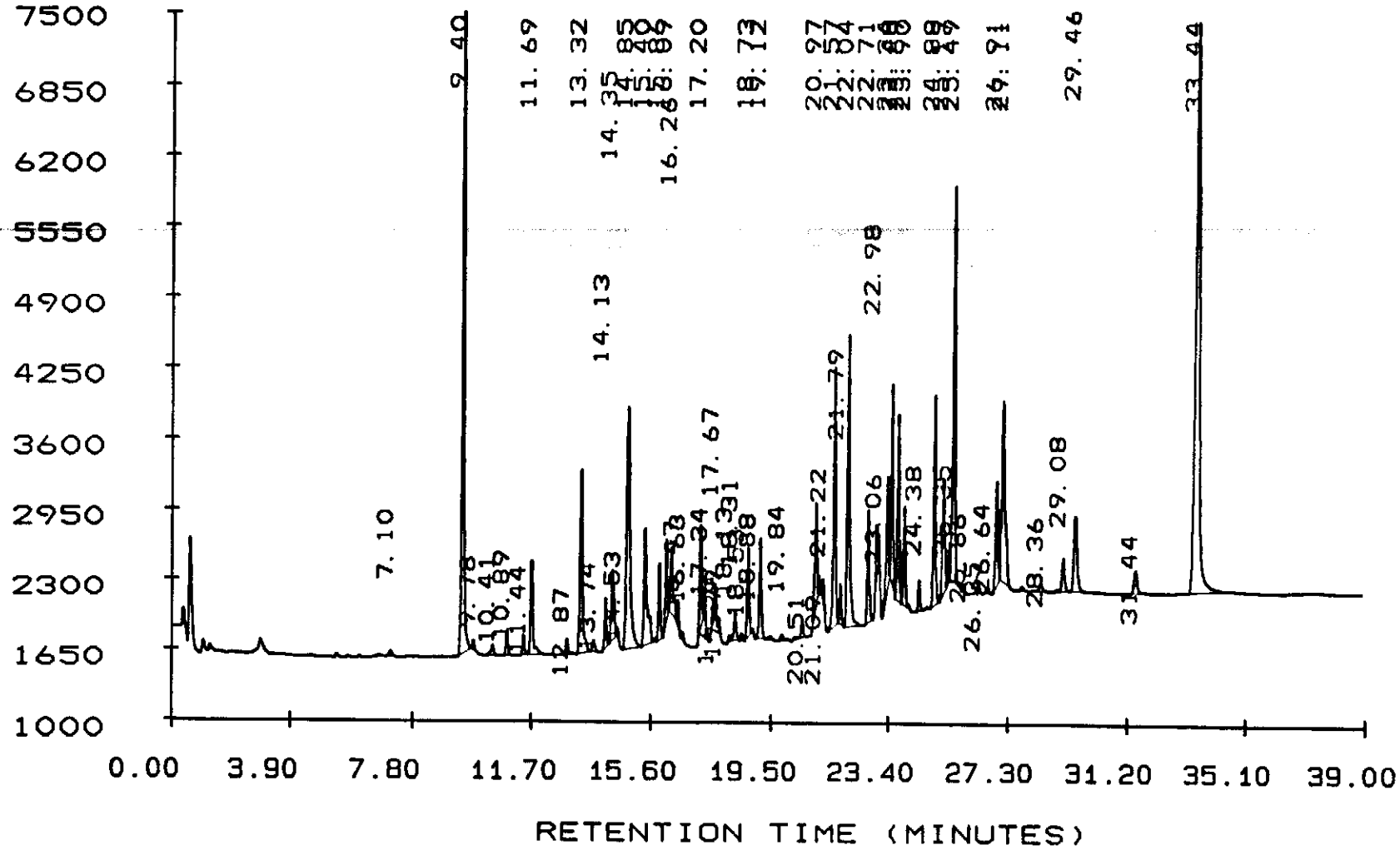

Y MAXIMUM: 7500.
Y MINIMUM: 1000.

START TIME: 0.00
END TIME: 39.00

Lionville Laboratory, Inc. 08/04/01 12:56:48

MULTILEVEL EXTERNAL STANDARD

SAMPLE: 08030135 .25 INST:35 VIAL:F0 SEQ NUMBER:025
TEST : DATE-TIME INJECTED : 08/04/01 12:17:00
COLLECTION TIME : 38.84 DATE-TIME PROCESSED : 08/04/01 12:56:48
METHOD: P3560 / P3560 REV #: 00218 ANALYST: KOBELM SAMP RATE: 1.56
CLIENT ID: SAMPLE VOL: 1.0 uL
CLIENT: COLUMN TYPE: DB608
LAB ID: AR1660 2803 C RAW FILE: RAW3:H4145062
SAMPLE WT : % MOISTURE : DILUTION FACTOR : 1.0000
COLUMN ID: 0.53 mm I CAL ID : TEMP:L071901.35/25

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
002	4032	568	V	7.105			
004	321733	66293	V	9.404	1	TCX	0.038
005	5083	1001	V	9.777			
006	7571	1158	V	10.409			
007	10906	2031	V	10.890			
008	9414	1893	V	11.440			
009	51557	8662		11.693	1	AR1016-1	0.091
010	8501	1464	V	12.874			
011	109658	16999	V	13.325	1	AR1016-2	0.089
012	7661	1218	V	13.740			
013	21742	4569	V	14.129			
014	38927	6433	V	14.351			
015	3918	1121	V	14.535			
016	185507	22243	V	14.852	1	AR1016-3	0.088
017	75558	10693	V	15.405	1	AR1016-4	0.087
019	34016	7114	V	15.865			
020	31687	7558	V	16.088			
021	38053	6199	V	16.260			
022	8221	2317	V	16.468			
023	2949	769	V	16.629			
024	46836	9479	V	17.195	1	AR1016-5	0.081
025	8872	2444	V	17.339			
026	4538	1346	V	17.578			
027	12081	3359	V	17.671			
028	4358	1282	V	17.795			
029	3023	703	V	18.132			
030	15683	2721	V	18.306			
031	4160	897	V	18.529			
032	39380	8062	V	18.726			
033	2603	756	V	18.881			
034	49683	9200	V	19.117			
036	5449	674	V	19.844			
038	8581	1639	V	20.515			
039	53670	9653	V	20.970			
040	4992	1634	V	21.088			
041	11986	2818	V	21.222			
042	126486	23652	V	21.572	1	AR1260-1	0.088
043	18240	3898	V	21.795			
044	154118	26504	V	22.035	1	AR1260-2	0.088
045	51709	10396	V	22.711			

SAMPLE: 08030135 .25 PAGE NUMBER: 2
DATE-TIME INJECTED : 08/04/01 12:17:00
DATE-TIME PROCESSED : 08/04/01 12:56:48

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
046	18525	5039	V	22.975			
047	8583	2764	V	23.061			
048	53840	10539	V	23.337			
049	83975	18124	V	23.480			
050	79578	16977	V	23.691	1	AR1260-3	0.085
051	44704	9204	V	23.899			
052	13434	2838	V	24.385			
053	98750	19176	V	24.876	1	AR1260-4	0.087
054	63104	10830	V	25.172			
055	10208	2846	V	25.354			
056	178465	35496	V	25.490	1	AR1260-5	0.088
057	3081	742	V	25.857			
058	7654	1191	V	26.348			
059	3968	645	V	26.636			
060	52111	9612	V	26.909			
061	114681	16447	V	27.111			
063	7046	774	V	28.364			
064	22112	3114	V	29.077			
065	52406	7003		29.460			
066	19162	2225		31.441			
067	505798	51925		33.439	1	DCB	0.036

AR1660 2801 A

SAMPLE NO. : 07190136 .03
TEST NO. :
METHOD NO. : P3660 / P3660

INSTRUMENT: 36
DATE TIME: 07/19/01 17:59:36
PAGE NO. : 01

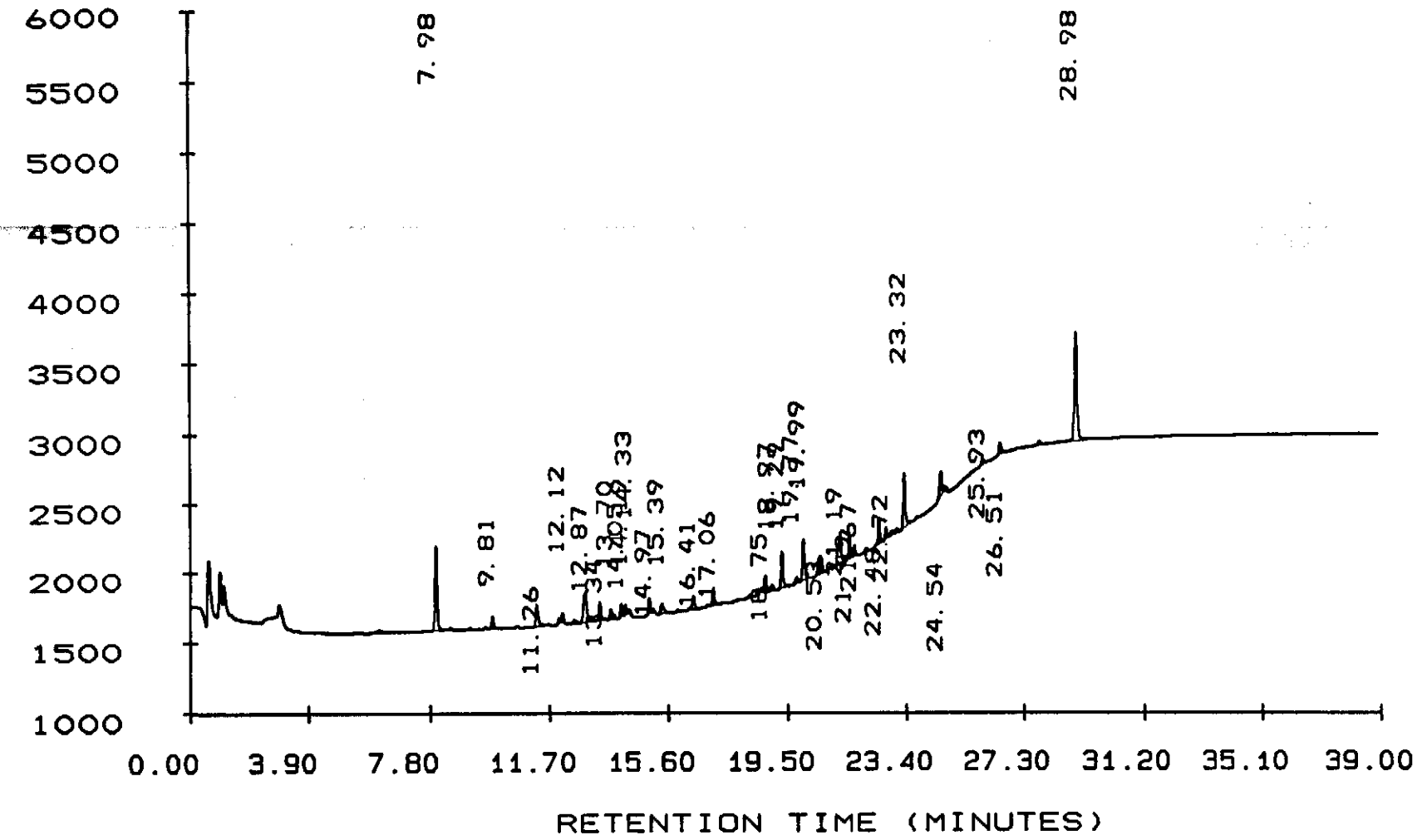

Y MAXIMUM: 6000.
Y MINIMUM: 1000.

START TIME: 0.00
END TIME: 39.00

Lionville Laboratory, Inc. 07/20/01 10:44:03

EXTERNAL STANDARD

SAMPLE: 07190136 .03 INST:36 VIAL:F0 SEQ NUMBER:003
TEST : DATE-TIME INJECTED : 07/19/01 17:59:36
COLLECTION TIME : 38.84 DATE-TIME PROCESSED : 07/20/01 10:44:03
METHOD: P3660 / P3660 REV #: 00209 ANALYST: KOBELM SAMP RATE: 1.56
CLIENT ID: SAMPLE VOL: 1.0 uL
CLIENT: COLUMN TYPE: RTX1701
LAB ID: AR1660 2801 A RAW FILE: RAW2:GJ150341
SAMPLE WT : % MOISTURE : DILUTION FACTOR : 1.0000
COLUMN ID: 0.53 mm I CAL ID : TEMP:L071901.36/25

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
002	32800	6000		7.980	1	TCX	0.008
005	4696	884	V	9.807	1	AR1016-1	0.022
006	12704	1605	V	11.262	1	AR1016-2	0.024
008	2712	651	V	12.122			
010	17995	2192	V	12.867	1	AR1016-3	0.022
011	7859	1327	V	13.340	1	AR1016-4	0.022
012	5146	758	V	13.700			
013	3957	916	V	14.048			
014	3027	746	V	14.195			
015	1712	405	V	14.329			
016	4685	1107	V	14.972	1	AR1016-5	0.022
018	4762	749	V	15.392			
020	6422	1042	V	16.415			
021	5502	980	V	17.064			
024	6429	1147	V	18.747			
025	3166	493	V	18.973			
026	13681	2640	V	19.285	1	AR1260-1	0.022
027	2200	443	V	19.772			
028	14324	2932	V	19.987	1	AR1260-2	0.021
029	12573	1346	V	20.534			
030	17418	2312	V	21.188			
031	8960	1977	V	21.491	1	AR1260-3	0.021
032	4019	928	V	21.673			
034	9203	1884	V	22.481	1	AR1260-4	0.021
035	3710	866	V	22.720			
038	19269	3827	V	23.316	1	AR1260-5	0.020
039	10099	1773	V	24.538			
041	6348	401	V	25.935			
042	3999	825		26.510			
044	51672	7621		28.977	1	DCB	0.009

MPK	1147	18.747	AROCLOR-1260-1	0.046	RW:18.67-18.81
MPK	2640	19.285	AROCLOR-1260-2	0.044	RW:19.21-19.35
MPK	2932	19.987	AROCLOR-1260-3	0.043	RW:19.91-20.05
MPK	1346	20.534	AROCLOR-1260-4	0.041	RW:20.46-20.60
MPK	2312	21.188	AROCLOR-1260-5	0.043	RW:21.11-21.25
MPK	1977	21.491	AROCLOR-1260-6	0.043	RW:21.42-21.56
MPK	1884	22.481	AROCLOR-1260-7	0.042	RW:22.41-22.55
MPK	3827	23.316	AROCLOR-1260-8	0.041	RW:23.24-23.38

6.04 7/20/01 JK

SAMPLE: 07190136 .03 PAGE NUMBER: 2
DATE-TIME INJECTED : 07/19/01 17:59:36
DATE-TIME PROCESSED : 07/20/01 10:44:03

PK NO	PEAK AREA	PEAK HEIGHT	BL RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL	
MPK		1773	24.538		AROCLOR-1260-9	0.041	RW:24.46-24.60
MPK		884	9.807		AROCLOR-1016-1	0.049	RW: 9.74- 9.88
MPK		1605	11.262		AROCLOR-1016-2	0.047	RW:11.19-11.33
MPK		2192	12.867		AROCLOR-1016-3	0.044	RW:12.80-12.94
MPK		1327	13.340		AROCLOR-1016-4	0.044	RW:13.27-13.41
MPK		758	13.700		AROCLOR-1016-5	0.051	RW:13.63-13.77
MPK		916	14.048		AROCLOR-1016-6	0.044	RW:13.98-14.12
MPK		746	14.195		AROCLOR-1016-7	0.045	RW:14.12-14.26
MPK		1107	14.972		AROCLOR-1016-8	0.043	RW:14.90-15.04
MPK		749	15.392		AROCLOR-1016-9	0.041	RW:15.32-15.46
MPK		1147	18.747		AROCLOR-1260-1	0.046	RW:18.67-18.81
MPK		2640	19.285		AROCLOR-1260-2	0.044	RW:19.21-19.35
MPK		2932	19.987		AROCLOR-1260-3	0.043	RW:19.91-20.05
MPK		1346	20.534		AROCLOR-1260-4	0.041	RW:20.46-20.60
MPK		2312	21.188		AROCLOR-1260-5	0.043	RW:21.11-21.25
MPK		1977	21.491		AROCLOR-1260-6	0.043	RW:21.42-21.56
MPK		1884	22.481		AROCLOR-1260-7	0.042	RW:22.41-22.55
MPK		3827	23.316		AROCLOR-1260-8	0.041	RW:23.24-23.38
MPK		1773	24.538		AROCLOR-1260-9	0.041	RW:24.46-24.60

0.04

MK 7/20/01

7/20/01
MK

AR1660 2802 B

SAMPLE NO. : 07190136 .04
TEST NO. :
METHOD NO. : P3660 / P3660

INSTRUMENT: 36
DATE TIME: 07/19/01 18:47:25
PAGE NO. : 01

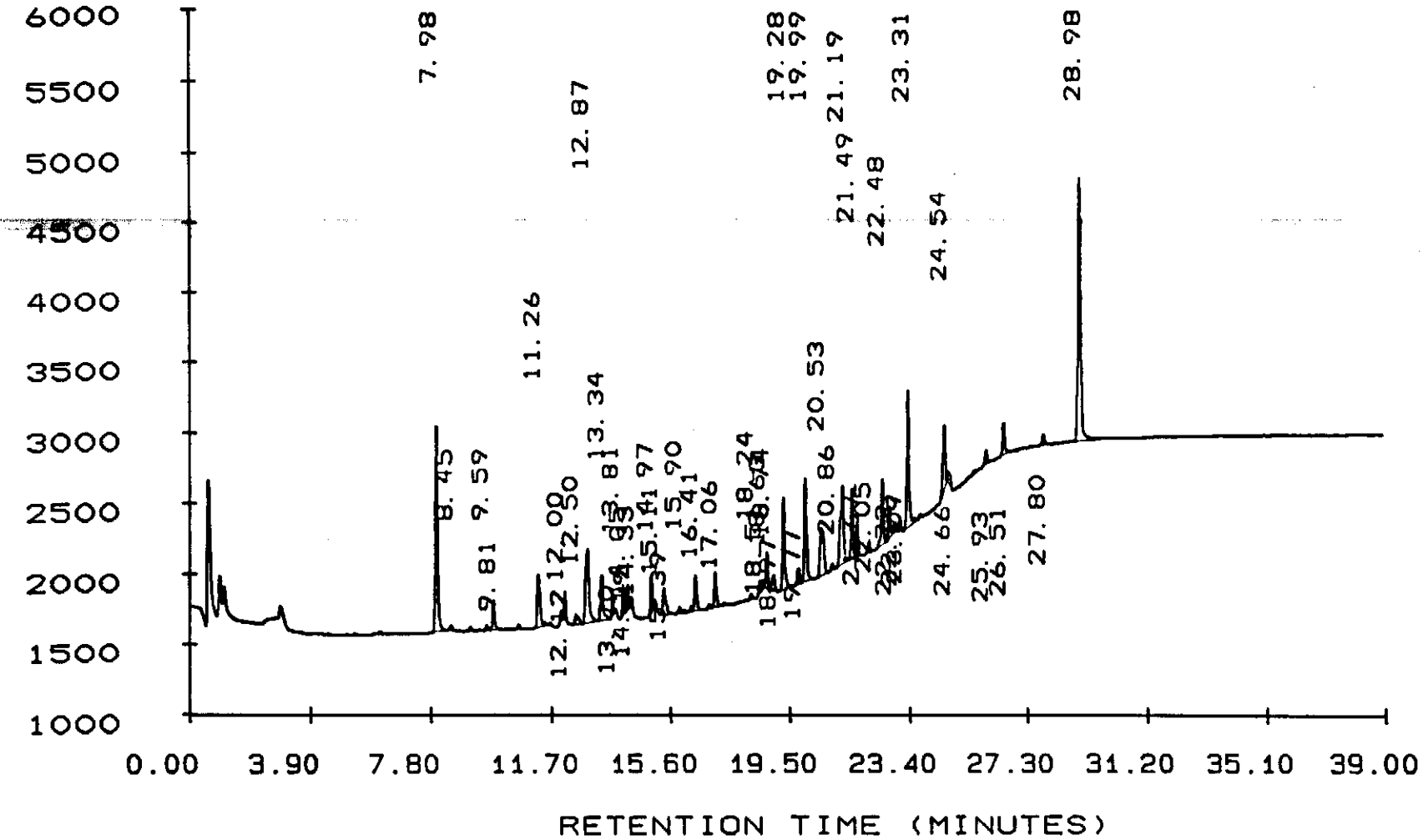

Y MAXIMUM: 6000.
Y MINIMUM: 1000.

START TIME: 0.00
END TIME: 39.00

Lionville Laboratory, Inc. 07/20/01 10:44:24

EXTERNAL STANDARD

SAMPLE: 07190136 .04 INST:36 VIAL:F0 SEQ NUMBER:004
TEST : DATE-TIME INJECTED : 07/19/01 18:47:25
COLLECTION TIME : 38.84 DATE-TIME PROCESSED : 07/20/01 10:44:24
METHOD: P3660 / P3660 REV #: 00209 ANALYST: KOBELM SAMP RATE: 1.56
CLIENT ID: SAMPLE VOL: 1.0 uL
CLIENT: COLUMN TYPE: RTX1701
LAB ID: AR1660 2802 B RAW FILE: RAW2:GJ150348
SAMPLE WT : % MOISTURE : DILUTION FACTOR : 1.0000
COLUMN ID: 0.53 mm I CAL ID : TEMP:L071901.36/25

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
002	73965	14349	V	7.980	1	TCX	0.020
003	2458	411	V	8.453			
005	2007	410	V	9.587			
006	12207	2084	V	9.807	1	AR1016-1	0.053
008	26337	3706	V	11.262	1	AR1016-2	0.054
010	3214	845	V	12.004			
011	6384	1537	V	12.122			
012	5274	730	V	12.497			
013	43504	5201	V	12.866	1	AR1016-3	0.052
014	18832	3140	V	13.339	1	AR1016-4	0.052
015	6118	1507	V	13.698			
016	1709	512	V	13.814			
017	9166	2182	V	14.047			
018	6978	1745	V	14.194			
019	3984	946	V	14.327			
020	11255	2635	V	14.970	1	AR1016-5	0.052
021	3764	796	V	15.110			
022	13119	1866	V	15.390			
023	3312	486	V	15.901			
024	14785	2448	V	16.413			
026	13766	2371	V	17.062			
027	3337	416	V	18.235			
028	3741	938	V	18.507			
029	2051	589	V	18.625			
030	11021	2600	V	18.745			
031	7366	1177	V	18.969			
032	33527	6342	V	19.283	1	AR1260-1	0.053
033	5758	1118	V	19.769			
034	36419	7144	V	19.985	1	AR1260-2	0.052
035	30899	3348	V	20.529			
036	2130	515	V	20.862			
037	42028	5529	V	21.186			
038	21670	4825	V	21.490	1	AR1260-3	0.052
039	9869	2268	V	21.671			
040	3934	780	V	22.048			
041	23566	4659	V	22.479	1	AR1260-4	0.051
042	9602	2196	V	22.718			
043	4141	875	V	22.901			
044	3731	858	V	23.071			
045	50754	9496	V	23.313	1	AR1260-5	0.050

SAMPLE: 07190136 .04 PAGE NUMBER: 2
DATE-TIME INJECTED : 07/19/01 18:47:25
DATE-TIME PROCESSED : 07/20/01 10:44:24

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL	
046	24977	4413	V	24.535				
047	6431	943	V	24.664				
048	9542	989	V	25.931				
049	12136	2189		26.508				
050	4220	725	V	27.805				
051	124750	18490		28.975	1	DCB	0.021	
							6.10	
MPK		2600		18.745		AROCLOR-1260-1	0.104	RW:18.67-18.81
MPK		6342		19.283		AROCLOR-1260-2	0.105	RW:19.21-19.35
MPK		7144		19.985		AROCLOR-1260-3	0.105	RW:19.91-20.05
MPK		3348		20.529		AROCLOR-1260-4	0.103	RW:20.46-20.60
MPK		5529		21.186		AROCLOR-1260-5	0.103	RW:21.11-21.25
MPK		4825		21.490		AROCLOR-1260-6	0.104	RW:21.42-21.56
MPK		4659		22.479		AROCLOR-1260-7	0.103	RW:22.41-22.55
MPK		9496		23.313		AROCLOR-1260-8	0.101	RW:23.24-23.38
MPK		4413		24.535		AROCLOR-1260-9	0.102	RW:24.46-24.60
MPK		2084		9.807		AROCLOR-1016-1	0.106	RW: 9.74- 9.88
MPK		3706		11.262		AROCLOR-1016-2	0.109	RW:11.19-11.33
MPK		5201		12.866		AROCLOR-1016-3	0.104	RW:12.80-12.94
MPK		3140		13.339		AROCLOR-1016-4	0.104	RW:13.27-13.41
MPK		1507		13.698		AROCLOR-1016-5	0.101	RW:13.63-13.77
MPK		2182		14.047		AROCLOR-1016-6	0.105	RW:13.98-14.12
MPK		1745		14.194		AROCLOR-1016-7	0.105	RW:14.12-14.26
MPK		2635		14.970		AROCLOR-1016-8	0.104	RW:14.90-15.04
MPK		1866		15.390		AROCLOR-1016-9	0.102	RW:15.32-15.46
MPK		2600		18.745		AROCLOR-1260-1	0.104	RW:18.67-18.81
MPK		6342		19.283		AROCLOR-1260-2	0.105	RW:19.21-19.35
MPK		7144		19.985		AROCLOR-1260-3	0.105	RW:19.91-20.05
MPK		3348		20.529		AROCLOR-1260-4	0.103	RW:20.46-20.60
MPK		5529		21.186		AROCLOR-1260-5	0.103	RW:21.11-21.25
MPK		4825		21.490		AROCLOR-1260-6 MK	0.104	RW:21.42-21.56
MPK		4659		22.479		AROCLOR-1260-7 7/20/01	0.103	RW:22.41-22.55
MPK		9496		23.313		AROCLOR-1260-8	0.101	RW:23.24-23.38
MPK		4413		24.535		AROCLOR-1260-9	0.102	RW:24.46-24.60

7/20/01
MK

AR1660 2803 C

SAMPLE NO. : 07190136 . 05
TEST NO. :
METHOD NO. : P3660 / P3660

INSTRUMENT: 36
DATE TIME: 07/19/01 19:35:12
PAGE NO. : 01

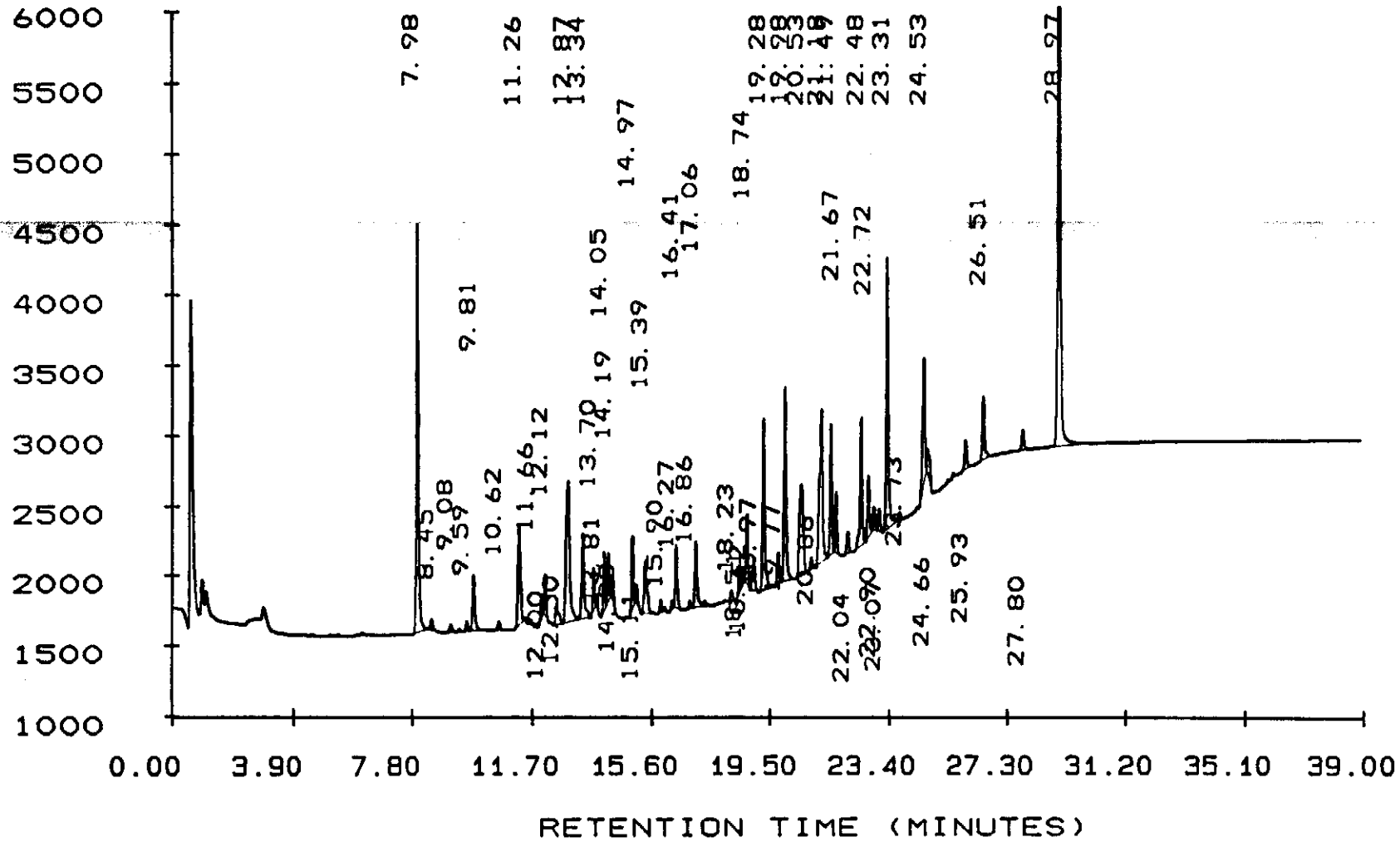

Y MAXIMUM: 6000.
Y MINIMUM: 1000.

START TIME: 0.00
END TIME: 39.00

Lionville Laboratory, Inc. 07/20/01 10:44:44

EXTERNAL STANDARD

SAMPLE: 07190136 .05 INST:36 VIAL:F0 SEQ NUMBER:005
TEST : DATE-TIME INJECTED : 07/19/01 19:35:12
COLLECTION TIME : 38.84 DATE-TIME PROCESSED : 07/20/01 10:44:44
METHOD: P3660 / P3660 REV #: 00209 ANALYST: KOBELM SAMP RATE: 1.56
CLIENT ID: SAMPLE VOL: 1.0 uL
CLIENT: COLUMN TYPE: RTX1701
LAB ID: AR1660 2803 C RAW FILE: RAW2:GJ150353
SAMPLE WT : % MOISTURE : DILUTION FACTOR : 1.0000
COLUMN ID: 0.53 mm I CAL ID : TEMP:L071901.36/25

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
002	149102	28690	V	7.979	1	TCX	0.040
003	4901	813	V	8.452			
004	3130	602	V	9.077			
006	3789	784	V	9.587			
007	23405	3948	V	9.806	1	AR1016-1	0.100
008	3296	655	V	10.622			
009	44406	6818	V	11.262	1	AR1016-2	0.100
011	2248	474	V	11.659			
012	6140	1602	V	12.003			
013	12189	2914	V	12.121			
014	10502	1427	V	12.497			
015	83763	10044	V	12.866	1	AR1016-3	0.100
016	36576	6053	V	13.338	1	AR1016-4	0.100
017	12319	2970	V	13.698			
018	3313	991	V	13.813			
019	17760	4176	V	14.046			
020	13376	3314	V	14.193			
021	7545	1797	V	14.326			
022	21799	5090	V	14.969	1	AR1016-5	0.100
023	7267	1537	V	15.108			
024	25376	3674	V	15.388			
025	3814	879	V	15.900			
027	2337	601	V	16.272			
028	21552	4442	V	16.413			
029	2608	566	V	16.860			
030	27315	4631	V	17.062			
031	5284	770	V	18.233			
032	7350	1890	V	18.506			
033	4042	1200	V	18.623			
034	21202	5005	V	18.744			
035	14237	2265	V	18.968			
036	64555	12030	V	19.282	1	AR1260-1	0.100
037	11357	2221	V	19.768			
038	70157	13646	V	19.983	1	AR1260-2	0.100
039	60800	6531	V	20.526			
040	4088	994	V	20.861			
041	81526	10782	V	21.184			
042	41744	9262	V	21.488	1	AR1260-3	0.100
043	19219	4441	V	21.669			
044	7762	1545	V	22.045			

SAMPLE: 07190136 .05 PAGE NUMBER: 2
DATE-TIME INJECTED : 07/19/01 19:35:12
DATE-TIME PROCESSED : 07/20/01 10:44:44

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL	
045	46205	9048	V	22.477	1	AR1260-4	0.100	
046	19069	4335	V	22.716				
047	8338	1770	V	22.899				
048	7096	1674	V	23.069				
049	99078	18870	V	23.312	1	AR1260-5	0.100	
050	2491	577	V	23.734				
051	49473	8691	V	24.533				
052	12609	1847	V	24.662				
054	10169	2015	V	25.928				
055	24342	4404	V	26.506				
056	10680	1427	V	27.802				
057	236608	35664		28.973	1	DCB	0.040	
MPK		5005		18.744		AROCLOR-1260-1	0.200	RW:18.67-18.81
MPK		12030		19.282		AROCLOR-1260-2	0.200	RW:19.21-19.35
MPK		13646		19.983		AROCLOR-1260-3	0.200	RW:19.91-20.05
MPK		6531		20.526		AROCLOR-1260-4	0.200	RW:20.46-20.60
MPK		10782		21.184		AROCLOR-1260-5	0.200	RW:21.11-21.25
MPK		9262		21.488		AROCLOR-1260-6	0.200	RW:21.42-21.56
MPK		9048		22.477		AROCLOR-1260-7	0.200	RW:22.41-22.55
MPK		18870		23.312		AROCLOR-1260-8	0.200	RW:23.24-23.38
MPK		8691		24.533		AROCLOR-1260-9	0.200	RW:24.46-24.60
MPK		3948		9.806		AROCLOR-1016-1	0.200	RW: 9.74- 9.88
MPK		6818		11.262		AROCLOR-1016-2	0.200	RW:11.19-11.33
MPK		10044		12.866		AROCLOR-1016-3	0.200	RW:12.80-12.94
MPK		6053		13.338		AROCLOR-1016-4	0.200	RW:13.27-13.41
MPK		2970		13.698		AROCLOR-1016-5	0.200	RW:13.63-13.77
MPK		4176		14.046		AROCLOR-1016-6	0.200	RW:13.98-14.12
MPK		3314		14.193		AROCLOR-1016-7	0.200	RW:14.12-14.26
MPK		5090		14.969		AROCLOR-1016-8	0.200	RW:14.90-15.04
MPK		3674		15.388		AROCLOR-1016-9	0.200	RW:15.32-15.46
MPK		5005		18.744		AROCLOR-1260-1	0.200	RW:18.67-18.81
MPK		12030		19.282		AROCLOR-1260-2	0.200	RW:19.21-19.35
MPK		13646		19.983		AROCLOR-1260-3	0.200	RW:19.91-20.05
MPK		6531		20.526		AROCLOR-1260-4	0.200	RW:20.46-20.60
MPK		10782		21.184		AROCLOR-1260-5	0.200	RW:21.11-21.25
MPK		9262		21.488		AROCLOR-1260-6	0.200	RW:21.42-21.56
MPK		9048		22.477		AROCLOR-1260-7	0.200	RW:22.41-22.55
MPK		18870		23.312		AROCLOR-1260-8	0.200	RW:23.24-23.38
MPK		8691		24.533		AROCLOR-1260-9	0.200	RW:24.46-24.60

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AR1660 2804 D

SAMPLE NO. : 07190136 .06
TEST NO. :
METHOD NO. : P3660 / P3660

INSTRUMENT: 36
DATE TIME: 07/19/01 20:23:12
PAGE NO. : 01

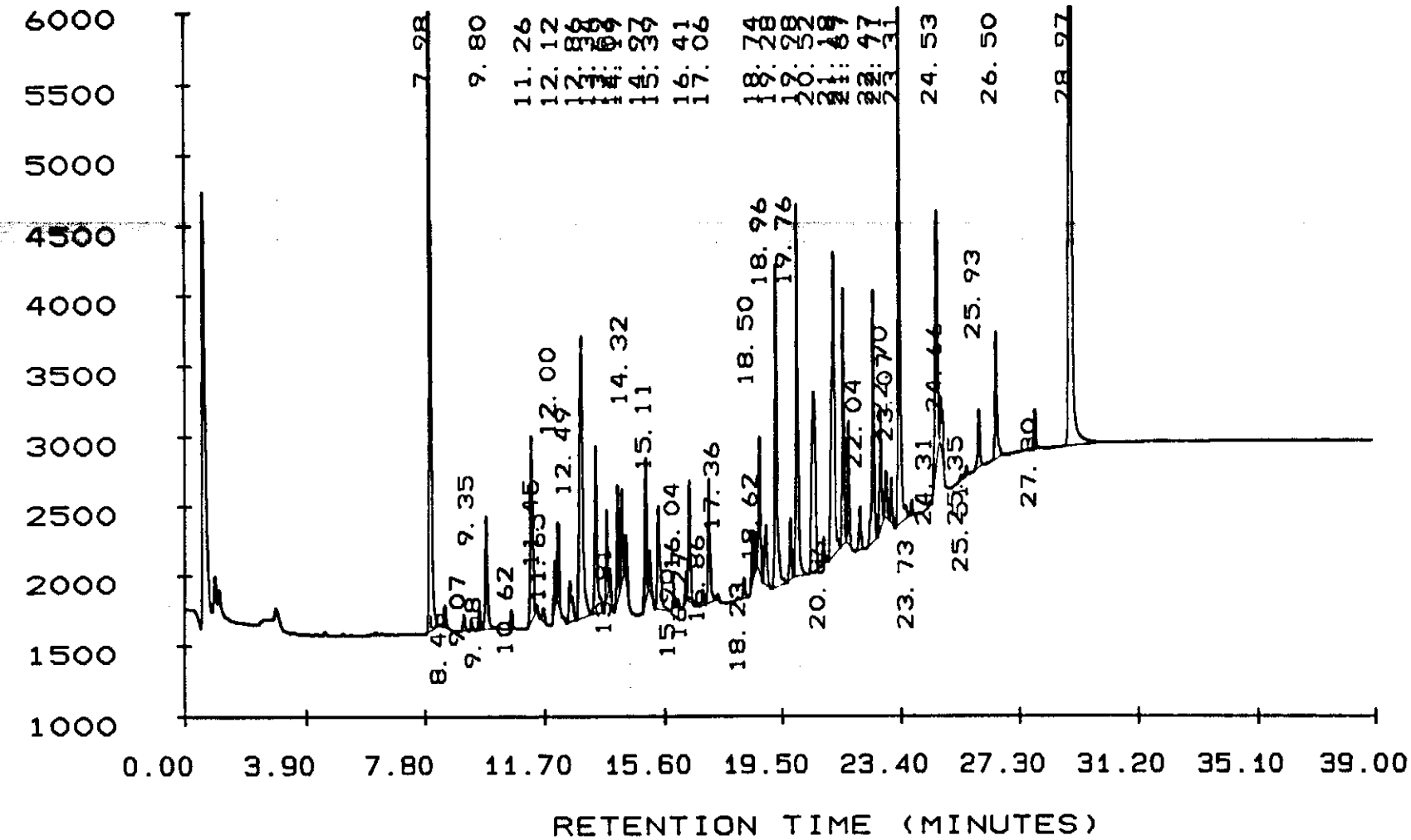

Y MAXIMUM: 6000.
Y MINIMUM: 1000.

START TIME: 0.00
END TIME: 39.00

Lionville Laboratory, Inc. 07/20/01 10:45:05

EXTERNAL STANDARD

SAMPLE: 07190136 .06 INST:36 VIAL:F0 SEQ NUMBER:006
TEST : DATE-TIME INJECTED : 07/19/01 20:23:12
COLLECTION TIME : 38.84 DATE-TIME PROCESSED : 07/20/01 10:45:05
METHOD: P3660 / P3660 REV #: 00209 ANALYST: KOBELM SAMP RATE: 1.56
CLIENT ID: SAMPLE VOL: 1.0 uL
CLIENT: COLUMN TYPE: RTX1701
LAB ID: AR1660 2804 D RAW FILE: RAW2:GJ150360
SAMPLE WT : % MOISTURE : DILUTION FACTOR : 1.0000
COLUMN ID: 0.53 mm I CAL ID : TEMP:L071901.36/25

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
002	316554	67214	V	7.977	1	TCX	0.094
003	9043	1561	V	8.451			
004	6310	1293	V	9.073			
005	2598	572	V	9.350			
006	7958	1690	V	9.584			
007	45664	8020	V	9.801	1	AR1016-1	0.203
008	6899	1359	V	10.617			
009	85371	13281	V	11.256	1	AR1016-2	0.195
010	2846	734	V	11.453			
011	4722	980	V	11.655			
012	12275	3345	V	11.999			
013	24276	5801	V	12.117			
014	21139	2920	V	12.493			
015	163629	19874	V	12.864	1	AR1016-3	0.198
016	71853	11998	V	13.335	1	AR1016-4	0.198
017	24969	6234	V	13.694			
018	6412	1919	V	13.810			
019	34694	8189	V	14.042			
020	26289	6474	V	14.190			
021	15587	3560	V	14.322			
022	43349	10001	V	14.966	1	AR1016-5	0.196
023	14750	3099	V	15.106			
024	49907	7350	V	15.385			
025	7560	1759	V	15.896			
026	3070	757	V	16.044			
027	4918	1253	V	16.269			
028	41364	8605	V	16.410			
029	5171	1136	V	16.857			
030	46079	8917	V	17.059			
031	1911	471	V	17.357			
033	7419	1483	V	18.229			
034	14393	3694	V	18.503			
035	8171	2446	V	18.620			
036	41184	9538	V	18.741			
037	27559	4392	V	18.965			
038	123302	22687	V	19.279	1	AR1260-1	0.189
039	22537	4400	V	19.765			
040	134323	26159	V	19.981	1	AR1260-2	0.192
041	117792	12767	V	20.523			
042	7934	1958	V	20.858			

SAMPLE: 07190136 .06 PAGE NUMBER: 2
DATE-TIME INJECTED : 07/19/01 20:23:12
DATE-TIME PROCESSED : 07/20/01 10:45:05

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
044	159194	21317	V	21.181			
045	80576	17914	V	21.485	1	AR1260-3	0.193
046	37915	8712	V	21.666			
047	15901	3115	V	22.043			
048	89977	17539	V	22.474	1	AR1260-4	0.194
049	37271	8502	V	22.714			
050	16471	3478	V	22.896			
051	13831	3300	V	23.066			
052	195635	37506	V	23.309	1	AR1260-5	0.199
053	5107	1181	V	23.730			
054	1815	435	V	24.313			
055	98072	17525	V	24.531			
056	24675	3507	V	24.659			
057	2119	438	V	25.345			
058	3379	773	V	25.511			
059	20444	4020	V	25.926			
060	48045	8819	V	26.504			
061	18256	2828	V	27.801			
062	459136	68848		28.971	1	DCB	0.077

0.40

MPK	9538	18.741	AROCLOR-1260-1	0.381	RW:18.67-18.81
MPK	22687	19.279	AROCLOR-1260-2	0.377	RW:19.21-19.35
MPK	26159	19.981	AROCLOR-1260-3	0.383	RW:19.91-20.05
MPK	12767	20.523	AROCLOR-1260-4	0.391	RW:20.46-20.60
MPK	21317	21.181	AROCLOR-1260-5	0.395	RW:21.11-21.25
MPK	17914	21.485	AROCLOR-1260-6	0.387	RW:21.42-21.56
MPK	17539	22.474	AROCLOR-1260-7	0.388	RW:22.41-22.55
MPK	37506	23.309	AROCLOR-1260-8	0.398	RW:23.24-23.38
MPK	17525	24.531	AROCLOR-1260-9	0.403	RW:24.46-24.60
MPK	8020	9.801	AROCLOR-1016-1	0.406	RW: 9.74- 9.88
MPK	13281	11.256	AROCLOR-1016-2	0.390	RW:11.19-11.33
MPK	19874	12.864	AROCLOR-1016-3	0.396	RW:12.80-12.94
MPK	11998	13.335	AROCLOR-1016-4	0.396	RW:13.27-13.41
MPK	6234	13.694	AROCLOR-1016-5	0.420	RW:13.63-13.77
MPK	8189	14.042	AROCLOR-1016-6	0.392	RW:13.98-14.12
MPK	6474	14.190	AROCLOR-1016-7	0.391	RW:14.12-14.26
MPK	10001	14.966	AROCLOR-1016-8	0.393	RW:14.90-15.04
MPK	7350	15.385	AROCLOR-1016-9	0.400	RW:15.32-15.46
MPK	9538	18.741	AROCLOR-1260-1	0.381	RW:18.67-18.81
MPK	22687	19.279	AROCLOR-1260-2	0.377	RW:19.21-19.35
MPK	26159	19.981	AROCLOR-1260-3	0.383	RW:19.91-20.05
MPK	12767	20.523	AROCLOR-1260-4	0.391	RW:20.46-20.60
MPK	21317	21.181	AROCLOR-1260-5	0.395	RW:21.11-21.25
MPK	17914	21.485	AROCLOR-1260-6	0.387	RW:21.42-21.56
MPK	17539	22.474	AROCLOR-1260-7	0.388	RW:22.41-22.55
MPK	37506	23.309	AROCLOR-1260-8	0.398	RW:23.24-23.38
MPK	17525	24.531	AROCLOR-1260-9	0.403	RW:24.46-24.60

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7/20/01 MK

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AR1660 2805 E

SAMPLE NO. : 07190136 .07

TEST NO. :

METHOD NO. : P3660 / P3660

INSTRUMENT: 36

DATE TIME: 07/19/01 21:11:18

PAGE NO. : 01

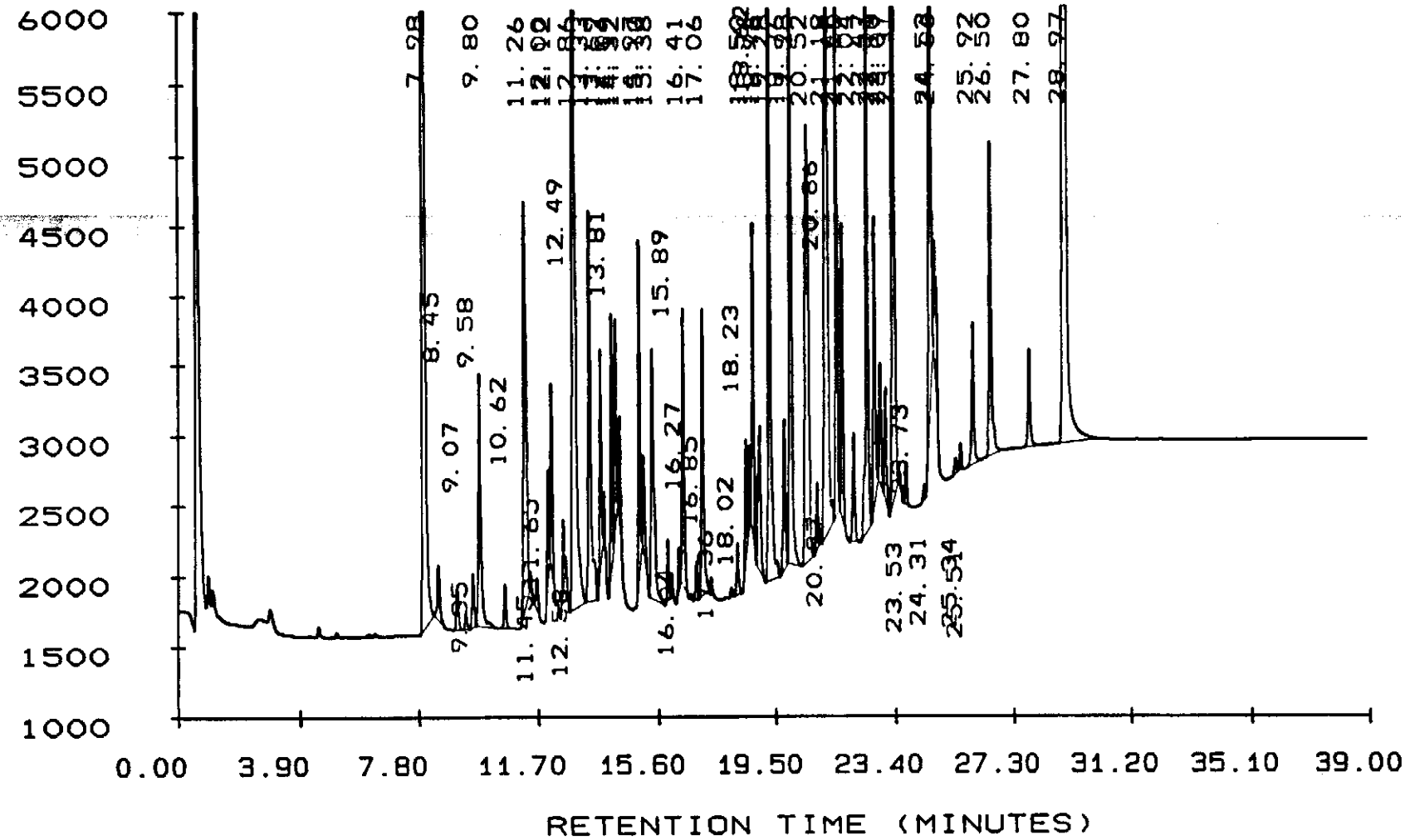

Y MAXIMUM: 6000.

Y MINIMUM: 1000.

START TIME: 0.00

END TIME: 39.00

Lionville Laboratory, Inc. 07/20/01 10:45:27

EXTERNAL STANDARD

SAMPLE: 07190136 .07 INST:36 VIAL:F0 SEQ NUMBER:007
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COLLECTION TIME : 38.84 DATE-TIME PROCESSED : 07/20/01 10:45:27
METHOD: P3660 / P3660 REV #: 00209 ANALYST: KOBELM SAMP RATE: 1.56
CLIENT ID: SAMPLE VOL: 1.0 uL
CLIENT: COLUMN TYPE: RTX1701
LAB ID: AR1660 2805 E RAW FILE: RAW2:GJ150363
SAMPLE WT : % MOISTURE : DILUTION FACTOR : 1.0000
COLUMN ID: 0.53 mm I CAL ID : TEMP:L071901.36/25

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
003	820534	161715	V	7.975	1	TCX	0.225
004	23795	3869	V	8.447			
005	15130	2941	V	9.072			
006	6464	1331	V	9.349			
007	18790	3830	V	9.583			
008	105587	17717	V	9.800	1	AR1016-1	0.449
009	16506	3125	V	10.617			
010	192930	29001	V	11.256	1	AR1016-2	0.425
011	5964	1580	V	11.454			
012	10626	2260	V	11.654			
013	28522	7703	V	11.998			
014	55333	13058	V	12.116			
015	17619	4540	V	12.492			
016	3789	1511	V	12.580			
017	386867	47052	V	12.862	1	AR1016-3	0.468
018	169056	27624	V	13.334	1	AR1016-4	0.456
019	60243	14964	V	13.693			
020	14355	4323	V	13.809			
021	77316	17956	V	14.041			
022	59224	14326	V	14.189			
023	35446	8193	V	14.321			
024	100189	23140	V	14.965	1	AR1016-5	0.455
025	33614	6906	V	15.104			
026	119200	17496	V	15.384			
027	18035	4173	V	15.895			
028	7370	1768	V	16.043			
029	11744	2940	V	16.268			
030	95235	19463	V	16.409			
032	12390	2695	V	16.855			
033	107714	20133	V	17.058			
034	4455	1111	V	17.356			
035	3327	728	V	18.024			
036	17866	3630	V	18.228			
037	32866	8330	V	18.502			
038	19153	5747	V	18.620			
039	95375	21874	V	18.740			
040	65086	10252	V	18.964			
041	284064	50932	V	19.278	1	AR1260-1	0.423
042	54784	10576	V	19.763			
043	311462	59831	V	19.979	1	AR1260-2	0.438

SAMPLE: 07190136 .07 PAGE NUMBER: 2
DATE-TIME INJECTED : 07/19/01 21:11:18
DATE-TIME PROCESSED : 07/20/01 10:45:27

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
044	279418	30783	V	20.521			
045	18892	4652	V	20.857			
046	2953	1013	V	20.974			
047	382288	50989	V	21.180			
048	191834	41804	V	21.484	1	AR1260-3	0.451
049	91463	20809	V	21.665			
050	39776	7658	V	22.041			
051	214831	41543	V	22.473	1	AR1260-4	0.459
052	88966	20022	V	22.712			
053	40850	8596	V	22.895			
054	33800	8073	V	23.065			
055	453728	91299	V	23.308	1	AR1260-5	0.484
056	4070	1198	V	23.528			
057	12461	2919	V	23.729			
058	4712	1148	V	24.310			
059	241374	43088	V	24.530			
060	59711	8644	V	24.658			
061	5219	1165	V	25.340			
062	8230	1897	V	25.507			
063	52909	9949	V	25.924			
064	123396	21960	V	26.502			
065	42038	6885	V	27.798			
066	1092747	160252		28.971	1	DCB	0.180

				I.D	
MPK	21874	18.740	AROCLOR-1260-1	0.874	RW:18.67-18.81
MPK	50932	19.278	AROCLOR-1260-2	0.847	RW:19.21-19.35
MPK	59831	19.979	AROCLOR-1260-3	0.877	RW:19.91-20.05
MPK	30783	20.521	AROCLOR-1260-4	0.943	RW:20.46-20.60
MPK	50989	21.180	AROCLOR-1260-5	0.946	RW:21.11-21.25
MPK	41804	21.484	AROCLOR-1260-6	0.903	RW:21.42-21.56
MPK	41543	22.473	AROCLOR-1260-7	0.918	RW:22.41-22.55
MPK	91299	23.308	AROCLOR-1260-8	0.968	RW:23.24-23.38
MPK	43088	24.530	AROCLOR-1260-9	0.992	RW:24.46-24.60
MPK	17717	9.800	AROCLOR-1016-1	0.898	RW: 9.74- 9.88
MPK	29001	11.256	AROCLOR-1016-2	0.851	RW:11.19-11.33
MPK	47052	12.862	AROCLOR-1016-3	0.987	RW:12.80-12.94
MPK	27624	13.334	AROCLOR-1016-4	0.913	RW:13.27-13.41
MPK	14964	13.693	AROCLOR-1016-5	1.008	RW:13.63-13.77
MPK	17956	14.041	AROCLOR-1016-6	0.860	RW:13.98-14.12
MPK	14326	14.189	AROCLOR-1016-7	0.865	RW:14.12-14.26
MPK	23140	14.965	AROCLOR-1016-8	0.909	RW:14.90-15.04
MPK	17496	15.384	AROCLOR-1016-9	0.952	RW:15.32-15.46
MPK	21874	18.740	AROCLOR-1260-1	0.874	RW:18.67-18.81
MPK	50932	19.278	AROCLOR-1260-2	0.847	RW:19.21-19.35
MPK	59831	19.979	AROCLOR-1260-3	0.877	RW:19.91-20.05
MPK	30783	20.521	AROCLOR-1260-4	0.943	RW:20.46-20.60
MPK	50989	21.180	AROCLOR-1260-5	0.946	RW:21.11-21.25
MPK	41804	21.484	AROCLOR-1260-6	0.903	RW:21.42-21.56

7/20/01 MK

7/20/01 MK

AR1221 1108

SAMPLE NO. : 07190136 .08
TEST NO. :
METHOD NO. : P36 / P36

INSTRUMENT: 36
DATE TIME: 07/19/01 21:59:30
PAGE NO. : 01

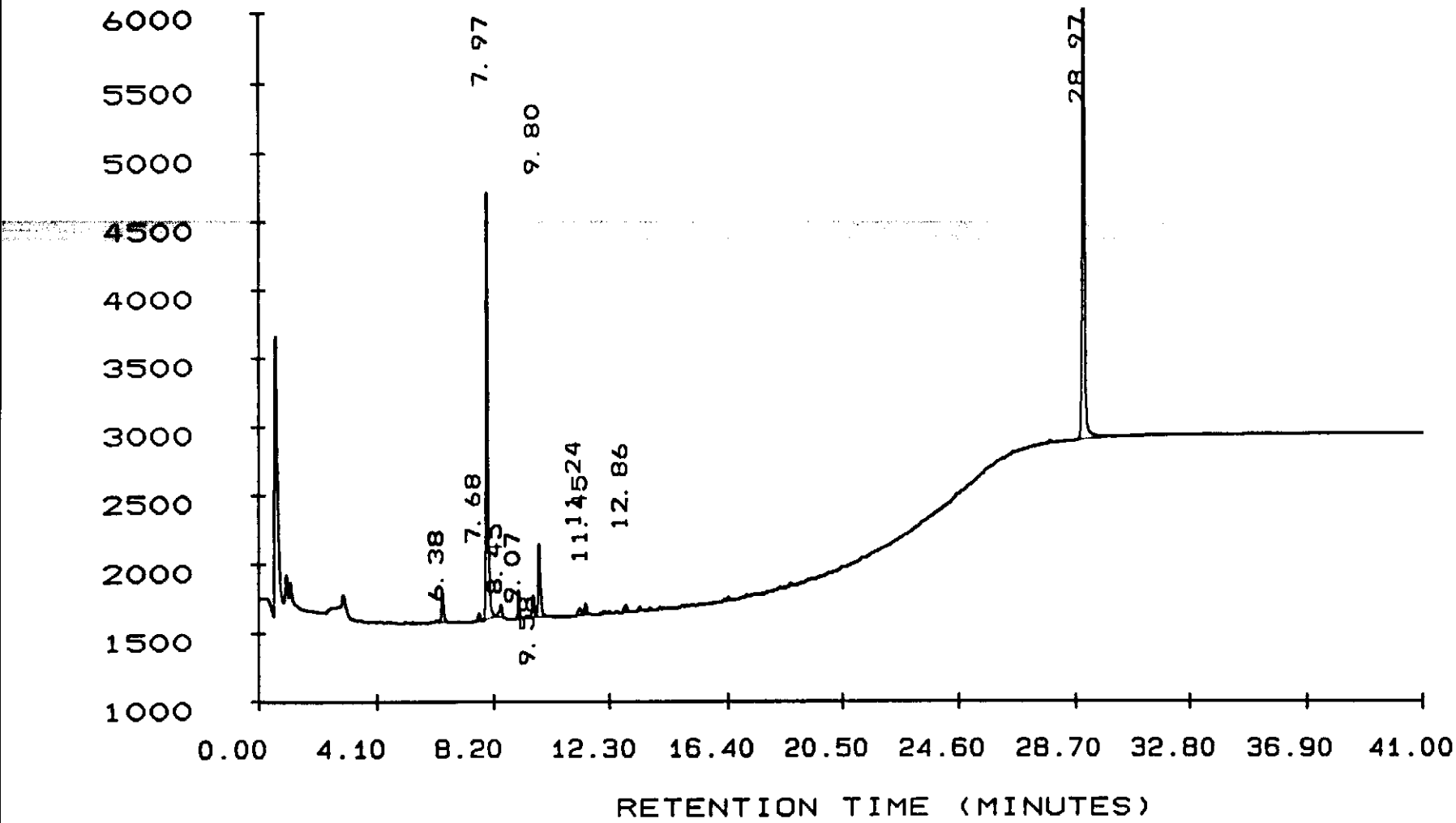

Y MAXIMUM: 6000.
Y MINIMUM: 1000.

START TIME: 0.00
END TIME: 41.00

Lionville Laboratory, Inc. 07/20/01 11:25:58

EXTERNAL STANDARD

SAMPLE: 07190136 .08 INST:36 VIAL:F0 SEQ NUMBER:008
TEST : DATE-TIME INJECTED : 07/19/01 21:59:30
COLLECTION TIME : 40.97 DATE-TIME PROCESSED : 07/20/01 11:25:58
METHOD: P36 / PCBMK REV #: 00210 ANALYST: KOBELM SAMP RATE: 1.56
CLIENT ID: SAMPLE VOL: 1.0 uL
CLIENT: COLUMN TYPE: RTX1701
LAB ID: AR1221 1108 RAW FILE: RAW2:GJ150368
SAMPLE WT : % MOISTURE : DILUTION FACTOR : 1.0000
COLUMN ID: 0.53 mm I CAL ID : TEMP:L071901.36/25

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
001	13552	2090		6.379			
002	3782	640	V	7.677			
003	152251	30486	V	7.974	1	TCX	0.043
004	6825	1007	V	8.450			
005	10577	2061	V	9.071			
007	7885	1612	V	9.582			
008	32154	5191		9.801			
009	4428	532	V	11.242			
010	4570	788	V	11.454			
012	4612	549	V	12.865			
019	247300	37440		28.969	1	DCB	0.042

MPK	2090	6.379	AROCLOR-1221-1	0.200	RW: 6.31- 6.45
MPK	640	7.677	AROCLOR-1221-2	0.200	RW: 7.61- 7.75
MPK	1007	8.450	AROCLOR-1221-3	0.200	RW: 8.38- 8.52
MPK	2061	9.071	AROCLOR-1221-4	0.200	RW: 9.00- 9.14
MPK	1612	9.582	AROCLOR-1221-5	0.200	RW: 9.51- 9.65
MPK	5191	9.801	AROCLOR-1221-6	0.200	RW: 9.73- 9.87
MPK	788	11.454	AROCLOR-1221-7	0.200	RW:11.38-11.52
MPK	549	12.865	AROCLOR-1221-8	0.200	RW:12.80-12.93

AR1232 1205

SAMPLE NO. : 07190136 .09
TEST NO. :
METHOD NO. : P36 / P36

INSTRUMENT: 36
DATE TIME: 07/19/01 22:47:17
PAGE NO. : 01

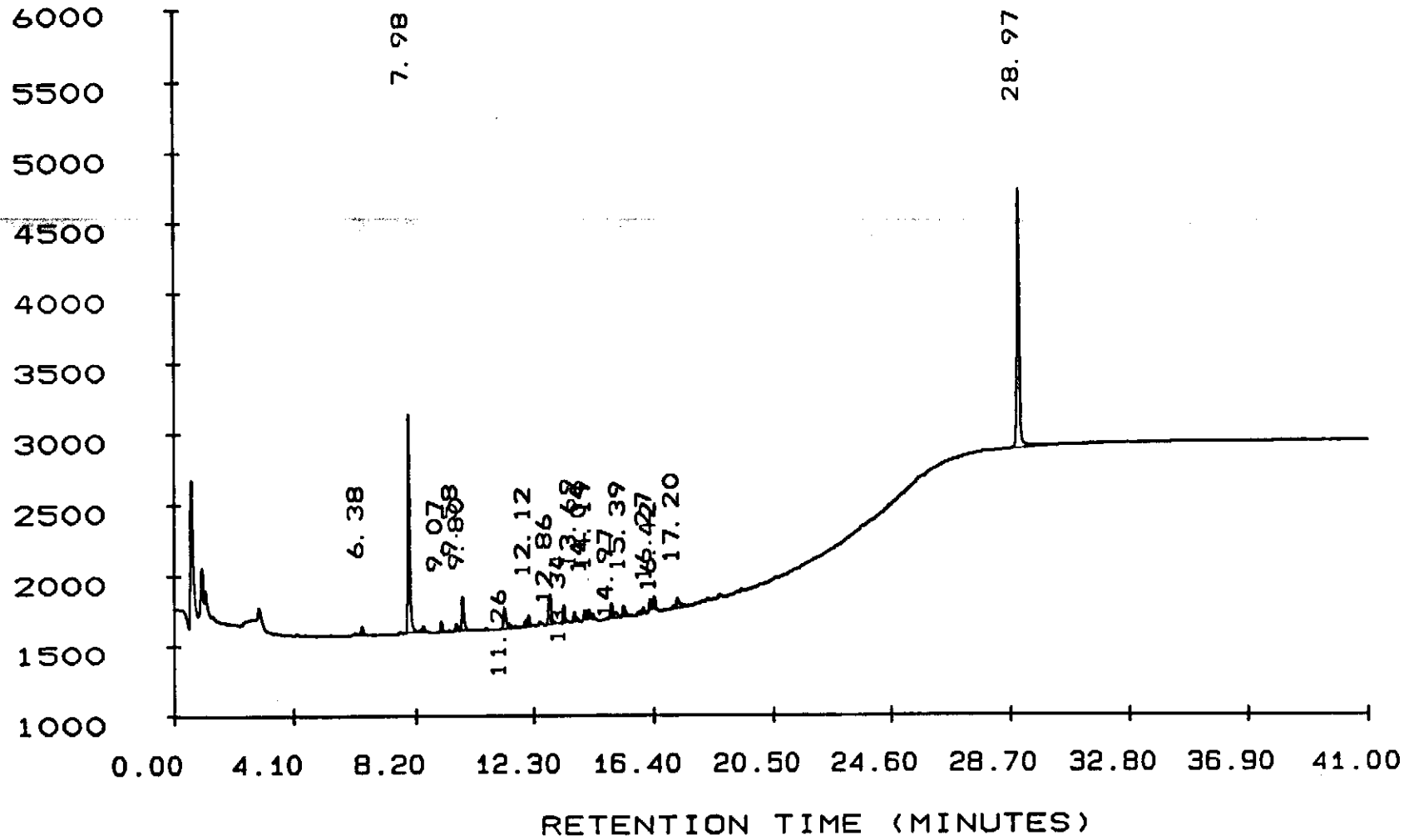

Y MAXIMUM: 6000.
Y MINIMUM: 1000.

START TIME: 0.00
END TIME: 41.00

Lionville Laboratory, Inc. 07/20/01 11:26:14

EXTERNAL STANDARD

SAMPLE: 07190136 .09 INST:36 VIAL:F0 SEQ NUMBER:009
TEST : DATE-TIME INJECTED : 07/19/01 22:47:17
COLLECTION TIME : 40.97 DATE-TIME PROCESSED : 07/20/01 11:26:14
METHOD: P36 / PCBMK REV #: 00210 ANALYST: KOBELM SAMP RATE: 1.56
CLIENT ID: SAMPLE VOL: 1.0 uL
CLIENT: COLUMN TYPE: RTX1701
LAB ID: AR1232 1205 RAW FILE: RAW2:GJ150372
SAMPLE WT : % MOISTURE : DILUTION FACTOR : 1.0000
COLUMN ID: 0.53 mm I CAL ID : TEMP:L071901.36/25

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
002	3166	631		6.383			
004	73799	15101	V	7.976	1	TCX	0.021
005	2931	460	V	8.451			
006	4705	763	V	9.073			
007	3126	656	V	9.583			
008	14424	2393	V	9.802			
010	9879	1530	V	11.255			
012	7012	809	V	12.117			
014	17901	2144	V	12.863			
015	7482	1279	V	13.335			
016	4829	750	V	13.694			
017	3284	785	V	14.043			
018	2640	651	V	14.190			
020	4148	975	V	14.966			
022	4870	771	V	15.386			
023	3589	478	V	16.045			
024	3661	843	V	16.268			
025	4273	913	V	16.421			
026	7997	717	V	17.199			
029	121249	18212		28.969	1	DCB	0.020

MPK	2393	9.802	AROCLOR-1232-1	0.100	RW: 9.73- 9.87
MPK	1530	11.255	AROCLOR-1232-2	0.100	RW:11.19-11.32
MPK	809	12.117	AROCLOR-1232-3	0.100	RW:12.05-12.19
MPK	2144	12.863	AROCLOR-1232-4	0.100	RW:12.79-12.93
MPK	1279	13.335	AROCLOR-1232-5	0.100	RW:13.27-13.40
MPK	975	14.966	AROCLOR-1232-6	0.100	RW:14.90-15.04
MPK	843	16.268	AROCLOR-1232-7	0.100	RW:16.20-16.34
MPK	913	16.421	AROCLOR-1232-8	0.100	RW:16.35-16.49

AR1242 1304

SAMPLE NO. : 07190136 . 10
TEST NO. :
METHOD NO. : P36 / P36

INSTRUMENT: 36
DATE TIME: 07/19/01 23:35:05
PAGE NO. : 01

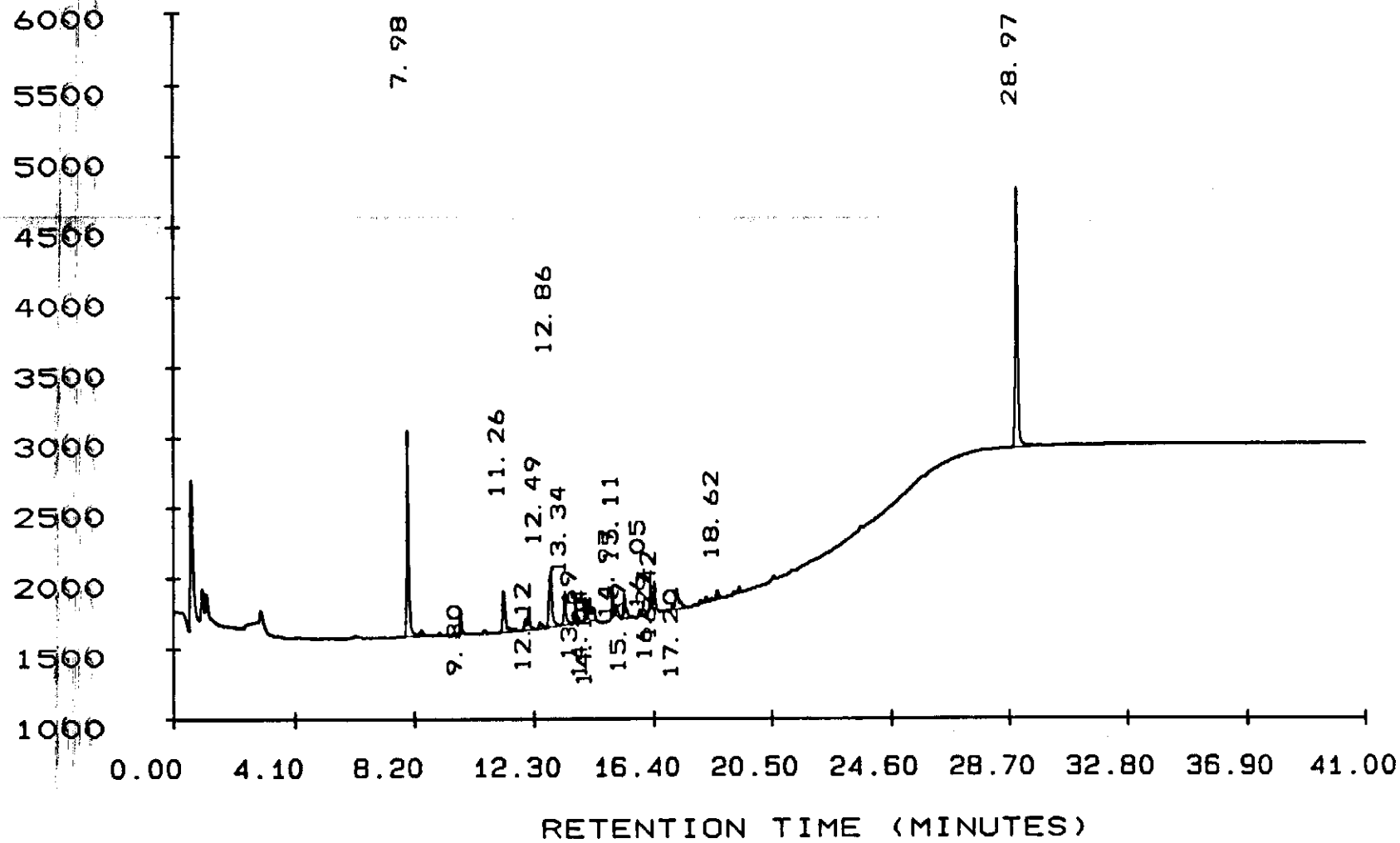

Y MAXIMUM: 6000.
Y MINIMUM: 1000.

START TIME: 0.00
END TIME: 41.00

Lionville Laboratory, Inc. 07/20/01 11:26:38

EXTERNAL STANDARD

SAMPLE: 07190136 .10 INST:36 VIAL:F0 SEQ NUMBER:010
TEST : DATE-TIME INJECTED : 07/19/01 23:35:05
COLLECTION TIME : 40.97 DATE-TIME PROCESSED : 07/20/01 11:26:38
METHOD: P36 / PCBMK REV #: 00210 ANALYST: KOBELM SAMP RATE: 1.56
CLIENT ID: SAMPLE VOL: 1.0 uL
CLIENT: COLUMN TYPE: RTX1701
LAB ID: AR1242 1304 RAW FILE: RAW2:GJ150375
SAMPLE WT : % MOISTURE : DILUTION FACTOR : 1.0000
COLUMN ID: 0.53 mm I CAL ID : TEMP:L071901.36/25

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
002	73881	14291	V	7.976	1	TCX	0.020
006	10173	1686	V	9.802			
008	24093	2916	V	11.258			
009	2340	600	V	12.000			
010	4934	1174	V	12.118			
011	4111	564	V	12.494			
012	33114	3932	V	12.863			
013	14298	2372	V	13.335			
014	9517	1377	V	13.694			
015	6887	1636	V	14.043			
016	5393	1330	V	14.191			
017	3103	707	V	14.324			
018	8875	2058	V	14.967			
019	4090	690	V	15.111			
020	11895	1675	V	15.387			
021	2201	519	V	15.899			
022	4352	967	V	16.046			
023	7592	1759	V	16.269			
024	8796	1906	V	16.421			
025	1609	410	V	17.061			
026	10943	1343	V	17.201			
030	4115	674	V	18.623			
031	4151	475	V	19.386			
033	119927	18220		28.968	1	DCB	0.020

MPK	1686	9.802	AROCLOR-1242-1	0.100	RW: 9.73- 9.87
MPK	2916	11.258	AROCLOR-1242-2	0.100	RW:11.19-11.33
MPK	3932	12.863	AROCLOR-1242-3	0.100	RW:12.79-12.93
MPK	2372	13.335	AROCLOR-1242-4	0.100	RW:13.27-13.40
MPK	2058	14.967	AROCLOR-1242-5	0.100	RW:14.90-15.04
MPK	1675	15.387	AROCLOR-1242-6	0.100	RW:15.32-15.46
MPK	1759	16.269	AROCLOR-1242-7	0.100	RW:16.20-16.34
MPK	1906	16.421	AROCLOR-1242-8	0.100	RW:16.35-16.49
~~MPK~~	~~1686~~	~~9.802~~	~~AROCLOR-1242-1~~	~~0.100~~	~~RW: 9.73- 9.87~~
~~MPK~~	~~2916~~	~~11.258~~	~~AROCLOR-1242-2~~	~~0.100~~	~~RW:11.19-11.33~~
~~MPK~~	~~3932~~	~~12.863~~	~~AROCLOR-1242-3~~ 7/20/01	~~0.100~~	~~RW:12.79-12.93~~
~~MPK~~	~~2372~~	~~13.335~~	~~AROCLOR-1242-4~~	~~0.100~~	~~RW:13.27-13.40~~
~~MPK~~	~~2058~~	~~14.967~~	~~AROCLOR-1242-5~~ MK	~~0.100~~	~~RW:14.90-15.04~~
~~MPK~~	~~1675~~	~~15.387~~	~~AROCLOR-1242-6~~	~~0.100~~	~~RW:15.32-15.46~~

AR1248 1101

SAMPLE NO. : 07190136 . 11
TEST NO. :
METHOD NO. : P36 / P36

INSTRUMENT: 36
DATE TIME: 07/20/01 00:22:53
PAGE NO. : 01

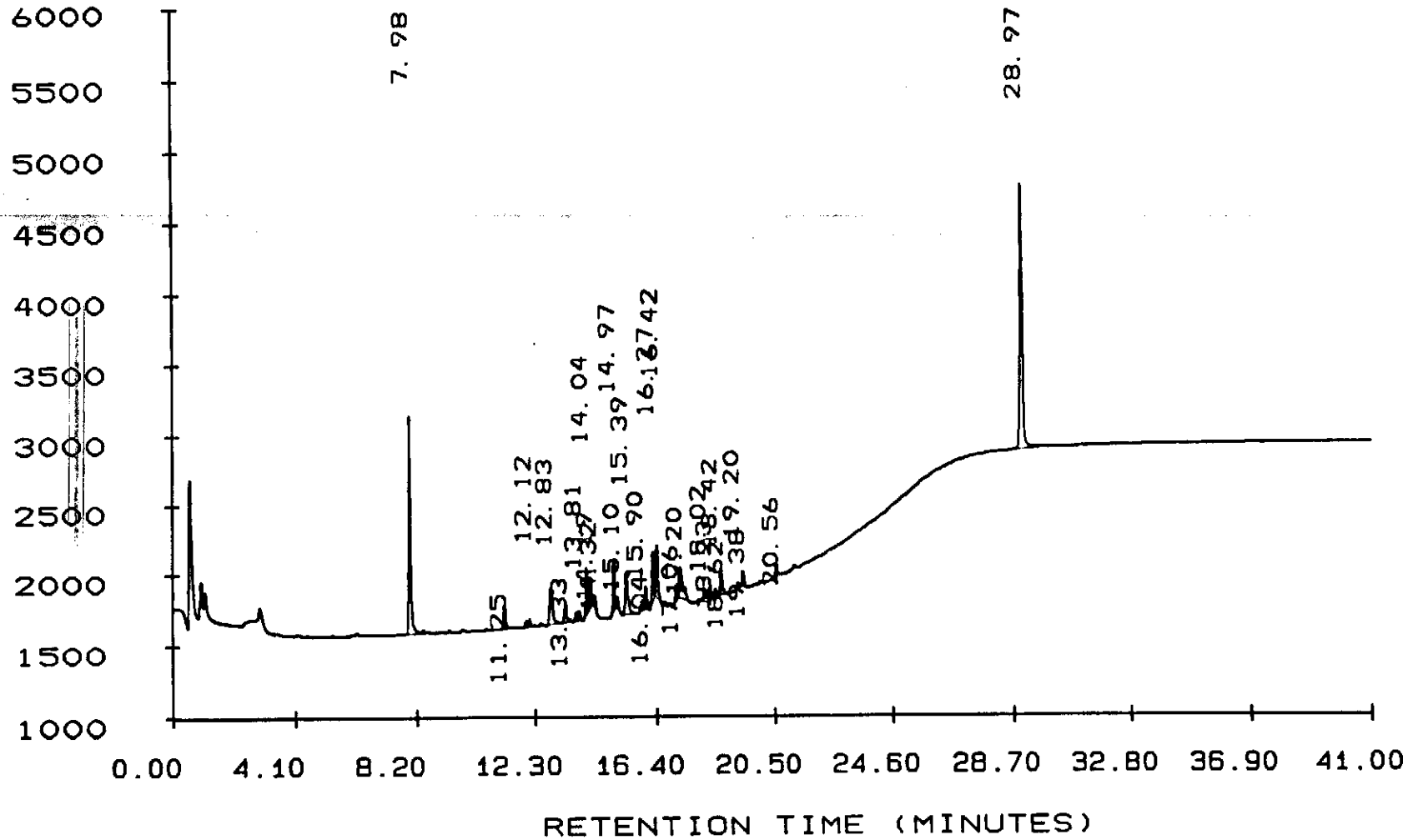

Y MAXIMUM: 6000.
Y MINIMUM: 1000.

START TIME: 0.00
END TIME: 41.00

Lionville Laboratory, Inc. 07/20/01 11:27:02

EXTERNAL STANDARD

SAMPLE: 07190136 .11 INST:36 VIAL:F0 SEQ NUMBER:011
TEST : DATE-TIME INJECTED : 07/20/01 00:22:53
COLLECTION TIME : 40.97 DATE-TIME PROCESSED : 07/20/01 11:27:02
METHOD: P36 / PCBMK REV #: 00210 ANALYST: KOBELM SAMP RATE: 1.56
CLIENT ID: SAMPLE VOL: 1.0 uL
CLIENT: COLUMN TYPE: RTX1701
LAB ID: AR1248 1101 RAW FILE: RAW2:GK150380
SAMPLE WT : % MOISTURE : DILUTION FACTOR : 1.0000
COLUMN ID: 0.53 mm I CAL ID : TEMP:L071901.36/25

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
002	80786	15250		7.976	1	TCX	0.021
004	10971	1558	V	11.254			
006	1700	422	V	12.117			
008	22067	2539	V	12.830			
009	8896	1449	V	13.328			
010	2133	563	V	13.694			
011	2343	601	V	13.811			
012	13883	3274	V	14.042			
013	8635	2152	V	14.189			
014	4500	1043	V	14.320			
015	15782	3629	V	14.966			
016	3824	913	V	15.103			
017	19520	2973	V	15.385			
018	3449	827	V	15.898			
019	7710	1699	V	16.045			
020	15162	3463	V	16.268			
021	17253	3739	V	16.418			
024	4800	1203	V	17.060			
025	19226	2185	V	17.203			
027	3757	796	V	18.024			
028	4800	1045	V	18.229			
029	2666	599	V	18.424			
030	10822	1943	V	18.621			
031	2763	539	V	19.196			
032	5267	1111	V	19.385			
033	5199	886	V	20.560			
035	124393	18542		28.969	1	DCB	0.021

MPK	2539	12.830	AROCLOR-1248-1	0.100	RW:12.76-12.90
MPK	3274	14.042	AROCLOR-1248-2	0.100	RW:13.97-14.11
MPK	2152	14.189	AROCLOR-1248-3	0.100	RW:14.12-14.26
MPK	3629	14.966	AROCLOR-1248-4	0.100	RW:14.90-15.04
MPK	2973	15.385	AROCLOR-1248-5	0.100	RW:15.32-15.45
MPK	3463	16.268	AROCLOR-1248-6	0.100	RW:16.20-16.34
MPK	3739	16.418	AROCLOR-1248-7	0.100	RW:16.35-16.49
MPK	2185	17.203	AROCLOR-1248-8	0.100	RW:17.13-17.27

AR1254 9403 C

SAMPLE NO. : 07190136 . 12
TEST NO. :
METHOD NO. : P36 / P36

INSTRUMENT: 36
DATE TIME: 07/20/01 01:10:40
PAGE NO. : 01

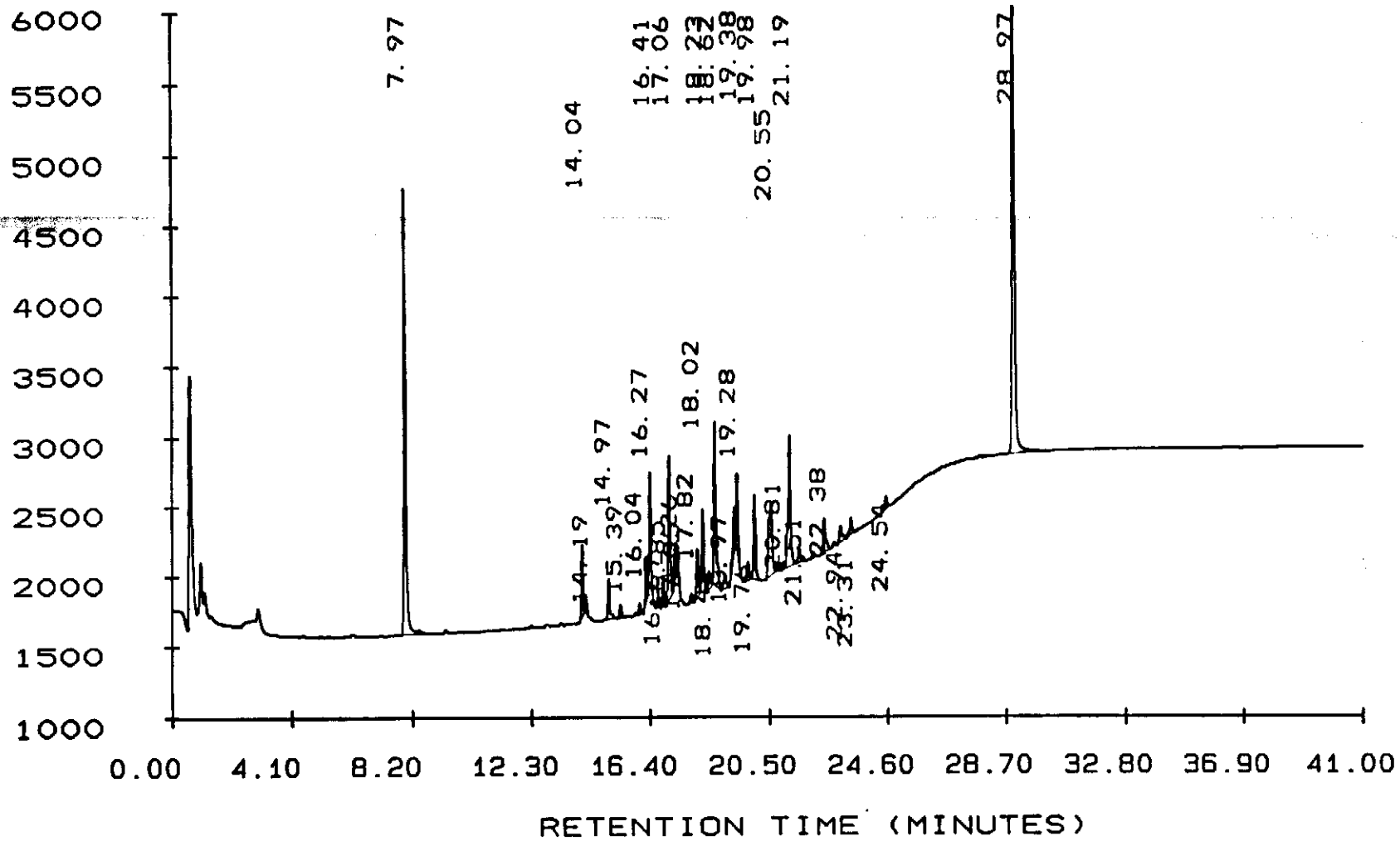

Y MAXIMUM: 6000.
Y MINIMUM: 1000.

START TIME: 0.00
END TIME: 41.00

Lionville Laboratory, Inc. 07/20/01 13:26:08

EXTERNAL STANDARD

SAMPLE: 07190136 .12 INST:36 VIAL:F0 SEQ NUMBER:012
TEST : DATE-TIME INJECTED : 07/20/01 01:10:40
COLLECTION TIME : 40.97 DATE-TIME PROCESSED : 07/20/01 13:26:08
METHOD: P36 / PCBMK REV #: 00212 ANALYST: KOBELM SAMP RATE: 1.56
CLIENT ID: SAMPLE VOL: 1.0 uL
CLIENT: COLUMN TYPE: RTX1701
LAB ID: AR1254 9403 C RAW FILE: RAW2:GK150384
SAMPLE WT : % MOISTURE : DILUTION FACTOR : 1.0000
COLUMN ID: 0.53 mm I CAL ID : TEMP:L071901.36/25

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
001	441	85	V	5.101			
002	579	92	V	5.359			
003	3351	211		6.174			
005	154400	31189	V	7.974	1	TCX	0.043
006	1016	191	V	8.435			
007	1558	304	V	9.348			
008	674	63		9.875			
009	670	111		11.259			
010	551	144	V	12.293			
011	1337	190	V	12.824			
012	861	167	V	13.321			
013	22551	5091	V	14.042			
014	3657	987	V	14.186			
015	16046	2838	V	14.967			
016	5557	918	V	15.387			
017	718	174	V	15.900			
018	3731	806	V	16.044			
019	13270	3189	V	16.267			
020	40895	8921	V	16.408			
021	5632	1286	V	16.673			
022	9613	2106	V	16.855			
023	48074	10166	V	17.058			
024	8466	2290	V	17.260			
025	7023	2089	V	17.354			
026	3287	686	V	17.823			
027	16365	3387	V	18.024			
028	27251	5879	V	18.227			
029	7830	1378	V	18.423			
030	61328	11586	V	18.620			
031	6918	993	V	18.968			
032	14240	3183	V	19.277			
033	22732	5700	V	19.383			
034	7338	1349	V	19.760			
035	29914	6056	V	19.981			
036	46562	5007	V	20.546			
037	3398	744	V	20.813			
038	2054	548	V	20.970			
039	58422	9290	V	21.186			
040	4774	909	V	21.515			
041	1264	329	V	21.663			

SAMPLE: 07190136 .12 PAGE NUMBER: 2
DATE-TIME INJECTED : 07/20/01 01:10:40
DATE-TIME PROCESSED : 07/20/01 13:26:08

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL	
042	2543	438	V	22.006				
043	15455	2479	V	22.377				
044	1687	383	V	22.714				
045	8550	1249	V	22.944				
046	7213	1298		23.310				
047	4890	906		24.544				
048	567	105		27.800				
049	234963	35633		28.968	1	DCB	0.040	
MPK		5091		14.042		AROCLOR-1254-1	0.200	RW:13.97-14.11
MPK		8921		16.408		AROCLOR-1254-2	0.200	RW:16.34-16.48
MPK		10166		17.058		AROCLOR-1254-3	0.200	RW:16.99-17.13
MPK		5879		18.227		AROCLOR-1254-4	0.200	RW:18.16-18.30
MPK		11586		18.620		AROCLOR-1254-5	0.200	RW:18.55-18.69
MPK		5700		19.383		AROCLOR-1254-6	0.200	RW:19.31-19.45
MPK		6056		19.981		AROCLOR-1254-7	0.200	RW:19.91-20.05
MPK		9290		21.186		AROCLOR-1254-8	0.200	RW:21.12-21.26

AR1660 2803 C

SAMPLE NO. : 08030136 .01
TEST NO. :
METHOD NO. : P3660 / P3660

INSTRUMENT: 36
DATE TIME: 08/03/01 13:07:23
PAGE NO. : 01

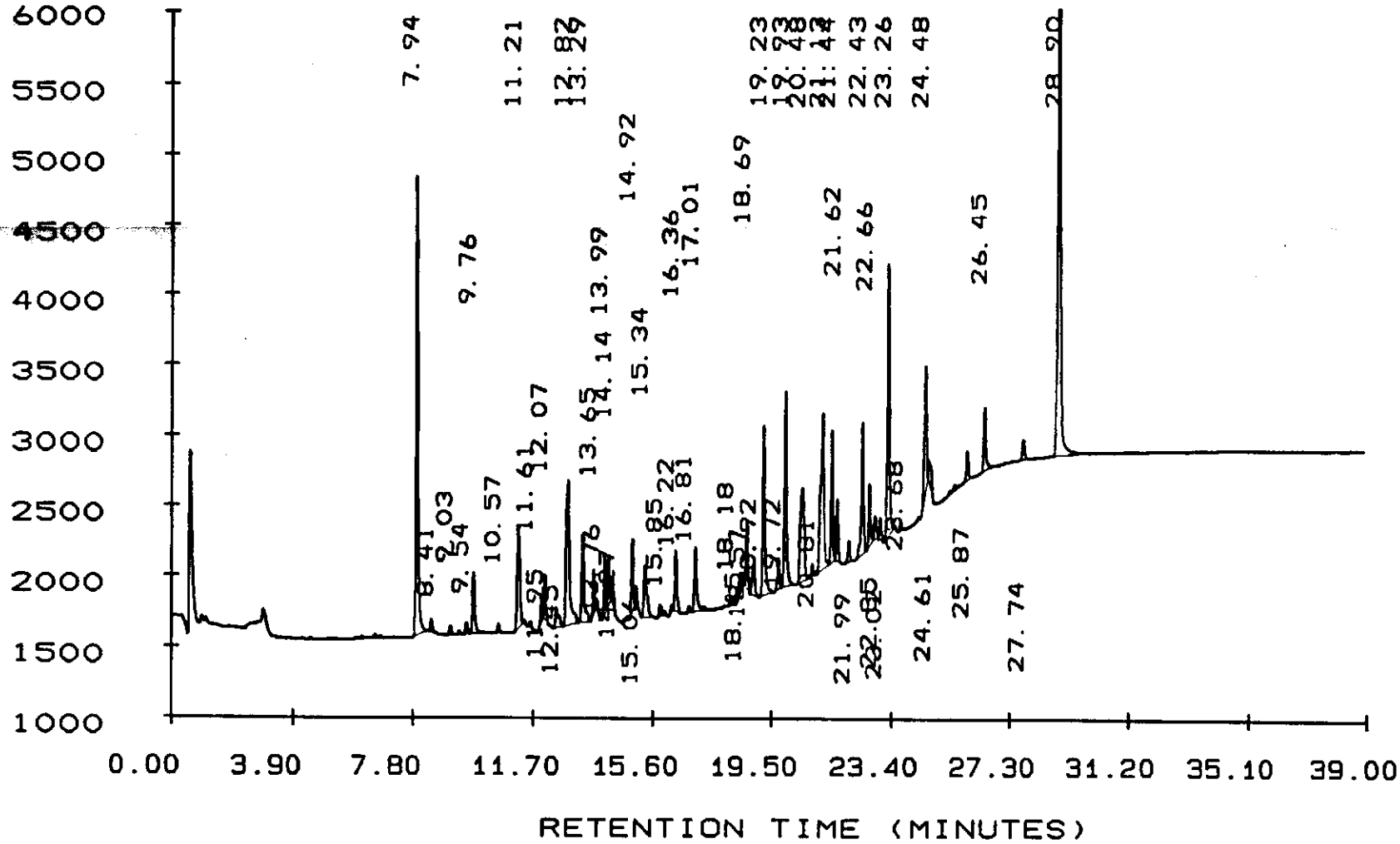

Y MAXIMUM: 6000.
Y MINIMUM: 1000.

START TIME: 0.00
END TIME: 39.00

Lionville Laboratory, Inc. 08/03/01 13:47:07

MULTILEVEL EXTERNAL STANDARD

SAMPLE: 08030136 .01 INST:36 VIAL:F0 SEQ NUMBER:001
TEST : DATE-TIME INJECTED : 08/03/01 13:07:23
COLLECTION TIME : 38.84 DATE-TIME PROCESSED : 08/03/01 13:47:07
METHOD: P3660 / P3660 REV #: 00209 ANALYST: KOBELM SAMP RATE: 1.56
CLIENT ID: SAMPLE VOL: 1.0 uL
CLIENT: COLUMN TYPE: RTX1701
LAB ID: AR1660 2803 C RAW FILE: RAW3:H3144831
SAMPLE WT : % MOISTURE : DILUTION FACTOR : 1.0000
COLUMN ID: 0.53 mm I CAL ID : TEMP:L071901.36/25

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
003	151973	31949	V	7.936	1	TCX	0.045
004	5117	917	V	8.412			
005	3219	671	V	9.030			
007	4081	892	V	9.541			
008	24352	4256	V	9.758	1	AR1016-1	0.108
009	3398	691	V	10.573			
010	44867	6983	V	11.211	1	AR1016-2	0.102
012	2010	459	V	11.609			
013	6399	1741	V	11.953			
014	12671	3060	V	12.071			
015	10758	1466	V	12.447			
016	88128	10264	V	12.817	1	AR1016-3	0.102
017	37101	6148	V	13.288	1	AR1016-4	0.102
018	12101	3028	V	13.647			
019	3468	1031	V	13.763			
020	17739	4172	V	13.995			
021	13940	3438	V	14.142			
022	7937	1879	V	14.274			
023	20683	4977	V	14.918	1	AR1016-5	0.098
024	7094	1538	V	15.055			
025	25832	3600	V	15.337			
026	3701	847	V	15.848			
028	2114	562	V	16.222			
029	21494	4297	V	16.360			
030	2478	528	V	16.807			
031	27605	4513	V	17.011			
032	4406	732	V	18.182			
033	6943	1721	V	18.454			
034	3604	1063	V	18.573			
035	20962	4822	V	18.693			
036	14214	2251	V	18.917			
037	66609	11891	V	19.231	1	AR1260-1	0.099
038	11738	2250	V	19.718			
039	72083	13660	V	19.934	1	AR1260-2	0.100
040	61718	6669	V	20.479			
041	4072	980	V	20.810			
042	83394	11030	V	21.135			
043	42048	9291	V	21.437	1	AR1260-3	0.100
044	19548	4460	V	21.618			
045	8104	1578	V	21.994			

SAMPLE: 08030136 .01 PAGE NUMBER: 2
DATE-TIME INJECTED : 08/03/01 13:07:23
DATE-TIME PROCESSED : 08/03/01 13:47:07

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
046	47117	9210	V	22.426	1	AR1260-4	0.102
047	19124	4353	V	22.665			
048	8196	1690	V	22.847			
049	6970	1611	V	23.018			
050	94156	18913	V	23.262	1	AR1260-5	0.100
052	2547	573	V	23.682			
053	49624	8766	V	24.484			
054	12063	1742	V	24.611			
055	16636	2046	V	25.874			
056	24213	4407		26.451			
057	8143	1423	V	27.737			
058	239419	35672		28.899	1	DCB	0.040

AR1660 2803 C

SAMPLE NO. : 08030136 .13
TEST NO. :
METHOD NO. : P3660 / P3660

INSTRUMENT: 36
DATE TIME: 08/04/01 00:42:14
PAGE NO. : 01

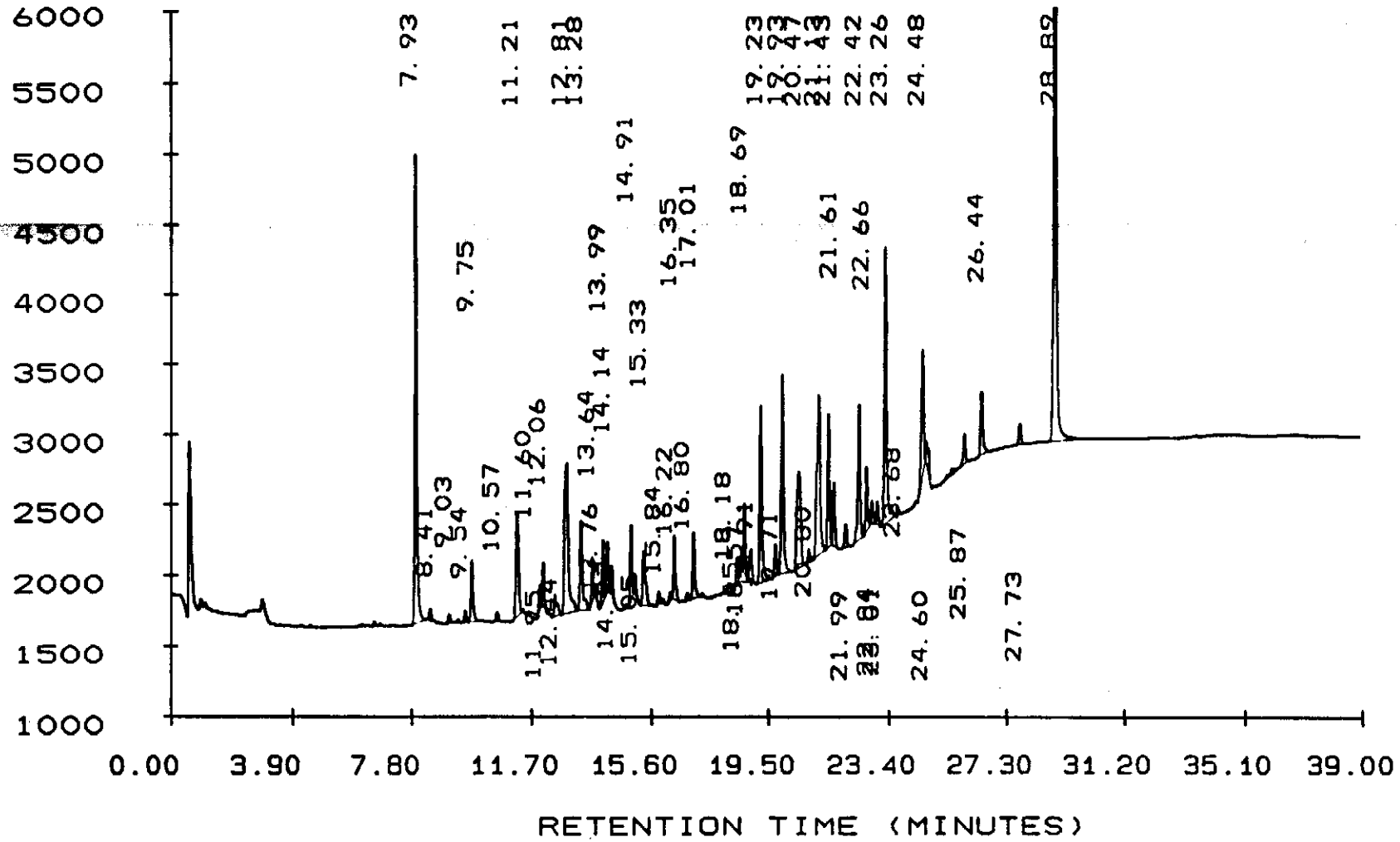

Y MAXIMUM: 6000.
Y MINIMUM: 1000.

START TIME: 0.00
END TIME: 39.00

Lionville Laboratory, Inc. 08/04/01 01:22:01

MULTILEVEL EXTERNAL STANDARD

SAMPLE: 08030136 .13 INST:36 VIAL:F0 SEQ NUMBER:013
TEST : DATE-TIME INJECTED : 08/04/01 00:42:14
COLLECTION TIME : 38.84 DATE-TIME PROCESSED : 08/04/01 01:22:01
METHOD: P3660 / P3660 REV #: 00209 ANALYST: KOBELM SAMP RATE: 1.56
CLIENT ID: SAMPLE VOL: 1.0 uL
CLIENT: COLUMN TYPE: RTX1701
LAB ID: AR1660 2803 C RAW FILE: RAW3:H4144951
SAMPLE WT : % MOISTURE : DILUTION FACTOR : 1.0000
COLUMN ID: 0.53 mm I CAL ID : TEMP:L071901.36/25

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
003	159850	32600	V	7.932	1	TCX	0.045
004	5045	867	V	8.407			
005	3344	660	V	9.026			
007	4196	875	V	9.536			
008	25178	4286	V	9.754	1	AR1016-1	0.109
009	3508	699	V	10.568			
010	46194	7166	V	11.207	1	AR1016-2	0.105
012	2058	462	V	11.603			
013	6480	1673	V	11.947			
014	12601	3033	V	12.065			
015	10995	1505	V	12.441			
016	91232	10516	V	12.811	1	AR1016-3	0.105
017	38381	6235	V	13.282	1	AR1016-4	0.103
018	12658	3100	V	13.641			
019	3246	980	V	13.757			
020	17934	4275	V	13.989			
021	13960	3408	V	14.136			
022	8160	1881	V	14.268			
024	22023	5049	V	14.912	1	AR1016-5	0.099
025	6921	1490	V	15.049			
026	26557	3734	V	15.332			
027	3743	855	V	15.842			
029	2300	580	V	16.217			
030	22541	4455	V	16.355			
031	2537	543	V	16.802			
032	24821	4582	V	17.005			
034	4083	759	V	18.176			
035	7379	1870	V	18.448			
036	3837	1138	V	18.567			
037	21809	4966	V	18.686			
038	14573	2312	V	18.909			
039	68941	12394	V	19.225	1	AR1260-1	0.103
040	11706	2236	V	19.711			
041	75189	13986	V	19.927	1	AR1260-2	0.102
042	63788	6908	V	20.473			
043	4202	1004	V	20.802			
044	86452	11352	V	21.128			
045	43347	9449	V	21.430	1	AR1260-3	0.102
046	20114	4521	V	21.611			
047	8592	1669	V	21.988			

SAMPLE: 08030136 .13 PAGE NUMBER: 2
DATE-TIME INJECTED : 08/04/01 00:42:14
DATE-TIME PROCESSED : 08/04/01 01:22:01

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
048	48636	9460	V	22.418	1	AR1260-4	0.105
049	19923	4438	V	22.657			
050	8131	1704	V	22.839			
051	7244	1706	V	23.011			
052	106109	19398	V	23.255	1	AR1260-5	0.103
053	2483	584	V	23.675			
054	50736	8828	V	24.476			
055	11653	1671	V	24.603			
056	17013	2109	V	25.866			
057	24993	4491		26.443			
058	8237	1460	V	27.728			
059	248898	37048		28.888	1	DCB	0.042

AR1660 2803 C

SAMPLE NO. : 08030136 . 25 INSTRUMENT: 36

TEST NO. : DATE TIME: 08/04/01 12:17:01

METHOD NO. : P3660 / P3660 PAGE NO. : 01

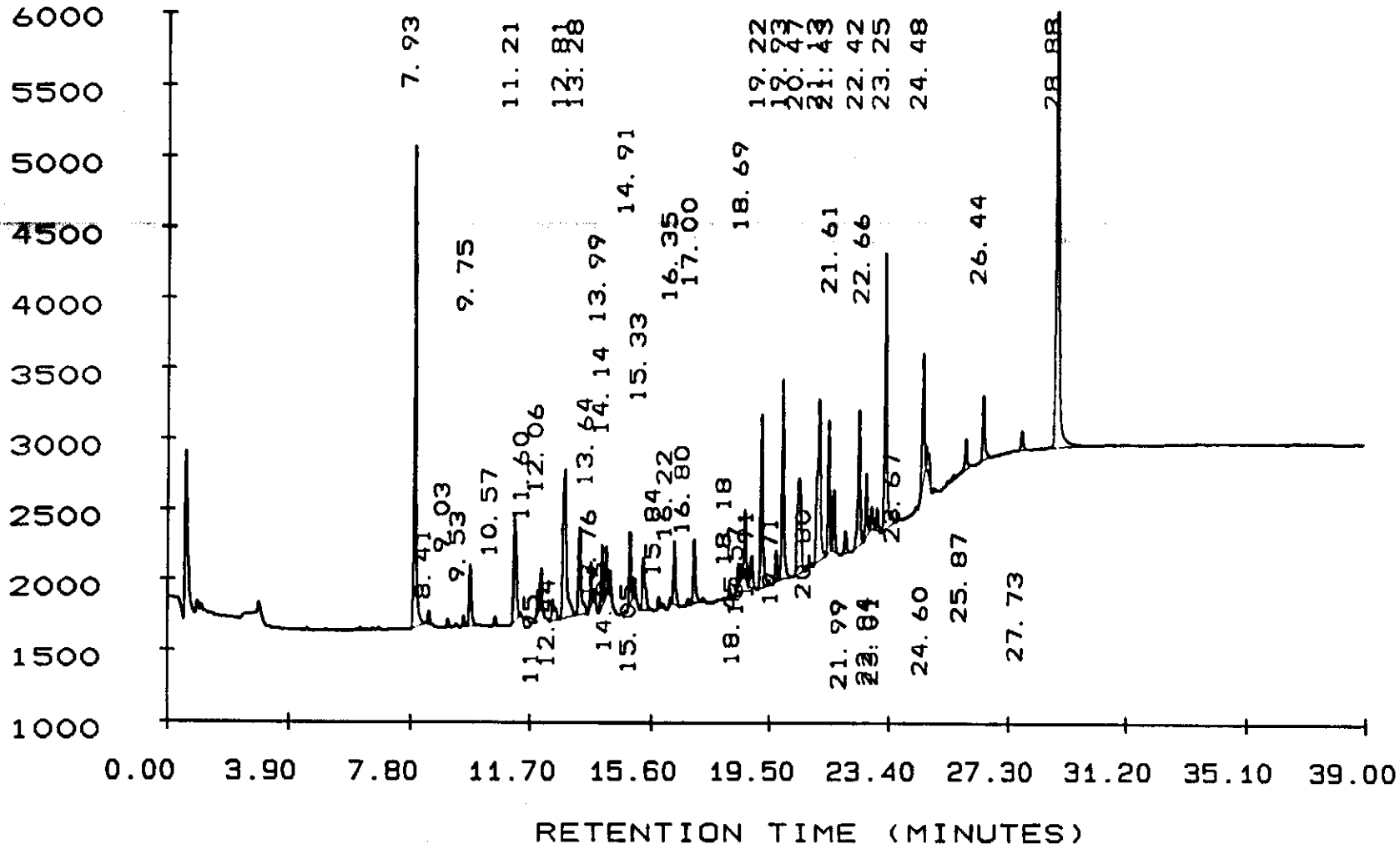

Y MAXIMUM: 6000. START TIME: 0.00

Y MINIMUM: 1000. END TIME: 39.00

Lionville Laboratory, Inc. 08/04/01 12:56:35

MULTILEVEL EXTERNAL STANDARD

SAMPLE: 08030136 .25 INST:36 VIAL:F0 SEQ NUMBER:025
TEST : DATE-TIME INJECTED : 08/04/01 12:17:01
COLLECTION TIME : 38.84 DATE-TIME PROCESSED : 08/04/01 12:56:35
METHOD: P3660 / P3660 REV #: 00209 ANALYST: KOBELM SAMP RATE: 1.56
CLIENT ID: SAMPLE VOL: 1.0 uL
CLIENT: COLUMN TYPE: RTX1701
LAB ID: AR1660 2803 C RAW FILE: RAW3:H4145061
SAMPLE WT : % MOISTURE : DILUTION FACTOR : 1.0000
COLUMN ID: 0.53 mm I CAL ID : TEMP:L071901.36/25

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
002	159251	33368	V	7.932	1	TCX	0.047
003	5572	993	V	8.406			
004	3277	667	V	9.026			
006	4064	873	V	9.535			
007	24928	4321	V	9.753	1	AR1016-1	0.109
008	3482	698	V	10.567			
009	45536	7132	V	11.206	1	AR1016-2	0.105
011	1890	437	V	11.603			
012	6470	1674	V	11.947			
013	12548	3031	V	12.065			
014	10755	1481	V	12.441			
015	90451	10474	V	12.811	1	AR1016-3	0.104
016	38214	6197	V	13.282	1	AR1016-4	0.102
017	12286	3082	V	13.641			
018	3295	988	V	13.757			
019	17640	4233	V	13.989			
020	14125	3445	V	14.136			
021	8251	1909	V	14.268			
022	21230	4997	V	14.912	1	AR1016-5	0.098
023	6931	1518	V	15.048			
024	26330	3676	V	15.331			
025	3642	833	V	15.842			
027	2224	565	V	16.217			
028	22614	4387	V	16.355			
029	2484	533	V	16.802			
030	24787	4492	V	17.004			
032	4067	757	V	18.176			
033	7192	1812	V	18.448			
034	3713	1109	V	18.566			
035	21535	4886	V	18.686			
036	14458	2288	V	18.909			
037	69267	12193	V	19.224	1	AR1260-1	0.101
038	11664	2241	V	19.711			
039	75213	14004	V	19.927	1	AR1260-2	0.103
040	63593	6885	V	20.473			
041	4142	981	V	20.801			
042	86311	11367	V	21.127			
043	43136	9354	V	21.429	1	AR1260-3	0.103
044	19803	4453	V	21.610			
045	8446	1622	V	21.986			

SAMPLE: 08030136 .25 PAGE NUMBER: 2
DATE-TIME INJECTED : 08/04/01 12:17:01
DATE-TIME PROCESSED : 08/04/01 12:56:35

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
046	48252	9413	V	22.417	1	AR1260-4	0.104
047	19763	4380	V	22.656			
048	8169	1679	V	22.837			
049	7186	1680	V	23.010			
050	105490	19233	V	23.253	1	AR1260-5	0.102
051	2490	580	V	23.673			
052	49829	8794	V	24.475			
053	12155	1747	V	24.602			
055	17779	2127	V	25.865			
056	25126	4520		26.441			
057	8104	1423	V	27.725			
058	246886	36451		28.884	1	DCB	0.041

Raw QC

1D
PESTICIDE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

PBLKLZ

Lab Name: Lionville Labs, Inc. Work Order: 02744064001

Client: LANL REQ #9407R

Matrix: SOIL

Lab Sample ID: 01LE0890-MB1

Sample wt/vol: 30.0 (g/mL) G

Lab File ID: 08030135.02

Level: (low/med) LOW

Date Received: 07/26/01

% Moisture: not dec. 0 dec.

Date Extracted: 07/26/01

Extraction: (SepF/Cont/Sonc) SONC

Date Analyzed: 08/03/01

GPC Cleanup: (Y/N) N pH: 7.0

Dilution Factor: 1.00

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NO.	COMPOUND		
12674-11-2------	Aroclor-1016	33	U
11104-28-2------	Aroclor-1221	67	U
11141-16-5------	Aroclor-1232	33	U
53469-21-9------	Aroclor-1242	33	U
12672-29-6------	Aroclor-1248	33	U
11097-69-1------	Aroclor-1254	33	U
11096-82-5------	Aroclor-1260	33	U

Flag all 7 to 1

FORM 1 PEST

12/88 Rev.

01LE0890-MB1

SAMPLE NO. : 08030135 .02 INSTRUMENT: 35
TEST NO. : DATE TIME: 08/03/01 14:05:15
METHOD NO. : P35 / P35 PAGE NO. : 01

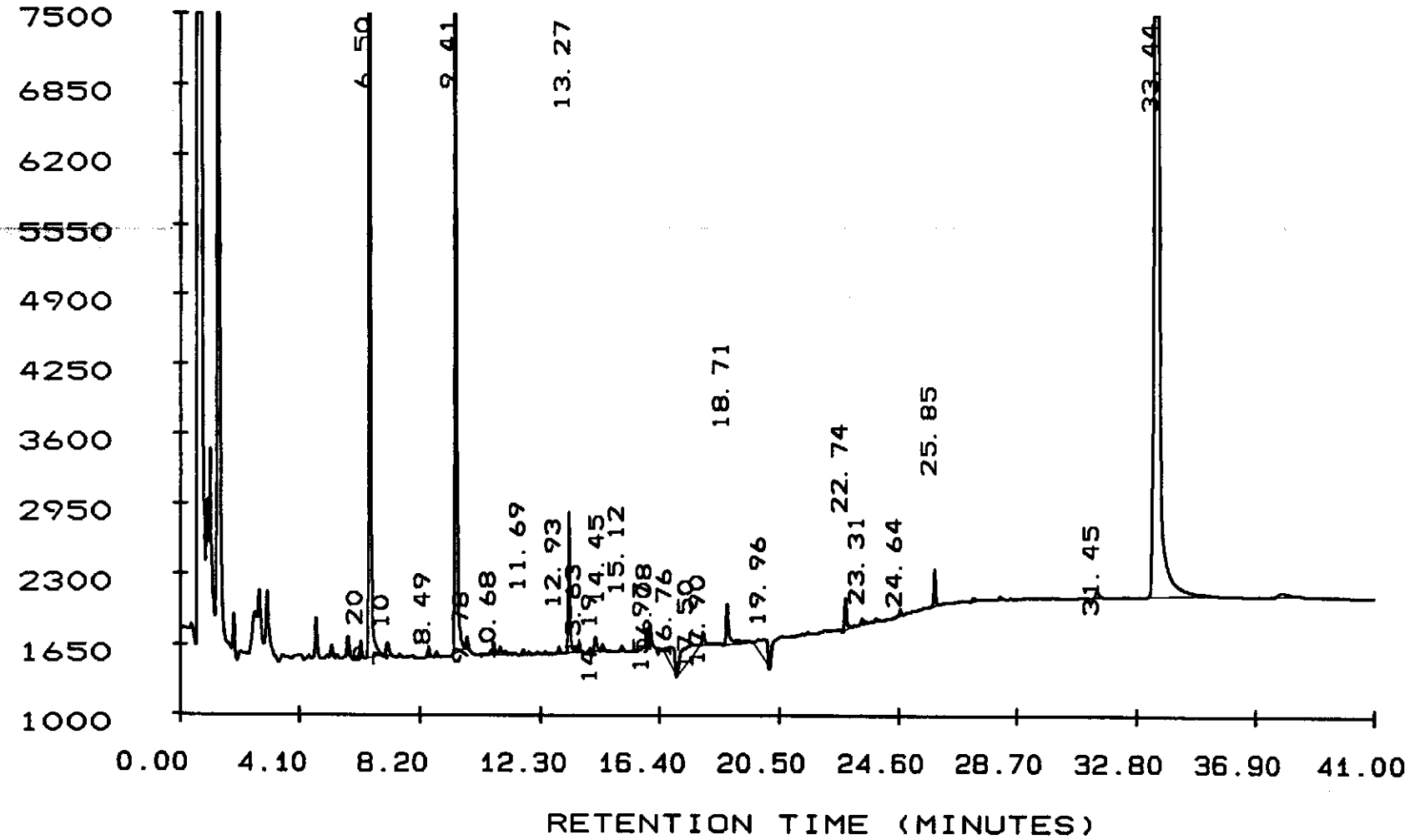

Y MAXIMUM: 7500. START TIME: 0.00
Y MINIMUM: 1000. END TIME: 41.00

Lionville Laboratory, Inc. 08/06/01 12:09:55

EXTERNAL STANDARD

SAMPLE: 08030135 .02 INST:35 VIAL:F0 SEQ NUMBER:002
TEST : OPCB DATE-TIME INJECTED : 08/03/01 14:05:15
COLLECTION TIME : 40.97 DATE-TIME PROCESSED : 08/06/01 12:09:55
METHOD: P35 / PCBBS REV #: 00220 ANALYST: KOBELM SAMP RATE: 1.56
CLIENT ID: PBLKLZ SAMPLE VOL: 1.0 uL
CLIENT: LAB COLUMN TYPE: DB608
LAB ID: 01LE0890-MB1 RAW FILE: RAW3:H3144833
SAMPLE WT : % MOISTURE : DILUTION FACTOR : 1.0000
COLUMN ID: 0.53 mm I CAL ID : TEMP:L071901.35/25

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
001	9157	1562	V	6.197			
002	413038	89413	V	6.502			
003	8935	1188	V	7.096			
004	1564	286	V	7.527			
005	1709	220	V	7.962			
006	5084	991	V	8.491			
007	2343	457	V	8.760			
008	309294	63482	V	9.406	1	TCX	0.036 90%
009	6076	1160	V	9.778			
010	614	72	V	10.370			
011	7231	1005	V	10.678			
012	2438	568	V	10.896			
013	983	265	V	11.070			
014	777	181	V	11.233			
015	864	178	V	11.415			
016	2385	439	V	11.693			
017	978	207	V	11.885			
018	1433	203	V	12.175			
019	1184	227	V	12.447			
020	535	127	V	12.633			
021	3532	658	V	12.926			
022	56514	12513	V	13.272			
023	768	218	V	13.472			
024	5133	1075	V	13.625			
025	2038	388	V	13.996			
026	9027	1364	V	14.189			
027	3669	617	V	14.446			
028	3733	533	V	15.118			
029	4397	1242	V	15.965			
030	7155	1640	V	16.076			
031	31500	1594	V	16.757			
032	52138	1214	V	17.504			
033	7013	1137	V	17.896			
034	1584	106	V	18.409			
035	21549	3627	V	18.710			
036	1043	128	V	19.061			
037	1286	74	V	19.311			
038	671	111	V	19.764			
039	17086	1198	V	19.961			
040	34496	653		20.577			

8/17/01

8/6/01 MK

SAMPLE: 08030135 .02

PAGE NUMBER: 2

DATE-TIME INJECTED : 08/03/01 14:05:15

DATE-TIME PROCESSED : 08/06/01 12:09:55

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
041	1515	179	V	22.045			
042	3181	226	V	22.528			
043	16543	2982	V	22.738			
044	627	145	V	23.050			
045	4685	612	V	23.314			
046	2197	343	V	23.801			
047	3663	626		24.640			
048	15965	3299		25.851			
049	2992	350	V	27.211			
050	1239	89	V	27.567			
051	2160	276	V	28.137			
052	552	87	V	28.491			
054	534	66	V	29.476			
055	1289	106		29.920			
056	803	61	V	30.855			
057	7177	702	V	31.445			
058	1209	53	V	32.544			
059	1418505	140485		33.441	1	DCB	0.099 99%
061	10982	397		37.805			

Flagged 7/6/01

8/6/01
MC

01LE0890-MB1

SAMPLE NO. : 08030136 .02
TEST NO. :
METHOD NO. : P36 / P36

INSTRUMENT: 36
DATE TIME: 08/03/01 14:05:15
PAGE NO. : 01

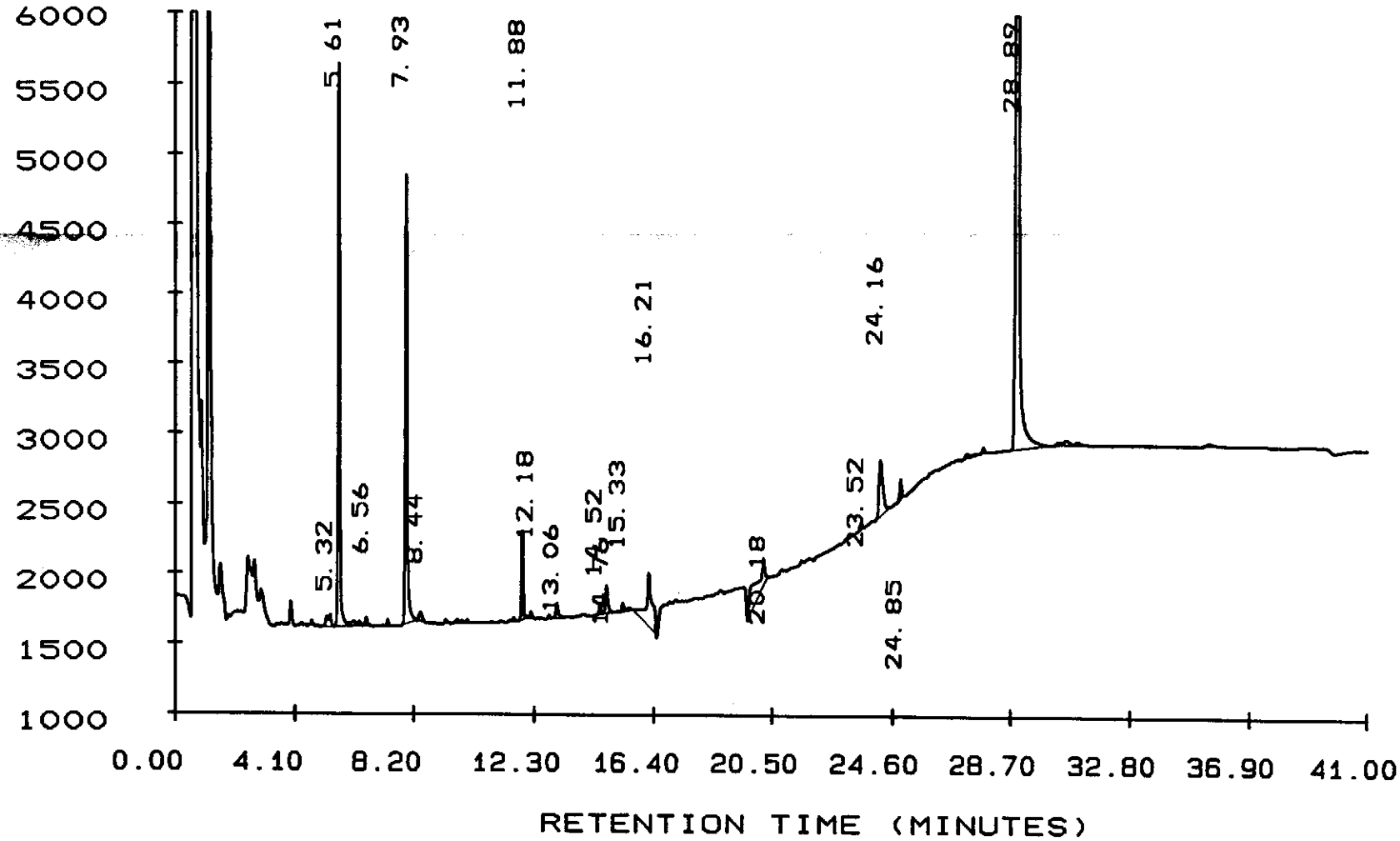

Y MAXIMUM: 6000.
Y MINIMUM: 1000.

START TIME: 0.00
END TIME: 41.00

Lionville Laboratory, Inc. 08/06/01 12:31:58

EXTERNAL STANDARD

SAMPLE: 08030136 .02
TEST : OPCB
COLLECTION TIME : 40.97
METHOD: P36 / PCBMK REV #: 00212
CLIENT ID: PBLKLZ
CLIENT: LAB
LAB ID: 01LE0890-MB1
SAMPLE WT : % MOISTURE :
COLUMN ID: 0.53 mm I

INST:36 VIAL:F0 SEQ NUMBER:002
DATE-TIME INJECTED : 08/03/01 14:05:15
DATE-TIME PROCESSED : 08/06/01 12:31:58
ANALYST: KOBELM SAMP RATE: 1.56
SAMPLE VOL: 1.0 uL
COLUMN TYPE: RTX1701
RAW FILE: RAW3:H3144834
DILUTION FACTOR : 1.0000
CAL ID : TEMP:L071901.36/25

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
001	1499	415	V	5.202			
002	2335	577	V	5.321			
003	168951	39037	V	5.614			
004	2069	226	V	6.144			
005	1440	271	V	6.335			
006	3808	627	V	6.565			
007	2787	446	V	7.308			
008	155450	31456	V	7.934	1	TCX	0.044
009	5382	696	V	8.443			
011	1874	308	V	9.305			
012	1402	228	V	9.675			
013	756	190	V	9.849			
014	1114	233	V	10.022			
015	307	60	V	10.234			
016	288	61	V	10.491			
017	595	71	V	10.856			
018	488	89	V	11.159			
019	414	98	V	11.474			
020	1124	278	V	11.604			
021	27813	6242	V	11.884			
022	3194	520	V	12.176			
023	302	83	V	12.416			
024	452	91	V	12.545			
025	1491	284	V	12.789			
026	6688	1018	V	13.058			
027	2064	141	V	13.990			
028	3382	789	V	14.516			
029	11715	1951	V	14.756			
030	333	57	V	15.147			
031	2662	561	V	15.328			
032	1085	173	V	15.542			
033	61865	3913	V	16.209			
034	28509	536	V	16.956			
035	1086	176	V	17.157			
036	1498	105	V	17.869			
037	4598	267	V	18.716			
038	53753	2191	V	19.541			
039	49758	2010	V	20.181			
040	1343	185	V	20.818			
041	967	216	V	21.502			

8/6/01
MK

SAMPLE: 08030136 .02 PAGE NUMBER: 2
DATE-TIME INJECTED : 08/03/01 14:05:15
DATE-TIME PROCESSED : 08/06/01 12:31:58

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
042	2184	217		21.746			
043	2947	555	V	23.517			
044	35980	3974	V	24.156			
045	6354	1426		24.845			
046	1703	104	V	26.884			
047	2164	259	V	27.144			
048	2144	397		27.728			
049	672234	98891		28.890	1	DCB	0.111
050	1346	115	V	30.364			
051	1789	201	V	30.600			
052	1855	167		30.976			
055	4685	194		35.483			
056	11245	111		38.907			

8/6/01
AMC

1D
PESTICIDE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

PBLKLZMS

Lab Name: Lionville Labs, Inc. Work Order: 02744064001

Client: LANL REQ #9407R

Matrix: SOIL

Lab Sample ID: 01LE0890-MB1 BS

Sample wt/vol: 30.0 (g/mL) G

Lab File ID: 08030135.03

Level: (low/med) LOW

Date Received: 07/26/01

% Moisture: not dec. 0 dec.

Date Extracted: 07/26/01

Extraction: (SepF/Cont/Sonc) SONC

Date Analyzed: 08/03/01

GPC Cleanup: (Y/N) N pH: 7.0

Dilution Factor: 1.00

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG

CAS NO.	COMPOUND		
12674-11-2------	Aroclor-1016	33	U
11104-28-2------	Aroclor-1221	67	U
11141-16-5------	Aroclor-1232	33	U
53469-21-9------	Aroclor-1242	33	U
12672-29-6------	Aroclor-1248	33	U
11097-69-1------	Aroclor-1254		SP
11096-82-5------	Aroclor-1260	33	U

SP: SPIKE COMPOUND

FORM 1 PEST

12/88 Rev.

01LE0890-MB1S

SAMPLE NO. : 08030135 . 03
TEST NO. :
METHOD NO. : P35 / P35

INSTRUMENT: 35
DATE TIME: 08/03/01 15:03:02
PAGE NO. : 01

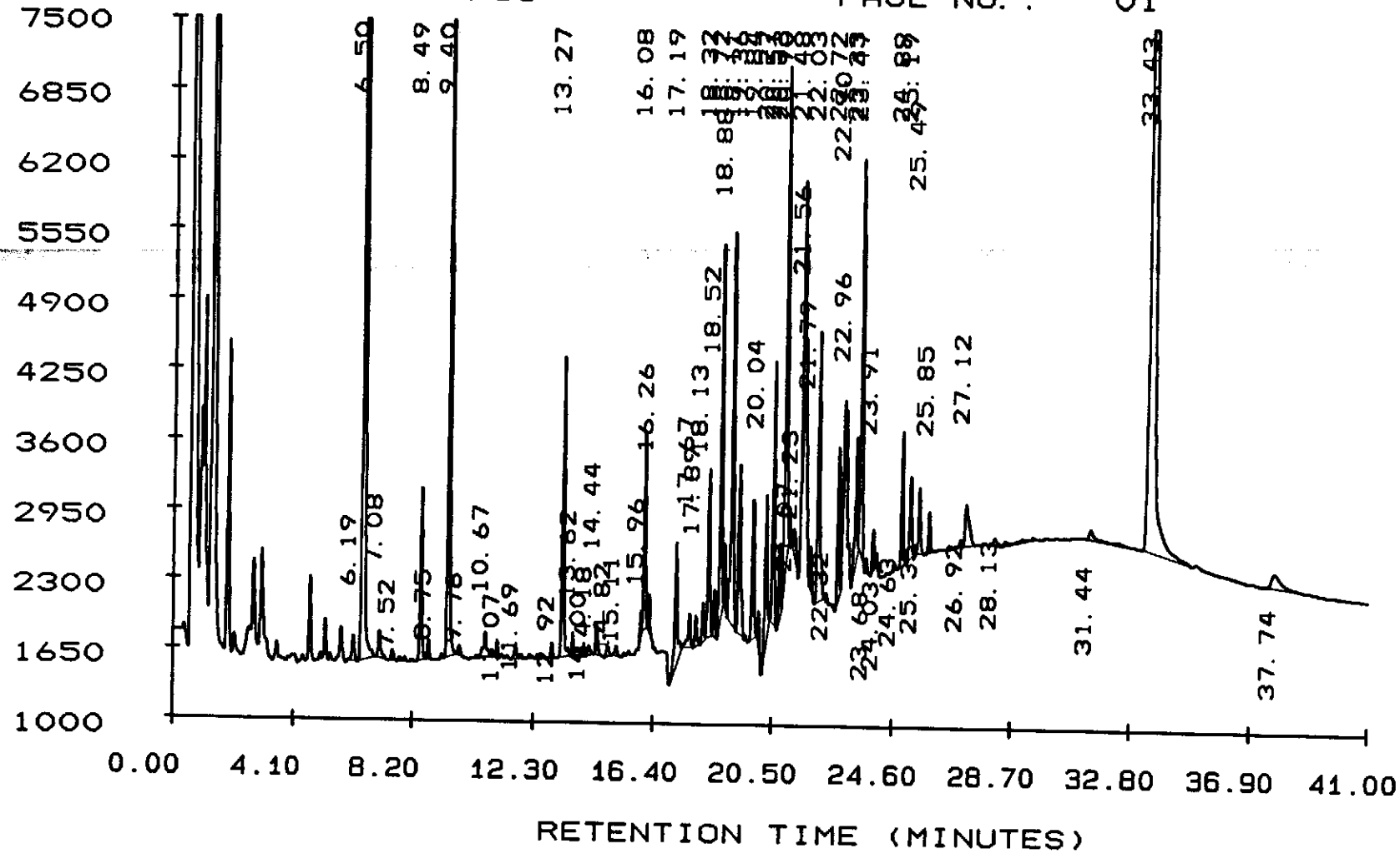

Y MAXIMUM: 7500.
Y MINIMUM: 1000.

START TIME: 0.00
END TIME: 41.00

Lionville Laboratory, Inc. 08/06/01 12:10:32

EXTERNAL STANDARD

SAMPLE: 08030135 .03
TEST : OPCB-S
COLLECTION TIME : 40.97
METHOD: P35 / PCBBS REV #: 00220
CLIENT ID: PBLKLZ
CLIENT: LAB
LAB ID: 01LE0890-MB1MS
SAMPLE WT : % MOISTURE :
COLUMN ID: 0.53 mm I

INST:35 VIAL:F0 SEQ NUMBER:003
DATE-TIME INJECTED : 08/03/01 15:03:02
DATE-TIME PROCESSED : 08/06/01 12:10:32
ANALYST: KOBELM SAMP RATE: 1.56
SAMPLE VOL: 1.0 uL
COLUMN TYPE: DB608
RAW FILE: RAW3:H3144841
DILUTION FACTOR : 1.0000
CAL ID : TEMP:L071901.35/25

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
001	13010	2308	V	6.193			
002	953376	204853	V	6.498			
003	16972	2505	V	7.077			
004	5520	1004	V	7.522			
005	1549	325	V	7.779			
006	1539	369	V	7.959			
007	1120	194	V	8.201			
008	71067	15735	V	8.486			
009	8928	1809	V	8.753			
010	1975	440	V	9.197			
011	327645	69884	V	9.401	1	TCX	0.040 100%
012	5333	932	V	9.783			
013	1779	290	V	10.377			
014	16228	2130	V	10.672			
015	1760	475	V	10.890			
016	5946	1443	V	11.067			
017	1587	385	V	11.230			
018	1523	300	V	11.411			
019	5910	1100	V	11.689			
020	1583	356	V	11.883			
021	2886	403	V	12.170			
022	2218	458	V	12.442			
023	922	224	V	12.625			
024	7087	1404	V	12.921			
025	122561	27068	V	13.268			
026	1811	519	V	13.472			
027	10202	2214	V	13.623			
028	5709	1269	V	13.996			
029	6566	1028	V	14.182			
030	13370	2665	V	14.442			
031	6790	995	V	14.819			
032	5772	916	V	15.115			
033	963	250	V	15.402			
034	1782	398	V	15.564			
035	7879	2338	V	15.963			
036	83818	18128	V	16.084			
037	14239	3585	V	16.257			
038	27776	1382	V	16.742			
039	56611	10603	V	17.193			
040	970	347	V	17.339			

Flag all to.

8/6/01
MK

SAMPLE: 08030135 .03

DATE-TIME INJECTED : 08/03/01 15:03:02
DATE-TIME PROCESSED : 08/06/01 12:10:32

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
041	19310	3096	V	17.669			
042	14605	2819	V	17.891			
043	17049	3580	V	18.128			
044	78544	15483	V	18.318			
045	19866	4496	V	18.525			
046	172086	34712	V	18.718			
047	22362	5961	V	18.878			
048	203007	36052	V	19.112			
049	90487	15654	V	19.362			
050	1608	463	V	19.598			
051	64900	12863	V	19.838			
052	16106	3826	V	20.039			
053	73505	14005	V	20.271			
054	113133	24041	V	20.508			
055	29629	6990	V	20.734			
056	235198	46729	V	20.903			
057	8611	2501	V	21.075			
058	18447	2991	V	21.230			
059	90562	22909	V	21.477			
060	11651	5262	V	21.560			
061	16934	4198	V	21.788			
062	137856	24797	V	22.029			
063	3981	839	V	22.320			
064	2286	269	V	22.487			
065	68077	14051	V	22.719			
066	22908	6320	V	22.898			
067	9997	4459	V	22.962			
068	2971	1143	V	23.072			
069	58684	11068	V	23.329			
070	163840	36159	V	23.474			
071	5928	1501	V	23.685			
072	16254	3790	V	23.912			
073	5822	1593	V	24.033			
074	947	222	V	24.384			
075	4949	900	V	24.635			
076	61964	12398	V	24.890			
077	37409	7474	V	25.194			
078	2627	775	V	25.349			
079	31211	6058	V	25.489			
080	18010	3785	V	25.845			
081	1560	87	V	26.352			
082	673	168	V	26.769			
083	3526	719	V	26.921			
084	37730	3871	V	27.117			
085	390	86	V	27.563			
086	1208	158	V	27.733			
087	6581	725	V	28.126			
088	2353	324	V	28.479			
089	1829	176	V	29.086			

8/16/01
MK

SAMPLE: 08030135 .03

DATE-TIME INJECTED : 08/03/01 15:03:02

DATE-TIME PROCESSED : 08/06/01 12:10:32

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL	
090	1604	254	V	29.460				
091	838	124	V	29.920				
093	1794	120	V	30.848				
094	11840	920	V	31.442				
095	2280	141		32.345				
096	1309987	135317	V	33.435	1	DCB	0.095	95%
097	3499	289		35.031				
098	32065	1320		37.739				

MPK	18128	16.084	AROCLOR-1254-1	0.303	RW:16.02-16.17
MPK	34712	18.718	AROCLOR-1254-2	0.377	RW:18.66-18.80
MPK	36052	19.112	AROCLOR-1254-3	0.314	RW:19.05-19.19
MPK	15654	19.362	AROCLOR-1254-4	0.327	RW:19.30-19.44
MPK	24041	20.508	AROCLOR-1254-5	0.331	RW:20.45-20.59
MPK	46729	20.903	AROCLOR-1254-6	0.344	RW:20.84-20.98
MPK	24797	22.029	AROCLOR-1254-7	0.348	RW:21.97-22.11
MPK	36159	23.474	AROCLOR-1254-8	0.353	RW:23.41-23.56

~~129507~~ 8/6/01 MK

0.337 89.87%

236222

8/6/01
MK

7608 1/16

01LE0890-MB1S

SAMPLE NO. : 08030136 .03
TEST NO. :
METHOD NO. : P36 / P36

INSTRUMENT: 36
DATE TIME: 08/03/01 15:03:02
PAGE NO. : 01

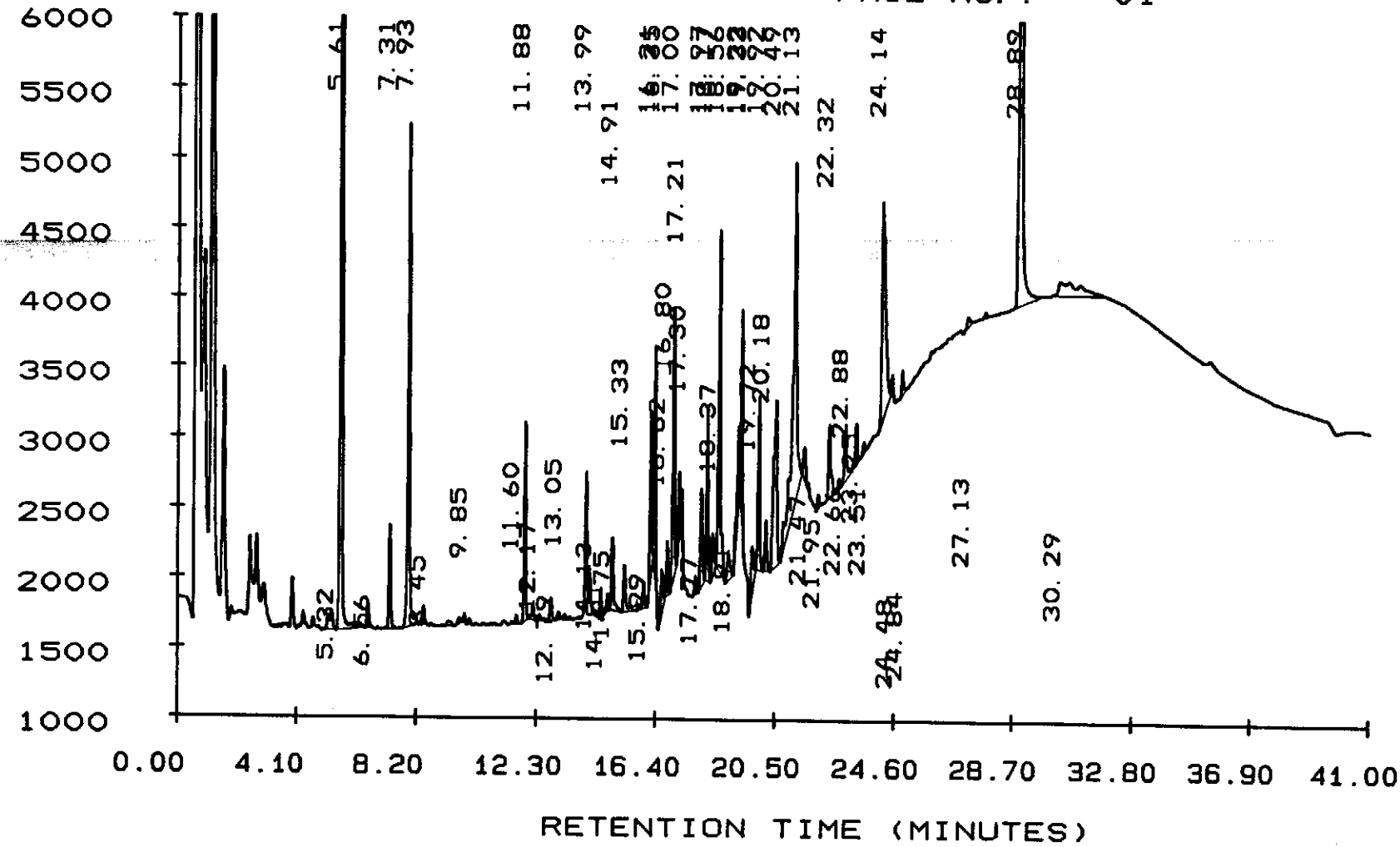

Y MAXIMUM: 6000.
Y MINIMUM: 1000.

START TIME: 0.00
END TIME: 41.00

Lionville Laboratory, Inc. 08/06/01 12:32:11

EXTERNAL STANDARD

SAMPLE: 08030136 .03
TEST : OPCB-S
COLLECTION TIME : 40.97
METHOD: P36 / PCBMK REV #: 00212
CLIENT ID: PBLKLZ
CLIENT: LAB
LAB ID: 01LE0890-MB1MS
SAMPLE WT : % MOISTURE :
COLUMN ID: 0.53 mm I

INST:36 VIAL:F0 SEQ NUMBER:003
DATE-TIME INJECTED : 08/03/01 15:03:02
DATE-TIME PROCESSED : 08/06/01 12:32:11
ANALYST: KOBELM SAMP RATE: 1.56
SAMPLE VOL: 1.0 uL
COLUMN TYPE: RTX1701
RAW FILE: RAW3:H3144842
DILUTION FACTOR : 1.0000
CAL ID : TEMP:L071901.36/25

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
001	1826	526	V	5.203			
002	3854	925	V	5.319			
003	437594	104587	V	5.614			
004	3219	289	V	6.133			
005	1424	274	V	6.333			
006	9899	1757	V	6.563			
007	531	123	V	6.888			
008	34592	7279	V	7.306			
009	161858	34966	V	7.932	1	TCX	0.049
010	486	161	V	8.174			
011	7030	1194	V	8.454			
012	979	165	V	8.723			
013	3798	369	V	9.305			
014	2887	462	V	9.673			
015	2806	714	V	9.847			
016	2003	424	V	10.020			
017	702	134	V	10.234			
018	662	117	V	10.485			
019	1150	142	V	10.851			
020	2289	292	V	11.184			
021	843	199	V	11.471			
022	2545	627	V	11.602			
023	60734	13869	V	11.882			
024	637	195	V	12.078			
025	3613	908	V	12.172			
026	1975	495	V	12.414			
027	375	94	V	12.534			
028	8697	1631	V	12.786			
029	2778	584	V	13.051			
030	1620	314	V	13.268			
031	621	142	V	13.445			
032	967	133	V	13.764			
033	41479	9472	V	13.989			
034	7485	2015	V	14.132			
035	7392	1729	V	14.514			
036	6666	1277	V	14.753			
037	27309	5192	V	14.913			
038	16258	3222	V	15.329			
039	1141	210	V	15.553			
040	1385	335	V	15.847			

8/6/01
MK

SAMPLE: 08030136 .03

DATE-TIME INJECTED : 08/03/01 15:03:02

DATE-TIME PROCESSED : 08/06/01 12:32:11

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
041	8080	1731	V	15.991			
042	47616	11518	V	16.211			
043	76794	16517	V	16.354			
044	15889	3048	V	16.623			
045	17370	3875	V	16.801			
046	89914	19092	V	17.004			
047	16560	4790	V	17.205			
048	11971	3715	V	17.299			
049	6268	1311	V	17.768			
050	33568	6925	V	17.969			
051	54947	12120	V	18.172			
052	16826	3150	V	18.368			
053	124298	23994	V	18.564			
054	14267	2004	V	18.912			
055	27579	5923	V	19.221			
056	57660	14030	V	19.328			
057	18447	3305	V	19.721			
058	57501	12139	V	19.924			
059	17338	3658	V	20.175			
060	96416	11751	V	20.493			
061	5261	1068	V	20.772			
062	4549	932	V	20.933			
063	146819	22143	V	21.128			
064	11805	2276	V	21.466			
065	1487	523	V	21.601			
066	5057	1029	V	21.952			
067	30958	5210	V	22.318			
068	3758	794	V	22.657			
069	15257	3179	V	22.884			
070	623	200	V	23.009			
071	15402	2814	V	23.250			
072	3984	787	V	23.512			
073	137596	15618	V	24.144			
074	5928	1628	V	24.483			
075	7634	1684	V	24.841			
076	1463	287	V	25.861			
077	12626	314	V	26.860			
078	5686	728	V	27.128			
079	1907	352		27.726			
080	603444	93768	V	28.887	1	DCB	0.105
082	6330	620	V	30.293			
083	2584	308	V	30.593			
084	6132	317		30.965			
085	4273	325		35.435			

MPK	9472	13.989	AROCLOR-1254-1	0.372	RW:13.97-14.11
MPK	16517	16.354	AROCLOR-1254-2	0.370	RW:16.34-16.48
MPK	19092	17.004	AROCLOR-1254-3	0.376	RW:16.99-17.13

8/6/01
MK

SAMPLE: 08030136 .03

PAGE NUMBER: 3

DATE-TIME INJECTED : 08/03/01 15:03:02

DATE-TIME PROCESSED : 08/06/01 12:32:11

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL	
MPK		12120		18.172		AROCLOR-1254-4	0.412	RW:18.16-18.30
MPK		23994		18.564		AROCLOR-1254-5	0.414	RW:18.55-18.69
MPK		14030		19.328		AROCLOR-1254-6	0.492	RW:19.31-19.45
MPK		12139		19.924		AROCLOR-1254-7	0.401	RW:19.91-20.05
MPK		22143		21.128		AROCLOR-1254-8	0.477	RW:21.12-21.26

129507

0.414

8/6/01
MK

1D
PESTICIDE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

RC60-01-0008 02MS

Lab Name: Lionville Labs, Inc. Work Order: 02744064001

Client: LANL REQ #9407R

Matrix: SOIL

Lab Sample ID: 0107L389-006 MS

Sample wt/vol: 30.0 (g/mL) G

Lab File ID: 08030135.14

Level: (low/med) LOW

Date Received: 07/25/01

% Moisture: not dec. 2 dec.

Date Extracted: 07/26/01

Extraction: (SepF/Cont/Sonc) SONC

Date Analyzed: 08/04/01

GPC Cleanup: (Y/N) N pH: 7.0

Dilution Factor: 1.00

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NO.	COMPOUND		
12674-11-2	Aroclor-1016	34	U
11104-28-2	Aroclor-1221	68	U
11141-16-5	Aroclor-1232	34	U
53469-21-9	Aroclor-1242	34	U
12672-29-6	Aroclor-1248	34	U
11097-69-1	Aroclor-1254		SP
11096-82-5	Aroclor-1260	34	U

7/29/01

SP: SPIKE COMPOUND

FORM 1 PEST

12/88 Rev.

0107L389-006S

SAMPLE NO. : 08030135 . 14
TEST NO. :
METHOD NO. : P35 / P35

INSTRUMENT: 35
DATE TIME: 08/04/01 01:40:13
PAGE NO. : 01

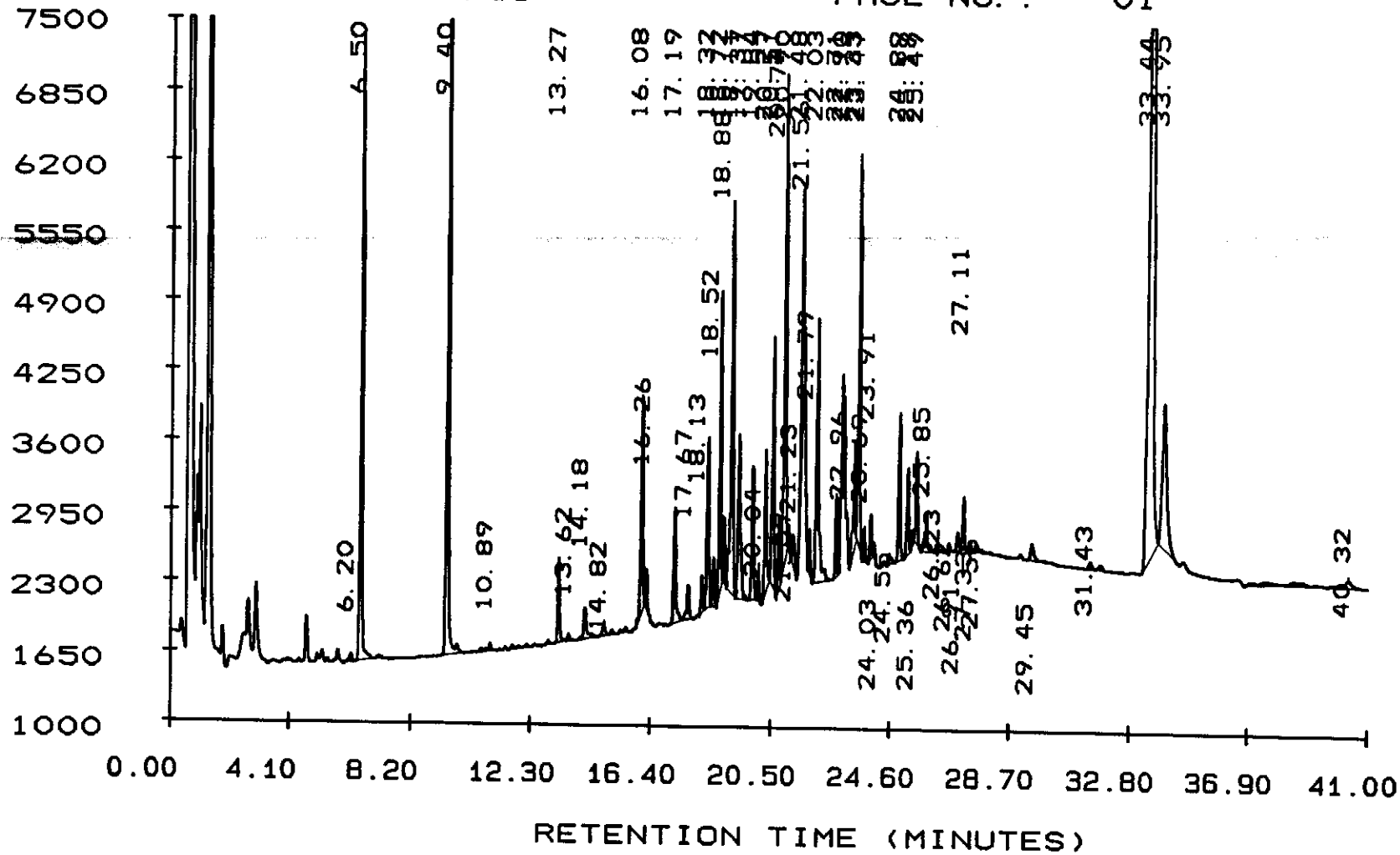

Y MAXIMUM: 7500.
Y MINIMUM: 1000.

START TIME: 0.00
END TIME: 41.00

Lionville Laboratory, Inc.

08/06/01 12:14:13

EXTERNAL STANDARD

SAMPLE: 08030135 .14
TEST : OPCB-S
COLLECTION TIME : 40.97
METHOD: P35 / PCBBS REV #: 00220
CLIENT ID: RC60-01-0008 02
CLIENT: LANL REQ #9407R
LAB ID: 0107L389-006MS
SAMPLE WT : % MOISTURE :
COLUMN ID: 0.53 mm I

INST:35 VIAL:F0 SEQ NUMBER:014
DATE-TIME INJECTED : 08/04/01 01:40:13
DATE-TIME PROCESSED : 08/06/01 12:14:13
ANALYST: KOBELM SAMP RATE: 1.56
SAMPLE VOL: 1.0 uL
COLUMN TYPE: DB608
RAW FILE: RAW3:H4144963
DILUTION FACTOR : 1.0000
CAL ID : TEMP:L071901.35/25

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
001	4827	770	V	6.197			
002	256892	56604	V	6.500			
003	3253	308	V	7.118			
004	878	59		7.874			
005	345554	73617	V	9.404	1	TCX	0.042 105 L
006	2882	597	V	9.775			
007	365	61	V	10.357			
008	934	232	V	10.584			
009	435	152	V	10.779			
010	2661	623	V	10.894			
011	594	127	V	11.233			
012	1376	275	V	11.428			
013	1632	322	V	11.687			
014	988	194	V	11.883			
015	1672	270	V	12.175			
016	1674	240	V	12.445			
017	1854	371	V	12.922			
018	35913	7599	V	13.270			
019	512	143	V	13.477			
020	2526	600	V	13.623			
021	759	209	V	14.003			
022	15942	2731	V	14.183			
023	467	147	V	14.433			
024	6503	906	V	14.825			
025	1888	395	V	15.114			
026	1062	255	V	15.404			
027	1837	403	V	15.566			
028	96551	19877	V	16.084			
029	14236	3589	V	16.258			
030	2950	242	V	16.697			
031	58137	10492	V	17.193			
032	17869	3110	V	17.670			
033	1062	199	V	17.984			
034	15693	3470	V	18.125			
035	77325	15551	V	18.318			
036	20762	4597	V	18.524			
037	131512	27650	V	18.722			
038	23309	6073	V	18.879			
039	3699	1013	V	19.013			
040	159661	33492	V	19.112			

Peak strike

8/6/01
MK

SAMPLE: 08030135 .14

DATE-TIME INJECTED : 08/04/01 01:40:13

DATE-TIME PROCESSED : 08/06/01 12:14:13

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
041	93297	14945	V	19.367			
042	1073	268	V	19.596			
043	60996	12142	V	19.838			
044	12000	2591	V	20.042			
045	66086	13143	V	20.270			
046	106355	22710	V	20.509			
047	28553	6666	V	20.735			
048	224214	44974	V	20.903			
049	7850	2363	V	21.075			
050	18850	3180	V	21.232			
051	87735	22324	V	21.476			
052	15157	6183	V	21.563			
053	17306	4237	V	21.789			
054	130664	23699	V	22.030			
055	2753	599	V	22.312			
056	34010	7576	V	22.706			
057	30641	8185	V	22.896			
058	7033	3312	V	22.965			
059	3433	1390	V	23.069			
060	48890	9630	V	23.332			
061	162336	35809	V	23.474			
062	14323	3285	V	23.687			
063	17456	4061	V	23.911			
064	5664	1570	V	24.033			
065	2085	461	V	24.379			
066	7622	1002	V	24.552			
067	66214	13409	V	24.889			
068	39634	7915	V	25.192			
069	5350	1407	V	25.360			
070	38718	8371	V	25.488			
071	2966	815	V	25.731			
072	11802	2976	V	25.845			
073	2215	585	V	25.979			
074	4952	569	V	26.228			
075	5179	858	V	26.619			
076	9123	1727	V	26.911			
077	24707	4857	V	27.108			
078	4554	943	V	27.331			
079	4198	717	V	27.563			
080	832	175	V	27.729			
081	799	147	V	28.030			
082	2387	393	V	29.070			
083	12131	1527	V	29.454			
084	1816	129		29.838			
085	4974	694	V	31.434			
086	4300	482	V	31.768			
087	1866	125	V	32.904			
088	1214207	132487	V	33.437	1	DCP	0.093
089	150866	13338	V	33.950			

92 C

8/6/01 MK

SAMPLE: 08030135 .14

DATE-TIME INJECTED : 08/04/01 01:40:13

DATE-TIME PROCESSED : 08/06/01 12:14:13

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL	
090	5173	504		34.644				
091	3326	231	V	36.521				
092	3795	239	V	37.053				
093	7208	240	V	37.582				
094	1907	154	V	38.477				
095	2068	172	V	38.720				
096	1432	101	V	39.221				
097	1978	123	V	39.819				
098	11187	666		40.317				
MPK		19877		16.084		AROCLOR-1254-1	0.332	RW:16.02-16.17
MPK		27650		18.722		AROCLOR-1254-2	0.300	RW:18.66-18.80
MPK		33492		19.112		AROCLOR-1254-3	0.292	RW:19.05-19.19
MPK		14945		19.367		AROCLOR-1254-4	0.312	RW:19.30-19.44
MPK		22710		20.509		AROCLOR-1254-5	0.313	RW:20.45-20.59
MPK		44974		20.903		AROCLOR-1254-6	0.331	RW:20.84-20.98
MPK		23699		22.030		AROCLOR-1254-7	0.332	RW:21.97-22.11
MPK		35809		23.474		AROCLOR-1254-8	0.349	RW:23.41-23.56
		223152					6.320	85.33

Reestimate

8/6/01

MK

0107L389-006S

SAMPLE NO. : 08030136 . 14
TEST NO. :
METHOD NO. : P36 / P36

INSTRUMENT: 36
DATE TIME: 08/04/01 01:40:14
PAGE NO. : 01

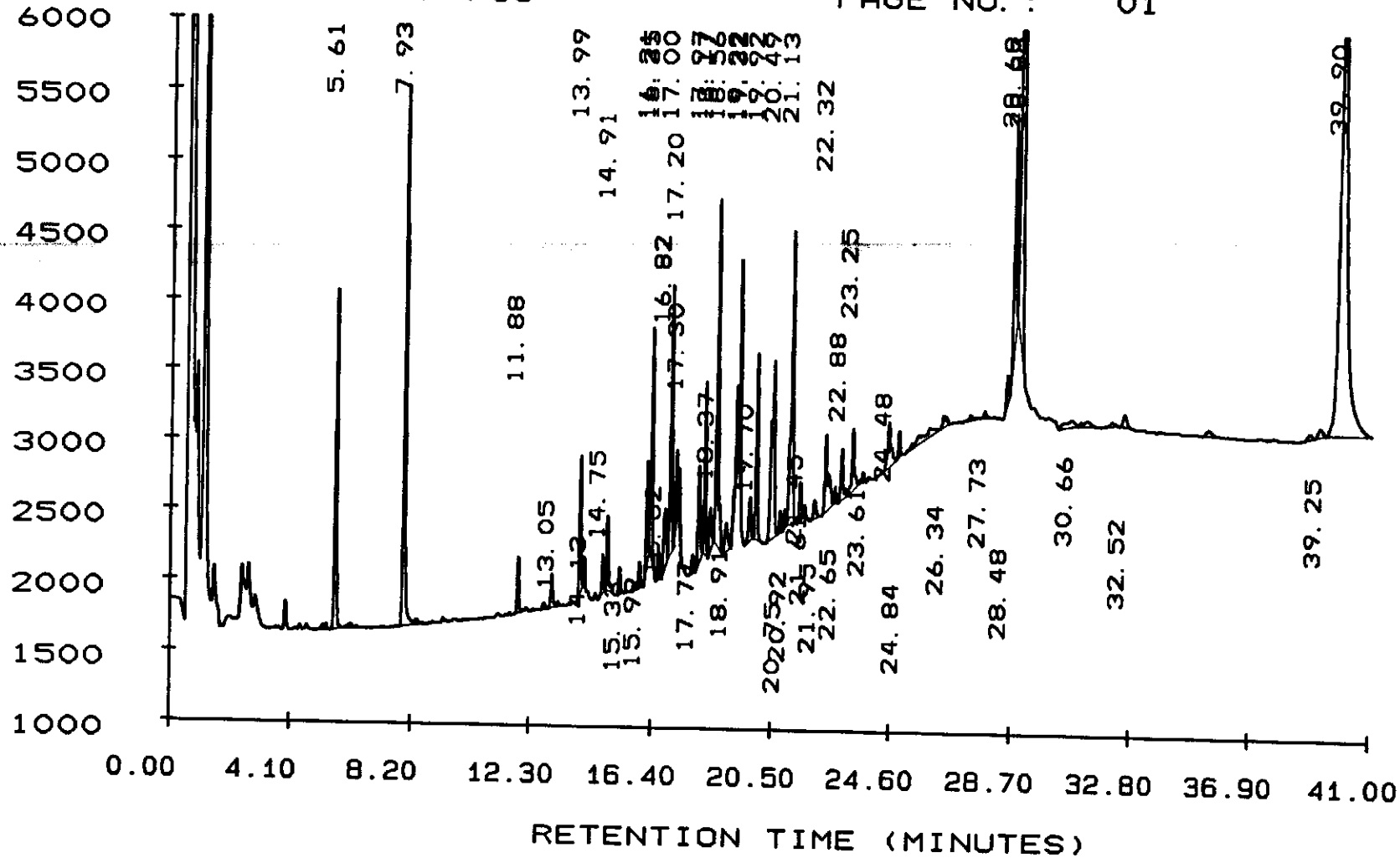

Y MAXIMUM: 6000.
Y MINIMUM: 1000.

START TIME: 0.00
END TIME: 41.00

Lionville Laboratory, Inc. 08/06/01 12:34:00

EXTERNAL STANDARD

SAMPLE: 08030136 .14 INST:36 VIAL:F0 SEQ NUMBER:014
TEST : OPCB-S DATE-TIME INJECTED : 08/04/01 01:40:14
COLLECTION TIME : 40.97 DATE-TIME PROCESSED : 08/06/01 12:34:00
METHOD: P36 / PCBMK REV #: 00212 ANALYST: KOBELM SAMP RATE: 1.56
CLIENT ID: RC60-01-0008 02 SAMPLE VOL: 1.0 uL
CLIENT: LANL REQ #9407R COLUMN TYPE: RTX1701
LAB ID: 0107L389-006MS RAW FILE: RAW3:H4144964
SAMPLE WT : % MOISTURE : DILUTION FACTOR : 1.0000
COLUMN ID: 0.53 mm I CAL ID : TEMP:L071901.36/25

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
001	1050	281	V	5.198			
002	1530	382	V	5.323			
003	104313	23641	V	5.611			
004	3033	289	V	6.141			
005	728	128	V	6.357			
006	1050	91	V	7.241			
007	175391	37585	V	7.931	1	TCX	0.052
008	1228	253	V	8.399			
009	824	115	V	8.949			
010	1991	337	V	9.301			
011	1868	170	V	9.668			
012	492	103		10.020			
013	1800	241	V	11.194			
014	1491	196	V	11.601			
015	17135	3847	V	11.880			
016	2323	282	V	12.170			
017	603	139	V	12.416			
018	388	75	V	12.555			
019	3438	466	V	12.779			
020	11392	2325	V	13.054			
021	1165	254	V	13.267			
022	725	86	V	13.756			
023	42040	9550	V	13.986			
024	8533	2124	V	14.131			
025	1918	469	V	14.510			
026	12488	2738	V	14.750			
027	24682	5170	V	14.910			
028	8956	1808	V	15.332			
029	1362	340	V	15.844			
030	8395	1835	V	15.988			
031	28914	7270	V	16.211			
032	75242	16296	V	16.352			
033	10739	2494	V	16.616			
034	27917	4290	V	16.821			
035	86400	18910	V	17.001			
036	17595	5021	V	17.203			
037	11901	3810	V	17.297			
038	6303	1324	V	17.767			
039	33306	6808	V	17.967			
040	54032	12150	V	18.170			

8/6/01
MK

SAMPLE: 08030136 .14

DATE-TIME INJECTED : 08/04/01 01:40:14

DATE-TIME PROCESSED : 08/06/01 12:34:00

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
041	17152	3171	V	18.365			
042	98412	22920	V	18.562			
043	2090	888	V	18.675			
044	14650	2057	V	18.909			
045	27702	6357	V	19.219			
046	59921	15248	V	19.325			
047	17766	3093	V	19.703			
048	61233	13078	V	19.922			
049	102690	12570	V	20.491			
050	7606	1684	V	20.754			
051	5035	1380	V	20.916			
052	123275	20650	V	21.126			
053	14886	2738	V	21.447			
054	4256	977	V	21.606			
055	7944	1317	V	21.945			
056	16438	4204	V	22.316			
057	6203	997	V	22.421			
058	5158	1217	V	22.654			
059	15974	3393	V	22.880			
060	1309	398	V	23.004			
061	25235	4366	V	23.249			
062	593	175	V	23.501			
063	3553	685	V	23.609			
064	1306	250	V	23.809			
065	11137	2380	V	24.480			
066	634	296	V	24.573			
067	7812	1836	V	24.839			
068	1168	198	V	25.281			
069	1509	276	V	25.497			
070	2726	341	V	25.877			
071	395	70	V	26.144			
072	2392	592	V	26.335			
073	1268	371	V	26.437			
074	1077	99	V	26.881			
075	3192	357	V	27.253			
076	7507	579	V	27.725			
077	10813	2100	V	28.480			
078	92180	16029	V	28.686			
079	544559	92116	V	28.884	1	DCB	0.103
080	5421	256	V	29.899			
081	12811	521	V	30.661			
082	1000	178	V	31.000			
083	3165	265	V	31.221			
084	5039	341	V	32.085			
085	10027	958	V	32.518			
086	1158	114	V	33.190			
087	896	81	V	33.440			
088	2336	92		33.792			
089	5358	408		35.421			

8/6/01
MK

SAMPLE: 08030136 .14
DATE-TIME INJECTED : 08/04/01 01:40:14
DATE-TIME PROCESSED : 08/06/01 12:34:00

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL	
090	1038	89	V	37.205				
091	2227	135		37.675				
092	4400	416	V	38.889				
093	7463	634	V	39.246				
094	566928	32901		39.905				
MPK		9550		13.986		AROCLOR-1254-1	0.375	RW:13.97-14.11
MPK		16296		16.352		AROCLOR-1254-2	0.365	RW:16.34-16.48
MPK		18910		17.001		AROCLOR-1254-3	0.372	RW:16.99-17.13
MPK		12150		18.170		AROCLOR-1254-4	0.413	RW:18.16-18.30
MPK		22920		18.562		AROCLOR-1254-5	0.396	RW:18.55-18.69
MPK		15248		19.325		AROCLOR-1254-6	0.535	RW:19.31-19.45
MPK		13078		19.922		AROCLOR-1254-7	0.432	RW:19.91-20.05
MPK		20650		21.126		AROCLOR-1254-8	0.445	RW:21.12-21.26

128802 0.417

8/6/01
MK

1D
PESTICIDE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

RC60-01-0008 02MSD

Lab Name: Lionville Labs, Inc. Work Order: 02744064001

Client: LANL REQ #9407R

Matrix: SOIL

Lab Sample ID: 0107L389-006 MSD

Sample wt/vol: 30.1 (g/mL) G

Lab File ID: 08030135.15

Level: (low/med) LOW

Date Received: 07/25/01

% Moisture: not dec. 2 dec.

Date Extracted: 07/26/01

Extraction: (SepF/Cont/Sonc) SONC

Date Analyzed: 08/04/01

GPC Cleanup: (Y/N) N pH: 7.0

Dilution Factor: 1.00

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NO.	COMPOUND		
12674-11-2	Aroclor-1016	34	U
11104-28-2	Aroclor-1221	68	U
11141-16-5	Aroclor-1232	34	U
53469-21-9	Aroclor-1242	34	U
12672-29-6	Aroclor-1248	34	U
11097-69-1	Aroclor-1254		SP
11096-82-5	Aroclor-1260	34	U

Flag data

SP: SPIKE COMPOUND FORM 1 PEST 12/88 Rev.

0107L389-006T

SAMPLE NO. : 08030135 . 15
TEST NO. :
METHOD NO. : P35 / P35

INSTRUMENT: 35
DATE TIME: 08/04/01 02:38:25
PAGE NO. : 01

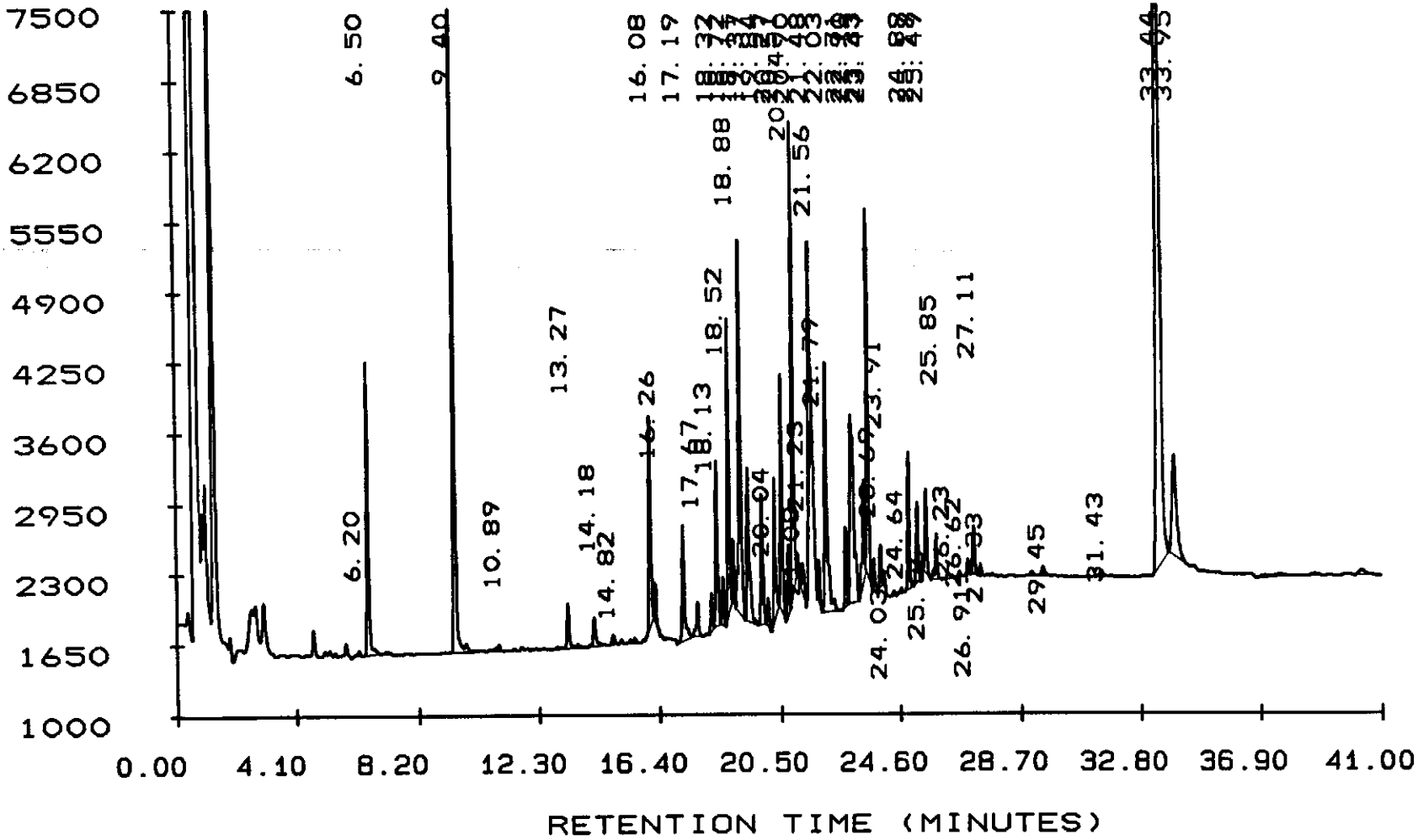

Y MAXIMUM: 7500.
Y MINIMUM: 1000.

START TIME: 0.00
END TIME: 41.00

Lionville Laboratory, Inc. 08/06/01 12:14:25

EXTERNAL STANDARD

SAMPLE: 08030135 .15 INST:35 VIAL:F0 SEQ NUMBER:015
TEST : OPCB-T DATE-TIME INJECTED : 08/04/01 02:38:25
COLLECTION TIME : 40.97 DATE-TIME PROCESSED : 08/06/01 12:14:25
METHOD: P35 / PCBBS REV #: 00220 ANALYST: KOBELM SAMP RATE: 1.56
CLIENT ID: RC60-01-0008 02 SAMPLE VOL: 1.0 uL
CLIENT: LANL REQ #9407R COLUMN TYPE: DB608
LAB ID: 0107L389-006MSD RAW FILE: RAW3:H4144973
SAMPLE WT : % MOISTURE : DILUTION FACTOR : 1.0000
COLUMN ID: 0.53 mm I CAL ID : TEMP:L071901.35/25

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
001	3809	552	V	6.198			
002	123011	26453	V	6.501			
003	2436	217	V	7.104			
004	845	50	V	7.733			
005	371	67	V	8.115			
006	298	50	V	8.497			
007	876	80	V	8.981			
008	276812	59126	V	9.405	1	TCX	0.034 85%
009	2336	487	V	9.776			
010	397	60	V	10.357			
011	500	124	V	10.584			
012	696	182	V	10.779			
013	2122	521	V	10.895			
014	346	73	V	11.234			
015	1171	234	V	11.428			
016	1620	323	V	11.688			
017	691	141	V	11.881			
018	1090	153	V	12.174			
019	1437	159	V	12.449			
020	2170	241	V	12.921			
021	21085	4064	V	13.272			
022	2414	335	V	13.624			
023	756	187	V	14.006			
024	18437	2635	V	14.184			
025	6462	911	V	14.825			
026	1946	409	V	15.114			
027	1206	258	V	15.403			
028	1831	404	V	15.565			
029	93259	19229	V	16.084			
030	14130	3556	V	16.259			
031	5191	197	V	16.672			
032	61469	10546	V	17.194			
033	17636	3101	V	17.670			
034	883	177	V	17.983			
035	15897	3467	V	18.126			
036	75542	15171	V	18.319			
037	20390	4500	V	18.525			
038	127428	26879	V	18.723			
039	22557	5884	V	18.879			
040	3670	1026	V	19.013			

8/6/01
MK

SAMPLE: 08030135 .15 PAGE NUMBER: 2
DATE-TIME INJECTED : 08/04/01 02:38:25
DATE-TIME PROCESSED : 08/06/01 12:14:25

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
041	152557	31775	V	19.113			
042	85329	13994	V	19.365			
043	1001	245	V	19.593			
044	60209	11967	V	19.839			
045	12455	2661	V	20.043			
046	65594	12931	V	20.271			
047	102694	21681	V	20.510			
048	27917	6490	V	20.735			
049	212240	42831	V	20.903			
050	7759	2299	V	21.076			
051	18217	3085	V	21.234			
052	80941	20651	V	21.477			
053	14175	5803	V	21.563			
054	16514	4039	V	21.790			
055	125850	22491	V	22.030			
056	2772	624	V	22.313			
057	33535	7367	V	22.707			
058	28435	7604	V	22.897			
059	6520	3140	V	22.964			
060	3067	1239	V	23.072			
061	46323	8982	V	23.332			
062	152096	33419	V	23.474			
063	13293	3020	V	23.687			
064	16352	3835	V	23.911			
065	5422	1528	V	24.033			
066	2191	461	V	24.378			
067	3710	559	V	24.636			
068	62233	12506	V	24.890			
069	37432	7310	V	25.192			
070	4125	1117	V	25.358			
071	36723	7780	V	25.488			
072	2140	593	V	25.732			
073	16275	3922	V	25.846			
074	5260	527	V	26.234			
075	3795	633	V	26.622			
076	8419	1550	V	26.913			
077	22768	4479	V	27.108			
078	3795	780	V	27.332			
079	781	147	V	27.565			
080	1114	187	V	27.736			
081	553	101	V	28.029			
082	1767	143	V	28.326			
083	3718	421	V	29.074			
084	6650	882	V	29.454			
085	916	53		29.829			
086	4500	551	V	31.435			
087	783	87	V	31.776			
089	478	57	V	32.512			
090	893	75	V	32.911			

8/6/01
MK

SAMPLE: 08030135 .15 PAGE NUMBER: 3
DATE-TIME INJECTED : 08/04/01 02:38:25
DATE-TIME PROCESSED : 08/06/01 12:14:25

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL	
091	870278	94710	V	33.437	1	DCB	0.066	66%
092	105714	9296	V	33.953				
093	1987	234		34.623				
095	3424	225	V	36.523				
096	2963	188	V	37.061				
097	5369	175	V	37.579				
098	4266	219	V	38.737				
099	1010	73	V	39.224				
100	1393	82	V	39.829				
101	7989	482		40.318				

MPK	19229	16.084	AROCLOR-1254-1	0.321	RW:16.02-16.17
MPK	26879	18.723	AROCLOR-1254-2	0.292	RW:18.66-18.80
MPK	31775	19.113	AROCLOR-1254-3	0.277	RW:19.05-19.19
MPK	13994	19.365	AROCLOR-1254-4	0.292	RW:19.30-19.44
MPK	21681	20.510	AROCLOR-1254-5	0.299	RW:20.45-20.59
MPK	42831	20.903	AROCLOR-1254-6	0.316	RW:20.84-20.98
MPK	22491	22.030	AROCLOR-1254-7	0.315	RW:21.97-22.11
MPK	33419	23.474	AROCLOR-1254-8	0.326	RW:23.41-23.56
	212299			0.305	81.33%

8/6/01
MK

0107L389-006T

SAMPLE NO. : 08030136 . 15
TEST NO. :
METHOD NO. : P36 / P36

INSTRUMENT: 36
DATE TIME: 08/04/01 02:38:25
PAGE NO. : 01

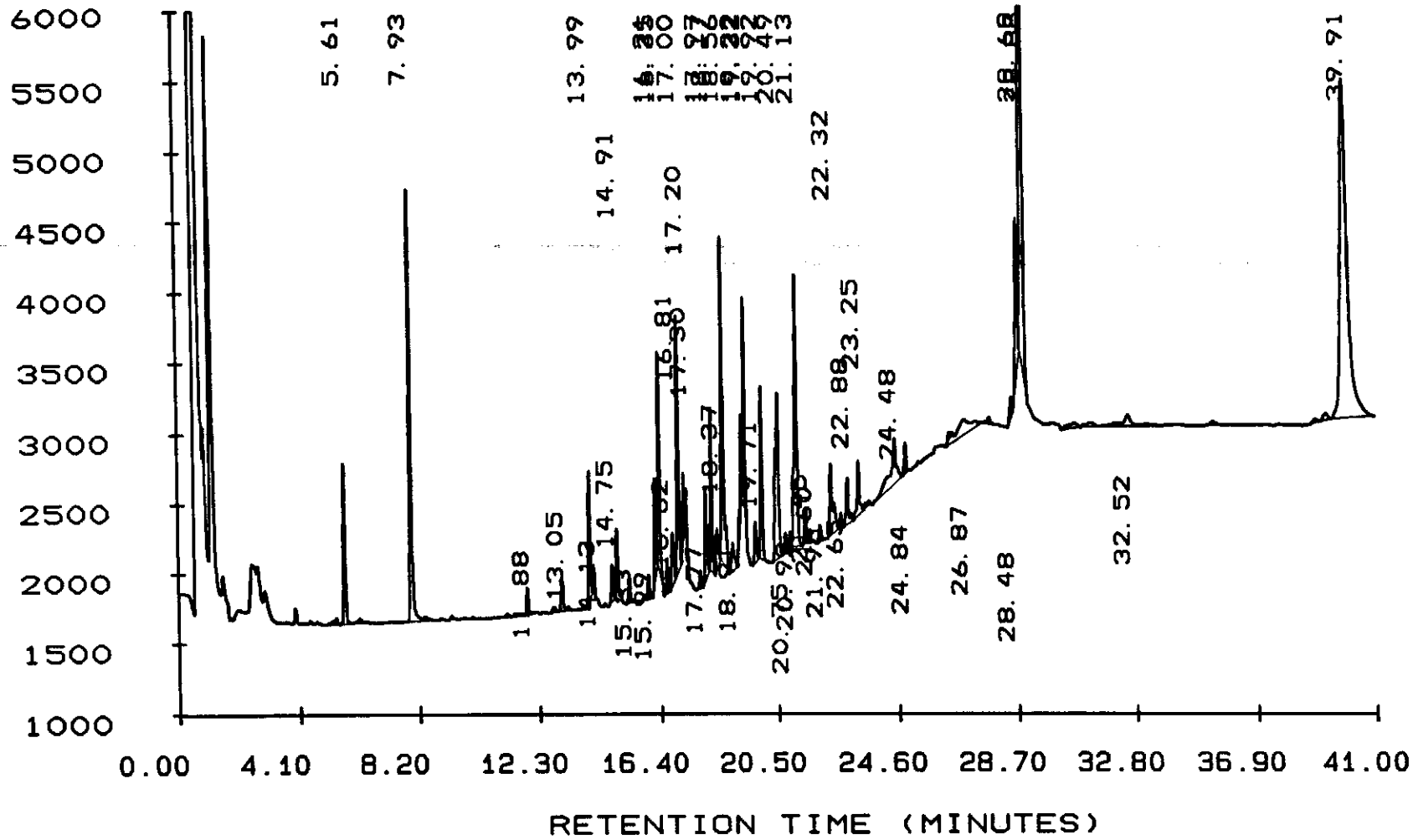

Y MAXIMUM: 6000.
Y MINIMUM: 1000.

START TIME: 0.00
END TIME: 41.00

Lionville Laboratory, Inc. 08/06/01 12:34:14

EXTERNAL STANDARD

SAMPLE: 08030136 .15
TEST : OPCB-T
COLLECTION TIME : 40.97
METHOD: P36 / PCBMK REV #: 00212 ANALYST: KOBELM
CLIENT ID: RC60-01-0008 02
CLIENT: LANL REQ #9407R
LAB ID: 0107L389-006MSD
SAMPLE WT : % MOISTURE :
COLUMN ID: 0.53 mm I

INST:36 VIAL:F0 SEQ NUMBER:015
DATE-TIME INJECTED : 08/04/01 02:38:25
DATE-TIME PROCESSED : 08/06/01 12:34:14
SAMP RATE: 1.56
SAMPLE VOL: 1.0 uL
COLUMN TYPE: RTX1701
RAW FILE: RAW3:H4144974
DILUTION FACTOR : 1.0000
CAL ID : TEMP:L071901.36/25

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
001	655	182	V	5.199			
002	1684	407	V	5.323			
003	50253	11227	V	5.610			
004	2916	298	V	6.142			
005	624	117	V	6.368			
006	528	66	V	6.568			
007	1056	77	V	7.237			
008	140148	29993	V	7.930	1	TCX	0.042
009	1082	200	V	8.399			
010	905	102	V	8.955			
011	1761	282	V	9.300			
012	1204	108	V	9.749			
013	390	89		10.017			
014	1456	211	V	11.198			
015	742	97	V	11.600			
016	8708	1937	V	11.880			
017	355	98	V	12.070			
018	586	93	V	12.175			
019	1149	147	V	12.414			
020	3125	419	V	12.773			
021	10585	2160	V	13.054			
022	1115	250	V	13.265			
023	297	82	V	13.639			
024	40098	9076	V	13.986			
025	7825	2009	V	14.131			
026	922	235	V	14.510			
027	11771	2584	V	14.750			
028	23493	4918	V	14.910			
029	8992	1801	V	15.331			
030	404	67	V	15.589			
031	1361	328	V	15.843			
032	8150	1762	V	15.989			
033	27688	6956	V	16.211			
034	71950	15452	V	16.352			
035	10893	2447	V	16.616			
036	22336	3767	V	16.808			
037	82413	17918	V	17.002			
038	16466	4662	V	17.203			
039	11443	3659	V	17.297			
040	6429	1303	V	17.766			

8/6/01
MK

SAMPLE: 08030136 .15 PAGE NUMBER: 2
DATE-TIME INJECTED : 08/04/01 02:38:25
DATE-TIME PROCESSED : 08/06/01 12:34:14

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
041	31372	6494	V	17.967			
042	51133	11536	V	18.170			
043	16173	2974	V	18.366			
044	92069	21444	V	18.562			
045	1966	822	V	18.675			
046	14264	1974	V	18.910			
047	27489	6080	V	19.219			
048	55552	14158	V	19.325			
049	15711	2867	V	19.705			
050	56579	12106	V	19.922			
051	96070	11710	V	20.491			
052	7076	1571	V	20.754			
053	4668	1270	V	20.916			
054	113677	19005	V	21.126			
055	13381	2478	V	21.446			
056	3376	874	V	21.605			
057	475	158	V	21.727			
058	6822	1181	V	21.945			
059	15420	3924	V	22.316			
060	3523	806	V	22.416			
061	4685	1112	V	22.654			
062	14490	3072	V	22.879			
063	1272	394	V	23.004			
064	21823	3855	V	23.249			
065	1097	306	V	23.504			
066	1510	307	V	23.616			
067	45252	3218	V	24.478			
068	9185	2114	V	24.840			
069	1228	185	V	25.280			
070	10470	239	V	26.148			
071	2205	530	V	26.336			
072	987	278	V	26.440			
073	11138	573	V	26.869			
074	1024	136	V	27.237			
075	5955	515	V	27.721			
076	7108	1352	V	28.483			
077	61279	10793	V	28.687			
078	383781	64953	V	28.884	1	DCB	0.073
079	7854	326	V	29.919			
080	8826	366	V	30.665			
081	614	110	V	31.002			
082	2886	216	V	31.231			
083	2198	98	V	32.197			
084	6985	653	V	32.522			
085	1201	107	V	33.205			
086	718	74	V	33.456			
087	3200	85	V	34.283			
088	5507	288		35.413			
089	[illegible]	74	V	37.218			

8/6/01
MK

SAMPLE: 08030136 .15 PAGE NUMBER: 3
DATE-TIME INJECTED : 08/04/01 02:38:25
DATE-TIME PROCESSED : 08/06/01 12:34:14

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL	
090	1937	102		37.664				
091	2988	267	V	38.901				
092	5659	484	V	39.253				
093	420266	23812		39.912				
MPK		9076		13.986		AROCLOR-1254-1	0.357	RW:13.97-14.11
MPK		15452		16.352		AROCLOR-1254-2	0.346	RW:16.34-16.48
MPK		17918		17.002		AROCLOR-1254-3	0.353	RW:16.99-17.13
MPK		11536		18.170		AROCLOR-1254-4	0.392	RW:18.16-18.30
MPK		21444		18.562		AROCLOR-1254-5	0.370	RW:18.55-18.69
MPK		14158		19.325		AROCLOR-1254-6	0.497	RW:19.31-19.45
MPK		12106		19.922		AROCLOR-1254-7	0.400	RW:19.91-20.05
MPK		19005		21.126		AROCLOR-1254-8	0.409	RW:21.12-21.26
		120695					0.390	

~~6/8/01~~ 8/6/01 MK

MK
8/6/01
MK

Analysis Run Logs

INSTRUMENT ID: 15
DETECTOR TYPE: ECD
INJECT VOLUME: 20uL split

COLUMN TYPE: RTX-35
COLUMN SERIAL #: 5998-32
OVEN TEMP PROGRAM: #1

ANALYST: MK
CALIBRATION DATE: same
METHOD / OP: 8021/8082

#	SAMPLE SET ID.VIAL #	INJECTION ID	ANALYSIS DATE/TIME	LLvl SAMPLE # DESCRIPTION	DF	COMMENTS
01	07190135.01	RAW2:GJ150331 AHK 7/25/01	07/19/01 16:23:39	COND		All Standards May Be Referenced To Standard Logbook #: 8048 8633
02	07190135.02	RAW2:GJ150336	07/19/01 17:11:38	COND		
03	07190135.03	RAW2:GJ150342	07/19/01 17:59:35	AR1660 2801 A		Millennium Project ID: NA
04	07190135.04	RAW2:GJ150347	07/19/01 18:47:24	AR1660 2802 B		
05	07190135.05	RAW2:GJ150354	07/19/01 19:35:12	AR1660 2803 C		
06	07190135.06	RAW2:GJ150359	07/19/01 20:23:12	AR1660 2804 D		
07	07190135.07	RAW2:GJ150364	07/19/01 21:11:18	AR1660 2805 E		
08	07190135.08	RAW2:GJ150367	07/19/01 21:59:30	AR1221 1108		
09	07190135.09	RAW2:GJ150371	07/19/01 22:47:16	AR1232 1205		
10	07190135.10	RAW2:GJ150376	07/19/01 23:35:05	AR1242 1304		
11	07190135.11	RAW2:GK150379	07/20/01 00:22:52	AR1248 1101		
12	07190135.12	RAW2:GK150383	07/20/01 01:10:40	AR1254 9403 C		
13	07190135.13	RAW2:GK150387	07/20/01 01:58:27	01LE0859-MB1		
14	07190135.14	RAW2:GK150391	07/20/01 02:46:23	01LE0859-MB1S		
15	07190135.15	RAW2:GK150396	07/20/01 03:34:25	0107L331-001	16	
16	07190135.16	RAW2:GK150400	07/20/01 04:23:03	0107L331-001S	10	
17	07190135.17	RAW2:GK150403	07/20/01 05:11:17	0107L331-001T	10	
18	07190135.18	RAW2:GK150408	07/20/01 05:59:26	0107L331-002	10	
19	07190135.19	RAW2:GK150412	07/20/01 06:47:36	0107L331-002	5	
20	07190135.20	RAW2:GK150415	07/20/01 07:36:05	HEXANE		
21	07190135.21	RAW2:GK150419	07/20/01 08:23:51	HEXANE		
22	07190135.22	RAW2:GK150424	07/20/01 09:11:39	01LE0860-MB1		
23	07190135.23	RAW2:GK150427	07/20/01 09:59:25	01LE0860-MB1S		
24	07190135.24	RAW2:GK150432	07/20/01 10:47:37	AR1660 2803 C		
25	07190135.25	RAW2:GK150435	07/20/01 11:35:36	0107L326-001		
26	07190135.26	RAW2:GK150439	07/20/01 12:23:49	0107L326-001S		
27	07190135.27	RAW2:GK150443	07/20/01 13:12:02	0107L326-001T		
28	07190135.28	RAW2:GK150447	07/20/01 14:00:13	0107L326-002		
29	07190135.29	RAW2:GK150452	07/20/01 14:48:37	0107L326-003		
30	07190135.30	RAW2:GK150455	07/20/01 15:36:49	0107L326-004		
31	07190135.31	RAW2:GK150457	07/20/01 16:25:11	0107L326-005		
32	07190135.32	RAW2:GK150462 7/25/01	07/20/01 17:13:36	0107L326-006		

LOGBOOK # 8686

REVIEWED BY/DATE: BG 7/25/01

PAGE # 054

L-WI-022/A-02/01

INSTRUMENT ID: _____
DETECTOR TYPE: See
INJECT VOLUME: _____

COLUMN TYPE: _____
COLUMN SERIAL #: P. 54
OVEN TEMP PROGRAM: _____

ANALYST: MK
CALIBRATION DATE: Same
METHOD / OP: 8081/8082

#	SAMPLE SET ID.VIAL #	INJECTION ID	ANALYSIS DATE/TIME	LLvI SAMPLE # DESCRIPTION	DF	COMMENTS
33	07190135.33	RAW2:GK150466 MK 7/25/01	07/20/01 18:01:57	0107L326-007		
34	07190135.34	RAW2:GK150470	07/20/01 18:50:21	0107L326-008		All Standards May Be Referenced To Standard Logbook #: 8048 8633
35	07190135.35	RAW2:GK150474	07/20/01 19:38:34	HEXANE		
36	07190135.36	RAW2:GK150477	07/20/01 20:26:22	AR1660 2803 C		Millennium Project ID: NA
37	07190135.37	RAW2:GK150481	07/20/01 21:14:22	0107L326-009		
38	07190135.38	RAW2:GK150485	07/20/01 22:02:35	0107L326-010		
39	07190135.39	RAW2:GK150489	07/20/01 22:50:56	0107L326-011		
40	07190135.40	RAW2:GK150493	07/20/01 23:39:07	HEXANE		
41	07190135.41	RAW2:GL150497	07/21/01 00:26:54	AR1660 2803 C		
42	07190135.42	RAW2:GL150499	07/21/01 01:14:55	01LE0855-MB1		
43	07190135.43	RAW2:GL150501	07/21/01 02:02:41	01LE0855-MB1S		
44	07190135.44	RAW2:GL150503	07/21/01 02:50:40	01LE0855-MB1T		
45	07190135.45	RAW2:GL150505	07/21/01 03:38:41	0107L293-004		
46	07190135.46	RAW2:GL150508	07/21/01 04:26:37	0107L308-003		
47	07190135.47	RAW2:GL150509	07/21/01 05:14:25	0107L308-004		
48	07190135.48	RAW2:GL150511	07/21/01 06:02:14	HEXANE		
49	07190135.49	RAW2:GL150514	07/21/01 06:50:02	AR1660 2803 C		
50	07190135.50	RAW2:GL150524	07/21/01 14:22:10	COND		
51	07190135.51	RAW2:GL150526	07/21/01 15:10:08	COND		
52	07190135.52	RAW2:GL150531	07/21/01 15:58:11	COND		
53	07190135.53	RAW2:GL150534	07/21/01 16:46:10	AR1660 2803 C		
54	07190135.54	RAW2:GL150539	07/21/01 17:34:10	0107L224-001	100	
55	07190135.55	RAW2:GL150543	07/21/01 18:22:05	0107L224-002	100	
56	07190135.56	RAW2:GL150546 MK 7/25/01	07/21/01 19:10:19	0107L224-003	5	
57	07190135.57	RAW2:GL150550	07/21/01 19:58:08	01LE0776-MB1		
58	07190135.58	RAW2:GL150555	07/21/01 20:45:57	01LE0776-MB1S		
59	07190135.59	RAW2:GL150558	07/21/01 21:33:45	01LE0820-MB1		
60	07190135.60	RAW2:GL150562	07/21/01 22:21:35	01LE0820-MB1S		
61	07190135.61	RAW2:GL150567	07/21/01 23:09:48	01LE0858-MB1		
62	07190135.62	RAW2:GL150570	07/21/01 23:57:39	01LE0858-MB1S		
63	07190135.63	RAW2:GM150574	07/22/01 00:45:27	AR1660 2803 C		
64	07190135.64	RAW2:GM150579 MK 7/25/01	07/22/01 01:33:28	01LE0868-MB1		

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INSTRUMENT ID: _____
DETECTOR TYPE: see
INJECT VOLUME: _____

COLUMN TYPE: P.54
COLUMN SERIAL #: _____
OVEN TEMP PROGRAM: _____

ANALYST: MK
CALIBRATION DATE: same
METHOD / OP: 8081/8082

#	SAMPLE SET ID.VIAL #	INJECTION ID	ANALYSIS DATE/TIME	LLvl SAMPLE # DESCRIPTION	DF	COMMENTS
65	07190135.65	RAW2:GM150583 MC 7/29/01	07/22/01 02:21:16	01LE0868-MB1S		All Standards May Be Referenced To Standard Logbook #: 8048 8633
66	07190135.66	RAW2:GM150586	07/22/01 03:10:10	0107L338-001	10	
67	07190135.67	RAW2:GM150590	07/22/01 03:58:18	0107L338-001S	10	Millennium Project ID: NA
68	07190135.68	RAW2:GM150594	07/22/01 04:46:42	0107L338-001T	10	
69	07190135.69	RAW2:GM150598	07/22/01 05:35:08	0107L338-002	10	
70	07190135.70	RAW2:GM150602	07/22/01 06:23:36	0107L331-002R1	50	
71	07190135.71	RAW2:GM150607	07/22/01 07:11:45	0107L331-002R1	10	
72	07190135.72	RAW2:GM150611	07/22/01 08:00:10	0107L331-002R1	5	
73	07190135.73	RAW2:GM150615	07/22/01 08:48:38	0106L165-001		
74	07190135.74	RAW2:GM150618	07/22/01 09:36:27	HEXANE		
75	07190135.75	RAW2:GM150622	07/22/01 10:24:14	AR1660 2803 C		
76	07190135.76	RAW2:GM150627	07/22/01 11:12:13	0106L165-002		
77	07190135.77	RAW2:GM150630	07/22/01 12:00:01	0106L165-003	5	
78	07190135.78	RAW2:GM150634	07/22/01 12:48:37	WSRC HEXANE		
79	07190135.79	RAW2:GM150638	07/22/01 13:36:24	0106L171-001	10	
80	07190135.80	RAW2:GM150640	07/22/01 14:24:22	0106L171-001R	10	
81	07190135.81	RAW2:GM150644	07/22/01 15:12:18	0106L171-001S	10	
82	07190135.82	RAW2:GM150648	07/22/01 16:00:27	0107L264-001		
83	07190135.83	RAW2:GM150653	07/22/01 16:48:13	0107L264-001R		
84	07190135.84	RAW2:GM150656	07/22/01 17:36:04	0107L264-001S		
85	07190135.85	RAW2:GM150660	07/22/01 18:23:58	0107L264-002		
86	07190135.86	RAW2:GM150664	07/22/01 19:11:48	WSRC HEXANE		
87	07190135.87	RAW2:GM150669	07/22/01 20:47:37	AR1660 2803 C		
88	07190135.88	RAW2:GM150673	07/22/01 20:47:37	0107L309-001		
89	07190135.89	RAW2:GM150676	07/22/01 21:35:25	0107L309-001S		
90	07190135.90	RAW2:GM150681	07/22/01 22:23:23	0107L309-001T		
91	07190135.91	RAW2:GM150685	07/22/01 23:11:18	0107L309-002	5	
92	07190135.92	RAW2:GM150688	07/22/01 23:59:09	0107L338-001		
93	07190135.93	RAW2:GN150692	07/23/01 00:47:55	0107L338-001S		
94	07190135.94	RAW2:GN150696	07/23/01 01:36:51	0107L338-001T		
95	07190135.95	RAW2:GN150700 AIR 7/25/01	07/23/01 02:25:37	0107L338-002		LIMS error stopped collection prior to final CLV.

LOGBOOK # 8056 end of Queue

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INSTRUMENT ID: 15
DETECTOR TYPE: ECD
INJECT VOLUME: 2.0uL split

COLUMN TYPE: RTX-CLP2
COLUMN SERIAL #: 230704
OVEN TEMP PROGRAM: #1

ANALYST: MK
CALIBRATION DATE: same
METHOD / OP: 8081/8082

#	SAMPLE SET ID.VIAL #	INJECTION ID	ANALYSIS DATE/TIME	LLvI SAMPLE # DESCRIPTION	DF
01	07190136.01	RAW2:GJ150332 MK 7/25/01	07/19/01 16:23:39	COND	
02	07190136.02	RAW2:GJ150335	07/19/01 17:11:38	COND	
03	07190136.03	RAW2:GJ150341	07/19/01 17:59:36	AR1660 2801 A	
04	07190136.04	RAW2:GJ150348	07/19/01 18:47:25	AR1660 2802 B	
05	07190136.05	RAW2:GJ150353	07/19/01 19:35:12	AR1660 2803 C	
06	07190136.06	RAW2:GJ150360	07/19/01 20:23:12	AR1660 2804 D	
07	07190136.07	RAW2:GJ150363	07/19/01 21:11:18	AR1660 2805 E	
08	07190136.08	RAW2:GJ150368	07/19/01 21:59:30	AR1221 1108	
09	07190136.09	RAW2:GJ150372	07/19/01 22:47:17	AR1232 1205	
10	07190136.10	RAW2:GJ150375	07/19/01 23:35:05	AR1242 1304	
11	07190136.11	RAW2:GK150380	07/20/01 00:22:53	AR1248 1101	
12	07190136.12	RAW2:GK150384	07/20/01 01:10:40	AR1254 9403 C	
13	07190136.13	RAW2:GK150388	07/20/01 01:58:27	01LE0859-MB1	
14	07190136.14	RAW2:GK150392	07/20/01 02:46:23	01LE0859-MB1S	
15	07190136.15	RAW2:GK150395	07/20/01 03:34:26	0107L331-001	10
16	07190136.16	RAW2:GK150399	07/20/01 04:23:03	0107L331-001S	10
17	07190136.17	RAW2:GK150404	07/20/01 05:11:18	0107L331-001T	10
18	07190136.18	RAW2:GK150407	07/20/01 05:59:26	0107L331-002	10
19	07190136.19	RAW2:GK150411	07/20/01 06:47:36	0107L331-002	5
20	07190136.20	RAW2:GK150416	07/20/01 07:36:05	HEXANE	
21	07190136.21	RAW2:GK150420	07/20/01 08:23:51	HEXANE	
22	07190136.22	RAW2:GK150423	07/20/01 09:11:39	01LE0860-MB1	
23	07190136.23	RAW2:GK150428	07/20/01 09:59:26	01LE0860-MB1S	
24	07190136.24	RAW2:GK150431	07/20/01 10:47:37	AR1660 2803 C	
25	07190136.25	RAW2:GK150436	07/20/01 11:35:36	0107L326-001	
26	07190136.26	RAW2:GK150440	07/20/01 12:23:49	0107L326-001S	
27	07190136.27	RAW2:GK150444	07/20/01 13:12:02	0107L326-001T	
28	07190136.28	RAW2:GK150448	07/20/01 14:00:13	0107L326-002	
29	07190136.29	RAW2:GK150451	07/20/01 14:48:37	0107L326-003	
30	07190136.30	RAW2:GK150456	07/20/01 15:36:49	0107L326-004	
31	07190136.31	RAW2:GK150458	07/20/01 16:25:11	0107L326-005	
32	07190136.32	RAW2:GK150461 MK 7/25/01	07/20/01 17:13:36	0107L326-006	

COMMENTS

All Standards May Be Referenced To Standard Logbook #: 8048 8633

Millennium Project ID: NA

LOGBOOK # 8686

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[redacted]

INSTRUMENT ID: ____	COLUMN TYPE: ____	ANALYST: MK
DETECTOR TYPE: see	COLUMN SERIAL #: P.57	CALIBRATION DATE: same
INJECT VOLUME: ____	OVEN TEMP PROGRAM: ____	METHOD / OP: 8081/8082

#	SAMPLE SET ID.VIAL #	INJECTION ID	ANALYSIS DATE/TIME	LLvl SAMPLE # DESCRIPTION	DF	COMMENTS
33	07190136.33	RAW2:GK150465	07/20/01 18:01:57	0107L326-007		All Standards May Be Referenced To Standard Logbook #: 8048 8633
34	07190136.34	RAW2:GK150469	07/20/01 18:50:21	0107L326-008		
35	07190136.35	RAW2:GK150473	07/20/01 19:38:34	HEXANE		Millennium Project ID: NA
36	07190136.36	RAW2:GK150478	07/20/01 20:26:23	AR1660 2803 C		
37	07190136.37	RAW2:GK150482	07/20/01 21:14:22	0107L326-009		
38	07190136.38	RAW2:GK150486	07/20/01 22:02:35	0107L326-010		
39	07190136.39	RAW2:GK150490	07/20/01 22:50:56	0107L326-011		
40	07190136.40	RAW2:GK150494	07/20/01 23:39:07	HEXANE		
41	07190136.41	RAW2:GL150498	07/21/01 00:26:55	AR1660 2803 C		
42	07190136.42	RAW2:GL150500	07/21/01 01:14:55	01LE0855-MB1		
43	07190136.43	RAW2:GL150502	07/21/01 02:02:42	01LE0855-MB1S		
44	07190136.44	RAW2:GL150504	07/21/01 02:50:41	01LE0855-MB1T		
45	07190136.45	RAW2:GL150506	07/21/01 03:38:41	0107L293-004		
46	07190136.46	RAW2:GL150507	07/21/01 04:26:38	0107L308-003		
47	07190136.47	RAW2:GL150510	07/21/01 05:14:25	0107L308-004		
48	07190136.48	RAW2:GL150512	07/21/01 06:02:14	HEXANE		
49	07190136.49	RAW2:GL150513	07/21/01 06:50:02	AR1660 2803 C		
50	07190136.50	RAW2:GL150525	07/21/01 14:22:10	COND		
51	07190136.51	RAW2:GL150527	07/21/01 15:10:08	COND		
52	07190136.52	RAW2:GL150530	07/21/01 15:58:11	COND		
53	07190136.53	RAW2:GL150535	07/21/01 16:46:10	AR1660 2803 C		
54	07190136.54	RAW2:GL150538	07/21/01 17:34:11	0107L224-001	100	
55	07190136.55	RAW2:GL150542	07/21/01 18:22:06	0107L224-002	100	
56	07190136.56	RAW2:GL150547	07/21/01 19:10:19	0107L224-003	5	
57	07190136.57	RAW2:GL150551	07/21/01 19:58:08	01LE0776-MB1		
58	07190136.58	RAW2:GL150554	07/21/01 20:45:57	01LE0776-MB1S		
59	07190136.59	RAW2:GL150559	07/21/01 21:33:45	01LE0820-MB1		
60	07190136.60	RAW2:GL150563	07/21/01 22:21:35	01LE0820-MB1S		
61	07190136.61	RAW2:GL150566	07/21/01 23:09:48	01LE0858-MB1		
62	07190136.62	RAW2:GL150571	07/21/01 23:57:39	01LE0858-MB1S		
63	07190136.63	RAW2:GM150575	07/22/01 00:45:27	AR1660 2803 C		
64	07190136.64	RAW2:GM150578	07/22/01 01:33:28	01LE0868-MB1		

MK 7/25/01

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GC ANALYSIS LOG

INSTRUMENT ID: _____
DETECTOR TYPE: see
INJECT VOLUME: _____

COLUMN TYPE: _____
COLUMN SERIAL #: P.57
OVEN TEMP PROGRAM: _____

ANALYST: MK
CALIBRATION DATE: same
METHOD / OP: 8081/8082

#	SAMPLE SET ID.VIAL #	INJECTION ID	ANALYSIS DATE/TIME	LLvI SAMPLE # DESCRIPTION	DF
65	07190136.65	RAW2:GM150582 MK 7/25/01	07/22/01 02:21:16	01LE0868-MB1S	
66	07190136.66	RAW2:GM150587	07/22/01 03:10:10	0107L338-001	10
67	07190136.67	RAW2:GM150591	07/22/01 03:58:18	0107L338-001S	10
68	07190136.68	RAW2:GM150595	07/22/01 04:46:42	0107L338-001T	10
69	07190136.69	RAW2:GM150599	07/22/01 05:35:08	0107L338-002	10
70	07190136.70	RAW2:GM150603	07/22/01 06:23:36	0107L331-002R1	50
71	07190136.71	RAW2:GM150606	07/22/01 07:11:45	0107L331-002R1	10
72	07190136.72	RAW2:GM150610	07/22/01 08:00:10	0107L331-002R1	5
73	07190136.73	RAW2:GM150614	07/22/01 08:48:38	0106L165-001	
74	**07190136.74**	**RAW2:GM150619**	**07/22/01 09:36:27**	**HEXANE**	
75	07190136.75	RAW2:GM150623	07/22/01 10:24:14	AR1660 2803 C	
76	07190136.76	RAW2:GM150626	07/22/01 11:12:14	0106L165-002	
77	07190136.77	RAW2:GM150631	07/22/01 12:00:01	0106L165-003	5
78	07190136.78	RAW2:GM150635	07/22/01 12:48:37	WSRC HEXANE	
79	07190136.79	RAW2:GM150639	07/22/01 13:36:25	0106L171-001	10
80	07190136.80	RAW2:GM150641	07/22/01 14:24:22	0106L171-001R	10
81	07190136.81	RAW2:GM150645	07/22/01 15:12:18	0106L171-001S	10
82	07190136.82	RAW2:GM150649	07/22/01 16:00:27	0107L264-001	
83	07190136.83	RAW2:GM150652	07/22/01 16:48:14	0107L264-001R	
84	07190136.84	RAW2:GM150657	07/22/01 17:36:04	0107L264-001S	
85	07190136.85	RAW2:GM150661	07/22/01 18:24:00	0107L264-002	
86	07190136.86	RAW2:GM150665	07/22/01 19:11:48	WSRC HEXANE	
87	07190136.87	RAW2:GM150668	07/22/01 19:59:37	AR1660 2803 C	
88	07190136.88	RAW2:GM150672	07/22/01 20:47:37	0107L309-001	
89	07190136.89	RAW2:GM150677	07/22/01 21:35:25	0107L309-001S	
90	07190136.90	RAW2:GM150680	07/22/01 22:23:23	0107L309-001T	
91	07190136.91	RAW2:GM150684	07/22/01 23:11:19	0107L309-002	5
92	07190136.92	RAW2:GM150689	07/22/01 23:59:09	0107L338-001	
93	07190136.93	RAW2:GN150693	07/23/01 00:47:56	0107L338-001S	
94	07190136.94	RAW2:GN150697	07/23/01 01:36:52	0107L338-001T	
95	07190136.95	RAW2:GN150701 MK 7/25/01	07/23/01 02:25:38	0107L338-002	

COMMENTS

All Standards May Be Referenced To Standard Logbook #: 5048 5633

Millennium Project ID: NA

LIMS error stopped collection prior to final CCV.

LOGBOOK # 5686

end of Queue

REVIEWED BY/DATE: BS 7/25/01

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Lionville Laboratory

GC ANALYSIS LOG

INSTRUMENT ID: 15
DETECTOR TYPE: ECD
INJECT VOLUME: 2.0ml/split

COLUMN TYPE: RTX-35
COLUMN SERIAL #: 5998-32
OVEN TEMP PROGRAM: #1

ANALYST: EG
CALIBRATION DATE: ~~8/10/01~~ 8/10/01 mc - 7/19/01
METHOD / OP: 8081/8082

#	SAMPLE SET ID.VIAL #	INJECTION ID	ANALYSIS DATE/TIME	LLvl SAMPLE # DESCRIPTION	DF	COMMENTS
01	08030135.01	RAW3:H3144830 EG 8/10/01	08/03/01 13:07:18	AR1660 2803 C		All Standards May Be Referenced To Standard Logbook #: 8648 8633
02	08030135.02	RAW3:H3144833	08/03/01 14:05:15	01LE0890-MB1		
03	08030135.03	RAW3:H3144841	08/03/01 15:03:02	01LE0890-MB1S		Millennium Project ID: N/A
04	08030135.04	RAW3:H3144851	08/03/01 16:01:27	01LE0907-MB1		
05	08030135.05	RAW3:H3144864	08/03/01 16:59:13	01LE0907-MB1S		
06	08030135.06	RAW3:H3144875	08/03/01 17:57:25	0107L389-001		
07	08030135.07	RAW3:H3144886	08/03/01 18:55:13	0107L389-002		
08	08030135.08	RAW3:H3144897	08/03/01 19:53:04	0107L389-003		
09	08030135.09	RAW3:H3144908	08/03/01 20:50:52	0107L389-004		
10	08030135.10	RAW3:H3144918	08/03/01 21:48:40	0107L389-005		
11	08030135.11	RAW3:H3144929	08/03/01 22:46:29	0107L389-006		
12	08030135.12	RAW3:H3144942	08/03/01 23:44:26	HEXANE		
13	08030135.13	RAW3:H4144952	08/04/01 00:42:14	AR1660 2803 C		
14	08030135.14	RAW3:H4144963	08/04/01 01:40:13	0107L389-006S		
15	08030135.15	RAW3:H4144973	08/04/01 02:38:25	0107L389-006T		
16	08030135.16	RAW3:H4144983	08/04/01 03:36:29	0107L397-001		
17	08030135.17	RAW3:H4144991	08/04/01 04:34:17	0107L397-001S		
18	08030135.18	RAW3:H4145000	08/04/01 05:32:07	0107L397-001T		
19	08030135.19	RAW3:H4145011	08/04/01 06:29:54	0107L397-002		
20	08030135.20	RAW3:H4145019	08/04/01 07:27:45	0107L397-003		
21	08030135.21	RAW3:H4145027	08/04/01 08:25:33	0107L397-004		
22	08030135.22	RAW3:H4145035	08/04/01 09:23:30	0107L397-005		
23	08030135.23	RAW3:H4145043	08/04/01 10:21:17	0107L397-006		
24	08030135.24	RAW3:H4145052	08/04/01 11:19:14	HEXANE		
25	08030135.25	RAW3:H4145062	08/04/01 12:17:00	AR1660 2803 C		
26	08030135.26	RAW3:H4145070	08/04/01 13:15:01	01LE0889-MB1		
27	08030135.27	RAW3:H4145075	08/04/01 14:12:48	01LE0889-MB1S		
28	08030135.28	RAW3:H4145081	08/04/01 15:10:59	01LE0889-MB1T		
29	08030135.29	RAW3:H4145087	08/04/01 16:09:12	01LE0896-MB1		
30	08030135.30	RAW3:H4145094	08/04/01 17:07:01	01LE0896-MB1S		
31	08030135.31	RAW3:H4145102	08/04/01 18:05:23	01LE0896-MB1T		
32	08030135.32	RAW3:H4145107 EG 8/10/01	08/04/01 19:03:29	01LE0902-MB1		

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GC ANALYSIS LOG

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INSTRUMENT ID:
DETECTOR TYPE: SLE
INJECT VOLUME:

COLUMN TYPE:
COLUMN SERIAL #: PG 73
OVEN TEMP PROGRAM:

ANALYST: EG 8/16/01
CALIBRATION DATE: ~~8/10/01~~ 7/19/01
METHOD / OP: 8081 / 8082

#	SAMPLE SET ID.VIAL #	INJECTION ID	ANALYSIS DATE/TIME	LLvI SAMPLE # DESCRIPTION	DF	COMMENTS
33	08030135.33	RAW3:H4145113 EG 8/10/01	08/04/01 20:01:17	01LE0902-MB1S		All Standards May Be Referenced To Standard Logbook #: 8048 8633
34	08030135.34	RAW3:H4145119	08/04/01 20:59:35	01LE0902-MB1T		
35	08030135.35	RAW3:H4145124	08/04/01 21:57:46	AR1660 2803 C		Millennium Project ID: N/A
36	08030135.36	RAW3:H4145129	08/04/01 22:55:48	0107L376-003		
37	08030135.37	RAW3:H4145134	08/04/01 23:53:35	0107L376-003		
38	08030135.38	RAW3:H5145138	08/05/01 00:51:25	WSRC HEXANE		
39	08030135.39	RAW3:H5145141	08/05/01 01:49:12	0107L392-013		
40	08030135.40	RAW3:H5145145	08/05/01 02:47:09	0107L392-013		
41	08030135.41	RAW3:H5145147	08/05/01 03:45:54	0107L383-003		
42	08030135.42	RAW3:H5145149	08/05/01 04:43:44	0107L383-003		
43	08030135.43	RAW3:H5145151	08/05/01 05:42:07	01LE0905-MB1		
44	08030135.44	RAW3:H5145154	08/05/01 06:39:57	01LE0905-MB1S		
45	08030135.45	RAW3:H5145156	08/05/01 07:38:20	01LE0905-MB1T		
46	08030135.46	RAW3:H5145158	08/05/01 08:36:29	AR1660 2803 C		
47	08030135.47	RAW3:H5145159	08/05/01 09:34:26	0107L401-001		
48	08030135.48	RAW3:H5145161	08/05/01 10:33:34	0107L401-002		
49	08030135.49	RAW3:H5145163	08/05/01 11:32:45	0107L401-003		
50	08030135.50	RAW3:H5145165	08/05/01 12:31:55	0107L401-004		
51	08030135.51	RAW3:H5145168	08/05/01 13:31:29	0107L401-005		
52	08030135.52	RAW3:H5145169	08/05/01 14:31:16	0107L401-006		
53	08030135.53	RAW3:H5145171	08/05/01 15:30:35	0107L401-007		
54	08030135.54	RAW3:H5145174	08/05/01 16:29:24	0107L401-008		
55	08030135.55	RAW3:H5145176	08/05/01 17:27:37	0107L401-009		
56	08030135.56	RAW3:H5145178 End of Queue EG 8/10/01	08/05/01 18:26:48	0107L401-010		
57	08030135.57	RAW3:H5145179	08/05/01 19:26:01	HEXANE		
58	08030135.58	RAW3:H5145181	08/05/01 20:23:49	AR1660 2803 C		
59	08030135.59	RAW3:H5145184	08/05/01 21:21:53	0107L401-011		
60	08030135.60	RAW3:H5145185 EG 8/10/01	08/05/01 22:21:32	0107L401-012		
			EG 8/10/01 End of Queue			

LOGBOOK # 8616

REVIEWED BY/DATE: MIC 8/16/01

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L-WI-022/A-02/01

Lionville Laboratory

GC ANALYSIS LOG

INSTRUMENT ID: 15
DETECTOR TYPE: ECD
INJECT VOLUME: 2.0ml Split

COLUMN TYPE: RTX-CLP2
COLUMN SERIAL #: 230704
OVEN TEMP PROGRAM: #1

ANALYST: EG 8/16/01
CALIBRATION DATE: ~~8/16/01~~ 7/19/01
METHOD / OP: 8081/8082

#	SAMPLE SET ID.VIAL #	INJECTION ID	ANALYSIS DATE/TIME	LLvl SAMPLE # DESCRIPTION	DF	COMMENTS
01	08030136.01	RAW3:H3144831	08/03/01 13:07:23	AR1660 2803 C		All Standards May Be Referenced To Standard Logbook #: 8048 8633
02	08030136.02	RAW3:H3144834	08/03/01 14:05:15	01LE0890-MB1		
03	08030136.03	RAW3:H3144842	08/03/01 15:03:02	01LE0890-MB1S		Millennium Project ID: N/A
04	08030136.04	RAW3:H3144852	08/03/01 16:01:27	01LE0907-MB1		
05	08030136.05	RAW3:H3144863	08/03/01 16:59:13	01LE0907-MB1S		
06	08030136.06	RAW3:H3144876	08/03/01 17:57:25	0107L389-001		
07	08030136.07	RAW3:H3144885	08/03/01 18:55:13	0107L389-002		
08	08030136.08	RAW3:H3144898	08/03/01 19:53:04	0107L389-003		
09	08030136.09	RAW3:H3144907	08/03/01 20:50:52	0107L389-004		
10	08030136.10	RAW3:H3144917	08/03/01 21:48:41	0107L389-005		
11	08030136.11	RAW3:H3144930	08/03/01 22:46:30	0107L389-006		
12	08030136.12	RAW3:H3144941	08/03/01 23:44:26	HEXANE		
13	08030136.13	RAW3:H4144951	08/04/01 00:42:14	AR1660 2803 C		
14	08030136.14	RAW3:H4144964	08/04/01 01:40:14	0107L389-006S		
15	08030136.15	RAW3:H4144974	08/04/01 02:38:25	0107L389-006T		
16	08030136.16	RAW3:H4144984	08/04/01 03:36:29	0107L397-001		
17	08030136.17	RAW3:H4144992	08/04/01 04:34:17	0107L397-001S		
18	08030136.18	RAW3:H4144999	08/04/01 05:32:07	0107L397-001T		
19	08030136.19	RAW3:H4145012	08/04/01 06:29:54	0107L397-002		
20	08030136.20	RAW3:H4145020	08/04/01 07:27:45	0107L397-003		
21	08030136.21	RAW3:H4145028	08/04/01 08:25:33	0107L397-004		
22	08030136.22	RAW3:H4145036	08/04/01 09:23:30	0107L397-005		
23	08030136.23	RAW3:H4145044	08/04/01 10:21:17	0107L397-006		
24	08030136.24	RAW3:H4145051	08/04/01 11:19:14	HEXANE		
25	08030136.25	RAW3:H4145061	08/04/01 12:17:01	AR1660 2803 C		
26	08030136.26	RAW3:H4145069	08/04/01 13:15:01	01LE0889-MB1		
27	08030136.27	RAW3:H4145076	08/04/01 14:12:48	01LE0889-MB1S		
28	08030136.28	RAW3:H4145082	08/04/01 15:10:59	01LE0889-MB1T		
29	08030136.29	RAW3:H4145088	08/04/01 16:09:12	01LE0896-MB1		
30	08030136.30	RAW3:H4145093	08/04/01 17:07:01	01LE0896-MB1S		
31	08030136.31	RAW3:H4145101	08/04/01 18:05:24	01LE0896-MB1T		
32	08030136.32	RAW3:H4145108	08/04/01 19:03:29	01LE0902-MB1		

LOGBOOK # 8082

REVIEWED BY/DATE: MC 8/16/01

L-WI-022/A-02/01

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Lionville Laboratory — **GC ANALYSIS LOG**

INSTRUMENT ID: ____
DETECTOR TYPE: See
INJECT VOLUME: ____

COLUMN TYPE: ____
COLUMN SERIAL #: pg 75
OVEN TEMP PROGRAM: ____

ANALYST: EG
CALIBRATION DATE: ~~8/10/01~~ 8/16/01 MIC 7/19/01
METHOD / OP: 8081 | 8082

#	SAMPLE SET ID.VIAL #	INJECTION ID	ANALYSIS DATE/TIME	LLvl SAMPLE # DESCRIPTION	DF
33	08030136.33	RAW3:H4145114 EG 8/16/01	08/04/01 20:01:17	01LE0902-MB1S	
34	08030136.34	RAW3:H4145120	08/04/01 20:59:35	01LE0902-MB1T	
35	08030136.35	RAW3:H4145123	08/04/01 21:57:47	AR1660 2803 C	
36	08030136.36	RAW3:H4145130	08/04/01 22:55:48	0107L376-003	
37	08030136.37	RAW3:H4145133	08/04/01 23:53:35	0107L376-003	
38	08030136.38	RAW3:H5145137	08/05/01 00:51:25	WSRC HEXANE	
39	08030136.39	RAW3:H5145142	08/05/01 01:49:12	0107L392-013	
40	08030136.40	RAW3:H5145146	08/05/01 02:47:09	0107L392-013	
41	08030136.41	RAW3:H5145148	08/05/01 03:45:54	0107L383-003	
~~42~~	~~08030136.42~~	~~RAW3:H5145150~~	~~08/05/01 04:43:44~~	~~0107L383-003~~	
43	08030136.43	RAW3:H5145152	08/05/01 05:42:07	01LE0905-MB1	
44	08030136.44	RAW3:H5145153	08/05/01 06:39:57	01LE0905-MB1S	
45	08030136.45	RAW3:H5145155	08/05/01 07:38:20	01LE0905-MB1T	
46	08030136.46	RAW3:H5145157	08/05/01 08:36:29	AR1660 2803 C	
47	08030136.47	RAW3:H5145160	08/05/01 09:34:26	0107L401-001	
48	08030136.48	RAW3:H5145162	08/05/01 10:33:34	0107L401-002	
49	08030136.49	RAW3:H5145164	08/05/01 11:32:46	0107L401-003	
50	08030136.50	RAW3:H5145166	08/05/01 12:31:55	0107L401-004	
51	08030136.51	RAW3:H5145167	08/05/01 13:31:30	0107L401-005	
52	08030136.52	RAW3:H5145170	08/05/01 14:31:17	0107L401-006	
53	08030136.53	RAW3:H5145172	08/05/01 15:30:36	0107L401-007	
54	08030136.54	RAW3:H5145173	08/05/01 16:29:24	0107L401-008	
55	08030136.55	RAW3:H5145175	08/05/01 17:27:37	0107L401-009	
56	08030136.56	RAW3:H5145177 EG 8/16/01	08/05/01 18:26:49	0107L401-010	
57	08030136.57	RAW3:H5145180	08/05/01 19:26:01	HEXANE	
58	08030136.58	RAW3:H5145182	08/05/01 20:23:50	AR1660 2803 C	
59	08030136.59	RAW3:H5145183	08/05/01 21:21:53	0107L401-011	
60	08030136.60	RAW3:H5145186	08/05/01 22:21:32	0107L401-012	
61	08030136.61	RAW3:H5145188	08/05/01 23:20:01	0107L401-013	
62	08030136.62	RAW3:H6145189	08/06/01 00:18:20	0107L401-014	
63	08030136.63	RAW3:H6145190	08/06/01 01:16:50	0107L401-015	
64	08030136.64	RAW3:H6145191	08/06/01 02:16:06	HEXANE	
LOG 65	08030136.65 8626	RAW3:H6145192 EG 8/16/01	08/06/01 03:13:54	AR1660 2803 C	

COMMENTS

All Standards May Be Referenced To Standard Logbook #: 8048 8633

Millennium Project ID: N/A

REVIEWED BY/DATE: MIC 8/16/01

L-WI-022/A-02/01

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Standard Prep Logs

Recra LabNet
Philadelphia

Logbook # 6071

ORGANIC PREPARATION UNIT
AMPULE STANDARDS TRACKING LOGBOOK

Compound Mix Name	Standard ID	Source	Lot #	CONC w/units	Volume/ Solvent	Receipt Date	Expiration Date	Reviewed By/Date	
B/N	60742101	Restek	A012925	750ug/ml	Methanol	3/12/01	1/02	BF 3/12/01	
BNA LCS	60742102	NSI	032201-01	100ug/ml	MeOH	3/23/01	3/22/03	BF 3/23/01	A-J
PEST SURR MIX	60742103	Restek	A017786	200ug/ml	Acetone	3/29/01	6/03	BF 3/29/01	A-J
AR1254	60742104	Restek	A18671	1000ug/ml	hexane	3/29/01	6/05	P 5/25/01	A-E
BNA TCLP	60742105	Supelco	LA97047	100/15ug/ml	Acetone	3/29/01			A-B
TRIPHENYLPHOSPHATE	60742106	Chemservice	262-17C	2000ug/ml	Acetonitrile	4/2/01	4/02		
DCBP BF 4/2/01	60742107	Chemservice	251-108B	1000ug/ml	Hexane BF 4/2/01	~~11/02~~ 4/2/01	11/02		A-B
Toxaphene	60742108	Supelco	LA88571	200ug/ml	Isooctane	5/10/01	2/03		A-B
Chlordane	60742109	Supelco	LA92619	500ug/ml	Methanol	⊥	8/03		A-B
Diesel fuel #2	60742110	Restek	A017704	50000ug/ml	Methylene Chloride	5/14/01	12/03		A,B
Pest Matrix Spike	60742111	Restek	A017362	2550ug/ml	Acetone	~~5/14/01~~ 5/14/01	9/03		A,B
B/N SURROGATE (LL)	60742112	Restek	A016727	1000ug/ml	Methylene Chloride	5/23/01	8/03		A-E
L/C ACID SURROGATE (LL)	60742113	RESTEK	A019075	1000-3000ug/ml	MeOH	5/23/01	12/04		A-E
~~BNA LCS~~ BF 6/21/01									
GPC CAL MIX	60742114	Restek	A07257	0.2-250 mg/ml	Methylene Chloride	6/21/01	10/07	BF 6/21/01	A-E
Grain Alcohol	60742115	GRAVES	—			6/27/01	—	BF 6/27/01	A-B

RFW 21-21-008/Z-07/97

Recra LabNet Philadelphia

PREPARATION OF MIXTURE DILUTIONS (MULTI-COMPONENT)

DATE/ANALYST	—	C 3/14/01	BF 3/28/01	BF 4/12/01	BF 5/16/01						
DILUTION MIX ID	////////	65374201	65374202	65374203	65374204						
PARENT MIX ID	—	60742001 B 60741917B	60742007B 60741917 C	60742003A 60742007B	60742033A 60742007B						
PARENT VOLUME (w/units)	////////	1mL T 300uL D	1ml T 300ul DCBP	1ml T 300ul DCBP	2ml T 600ul DCBP						
TOTAL VOLUME (w/units)	////////	50mL	50 ml	50 ml	100 ml						
SOLVENT	—	Acetone	Acetone	Acetone	Acetone						
UNITS →	ug/mL		ug/ml	ug/ml	ug/ml						
COMPONENT ↓	PARENT↓	CONC.↓	CONC.↓	CONC.↓	CONC.↓	CONC.↓	CONC.↓	CONC.↓	CONC.↓	CONC.↓	CONC.↓
Pest Surr/Spk mix (Tcmx+DCBP)	200ul/mL	4/4	4/4	4/4	4/4						
DCBP	1000ul/mL	6	6	6	6						
		↓	↓	↓	↓						
Tcmx/DCBP		4/10	4/10	4/10	4/10						
EXPIRATION DATE		6/14/01	BF 9/28/01	BF 10/12/4	BF 11/16/01						
DATE CONCENTRATION VERIFIED											
CRITERIA MET: YES / NO											
UNIT LEADERS INITIALS:											

RFW 21-21-008/D-06/97

REVIEWED BY/DATE: _____

LOGBOOK # _____, PAGE # 042

PREPARATION OF STANDARD DILUTIONS (SINGLE COMPONENT)

COMPOUNDS	STANDARD DILUTION I.D	PARENT STANDARD I.D.	PARENT CONC. (w/units)	PARENT VOLUME (mL)	TOTAL VOLUME (mL)	SOLVENT	PREPARED STANDARD CONCENTRATION (w/units)	DATE/ANALYST
AR1254	8L971101	607421041B	10000ug/ml	~~750ul~~ 0.75 ml	50 ml	Acetone	15 ug/ml	BF 7/10/01
AR1254	8L971102	607420-1C	10000ug/ml	0.75	50 ml	Acetone	15 ug/ml	BF 7/11/01
P.Terphenyl	8L971103	~~6074~~ 8565 (B3)	10000ug/ml	0.50	100 ml	Acetone		BF 7/11/01
AR1254	8L971104	8L971102	15ug/ml	~~1~~ 1.5 ml	50 ml	Acetone		BF 7/12/01

Recra LabNet Philadelphia

GC ANALYSIS

Preparation of Working Standard (Multi - Component)

NAME: EVAL

Dilution Mix ID		80481501	80481502	80481503	80481504	80481505	80481506	80481507	~~80481508~~
Parent Mix ID-all parent mixes contain same conc. of analytes	→	61926401	61928801	61928801	61928801	84321501	84321601	84321601	84321601
Parent Volume (w/units)		2 mL	2 mL	2.5 mL	2.5 mL	2.5 mL	2.5 mL	2.5 mL	2.0 mL
Total Volume (w/units)		200 mL	200 mL	250 mL	250 mL	250 mL	250 mL	250 mL	200 mL
Solvent/Lot #		Hex/BS099	→	Hex/BS099	hex BS099	hex T21313	→	→	Hex V05E62
Units →	ug/mL		→	→	→	→	→	→	→
Component ↓	Parent Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.
TCX	4.0	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04
DCB	4.0	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04
DDT	5.0	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
Endrin	2.5	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025
Date/ Analyst		BM 10/10/99	BM 12/1/99	BM 3/29/00	MK 7/28/00	MK 10/4/00	BM 4/7/01	MK 12/26/00	BS 6/4/01
Expiration Date		12/1/99	6/1/99	7/3/00	1/28/01	4/4/01	4/7/01	6/26/01	~~MK 6/18/01~~ 8/31/01
Reviewed By/Date		BK 10/11/99	LK 10/21/99	LK 4/7/00	BM 8/4/00	BM 4/7/01	MK 11/28/00	LK 12/26/00	MK 6/18/01
Date Concentration Verified		NA	NA	NA	NA	NA	NA	NA	NA

Not used - Endrin degraded

Logbook # 8048 Page#

L-WI-008/Q-11/97

Recra LabNet Philadelphia

GC ANALYSIS

Preparation of Stock Standard (Multi - Component)

NAME EVAC stock
I.D.# 8432/6001

EXPIRATION DATE ~~10/7/01~~ 8/8/01 BMM/KW

DATE/ANALYST 8/7/01 KW

Component	Parent ID#	Parent Concentration	Purity Adj.? Y/N*	Parent Volume (w/units)	Total Volume (mL)	Solvent T21313	Component Concentration (w/units)
Endrin	6074/57B	1000ug/mL	Amp	1.25mL	50mL	Hexane	2.5 ug/mL
DDT	6439/2004						5.0
TCX	6459/2907	200ug/ml		1.0mL			4.0
DCB							

* Purity adjustment required if not greater than 95%

Reviewed By/Date: MK 10/17/01
(includes calculation verification)

RFW 21-21-008/P-06/97

LOGBOOK # 8432, PAGE # 016

Recra LabNet Philadelphia

GC ANALYSIS
Preparation of Working Standard (Multi - Component)

NAME: AR 1660

Dilution Mix ID		80480701	80480702	80480703	80480704	80480705	80480706	80480707	
Parent Mix ID-all parent mixes contain same conc. of analytes	~~6473190-1~~ 8/18/99	61927501	61927501	61929501	61929501	61927501	61927501	84323701	
Parent Volume (w/units)		5 mls	25mL	2.5mL	2.5mL	2.0mL	5.0mL	2.5mL	
Total Volume (w/units)		500mls	~~200mL~~ 250 1K Kofa	250mL	250mL	200mL	500mL	~~200mL~~ 250 mL 6/13/01	
Solvent/Lot #	ug/mL	Hex/UN1208	→	→	→	→	→	→	→
Units →	Hex/UN1208	ug/mL	→	→	→	→	→	→	→
Component ↓	Parent Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.
AR 1016	10.0	0.10	0.10	0.10	0.10	0.10	0.10	0.10	
AR 1260	10.0	1	0.10	~~0.01~~ 0.10	~~0.01~~ 0.10	0.10	0.10	0.10	
TCX	2.0	0.02	0.02	0.02	0.02	0.02	0.02	0.02	
DCB	2.0	1	0.02	0.02	0.02	0.2	0.20	0.02	
Date/ Analyst		8/20/99 MB	2/9/00	6/15/00 MK	9/9/00 MK	11/4/00	2/23/01	6/15/01 MK	
Expiration Date		2/20/00	8/9/00	12/15/00 MK	3/9/01 MK	5/4/01	6/15/01	12/15/01	
Reviewed By/Date		8/20/99	2/12/00	6/16/00	9/9/00	11/9/00	2/28/01	6/15/01	
Date Concentration Verified		8/21/99	2/12/00	6/16/00	9/10/00	11/13/00	2/24/01		

8/21/99

Logbook # 8048, Page# 007

L-WI-008/Q-11/97

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Recra LabNet Philadelphia

GC ANALYSIS

Preparation of Working Standard (Multi - Component)

(Multi-level Calibration Standards)

EXPIRATION DATE: 12/15/01

ANALYST/DATE: BS 6/15/01

NAME: AR 1660

Dilution Mix ID		86332801	86332802	86332803	86332804	86332805			
Parent Mix ID	84323701								
Parent Volume (w/units)		400 mL	1.0 mL	2.0 mL	4.0 mL	10 mL			
Total Volume (w/units)		100 mL	→	→	→	→			
Solvent/Lot #	hexane V09E03		→	→	→	→	→	→	→
Units →	µg/mL		→	→	→	→	→	→	→
Component ↓	Parent Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.
AR 1016	10.0	0.04	0.10	0.20	0.40	1.0			
AR 1260	10.0	↓	↓	↓	↓	↓			
TCX	2.0	0.008 ~~0.005~~ MK 6/15/01	0.02	0.04	0.08	0.20			
DCB	2.0	↓	↓	↓	↓	↓			

BS 6/15/01

Date Concentration Verified/Initials: _____

Reviewed By/Date: MK 6/15/01
(includes calculation verification)

Logbook #8633, Page#

RFW 21-21-008/Q1-07/97

Recra LabNet Philadelphia

GC ANALYSIS
Preparation of Stock Standard (Multi - Component)

NAME AR1660
I.D.# 84323701

EXPIRATION DATE 6/15/02

DATE/ANALYST MK 6/15/01

Component	Parent ID#	Parent Concentration	Purity Adj.? Y/N*	Parent Volume (w/units)	Total Volume (mL)	Solvent	Component Concentration (w/units)
AR1016	64392602	1000 µg/mL	Amp	1.0 mL	100 mL	hexane V09E03	10.0 µg/mL
AR1260	⊥	⊥	⊥	⊥	⊥	⊥	10.0
TCX	64392910	200 µg/mL	⊥	⊥	⊥	⊥	2.0
DCB	⊥	⊥	⊥	⊥	⊥	⊥	2.0 ⊥

* Purity adjustment required if not greater than 95%

Reviewed By/Date: BS 6/15/01
(includes calculation verification)

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Recra LabNet Philadelphia

GC ANALYSIS
Preparation of Working Standard (Multi - Component)

NAME: Toxaphene

Dilution Mix ID		80481001	80481002	80481003	80481004	80481005			
Parent Mix ID-all parent mixes contain same conc. of analytes	61928001	61928001	61928001	61928001	64392203	54321801			
Parent Volume (w/units)	—	—	100ul	—	—	—			
		5.0mL	~~10ml~~ DE 9/13/99	5.0mL	0.25mL	5.0mL			
Total Volume (w/units)		100mL	10ml	100mL	100mL	100mL			
Solvent/Lot #	Hex/BSC99	→	→	→	→	→	→	→	→
Units →	ug/mL	→	→	→	→	→	→	→	→
Component ↓	Parent Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.
Toxaphene	10.0	0.5	0.10	0.5	0.5	0.5			
TCX	2.0	0.1	0.02	0.1	0.1	0.1			
DCB	2.0	0.1	0.02	0.1	0.1	0.1			
Date/ Analyst		DE 9/13/99	DE 9/13/99	[illegible]	MK 9/10/00	MK 3/20/01			
Expiration Date		3/13/00	3/13/00	9/13/00	3/16/01	7/16/01			
Reviewed By/Date		[illegible] 9/13/99	[illegible] 9/12/99	[illegible] 9/22/00	[illegible] 9/8/00				
Date Concentration Verified		9/14/99	NA	9/15/00	9/18/00				

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Recra LabNet Philadelphia

GC ANALYSIS
Preparation of Stock Standard (Multi - Component)

NAME Toxaphene
I.D.# 84321801

EXPIRATION DATE 9/16/01

DATE/ANALYST MK 10/27/00

Component	Parent ID#	Parent Concentration	Purity Adj.? Y/N*	Parent Volume (w/units)	Total Volume (mL)	Solvent	Component Concentration (w/units)
Toxaphene	64392203	200 mg/mL	Amp	1.25 mL	25 mL	hexane T21313	10.0 mg/mL
TCX	64392408	200 mg/mL	↓	0.25 mL	↓	↓	2.0 mg/mL
DCB	↓	200 mg/mL	↓	↓	↓	↓	↓

MK 10/27/00

* Purity adjustment required if not greater than 95%

Reviewed By/Date: MP 10/27/00
(includes calculation verification)

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Recra LabNet Philadelphia

GC ANALYSIS

Preparation of Working Standard (Multi - Component)

NAME: AR1221

Dilution Mix ID		8048l101	8048l102A	8048l103	8048l104	8048l105	8048l106	8048l107	8048l108
Parent Mix ID-all parent mixes contain same conc. of analytes	6192810l	6192810l	6192810l	6192810l	6192810l	6192810l	8432l101	8432l101	8432l101
Parent Volume (w/units)	—	—	—	—	—	—	—	—	—
Total Volume (w/units)		2.0ml	100ul	2.0mL	100uL	2.0mL	2.0mL	100uL	2.0mL
Solvent/Lot #		100ml	25mls	100mL	25mL	100mL	100mL	25mL	100mL
Units →	Nex 1B5099	→	→	→	→	→	→	→	→
Component ↓	ug/mL	→	→	→	→	→	→	→	→
	Parent Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.
AR1221	10.0	0.20	0.04	~~0.0412~~	0.04	0.20	0.02	0.04	0.04
TCX	2.0	0.040	0.008	~~0.008~~	0.008	0.040	0.04	0.008	0.008
DCB	2.0	0.040	0.008	~~0.008~~	0.008	0.040	0.04	0.008	0.008
Date/ Analyst		9/13/00	9/13/99	9/14/00	9/14/00	9/14/00	9/14/00	9/27/00	3/3/01
Expiration Date * TC 9/13/99		9/13/00*	3/13/00	9/13/00	9/13/00	9/13/00	3/6/01	3/25/01	9/6/01
Reviewed By/Date		9/13/99	9/13/99		9/13/00	9/13/00	9/13/00	9/27/00	
Date Concentration Verified		9/14/99	ND		3/6/01	3/15/01	9/7/01	ND	

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Recra LabNet Philadelphia

GC ANALYSIS
Preparation of Stock Standard (Multi - Component)

NAME AR1221
I.D.# 84321101

EXPIRATION DATE 9/6/01

DATE/ANALYST BR 9/6/00

Component	Parent ID#	Parent Concentration	Purity Adj.? Y/N*	Parent Volume (w/units)	Total Volume (mL)	Solvent	Component Concentration (w/units)
AR1221	64392305	1000ug/mL	Appr	1mL	100mL	Hexane T09251	10.0ug/mL
TCX	64392309	200ug/mL					2.0ug/mL
DCB							

* Purity adjustment required if not greater than 95%

Reviewed By/Date: MK 9/25/00
(includes calculation verification)

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Recra LabNet Philadelphia

GC ANALYSIS

Preparation of Working Standard (Multi - Component)

NAME: AR1232

Dilution Mix ID		80481201	80481202C	80481203	80481204	80481205			
Parent Mix ID-all parent mixes contain same conc. of analytes	61928202	→	61928202	61728202	84321201	84321201			
	—	—	—	—	—	—			
Parent Volume (w/units)		1.0 100mL	500uL	1.0 mL	1.0 mL	1.0 mL			
Total Volume (w/units)		100mL	25mL	100mL	100mL	100mL			
Solvent/Lot #	Hex/B5099	→	→	→	→	→	→	→	→
Units →	ug/mL	→	→	→	→	→	→	→	→
Component ↓	Parent Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.
AR1232	10.0	0.10	0.20	0.10	0.10	0.10			
TCX	2.0	0.02	0.040	0.02	0.02	0.02			
DCB	2.0	0.02	0.040	0.02	0.02	0.02			
Date/ Analyst		9/13/99	9/13/99	9/14/00	9/7/00	3/16/01			
Expiration Date		3/13/00	3/13/00	9/13/00	3/15/01	9/16/01			
Reviewed By/Date		9/14/99	9/13/99	9/27/00	9/28/00				
Date Concentration Verified		9/14/99	9/14/99	3/5/00	9/7/00				

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Recra LabNet Philadelphia

GC ANALYSIS

Preparation of Stock Standard (Multi - Component)

NAME AR1232
I.D.# 84321201

EXPIRATION DATE 9/15/01

DATE/ANALYST BP 9/15/00

Component	Parent ID#	Parent Concentration	Purity Adj.? Y/N*	Parent Volume (w/units)	Total Volume (mL)	Solvent	Component Concentration (w/units)
AR1232	64392509	1000 ug/mL	Amp	1.0 mL	100 mL	Hexane TU9251	10.0 ug/mL
TCX	64392809	200		1.0 mL			2.0
DCB							2.0

BP

* Purity adjustment required if not greater than 95%

Reviewed By/Date: MK 9/25/00
(includes calculation verification)

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Recra LabNet Philadelphia

GC ANALYSIS
Preparation of Working Standard (Multi - Component)

NAME: AR 1242

Dilution Mix ID		8048 1301	8048 1302	8048 1303	8048 1304				
Parent Mix ID-all parent mixes contain same conc. of analytes	6928301	→	6928301	~~6928301~~ 8432 1301	8432 1301				
Parent Volume (w/units)		1.0ml	1.0mL	1.0mL	1.0mL				
Total Volume (w/units)		100mL	100mL	100mL	100mL				
Solvent/Lot #	Hex B5099	→	→	→	→	→	→	→	→
Units →	US/mL	→	→	→	→	→	→	→	→
Component ↓	Parent Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.
AR 1242	10.0	0.10	0.10	0.10	0.10				
TCX	2.0	0.02	0.02	0.02	0.02				
DCB	⊥	⊥	0.02	0.02	0.02				
Date/ Analyst		9/13/99	9/13/00	MK 9/16/00	MK 3/20/01				
Expiration Date		3/13/00	9/13/00	3/16/01	9/16/01				
Reviewed By/Date		9/13/99	9/13/00	9/16/00					
Date Concentration Verified		9/14/99	9/15/00	9/16/00					

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Recra LabNet Philadelphia

GC ANALYSIS
Preparation of Stock Standard (Multi - Component)

NAME AR1242
I.D.# 84321301

EXPIRATION DATE 9/16/01

DATE/ANALYST BMP 9/16/00

Component	Parent ID#	Parent Concentration	Purity Adj.? Y/N*	Parent Volume (w/units)	Total Volume (mL)	Solvent	Component Concentration (w/units)
AR1242	64392506	1000 ug/mL	Amp	1.00 mL	100 mL	Hexane T09251	10.0 ug/mL
TCX	64392510	200					2.0
DCB							2.0
		BMP					

* Purity adjustment required if not greater than 95%

Reviewed By/Date: MK 9/25/00
(includes calculation verification)

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Recra LabNet Philadelphia

GC ANALYSIS

Preparation of Working Standard (Multi - Component)

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NAME: AR1248 ICAL

Dilution Mix ID		86331101							
Parent Mix ID-all parent mixes contain same conc. of analytes	84323601	→							
Parent Volume (w/units)		1mL							
Total Volume (w/units)		100mL							
Solvent/Lot #	hexane	V09E03	→	→	→	→	→	→	→
Units →	µg/mL		→	→	→	→	→	→	→
Component ↓	Parent Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.
AR1248	10.0	0.10							
TCX	2.0	0.02							
DCB	2.0	0.02							
Date/ Analyst		MK 6/9/01							
Expiration Date		12/9/01							
Reviewed By/Date		JC 6/11/01							
Date Concentration Verified									

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Recra LabNet Philadelphia

GC ANALYSIS
Preparation of Stock Standard (Multi - Component)

NAME AR1248
I.D.# 84323001

EXPIRATION DATE 6/9/02

DATE/ANALYST MK 6/9/01

Component	Parent ID#	Parent Concentration	Purity Adj.? Y/N*	Parent Volume (w/units)	Total Volume (mL)	Solvent	Component Concentration (w/units)
AR1248	64392511	1000mg/mL	Amp	1mL	100.0	VOQEO3 hexane	10.0 mg/mL
TCX	64392909	200mg/mL	Amp	↓	↓	↓	2.0 mg/mL
PCB	↓	↓	↓	↓	↓	↓	↓

* Purity adjustment required if not greater than 95%

Reviewed By/Date: JL 6/11/01
(includes calculation verification)

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GC ANALYSIS

Preparation of Working Standard (Multi - Component)

(Multi-level Calibration Standards)

NAME: AR1254 EXPIRATION DATE: 9/6/01 ANALYST/DATE: MK 3/13/01

Dilution Mix ID		80489401	80489402	80489403	80489404	80489405			
Parent Mix ID	6192100-01								
Parent Volume (w/units)		400mL	1.0mL	2.0mL	4.0mL	10.0mL			
Total Volume (w/units)		100mL	→	→	→	→			
Solvent/Lot #	Hexane T41E01	→	→	→	→	→	→	→	→
Units →	ug/mL	→	→	→	→	→	→	→	→
Component ↓	Parent Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.
AR1254	10.0	0.04	0.10	0.20	0.40	1.0			
TCX	2.0	0.008	0.02	0.04	0.08	0.20			
DCB	2.0	⊥	⊥	⊥	⊥	⊥			

MK 3/13/01

Date Concentration Verified/Initials: _____

Reviewed By/Date: _____
(includes calculation verification)

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Recra LabNet Philadelphia

GC ANALYSIS

Preparation of Working Standard (Multi - Component)

NAME: AB1254

Dilution Mix ID		80480801		80480802	80480803	80480804			
Parent Mix ID-all parent mixes contain same conc. of analytes	61927601	→		61927601	61927601	6192100-01			
Parent Volume (w/units)		1.0mL		1.0mL	1.0mL	1.0			
Total Volume (w/units)		100ml		100mL	100mL	100mL			
Solvent/Lot #	Hex/BS099	→	→	→	→	→	→	→	→
Units →	ug/mL	→	→	→	→	→	→	→	→
Component ↓	Parent Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.
AB1254	10.0	0.10		0.10	0.10	0.10			
TCX	2.0	0.02		0.02	0.02	0.02			
DCB	2.0	0.02		0.02	0.02	0.02			
			DC 9/3/99		BTP 9/6/00	MK 3/13/01			
Date/ Analyst		DC 9/3/99		VW 3/28/00	BTP 9/6/00	MK 3/13/01			
Expiration Date		9/21/00 (3/3/00)		9/2/00	3/6/01	9/6/01			
Reviewed By/Date		3/21/00		BTP 3/15/00	MK 9/7/00				
Date Concentration Verified		BTP 9/5/99		BTP 3/6/00	9/8/00				

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Recra LabNet Philadelphia

GC ANALYSIS

Preparation of Working Standard (Multi - Component)

(Multi-level Calibration Standards)

NAME: AR1254

EXPIRATION DATE: 3/6/01

ANALYST/DATE: BP 9/6/00

Dilution Mix ID		80486501	80486502	80486503	80486504	80486505			
Parent Mix ID	61928R10001								
Parent Volume (w/units)		100 ul	1.0 mL	2.0 mL	4.0 mL	10.0 mL			
Total Volume (w/units)		100 mLs	→	→	→	→	→	→	→
Solvent/Lot #	Hexane T09251	→	→	→	→	→	→	→	→
Units →	ug/mL	→	→	→	→	→	→	→	→
Component ↓	Parent Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.
AR1254	10.0	0.04	0.10	0.20	0.40	1.0			
TCX	2.0	0.008	0.02	0.04	0.08	0.20			
DCB	2.0	↓	↓	↓	↓	↓			

BP 9/6/00

Date Concentration Verified/Initials: BP 9/10/00

Reviewed By/Date: MK 9/26/00
(includes calculation verification)

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Recra LabNet Philadelphia

GC ANALYSIS

Preparation of Stock Standard (Multi - Component)

NAME AR1254 Stock
I.D.# 6192100-01

EXPIRATION DATE 9/6/01

DATE/ANALYST BM 9/6/00

Component	Parent ID#	Parent Concentration	Purity Adj.? Y/N*	Parent Volume (w/units)	Total Volume (mL)	Solvent	Component Concentration (w/units)
AR1254	6139 2502	1000ug/mL	N	1.0mL	100mL	Hexane	10.0 ug/mL
TCX	6439 2310	800ug/mL				T09251	2.0
DCB							2.0

BM 9/6/00

* Purity adjustment required if not greater than 95%

Reviewed By/Date: MK 9/26/00
(includes calculation verification)

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Recra LabNet Philadelphia

GC ANALYSIS

Preparation of Working Standard (Multi - Component)

(Multi-level Calibration Standards)

NAME: INDA 8081 EXPIRATION DATE: 4/30/01 ANALYST/DATE: MK 10/30/00

Dilution Mix ID		80487301	80487302	80487303	80487304	80487305	80487306		
Parent Mix ID	61929101								
Parent Volume (w/units)		1.2 mL	3 mL	12.5 mL	10 mL	15 mL	5 mL 80487305		
Total Volume (w/units)		100 mL	100 mL	250 mL	100 mL	100 mL	~~30~~ 15 mL		
Solvent/Lot # hexane / T21313	→	→	→	→	→	→	→	→	→
Units → mg/mL	→	→	→	→	→	→	→	→	→
Component ↓	Parent Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.
Alpha-BHC	0.40 mg/mL	0.005	0.012	0.020	0.040	0.060	0.020		
Gamma-BHC									
Heptachlor									
Endosulfan I									
Dieldrin	0.80	0.010	0.024	0.040	0.080	0.120	0.040		
Endrin									
4,4'-DDD									
4,4'-DDT									
Methoxychlor	4.0	0.05	0.120	0.20	0.40	0.60	0.20		
TCX	0.8	0.01	0.024	0.04	0.08	0.12	0.04		
DCB	2.0	0.024	0.06	0.10	0.20	0.30	0.10		

Date Concentration Verified/Initials: MK 10/30/00

Reviewed By/Date: [illegible]
(includes calculation verification)

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GC ANALYSIS

Preparation of Working Standard (Multi - Component)

(Multi-level Calibration Standards)

EXPIRATION DATE: 10/20/01

NAME: INDA 8048

ANALYST/DATE: BS 4/20/01

Dilution Mix ID		80489801	80489802	80489803	80489804	80489805			
Parent Mix ID	84522901								
Parent Volume (w/units)		1.2mL	3 mL	12.5mL	10mL	15mL			
Total Volume (w/units)		100mL	100mL	250 mL	100 mL	100 mL			
Solvent/Lot # Hexane/V05E62	→	→	→	→	→	→	→	→	→
Units → ng/ml	→	→	→	→	→	→	→	→	→
Component ↓	Parent Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.
Alpha-BHC	0.40 ng/ml	0.005	0.012	0.020	0.040	0.060			
Gamma-BHC	↓	↓	↓	↓	↓	↓			
Heptachlor	↓	↓	↓	↓	↓	↓			
Endosulfan I	↓	↓	↓	↓	↓	↓			
Dieldrin	↓	↓	↓	↓	↓	↓			
Endrin	0.80 ng/ml	0.010	0.024	0.040	0.080	0.120			
4,4'-DDD	↓	↓	↓	↓	↓	↓			
4,4'-DDT	↓	↓	↓	↓	↓	↓			
Methoxychlor	4.0 ng/ml	0.05	0.120	0.20	0.40	0.60			
TCX	0.80 ng/ml	0.01	0.024	0.04	0.080	0.12			
DCB	2.0 ng/ml	0.024	0.06	0.10	0.20	0.30			

Date Concentration Verified/Initials: _____

Reviewed By/Date: MIC 4/20/01
(includes calculation verification)

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Recra LabNet Philadelphia

GC ANALYSIS

Preparation of Stock Standard (Multi - Component)

NAME INDA (808) Stock
I.D.# 61929101

EXPIRATION DATE 4/18/04

DATE/ANALYST BM 4/18/00

Component	Parent ID#	Parent Concentration	Purity Adj.? Y/N*	Parent Volume (w/units)	Total Volume (mL)	Solvent	Component Concentration (w/units)
Alpha BHC	64390311	80 ug/mL	Amp	1.0 mL	200 mL	B5099 Hexane	0.40 ug/mL
Gamma-BHC							
Heptachlor							
Endosulfan I							0.8
Dieldrin		160 ug/mL					
Endrin							
4,4'-DDD							
4,4'-DDT							4.0
Methoxychlor		800 ug/mL					0.8
TCX		160 ug/mL					2.0
DCB		400 ug/mL					

* Purity adjustment required if not greater than 95%

Reviewed By/Date: DE 5/2/00
(includes calculation verification)

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Recra LabNet Philadelphia

GC ANALYSIS
Preparation of Stock Standard (Multi - Component)

NAME INDA (CLP61) Stock
I.D.# 6432290 1

EXPIRATION DATE 4/20/02

DATE/ANALYST BS 4/20/01

Component	Parent ID#	Parent Concentration	Purity Adj.? Y/N*	Parent Volume (w/units)	Total Volume (mL)	Solvent	Component Concentration (w/units)
Alpha-BHC	6439316A	800 µg/ml	Apap	1.0 mL	200 ml	VOS EGZ Hexane	0.40 µg/ml
Gamma-BHC							
Heptachlor							
Endosulfan I							
Dieldrin		160 µg/ml					0.8
Endrin							
4,4'-DDD							
4,4'-DDT							
Methoxychlor		800 µg/ml					4.0 ~~4.0~~ BS 4/20/01
TCX		160 µg/ml					~~4.0~~ 0.8
DCB		400 µg/ml					BS 4/20/01 0.8 20
							7.0

* Purity adjustment required if not greater than 95%

Reviewed By/Date: MIC 4/20/01
(includes calculation verification)

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RFW 21-21-008/P-06/97

Recra LabNet Philadelphia

GC ANALYSIS

Preparation of Working Standard (Multi - Component)

(Multi-level Calibration Standards)

NAME: INDB 8080 EXPIRATION DATE: 4/30/01 ANALYST/DATE: MK 2/9/01

Dilution Mix ID		80489201	80489202	80489203	80489204	80489205			
Parent Mix ID	61929301								
Parent Volume (w/units)		1.2mL	3.0mL	12.5mL	10mL	15mL			
Total Volume (w/units)		100mL	100mL	250mL	100mL	100mL			
Solvent/Lot # Hexane T22251		→	→	→	→	→	→	→	→
Units →	ug/mL	→	→	→	→	→	→	→	→
Component ↓	Parent Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.
Beta-BHC	0.04	0.005	0.020	0.020	0.040	0.060			
Delta-BHC									
Aldrin									
Hept. Epoxide									
A. Chlordane									
G. Chlordane									
4,4'-DDE	0.08	0.010	0.024	0.04	0.080	0.120			
Endosulfan II									
Endrin Aldehyde									
Endosulfan Sulfate									
Endrin Ketone									
TCX									
DCB	2.0	0.024	0.060	0.100	0.200	0.300			

Date Concentration Verified/Initials: _____

Reviewed By/Date: _____
(includes calculation verification)

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Recra LabNet Philadelphia

GC ANALYSIS

Preparation of Working Standard (Multi - Component)

(Multi-level Calibration Standards)

EXPIRATION DATE: 10/20/01

NAME: INDB 8048

ANALYST/DATE: BG 4/20/01

Dilution Mix ID		80489901	80489902	80489903	80489904	80489905			
Parent Mix ID 84323001	84323001								
Parent Volume (w/units)		1.2mL	3mL	12.5mL	10 mL	15mL			
Total Volume (w/units)		100mL	100mL	250mL	100mL	100mL			
Solvent/Lot # Hexane/V05E62	→	→	→	→	→	→	→	→	→
Units →	mg/mL	→	→	→	→	→	→	→	→
Component ↓	Parent Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.
Beta-BHC	0.04	0.005	0.012	0.020	0.040	0.060			
Delta-BHC	↓	↓	↓	↓	↓	↓			
Aldrin	↓	↓	↓	↓	↓	↓			
Hept. Epoxide	↓	↓	↓	↓	↓	↓			
A. Chlordane	↓	↓	↓	↓	↓	↓			
B. Chlordane	↓	↓	↓	↓	↓	↓			
4,4'-DDE	0.08	0.010	0.024	0.04	0.080	0.120			
Endosulfan II	↓	↓	↓	↓	↓	↓			
Endrin Aldehyde	↓	↓	↓	↓	↓	↓			
Endosulfan Sulfate	↓	↓	↓	↓	↓	↓			
Endrin Ketone	↓	↓	↓	↓	↓	↓			
TCX	↓	↓	↓	↓	↓	↓			
DCB	2.0	0.024	0.060	0.100	0.200	0.300			

Reviewed By/Date: MK 4/20/01
(includes calculation verification)

Date Concentration Verified/Initials: _____

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Recra LabNet Philadelphia

GC ANALYSIS

Preparation of Stock Standard (Multi - Component)

NAME INOB (8081) stock
I.D.# 61929301
EXPIRATION DATE 4/30/01
DATE/ANALYST BP 5/9/00

Component	Parent ID#	Parent Concentration	Purity Adj.? Y/N*	Parent Volume (w/units)	Total Volume (mL)	Solvent	Component Concentration (w/units)
Beta-BHC	64796406	80 ug/~~kg~~ mL	Amp	1 mL	200	Hexane	0.4 ug/mL
Delta-BHC						Lot-B50099	
Aldrin							
Hept. Epoxide							
A. Chlordane							
G. Chlordane							
4,4'-DDE		160 ug/~~kg~~ mL					0.8 ug/mL
Endosulfan II							
Endrin Aldehyde							
Endosulfan Sulfate							
Endrin Ketone							
TCX							
DCB		400 ug/~~kg~~ mL					2.0 ug/mL

Brasfield

* Purity adjustment required if not greater than 95%

Reviewed By/Date: CK 5/12/00
(includes calculation verification)

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RFW 21-21-008/P-06/97

Recra LabNet Philadelphia

GC ANALYSIS
Preparation of Stock Standard (Multi - Component)

NAME Int DB (8081) Stock
I.D.# 64323001

EXPIRATION DATE 4/20/02

DATE/ANALYST BG 4/20/01

Component	Parent ID#	Parent Concentration	Purity Adj.? Y/N*	Parent Volume (w/units)	Total Volume (mL)	Solvent	Component Concentration (w/units)
Beta-BHC	64313201A	80 µg/ml	Amp	1 mL	200 mL	VOSEG2 Hexane	0.4 µg/ml
Delta-BHC							
Aldrin							
Hept. Epoxide							
A. Chlordane							
B. Chlordane							
4,4'-DDE		160 µg/ml					0.8 µg/ml
Endosulfan II							
Endrin Aldehyde							
Endosulfan Sulfate							
Endrine Ketone							
TCX		400 µg/ml					20 µg/ml
DCB							

* Purity adjustment required if not greater than 95%

Reviewed By/Date: MK 4/20/01
(includes calculation verification)

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RFW 21-21-008/P-06/97

Recra LabNet Philadelphia

GC ANALYSIS

Preparation of Working Standard (Multi - Component)

(Multi-level Calibration Standards) mk 4/17/01

NAME: 3/90 Mix A

EXPIRATION DATE: ~~4/17/02~~ 10/17/01

ANALYST/DATE: MK 4/17/01

Dilution Mix ID		80489601	80489602	80489603					
Parent Mix ID	64392607 64392701								
Parent Volume (w/units)		63 uL	625 uL	1000 uL					
Total Volume (w/units)		100 mL	250 mL	100 mL					
Solvent/Lot # hexane		→	→	→	→	→	→	→	→
Units →	ug/mL		→	→	→	→	→	→	→
Component ↓	Parent Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.
Alpha-BHC	8.0	0.005	0.020	0.080					
Gamma-BHC									
Heptachlor									
Endosulfan I									
Dieldrin	16.0	0.01	0.040	0.16					
Endrin									
4,4'-DDD									
4,4'DDT									
methoxychlor	80.0	0.05	0.20	0.80					
TCX	8.0	0.005	0.02	0.08					
DCB	16.0	0.01	0.04	0.16					

Date Concentration Verified/Initials: _____

Reviewed By/Date: _____
(includes calculation verification)

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Recra LabNet Philadelphia

GC ANALYSIS

Preparation of Working Standard (Multi - Component)

(Multi-level Calibration Standards)

NAME: 3/90 Mix B

EXPIRATION DATE: ~~10/17/02~~ 10/17/01

ANALYST/DATE: 4/17/01 MK

Dilution Mix ID		80489701	80489702	80489703					
Parent Mix ID	64392407 64392408								
Parent Volume (w/units)		63 uL	625 uL	1000 uL					
Total Volume (w/units)		100 uL	250 mL	100 mL					
Solvent/Lot #	hexane		→	→	→	→	→	→	→
Units →	ug/mL	→	→	→	→	→	→	→	→
Component ↓	Parent Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.
Beta-BHC	8.0	0.005	0.02	0.08					
Delta-BHC									
Aldrin									
Heptachlor Epoxide									
Alpha Chlordane									
Gamma Chlordane									
4,4'-DDE	16.0	0.01	0.04	0.16					
Endosulfan II									
Endrin Aldehyde									
Endrin Ketone									
Endosulfan Sulfate									
TCX	8.0	0.005	0.02	0.08					
DCB	16.0	0.01	0.04	0.16					

Date Concentration Verified/Initials: _____

Reviewed By/Date: _____
(includes calculation verification)

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Recra LabNet Philadelphia

GC ANALYSIS
Preparation of Working Standard (Multi - Component)

NAME: PEM

Dilution Mix ID		80482101	80482102	80482103	80482104	80482105	80482106		
Parent Mix ID-all parent mixes contain same conc. of analytes		64391905	64391905	64391905	64391905	85650205A	85650205A		
Parent Volume (w/units)		100mL	100mL	100mL	100mL	100mL	100mL		
Total Volume (w/units)		10mL	10mL	10mL	10mL	10mL	10mL		
Solvent/Lot #	Hexane	T22251	→	→	→	→	→	→	→
Units →			→	→	→	→	→	→	→
Component ↓	Parent Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.
Alpha-BHC	1.0	0.01	0.01	0.01	0.01	0.01	0.01		
Beta-BHC	1.0	↓	↓	↓	↓	↓	↓		
Gamma-BHC	1.0	↓	↓	↓	↓	↓	↓		
Endrin	5.0	0.05	0.05	0.05	0.05	0.05	0.05		
4,4'-DDT	10.0	0.10	0.10	0.10	0.10	0.10	0.10		
methoxychlor	25.0	0.25	0.25	0.25	0.25	0.25	0.25		
TCX	2.0	0.02	0.02	0.02	0.02	0.02	0.02		
DCB	2.0	0.02	0.02	0.02	0.02	0.02	0.02		
Date/ Analyst		MK 12/21/00	MK 1/3/01	MK 1/15/01	MK 1/19/01	MK 3/20/01	MK 4/17/01		
Expiration Date		12/20/00	1/11/01	1/23/01	1/27/01	3/28/01	4/25/01		
Reviewed By/Date		LK 12/21/00	MB 01/03/01	LK 1/15/01	LK 1/23/01				
Date Concentration Verified		NA	NA	NA	NA				

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Recra LabNet Philadelphia

GC ANALYSIS
STANDARD RECEIPT LOG

Compound	Date Received	Standard ID	Source and Lot	%Purity	Solvent	Final Volume (mL)	Final Conc. (w/units)	Exp/ Date	Date/Analyst Date Opened/ Analyst	Reviewed By/ Date
pesticid Standard Mix B (3/90)	4/3/98	64390301	CAT # 32004 Lot # A009376 & A009377 mfg Exp May 1999	99%	hex	1ml	8µg/ml - 16µg/ml	4/2/99	4/3/98 PK Expired	4/20/99
ENDRIN	4/22/98	64390302	ULTRA SCIENTIFIC EPA 1119 MFG Exp LOT H0705 2/2002	AMP	MeOH	1mL	1000 µg/mL TE 4/22/98	4/22/99 ~~2/2002~~	4/22/98 GS 4/22/98 GS	4/3/98 PK
⊥	4/22/98	64390303	ULTRA SCIENTIFIC EPA - 1119 MFG Exp LOT H0705 2/2002	⊥	⊥	⊥	⊥	3/22/00 ~~2/2002~~	4/22/98 GS 3/22/99	3/22/99
4,4'- DDT	⊥	64390304	ULTRA SCIENTIFIC EPA - 1099 MFG Exp 12/99 LOT E - 0086	AMP	MeOH	1mL	5000 µg/mL TE 4/22/98	4/22/99 ~~12/1999~~	4/22/98 GS 4/22/98 GS	4/3/98 PK
⊥	⊥	64390305	⊥ MFG Exp 12/99	⊥	⊥	⊥	⊥ TE 4/20/99	12/99 ~~12/1999~~	4/22/98 GS 3/22/99	3/22/99
AR 1016	⊥	64390306	RESTEK # 32006 LOT A009070 MANU exp 6/2000	⊥	HEXANE	1mL	1000 µg/mL	9/11/99	4/22/98 GS 9/11/98	9/14/98
AR 1260	⊥	64390307	RESTEK 32012 LOT A010401 manu exp 1/2001	⊥	⊥	⊥	1000 µg/mL	8/4/00	4/22/98 GS 8/4/99	8/11/99 PK
AR 1221	⊥	64390308	RESTEK # 32007 LOT A010712 manu exp 2/2001	⊥	⊥	⊥	1000 µg/mL	9/22/99	4/22/98 GS 9/22/98	9/22/99
CUSTOM Pesticide Mix A	4/29/98	64390309	RESTEK #50801 LOT A010168 MFG Exp 4/2001	AMP	tol/Hex	1ml	80-800 µg/ml	4/30/99	4/29/98 4/30/98	4/30/98
⊥	⊥	64390310	⊥	⊥	⊥	⊥	⊥	4/20/00	4/29/98 4/20/99	4/20/99
⊥	⊥	64390311	⊥	⊥	⊥	⊥	⊥	4/18/01	4/29/98 4/18/00	4/18/00

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Recra LabNet Philadelphia

GC ANALYSIS
STANDARD RECEIPT LOG

Compound	Date Received	Standard ID	Source and Lot	%Purity	Solvent	Final Volume (mL)	Final Conc. (w/units)	Exp/ Date	Date/Analyst Date Opened/ Analyst	Reviewed By/ Date
CUSTOM PESTICIDE MIX A	4/29/98	64390401	RESTEK #50801 LOT A010968 MFG EXP 9/2001	Amp	Tol/Hex	1ml	80-600 ug/ml	5/12/99	DR 4/29/98 BP 5/12/99	DR 5/14/98
↓	↓	64390402	↓	↓	↓	↓	↓		DR 4/29/98	
CUSTOM PESTICIDE MIX B	4/29/98	64390403	RESTEK #50802 LOT A010969 MFG EXP 4/2001	Amp	Tol/Hex	1mL	80-400 ug/ml	7/27/99	DR 4/29/98 DR 7/27/98	BP 7/27/98
↓	↓	64390404	↓	↓	↓	↓	↓	5/20/00	DR 4/29/98 DR 5/20/99	BP 6/1/99
		64390405						11/20/00	DR 4/30/98 BP 11/20/99	11/30/99
		64390406						4/30/00 01	DR 4/29/98 BP 5/9/00	
		64390407	↓	↓	↓	↓	↓		DR 4/29/98	
Dalapon	5/15/98	64390408	ACCU STD R-1405-10X lot A1040393 MFG EXP 6/1/99	Amp	MeOH	1ml	1.0mg/ml	5/14/99	DR 5/15/98 BP 5/12/98	DR 7/27/98
Dalapon	5/15/98	64390409	↓	↓	↓	↓	↓	6/1/99	DR 5/15/98 BP 11/12/98	11/13/98
AR 1260	5/15/98	64390410	RESTEK Cat 32081 LOT A010144 EXP 11/00	Amp	Transformer OIL	1mL	50mg/Kg	5/20/99	DR 5/15/98 BP 5/20/98	DR 5/21/98
AR1254	5/15/98	64390411	RESTEK Cat 32085 LOT A010133 EXP 1/01	↓	↓	↓	↓	5/20/99	DR 5/15/98 BP 5/20/98	DR 5/21/98

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Recra LabNet Philadelphia

GC ANALYSIS
STANDARD RECEIPT LOG

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Compound	Date Received	Standard ID	Source and Lot	%Purity	Solvent	Final Volume (mL)	Final Conc. (w/units)	Exp/ Date	Date/Analyst Date Opened/ Analyst	Reviewed By/ Date
Pesticide Surrogate	8/20/99	64391801	Restek exp 3/02 Cat # 3200 Lot # A013427	Amp	Acetone	1 mL	200 ug/mL	9/13/00	MJB 8/20/99 BR 9/13/99	9/13/99
		64391802						9/3/00	MJB 8/20/99 BR 9/3/99	9/3/99
		64391803						12/1/00	MJB 8/20/99 BR 12/1/99	UK 12/1/99
		64391804						3/12/01	MJB 8/20/99 BR 3/12/00	MK 6/6/00
		64391805						6/6/01	MJB 8/20/99 MK 6/6/00	BR 6/6/00
		64391806						6/15/00	MJB 8/20/99 MK 6/15/00	BR 6/15/00
		64391807						9/13/00	MJB 8/20/99 BR 9/13/99	BR 9/13/99
		64391808						9/13/00	MJB 8/20/99 BR 9/13/99	BR 9/13/99
		64391809						9/13/00	MJB 8/20/99 BR 9/13/99	BR 9/13/99
		64391810							MJB 8/20/99	
Thionazin	8/20/99	64391811	Restek 7/15/00 P1715-PX Lot # A010137	Amp	MeOH	1mL	1000 ug/mL	7/15/00	MJB 8/20/99 BR 11/12/99	UK 11/12/99

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Recra LabNet Philadelphia

GC ANALYSIS
STANDARD RECEIPT LOG

Compound	Date Received	Standard ID	Source and Lot	%Purity	Solvent	Final Volume (mL)	Final Conc. (w/units)	Exp/ Date	Date/Analyst Date Opened/ Analyst	Reviewed By/ Date
Endrin	8/20/99	64392001	Restek Exp 7/00 Cat# 32219 Lot# A011777	Amp	methanol	1mL	1000 ug/mL	7/31/00	MJB 8/20/99 BJP 12/1/99	12/3/99
2,4 DDD	8/20/99	64392002	Restek Exp 9/00 Cat# 32098 Lot# A010764	Amp	methanol	1mL	1000 ug/mL		MJB 8/20/99	
2,4 DDT	8/20/99	64392003	Restek Exp 11/01 Cat# 32200 Lot# A012353	Amp	methanol	1mL	1000 ug/mL		MJB 8/20/99	
4,4 DDT	8/20/99	64392004	Restek Cat# 32203 Lot# A011670	Amp	methanol	1mL	1000 ug/mL	12/1/00	MJB 8/20/99 BJP 12/1/99	LK 12/1/99
Aroclor 1232	8/20/99	64392005	Restek Exp 10/01 Cat# 32008 Lot# A012024	Amp	hexane	1mL	1000 ug/mL	9/13/00	MJB 8/20/99 DE 9/13/99	BJP 9/18/99
Toxaphene	8/20/99	64392006	Restek Exp 1/02 Cat# 32005 Lot# A013150	Amp	hexane	1mL	1000 ug/mL	9/13/00	MJB 8/20/99 DE 9/13/99	BJP 9/18/99
Malathion	8/20/99	64392007	Accu Exp 9/1/00 Cat# P0605-10X Lot# A9030418	Amp	MeOH	1mL	1000 ug/mL	9/1/00	MJB 8/20/99 BJP 9/7/99	9/7/99
Dursban	8/20/99	64392008	Accu Exp 9/1/00 Cat# P0945-10X Lot# A9080012	Amp	MeOH	1mL	1000 ug/mL		MJB 8/20/99	
Diazinon	8/20/99	64392009	Accu Exp 12/00 Cat# P0335-10X Lot# A8080148-1A	Amp	MeOH	1mL	1000 ug/mL	12/1/00	MJB 8/20/99 BJP 2/10/00	2/11/00
Parathion	8/20/99	64392010	Accu Exp 9/1/00 Cat# P0705-10X Lot# A7100239	Amp	MeOH	1mL	1000 ug/mL	9/1/00	MJB 8/20/99 BJP 11/30/99	12/1/99
Fenatrol	9/22/99	64392011	Accu Exp 10/1/00 Cat# P-3195 Lot# A8120031	Amp	MeOH	1mL	1500 ug/mL	9/22/00	BJP 9/22/99 BJP 9/23/99	10/9/99

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Recra LabNet Philadelphia

GC ANALYSIS
STANDARD RECEIPT LOG

Compound	Date Received	Standard ID	Source and Lot	%Purity	Solvent	Final Volume (mL)	Final Conc. (w/units)	Exp/ Date	Date/Analyst Date Opened/ Analyst	Reviewed By/ Date
Methoxychlor	3/1/00	6439 2301	Restek Lot# A015207 Cat# 32233 Exp 11/01	Amp	MeOH	1mL	1000 ug/mL	3/17/01	BAP 3/1/00 BAP 3/17/00	MK 9/20/00
Endrin	3/1/00	6439 2302	Restek Lot# A013412 Cat# 32219 Exp 2/01	Amp	MeOH	1mL	1000 ug/mL	3/17/01	BAP 3/1/00 BAP 3/17/00	MK 9/20/00
Hexachlorobenzene	3/1/00	6439 2303	Restek Lot# A014257 Cat# 32231 Exp 9/03	Amp	Ace	1mL	1000 ug/mL		BAP 3/1/00 [illegible]	MK 9/20/00
Hexachlorocyclopentadiene	3/1/00	6439 2304	Restek Lot# A014257 Cat# 32231 Exp 9/03	Amp	MeOH	1mL	1000 ug/mL		BAP 3/1/00	
Propachlor	3/1/00	6439 2305	Restek Lot# A014225 Cat# 32235 Exp 9/03	Amp	MeOH	1mL	1000 ug/mL		BAP 3/1/00 BAP 3/17/00	MK 9/20/00
Trifluralin	3/1/00	6439 2306	Restek Lot# - A014204 Cat# - 32238 Exp 11/03	Amp	MeOH	1mL	1000 ug/mL	5/1/01	BAP 3/1/00 BAP 5/1/00	MK 9/20/00
Pesticide Surrogate	5/9/00	6439 2307	Restek Cat# 32000 Lot# A015908 Exp 11/02	Amp	Ace	1mL	2000 ug/mL		BAP 5/9/00	Taken by OSPW
		6439 2308							BAP 5/9/00	Taken by OSPW
		6439 2309						9/6/01	BAP 9/6/00 BAP 9/6/00	MK 9/20/00
		6439 2310						9/6/01	BAP 9/6/00 BAP 9/6/00	MK 9/20/00
		6439 2311							BAP 9/6/00	Taken by OSPW

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GC ANALYSIS
STANDARD RECEIPT LOG

Compound	Date Received	Standard ID	Source and Lot	%Purity	Solvent	Final Volume (mL)	Final Conc. (w/units)	Exp/ Date	Date/Analyst Date Opened/ Analyst	Reviewed By/ Date
Florisil Check (2/4-EP)	2/16/00	6439 2201	Restex Exp 9/2000 Cat # 32017 Lot # A009055	Amp	Ace	1mL	100 ug/mL		BTR 2/16/00	
Chlordane	2/16/00	6439 2202	Supelco Exp 5/01 4-8881 Lot # LA75873	Amp	MeOH	1mL	500 ug/mL		BTR 2/16/00	
Toxaphene	2/16/00	6439 2203	Supelco 49135-U Lot # LA74272	Amp	Isooctane	10mL	2000 ug/mL	9/16/01	BTR 2/16/00 BTR 2/16/00	
Butachlor	3/1/00	6439 2204	Accu Exp 3/1/01 Lot - A908 0013 P-1915	Amp	MeOH	1mL	1000 ug/mL	3/1/01	BTR 3/1/00 BTR 3/1/00	LDS 6/01
1,3-Dimethyl-2-nitrobenzene	3/1/00	6439 2205	CS Exp 9/01 Lot 237-70A F205515	Amp	MTBE	5mL	2000 ug/mL	5/4/01	BTR 3/1/00 BTR 5/4/0	LET 6/00
Simazine	3/1/00	6439 2206	Restek Exp 7/01 Cat # - 32036 Lot # A014040	Amp	Ace	1mL	1000 ug/mL	5/4/01	BTR 3/1/00 BTR 5/4/00	LDS 6/00
Aldrin	3/1/00	6439 2207	Restek Exp 11/00 Cat # 32005 Lot # A012504	Amp	MeOH	1mL	1000 ug/mL	11/1/00	BTR 3/1/00 BTR 3/1/00	MK 9/20/00
Dieldrin	3/1/00	6439 2208	Restek Exp 11/02 Cat # 32018 Lot # A014949	Amp	MeOH	1mL	1000 ug/mL	3/17/01	BTR 3/1/00 BTR 3/1/00	MK 9/20/00
Heptachlor	3/1/00	6439 2209	Restek Exp 12/00 Cat # 32228 Lot # A016002	Amp	MeOH	1mL	1000 ug/mL	12/1/00	BTR 3/1/00 BTR 3/17/00	MK 9/20/00
Heptachlor Epoxide	3/1/00	6439 2210	Restek Exp 1/02 Cat # - 32030 Lot # A012043	Amp	MeOH	1mL	1000 ug/mL	3/17/01	BTR 3/1/00 BTR 3/17/00	MK 9/20/00
G-BHC	3/1/00	6439 2211	Restek Exp 4/01 Lot # A013880 Cat # 32026	Amp	MeOH	1mL	1000 ug/mL	3/17/01	BTR 3/1/00 BTR 3/17/00	MK 9/20/00

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GC ANALYSIS
STANDARD RECEIPT LOG

Compound	Date Received	Standard ID	Source and Lot	%Purity	Solvent	Final Volume (mL)	Final Conc. (w/units)	Exp/ Date	Date/Analyst Date Opened/ Analyst	Reviewed By/ Date
Resolution mix	5/9/00	64392501	Restek Lot# A014835 Exp 6/02 Cat# 32073	Amp	Hex	1mL	1-10ug/mL		BP 5/9/00	
AR1254	5/9/00	64392502	Restek Exp 12/03 Lot# - A014411 Cat# - 32011	Amp	Hex	1mL	1000ug/mL	9/6/01	BP 5/9/00 BP 9/6/00	MK 9/26/00
AR1254	5/9/00	64392503	⊥	⊥	⊥	⊥	⊥	8/14/01	BP 5/9/00 BF 8/14/00	BP 8/15/00
AR1221	5/9/00	64392504	Restek Exp 3/03 Lot# A016085 Cat# 32060	Amp	Hex	1mL	1000ug/mL	9/6/01	BP 5/9/00 BP 9/6/00	MK 9/26/00
⊥	⊥	64392505	⊥	⊥	⊥	⊥	⊥		BP 5/9/00	
AR1242	5/9/00	64392506	Restek Exp 5/03 Lot# A015939 Cat# 32009	Amp	Hex	1mL	1000ug/mL	9/16/01	BP 5/9/00 BP 9/16/00	MK 9/26/00
AR1242	⊥	64392507	⊥	⊥	⊥	⊥	⊥		BP 5/9/00	
AR1232	5/9/00	64392508	Restek Cat# 32008 Exp 1/02 Cat# A015365	Amp	Hex	1mL	1000ug/mL		BP 5/9/00	
AR1232	⊥	64392509	⊥	⊥	⊥	⊥	⊥	9/15/01	BP 5/9/00 BP 9/15/00	MK 9/26/00
AR1248	5/9/00	64392510	Restek Exp 6/02 Cat# A014102 Cat# 32010	Amp	Hex	1mL	1000ug/mL	6/6/01	BP 5/9/00 MK 6/6/00	BP 8/11/00
⊥	5/9/00	64392511	⊥	⊥	⊥	⊥	⊥		BP 5/9/00	

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Recra LabNet Philadelphia

GC ANALYSIS
STANDARD RECEIPT LOG

Compound	Date Received	Standard ID	Source and Lot	%Purity	Solvent	Final Volume (mL)	Final Conc. (w/units)	Exp/ Date	Date/Analyst Date Opened/ Analyst	Reviewed By/ Date
AR1016/AR1260	5/9/00	6439 2601	Restek Exp 9/02 Cat - 32039 Lot - A015371	Amp	Hex	1mL	1000ug/mL	6/15/01	BM 5/9/00 MK 6/15/00 BM 5/9/00	MK 6/15/00
⊥	5/9/00	6439 2602	⊥	⊥	⊥	1mL	1000ug/mL			
390 mixA	5/9/00	6439 2603	Restek Exp 10/02 Cat# 32003 Lot# A014244	Amp	Hex	1mL	8-80ug/mL	5/25/01	BM 5/9/00 BM 5/25/00	MK 8/15/00
		6439 2604						⊥	BM 5/9/00 BM 5/28/00	⊥
		6439 2605							BM 5/9/00	
		6439 2606							BM 5/9/00	
		6439 2607							BM 5/9/00	
		6439 2608							BM 5/9/00	
		6439 2609							BM 5/9/00	
		6439 2610							BM 5/9/00	
		6439 2611								

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Recra LabNet Philadelphia

GC ANALYSIS
STANDARD RECEIPT LOG

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Compound	Date Received	Standard ID	Source and Lot	%Purity	Solvent	Final Volume (mL)	Final Conc. (w/units)	Exp/ Date	Date/Analyst Date Opened/ Analyst	Reviewed By/ Date
Simazine	8/1/00	6439280	Restek Exp 7/01 Lot - A014240	Amp	Ace	1mL	1000ug/mL		BMS/2/00	
1,3-Dinitrobenzene	8/1/00	6439280	ChemService Lot 337-70A	Amp	MTBE	5mL	2000ug/mL		BMS/2/00	
⊥	⊥	6439283	⊥ Exp 7/01	⊥	⊥	⊥	⊥		BMS/2/00	
Parathion	8/1/00	6439280	Accu Exp 8/1/01 Lot - A012007	Amp	MeOH	2@ 1mL	1000ug/mL	8/1/01	BMS/2/00 BMS/2/00	MK 8/29/00
Malathion	9/6/00	6439285	ChemService Exp 11/01 Lot - 241-68B Cat# F21185	Amp	Tol.	5mL	1000ug/mL	9/6/01	BMS 9/6/00 BMS 9/6/00	MK 9/26/00
Diazinon	9/6/00	6439286	ChemService Exp 10/01 Lot - 241-49C Cat# - F20605	Amp	Tol.	5mL	1000ug/mL	9/6/01	BMS 9/6/00 BMS 9/6/00	MK 9/26/00
Disulfoton	9/6/00	6439287	ChemService Exp 6/01 Lot - 236-86A Cat# - F8935	Amp	Tol.	5mL	1000ug/mL	9/6/01	BMS 9/6/00 BMS 9/6/00	MK 9/26/00
Guthion (Azinphos methyl)	9/6/00	6439288	ChemService Exp 11/01 Lot - 241-104B Cat # - F20555	Amp	Tol	5mL	1000ug/mL	9/6/01	BMS 9/6/00 BMS 9/6/00	MK 9/26/00
Surrogate	9/9/00	6439289	Restek Cat# 3200 Lot# - A015903 Exp 11/02	Amp	Ace	1mL	200ug/mL	9/15/01	BMS 9/15/00 BMS 9/15/00	MK 9/26/00
⊥	⊥	6439290	⊥	⊥	⊥	⊥	⊥	9/16/01	BMS 9/16/00 BMS 9/16/00	MK 9/26/00

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Recra LabNet Philadelphia

GC ANALYSIS
STANDARD RECEIPT LOG

Compound	Date Received	Standard ID	Source and Lot	%Purity	Solvent	Final Volume (mL)	Final Conc. (w/units)	Exp/ Date	Date/Analyst Date Opened/ Analyst	Reviewed By/ Date
Simazine	10/1/00	6439 2901	Accu P-0855-10X Exp 10/1/01 Lot# A0090230	Amp	MeOH	1000 ug/mL	1 mL	1	BP 10/1/00	
Atrazine	10/1/00	6439 2902	Accu (P-0855) Exp 10/1/01 Lot# A7060407	Amp	MeOH	1 mL	100 ug/mL		BP 10/1/00	
Alachlor	10/1/00	6439 2903	Accu (P-1085) Exp 10/1/01 Lot# ~~A9050~~ B0030432	Amp	MeOH	1 mL	100 ug/mL	10/	BP 10/1/00	
Metribuzin	10/1/00	6439 2904	Accu (P-0895) Exp 10/1/01 Lot# B0040332-1A	Amp	MeOH	1 mL	100 ug/mL		BP 10/1/00	
~~Metolachlor~~										
Butachlor	10/1/00	6439 2905	Accu (P-1915) Exp 10/1/01 Lot A9680643	Amp	MeOH	1 mL	100 ug/mL		BP 10/1/00	
Metolachlor	10/1/00	6439 2906	Accu (P-0585-10X) Exp 10/1/01 Lot B0090226	Amp	MeOH	1 mL	1000 ug/mL		BP 10/1/00	
Surrogate	10/5/00	6439 2907	Restek Cat# 32000 Exp 7/03 Lot# A0160801	Amp	Ace	1 mL	200 ug/mL	Exp 10/7/01	BP 10/5/00 BP 10/7/00	MK 10/27/00
		6439 2908						Exp 4/27/01	BP 10/5/00 MK 10/27/00	MK 10/27/00
		6439 2909							BP 10/5/00	
		6439 2910							BP 10/5/00	
		6439 2911							BP 10/5/00	

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Recra LabNet Philadelphia

GC ANALYSIS
STANDARD RECEIPT LOG

Compound	Date Received	Standard ID	Source and Lot	%Purity	Solvent	Final Volume (mL)	Final Conc. (w/units)	Exp/ Date	Date/Analyst Date Opened/ Analyst	Reviewed By/ Date
Heptachlor	10/26/01	64393104	Chem Service FIOS Lot-244-70B Exp 10/01	Amp	MeOH	5mL	1000ug/mL	10/27/01	[illegible] / [illegible]	MK 10/27/01
Hept. Epoxide	10/26/01	64392102	Chem Service FIOS Lot-251-37A Exp 3/02	Amp	MeOH	5mL	1000ug/mL	10/27/01	[illegible] / [illegible]	MK 10/27/01
Endrin	10/26/01	64393103	Chemservice Lot 247418 Exp 10/01	Amp	MeOH	5mL	1000ug/mL	10/27/01	[illegible] / [illegible]	MK 10/27/01
Aldrin	10/26/01	64393104	Chemservice Lot 241-31A Exp 9/01	Amp	MeOH	5mL	1000ug/mL	9/20/01	[illegible] / [illegible]	MK 10/27/01
Hexachlorobenzene	10/26/01	64393105	Chemservice FIOS Lot 242-130 Exp 11/01	Amp	MeOH	5mL	1000ug/mL	10/27/01	[illegible] / [illegible]	MK 10/27/01
Custom Pest Mix A	4/18/01	64393106A	Restek lot#A019341 cat#50801 exp 4/04	Amp	Tol/Hex	1mL	80-800ug/mL	4/20/02	MK 4/18/01 / BS 4/20/01	MK 4/20/01
		64393106B							MK 4/18/01	
		64393106C							MK 4/18/01	
		64393106D							MK 4/18/01	
		64393106E							MK 4/18/01	

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Recra LabNet Philadelphia

GC ANALYSIS
STANDARD RECEIPT LOG

Compound	Date Received	Standard ID	Source and Lot	%Purity	Solvent	Final Volume (mL)	Final Conc. (w/units)	Exp/ Date	Date/Analyst Date Opened/ Analyst	Reviewed By/ Date
Custom Pest Mix B	4/18/01	64393201 A	Restek Lot# A019342 exp 4/04 Cat# 50802	Amp	Tol/Hex	1mL	80-400ug/mL	4/20/02	MK 4/18/01 BS 4/20/01	4/21/01 MK
		64393201 B							MK 4/18/01	
		64393201 C							MK 4/18/01	
		64393201 D							MK 4/18/01	
		64393201 E							MK 4/18/01	

Preparation Logs

Lionville Laboratory, Inc.

SOIL EXTRACTABLES

Extract Date: 7/26/01 Extraction Batch #: 01LE0890 Logbook # 8672

Analyst: MB Test: OPCB

Extraction Method Used:

- ☐ L-SP-3510, Rev. 03; Sep Funnel
- ☐ L-SP-3520, Rev. 00A; Cont. Liq/Liq
- ☒ L-SP-3540, Rev. 00; Soxhlet
- ☐ L-SP-3550, Rev. 03; Sonication
- ☐ L-SP-3580, Rev. 01; Waste Dilution
- ☐ N/A - Special Project

OBSERVATIONS:

Recorded by/Date: MB 7/27/01 Reviewed by/Date: EG 7/27/01

Lionville Laboratory, Inc.

SOIL EXTRACTABLES

Logbook # 8672

Extract Date: 7/26/01 Extraction Batch #: 01LE0890

Analyst: MB Test: OPCB Method: SOX Solvent: DCM/Hex AAPrep:

	RFW #	Mtx	pH	Initial Wt/Vol (g/mL)	Surr/ Spike Mult	Pre GPC Vol (ml)	After GPC Vol (ml)	Split Mult
1	010L389-001	S	NA	30.2	1	N/A	10.0	1.0
2	-002	S		30.2	1			
3	-003	S		30.0	1			
	-004	S		30.1	1			
4	-005	S		30.6	1			
5	-006	S		30.1	1			
6	-006MS	S		30.0	11			
7	006MSD	S		30.1	11			
8	B	S		30.0	1			
9	BS	S		30.0	11			
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								

MB 7/26/01

DCM Solvent Lot: VA469
Acetone Solvent Lot:
Hexane Solvent Lot: UN1208
Ether Solvent Lot:
Sodium Sulfate Lot: 8403-3001
Other:

Extraction Information
(Date/Analyst)
Start time: 7/26/01 11:45 MB
End time: 7/27/01 900 EG
Filtration: 7/27/01 EG
Boildown:
Blowdown:
GPC Ready:
GPC Cleanup:
GPC #:
After GPC Boildown:
After GPC Blowdown:
Acid/Florisil Cleanup: (circle)
EG 7/27/01
Prep Sheet: 7/27/01 EG
GPC Lab ID #:
Florisil Lot #:
Florisil Lab ID #:
Acid Lot #: V110066
Balance #: 39
Balance Cal Check Y NA (circle)
pH Meter Calibrated Y NA (circle)

Spiked by: MB

Surrogate: 100 ul 8080 PSUR
MB 7/26/01 ~~P91941~~ 65374204

Spike: 250 ul AR 1254
~~P91941~~ 8697/102
MB 7/26/01

Witness:

Pipette ID: P91941

Pipette ID: 1

This Page Reviewed By/Date: EG 7/27/01

L-WI-019/Z (SOIL)-01/01

Lionville Laboratory, Inc.

SAMPLE EXTRACTION RECORD

Sheet no.: 1

Extract. Date: 07/26/01 Extraction Batch No: 01LE0890 Analyst: MB Method: ****

Test: OPCB Cleanup Date: 07/27/01 Analyst: EG Client: LANL REQ #9407R

LIMS Report Date: 08/06/01 Solvent: DCM, HEX Adsorbent: ACID

Sample No:	Client Name Client ID	pH	Initial WT/VOL	Surr. Mult.	Spike Mult.	Final VOL	Final VOL	Split Mult.	GPC Y/N	% Solids	C/D FACTOR
0107L389-	LANL REQ #9407R										
001	RC60-01-0003 02	7	30.2	1.0		10		1.0	N	93.21	355.2
002	RC60-01-0004 02	7	30.2	1.0		10		1.0	N	93.57	353.9
003	RC60-01-0005 02	7	30.0	1.0		10		1.0	N	93.68	355.8
004	RC60-01-0006 02	7	30.1	1.0		10		1.0	N	96.08	345.8
005	RC60-01-0007 02	7	30.6	1.0		10		1.0	N	96.73	337.8
006	RC60-01-0008 02	7	30.1	1.0		10		1.0	N	97.83	339.6
006 -S	RC60-01-0008 02	7	30.0	1.0	1.0	10		1.0	N	97.83	340.7
006 -T	RC60-01-0008 02	7	30.1	1.0	1.0	10		1.0	N	97.83	339.6
01LE0890-MB1	PBLKLZ	7	30.0	1.0		10		1.0	N	100.00	333.3
01LE0890-MB1 -S	PBLKLZ	7	30.0	1.0	1.0	10		1.0	N	100.00	333.3

Comments:
Surrogate: 100 UL 8080 PSUR 65374204
Spike: 250 UL AR1254 86971102 @ 15 UG/ML

Extracts Transferred	Relinquished By	Date Time	Received By	Date Time	Reason for Transfer
—	—	—	MK	8/6/01	revision

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Lionville Laboratory, Inc.

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SAMPLE EXTRACTION RECORD

Sheet no.: 1

Extract. Date: 07/26/01 Extraction Batch No: 01LE0890 Analyst: MB Method: ****

Test: OPCB Cleanup Date: 07/27/01 Analyst: EG Client: LANL REQ #9407R

LIMS Report Date: 07/27/01 Solvent: DCM, HEX Adsorbent: ACID

Sample No:	Client Name / Client ID	pH	Initial WT/VOL	Surr. Mult.	Spike Mult.	Final VOL	Final VOL	Split Mult.	GPC Y/N	% Solids	C/D FACTOR
0107L389-	LANL REQ #9407R										
001	RC60-01-0003 02	7	30.2	1.0		10		1.0	N	0.0 93.21	331.1
002	RC60-01-0004 02	7	30.2	1.0		10		1.0	N	0.0 93.57	331.1
003	RC60-01-0005 02	7	30.0	1.0		10		1.0	N	0.0 93.68	333.3
004	RC60-01-0006 02	7	30.1	1.0		10		1.0	N	0.0 96.08	332.2
005	RC60-01-0007 02	7	30.6	1.0		10		1.0	N	0.0 96.73	326.8
006	RC60-01-0008 02	7	30.1	1.0		10		1.0	N	0.0 97.83	332.2
006 -S	RC60-01-0008 02	7	30.0	1.0	1.0	10		1.0	N	0.0 97.83	333.3
006 -T	RC60-01-0008 02	7	30.1	1.0	1.0	10		1.0	N	0.0 97.83	332.2
01LE0890-MB1	PBLKLZ	7	30.0	1.0		10		1.0	N	100.00	333.3
01LE0890-MB1 -S	PBLKLZ	7	30.0	1.0	1.0	10		1.0	N	100.00	333.3

Comments:
Surrogate: 100 UL 8080 PSUR 65374204
Spike: 250 UL AR1254 86971102 @ 15 UG/ML

Extracts Transferred	Relinquished By	Date Time	Received By	Date Time	Reason for Transfer
all	EG	7/27/01 1500	BS	7/27/01 1500	QC

Recra LabNet Philadelphia

SULFUR CLEAN LOG

TBA Solution ID# 80876306 Sodium Sulfate Lot # 40204041

Water Lot # 2008261 Isopropyl Alcohol Lot # BV655

Recra Batch #	Client Name	Date	Analyst	Extraction Batch	Comments
0106L005	TNU	6/18/01	MK	01LE0689	—
0107L331	TNU	7/~~21~~ 18/01 MK 7/20/01	MK	01LE0859	—
0107L338	TNU	7/21/01	MK	01LE0868	—
0107L331-201	TNU	7/21/01	MK	01LE0868	—
0107L326	LANL	7/19/01	MK	01LE0860	—
0107L242	URS	7/23/01	MK	01LE0814	pest portion
0107L384	TNU	7/26/01	MK	01LE0886	—
0107L769	TNU	7/26/01	BS	01LE0825	—
0107L373	WSRC	7/31/01	BS	01LE0883	—
0107L389	LANL	8/2/01	MK	01LE0890	—
0107L397	↓	↓	↓	01LE0907	—
0107L410	↓	↓	↓	01LE0915	—
0107L411	↓	↓	↓	↓	—
0107L416	↓	↓	↓	↓	—
0107L445	LANL	8/8/01	MK	01LE0922	—
0107L447	LANL	↓	↓	↓	—
0108L443	Teledyne	8/13/01	MK	01LE0917	—

Reviewed By / Date: _____

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L-WI-022H-09/99

End of Package

Tuesday, July 24, 2001

REQUEST NUMBER: 9408R

ANALYSIS TYPE: INORG

Los Alamos
NATIONAL LABORATORY

ATTN: Judy Stone
Lionville Laboratory Inc
208 Welsh Pool Rd
Lionville, pa 19341

Please analyze the enclosed samples according to the schedule indicated:

SHIP DATE: 7/24/01
REPORT DUE: 8/25/01
TURN AROUND REQ'D: 30 day

These samples are on:

LANL Request Number: 9408R
Per Agreement Number:
Project Cost Code: MR0R0001E000

RAD SCREENING: Not Required
COMMENTS: 60 - 1114 , GA;

LANL ER SMO CONTACT: Joylene Valdez MS H865 5056659968
Signature: Joylene Valdez

ANALYSIS ORDER CODE	ANALYTE(S)	SAMPLE ID	CONT ID	SAMPLE MATRIX	DATE SAMPLED	COMMENTS
METTAL		RC60-01-0003	01	S	7/23/1901	
METTAL		RC60-01-0004	01	S	7/23/1901	
METTAL		RC60-01-0005	01	S	7/23/1901	
METTAL		RC60-01-0006	01	S	7/23/1901	
METTAL		RC60-01-0007	01	S	7/23/1901	
METTAL		RC60-01-0008	01	S	7/23/1901	

Tuesday, July 24, 2001

Los Alamos
NATIONAL LABORATORY

CHAIN OF CUSTODY DOCUMENT NUMBER: 9408RC

REQUEST NUMBER: 9408R
ANALYSIS TYPE: INORG

ATTN: Judy Stone
Lionville Laboratory Inc
208 Welsh Pool Rd
Lionville, pa 19341

SAMPLE ID	CONT ID	CONTAINER DESCRIPTION	ANALYSIS ORDER CODE	PRESERVATIVE	MATRIX
RC60-01-0003	01	125 ml Polyethylene	METTAL	Ice	S
RC60-01-0004	01	125 ml Polyethylene	METTAL	Ice	S
RC60-01-0005	01	125 ml Polyethylene	METTAL	Ice	S
RC60-01-0006	01	125 ml Polyethylene	METTAL	Ice	S
RC60-01-0007	01	125 ml Polyethylene	METTAL	Ice	S
RC60-01-0008	01	125 ml Polyethylene	METTAL	Ice	S

Final Page of CHAIN OF CUSTODY DOCUMENT FOR REQUEST NUMBER 9408R

Relinquished By: **Date** **Time**

PRINTED NAME SIGNATURE

PRINTED NAME SIGNATURE

PRINTED NAME SIGNATURE

Received By: **Date** **Time**

PRINTED NAME SIGNATURE

PRINTED NAME SIGNATURE

PRINTED NAME SIGNATURE

Received for DISPOSAL By: **Date** **Time**

PRINTED NAME SIGNATURE

Remarks:

Los Alamos National Laboratory Environmental Restoration (Los Alamos, NM 87545)

CHAIN OF CUSTODY/REQUEST FOR ANALYSIS

Technical Area	60	Send Lab Report to	Roy Bohn M992	Field Unit Leader	Dave McInroy (505)667-0819
Operable Unit	1114				
Date		LANL Destination	SMO	Turnaround	30 days
OU Contact	Roy Bohn	LANL Contact	Joylene Valdez	Lab Report Required	
Contact Phone No	(505) 665-5138	LANL Mail Stop		Charge Code	MR0R0001E000

Relinquished by: Roy Bohn (Signature): Roy Bohn Affiliation: E-ER	Date: 7/23/01	Relinquished by: (Signature): Affiliation:	Date:	Relinquished by: (Signature): Affiliation:	Date:
Received by: (Signature): Affiliation:	Time: 1510	Received by: (Signature): Affiliation:	Time:	Received by: (Signature): Affiliation:	Time:

POSSIBLE HAZARD IDENTIFICATION: (please indicate if sample(s) are hazardous materials and/or suspected to contain high levels of hazardous substances):
Radiological___ Highly Toxic___
Flammable___ Skin Irritant___ Non-Hazard___ Other___

SCREENING METHOD: None

SAMPLE DISPOSAL: Disposal by Lab

Comments: TPH Diesel Range Organics Only

Field Unique Sample #/ID	Cont ID	Date & Time Collected		Sample Container Volume/Material	Matrix	Preservat	ANALYSIS REQUESTED: (SMO Order Codes)	REMARKS (Conditions of receipt, etc.)
RC60-01-0004	03	7/23/01	0955	125 ml Amber Glass	Soil	Ice	TPH	
RC60-01-0004	01			125 ml Polyethylene	Soil	Ice	METTAL	
RC60-01-0003	02		0950	125 ml Glass	Soil	None	PCB	
RC60-01-0003	01			125 ml Polyethylene	Soil	Ice	METTAL	
RC60-01-0003	03			125 ml Amber Glass	Soil	Ice	TPH	
RC60-01-0004	02		0955	125 ml Glass	Soil	None	PCB	

Original - LANL Destination Yellow - RPF Pink - FTL Copy

Los Alamos National Laboratory Environmental Restoration (Los Alamos, NM 87545)

CHAIN OF CUSTODY/REQUEST FOR ANALYSIS

Technical Area	60	Send Lab Report to	Roy Bohn	Field Unit Leader	Dave McInroy
Operable Unit	1114		M992		(505)667-0819
Date		LANL Destination	SMO	Turnaround	30 days
OU Contact	Roy Bohn	LANL Contact	Joylene Valdez	Lab Report Required	
Contact Phone No	(505) 665-5138	LANL Mail Stop		Charge Code	MR0R0001E000

Relinquished by: Roy Bohn (Signature): Affiliation: E-ER	Date: 7/23/01	Relinquished by: (Signature): 7/23/01 Affiliation:	Date:	Relinquished by: (Signature): Affiliation:	Date:
Received by: (Signature): Affiliation:	Time: 1510	Received by: (Signature): 1510 Affiliation:	Time:	Received by: (Signature): Affiliation:	Time:

POSSIBLE HAZARD IDENTIFICATION: (please indicate if sample(s) are hazardous materials and/or suspected to contain high levels of hazardous substances):
Radiological___ Highly Toxic___
Flammable___ Skin Irritant___ Non-Hazard___ Other___

SCREENING METHOD: None

SAMPLE DISPOSAL: Disposal by Lab

Comments: TPH Diesel Range Organics Only

Field Unique Sample #/ID	Cont ID	Date & Time Collected		Sample Container Volume/Material	Matrix	Preservat	ANALYSIS REQUESTED: (SMO Order Codes)	REMARKS (Conditions of receipt, etc.)
RC60-01-0006	01	7/23/01	1000	125 ml Polyethylene	Soil	Ice	METTAL	
RC60-01-0006	02			125 ml Glass	Soil	None	PCB	
RC60-01-0005	03		1005	125 ml Amber Glass	Soil	Ice	TPH	
RC60-01-0005	01			125 ml Polyethylene	Soil	Ice	METTAI	
RC60-01-0005	02			125 ml Glass	Soil	None	PCB	
RC60-01-0006	03		1000	125 ml Amber Glass	Soil	Ice	TPH	

Los Alamos National Laboratory Environmental Restoration (Los Alamos, NM 87545)

CHAIN OF CUSTODY/REQUEST FOR ANALYSIS

Technical Area	60	Send Lab Report to	Roy Bohn M992	Field Unit Leader	Dave McInroy (505)667-0819
Operable Unit	1114				
Date		LANL Destination	SMO	Turnaround	30 days
OU Contact	Roy Bohn	LANL Contact	Joylene Valdez	Lab Report Required	
Contact Phone No	(505) 665-5138	LANL Mail Stop		Charge Code	MR0R0001E000

Relinquished by: Roy Bohn (Signature): Affiliation: E-ER	Date: 7/23/01	Relinquished by: (Signature): Affiliation:	Date:	Relinquished by: (Signature): Affiliation:	Date:
Received by: (Signature): Affiliation:	Time: 1510	Received by: (Signature): Affiliation:	Time:	Received by: (Signature): Affiliation:	Time:

POSSIBLE HAZARD IDENTIFICATION: (please indicate if sample(s) are hazardous materials and/or suspected to contain high levels of hazardous substances):
Radiological___ Highly Toxic___
Flammable___ Skin Irritant___ Non-Hazard___ Other___

SCREENING METHOD: None

SAMPLE DISPOSAL: Disposal by Lab

Comments: TPH Diesel Range Organics Only

Field Unique Sample #/ID	Cont ID	Date & Time Collected	Sample Container Volume/Material	Matrix	Preservat	ANALYSIS REQUESTED: (SMO Order Codes)	REMARKS (Conditions of receipt, etc.)
RC60-01-0007	02	7/23/01 1012	125 ml Glass	Soil	None	PCB	
RC60-01-0007	01	↓	125 ml Polyethylene	Soil	Ice	METTAL	
RC60-01-0007	03	↓	125 ml Amber Glass	Soil	Ice	TPH	
RC60-01-0008	02	1010	125 ml Glass	Soil	None	PCB	
RC60-01-0008	01	↓	125 ml Polyethylene	Soil	Ice	METTAL	
RC60-01-0008	03	↓	125 ml Amber Glass	Soil	Ice	TPH	

Original - LANL Destination Yellow - RPF Pink - FTL Copy

RADIOLOGICAL SCREENING DATA RELEASE FORM

The following samples (list samples by number) were received at the Field Support Facility (FSF) without radiological screening data. These samples will not be shipped until radiological screening documentation arrives at the FSF. I understand that it is my responsibility to ensure that this information arrives at the FSF in a timely manner. **If holding times are missed because screening data do not arrive, I will pick up the samples when called to do so.**

~~RC60-01-0003 thru 0008~~

RC60-01-0003 ~~thru 0008~~

****

The following samples (list samples by number) do not require radiological screening for the reason stated.

RC60-01-0003 thru 0008

Reason: [illegible]

previous cate

Signature Roy Bohn

Printed name Roy Bohn

Telephone number 5-5138 Date 7/23/01

LVLI
LIONVILLE LABORATORY INC.

13 August 2001

Ms. Joylene Valdez
Los Alamos National Laboratory
TA-3, Building 271
DP. O1U MS-H865
Los Alamos, NM 87545

Ref: Subcontract No. 7791L0014-AA
Data Report for LVL Batch 0107L388
LANL Request No. 9408R

Dear Ms. Valdez:

Enclosed please find the EDD for 6 soil samples received 25 July 2001. These were analyzed for metals on a 30 day turnaround. The EDD will follow shortly.

Please feel free to contact me at (610) 280-3029 with any question you may have regarding either the hard copy or electronic report.

Very truly yours,

Lionville Laboratory Incorporated

Judith L. Stone
Senior Project Manager

Report Sent To: 8/15/01

Approved By: _____

Date Sent: _____

Enclosure:

FIELD COPY

208 Welsh Pool Road • Lionville, PA 19341-1333 • (610) 280-3000 • Fax (610) 280-3041

CHAIN OF CUSTODY FORM (Example)

SECTION I. DATA PACKAGE INFORMATION (Relinquisher completes)

New Issue ☐ Yes ☐ No

Request Number(s): 9135 ✓ 9324 ✓ 9139 ✓ 9337 ✓
9417 ✓ 9440 ✓ 9419 ✓ 9408 ✓

Data Package Requestor (check one): ☐ Editing/Validation ☐ User

Name (print) BETTY ROMERO Focus Area: EES-9
Phone 5-2472 Z Number: 113257

SECTION II. AUTHORIZING SIGNATURES (Reliquished/Received signatures)

Relinquished By: [signature] Date: 8-14-01

I accept custody of the above listed data package(s).

Received By: Betty Romero Date: 8/16/01

Relinquished By: _____ Date: _____

I accept custody of the above listed data package(s).

Received By: _____ Date: _____

Comments:

Analytical Data Package Chain of Custody

Section I. Data Package Information (relinquisher completes)

New issue? ☐ Yes ☐ No

Request Number(s): 9324 9455 9417 9475 9508

9461 ~~9416~~ JAW 9/6/01 9462 9485 9484 9460 9408

9292 9419 9440 9261 9304 9362

Data package requestor (check one): ☐ Editing/validation ☐ User ☐ SMO

Name (print): Joylene Valle Telephone: 59961

Focus area: SMC Z number:

Section II. Authorizing Signatures (relinquisher and receiver both complete)

Relinquished by: John Wilcox John A Wilcox (print name, then sign) Date: 9/13/01

I accept custody of the above listed data package(s).

Received by: Joylene V (print name, then sign) Date: 9-13-01

Relinquished by: (print name, then sign) Date:

I accept custody of the above listed data package(s).

Received by: (print name, then sign) Date:

Comments:

Data Validation Cover Sheet

Section I. Data Record Package Identification

Request Number: 9408R Validation Date: 07-Sep-01 Lab Code: LVL

Contract Laboratory Name: Lionville Laboratory, Inc

Validator: John A. Wilcox Organization: EES-9

Analytical Suite(s): (check all that apply)

- ☐ Volatile Organics
- ☐ Semivolatile Organics
- ☐ Organochlorine Pesticides/Polychlorinated Biphenyls
- ☐ Other: _____ (describe)
- ☐ High Explosives
- ☒ Inorganics
- ☐ Radiochemistry

Section II. Completeness Check

Yes	No	n/a	(check one)	Yes	No	n/a	(check one)
☒	☐	☐	1. Chain-of-custody form(s)	☒	☐	☐	6. Raw/BSS data
☒	☐	☐	2. Case narrative	☒	☐	☐	7. Quality control forms
☒	☐	☐	3. Sample result forms	☒	☐	☐	8. Quantitation reports
☐	☐	☒	4. Sample chromatograms	☐	☐	☒	9. TICs forms
☐	☐	☒	5. Standard chromatograms	☐	☐	☒	10. TICs mass spectra

Identify any samples in the assigned Request Number that are missing:

_____ _____ _____ _____ _____ _____ _____ _____

_____ _____ _____ _____ _____ _____ _____ _____

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed upon date of resolution and contract laboratory point of contact):

ICP analyses:

1) The method blank had contamination below the reporting limit for Ba, Ca, Mn, and Na. The 5x rule was applied to the sample results for these analytes.

2) The matrix spike had recovery for Sb that was outside of the method limits.

3) The duplicate sample had poor reproducibility with RPDs above the method limit for Tl.

Hg: all QC were acceptable.

(Attach additional comment sheets as necessary)

Validator's signature: John A Wilcox Date: 9/7/01

Inorganic Data Validation Checklist

Part I. Detection Status Verification

Criterion	Criterion true? (yes or no)	Action if "criterion true?" = yes Assign qualifier & reason code...
Are analytical-laboratory B-flagged results present?	1a. No - but there are analytes that should be B-flagged.	1b. **"J, I1"** to all affected analytes on the Form I.

Part II. Initial and Continuing Calibrations Verification

Criteria	Criterion true? (yes or no)	Action if "criterion true?" = no Assign qualifier & reason code...	List affected analyte(s) and affected samples.
Is the initial calibration verification (ICV) present?	1a. Yes	1b. **"A, I15A"** for any missing documentation. In block 1c, record all sample matrices and/or analytical batches that did not include an ICV.	1c. n/a
Is the continuing calibration verification (CCV) present?	2a. Yes	2b. **"A, I15b"** for any missing documentation. In block 2c, record all sample matrices and/or analytical batches that did not include a CCV.	2c. n/a

Inorganic Data Validation Checklist

Part IIIa. Preparation Blank Validation Criteria

Criterion	Criterion true? (yes or no)	Action if "criterion true?" = no Assign qualifier & reason code...	List affected matricies or batches.
Was a preparation blank analyzed for each sample matrix and batch?	1a. Yes	1b. **"A, I4b"** for any missing documentation. In block 1c, record all sample matrices and/or analytical batches that did not include a preparation blank.	1c. n/a

Part IIIb. Preparation Blank Validation Criteria (continued)

Criteria	Criterion true? (yes or no)	Action if "criterion true?" = yes Assign qualifier & reason code...	List detected blank analyte(s) and affected samples.	Analyte concentration (mg/kg)
Is a target analyte detected in the preparation blank **AND** is the same target analyte detected in the sample result < five times the amount detected in the preparation blank **AND** is the target analyte detected in the sample < the EDL?	2a. No	2b. **"U, I5"** to affected sample analyte(s).	2c. n/a	2d. n/a

Inorganic Data Validation Checklist

Part IIIb. Preparation Blank Validation Criteria (continued)

Criteria	Criterion true? (yes or no)	Action if "criterion true?" = yes Assign qualifier & reason code...	List detected blank analyte(s) and affected samples.	Analyte concentration (mg/kg)
Is a target analyte detected in the preparation blank **AND** is the same target analyte detected in the sample result < five times the amount detected in the preparation blank **AND** is the target analyte detected in the sample ≥ the EDL?	3a. No	3b. **"U, I4a"** to affected sample analyte(s).	3c. n/a	3d. n/a

Part IVa. ICPES Interference Check Sample (ICS) Validation Criteria

Criteria	Criterion true? (yes/no)	Action if "criterion true?" = no Assign qualifier & reason code...	List all noncompliant ICS analytes.
Was an ICS analyzed for each sample matrix and/or analytical batch? ICS samples must contain the following analytes: Ag, Ba, Be, Cd. Co, Cr, Cu, Mn, Ni, Pb, V, and Zn. **Note:** Pb is required only if Pb was analyzed by ICPES.	1a. Yes	1b. **"A, I7d"** for any missing documentation. In block 1c, record • any ICPES ICS analytes not reported and • all affected samples.	1c. n/a

Inorganic Data Validation Checklist

Part IVb. ICPES Interference Check Sample (ICS) Validation Criteria (continued)

Criteria	Criterion true? (yes/no)	Action if "criterion true?" = yes Assign qualifier & reason code...	List all noncompliant ICPES ICS analytes and samples.
Is ICS analyte recovery > 120%?	2a. No	2b. "**J+, I7**" to all detected sample analytes. In block 2c, record • the affected ICPES ICS analytes and • the corresponding samples.	2c. n/a
Is ICS analyte recovery ≥ 50% and < 80%?	3a. No	3b. "**J-, I7a**" to all *detected* sample analytes. In block 3c, record • the affected ICPES ICS analytes and • the corresponding samples. "**UJ, I7c**" to all *nondetected* sample analytes. In block 3c, record • the affected ICPES ICS analytes and • the corresponding samples.	3c. n/a
Is ICS recovery <50%?	4a. No	4b. "**RPM, I7b**" to all *detected* and *nondetected* sample analytes. In block 4c, record • the affected ICPES ICS analytes and • the corresponding samples.	4c. n/a

Inorganic Data Validation Checklist

Part Va. Matrix-Spike Validation Criteria

Criterion	Criterion true? (yes/no)	Action if "criterion true?" = no Identify noncompliant matrix-spike percent recovery values *and* assign qualifier & reason code...	List ER Project RN & sample ID for matrix-spike sample
Is a matrix-spike sample present?	1a. Yes	1b. **"PM, I14b"** if the matrix-spike sample that was analyzed was on a sample not associated with this request number. In block 1c record • the request number and sample ID of spiked sample. **OR** **"A, I14a"** if the matrix-spike sample was missing because insufficient sample volume was received by the analytical laboratory for the duplicate analysis.	1c. n/a

Inorganic Data Validation Checklist

Part Vb. Matrix-Spike Validation Criteria (continued)

Criteria	Criterion true? (yes/no)	Action if "criterion true?" = yes Assign qualifier & reason code...	List all affected matrix-spike analytes and samples.	Percent recovery
Is the matrix spike percent recovery value > 150%?	2a. No	2b. "**J+, I3h**" to all *detected* sample analytes and "**UJ, I3g**" to all *nondetected* sample analytes.	2c. n/a	2d. n/a
Is the matrix spike percent recovery value 125%–150%?	3a. No	3b. "**J+, I3**" to all *detected* sample analytes and no qualifier for any *nondetected* sample analytes.	3c. n/a	3d. n/a
Is the matrix spike percent recovery value between 30% and 75%, inclusive?	4a. Yes	4b. "**J-, I3a**" to all *detected* sample analytes and "**UJ, I3e**" to all *nondetected* sample analytes.	4c. Sb	4d. Sb: 55.5%
Is the matrix spike percent recovery value < 30%?	5a. No	5b. "**J, I3f**" to all *detected* sample analytes and "**RPM, I3d**" to all *nondetected* sample analytes.	5c. n/a	5d. n/a

Inorganic Data Validation Checklist

Part Vc. Required Matrix-Spike Compounds and Spiking Levels

Matrix spike name	Soil matrix spiking levels (mg/kg)		Water matrix spiking levels (μg/L)		Water (μg/L) or soil (mg/kg)
	ICPES	GFAA	GFAA	ICPES	Other
Aluminum	—[a]	n/a[b]	n/a	2000	n/a
Antimony	100	20	100	500	n/a
Arsenic	400	8	40	2000	n/a
Barium	400	n/a	n/a	2000	n/a
Beryllium	10	n/a	n/a	50	n/a
Cadmium	10	1	5	50	n/a
Calcium	—	n/a	n/a	—	n/a
Chromium	40	n/a	n/a	200	n/a
Cobalt	100	n/a	n/a	500	n/a
Copper	50	n/a	n/a	250	n/a
Iron	—	n/a	n/a	1000	n/a
Lead	100	4	20	500	n/a
Magnesium	—	n/a	n/a	—	n/a
Manganese	100	n/a	n/a	500	n/a
Mercury	n/a	n/a	n/a	n/a	1 (CVAA)
Nickel	100	n/a	n/a	500	n/a
Potassium	—	n/a	n/a	—	n/a
Selenium	400	2	10	2000	n/a
Silver	10	n/a	n/a	50	n/a
Sodium	—	n/a	n/a	—	n/a
Thallium	400	10	50	2000	n/a
Vanadium	100	n/a	n/a	500	n/a
Zinc	100	n/a	n/a	500	n/a

[a] — = no spike required for this target analyte.
[b] n/a = spike not applicable for this target analyte.

Inorganic Data Validation Checklist

Part VI. Duplicate Sample Validation Criteria

Criteria	Criterion true? (yes/no)	Action if "criterion true?" = no Assign qualifier & reason code...	List all noncompliant duplicate analytes.	Relative percent difference
Is a duplicate sample present?	1a. Yes	1b. **"PM, I13b"** if the duplicate sample that was analyzed was on a sample not associated with this request number. In block 1c record • the request number and sample ID of spiked sample. **OR** **"A, I13a"** if the duplicate sample was missing because insufficient sample volume was received by the analytical laboratory for the duplicate analysis.	1c. n/a	1d. n/a
Are *both* sample and duplicate-sample results ≥ five times the EDL **AND** the RPDs for *all* analytes ≤ the limit (20% for water samples or ≤ 35% for soil samples) **OR** *either* the sample or duplicate-sample result is < five times the EDL?	2a. Yes	2b. **"J, I10"** to all *detected* sample analytes and **"UJ, I10a"** to all *nondetected* sample analytes. In block 2c record • noncompliant samples and analytes. In block 2d record • the RPDs of the noncompliant analytes.	2c. n/a	2d. n/a

Inorganic Data Validation Checklist

Part VI. Duplicate Sample Validation Criteria (continued)

Criteria	Criterion true? (yes/no)	Action if "criterion true?" = no Assign qualifier & reason code...	List all noncompliant duplicate analytes.	Relative percent difference
Is *either* the sample or duplicate-sample result < five times the EDL **AND** the sample result is within the range of ±1 times the EDL (±2 times the EDL for soil samples) of the duplicate-sample result?	3a. No	3b. "J, I10" to all *detected* sample analytes and "UJ, I10a" to all *nondetected* sample analytes. In block 3c record • noncompliant samples and analytes. In block 3d record • the RPDs of the noncompliant analytes.	3c. Tl	3d. 200

Inorganic Data Validation Checklist

Part VII. Laboratory Control Sample Validation Criteria

Note: An aqueous LCS must be prepared and analyzed for each aqueous sample request. If a solid LCS is available from a vendor, then a solid LCS may be used for soil samples. If a solid LCS is unavailable an aqueous LCS must be used. Criteria exist for aqueous sample matrix only.

Criteria	Criterion true? (yes/no)	Action if "criterion true?" = yes Assign qualifier & reason code...	List all noncompliant LCS analytes.	LCS %Rs
Was a required LCS *not* associated with this request?	1a. No	1b. "**A, I6c**" for any missing documentation. In block 1c, record • any LCS analytes not reported.	1c. n/a	1d. n/a
Is the LCS percent recovery value < 80% for any analyte?	2a. No	2b. "**J-, I6a**" to all *detected* sample analytes and "**UJ, I6b**" to all *nondetected* sample analytes. In block 2c record • noncompliant LCS analytes. **In block 2d record** • the %R values of the noncompliant LCS analytes.	2c. n/a	2d. n/a
Is the LCS percent recovery value > 120% for any analyte?	3a. No	3b. "**J+, I6**" to all detected sample analytes. In block 3c record • noncompliant LCS analytes. In block 3d record • the %R values of the noncompliant LCS analytes.	3c. n/a	3d. n/a

Inorganic Data Validation Checklist

Part VIII. Holding Time Validation Criteria

Note: Holding times are required for water samples associated with mercury and cyanide analyses only. The holding time for mercury water samples is 28 days from sample collection. The holding time for cyanide water samples is 14 days from sample collection.

Criteria	Criterion true? (yes/no)	Action if "criterion true?" = no Assign qualifier & reason code...	List samples for which holding times were exceeded.	List the number of days by which holding times were exceeded.
Was each sample analyzed within its analytical holding time?	1a. Yes	1b. "**PM, I9**" to all analytes in affected samples.	1c. n/a	1d. n/a

U.S. EPA

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

000301

Lab Name: LIONVILLE_LABORATORY_____ Contract: 2744-064__

Lab Code: LVLI__ Case No.: 9408R SAS No.: _____ SDG No.: 000301

Matrix (soil/water): SOIL_ Lab Sample ID: 0107L388-001

Level (low/med): LOW__ Date Received: 07/25/01

% Solids: _91.8

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	6250	_	N	P
7440-36-0	Antimony_	UJ, I3e 0.21	U	N	P
7440-38-2	Arsenic__	J, I1 1.5	_		P
7440-39-3	Barium__	155	_		P
7440-41-7	Beryllium	J, I1 0.32	_		P
7440-43-9	Cadmium__	0.18	_	*	P
7440-70-2	Calcium__	4830	_		P
7440-47-3	Chromium_	7.4	_		P
7440-48-4	Cobalt___	J, I1 3.6	_		P
7440-50-8	Copper___	9.0	_		P
7439-89-6	Iron_____	10400	_	N	P
7439-92-1	Lead_____	7.3	_		P
7439-95-4	Magnesium	2050	_		P
7439-96-5	Manganese	221	_		P
7439-97-6	Mercury__	0.02	U		AV
7440-02-0	Nickel___	J, I1 6.4	_		P
7440-09-7	Potassium	918	_		P
7782-49-2	Selenium_	0.28	U		P
7440-22-4	Silver___	0.11	U		P
7440-23-5	Sodium___	J, I1 242	_		P
7440-28-0	Thallium_	(J, I10)(J, I1) 0.75	_	*	P
7440-62-2	Vanadium_	23.5	_		P
7440-66-6	Zinc_____	32.0	_		P

JAW 9/7/01

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

RC60-01-0003-01

FORM I - IN

U.S. EPA

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

000401

Lab Name: LIONVILLE_LABORATORY_____ Contract: 2744-064__

Lab Code: LVLI__ Case No.: 9408R SAS No.: _____ SDG No.: 000301

Matrix (soil/water): SOIL_ Lab Sample ID: 0107L388-002

Level (low/med): LOW__ Date Received: 07/25/01

% Solids: _93.5

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte		Concentration	C	Q	M
7429-90-5	Aluminum_		5600		N	P
7440-36-0	Antimony_	UJ, I3e	0.20	U	N	P
7440-38-2	Arsenic__	J, I1	1.1			P
7440-39-3	Barium___		255			P
7440-41-7	Beryllium	J, I1	0.27			P
7440-43-9	Cadmium__	↓	0.09		*	P
7440-70-2	Calcium__		2610			P
7440-47-3	Chromium_		6.9			P
7440-48-4	Cobalt___	J, I1	3.3			P
7440-50-8	Copper___		7.7			P
7439-89-6	Iron____		10100		N	P
7439-92-1	Lead____		6.2			P
7439-95-4	Magnesium		1790			P
7439-96-5	Manganese		256			P
7439-97-6	Mercury__		0.02	U		AV
7440-02-0	Nickel___	J, I1	6.2			P
7440-09-7	Potassium	↓	983			P
7782-49-2	Selenium_		0.33			P
7440-22-4	Silver___		0.11	U		P
7440-23-5	Sodium___	J, I1	237			P
7440-28-0	Thallium_	UJ, I3, 10a	0.42	U	*	P
7440-62-2	Vanadium_	jaw	22.2			P
7440-66-6	Zinc____	9/7/01	26.4			P

jaw 9/7/01

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

RC60-01-0004-01

FORM I - IN

U.S. EPA

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

000501

Lab Name: LIONVILLE_LABORATORY_____ Contract: 2744-064__

Lab Code: LVLI__ Case No.: 9408R SAS No.: _____ SDG No.: 000301

Matrix (soil/water): SOIL_ Lab Sample ID: 0107L388-003

Level (low/med): LOW_ Date Received: 07/25/01

% Solids: _94.2

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte		Concentration	C	Q	M
7429-90-5	Aluminum_		6450	_	N	P
7440-36-0	Antimony_	UJ, I3e	0.20	U	N	P
7440-38-2	Arsenic__	J, I1	1.4	_		P
7440-39-3	Barium__		267	_		P
7440-41-7	Beryllium	J, I1	0.31	_		P
7440-43-9	Cadmium__	↓	0.09	_	*	P
7440-70-2	Calcium__		3480	_		P
7440-47-3	Chromium_		7.4	_		P
7440-48-4	Cobalt___	J, I1	3.8	_		P
7440-50-8	Copper___		8.5	_		P
7439-89-6	Iron_____		11100	_	N	P
7439-92-1	Lead_____		5.6	_		P
7439-95-4	Magnesium		2160	_		P
7439-96-5	Manganese		254	_		P
7439-97-6	Mercury__		0.02	U		AV
7440-02-0	Nickel___	J, I1	7.0	_		P
7440-09-7	Potassium		1050	_		P
7782-49-2	Selenium_		0.27	U		P
7440-22-4	Silver___		0.10	U		P
7440-23-5	Sodium___	J, I1	292			P
7440-28-0	Thallium_	UJ, I3, 10a	0.40	U	*	P
7440-62-2	Vanadium_	JAW 9/26/	25.8	_		P
7440-66-6	Zinc_____		34.9	_		P

JAW 9/7/01

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Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

RC60-01-0005-01

FORM I - IN

U.S. EPA

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

000601

Lab Name: LIONVILLE_LABORATORY_____ Contract: 2744-064__

Lab Code: LVLI__ Case No.: 9408R SAS No.: _____ SDG No.: 000301

Matrix (soil/water): SOIL_ Lab Sample ID: 0107L388-004

Level (low/med): LOW__ Date Received: 07/25/01

% Solids: _95.8

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte		Concentration	C	Q	M
7429-90-5	Aluminum		6790		N	P
7440-36-0	Antimony	UJ, I3e	0.19	U	N	P
7440-38-2	Arsenic	J, I1	0.83			P
7440-39-3	Barium		230			P
7440-41-7	Beryllium	J, I1	0.31			P
7440-43-9	Cadmium	J, I1	0.10		*	P
7440-70-2	Calcium		3060			P
7440-47-3	Chromium		8.9			P
7440-48-4	Cobalt	J, I1	4.1			P
7440-50-8	Copper		9.1			P
7439-89-6	Iron		11400		N	P
7439-92-1	Lead		6.0			P
7439-95-4	Magnesium		2440			P
7439-96-5	Manganese		210			P
7439-97-6	Mercury		0.02	U		AV
7440-02-0	Nickel	J, I1	7.1			P
7440-09-7	Potassium		1180			P
7782-49-2	Selenium		0.26	U		P
7440-22-4	Silver		0.10	U		P
7440-23-5	Sodium	J, I1	292			P
7440-28-0	Thallium	UJ, I10a	0.40	U	*	P
7440-62-2	Vanadium		28.4			P
7440-66-6	Zinc		24.0			P

JAW 9/7/01

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

RC60-01-0006-01

FORM I - IN

U.S. EPA

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

000701

Lab Name: LIONVILLE_LABORATORY_____ Contract: 2744-064__

Lab Code: LVLI__ Case No.: 9408R SAS No.: _____ SDG No.: 000301

Matrix (soil/water): SOIL_ Lab Sample ID: 0107L388-005

Level (low/med): LOW__ Date Received: 07/25/01

% Solids: _97.5

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte		Concentration	C	Q	M
7429-90-5	Aluminum_		5730		N	P
7440-36-0	Antimony_	UJ,I3e	0.19	U	N	P
7440-38-2	Arsenic__	J,I1	1.4			P
7440-39-3	Barium___		131			P
7440-41-7	Beryllium	J,I1	0.32			P
7440-43-9	Cadmium__		0.08		*	P
7440-70-2	Calcium__		2770			P
7440-47-3	Chromium_		8.7			P
7440-48-4	Cobalt___	J,I1	3.5			P
7440-50-8	Copper___		7.1			P
7439-89-6	Iron____		13500		N	P
7439-92-1	Lead____		9.9			P
7439-95-4	Magnesium		1790			P
7439-96-5	Manganese		275			P
7439-97-6	Mercury__		0.02	U		AV
7440-02-0	Nickel___	J,I1	6.4			P
7440-09-7	Potassium		1010			P
7782-49-2	Selenium_		0.26	U		P
7440-22-4	Silver___		0.10	U		P
7440-23-5	Sodium___	J,I1	202			P
7440-28-0	Thallium_	UJ,I10a	0.39	U	*	P
7440-62-2	Vanadium_		23.7			P
7440-66-6	Zinc____		27.3			P

JAW 9/7/01

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

RC60-01-0007-01

FORM I - IN

U.S. EPA

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

000801

Lab Name: LIONVILLE_LABORATORY_____ Contract: 2744-064__
Lab Code: LVLI_____ Case No.: 9408R SAS No.: _____ SDG No.: 000301
Matrix (soil/water): SOIL_ Lab Sample ID: 0107L388-006
Level (low/med): LOW__ Date Received: 07/25/01
% Solids: _98.1

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	6990	_	N	P
7440-36-0	Antimony_	UJ, I3e 0.19	U	N	P
7440-38-2	Arsenic__	2.4	_		P
7440-39-3	Barium___	153	_		P
7440-41-7	Beryllium	J, I1 0.40	_		P
7440-43-9	Cadmium__	0.11	_	*	P
7440-70-2	Calcium__	2160	_		P
7440-47-3	Chromium_	7.6	_		P
7440-48-4	Cobalt___	J, I1 3.4	_		P
7440-50-8	Copper___	7.8	_		P
7439-89-6	Iron____	11500	_	N	P
7439-92-1	Lead____	7.6	_		P
7439-95-4	Magnesium	1740	_		P
7439-96-5	Manganese	323	_		P
7439-97-6	Mercury__	0.02	U		AV
7440-02-0	Nickel___	J, I1 6.8	_		P
7440-09-7	Potassium	1280	_		P
7782-49-2	Selenium_	0.26	U		P
7440-22-4	Silver___	0.10	U		P
7440-23-5	Sodium___	J, I1 206	_		P
7440-28-0	Thallium_	UJ, I10a 0.39	U	*	P
7440-62-2	Vanadium_	18.6	_		P
7440-66-6	Zinc____	32.5	_		P

JAW 9/7/01

Color Before: _____ Clarity Before: _____ Texture: _____
Color After: _____ Clarity After: _____ Artifacts: _____

Comments:
RC60-01-0008-01

FORM I - IN

LIONVILLE LABORATORY INC.

13 August 2001

Ms. Joylene Valdez
Los Alamos National Laboratory
TA-3, Building 271
DP. O1U MS-H865
Los Alamos, NM 87545

Ref: Subcontract No. 7791L0014-AA
Data Report for LVL Batch 0107L388
LANL Request No. 9408R

Dear Ms. Valdez:

Enclosed please find the EDD for 6 soil samples received 25 July 2001. These were analyzed for metals on a 30 day turnaround. The EDD will follow shortly.

Please do not hesitate to contact me at (610) 280-3029 with any question you may have regarding either the hard copy or electronic report.

Very truly yours,

Lionville Laboratory Incorporated

Judith L. Stone
Senior Project Manager

Enclosure:

208 Welsh Pool Road • Lionville, PA 19341-1333 • (610) 280-3000 • Fax (610) 280-3041

Tuesday, July 24, 2001

Los Alamos
NATIONAL LABORATORY

REQUEST NUMBER: 9408R
ANALYSIS TYPE: INORG

ATTN: Judy Stone
Lionville Laboratory Inc
208 Welsh Pool Rd
Lionville, pa 19341

Please analyze the enclosed samples according to the schedule indicated:

SHIP DATE: 7/24/01
REPORT DUE: 8/25/01
TURN AROUND REQ'D: 30 day

These samples are on:

LANL Request Number: 9408R
Per Agreement Number:
Project Cost Code: MR0R0001E000

RAD SCREENING: Not Required
COMMENTS: 60 - 1114 , GA;

LANL ER SMO CONTACT: Joylene Valdez MS H865 5056659968
Signature: Joylene Valdez

ANALYSIS ORDER CODE	ANALYTE(S)	SAMPLE ID	CONT ID	SAMPLE MATRIX	DATE SAMPLED	COMMENTS
METTAL		RC60-01-0003	01	S	7/23/1901	
METTAL		RC60-01-0004	01	S	7/23/1901	
METTAL		RC60-01-0005	01	S	7/23/1901	
METTAL		RC60-01-0006	01	S	7/23/1901	
METTAL		RC60-01-0007	01	S	7/23/1901	
METTAL		RC60-01-0008	01	S	7/23/1901	

Tuesday, July 24, 2001

Los Alamos
NATIONAL LABORATORY

CHAIN OF CUSTODY DOCUMENT NUMBER: 9408RC

REQUEST NUMBER: 9408R
ANALYSIS TYPE: INORG

ATTN: Judy Stone
Lionville Laboratory Inc
208 Welsh Pool Rd
Lionville, pa 19341

SAMPLE ID	CONT ID	CONTAINER DESCRIPTION	ANALYSIS ORDER CODE	PRESERVATIVE	MATRIX
RC60-01-0003	01	125 ml Polyethylene	METTAL	Ice	S
RC60-01-0004	01	125 ml Polyethylene	METTAL	Ice	S
RC60-01-0005	01	125 ml Polyethylene	METTAL	Ice	S
RC60-01-0006	01	125 ml Polyethylene	METTAL	Ice	S
RC60-01-0007	01	125 ml Polyethylene	METTAL	Ice	S
RC60-01-0008	01	125 ml Polyethylene	METTAL	Ice	S

Final Page of CHAIN OF CUSTODY DOCUMENT FOR REQUEST NUMBER 9408R

Relinquished By:

PRINTED NAME	SIGNATURE	Date	Time
O Jackson	[signature]	7-24-01	1410
Fed Ex		7-25-01	1010

Received By:

PRINTED NAME	SIGNATURE	Date	Time
Inez Stokes	[signature]	7-25-01	1010

Received for DISPOSAL By:

PRINTED NAME	SIGNATURE	Date	Time

Remarks:

Lionville Laboratories Inc.

COOLER RECEIPT FORM

LVLI COC Batch #: 0107L388 Date Cooler Received: 7-25-01

Client/Project: LANL

A. Preliminary Examination Phase

Date Cooler Opened 7-25-01 Sample Receipt Custodian Signature: [signature]

1. Did the cooler come with a shipping slip? (airbill, etc.) YES NO
If YES, enter carrier name & airbill # here: 4847 3249 9976
2. Were custody seals present on the outside of cooler? YES NO
3. Were custody seals unbroken & intact at the date & time of arrival? YES NO
4. Were samples screened for radioactivity? YES NO
5. Were custody papers sealed in a plastic bag and taped to the inside of the cooler lid? YES NO
6. Were COC papers filled out properly? (ink, signed, etc.) YES NO
7. Did the lab sample custodian sign the COC in the appropriate place? YES NO
8. Was the project identifiable from custody papers? If YES, enter at the top of this form. YES NO
9. If required, was enough ice used? YES NO
Type of ice: blue Cooler Temperature: 6.6°C

B. Log-In Phase:

Date Samples Logged In: 7-25-01 By: (Signature): [signature]

10. Packing Description:
11. Were all bottles sealed in plastic bags? YES NO
12. Did all bottles arrive unbroken & were labels in good condition? YES NO
13. Were all bottle labels complete? (ID, date/time, preservative, etc.) YES NO
14. Did all bottle labels agree with COC? YES NO
15. Were correct containers used for the tests indicated? YES NO
16. ***Did the labels indicate the correct preservatives were added to samples?*** ***YES NO***
17. *Was the pH checked and any out of expected range documented?* *YES NO*
18. Was a sufficient amount of sample sent for tests indicated? YES NO
19. Were bubbles present in volatile samples? If YES, list sample ID: YES NO

20. If discrepancies were noted, was the PM called? YES NO
21. PM notified: _____ Date: _____

COMMENTS:

LIONVILLE LABORATORY INC.

Analytical Report

Client : LANL
LVL# : 0107L388
REQUEST#:9408R
SUBCONTRACT#:7791L0014-8S

W.O.# : 02744-064-001-9999-00
Date Received : 07-25-01

SW846 METALS

1. This narrative covers the analyses of 6 soil samples.

2. The samples were prepared and analyzed in accordance with SW-846 protocol and reported with a CLP deliverable.

3. ICVs, CCVs, and LCSs stock standards were purchased from Inorganic Ventures Laboratory and High Purity.

4. All analyses were performed within the required holding times.

5. The cooler temperature has been recorded on the Chain of Custody.

6. All Initial and Continuing Calibration Verifications (ICV/CCVs) were within control limits.

7. All Initial and Continuing Calibration Blanks (ICB/CCBs) were within method criteria.

8. All preparation/method blanks were below reporting limits. Refer to form 3.

9. All ICP Interference Check Standards were within control limits. Refer to form 4.

10. All laboratory control samples (LCS) were within the 80-120% control limits. Refer to form 7.

11. All serial dilution percent differences were within SW-846 control limits. Refer to form 9.

12. The matrix spike (MS) recoveries for 3 analytes were outside the 75-125% control limits. Refer to form 5A.

13. For analytes where the MS is out of control, a post-digestion MS (PDS) is performed. A PDS was prepared at meaningful concentration levels. Refer to form 5B.

The results presented in this report relate only to the analytical testing and conditions of the samples at receipt and during storage. All pages of this report are integral parts of the analytical data. Therefore, this report should only be reproduced in its entirety of 220 pages.

208 Welsh Pool Road • Exton, PA 19341-1313 • (610) 280-3000 • Fax (610) 280-3041

14. The duplicate analyses for 2 analytes were outside the 20% Relative Percent Difference (RPD) control limits. Refer to form 6.

15. All sample IDs were changed to accommodate the EPA naming convention which allows a maximum of 6 characters on all CLP Forms. Refer to the comments section of form 1 for the original ID.

16. Recoveries on the Laboratory Summary Report and CLP forms will vary depending on the number of significant figures used in the recovery calculation.

17. I certify that this package is in compliance with the terms and conditions of the contract, both technically and for completeness, except as detailed in this QC Report.

Iain Daniels
Deputy Laboratory Manager
Lionville Laboratory Incorporated

08-13-01
Date

alm\m07-388

U.S. EPA

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: LIONVILLE_LABORATORY_____ Contract: 2744-064__

Lab Code: LVLI__ Case No.: 9408R SAS No.: _____ SDG No.: 000301

Initial Calibration Source: IV_____

Continuing Calibration Source: IV_____

Concentration Units: ug/L

Analyte	Initial Calibration True	Initial Calibration Found	Initial Calibration %R(1)	Continuing Calibration True	Continuing Calibration Found	Continuing Calibration %R(1)	Continuing Calibration Found	Continuing Calibration %R(1)	M
Aluminum	3750.0	3737.39	99.7	5000.0	4984.12	99.7	4997.83	100.0	P
Antimony	375.0	377.64	100.7	500.0	501.74	100.3	504.44	100.9	P
Arsenic	375.0	368.32	98.2	500.0	493.30	98.7	491.22	98.2	P
Barium	375.0	374.73	99.9	500.0	500.37	100.1	502.89	100.6	P
Beryllium	375.0	370.27	98.7	500.0	493.88	98.8	495.03	99.0	P
Cadmium	375.0	374.59	99.9	500.0	497.45	99.5	498.59	99.7	P
Calcium	1500.0	1484.70	99.0	2000.0	1980.40	99.0	1981.32	99.1	P
Chromium	375.0	373.78	99.7	500.0	498.45	99.7	498.34	99.7	P
Cobalt	375.0	375.96	100.3	500.0	500.56	100.1	500.29	100.1	P
Copper	375.0	373.66	99.6	500.0	500.02	100.0	499.44	99.9	P
Iron	3750.0	3734.77	99.6	5000.0	4976.69	99.5	4942.01	98.8	P
Lead	375.0	374.85	100.0	500.0	495.00	99.0	496.61	99.3	P
Magnesium	3000.0	2972.27	99.1	4000.0	3995.47	99.9	3982.07	99.6	P
Manganese	3750.0	3839.23	102.4	5000.0	5100.91	102.0	5101.39	102.0	P
Mercury	2.5	2.51	100.4	5.0	5.05	101.0	5.00	100.0	AV
Nickel	375.0	372.42	99.3	500.0	493.12	98.6	494.75	99.0	P
Potassium	3750.0	3843.15	102.5	5000.0	5120.29	102.4	5157.22	103.1	P
Selenium	375.0	367.37	98.0	500.0	496.07	99.2	494.00	98.8	P
Silver	375.0	368.69	98.3	500.0	491.70	98.3	493.38	98.7	P
Sodium	3750.0	3802.33	101.4	5000.0	5087.75	101.8	5037.38	100.7	P
Thallium	375.0	375.44	100.1	500.0	503.75	100.8	501.50	100.3	P
Vanadium	3750.0	3781.23	100.8	5000.0	5058.26	101.2	5046.41	100.9	P
Zinc	375.0	375.21	100.1	500.0	497.86	99.6	499.91	100.0	P

FORM II (PART 1) - IN

U.S. EPA

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: LIONVILLE_LABORATORY_____ Contract: 2744-064__

Lab Code: LVLI__ Case No.: 9408R SAS No.: _____ SDG No.: 000301

Initial Calibration Source: IV_____

Continuing Calibration Source: IV_____

Concentration Units: ug/L

Analyte	Initial Calibration True	Initial Calibration Found	Initial Calibration %R(1)	Continuing Calibration True	Continuing Calibration Found	Continuing Calibration %R(1)	Continuing Calibration Found	Continuing Calibration %R(1)	M
Aluminum				5000.0	5009.76	100.2	5019.75	100.4	P
Antimony				500.0	510.99	102.2	512.65	102.5	P
Arsenic				500.0	505.09	101.0	498.32	99.7	P
Barium				500.0	501.74	100.3	500.07	100.0	P
Beryllium				500.0	506.16	101.2	500.03	100.0	P
Cadmium				500.0	513.31	102.7	505.40	101.1	P
Calcium				2000.0	1992.58	99.6	1989.57	99.5	P
Chromium				500.0	510.11	102.0	504.14	100.8	P
Cobalt				500.0	510.89	102.2	505.33	101.1	P
Copper				500.0	497.06	99.4	495.93	99.2	P
Iron				5000.0	5003.27	100.1	4944.45	98.9	P
Lead				500.0	510.06	102.0	506.48	101.3	P
Magnesium				4000.0	3987.53	99.7	3978.57	99.5	P
Manganese				5000.0	5199.78	104.0	5153.69	103.1	P
Mercury				5.0	4.92	98.4	4.88	97.6	AV
Nickel				500.0	512.32	102.5	509.19	101.8	P
Potassium				5000.0	5155.33	103.1	5188.20	103.8	P
Selenium				500.0	503.34	100.7	503.30	100.7	P
Silver				500.0	494.57	98.9	491.37	98.3	P
Sodium				5000.0	5012.52	100.3	5033.01	100.7	P
Thallium				500.0	508.63	101.7	498.04	99.6	P
Vanadium				5000.0	5091.56	101.8	5041.75	100.8	P
Zinc				500.0	512.67	102.5	505.52	101.1	P

FORM II (PART 1) - IN

U.S. EPA

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: LIONVILLE_LABORATORY_____ Contract: 2744-064__

Lab Code: LVLI__ Case No.: 9408R SAS No.: _____ SDG No.: 000301

Initial Calibration Source: IV_____

Continuing Calibration Source: IV_____

Concentration Units: ug/L

Analyte	Initial Calibration True	Initial Calibration Found	Initial Calibration %R(1)	Continuing Calibration True	Continuing Calibration Found	Continuing Calibration %R(1)	Continuing Calibration Found	Continuing Calibration %R(1)	M
Aluminum									NR
Antimony									NR
Arsenic									NR
Barium									NR
Beryllium									NR
Cadmium									NR
Calcium									NR
Chromium									NR
Cobalt									NR
Copper									NR
Iron									NR
Lead									NR
Magnesium									NR
Manganese									NR
Mercury				5.0	4.88	97.6			AV
Nickel									NR
Potassium									NR
Selenium									NR
Silver									NR
Sodium									NR
Thallium									NR
Vanadium									NR
Zinc									NR

FORM II (PART 1) - IN

U.S. EPA

2B
CRDL STANDARD FOR AA AND ICP

Lab Name: LIONVILLE_LABORATORY_____ Contract: 2744-064__

Lab Code: LVLI__ Case No.: 9408R SAS No.: _____ SDG No.: 000301

AA CRDL Standard Source: HIGH PURITY_

ICP CRDL Standard Source: HIGH PURITY_

Concentration Units: ug/L

Analyte	CRDL Standard for AA			CRDL Standard for ICP				
	True	Found	%R	True	Initial Found	%R	Final Found	%R
Aluminum				200.0	190.89	95.4		
Antimony				20.0	20.90	104.5		
Arsenic				20.0	16.76	83.8		
Barium				20.0	20.12	100.6		
Beryllium				20.0	19.94	99.7		
Cadmium				20.0	20.06	100.3		
Calcium				80.0	82.85	103.6		
Chromium				20.0	20.70	103.5		
Cobalt				20.0	20.35	101.8		
Copper				20.0	20.60	103.0		
Iron				200.0	202.40	101.2		
Lead				20.0	19.10	95.5		
Magnesium				160.0	158.45	99.0		
Manganese				200.0	208.10	104.0		
Mercury	0.2	0.21	105.0					
Nickel				20.0	20.62	103.1		
Potassium				200.0	205.91	103.0		
Selenium				20.0	17.07	85.4		
Silver				20.0	19.25	96.2		
Sodium				200.0	200.03	100.0		
Thallium				20.0	18.37	91.8		
Vanadium				200.0	202.81	101.4		
Zinc				20.0	20.26	101.3		

FORM II (PART 2) - IN

U.S. EPA

3
BLANKS

Lab Name: LIONVILLE_LABORATORY_____ Contract: 2744-064__

Lab Code: LVLI__ Case No.: 9408R SAS No.: _____ SDG No.: 000301

Preparation Blank Matrix (soil/water): SOIL_

Preparation Blank Concentration Units (ug/L or mg/kg): MG/KG

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C		Prepa-ration Blank	C	M
Aluminum	12.7	U	12.7	U	12.7	U	12.7	U	5x	1.270	U	P
Antimony	1.9	U	1.9	U	1.9	U	1.9	U		0.190	U	P
Arsenic	2.3	U	2.3	U	2.3	U	2.3	U		0.230	U	P
Barium	0.2	U	0.2	U	0.2	U	0.2	U	.23	0.046		P
Beryllium	0.2	U	0.2	U	0.2	U	0.2	U		0.020	U	P
Cadmium	0.3	U	0.3	U	0.3	U	0.3	U		0.030	U	P
Calcium	8.1	U	8.1	U	8.1	U	8.1	U	5.06	1.012		P
Chromium	0.9	U	0.9	U	0.9	U	0.9	U		0.090	U	P
Cobalt	0.8	U	0.8	U	0.8	U	0.8	U		0.080	U	P
Copper	0.7	U	0.7	U	0.7	U	0.7	U		0.070	U	P
Iron	15.7	U	15.7	U	15.7	U	15.7	U		1.570	U	P
Lead	2.6	U	2.6	U	2.6	U	2.6	U		0.260	U	P
Magnesium	8.8	U	8.8	U	8.8	U	8.8	U		0.880	U	P
Manganese	0.2		0.3		0.1		0.1		.06	0.012		P
Mercury	0.1	U	0.1	U	-0.1		0.1	U		0.017	U	AV
Nickel	1.2	U	1.2	U	1.2	U	1.2	U		0.120	U	P
Potassium	35.3	U	35.3	U	35.3	U	35.3	U		3.530	U	P
Selenium	2.6	U	2.6	U	2.6	U	2.6	U		0.260	U	P
Silver	1.0	U	1.0	U	1.0	U	1.0	U		0.100	U	P
Sodium	-1.9		-3.4		-5.2		-7.4		10.49	2.098		P
Thallium	3.9	U	3.9	U	3.9	U	3.9	U		0.390	U	P
Vanadium	0.7	U	0.7	U	0.7	U	0.7	U		0.070	U	P
Zinc	0.3	U	0.3	U	0.3	U	0.3	U	.225	0.045		P

FORM III - IN

U.S. EPA

3
BLANKS

Lab Name: LIONVILLE_LABORATORY_____ Contract: 2744-064__

Lab Code: LVLI__ Case No.: 9408R SAS No.: _____ SDG No.: 000301

Preparation Blank Matrix (soil/water): _____

Preparation Blank Concentration Units (ug/L or mg/kg): _____

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Aluminum			25.8								P
Antimony			1.9	U							P
Arsenic			2.3	U							P
Barium			0.2	U							P
Beryllium			0.2								P
Cadmium			0.3	U							P
Calcium			8.1	U							P
Chromium			0.9	U							P
Cobalt			0.8	U							P
Copper			-1.1								P
Iron			15.7	U							P
Lead			2.6	U							P
Magnesium			8.8	U							P
Manganese			0.2								P
Mercury			0.1	U	0.1	U					P
Nickel			1.2	U							AV
Potassium			35.3	U							P
Selenium			-3.1								P
Silver			1.0	U							P
Sodium			-9.0								P
Thallium			3.9	U							P
Vanadium			0.7	U							P
Zinc			0.3	U							P

FORM III - IN

U.S. EPA

4

ICP INTERFERENCE CHECK SAMPLE

Lab Name: LIONVILLE_LABORATORY_____ Contract: 2744-064__

Lab Code: LVLI__ Case No.: 9408R SAS No: _____ SDG No.: 000301

ICP ID Number: TR_____ ICS Source: IV_____

Concentration Units: ug/L

Analyte	True Sol. A	True Sol. AB	Initial Found Sol. A	Initial Found Sol. AB	Initial Found %R	Final Found Sol. A	Final Found Sol. AB	Final Found %R
Aluminum	500000	100000	514394	99028.4	99.0			
Antimony	0	1000	2	978.9	97.9			
Arsenic	0	1000	1	966.1	96.6			
Barium	0	500	0	496.7	99.3			
Beryllium	0	500	0	491.3	98.3			
Cadmium	0	1000	1	955.2	95.5			
Calcium	500000	100000	470192	98285.1	98.3			
Chromium	0	500	4	484.4	96.9			
Cobalt	0	500	-1	484.9	97.0			
Copper	0	500	2	497.3	99.5			
Iron	200000	40000	191028	37876.0	94.7			
Lead	0	1000	2	967.3	96.7			
Magnesium	500000	100000	510344	100824.1	100.8			
Manganese	0	500	1	502.6	100.5			
Mercury								
Nickel	0	1000	2	949.7	95.0			
Potassium	0	5000	2	5633.2	112.7			
Selenium	0	1000	-2	976.6	97.7			
Silver	0	1000	0	994.3	99.4			
Sodium	0	1000	20	1160.7	116.1			
Thallium	0	1000	5	971.9	97.2			
Vanadium	0	500	-4	494.6	98.9			
Zinc	0	1000	0	969.5	97.0			

FORM IV - IN

U.S. EPA

5A
SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

000301S

Lab Name: LIONVILLE_LABORATORY_____ Contract: 2744-064__

Lab Code: LVLI__ Case No.: 9408R SAS No.: _____ SDG No.: 000301
Matrix: __SOIL_____ Level (low/med): _LOW____
% Solids for Sample: _91.8

Concentration Units (ug/L or mg/kg dry weight): MG/KG

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Aluminum	75-125	6926.9630		6251.9575		74x 217.86	309.8	N	P
Antimony	75-125	30.2350		0.2070	U	54.47	55.5	N	P
Arsenic	75-125	195.7705		1.5040		217.86	89.2		P
Barium	75-125	360.6023		154.9468		217.86	94.4		P
Beryllium	75-125	5.1188		0.3218		5.45	88.0		P
Cadmium	75-125	5.5861		0.1844		5.45	99.1		P
Calcium	75-125	8011.2277		4833.6166		2723.31	116.7		P
Chromium	75-125	27.1009		7.3916		21.79	90.5		P
Cobalt	75-125	52.6168		3.6438		54.47	89.9		P
Copper	75-125	35.8771		9.0008		27.23	98.7		P
Iron	75-125	10260.2255		10400.8268		74x 108.93	-129.1	N	P
Lead	75-125	58.3839		7.2932		54.47	93.8		P
Magnesium	75-125	4514.0556		2051.3322		2723.31	90.4		P
Manganese	75-125	267.8660		221.0261		54.47	86.0		P
Mercury	75-125	0.1775		0.0176	U	0.18	98.6		AV
Nickel	75-125	55.3426		6.4471		54.47	89.8		P
Potassium	75-125	3678.5475		917.8328		2723.31	101.4		P
Selenium	75-125	187.3004		0.2832	U	217.86	86.0		P
Silver	75-125	5.0326		0.1089	U	5.45	92.3		P
Sodium	75-125	2863.9920		241.9202		2723.31	96.3		P
Thallium	75-125	196.0852		0.7547		217.86	89.7		P
Vanadium	75-125	72.2538		23.5044		54.47	89.5		P
Zinc	75-125	85.5151		32.0111		54.47	98.2		P

Comments:
RC60-01-0003-01

FORM V (Part 1) - IN

U.S. EPA

5B
POST DIGEST SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

000301A

Lab Name: LIONVILLE_LABORATORY_____ Contract: 2744-064__

Lab Code: LVLI__ Case No.: 9408R SAS No.: _____ SDG No.: 000301

Matrix: ____SOIL_____ Level (low/med): LOW_____

Concentration Units: ug/L

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Added (SA)	%R	Q	M
Aluminum		76762.58		57392.97		20000.0	96.8		P
Antimony		93.94		1.90	U	100.0	93.9		P
Arsenic									NR
Barium									NR
Beryllium									NR
Cadmium									NR
Calcium									NR
Chromium									NR
Cobalt									NR
Copper									NR
Iron		113344.29		95479.59		20000.0	89.3		P
Lead									NR
Magnesium									NR
Manganese									NR
Mercury									NR
Nickel									NR
Potassium									NR
Selenium									NR
Silver									NR
Sodium									NR
Thallium									NR
Vanadium									NR
Zinc									NR

Comments:
RC60-01-0003-01

U.S. EPA

6
DUPLICATES

EPA SAMPLE NO.

000301D

Lab Name: LIONVILLE_LABORATORY_____ Contract: 2744-064__

Lab Code: LVLI__ Case No.: 9408R SAS No.: _____ SDG No.: 000301

Matrix (soil/water): SOIL_ Level (low/med): _LOW__

% Solids for Sample: _91.8 % Solids for Duplicate: __91.8

Concentration Units (ug/L or mg/kg dry weight): MG/KG

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	M
Aluminum		6251.9575		6860.5479		9.3		P
Antimony		0.2070	U	0.2070	U			P
Arsenic		1.5040		1.7383		14.5		P
Barium		154.9468		161.6593		4.2		P
Beryllium		0.3218		0.3232		0.4		P
Cadmium		0.1844		0.2503		30.3	*	P
Calcium		4833.6166		4491.5370		7.3		P
Chromium		7.3916		7.9056		6.7		P
Cobalt		3.6438		3.5141		3.6		P
Copper		9.0008		9.1001		1.1		P
Iron		10400.8268		11710.1089		11.8		P
Lead		7.2932		8.0924		10.4		P
Magnesium		2051.3322		2087.0664		1.7		P
Manganese		221.0261		259.4303		16.0		P
Mercury		0.0176	U	0.0182	U			AV
Nickel		6.4471		6.4939		0.7		P
Potassium		917.8328		964.6428		5.0		P
Selenium		0.2832	U	0.2832	U			P
Silver		0.1089	U	0.1089	U			P
Sodium		241.9202		245.2723		1.4		P
Thallium		0.7547		0.4248	U	200.0	*	P
Vanadium		23.5044		23.5937		0.4		P
Zinc		32.0111		34.6144		7.8		P

FORM VI - IN

U.S. EPA

7

LABORATORY CONTROL SAMPLE

Lab Name: LIONVILLE_LABORATORY_____ Contract: 2744-064__

Lab Code: LVLI__ Case No.: 9408R SAS No.: _____ SDG No.: 000301

Solid LCS Source: IV_____

Aqueous LCS Source: _____

Analyte	Aqueous (ug/L) True	Found	%R	Solid (mg/kg) True	Found	C	Limits		%R
Aluminum				500.0	511.2		400.0	600.0	102.2
Antimony				300.0	292.7		240.0	360.0	97.6
Arsenic				1000.0	936.5		800.0	1200.0	93.6
Barium				500.0	495.8		400.0	600.0	99.2
Beryllium				25.0	24.2		20.0	30.0	96.8
Cadmium				25.0	24.4		20.0	30.0	97.6
Calcium				2500.0	2440.3		2000.0	3000.0	97.6
Chromium				50.0	50.1		40.0	60.0	100.2
Cobalt				250.0	249.0		200.0	300.0	99.6
Copper				125.0	125.4		100.0	150.0	100.3
Iron				500.0	501.5		400.0	600.0	100.3
Lead				250.0	241.6		200.0	300.0	96.6
Magnesium				2500.0	2507.2		2000.0	3000.0	100.3
Manganese				75.0	77.2		60.0	90.0	102.9
Mercury									
Nickel				200.0	194.6		160.0	240.0	97.3
Potassium				2500.0	2589.0		2000.0	3000.0	103.6
Selenium				1000.0	901.5		800.0	1200.0	90.2
Silver				50.0	48.7		40.0	60.0	97.4
Sodium				2500.0	2471.5		2000.0	3000.0	98.9
Thallium				1000.0	970.3		800.0	1200.0	97.0
Vanadium				250.0	257.9		200.0	300.0	103.2
Zinc				100.0	96.9		80.0	120.0	96.9

FORM VII - IN

U.S. EPA

7

LABORATORY CONTROL SAMPLE

Lab Name: LIONVILLE_LABORATORY_____ Contract: 2744-064__

Lab Code: LVLI__ Case No.: 9408R SAS No.: _____ SDG No.: 000301

Solid LCS Source: IV_____

Aqueous LCS Source: _____

Analyte	Aqueous (ug/L) True	Found	%R	Solid (mg/kg) True	Found	C	Limits		%R
Aluminum									
Antimony									
Arsenic									
Barium									
Beryllium									
Cadmium									
Calcium									
Chromium									
Cobalt									
Copper									
Iron									
Lead									
Magnesium									
Manganese									
Mercury				2.5	2.4		2.0	3.0	96.0
Nickel									
Potassium									
Selenium									
Silver									
Sodium									
Thallium									
Vanadium									
Zinc									

FORM VII - IN

U.S. EPA

9

ICP SERIAL DILUTION

EPA SAMPLE NO.

000301L

Lab Name: LIONVILLE_LABORATORY_____ Contract: 2744-064__

Lab Code: LVLI__ Case No.: 9408R SAS No.: _____ SDG No.: 000301

Matrix (soil/water): SOIL_ Level (low/med): LOW__

Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	M
Aluminum	57392.97		58809.25		2.5		P
Antimony	1.90	U	9.50	U			P
Arsenic	13.81		11.50	U	100.0		P
Barium	1422.41		1469.30		3.3		P
Beryllium	2.95		2.67		9.5		P
Cadmium	1.69		1.50	U	100.0		P
Calcium	44372.60		46427.20		4.6		P
Chromium	67.86		73.25		7.9		P
Cobalt	33.45		34.29		2.5		P
Copper	82.63		83.95		1.6		P
Iron	95479.59		97074.05		1.7		P
Lead	66.95		69.40		3.7		P
Magnesium	18831.23		19554.05		3.8		P
Manganese	2029.02		2120.75		4.5		P
Mercury							NR
Nickel	59.18		64.04		8.2		P
Potassium	8425.70		8148.68		3.3		P
Selenium	2.60	U	13.00	U			P
Silver	1.00	U	5.00	U			P
Sodium	2220.83		2150.10		3.2		P
Thallium	6.93		19.50	U	100.0		P
Vanadium	215.77		222.45		3.1		P
Zinc	293.86		310.08		5.5		P

FORM IX - IN

U.S. EPA

10
Instrument Detection Limits (Quarterly)

Lab Name: LIONVILLE LABORATORY
Lab Code: LVLI Case No.: 9408R
ICP ID Number:
Flame AA ID Number : HG1
Furnace AA ID Number :

Contract: 2744-064
SAS No.:
Date: 04/24/01
SDG No.: 000301

Analyte	Wave-length (nm)	Back-ground	CRDL (ug/L)	IDL (ug/L)	M
Aluminum					NR
Antimony					NR
Arsenic					NR
Barium					NR
Beryllium					NR
Cadmium					NR
Calcium					NR
Chromium					NR
Cobalt					NR
Copper					NR
Iron					NR
Lead					NR
Magnesium					NR
Manganese					NR
Mercury	253.70			0.1	AV
Nickel					NR
Potassium					NR
Selenium					NR
Silver					NR
Sodium					NR
Thallium					NR
Vanadium					NR
Zinc					NR

Comments:

FORM X - IN

U.S. EPA

10
Instrument Detection Limits (Quarterly)

Lab Name: LIONVILLE_LABORATORY_____ Contract: 2744-064__
Lab Code: LVLI__ Case No.: 9408R SAS No.: _____ SDG No.: 000301
ICP ID Number: TR_____ Date: 04/24/01
Flame AA ID Number : _____
Furnace AA ID Number : _____

Analyte	Wave-length (nm)	Back-ground	CRDL (ug/L)	IDL (ug/L)	M
Aluminum	308.20			12.7	P
Antimony	206.80			1.9	P
Arsenic	189.00			2.3	P
Barium	493.40			0.2	P
Beryllium	313.00			0.2	P
Cadmium	226.50			0.3	P
Calcium	317.90			8.1	P
Chromium	267.70			0.9	P
Cobalt	228.60			0.8	P
Copper	324.70			0.7	P
Iron	271.40			15.7	P
Lead	220.30			2.6	P
Magnesium	279.00			8.8	P
Manganese	257.60			0.1	P
Mercury					NR
Nickel	231.60			1.2	P
Potassium	766.40			35.3	P
Selenium	196.00			2.6	P
Silver	328.00			1.0	P
Sodium	330.20			1.7	P
Thallium	190.80			3.9	P
Vanadium	292.40			0.7	P
Zinc	213.80			0.3	P

Comments:

FORM X - IN

U.S. EPA

11A

ICP Interelement Correction Factors (Annually)

Lab Name: LIONVILLE_LABORATORY_____ Contract: 2744-064__

Lab Code: LVLI__ Case No.: 9408R SAS No.: _____ SDG No.: 000301

ICP ID Number: TR_____ Date: 02/09/00

Analyte	Wave-length (nm)	Interelement Correction Factors for : Al	Ca	Fe	Mg	BA_
Aluminum_	308.20	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Antimony_	206.80	0.0071000	0.0000000	0.0210000	0.0000000	0.0000000
Arsenic__	189.00	0.0000000	0.0000000	-0.0340050	0.0000000	0.0000000
Barium___	493.40	0.0011660	0.0000000	0.0038000	0.0000000	0.0000000
Beryllium	313.00	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cadmium__	226.50	-0.0020960	0.0000000	0.1134000	0.0000000	0.0000000
Calcium__	317.90	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Chromium_	267.70	0.0000000	0.0000000	-0.0201260	0.0000000	0.0000000
Cobalt___	228.60	0.0000000	0.0000000	-0.0090000	0.0000000	0.0004010
Copper___	324.70	0.0000000	0.0000000	0.0058670	-0.0032800	0.0000000
Iron_____	271.40	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Lead_____	220.30	-0.0045880	0.0000000	-0.0077000	0.0000000	0.0000000
Magnesium	279.00	0.0000000	0.0000000	-0.0009000	0.0000000	0.0000000
Manganese	257.60	-0.0000030	0.0000000	-0.0000060	0.0000150	0.0000000
Mercury__						
Nickel___	231.60	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Potassium	766.40	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Selenium_	196.00	0.0000000	0.0000000	-0.4160000	0.0000000	0.0000000
Silver___	328.00	0.0000000	0.0000000	-0.0014720	0.0000000	0.0000000
Sodium___	330.20	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Thallium_	190.80	-0.0072000	0.0000000	-0.1863320	0.0000000	0.0000000
Vanadium_	292.40	0.0000000	0.0000000	0.0000500	0.0000000	0.0000000
Zinc_____	213.80	0.0015020	0.0196200	0.1334000	0.0515270	0.0000000

Comments:

FORM XI (Part 1) - IN

U.S. EPA

11B
ICP Interelement Correction Factors (Annually)

Lab Name: LIONVILLE_LABORATORY_____ Contract: 2744-064__

Lab Code: LVLI__ Case No.: 9408R SAS No.: _____ SDG No.: 000301

ICP ID Number: TR_____ Date: 02/09/00

Analyte	Wave-length (nm)	Interelement Correction Factors for : BI_	CD_	CO_	CR_	CU_
Aluminum	308.20	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Antimony	206.80	0.0000000	0.0000000	0.0000000	0.0084300	0.0000000
Arsenic	189.00	0.0000000	0.0000000	0.0000000	-0.0029580	0.0000000
Barium	493.40	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Beryllium	313.00	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cadmium	226.50	0.0000000	0.0000000	-0.0003860	0.0000000	0.0000000
Calcium	317.90	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Chromium	267.70	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cobalt	228.60	0.0000000	0.0004860	0.0000000	0.0000000	0.0000000
Copper	324.70	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Iron	271.40	0.0000000	0.0000000	0.0000790	0.0000000	0.0000000
Lead	220.30	-0.0000360	0.0000000	-0.0006280	0.0003320	0.0000000
Magnesium	279.00	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Manganese	257.60	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Mercury						
Nickel	231.60	0.0000000	0.0000000	-0.0022860	0.0000000	0.0000000
Potassium	766.40	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Selenium	196.00	-0.0001320	0.0000000	-0.0005000	0.0000000	0.0000000
Silver	328.00	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Sodium	330.20	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Thallium	190.80	-0.0000290	0.0000000	0.0036600	0.0003770	0.0000000
Vanadium	292.40	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Zinc	213.80	0.0000000	0.0000000	0.0000000	0.0000000	0.0016540

Comments:

FORM XI (Part 2) - IN

U.S. EPA

11B
ICP Interelement Correction Factors (Annually)

Lab Name: LIONVILLE_LABORATORY_____ Contract: 2744-064__

Lab Code: LVLI__ Case No.: 9408R SAS No.: _____ SDG No.: 000301

ICP ID Number: TR_____ Date: 02/09/00

Analyte	Wave-length (nm)	Interelement Correction Factors for : MN_	MO_	NI_	SN_	TI_
Aluminum	308.20	0.0000000	0.0000060	0.0000000	0.0000000	0.0000000
Antimony	206.80	0.0000000	-0.0096500	-0.0014190	0.0002210	0.0000880
Arsenic	189.00	0.0000000	-0.0023400	0.0000000	0.0000000	0.0000000
Barium	493.40	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Beryllium	313.00	0.0000000	0.0000000	0.0000000	0.0000000	-0.0022100
Cadmium	226.50	0.0000000	0.0000000	-0.0000320	0.0000000	0.0000200
Calcium	317.90	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Chromium	267.70	0.1248000	-0.0000300	0.0000000	0.0000000	0.0000000
Cobalt	228.60	0.0000000	-0.0026130	0.0001660	0.0000000	0.0020520
Copper	324.70	0.0000000	0.0002630	0.0000000	0.0000000	0.0001530
Iron	271.40	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Lead	220.30	0.0000000	-0.0004390	-0.0000510	0.0000000	-0.0002120
Magnesium	279.00	0.0000000	-0.0000150	0.0000000	0.0000000	-0.0000040
Manganese	257.60	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Mercury						
Nickel	231.60	-0.1081390	0.0000000	0.0000000	0.0000000	0.0000000
Potassium	766.40	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Selenium	196.00	0.4474220	0.0000000	0.0000000	0.0000000	0.0000000
Silver	328.00	0.0514000	0.0000000	0.0000000	0.0000000	0.0000000
Sodium	330.20	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Thallium	190.80	0.9200000	-0.0117540	0.0000000	0.0000000	0.0000000
Vanadium	292.40	0.0000000	-0.0000080	0.0000000	0.0000000	0.0000010
Zinc	213.80	0.0000000	0.0000000	0.0045110	0.0000000	0.0000000

Comments:

FORM XI (Part 2) - IN

U.S. EPA

11B

ICP Interelement Correction Factors (Annually)

Lab Name: LIONVILLE_LABORATORY_____ Contract: 2744-064__

Lab Code: LVLI__ Case No.: 9408R SAS No.: _____ SDG No.: 000301

ICP ID Number: TR_____ Date: 02/09/00

Analyte	Wave-length (nm)	Interelement Correction Factors for : U__	V__	ZR_	___	___
Aluminum	308.20	0.0000010	0.0238920	0.0000000		
Antimony	206.80	-0.0000900	0.0303200	-0.0007070		
Arsenic	189.00	-0.0001220	0.0000000	0.0000640		
Barium	493.40	-0.0000110	0.0196000	0.0000000		
Beryllium	313.00	-0.0000150	0.9231760	0.0000090		
Cadmium	226.50	0.0000000	0.0000000	0.0000000		
Calcium	317.90	0.0000000	0.0000260	0.0000000		
Chromium	267.70	0.0009400	0.1784430	0.0000000		
Cobalt	228.60	0.0001970	0.0166550	0.0000000		
Copper	324.70	-0.0009490	-0.0493600	0.0000000		
Iron	271.40	-0.0000090	0.0126780	0.0000910		
Lead	220.30	0.0014700	-0.1386560	-0.0002030		
Magnesium	279.00	0.0000090	0.0000000	0.0000000		
Manganese	257.60	0.0000000	0.0000090	0.0000000		
Mercury						
Nickel	231.60	0.0001200	0.0000000	-0.0000330		
Potassium	766.40	0.0000000	0.0000000	0.0000000		
Selenium	196.00	0.0001300	0.1404370	0.0001320		
Silver	328.00	0.0008180	0.0572060	0.0024880		
Sodium	330.20	0.0000000	0.0000000	0.0000000		
Thallium	190.80	-0.0001920	2.3979800	0.0000000		
Vanadium	292.40	0.0000000	0.0000000	0.0000000		
Zinc	213.80	0.0000000	0.0376560	0.0000000		

Comments:

FORM XI (Part 2) - IN

U.S. EPA

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ICP Linear Ranges (Quarterly)

Lab Name: LIONVILLE_LABORATORY_____ Contract: 2744-064__

Lab Code: LVLI__ Case No.: 9408R SAS No.: _____ SDG No.: 000301

ICP ID Number: TR_____ Date: 04/24/01

Analyte	Integ. Time (sec.)	Concentration (ug/L)	M
Aluminum	15.00	1000000.0	P
Antimony	15.00	100000.0	P
Arsenic	15.00	50000.0	P
Barium	15.00	50000.0	P
Beryllium	15.00	10000.0	P
Cadmium	15.00	50000.0	P
Calcium	15.00	500000.0	P
Chromium	15.00	100000.0	P
Cobalt	15.00	100000.0	P
Copper	15.00	100000.0	P
Iron	15.00	500000.0	P
Lead	15.00	400000.0	P
Magnesium	15.00	500000.0	P
Manganese	15.00	40000.0	P
Mercury			NR
Nickel	15.00	100000.0	P
Potassium	15.00	100000.0	P
Selenium	15.00	100000.0	P
Silver	15.00	10000.0	P
Sodium	15.00	100000.0	P
Thallium	15.00	100000.0	P
Vanadium	15.00	200000.0	P
Zinc	15.00	10000.0	P

Comments:

FORM XII - IN

U.S. EPA

13
PREPARATION LOG

Lab Name: LIONVILLE_LABORATORY_____ Contract: 2744-064__

Lab Code: LVLI__ Case No.:_9408R SAS No.: _____ SDG No.:000301

Method: P_

EPA Sample No.	Preparation Date	Weight (gram)	Volume (mL)
000301	07/27/01	1.00	100
000301D	07/27/01	1.00	100
000301S	07/27/01	1.00	100
000401	07/27/01	1.00	100
000501	07/27/01	1.03	100
000601	07/27/01	1.03	100
000701	07/27/01	1.03	100
000801	07/27/01	1.03	100
LCSS168	07/27/01	1.00	100
PBS168	07/27/01	1.00	100

FORM XIII - IN

U.S. EPA

13
PREPARATION LOG

Lab Name: LIONVILLE_LABORATORY_____ Contract: 2744-064__

Lab Code: LVLI__ Case No.:_9408R SAS No.: _____ SDG No.:000301

Method: AV

EPA Sample No.	Preparation Date	Weight (gram)	Volume (mL)
000301	08/08/01	0.31	50
000301D	08/08/01	0.30	50
000301S	08/08/01	0.31	50
000401	08/08/01	0.31	50
000501	08/08/01	0.32	50
000601	08/08/01	0.31	50
000701	08/08/01	0.31	50
000801	08/08/01	0.31	50
LCSS140	08/08/01	0.17	50
PBS140	08/08/01	0.30	50

FORM XIII - IN

U.S. EPA

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ANALYSIS RUN LOG

Lab Name: LIONVILLE_LABORATORY_____ Contract: 2744-064__

Lab Code: LVLI__ Case No.: 9408R_ SAS No.: _____ SDG No.:000301

Instrument ID Number: HG1_____ Method: AV

Start Date: 08/09/01 End Date: 08/09/01

EPA Sample No.	D/F	Time	% R	Analytes																								
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	
S0	1.00	1414		-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	-	-	-	-	-	-	-	-	-
S0.1	1.00	1416		-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	-	-	-	-	-	-	-	-	-
S1	1.00	1418		-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	-	-	-	-	-	-	-	-	-
S2	1.00	1420		-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	-	-	-	-	-	-	-	-	-
S5	1.00	1423		-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	-	-	-	-	-	-	-	-	-
S10	1.00	1425		-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	-	-	-	-	-	-	-	-	-
ICV	1.00	1428		-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	-	-	-	-	-	-	-	-	-
ICB	1.00	1430		-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	-	-	-	-	-	-	-	-	-
CCV	1.00	1432		-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	-	-	-	-	-	-	-	-	-
CCB	1.00	1434		-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	-	-	-	-	-	-	-	-	-
CRA	1.00	1437		-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	-	-	-	-	-	-	-	-	-
PBS140	1.00	1439		-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	-	-	-	-	-	-	-	-	-
LCSS140	1.00	1441		-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	-	-	-	-	-	-	-	-	-
000301	1.00	1443		-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	-	-	-	-	-	-	-	-	-
000301D	1.00	1446		-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	-	-	-	-	-	-	-	-	-
000301S	1.00	1448		-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	-	-	-	-	-	-	-	-	-
000401	1.00	1450		-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	-	-	-	-	-	-	-	-	-
000501	1.00	1452		-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	-	-	-	-	-	-	-	-	-
000601	1.00	1455		-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	-	-	-	-	-	-	-	-	-
000701	1.00	1457		-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	-	-	-	-	-	-	-	-	-
CCV	1.00	1459		-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	-	-	-	-	-	-	-	-	-
CCB	1.00	1501		-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	-	-	-	-	-	-	-	-	-
000801	1.00	1504		-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	-	-	-	-	-	-	-	-	-
ZZZZZZ	1.00	1506		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ZZZZZZ	1.00	1508		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ZZZZZZ	1.00	1510		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ZZZZZZ	1.00	1512		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ZZZZZZ	1.00	1515		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ZZZZZZ	1.00	1517		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ZZZZZZ	1.00	1519		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ZZZZZZ	1.00	1521		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ZZZZZZ	1.00	1523		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

FORM XIV - IN

U.S. EPA

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ANALYSIS RUN LOG

Lab Name: LIONVILLE_LABORATORY_____ Contract: 2744-064__

Lab Code: LVLI__ Case No.: 9408R_ SAS No.: _____ SDG No.:000301

Instrument ID Number: HG1_____ Method: AV

Start Date: 08/09/01 End Date: 08/09/01

EPA Sample No.	D/F	Time	% R	Analytes																								
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	
CCV	1.00	1526		–	–	–	–	–	–	–	–	–	–	–	–	–	–	X	–	–	–	–	–	–	–	–	–
CCB	1.00	1528		–	–	–	–	–	–	–	–	–	–	–	–	–	–	X	–	–	–	–	–	–	–	–	–
ZZZZZZ	1.00	1530		–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
ZZZZZZ	1.00	1532		–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
ZZZZZZ	1.00	1535		–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
ZZZZZZ	1.00	1537		–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
ZZZZZZ	1.00	1539		–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
ZZZZZZ	1.00	1542		–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
ZZZZZZ	1.00	1544		–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
ZZZZZZ	1.00	1546		–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
ZZZZZZ	1.00	1549		–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
ZZZZZZ	1.00	1551		–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
CCV	1.00	1553		–	–	–	–	–	–	–	–	–	–	–	–	–	–	X	–	–	–	–	–	–	–	–	–
CCB	1.00	1555		–	–	–	–	–	–	–	–	–	–	–	–	–	–	X	–	–	–	–	–	–	–	–	–
ZZZZZZ	1.00	1558		–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
ZZZZZZ	1.00	1600		–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
ZZZZZZ	1.00	1602		–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
ZZZZZZ	1.00	1605		–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
ZZZZZZ	1.00	1607		–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
ZZZZZZ	1.00	1609		–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
ZZZZZZ	1.00	1612		–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
ZZZZZZ	1.00	1614		–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
ZZZZZZ	1.00	1616		–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
ZZZZZZ	1.00	1618		–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
CCV	1.00	1621		–	–	–	–	–	–	–	–	–	–	–	–	–	–	X	–	–	–	–	–	–	–	–	–
CCB	1.00	1623		–	–	–	–	–	–	–	–	–	–	–	–	–	–	X	–	–	–	–	–	–	–	–	–
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FORM XIV - IN

U.S. EPA

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ANALYSIS RUN LOG

Lab Name: LIONVILLE_LABORATORY_____ Contract: 2744-064__

Lab Code: LVLI__ Case No.: 9408R_ SAS No.: _____ SDG No.:000301

Instrument ID Number: TR_____ Method: P_

Start Date: 07/30/01 End Date: 07/31/01

EPA Sample No.	D/F	Time	% R	Analytes																								
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN		
S0	1.00	1945		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
S1	1.00	1952		X	X	X	X	X	X	X	X	X	X	X	X	X			X		X	X		X		X		
S2	1.00	2001								X				X		X	X			X			X		X			
ICV	1.00	2017		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
ICB	1.00	2026		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
CRI	1.00	2034		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
ICSA	1.00	2041		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
ICSAB	1.00	2048		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
CCV	1.00	2058		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
CCB	1.00	2107		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
PBS168	1.00	2114		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
LCSS168	1.00	2121		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
000301	1.00	2134		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
000301L	5.00	2143		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
000301D	1.00	2152		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
000301S	1.00	2201		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
000301A	1.00	2211		X	X									X														
000401	1.00	2221		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
000501	1.00	2230		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
000601	1.00	2239		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
CCV	1.00	2250		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
CCB	1.00	2300		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
000701	1.00	2307		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
000801	1.00	2316		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
ZZZZZZ	1.00	2325																										
ZZZZZZ	1.00	2334																										
ZZZZZZ	1.00	2343																										
ZZZZZZ	1.00	2353																										
ZZZZZZ	1.00	0001																										
ZZZZZZ	1.00	0011																										
ZZZZZZ	1.00	0020																										
ZZZZZZ	1.00	0029																										

FORM XIV - IN

U.S. EPA

14
ANALYSIS RUN LOG

Lab Name: LIONVILLE_LABORATORY_____ Contract: 2744-064__

Lab Code: LVLI__ Case No.: 9408R_ SAS No.: _____ SDG No.:000301

Instrument ID Number: TR_____ Method: P_

Start Date: 07/30/01 End Date: 07/31/01

EPA Sample No.	D/F	Time	% R	Analytes																							
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	
CCV	1.00	0039		X	X	X	X	X	X	X	X	X	X	X	X	X	X	_	X	X	X	X	X	X	X	X	_
CCB	1.00	0049		X	X	X	X	X	X	X	X	X	X	X	X	X	X	_	X	X	X	X	X	X	X	X	_
ZZZZZZ	1.00	0056																_									_
ZZZZZZ	1.00	0105		_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
ZZZZZZ	1.00	0114		_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
ZZZZZZ	1.00	0123		_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
ZZZZZZ	1.00	0132		_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
ZZZZZZ	1.00	0139		_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
ZZZZZZ	1.00	0146		_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
CCV	1.00	0156		X	X	X	X	X	X	X	X	X	X	X	X	X	X	_	X	X	X	X	X	X	X	X	_
CCB	1.00	0206		X	X	X	X	X	X	X	X	X	X	X	X	X	X	_	X	X	X	X	X	X	X	X	_

FORM XIV - IN

DATA VALIDATION COVER SHEET (Example)

SECTION I.

REQUEST NUMBER: 9408 COST CODE: _____

VALIDATION DATE: _____

LAB NAME: LVLI LAB CODE: _____

VALIDATOR: _____ ORGANIZATION: _____

ANALYTICAL SUITE: ___ VOLATILES ___ HIGH EXPLOSIVES

___ SEMIVOLATILES ___ INORGANICS

___ PESTICIDES/AROCLORS ___ RADIOCHEMISTRY

OTHER (describe) _____

SECTION II. COMPLETENESS CHECKLIST

Item	Present? (Y/N/NA)	Item	Present? (Y/N/NA)
1. COC form(s)		2. Case Narrative	
3. Sample Results		4. Sample Chromatograms	
5. Standard Chromatograms		6. Quantitation Reports	
7. QC Forms			

Identify any samples in the assigned Request Number that are missing:

_____ _____ _____ _____ _____ _____

_____ _____ _____ _____ _____ _____

Comments: include information about requests to the laboratory and agreed upon date of resolution and lab contact: (Attach additional comment sheets as necessary)

_____

_____

_____

Signature/1st validation: _____ Date/1st validation: _____

Signature/2nd validation: _____ Date/2nd validation: _____

LIONVILLE LABORATORY INC.

13 August 2001

Ms. Joylene Valdez
Los Alamos National Laboratory
TA-3, Building 271
DP. O1U MS-H865
Los Alamos, NM 87545

Ref: Subcontract No. 7791L0014-AA
Data Report for LVL Batch 0107L388
LANL Request No. 9408R

Dear Ms. Valdez:

Enclosed please find the EDD for 6 soil samples received 25 July 2001. These were analyzed for metals on a 30 day turnaround. The EDD will follow shortly.

Please do not hesitate to contact me at (610) 280-3029 with any question you may have regarding either the hard copy or electronic report.

Very truly yours,

Lionville Laboratory Incorporated

Judith L. Stone
Senior Project Manager

Enclosure:

208 Welsh Pool Road • Lionville, PA 19341-1333 • (610) 280-3000 • Fax (610) 280-3041

Tuesday, July 24, 2001

REQUEST NUMBER: 9408R
ANALYSIS TYPE: INORG

Los Alamos
NATIONAL LABORATORY

ATTN: Judy Stone
Lionville Laboratory Inc
208 Welsh Pool Rd
Lionville, pa 19341

Please analyze the enclosed samples according to the schedule indicated:

SHIP DATE: 7/24/01
REPORT DUE: 8/25/01
TURN AROUND REQ'D: 30 day

These samples are on:

LANL Request Number: 9408R
Per Agreement Number:
Project Cost Code: MR0R0001E000

RAD SCREENING: Not Required
COMMENTS: 60 - 1114 , GA;

LANL ER SMO CONTACT: Joylene Valdez MS H865 5056659968
Signature: Joylene Valdez

ANALYSIS ORDER CODE	ANALYTE(S)	SAMPLE ID	CONT ID	SAMPLE MATRIX	DATE SAMPLED	COMMENTS
METTAL		RC60-01-0003	01	S	7/23/1901	
METTAL		RC60-01-0004	01	S	7/23/1901	
METTAL		RC60-01-0005	01	S	7/23/1901	
METTAL		RC60-01-0006	01	S	7/23/1901	
METTAL		RC60-01-0007	01	S	7/23/1901	
METTAL		RC60-01-0008	01	S	7/23/1901	

Tuesday, July 24, 2001

Los Alamos
NATIONAL LABORATORY

CHAIN OF CUSTODY DOCUMENT NUMBER: 9408RC

REQUEST NUMBER: 9408R
ANALYSIS TYPE: INORG

ATTN: Judy Stone
Lionville Laboratory Inc
208 Welsh Pool Rd
Lionville, pa 19341

SAMPLE ID	CONT ID	CONTAINER DESCRIPTION	ANALYSIS ORDER CODE	PRESERVATIVE	MATRIX
RC60-01-0003	01	125 ml Polyethylene	METTAL	Ice	S
RC60-01-0004	01	125 ml Polyethylene	METTAL	Ice	S
RC60-01-0005	01	125 ml Polyethylene	METTAL	Ice	S
RC60-01-0006	01	125 ml Polyethylene	METTAL	Ice	S
RC60-01-0007	01	125 ml Polyethylene	METTAL	Ice	S
RC60-01-0008	01	125 ml Polyethylene	METTAL	Ice	S

Final Page of CHAIN OF CUSTODY DOCUMENT FOR REQUEST NUMBER 9408R Page 1

Relinquished By:		Date	Time
O Jackson (PRINTED NAME)	(SIGNATURE)	7/26/01	1410
Fed Ex (PRINTED NAME)	(SIGNATURE)	7-25-01	1010
(PRINTED NAME)	(SIGNATURE)		

Received By:		Date	Time
(PRINTED NAME)	(SIGNATURE)		
Inez Stokes (PRINTED NAME)	(SIGNATURE)	7-25-01	1010
(PRINTED NAME)	(SIGNATURE)		

Received for DISPOSAL By:		Date	Time
(PRINTED NAME)	(SIGNATURE)		

Remarks:

Lionville Laboratories Inc.

COOLER RECEIPT FORM

LVLI COC Batch #: 01072388 Date Cooler Received: 7-25-01

Client/Project: LANL

A. Preliminary Examination Phase

Date Cooler Opened 7-25-01 Sample Receipt Custodian Signature: [illegible]

1. Did the cooler come with a shipping slip? (airbill, etc.) YES NO
If YES, enter carrier name & airbill # here: 4847 3249 9976
2. Were custody seals present on the outside of cooler? YES NO
3. Were custody seals unbroken & intact at the date & time of arrival? YES NO
4. Were samples screened for radioactivity? YES NO
5. Were custody papers sealed in a plastic bag and taped to the inside of the cooler lid? YES NO
6. Were COC papers filled out properly? (ink, signed, etc.) YES NO
7. Did the lab sample custodian sign the COC in the appropriate place? YES NO
8. Was the project identifiable from custody papers? If YES, enter at the top of this form. YES NO
9. If required, was enough ice used? YES NO
Type of ice: blue Cooler Temperature: 6.6°C

B. Log-In Phase:

Date Samples Logged In: 7-25-01 By: (Signature): [illegible]

10. Packing Description:
11. Were all bottles sealed in plastic bags? YES NO
12. Did all bottles arrive unbroken & were labels in good condition? YES NO
13. Were all bottle labels complete? (ID, date/time, preservative, etc.) YES NO
14. Did all bottle labels agree with COC? YES NO
15. Were correct containers used for the tests indicated? YES NO
16. ***Did the labels indicate the correct preservatives were added to samples?*** ***YES NO***
17. *Was the pH checked and any out of expected range documented?* *YES NO*
18. Was a sufficient amount of sample sent for tests indicated? YES NO
19. Were bubbles present in volatile samples? If YES, list sample ID: YES NO

20. If discrepancies were noted, was the PM called? YES NO
21. PM notified: Date:

COMMENTS:

Lionville Laboratory, Inc.
INORGANIC ANALYTICAL DATA PACKAGE FOR
LANL REQ #9408R

DATE RECEIVED: 07/25/01 LVL LOT # :0107L388

CLIENT ID /ANALYSIS	LVL #	MTX	PREP #	COLLECTION	EXTR/PREP	ANALYSIS
RC60-01-0003 01						
SILVER, TOTAL	001	S	01L0468	07/23/01	07/27/01	07/30/01
SILVER, TOTAL	001 REP	S	01L0468	07/23/01	07/27/01	07/30/01
SILVER, TOTAL	001 MS	S	01L0468	07/23/01	07/27/01	07/30/01
ALUMINUM, TOTAL	001	S	01L0468	07/23/01	07/27/01	07/30/01
ALUMINUM, TOTAL	001 REP	S	01L0468	07/23/01	07/27/01	07/30/01
ALUMINUM, TOTAL	001 MS	S	01L0468	07/23/01	07/27/01	07/30/01
ARSENIC, TOTAL	001	S	01L0468	07/23/01	07/27/01	07/30/01
ARSENIC, TOTAL	001 REP	S	01L0468	07/23/01	07/27/01	07/30/01
ARSENIC, TOTAL	001 MS	S	01L0468	07/23/01	07/27/01	07/30/01
BARIUM, TOTAL	001	S	01L0468	07/23/01	07/27/01	07/30/01
BARIUM, TOTAL	001 REP	S	01L0468	07/23/01	07/27/01	07/30/01
BARIUM, TOTAL	001 MS	S	01L0468	07/23/01	07/27/01	07/30/01
BERYLLIUM, TOTAL	001	S	01L0468	07/23/01	07/27/01	07/30/01
BERYLLIUM, TOTAL	001 REP	S	01L0468	07/23/01	07/27/01	07/30/01
BERYLLIUM, TOTAL	001 MS	S	01L0468	07/23/01	07/27/01	07/30/01
CALCIUM, TOTAL	001	S	01L0468	07/23/01	07/27/01	07/30/01
CALCIUM, TOTAL	001 REP	S	01L0468	07/23/01	07/27/01	07/30/01
CALCIUM, TOTAL	001 MS	S	01L0468	07/23/01	07/27/01	07/30/01
CADMIUM, TOTAL	001	S	01L0468	07/23/01	07/27/01	07/30/01
CADMIUM, TOTAL	001 REP	S	01L0468	07/23/01	07/27/01	07/30/01
CADMIUM, TOTAL	001 MS	S	01L0468	07/23/01	07/27/01	07/30/01
COBALT, TOTAL	001	S	01L0468	07/23/01	07/27/01	07/30/01
COBALT, TOTAL	001 REP	S	01L0468	07/23/01	07/27/01	07/30/01
COBALT, TOTAL	001 MS	S	01L0468	07/23/01	07/27/01	07/30/01
CHROMIUM, TOTAL	001	S	01L0468	07/23/01	07/27/01	07/30/01
CHROMIUM, TOTAL	001 REP	S	01L0468	07/23/01	07/27/01	07/30/01
CHROMIUM, TOTAL	001 MS	S	01L0468	07/23/01	07/27/01	07/30/01
COPPER, TOTAL	001	S	01L0468	07/23/01	07/27/01	07/30/01
COPPER, TOTAL	001 REP	S	01L0468	07/23/01	07/27/01	07/30/01
COPPER, TOTAL	001 MS	S	01L0468	07/23/01	07/27/01	07/30/01
IRON, TOTAL	001	S	01L0468	07/23/01	07/27/01	07/30/01
IRON, TOTAL	001 REP	S	01L0468	07/23/01	07/27/01	07/30/01
IRON, TOTAL	001 MS	S	01L0468	07/23/01	07/27/01	07/30/01
MERCURY, TOTAL	001	S	01C0240	07/23/01	08/08/01	08/09/01
MERCURY, TOTAL	001 REP	S	01C0240	07/23/01	08/08/01	08/09/01

Lionville Laboratory, Inc.
INORGANIC ANALYTICAL DATA PACKAGE FOR
LANL REQ #9408R

DATE RECEIVED: 07/25/01 LVL LOT # :0107L388

CLIENT ID /ANALYSIS	LVL #	MTX	PREP #	COLLECTION	EXTR/PREP	ANALYSIS
MERCURY, TOTAL	001 MS	S	01C0240	07/23/01	08/08/01	08/09/01
POTASSIUM, TOTAL	001	S	01L0468	07/23/01	07/27/01	07/30/01
POTASSIUM, TOTAL	001 REP	S	01L0468	07/23/01	07/27/01	07/30/01
POTASSIUM, TOTAL	001 MS	S	01L0468	07/23/01	07/27/01	07/30/01
MAGNESIUM, TOTAL	001	S	01L0468	07/23/01	07/27/01	07/30/01
MAGNESIUM, TOTAL	001 REP	S	01L0468	07/23/01	07/27/01	07/30/01
MAGNESIUM, TOTAL	001 MS	S	01L0468	07/23/01	07/27/01	07/30/01
MANGANESE, TOTAL	001	S	01L0468	07/23/01	07/27/01	07/30/01
MANGANESE, TOTAL	001 REP	S	01L0468	07/23/01	07/27/01	07/30/01
MANGANESE, TOTAL	001 MS	S	01L0468	07/23/01	07/27/01	07/30/01
SODIUM, TOTAL	001	S	01L0468	07/23/01	07/27/01	07/30/01
SODIUM, TOTAL	001 REP	S	01L0468	07/23/01	07/27/01	07/30/01
SODIUM, TOTAL	001 MS	S	01L0468	07/23/01	07/27/01	07/30/01
NICKEL, TOTAL	001	S	01L0468	07/23/01	07/27/01	07/30/01
NICKEL, TOTAL	001 REP	S	01L0468	07/23/01	07/27/01	07/30/01
NICKEL, TOTAL	001 MS	S	01L0468	07/23/01	07/27/01	07/30/01
LEAD, TOTAL	001	S	01L0468	07/23/01	07/27/01	07/30/01
LEAD, TOTAL	001 REP	S	01L0468	07/23/01	07/27/01	07/30/01
LEAD, TOTAL	001 MS	S	01L0468	07/23/01	07/27/01	07/30/01
ANTIMONY, TOTAL	001	S	01L0468	07/23/01	07/27/01	07/30/01
ANTIMONY, TOTAL	001 REP	S	01L0468	07/23/01	07/27/01	07/30/01
ANTIMONY, TOTAL	001 MS	S	01L0468	07/23/01	07/27/01	07/30/01
SELENIUM, TOTAL	001	S	01L0468	07/23/01	07/27/01	07/30/01
SELENIUM, TOTAL	001 REP	S	01L0468	07/23/01	07/27/01	07/30/01
SELENIUM, TOTAL	001 MS	S	01L0468	07/23/01	07/27/01	07/30/01
THALLIUM, TOTAL	001	S	01L0468	07/23/01	07/27/01	07/30/01
THALLIUM, TOTAL	001 REP	S	01L0468	07/23/01	07/27/01	07/30/01
THALLIUM, TOTAL	001 MS	S	01L0468	07/23/01	07/27/01	07/30/01
VANADIUM, TOTAL	001	S	01L0468	07/23/01	07/27/01	07/30/01
VANADIUM, TOTAL	001 REP	S	01L0468	07/23/01	07/27/01	07/30/01
VANADIUM, TOTAL	001 MS	S	01L0468	07/23/01	07/27/01	07/30/01
ZINC, TOTAL	001	S	01L0468	07/23/01	07/27/01	07/30/01
ZINC, TOTAL	001 REP	S	01L0468	07/23/01	07/27/01	07/30/01
ZINC, TOTAL	001 MS	S	01L0468	07/23/01	07/27/01	07/30/01
RC60-01-0004 01						
SILVER, TOTAL	002	S	01L0468	07/23/01	07/27/01	07/30/01

Lionville Laboratory, Inc.
INORGANIC ANALYTICAL DATA PACKAGE FOR
LANL REQ #9408R

DATE RECEIVED: 07/25/01 LVL LOT # :0107L388

CLIENT ID /ANALYSIS	LVL #	MTX	PREP #	COLLECTION	EXTR/PREP	ANALYSIS
ALUMINUM, TOTAL	002	S	01L0468	07/23/01	07/27/01	07/30/01
ARSENIC, TOTAL	002	S	01L0468	07/23/01	07/27/01	07/30/01
BARIUM, TOTAL	002	S	01L0468	07/23/01	07/27/01	07/30/01
BERYLLIUM, TOTAL	002	S	01L0468	07/23/01	07/27/01	07/30/01
CALCIUM, TOTAL	002	S	01L0468	07/23/01	07/27/01	07/30/01
CADMIUM, TOTAL	002	S	01L0468	07/23/01	07/27/01	07/30/01
COBALT, TOTAL	002	S	01L0468	07/23/01	07/27/01	07/30/01
CHROMIUM, TOTAL	002	S	01L0468	07/23/01	07/27/01	07/30/01
COPPER, TOTAL	002	S	01L0468	07/23/01	07/27/01	07/30/01
IRON, TOTAL	002	S	01L0468	07/23/01	07/27/01	07/30/01
MERCURY, TOTAL	002	S	01C0240	07/23/01	08/08/01	08/09/01
POTASSIUM, TOTAL	002	S	01L0468	07/23/01	07/27/01	07/30/01
MAGNESIUM, TOTAL	002	S	01L0468	07/23/01	07/27/01	07/30/01
MANGANESE, TOTAL	002	S	01L0468	07/23/01	07/27/01	07/30/01
SODIUM, TOTAL	002	S	01L0468	07/23/01	07/27/01	07/30/01
NICKEL, TOTAL	002	S	01L0468	07/23/01	07/27/01	07/30/01
LEAD, TOTAL	002	S	01L0468	07/23/01	07/27/01	07/30/01
ANTIMONY, TOTAL	002	S	01L0468	07/23/01	07/27/01	07/30/01
SELENIUM, TOTAL	002	S	01L0468	07/23/01	07/27/01	07/30/01
THALLIUM, TOTAL	002	S	01L0468	07/23/01	07/27/01	07/30/01
VANADIUM, TOTAL	002	S	01L0468	07/23/01	07/27/01	07/30/01
ZINC, TOTAL	002	S	01L0468	07/23/01	07/27/01	07/30/01
RC60-01-0005 01						
SILVER, TOTAL	003	S	01L0468	07/23/01	07/27/01	07/30/01
ALUMINUM, TOTAL	003	S	01L0468	07/23/01	07/27/01	07/30/01
ARSENIC, TOTAL	003	S	01L0468	07/23/01	07/27/01	07/30/01
BARIUM, TOTAL	003	S	01L0468	07/23/01	07/27/01	07/30/01
BERYLLIUM, TOTAL	003	S	01L0468	07/23/01	07/27/01	07/30/01
CALCIUM, TOTAL	003	S	01L0468	07/23/01	07/27/01	07/30/01
CADMIUM, TOTAL	003	S	01L0468	07/23/01	07/27/01	07/30/01
COBALT, TOTAL	003	S	01L0468	07/23/01	07/27/01	07/30/01
CHROMIUM, TOTAL	003	S	01L0468	07/23/01	07/27/01	07/30/01
COPPER, TOTAL	003	S	01L0468	07/23/01	07/27/01	07/30/01
IRON, TOTAL	003	S	01L0468	07/23/01	07/27/01	07/30/01
MERCURY, TOTAL	003	S	01C0240	07/23/01	08/08/01	08/09/01
POTASSIUM, TOTAL	003	S	01L0468	07/23/01	07/27/01	07/30/01

Lionville Laboratory, Inc.
INORGANIC ANALYTICAL DATA PACKAGE FOR
LANL REQ #9408R

DATE RECEIVED: 07/25/01 LVL LOT # :0107L388

CLIENT ID /ANALYSIS	LVL #	MTX	PREP #	COLLECTION	EXTR/PREP	ANALYSIS
MAGNESIUM, TOTAL	003	S	01L0468	07/23/01	07/27/01	07/30/01
MANGANESE, TOTAL	003	S	01L0468	07/23/01	07/27/01	07/30/01
SODIUM, TOTAL	003	S	01L0468	07/23/01	07/27/01	07/30/01
NICKEL, TOTAL	003	S	01L0468	07/23/01	07/27/01	07/30/01
LEAD, TOTAL	003	S	01L0468	07/23/01	07/27/01	07/30/01
ANTIMONY, TOTAL	003	S	01L0468	07/23/01	07/27/01	07/30/01
SELENIUM, TOTAL	003	S	01L0468	07/23/01	07/27/01	07/30/01
THALLIUM, TOTAL	003	S	01L0468	07/23/01	07/27/01	07/30/01
VANADIUM, TOTAL	003	S	01L0468	07/23/01	07/27/01	07/30/01
ZINC, TOTAL	003	S	01L0468	07/23/01	07/27/01	07/30/01
RC60-01-0006 01						
SILVER, TOTAL	004	S	01L0468	07/23/01	07/27/01	07/30/01
ALUMINUM, TOTAL	004	S	01L0468	07/23/01	07/27/01	07/30/01
ARSENIC, TOTAL	004	S	01L0468	07/23/01	07/27/01	07/30/01
BARIUM, TOTAL	004	S	01L0468	07/23/01	07/27/01	07/30/01
BERYLLIUM, TOTAL	004	S	01L0468	07/23/01	07/27/01	07/30/01
CALCIUM, TOTAL	004	S	01L0468	07/23/01	07/27/01	07/30/01
CADMIUM, TOTAL	004	S	01L0468	07/23/01	07/27/01	07/30/01
COBALT, TOTAL	004	S	01L0468	07/23/01	07/27/01	07/30/01
CHROMIUM, TOTAL	004	S	01L0468	07/23/01	07/27/01	07/30/01
COPPER, TOTAL	004	S	01L0468	07/23/01	07/27/01	07/30/01
IRON, TOTAL	004	S	01L0468	07/23/01	07/27/01	07/30/01
MERCURY, TOTAL	004	S	01C0240	07/23/01	08/08/01	08/09/01
POTASSIUM, TOTAL	004	S	01L0468	07/23/01	07/27/01	07/30/01
MAGNESIUM, TOTAL	004	S	01L0468	07/23/01	07/27/01	07/30/01
MANGANESE, TOTAL	004	S	01L0468	07/23/01	07/27/01	07/30/01
SODIUM, TOTAL	004	S	01L0468	07/23/01	07/27/01	07/30/01
NICKEL, TOTAL	004	S	01L0468	07/23/01	07/27/01	07/30/01
LEAD, TOTAL	004	S	01L0468	07/23/01	07/27/01	07/30/01
ANTIMONY, TOTAL	004	S	01L0468	07/23/01	07/27/01	07/30/01
SELENIUM, TOTAL	004	S	01L0468	07/23/01	07/27/01	07/30/01
THALLIUM, TOTAL	004	S	01L0468	07/23/01	07/27/01	07/30/01
VANADIUM, TOTAL	004	S	01L0468	07/23/01	07/27/01	07/30/01
ZINC, TOTAL	004	S	01L0468	07/23/01	07/27/01	07/30/01
RC60-01-0007 01						
SILVER, TOTAL	005	S	01L0468	07/23/01	07/27/01	07/30/01

Lionville Laboratory, Inc.
INORGANIC ANALYTICAL DATA PACKAGE FOR
LANL REQ #9408R

DATE RECEIVED: 07/25/01 LVL LOT # :0107L388

CLIENT ID /ANALYSIS	LVL #	MTX	PREP #	COLLECTION	EXTR/PREP	ANALYSIS
ALUMINUM, TOTAL	005	S	01L0468	07/23/01	07/27/01	07/30/01
ARSENIC, TOTAL	005	S	01L0468	07/23/01	07/27/01	07/30/01
BARIUM, TOTAL	005	S	01L0468	07/23/01	07/27/01	07/30/01
BERYLLIUM, TOTAL	005	S	01L0468	07/23/01	07/27/01	07/30/01
CALCIUM, TOTAL	005	S	01L0468	07/23/01	07/27/01	07/30/01
CADMIUM, TOTAL	005	S	01L0468	07/23/01	07/27/01	07/30/01
COBALT, TOTAL	005	S	01L0468	07/23/01	07/27/01	07/30/01
CHROMIUM, TOTAL	005	S	01L0468	07/23/01	07/27/01	07/30/01
COPPER, TOTAL	005	S	01L0468	07/23/01	07/27/01	07/30/01
IRON, TOTAL	005	S	01L0468	07/23/01	07/27/01	07/30/01
MERCURY, TOTAL	005	S	01C0240	07/23/01	08/08/01	08/09/01
POTASSIUM, TOTAL	005	S	01L0468	07/23/01	07/27/01	07/30/01
MAGNESIUM, TOTAL	005	S	01L0468	07/23/01	07/27/01	07/30/01
MANGANESE, TOTAL	005	S	01L0468	07/23/01	07/27/01	07/30/01
SODIUM, TOTAL	005	S	01L0468	07/23/01	07/27/01	07/30/01
NICKEL, TOTAL	005	S	01L0468	07/23/01	07/27/01	07/30/01
LEAD, TOTAL	005	S	01L0468	07/23/01	07/27/01	07/30/01
ANTIMONY, TOTAL	005	S	01L0468	07/23/01	07/27/01	07/30/01
SELENIUM, TOTAL	005	S	01L0468	07/23/01	07/27/01	07/30/01
THALLIUM, TOTAL	005	S	01L0468	07/23/01	07/27/01	07/30/01
VANADIUM, TOTAL	005	S	01L0468	07/23/01	07/27/01	07/30/01
ZINC, TOTAL	005	S	01L0468	07/23/01	07/27/01	07/30/01
RC60-01-0008 01						
SILVER, TOTAL	006	S	01L0468	07/23/01	07/27/01	07/30/01
ALUMINUM, TOTAL	006	S	01L0468	07/23/01	07/27/01	07/30/01
ARSENIC, TOTAL	006	S	01L0468	07/23/01	07/27/01	07/30/01
BARIUM, TOTAL	006	S	01L0468	07/23/01	07/27/01	07/30/01
BERYLLIUM, TOTAL	006	S	01L0468	07/23/01	07/27/01	07/30/01
CALCIUM, TOTAL	006	S	01L0468	07/23/01	07/27/01	07/30/01
CADMIUM, TOTAL	006	S	01L0468	07/23/01	07/27/01	07/30/01
COBALT, TOTAL	006	S	01L0468	07/23/01	07/27/01	07/30/01
CHROMIUM, TOTAL	006	S	01L0468	07/23/01	07/27/01	07/30/01
COPPER, TOTAL	006	S	01L0468	07/23/01	07/27/01	07/30/01
IRON, TOTAL	006	S	01L0468	07/23/01	07/27/01	07/30/01
MERCURY, TOTAL	006	S	01C0240	07/23/01	08/08/01	08/09/01
POTASSIUM, TOTAL	006	S	01L0468	07/23/01	07/27/01	07/30/01

Lionville Laboratory, Inc.
INORGANIC ANALYTICAL DATA PACKAGE FOR
LANL REQ #9408R

DATE RECEIVED: 07/25/01 LVL LOT # :0107L388

CLIENT ID /ANALYSIS	LVL #	MTX	PREP #	COLLECTION	EXTR/PREP	ANALYSIS
MAGNESIUM, TOTAL	006	S	01L0468	07/23/01	07/27/01	07/30/01
MANGANESE, TOTAL	006	S	01L0468	07/23/01	07/27/01	07/30/01
SODIUM, TOTAL	006	S	01L0468	07/23/01	07/27/01	07/30/01
NICKEL, TOTAL	006	S	01L0468	07/23/01	07/27/01	07/30/01
LEAD, TOTAL	006	S	01L0468	07/23/01	07/27/01	07/30/01
ANTIMONY, TOTAL	006	S	01L0468	07/23/01	07/27/01	07/30/01
SELENIUM, TOTAL	006	S	01L0468	07/23/01	07/27/01	07/30/01
THALLIUM, TOTAL	006	S	01L0468	07/23/01	07/27/01	07/30/01
VANADIUM, TOTAL	006	S	01L0468	07/23/01	07/27/01	07/30/01
ZINC, TOTAL	006	S	01L0468	07/23/01	07/27/01	07/30/01

LAB QC:

SILVER LABORATORY	LC1 BS	S	01L0468	N/A	07/27/01	07/30/01
SILVER, TOTAL	MB1	S	01L0468	N/A	07/27/01	07/30/01
ALUMINUM LABORTORY	LC1 BS	S	01L0468	N/A	07/27/01	07/30/01
ALUMINUM, TOTAL	MB1	S	01L0468	N/A	07/27/01	07/30/01
ARSENIC LABORATORY	LC1 BS	S	01L0468	N/A	07/27/01	07/30/01
ARSENIC, TOTAL	MB1	S	01L0468	N/A	07/27/01	07/30/01
BARIUM LABORATORY	LC1 BS	S	01L0468	N/A	07/27/01	07/30/01
BARIUM, TOTAL	MB1	S	01L0468	N/A	07/27/01	07/30/01
BERYLLIUM LABORATORY	LC1 BS	S	01L0468	N/A	07/27/01	07/30/01
BERYLLIUM, TOTAL	MB1	S	01L0468	N/A	07/27/01	07/30/01
CALCIUM LABORATORY	LC1 BS	S	01L0468	N/A	07/27/01	07/30/01
CALCIUM, TOTAL	MB1	S	01L0468	N/A	07/27/01	07/30/01
CADMIUM LABORATORY	LC1 BS	S	01L0468	N/A	07/27/01	07/30/01
CADMIUM, TOTAL	MB1	S	01L0468	N/A	07/27/01	07/30/01
COBALT LABORATORY	LC1 BS	S	01L0468	N/A	07/27/01	07/30/01
COBALT, TOTAL	MB1	S	01L0468	N/A	07/27/01	07/30/01
CHROMIUM LABORATORY	LC1 BS	S	01L0468	N/A	07/27/01	07/30/01
CHROMIUM, TOTAL	MB1	S	01L0468	N/A	07/27/01	07/30/01
COPPER LABORATORY	LC1 BS	S	01L0468	N/A	07/27/01	07/30/01
COPPER, TOTAL	MB1	S	01L0468	N/A	07/27/01	07/30/01
IRON LABORATORY	LC1 BS	S	01L0468	N/A	07/27/01	07/30/01
IRON, TOTAL	MB1	S	01L0468	N/A	07/27/01	07/30/01
MERCURY LABORATORY	LC1 BS	S	01C0240	N/A	08/08/01	08/09/01
MERCURY, TOTAL	MB1	S	01C0240	N/A	08/08/01	08/09/01
POTASSIUM LABORATORY	LC1 BS	S	01L0468	N/A	07/27/01	07/30/01

Lionville Laboratory, Inc.
INORGANIC ANALYTICAL DATA PACKAGE FOR
LANL REQ #9408R

DATE RECEIVED: 07/25/01 LVL LOT # :0107L388

CLIENT ID /ANALYSIS	LVL #	MTX	PREP #	COLLECTION	EXTR/PREP	ANALYSIS
POTASSIUM, TOTAL	MB1	S	01L0468	N/A	07/27/01	07/30/01
MAGNESIUM LABORATORY	LC1 BS	S	01L0468	N/A	07/27/01	07/30/01
MAGNESIUM, TOTAL	MB1	S	01L0468	N/A	07/27/01	07/30/01
MANGANESE LABORATORY	LC1 BS	S	01L0468	N/A	07/27/01	07/30/01
MANGANESE, TOTAL	MB1	S	01L0468	N/A	07/27/01	07/30/01
SODIUM LABORATORY	LC1 BS	S	01L0468	N/A	07/27/01	07/30/01
SODIUM, TOTAL	MB1	S	01L0468	N/A	07/27/01	07/30/01
NICKEL LABORATORY	LC1 BS	S	01L0468	N/A	07/27/01	07/30/01
NICKEL, TOTAL	MB1	S	01L0468	N/A	07/27/01	07/30/01
LEAD LABORATORY	LC1 BS	S	01L0468	N/A	07/27/01	07/30/01
LEAD, TOTAL	MB1	S	01L0468	N/A	07/27/01	07/30/01
ANTIMONY LABORATORY	LC1 BS	S	01L0468	N/A	07/27/01	07/30/01
ANTIMONY, TOTAL	MB1	S	01L0468	N/A	07/27/01	07/30/01
SELENIUM LABORATORY	LC1 BS	S	01L0468	N/A	07/27/01	07/30/01
SELENIUM, TOTAL	MB1	S	01L0468	N/A	07/27/01	07/30/01
THALLIUM LABORATORY	LC1 BS	S	01L0468	N/A	07/27/01	07/30/01
THALLIUM, TOTAL	MB1	S	01L0468	N/A	07/27/01	07/30/01
VANADIUM LABORATORY	LC1 BS	S	01L0468	N/A	07/27/01	07/30/01
VANADIUM, TOTAL	MB1	S	01L0468	N/A	07/27/01	07/30/01
ZINC LABORATORY	LC1 BS	S	01L0468	N/A	07/27/01	07/30/01
ZINC, TOTAL	MB1	S	01L0468	N/A	07/27/01	07/30/01

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E. Blanks (Form 3)
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Chain of Custody

Lionville Laboratory Use Only

01071388

Custody Transfer Record/Lab Work Request

Page 1 of 1

FIELD PERSONNEL: COMPLETE ONLY SHADED AREAS

LVLI Lionville Laboratory Inc.

Client LANL Bcg # 9408R

Est. Final Proj. Sampling Date

Project # 02744-0604-001-999920

Project Contact/Phone #

Lionville Laboratory Project Manager JS

QC Spec Del CP TAT 30 day

Date Rec'd 7-25-01 Date Due 8-24-01

Refrigerator #										A								
#/Type Container	Liquid									S								
	Solid									1P								
Volume	Liquid																	
	Solid									125								
Preservatives										—								
ANALYSES REQUESTED →		ORGANIC								INORG								
		VOA	BNA	Pest/ PCB	Herb					Metal	CN							

MATRIX CODES:
S - Soil
SE - Sediment
SO - Solid
SL - Sludge
W - Water
O - Oil
A - Air
DS - Drum Solids
DL - Drum Liquids
L - EP/TCLP Leachate
WI - Wipe
X - Other
F - Fish

Lab ID	Client ID/Description	Matrix QC Chosen (✓) MS	MSD	Matrix	Date Collected	Time Collected	Lionville Laboratory Use Only: MHSLTC
001	RC60-01-0003 01			S	7-23-01	0950	X
002	-0004					0955	X
003	-0005					1005	X
004	-0006					1000	X
005	-0007					1012	X
006	-0008					1010	X

Special Instructions:

DATE/REVISIONS:

1.
2.
3.
4.
5.
6.

Lionville Laboratory Use Only

Samples were:
1) Shipped ✓ or
Hand Delivered ____
Airbill # 4847324999976
2) Ambient or Chilled
3) Received in Good Condition (Y) or N
4) Samples Properly Preserved (Y) or N
5) Received Within Holding Times (Y) or N

Tamper Resistant Seal was:
1) Present on Outer Package (Y) or N
2) Unbroken on Outer Package (Y) or N
3) Present on Sample (Y) or N
4) Unbroken on Sample (Y) or N

COC Record Present Upon Sample Rec't (Y) or N

Cooler Temp. 6.6 °C

Discrepancies Between Samples Labels and COC Record? Y or (N)
NOTES:

Relinquished by	Received by	Date	Time
Fed Ex	Inez Stoltefus	7-25-01	1010

Relinquished by	Received by	Date	Time
COMPOSITE WASTE	ORIGINAL REWRITTEN		

Tuesday, July 24, 2001

Los Alamos
NATIONAL LABORATORY

CHAIN OF CUSTODY DOCUMENT NUMBER: 9408RC

REQUEST NUMBER: 9408R
ANALYSIS TYPE: INORG

ATTN: Judy Stone
Lionville Laboratory Inc
208 Welsh Pool Rd
Lionville, pa 19341

SAMPLE ID	CONT ID	CONTAINER DESCRIPTION	ANALYSIS ORDER CODE	PRESERVATIVE	MATRIX
RC60-01-0003	01	125 ml Polyethylene	METTAL	Ice	S
RC60-01-0004	01	125 ml Polyethylene	METTAL	Ice	S
RC60-01-0005	01	125 ml Polyethylene	METTAL	Ice	S
RC60-01-0006	01	125 ml Polyethylene	METTAL	Ice	S
RC60-01-0007	01	125 ml Polyethylene	METTAL	Ice	S
RC60-01-0008	01	125 ml Polyethylene	METTAL	Ice	S

Final Page of CHAIN OF CUSTODY DOCUMENT FOR REQUEST NUMBER 9408R

Relinquished By:

PRINTED NAME	SIGNATURE	Date	Time
O Jackson	[signature]	7-24-01	1410
Fed Ex		7-25-01	1010

Received By:

PRINTED NAME	SIGNATURE	Date	Time
Inez Stokes	[signature]	7-25-01	1010

Received for DISPOSAL By:

PRINTED NAME	SIGNATURE	Date	Time

Remarks:

Tuesday, July 24, 2001

REQUEST NUMBER: 9408R

ANALYSIS TYPE: INORG

Los Alamos
NATIONAL LABORATORY

ATTN: Judy Stone
Lionville Laboratory Inc
208 Welsh Pool Rd
Lionville, pa 19341

Please analyze the enclosed samples according to the schedule indicated:

These samples are on:

SHIP DATE: 7/24/01
REPORT DUE: 8/25/01
TURN AROUND REQ'D: 30 day

LANL Request Number: 9408R
Per Agreement Number:
Project Cost Code: MR0R0001E000

RAD SCREENING: Not Required
COMMENTS: 60 - 1114 , GA;

LANL ER SMO CONTACT: Joylene Valdez MS H865 5056659968
Signature: Joylene Valdez

ANALYSIS ORDER CODE	ANALYTE(S)	SAMPLE ID	CONT ID	SAMPLE MATRIX	DATE SAMPLED	COMMENTS
METTAL		RC60-01-0003	01	S	7/23/1901	
METTAL		RC60-01-0004	01	S	7/23/1901	
METTAL		RC60-01-0005	01	S	7/23/1901	
METTAL		RC60-01-0006	01	S	7/23/1901	
METTAL		RC60-01-0007	01	S	7/23/1901	
METTAL		RC60-01-0008	01	S	7/23/1901	

Lionville Laboratory Incorporated

Sample Custody Transfer Record

RFW BATCH #: 01071388

CLIENT: Lane

Page ___ of

LF = Locked Refrigerator

SAMPLE SIGN-OUT:						SAMPLE RETURN:					
Item/Reason (e.g., "all VOA water," "001-004, Extraction")	Total # /Matrix (e.g., 4 W)	Relinquished By	Received By	Date	Time	Total # /Matrix (e.g., 4 W)	Relinquished By	Received By	Date	Time	Comments (e.g., "volume depleted," "kept #002")
Zsol 1-6	6S	LF	[illegible]	7/27/01	7:50	6S	[illegible]	LF	10/01	7/27/01	
metals 1-6 A	6S	LF	[illegible]	8/7/01	1315						

L-WI-001/Z-04/01

Case Narrative

LIONVILLE LABORATORY INC.

Analytical Report

Client : LANL
LVL# : 0107L388
REQUEST#:9408R
SUBCONTRACT#:7791L0014-8S

W.O.# : 02744-064-001-9999-00
Date Received : 07-25-01

SW846 METALS

1. This narrative covers the analyses of 6 soil samples.

2. The samples were prepared and analyzed in accordance with SW-846 protocol and reported with a CLP deliverable.

3. ICVs, CCVs, and LCSs stock standards were purchased from Inorganic Ventures Laboratory and High Purity.

4. All analyses were performed within the required holding times.

5. The cooler temperature has been recorded on the Chain of Custody.

6. All Initial and Continuing Calibration Verifications (ICV/CCVs) were within control limits.

7. All Initial and Continuing Calibration Blanks (ICB/CCBs) were within method criteria.

8. All preparation/method blanks were below reporting limits. Refer to form 3.

9. All ICP Interference Check Standards were within control limits. Refer to form 4.

10. All laboratory control samples (LCS) were within the 80-120% control limits. Refer to form 7.

11. All serial dilution percent differences were within SW-846 control limits. Refer to form 9.

12. The matrix spike (MS) recoveries for 3 analytes were outside the 75-125% control limits. Refer to form 5A.

13. For analytes where the MS is out of control, a post-digestion MS (PDS) is performed. A PDS was prepared at meaningful concentration levels. Refer to form 5B.

The results presented in this report relate only to the analytical testing and conditions of the samples at receipt and during storage. All pages of this report are integral parts of the analytical data. Therefore, this report should only be reproduced in its entirety of 220 pages.

208 Welsh Pool Road • Exton, PA 19341-1313 • (610) 280-3000 • Fax (610) 280-3041

14. The duplicate analyses for 2 analytes were outside the 20% Relative Percent Difference (RPD) control limits. Refer to form 6.

15. All sample IDs were changed to accommodate the EPA naming convention which allows a maximum of 6 characters on all CLP Forms. Refer to the comments section of form 1 for the original ID.

16. Recoveries on the Laboratory Summary Report and CLP forms will vary depending on the number of significant figures used in the recovery calculation.

17. I certify that this package is in compliance with the terms and conditions of the contract, both technically and for completeness, except as detailed in this QC Report.

Iain Daniels
Deputy Laboratory Manager
Lionville Laboratory Incorporated

08-13-01
Date

alm\m07-388

METALS METHOD GLOSSARY

The following methods are used as reference for the digestion and analysis of samples contained within this Recra Lot#: 01071388

Leaching Procedure: __1310 __1311 __1312 __Other:_____

CLP Metals __ Digestion and __ Analysis Methods: __ILM03.0 __ILM04.0

Metals Digestion Methods: __3005A __3010A __3015 __3020A ✓3050B __3051 __200.7 __SS17
__Other: _____

Metals Analysis Methods

	SW846		EPA		STD MTD	EPA OSWR	USATHAMA
Aluminum	✓6010B		__200.7				__99
Antimony	✓6010B	__7041 [5]	__200.7	__204.2			__99
Arsenic	✓6010B	__7060A [5]	__200.7	__206.2	__3113B		__99
Barium	✓6010B		__200.7				__99
Beryllium	✓6010B		__200.7				__99
Bismuth	__6010B [1]		__200.7 [1]			__1620	__99
Boron	__6010B		__200.7				__99
Cadmium	✓6010B	__7131A [5]	__200.7	__213.2			__99
Calcium	✓6010B		__200.7				__99
Chromium	✓6010B	__7191 [5]	__200.7	__218.2			__SS17
Cobalt	✓6010B		__200.7				__99
Copper	✓6010B	__7211 [5]	__200.7	__220.2			__99
Iron	✓6010B		__200.7				__99
Lead	✓6010B	__7421 [5]	__200.7	__239.2	__3113B		__99
Lithium	__6010B	__7430 [4]	__200.7			__1620	__99
Magnesium	✓6010B		__200.7				__99
Manganese	✓6010B		__200.7				__99
Mercury	__7470A [3] ✓	__7471A [3]	__245.1 [2]	__245.5 [2]			__99
Molybdenum	__6010B		__200.7				__99
Nickel	✓6010B		__200.7				__99
Potassium	✓6010B	__7610 [4]	__200.7	__258.1 [4]			__99
Rare Earths	__6010B [1]		__200.7 [1]			__1620	__99
Selenium	✓6010B	__7740 [5]	__200.7	__270.2	__3113B		__99
Silicon	__6010B [1]		__200.7			__1620	__99
Silica	__6010B		__200.7			__1620	__99
Silver	✓6010B	__7761 [5]	__200.7	__272.2			__99
Sodium	__6010B	__7770 [4]	__200.7	__273.1 [4]			__99
Strontium	__6010B		__200.7				__99
Thallium	✓6010B	__7841 [5]	__200.7	__279.2__200.9			__99
Tin	__6010B		__200.7				__99
Titanium	__6010B		__200.7				__99
Uranium	__6010B [1]		__200.7 [1]			__1620	__99
Vanadium	✓6010B		__200.7				__99
Zinc	✓6010B		__200.7				__99
Zirconium	__6010B [1]		__200.7 [1]			__1620	__99

Other:_____ Method:_____

L-WI-033/M-11/99

METHOD REFERENCES AND DATA QUALIFIERS

DATA QUALIFIERS

U = Indicates that the parameter was not detected at or above the reported limit. The associated numerical value is the sample detection limit.

B = Indicates that the parameter was between the Instrument Detection Limit (IDL) and the Contract Required Detection Limit (CRDL)

Q QUALIFIERS

E = The reported value is estimated because of the presence of interference.

M = Duplicate injection precision not met.

N = Spiked sample recovery not within control limits.

S = The reported value was determined by the Method of Standard Additions (MSA).

W = Post Digestion spike for Furnace AA analysis is out of control limits (85 -115 %), while sample absorbance is less than 50% of spike absorbance.

* = Duplicate analysis not within control limits.

+ = Correlation coefficient for the MSA is less than 0.995.

ABBREVIATIONS

PB = Method or Preparation Blank.
S = Matrix Spike.
T = Matrix Spike Duplicate.
R or D = Sample Replicate

ANALYTICAL METAL METHODS

1. Not included in the method element list.
2. Modified Hg: Hg1 and Hg2 require less total volume of digestate due to the autosampler analysis. Sample volumes and reagents for mercury determinations in water and soil have been proportionately scaled down to adapt to this semi-automated technique. The sample volume used for water analysis is 33 mL. For soils, 0.1 grams of sample is taken to a final volume of 50 mL (including all reagents).
3. Modified Hg: Hg1 and Hg2 require less total volume of digestate due to the autosampler analysis. Sample volumes and reagents for mercury determinations in water and soil have been proportionately scaled down to adapt to this semi-automated technique. The sample volume used for water analysis is 33 mL. For soils, three 0.1 gram of sample is taken to a final volume of 50 mL (including all reagents).
4. Flame AA.
5. Graphite Furnace AA.

Inorganic Analysis Data Package

LIONVILLE LABORATORY INC.

U.S. EPA

COVER PAGE - INORGANIC ANALYSES DATA PACKAGE

Lab Name: LIONVILLE_LABORATORY_____ Contract: 2744-064__

Lab Code: LVLI__ Case No.: 9408R SAS No.: _____ SDG No.:000301

SOW No.: SW846

EPA Sample No.	Lab Sample ID
_000301_____	_0107L388-001___
_000301D_____	_0107L388-001D__
_000301S_____	_0107L388-001S__
_000401_____	_0107L388-002___
_000501_____	_0107L388-003___
_000601_____	_0107L388-004___
_000701_____	_0107L388-005___
_000801_____	_0107L388-006___

Were ICP interelement corrections applied ? Yes/No YES

Were ICP background corrections applied ? Yes/No YES
If yes - were raw data generated before application of background corrections ? Yes/No NO_

Comments:

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on floppy diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: [signature] Name: PATRICIA E. Feldman

Date: 08-13-01 Title: Data Mgt Unit Leader

COVER PAGE - IN

U.S. EPA

1
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

000301

Lab Name: LIONVILLE_LABORATORY Contract: 2744-064
Lab Code: LVLI Case No.: 9408R SAS No.: SDG No.: 000301
Matrix (soil/water): SOIL Lab Sample ID: 0107L388-001
Level (low/med): LOW Date Received: 07/25/01
% Solids: 91.8

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	6250		N	P
7440-36-0	Antimony	0.21	U	N	P
7440-38-2	Arsenic	1.5			P
7440-39-3	Barium	155			P
7440-41-7	Beryllium	0.32			P
7440-43-9	Cadmium	0.18		*	P
7440-70-2	Calcium	4830			P
7440-47-3	Chromium	7.4			P
7440-48-4	Cobalt	3.6			P
7440-50-8	Copper	9.0			P
7439-89-6	Iron	10400		N	P
7439-92-1	Lead	7.3			P
7439-95-4	Magnesium	2050			P
7439-96-5	Manganese	221			P
7439-97-6	Mercury	0.02	U		AV
7440-02-0	Nickel	6.4			P
7440-09-7	Potassium	918			P
7782-49-2	Selenium	0.28	U		P
7440-22-4	Silver	0.11	U		P
7440-23-5	Sodium	242			P
7440-28-0	Thallium	0.75		*	P
7440-62-2	Vanadium	23.5			P
7440-66-6	Zinc	32.0			P

Color Before: Clarity Before: Texture:
Color After: Clarity After: Artifacts:

Comments:
RC60-01-0003-01

FORM I - IN

U.S. EPA

1
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

000401

Lab Name: LIONVILLE_LABORATORY_____ Contract: 2744-064__
Lab Code: LVLI__ Case No.: 9408R SAS No.: _____ SDG No.: 000301
Matrix (soil/water): SOIL_ Lab Sample ID: 0107L388-002
Level (low/med): LOW__ Date Received: 07/25/01
% Solids: _93.5

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	5600		N	P
7440-36-0	Antimony_	0.20	U	N	P
7440-38-2	Arsenic__	1.1			P
7440-39-3	Barium___	255			P
7440-41-7	Beryllium	0.27			P
7440-43-9	Cadmium__	0.09		*	P
7440-70-2	Calcium__	2610			P
7440-47-3	Chromium_	6.9			P
7440-48-4	Cobalt___	3.3			P
7440-50-8	Copper___	7.7			P
7439-89-6	Iron____	10100		N	P
7439-92-1	Lead____	6.2			P
7439-95-4	Magnesium	1790			P
7439-96-5	Manganese	256			P
7439-97-6	Mercury__	0.02	U		AV
7440-02-0	Nickel___	6.2			P
7440-09-7	Potassium	983			P
7782-49-2	Selenium_	0.33			P
7440-22-4	Silver___	0.11	U		P
7440-23-5	Sodium___	237			P
7440-28-0	Thallium_	0.42	U	*	P
7440-62-2	Vanadium_	22.2			P
7440-66-6	Zinc____	26.4			P

Color Before: _____ Clarity Before: _____ Texture: _____
Color After: _____ Clarity After: _____ Artifacts: _____

Comments:
RC60-01-0004-01

FORM I - IN

U.S. EPA

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

000501

Lab Name: LIONVILLE_LABORATORY_____ Contract: 2744-064__

Lab Code: LVLI__ Case No.: 9408R SAS No.: _____ SDG No.: 000301

Matrix (soil/water): SOIL_ Lab Sample ID: 0107L388-003

Level (low/med): LOW__ Date Received: 07/25/01

% Solids: _94.2

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	6450		N	P
7440-36-0	Antimony	0.20	U	N	P
7440-38-2	Arsenic	1.4			P
7440-39-3	Barium	267			P
7440-41-7	Beryllium	0.31			P
7440-43-9	Cadmium	0.09		*	P
7440-70-2	Calcium	3480			P
7440-47-3	Chromium	7.4			P
7440-48-4	Cobalt	3.8			P
7440-50-8	Copper	8.5			P
7439-89-6	Iron	11100		N	P
7439-92-1	Lead	5.6			P
7439-95-4	Magnesium	2160			P
7439-96-5	Manganese	254			P
7439-97-6	Mercury	0.02	U		AV
7440-02-0	Nickel	7.0			P
7440-09-7	Potassium	1050			P
7782-49-2	Selenium	0.27	U		P
7440-22-4	Silver	0.10	U		P
7440-23-5	Sodium	292			P
7440-28-0	Thallium	0.40	U	*	P
7440-62-2	Vanadium	25.8			P
7440-66-6	Zinc	34.9			P

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

RC60-01-0005-01

FORM I - IN

U.S. EPA

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

000601

Lab Name: LIONVILLE_LABORATORY_____ Contract: 2744-064__

Lab Code: LVLI__ Case No.: 9408R SAS No.: _____ SDG No.: 000301

Matrix (soil/water): SOIL_ Lab Sample ID: 0107L388-004

Level (low/med): LOW__ Date Received: 07/25/01

% Solids: _95.8

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	6790		N	P
7440-36-0	Antimony_	0.19	U	N	P
7440-38-2	Arsenic__	0.83			P
7440-39-3	Barium___	230			P
7440-41-7	Beryllium	0.31			P
7440-43-9	Cadmium__	0.10		*	P
7440-70-2	Calcium__	3060			P
7440-47-3	Chromium_	8.9			P
7440-48-4	Cobalt___	4.1			P
7440-50-8	Copper___	9.1			P
7439-89-6	Iron_____	11400		N	P
7439-92-1	Lead_____	6.0			P
7439-95-4	Magnesium	2440			P
7439-96-5	Manganese	210			P
7439-97-6	Mercury__	0.02	U		AV
7440-02-0	Nickel___	7.1			P
7440-09-7	Potassium	1180			P
7782-49-2	Selenium_	0.26	U		P
7440-22-4	Silver___	0.10	U		P
7440-23-5	Sodium___	292			P
7440-28-0	Thallium_	0.40	U	*	P
7440-62-2	Vanadium_	28.4			P
7440-66-6	Zinc_____	24.0			P

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

RC60-01-0006-01

FORM I - IN

U.S. EPA

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

000701

Lab Name: LIONVILLE_LABORATORY_____ Contract: 2744-064__

Lab Code: LVLI__ Case No.: 9408R SAS No.: _____ SDG No.: 000301

Matrix (soil/water): SOIL_ Lab Sample ID: 0107L388-005

Level (low/med): LOW__ Date Received: 07/25/01

% Solids: _97.5

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	5730		N	P
7440-36-0	Antimony_	0.19	U	N	P
7440-38-2	Arsenic__	1.4			P
7440-39-3	Barium___	131			P
7440-41-7	Beryllium	0.32			P
7440-43-9	Cadmium__	0.08		*	P
7440-70-2	Calcium__	2770			P
7440-47-3	Chromium_	8.7			P
7440-48-4	Cobalt___	3.5			P
7440-50-8	Copper___	7.1			P
7439-89-6	Iron_____	13500		N	P
7439-92-1	Lead____	9.9			P
7439-95-4	Magnesium	1790			P
7439-96-5	Manganese	275			P
7439-97-6	Mercury__	0.02	U		AV
7440-02-0	Nickel___	6.4			P
7440-09-7	Potassium	1010			P
7782-49-2	Selenium_	0.26	U		P
7440-22-4	Silver___	0.10	U		P
7440-23-5	Sodium___	202			P
7440-28-0	Thallium_	0.39	U	*	P
7440-62-2	Vanadium_	23.7			P
7440-66-6	Zinc_____	27.3			P

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

RC60-01-0007-01

FORM I - IN

U.S. EPA

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

000801

Lab Name: LIONVILLE LABORATORY Contract: 2744-064

Lab Code: LVLI Case No.: 9408R SAS No.: SDG No.: 000301

Matrix (soil/water): SOIL Lab Sample ID: 0107L388-006

Level (low/med): LOW Date Received: 07/25/01

% Solids: 98.1

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	6990		N	P
7440-36-0	Antimony	0.19	U	N	P
7440-38-2	Arsenic	2.4			P
7440-39-3	Barium	153			P
7440-41-7	Beryllium	0.40			P
7440-43-9	Cadmium	0.11		*	P
7440-70-2	Calcium	2160			P
7440-47-3	Chromium	7.6			P
7440-48-4	Cobalt	3.4			P
7440-50-8	Copper	7.8			P
7439-89-6	Iron	11500		N	P
7439-92-1	Lead	7.6			P
7439-95-4	Magnesium	1740			P
7439-96-5	Manganese	323			P
7439-97-6	Mercury	0.02	U		AV
7440-02-0	Nickel	6.8			P
7440-09-7	Potassium	1280			P
7782-49-2	Selenium	0.26	U		P
7440-22-4	Silver	0.10	U		P
7440-23-5	Sodium	206			P
7440-28-0	Thallium	0.39	U	*	P
7440-62-2	Vanadium	18.6			P
7440-66-6	Zinc	32.5			P

Color Before: Clarity Before: Texture:

Color After: Clarity After: Artifacts:

Comments:

RC60-01-0008-01

FORM I - IN

U.S. EPA

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: LIONVILLE_LABORATORY_____ Contract: 2744-064__

Lab Code: LVLI__ Case No.: 9408R SAS No.: _____ SDG No.: 000301

Initial Calibration Source: IV_____

Continuing Calibration Source: IV_____

Concentration Units: ug/L

Analyte	Initial Calibration True	Initial Calibration Found	Initial Calibration %R(1)	Continuing Calibration True	Continuing Calibration Found	Continuing Calibration %R(1)	Continuing Calibration Found	Continuing Calibration %R(1)	M
Aluminum	3750.0	3737.39	99.7	5000.0	4984.12	99.7	4997.83	100.0	P
Antimony	375.0	377.64	100.7	500.0	501.74	100.3	504.44	100.9	P
Arsenic	375.0	368.32	98.2	500.0	493.30	98.7	491.22	98.2	P
Barium	375.0	374.73	99.9	500.0	500.37	100.1	502.89	100.6	P
Beryllium	375.0	370.27	98.7	500.0	493.88	98.8	495.03	99.0	P
Cadmium	375.0	374.59	99.9	500.0	497.45	99.5	498.59	99.7	P
Calcium	1500.0	1484.70	99.0	2000.0	1980.40	99.0	1981.32	99.1	P
Chromium	375.0	373.78	99.7	500.0	498.45	99.7	498.34	99.7	P
Cobalt	375.0	375.96	100.3	500.0	500.56	100.1	500.29	100.1	P
Copper	375.0	373.66	99.6	500.0	500.02	100.0	499.44	99.9	P
Iron	3750.0	3734.77	99.6	5000.0	4976.69	99.5	4942.01	98.8	P
Lead	375.0	374.85	100.0	500.0	495.00	99.0	496.61	99.3	P
Magnesium	3000.0	2972.27	99.1	4000.0	3995.47	99.9	3982.07	99.6	P
Manganese	3750.0	3839.23	102.4	5000.0	5100.91	102.0	5101.39	102.0	P
Mercury	2.5	2.51	100.4	5.0	5.05	101.0	5.00	100.0	AV
Nickel	375.0	372.42	99.3	500.0	493.12	98.6	494.75	99.0	P
Potassium	3750.0	3843.15	102.5	5000.0	5120.29	102.4	5157.22	103.1	P
Selenium	375.0	367.37	98.0	500.0	496.07	99.2	494.00	98.8	P
Silver	375.0	368.69	98.3	500.0	491.70	98.3	493.38	98.7	P
Sodium	3750.0	3802.33	101.4	5000.0	5087.75	101.8	5037.38	100.7	P
Thallium	375.0	375.44	100.1	500.0	503.75	100.8	501.50	100.3	P
Vanadium	3750.0	3781.23	100.8	5000.0	5058.26	101.2	5046.41	100.9	P
Zinc	375.0	375.21	100.1	500.0	497.86	99.6	499.91	100.0	P

FORM II (PART 1) - IN

U.S. EPA

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: LIONVILLE_LABORATORY_____ Contract: 2744-064__

Lab Code: LVLI__ Case No.: 9408R SAS No.: _____ SDG No.: 000301

Initial Calibration Source: IV_____

Continuing Calibration Source: IV_____

Concentration Units: ug/L

Analyte	Initial Calibration True	Initial Calibration Found	Initial Calibration %R(1)	Continuing Calibration True	Continuing Calibration Found	Continuing Calibration %R(1)	Continuing Calibration Found	Continuing Calibration %R(1)	M
Aluminum				5000.0	5009.76	100.2	5019.75	100.4	P
Antimony				500.0	510.99	102.2	512.65	102.5	P
Arsenic				500.0	505.09	101.0	498.32	99.7	P
Barium				500.0	501.74	100.3	500.07	100.0	P
Beryllium				500.0	506.16	101.2	500.03	100.0	P
Cadmium				500.0	513.31	102.7	505.40	101.1	P
Calcium				2000.0	1992.58	99.6	1989.57	99.5	P
Chromium				500.0	510.11	102.0	504.14	100.8	P
Cobalt				500.0	510.89	102.2	505.33	101.1	P
Copper				500.0	497.06	99.4	495.93	99.2	P
Iron				5000.0	5003.27	100.1	4944.45	98.9	P
Lead				500.0	510.06	102.0	506.48	101.3	P
Magnesium				4000.0	3987.53	99.7	3978.57	99.5	P
Manganese				5000.0	5199.78	104.0	5153.69	103.1	P
Mercury				5.0	4.92	98.4	4.88	97.6	AV
Nickel				500.0	512.32	102.5	509.19	101.8	P
Potassium				5000.0	5155.33	103.1	5188.20	103.8	P
Selenium				500.0	503.34	100.7	503.30	100.7	P
Silver				500.0	494.57	98.9	491.37	98.3	P
Sodium				5000.0	5012.52	100.3	5033.01	100.7	P
Thallium				500.0	508.63	101.7	498.04	99.6	P
Vanadium				5000.0	5091.56	101.8	5041.75	100.8	P
Zinc				500.0	512.67	102.5	505.52	101.1	P

FORM II (PART 1) - IN

U.S. EPA

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: LIONVILLE_LABORATORY_____ Contract: 2744-064__

Lab Code: LVLI__ Case No.: 9408R SAS No.: _____ SDG No.: 000301

Initial Calibration Source: IV_____

Continuing Calibration Source: IV_____

Concentration Units: ug/L

Analyte	Initial Calibration True	Initial Calibration Found	Initial Calibration %R(1)	Continuing Calibration True	Continuing Calibration Found	Continuing Calibration %R(1)	Continuing Calibration Found	Continuing Calibration %R(1)	M
Aluminum									NR
Antimony									NR
Arsenic									NR
Barium									NR
Beryllium									NR
Cadmium									NR
Calcium									NR
Chromium									NR
Cobalt									NR
Copper									NR
Iron									NR
Lead									NR
Magnesium									NR
Manganese									NR
Mercury				5.0	4.88	97.6			AV
Nickel									NR
Potassium									NR
Selenium									NR
Silver									NR
Sodium									NR
Thallium									NR
Vanadium									NR
Zinc									NR

FORM II (PART 1) - IN

U.S. EPA

2B
CRDL STANDARD FOR AA AND ICP

Lab Name: LIONVILLE_LABORATORY_____ Contract: 2744-064__

Lab Code: LVLI__ Case No.: 9408R SAS No.: _____ SDG No.: 000301

AA CRDL Standard Source: HIGH PURITY_

ICP CRDL Standard Source: HIGH PURITY_

Concentration Units: ug/L

Analyte	CRDL Standard for AA			CRDL Standard for ICP				
	True	Found	%R	True	Initial Found	%R	Final Found	%R
Aluminum				200.0	190.89	95.4		
Antimony				20.0	20.90	104.5		
Arsenic				20.0	16.76	83.8		
Barium				20.0	20.12	100.6		
Beryllium				20.0	19.94	99.7		
Cadmium				20.0	20.06	100.3		
Calcium				80.0	82.85	103.6		
Chromium				20.0	20.70	103.5		
Cobalt				20.0	20.35	101.8		
Copper				20.0	20.60	103.0		
Iron				200.0	202.40	101.2		
Lead				20.0	19.10	95.5		
Magnesium				160.0	158.45	99.0		
Manganese				200.0	208.10	104.0		
Mercury	0.2	0.21	105.0					
Nickel				20.0	20.62	103.1		
Potassium				200.0	205.91	103.0		
Selenium				20.0	17.07	85.4		
Silver				20.0	19.25	96.2		
Sodium				200.0	200.03	100.0		
Thallium				20.0	18.37	91.8		
Vanadium				200.0	202.81	101.4		
Zinc				20.0	20.26	101.3		

FORM II (PART 2) - IN

U.S. EPA

3
BLANKS

Lab Name: LIONVILLE_LABORATORY_____ Contract: 2744-064__

Lab Code: LVLI__ Case No.: 9408R SAS No.: _____ SDG No.: 000301

Preparation Blank Matrix (soil/water): SOIL_

Preparation Blank Concentration Units (ug/L or mg/kg): MG/KG

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Aluminum	12.7	U	12.7	U	12.7	U	12.7	U	1.270	U	P
Antimony	1.9	U	1.9	U	1.9	U	1.9	U	0.190	U	P
Arsenic	2.3	U	2.3	U	2.3	U	2.3	U	0.230	U	P
Barium	0.2	U	0.2	U	0.2	U	0.2	U	0.046		P
Beryllium	0.2	U	0.2	U	0.2	U	0.2	U	0.020	U	P
Cadmium	0.3	U	0.3	U	0.3	U	0.3	U	0.030	U	P
Calcium	8.1	U	8.1	U	8.1	U	8.1	U	1.012		P
Chromium	0.9	U	0.9	U	0.9	U	0.9	U	0.090	U	P
Cobalt	0.8	U	0.8	U	0.8	U	0.8	U	0.080	U	P
Copper	0.7	U	0.7	U	0.7	U	0.7	U	0.070	U	P
Iron	15.7	U	15.7	U	15.7	U	15.7	U	1.570	U	P
Lead	2.6	U	2.6	U	2.6	U	2.6	U	0.260	U	P
Magnesium	8.8	U	8.8	U	8.8	U	8.8	U	0.880	U	P
Manganese	0.2		0.3		0.1		0.1		0.012		P
Mercury	0.1	U	0.1	U	-0.1		0.1	U	0.017	U	AV
Nickel	1.2	U	1.2	U	1.2	U	1.2	U	0.120	U	P
Potassium	35.3	U	35.3	U	35.3	U	35.3	U	3.530	U	P
Selenium	2.6	U	2.6	U	2.6	U	2.6	U	0.260	U	P
Silver	1.0	U	1.0	U	1.0	U	1.0	U	0.100	U	P
Sodium	-1.9		-3.4		-5.2		-7.4		2.098		P
Thallium	3.9	U	3.9	U	3.9	U	3.9	U	0.390	U	P
Vanadium	0.7	U	0.7	U	0.7	U	0.7	U	0.070	U	P
Zinc	0.3	U	0.3	U	0.3	U	0.3	U	0.045		P

FORM III - IN

U.S. EPA

3
BLANKS

Lab Name: LIONVILLE_LABORATORY_____ Contract: 2744-064__

Lab Code: LVLI__ Case No.: 9408R SAS No.: _____ SDG No.: 000301

Preparation Blank Matrix (soil/water): _____

Preparation Blank Concentration Units (ug/L or mg/kg): _____

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Aluminum			25.8								P
Antimony			1.9	U							P
Arsenic			2.3	U							P
Barium			0.2	U							P
Beryllium			0.2								P
Cadmium			0.3	U							P
Calcium			8.1	U							P
Chromium			0.9	U							P
Cobalt			0.8	U							P
Copper			-1.1								P
Iron			15.7	U							P
Lead			2.6	U							P
Magnesium			8.8	U							P
Manganese			0.2								P
Mercury			0.1	U	0.1	U					AV
Nickel			1.2	U							P
Potassium			35.3	U							P
Selenium			-3.1								P
Silver			1.0	U							P
Sodium			-9.0								P
Thallium			3.9	U							P
Vanadium			0.7	U							P
Zinc			0.3	U							P

FORM III - IN

U.S. EPA

4

ICP INTERFERENCE CHECK SAMPLE

Lab Name: LIONVILLE_LABORATORY_____ Contract: 2744-064__

Lab Code: LVLI__ Case No.: 9408R SAS No: _____ SDG No.: 000301

ICP ID Number: TR_____ ICS Source: IV_____

Concentration Units: ug/L

Analyte	True Sol. A	True Sol. AB	Initial Found Sol. A	Initial Found Sol. AB	Initial Found %R	Final Found Sol. A	Final Found Sol. AB	Final Found %R
Aluminum	500000	100000	514394	99028.4	99.0			
Antimony	0	1000	2	978.9	97.9			
Arsenic	0	1000	1	966.1	96.6			
Barium	0	500	0	496.7	99.3			
Beryllium	0	500	0	491.3	98.3			
Cadmium	0	1000	1	955.2	95.5			
Calcium	500000	100000	470192	98285.1	98.3			
Chromium	0	500	4	484.4	96.9			
Cobalt	0	500	-1	484.9	97.0			
Copper	0	500	2	497.3	99.5			
Iron	200000	40000	191028	37876.0	94.7			
Lead	0	1000	2	967.3	96.7			
Magnesium	500000	100000	510344	100824.1	100.8			
Manganese	0	500	1	502.6	100.5			
Mercury								
Nickel	0	1000	2	949.7	95.0			
Potassium	0	5000	2	5633.2	112.7			
Selenium	0	1000	-2	976.6	97.7			
Silver	0	1000	0	994.3	99.4			
Sodium	0	1000	20	1160.7	116.1			
Thallium	0	1000	5	971.9	97.2			
Vanadium	0	500	-4	494.6	98.9			
Zinc	0	1000	0	969.5	97.0			

FORM IV - IN

U.S. EPA

5A
SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

000301S

Lab Name: LIONVILLE_LABORATORY_____ Contract: 2744-064__

Lab Code: LVLI__ Case No.: 9408R SAS No.: _____ SDG No.: 000301

Matrix: __SOIL_____ Level (low/med): _LOW____

% Solids for Sample: _91.8

Concentration Units (ug/L or mg/kg dry weight): MG/KG

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Aluminum	75-125	6926.9630		6251.9575		217.86	309.8	N	P
Antimony	75-125	30.2350		0.2070	U	54.47	55.5	N	P
Arsenic	75-125	195.7705		1.5040		217.86	89.2		P
Barium	75-125	360.6023		154.9468		217.86	94.4		P
Beryllium	75-125	5.1188		0.3218		5.45	88.0		P
Cadmium	75-125	5.5861		0.1844		5.45	99.1		P
Calcium	75-125	8011.2277		4833.6166		2723.31	116.7		P
Chromium	75-125	27.1009		7.3916		21.79	90.5		P
Cobalt	75-125	52.6168		3.6438		54.47	89.9		P
Copper	75-125	35.8771		9.0008		27.23	98.7		P
Iron	75-125	10260.2255		10400.8268		108.93	-129.1	N	P
Lead	75-125	58.3839		7.2932		54.47	93.8		P
Magnesium	75-125	4514.0556		2051.3322		2723.31	90.4		P
Manganese	75-125	267.8660		221.0261		54.47	86.0		P
Mercury	75-125	0.1775		0.0176	U	0.18	98.6		AV
Nickel	75-125	55.3426		6.4471		54.47	89.8		P
Potassium	75-125	3678.5475		917.8328		2723.31	101.4		P
Selenium	75-125	187.3004		0.2832	U	217.86	86.0		P
Silver	75-125	5.0326		0.1089	U	5.45	92.3		P
Sodium	75-125	2863.9920		241.9202		2723.31	96.3		P
Thallium	75-125	196.0852		0.7547		217.86	89.7		P
Vanadium	75-125	72.2538		23.5044		54.47	89.5		P
Zinc	75-125	85.5151		32.0111		54.47	98.2		P

Comments:
RC60-01-0003-01

FORM V (Part 1) - IN

U.S. EPA

5B
POST DIGEST SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

000301A

Lab Name: LIONVILLE_LABORATORY_____ Contract: 2744-064__

Lab Code: LVLI__ Case No.: 9408R SAS No.: _____ SDG No.: 000301

Matrix: ____SOIL_____ Level (low/med): LOW_____

Concentration Units: ug/L

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Added (SA)	%R	Q	M
Aluminum		76762.58		57392.97		20000.0	96.8		P
Antimony		93.94		1.90	U	100.0	93.9		P
Arsenic									NR
Barium									NR
Beryllium									NR
Cadmium									NR
Calcium									NR
Chromium									NR
Cobalt									NR
Copper									NR
Iron		113344.29		95479.59		20000.0	89.3		P
Lead									NR
Magnesium									NR
Manganese									NR
Mercury									NR
Nickel									NR
Potassium									NR
Selenium									NR
Silver									NR
Sodium									NR
Thallium									NR
Vanadium									NR
Zinc									NR

Comments:
RC60-01-0003-01

U.S. EPA

6
DUPLICATES

EPA SAMPLE NO.

000301D

Lab Name: LIONVILLE_LABORATORY_____ Contract: 2744-064__

Lab Code: LVLI__ Case No.: 9408R SAS No.: _____ SDG No.: 000301

Matrix (soil/water): SOIL_ Level (low/med): _LOW__

% Solids for Sample: _91.8 % Solids for Duplicate: __91.8

Concentration Units (ug/L or mg/kg dry weight): MG/KG

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	M
Aluminum		6251.9575		6860.5479		9.3		P
Antimony		0.2070	U	0.2070	U			P
Arsenic		1.5040		1.7383		14.5		P
Barium		154.9468		161.6593		4.2		P
Beryllium		0.3218		0.3232		0.4		P
Cadmium		0.1844		0.2503		30.3	*	P
Calcium		4833.6166		4491.5370		7.3		P
Chromium		7.3916		7.9056		6.7		P
Cobalt		3.6438		3.5141		3.6		P
Copper		9.0008		9.1001		1.1		P
Iron		10400.8268		11710.1089		11.8		P
Lead		7.2932		8.0924		10.4		P
Magnesium		2051.3322		2087.0664		1.7		P
Manganese		221.0261		259.4303		16.0		P
Mercury		0.0176	U	0.0182	U			AV
Nickel		6.4471		6.4939		0.7		P
Potassium		917.8328		964.6428		5.0		P
Selenium		0.2832	U	0.2832	U			P
Silver		0.1089	U	0.1089	U			P
Sodium		241.9202		245.2723		1.4		P
Thallium		0.7547		0.4248	U	200.0	*	P
Vanadium		23.5044		23.5937		0.4		P
Zinc		32.0111		34.6144		7.8		P

FORM VI - IN

U.S. EPA

7

LABORATORY CONTROL SAMPLE

Lab Name: LIONVILLE_LABORATORY_____ Contract: 2744-064__

Lab Code: LVLI__ Case No.: 9408R SAS No.: _____ SDG No.: 000301

Solid LCS Source: IV_____

Aqueous LCS Source: _____

Analyte	Aqueous (ug/L) True	Found	%R	Solid (mg/kg) True	Found	C	Limits		%R
Aluminum				500.0	511.2		400.0	600.0	102.2
Antimony				300.0	292.7		240.0	360.0	97.6
Arsenic				1000.0	936.5		800.0	1200.0	93.6
Barium				500.0	495.8		400.0	600.0	99.2
Beryllium				25.0	24.2		20.0	30.0	96.8
Cadmium				25.0	24.4		20.0	30.0	97.6
Calcium				2500.0	2440.3		2000.0	3000.0	97.6
Chromium				50.0	50.1		40.0	60.0	100.2
Cobalt				250.0	249.0		200.0	300.0	99.6
Copper				125.0	125.4		100.0	150.0	100.3
Iron				500.0	501.5		400.0	600.0	100.3
Lead				250.0	241.6		200.0	300.0	96.6
Magnesium				2500.0	2507.2		2000.0	3000.0	100.3
Manganese				75.0	77.2		60.0	90.0	102.9
Mercury									
Nickel				200.0	194.6		160.0	240.0	97.3
Potassium				2500.0	2589.0		2000.0	3000.0	103.6
Selenium				1000.0	901.5		800.0	1200.0	90.2
Silver				50.0	48.7		40.0	60.0	97.4
Sodium				2500.0	2471.5		2000.0	3000.0	98.9
Thallium				1000.0	970.3		800.0	1200.0	97.0
Vanadium				250.0	257.9		200.0	300.0	103.2
Zinc				100.0	96.9		80.0	120.0	96.9

FORM VII - IN

U.S. EPA

7

LABORATORY CONTROL SAMPLE

Lab Name: LIONVILLE_LABORATORY_____ Contract: 2744-064__

Lab Code: LVLI__ Case No.: 9408R SAS No.: _____ SDG No.: 000301

Solid LCS Source: IV_____

Aqueous LCS Source: _____

Analyte	Aqueous (ug/L) True	Found	%R	Solid (mg/kg) True	Found	C	Limits		%R
Aluminum									
Antimony									
Arsenic									
Barium									
Beryllium									
Cadmium									
Calcium									
Chromium									
Cobalt									
Copper									
Iron									
Lead									
Magnesium									
Manganese									
Mercury									
Nickel				2.5	2.4		2.0	3.0	96.0
Potassium									
Selenium									
Silver									
Sodium									
Thallium									
Vanadium									
Zinc									

FORM VII - IN

U.S. EPA

9

ICP SERIAL DILUTION

EPA SAMPLE NO.

000301L

Lab Name: LIONVILLE_LABORATORY_____ Contract: 2744-064__

Lab Code: LVLI__ Case No.: 9408R SAS No.: _____ SDG No.: 000301

Matrix (soil/water): SOIL_ Level (low/med): LOW__

Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	M
Aluminum	57392.97		58809.25		2.5		
Antimony	1.90	U	9.50	U			P
Arsenic	13.81		11.50	U	100.0		P
Barium	1422.41		1469.30		3.3		P
Beryllium	2.95		2.67		9.5		P
Cadmium	1.69		1.50	U	100.0		P
Calcium	44372.60		46427.20		4.6		P
Chromium	67.86		73.25		7.9		P
Cobalt	33.45		34.29		2.5		P
Copper	82.63		83.95		1.6		P
Iron	95479.59		97074.05		1.7		P
Lead	66.95		69.40		3.7		P
Magnesium	18831.23		19554.05		3.8		P
Manganese	2029.02		2120.75		4.5		P
Mercury							
Nickel	59.18		64.04		8.2		NR
Potassium	8425.70		8148.68		3.3		P
Selenium	2.60	U	13.00	U			P
Silver	1.00	U	5.00	U			P
Sodium	2220.83		2150.10		3.2		P
Thallium	6.93		19.50	U	100.0		P
Vanadium	215.77		222.45		3.1		P
Zinc	293.86		310.08		5.5		P

FORM IX - IN

U.S. EPA

10

Instrument Detection Limits (Quarterly)

Lab Name: LIONVILLE LABORATORY
Lab Code: LVLI Case No.: 9408R
ICP ID Number:
Flame AA ID Number : HG1
Furnace AA ID Number :

Contract: 2744-064
SAS No.:
Date: 04/24/01

SDG No.: 000301

Analyte	Wave-length (nm)	Back-ground	CRDL (ug/L)	IDL (ug/L)	M
Aluminum					NR
Antimony					NR
Arsenic					NR
Barium					NR
Beryllium					NR
Cadmium					NR
Calcium					NR
Chromium					NR
Cobalt					NR
Copper					NR
Iron					NR
Lead					NR
Magnesium					NR
Manganese					NR
Mercury	253.70				NR
Nickel				0.1	AV
Potassium					NR
Selenium					NR
Silver					NR
Sodium					NR
Thallium					NR
Vanadium					NR
Zinc					NR
					NR

Comments:

FORM X - IN

U.S. EPA

10

Instrument Detection Limits (Quarterly)

Lab Name: LIONVILLE LABORATORY
Lab Code: LVLI
Case No.: 9408R
ICP ID Number:
TR
Flame AA ID Number :
Furnace AA ID Number :

Contract: 2744-064
SAS No.:
Date: 04/24/01
SDG No.: 000301

Analyte	Wave-length (nm)	Back-ground	CRDL (ug/L)	IDL (ug/L)	M
Aluminum	308.20			12.7	P
Antimony	206.80			1.9	P
Arsenic	189.00			2.3	P
Barium	493.40			0.2	P
Beryllium	313.00			0.2	P
Cadmium	226.50			0.3	P
Calcium	317.90			8.1	P
Chromium	267.70			0.9	P
Cobalt	228.60			0.8	P
Copper	324.70			0.7	P
Iron	271.40			15.7	P
Lead	220.30			2.6	P
Magnesium	279.00			8.8	P
Manganese	257.60			0.1	P
Mercury					NR
Nickel	231.60			1.2	P
Potassium	766.40			35.3	P
Selenium	196.00			2.6	P
Silver	328.00			1.0	P
Sodium	330.20			1.7	P
Thallium	190.80			3.9	P
Vanadium	292.40			0.7	P
Zinc	213.80			0.3	P

Comments:

FORM X - IN

U.S. EPA

11A

ICP Interelement Correction Factors (Annually)

Lab Name: LIONVILLE_LABORATORY_____ Contract: 2744-064__

Lab Code: LVLI__ Case No.: 9408R SAS No.: _____ SDG No.: 000301

ICP ID Number: TR_____ Date: 02/09/00

Analyte	Wave-length (nm)	Interelement Correction Factors for : Al	Ca	Fe	Mg	BA_
Aluminum_	308.20	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Antimony_	206.80	0.0071000	0.0000000	0.0210000	0.0000000	0.0000000
Arsenic__	189.00	0.0000000	0.0000000	-0.0340050	0.0000000	0.0000000
Barium___	493.40	0.0011660	0.0000000	0.0038000	0.0000000	0.0000000
Beryllium	313.00	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cadmium__	226.50	-0.0020960	0.0000000	0.1134000	0.0000000	0.0000000
Calcium__	317.90	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Chromium_	267.70	0.0000000	0.0000000	-0.0201260	0.0000000	0.0000000
Cobalt___	228.60	0.0000000	0.0000000	-0.0090000	0.0000000	0.0004010
Copper___	324.70	0.0000000	0.0000000	0.0058670	-0.0032800	0.0000000
Iron____	271.40	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Lead____	220.30	-0.0045880	0.0000000	-0.0077000	0.0000000	0.0000000
Magnesium	279.00	0.0000000	0.0000000	-0.0009000	0.0000000	0.0000000
Manganese	257.60	-0.0000030	0.0000000	-0.0000060	0.0000150	0.0000000
Mercury__						
Nickel___	231.60	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Potassium	766.40	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Selenium_	196.00	0.0000000	0.0000000	-0.4160000	0.0000000	0.0000000
Silver___	328.00	0.0000000	0.0000000	-0.0014720	0.0000000	0.0000000
Sodium___	330.20	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Thallium_	190.80	-0.0072000	0.0000000	-0.1863320	0.0000000	0.0000000
Vanadium_	292.40	0.0000000	0.0000000	0.0000500	0.0000000	0.0000000
Zinc____	213.80	0.0015020	0.0196200	0.1334000	0.0515270	0.0000000

Comments:

FORM XI (Part 1) - IN

U.S. EPA

11B

ICP Interelement Correction Factors (Annually)

Lab Name: LIONVILLE_LABORATORY_____ Contract: 2744-064__

Lab Code: LVLI__ Case No.: 9408R SAS No.: _____ SDG No.: 000301

ICP ID Number: TR_____ Date: 02/09/00

Analyte	Wave-length (nm)	Interelement Correction Factors for : BI_	CD_	CO_	CR_	CU_
Aluminum	308.20	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Antimony	206.80	0.0000000	0.0000000	0.0000000	0.0084300	0.0000000
Arsenic	189.00	0.0000000	0.0000000	0.0000000	-0.0029580	0.0000000
Barium	493.40	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Beryllium	313.00	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cadmium	226.50	0.0000000	0.0000000	-0.0003860	0.0000000	0.0000000
Calcium	317.90	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Chromium	267.70	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cobalt	228.60	0.0000000	0.0004860	0.0000000	0.0000000	0.0000000
Copper	324.70	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Iron	271.40	0.0000000	0.0000000	0.0000790	0.0000000	0.0000000
Lead	220.30	-0.0000360	0.0000000	-0.0006280	0.0003320	0.0000000
Magnesium	279.00	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Manganese	257.60	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Mercury						
Nickel	231.60	0.0000000	0.0000000	-0.0022860	0.0000000	0.0000000
Potassium	766.40	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Selenium	196.00	-0.0001320	0.0000000	-0.0005000	0.0000000	0.0000000
Silver	328.00	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Sodium	330.20	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Thallium	190.80	-0.0000290	0.0000000	0.0036600	0.0003770	0.0000000
Vanadium	292.40	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Zinc	213.80	0.0000000	0.0000000	0.0000000	0.0000000	0.0016540

Comments:

FORM XI (Part 2) - IN

U.S. EPA

11B

ICP Interelement Correction Factors (Annually)

Lab Name: LIONVILLE_LABORATORY_____ Contract: 2744-064__

Lab Code: LVLI__ Case No.: 9408R SAS No.: _____ SDG No.: 000301

ICP ID Number: TR_____ Date: 02/09/00

Analyte	Wave-length (nm)	Interelement Correction Factors for : MN_	MO_	NI_	SN_	TI_
Aluminum	308.20	0.0000000	0.0000060	0.0000000	0.0000000	0.0000000
Antimony	206.80	0.0000000	-0.0096500	-0.0014190	0.0002210	0.0000880
Arsenic	189.00	0.0000000	-0.0023400	0.0000000	0.0000000	0.0000000
Barium	493.40	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Beryllium	313.00	0.0000000	0.0000000	0.0000000	0.0000000	-0.0022100
Cadmium	226.50	0.0000000	0.0000000	-0.0000320	0.0000000	0.0000200
Calcium	317.90	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Chromium	267.70	0.1248000	-0.0000300	0.0000000	0.0000000	0.0000000
Cobalt	228.60	0.0000000	-0.0026130	0.0001660	0.0000000	0.0020520
Copper	324.70	0.0000000	0.0002630	0.0000000	0.0000000	0.0001530
Iron	271.40	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Lead	220.30	0.0000000	-0.0004390	-0.0000510	0.0000000	-0.0002120
Magnesium	279.00	0.0000000	-0.0000150	0.0000000	0.0000000	-0.0000040
Manganese	257.60	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Mercury						
Nickel	231.60	-0.1081390	0.0000000	0.0000000	0.0000000	0.0000000
Potassium	766.40	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Selenium	196.00	0.4474220	0.0000000	0.0000000	0.0000000	0.0000000
Silver	328.00	0.0514000	0.0000000	0.0000000	0.0000000	0.0000000
Sodium	330.20	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Thallium	190.80	0.9200000	-0.0117540	0.0000000	0.0000000	0.0000000
Vanadium	292.40	0.0000000	-0.0000080	0.0000000	0.0000000	0.0000010
Zinc	213.80	0.0000000	0.0000000	0.0045110	0.0000000	0.0000000

Comments:

FORM XI (Part 2) - IN

U.S. EPA

11B

ICP Interelement Correction Factors (Annually)

Lab Name: LIONVILLE_LABORATORY_____ Contract: 2744-064__

Lab Code: LVLI__ Case No.: 9408R SAS No.: _____ SDG No.: 000301

ICP ID Number: TR_____ Date: 02/09/00

Analyte	Wave-length (nm)	Interelement Correction Factors for : U__	V__	ZR_	___	___
Aluminum	308.20	0.0000010	0.0238920	0.0000000		
Antimony	206.80	-0.0000900	0.0303200	-0.0007070		
Arsenic	189.00	-0.0001220	0.0000000	0.0000640		
Barium	493.40	-0.0000110	0.0196000	0.0000000		
Beryllium	313.00	-0.0000150	0.9231760	0.0000090		
Cadmium	226.50	0.0000000	0.0000000	0.0000000		
Calcium	317.90	0.0000000	0.0000260	0.0000000		
Chromium	267.70	0.0009400	0.1784430	0.0000000		
Cobalt	228.60	0.0001970	0.0166550	0.0000000		
Copper	324.70	-0.0009490	-0.0493600	0.0000000		
Iron	271.40	-0.0000090	0.0126780	0.0000910		
Lead	220.30	0.0014700	-0.1386560	-0.0002030		
Magnesium	279.00	0.0000090	0.0000000	0.0000000		
Manganese	257.60	0.0000000	0.0000090	0.0000000		
Mercury						
Nickel	231.60	0.0001200	0.0000000	-0.0000330		
Potassium	766.40	0.0000000	0.0000000	0.0000000		
Selenium	196.00	0.0001300	0.1404370	0.0001320		
Silver	328.00	0.0008180	0.0572060	0.0024880		
Sodium	330.20	0.0000000	0.0000000	0.0000000		
Thallium	190.80	-0.0001920	2.3979800	0.0000000		
Vanadium	292.40	0.0000000	0.0000000	0.0000000		
Zinc	213.80	0.0000000	0.0376560	0.0000000		

Comments:

FORM XI (Part 2) - IN

U.S. EPA

12
ICP Linear Ranges (Quarterly)

Lab Name: LIONVILLE_LABORATORY_____ Contract: 2744-064__

Lab Code: LVLI__ Case No.: 9408R SAS No.: _____ SDG No.: 000301

ICP ID Number: TR_____ Date: 04/24/01

Analyte	Integ. Time (sec.)	Concentration (ug/L)	M
Aluminum	15.00	1000000.0	P
Antimony	15.00	100000.0	P
Arsenic	15.00	50000.0	P
Barium	15.00	50000.0	P
Beryllium	15.00	10000.0	P
Cadmium	15.00	50000.0	P
Calcium	15.00	500000.0	P
Chromium	15.00	100000.0	P
Cobalt	15.00	100000.0	P
Copper	15.00	100000.0	P
Iron	15.00	500000.0	P
Lead	15.00	400000.0	P
Magnesium	15.00	500000.0	P
Manganese	15.00	40000.0	P
Mercury			NR
Nickel	15.00	100000.0	P
Potassium	15.00	100000.0	P
Selenium	15.00	100000.0	P
Silver	15.00	10000.0	P
Sodium	15.00	100000.0	P
Thallium	15.00	100000.0	P
Vanadium	15.00	200000.0	P
Zinc	15.00	10000.0	P

Comments:

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U.S. EPA

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PREPARATION LOG

Lab Name: LIONVILLE_LABORATORY_____ Contract: 2744-064__

Lab Code: LVLI__ Case No.:_9408R SAS No.: _____ SDG No.:000301

Method: P_

EPA Sample No.	Preparation Date	Weight (gram)	Volume (mL)
000301	07/27/01	1.00	100
000301D	07/27/01	1.00	100
000301S	07/27/01	1.00	100
000401	07/27/01	1.00	100
000501	07/27/01	1.03	100
000601	07/27/01	1.03	100
000701	07/27/01	1.03	100
000801	07/27/01	1.03	100
LCSS168	07/27/01	1.00	100
PBS168	07/27/01	1.00	100

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13
PREPARATION LOG

Lab Name: LIONVILLE_LABORATORY_____ Contract: 2744-064__

Lab Code: LVLI__ Case No.:_9408R SAS No.: _____ SDG No.:000301

Method: AV

EPA Sample No.	Preparation Date	Weight (gram)	Volume (mL)
000301	08/08/01	0.31	50
000301D	08/08/01	0.30	50
000301S	08/08/01	0.31	50
000401	08/08/01	0.31	50
000501	08/08/01	0.32	50
000601	08/08/01	0.31	50
000701	08/08/01	0.31	50
000801	08/08/01	0.31	50
LCSS140	08/08/01	0.17	50
PBS140	08/08/01	0.30	50

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ANALYSIS RUN LOG

Lab Name: LIONVILLE_LABORATORY_____ Contract: 2744-064__

Lab Code: LVLI__ Case No.: 9408R_ SAS No.: _____ SDG No.:000301

Instrument ID Number: HG1_____ Method: AV

Start Date: 08/09/01 End Date: 08/09/01

EPA Sample No.	D/F	Time	% R	Analytes																									
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN			
S0	1.00	1414		–	–	–	–	–	–	–	–	–	–	–	–	–	–		–	–	–	–	–	–	–	–	–		
S0.1	1.00	1416		–	–	–	–	–	–	–	–	–	–	–	–	–	–	X	–	–	–	–	–	–	–	–	–		
S1	1.00	1418		–	–	–	–	–	–	–	–	–	–	–	–	–	–	X	–	–	–	–	–	–	–	–	–		
S2	1.00	1420		–	–	–	–	–	–	–	–	–	–	–	–	–	–	X	–	–	–	–	–	–	–	–	–		
S5	1.00	1423		–	–	–	–	–	–	–	–	–	–	–	–	–	–	X	–	–	–	–	–	–	–	–	–		
S10	1.00	1425		–	–	–	–	–	–	–	–	–	–	–	–	–	–	X	–	–	–	–	–	–	–	–	–		
ICV	1.00	1428		–	–	–	–	–	–	–	–	–	–	–	–	–	–	X	–	–	–	–	–	–	–	–	–		
ICB	1.00	1430		–	–	–	–	–	–	–	–	–	–	–	–	–	–	X	–	–	–	–	–	–	–	–	–		
CCV	1.00	1432		–	–	–	–	–	–	–	–	–	–	–	–	–	–	X	–	–	–	–	–	–	–	–	–		
CCB	1.00	1434		–	–	–	–	–	–	–	–	–	–	–	–	–	–	X	–	–	–	–	–	–	–	–	–		
CRA	1.00	1437		–	–	–	–	–	–	–	–	–	–	–	–	–	–	X	–	–	–	–	–	–	–	–	–		
PBS140	1.00	1439		–	–	–	–	–	–	–	–	–	–	–	–	–	–	X	–	–	–	–	–	–	–	–	–		
LCSS140	1.00	1441		–	–	–	–	–	–	–	–	–	–	–	–	–	–	X	–	–	–	–	–	–	–	–	–		
000301	1.00	1443		–	–	–	–	–	–	–	–	–	–	–	–	–	–	X	–	–	–	–	–	–	–	–	–		
000301D	1.00	1446		–	–	–	–	–	–	–	–	–	–	–	–	–	–	X	–	–	–	–	–	–	–	–	–		
000301S	1.00	1448		–	–	–	–	–	–	–	–	–	–	–	–	–	–	X	–	–	–	–	–	–	–	–	–		
000401	1.00	1450		–	–	–	–	–	–	–	–	–	–	–	–	–	–	X	–	–	–	–	–	–	–	–	–		
000501	1.00	1452		–	–	–	–	–	–	–	–	–	–	–	–	–	–	X	–	–	–	–	–	–	–	–	–		
000601	1.00	1455		–	–	–	–	–	–	–	–	–	–	–	–	–	–	X	–	–	–	–	–	–	–	–	–		
000701	1.00	1457		–	–	–	–	–	–	–	–	–	–	–	–	–	–	X	–	–	–	–	–	–	–	–	–		
CCV	1.00	1459		–	–	–	–	–	–	–	–	–	–	–	–	–	–	X	–	–	–	–	–	–	–	–	–		
CCB	1.00	1501		–	–	–	–	–	–	–	–	–	–	–	–	–	–	X	–	–	–	–	–	–	–	–	–		
000801	1.00	1504		–	–	–	–	–	–	–	–	–	–	–	–	–	–	X	–	–	–	–	–	–	–	–	–		
ZZZZZZ	1.00	1506		–	–	–	–	–	–	–	–	–	–	–	–	–	–	X	–	–	–	–	–	–	–	–	–		
ZZZZZZ	1.00	1508		–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–		
ZZZZZZ	1.00	1510		–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–		
ZZZZZZ	1.00	1512		–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–		
ZZZZZZ	1.00	1515		–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–		
ZZZZZZ	1.00	1517		–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–		
ZZZZZZ	1.00	1519		–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–		
ZZZZZZ	1.00	1521		–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–		
ZZZZZZ	1.00	1523		–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–		
				–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–		

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ANALYSIS RUN LOG

Lab Name: LIONVILLE_LABORATORY_____ Contract: 2744-064__

Lab Code: LVLI__ Case No.: 9408R_ SAS No.: _____ SDG No.:000301

Instrument ID Number: HG1_____ Method: AV

Start Date: 08/09/01 End Date: 08/09/01

EPA Sample No.	D/F	Time	% R	Analytes																								
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	
CCV	1.00	1526		–	–	–	–	–	–	–	–	–	–	–	–	–	–		–	–	–	–	–	–	–	–	–
CCB	1.00	1528		–	–	–	–	–	–	–	–	–	–	–	–	–	–	X	–	–	–	–	–	–	–	–	–
ZZZZZZ	1.00	1530		–	–	–	–	–	–	–	–	–	–	–	–	–	–	X	–	–	–	–	–	–	–	–	–
ZZZZZZ	1.00	1532		–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
ZZZZZZ	1.00	1535		–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
ZZZZZZ	1.00	1537		–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
ZZZZZZ	1.00	1539		–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
ZZZZZZ	1.00	1542		–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
ZZZZZZ	1.00	1544		–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
ZZZZZZ	1.00	1546		–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
ZZZZZZ	1.00	1549		–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
ZZZZZZ	1.00	1551		–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
CCV	1.00	1553		–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
CCB	1.00	1555		–	–	–	–	–	–	–	–	–	–	–	–	–	–	X	–	–	–	–	–	–	–	–	–
ZZZZZZ	1.00	1558		–	–	–	–	–	–	–	–	–	–	–	–	–	–	X	–	–	–	–	–	–	–	–	–
ZZZZZZ	1.00	1600		–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
ZZZZZZ	1.00	1602		–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
ZZZZZZ	1.00	1605		–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
ZZZZZZ	1.00	1607		–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
ZZZZZZ	1.00	1609		–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
ZZZZZZ	1.00	1612		–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
ZZZZZZ	1.00	1614		–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
ZZZZZZ	1.00	1616		–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
ZZZZZZ	1.00	1618		–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
CCV	1.00	1621		–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
CCB	1.00	1623		–	–	–	–	–	–	–	–	–	–	–	–	–	–	X	–	–	–	–	–	–	–	–	–
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ANALYSIS RUN LOG

Lab Name: LIONVILLE_LABORATORY_____ Contract: 2744-064__

Lab Code: LVLI__ Case No.: 9408R_ SAS No.: _____ SDG No.:000301

Instrument ID Number: TR_____ Method: P_

Start Date: 07/30/01 End Date: 07/31/01

EPA Sample No.	D/F	Time	% R	Analytes																								
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	
S0	1.00	1945		X	X	X	X	X	X	X	X	X	X	X	X	X	X	_	X	X	X	X	X	X	X	X	_
S1	1.00	1952		X	X	X	X	X	X	X	X	X	X	X	X	X		_	X		X	X		X		X	_
S2	1.00	2001								X				X		X	X	_		X			X		X		_
ICV	1.00	2017		X	X	X	X	X	X	X	X	X	X	X	X	X	X	_	X	X	X	X	X	X	X	X	_
ICB	1.00	2026		X	X	X	X	X	X	X	X	X	X	X	X	X	X	_	X	X	X	X	X	X	X	X	_
CRI	1.00	2034		X	X	X	X	X	X	X	X	X	X	X	X	X	X	_	X	X	X	X	X	X	X	X	_
ICSA	1.00	2041		X	X	X	X	X	X	X	X	X	X	X	X	X	X	_	X	X	X	X	X	X	X	X	_
ICSAB	1.00	2048		X	X	X	X	X	X	X	X	X	X	X	X	X	X	_	X	X	X	X	X	X	X	X	_
CCV	1.00	2058		X	X	X	X	X	X	X	X	X	X	X	X	X	X	_	X	X	X	X	X	X	X	X	_
CCB	1.00	2107		X	X	X	X	X	X	X	X	X	X	X	X	X	X	_	X	X	X	X	X	X	X	X	_
PBS168	1.00	2114		X	X	X	X	X	X	X	X	X	X	X	X	X	X	_	X	X	X	X	X	X	X	X	_
LCSS168	1.00	2121		X	X	X	X	X	X	X	X	X	X	X	X	X	X	_	X	X	X	X	X	X	X	X	_
000301	1.00	2134		X	X	X	X	X	X	X	X	X	X	X	X	X	X	_	X	X	X	X	X	X	X	X	_
000301L	5.00	2143		X	X	X	X	X	X	X	X	X	X	X	X	X	X	_	X	X	X	X	X	X	X	X	_
000301D	1.00	2152		X	X	X	X	X	X	X	X	X	X	X	X	X	X	_	X	X	X	X	X	X	X	X	_
000301S	1.00	2201		X	X	X	X	X	X	X	X	X	X	X	X	X	X	_	X	X	X	X	X	X	X	X	_
000301A	1.00	2211		X	X	X	X	X	X	X	X	X	X	X	X	X	X	_	X	X	X	X	X	X	X	X	_
000401	1.00	2221		X	X									X				_									_
000501	1.00	2230		X	X	X	X	X	X	X	X	X	X	X	X	X	X	_	X	X	X	X	X	X	X	X	_
000601	1.00	2239		X	X	X	X	X	X	X	X	X	X	X	X	X	X	_	X	X	X	X	X	X	X	X	_
CCV	1.00	2250		X	X	X	X	X	X	X	X	X	X	X	X	X	X	_	X	X	X	X	X	X	X	X	_
CCB	1.00	2300		X	X	X	X	X	X	X	X	X	X	X	X	X	X	_	X	X	X	X	X	X	X	X	_
000701	1.00	2307		X	X	X	X	X	X	X	X	X	X	X	X	X	X	_	X	X	X	X	X	X	X	X	_
000801	1.00	2316		X	X	X	X	X	X	X	X	X	X	X	X	X	X	_	X	X	X	X	X	X	X	X	_
ZZZZZZ	1.00	2325																_									_
ZZZZZZ	1.00	2334		_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
ZZZZZZ	1.00	2343		_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
ZZZZZZ	1.00	2353		_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
ZZZZZZ	1.00	0001		_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
ZZZZZZ	1.00	0011		_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
ZZZZZZ	1.00	0020		_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
ZZZZZZ	1.00	0029		_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_

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ANALYSIS RUN LOG

Lab Name: LIONVILLE_LABORATORY_____ Contract: 2744-064__

Lab Code: LVLI__ Case No.: 9408R_ SAS No.: _____ SDG No.:000301

Instrument ID Number: TR_____ Method: P_

Start Date: 07/30/01 End Date: 07/31/01

EPA Sample No.	D/F	Time	% R	Analytes																								
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN		
CCV	1.00	0039		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
CCB	1.00	0049		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
ZZZZZZ	1.00	0056																										
ZZZZZZ	1.00	0105																										
ZZZZZZ	1.00	0114																										
ZZZZZZ	1.00	0123																										
ZZZZZZ	1.00	0132																										
ZZZZZZ	1.00	0139																										
ZZZZZZ	1.00	0146																										
CCV	1.00	0156		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
CCB	1.00	0206		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		

FORM XIV - IN

Raw Data

Metals By ICP

Method: ALL1 Standard: S0
Run Time: 07/30/01 19:45:21

Elem	Ag3280	Al3082	As1890	B-2496	Ba4934	Be3130	Bi2230
Avge	.0005	.1532	-.0056	.0156	.0310	.1297	-.0309
SDev	.0007	.0006	.0045	.0039	.0002	.0008	.0031
%RSD	131.5	.4058	81.90	24.97	.5911	.6451	9.904
#1	-.0002	.1538	-.0080	.0167	.0308	.1306	-.0275
#2	.0012	.1526	-.0084	.0188	.0311	.1297	-.0335
#3	.0006	.1531	-.0003	.0113	.0312	.1289	-.0316

Elem	Ca3179	Ca3968	Cd2265	Co2286	Cr2677	Cu3247	Fe2714
Avge	.0609	.5371	-.0015	-.0003	.0035	.0691	.0029
SDev	.0002	.0390	.0079	.0012	.0022	.0004	.0015
%RSD	.2734	7.266	522.7	441.1	61.29	.6256	52.39
#1	.0610	.5788	.0067	-.0016	.0012	.0688	.0020
#2	.0608	.5310	-.0023	.0006	.0039	.0696	.0047
#3	.0611	.5015	-.0090	.0002	.0055	.0689	.0020

Elem	Fe2599	K-7664	Li6707	Mg2790	Mg2852	Mn2576	Mo2020
Avge	.0028	-.0296	.0223	-.0012	.0590	.0007	.0091
SDev	.0003	.0095	.0023	.0004	.0111	.0001	.0038
%RSD	11.24	32.17	10.36	29.03	18.79	17.10	42.11
#1	.0029	-.0357	.0247	-.0008	.0708	.0008	.0135
#2	.0025	-.0346	.0221	-.0014	.0575	.0006	.0068
#3	.0031	-.0186	.0201	-.0014	.0488	.0006	.0070

Elem	Na5889	Ni2316	2203/1 Pb	2203/2	2068/1 Sb	2068/2	1960/1 Se
Avge	.1964	-.0016	-.0085	-.0047	-.0423	-.00388	-.0427
SDev	.0022	.0053	.0118	.0142	.0113	.00540	.0004
%RSD	1.097	335.8	139.4	302.7	26.79	139.19	.8321
#1	.1939	-.0043	-.0123	-.0035	-.0398	-.01000	-.0430
#2	.1977	.0045	.0048	-.0195	-.0546	-.00184	-.0423
#3	.1976	-.0049	-.0178	.0089	-.0324	.00020	-.0426

Elem	1960/2	Tl1908	V-2924	Zn2138	Ti3349	Th4019	U-3856
Avge	.0410	-.0211	.0002	-.0029	-.0123	.0111	.0000
SDev	.0048	.0053	.0004	.0000	.0004	.0034	.0009
%RSD	11.66	25.34	200.1	.2233	3.252	30.74	117000.
#1	.0414	-.0157	.0002	-.0029	-.0122	.0128	-.0002
#2	.0456	-.0264	-.0002	-.0029	-.0127	.0072	-.0008
#3	.0361	-.0211	.0006	-.0029	-.0119	.0133	.0010

Elem	P-1782	Si2881	Sn1899	Sr4215	Zr3496
Avge	-.0031	.0429	.0025	.0227	-29.87
SDev	.0011	.0003	.0026	.0008	.08
%RSD	33.68	.6658	106.2	3.522	.2585
#1	-.0022	.0430	-.0001	.0226	-29.79
#2	-.0029	.0425	.0051	.0235	-29.87
#3	-.0043	.0430	.0024	.0219	-29.94

metrev updated PMD 08-01-

LANL SW

TA0730C
01L0468-MB1 -LC1
01072388-001,R1 → 006
01072398-001 → -011

Return: 398-007(Fe) → see TA0801C

PMP 07-30-01

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	4890	--	--	--	--	--	--
SDev	10.92435	--	--	--	--	--	--
%RSD	.2234109	--	--	--	--	--	--
#1	4901	--	--	--	--	--	--
#2	4889	--	--	--	--	--	--
#3	4880	--	--	--	--	--	--

Method: ALL1 Standard: S1
Run Time: 07/30/01 19:52:23

Elem	Ag3280	Al3082	As1890	B-2496	Ba4934	Be3130	Bi2230
Avge	2.794	3.987	2.355	3.225	19.37	45.66	3.386
SDev	.002	.005	.003	.007	.02	.04	.011
%RSD	.0749	.1278	.1407	.2271	.0902	.0891	.3235
#1	2.792	3.983	2.351	3.217	19.36	45.71	3.378
#2	2.794	3.986	2.355	3.229	19.37	45.64	3.381
#3	2.796	3.993	2.358	3.229	19.39	45.63	3.398

Elem	Ca3968	Cd2265	Co2286	Cr2677	Cu3247	Fe2599	Li6707
Avge	543.6	28.14	3.532	5.083	4.924	13.92	494.4
SDev	.3	.02	.003	.002	.009	.01	.2
%RSD	.0480	.0628	.0941	.0397	.1761	.0646	.0399
#1	543.9	28.16	3.536	5.082	4.921	13.92	494.2
#2	543.3	28.12	3.530	5.081	4.917	13.91	494.5
#3	543.6	28.13	3.530	5.085	4.934	13.93	494.5

Elem	Mg2852	Mo2020	Ni2316	2203/1	2203/2	2068/1	2068/2
Avge	230.8	9.765	4.424	7.147	4.229	7.103	3.4887
SDev	.4	.033	.011	.008	.003	.011	.0073
%RSD	.1688	.3405	.2532	.1133	.0785	.1558	.20999
#1	230.5	9.729	4.433	7.153	4.227	7.099	3.4949
#2	230.7	9.772	4.427	7.150	4.227	7.095	3.4906
#3	231.2	9.794	4.411	7.138	4.233	7.116	3.4806

Elem	1960/1	1960/2	Tl1908	Zn2138	Ti3349	Si2881	Sn1899
Avge	2.321	2.699	3.112	1.713	14.08	.2543	2.714
SDev	.010	.013	.018	.003	.01	.0004	.007
%RSD	.4434	.4904	.5836	.1485	.0935	.1559	.2525
#1	2.329	2.686	3.092	1.716	14.09	.2544	2.722
#2	2.309	2.712	3.128	1.712	14.06	.2539	2.712
#3	2.325	2.700	3.116	1.711	14.08	.2546	2.709

Elem	Sr4215
Avge	66.81
SDev	.04
%RSD	.0629
#1	66.80
#2	66.77
#3	66.85

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	4887	--	--	--	--	--	--
SDev	1.674589	--	--	--	--	--	--
%RSD	.0342687	--	--	--	--	--	--
#1	4886	--	--	--	--	--	--
#2	4889	--	--	--	--	--	--
#3	4886	--	--	--	--	--	--

Method: ALL1 Standard: S2
Run Time: 07/30/01 20:01:32

Elem	Ca3179	Fe2714	K-7664	Mg2790	Mn2576	Na5889	V-2924
Avge	7.667	6.813	219.9	15.16	33.33	633.4	8.971
SDev	.073	.065	2.2	.16	.33	6.1	.081
%RSD	.9510	.9526	.9855	1.050	.9754	.9618	.9044
#1	7.691	6.840	220.9	15.22	33.45	635.2	8.998
#2	7.726	6.859	221.3	15.28	33.57	638.3	9.035
#3	7.585	6.739	217.4	14.98	32.96	626.6	8.879

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	4791	--	--	--	--	--	--
SDev	31.57269	--	--	--	--	--	--
%RSD	.6589488	--	--	--	--	--	--
#1	4771	--	--	--	--	--	--
#2	4775	--	--	--	--	--	--
#3	4828	--	--	--	--	--	--

Method: ALL1 Standard: S3
Run Time: 07/30/01 20:10:00

Elem	Th4019	U-3856	P-1782	Zr3496
Avge	2.038	.1653	.2048	-16.61
SDev	.012	.0018	.0019	.22
%RSD	.5744	1.068	.9158	1.304
#1	2.037	.1658	.2029	-16.44
#2	2.027	.1633	.2066	-16.52
#3	2.051	.1668	.2048	-16.85

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	4888	--	--	--	--	--	--
SDev	22.33034	--	--	--	--	--	--
%RSD	.4568214	--	--	--	--	--	--
#1	4904	--	--	--	--	--	--
#2	4898	--	--	--	--	--	--
#3	4863	--	--	--	--	--	--

Analysis Report QC Standard 07/30/01 08:24:37 PM page 1

Method: ALL1 Sample Name: ICV Operator: PMP
Run Time: 07/30/01 20:17:39
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B-2496	Ba4934	Be3130	Bi2230
Units	ppb	PPM	ppb	ppb	ppb	ppb	ppb
Avge	368.6878	3.737393	368.3239	375.4526	374.7258	370.2681	376.3802
SDev	1.0919	.008385	2.0901	2.9863	.6709	1.0203	1.7870
%RSD	.2961475	.2243414	.5674690	.7953951	.1790342	.2755439	.4747860
#1	367.9164	3.730548	368.6097	372.4581	374.2280	369.7450	374.5265
#2	369.9372	3.746745	370.2565	375.4692	375.4887	371.4438	378.0920
#3	368.2100	3.734886	366.1057	378.4307	374.4607	369.6155	376.5223
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	375.0000	3.750000	375.0000	375.0000	375.0000	375.0000	375.0000
Range	10.00000	10.00000	10.00000	10.00000	10.00000	10.00000	10.00000

Elem	Ca3179	Ca3968	Cd2265	Co2286	Cr2677	Cu3247	Fe2714
Units	PPM	PPM	ppb	ppb	ppb	ppb	PPM
Avge	1.503282	1.484701	374.5916	375.9645	373.7759	373.6551	3.790855
SDev	.006854	.003077	.9317	1.5081	1.4053	.5808	.034885
%RSD	.4559479	.2072191	.2487332	.4011260	.3759856	.1554355	.9202415
#1	1.496547	1.483341	375.0012	375.2608	372.9992	373.0460	3.754252
#2	1.510250	1.488224	375.2484	377.6959	375.3981	374.2027	3.823721
#3	1.503048	1.482540	373.5252	374.9369	372.9303	373.7165	3.794591
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	1.500000	1.500000	375.0000	375.0000	375.0000	375.0000	3.750000
Range	10.00000	10.00000	10.00000	10.00000	10.00000	10.00000	10.00000

Elem	Fe2599	K-7664	Li6707	Mg2790	Mg2852	Mn2576	Mo2020
Units	PPM	ppb	ppb	PPM	PPM	PPM	ppb
Avge	3.734777	3843.154	2947.843	3.010086	2.972274	3.839236	378.0947
SDev	.013121	7.947	3.496	.007585	.008930	.011420	1.4233
%RSD	.3513162	.2067776	.1186114	.2519909	.3004431	.2974442	.3764479
#1	3.723413	3835.203	2943.806	3.002930	2.962588	3.831905	377.8522
#2	3.749137	3851.096	2949.888	3.018038	2.980180	3.852394	379.6236
#3	3.731781	3843.163	2949.836	3.009291	2.974053	3.833410	376.8081
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	3.750000	3750.000	3000.000	3.000000	3.000000	3.750000	375.0000
Range	10.00000	10.00000	10.00000	10.00000	10.00000	10.00000	10.00000

Elem	Na5889	Ni2316	2203/1	2203/2	Pb2203	Se1960	Sb2068
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	3802.328	372.4217	376.1005	374.2271	374.8533	367.3676	377.6453
SDev	6.667	1.8828	2.6200	.5135	1.1252	2.5917	.5231
%RSD	.1753523	.5055427	.6966235	.1372208	.3001663	.7054848	.1385228
#1	3795.511	372.4927	374.5104	373.6409	373.9327	368.3828	378.0425
#2	3802.636	374.2679	379.1245	374.5978	376.1076	369.2980	377.0526
#3	3808.835	370.5044	374.6666	374.4426	374.5196	364.4220	377.8409
Errors	QC Pass	QC Pass	NOCHECK	NOCHECK	QC Pass	QC Pass	QC Pass

Value	3750.000	375.0000			375.0000	375.0000	375.0000
Range	10.00000	10.00000			10.00000	10.00000	10.00000
Elem	2068/1	2068/2	1960/1	1960/2	Tl1908	V-2924	Zn2138
Units	ppb	ppb	ppb	ppb	ppb	PPM	ppb
Avge	376.5566	378.1864	367.2442	367.4265	375.4394	3.781238	375.2088
SDev	2.5974	1.4568	6.5820	2.7266	5.0183	.010316	.5573
%RSD	.6897729	.3852055	1.792269	.7420791	1.336634	.2728141	.1485290
#1	378.9772	377.5733	374.0478	365.5519	373.3692	3.771195	374.5863
#2	376.8800	377.1363	366.7760	370.5544	381.1615	3.791806	375.3789
#3	373.8127	379.8495	360.9088	366.1732	371.7874	3.780714	375.6612
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	QC Pass	QC Pass	QC Pass
Value					375.0000	3.750000	375.0000
Range					10.00000	10.00000	10.00000
Elem	Ti3349	Th4019	U-3856	P-1782	Si2881	Sn1899	Sr4215
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	376.0120	362.0743	387.8525	738.1816	396.7869	375.4212	372.7867
SDev	.8668	5.6514	6.1822	16.3525	.9906	4.9390	.6639
%RSD	.2305337	1.560827	1.593963	2.215235	.2496573	1.315581	.1780845
#1	375.3407	355.7792	394.8634	735.0509	395.6626	369.7661	372.1621
#2	376.9906	366.7106	383.1829	755.8731	397.5312	377.6105	373.4839
#3	375.7045	363.7330	385.5112	723.6208	397.1671	378.8872	372.7141
Errors	QC Pass	NOCHECK	NOCHECK	NOCHECK	QC Pass	QC Pass	QC Pass
Value	375.0000				375.0000	375.0000	375.0000
Range	10.00000				10.00000	10.00000	10.00000
Elem	Zr3496						
Units	ppb						
Avge	380.5110						
SDev	10.5233						
%RSD	2.765562						
#1	391.2128						
#2	370.1758						
#3	380.1445						
Errors	NOCHECK						
Value							
Range							

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	4879	--	--	--	--	--	--
SDev	9.258949	--	--	--	--	--	--
%RSD	.1897905	--	--	--	--	--	--
#1	4877	--	--	--	--	--	--
#2	4870	--	--	--	--	--	--
#3	4888	--	--	--	--	--	--

Method: ALL1 Sample Name: ICB Operator: PMP
Run Time: 07/30/01 20:26:51
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B-2496	Ba4934	Be3130	Bi2230
Units	ppb	PPM	ppb	ppb	ppb	ppb	ppb
Avge	-.184140	-.003035	-.734627	-.378554	.0424360	.0223437	1.854514
SDev	.140294	.004230	1.843970	1.185566	.0274828	.0169513	2.785503
%RSD	76.18907	139.3663	251.0077	313.1827	64.76292	75.86610	150.2012
#1	-.111886	.0016600	-1.88794	-.522798	.0482200	.0381616	-1.27136
#2	-.345834	-.004217	1.392070	.8725347	.0665666	.0244194	4.073740
#3	-.094700	-.006548	-1.70801	-1.48540	.0125216	.0044502	2.761161
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	5.000000	.1462000	39.60000	266.1000	1.800000	1.600000	55.40000
Low	-5.00000	-.146200	-39.6000	-266.100	-1.80000	-1.60000	-55.4000

Elem	Ca3179	Ca3968	Cd2265	Co2286	Cr2677	Cu3247	Fe2714
Units	PPM	PPM	ppb	ppb	ppb	ppb	PPM
Avge	.0040906	.0004388	-.017545	.0202585	.0833971	.0294961	.0076599
SDev	.0018725	.0001032	.218559	.4058283	.1395538	.0543397	.0023093
%RSD	45.77480	23.51860	1245.687	2003.250	167.3366	184.2270	30.14782
#1	.0019361	.0005542	-.194607	.4264904	.2282826	-.005588	.0074883
#2	.0053251	.0004069	.2267250	-.385165	.0720394	.0920896	.0100502
#3	.0050105	.0003554	-.084754	.0194501	-.050131	.0019870	.0054412
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.3610000	.4704000	4.700000	4.500000	7.000000	15.00000	.1694000
Low	-.361000	-.470400	-4.70000	-4.50000	-7.00000	-15.0000	-.169400

Elem	Fe2599	K-7664	Li6707	Mg2790	Mg2852	Mn2576	Mo2020
Units	PPM	ppb	ppb	PPM	PPM	PPM	ppb
Avge	.0001473	.3908706	.2947495	-.001804	-.000805	.0002457	.3424054
SDev	.0006140	8.959634	.1068494	.003208	.000333	.0001423	.3695039
%RSD	416.8138	2292.225	36.25091	177.8482	41.31871	57.92131	107.9142
#1	.0006402	-3.93745	.3982864	.0006573	-.000434	.0004101	.7093438
#2	.0003422	-5.58280	.3010918	-.000637	-.000903	.0001637	.3474840
#3	-.000541	10.69286	.1848702	-.005431	-.001078	.0001634	-.029612
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.0736000	186.2000	2.700000	.1118000	.0736000	.0078000	12.70000
Low	-.073600	-186.200	-2.70000	-.111800	-.073600	-.007800	-12.7000

Elem	Na5889	Ni2316	2203/1	2203/2	Pb2203	Se1960	Sb2068
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	-1.91258	.5535035	-.023695	-.378117	-.258049	-1.52001	.6042836
SDev	.19826	1.152913	.280098	.339363	.296125	.86321	.2516669
%RSD	10.36616	208.2938	1182.090	89.75064	114.7549	56.78945	41.64714
#1	-1.68822	.0308213	-.034319	-.681739	-.464100	-2.12947	.3603078
#2	-1.98531	1.875180	-.298330	-.440847	-.391344	-.532241	.8629941
#3	-2.06420	-.245491	.2615637	-.011766	.0812957	-1.89831	.5895489
Errors	LC Pass	LC Pass	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass

High	284.8000	25.30000			47.00000	65.90000	26.90000
Low	-284.800	-25.3000			-47.0000	-65.9000	-26.9000
Elem	2068/1	2068/2	1960/1	1960/2	Tl1908	V-2924	Zn2138
Units	ppb	ppb	ppb	ppb	ppb	PPM	ppb
Avge	-.358841	1.082671	1.733568	-3.14681	1.854078	.0006133	.1961266
SDev	.966649	.579538	1.128205	1.58452	2.591571	.0002661	.3896639
%RSD	269.3808	53.52854	65.07997	50.35323	139.7768	43.39059	198.6798
#1	.1425901	.4665469	1.053514	-3.72104	-1.09942	.0009206	.4762542
#2	.2540608	1.164552	1.111310	-1.35524	2.913858	.0004606	-.248871
#3	-1.47317	1.616913	3.035880	-4.36416	3.747798	.0004588	.3609961
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass
High					54.80000	.0069000	52.30000
Low					-54.8000	-.006900	-52.3000
Elem	Ti3349	Th4019	U-3856	P-1782	Si2881	Sn1899	Sr4215
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	.0930201	-2.32321	-2.88673	-2.61355	.3582926	.3978469	.0202546
SDev	.0156889	1.91660	3.78597	4.55172	3.090724	1.801581	.0131526
%RSD	16.86619	82.49802	131.1509	174.1585	862.6254	452.8327	64.93608
#1	.1000556	-.494171	1.243078	-5.28421	3.543196	1.779827	.0248701
#2	.1039599	-2.15869	-6.19345	2.642091	-2.62874	1.053443	.0304774
#3	.0750449	-4.31677	-3.70982	-5.19853	.1604249	-1.63973	.0054164
Errors	LC Pass	NOCHECK	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass
High	3.500000				468.5000	70.00000	1.200000
Low	-3.50000				-468.500	-70.0000	-1.20000
Elem	Zr3496						
Units	ppb						
Avge	-6.29482						
SDev	7.44339						
%RSD	118.2463						
#1	-4.60959						
#2	.1614760						
#3	-14.4363						
Errors	NOCHECK						
High							
Low							

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	4889	--	--	--	--	--	--
SDev	5.994861	--	--	--	--	--	--
%RSD	.1226155	--	--	--	--	--	--
#1	4883	--	--	--	--	--	--
#2	4891	--	--	--	--	--	--
#3	4894	--	--	--	--	--	--

Analysis Report QC Standard 07/30/01 08:41:21 PM

Method: ALL1 Sample Name: CRI Operator: PMP
Run Time: 07/30/01 20:34:13
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B-2496	Ba4934	Be3130	Bi2230
Units	ppb	PPM	ppb	ppb	ppb	ppb	ppb
Avge	19.25369	.1908922	16.76425	18.20062	20.11698	19.94434	19.85747
SDev	.17580	.0020737	2.66857	.59644	.10649	.10653	1.05588
%RSD	.9130842	1.086307	15.91820	3.277028	.5293621	.5341501	5.317275
#1	19.07513	.1889311	18.99879	18.60898	20.07614	19.85332	18.95236
#2	19.42660	.1930626	13.80949	18.47671	20.03696	19.91819	19.60260
#3	19.25932	.1906828	17.48448	17.51616	20.23785	20.06151	21.01745
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	20.00000	.2000000	20.00000	20.00000	20.00000	20.00000	20.00000
Range	50.00000	50.00000	50.00000	50.00000	50.00000	50.00000	50.00000

Elem	Ca3179	Ca3968	Cd2265	Co2286	Cr2677	Cu3247	Fe2714
Units	PPM	PPM	ppb	ppb	ppb	ppb	PPM
Avge	.0901307	.0828551	20.05569	20.35334	20.70048	20.59514	.2025016
SDev	.0027109	.0002407	.27010	.35031	.33129	.17981	.0051234
%RSD	3.007701	.2905562	1.346774	1.721135	1.600415	.8730627	2.530032
#1	.0871081	.0826217	20.04630	20.32352	20.72344	20.39568	.2051247
#2	.0909375	.0828410	19.79040	20.71760	20.35830	20.64494	.2057822
#3	.0923466	.0831026	20.33037	20.01889	21.01969	20.74480	.1965979
Errors	NOCHECK	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	NOCHECK
Value		.0800000	20.00000	20.00000	20.00000	20.00000	
Range		50.00000	50.00000	50.00000	50.00000	50.00000	

Elem	Fe2599	K-7664	Li6707	Mg2790	Mg2852	Mn2576	Mo2020
Units	PPM	ppb	ppb	PPM	PPM	PPM	ppb
Avge	.2024017	205.9090	155.9298	.1551040	.1584557	.2081016	20.08085
SDev	.0010332	5.6948	.2460	.0004577	.0007648	.0010421	.19135
%RSD	.5104504	2.765687	.1577716	.2951148	.4826827	.5007808	.9528792
#1	.2013242	200.0937	155.6464	.1545853	.1577855	.2070192	20.15994
#2	.2024971	211.4751	156.0881	.1554513	.1582927	.2081872	19.86264
#3	.2033839	206.1580	156.0549	.1552755	.1592889	.2090982	20.21998
Errors	QC Pass	QC Pass	QC Pass	NOCHECK	QC Pass	QC Pass	QC Pass
Value	.2000000	200.0000	160.0000		.1600000	.2000000	20.00000
Range	50.00000	50.00000	50.00000		50.00000	50.00000	50.00000

Elem	Na5889	Ni2316	2203/1	2203/2	Pb2203	Se1960	Sb2068
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	200.0287	20.62322	17.90747	19.69826	19.10398	17.06852	20.89534
SDev	.6187	.64109	1.23778	2.78551	2.25041	1.91606	2.64602
%RSD	.3093222	3.108587	6.912106	14.14088	11.77979	11.22567	12.66320
#1	199.9287	21.24200	16.48733	16.56635	16.54207	14.95109	19.85938
#2	200.6913	19.96193	18.75721	20.62989	20.00834	18.68278	23.90260
#3	199.4660	20.66573	18.47786	21.89856	20.76152	17.57168	18.92404
Errors	QC Pass	QC Pass	NOCHECK	NOCHECK	QC Pass	QC Pass	QC Pass

Value	200.0000	20.00000			20.00000	20.00000	20.00000
Range	50.00000	50.00000			50.00000	50.00000	50.00000
Elem	2068/1	2068/2	1960/1	1960/2	Tl1908	V-2924	Zn2138
Units	ppb	ppb	ppb	ppb	ppb	PPM	ppb
Avge	18.95316	21.86252	19.84767	15.67847	18.37385	.2028162	20.25494
SDev	1.58908	3.19766	2.73364	2.39138	.44831	.0005726	.19890
%RSD	8.384241	14.62621	13.77309	15.25263	2.439961	.2823179	.9819779
#1	18.72399	20.42379	17.39640	13.72782	17.89685	.2022475	20.41069
#2	20.64438	25.52681	19.35102	18.34640	18.78654	.2028085	20.03089
#3	17.49110	19.63697	22.79558	14.96119	18.43815	.2033926	20.32324
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	QC Pass	QC Pass	QC Pass
Value					20.00000	.2000000	20.00000
Range					50.00000	50.00000	50.00000
Elem	Ti3349	Th4019	U-3856	P-1782	Si2881	Sn1899	Sr4215
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	20.22938	101.8415	101.3261	130.6730	26.63374	17.96608	20.07428
SDev	.18951	3.7217	5.3626	13.6786	1.67677	1.54568	.11030
%RSD	.9368019	3.654422	5.292442	10.46780	6.295668	8.603310	.5494363
#1	20.08613	99.94806	106.2514	140.0629	28.56017	16.39980	19.95878
#2	20.15775	99.44720	95.61326	114.9791	25.83856	18.00815	20.08554
#3	20.44427	106.1292	102.1136	136.9769	25.50251	19.49029	20.17851
Errors	QC Pass	NOCHECK	NOCHECK	NOCHECK	QC Pass	QC Pass	QC Pass
Value	20.00000				20.00000	20.00000	20.00000
Range	50.00000				50.00000	50.00000	50.00000
Elem	Zr3496						
Units	ppb						
Avge	90.80428						
SDev	5.31358						
%RSD	5.851688						
#1	94.74313						
#2	84.76076						
#3	92.90894						
Errors	NOCHECK						
Value							
Range							

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	4882	--	--	--	--	--	--
SDev	19.57215	--	--	--	--	--	--
%RSD	.4008862	--	--	--	--	--	--
#1	4903	--	--	--	--	--	--
#2	4879	--	--	--	--	--	--
#3	4865	--	--	--	--	--	--

Method: ALL1 Sample Name: TSA Operator: PMP
Run Time: 07/30/01 20:41:35
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B-2496	Ba4934	Be3130	Bi2230
Units	ppb	PPM	ppb	ppb	ppb	ppb	ppb
Avge	-.017825	514.3944	1.437146	-2.39959	.3369765	.2475118	1.732029
SDev	.359180	8.2145	3.191147	1.08871	.0411651	.0537173	1.839547
%RSD	2015.023	1.596918	222.0475	45.37082	12.21602	21.70293	106.2077
#1	.2486589	506.8238	3.855196	-1.73113	.3542055	.2238419	3.825755
#2	.1241596	523.1286	2.636066	-1.81177	.3667278	.3089991	.3750601
#3	-.426294	513.2309	-2.17982	-3.65586	.2899962	.2096945	.9952707
Errors	NOCHECK	QC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
Value		500.0000					
Range		20.00000					

Elem	Ca3179	Ca3968	Cd2265	Co2286	Cr2677	Cu3247	Fe2714
Units	PPM	PPM	ppb	ppb	ppb	ppb	PPM
Avge	470.1916	810.70126	1.360207	-.502143	3.672220	1.887368	191.0276
SDev	6.4727	.08551	.559387	.173909	.237308	.339829	2.7262
%RSD	1.376601	.7991048	41.12513	34.63328	6.462249	18.00545	1.427106
#1	464.9977	810.63328	.7544613	-.405689	3.593446	1.548465	188.7862
#2	477.4428	810.79728	1.857290	-.702904	3.938898	2.228116	194.0625
#3	468.1342	810.67324	1.468868	-.397836	3.484317	1.885523	190.2342
Errors	QC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	QC Pass
Value	500.0000						200.0000
Range	20.00000						20.00000

Elem	Fe2599	K-7664	Li6707	Mg2790	Mg2852	Mn2576	Mo2020
Units	PPM	ppb	ppb	PPM	PPM	PPM	ppb
Avge	166.5666	2.238915	2.724758	510.3435	857.28573	.0011530	1.051298
SDev	2.2990	10.55441	.059371	7.8847	.43792	.0002051	.975328
%RSD	1.380227	471.4074	2.178940	1.544986	.7644445	17.78969	92.77368
#1	164.6286	13.78107	2.726715	503.6412	856.95679	.0009169	-.072063
#2	169.1067	-.144020	2.783127	519.0312	857.78280	.0012547	1.543634
#3	165.9645	-6.92031	2.664433	508.3582	857.11760	.0012874	1.682324
Errors	NOCHECK	NOCHECK	NOCHECK	QC Pass	NOCHECK	NOCHECK	NOCHECK
Value				500.0000			
Range				20.00000			

Elem	Na5889	Ni2316	2203/1	2203/2	Pb2203	Se1960	Sb2068
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	19.65177	1.767885	1.453190	2.591089	2.214681	-2.28263	2.292400
SDev	1.26214	.292081	2.346138	1.252023	1.616070	2.75397	3.167785
%RSD	6.422523	16.52148	161.4474	48.32033	72.97081	120.6489	138.1864
#1	18.52122	1.445059	-.935278	1.344136	.5877350	-2.76701	-1.06238
#2	19.42057	2.013848	3.754572	3.848121	3.819652	-4.76227	2.707261
#3	21.01353	1.844748	1.540276	2.581010	2.236655	.6813901	5.232315
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK

Value Range							
Elem	2068/1	2068/2	1960/1	1960/2	Tl1908	V-2924	Zn2138
Units	ppb	ppb	ppb	ppb	ppb	PPM	ppb
Avge	1.275943	2.796987	-5.89285	-.483103	4.735121	-.003797	.2911046
SDev	4.564397	2.548397	7.82338	.650484	3.812152	.000108	.2216305
%RSD	357.7273	91.11222	132.7605	134.6469	80.50800	2.846281	76.13432
#1	-3.07251	-.061457	-5.89843	-1.20661	.5935249	-.003712	.1878796
#2	.8710356	3.620981	-13.7134	-.296082	5.514454	-.003919	.1399155
#3	6.029304	4.831436	1.933318	.0533829	8.097385	-.003761	.5455189
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
Value Range							

Elem	Ti3349	Th4019	U-3856	P-1782	Si2881	Sn1899	Sr4215
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	5.904453	-25.2214	18.63716	11.79359	5.626077	-2.51460	-.208375
SDev	.072445	2.8038	9.07209	15.84452	3.128375	4.99802	.057896
%RSD	1.226953	11.11678	48.67743	134.3486	55.60492	198.7600	27.78463
#1	5.867879	-24.6867	12.15254	27.90654	4.112587	-8.00355	-.271403
#2	5.987894	-22.7234	14.75451	-3.76812	9.223375	-1.31406	-.157559
#3	5.857586	-28.2540	29.00444	11.24234	3.542269	1.773812	-.196162
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
Value Range							

Elem	Zr3496
Units	ppb
Avge	-17.8383
SDev	17.0422
%RSD	95.53733
#1	.3280239
#2	-33.4733
#3	-20.3697
Errors	NOCHECK
Value Range	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	4512	--	--	--	--	--	--
SDev	34.86327	--	--	--	--	--	--
%RSD	.7726135	--	--	--	--	--	--
#1	4539	--	--	--	--	--	--
#2	4473	--	--	--	--	--	--
#3	4525	--	--	--	--	--	--

Method: ALL1 Sample Name: ISB Operator: PMP
Run Time: 07/30/01 20:48:47
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B-2496	Ba4934	Be3130	Bi2230
Units	ppb	PPM	ppb	ppb	ppb	ppb	ppb
Avge	994.2967	99.02839	966.0928	986.1730	496.6904	491.3462	979.3564
SDev	6.6647	.81477	6.8012	9.5003	3.4521	2.6786	8.1085
%RSD	.6702911	.8227599	.7039886	.9633480	.6950255	.5451478	.8279446
#1	991.6233	98.78255	963.4294	978.4660	495.5910	490.4929	973.5754
#2	989.3837	98.36485	961.0263	983.2658	493.9219	489.1982	975.8687
#3	1001.883	99.93777	973.8226	996.7872	500.5584	494.3474	988.6253
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	1000.000	100.0000	1000.000	1000.000	500.0000	500.0000	1000.000
Range	20.00000	20.00000	20.00000	20.00000	20.00000	20.00000	20.00000

Elem	Ca3179	Ca3968	Cd2265	Co2286	Cr2677	Cu3247	Fe2714
Units	PPM	PPM	ppb	ppb	ppb	ppb	PPM
Avge	98.28508	811.73904	955.1934	484.9063	484.3913	497.2857	39.48618
SDev	.54455	.02455	4.9792	3.0903	2.0080	4.0980	.21618
%RSD	.5540518	.2091281	.5212794	.6373020	.4145445	.8240703	.5474773
#1	98.10255	811.73731	953.6994	483.2637	483.9279	495.4600	39.45409
#2	97.85524	811.71541	951.1321	482.9841	482.6555	494.4179	39.28785
#3	98.89745	811.76441	960.7485	488.4710	486.5905	501.9793	39.71661
Errors	QC Pass	NOCHECK	QC Pass	QC Pass	QC Pass	QC Pass	NOCHECK
Value	100.0000		1000.000	500.0000	500.0000	500.0000	
Range	20.00000		20.00000	20.00000	20.00000	20.00000	

Elem	Fe2599	K-7664	Li6707	Mg2790	Mg2852	Mn2576	Mo2020
Units	PPM	ppb	ppb	PPM	PPM	PPM	ppb
Avge	37.87600	5633.233	2180.477	100.8241	90.53153	.5026175	960.1995
SDev	.22775	48.420	21.029	.6790	.61485	.0030120	5.8414
%RSD	.6013001	.8595339	.9644197	.6734622	.6791599	.5992615	.6083561
#1	37.77661	5620.576	2174.134	100.6246	90.26477	.5012118	958.6542
#2	37.71484	5592.398	2163.349	100.2672	90.09509	.5005653	955.2861
#3	38.13655	5686.724	2203.947	101.5805	91.23470	.5060753	966.6583
Errors	QC Pass	QC Pass	QC Pass	QC Pass	NOCHECK	QC Pass	QC Pass
Value	40.00000	5000.000	2000.000	100.0000		.5000000	1000.000
Range	20.00000	20.00000	20.00000	20.00000		20.00000	20.00000

Elem	Na5889	Ni2316	2203/1	2203/2	Pb2203	Se1960	Sb2068
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	1160.684	949.7294	972.2547	964.8074	967.2895	976.5753	978.8851
SDev	10.981	2.6688	1.7474	2.9860	1.4531	6.2635	1.9995
%RSD	.9460884	.2810106	.1797307	.3094926	.1502212	.6413729	.2042582
#1	1156.806	949.3173	973.5881	961.8159	965.7381	970.5242	980.3891
#2	1152.168	947.2906	972.8996	964.8186	967.5117	976.1703	979.6501
#3	1173.078	952.5803	970.2765	967.7878	968.6187	983.0315	976.6161
Errors	QC Pass	QC Pass	NOCHECK	NOCHECK	QC Pass	QC Pass	QC Pass

Value	1000.000	1000.000			1000.000	1000.000	1000.000
Range	20.00000	20.00000			20.00000	20.00000	20.00000
Elem	2068/1	2068/2	1960/1	1960/2	Tl1908	V-2924	Zn2138
Units	ppb	ppb	ppb	ppb	ppb	PPM	ppb
Avge	985.3072	975.6763	973.2731	978.2213	971.8603	.4946263	969.5385
SDev	4.5614	4.3147	4.9281	7.0335	11.8788	.0032835	5.3739
%RSD	.4629413	.4422230	.5063385	.7190101	1.222274	.6638413	.5542728
#1	987.9683	976.6027	967.8881	971.8374	965.5159	.4931345	967.5332
#2	980.0402	979.4524	974.3731	977.0651	964.5007	.4923535	965.4556
#3	987.9130	970.9736	977.5583	985.7612	985.5642	.4983909	975.6267
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	QC Pass	QC Pass	QC Pass
Value					1000.000	.5000000	1000.000
Range					20.00000	20.00000	20.00000
Elem	Ti3349	Th4019	U-3856	P-1782	Si2881	Sn1899	Sr4215
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	980.3741	950.5210	988.6128	1970.927	987.2183	966.3181	985.7673
SDev	6.5275	6.1287	4.2692	13.048	10.4770	4.2475	7.5948
%RSD	.6658199	.6447696	.4318358	.6620327	1.061264	.4395600	.7704421
#1	977.9610	948.3307	990.6996	1958.192	981.8724	967.9866	983.0965
#2	975.3967	945.7883	983.7017	1984.267	980.4927	961.4896	979.8688
#3	987.7646	957.4438	991.4373	1970.322	999.2899	969.4780	994.3367
Errors	QC Pass	NOCHECK	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	1000.000		1000.000	2000.000	1000.000	1000.000	1000.000
Range	20.00000		20.00000	20.00000	20.00000	20.00000	20.00000
Elem	Zr3496						
Units	ppb						
Avge	952.5424						
SDev	1.8336						
%RSD	.1924908						
#1	954.2460						
#2	950.6019						
#3	952.7792						
Errors	QC Pass						
Value	1000.000						
Range	20.00000						

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	4797	--	--	--	--	--	--
SDev	9.900803	--	--	--	--	--	--
%RSD	.2063883	--	--	--	--	--	--
#1	4797	--	--	--	--	--	--
#2	4807	--	--	--	--	--	--
#3	4787	--	--	--	--	--	--

Method: ALL1 Sample Name: CCV Operator: PMP
Run Time: 07/30/01 20:58:09
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B-2496	Ba4934	Be3130	Bi2230
Units	ppb	PPM	ppb	ppb	ppb	ppb	ppb
Avge	491.6962	4.984121	493.3031	498.5309	500.3729	493.8850	497.7384
SDev	1.2717	.009031	5.7960	1.6069	.4479	.6941	3.0103
%RSD	.2586405	.1811998	1.174928	.3223267	.0895056	.1405287	.6047884
#1	492.7189	4.994446	487.4122	499.2747	500.6009	494.4235	500.6594
#2	492.0974	4.980229	498.9992	496.6869	500.6610	494.1299	497.9097
#3	490.2722	4.977688	493.4978	499.6312	499.8569	493.1017	494.6462
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	500.0000	5.000000	500.0000	500.0000	500.0000	500.0000	500.0000
Range	10.00000	10.00000	10.00000	10.00000	10.00000	10.00000	10.00000

Elem	Ca3179	Ca3968	Cd2265	Co2286	Cr2677	Cu3247	Fe2714
Units	PPM	PPM	ppb	ppb	ppb	ppb	PPM
Avge	2.023900	1.980405	497.4500	500.5573	498.4474	500.0165	5.048431
SDev	.002128	.004745	1.3768	.2422	.6929	.8868	.010849
%RSD	.1051638	.2396096	.2767620	.0483866	.1390090	.1773526	.2149076
#1	2.026091	1.985521	497.6929	500.6486	498.4484	500.2432	5.060518
#2	2.023769	1.979546	498.6891	500.2827	499.1398	500.7680	5.045242
#3	2.021840	1.976148	495.9679	500.7406	497.7540	499.0384	5.039534
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	2.000000	2.000000	500.0000	500.0000	500.0000	500.0000	5.000000
Range	10.00000	10.00000	10.00000	10.00000	10.00000	10.00000	10.00000

Elem	Fe2599	K-7664	Li6707	Mg2790	Mg2852	Mn2576	Mo2020
Units	PPM	ppb	ppb	PPM	PPM	PPM	ppb
Avge	4.976698	5120.290	3925.237	4.020992	3.995474	5.100911	499.5344
SDev	.005301	14.550	7.459	.007349	.008359	.005221	1.7487
%RSD	.1065093	.2841591	.1900320	.1827700	.2092079	.1023454	.3500740
#1	4.972561	5136.176	3932.783	4.023724	4.002770	5.104209	500.7552
#2	4.982673	5107.611	3925.061	4.026585	3.997297	5.103632	500.3169
#3	4.974860	5117.083	3917.868	4.012669	3.986353	5.094892	497.5310
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	5.000000	5000.000	4000.000	4.000000	4.000000	5.000000	500.0000
Range	10.00000	10.00000	10.00000	10.00000	10.00000	10.00000	10.00000

Elem	Na5889	Ni2316	2203/1	2203/2	Pb2203	Se1960	Sb2068
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	5087.750	493.1179	499.3816	492.8021	494.9955	496.0656	501.7416
SDev	6.020	.7006	3.6382	3.8369	3.3132	2.7065	1.6155
%RSD	.1183173	.1420715	.7285392	.7785875	.6693442	.5455843	.3219747
#1	5094.565	493.7870	495.7509	492.9330	493.8736	493.4554	503.4574
#2	5085.531	493.1771	503.0272	496.5718	498.7240	495.8823	500.2498
#3	5083.155	492.3896	499.3668	488.9014	492.3888	498.8590	501.5178
Errors	QC Pass	QC Pass	NOCHECK	NOCHECK	QC Pass	QC Pass	QC Pass

Value	5000.000	500.0000			500.0000	500.0000	500.0000
Range	10.00000	10.00000			10.00000	10.00000	10.00000
Elem	2068/1	2068/2	1960/1	1960/2	T11908	V-2924	Zn2138
Units	ppb	ppb	ppb	ppb	ppb	PPM	ppb
Avge	501.8397	501.6902	501.2021	493.4986	503.7512	5.058265	497.8571
SDev	2.0167	3.2070	4.0591	3.5753	4.7701	.002967	.2721
%RSD	.4018566	.6392484	.8098715	.7244903	.9469127	.0586636	.0546465
#1	500.9985	504.6825	497.0780	491.6444	498.8208	5.059882	498.1533
#2	504.1408	498.3047	505.1929	491.2312	504.0898	5.060073	497.7997
#3	500.3799	502.0833	501.3355	497.6202	508.3430	5.054841	497.6184
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	QC Pass	QC Pass	QC Pass
Value					500.0000	5.000000	500.0000
Range					10.00000	10.00000	10.00000
Elem	Ti3349	Th4019	U-3856	P-1782	Si2881	Sn1899	Sr4215
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	501.1820	491.8532	527.4302	1008.734	526.1669	497.0671	498.2690
SDev	.4663	4.7967	.9938	26.973	2.6651	3.9645	.4400
%RSD	.0930360	.9752270	.1884272	2.673931	.5065177	.7975858	.0883157
#1	501.1318	490.8090	528.2046	1039.252	527.0165	501.3445	498.6414
#2	501.6714	487.6647	527.7764	998.8657	528.3036	496.3410	498.3821
#3	500.7429	497.0860	526.3096	988.0857	523.1805	493.5158	497.7834
Errors	QC Pass	NOCHECK	NOCHECK	NOCHECK	QC Pass	QC Pass	QC Pass
Value	500.0000				500.0000	500.0000	500.0000
Range	10.00000				10.00000	10.00000	10.00000
Elem	Zr3496						
Units	ppb						
Avge	481.7191						
SDev	2.3447						
%RSD	.4867328						
#1	482.1588						
#2	479.1857						
#3	483.8128						
Errors	NOCHECK						
Value							
Range							

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	4884	--	--	--	--	--	--
SDev	10.12639	--	--	--	--	--	--
%RSD	.2073239	--	--	--	--	--	--
#1	4876	--	--	--	--	--	--
#2	4881	--	--	--	--	--	--
#3	4896	--	--	--	--	--	--

Analysis Report Blank Sample 07/30/01 09:14:22 PM page 1

Method: ALL1 Sample Name: CCB Operator: PMP
Run Time: 07/30/01 21:07:13
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B-2496	Ba4934	Be3130	Bi2230
Units	ppb	PPM	ppb	ppb	ppb	ppb	ppb
Avge	-.343101	-.012219	-1.79559	.5731035	.0311771	-.014432	-.970909
SDev	.419233	.003889	2.69089	1.193928	.0425949	.016554	2.274625
%RSD	122.1895	31.83001	149.8610	208.3268	136.6226	114.6980	234.2780
#1	-.803531	-.007741	-1.77532	.5262988	.0796124	-.015445	1.653921
#2	.0165713	-.014161	.8851045	1.789746	.0143652	.0026042	-2.20194
#3	-.242342	-.014754	-4.49656	-.596734	-.000446	-.030457	-2.36470
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	5.000000	.1462000	39.60000	266.1000	1.800000	1.600000	55.40000
Low	-5.00000	-.146200	-39.6000	-266.100	-1.80000	-1.60000	-55.4000

Elem	Ca3179	Ca3968	Cd2265	Co2286	Cr2677	Cu3247	Fe2714
Units	PPM	PPM	ppb	ppb	ppb	ppb	PPM
Avge	.0102254	.0026257	-.046178	.2489424	.4163428	.0718622	.0079081
SDev	.0009749	.0011275	.072987	.5489666	.2158233	.1645473	.0111659
%RSD	9.533874	42.94215	158.0549	220.5196	51.83788	228.9762	141.1962
#1	.0113381	.0038775	-.004287	.3042592	.4197247	.2449669	.0030896
#2	.0095212	.0023096	-.003792	.7681562	.6304554	-.082527	-.000039
#3	.0098169	.0016899	-.130455	-.325588	.1988485	.0531471	.0206742
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.3610000	.4704000	4.700000	4.500000	7.000000	15.00000	.1694000
Low	-.361000	-.470400	-4.70000	-4.50000	-7.00000	-15.0000	-.169400

Elem	Fe2599	K-7664	Li6707	Mg2790	Mg2852	Mn2576	Mo2020
Units	PPM	ppb	ppb	PPM	PPM	PPM	ppb
Avge	.0007211	1.533132	.3715928	-.003535	.0012986	.0003249	-.227624
SDev	.0008902	7.329851	.2319792	.002000	.0011872	.0001861	.179690
%RSD	123.4504	478.0965	62.42834	56.58619	91.42054	57.29966	78.94158
#1	.0015004	9.779032	.6271030	-.004816	.0025843	.0005282	-.425765
#2	.0009119	-.937372	.3134816	-.001230	.0010680	.0002833	-.181881
#3	-.000249	-4.24226	.1741939	-.004558	.0002437	.0001630	-.075227
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.0736000	186.2000	2.700000	.1118000	.0736000	.0078000	12.70000
Low	-.073600	-186.200	-2.70000	-.111800	-.073600	-.007800	-12.7000

Elem	Na5889	Ni2316	2203/1	2203/2	Pb2203	Se1960	Sb2068
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	-3.36628	.3835087	.0763477	-.888486	-.565160	.5251395	.8771294
SDev	.56475	.8042116	1.460196	.915924	.424538	2.094607	1.561117
%RSD	16.77679	209.6984	1912.561	103.0882	75.11817	398.8668	177.9803
#1	-2.87296	1.178862	.1079520	-1.63356	-1.05160	-1.81581	.1029290
#2	-3.24359	.4009408	1.520485	-1.16600	-.269367	2.222238	-.145575
#3	-3.98230	-.429277	-1.39939	.1341014	-.374512	1.168994	2.674034
Errors	LC Pass	LC Pass	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass

High	284.8000	25.30000			47.00000	65.90000	26.90000
Low	-284.800	-25.3000			-47.0000	-65.9000	-26.9000
Elem	2068/1	2068/2	1960/1	1960/2	T11908	V-2924	Zn2138
Units	pph	pph	pph	pph	pph	PPM	pph
Avge	-1.89810	2.260220	.4786284	.5458167	1.010130	.0003743	.2434019
SDev	1.79668	1.623291	1.870162	2.269214	1.899796	.0005241	.0031204
%RSD	94.65689	71.82003	390.7337	415.7466	188.0745	140.0097	1.281985
#1	-1.74404	1.022587	-1.67744	-1.88734	.2203558	.0006775	.2411447
#2	-3.76685	1.659909	1.451670	2.604508	3.177421	.0006763	.2469627
#3	-.183408	4.098164	1.661658	.9202786	-.367388	-.000231	.2420984
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass
High					54.80000	.0069000	52.30000
Low					-54.8000	-.006900	-52.3000
Elem	Ti3349	Th4019	U-3856	P-1782	Si2881	Sn1899	Sr4215
Units	pph	pph	pph	pph	pph	pph	pph
Avge	.1642439	-.930396	-4.11797	-5.08100	2.627551	1.722709	.0424086
SDev	.1171826	1.765270	9.10099	21.54039	1.577716	1.507380	.0252703
%RSD	71.34671	189.7332	221.0069	423.9399	60.04509	87.50055	59.58758
#1	.2627439	-2.95116	6.164129	-26.5853	3.134367	3.021287	.0705275
#2	.1953374	-.151469	-7.37836	16.49530	3.889577	2.077145	.0215976
#3	.0346504	.3114385	-11.1397	-5.15299	.8587094	.0696945	.0351008
Errors	LC Pass	NOCHECK	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass
High	3.500000				468.5000	70.00000	1.200000
Low	-3.50000				-468.500	-70.0000	-1.20000
Elem	Zr3496						
Units	pph						
Avge	-25.1930						
SDev	5.5793						
%RSD	22.14621						
#1	-22.1965						
#2	-21.7522						
#3	-31.6303						
Errors	NOCHECK						
High							
Low							

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	4912	--	--	--	--	--	--
SDev	9.961467	--	--	--	--	--	--
%RSD	.2027903	--	--	--	--	--	--
#1	4915	--	--	--	--	--	--
#2	4921	--	--	--	--	--	--
#3	4901	--	--	--	--	--	--

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Method: ALL1 Sample Name: 01L0468-MB1 S Operator: PMP
Run Time: 07/30/01 21:14:34 PBW168 aem 8/1/01
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B-2496	Ba4934	Be3130	Bi2230
Units	ppb	PPM	ppb	ppb	ppb	ppb	ppb
Avge	-.005681	-.004784	-1.40878	13.21383	.4551965	-.099957	-2.91126
SDev	.484103	.003875	2.12435	.98675	.0389326	.026093	.78211
%RSD	8521.510	80.99029	150.7941	7.467577	8.552924	26.10469	26.86485
#1	.0082929	-.000683	.5827935	13.68694	.4940631	-.081256	-3.49203
#2	.4712841	-.005286	-1.16436	13.87495	.4553281	-.129766	-2.02194
#3	-.496620	-.008383	-3.64477	12.07961	.4161982	-.088849	-3.21982
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	5.000000	.1462000	39.60000	266.1000	1.800000	1.600000	55.40000
Low	-5.00000	-.146200	-39.6000	-266.100	-1.80000	-1.60000	-55.4000

Elem	Ca3179	Ca3968	Cd2265	Co2286	Cr2677	Cu3247	Fe2714
Units	PPM	PPM	ppb	ppb	ppb	ppb	PPM
Avge	.0220599	.0101219	-.250176	-.187050	.6015076	.2675560	.0272713
SDev	.0006568	.0002212	.036641	.173645	.3011102	.3279156	.0118411
%RSD	2.977185	2.185433	14.64617	92.83340	50.05925	122.5596	43.41964
#1	.0216198	.0103268	-.211501	-.149957	.4737121	.1743091	.0312590
#2	.0228148	.0101517	-.254656	-.034948	.9454386	.6319961	.0366037
#3	.0217452	.0098874	-.284372	-.376244	.3853722	-.003637	.0139511
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.3610000	.4704000	4.700000	4.500000	7.000000	15.00000	.1694000
Low	-.361000	-.470400	-4.70000	-4.50000	-7.00000	-15.0000	-.169400

Elem	Fe2599	K-7664	Li6707	Mg2790	Mg2852	Mn2576	Mo2020
Units	PPM	ppb	ppb	PPM	PPM	PPM	ppb
Avge	.0088280	17.14239	-.011526	.0065890	.0046866	.0001204	1.094938
SDev	.0004318	1.02913	.033905	.0059840	.0003630	.0000940	.543009
%RSD	4.891251	6.003394	294.1470	90.81832	7.745393	78.06195	49.59264
#1	.0092743	17.09705	.0253891	.0034904	.0049459	.0001015	1.368649
#2	.0087974	18.19343	-.018694	.0134869	.0048422	.0002223	1.446620
#3	.0084123	16.13668	-.041274	.0027897	.0042718	.0000372	.4695435
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.0736000	186.2000	2.700000	.1118000	.0736000	.0078000	12.70000
Low	-.073600	-186.200	-2.70000	-.111800	-.073600	-.007800	-12.7000

Elem	Na5889	Ni2316	2203/1	2203/2	Pb2203	Se1960	Sb2068
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	20.97817	-.209720	.6275935	1.017741	.8898504	-2.43678	1.012609
SDev	.48163	.328778	1.079929	2.646385	1.405548	2.16201	1.598471
%RSD	2.295849	156.7697	172.0745	260.0253	157.9533	88.72395	157.8567
#1	21.09224	.1693143	1.330965	-.673031	-.003661	-1.70201	2.842073
#2	21.39252	-.380679	1.167646	-.341259	.1632384	-.737926	-.114036
#3	20.44975	-.417796	-.615831	4.067514	2.509974	-4.87042	.3097909
Errors	LC Pass	LC Pass	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass

High	284.8000	25.30000			47.00000	65.90000	26.90000
Low	-284.800	-25.3000			-47.0000	-65.9000	-26.9000
Elem	2068/1	2068/2	1960/1	1960/2	Ti1908	V-2924	Zn2138
Units	pph	pph	pph	pph	pph	PPM	pph
Avge	-1.83763	2.433161	-8.17729	.4267297	.6125875	.0000089	.4458315
SDev	1.46954	1.712632	2.81384	1.866354	2.199189	.0003944	.1467957
%RSD	79.96903	70.38711	34.41043	437.3622	359.0000	4430.380	32.92629
#1	-.304865	4.410736	-7.71435	1.297206	-.662587	.0004643	.3581911
#2	-3.23450	1.441420	-5.62362	1.698823	3.151984	-.000218	.3639998
#3	-1.97354	1.447328	-11.1939	-1.71584	-.651635	-.000219	.6153034
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass
High					54.80000	.0069000	52.30000
Low					-54.8000	-.006900	-52.3000
Elem	Ti3349	Th4019	U-3856	P-1782	Si2881	Sn1899	Sr4215
Units	pph	pph	pph	pph	pph	pph	pph
Avge	.3261807	-1.08405	-6.95723	13.24165	155.2539	10.69401	.1562527
SDev	.0365005	3.82813	7.33582	15.00829	4.7705	2.02947	.0202268
%RSD	11.19027	353.1324	105.4416	113.3415	3.072680	18.97765	12.94492
#1	.2939642	.7773566	-6.19268	-3.16792	157.1640	8.843556	.1720721
#2	.3658231	1.457417	-.033634	26.27275	158.7733	12.86448	.1334624
#3	.3187548	-5.48692	-14.6454	16.62013	149.8244	10.37401	.1632237
Errors	LC Pass	NOCHECK	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass
High	3.500000				468.5000	70.00000	1.200000
Low	-3.50000				-468.500	-70.0000	-1.20000
Elem	Zr3496						
Units	pph						
Avge	-14.8466						
SDev	14.7259						
%RSD	99.18687						
#1	-17.7177						
#2	-27.9256						
#3	1.103378						
Errors	NOCHECK						
High							
Low							

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	4930	--	--	--	--	--	--
SDev	31.47237	--	--	--	--	--	--
%RSD	.6383500	--	--	--	--	--	--
#1	4904	--	--	--	--	--	--
#2	4921	--	--	--	--	--	--
#3	4965	--	--	--	--	--	--

Method: ALL1 Sample Name: 01L0468-LC1 Operator: PMP
Run Time: 07/30/01 21:21:45
Comment:
Mode: CONC Corr. Factor: 1

LCS5168

Elem	Ag3280	Al3082	As1890	B-2496	Ba4934	Be3130	Bi2230
Units	ppb	PPM	ppb	ppb	ppb	ppb	ppb
Avge	486.7330	5.111536	9365.014	4834.567	4957.866	241.5259	-3.76023
SDev	1.3261	.015939	27.380	26.147	15.709	.9207	1.87914
%RSD	.2724542	.3118242	.2923630	.5408311	.3168428	.3812037	49.97407
#1	485.2020	5.098043	9333.409	4805.244	4940.609	240.5184	-2.08287
#2	487.4736	5.107442	9380.082	4843.003	4961.658	241.7355	-3.40685
#3	487.5234	5.129123	9381.549	4855.455	4971.332	242.3237	-5.79098
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	NOCHECK
High	600.0000	6.000000	12000.00	6000.000	6000.000	300.0000	
Low	400.0000	4.000000	8000.000	4000.000	4000.000	200.0000	

Elem	Ca3179	Ca3968	Cd2265	Co2286	Cr2677	Cu3247	Fe2714
Units	PPM	PPM	ppb	ppb	ppb	ppb	PPM
Avge	24.40282	26.11774	244.1865	2489.539	500.8981	1254.476	5.086175
SDev	.08463	.07846	1.0491	6.520	1.8337	5.339	.028357
%RSD	.3468113	.3003932	.4296487	.2618981	.3660824	.4256222	.5575323
#1	24.30806	26.03059	243.4776	2482.499	498.8042	1248.585	5.056015
#2	24.42950	26.13989	245.3917	2490.749	501.6728	1255.843	5.090211
#3	24.47089	26.18275	243.6902	2495.369	502.2172	1258.998	5.112297
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	30.00000	30.00000	300.0000	3000.000	600.0000	1500.000	6.000000
Low	20.00000	20.00000	200.0000	2000.000	400.0000	1000.000	4.000000

Elem	Fe2599	K-7664	Li6707	Mg2790	Mg2852	Mn2576	Mo2020
Units	PPM	ppb	ppb	PPM	PPM	PPM	ppb
Avge	5.014847	25890.13	5050.085	25.07243	24.63793	.7715402	4980.711
SDev	.020399	78.97	15.897	.09147	.12099	.0026561	24.526
%RSD	.4067758	.3050032	.3147897	.3648146	.4910729	.3442537	.4924134
#1	4.992662	25798.95	5032.779	24.96818	24.50238	.7685420	4952.498
#2	5.019083	25935.59	5053.439	25.10990	24.67640	.7724796	4992.681
#3	5.032795	25935.85	5064.038	25.13922	24.73500	.7735988	4996.953
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	6.000000	30000.00	6000.000	30.00000	30.00000	.9000000	6000.000
Low	4.000000	20000.00	4000.000	20.00000	20.00000	.6000000	4000.000

Elem	Na5889	Ni2316	2203/1	2203/2	Pb2203	Se1960	Sb2068
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	24715.03	1945.820	2441.224	2404.045	2416.427	9014.531	2926.903
SDev	85.71	7.616	4.541	6.835	5.004	8.924	3.593
%RSD	.3467854	.3914281	.1860195	.2843188	.2070747	.0989924	.1227483
#1	24624.09	1937.161	2437.476	2397.778	2410.999	9009.328	2923.710
#2	24726.68	1948.815	2439.922	2411.333	2420.856	9009.430	2926.206
#3	24794.32	1951.484	2446.274	2403.024	2417.428	9024.835	2930.793
Errors	LC Pass	LC Pass	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass

High	30000.00	2400.000			3000.000	12000.00	3600.000
Low	20000.00	1600.000			2000.000	8000.000	2400.000

Elem	2068/1	2068/2	1960/1	1960/2	Tl1908	V-2924	Zn2138
Units	ppb	ppb	ppb	ppb	ppb	PPM	ppb
Avge	2937.231	2921.745	9021.871	9010.863	9702.810	2.578919	968.8817
SDev	9.120	2.458	8.177	13.643	46.423	.009411	3.5706
%RSD	.3104872	.0841365	.0906347	.1514052	.4784500	.3649026	.3685280
#1	2926.957	2922.087	9029.574	8999.218	9652.739	2.568476	965.1166
#2	2940.368	2919.133	9013.291	9007.499	9711.266	2.581540	969.3091
#3	2944.368	2924.014	9022.748	9025.874	9744.423	2.586742	972.2194
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass
High					12000.00	3.000000	1200.000
Low					8000.000	2.000000	800.0000

Elem	Ti3349	Th4019	U-3856	P-1782	Si2881	Sn1899	Sr4215
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	5006.316	-9.04553	8.752613	36.17325	H6507.109	4827.742	4920.692
SDev	16.719	2.57081	6.286100	7.48363	22.869	19.490	15.509
%RSD	.3339612	28.42076	71.81969	20.68830	.3514406	.4037118	.3151860
#1	4987.763	-9.17583	14.03096	44.73900	H6486.042	4817.393	4903.606
#2	5010.972	-6.41205	10.42845	32.87817	H6503.855	4815.610	4924.588
#3	5020.215	-11.5487	1.798428	30.90259	H6531.431	4850.224	4933.882
Errors	LC Pass	NOCHECK	NOCHECK	NOCHECK	LC High	LC Pass	LC Pass
High	6000.000				6000.000	6000.000	6000.000
Low	4000.000				4000.000	4000.000	4000.000

Elem	Zr3496
Units	ppb
Avge	-14.3429
SDev	14.5505
%RSD	101.4471
#1	2.350761
#2	-21.0445
#3	-24.3350
Errors	NOCHECK
High	
Low	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	4864	--	--	--	--	--	--
SDev	2.778672	--	--	--	--	--	--
%RSD	.0571244	--	--	--	--	--	--
#1	4866	--	--	--	--	--	--
#2	4861	--	--	--	--	--	--
#3	4866	--	--	--	--	--	--

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Method: ALL1 Sample Name: 0107L388-001 Operator: PMP
Run Time: 07/30/01 21:34:37
Comment:
Mode: CONC Corr. Factor: 1

RC6D-01-0003 01

Elem	Ag3280	Al3082	As1890	B-2496	Ba4934	Be3130	Bi2230
Units	ppb	PPM	ppb	ppb	ppb	ppb	ppb
Avge	-1.47089	57.39298	13.80688	27.65558	1422.412	2.953971	4.197405
SDev	.14843	.23939	.54715	.39214	7.570	.019844	1.639712
%RSD	10.09126	.4171062	3.962845	1.417935	.5321602	.6717768	39.06490
#1	-1.49633	57.16930	13.70929	27.38305	1415.334	2.944329	3.316925
#2	-1.31139	57.36415	13.31510	28.10500	1421.510	2.940790	3.186018
#3	-1.60497	57.64547	14.39626	27.47868	1430.392	2.976794	6.089272
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10000.00	1000.000	50000.00	50000.00	50000.00	10000.00	100000.0
Low	-5.00000	-.146200	-39.6000	-266.100	-1.80000	-1.60000	-55.4000

Elem	Ca3179	Ca3968	Cd2265	Co2286	Cr2677	Cu3247	Fe2714
Units	PPM	PPM	ppb	ppb	ppb	ppb	PPM
Avge	44.37260	S11.71529	1.693288	33.45047	67.85483	82.62723	95.47959
SDev	.12071	.04141	.034423	.22700	.41812	.47071	.29716
%RSD	.2720304	.3534542	2.032916	.6786110	.6161977	.5696752	.3112290
#1	44.25079	S11.67676	1.710025	33.20019	67.46295	82.40881	95.18637
#2	44.37485	S11.71005	1.653697	33.50817	67.80654	82.30541	95.47186
#3	44.49217	S11.75907	1.716143	33.64305	68.29500	83.16747	95.78054
Errors	LC Pass	LC High	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	500.0000	10.00000	50000.00	100000.0	100000.0	100000.0	500.0000
Low	-.361000	-.470400	-4.70000	-4.50000	-7.00000	-15.0000	-.169400

Elem	Fe2599	K-7664	Li6707	Mg2790	Mg2852	Mn2576	Mo2020
Units	PPM	ppb	ppb	PPM	PPM	PPM	ppb
Avge	H88.52685	8425.705	82.11716	18.99785	18.83124	2.029027	8.064012
SDev	.36294	28.690	.30828	.08981	.07735	.007507	.896506
%RSD	.4099804	.3405007	.3754109	.4727241	.4107327	.3699980	11.11737
#1	H88.16059	8399.936	81.83140	18.90752	18.74666	2.021643	7.442753
#2	H88.53358	8420.559	82.07624	18.99890	18.84868	2.028786	7.657527
#3	H88.88638	8456.619	82.44386	19.08712	18.89838	2.036652	9.091754
Errors	LC High	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	50.00000	100000.0	40000.00	500.0000	20.00000	40.00000	50000.00
Low	-.073600	-186.200	-2.70000	-.111800	-.073600	-.007800	-12.7000

Elem	Na5889	Ni2316	2203/1	2203/2	Pb2203	Se1960	Sb2068
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	2220.827	59.18428	66.69943	67.07365	66.95182	-.260586	.0686966
SDev	7.978	.39070	3.23058	2.51051	1.66517	.836285	1.872854
%RSD	.3592258	.6601403	4.843493	3.742917	2.487113	320.9252	2726.267
#1	2214.370	58.75021	66.00687	69.94020	68.63303	-.088844	1.415064
#2	2218.365	59.50778	70.22013	65.26640	66.91924	-1.16941	-2.07011
#3	2229.745	59.29485	63.87130	66.01437	65.30318	.4764963	.8611367
Errors	LC Pass	LC Pass	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass

High	100000.0	100000.0			400000.0	100000.0	100000.0
Low	-284.800	-25.3000			-47.0000	-65.9000	-26.9000
Elem	2068/1	2068/2	1960/1	1960/2	Tl1908	V-2924	Zn2138
Units	ppb	ppb	ppb	ppb	ppb	PPM	ppb
Avge	-1.72767	.9629927	-1.49197	.3516426	6.928353	.2157714	293.8616
SDev	3.66355	2.021335	5.59286	3.712280	.946575	.0008673	1.0415
%RSD	212.0515	209.9013	374.8640	1055.697	13.66234	.4019700	.3544349
#1	-2.27448	3.254638	-7.15056	3.433987	7.968192	.2147699	292.7166
#2	-5.08709	-.566321	4.032749	-3.76933	6.116791	.2162672	294.1153
#3	2.178552	.2006619	-1.35810	1.390274	6.700077	.2162772	294.7528
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass
High					100000.0	200.0000	10000.00
Low					-54.8000	-.006900	-52.3000
Elem	Ti3349	Th4019	U-3856	P-1782	Si2881	Sn1899	Sr4215
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	3799.696	15.19754	-7.20942	3610.406	1957.981	17.76533	270.9644
SDev	17.647	1.52960	4.30528	5.642	16.261	.76477	1.2357
%RSD	.4644225	10.06480	59.71736	.1562645	.8305148	4.304835	.4560485
#1	3782.567	13.52352	-11.7051	3611.836	1941.007	16.89142	269.7415
#2	3798.701	15.54679	-3.12395	3604.187	1959.514	18.31220	270.9391
#3	3817.819	16.52232	-6.79919	3615.195	1973.421	18.09237	272.2126
Errors	LC Pass	NOCHECK	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass
High	100000.0				100000.0	100000.0	50000.00
Low	-3.50000				-468.500	-70.0000	-1.20000
Elem	Zr3496						
Units	ppb						
Avge	92.50188						
SDev	8.04294						
%RSD	8.694899						
#1	101.7609						
#2	87.24603						
#3	88.49873						
Errors	NOCHECK						
High							
Low							

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	4916	--	--	--	--	--	--
SDev	17.18015	--	--	--	--	--	--
%RSD	.3494614	--	--	--	--	--	--
#1	4932	--	--	--	--	--	--
#2	4918	--	--	--	--	--	--
#3	4898	--	--	--	--	--	--

Method: ALL1 Sample Name: 0107L388-001L Operator: PMP
Run Time: 07/30/01 21:43:48
Comment:
Mode: CONC Corr. Factor: 1

0003 OIL

Elem	Ag3280	Al3082	As1890	B-2496	Ba4934	Be3130	Bi2230
Units	ppb	PPM	ppb	ppb	ppb	ppb	ppb
Avge	-.586255	11.76186	1.634163	7.346623	293.8605	.5335313	.3870332
SDev	.162052	.04417	1.223450	.766221	1.2500	.0316929	2.531953
%RSD	27.64181	.3755500	74.86710	10.42956	.4253695	5.940211	654.1952
#1	-.642687	11.71151	.9526362	6.979821	292.5696	.5307604	3.259547
#2	-.712546	11.77996	.9032587	8.227295	295.0651	.5033148	-1.52069
#3	-.403533	11.79411	3.046594	6.832754	293.9468	.5665187	-.577754
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10000.00	1000.000	50000.00	50000.00	50000.00	10000.00	100000.0
Low	-5.00000	-.146200	-39.6000	-266.100	-1.80000	-1.60000	-55.4000

Elem	Ca3179	Ca3968	Cd2265	Co2286	Cr2677	Cu3247	Fe2714
Units	PPM	PPM	ppb	ppb	ppb	ppb	PPM
Avge	9.299177	9.285440	.1982606	6.857521	14.64956	16.79018	19.96992
SDev	.028678	.037094	.1851950	.448000	.25763	.16626	.06452
%RSD	.3083974	.3994876	93.40990	6.532967	1.758648	.9901966	.3230707
#1	9.272419	9.245399	.3029308	7.189936	14.93165	16.71186	19.91005
#2	9.329452	9.318632	-.015568	7.034575	14.59033	16.98113	20.03825
#3	9.295661	9.292290	.3074193	6.348051	14.42670	16.67755	19.96148
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	500.0000	10.00000	50000.00	100000.0	100000.0	100000.0	500.0000
Low	-.361000	-.470400	-4.70000	-4.50000	-7.00000	-15.0000	-.169400

Elem	Fe2599	K-7664	Li6707	Mg2790	Mg2852	Mn2576	Mo2020
Units	PPM	ppb	ppb	PPM	PPM	PPM	ppb
Avge	19.41482	1629.737	16.45546	3.954506	3.910820	.4241555	1.793557
SDev	.07624	2.647	.05419	.007006	.016169	.0011839	.370198
%RSD	.3926932	.1623973	.3293298	.1771528	.4134477	.2791170	20.64041
#1	19.34158	1631.597	16.39334	3.947824	3.892268	.4230389	2.175603
#2	19.49374	1630.907	16.48003	3.953897	3.921919	.4253968	1.768598
#3	19.40913	1626.707	16.49302	3.961796	3.918272	.4240307	1.436471
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	50.00000	100000.0	40000.00	500.0000	20.00000	40.00000	50000.00
Low	-.073600	-186.200	-2.70000	-.111800	-.073600	-.007800	-12.7000

Elem	Na5889	Ni2316	2203/1	2203/2	Pb2203	Se1960	Sb2068
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	430.0198	12.80669	12.61466	14.50779	13.87947	.1025983	1.397684
SDev	2.0896	.32211	1.62417	1.39521	.96907	1.346311	1.399706
%RSD	.4859340	2.515155	12.87529	9.616990	6.982068	1312.216	100.1447
#1	427.6180	12.67057	10.86614	15.40380	13.89499	1.542342	2.958257
#2	431.4210	12.57499	12.90158	12.90026	12.90273	-1.12512	.2532047
#3	431.0202	13.17451	14.07625	15.21930	14.84070	-.109428	.9815905
Errors	LC Pass	LC Pass	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass

High	100000.0	100000.0			400000.0	100000.0	100000.0
Low	-284.800	-25.3000			-47.0000	-65.9000	-26.9000
Elem	2068/1	2068/2	1960/1	1960/2	Tl1908	V-2924	Zn2138
Units	ppb	ppb	ppb	ppb	ppb	PPM	ppb
Avge	-1.58099	2.882247	-1.40245	.8513524	1.420572	.0444981	62.01498
SDev	2.40889	1.500490	4.04011	2.494666	1.685249	.0003256	.23034
%RSD	152.3663	52.05973	288.0754	293.0239	118.6317	.7317018	.3714325
#1	-.173607	4.519408	1.326351	1.647439	3.335940	.0444677	61.75383
#2	-4.36247	2.554838	.5099989	-1.94420	.7605240	.0448378	62.18927
#3	-.206887	1.572496	-6.04370	2.850817	.1652510	.0441887	62.10183
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass
High					100000.0	200.0000	10000.00
Low					-54.8000	-.006900	-52.3000
Elem	Ti3349	Th4019	U-3856	P-1782	Si2881	Sn1899	Sr4215
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	787.1085	-.353732	-10.8684	758.6654	414.6854	2.015937	55.92552
SDev	2.8187	6.351451	3.7942	16.8978	2.3582	1.378246	.21223
%RSD	.3581143	1795.553	34.91019	2.227303	.5686734	68.36752	.3794816
#1	784.1607	4.322757	-10.0183	741.2909	414.1977	.5829719	55.69585
#2	789.7775	2.200749	-15.0156	775.0422	417.2493	2.132820	56.11438
#3	787.3874	-7.58470	-7.57144	759.6631	412.6091	3.332021	55.96634
Errors	LC Pass	NOCHECK	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass
High	100000.0				100000.0	100000.0	50000.00
Low	-3.50000				-468.500	-70.0000	-1.20000
Elem	Zr3496						
Units	ppb						
Avge	-7.07113						
SDev	2.37548						
%RSD	33.59407						
#1	-6.55754						
#2	-9.66140						
#3	-4.99446						
Errors	NOCHECK						
High							
Low							

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	4919	--	--	--	--	--	--
SDev	10.24308	--	--	--	--	--	--
%RSD	.2082434	--	--	--	--	--	--
#1	4931	--	--	--	--	--	--
#2	4914	--	--	--	--	--	--
#3	4912	--	--	--	--	--	--

Method: ALL1 Sample Name: 0107L388-001R Operator: PMP
Run Time: 07/30/01 21:52:42
Comment:
Mode: CONC Corr. Factor: 1

0003 OID

Elem	Ag3280	Al3082	As1890	B-2496	Ba4934	Be3130	Bi2230
Units	ppb	PPM	ppb	ppb	ppb	ppb	ppb
Avge	-1.67322	62.97984	15.95826	31.63261	1484.032	2.967245	1.757794
SDev	.06852	.24039	.79817	.31116	4.209	.086219	3.192525
%RSD	4.094975	.3816917	5.001582	.9836642	.2836338	2.905680	181.6211
#1	-1.66928	63.23591	16.00985	31.81795	1488.490	3.019547	-1.62370
#2	-1.74363	62.94456	16.72937	31.80652	1483.481	3.014458	2.177192
#3	-1.60676	62.75903	15.13555	31.27338	1480.126	2.867732	4.719892
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10000.00	1000.000	50000.00	50000.00	50000.00	10000.00	100000.0
Low	-5.00000	-.146200	-39.6000	-266.100	-1.80000	-1.60000	-55.4000

Elem	Ca3179	Ca3968	Cd2265	Co2286	Cr2677	Cu3247	Fe2714
Units	PPM	PPM	ppb	ppb	ppb	ppb	PPM
Avge	41.23231	823.27204	2.297929	32.25899	72.57349	83.53869	107.4988
SDev	.10180	20.02794	.218482	.26464	.26174	.42743	.1983
%RSD	.2469010	86.06007	9.507778	.8203689	.3606569	.5116513	.1844762
#1	41.29948	811.71111	2.049694	32.31995	72.87528	83.83427	107.6514
#2	41.28228	811.70671	2.461021	32.48784	72.40844	83.73319	107.5703
#3	41.11518	H46.39831	2.383070	31.96919	72.43674	83.04860	107.2747
Errors	LC Pass	LC High	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	500.0000	10.00000	50000.00	100000.0	100000.0	100000.0	500.0000
Low	-.361000	-.470400	-4.70000	-4.50000	-7.00000	-15.0000	-.169400

Elem	Fe2599	K-7664	Li6707	Mg2790	Mg2852	Mn2576	Mo2020
Units	PPM	ppb	ppb	PPM	PPM	PPM	ppb
Avge	H99.04837	8855.421	90.41110	19.35583	19.15928	2.381575	11.20627
SDev	.14270	44.592	.38948	.04453	.05104	.005202	.80665
%RSD	.1440730	.5035525	.4307919	.2300627	.2663843	.2184209	7.198222
#1	H99.11760	8904.435	90.82243	19.38748	19.20525	2.386218	12.13522
#2	H99.14326	8844.575	90.36291	19.37511	19.16822	2.382554	10.80080
#3	H98.88426	8817.252	90.04795	19.30491	19.10436	2.375953	10.68279
Errors	LC High	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	50.00000	100000.0	40000.00	500.0000	20.00000	40.00000	50000.00
Low	-.073600	-186.200	-2.70000	-.111800	-.073600	-.007800	-12.7000

Elem	Na5889	Ni2316	2203/1	2203/2	Pb2203	Se1960	Sb2068
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	2251.600	59.61428	72.96429	74.94376	74.28784	1.338275	1.509291
SDev	15.786	.89960	1.91712	1.58881	1.38952	1.053618	2.219186
%RSD	.7011229	1.509041	2.627477	2.120002	1.870458	78.72961	147.0350
#1	2268.178	59.97482	72.20551	76.40412	75.00923	1.501214	4.066221
#2	2249.874	60.27769	71.54271	73.25190	72.68599	.2126787	.0846501
#3	2236.747	58.59033	75.14467	75.17524	75.16830	2.300931	.3770026
Errors	LC Pass	LC Pass	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass

High	100000.0	100000.0			400000.0	100000.0	100000.0
Low	-284.800	-25.3000			-47.0000	-65.9000	-26.9000
Elem	2068/1	2068/2	1960/1	1960/2	Ti1908	V-2924	Zn2138
Units	ppb	ppb	ppb	ppb	ppb	PPM	ppb
Avge	-2.50287	3.509830	-8.51393	6.254255	2.832401	.2165952	317.7600
SDev	1.27054	2.712578	5.39867	1.118634	2.489429	.0006234	.6782
%RSD	50.76330	77.28517	63.40977	17.88596	87.89111	.2878289	.2134201
#1	-1.05434	6.620230	-7.92419	6.204109	1.884417	.2166018	317.3165
#2	-3.02565	1.635033	-14.1833	7.397118	.9562340	.2172153	318.5407
#3	-3.42863	2.274227	-3.43435	5.161537	5.656553	.2159685	317.4228
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass
High					100000.0	200.0000	10000.00
Low					-54.8000	-.006900	-52.3000
Elem	Ti3349	Th4019	U-3856	P-1782	Si2881	Sn1899	Sr4215
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	4422.182	20.10942	-8.65368	3371.500	1456.072	19.38395	268.9308
SDev	8.749	2.17757	3.30647	55.173	6.844	1.84975	.6932
%RSD	.1978391	10.82860	38.20879	1.636445	.4700373	9.542670	.2577611
#1	4429.478	22.32085	-12.4195	3326.634	1457.061	17.54888	269.6221
#2	4424.586	20.04003	-6.22599	3433.103	1462.369	21.24803	268.9345
#3	4412.483	17.96738	-7.31557	3354.762	1448.788	19.35494	268.2357
Errors	LC Pass	NOCHECK	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass
High	100000.0				100000.0	100000.0	50000.00
Low	-3.50000				-468.500	-70.0000	-1.20000
Elem	Zr3496						
Units	ppb						
Avge	122.8505						
SDev	2.0486						
%RSD	1.667544						
#1	125.1754						
#2	121.3100						
#3	122.0662						
Errors	NOCHECK						
High							
Low							

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	4927.	--	--	--	--	--	--
SDev	2.358032	--	--	--	--	--	--
%RSD	.0478635	--	--	--	--	--	--
#1	4925	--	--	--	--	--	--
#2	4926	--	--	--	--	--	--
#3	4929	--	--	--	--	--	--

Method: ALL1 Sample Name: 0107L388-001S Operator: PMP
Run Time: 07/30/01 22:01:42
Comment:
Mode: CONC Corr. Factor: 1

0003 01S

Elem	Ag3280	Al3082	As1890	B-2496	Ba4934	Be3130	Bi2230
Units	ppb	PPM	ppb	ppb	ppb	ppb	ppb
Avge	46.19891	63.58953	1797.173	901.9789	3310.329	46.99117	1.346779
SDev	.46197	.45820	6.990	9.2225	23.948	.35699	.955721
%RSD	.9999502	.7205633	.3889401	1.022476	.7234373	.7597030	70.96347
#1	46.53630	63.93458	1802.795	906.7786	3329.020	47.32202	1.947710
#2	45.67239	63.06965	1789.347	891.3464	3283.334	46.61280	.2447123
#3	46.38804	63.76436	1799.378	907.8118	3318.633	47.03868	1.847914
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10000.00	1000.000	50000.00	50000.00	50000.00	10000.00	100000.0
Low	-5.00000	-.146200	-39.6000	-266.100	-1.80000	-1.60000	-55.4000

Elem	Ca3179	Ca3968	Cd2265	Co2286	Cr2677	Cu3247	Fe2714
Units	PPM	PPM	ppb	ppb	ppb	ppb	PPM
Avge	73.54308	S11.78979	51.28027	483.0217	248.7862	329.3519	94.18887
SDev	.58542	.06383	.35679	3.2225	1.6537	2.0525	.73593
%RSD	.7960167	.5414218	.6957722	.6671523	.6646934	.6231998	.7813296
#1	74.07712	S11.84840	51.66030	485.9448	250.0263	330.6133	94.87374
#2	72.91715	S11.72178	50.95247	479.5662	246.9087	326.9835	93.41077
#3	73.63495	S11.79921	51.22803	483.5541	249.4235	330.4589	94.28210
Errors	LC Pass	LC High	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	500.0000	10.00000	50000.00	100000.0	100000.0	100000.0	500.0000
Low	-.361000	-.470400	-4.70000	-4.50000	-7.00000	-15.0000	-.169400

Elem	Fe2599	K-7664	Li6707	Mg2790	Mg2852	Mn2576	Mo2020
Units	PPM	ppb	ppb	PPM	PPM	PPM	ppb
Avge	H87.28744	33769.07	1122.871	41.43904	H40.14776	2.459019	916.4465
SDev	.68619	210.11	6.636	.29179	.26129	.019852	7.1874
%RSD	.7861295	.6222082	.5910149	.7041447	.6508181	.8073274	.7842724
#1	H87.90263	33891.59	1127.085	41.69221	H40.34820	2.476706	923.0322
#2	H86.54739	33526.45	1115.221	41.11992	H39.85225	2.437546	908.7798
#3	H87.41229	33889.16	1126.307	41.50498	H40.24284	2.462806	917.5277
Errors	LC High	LC Pass	LC Pass	LC Pass	LC High	LC Pass	LC Pass
High	50.00000	100000.0	40000.00	500.0000	20.00000	40.00000	50000.00
Low	-.073600	-186.200	-2.70000	-.111800	-.073600	-.007800	-12.7000

Elem	Na5889	Ni2316	2203/1	2203/2	Pb2203	Se1960	Sb2068
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	26291.45	508.0454	540.7385	533.5755	535.9642	1719.418	277.5574
SDev	146.04	4.3969	3.9137	4.6885	3.3656	9.893	2.4378
%RSD	.5554806	.8654445	.7237616	.8786890	.6279486	.5753955	.8783128
#1	26369.81	510.9625	545.1917	532.5560	536.7671	1730.198	279.9969
#2	26122.95	502.9882	539.1777	538.6898	538.8557	1717.303	275.1212
#3	26381.58	510.1855	537.8461	529.4806	532.2698	1710.753	277.5541
Errors	LC Pass	LC Pass	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass

High	100000.0	100000.0			400000.0	100000.0	100000.0
Low	-284.800	-25.3000			-47.0000	-65.9000	-26.9000
Elem	2068/1	2068/2	1960/1	1960/2	Ti1908	V-2924	Zn2138
Units	ppb	ppb	ppb	ppb	ppb	PPM	ppb
Avge	275.8869	278.3892	1717.391	1720.427	1800.062	.6632971	785.0288
SDev	1.4963	3.4656	15.577	7.231	12.334	.0052047	6.0110
%RSD	.5423511	1.244870	.9070224	.4202843	.6851956	.7846772	.7657007
#1	277.2174	281.3823	1735.054	1727.771	1808.633	.6670816	790.3038
#2	276.1762	274.5924	1711.504	1720.196	1785.926	.6573616	778.4846
#3	274.2671	279.1930	1705.616	1713.315	1805.628	.6654480	786.2981
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass
High					100000.0	200.0000	10000.00
Low					-54.8000	-.006900	-52.3000
Elem	Ti3349	Th4019	U-3856	P-1782	Si2881	Sn1899	Sr4215
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	4490.873	14.69509	4.014749	2875.760	2612.188	876.6697	1214.031
SDev	34.599	1.74962	4.646782	33.093	23.710	6.9388	9.099
%RSD	.7704345	11.90618	115.7428	1.150743	.9076710	.7914992	.7494677
#1	4519.495	16.14926	7.248478	2912.028	2634.512	883.7390	1221.204
#2	4452.423	12.75342	-1.31019	2847.205	2587.300	869.8691	1203.796
#3	4500.702	15.18260	6.105961	2868.047	2614.752	876.4013	1217.092
Errors	LC Pass	NOCHECK	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass
High	100000.0				100000.0	100000.0	50000.00
Low	-3.50000				-468.500	-70.0000	-1.20000
Elem	Zr3496						
Units	ppb						
Avge	114.4886						
SDev	24.3067						
%RSD	21.23071						
#1	96.55919						
#2	142.1541						
#3	104.7524						
Errors	NOCHECK						
High							
Low							

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	4823	--	--	--	--	--	--
SDev	26.39882	--	--	--	--	--	--
%RSD	.5473984	--	--	--	--	--	--
#1	4798	--	--	--	--	--	--
#2	4851	--	--	--	--	--	--
#3	4819	--	--	--	--	--	--

Method: ALL1 Sample Name: 0107L388-001A Operator: PMP
Run Time: 07/30/01 22:11:52
Comment:
Mode: CONC Corr. Factor: 1

Al, Fe (20,000) Sb (100) } ppb 0003 01A

Elem	Ag3280	Al3082	As1890	B-2496	Ba4934	Be3130	Bi2230
Units	ppb	PPM 96.8	pppb	ppb	ppb	ppb	ppb
Avge	93.31240	76.76259	103.7428	115.5618	1503.486	94.39459	96.34557
SDev	.26082	.16949	2.9510	2.0629	2.117	.17611	.71741
%RSD	.2795174	.2208041	2.844523	1.785063	.1408323	.1865652	.7446260
#1	93.59548	76.89810	100.3383	114.4218	1505.269	94.59647	95.90211
#2	93.25991	76.81713	105.3209	114.3205	1504.042	94.31477	97.17326
#3	93.08182	76.57254	105.5691	117.9430	1501.146	94.27253	95.96133
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10000.00	1000.000	50000.00	50000.00	50000.00	10000.00	100000.0
Low	-5.00000	-.146200	-39.6000	-266.100	-1.80000	-1.60000	-55.4000

Elem	Ca3179	Ca3968	Cd2265	Co2286	Cr2677	Cu3247	Fe2714
Units	PPM	PPM	pppb	ppb	ppb	ppb	PPM 89.3
Avge	63.26642	S11.69443	93.65672	126.8753	159.7525	179.3067	113.3443
SDev	.04430	.00151	.77106	.6374	.4369	1.2334	.1405
%RSD	.0700256	.0128834	.8232850	.5024069	.2734585	.6878789	.1239359
#1	63.31289	S11.69273	93.99474	127.3381	160.2568	180.1430	113.5016
#2	63.26172	S11.69560	94.20104	127.1396	159.4899	179.8869	113.2999
#3	63.22466	S11.69495	92.77438	126.1483	159.5109	177.8901	113.2314
Errors	LC Pass	LC High	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	500.0000	10.00000	50000.00	100000.0	100000.0	100000.0	500.0000
Low	-.361000	-.470400	-4.70000	-4.50000	-7.00000	-15.0000	-.169400

Elem	Fe2599	K-7664	Li6707	Mg2790	Mg2852	Mn2576	Mo2020
Units	PPM	pppb	pppb	PPM	PPM	PPM	pppb
Avge	H103.4749	29619.11	89.08464	38.14597	H37.22358	2.950089	97.36423
SDev	.0366	69.31	.20016	.07455	.08561	.001075	.12217
%RSD	.0353552	.2339975	.2246797	.1954272	.2299807	.0364544	.1254792
#1	H103.4566	29678.21	89.25150	38.18019	H37.28700	2.951038	97.30267
#2	H103.5170	29636.29	89.13972	38.19726	H37.25754	2.950308	97.50494
#3	H103.4510	29542.83	88.86272	38.06045	H37.12620	2.948920	97.28509
Errors	LC High	LC Pass	LC Pass	LC Pass	LC High	LC Pass	LC Pass
High	50.00000	100000.0	40000.00	500.0000	20.00000	40.00000	50000.00
Low	-.073600	-186.200	-2.70000	-.111800	-.073600	-.007800	-12.7000

Elem	Na5889	Ni2316	2203/1	2203/2	Pb2203	Se1960	Sb2068
Units	pppb	pppb	pppb	pppb	pppb	pppb	pppb 93.9
Avge	21994.10	151.2458	158.0328	158.2399	158.1742	89.35710	93.93881
SDev	73.31	.8347	.4435	.8721	.4819	.61708	.77241
%RSD	.3332971	.5518590	.2806497	.5511519	.3046498	.6905732	.8222513
#1	22056.21	151.5203	158.4314	157.2342	157.6361	90.04034	94.79415
#2	22012.85	150.3084	157.5550	158.6979	158.3206	89.19061	93.29224
#3	21913.24	151.9086	158.1120	158.7876	158.5659	88.84036	93.73006
Errors	LC Pass	LC Pass	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass

High	100000.0	100000.0			400000.0	100000.0	100000.0
Low	-284.800	-25.3000			-47.0000	-65.9000	-26.9000
Elem	2068/1	2068/2	1960/1	1960/2	T11908	V-2924	Zn2138
Units	ppb	ppb	ppb	ppb	ppb	PPM	ppb
Avge	92.80418	94.50283	88.28419	89.89020	93.48369	1.172607	386.5403
SDev	1.73916	2.02201	4.48750	1.37575	.80356	.000525	.3147
%RSD	1.874015	2.139629	5.083014	1.530482	.8595753	.0447723	.0814181
#1	90.82020	96.77570	92.64836	88.73584	94.41150	1.172754	386.1878
#2	94.06555	92.90370	88.52142	89.52226	93.02938	1.173044	386.7931
#3	93.52677	93.82909	83.68278	91.41252	93.01019	1.172025	386.6400
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass
High					100000.0	200.0000	10000.00
Low					-54.8000	-.006900	-52.3000
Elem	Ti3349	Th4019	U-3856	P-1782	Si2881	Sn1899	Sr4215
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	3847.153	12.25806	-11.3482	3560.926	2081.396	107.5125	363.2362
SDev	2.294	.89398	4.3856	50.057	8.006	2.3460	.5319
%RSD	.0596271	7.293016	38.64529	1.405734	.3846265	2.182045	.1464411
#1	3848.767	12.15596	-6.49574	3609.761	2072.977	104.9515	363.5566
#2	3848.165	13.19871	-15.0287	3563.287	2082.299	108.0285	363.5299
#3	3844.527	11.41951	-12.5203	3509.731	2088.911	109.5575	362.6222
Errors	LC Pass	NOCHECK	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass
High	100000.0				100000.0	100000.0	50000.00
Low	-3.50000				-468.500	-70.0000	-1.20000
Elem	Zr3496						
Units	ppb						
Avge	112.8124						
SDev	2.9003						
%RSD	2.570904						
#1	111.0627						
#2	111.2143						
#3	116.1602						
Errors	NOCHECK						
High							
Low							

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	4883	--	--	--	--	--	--
SDev	.5695755	--	--	--	--	--	--
%RSD	.0116653	--	--	--	--	--	--
#1	4883	--	--	--	--	--	--
#2	4882	--	--	--	--	--	--
#3	4883	--	--	--	--	--	--

Method: ALL1 Sample Name: 0107L388-002 Operator: PMP
Run Time: 07/30/01 22:21:36
Comment:
Mode: CONC Corr. Factor: 1

0004 01

Elem	Ag3280	Al3082	As1890	B-2496	Ba4934	Be3130	Bi2230
Units	ppb	PPM	ppb	ppb	ppb	ppb	ppb
Avge	-1.51351	52.32421	9.954989	22.53666	2384.201	2.491996	3.338767
SDev	.13947	.15059	3.118637	1.01061	3.503	.028230	2.097901
%RSD	9.214989	.2878113	31.32738	4.484297	.1469111	1.132835	62.83462
#1	-1.49146	52.49806	7.098975	22.21273	2388.245	2.524271	2.056631
#2	-1.38637	52.23406	9.483444	23.66952	2382.174	2.471901	5.759803
#3	-1.66269	52.24050	13.28255	21.72773	2382.182	2.479814	2.199867
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10000.00	1000.000	50000.00	50000.00	50000.00	10000.00	100000.0
Low	-5.00000	-.146200	-39.6000	-266.100	-1.80000	-1.60000	-55.4000

Elem	Ca3179	Ca3968	Cd2265	Co2286	Cr2677	Cu3247	Fe2714
Units	PPM	PPM	ppb	ppb	ppb	ppb	PPM
Avge	24.37629	H26.19206	.8676434	30.98896	64.31956	71.52971	94.69154
SDev	.06154	.02076	.3328010	.56242	.10258	.26997	.11162
%RSD	.2524715	.0792611	38.35689	1.814901	.1594813	.3774226	.1178766
#1	24.33245	H26.19169	.6568098	31.12069	64.37781	71.76377	94.60918
#2	24.44665	H26.21300	1.251302	31.47382	64.37974	71.59099	94.81857
#3	24.34977	H26.17149	.6948185	30.37237	64.20112	71.23437	94.64684
Errors	LC Pass	LC High	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	500.0000	10.00000	50000.00	100000.0	100000.0	100000.0	500.0000
Low	-.361000	-.470400	-4.70000	-4.50000	-7.00000	-15.0000	-.169400

Elem	Fe2599	K-7664	Li6707	Mg2790	Mg2852	Mn2576	Mo2020
Units	PPM	ppb	ppb	PPM	PPM	PPM	ppb
Avge	H87.68472	9188.510	75.54525	16.97517	16.75372	2.391661	7.743189
SDev	.18335	27.866	.38528	.01988	.03512	.004421	.430992
%RSD	.2090992	.3032666	.5099998	.1171027	.2096144	.1848562	5.566075
#1	H87.56622	9220.675	75.95216	16.98870	16.79356	2.388712	7.245840
#2	H87.89591	9171.673	75.18604	16.98445	16.74033	2.396745	7.976469
#3	H87.59204	9173.183	75.49756	16.95235	16.72726	2.389528	8.007257
Errors	LC High	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	50.00000	100000.0	40000.00	500.0000	20.00000	40.00000	50000.00
Low	-.073600	-186.200	-2.70000	-.111800	-.073600	-.007800	-12.7000

Elem	Na5889	Ni2316	2203/1	2203/2	Pb2203	Se1960	Sb2068
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	2217.607	57.62342	57.20214	58.38536	57.99461	3.048895	.5349046
SDev	11.047	1.17289	.95259	2.29818	1.45130	.998895	1.245914
%RSD	.4981464	2.035443	1.665302	3.936228	2.502481	32.76252	232.9227
#1	2229.734	57.29408	56.13027	59.85755	58.61964	3.054213	.7676539
#2	2208.117	58.92578	57.52419	55.73716	56.33552	4.045119	-.810971
#3	2214.970	56.65041	57.95196	59.56136	59.02869	2.047351	1.648031
Errors	LC Pass	LC Pass	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass

High	100000.0	100000.0			400000.0	100000.0	100000.0
Low	-284.800	-25.3000			-47.0000	-65.9000	-26.9000
Elem	2068/1	2068/2	1960/1	1960/2	T11908	V-2924	Zn2138
Units	ppb	ppb	ppb	ppb	ppb	PPM	ppb
Avge	1.435687	.0826358	-4.81740	6.973388	2.882766	.2072099	246.9487
SDev	2.016779	1.224735	1.19247	1.972797	2.479114	.0009241	1.2186
%RSD	140.4749	1482.089	24.75341	28.29037	85.99777	.4459610	.4934583
#1	3.120279	-.409652	-5.76879	7.456345	4.630794	.2067363	246.3385
#2	-.799093	-.819357	-5.20375	8.659861	.0455132	.2082748	248.3518
#3	1.985875	1.476916	-3.47966	4.803959	3.971991	.2066186	246.1557
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass
High					100000.0	200.0000	10000.00
Low					-54.8000	-.006900	-52.3000
Elem	Ti3349	Th4019	U-3856	P-1782	Si2881	Sn1899	Sr4215
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	4005.639	20.64363	-4.92339	2911.882	2400.343	15.81281	240.7127
SDev	5.218	1.69747	6.60109	15.675	6.564	1.06600	.2015
%RSD	.1302701	8.222722	134.0763	.5383282	.2734477	6.741350	.0837277
#1	4003.512	21.55114	-2.41459	2893.951	2407.275	14.63818	240.9378
#2	4011.585	21.69444	.0555077	2922.991	2399.529	16.71877	240.6513
#3	4001.820	18.68531	-12.4111	2918.703	2394.224	16.08147	240.5491
Errors	LC Pass	NOCHECK	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass
High	100000.0				100000.0	100000.0	50000.00
Low	-3.50000				-468.500	-70.0000	-1.20000
Elem	Zr3496						
Units	ppb						
Avge	129.4702						
SDev	24.0613						
%RSD	18.58445						
#1	122.2599						
#2	109.8384						
#3	156.3124						
Errors	NOCHECK						
High							
Low							

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	V	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	4894	--	--	--	--	--	--
SDev	8.641528	--	--	--	--	--	--
%RSD	.1765683	--	--	--	--	--	--
#1	4895	--	--	--	--	--	--
#2	4885	--	--	--	--	--	--
#3	4903	--	--	--	--	--	--

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Method: ALL1 Sample Name: 0107L388-003 Operator: PMP
Run Time: 07/30/01 22:30:46
Comment:
Mode: CONC Corr. Factor: 1

0005 01

Elem	Ag3280	Al3082	As1890	B-2496	Ba4934	Be3130	Bi2230
Units	ppb	PPM	ppb	ppb	ppb	ppb	ppb
Avge	-1.59832	62.54660	13.34187	31.33175	2593.265	3.053735	-.722709
SDev	.17371	.03199	2.72086	.58462	2.238	.024717	.648703
%RSD	10.86854	.0511418	20.39336	1.865893	.0863007	.8094040	89.75993
#1	-1.39795	62.55802	15.92500	32.00579	2594.029	3.074387	-.053503
#2	-1.69050	62.57130	13.59906	30.96265	2595.022	3.060470	-1.34875
#3	-1.70652	62.51046	10.50155	31.02680	2590.746	3.026349	-.765872
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10000.00	1000.000	50000.00	50000.00	50000.00	10000.00	100000.0
Low	-5.00000	-.146200	-39.6000	-266.100	-1.80000	-1.60000	-55.4000

Elem	Ca3179	Ca3968	Cd2265	Co2286	Cr2677	Cu3247	Fe2714
Units	PPM	PPM	ppb	ppb	ppb	ppb	PPM
Avge	33.75219	H37.63088	.8531675	36.82608	71.53935	82.59802	107.7938
SDev	.02330	.03657	.3359898	.15314	.38574	.34587	.0948
%RSD	.0690315	.0971880	39.38145	.4158441	.5392017	.4187396	.0879875
#1	33.74951	H37.62621	.4831943	36.92528	71.75033	82.46941	107.7956
#2	33.77671	H37.66957	.9370155	36.64970	71.77359	82.98978	107.8878
#3	33.73035	H37.59687	1.139293	36.90324	71.09414	82.33488	107.6981
Errors	LC Pass	LC High	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	500.0000	10.00000	50000.00	100000.0	100000.0	100000.0	500.0000
Low	-.361000	-.470400	-4.70000	-4.50000	-7.00000	-15.0000	-.169400

Elem	Fe2599	K-7664	Li6707	Mg2790	Mg2852	Mn2576	Mo2020
Units	PPM	ppb	ppb	PPM	PPM	PPM	ppb
Avge	H98.85779	10143.44	87.84272	20.92519	H20.62501	2.459666	5.995259
SDev	.09866	12.73	.14467	.02638	.01499	.001426	.758742
%RSD	.0997973	.1255247	.1646870	.1260751	.0726606	.0579654	12.65570
#1	H98.77128	10157.40	88.00970	20.93236	H20.62321	2.458833	5.137440
#2	H98.96523	10140.49	87.76329	20.94724	H20.64081	2.461313	6.269898
#3	H98.83685	10132.45	87.75517	20.89596	H20.61100	2.458853	6.578438
Errors	LC High	LC Pass	LC Pass	LC Pass	LC High	LC Pass	LC Pass
High	50.00000	100000.0	40000.00	500.0000	20.00000	40.00000	50000.00
Low	-.073600	-186.200	-2.70000	-.111800	-.073600	-.007800	-12.7000

Elem	Na5889	Ni2316	2203/1	2203/2	Pb2203	Se1960	Sb2068
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	2835.645	67.46372	52.72570	54.65284	54.01437	1.874973	-.085229
SDev	6.358	.42403	1.77543	2.05551	1.90281	4.056418	1.051133
%RSD	.2242168	.6285248	3.367287	3.761030	3.522776	216.3454	1233.304
#1	2842.840	67.34157	54.56902	57.01759	56.20548	6.195221	-.813925
#2	2833.312	67.93542	51.02702	53.64677	52.77765	-1.85235	1.119733
#3	2830.782	67.11418	52.58107	53.29416	53.05996	1.282050	-.561494
Errors	LC Pass	LC Pass	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass

High	100000.0	100000.0			400000.0	100000.0	100000.0
Low	-284.800	-25.3000			-47.0000	-65.9000	-26.9000
Elem	2068/1	2068/2	1960/1	1960/2	T11908	V-2924	Zn2138
Units	ppb	ppb	ppb	ppb	ppb	PPM	ppb
Avge	-1.97228	.8544335	-.378808	2.997421	-1.25154	.2500112	339.0813
SDev	2.77224	.2057883	3.032215	4.654910	.34008	.0003737	.3827
%RSD	140.5603	24.08476	800.4613	155.2971	27.17268	.1494689	.1128509
#1	-4.02061	.7845645	2.314313	8.130012	-.869303	.2495916	339.5220
#2	1.182280	1.086060	-3.66306	-.951107	-1.52059	.2503081	338.8890
#3	-3.07850	.6926765	.2123241	1.813358	-1.36473	.2501339	338.8329
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass
High					100000.0	200.0000	10000.00
Low					-54.8000	-.006900	-52.3000
Elem	Ti3349	Th4019	U-3856	P-1782	Si2881	Sn1899	Sr4215
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	4407.500	18.66049	-11.3824	3616.852	1524.124	13.78293	303.2032
SDev	3.896	2.45426	4.6538	32.217	4.977	1.70760	.2332
%RSD	.0884059	13.15215	40.88598	.8907369	.3265407	12.38925	.0769175
#1	4406.584	19.49102	-16.7182	3592.968	1520.385	15.72723	303.1626
#2	4411.773	20.59171	-8.16288	3604.093	1529.773	13.09479	303.4540
#3	4404.143	15.89873	-9.26597	3653.493	1522.215	12.52676	302.9929
Errors	LC Pass	NOCHECK	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass
High	100000.0				100000.0	100000.0	50000.00
Low	-3.50000				-468.500	-70.0000	-1.20000
Elem	Zr3496						
Units	ppb						
Avge	150.5832						
SDev	.3514						
%RSD	.2333842						
#1	150.9286						
#2	150.5951						
#3	150.2260						
Errors	NOCHECK						
High							
Low							

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	4902	--	--	--	--	--	--
SDev	1.957838	--	--	--	--	--	--
%RSD	.0399432	--	--	--	--	--	--
#1	4899	--	--	--	--	--	--
#2	4903	--	--	--	--	--	--
#3	4902	--	--	--	--	--	--

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Method: ALL1 Sample Name: 0107L388-004 Operator: PMP
Run Time: 07/30/01 22:39:56
Comment:
Mode: CONC Corr. Factor: 1

0006 01

Elem	Ag3280	Al3082	As1890	B-2496	Ba4934	Be3130	Bi2230
Units	ppb	PPM	ppb	ppb	ppb	ppb	ppb
Avge	-1.22756	66.95689	8.198774	38.60680	2267.797	3.020611	-.386772
SDev	.27242	.17284	1.485850	1.59221	6.062	.050159	2.415525
%RSD	22.19231	.2581309	18.12283	4.124166	.2673089	1.660564	624.5338
#1	-1.36229	67.13749	7.306195	39.83367	2274.568	3.071746	-2.44499
#2	-1.40638	66.79304	7.376117	39.17921	2262.874	2.971488	2.272540
#3	-.914026	66.94012	9.914012	36.80753	2265.948	3.018600	-.987865
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10000.00	1000.000	50000.00	50000.00	50000.00	10000.00	100000.0
Low	-5.00000	-.146200	-39.6000	-266.100	-1.80000	-1.60000	-55.4000

Elem	Ca3179	Ca3968	Cd2265	Co2286	Cr2677	Cu3247	Fe2714
Units	PPM	PPM	ppb	ppb	ppb	ppb	PPM
Avge	30.22687	H33.14542	.9659720	40.06328	87.78113	89.98672	112.2220
SDev	.10428	.12143	.0815907	.25795	.50018	.37018	.4292
%RSD	.3450068	.3663509	8.446490	.6438543	.5698068	.4113753	.3824812
#1	30.34515	H33.28078	.9183054	40.05607	88.35419	90.18514	112.7121
#2	30.14816	H33.04606	.9194279	40.32476	87.43227	89.55962	111.9129
#3	30.18731	H33.10944	1.060183	39.80901	87.55693	90.21539	112.0411
Errors	LC Pass	LC High	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	500.0000	10.00000	50000.00	100000.0	100000.0	100000.0	500.0000
Low	-.361000	-.470400	-4.70000	-4.50000	-7.00000	-15.0000	-.169400

Elem	Fe2599	K-7664	Li6707	Mg2790	Mg2852	Mn2576	Mo2020
Units	PPM	ppb	ppb	PPM	PPM	PPM	ppb
Avge	H102.3585	11615.79	85.74657	24.05887	H23.64980	2.072511	3.577676
SDev	.2853	25.38	.25174	.08130	.06557	.006951	.985418
%RSD	.2787059	.2184587	.2935814	.3379025	.2772575	.3353947	27.54352
#1	H102.6790	11636.49	85.95243	24.15211	H23.71054	2.080284	4.534331
#2	H102.1323	11587.48	85.46591	24.00282	H23.58028	2.066892	3.632884
#3	H102.2643	11623.41	85.82137	24.02168	H23.65858	2.070356	2.565815
Errors	LC High	LC Pass	LC Pass	LC Pass	LC High	LC Pass	LC Pass
High	50.00000	100000.0	40000.00	500.0000	20.00000	40.00000	50000.00
Low	-.073600	-186.200	-2.70000	-.111800	-.073600	-.007800	-12.7000

Elem	Na5889	Ni2316	2203/1	2203/2	Pb2203	Se1960	Sb2068
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	2880.902	70.22250	58.65575	59.48875	59.21464	-1.27630	.5250935
SDev	8.601	.66730	2.54559	1.09973	1.55145	5.12482	.8530391
%RSD	.2985606	.9502687	4.339887	1.848629	2.620042	401.5370	162.4547
#1	2886.123	69.56001	61.59437	60.65206	60.96914	-4.42493	.4144587
#2	2870.974	70.89451	57.12809	58.46615	58.02386	4.637187	1.428052
#3	2885.608	70.21299	57.24477	59.34805	58.65093	-4.04117	-.267230
Errors	LC Pass	LC Pass	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass

High	100000.0	100000.0			400000.0	100000.0	100000.0
Low	-284.800	-25.3000			-47.0000	-65.9000	-26.9000
Elem	2068/1	2068/2	1960/1	1960/2	Tl1908	V-2924	Zn2138
Units	ppb	ppb	ppb	ppb	ppb	PPM	ppb
Avge	-2.21290	1.889581	-1.63920	-1.09789	1.258169	.2799512	237.2538
SDev	.90935	.860952	5.26752	5.13764	2.532462	.0008706	.4191
%RSD	41.09293	45.56311	321.3471	467.9551	201.2817	.3109916	.1766376
#1	-1.99166	1.613252	-5.86164	-3.71042	2.944139	.2808970	237.7376
#2	-1.43459	2.854770	4.263461	4.821003	-1.65399	.2791832	237.0055
#3	-3.21246	1.200721	-3.31942	-4.40426	2.484360	.2797735	237.0182
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass
High					100000.0	200.0000	10000.00
Low					-54.8000	-.006900	-52.3000
Elem	Ti3349	Th4019	U-3856	P-1782	Si2881	Sn1899	Sr4215
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	4545.785	16.34736	9.135544	4588.248	1289.996	16.53365	305.8697
SDev	13.196	.37549	10.97461	62.223	1.667	2.79378	.8584
%RSD	.2902921	2.296943	120.1309	1.356142	.1292578	16.89753	.2806543
#1	4560.495	16.71397	-3.05864	4659.759	1288.072	13.74412	306.8032
#2	4534.988	16.36455	12.24626	4558.531	1290.914	16.52516	305.1142
#3	4541.871	15.96358	18.21901	4546.456	1291.003	19.33166	305.6917
Errors	LC Pass	NOCHECK	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass
High	100000.0				100000.0	100000.0	50000.00
Low	-3.50000				-468.500	-70.0000	-1.20000
Elem	Zr3496						
Units	ppb						
Avge	150.5755						
SDev	8.6609						
%RSD	5.751839						
#1	141.1497						
#2	152.3941						
#3	158.1826						
Errors	NOCHECK						
High							
Low							

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	4878	--	--	--	--	--	--
SDev	7.853591	--	--	--	--	--	--
%RSD	.1610149	--	--	--	--	--	--
#1	4870	--	--	--	--	--	--
#2	4877	--	--	--	--	--	--
#3	4886	--	--	--	--	--	--

Method: ALL1 Sample Name: CCV Operator: PMP
Run Time: 07/30/01 22:50:08
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B-2496	Ba4934	Be3130	Bi2230
Units	ppb	PPM	ppb	ppb	ppb	ppb	ppb
Avge	493.3792	4.997831	491.2179	499.6760	502.8923	495.0310	494.1805
SDev	1.7404	.022213	3.8779	.7913	1.8033	1.5704	5.3700
%RSD	.3527425	.4444505	.7894536	.1583576	.3585905	.3172253	1.086646
#1	494.5598	5.020244	487.9929	499.8104	504.7723	496.8003	499.7313
#2	494.1973	4.997427	490.1401	498.8261	502.7278	494.4899	493.7984
#3	491.3806	4.975823	495.5208	500.3915	501.1769	493.8027	489.0118
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	500.0000	5.000000	500.0000	500.0000	500.0000	500.0000	500.0000
Range	10.00000	10.00000	10.00000	10.00000	10.00000	10.00000	10.00000

Elem	Ca3179	Ca3968	Cd2265	Co2286	Cr2677	Cu3247	Fe2714
Units	PPM	PPM	ppb	ppb	ppb	ppb	PPM
Avge	2.019339	1.981326	498.5883	500.2903	498.3413	499.4415	5.058295
SDev	.004482	.006851	1.5807	2.1966	1.6039	1.6328	.027593
%RSD	.2219533	.3457777	.3170316	.4390697	.3218510	.3269231	.5455043
#1	2.024512	1.988787	500.3867	502.6891	499.4027	501.2511	5.088914
#2	2.016884	1.979871	497.9595	499.8048	499.1251	498.9951	5.050617
#3	2.016621	1.975319	497.4188	498.3771	496.4962	498.0783	5.035354
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	2.000000	2.000000	500.0000	500.0000	500.0000	500.0000	5.000000
Range	10.00000	10.00000	10.00000	10.00000	10.00000	10.00000	10.00000

Elem	Fe2599	K-7664	Li6707	Mg2790	Mg2852	Mn2576	Mo2020
Units	PPM	ppb	ppb	PPM	PPM	PPM	ppb
Avge	4.942019	5157.221	3958.784	4.015265	3.982077	5.101400	500.6225
SDev	.014376	15.672	9.586	.017524	.009489	.014266	1.8288
%RSD	.2908834	.3038903	.2421506	.4364372	.2382994	.2796550	.3652971
#1	4.958489	5172.439	3967.753	4.034539	3.991331	5.117559	502.7339
#2	4.935581	5158.094	3959.917	4.010965	3.982533	5.096096	499.5912
#3	4.931989	5141.130	3948.682	4.000291	3.972369	5.090545	499.5423
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	5.000000	5000.000	4000.000	4.000000	4.000000	5.000000	500.0000
Range	10.00000	10.00000	10.00000	10.00000	10.00000	10.00000	10.00000

Elem	Na5889	Ni2316	2203/1	2203/2	Pb2203	Se1960	Sb2068
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	5037.380	494.7543	498.0818	495.8731	496.6111	493.9993	504.4366
SDev	9.303	1.2885	3.8689	1.4475	.4725	3.1933	4.4249
%RSD	.1846840	.2604354	.7767581	.2919009	.0951375	.6464148	.8771900
#1	5046.957	495.6658	494.9934	497.3422	496.5626	494.9084	500.1169
#2	5036.809	495.3170	502.4215	494.4484	497.1059	496.6396	508.9597
#3	5028.377	493.2802	496.8306	495.8286	496.1647	490.4501	504.2331
Errors	QC Pass	QC Pass	NOCHECK	NOCHECK	QC Pass	QC Pass	QC Pass

Value	5000.000	500.0000			500.0000	500.0000	500.0000
Range	10.00000	10.00000			10.00000	10.00000	10.00000
Elem	2068/1	2068/2	1960/1	1960/2	Tl1908	V-2924	Zn2138
Units	ppb	ppb	ppb	ppb	ppb	PPM	ppb
Avge	501.9867	505.6572	492.0453	494.9722	501.5037	5.046420	499.9079
SDev	4.7761	6.7811	1.4013	5.1765	4.6577	.013089	1.4219
%RSD	.9514302	1.341042	.2847848	1.045825	.9287557	.2593646	.2844239
#1	504.3648	497.9938	490.4909	497.1110	502.5368	5.060989	501.1943
#2	505.1069	510.8807	492.4336	498.7366	496.4162	5.042613	500.1483
#3	496.4885	508.0971	493.2115	489.0690	505.5582	5.035656	498.3812
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	QC Pass	QC Pass	QC Pass
Value					500.0000	5.000000	500.0000
Range					10.00000	10.00000	10.00000
Elem	Ti3349	Th4019	U-3856	P-1782	Si2881	Sn1899	Sr4215
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	501.6759	494.7473	532.8280	985.5808	526.8279	496.5931	498.4000
SDev	1.2843	3.4845	3.9698	18.6684	2.9425	1.6127	1.5268
%RSD	.2560049	.7043032	.7450398	1.894157	.5585397	.3247625	.3063488
#1	503.0873	498.7680	528.5889	979.1875	529.7544	498.0779	500.0454
#2	501.3642	492.6061	533.4369	1006.606	526.8599	494.8773	498.1256
#3	500.5761	492.8677	536.4581	970.9490	523.8696	496.8240	497.0289
Errors	QC Pass	NOCHECK	NOCHECK	NOCHECK	QC Pass	QC Pass	QC Pass
Value	500.0000				500.0000	500.0000	500.0000
Range	10.00000				10.00000	10.00000	10.00000
Elem	Zr3496						
Units	ppb						
Avge	498.4700						
SDev	6.3215						
%RSD	1.268181						
#1	491.5623						
#2	499.8807						
#3	503.9670						
Errors	NOCHECK						
Value							
Range							

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	4835	--	--	--	--	--	--
SDev	16.13026	--	--	--	--	--	--
%RSD	.3336330	--	--	--	--	--	--
#1	4820	--	--	--	--	--	--
#2	4832	--	--	--	--	--	--
#3	4852	--	--	--	--	--	--

Analysis Report Blank Sample 07/30/01 11:07:22 PM

Method: ALL1 Sample Name: CCB Operator: PMP
Run Time: 07/30/01 23:00:12
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B-2496	Ba4934	Be3130	Bi2230
Units	ppb	PPM	ppb	ppb	ppb	ppb	ppb
Avge	-.005714	.0021512	-1.29648	.7965320	.0410841	.0745621	.6966900
SDev	.168746	.0008815	.97348	.9913874	.0506996	.0161015	2.652887
%RSD	2953.387	40.97549	75.08634	124.4630	123.4043	21.59477	380.7844
#1	.1866991	.0021502	-1.33321	1.911887	.0931600	.0838645	.7550132
#2	-.075308	.0030332	-.305160	.4620958	-.008117	.0559697	3.319934
#3	-.128532	.0012703	-2.25108	.0156134	.0382091	.0838522	-1.98488
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	5.000000	.1462000	39.60000	266.1000	1.800000	1.600000	55.40000
Low	-5.00000	-.146200	-39.6000	-266.100	-1.80000	-1.60000	-55.4000

Elem	Ca3179	Ca3968	Cd2265	Co2286	Cr2677	Cu3247	Fe2714
Units	PPM	PPM	ppb	ppb	ppb	ppb	PPM
Avge	.0010362	.0009342	-.128896	.0402826	.0529926	.0679609	.0077823
SDev	.0015091	.0001095	.129396	.6270411	.0912465	.0854003	.0035651
%RSD	145.6452	11.72563	100.3884	1556.604	172.1872	125.6609	45.81010
#1	.0012094	.0010493	-.231330	.3111913	-.050930	.0949269	.0057509
#2	.0024511	.0009221	.0165224	.4863237	.1199863	.1366233	.0056972
#3	-.000552	.0008312	-.171880	-.676667	.0899217	-.027667	.0118988
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.3610000	.4704000	4.700000	4.500000	7.000000	15.00000	.1694000
Low	-.361000	-.470400	-4.70000	-4.50000	-7.00000	-15.0000	-.169400

Elem	Fe2599	K-7664	Li6707	Mg2790	Mg2852	Mn2576	Mo2020
Units	PPM	ppb	ppb	PPM	PPM	PPM	ppb
Avge	.0009374	3.716546	.8768620	-.007059	-.000985	.0001032	.0882846
SDev	.0006557	4.532310	.1183479	.001568	.000179	.0001238	.7199053
%RSD	69.95124	121.9495	13.49675	22.21097	18.12475	119.8962	815.4370
#1	.0012343	6.390694	1.003547	-.005343	-.000853	.0002265	.8580322
#2	.0013921	6.275435	.8578981	-.007417	-.000914	.0001043	-.024780
#3	.0001857	-1.51649	.7691412	-.008416	-.001188	-.000021	-.568398
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.0736000	186.2000	2.700000	.1118000	.0736000	.0078000	12.70000
Low	-.073600	-186.200	-2.70000	-.111800	-.073600	-.007800	-12.7000

Elem	Na5889	Ni2316	2203/1	2203/2	Pb2203	Se1960	Sb2068
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	-5.18498	-.167539	.5961375	.6424839	.6290986	-.454772	.6431788
SDev	.97566	1.242775	2.039264	.2646894	.7768375	1.385826	.8548560
%RSD	18.81711	741.7844	342.0794	41.19783	123.4842	304.7299	132.9111
#1	-4.28091	1.186882	.1442543	.3495263	.2832219	.8304835	-.211167
#2	-5.05485	-.434081	-1.17928	.7135150	.0852711	-1.92299	1.498544
#3	-6.21917	-1.25542	2.823440	.8644104	1.518803	-.271807	.6421589
Errors	LC Pass	LC Pass	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass

High	284.8000	25.30000			47.00000	65.90000	26.90000
Low	-284.800	-25.3000			-47.0000	-65.9000	-26.9000
Elem	2068/1	2068/2	1960/1	1960/2	Ti1908	V-2924	Zn2138
Units	ppb	ppb	ppb	ppb	ppb	PPM	ppb
Avge	-.511389	1.217141	.2654109	-.816985	.2498352	.0000803	.0778761
SDev	2.285719	.866575	3.707022	1.814885	2.688867	.0002642	.1718264
%RSD	446.9633	71.19759	1396.711	222.1441	1076.256	329.1190	220.6407
#1	-1.35032	.3550940	.1733968	1.155767	2.777592	.0002347	.1091215
#2	2.075254	1.208154	-3.39475	-1.19099	-2.57540	.0002309	.2319358
#3	-2.25910	2.088174	4.017583	-2.41573	.5473157	-.000225	-.107429
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass
High					54.80000	.0069000	52.30000
Low					-54.8000	-.006900	-52.3000
Elem	Ti3349	Th4019	U-3856	P-1782	Si2881	Sn1899	Sr4215
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	.0714921	-2.85902	1.606898	17.78961	1.934776	-.696413	.0331477
SDev	.1528496	6.43115	10.80109	23.59247	2.272351	1.387081	.0257946
%RSD	213.7992	224.9426	672.1706	132.6193	117.4477	199.1750	77.81737
#1	.2451622	2.400197	-1.24924	16.36799	2.921152	-1.65978	.0624034
#2	.0118969	-.948231	-7.47909	42.06074	3.547265	.8933942	.0233614
#3	-.042583	-10.0290	13.54903	-5.05990	-.664089	-1.32286	.0136783
Errors	LC Pass	NOCHECK	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass
High	3.500000				468.5000	70.00000	1.200000
Low	-3.50000				-468.500	-70.0000	-1.20000
Elem	Zr3496						
Units	ppb						
Avge	-2.12988						
SDev	13.41770						
%RSD	629.9756						
#1	-1.83278						
#2	-15.6937						
#3	11.13681						
Errors	NOCHECK						
High							
Low							

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	4883	--	--	--	--	--	--
SDev	27.00595	--	--	--	--	--	--
%RSD	.5530983	--	--	--	--	--	--
#1	4875	--	--	--	--	--	--
#2	4860	--	--	--	--	--	--
#3	4913	--	--	--	--	--	--

Method: ALL1 Sample Name: 0107L388-005 Operator: PMP
Run Time: 07/30/01 23:07:35
Comment:
Mode: CONC Corr. Factor: 1

0007 01

Elem	Ag3280	Al3082	As1890	B-2496	Ba4934	Be3130	Bi2230
Units	ppb	PPM	ppb	ppb	ppb	ppb	ppb
Avge	-2.06202	57.57806	13.57196	26.07242	1313.468	3.258678	1.971218
SDev	.07002	.12678	2.87787	.94879	2.122	.023471	.846598
%RSD	3.395655	.2201960	21.20455	3.639062	.1615519	.7202607	42.94796
#1	-2.12394	57.66817	16.28681	25.06465	1315.146	3.232090	2.940819
#2	-2.07609	57.63291	10.55491	26.20413	1314.176	3.267417	1.594272
#3	-1.98603	57.43308	13.87415	26.94847	1311.083	3.276524	1.378562
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10000.00	1000.000	50000.00	50000.00	50000.00	10000.00	100000.0
Low	-5.00000	-.146200	-39.6000	-266.100	-1.80000	-1.60000	-55.4000

Elem	Ca3179	Ca3968	Cd2265	Co2286	Cr2677	Cu3247	Fe2714
Units	PPM	PPM	ppb	ppb	ppb	ppb	PPM
Avge	27.84217	H30.28041	.8267911	35.19917	87.18584	70.83102	135.6828
SDev	.02072	.04284	.2322095	.26838	.15388	.05531	.1383
%RSD	.0744162	.1414857	28.08564	.7624717	.1764971	.0780938	.1019185
#1	27.85452	H30.30123	.5879250	35.48516	87.01753	70.80871	135.8034
#2	27.85374	H30.30886	.8407326	35.15955	87.22067	70.89401	135.7131
#3	27.81825	H30.23113	1.051716	34.95279	87.31931	70.79034	135.5318
Errors	LC Pass	LC High	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	500.0000	10.00000	50000.00	100000.0	100000.0	100000.0	500.0000
Low	-.361000	-.470400	-4.70000	-4.50000	-7.00000	-15.0000	-.169400

Elem	Fe2599	K-7664	Li6707	Mg2790	Mg2852	Mn2576	Mo2020
Units	PPM	ppb	ppb	PPM	PPM	PPM	ppb
Avge	H121.6133	10133.52	86.40241	18.22173	17.99364	2.758144	9.741968
SDev	.0150	40.59	.19940	.00616	.02191	.001362	.245086
%RSD	.0123357	.4005224	.2307858	.0338154	.1217698	.0493776	2.515773
#1	H121.6267	10168.19	86.59318	18.22806	18.00842	2.759529	9.503606
#2	H121.5971	10143.49	86.41868	18.22137	18.00402	2.758095	9.993265
#3	H121.6163	10088.87	86.19537	18.21575	17.96847	2.756807	9.729033
Errors	LC High	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	50.00000	100000.0	40000.00	500.0000	20.00000	40.00000	50000.00
Low	-.073600	-186.200	-2.70000	-.111800	-.073600	-.007800	-12.7000

Elem	Na5889	Ni2316	2203/1	2203/2	Pb2203	Se1960	Sb2068
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	2032.781	64.30059	99.18429	99.84808	99.63030	-.760693	.0334592
SDev	7.160	.62248	.46365	2.25510	1.48905	2.422595	.1709015
%RSD	.3522489	.9680831	.4674584	2.258536	1.494579	318.4721	510.7765
#1	2039.820	63.80653	99.54255	101.5025	100.8531	-3.35406	.1923192
#2	2033.017	64.99974	99.34969	97.27942	97.97208	-.372190	-.147361
#3	2025.505	64.09551	98.66062	100.7623	100.0657	1.444173	.0554192
Errors	LC Pass	LC Pass	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass

High	100000.0	100000.0			400000.0	100000.0	100000.0
Low	-284.800	-25.3000			-47.0000	-65.9000	-26.9000
Elem	2068/1	2068/2	1960/1	1960/2	T11908	V-2924	Zn2138
Units	ppb	ppb	ppb	ppb	ppb	PPM	ppb
Avge	-1.05424	.5738452	-5.22343	1.464578	-.119727	.2378074	274.5498
SDev	.61117	.5397460	4.02592	2.561598	.822843	.0003774	.6005
%RSD	57.97210	94.05778	77.07429	174.9035	687.2673	.1586880	.2187296
#1	-1.31098	.9403927	-9.56253	-.257236	.1477013	.2381640	274.1950
#2	-.356585	-.045958	-1.60917	.2426262	.5361366	.2374122	275.2432
#3	-1.49516	.8271010	-4.49858	4.408344	-1.04302	.2378461	274.2112
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass
High					100000.0	200.0000	10000.00
Low					-54.8000	-.006900	-52.3000
Elem	Ti3349	Th4019	U-3856	P-1782	Si2881	Sn1899	Sr4215
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	4335.368	16.88004	-10.5621	3601.494	2964.809	19.71090	229.9139
SDev	2.855	3.22377	8.5656	32.190	13.427	2.23911	.2913
%RSD	.0658535	19.09813	81.09736	.8938020	.4528882	11.35977	.1267159
#1	4337.697	20.09407	-20.4517	3621.002	2952.410	17.17952	230.1445
#2	4336.224	13.64661	-5.74595	3619.141	2962.947	21.43233	230.0106
#3	4332.183	16.89944	-5.48869	3564.340	2979.071	20.52086	229.5865
Errors	LC Pass	NOCHECK	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass
High	100000.0				100000.0	100000.0	50000.00
Low	-3.50000				-468.500	-70.0000	-1.20000
Elem	Zr3496						
Units	ppb						
Avge	141.0442						
SDev	2.5392						
%RSD	1.800307						
#1	143.4334						
#2	141.3215						
#3	138.3777						
Errors	NOCHECK						
High							
Low							

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	4905	--	--	--	--	--	--
SDev	5.570195	--	--	--	--	--	--
%RSD	.1135595	--	--	--	--	--	--
#1	4901	--	--	--	--	--	--
#2	4911	--	--	--	--	--	--
#3	4903	--	--	--	--	--	--

Method: ALL1 Sample Name: 0107L388-006 Operator: PMP
Run Time: 07/30/01 23:16:36
Comment:
Mode: CONC Corr. Factor: 1

0008 01

Elem	Ag3280	Al3082	As1890	B-2496	Ba4934	Be3130	Bi2230
Units	ppb	PPM	ppb	ppb	ppb	ppb	ppb
Avge	-2.37938	70.60497	23.91801	51.03576	1544.843	3.992625	1.658082
SDev	.16206	.18810	.91906	.62767	2.880	.015501	.495988
%RSD	6.810933	.2664102	3.842540	1.229868	.1863980	.3882485	29.91335
#1	-2.48246	70.74680	24.97923	51.70789	1547.966	3.988822	1.973149
#2	-2.46310	70.67651	23.38195	50.46486	1544.273	4.009674	1.086359
#3	-2.19259	70.39159	23.39285	50.93452	1542.292	3.979379	1.914740
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10000.00	1000.000	50000.00	50000.00	50000.00	10000.00	100000.0
Low	-5.00000	-.146200	-39.6000	-266.100	-1.80000	-1.60000	-55.4000

Elem	Ca3179	Ca3968	Cd2265	Co2286	Cr2677	Cu3247	Fe2714
Units	PPM	PPM	ppb	ppb	ppb	ppb	PPM
Avge	21.81599	H23.01092	1.090485	34.45838	76.51691	79.23405	115.8533
SDev	.00684	.04134	.249917	.33908	.50091	.33953	.0306
%RSD	.0313447	.1796717	22.91799	.9840170	.6546415	.4285201	.0263878
#1	21.81316	H23.05849	1.034342	34.84602	76.05940	79.40376	115.8445
#2	21.81101	H22.98364	1.363699	34.31232	77.05214	79.45527	115.8281
#3	21.82378	H22.99063	.8734150	34.21682	76.43919	78.84312	115.8873
Errors	LC Pass	LC High	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	500.0000	10.00000	50000.00	100000.0	100000.0	100000.0	500.0000
Low	-.361000	-.470400	-4.70000	-4.50000	-7.00000	-15.0000	-.169400

Elem	Fe2599	K-7664	Li6707	Mg2790	Mg2852	Mn2576	Mo2020
Units	PPM	ppb	ppb	PPM	PPM	PPM	ppb
Avge	H105.0770	12909.58	108.4768	17.78323	17.59258	3.265090	14.88817
SDev	.0907	62.70	.5331	.02598	.03196	.001386	1.00736
%RSD	.0863017	.4856621	.4913990	.1460687	.1816775	.0424358	6.766155
#1	H105.0410	12948.57	108.9318	17.79258	17.61089	3.266203	13.74455
#2	H105.0098	12942.91	108.6083	17.80323	17.61116	3.263538	15.27598
#3	H105.1801	12837.25	107.8903	17.75387	17.55567	3.265528	15.64399
Errors	LC High	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	50.00000	100000.0	40000.00	500.0000	20.00000	40.00000	50000.00
Low	-.073600	-186.200	-2.70000	-.111800	-.073600	-.007800	-12.7000

Elem	Na5889	Ni2316	2203/1	2203/2	Pb2203	Se1960	Sb2068
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	2086.122	68.73374	76.30988	76.90265	76.70852	-.692107	.9945155
SDev	11.595	.92972	1.30573	.68941	.02534	2.802392	1.833966
%RSD	.5558159	1.352640	1.711091	.8964764	.0330392	404.9074	184.4080
#1	2093.549	68.42052	75.69080	77.23593	76.72466	-.534674	-.271635
#2	2092.056	68.00108	77.81001	76.10992	76.67931	2.028250	.1575301
#3	2072.761	69.77962	75.42884	77.36210	76.72158	-3.56990	3.097652
Errors	LC Pass	LC Pass	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass

High	100000.0	100000.0			400000.0	100000.0	100000.0
Low	-284.800	-25.3000			-47.0000	-65.9000	-26.9000
Elem	2068/1	2068/2	1960/1	1960/2	Tl1908	V-2924	Zn2138
Units	ppb	ppb	ppb	ppb	ppb	PPM	ppb
Avge	-.086728	1.531885	-4.68198	1.297094	.5646839	.1877848	328.7808
SDev	1.515421	2.462397	5.11621	5.419888	1.954345	.0006969	.1886
%RSD	1747.324	160.7430	109.2744	417.8486	346.0954	.3711390	.0573699
#1	-1.82393	.5009050	.9734163	-1.29034	1.673288	.1872293	328.9774
#2	.9638123	-.247447	-8.98885	7.525795	-1.69189	.1875581	328.6013
#3	.5999312	4.342197	-6.03052	-2.34418	1.712648	.1885668	328.7639
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass
High					100000.0	200.0000	10000.00
Low					-54.8000	-.006900	-52.3000
Elem	Ti3349	Th4019	U-3856	P-1782	Si2881	Sn1899	Sr4215
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	3712.234	30.06322	-9.01897	2851.887	1774.312	20.64024	206.6575
SDev	2.647	2.45665	6.20850	11.446	.495	1.44420	.3635
%RSD	.0712993	8.171598	68.83823	.4013326	.0278977	6.997020	.1758797
#1	3715.259	32.81246	-8.18027	2860.674	1774.321	19.19140	207.0637
#2	3710.344	28.08331	-15.6042	2838.944	1773.813	20.64957	206.5459
#3	3711.098	29.29390	-3.27245	2856.043	1774.803	22.07976	206.3629
Errors	LC Pass	NOCHECK	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass
High	100000.0				100000.0	100000.0	50000.00
Low	-3.50000				-468.500	-70.0000	-1.20000
Elem	Zr3496						
Units	ppb						
Avge	149.0720						
SDev	5.2575						
%RSD	3.526807						
#1	154.2735						
#2	143.7603						
#3	149.1823						
Errors	NOCHECK						
High							
Low							

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	4912	--	--	--	--	--	--
SDev	1.906217	--	--	--	--	--	--
%RSD	.0388087	--	--	--	--	--	--
#1	4910	--	--	--	--	--	--
#2	4914	--	--	--	--	--	--
#3	4911	--	--	--	--	--	--

Method: ALL1 Sample Name: 0107L398-001 Operator: PMP
Run Time: 07/30/01 23:25:28
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B-2496	Ba4934	Be3130	Bi2230
Units	ppb	PPM	ppb	ppb	ppb	ppb	ppb
Avge	-.629333	35.45774	18.54439	42.88216	401.4690	2.555925	-.807962
SDev	.159484	.03583	2.10374	.30889	.3524	.004796	2.476759
%RSD	25.34183	.1010560	11.34435	.7203174	.0877773	.1876391	306.5439
#1	-.671306	35.41650	20.83237	43.23883	401.4412	2.555994	-1.21051
#2	-.763633	35.48134	18.10721	42.70522	401.8344	2.560687	-3.05879
#3	-.453059	35.47537	16.69359	42.70243	401.1313	2.551096	1.845414
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10000.00	1000.000	50000.00	50000.00	50000.00	10000.00	100000.0
Low	-5.00000	-.146200	-39.6000	-266.100	-1.80000	-1.60000	-55.4000

Elem	Ca3179	Ca3968	Cd2265	Co2286	Cr2677	Cu3247	Fe2714
Units	PPM	PPM	ppb	ppb	ppb	ppb	PPM
Avge	14.42870	H14.80088	1.346959	23.79732	61.03872	203.2526	76.91031
SDev	.02277	.01571	.032671	.68526	.27536	.6658	.06387
%RSD	.1578119	.1061711	2.425574	2.879575	.4511236	.3275538	.0830455
#1	14.44980	H14.80464	1.351887	23.50190	61.23481	202.5051	76.95929
#2	14.40457	H14.81438	1.376886	23.30931	60.72392	203.7819	76.83807
#3	14.43172	H14.78363	1.312103	24.58074	61.15744	203.4709	76.93356
Errors	LC Pass	LC High	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	500.0000	10.00000	50000.00	100000.0	100000.0	100000.0	500.0000
Low	-.361000	-.470400	-4.70000	-4.50000	-7.00000	-15.0000	-.169400

Elem	Fe2599	K-7664	Li6707	Mg2790	Mg2852	Mn2576	Mo2020
Units	PPM	ppb	ppb	PPM	PPM	PPM	ppb
Avge	H71.57115	7448.296	52.83635	9.713201	9.621953	1.563060	11.65115
SDev	.09324	9.259	.11702	.002076	.009418	.002152	.88245
%RSD	.1302791	.1243082	.2214684	.0213771	.0978842	.1376635	7.573931
#1	H71.54078	7452.855	52.74907	9.714529	9.611081	1.563777	11.81747
#2	H71.49689	7454.392	52.96932	9.710808	9.627150	1.560641	10.69738
#3	H71.67580	7437.642	52.79065	9.714265	9.627628	1.564761	12.43861
Errors	LC High	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	50.00000	100000.0	40000.00	500.0000	20.00000	40.00000	50000.00
Low	-.073600	-186.200	-2.70000	-.111800	-.073600	-.007800	-12.7000

Elem	Na5889	Ni2316	2203/1	2203/2	Pb2203	Se1960	Sb2068
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	2191.159	53.50992	71.59625	72.87880	72.45416	.0389006	1.470272
SDev	3.905	1.08829	1.87085	1.38644	1.50310	3.093721	.864808
%RSD	.1782169	2.033814	2.613061	1.902394	2.074550	7952.879	58.81962
#1	2188.498	54.21933	73.14295	73.36234	73.29173	-.119493	1.437365
#2	2195.642	54.05351	69.51681	71.31534	70.71888	3.208776	.6223868
#3	2189.337	52.25692	72.12900	73.95872	73.35187	-2.97258	2.351064
Errors	LC Pass	LC Pass	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass

High	100000.0	100000.0			400000.0	100000.0	100000.0
Low	-284.800	-25.3000			-47.0000	-65.9000	-26.9000
Elem	2068/1	2068/2	1960/1	1960/2	T11908	V-2924	Zn2138
Units	pph	pph	pph	pph	pph	PPM	pph
Avge	-1.39899	2.900202	-3.70566	1.905823	.9850585	.0985858	423.5004
SDev	2.14791	1.463722	3.47515	2.906357	3.404435	.0002308	.4915
%RSD	153.5327	50.46967	93.77941	152.4987	345.6074	.2341411	.1160567
#1	.9823983	1.662057	-3.69533	1.662987	-2.89850	.0983192	423.0923
#2	-3.18989	2.522914	-.235692	4.925980	3.454726	.0987210	423.3628
#3	-1.98948	4.515633	-7.18596	-.871496	2.398948	.0987171	424.0460
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass
High					100000.0	200.0000	10000.00
Low					-54.8000	-.006900	-52.3000
Elem	Ti3349	Th4019	U-3856	P-1782	Si2881	Sn1899	Sr4215
Units	pph	pph	pph	pph	pph	pph	pph
Avge	2207.121	22.23517	-13.7478	1970.541	1695.878	17.95001	83.35938
SDev	1.186	3.21726	3.9323	34.007	8.958	1.13628	.04322
%RSD	.0537324	14.46922	28.60334	1.725748	.5282497	6.330236	.0518528
#1	2206.110	23.55260	-12.1235	2009.228	1693.355	16.63963	83.34576
#2	2206.827	18.56830	-18.2321	1945.373	1688.452	18.66261	83.40778
#3	2208.427	24.58462	-10.8879	1957.022	1705.828	18.54780	83.32461
Errors	LC Pass	NOCHECK	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass
High	100000.0				100000.0	100000.0	50000.00
Low	-3.50000				-468.500	-70.0000	-1.20000
Elem	Zr3496						
Units	pph						
Avge	77.50499						
SDev	.96976						
%RSD	1.251221						
#1	76.41826						
#2	78.28222						
#3	77.81450						
Errors	NOCHECK						
High							
Low							

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	4899	--	--	--	--	--	--
SDev	1.567991	--	--	--	--	--	--
%RSD	.0320087	--	--	--	--	--	--
#1	4897	--	--	--	--	--	--
#2	4899	--	--	--	--	--	--
#3	4900	--	--	--	--	--	--

Method: ALL1 Sample Name: 0107L398-002 Operator: PMP
Run Time: 07/30/01 23:34:39
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B-2496	Ba4934	Be3130	Bi2230
Units	ppb	PPM	ppb	ppb	ppb	ppb	ppb
Avge	-2.11681	61.69727	12.79743	25.07299	1796.298	3.519270	.6559191
SDev	.44437	.13645	1.82700	.45334	3.320	.034856	1.358455
%RSD	20.99239	.2211563	14.27632	1.808079	.1848241	.9904445	207.1071
#1	-1.78517	61.76295	10.79737	25.50282	1799.126	3.496274	.5998182
#2	-1.94355	61.78847	14.37863	24.59933	1797.126	3.502162	2.041555
#3	-2.62171	61.54041	13.21628	25.11683	1792.642	3.559375	-.673616
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10000.00	1000.000	50000.00	50000.00	50000.00	10000.00	100000.0
Low	-5.00000	-.146200	-39.6000	-266.100	-1.80000	-1.60000	-55.4000

Elem	Ca3179	Ca3968	Cd2265	Co2286	Cr2677	Cu3247	Fe2714
Units	PPM	PPM	ppb	ppb	ppb	ppb	PPM
Avge	28.13901	H30.53373	.6244917	40.09378	85.37432	104.9293	112.6623
SDev	.01868	.04706	.0742686	.47465	.33097	.3036	.0904
%RSD	.0663886	.1541207	11.89265	1.183856	.3876742	.2893708	.0802057
#1	28.15703	H30.57819	.6273184	39.56769	85.74771	104.9450	112.7588
#2	28.11973	H30.53857	.5488501	40.48992	85.11706	105.2248	112.6485
#3	28.14028	H30.48444	.6973066	40.22374	85.25819	104.6181	112.5797
Errors	LC Pass	LC High	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	500.0000	10.00000	50000.00	100000.0	100000.0	100000.0	500.0000
Low	-.361000	-.470400	-4.70000	-4.50000	-7.00000	-15.0000	-.169400

Elem	Fe2599	K-7664	Li6707	Mg2790	Mg2852	Mn2576	Mo2020
Units	PPM	ppb	ppb	PPM	PPM	PPM	ppb
Avge	H102.2107	12084.85	74.82389	17.99697	17.69733	3.372035	4.901137
SDev	.0332	40.84	.28161	.02983	.03437	.001546	.280652
%RSD	.0325020	.3379190	.3763695	.1657378	.1942193	.0458353	5.726270
#1	H102.2433	12106.55	75.03268	18.02160	17.71600	3.373758	4.639203
#2	H102.1769	12110.26	74.93539	18.00552	17.71832	3.371574	5.197357
#3	H102.2118	12037.75	74.50360	17.96381	17.65766	3.370772	4.866852
Errors	LC High	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	50.00000	100000.0	40000.00	500.0000	20.00000	40.00000	50000.00
Low	-.073600	-186.200	-2.70000	-.111800	-.073600	-.007800	-12.7000

Elem	Na5889	Ni2316	2203/1	2203/2	Pb2203	Se1960	Sb2068
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	2332.720	65.27209	75.81536	76.38242	76.19687	.1524536	2.610392
SDev	8.069	1.16888	2.75161	2.18043	.55667	2.878030	1.046331
%RSD	.3458973	1.790776	3.629355	2.854624	.7305746	1887.806	40.08329
#1	2337.387	64.07621	74.06308	78.01957	76.70534	2.639841	3.593165
#2	2337.369	66.41195	78.98682	73.90732	75.60207	.8173546	2.727632
#3	2323.402	65.32812	74.39618	77.22038	76.28320	-2.99983	1.510379
Errors	LC Pass	LC Pass	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass

High	100000.0	100000.0			400000.0	100000.0	100000.0
Low	-284.800	-25.3000			-47.0000	-65.9000	-26.9000
Elem	2068/1	2068/2	1960/1	1960/2	Tl1908	V-2924	Zn2138
Units	ppb	ppb	ppb	ppb	ppb	PPM	ppb
Avge	1.179153	3.322374	-6.60589	3.523895	2.435386	.2727770	426.0999
SDev	.964161	1.607647	3.69443	2.544301	1.134194	.0005080	.2797
%RSD	81.76730	48.38851	55.92621	72.20139	46.57141	.1862367	.0656325
#1	1.889667	4.440864	-4.09476	5.999325	3.248406	.2732567	426.2283
#2	.0816126	4.046199	-4.87492	3.656456	2.918058	.2722448	426.2923
#3	1.566178	1.480060	-10.8480	.9159050	1.139694	.2728296	425.7791
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass
High					100000.0	200.0000	10000.00
Low					-54.8000	-.006900	-52.3000
Elem	Ti3349	Th4019	U-3856	P-1782	Si2881	Sn1899	Sr4215
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	4112.754	42.96419	-5.71032	2510.581	1233.314	11.29906	272.8836
SDev	3.311	1.30413	8.71357	6.042	1.360	2.33084	.3662
%RSD	.0804944	3.035382	152.5932	.2406795	.1102586	20.62860	.1341961
#1	4116.297	44.34906	-2.03547	2507.612	1232.797	13.91520	273.2434
#2	4112.227	41.75955	-15.6593	2506.598	1232.289	9.443576	272.8959
#3	4109.740	42.78397	.5638351	2517.534	1234.857	10.53840	272.5113
Errors	LC Pass	NOCHECK	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass
High	100000.0				100000.0	100000.0	50000.00
Low	-3.50000				-468.500	-70.0000	-1.20000
Elem	Zr3496						
Units	ppb						
Avge	172.1381						
SDev	3.6762						
%RSD	2.135631						
#1	168.2477						
#2	172.6126						
#3	175.5541						
Errors	NOCHECK						
High							
Low							

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	4875	--	--	--	--	--	--
SDev	1.195323	--	--	--	--	--	--
%RSD	.0245181	--	--	--	--	--	--
#1	4875	--	--	--	--	--	--
#2	4877	--	--	--	--	--	--
#3	4875	--	--	--	--	--	--

Method: ALL1 Sample Name: 0107L398-003 Operator: PMP
Run Time: 07/30/01 23:43:49
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B-2496	Ba4934	Be3130	Bi2230
Units	ppb	PPM	ppb	ppb	ppb	ppb	ppb
Avge	-1.10717	48.41246	17.61555	31.49058	496.3471	2.996475	-1.25552
SDev	.47497	.07452	1.92675	.42125	.3610	.017151	3.76619
%RSD	42.89927	.1539303	10.93779	1.337690	.0727344	.5723822	299.9707
#1	-1.64212	48.42054	15.67939	31.26730	496.1846	3.012608	2.081456
#2	-.944439	48.33423	19.53276	31.97646	496.0960	2.978461	-.508923
#3	-.734963	48.48261	17.63450	31.22797	496.7609	2.998356	-5.33909
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10000.00	1000.000	50000.00	50000.00	50000.00	10000.00	100000.0
Low	-5.00000	-.146200	-39.6000	-266.100	-1.80000	-1.60000	-55.4000

Elem	Ca3179	Ca3968	Cd2265	Co2286	Cr2677	Cu3247	Fe2714
Units	PPM	PPM	ppb	ppb	ppb	ppb	PPM
Avge	17.78045	H18.43471	1.215858	29.11987	319.5573	168.9284	79.22440
SDev	.00737	.01400	.214602	.31578	.3745	.4479	.04602
%RSD	.0414415	.0759580	17.65025	1.084413	.1171840	.2651638	.0580835
#1	17.78837	H18.44253	1.354697	29.40518	319.9366	169.2304	79.27464
#2	17.77918	H18.41854	.9686832	29.17386	319.5476	168.4138	79.21426
#3	17.77379	H18.44305	1.324192	28.78058	319.1879	169.1412	79.18430
Errors	LC Pass	LC High	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	500.0000	10.00000	50000.00	100000.0	100000.0	100000.0	500.0000
Low	-.361000	-.470400	-4.70000	-4.50000	-7.00000	-15.0000	-.169400

Elem	Fe2599	K-7664	Li6707	Mg2790	Mg2852	Mn2576	Mo2020
Units	PPM	ppb	ppb	PPM	PPM	PPM	ppb
Avge	H73.59573	9955.649	57.36941	11.25148	11.08096	1.690586	6.312101
SDev	.05568	18.241	.12721	.01225	.01822	.000729	.678701
%RSD	.0756546	.1832232	.2217457	.1088860	.1644300	.0431039	10.75238
#1	H73.56264	9967.955	57.46357	11.26236	11.07887	1.690850	7.067185
#2	H73.56454	9934.692	57.22469	11.25386	11.06387	1.689762	5.752842
#3	H73.66001	9964.301	57.41998	11.23821	11.10013	1.691146	6.116277
Errors	LC High	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	50.00000	100000.0	40000.00	500.0000	20.00000	40.00000	50000.00
Low	-.073600	-186.200	-2.70000	-.111800	-.073600	-.007800	-12.7000

Elem	Na5889	Ni2316	2203/1	2203/2	Pb2203	Se1960	Sb2068
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	2783.734	50.58314	1147.931	1154.655	1152.418	-.451272	2.235071
SDev	6.381	.77299	1.770	3.695	3.052	.692104	.858715
%RSD	.2292377	1.528163	.1541596	.3199870	.2648399	153.3674	38.42003
#1	2786.624	50.60266	1146.734	1151.922	1150.198	-.821744	1.304664
#2	2776.419	51.34619	1147.095	1153.184	1151.158	.3472101	2.997172
#3	2788.159	49.80058	1149.964	1158.859	1155.898	-.879283	2.403377
Errors	LC Pass	LC Pass	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass

High	100000.0	100000.0			400000.0	100000.0	100000.0
Low	-284.800	-25.3000			-47.0000	-65.9000	-26.9000
Elem	2068/1	2068/2	1960/1	1960/2	T11908	V-2924	Zn2138
Units	ppb	ppb	ppb	ppb	ppb	PPM	ppb
Avge	-1.73813	4.216225	-8.57268	3.600875	.6701205	.1237007	1044.064
SDev	2.24336	1.789239	5.63570	2.152748	3.794800	.0006272	.723
%RSD	129.0670	42.43698	65.74023	59.78401	566.2861	.5070038	.0692672
#1	-.603015	2.254606	-6.98797	2.254282	-2.20370	.1235977	1044.132
#2	-.289190	4.635419	-3.89899	2.464659	4.971708	.1231314	1043.309
#3	-4.32219	5.758651	-14.8311	6.083685	-.757649	.1243730	1044.751
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass
High					100000.0	200.0000	10000.00
Low					-54.8000	-.006900	-52.3000
Elem	Ti3349	Th4019	U-3856	P-1782	Si2881	Sn1899	Sr4215
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	2276.867	23.11829	-12.7329	2041.649	4946.294	17.27385	99.09318
SDev	1.546	1.55477	6.8410	43.837	18.090	3.32120	.06915
%RSD	.0679065	6.725272	53.72694	2.147129	.3657269	19.22675	.0697832
#1	2276.621	23.19791	-5.71847	1991.037	4929.730	14.59819	99.15582
#2	2275.459	24.63171	-19.3862	2066.265	4943.554	16.23241	99.01897
#3	2278.522	21.52524	-13.0941	2067.645	4965.598	20.99097	99.10475
Errors	LC Pass	NOCHECK	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass
High	100000.0				100000.0	100000.0	50000.00
Low	-3.50000				-468.500	-70.0000	-1.20000
Elem	Zr3496						
Units	ppb						
Avge	97.12375						
SDev	4.62255						
%RSD	4.759441						
#1	102.3530						
#2	95.43607						
#3	93.58218						
Errors	NOCHECK						
High							
Low							

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	4860	--	--	--	--	--	--
SDev	1.905578	--	--	--	--	--	--
%RSD	.0392096	--	--	--	--	--	--
#1	4861	--	--	--	--	--	--
#2	4861	--	--	--	--	--	--
#3	4858	--	--	--	--	--	--

Method: ALL1 Sample Name: 0107L398-004 Operator: PMP
Run Time: 07/30/01 23:53:00
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B-2496	Ba4934	Be3130	Bi2230
Units	ppb	PPM	ppb	ppb	ppb	ppb	ppb
Avge	-.872234	64.09164	21.79359	29.43980	798.8666	3.994166	-3.08845
SDev	.614820	.02609	.20036	.69065	.6318	.064170	1.67724
%RSD	70.48796	.0407144	.9193757	2.345983	.0790879	1.606596	54.30693
#1	-.298410	64.07974	21.81876	30.09578	799.3986	4.052042	-1.41203
#2	-.797140	64.12156	21.98018	29.50457	799.0329	4.005297	-3.08682
#3	-1.52115	64.07361	21.58183	28.71904	798.1683	3.925158	-4.76651
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10000.00	1000.000	50000.00	50000.00	50000.00	10000.00	100000.0
Low	-5.00000	-.146200	-39.6000	-266.100	-1.80000	-1.60000	-55.4000

Elem	Ca3179	Ca3968	Cd2265	Co2286	Cr2677	Cu3247	Fe2714
Units	PPM	PPM	ppb	ppb	ppb	ppb	PPM
Avge	18.69994	H19.46733	1.118331	27.18057	85.96846	110.3981	101.0733
SDev	.01867	.00830	.347330	.31351	.63822	.4805	.0771
%RSD	.0998567	.0426143	31.05785	1.153424	.7423877	.4352404	.0763180
#1	18.67931	H19.47144	1.472551	27.51287	86.69946	110.1150	100.9856
#2	18.71567	H19.47277	.7783289	27.13878	85.68397	110.9529	101.1305
#3	18.70487	H19.45779	1.104113	26.89005	85.52196	110.1264	101.1039
Errors	LC Pass	LC High	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	500.0000	10.00000	50000.00	100000.0	100000.0	100000.0	500.0000
Low	-.361000	-.470400	-4.70000	-4.50000	-7.00000	-15.0000	-.169400

Elem	Fe2599	K-7664	Li6707	Mg2790	Mg2852	Mn2576	Mo2020
Units	PPM	ppb	ppb	PPM	PPM	PPM	ppb
Avge	H92.35246	10944.09	81.03826	13.05284	12.87566	2.307204	9.060798
SDev	.09430	26.36	.11560	.01261	.00970	.000829	.665159
%RSD	.1021138	.2408840	.1426515	.0965736	.0753296	.0359152	7.341066
#1	H92.24976	10971.07	81.16936	13.06113	12.86446	2.306510	9.646111
#2	H92.37246	10942.81	80.99449	13.05905	12.88152	2.308122	8.337452
#3	H92.43516	10918.39	80.95094	13.03834	12.88099	2.306981	9.198831
Errors	LC High	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	50.00000	100000.0	40000.00	500.0000	20.00000	40.00000	50000.00
Low	-.073600	-186.200	-2.70000	-.111800	-.073600	-.007800	-12.7000

Elem	Na5889	Ni2316	2203/1	2203/2	Pb2203	Se1960	Sb2068
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	2143.935	54.26334	141.3025	141.2131	141.2461	1.913510	.7778761
SDev	4.093	.66128	.7331	2.3450	1.3863	2.025024	.6512057
%RSD	.1908882	1.218647	.5188417	1.660643	.9814833	105.8277	83.71586
#1	2148.626	53.57854	141.4614	139.1114	139.8973	1.387259	1.337409
#2	2142.085	54.89827	140.5029	143.7426	142.6670	4.149708	.0630684
#3	2141.093	54.31323	141.9431	140.7852	141.1741	.2035616	.9331505
Errors	LC Pass	LC Pass	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass

High	100000.0	100000.0			400000.0	100000.0	100000.0
Low	-284.800	-25.3000			-47.0000	-65.9000	-26.9000
Elem	2068/1	2068/2	1960/1	1960/2	Tl1908	V-2924	Zn2138
Units	ppb	ppb	ppb	ppb	ppb	PPM	ppb
Avge	-.289179	1.307926	-3.27330	4.500243	2.451742	.1586943	455.7151
SDev	2.732716	1.665248	6.98695	3.158535	1.838757	.0002936	.5612
%RSD	944.9920	127.3198	213.4531	70.18587	74.99796	.1849819	.1231480
#1	-2.35987	3.180802	2.371708	.8929901	1.648087	.1584035	455.0801
#2	-1.31586	.7487161	-1.10401	6.769848	1.151621	.1589906	456.1448
#3	2.808186	-.005741	-11.0876	5.837891	4.555518	.1586886	455.9202
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass
High					100000.0	200.0000	10000.00
Low					-54.8000	-.006900	-52.3000
Elem	Ti3349	Th4019	U-3856	P-1782	Si2881	Sn1899	Sr4215
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	3123.615	35.45560	-8.49706	1758.027	3224.672	21.08711	129.1999
SDev	1.197	5.06532	1.84646	5.158	3.101	1.15258	.0177
%RSD	.0383295	14.28638	21.73059	.2933751	.0961631	5.465795	.0136873
#1	3122.271	41.22775	-10.5010	1760.876	3223.147	21.48069	129.1800
#2	3124.005	33.38758	-6.86458	1752.073	3228.240	21.99135	129.2141
#3	3124.568	31.75147	-8.12558	1761.132	3222.630	19.78930	129.2055
Errors	LC Pass	NOCHECK	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass
High	100000.0				100000.0	100000.0	50000.00
Low	-3.50000				-468.500	-70.0000	-1.20000
Elem	Zr3496						
Units	ppb						
Avge	137.2068						
SDev	12.3434						
%RSD	8.996191						
#1	150.9612						
#2	133.5652						
#3	127.0938						
Errors	NOCHECK						
High							
Low							

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	4852	--	--	--	--	--	--
SDev	2.433426	--	--	--	--	--	--
%RSD	.0501577	--	--	--	--	--	--
#1	4849	--	--	--	--	--	--
#2	4852	--	--	--	--	--	--
#3	4854	--	--	--	--	--	--

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Method: ALL1 Sample Name: 0107L398-005 Operator: PMP
Run Time: 07/31/01 00:01:53
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B-2496	Ba4934	Be3130	Bi2230
Units	ppb	PPM	ppb	ppb	ppb	ppb	ppb
Avge	-2.18237	81.53249	23.05892	33.92230	952.9489	5.476881	4.027568
SDev	.34292	.13575	2.24541	2.20824	1.3651	.044932	1.142920
%RSD	15.71343	.1664934	9.737704	6.509708	.1432474	.8203852	28.37743
#1	-2.37479	81.68381	24.64707	31.64909	954.4631	5.490951	2.846250
#2	-2.38586	81.49225	24.03973	34.05855	952.5713	5.513093	5.127768
#3	-1.78644	81.42142	20.48997	36.05926	951.8124	5.426598	4.108686
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10000.00	1000.000	50000.00	50000.00	50000.00	10000.00	100000.0
Low	-5.00000	-.146200	-39.6000	-266.100	-1.80000	-1.60000	-55.4000

Elem	Ca3179	Ca3968	Cd2265	Co2286	Cr2677	Cu3247	Fe2714
Units	PPM	PPM	ppb	ppb	ppb	ppb	PPM
Avge	34.21209	H37.92036	1.064179	30.73578	96.42982	81.70813	101.6215
SDev	.04463	.04979	.232394	.19642	.36451	.24634	.0958
%RSD	.1304536	.1312889	21.83789	.6390526	.3780009	.3014915	.0942842
#1	34.25535	H37.97538	1.232450	30.80841	96.21843	81.51344	101.6532
#2	34.21472	H37.90730	.7990169	30.51338	96.22032	81.98508	101.6974
#3	34.16620	H37.87841	1.161071	30.88553	96.85072	81.62588	101.5138
Errors	LC Pass	LC High	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	500.0000	10.00000	50000.00	100000.0	100000.0	100000.0	500.0000
Low	-.361000	-.470400	-4.70000	-4.50000	-7.00000	-15.0000	-.169400

Elem	Fe2599	K-7664	Li6707	Mg2790	Mg2852	Mn2576	Mo2020
Units	PPM	ppb	ppb	PPM	PPM	PPM	ppb
Avge	H92.53268	13248.97	111.6948	16.60319	16.39642	3.160372	7.399372
SDev	.04953	50.55	.3177	.02985	.01482	.003026	1.053198
%RSD	.0535257	.3815512	.2844218	.1798076	.0904108	.0957530	14.23361
#1	H92.47673	13305.85	112.0586	16.62726	16.41290	3.163461	6.183534
#2	H92.57090	13231.89	111.5537	16.61253	16.39219	3.160244	8.030283
#3	H92.55043	13209.17	111.4721	16.56979	16.38418	3.157412	7.984299
Errors	LC High	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	50.00000	100000.0	40000.00	500.0000	20.00000	40.00000	50000.00
Low	-.073600	-186.200	-2.70000	-.111800	-.073600	-.007800	-12.7000

Elem	Na5889	Ni2316	2203/1	2203/2	Pb2203	Se1960	Sb2068
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	1906.750	58.70316	129.5768	134.2449	132.6937	-.311335	-.612285
SDev	4.639	.35670	1.7099	1.4795	.5879	.596538	1.935999
%RSD	.2433009	.6076357	1.319572	1.102077	.4430302	191.6063	316.1927
#1	1911.438	58.79691	128.0062	135.9462	133.3054	-1.00006	1.506819
#2	1906.652	59.00363	131.3982	133.2592	132.6427	.0231058	-2.28839
#3	1902.161	58.30895	129.3260	133.5295	132.1330	.0429511	-1.05528
Errors	LC Pass	LC Pass	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass

High	100000.0	100000.0			400000.0	100000.0	100000.0
Low	-284.800	-25.3000			-47.0000	-65.9000	-26.9000
Elem	2068/1	2068/2	1960/1	1960/2	T11908	V-2924	Zn2138
Units	ppb	ppb	ppb	ppb	ppb	PPM	ppb
Avge	-3.65968	.9066754	-8.49198	3.770196	1.847981	.1413931	471.8504
SDev	.06487	2.874494	5.24807	1.746874	2.827510	.0002945	.5234
%RSD	1.772461	317.0367	61.80024	46.33376	153.0053	.2082909	.1109293
#1	-3.60994	4.058906	-14.4738	5.723927	-.935385	.1413053	472.3852
#2	-3.73305	-1.56960	-4.66093	2.358852	1.761671	.1417215	471.8269
#3	-3.63607	.2307255	-6.34124	3.227810	4.717658	.1411525	471.3391
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass
High					100000.0	200.0000	10000.00
Low					-54.8000	-.006900	-52.3000
Elem	Ti3349	Th4019	U-3856	P-1782	Si2881	Sn1899	Sr4215
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	2290.881	29.84083	-14.8634	1663.693	961.1657	19.02935	162.9591
SDev	.787	1.20094	9.4054	19.218	.2739	.54440	.2515
%RSD	.0343362	4.024476	63.27896	1.155134	.0284979	2.860848	.1543540
#1	2291.783	31.06137	-21.4677	1684.926	961.4818	18.42024	163.2188
#2	2290.338	28.66051	-19.0277	1658.661	961.0159	19.46849	162.7166
#3	2290.521	29.80061	-4.09472	1647.492	960.9993	19.19931	162.9418
Errors	LC Pass	NOCHECK	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass
High	100000.0				100000.0	100000.0	50000.00
Low	-3.50000				-468.500	-70.0000	-1.20000
Elem	Zr3496						
Units	ppb						
Avge	154.4429						
SDev	3.7473						
%RSD	2.426315						
#1	156.3569						
#2	156.8467						
#3	150.1252						
Errors	NOCHECK						
High							
Low							

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	4886	--	--	--	--	--	--
SDev	3.026228	--	--	--	--	--	--
%RSD	.0619342	--	--	--	--	--	--
#1	4884	--	--	--	--	--	--
#2	4886	--	--	--	--	--	--
#3	4890	--	--	--	--	--	--

Method: ALL1 Sample Name: 0107L398-006 Operator: PMP
Run Time: 07/31/01 00:11:03
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B-2496	Ba4934	Be3130	Bi2230
Units	ppb	PPM	ppb	ppb	ppb	ppb	ppb
Avge	.3153667	95.06009	24.03879	44.21639	691.5538	5.111401	1.668936
SDev	.4635869	.07020	2.61990	.33181	1.1471	.052931	.712742
%RSD	146.9993	.0738453	10.89865	.7504240	.1658777	1.035552	42.70636
#1	.1086530	95.13905	26.95103	43.93447	692.8328	5.166876	1.978884
#2	.8463506	95.03647	21.87341	44.13264	690.6160	5.061446	.8536968
#3	-.008904	95.00475	23.29194	44.58204	691.2125	5.105879	2.174227
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10000.00	1000.000	50000.00	50000.00	50000.00	10000.00	100000.0
Low	-5.00000	-.146200	-39.6000	-266.100	-1.80000	-1.60000	-55.4000

Elem	Ca3179	Ca3968	Cd2265	Co2286	Cr2677	Cu3247	Fe2714
Units	PPM	PPM	ppb	ppb	ppb	ppb	PPM
Avge	21.52903	H22.64845	.5821775	27.98842	98.11852	119.2289	113.5919
SDev	.02282	.02216	.1838488	.07200	.54193	.0758	.0569
%RSD	.1059874	.0978609	31.57951	.2572617	.5523229	.0636160	.0500824
#1	21.51001	H22.67397	.6149883	27.91449	98.15621	119.2676	113.5893
#2	21.55433	H22.63736	.7474117	28.05833	98.64062	119.2777	113.6501
#3	21.52275	H22.63402	.3841324	27.99244	97.55872	119.1415	113.5364
Errors	LC Pass	LC High	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	500.0000	10.00000	50000.00	100000.0	100000.0	100000.0	500.0000
Low	-.361000	-.470400	-4.70000	-4.50000	-7.00000	-15.0000	-.169400

Elem	Fe2599	K-7664	Li6707	Mg2790	Mg2852	Mn2576	Mo2020
Units	PPM	ppb	ppb	PPM	PPM	PPM	ppb
Avge	H102.9513	14977.79	103.8069	15.51805	15.38674	2.305263	10.03074
SDev	.1003	44.82	.3066	.01061	.00723	.001589	.87160
%RSD	.0973956	.2992626	.2953593	.0683667	.0469772	.0689178	8.689287
#1	H102.8363	15023.51	104.1530	15.53030	15.39416	2.304197	9.250794
#2	H102.9967	14975.93	103.6983	15.51212	15.38636	2.307089	10.97158
#3	H103.0207	14933.92	103.5694	15.51173	15.37971	2.304502	9.869858
Errors	LC High	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	50.00000	100000.0	40000.00	500.0000	20.00000	40.00000	50000.00
Low	-.073600	-186.200	-2.70000	-.111800	-.073600	-.007800	-12.7000

Elem	Na5889	Ni2316	2203/1	2203/2	Pb2203	Se1960	Sb2068
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	3162.351	58.90185	164.1133	165.6062	165.1109	-1.34439	2.473339
SDev	8.598	.90463	1.6711	.9092	.9199	7.15151	.934091
%RSD	.2718785	1.535825	1.018287	.5490355	.5571190	531.9531	37.76641
#1	3171.754	58.30012	164.3126	164.6222	164.5209	-6.90582	3.278905
#2	3160.408	58.46325	162.3514	165.7813	164.6410	-3.85017	1.449409
#3	3154.891	59.94217	165.6759	166.4152	166.1708	6.722824	2.691702
Errors	LC Pass	LC Pass	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass

High	100000.0	100000.0			400000.0	100000.0	100000.0
Low	-284.800	-25.3000			-47.0000	-65.9000	-26.9000
Elem	2068/1	2068/2	1960/1	1960/2	T11908	V-2924	Zn2138
Units	pph	pph	pph	pph	pph	PPM	pph
Avge	.5600970	3.426065	-6.61089	1.282354	.9303462	.1537362	428.6724
SDev	.7627861	1.772115	4.28169	8.588967	2.722561	.0001559	.9627
%RSD	136.1882	51.72449	64.76716	669.7814	292.6396	.1013842	.2245813
#1	.0657487	4.880612	-9.72119	-5.50301	-1.82309	.1535562	428.0246
#2	1.438585	1.452353	-8.38402	-1.58911	3.620947	.1538285	429.7786
#3	.1759572	3.945229	-1.72747	10.93918	.9931793	.1538238	428.2138
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass
High					100000.0	200.0000	10000.00
Low					-54.8000	-.006900	-52.3000
Elem	Ti3349	Th4019	U-3856	P-1782	Si2881	Sn1899	Sr4215
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	3623.117	33.45434	-17.0485	1717.229	2005.151	25.18804	152.5308
SDev	1.568	3.71158	7.0125	44.454	6.817	3.20194	.1243
%RSD	.0432862	11.09446	41.13260	2.588691	.3399498	12.71215	.0815165
#1	3624.370	30.53240	-19.0739	1767.274	1997.476	22.58637	152.6739
#2	3621.358	37.63055	-9.24625	1702.095	2010.501	24.21382	152.4701
#3	3623.622	32.20007	-22.8255	1682.319	2007.476	28.76394	152.4486
Errors	LC Pass	NOCHECK	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass
High	100000.0				100000.0	100000.0	50000.00
Low	-3.50000				-468.500	-70.0000	-1.20000
Elem	Zr3496						
Units	ppb						
Avge	161.4133						
SDev	6.3730						
%RSD	3.948280						
#1	162.1373						
#2	167.3934						
#3	154.7091						
Errors	NOCHECK						
High							
Low							

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	4875	--	--	--	--	--	--
SDev	3.349323	--	--	--	--	--	--
%RSD	.0687100	--	--	--	--	--	--
#1	4871	--	--	--	--	--	--
#2	4876	--	--	--	--	--	--
#3	4877	--	--	--	--	--	--

Method: ALL1 Sample Name: 0107L398-007 Operator: PMP
Run Time: 07/31/01 00:20:13
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B-2496	Ba4934	Be3130	Bi2230
Units	ppb	PPM	ppb	ppb	ppb	ppb	ppb
Avge	1.301019	58.80024	772.7643	48.88298	643.9565	3.802194	18.05468
SDev	.283141	.18657	3.9255	1.27977	2.2115	.050339	1.70903
%RSD	21.76301	.3172864	.5079761	2.618031	.3434179	1.323958	9.465869
#1	1.299449	58.84311	777.0962	49.47124	644.9355	3.842697	19.76954
#2	1.018667	58.96163	771.7537	47.41485	645.5095	3.818049	16.35154
#3	1.584942	58.59597	769.4429	49.76285	641.4245	3.745836	18.04297
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10000.00	1000.000	50000.00	50000.00	50000.00	10000.00	100000.0
Low	-5.00000	-.146200	-39.6000	-266.100	-1.80000	-1.60000	-55.4000

Elem	Ca3179	Ca3968	Cd2265	Co2286	Cr2677	Cu3247	Fe2714
Units	PPM	PPM	ppb	ppb	ppb	ppb	PPM
Avge	23.62636	H26.04053	19.19808	83.67679	655.7074	1663.587	H1027.422
SDev	.00898	.05936	.73194	.60317	.6899	5.389	.716
%RSD	.0380054	.2279608	3.812577	.7208312	.1052118	.3239191	.0696709
#1	23.63672	H26.06695	18.96082	84.37168	654.9961	1665.925	H1027.450
#2	23.62084	H26.08210	20.01923	83.36999	656.3737	1667.412	H1028.123
#3	23.62151	H25.97255	18.61421	83.28869	655.7524	1657.424	H1026.693
Errors	LC Pass	LC High	LC Pass	LC Pass	LC Pass	LC Pass	LC High
High	500.0000	10.00000	50000.00	100000.0	100000.0	100000.0	500.0000
Low	-.361000	-.470400	-4.70000	-4.50000	-7.00000	-15.0000	-.169400

Elem	Fe2599	K-7664	Li6707	Mg2790	Mg2852	Mn2576	Mo2020
Units	PPM	ppb	ppb	PPM	PPM	PPM	ppb
Avge	H541.5089	9336.578	78.83759	12.41968	12.82522	6.949804	96.20740
SDev	.5421	48.009	.39407	.03732	.03435	.007695	.65346
%RSD	.1001156	.5142083	.4998456	.3004814	.2678152	.1107168	.6792209
#1	H541.3229	9355.308	78.90060	12.44221	12.83413	6.954777	96.80885
#2	H541.0842	9372.400	79.19636	12.44023	12.85423	6.953695	95.51208
#3	H542.1195	9282.027	78.41582	12.37661	12.78730	6.940941	96.30127
Errors	LC High	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	50.00000	100000.0	40000.00	500.0000	20.00000	40.00000	50000.00
Low	-.073600	-186.200	-2.70000	-.111800	-.073600	-.007800	-12.7000

Elem	Na5889	Ni2316	2203/1	2203/2	Pb2203	Se1960	Sb2068
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	1827.517	283.0106	673.7835	684.6297	681.0210	9.879770	14.75996
SDev	10.427	.8655	2.0062	6.7426	4.6439	.988536	2.16710
%RSD	.5705613	.3058346	.2977508	.9848561	.6819045	10.00566	14.68227
#1	1830.293	284.0099	671.4694	683.8326	679.7190	10.89025	14.41345
#2	1836.275	282.4961	675.0331	691.7355	686.1769	8.914751	17.07944
#3	1815.983	282.5257	674.8479	678.3211	677.1671	9.834306	12.78700
Errors	LC Pass	LC Pass	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass

High	100000.0	100000.0			400000.0	100000.0	100000.0
Low	-284.800	-25.3000			-47.0000	-65.9000	-26.9000
Elem	2068/1	2068/2	1960/1	1960/2	Ti1908	V-2924	Zn2138
Units	ppb	ppb	ppb	ppb	ppb	PPM	ppb
Avge	11.91776	16.17632	3.554372	13.03511	-6.21703	.1648814	5931.790
SDev	4.66789	.96576	7.578823	2.38577	4.36653	.0001992	1.663
%RSD	39.16749	5.970178	213.2254	18.30264	70.23497	.1208419	.0280355
#1	10.59729	16.31615	9.960533	11.35159	-3.17754	.1649705	5933.295
#2	17.10364	17.06454	-4.81198	15.76532	-4.25285	.1650206	5932.069
#3	8.052351	15.14827	5.514564	11.98843	-11.2207	.1646531	5930.004
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass
High					100000.0	200.0000	10000.00
Low					-54.8000	-.006900	-52.3000
Elem	Ti3349	Th4019	U-3856	P-1782	Si2881	Sn1899	Sr4215
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	1304.839	10.33948	111.9519	3272.073	2572.248	59.24492	157.2402
SDev	2.314	3.33909	10.5070	20.245	7.672	1.77266	.4109
%RSD	.1773018	32.29454	9.385285	.6187118	.2982580	2.992083	.2613257
#1	1305.884	12.61154	123.9878	3294.628	2563.410	57.44705	157.4421
#2	1306.445	11.90118	104.6114	3255.477	2576.143	59.29646	157.5112
#3	1302.187	6.505707	107.2565	3266.113	2577.190	60.99124	156.7674
Errors	LC Pass	NOCHECK	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass
High	100000.0				100000.0	100000.0	50000.00
Low	-3.50000				-468.500	-70.0000	-1.20000
Elem	Zr3496						
Units	ppb						
Avge	68.83544						
SDev	13.93110						
%RSD	20.23826						
#1	60.24327						
#2	84.90890						
#3	61.35416						
Errors	NOCHECK						
High							
Low							

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	4781	--	--	--	--	--	--
SDev	6.199613	--	--	--	--	--	--
%RSD	.1296636	--	--	--	--	--	--
#1	4775	--	--	--	--	--	--
#2	4782	--	--	--	--	--	--
#3	4787	--	--	--	--	--	--

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Method: ALL1 Sample Name: 0107L398-008 Operator: PMP
Run Time: 07/31/01 00:29:23
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B-2496	Ba4934	Be3130	Bi2230
Units	ppb	PPM	ppb	ppb	ppb	ppb	ppb
Avge	-1.46833	61.05208	269.3077	29.75429	362.5240	3.742503	-1.18548
SDev	.29991	.06426	.3046	1.53579	.5191	.024955	2.16625
%RSD	20.42548	.1052614	.1131090	5.161566	.1431830	.6668036	182.7330
#1	-1.16386	61.01901	268.9588	27.98805	363.0314	3.765216	.3383980
#2	-1.47766	61.12615	269.4438	30.77504	362.5464	3.715789	-.229560
#3	-1.76346	61.01109	269.5206	30.49978	361.9940	3.746504	-3.66526
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10000.00	1000.000	50000.00	50000.00	50000.00	10000.00	100000.0
Low	-5.00000	-.146200	-39.6000	-266.100	-1.80000	-1.60000	-55.4000

Elem	Ca3179	Ca3968	Cd2265	Co2286	Cr2677	Cu3247	Fe27[illegible]4
Units	PPM	PPM	ppb	ppb	ppb	ppb	PPM
Avge	16.60450	H17.22118	3.460336	27.17278	193.2908	401.6606	115.7856
SDev	.00679	.01777	.180929	.61693	.6095	1.1102	.0948
%RSD	.0409173	.1031677	5.228667	2.270407	.3153411	.2764049	.0818403
#1	16.59952	H17.23239	3.666218	26.49169	192.6406	402.1623	115.8593
#2	16.60173	H17.23046	3.326654	27.69416	193.3825	402.4313	115.8188
#3	16.61224	H17.20069	3.388136	27.33247	193.8493	400.3880	115.6787
Errors	LC Pass	LC High	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	500.0000	10.00000	50000.00	100000.0	100000.0	100000.0	500.0000
Low	-.361000	-.470400	-4.70000	-4.50000	-7.00000	-15.0000	-.169400

Elem	Fe2599	K-7664	Li6707	Mg2790	Mg2852	Mn2576	Mo2020
Units	PPM	ppb	ppb	PPM	PPM	PPM	ppb
Avge	H104.4499	9236.410	81.75624	10.39304	10.35482	2.108233	17.70220
SDev	.0468	16.159	.12864	.01501	.00946	.002020	.84456
%RSD	.0447926	.1749449	.1573413	.1444667	.0913940	.0957926	4.770942
#1	H104.4664	9231.852	81.77631	10.40175	10.34816	2.110136	18.49881
#2	H104.4862	9254.358	81.87367	10.40167	10.36566	2.108450	17.79108
#3	H104.3971	9223.021	81.61875	10.37570	10.35065	2.106114	16.81672
Errors	LC High	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	50.00000	100000.0	40000.00	500.0000	20.00000	40.00000	50000.00
Low	-.073600	-186.200	-2.70000	-.111800	-.073600	-.007800	-12.7000

Elem	Na5889	Ni2316	2203/1	2203/2	Pb2203	Se1960	Sb2068
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	1448.020	82.32278	332.9499	339.8850	337.5789	4.075833	2.417720
SDev	1.216	1.33547	2.7504	1.1439	.9851	.291329	1.040948
%RSD	.0840041	1.622239	.8260745	.3365665	.2918111	7.147706	43.05492
#1	1447.093	83.09967	334.0648	340.9062	338.6313	4.349160	3.618180
#2	1449.397	83.08794	329.8171	340.0998	336.6789	4.108998	1.765109
#3	1447.569	80.78072	334.9678	338.6488	337.4263	3.769341	1.869871
Errors	LC Pass	LC Pass	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass

High	100000.0	100000.0			400000.0	100000.0	100000.0
Low	-284.800	-25.3000			-47.0000	-65.9000	-26.9000
Elem	2068/1	2068/2	1960/1	1960/2	T11908	V-2924	Zn2138
Units	ppb	ppb	ppb	ppb	ppb	PPM	ppb
Avge	.6466555	3.299473	-.454733	6.334962	.5383129	.1204526	1909.015
SDev	2.510339	2.813808	4.594720	2.537960	1.986870	.0001989	2.176
%RSD	388.2035	85.28053	1010.423	40.06274	369.0920	.1651255	.1139771
#1	-2.24522	6.543026	.1092710	6.463162	-1.11975	.1203837	1910.361
#2	2.264662	1.513255	-5.30542	8.806393	2.740578	.1202973	1910.179
#3	1.920521	1.842138	3.831950	3.735333	-.005886	.1206768	1906.504
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass
High					100000.0	200.0000	10000.00
Low					-54.8000	-.006900	-52.3000
Elem	Ti3349	Th4019	U-3856	P-1782	Si2881	Sn1899	Sr4215
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	1887.704	24.79762	-1.48391	1299.491	2125.139	21.44103	109.4962
SDev	1.594	2.83395	11.22935	28.576	10.879	4.48854	.1893
%RSD	.0844181	11.42829	756.7380	2.199021	.5118998	20.93437	.1728719
#1	1889.214	23.63919	-11.2644	1272.310	2114.397	26.45880	109.5925
#2	1887.860	22.72641	-3.96618	1296.879	2136.149	17.80809	109.6181
#3	1886.038	28.02727	10.77888	1329.283	2124.870	20.05619	109.2781
Errors	LC Pass	NOCHECK	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass
High	100000.0				100000.0	100000.0	50000.00
Low	-3.50000				-468.500	-70.0000	-1.20000
Elem	Zr3496						
Units	ppb						
Avge	119.3737						
SDev	3.6079						
%RSD	3.022334						
#1	115.3450						
#2	120.4692						
#3	122.3068						
Errors	NOCHECK						
High							
Low							

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	4893	--	--	--	--	--	--
SDev	11.50128	--	--	--	--	--	--
%RSD	.2350643	--	--	--	--	--	--
#1	4881	--	--	--	--	--	--
#2	4893	--	--	--	--	--	--
#3	4904	--	--	--	--	--	--

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Method: ALL1 Sample Name: CCV Operator: PMP
Run Time: 07/31/01 00:39:19
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B-2496	Ba4934	Be3130	Bi2230
Units	pph	PPM	pph	pph	pph	pph	pph
Avge	494.5721	5.009766	505.0859	506.3607	501.7401	506.1572	505.7927
SDev	1.1240	.010674	4.7202	1.9205	1.0837	1.3346	3.8766
%RSD	.2272768	.2130578	.9345326	.3792809	.2159812	.2636751	.7664345
#1	495.8675	5.021451	509.4620	507.8269	502.9820	507.5811	509.6830
#2	493.8540	5.007317	505.7117	507.0685	501.2520	505.9557	505.7650
#3	493.9948	5.000529	500.0841	504.1867	500.9864	504.9348	501.9300
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	500.0000	5.000000	500.0000	500.0000	500.0000	500.0000	500.0000
Range	10.00000	10.00000	10.00000	10.00000	10.00000	10.00000	10.00000

Elem	Ca3179	Ca3968	Cd2265	Co2286	Cr2677	Cu3247	Fe2714
Units	PPM	PPM	pph	pph	pph	pph	PPM
Avge	2.070540	1.992585	513.3086	510.8920	510.1117	497.0547	5.192455
SDev	.003556	.005094	1.9476	.8393	2.0145	.8212	.023932
%RSD	.1717357	.2556385	.3794264	.1642747	.3949204	.1652223	.4609049
#1	2.073071	1.998222	515.5542	511.2414	511.7294	497.9733	5.213256
#2	2.072074	1.991222	512.2930	511.5001	510.7506	496.7994	5.197811
#3	2.066474	1.988312	512.0788	509.9345	507.8552	496.3915	5.166299
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	2.000000	2.000000	500.0000	500.0000	500.0000	500.0000	5.000000
Range	10.00000	10.00000	10.00000	10.00000	10.00000	10.00000	10.00000

Elem	Fe2599	K-7664	Li6707	Mg2790	Mg2852	Mn2576	Mo2020
Units	PPM	pph	pph	PPM	PPM	PPM	pph
Avge	5.003272	5155.333	3976.624	4.056378	3.987534	5.199782	511.9007
SDev	.006522	7.169	5.384	.005224	.004194	.009623	1.5693
%RSD	.1303531	.1390561	.1354001	.1287880	.1051664	.1850580	.3065539
#1	5.009865	5163.170	3980.501	4.057105	3.991397	5.209935	513.5544
#2	5.003130	5153.724	3978.895	4.061201	3.988132	5.198615	511.7153
#3	4.996823	5149.106	3970.476	4.050828	3.983074	5.190796	510.4323
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	5.000000	5000.000	4000.000	4.000000	4.000000	5.000000	500.0000
Range	10.00000	10.00000	10.00000	10.00000	10.00000	10.00000	10.00000

Elem	Na5889	Ni2316	2203/1	2203/2	Pb2203	Se1960	Sb2068
Units	pph	pph	pph	pph	pph	pph	pph
Avge	5012.524	512.3191	506.5285	511.8195	510.0601	503.3441	510.9903
SDev	3.046	.5677	2.1017	2.1457	.8001	2.1664	2.8370
%RSD	.0607660	.1108092	.4149231	.4192271	.1568562	.4304095	.5551999
#1	5015.480	512.9705	505.8110	513.2708	510.7891	505.1393	514.2307
#2	5012.697	511.9302	508.8950	509.3548	509.2041	503.9554	508.9535
#3	5009.396	512.0565	504.8795	512.8330	510.1869	500.9377	509.7868
Errors	QC Pass	QC Pass	NOCHECK	NOCHECK	QC Pass	QC Pass	QC Pass

Value	5000.000	500.0000			500.0000	500.0000	500.0000
Range	10.00000	10.00000			10.00000	10.00000	10.00000
Elem	2068/1	2068/2	1960/1	1960/2	Tl1908	V-2924	Zn2138
Units	ppb	ppb	ppb	ppb	ppb	PPM	ppb
Avge	508.0263	512.4677	502.5192	503.7532	508.6338	5.091564	512.6666
SDev	4.4442	2.1095	2.4989	3.6826	3.8600	.007104	1.9961
%RSD	.8747923	.4116276	.4972680	.7310355	.7588889	.1395182	.3893506
#1	512.8828	514.9012	500.1704	507.6172	509.0641	5.099448	514.9031
#2	504.1624	511.3431	505.1451	503.3587	512.2606	5.089584	512.0308
#3	507.0335	511.1589	502.2421	500.2837	504.5767	5.085661	511.0658
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	QC Pass	QC Pass	QC Pass
Value					500.0000	5.000000	500.0000
Range					10.00000	10.00000	10.00000
Elem	Ti3349	Th4019	U-3856	P-1782	Si2881	Sn1899	Sr4215
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	505.0329	538.7403	524.9189	1024.695	533.6384	508.3745	498.5722
SDev	1.1331	2.5844	4.2712	16.225	2.7020	4.2059	.9912
%RSD	.2243601	.4797053	.8136958	1.583365	.5063289	.8273300	.1988142
#1	506.2714	538.5773	527.5555	1017.277	531.2552	505.3314	499.7083
#2	504.7791	541.4023	527.2103	1013.505	536.5738	513.1739	498.1243
#3	504.0482	536.2413	519.9910	1043.303	533.0861	506.6181	497.8839
Errors	QC Pass	NOCHECK	NOCHECK	NOCHECK	QC Pass	QC Pass	QC Pass
Value	500.0000				500.0000	500.0000	500.0000
Range	10.00000				10.00000	10.00000	10.00000
Elem	Zr3496						
Units	ppb						
Avge	540.1038						
SDev	3.0166						
%RSD	.5585183						
#1	537.6439						
#2	543.4695						
#3	539.1981						
Errors	NOCHECK						
Value							
Range							

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	4906	--	--	--	--	--	--
SDev	15.89450	--	--	--	--	--	--
%RSD	.3240057	--	--	--	--	--	--
#1	4887	--	--	--	--	--	--
#2	4916	--	--	--	--	--	--
#3	4914	--	--	--	--	--	--

Method: ALL1 Sample Name: CCB Operator: PMP
Run Time: 07/31/01 00:49:23
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B-2496	Ba4934	Be3130	Bi2230
Units	ppb	PPM	ppb	ppb	ppb	ppb	ppb
Avge	-.385892	.0072989	-.493264	-.640957	.0405560	.1214497	1.020814
SDev	.429363	.0009743	1.158750	1.552634	.0457387	.0159373	2.564104
%RSD	111.2652	13.34830	234.9148	242.2370	112.7790	13.12254	251.1823
#1	-.857532	.0077801	-1.83099	-1.68498	.0410702	.1064150	1.460049
#2	-.282432	.0079390	.1516716	-1.38116	-.005438	.1381576	-1.73453
#3	-.017711	.0061776	.1995245	1.143269	.0860354	.1197766	3.336928
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	5.000000	.1462000	39.60000	266.1000	1.800000	1.600000	55.40000
Low	-5.00000	-.146200	-39.6000	-266.100	-1.80000	-1.60000	-55.4000

Elem	Ca3179	Ca3968	Cd2265	Co2286	Cr2677	Cu3247	Fe2714
Units	PPM	PPM	ppb	ppb	ppb	ppb	PPM
Avge	-.007896	-.000622	-.069849	-.211566	-.058475	-.687307	.0046105
SDev	.001122	.000078	.284792	.462148	.323474	.065211	.0132043
%RSD	14.21537	12.60159	407.7235	218.4411	553.1840	9.487935	286.3943
#1	-.009136	-.000536	-.049987	-.673395	.1886724	-.612221	.0170556
#2	-.007602	-.000640	-.364053	-.212204	-.424586	-.729754	-.009240
#3	-.006950	-.000689	.2044920	.2508998	.0604885	-.719946	.0060164
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.3610000	.4704000	4.700000	4.500000	7.000000	15.00000	.1694000
Low	-.361000	-.470400	-4.70000	-4.50000	-7.00000	-15.0000	-.169400

Elem	Fe2599	K-7664	Li6707	Mg2790	Mg2852	Mn2576	Mo2020
Units	PPM	ppb	ppb	PPM	PPM	PPM	ppb
Avge	.0028167	9.744688	.9232954	-.003160	-.001325	.0001213	.1821526
SDev	.0006489	3.244148	.0742598	.001330	.000015	.0000941	.3245800
%RSD	23.03929	33.29145	8.042912	42.10319	1.164170	77.58064	178.1912
#1	.0035607	7.637223	1.005601	-.002749	-.001316	.0002240	-.073726
#2	.0025214	8.116363	.9029719	-.002084	-.001343	.0001006	.0729272
#3	.0023679	13.48048	.8613133	-.004647	-.001316	.0000393	.5472560
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.0736000	186.2000	2.700000	.1118000	.0736000	.0078000	12.70000
Low	-.073600	-186.200	-2.70000	-.111800	-.073600	-.007800	-12.7000

Elem	Na5889	Ni2316	2203/1	2203/2	Pb2203	Se1960	Sb2068
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	-7.37040	-.120423	-.052629	.8524578	.5530983	-1.53223	.3304976
SDev	.22326	.415942	1.614411	.7607749	.7623498	1.65133	.2482926
%RSD	3.029139	345.4011	3067.508	89.24487	137.8326	107.7726	75.12689
#1	-7.26236	-.520317	1.772126	.7277955	1.077598	.0783182	.0927112
#2	-7.22171	-.150847	-1.29519	.1617133	-.321403	-3.22152	.5881079
#3	-7.62713	.3098955	-.634819	1.667864	.9031007	-1.45350	.3106738
Errors	LC Pass	LC Pass	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass

High	284.8000	25.30000			47.00000	65.90000	26.90000
Low	-284.800	-25.3000			-47.0000	-65.9000	-26.9000
Elem	2068/1	2068/2	1960/1	1960/2	Ti1908	V-2924	Zn2138
Units	ppb	ppb	ppb	ppb	ppb	PPM	ppb
Avge	-2.42209	1.702287	-1.90442	-1.34916	.8333362	.0003061	.1681515
SDev	.27820	.236685	2.68332	2.55613	1.692122	.0005223	.0710320
%RSD	11.48588	13.90395	140.8996	189.4602	203.0540	170.6172	42.24287
#1	-2.65344	1.461280	-2.97780	1.601334	.9253922	.0000040	.1246003
#2	-2.11340	1.934400	-3.88488	-2.89308	2.477552	.0009092	.2501186
#3	-2.49942	1.711181	1.149429	-2.75575	-.902935	.0000051	.1297356
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass
High					54.80000	.0069000	52.30000
Low					-54.8000	-.006900	-52.3000
Elem	Ti3349	Th4019	U-3856	P-1782	Si2881	Sn1899	Sr4215
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	.1691713	-3.88198	-2.05633	-9.62092	-3.03275	.7486850	.0132406
SDev	.0681439	2.65134	5.14639	6.38795	1.15037	1.431442	.0060065
%RSD	40.28097	68.29868	250.2701	66.39647	37.93175	191.1942	45.36407
#1	.0918584	-6.93819	-6.18445	-16.9046	-3.15466	-.737470	.0089678
#2	.2205015	-2.50988	3.709657	-6.98775	-1.82627	.8652385	.0201083
#3	.1951541	-2.19789	-3.69421	-4.97045	-4.11731	2.118287	.0106456
Errors	LC Pass	NOCHECK	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass
High	3.500000				468.5000	70.00000	1.200000
Low	-3.50000				-468.500	-70.0000	-1.20000
Elem	Zr3496						
Units	ppb						
Avge	28.05628						
SDev	9.04609						
%RSD	32.24267						
#1	19.98887						
#2	26.34372						
#3	37.83625						
Errors	NOCHECK						
High							
Low							

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	4916	--	--	--	--	--	--
SDev	11.50391	--	--	--	--	--	--
%RSD	.2340285	--	--	--	--	--	--
#1	4903	--	--	--	--	--	--
#2	4917	--	--	--	--	--	--
#3	4926	--	--	--	--	--	--

Method: ALL1 Sample Name: 0107L398-009 Operator: PMP
Run Time: 07/31/01 00:56:34
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B-2496	Ba4934	Be3130	Bi2230
Units	ppb	PPM	ppb	ppb	ppb	ppb	ppb
Avge	-2.08449	90.26318	180.7235	41.83678	789.9770	5.921657	.8022907
SDev	.17899	.10073	.0478	.48495	1.2308	.021940	1.953019
%RSD	8.586601	.1115922	.0264368	1.159144	.1557973	.3704974	243.4303
#1	-2.22853	90.17285	180.6886	42.36607	791.1205	5.946985	-1.40095
#2	-1.88411	90.37180	180.7779	41.73042	790.1362	5.909436	1.487271
#3	-2.14082	90.24487	180.7039	41.41383	788.6744	5.908549	2.320549
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10000.00	1000.000	50000.00	50000.00	50000.00	10000.00	100000.0
Low	-5.00000	-.146200	-39.6000	-266.100	-1.80000	-1.60000	-55.4000

Elem	Ca3179	Ca3968	Cd2265	Co2286	Cr2677	Cu3247	Fe2714
Units	PPM	PPM	ppb	ppb	ppb	ppb	PPM
Avge	20.10808	H20.78016	4.225084	69.86846	198.8570	323.2519	137.2003
SDev	.02607	.01191	.190121	.21470	.5830	.6640	.0347
%RSD	.1296734	.0573082	4.499810	.3072962	.2931652	.2054113	.0252611
#1	20.08798	H20.79311	4.175341	70.11446	198.3105	322.6205	137.2229
#2	20.09871	H20.77769	4.064779	69.77216	199.4706	323.9443	137.1604
#3	20.13754	H20.76968	4.435131	69.71877	198.7901	323.1910	137.2176
Errors	LC Pass	LC High	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	500.0000	10.00000	50000.00	100000.0	100000.0	100000.0	500.0000
Low	-.361000	-.470400	-4.70000	-4.50000	-7.00000	-15.0000	-.169400

Elem	Fe2599	K-7664	Li6707	Mg2790	Mg2852	Mn2576	Mo2020
Units	PPM	ppb	ppb	PPM	PPM	PPM	ppb
Avge	H121.9332	13905.83	116.5763	15.96568	15.78930	5.438581	20.50082
SDev	.0798	17.11	.2647	.01624	.02340	.003423	.85121
%RSD	.0654108	.1230717	.2270331	.1017223	.1482030	.0629359	4.152097
#1	H121.8975	13894.12	116.5878	15.95969	15.76841	5.438496	19.52218
#2	H121.8775	13925.47	116.8351	15.98407	15.81459	5.435202	21.06929
#3	H122.0246	13897.90	116.3061	15.95329	15.78490	5.442046	20.91099
Errors	LC High	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	50.00000	100000.0	40000.00	500.0000	20.00000	40.00000	50000.00
Low	-.073600	-186.200	-2.70000	-.111800	-.073600	-.007800	-12.7000

Elem	Na5889	Ni2316	2203/1	2203/2	Pb2203	Se1960	Sb2068
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	1861.543	99.32600	217.8327	218.5463	218.3105	2.074409	.9921191
SDev	5.242	1.31333	.8826	4.1984	3.0061	.911451	2.822058
%RSD	.2816097	1.322237	.4051876	1.921056	1.376992	43.93787	284.4475
#1	1860.744	100.4388	216.9272	214.0012	214.9774	3.122245	1.250864
#2	1867.139	99.66181	218.6905	219.3584	219.1378	1.635771	3.675894
#3	1856.747	97.87736	217.8805	222.2794	220.8164	1.465211	-1.95040
Errors	LC Pass	LC Pass	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass

High	100000.0	100000.0			400000.0	100000.0	100000.0
Low	-284.800	-25.3000			-47.0000	-65.9000	-26.9000
Elem	2068/1	2068/2	1960/1	1960/2	T11908	V-2924	Zn2138
Units	ppb	ppb	ppb	ppb	ppb	PPM	ppb
Avge	-4.18546	3.574586	-2.18292	4.197444	1.525726	.1890347	2317.964
SDev	3.72233	3.121078	1.19474	1.479192	1.573104	.0002957	.825
%RSD	88.93478	87.31300	54.73137	35.24030	103.1053	.1564176	.0355943
#1	-6.82223	5.278923	-2.02431	5.689228	3.276430	.1888267	2317.532
#2	.0725374	5.472428	-3.44905	4.171928	.2309303	.1889043	2317.444
#3	-5.80669	-.027593	-1.07541	2.731174	1.069819	.1893732	2318.915
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass
High					100000.0	200.0000	10000.00
Low					-54.8000	-.006900	-52.3000
Elem	Ti3349	Th4019	U-3856	P-1782	Si2881	Sn1899	Sr4215
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	3042.999	36.18276	-2.60341	2021.389	1543.592	28.48068	136.2742
SDev	1.867	4.00085	9.82641	39.372	3.728	3.38408	.0941
%RSD	.0613376	11.05734	377.4443	1.947760	.2415188	11.88201	.0690524
#1	3045.128	33.20271	-10.0891	2064.436	1539.929	26.37750	136.3393
#2	3042.223	40.72995	-6.24516	2012.531	1543.465	26.68018	136.3170
#3	3041.645	34.61560	8.524002	1987.202	1547.382	32.38437	136.1663
Errors	LC Pass	NOCHECK	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass
High	100000.0				100000.0	100000.0	50000.00
Low	-3.50000				-468.500	-70.0000	-1.20000
Elem	Zr3496						
Units	ppb						
Avge	158.6656						
SDev	5.7548						
%RSD	3.627030						
#1	165.2575						
#2	154.6425						
#3	156.0968						
Errors	NOCHECK						
High							
Low							

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	4915	--	--	--	--	--	--
SDev	4.179804	--	--	--	--	--	--
%RSD	.0850391	--	--	--	--	--	--
#1	4920	--	--	--	--	--	--
#2	4913	--	--	--	--	--	--
#3	4913	--	--	--	--	--	--

Method: ALL1 Sample Name: 0107L398-010 Operator: PMP
Run Time: 07/31/01 01:05:26
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B-2496	Ba4934	Be3130	Bi2230
Units	ppb	PPM	ppb	ppb	ppb	ppb	ppb
Avge	-2.54387	71.77717	45.92516	29.20721	572.2142	4.966939	-.994168
SDev	.45290	.15134	1.84489	.49305	1.5461	.098627	1.841094
%RSD	17.80372	.2108510	4.017167	1.688114	.2702003	1.985675	185.1894
#1	-2.02882	71.80602	43.81038	28.73291	572.3160	4.972013	-.833062
#2	-2.87992	71.91200	46.76031	29.17163	573.7070	5.062931	-2.91052
#3	-2.72287	71.61347	47.20479	29.71709	570.6197	4.865872	.7610788
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10000.00	1000.000	50000.00	50000.00	50000.00	10000.00	100000.0
Low	-5.00000	-.146200	-39.6000	-266.100	-1.80000	-1.60000	-55.4000

Elem	Ca3179	Ca3968	Cd2265	Co2286	Cr2677	Cu3247	Fe2714
Units	PPM	PPM	ppb	ppb	ppb	ppb	PPM
Avge	15.38792	H15.68330	1.839226	26.29938	89.33439	95.50708	128.9816
SDev	.05585	.04554	.135771	.35410	.36224	.43296	.3905
%RSD	.3629521	.2903624	7.381955	1.346429	.4054930	.4533319	.3027183
#1	15.35673	H15.67495	1.995468	25.92305	89.57414	95.93607	128.7515
#2	15.45240	H15.73244	1.772291	26.62601	89.51135	95.51492	129.4324
#3	15.35463	H15.64252	1.749920	26.34908	88.91768	95.07025	128.7609
Errors	LC Pass	LC High	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	500.0000	10.00000	50000.00	100000.0	100000.0	100000.0	500.0000
Low	-.361000	-.470400	-4.70000	-4.50000	-7.00000	-15.0000	-.169400

Elem	Fe2599	K-7664	Li6707	Mg2790	Mg2852	Mn2576	Mo2020
Units	PPM	ppb	ppb	PPM	PPM	PPM	ppb
Avge	H115.2076	12699.06	212.3838	14.54311	14.32375	2.783122	15.79189
SDev	.3708	35.82	.4176	.04520	.02328	.009326	.16544
%RSD	.3218655	.2820995	.1966022	.3108009	.1625303	.3350824	1.047600
#1	H114.9377	12734.36	212.8264	14.54630	14.32726	2.778032	15.98290
#2	H115.6305	12700.08	212.3282	14.58662	14.34508	2.793885	15.69390
#3	H115.0547	12662.73	211.9969	14.49639	14.29892	2.777448	15.69887
Errors	LC High	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	50.00000	100000.0	40000.00	500.0000	20.00000	40.00000	50000.00
Low	-.073600	-186.200	-2.70000	-.111800	-.073600	-.007800	-12.7000

Elem	Na5889	Ni2316	2203/1	2203/2	Pb2203	Se1960	Sb2068
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	1930.857	134.9732	144.5198	148.6633	147.2857	-.809012	2.421850
SDev	3.447	1.5899	1.4451	1.9993	1.7557	.533236	3.255265
%RSD	.1785438	1.177934	.9999360	1.344867	1.192016	65.91202	134.4123
#1	1933.452	134.6150	145.9371	149.6281	148.4022	-.315630	3.226076
#2	1932.174	136.7116	144.5740	149.9972	148.1929	-1.37472	5.199621
#3	1926.945	133.5929	143.0484	146.3645	145.2621	-.736686	-1.16015
Errors	LC Pass	LC Pass	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass

High	100000.0	100000.0			400000.0	100000.0	100000.0
Low	-284.800	-25.3000			-47.0000	-65.9000	-26.9000
Elem	2068/1	2068/2	1960/1	1960/2	T11908	V-2924	Zn2138
Units	ppb	ppb	ppb	ppb	ppb	PPM	ppb
Avge	1.498597	2.880342	-8.39124	2.973874	1.159786	.1412600	837.0720
SDev	2.406444	4.170489	1.98435	.203144	3.944647	.0005372	2.9027
%RSD	160.5798	144.7914	23.64784	6.830955	340.1185	.3802995	.3467724
#1	3.910041	2.882164	-6.66571	2.851902	5.436665	.1407503	835.9162
#2	1.488565	7.049920	-10.5596	3.208382	-2.33566	.1418210	840.3746
#3	-.902815	-1.29106	-7.94842	2.861340	.3783569	.1412088	834.9252
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass
High					100000.0	200.0000	10000.00
Low					-54.8000	-.006900	-52.3000
Elem	Ti3349	Th4019	U-3856	P-1782	Si2881	Sn1899	Sr4215
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	5047.869	31.10299	-18.7007	1376.022	1796.380	27.44010	102.5895
SDev	14.483	5.57198	7.9199	44.224	5.383	1.89143	.2325
%RSD	.2869092	17.91462	42.35059	3.213911	.2996747	6.892931	.2266002
#1	5042.410	24.66949	-27.1573	1334.200	1792.784	25.27079	102.5922
#2	5064.288	34.38697	-11.4577	1371.556	1802.569	28.74400	102.8206
#3	5036.909	34.25251	-17.4871	1422.309	1793.787	28.30551	102.3557
Errors	LC Pass	NOCHECK	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass
High	100000.0				100000.0	100000.0	50000.00
Low	-3.50000				-468.500	-70.0000	-1.20000
Elem	Zr3496						
Units	ppb						
Avge	166.0313						
SDev	.4978						
%RSD	.2998440						
#1	166.2611						
#2	165.4601						
#3	166.3728						
Errors	NOCHECK						
High							
Low							

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	4913	--	--	--	--	--	--
SDev	10.98720	--	--	--	--	--	--
%RSD	.2236402	--	--	--	--	--	--
#1	4911	--	--	--	--	--	--
#2	4903	--	--	--	--	--	--
#3	4925	--	--	--	--	--	--

Method: ALL1 Sample Name: 0107L398-011 Operator: PMP
Run Time: 07/31/01 01:14:11
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B-2496	Ba4934	Be3130	Bi2230
Units	pph	PPM	pph	pph	pph	pph	pph
Avge	-2.94506	70.34587	42.38126	27.71414	534.6792	5.096306	-.283160
SDev	.36054	.09737	.25480	.75769	.7108	.046952	.543627
%RSD	12.24225	.1384179	.6012023	2.733938	.1329334	.9212900	191.9858
#1	-3.32003	70.45602	42.20507	28.56443	535.0806	5.054712	-.652107
#2	-2.91422	70.27128	42.26530	27.46745	535.0984	5.147218	-.538503
#3	-2.60093	70.31031	42.67342	27.11055	533.8585	5.086987	.3411303
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10000.00	1000.000	50000.00	50000.00	50000.00	10000.00	100000.0
Low	-5.00000	-.146200	-39.6000	-266.100	-1.80000	-1.60000	-55.4000

Elem	Ca3179	Ca3968	Cd2265	Co2286	Cr2677	Cu3247	Fe2714
Units	PPM	PPM	pph	pph	pph	pph	PPM
Avge	14.89393	H15.09843	1.644472	24.40219	81.70148	91.00796	126.1448
SDev	.02120	.01102	.263473	.16445	.50312	.15523	.1935
%RSD	.1423279	.0729752	16.02177	.6739174	.6157988	.1705668	.1534194
#1	14.91449	H15.10754	1.547451	24.46407	82.22796	91.03042	126.3652
#2	14.87215	H15.10158	1.443266	24.21578	81.65094	91.15075	126.0025
#3	14.89514	H15.08618	1.942699	24.52672	81.22554	90.84274	126.0669
Errors	LC Pass	LC High	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	500.0000	10.00000	50000.00	100000.0	100000.0	100000.0	500.0000
Low	-.361000	-.470400	-4.70000	-4.50000	-7.00000	-15.0000	-.169400

Elem	Fe2599	K-7664	Li6707	Mg2790	Mg2852	Mn2576	Mo2020
Units	PPM	pph	pph	PPM	PPM	PPM	pph
Avge	H112.7356	11608.32	145.5980	12.89946	12.74407	2.553044	15.24887
SDev	.0485	23.21	.3688	.02754	.01844	.003245	.56469
%RSD	.0429936	.1999552	.2533161	.2135018	.1446665	.1270881	3.703188
#1	H112.7772	11633.92	146.0202	12.93024	12.76304	2.556775	14.59906
#2	H112.6824	11588.66	145.4357	12.89101	12.72621	2.550885	15.62059
#3	H112.7472	11602.36	145.3382	12.87714	12.74295	2.551471	15.52695
Errors	LC High	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	50.00000	100000.0	40000.00	500.0000	20.00000	40.00000	50000.00
Low	-.073600	-186.200	-2.70000	-.111800	-.073600	-.007800	-12.7000

Elem	Na5889	Ni2316	2203/1	2203/2	Pb2203	Se1960	Sb2068
Units	pph	pph	pph	pph	pph	pph	pph
Avge	1791.951	70.53678	141.0752	146.5284	144.7142	.3557534	2.548383
SDev	3.756	.63046	.9402	2.0185	1.4260	3.689863	.524334
%RSD	.2096139	.8938077	.6664527	1.377549	.9854149	1037.197	20.57516
#1	1795.935	70.29192	142.0838	147.6970	145.8296	-1.75769	3.114173
#2	1788.474	71.25294	140.9189	144.1976	143.1074	4.616396	2.452134
#3	1791.445	70.06548	140.2230	147.6906	145.2055	-1.79144	2.078841
Errors	LC Pass	LC Pass	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass

					400000.0	100000.0	100000.0
High	100000.0	100000.0			-47.0000	-65.9000	-26.9000
Low	-284.800	-25.3000					
Elem	2068/1	2068/2	1960/1	1960/2	T11908	V-2924	Zn2138
Units	pph	pph	pph	pph	pph	PPM	pph
Avge	1.641403	2.998766	-5.64257	3.347992	1.200498	.1358742	768.1594
SDev	.735770	1.145826	3.32312	4.352034	3.861520	.0008025	2.0597
%RSD	44.82569	38.20993	58.89369	129.9894	321.6599	.5906354	.2681381
#1	.9454365	4.194489	-9.20002	1.955463	-3.07723	.1367770	770.5280
#2	1.567390	2.891416	-2.61824	8.225864	4.428902	.1356036	766.7878
#3	2.411383	1.910392	-5.10946	-.137352	2.249826	.1352419	767.1625
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass
High					100000.0	200.0000	10000.00
Low					-54.8000	-.006900	-52.3000
Elem	Ti3349	Th4019	U-3856	P-1782	Si2881	Sn1899	Sr4215
Units	pph	pph	pph	pph	pph	pph	pph
Avge	4622.405	30.32976	-12.3740	1276.161	1462.613	30.29890	96.30206
SDev	1.087	4.27105	2.2299	21.121	2.911	1.02918	.10866
%RSD	.0235182	14.08206	18.02059	1.655034	.1990356	3.396753	.1128342
#1	4623.535	35.25956	-14.9488	1273.803	1465.809	31.47946	96.39206
#2	4622.314	27.74357	-11.0852	1298.362	1461.918	29.82665	96.33279
#3	4621.366	27.98615	-11.0880	1256.319	1460.112	29.59060	96.18135
Errors	LC Pass	NOCHECK	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass
High	100000.0				100000.0	100000.0	50000.00
Low	-3.50000				-468.500	-70.0000	-1.20000
Elem	Zr3496						
Units	pph						
Avge	175.7122						
SDev	4.9491						
%RSD	2.816590						
#1	178.7083						
#2	178.4286						
#3	169.9998						
Errors	NOCHECK						
High							
Low							

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	4941	--	--	--	--	--	--
SDev	1.754360	--	--	--	--	--	--
%RSD	.0355060	--	--	--	--	--	--
#1	4940	--	--	--	--	--	--
#2	4943	--	--	--	--	--	--
#3	4940	--	--	--	--	--	--

Method: ALL1 Sample Name: BLK Operator: PMP
Run Time: 07/31/01 01:23:22
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B-2496	Ba4934	Be3130	Bi2230
Units	ppb	PPM	ppb	ppb	ppb	ppb	ppb
Avge	-.420774	.0141774	-.881254	-2.16953	.0384624	.1314519	.0845371
SDev	.422511	.0057155	1.509151	1.43842	.0180387	.0196794	1.745753
%RSD	100.4130	40.31419	171.2505	66.30125	46.89959	14.97083	2065.073
#1	-.840789	.0198254	-2.58766	-3.52473	.0391161	.1320120	1.959706
#2	-.425722	.0143104	-.334092	-.660280	.0561654	.1508453	-1.49372
#3	.0041901	.0083966	.2779945	-2.32357	.0201058	.1114984	-.212376
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10000.00	1000.000	50000.00	50000.00	50000.00	10000.00	100000.0
Low	-5.00000	-.146200	-39.6000	-266.100	-1.80000	-1.60000	-55.4000

Elem	Ca3179	Ca3968	Cd2265	Co2286	Cr2677	Cu3247	Fe2714
Units	PPM	PPM	ppb	ppb	ppb	ppb	PPM
Avge	-.010823	-.000627	-.062911	.1731877	.3573254	-.703660	.0039636
SDev	.000338	.000329	.094751	.4166923	.4989860	.166393	.0082248
%RSD	3.123738	52.51535	150.6125	240.6016	139.6447	23.64677	207.5093
#1	-.011176	-.000283	.0090436	.6532765	.6663188	-.705188	.0089667
#2	-.010791	-.000659	-.027510	-.039134	-.218336	-.536509	.0084530
#3	-.010503	-.000938	-.170265	-.094579	.6239929	-.869284	-.005529
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	500.0000	10.00000	50000.00	100000.0	100000.0	100000.0	500.0000
Low	-.361000	-.470400	-4.70000	-4.50000	-7.00000	-15.0000	-.169400

Elem	Fe2599	K-7664	Li6707	Mg2790	Mg2852	Mn2576	Mo2020
Units	PPM	ppb	ppb	PPM	PPM	PPM	ppb
Avge	.0071555	7.236158	.4058647	-.002707	-.000905	.0001026	.0762950
SDev	.0027589	8.168766	.0043484	.001375	.000334	.0001236	.7927827
%RSD	38.55656	112.8882	1.071381	50.77078	36.91497	120.4636	1039.101
#1	.0100715	.1486924	.4056157	-.002830	-.000552	.0002262	-.780033
#2	.0068084	5.389658	.4103323	-.004017	-.000946	.0001024	.2242254
#3	.0045865	16.17012	.4016463	-.001276	-.001217	-.000021	.7846929
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	50.00000	100000.0	40000.00	500.0000	20.00000	40.00000	50000.00
Low	-.073600	-186.200	-2.70000	-.111800	-.073600	-.007800	-12.7000

Elem	Na5889	Ni2316	2203/1	2203/2	Pb2203	Se1960	Sb2068
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	-8.98910	.1711713	-.818424	.8397827	.2896445	-1.17961	.8275529
SDev	.35358	.7854503	2.306212	.2988005	.9459685	1.15386	1.046136
%RSD	3.933415	458.8680	281.7869	35.58069	326.5963	97.81658	126.4132
#1	-9.35650	.9569019	-2.53214	.7789415	-.321600	.1524463	-.293636
#2	-8.65119	-.613998	-1.72678	.5760852	-.188724	-1.82116	.9987860
#3	-8.95961	.1706103	1.803651	1.164321	1.379258	-1.87012	1.777509
Errors	LC Pass	LC Pass	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass

High	100000.0	100000.0			400000.0	100000.0	100000.0
Low	-284.800	-25.3000			-47.0000	-65.9000	-26.9000
Elem	2068/1	2068/2	1960/1	1960/2	T11908	V-2924	Zn2138
Units	ppb	ppb	ppb	ppb	ppb	PPM	ppb
Avge	-1.40166	1.938038	1.526101	-2.53299	.7606506	.0001523	.1192454
SDev	1.06566	1.129284	1.992764	2.27278	2.472389	.0003442	.1253656
%RSD	76.02799	58.26944	130.5788	89.72721	325.0361	225.9701	105.1325
#1	-2.18812	.6497279	.7816372	-.164136	2.238820	.0002229	-.008826
#2	-1.82803	2.407623	.0127462	-2.73919	2.136742	.0004558	.2417179
#3	-.188839	2.756764	3.783920	-4.69565	-2.09361	-.000222	.1248439
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass
High					100000.0	200.0000	10000.00
Low					-54.8000	-.006900	-52.3000
Elem	Ti3349	Th4019	U-3856	P-1782	Si2881	Sn1899	Sr4215
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	.4017540	-.199968	.8241350	9.175674	-2.32727	-.697179	-.000085
SDev	.2306035	2.473661	2.581019	15.08413	1.80468	1.848549	.016041
%RSD	57.39919	1237.028	313.1791	164.3926	77.54474	265.1470	18870.13
#1	.6371206	-3.04908	3.717797	-7.28595	-3.10903	-2.80039	-.010374
#2	.3919125	1.048765	-.004878	12.47779	-3.60926	.0389608	-.008278
#3	.1762287	1.400413	-1.24051	22.33519	-.263520	.6698902	.0183975
Errors	LC Pass	NOCHECK	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass
High	100000.0				100000.0	100000.0	50000.00
Low	-3.50000				-468.500	-70.0000	-1.20000
Elem	Zr3496						
Units	ppb						
Avge	35.65478						
SDev	5.32071						
%RSD	14.92284						
#1	41.39790						
#2	30.89316						
#3	34.67327						
Errors	NOCHECK						
High							
Low							

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	4891	--	--	--	--	--	--
SDev	12.70465	--	--	--	--	--	--
%RSD	.2597758	--	--	--	--	--	--
#1	4878	--	--	--	--	--	--
#2	4890	--	--	--	--	--	--
#3	4904	--	--	--	--	--	--

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Operator: PMP

Method: ALL1 Sample Name: CRI
Run Time: 07/31/01 01:32:24
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B-2496	Ba4934	Be3130	Bi2230
Units	ppb	PPM	ppb	ppb	ppb	ppb	ppb
Avge	19.22406	.2136584	20.20913	18.03658	20.12868	20.41566	19.66916
SDev	.08934	.0064732	2.51970	1.38938	.04522	.05855	2.00292
%RSD	.4647446	3.029688	12.46814	7.703136	.2246703	.2867667	10.18306
#1	19.28110	.2208280	21.07457	19.63592	20.17630	20.47558	20.90036
#2	19.26997	.2119036	22.18206	17.12750	20.12341	20.35860	17.35803
#3	19.12109	.2082434	17.37076	17.34633	20.08632	20.41279	20.74908
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	20.00000	.2000000	20.00000	20.00000	20.00000	20.00000	20.00000
Range	50.00000	50.00000	50.00000	50.00000	50.00000	50.00000	50.00000

Elem	Ca3179	Ca3968	Cd2265	Co2286	Cr2677	Cu3247	Fe2714
Units	PPM	PPM	ppb	ppb	ppb	ppb	PPM
Avge	.0759691	.0836339	20.23025	20.05604	20.69513	19.45283	.2062473
SDev	.0006458	.0001666	.14606	.19209	.33791	.18013	.0103573
%RSD	.8500721	.1992199	.7219830	.9577638	1.632809	.9259775	5.021765
#1	.0765565	.0837786	20.31956	20.27290	20.30706	19.61818	.2114523
#2	.0760734	.0836714	20.30950	19.90727	20.92430	19.26088	.1943199
#3	.0752776	.0834517	20.06170	19.98794	20.85404	19.47944	.2129697
Errors	NOCHECK	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	NOCHECK
Value		.0800000	20.00000	20.00000	20.00000	20.00000	
Range		50.00000	50.00000	50.00000	50.00000	50.00000	

Elem	Fe2599	K-7664	Li6707	Mg2790	Mg2852	Mn2576	Mo2020
Units	PPM	ppb	ppb	PPM	PPM	PPM	ppb
Avge	.2041168	204.5419	158.8179	.1559821	.1586772	.2112640	20.93306
SDev	.0005583	8.0957	.1146	.0008676	.0001768	.0002571	.75217
%RSD	.2735100	3.957960	.0721457	.5562293	.1114156	.1216784	3.593192
#1	.2047606	207.4765	158.7918	.1550657	.1588641	.2115430	20.56034
#2	.2038234	195.3882	158.9432	.1560896	.1586550	.2112124	21.79881
#3	.2037665	210.7611	158.7186	.1567909	.1585126	.2110367	20.44005
Errors	QC Pass	QC Pass	QC Pass	NOCHECK	QC Pass	QC Pass	QC Pass
Value	.2000000	200.0000	160.0000		.1600000	.2000000	20.00000
Range	50.00000	50.00000	50.00000		50.00000	50.00000	50.00000

Elem	Na5889	Ni2316	2203/1	2203/2	Pb2203	Se1960	Sb2068
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	192.5291	20.70040	20.12813	21.20729	20.84998	19.07587	22.38196
SDev	.4376	1.10858	.85651	2.08691	1.11220	1.32363	1.14586
%RSD	.2272774	5.355345	4.255274	9.840538	5.334310	6.938747	5.119585
#1	192.0482	20.01853	19.71563	21.81626	21.11879	20.40395	21.10363
#2	192.6354	21.97954	21.11284	18.88363	19.62800	19.06691	22.72549
#3	192.9038	20.10313	19.55594	22.92198	21.80313	17.75674	23.31676
Errors	QC Pass	QC Pass	NOCHECK	NOCHECK	QC Pass	QC Pass	QC Pass

Value	200.0000	20.00000			20.00000	20.00000	20.00000
Range	50.00000	50.00000			50.00000	50.00000	50.00000
Elem	2068/1	2068/2	1960/1	1960/2	Tl1908	V-2924	Zn2138
Units	ppb	ppb	ppb	ppb	ppb	PPM	ppb
Avge	19.78814	23.67427	17.55869	19.83067	19.92708	.2038655	20.92897
SDev	2.67958	2.05140	1.83708	2.86537	4.40950	.0001633	.02625
%RSD	13.54132	8.665093	10.46250	14.44920	22.12818	.0800974	.1254216
#1	18.64901	22.32664	16.17059	22.51469	19.03146	.2040346	20.95481
#2	22.84907	22.66103	16.86358	20.16418	24.71564	.2038531	20.92977
#3	17.86633	26.03514	19.64189	16.81314	16.03414	.2037087	20.90233
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	QC Pass	QC Pass	QC Pass
Value					20.00000	.2000000	20.00000
Range					50.00000	50.00000	50.00000
Elem	Ti3349	Th4019	U-3856	P-1782	Si2881	Sn1899	Sr4215
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	20.32267	97.33611	104.0024	110.1431	18.55302	22.28211	20.06877
SDev	.11465	5.07029	4.3195	11.6070	1.40284	.98229	.03041
%RSD	.5641568	5.209056	4.153241	10.53812	7.561256	4.408430	.1515299
#1	20.45379	97.31587	101.6475	114.8249	19.46629	23.25772	20.08261
#2	20.27292	92.27598	108.9875	118.6781	19.25503	21.29327	20.08981
#3	20.24130	102.4165	101.3721	96.92641	16.93776	22.29535	20.03391
Errors	QC Pass	NOCHECK	NOCHECK	NOCHECK	QC Pass	QC Pass	QC Pass
Value	20.00000				20.00000	20.00000	20.00000
Range	50.00000				50.00000	50.00000	50.00000
Elem	Zr3496						
Units	ppb						
Avge	138.3740						
SDev	5.7178						
%RSD	4.132107						
#1	144.4408						
#2	133.0850						
#3	137.5961						
Errors	NOCHECK						
Value							
Range							

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	4894	--	--	--	--	--	--
SDev	6.645893	--	--	--	--	--	--
%RSD	.1358017	--	--	--	--	--	--
#1	4888	--	--	--	--	--	--
#2	4893	--	--	--	--	--	--
#3	4901	--	--	--	--	--	--

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Method: ALL1 Sample Name: ISA Operator: PMP
Run Time: 07/31/01 01:39:39
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B-2496	Ba4934	Be3130	Bi2230
Units	ppb	PPM	ppb	ppb	ppb	ppb	ppb
Avge	-.066637	517.0428	4.170954	-3.01037	.3508518	.4639567	3.312342
SDev	.317504	1.2223	1.996323	.59990	.0333407	.0283153	.831216
%RSD	476.4662	.2363984	47.86251	19.92791	9.502788	6.103011	25.09452
#1	-.056293	518.3035	1.868312	-2.59582	.3128874	.4965279	4.150345
#2	-.389187	516.9620	5.415476	-2.73701	.3753687	.4501397	2.488083
#3	.2455684	515.8629	5.229073	-3.69826	.3642992	.4452024	3.298597
Errors	NOCHECK	QC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
Value		500.0000					
Range		20.00000					

Elem	Ca3179	Ca3968	Cd2265	Co2286	Cr2677	Cu3247	Fe2714
Units	PPM	PPM	ppb	ppb	ppb	ppb	PPM
Avge	484.9690	S10.56568	.3053169	.0455703	3.349954	1.003336	195.9611
SDev	.2371	.01374	.0847345	.4881098	.071966	.289804	.1251
%RSD	.0488893	.1300550	27.75297	1071.114	2.148272	28.88407	.0638501
#1	485.1106	S10.57496	.2148914	-.347205	3.375718	1.281527	196.0805
#2	484.6953	S10.54990	.3828926	.5920248	3.405492	.7031694	195.8309
#3	485.1011	S10.57220	.3181667	-.108109	3.268652	1.025313	195.9719
Errors	QC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	QC Pass
Value	500.0000						200.0000
Range	20.00000						20.00000

Elem	Fe2599	K-7664	Li6707	Mg2790	Mg2852	Mn2576	Mo2020
Units	PPM	ppb	ppb	PPM	PPM	PPM	ppb
Avge	167.6685	5.820427	3.019039	518.5273	S57.26196	.0011345	.5667818
SDev	.1610	5.313241	.149931	.7125	.09668	.0001304	1.345000
%RSD	.0960077	91.28610	4.966188	.1374067	.1688349	11.49410	237.3048
#1	167.6266	.7692322	3.185775	519.3375	S57.30128	.0009988	1.685024
#2	167.5327	5.330298	2.976028	518.2462	S57.15182	.0012589	.9410281
#3	167.8463	11.36175	2.895314	517.9982	S57.33279	.0011459	-.925707
Errors	NOCHECK	NOCHECK	NOCHECK	QC Pass	NOCHECK	NOCHECK	NOCHECK
Value				500.0000			
Range				20.00000			

Elem	Na5889	Ni2316	2203/1	2203/2	Pb2203	Se1960	Sb2068
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	11.84202	2.319157	-.401811	3.563926	2.245995	1.813579	1.978093
SDev	.44825	.151858	2.660695	.299416	.890156	7.377137	3.520412
%RSD	3.785270	6.547991	662.1751	8.401286	39.63304	406.7724	177.9700
#1	11.33825	2.154238	-2.91598	3.787798	1.558103	-5.95812	-.535004
#2	11.99100	2.350021	-.673955	3.223822	1.928517	2.679052	.4675937
#3	12.19681	2.453213	2.384497	3.680158	3.251365	8.719804	6.001690
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK

Value Range							
Elem	2068/1	2068/2	1960/1	1960/2	T11908	V-2924	Zn2138
Units	ppb	ppb	ppb	ppb	ppb	PPM	ppb
Avge	-.562980	3.244067	4.266863	.5860062	1.476431	-.003146	-.442280
SDev	4.685343	3.007512	9.626096	6.799188	1.445169	.000256	.248576
%RSD	832.2394	92.70806	225.6013	1160.259	97.88254	8.151802	56.20325
#1	-3.08207	.7339599	-6.83226	-5.52437	3.074520	-.002887	-.225468
#2	-3.44989	2.420744	9.297876	-.628052	.2613373	-.003150	-.387793
#3	4.843019	6.577496	10.33497	7.910438	1.093437	-.003400	-.713579
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK

Value Range							
Elem	Ti3349	Th4019	U-3856	P-1782	Si2881	Sn1899	Sr4215
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	6.062923	-27.7363	19.45386	12.76349	-.064470	-.752496	-.653199
SDev	.124944	.9773	9.46091	3.26117	3.039888	3.605707	.014210
%RSD	2.060784	3.523599	48.63258	25.55082	4715.171	479.1660	2.175462
#1	5.921062	-27.1719	9.654648	9.250721	-.940126	.4610102	-.639179
#2	6.111105	-28.8648	20.17131	15.69487	-2.57042	2.089906	-.652825
#3	6.156602	-27.1722	28.53563	13.34487	3.317137	-4.80841	-.667592
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK

Value Range	
Elem	Zr3496
Units	ppb
Avge	28.15485
SDev	.36939
%RSD	1.311986
#1	27.72990
#2	28.39911
#3	28.33554
Errors	NOCHECK
Value Range	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	4512	--	--	--	--	--	--
SDev	6.931510	--	--	--	--	--	--
%RSD	.1536298	--	--	--	--	--	--
#1	4508	--	--	--	--	--	--
#2	4520	--	--	--	--	--	--
#3	4508	--	--	--	--	--	--

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Method: ALL1 Sample Name: TSB Operator: PMP
Run Time: 07/31/01 01:46:55
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B-2496	Ba4934	Be3130	Bi2230
Units	ppb	PPM	ppb	ppb	ppb	ppb	ppb
Avge	998.4719	99.37594	980.6216	1007.755	498.2062	496.8806	999.2815
SDev	1.4197	.06682	3.0115	4.319	.2229	.4425	2.5497
%RSD	.1421845	.0672380	.3071018	.4285592	.0447373	.0890548	.2551577
#1	997.5303	99.31852	977.4591	1003.695	497.9605	496.4677	1001.987
#2	997.7806	99.36002	983.4550	1012.293	498.2627	497.3477	998.9337
#3	1000.105	99.44928	980.9507	1007.278	498.3954	496.8262	996.9235
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	1000.000	100.0000	1000.000	1000.000	500.0000	500.0000	1000.000
Range	20.00000	20.00000	20.00000	20.00000	20.00000	20.00000	20.00000

Elem	Ca3179	Ca3968	Cd2265	Co2286	Cr2677	Cu3247	Fe2714
Units	PPM	PPM	ppb	ppb	ppb	ppb	PPM
Avge	100.2166	S11.79709	971.6189	489.3660	491.1765	495.5490	40.06035
SDev	.1087	.00864	1.3908	.2532	1.0922	.3229	.04675
%RSD	.1084966	.0732398	.1431457	.0517467	.2223672	.0651617	.1166911
#1	100.0911	S11.78719	970.1401	489.1852	489.9659	495.1892	40.03719
#2	100.2761	S11.80313	971.8158	489.2573	491.4756	495.8137	40.02970
#3	100.2826	S11.80095	972.9008	489.6554	492.0881	495.6441	40.11415
Errors	QC Pass	NOCHECK	QC Pass	QC Pass	QC Pass	QC Pass	NOCHECK
Value	100.0000		1000.000	500.0000	500.0000	500.0000	
Range	20.00000		20.00000	20.00000	20.00000	20.00000	

Elem	Fe2599	K-7664	Li6707	Mg2790	Mg2852	Mn2576	Mo2020
Units	PPM	ppb	ppb	PPM	PPM	PPM	ppb
Avge	37.73434	5718.196	2217.805	101.5795	90.67780	.5081738	976.8038
SDev	.05749	6.055	1.523	.1084	.10574	.0005632	1.0886
%RSD	.1523610	.1058839	.0686701	.1067629	.1166077	.1108259	.1114502
#1	37.66816	5722.825	2219.561	101.4543	90.56284	.5077543	977.7485
#2	37.76299	5711.344	2216.853	101.6420	90.69965	.5079532	975.6132
#3	37.77188	5720.418	2217.001	101.6422	90.77090	.5088139	977.0496
Errors	QC Pass	QC Pass	QC Pass	QC Pass	NOCHECK	QC Pass	QC Pass
Value	40.00000	5000.000	2000.000	100.0000		.5000000	1000.000
Range	20.00000	20.00000	20.00000	20.00000		20.00000	20.00000

Elem	Na5889	Ni2316	2203/1	2203/2	Pb2203	Se1960	Sb2068
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	1145.264	974.8550	976.8569	990.2690	985.8048	987.8547	995.1439
SDev	1.966	2.1389	1.5346	2.1449	1.8005	2.4413	2.2308
%RSD	.1716227	.2194033	.1570915	.2166024	.1826398	.2471356	.2241667
#1	1145.829	972.4319	977.7510	992.7126	987.7324	985.6340	993.1849
#2	1143.078	976.4803	977.7347	989.3970	985.5156	990.4689	994.6748
#3	1146.886	975.6528	975.0850	988.6973	984.1665	987.4613	997.5719
Errors	QC Pass	QC Pass	NOCHECK	NOCHECK	QC Pass	QC Pass	QC Pass

Value	1000.000	1000.000			1000.000	1000.000	1000.000
Range	20.00000	20.00000			20.00000	20.00000	20.00000
Elem	2068/1	2068/2	1960/1	1960/2	Tl1908	V-2924	Zn2138
Units	pph	pph	pph	pph	pph	PPM	pph
Avge	986.0731	999.6699	981.8939	990.8280	963.2769	.4958348	983.9028
SDev	4.5669	4.8848	5.3631	5.4412	2.4110	.0017582	1.6684
%RSD	.4631392	.4886454	.5461994	.5491586	.2502866	.3545868	.1695745
#1	985.0553	997.2408	980.7593	988.0651	963.5831	.4939374	982.3181
#2	991.0630	996.4758	977.1890	997.0963	960.7275	.4974088	985.6440
#3	982.1010	1005.293	987.7336	987.3225	965.5202	.4961583	983.7463
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	QC Pass	QC Pass	QC Pass
Value					1000.000	.5000000	1000.000
Range					20.00000	20.00000	20.00000
Elem	Ti3349	Th4019	U-3856	P-1782	Si2881	Sn1899	Sr4215
Units	pph	pph	pph	pph	pph	pph	pph
Avge	983.2687	962.7626	991.5665	1994.887	987.7965	984.0993	984.9394
SDev	.9871	2.9785	5.9046	26.325	6.8202	2.2833	.1902
%RSD	.1003886	.3093723	.5954795	1.319616	.6904508	.2320157	.0193111
#1	982.2728	963.5158	989.4069	2023.480	980.7833	981.5641	984.7322
#2	984.2468	959.4798	987.0457	1971.655	994.4059	985.9937	984.9801
#3	983.2865	965.2922	998.2468	1989.527	988.2003	984.7402	985.1061
Errors	QC Pass	NOCHECK	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	1000.000		1000.000	2000.000	1000.000	1000.000	1000.000
Range	20.00000		20.00000	20.00000	20.00000	20.00000	20.00000
Elem	Zr3496						
Units	pph						
Avge	1028.294						
SDev	1.499						
%RSD	.1457587						
#1	1029.831						
#2	1026.836						
#3	1028.215						
Errors	QC Pass						
Value	1000.000						
Range	20.00000						

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	4761	--	--	--	--	--	--
SDev	3.602120	--	--	--	--	--	--
%RSD	.0756519	--	--	--	--	--	--
#1	4766	--	--	--	--	--	--
#2	4759	--	--	--	--	--	--
#3	4760	--	--	--	--	--	--

Method: ALL1 Sample Name: CCV Operator: PMP
Run Time: 07/31/01 01:56:01
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B-2496	Ba4934	Be3130	Bi2230
Units	ppb	PPM	ppb	ppb	ppb	ppb	ppb
Avge	491.3734	5.019755	498.3175	510.1198	500.0705	500.0277	505.0546
SDev	.4131	.009231	.6591	1.6248	.5495	.2790	3.7509
%RSD	.0840692	.1838935	.1322555	.3185093	.1098836	.0557877	.7426719
#1	491.0681	5.026630	499.0330	508.2801	500.6497	499.9805	501.7328
#2	491.2087	5.009263	498.1843	510.7209	499.5566	499.7754	509.1225
#3	491.8435	5.023371	497.7352	511.3583	500.0053	500.3273	504.3085
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	500.0000	5.000000	500.0000	500.0000	500.0000	500.0000	500.0000
Range	10.00000	10.00000	10.00000	10.00000	10.00000	10.00000	10.00000

Elem	Ca3179	Ca3968	Cd2265	Co2286	Cr2677	Cu3247	Fe2714
Units	PPM	PPM	ppb	ppb	ppb	ppb	PPM
Avge	2.034612	1.989576	505.4043	505.3321	504.1393	495.9331	5.120752
SDev	.002256	.003863	.6958	2.1077	.7445	.6618	.009887
%RSD	.1108583	.1941693	.1376798	.4170929	.1476773	.1334554	.1930752
#1	2.035148	1.994022	505.1163	503.3162	504.7431	496.1878	5.128783
#2	2.032136	1.987661	504.8987	505.1591	503.3074	495.1817	5.109709
#3	2.036551	1.987044	506.1979	507.5210	504.3674	496.4297	5.123763
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	2.000000	2.000000	500.0000	500.0000	500.0000	500.0000	5.000000
Range	10.00000	10.00000	10.00000	10.00000	10.00000	10.00000	10.00000

Elem	Fe2599	K-7664	Li6707	Mg2790	Mg2852	Mn2576	Mo2020
Units	PPM	ppb	ppb	PPM	PPM	PPM	ppb
Avge	4.944459	5188.197	3990.029	4.035010	3.978577	5.153700	508.7079
SDev	.009514	6.504	11.930	.005667	.006914	.004639	.3194
%RSD	.1924078	.1253675	.2989870	.1404420	.1737798	.0900097	.0627773
#1	4.939074	5187.793	3988.682	4.032780	3.978477	5.151116	508.3492
#2	4.938860	5181.905	3978.831	4.030798	3.971713	5.150928	508.9612
#3	4.955444	5194.895	4002.576	4.041453	3.985540	5.159055	508.8134
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	5.000000	5000.000	4000.000	4.000000	4.000000	5.000000	500.0000
Range	10.00000	10.00000	10.00000	10.00000	10.00000	10.00000	10.00000

Elem	Na5889	Ni2316	2203/1	2203/2	Pb2203	Se1960	Sb2068
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	5033.010	509.1875	503.0039	508.2117	506.4799	503.2987	512.6520
SDev	15.708	.7793	2.6689	.9135	.3150	2.2761	.9963
%RSD	.3121027	.1530401	.5305937	.1797543	.0621902	.4522370	.1943497
#1	5025.525	508.3310	505.0202	507.6918	506.8047	503.7153	513.5835
#2	5022.444	509.3771	504.0142	507.6767	506.4595	505.3376	511.6015
#3	5051.060	509.8545	499.9774	509.2665	506.1757	500.8430	512.7709
Errors	QC Pass	QC Pass	NOCHECK	NOCHECK	QC Pass	QC Pass	QC Pass

Value	5000.000	500.0000			500.0000	500.0000	500.0000
Range	10.00000	10.00000			10.00000	10.00000	10.00000
Elem	2068/1	2068/2	1960/1	1960/2	T11908	V-2924	Zn2138
Units	pph	pph	pph	pph	pph	PPM	pph
Avge	508.7654	514.5899	500.0423	504.9218	498.0426	5.041752	505.5147
SDev	1.9330	2.2909	10.2658	2.1078	5.7503	.004257	.3242
%RSD	.3799475	.4451928	2.052984	.4174555	1.154587	.0844348	.0641388
#1	506.5536	517.0907	505.2423	502.9505	495.2707	5.041771	505.2466
#2	509.6113	512.5927	506.6676	504.6712	494.2032	5.037486	505.8750
#3	510.1313	514.0863	488.2170	507.1437	504.6538	5.046000	505.4224
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	QC Pass	QC Pass	QC Pass
Value					500.0000	5.000000	500.0000
Range					10.00000	10.00000	10.00000
Elem	Ti3349	Th4019	U-3856	P-1782	Si2881	Sn1899	Sr4215
Units	pph	pph	pph	pph	pph	pph	pph
Avge	501.1789	542.8148	529.5919	993.4251	526.6403	501.2659	496.6624
SDev	.5669	1.2749	13.4003	30.9118	1.1250	4.2424	.5964
%RSD	.1131094	.2348687	2.530314	3.111636	.2136243	.8463294	.1200732
#1	501.4026	543.7060	515.1386	962.0300	527.9325	500.3435	497.2677
#2	500.5343	543.3840	532.0338	1023.830	525.8783	505.8936	496.0754
#3	501.5998	541.3545	541.6034	994.4156	526.1102	497.5606	496.6440
Errors	QC Pass	NOCHECK	NOCHECK	NOCHECK	QC Pass	QC Pass	QC Pass
Value	500.0000				500.0000	500.0000	500.0000
Range	10.00000				10.00000	10.00000	10.00000
Elem	Zr3496						
Units	pph						
Avge	554.1727						
SDev	6.4480						
%RSD	1.163541						
#1	547.6265						
#2	554.3736						
#3	560.5179						
Errors	NOCHECK						
Value							
Range							

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	4845	--	--	--	--	--	--
SDev	18.77114	--	--	--	--	--	--
%RSD	.3874423	--	--	--	--	--	--
#1	4826	--	--	--	--	--	--
#2	4845	--	--	--	--	--	--
#3	4863	--	--	--	--	--	--

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Method: ALL1 Sample Name: CCB Operator: PMP
Run Time: 07/31/01 02:06:05
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B-2496	Ba4934	Be3130	Bi2230
Units	ppb	PPM	ppb	ppb	ppb	ppb	ppb
Avge	-.236262	.0258215	-.041367	-.710394	.0251551	.2391739	2.134797
SDev	.195319	.0010713	2.250725	1.204053	.0069101	.0346540	1.056688
%RSD	82.67071	4.148922	5440.860	169.4910	27.46981	14.48904	49.49831
#1	-.094124	.0268086	-2.62265	-1.20131	.0297130	.2562920	3.237998
#2	-.458979	.0259737	1.511003	-1.59143	.0172045	.2619378	1.131753
#3	-.155682	.0246822	.9875438	.6615613	.0285478	.1992919	2.034641
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	5.000000	.1462000	39.60000	266.1000	1.800000	1.600000	55.40000
Low	-5.00000	-.146200	-39.6000	-266.100	-1.80000	-1.60000	-55.4000

Elem	Ca3179	Ca3968	Cd2265	Co2286	Cr2677	Cu3247	Fe2714
Units	PPM	PPM	ppb	ppb	ppb	ppb	PPM
Avge	-.020777	.0007159	-.279150	.0190555	.1085608	-1.07416	.0034548
SDev	.002154	.0003069	.097213	.6586022	.4121850	.30395	.0097377
%RSD	10.36585	42.86847	34.82477	3456.229	379.6812	28.29647	281.8608
#1	-.023262	.0009930	-.385832	-.740644	.5565564	-1.41701	-.004798
#2	-.019622	.0007686	-.256050	.3689079	.0237443	-.967778	.0141948
#3	-.019447	.0003860	-.195566	.4289023	-.254618	-.837705	.0009676
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.3610000	.4704000	4.700000	4.500000	7.000000	15.00000	.1694000
Low	-.361000	-.470400	-4.70000	-4.50000	-7.00000	-15.0000	-.169400

Elem	Fe2599	K-7664	Li6707	Mg2790	Mg2852	Mn2576	Mo2020
Units	PPM	ppb	ppb	PPM	PPM	PPM	ppb
Avge	.0002653	.3055566	.3773590	-.003017	-.000323	.0002085	.2837659
SDev	.0000870	15.49688	.0939354	.003767	.000279	.0001560	.1411209
%RSD	32.80503	5071.689	24.89286	124.8429	86.33830	74.82341	49.73144
#1	.0003657	-7.74278	.4679988	-.004907	-.000017	.0003533	.4463567
#2	.0002146	18.17066	.3836354	.0013203	-.000388	.0002289	.1930736
#3	.0002155	-9.51121	.2804427	-.005465	-.000564	.0000433	.2118676
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.0736000	186.2000	2.700000	.1118000	.0736000	.0078000	12.70000
Low	-.073600	-186.200	-2.70000	-.111800	-.073600	-.007800	-12.7000

Elem	Na5889	Ni2316	2203/1	2203/2	Pb2203	Se1960	Sb2068
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	-8.98962	.0453232	-1.97379	-.764480	-1.16512	-3.10280	1.583252
SDev	.27657	.5567105	.34603	.948524	.72095	4.42842	.492926
%RSD	3.076577	1228.313	17.53111	124.0744	61.87813	142.7232	31.13377
#1	-9.23425	-.577070	-2.37255	-1.60805	-1.86057	2.006300	2.149935
#2	-8.68952	.4957928	-1.75266	-.947660	-1.21366	-5.84092	1.346053
#3	-9.04508	.2172463	-1.79615	.2622738	-.421118	-5.47379	1.253769
Errors	LC Pass	LC Pass	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass

High	284.8000	25.30000			47.00000	65.90000	26.90000
Low	-284.800	-25.3000			-47.0000	-65.9000	-26.9000
Elem	2068/1	2068/2	1960/1	1960/2	Ti1908	V-2924	Zn2138
Units	ppb	ppb	ppb	ppb	ppb	PPM	ppb
Avge	-2.29334	3.516170	-.026489	-4.64134	-1.94472	.0002366	.1461063
SDev	2.62496	2.027667	9.584366	1.91011	3.07264	.0003934	.0674266
%RSD	114.4600	57.66690	36182.30	41.15434	157.9989	166.2904	46.14900
#1	-5.25729	5.845517	10.95742	-2.46503	-5.33403	-.000218	.1090032
#2	-.262113	2.146459	-6.69120	-5.41919	-1.15864	.0004617	.2239357
#3	-1.36063	2.556535	-4.34569	-6.03979	.6585138	.0004657	.1053800
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass
High					54.80000	.0069000	52.30000
Low					-54.8000	-.006900	-52.3000
Elem	Ti3349	Th4019	U-3856	P-1782	Si2881	Sn1899	Sr4215
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	.0412252	-2.21094	-.835724	21.58767	-3.43360	1.594313	.0152749
SDev	.0837003	3.41052	3.137982	11.96586	3.81530	1.770605	.0204094
%RSD	203.0318	154.2565	375.4809	55.42913	111.1165	111.0576	133.6139
#1	-.007685	-5.87409	-1.25053	34.16218	-1.65583	-.440264	.0052191
#2	.1378715	.8726988	2.489032	10.34129	-7.81336	2.437199	.0387611
#3	-.006511	-1.63144	-3.74567	20.25954	-.831625	2.786004	.0018447
Errors	LC Pass	NOCHECK	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass
High	3.500000				468.5000	70.00000	1.200000
Low	-3.50000				-468.500	-70.0000	-1.20000

Elem	Zr3496
Units	ppb
Avge	63.72203
SDev	3.21099
%RSD	5.039055
#1	61.04782
#2	67.28329
#3	62.83497
Errors	NOCHECK
High	
Low	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	4846	--	--	--	--	--	--
SDev	2.724839	--	--	--	--	--	--
%RSD	.0562315	--	--	--	--	--	--
#1	4843	--	--	--	--	--	--
#2	4848	--	--	--	--	--	--
#3	4846	--	--	--	--	--	--

STATUS INFORMATION **

Version: 39.0
Date Created: 09/06/94 03:13 Date Last Updated: 07/30/01 03:49

Number of elements: 35 Number of lines: 43

# of lines calibrated: 0
# of lines standardized: 40 07/30/01 08:10 - 07/30/01 08:10

Data collection mode: Spectrum Shifter <7 positions>

Approx. time for analysis 6.1 mins.

Protection status: Un-protected

METHOD INFORMATION **

Sample Introduction Device: Normal
Calibration Mode: Concentration

Default Setup:

Number of Repeats : 3
Flush Time (sec) : 70.0
Auto-Increment Sample Names? No

Auto-store Analysis Data? Yes
Auto-store Stdzn Data? Yes
Store Individual Repeats? Yes
Auto-print Analysis Data? Yes
Auto-print Stdzn Report : None
Condensed Print Format? No

Default File Names:

Analysis Data File : TA0730C
Calibration Data File : TA0730C
Calibration Stds Table : TA0730C

Autosampler Table : TA0730B
Sample Limits Table : LRTDL
Blank Limits Table : MBTDL
QC Check Table : CCV

INTERNAL STANDARDS INFORMATION **

#	Elem Symbol	Wavelength	Pre-integration	Integration	Used?
1	Y	371.030	1.0	13.0	Yes

Ratio Constant/Intensity Multiplication Factor: .06667
Internal Standard Spectrum Shifter Peak offset: 0

Bkg Mtd (-): SpecShift
High Offset: 20
Low Offset: 0

#	Elem Symbol	Wavelength	Pre-integration	Integration	Used?
2	Time		0	5.0	No

Ratio Constant/Intensity Multiplication Factor: .06667

#	Elem Symbol	Wavelength	Pre-integration	Integration	Used?
3	Time		0	5.0	No

Ratio Constant/Intensity Multiplication Factor: 1

#	Elem Symbol	Wavelength	Pre-integration	Integration	Used?
4	Time		0	5.0	No

Ratio Constant/Intensity Multiplication Factor: 1

#	Elem Symbol	Wavelength	Pre-integration	Integration	Used?
5	Time		0	5.0	No

Ratio Constant/Intensity Multiplication Factor: 1

#	Elem Symbol	Wavelength	Pre-integration	Integration	Used?
6	Time		0	5.0	No

Ratio Constant/Intensity Multiplication Factor: 1

#	Elem Symbol	Wavelength	Pre-integration	Integration	Used?
7	Time		0	5.0	No

Ratio Constant/Intensity Multiplication Factor: 1

OUTPUT INFORMATION **

Output Mode:	Concentration
Override Print Limits?	Yes
Override Significant Figures?	Yes
Apply Background Correction?	Yes
Apply Blank Subtraction?	No
Limits Table: LRTDL Check?	No
Correction Factor:	1

Report to:
Screen Avgs
Printer Avgs, Stats, Reps, Errs, Units, Int.Stds

PLASMA INFORMATION **

Gas Flow
Torch gas : High Flow
Auxiliary gas flow : Low (.5 L/min)
Nebulizer Press. (PSI): 30

Power
Approximate RF Power (W): 950

Peristaltic Pump Parameters
Analysis Pump Rate (RPM): 130
Flush Pump Rate (RPM): 130
Relaxation time (sec): 0
Pump Tubing type : Tygon-Orange

Element:	Ag	Al	As	B	Ba
Wavelength:	328.068	308.215	189.042/2	249.678/2	493.409
Element Name:	Ag3280	Al3082	As1890	B-2496	Ba4934
Line Switch Conc:	0	0	0	0	0
Peak SS Offset:	0	0	0	0	0
Timing Group No.:	1	1	1	1	1
Print Limit Low:	0	0	0	0	0
Print Limit High:	0	0	0	0	0
Significant Figrs:	4	4	4	4	4
Print Units:	pph	PPM	pph	pph	pph
BKG Low SS Offset:	-10	NONE	-10	-10	NONE
BKG High SS Offset:	NONE	15	10	NONE	15
BKG Element Name:	--n/a--	--n/a--	--n/a--	--n/a--	--n/a--
BKG Factor:	--n/a--	--n/a--	--n/a--	--n/a--	--n/a--
Stdz. Method:	2pt Uncalib	2pt Uncalib	2pt Uncalib	2pt Uncalib	2pt Uncalib
Std #1 (High) Name:	S1	S1	S1	S1	S1
Conc/Sig:	1000	10	1000	1000	1000
Std #2 (Low) Name:	S0	S0	S0	S0	S0
Conc/Sig:	0	0	0	0	0
Std #3 Name:	--n/a--	--n/a--	--n/a--	--n/a--	--n/a--
Conc:	--n/a--	--n/a--	--n/a--	--n/a--	--n/a--
Std #4 Name:	--n/a--	--n/a--	--n/a--	--n/a--	--n/a--
Conc:	--n/a--	--n/a--	--n/a--	--n/a--	--n/a--
Std #5 Name:	--n/a--	--n/a--	--n/a--	--n/a--	--n/a--
Conc:	--n/a--	--n/a--	--n/a--	--n/a--	--n/a--
Y - intercept:	-.195469	-.399728	2.33972	-4.86084	-1.60371
Slope:	357.97	2.60961	421.534	311.451	51.7039
Date Standardized:	07/30/01	07/30/01	07/30/01	07/30/01	07/30/01
Time Standardized:	20:10	20:10	20:10	20:10	20:10
Offset (A0):	0	0	0	0	0
Gain (A1):	1	1	1	1	1
Curvature (A2):	0	0	0	0	0
Exponent (n):	1	1	1	1	1
Max. Inflection:	NONE	NONE	NONE	NONE	NONE
Date of Fit:	NO FIT	NO FIT	NO FIT	NO FIT	NO FIT
Time of Fit:					
Use IECs:	YES	YES	YES	YES	YES
Number of IECs:	6	4	5	8	5

Affecting Element:	Fe2714	V-2924	Cr2677	Fe2714	Al3082
k1 factor:	-.00247	.020436	-.00267	-.01964	.001823
k2 factor:	0	0	0	0	0
use?:	YES	YES	YES	YES	YES
Affecting Element:	Mn2576	Mo2020	Fe2714	Cr2677	Fe2714
k1 factor:	.063672	.000006	-.00969	.000276	.004768
k2 factor:	0	0	0	0	0
use?:	YES	YES	YES	YES	YES
Affecting Element:	V-2924	Th4019	Mo2020	Co2286	Th4019
k1 factor:	.074632	.00005	-.00234	-.00069	-------
k2 factor:	0	0	0	0	0
use?:	YES	YES	YES	YES	YES
Affecting Element:	U-3856	U-3856	Zr3496	U-3856	V-2924
k1 factor:	.000732	.000003	.000054	.000302	.000988
k2 factor:	0	0	0	0	0
use?:	YES	YES	YES	YES	YES
Affecting Element:	Th4019	--n/a--	U-3856	Th4019	U-3856
k1 factor:	-.00372	--n/a--	-.0001	.000025	-.00001
k2 factor:	0	--n/a--	0	0	0
use?:	YES	--n/a--	YES	YES	YES
Affecting Element:	Zr3496	--n/a--	--n/a--	Al3082	--n/a--
k1 factor:	.00284	--n/a--	--n/a--	.004382	--n/a--
k2 factor:	0	--n/a--	--n/a--	0	--n/a--
use?:	YES	--n/a--	--n/a--	YES	--n/a--
Affecting Element:	--n/a--	--n/a--	--n/a--	Zr3496	--n/a--
k1 factor:	--n/a--	--n/a--	--n/a--	.000096	--n/a--
k2 factor:	--n/a--	--n/a--	--n/a--	0	--n/a--
use?:	--n/a--	--n/a--	--n/a--	YES	--n/a--
Affecting Element:	--n/a--	--n/a--	--n/a--	Pb2203	--n/a--
k1 factor:	--n/a--	--n/a--	--n/a--	-------	--n/a--
k2 factor:	--n/a--	--n/a--	--n/a--	0	--n/a--
use?:	--n/a--	--n/a--	--n/a--	YES	--n/a--

Element:	Be	Bi	Ca	Ca	Cd
Wavelength:	313.041	223.061/2	317.933	396.847	226.502/2
Element Name:	Be3130	Bi2230	Ca3179	Ca3968	Cd2265
Line Switch Conc:	0	0	0	0	0
Peak SS Offset:	0	0	0	0	0
Timing Group No.:	1	1	1	1	1
Print Limit Low:	0	0	0	0	0
Print Limit High:	0	0	0	0	0
Significant Figrs:	4	4	4	4	4
Print Units:	ppb	ppb	PPM	PPM	ppb
BKG Low SS Offset:	NONE	NONE	NONE	NONE	-15
BKG High SS Offset:	20	10	15	15	NONE
BKG Element Name:	--n/a--	--n/a--	--n/a--	--n/a--	--n/a--
BKG Factor:	--n/a--	--n/a--	--n/a--	--n/a--	--n/a--
Stdz. Method:	2pt Uncalib	2pt Uncalib	2pt Uncalib	2pt Uncalib	2pt Uncalib
Std #1 (High) Name:	S1	S1	S2	S1	S1
Conc/Sig:	1000	1000	50	4	1000
Std #2 (Low) Name:	S0	S0	S0	S0	S0
Conc/Sig:	0	0	0	0	0
Std #3 Name:	--n/a--	--n/a--	--n/a--	--n/a--	--n/a--
Conc:	--n/a--	--n/a--	--n/a--	--n/a--	--n/a--
Std #4 Name:	--n/a--	--n/a--	--n/a--	--n/a--	--n/a--
Conc:	--n/a--	--n/a--	--n/a--	--n/a--	--n/a--
Std #5 Name:	--n/a--	--n/a--	--n/a--	--n/a--	--n/a--
Conc:	--n/a--	--n/a--	--n/a--	--n/a--	--n/a--
Y - intercept:	-2.84334	9.04062	-.400636	-.003956	.053702
Slope:	21.9183	292.729	6.57393	.007366	35.5292
Date Standardized:	07/30/01	07/30/01	07/30/01	07/30/01	07/30/01
Time Standardized:	20:10	20:10	20:10	20:10	20:10
Offset (A0):	0	0	0	0	0
Gain (A1):	1	1	1	1	1
Curvature (A2):	0	0	0	0	0
Exponent (n):	1	1	1	1	1
Max. Inflection:	NONE	NONE	NONE	NONE	NONE
Date of Fit:	NO FIT	NO FIT	NO FIT	NO FIT	NO FIT
Time of Fit:					
Use IECs:	YES	YES	YES	YES	YES
Number of IECs:	5	7	2	1	6

Affecting Element:	V-2924	Fe2714	V-2924	V-2924	Fe2714
k1 factor:	.852958	-.03831	.000308	.000182	.138205
k2 factor:	0	0	0	0	0
use?:	YES	YES	YES	YES	YES
Affecting Element:	Ti3349	Ti3349	U-3856	--n/a--	Ti3349
k1 factor:	-.00208	-.00075	.000002	--n/a--	.000021
k2 factor:	0	0	0	--n/a--	0
use?:	YES	YES	YES	--n/a--	YES
Affecting Element:	U-3856	Cr2677	--n/a--	--n/a--	Th4019
k1 factor:	-.00005	.000484	--n/a--	--n/a--	.000048
k2 factor:	0	0	--n/a--	--n/a--	0
use?:	YES	YES	--n/a--	--n/a--	YES
Affecting Element:	Th4019	Cu3247	--n/a--	--n/a--	Al3082
k1 factor:	-.00003	.00036	--n/a--	--n/a--	.002802
k2 factor:	0	0	--n/a--	--n/a--	0
use?:	YES	YES	--n/a--	--n/a--	YES
Affecting Element:	Zr3496	Th4019	--n/a--	--n/a--	Ni2316
k1 factor:	.000009	-.00005	--n/a--	--n/a--	-.00003
k2 factor:	0	0	--n/a--	--n/a--	0
use?:	YES	YES	--n/a--	--n/a--	YES
Affecting Element:	--n/a--	V-2924	--n/a--	--n/a--	Co2286
k1 factor:	--n/a--	-.02066	--n/a--	--n/a--	-.00027
k2 factor:	--n/a--	0	--n/a--	--n/a--	0
use?:	--n/a--	YES	--n/a--	--n/a--	YES
Affecting Element:	--n/a--	U-3856	--n/a--	--n/a--	--n/a--
k1 factor:	--n/a--	.000136	--n/a--	--n/a--	--n/a--
k2 factor:	--n/a--	0	--n/a--	--n/a--	--n/a--
use?:	--n/a--	YES	--n/a--	--n/a--	--n/a--

Element:	Co	Cr	Cu	Fe	Fe
Wavelength:	228.616	267.716	324.754	271.441	259.940
Element Name:	Co2286	Cr2677	Cu3247	Fe2714	Fe2599
Line Switch Conc:	0	0	0	0	0
Peak SS Offset:	0	0	0	0	0
Timing Group No.:	1	1	1	1	1
Print Limit Low:	0	0	0	0	0
Print Limit High:	0	0	0	0	0
Significant Figrs:	4	4	4	4	4
Print Units:	ppb	ppb	ppb	PPM	PPM
BKG Low SS Offset:	NONE	-15	NONE	-25	-15
BKG High SS Offset:	15	NONE	15	NONE	NONE
BKG Element Name:	--n/a--	--n/a--	--n/a--	--n/a--	--n/a--
BKG Factor:	--n/a--	--n/a--	--n/a--	--n/a--	--n/a--
Stdz. Method:	2pt Uncalib	2pt Uncalib	2pt Uncalib	2pt Uncalib	2pt Uncalib
Std #1 (High) Name:	S1	S1	S1	S2	S1
Conc/Sig:	1000	1000	1000	50	10
Std #2 (Low) Name:	S0	S0	S0	S0	S0
Conc/Sig:	0	0	0	0	0
Std #3 Name:	--n/a--	--n/a--	--n/a--	--n/a--	--n/a--
Conc:	--n/a--	--n/a--	--n/a--	--n/a--	--n/a--
Std #4 Name:	--n/a--	--n/a--	--n/a--	--n/a--	--n/a--
Conc:	--n/a--	--n/a--	--n/a--	--n/a--	--n/a--
Std #5 Name:	--n/a--	--n/a--	--n/a--	--n/a--	--n/a--
Conc:	--n/a--	--n/a--	--n/a--	--n/a--	--n/a--
Y - intercept:	.076834	-.698509	-14.2304	-.021609	-.002009
Slope:	283.313	196.872	206.072	7.37115	.718642
Date Standardized:	07/30/01	07/30/01	07/30/01	07/30/01	07/30/01
Time Standardized:	20:10	20:10	20:10	20:10	20:10
Offset (A0):	0	0	0	0	0
Gain (A1):	1	1	1	1	1
Curvature (A2):	0	0	0	0	0
Exponent (n):	1	1	1	1	1
Max. Inflection:	NONE	NONE	NONE	NONE	NONE
Date of Fit:	NO FIT	NO FIT	NO FIT	NO FIT	NO FIT
Time of Fit:					
Use IECs:	YES	YES	YES	YES	YES
Number of IECs:	9	7	7	5	1

Affecting Element:	Ti3349	Fe2714	Fe2714	V-2924	V-2924
k1 factor:	.002236	-.0244	.015798	.019506	.000474
k2 factor:	0	0	0	0	0
use?:	YES	YES	YES	YES	YES
Affecting Element:	Ba4934	Mn2576	Mo2020	Co2286	--n/a--
k1 factor:	.000401	.077612	.000263	.000078	--n/a--
k2 factor:	0	0	0	0	--n/a--
use?:	YES	YES	YES	YES	--n/a--
Affecting Element:	Mo2020	V-2924	V-2924	Zr3496	--n/a--
k1 factor:	-.00261	.123726	-.07052	.0001	--n/a--
k2 factor:	0	0	0	0	--n/a--
use?:	YES	YES	YES	YES	--n/a--
Affecting Element:	V-2924	Th4019	Ti3349	U-3856	--n/a--
k1 factor:	.019318	-.00001	.000168	-------	--n/a--
k2 factor:	0	0	0	0	--n/a--
use?:	YES	YES	YES	YES	--n/a--
Affecting Element:	Cd2265	U-3856	Mg2790	Th4019	--n/a--
k1 factor:	.000486	.000896	-.00328	.000004	--n/a--
k2 factor:	0	0	0	0	--n/a--
use?:	YES	YES	YES	YES	--n/a--
Affecting Element:	Ni2316	Mo2020	U-3856	--n/a--	--n/a--
k1 factor:	.000174	-.00003	-.00099	--n/a--	--n/a--
k2 factor:	0	0	0	--n/a--	--n/a--
use?:	YES	YES	YES	--n/a--	--n/a--
Affecting Element:	Th4019	Zr3496	Th4019	--n/a--	--n/a--
k1 factor:	-.00002	.0001	.001121	--n/a--	--n/a--
k2 factor:	0	0	0	--n/a--	--n/a--
use?:	YES	YES	YES	--n/a--	--n/a--
Affecting Element:	U-3856	--n/a--	--n/a--	--n/a--	--n/a--
k1 factor:	.000192	--n/a--	--n/a--	--n/a--	--n/a--
k2 factor:	0	--n/a--	--n/a--	--n/a--	--n/a--
use?:	YES	--n/a--	--n/a--	--n/a--	--n/a--
Affecting Element:	Fe2714	--n/a--	--n/a--	--n/a--	--n/a--
k1 factor:	-.00944	--n/a--	--n/a--	--n/a--	--n/a--
k2 factor:	0	--n/a--	--n/a--	--n/a--	--n/a--
use?:	YES	--n/a--	--n/a--	--n/a--	--n/a--

Element:	K	Li	Mg	Mg	Mn
Wavelength:	766.491	670.781	279.078	285.213	257.610
Element Name:	K-7664	Li6707	Mg2790	Mg2852	Mn2576
Line Switch Conc:	0	0	0	0	0
Peak SS Offset:	0	0	0	0	0
Timing Group No.:	1	1	1	1	1
Print Limit Low:	0	0	0	0	0
Print Limit High:	0	0	0	0	0
Significant Figrs:	4	4	4	4	4
Print Units:	ppb	ppb	PPM	PPM	PPM
BKG Low SS Offset:	-25	-25	-15	-15	-10
BKG High SS Offset:	NONE	NONE	NONE	NONE	NONE
BKG Element Name:	--n/a--	--n/a--	--n/a--	--n/a--	--n/a--
BKG Factor:	--n/a--	--n/a--	--n/a--	--n/a--	--n/a--
Stdz. Method:	2pt Uncalib	2pt Uncalib	2pt Uncalib	2pt Uncalib	2pt Uncalib
Std #1 (High) Name:	S2	S1	S2	S1	S2
Conc/Sig:	100000	8000	50	8	10
Std #2 (Low) Name:	S0	S0	S0	S0	S0
Conc/Sig:	0	0	0	0	0
Std #3 Name:	--n/a--	--n/a--	--n/a--	--n/a--	--n/a--
Conc:	--n/a--	--n/a--	--n/a--	--n/a--	--n/a--
Std #4 Name:	--n/a--	--n/a--	--n/a--	--n/a--	--n/a--
Conc:	--n/a--	--n/a--	--n/a--	--n/a--	--n/a--
Std #5 Name:	--n/a--	--n/a--	--n/a--	--n/a--	--n/a--
Conc:	--n/a--	--n/a--	--n/a--	--n/a--	--n/a--
Y - intercept:	13.4805	-.360652	.004048	-.002046	-.000205
Slope:	454.783	16.1816	3.29794	.034668	.300087
Date Standardized:	07/30/01	07/30/01	07/30/01	07/30/01	07/30/01
Time Standardized:	20:10	20:10	20:10	20:10	20:10
Offset (A0):	0	0	0	0	0
Gain (A1):	1	1	1	1	1
Curvature (A2):	0	0	0	0	0
Exponent (n):	1	1	1	1	1
Max. Inflection:	NONE	NONE	NONE	NONE	NONE
Date of Fit:	NO FIT	NO FIT	NO FIT	NO FIT	NO FIT
Time of Fit:					
Use IECs:	NO	NO	YES	YES	YES
Number of IECs:	0	0	5	1	4

Affecting Element:	--n/a--	--n/a--	Fe2714	Fe2714	Fe2714
k1 factor:	--n/a--	--n/a--	-.00007	-.00093	-------
k2 factor:	--n/a--	--n/a--	0	0	0
use?:	--n/a--	--n/a--	YES	YES	YES
Affecting Element:	--n/a--	--n/a--	Mo2020	--n/a--	Mg2790
k1 factor:	--n/a--	--n/a--	-.00001	--n/a--	.000014
k2 factor:	--n/a--	--n/a--	0	--n/a--	0
use?:	--n/a--	--n/a--	YES	--n/a--	YES
Affecting Element:	--n/a--	--n/a--	Th4019	--n/a--	Al3082
k1 factor:	--n/a--	--n/a--	-.00002	--n/a--	-------
k2 factor:	--n/a--	--n/a--	0	--n/a--	0
use?:	--n/a--	--n/a--	YES	--n/a--	YES
Affecting Element:	--n/a--	--n/a--	Ti3349	--n/a--	V-2924
k1 factor:	--n/a--	--n/a--	-------	--n/a--	.000008
k2 factor:	--n/a--	--n/a--	0	--n/a--	0
use?:	--n/a--	--n/a--	YES	--n/a--	YES
Affecting Element:	--n/a--	--n/a--	U-3856	--n/a--	--n/a--
k1 factor:	--n/a--	--n/a--	.000012	--n/a--	--n/a--
k2 factor:	--n/a--	--n/a--	0	--n/a--	--n/a--
use?:	--n/a--	--n/a--	YES	--n/a--	--n/a--

Element:	Mo	Na	Ni	Pb	Pb
Wavelength:	202.030	588.995	231.604/2	220.351	220.352/2
Element Name:	Mo2020	Na5889	Ni2316	2203/1	2203/2
Line Switch Conc:	0	0	0	0	0
Peak SS Offset:	0	0	0	10	-10
Timing Group No.:	1	1	1	1	1
Print Limit Low:	0	0	0	0	0
Print Limit High:	0	0	0	0	0
Significant Figrs:	4	4	4	4	4
Print Units:	ppb	ppb	ppb	ppb	ppb
BKG Low SS Offset:	-10	-25	NONE	-10	-25
BKG High SS Offset:	NONE	15	15	20	10
BKG Element Name:	--n/a--	--n/a--	--n/a--	--n/a--	--n/a--
BKG Factor:	--n/a--	--n/a--	--n/a--	--n/a--	--n/a--
Stdz. Method:	2pt Uncalib	2pt Uncalib	2pt Uncalib	2pt Uncalib	2pt Uncalib
Std #1 (High) Name:	S1	S2	S1	S1	S1
Conc/Sig:	1000	50000	1000	1000	1000
Std #2 (Low) Name:	S0	S0	S0	S0	S0
Conc/Sig:	0	0	0	0	0
Std #3 Name:	--n/a--	--n/a--	--n/a--	--n/a--	--n/a--
Conc:	--n/a--	--n/a--	--n/a--	--n/a--	--n/a--
Std #4 Name:	--n/a--	--n/a--	--n/a--	--n/a--	--n/a--
Conc:	--n/a--	--n/a--	--n/a--	--n/a--	--n/a--
Std #5 Name:	--n/a--	--n/a--	--n/a--	--n/a--	--n/a--
Conc:	--n/a--	--n/a--	--n/a--	--n/a--	--n/a--
Y - intercept:	-.928834	-15.5077	.353522	1.17907	1.10803
Slope:	102.505	78.9641	225.524	139.447	235.931
Date Standardized:	07/30/01	07/30/01	07/30/01	07/30/01	07/30/01
Time Standardized:	20:10	20:10	20:10	20:10	20:10
Offset (A0):	0	0	0	0	0
Gain (A1):	1	1	1	1	1
Curvature (A2):	0	0	0	0	0
Exponent (n):	1	1	1	1	1
Max. Inflection:	NONE	NONE	NONE	NONE	NONE
Date of Fit:	NO FIT	NO FIT	NO FIT	NO FIT	NO FIT
Time of Fit:					
Use IECs:	YES	NO	YES	YES	YES
Number of IECs:	3	0	5	11	12

Affecting Element:	V-2924	--n/a--	Zr3496	Al3082	Al3082
k1 factor:	.052104	--n/a--	-.00003	-.03612	.024682
k2 factor:	0	--n/a--	0	0	0
use?:	YES	--n/a--	YES	YES	YES
Affecting Element:	U-3856	--n/a--	Mn2576	Fe2714	Co2286
k1 factor:	-.0004	--n/a--	-.10327	.130452	-.00067
k2 factor:	0	--n/a--	0	0	0
use?:	YES	--n/a--	YES	YES	YES
Affecting Element:	Fe2714	--n/a--	U-3856	Zr3496	Ni2316
k1 factor:	-.02676	--n/a--	.0001	-.00036	.000036
k2 factor:	0	--n/a--	0	0	0
use?:	YES	--n/a--	YES	YES	YES
Affecting Element:	--n/a--	--n/a--	Th4019	V-2924	V-2924
k1 factor:	--n/a--	--n/a--	.000014	-.07135	-.12617
k2 factor:	--n/a--	--n/a--	0	0	0
use?:	--n/a--	--n/a--	YES	YES	YES
Affecting Element:	--n/a--	--n/a--	Co2286	Ti3349	Ti3349
k1 factor:	--n/a--	--n/a--	-.002	-.00078	-.00028
k2 factor:	--n/a--	--n/a--	0	0	0
use?:	--n/a--	--n/a--	YES	YES	YES
Affecting Element:	--n/a--	--n/a--	--n/a--	Mo2020	Mo2020
k1 factor:	--n/a--	--n/a--	--n/a--	-.00107	-.00039
k2 factor:	--n/a--	--n/a--	--n/a--	0	0
use?:	--n/a--	--n/a--	--n/a--	YES	YES
Affecting Element:	--n/a--	--n/a--	--n/a--	Th4019	Cr2677
k1 factor:	--n/a--	--n/a--	--n/a--	-.0013	-.00002
k2 factor:	--n/a--	--n/a--	--n/a--	0	0
use?:	--n/a--	--n/a--	--n/a--	YES	YES
Affecting Element:	--n/a--	--n/a--	--n/a--	Cr2677	Fe2714
k1 factor:	--n/a--	--n/a--	--n/a--	-.00009	-.006
k2 factor:	--n/a--	--n/a--	--n/a--	0	0
use?:	--n/a--	--n/a--	--n/a--	YES	YES
Affecting Element:	--n/a--	--n/a--	--n/a--	Ni2316	Bi2230
k1 factor:	--n/a--	--n/a--	--n/a--	.00031	-.00004
k2 factor:	--n/a--	--n/a--	--n/a--	0	0
use?:	--n/a--	--n/a--	--n/a--	YES	YES

Affecting Element:	--n/a--	--n/a--	--n/a--	Bi2230	Zr3496
k1 factor:	--n/a--	--n/a--	--n/a--	-.00022	-.00019
k2 factor:	--n/a--	--n/a--	--n/a--	0	0
use?:	--n/a--	--n/a--	--n/a--	YES	YES
Affecting Element:	--n/a--	--n/a--	--n/a--	U-3856	U-3856
k1 factor:	--n/a--	--n/a--	--n/a--	.001406	.001362
k2 factor:	--n/a--	--n/a--	--n/a--	0	0
use?:	--n/a--	--n/a--	--n/a--	YES	YES
Affecting Element:	--n/a--	--n/a--	--n/a--	--n/a--	Th4019
k1 factor:	--n/a--	--n/a--	--n/a--	--n/a--	-.00001
k2 factor:	--n/a--	--n/a--	--n/a--	--n/a--	0
use?:	--n/a--	--n/a--	--n/a--	--n/a--	YES

Element:	S	S	S	Sb	Sb
Wavelength:	220.353	196.026	206.838	206.831	206.832/2
Element Name:	Pb2203	Se1960	Sb2068	2068/1	2068/2
Line Switch Conc:	0	0	0	0	0
Peak SS Offset:	0	0	0	-10	10
Timing Group No.:	1	1	1	1	1
Print Limit Low:	0	0	0	0	0
Print Limit High:	0	0	0	0	0
Significant Figrs:	4	4	4	4	5
Print Units:	ppb	ppb	ppb	ppb	ppb
BKG Low SS Offset:	NONE	NONE	NONE	NONE	-10
BKG High SS Offset:	NONE	NONE	NONE	10	NONE
BKG Element Name:	--n/a--	--n/a--	--n/a--	--n/a--	--n/a--
BKG Factor:	--n/a--	--n/a--	--n/a--	--n/a--	--n/a--
Stdz. Method:	2pt Uncalib	2pt Uncalib	2pt Uncalib	2pt Uncalib	2pt Uncalib
Std #1 (High) Name:	NONE	NONE	NONE	S1	S1
Conc/Sig:	0	0	0	1000	1000
Std #2 (Low) Name:	NONE	NONE	NONE	S0	S0
Conc/Sig:	0	0	0	0	0
Std #3 Name:	--n/a--	--n/a--	--n/a--	--n/a--	--n/a--
Conc:	--n/a--	--n/a--	--n/a--	--n/a--	--n/a--
Std #4 Name:	--n/a--	--n/a--	--n/a--	--n/a--	--n/a--
Conc:	--n/a--	--n/a--	--n/a--	--n/a--	--n/a--
Std #5 Name:	--n/a--	--n/a--	--n/a--	--n/a--	--n/a--
Conc:	--n/a--	--n/a--	--n/a--	--n/a--	--n/a--

Y - intercept:	0	0	0	5.89498	1.10343
Slope:	1	1	1	139.49	284.55
Date Standardized:	NOT	NOT	NOT	07/30/01	07/30/01
Time Standardized:	STDIZED	STDIZED	STDIZED	20:10	20:10
Offset (A0):	0	0	0	0	0
Gain (A1):	1	1	1	1	1
Curvature (A2):	0	0	0	0	0
Exponent (n):	1	1	1	1	1
Max. Inflection:	NONE	NONE	NONE	NONE	NONE
Date of Fit:	NO FIT	NO FIT	NO FIT	NO FIT	NO FIT
Time of Fit:					
Use IRCs:	YES	YES	YES	YES	YES
Number of IRCs:	2	2	2	10	9
Affecting Element:	2203/1	1960/1	2068/1	Fe2714	Fe2714
k1 factor:	-.333	-.333	-.333	.024	.02
k2 factor:	0	0	0	0	0
use?:	YES	YES	YES	YES	YES
Affecting Element:	2203/2	1960/2	2068/2	V-2924	V-2924
k1 factor:	-.667	-.667	-.667	-5.6389	.120362
k2 factor:	0	0	0	0	0
use?:	YES	YES	YES	YES	YES
Affecting Element:	--n/a--	--n/a--	--n/a--	Cr2677	Cr2677
k1 factor:	--n/a--	--n/a--	--n/a--	.007681	.006442
k2 factor:	--n/a--	--n/a--	--n/a--	0	0
use?:	--n/a--	--n/a--	--n/a--	YES	YES
Affecting Element:	--n/a--	--n/a--	--n/a--	Sn1899	Mo2020
k1 factor:	--n/a--	--n/a--	--n/a--	-.00697	-.01297
k2 factor:	--n/a--	--n/a--	--n/a--	0	0
use?:	--n/a--	--n/a--	--n/a--	YES	YES
Affecting Element:	--n/a--	--n/a--	--n/a--	Ni2316	Ti3349
k1 factor:	--n/a--	--n/a--	--n/a--	-.00133	.000114
k2 factor:	--n/a--	--n/a--	--n/a--	0	0
use?:	--n/a--	--n/a--	--n/a--	YES	YES
Affecting Element:	--n/a--	--n/a--	--n/a--	Ti3349	Zr3496
k1 factor:	--n/a--	--n/a--	--n/a--	.000654	-.00065
k2 factor:	--n/a--	--n/a--	--n/a--	0	0
use?:	--n/a--	--n/a--	--n/a--	YES	YES

Affecting Element:	--n/a--	--n/a--	--n/a--	Zr3496	Th4019
k1 factor:	--n/a--	--n/a--	--n/a--	-.00009	-.00004
k2 factor:	--n/a--	--n/a--	--n/a--	0	0
use?:	--n/a--	--n/a--	--n/a--	YES	YES
Affecting Element:	--n/a--	--n/a--	--n/a--	Mo2020	Sn1899
k1 factor:	--n/a--	--n/a--	--n/a--	-.00328	.000221
k2 factor:	--n/a--	--n/a--	--n/a--	0	0
use?:	--n/a--	--n/a--	--n/a--	YES	YES
Affecting Element:	--n/a--	--n/a--	--n/a--	U-3856	U-3856
k1 factor:	--n/a--	--n/a--	--n/a--	-.0009	-.0001
k2 factor:	--n/a--	--n/a--	--n/a--	0	0
use?:	--n/a--	--n/a--	--n/a--	YES	YES
Affecting Element:	--n/a--	--n/a--	--n/a--	Th4019	--n/a--
k1 factor:	--n/a--	--n/a--	--n/a--	-.00032	--n/a--
k2 factor:	--n/a--	--n/a--	--n/a--	0	--n/a--
use?:	--n/a--	--n/a--	--n/a--	YES	--n/a--

Element:	Se	Se	Tl	V	Zn
Wavelength:	196.021	196.022/2	190.864/2	292.402	213.856/2
Element Name:	1960/1	1960/2	Tl1908	V-2924	Zn2138
Line Switch Conc:	0	0	0	0	0
Peak SS Offset:	10	-10	0	0	0
Timing Group No.:	1	1	1	1	1
Print Limit Low:	0	0	0	0	0
Print Limit High:	0	0	0	0	0
Significant Figrs:	4	4	4	4	4
Print Units:	ppb	ppb	ppb	PPM	ppb
BKG Low SS Offset:	-10	NONE	NONE	NONE	NONE
BKG High SS Offset:	NONE	10	20	15	15
BKG Element Name:	--n/a--	--n/a--	--n/a--	--n/a--	--n/a--
BKG Factor:	--n/a--	--n/a--	--n/a--	--n/a--	--n/a--
Stdz. Method:	2pt Uncalib	2pt Uncalib	2pt Uncalib	2pt Uncalib	2pt Uncalib
Std #1 (High) Name:	S1	S1	S1	S2	S1
Conc/Sig:	1000	1000	1000	10	1000
Std #2 (Low) Name:	S0	S0	S0	S0	S0
Conc/Sig:	0	0	0	0	0
Std #3 Name:	--n/a--	--n/a--	--n/a--	--n/a--	--n/a--
Conc:	--n/a--	--n/a--	--n/a--	--n/a--	--n/a--
Std #4 Name:	--n/a--	--n/a--	--n/a--	--n/a--	--n/a--
Conc:	--n/a--	--n/a--	--n/a--	--n/a--	--n/a--
Std #5 Name:	--n/a--	--n/a--	--n/a--	--n/a--	--n/a--
Conc:	--n/a--	--n/a--	--n/a--	--n/a--	--n/a--
Y - intercept:	18.0573	-15.4292	6.65143	-.000228	1.6771
Slope:	423.15	376.007	315.698	1.11514	585.761
Date Standardized:	07/30/01	07/30/01	07/30/01	07/30/01	07/30/01
Time Standardized:	20:10	20:10	20:10	20:10	20:10
Offset (A0):	0	0	0	0	0
Gain (A1):	1	1	1	1	1
Curvature (A2):	0	0	0	0	0
Exponent (n):	1	1	1	1	1
Max. Inflection:	NONE	NONE	NONE	NONE	NONE
Date of Fit:	NO FIT	NO FIT	NO FIT	NO FIT	NO FIT
Time of Fit:					
Use IECs:	YES	YES	YES	YES	YES
Number of IECs:	8	6	11	4	7

Affecting Element:	Fe2714	Fe2714	Mo2020	Fe2714	Al3082
k1 factor:	-.088	-.374	-.01481	.000068	.001502
k2 factor:	0	0	0	0	0
use?:	YES	YES	YES	YES	YES
Affecting Element:	Mn2576	Mn2576	Fe2714	Mo2020	Fe2714
k1 factor:	.412	.292	-.202	-.00001	.132932
k2 factor:	0	0	0	0	0
use?:	YES	YES	YES	YES	YES
Affecting Element:	V-2924	Th4019	Cr2677	Ti3349	Mg2790
k1 factor:	.0868	-.00004	.000402	.000001	.009
k2 factor:	0	0	0	0	0
use?:	YES	YES	YES	YES	YES
Affecting Element:	Co2286	Co2286	Mn2576	Th4019	V-2924
k1 factor:	.000272	-.00042	.732	.000001	.016552
k2 factor:	0	0	0	0	0
use?:	YES	YES	YES	YES	YES
Affecting Element:	U-3856	U-3856	V-2924	--n/a--	Cu3247
k1 factor:	-.00008	.000134	2.29689	--n/a--	.000804
k2 factor:	0	0	0	--n/a--	0
use?:	YES	YES	YES	--n/a--	YES
Affecting Element:	Th4019	Al3082	Al3082	--n/a--	Ca3179
k1 factor:	-.03466	-.012	-.012	--n/a--	.01962
k2 factor:	0	0	0	--n/a--	0
use?:	YES	YES	YES	--n/a--	NO
Affecting Element:	Zr3496	--n/a--	Co2286	--n/a--	Ni2316
k1 factor:	-.00011	--n/a--	.004	--n/a--	.004368
k2 factor:	0	--n/a--	0	--n/a--	0
use?:	YES	--n/a--	YES	--n/a--	YES
Affecting Element:	Bi2230	--n/a--	U-3856	--n/a--	--n/a--
k1 factor:	-.00013	--n/a--	-.00021	--n/a--	--n/a--
k2 factor:	0	--n/a--	0	--n/a--	--n/a--
use?:	YES	--n/a--	YES	--n/a--	--n/a--
Affecting Element:	--n/a--	--n/a--	Th4019	--n/a--	--n/a--
k1 factor:	--n/a--	--n/a--	.00008	--n/a--	--n/a--
k2 factor:	--n/a--	--n/a--	0	--n/a--	--n/a--
use?:	--n/a--	--n/a--	YES	--n/a--	--n/a--

Affecting Element:	--n/a--	--n/a--	Bi2230	--n/a--	--n/a--
k1 factor:	--n/a--	--n/a--	-.00003	--n/a--	--n/a--
k2 factor:	--n/a--	--n/a--	0	--n/a--	--n/a--
use?:	--n/a--	--n/a--	YES	--n/a--	--n/a--
Affecting Element:	--n/a--	--n/a--	Ti3349	--n/a--	--n/a--
k1 factor:	--n/a--	--n/a--	-.00022	--n/a--	--n/a--
k2 factor:	--n/a--	--n/a--	0	--n/a--	--n/a--
use?:	--n/a--	--n/a--	YES	--n/a--	--n/a--

Element:	Ti	Th	U	P	Si
Wavelength:	334.941	401.913	385.658	178.280	288.158
Element Name:	Ti3349	Th4019	U-3856	P-1782	Si2881
Line Switch Conc:	0	0	0	0	0
Peak SS Offset:	0	0	0	0	0
Timing Group No.:	1	1	1	1	1
Print Limit Low:	0	0	0	0	0
Print Limit High:	0	0	0	0	0
Significant Figrs:	4	4	4	4	4
Print Units:	ppb	ppb	ppb	ppb	ppb
BKG Low SS Offset:	NONE	-15	-10	-15	-15
BKG High SS Offset:	15	15	NONE	NONE	NONE
BKG Element Name:	--n/a--	--n/a--	--n/a--	--n/a--	--n/a--
BKG Factor:	--n/a--	--n/a--	--n/a--	--n/a--	--n/a--
Stdz. Method:	2pt Uncalib	2pt Uncalib	2pt Uncalib	2pt Uncalib	2pt Uncalib
Std #1 (High) Name:	S1	S3	S3	S3	S1
Conc/Sig:	1000	1000	1000	2000	1000
Std #2 (Low) Name:	S0	S0	S0	S0	S0
Conc/Sig:	0	0	0	0	0
Std #3 Name:	--n/a--	--n/a--	--n/a--	--n/a--	--n/a--
Conc:	--n/a--	--n/a--	--n/a--	--n/a--	--n/a--
Std #4 Name:	--n/a--	--n/a--	--n/a--	--n/a--	--n/a--
Conc:	--n/a--	--n/a--	--n/a--	--n/a--	--n/a--
Std #5 Name:	--n/a--	--n/a--	--n/a--	--n/a--	--n/a--
Conc:	--n/a--	--n/a--	--n/a--	--n/a--	--n/a--

Y - intercept:	.87103	-5.51056	-.004857	30.1839	-204.434
Slope:	70.9872	497.46	6054.51	9621.08	4767.77
Date Standardized:	07/30/01	07/30/01	07/30/01	07/30/01	07/30/01
Time Standardized:	20:10	20:10	20:10	20:10	20:10
Offset (A0):	0	0	0	0	0
Gain (A1):	1	1	1	1	1
Curvature (A2):	0	0	0	0	0
Exponent (n):	1	1	1	1	1
Max. Inflection:	NONE	NONE	NONE	NONE	NONE
Date of Fit:	NO FIT	NO FIT	NO FIT	NO FIT	NO FIT
Time of Fit:					
Use IECs:	YES	YES	YES	YES	YES
Number of IECs:	6	4	4	4	9
Affecting Element:	U-3856	Ti3349	Fe2714	Al3082	Zr3496
k1 factor:	.000322	-.0058	.656134	-.07076	.000492
k2 factor:	0	0	0	0	0
use?:	YES	YES	YES	YES	YES
Affecting Element:	Cr2677	V-2924	Th4019	V-2924	U-3856
k1 factor:	.000198	.103092	.000802	-.13491	.002174
k2 factor:	0	0	0	0	0
use?:	YES	YES	YES	YES	YES
Affecting Element:	Ca3179	Mn2576	V-2924	Th4019	Th4019
k1 factor:	-.0074	41.234	-13.661	.000558	-.00109
k2 factor:	0	0	0	0	0
use?:	YES	YES	YES	YES	YES
Affecting Element:	Th4019	U-3856	Cr2677	U-3856	Ti3349
k1 factor:	.000098	.008432	.000646	-.00017	.006384
k2 factor:	0	0	0	0	0
use?:	YES	YES	YES	YES	YES
Affecting Element:	V-2924	--n/a--	--n/a--	--n/a--	V-2924
k1 factor:	.022318	--n/a--	--n/a--	--n/a--	.369904
k2 factor:	0	--n/a--	--n/a--	--n/a--	0
use?:	YES	--n/a--	--n/a--	--n/a--	YES
Affecting Element:	Mg2790	--n/a--	--n/a--	--n/a--	Sn1899
k1 factor:	.015197	--n/a--	--n/a--	--n/a--	.008764
k2 factor:	0	--n/a--	--n/a--	--n/a--	0
use?:	YES	--n/a--	--n/a--	--n/a--	YES

Affecting Element:	--n/a--	--n/a--	--n/a--	--n/a--	Al3082
k1 factor:	--n/a--	--n/a--	--n/a--	--n/a--	.007145
k2 factor:	--n/a--	--n/a--	--n/a--	--n/a--	0
use?:	--n/a--	--n/a--	--n/a--	--n/a--	YES
Affecting Element:	--n/a--	--n/a--	--n/a--	--n/a--	Cd2265
k1 factor:	--n/a--	--n/a--	--n/a--	--n/a--	-.00218
k2 factor:	--n/a--	--n/a--	--n/a--	--n/a--	0
use?:	--n/a--	--n/a--	--n/a--	--n/a--	YES
Affecting Element:	--n/a--	--n/a--	--n/a--	--n/a--	Mo2020
k1 factor:	--n/a--	--n/a--	--n/a--	--n/a--	-.00504
k2 factor:	--n/a--	--n/a--	--n/a--	--n/a--	0
use?:	--n/a--	--n/a--	--n/a--	--n/a--	YES

Element:	Sn	Sr	Zr
Wavelength:	189.989	421.552	349.621
Element Name:	Sn1899	Sr4215	Zr3496
Line Switch Conc:	0	0	0
Peak SS Offset:	0	0	0
Timing Group No.:	1	1	1
Print Limit Low:	0	0	0
Print Limit High:	0	0	0
Significant Figrs:	4	4	4
Print Units:	ppb	ppb	ppb
BKG Low SS Offset:	-15	NONE	-10
BKG High SS Offset:	15	20	NONE
BKG Element Name:	--n/a--	--n/a--	--n/a--
BKG Factor:	--n/a--	--n/a--	--n/a--
Stdz. Method:	2pt Uncalib	2pt Uncalib	2pt Uncalib
Std #1 (High) Name:	S1	S1	S3
Conc/Sig:	1000	1000	1000
Std #2 (Low) Name:	S0	S0	S0
Conc/Sig:	0	0	0
Std #3 Name:	--n/a--	--n/a--	--n/a--
Conc:	--n/a--	--n/a--	--n/a--
Std #4 Name:	--n/a--	--n/a--	--n/a--
Conc:	--n/a--	--n/a--	--n/a--
Std #5 Name:	--n/a--	--n/a--	--n/a--
Conc:	--n/a--	--n/a--	--n/a--

Y - intercept:	-.904949	-.339892	2252.12
Slope:	368.426	14.9733	75.4051
Date Standardized:	07/30/01	07/30/01	07/30/01
Time Standardized:	20:10	20:10	20:10
Offset (A0):	0	0	0
Gain (A1):	1	1	1
Curvature (A2):	0	0	0
Exponent (n):	1	1	1
Max. Inflection:	NONE	NONE	NONE
Date of Fit:	NO FIT	NO FIT	NO FIT
Time of Fit:			
Use IECs:	YES	YES	NO
Number of IECs:	7	5	0
Affecting Element:	Ti3349	Ca3179	--n/a--
k1 factor:	-.00102	.032182	--n/a--
k2 factor:	0	0	--n/a--
use?:	YES	YES	--n/a--
Affecting Element:	Ni2316	Fe2714	--n/a--
k1 factor:	-.00009	.000558	--n/a--
k2 factor:	0	0	--n/a--
use?:	YES	YES	--n/a--
Affecting Element:	U-3856	Th4019	--n/a--
k1 factor:	-.00014	-------	--n/a--
k2 factor:	0	0	--n/a--
use?:	YES	YES	--n/a--
Affecting Element:	Th4019	U-3856	--n/a--
k1 factor:	.000528	.000014	--n/a--
k2 factor:	0	0	--n/a--
use?:	YES	YES	--n/a--
Affecting Element:	Zr3496	Zr3496	--n/a--
k1 factor:	.00115	-.00002	--n/a--
k2 factor:	0	0	--n/a--
use?:	YES	YES	--n/a--
Affecting Element:	Bi2230	--n/a--	--n/a--
k1 factor:	.000157	--n/a--	--n/a--
k2 factor:	0	--n/a--	--n/a--
use?:	YES	--n/a--	--n/a--

Affecting Element:	Fe2714	--n/a--	--n/a--
k1 factor:	-.00056	--n/a--	--n/a--
k2 factor:	0	--n/a--	--n/a--
use?:	YES	--n/a--	--n/a--

Mercury

LIONVILLE LABORATORY INC.

LAN sils

Folder: HG080913 Page 1

14:14:04 09 Aug 2001 Protocol: HGNORM

Line	Conc.	Units	SD/RSD	1	2	3	4	5

*** Standard: 1 Rep: 1 Seq: 0 14:14:04 09 Aug 2001 HG

Hg .000 ppb 4142
Ave. Int. = 4142 S. D. = 0

*** Standard: 2 Rep: 1 Seq: 1 14:16:22 09 Aug 2001 HG

Hg .100 ppb 8350
Ave. Int. = 8350 S. D. = 0

*** Standard: 3 Rep: 1 Seq: 2 14:18:41 09 Aug 2001 HG

Hg 1.00 ppb 41732
Ave. Int. = 41732 S. D. = 0

*** Standard: 4 Rep: 1 Seq: 3 14:20:59 09 Aug 2001 HG

Hg 2.00 ppb 75000
Ave. Int. = 75000 S. D. = 0

*** Standard: 5 Rep: 1 Seq: 4 14:23:18 09 Aug 2001 HG

Hg 5.00 ppb 176755
Ave. Int. = 176755 S. D. = 0

*** Standard: 6 Rep: 1 Seq: 5 14:25:37 09 Aug 2001 HG

Hg 10.0 ppb 333638
Ave. Int. = 333638 S. D. = 0

HG080913
HG1-3
8/9/01
J. Jeffrey [illegible]
01C0240-CRA, MB1, LC1
0107L388-001, RS
002
0107L398-001
011
mw 8/10/01 ~~0107L~~
01C0241-MB1, LC1
0107L399-001, RS
002
0107L408-001
002
0107L417-001
002

5 copies

updated

Protocol: HGNORM

Rev: 3.000 Time: 14:25:43 09 Aug 2001

Folder: HG080913 Seq: 6 Print: On

User: Batch: Id: Std6Rep1 Cup: Gas: 0.25 LPM

State: Idle Macro AUTO40 71: F3 Print Xmit: Off Autosampler: On

CALIBRATION: Line Calibration

Line: Hg

	Conc.	Calc.	Dev.	Accepted	
S1	.000	-.093	-.093	LiNear	
S2	.100	.035	-.065	Quadratic	
S3	1.00	1.05	.048	WtdLinear	C
S4	2.00	2.06	.058	Accept	o
S5	5.00	5.15	.146		n
S6	10.0	9.91	-.093	StdAdd	c

A .0000000 r .999679

B 3.03478e-5 C -2.18494e-1

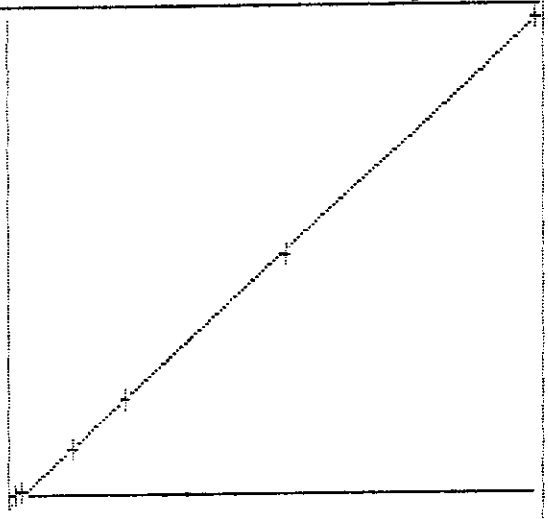

Relative Absorbance

	Mean	%RSD	
S1	4142	0	4142
S2	8350	0	8350
S3	41732	0	41732
S4	75800	0	75800
S5	176755	0	176755
S6	333638	0	333638

New calibration coefficients stored

Line Conc. Units SD/RSD 1 2 3 4 5

*** Check Standard: 3 Ck3 ICV Seq: 6 14:28:04 09 Aug 2001 HG

Line	Flag	%Rcv.	Found	True	Units	SD/RSD
Hg		100.	2.51	2.50	ppb	.000

*** Check Standard: 1 Ck1 ICB Seq: 7 14:30:20 09 Aug 2001 HG

Line	Flag	Found	Range(+/-)	Units	SD/RSD
Hg		-.060	.200	ppb	.000

*** Check Standard: 2 Ck2 CCV Seq: 8 14:32:35 09 Aug 2001 HG

Line	Flag	%Rcv.	Found	True	Units	SD/RSD
Hg		101.	5.05	5.00	ppb	.000

*** Check Standard: 1 Ck1 CCB Seq: 9 14:34:52 09 Aug 2001 HG

Line	Flag	Found	Range(+/-)	Units	SD/RSD
Hg		-.067	.200	ppb	.000

*** Sample ID: Seq: 10 14:37:06 09 Aug 2001 HG
01C0240-CRA
Hg .206 ppb .000 .206

*** Sample ID: Seq: 11 14:39:19 09 Aug 2001 HG
01C0240-MB1 PBS140
Hg -.047 ppb .000 -.047

*** Sample ID: Seq: 12 14:41:32 09 Aug 2001 HG
01C0240-LC1 LCS140
Hg 8.29 ppb .000 8.29

*** Sample ID: Seq: 13 14:43:57 09 Aug 2001 HG
0107L388-001 RC60-01-0003 01
Hg -.018 ppb .000 -.018

*** Sample ID: Seq: 14 14:46:10 09 Aug 2001 HG
0107L388-001R RC60-01-0003 01 A
Hg -.016 ppb .000 -.016

*** Sample ID: Seq: 15 14:48:23 09 Aug 2001 HG
0107L388-001S RC60-01-0003 01 S
Hg 1.01 ppb .000 1.01

*** Sample ID: Seq: 16 14:50:36 09 Aug 2001 HG
0107L388-002 RC60-01-0004 01
Hg -.009 ppb .000 -.009

*** Sample ID: Seq: 17 14:52:49 09 Aug 2001 HG
0107L388-003 RC60-01-0005 01
Hg -.023 ppb .000 -.023

Line	Conc.	Units	SD/RSD	1	2	3	4	5

*** Sample ID: Seq: 18 14:55:02 09 Aug 2001 HG
0107L388-004 RC60-01-0006 01
Hg -.033 ppb .000 -.033

*** Sample ID: Seq: 19 14:57:15 09 Aug 2001 HG
0107L388-005 RC60-01-0007 01
Hg .023 ppb .000 .023

*** Check Standard: 2 Ck2 CW Seq: 20 14:59:29 09 Aug 2001 HG

Line	Flag	%Rcv.	Found	True	Units	SD/RSD
Hg		100.	5.00	5.00	ppb	.000

*** Check Standard: 1 Ck1 CCB Seq: 21 15:01:47 09 Aug 2001 HG

Line	Flag	Found	Range(+/-)	Units	SD/RSD
Hg		-.127	.200	ppb	.000

*** Sample ID: Seq: 22 15:04:02 09 Aug 2001 HG
0107L388-006 RC60-01-0008 01
Hg -.008 ppb .000 -.008

*** Sample ID: Seq: 23 15:06:15 09 Aug 2001 HG
0107L398-001 RC03-01-0018 01
Hg -.012 ppb .000 -.012

*** Sample ID: Seq: 24 15:08:27 09 Aug 2001 HG
0107L398-002 RC03-01-0019 01
Hg .053 ppb .000 .053

*** Sample ID: Seq: 25 15:10:40 09 Aug 2001 HG
0107L398-003 RC03-01-0020 01
Hg .074 ppb .000 .074

*** Sample ID: Seq: 26 15:12:53 09 Aug 2001 HG
0107L398-004 RC03-01-0021 01
Hg .231 ppb .000 .231

*** Sample ID: Seq: 27 15:15:06 09 Aug 2001 HG
0107L398-005 RC03-01-0022 01
Hg .267 ppb .000 .267

*** Sample ID: Seq: 28 15:17:19 09 Aug 2001 HG
0107L398-006 RC03-01-0023 01
Hg .669 ppb .000 .669

*** Sample ID: Seq: 29 15:19:32 09 Aug 2001 HG
0107L398-007 RC03-01-0024 02
Hg .523 ppb .000 .523

Line Conc. Units SD/RSD 1 2 3 4 5

*** Sample ID: Seq: 30 15:21:45 09 Aug 2001 HG
0107L398-008 RC03-01-0025 02
Hg .129 ppb .000 .129

*** Sample ID: Seq: 31 15:23:58 09 Aug 2001 HG
0107L398-009 RC03-01-0026 02
Hg .075 ppb .000 .075

*** Check Standard: 2 Ck2 CW Seq: 32 15:26:12 09 Aug 2001 HG
Line Flag %Rcv. Found True Units SD/RSD
Hg 98.4 4.92 5.00 ppb .000

*** Check Standard: 1 Ck1 CB Seq: 33 15:28:30 09 Aug 2001 HG
Line Flag Found Range(+/-) Units SD/RSD
Hg -.062 .200 ppb .000

*** Sample ID: Seq: 34 15:30:44 09 Aug 2001 HG
0107L398-010 RC03-01-0027 02
Hg .037 ppb .000 .037

*** Sample ID: Seq: 35 15:32:57 09 Aug 2001 HG
0107L398-011 RC03-01-0028 02
Hg .013 ppb .000 .013

*** Sample ID: Seq: 36 15:35:13 09 Aug 2001 HG
01C0241-MB1 PBS141
Hg -.083 ppb .000 -.083

*** Sample ID: Seq: 37 15:37:30 09 Aug 2001 HG
01C0241-LC1 LCS141
Hg 7.69 ppb .000 7.69

*** Sample ID: Seq: 38 15:39:52 09 Aug 2001 HG
0107L399-001 RC27-01-0001 02
Hg -.079 ppb .000 -.079

*** Sample ID: Seq: 39 15:42:09 09 Aug 2001 HG
0107L399-001R RC27-01-0001 02 D
Hg -.043 ppb .000 -.043

*** Sample ID: Seq: 40 15:44:26 09 Aug 2001 HG
0107L399-001S RC27-01-0001 02 S
Hg .958 ppb .000 .958

*** Sample ID: Seq: 41 15:46:43 09 Aug 2001 HG
0107L399-002 RC27-01-0002 02
Hg -.054 ppb .000 -.054

Folder: HG080913
15:49:01 09 Aug 2001 Protocol: HGNORM

Line	Conc.	Units	SD/RSD	1	2	3	4	5

*** Sample ID: Seq: 42 15:49:01 09 Aug 2001 HG
0107L399-003 RC27-01-0003 02
Hg -.009 ppb .000 -.009

*** Sample ID: Seq: 43 15:51:19 09 Aug 2001 HG
0107L399-004 RC27-01-0004 02
Hg -.012 ppb .000 -.012

*** Check Standard: 2 Ck2 CW Seq: 44 15:53:36 09 Aug 2001 HG

Line	Flag	%Rcv.	Found	True	Units	SD/RSD
Hg		97.6	4.88	5.00	ppb	.000

*** Check Standard: 1 Ck1 CB Seq: 45 15:55:52 09 Aug 2001 HG

Line	Flag	Found	Range(+/-)	Units	SD/RSD
Hg		-.064	.200	ppb	.000

*** Sample ID: Seq: 46 15:58:08 09 Aug 2001 HG
0107L399-005 RC27-01-0005 02
Hg -.047 ppb .000 -.047

*** Sample ID: Seq: 47 16:00:26 09 Aug 2001 HG
0107L399-006 RC27-01-0006 02
Hg -.051 ppb .000 -.051

*** Sample ID: Seq: 48 16:02:45 09 Aug 2001 HG
0107L408-001 RC60-01-0001 01
Hg 4.45 ppb .000 4.45

*** Sample ID: Seq: 49 16:05:04 09 Aug 2001 HG
0107L408-002 RC60-01-0015 01
Hg -.027 ppb .000 -.027

*** Sample ID: Seq: 50 16:07:22 09 Aug 2001 HG
0107L417-001 RC60-01-0009 01
Hg -.068 ppb .000 -.068

*** Sample ID: Seq: 51 16:09:41 09 Aug 2001 HG
0107L417-002 RC60-01-0010 01
Hg .052 ppb .000 .052

*** Sample ID: Seq: 52 16:12:00 09 Aug 2001 HG
0107L417-003 RC60-01-0011 01
Hg -.111 ppb .000 -.111

*** Sample ID: Seq: 53 16:14:19 09 Aug 2001 HG
0107L417-004 RC60-01-0012 01
Hg -.095 ppb .000 -.095

Line	Conc.	Units	SD/RSD	1	2	3	4	5

*** Sample ID: Seq: 54 16:16:38 09 Aug 2001 HG
0107L417-005 RC60-01-0013 01

Hg	.082	ppb	.000	.082

*** Sample ID: Seq: 55 16:18:57 09 Aug 2001 HG
0107L417-006 RC60-01-0014 01

Hg	-.035	ppb	.000	-.035

*** Check Standard: 2 Ck2 CW Seq: 56 16:21:14 09 Aug 2001 HG

Line	Flag	%Rcv.	Found	True	Units	SD/RSD
Hg		97.7	4.88	5.00	ppb	.000

*** Check Standard: 1 Ck1 CB Seq: 57 16:23:31 09 Aug 2001 HG

Line	Flag	Found	Range(+/-)	Units	SD/RSD
Hg		-.064	.200	ppb	.000

Digestion Log

Lionville Laboratory Incorporated

Logbook #: 8700

SAMPLE DIGESTION RECORD

SOP: L-SPI-3020 Rev. 00

Digestion Batch #: 01L0468
Date/Time Initiated: 7.26.01
Date/Time Completed: 7.27.01
Analyst(s): TLB
Matrix: Soil Water Other:
Instr. Type: AA ICP
Parameters: HSL

Digested / Undigested (circle one)
Balance #: B20
Balance Cal Verif: ✓ NA
Hot Plate Temp: 90°

Method: SW (circle)
3005A
3010A
3015
3020A
7060A (As/Se)
7760A (Ag)
3050B
3051

DW 200.7 (1994)
200.9
3113B

MCAWW 200.7 (1982)
200 (AA)
206.2 (As/Se)

SM 3030C (NC)

CLP ILMO3.0
ILMO4.0

Other

LANL

COC Batch #	Spike Vol(s) (mL)	Initial Wt/Vol (g/mL)	Final Vol (mL)	pH <2	Type: To/So/TC	Texture	Color/Appearance	Artifact	Turb
0107L388-001		1.00	100	N/A	TOT	FINE	BROWN	N/A	N/A
-001R									
-001S	1.0								
-002									
-003		1.03							
-004									
-005									
-006									
0107L398-001		1.05							
-002									
-003									
-004		1.03							
-005									
-006									
-007							DARK BROWN		
-008							BROWN		
-009									
-010									
-011									
01L0468-MB1		1.0		<2		N/A	CLEAR		
-LC1	1.0								
				TLB 7.27.01					

Spiking IDs:
MS #: 8100-02-01
-02
-03
6072-46-13
LCS #: 6072-37-05
-10
-11
-12

Reagent IDs:
HNO_3 TLB 7.27.01
HCL V08041 / V02023
H_2O_2 2612T51001
1:1 HNO_3 T08617
1:1 HCL 8095-45-06

File ID#: IC046801
LIMS Transfer: (Y) N Updated
Data Review By/Date:
BMR, 08/01/01

L-SPI-3020-A-0601

Lionville Laboratory

MERCURY PREPARATION

Analyst: [illegible]
Date 8/8/01
Start Time/Temp: 1820/95°C
End Time/Temp: 1850/97°C

8/9/01 pm Instrument ID H613 ~~H611/H612~~
Balance #: B25 /NA
Pipette Calibration (Daily) (✓) ___

H0080913 Logbook # 8698
Prep Batch: 01C0240
Worksheet: ~~H0080911/H0080912~~
OP No. L-ME-7470A, Rev. 00 pm 8/9/01

pH < 2 for Liquids? __ Yes NA No (If no: designate affected samples in Comments column, and initiate an SDR)

NOTE: The Inital/Final Volume for water samples = 33mL, unless otherwise noted.
The Final volume for soil samples = 50mL, unless otherwise noted.

LvLI Batch #	Container Number	Spike Volume (mL)	Spike Conc. (µg/L)	Initial Wt. or Volume (g or mL)	Final Sample Volume (mL)	Comments, % Solids, etc.
blank	218			10ml	50ml	weight out 8/7/01, dig.
0.2 µg/l	812	0.100				on 8/8/01 pm
1.0 µg/l	36	0.500				
2.0 µg/l	56	1.000				
5.0 µg/l	131	2.500				
10.0 µg/l	A901	5.000				
IW	10	0.126	2.5			
CW	52	0.250	5.0			
ICB/CCB	63					% solids
MB1	58			0.30gm		PBS140 100.00
LCS	46	*	*	0.17gm		LCSS140
01072388-001 A	210			0.31gm		91.82
001R	65			0.30gm		
001S	17	0.500	1.0	0.31gm		
002	48			0.31gm		93.54
003	681			0.32gm		94.25
004	AB			0.31gm		95.83
005	ALD			0.31gm		97.49
006	9			0.31gm		98.08
01072398-001	22			0.30gm		91.54
002	146			0.31gm		95.98
003	69			0.33gm		82.44

Standard:	ID	Prep Date/Time
ICAL/MS	EM-E032B0808	8/8/01 1400
ICV/CCV/LCS	US-U385A0808	

Reviewed By/Date: CGM 8/9/01

see book # 4527 for std traceability information

* Soil LCS = ERA Metals in soil; True Value = 2.48 mg/Kg
Catalogue # 540, Lot # 245

Water Matrix Spiking Solution Concentration= 0.1µg/ml
Water LCS Spiking Concentration: 1.0µg/ml

L-WI-18/H-03/01

Page # 072 B

Lionville Laboratory

MERCURY PREPARATION

Analyst: [signature]
Date 8/8/01
Start Time/Temp: See pg 072B
End Time/Temp:

Instrument ID ~~HG 1.1/HG 1.2~~ HG 1.3 [signature] 8/9/01
Balance #: 629 /NA
Pipette Calibration (Daily) (✓) ____

Prep Batch: 01C0240 → HG 050913
Logbook # 8698
Worksheet: ~~HG080911/HG080912~~
OP No. L-ME-7470A, Rev. 00 [signature] 8/9/01

pH < 2 for Liquids? __ Yes N/A No (If no: designate affected samples in Comments column, and initiate an SDR)

NOTE: The Inital/Final Volume for water samples = 33mL, unless otherwise noted.
The Final volume for soil samples = 50mL, unless otherwise noted.

LvLI Batch #	Container Number	Spike Volume (mL)	Spike Conc. (µg/L)	Initial Wt. or Volume (g or mL)	Final Sample Volume (mL)	Comments, % Solids, etc.
01072398-084 A	97			0.32gm	50ml	85.68
085	40			0.37gm		86.14
086	55			0.31gm		94.40
087	98			0.31gm		RAD 91.18
088	20			0.33gm		95.62
089	A17			0.32gm		87.28
010	116			0.31gm		91.54
011	90			0.33gm		91.04

[signature] 8/8/01

Standard:	ID	Prep Date/Time
ICAL/MS		
ICV/CCV/LCS	See page 072B	

Reviewed By/Date: [signature] 8/9/01

see book # 4527 for std traceability information

Soil LCS = ERA Metals in soil; True Value = 2.48 mg/Kg
Catalogue # 540, Lot # 245

Water Matrix Spiking Solution Concentration= 0.1µg/ml
Water LCS Spiking Concentration: 1.0µg/ml

L-WI-18/H-03/01

% SOLID/% MOISTURE ANALYSIS RECORD

RECRA LABNET PHILADELPHIA

Analyst: [illegible]
Start Date/Time/Temp: 7/27/01 1000 105°C
End Date/Time/Temp: 7/30/01 510 105°C
Balance ID: B-5

Logbook #: 8690
Method: L-WC-160.6 Rev. 03
Work Sheet: XS010727
Prep Batch: 01L95095

Sample ID (RFW # or Std)	Container wt (g)	Initial wt (g) (Sample & Container)	Final wt (g) (Sample & Container)	% Solid	% Moisture
01072388-1	1.009	5.116	4.780	91.82	
-1rep	1.010	5.123	4.842	93.12	
-2	1.012	5.020	4.761	93.54	
-3	1.008	5.006	4.776	94.25	
-4	1.011	5.042	4.874	95.83	
-5	1.008	~~5.021~~ 5.024	4.923	97.49	
-6	1.008	5.019	4.942	98.08	
01072389-1	1.014	5.331	5.038	93.21	
-2	1.013	5.195	4.926	93.57	
-3	1.015	5.097	4.839	93.68	
-4	1.008	5.197	5.033	96.08	
-5	1.011	5.198	5.061	96.73	
-6	1.013	5.024	4.937	97.83	
-7	1.013	5.185	4.873	92.52	
-8	1.013	5.039	4.741	92.60	
-9	1.010	5.174	4.914	93.76	
-10	1.017	5.137	4.958	95.66	
-11	1.025	5.162	5.048	97.24	
-12	1.023	5.080	5.005	98.15	
01072395-2	1.018	5.048	4.597	88.81	
-2R	1.020	5.045	4.611	89.22	
-3	1.015	5.517	5.026	89.09	
-4	1.016	5.087	4.460	84.60	

AROZ

wt. = weight

Example Calculations: % solids = $\frac{\text{Pan and dry sample wt. (g) - pan wt. (g)}}{\text{Pan and wet sample wt. (g) - pan wt. (g)}} \times 100$

% Moisture = 100% - % solids result

Reviewed By/Date: T Beppel 8/7/01

L-WI-016/H-12/00

Page #

027216

onville Laboratory
ncorporated

ICP RUN LOG

Date: 07/30/01
Analyst: RMP
Instrument ID: TR1

Logbook#: 8658
Peak Profile: 0.002862
Spectral Shift: Units: 2112 @ Time: 8:00

Data File	Digest Batch	Client	Batch Number	# of SPLS	Method File	File Trans. to LIMS	Repro-File (Y/N)	Comments
TA0730A	IDL for 3rd Quarter (Day #2)			2001	ALL	TA0730A (TR1.1)	(Y)	
TA0730B	0110465	BWO	01071356	2QC 001	ALL	TA0730B (TR1.2)	(Y)	
				006				
				012				
				016				
				019				
				021, R, S				
				022				
TA0730C	0110468	TNU	01071388	2QC 001, R, S	ALL	TA0730C (TR1.3)	(N)	
				006				
			01071398	001				
				011				
			Rmcoyle 07-30-01					

Standard	ID	Prep Date	Exp Date
ICAL	8636082-01	07/30/01	Prepared
ICV/CCV	1 -02	1	Date

Reviewed by/Date 8/8/01

L-WI-020/D-04/01

Page # 059 B

(page A=L-WI-010/V)

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Lionville Laboratory Incorporated

Logbook # 8665

LEEMAN PS200 MERCURY ANALYSIS LOG

Date/Analyst 8/9/01 [illegible]

Wavelength 253.7 nm

Instrument ID Hg1

OP #: L-ME-7470A Rev. 00

Prep.Logbook # 8698

Stds. Logbook # 4527

Data File	Digestion File	Client	Eath #	# of Samples	Method*	Comments
HG080911 and	01C0242	Ecl-Wayne	01082462	1,R,S,2	SW846	
HG080912			01082461	1-8		
			01082497	1-3		
		Tetra-Ver.	01082443	021		
		URS-Radian	01082479	1,R,S		
HG080912	01C0243	URS-LCP Chem	01082510	1-3		
HG080913	01C0240	LANL	01082388	1,R,S-6		
			01082398	1-11		
	01C0241		01082399	1,R,S-6		
			01082408	1,2		
			01082417	1-6		

MN 8/9/01

* SW846, CLP, DW, Other

Maintenance	OK	Changed	Other/Comments
Check tubing for wear (daily)	✓		
Insert clean magnesium perchlorate drying tube		✓	
Check level of 10% HCl in rinse tank		✓	
Check level of 10% stannous chloride in bottle	✓		

Reviewed by/Date: [illegible] 8/10/01

L-ME-7470A --B-0501

Lionville Laboratory Incorporated Logbook #: 8636

Daily Trace ICP Standard Solution Preparation Log

Note: The Daily Standards prepared in this logbook expire every 24 hours.

Acid Lot# Nitric (HNO3): V02023 Hydrochloric (HCl): 2612T 51001

	Standard Name or Receipt ID	Prep Date	Initial Volume (include units)	Final Volume (include units)	Matrix (Reagent used)	Analyst	Parent Expiration Date
8636-082-01 STD1	6072-042-06	7/30/01	1 mL	100 mL	2.5 mL conc. HNO_3 5.0 mL conc. HCl	PMP	09-01
	-07		1 mL				
	-08		1 mL				
STD2	6072-042-09		1 mL	100 mL	2.5 mL conc. HNO_3 5.0 mL conc. HCl		
	-10		1 mL				
	-11		1 mL				
STD3							
8636-082-02 CCV	6072-044-04		2 mL	200 mL	5.0 mL conc. HNO_3 10.0 mL conc. HCl		02-02
	-05		2 mL				
	-06		2 mL				
CCV							
ISA	6072-045-10		10 mL	100 mL	2.5 mL conc. HNO_3 5.0 mL conc. HCl		06-02
ISB	6072-045-10		10 mL	100 mL	2.5 mL conc. HNO_3 5.0 mL conc. HCl		06-02
	-044-14		1 mL				03-02
	-042-12						09-01
	-13						
CRI	consists of 4 mL of the CCV solution		4 mL	100 mL	2.5 mL conc. HNO_3 5.0 mL conc. HCl		
Internal Std	Yttrium 6072-045-08		2 ml	2000 ml	X20		03-02
	Cesium 8095-049-06		100 ml				07-02

Comments: Multi-point calibration consists of 1 mL, 0.5 mL, and 0.25 mL of STD1 and STD2.

STD3: U-: 6072-044-01, 08-01 (EXP)
Th:
P-:
Zr:
-02:
-03:
-04:

CCV: U-: 6072-044-05, 08-01 (EXP)
Th:
P-:
Zr:
-06:
-07:
-08:

L-WI-018/S-04/01 Reviewed by/Date: 8/8/01 Page #: 082

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End of Package

LIONVILLE LABORATORY INC.

220
221

Tuesday, July 31, 2001

REQUEST NUMBER: 9432R

ANALYSIS TYPE: ORG

Los Alamos
NATIONAL LABORATORY

AMENDED

ATTN: Judy Stone
Lionville Laboratory Inc
208 Welsh Pool Rd
Lionville, pa 19341

Please analyze the enclosed samples according to the schedule indicated:

These samples are on:

SHIP DATE: 7/25/01
REPORT DUE: 8/27/01
TURN AROUND REQ'D: 30 day

LANL Request Number: 9432R
Per Agreement Number:
Project Cost Code: MR0R0001E000

RAD SCREENING: Not Required

COMMENTS: 03 - 1114 , GA; TPH BY DIESEL. AMENDED: ANALYSIS REMOVED FROM THIS REQUEST. 7/31/01 JV.

LANL ER SMO CONTACT: Joylene Valdez MS H865 5056659968

Signature: Joylene Valdez

ANALYSIS ORDER CODE	ANALYTE(S)	SAMPLE ID	CONT ID	SAMPLE MATRIX	DATE SAMPLED	COMMENTS
PCB		RC03-01-0001	03	D	7/24/1901	
PCB		RC03-01-0002	03	D	7/24/1901	
PCB		RC03-01-0003	03	D	7/24/1901	
PCB		RC03-01-0004	03	D	7/24/1901	
PCB		RC03-01-0005	03	D	7/24/1901	
PCB		RC03-01-0006	03	S	7/24/1901	
VOCECORE		RC03-01-0006	05	S	7/24/1901	
VOCECORE		RC03-01-0006	06	S	7/24/1901	
VOCECORE		RC03-01-0006	07	S	7/24/1901	
VOCECORE		RC03-01-0006	08	S	7/24/1901	
PCB		RC03-01-0007	03	S	7/24/1901	
VOCECORE		RC03-01-0007	05	S	7/24/1901	
VOCECORE		RC03-01-0007	06	S	7/24/1901	
VOCECORE		RC03-01-0007	07	S	7/24/1901	
VOCECORE		RC03-01-0007	08	S	7/24/1901	
PCB		RC03-01-0008	03	S	7/24/1901	
VOCECORE		RC03-01-0008	05	S	7/24/1901	
VOCECORE		RC03-01-0008	06	S	7/24/1901	
VOCECORE		RC03-01-0008	07	S	7/24/1901	
VOCECORE		RC03-01-0008	08	S	7/24/1901	
PCB		RC03-01-0009	03	S	7/24/1901	
VOCECORE		RC03-01-0009	05	S	7/24/1901	
VOCECORE		RC03-01-0009	06	S	7/24/1901	
VOCECORE		RC03-01-0009	07	S	7/24/1901	

ANALYSIS ORDER CODE	ANALYTE(S)	SAMPLE ID	CONT ID	SAMPLE MATRIX	DATE SAMPLED	COMMENTS
VOCECORE		RC03-01-0009	08	S	7/24/1901	
PCB		RC03-01-0010	03	S	7/24/1901	
VOCECORE		RC03-01-0010	04	S	7/24/1901	
VOCECORE		RC03-01-0010	05	S	7/24/1901	
VOCECORE		RC03-01-0010	06	S	7/24/1901	
VOCECORE		RC03-01-0010	07	S	7/24/1901	
TPH		RC03-01-0041	02	S	7/24/1901	
TPH		RC03-01-0042	02	S	7/24/1901	
TPH		RC03-01-0043	02	S	7/24/1901	
TPH		RC03-01-0044	02	S	7/24/1901	

Thursday, July 26, 2001

REQUEST NUMBER: 9432R

ANALYSIS TYPE: ORG

Los Alamos
NATIONAL LABORATORY

ATTN: Judy Stone
Lionville Laboratory Inc
208 Welsh Pool Rd
Lionville, pa 19341

Please analyze the enclosed samples according to the schedule indicated:

These samples are on:

SHIP DATE: 7/25/01
REPORT DUE: 8/27/01
TURN AROUND REQ'D: 30 day

LANL Request Number: 9432R
Per Agreement Number:
Project Cost Code: MR0R0001E000

RAD SCREENING: Not Required

COMMENTS: 03 - 1114 , GA; TPH BY DIESEL.

LANL ER SMO CONTACT: Joylene Valdez MS H865 5056659968
Signature:

ANALYSIS ORDER CODE	ANALYTE(S)	SAMPLE ID	CONT ID	SAMPLE MATRIX	DATE SAMPLED	COMMENTS
PCB		RC03-01-0001	03	D	7/24/1901	
PCB		RC03-01-0002	03	D	7/24/1901	
PCB		RC03-01-0003	03	D	7/24/1901	
PCB		RC03-01-0004	03	D	7/24/1901	
PCB		RC03-01-0005	03	D	7/24/1901	
PCB		RC03-01-0006	03	S	7/24/1901	
VOCECORE		RC03-01-0006	05	S	7/24/1901	
VOCECORE		RC03-01-0006	06	S	7/24/1901	
VOCECORE		RC03-01-0006	07	S	7/24/1901	
VOCECORE		RC03-01-0006	08	S	7/24/1901	
PCB		RC03-01-0007	03	S	7/24/1901	
VOCECORE		RC03-01-0007	05	S	7/24/1901	
VOCECORE		RC03-01-0007	06	S	7/24/1901	
VOCECORE		RC03-01-0007	07	S	7/24/1901	
VOCECORE		RC03-01-0007	08	S	7/24/1901	
PCB		RC03-01-0008	03	S	7/24/1901	
VOCECORE		RC03-01-0008	05	S	7/24/1901	
VOCECORE		RC03-01-0008	06	S	7/24/1901	
VOCECORE		RC03-01-0008	07	S	7/24/1901	
VOCECORE		RC03-01-0008	08	S	7/24/1901	
PCB		RC03-01-0009	03	S	7/24/1901	
VOCECORE		RC03-01-0009	05	S	7/24/1901	
VOCECORE		RC03-01-0009	06	S	7/24/1901	
VOCECORE		RC03-01-0009	07	S	7/24/1901	

ANALYSIS ORDER CODE	ANALYTE(S)	SAMPLE ID	CONT ID	SAMPLE MATRIX	DATE SAMPLED	COMMENTS
VOCECORE		RC03-01-0009	08	S	7/24/1901	
PCB		RC03-01-0010	03	S	7/24/1901	
VOCECORE		RC03-01-0010	04	S	7/24/1901	
VOCECORE		RC03-01-0010	05	S	7/24/1901	
VOCECORE		RC03-01-0010	06	S	7/24/1901	
VOCECORE		RC03-01-0010	07	S	7/24/1901	
TPH		RC03-01-0041	02	S	7/24/1901	
TPH		RC03-01-0042	02	S	7/24/1901	
TPH		RC03-01-0043	02	S	7/24/1901	
TPH		RC03-01-0044	02	S	7/24/1901	
TPH		RC03-01-0048	02	D	7/24/1901	
TPH		RC03-01-0049	02	D	7/24/1901	

SAMPLE ID	CONT ID	CONTAINER DESCRIPTION	ANALYSIS ORDER CODE		
RC03-01-0009	03	125 ml Glass	PCB	None	S
RC03-01-0009	05	125 ml Polyethylene	VOCECORE	Ice	S
RC03-01-0009	06	5 gm Encore Container-A	VOCECORE	Ice	S
RC03-01-0009	07	5 gm Encore Container-B	VOCECORE	Ice	S
RC03-01-0009	08	5 gm Encore Container-C	VOCECORE	Ice	S
RC03-01-0010	03	125 ml Glass	PCB	None	S
RC03-01-0010	04	125 ml Polyethylene	VOCECORE	Ice	S
RC03-01-0010	05	5 gm Encore Container-A	VOCECORE	Ice	S
RC03-01-0010	06	5 gm Encore Container-B	VOCECORE	Ice	S
RC03-01-0010	07	5 gm Encore Container-C	VOCECORE	Ice	S
RC03-01-0041	02	125 ml Amber Glass	TPH	Ice	S
RC03-01-0042	02	125 ml Amber Glass	TPH	Ice	S
RC03-01-0043	02	125 ml Amber Glass	TPH	Ice	S
RC03-01-0044	02	125 ml Amber Glass	TPH	Ice	S
RC03-01-0048	02	125 mL Amber Glass	TPH	Ice	D
RC03-01-0049	02	125 mL Amber Glass	TPH	Ice	D

Final Page of CHAIN OF CUSTODY DOCUMENT FOR REQUEST NUMBER 9432R Page 2

Relinquished By: Date / Time

PRINTED NAME SIGNATURE 7/26/01

PRINTED NAME SIGNATURE

PRINTED NAME SIGNATURE

Received By: Date Time

PRINTED NAME SIGNATURE

PRINTED NAME SIGNATURE

PRINTED NAME SIGNATURE

Received for DISPOSAL By: Date Time

PRINTED NAME SIGNATURE

Remarks:

Thursday, July 26, 2001

Los Alamos
NATIONAL LABORATORY

CHAIN OF CUSTODY DOCUMENT NUMBER: 9432RC

REQUEST NUMBER: 9432R
ANALYSIS TYPE: ORG

ATTN: Judy Stone
Lionville Laboratory Inc
208 Welsh Pool Rd
Lionville, pa 19341

SAMPLE ID	CONT ID	CONTAINER DESCRIPTION	ANALYSIS ORDER CODE	PRESERVATIVE	MATRIX
RC03-01-0001	03	125 ml Glass	PCB	Ice	D
RC03-01-0002	03	125 ml Glass	PCB	Ice	D
RC03-01-0003	03	125 ml Glass	PCB	Ice	D
RC03-01-0004	03	125 ml Glass	PCB	Ice	D
RC03-01-0005	03	125 ml Glass	PCB	Ice	D
RC03-01-0006	03	125 ml Glass	PCB	None	S
RC03-01-0006	05	125 ml Polyethylene	VOCECORE	Ice	S
RC03-01-0006	06	5 gm Encore Container-A	VOCECORE	Ice	S
RC03-01-0006	07	5 gm Encore Container-B	VOCECORE	Ice	S
RC03-01-0006	08	5 gm Encore Container-C	VOCECORE	Ice	S
RC03-01-0007	03	125 ml Glass	PCB	None	S
RC03-01-0007	05	125 ml Polyethylene	VOCECORE	Ice	S
RC03-01-0007	06	5 gm Encore Container-A	VOCECORE	Ice	S
RC03-01-0007	07	5 gm Encore Container-B	VOCECORE	Ice	S
RC03-01-0007	08	5 gm Encore Container-C	VOCECORE	Ice	S
RC03-01-0008	03	125 ml Glass	PCB	None	S
RC03-01-0008	05	125 ml Polyethylene	VOCECORE	Ice	S
RC03-01-0008	06	5 gm Encore Container-A	VOCECORE	Ice	S
RC03-01-0008	07	5 gm Encore Container-B	VOCECORE	Ice	S
RC03-01-0008	08	5 gm Encore Container-C	VOCECORE	Ice	S

Relinquished By: Horace [illegible] — **Date** 7/26/01 **Time** 1410
PRINTED NAME SIGNATURE

PRINTED NAME SIGNATURE

PRINTED NAME SIGNATURE

Received By: **Date** **Time**
PRINTED NAME SIGNATURE

PRINTED NAME SIGNATURE

PRINTED NAME SIGNATURE

Received for DISPOSAL By: **Date** **Time**
PRINTED NAME SIGNATURE

Remarks:

Los Alamos National Laboratory Environmental Restoration (Los Alamos, NM 87545)

CHAIN OF CUSTODY/REQUEST FOR ANALYSIS

Technical Area	03	**Send Lab Report to**	Roy Bohn	**Field Unit Leader**	Dave McInroy
Operable Unit	1114		M992		(505)667-0819
Date		**LANL Destination**	SMO	**Turnaround**	30 days
OU Contact	Roy Bohn	**LANL Contact**	Joylene Valdez	**Lab Report Required**	
Contact Phone No	(505) 665-5138	**LANL Mail Stop**		**Charge Code**	MR0R0001E000

Relinquished by: Roy Bohn **(Signature):** **Affiliation:** E-ER	**Date:** 7/24/01	**Relinquished by:** **(Signature):** **Affiliation:**	**Date:**	**Relinquished by:** **(Signature):** **Affiliation:**	**Date:**
Received by: **(Signature):** **Affiliation:**	**Time:** 14:20	**Received by:** **(Signature):** **Affiliation:**	**Time:**	**Received by:** **(Signature):** **Affiliation:**	**Time:**

POSSIBLE HAZARD IDENTIFICATION: (please indicate if sample(s) are hazardous materials and/or suspected to contain high levels of hazardous substances):
Radiological___ **Highly Toxic**___
Flammable___ **Skin Irritant**___ **Non-Hazard**___ **Other**___

SCREENING METHOD: None

SAMPLE DISPOSAL: Disposal by Lab

Comments: TPH - Diesel range organics only

Field Unique Sample #/ID	Cont ID	Date & Time Collected	Sample Container Volume/Material	Matrix	Preservat	ANALYSIS REQUESTED: (SMO Order Codes)	REMARKS (Conditions of receipt, etc.)
RC03-01-0044	01	7/20/01 0930	125 ml Polyethylene	Soil	Ice	METTAL	
RC03-01-0044	02		125 ml Amber Glass	Soil	Ice	TPH	
RC03-01-0043	01	0940	125 ml Polyethylene	Soil	Ice	METTAL	
RC03-01-0043	02		125 ml Amber Glass	Soil	Ice	TPH	

Original - LANL Destination Yellow - RPF Pink - FTL Copy

Los Alamos National Laboratory Environmental Restoration (Los Alamos, NM 87545)

CHAIN OF CUSTODY/REQUEST FOR ANALYSIS

Technical Area	03	**Send Lab Report to**	Roy Bohn	**Field Unit Leader**	Dave McInroy
Operable Unit	1114		M992		(505)667-0819
Date		**LANL Destination**	SMO	**Turnaround**	30 days
OU Contact	Roy Bohn	**LANL Contact**	Joylene Valdez	**Lab Report Required**	
Contact Phone No	(505) 665-5138	**LANL Mail Stop**		**Charge Code**	MR0R0001E000

Relinquished by: Roy Bohn **(Signature):** **Affiliation:** E-ER	**Date:** 7/24/01	**Relinquished by:** **(Signature):** **Affiliation:**	**Date:**	**Relinquished by:** **(Signature):** **Affiliation:**	**Date:**
Received by: **(Signature):** **Affiliation:**	**Time:** 14:30	**Received by:** **(Signature):** **Affiliation:**	**Time:**	**Received by:** **(Signature):** **Affiliation:**	**Time:**

POSSIBLE HAZARD IDENTIFICATION: (please indicate if sample(s) are hazardous materials and/or suspected to contain high levels of hazardous substances):
Radiological___ **Highly Toxic**___
Flammable___ **Skin Irritant**___ **Non-Hazard**___ **Other**___

SCREENING METHOD: None

SAMPLE DISPOSAL: Disposal by Lab

Comments: TPH - Diesel range organics only

Field Unique Sample #/ID	Cont ID	Date & Time Collected	Sample Container Volume/Material	Matrix	Preservat	ANALYSIS REQUESTED: (SMO Order Codes)	REMARKS (Conditions of receipt, etc.)
~~RC03-01-0048~~	~~02~~		~~125 mL Amber Glass~~	~~Debris~~	~~Ice~~	~~TPH~~ RB	
RC03-01-0048	01	7/24/01 0945	125 ml Polyethelyne	Debris	Ice	METTAL	
X ~~RC03-01-0049~~	~~02~~		~~125 mL Amber Glass~~	~~Debris~~	~~Ice~~	~~TPH~~ RB	
RC03-01-0049	01	7/24/01 0935	125 ml Polyethelyne	Debris	Ice	METTAL	

Original - LANL Destination Yellow - RPF Pink - FTL Copy

Los Alamos National Laboratory Environmental Restoration (Los Alamos, NM 87545)

CHAIN OF CUSTODY/REQUEST FOR ANALYSIS

Technical Area	03	Send Lab Report to	Roy Bohn	Field Unit Leader	Dave McInroy
Operable Unit	1114		M992		(505)667-0819
Date		LANL Destination	SMO	Turnaround	30 days
OU Contact	Roy Bohn	LANL Contact	Joylene Valdez	Lab Report Required	
Contact Phone No	(505) 665-5138	LANL Mail Stop		Charge Code	MR0R0001E000

Relinquished by: Roy Bohn (Signature): Affiliation: E-ER	Date: 7/24/01	Relinquished by: (Signature): Affiliation:	Date:	Relinquished by: (Signature): Affiliation:	Date:
Received by: (Signature): Affiliation:	Time: 14:20	Received by: (Signature): Affiliation:	Time:	Received by: (Signature): Affiliation:	Time:

POSSIBLE HAZARD IDENTIFICATION: (please indicate if sample(s) are hazardous materials and/or suspected to contain high levels of hazardous substances):
Radiological___ Highly Toxic___
Flammable___ Skin Irritant___ Non-Hazard___ Other___

SCREENING METHOD: None

SAMPLE DISPOSAL: Disposal by Lab

Comments: TPH - Diesel range organics only

Field Unique Sample #/ID	Cont ID	Date & Time Collected	Sample Container Volume/Material	Matrix	Preservat	ANALYSIS REQUESTED: (SMO Order Codes)	REMARKS (Conditions of receipt, etc.)
~~RC03-01-0046~~	~~02~~		~~125 mL Amber Glass~~	~~Debris~~	~~Ice~~	~~TPH~~	
RC03-01-0046	01	7/24/01 0925	125 ml Polyethelyne	Debris	Ice	METTAL	
~~RC03-01-0047~~	~~02~~		~~125 mL Amber Glass~~	~~Debris~~	~~Ice~~	~~TPH~~	
RC03-01-0047	01	7/24/01 0955	125 ml Polyethelyne	Debris	Ice	METTAL	

3924

Original - LANL Destination Yellow - RPF Pink - FTL Copy

Los Alamos National Laboratory Environmental Restoration (Los Alamos, NM 87545)

CHAIN OF CUSTODY/REQUEST FOR ANALYSIS

Technical Area	03	**Send Lab Report to**	Roy Bohn	**Field Unit Leader**	Dave McInroy
Operable Unit	1114		M992		(505)667-0819
Date		**LANL Destination**	SMO	**Turnaround**	30 days
OU Contact	Roy Bohn	**LANL Contact**	Jolyene Valdez	**Lab Report Required**	
Contact Phone No	(505) 665-5138	**LANL Mail Stop**		**Charge Code**	MR0R0001E000

Relinquished by: Roy Bohn **(Signature):** **Affiliation:** E-ER	**Date:** 7/24/01	**Relinquished by:** **(Signature):** **Affiliation:**	**Date:**	**Relinquished by:** **(Signature):** **Affiliation:**	**Date:**
Received by: **(Signature):** **Affiliation:**	**Time:** 1400	**Received by:** **(Signature):** **Affiliation:**	**Time:**	**Received by:** **(Signature):** **Affiliation:**	**Time:**

POSSIBLE HAZARD IDENTIFICATION: (please indicate if sample(s) are hazardous materials and/or suspected to contain high levels of hazardous substances):
Radiological___ **Highly Toxic**___
Flammable___ **Skin Irritant**___ **Non-Hazard**___ **Other**___

SCREENING METHOD: ARS RAD Screening

SAMPLE DISPOSAL: Disposal by Lab

Comments:

Field Unique Sample #/ID	Cont ID	Date & Time Collected	Sample Container Volume/Material	Matrix	Preservat	ANALYSIS REQUESTED: (SMO Order Codes)	REMARKS (Conditions of receipt, etc.)
RC03-01-0002	01	7/24/01 1120	500 ml Polyehtylene	Debris	Ice	H3	
RC03-01-0002	03	1120	125 ml Glass	Debris	Ice	PCB	
RC03-01-0001	01	1045	500 ml Polyehtylene	Debris	Ice	H3	
RC03-01-0001	03	1045	125 ml Glass	Debris	Ice	PCB	
RC03-01-0001	02	1045	125 ml Polyethylene	Debris	Ice	METTAL	
RC03-01-0002	02	1120	125 ml Polyethylene	Debris	Ice	METTAL	

Original - LANL Destination Yellow - RPF Pink - FTL Copy

Los Alamos National Laboratory Environmental Restoration (Los Alamos, NM 87545)

CHAIN OF CUSTODY/REQUEST FOR ANALYSIS

Technical Area	03	**Send Lab Report to**	Roy Bohn	**Field Unit Leader**	Dave McInroy
Operable Unit	1114		M992		(505)667-0819
Date		**LANL Destination**	SMO	**Turnaround**	30 days
OU Contact	Roy Bohn	**LANL Contact**	Jolyene Valdez	**Lab Report Required**	
Contact Phone No	(505) 665-5138	**LANL Mail Stop**		**Charge Code**	MR0R0001E000

Relinquished by: Roy Bohn **(Signature):** **Affiliation:** E-ER	**Date:** 7/24/01	**Relinquished by:** **(Signature):** **Affiliation:**	**Date:**	**Relinquished by:** **(Signature):** **Affiliation:**	**Date:**
Received by: **(Signature):** **Affiliation:**	**Time:** 1420	**Received by:** **(Signature):** **Affiliation:**	**Time:**	**Received by:** **(Signature):** **Affiliation:**	**Time:**

POSSIBLE HAZARD IDENTIFICATION: (please indicate if sample(s) are hazardous materials and/or suspected to contain high levels of hazardous substances):
Radiological___ **Highly Toxic**___
Flammable___ **Skin Irritant**___ **Non-Hazard**___ **Other**___

SCREENING METHOD: ARS RAD Screening

SAMPLE DISPOSAL: Disposal by Lab

Comments:

Field Unique Sample #/ID	Cont ID	Date & Time Collected		Sample Container Volume/Material	Matrix	Preservat	ANALYSIS REQUESTED: (SMO Order Codes)	REMARKS (Conditions of receipt, etc.)
RC03-01-0004	01	7/24/01	1210	500 ml Polyehtylene	Debris	Ice	H3	
RC03-01-0004	03			125 ml Glass	Debris	Ice	PCB	
RC03-01-0003	01		1155	500 ml Polyehtylene	Debris	Ice	H3	
RC03-01-0003	03		1155	125 ml Glass	Debris	Ice	PCB	
RC03-01-0003	02		1155	125 ml Polyethylene	Debris	Ice	METTAL	
RC03-01-0004	02		1210	125 ml Polyethylene	Debris	Ice	METTAL	

Los Alamos National Laboratory Environmental Restoration (Los Alamos, NM 87545)

CHAIN OF CUSTODY/REQUEST FOR ANALYSIS

Technical Area	03	**Send Lab Report to**	Roy Bohn	**Field Unit Leader**	Dave McInroy
Operable Unit	1114		M992		(505)667-0819
Date		**LANL Destination**	SMO	**Turnaround**	30 days
OU Contact	Roy Bohn	**LANL Contact**	Jolyene Valdez	**Lab Report Required**	
Contact Phone No	(505) 665-5138	**LANL Mail Stop**		**Charge Code**	MR0R0001E000

Relinquished by: Roy Bohn **(Signature):** **Affiliation:** E-ER	**Date:** 7/24/01	**Relinquished by:** **(Signature):** **Affiliation:**	**Date:**	**Relinquished by:** **(Signature):** **Affiliation:**	**Date:**
Received by: **(Signature):** **Affiliation:**	**Time:** 1420	**Received by:** **(Signature):** **Affiliation:**	**Time:**	**Received by:** **(Signature):** **Affiliation:**	**Time:**

POSSIBLE HAZARD IDENTIFICATION: (please indicate if sample(s) are hazardous materials and/or suspected to contain high levels of hazardous substances):
Radiological___ **Highly Toxic**___
Flammable___ **Skin Irritant**___ **Non-Hazard**___ **Other**___

SCREENING METHOD: ARS RAD Screening

SAMPLE DISPOSAL: Disposal by Lab

Comments:

Field Unique Sample #/ID	Cont ID	Date & Time Collected	Sample Container Volume/Material	Matrix	Preservat	ANALYSIS REQUESTED: (SMO Order Codes)	REMARKS (Conditions of receipt, etc.)
RC03-01-0005	01	7/24/01 1155	500 ml Polyehtylene	Debris	Ice	H3	
RC03-01-0005	03	↓ ↓	125 ml Glass	Debris	Ice	PCB	
RC03-01-0005	02		125 ml Polyethylene	Debris	Ice	METTAL	

Los Alamos National Laboratory Environmental Restoration (Los Alamos, NM 87545)

CHAIN OF CUSTODY/REQUEST FOR ANALYSIS

Technical Area	03	**Send Lab Report to**	Roy Bohn	**Field Unit Leader**	Dave McInroy
Operable Unit	1114		M992		(505)667-0819
Date		**LANL Destination**	SMO	**Turnaround**	30 days
OU Contact	Roy Bohn	**LANL Contact**	Jolyene Valdez	**Lab Report Required**	
Contact Phone No	(505) 665-5138	**LANL Mail Stop**		**Charge Code**	MR0R0001E000

Relinquished by: Roy Bohn **(Signature):** Roy Bohn **Affiliation:** E-ER	**Date:** 7/24/01	**Relinquished by:** **(Signature):** **Affiliation:**	**Date:**	**Relinquished by:** **(Signature):** **Affiliation:**	**Date:**
Received by: **(Signature):** **Affiliation:**	**Time:** 1420	**Received by:** **(Signature):** **Affiliation:**	**Time:**	**Received by:** **(Signature):** **Affiliation:**	**Time:**

POSSIBLE HAZARD IDENTIFICATION: (please indicate if sample(s) are hazardous materials and/or suspected to contain high levels of hazardous substances):
Radiological___ Highly Toxic___
Flammable___ Skin Irritant___ Non-Hazard___ Other___

SCREENING METHOD: ARS RAD Screening

SAMPLE DISPOSAL: Disposal by Lab

Comments:

Field Unique Sample #/ID	Cont ID	Date & Time Collected	Sample Container Volume/Material	Matrix	Preservat	ANALYSIS REQUESTED: (SMO Order Codes)	REMARKS (Conditions of receipt, etc.)
RC03-01-0006	01	7/24/01 1035	500 ml Polyethylene	Soil	Ice	H3	
RC03-01-0006	03		125 ml Glass	Soil	None	PCB	
RC03-01-0006	02		125 ml Polyethylene	Soil	Ice	METTAL	
RC03-01-0006	08		5 gm Encore Container-	Soil	Ice	VOCECORE	
RC03-01-0006	07		5 gm Encore Container-	Soil	Ice	VOCECORE	
RC03-01-0006	06		5 gm Encore Container-	Soil	Ice	VOCECORE	
RC03-01-0006	05		5 gm Encore Container ~~125 ml Polyethylene~~ RD	Soil	Ice	VOCECORE	
RC03-01-0007	01	1055	500 ml Polyethylene	Soil	Ice	H3	
RC03-01-0007	03		125 ml Glass	Soil	None	PCB	
RC03-01-0007	02		125 ml Polyethylene	Soil	Ice	METTAL	
RC03-01-0007	08		5 gm Encore Container-	Soil	Ice	VOCECORE	
RC03-01-0007	07		5 gm Encore Container-	Soil	Ice	VOCECORE	
RC03-01-0007	06		5 gm Encore Container-	Soil	Ice	VOCECORE	
RC03-01-0007	05		5 gm Encore Container ~~125 ml Polyethylene~~ RD	Soil	Ice	VOCECORE	

Original - LANL Destination Yellow - RPF Pink - FTL Copy

Los Alamos National Laboratory Environmental Restoration (Los Alamos, NM 87545)
CHAIN OF CUSTODY/REQUEST FOR ANALYSIS

Technical Area	03	**Send Lab Report to**	Roy Bohn	**Field Unit Leader**	Dave McInroy
Operable Unit	1114		M992		(505)667-0819
Date		**LANL Destination**	SMO	**Turnaround**	30 days
OU Contact	Roy Bohn	**LANL Contact**	Jolyene Valdez	**Lab Report Required**	
Contact Phone No	(505) 665-5138	**LANL Mail Stop**		**Charge Code**	MR0R0001E000

Relinquished by: Roy Bohn **(Signature):** **Affiliation:** E-ER	**Date:** 7/24/01	**Relinquished by:** **(Signature):** **Affiliation:**	**Date:**	**Relinquished by:** **(Signature):** **Affiliation:**	**Date:**
Received by: **(Signature):** **Affiliation:**	**Time:** 1420	**Received by:** **(Signature):** **Affiliation:**	**Time:**	**Received by:** **(Signature):** **Affiliation:**	**Time:**

POSSIBLE HAZARD IDENTIFICATION: (please indicate if sample(s) are hazardous materials and/or suspected to contain high levels of hazardous substances):
Radiological___ **Highly Toxic**___
Flammable___ **Skin Irritant**___ **Non-Hazard**___ **Other**___

SCREENING METHOD: ARS RAD Screening
SAMPLE DISPOSAL: Disposal by Lab

Comments:

Field Unique Sample #/ID	Cont ID	Date & Time Collected	Sample Container Volume/Material	Matrix	Preservat	ANALYSIS REQUESTED: (SMO Order Codes)	REMARKS (Conditions of receipt, etc.)
RC03-01-0008	01	7/24/01 1115	500 ml Polyethylene	Soil	Ice	H3	
RC03-01-0008	03		125 ml Glass	Soil	None	PCB	
RC03-01-0008	02		125 ml Polyethylene	Soil	Ice	METTAL	
RC03-01-0008	08		5 gm Encore Container-	Soil	Ice	VOCECORE	
RC03-01-0008	07		5 gm Encore Container-	Soil	Ice	VOCECORE	
RC03-01-0008	06		5 gm Encore Container-	Soil	Ice	VOCECORE	
RC03-01-0008	05		5gm Encore Container ~~125 ml Polyethylene~~ RB	Soil	Ice	VOCECORE	
RC03-01-0009	01	1150	500 ml Polyethylene	Soil	Ice	H3	
RC03-01-0009	03		125 ml Glass	Soil	None	PCB	
RC03-01-0009	02		125 ml Polyethylene ~~125 ml Polyethylene~~ RB	Soil	Ice	METTAL	
RC03-01-0009	08		5 gm Encore Container-	Soil	Ice	VOCECORE	
RC03-01-0009	07		5 gm Encore Container-	Soil	Ice	VOCECORE	
RC03-01-0009	06		5 gm Encore Container-	Soil	Ice	VOCECORE	
RC03-01-0009	05		5gm Encore Container ~~125 ml Polyethylene~~ RB	Soil	Ice	VOCECORE	

Original - LANL Destination Yellow - RPF Pink - FTL Copy

Los Alamos National Laboratory Environmental Restoration (Los Alamos, NM 87545)

CHAIN OF CUSTODY/REQUEST FOR ANALYSIS

Technical Area	03	**Send Lab Report to**	Roy Bohn	**Field Unit Leader**	Dave McInroy
Operable Unit	1114		M992		(505)667-0819
Date		**LANL Destination**	SMO	**Turnaround**	30 days
OU Contact	Roy Bohn	**LANL Contact**	Jolyene Valdez	**Lab Report Required**	
Contact Phone No	(505) 665-5138	**LANL Mail Stop**		**Charge Code**	MR0R0001E000

Relinquished by: Roy Bohn **(Signature):** **Affiliation:** E-ER	**Date:** 7/24/01	**Relinquished by:** **(Signature):** **Affiliation:**	**Date:**	**Relinquished by:** **(Signature):** **Affiliation:**	**Date:**
Received by: **(Signature):** **Affiliation:**	**Time:** 1420	**Received by:** **(Signature):** **Affiliation:**	**Time:**	**Received by:** **(Signature):** **Affiliation:**	**Time:**

POSSIBLE HAZARD IDENTIFICATION: (please indicate if sample(s) are hazardous materials and/or suspected to contain high levels of hazardous substances):
Radiological___ **Highly Toxic**___
Flammable___ **Skin Irritant**___ **Non-Hazard**___ **Other**___

SCREENING METHOD: ARS RAD Screening

SAMPLE DISPOSAL: Disposal by Lab

Comments:

Field Unique Sample #/ID	Cont ID	Date & Time Collected	Sample Container Volume/Material	Matrix	Preservat	ANALYSIS REQUESTED: (SMO Order Codes)	REMARKS (Conditions of receipt, etc.)
RC03-01-0010	01	7/24/01 1110	500 ml Polyethylene	Soil	Ice	H3	
RC03-01-0010	03		125 ml Glass	Soil	None	PCB	
RC03-01-0010	02		125 ml Polyethylene	Soil	Ice	METTAL	
RC03-01-0010	07		5 gm Encore Container-	Soil	Ice	VOCECORE	
RC03-01-0010	06		5 gm Encore Container-	Soil	Ice	VOCECORE	
RC03-01-0010	05		5 gm Encore Container-	Soil	Ice	VOCECORE	
RC03-01-0010	04		~~125 ml Polyethylene~~ 5gm Encore Container 213	Soil	Ice	VOCECORE	

Original - LANL Destination Yellow - RPF Pink - FTL Copy

Los Alamos National Laboratory Environmental Restoration (Los Alamos, NM 87545)
CHAIN OF CUSTODY/REQUEST FOR ANALYSIS

Technical Area	03	**Send Lab Report to**	Roy Bohn	**Field Unit Leader**	Dave McInroy
Operable Unit	1114		M992		(505)667-0819
Date		**LANL Destination**	SMO	**Turnaround**	30 days
OU Contact	Roy Bohn	**LANL Contact**	Joylene Valdez	**Lab Report Required**	
Contact Phone No	(505) 665-5138	**LANL Mail Stop**		**Charge Code**	MR0R0001E000

Relinquished by: Roy Bohn **(Signature):** **Affiliation:** E-ER	**Date:** 7/24/01	**Relinquished by:** **(Signature):** **Affiliation:**	**Date:**	**Relinquished by:** **(Signature):** **Affiliation:**	**Date:**
Received by: **(Signature):** **Affiliation:**	**Time:** 14:20	**Received by:** **(Signature):** **Affiliation:**	**Time:**	**Received by:** **(Signature):** **Affiliation:**	**Time:**

POSSIBLE HAZARD IDENTIFICATION: (please indicate if sample(s) are hazardous materials and/or suspected to contain high levels of hazardous substances):
Radiological___ **Highly Toxic**___
Flammable___ **Skin Irritant**___ **Non-Hazard**___ **Other**___

SCREENING METHOD: None
SAMPLE DISPOSAL: Disposal by Lab

Comments: TPH - Diesel range organics only

Field Unique Sample #/ID	Cont ID	Date & Time Collected	Sample Container Volume/Material	Matrix	Preservat	ANALYSIS REQUESTED: (SMO Order Codes)	REMARKS (Conditions of receipt, etc.)
RC03-01-0041	02	7/24/01 9:15	125 ml Amber Glass	Soil	Ice	TPH	
RC03-01-0041	01	↓	125 ml Polyethylene	Soil	Ice	METTAL	
RC03-01-0042	02	9:50	125 ml Amber Glass	Soil	Ice	TPH	
RC03-01-0042	01	↓	125 ml Polyethylene	Soil	Ice	METTAL	

Original - LANL Destination Yellow - RPF Pink - FTL Copy

RADIOLOGICAL SCREENING DATA RELEASE FORM

The following samples (list samples by number) were received at the Field Support Facility (FSF) without radiological screening data. These samples will not be shipped until radiological screening documentation arrives at the FSF. I understand that it is my responsibility to ensure that this information arrives at the FSF in a timely manner. **If holding times are missed because screening data do not arrive, I will pick up the samples when called to do so.**

RC03-01-0001 through 0004

RC03-01-0006 thru 0009

****

The following samples (list samples by number) do not require radiological screening for the reason stated.

RC03-01-0010

RC03-01-0005

Reason: Duplicate of 0007

Duplicate of 0003

Signature [signature]

Printed name Roy Bohn

Telephone number 5-5138 Date 7/24/01

RADIOLOGICAL SCREENING DATA RELEASE FORM

The following samples (list samples by number) were received at the Field Support Facility (FSF) without radiological screening data. These samples will not be shipped until radiological screening documentation arrives at the FSF. I understand that it is my responsibility to ensure that this information arrives at the FSF in a timely manner. **If holding times are missed because screening data do not arrive, I will pick up the samples when called to do so.**

****

The following samples (list samples by number) do not require radiological screening for the reason stated.

RC-01-0041 thru RC-01-0044

RC-01-0046 thru RC-01-0049

Reason: No rad ever on site.
No history of rad

Signature [signature]

Printed name Roy Bohn

Telephone number 5-5138 **Date** 7/24/01

AMERICAN RADIATION SERVICES OF NEW MEXICO

1903 Central Ave. • Los Alamos, New Mexico 87544
(505) 663-0363 • Fax (505) 663-0365

ARSNM Tracking Number:	ARSNM-01-0094	COC Number:	1114-01-0055
Client I.D.:	RC03-01-0001	ARSNM Sample I.D.:	ARSNM-01-0549
Date Sampled:	N/A	Date Received:	7/24/01
Time Sampled:	N/A	Time Received:	1515
Type of Sample:	solid	Date of Report:	7/26/01
Contact Person:	R.Bohn	Charge Code:	MR0R0001E000

Analysis Description	Analysis Result	Analysis Error ±2 Sigma	Detection Limit	Analysis Units	Analysis Test Method	Analysis Date & Time	Analysis Technician
Gross Alpha	16.32	9.23	12.99	pCi/gm	EPA 900M	07/25/01 0918	bz
Gross Beta	24.77	9.35	18.19	pCi/gm	EPA 900M	07/25/01 0918	bz
Tritium	186.22	2.83	2.24	pCi/gm	EPA 906.0M	07/25/01 1517	bz
Gross Gamma	5.72	0.54	1.00	pCi/gm	EPA 901.1M	07/24/01 1550	bz

Notes:

B. Zelenay

Barbara Zelenay

Cost Per Sample: 224.85

Notes: American Radiation Services of New Mexico, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the performed analysis itself. Reproduction of this report in less than full requires the written consent of the client.

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ARSNM Tracking Number:	ARSNM-01-0094	**COC Number:**	1114-01-0055
Client I.D.:	RC03-01-0002	**ARSNM Sample I.D.:**	ARSNM-01-0550
Date Sampled:	N/A	**Date Received:**	7/24/01
Time Sampled:	N/A	**Time Received:**	1515
Type of Sample:	solid	**Date of Report:**	7/26/01
Contact Person:	R.Bohn	**Charge Code:**	MR0R0001E000

Analysis Description	Analysis Result	Analysis Error ±2 Sigma	Detection Limit	Analysis Units	Analysis Test Method	Analysis Date & Time	Analysis Technician
Gross Alpha	BDL	N/A	12.11	pCi/gm	EPA 900M	07/25/01 0918	bz
Gross Beta	33.17	8.98	16.01	pCi/gm	EPA 900M	07/25/01 0918	bz
Tritium	85.64	2.18	2.42	pCi/gm	EPA 906.0M	07/25/01 1728	bz
Gross Gamma	4.96	0.58	1.11	pCi/gm	EPA 901.1M	07/24/01 1600	bz

Notes:

B. Zelenay

Barbara Zelenay

Cost Per Sample: 224.85

Notes: American Radiation Services of New Mexico, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the performed analysis itself. Reproduction of this report in less than full requires the written consent of the client.

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ARSNM Tracking Number:	ARSNM-01-0094	**COC Number:**	1114-01-0057
Client I.D.:	RC03-01-0003	**ARSNM Sample I.D.:**	ARSNM-01-0551
Date Sampled:	N/A	**Date Received:**	7/24/01
Time Sampled:	N/A	**Time Received:**	1515
Type of Sample:	solid	**Date of Report:**	7/26/01
Contact Person:	R.Bohn	**Charge Code:**	MR0R0001E000

Analysis Description	Analysis Result	Analysis Error ±2 Sigma	Detection Limit	Analysis Units	Analysis Test Method	Analysis Date & Time	Analysis Technician
Gross Alpha	11.75	7.56	11.48	pCi/gm	EPA 900M	07/25/01 0918	bz
Gross Beta	41.42	9.04	14.99	pCi/gm	EPA 900M	07/25/01 0918	bz
Tritium	105.06	1.87	1.80	pCi/gm	EPA 906.0M	07/25/01 1940	bz
Gross Gamma	10.45	0.87	1.54	pCi/gm	EPA 901.1M	07/24/01 1615	bz

Notes:

B. Zelenay

Barbara Zelenay

Cost Per Sample: 224.85

Notes: American Radiation Services of New Mexico, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the performed analysis itself. Reproduction of this report in less than full requires the written consent of the client.

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ARSNM Tracking Number:	ARSNM-01-0094	**COC Number:**	1114-01-0057
Client I.D.:	RC03-01-0004	**ARSNM Sample I.D.:**	ARSNM-01-0552
Date Sampled:	N/A	**Date Received:**	7/24/01
Time Sampled:	N/A	**Time Received:**	1515
Type of Sample:	solid	**Date of Report:**	7/26/01
Contact Person:	R.Bohn	**Charge Code:**	MR0R0001E000

Analysis Description	Analysis Result	Analysis Error ±2 Sigma	Detection Limit	Analysis Units	Analysis Test Method	Analysis Date & Time	Analysis Technician
Gross Alpha	BDL	N/A	12.15	pCi/gm	EPA 900M	07/25/01 0918	bz
Gross Beta	44.20	9.69	16.10	pCi/gm	EPA 900M	07/25/01 0918	bz
Tritium	466.41	4.34	2.06	pCi/gm	EPA 906.0M	07/25/01 2151	bz
Gross Gamma	6.55	0.57	1.01	pCi/gm	EPA 901.1M	07/24/01 1625	bz

Notes:

B. Zelenay

Barbara Zelenay

Cost Per Sample: 224.85

Notes: American Radiation Services of New Mexico, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the performed analysis itself. Reproduction of this report in less than full requires the written consent of the client.

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ARSNM Tracking Number:	ARSNM-01-0094	**COC Number:**	1114-01-0060
Client I.D.:	RC03-01-0006	**ARSNM Sample I.D.:**	ARSNM-01-0553
Date Sampled:	N/A	**Date Received:**	7/24/01
Time Sampled:	N/A	**Time Received:**	1515
Type of Sample:	solid	**Date of Report:**	7/26/01
Contact Person:	R.Bohn	**Charge Code:**	MR0R0001E000

Analysis Description	Analysis Result	Analysis Error ±2 Sigma	Detection Limit	Analysis Units	Analysis Test Method	Analysis Date & Time	Analysis Technician
Gross Alpha	15.48	8.44	11.61	pCi/gm	EPA 900M	07/25/01 1022	bz
Gross Beta	40.73	9.33	15.75	pCi/gm	EPA 900M	07/25/01 1022	bz
Tritium	1566.99	6.95	1.96	pCi/gm	EPA 906.0M	07/26/01 0003	bz
Gross Gamma	7.41	0.51	0.84	pCi/gm	EPA 901.1M	07/24/01 1637	bz

Notes:

B. Zelenay

Barbara Zelenay

Cost Per Sample: 224.85

Notes: American Radiation Services of New Mexico, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the performed analysis itself. Reproduction of this report in less than full requires the written consent of the client.

ARS
AMERICAN RADIATION SERVICES OF NEW MEXICO
1903 Central Ave. • Los Alamos, New Mexico 87544
(505) 663-0363 • Fax (505) 663-0365

ARSNM Tracking Number:	ARSNM-01-0094	COC Number:	1114-01-0060
Client I.D.:	RC03-01-0007	ARSNM Sample I.D.:	ARSNM-01-0554
Date Sampled:	N/A	Date Received:	7/24/01
Time Sampled:	N/A	Time Received:	1515
Type of Sample:	solid	Date of Report:	7/26/01
Contact Person:	R.Bohn	Charge Code:	MR0R0001E000

Analysis Description	Analysis Result	Analysis Error ±2 Sigma	Detection Limit	Analysis Units	Analysis Test Method	Analysis Date & Time	Analysis Technician
Gross Alpha	BDL	N/A	12.16	pCi/gm	EPA 900M	07/25/01 1022	bz
Gross Beta	29.88	9.14	16.88	pCi/gm	EPA 900M	07/25/01 1022	bz
Tritium	153.76	2.06	1.73	pCi/gm	EPA 906.0M	07/26/01 0214	bz
Gross Gamma	6.15	0.41	0.67	pCi/gm	EPA 901.1M	07/24/01 1652	bz

Notes:

B. Zelenay
Barbara Zelenay

Cost Per Sample: 224.85

Notes: American Radiation Services of New Mexico, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the performed analysis itself. Reproduction of this report in less than full requires the written consent of the client.

AMERICAN RADIATION SERVICES OF NEW MEXICO

1903 Central Ave. • Los Alamos, New Mexico 87544
(505) 663-0363 • Fax (505) 663-0365

ARSNM Tracking Number:	ARSNM-01-0094	**COC Number:**	1114-01-0062
Client I.D.:	RC03-01-0008	**ARSNM Sample I.D.:**	ARSNM-01-0555
Date Sampled:	N/A	**Date Received:**	7/24/01
Time Sampled:	N/A	**Time Received:**	1515
Type of Sample:	solid	**Date of Report:**	7/26/01
Contact Person:	R.Bohn	**Charge Code:**	MR0R0001E000

Analysis Description	Analysis Result	Analysis Error ±2 Sigma	Detection Limit	Analysis Units	Analysis Test Method	Analysis Date & Time	Analysis Technician
Gross Alpha	12.60	8.10	12.31	pCi/gm	EPA 900M	07/25/01 1022	bz
Gross Beta	26.16	9.11	17.39	pCi/gm	EPA 900M	07/25/01 1022	bz
Tritium	31.73	1.33	2.26	pCi/gm	EPA 906.0M	07/26/01 0425	bz
Gross Gamma	9.02	0.87	1.60	pCi/gm	EPA 901.1M	07/25/01 0747	bz

Notes:

B. Zelenay
Barbara Zelenay

Cost Per Sample: 224.85

Notes: American Radiation Services of New Mexico, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the performed analysis itself. Reproduction of this report in less than full requires the written consent of the client.

AMERICAN RADIATION SERVICES OF NEW MEXICO

1903 Central Ave. • Los Alamos, New Mexico 87544
(505) 663-0363 • Fax (505) 663-0365

ARSNM Tracking Number:	ARSNM-01-0094	**COC Number:**	1114-01-0062
Client I.D.:	RC03-01-0009	**ARSNM Sample I.D.:**	ARSNM-01-0556
Date Sampled:	N/A	**Date Received:**	7/24/01
Time Sampled:	N/A	**Time Received:**	1515
Type of Sample:	solid	**Date of Report:**	7/26/01
Contact Person:	R.Bohn	**Charge Code:**	MR0R0001E000

Analysis Description	Analysis Result	Analysis Error ±2 Sigma	Detection Limit	Analysis Units	Analysis Test Method	Analysis Date & Time	Analysis Technician
Gross Alpha	12.50	8.04	12.22	pCi/gm	EPA 900M	07/25/01 1022	bz
Gross Beta	36.12	9.35	16.45	pCi/gm	EPA 900M	07/25/01 1022	bz
Tritium	881.64	5.16	1.84	pCi/gm	EPA 906.0M	07/26/01 0637	bz
Gross Gamma	6.50	0.45	0.76	pCi/gm	EPA 901.1M	07/25/01 0810	bz

Notes:

B. Zelenay

Barbara Zelenay

Cost Per Sample: 224.85

Notes: American Radiation Services of New Mexico, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the performed analysis itself. Reproduction of this report in less than full requires the written consent of the client.

To: "Stone, Judy" <stonej@lionvillelab.com>
Subject: Re: Request 9432R discrepancies
Cc: jvaldez@eds.lanl.gov

Judy, yes there should not be any TPH for those two sample ID's and perform the moisture on any aliquot you see fit. txs, keith

01:51 PM 7/27/01 -0400, you wrote:
>Samples RC03-01-0048 02 and -0049 02 TPH were not in the shipment
>
>Samples RC03-01-0006, -0007 and -0008 Encores - instead of the 125 ml poly
>bottle to use for %solids, we got a 4th Encore. Do you prefer that we use
>this for the %solids or we could use the PCB bottles for %solids, if you want.
>
>We will note discrepancies on the chains and fax them to Joy tonight or by
>Monday morning.
>
>Thanks!

LIONVILLE LABORATORY INC.

28 August 2001

Ms. Joylene Valdez
Los Alamos National Laboratory
TA-3, Building 271
DP. O1U MS-H865
Los Alamos, NM 87545

Ref: Subcontract No. 7791L0014-AA
Data Report for LVL Batch 0107L423
LANL Request No. 9432R

Dear Ms. Valdez:

Enclosed please find the EDD for 19 soil samples received 27 July 2001. These were analyzed for PCBs, VOAs and TPH DRO on a 30 day turnaround. The EDD is enclosed.

Please do not hesitate to contact me at (610) 280-3029 with any question you may have regarding either the hard copy or electronic report.

Very truly yours,

Lionville Laboratory Incorporated

Judith L. Stone
Senior Project Manager

Roy

Enclosure:

FILE COPY

208 Welsh Pool Road • Exton, PA 19341-1313 • (610) 280-3000 • Fax (610) 280-3041

Analytical Data Package Chain of Custody

Section I. Data Package Information (relinquisher completes)

New issue? ☐ Yes ☐ No

Request Number(s): 9454R 9441R 9432R 9456R 9439R
9418R

Data package requestor (check one): ☐ Editing/validation ☐ User ☐ SMO

Name (print): Taylence Valdez Telephone: 5996Y

Focus area: SMO Z number: 114122

Section II. Authorizing Signatures (relinquisher and receiver both complete)

Relinquished by: John Wilcox John a wilcox Date: 9/19/01
(print name, then sign)

I accept custody of the above listed data package(s).

Received by: [illegible] Date: 9-19-01
(print name, then sign)

Relinquished by: _____ Date: _____
(print name, then sign)

I accept custody of the above listed data package(s).

Received by: _____ Date: _____
(print name, then sign)

Comments:

CHAIN OF CUSTODY FORM (Example)

SECTION I. DATA PACKAGE INFORMATION (Relinquisher completes)

New Issue ☑ Yes ☐ No

Request Number(s): 9454 ✓ 9432 ✓ 9416 ✓ 9439 ✓
9441 ✓ 9519 ✓ 9258 ✓ 9406 ✓

Data Package Requestor (check one): ☐ Editing/Validation ☐ User

Name (print) John Wilcox Focus Area: A3

Phone 7-4086 Z Number: 153002

SECTION II. AUTHORIZING SIGNATURES (Reliquished/Received signatures)

Relinquished By: [signature] Date: 8-29-01

I accept custody of the above listed data package(s).

Received By: John A Wilcox Date: 8/30/01

Relinquished By: _____ Date: _____

I accept custody of the above listed data package(s).

Received By: _____ Date: _____

Comments:

Data Validation Cover Sheet

Section I. Data Record Package Identification

Request Number: 9432R Validation Date: 17-Sep-01 Lab Code: _____

Contract Laboratory Name: Lionville

Validator: Nita P. Patel Organization: EES-9

Analytical Suite(s): (check all that apply)

- ☒ Volatile Organics
- ☐ Semivolatile Organics
- ☒ Organochlorine Pesticides/Polychlorinated Biphenyls
- ☒ Other: DRO (describe)
- ☐ High Explosives
- ☐ Inorganics
- ☐ Radiochemistry

Section II. Completeness Check

Yes	No	n/a	(check one)	Yes	No	n/a	(check one)
☒	☐	☐	1. Chain-of-custody form(s)	☒	☐	☐	6. Raw/BSS data
☒	☐	☐	2. Case narrative	☒	☐	☐	7. Quality control forms
☒	☐	☐	3. Sample result forms	☒	☐	☐	8. Quantitation reports
☒	☐	☐	4. Sample chromatograms	☐	☐	☒	9. TICs forms
☒	☐	☐	5. Standard chromatograms	☐	☐	☒	10. TICs mass spectra

Identify any samples in the assigned Request Number that are missing:

_____ _____ _____ _____ _____ _____ _____ _____

_____ _____ _____ _____ _____ _____ _____ _____

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed upon date of resolution and contract laboratory point of contact): DRO: samples were analytes at DF=50 and surrogates were diluted out. Sample extracts were heavy with black material. All other QC were within limits.

Volatiles: Methylene chloride and acetone were detected in the blank; qualified U,V4. Methylene chloride, acetone, and 2,2-dichloropropane were not within %RSD; qualified UJ,V7a. All other QC were within limits.

PCBs: For samples -0002, -0003, -0005 contained DF=10,5,5; surrogates were diluted out. For sample -0006, surrogate tcmx was above the UAL; qualified J+,P3 if detected. For sample -0009, surrogate dcb was below the LAL; qualified UJ,P3c. All other QC were within limits.

(Attach additional comment sheets as necessary)

Validator's signature: [signature] Date: 9/17/01

ER-SOPs 15.01–15.06, 15.14

Los Alamos
Environmental Restoration Project

Organochlorine Pesticide and Polychlorinated Biphenyl Data Validation Checklist

Part Ia. Instrument Calibrations

Criteria	Criterion true? (y, n, or n/a)	Action if "criterion true?" = no	Actual time lapse
Was the initial calibration completed?	1a. yes	1b. Return the data record package to the SMO.	1c. n/a
Was the continuing calibration check performed at the beginning of each 24-hr analysis period following the analysis of the instrument performance check and before the analysis of blanks and samples? **Attention:** A continuing calibration check is not required if all samples are analyzed within 24 hrs of initial calibration—record "n/a" in blocks 2a and 2c.	2a. yes	2b. Assign the qualifier and reason code **"A, P16"** to all results. In block 2c, record the actual time lapse.	2c. na

Part Ib. Instrument Calibrations (continued)

Criteria	Criterion true? (y, n, or n/a)	Action if "criterion true?" = no	List noncompliant analyte(s) and affected samples.
Is there a standard analysis for each multicomponent analyte detected within 72 hours of the sample analysis where the multicomponent analyte was detected?	3a. na	3b. Assign the qualifier and reason code **"J, P7a"** to the detected results.	3c. na

Organochlorine Pesticide and Polychlorinated Biphenyl Data Validation Checklist

Part Ic. Analyte Breakdown Criteria

Criteria	Criterion true? (yes or no)	Action if "criterion true?" = yes Identify noncompliant LCS analytes *and* assign qualifier & reason code...	List noncompliant analyte(s) and affected samples.	Percent breakdown
Are any required analyte percent breakdowns *not* reported?	1a. no	1b. "**A, P10b**" for any missing documentation. In block 1c, record • noncompliant analytes and • all affected samples.	1c. na	1d. n/a
Is 4,4'-DDT breakdown > 20% **AND** was 4,4'-DDT detected in the samples?	2a. no	2b. "**J-, P10**" to 4,4'-DDT results. In block 2c, record affected samples. In block 2d, record the percent breakdown of affected 4,4'-DDT. Assign qualifier & reason code "**J+, P10a**" to detected DDD and DDE results.	2c. na	2d. na
Is 4,4'-DDT breakdown > 20% **AND** was 4,4'-DDT *not detected* in the samples **AND** Was either DDD and/or DDE *detected* in the samples?	3a. no	3b. "**RPM, P10**" to 4,4'-DDT results. In block 3c, record affected samples. In block 3d, record the percent breakdown of affected 4,4'-DDT. Assign qualifier & reason code "**J+, P10a**" to detected DDD and DDE results.	3c. na	3d. na

Organochlorine Pesticide and Polychlorinated Biphenyl Data Validation Checklist

Part Ic. Analyte Breakdown Criteria (continued)

Criteria	Criterion true? (yes or no)	Action if "criterion true?" = yes Identify noncompliant LCS analytes *and* assign qualifier & reason code...	List noncompliant analyte(s) and affected samples.	Percent breakdown
Is Endrin breakdown > 20% **AND** was Endrin detected in the samples?	4a. no	4b. **"J-, P10"** to Endrin results. In block 4c, record affected samples. In block 4d, record the percent breakdown of affected Endrin. Assign qualifier & reason code **"J+, P10a"** to detected Endrin ketone and Endrin aldehyde results.	4c. na	4d. na
Is Endrin breakdown > 20% **AND** are 4,4'-DDT or Endrin *not detected* in the samples **AND** were either Endrin ketone and/or Endrin aldehyde *detected* in the samples?	5a. no	5b. **"RPM, P10"** to Endrin results. In block 5c, record affected samples. In block 5d, record the combined percent breakdown of affected 4,4'-DDT. Assign qualifier & reason code **"J+, P10a"** to detected Endrin ketone and Endrin aldehyde results.	5c. na	5d. na
Is the combined breakdown > 30% **AND** were either 4,4'-DDT or Endrin detected in the samples?	6a. no	6b. **"J-, P10"** to 4,4'-DDT and/or Endrin results. In block 6c, record affected samples. In block 6d, record the combined percent breakdown. Assign qualifier & reason code **"J+, P10a"** to detected DDD and DDE and/or Endrin ketone and Endrin aldehyde results.	6c. na	6d. na

Organochlorine Pesticide and Polychlorinated Biphenyl Data Validation Checklist

Part Ic. Analyte Breakdown Criteria (continued)

Criteria	Criterion true? (yes or no)	Action if "criterion true?" = yes Identify noncompliant LCS analytes *and* assign qualifier & reason code...	List noncompliant analyte(s) and affected samples.	Percent breakdown
Is the combined breakdown > 30% **AND** were 4,4'-DDT or Endrin *not detected* in the samples **AND** were DDD and/or DDE or Endrin ketone and/or Endrin aldehyde *detected* in the samples?	7a. no	7b. **"RPM, P10"** to 4,4'-DDT and/or Endrin results. In block 7c, record affected samples. In block 7d, record the percent breakdown of Endrin. Assign qualifier & reason code **"J+, P10a"** to detected DDD, DDE, Endrin ketone, and Endrin aldehyde results.	7c. na	7d. na

ER-SOP-15.03

Los Alamos
Environmental Restoration Project

Organochlorine Pesticide and Polychlorinated Biphenyl Data Validation Checklist

Part IIa. Method and Instrument Blanks Validation Criteria

Criteria	Criterion true? (yes/no)	Action if "criterion true?" = no Assign qualifier & reason code...	List all affected sample matrices and/or analytical batches.
Was a method blank analyzed for each sample matrix and batch?	1a. yes	1b. "**A, P4a**" to any samples with results > EQL that have any missing documentation. In block 1c, record all sample matrices and/or analytical batches that *did not* include a method blank.	1c. na
Was an instrument blank analyzed every 12 hours?	2a. yes	2b. "**A, P4a**" to any samples with results > EQL that have any missing documentation. In block 2c, record all sample matrices and/or analytical batches that *were not* covered by an instrument blank.	2c. na

Part IIb. Method and Instrument Blanks Validation Criteria (continued)

Criteria	Criterion true? (yes or no)	Action if "criterion true?" = yes Assign qualifier & reason code...	List detected blank analyte(s) and affected samples.	Analyte concentration (mg/kg)
Is the sample result > the EQL but < 5 times the blank concentration?	3a. no	3b. "**U, P4**" to sample results > the EQL. In block 3c, record blank (method or instrument), samples, and analyte(s) in question. In block 3d, record the analyte concentration(s).	3c. na	3d. na

Organochlorine Pesticide and Polychlorinated Biphenyl Data Validation Checklist

Part III. Laboratory Control Sample Criteria

Criteria	Criterion true? (yes or no)	Action if "criterion true?" = yes Assign qualifier & reason code...	List noncompliant analyte(s) and affected samples.	Percent recovery
Is any required analyte percent recovery *not* reported?	1a. no	1b. **"A, P12"** for any missing documentation. In block 1c, record • noncompliant analytes and • all affected samples.	1c. na	1d. n/a
Is any required analyte recovery < 10%?	2a. no	2b. **"RPM, P12a"** to all analyte results. In block 2c, record • noncompliant analytes and • all affected samples. In block 2d, record the percent recoveries of all affected analytes.	2c. na	2d. na
Is any required analyte recovery < 80% but > 10%?	3a. no	3b. **"J-, P12b"** to *detected* sample analytes and **"UJ-, P12c"** to all *nondetected* sample analytes. In block 3c, record • noncompliant analytes and • all affected samples. In block 3d, record the percent recoveries of all affected analytes.	3c. na	3d. na
Is any required analyte recovery > 120%?	4a. no	4b. **"J+, P12d"** to detected sample analytes. In block 4c, record • noncompliant analytes and • all affected samples. In block 4d, record the percent recoveries of all affected analytes.	4c. na	4d. na

Organochlorine Pesticide and Polychlorinated Biphenyl Data Validation Checklist

Required Pesticide Surrogate Compounds and Recovery Acceptance Ranges

Surrogate name	Soil matrix recovery acceptance range	Water matrix recovery acceptance range
Tetrachloro-*m*-xylene	60%–150%	60%–150%
Decachlorobiphenyl	60%–150%	60%–150%

Part IV. Surrogate Validation Criteria

Criteria	Criterion true? (yes/no)	Action if "criterion true?" = yes Identify noncompliant surrogates *and* assign qualifier & reason code...	List all noncompliant surrogates and samples.	Percent recovery
Are any required surrogate percent recoveries *not* reported?	1a. no	1b. **"A, P11a"** for any missing documentation. In block 1c, record • noncompliant surrogates and • all affected samples.	1c. na	1d. n/a
Is at least one surrogate recovery <10%?	2a. no	2b. **"J-, P3b"** to all *detected* sample analytes and **"RPM, P3d"** to all *nondetected* sample analytes.	2c. na	2d. na
Is at least one surrogate percent recovery > UAL **AND** no surrogate percent recoveries < LAL?	3a. no	3b. **"J+, P3"** to all detected sample analytes.	3c. na	3d. na

Organochlorine Pesticide and Polychlorinated Biphenyl Data Validation Checklist

Part IV. Surrogate Validation Criteria (continued)

Criteria	Criterion true? (yes/no)	Action if "criterion true?" = yes Identify noncompliant surrogates *and* assign qualifier & reason code...	List all noncompliant surrogates and samples.	Percent recovery
Is at least one surrogate percent recovery > UAL **AND** at least one surrogate percent recovery <LAL?	4a. no	4b. **"J, P3e"** to all *detected* sample analytes and **"UJ, P3e"** to all *nondetected* sample analytes.	4c. na	4d. na
Is at least one surrogate percent recovery < LAL **AND** *the same* surrogate percent recovery > 10%?	5a. no	5b. **"J-, P3a"** to all *detected* sample analytes and **"UJ, P3c"** to all *nondetected* sample analytes.	5c. na	5d. na
Does at least one surrogate have a retention time outside of the ±0.05 minute window?	6a. no	6b. **"PM, P11"** to all *detected* sample analytes and **"RPM, P11"** to all *nondetected* sample analytes.	6c. na	6d. n/a

Organochlorine Pesticide and Polychlorinated Biphenyl Data Validation Checklist

Part V. Holding Time Validation Criteria

Criteria	Criterion true? (yes/no)	Action if "criterion true?" = no Assign qualifier & reason code...	List samples for which holding times were exceeded.	List the number of days by which holding times were exceeded.
Was each sample prepared within its extraction holding time?	1a. yes	1b. **"PM, P9"** to all analytes in affected samples.	1c. na	1d. na
Was each sample analyzed within its analytical holding time?	2a. yes	2b. **"PM, P9"** to all analytes in affected samples.	2c. na	2d. na

Organochlorine Pesticide and Polychlorinated Biphenyl Data Validation Checklist

Part VIa. Required Cleanup Criteria

Criteria	Criterion true? (yes/no)	Action if "criterion true?" = yes List the type of cleanup required.	List samples that required cleanup.
Is cleanup required on any samples?	1a. no	1b. na	1c. na

Part VIb. Required Cleanup Criteria

Criteria	Criterion true? (yes/no)	Action if "criterion true?" = no Assign qualifier & reason code...	List noncompliant samples that required cleanup.
Was florisil cartridge cleanup conducted?	1a. na	1b. **"A, P13"** for any missing documentation. In block 1c, record all affected samples.	1c. na
Was gel permeation chromatography (GPC) cleanup conducted on soil samples?	2a. na	2b. **"A, P13a"** for any missing documentation. In block 2c, record all affected samples.	2c. na
Were other required cleanups conducted as required?	3a. yes	3b. **"A, P13b"** for any missing documentation. In block 3c, record all affected samples and missing cleanup.	3c. H2SO4 cleanup performed on PCBs.

1D
PESTICIDE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

RC03-01-0001 03

Lab Name: Lionville Labs, Inc. Work Order: 02744064001

Client: LANL REQ #9432R

Matrix: SOIL

Lab Sample ID: 0107L423-001

Sample wt/vol: 30.0 (g/mL) G

Lab File ID: 08210135.32

Level: (low/med) LOW

Date Received: 07/27/01

% Moisture: not dec. 0 dec.

Date Extracted: 08/02/01

Extraction: (SepF/Cont/Sonc) SONC

Date Analyzed: 08/22/01

GPC Cleanup: (Y/N) N pH: 7.0

Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	
12674-11-2	Aroclor-1016	33	U
11104-28-2	Aroclor-1221	67	U
11141-16-5	Aroclor-1232	33	U
53469-21-9	Aroclor-1242	33	U
12672-29-6	Aroclor-1248	33	U
11097-69-1	Aroclor-1254	33	U
11096-82-5	Aroclor-1260	48	

FORM 1 PEST

12/88 Rev.

1D
PESTICIDE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

RC03-01-0002 03

Lab Name: Lionville Labs, Inc. Work Order: 02744064001

Client: LANL REQ #9432R

Matrix: SOIL

Lab Sample ID: 0107L423-002

Sample wt/vol: 30.1 (g/mL) G

Lab File ID: 08180135.46

Level: (low/med) LOW

Date Received: 07/27/01

% Moisture: not dec. 0 dec.

Date Extracted: 08/02/01

Extraction: (SepF/Cont/Sonc) SONC

Date Analyzed: 08/20/01

GPC Cleanup: (Y/N) N pH: 7.0

Dilution Factor: 10.0

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG

CAS NO.	COMPOUND		
12674-11-2	Aroclor-1016	330	U
11104-28-2	Aroclor-1221	670	U
11141-16-5	Aroclor-1232	330	U
53469-21-9	Aroclor-1242	330	U
12672-29-6	Aroclor-1248	330	U
11097-69-1	Aroclor-1254	330	U
11096-82-5	Aroclor-1260	630	

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PESTICIDE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

RC03-01-0003 03

Lab Name: Lionville Labs, Inc. Work Order: 02744064001

Client: LANL REQ #9432R

Matrix: SOIL

Lab Sample ID: 0107L423-003

Sample wt/vol: 30.0 (g/mL) G

Lab File ID: 08210135.33

Level: (low/med) LOW

Date Received: 07/27/01

% Moisture: not dec. 0 dec.

Date Extracted: 08/02/01

Extraction: (SepF/Cont/Sonc) SONC

Date Analyzed: 08/22/01

GPC Cleanup: (Y/N) N pH: 7.0

Dilution Factor: 5.00

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NO.	COMPOUND		
12674-11-2	Aroclor-1016	170	U
11104-28-2	Aroclor-1221	330	U
11141-16-5	Aroclor-1232	170	U
53469-21-9	Aroclor-1242	170	U
12672-29-6	Aroclor-1248	170	U
11097-69-1	Aroclor-1254	170	U
11096-82-5	Aroclor-1260	330	

FORM 1 PEST 12/88 Rev.

1D
PESTICIDE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

RC03-01-0004 03

Lab Name: Lionville Labs, Inc. Work Order: 02744064001

Client: LANL REQ #9432R

Matrix: SOIL

Lab Sample ID: 0107L423-004

Sample wt/vol: 30.6 (g/mL) G

Lab File ID: 08210135.34

Level: (low/med) LOW

Date Received: 07/27/01

% Moisture: not dec. 0 dec.

Date Extracted: 08/02/01

Extraction: (SepF/Cont/Sonc) SONC

Date Analyzed: 08/22/01

GPC Cleanup: (Y/N) N pH: 7.0

Dilution Factor: 1.00

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NO.	COMPOUND		
12674-11-2	Aroclor-1016	33	U
11104-28-2	Aroclor-1221	66	U
11141-16-5	Aroclor-1232	33	U
53469-21-9	Aroclor-1242	33	U
12672-29-6	Aroclor-1248	33	U
11097-69-1	Aroclor-1254	33	U
11096-82-5	Aroclor-1260	29	J

FORM 1 PEST

12/88 Rev.

1D
PESTICIDE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

RC03-01-0005 03

Lab Name: Lionville Labs, Inc. Work Order: 02744064001

Client: LANL REQ #9432R

Matrix: SOIL

Lab Sample ID: 0107L423-005

Sample wt/vol: 30.9 (g/mL) G

Lab File ID: 08210135.35

Level: (low/med) LOW

Date Received: 07/27/01

% Moisture: not dec. 0 dec.

Date Extracted: 08/02/01

Extraction: (SepF/Cont/Sonc) SONC

Date Analyzed: 08/22/01

GPC Cleanup: (Y/N) N pH: 7.0

Dilution Factor: 5.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	
12674-11-2	Aroclor-1016	160	U
11104-28-2	Aroclor-1221	320	U
11141-16-5	Aroclor-1232	160	U
53469-21-9	Aroclor-1242	160	U
12672-29-6	Aroclor-1248	160	U
11097-69-1	Aroclor-1254	160	U
11096-82-5	Aroclor-1260	280	

FORM 1 PEST

12/88 Rev.

1D
PESTICIDE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

RC03-01-0006 03

Lab Name: Lionville Labs, Inc. Work Order: 02744064001

Client: LANL REQ #9432R

Matrix: SOIL

Lab Sample ID: 0107L423-006

Sample wt/vol: 30.2 (g/mL) G

Lab File ID: 08210135.36

Level: (low/med) LOW

Date Received: 07/27/01

% Moisture: not dec. 7 dec.

Date Extracted: 08/02/01

Extraction: (SepF/Cont/Sonc) SONC

Date Analyzed: 08/22/01

GPC Cleanup: (Y/N) N pH: 7.0

Dilution Factor: 1.00

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NO.	COMPOUND		
12674-11-2------	Aroclor-1016	36	U
11104-28-2------	Aroclor-1221	71	U
11141-16-5------	Aroclor-1232	36	U
53469-21-9------	Aroclor-1242	36	U
12672-29-6------	Aroclor-1248	36	U
11097-69-1------	Aroclor-1254	36	U
11096-82-5------	Aroclor-1260	140	J+P3

FORM 1 PEST

12/88 Rev.

1D
PESTICIDE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

RC03-01-0007 03

Lab Name: Lionville Labs, Inc. Work Order: 02744064001

Client: LANL REQ #9432R

Matrix: SOIL

Lab Sample ID: 0107L423-008

Sample wt/vol: 30.4 (g/mL) G

Lab File ID: 08210135.37

Level: (low/med) LOW

Date Received: 07/27/01

% Moisture: not dec. 6 dec.

Date Extracted: 08/02/01

Extraction: (SepF/Cont/Sonc) SONC

Date Analyzed: 08/22/01

GPC Cleanup: (Y/N) N pH: 7.0

Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	
12674-11-2	Aroclor-1016	35	U
11104-28-2	Aroclor-1221	70	U
11141-16-5	Aroclor-1232	35	U
53469-21-9	Aroclor-1242	35	U
12672-29-6	Aroclor-1248	35	U
11097-69-1	Aroclor-1254	35	U
11096-82-5	Aroclor-1260	55	

FORM 1 PEST

12/88 Rev.

1D
PESTICIDE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

RC03-01-0008 03

Lab Name: Lionville Labs, Inc. Work Order: 02744064001

Client: LANL REQ #9432R

Matrix: SOIL

Lab Sample ID: 0107L423-010

Sample wt/vol: 30.3 (g/mL) G

Lab File ID: 08210135.38

Level: (low/med) LOW

Date Received: 07/27/01

% Moisture: not dec. 7 dec.

Date Extracted: 08/02/01

Extraction: (SepF/Cont/Sonc) SONC

Date Analyzed: 08/22/01

GPC Cleanup: (Y/N) N pH: 7.0

Dilution Factor: 1.00

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG

CAS NO.	COMPOUND		
12674-11-2	Aroclor-1016	36	U
11104-28-2	Aroclor-1221	71	U
11141-16-5	Aroclor-1232	36	U
53469-21-9	Aroclor-1242	36	U
12672-29-6	Aroclor-1248	36	U
11097-69-1	Aroclor-1254	36	U
11096-82-5	Aroclor-1260	36	U

FORM 1 PEST

12/88 Rev.

1D
PESTICIDE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

RC03-01-0009 03

Lab Name: Lionville Labs, Inc. Work Order: 02744064001

Client: LANL REQ #9432R

Matrix: SOIL

Lab Sample ID: 0107L423-012

Sample wt/vol: 30.1 (g/mL) G

Lab File ID: 08210135.41

Level: (low/med) LOW

Date Received: 07/27/01

% Moisture: not dec. 5 dec.

Date Extracted: 08/02/01

Extraction: (SepF/Cont/Sonc) SONC

Date Analyzed: 08/23/01

GPC Cleanup: (Y/N) N pH: 7.0

Dilution Factor: 1.00

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NO.	COMPOUND			
12674-11-2	Aroclor-1016	35	U	UJP3C
11104-28-2	Aroclor-1221	70	U	
11141-16-5	Aroclor-1232	35	U	
53469-21-9	Aroclor-1242	35	U	
12672-29-6	Aroclor-1248	35	U	
11097-69-1	Aroclor-1254	35	U	
11096-82-5	Aroclor-1260	35	U	

Flagged all..

FORM 1 PEST 12/88 Rev.

1D
PESTICIDE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

RC03-01-0010 03

Lab Name: Lionville Labs, Inc. Work Order: 02744064001

Client: LANL REQ #9432R

Matrix: SOIL

Lab Sample ID: 0107L423-014

Sample wt/vol: 30.2 (g/mL) G

Lab File ID: 08210135.42

Level: (low/med) LOW

Date Received: 07/27/01

% Moisture: not dec. 6 dec.

Date Extracted: 08/02/01

Extraction: (SepF/Cont/Sonc) SONC

Date Analyzed: 08/23/01

GPC Cleanup: (Y/N) N pH: 7.0

Dilution Factor: 1.00

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NO.	COMPOUND		
12674-11-2------	Aroclor-1016	35	U
11104-28-2------	Aroclor-1221	71	U
11141-16-5------	Aroclor-1232	35	U
53469-21-9------	Aroclor-1242	35	U
12672-29-6------	Aroclor-1248	35	U
11097-69-1------	Aroclor-1254	35	U
11096-82-5------	Aroclor-1260	32	J

FORM 1 PEST

12/88 Rev.

8H

PESTICIDE ANALYSIS SEQUENCE

Lab Name: Lionville Labs, Inc. Contract: 02744-064-001-9999-00

Client: LANL REQ #9432R GC Sample ID: 08060135

Instrument ID: 35 GC Column ID: DB608

Dates of Analyses: 08/06/01 to 08/07/01

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED
01	ZZZZZ	AR1660 2801 A	08/06/01	1813
02	ZZZZZ	AR1660 2802 B	08/06/01	1901
03	ZZZZZ	AR1660 2803 C	08/06/01	1949
04	ZZZZZ	AR1660 2804 D	08/06/01	2037
05	ZZZZZ	AR1660 2805 E	08/06/01	2125
06	ZZZZZ	AR1221 1108	08/06/01	2213
07	ZZZZZ	AR1232 1205	08/06/01	2301
08	ZZZZZ	AR1242 1304	08/06/01	2349
09	ZZZZZ	AR1248 1101	08/07/01	0037
10	ZZZZZ	AR1254 9403 C	08/07/01	0125

FORM VIII PEST

8H

PESTICIDE ANALYSIS SEQUENCE

Lab Name: Lionville Labs, Inc. Contract: 02744-064-001-9999-00

Client: LANL REQ #9432R GC Sample ID: 08060136

Instrument ID: 36 GC Column ID: RTX1701

Dates of Analyses: 08/06/01 to 08/07/01

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED
01	ZZZZZ	AR1660 2801 A	08/06/01	1813
02	ZZZZZ	AR1660 2802 B	08/06/01	1901
03	ZZZZZ	AR1660 2803 C	08/06/01	1949
04	ZZZZZ	AR1660 2804 D	08/06/01	2037
05	ZZZZZ	AR1660 2805 E	08/06/01	2125
06	ZZZZZ	AR1221 1108	08/06/01	2213
07	ZZZZZ	AR1232 1205	08/06/01	2301
08	ZZZZZ	AR1242 1304	08/06/01	2349
09	ZZZZZ	AR1248 1101	08/07/01	0037
10	ZZZZZ	AR1254 9403 C	08/07/01	0125

FORM VIII PEST

8H

PESTICIDE ANALYSIS SEQUENCE

Lab Name: Lionville Labs, Inc. Contract: 02744-064-001-9999-00

Client: LANL REQ #9432R GC Sample ID: 08180135

Instrument ID: 35 GC Column ID: DB608

Dates of Analyses: 08/18/01 to 08/20/01

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED
01	ZZZZZ	AR1660 2803 C	08/18/01	2008
02	ZZZZZ	AR1660 2803 C	08/19/01	2315
03	ZZZZZ	0108L477-001T	08/20/01	0003
04	ZZZZZ	0108L477-002	08/20/01	0051
05	ZZZZZ	0108L535-003	08/20/01	0139
06	ZZZZZ	0108L535-004	08/20/01	0227
07	PBLKMWLE0920	01LE0920-MB1	08/20/01	0315
08	PBLKMWLE0920 MS	01LE0920-MB1S	08/20/01	0402
09	RC03-01-0001 03	0107L423-001	08/20/01	0450
10	RC03-01-0002 03	0107L423-002	08/20/01	0538
11	RC03-01-0003 03	0107L423-003	08/20/01	0626
12	RC03-01-0004 03	0107L423-004	08/20/01	0714
13	ZZZZZ	HEXANE	08/20/01	0802
14	ZZZZZ	AR1660 2803 C	08/20/01	0849

FORM VIII PEST

8H

PESTICIDE ANALYSIS SEQUENCE

Lab Name: Lionville Labs, Inc. Contract: 02744-064-001-9999-00

Client: LANL REQ #9432R GC Sample ID: 08180136

Instrument ID: 36 GC Column ID: RTX1701

Dates of Analyses: 08/18/01 to 08/20/01

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED
01	ZZZZZ	AR1660 2803 C	08/18/01	2008
02	ZZZZZ	AR1660 2803 C	08/19/01	2315
03	ZZZZZ	0108L477-001T	08/20/01	0003
04	ZZZZZ	0108L477-002	08/20/01	0051
05	ZZZZZ	0108L535-003	08/20/01	0139
06	ZZZZZ	0108L535-004	08/20/01	0227
07	PBLKMWLE0920	01LE0920-MB1	08/20/01	0315
08	PBLKMWLE0920 MS	01LE0920-MB1S	08/20/01	0402
09	RC03-01-0001 03	0107L423-001	08/20/01	0450
10	RC03-01-0002 03	0107L423-002	08/20/01	0538
11	RC03-01-0003 03	0107L423-003	08/20/01	0626
12	RC03-01-0004 03	0107L423-004	08/20/01	0714
13	ZZZZZ	HEXANE	08/20/01	0802
14	ZZZZZ	AR1660 2803 C	08/20/01	0849

FORM VIII PEST

8H

PESTICIDE ANALYSIS SEQUENCE

Lab Name: Lionville Labs, Inc. Contract: 02744-064-001-9999-00

Client: LANL REQ #9432R GC Sample ID: 08210135

Instrument ID: 35 GC Column ID: DB608

Dates of Analyses: 08/21/01 to 08/23/01

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED
01	ZZZZZ	AR1660 2801 A	08/21/01	1923
02	ZZZZZ	AR1660 2802 B	08/21/01	2011
03	ZZZZZ	AR1660 2803 C	08/21/01	2059
04	ZZZZZ	AR1660 2804 D	08/21/01	2147
05	ZZZZZ	AR1660 2805 E	08/21/01	2235
06	ZZZZZ	AR1221 1108	08/21/01	2323
07	ZZZZZ	AR1232 1205	08/22/01	0011
08	ZZZZZ	AR1242 1304	08/22/01	0059
09	ZZZZZ	AR1248 1101	08/22/01	0146
10	ZZZZZ	AR1254 9403 C	08/22/01	0234
11	ZZZZZ	AR1660 2803 C	08/22/01	1431
12	ZZZZZ	0107L401-012	08/22/01	1519
13	ZZZZZ	0107L401-013	08/22/01	1608
14	ZZZZZ	0107L401-014	08/22/01	1655
15	RC03-01-0001 03	0107L423-001	08/22/01	1743
16	RC03-01-0003 03	0107L423-003	08/22/01	1831
17	RC03-01-0004 03	0107L423-004	08/22/01	1919
18	RC03-01-0005 03	0107L423-005	08/22/01	2007
19	RC03-01-0006 03	0107L423-006	08/22/01	2055
20	RC03-01-0007 03	0107L423-008	08/22/01	2143
21	RC03-01-0008 03	0107L423-010	08/22/01	2231
22	ZZZZZ	HEXANE	08/22/01	2319
23	ZZZZZ	AR1660 2803 C	08/23/01	0006
24	RC03-01-0009 03	0107L423-012	08/23/01	0054
25	RC03-01-0010 03	0107L423-014	08/23/01	0142
26	RC03-01-0010 03MS	0107L423-014S	08/23/01	0230
27	RC03-01-0010 03MSD	0107L423-014T	08/23/01	0318
28	ZZZZZ	0107L436-001	08/23/01	0406
29	ZZZZZ	0107L436-002	08/23/01	0454
30	ZZZZZ	0107L436-003	08/23/01	0542
31	ZZZZZ	HEXANE	08/23/01	0630
32	ZZZZZ	AR1660 2803 C	08/23/01	0718

8H

PESTICIDE ANALYSIS SEQUENCE

Lab Name: Lionville Labs, Inc. Contract: 02744-064-001-9999-00

Client: LANL REQ #9432R GC Sample ID: 08210136

Instrument ID: 36 GC Column ID: RTX1701

Dates of Analyses: 08/21/01 to 08/23/01

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED
01	ZZZZZ	AR1660 2801 A	08/21/01	1923
02	ZZZZZ	AR1660 2802 B	08/21/01	2011
03	ZZZZZ	AR1660 2803 C	08/21/01	2059
04	ZZZZZ	AR1660 2804 D	08/21/01	2147
05	ZZZZZ	AR1660 2805 E	08/21/01	2235
06	ZZZZZ	AR1221 1108	08/21/01	2323
07	ZZZZZ	AR1232 1205	08/22/01	0011
08	ZZZZZ	AR1242 1304	08/22/01	0059
09	ZZZZZ	AR1248 1101	08/22/01	0146
10	ZZZZZ	AR1254 9403 C	08/22/01	0234
11	ZZZZZ	AR1660 2803 C	08/22/01	1431
12	ZZZZZ	0107L401-012	08/22/01	1519
13	ZZZZZ	0107L401-013	08/22/01	1608
14	ZZZZZ	0107L401-014	08/22/01	1655
15	RC03-01-0001 03	0107L423-001	08/22/01	1743
16	RC03-01-0003 03	0107L423-003	08/22/01	1831
17	RC03-01-0004 03	0107L423-004	08/22/01	1919
18	RC03-01-0005 03	0107L423-005	08/22/01	2007
19	RC03-01-0006 03	0107L423-006	08/22/01	2055
20	RC03-01-0007 03	0107L423-008	08/22/01	2143
21	RC03-01-0008 03	0107L423-010	08/22/01	2231
22	ZZZZZ	HEXANE	08/22/01	2319
23	ZZZZZ	AR1660 2803 C	08/23/01	0006
24	RC03-01-0009 03	0107L423-012	08/23/01	0054
25	RC03-01-0010 03	0107L423-014	08/23/01	0142
26	RC03-01-0010 03MS	0107L423-014S	08/23/01	0230
27	RC03-01-0010 03MSD	0107L423-014T	08/23/01	0318
28	ZZZZZ	0107L436-001	08/23/01	0406
29	ZZZZZ	0107L436-002	08/23/01	0454
30	ZZZZZ	0107L436-003	08/23/01	0542
31	ZZZZZ	HEXANE	08/23/01	0630
32	ZZZZZ	AR1660 2803 C	08/23/01	0718

Flood rule

FORM VIII PEST

CALIBRATION VERIFICATION SUMMARY

Lab Name: Lionville Labs, Inc. Contract: NONE

Client: LAB GC Sample ID: 08180135.04

RFW Lot No.: GC Column: DB608

Instrument ID: 35 DATE(S) OF INIT. CALIB FROM: 08/06/01 TO: 08/07/01 DATE OF ANALYSIS 08/18/01

Method: P3560 TIME OF ANALYSIS 2008

STANDARD ID: AR1660 2803 C

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	INITIAL RESP. FACT.	RT	CONTINUING RESP. FACT.	FL	%D
Aroclor-1016	11.75	11.68	11.82	85611	11.75	78550		- 8.2
Aroclor-1016	13.38	13.31	13.45	168309	13.38	155590		- 7.6
Aroclor-1016	14.91	14.84	14.98	213306	14.91	187720		- 12
Aroclor-1016	15.47	15.40	15.54	102062	15.47	90420		- 11
Aroclor-1016	17.26	17.18	17.32	93152	17.26	83450		- 10
Total				662440		595730		- 10
Aroclor-1260	21.63	21.56	21.70	228716	21.63	210730		- 7.9
Aroclor-1260	22.10	22.03	22.17	249376	22.10	229050		- 8.2
Aroclor-1260	23.75	23.68	23.82	167057	23.75	147580		- 12
Aroclor-1260	24.94	24.87	25.01	187462	24.94	162710		- 13
Aroclor-1260	25.56	25.49	25.63	333574	25.56	293950		- 12
Total				1166185		1044020		- 10
Toxaphene								
Toxaphene								
Toxaphene								
Toxaphene								
Toxaphene								
Total								

%D should not exceed 15%

Flagged 8/21/01

RFW 9/93 A

93

CALIBRATION VERIFICATION SUMMARY

Lab Name: Lionville Labs, Inc. Contract: NONE

Client: LAB GC Sample ID: 08180135.38

RFW Lot No.: GC Column: DB608

Instrument ID: 35 | DATE(S) OF INIT. CALIB FROM: 08/06/01 TO: 08/07/01 | DATE OF ANALYSIS 08/19/01 TIME OF ANALYSIS 2315 STANDARD ID: AR1660 2803 C

Method: P3560

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	INITIAL RESP. FACT.	RT	CONTINUING RESP. FACT.	FL	%D
Aroclor-1016	11.75	11.68	11.82	85611	11.77	76250		- 11
Aroclor-1016	13.38	13.31	13.45	168309	13.40	151550		- 10
Aroclor-1016	14.91	14.84	14.98	213306	14.94	182390		- 14
Aroclor-1016	15.47	15.40	15.54	102062	15.49	86410		- 15
Aroclor-1016	17.26	17.18	17.32	93152	17.28	81570		- 12
Total				662440		578170		- 13
Aroclor-1260	21.63	21.56	21.70	228716	21.66	211320		- 7.6
Aroclor-1260	22.10	22.03	22.17	249376	22.12	225650		- 9.5
Aroclor-1260	23.75	23.68	23.82	167057	23.78	149750		- 10
Aroclor-1260	24.94	24.87	25.01	187462	24.96	165160		- 12
Aroclor-1260	25.56	25.49	25.63	333574	25.58	298700		- 10
Total				1166185		1050580		- 9.9
Toxaphene								
Toxaphene								
Toxaphene								
Toxaphene								
Toxaphene								
Total								

%D should not exceed 15%

Fleyce 8/20/01

RFW 9/93 A

CALIBRATION VERIFICATION SUMMARY

Lab Name: Lionville Labs, Inc.

Contract: NONE

Client: LAB

GC Sample ID: 08180135.50

RFW Lot No.:

GC Column: DB608

Instrument ID: 35

Method: P3560

DATE(S) OF INIT. CALIB FROM: 08/06/01 TO: 08/07/01

DATE OF ANALYSIS 08/20/01
TIME OF ANALYSIS 0849
STANDARD ID: AR1660 2803 C

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	INITIAL RESP. FACT.	RT	CONTINUING RESP. FACT.	FL	%D
Aroclor-1016	11.75	11.68	11.82	85611	11.78	76600		- 11
Aroclor-1016	13.38	13.31	13.45	168309	13.41	149310		- 11
Aroclor-1016	14.91	14.84	14.98	213306	14.94	182300		- 15
Aroclor-1016	15.47	15.40	15.54	102062	15.50	85690	+	- 16
Aroclor-1016	17.26	17.18	17.32	93152	17.29	79800		- 14
Total				662440		573700		- 13
Aroclor-1260	21.63	21.56	21.70	228716	21.67	194500		- 15
Aroclor-1260	22.10	22.03	22.17	249376	22.13	211900		- 15
Aroclor-1260	23.75	23.68	23.82	167057	23.79	135860	+	- 19
Aroclor-1260	24.94	24.87	25.01	187462	24.97	150890	+	- 20
Aroclor-1260	25.56	25.49	25.63	333574	25.59	278790	+	- 16
Total				1166185		971940	+	- 17
Toxaphene								
Toxaphene								
Toxaphene								
Toxaphene								
Toxaphene								
Total								

%D should not exceed 15%

CALIBRATION VERIFICATION SUMMARY

Lab Name: Lionville Labs, Inc. Contract: _____

Client: _____ GC Sample ID: 08180136.04

RFW Lot No.: _____ GC Column: RTX-1701

Instrument ID: 36 | DATE(S) OF INIT. CALIB FROM: 08/06/01 TO: 08/07/01 | DATE OF ANALYSIS 08/18/01 TIME OF ANALYSIS 2008 STANDARD ID: AR1660 2803 C

Method: P3660

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	INITIAL RESP. FACT.	RT	CONTINUING RESP. FACT.	FL	%D
Aroclor-1016	9.79	9.72	9.86	42589	9.79	41940		- 1.5
Aroclor-1016	11.24	11.17	11.31	71454	11.24	69700		- 2.5
Aroclor-1016	12.85	12.78	12.92	99691	12.85	93310		- 6.4
Aroclor-1016	13.32	13.25	13.39	58336	13.32	54710		- 6.2
Aroclor-1016	14.95	14.88	15.02	48670	14.95	47080		- 3.3
Total				320740		306740		- 4.4
Aroclor-1260	19.26	19.19	19.33	117484	19.26	115750		- 1.5
Aroclor-1260	19.97	19.90	20.04	128538	19.97	126190		- 1.8
Aroclor-1260	21.47	21.40	21.54	90423	21.47	88420		- 2.2
Aroclor-1260	22.46	22.39	22.53	90442	22.46	87870		- 2.8
Aroclor-1260	23.30	23.23	23.37	174902	23.30	168170		- 3.8
Total				601789		586400		- 2.6
Toxaphene								
Toxaphene								
Toxaphene								
Toxaphene								
Toxaphene								
Toxaphene								
Total								

%D should not exceed 15%

CALIBRATION VERIFICATION SUMMARY

Lab Name: Lionville Labs, Inc.

Contract: _____

Client: _____

GC Sample ID: 08180136.38

RFW Lot No.: _____

GC Column: RTX-1701

Instrument ID: 36

Method: P3660

DATE(S) OF INIT. CALIB FROM: 08/06/01 TO: 08/07/01

DATE OF ANALYSIS 08/19/01
TIME OF ANALYSIS 2315
STANDARD ID: AR1660 2803 C

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	INITIAL RESP. FACT.	RT	CONTINUING RESP. FACT.	FL	%D
Aroclor-1016	9.79	9.72	9.86	42589	9.81	39500		- 7.3
Aroclor-1016	11.24	11.17	11.31	71454	11.26	67380		- 5.7
Aroclor-1016	12.85	12.78	12.92	99691	12.87	88330		- 11
Aroclor-1016	13.32	13.25	13.39	58336	13.34	51990		- 11
Aroclor-1016	14.95	14.88	15.02	48670	14.97	45630		- 6.2
Total				320740		292830		- 8.7
Aroclor-1260	19.26	19.19	19.33	117484	19.28	114680		- 2.4
Aroclor-1260	19.97	19.90	20.04	128538	19.99	123050		- 4.3
Aroclor-1260	21.47	21.40	21.54	90423	21.49	87330		- 3.4
Aroclor-1260	22.46	22.39	22.53	90442	22.48	86650		- 4.2
Aroclor-1260	23.30	23.23	23.37	174902	23.32	164270		- 6.1
Total				601789		575980		- 4.3
Toxaphene								
Toxaphene								
Toxaphene								
Toxaphene								
Toxaphene								
Total								

%D should not exceed 15%

CALIBRATION VERIFICATION SUMMARY

Lab Name: Lionville Labs, Inc.

Contract: _____

Client: _____

GC Sample ID: 08180136.50

RFW Lot No.: _____

GC Column: RTX-1701

Instrument ID: 36

Method: P3660

DATE(S) OF INIT. CALIB FROM: 08/06/01 TO: 08/07/01

DATE OF ANALYSIS 08/20/01
TIME OF ANALYSIS 0849
STANDARD ID: AR1660 2803 C

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	INITIAL RESP. FACT.	RT	CONTINUING RESP. FACT.	FL	%D
Aroclor-1016	9.79	9.72	9.86	42589	9.81	40990		- 3.8
Aroclor-1016	11.24	11.17	11.31	71454	11.27	69630		- 2.6
Aroclor-1016	12.85	12.78	12.92	99691	12.88	92800		- 6.9
Aroclor-1016	13.32	13.25	13.39	58336	13.35	54380		- 6.8
Aroclor-1016	14.95	14.88	15.02	48670	14.98	46910		- 3.6
Total				320740		304710		- 5.0
Aroclor-1260	19.26	19.19	19.33	117484	19.29	114580		- 2.5
Aroclor-1260	19.97	19.90	20.04	128538	20.00	127260		- 1
Aroclor-1260	21.47	21.40	21.54	90423	21.50	86080		- 4.8
Aroclor-1260	22.46	22.39	22.53	90442	22.49	84820		- 6.2
Aroclor-1260	23.30	23.23	23.37	174902	23.33	165910		- 5.1
Total				601789		578650		- 3.8
Toxaphene								
Toxaphene								
Toxaphene								
Toxaphene								
Toxaphene								
Total								

%D should not exceed 15%

Flagged 8/21/01

RFW 9/93 A

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CALIBRATION VERIFICATION SUMMARY

Lab Name: Lionville Labs, Inc. Contract: NONE

Client: LAB GC Sample ID: 08210135.28

RFW Lot No.: GC Column: DB608

Instrument ID: 35 | DATE(S) OF INIT. CALIB FROM: 08/21/01 TO: 08/21/01 | DATE OF ANALYSIS 08/22/01 TIME OF ANALYSIS 1431 STANDARD ID: AR1660 2803 C

Method: P3560

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	INITIAL RESP. FACT.	RT	CONTINUING RESP. FACT.	FL	%D
Aroclor-1016	11.80	11.73	11.87	76017	11.83	81570		7.3
Aroclor-1016	13.44	13.37	13.51	153525	13.46	159120		3.6
Aroclor-1016	14.97	14.90	15.04	196658	15.00	202960		3.2
Aroclor-1016	15.52	15.45	15.59	92387	15.55	96300		4.2
Aroclor-1016	17.31	17.24	17.38	85660	17.34	87890		2.6
Total				604247		627840		3.9
~~Aroclor-1260~~	~~21.69~~	~~21.62~~	~~21.76~~	~~214192~~	~~21.72~~	~~198400~~	~~-~~	~~7.4~~
Aroclor-1260	22.16	22.09	22.23	230284	22.19	222980	-	3.2
Aroclor-1260	23.61	23.54	23.68	145056	23.64	142370	-	1.9
Aroclor-1260	25.00	24.93	25.07	162945	25.03	149760	-	8.1
Aroclor-1260	25.62	25.55	25.69	295714	25.65	288720	-	2.4
Total				1048191		1002230	-	4.4
Toxaphene								
Toxaphene								
Toxaphene								
Toxaphene								
Toxaphene								
Total								

%D should not exceed 15%

CALIBRATION VERIFICATION SUMMARY

Lab Name: Lionville Labs, Inc. Contract: NONE

Client: LAB GC Sample ID: 08210135.40

RFW Lot No.: GC Column: DB608

Instrument ID: 35 DATE(S) OF INIT. CALIB FROM: 08/21/01 TO: 08/21/01 DATE OF ANALYSIS 08/23/01 TIME OF ANALYSIS 0006

Method: P3560 STANDARD ID: AR1660 2803 C

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	INITIAL RESP. FACT.	RT	CONTINUING RESP. FACT.	FL	%D
Aroclor-1016	11.80	11.73	11.87	76017	11.85	74180		- 2.4
Aroclor-1016	13.44	13.37	13.51	153525	13.48	141460		- 7.9
Aroclor-1016	14.97	14.90	15.04	196658	15.02	177420		- 9.8
Aroclor-1016	15.52	15.45	15.59	92387	15.58	81680		- 12
Aroclor-1016	17.31	17.24	17.38	85660	17.36	74050		- 14
Total				604247		548790		- 9.2
~~Aroclor-1260~~	~~21.69~~	~~21.62~~	~~21.76~~	~~214192~~	~~21.75~~	~~169950~~	~~*~~	~~- 21~~
Aroclor-1260	22.16	22.09	22.23	230284	22.22	192920	+	- 16
Aroclor-1260	23.61	23.54	23.68	145056	23.66	129760		- 11
Aroclor-1260	25.00	24.93	25.07	162945	25.06	131130	+	- 20
Aroclor-1260	25.62	25.55	25.69	295714	25.68	264730		- 10
Total				1048191		888490		- 15
Toxaphene								
Toxaphene								
Toxaphene								
Toxaphene								
Toxaphene								
Total								

%D should not exceed 15%

Flag data

CALIBRATION VERIFICATION SUMMARY

Lab Name: Lionville Labs, Inc. Contract: NONE

Client: LAB GC Sample ID: 08210135.49

RFW Lot No.: GC Column: DB608

Instrument ID: 35 | DATE(S) OF INIT. CALIB FROM: 08/21/01 TO: 08/21/01 | DATE OF ANALYSIS 08/23/01 TIME OF ANALYSIS 0718

Method: P3560 | STANDARD ID: AR1660 2803 C

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	INITIAL RESP. FACT.	RT	CONTINUING RESP. FACT.	FL	%D
Aroclor-1016	11.80	11.73	11.87	76017	11.86	75930		- 0.1
Aroclor-1016	13.44	13.37	13.51	153525	13.49	147710		- 3.8
Aroclor-1016	14.97	14.90	15.04	196658	15.03	186080		- 5.4
Aroclor-1016	15.52	15.45	15.59	92387	15.58	86020		- 6.9
Aroclor-1016	17.31	17.24	17.38	85660	17.37	76850		- 10
Total				604247		572590		- 5.2
~~Aroclor-1260~~	~~21.69~~	~~21.62~~	~~21.76~~	~~214192~~	~~21.76~~	~~169380~~	~~*~~	~~- 21~~
Aroclor-1260	22.16	22.09	22.23	230284	22.22	188130	+	- 18
Aroclor-1260	23.61	23.54	23.68	145056	23.67	123540		- 15
Aroclor-1260	25.00	24.93	25.07	162945	25.06	128770	*	- 21
Aroclor-1260	25.62	25.55	25.69	295714	25.68	255600		- 14
Total				1048191		865420	+	- 17
Toxaphene								
Toxaphene								
Toxaphene								
Toxaphene								
Toxaphene								
Total								

%D should not exceed 15%

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CALIBRATION VERIFICATION SUMMARY

Lab Name: Lionville Labs, Inc. Contract: _____

Client: _____ GC Sample ID: 08210136.28

RFW Lot No.: _____ GC Column: RTX1701

Instrument ID: 36 DATE(S) OF INIT. CALIB FROM: 08/21/01 TO: 08/21/01 DATE OF ANALYSIS 08/22/01

Method: P3660 TIME OF ANALYSIS 1431

STANDARD ID: AR1660 2803 C

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	INITIAL RESP. FACT.	RT	CONTINUING RESP. FACT.	FL	%D
Aroclor-1016	9.83	9.76	9.90	38559	9.86	44030		14
Aroclor-1016	11.29	11.22	11.36	68440	11.31	73730		7.7
Aroclor-1016	12.90	12.83	12.97	92614	12.92	101550		9.6
Aroclor-1016	13.37	13.30	13.44	54515	13.39	60300		11
Aroclor-1016	15.00	14.93	15.07	47043	15.02	51810		10
Total				301171		331420		10
Aroclor-1260	19.31	19.24	19.38	115691	19.34	120510		4.2
Aroclor-1260	20.02	19.95	20.09	125167	20.05	135740		8.4
Aroclor-1260	21.52	21.45	21.59	87201	21.55	90450		3.7
Aroclor-1260	22.51	22.44	22.58	86952	22.54	88050		1.3
Aroclor-1260	23.35	23.28	23.42	164882	23.38	175110		6.2
Total				579893		609860		5.2
Toxaphene								
Toxaphene								
Toxaphene								
Toxaphene								
Toxaphene								
Total								

%D should not exceed 15%

Flyndrulo

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RFW 9/93 A

CALIBRATION VERIFICATION SUMMARY

Lab Name: Lionville Labs, Inc. Contract: _____

Client: _____ GC Sample ID: 08210136.40

RFW Lot No.: _____ GC Column: RTX1701

Instrument ID: 36 | DATE(S) OF INIT. CALIB FROM: 08/21/01 TO: 08/21/01 | DATE OF ANALYSIS 08/23/01 TIME OF ANALYSIS 0006 STANDARD ID: AR1660 2803 C

Method: P3660

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	INITIAL RESP. FACT.	RT	CONTINUING RESP. FACT.	FL	%D
Aroclor-1016	9.83	9.76	9.90	38559	9.88	41420		7.4
Aroclor-1016	11.29	11.22	11.36	68440	11.34	69840		2.0
Aroclor-1016	12.90	12.83	12.97	92614	12.95	96710		4.4
Aroclor-1016	13.37	13.30	13.44	54515	13.42	55820		2.4
Aroclor-1016	15.00	14.93	15.07	47043	15.05	47880		1.8
Total				301171		311670		3.5
Aroclor-1260	19.31	19.24	19.38	115691	19.37	107980		- 6.7
Aroclor-1260	20.02	19.95	20.09	125167	20.08	121680		- 2.8
Aroclor-1260	21.52	21.45	21.59	87201	21.58	79600		- 8.7
Aroclor-1260	22.51	22.44	22.58	86952	22.56	77030		- 11
Aroclor-1260	23.35	23.28	23.42	164882	23.41	158850		- 3.7
Total				579893		545140		- 6.0
Toxaphene								
Toxaphene								
Toxaphene								
Toxaphene								
Toxaphene								
Total								

%D should not exceed 15%

CALIBRATION VERIFICATION SUMMARY

Lab Name: Lionville Labs, Inc. Contract: _____

Client: _____ GC Sample ID: 08210136.49

RFW Lot No.: _____ GC Column: RTX1701

Instrument ID: 36 | DATE(S) OF INIT. CALIB FROM: 08/21/01 TO: 08/21/01 | DATE OF ANALYSIS 08/23/01 TIME OF ANALYSIS 0718

Method: P3660 | STANDARD ID: AR1660 2803 C

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	INITIAL RESP. FACT.	RT	CONTINUING RESP. FACT.	FL	%D
Aroclor-1016	9.83	9.76	9.90	38559	9.88	40490		5.0
Aroclor-1016	11.29	11.22	11.36	68440	11.34	68600		0.2
Aroclor-1016	12.90	12.83	12.97	92614	12.95	96480		4.2
Aroclor-1016	13.37	13.30	13.44	54515	13.43	54920		0.7
Aroclor-1016	15.00	14.93	15.07	47043	15.05	47730		1.5
Total				301171		308220		2.3
~~Aroclor-1260~~	~~19.31~~	~~19.24~~	~~19.38~~	~~115691~~	~~19.37~~	~~107010~~		~~- 7.5~~
Aroclor-1260	20.02	19.95	20.09	125167	20.08	119940		- 4.2
Aroclor-1260	21.52	21.45	21.59	87201	21.58	78070		- 10
Aroclor-1260	22.51	22.44	22.58	86952	22.57	75120		- 14
Aroclor-1260	23.35	23.28	23.42	164882	23.42	154150		- 6.5
Total				579893		534290		- 7.9
Toxaphene								
Toxaphene								
Toxaphene								
Toxaphene								
Toxaphene								
Total								

%D should not exceed 15%

Addendum

Multilevel Calibration Method Report

Calibration curve statistics are presented on the Multilevel Calibration Method reports. This report includes the type of calibration preformed, the file reference (i.e. 06209811.06) of the calibration standards used, the slope and intercept of the curve for each analyte, and the curve fit statistics. The column labeled as "CORR COEFF" presents the coefficient of determination (r^2) for each analyte. Our laboratory acceptance criteria are based on the correlation coefficient ® being at least 0.996. Therefore, the minimum acceptance value for "CORR COEFF" (r^2) on the Multilevel Calibration Method report is 0.992.

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Multilevel Calibration Method

calibrated using height
Lionville Laboratory, Incorporated

% RSD TCX

INJECTION #		PEAK HEIGHT	CONC. (ug/mL)	PEAK HT. / CONC	MEAN	DEV.	%RSD
08060135.05	LEVEL A	11887	0.04	297175			
08060135.06	LEVEL B	30969	0.1	309690			
08060135.07	LEVEL C	65924	0.2	329620	316009.1	13235.8811	4.18844936 ✓
08060135.08	LEVEL D	130795	0.4	326987.5			
08060135.09	LEVEL E	316573	1	316573			

% RSD DCB

INJECTION #		PEAK HEIGHT	CONC. (ug/mL)	PEAK HT. / CONC	MEAN	DEV.	%RSD
08060135.05	LEVEL A	10801	0.008	1350125			
08060135.06	LEVEL B	26129	0.02	1306450			
08060135.07	LEVEL C	50995	0.04	1274875	1252684.5	85574.3157	6.83127441 ✓
08060135.08	LEVEL D	95381	0.08	1192262.5			
08060135.09	LEVEL E	227942	0.2	1139710			

AR1016
$\bar{X}$ = 446084.1
σ_{n-1} = 44418.875
%RSD = 9.96%

AR1260
$\bar{X}$ = 823723.6
σ_{n-1} = 45305.379
%RSD = 5.50%

AR1254 (QC)
RF = 0.1790×10^{-5}

AR1260 (sample 002)
RF = 0.1187×10^{-5}

Multilevel Calibration Method

calibrated using height
Lionville Laboratory, Incorporated

% RSD TCX

INJECTION #		PEAK HEIGHT	CONC. (ug/mL)	PEAK HT. / CONC	MEAN	DEV.	%RSD
08060136.05	LEVEL A	5925	0.04	148125			
08060136.06	LEVEL B	15433	0.1	154330			
08060136.07	LEVEL C	33205	0.2	166025	163934.1	12945.8032	7.89695569 ✓
08060136.08	LEVEL D	68201	0.4	170502.5			
08060136.09	LEVEL E	180688	1	180688			

% RSD DCB

INJECTION #		PEAK HEIGHT	CONC. (ug/mL)	PEAK HT. / CONC	MEAN	DEV.	%RSD
08060136.05	LEVEL A	7312	0.008	914000			
08060136.06	LEVEL B	18232	0.02	911600			
08060136.07	LEVEL C	36156	0.04	903900	885265	36103.0539	4.07821996 ✓
08060136.08	LEVEL D	69294	0.08	866175			
08060136.09	LEVEL E	166130	0.2	830650			

AR1016
$\bar{X}$ = 223895.2
σ = 10742.46
%RSD = 4.80%

AR1260
$\bar{X}$ = 437478.7
σ = 9446.307
%RSD = 2.16%

AR1254 (QC)
RF = 0.3722×10^{-5}

AR1260 (sample 002)
RF = 0.2231×10^{-5}

1078/7/01

Multilevel Calibration Method

calibrated using height
Lionville Laboratory, Incorporated

% RSD TCX

INJECTION #		PEAK HEIGHT	CONC. (ug/mL)	PEAK HT. / CONC	MEAN	DEV.	%RSD
08210135.04	LEVEL A	10075	0.04	251875			
08210135.05	LEVEL B	27693	0.1	276930			
08210135.06	LEVEL C	55951	0.2	279755	273183.3	12205.9166	4.46803175
08210135.07	LEVEL D	112865	0.4	282162.5			
08210135.08	LEVEL E	275194	1	275194			

% RSD DCB

INJECTION #		PEAK HEIGHT	CONC. (ug/mL)	PEAK HT. / CONC	MEAN	DEV.	%RSD
08210135.04	LEVEL A	9654	0.008	1206750			
08210135.05	LEVEL B	23980	0.02	1199000			
08210135.06	LEVEL C	45787	0.04	1144675	1139389	69244.2185	6.07731148
08210135.07	LEVEL D	88582	0.08	1107275			
08210135.08	LEVEL E	207849	0.2	1039245			

AR1016
$\bar{x}$ = 413881.7
σ_{n-1} = 42653.4285
%RSD = 10.31%

AR1260
$\bar{x}$ = 748594.8
σ_{n-1} = 38340.7037
%RSD = 5.12%

AR1254 (MS, MSD)
RF = 0.2481×10^{-5}

AR1260 (samples: 001, 003-006, 008, 009, MS, MSD)
RF = 0.1690×10^{-5}

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Multilevel Calibration Method

calibrated using height
Lionville Laboratory, Incorporated

% RSD TCX

INJECTION #		PEAK HEIGHT	CONC. (ug/mL)	PEAK HT. / CONC	MEAN	DEV.	%RSD
08210136.04	LEVEL A	5060	0.04	126500			
08210136.05	LEVEL B	13625	0.1	136250			
08210136.06	LEVEL C	27228	0.2	136140	138459.1	8922.71016	6.44429305
08210136.07	LEVEL D	57151	0.4	142877.5			
08210136.08	LEVEL E	150528	1	150528			

% RSD DCB

INJECTION #		PEAK HEIGHT	CONC. (ug/mL)	PEAK HT. / CONC	MEAN	DEV.	%RSD
08210136.04	LEVEL A	6901	0.008	862625			
08210136.05	LEVEL B	17188	0.02	859400			
08210136.06	LEVEL C	33150	0.04	828750	826190.5	37597.3114	4.5506831
08210136.07	LEVEL D	64605	0.08	807562.5			
08210136.08	LEVEL E	154523	0.2	772615			

AR1016
$\bar{x}$ = 215652.1
σ = 15758.5065
%RSD = 7.31%

AR1260
$\bar{x}$ = 428379
σ = 15469.5723
%RSD = 3.61%

AR1260 (samples: 001, 003-006, 008, ~~012~~, 014, MS, MSD) Shukla MK

AR1254 (MS, MSD)
RF = 0.5751×10^{-5}

RF = 0.3074×10^{-5}

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MULTI-COMPONENT STANDARD CONCENTRATIONS

COMPOUND	ID #	CONC (ng/ul)
TOXAPHENE	80481005	0.5
AROCLOR 1016	80480704; 0705	0.1
AROCLOR 1221	80481106	0.2
AROCLOR 1232	80481203	0.1
AROCLOR 1242	80481302	0.1
AROCLOR 1248	80481702	0.1
AROCLOR 1254	80480803	0.1
AROCLOR 1260	80480704; 0705	0.1

BREAKDOWN EVALUATION MIX CONCENTRATION

EVAL
80481504, 1506

COMPOUND	CONC (ng/ul)
ENDRIN	0.025
4,4'-DDT	0.05

Raw QC

1D
PESTICIDE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

RC03-01-0010 03MS

Lab Name: Lionville Labs, Inc. Work Order: 02744064001

Client: LANL REQ #9432R

Matrix: SOIL

Lab Sample ID: 0107L423-014 MS

Sample wt/vol: 30.0 (g/mL) G

Lab File ID: 08210135.43

Level: (low/med) LOW

Date Received: 07/27/01

% Moisture: not dec. 6 dec.

Date Extracted: 08/02/01

Extraction: (SepF/Cont/Sonc) SONC

Date Analyzed: 08/23/01

GPC Cleanup: (Y/N) N pH: 7.0

Dilution Factor: 1.00

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NO.	COMPOUND		
12674-11-2------	Aroclor-1016	36	U
11104-28-2------	Aroclor-1221	71	U
11141-16-5------	Aroclor-1232	36	U
53469-21-9------	Aroclor-1242	36	U
12672-29-6------	Aroclor-1248	36	U
11097-69-1------	Aroclor-1254		SP
11096-82-5------	Aroclor-1260	68	

SP: SPIKE COMPOUND

FORM 1 PEST

12/88 Rev.

1D
PESTICIDE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

RC03-01-0010 03MSD

Lab Name: Lionville Labs, Inc. Work Order: 02744064001

Client: LANL REQ #9432R

Matrix: SOIL

Lab Sample ID: 0107L423-014 MSD

Sample wt/vol: 30.0 (g/mL) G

Lab File ID: 08210135.44

Level: (low/med) LOW

Date Received: 07/27/01

% Moisture: not dec. 6 dec.

Date Extracted: 08/02/01

Extraction: (SepF/Cont/Sonc) SONC

Date Analyzed: 08/23/01

GPC Cleanup: (Y/N) N pH: 7.0

Dilution Factor: 1.00

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NO.	COMPOUND		
12674-11-2	Aroclor-1016	36	U
11104-28-2	Aroclor-1221	71	U
11141-16-5	Aroclor-1232	36	U
53469-21-9	Aroclor-1242	36	U
12672-29-6	Aroclor-1248	36	U
11097-69-1	Aroclor-1254		SP
11096-82-5	Aroclor-1260	54	

SP: SPIKE COMPOUND

FORM 1 PEST

12/88 Rev.

1D
PESTICIDE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

PBLKMW

Lab Name: Lionville Labs, Inc. Work Order: 02744064001

Client: LANL REQ #9432R

Matrix: SOIL

Lab Sample ID: 01LE0920-MB1

Sample wt/vol: 30.6 (g/mL) G

Lab File ID: 08180135.43

Level: (low/med) LOW

Date Received: 08/02/01

% Moisture: not dec. 0 dec.

Date Extracted: 08/02/01

Extraction: (SepF/Cont/Sonc) SONC

Date Analyzed: 08/20/01

GPC Cleanup: (Y/N) N pH: 7.0

Dilution Factor: 1.00

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NO.	COMPOUND		
12674-11-2------	Aroclor-1016	33	U
11104-28-2------	Aroclor-1221	65	U
11141-16-5------	Aroclor-1232	33	U
53469-21-9------	Aroclor-1242	33	U
12672-29-6------	Aroclor-1248	33	U
11097-69-1------	Aroclor-1254	33	U
11096-82-5------	Aroclor-1260	33	U

FORM 1 PEST

12/88 Rev.

1D
PESTICIDE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

PBLKMWMS

Lab Name: Lionville Labs, Inc. Work Order: 02744064001

Client: LANL REQ #9432R

Matrix: SOIL

Lab Sample ID: 01LE0920-MB1 BS

Sample wt/vol: 30.0 (g/mL) G

Lab File ID: 08180135.44

Level: (low/med) LOW

Date Received: 08/02/01

% Moisture: not dec. 0 dec.

Date Extracted: 08/02/01

Extraction: (SepF/Cont/Sonc) SONC

Date Analyzed: 08/20/01

GPC Cleanup: (Y/N) N pH: 7.0

Dilution Factor: 1.00

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NO.	COMPOUND		
12674-11-2------	Aroclor-1016	33	U
11104-28-2------	Aroclor-1221	67	U
11141-16-5------	Aroclor-1232	33	U
53469-21-9------	Aroclor-1242	33	U
12672-29-6------	Aroclor-1248	33	U
11097-69-1------	Aroclor-1254		SP
11096-82-5------	Aroclor-1260	33	U

SP: SPIKE COMPOUND

FORM 1 PEST

12/88 Rev.

Lionville Laboratory, Inc.
PCB ANALYTICAL DATA PACKAGE FOR
LANL REQ #9432R

DATE RECEIVED: 07/27/01

LVL LOT # :0107L423

CLIENT ID	LVL #	MTX	PREP #	COLLECTION	EXTR/PREP	ANALYSIS
RC03-01-0001 03	001	S	01LE0920	07/24/01	08/02/01	08/22/01
RC03-01-0002 03	002	S	01LE0920	07/24/01	08/02/01	08/20/01
RC03-01-0003 03	003	S	01LE0920	07/24/01	08/02/01	08/22/01
RC03-01-0004 03	004	S	01LE0920	07/24/01	08/02/01	08/22/01
RC03-01-0005 03	005	S	01LE0920	07/24/01	08/02/01	08/22/01
RC03-01-0006 03	006	S	01LE0920	07/24/01	08/02/01	08/22/01
RC03-01-0007 03	008	S	01LE0920	07/24/01	08/02/01	08/22/01
RC03-01-0008 03	010	S	01LE0920	07/24/01	08/02/01	08/22/01
RC03-01-0009 03	012	S	01LE0920	07/24/01	08/02/01	08/23/01
RC03-01-0010 03	014	S	01LE0920	07/24/01	08/02/01	08/23/01
RC03-01-0010 03	014 MS	S	01LE0920	07/24/01	08/02/01	08/23/01
RC03-01-0010 03	014 MSD	S	01LE0920	07/24/01	08/02/01	08/23/01

LAB QC:

PBLKMW	MB1	S	01LE0920	N/A	08/02/01	08/20/01
PBLKMW	MB1 BS	S	01LE0920	N/A	08/02/01	08/20/01

LIONVILLE LABORATORY INC.

Analytical Report

Client: LANL REQ.#9432R
LVL#: 0107L423
Subcontract #: 7791L0014-8S

W.O.#: 02744-064-001-9999-00
Date Received: 07-27-01

PCB

The set of samples consisted of ten (10) soil samples collected on 07-24-01.

The samples and their associated QC samples were extracted on 08-02-01 and analyzed according to Lionville Laboratory OPs based on SW846, 3rd Edition procedures on 08-20,22,23-01. The extraction procedure was based on method 3540 and the extracts were analyzed based on method 8082 for Aroclors only.

The following is a summary of the QC results accompanying the sample results and a description of any problems encountered during their analyses:

1. The cooler temperature has been recorded on the chain-of-custody.
2. All required holding times for extraction and analysis have been met.
3. The samples and their associated QC samples received a sulfuric acid and sulfur cleanup.
4. The method blank was below the reporting limits for all target compounds.
5. Two (2) of twenty-two (22) obtainable surrogate recoveries were outside acceptance criteria; however, the surrogate recovery criteria were met (i.e., no more than one per sample).
6. The blank spike recovery was within acceptance criteria.
7. The matrix spike recoveries were within acceptance criteria.
8. Samples RC03-01-0002 03, RC03-01-0003 03 and RC03-01-0005 03 required 5 to 10-fold dilution due to high concentration of target analytes. Reporting limits have been adjusted to reflect the necessary dilutions.
9. All initial calibrations associated with this data set were within acceptance criteria.
10. All continuing calibration standards analyzed prior to sample extracts were within acceptance criteria.
11. I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, except as detailed in this QC Report.

Iain Daniels
Deputy Laboratory Manager
Lionville Laboratory Incorporated

8/28/01
Date

pef&som\r:\group\data\pest\lanl\07L423.pcb

The results presented in this report relate only to the analytical testing and conditions of the samples at receipt and during storage. All pages of this report are integral parts of the analytical data. Therefore, this report should only be reproduced in its entirety of 354 pages.

2F

SOIL PESTICIDE SURROGATE RECOVERY

Lab Name: Lionville Labs, Inc. Contract: 2744-64-01

Case No.: LANL REQ #9432R

RFW Lot No.: 0107L423

	CLIENT SAMPLE NO.	S1 ( )#	OTHER
01	RC03-01-0001 03	50	47
02	RC03-01-0002 03	D	D
03	RC03-01-0003 03	D	D
04	RC03-01-0004 03	68	64
05	RC03-01-0005 03	D	D
06	RC03-01-0006 03	130 *	109
07	RC03-01-0007 03	98	80
08	RC03-01-0008 03	50	50
09	RC03-01-0009 03	28	23 *
10	RC03-01-0010 03	75	62
11	RC03-01-0010 03MS	105	84
12	RC03-01-0010 03MSD	80	67
13	PBLKMWLE0920-MB1	95	82
14	PBLKMWLE0920-MB1 BS	95	81

	ADVISORY QC LIMITS
S1 ( ) = Tetrachloro-m-xylene	(28-118)
S2 ( ) = Decachlorobiphenyl	(38-122)

Column to be used to flag recovery values
* Values outside of QC limits
D Surrogates diluted out

3F

SOIL PESTICIDE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Lionville Labs, Inc. Contract: 2744-64-01

Case No.: LANL REQ #9432R RFW Lot No.: 0107L423-014

MATRIX Spike - Sample No.: RC03-01-0010 03 Level:(low/med) LOW

COMPOUND	SPIKE ADDED UG/KG	SAMPLE CONCENTRATION UG/KG	MS CONCENTRATION UG/KG	MS % REC #	QC LIMITS REC
Aroclor-1254	133	0	120	90	30 -146

COMPOUND	SPIKE ADDED UG/KG	MSD CONCENTRATION UG/KG	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC
Aroclor-1254	133	102	76	16	50	30 -146

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

RPD: 0 out of 1 outside limits
Spike Recovery: 0 out of 2 outside limits

COMMENTS:

FORM III PEST-2 5/88 Rev.

3F

SOIL PESTICIDE MATRIX SPIKE RECOVERY

Lab Name: Lionville Labs, Inc. Contract: 2744-64-01

Case No.: LANL REQ #9432R RFW Lot No.: 0107L423

MATRIX Spike - Sample No.: PBLKMWLE0920-MB1 Level:(low/med) LOW

COMPOUND	SPIKE ADDED UG/KG	SAMPLE CONCENTRATION UG/KG	MS CONCENTRATION UG/KG	MS % REC #	QC LIMITS REC
Aroclor-1254	125	0	111	89	30 -146

Column to be used to flag recovery value with an asterisk
* Values outside of QC limits

Spike Recovery: 0 out of 1 outside limits

COMMENTS:

4C

PESTICIDE METHOD BLANK SUMMARY

Lab Name: Lionville Labs, Inc. Contract: 2744-64-01

Case No.: LANL REQ #9432R

Lab Sample ID: 01LE0920-MB1 Lab File ID: 08180135 .43

Matrix:(Soil/Water) SOIL Level:(low/med) LOW

Date Extracted: 08/02/01 Extraction:(SepF/Cont/Sonc) SONC

Date Analyzed (1): 08/20/01 Date Analyzed (2): 08/20/01

Time Analyzed (1): 0315 Time Analyzed (2): 0315

Instrument ID (1): 35 Instrument ID (2): 36

GC Column ID (1): B608 GC Column ID (2): RTX1701

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
01	RC03-01-0001 03	0107L423-001	08/22/01	08/22/01
02	RC03-01-0002 03	0107L423-002	08/20/01	08/20/01
03	RC03-01-0003 03	0107L423-003	08/22/01	08/22/01
04	RC03-01-0004 03	0107L423-004	08/22/01	08/22/01
05	RC03-01-0005 03	0107L423-005	08/22/01	08/22/01
06	RC03-01-0006 03	0107L423-006	08/22/01	08/22/01
07	RC03-01-0007 03	0107L423-008	08/22/01	08/22/01
08	RC03-01-0008 03	0107L423-010	08/22/01	08/22/01
09	RC03-01-0009 03	0107L423-012	08/23/01	08/23/01
10	RC03-01-0010 03	0107L423-014	08/23/01	08/23/01
11	RC03-01-0010 03MS	0107L423-014S	08/23/01	08/23/01
12	RC03-01-0010 03MSD	0107L423-014T	08/23/01	08/23/01
13	PBLKMWLE0920-MB1 BS	01LE0920-MB1S	08/20/01	08/20/01

COMMENTS:

Lionville Laboratory, Inc.

PCBs by GC

RFW Batch Number: 0107L423 Client: LANL REQ #9432R Work Order: 02744064001 Page: 1 Report Date: 08/24/01 12:05

Sample Information							
Cust ID:		RC03-01-0001 03	RC03-01-0002 03	RC03-01-0003 03	RC03-01-0004 03	RC03-01-0005 03	RC03-01-0006 03
RFW#:		001	002	003	004	005	006
Matrix:		SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
D.F.:		1.00	10.0	5.00	1.00	5.00	1.00
Units:		UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG
Surrogate:	Tetrachloro-m-xylene	50 %	D %	D %	68 %	D %	130 * %
	Decachlorobiphenyl	47 %	D %	D %	64 %	D %	109 %
		fl	fl	fl	fl	fl	fl
Aroclor-1016		33 U	330 U	170 U	33 U	160 U	36 U
Aroclor-1221		67 U	670 U	330 U	66 U	320 U	71 U
Aroclor-1232		33 U	330 U	170 U	33 U	160 U	36 U
Aroclor-1242		33 U	330 U	170 U	33 U	160 U	36 U
Aroclor-1248		33 U	330 U	170 U	33 U	160 U	36 U
Aroclor-1254		33 U	330 U	170 U	33 U	160 U	36 U
Aroclor-1260		48	630	330	29 J	280	140

Sample Information							
Cust ID:		RC03-01-0007 03	RC03-01-0008 03	RC03-01-0009 03	RC03-01-0010 03	RC03-01-0010 03	RC03-01-0010 03
RFW#:		008	010	012	014	014 MS	014 MSD
Matrix:		SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
D.F.:		1.00	1.00	1.00	1.00	1.00	1.00
Units:		UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG
Surrogate:	Tetrachloro-m-xylene	98 %	50 %	28 %	75 %	105 %	80 %
	Decachlorobiphenyl	80 %	50 %	23 * %	62 %	84 %	67 %
		fl	fl	fl	fl	fl	fl
Aroclor-1016		35 U	36 U	35 U	35 U	36 U	36 U
Aroclor-1221		70 U	71 U	70 U	71 U	71 U	71 U
Aroclor-1232		35 U	36 U	35 U	35 U	36 U	36 U
Aroclor-1242		35 U	36 U	35 U	35 U	36 U	36 U
Aroclor-1248		35 U	36 U	35 U	35 U	36 U	36 U
Aroclor-1254		35 U	36 U	35 U	35 U	36 U	36 U
Aroclor-1260		55	36 U	35 U	32 J	90 %	76 %
						68	54

U= Analyzed, not detected. J= Present below detection limit. B= Present in blank. NR= Not reported. NS= Not spiked. %= Percent recovery. D= Diluted out. I= Interference. NA= Not Applicable. *= Outside of EPA CLP QC

Lionville Laboratory, Inc.

PCBs by GC

RFW Batch Number: 0107L423 Client: LANL REQ #9432R Report Date: 08/24/01 12:05

Work Order: 02744064001 Page: 2

Sample Information	Cust ID:	PBLKMW	PBLKMW BS
	RFW#:	01LE0920-MB1	01LE0920-MB1
	Matrix:	SOIL	SOIL
	D.F.:	1.00	1.00
	Units:	UG/KG	UG/KG
Surrogate:	Tetrachloro-m-xylene	95 %	95 %
	Decachlorobiphenyl	82 %	81 %
Aroclor-1016		33 U	33 U
Aroclor-1221		65 U	67 U
Aroclor-1232		33 U	33 U
Aroclor-1242		33 U	33 U
Aroclor-1248		33 U	33 U
Aroclor-1254		33 U	89 %
Aroclor-1260		33 U	33 U

U= Analyzed, not detected. J= Present below detection limit. B= Present in blank. NR= Not reported. NS= Not spiked.
%= Percent recovery. D= Diluted out. I= Interference. NA= Not Applicable. *= Outside of EPA CLP QC

ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

RC03-01-0041 02

Lab Name: Lionville Labs, Inc. Work Order: 02744064001

Client: LANL REQ #9432R

Matrix: SOIL

Lab Sample ID: 0107L423-016

Sample wt/vol: 25.3 (g/mL) G

Lab File ID: BLK00PPB

Level: (low/med) LOW

Date Received: 07/27/01

% Moisture: not dec. 100

Date Analyzed: 08/08/01

Column: (pack/cap) CAP

Dilution Factor: 50.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) mg/kg	
68334-30-5	Diesel Range Organics	593	U
00-00-0000	Motor Oil	593	U

Negated

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ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

RC03-01-0042 02

Lab Name: Lionville Labs, Inc. Work Order: 02744064001

Client: LANL REQ #9432R

Matrix: SOIL

Lab Sample ID: 0107L423-017

Sample wt/vol: 25.2 (g/mL) G

Lab File ID: BLKOOPPB

Level: (low/med) LOW

Date Received: 07/27/01

% Moisture: not dec. 100

Date Analyzed: 08/08/01

Column: (pack/cap) CAP

Dilution Factor: 50.0

CONCENTRATION UNITS:
(ug/L or ug/Kg) mg/kg

CAS NO.	COMPOUND		
68334-30-5	Diesel Range Organics	595	U
00-00-0000	Motor Oil	595	U

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ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

RC03-01-0043 02

Lab Name: Lionville Labs, Inc. Work Order: 02744064001

Client: LANL REQ #9432R

Matrix: SOIL

Lab Sample ID: 0107L423-018

Sample wt/vol: 25.1 (g/mL) G

Lab File ID: BLKOOPPB

Level: (low/med) LOW

Date Received: 07/27/01

% Moisture: not dec. 100

Date Analyzed: 08/08/01

Column: (pack/cap) CAP

Dilution Factor: 50.0

CONCENTRATION UNITS:
(ug/L or ug/Kg) mg/kg

CAS NO.	COMPOUND		
68334-30-5	Diesel Range Organics	598	U
00-00-0000	Motor Oil	598	U

Yesterdala

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ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

RC03-01-0044 02

Lab Name: Lionville Labs, Inc. Work Order: 02744064001

Client: LANL REQ #9432R

Matrix: SOIL

Lab Sample ID: 0107L423-019

Sample wt/vol: 25.2 (g/mL) G

Lab File ID: BLK00PPB

Level: (low/med) LOW

Date Received: 07/27/01

% Moisture: not dec. 100

Date Analyzed: 08/08/01

Column: (pack/cap) CAP

Dilution Factor: 50.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) mg/kg	
68334-30-5	Diesel Range Organics	595	U
00-00-0000	Motor Oil	595	U

Flag/Qual

12/88 Rev.

LIONVILLE LABORATORY INC.

28 August 2001

Ms. Joylene Valdez
Los Alamos National Laboratory
TA-3, Building 271
DP. O1U MS-H865
Los Alamos, NM 87545

Ref: Subcontract No. 7791L0014-AA
Data Report for LVL Batch 0107L423
LANL Request No. 9432R

Dear Ms. Valdez:

Enclosed please find the EDD for 19 soil samples received 27 July 2001. These were analyzed for PCBs, VOAs and TPH DRO on a 30 day turnaround. The EDD is enclosed.

Please do not hesitate to contact me at (610) 280-3029 with any question you may have regarding either the hard copy or electronic report.

Very truly yours,

Lionville Laboratory Incorporated

Judith L. Stone
Senior Project Manager

Enclosure:

208 Welsh Pool Road • Exton, PA 19341-1313 • (610) 280-3000 • Fax (610) 280-3041

Tuesday, July 31, 2001

REQUEST NUMBER: 9432R

ANALYSIS TYPE: ORG

Los Alamos
NATIONAL LABORATORY

AMENDED

01074423

ATTN: Judy Stone
Lionville Laboratory Inc
208 Welsh Pool Rd
Lionville, pa 19341

Please analyze the enclosed samples according to the schedule indicated:

These samples are on:

SHIP DATE: 7/25/01
REPORT DUE: 8/27/01
TURN AROUND REQ'D: 30 day

LANL Request Number: 9432R
Per Agreement Number:
Project Cost Code: MR0R0001E000

RAD SCREENING: Not Required

COMMENTS: 03 - 1114 , GA; TPH BY DIESEL. AMENDED: ANALYSIS REMOVED FROM THIS REQUEST. 7/31/01 JV.

LANL ER SMO CONTACT: Joylene Valdez MS H865 5056659968

Signature: Joylene Valdez

ANALYSIS ORDER CODE	ANALYTE(S)	SAMPLE ID	CONT ID	SAMPLE MATRIX	DATE SAMPLED	COMMENTS
PCB		RC03-01-0001	03	D	7/24/1901	
PCB		RC03-01-0002	03	D	7/24/1901	
PCB		RC03-01-0003	03	D	7/24/1901	
PCB		RC03-01-0004	03	D	7/24/1901	
PCB		RC03-01-0005	03	D	7/24/1901	
PCB		RC03-01-0006	03	S	7/24/1901	
VOCECORE		RC03-01-0006	05	S	7/24/1901	
VOCECORE		RC03-01-0006	06	S	7/24/1901	
VOCECORE		RC03-01-0006	07	S	7/24/1901	
VOCECORE		RC03-01-0006	08	S	7/24/1901	
PCB		RC03-01-0007	03	S	7/24/1901	
VOCECORE		RC03-01-0007	05	S	7/24/1901	
VOCECORE		RC03-01-0007	06	S	7/24/1901	
VOCECORE		RC03-01-0007	07	S	7/24/1901	
VOCECORE		RC03-01-0007	08	S	7/24/1901	
PCB		RC03-01-0008	03	S	7/24/1901	
VOCECORE		RC03-01-0008	05	S	7/24/1901	
VOCECORE		RC03-01-0008	06	S	7/24/1901	
VOCECORE		RC03-01-0008	07	S	7/24/1901	
VOCECORE		RC03-01-0008	08	S	7/24/1901	
PCB		RC03-01-0009	03	S	7/24/1901	
VOCECORE		RC03-01-0009	05	S	7/24/1901	
VOCECORE		RC03-01-0009	06	S	7/24/1901	
VOCECORE		RC03-01-0009	07	S	7/24/1901	

ANALYSIS ORDER CODE	ANALYTE(S)	SAMPLE ID	CONT ID	SAMPLE MATRIX	DATE SAMPLED	COMMENTS
VOCECORE		RC03-01-0009	08	S	7/24/1901	
PCB		RC03-01-0010	03	S	7/24/1901	
VOCECORE		RC03-01-0010	04	S	7/24/1901	
VOCECORE		RC03-01-0010	05	S	7/24/1901	
VOCECORE		RC03-01-0010	06	S	7/24/1901	
VOCECORE		RC03-01-0010	07	S	7/24/1901	
TPH		RC03-01-0041	02	S	7/24/1901	
TPH		RC03-01-0042	02	S	7/24/1901	
TPH		RC03-01-0043	02	S	7/24/1901	
TPH		RC03-01-0044	02	S	7/24/1901	

Thursday, July 26, 2001

REQUEST NUMBER: 9432R
ANALYSIS TYPE: ORG

Los Alamos
NATIONAL LABORATORY

ATTN: Judy Stone
Lionville Laboratory Inc
208 Welsh Pool Rd
Lionville, pa 19341

Please analyze the enclosed samples according to the schedule indicated:

SHIP DATE: 7/25/01
REPORT DUE: 8/27/01
TURN AROUND REQ'D: 30 day

These samples are on:

LANL Request Number: 9432R
Per Agreement Number:
Project Cost Code: MR0R0001E000

RAD SCREENING: Not Required
COMMENTS: 03 - 1114 , GA; TPH BY DIESEL.

LANL ER SMO CONTACT: Joylene Valdez MS H865 5056659968
Signature:

ANALYSIS ORDER CODE	ANALYTE(S)	SAMPLE ID	CONT ID	SAMPLE MATRIX	DATE SAMPLED	COMMENTS
PCB		RC03-01-0001	03	D	7/24/1901	
PCB		RC03-01-0002	03	D	7/24/1901	
PCB		RC03-01-0003	03	D	7/24/1901	
PCB		RC03-01-0004	03	D	7/24/1901	
PCB		RC03-01-0005	03	D	7/24/1901	
PCB		RC03-01-0006	03	S	7/24/1901	
VOCECORE		RC03-01-0006	05	S	7/24/1901	
VOCECORE		RC03-01-0006	06	S	7/24/1901	
VOCECORE		RC03-01-0006	07	S	7/24/1901	
VOCECORE		RC03-01-0006	08	S	7/24/1901	
PCB		RC03-01-0007	03	S	7/24/1901	
VOCECORE		RC03-01-0007	05	S	7/24/1901	
VOCECORE		RC03-01-0007	06	S	7/24/1901	
VOCECORE		RC03-01-0007	07	S	7/24/1901	
VOCECORE		RC03-01-0007	08	S	7/24/1901	
PCB		RC03-01-0008	03	S	7/24/1901	
VOCECORE		RC03-01-0008	05	S	7/24/1901	
VOCECORE		RC03-01-0008	06	S	7/24/1901	
VOCECORE		RC03-01-0008	07	S	7/24/1901	
VOCECORE		RC03-01-0008	08	S	7/24/1901	
PCB		RC03-01-0009	03	S	7/24/1901	
VOCECORE		RC03-01-0009	05	S	7/24/1901	
VOCECORE		RC03-01-0009	06	S	7/24/1901	
VOCECORE		RC03-01-0009	07	S	7/24/1901	

ANALYSIS ORDER CODE	ANALYTE(S)	SAMPLE ID	CONT ID	SAMPLE MATRIX	DATE SAMPLED	COMMENTS
VOCECORE		RC03-01-0009	08	S	7/24/1901	
PCB		RC03-01-0010	03	S	7/24/1901	
VOCECORE		RC03-01-0010	04	S	7/24/1901	
VOCECORE		RC03-01-0010	05	S	7/24/1901	
VOCECORE		RC03-01-0010	06	S	7/24/1901	
VOCECORE		RC03-01-0010	07	S	7/24/1901	
TPH		RC03-01-0041	02	S	7/24/1901	
TPH		RC03-01-0042	02	S	7/24/1901	
TPH		RC03-01-0043	02	S	7/24/1901	
TPH		RC03-01-0044	02	S	7/24/1901	
TPH		RC03-01-0048	02	D	7/24/1901	not rec'd gh 7/27/01
TPH		RC03-01-0049	02	D	7/24/1901	

Final Page of REQUEST NUMBER 9432R Page 2

contacted Keith Greene -- we were not to receive these

Thursday, July 26, 2001

Los Alamos
NATIONAL LABORATORY

CHAIN OF CUSTODY DOCUMENT NUMBER: 9432RC

REQUEST NUMBER: 9432R

ANALYSIS TYPE: ORG

ATTN: Judy Stone
Lionville Laboratory Inc
208 Welsh Pool Rd
Lionville, pa 19341

SAMPLE ID	CONT ID	CONTAINER DESCRIPTION	ANALYSIS ORDER CODE	PRESERVATIVE	MATRIX
RC03-01-0001	03	125 ml Glass	PCB	Ice	D
RC03-01-0002	03	125 ml Glass	PCB	Ice	D
RC03-01-0003	03	125 ml Glass	PCB	Ice	D
RC03-01-0004	03	125 ml Glass	PCB	Ice	D
RC03-01-0005	03	125 ml Glass	PCB	Ice	D
RC03-01-0006	03	125 ml Glass	PCB	None	S
RC03-01-0006	05	125 ml Polyethylene	VOCECORE	Ice	S
RC03-01-0006	06	5 gm Encore Container-A	VOCECORE	Ice	S
RC03-01-0006	07	5 gm Encore Container-B	VOCECORE	Ice	S
RC03-01-0006	08	5 gm Encore Container-C	VOCECORE	Ice	S
RC03-01-0007	03	125 ml Glass	PCB	None	S
RC03-01-0007	05	125 ml Polyethylene	VOCECORE	Ice	S
RC03-01-0007	06	5 gm Encore Container-A	VOCECORE	Ice	S
RC03-01-0007	07	5 gm Encore Container-B	VOCECORE	Ice	S
RC03-01-0007	08	5 gm Encore Container-C	VOCECORE	Ice	S
RC03-01-0008	03	125 ml Glass	PCB	None	S
RC03-01-0008	05	125 ml Polyethylene	VOCECORE	Ice	S
RC03-01-0008	06	5 gm Encore Container-A	VOCECORE	Ice	S
RC03-01-0008	07	5 gm Encore Container-B	VOCECORE	Ice	S
RC03-01-0008	08	5 gm Encore Container-C	VOCECORE	Ice	S

Relinquished By:		Date	Time	Received By:		Date	Time
Marcia [illegible]		7/26/0	1410				
PRINTED NAME	SIGNATURE			PRINTED NAME	SIGNATURE		
FedEx		7-27-01	1015	Thoppil	Thoppil	7-27-01	1015
PRINTED NAME	SIGNATURE			PRINTED NAME	SIGNATURE		
PRINTED NAME	SIGNATURE			PRINTED NAME	SIGNATURE		

Received for DISPOSAL By:		Date	Time	Remarks:
PRINTED NAME	SIGNATURE			

Thursday, July 26, 2001

COC DOC NUMBER: 9432RC
REQUEST NUMBER: 9432R
Page 2

SAMPLE ID	CONT ID	CONTAINER DESCRIPTION	ANALYSIS ORDER CODE		
RC03-01-0009	03	125 ml Glass	PCB	None	S
RC03-01-0009	05	125 ml Polyethylene	VOCECORE	Ice	S
RC03-01-0009	06	5 gm Encore Container-A	VOCECORE	Ice	S
RC03-01-0009	07	5 gm Encore Container-B	VOCECORE	Ice	S
RC03-01-0009	08	5 gm Encore Container-C	VOCECORE	Ice	S
RC03-01-0010	03	125 ml Glass	PCB	None	S
RC03-01-0010	04	125 ml Polyethylene	VOCECORE	Ice	S
RC03-01-0010	05	5 gm Encore Container-A	VOCECORE	Ice	S
RC03-01-0010	06	5 gm Encore Container-B	VOCECORE	Ice	S
RC03-01-0010	07	5 gm Encore Container-C	VOCECORE	Ice	S
RC03-01-0041	02	125 ml Amber Glass	TPH	Ice	S
RC03-01-0042	02	125 ml Amber Glass	TPH	Ice	S
RC03-01-0043	02	125 ml Amber Glass	TPH	Ice	S
RC03-01-0044	02	125 ml Amber Glass	TPH	Ice	S
RC03-01-0048	02	125 mL Amber Glass	TPH	Ice	D
RC03-01-0049	02	125 mL Amber Glass	TPH	Ice	D

Final Page of CHAIN OF CUSTODY DOCUMENT FOR REQUEST NUMBER 9432R Page 2

Relinquished By:		Date	Time	Received By:		Date	Time
Maria Ol		7/26/01					
PRINTED NAME	SIGNATURE			PRINTED NAME	SIGNATURE		
FedEx		7-27-01	1015	TKopper	TKopper	7-27-01	1015
PRINTED NAME	SIGNATURE			PRINTED NAME	SIGNATURE		
PRINTED NAME	SIGNATURE			PRINTED NAME	SIGNATURE		

Received for DISPOSAL By:		Date	Time	Remarks:
PRINTED NAME	SIGNATURE			

Lionville Laboratories Inc.

COOLER RECEIPT FORM

LVLI COC Batch #: 01076423 Date Cooler Received: 7-27-01

Client/Project: LANL

A. Preliminary Examination Phase

Date Cooler Opened 7-27-01 Sample Receipt Custodian Signature: Carlos Hernandez

1. Did the cooler come with a shipping slip? (airbill, etc.) YES NO
If YES, enter carrier name & airbill # here: FedEx 4847 3250 0171
2. Were custody seals present on the outside of cooler? YES NO
3. Were custody seals unbroken & intact at the date & time of arrival? YES NO
4. Were samples screened for radioactivity? YES NO
5. Were custody papers sealed in a plastic bag and taped to the inside of the cooler lid? YES NO
6. Were COC papers filled out properly? (ink, signed, etc.) YES NO
7. Did the lab sample custodian sign the COC in the appropriate place? YES NO
8. Was the project identifiable from custody papers? If YES, enter at the top of this form. YES NO
9. If required, was enough ice used? YES NO
Type of ice: blue Cooler Temperature: 5°

B. Log-In Phase:

Date Samples Logged In: 7-27-01 By: (Signature): [signature]

10. Packing Description:
11. Were all bottles sealed in plastic bags? YES NO
12. Did all bottles arrive unbroken & were labels in good condition? YES NO
13. Were all bottle labels complete? (ID, date/time, preservative, etc.) YES NO
14. Did all bottle labels agree with COC? YES NO
15. Were correct containers used for the tests indicated? YES NO
16. Did the labels indicate the correct preservatives were added to samples? YES *NO*
17. Was the pH checked and any out of expected range documented? YES *NO*
18. Was a sufficient amount of sample sent for tests indicated? YES NO
19. Were bubbles present in volatile samples? If YES, list sample ID: YES NO

20. If discrepancies were noted, was the PM called? YES NO
21. PM notified: Date:

COMMENTS:

Missing 2- TPH bottles 48
RC03-01-CC~~01~~ 02
1 -0049 1

Missing 125 ml Poly bottles, instead rec'd an additional 5g encore

L-WI-001/W-07/99

GC FID SCAN:
COMPLETE SDG FILE (CSF) INVENTORY SHEET

LABORATORY NAME:	Recra LabNet Philadelphia
CITY/STATE:	Lionville, PA
RFW NO.:	0107L423
CLIENT NAME:	LANL Req 9432R
WORK ORDER NO.:	02722-064-001-9999-00
METHOD BASED ON:	EPA Method 8015B (1/95) by GC-FID

All documents in the Client's copy of the complete SDG file must be legible, clearly labeled, paginated, single-sided original documents; or of sufficient copy quality to be reproducible to fourth generation copies. (Purge file documents, e.g., original-copy chain-of-custody, etc. assembled per specific contract request only.)

		Page Nos		Check (initials/date)	
		From	To	Lab	Client
1	Cover Page (Lab Chron)	01	—	[illegible]	—
2	Table of Contents	02	—	8/27/01	—
3	Case Narrative	03	06	—	—
4	Shipping, Receiving, and Custody Records	07	14		
	• Lab Chain of Custody/Work Request			—	—
	• Client Custody Reports/Packing Lists			—	—
	• Sample Tags, if applicable			—	—
	• Airbills			—	—
5	GC Scan Sample Data/QC Summary	15	19		
	• Data Summary (LIMS Summary Report)			—	—
	• Surrogate %Recovery Summary (Form II)			—	—
	• MS/MSD Summary (Form III)			[illegible] 8/27/01	—
	• BS/BSD Summary (Form III)			—	—
	• Method Blank Summary (Form IV)			—	—
6	Sample Data, for each Sample:	20	28		
	• GC Scan Results (Form I)			[illegible] 8/27/01	—
	• Chromatograms/Quant Reports			—	—
7	Calibration Standard Data	29	44		
	Standards Data	—	—		
	• Initial Multi-Level Calibration (ICAL): Chromatograms/Quant Reports			—	—
	• Daily Calibration:			[illegible] 8/27/01	
	Initial: Chromatograms/Quant Reports			—	—
	Continuing: Chromatograms/Quant Reports			—	—
8	Raw QC Data: Blank, Blank Spike, Matrix Spike Data	45	49		
	Method Blank Data	—	—		
	• GC Scan Results (Form I)			[illegible] 8/27/01	—
	• Chromatograms/Quant Reports			—	—
	Blank Spike/Blank Spike Duplicate	—	—		
	• GC Scan Results (Form I)			[illegible] 8/27/01	—

		Page Nos		Check (initials/date)	
		From	To	Lab	Client
	• Chromatograms/Quant Reports			[illegible]	___
	Matrix Spike/Matrix Spike Duplicate	___	___		
	• GC Scan Results (Form I)			[illegible]	___
	• Chromatograms/Quant Reports				___
9	Analysis Run Logs	50	52	[illegible]	___
10	Standards Preparation Records	53	62		
	• Surrogate and Target Analyte Spike Solutions			BES/MLO	___
	• Analysis Standards			___	___
11	Preparation Logs	63	66		
	• Sample Prep Records (Extraction notebook pages)			BES/MLO	___
	• LIMS Extraction Record			BES/MLO	___
	• % Moisture and/or % Solids Records			___	___
12	Other/Miscellaneous	67	68		
				___	___
				___	___
				___	___

COMMENTS: _____

Checked by: (Laboratory) — Signature: [signature] — Printed Name/Title: Sam Bartholomew — Date: 8/27/01

Checked by: (Client) — Signature: _____ — Printed Name/Title: _____ — Date: _____

Lionville Laboratory, Inc.

DRO ANALYTICAL DATA PACKAGE FOR

LANL REQ #94322

DATE RECEIVED: 07/27/01 LVL LOT # :0107L423

CLIENT ID	LVL #	MTX	PREP #	COLLECTION	EXTR/PREP	ANALYSIS
RC03-01-0041 02	016	S	01LE0914	07/24/01	07/31/01	08/08/01
RC03-01-0042 02	017	S	01LE0914	07/24/01	07/31/01	08/08/01
RC03-01-0043 02	018	S	01LE0914	07/24/01	07/31/01	08/08/01
RC03-01-0044 02	019	S	01LE0914	07/24/01	07/31/01	08/08/01

LAB QC:

BLK	MB1	S	01LE0914	N/A	07/31/01	08/08/01
BLK	MB1 BS	S	01LE0914	N/A	07/31/01	08/08/01

Lionville Laboratory Sample Discrepancy Report (SDR)

SDR #: 016C344

Initiator: John Lach. Batch: 0108L423 Parameter: ODRO
Date: 8/24/01 Samples: All Matrix: Soil
Client: LANL Method: SW846/MCAWW/CLP/ Prep Batch: 01LE0914

1. Reason for SDR

a. COC Discrepancy __ Tech Profile Error __ Client Request __ Sampler Error on C-O-C __ Transcription Error __ Wrong Test Code __ Other _____

b. General Discrepancy

__ Missing Sample/Extract* __ Container Broken __ Wrong Sample Pulled __ Label ID's Illegible
__ Hold Time Exceeded __ Insufficient Sample* __ Preservation Wrong __ Received Past Hold
__ Improper Bottle Type __ Not Amenable to Analysis

Note*: Verified by [Log-In] or [Prep Group] (circle)...signature/date: _____

c. Problem (Include all relevant specific results; attach data if necessary)

Sample extracts are heavy, tarry black material. Sample extracts are not amenable to analysis at low dilutions

2. Known or Probable Causes(s) matrix.

3. Discussion and Proposed Action

__ Re-log
__ Entire Batch
__ Following Samples: _____
__ Re-leach
__ Re-extract
__ Re-digest
__ Revise EDD
__ Change Test Code to _____
__ Place On/Take Off Hold (circle)

Other Description: run at 50x dilution, adjust reporting limits

4. Project Manager Instructions...signature/date: JL 8/24/01

__ Concur with Proposed Action
__ Disagree with Proposed Action; See Instruction
✓ Include in Case Narrative
__ Client Contacted:
Date/Person _____
__ Add
__ Cancel

5. Final Action...signature/date: 8/24/01

Other Explanation:

__ Verified re-[log][leach][extract][digest][analysis] (circle)
✓ Included in Case Narrative
__ Hard Copy COC Revised
__ Electronic COC Revised
__ EDD Corrections Completed

When Final Action has been recorded, forward original to QA Specialist for distribution and filing.

Route	Distribution of Completed SDR	Route	Distribution of Completed SDR
__	X Initiator	__	__ Metals: Beegle
__	X Lab General Manager: M. Taylor	__	__ Inorganic: Perrone
__	X Project Mgr: Stone/Johnson/Haslett	__	__ GC/LC: Kiger
__	X Technical Mgr: Wesson/Daniels	__	__ MS: Rychlak/Layman
__	X QA (file): Alberts	__	__ Log-in: Keppel
__	__ Data Management: Feldman	__	__ Admin: Soos
__	__ Sample Prep: Beegle/Kiger	__	__ Other: _____

L-WI-006/E-01/01

Lionville Laboratory, Inc.

DIESEL RANGE ORGANICS BY GC

RFW Batch Number: **0107L423** Client: **LANL REQ #9432R** Work Order: 02744064001 Page: 1

Report Date: 08/23/01 06:06

Sample Information						
Cust ID:	RC03-01-0041 02	RC03-01-0042 02	RC03-01-0043 02	RC03-01-0044 02	BLK	BLK BS
RFW#:	016	017	018	019	01LE0914-MB1	01LE0914-MB1
Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
D.F.:	50.0	50.0	50.0	50.0	1.00	1.00
Units:	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
p-Terphenyl	D %	D %	D %	D %	69 %	78 %
Diesel Range Organics	593 U	595 U	598 U	595 U	12.0 U	79 %
Motor Oil	593 U	595 U	598 U	595 U	12.0 U	12.0 U

U= Analyzed, not detected. J= Present below detection limit. B= Present in blank. NR= Not reported. NS= Not spiked.
%= Percent recovery. D= Diluted out. I= Interference. NA= Not Applicable. *= Outside of EPA CLP QC

2B

SOIL VOLATILE SURROGATE RECOVERY

Lab Name: Lionville Labs, Inc. Contract: 2744-64-01

Case No.: LANL REQ #9432R

RFW Lot No.: 0107L423

	CLIENT SAMPLE NO.	S1 ( )#	S2 ( )#	S3 ( )#	OTHER	TOT OUT
01	RC03-01-0041 02	D				0
02	RC03-01-0042 02	D				0
03	RC03-01-0043 02	D				0
04	RC03-01-0044 02	D				0
05	BLKLE0914-MB1	69				0
06	BLKLE0914-MB1 BS	78				0

QC LIMITS
(35-130)

S1 ( ) = p-Terphenyl

Column to be used to flag recovery values
* Values outside of QC limits
D Surrogates diluted out

3B

SOIL VOLATILE BLANK SPIKE RECOVERY

Lab Name: Lionville Labs, Inc. Contract: 2744-64-01

Case No.: LANL REQ #9432R RFW Lot No.: 0107L423

BLANK Spike - Sample No.: BLKLE0914-MB1 Level:(low/med) LOW

COMPOUND	SPIKE ADDED (mg/kg)	SAMPLE CONCENTRATION (mg/kg)	BS CONCENTRATION (mg/kg)	BS % REC #	QC LIMITS REC
Diesel Range Organics	60.0	0	47.4	79	30 -130

Column to be used to flag recovery value with an asterisk
* Values outside of QC limits

Spike Recovery: 0 out of 1 outside limits

COMMENTS:

4A

VOLATILE METHOD BLANK SUMMARY

Lab Name: Lionville Labs, Inc. Contract: 2744-64-01

Case No.: LANL REQ #9432R

Lab File ID: RAW3:BLKOOPPB Lab Sample ID: 01LE0914-MB1

Date Analyzed: 08/08/01 Time Analyzed: 00

Matrix:(Soil/Water) SOIL Level:(low/med) LOW

Instrument ID: _____

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	CLIENT SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	RC03-01-0041 02	0107L423-016	08/08/01	
02	RC03-01-0042 02	0107L423-017	08/08/01	
03	RC03-01-0043 02	0107L423-018	08/08/01	
04	RC03-01-0044 02	0107L423-019	08/08/01	
05	BLKLE0914-MB1 BS	01LE0914-MB1S	08/08/01	

COMMENTS:

CALIBRATION VERIFICATION SUMMARY

Lab Name: Recra LabNet-Philadelphia

Contract:

Client:

GC Sample ID: 80701GC18icala . 5

RFW Lot ID:

Millennium Result ID: 3098

Instrument ID: GC 18

Processing Method: 073001GC18_ical

Initial Calibration Start Date: 7/30/01

Date of Analysis: 8/7/01

Time of Analysis: 1:31:03 PM

Standard ID: CCV 64888104 D

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	INITIAL RESPONSE	RT	CONT. RESPONSE	%D	FL
Diesel Fuel	17.65	17.48	17.83	712364	17.65	715828	0.5 ✓	
p-Terphenyl	24.78	24.54	25.03	8346	24.78	7003	-16.1 ✓	
Motor oil	27.79	27.51	28.07	244629	27.79	237086	-3.1 ✓	

LK 8-8-01

CALIBRATION VERIFICATION SUMMARY

Lab Name: Recra LabNet-Philadelphia

Contract:

Client:

GC Sample ID: 80701GC18icala .17

RFW Lot ID:

Millennium Result ID: 3099

Instrument ID: GC 18

Initial Calibration Start Date: 7/30/01

Date of Analysis: 8/8/01

Processing Method: 073001GC18_ical

Time of Analysis: 12:17:14 AM

Standard ID: CCV 64888104 D

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	INITIAL RESPONSE	RT	CONT. RESPONSE	%D	FL
Diesel Fuel	17.65	17.48	17.83	712364	15.63	732986	2.9 ✓	
p-Terphenyl	24.78	24.54	25.03	8346	24.72	8201	-1.7 ✓	
Motor oil	27.79	27.51	28.07	244629	27.74	229110	-6.3 ✓	

LK 8-8-01

CALIBRATION VERIFICATION SUMMARY

Lab Name: Recra LabNet-Philadelphia

Contract:

Client:

GC Sample ID: 80701GC18icala .29

RFW Lot ID:

Millennium Result ID: 3146

Instrument ID: GC 18

Initial Calibration Start Date: 7/30/01

Date of Analysis: 8/8/01

Processing Method: 073001GC18_ical

Time of Analysis: 11:03:15 AM

Standard ID: CCV 64888104 D

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	INITIAL RESPONSE	RT	CONT. RESPONSE	%D	FL
Diesel Fuel	15.63	15.47	15.78	712364	15.63	692060	-2.9 ✓	
p-Terphenyl	24.73	24.48	24.98	8346	24.73	6110	-26.8 ✓	+
Motor oil	27.74	27.46	28.02	244629	27.74	141880	-42.0 ✓	+

LK 8-8-01

ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

BLK

Lab Name: Lionville Labs, Inc. Work Order: 0274406#001

Client: LANL REQ #9432R

Matrix: SOIL

Lab Sample ID: 01LE0914-MB1

Sample wt/vol: 25.0 (g/mL) G

Lab File ID: BLK00PPB

Level: (low/med) LOW

Date Received: 07/31/01

% Moisture: not dec. 0

Date Analyzed: 08/08/01

Column: (pack/cap) CAP

Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) mg/kg	
68334-30-5	Diesel Range Organics	12.0	U
00-00-0000	Motor Oil	12.0	U

12/88 Rev.

ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

BLKMS

Lab Name: Lionville Labs, Inc. Work Order: 02744064001

Client: LANL REQ #9432R

Matrix: SOIL

Lab Sample ID: 01LE0914-MB1 BS

Sample wt/vol: 25.0 (g/mL) G

Lab File ID: BLKOOPPB

Level: (low/med) LOW

Date Received: 07/31/01

% Moisture: not dec. 0

Date Analyzed: 08/08/01

Column: (pack/cap) CAP

Dilution Factor: 1.00

CONCENTRATION UNITS:
(ug/L or ug/Kg) mg/kg

CAS NO.	COMPOUND		
68334-30-5	Diesel Range Organics	12.0	SP
00-00-0000	Motor Oil		U

Illegible

SP: SPIKE COMPOUND

12/88 Rev.

LIONVILLE LABORATORY INC.

Analytical Report

Client: LANL REQ. # 9432R
LVL#: 0107L423
Subcontract#: 7791L0014-AA

W.O #: 02744-064-001-9999-00
Date Received: 07-27-01

DIESEL RANGE ORGANICS

The set of samples consisted of four (4) soil samples collected on 07-24-2001.

The samples and their associated QC samples were prepared on 07-31-2001 and analyzed according to Lionville Laboratory OPs based on EPA Method 8015B for Diesel and Oil Range Petroleum Hydrocarbons on 08-08-2001.

1. The cooler temperature has been recorded on the chain-of-custody.

2. All required holding times for extraction and analysis have been met.

3. All obtainable surrogate recoveries were within acceptance criteria.

4. The blank spike recovery was within acceptance criteria.

5. All samples required a 50-fold instrument dilution due to the high concentrations of non-target analytes with in the sample matrix. Reporting limits have been adjusted to reflect the necessary dilutions. A copy of the Sample Discrepancy Report (SDR) has been enclosed.

6. All initial calibrations associated with this data set were within acceptance criteria.

7. All diesel continuing calibration standards analyzed prior to the sample extracts were within acceptance criteria.

8. I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, except as detailed in this QC Report.

Iain Daniels
Deputy Laboratory Manager
Lionville Laboratory Incorporated

8/27/01
Date

Som\R:\share\\gcpest\\narrtemp\LANL423DRO.DOC

The results presented in this report relate only to the analytical testing and conditions of the samples at receipt and during storage. All pages of this report are integral parts of the analytical data. Therefore, this report should only be reproduced in its entirety of 6 8 pages.

208 Welsh Pool Road • Exton, PA 19341-1313 • (610) 280-3000 • Fax (610) 280-3041

Volatile Organic Data Validation Checklist

Part I. Instrument Performance Checks and Calibrations

Criteria	Criterion true? (y, n, or n/a)	Action if "criterion true?" = no Assign qualifier ...	Actual time lapse
Was the instrument performance check completed on the same date as, or within 12 hours of, the corresponding sample analyses?	1a. yes	1b. **"A, SV16"** for all samples without acceptable calibration. In block 1c, record the actual time lapse.	1c. na
Was the initial calibration completed within 12 hours of completing the instrument performance check?	2a. YES	2b. **"A, SV16"** for all samples without acceptable calibration. In block 2c, record the actual time lapse.	2c. na
Was the continuing calibration check performed at the beginning of each 12-hour analysis period following the analysis of the instrument performance check and before the analysis of blanks and samples? **Attention:** A continuing calibration check is not required if all samples are analyzed within 12 hours of initial calibration—record "n/a" in blocks 3a and 3c.	3a. yes	3b. **"A, SV16"** for all samples without acceptable calibration. In block 3c, record the actual time lapse.	3c. na

Volatile Organic Data Validation Checklist

Part IIa. Method Blanks Validation Criteria

Criterion	Criterion true? (yes or no)	Action if "criterion true?" = no Assign qualifier ...	List affected matrices or batches.
Was a method blank analyzed for each sample matrix and/or 12-hour batch beginning with the BFB injection?	1a. YES	1b. **"A, V5a"** for any missing documentation. In block 1c, record all sample matrices and/or analytical batches that did not include a method blank.	1c. na

Part IIb. Method Blanks Validation Criteria (continued)

Criteria	Criterion true? (yes or no)	Action if "criterion true?" = yes Assign qualifier & reason code...	List detected blank analyte(s) and affected samples.	Analyte concentration (mg/kg)
Is a target analyte detected in both the method blank and sample **AND** is the sample result ≤ 5 times the method-blank concentration*?	2a. yes	2b. **"U, V4"** to the sample analyte(s) in question (in blocks 2c and 2d).	2c. see sheets	2d. na

* Replace "5 times" with "10 times" for laboratory contaminants acetone, 2-butanone, or methylene chloride.

Volatile Organic Data Validation Checklist

Part IIIa. Internal Standard (IS) Validation Criteria

Criteria	Criterion true? (yes/no)	Action if "criterion true?" = yes Assign qualifier & reason code...	List all noncompliant ISs, samples, retention times, & area counts.
Are any required IS retention times *not* reported?	1a. no	1b. **"A, V2a"** for any missing documentation. In block 1c, record • any ISs not reported and • all affected samples.	1c. na
Are any required IS area counts *not* reported?	2a. no	2b. **"A, V2a"** for any missing documentation. In block 2c, record • any ISs not reported and • all affected samples.	2c. na
Is any sample IS retention time >30 seconds different from previous continuing calibration?	3a. no	3b. **"PM, V0"** to all sample analytes quantitated against the IS in question.	3c. na
Are any sample IS area counts <10% of previous continuing calibration IS area counts?	4a. no	4b. **"RPM, V2"** to all detected sample analytes quantitated against the IS in question.	4c. na
Are any sample IS area counts >10% **AND** <50% of previous continuing calibration area counts?	5a. no	5b. **"JPM, V1"** to *detected* sample analytes quantitated against the IS in question. **"UJ, V1a"** to *nondetected* sample analytes quantitated against the IS in question.	5c. na
Is a target analyte detected in sample **AND** any sample IS area counts >200% of previous continuing calibration's IS area counts?	6a. no	6b. **"JPM, V1"** to detected sample analytes quantitated against the IS in question.	6c. na

Volatile Organic Data Validation Checklist

Part IIIb. Internal Standard Assignments

1. Pentafluorobenzene	2. 1,4-Difluorobenzene	3. Chlorobenzene-d4	4. 1,4-Dichlorobenzene-d4
Acetone	Benzene	Bromoform	Bromobenzene
Bromochloromethane	Bromodichloromethane	Chlorobenzene	n-Butylbenzene
Bromomethane	4-Bromofluorobenzene (*surrogate*)	Chlorodibromomethane	sec-Butylbenzene
2-Butanone	Carbon tetrachloride	1,3-Dichloropropane	tert-Butylbenzene
Carbon disulfide	1,2-Dibromoethane	Ethylbenzene	2-Chlorotoluene
Chloroethane	Dibromomethane	2-Hexanone	4-Chlorotoluene
Chloroform	1,2-Dichloroethane	Styrene	1,2-Dibromo-3-chloropropane
Chloromethane	1,2-Dichloropropane	1,1,1,2-Tetrachloroethane	1,2-Dichlorobenzene
Dichlorodifluoromethane	1,1-Dichloropropene	Tetrachloroethene	1,3-Dichlorobenzene
1,1-Dichloroethane	c-1,3-Dichloropropene	o,m,p-Xylene (mixed isomers)	1,4-Dichlorobenzene
1,1-Dichloroethene	t-1,3-Dichloropropene		Isopropylbenzene
c-1,2-Dichloroethene	1,1,2-Trichloroethane		p-Isopropyltoluene
t-1,2-Dichloroethene	Toluene		n-Propylbenzene
2,2-Dichloropropane	Toluene-d8 (*surrogate*)		1,1,2,2,-Tetrachloroethane
Iodomethane	Trichloroethene		1,2,3-Trichloropropane
Methylene chloride	4-Methyl-2-pentanone		1,2,4-Trimethylbenzene
1,1,1-Trichloroethane			1,3,5-Trimethylbenzene
Trichlorofluoromethane			
Vinyl chloride			

The following internal standard assignments will vary: Dibromofluoromethane (surrogate) and Trichlorotrifluoroethane

Volatile Organic Data Validation Checklist

Required VOC Surrogate Compounds and Recovery Acceptance Ranges

Surrogate name	Soil matrix recovery acceptance range	Water matrix recovery acceptance range
Toluene-d8	81%–117%	88%–110%
4-Bromofluorobenzene	74%–121%	86%–115%
Dibromofluoromethane	80%–120%	86%–118%

Volatile Organic Data Validation Checklist

Part IV. Surrogate Validation Criteria

Criteria	Criterion true? (yes/no)	Action if "criterion true?" = yes Identify noncompliant surrogates *and* assign qualifier & reason code...	List all noncompliant surrogates and samples.	Percent recovery
Are any required surrogate percent recoveries *not* reported?	1a. NO	1b. **"A, V3f"** for any missing documentation. In block 1c, record • noncompliant surrogates and • all affected samples.	1c. na	1d. n/a
Is at least one surrogate recovery <10%?	2a. NO	2b. **"J-, V3b"** to all *detected* sample analytes and **"RPM, V3d"** to all *nondetected* sample analytes.	2c. na	2d. na
Is at least one surrogate percent recovery > UAL **AND** no surrogate percent recoveries < LAL?	3a. no	3b. **"J+, V3"** to all detected sample analytes.	3c. na	3d. na
Is at least one surrogate percent recovery > UAL **AND** at least one surrogate percent recovery <LAL?	4a. no	4b. **"J, V3e"** to all *detected* sample analytes and **"UJ, V3e"** to all *nondetected* sample analytes.	4c. na	4d. na
Is at least one surrogate percent recovery < LAL **AND** *the same* surrogate percent recovery ≥ 10%?	5a. no	5b. **"J-, V3a"** to all *detected* sample analytes and **"UJ, V3c"** to all *nondetected* sample analytes.	5c. na	5d. na

Volatile Organic Data Validation Checklist

Part V. Holding Time Validation Criteria

Criteria	Criterion true? (yes/no)	Action if "criterion true?" = no Assign qualifier & reason code...	List samples for which holding times were exceeded.	List the number of days by which holding times were exceeded.
Was each sample analyzed within its required holding time?	1a. yes	1b. **"PM, V9"** to all analytes in affected samples.	1c. na	1d. na

Volatile Organic Data Validation Checklist

Part VI. Tentatively Identified Compounds (TICs) Validation Criteria

Criteria	Criterion true? (yes/no)	Action if "criterion true?" = no Assign qualifier & reason code...	Samples that are missing TICs forms	Samples that contain TICs
Were TICs requested (i.e., an "**N**" is *not* appended to the analysis order code on the chain of custody form) **AND** TICs were *not* reported in at least one sample?	1a. yes	1b. "**A, V11**" to samples that are missing documentation. In block 1d, record the sample numbers of each sample for which TICs have been reported.	1c. na	1d. na

1A
VOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

RC03-01-0006 06

Lab Name: Lionville Labs, Inc. Work Order: 0274406 4001

Client: LANL REQ #9432R

Matrix: SOIL

Lab Sample ID: 0107L423-007

Sample wt/vol: 4.50 (g/mL) G

Lab File ID: k080206

Level: (low/med) LOW

Date Received: 07/27/01

% Moisture: not dec. 9

Date Analyzed: 08/02/01

Column: (pack/cap) CAP

Dilution Factor: 1.11

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND			
75-71-8	Dichlorodifluoromethane	12	U	
74-87-3	Chloromethane	12	U	
75-01-4	Vinyl Chloride	12	U	
74-83-9	Bromomethane	12	U	
75-00-3	Chloroethane	12	U	
75-69-4	Trichlorofluoromethane	6	U	
75-35-4	1,1-Dichloroethene	6	U	
76-13-1	Trichlorotrifluoroethane	6	U	
67-64-1	Acetone	24	BJ	U,V4, U5,V7a
74-88-4	Iodomethane	6	U	
75-15-0	Carbon Disulfide	6	U	
75-09-2	Methylene Chloride	12	B	U,V4, U5,V7a
156-60-5	Trans-1,2-dichloroethene	6	U	
75-34-3	1,1-Dichloroethane	6	U	
78-93-3	2-Butanone	24	U	
156-59-2	Cis-1,2-dichloroethene	6	U	
590-20-7	2,2-Dichloropropane	6	U	U5,V7a
74-97-5	Bromochloromethane	6	U	
67-66-3	Chloroform	6	U	
71-55-6	1,1,1-Trichloroethane	6	U	
56-23-5	Carbon Tetrachloride	6	U	
563-58-6	1,1-dichloropropene	6	U	
71-43-2	Benzene	6	U	
107-06-2	1,2-Dichloroethane	6	U	
79-01-6	Trichloroethene	6	U	
78-87-5	1,2-Dichloropropane	6	U	
74-95-3	Dibromomethane	6	U	
75-27-4	Bromodichloromethane	6	U	
10061-01-5	cis-1,3-Dichloropropene	6	U	
108-10-1	4-Methyl-2-pentanone	24	U	
108-88-3	Toluene	6	U	
10061-02-6	Trans-1,3-Dichloropropene	6	U	
79-00-5	1,1,2-Trichloroethane	6	U	
127-18-4	Tetrachloroethene	6	U	

FORM 1 V-1 12/88 Rev.

1B

VOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

RC03-01-0006 06

Lab Name: Lionville Labs, Inc. Work Order: 02744064001

Client: LANL REQ #9432R

Matrix: SOIL

Lab Sample ID: 0107L423-007

Sample wt/vol: 4.50 (g/mL) G

Lab File ID: k080206

Level: (low/med) LOW

Date Received: 07/27/01

% Moisture: not dec. 9

Date Analyzed: 08/02/01

Column: (pack/cap) CAP

Dilution Factor: 1.11

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND		
142-28-9	1,3-Dichloropropane	6	U
591-78-6	2-Hexanone	24	U
124-48-1	Dibromochloromethane	6	U
106-93-4	1,2-Dibromoethane	6	U
108-90-7	Chlorobenzene	6	U
630-20-6	1,1,1,2-Tetrachloroethane	6	U
100-41-4	Ethylbenzene	6	U
1330-20-7	Xylenes (total)	6	U
100-42-5	Styrene	6	U
75-25-2	Bromoform	6	U
98-82-8	Isopropylbenzene	6	U
108-86-1	Bromobenzene	6	U
96-18-4	1,2,3-Trichloropropane	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U
103-65-1	N-propylbenzene	6	U
95-49-8	2-Chlorotoluene	6	U
106-43-4	4-Chlorotoluene	6	U
108-67-8	1,3,5-Trimethylbenzene	6	U
98-06-6	Tert-butylbenzene	6	U
95-63-6	1,2,4-Trimethylbenzene	6	U
135-98-8	Sec-butylbenzene	6	U
541-73-1	1,3-Dichlorobenzene	6	U
106-46-7	1,4-Dichlorobenzene	6	U
99-87-6	4-Isopropyltoluene	6	U
95-50-1	1,2-Dichlorobenzene	6	U
104-51-8	N-butylbenzene	6	U
96-12-8	1,2-Dibromo-3-chloropropane	12	U

FORM 1 V-2 12/88 Rev.

1E

VOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

RC03-01-0006 06

Lab Name: Lionville Labs, Inc. Work Order: 02744064001

Client: LANL REQ #9432R

Matrix: SOIL

Lab Sample ID: 0107L423-007

Sample wt/vol: 4.50 (g/mL) G

Lab File ID: k080206

Level: (low/med) LOW

Date Received: 07/27/01

% Moisture: not dec. 9

Date Analyzed: 08/02/01

Column: (pack/cap) CAP

Dilution Factor: 1.11

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.				

FORM 1 VOA-TIC 12/88 Rev.

1A
VOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

RC03-01-0007 06

Lab Name: Lionville Labs, Inc. Work Order: 02744064001

Client: LANL REQ #9432R

Matrix: SOIL

Lab Sample ID: 0107L423-009

Sample wt/vol: 5.50 (g/mL) G

Lab File ID: k080207

Level: (low/med) LOW

Date Received: 07/27/01

% Moisture: not dec. 7

Date Analyzed: 08/02/01

Column: (pack/cap) CAP

Dilution Factor: 0.909

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND			
75-71-8	Dichlorodifluoromethane	10	U	
74-87-3	Chloromethane	10	U	
75-01-4	Vinyl Chloride	10	U	
74-83-9	Bromomethane	10	U	
75-00-3	Chloroethane	10	U	
75-69-4	Trichlorofluoromethane	5	U	
75-35-4	1,1-Dichloroethene	5	U	
76-13-1	Trichlorotrifluoroethane	5	U	
67-64-1	Acetone	14	BJ	UJ, V7a ; U, V4
74-88-4	Iodomethane	5	U	
75-15-0	Carbon Disulfide	5	U	
75-09-2	Methylene Chloride	10	B	UJ, V7a ; U, V4
156-60-5	Trans-1,2-dichloroethene	5	U	
75-34-3	1,1-Dichloroethane	5	U	
78-93-3	2-Butanone	20	U	
156-59-2	Cis-1,2-dichloroethene	5	U	
590-20-7	2,2-Dichloropropane	5	U	UJ, V7a ;
74-97-5	Bromochloromethane	5	U	
67-66-3	Chloroform	5	U	
71-55-6	1,1,1-Trichloroethane	5	U	
56-23-5	Carbon Tetrachloride	5	U	
563-58-6	1,1-dichloropropene	5	U	
71-43-2	Benzene	5	U	
107-06-2	1,2-Dichloroethane	5	U	
79-01-6	Trichloroethene	5	U	
78-87-5	1,2-Dichloropropane	5	U	
74-95-3	Dibromomethane	5	U	
75-27-4	Bromodichloromethane	5	U	
10061-01-5	cis-1,3-Dichloropropene	5	U	
108-10-1	4-Methyl-2-pentanone	20	U	
108-88-3	Toluene	5	U	
10061-02-6	Trans-1,3-Dichloropropene	5	U	
79-00-5	1,1,2-Trichloroethane	5	U	
127-18-4	Tetrachloroethene	5	U	

FORM 1 V-1 12/88 Rev.

1B
VOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

RC03-01-0007 06

Lab Name: Lionville Labs, Inc. Work Order: 02744064001

Client: LANL REQ #9432R

Matrix: SOIL

Lab Sample ID: 0107L423-009

Sample wt/vol: 5.50 (g/mL) G

Lab File ID: k080207

Level: (low/med) LOW

Date Received: 07/27/01

% Moisture: not dec. 7

Date Analyzed: 08/02/01

Column: (pack/cap) CAP

Dilution Factor: 0.909

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND		
142-28-9	1,3-Dichloropropane	5	U
591-78-6	2-Hexanone	20	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
630-20-6	1,1,1,2-Tetrachloroethane	5	U
100-41-4	Ethylbenzene	5	U
1330-20-7	Xylenes (total)	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
98-82-8	Isopropylbenzene	5	U
108-86-1	Bromobenzene	5	U
96-18-4	1,2,3-Trichloropropane	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
103-65-1	N-propylbenzene	5	U
95-49-8	2-Chlorotoluene	5	U
106-43-4	4-Chlorotoluene	5	U
108-67-8	1,3,5-Trimethylbenzene	5	U
98-06-6	Tert-butylbenzene	5	U
95-63-6	1,2,4-Trimethylbenzene	5	U
135-98-8	Sec-butylbenzene	5	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
99-87-6	4-Isopropyltoluene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
104-51-8	N-butylbenzene	5	U
96-12-8	1,2-Dibromo-3-chloropropane	10	U

FORM 1 V-2 12/88 Rev.

1E

VOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

RC03-01-0007 06

Lab Name: Lionville Labs, Inc. Work Order: 02744064001

Client: LANL REQ #9432R

Matrix: SOIL

Lab Sample ID: 0107L423-009

Sample wt/vol: 5.50 (g/mL) G

Lab File ID: k080207

Level: (low/med) LOW

Date Received: 07/27/01

% Moisture: not dec. 7

Date Analyzed: 08/02/01

Column: (pack/cap) CAP

Dilution Factor: 0.909

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.				

FORM 1 VOA-TIC 12/88 Rev.

1A
VOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

RC03-01-0008 06

Lab Name: Lionville Labs, Inc. Work Order: 02744064001

Client: LANL REQ #9432R

Matrix: SOIL

Lab Sample ID: 0107L423-011

Sample wt/vol: 4.40 (g/mL) G

Lab File ID: k080208

Level: (low/med) LOW

Date Received: 07/27/01

% Moisture: not dec. 8

Date Analyzed: 08/02/01

Column: (pack/cap) CAP

Dilution Factor: 1.14

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND			
75-71-8	Dichlorodifluoromethane	12	U	
74-87-3	Chloromethane	12	U	
75-01-4	Vinyl Chloride	12	U	
74-83-9	Bromomethane	12	U	
75-00-3	Chloroethane	12	U	
75-69-4	Trichlorofluoromethane	6	U	
75-35-4	1,1-Dichloroethene	6	U	
76-13-1	Trichlorotrifluoroethane	6	U	
67-64-1	Acetone	19	BJ	U,V4; UJ,V7a
74-88-4	Iodomethane	6	U	
75-15-0	Carbon Disulfide	6	U	
75-09-2	Methylene Chloride	12	B	U,V4; UJ,V7a
156-60-5	Trans-1,2-dichloroethene	6	U	
75-34-3	1,1-Dichloroethane	6	U	
78-93-3	2-Butanone	24	U	
156-59-2	Cis-1,2-dichloroethene	6	U	
590-20-7	2,2-Dichloropropane	6	U	UJ,V7a
74-97-5	Bromochloromethane	6	U	
67-66-3	Chloroform	6	U	
71-55-6	1,1,1-Trichloroethane	6	U	
56-23-5	Carbon Tetrachloride	6	U	
563-58-6	1,1-dichloropropene	6	U	
71-43-2	Benzene	6	U	
107-06-2	1,2-Dichloroethane	6	U	
79-01-6	Trichloroethene	6	U	
78-87-5	1,2-Dichloropropane	6	U	
74-95-3	Dibromomethane	6	U	
75-27-4	Bromodichloromethane	6	U	
10061-01-5	cis-1,3-Dichloropropene	6	U	
108-10-1	4-Methyl-2-pentanone	24	U	
108-88-3	Toluene	6	U	
10061-02-6	Trans-1,3-Dichloropropene	6	U	
79-00-5	1,1,2-Trichloroethane	6	U	
127-18-4	Tetrachloroethene	6	U	

FORM 1 V-1 12/88 Rev.

1B
VOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

RC03-01-0008 06

Lab Name: Lionville Labs, Inc. Work Order: 02744064001

Client: LANL REQ #9432R

Matrix: SOIL

Lab Sample ID: 0107L423-011

Sample wt/vol: 4.40 (g/mL) G

Lab File ID: k080208

Level: (low/med) LOW

Date Received: 07/27/01

% Moisture: not dec. 8

Date Analyzed: 08/02/01

Column: (pack/cap) CAP

Dilution Factor: 1.14

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND		
142-28-9	1,3-Dichloropropane	6	U
591-78-6	2-Hexanone	24	U
124-48-1	Dibromochloromethane	6	U
106-93-4	1,2-Dibromoethane	6	U
108-90-7	Chlorobenzene	6	U
630-20-6	1,1,1,2-Tetrachloroethane	6	U
100-41-4	Ethylbenzene	6	U
1330-20-7	Xylenes (total)	6	U
100-42-5	Styrene	6	U
75-25-2	Bromoform	6	U
98-82-8	Isopropylbenzene	6	U
108-86-1	Bromobenzene	6	U
96-18-4	1,2,3-Trichloropropane	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U
103-65-1	N-propylbenzene	6	U
95-49-8	2-Chlorotoluene	6	U
106-43-4	4-Chlorotoluene	6	U
108-67-8	1,3,5-Trimethylbenzene	6	U
98-06-6	Tert-butylbenzene	6	U
95-63-6	1,2,4-Trimethylbenzene	6	U
135-98-8	Sec-butylbenzene	6	U
541-73-1	1,3-Dichlorobenzene	6	U
106-46-7	1,4-Dichlorobenzene	6	U
99-87-6	4-Isopropyltoluene	6	U
95-50-1	1,2-Dichlorobenzene	6	U
104-51-8	N-butylbenzene	6	U
96-12-8	1,2-Dibromo-3-chloropropane	12	U

FORM 1 V-2

12/88 Rev.

1E

VOLATILE ORGANICS ANALYSIS SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

RC03-01-0008 06

Lab Name: Lionville Labs, Inc. Work Order: 02744064001

Client: LANL REQ #9432R

Matrix: SOIL

Lab Sample ID: 0107L423-011

Sample wt/vol: 4.40 (g/mL) G

Lab File ID: k080208

Level: (low/med) LOW

Date Received: 07/27/01

% Moisture: not dec. 8

Date Analyzed: 08/02/01

Column: (pack/cap) CAP

Dilution Factor: 1.14

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.				

FORM 1 VOA-TIC

12/88 Rev.

1A
VOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

RC03-01-0009 06

Lab Name: Lionville Labs, Inc. Work Order: 02744064001

Client: LANL REQ #9432R

Matrix: SOIL

Lab Sample ID: 0107L423-013

Sample wt/vol: 5.30 (g/mL) G

Lab File ID: k080209

Level: (low/med) LOW

Date Received: 07/27/01

% Moisture: not dec. 6

Date Analyzed: 08/02/01

Column: (pack/cap) CAP

Dilution Factor: 0.943

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND			
75-71-8	Dichlorodifluoromethane	10	U	
74-87-3	Chloromethane	10	U	
75-01-4	Vinyl Chloride	10	U	
74-83-9	Bromomethane	10	U	
75-00-3	Chloroethane	10	U	
75-69-4	Trichlorofluoromethane	5	U	
75-35-4	1,1-Dichloroethene	5	U	
76-13-1	Trichlorotrifluoroethane	5	U	
67-64-1	Acetone	15	BJ	UJ V7a; U, V4
74-88-4	Iodomethane	5	U	
75-15-0	Carbon Disulfide	5	U	
75-09-2	Methylene Chloride	12	B	UJ, V7a; U, V4
156-60-5	Trans-1,2-dichloroethene	5	U	
75-34-3	1,1-Dichloroethane	5	U	
78-93-3	2-Butanone	20	U	
156-59-2	Cis-1,2-dichloroethene	5	U	
590-20-7	2,2-Dichloropropane	5	U	UJ, V7a
74-97-5	Bromochloromethane	5	U	
67-66-3	Chloroform	5	U	
71-55-6	1,1,1-Trichloroethane	5	U	
56-23-5	Carbon Tetrachloride	5	U	
563-58-6	1,1-dichloropropene	5	U	
71-43-2	Benzene	5	U	
107-06-2	1,2-Dichloroethane	5	U	
79-01-6	Trichloroethene	5	U	
78-87-5	1,2-Dichloropropane	5	U	
74-95-3	Dibromomethane	5	U	
75-27-4	Bromodichloromethane	5	U	
10061-01-5	cis-1,3-Dichloropropene	5	U	
108-10-1	4-Methyl-2-pentanone	20	U	
108-88-3	Toluene	5	U	
10061-02-6	Trans-1,3-Dichloropropene	5	U	
79-00-5	1,1,2-Trichloroethane	5	U	
127-18-4	Tetrachloroethene	5	U	

FORM 1 V-1

12/88 Rev.

1B
VOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

RC03-01-0009 06

Lab Name: Lionville Labs, Inc. Work Order: 02744064001

Client: LANL REQ #9432R

Matrix: SOIL

Lab Sample ID: 0107L423-013

Sample wt/vol: 5.30 (g/mL) G

Lab File ID: k080209

Level: (low/med) LOW

Date Received: 07/27/01

% Moisture: not dec. 6

Date Analyzed: 08/02/01

Column: (pack/cap) CAP

Dilution Factor: 0.943

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND		
142-28-9	1,3-Dichloropropane	5	U
591-78-6	2-Hexanone	20	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
630-20-6	1,1,1,2-Tetrachloroethane	5	U
100-41-4	Ethylbenzene	5	U
1330-20-7	Xylenes (total)	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
98-82-8	Isopropylbenzene	5	U
108-86-1	Bromobenzene	5	U
96-18-4	1,2,3-Trichloropropane	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
103-65-1	N-propylbenzene	5	U
95-49-8	2-Chlorotoluene	5	U
106-43-4	4-Chlorotoluene	5	U
108-67-8	1,3,5-Trimethylbenzene	5	U
98-06-6	Tert-butylbenzene	5	U
95-63-6	1,2,4-Trimethylbenzene	5	U
135-98-8	Sec-butylbenzene	5	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
99-87-6	4-Isopropyltoluene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
104-51-8	N-butylbenzene	5	U
96-12-8	1,2-Dibromo-3-chloropropane	10	U

FORM 1 V-2 12/88 Rev.

1E
VOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

RC03-01-0009 06

Lab Name: Lionville Labs, Inc. Work Order: 02744064001

Client: LANL REQ #9432R

Matrix: SOIL

Lab Sample ID: 0107L423-013

Sample wt/vol: 5.30 (g/mL) G

Lab File ID: k080209

Level: (low/med) LOW

Date Received: 07/27/01

% Moisture: not dec. 6

Date Analyzed: 08/02/01

Column: (pack/cap) CAP

Dilution Factor: 0.943

Number TICs found: 1

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	21.524	5	J

FORM 1 VOA-TIC

12/88 Rev.

1A
VOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

RC03-01-0010 06

Lab Name: Lionville Labs, Inc. Work Order: 02744064001

Client: LANL REQ #9432R

Matrix: SOIL

Lab Sample ID: 0107L423-015

Sample wt/vol: 5.00 (g/mL) G

Lab File ID: k080210

Level: (low/med) LOW

Date Received: 07/27/01

% Moisture: not dec. 6

Date Analyzed: 08/02/01

Column: (pack/cap) CAP

Dilution Factor: 1.00

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND			
75-71-8	Dichlorodifluoromethane	11	U	
74-87-3	Chloromethane	11	U	
75-01-4	Vinyl Chloride	11	U	
74-83-9	Bromomethane	11	U	
75-00-3	Chloroethane	11	U	
75-69-4	Trichlorofluoromethane	6	U	
75-35-4	1,1-Dichloroethene	6	U	
76-13-1	Trichlorotrifluoroethane	6	U	
67-64-1	Acetone	17	BJ	UJ,V7a U,V4
74-88-4	Iodomethane	6	U	
75-15-0	Carbon Disulfide	6	U	
75-09-2	Methylene Chloride	13	B	UJ,V7a U,V4
156-60-5	Trans-1,2-dichloroethene	6	U	
75-34-3	1,1-Dichloroethane	6	U	
78-93-3	2-Butanone	22	U	
156-59-2	Cis-1,2-dichloroethene	6	U	
590-20-7	2,2-Dichloropropane	6	U	UJ,V7a
74-97-5	Bromochloromethane	6	U	
67-66-3	Chloroform	6	U	
71-55-6	1,1,1-Trichloroethane	2	J	
56-23-5	Carbon Tetrachloride	6	U	
563-58-6	1,1-dichloropropene	6	U	
71-43-2	Benzene	6	U	
107-06-2	1,2-Dichloroethane	6	U	
79-01-6	Trichloroethene	6	U	
78-87-5	1,2-Dichloropropane	6	U	
74-95-3	Dibromomethane	6	U	
75-27-4	Bromodichloromethane	6	U	
10061-01-5	cis-1,3-Dichloropropene	6	U	
108-10-1	4-Methyl-2-pentanone	22	U	
108-88-3	Toluene	6	U	
10061-02-6	Trans-1,3-Dichloropropene	6	U	
79-00-5	1,1,2-Trichloroethane	6	U	
127-18-4	Tetrachloroethene	6	U	

1B
VOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

RC03-01-0010 06

Lab Name: Lionville Labs, Inc. Work Order: 02744064001

Client: LANL REQ #9432R

Matrix: SOIL

Lab Sample ID: 0107L423-015

Sample wt/vol: 5.00 (g/mL) G

Lab File ID: k080210

Level: (low/med) LOW

Date Received: 07/27/01

% Moisture: not dec. 6

Date Analyzed: 08/02/01

Column: (pack/cap) CAP

Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	
142-28-9	1,3-Dichloropropane	6	U
591-78-6	2-Hexanone	22	U
124-48-1	Dibromochloromethane	6	U
106-93-4	1,2-Dibromoethane	6	U
108-90-7	Chlorobenzene	6	U
630-20-6	1,1,1,2-Tetrachloroethane	6	U
100-41-4	Ethylbenzene	6	U
1330-20-7	Xylenes (total)	6	U
100-42-5	Styrene	6	U
75-25-2	Bromoform	6	U
98-82-8	Isopropylbenzene	6	U
108-86-1	Bromobenzene	6	U
96-18-4	1,2,3-Trichloropropane	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U
103-65-1	N-propylbenzene	6	U
95-49-8	2-Chlorotoluene	6	U
106-43-4	4-Chlorotoluene	6	U
108-67-8	1,3,5-Trimethylbenzene	6	U
98-06-6	Tert-butylbenzene	6	U
95-63-6	1,2,4-Trimethylbenzene	6	U
135-98-8	Sec-butylbenzene	6	U
541-73-1	1,3-Dichlorobenzene	6	U
106-46-7	1,4-Dichlorobenzene	6	U
99-87-6	4-Isopropyltoluene	6	U
95-50-1	1,2-Dichlorobenzene	6	U
104-51-8	N-butylbenzene	6	U
96-12-8	1,2-Dibromo-3-chloropropane	11	U

FORM 1 V-2 12/88 Rev.

1E
VOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

RC03-01-0010 06

Lab Name: Lionville Labs, Inc. Work Order: 02744064001

Client: LANL REQ #9432R

Matrix: SOIL

Lab Sample ID: 0107L423-015

Sample wt/vol: 5.00 (g/mL) G

Lab File ID: k080210

Level: (low/med) LOW

Date Received: 07/27/01

% Moisture: not dec. 6

Date Analyzed: 08/02/01

Column: (pack/cap) CAP

Dilution Factor: 1.00

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.				

FORM 1 VOA-TIC 12/88 Rev.

Lionville Laboratory, Inc.
VOA ANALYTICAL DATA PACKAGE FOR
LANL REQ #9432R

RFW LOT # :0107L423

CLIENT ID	RFW #	MTX	PREP #	COLLECTN	DATE REC	EXT/PREP	ANALYSIS
RC03-01-0006 06	007	S	01LVK240	07/24/01	07/27/01	N/A	08/02/01
RC03-01-0007 06	009	S	01LVK240	07/24/01	07/27/01	N/A	08/02/01
RC03-01-0008 06	011	S	01LVK240	07/24/01	07/27/01	N/A	08/02/01
RC03-01-0009 06	013	S	01LVK240	07/24/01	07/27/01	N/A	08/02/01
RC03-01-0010 06	015	S	01LVK240	07/24/01	07/27/01	N/A	08/02/01
LAB QC:							
VBLKLQ	MB1	S	01LVK240	N/A	N/A	N/A	08/02/01

LIONVILLE LABORATORY INC.

Client : LANL-REQ# 9432R
LVL #: 0107L423
Subcontract #: 7791L0014-AA

W.O. #: 02744-064-001-9999-00
Date Received: 07-27-2001

GC/MS VOLATILE

Five (5) soil samples were collected on 07-24-2001.

The samples and their associated QC samples were analyzed according to criteria set forth in Lionville Laboratory OPs based on SW 846 Method 8260A for client specified Volatile target compounds on 08-02-2001.

The following is a summary of the QC results accompanying these sample results and a description of any problems encountered during their analyses:

1. The cooler temperature upon receipt has been recorded on the chain-of-custody.

2. The required holding time for analysis was met.

3. A non-target compound was detected in sample RC03-01-0009 06.

4. All surrogate recoveries were within EPA QC limits.

5. Matrix spike analyses are associated with LVL # 0107L410.

6. The method blank contained the common laboratory contaminants Methylene Chloride and Acetone at levels less than 2x the CRQL.

7. Internal standard area and retention time criteria were met.

8. I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, except as detailed in this QC Report.

9. Manual integrations are performed according to OP L-QA-125 to produce quality data with the utmost integrity. All manual integrations are required to be technically valid and properly documented. Appropriate technical flags are defined in the Glossary ("Technical Flags For Manual Integration").

J. Michael Taylor
President
Lionville Laboratory Incorporated

8/27/01
Date

som/group/data/voa/lanl/req-0107-423.doc

The results presented in this report relate only to the analytical testing and conditions of the samples at receipt and during storage. All pages of this report are integral parts of the analytical data. Therefore, this report should only be reproduced in its entirety of 1 7 8 pages.

208 Welsh Pool Road • Exton, PA 19341-1313 • (610) 280-3000 • Fax (610) 280-3041

Lionville Laboratory Use Only
0107L423

Custody Transfer Record/Lab Work Request

Page 1 of ~~2~~ 3 7-27-01

LVLI LIONVILLE LABORATORY INC.

ALL FIELD PERSONNEL: COMPLETE ONLY SHADED AREAS

Client: Lanl Bcc 9432B
Est. Final Proj. Sampling Date:
Project #: 02744-004-001999-00
Project Contact/Phone #:
Lionville Laboratory Project Manager: JS
QC: Spc Del: CP TAT: 30 day
Date Rec'd: 7-27-01 Date Due: 8-26-01

		ABC		D							E					
Refrigerator #		Freezer		S							S					
#/Type Container	Liquid															
	Solid	3		1G							1P					
Volume	Liquid															
	Solid	8oz		125							125					
Preservatives		–		–							–					
ANALYSES REQUESTED		ORGANIC									INORG					
		VOA	BNA	Pest/PCB	Herb						Metal	CN				
Lionville Laboratory Use Only																
		8024X		OPCB							I70SOL					

MATRIX CODES:
S - Soil
SE - Sediment
SD - Solids
SL - Sludge
W - Water
O - Oil
A - Air
DS - Drum Solids
DL - Drum Liquids
L - EP/TCLP Leachate
WI - Wipe
X - Other
F - Fish

Lab ID	Client ID/Description	Matrix QC Chosen (✓) MS	MSD	Matrix	Date Collected	Time Collected	8024X	OPCB	I70SOL
001	RC03-01-0001-03			S	7-24-01			✓	
002	2							✓	
003	3							✓	
004	4							✓	
005	5							✓	
006	6							✓	
007	7-06						✓		✓
008	7-03							✓	
009	7-06						✓		✓
010	8-03							✓	

Special Instructions:
Missing Samples
RC03-01-0048 02
1 49 02
Did not receive 125ml Poly VOA Encore
instead rec'd a 4th 5g Encore

DATE/REVISIONS:
1.
2.
3.
4.
5.
6.

Lionville Laboratory Use Only

Samples were:
1) Shipped ✓ or Hand Delivered ___
Airbill # 4847325001 71
2) Ambient or Chilled
3) Received in Good Condition (Y) or N
4) Samples Properly Preserved (Y) or N
5) Received Within Holding Times (Y) or N

Tamper Resistant Seal was:
1) Present on Outer Package (Y) or N
2) Unbroken on Outer Package (Y) or N
3) Present on Sample (Y) or N
4) Unbroken on Sample (Y) or N
COC Record Present Upon Sample Rec't (Y) or N
Cooler Temp. 5 °C

Discrepancies Between Samples Labels and COC Record? (Y) or N
NOTES:

Relinquished by	Received by	Date	Time
FedEx	TKrippd	7-27-01	1015

Relinquished by	Received by	Date	Time
COMPOSITE WASTE			

ORIGINAL REWRITTEN

Lionville Laboratory Use Only
01071423

Custody Transfer Record/Lab Work Request

LVLI Lionville Laboratory Inc.

FIELD PERSONNEL: COMPLETE ONLY SHADED AREAS

Client: LANL BCG # 9432R
Est. Final Proj. Sampling Date:
Project #: GCE
Project Contact/Phone #:
Lionville Laboratory Project Manager:
QC: Del TAT:
Date Rec'd: Date Due:

		ABC		D		F					E					
Refrigerator #		Freez		5		5					5					
#/Type Container	Liquid															
	Solid	3		1G		1AG					1P					
Volume	Liquid															
	Solid	8oz		125		125					125					
Preservatives		-		-		-					-					
ANALYSES REQUESTED		ORGANIC							INORG							
		VOA	BNA	Pest/PCB	Herb				Metal	CN						
Lionville Laboratory Use Only		8024X		8PCB		8080					TPSOL					

MATRIX CODES:
S - Soil
SE - Sediment
SO - Solid
SL - Sludge
W - Water
O - Oil
A - Air
DS - Drum Solids
DL - Drum Liquids
L - EP/TCLP Leachate
WI - Wipe
X - Other
F - Fish

Lab ID	Client ID/Description	Matrix QC Chosen (✓) MS	MSD	Matrix	Date Collected	Time Collected	8024X	8PCB	8080	TPSOL
011	BC03-01-0008 0516			S	7-24-01		✓			✓
012	09 03							✓		
013	09 06						✓			✓
014	10 03							✓		
015	10 06						✓			✓
016	41 02								✓	
017	42								✓	
018	43								✓	
019	44								✓	
020	48								✓	

Special Instructions:

DATE/REVISIONS:
1.
2.
3.
4.
5.
6.

Lionville Laboratory Use Only

Samples were:
1) Shipped ___ or Hand Delivered ___
Airbill # ___
2) Ambient or Chilled
3) Received In Good Condition Y or N
4) Samples Properly Preserved Y or N
5) Received Within Holding Times Y or N

Tamper Resistant Seal was:
1) Present on Outer Package Y or N
2) Unbroken on Outer Package Y or N
3) Present on Sample Y or N
4) Unbroken on Sample Y or N
COC Record Present Upon Sample Rec't Y or N
Cooler Temp. ___ °C

Relinquished by	Received by	Date	Time
Fed Ex	TBoppel	7-27-01	1015

Relinquished by	Received by	Date	Time

Discrepancies Between Samples Labels and COC Record? Y or N
NOTES:

Lionville Laboratory Use Only
0107L423

Custody Transfer Record/Lab Work Request

FIELD PERSONNEL: COMPLETE ONLY SHADED AREAS

LVLI LIONVILLE LABORATORY INC.

Client: LANL Bcg 9432R
Est. Final Proj. Sampling Date:
Project #: See
Project Contact/Phone #:
Lionville Laboratory Project Manager: page 1
QC: Del TAT:
Date Rec'd: Date Due:

Refrigerator #						F										
#/Type Container	Liquid															
	Solid					1AG										
Volume	Liquid															
	Solid					125										
Preservatives						–										
ANALYSES REQUESTED →		ORGANIC							INORG							
		VOA	BNA	Pest/PCB	Herb				Metal	CN						
						Lionville Laboratory Use Only										
						ODRO										

MATRIX CODES:
S - Soil
SE - Sediment
SO - Solid
SL - Sludge
W - Water
O - Oil
A - Air
DS - Drum Solids
DL - Drum Liquids
L - EP/TCLP Leachate
WI - Wipe
X - Other
F - Fish

Lab ID	Client ID/Description	Matrix QC Chosen (✓) MS	MSD	Matrix	Date Collected	Time Collected															
021	~~BCO3-01-0049-02~~			S	7-24-01		Tk 7-27-01				✓										

Special Instructions:

DATE/REVISIONS:
1.
2.
3.
4.
5.
6.

Lionville Laboratory Use Only

Samples were:
1) Shipped ____ or Hand Delivered ____
Airbill # ____
2) Ambient or Chilled
3) Received in Good Condition Y or N
4) Samples Properly Preserved Y or N
5) Received Within Holding Times Y or N

Tamper Resistant Seal was:
1) Present on Outer Package Y or N
2) Unbroken on Outer Package Y or N
3) Present on Sample Y or N
4) Unbroken on Sample Y or N
COC Record Present Upon Sample Rec't Y or N
Cooler Temp. ____ °C

Relinquished by	Received by	Date	Time
FedEx	TKapp	7-27-01	1015

Relinquished by	Received by	Date	Time

Discrepancies Between Samples Labels and COC Record? Y or N
NOTES:

Thursday, July 26, 2001

CHAIN OF CUSTODY DOCUMENT NUMBER: 9432RC

Los Alamos
NATIONAL LABORATORY

REQUEST NUMBER: 9432R
ANALYSIS TYPE: ORG

ATTN: Judy Stone
Lionville Laboratory Inc
208 Welsh Pool Rd
Lionville, pa 19341

SAMPLE ID	CONT ID	CONTAINER DESCRIPTION	ANALYSIS ORDER CODE	PRESERVATIVE	MATRIX
RC03-01-0001	03	125 ml Glass	PCB	Ice	D
RC03-01-0002	03	125 ml Glass	PCB	Ice	D
RC03-01-0003	03	125 ml Glass	PCB	Ice	D
RC03-01-0004	03	125 ml Glass	PCB	Ice	D
RC03-01-0005	03	125 ml Glass	PCB	Ice	D
RC03-01-0006	03	125 ml Glass	PCB	None	S
RC03-01-0006	05	125 ml Polyethylene	VOCECORE	Ice	S
RC03-01-0006	06	5 gm Encore Container-A	VOCECORE	Ice	S
RC03-01-0006	07	5 gm Encore Container-B	VOCECORE	Ice	S
RC03-01-0006	08	5 gm Encore Container-C	VOCECORE	Ice	S
RC03-01-0007	03	125 ml Glass	PCB	None	S
RC03-01-0007	05	125 ml Polyethylene	VOCECORE	Ice	S
RC03-01-0007	06	5 gm Encore Container-A	VOCECORE	Ice	S
RC03-01-0007	07	5 gm Encore Container-B	VOCECORE	Ice	S
RC03-01-0007	08	5 gm Encore Container-C	VOCECORE	Ice	S
RC03-01-0008	03	125 ml Glass	PCB	None	S
RC03-01-0008	05	125 ml Polyethylene	VOCECORE	Ice	S
RC03-01-0008	06	5 gm Encore Container-A	VOCECORE	Ice	S
RC03-01-0008	07	5 gm Encore Container-B	VOCECORE	Ice	S
RC03-01-0008	08	5 gm Encore Container-C	VOCECORE	Ice	S

Relinquished By:		Date	Time
Marcia [illegible]		7/26/0	1410
PRINTED NAME	SIGNATURE		
FedEx		7-27-01	1015
PRINTED NAME	SIGNATURE		
PRINTED NAME	SIGNATURE		

Received By:		Date	Time
PRINTED NAME	SIGNATURE		
[illegible]	[illegible]	7-27-01	1015
PRINTED NAME	SIGNATURE		
PRINTED NAME	SIGNATURE		

Received for DISPOSAL By:		Date	Time
PRINTED NAME	SIGNATURE		

Remarks:

Thursday, July 26, 2001

COC DOC NUMBER: 9432RC
REQUEST NUMBER: 9432R
Page 2

SAMPLE ID	CONT ID	CONTAINER DESCRIPTION	ANALYSIS ORDER CODE		
RC03-01-0009	03	125 ml Glass	PCB	None	S
RC03-01-0009	05	125 ml Polyethylene	VOCECORE	Ice	S
RC03-01-0009	06	5 gm Encore Container-A	VOCECORE	Ice	S
RC03-01-0009	07	5 gm Encore Container-B	VOCECORE	Ice	S
RC03-01-0009	08	5 gm Encore Container-C	VOCECORE	Ice	S
RC03-01-0010	03	125 ml Glass	PCB	None	S
RC03-01-0010	04	125 ml Polyethylene	VOCECORE	Ice	S
RC03-01-0010	05	5 gm Encore Container-A	VOCECORE	Ice	S
RC03-01-0010	06	5 gm Encore Container-B	VOCECORE	Ice	S
RC03-01-0010	07	5 gm Encore Container-C	VOCECORE	Ice	S
RC03-01-0041	02	125 ml Amber Glass	TPH	Ice	S
RC03-01-0042	02	125 ml Amber Glass	TPH	Ice	S
RC03-01-0043	02	125 ml Amber Glass	TPH	Ice	S
RC03-01-0044	02	125 ml Amber Glass	TPH	Ice	S
RC03-01-0048	02	125 mL Amber Glass	TPH	Ice	D
RC03-01-0049	02	125 mL Amber Glass	TPH	Ice	D

Final Page of CHAIN OF CUSTODY DOCUMENT FOR REQUEST NUMBER 9432R Page 2

Relinquished By: Date Time

PRINTED NAME SIGNATURE 7/26/01

FedEx 7-27-01 1015

PRINTED NAME SIGNATURE

PRINTED NAME SIGNATURE

Received By: Date Time

PRINTED NAME SIGNATURE

J Koppel J Koppel 7-27-01 1015

PRINTED NAME SIGNATURE

PRINTED NAME SIGNATURE

Received for DISPOSAL By: Date Time

PRINTED NAME SIGNATURE

Remarks:

Thursday, July 26, 2001

REQUEST NUMBER: 9432R
ANALYSIS TYPE: ORG

Los Alamos
NATIONAL LABORATORY

ATTN: Judy Stone
Lionville Laboratory Inc
208 Welsh Pool Rd
Lionville, pa 19341

Please analyze the enclosed samples according to the schedule indicated:

SHIP DATE: 7/25/01
REPORT DUE: 8/27/01
TURN AROUND REQ'D: 30 day

These samples are on:

LANL Request Number: 9432R
Per Agreement Number:
Project Cost Code: MR0R0001E000

RAD SCREENING: Not Required
COMMENTS: 03 - 1114 , GA; TPH BY DIESEL.

LANL ER SMO CONTACT: Joylene Valdez MS H865 5056659968
Signature:

ANALYSIS ORDER CODE	ANALYTE(S)	SAMPLE ID	CONT ID	SAMPLE MATRIX	DATE SAMPLED	COMMENTS
PCB		RC03-01-0001	03	D	7/24/1901	
PCB		RC03-01-0002	03	D	7/24/1901	
PCB		RC03-01-0003	03	D	7/24/1901	
PCB		RC03-01-0004	03	D	7/24/1901	
PCB		RC03-01-0005	03	D	7/24/1901	
PCB		RC03-01-0006	03	S	7/24/1901	
VOCECORE		RC03-01-0006	05	S	7/24/1901	
VOCECORE		RC03-01-0006	06	S	7/24/1901	
VOCECORE		RC03-01-0006	07	S	7/24/1901	
VOCECORE		RC03-01-0006	08	S	7/24/1901	
PCB		RC03-01-0007	03	S	7/24/1901	
VOCECORE		RC03-01-0007	05	S	7/24/1901	
VOCECORE		RC03-01-0007	06	S	7/24/1901	
VOCECORE		RC03-01-0007	07	S	7/24/1901	
VOCECORE		RC03-01-0007	08	S	7/24/1901	
PCB		RC03-01-0008	03	S	7/24/1901	
VOCECORE		RC03-01-0008	05	S	7/24/1901	
VOCECORE		RC03-01-0008	06	S	7/24/1901	
VOCECORE		RC03-01-0008	07	S	7/24/1901	
VOCECORE		RC03-01-0008	08	S	7/24/1901	
PCB		RC03-01-0009	03	S	7/24/1901	
VOCECORE		RC03-01-0009	05	S	7/24/1901	
VOCECORE		RC03-01-0009	06	S	7/24/1901	
VOCECORE		RC03-01-0009	07	S	7/24/1901	

ANALYSIS ORDER CODE	ANALYTE(S)	SAMPLE ID	CONT ID	SAMPLE MATRIX	DATE SAMPLED	COMMENTS
VOCECORE		RC03-01-0009	08	S	7/24/1901	
PCB		RC03-01-0010	03	S	7/24/1901	
VOCECORE		RC03-01-0010	04	S	7/24/1901	
VOCECORE		RC03-01-0010	05	S	7/24/1901	
VOCECORE		RC03-01-0010	06	S	7/24/1901	
VOCECORE		RC03-01-0010	07	S	7/24/1901	
TPH		RC03-01-0041	02	S	7/24/1901	
TPH		RC03-01-0042	02	S	7/24/1901	
TPH		RC03-01-0043	02	S	7/24/1901	
TPH		RC03-01-0044	02	S	7/24/1901	
TPH		RC03-01-0048	02	D	7/24/1901	
TPH		RC03-01-0049	02	D	7/24/1901	

Lionville Laboratory, Inc.

Volatiles By GC/MS, Special List

Report Date: 08/23/01 18:33

RFW Batch Number: 0107L423 Client: LANL REQ #9432R Work Order: 02744064001 Page: 1a

	Cust ID:	RC03-01-0006		RC03-01-0007		RC03-01-0008		RC03-01-0009		RC03-01-0010		VBLKLQ	
		06		06		06		06		06			
Sample	RFW#:	007		009		011		013		015		01LVK240-MB1	
Information	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	D.F.:	1.11		0.909		1.14		0.943		1.00		1.00	
	Units:	ug/Kg		ug/Kg		ug/Kg		ug/Kg		ug/Kg		ug/Kg	
	1,2-Dichloroethane-d4	84	%	92	%	93	%	90	%	96	%	91	%
Surrogate	Toluene-d8	94	%	94	%	94	%	94	%	94	%	95	%
Recovery	Bromofluorobenzene	107	%	117	%	107	%	116	%	122	%	105	%
			fl		fl		fl		fl		fl		fl
Dichlorodifluoromethane		12	U	10	U	12	U	10	U	11	U	10	U
Chloromethane		12	U	10	U	12	U	10	U	11	U	10	U
Vinyl Chloride		12	U	10	U	12	U	10	U	11	U	10	U
Bromomethane		12	U	10	U	12	U	10	U	11	U	10	U
Chloroethane		12	U	10	U	12	U	10	U	11	U	10	U
Trichlorofluoromethane		6	U	5	U	6	U	5	U	6	U	5	U
1,1-Dichloroethene		6	U	5	U	6	U	5	U	6	U	5	U
Trichlorotrifluoroethane		6	U	5	U	6	U	5	U	6	U	5	U
Acetone		24	BJ	14	BJ	19	BJ	15	BJ	17	BJ	16	J
Iodomethane		6	U	5	U	6	U	5	U	6	U	5	U
Carbon Disulfide		6	U	5	U	6	U	5	U	6	U	5	U
Methylene Chloride		12	B	10	B	12	B	12	B	13	B	7	
Trans-1,2-dichloroethene		6	U	5	U	6	U	5	U	6	U	5	U
1,1-Dichloroethane		6	U	5	U	6	U	5	U	6	U	5	U
2-Butanone		24	U	20	U	24	U	20	U	22	U	20	U
Cis-1,2-dichloroethene		6	U	5	U	6	U	5	U	6	U	5	U
2,2-Dichloropropane		6	U	5	U	6	U	5	U	6	U	5	U
Bromochloromethane		6	U	5	U	6	U	5	U	6	U	5	U
Chloroform		6	U	5	U	6	U	5	U	6	U	5	U
1,1,1-Trichloroethane		6	U	5	U	6	U	5	U	2	J	5	U
Carbon Tetrachloride		6	U	5	U	6	U	5	U	6	U	5	U
1,1-dichloropropene		6	U	5	U	6	U	5	U	6	U	5	U
Benzene		6	U	5	U	6	U	5	U	6	U	5	U
1,2-Dichloroethane		6	U	5	U	6	U	5	U	6	U	5	U
Trichloroethene		6	U	5	U	6	U	5	U	6	U	5	U
1,2-Dichloropropane		6	U	5	U	6	U	5	U	6	U	5	U
Dibromomethane		6	U	5	U	6	U	5	U	6	U	5	U
Bromodichloromethane		6	U	5	U	6	U	5	U	6	U	5	U
cis-1,3-Dichloropropene		6	U	5	U	6	U	5	U	6	U	5	U

*= Outside of EPA CLP QC limits.

RFW Batch Number: 0107L423 Client: LANL REQ #9432R Work Order: 02744064001 Page: 1b

18

Cust ID:	RC03-01-0006		RC03-01-0007		RC03-01-0008		RC03-01-0009		RC03-01-0010		VBLKLQ	
	06		06		06		06		06			
RFW#:	007		009		011		013		015		01LVK240-MB1	
4-Methyl-2-pentanone	24	U	20	U	24	U	20	U	22	U	20	U
Toluene	6	U	5	U	6	U	5	U	6	U	5	U
Trans-1,3-Dichloropropene	6	U	5	U	6	U	5	U	6	U	5	U
1,1,2-Trichloroethane	6	U	5	U	6	U	5	U	6	U	5	U
Tetrachloroethene	6	U	5	U	6	U	5	U	6	U	5	U
1,3-Dichloropropane	6	U	5	U	6	U	5	U	6	U	5	U
2-Hexanone	24	U	20	U	24	U	20	U	22	U	20	U
Dibromochloromethane	6	U	5	U	6	U	5	U	6	U	5	U
1,2-Dibromoethane	6	U	5	U	6	U	5	U	6	U	5	U
Chlorobenzene	6	U	5	U	6	U	5	U	6	U	5	U
1,1,1,2-Tetrachloroethane	6	U	5	U	6	U	5	U	6	U	5	U
Ethylbenzene	6	U	5	U	6	U	5	U	6	U	5	U
Xylenes (total)	6	U	5	U	6	U	5	U	6	U	5	U
Styrene	6	U	5	U	6	U	5	U	6	U	5	U
Bromoform	6	U	5	U	6	U	5	U	6	U	5	U
Isopropylbenzene	6	U	5	U	6	U	5	U	6	U	5	U
Bromobenzene	6	U	5	U	6	U	5	U	6	U	5	U
1,2,3-Trichloropropane	6	U	5	U	6	U	5	U	6	U	5	U
1,1,2,2-Tetrachloroethane	6	U	5	U	6	U	5	U	6	U	5	U
N-propylbenzene	6	U	5	U	6	U	5	U	6	U	5	U
2-Chlorotoluene	6	U	5	U	6	U	5	U	6	U	5	U
4-Chlorotoluene	6	U	5	U	6	U	5	U	6	U	5	U
1,3,5-Trimethylbenzene	6	U	5	U	6	U	5	U	6	U	5	U
Tert-butylbenzene	6	U	5	U	6	U	5	U	6	U	5	U
1,2,4-Trimethylbenzene	6	U	5	U	6	U	5	U	6	U	5	U
Sec-butylbenzene	6	U	5	U	6	U	5	U	6	U	5	U
1,3-Dichlorobenzene	6	U	5	U	6	U	5	U	6	U	5	U
1,4-Dichlorobenzene	6	U	5	U	6	U	5	U	6	U	5	U
4-Isopropyltoluene	6	U	5	U	6	U	5	U	6	U	5	U
1,2-Dichlorobenzene	6	U	5	U	6	U	5	U	6	U	5	U
N-butylbenzene	6	U	5	U	6	U	5	U	6	U	5	U
1,2-Dibromo-3-chloropropane	12	U	10	U	12	U	10	U	11	U	10	U

*= Outside of EPA CLP QC limits.

2B

SOIL VOLATILE SURROGATE RECOVERY

Lab Name: Lionville Labs, Inc. Contract: 2744-64-01

Case No.: LANL REQ #9432R Level:(low/med) LOW

RFW Lot No.: 0107L423

	CLIENT SAMPLE NO.	S1 (DCE)#	S2 (TOL)#	S3 (BFB)#	OTHER	TOT OUT
01	RC03-01-0006 06	84	94	107		0
02	RC03-01-0007 06	92	94	117		0
03	RC03-01-0008 06	93	94	107		0
04	RC03-01-0009 06	90	94	116		0
05	RC03-01-0010 06	96	94	122		0
06	VBLKLQLVK240-MB1	91	95	105		0

	QC LIMITS
S1 (DCE) = 1,2-Dichloroethane-d4	(63-151)
S2 (TOL) = Toluene-d8	(68-140)
S3 (BFB) = Bromofluorobenzene	(66-122)

Column to be used to flag recovery values
* Values outside of QC limits
D Surrogates diluted out

4A
VOLATILE METHOD BLANK SUMMARY

Lab Name: Lionville Laboratory Inc. Contract: 02744-064-001-9999-00

Lab Code: LVLI Case No.: SAS No.: SDG No.: 07L423

Lab File ID: K080205 Lab Sample ID: 01LVK240-MB1

Date Analyzed: 08/02/1 Time Analyzed: 1508

Matrix: (soil/water) SOIL Level: (low/med) LOW

Instrument ID: 5970K

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	RC03-01-0006 06	0107L423-007	K080206	1550
02	RC03-01-0007 06	0107L423-009	K080207	1633
03	RC03-01-0008 06	0107L423-011	K080208	1716
04	RC03-01-0009 06	0107L423-013	K080209	1759
05	RC03-01-0010 06	0107L423-015	K080210	1841
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30				

COMMENTS:

5A
VOLATILE ORGANIC GC/MS TUNING AND MASS CALIBRATION - BROMOFLUOROBENZENE (BFB)

Lab Name: Lionville Laboratory Inc. Contract: 02744-064-001-9999-00

Lab Code: LVLI Case No.: SAS No.: SDG No.: 07L423

Lab File ID: K073107 BFB Injection Date: 07/31/1

Instrument ID: 5970K BFB Injection Time: 1704

GC Column: DB 624 ID: 0.53 (mm) Heated Purge: (Y/N) Y

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	26.1
75	30.0 - 60.0% of mass 95	55.1
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	8.2
173	Less than 2.0% of mass 174	0.2 (0.3)1
174	50.0 - 100.0% of mass 95	69.8
175	5.0 - 9.0% of mass 174	5.9 (8.5)1
176	95.0 - 100.9% of mass 174	67.8 (97.1)1
177	5.0 - 9.0% of mass 176	5.1 (7.5)2

1-Value is % of mass 174 2-Value is % of mass 176

THIS TUNE APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD10	VSTD10	K073110	07/31/1	1839
02	VSTD20	VSTD20	K073111	07/31/1	1917
03	VSTD200	VSTD200	K073112	07/31/1	1955
04	VSTD100 TCL	VSTD100	K073113	07/31/1	2034
05	VSTD50	VSTD50	K073114	07/31/1	2131
06	VSTD05	VSTD05	K073115	07/31/1	2212
07	VSTD50	VSTD50	K073116	07/31/1	2253
08	VSTD20 Freon 113	VSTD20	K073117	07/31/1	2331
09	VSTD10	VSTD10	K073118	08/01/1	0010
10	VSTD200 Iodomethane	VSTD200	K073119	08/01/1	0049
11	VSTD100	VSTD100	K073120	08/01/1	0129
12	VSTD05 Roy 8/24/01	VSTD05	K073121	08/01/1	0210
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

5A

VOLATILE ORGANIC GC/MS TUNING AND MASS CALIBRATION - BROMOFLUOROBENZENE (BFB)

Lab Name: Lionville Laboratory Inc. Contract: 02744-064-001-9999-00

Lab Code: LVLI Case No.: SAS No.: SDG No.: 07L423

Lab File ID: K080201 BFB Injection Date: 08/02/1

Instrument ID: 5970K BFB Injection Time: 1238

GC Column: DB 624 ID: 0.53 (mm) Heated Purge: (Y/N) Y

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	27.1
75	30.0 - 60.0% of mass 95	56.3
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	8.1
173	Less than 2.0% of mass 174	0.2 (0.2)1
174	50.0 - 100.0% of mass 95	71.0
175	5.0 - 9.0% of mass 174	5.6 (8.0)1
176	95.0 - 100.9% of mass 174	69.2 (97.4)1
177	5.0 - 9.0% of mass 176	5.1 (7.4)2

1-Value is % of mass 174 2-Value is % of mass 176

THIS TUNE APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD50	VSTD50	K080202	08/02/1	1300
02	VSTD50	VSTD50	K080203	08/02/1	1339
03	VBLKLQ	01LVK240-MB1	K080205	08/02/1	1508
04	RC03-01-0006 06	0107L423-007	K080206	08/02/1	1550
05	RC03-01-0007 06	0107L423-009	K080207	08/02/1	1633
06	RC03-01-0008 06	0107L423-011	K080208	08/02/1	1716
07	RC03-01-0009 06	0107L423-013	K080209	08/02/1	1759
08	RC03-01-0010 06	0107L423-015	K080210	08/02/1	1841
09					
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8A
VOLATILE INTERNAL STANDARD AREA SUMMARY

Lab Name: Lionville Laboratory Inc. Contract: 02744-064-001-9999-00

Lab Code: LVLI Case No.: SAS No.: SDG No.: 07L423

Lab File ID (Standard): K080203 Date Analyzed: 08/02/1

Instrument ID: 5970K Time Analyzed: 1339

GC Column: DB-624 ID: 0.53 (mm) Heated Purge: (Y/N) Y

		IS1 AREA #	RT	IS2(CBZ) AREA #	RT	IS3(DCB) AREA #	RT
	12 HOUR STD	498112	14.73	335465	19.12	212529	22.02
	UPPER LIMIT	996224	15.23	670930	19.62	425058	22.52
	LOWER LIMIT	249056	14.23	167732	18.62	106264	21.52
	EPA SAMPLE NO.						
01	VBLKLQ	546218	14.73	375469	19.13	207539	22.01
02	RC03-01-0006 06	543389	14.73	371848	19.13	203341	22.02
03	RC03-01-0007 06	536552	14.74	339783	19.12	158692	22.02
04	RC03-01-0008 06	528672	14.73	360179	19.12	202278	22.01
05	RC03-01-0009 06	525154	14.73	341318	19.13	161733	22.02
06	RC03-01-0010 06	505199	14.74	325478	19.12	144891	22.01
07							
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22							

IS1 = Fluorobenzene
IS2 (CBZ) = Chlorobenzene-d5
IS3 (DCB) = 1,4-Dichlorobenzene-d4

UPPER LIMIT = +100% of internal standard area.
LOWER LIMIT = - 50% of internal standard area.

Column used to flag internal standard area values with an asterisk.

6A
VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Lionville Laboratory Inc. Contract: 02744-064-001-9999-00

Lab Code: LVLI Case No.: SAS No.: SDG No.: 07L423

Instrument ID: 5970K Calibration Date(s): 07/31/1 08/01/1

Heated Purge: (Y/N) Y GC Column: DB-624 ID: 0.53 (mm)

= Min RRF for SPCC Max %RSD for CCC(*) = 30.0%

LAB FILE ID: RRF10 =k073110.d RRF20 =k073111.d
RRF50 =k073114.d RRF100=k073113.d RRF200=k073112.d

COMPOUND		RRF10	RRF20	RRF50	RRF100	RRF200	$\overline{RRF}$	% RSD
Dichlorodifluoromethane		0.606	0.529	0.561	0.605	0.612	0.583	6.2
Chloromethane	#	0.341	0.346	0.338	0.385	0.416	0.365	9.4#
Vinyl Chloride	*	0.291	0.279	0.346	0.413	0.426	0.351	19.3*
Bromomethane		0.226	0.251	0.274	0.294	0.278	0.265	10.1
Chloroethane		0.179	0.174	0.176	0.178	0.169	0.175	2.3
Trichlorofluoromethane		0.824	0.730	0.752	0.796	0.787	0.778	4.7
1,1-Dichloroethene	*	0.345	0.336	0.348	0.365	0.437	0.366	11.2*
Methylene Chloride		0.925	0.676	0.433	0.441	0.487	0.592	35.5
Acetone		0.393	0.223	0.133	0.108	0.116	0.195	61.7
trans-1,2-Dichloroethene		0.331	0.283	0.318	0.285	0.320	0.307	7.2
1,1-Dichloroethane	#	0.660	0.578	0.608	0.593	0.739	0.636	10.3#
cis-1,2-Dichloroethene		0.388	0.336	0.364	0.341	0.401	0.366	7.7
2,2-Dichloropropane		0.026	0.026	0.072	0.086	0.133	0.069	65.4
2-Butanone		0.191	0.148	0.138	0.120	0.142	0.148	17.8
Bromochloromethane		0.256	0.233	0.246	0.245	0.300	0.256	10.1
Chloroform	*	0.778	0.706	0.704	0.661	0.704	0.711	5.9*
1,1,1-Trichloroethane		0.597	0.562	0.591	0.554	0.537	0.568	4.5
Carbon Tetrachloride		0.570	0.520	0.537	0.520	0.510	0.531	4.5
1,1-Dichloropropene		0.194	0.174	0.191	0.183	0.180	0.184	4.4
Benzene		0.996	0.954	0.972	0.966	0.993	0.976	1.8
1,2-Dichloroethane		0.482	0.406	0.442	0.377	0.385	0.418	10.4
Trichloroethene		0.438	0.415	0.442	0.425	0.427	0.429	2.5
1,2-Dichloropropane	*	0.463	0.433	0.449	0.442	0.450	0.447	2.4*
Dibromomethane		0.342	0.303	0.330	0.298	0.315	0.318	5.8
Bromodichloromethane		0.713	0.641	0.657	0.604	0.593	0.642	7.4
cis-1,3-Dichloropropene		0.607	0.634	0.724	0.678	0.647	0.658	6.8
Toluene	*	1.530	1.500	1.515	1.485	1.514	1.509	1.1*
4-Methyl-2-Pentanone		0.624	0.566	0.598	0.570	0.635	0.599	5.2
trans-1,3-Dichloropropene		0.344	0.376	0.476	0.458	0.473	0.425	14.4
1,1,2-Trichloroethane		0.512	0.495	0.504	0.459	0.452	0.484	5.6
Tetrachloroethene		0.475	0.494	0.550	0.492	0.506	0.503	5.7
2-Hexanone		0.426	0.407	0.411	0.372	0.438	0.411	6.1
1,3-Dichloropropane		0.789	0.792	0.840	0.768	0.760	0.790	3.9
Dibromochloromethane		0.779	0.797	0.834	0.788	0.773	0.794	3.1
1,2-Dibromoethane		0.668	0.677	0.738	0.687	0.696	0.693	3.9
Chlorobenzene	#	1.028	1.071	1.083	1.071	1.114	1.073	2.9#
1,1,1,2-Tetrachloroethane		0.552	0.556	0.577	0.548	0.563	0.559	2.0
Ethylbenzene	*	0.503	0.489	0.508	0.502	0.502	0.501	1.4*

FORM VI VOA MAC-SW846HP

6A
VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Lionville Laboratory Inc. Contract: 02744-064-001-9999-00

Lab Code: LVLI Case No.: SAS No.: SDG No.: 07L423

Instrument ID: 5970K Calibration Date(s): 07/31/1 08/01/1

Heated Purge: (Y/N) Y GC Column: DB-624 ID: 0.53 (mm)

= Min RRF for SPCC Max %RSD for CCC(*) = 30.0%

LAB FILE ID: RRF10 =k073110.d RRF20 =k073111.d
RRF50 =k073114.d RRF100=k073113.d RRF200=k073112.d

COMPOUND	RRF10	RRF20	RRF50	RRF100	RRF200	$\overline{RRF}$	% RSD
m & p-Xylene	0.582	0.601	0.614	0.604	0.601	0.600	1.9
Xylenes (Total)	0.590	0.598	0.610	0.606	0.603	0.601	1.3
o-Xylene	0.604	0.592	0.604	0.610	0.609	0.604	1.2
Styrene	0.888	0.959	1.006	1.000	1.038	0.978	5.9
Bromoform #	0.482	0.514	0.576	0.532	0.622	0.545	10.1#
Isopropylbenzene	1.687	1.754	1.792	1.783	1.822	1.768	2.9
Bromobenzene	2.619	2.284	2.338	2.202	2.162	2.321	7.8
1,2,3-Trichloropropane	0.361	0.292	0.343	0.289	0.312	0.319	9.9
1,1,2,2-Tetrachloroethane #	1.589	1.392	1.420	1.249	1.293	1.389	9.5#
N-Propylbenzene	0.846	0.733	0.798	0.727	0.686	0.758	8.3
2-Chlorotoluene	0.778	0.722	0.786	0.719	0.691	0.739	5.5
4-Chlorotoluene	0.834	0.639	0.794	0.773	0.723	0.753	10.0
1,3,5-Trimethylbenzene	2.540	2.236	2.486	2.254	2.064	2.316	8.4
Tert-Butylbenzene	0.650	0.599	0.639	0.595	0.570	0.611	5.4
1,2,4-Trimethylbenzene	2.419	2.199	2.363	2.166	2.218	2.273	4.9
Sec-Butylbenzene	0.715	0.673	0.692	0.648	0.623	0.670	5.4
1,3-Dichlorobenzene	1.610	1.459	1.526	1.419	1.404	1.484	5.7
1,4-Dichlorobenzene	1.732	1.554	1.780	1.507	1.596	1.634	7.2
4-Isopropyltoluene	2.852	2.671	2.709	2.478	2.517	2.645	5.7
1,2-Dichlorobenzene	1.588	1.397	1.478	1.437	1.492	1.478	4.9
N-Butylbenzene	0.681	0.628	0.687	0.607	0.662	0.653	5.3
1,2-Dibromo-3-chloropropane	0.307	0.299	0.359	0.344	0.377	0.337	9.9
Carbon Disulfide	0.812	0.914	0.972	1.051	1.204	0.991	14.9
1,2-Dichloroethane-d4	0.415	0.338	0.403	0.361	0.349	0.373	9.1
Toluene-d8	1.071	1.086	1.255	1.254	1.229	1.179	7.8
Bromofluorobenzene	1.474	1.274	1.488	1.488	1.357	1.416	6.8

FORM VI VOA MAC-SW846HP

6A
VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Lionville Laboratory Inc. Contract: 02744-064-001-9999-00

Lab Code: LVLI Case No.: SAS No.: SDG No.: 07L423

Instrument ID: 5970K Calibration Date(s): 07/31/1 08/01/1

Heated Purge: (Y/N) Y GC Column: DB-624 ID: 0.53 (mm)

= Min RRF for SPCC Max %RSD for CCC(*) = 30.0%

LAB FILE ID: RRF10 =k073118.d RRF20 =k073117.d
RRF50 =k073116.d RRF100=k073120.d RRF200=k073119.d

COMPOUND	RRF10	RRF20	RRF50	RRF100	RRF200	$\overline{RRF}$	% RSD
Freon-113	0.454	0.534	0.478	0.362	0.438	0.453	13.8
Iodomethane	0.255	0.394	0.377	0.426	0.580	0.406	28.7

FORM VI VOA MAC-SW846HP

7AD

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Lionville Laboratory Inc. Contract: 02744-064-001-9999-00

Lab Code: LVLI Case No.: SAS No.: SDG No.: 07L423

Instrument ID: 5970K Calibration Date: 08/02/1 Time: 1339

Lab File ID: K080203 Init. Calib. Date(s): 07/31/1 08/01/1

Heated Purge: (Y/N) Y GC Column: DB-624 ID: 0.53 (mm)

= Min RRF50 for SPCC Max %D for CCC(*) = 20.0%

COMPOUND		$\overline{RRF}$	RRF50	%D
Dichlorodifluoromethane		0.583	0.613	5.1
Chloromethane	#	0.365	0.363	0.5#
Vinyl Chloride	*	0.351	0.375	6.8*
Bromomethane		0.265	0.236	10.9
Chloroethane		0.175	0.185	5.7
Trichlorofluoromethane		0.778	0.799	2.7
1,1-Dichloroethene	*	0.366	0.337	7.9*
Methylene Chloride		0.592	0.456	23.0
Acetone		0.195	0.120	38.5
trans-1,2-Dichloroethene		0.307	0.304	1.0
1,1-Dichloroethane	#	0.636	0.592	6.9#
cis-1,2-Dichloroethene		0.366	0.347	5.2
2,2-Dichloropropane		0.069	0.102	47.8
2-Butanone		0.148	0.132	10.8
Bromochloromethane		0.256	0.244	4.7
Chloroform	*	0.711	0.706	0.7*
1,1,1-Trichloroethane		0.568	0.602	6.0
Carbon Tetrachloride		0.531	0.546	2.8
1,1-Dichloropropene		0.184	0.184	0.0
Benzene		0.976	0.992	1.6
1,2-Dichloroethane		0.418	0.427	2.2
Trichloroethene		0.429	0.443	3.3
1,2-Dichloropropane	*	0.447	0.449	0.4*
Dibromomethane		0.318	0.331	4.1
Bromodichloromethane		0.642	0.663	3.3
cis-1,3-Dichloropropene		0.658	0.713	8.4
Toluene	*	1.509	1.508	0.1*
4-Methyl-2-Pentanone		0.599	0.569	5.0
trans-1,3-Dichloropropene		0.425	0.443	4.2
1,1,2-Trichloroethane		0.484	0.509	5.2
Tetrachloroethene		0.503	0.536	6.6
2-Hexanone		0.411	0.396	3.6
1,3-Dichloropropane		0.790	0.826	4.6
Dibromochloromethane		0.794	0.848	6.8
1,2-Dibromoethane		0.693	0.742	7.1
Chlorobenzene	#	1.073	1.126	4.9#
1,1,1,2-Tetrachloroethane		0.559	0.598	7.0
Ethylbenzene	*	0.501	0.518	3.4*

FORM VII VOA MAC-SW846HP-7

7AD
VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Lionville Laboratory Inc. Contract: 02744-064-001-9999-00

Lab Code: LVLI Case No.: SAS No.: SDG No.: 07L423

Instrument ID: 5970K Calibration Date: 08/02/1 Time: 1339

Lab File ID: K080203 Init. Calib. Date(s): 07/31/1 08/01/1

Heated Purge: (Y/N) Y GC Column: DB-624 ID: 0.53 (mm)

= Min RRF50 for SPCC Max %D for CCC(*) = 20.0%

COMPOUND		$\overline{RRF}$	RRF50	%D
m & p-Xylene		0.600	0.628	4.7
Xylenes (Total)		0.601	0.628	4.5
o-Xylene		0.604	0.629	4.1
Styrene		0.978	1.033	5.6
Bromoform	#	0.545	0.566	3.8#
Isopropylbenzene		1.768	1.862	5.3
Bromobenzene		2.321	2.252	3.0
1,2,3-Trichloropropane		0.319	0.312	2.2
1,1,2,2-Tetrachloroethane	#	1.389	1.288	7.3#
N-Propylbenzene		0.758	0.752	0.8
2-Chlorotoluene		0.739	0.721	2.4
4-Chlorotoluene		0.753	0.751	0.3
1,3,5-Trimethylbenzene		2.316	2.357	1.8
Tert-Butylbenzene		0.611	0.613	0.3
1,2,4-Trimethylbenzene		2.273	2.274	0.0
Sec-Butylbenzene		0.670	0.662	1.2
1,3-Dichlorobenzene		1.484	1.477	0.5
1,4-Dichlorobenzene		1.634	1.692	3.5
4-Isopropyltoluene		2.645	2.634	0.4
1,2-Dichlorobenzene		1.478	1.494	1.1
N-Butylbenzene		0.653	0.637	2.4
1,2-Dibromo-3-chloropropane		0.337	0.334	0.9
Carbon Disulfide		0.991	0.886	10.6
1,2-Dichloroethane-d4		0.373	0.341	8.6
Toluene-d8		1.179	1.130	4.2
Bromofluorobenzene		1.416	1.376	2.8

FORM VII VOA MAC-SW846HP-7

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Lionville Laboratory Inc. Contract: 02744-064-001-9999-00

Lab Code: LVLI Case No.: SAS No.: SDG No.: 07L423

Instrument ID: 5970K Calibration Date: 08/02/1 Time: 1339

Lab File ID: K080203 Init. Calib. Date(s): 07/31/1 08/01/1

Heated Purge: (Y/N) Y GC Column: DB-624 ID: 0.53 (mm)

= Min RRF50 for SPCC Max %Drift for CCC(*) = 20.0%

COMPOUND	RRF50	SPIKED AMOUNT	OBSRVD AMOUNT	%Drift
Dichlorodifluoromethane	0.613	50.0	52.6	5.2
Chloromethane #	0.363	50.0	49.8	0.4#
Vinyl Chloride *	0.375	50.0	53.4	6.8*
Bromomethane	0.236	50.0	44.6	10.8
Chloroethane	0.185	50.0	52.8	5.6
Trichlorofluoromethane	0.799	50.0	51.4	2.8
1,1-Dichloroethene *	0.337	50.0	46.0	8.0*
Methylene Chloride	0.456	50.0	38.5	23.0
Acetone	0.120	50.0	30.8	38.4
trans-1,2-Dichloroethene	0.304	50.0	49.4	1.2
1,1-Dichloroethane #	0.592	50.0	46.5	7.0#
cis-1,2-Dichloroethene	0.347	50.0	47.4	5.2
2,2-Dichloropropane	0.102	50.0	74.1	48.2
2-Butanone	0.132	50.0	44.8	10.4
Bromochloromethane	0.244	50.0	47.6	4.8
Chloroform *	0.706	50.0	49.7	0.6*
1,1,1-Trichloroethane	0.602	50.0	53.0	6.0
Carbon Tetrachloride	0.546	50.0	51.4	2.8
1,1-Dichloropropene	0.184	50.0	50.0	0.0
Benzene	0.992	50.0	50.8	1.6
1,2-Dichloroethane	0.427	50.0	51.0	2.0
Trichloroethene	0.443	50.0	51.6	3.2
1,2-Dichloropropane *	0.449	50.0	50.2	0.4*
Dibromomethane	0.331	50.0	52.2	4.4
Bromodichloromethane	0.663	50.0	51.6	3.2
cis-1,3-Dichloropropene	0.713	50.0	54.2	8.4
Toluene *	1.508	50.0	50.0	0.0*
4-Methyl-2-Pentanone	0.569	50.0	47.5	5.0
trans-1,3-Dichloropropene	0.443	50.0	52.1	4.2
1,1,2-Trichloroethane	0.509	50.0	52.5	5.0
Tetrachloroethene	0.536	50.0	53.2	6.4
2-Hexanone	0.396	50.0	48.2	3.6
1,3-Dichloropropane	0.826	50.0	52.3	4.6
Dibromochloromethane	0.848	50.0	53.4	6.8
1,2-Dibromoethane	0.742	50.0	53.5	7.0
Chlorobenzene #	1.126	50.0	52.5	5.0#
1,1,1,2-Tetrachloroethane	0.598	50.0	53.4	6.8
Ethylbenzene *	0.518	50.0	51.7	3.4*

FORM VII VOA MAC-SW846HP-7

7A
VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Lionville Laboratory Inc. Contract: 02744-064-001-9999-00

Lab Code: LVLI Case No.: SAS No.: SDG No.: 07L423

Instrument ID: 5970K Calibration Date: 08/02/1 Time: 1339

Lab File ID: K080203 Init. Calib. Date(s): 07/31/1 08/01/1

Heated Purge: (Y/N) Y GC Column: DB-624 ID: 0.53 (mm)

= Min RRF50 for SPCC Max %Drift for CCC(*) = 20.0%

COMPOUND	RRF50	SPIKED AMOUNT	OBSRVD AMOUNT	%Drift
m & p-Xylene	0.628	100	105	5.0
Xylenes (Total)	0.628	150	157	4.7
o-Xylene	0.629	50.0	52.0	4.0
Styrene	1.033	50.0	52.8	5.6
Bromoform #	0.566	50.0	51.9	3.8#
Isopropylbenzene	1.862	50.0	52.7	5.4
Bromobenzene	2.252	50.0	48.5	3.0
1,2,3-Trichloropropane	0.312	50.0	48.9	2.2
1,1,2,2-Tetrachloroethane #	1.288	50.0	46.4	7.2#
N-Propylbenzene	0.752	50.0	49.6	0.8
2-Chlorotoluene	0.721	50.0	48.7	2.6
4-Chlorotoluene	0.751	50.0	49.9	0.2
1,3,5-Trimethylbenzene	2.357	50.0	50.9	1.8
Tert-Butylbenzene	0.613	50.0	50.2	0.4
1,2,4-Trimethylbenzene	2.274	50.0	50.0	0.0
Sec-Butylbenzene	0.662	50.0	49.4	1.2
1,3-Dichlorobenzene	1.477	50.0	49.8	0.4
1,4-Dichlorobenzene	1.692	50.0	51.8	3.6
4-Isopropyltoluene	2.634	50.0	49.8	0.4
1,2-Dichlorobenzene	1.494	50.0	50.5	1.0
N-Butylbenzene	0.637	50.0	48.8	2.4
1,2-Dibromo-3-chloropropane	0.334	50.0	49.5	1.0
Carbon Disulfide	0.886	50.0	44.7	10.6
1,2-Dichloroethane-d4	0.341	50.0	45.7	8.6
Toluene-d8	1.130	50.0	47.9	4.2
Bromofluorobenzene	1.376	50.0	48.6	2.8

7AD

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Lionville Laboratory Inc. Contract: 02744-064-001-9999-00

Lab Code: LVLI Case No.: SAS No.: SDG No.: 07L423

Instrument ID: 5970K Calibration Date: 08/02/1 Time: 1300

Lab File ID: K080202 Init. Calib. Date(s): 07/31/1 08/01/1

Heated Purge: (Y/N) Y GC Column: DB-624 ID: 0.53 (mm)

= Min RRF50 for SPCC Max %D for CCC(*) = 20.0%

COMPOUND	$\overline{RRF}$	RRF50	%D
Freon-113	0.453	0.319	29.6
Iodomethane	0.406	0.523	28.8

FORM VII VOA MAC-SW846HP-7

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Lionville Laboratory Inc. Contract: 02744-064-001-9999-00

Lab Code: LVLI Case No.: SAS No.: SDG No.: 07L423

Instrument ID: 5970K Calibration Date: 08/02/1 Time: 1300

Lab File ID: K080202 Init. Calib. Date(s): 07/31/1 08/01/1

Heated Purge: (Y/N) Y GC Column: DB-624 ID: 0.53 (mm)

= Min RRF50 for SPCC Max %Drift for CCC(*) = 20.0%

COMPOUND	RRF50	SPIKED AMOUNT	OBSRVD AMOUNT	%Drift
Freon-113	0.319	50.0	35.2	29.6
Iodomethane	0.523	50.0	64.4	28.8

FORM VII VOA MAC-SW846HP-7

1A
VOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

VBLKLQ

Lab Name: Lionville Labs, Inc. Work Order: 02744064001

Client: LANL REQ #9432R

Matrix: SOIL

Lab Sample ID: 01LVK240-MB1

Sample wt/vol: 5.00 (g/mL) G

Lab File ID: k080205

Level: (low/med) LOW

Date Received: 08/02/01

% Moisture: not dec. 0

Date Analyzed: 08/02/01

Column: (pack/cap) CAP

Dilution Factor: 1.00

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND		
75-71-8	Dichlorodifluoromethane	10	U
74-87-3	Chloromethane	10	U
75-01-4	Vinyl Chloride	10	U
74-83-9	Bromomethane	10	U
75-00-3	Chloroethane	10	U
75-69-4	Trichlorofluoromethane	5	U
75-35-4	1,1-Dichloroethene	5	U
76-13-1	Trichlorotrifluoroethane	5	U
67-64-1	Acetone	16	J
74-88-4	Iodomethane	5	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	7	
156-60-5	Trans-1,2-dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
78-93-3	2-Butanone	20	U
156-59-2	Cis-1,2-dichloroethene	5	U
590-20-7	2,2-Dichloropropane	5	U
74-97-5	Bromochloromethane	5	U
67-66-3	Chloroform	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
563-58-6	1,1-dichloropropene	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U
79-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
74-95-3	Dibromomethane	5	U
75-27-4	Bromodichloromethane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
108-10-1	4-Methyl-2-pentanone	20	U
108-88-3	Toluene	5	U
10061-02-6	Trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
127-18-4	Tetrachloroethene	5	U

1B
VOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

VBLKLQ

Lab Name: Lionville Labs, Inc. Work Order: 02744064001

Client: LANL REQ #9432R

Matrix: SOIL

Lab Sample ID: 01LVK240-MB1

Sample wt/vol: 5.00 (g/mL) G

Lab File ID: k080205

Level: (low/med) LOW

Date Received: 08/02/01

% Moisture: not dec. 0

Date Analyzed: 08/02/01

Column: (pack/cap) CAP

Dilution Factor: 1.00

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND		
142-28-9	1,3-Dichloropropane	5	U
591-78-6	2-Hexanone	20	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
630-20-6	1,1,1,2-Tetrachloroethane	5	U
100-41-4	Ethylbenzene	5	U
1330-20-7	Xylenes (total)	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
98-82-8	Isopropylbenzene	5	U
108-86-1	Bromobenzene	5	U
96-18-4	1,2,3-Trichloropropane	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
103-65-1	N-propylbenzene	5	U
95-49-8	2-Chlorotoluene	5	U
106-43-4	4-Chlorotoluene	5	U
108-67-8	1,3,5-Trimethylbenzene	5	U
98-06-6	Tert-butylbenzene	5	U
95-63-6	1,2,4-Trimethylbenzene	5	U
135-98-8	Sec-butylbenzene	5	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
99-87-6	4-Isopropyltoluene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
104-51-8	N-butylbenzene	5	U
96-12-8	1,2-Dibromo-3-chloropropane	10	U

FORM 1 V-2

12/88 Rev.

1E
VOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

VBLKLQ

Lab Name: Lionville Labs, Inc. Work Order: 02744064001

Client: LANL REQ #9432R

Matrix: SOIL

Lab Sample ID: 01LVK240-MB1

Sample wt/vol: 5.00 (g/mL) G

Lab File ID: k080205

Level: (low/med) LOW

Date Received: 08/02/01

% Moisture: not dec. 0

Date Analyzed: 08/02/01

Column: (pack/cap) CAP

Dilution Factor: 1.00

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.				

FORM 1 VOA-TIC

12/88 Rev.

DATA VALIDATION COVER SHEET (Example)

SECTION I.

REQUEST NUMBER: 9432 COST CODE: _____

VALIDATION DATE: _____

LAB NAME: LULF LAB CODE: _____

VALIDATOR: _____ ORGANIZATION: _____

ANALYTICAL SUITE: ___ VOLATILES ___ HIGH EXPLOSIVES

___ SEMIVOLATILES ___ INORGANICS

___ PESTICIDES/AROCLORS ___ RADIOCHEMISTRY

OTHER (describe) _____

SECTION II. COMPLETENESS CHECKLIST

Item	Present? (Y/N/NA)	Item	Present? (Y/N/NA)
1. COC form(s)		2. Case Narrative	
3. Sample Results		4. Sample Chromatograms	
5. Standard Chromatograms		6. Quantitation Reports	
7. QC Forms			

Identify any samples in the assigned Request Number that are missing:

_____ _____ _____ _____ _____ _____

_____ _____ _____ _____ _____ _____

Comments: include information about requests to the laboratory and agreed upon date of resolution and lab contact: (Attach additional comment sheets as necessary)

_____

_____

_____

Signature/1st validation: _____ Date/1st validation: _____

Signature/2nd validation: _____ Date/2nd validation: _____

LIONVILLE LABORATORY INC.

28 August 2001

Ms. Joylene Valdez
Los Alamos National Laboratory
TA-3, Building 271
DP. O1U MS-H865
Los Alamos, NM 87545

Ref: Subcontract No. 7791L0014-AA
Data Report for LVL Batch 0107L423
LANL Request No. 9432R

Dear Ms. Valdez:

Enclosed please find the EDD for 19 soil samples received 27 July 2001. These were analyzed for PCBs, VOAs and TPH DRO on a 30 day turnaround. The EDD is enclosed.

Please do not hesitate to contact me at (610) 280-3029 with any question you may have regarding either the hard copy or electronic report.

Very truly yours,

Lionville Laboratory Incorporated

Judith L. Stone
Senior Project Manager

Enclosure:

208 Welsh Pool Road • Exton, PA 19341-1313 • (610) 280-3000 • Fax (610) 280-3041

Tuesday, July 31, 2001

REQUEST NUMBER: 9432R
ANALYSIS TYPE: ORG

Los Alamos
NATIONAL LABORATORY

AMENDED

01074423

ATTN: Judy Stone
Lionville Laboratory Inc
208 Welsh Pool Rd
Lionville, pa 19341

Please analyze the enclosed samples according to the schedule indicated:

These samples are on:

SHIP DATE: 7/25/01
REPORT DUE: 8/27/01
TURN AROUND REQ'D: 30 day

LANL Request Number: 9432R
Per Agreement Number:
Project Cost Code: MR0R0001E000

RAD SCREENING: Not Required

COMMENTS: 03 - 1114 , GA; TPH BY DIESEL. AMENDED: ANALYSIS REMOVED FROM THIS REQUEST. 7/31/01 JV.

LANL ER SMO CONTACT: Joylene Valdez MS H865 5056659968
Signature: Joylene Valdez

ANALYSIS ORDER CODE	ANALYTE(S)	SAMPLE ID	CONT ID	SAMPLE MATRIX	DATE SAMPLED	COMMENTS
PCB		RC03-01-0001	03	D	7/24/1901	
PCB		RC03-01-0002	03	D	7/24/1901	
PCB		RC03-01-0003	03	D	7/24/1901	
PCB		RC03-01-0004	03	D	7/24/1901	
PCB		RC03-01-0005	03	D	7/24/1901	
PCB		RC03-01-0006	03	S	7/24/1901	
VOCECORE		RC03-01-0006	05	S	7/24/1901	
VOCECORE		RC03-01-0006	06	S	7/24/1901	
VOCECORE		RC03-01-0006	07	S	7/24/1901	
VOCECORE		RC03-01-0006	08	S	7/24/1901	
PCB		RC03-01-0007	03	S	7/24/1901	
VOCECORE		RC03-01-0007	05	S	7/24/1901	
VOCECORE		RC03-01-0007	06	S	7/24/1901	
VOCECORE		RC03-01-0007	07	S	7/24/1901	
VOCECORE		RC03-01-0007	08	S	7/24/1901	
PCB		RC03-01-0008	03	S	7/24/1901	
VOCECORE		RC03-01-0008	05	S	7/24/1901	
VOCECORE		RC03-01-0008	06	S	7/24/1901	
VOCECORE		RC03-01-0008	07	S	7/24/1901	
VOCECORE		RC03-01-0008	08	S	7/24/1901	
PCB		RC03-01-0009	03	S	7/24/1901	
VOCECORE		RC03-01-0009	05	S	7/24/1901	
VOCECORE		RC03-01-0009	06	S	7/24/1901	
VOCECORE		RC03-01-0009	07	S	7/24/1901	

ANALYSIS ORDER CODE	ANALYTE(S)	SAMPLE ID	CONT ID	SAMPLE MATRIX	DATE SAMPLED	COMMENTS
VOCECORE		RC03-01-0009	08	S	7/24/1901	
PCB		RC03-01-0010	03	S	7/24/1901	
VOCECORE		RC03-01-0010	04	S	7/24/1901	
VOCECORE		RC03-01-0010	05	S	7/24/1901	
VOCECORE		RC03-01-0010	06	S	7/24/1901	
VOCECORE		RC03-01-0010	07	S	7/24/1901	
TPH		RC03-01-0041	02	S	7/24/1901	
TPH		RC03-01-0042	02	S	7/24/1901	
TPH		RC03-01-0043	02	S	7/24/1901	
TPH		RC03-01-0044	02	S	7/24/1901	

Thursday, July 26, 2001

REQUEST NUMBER: 9432R

ANALYSIS TYPE: ORG

Los Alamos
NATIONAL LABORATORY

ATTN: Judy Stone
Lionville Laboratory Inc
208 Welsh Pool Rd
Lionville, pa 19341

Please analyze the enclosed samples according to the schedule indicated:

SHIP DATE: 7/25/01
REPORT DUE: 8/27/01
TURN AROUND REQ'D: 30 day

These samples are on:

LANL Request Number: 9432R
Per Agreement Number:
Project Cost Code: MR0R0001E000

RAD SCREENING: Not Required

COMMENTS: 03 - 1114 , GA; TPH BY DIESEL.

LANL ER SMO CONTACT: Joylene Valdez MS H865 5056659968
Signature:

ANALYSIS ORDER CODE	ANALYTE(S)	SAMPLE ID	CONT ID	SAMPLE MATRIX	DATE SAMPLED	COMMENTS
PCB		RC03-01-0001	03	D	7/24/1901	
PCB		RC03-01-0002	03	D	7/24/1901	
PCB		RC03-01-0003	03	D	7/24/1901	
PCB		RC03-01-0004	03	D	7/24/1901	
PCB		RC03-01-0005	03	D	7/24/1901	
PCB		RC03-01-0006	03	S	7/24/1901	
VOCECORE		RC03-01-0006	05	S	7/24/1901	
VOCECORE		RC03-01-0006	06	S	7/24/1901	
VOCECORE		RC03-01-0006	07	S	7/24/1901	
VOCECORE		RC03-01-0006	08	S	7/24/1901	
PCB		RC03-01-0007	03	S	7/24/1901	
VOCECORE		RC03-01-0007	05	S	7/24/1901	
VOCECORE		RC03-01-0007	06	S	7/24/1901	
VOCECORE		RC03-01-0007	07	S	7/24/1901	
VOCECORE		RC03-01-0007	08	S	7/24/1901	
PCB		RC03-01-0008	03	S	7/24/1901	
VOCECORE		RC03-01-0008	05	S	7/24/1901	
VOCECORE		RC03-01-0008	06	S	7/24/1901	
VOCECORE		RC03-01-0008	07	S	7/24/1901	
VOCECORE		RC03-01-0008	08	S	7/24/1901	
PCB		RC03-01-0009	03	S	7/24/1901	
VOCECORE		RC03-01-0009	05	S	7/24/1901	
VOCECORE		RC03-01-0009	06	S	7/24/1901	
VOCECORE		RC03-01-0009	07	S	7/24/1901	

ANALYSIS ORDER CODE	ANALYTE(S)	SAMPLE ID	CONT ID	SAMPLE MATRIX	DATE SAMPLED	COMMENTS
VOCECORE		RC03-01-0009	08	S	7/24/1901	
PCB		RC03-01-0010	03	S	7/24/1901	
VOCECORE		RC03-01-0010	04	S	7/24/1901	
VOCECORE		RC03-01-0010	05	S	7/24/1901	
VOCECORE		RC03-01-0010	06	S	7/24/1901	
VOCECORE		RC03-01-0010	07	S	7/24/1901	
TPH		RC03-01-0041	02	S	7/24/1901	
TPH		RC03-01-0042	02	S	7/24/1901	
TPH		RC03-01-0043	02	S	7/24/1901	
TPH		RC03-01-0044	02	S	7/24/1901	
TPH		RC03-01-0048	02	D	7/24/1901	not rec'd gh 7/27/01
TPH		RC03-01-0049	02	D	7/24/1901	

contacted Keith Sheere -- we were not to receive these

Thursday, July 26, 2001

Los Alamos
NATIONAL LABORATORY

CHAIN OF CUSTODY DOCUMENT NUMBER: 9432RC

REQUEST NUMBER: 9432R
ANALYSIS TYPE: ORG

ATTN: Judy Stone
Lionville Laboratory Inc
208 Welsh Pool Rd
Lionville, pa 19341

SAMPLE ID	CONT ID	CONTAINER DESCRIPTION	ANALYSIS ORDER CODE	PRESERVATIVE	MATRIX
RC03-01-0001	03	125 ml Glass	PCB	Ice	D
RC03-01-0002	03	125 ml Glass	PCB	Ice	D
RC03-01-0003	03	125 ml Glass	PCB	Ice	D
RC03-01-0004	03	125 ml Glass	PCB	Ice	D
RC03-01-0005	03	125 ml Glass	PCB	Ice	D
RC03-01-0006	03	125 ml Glass	PCB	None	S
RC03-01-0006	05	125 ml Polyethylene	VOCECORE	Ice	S
RC03-01-0006	06	5 gm Encore Container-A	VOCECORE	Ice	S
RC03-01-0006	07	5 gm Encore Container-B	VOCECORE	Ice	S
RC03-01-0006	08	5 gm Encore Container-C	VOCECORE	Ice	S
RC03-01-0007	03	125 ml Glass	PCB	None	S
RC03-01-0007	05	125 ml Polyethylene	VOCECORE	Ice	S
RC03-01-0007	06	5 gm Encore Container-A	VOCECORE	Ice	S
RC03-01-0007	07	5 gm Encore Container-B	VOCECORE	Ice	S
RC03-01-0007	08	5 gm Encore Container-C	VOCECORE	Ice	S
RC03-01-0008	03	125 ml Glass	PCB	None	S
RC03-01-0008	05	125 ml Polyethylene	VOCECORE	Ice	S
RC03-01-0008	06	5 gm Encore Container-A	VOCECORE	Ice	S
RC03-01-0008	07	5 gm Encore Container-B	VOCECORE	Ice	S
RC03-01-0008	08	5 gm Encore Container-C	VOCECORE	Ice	S

Relinquished By:	Date	Time	Received By:	Date	Time
Marcia [illegible] (PRINTED NAME / SIGNATURE)	7/26/0	1410	(PRINTED NAME / SIGNATURE)		
FedEx (PRINTED NAME / SIGNATURE)	7-27-01	1015	J Boppel (PRINTED NAME) / J Boppel (SIGNATURE)	7-27-01	1015
(PRINTED NAME / SIGNATURE)			(PRINTED NAME / SIGNATURE)		

Received for DISPOSAL By:	Date	Time
(PRINTED NAME / SIGNATURE)		

Remarks:

SAMPLE ID	CONT ID	CONTAINER DESCRIPTION	ANALYSIS ORDER CODE		
RC03-01-0009	03	125 ml Glass	PCB	None	S
RC03-01-0009	05	125 ml Polyethylene	VOCECORE	Ice	S
RC03-01-0009	06	5 gm Encore Container-A	VOCECORE	Ice	S
RC03-01-0009	07	5 gm Encore Container-B	VOCECORE	Ice	S
RC03-01-0009	08	5 gm Encore Container-C	VOCECORE	Ice	S
RC03-01-0010	03	125 ml Glass	PCB	None	S
RC03-01-0010	04	125 ml Polyethylene	VOCECORE	Ice	S
RC03-01-0010	05	5 gm Encore Container-A	VOCECORE	Ice	S
RC03-01-0010	06	5 gm Encore Container-B	VOCECORE	Ice	S
RC03-01-0010	07	5 gm Encore Container-C	VOCECORE	Ice	S
RC03-01-0041	02	125 ml Amber Glass	TPH	Ice	S
RC03-01-0042	02	125 ml Amber Glass	TPH	Ice	S
RC03-01-0043	02	125 ml Amber Glass	TPH	Ice	S
RC03-01-0044	02	125 ml Amber Glass	TPH	Ice	S
RC03-01-0048	02	125 mL Amber Glass	TPH	Ice	D
RC03-01-0049	02	125 mL Amber Glass	TPH	Ice	D

Final Page of CHAIN OF CUSTODY DOCUMENT FOR REQUEST NUMBER 9432R Page 2

Relinquished By:		Date	Time	Received By:		Date	Time
Abarca	[signature]	7/26/01					
PRINTED NAME	SIGNATURE			PRINTED NAME	SIGNATURE		
FedEx		7-27-01	1015	J Beppel	[signature]	7-27-01	1015
PRINTED NAME	SIGNATURE			PRINTED NAME	SIGNATURE		
PRINTED NAME	SIGNATURE			PRINTED NAME	SIGNATURE		

Received for DISPOSAL By:		Date	Time	Remarks:
PRINTED NAME	SIGNATURE			

Lionville Laboratories Inc.

COOLER RECEIPT FORM

LVLI COC Batch #: 01076423 Date Cooler Received: 7-27-01

Client/Project: LANL

A. Preliminary Examination Phase

Date Cooler Opened 7-27-01 Sample Receipt Custodian Signature: Carlos Hernandez

1. Did the cooler come with a shipping slip? (airbill, etc.) YES NO
If YES, enter carrier name & airbill # here: FedEx 4847 3250 0171
2. Were custody seals present on the outside of cooler? YES NO
3. Were custody seals unbroken & intact at the date & time of arrival? YES NO
4. Were samples screened for radioactivity? YES NO
5. Were custody papers sealed in a plastic bag and taped to the inside of the cooler lid? YES NO
6. Were COC papers filled out properly? (ink, signed, etc.) YES NO
7. Did the lab sample custodian sign the COC in the appropriate place? YES NO
8. Was the project identifiable from custody papers? If YES, enter at the top of this form. YES NO
9. If required, was enough ice used? YES NO
Type of ice: blue Cooler Temperature: 5°

B. Log-In Phase:

Date Samples Logged In: 7-27-01 By: (Signature): [signature]

10. Packing Description:
11. Were all bottles sealed in plastic bags? YES NO
12. Did all bottles arrive unbroken & were labels in good condition? YES NO
13. Were all bottle labels complete? (ID, date/time, preservative, etc.) YES NO
14. Did all bottle labels agree with COC? YES NO
15. Were correct containers used for the tests indicated? YES NO
16. Did the labels indicate the correct preservatives were added to samples? YES NO
17. Was the pH checked and any out of expected range documented? YES NO
18. Was a sufficient amount of sample sent for tests indicated? YES NO
19. Were bubbles present in volatile samples? If YES, list sample ID: YES NO

20. If discrepancies were noted, was the PM called? YES NO
21. PM notified: Date:

COMMENTS:

Missing 2- TPH bottles
RC03-01-0048 02
1-0049 1

Missing 125 ml Poly bottles, instead rec'd an additional 5g encore

L-WI-001/W-07/99

GC FID SCAN:
COMPLETE SDG FILE (CSF) INVENTORY SHEET

LABORATORY NAME:	Recra LabNet Philadelphia
CITY/STATE:	Lionville, PA
RFW NO.:	0107L423
CLIENT NAME:	LANL Req 9432R
WORK ORDER NO.:	02742-064-001-9999-60
METHOD BASED ON:	EPA Method 8015B (1/95) by GC-FID

All documents in the Client's copy of the complete SDG file must be legible, clearly labeled, paginated, single-sided original documents; or of sufficient copy quality to be reproducible to fourth generation copies. (Purge file documents, e.g., original-copy chain-of-custody, etc. assembled per specific contract request only.)

		Page Nos		Check (initials/date)	
		From	To	Lab	Client
1	Cover Page (Lab Chron)	01	—	[illegible]	—
2	Table of Contents	02	—	8/27/01	—
3	Case Narrative	03	06	—	—
4	Shipping, Receiving, and Custody Records	07	14		
	• Lab Chain of Custody/Work Request			—	—
	• Client Custody Reports/Packing Lists			—	—
	• Sample Tags, if applicable			—	—
	• Airbills			—	—
5	GC Scan Sample Data/QC Summary	15	19		
	• Data Summary (LIMS Summary Report)			—	—
	• Surrogate %Recovery Summary (Form II)			—	—
	• MS/MSD Summary (Form III)			[illegible] 8/27/01	—
	• BS/BSD Summary (Form III)			—	—
	• Method Blank Summary (Form IV)			—	—
6	Sample Data, for each Sample:	20	28		
	• GC Scan Results (Form I)			[illegible] 8/27/01	—
	• Chromatograms/Quant Reports			—	—
7	Calibration Standard Data	29	44		
	Standards Data	—	—		
	• Initial Multi-Level Calibration (ICAL): Chromatograms/Quant Reports			—	—
	• Daily Calibration:			[illegible] 8/27/01	
	Initial: Chromatograms/Quant Reports			—	—
	Continuing: Chromatograms/Quant Reports			—	—
8	Raw QC Data: Blank, Blank Spike, Matrix Spike Data	45	49		
	Method Blank Data	—	—		
	• GC Scan Results (Form I)			[illegible] 8/27/01	—
	• Chromatograms/Quant Reports			—	—
	Blank Spike/Blank Spike Duplicate	—	—		
	• GC Scan Results (Form I)			[illegible] 8/27/01	—

		Page Nos		Check (initials/date)	
		From	To	Lab	Client
	• Chromatograms/Quant Reports			[illegible]	___
	Matrix Spike/Matrix Spike Duplicate	___	___		
	• GC Scan Results (Form I)			[illegible]	___
	• Chromatograms/Quant Reports			___	___
9	Analysis Run Logs	50	52	[illegible]	___
10	Standards Preparation Records	53	62		
	• Surrogate and Target Analyte Spike Solutions			BE 8/14/01	___
	• Analysis Standards			___	___
11	Preparation Logs	63	66		
	• Sample Prep Records (Extraction notebook pages)			BE 8/14/01	___
	• LIMS Extraction Record			BE 8/14/01	___
	• % Moisture and/or % Solids Records			___	___
12	Other/Miscellaneous	67	68		
				___	___
				___	___
				___	___

COMMENTS: _____

Checked by: (Laboratory)	[signature]	Sam Bagwathkar	8/27/01
	Signature	**Printed Name/Title**	**Date**
Checked by: (Client)	_____	_____	
	Signature	**Printed Name/Title**	**Date**

Lionville Laboratory, Inc.
DRO ANALYTICAL DATA PACKAGE FOR
LANL REQ #9432R

DATE RECEIVED: 07/27/01 LVL LOT # :0107L423

CLIENT ID	LVL #	MTX	PREP #	COLLECTION	EXTR/PREP	ANALYSIS
RC03-01-0041 02	016	S	01LE0914	07/24/01	07/31/01	08/08/01
RC03-01-0042 02	017	S	01LE0914	07/24/01	07/31/01	08/08/01
RC03-01-0043 02	018	S	01LE0914	07/24/01	07/31/01	08/08/01
RC03-01-0044 02	019	S	01LE0914	07/24/01	07/31/01	08/08/01

LAB QC:

BLK	MB1	S	01LE0914	N/A	07/31/01	08/08/01
BLK	MB1 BS	S	01LE0914	N/A	07/31/01	08/08/01

TABLE OF CONTENTS

ODRO

		Page #
I.	Cover Page (Lab Chron)	001
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V.	Sample QC/Data Summary	015
VI.	Sample Data, for each Sample	020
VII.	Calibration Standard Data	029
VIII.	Raw QC Data: Tune, Blank and Matrix Spike Data	045
IX.	Analysis Run Logs	050
X.	Standards Preparation Records	053
XI.	Preparation Logs	063
XII.	Other/Miscellaneous	067

Case Narrative

LIONVILLE LABORATORY INC.

Analytical Report

Client: LANL REQ. # 9432R
LVL#: 0107L423
Subcontract#: 7791L0014-AA

W.O #: 02744-064-001-9999-00
Date Received: 07-27-01

DIESEL RANGE ORGANICS

The set of samples consisted of four (4) soil samples collected on 07-24-2001.

The samples and their associated QC samples were prepared on 07-31-2001 and analyzed according to Lionville Laboratory OPs based on EPA Method 8015B for Diesel and Oil Range Petroleum Hydrocarbons on 08-08-2001.

1. The cooler temperature has been recorded on the chain-of-custody.

2. All required holding times for extraction and analysis have been met.

3. All obtainable surrogate recoveries were within acceptance criteria.

4. The blank spike recovery was within acceptance criteria.

5. All samples required a 50-fold instrument dilution due to the high concentrations of non-target analytes with in the sample matrix. Reporting limits have been adjusted to reflect the necessary dilutions. A copy of the Sample Discrepancy Report (SDR) has been enclosed.

6. All initial calibrations associated with this data set were within acceptance criteria.

7. All diesel continuing calibration standards analyzed prior to the sample extracts were within acceptance criteria.

8. I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, except as detailed in this QC Report.

Iain Daniels
Deputy Laboratory Manager
Lionville Laboratory Incorporated

8/27/01
Date

Som\R:\share\\gcpest\\narrtemp\LANL423DRO.DOC

The results presented in this report relate only to the analytical testing and conditions of the samples at receipt and during storage. All pages of this report are integral parts of the analytical data. Therefore, this report should only be reproduced in its entirety of 6 8 pages.

208 Welsh Pool Road • Exton, PA 19341-1313 • (610) 280-3000 • Fax (610) 280-3041

Lionville Laboratory Sample Discrepancy Report (SDR)

SDR #: 016C344

Initiator: John Lach. Batch: 0108L423 Parameter: ODRO
Date: 8/24/01 Samples: All Matrix: Soil
Client: LANL Method: SW846/MCAWW/CLP/ Prep Batch: 01LE0914

1. Reason for SDR

a. COC Discrepancy __ Tech Profile Error __ Client Request __ Sampler Error on C-O-C __ Transcription Error __ Wrong Test Code __ Other _____

b. General Discrepancy

__ Missing Sample/Extract* __ Container Broken __ Wrong Sample Pulled __ Label ID's Illegible
__ Hold Time Exceeded __ Insufficient Sample* __ Preservation Wrong __ Received Past Hold
__ Improper Bottle Type __ Not Amenable to Analysis

Note*: Verified by [Log-In] or [Prep Group] (circle)...signature/date: _____

c. Problem (Include all relevant specific results; attach data if necessary)

Sample extracts are heavy, tarry black material. Sample extracts are not amenable to analysis at low dilutions

2. Known or Probable Causes(s) matrix.

3. Discussion and Proposed Action

__ Re-log
__ Entire Batch
__ Following Samples: _____
__ Re-leach
__ Re-extract
__ Re-digest
__ Revise EDD
__ Change Test Code to _____
__ Place On/Take Off Hold (circle)

Other Description:

run at 50x dilution, adjust reporting limits

4. Project Manager Instructions...signature/date: JL 8/24/01

__ Concur with Proposed Action
__ Disagree with Proposed Action; See Instruction
✓ Include in Case Narrative
__ Client Contacted:
Date/Person _____
__ Add
__ Cancel

5. Final Action...signature/date: 8/24/01

Other Explanation:

__ Verified re-[log][leach][extract][digest][analysis] (circle)
✓ Included in Case Narrative
__ Hard Copy COC Revised
__ Electronic COC Revised
__ EDD Corrections Completed

When Final Action has been recorded, forward original to QA Specialist for distribution and filing.

Route	Distribution of Completed SDR	Route	Distribution of Completed SDR
__	X Initiator	__	__ Metals: Beegle
__	X Lab General Manager: M. Taylor	__	__ Inorganic: Perrone
__	X Project Mgr: Stone/Johnson/Haslett	__	__ GC/LC: Kiger
__	X Technical Mgr: Wesson/Daniels	__	__ MS: Rychlak/Layman
__	X QA (file): Alberts	__	__ Log-in: Keppel
__	__ Data Management: Feldman	__	__ Admin: Soos
__	__ Sample Prep: Beegle/Kiger	__	__ Other: _____

L-WI-006/E-01/01

GLOSSARY OF DIESEL RANGE ORGANICS DATA

DATA QUALIFIERS

U	=	Indicates that the compound was analyzed for but not detected. The minimum detection limit for the sample (not the method detection limit) is reported with the U (e.g. 10U).
J	=	Indicates an estimated value. This flag is used in cases where a target analyte is detected at a level less than the lower quantification level. If the limit of quantification is 10ug/L and a concentration of 3 ug/L is calculated, it is reported as 3J.
B	=	This flag is used when the analyte is found in the associated blank as well as in the sample. It indicates possible/probable blank contamination.
E	=	Indicates a compound was detected beyond the calibration range and was subsequently analyzed at a dilution.
I	=	Interference.

ABBREVIATIONS

BS	=	Indicates blank spike reagent grade water spiked with the matrix spiking solution. Spike recoveries are reported.
BSD	=	Indicates a blank spike duplicate.
MS	=	Indicates a matrix spike.
MSD	=	Indicates a matrix spike duplicate.
NA	=	Not Applicable.
NS	=	Not spiked.
DF	=	Dilution factor.
NR	=	Not required.
SP	=	Indicates a spiked compound.

SHIPPING, RECEIVING AND CUSTODY RECORD

Lionville Laboratory Use Only: 0107L423

Custody Transfer Record/Lab Work Request

Page 1 of 23 TS 7-27-01

LVLI — Lionville Laboratory Inc.

ALL FIELD PERSONNEL: COMPLETE ONLY SHADED AREAS

Client: Lanl Proj # 9432B
Est. Final Proj. Sampling Date:
Project #: 02744-004-001-9999-00
Project Contact/Phone #:
Lionville Laboratory Project Manager: JS
QC: Spec Del: CP TAT: 30 day

Date Rec'd: 7-27-01 Date Due: 8-26-01

		ABC		D							E					
Refrigerator #		Frzr		S							S					
#/Type Container	Liquid															
	Solid	3		1G							1P					
Volume	Liquid															
	Solid	Enc		125							125					
Preservatives		-		-							-					
ANALYSES REQUESTED →		ORGANIC: VOA	BNA	Pest/PCB	Herb				INORG: Metal	CN						

Lionville Laboratory Use Only

MATRIX CODES: S - Soil; SE - Sediment; SO - Solid; SL - Sludge; W - Water; O - Oil; A - Air; DS - Drum Solids; DL - Drum Liquids; L - EP/TCLP Leachate; WI - Wipe; X - Other; F - Fish

Lab ID	Client ID/Description	Matrix QC Chosen (✓) MS	MSD	Matrix	Date Collected	Time Collected	VOA	BNA	Pest/PCB	Herb				Metal	CN					
001	RC03-01-0001-03			S	7-24-01				✓											
002	2								✓											
003	3								✓											
004	4								✓											
005	5								✓											
006	6								✓											
007	6 06						✓									✓				
008	7 03								✓											
009	7 06						✓									✓				
010	8 03								✓											

Special instructions:

Missing Samples
RC03-01-0048 02 OPCB A (MK)
1 49 02 ODRO A (LK)

Did not receive 125ml Poly VOA Encore instead rec'd a 4th 5g Encore

DATE/REVISIONS:
1.
2.
3.
4.
5.
6.

Lionville Laboratory Use Only

Samples were:
1) Shipped ✓ or
Hand Delivered ___
Airbill # 4847325001 71
2) Ambient or Chilled
3) Received in Good Condition (Y) or N
4) Samples Properly Preserved (Y) or N
5) Received Within Holding Times (Y) or N

Tamper Resistant Seal was:
1) Present on Outer Package (Y) or N
2) Unbroken on Outer Package (Y) or N
3) Present on Sample (Y) or N
4) Unbroken on Sample (Y) or N
COC Record Present Upon Sample Rec't (Y) or N
Cooler Temp. 5 °C

Discrepancies Between Samples Labels and COC Record? (Y) or N
NOTES:

Relinquished by	Received by	Date	Time
FedEx	TKrapp	7-27-01	1015

Relinquished by	Received by	Date	Time
COMPOSITE WASTE			

ORIGINAL

Lionville Laboratory Use Only

0107L423

Custody Transfer Record/Lab Work Request

LVLI — Lionville Laboratory Inc.

FIELD PERSONNEL: COMPLETE ONLY SHADED AREAS

Client: LANL Proj # 9432B

Est. Final Proj. Sampling Date:

Project #: See

Project Contact/Phone #:

Lionville Laboratory Project Manager:

QC: Del TAT:

Page 1

Date Rec'd: Date Due:

		ABC		D		F					E					
Refrigerator #		Freez		5		5					5					
#/Type Container	Liquid															
	Solid	3		1G		1AG					1P					
Volume	Liquid															
	Solid	8oz		125		125					125					
Preservatives		-		-		-					-					
ANALYSES REQUESTED →		ORGANIC							INORG							
		VOA	BNA	Pest/PCB	Herb				Metal	CN						
Lionville Laboratory Use Only		8021-X		OPCB		8080					TPHSOL					

MATRIX CODES:
S - Soil
SE - Sediment
SO - Solid
SL - Sludge
W - Water
O - Oil
A - Air
DS - Drum Solids
DL - Drum Liquids
L - EP/TCLP Leachate
WI - Wipe
X - Other
F - Fish

Lab ID	Client ID/Description	Matrix QC Chosen (✓) MS	MSD	Matrix	Date Collected	Time Collected	8021-X	OPCB		8080					TPHSOL					
011	BC03-01-0008 TK 7-27-01 0916			S	7-24-01		✓								✓					
012	09 03							✓												
013	09 060						✓								✓					
014	10 03							✓												
015	10 060						✓								✓					
016	41 02									✓										
017	42									✓										
018	43									✓										
019	44									✓										
020	48									✓	TK 7-27-01									

Special Instructions:

DATE/REVISIONS:

1.
2.
3.
4.
5.
6.

Relinquished by	Received by	Date	Time
FedEx	TBrown	7-27-01	1015

Relinquished by	Received by	Date	Time

Discrepancies Between Samples Labels and COC Record? Y or N

NOTES:

Lionville Laboratory Use Only

Samples were:
1) Shipped ____ or Hand Delivered ____
Airbill # ____
2) Ambient or Chilled
3) Received in Good Condition Y or N
4) Samples Properly Preserved Y or N
5) Received Within Holding Times Y or N

Tamper Resistant Seal was:
1) Present on Outer Package Y or N
2) Unbroken on Outer Package Y or N
3) Present on Sample Y or N
4) Unbroken on Sample Y or N

COC Record Present Upon Sample Rec't Y or N

Cooler Temp. ____ °C

Lionville Laboratory Use Only
0107L423

Custody Transfer Record/Lab Work Request

LVLP LIONVILLE LABORATORY INC.

FIELD PERSONNEL: COMPLETE ONLY SHADED AREAS

Client: LANL Bcg 9432R
Est. Final Proj. Sampling Date:
Project #: See
Project Contact/Phone #:
Lionville Laboratory Project Manager: Page 1
QC: Del: TAT:
Date Rec'd: Date Due:

Refrigerator #						F										
#/Type Container	Liquid					S										
	Solid					1AG										
Volume	Liquid															
	Solid					125										
Preservatives						–										
ANALYSES REQUESTED →		ORGANIC							INORG							
		VOA	BNA	Pest/ PCB	Herb				Metal	CN						

MATRIX CODES:	Lab ID	Client ID/Description	Matrix QC Chosen (✓) MS	MSD	Matrix	Date Collected	Time Collected	Lionville Laboratory Use Only													
S - Soil												ODRO									
~~SE - Sediment~~																					
SO - Solid																					
SL - Sludge																					
W - Water																					
O - Oil	~~021~~	~~BCO3-01-0049-02~~			~~S~~	~~7-24-01~~		~~TK 7-27-01~~				~~✓~~									
A - Air																					
DS - Drum Solids																					
DL - Drum Liquids																					
L - EP/TCLP Leachate																					
WI - Wipe																					
X - Other																					
F - Fish																					

Special Instructions:

DATE/REVISIONS:

1.
2.
3.
4.
5.
6.

Lionville Laboratory Use Only

Samples were:
1) Shipped ____ or Hand Delivered ____
Airbill #
2) Ambient or Chilled
3) Received in Good Condition Y or N
4) Samples Properly Preserved Y or N
5) Received Within Holding Times Y or N

Tamper Resistant Seal was:
1) Present on Outer Package Y or N
2) Unbroken on Outer Package Y or N
3) Present on Sample Y or N
4) Unbroken on Sample Y or N
COC Record Present Upon Sample Rec't Y or N
Cooler Temp. ____ °C

Relinquished by	Received by	Date	Time
FedEx	TKapp	7-27-01	1015

Relinquished by	Received by	Date	Time

Discrepancies Between Samples Labels and COC Record? Y or N
NOTES:

Thursday, July 26, 2001

CHAIN OF CUSTODY DOCUMENT NUMBER: 9432RC

Los Alamos
NATIONAL LABORATORY

REQUEST NUMBER: 9432R
ANALYSIS TYPE: ORG

ATTN: Judy Stone
Lionville Laboratory Inc
208 Welsh Pool Rd
Lionville, pa 19341

SAMPLE ID	CONT ID	CONTAINER DESCRIPTION	ANALYSIS ORDER CODE	PRESERVATIVE	MATRIX
RC03-01-0001	03	125 ml Glass	PCB	Ice	D
RC03-01-0002	03	125 ml Glass	PCB	Ice	D
RC03-01-0003	03	125 ml Glass	PCB	Ice	D
RC03-01-0004	03	125 ml Glass	PCB	Ice	D
RC03-01-0005	03	125 ml Glass	PCB	Ice	D
RC03-01-0006	03	125 ml Glass	PCB	None	S
RC03-01-0006	05	125 ml Polyethylene	VOCECORE	Ice	S
RC03-01-0006	06	5 gm Encore Container-A	VOCECORE	Ice	S
RC03-01-0006	07	5 gm Encore Container-B	VOCECORE	Ice	S
RC03-01-0006	08	5 gm Encore Container-C	VOCECORE	Ice	S
RC03-01-0007	03	125 ml Glass	PCB	None	S
RC03-01-0007	05	125 ml Polyethylene	VOCECORE	Ice	S
RC03-01-0007	06	5 gm Encore Container-A	VOCECORE	Ice	S
RC03-01-0007	07	5 gm Encore Container-B	VOCECORE	Ice	S
RC03-01-0007	08	5 gm Encore Container-C	VOCECORE	Ice	S
RC03-01-0008	03	125 ml Glass	PCB	None	S
RC03-01-0008	05	125 ml Polyethylene	VOCECORE	Ice	S
RC03-01-0008	06	5 gm Encore Container-A	VOCECORE	Ice	S
RC03-01-0008	07	5 gm Encore Container-B	VOCECORE	Ice	S
RC03-01-0008	08	5 gm Encore Container-C	VOCECORE	Ice	S

Relinquished By: Date Time
Marie 7/26/0 1410
PRINTED NAME SIGNATURE
FedEx 7-27-01 1015
PRINTED NAME SIGNATURE
PRINTED NAME SIGNATURE

Received By: Date Time
PRINTED NAME SIGNATURE
J Koppel J Koppel 7-27-01 1015
PRINTED NAME SIGNATURE
PRINTED NAME SIGNATURE

Received for DISPOSAL By: Date Time
PRINTED NAME SIGNATURE

Remarks:

SAMPLE ID	CONT ID	CONTAINER DESCRIPTION	ANALYSIS ORDER CODE		
RC03-01-0009	03	125 ml Glass	PCB	None	S
RC03-01-0009	05	125 ml Polyethylene	VOCECORE	Ice	S
RC03-01-0009	06	5 gm Encore Container-A	VOCECORE	Ice	S
RC03-01-0009	07	5 gm Encore Container-B	VOCECORE	Ice	S
RC03-01-0009	08	5 gm Encore Container-C	VOCECORE	Ice	S
RC03-01-0010	03	125 ml Glass	PCB	None	S
RC03-01-0010	04	125 ml Polyethylene	VOCECORE	Ice	S
RC03-01-0010	05	5 gm Encore Container-A	VOCECORE	Ice	S
RC03-01-0010	06	5 gm Encore Container-B	VOCECORE	Ice	S
RC03-01-0010	07	5 gm Encore Container-C	VOCECORE	Ice	S
RC03-01-0041	02	125 ml Amber Glass	TPH	Ice	S
RC03-01-0042	02	125 ml Amber Glass	TPH	Ice	S
RC03-01-0043	02	125 ml Amber Glass	TPH	Ice	S
RC03-01-0044	02	125 ml Amber Glass	TPH	Ice	S
RC03-01-0048	02	125 mL Amber Glass	TPH	Ice	D
RC03-01-0049	02	125 mL Amber Glass	TPH	Ice	D

Final Page of CHAIN OF CUSTODY DOCUMENT FOR REQUEST NUMBER 9432R Page 2

Relinquished By: Date / Time

PRINTED NAME SIGNATURE 7/26/01

FedEx 7-27-01 1015
PRINTED NAME SIGNATURE

PRINTED NAME SIGNATURE

Received By: Date Time

PRINTED NAME SIGNATURE

J Bryant J Bryant 7-27-01 1015
PRINTED NAME SIGNATURE

PRINTED NAME SIGNATURE

Received for DISPOSAL By: Date Time

PRINTED NAME SIGNATURE

Remarks:

Thursday, July 26, 2001

REQUEST NUMBER: 9432R
ANALYSIS TYPE: ORG

Los Alamos
NATIONAL LABORATORY

ATTN: Judy Stone
Lionville Laboratory Inc
208 Welsh Pool Rd
Lionville, pa 19341

Please analyze the enclosed samples according to the schedule indicated:

SHIP DATE: 7/25/01
REPORT DUE: 8/27/01
TURN AROUND REQ'D: 30 day

These samples are on:

LANL Request Number: 9432R
Per Agreement Number:
Project Cost Code: MR0R0001E000

RAD SCREENING: Not Required
COMMENTS: 03 - 1114 , GA; TPH BY DIESEL.

LANL ER SMO CONTACT: Joylene Valdez MS H865 5056659968
Signature:

ANALYSIS ORDER CODE	ANALYTE(S)	SAMPLE ID	CONT ID	SAMPLE MATRIX	DATE SAMPLED	COMMENTS
PCB		RC03-01-0001	03	D	7/24/1901	
PCB		RC03-01-0002	03	D	7/24/1901	
PCB		RC03-01-0003	03	D	7/24/1901	
PCB		RC03-01-0004	03	D	7/24/1901	
PCB		RC03-01-0005	03	D	7/24/1901	
PCB		RC03-01-0006	03	S	7/24/1901	
VOCECORE		RC03-01-0006	05	S	7/24/1901	
VOCECORE		RC03-01-0006	06	S	7/24/1901	
VOCECORE		RC03-01-0006	07	S	7/24/1901	
VOCECORE		RC03-01-0006	08	S	7/24/1901	
PCB		RC03-01-0007	03	S	7/24/1901	
VOCECORE		RC03-01-0007	05	S	7/24/1901	
VOCECORE		RC03-01-0007	06	S	7/24/1901	
VOCECORE		RC03-01-0007	07	S	7/24/1901	
VOCECORE		RC03-01-0007	08	S	7/24/1901	
PCB		RC03-01-0008	03	S	7/24/1901	
VOCECORE		RC03-01-0008	05	S	7/24/1901	
VOCECORE		RC03-01-0008	06	S	7/24/1901	
VOCECORE		RC03-01-0008	07	S	7/24/1901	
VOCECORE		RC03-01-0008	08	S	7/24/1901	
PCB		RC03-01-0009	03	S	7/24/1901	
VOCECORE		RC03-01-0009	05	S	7/24/1901	
VOCECORE		RC03-01-0009	06	S	7/24/1901	
VOCECORE		RC03-01-0009	07	S	7/24/1901	

ANALYSIS ORDER CODE	ANALYTE(S)	SAMPLE ID	CONT ID	SAMPLE MATRIX	DATE SAMPLED	COMMENTS
VOCECORE		RC03-01-0009	08	S	7/24/1901	
PCB		RC03-01-0010	03	S	7/24/1901	
VOCECORE		RC03-01-0010	04	S	7/24/1901	
VOCECORE		RC03-01-0010	05	S	7/24/1901	
VOCECORE		RC03-01-0010	06	S	7/24/1901	
VOCECORE		RC03-01-0010	07	S	7/24/1901	
TPH		RC03-01-0041	02	S	7/24/1901	
TPH		RC03-01-0042	02	S	7/24/1901	
TPH		RC03-01-0043	02	S	7/24/1901	
TPH		RC03-01-0044	02	S	7/24/1901	
TPH		RC03-01-0048	02	D	7/24/1901	
TPH		RC03-01-0049	02	D	7/24/1901	

ODRO DATA SUMMARY / SAMPLE QC

Lionville Laboratory, Inc.

DIESEL RANGE ORGANICS BY GC

RFW Batch Number: **0107L423** Client: **LANL REQ #9432R** Work Order: 02744064001 Page: 1 Report Date: 08/23/01 06:06

	Cust ID:	RC03-01-0041 02	RC03-01-0042 02	RC03-01-0043 02	RC03-01-0044 02	BLK	BLK BS
Sample Information	RFW#:	016	017	018	019	01LE0914-MB1	01LE0914-MB1
	Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	D.F.:	50.0	50.0	50.0	50.0	1.00	1.00
	Units:	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
p-Terphenyl		D %	D %	D %	D %	69 %	78 %
Diesel Range Organics		593 U	595 U	598 U	595 U	12.0 U	79 %
Motor Oil		593 U	595 U	598 U	595 U	12.0 U	12.0 U

U= Analyzed, not detected. J= Present below detection limit. B= Present in blank. NR= Not reported. NS= Not spiked.
%= Percent recovery. D= Diluted out. I= Interference. NA= Not Applicable. *= Outside of EPA CLP QC

2B

SOIL VOLATILE SURROGATE RECOVERY

Lab Name: Lionville Labs, Inc. Contract: 2744-64-01

Case No.: LANL REQ #9432R

RFW Lot No.: 0107L423

	CLIENT SAMPLE NO.	S1 ( )#	S2 ( )#	S3 ( )#	OTHER	TOT OUT
01	RC03-01-0041 02	D				0
02	RC03-01-0042 02	D				0
03	RC03-01-0043 02	D				0
04	RC03-01-0044 02	D				0
05	BLKLE0914-MB1	69				0
06	BLKLE0914-MB1 BS	78				0

flag/rad/...

QC LIMITS

S1 ( ) = p-Terphenyl (35-130)

Column to be used to flag recovery values
* Values outside of QC limits
D Surrogates diluted out

3B

SOIL VOLATILE BLANK SPIKE RECOVERY

Lab Name: Lionville Labs, Inc. Contract: 2744-64-01

Case No.: LANL REQ #9432R RFW Lot No.: 0107L423

BLANK Spike - Sample No.: BLKLE0914-MB1 Level:(low/med) LOW

COMPOUND	SPIKE ADDED (mg/kg)	SAMPLE CONCENTRATION (mg/kg)	BS CONCENTRATION (mg/kg)	BS % REC #	QC LIMITS REC
Diesel Range Organics	60.0	0	47.4	79	30 -130

Column to be used to flag recovery value with an asterisk
* Values outside of QC limits

Spike Recovery: 0 out of 1 outside limits

COMMENTS:

4A

VOLATILE METHOD BLANK SUMMARY

Lab Name: Lionville Labs, Inc. Contract: 2744-64-01

Case No.: LANL REQ #9432R

Lab File ID: RAW3:BLKOOPPB Lab Sample ID: 01LE0914-MB1

Date Analyzed: 08/08/01 Time Analyzed: 00

Matrix:(Soil/Water) SOIL Level:(low/med) LOW

Instrument ID: _____

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	CLIENT SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	RC03-01-0041 02	0107L423-016	08/08/01	
02	RC03-01-0042 02	0107L423-017	08/08/01	
03	RC03-01-0043 02	0107L423-018	08/08/01	
04	RC03-01-0044 02	0107L423-019	08/08/01	
05	BLKLE0914-MB1 BS	01LE0914-MB1S	08/08/01	

COMMENTS:

SAMPLE DATA FOR EACH SAMPLE

ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

RC03-01-0041 02

Lab Name: Lionville Labs, Inc. Work Order: 02744064001

Client: LANL REQ #9432R

Matrix: SOIL

Lab Sample ID: 0107L423-016

Sample wt/vol: 25.3 (g/mL) G

Lab File ID: BLKOOPPB

Level: (low/med) LOW

Date Received: 07/27/01

% Moisture: not dec. 100

Date Analyzed: 08/08/01

Column: (pack/cap) CAP

Dilution Factor: 50.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) mg/kg	
68334-30-5	Diesel Range Organics	593	U
00-00-0000	Motor Oil	593	U

12/88 Rev.

Recra LabNet-Lionville Laboratory

0107L423-016

Queue: 080701GC18icala

Acq Method Set: DRO_BLANK705

Vial: 24

Processing Method: 073001GC18_ical

Channel Description: FID

Date Acquired: 8/8/01 6:34:04 AM

Dilution Factor: 50.0

Date Processed: 8/8/01 9:45:44 AM

Project Name DRO_01C

Injection Id: 3117

Result Id: 3133

DIESEL RANGE ORGANICS

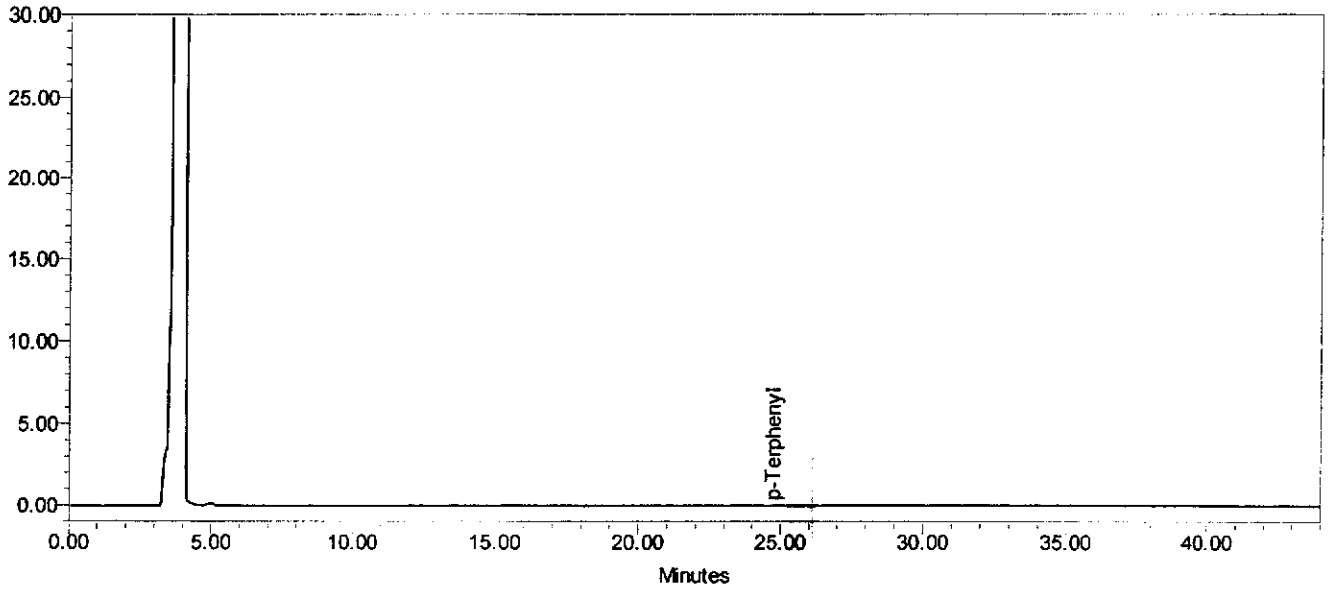

Processed By kauffmal

Manual Yes

7/gc 8/24/01

Peak Results

	RT	Area	Height	Name	Amount	
1	22.182	8399	51	Diesel Fuel	796.083	<
2	24.937	220	38	p-Terphenyl	166.428	D
3	28.828	15117	99	Motor oil	130.842	<

LK 8-8-01

ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

RC03-01-0042 02

Lab Name: Lionville Labs, Inc. Work Order: 0274406400 1

Client: LANL REQ #9432R

Matrix: SOIL

Lab Sample ID: 0107L423-017

Sample wt/vol: 25.2 (g/mL) G

Lab File ID: BLKOOPPB

Level: (low/med) LOW

Date Received: 07/27/01

% Moisture: not dec. 100

Date Analyzed: 08/08/01

Column: (pack/cap) CAP

Dilution Factor: 50.0

CONCENTRATION UNITS:
(ug/L or ug/Kg) mg/kg

CAS NO.	COMPOUND		
68334-30-5	Diesel Range Organics	595	U
00-00-0000	Motor Oil	595	U

12/88 Rev.

Recra LabNet-Lionville Laboratory

0107L423-017

Queue: 080701GC18icala

Acq Method Set: DRO_BLANK705

Vial: 25

Processing Method: 073001GC18_ical

Channel Description: FID

Date Acquired: 8/8/01 7:27:51 AM

Dilution Factor: 50.0

Date Processed: 8/8/01 9:45:45 AM

Project Name DRO_01C

Injection Id: 3120

Result Id: 3134

DIESEL RANGE ORGANICS

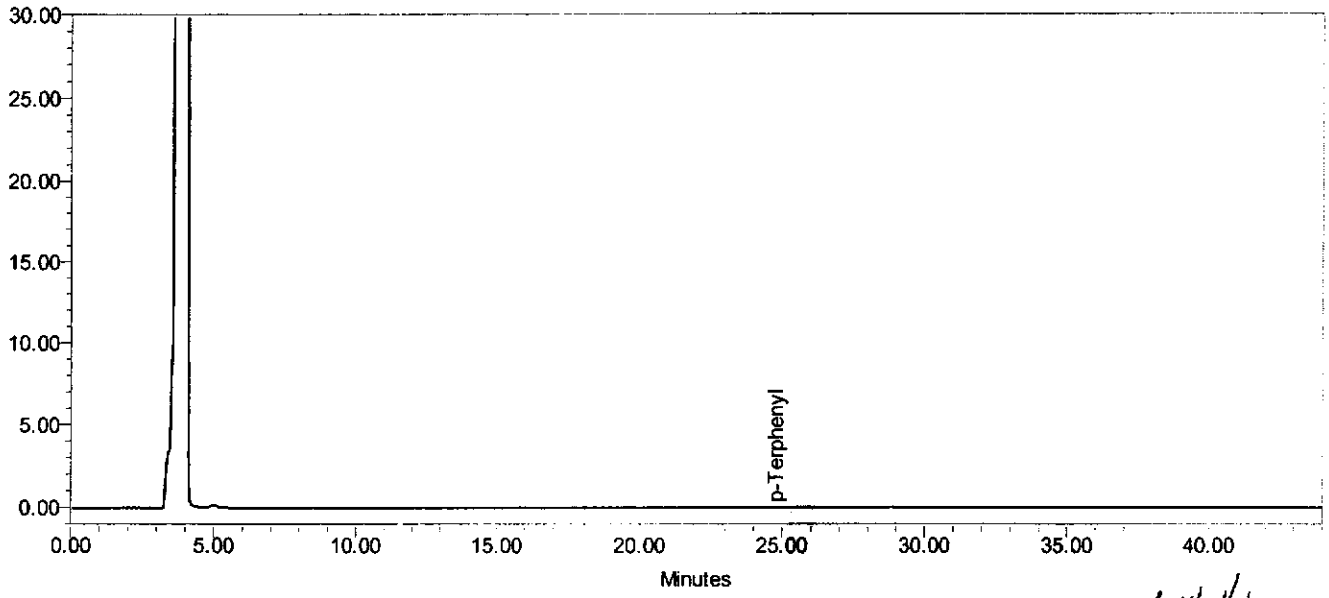

Processed By kauffmal

Manual Yes

Peak Results

	RT	Area	Height	Name	Amount	
1	22.199	7917	55	Diesel Fuel	745.436	<
2	24.991	464	22	p-Terphenyl	198.961	D
3	30.178	625	48	Motor oil		<

LK 8-8-01

ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

RC03-01-0043 02

Lab Name: Lionville Labs, Inc. Work Order: 02744064001

Client: LANL REQ #9432R

Matrix: SOIL

Lab Sample ID: 0107L423-018

Sample wt/vol: 25.1 (g/mL) G

Lab File ID: BLKOOPPB

Level: (low/med) LOW

Date Received: 07/27/01

% Moisture: not dec. 100

Date Analyzed: 08/08/01

Column: (pack/cap) CAP

Dilution Factor: 50.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) mg/kg	
68334-30-5	Diesel Range Organics	598	U
00-00-0000	Motor Oil	598	U

12/88 Rev.

Recra LabNet-Lionville Laboratory

0107L423-018

Queue: 080701GC18icala

Acq Method Set: DRO_BLANK705

Vial: 26

Processing Method: 073001GC18_ical

Channel Description: FID

Date Acquired: 8/8/01 8:21:42 AM

Dilution Factor: 50.0

Date Processed: 8/8/01 9:45:44 AM

Project Name DRO_01C

Injection Id: 3124

Result Id: 3131

DIESEL RANGE ORGANICS

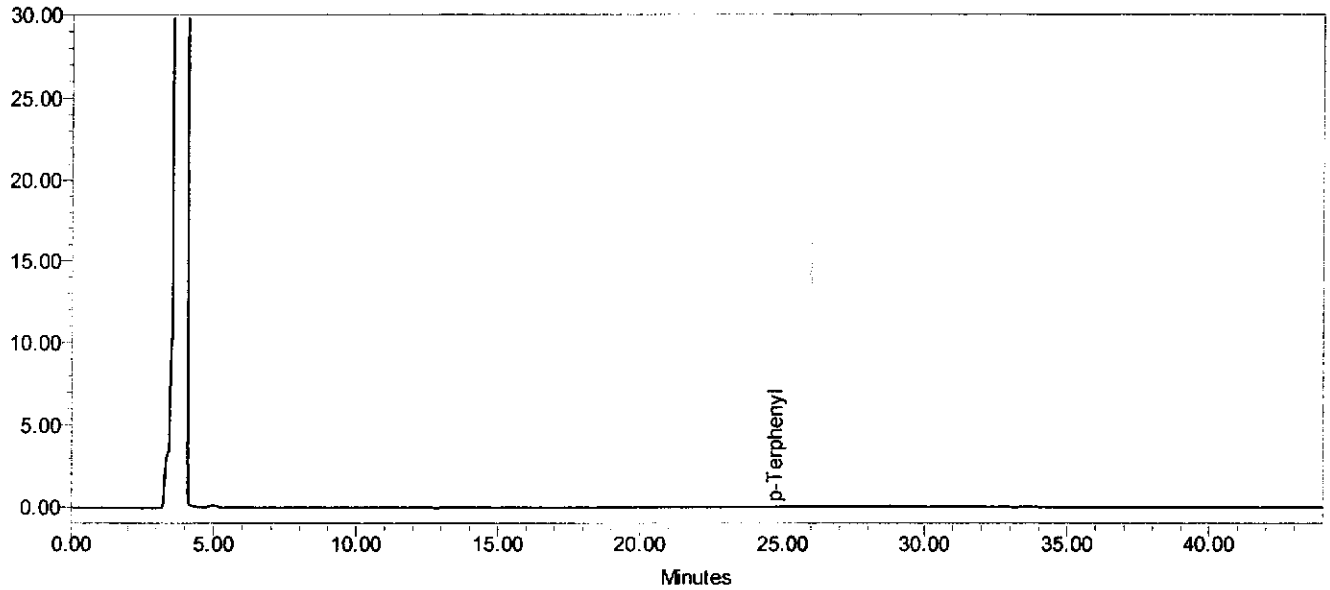

Processed By kauffmal

Manual Yes

Peak Results

	RT	Area	Height	Name	Amount	
1				Diesel Fuel		<
2	24.920	70	15	p-Terphenyl	146.448	D
3	28.595	32992	85	Motor oil	~~6523.083~~	<RL

LL 8-8-01

ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

RC03-01-0044 02

Lab Name: Lionville Labs, Inc. Work Order: 02744064001

Client: LANL REQ #9432R

Matrix: SOIL

Lab Sample ID: 0107L423-019

Sample wt/vol: 25.2 (g/mL) G

Lab File ID: BLKOOPPB

Level: (low/med) LOW

Date Received: 07/27/01

% Moisture: not dec. 100

Date Analyzed: 08/08/01

Column: (pack/cap) CAP

Dilution Factor: 50.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) mg/kg	
68334-30-5	Diesel Range Organics	595	U
00-00-0000	Motor Oil	595	U

Flagged

12/88 Rev.

Recra LabNet-Lionville Laboratory

0107L423-019

Queue: 080701GC18icala

Vial: 27

Channel Description: FID

Dilution Factor: 50.0

Project Name DRO_01C

Acq Method Set: DRO_BLANK705

Processing Method: 073001GC18_ical

Date Acquired: 8/8/01 9:15:46 AM

Date Processed: 8/8/01 10:12:56 AM

Injection Id: 3128 Result Id: 3138

DIESEL RANGE ORGANICS

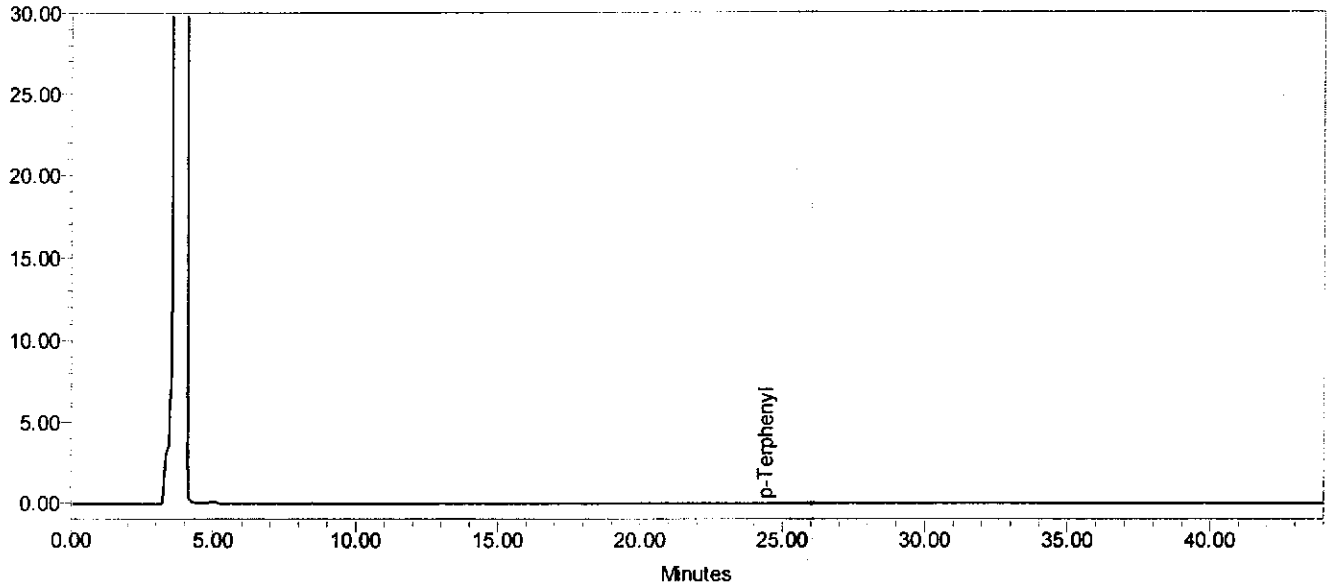

Processed By kauffmal

Manual Yes

Peak Results

	RT	Area	Height	Name	Amount
1				Motor oil	
2	24.094	725	27	Diesel Fuel	
3	24.609	24	6	p-Terphenyl	140.250

CALIBRATION STANDARD DATA

CALIBRATION VERIFICATION SUMMARY

Lab Name: Recra LabNet-Philadelphia

Contract:

Client:

GC Sample ID: 80701GC18icala . 5

RFW Lot ID:

Millennium Result ID: 3098

Instrument ID: GC 18

Processing Method: 073001GC18_ical

Initial Calibration Start Date: 7/30/01

Date of Analysis: 8/7/01

Time of Analysis: 1:31:03 PM

Standard ID: CCV 64888104 D

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	INITIAL RESPONSE	RT	CONT. RESPONSE	%D	FL
Diesel Fuel	17.65	17.48	17.83	712364	17.65	715828	0.5 ✓	
p-Terphenyl	24.78	24.54	25.03	8346	24.78	7003	-16.1 ✓	
Motor oil	27.79	27.51	28.07	244629	27.79	237086	-3.1 ✓	

LK 8-8-01

CALIBRATION VERIFICATION SUMMARY

Lab Name: Recra LabNet-Philadelphia

Contract:

Client:

GC Sample ID: 80701GC18icala .17

RFW Lot ID:

Millennium Result ID: 3099

Instrument ID: GC 18

Processing Method: 073001GC18_ical

Initial Calibration Start Date: 7/30/01

Date of Analysis: 8/8/01

Time of Analysis: 12:17:14 AM

Standard ID: CCV 64888104 D

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	INITIAL RESPONSE	RT	CONT. RESPONSE	%D	FL
Diesel Fuel	17.65	17.48	17.83	712364	15.63	732986	2.9 ✓	
p-Terphenyl	24.78	24.54	25.03	8346	24.72	8201	-1.7 ✓	
Motor oil	27.79	27.51	28.07	244629	27.74	229110	-6.3 ✓	

LK 8-8-01

CALIBRATION VERIFICATION SUMMARY

Lab Name: Recra LabNet-Philadelphia

Contract:

Client:

GC Sample ID: 80701GC18icala .29

RFW Lot ID:

Millennium Result ID: 3146

Instrument ID: GC 18

Processing Method: 073001GC18_ical

Initial Calibration Start Date: 7/30/01

Date of Analysis: 8/8/01

Time of Analysis: 11:03:15 AM

Standard ID: CCV 64888104 D

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	INITIAL RESPONSE	RT	CONT. RESPONSE	%D	FL
Diesel Fuel	15.63	15.47	15.78	712364	15.63	692060	-2.9 ✓	
p-Terphenyl	24.73	24.48	24.98	8346	24.73	6110	-26.8 ✓	+
Motor oil	27.74	27.46	28.02	244629	27.74	141880	-42.0 ✓	+

LK 8-8-01

Addendum

Multilevel Calibration Method Report

Calibration curve statistics are presented on the Multilevel Calibration Method reports. This report includes the type of calibration preformed, the file reference (i.e. 06209811.06) of the calibration standards used, the slope and intercept of the curve for each analyte, and the curve fit statistics. The column labeled as "CORR COEFF" presents the coefficient of determination (r^2) for each analyte. Our laboratory acceptance criteria are based on the correlation coefficient ® being at least 0.996. Therefore, the minimum acceptance value for "CORR COEFF" (r^2) on the Multilevel Calibration Method report is 0.992.

Processing Method: 073001GC18_ical

Type: GC *Stored: 7/31/01 8:18:46 AM*

Method Information

Comments	OIL_DRO iCAL
Modified User	kauffmal
Locked	No
Method Id	2726
Method Version	2
Edit User	
Average By	None
RT Window %	2.00
Update RT	Average Stds
CCalRef1	
Include Internal Standard Amounts in Amount Calculation	Yes
Vial/Default Value Type	Amount

Integration Parameters

Minimum Area	100
Minimum Height	100
Threshold	1.000
Peak Width	84.00

Integration Events

	Time	Event	Value	Sec
	0.000	Inhibit Integration		6.776
	7.000	Allow Negative Peaks		24.208
	7.108	Forward Horizontal by Time		24.208
	7.144	Force Drop Line		24.208
	23.386	Set Peak Width	5.000	
	23.883	Set Minimum Height	20.000	
	24.208	Valley to Valley		25.690
	25.700	Force Drop Line		44.000
	25.700	Reverse Horizontal by Time		44.000
	25.700	Allow Negative Peaks		

Noise and Drift Parameters

Calculate Detector Noise and Drift	No
Detector Noise and Drift Start Time	(Minutes)
Detector Noise and Drift End Time	(Minutes)
Detector Noise and Drift Segment Width	60(sec)

Peak p-Terphenyl

	Name	Retention Time	Conc (ppm)	Ignore	Response	A	B	C	R^2	Injection Id	Order
1	p-Terphenyl	24.933	5.000	No	1226.0	-1.0261e+003	3.7437e+002	0.000000e+000	0.99959	2670	1
2	p-Terphenyl	24.835	10.000	No	2275.2	-1.0261e+003	3.7437e+002	0.000000e+000	0.99959	2673	1
3	p-Terphenyl	24.764	25.000	No	8346.4	-1.0261e+003	3.7437e+002	0.000000e+000	0.99959	2676	1
4	p-Terphenyl	24.734	50.000	No	17746.0	-1.0261e+003	3.7437e+002	0.000000e+000	0.99959	2679	1
5	p-Terphenyl	24.730	100.000	No	36405.6	-1.0261e+003	3.7437e+002	0.000000e+000	0.99959	2682	1

ck 7-31-01

Peak: Diesel Fuel

	Name	Retention Time	Conc (ppm)	Ignore	Response	A	B	C	R^2	Injection Id	Order
1	Diesel Fuel	8.465	100.000	No	41458.6	8.3248e+002	4.7522e+002	0.000000e+000	0.99988	2667	1
2	Diesel Fuel	8.496	300.000	No	129260.2	8.3248e+002	4.7522e+002	0.000000e+000	0.99988	2670	1
3	Diesel Fuel	8.504	600.000	No	303791.2	8.3248e+002	4.7522e+002	0.000000e+000	0.99988	2673	1
4	Diesel Fuel	8.476	1500.000	No	712363.6	8.3248e+002	4.7522e+002	0.000000e+000	0.99988	2676	1
5	Diesel Fuel	8.468	3000.000	No	1436758.4	8.3248e+002	4.7522e+002	0.000000e+000	0.99988	2679	1
6	Diesel Fuel	7.428	6000.000	No	2846362.2	8.3248e+002	4.7522e+002	0.000000e+000	0.99988	2682	1

LK 7-31-01

Peak: Motor oil

	Name	Retention Time	Conc (ppm)	Ignore	Response	A	B	C	R^2	Injection Id	Order
1	Motor oil	27.838	100.000	No	12150.4	1.4751e+004	1.3980e+002	0.000000e+000	0.99494	2667	1
2	Motor oil	27.837	300.000	No	41118.8	1.4751e+004	1.3980e+002	0.000000e+000	0.99494	2670	1
3	Motor oil	27.810	600.000	Yes	156140.8	1.4751e+004	1.3980e+002	0.000000e+000	0.99494	2673	1
4	Motor oil	27.773	1500.000	No	244629.2	1.4751e+004	1.3980e+002	0.000000e+000	0.99494	2676	1
5	Motor oil	28.123	3000.000	No	466096.8	1.4751e+004	1.3980e+002	0.000000e+000	0.99494	2679	1
6	Motor oil	28.124	6000.000	No	833611.6	1.4751e+004	1.3980e+002	0.000000e+000	0.99494	2682	1

LK 7-31-01

Recra LabNet-Lionville Laboratory

STD 64888101 A

Queue: 073001GC18ical

Vial: 4

Channel Description: FID

Dilution Factor: 1.0

Project Name DRO_01C

Acq Method Set: DRO_BLANK705

Processing Method: 073001GC18_ical

Date Acquired: 7/30/01 3:55:56 PM

Date Processed: 7/31/01 8:46:14 AM

Injection Id: 2667 Result Id: 2783

DIESEL RANGE ORGANICS

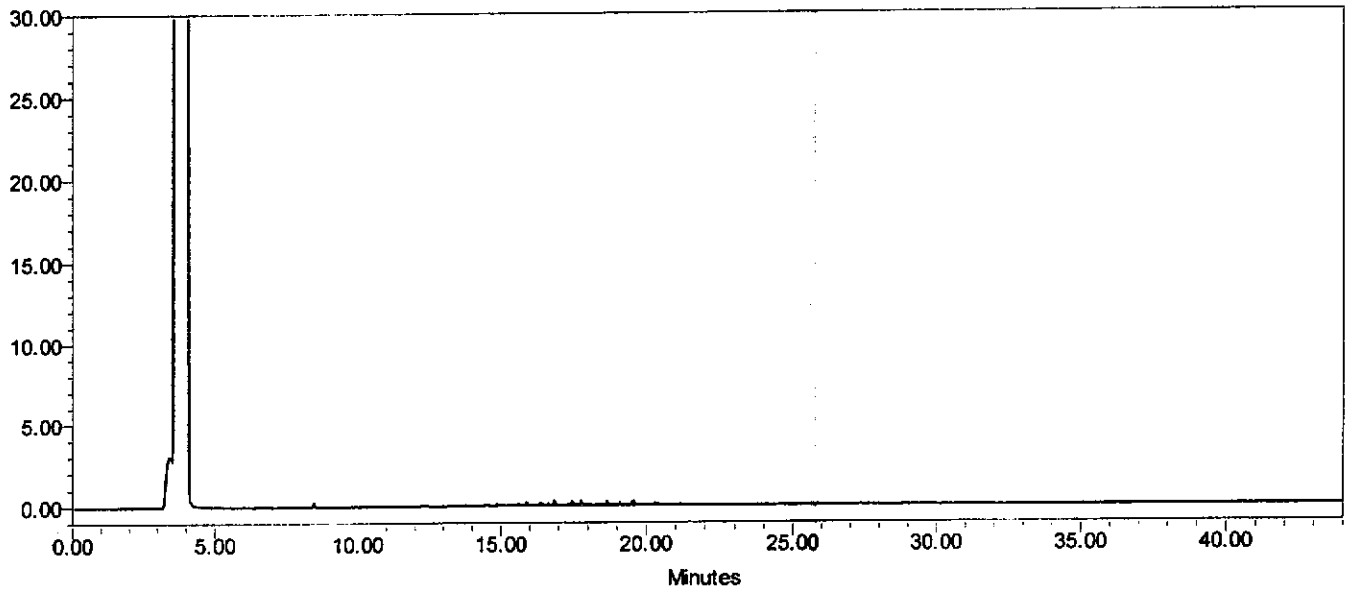

Processed By kauffmal

Manual Yes

Peak Results

	RT	Area	Height	Name	Amount
1	8.465	41459	717	Diesel Fuel	100.000
2	24.780			p-Terphenyl	
3	27.838	12150	50	Motor oil	100.000

LC 7-31-01

Recra LabNet-Lionville Laboratory

STD 64888102 B

Queue: 073001GC18ical

Acq Method Set: DRO_BLANK705

Vial: 5

Processing Method: 073001GC18_ical

Channel Description: FID

Date Acquired: 7/30/01 4:49:52 PM

Dilution Factor: 1.0

Date Processed: 7/31/01 8:46:14 AM

Project Name DRO_01C

Injection Id: 2670

Result Id: 2784

DIESEL RANGE ORGANICS

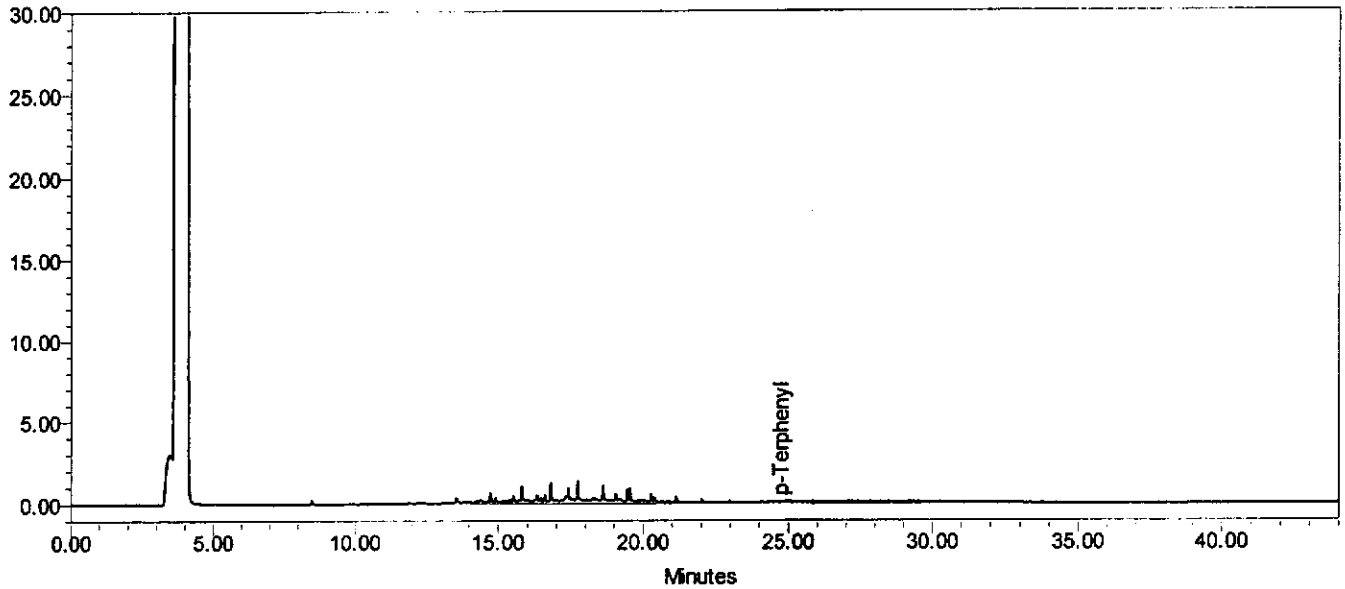

Processed By kauffmal

Manual Yes

Peak Results

	RT	Area	Height	Name	Amount
1	8.496	129260	1574	Diesel Fuel	300.000
2	24.933	1226	108	p-Terphenyl	5.000
3	27.837	41119	151	Motor oil	300.000

LK 7-31-01

Recra LabNet-Lionville Laboratory

STD 64888103 C

Queue: 073001GC18ical

Acq Method Set: DRO_BLANK705

Vial: 6

Processing Method: 073001GC18_ical

Channel Description: FID

Date Acquired: 7/30/01 5:43:43 PM

Dilution Factor: 1.0

Date Processed: 7/31/01 8:46:14 AM

Project Name DRO_01C

Injection Id: 2673

Result Id: 2785

DIESEL RANGE ORGANICS

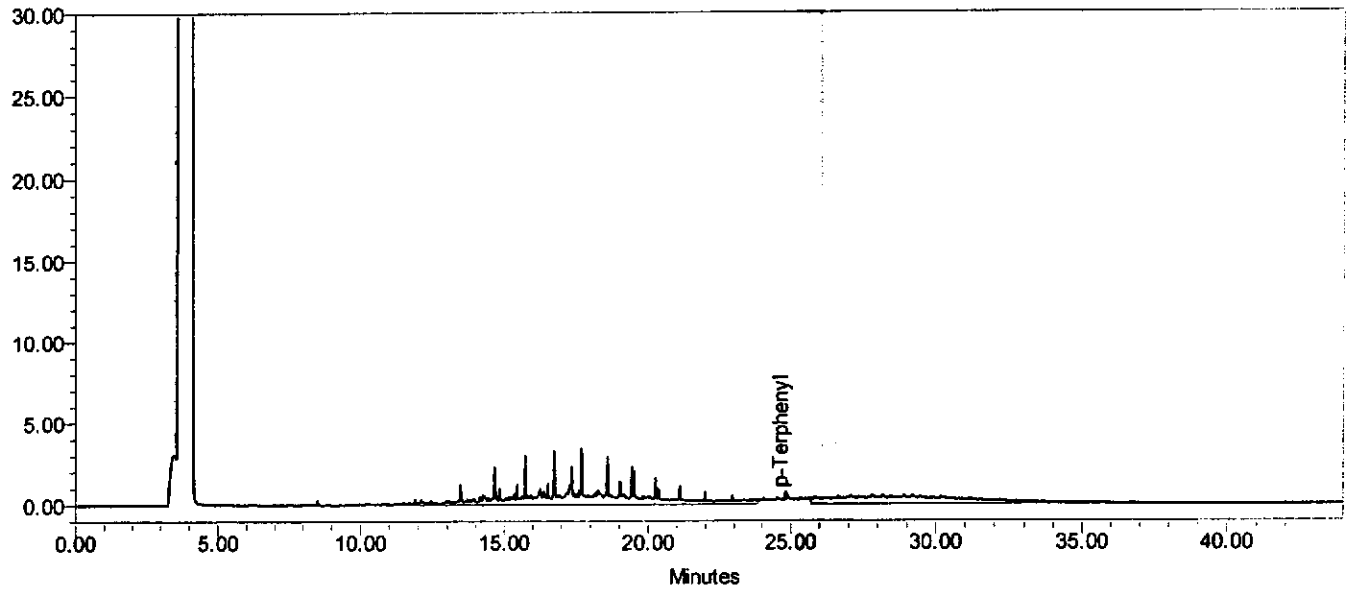

Processed By kauffmal

Manual Yes

Peak Results

	RT	Area	Height	Name	Amount
1	8.504	303791	3484	Diesel Fuel	600.000
2	24.835	2275	455	p-Terphenyl	10.000
3	27.810	156141	536	Motor oil	600.000

LK 7-31-01

Recra LabNet-Lionville Laboratory

STD 64888104 D

Queue: 073001GC18ical

Acq Method Set: DRO_BLANK705

Vial: 7

Processing Method: 073001GC18_ical

Channel Description: FID

Date Acquired: 7/30/01 6:37:32 PM

Dilution Factor: 1.0

Date Processed: 7/31/01 8:46:14 AM

Project Name DRO_01C

Injection Id: 2676

Result Id: 2786

DIESEL RANGE ORGANICS

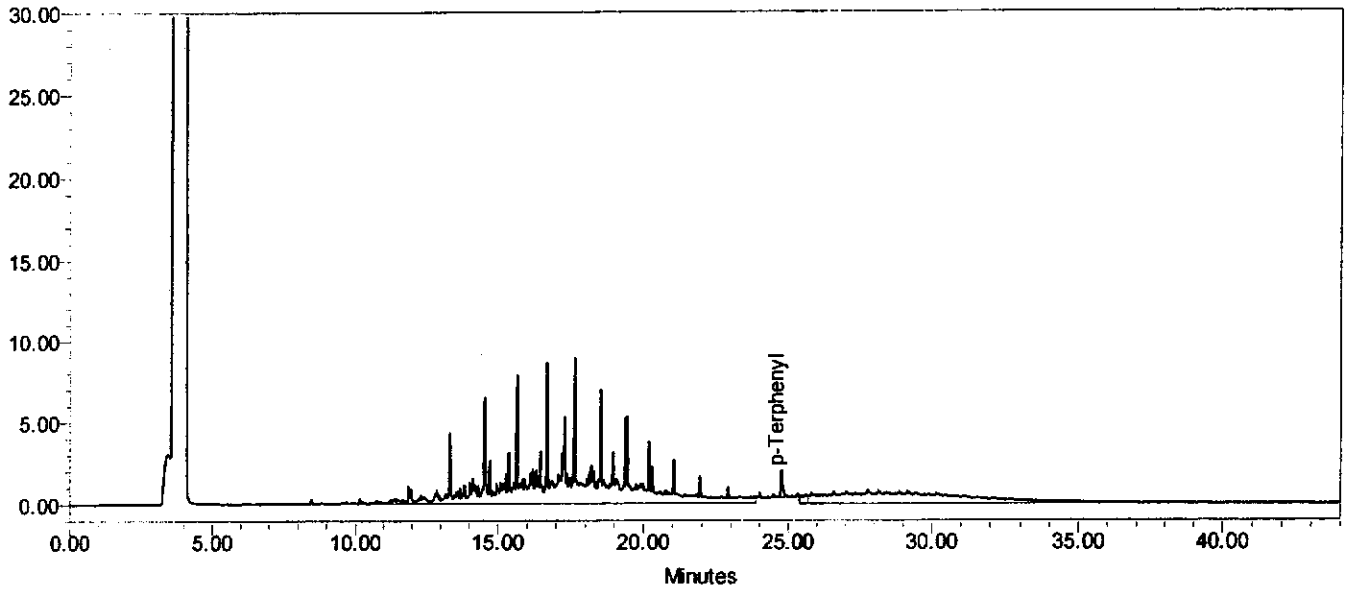

Processed By kauffmal

Manual Yes

Peak Results

	RT	Area	Height	Name	Amount
1	8.476	712364	8493	Diesel Fuel	1500.000
2	24.764	8346	1620	p-Terphenyl	25.000
3	27.773	244629	811	Motor oil	1500.000

LL 7-31-01

Recra LabNet-Lionville Laboratory

STD 64888105 E

Queue: 073001GC18ical

Vial: 8

Channel Description: FID

Dilution Factor: 1.0

Project Name DRO_01C

Acq Method Set: DRO_BLANK705

Processing Method: 073001GC18_ical

Date Acquired: 7/30/01 7:31:17 PM

Date Processed: 7/31/01 8:46:14 AM

Injection Id: 2679 Result Id: 2787

DIESEL RANGE ORGANICS

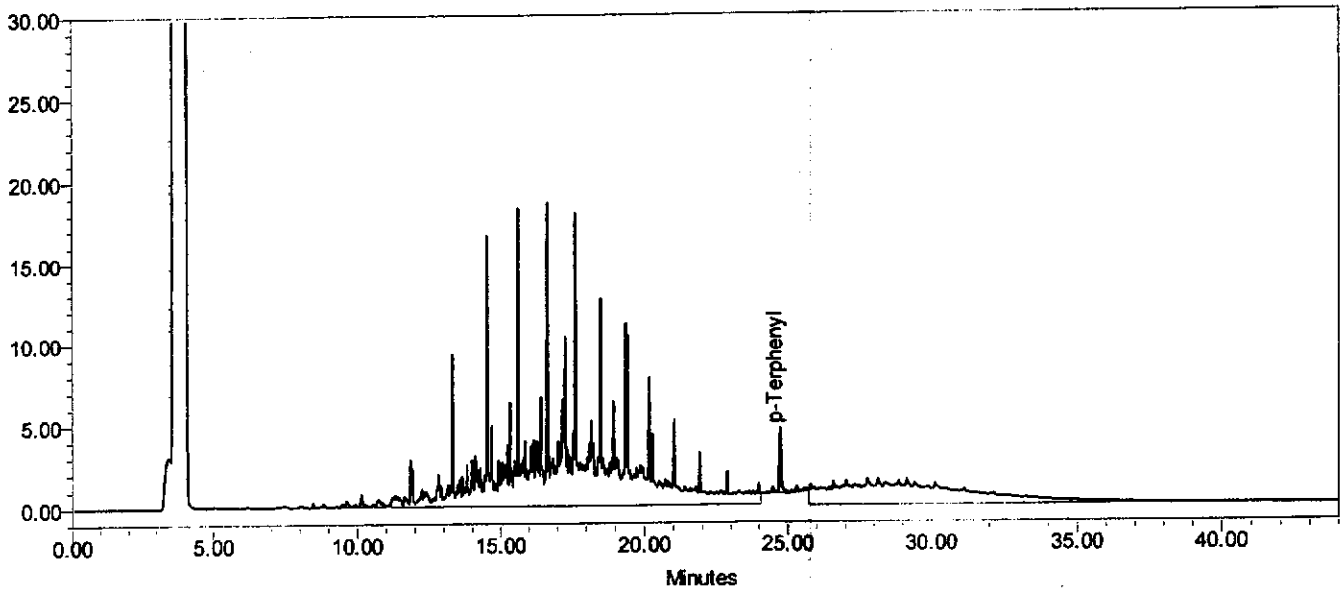

Processed By kauffmal

Manual Yes

Peak Results

	RT	Area	Height	Name	Amount
1	8.468	1436758	16735	Diesel Fuel	3000.000
2	24.734	17746	3875	p-Terphenyl	50.000
3	28.123	466097	1540	Motor oil	3000.000

LK 7/31/01

Recra LabNet-Lionville Laboratory

STD 64888106 F

Queue: 073001GC18ical

Vial: 9

Channel Description: FID

Dilution Factor: 1.0

Project Name DRO_01C

Acq Method Set: DRO_BLANK705

Processing Method: 073001GC18_ical

Date Acquired: 7/30/01 8:25:03 PM

Date Processed: 7/31/01 8:46:14 AM

Injection Id: 2682 Result Id: 2788

DIESEL RANGE ORGANICS

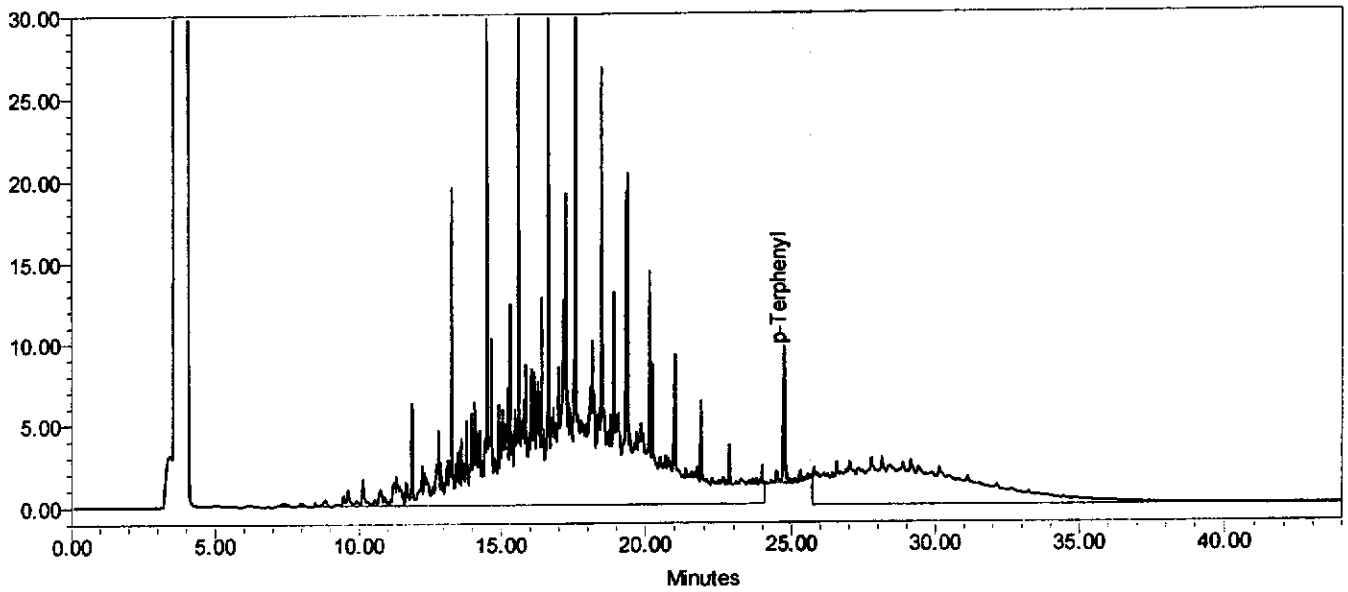

Processed By kauffmal

Manual Yes

Peak Results

	RT	Area	Height	Name	Amount
1	7.428	2846362	32472	Diesel Fuel	6000.000
2	24.730	36406	8248	p-Terphenyl	100.000
3	28.124	833612	2793	Motor oil	6000.000

LK 7-31-01

Recra LabNet-Lionville Laboratory

CCV 64888104 D

Queue: 080701GC18icala

Vial: 5

Channel Description: FID

Dilution Factor: 1.0

Project Name DRO_01C

Acq Method Set: DRO_BLANK705

Processing Method: 073001GC18_ical

Date Acquired: 8/7/01 1:31:03 PM

Date Processed: 8/8/01 5:55:25 AM

Injection Id: 3036 Result Id: 3098

DIESEL RANGE ORGANICS

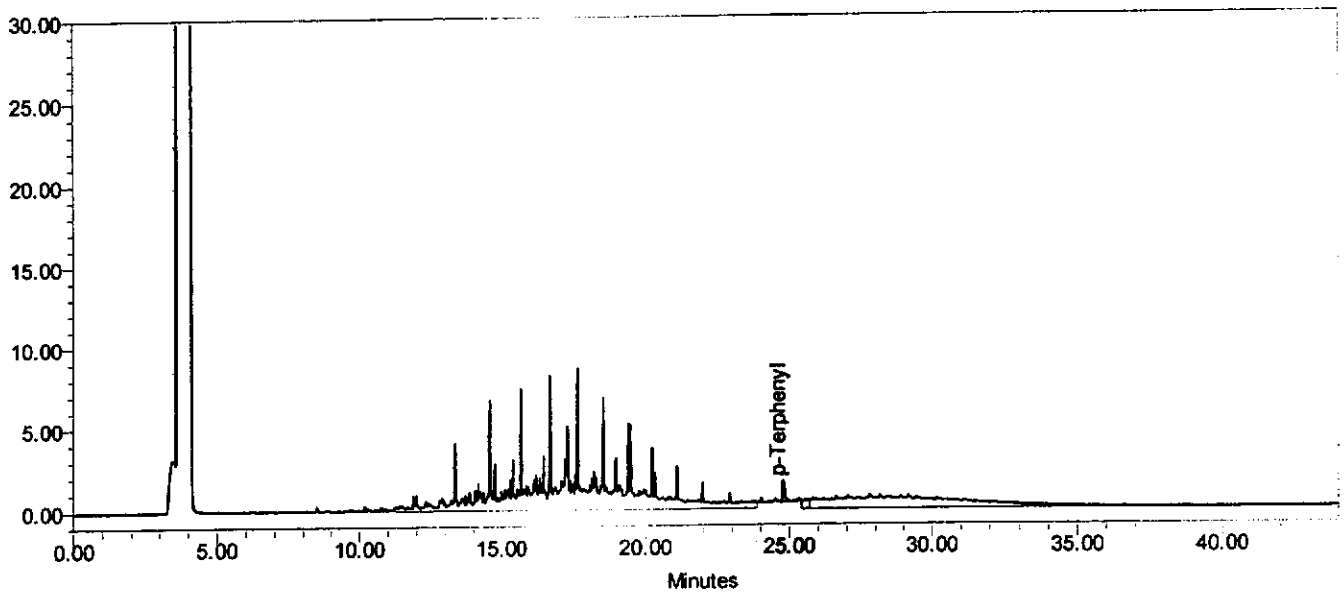

Processed By kauffmal

Manual Yes

Peak Results

	RT	Area	Height	Name	Amount
1	17.654	715828	7859	Diesel Fuel	1504.565
2	24.784	7003	1262	p-Terphenyl	21.447
3	27.788	237086	802	Motor oil	1590.349

LC 8-8-01

~~43~~ 42

Recra LabNet-Lionville Laboratory

CCV 64888104 D

Queue: 080701GC18icala

Vial: 17

Channel Description: FID

Dilution Factor: 1.0

Project Name DRO_01C

Acq Method Set: DRO_BLANK705

Processing Method: 073001GC18_ical

Date Acquired: 8/8/01 12:17:14 AM

Date Processed: 8/8/01 5:55:26 AM

Injection Id: 3077 Result Id: 3099

DIESEL RANGE ORGANICS

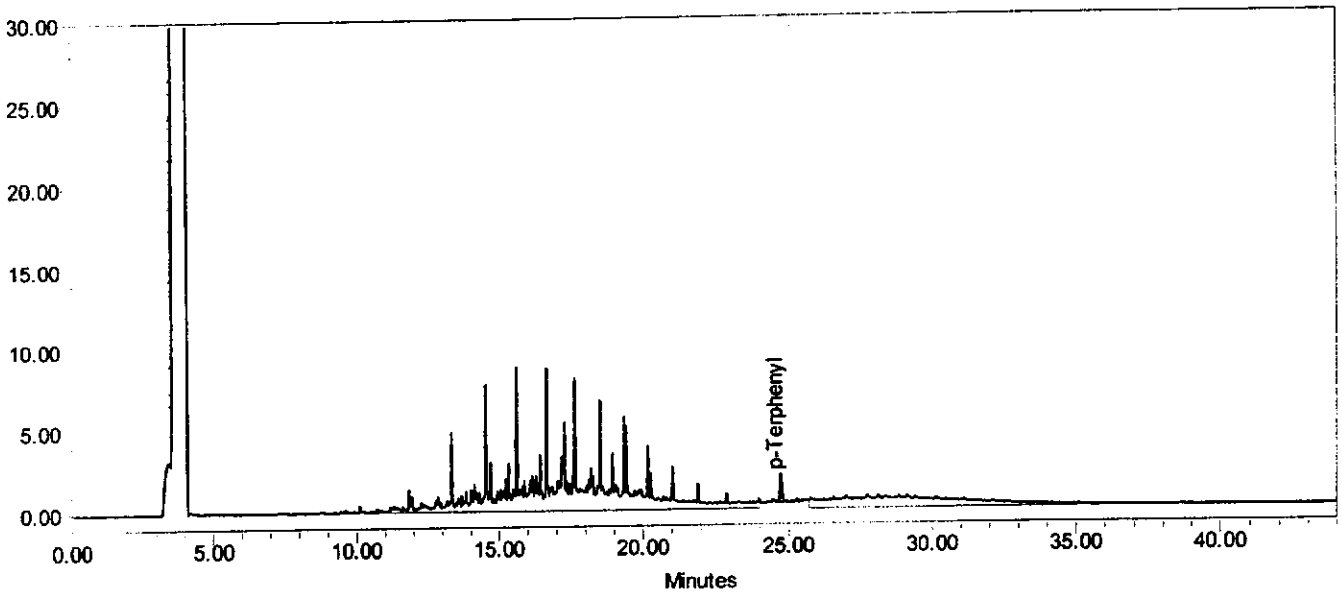

Processed By kauffmal

Manual Yes

Peak Results

	RT	Area	Height	Name	Amount
1	15.626	732986	7862	Diesel Fuel	1540.671
2	24.723	8201	1685	p-Terphenyl	24.647
3	27.738	229110	765	Motor oil	1533.294

LK 8-8-01

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Recra LabNet-Lionville Laboratory

CCV 64888104 D

Queue: 080701GC18icala

Vial: 29

Channel Description: FID

Dilution Factor: 1.0

Project Name DRO_01C

Acq Method Set: DRO_BLANK705

Processing Method: 073001GC18_ical

Date Acquired: 8/8/01 11:03:15 AM

Date Processed: 8/8/01 11:49:42 AM

Injection Id: 3140 Result Id: 3146

DIESEL RANGE ORGANICS

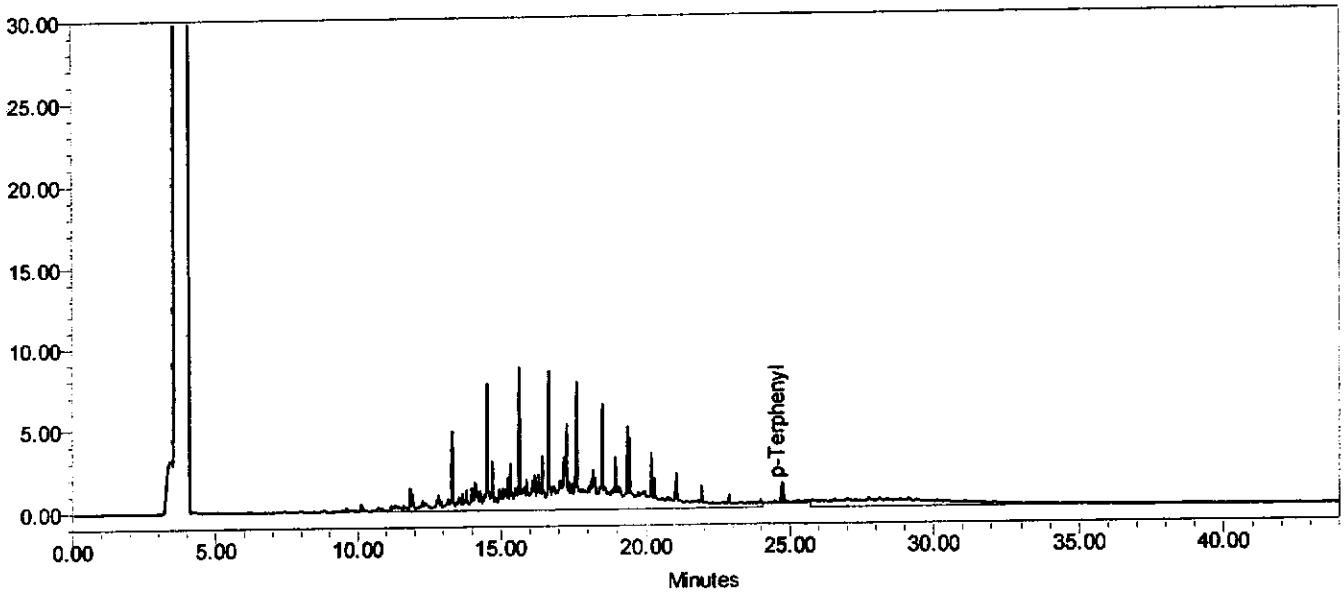

Processed By kauffmal

Manual Yes

Peak Results

	RT	Area	Height	Name	Amount
1	15.626	692060	7691	Diesel Fuel	1454.550
2	24.730	6110	1199	p-Terphenyl	19.061
3	27.741	141880	523	Motor oil	909.345

JK 8-8-01

RAW QC DATA: BLANK, AND MATRIX SPIKE DATA

ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

BLK

Lab Name: Lionville Labs, Inc. Work Order: 02744064001

Client: LANL REQ #9432R

Matrix: SOIL

Lab Sample ID: 01LE0914-MB1

Sample wt/vol: 25.0 (g/mL) G

Lab File ID: BLKOOPPB

Level: (low/med) LOW

Date Received: 07/31/01

% Moisture: not dec. 0

Date Analyzed: 08/08/01

Column: (pack/cap) CAP

Dilution Factor: 1.00

CONCENTRATION UNITS:
(ug/L or ug/Kg) mg/kg

CAS NO.	COMPOUND		
68334-30-5	Diesel Range Organics	12.0	U
00-00-0000	Motor Oil	12.0	U

12/88 Rev.

Recra LabNet-Lionville Laboratory

01LE0914-MB1

Queue: 080701GC18icala

Vial: 18

Channel Description: FID

Dilution Factor: 1.0

Project Name DRO_01C

Acq Method Set: DRO_BLANK705

Processing Method: 073001GC18_ical

Date Acquired: 8/8/01 1:11:07 AM

Date Processed: 8/8/01 6:03:49 AM

Injection Id: 3080 Result Id: 3112

DIESEL RANGE ORGANICS

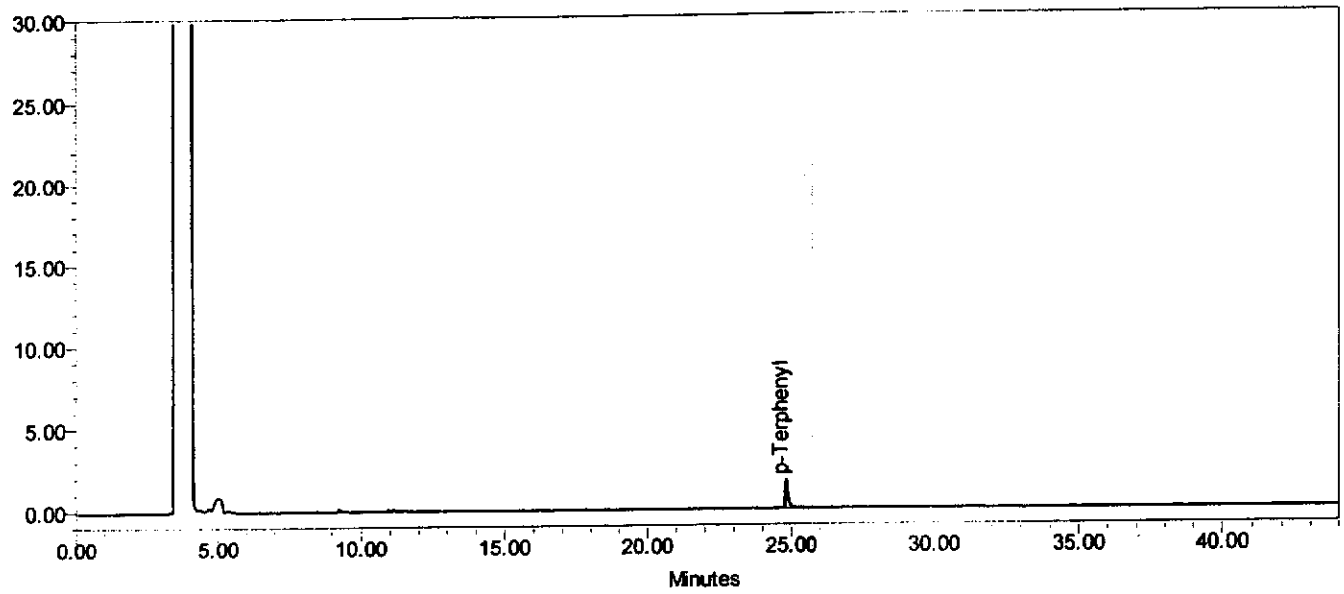

Processed By kauffmal

Manual Yes

Peak Results

	RT	Area	Height	Name	Amount
1	9.251	4097	176	Diesel Fuel	6.869
2	24.814	11858	1731	p-Terphenyl	34.417
3	28.700	8759	112	Motor oil	

ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

BLKMS

Lab Name: Lionville Labs, Inc. Work Order: 02744064001

Client: LANL REQ #9432R

Matrix: SOIL

Lab Sample ID: 01LE0914-MB1 BS

Sample wt/vol: 25.0 (g/mL) G

Lab File ID: BLKOOPPB

Level: (low/med) LOW

Date Received: 07/31/01

% Moisture: not dec. 0

Date Analyzed: 08/08/01

Column: (pack/cap) CAP

Dilution Factor: 1.00

CONCENTRATION UNITS:
(ug/L or ug/Kg) mg/kg

CAS NO.	COMPOUND		
68334-30-5	Diesel Range Organics		SP
00-00-0000	Motor Oil	12.0	U

SP: SPIKE COMPOUND

12/88 Rev.

Recra LabNet-Lionville Laboratory

01LE0914-MB1-S

Queue: 080701GC18icala

Vial: 19

Channel Description: FID

Dilution Factor: 1.0

Project Name DRO_01C

Acq Method Set: DRO_BLANK705

Processing Method: 073001GC18_ical

Date Acquired: 8/8/01 2:05:03 AM

Date Processed: 8/8/01 6:03:49 AM

Injection Id: 3083 Result Id: 3113

DIESEL RANGE ORGANICS

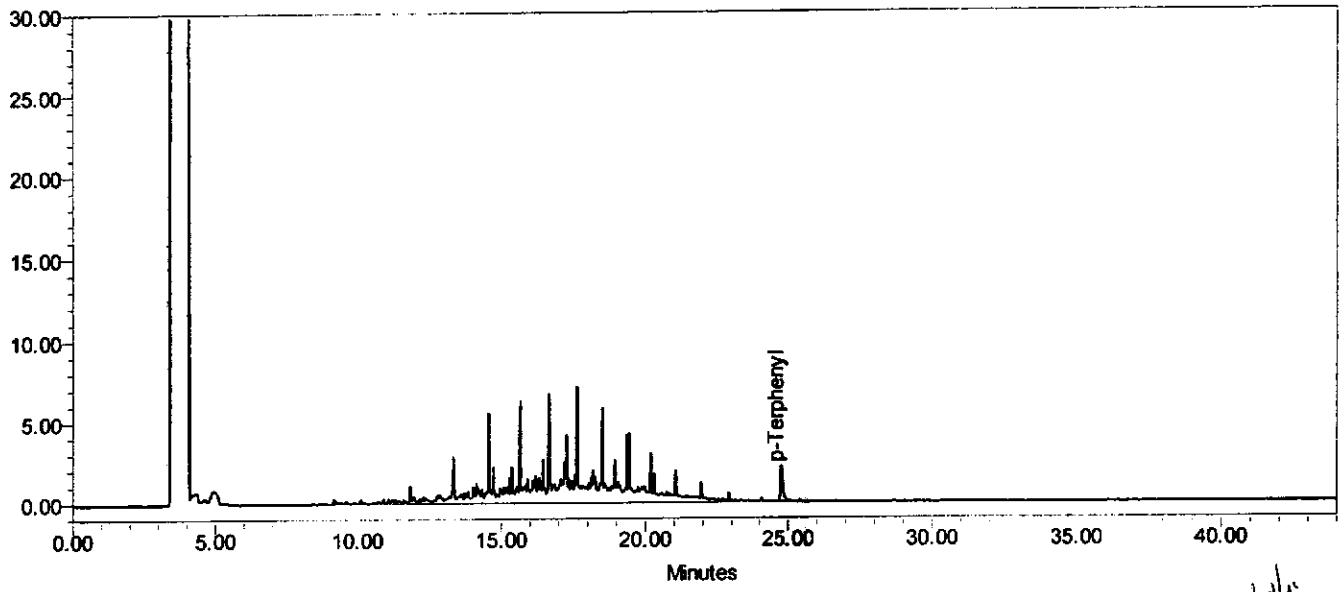

Processed By kauffmal

Manual Yes

Peak Results

	RT	Area	Height	Name	Amount	
1	17.626	564033	6522	Diesel Fuel	1185.144	792
2	24.764	13635	2179	p-Terphenyl	39.162	78%
3	26.668	8731	125	Motor oil		NS

8-8-01

ANALYSIS RUN LOGS

INSTRUMENT ID: GC-18
DETECTOR TYPE: FID
INJECT VOLUME: 1ul

COLUMN TYPE: XTI-5
COLUMN SERIAL #: 8561-012
OVEN TEMP PROGRAM: #2

ANALYST: LK
CALIBRATION DATE: 7-30-01
ANALYSIS METHOD: ODRO

#	SAMPLE SET ID.VIAL #	INJECTION ID	ANALYSIS DATE/TIME	RECRA SAMPLE # DESCRIPTION	DF	COMMENTS
1	080701GC18icala .2 LK	3026 8/7/01	8/7/01 10:49:47 AM	WASH		All Standards May Be Referenced To Standard Logbook #: 6488
2	080701GC18icala .3	3029	8/7/01 11:43:34 AM	WASH		
3	080701GC18icala .4	3032	8/7/01 12:37:25 PM	BLANK		Millennium Project ID: ODRO-01C
4	080701GC18icala .5	3036	8/7/01 1:31:03 PM	CCV 64888104 D		
5	080701GC18icala .6	3039	8/7/01 2:24:51 PM	01LE0891-MB1		DCM- V19E25
6	080701GC18icala .7	3042	8/7/01 3:18:51 PM	01LE0891-MB1-S		
7	080701GC18icala .8	3046	8/7/01 4:12:43 PM	0106L189-002		
8	080701GC18icala .9	3049	8/7/01 5:06:27 PM	0107L389-008		
9	080701GC18icala .10	3056	8/7/01 6:00:23 PM	0107L389-009		
10	080701GC18icala .11	3059	8/7/01 6:54:27 PM	0107L389-009-S		
11	080701GC18icala .12	3062	8/7/01 7:48:11 PM	0107L389-009-T		
12	080701GC18icala .13	3065	8/7/01 8:41:58 PM	0107L389-010		
13	080701GC18icala .14	3068	8/7/01 9:35:52 PM	0107L389-011		
14	080701GC18icala .15	3071	8/7/01 10:29:38 PM	0107L389-012		
15	080701GC18icala .16	3074	8/7/01 11:23:21 PM	IBLK		
16	080701GC18icala .17	3077	8/8/01 12:17:14 AM	CCV 64888104 D		
17	080701GC18icala .18	3080	8/8/01 1:11:07 AM	01LE0914-MB1		
18	080701GC18icala .19	3083	8/8/01 2:05:03 AM	01LE0914-MB1-S		
19	080701GC18icala .20	3086	8/8/01 2:58:53 AM	0107L410-002		
20	080701GC18icala .21	3089	8/8/01 3:52:44 AM	0107L410-002-S		
21	080701GC18icala .22	3092	8/8/01 4:46:35 AM	0107L410-002-T		
22	080701GC18icala .23	3095	8/8/01 5:40:17 AM	0107L410-005		
23	080701GC18icala .24	3117	8/8/01 6:34:04 AM	0107L423-016	50	
24	080701GC18icala .25	3120	8/8/01 7:27:51 AM	0107L423-017	50	
25	080701GC18icala .26	3124	8/8/01 8:21:42 AM	0107L423-018	50	
26	080701GC18icala .27	3128	8/8/01 9:15:46 AM	0107L423-019	50	
27	080701GC18icala .28	3136	8/8/01 10:09:30 AM	IBLK		
28	080701GC18icala .29	3140	8/8/01 11:03:15 AM	CCV 64888104 D	→	CCV Out
29	080701GC18icala .2	3150	8/8/01 2:06:34 PM	WASH		
30	080701GC18icala .3 LK	3153 8/1/01	8/8/01 3:00:18 PM	WASH		

Run continued on Page 67

LOGBOOK # 8460

REVIEWED BY/DATE: JL 8/22/01

L-WI-022/A-11/00

52

INSTRUMENT ID: GC-18
DETECTOR TYPE: FID
INJECT VOLUME: 1ul

COLUMN TYPE: XTI-5
COLUMN SERIAL #: 8561-012
OVEN TEMP PROGRAM: #2

ANALYST: UK
CALIBRATION DATE: 7-30-01
ANALYSIS METHOD: ODRO

#	SAMPLE SET ID.VIAL #	INJECTION ID	ANALYSIS DATE/TIME	RECRA SAMPLE # DESCRIPTION	DF	COMMENTS
31	080701GC18icala .4 UK	3156 8/9/01	8/8/01 3:54:09 PM	WASH		All Standards May Be Referenced To Standard Logbook #: 6488
32	080701GC18icala .30	3159	8/8/01 4:48:03 PM	IBLK		
33	080701GC18icala .31	3162	8/8/01 5:41:45 PM	CCV 64888104 D	OUT	Millennium Project ID: ODRO-01C
34	080701GC18icala .32	3165	8/8/01 6:35:51 PM	0107L416-003		
35	080701GC18icala .33	3168	8/8/01 7:29:49 PM	0107L416-006		Run continued From Page 66
36	080701GC18icala .34	3171	8/8/01 8:23:39 PM	0107L416-009	100	
37	080701GC18icala .35	3174	8/8/01 9:17:24 PM	0107L416-012		DCM- V19E25
38	080701GC18icala .36	3177	8/8/01 10:11:15 PM	0107L416-015	50	
39	080701GC18icala .37	3180	8/8/01 11:05:02 PM	0107L416-018		
40	080701GC18icala .38	3183	8/8/01 11:58:45 PM	0107L389-007		
41	080701GC18icala .39	3186	8/9/01 12:52:32 AM	0107I389-010	100	
42	080701GC18icala .40	3189	8/9/01 1:46:30 AM	0107I389-011	5	
43	080701GC18icala .41	3192	8/9/01 2:40:16 AM	IBLK		
44	080701GC18icala .42 UK	3195 8/9/01	8/9/01 3:34:14 AM	CCV 64888104 D	OUT	

UK 8/9/01

LOGBOOK # 8460

REVIEWED BY/DATE: 8/22/01

L-WI-022/A-11/00

PAGE #

STANDARDS PREPARATION RECORDS

Recra LabNet Philadelphia

GC ANALYSIS
STANDARD RECEIPT LOG

54

Compound	Date Received	Standard ID	Source and Lot	%Purity	Solvent	Final Volume (mL)	Final Conc. (w/units)	Exp/ Date	Date/Analyst Date Opened/ Analyst	Reviewed By/ Date
Custom Pest Mix B	4/18/01	64393201 A	Restek Lot# A019342 Exp 4/04 Cat# 50802	Amp	Tol/Hex	1mL	80-400ug/mL	4/20/02	MK 4/18/01 BS 4/20/01	4/21/01 MK
		64393201 B							MK 4/18/01	
		64393201 C							MK 4/18/01	
		64393201 D							MK 4/18/01	
		64393201 E							MK 4/18/01	
logged 5/4 Diesel Fuel #2		64395202	Tom's Atlantic Chester Springs, PA 3M4005 21.31	–	–	946mL	10W30 100%	–	5/3/01 BS	LK 5/3/01
Bromacil	8/1/01	64393203	Chem. Service Lot# 270304 Exp. 2/03	Amp	MTBE	5mL	100 ng/mL		BS 8/9/01 BS 8/9/01	
Butachlor	8/1/01	64393204	Chem Service Lot# 255-31B Exp. 6/02	Amp	MTBE	5mL	100 ng/mL		BS 8/9/01 BS 8/9/01	
Demeton S	⊥	64393205	Chem Service Lot# 266-27B Exp. 12/02	⊥	Eluene ~~⊥~~ BS 8/9/01	⊥	⊥		BS 8/9/01	
Demeton O+S	8/1/01	64393206	Chem. Service Lot# 251-131B Exp 12/03	32.6 BS 8/10/01 ~~Amp~~	–	100mg	–		BS 8/9/01	
Alachlor	8/1/01	64393207	Chem Service Lot# 267-114B Exp 2/03	Amp	MeOH	5mL	100 ug/mL	8/10/02	BS 8/9/01 BS 8/10/01	

L-WI-008/N-03/98

LOGBOOK # 6439 , PAGE # 032

Recra LabNet Philadelphia

GC ANALYSIS

Preparation of Stock Standard (Multi - Component)

55

NAME Diesel Fuel #2
I.D.# 54323301

EXPIRATION DATE 5/3/02

DATE/ANALYST 5/3/01 BS

Component	Parent ID#	Parent Concentration	Purity Adj.? Y/N*	Parent Volume (w/units)	Total Volume (mL)	Solvent	Component Concentration (w/units)
Diesel Fuel #2	64393202	100%	–	1.250 mL	25 mL	DCM	50,000 µM

* Purity adjustment required if not greater than 95%

Reviewed By/Date: LK 5/3/01
(includes calculation verification)

RFW 21-21-008/P-06/97

LOGBOOK # 8432, PAGE # 033

WESTON®

HPLC STANDARDS LOGBOOK
Neat Standards Documentation

Logbook #: 5416

Compound	WESTON Standard ID	Vendor	Vendor Lot ID	Purity %	Expiration Date	Date Received	Date Removed*
2,3-Dichlorobenzoic acid	54163201	chem service	55-89K	Neat	5/5/03	5/5/00	
2,4-Dichlorobenzoic acid	54163202	chem service	55-61O		5/5/03	5/5/00	
2,5-Dichlorobenzoic acid	54163203	chem service	55-197C		5/5/03	5/5/00	
Triphenylene	54163204	chem service	242-118A	100ug/mL	11/01	5/19/00	
Triphenylene	54163205	chem service	242-118A	100ug/mL	11/01	5/19/00	
Tetryl	54163206	chem service	P238-10B	100ug/mL	7/01	6/13/00	
Diesel Fuel #2	54163207	Restek	A016063	10000ug/mL	10/02	6/19/00	
Diesel Fuel #2	54163208						
Diesel Fuel #2	54163209						
Diesel Fuel #2	54163210						
Diesel Fuel #2	54163211						
1,3,5-TNB	54163212	chem service	245-61A	100ug/mL	6/01	6/14/00	

*Date removed is the date the standards are given to the Waste Disposal Unit for disposal.

Reviewed By/Date: [illegible] 6/5/00

RFW 21-21-036/F-12/94

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Lionville Laboratory

HPLC ANALYSIS
STANDARDS RECEIPT LOG

Compound	Date Received	Standard ID	Source and Lot	%Purity	Solvent	Final Volume (mL)	Final Conc. (w/units)	Exp/ Date	Date/Analyst Date Opened/ Analyst	Reviewed By/ Date
8330 Calibration mix #2	3/15/01	85650301 A-E	Restek - 31451 LOT# A016290	–	ACN	cc 3/15/01 ~~[illegible]~~	1000 ug/mL	12/04		BS 4/27/01
Custom Herbicide Mix	4/5/01	85650302 A-E	Restek - #56919 Lot A018836	–	Hex	5mL	25-255 mg/mL	2/03	MK 10/7/01	
2-CEVE	4/30/01	85650303 A-B	Restek - 30265 LOT - A017909	–	MeOH	1mL	2000 ug/mL	8/04		
1,2-Dinitrobenzene	5-14-01	85650304 A-B	Ultra - IST-600 LOT - P0813	–	MeOH	1mL	1000 ug/mL	7/03		
p-Terphenyl Mix	6-15-01	85650305 A-B-C	Restek - 31095 LOT-A016288	–	DCM	1mL	10,000 ug/ml	6/03		
Diesel Fuel #2	6-15-01	85650306 A-B-C	Restek - 31259 LOT-A017704	–	DCM	5mL	50,000 ug/ml	12/03		
502.2 Cal200 mesa mix	6/15/01	85650307 A-B-C-D-E	Restek - A018488* LOT # cat# 30432	–	meoh	1ml	200 ug/ml	4/03		
Pesticide Surrogate mix	6/15/01	85650308 ~~A-E~~ 2 lots	Restek cat - 32000 exp LOT A018545. 11/03	–	Ace	1ml	200ug/ml	~~4/03~~ 7/27/02	MK 7/27/01 MK 7/27/01	BS 7/27/01
		85650309		–					MK 7/27/01	
		85650310		–					MK 7/27/01	
		85650311		–					MK 7/27/01	

L-WI-008/N-01/01

LOGBOOK # 8565, PAGE # 003

Lionville Laboratory

HPLC ANALYSIS
STANDARDS RECEIPT LOG

Compound	Date Received	Standard ID	Source and Lot	%Purity	Solvent	Final Volume (mL)	Final Conc. (w/units)	Exp/ Date	Date/Analyst Date Opened/ Analyst	Reviewed By/ Date
EPA 601/602 Purg. Halo mix	7/13/01	85650501 ~~Ag-Bi~~ 7/13/01	Supelco. Lot LA97562	Amp	meOH	1 ml	2000ug/ml	4/02.	JL 7/17/01	8/14/01
⊥	⊥	85650502	⊥	⊥	⊥	⊥	⊥	⊥	JL 7/17/01	
m-xylene	7/13/01	85650503	Chem Service Lot 235-123A	99.5	—	5g	99.5%	2/06.	JL 7/17/01	
Cis-1,2 Dichloroethene	7/13/01	85650504	Chem Service. Lot 238-37A	99.3	—	500mg.	99.3%	1/04	JL 7/17/01	
502.2 (gas) Calmix 1	7/13/01	85650505	Restek. Lot A012167	Amp	meOH	1 ml	2000ug/ml	11/07	JL 7/17/01	
2-CEVE	7/13/01	85650506.	Restek Lot A018694	Amp	meOH	1 ml	2000ug/ml	11/04	JL 7/17/01	
⊥	⊥	85650507	⊥	⊥	⊥	⊥	⊥	⊥	JL 7/17/01	
1,1,2 trichloro trifluoro ethane Freon 113	7/13/01	85650508	Restek. Lot A099665	⊥	⊥	⊥	⊥	5/02	JL 7/17/01	
⊥	⊥	~~X~~ 7/17/01 85650509	⊥	⊥	⊥	⊥	⊥	⊥	JL 7/17/01	⊥
p-Terphenyl	7-23-01	85650510AC	Restek #31095 Lot # A019187	—	DCM	1ml	10,000 ug/ml	5/04		
Picloram	8-2-01	85650511	Restek # 32265 exp. 5/12 Lot # A017956	Amp	MeOH	1mL	1000 mg/mL	MK 8/7/01 ~~5/03~~ 8/7/02	MK 8/2/01 JS ~~8/6/01~~ 8/7/01	MK 8/7/01

LOGBOOK # 8565, PAGE # 005

L-WI-008/N-01/01

Recra LabNet Philadelphia

HPLC STANDARDS PREPARATION LOGBOOK

Preparation of Standard Dilutions (Single Component)

Logbook #: 6492

COMPOUND	STANDARD DILUTION I.D.	PARENT STANDARD I.D.	PARENT CONC. (w/units)	PARENT VOLUME (mL)	TOTAL VOLUME (mL)	SOLVENT	PREPARED STANDARD CONC. (w/units)	DATE/ ANALYST	REVIEWED BY/DATE	DATE REMOVED[1]
p-Terphenyl	64921301	54163506	10,000 ug/mL	0.5 mL	100 mL	Acetone	50 ug/mL	12/13/00 LK	MK 12/13/00	
P-Terphenyl	64921302	54163507	10,000 ug/ml	0.5 mL	100 mL	Acetone	50 ug/ml	3/30/01 C	4/5/01	
Diesel Spike	64921303	54163208	50000 ug/ml	3 ml	100 ml	Acetone	1500 ug/ml	BF 5/7/01	LK 5/7/01	
Oil Surrogate	64921304	54163202	neat	0.0054 g	100 mL	12.1 N NaOH 99% DI H2O	54 ug/mL	5/16/01 LK	8/14/01	
Benzoic Acid Spike	64921305	Benzoic Acid 54160108	neat	0.0055 g.	100 mL	12.1 N NaOH 99% DI H2O	55 ug/ml	5/16/01 LK	8/14/01	
↓	↓	2-Chlorobenzoic Acid 54160109	↓	0.0056 g.	↓	↓	56 ug/ml	↓	↓	
↓	↓	3-Chlorobenzoic Acid 54160110	↓	0.0065 g	↓	↓	65 ug/ml	↓	↓	
↓	↓	4-Chlorobenzoic Acid 54160111	↓	0.0054 g	↓	↓	54 ug/ml	↓	↓	
↓	↓	Phenolic Acid 54160112	↓	0.0250 g	↓	↓	250 ug/ml	↓	↓	
P-TERPHENYL	64921306	54163508	10000 ug/ml	0.5 ml	100 ml	Acetone	50 ug/ ~~1500~~ 8/5/01	BF 5/11/01	8/6/01	
P-TERPHENYL	64921307	85650305	10000 ug/ml	0.5 ml	100 ml	Acetone	50 ug/ml BF	BF 7/6/01	8/14/01	

[1]Date removed is the date standards are given to the Waste Disposal Unit for disposition.

L-WI- 036/C-05/98

Recra LabNet Philadelphia

HPLC STANDARDS PREPARATION LOGBOOK

Preparation of Standard Dilutions (Single Component)

Logbook #: 6492

COMPOUND	STANDARD DILUTION I.D.	PARENT STANDARD I.D.	PARENT CONC. (w/units)	PARENT VOLUME (mL)	TOTAL VOLUME (mL)	SOLVENT	PREPARED STANDARD CONC. (w/units)	DATE/ ANALYST	REVIEWED BY/DATE	DATE REMOVED[1]
p-Terphenyl Surrogate	64921401	85650305 C	10,000 ug/ml	0.5 ml	100 ml	Ace	50 ug/ml	7/19/01 LK	8/14/01	
Benzoic Acid Spike	64921402	Benzoic Acid 54160108	neat	.0055 g.	100 ml	1% 1N NaOH 99% H_2O	55 ug/ml	7-30-01 LK	8/14/01	
		2-Chlorobenzoic Acid 54160109		.0054 g.			54 ug/ml			
		3-Chlorobenzoic Acid 54160110		.0068 g.			68 ug/ml			
		4-Chlorobenzoic Acid 54160111		.0060 g.			60 ug/ml			
		Chlorendic Acid 54160112		0.0255 g.			225 ug/ml			

[1]Date removed is the date standards are given to the Waste Disposal Unit for disposition.

L-WI- 036/C-05/98

Recra LabNet
Philadelphia

HPLC STANDARDS PREPARATION LOGBOOK
Preparation of Mixture Dilutions (Multi-Component)

ODRO/Motor Oil Calibration Curve

Logbook #: 6458

DATE/ANALYST		7/24/01 JK									
DILUTION MIX ID	////////	64888101 A	64888102 B	64888103 C	64888104 D	64888105 E	64888106 F				
PARENT MIX ID	See below										
PARENT VOLUME (w/units)	Diesel Fuel + Motor Oil p-Terphenyl	50 ul 4.2 ul	150 ul 12.5 ul	300 ul 25 ul	1500 ul 125 ul	1500 ul 125 ul	3000 ul 250 ul				
TOTAL VOLUME (w/units)	////////	25 ml	25 ml	25 ml	50 ml	25 ml	25 ml				
SOLVENT		DCM	DCM	DCM	DCM	DCM	DCM				
UNITS →	ug/ml										
COMPONENT ↓	PARENT↓	CONC.↓	CONC.↓	CONC.↓	CONC.↓	CONC.↓	CONC.↓	CONC.↓	CONC.↓	CONC.↓	CONC.↓
Diesel Fuel #2 60742110A,C	50,000	100	300	600	1500	3000	6000				
Motor Oil 84323301	50,000	100	300	600	1500	3000	6000				
p-Terphenyl 85650510A	10,000	7/24/01 JK 1.68	7/24/01 JK 5	10	25	50	100				
EXPIRATION DATE		1/24/02									
DATE REMOVED[1]											

[1]Date removed is the date the standard is given to the Waste Disposal Unit for disposition.

REVIEWED BY/DATE: [signature] 8/14/01

RFW 21-21-036/E-07/97

Recra LabNet
Philadelphia

Logbook #: 6074

ORGANIC PREPARATION UNIT
AMPULE STANDARDS TRACKING LOGBOOK

Compound Mix Name	Standard ID	Source	Lot #	CONC w/units	Volume/ Solvent	Receipt Date	Expiration Date	Reviewed By/Date	
B/N	60742101	Restek	A012925	750ug/ml	Methanol	3/12/01	1/02	BF 3/12/01	
BNA LCS	60742102	NSF	G32201-CC	100ug/ml	Meoh	3/23/01	3/22/03	BF 3/23/01	A-J
PEST SURR MIX	60742103	Restek	A017786	200ug/ml	Acetone	3/29/01	6/03	BF 3/29/01	A-J
AR1254	60742104	Restek	A18671	1000ug/ml	hexane	3/29/01	6/05	5/25/01	A-E
BNATCLP	60742105	Supelco	LA97047	1000/500ug	Acetone	3/29/01			A-B
TRIPHENYLPHOSPHATE	60742106	Chemservice	212-17C	2000ug/ml	Acetonitrile	4/2/01	4/02		
DCBP BF 4/11/01	60742107	Chemservice	251-108B	1000ug/ml	Hexane BF 4/11/01	~~11/02~~ 4/2/01	11/02		A-B
Toxaphene	60742108	Supelco	LA88511	2000ug/ml	Isooctane	5/10/01	2/03		A-B
Chlordane	60742109	Supelco	LA92419	500ug/ml	Methanol	—	8/03		A-B
Diesel Fuel #2	60742110	Restek	A017704	50000ug/ml	Methylene Chloride	5/14/01	12/03		A,B
Pest Matrix Spike	60742111	Restek	A017302	2550ug/ml	Acetone	~~5/14/01~~ 5/14/01	9/03		A,B
B/N SURROGATE (LL)	60742112	Restek	A016727	1000ug/ml	Methylene Chloride	5/23/01	8/03		A-E
L/C ACID SURROGATE (LL)	60742113	RESTEK	A019075	1000-3000ug/ml	MeOH	5/23/01	12/04		A-E
BF 6/21/01 ~~BNA LCS~~									
GPC CAL MIX	60742114	Restek	A07257	02-250 mg/ml	Methylene Chloride	6/21/01	10/07	BF 6/21/01	A-E
Grain Alcohol	60742115	GRAVES	—			6/27/01	—	BF 6/27/01	A-B

RFW 21-21-008/Z-07/97

PREPARATION LOGS

Lionville Laboratory, Inc.

SAMPLE EXTRACTION RECORD

Sheet no.: 1

Extract. Date: 07/31/01 Extraction Batch No: 01LE0914 Analyst: EG Method: ****

Test: ODRO Cleanup Date: Analyst: Client: LANL REQ #9439R

LIMS Report Date: 08/01/01 Solvent: DCM Adsorbent:

Sample No:	Client Name Client ID	pH	Initial WT/VOL	Surr. Mult.	Spike Mult.	Final VOL	Final VOL	Split Mult.	GPC Y/N	% Solids	C/D FACTOR
0107L410-	LANL REQ #9439R										
002	RC60-01-0001 09	7	25.0	1.0		1.0		1.0	N	95.76	41.77
002 -S	RC60-01-0001 09	7	25.1	1.0	1.0	1.0		1.0	N	95.76	41.60
002 -T	RC60-01-0001 09	7	25.2	1.0	1.0	1.0		1.0	N	95.76	41.44
005	RC60-01-0015 09	7	25.1	1.0		1.0		1.0	N	97.26	40.96
0107L416-	LANL REQ #9454R										
003	RC60-01-0009 04	7	25.0	1.0		1.0		1.0	N	92.34	43.32
006	RC60-01-0010 04	7	25.3	1.0		1.0		1.0	N	94.79	41.70
009	RC60-01-0011 04	7	25.7	1.0		1.0		1.0	N	79.96	48.66
012	RC60-01-0012 04	7	25.2	1.0		1.0		1.0	N	97.91	40.53
015	RC60-01-0013 04	7	25.0	1.0		1.0		1.0	N	82.72	48.36
018	RC60-01-0014 04	7	25.0	1.0		1.0		1.0	N	97.38	41.08
0107L423-	LANL REQ #9432R										
016	RC03-01-0041 02	7	25.3	1.0		1.0		1.0	N	0.0	39.53
017	RC03-01-0042 02	7	25.2	1.0		1.0		1.0	N	0.0	39.68
018	RC03-01-0043 02	7	25.1	1.0		1.0		1.0	N	0.0	39.84
019	RC03-01-0044 02	7	25.2	1.0		1.0		1.0	N	0.0	39.68
01LE0914-MB1	BLK	7	25.0	1.0		1.0		1.0	N	100.00	40.00
01LE0914-MB1 -S	BLK	7	25.0	1.0	1.0	1.0		1.0	N	100.00	40.00

Comments:
Surrogate: 1000 UL P-TERP/ ODRO SURR 64921401
Spike: 1000 UL DIESEL SPIKE 64921303

Extracts Transferred	Relinquished By	Date Time	Received By	Date Time	Reason for Transfer
all	EG	8/1/01 1215	LK	8-1-01 1215	Analysis

Lionville Laboratory, Inc.

SOIL EXTRACTABLES

Logbook # 8672

Extract Date: 7/31/01 Extraction Batch #: 01LE0914

Analyst: EU/MB Test: 6DRO Method: SOX Solvent: DCM AAPrep: 7/31/01

	RFW #	Mtx	pH	Initial Wt/Vol (g/mL)	Surr/ Spike Mult	Pre GPC Vol (ml)	After GPC Vol (ml)	Split Mult
1	01072410-2	S	N/A	25.0	1	N/A	1.0	1.0
2	-5	S		25.1	1			
3	01072416-3	S		25.0	1			
	-6	S		25.3	1			
4	-9	S		25.1	1			
5	-12	S		25.2	1			
6	01072415	S		25.0	1			
7	-18	S		25.0	1			
8	01072423-16	S		25.3	1			
9	-17	S		25.2	1			
10	-18	S		25.1	1			
11	-19	S		25.1	1			
12	01072416-2MS	S		25.2	1 1			
13	-2MSD	S		25.1	1 1			
14	B	S		25.0	1			
15	BS	S		25.0	1 1			
16								
17								
18								
19								
20								
21								
22								
23								
24								

EU 7/31/01

DCM Solvent Lot: V19E25
Acetone Solvent Lot: —
Hexane Solvent Lot: —
Ether Solvent Lot: —
Sodium Sulfate Lot: 8403-300
Other: —

Extraction Information

(Date/Analyst)
Start time: BF 7/31/01 2:00
End time: BF 8/1/01 7:30
Filtration: EU 8/1/01
Boildown: —
Blowdown: —
GPC Ready: —
GPC Cleanup: —
GPC #: —
After GPC Boildown: —
After GPC Blowdown: —
Acid/Florisil Cleanup: (circle)
—
Prep Sheet: EU 8/1/01
GPC Lab ID #: —
Florisil Lot #: —
Florisil Lab ID #: —
Acid Lot #: —
Balance #: 69
Balance Cal Check Y/NA (circle) Y
pH Meter Calibrated Y/NA (circle) Y

Spiked by: BF

Surrogate: 1ml p-Terp/6DRO Surr 64921401

Spike: 1ml Diesel Spike 64921303

Witness: —

Pipette ID: YP030M

Pipette ID: 1

This Page Reviewed By/Date: EU 8/1/01

Lionville Laboratory, Inc.

SOIL EXTRACTABLES

Extract Date: 7/31/01 Extraction Batch #: 01LE0914 Logbook # 8672

Analyst: EG/MB Test: ODRG

Extraction Method Used:

- ☐ L-SP-3510, Rev. 03; Sep Funnel
- ☐ L-SP-3520, Rev. 00A; Cont. Liq/Liq
- ☒ L-SP-3540, Rev. 00; Soxhlet
- ☐ L-SP-3550, Rev. 03; Sonication
- ☐ L-SP-3580, Rev. 01; Waste Dilution
- ☐ N/A - Special Project

OBSERVATIONS:

Recorded by/Date: EG 7/31/01 Reviewed by/Date: EG 8/1/01

OTHER MISCELLANEOUS

END OF DATA PACKAGE

GC/MS VOLATILES: COMPLETE SDG FILE (CSF) INVENTORY SHEET

LABORATORY NAME:	Lionville Laboratory, Inc.
CITY/STATE:	Lionville, PA
CASE/SDG NO.:	07L983
CLIENT NAME:	LANL Req # 94321R
WORK ORDER NO.:	00744-069-001-9999-00
METHOD BASED ON:	EPA SOW OLM01.8 (SOW 3/90) / SW8240 / SW8260 / NYSDEC ASP (circle one)

All documents in the Client's copy of the complete SDG file must be legible, clearly labeled, paginated, single-sided original documents; or of sufficient copy quality to be reproducible to fourth generation copies. (Purge file documents, e.g., original-copy chain-of-custody, etc. assembled per specific contract request only.)

	CLIENT: SDG No.:	Page Nos From	Page Nos To	Check (initials/date) Lab	Check (initials/date) Client
1	Cover Page (Lab Chron)	01	—		
2	Table of Contents (Document Inventory Sheet)	02	—	8/27/01	
3	Case Narrative	03	07		
4	Shipping, Receiving, and Custody Records	08	15		
	o Lab Chain of Custody/Work Request				
	o Client Custody Reports/Packing Lists				
	o Airbills				
5	Volatiles Sample QC/Data Summary	16	23		
	o Data Summary (LIMS Summary Report)				
	o System Monitoring Compound Summary (Form II VOA)				
	o MS/MSD Duplicate Summary (Form III VOA)				
	o Method Blank Summary (Form IV VOA)				
	o GC/MS Instrument Performance Check (BFB) (Form V VOA)				
	o Internal Standard Area and RT Summary (Form VIII VOA)				
6	Sample Data, for each Sample:	24	83		
	o Target Compound Results - Organic Analysis Data Sheet (Form I VOA)				
	o Tentatively Identified Compounds (TIC) (Form I VOA-TIC)				
	o Reconstructed total ion chromatograms (RIC)/ Quantitation Reports				
	o Raw spectra and background-subtracted mass spectra of target compounds identified				
	o Mass spectra of all reported TICs with three best library matches				
7	Calibration Standard Data	84	144		
	Initial Calibration Data (Form VI VOA)				
	o RICs and Quan Reports for all Standards				
	Continuing Calibration Data (Form VII VOA)				

CLIENT:		Page Nos		Check (initials/date)	
SDG No.:		From	To	Lab	Client
	Continuing Calibration Data (Form VII VOA)			JK 8/27/01	
	o Internal Standard Area and RT Summary (Form VIII VOA)				
	o RICs and Quan Reports for all Standards				
8	Raw QC Data: Tune, Blank and Matrix Spike Data	145	163		
	GC/MS Instrument Performance Check (BFB)				
	o Bar Graph				
	o Mass Listing				
	o Reconstructed total ion chromatograms (RIC)				
	Method Blank Data				
	o Target Compound Results (Form I VOA)				
	o Tentatively Identified Compounds (TIC) (Form I VOA-TIC)				
	o Reconstructed total ion chromatograms (RIC)/ Quantitation Reports				
	o Raw spectra and background-subtracted mass spectra of target compounds identified				
	o Mass spectra of all reported TICs with three best library matches				
	Blank Spike/Blank Spike Duplicate	NA			
	o TCL Results (Form I VOA)				
	o RIC/Quant Report				
	Matrix Spike/Matrix Spike Duplicate	NA			
	o TCL Results (Form I VOA)				
	o RIC/Quant Report				
9	Analysis Run Logs	164	168		
10	Standards Preparation Records	169	174		
	o Surrogate and Target Analyte Spike Solutions				
	o Analysis Standards				
11	Preparation Logs	175	176		
	o Screening Records (Logs, Chromatograms)				
	o % Moisture and/or % Solids Records				
12	Other/Miscellaneous	177	178		
	o MDL / IDL Table (circle one)				

COMMENTS: _____

Checked by: (Laboratory) Signature: [signature] Printed Name/Title: SOM BASUTHAKUR Date: 8/27/01

Checked by: (Client) Signature: _____ Printed Name/Title: _____ Date: _____

Lionville Laboratory, Inc.
VOA ANALYTICAL DATA PACKAGE FOR
LANL REQ #9432R

RFW LOT # :0107L423

CLIENT ID	RFW #	MTX	PREP #	COLLECTN	DATE REC	EXT/PREP	ANALYSIS
RC03-01-0006 06	007	S	01LVK240	07/24/01	07/27/01	N/A	08/02/01
RC03-01-0007 06	009	S	01LVK240	07/24/01	07/27/01	N/A	08/02/01
RC03-01-0008 06	011	S	01LVK240	07/24/01	07/27/01	N/A	08/02/01
RC03-01-0009 06	013	S	01LVK240	07/24/01	07/27/01	N/A	08/02/01
RC03-01-0010 06	015	S	01LVK240	07/24/01	07/27/01	N/A	08/02/01
LAB QC:							
VBLKLQ	MB1	S	01LVK240	N/A	N/A	N/A	08/02/01

TABLE OF CONTENTS

GC/MS VOLATILE

		Page #
I.	Cover Page (Lab Chron)	001
II.	Table of Contents	002
III.	Case Narrative	003
IV.	Shipping, Receiving and Custody Record	008
V.	Sample QC/Data Summary	016
VI.	Sample Data, for each Sample	024
VII.	Calibration Standard Data	084
VIII.	Raw QC Data: Tune, Blank and Matrix Spike Data	145
IX.	Analysis Run Logs	164
X.	Standards Preparation Records	169
XI.	Preparation Logs	175
XII.	Other/Miscellaneous	177

Case Narrative

LIONVILLE LABORATORY INC.

Client : LANL-REQ# 9432R
LVL #: 0107L423
Subcontract #: 7791L0014-AA

W.O. #: 02744-064-001-9999-00
Date Received: 07-27-2001

GC/MS VOLATILE

Five (5) soil samples were collected on 07-24-2001.

The samples and their associated QC samples were analyzed according to criteria set forth in Lionville Laboratory OPs based on SW 846 Method 8260A for client specified Volatile target compounds on 08-02-2001.

The following is a summary of the QC results accompanying these sample results and a description of any problems encountered during their analyses:

1. The cooler temperature upon receipt has been recorded on the chain-of-custody.

2. The required holding time for analysis was met.

3. A non-target compound was detected in sample RC03-01-0009 06.

4. All surrogate recoveries were within EPA QC limits.

5. Matrix spike analyses are associated with LVL # 0107L410.

6. The method blank contained the common laboratory contaminants Methylene Chloride and Acetone at levels less than 2x the CRQL.

7. Internal standard area and retention time criteria were met.

8. I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, except as detailed in this QC Report.

9. Manual integrations are performed according to OP L-QA-125 to produce quality data with the utmost integrity. All manual integrations are required to be technically valid and properly documented. Appropriate technical flags are defined in the Glossary ("Technical Flags For Manual Integration").

J. Michael Taylor
President
Lionville Laboratory Incorporated

8/27/01
Date

som/group/data/voa/lanl/req-0107-423.doc

The results presented in this report relate only to the analytical testing and conditions of the samples at receipt and during storage. All pages of this report are integral parts of the analytical data. Therefore, this report should only be reproduced in its entirety of 1 7 8 pages.

208 Welsh Pool Road • Exton, PA 19341-1313 • (610) 280-3000 • Fax (610) 280-3041

GLOSSARY OF VOA DATA

ABBREVIATIONS

BS	=	Indicates blank spike in which reagent grade water is spiked with the CLP matrix spike solutions and carried through all the steps in the method. Spike recoveries are reported.
BSD	=	Indicates blank spike duplicate.
MS	=	Indicates matrix spike.
MSD	=	Indicates matrix spike duplicate.
DL	=	Suffix added to sample number to indicate that results are from a diluted analysis.
NA	=	Not Applicable.
DF	=	Dilution Factor.
NR	=	Not Required.
SP, Z	=	Indicates Spiked Compound.

VLI
LIONVILLE LABORATORY INC.

GLOSSARY OF VOA DATA

DATA QUALIFIERS

U = Compound was analyzed for but not detected. The associated numerical value is the estimated sample quantitation limit which is included and corrected for dilution and percent moisture.

J = Indicates an estimated value. This flag is used under the following circumstances: 1) when estimating a concentration for tentatively identified compounds (TICs) where a 1:1 response is assumed; or 2) when the mass spectral data indicate the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero. For example, if the limit of detection is 10 ug/L and a concentration of 3 ug/L is calculated, it is reported as 3J.

B = This flag is used when the analyte is found in the associated blank as well as in the sample. It indicates possible/probable blank contamination. This flag is also used for a TIC as well as for a positively identified TCL compound.

E = Indicates that the compound was detected beyond the calibration range and was subsequently analyzed at a dilution.

D = Identifies all compounds identified in an analysis at a secondary dilution factor.

I = Interference.

NQ = Result qualitatively confirmed but not able to quantify.

N = Indicates presumptive evidence of a compound. This flag is only used for tentatively identified compounds (TICs), where the identification is based on a mass spectral library search. It is applied to all TIC results. For generic characterization of a TIC, such as chlorinated hydrocarbon, the N code is not used.

X = This flag is used for a TIC compound which is quantified relative to a response factor generated from a daily calibration standard (rather than quantified relative to the closest internal standard).

Y = Additional qualifiers used as required are explained in the case narrative.

TECHNICAL FLAGS FOR MANUAL INTEGRATION

Manual quan modifications or integrations are performed routinely to improve the data quality for a variety of technical reasons. Documentation of these modifications should be clear and concise. The following "flags" are used to indicate the technical reasons for quan modifications:

MP - Missed Peak: manually added peak not found by automatic quan program.

PA - Peak Assignment: quan report was changed to reflect correct peak assignment.

RI - Routine Integration: routine integrations are performed for some analytes that are consistently integrated improperly by the automatic integration programs. Examples are the dichlorobenzene isomers on the VOA packed column and benzo(b)fluoranthene/benzo(k)fluoranthene which are poorly resolved on the BNA column.

SP - Split Peak: the automatic integration improperly split the peak; a manual integration was performed to get the correct area.

CB - Coelution/Background: peak was manually integrated to eliminate contribution from coeluting compounds, background signal, or other interference.

PI - Proper Integration: a peak with poor or inconsistent integration (e.g., excessive tail) was properly integrated manually.

Shipping, Receiving, and Custody Record

LIONVILLE LABORATORY INC.

Lionville Laboratory Use Only
0107L423

Custody Transfer Record/Lab Work Request

Page 1 of ~~2~~ 3 TS 7-27-01

LVLI Lionville Laboratory Inc

ALL FIELD PERSONNEL: COMPLETE ONLY SHADED AREAS

Client: LANL Bldg. # 9432B
Est. Final Proj. Sampling Date:
Project #: 02744-0604-0019999-00
Project Contact/Phone #:
Lionville Laboratory Project Manager: JS
QC: Spec Del: CP TAT: 30 day
Date Rec'd: 7-27-01 Date Due: 8-26-01

		ABC		D						E					
Refrigerator #		Frzzer		S						S					
#/Type Container	Liquid														
	Solid	3		1 G						1 P					
Volume	Liquid														
	Solid	Encs		125						125					
Preservatives		-		-						-					
ANALYSES REQUESTED →		ORGANIC							INORG						
		VOA	BNA	Pest/PCB	Herb				Metal	CN					

Lionville Laboratory Use Only

MATRIX CODES:
S - Soil
SE - Sediment
SO - Solid
SL - Sludge
W - Water
O - Oil
A - Air
DS - Drum Solids
DL - Drum Liquids
L - EP/TCLP Leachate
WI - Wipe
X - Other
F - Fish

Lab ID	Client ID/Description	Matrix QC Chosen (✓) MS	MSD	Matrix	Date Collected	Time Collected																
001	RC03-01-0001 03			S	7-24-01				✓													
002	2								✓													
003	3								✓													
004	4								✓													
005	5								✓													
006	6								✓													
007	7						✓										✓					
008	7-03								✓													
009	7-06						✓										✓					
010	8 03								✓													

Special Instructions:
Missing Samples
RC03-01-0048 02
1 49 02
Did not receive 125ml Poly VOA Encore
instead rec'd a 4th 5g Encore

DATE/REVISIONS:
1.
2.
3.
4.
5.
6.

Lionville Laboratory Use Only

Samples were:
1) Shipped ✓ or
Hand Delivered ___
Airbill # 4847325001 71
2) Ambient or Chilled
3) Received in Good Condition (Y) or N
4) Samples Properly Preserved (Y) or N
5) Received Within Holding Times (Y) or N

Tamper Resistant Seal was:
1) Present on Outer Package (Y) or N
2) Unbroken on Outer Package (Y) or N
3) Present on Sample (Y) or N
4) Unbroken on Sample (Y) or N
COC Record Present Upon Sample Rec't (Y) or N
Cooler Temp. 5 °C

Discrepancies Between Samples Labels and COC Record? (Y) or N
NOTES:

Relinquished by	Received by	Date	Time
FedEx	TKrupa	7-27-01	1015

Relinquished by	Received by	Date	Time
COMPOSITE WASTE			

ORIGINAL REWRITTEN

Lionville Laboratory Use Only

0107L423

Custody Transfer Record/Lab Work Request

LVLI Lionville Laboratory Inc

FIELD PERSONNEL: COMPLETE ONLY SHADED AREAS

Client: LANL Proj # 9432R

Est. Final Proj. Sampling Date:

Project #: See

Project Contact/Phone #:

Lionville Laboratory Project Manager:

QC: Del: TAT:

Page 1

Date Rec'd: Date Due:

		ABC		D		F					E					
Refrigerator #		Freez		S		S					S					
#/Type Container	Liquid															
	Solid	3		1G		1AG					1P					
Volume	Liquid															
	Solid	8oz		125		125					125					
Preservatives		-		-		-					-					
ANALYSES REQUESTED →		ORGANIC							INORG							
		VOA	BNA	Pest/PCB	Herb				Metal	CN						
Lionville Laboratory Use Only		0624X		OPCB		0RHO					IRUSOL					

MATRIX CODES:
S - Soil
SE - Sediment
SO - Solid
SL - Sludge
W - Water
O - Oil
A - Air
DS - Drum Solids
DL - Drum Liquids
L - EP/TCLP Leachate
WI - Wipe
X - Other
F - Fish

Lab ID	Client ID/Description	Matrix QC Chosen (✓) MS	MSD	Matrix	Date Collected	Time Collected	0624X	OPCB	0RHO	IRUSOL
011	RC03-01-0008 TK 7-27-01 0516			S	7-24-01		✓			✓
012	09 03							✓		
013	09 06						✓			✓
014	10 03							✓		
015	10 06						✓			✓
016	41 02								✓	
017	42								✓	
018	43								✓	
019	44								✓	
020	48								✓ TK 7-27-01	

Special Instructions:

DATE/REVISIONS:

1.
2.
3.
4.
5.
6.

Lionville Laboratory Use Only

Samples were:
1) Shipped ____ or Hand Delivered ____
Airbill # ____
2) Ambient or Chilled
3) Received in Good Condition Y or N
4) Samples Properly Preserved Y or N
5) Received Within Holding Times Y or N

Tamper Resistant Seal was:
1) Present on Outer Package Y or N
2) Unbroken on Outer Package Y or N
3) Present on Sample Y or N
4) Unbroken on Sample Y or N
COC Record Present Upon Sample Rec't Y or N
Cooler Temp. ____ °C

Relinquished by	Received by	Date	Time
Fed Ex	TBrippel	7-27-01	1015

Relinquished by	Received by	Date	Time

Discrepancies Between Samples Labels and COC Record? Y or N
NOTES:

Lionville Laboratory Use Only
0107L423

Custody Transfer Record/Lab Work Request

FIELD PERSONNEL: COMPLETE ONLY SHADED AREAS

LVLI — LIONVILLE LABORATORY INC

Client: LANL Reg 9432R
Est. Final Proj. Sampling Date:
Project #: See
Project Contact/Phone #:
Lionville Laboratory Project Manager: Page 1
QC: Del TAT:
Date Rec'd: Date Due:

Refrigerator #						F											
#/Type Container	Liquid					S											
	Solid					1Pg											
Volume	Liquid																
	Solid					125											
Preservatives						–											
ANALYSES REQUESTED →		ORGANIC							INORG								
		VOA	BNA	Pest/PCB	Herb				Metal	CN							
		Lionville Laboratory Use Only															
						ODRO											

MATRIX CODES:
- S - Soil
- SE - Sediment
- SO - Solid
- SL - Sludge
- W - Water
- O - Oil
- A - Air
- DS - Drum Solids
- DL - Drum Liquids
- L - EP/TCLP Leachate
- WI - Wipe
- X - Other
- F - Fish

Lab ID	Client ID/Description	Matrix QC Chosen (✓) MS	MSD	Matrix	Date Collected	Time Collected														
~~021~~	~~BR03-01-0049 02~~			S	7-24-01			TK 7-27-01			X									

Special Instructions:

DATE/REVISIONS:
1.
2.
3.
4.
5.
6.

Lionville Laboratory Use Only

Samples were:
1) Shipped ____ or Hand Delivered ____
Airbill # ____
2) Ambient or Chilled
3) Received in Good Condition Y or N
4) Samples Properly Preserved Y or N
5) Received Within Holding Times Y or N

Tamper Resistant Seal was:
1) Present on Outer Package Y or N
2) Unbroken on Outer Package Y or N
3) Present on Sample Y or N
4) Unbroken on Sample Y or N

COC Record Present Upon Sample Rec't Y or N

Cooler Temp. ____ °C

Relinquished by	Received by	Date	Time
FedEx	TKepp	7-27-01	1015

Relinquished by	Received by	Date	Time

Discrepancies Between Samples Labels and COC Record? Y or N
NOTES:

Thursday, July 26, 2001

Los Alamos
NATIONAL LABORATORY

CHAIN OF CUSTODY DOCUMENT NUMBER: 9432RC

REQUEST NUMBER: 9432R
ANALYSIS TYPE: ORG

ATTN: Judy Stone
Lionville Laboratory Inc
208 Welsh Pool Rd
Lionville, pa 19341

SAMPLE ID	CONT ID	CONTAINER DESCRIPTION	ANALYSIS ORDER CODE	PRESERVATIVE	MATRIX
RC03-01-0001	03	125 ml Glass	PCB	Ice	D
RC03-01-0002	03	125 ml Glass	PCB	Ice	D
RC03-01-0003	03	125 ml Glass	PCB	Ice	D
RC03-01-0004	03	125 ml Glass	PCB	Ice	D
RC03-01-0005	03	125 ml Glass	PCB	Ice	D
RC03-01-0006	03	125 ml Glass	PCB	None	S
RC03-01-0006	05	125 ml Polyethylene	VOCECORE	Ice	S
RC03-01-0006	06	5 gm Encore Container-A	VOCECORE	Ice	S
RC03-01-0006	07	5 gm Encore Container-B	VOCECORE	Ice	S
RC03-01-0006	08	5 gm Encore Container-C	VOCECORE	Ice	S
RC03-01-0007	03	125 ml Glass	PCB	None	S
RC03-01-0007	05	125 ml Polyethylene	VOCECORE	Ice	S
RC03-01-0007	06	5 gm Encore Container-A	VOCECORE	Ice	S
RC03-01-0007	07	5 gm Encore Container-B	VOCECORE	Ice	S
RC03-01-0007	08	5 gm Encore Container-C	VOCECORE	Ice	S
RC03-01-0008	03	125 ml Glass	PCB	None	S
RC03-01-0008	05	125 ml Polyethylene	VOCECORE	Ice	S
RC03-01-0008	06	5 gm Encore Container-A	VOCECORE	Ice	S
RC03-01-0008	07	5 gm Encore Container-B	VOCECORE	Ice	S
RC03-01-0008	08	5 gm Encore Container-C	VOCECORE	Ice	S

Relinquished By:		Date	Time
[illegible]	[illegible]	7/26/01	1410
PRINTED NAME	SIGNATURE		
FedEx		7-27-01	1015
PRINTED NAME	SIGNATURE		
PRINTED NAME	SIGNATURE		

Received By:		Date	Time
PRINTED NAME	SIGNATURE		
[illegible]	[illegible]	7-27-01	1015
PRINTED NAME	SIGNATURE		
PRINTED NAME	SIGNATURE		

Received for DISPOSAL By:		Date	Time
PRINTED NAME	SIGNATURE		

Remarks:

SAMPLE ID	CONT ID	CONTAINER DESCRIPTION	ANALYSIS ORDER CODE		
RC03-01-0009	03	125 ml Glass	PCB	None	S
RC03-01-0009	05	125 ml Polyethylene	VOCECORE	Ice	S
RC03-01-0009	06	5 gm Encore Container-A	VOCECORE	Ice	S
RC03-01-0009	07	5 gm Encore Container-B	VOCECORE	Ice	S
RC03-01-0009	08	5 gm Encore Container-C	VOCECORE	Ice	S
RC03-01-0010	03	125 ml Glass	PCB	None	S
RC03-01-0010	04	125 ml Polyethylene	VOCECORE	Ice	S
RC03-01-0010	05	5 gm Encore Container-A	VOCECORE	Ice	S
RC03-01-0010	06	5 gm Encore Container-B	VOCECORE	Ice	S
RC03-01-0010	07	5 gm Encore Container-C	VOCECORE	Ice	S
RC03-01-0041	02	125 ml Amber Glass	TPH	Ice	S
RC03-01-0042	02	125 ml Amber Glass	TPH	Ice	S
RC03-01-0043	02	125 ml Amber Glass	TPH	Ice	S
RC03-01-0044	02	125 ml Amber Glass	TPH	Ice	S
RC03-01-0048	02	125 mL Amber Glass	TPH	Ice	D
RC03-01-0049	02	125 mL Amber Glass	TPH	Ice	D

Final Page of CHAIN OF CUSTODY DOCUMENT FOR REQUEST NUMBER 9432R Page 2

Relinquished By: Date Time

Abraham [illegible] 7/26/01

PRINTED NAME SIGNATURE

FedEx 7-27-01 1015

PRINTED NAME SIGNATURE

PRINTED NAME SIGNATURE

Received By: Date Time

PRINTED NAME SIGNATURE

J Bappel J Bappel 7-27-01 1015

PRINTED NAME SIGNATURE

PRINTED NAME SIGNATURE

Received for DISPOSAL By: Date Time

PRINTED NAME SIGNATURE

Remarks:

Thursday, July 26, 2001

REQUEST NUMBER: 9432R
ANALYSIS TYPE: ORG

Los Alamos
NATIONAL LABORATORY

ATTN: Judy Stone
Lionville Laboratory Inc
208 Welsh Pool Rd
Lionville, pa 19341

Please analyze the enclosed samples according to the schedule indicated:

SHIP DATE: 7/25/01
REPORT DUE: 8/27/01
TURN AROUND REQ'D: 30 day

These samples are on:

LANL Request Number: 9432R
Per Agreement Number:
Project Cost Code: MR0R0001E000

RAD SCREENING: Not Required
COMMENTS: 03 - 1114 , GA; TPH BY DIESEL.

LANL ER SMO CONTACT: Joylene Valdez MS H865 5056659968
Signature:

ANALYSIS ORDER CODE	ANALYTE(S)	SAMPLE ID	CONT ID	SAMPLE MATRIX	DATE SAMPLED	COMMENTS
PCB		RC03-01-0001	03	D	7/24/1901	
PCB		RC03-01-0002	03	D	7/24/1901	
PCB		RC03-01-0003	03	D	7/24/1901	
PCB		RC03-01-0004	03	D	7/24/1901	
PCB		RC03-01-0005	03	D	7/24/1901	
PCB		RC03-01-0006	03	S	7/24/1901	
VOCECORE		RC03-01-0006	05	S	7/24/1901	
VOCECORE		RC03-01-0006	06	S	7/24/1901	
VOCECORE		RC03-01-0006	07	S	7/24/1901	
VOCECORE		RC03-01-0006	08	S	7/24/1901	
PCB		RC03-01-0007	03	S	7/24/1901	
VOCECORE		RC03-01-0007	05	S	7/24/1901	
VOCECORE		RC03-01-0007	06	S	7/24/1901	
VOCECORE		RC03-01-0007	07	S	7/24/1901	
VOCECORE		RC03-01-0007	08	S	7/24/1901	
PCB		RC03-01-0008	03	S	7/24/1901	
VOCECORE		RC03-01-0008	05	S	7/24/1901	
VOCECORE		RC03-01-0008	06	S	7/24/1901	
VOCECORE		RC03-01-0008	07	S	7/24/1901	
VOCECORE		RC03-01-0008	08	S	7/24/1901	
PCB		RC03-01-0009	03	S	7/24/1901	
VOCECORE		RC03-01-0009	05	S	7/24/1901	
VOCECORE		RC03-01-0009	06	S	7/24/1901	
VOCECORE		RC03-01-0009	07	S	7/24/1901	

ANALYSIS ORDER CODE	ANALYTE(S)	SAMPLE ID	CONT ID	SAMPLE MATRIX	DATE SAMPLED	COMMENTS
VOCECORE		RC03-01-0009	08	S	7/24/1901	
PCB		RC03-01-0010	03	S	7/24/1901	
VOCECORE		RC03-01-0010	04	S	7/24/1901	
VOCECORE		RC03-01-0010	05	S	7/24/1901	
VOCECORE		RC03-01-0010	06	S	7/24/1901	
VOCECORE		RC03-01-0010	07	S	7/24/1901	
TPH		RC03-01-0041	02	S	7/24/1901	
TPH		RC03-01-0042	02	S	7/24/1901	
TPH		RC03-01-0043	02	S	7/24/1901	
TPH		RC03-01-0044	02	S	7/24/1901	
TPH		RC03-01-0048	02	D	7/24/1901	
TPH		RC03-01-0049	02	D	7/24/1901	

Volatile Sample QC / Data Summary

Lionville Laboratory, Inc.

Volatiles By GC/MS, Special List

RFW Batch Number: **0107L423** Client: **LANL REQ #9432R** Work Order: 02744064001 Page: 1a Report Date: 08/23/01 18:33

	Cust ID:	RC03-01-0006		RC03-01-0007		RC03-01-0008		RC03-01-0009		RC03-01-0010		VBLKLQ	
		06		06		06		06		06			
Sample Information	RFW#:	007		009		011		013		015		01LVK240-MB1	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	D.F.:	1.11		0.909		1.14		0.943		1.00		1.00	
	Units:	ug/Kg		ug/Kg		ug/Kg		ug/Kg		ug/Kg		ug/Kg	
Surrogate Recovery	1,2-Dichloroethane-d4	84	%	92	%	93	%	90	%	96	%	91	%
	Toluene-d8	94	%	94	%	94	%	94	%	94	%	95	%
	Bromofluorobenzene	107	%	117	%	107	%	116	%	122	%	105	%
			fl		fl		fl		fl		fl		fl
Dichlorodifluoromethane		12	U	10	U	12	U	10	U	11	U	10	U
Chloromethane		12	U	10	U	12	U	10	U	11	U	10	U
Vinyl Chloride		12	U	10	U	12	U	10	U	11	U	10	U
Bromomethane		12	U	10	U	12	U	10	U	11	U	10	U
Chloroethane		12	U	10	U	12	U	10	U	11	U	10	U
Trichlorofluoromethane		6	U	5	U	6	U	5	U	6	U	5	U
1,1-Dichloroethene		6	U	5	U	6	U	5	U	6	U	5	U
Trichlorotrifluoroethane		6	U	5	U	6	U	5	U	6	U	5	U
Acetone		24	BJ	14	BJ	19	BJ	15	BJ	17	BJ	16	J
Iodomethane		6	U	5	U	6	U	5	U	6	U	5	U
Carbon Disulfide		6	U	5	U	6	U	5	U	6	U	5	U
Methylene Chloride		12	B	10	B	12	B	12	B	13	B	7	
Trans-1,2-dichloroethene		6	U	5	U	6	U	5	U	6	U	5	U
1,1-Dichloroethane		6	U	5	U	6	U	5	U	6	U	5	U
2-Butanone		24	U	20	U	24	U	20	U	22	U	20	U
Cis-1,2-dichloroethene		6	U	5	U	6	U	5	U	6	U	5	U
2,2-Dichloropropane		6	U	5	U	6	U	5	U	6	U	5	U
Bromochloromethane		6	U	5	U	6	U	5	U	6	U	5	U
Chloroform		6	U	5	U	6	U	5	U	6	U	5	U
1,1,1-Trichloroethane		6	U	5	U	6	U	5	U	2	J	5	U
Carbon Tetrachloride		6	U	5	U	6	U	5	U	6	U	5	U
1,1-dichloropropene		6	U	5	U	6	U	5	U	6	U	5	U
Benzene		6	U	5	U	6	U	5	U	6	U	5	U
1,2-Dichloroethane		6	U	5	U	6	U	5	U	6	U	5	U
Trichloroethene		6	U	5	U	6	U	5	U	6	U	5	U
1,2-Dichloropropane		6	U	5	U	6	U	5	U	6	U	5	U
Dibromomethane		6	U	5	U	6	U	5	U	6	U	5	U
Bromodichloromethane		6	U	5	U	6	U	5	U	6	U	5	U
cis-1,3-Dichloropropene		6	U	5	U	6	U	5	U	6	U	5	U

*= Outside of EPA CLP QC limits.

RFW Batch Number: **0107L423** Client: **LANL REQ #9432R** Work Order: 02744064001 Page: 1b

18

Cust ID:	RC03-01-0006	RC03-01-0007	RC03-01-0008	RC03-01-0009	RC03-01-0010	VBLKLQ
	06	06	06	06	06	
RFW#:	007	009	011	013	015	01LVK240-MB1
4-Methyl-2-pentanone	24 U	20 U	24 U	20 U	22 U	20 U
Toluene	6 U	5 U	6 U	5 U	6 U	5 U
Trans-1,3-Dichloropropene	6 U	5 U	6 U	5 U	6 U	5 U
1,1,2-Trichloroethane	6 U	5 U	6 U	5 U	6 U	5 U
Tetrachloroethene	6 U	5 U	6 U	5 U	6 U	5 U
1,3-Dichloropropane	6 U	5 U	6 U	5 U	6 U	5 U
2-Hexanone	24 U	20 U	24 U	20 U	22 U	20 U
Dibromochloromethane	6 U	5 U	6 U	5 U	6 U	5 U
1,2-Dibromoethane	6 U	5 U	6 U	5 U	6 U	5 U
Chlorobenzene	6 U	5 U	6 U	5 U	6 U	5 U
1,1,1,2-Tetrachloroethane	6 U	5 U	6 U	5 U	6 U	5 U
Ethylbenzene	6 U	5 U	6 U	5 U	6 U	5 U
Xylenes (total)	6 U	5 U	6 U	5 U	6 U	5 U
Styrene	6 U	5 U	6 U	5 U	6 U	5 U
Bromoform	6 U	5 U	6 U	5 U	6 U	5 U
Isopropylbenzene	6 U	5 U	6 U	5 U	6 U	5 U
Bromobenzene	6 U	5 U	6 U	5 U	6 U	5 U
1,2,3-Trichloropropane	6 U	5 U	6 U	5 U	6 U	5 U
1,1,2,2-Tetrachloroethane	6 U	5 U	6 U	5 U	6 U	5 U
N-propylbenzene	6 U	5 U	6 U	5 U	6 U	5 U
2-Chlorotoluene	6 U	5 U	6 U	5 U	6 U	5 U
4-Chlorotoluene	6 U	5 U	6 U	5 U	6 U	5 U
1,3,5-Trimethylbenzene	6 U	5 U	6 U	5 U	6 U	5 U
Tert-butylbenzene	6 U	5 U	6 U	5 U	6 U	5 U
1,2,4-Trimethylbenzene	6 U	5 U	6 U	5 U	6 U	5 U
Sec-butylbenzene	6 U	5 U	6 U	5 U	6 U	5 U
1,3-Dichlorobenzene	6 U	5 U	6 U	5 U	6 U	5 U
1,4-Dichlorobenzene	6 U	5 U	6 U	5 U	6 U	5 U
4-Isopropyltoluene	6 U	5 U	6 U	5 U	6 U	5 U
1,2-Dichlorobenzene	6 U	5 U	6 U	5 U	6 U	5 U
N-butylbenzene	6 U	5 U	6 U	5 U	6 U	5 U
1,2-Dibromo-3-chloropropane	12 U	10 U	12 U	10 U	11 U	10 U

*= Outside of EPA CLP QC limits.

2B

SOIL VOLATILE SURROGATE RECOVERY

Lab Name: Lionville Labs, Inc. Contract: 2744-64-01

Case No.: LANL REQ #9432R Level:(low/med) LOW

RFW Lot No.: 0107L423

	CLIENT SAMPLE NO.	S1 (DCE)#	S2 (TOL)#	S3 (BFB)#	OTHER	TOT OUT
01	RC03-01-0006 06	84	94	107		0
02	RC03-01-0007 06	92	94	117		0
03	RC03-01-0008 06	93	94	107		0
04	RC03-01-0009 06	90	94	116		0
05	RC03-01-0010 06	96	94	122		0
06	VBLKLQLVK240-MB1	91	95	105		0

	QC LIMITS
S1 (DCE) = 1,2-Dichloroethane-d4	(63-151)
S2 (TOL) = Toluene-d8	(68-140)
S3 (BFB) = Bromofluorobenzene	(66-122)

Column to be used to flag recovery values

* Values outside of QC limits

D Surrogates diluted out

4A
VOLATILE METHOD BLANK SUMMARY

Lab Name: Lionville Laboratory Inc. Contract: 02744-064-001-9999-00

Lab Code: LVLI Case No.: SAS No.: SDG No.: 07L423

Lab File ID: K080205 Lab Sample ID: 01LVK240-MB1

Date Analyzed: 08/02/1 Time Analyzed: 1508

Matrix: (soil/water) SOIL Level:(low/med) LOW

Instrument ID: 5970K

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	RC03-01-0006 06	0107L423-007	K080206	1550
02	RC03-01-0007 06	0107L423-009	K080207	1633
03	RC03-01-0008 06	0107L423-011	K080208	1716
04	RC03-01-0009 06	0107L423-013	K080209	1759
05	RC03-01-0010 06	0107L423-015	K080210	1841
06				
07				
08				
09				
10				
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28				
29				
30				

COMMENTS:

FORM IV VOA

MAC-SW846HP-

5A
VOLATILE ORGANIC GC/MS TUNING AND MASS CALIBRATION - BROMOFLUOROBENZENE (BFB)

Lab Name: Lionville Laboratory Inc. Contract: 02744-064-001-9999-00

Lab Code: LVLI Case No.: SAS No.: SDG No.: 07L423

Lab File ID: K073107 BFB Injection Date: 07/31/1

Instrument ID: 5970K BFB Injection Time: 1704

GC Column: DB 624 ID: 0.53 (mm) Heated Purge: (Y/N) Y

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	26.1
75	30.0 - 60.0% of mass 95	55.1
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	8.2
173	Less than 2.0% of mass 174	0.2 (0.3)1
174	50.0 - 100.0% of mass 95	69.8
175	5.0 - 9.0% of mass 174	5.9 (8.5)1
176	95.0 - 100.9% of mass 174	67.8 (97.1)1
177	5.0 - 9.0% of mass 176	5.1 (7.5)2

1-Value is % of mass 174 2-Value is % of mass 176

THIS TUNE APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD10	VSTD10	K073110	07/31/1	1839
02	VSTD20	VSTD20	K073111	07/31/1	1917
03	VSTD200 TCL	VSTD200	K073112	07/31/1	1955
04	VSTD100	VSTD100	K073113	07/31/1	2034
05	VSTD50	VSTD50	K073114	07/31/1	2131
06	VSTD05	VSTD05	K073115	07/31/1	2212
07	VSTD50	VSTD50	K073116	07/31/1	2253
08	VSTD20 Freon 113;	VSTD20	K073117	07/31/1	2331
09	VSTD10	VSTD10	K073118	08/01/1	0010
10	VSTD200 Iodomethane	VSTD200	K073119	08/01/1	0049
11	VSTD100	VSTD100	K073120	08/01/1	0129
12	VSTD05 By 8/22/01	VSTD05	K073121	08/01/1	0210
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

5A
VOLATILE ORGANIC GC/MS TUNING AND MASS CALIBRATION - BROMOFLUOROBENZENE (BFB)

Lab Name: Lionville Laboratory Inc. Contract: 02744-064-001-9999-00

Lab Code: LVLI Case No.: SAS No.: SDG No.: 07L423

Lab File ID: K080201 BFB Injection Date: 08/02/1

Instrument ID: 5970K BFB Injection Time: 1238

GC Column: DB 624 ID: 0.53 (mm) Heated Purge: (Y/N) Y

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	27.1
75	30.0 - 60.0% of mass 95	56.3
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	8.1
173	Less than 2.0% of mass 174	0.2 (0.2)1
174	50.0 - 100.0% of mass 95	71.0
175	5.0 - 9.0% of mass 174	5.6 (8.0)1
176	95.0 - 100.9% of mass 174	69.2 (97.4)1
177	5.0 - 9.0% of mass 176	5.1 (7.4)2

1-Value is % of mass 174 2-Value is % of mass 176

THIS TUNE APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD50	VSTD50	K080202	08/02/1	1300
02	VSTD50	VSTD50	K080203	08/02/1	1339
03	VBLKLQ	01LVK240-MB1	K080205	08/02/1	1508
04	RC03-01-0006 06	0107L423-007	K080206	08/02/1	1550
05	RC03-01-0007 06	0107L423-009	K080207	08/02/1	1633
06	RC03-01-0008 06	0107L423-011	K080208	08/02/1	1716
07	RC03-01-0009 06	0107L423-013	K080209	08/02/1	1759
08	RC03-01-0010 06	0107L423-015	K080210	08/02/1	1841
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

8A
VOLATILE INTERNAL STANDARD AREA SUMMARY

Lab Name: Lionville Laboratory Inc. Contract: 02744-064-001-9999-00

Lab Code: LVLI Case No.: SAS No.: SDG No.: 07L423

Lab File ID (Standard): K080203 Date Analyzed: 08/02/1

Instrument ID: 5970K Time Analyzed: 1339

GC Column: DB-624 ID: 0.53 (mm) Heated Purge: (Y/N) Y

		IS1 AREA #	RT	IS2(CBZ) AREA #	RT	IS3(DCB) AREA #	RT
	12 HOUR STD	498112	14.73	335465	19.12	212529	22.02
	UPPER LIMIT	996224	15.23	670930	19.62	425058	22.52
	LOWER LIMIT	249056	14.23	167732	18.62	106264	21.52
	EPA SAMPLE NO.						
01	VBLKLQ	546218	14.73	375469	19.13	207539	22.01
02	RC03-01-0006 06	543389	14.73	371848	19.13	203341	22.02
03	RC03-01-0007 06	536552	14.74	339783	19.12	158692	22.02
04	RC03-01-0008 06	528672	14.73	360179	19.12	202278	22.01
05	RC03-01-0009 06	525154	14.73	341318	19.13	161733	22.02
06	RC03-01-0010 06	505199	14.74	325478	19.12	144891	22.01
07							
08							
09							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							

IS1 = Fluorobenzene
IS2 (CBZ) = Chlorobenzene-d5
IS3 (DCB) = 1,4-Dichlorobenzene-d4

UPPER LIMIT = +100% of internal standard area.
LOWER LIMIT = - 50% of internal standard area.

Column used to flag internal standard area values with an asterisk.

Sample Data, for each Sample

1A
VOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

RC03-01-0006 06

Lab Name: Lionville Labs, Inc. Work Order: 02744064001

Client: LANL REQ #9432R

Matrix: SOIL

Lab Sample ID: 0107L423-007

Sample wt/vol: 4.50 (g/mL) G

Lab File ID: k080206

Level: (low/med) LOW

Date Received: 07/27/01

% Moisture: not dec. 9

Date Analyzed: 08/02/01

Column: (pack/cap) CAP

Dilution Factor: 1.11

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND		
75-71-8	Dichlorodifluoromethane	12	U
74-87-3	Chloromethane	12	U
75-01-4	Vinyl Chloride	12	U
74-83-9	Bromomethane	12	U
75-00-3	Chloroethane	12	U
75-69-4	Trichlorofluoromethane	6	U
75-35-4	1,1-Dichloroethene	6	U
76-13-1	Trichlorotrifluoroethane	6	U
67-64-1	Acetone	24	BJ
74-88-4	Iodomethane	6	U
75-15-0	Carbon Disulfide	6	U
75-09-2	Methylene Chloride	12	B
156-60-5	Trans-1,2-dichloroethene	6	U
75-34-3	1,1-Dichloroethane	6	U
78-93-3	2-Butanone	24	U
156-59-2	Cis-1,2-dichloroethene	6	U
590-20-7	2,2-Dichloropropane	6	U
74-97-5	Bromochloromethane	6	U
67-66-3	Chloroform	6	U
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon Tetrachloride	6	U
563-58-6	1,1-dichloropropene	6	U
71-43-2	Benzene	6	U
107-06-2	1,2-Dichloroethane	6	U
79-01-6	Trichloroethene	6	U
78-87-5	1,2-Dichloropropane	6	U
74-95-3	Dibromomethane	6	U
75-27-4	Bromodichloromethane	6	U
10061-01-5	cis-1,3-Dichloropropene	6	U
108-10-1	4-Methyl-2-pentanone	24	U
108-88-3	Toluene	6	U
10061-02-6	Trans-1,3-Dichloropropene	6	U
79-00-5	1,1,2-Trichloroethane	6	U
127-18-4	Tetrachloroethene	6	U

1B
VOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

RC03-01-0006 06

Lab Name: Lionville Labs, Inc. Work Order: 02744064001

Client: LANL REQ #9432R

Matrix: SOIL

Lab Sample ID: 0107L423-007

Sample wt/vol: 4.50 (g/mL) G

Lab File ID: k080206

Level: (low/med) LOW

Date Received: 07/27/01

% Moisture: not dec. 9

Date Analyzed: 08/02/01

Column: (pack/cap) CAP

Dilution Factor: 1.11

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND		
142-28-9	1,3-Dichloropropane	6	U
591-78-6	2-Hexanone	24	U
124-48-1	Dibromochloromethane	6	U
106-93-4	1,2-Dibromoethane	6	U
108-90-7	Chlorobenzene	6	U
630-20-6	1,1,1,2-Tetrachloroethane	6	U
100-41-4	Ethylbenzene	6	U
1330-20-7	Xylenes (total)	6	U
100-42-5	Styrene	6	U
75-25-2	Bromoform	6	U
98-82-8	Isopropylbenzene	6	U
108-86-1	Bromobenzene	6	U
96-18-4	1,2,3-Trichloropropane	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U
103-65-1	N-propylbenzene	6	U
95-49-8	2-Chlorotoluene	6	U
106-43-4	4-Chlorotoluene	6	U
108-67-8	1,3,5-Trimethylbenzene	6	U
98-06-6	Tert-butylbenzene	6	U
95-63-6	1,2,4-Trimethylbenzene	6	U
135-98-8	Sec-butylbenzene	6	U
541-73-1	1,3-Dichlorobenzene	6	U
106-46-7	1,4-Dichlorobenzene	6	U
99-87-6	4-Isopropyltoluene	6	U
95-50-1	1,2-Dichlorobenzene	6	U
104-51-8	N-butylbenzene	6	U
96-12-8	1,2-Dibromo-3-chloropropane	12	U

FORM 1 V-2 12/88 Rev.

1E

VOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

RC03-01-0006 06

Lab Name: Lionville Labs, Inc. Work Order: 02744064001

Client: LANL REQ #9432R

Matrix: SOIL

Lab Sample ID: 0107L423-007

Sample wt/vol: 4.50 (g/mL) G

Lab File ID: k080206

Level: (low/med) LOW

Date Received: 07/27/01

% Moisture: not dec. 9

Date Analyzed: 08/02/01

Column: (pack/cap) CAP

Dilution Factor: 1.11

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.				

Data File: /chem/msvoa1/5970k.i/k080201.b/k080206.d
Date : 02-AUG-01 15:50:00
Client ID: RC03-01-0006 06
Sample Info: 0107L423-007 K080201,[AL=0624XL],[DC=00]

Column phase: DB-624

Instrument: 5970K.i

Operator: JVG
Column diameter: 0.53

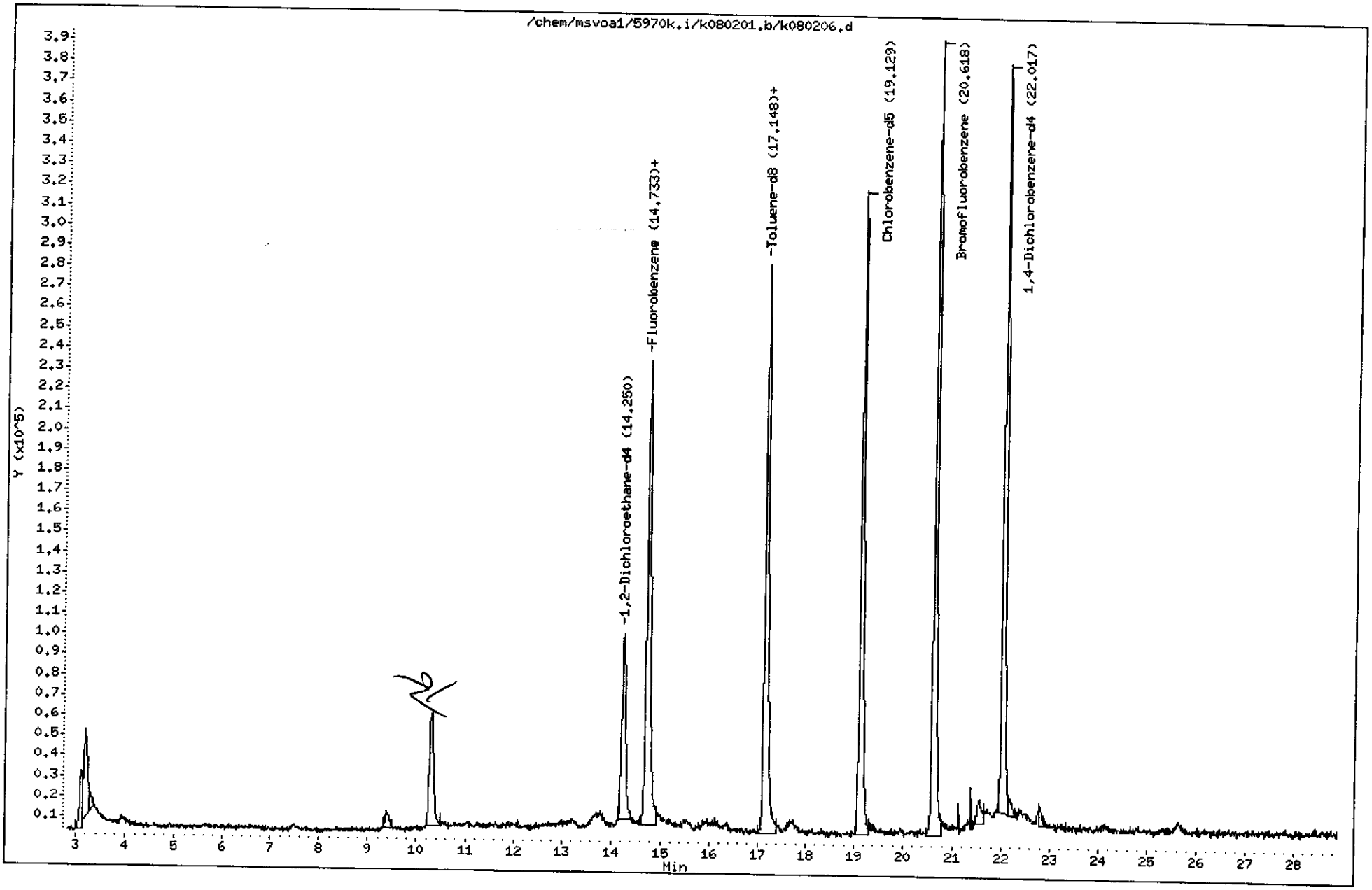

Lionville Laboratory Inc.

Data file : /chem/msvoa1/5970k.i/k080201.b/k080206.d
Lab Smp Id: 0107L423-007 Client Smp ID: RC03-01-0006 06
Inj Date : 02-AUG-01 15:50:00
Operator : JVG Inst ID: 5970K.i
Smp Info : 0107L423-007 K080201,[AL=O624XL],[DC=00]
Misc Info : DIL,1,LANL 4.5G
Comment :
Method : /chem/msvoa1/5970k.i/k080201.b/8260a07s.m
Meth Date : 23-Aug-01 18:00:57 rychlakd Quant Type: ISTD
Cal Date : 01-AUG-2001 01:29 Cal File: K073120.D
Als bottle: 22
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: o624xl.sub
Target Version: 3.30
Processing Host: hp4920a

Concentration Formula: Uf/(Ws*(100-M)/100)

Name	Value	Description
Uf	5.000	ng unit correction factor
Ws	4.500	Weight of sample extracted (g)
M	8.980	% Moisture (not decanted)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (UG/KG)	FINAL (ug/Kg)
* 1 Fluorobenzene	96	14.733	14.742	(1.000)	543389	50.0000	
* 2 Chlorobenzene-d5	117	19.129	19.129	(1.000)	371848	50.0000	
* 3 1,4-Dichlorobenzene-d4	152	22.017	22.027	(1.000)	203341	50.0000	
$ 4 1,2-Dichloroethane-d4	65	14.250	14.260	(0.967)	169665	41.8082	51.037
$ 5 Toluene-d8	98	17.148	17.138	(0.896)	411878	46.9757	57.345
$ 6 Bromofluorobenzene	95	20.618	20.608	(0.936)	308713	53.6022	65.434
7 Dichlorodifluoromethane	85.00	Compound Not Detected.					
8 Chloromethane	50.00	Compound Not Detected.					
9 Vinyl Chloride	62.00	Compound Not Detected.					
10 Bromomethane	94.00	Compound Not Detected.					
11 Chloroethane	64.00	Compound Not Detected.					
12 Trichlorofluoromethane	101.00	Compound Not Detected.					
13 1,1-Dichloroethene	96.00	Compound Not Detected.					
73 Freon-113	151.00	Compound Not Detected.					
15 Acetone	43	9.400	9.401	(0.638)	41156	19.4503	23.744(a)
74 Iodomethane	142.00	Compound Not Detected.					

8/23/01

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (UG/KG)	FINAL (ug/Kg)
	14 Carbon Disulfide	76.00	Compound Not Detected.					
	16 Methylene Chloride	84	10.297	10.288	(0.699)	65786	10.2180	12.473
	17 trans-1,2-Dichloroethene	96.00	Compound Not Detected.					
	19 1,1-Dichloroethane	63.00	Compound Not Detected.					
	22 2-Butanone	43	12.919	12.900	(0.877)	1718	1.06992	1.306(a)
	21 cis-1,2-Dichloroethene	96.00	Compound Not Detected.					
	20 2,2-Dichloropropane	77.00	Compound Not Detected.					
	23 Bromochloromethane	128.00	Compound Not Detected.					
	24 Chloroform	83.00	Compound Not Detected.					
	25 1,1,1-Trichloroethane	97.00	Compound Not Detected.					
	26 Carbon Tetrachloride	117.00	Compound Not Detected.					
	27 1,1-Dichloropropene	77.00	Compound Not Detected.					
	28 Benzene	78.00	Compound Not Detected.					
	29 1,2-Dichloroethane	62	14.743	14.388	(1.001)	9353	2.05563	2.509(a)
	30 Trichloroethene	130.00	Compound Not Detected.					
	31 1,2-Dichloropropane	63.00	Compound Not Detected.					
	32 Dibromomethane	174.00	Compound Not Detected.					
	33 Bromodichloromethane	83.00	Compound Not Detected.					
	34 cis-1,3-Dichloropropene	75.00	Compound Not Detected.					
	35 4-Methyl-2-Pentanone	43	17.148	17.040	(0.896)	5087	1.14238	1.394(a)
	36 Toluene	91.00	Compound Not Detected.					
	37 trans-1,3-Dichloropropene	75.00	Compound Not Detected.					
	38 1,1,2-Trichloroethane	97.00	Compound Not Detected.					
	39 Tetrachloroethene	164.00	Compound Not Detected.					
	40 1,3-Dichloropropane	76.00	Compound Not Detected.					
	41 2-Hexanone	43.00	Compound Not Detected.					
	42 Dibromochloromethane	129.00	Compound Not Detected.					
	43 1,2-Dibromoethane	107.00	Compound Not Detected.					
	44 Chlorobenzene	112.00	Compound Not Detected.					
	45 1,1,1,2-Tetrachloroethane	131.00	Compound Not Detected.					
	46 Ethylbenzene	106.00	Compound Not Detected.					
	47 m & p-Xylene	106.00	Compound Not Detected.					
	48 o-Xylene	106.00	Compound Not Detected.					
M	50 Xylenes (Total)	106.00	Compound Not Detected.					
	49 Styrene	104.00	Compound Not Detected.					
	51 Bromoform	173.00	Compound Not Detected.					
	52 Isopropylbenzene	105.00	Compound Not Detected.					
	54 Bromobenzene	77.00	Compound Not Detected.					
	55 1,2,3-Trichloropropane	110.00	Compound Not Detected.					
	53 1,1,2,2-Tetrachloroethane	83.00	Compound Not Detected.					
	56 N-Propylbenzene	120.00	Compound Not Detected.					
	57 2-Chlorotoluene	126.00	Compound Not Detected.					
	59 4-Chlorotoluene	126.00	Compound Not Detected.					
	58 1,3,5-Trimethylbenzene	105.00	Compound Not Detected.					
	60 Tert-Butylbenzene	134.00	Compound Not Detected.					
	61 1,2,4-Trimethylbenzene	105.00	Compound Not Detected.					
	62 Sec-Butylbenzene	134.00	Compound Not Detected.					

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (UG/KG)	FINAL (ug/Kg)
63 1,3-Dichlorobenzene	146.00	Compound Not Detected.					
65 1,4-Dichlorobenzene	146.00	Compound Not Detected.					
64 4-Isopropyltoluene	119.00	Compound Not Detected.					
67 1,2-Dichlorobenzene	146.00	Compound Not Detected.					
66 N-Butylbenzene	134.00	Compound Not Detected.					
68 1,2-Dibromo-3-chloropropane	157.00	Compound Not Detected.					

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

Data File: /chem/msvoa1/5970k.i/k080201.b/k080206.d

Date : 02-AUG-01 15:50:00

Client ID: RC03-01-0006 06

Instrument: 5970K.i

Sample Info: 0107L423-007 K080201,[AL=0624XL],[DC=00]

Operator: JVG

Column phase: DB-624

Column diameter: 0.53

15 Acetone

Concentration: 23.744 ug/Kg

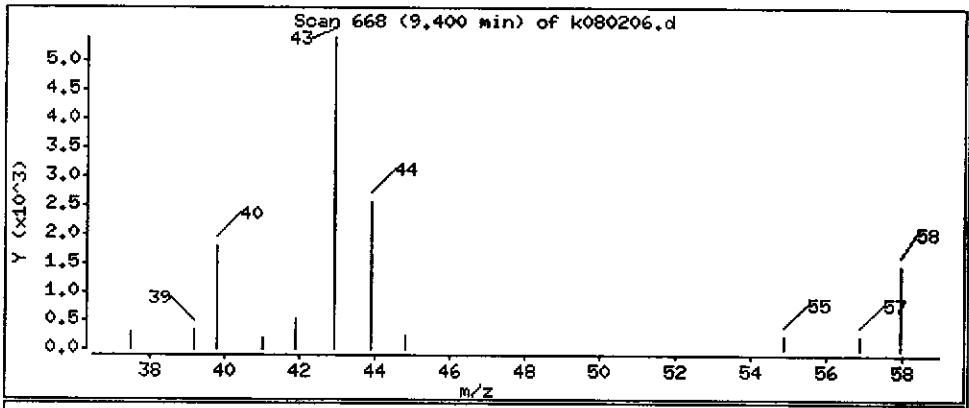

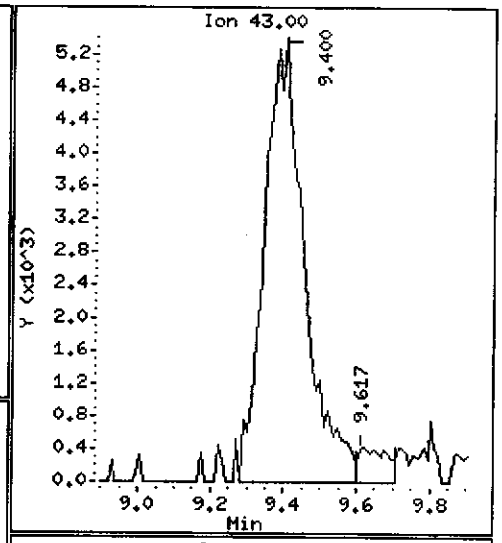

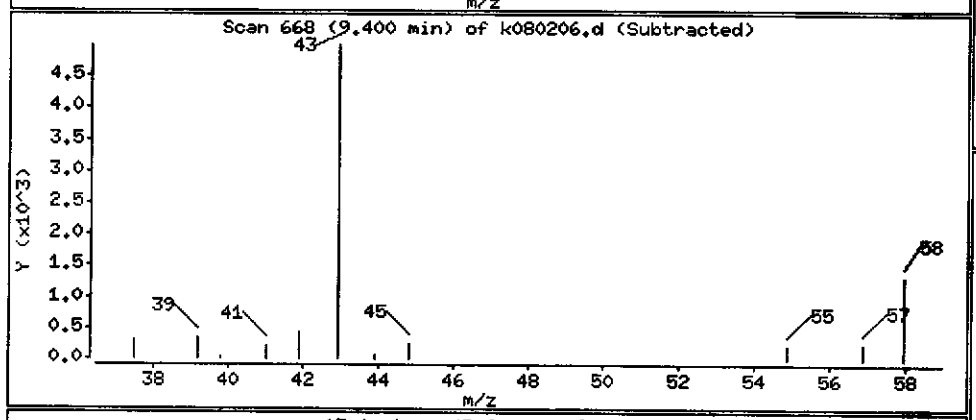

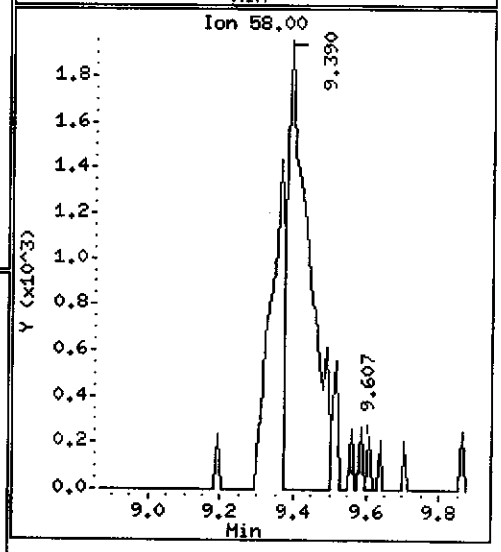

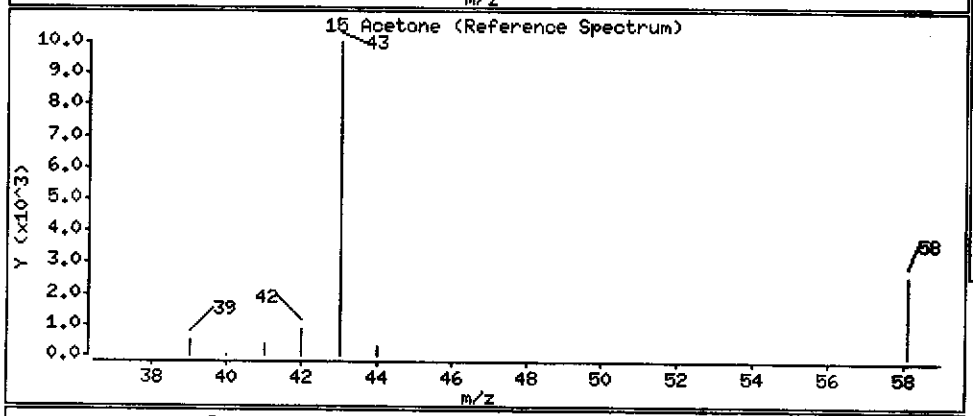

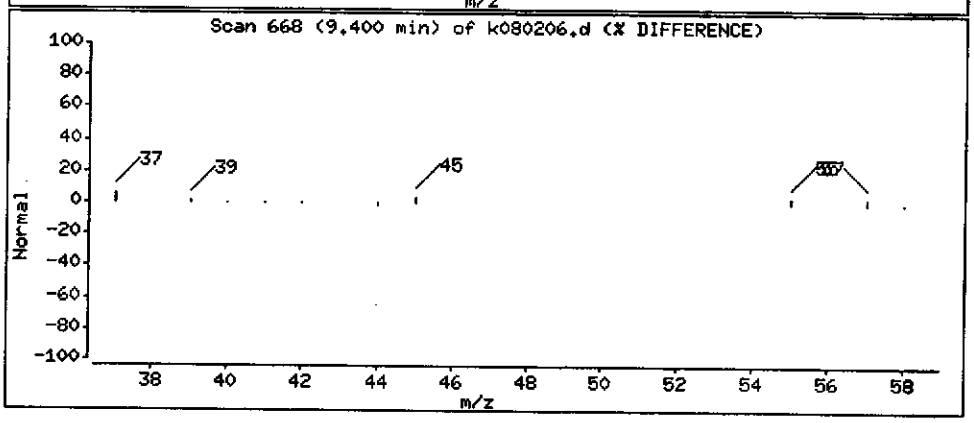

Data File: /chem/msvoa1/5970k.i/k080201.b/k080206.d

Date : 02-AUG-01 15:50:00

Client ID: RC03-01-0006 06

Instrument: 5970K.i

Sample Info: 0107L423-007 K080201,[AL=0624XL],[DC=00]

Operator: JVG

Column phase: DB-624

Column diameter: 0.53

16 Methylene Chloride

Concentration: 12.473 ug/Kg

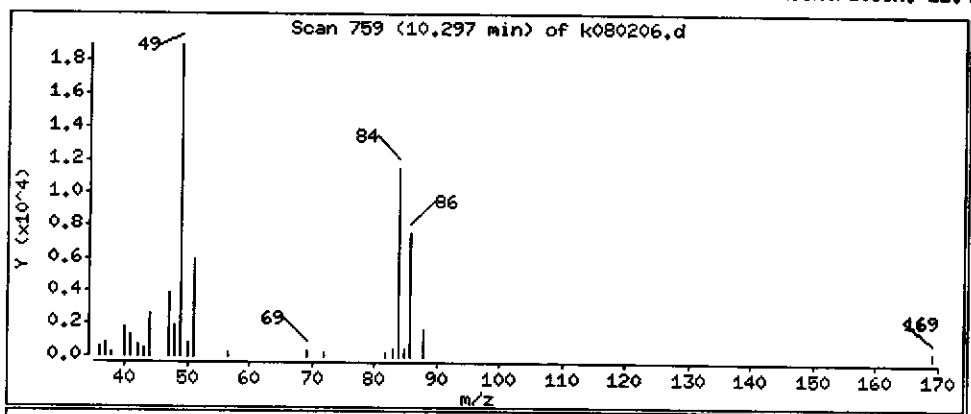

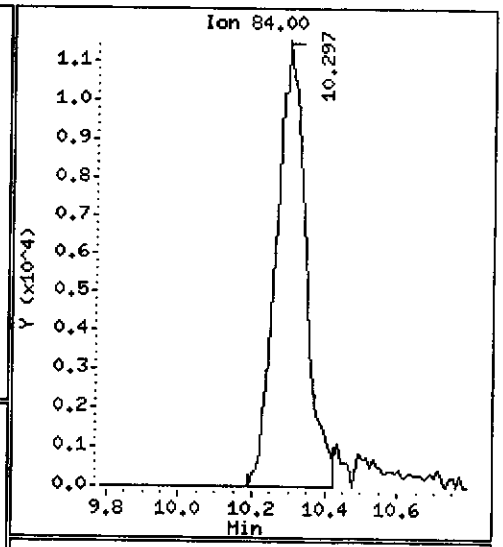

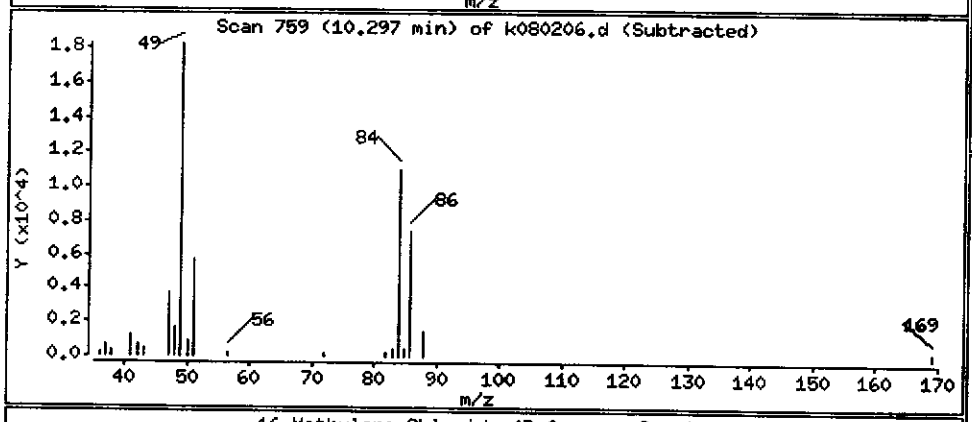

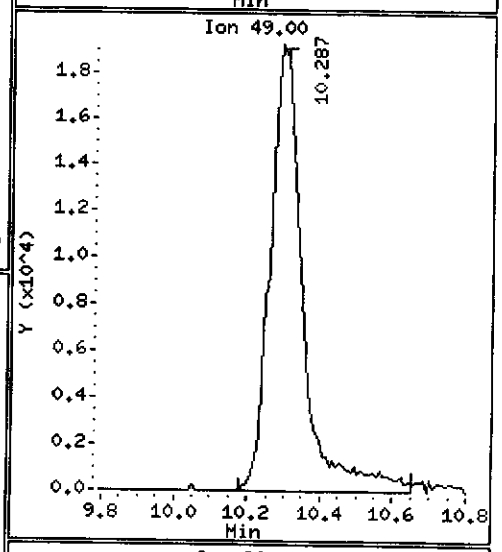

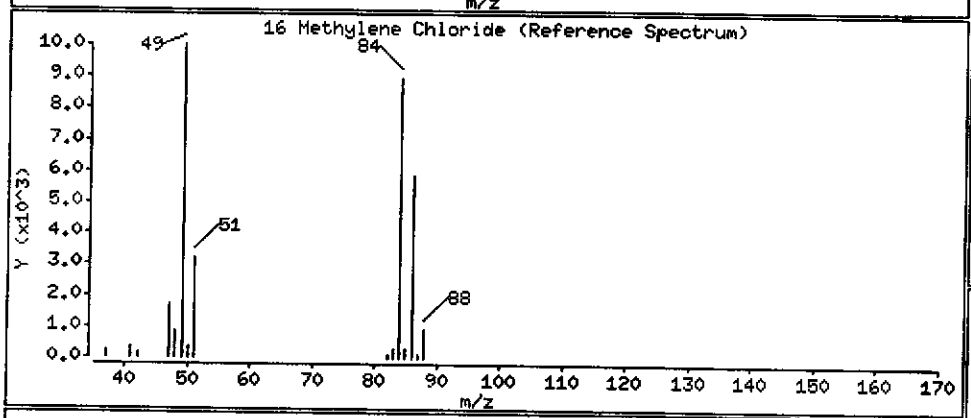

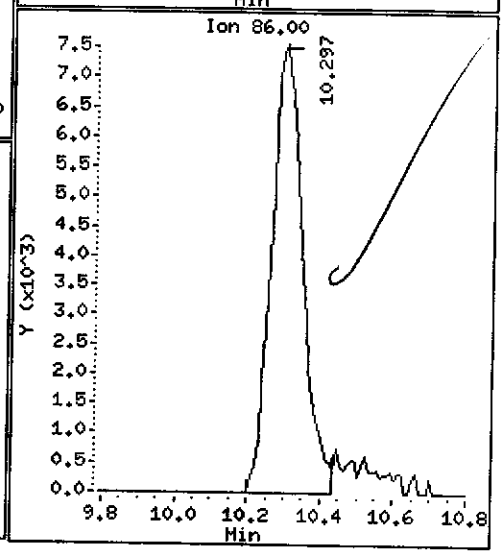

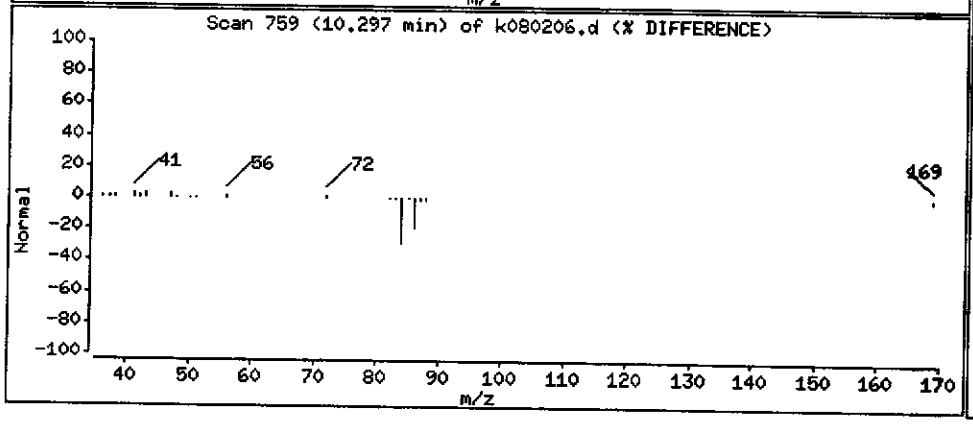

Data File: /chem/msvoa1/5970k.i/k080201.b/k080206.d

Date : 02-AUG-01 15:50:00

Client ID: RC03-01-0006 06

Instrument: 5970K.i

Sample Info: 0107L423-007 K080201,[AL=0624XL],[DC=00]

Operator: JVG

Column phase: DB-624

Column diameter: 0.53

22 2-Butanone

Concentration: 1.306 ug/Kg

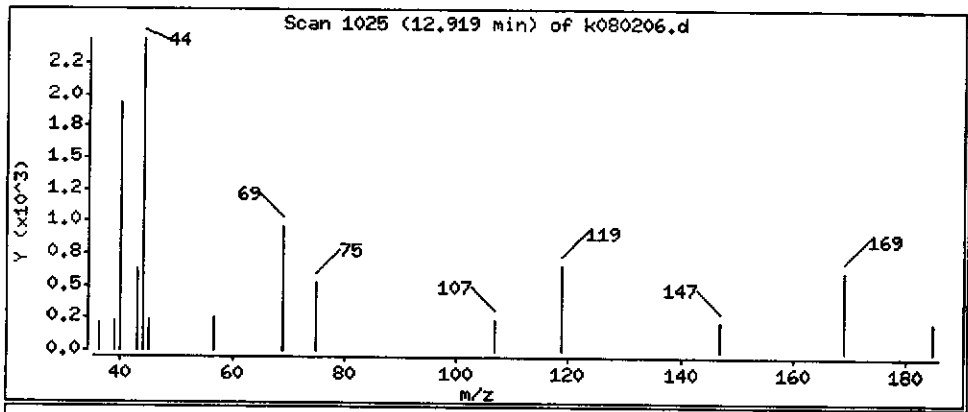

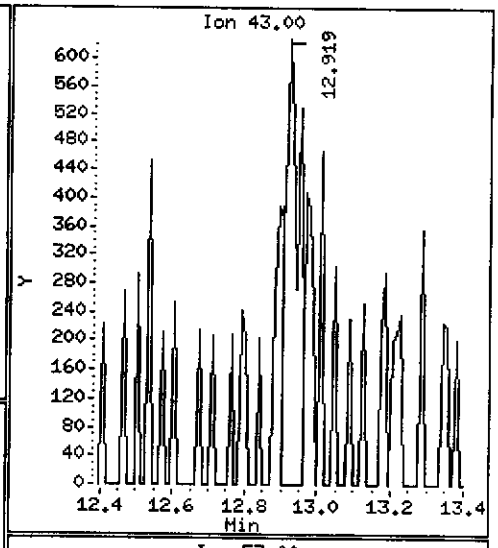

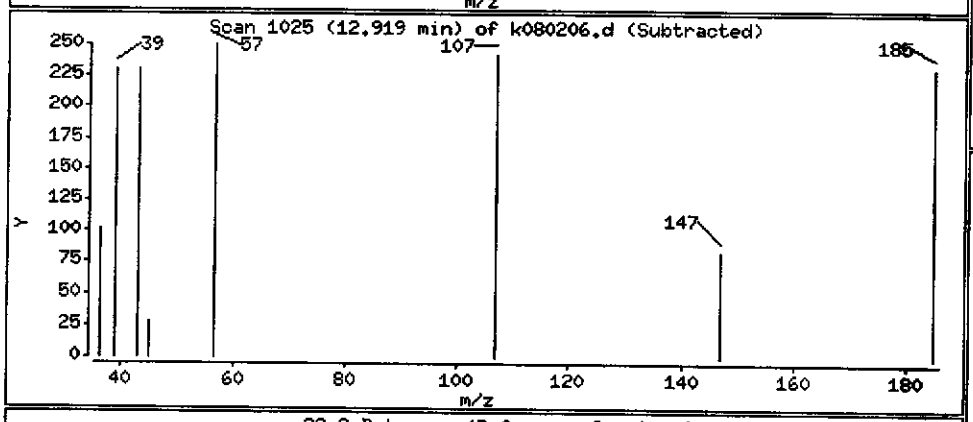

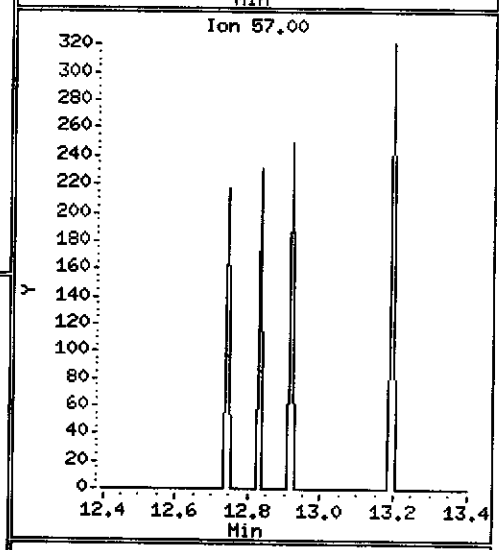

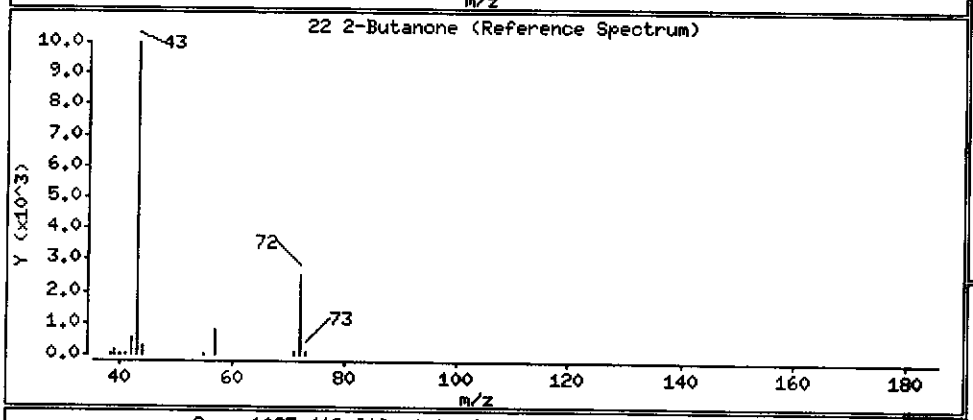

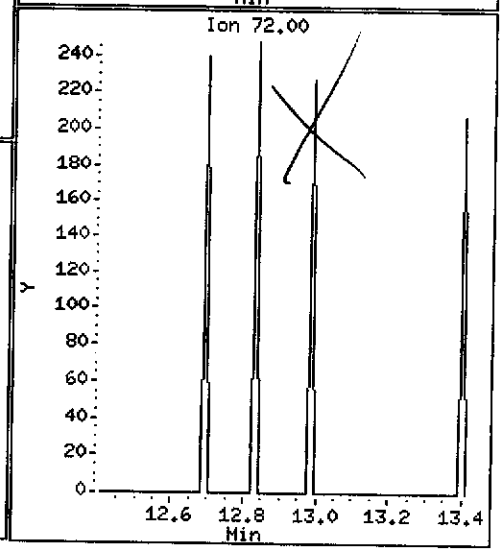

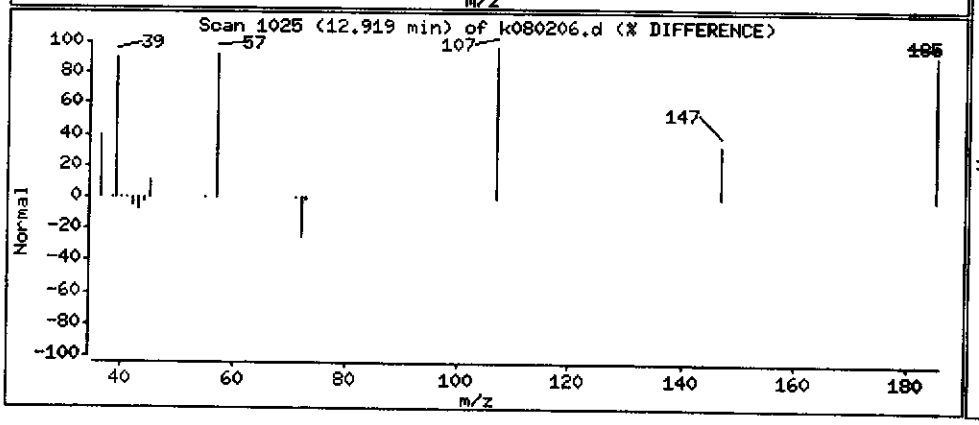

Data File: /chem/msvoa1/5970k.i/k080201.b/k080206.d

Date : 02-AUG-01 15:50:00

Client ID: RC03-01-0006 06

Instrument: 5970K.i

Sample Info: 0107L423-007 K080201,[AL=D624XL],[DC=00]

Operator: JVG

Column phase: DB-624

Column diameter: 0.53

29 1,2-Dichloroethane

Concentration: 2.509 ug/Kg

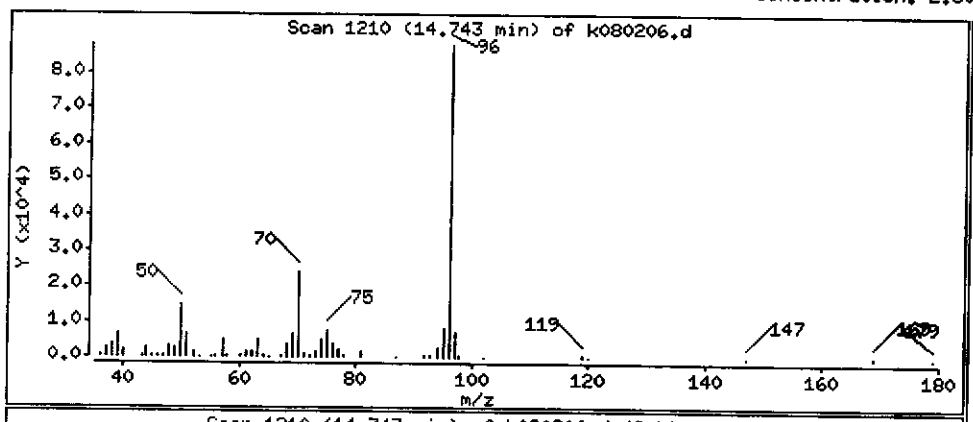

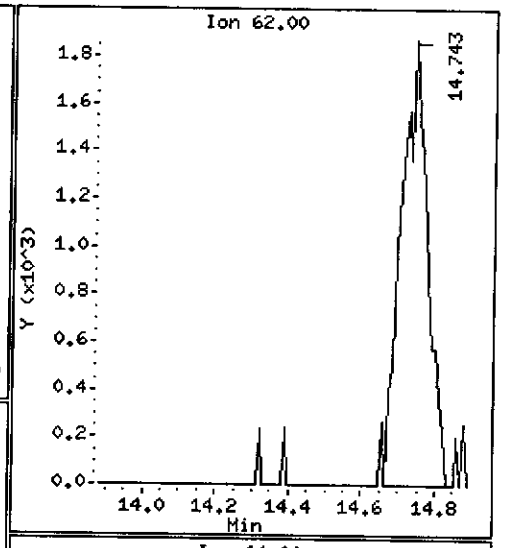

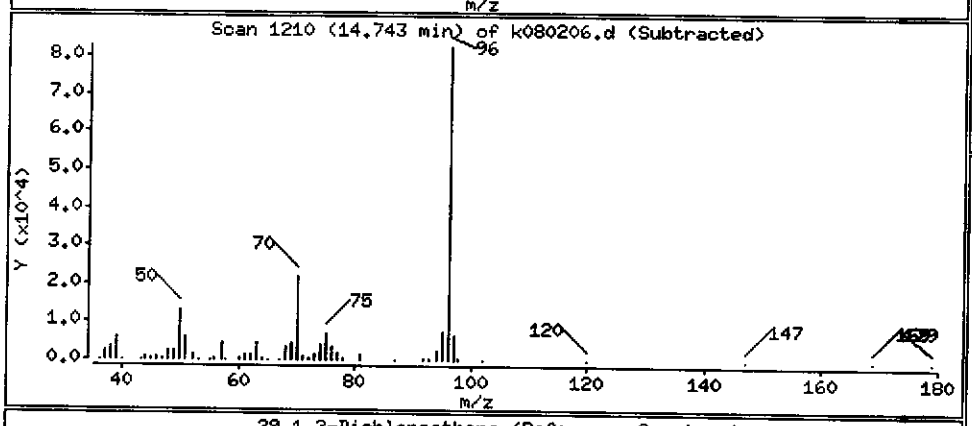

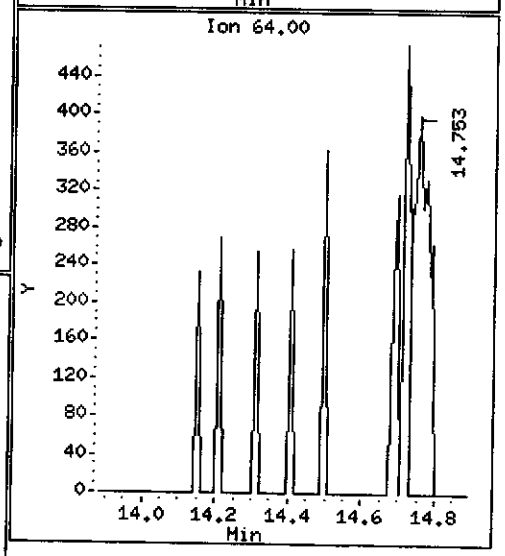

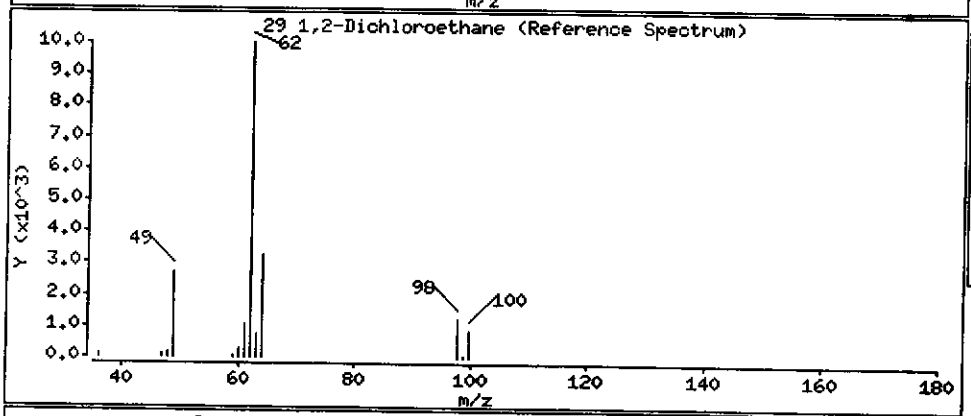

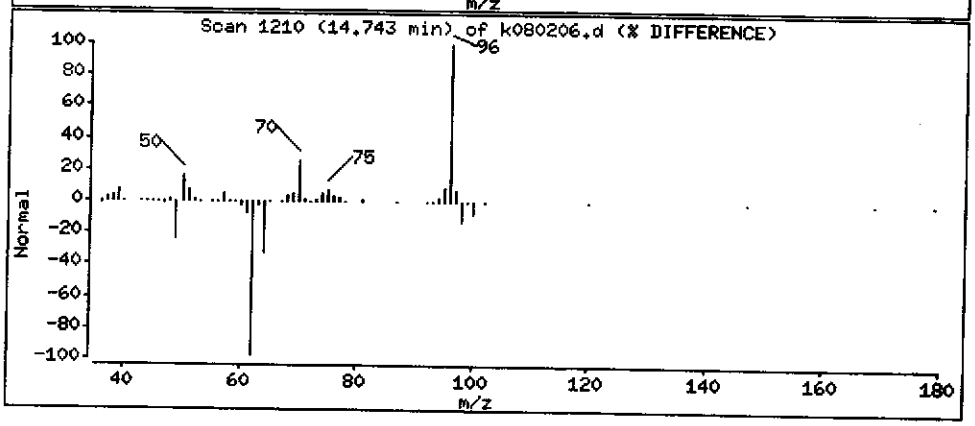

Data File: /chem/msvoa1/5970k.i/k080201.b/k080206.d

Date : 02-AUG-01 15:50:00

Client ID: RC03-01-0006 06

Instrument: 5970K.i

Sample Info: 0107L423-007 K080201,[AL=0624XL],[DC=00]

Operator: JWG

Column phase: DB-624

Column diameter: 0.53

35 4-Methyl-2-Pentanone

Concentration: 1.394 ug/Kg

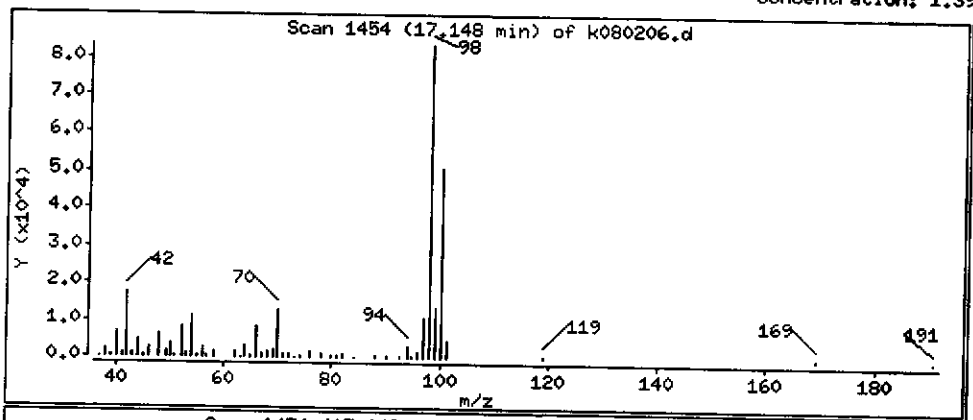

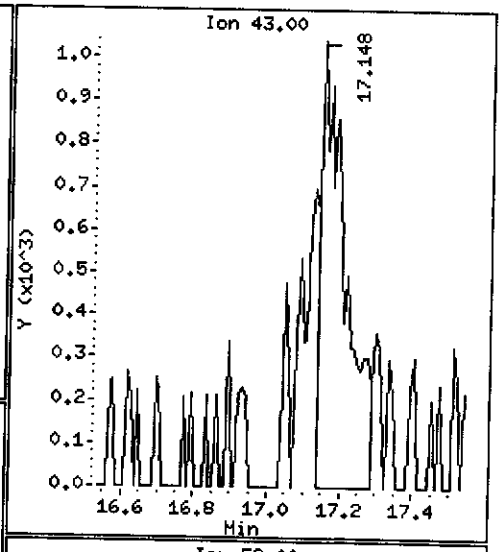

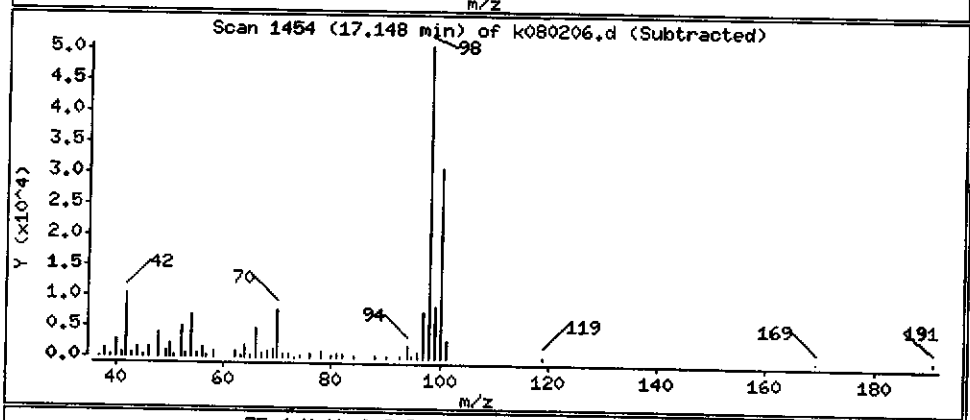

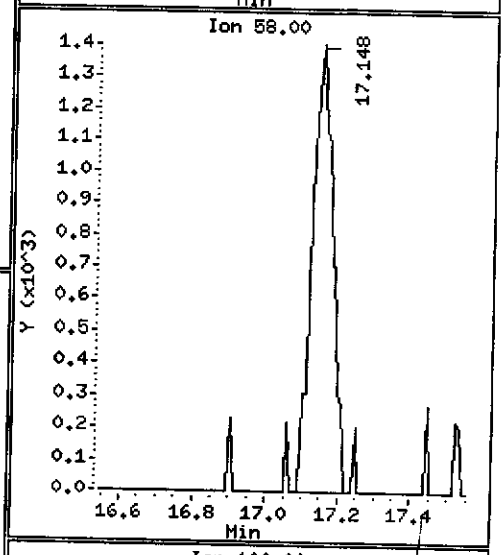

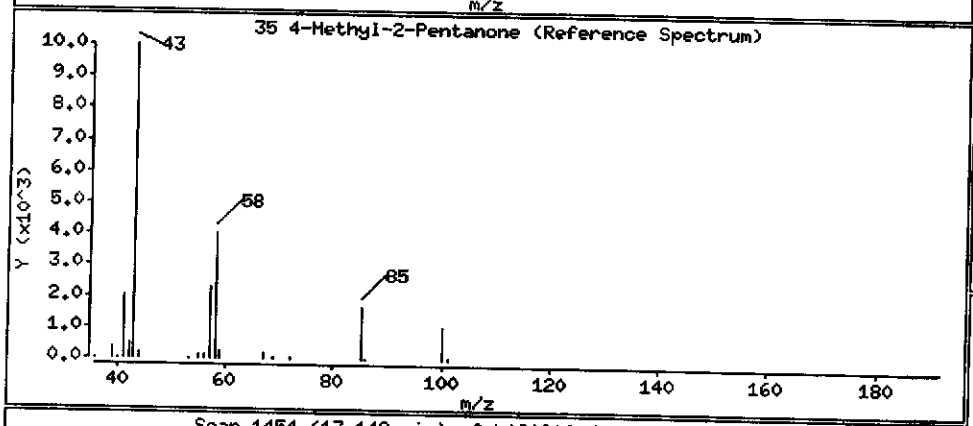

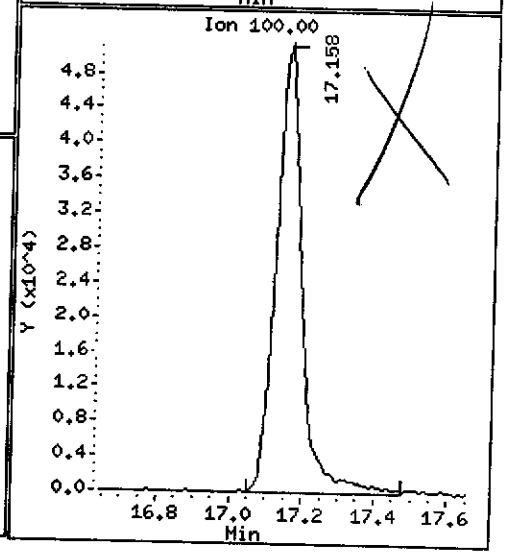

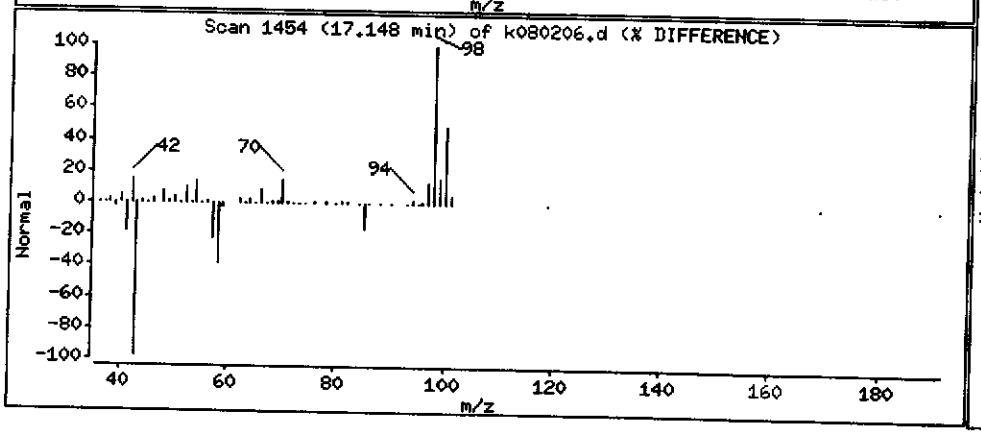

1A
VOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

RC03-01-0007 06

Lab Name: Lionville Labs, Inc. Work Order: 02744064001

Client: LANL REQ #9432R

Matrix: SOIL

Lab Sample ID: 0107L423-009

Sample wt/vol: 5.50 (g/mL) G

Lab File ID: k080207

Level: (low/med) LOW

Date Received: 07/27/01

% Moisture: not dec. 7

Date Analyzed: 08/02/01

Column: (pack/cap) CAP

Dilution Factor: 0.909

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND		
75-71-8	Dichlorodifluoromethane	10	U
74-87-3	Chloromethane	10	U
75-01-4	Vinyl Chloride	10	U
74-83-9	Bromomethane	10	U
75-00-3	Chloroethane	10	U
75-69-4	Trichlorofluoromethane	5	U
75-35-4	1,1-Dichloroethene	5	U
76-13-1	Trichlorotrifluoroethane	5	U
67-64-1	Acetone	14	BJ
74-88-4	Iodomethane	5	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	10	B
156-60-5	Trans-1,2-dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
78-93-3	2-Butanone	20	U
156-59-2	Cis-1,2-dichloroethene	5	U
590-20-7	2,2-Dichloropropane	5	U
74-97-5	Bromochloromethane	5	U
67-66-3	Chloroform	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
563-58-6	1,1-dichloropropene	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U
79-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
74-95-3	Dibromomethane	5	U
75-27-4	Bromodichloromethane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
108-10-1	4-Methyl-2-pentanone	20	U
108-88-3	Toluene	5	U
10061-02-6	Trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
127-18-4	Tetrachloroethene	5	U

1B
VOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

RC03-01-0007 06

Lab Name: Lionville Labs, Inc. Work Order: 02744064001

Client: LANL REQ #9432R

Matrix: SOIL

Lab Sample ID: 0107L423-009

Sample wt/vol: 5.50 (g/mL) G

Lab File ID: k080207

Level: (low/med) LOW

Date Received: 07/27/01

% Moisture: not dec. 7

Date Analyzed: 08/02/01

Column: (pack/cap) CAP

Dilution Factor: 0.909

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND		
142-28-9	1,3-Dichloropropane	5	U
591-78-6	2-Hexanone	20	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
630-20-6	1,1,1,2-Tetrachloroethane	5	U
100-41-4	Ethylbenzene	5	U
1330-20-7	Xylenes (total)	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
98-82-8	Isopropylbenzene	5	U
108-86-1	Bromobenzene	5	U
96-18-4	1,2,3-Trichloropropane	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
103-65-1	N-propylbenzene	5	U
95-49-8	2-Chlorotoluene	5	U
106-43-4	4-Chlorotoluene	5	U
108-67-8	1,3,5-Trimethylbenzene	5	U
98-06-6	Tert-butylbenzene	5	U
95-63-6	1,2,4-Trimethylbenzene	5	U
135-98-8	Sec-butylbenzene	5	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
99-87-6	4-Isopropyltoluene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
104-51-8	N-butylbenzene	5	U
96-12-8	1,2-Dibromo-3-chloropropane	10	U

FORM 1 V-2 12/88 Rev.

1E

VOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

RC03-01-0007 06

Lab Name: Lionville Labs, Inc. Work Order: 02744064001

Client: LANL REQ #9432R

Matrix: SOIL

Lab Sample ID: 0107L423-009

Sample wt/vol: 5.50 (g/mL) G

Lab File ID: k080207

Level: (low/med) LOW

Date Received: 07/27/01

% Moisture: not dec. 7

Date Analyzed: 08/02/01

Column: (pack/cap) CAP

Dilution Factor: 0.909

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.				

FORM 1 VOA-TIC

12/88 Rev.

Data File: /chem/msvoa1/5970k.i/k080201.b/k080207.d
Date : 02-AUG-01 16:33:00
Client ID: RC03-01-0007 06
Sample Info: 0107L423-009 K080201,[AL=0624XL],[DC=00]

Instrument: 5970K.i

Operator: JVG
Column diameter: 0.53

Column phase: DB-624

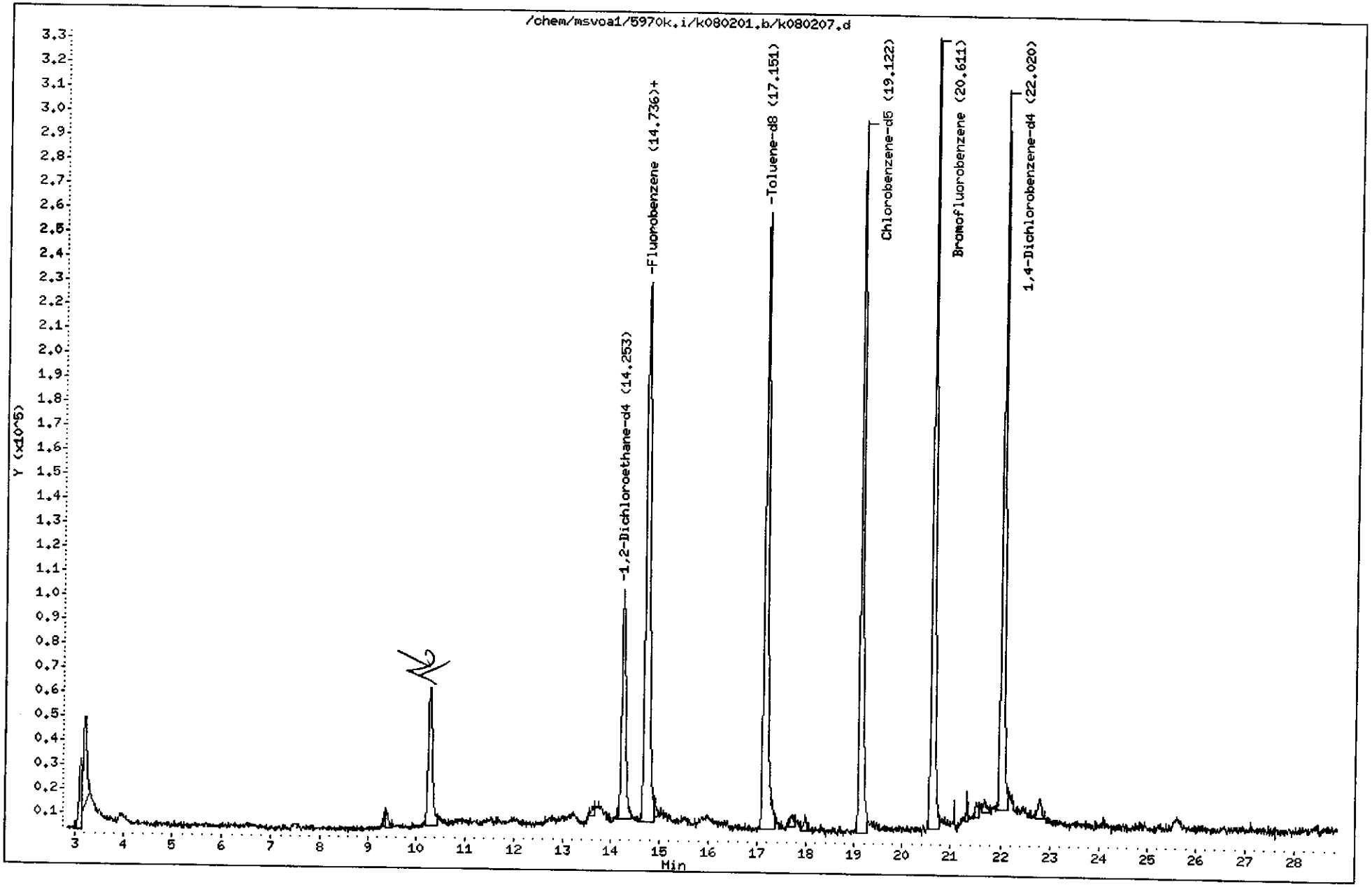

Lionville Laboratory Inc.

Data file : /chem/msvoa1/5970k.i/k080201.b/k080207.d
Lab Smp Id: 0107L423-009 Client Smp ID: RC03-01-0007 06
Inj Date : 02-AUG-01 16:33:00
Operator : JVG Inst ID: 5970K.i
Smp Info : 0107L423-009 K080201,[AL=O624XL],[DC=00]
Misc Info : DIL,1,LANL 5.5G
Comment :
Method : /chem/msvoa1/5970k.i/k080201.b/8260a07s.m
Meth Date : 23-Aug-01 18:00:57 rychlakd Quant Type: ISTD
Cal Date : 01-AUG-2001 01:29 Cal File: K073120.D
Als bottle: 23
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: o624xl.sub
Target Version: 3.30
Processing Host: hp4920a

Concentration Formula: Uf/(Ws*(100-M)/100)

Name	Value	Description
Uf	5.000	ng unit correction factor
Ws	5.500	Weight of sample extracted (g)
M	7.050	% Moisture (not decanted)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (UG/KG)	FINAL (ug/Kg)
* 1 Fluorobenzene	96	14.736	14.742	(1.000)	536552	50.0000	
* 2 Chlorobenzene-d5	117	19.122	19.129	(1.000)	339783	50.0000	
* 3 1,4-Dichlorobenzene-d4	152	22.020	22.027	(1.000)	158692	50.0000	
$ 4 1,2-Dichloroethane-d4	65	14.253	14.260	(0.967)	183959	45.9081	44.900
$ 5 Toluene-d8	98	17.151	17.138	(0.897)	374569	46.7520	45.725
$ 6 Bromofluorobenzene	95	20.611	20.608	(0.936)	263629	58.6531	57.365
7 Dichlorodifluoromethane	85.00	Compound Not Detected.					
8 Chloromethane	50.00	Compound Not Detected.					
9 Vinyl Chloride	62.00	Compound Not Detected.					
10 Bromomethane	94.00	Compound Not Detected.					
11 Chloroethane	64.00	Compound Not Detected.					
12 Trichlorofluoromethane	101.00	Compound Not Detected.					
13 1,1-Dichloroethene	96.00	Compound Not Detected.					
73 Freon-113	151.00	Compound Not Detected.					
15 Acetone	43	9.393	9.401	(0.637)	30740	14.7128	14.390(a)
74 Iodomethane	142.00	Compound Not Detected.					

8/23/01

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (UG/KG)	FINAL (ug/Kg)
	14 Carbon Disulfide	76.00	Compound Not Detected.					
	16 Methylene Chloride	84	10.290	10.288	(0.698)	67972	10.6920	10.457
	17 trans-1,2-Dichloroethene	96.00	Compound Not Detected.					
	19 1,1-Dichloroethane	63.00	Compound Not Detected.					
	22 2-Butanone	43.00	Compound Not Detected.					
	21 cis-1,2-Dichloroethene	96.00	Compound Not Detected.					
	20 2,2-Dichloropropane	77.00	Compound Not Detected.					
	23 Bromochloromethane	128.00	Compound Not Detected.					
	24 Chloroform	83.00	Compound Not Detected.					
	25 1,1,1-Trichloroethane	97.00	Compound Not Detected.					
	26 Carbon Tetrachloride	117.00	Compound Not Detected.					
	27 1,1-Dichloropropene	77.00	Compound Not Detected.					
	28 Benzene	78.00	Compound Not Detected.					
	29 1,2-Dichloroethane	62	14.736	14.388	(1.000)	10813	2.40679	2.354(a)
	30 Trichloroethene	130.00	Compound Not Detected.					
	31 1,2-Dichloropropane	63.00	Compound Not Detected.					
	32 Dibromomethane	174.00	Compound Not Detected.					
	33 Bromodichloromethane	83.00	Compound Not Detected.					
	34 cis-1,3-Dichloropropene	75.00	Compound Not Detected.					
	35 4-Methyl-2-Pentanone	43.00	Compound Not Detected.					
	36 Toluene	91.00	Compound Not Detected.					
	37 trans-1,3-Dichloropropene	75.00	Compound Not Detected.					
	38 1,1,2-Trichloroethane	97.00	Compound Not Detected.					
	39 Tetrachloroethene	164.00	Compound Not Detected.					
	40 1,3-Dichloropropane	76.00	Compound Not Detected.					
	41 2-Hexanone	43.00	Compound Not Detected.					
	42 Dibromochloromethane	129.00	Compound Not Detected.					
	43 1,2-Dibromoethane	107.00	Compound Not Detected.					
	44 Chlorobenzene	112.00	Compound Not Detected.					
	45 1,1,1,2-Tetrachloroethane	131.00	Compound Not Detected.					
	46 Ethylbenzene	106.00	Compound Not Detected.					
	47 m & p-Xylene	106.00	Compound Not Detected.					
	48 o-Xylene	106.00	Compound Not Detected.					
M	50 Xylenes (Total)	106.00	Compound Not Detected.					
	49 Styrene	104.00	Compound Not Detected.					
	51 Bromoform	173.00	Compound Not Detected.					
	52 Isopropylbenzene	105.00	Compound Not Detected.					
	54 Bromobenzene	77.00	Compound Not Detected.					
	55 1,2,3-Trichloropropane	110.00	Compound Not Detected.					
	53 1,1,2,2-Tetrachloroethane	83.00	Compound Not Detected.					
	56 N-Propylbenzene	120.00	Compound Not Detected.					
	57 2-Chlorotoluene	126.00	Compound Not Detected.					
	59 4-Chlorotoluene	126.00	Compound Not Detected.					
	58 1,3,5-Trimethylbenzene	105.00	Compound Not Detected.					
	60 Tert-Butylbenzene	134.00	Compound Not Detected.					
	61 1,2,4-Trimethylbenzene	105.00	Compound Not Detected.					
	62 Sec-Butylbenzene	134.00	Compound Not Detected.					

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (UG/KG)	FINAL (ug/Kg)
63 1,3-Dichlorobenzene	146.00	Compound Not Detected.					
65 1,4-Dichlorobenzene	146.00	Compound Not Detected.					
64 4-Isopropyltoluene	119.00	Compound Not Detected.					
67 1,2-Dichlorobenzene	146.00	Compound Not Detected.					
66 N-Butylbenzene	134.00	Compound Not Detected.					
68 1,2-Dibromo-3-chloropropane	157.00	Compound Not Detected.					

QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).

Data File: /chem/msvoa1/5970k.i/k080201.b/k080207.d

Date : 02-AUG-01 16:33:00

Client ID: RC03-01-0007 06

Instrument: 5970K.i

Sample Info: 0107L423-009 K080201,[AL=0624XL],[DC=00]

Operator: JVG

Column phase: DB-624

Column diameter: 0.53

15 Acetone

Concentration: 14.390 ug/Kg

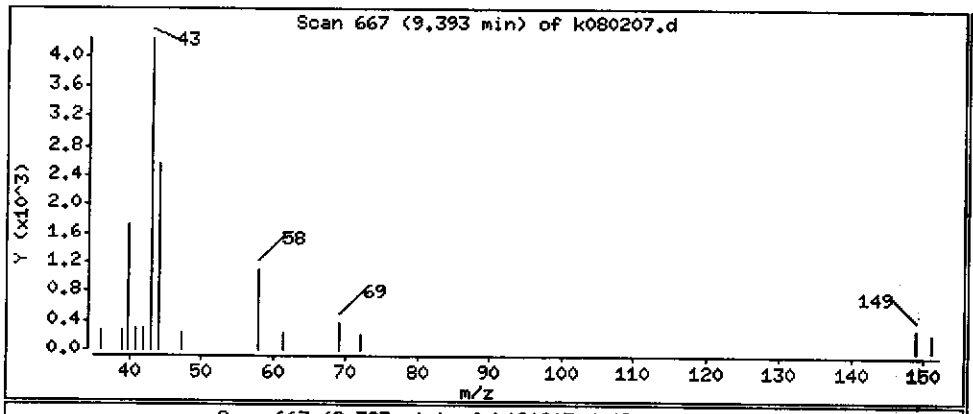

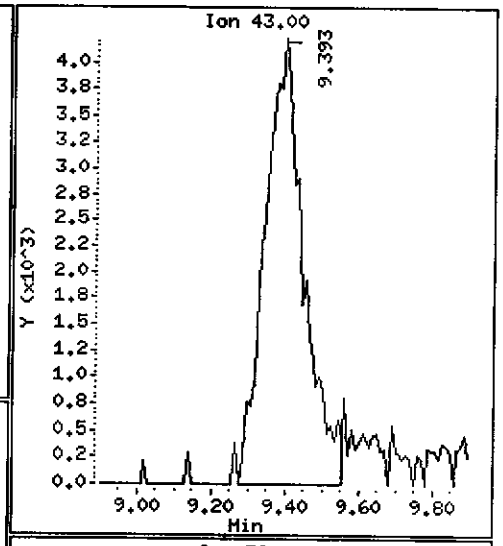

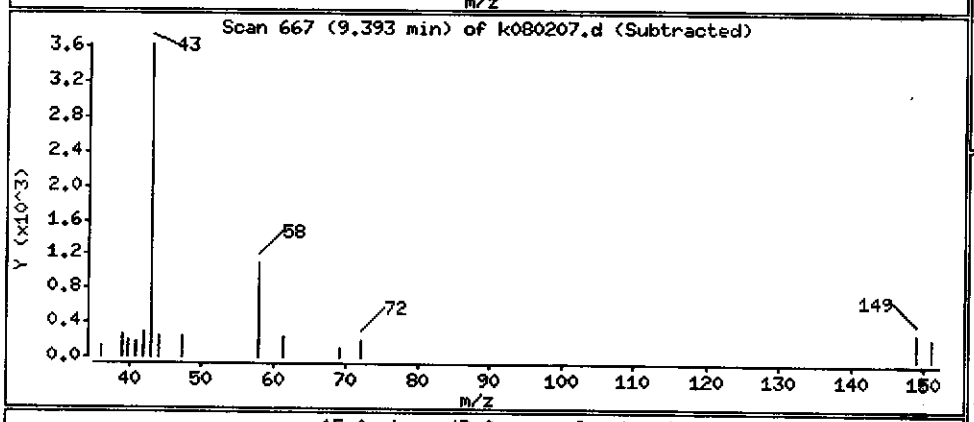

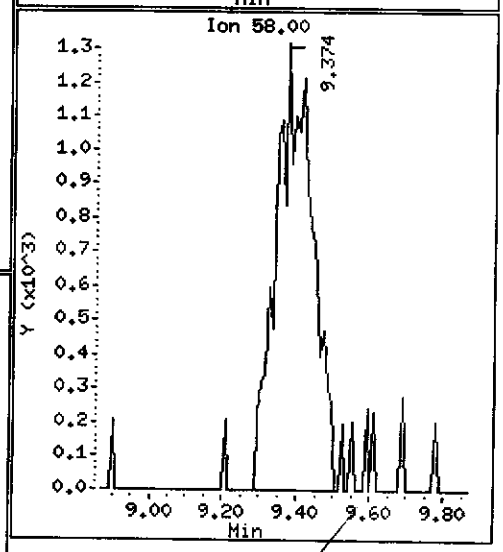

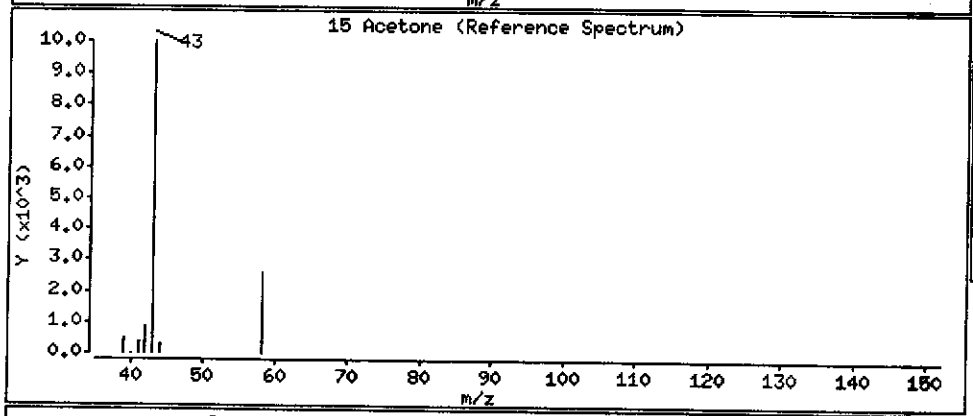

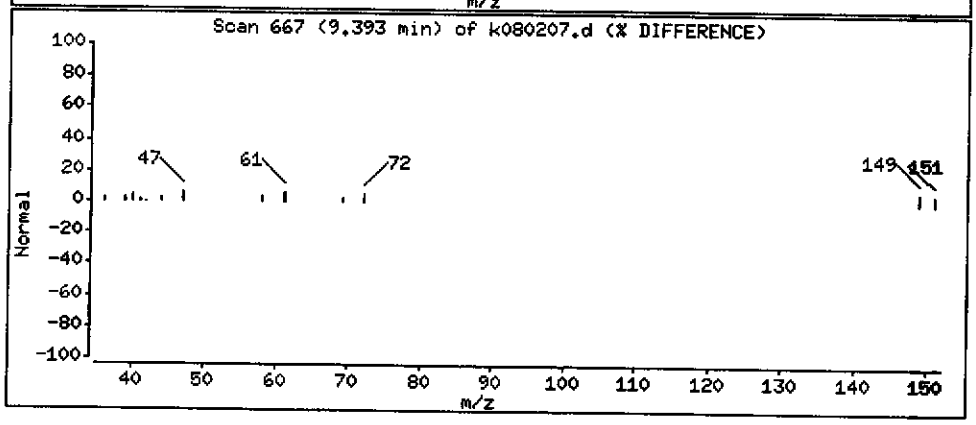

Data File: /chem/msvoa1/5970k.i/k080201.b/k080207.d

Date : 02-AUG-01 16:33:00

Client ID: RC03-01-0007 06

Instrument: 5970K.i

Sample Info: 0107L423-009 K080201,[AL=0624XL],[DC=00]

Operator: JVG

Column phase: DB-624

Column diameter: 0.53

16 Methylene Chloride

Concentration: 10.457 ug/Kg

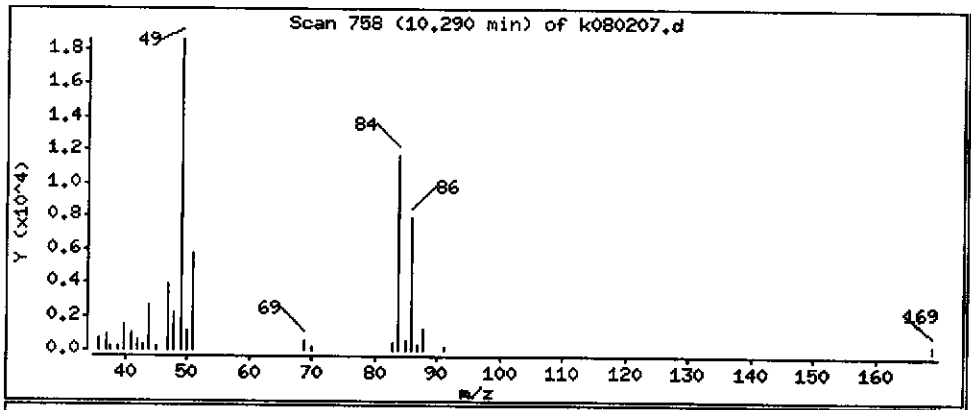

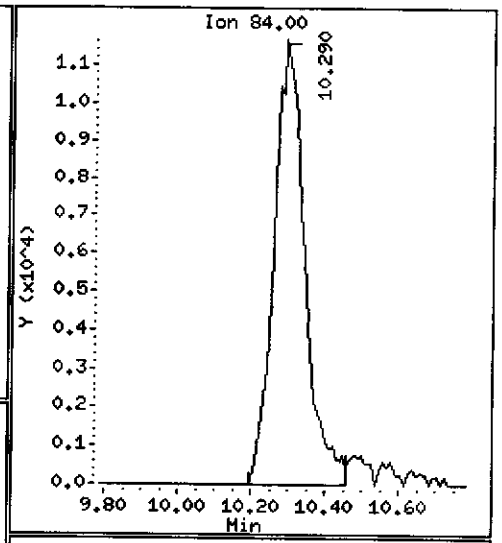

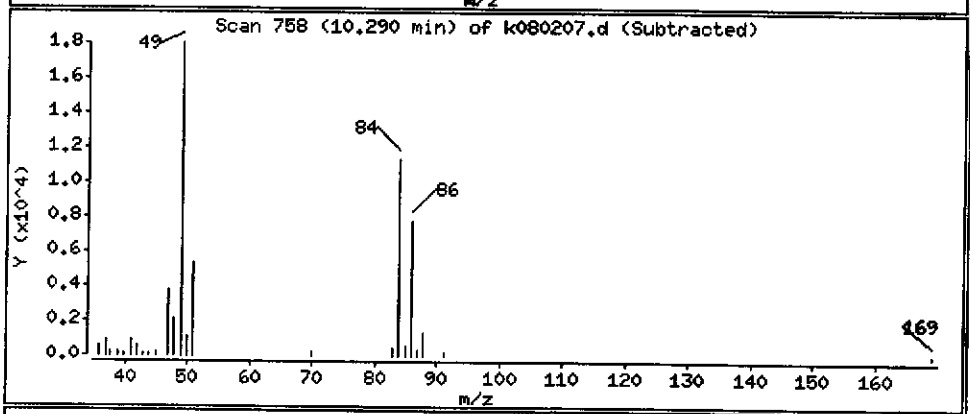

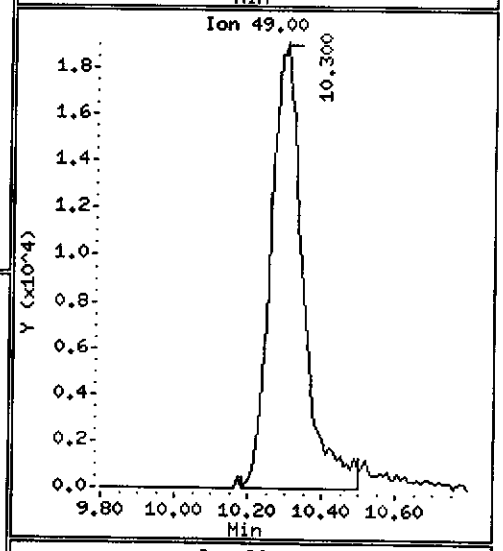

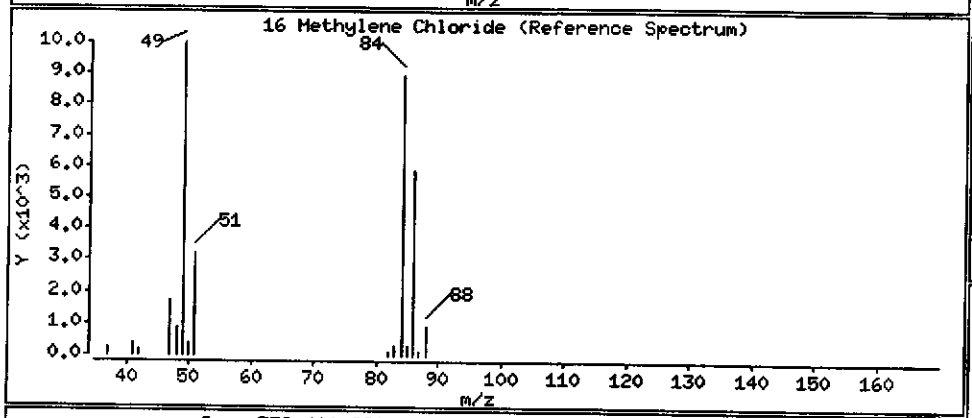

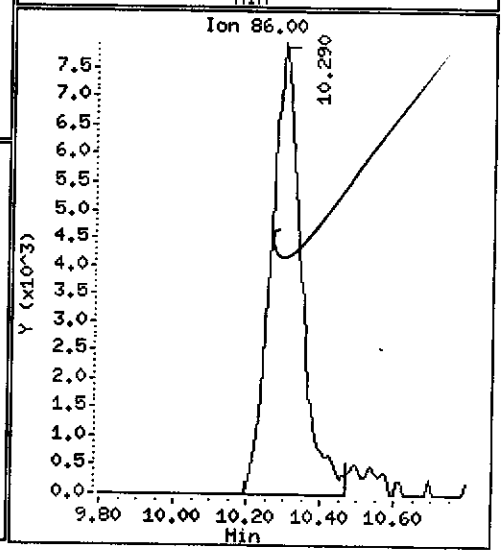

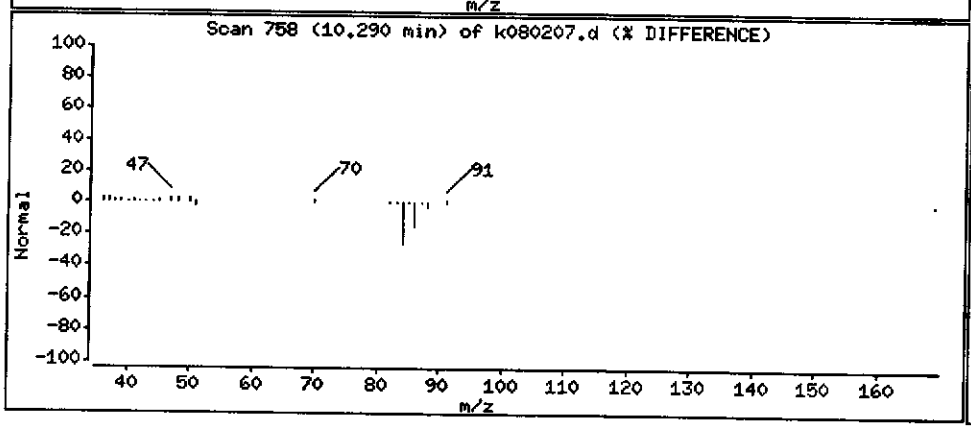

Data File: /chem/msvoa1/5970k.i/k080201.b/k080207.d

Date : 02-AUG-01 16:33:00

Client ID: RC03-01-0007 06

Instrument: 5970K.i

Sample Info: 0107L423-009 K080201,[AL=0624XL],[DC=00]

Operator: JVG

Column phase: DB-624

Column diameter: 0.53

29 1,2-Dichloroethane

Concentration: 2.354 ug/Kg

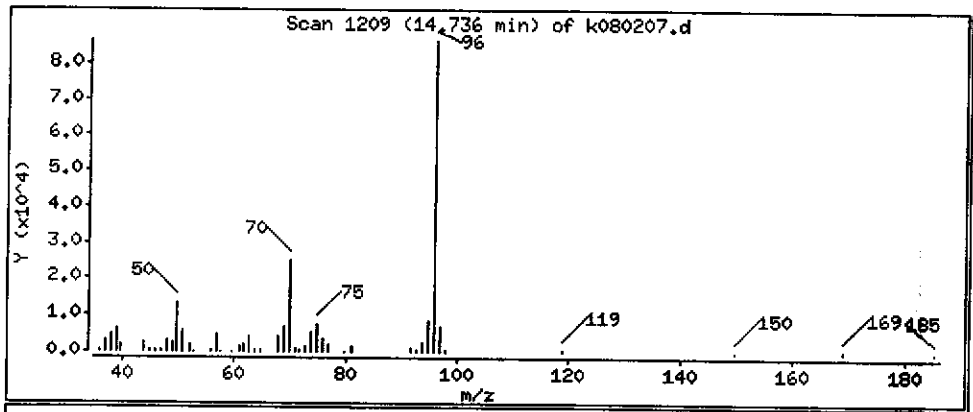

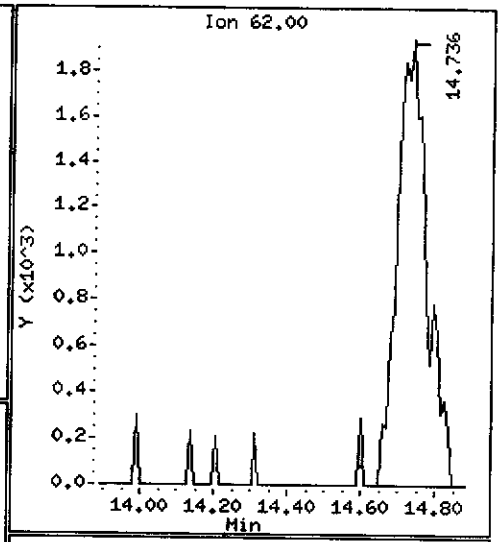

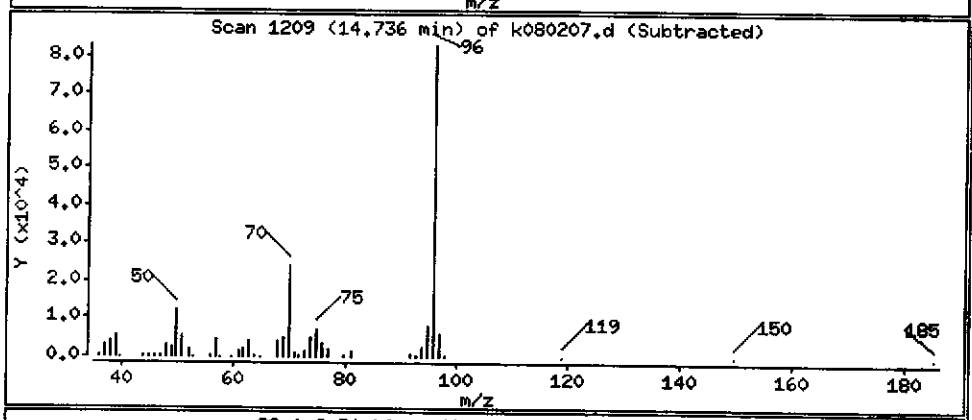

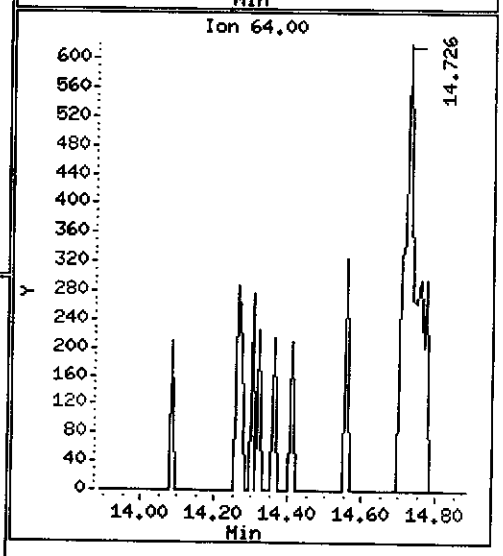

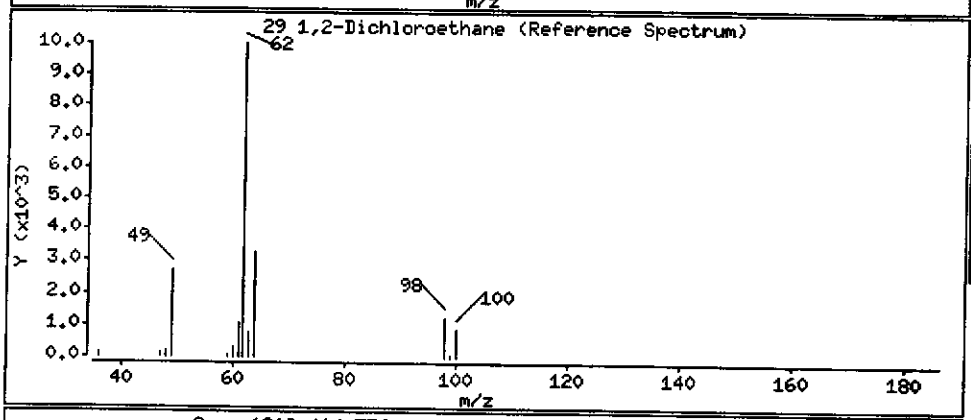

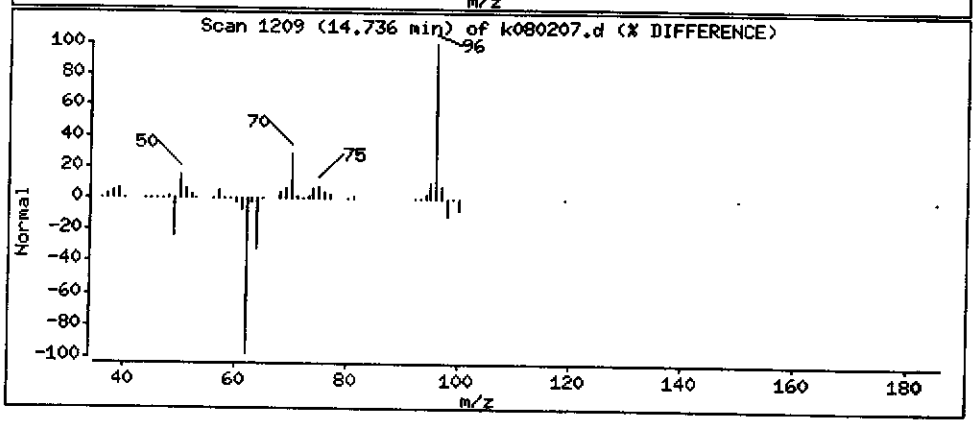

1A
VOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

RC03-01-0008 06

Lab Name: Lionville Labs, Inc. Work Order: 02744064001

Client: LANL REQ #9432R

Matrix: SOIL

Lab Sample ID: 0107L423-011

Sample wt/vol: 4.40 (g/mL) G

Lab File ID: k080208

Level: (low/med) LOW

Date Received: 07/27/01

% Moisture: not dec. 8

Date Analyzed: 08/02/01

Column: (pack/cap) CAP

Dilution Factor: 1.14

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND		
75-71-8	Dichlorodifluoromethane	12	U
74-87-3	Chloromethane	12	U
75-01-4	Vinyl Chloride	12	U
74-83-9	Bromomethane	12	U
75-00-3	Chloroethane	12	U
75-69-4	Trichlorofluoromethane	6	U
75-35-4	1,1-Dichloroethene	6	U
76-13-1	Trichlorotrifluoroethane	6	U
67-64-1	Acetone	19	BJ
74-88-4	Iodomethane	6	U
75-15-0	Carbon Disulfide	6	U
75-09-2	Methylene Chloride	12	B
156-60-5	Trans-1,2-dichloroethene	6	U
75-34-3	1,1-Dichloroethane	6	U
78-93-3	2-Butanone	24	U
156-59-2	Cis-1,2-dichloroethene	6	U
590-20-7	2,2-Dichloropropane	6	U
74-97-5	Bromochloromethane	6	U
67-66-3	Chloroform	6	U
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon Tetrachloride	6	U
563-58-6	1,1-dichloropropene	6	U
71-43-2	Benzene	6	U
107-06-2	1,2-Dichloroethane	6	U
79-01-6	Trichloroethene	6	U
78-87-5	1,2-Dichloropropane	6	U
74-95-3	Dibromomethane	6	U
75-27-4	Bromodichloromethane	6	U
10061-01-5	cis-1,3-Dichloropropene	6	U
108-10-1	4-Methyl-2-pentanone	24	U
108-88-3	Toluene	6	U
10061-02-6	Trans-1,3-Dichloropropene	6	U
79-00-5	1,1,2-Trichloroethane	6	U
127-18-4	Tetrachloroethene	6	U

1B
VOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

RC03-01-0008 06

Lab Name: Lionville Labs, Inc. Work Order: 02744064001

Client: LANL REQ #9432R

Matrix: SOIL

Lab Sample ID: 0107L423-011

Sample wt/vol: 4.40 (g/mL) G

Lab File ID: k080208

Level: (low/med) LOW

Date Received: 07/27/01

% Moisture: not dec. 8

Date Analyzed: 08/02/01

Column: (pack/cap) CAP

Dilution Factor: 1.14

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND		
142-28-9	1,3-Dichloropropane	6	U
591-78-6	2-Hexanone	24	U
124-48-1	Dibromochloromethane	6	U
106-93-4	1,2-Dibromoethane	6	U
108-90-7	Chlorobenzene	6	U
630-20-6	1,1,1,2-Tetrachloroethane	6	U
100-41-4	Ethylbenzene	6	U
1330-20-7	Xylenes (total)	6	U
100-42-5	Styrene	6	U
75-25-2	Bromoform	6	U
98-82-8	Isopropylbenzene	6	U
108-86-1	Bromobenzene	6	U
96-18-4	1,2,3-Trichloropropane	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U
103-65-1	N-propylbenzene	6	U
95-49-8	2-Chlorotoluene	6	U
106-43-4	4-Chlorotoluene	6	U
108-67-8	1,3,5-Trimethylbenzene	6	U
98-06-6	Tert-butylbenzene	6	U
95-63-6	1,2,4-Trimethylbenzene	6	U
135-98-8	Sec-butylbenzene	6	U
541-73-1	1,3-Dichlorobenzene	6	U
106-46-7	1,4-Dichlorobenzene	6	U
99-87-6	4-Isopropyltoluene	6	U
95-50-1	1,2-Dichlorobenzene	6	U
104-51-8	N-butylbenzene	6	U
96-12-8	1,2-Dibromo-3-chloropropane	12	U

FORM 1 V-2

12/88 Rev.

1E

VOLATILE ORGANICS ANALYSIS SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

RC03-01-0008 06

Lab Name: Lionville Labs, Inc. Work Order: 02744064001

Client: LANL REQ #9432R

Matrix: SOIL

Lab Sample ID: 0107L423-011

Sample wt/vol: 4.40 (g/mL) G

Lab File ID: k080208

Level: (low/med) LOW

Date Received: 07/27/01

% Moisture: not dec. 8

Date Analyzed: 08/02/01

Column: (pack/cap) CAP

Dilution Factor: 1.14

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.				

FORM 1 VOA-TIC

12/88 Rev.

Data File: /chem/msvoa1/5970k.i/k080201.b/k080208.d
Date : 02-AUG-01 17:16:00
Client ID: RC03-01-0008 06
Sample Info: 0107L423-011 K080201,[AL=0624XL],[DC=00]

Column phase: DB-624

Instrument: 5970K.i

Operator: JWG
Column diameter: 0.53

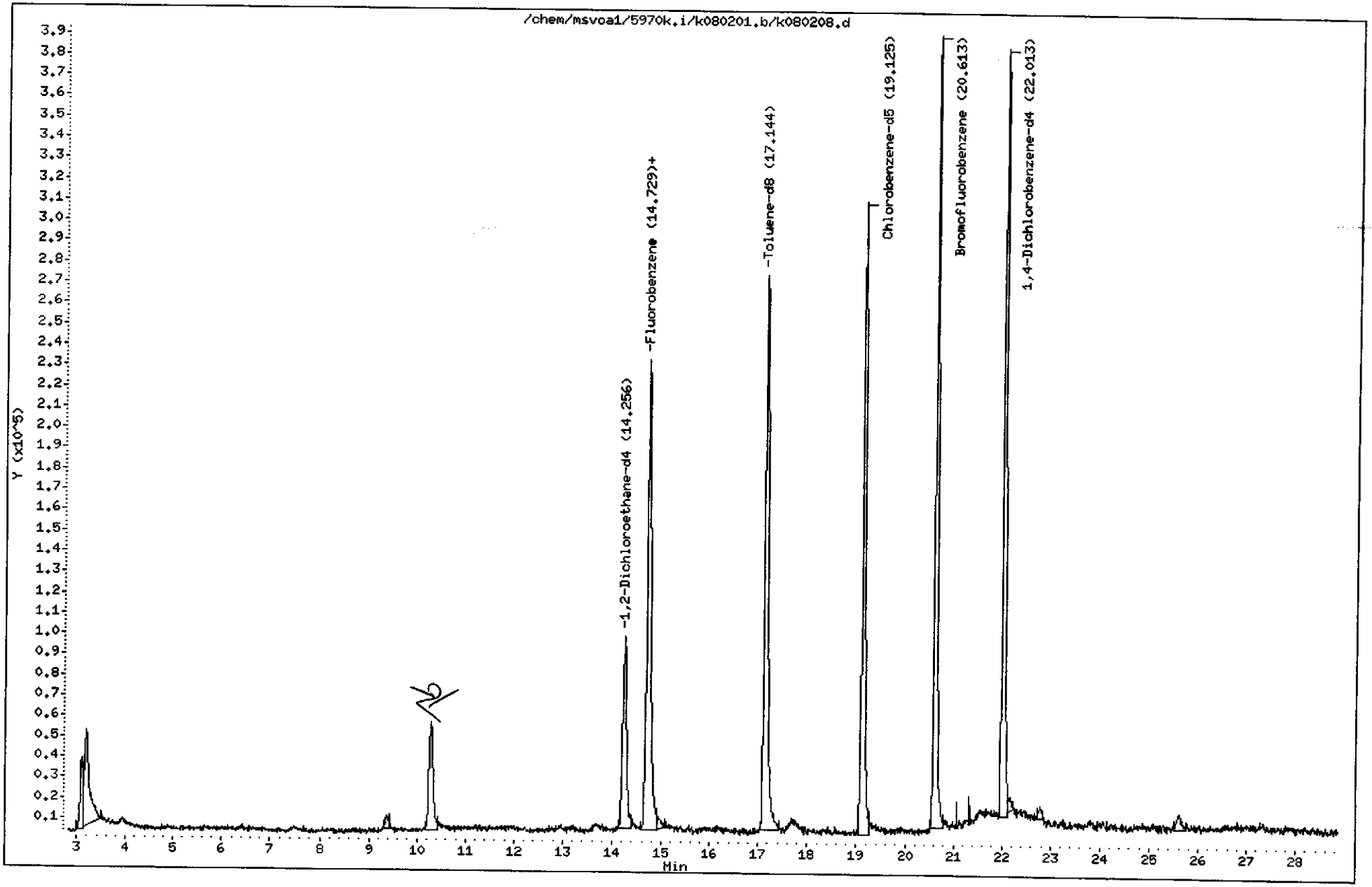

Lionville Laboratory Inc.

Data file : /chem/msvoa1/5970k.i/k080201.b/k080208.d
Lab Smp Id: 0107L423-011 Client Smp ID: RC03-01-0008 06
Inj Date : 02-AUG-01 17:16:00
Operator : JVG Inst ID: 5970K.i
Smp Info : 0107L423-011 K080201,[AL=O624XL],[DC=00]
Misc Info : DIL,1,LANL 4.4G
Comment :
Method : /chem/msvoa1/5970k.i/k080201.b/8260a07s.m
Meth Date : 23-Aug-01 18:00:57 rychlakd Quant Type: ISTD
Cal Date : 01-AUG-2001 01:29 Cal File: K073120.D
Als bottle: 24
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: o624xl.sub
Target Version: 3.30
Processing Host: hp4920a

Concentration Formula: Uf/(Ws*(100-M)/100)

Name	Value	Description
Uf	5.000	ng unit correction factor
Ws	4.400	Weight of sample extracted (g)
M	8.320	% Moisture (not decanted)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (UG/KG)	FINAL (ug/Kg)
* 1 Fluorobenzene	96	14.729	14.742	(1.000)	528672	50.0000	
* 2 Chlorobenzene-d5	117	19.125	19.129	(1.000)	360179	50.0000	
* 3 1,4-Dichlorobenzene-d4	152	22.013	22.027	(1.000)	202278	50.0000	
$ 4 1,2-Dichloroethane-d4	65	14.256	14.260	(0.968)	183266	46.4168	57.533
$ 5 Toluene-d8	98	17.144	17.138	(0.896)	398732	46.9497	58.194
$ 6 Bromofluorobenzene	95	20.613	20.608	(0.936)	307633	53.6954	66.555
7 Dichlorodifluoromethane	85.00	Compound Not Detected.					
8 Chloromethane	50.00	Compound Not Detected.					
9 Vinyl Chloride	62.00	Compound Not Detected.					
10 Bromomethane	94.00	Compound Not Detected.					
11 Chloroethane	64.00	Compound Not Detected.					
12 Trichlorofluoromethane	101.00	Compound Not Detected.					
13 1,1-Dichloroethene	96.00	Compound Not Detected.					
73 Freon-113	151.00	Compound Not Detected.					
15 Acetone	43	9.376	9.401	(0.637)	31977	15.5330	19.253(a)
74 Iodomethane	142.00	Compound Not Detected.					

8/23/01

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (UG/KG)	FINAL (ug/Kg)
	14 Carbon Disulfide	76.00	Compound Not Detected.					
	16 Methylene Chloride	84	10.293	10.288	(0.699)	61233	9.77556	12.117
	17 trans-1,2-Dichloroethene	96.00	Compound Not Detected.					
	19 1,1-Dichloroethane	63.00	Compound Not Detected.					
	22 2-Butanone	43	12.905	12.900	(0.876)	2225	1.42424	1.765(a)
	21 cis-1,2-Dichloroethene	96.00	Compound Not Detected.					
	20 2,2-Dichloropropane	77.00	Compound Not Detected.					
	23 Bromochloromethane	128.00	Compound Not Detected.					
	24 Chloroform	83.00	Compound Not Detected.					
	25 1,1,1-Trichloroethane	97.00	Compound Not Detected.					
	26 Carbon Tetrachloride	117.00	Compound Not Detected.					
	27 1,1-Dichloropropene	77.00	Compound Not Detected.					
	28 Benzene	78.00	Compound Not Detected.					
	29 1,2-Dichloroethane	62	14.748	14.388	(1.001)	10142	2.29109	2.840(a)
	30 Trichloroethene	130.00	Compound Not Detected.					
	31 1,2-Dichloropropane	63.00	Compound Not Detected.					
	32 Dibromomethane	174.00	Compound Not Detected.					
	33 Bromodichloromethane	83.00	Compound Not Detected.					
	34 cis-1,3-Dichloropropene	75.00	Compound Not Detected.					
	35 4-Methyl-2-Pentanone	43.00	Compound Not Detected.					
	36 Toluene	91.00	Compound Not Detected.					
	37 trans-1,3-Dichloropropene	75.00	Compound Not Detected.					
	38 1,1,2-Trichloroethane	97.00	Compound Not Detected.					
	39 Tetrachloroethene	164.00	Compound Not Detected.					
	40 1,3-Dichloropropane	76.00	Compound Not Detected.					
	41 2-Hexanone	43.00	Compound Not Detected.					
	42 Dibromochloromethane	129.00	Compound Not Detected.					
	43 1,2-Dibromoethane	107.00	Compound Not Detected.					
	44 Chlorobenzene	112.00	Compound Not Detected.					
	45 1,1,1,2-Tetrachloroethane	131.00	Compound Not Detected.					
	46 Ethylbenzene	106.00	Compound Not Detected.					
	47 m & p-Xylene	106.00	Compound Not Detected.					
	48 o-Xylene	106.00	Compound Not Detected.					
M	50 Xylenes (Total)	106.00	Compound Not Detected.					
	49 Styrene	104.00	Compound Not Detected.					
	51 Bromoform	173.00	Compound Not Detected.					
	52 Isopropylbenzene	105.00	Compound Not Detected.					
	54 Bromobenzene	77.00	Compound Not Detected.					
	55 1,2,3-Trichloropropane	110.00	Compound Not Detected.					
	53 1,1,2,2-Tetrachloroethane	83.00	Compound Not Detected.					
	56 N-Propylbenzene	120.00	Compound Not Detected.					
	57 2-Chlorotoluene	126.00	Compound Not Detected.					
	59 4-Chlorotoluene	126.00	Compound Not Detected.					
	58 1,3,5-Trimethylbenzene	105.00	Compound Not Detected.					
	60 Tert-Butylbenzene	134.00	Compound Not Detected.					
	61 1,2,4-Trimethylbenzene	105.00	Compound Not Detected.					
	62 Sec-Butylbenzene	134.00	Compound Not Detected.					

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (UG/KG)	FINAL (ug/Kg)
63 1,3-Dichlorobenzene	146.00	Compound Not Detected.					
65 1,4-Dichlorobenzene	146.00	Compound Not Detected.					
64 4-Isopropyltoluene	119.00	Compound Not Detected.					
67 1,2-Dichlorobenzene	146.00	Compound Not Detected.					
66 N-Butylbenzene	134.00	Compound Not Detected.					
68 1,2-Dibromo-3-chloropropane	157.00	Compound Not Detected.					

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

Data File: /chem/msvoa1/5970k.i/k080201.b/k080208.d

Date : 02-AUG-01 17:16:00

Client ID: RC03-01-0008 06

Instrument: 5970K.i

Sample Info: 0107L423-011 K080201,[AL=0624XL],[DC=00]

Operator: JVG

Column phase: DB-624

Column diameter: 0.53

15 Acetone

Concentration: 19.253 ug/Kg

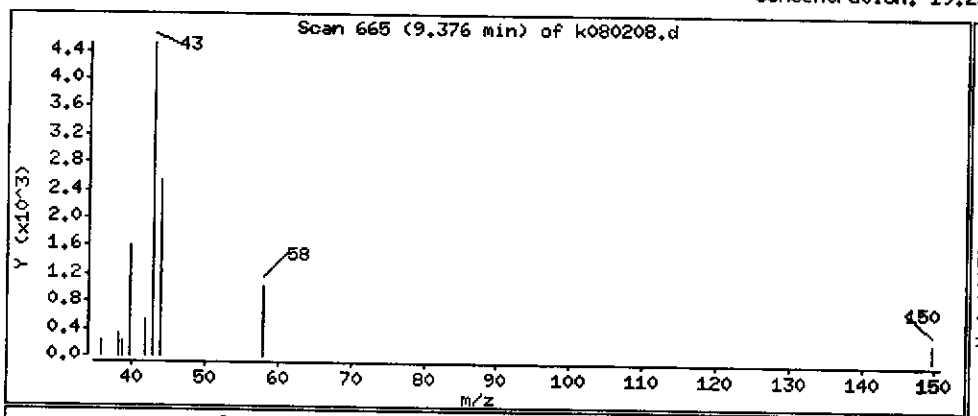

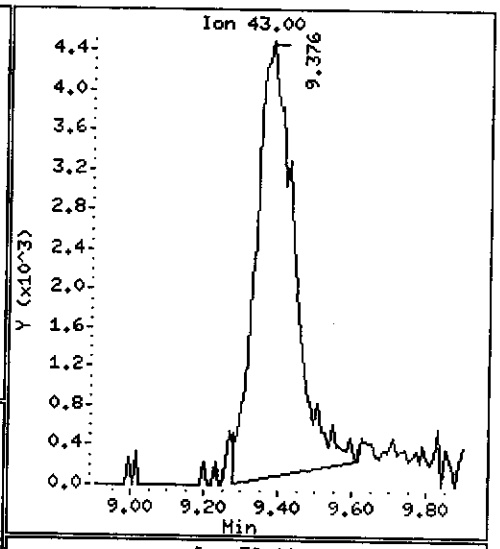

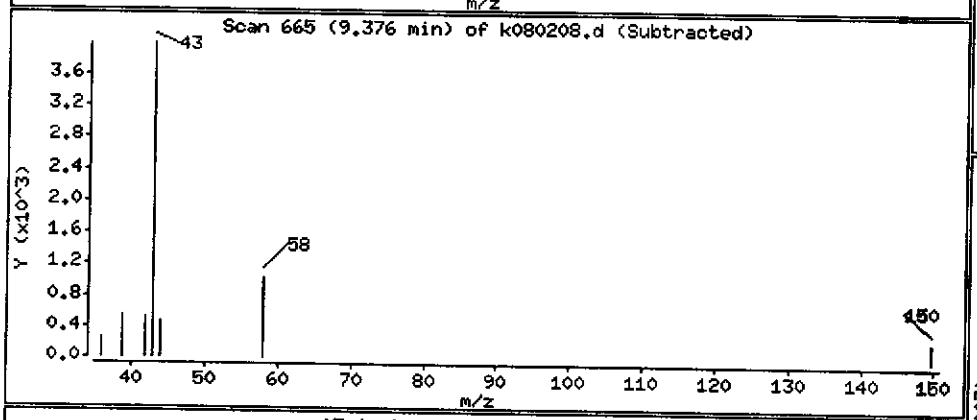

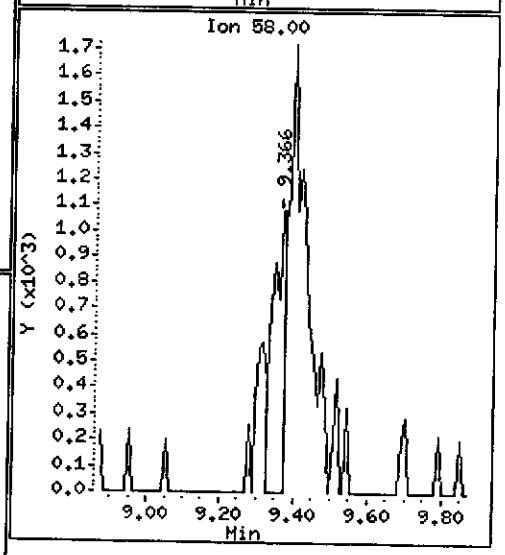

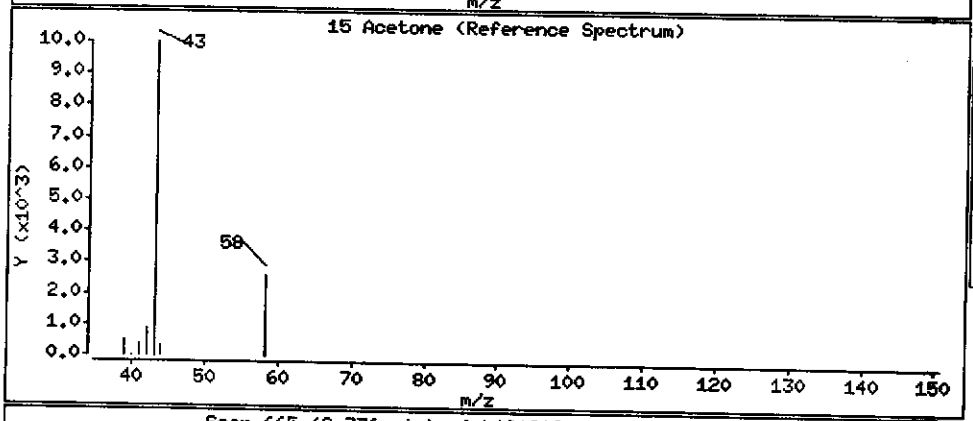

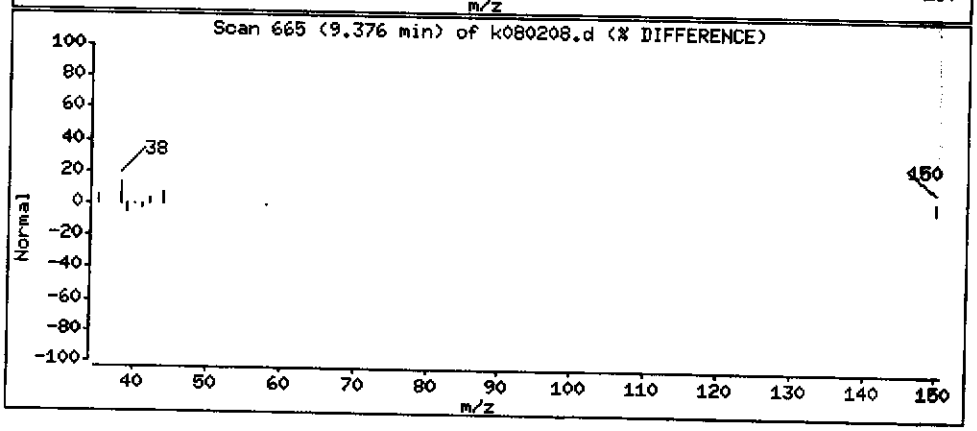

Data File: /chem/msvoa1/5970k.i/k080201.b/k080208.d

Date : 02-AUG-01 17:16:00

Client ID: RC03-01-0008 06

Instrument: 5970K.i

Sample Info: 0107L423-011 K080201,[AL=0624XL],[DC=00]

Operator: JVG

Column phase: DB-624

Column diameter: 0.53

16 Methylene Chloride

Concentration: 12.117 ug/Kg

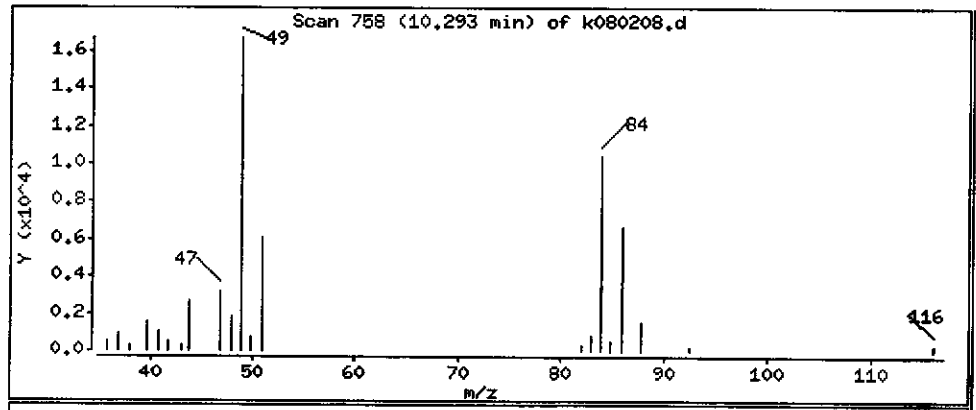

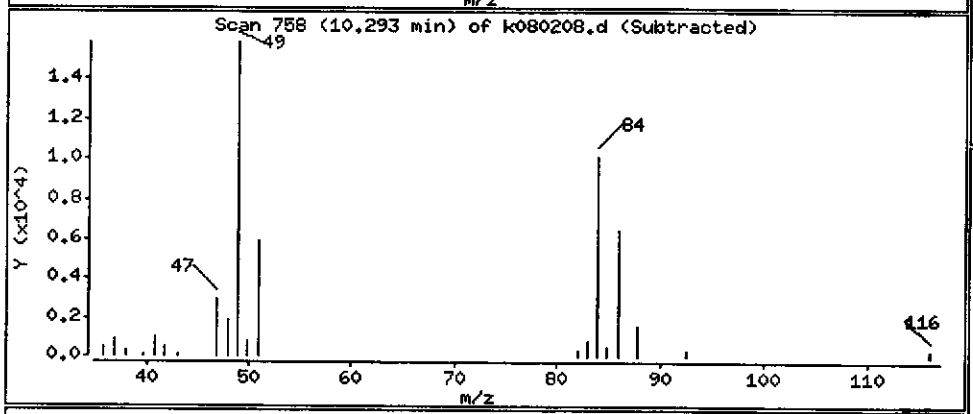

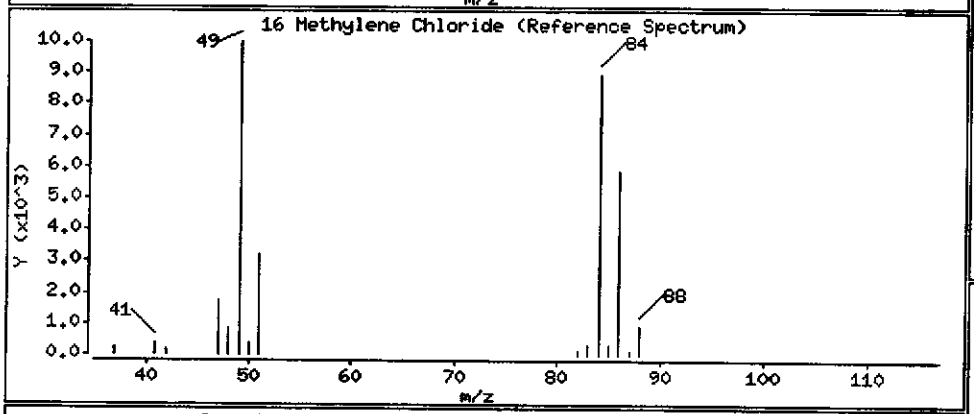

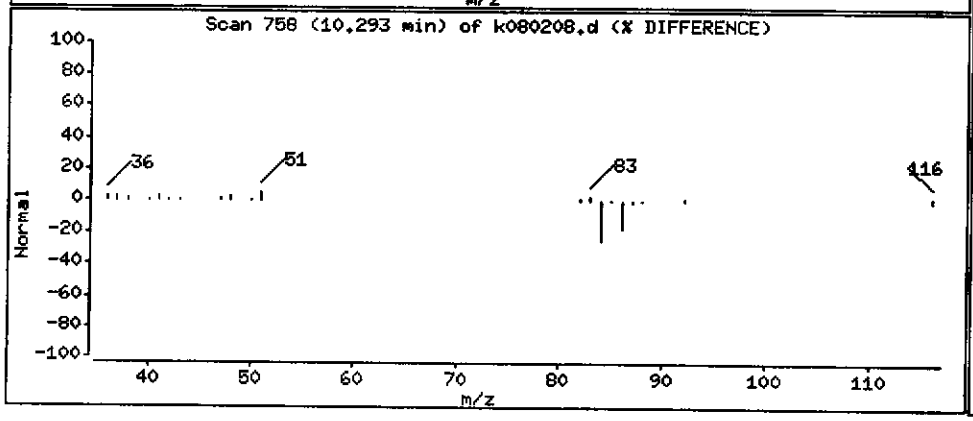

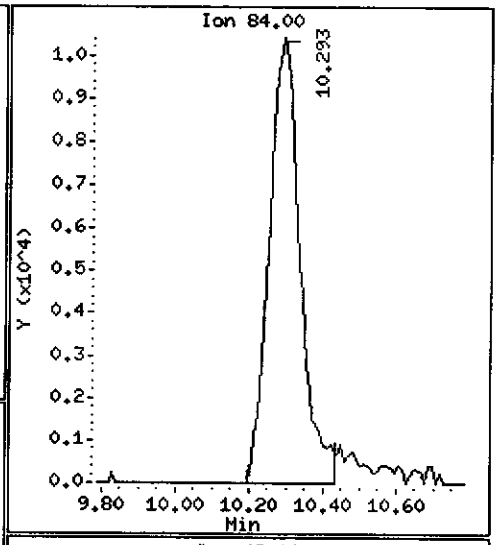

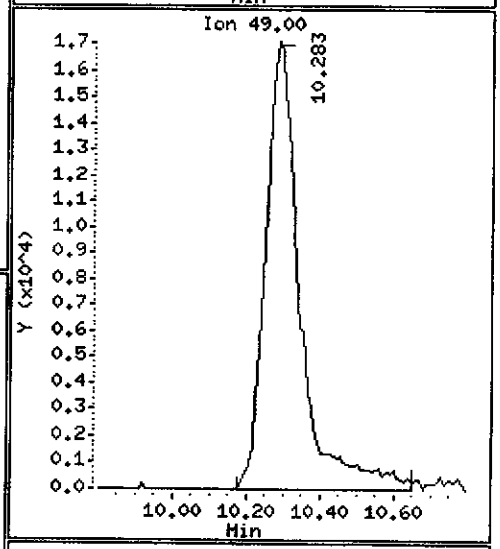

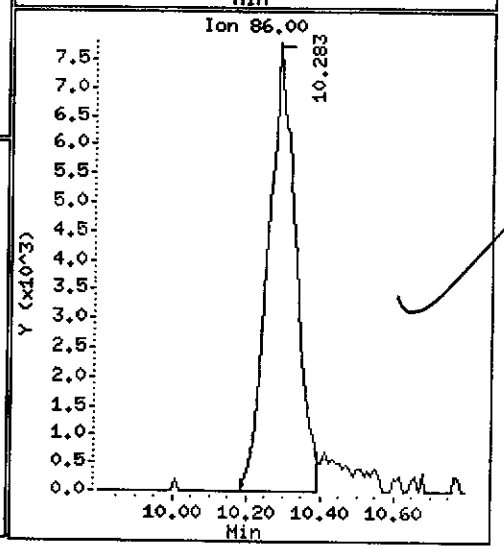

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Date : 02-AUG-01 17:16:00

Client ID: RC03-01-0008 06

Instrument: 5970K.i

Sample Info: 0107L423-011 K080201,[AL=0624XL],[DC=00]

Operator: JWG

Column phase: DB-624

Column diameter: 0.53

22 2-Butanone

Concentration: 1.765 ug/Kg

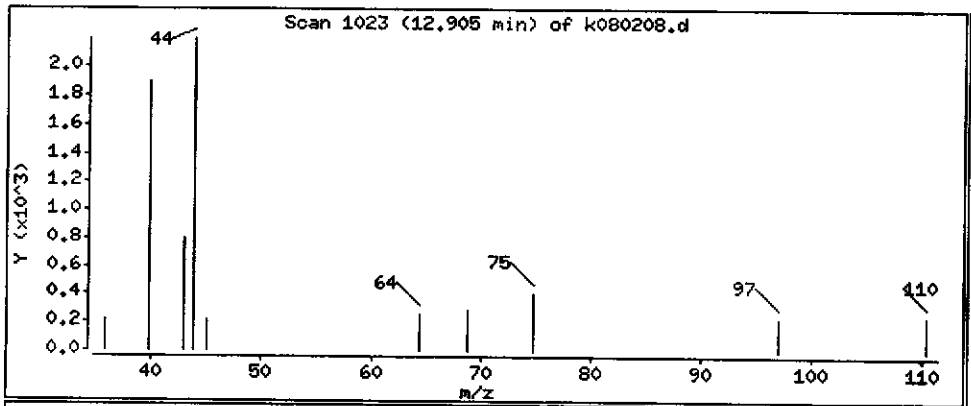

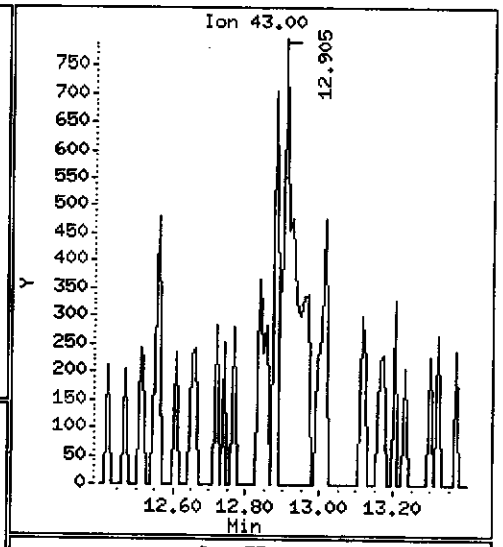

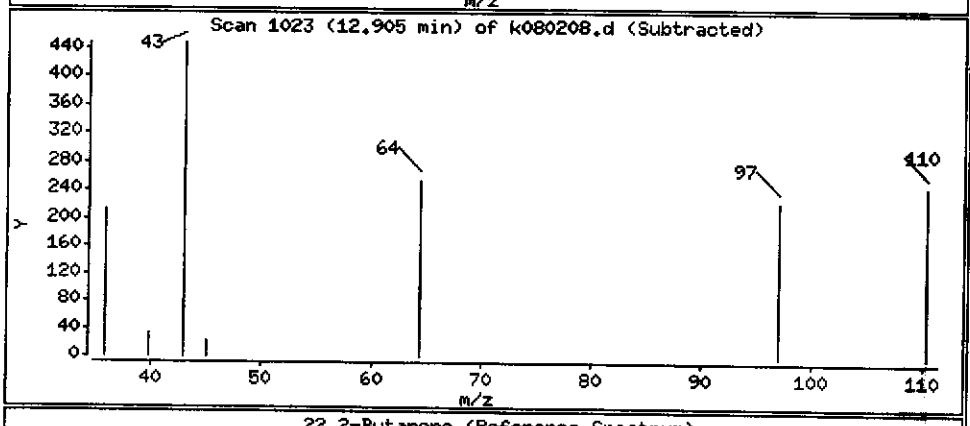

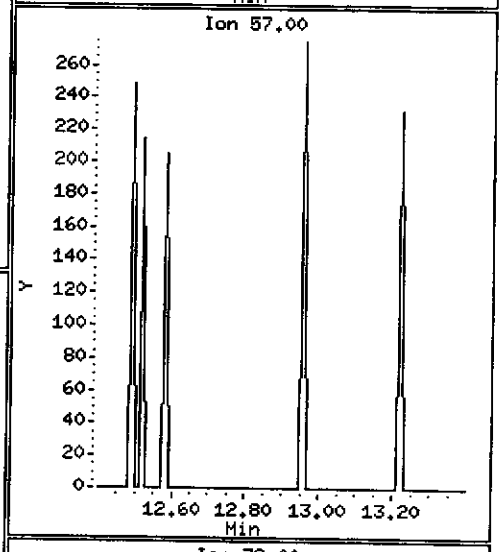

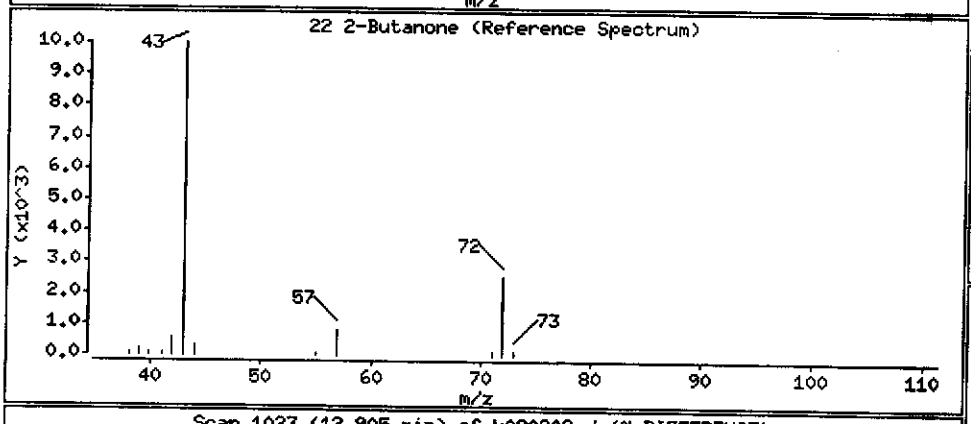

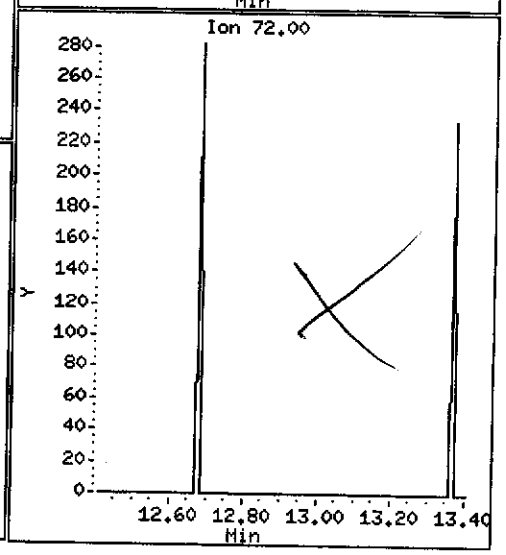

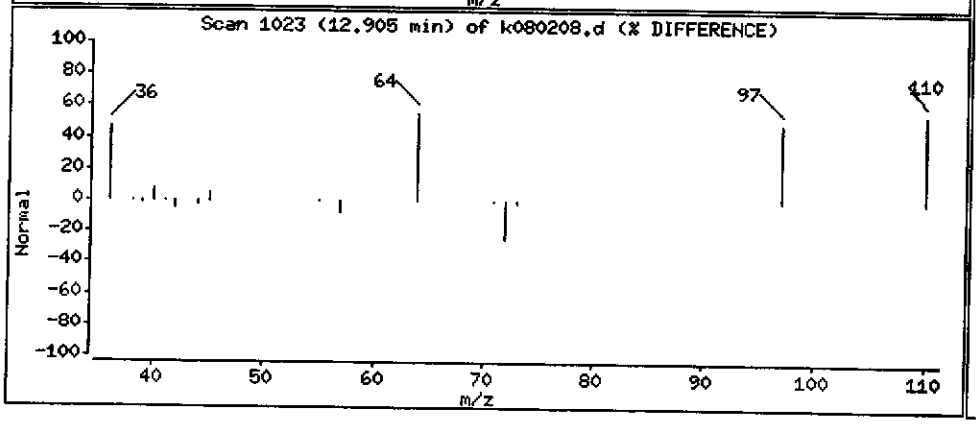

Data File: /chem/msvoa1/5970k.i/k080201.b/k080208.d

Date : 02-AUG-01 17:16:00

Client ID: RC03-01-0008 06

Instrument: 5970K.i

Sample Info: 0107L423-011 K080201,[AL=0624XL],[DC=00]

Operator: JVG

Column phase: DB-624

Column diameter: 0.53

29 1,2-Dichloroethane

Concentration: 2.840 ug/Kg

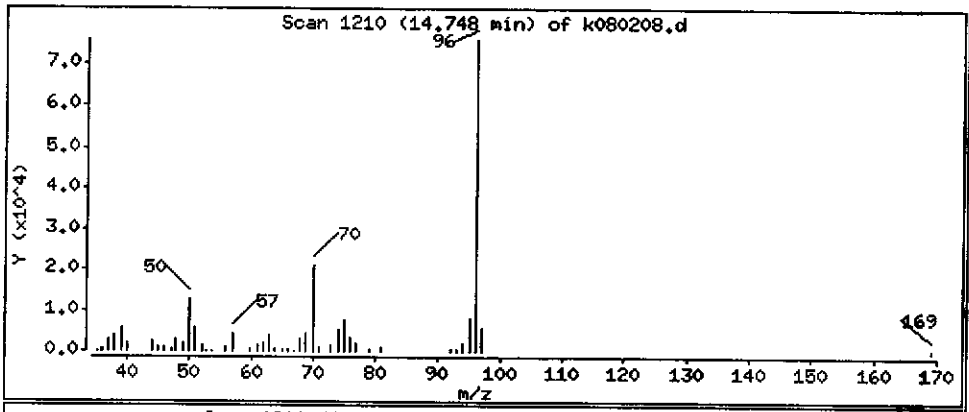

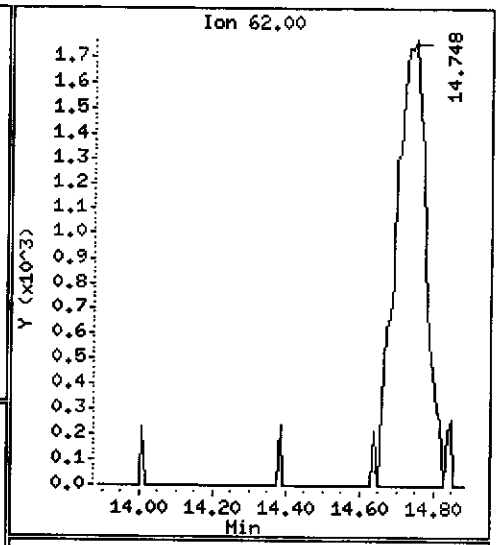

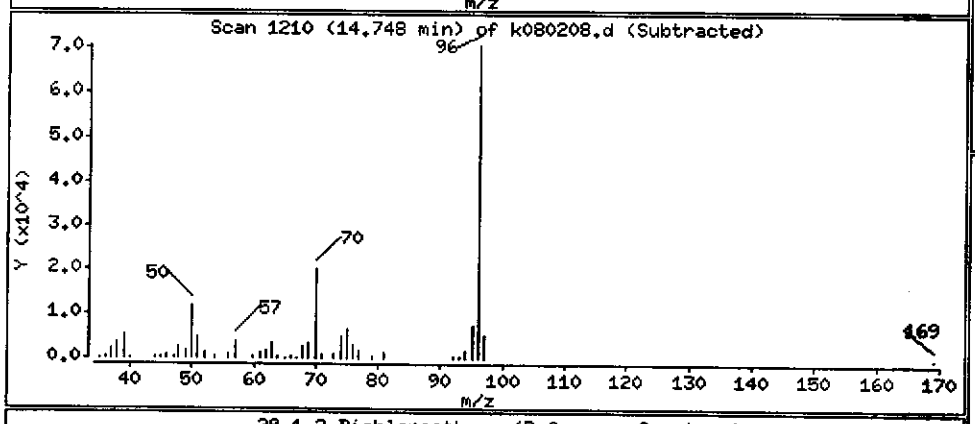

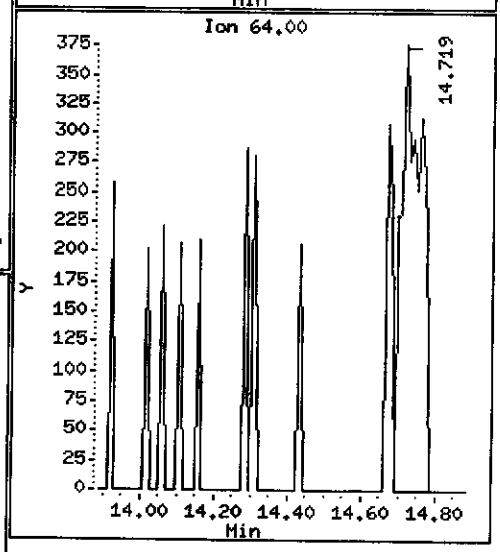

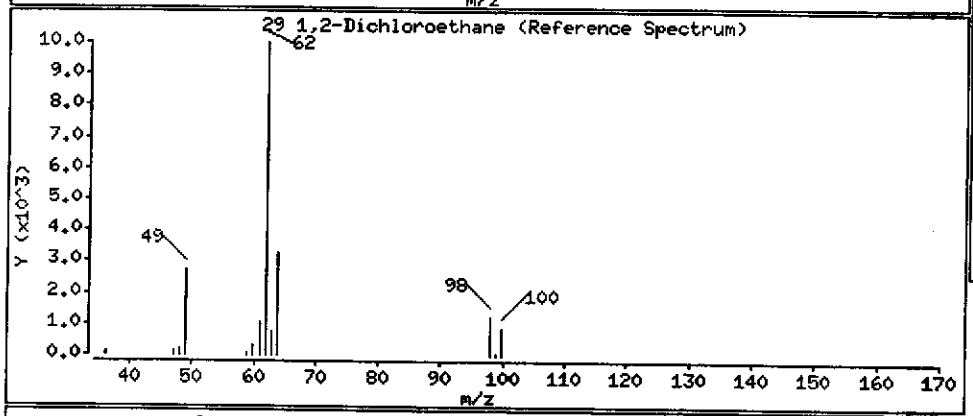

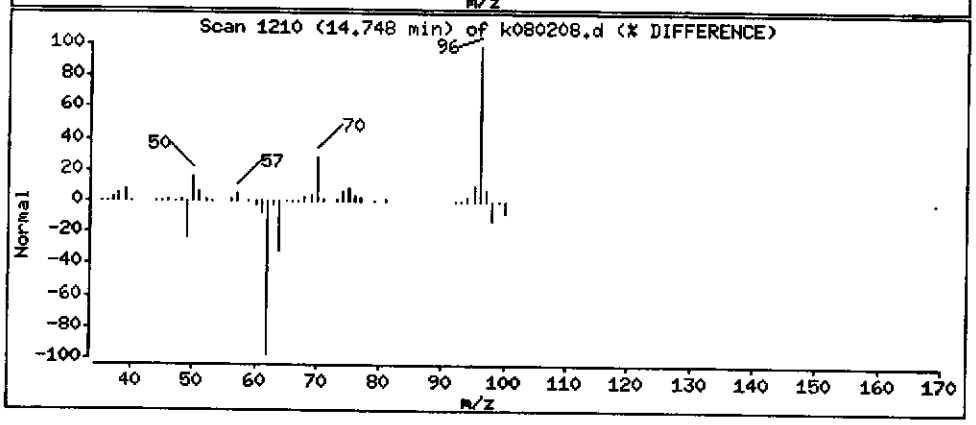

1A
VOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

RC03-01-0009 06

Lab Name: Lionville Labs, Inc. Work Order: 02744064001

Client: LANL REQ #9432R

Matrix: SOIL

Lab Sample ID: 0107L423-013

Sample wt/vol: 5.30 (g/mL) G

Lab File ID: k080209

Level: (low/med) LOW

Date Received: 07/27/01

% Moisture: not dec. 6

Date Analyzed: 08/02/01

Column: (pack/cap) CAP

Dilution Factor: 0.943

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND		
75-71-8	Dichlorodifluoromethane	10	U
74-87-3	Chloromethane	10	U
75-01-4	Vinyl Chloride	10	U
74-83-9	Bromomethane	10	U
75-00-3	Chloroethane	10	U
75-69-4	Trichlorofluoromethane	5	U
75-35-4	1,1-Dichloroethene	5	U
76-13-1	Trichlorotrifluoroethane	5	U
67-64-1	Acetone	15	BJ
74-88-4	Iodomethane	5	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	12	B
156-60-5	Trans-1,2-dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
78-93-3	2-Butanone	20	U
156-59-2	Cis-1,2-dichloroethene	5	U
590-20-7	2,2-Dichloropropane	5	U
74-97-5	Bromochloromethane	5	U
67-66-3	Chloroform	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
563-58-6	1,1-dichloropropene	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U
79-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
74-95-3	Dibromomethane	5	U
75-27-4	Bromodichloromethane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
108-10-1	4-Methyl-2-pentanone	20	U
108-88-3	Toluene	5	U
10061-02-6	Trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
127-18-4	Tetrachloroethene	5	U

1B
VOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

RC03-01-0009 06

Lab Name: Lionville Labs, Inc. Work Order: 02744064001

Client: LANL REQ #9432R

Matrix: SOIL

Lab Sample ID: 0107L423-013

Sample wt/vol: 5.30 (g/mL) G

Lab File ID: k080209

Level: (low/med) LOW

Date Received: 07/27/01

% Moisture: not dec. 6

Date Analyzed: 08/02/01

Column: (pack/cap) CAP

Dilution Factor: 0.943

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND		
142-28-9	1,3-Dichloropropane	5	U
591-78-6	2-Hexanone	20	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
630-20-6	1,1,1,2-Tetrachloroethane	5	U
100-41-4	Ethylbenzene	5	U
1330-20-7	Xylenes (total)	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
98-82-8	Isopropylbenzene	5	U
108-86-1	Bromobenzene	5	U
96-18-4	1,2,3-Trichloropropane	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
103-65-1	N-propylbenzene	5	U
95-49-8	2-Chlorotoluene	5	U
106-43-4	4-Chlorotoluene	5	U
108-67-8	1,3,5-Trimethylbenzene	5	U
98-06-6	Tert-butylbenzene	5	U
95-63-6	1,2,4-Trimethylbenzene	5	U
135-98-8	Sec-butylbenzene	5	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
99-87-6	4-Isopropyltoluene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
104-51-8	N-butylbenzene	5	U
96-12-8	1,2-Dibromo-3-chloropropane	10	U

FORM 1 V-2 12/88 Rev.

1E
VOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

RC03-01-0009 06

Lab Name: Lionville Labs, Inc. Work Order: 02744064001

Client: LANL REQ #9432R

Matrix: SOIL

Lab Sample ID: 0107L423-013

Sample wt/vol: 5.30 (g/mL) G

Lab File ID: k080209

Level: (low/med) LOW

Date Received: 07/27/01

% Moisture: not dec. 6

Date Analyzed: 08/02/01

Column: (pack/cap) CAP

Dilution Factor: 0.943

Number TICs found: 1

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	21.524	5	J

FORM 1 VOA-TIC 12/88 Rev.

Data File: /chem/msvoa1/5970k.i/k080201.b/k080209.d
Date : 02-AUG-01 17:59:00
Client ID: RC03-01-0009 06
Sample Info: 0107L423-013 K080201,[AL=0624XL],[DC=00]

Column phase: DB-624

Instrument: 5970K.i

Operator: JVG
Column diameter: 0.53

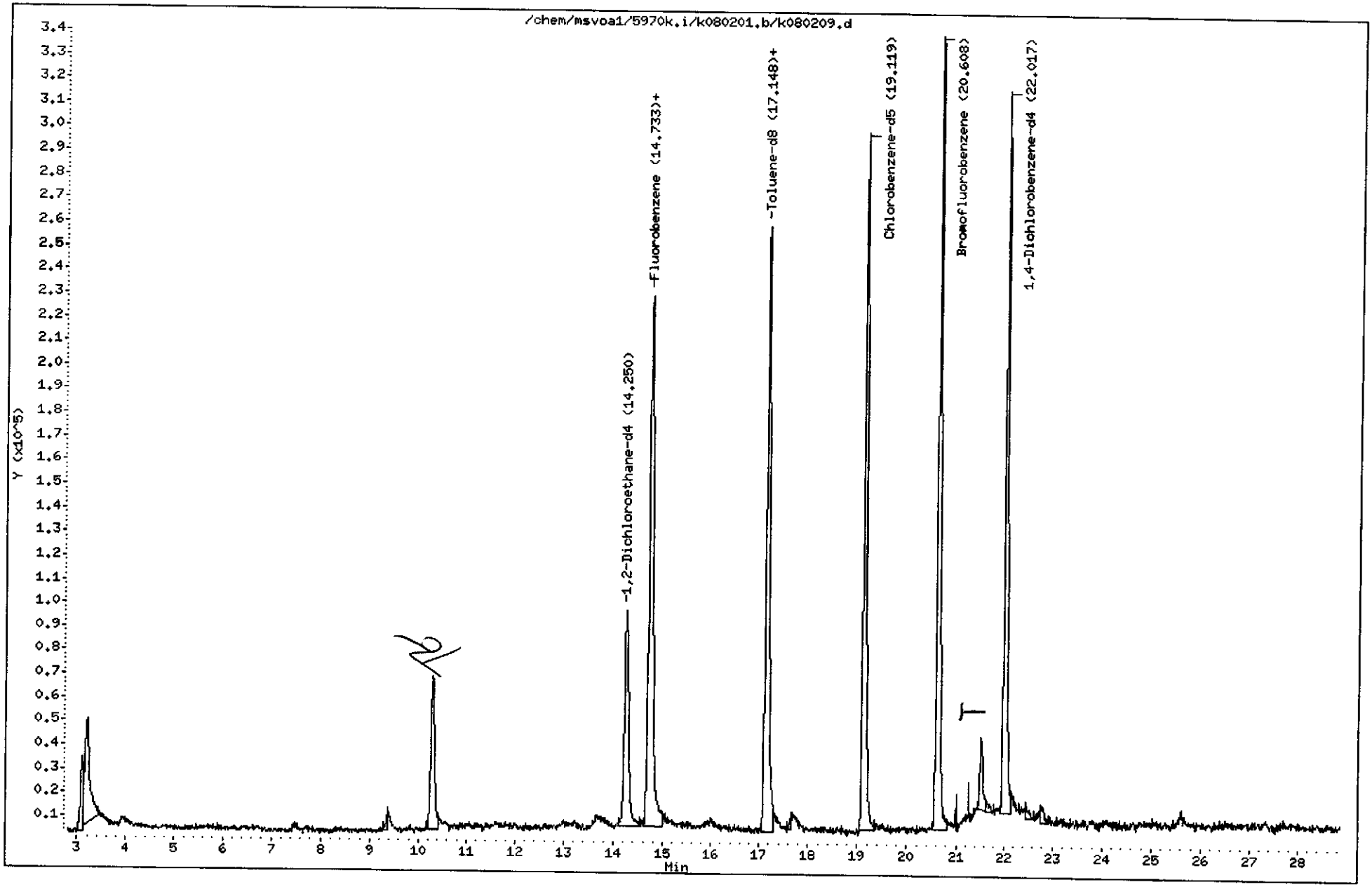

Lionville Laboratory Inc.

Data file : /chem/msvoa1/5970k.i/k080201.b/k080209.d
Lab Smp Id: 0107L423-013 Client Smp ID: RC03-01-0009 06
Inj Date : 02-AUG-01 17:59:00
Operator : JVG Inst ID: 5970K.i
Smp Info : 0107L423-013 K080201,[AL=O624XL],[DC=00]
Misc Info : DIL,1,LANL 5.3G
Comment :
Method : /chem/msvoa1/5970k.i/k080201.b/8260a07s.m
Meth Date : 23-Aug-01 18:00:57 rychlakd Quant Type: ISTD
Cal Date : 01-AUG-2001 01:29 Cal File: K073120.D
Als bottle: 25
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: o624xl.sub
Target Version: 3.30
Processing Host: hp4920a

Concentration Formula: Uf/(Ws*(100-M)/100)

Name	Value	Description
Uf	5.000	ng unit correction factor
Ws	5.300	Weight of sample extracted (g)
M	6.410	% Moisture (not decanted)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (UG/KG)	FINAL (ug/Kg)
* 1 Fluorobenzene	96	14.733	14.742	(1.000)	525154	50.0000	
* 2 Chlorobenzene-d5	117	19.129	19.129	(1.000)	341318	50.0000	
* 3 1,4-Dichlorobenzene-d4	152	22.017	22.027	(1.000)	161733	50.0000	
$ 4 1,2-Dichloroethane-d4	65	14.250	14.260	(0.967)	177240	45.1913	45.553
$ 5 Toluene-d8	98	17.148	17.138	(0.896)	379838	47.1965	47.574
$ 6 Bromofluorobenzene	95	20.608	20.608	(0.936)	265757	58.0148	58.480
7 Dichlorodifluoromethane	85.00	Compound Not Detected.					
8 Chloromethane	50.00	Compound Not Detected.					
9 Vinyl Chloride	62.00	Compound Not Detected.					
10 Bromomethane	94.00	Compound Not Detected.					
11 Chloroethane	64.00	Compound Not Detected.					
12 Trichlorofluoromethane	101.00	Compound Not Detected.					
13 1,1-Dichloroethene	96.00	Compound Not Detected.					
73 Freon-113	151.00	Compound Not Detected.					
15 Acetone	43	9.390	9.401	(0.637)	29428	14.3906	14.506(a)
74 Iodomethane	142.00	Compound Not Detected.					

M 8/23/01

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (UG/KG)	FINAL (ug/Kg)
14 Carbon Disulfide	76.00	Compound Not Detected.					
16 Methylene Chloride	84	10.287	10.288	(0.698)	74072	11.9045	12.000
17 trans-1,2-Dichloroethene	96.00	Compound Not Detected.					
19 1,1-Dichloroethane	63.00	Compound Not Detected.					
22 2-Butanone	43	12.909	12.900	(0.876)	1745	1.12447	1.133(a)
21 cis-1,2-Dichloroethene	96.00	Compound Not Detected.					
20 2,2-Dichloropropane	77.00	Compound Not Detected.					
23 Bromochloromethane	128.00	Compound Not Detected.					
24 Chloroform	83.00	Compound Not Detected.					
25 1,1,1-Trichloroethane	97.00	Compound Not Detected.					
26 Carbon Tetrachloride	117.00	Compound Not Detected.					
27 1,1-Dichloropropene	77.00	Compound Not Detected.					
28 Benzene	78.00	Compound Not Detected.					
29 1,2-Dichloroethane	62	14.723	14.388	(0.999)	9048	2.05764	2.074(a)
30 Trichloroethene	130.00	Compound Not Detected.					
31 1,2-Dichloropropane	63.00	Compound Not Detected.					
32 Dibromomethane	174.00	Compound Not Detected.					
33 Bromodichloromethane	83.00	Compound Not Detected.					
34 cis-1,3-Dichloropropene	75.00	Compound Not Detected.					
35 4-Methyl-2-Pentanone	43	17.128	17.040	(0.895)	5202	1.27269	1.283(a)
36 Toluene	91.00	Compound Not Detected.					
37 trans-1,3-Dichloropropene	75.00	Compound Not Detected.					
38 1,1,2-Trichloroethane	97.00	Compound Not Detected.					
39 Tetrachloroethene	164.00	Compound Not Detected.					
40 1,3-Dichloropropane	76.00	Compound Not Detected.					
41 2-Hexanone	43.00	Compound Not Detected.					
42 Dibromochloromethane	129.00	Compound Not Detected.					
43 1,2-Dibromoethane	107.00	Compound Not Detected.					
44 Chlorobenzene	112.00	Compound Not Detected.					
45 1,1,1,2-Tetrachloroethane	131.00	Compound Not Detected.					
46 Ethylbenzene	106.00	Compound Not Detected.					
47 m & p-Xylene	106.00	Compound Not Detected.					
48 o-Xylene	106.00	Compound Not Detected.					
M 50 Xylenes (Total)	106.00	Compound Not Detected.					
49 Styrene	104.00	Compound Not Detected.					
51 Bromoform	173.00	Compound Not Detected.					
52 Isopropylbenzene	105.00	Compound Not Detected.					
54 Bromobenzene	77.00	Compound Not Detected.					
55 1,2,3-Trichloropropane	110.00	Compound Not Detected.					
53 1,1,2,2-Tetrachloroethane	83.00	Compound Not Detected.					
56 N-Propylbenzene	120.00	Compound Not Detected.					
57 2-Chlorotoluene	126.00	Compound Not Detected.					
59 4-Chlorotoluene	126.00	Compound Not Detected.					
58 1,3,5-Trimethylbenzene	105.00	Compound Not Detected.					
60 Tert-Butylbenzene	134.00	Compound Not Detected.					
61 1,2,4-Trimethylbenzene	105.00	Compound Not Detected.					
62 Sec-Butylbenzene	134.00	Compound Not Detected.					

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (UG/KG)	FINAL (ug/Kg)
63 1,3-Dichlorobenzene	146.00	Compound Not Detected.					
65 1,4-Dichlorobenzene	146.00	Compound Not Detected.					
64 4-Isopropyltoluene	119.00	Compound Not Detected.					
67 1,2-Dichlorobenzene	146.00	Compound Not Detected.					
66 N-Butylbenzene	134.00	Compound Not Detected.					
68 1,2-Dibromo-3-chloropropane	157.00	Compound Not Detected.					

QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).

Lionville Laboratory Inc.

Data file : /chem/msvoa1/5970k.i/k080201.b/k080209.d
Lab Smp Id: 0107L423-013 Client Smp ID: RC03-01-0009 06
Inj Date : 02-AUG-01 17:59:00
Operator : JVG Inst ID: 5970K.i
Smp Info : 0107L423-013 K080201,[AL=O624XL],[DC=00]
Misc Info : DIL,1,LANL 5.3G
Comment :
Method : /chem/msvoa1/5970k.i/k080201.b/8260a07s.m
Meth Date : 23-Aug-01 18:00:57 rychlakd Quant Type: ISTD
Cal Date : 01-AUG-2001 01:29 Cal File: K073120.D
Als bottle: 25
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: o624xl.sub
Target Version: 3.30
Processing Host: hp4920a

Concentration Formula: Uf/(Ws*(100-M)/100)

Name	Value	Description
Uf	5.000	ng unit correction factor
Ws	5.300	Weight of sample extracted (g)
M	6.410	% Moisture (not decanted)

ISTD	RT	AREA	AMOUNT
* 3 1,4-Dichlorobenzene-d4	22.017	1186969	50.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(UG/KG)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
3-Heptanone, 6-methyl- UNKNOWN					CAS #: 624-42-0		
21.524	127081	5.35315941	5.396	72	nbs75k.l	5041	3(L)

QC Flag Legend

L - Operator selected an alternate library search match.

M 8/23/01

Data File: /chem/msvoa1/5970k.i/k080201.b/k080209.d

Date : 02-AUG-01 17:59:00

Client ID: RC03-01-0009 06

Instrument: 5970K.i

Sample Info: 0107L423-013 K080201,[AL=0624XL],[DC=00]

Operator: JVC

Column phase: DB-624

Column diameter: 0.53

15 Acetone

Concentration: 14.506 ug/Kg

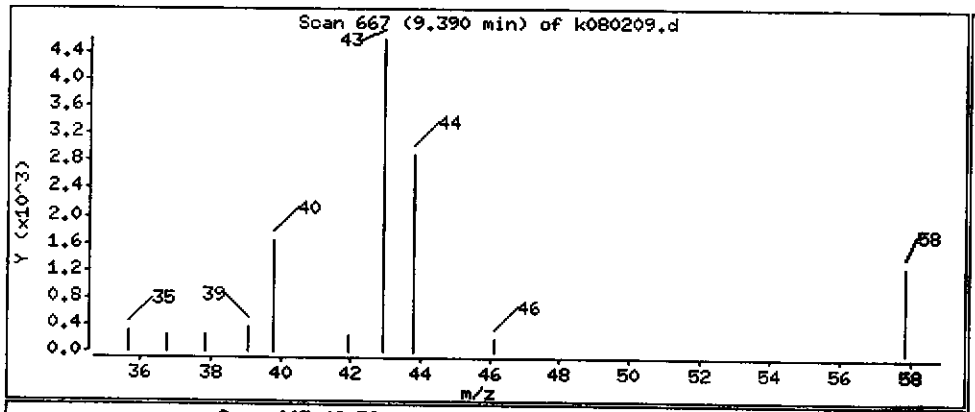

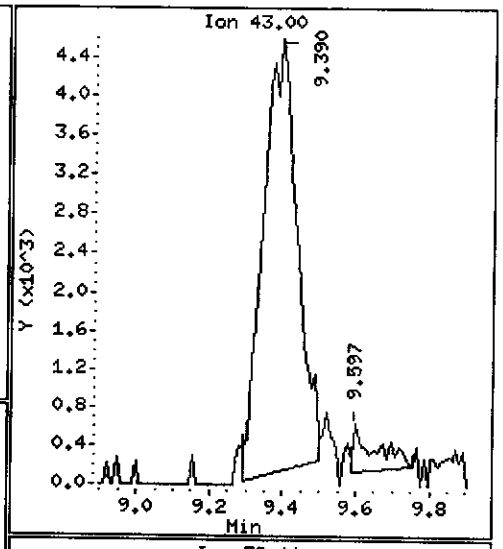

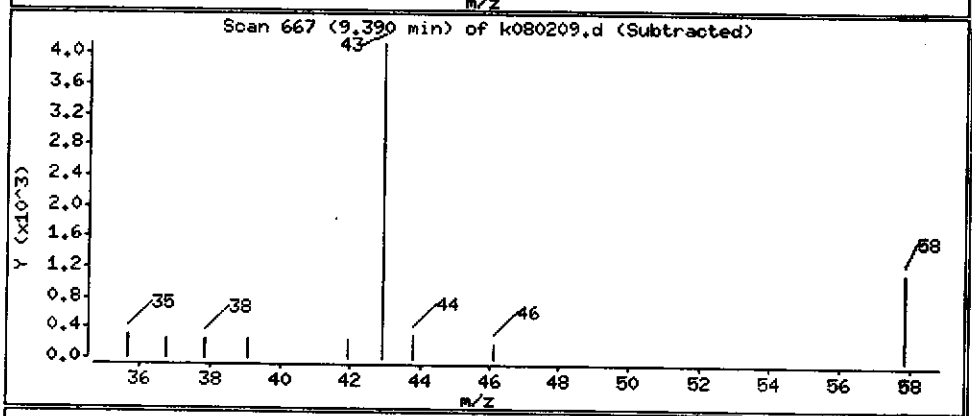

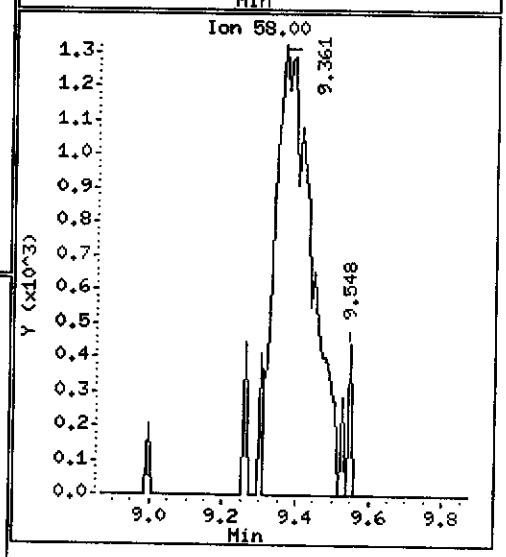

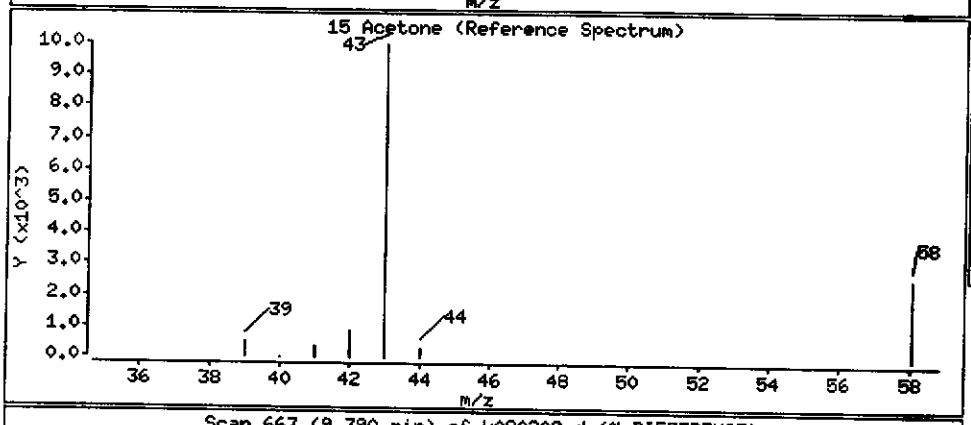

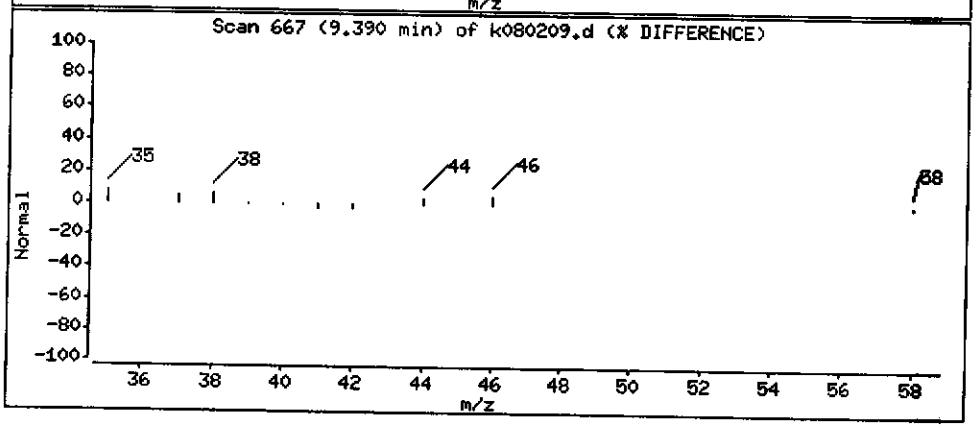

Data File: /chem/msvoa1/5970k.i/k080201.b/k080209.d

Date : 02-AUG-01 17:59:00

Client ID: RC03-01-0009 06

Instrument: 5970K.i

Sample Info: 0107L423-013 K080201,[AL=0624XL],[DC=00]

Operator: JVG

Column phase: DB-624

Column diameter: 0.53

16 Methylene Chloride

Concentration: 12.000 ug/Kg

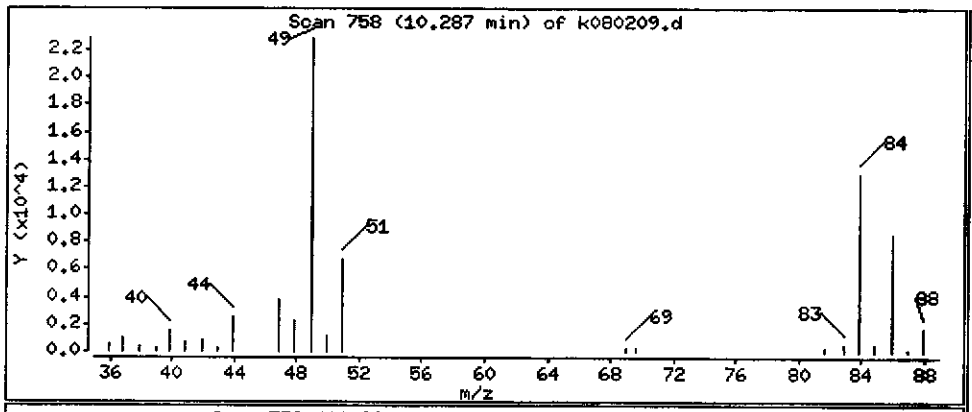

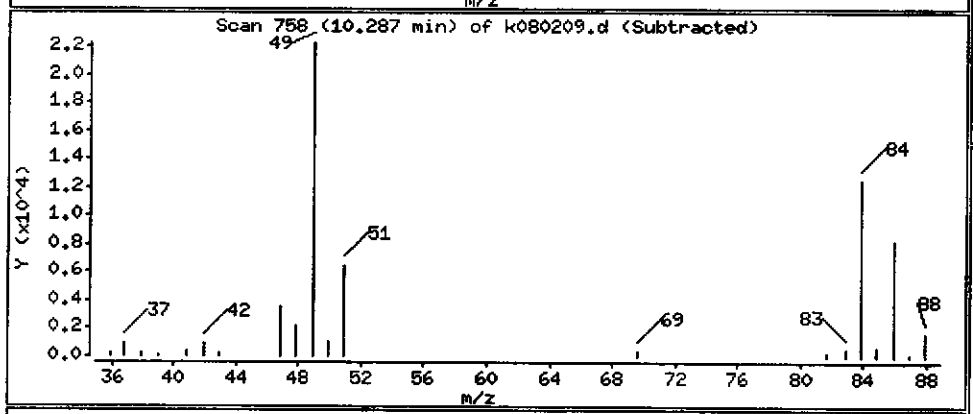

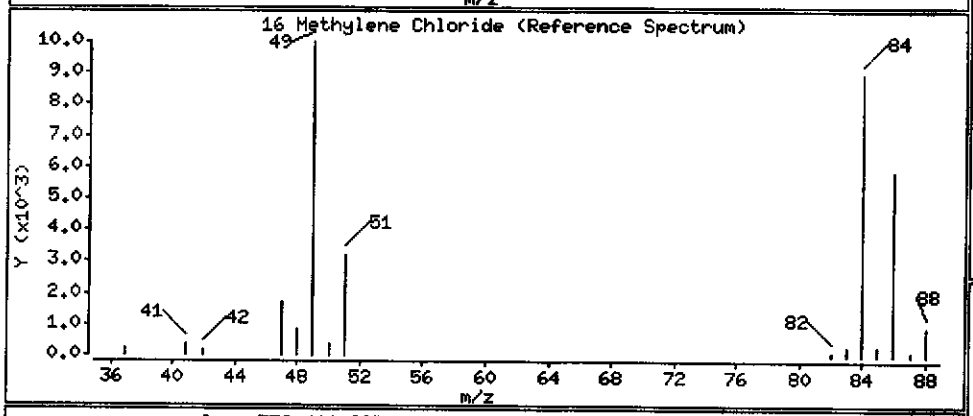

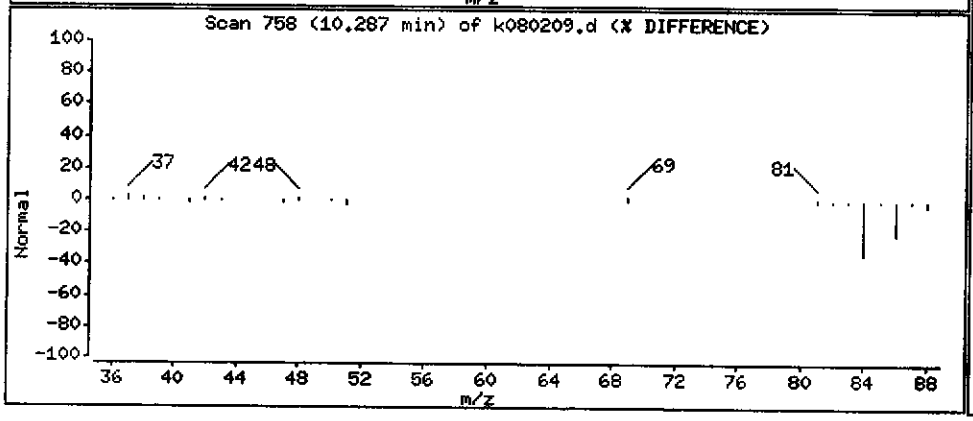

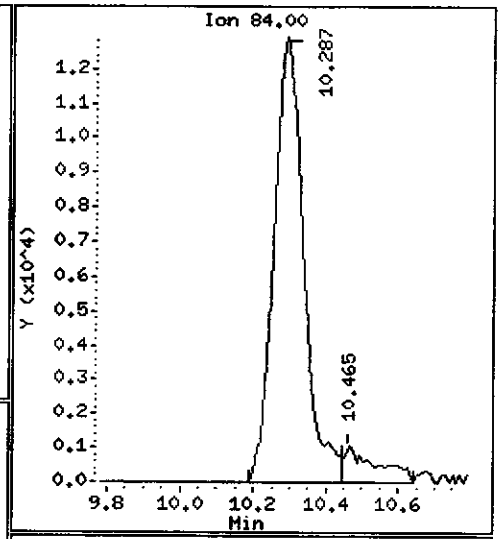

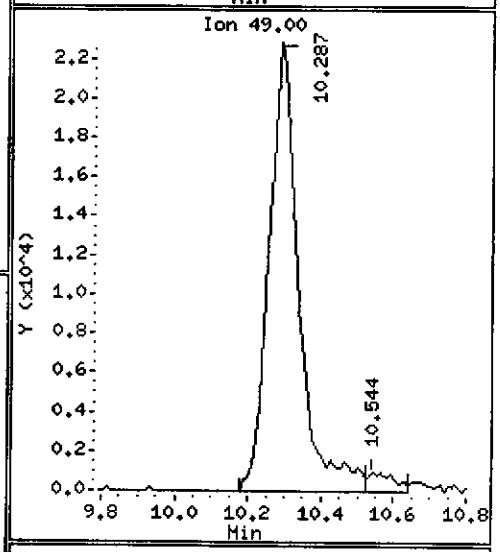

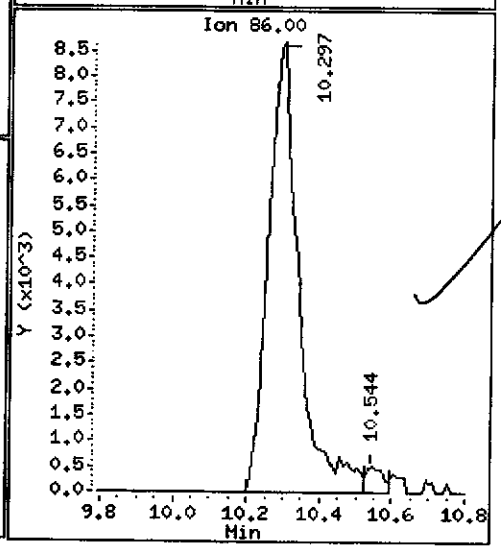

Data File: /chem/msvoa1/5970k.i/k080201.b/k080209.d

Date : 02-AUG-01 17:59:00

Client ID: RC03-01-0009 06

Instrument: 5970K.i

Sample Info: 0107L423-013 K080201,[AL=0624XL],[DC=00]

Operator: JVG

Column phase: DB-624

Column diameter: 0.53

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
3-Heptanone, 6-methyl-	624-42-0	nbs75k.l	5041	72	C8H16O	128
3-Octanone	106-68-3	nbs75k.l	65093	72	C8H16O	128
Butanal, 2-ethyl-	97-96-1	nbs75k.l	63383	47	C6H12O	100

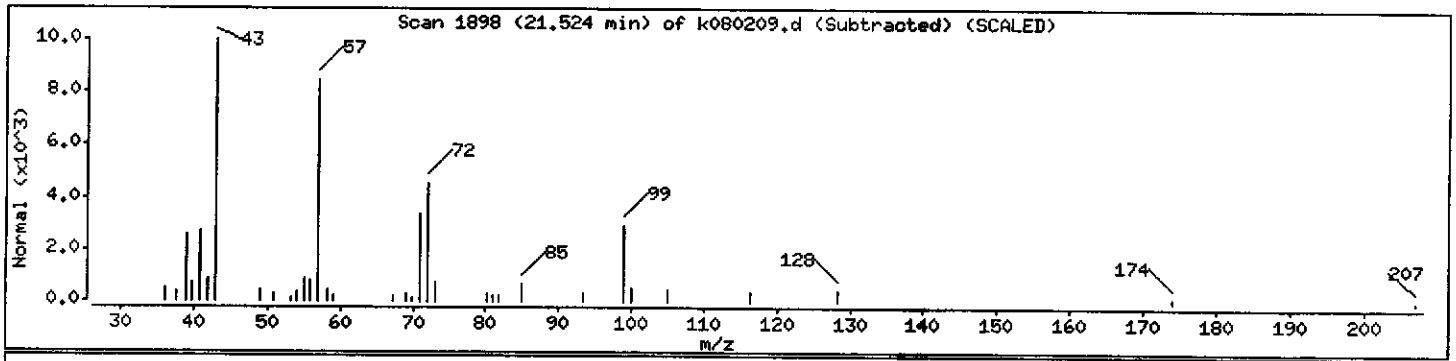

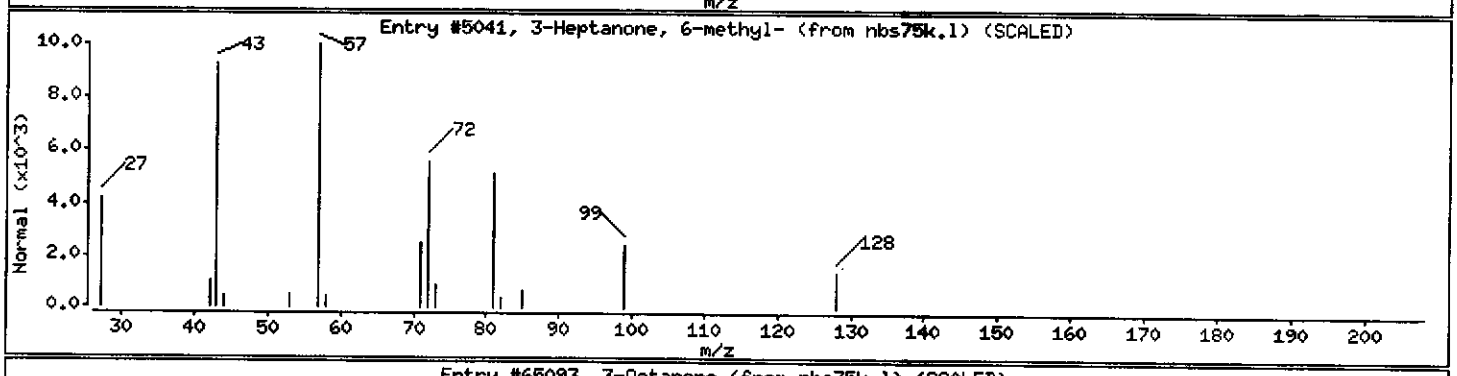

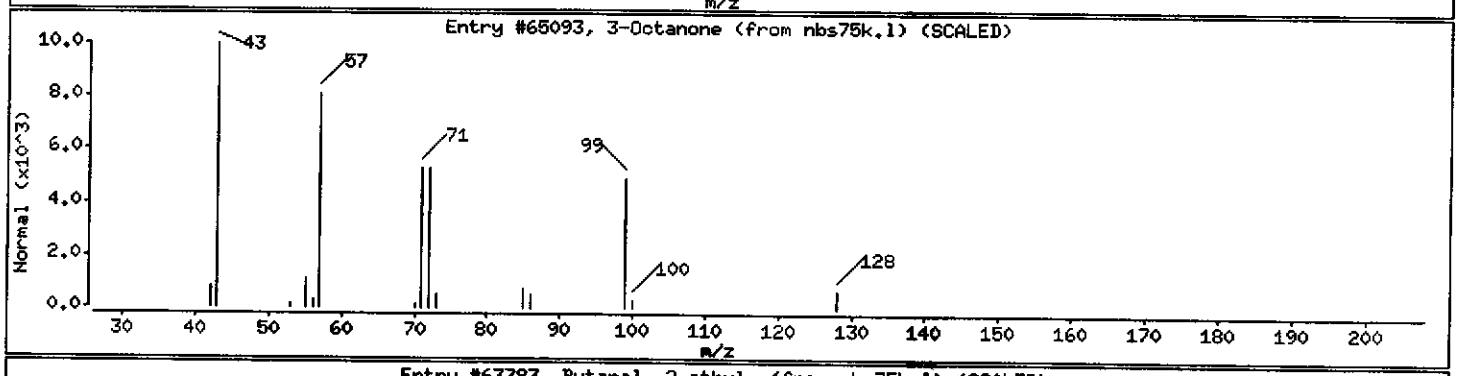

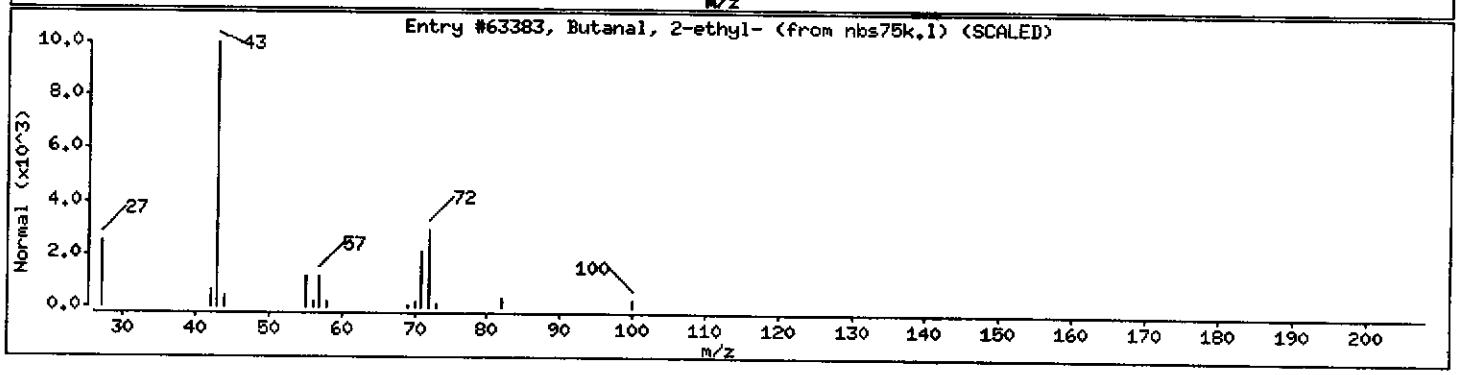

Data File: /chem/msvoa1/5970k.i/k080201.b/k080209.d

Date : 02-AUG-01 17:59:00

Client ID: RC03-01-0009 06

Instrument: 5970K.i

Sample Info: 0107L423-013 K080201,[AL=0624XL],[DC=00]

Operator: JVG

Column phase: DB-624

Column diameter: 0.53

22 2-Butanone

Concentration: 1.133 ug/Kg

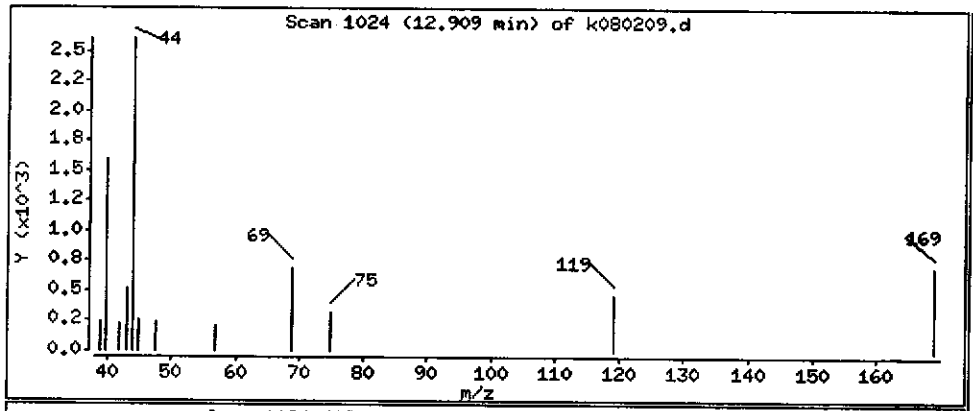

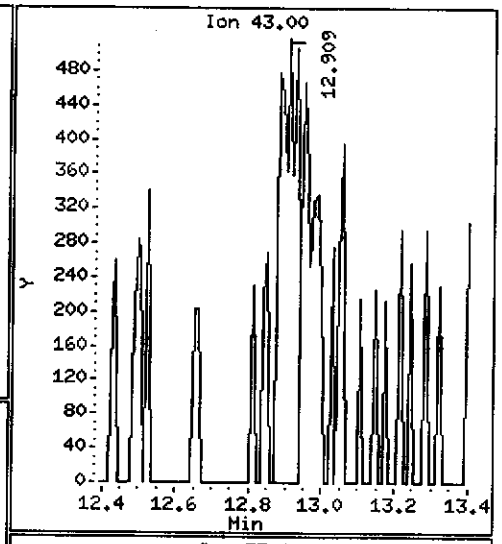

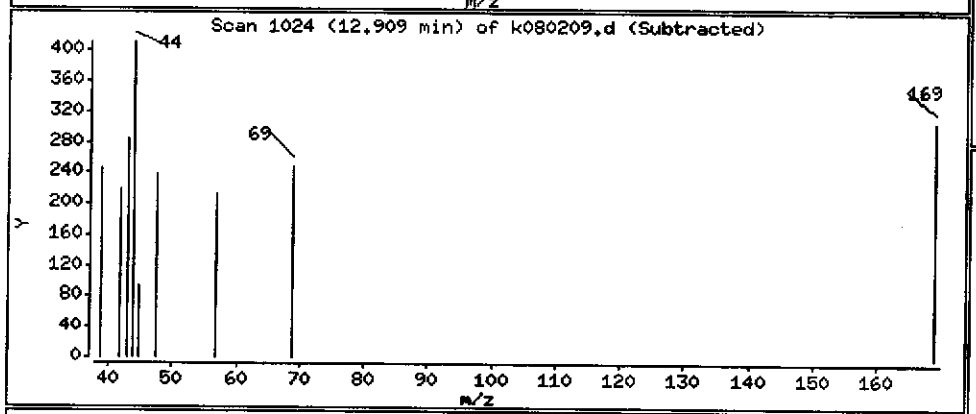

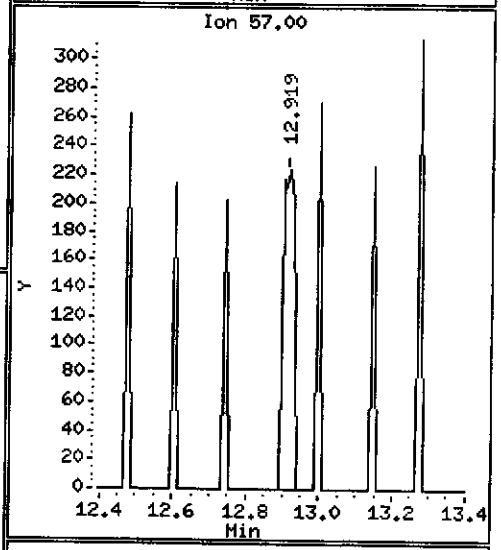

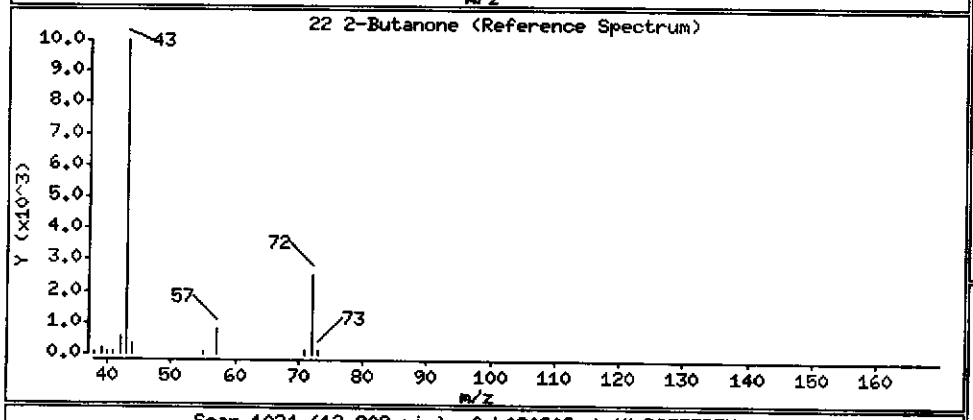

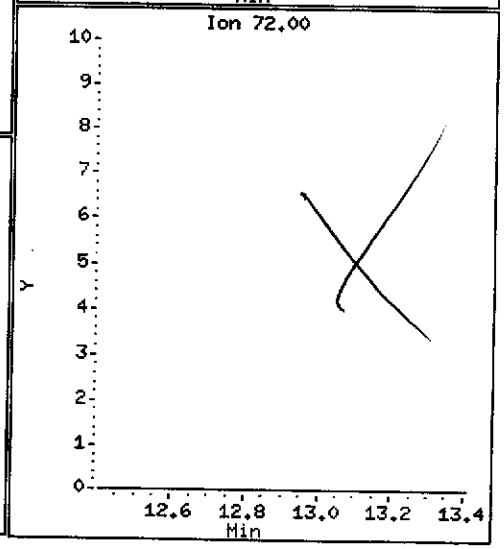

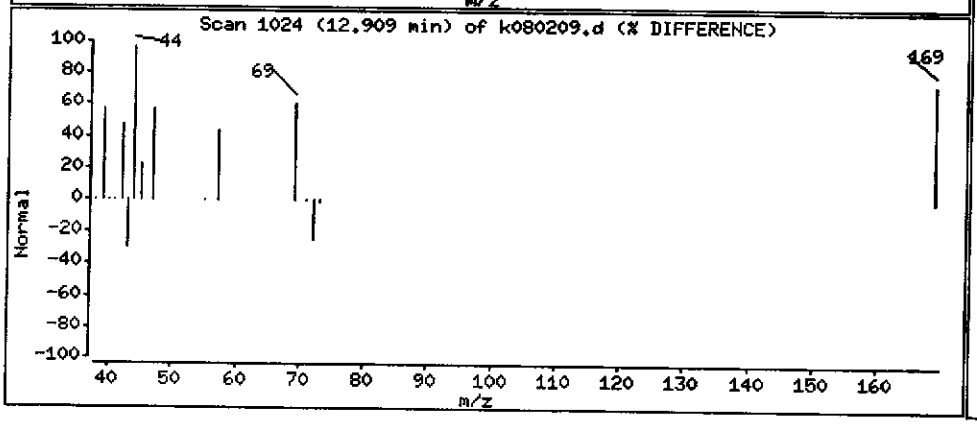

Data File: /chem/msvoa1/5970k.i/k080201.b/k080209.d

Date : 02-AUG-01 17:59:00

Client ID: RC03-01-0009 06

Instrument: 5970K.i

Sample Info: 0107L423-013 K080201,[AL=0624XL],[DC=00]

Operator: JVG

Column phase: DB-624

Column diameter: 0.53

29 1,2-Dichloroethane

Concentration: 2.074 ug/Kg

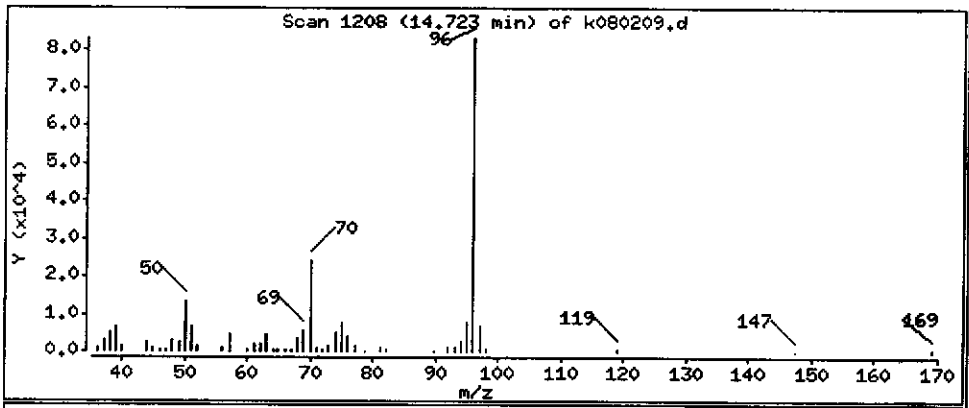

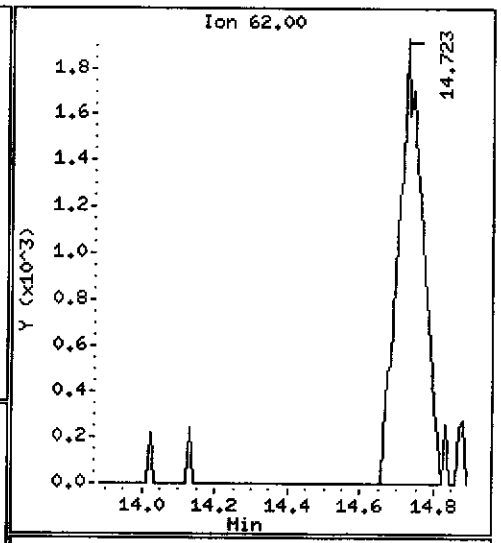

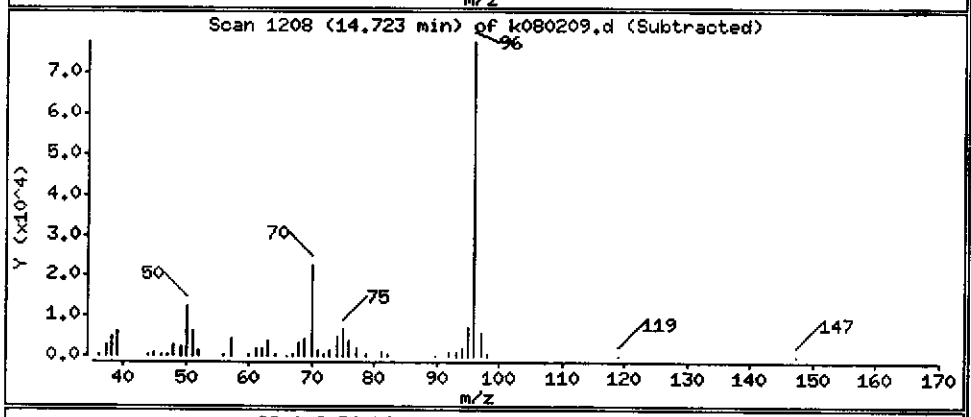

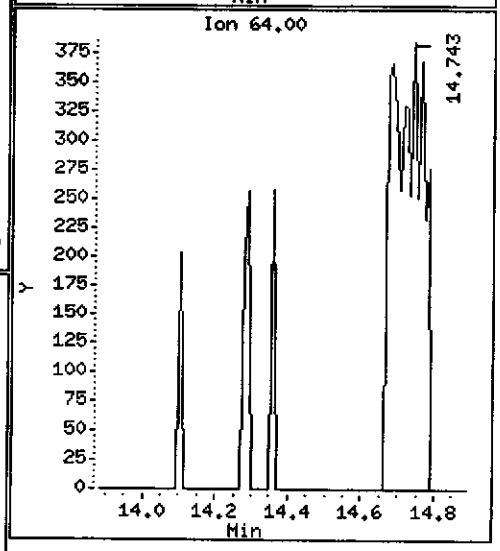

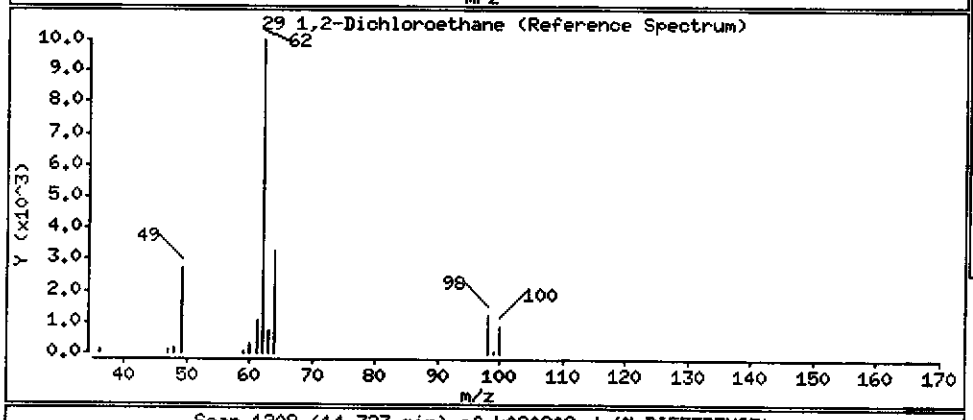

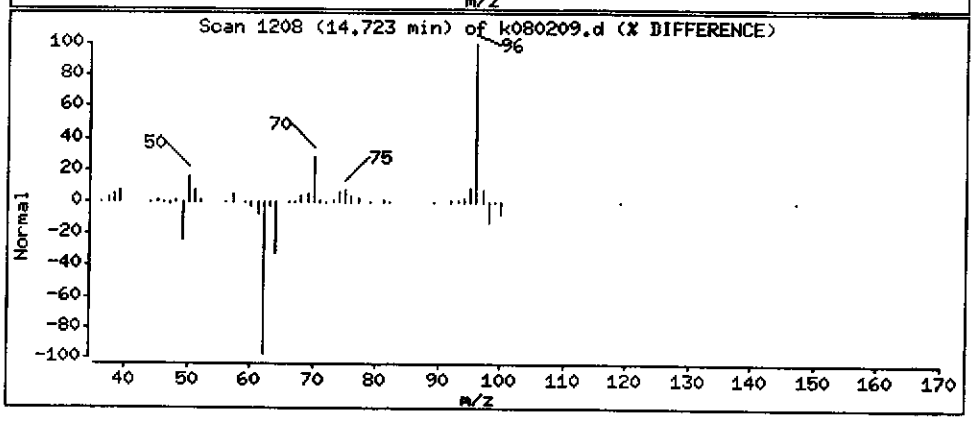

Data File: /chem/msvoa1/5970k.i/k080201.b/k080209.d

Date : 02-AUG-01 17:59:00

Client ID: RC03-01-0009 06

Instrument: 5970K.i

Sample Info: 0107L423-013 K080201,[AL=0624XL],[DC=00]

Operator: JVG

Column phase: DB-624

Column diameter: 0.53

35 4-Methyl-2-Pentanone

Concentration: 1.283 ug/Kg

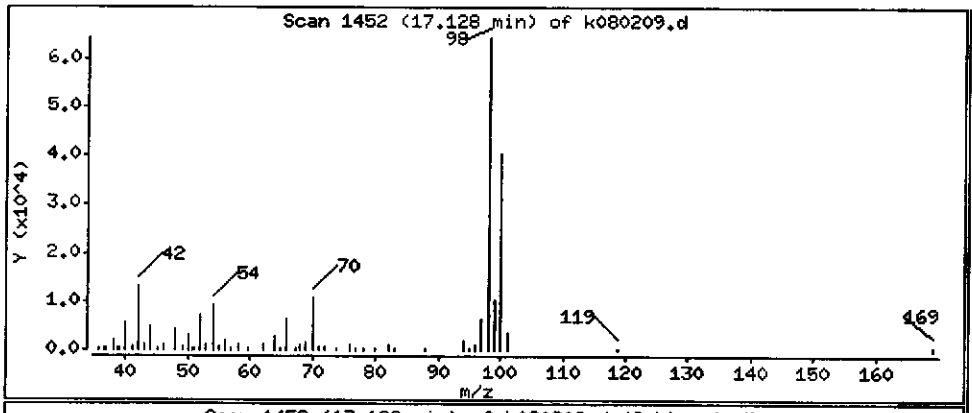

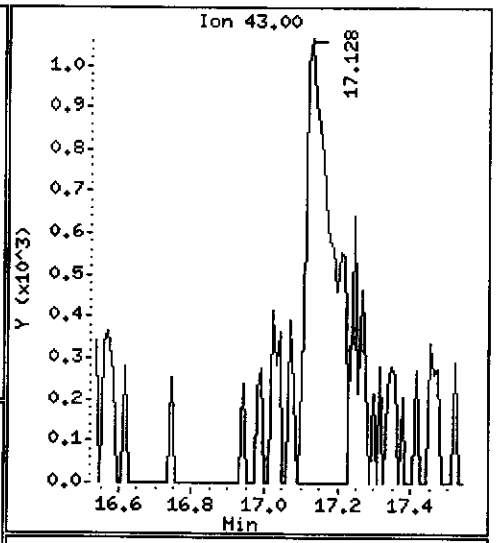

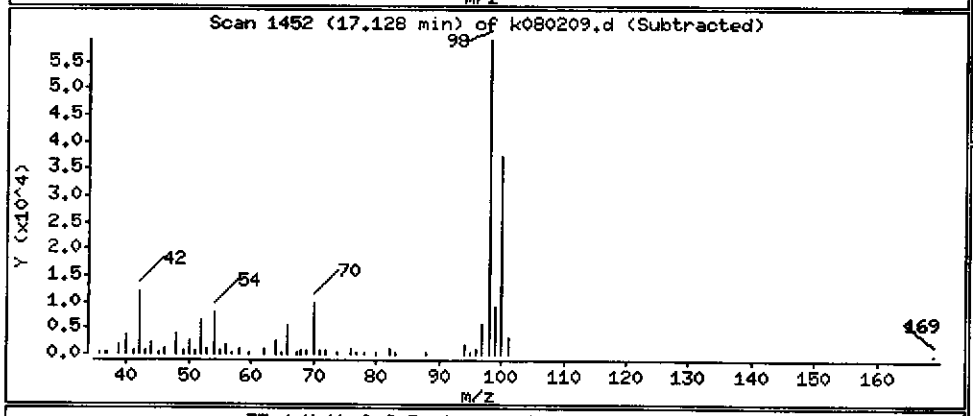

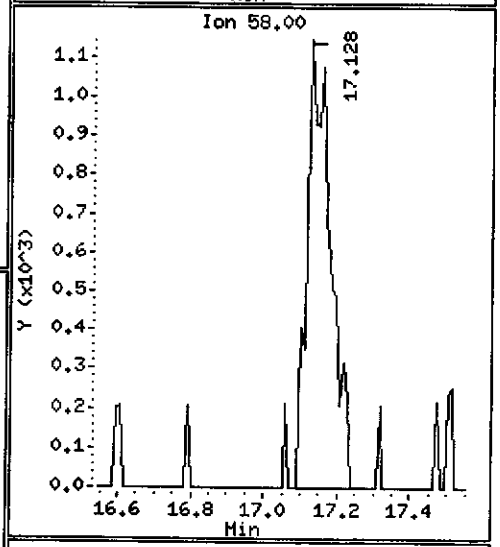

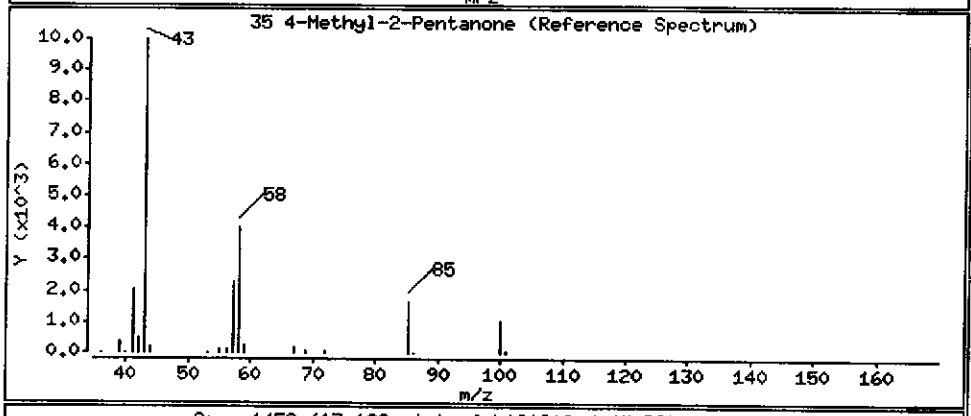

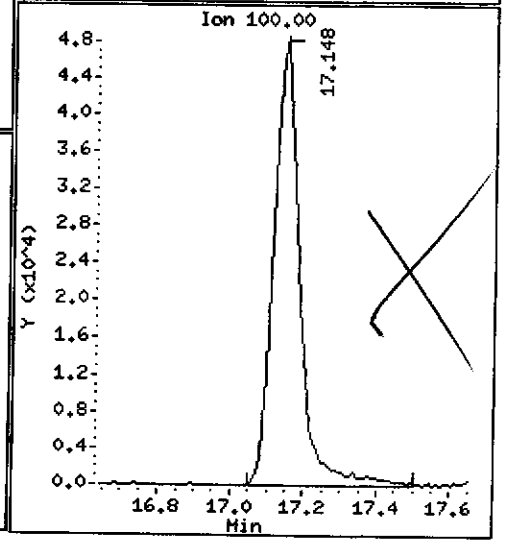

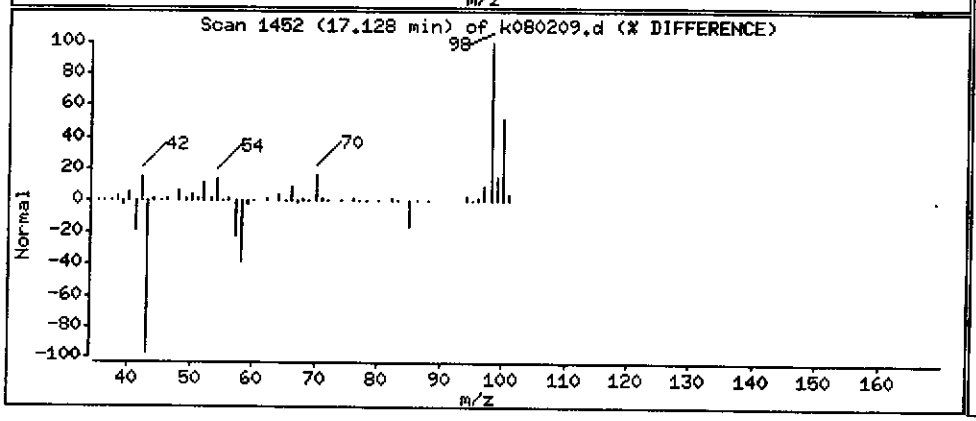

1A
VOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

RC03-01-0010 06

Lab Name: Lionville Labs, Inc. Work Order: 02744064001

Client: LANL REQ #9432R

Matrix: SOIL

Lab Sample ID: 0107L423-015

Sample wt/vol: 5.00 (g/mL) G

Lab File ID: k080210

Level: (low/med) LOW

Date Received: 07/27/01

% Moisture: not dec. 6

Date Analyzed: 08/02/01

Column: (pack/cap) CAP

Dilution Factor: 1.00

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND		
75-71-8	Dichlorodifluoromethane	11	U
74-87-3	Chloromethane	11	U
75-01-4	Vinyl Chloride	11	U
74-83-9	Bromomethane	11	U
75-00-3	Chloroethane	11	U
75-69-4	Trichlorofluoromethane	6	U
75-35-4	1,1-Dichloroethene	6	U
76-13-1	Trichlorotrifluoroethane	6	U
67-64-1	Acetone	17	BJ
74-88-4	Iodomethane	6	U
75-15-0	Carbon Disulfide	6	U
75-09-2	Methylene Chloride	13	B
156-60-5	Trans-1,2-dichloroethene	6	U
75-34-3	1,1-Dichloroethane	6	U
78-93-3	2-Butanone	22	U
156-59-2	Cis-1,2-dichloroethene	6	U
590-20-7	2,2-Dichloropropane	6	U
74-97-5	Bromochloromethane	6	U
67-66-3	Chloroform	6	U
71-55-6	1,1,1-Trichloroethane	2	J
56-23-5	Carbon Tetrachloride	6	U
563-58-6	1,1-dichloropropene	6	U
71-43-2	Benzene	6	U
107-06-2	1,2-Dichloroethane	6	U
79-01-6	Trichloroethene	6	U
78-87-5	1,2-Dichloropropane	6	U
74-95-3	Dibromomethane	6	U
75-27-4	Bromodichloromethane	6	U
10061-01-5	cis-1,3-Dichloropropene	6	U
108-10-1	4-Methyl-2-pentanone	22	U
108-88-3	Toluene	6	U
10061-02-6	Trans-1,3-Dichloropropene	6	U
79-00-5	1,1,2-Trichloroethane	6	U
127-18-4	Tetrachloroethene	6	U

1B
VOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

RC03-01-0010 06

Lab Name: Lionville Labs, Inc. Work Order: 02744064001

Client: LANL REQ #9432R

Matrix: SOIL

Lab Sample ID: 0107L423-015

Sample wt/vol: 5.00 (g/mL) G

Lab File ID: k080210

Level: (low/med) LOW

Date Received: 07/27/01

% Moisture: not dec. 6

Date Analyzed: 08/02/01

Column: (pack/cap) CAP

Dilution Factor: 1.00

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND		
142-28-9	1,3-Dichloropropane	6	U
591-78-6	2-Hexanone	22	U
124-48-1	Dibromochloromethane	6	U
106-93-4	1,2-Dibromoethane	6	U
108-90-7	Chlorobenzene	6	U
630-20-6	1,1,1,2-Tetrachloroethane	6	U
100-41-4	Ethylbenzene	6	U
1330-20-7	Xylenes (total)	6	U
100-42-5	Styrene	6	U
75-25-2	Bromoform	6	U
98-82-8	Isopropylbenzene	6	U
108-86-1	Bromobenzene	6	U
96-18-4	1,2,3-Trichloropropane	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U
103-65-1	N-propylbenzene	6	U
95-49-8	2-Chlorotoluene	6	U
106-43-4	4-Chlorotoluene	6	U
108-67-8	1,3,5-Trimethylbenzene	6	U
98-06-6	Tert-butylbenzene	6	U
95-63-6	1,2,4-Trimethylbenzene	6	U
135-98-8	Sec-butylbenzene	6	U
541-73-1	1,3-Dichlorobenzene	6	U
106-46-7	1,4-Dichlorobenzene	6	U
99-87-6	4-Isopropyltoluene	6	U
95-50-1	1,2-Dichlorobenzene	6	U
104-51-8	N-butylbenzene	6	U
96-12-8	1,2-Dibromo-3-chloropropane	11	U

FORM 1 V-2 12/88 Rev.

1E

VOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

RC03-01-0010 06

Lab Name: Lionville Labs, Inc. Work Order: 02744064001

Client: LANL REQ #9432R

Matrix: SOIL

Lab Sample ID: 0107L423-015

Sample wt/vol: 5.00 (g/mL) G

Lab File ID: k080210

Level: (low/med) LOW

Date Received: 07/27/01

% Moisture: not dec. 6

Date Analyzed: 08/02/01

Column: (pack/cap) CAP

Dilution Factor: 1.00

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.				

FORM 1 VOA-TIC 12/88 Rev.

Data File: /chem/msvoa1/5970k.i/k080201.b/k080210.d
Date : 02-AUG-01 18:41:00
Client ID: RC03-01-0010 06
Sample Info: 0107L423-015 K080201,[AL=0624XL],[DC=00]

Column phase: DB-624

Instrument: 5970K.i

Operator: JVG
Column diameter: 0.53

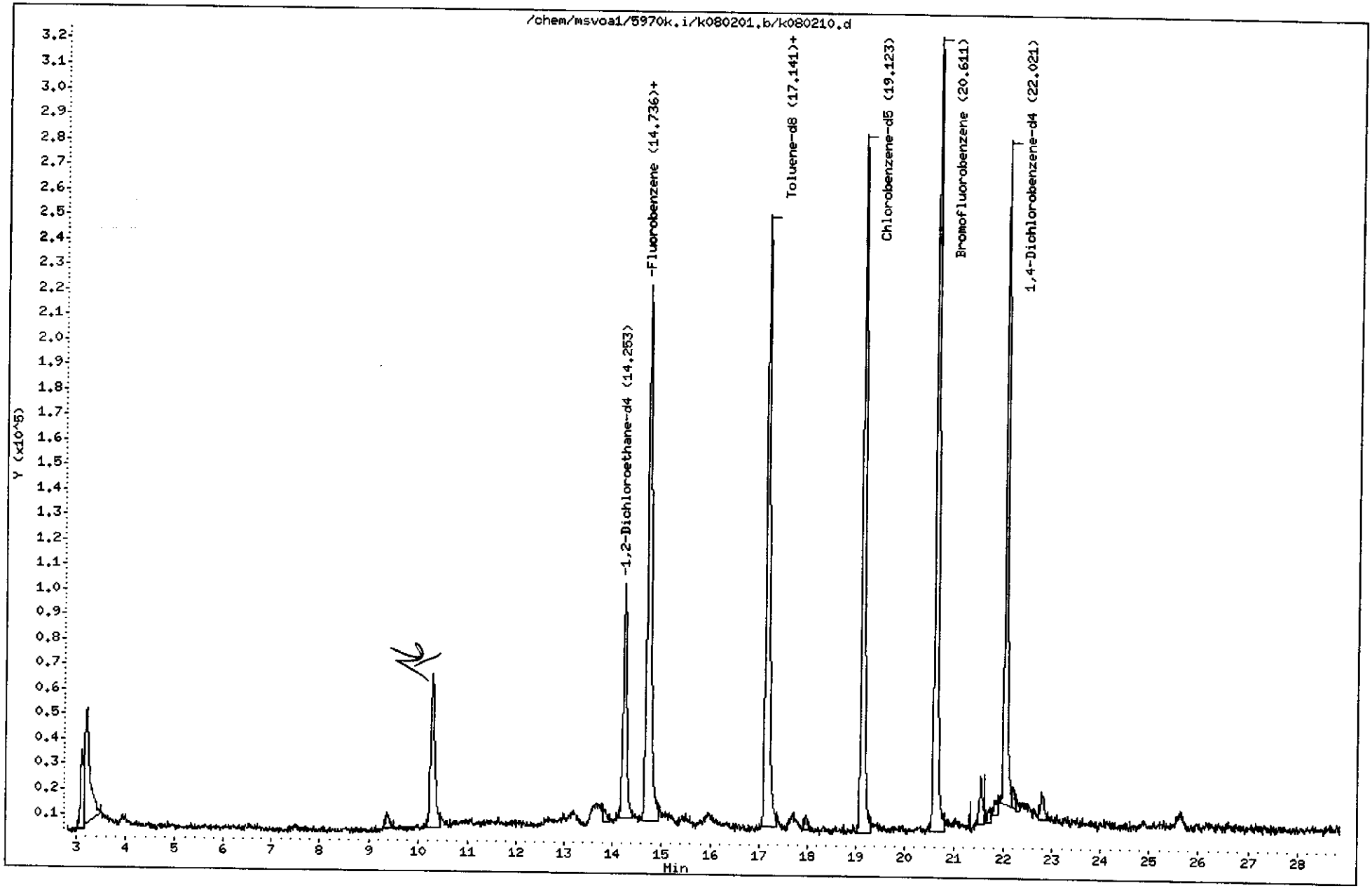

Lionville Laboratory Inc.

Data file : /chem/msvoa1/5970k.i/k080201.b/k080210.d
Lab Smp Id: 0107L423-015 Client Smp ID: RC03-01-0010 06
Inj Date : 02-AUG-01 18:41:00
Operator : JVG Inst ID: 5970K.i
Smp Info : 0107L423-015 K080201,[AL=O624XL],[DC=00]
Misc Info : DIL,1,LANL 5.0G
Comment :
Method : /chem/msvoa1/5970k.i/k080201.b/8260a07s.m
Meth Date : 23-Aug-01 18:00:57 rychlakd Quant Type: ISTD
Cal Date : 01-AUG-2001 01:29 Cal File: K073120.D
Als bottle: 26
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: o624xl.sub
Target Version: 3.30
Processing Host: hp4920a

Concentration Formula: Uf/(Ws*(100-M)/100)

Name	Value	Description
Uf	5.000	ng unit correction factor
Ws	5.000	Weight of sample extracted (g)
M	5.890	% Moisture (not decanted)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (UG/KG)	FINAL (ug/Kg)
* 1 Fluorobenzene	96	14.736	14.742	(1.000)	505199	50.0000	
* 2 Chlorobenzene-d5	117	19.123	19.129	(1.000)	325478	50.0000	
* 3 1,4-Dichlorobenzene-d4	152	22.011	22.027	(1.000)	144891	50.0000	
$ 4 1,2-Dichloroethane-d4	65	14.253	14.260	(0.967)	181620	48.1372	51.150
$ 5 Toluene-d8	98	17.141	17.138	(0.896)	359084	46.7891	49.717
$ 6 Bromofluorobenzene	95	20.611	20.608	(0.936)	249867	60.8864	64.697
7 Dichlorodifluoromethane	85.00	Compound Not Detected.					
8 Chloromethane	50.00	Compound Not Detected.					
9 Vinyl Chloride	62.00	Compound Not Detected.					
10 Bromomethane	94.00	Compound Not Detected.					
11 Chloroethane	64.00	Compound Not Detected.					
12 Trichlorofluoromethane	101.00	Compound Not Detected.					
13 1,1-Dichloroethene	96.00	Compound Not Detected.					
73 Freon-113	151.00	Compound Not Detected.					
15 Acetone	43	9.374	9.401	(0.636)	32358	16.4484	17.478(a)
74 Iodomethane	142.00	Compound Not Detected.					

8/23/01

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (UG/KG)	FINAL (ug/Kg)
	14 Carbon Disulfide	76.00	Compound Not Detected.					
	16 Methylene Chloride	84	10.291	10.288	(0.698)	75273	12.5753	13.362
	17 trans-1,2-Dichloroethene	96.00	Compound Not Detected.					
	19 1,1-Dichloroethane	63.00	Compound Not Detected.					
	22 2-Butanone	43.00	Compound Not Detected.					
	21 cis-1,2-Dichloroethene	96.00	Compound Not Detected.					
	20 2,2-Dichloropropane	77.00	Compound Not Detected.					
	23 Bromochloromethane	128.00	Compound Not Detected.					
	24 Chloroform	83.00	Compound Not Detected.					
	25 1,1,1-Trichloroethane	97	13.593	13.580	(0.922)	8568	1.49216	1.586(a)
	26 Carbon Tetrachloride	117.00	Compound Not Detected.					
	27 1,1-Dichloropropene	77.00	Compound Not Detected.					
	28 Benzene	78.00	Compound Not Detected.					
	29 1,2-Dichloroethane	62	14.736	14.388	(1.000)	9131	2.15854	2.294(a)
	30 Trichloroethene	130.00	Compound Not Detected.					
	31 1,2-Dichloropropane	63.00	Compound Not Detected.					
	32 Dibromomethane	174.00	Compound Not Detected.					
	33 Bromodichloromethane	83.00	Compound Not Detected.					
	34 cis-1,3-Dichloropropene	75.00	Compound Not Detected.					
	35 4-Methyl-2-Pentanone	43	17.151	17.040	(0.897)	3925	1.00700	1.070(a)
	36 Toluene	91.00	Compound Not Detected.					
	37 trans-1,3-Dichloropropene	75.00	Compound Not Detected.					
	38 1,1,2-Trichloroethane	97.00	Compound Not Detected.					
	39 Tetrachloroethene	164.00	Compound Not Detected.					
	40 1,3-Dichloropropane	76.00	Compound Not Detected.					
	41 2-Hexanone	43.00	Compound Not Detected.					
	42 Dibromochloromethane	129.00	Compound Not Detected.					
	43 1,2-Dibromoethane	107.00	Compound Not Detected.					
	44 Chlorobenzene	112.00	Compound Not Detected.					
	45 1,1,1,2-Tetrachloroethane	131.00	Compound Not Detected.					
	46 Ethylbenzene	106.00	Compound Not Detected.					
	47 m & p-Xylene	106.00	Compound Not Detected.					
	48 o-Xylene	106.00	Compound Not Detected.					
M	50 Xylenes (Total)	106.00	Compound Not Detected.					
	49 Styrene	104.00	Compound Not Detected.					
	51 Bromoform	173.00	Compound Not Detected.					
	52 Isopropylbenzene	105.00	Compound Not Detected.					
	54 Bromobenzene	77.00	Compound Not Detected.					
	55 1,2,3-Trichloropropane	110.00	Compound Not Detected.					
	53 1,1,2,2-Tetrachloroethane	83.00	Compound Not Detected.					
	56 N-Propylbenzene	120.00	Compound Not Detected.					
	57 2-Chlorotoluene	126.00	Compound Not Detected.					
	59 4-Chlorotoluene	126.00	Compound Not Detected.					
	58 1,3,5-Trimethylbenzene	105.00	Compound Not Detected.					
	60 Tert-Butylbenzene	134.00	Compound Not Detected.					
	61 1,2,4-Trimethylbenzene	105.00	Compound Not Detected.					
	62 Sec-Butylbenzene	134.00	Compound Not Detected.					

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (UG/KG)	FINAL (ug/Kg)
63 1,3-Dichlorobenzene	146.00	Compound Not Detected.					
65 1,4-Dichlorobenzene	146.00	Compound Not Detected.					
64 4-Isopropyltoluene	119.00	Compound Not Detected.					
67 1,2-Dichlorobenzene	146.00	Compound Not Detected.					
66 N-Butylbenzene	134.00	Compound Not Detected.					
68 1,2-Dibromo-3-chloropropane	157.00	Compound Not Detected.					

QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).

Data File: /chem/msvoa1/5970k.i/k080201.b/k080210.d

Date : 02-AUG-01 18:41:00

Client ID: RC03-01-0010 06

Instrument: 5970K.i

Sample Info: 0107L423-015 K080201,[AL=0624XL],[DC=00]

Operator: JWG

Column phase: DB-624

Column diameter: 0.53

15 Acetone

Concentration: 17.478 ug/Kg

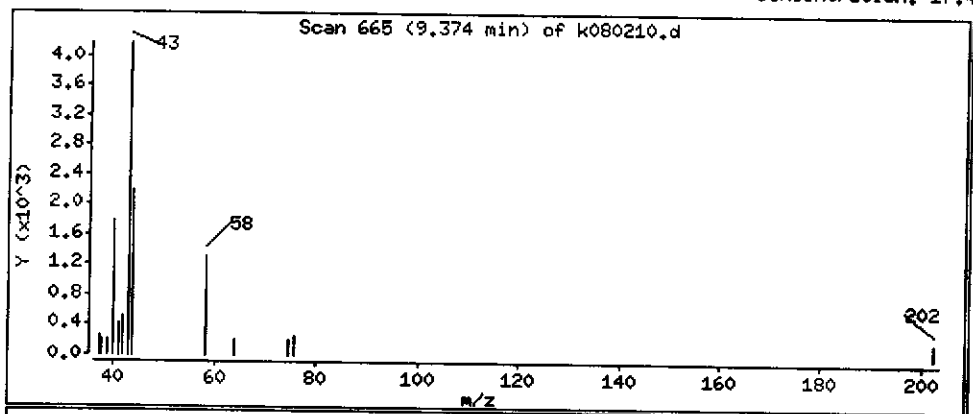

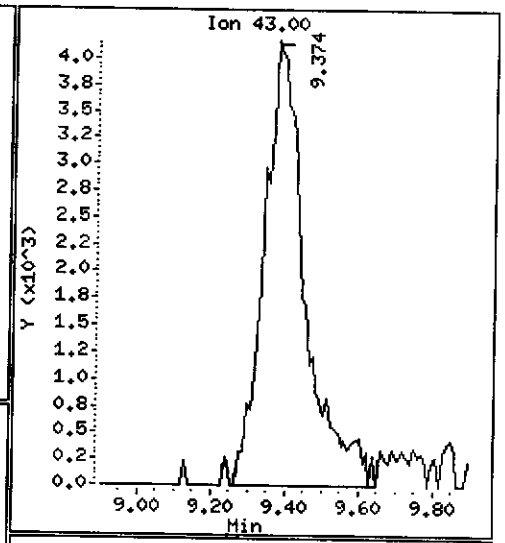

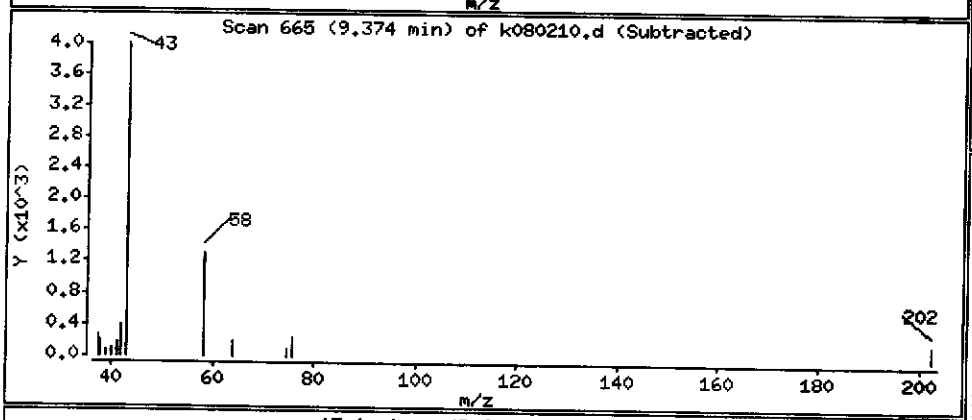

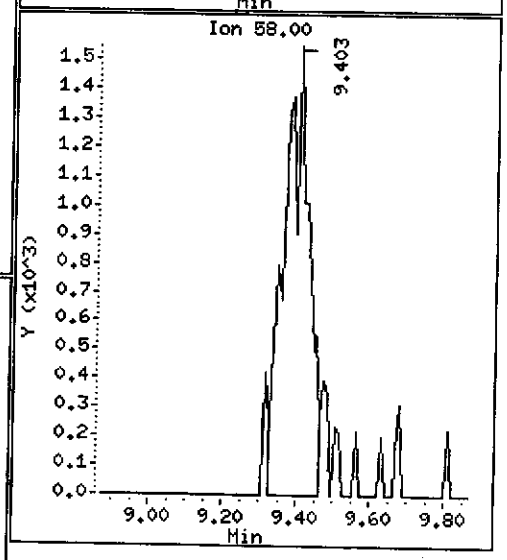

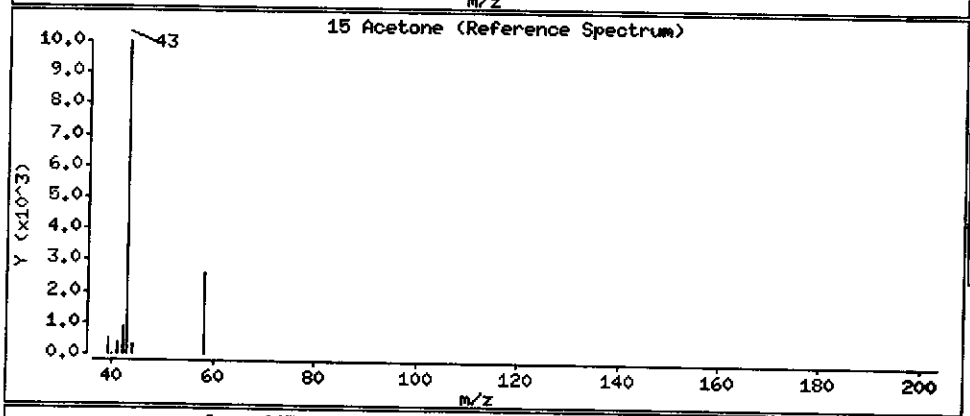

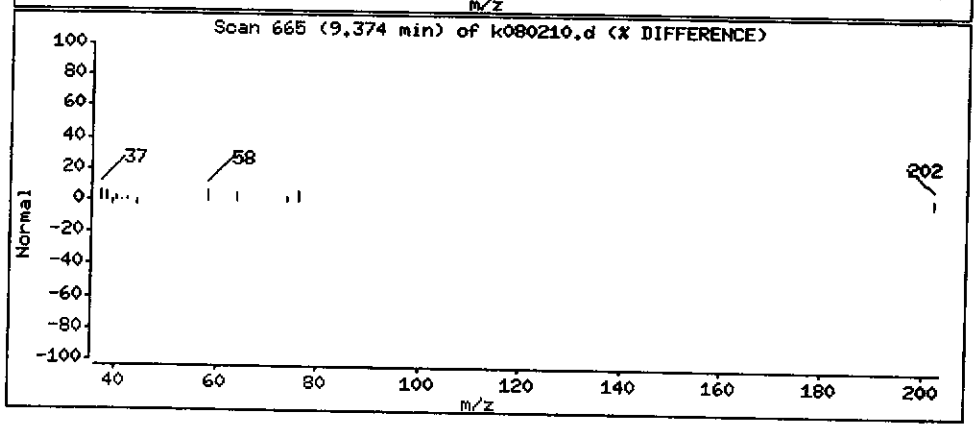

Data File: /chem/msvoa1/5970k.i/k080201.b/k080210.d

Date : 02-AUG-01 18:41:00

Client ID: RC03-01-0010 06

Instrument: 5970K.i

Sample Info: 0107L423-015 K080201,[AL=0624XL],[DC=00]

Operator: JVG

Column phase: DB-624

Column diameter: 0.53

16 Methylene Chloride

Concentration: 13.362 ug/Kg

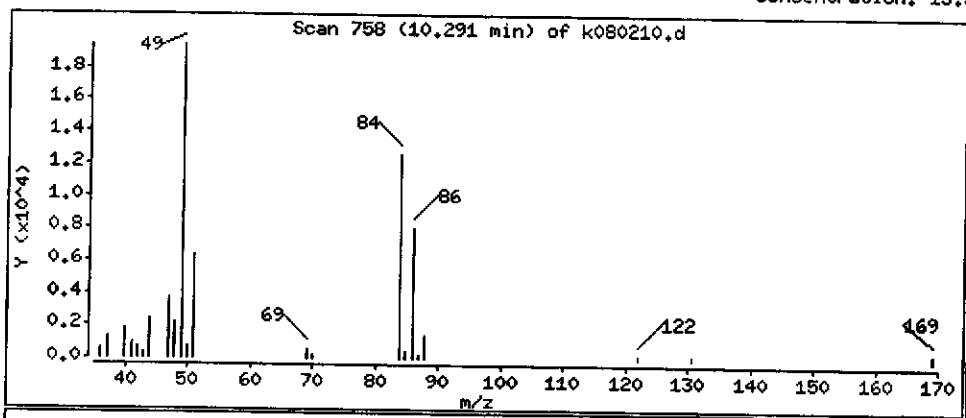

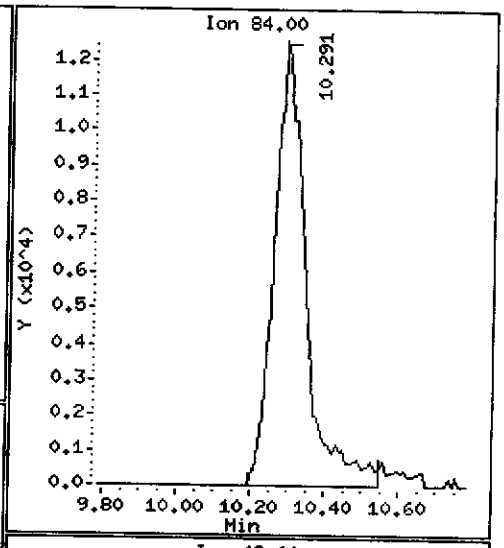

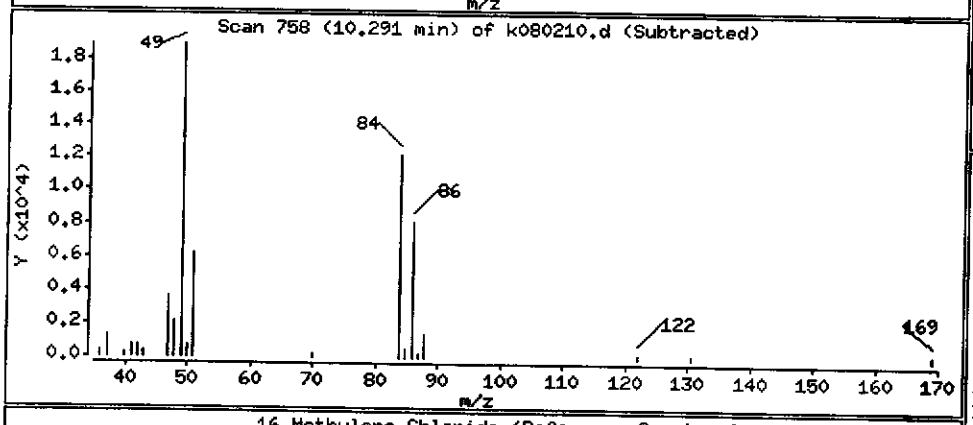

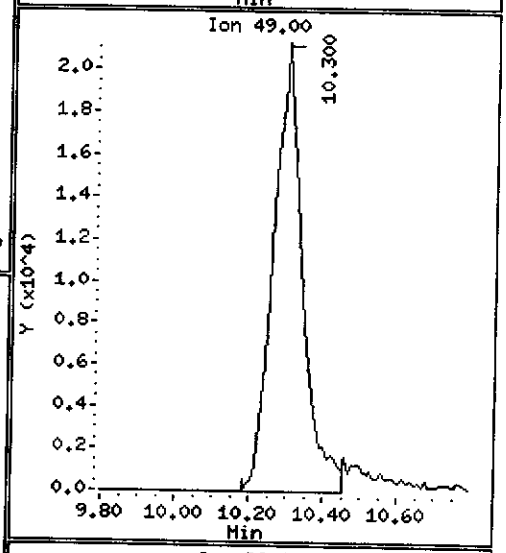

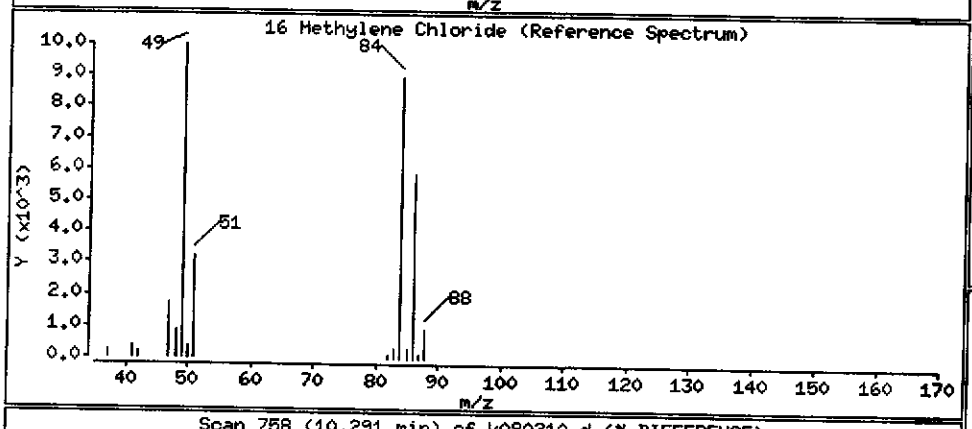

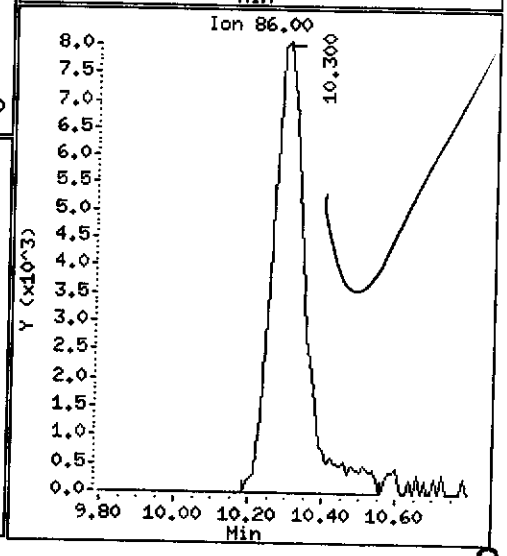

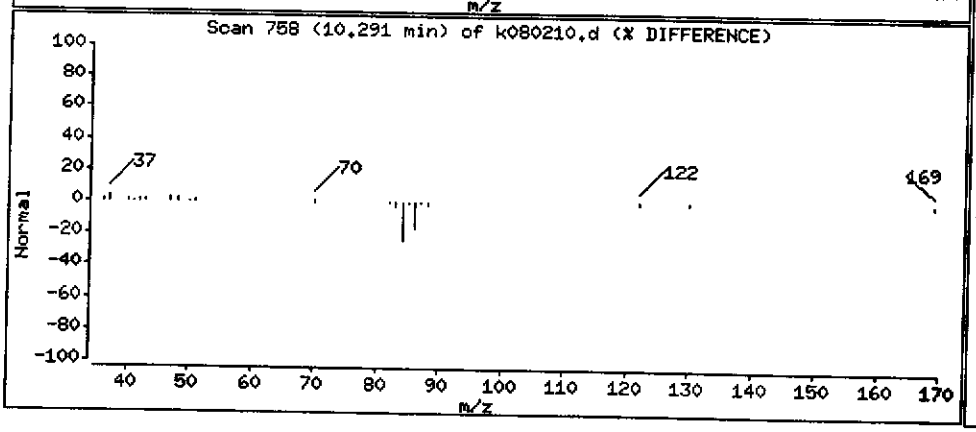

Data File: /chem/msvoa1/5970k.i/k080201.b/k080210.d

Date : 02-AUG-01 18:41:00

Client ID: RC03-01-0010 06

Instrument: 5970K.i

Sample Info: 0107L423-015 K080201,[AL=0624XL],[DC=00]

Operator: JVG

Column phase: DB-624

Column diameter: 0.53

25 1,1,1-Trichloroethane

Concentration: 1.586 ug/Kg

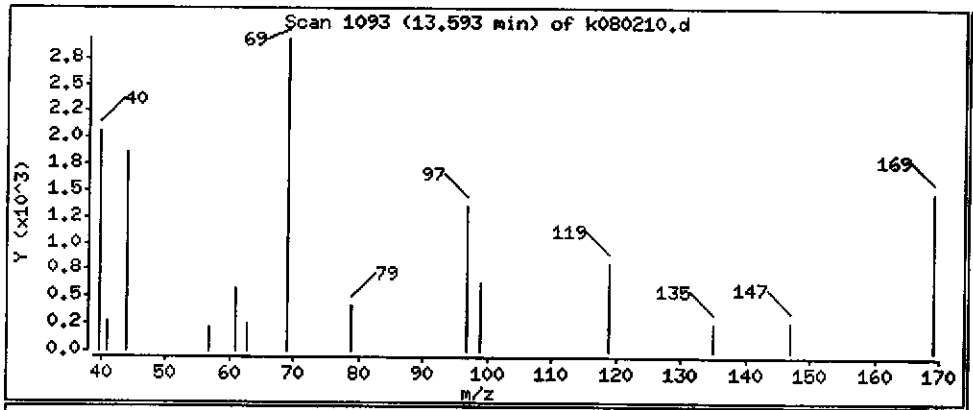

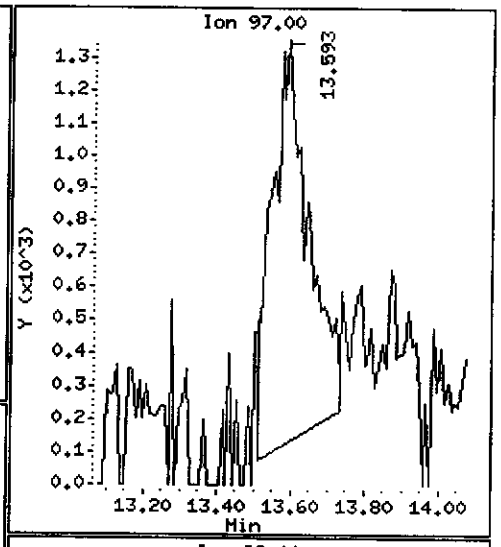

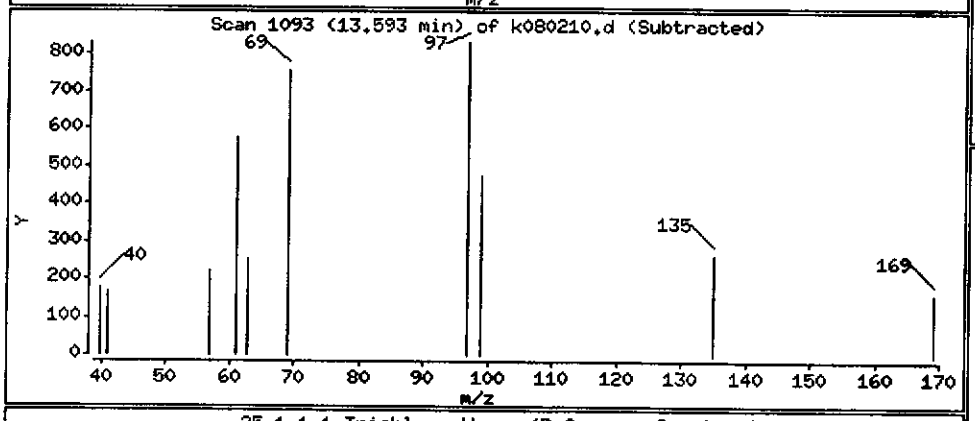

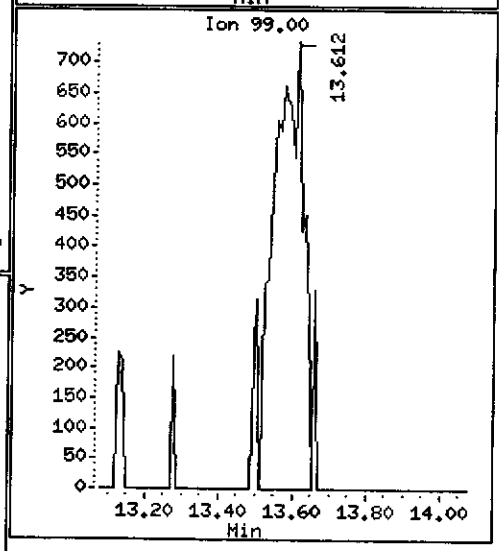

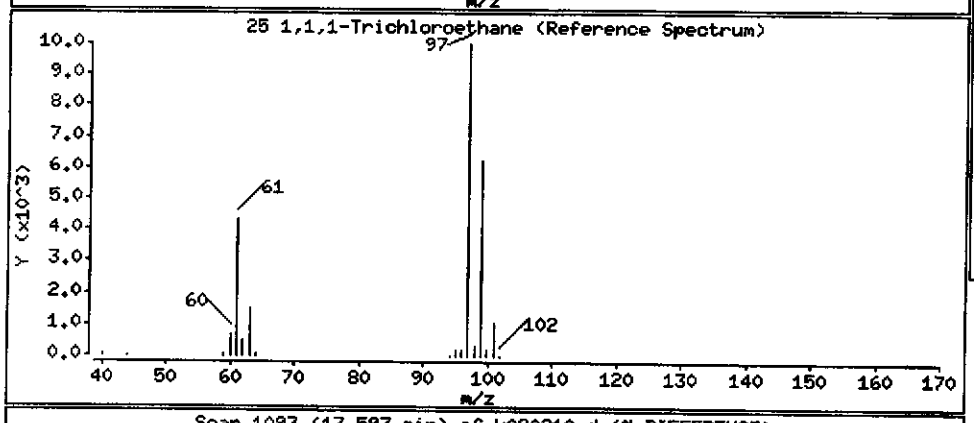

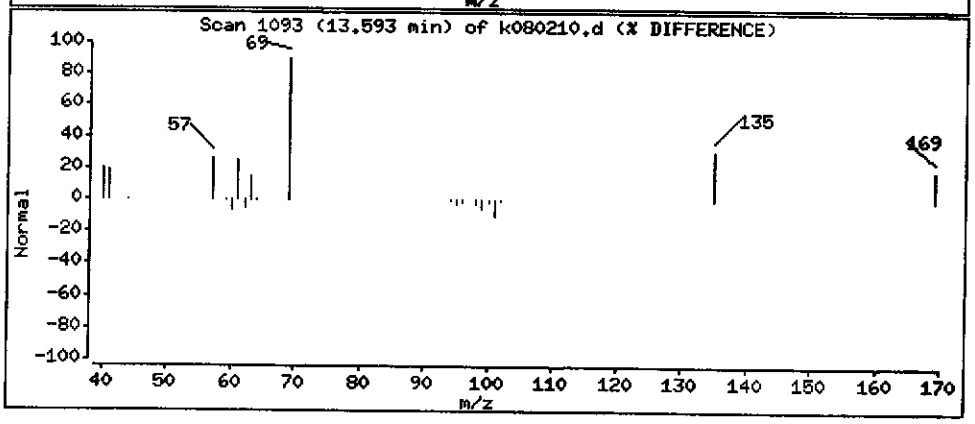

Data File: /chem/msvoa1/5970k.i/k080201.b/k080210.d

Date : 02-AUG-01 18:41:00

Client ID: RC03-01-0010 06

Instrument: 5970K.i

Sample Info: 0107L423-015 K080201,[AL=0624XL],[DC=00]

Operator: JVG

Column phase: DB-624

Column diameter: 0.53

29 1,2-Dichloroethane

Concentration: 2.294 ug/Kg

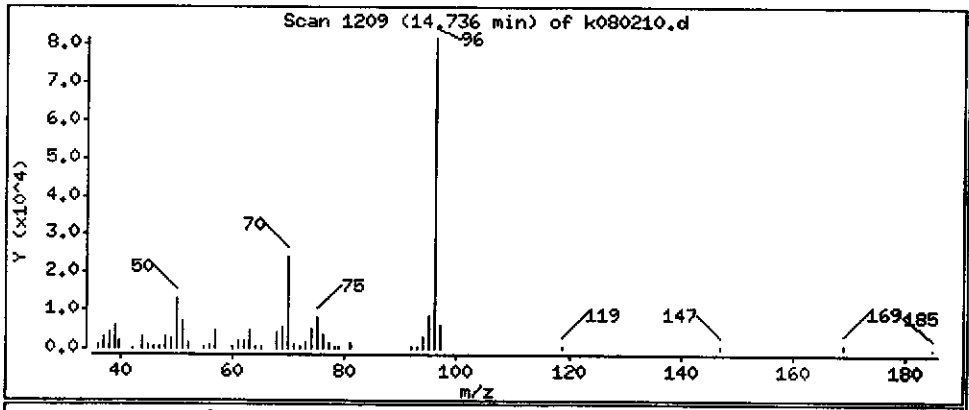

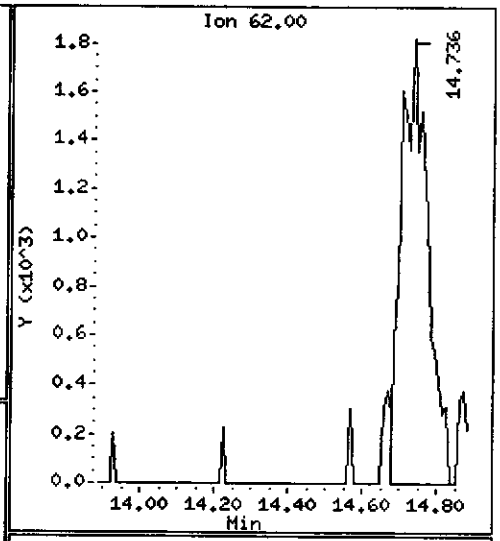

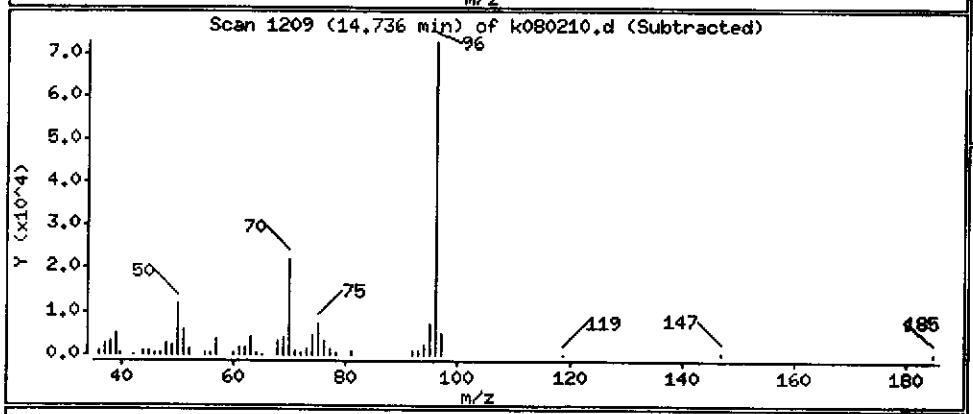

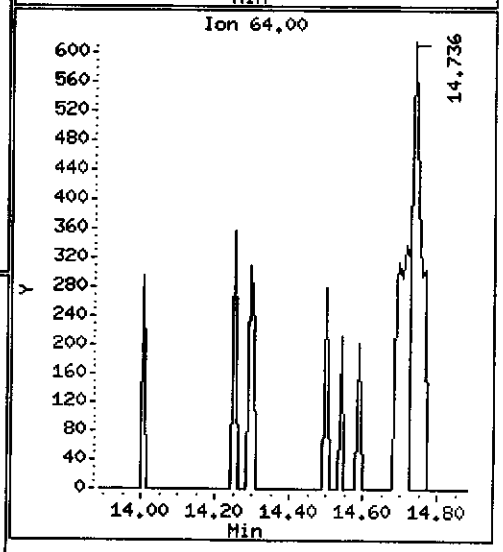

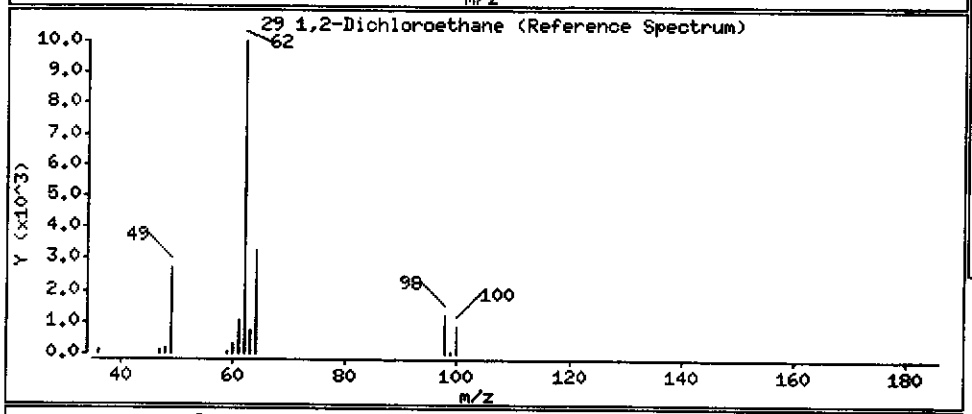

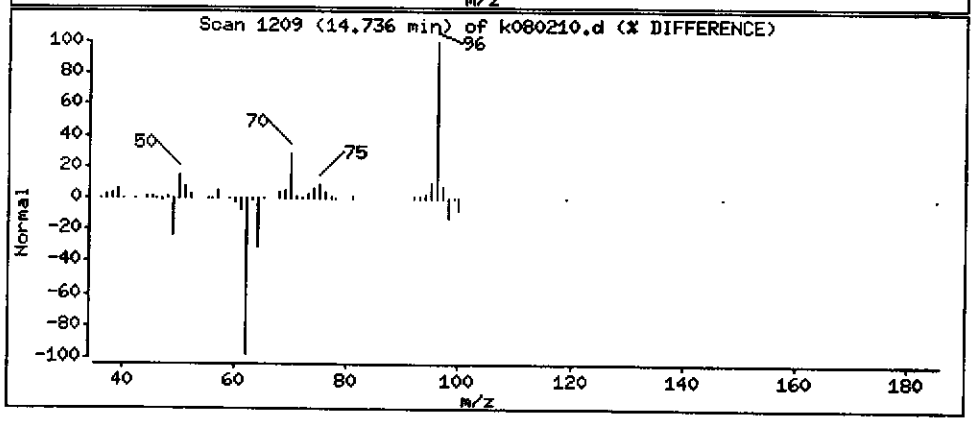

Data File: /chem/msvoa1/5970k.i/k080201.b/k080210.d

Date : 02-AUG-01 18:41:00

Client ID: RC03-01-0010 06

Instrument: 5970K.i

Sample Info: 0107L423-015 K080201,[AL=0624XL],[DC=00]

Operator: JVG

Column phase: DB-624

Column diameter: 0.53

35 4-Methyl-2-Pentanone

Concentration: 1.070 ug/Kg

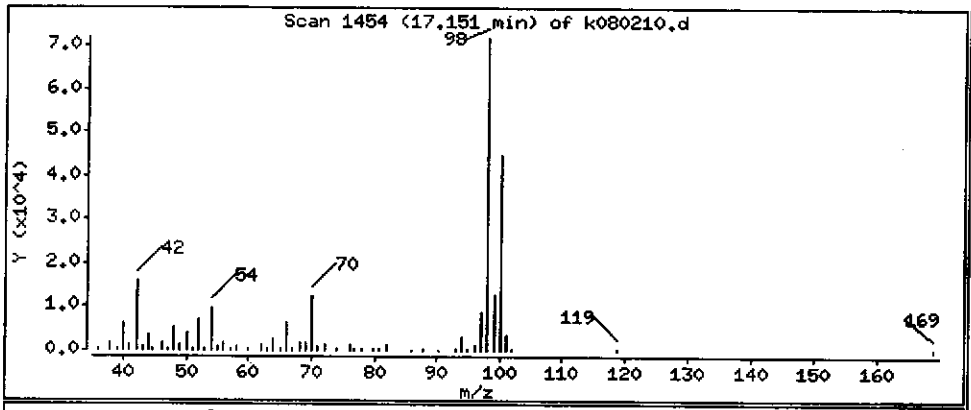

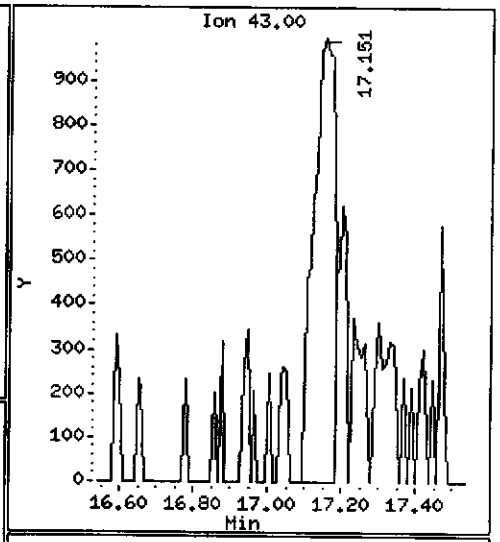

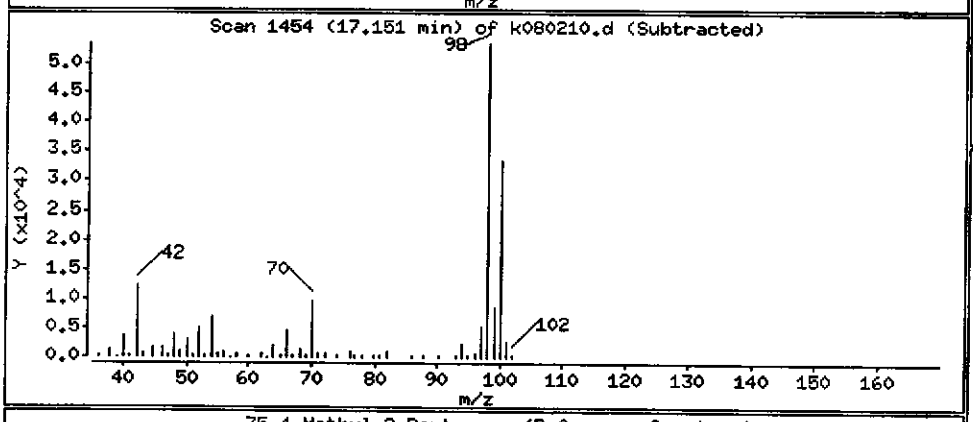

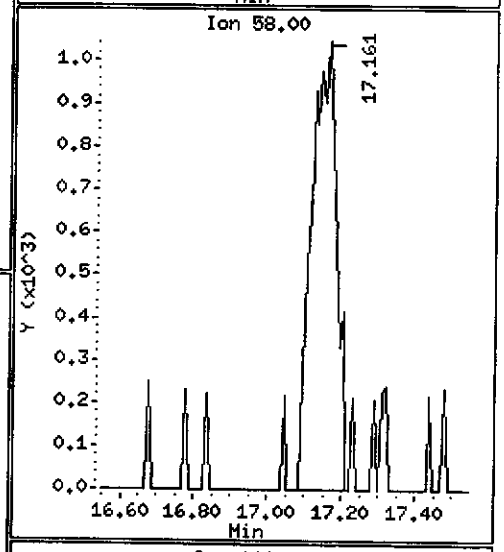

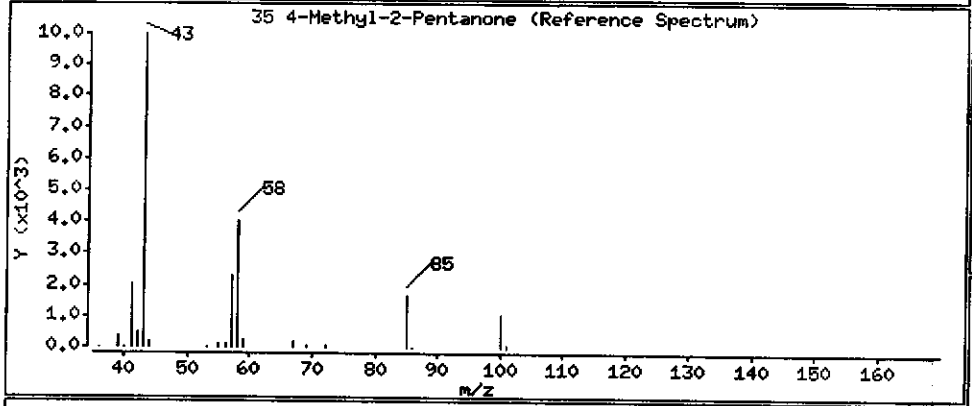

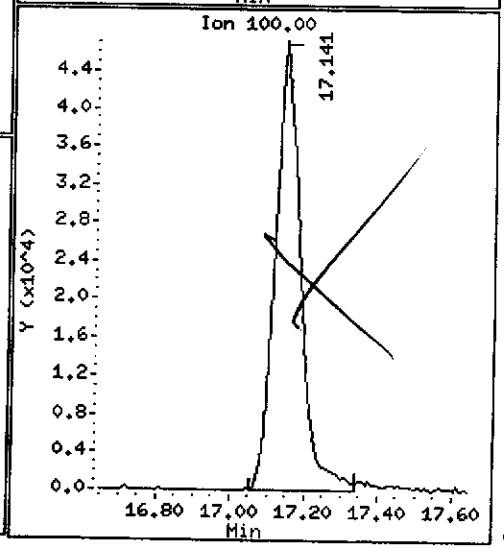

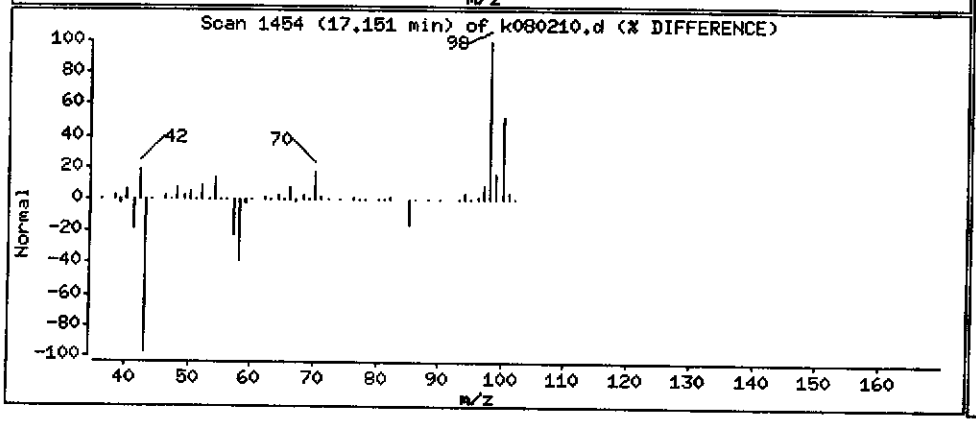

Calibration Standard Data

LIONVILLE LABORATORY INC.

6A
VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Lionville Laboratory Inc. Contract: 02744-064-001-9999-00

Lab Code: LVLI Case No.: SAS No.: SDG No.: 07L423

Instrument ID: 5970K Calibration Date(s): 07/31/1 08/01/1

Heated Purge: (Y/N) Y GC Column: DB-624 ID: 0.53 (mm)

= Min RRF for SPCC Max %RSD for CCC(*) = 30.0%

LAB FILE ID: RRF10 =k073110.d RRF20 =k073111.d
RRF50 =k073114.d RRF100=k073113.d RRF200=k073112.d

COMPOUND	RRF10	RRF20	RRF50	RRF100	RRF200	$\overline{RRF}$	% RSD
Dichlorodifluoromethane	0.606	0.529	0.561	0.605	0.612	0.583	6.2
Chloromethane #	0.341	0.346	0.338	0.385	0.416	0.365	9.4#
Vinyl Chloride *	0.291	0.279	0.346	0.413	0.426	0.351	19.3*
Bromomethane	0.226	0.251	0.274	0.294	0.278	0.265	10.1
Chloroethane	0.179	0.174	0.176	0.178	0.169	0.175	2.3
Trichlorofluoromethane	0.824	0.730	0.752	0.796	0.787	0.778	4.7
1,1-Dichloroethene *	0.345	0.336	0.348	0.365	0.437	0.366	11.2*
Methylene Chloride	0.925	0.676	0.433	0.441	0.487	0.592	35.5
Acetone	0.393	0.223	0.133	0.108	0.116	0.195	61.7
trans-1,2-Dichloroethene	0.331	0.283	0.318	0.285	0.320	0.307	7.2
1,1-Dichloroethane #	0.660	0.578	0.608	0.593	0.739	0.636	10.3#
cis-1,2-Dichloroethene	0.388	0.336	0.364	0.341	0.401	0.366	7.7
2,2-Dichloropropane	0.026	0.026	0.072	0.086	0.133	0.069	65.4
2-Butanone	0.191	0.148	0.138	0.120	0.142	0.148	17.8
Bromochloromethane	0.256	0.233	0.246	0.245	0.300	0.256	10.1
Chloroform *	0.778	0.706	0.704	0.661	0.704	0.711	5.9*
1,1,1-Trichloroethane	0.597	0.562	0.591	0.554	0.537	0.568	4.5
Carbon Tetrachloride	0.570	0.520	0.537	0.520	0.510	0.531	4.5
1,1-Dichloropropene	0.194	0.174	0.191	0.183	0.180	0.184	4.4
Benzene	0.996	0.954	0.972	0.966	0.993	0.976	1.8
1,2-Dichloroethane	0.482	0.406	0.442	0.377	0.385	0.418	10.4
Trichloroethene	0.438	0.415	0.442	0.425	0.427	0.429	2.5
1,2-Dichloropropane *	0.463	0.433	0.449	0.442	0.450	0.447	2.4*
Dibromomethane	0.342	0.303	0.330	0.298	0.315	0.318	5.8
Bromodichloromethane	0.713	0.641	0.657	0.604	0.593	0.642	7.4
cis-1,3-Dichloropropene	0.607	0.634	0.724	0.678	0.647	0.658	6.8
Toluene *	1.530	1.500	1.515	1.485	1.514	1.509	1.1*
4-Methyl-2-Pentanone	0.624	0.566	0.598	0.570	0.635	0.599	5.2
trans-1,3-Dichloropropene	0.344	0.376	0.476	0.458	0.473	0.425	14.4
1,1,2-Trichloroethane	0.512	0.495	0.504	0.459	0.452	0.484	5.6
Tetrachloroethene	0.475	0.494	0.550	0.492	0.506	0.503	5.7
2-Hexanone	0.426	0.407	0.411	0.372	0.438	0.411	6.1
1,3-Dichloropropane	0.789	0.792	0.840	0.768	0.760	0.790	3.9
Dibromochloromethane	0.779	0.797	0.834	0.788	0.773	0.794	3.1
1,2-Dibromoethane	0.668	0.677	0.738	0.687	0.696	0.693	3.9
Chlorobenzene #	1.028	1.071	1.083	1.071	1.114	1.073	2.9#
1,1,1,2-Tetrachloroethane	0.552	0.556	0.577	0.548	0.563	0.559	2.0
Ethylbenzene *	0.503	0.489	0.508	0.502	0.502	0.501	1.4*

FORM VI VOA MAC-SW846HP

6A
VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Lionville Laboratory Inc. Contract: 02744-064-001-9999-00

Lab Code: LVLI Case No.: SAS No.: SDG No.: 07L423

Instrument ID: 5970K Calibration Date(s): 07/31/1 08/01/1

Heated Purge: (Y/N) Y GC Column: DB-624 ID: 0.53 (mm)

= Min RRF for SPCC Max %RSD for CCC(*) = 30.0%

LAB FILE ID: RRF10 =k073110.d RRF20 =k073111.d
RRF50 =k073114.d RRF100=k073113.d RRF200=k073112.d

COMPOUND	RRF10	RRF20	RRF50	RRF100	RRF200	$\overline{RRF}$	% RSD
m & p-Xylene	0.582	0.601	0.614	0.604	0.601	0.600	1.9
Xylenes (Total)	0.590	0.598	0.610	0.606	0.603	0.601	1.3
o-Xylene	0.604	0.592	0.604	0.610	0.609	0.604	1.2
Styrene	0.888	0.959	1.006	1.000	1.038	0.978	5.9
Bromoform #	0.482	0.514	0.576	0.532	0.622	0.545	10.1#
Isopropylbenzene	1.687	1.754	1.792	1.783	1.822	1.768	2.9
Bromobenzene	2.619	2.284	2.338	2.202	2.162	2.321	7.8
1,2,3-Trichloropropane	0.361	0.292	0.343	0.289	0.312	0.319	9.9
1,1,2,2-Tetrachloroethane #	1.589	1.392	1.420	1.249	1.293	1.389	9.5#
N-Propylbenzene	0.846	0.733	0.798	0.727	0.686	0.758	8.3
2-Chlorotoluene	0.778	0.722	0.786	0.719	0.691	0.739	5.5
4-Chlorotoluene	0.834	0.639	0.794	0.773	0.723	0.753	10.0
1,3,5-Trimethylbenzene	2.540	2.236	2.486	2.254	2.064	2.316	8.4
Tert-Butylbenzene	0.650	0.599	0.639	0.595	0.570	0.611	5.4
1,2,4-Trimethylbenzene	2.419	2.199	2.363	2.166	2.218	2.273	4.9
Sec-Butylbenzene	0.715	0.673	0.692	0.648	0.623	0.670	5.4
1,3-Dichlorobenzene	1.610	1.459	1.526	1.419	1.404	1.484	5.7
1,4-Dichlorobenzene	1.732	1.554	1.780	1.507	1.596	1.634	7.2
4-Isopropyltoluene	2.852	2.671	2.709	2.478	2.517	2.645	5.7
1,2-Dichlorobenzene	1.588	1.397	1.478	1.437	1.492	1.478	4.9
N-Butylbenzene	0.681	0.628	0.687	0.607	0.662	0.653	5.3
1,2-Dibromo-3-chloropropane	0.307	0.299	0.359	0.344	0.377	0.337	9.9
Carbon Disulfide	0.812	0.914	0.972	1.051	1.204	0.991	14.9
1,2-Dichloroethane-d4	0.415	0.338	0.403	0.361	0.349	0.373	9.1
Toluene-d8	1.071	1.086	1.255	1.254	1.229	1.179	7.8
Bromofluorobenzene	1.474	1.274	1.488	1.488	1.357	1.416	6.8

FORM VI VOA MAC-SW846HP

87

Data File: \\lilan04\d\chem\MSVOA\5970K.i\K073101p.b\K073110.D
Date : 31-JUL-2001 18:39
Client ID: VSTD10
Sample Info: VSTD10 K073107

Instrument: 5970K.i

Operator: JVG

Column phase: DB-624

Column diameter: 0.53

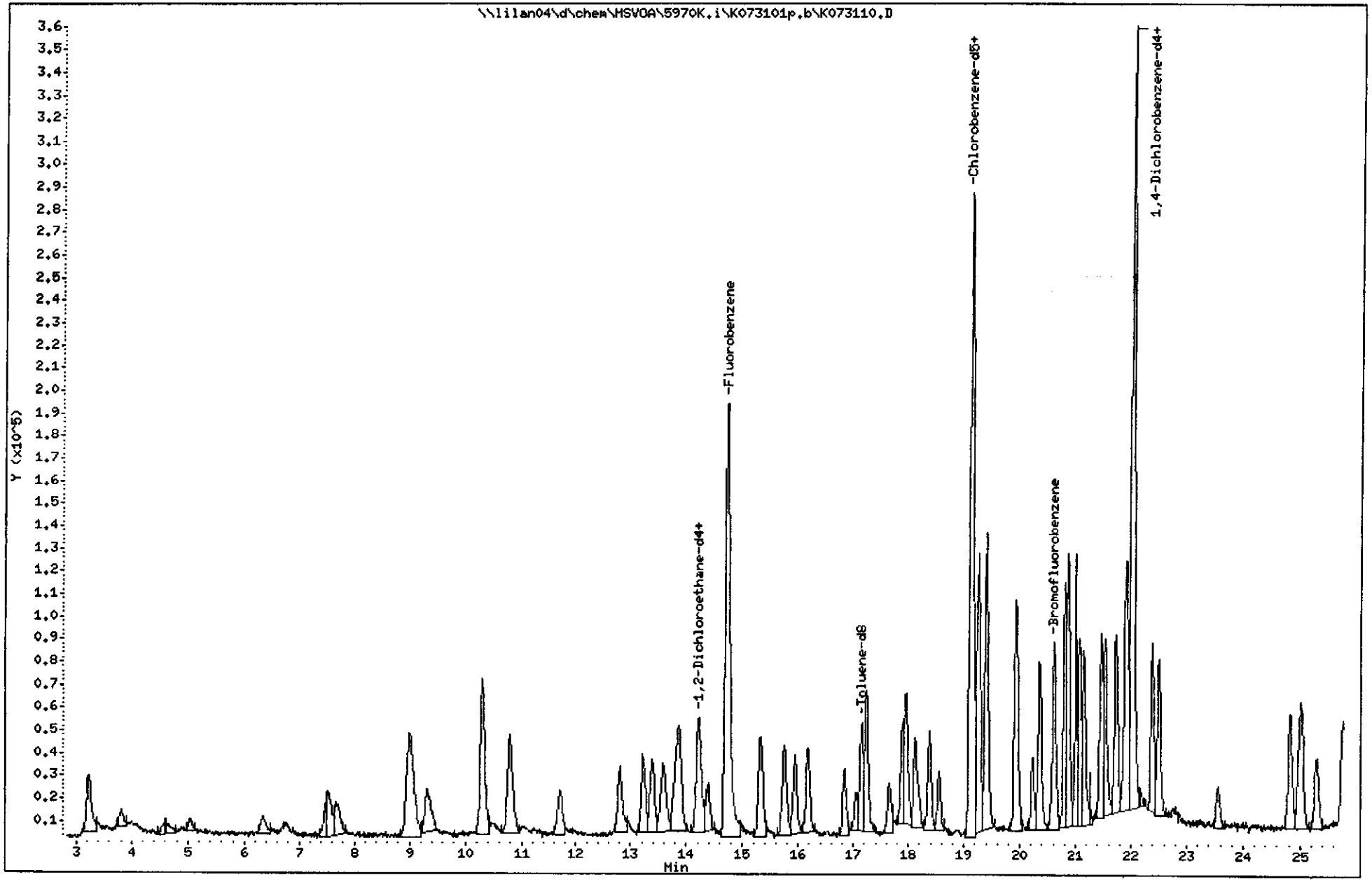

Lionville Laboratory Inc.

Data file : \\lilan04\d\chem\MSVOA\5970K.i\K073101p.b\K073110.D
Lab Smp Id: VSTD10 Client Smp ID: VSTD10
Inj Date : 31-JUL-2001 18:39
Operator : JVG Inst ID: 5970K.i
Smp Info : VSTD10 K073107
Misc Info : DIL,1,ALT8260 5035 ICL 5.0G
Comment :
Method : \\LILAN04\D\chem\MSVOA\5970K.i\K073101p.b\8260a07s.m
Meth Date : 07-Aug-2001 16:32 target Quant Type: ISTD
Cal Date : 31-JUL-2001 19:55 Cal File: K073112.D
Als bottle: 22 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.00
Processing Host: MSVOA2

Concentration Formula: Amt * DF * Uf/(Ws*(100-M)/100)

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Ws	5.000	Weight of sample extracted (g)
M	0.000	% Moisture (not decanted)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (UG/KG)	ON-COL (UG/KG)
* 1 Fluorobenzene	96	14.740	14.733	(1.000)	447684	50.0000	
* 2 Chlorobenzene-d5	117	19.126	19.119	(1.000)	325676	50.0000	
* 3 1,4-Dichlorobenzene-d4	152	22.014	22.017	(1.000)	171357	50.0000	
$ 4 1,2-Dichloroethane-d4	65	14.257	14.378	(0.967)	37184	10.0000	12.399
$ 5 Toluene-d8	98	17.155	17.138	(0.897)	69765	10.0000	9.616
$ 6 Bromofluorobenzene	95	20.615	20.814	(0.936)	50500	10.0000	10.791
7 Dichlorodifluoromethane	85	3.798	3.801	(0.258)	54235	10.0000	10.228
8 Chloromethane	50	4.577	4.570	(0.311)	30523	10.0000	8.786(a)
9 Vinyl Chloride	62	5.040	5.033	(0.342)	26075	10.0000	9.121(aH)
10 Bromomethane	94	6.322	6.314	(0.429)	20198	10.0000	8.952(a)
11 Chloroethane	64	6.755	6.738	(0.458)	16015	10.0000	10.147(H)
12 Trichlorofluoromethane	101	7.524	7.507	(0.510)	73790	10.0000	11.159
13 1,1-Dichloroethene	96	9.003	8.976	(0.611)	30890	10.0000	9.247
14 Carbon Disulfide	76	9.309	9.311	(0.632)	72723	10.0000	8.020
15 Acetone	43	9.417	9.390	(0.639)	35208	10.0000	17.751

PA JW 8/7/01

PA 8/24/01

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (UG/KG)	AMOUNTS ON-COL (UG/KG)
	16 Methylene Chloride	84	10.304	10.307	(0.699)	82846	10.0000	14.158
	17 trans-1,2-Dichloroethene	96	10.777	10.780	(0.731)	29672	10.0000	12.034
	18 Methyl-T-Butylether	73	10.817	10.800	(0.734)	51888	10.0000	13.467
	19 1,1-Dichloroethane	63	11.724	11.697	(0.795)	59089	10.0000	11.201
	20 2,2-Dichloropropane	77	12.719	12.722	(0.863)	2346	10.0000	4.865(aM)
	21 cis-1,2-Dichloroethene	96	12.818	12.810	(0.870)	34701	10.0000	11.618
	22 2-Butanone	43	12.916	12.909	(0.876)	17110	10.0000	13.427
	23 Bromochloromethane	128	13.222	13.225	(0.897)	22963	10.0000	9.666
	24 Chloroform	83	13.389	13.392	(0.908)	69636	10.0000	11.970
	25 1,1,1-Trichloroethane	97	13.577	13.579	(0.921)	53498	10.0000	11.760
	26 Carbon Tetrachloride	117	13.823	13.806	(0.938)	51041	10.0000	11.885
	27 1,1-Dichloropropene	77	13.882	14.210	(0.942)	17381	10.0000	11.672
	28 Benzene	78	14.208	14.210	(0.964)	89211	10.0000	10.486
	29 1,2-Dichloroethane	62	14.395	14.388	(0.977)	43186	10.0000	12.547
	30 Trichloroethene	130	15.331	15.324	(1.040)	39237	10.0000	10.809
	31 1,2-Dichloropropane	63	15.755	15.748	(1.069)	41465	10.0000	10.851
	32 Dibromomethane	174	15.942	15.935	(1.082)	30625	10.0000	11.636
	33 Bromodichloromethane	83	16.179	16.172	(1.098)	63833	10.0000	12.057
	34 cis-1,3-Dichloropropene	75	16.839	16.832	(0.880)	39538	10.0000	10.554
	35 4-Methyl-2-Pentanone	43	17.046	17.049	(0.891)	40675	10.0000	11.130
	36 Toluene	91	17.244	17.236	(0.902)	99693	10.0000	10.471
	37 trans-1,3-Dichloropropene	75	17.648	17.650	(0.923)	22386	10.0000	9.400
	38 1,1,2-Trichloroethane	97	17.894	17.887	(0.936)	33322	10.0000	11.362
	39 Tetrachloroethene	164	17.963	17.966	(0.939)	30961	10.0000	10.028
	40 1,3-Dichloropropane	76	18.121	18.124	(0.947)	51383	10.0000	10.885
	41 2-Hexanone	43	18.190	18.183	(0.951)	27764	10.0000	10.836
	42 Dibromochloromethane	129	18.397	18.380	(0.962)	50733	10.0000	10.697
	43 1,2-Dibromoethane	107	18.555	18.547	(0.970)	43489	10.0000	10.324
	44 Chlorobenzene	112	19.166	19.158	(1.002)	66953	10.0000	9.771
	45 1,1,1,2-Tetrachloroethane	131	19.284	19.267	(1.008)	35965	10.0000	10.475
	46 Ethylbenzene	106	19.254	19.247	(1.007)	32756	10.0000	10.190
	47 m & p-Xylene	106	19.402	19.405	(1.014)	75837	20.0000	19.653
	48 o-Xylene	106	19.915	19.908	(1.041)	39376	10.0000	10.089
	49 Styrene	104	19.944	19.947	(1.043)	57815	10.0000	9.212
M	50 Xylenes (Total)	106				115213	30.0000	29.745
	51 Bromoform	173	20.220	20.223	(1.057)	31374	10.0000	9.356
	52 Isopropylbenzene	105	20.349	20.351	(1.064)	109891	10.0000	9.767
	53 1,1,2,2-Tetrachloroethane	83	20.802	20.814	(0.945)	54448	10.0000	11.954
	54 Bromobenzene	77	20.802	20.795	(0.945)	89758	10.0000	11.575
	55 1,2,3-Trichloropropane	110	20.881	20.874	(0.949)	12378	10.0000	12.322
	56 N-Propylbenzene	120	20.861	20.838	(0.948)	28990	10.0000	12.277
	57 2-Chlorotoluene	126	21.009	21.012	(0.954)	26662	10.0000	11.101
	58 1,3,5-Trimethylbenzene	105	21.078	20.641	(0.957)	87040	10.0000	11.426
	59 4-Chlorotoluene	126	21.157	21.160	(0.961)	28575	10.0000	12.298
	60 Tert-Butylbenzene	134	21.472	21.455	(0.975)	22268	10.0000	11.078
	61 1,2,4-Trimethylbenzene	105	21.541	21.534	(0.979)	82918	10.0000	11.035
	62 Sec-Butylbenzene	134	21.729	21.722	(0.987)	24506	10.0000	11.455

SPW 8/14

PA 8/24/01

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (UG/KG)	AMOUNTS ON-COL (UG/KG)
63 1,3-Dichlorobenzene	146	21.936	21.928	(0.996)	55178	10.0000	10.965
64 4-Isopropyltoluene	119	21.886	21.889	(0.994)	97733	10.0000	11.085
65 1,4-Dichlorobenzene	146	22.044	22.037	(1.001)	59356	10.0000	10.760
66 N-Butylbenzene	134	22.389	22.382	(1.017)	23337	10.0000	10.766
67 1,2-Dichlorobenzene	146	22.497	22.500	(1.022)	54435	10.0000	10.844
68 1,2-Dibromo-3-chloropropane	157	23.552	23.555	(1.070)	10523	10.0000	9.475
69 1,2,4-Trichlorobenzene	180	24.824	24.816	(1.128)	37867	10.0000	10.198
70 Hexachlorobutadiene	225	25.001	24.994	(1.136)	28110	10.0000	10.553
71 Naphthalene	128	25.287	25.286	(1.149)	63886	10.0000	10.050
72 1,2,3-Trichlorobenzene	180	Compound Not Detected.					
73 Freon-113	151	9.023	9.035	(0.612)	36934	10.0000	12.744
74 Iodomethane	142	Compound Not Detected.					

QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

Data File: \\lilan04\d\chem\MSVOA\5970K.i\K073101p.b\K073110.D
Injection Date: 31-JUL-2001 18:39
Instrument: 5970K.i
Client Sample ID: VSTD10

Compound: Vinyl Chloride
CAS Number: 75-01-4

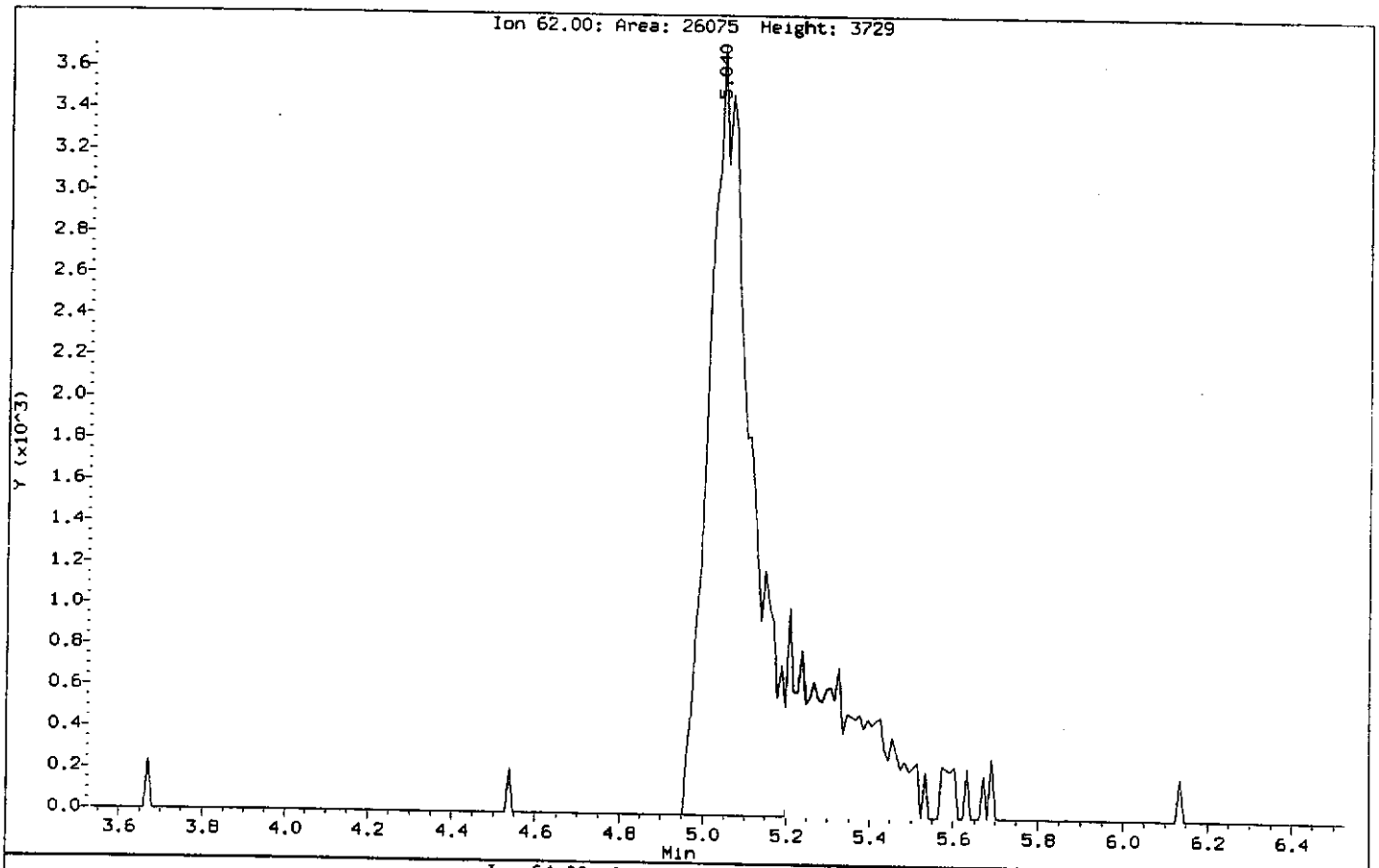

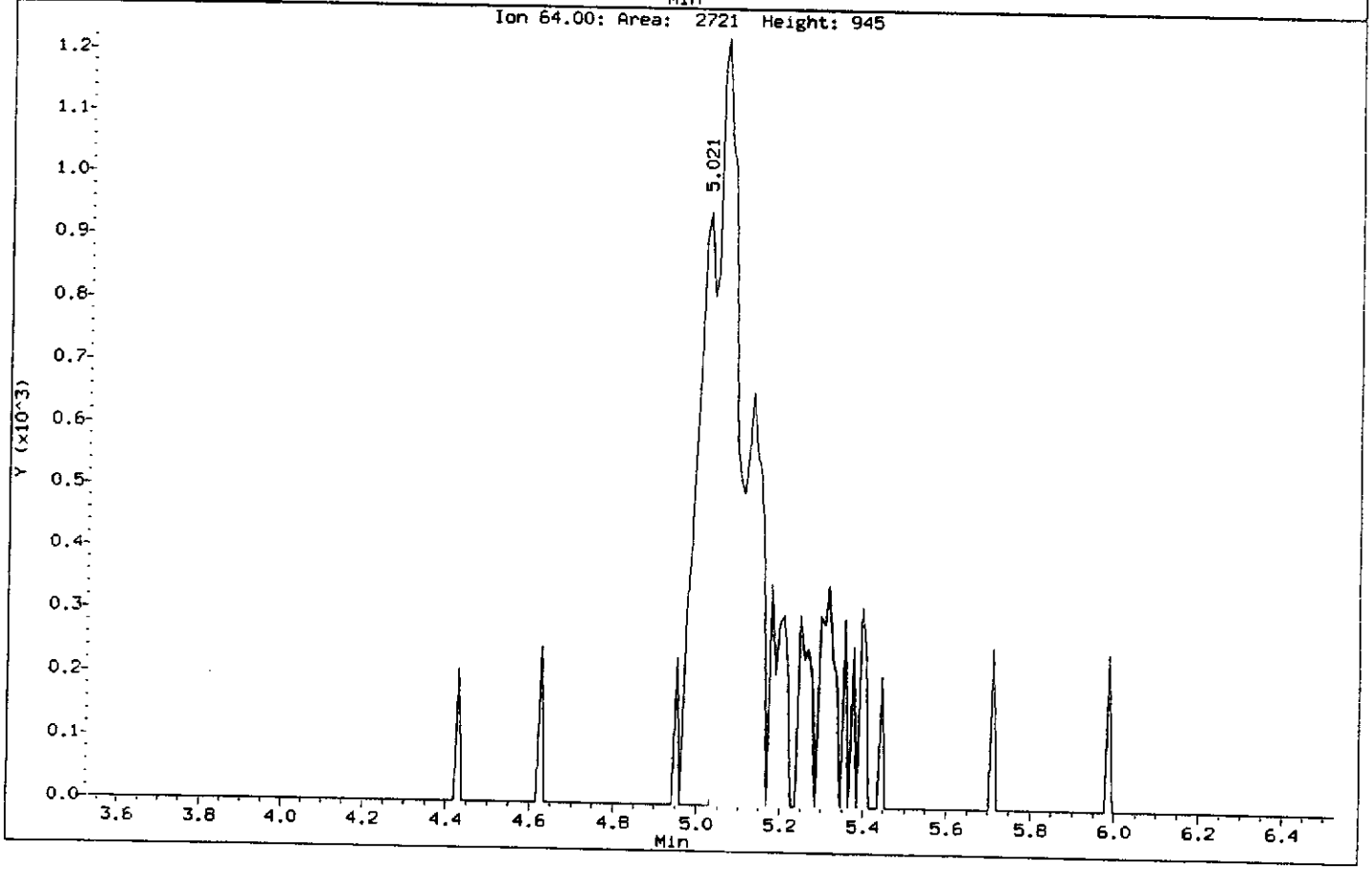

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Injection Date: 31-JUL-2001 18:39
Instrument: 5970K.i
Client Sample ID: VSTD10

Compound: Chloroethane
CAS Number: 75-00-3

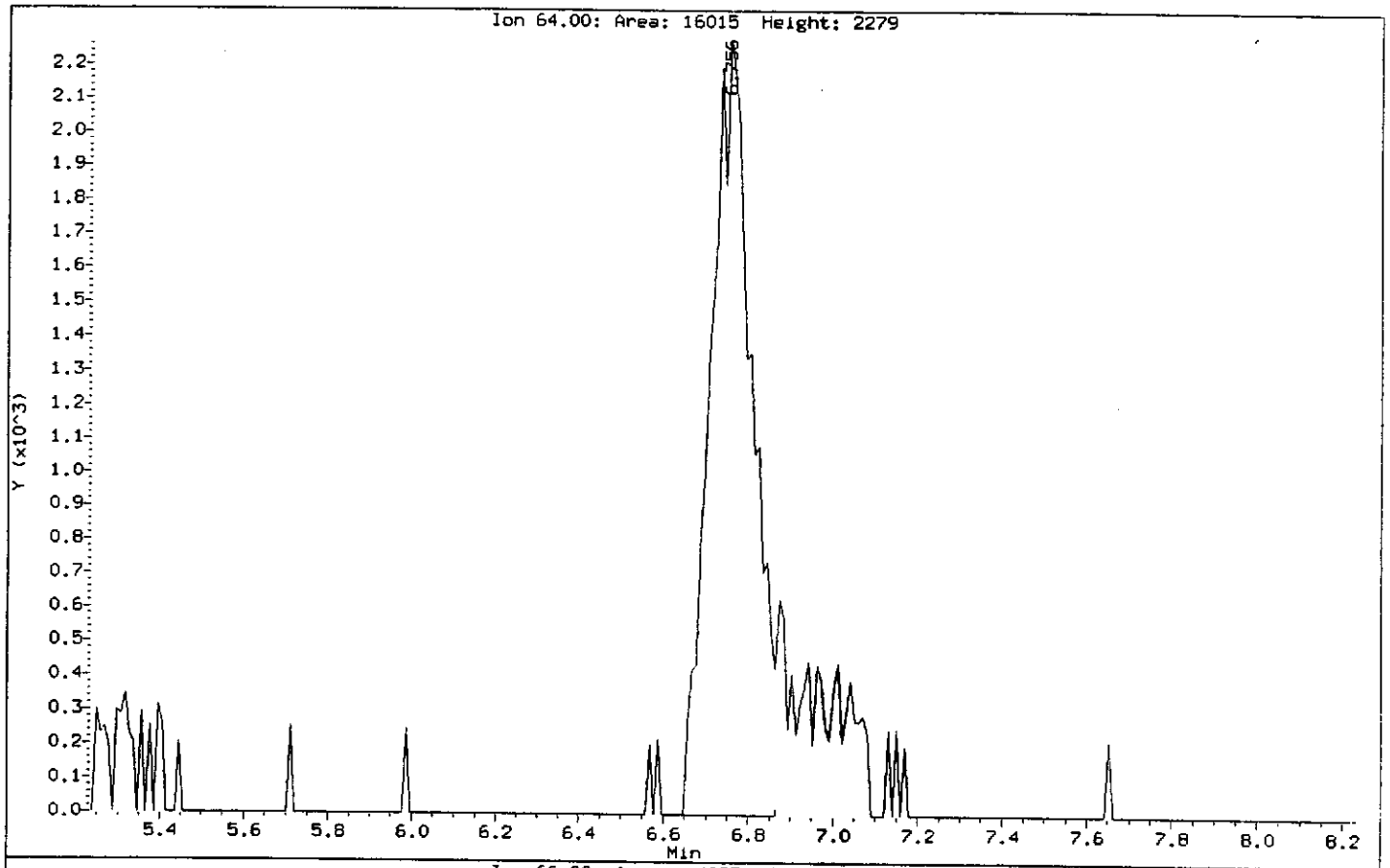

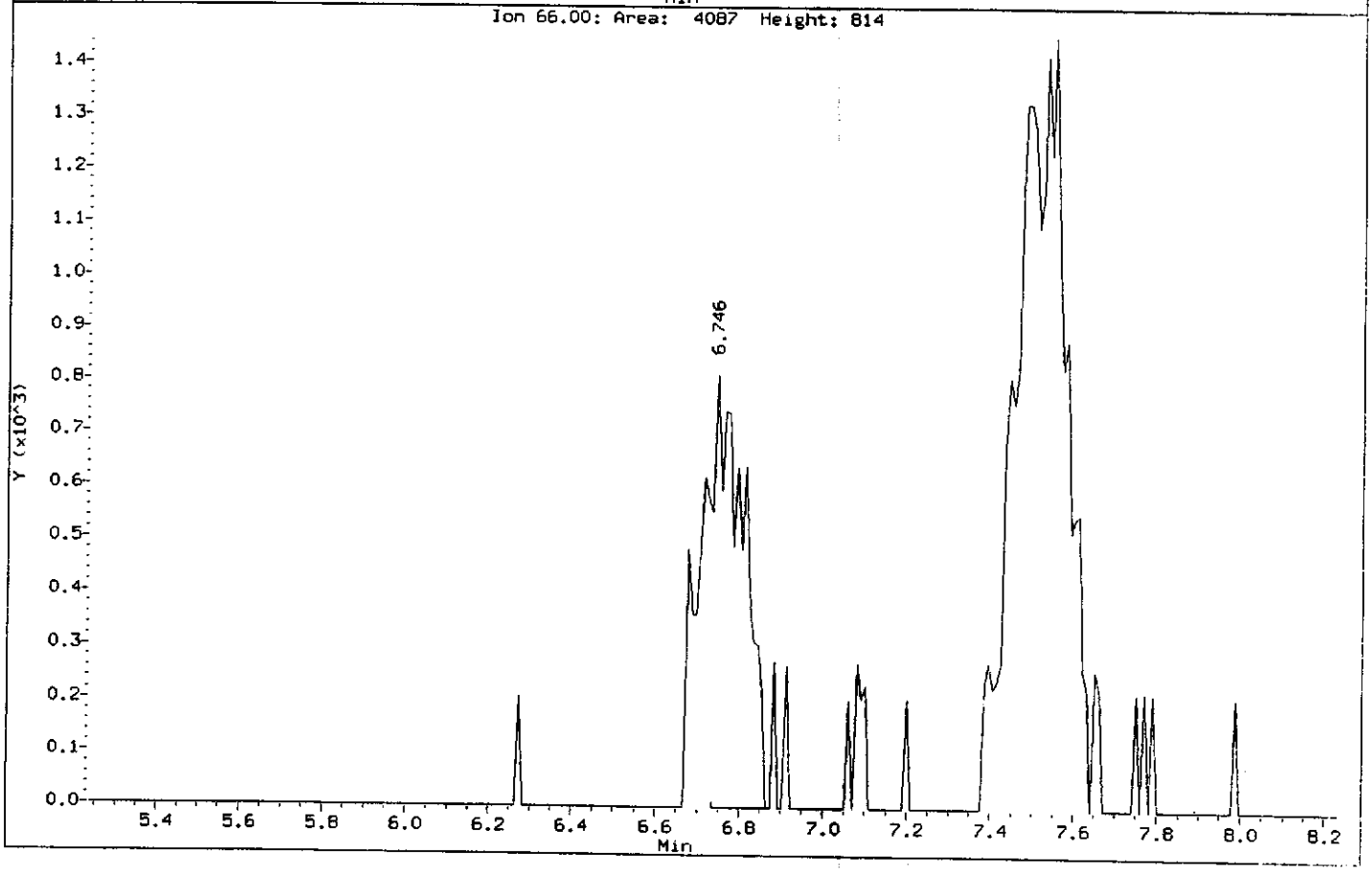

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Injection Date: 31-JUL-2001 18:39
Instrument: 5970K.i
Client Sample ID: VSTD10

Compound: 2,2-Dichloropropane
CAS Number: 594-20-7

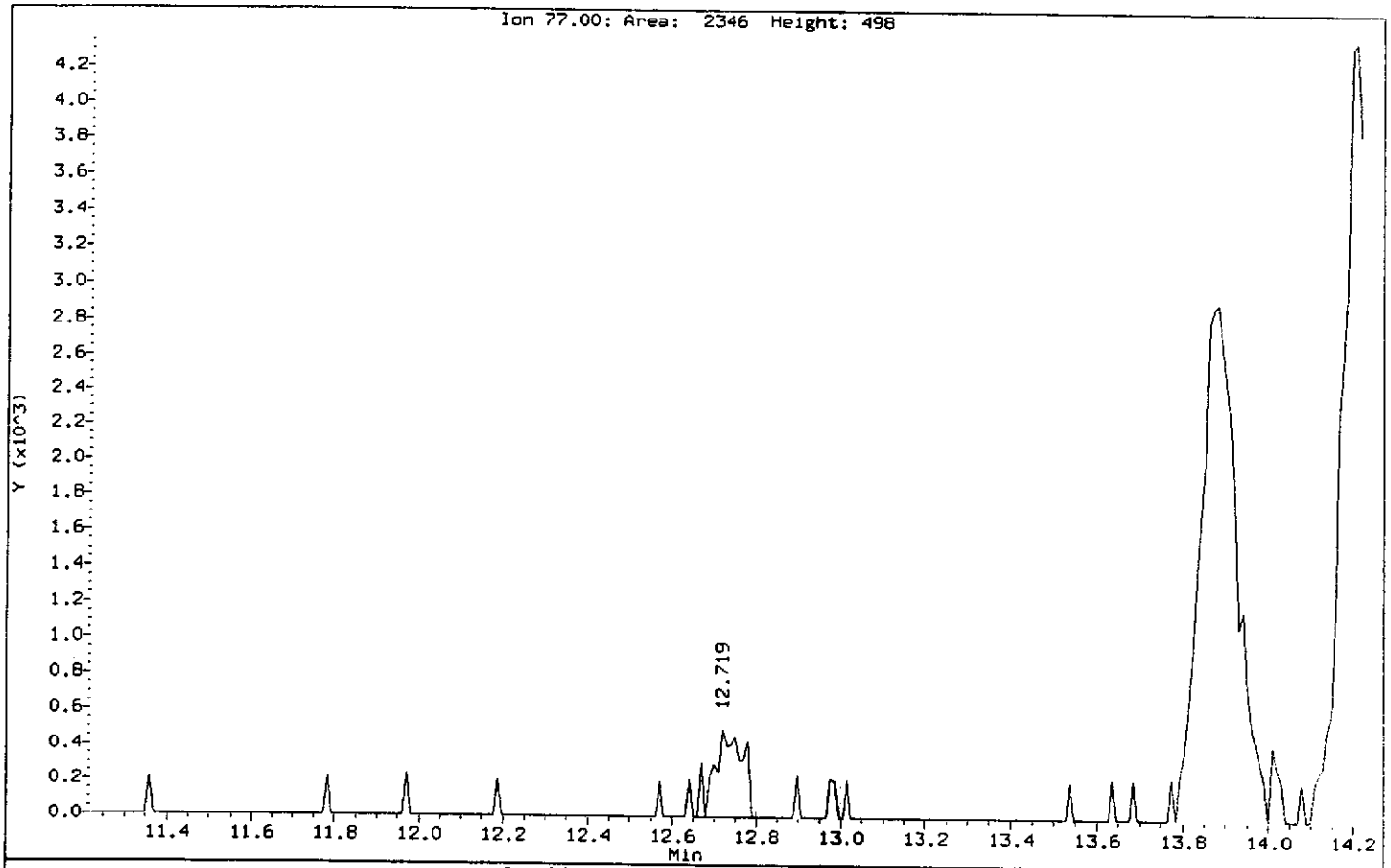

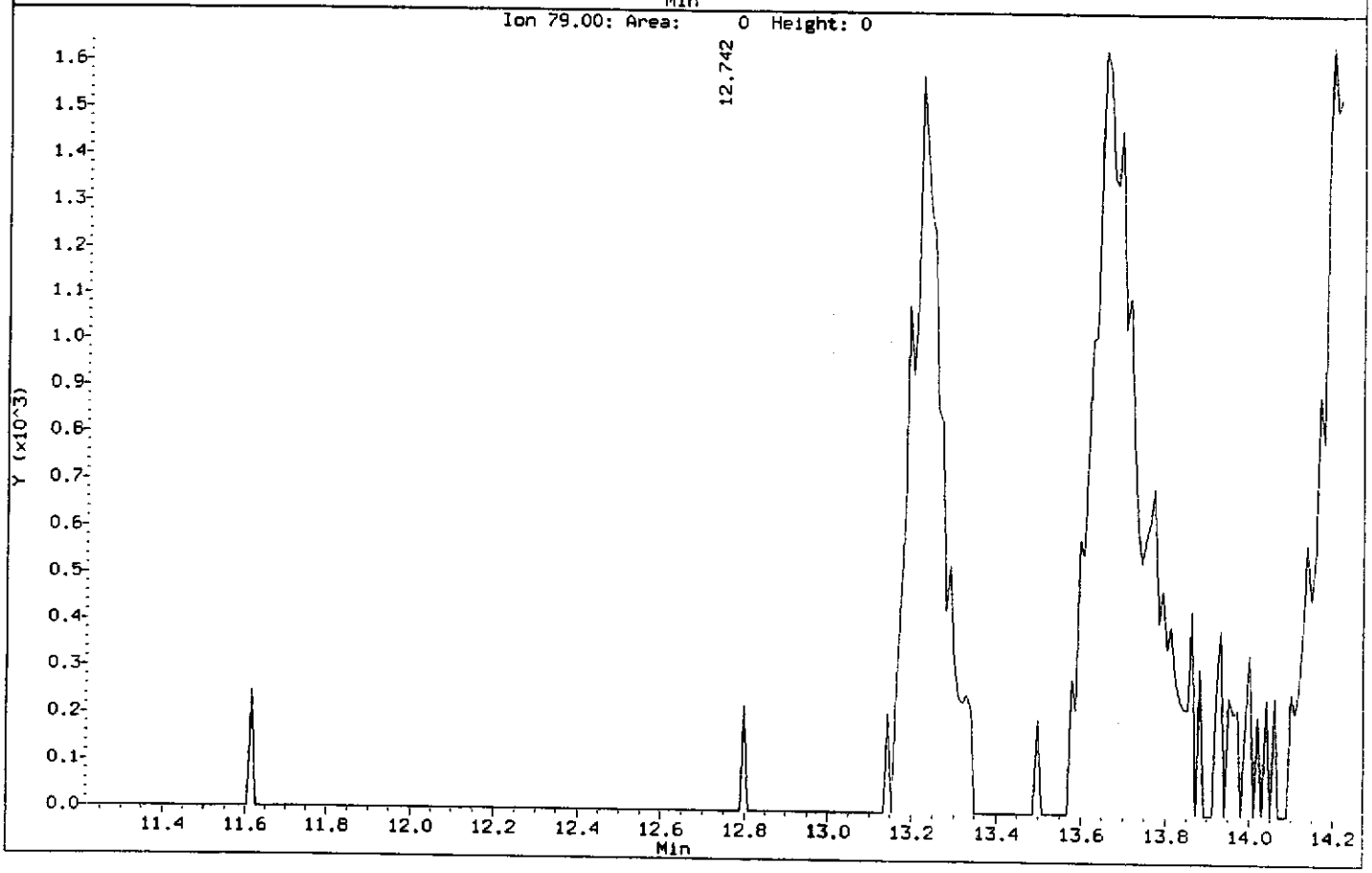

94

Data File: \\lilan04\d\chem\MSVOA\5970K.i\K073101p.b\K073111.D
Date : 31-JUL-2001 19:17
Client ID: VSTD20
Sample Info: VSTD20 K073107

Instrument: 5970K.i

Operator: JVG

Column phase: DB-624

Column diameter: 0.53

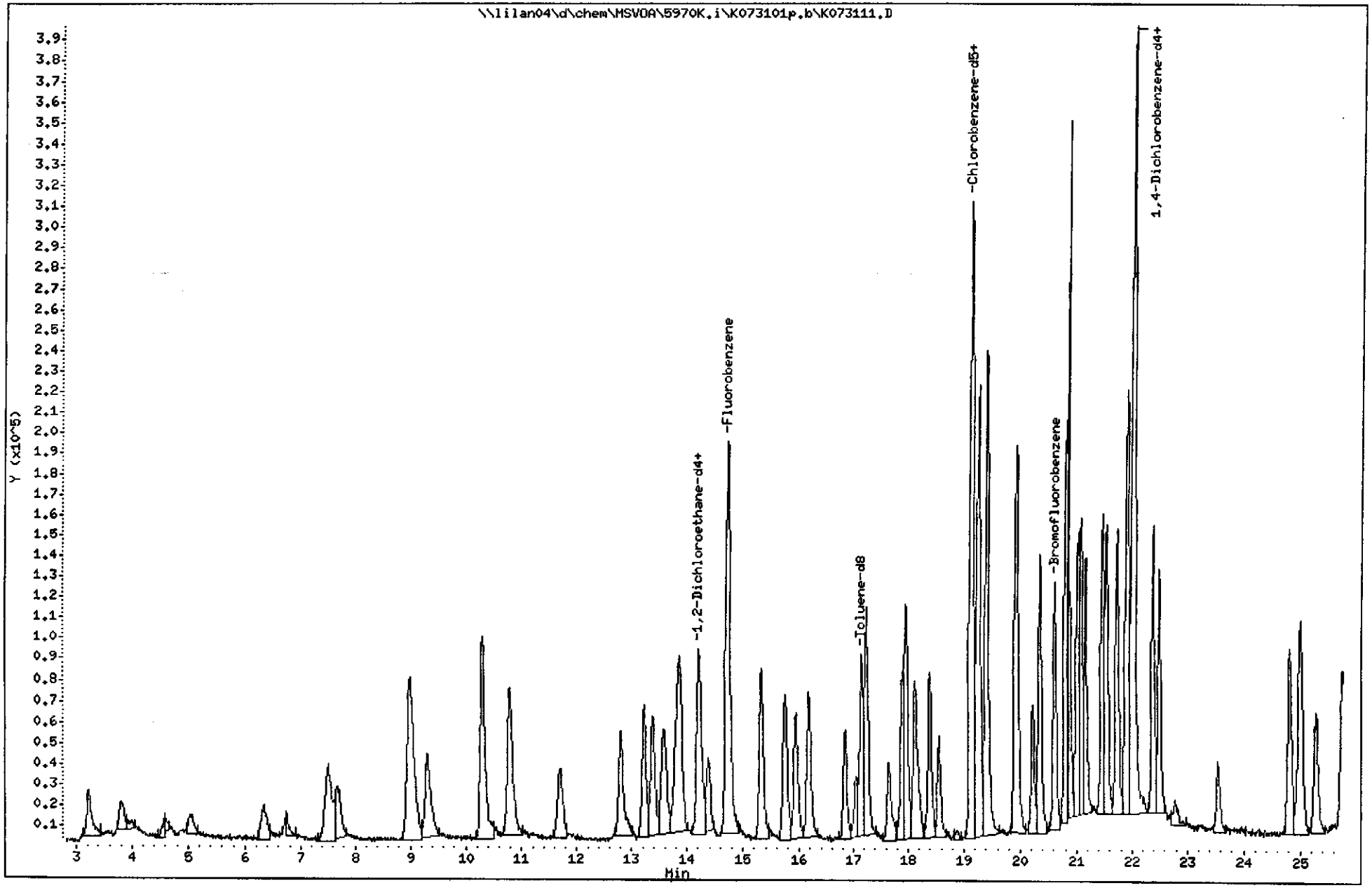

Lionville Laboratory Inc.

Data file : \\lilan04\d\chem\MSVOA\5970K.i\K073101p.b\K073111.D
Lab Smp Id: VSTD20 Client Smp ID: VSTD20
Inj Date : 31-JUL-2001 19:17
Operator : JVG Inst ID: 5970K.i
Smp Info : VSTD20 K073107
Misc Info : DIL,1,ALT8260 5035 ICL 5.0G
Comment :
Method : \\LILAN04\D\chem\MSVOA\5970K.i\K073101p.b\8260a07s.m
Meth Date : 07-Aug-2001 16:32 target Quant Type: ISTD
Cal Date : 31-JUL-2001 19:17 Cal File: K073111.D
Als bottle: 23 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.00
Processing Host: MSVOA2

Concentration Formula: Amt * DF * Uf/(Ws*(100-M)/100)

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Ws	5.000	Weight of sample extracted (g)
M	0.000	% Moisture (not decanted)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (UG/KG)	AMOUNTS ON-COL (UG/KG)
* 1 Fluorobenzene	96	14.747	14.733	(1.000)	444737	50.0000	
* 2 Chlorobenzene-d5	117	19.124	19.119	(1.000)	291773	50.0000	
* 3 1,4-Dichlorobenzene-d4	152	22.012	22.017	(1.000)	167982	50.0000	
$ 4 1,2-Dichloroethane-d4	65	14.254	14.378	(0.967)	60187	20.0000	23.535
$ 5 Toluene-d8	98	17.152	17.138	(0.897)	126722	20.0000	20.152
$ 6 Bromofluorobenzene	95	20.612	20.814	(0.936)	85607	20.0000	19.365
7 Dichlorodifluoromethane	85	3.806	3.801	(0.258)	94100	20.0000	18.374
8 Chloromethane	50	4.584	4.570	(0.311)	61603	20.0000	17.421
9 Vinyl Chloride	62	5.057	5.033	(0.343)	49568	20.0000	19.915
10 Bromomethane	94	6.339	6.314	(0.430)	44682	20.0000	19.915
11 Chloroethane	64	6.753	6.738	(0.458)	31009	20.0000	19.512
12 Trichlorofluoromethane	101	7.512	7.507	(0.509)	129936	20.0000	21.752
13 1,1-Dichloroethene	96	8.981	8.976	(0.609)	59790	20.0000	18.915
14 Carbon Disulfide	76	9.316	9.311	(0.632)	162607	20.0000	17.970
15 Acetone	43	9.395	9.390	(0.637)	39740	20.0000	23.720

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (UG/KG)	AMOUNTS ON-COL (UG/KG)
	16 Methylene Chloride	84	10.301	10.307	(0.699)	120290	20.0000	22.508
	17 trans-1,2-Dichloroethene	96	10.784	10.780	(0.731)	50308	20.0000	25.155
	18 Methyl-T-Butylether	73	10.824	10.800	(0.734)	87594	20.0000	26.124
	19 1,1-Dichloroethane	63	11.701	11.697	(0.793)	102887	20.0000	24.165
	20 2,2-Dichloropropane	77	12.726	12.722	(0.863)	4622	20.0000	18.464
	21 cis-1,2-Dichloroethene	96	12.815	12.810	(0.869)	59760	20.0000	24.608
	22 2-Butanone	43	12.933	12.909	(0.877)	26262	20.0000	24.960
	23 Bromochloromethane	128	13.229	13.225	(0.897)	41523	20.0000	18.491
	24 Chloroform	83	13.387	13.392	(0.908)	125631	20.0000	25.291
	25 1,1,1-Trichloroethane	97	13.584	13.579	(0.921)	100068	20.0000	25.057
	26 Carbon Tetrachloride	117	13.820	13.806	(0.937)	92428	20.0000	24.780
	27 1,1-Dichloropropene	77	13.870	14.210	(0.941)	30992	20.0000	23.977
	28 Benzene	78	14.215	14.210	(0.964)	169741	20.0000	21.066
	29 1,2-Dichloroethane	62	14.382	14.388	(0.975)	72245	20.0000	24.231
	30 Trichloroethene	130	15.338	15.324	(1.040)	73782	20.0000	21.936
	31 1,2-Dichloropropane	63	15.743	15.748	(1.068)	77106	20.0000	21.836
	32 Dibromomethane	174	15.940	15.935	(1.081)	53867	20.0000	23.346
	33 Bromodichloromethane	83	16.176	16.172	(1.097)	114077	20.0000	24.215
	34 cis-1,3-Dichloropropene	75	16.847	16.832	(0.881)	74013	20.0000	24.250
	35 4-Methyl-2-Pentanone	43	17.054	17.049	(0.892)	66063	20.0000	23.003
	36 Toluene	91	17.241	17.236	(0.902)	175025	20.0000	21.412
	37 trans-1,3-Dichloropropene	75	17.645	17.650	(0.923)	43850	20.0000	23.284
	38 1,1,2-Trichloroethane	97	17.891	17.887	(0.936)	57780	20.0000	23.640
	39 Tetrachloroethene	164	17.970	17.966	(0.940)	57612	20.0000	21.602
	40 1,3-Dichloropropane	76	18.128	18.124	(0.948)	92487	20.0000	23.481
	41 2-Hexanone	43	18.197	18.183	(0.952)	47482	20.0000	22.953
	42 Dibromochloromethane	129	18.384	18.380	(0.961)	93064	20.0000	23.443
	43 1,2-Dibromoethane	107	18.552	18.547	(0.970)	78984	20.0000	22.125
	44 Chlorobenzene	112	19.163	19.158	(1.002)	124958	20.0000	20.726
	45 1,1,1,2-Tetrachloroethane	131	19.271	19.267	(1.008)	64890	20.0000	22.399
	46 Ethylbenzene	106	19.262	19.247	(1.007)	57058	20.0000	20.184
	47 m & p-Xylene	106	19.400	19.405	(1.014)	140212	40.0000	40.490
	48 o-Xylene	106	19.912	19.908	(1.041)	69109	20.0000	20.013
	49 Styrene	104	19.952	19.947	(1.043)	111915	20.0000	19.885
M	50 Xylenes (Total)	106				209321	60.0000	60.504
	51 Bromoform	173	20.218	20.223	(1.057)	60005	20.0000	21.524
	52 Isopropylbenzene	105	20.356	20.351	(1.064)	204657	20.0000	20.629
	53 1,1,2,2-Tetrachloroethane	83	20.799	20.814	(0.945)	93513	20.0000	22.868
	54 Bromobenzene	77	20.799	20.795	(0.945)	153466	20.0000	21.396
	55 1,2,3-Trichloropropane	110	20.849	20.874	(0.947)	19613	20.0000	23.382 (MH)
	56 N-Propylbenzene	120	20.849	20.838	(0.947)	49268	20.0000	23.970
	57 2-Chlorotoluene	126	21.016	21.012	(0.955)	48540	20.0000	21.659
	58 1,3,5-Trimethylbenzene	105	21.075	20.641	(0.957)	150280	20.0000	20.867
	59 4-Chlorotoluene	126	21.164	21.160	(0.961)	42948	20.0000	22.133
	60 Tert-Butylbenzene	134	21.460	21.455	(0.975)	40282	20.0000	21.291
	61 1,2,4-Trimethylbenzene	105	21.539	21.534	(0.979)	147753	20.0000	21.286
	62 Sec-Butylbenzene	134	21.726	21.722	(0.987)	45224	20.0000	23.230

SP VOL 8/7/01

MZ 24(K)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (UG/KG)	AMOUNTS ON-COL (UG/KG)
63 1,3-Dichlorobenzene	146	21.933	21.928	(0.996)	98017	20.0000	20.405
64 4-Isopropyltoluene	119	21.893	21.889	(0.995)	179450	20.0000	21.705
65 1,4-Dichlorobenzene	146	22.041	22.037	(1.001)	104396	20.0000	19.982
66 N-Butylbenzene	134	22.386	22.382	(1.017)	42222	20.0000	21.174
67 1,2-Dichlorobenzene	146	22.514	22.500	(1.023)	93845	20.0000	20.107
68 1,2-Dibromo-3-chloropropane	157	23.549	23.555	(1.070)	20111	20.0000	19.555
69 1,2,4-Trichlorobenzene	180	24.821	24.816	(1.128)	69298	20.0000	19.541
70 Hexachlorobutadiene	225	25.008	24.994	(1.136)	52516	20.0000	21.650
71 Naphthalene	128	25.284	25.286	(1.149)	121577	20.0000	20.273
72 1,2,3-Trichlorobenzene	180	Compound Not Detected.					
73 Freon-113	151	9.040	9.035	(0.613)	57338	20.0000	23.411
74 Iodomethane	142	Compound Not Detected.					

QC Flag Legend

M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

Data File: \\lilan04\d\chem\MSVOA\5970K.i\K073101p.b\K073111.D
Injection Date: 31-JUL-2001 19:17
Instrument: 5970K.i
Client Sample ID: VSTD20

Compound: 1,2,3-Trichloropropane
CAS Number: 96-18-4

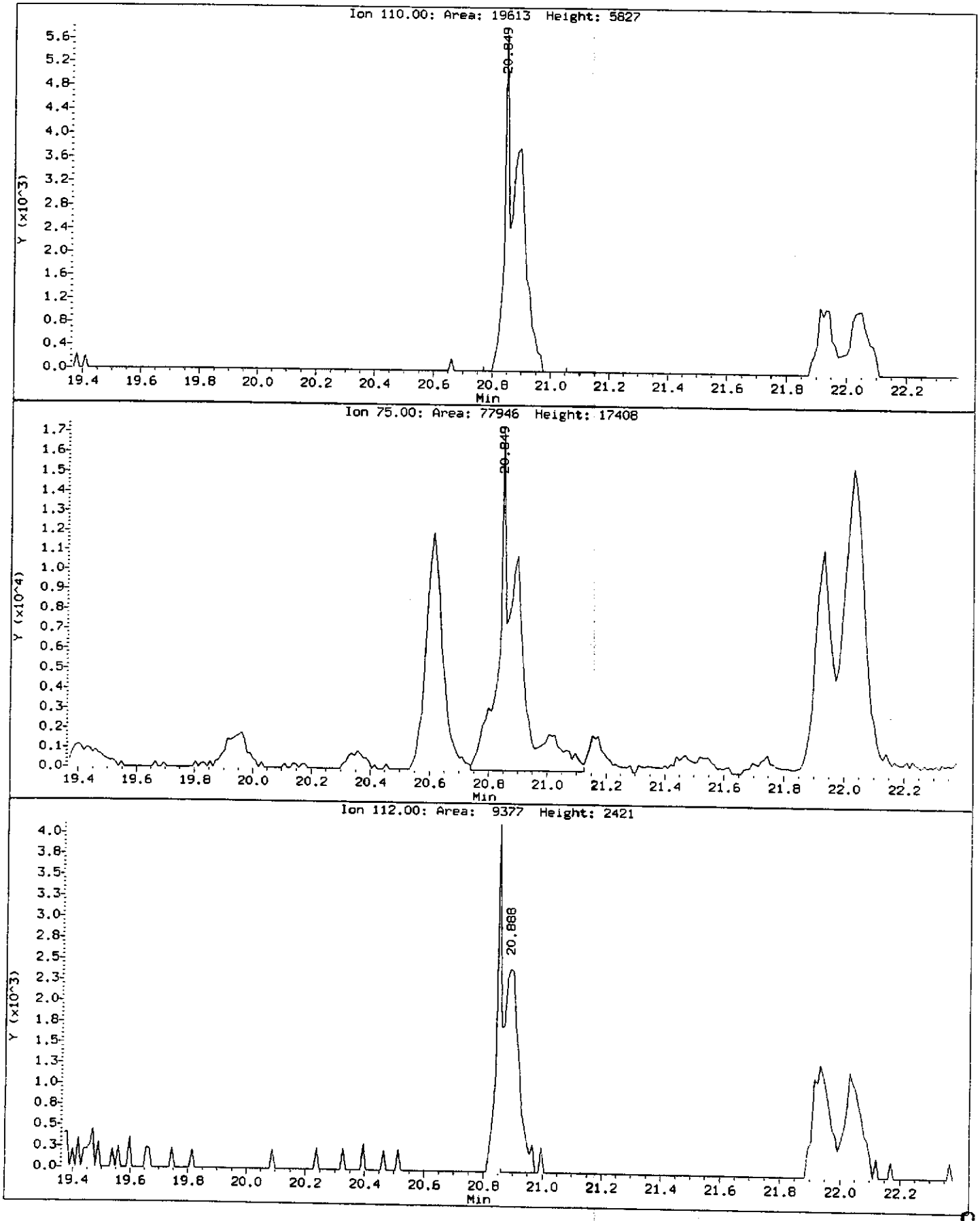

Data File: \\lilan04\d\chem\MSVOA\5970K.i\K073101p.b\K073114.D
Date : 31-JUL-2001 21:31
Client ID: VSTD50
Sample Info: VSTD50 K073107

Instrument: 5970K.i

Operator: JVG
Column diameter: 0.53

Column phase: DB-624

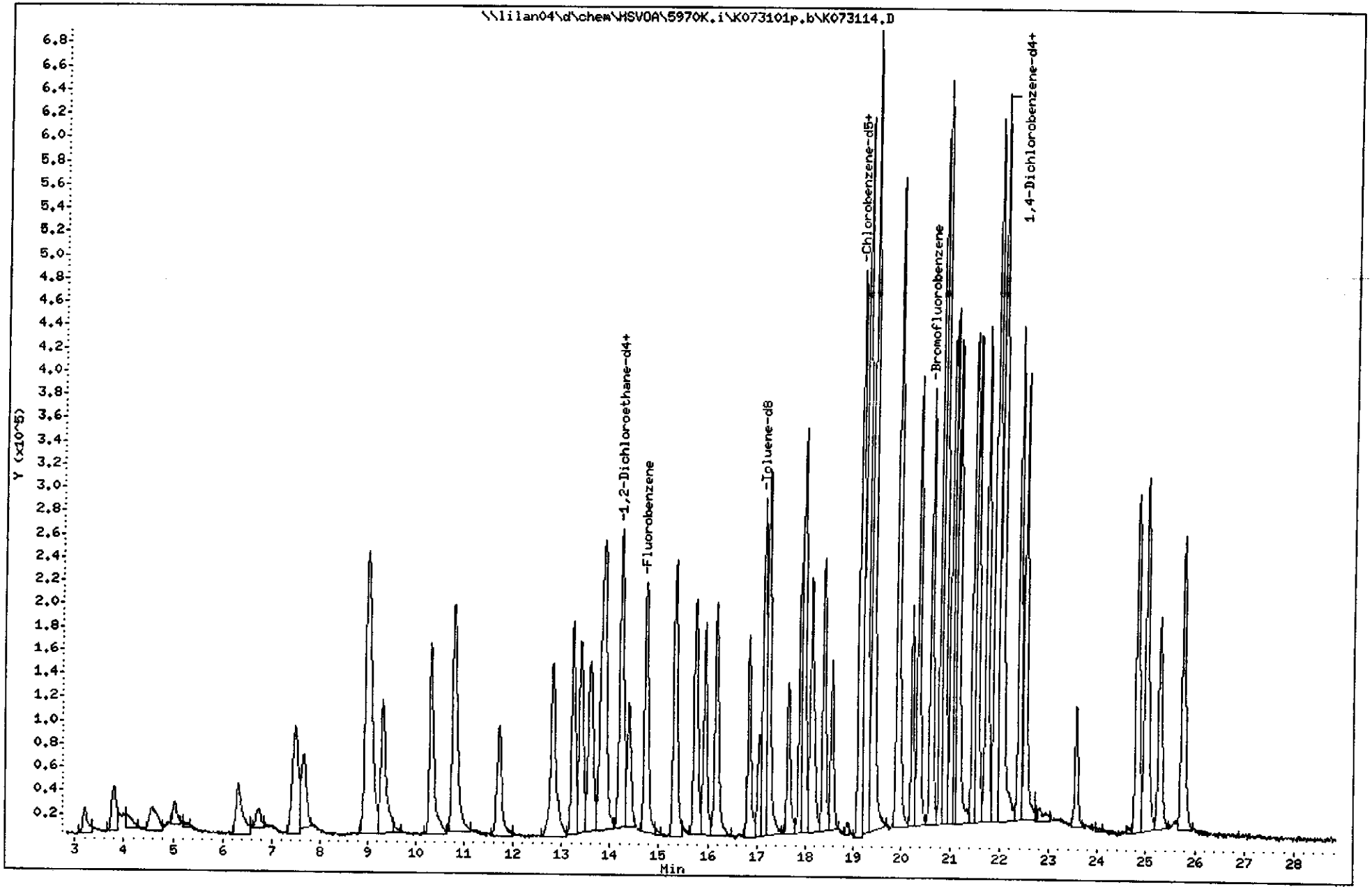

Lionville Laboratory Inc.

Data file : \\lilan04\d\chem\MSVOA\5970K.i\K073101p.b\K073114.D
Lab Smp Id: VSTD50 Client Smp ID: VSTD50
Inj Date : 31-JUL-2001 21:31
Operator : JVG Inst ID: 5970K.i
Smp Info : VSTD50 K073107
Misc Info : DIL,1,ALT8260 5035 ICL 5.0G
Comment :
Method : \\LILAN04\D\chem\MSVOA\5970K.i\K073101p.b\8260a07s.m
Meth Date : 07-Aug-2001 16:32 target Quant Type: ISTD
Cal Date : 31-JUL-2001 21:31 Cal File: K073114.D
Als bottle: 26 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.00
Processing Host: MSVOA2

Concentration Formula: Amt * DF * Uf/(Ws*(100-M)/100)

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Ws	5.000	Weight of sample extracted (g)
M	0.000	% Moisture (not decanted)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (UG/KG)	AMOUNTS ON-COL (UG/KG)
* 1 Fluorobenzene	96	14.733	14.733	(1.000)	496037	50.0000	
* 2 Chlorobenzene-d5	117	19.129	19.119	(1.000)	329182	50.0000	
* 3 1,4-Dichlorobenzene-d4	152	22.017	22.017	(1.000)	191726	50.0000	
$ 4 1,2-Dichloroethane-d4	65	14.269	14.378	(0.969)	199861	50.0000	53.950
$ 5 Toluene-d8	98	17.148	17.138	(0.896)	413048	50.0000	53.215
$ 6 Bromofluorobenzene	95	20.608	20.814	(0.936)	285359	50.0000	52.549
7 Dichlorodifluoromethane	85	3.791	3.801	(0.257)	278296	50.0000	48.166
8 Chloromethane	50	4.590	4.570	(0.312)	167541	50.0000	46.232
9 Vinyl Chloride	62	5.043	5.033	(0.342)	171407	50.0000	49.236
10 Bromomethane	94	6.324	6.314	(0.429)	136004	50.0000	51.816
11 Chloroethane	64	6.739	6.738	(0.457)	87434	50.0000	50.288
12 Trichlorofluoromethane	101	7.488	7.507	(0.508)	373184	50.0000	48.358
13 1,1-Dichloroethene	96	8.996	8.976	(0.611)	172396	50.0000	47.474
14 Carbon Disulfide	76	9.321	9.311	(0.633)	482204	50.0000	49.063
15 Acetone	43	9.430	9.390	(0.640)	65960	50.0000	34.148

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (UG/KG)	AMOUNTS ON-COL (UG/KG)
	16 Methylene Chloride	84	10.317	10.307	(0.700)	214684	50.0000	36.528
	17 trans-1,2-Dichloroethene	96	10.780	10.780	(0.732)	157752	50.0000	51.697
	18 Methyl-T-Butylether	73	10.829	10.800	(0.735)	259107	50.0000	53.925
	19 1,1-Dichloroethane	63	11.706	11.697	(0.795)	301798	50.0000	47.847
	20 2,2-Dichloropropane	77	12.741	12.722	(0.865)	35704	50.0000	52.409
	21 cis-1,2-Dichloroethene	96	12.820	12.810	(0.870)	180403	50.0000	49.708
	22 2-Butanone	43	12.929	12.909	(0.878)	68618	50.0000	46.813
	23 Bromochloromethane	128	13.234	13.225	(0.898)	121883	50.0000	47.970
	24 Chloroform	83	13.402	13.392	(0.910)	349115	50.0000	49.521
	25 1,1,1-Trichloroethane	97	13.599	13.579	(0.923)	292977	50.0000	51.966
	26 Carbon Tetrachloride	117	13.816	13.806	(0.938)	266555	50.0000	50.564
	27 1,1-Dichloropropene	77	13.895	14.210	(0.943)	94677	50.0000	51.729
	28 Benzene	78	14.220	14.210	(0.965)	482127	50.0000	49.780
	29 1,2-Dichloroethane	62	14.388	14.388	(0.977)	219519	50.0000	52.852
	30 Trichloroethene	130	15.334	15.324	(1.041)	219095	50.0000	51.434
	31 1,2-Dichloropropane	63	15.748	15.748	(1.069)	222890	50.0000	50.191
	32 Dibromomethane	174	15.945	15.935	(1.082)	163666	50.0000	51.948
	33 Bromodichloromethane	83	16.172	16.172	(1.098)	325818	50.0000	51.186
	34 cis-1,3-Dichloropropene	75	16.842	16.832	(0.880)	238390	50.0000	55.018
	35 4-Methyl-2-Pentanone	43	17.049	17.049	(0.891)	196940	50.0000	49.959
	36 Toluene	91	17.246	17.236	(0.902)	498580	50.0000	50.190
	37 trans-1,3-Dichloropropene	75	17.650	17.650	(0.923)	156715	50.0000	55.969
	38 1,1,2-Trichloroethane	97	17.897	17.887	(0.936)	165955	50.0000	52.042
	39 Tetrachloroethene	164	17.966	17.966	(0.939)	181196	50.0000	54.657
	40 1,3-Dichloropropane	76	18.124	18.124	(0.947)	276440	50.0000	53.161
	41 2-Hexanone	43	18.193	18.183	(0.951)	135381	50.0000	50.046
	42 Dibromochloromethane	129	18.390	18.380	(0.961)	274705	50.0000	52.520
	43 1,2-Dibromoethane	107	18.557	18.547	(0.970)	242970	50.0000	53.252
	44 Chlorobenzene	112	19.159	19.158	(1.002)	356506	50.0000	50.452
	45 1,1,1,2-Tetrachloroethane	131	19.277	19.267	(1.008)	190043	50.0000	51.596
	46 Ethylbenzene	106	19.247	19.247	(1.006)	167375	50.0000	50.755
	47 m & p-Xylene	106	19.405	19.405	(1.014)	403937	100.000	102.22
	48 o-Xylene	106	19.918	19.908	(1.041)	198883	50.0000	50.016
	49 Styrene	104	19.947	19.947	(1.043)	331129	50.0000	51.423
M	50 Xylenes (Total)	106				602820	150.000	152.23
	51 Bromoform	173	20.223	20.223	(1.057)	189724	50.0000	52.845
	52 Isopropylbenzene	105	20.351	20.351	(1.064)	590063	50.0000	50.703
	53 1,1,2,2-Tetrachloroethane	83	20.805	20.814	(0.945)	272278	50.0000	51.135
	54 Bromobenzene	77	20.805	20.795	(0.945)	448272	50.0000	50.368
	55 1,2,3-Trichloropropane	110	20.874	20.874	(0.948)	65760	50.0000	53.694
	56 N-Propylbenzene	120	20.864	20.838	(0.948)	153029	50.0000	52.631
	57 2-Chlorotoluene	126	21.012	21.012	(0.954)	150741	50.0000	53.172
	58 1,3,5-Trimethylbenzene	105	21.081	20.641	(0.957)	476583	50.0000	53.663
	59 4-Chlorotoluene	126	21.160	21.160	(0.961)	152257	50.0000	52.754
	60 Tert-Butylbenzene	134	21.465	21.455	(0.975)	122602	50.0000	52.350
	61 1,2,4-Trimethylbenzene	105	21.544	21.534	(0.979)	453126	50.0000	51.982
	62 Sec-Butylbenzene	134	21.731	21.722	(0.987)	132714	50.0000	51.629

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (UG/KG)	AMOUNTS ON-COL (UG/KG)
63 1,3-Dichlorobenzene	146	21.938	21.928	(0.996)	292617	50.0000	51.437
64 4-Isopropyltoluene	119	21.899	21.889	(0.995)	519425	50.0000	51.209
65 1,4-Dichlorobenzene	146	22.047	22.037	(1.001)	341253	50.0000	54.472
66 N-Butylbenzene	134	22.382	22.382	(1.017)	131744	50.0000	52.606
67 1,2-Dichlorobenzene	146	22.510	22.500	(1.022)	283451	50.0000	49.995
68 1,2-Dibromo-3-chloropropane	157	23.565	23.555	(1.070)	68852	50.0000	53.244
69 1,2,4-Trichlorobenzene	180	24.826	24.816	(1.128)	232643	50.0000	55.131
70 Hexachlorobutadiene	225	25.004	24.994	(1.136)	159054	50.0000	51.133
71 Naphthalene	128	25.290	25.286	(1.149)	370490	50.0000	50.725
72 1,2,3-Trichlorobenzene	180	Compound Not Detected.					
73 Freon-113	151	9.025	9.035	(0.613)	201971	50.0000	54.784
74 Iodomethane	142	Compound Not Detected.					

Data File: \\lilan04\d\chem\MSVOA\5970K.i\K073101p.b\K073113.D
Date : 31-JUL-2001 20:34
Client ID: VSTD100
Sample Info: VSTD100 K073107

Column phase: DB-624

Instrument: 5970K.i

Operator: JVG
Column diameter: 0.53

103

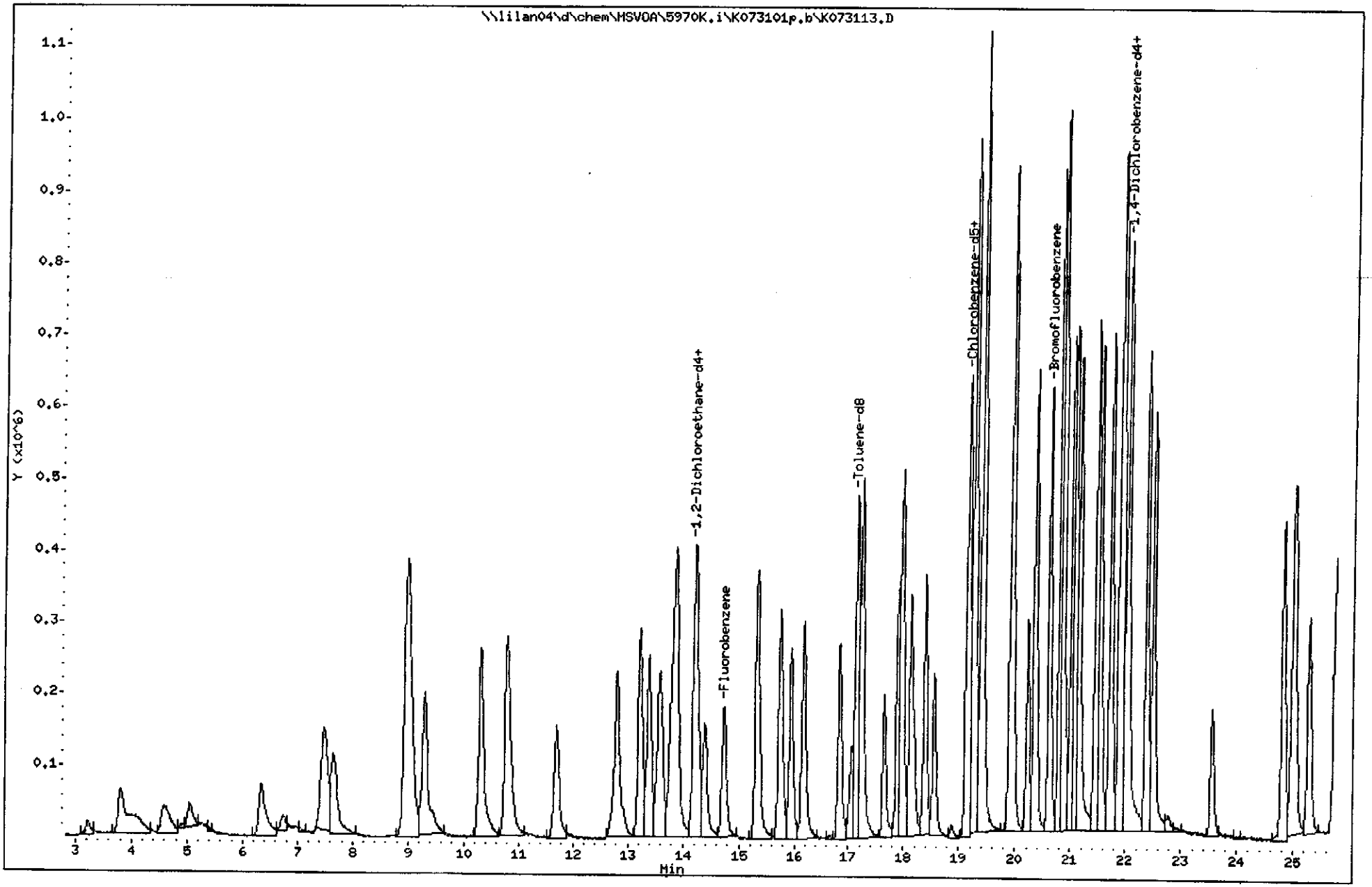

Lionville Laboratory Inc.

Data file : \\lilan04\d\chem\MSVOA\5970K.i\K073101p.b\K073113.D
Lab Smp Id: VSTD100 Client Smp ID: VSTD100
Inj Date : 31-JUL-2001 20:34
Operator : JVG Inst ID: 5970K.i
Smp Info : VSTD100 K073107
Misc Info : DIL,1,ALT8260 5035 ICL 5.0G
Comment :
Method : \\LILAN04\D\chem\MSVOA\5970K.i\K073101p.b\8260a07s.m
Meth Date : 07-Aug-2001 16:32 target Quant Type: ISTD
Cal Date : 31-JUL-2001 20:34 Cal File: K073113.D
Als bottle: 25 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.00
Processing Host: MSVOA2

Concentration Formula: Amt * DF * Uf/(Ws*(100-M)/100)

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Ws	5.000	Weight of sample extracted (g)
M	0.000	% Moisture (not decanted)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (UG/KG)	AMOUNTS ON-COL (UG/KG)
* 1 Fluorobenzene	96	14.740	14.733	(1.000)	400923	50.0000	
* 2 Chlorobenzene-d5	117	19.126	19.119	(1.000)	270972	50.0000	
* 3 1,4-Dichlorobenzene-d4	152	22.014	22.017	(1.000)	164516	50.0000	
$ 4 1,2-Dichloroethane-d4	65	14.257	14.378	(0.967)	289567	100.000	106.16
$ 5 Toluene-d8	98	17.145	17.138	(0.896)	679704	100.000	109.83
$ 6 Bromofluorobenzene	95	20.614	20.814	(0.936)	489642	100.000	107.06
7 Dichlorodifluoromethane	85	3.798	3.801	(0.258)	484874	100.000	101.68
8 Chloromethane	50	4.567	4.570	(0.310)	309025	100.000	99.457
9 Vinyl Chloride	62	5.040	5.033	(0.342)	331070	100.000	122.15(MH)
10 Bromomethane	94	6.331	6.314	(0.430)	235775	100.000	112.92
11 Chloroethane	64	6.736	6.738	(0.457)	142666	100.000	100.74(H)
12 Trichlorofluoromethane	101	7.475	7.507	(0.507)	637898	100.000	106.08
13 1,1-Dichloroethene	96	8.983	8.976	(0.609)	292583	100.000	98.230
14 Carbon Disulfide	76	9.298	9.311	(0.631)	842896	100.000	103.02
15 Acetone	43	9.446	9.390	(0.641)	86424	100.000	54.224

SP 8/7/01
PA 8/7/01

8/24/01

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (UG/KG)	AMOUNTS ON-COL (UG/KG)
16 Methylene Chloride	84	10.304	10.307	(0.699)	353302	100.000	72.118
17 trans-1,2-Dichloroethene	96	10.777	10.780	(0.731)	228749	100.000	102.85
18 Methyl-T-Butylether	73	10.836	10.800	(0.735)	352431	100.000	101.70
19 1,1-Dichloroethane	63	11.704	11.697	(0.794)	475339	100.000	100.49
20 2,2-Dichloropropane	77	12.739	12.722	(0.864)	69134	100.000	142.90
21 cis-1,2-Dichloroethene	96	12.808	12.810	(0.869)	273591	100.000	101.82
22 2-Butanone	43	12.926	12.909	(0.877)	96290	100.000	87.097
23 Bromochloromethane	128	13.231	13.225	(0.898)	196536	100.000	93.813
24 Chloroform	83	13.389	13.392	(0.908)	530104	100.000	101.40
25 1,1,1-Trichloroethane	97	13.586	13.579	(0.922)	444151	100.000	107.08
26 Carbon Tetrachloride	117	13.813	13.806	(0.937)	416974	100.000	106.62
27 1,1-Dichloropropene	77	13.882	14.210	(0.942)	146509	100.000	107.73
28 Benzene	78	14.207	14.210	(0.964)	774648	100.000	101.33
29 1,2-Dichloroethane	62	14.385	14.388	(0.976)	302628	100.000	98.538
30 Trichloroethene	130	15.331	15.324	(1.040)	340851	100.000	103.84
31 1,2-Dichloropropane	63	15.755	15.748	(1.069)	354566	100.000	102.86
32 Dibromomethane	174	15.942	15.935	(1.082)	239023	100.000	101.12
33 Bromodichloromethane	83	16.179	16.172	(1.098)	484389	100.000	101.72
34 cis-1,3-Dichloropropene	75	16.839	16.832	(0.880)	367352	100.000	113.80
35 4-Methyl-2-Pentanone	43	17.056	17.049	(0.892)	308691	100.000	101.21
36 Toluene	91	17.243	17.236	(0.902)	804774	100.000	101.27
37 trans-1,3-Dichloropropene	75	17.647	17.650	(0.923)	248050	100.000	119.18
38 1,1,2-Trichloroethane	97	17.884	17.887	(0.935)	248912	100.000	101.60
39 Tetrachloroethene	164	17.973	17.966	(0.940)	266515	100.000	102.98
40 1,3-Dichloropropane	76	18.121	18.124	(0.947)	416263	100.000	104.73
41 2-Hexanone	43	18.190	18.183	(0.951)	201519	100.000	95.575
42 Dibromochloromethane	129	18.387	18.380	(0.961)	427283	100.000	106.52
43 1,2-Dibromoethane	107	18.554	18.547	(0.970)	372305	100.000	104.92
44 Chlorobenzene	112	19.156	19.158	(1.002)	580616	100.000	101.47
45 1,1,1,2-Tetrachloroethane	131	19.264	19.267	(1.007)	297204	100.000	103.20
46 Ethylbenzene	106	19.254	19.247	(1.007)	272060	100.000	101.38
47 m & p-Xylene	106	19.402	19.405	(1.014)	654752	200.000	203.14
48 o-Xylene	106	19.915	19.908	(1.041)	330781	100.000	101.49
49 Styrene	104	19.944	19.947	(1.043)	542091	100.000	103.03
M 50 Xylenes (Total)	106				985533	300.000	304.62
51 Bromoform	173	20.230	20.223	(1.058)	288506	100.000	102.71
52 Isopropylbenzene	105	20.348	20.351	(1.064)	966184	100.000	102.55
53 1,1,2,2-Tetrachloroethane	83	20.802	20.814	(0.945)	411068	100.000	95.142
54 Bromobenzene	77	20.792	20.795	(0.944)	724658	100.000	97.859
55 1,2,3-Trichloropropane	110	20.881	20.874	(0.949)	95086	100.000	98.872
56 N-Propylbenzene	120	20.881	20.838	(0.949)	239354	100.000	104.41
57 2-Chlorotoluene	126	21.019	21.012	(0.955)	236517	100.000	102.04
58 1,3,5-Trimethylbenzene	105	21.078	20.641	(0.957)	741681	100.000	101.12
59 4-Chlorotoluene	126	21.157	21.160	(0.961)	254453	100.000	110.94
60 Tert-Butylbenzene	134	21.462	21.455	(0.975)	195763	100.000	101.14
61 1,2,4-Trimethylbenzene	105	21.541	21.534	(0.979)	712725	100.000	99.034
62 Sec-Butylbenzene	134	21.728	21.722	(0.987)	213407	100.000	103.10

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (UG/KG)	AMOUNTS ON-COL (UG/KG)
63 1,3-Dichlorobenzene	146	21.935	21.928	(0.996)	466986	100.000	97.310
64 4-Isopropyltoluene	119	21.896	21.889	(0.995)	815314	100.000	97.036
65 1,4-Dichlorobenzene	146	22.044	22.037	(1.001)	495910	100.000	94.847
66 N-Butylbenzene	134	22.389	22.382	(1.017)	199710	100.000	96.741
67 1,2-Dichlorobenzene	146	22.507	22.500	(1.022)	472968	100.000	98.507
68 1,2-Dibromo-3-chloropropane	157	23.562	23.555	(1.070)	113118	100.000	104.82
69 1,2,4-Trichlorobenzene	180	24.814	24.816	(1.127)	340499	100.000	96.377
70 Hexachlorobutadiene	225	25.011	24.994	(1.136)	256651	100.000	100.29
71 Naphthalene	128	25.277	25.286	(1.148)	635916	100.000	103.33
72 1,2,3-Trichlorobenzene	180	Compound Not Detected.					
73 Freon-113	151	9.022	9.035	(0.612)	308382	100.000	114.51
74 Iodomethane	142	Compound Not Detected.					

QC Flag Legend

M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

Data File: \\lilan04\d\chem\MSVOA\5970K.i\K073101p.b\K073113.D
Injection Date: 31-JUL-2001 20:34
Instrument: 5970K.i
Client Sample ID: VSTD100

Compound: Vinyl Chloride
CAS Number: 75-01-4

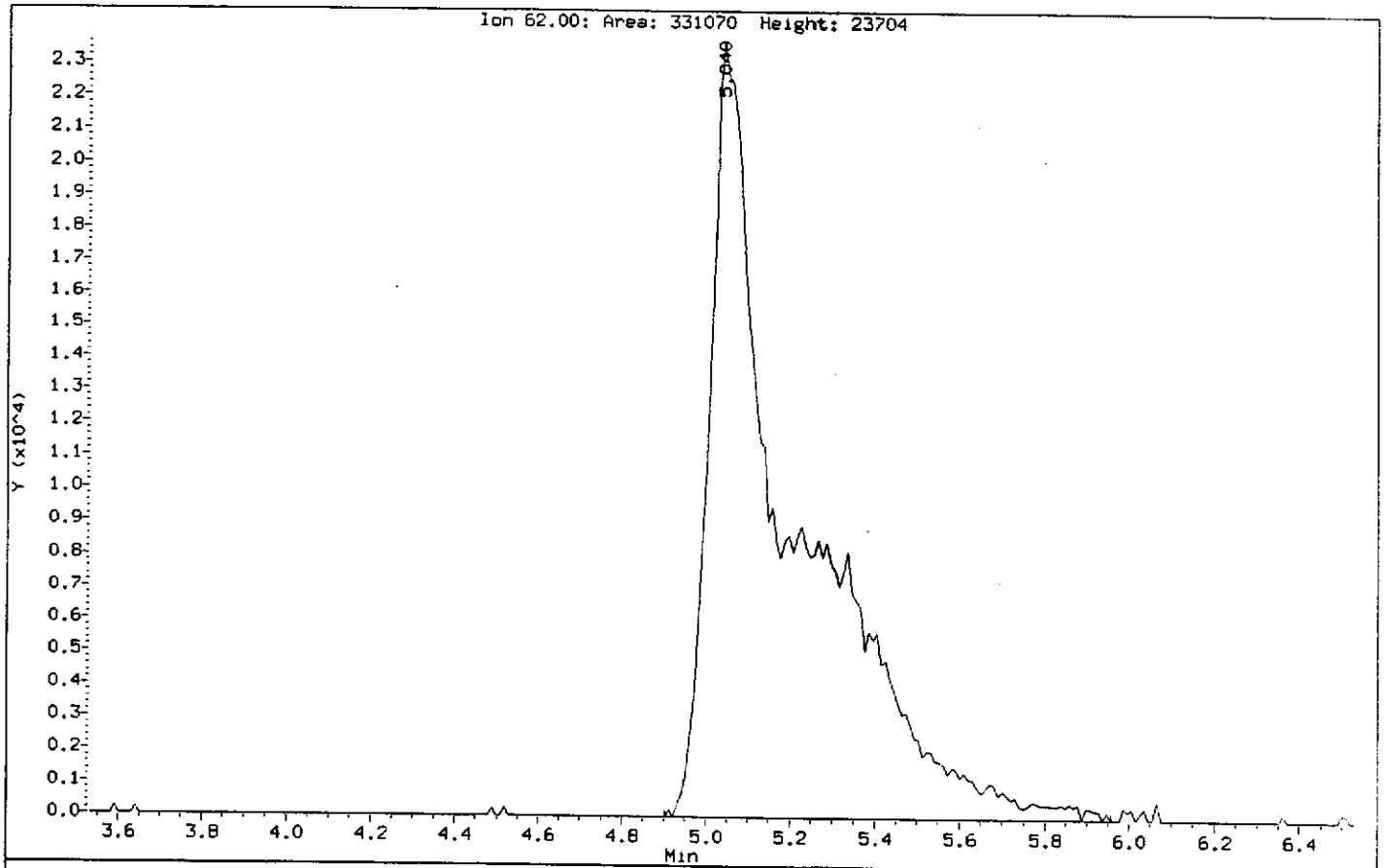

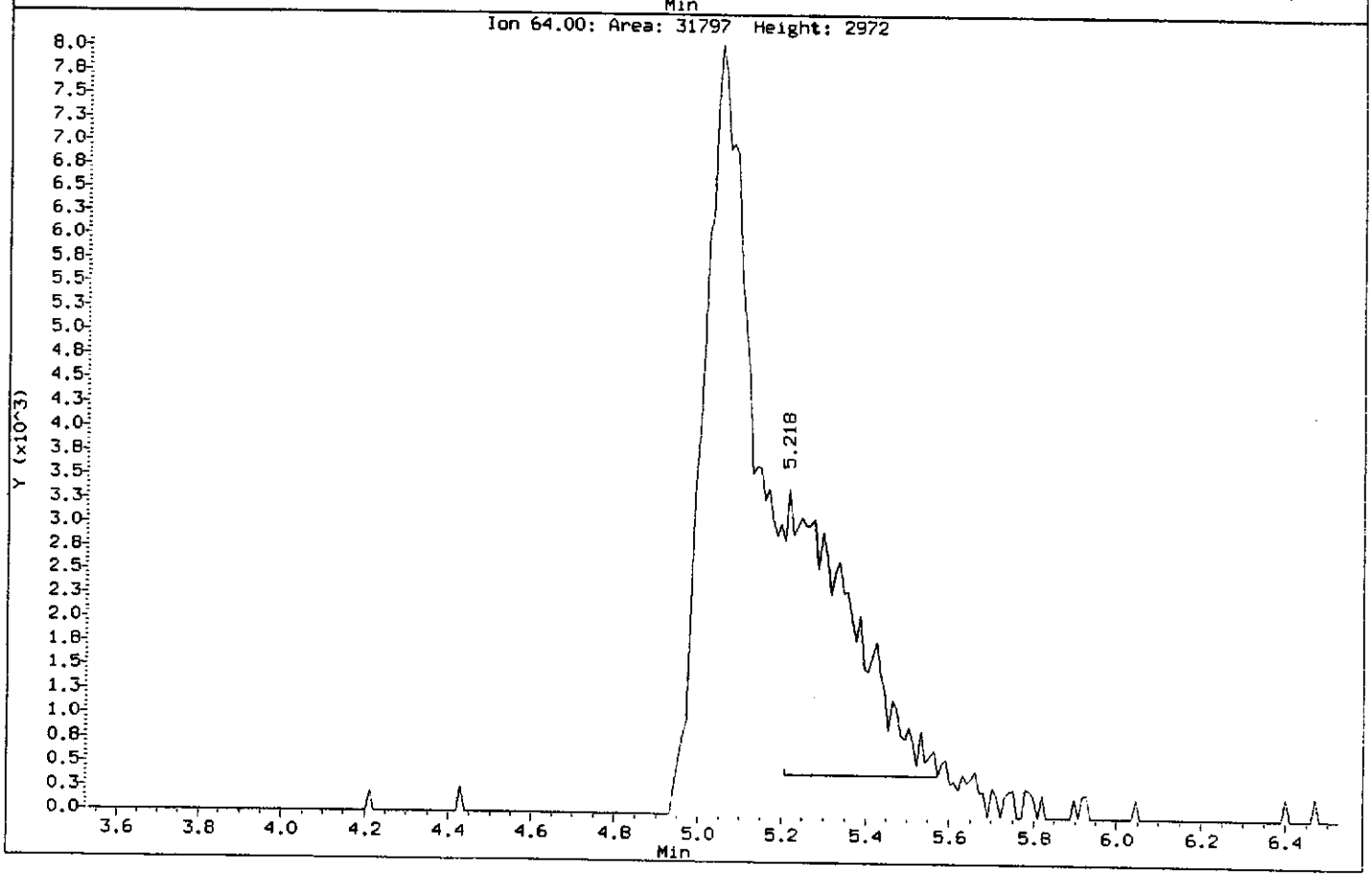

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Injection Date: 31-JUL-2001 20:34
Instrument: 5970K.i
Client Sample ID: VSTD100

Compound: Chloroethane
CAS Number: 75-00-3

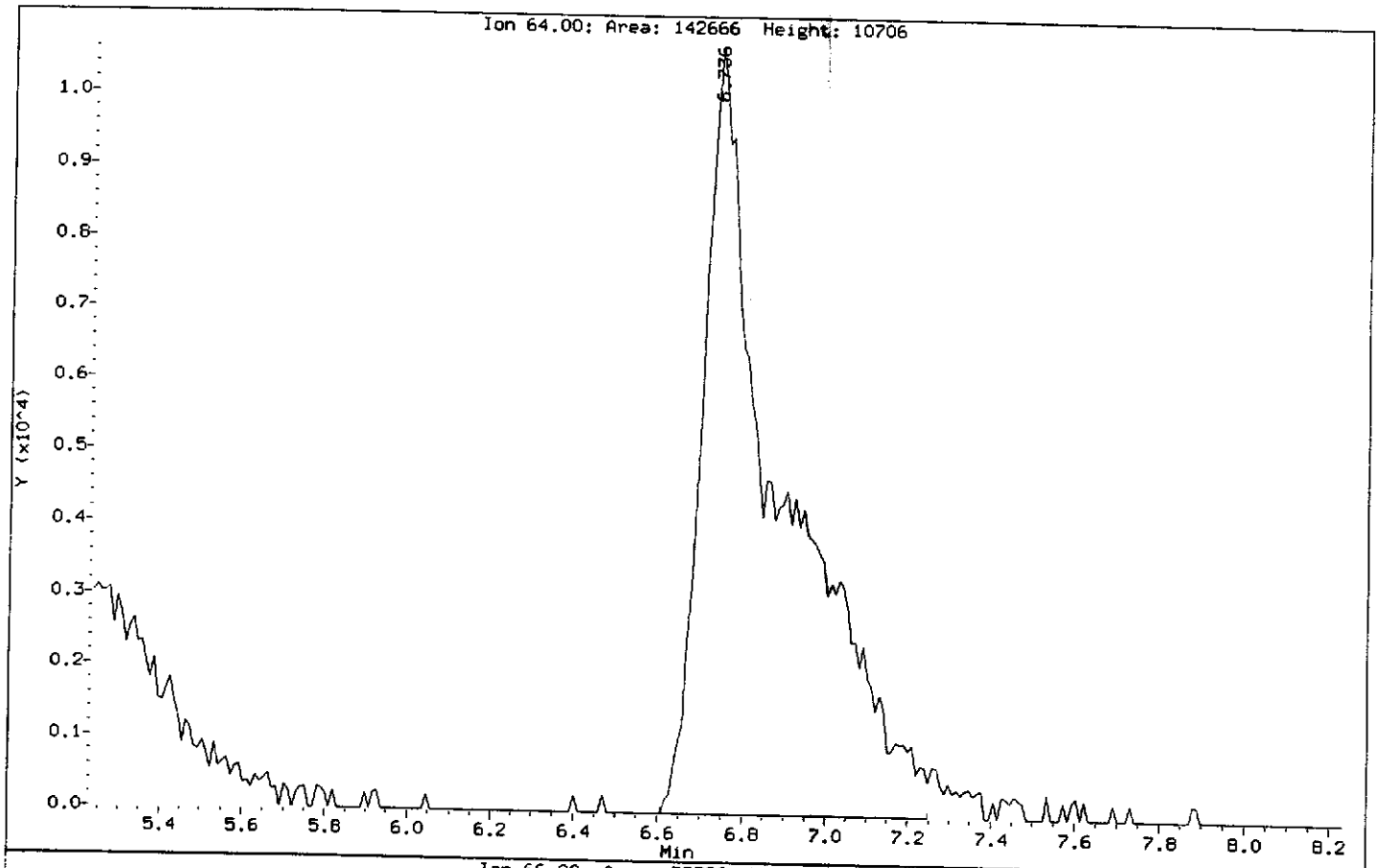

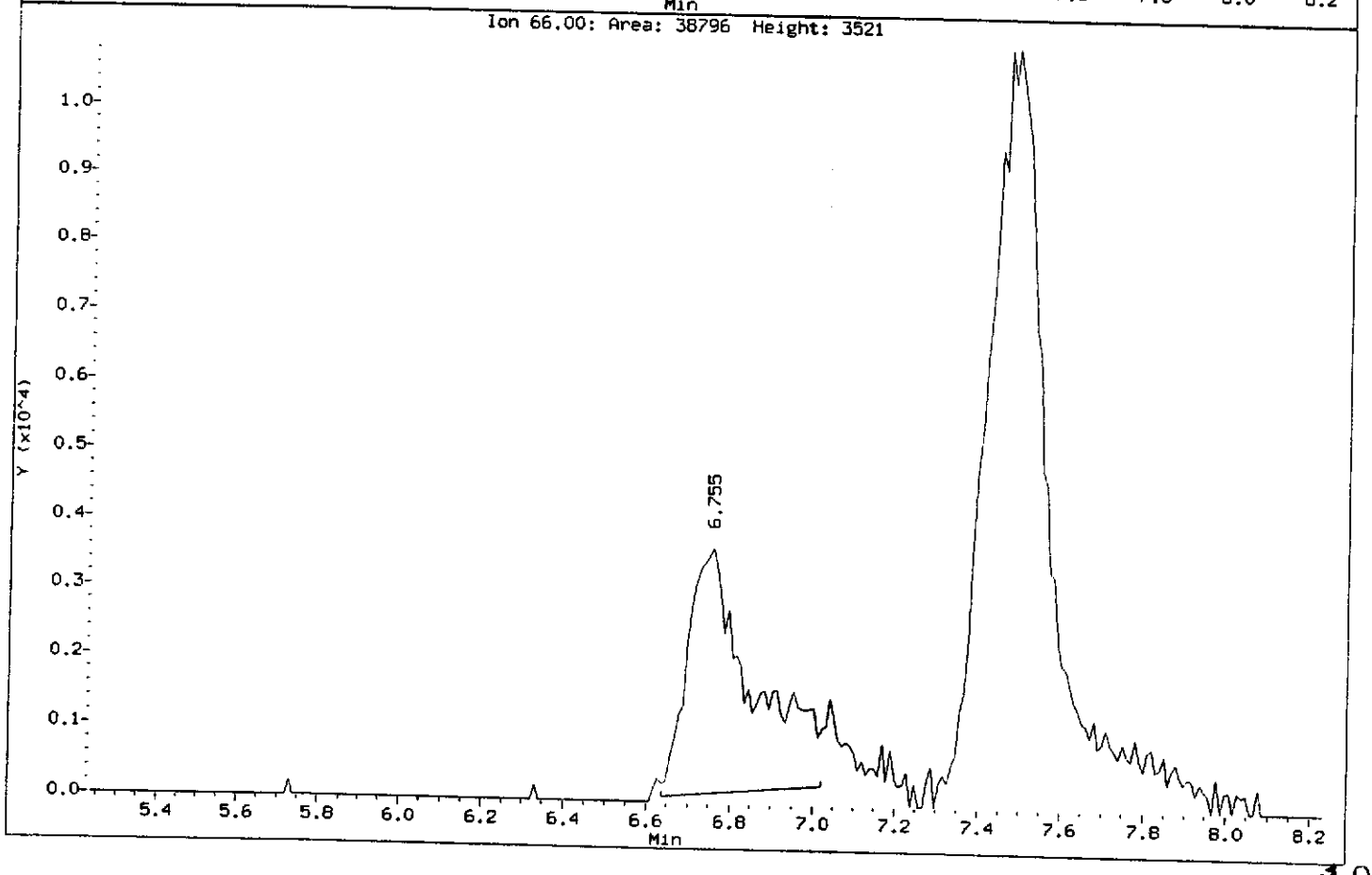

Data File: \\lilan04\d\chem\MSVOA\5970K.i\K073101p.b\K073112.D
Date : 31-JUL-2001 19:55
Client ID: VSTD200
Sample Info: VSTD200 K073107

Column phase: DB-624

Instrument: 5970K.i

Operator: JVC
Column diameter: 0.53

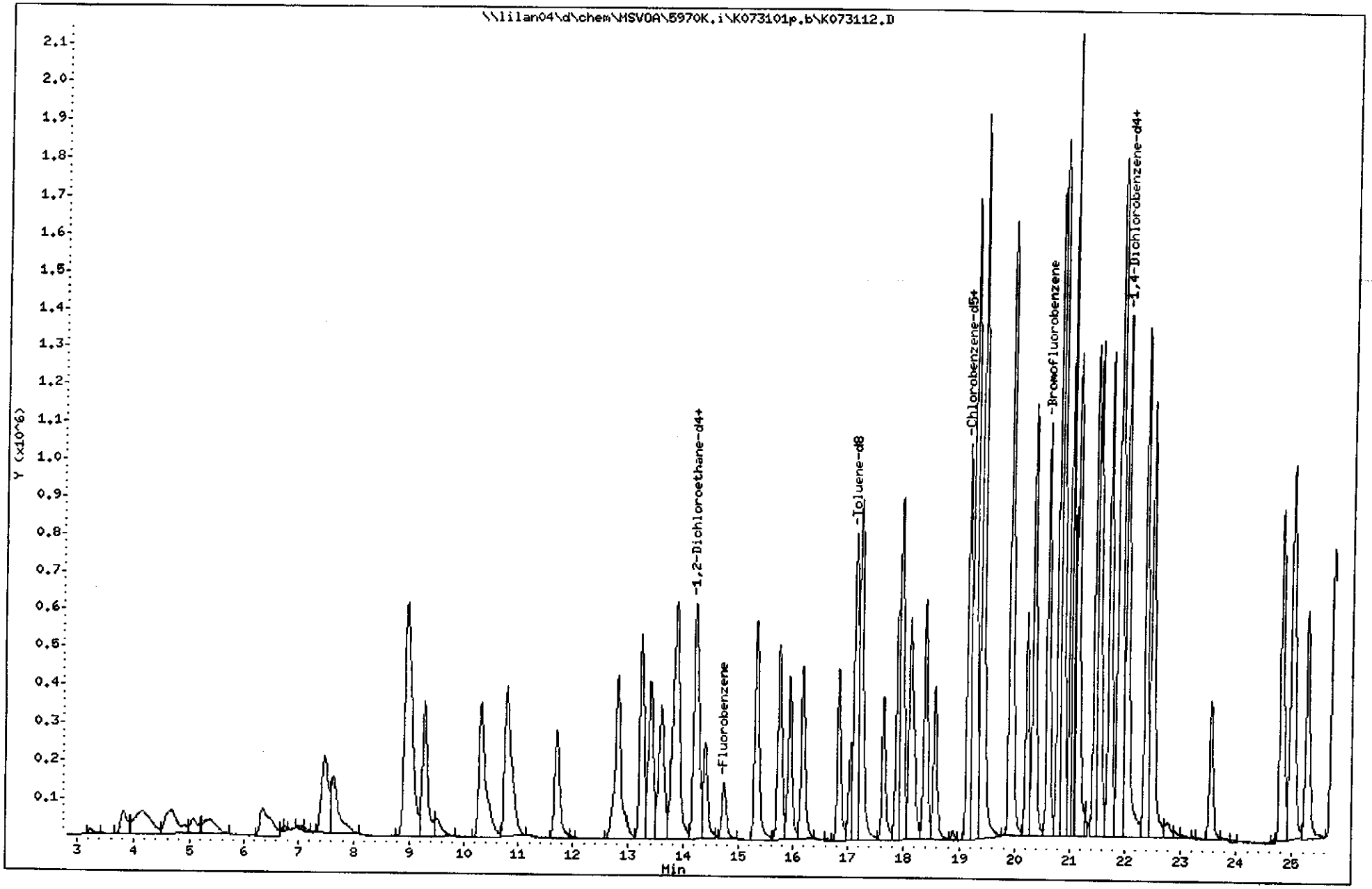

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Data file : \\lilan04\d\chem\MSVOA\5970K.i\K073101p.b\K073112.D
Lab Smp Id: VSTD200 Client Smp ID: VSTD200
Inj Date : 31-JUL-2001 19:55
Operator : JVG Inst ID: 5970K.i
Smp Info : VSTD200 K073107
Misc Info : DIL,1,ALT8260 5035 ICL 5.0G
Comment :
Method : \\LILAN04\D\chem\MSVOA\5970K.i\K073101p.b\8260a07s.m
Meth Date : 07-Aug-2001 16:32 target Quant Type: ISTD
Cal Date : 31-JUL-2001 19:55 Cal File: K073112.D
Als bottle: 24 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.00
Processing Host: MSVOA2

Concentration Formula: Amt * DF * Uf/(Ws*(100-M)/100)

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Ws	5.000	Weight of sample extracted (g)
M	0.000	% Moisture (not decanted)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (UG/KG)	AMOUNTS ON-COL (UG/KG)
* 1 Fluorobenzene	96	14.733	14.733	(1.000)	313598	50.0000	
* 2 Chlorobenzene-d5	117	19.130	19.119	(1.000)	238236	50.0000	
* 3 1,4-Dichlorobenzene-d4	152	22.018	22.017	(1.000)	158204	50.0000	
$ 4 1,2-Dichloroethane-d4	65	14.260	14.378	(0.968)	438291	200.000	226.78(A)
$ 5 Toluene-d8	98	17.148	17.138	(0.896)	1171139	200.000	217.89(A)
$ 6 Bromofluorobenzene	95	20.608	20.814	(0.936)	858603	200.000	204.11(A)
7 Dichlorodifluoromethane	85	3.812	3.801	(0.259)	767157	200.000	208.12(A)
8 Chloromethane	50	4.679	4.570	(0.318)	521941	200.000	206.12(A)
9 Vinyl Chloride	62	5.399	5.033	(0.366)	534733	200.000	259.42(A)
10 Bromomethane	94	6.355	6.314	(0.431)	348565	200.000	213.10(A)
11 Chloroethane	64	7.055	6.738	(0.479)	211881	200.000	192.58(H)
12 Trichlorofluoromethane	101	7.478	7.507	(0.508)	987118	200.000	221.66(A)
13 1,1-Dichloroethene	96	8.967	8.976	(0.609)	547759	200.000	228.34(A)
14 Carbon Disulfide	76	9.282	9.311	(0.630)	1510075	200.000	223.03(A)
15 Acetone	43	9.519	9.390	(0.646)	145672	200.000	141.38(H)

PA 8/7/01

8/24/01

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (UG/KG)	AMOUNTS ON-COL (UG/KG)
	16 Methylene Chloride	84	10.317	10.307	(0.700)	611160	200.000	173.09
	17 trans-1,2-Dichloroethene	96	10.781	10.780	(0.732)	401958	200.000	249.65(A)
	18 Methyl-T-Butylether	73	10.879	10.800	(0.738)	486568	200.000	203.83(A)
	19 1,1-Dichloroethane	63	11.707	11.697	(0.795)	927528	200.000	261.47(A)
	20 2,2-Dichloropropane	77	12.742	12.722	(0.865)	166796	200.000	421.56(A)
	21 cis-1,2-Dichloroethene	96	12.811	12.810	(0.870)	502700	200.000	253.96(A)
	22 2-Butanone	43	12.949	12.909	(0.879)	177643	200.000	224.67(A)
	23 Bromochloromethane	128	13.235	13.225	(0.898)	376141	200.000	223.56(A)
	24 Chloroform	83	13.393	13.392	(0.909)	883344	200.000	232.01(A)
	25 1,1,1-Trichloroethane	97	13.590	13.579	(0.922)	673494	200.000	224.51(A)
	26 Carbon Tetrachloride	117	13.817	13.806	(0.938)	639588	200.000	226.85(A)
	27 1,1-Dichloropropene	77	13.876	14.210	(0.942)	226441	200.000	229.88(A)
	28 Benzene	78	14.211	14.210	(0.965)	1245195	200.000	212.38(A)
	29 1,2-Dichloroethane	62	14.388	14.388	(0.977)	482846	200.000	218.84(A)
	30 Trichloroethene	130	15.335	15.324	(1.041)	535808	200.000	216.56(A)
	31 1,2-Dichloropropane	63	15.749	15.748	(1.069)	564565	200.000	217.06(A)
	32 Dibromomethane	174	15.946	15.935	(1.082)	395116	200.000	226.66(A)
	33 Bromodichloromethane	83	16.182	16.172	(1.098)	743870	200.000	215.34(A)
	34 cis-1,3-Dichloropropene	75	16.833	16.832	(0.880)	616984	200.000	229.39(A)
	35 4-Methyl-2-Pentanone	43	17.050	17.049	(0.891)	605540	200.000	235.38(A)
	36 Toluene	91	17.247	17.236	(0.902)	1443317	200.000	210.55(A)
	37 trans-1,3-Dichloropropene	75	17.651	17.650	(0.923)	451036	200.000	253.84(A)
	38 1,1,2-Trichloroethane	97	17.897	17.887	(0.936)	430473	200.000	210.20(A)
	39 Tetrachloroethene	164	17.966	17.966	(0.939)	482697	200.000	213.94(A)
	40 1,3-Dichloropropane	76	18.124	18.124	(0.947)	724275	200.000	216.13(A)
	41 2-Hexanone	43	18.193	18.183	(0.951)	417589	200.000	229.19(A)
	42 Dibromochloromethane	129	18.390	18.380	(0.961)	736690	200.000	217.39(A)
	43 1,2-Dibromoethane	107	18.558	18.547	(0.970)	662875	200.000	217.48(A)
	44 Chlorobenzene	112	19.159	19.158	(1.002)	1061212	200.000	210.12(A)
	45 1,1,1,2-Tetrachloroethane	131	19.268	19.267	(1.007)	536887	200.000	217.21(A)
	46 Ethylbenzene	106	19.258	19.247	(1.007)	478583	200.000	204.84(A)
	47 m & p-Xylene	106	19.406	19.405	(1.014)	1144796	400.000	403.24(A)
	48 o-Xylene	106	19.918	19.908	(1.041)	580062	200.000	203.78(A)
	49 Styrene	104	19.948	19.947	(1.043)	988825	200.000	209.87(A)
M	50 Xylenes (Total)	106				1724858	600.000	607.03(A)
	51 Bromoform	173	20.224	20.223	(1.057)	592803	200.000	236.60(A)
	52 Isopropylbenzene	105	20.352	20.351	(1.064)	1736494	200.000	209.35(A)
	53 1,1,2,2-Tetrachloroethane	83	20.805	20.814	(0.945)	818361	200.000	208.16(A)
	54 Bromobenzene	77	20.795	20.795	(0.944)	1367852	200.000	201.65(A)
	55 1,2,3-Trichloropropane	110	20.874	20.874	(0.948)	197393	200.000	230.70(A)
	56 N-Propylbenzene	120	20.864	20.838	(0.948)	434480	200.000	215.66(A)
	57 2-Chlorotoluene	126	21.012	21.012	(0.954)	437398	200.000	204.76(A)
	58 1,3,5-Trimethylbenzene	105	21.052	20.641	(0.956)	1306271	200.000	195.00
	59 4-Chlorotoluene	126	21.150	21.160	(0.961)	457519	200.000	230.97(A)
	60 Tert-Butylbenzene	134	21.466	21.455	(0.975)	360791	200.000	201.65(A)
	61 1,2,4-Trimethylbenzene	105	21.535	21.534	(0.978)	1403898	200.000	209.60(A)
	62 Sec-Butylbenzene	134	21.732	21.722	(0.987)	394181	200.000	209.75(A)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (UG/KG)	AMOUNTS ON-COL (UG/KG)
63 1,3-Dichlorobenzene	146	21.929	21.928	(0.996)	888240	200.000	197.54
64 4-Isopropyltoluene	119	21.890	21.889	(0.994)	1592608	200.000	203.00(A)
65 1,4-Dichlorobenzene	146	22.047	22.037	(1.001)	1010033	200.000	203.49(A)
66 N-Butylbenzene	134	22.382	22.382	(1.017)	418985	200.000	214.84(A)
67 1,2-Dichlorobenzene	146	22.501	22.500	(1.022)	944106	200.000	209.62(A)
68 1,2-Dibromo-3-chloropropane	157	23.555	23.555	(1.070)	238516	200.000	228.63(A)
69 1,2,4-Trichlorobenzene	180	24.817	24.816	(1.127)	707406	200.000	207.72(A)
70 Hexachlorobutadiene	225	25.005	24.994	(1.136)	534483	200.000	221.43(A)
71 Naphthalene	128	25.280	25.286	(1.148)	1256276	200.000	214.42(A)
72 1,2,3-Trichlorobenzene	180	Compound Not Detected.					
73 Freon-113	151	9.016	9.035	(0.612)	415798	200.000	225.44
74 Iodomethane	142	Compound Not Detected.					

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
H - Operator selected an alternate compound hit.

Data File: \\lilan04\d\chem\MSVOA\5970K.i\K073101p.b\K073112.D
Injection Date: 31-JUL-2001 19:55
Instrument: 5970K.i
Client Sample ID: VSTD200

Compound: Chloroethane
CAS Number: 75-00-3

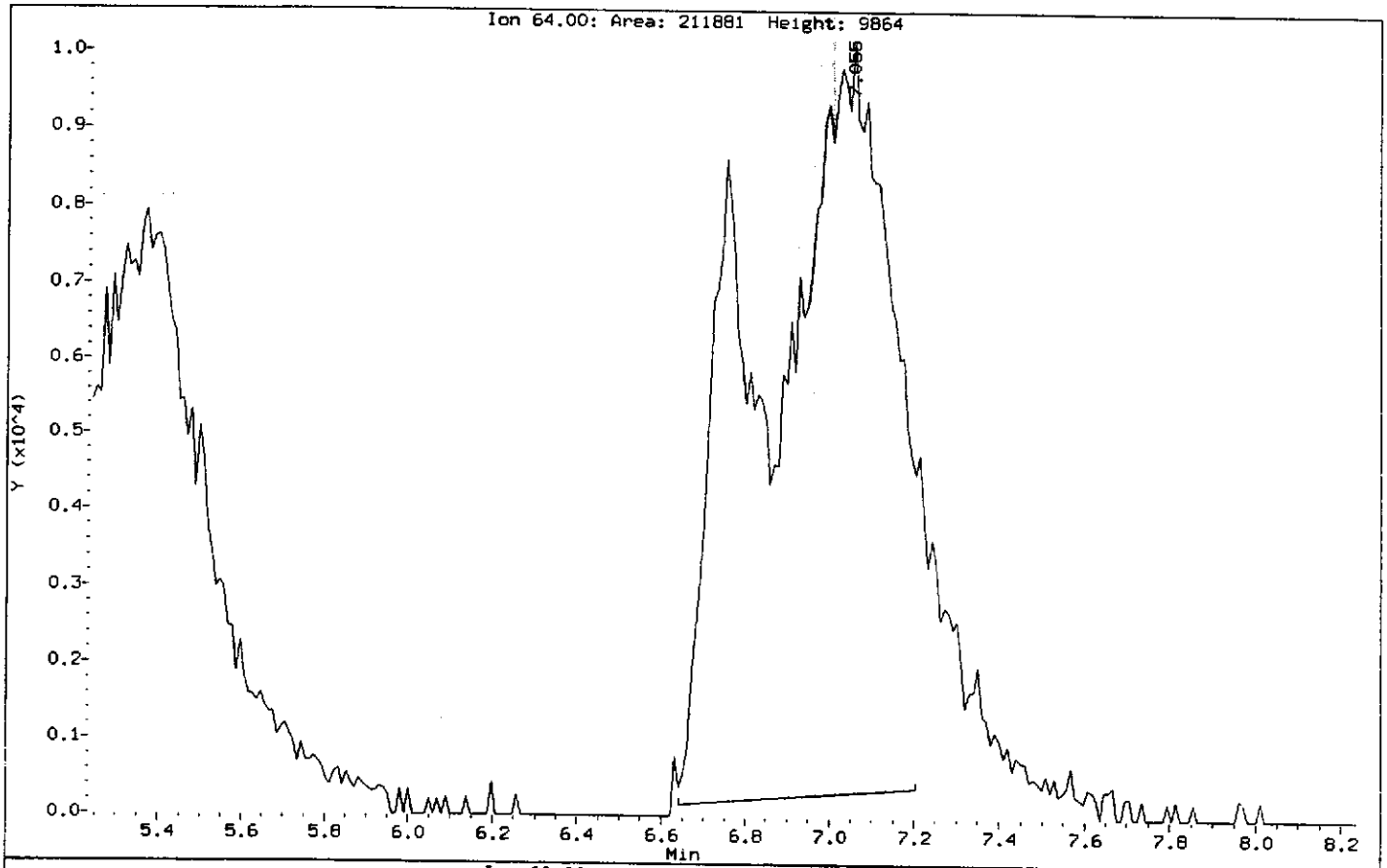

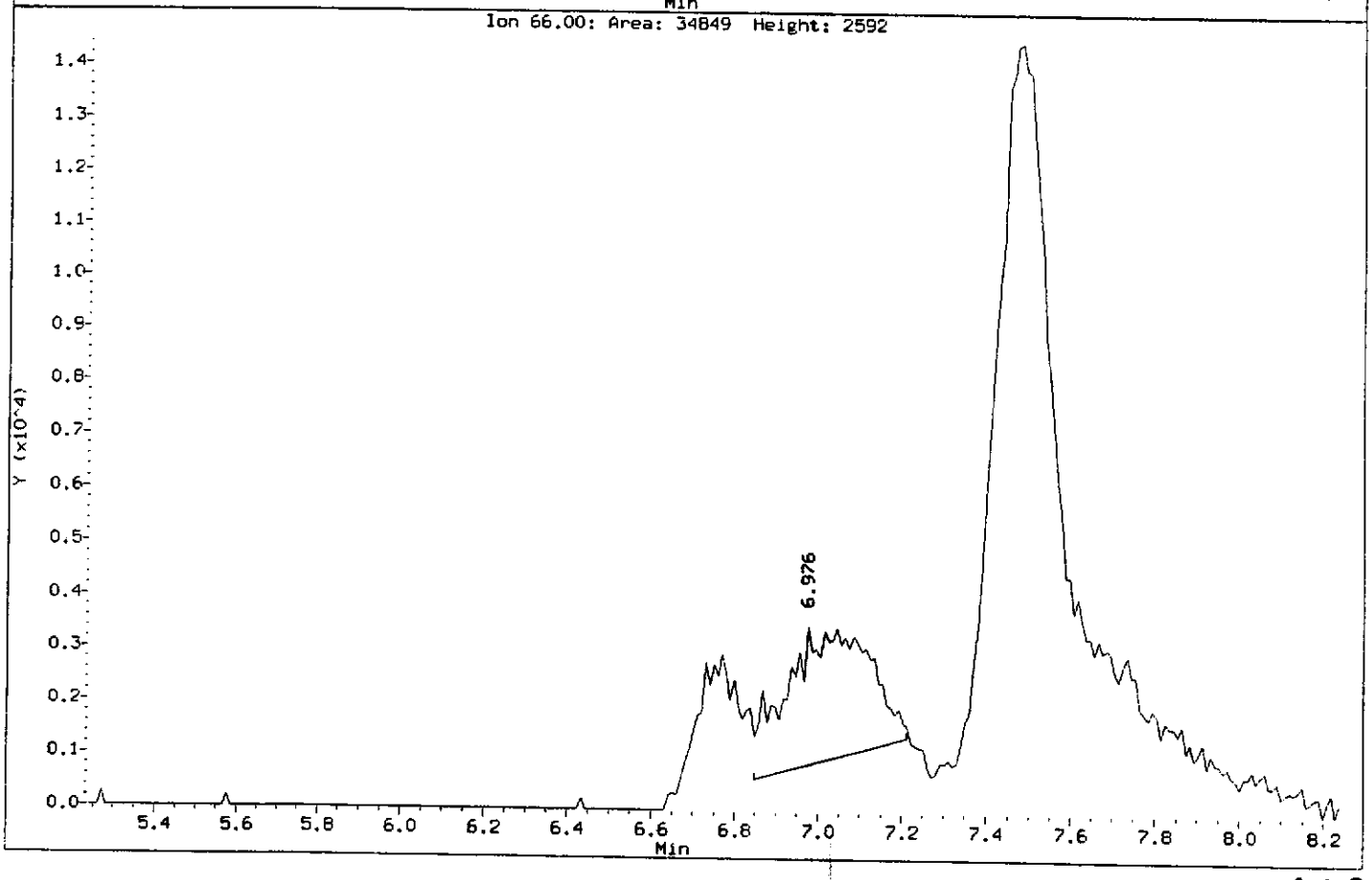

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Injection Date: 31-JUL-2001 19:55
Instrument: 5970K.i
Client Sample ID: VSTD200

Compound: Acetone
CAS Number: 67-64-1

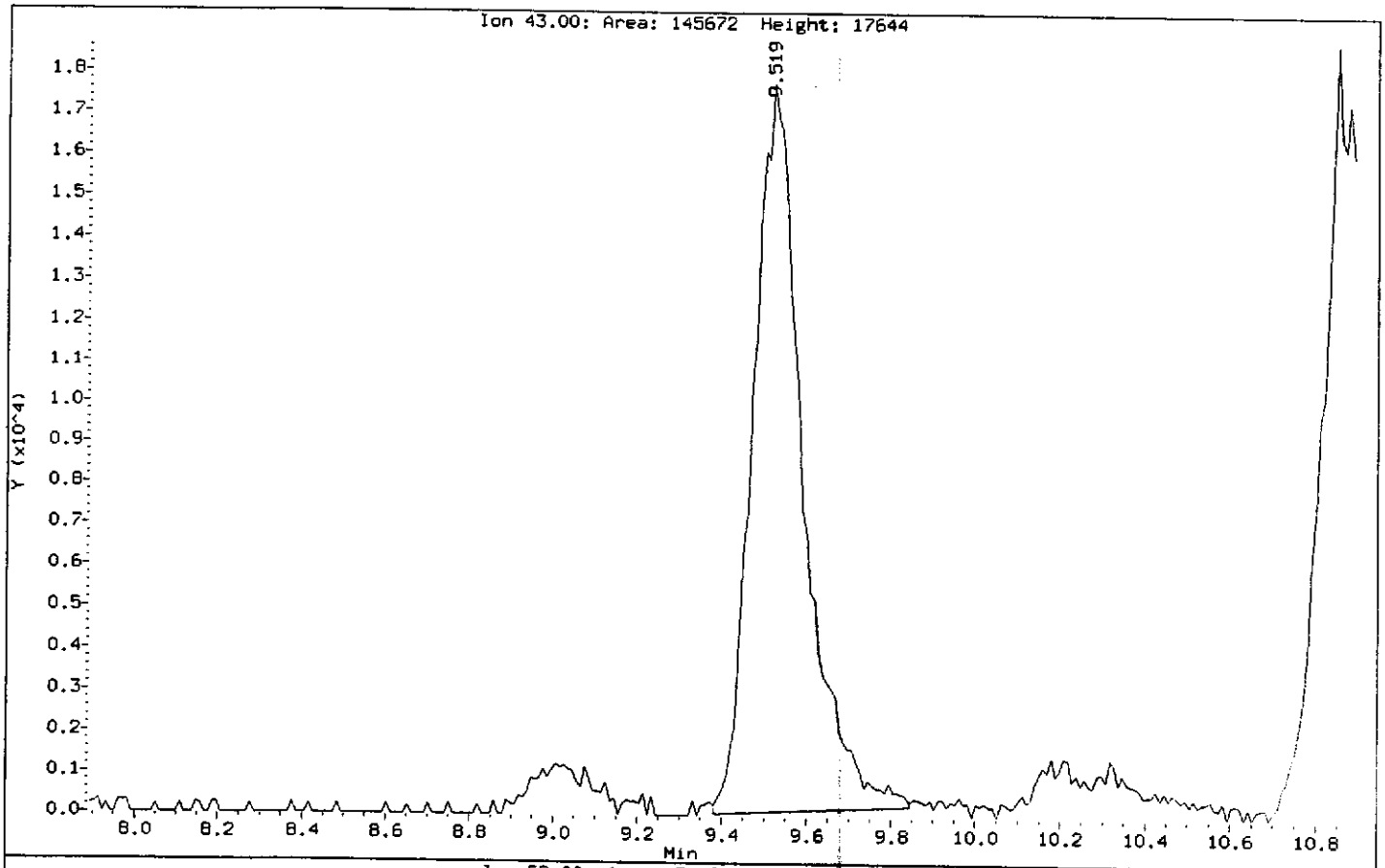

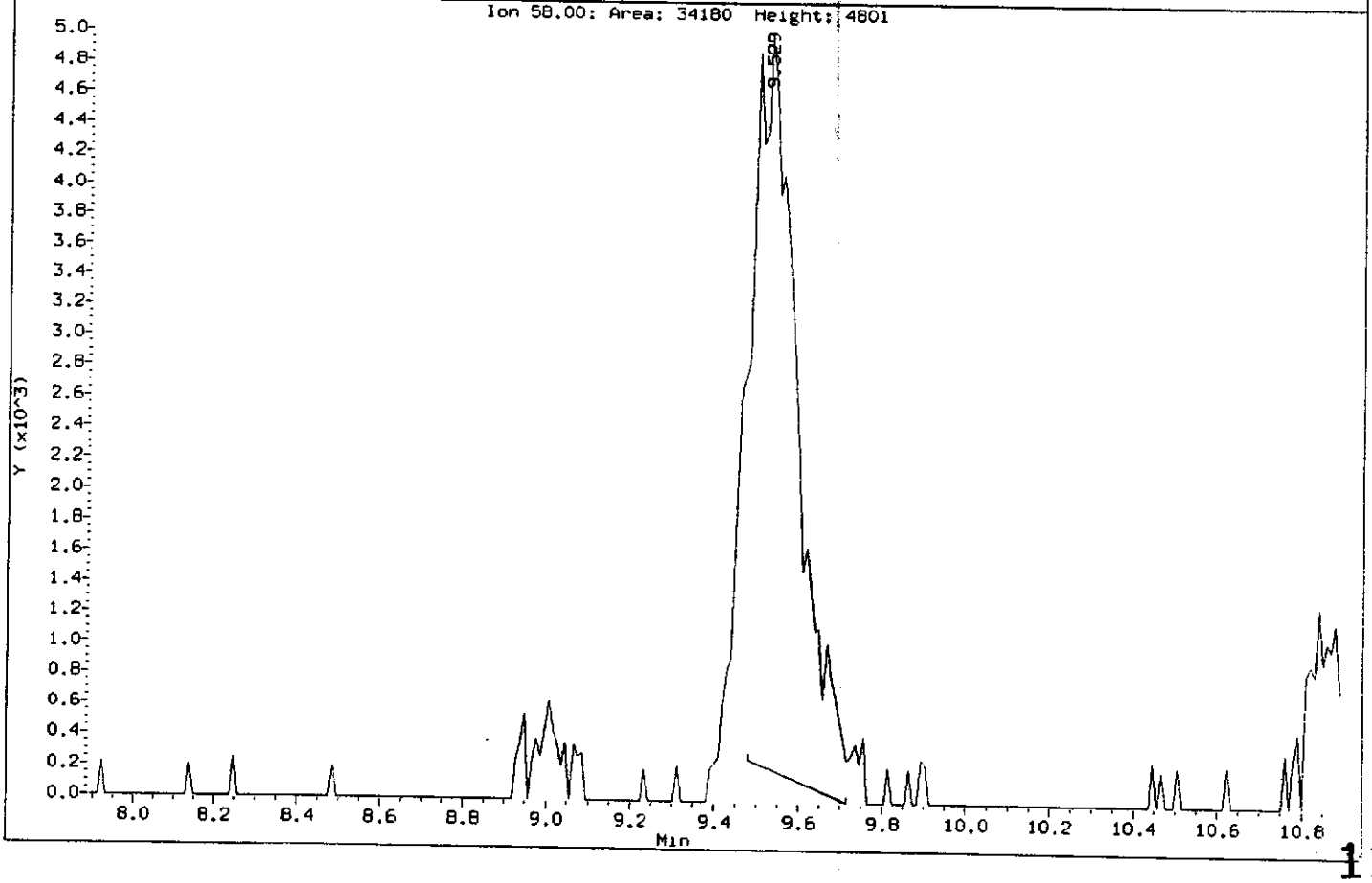

Data File: \\lilan04\d\chem\MSVOA\5970K.i\K073101p.b\K073115.D
Date : 31-JUL-2001 22:12
Client ID:
Sample Info: VSTD05 K073107
Purge Volume: 25.0
Column phase: DB-624

Instrument: 5970K.i

Operator: JVC
Column diameter: 0.53

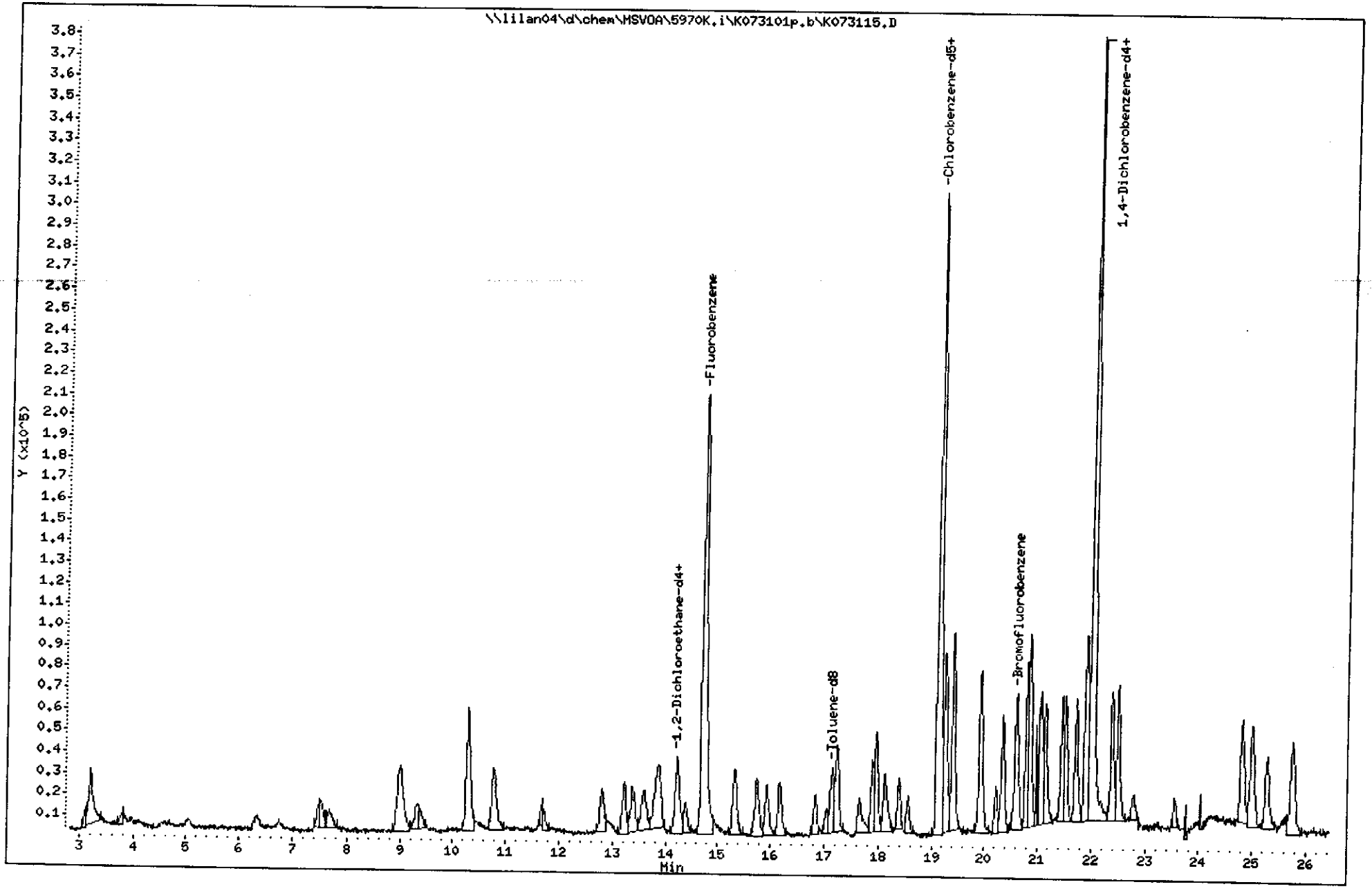

Lionville Laboratory Inc.

Data file : \\lilan04\d\chem\MSVOA\5970K.i\K073101p.b\K073115.D
Lab Smp Id:
Inj Date : 31-JUL-2001 22:12
Operator : JVG Inst ID: 5970K.i
Smp Info : VSTD05 K073107
Misc Info : DIL,1,ALT8260 5035 ICL 5.0G
Comment :
Method : \\LILAN04\D\chem\MSVOA\5970K.i\K073101p.b\8260A07S.m
Meth Date : 07-Aug-2001 16:32 target Quant Type: ISTD
Cal Date : 31-JUL-2001 21:31 Cal File: K073114.D
Als bottle: 21
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.00
Processing Host: LILAN04

Concentration Formula: Amt * DF * Uf/Vo

Name	Value	Description
DF	1.000	Dilution Factor
Vo	25.000	Sample Volume purged (mL)
Uf	25.000	ng unit correction factor

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (UG/KG)	FINAL (ug/L)
* 1 Fluorobenzene	96	14.735	14.733	(1.000)	498737	50.0000	
* 2 Chlorobenzene-d5	117	19.121	19.119	(1.000)	352096	50.0000	
* 3 1,4-Dichlorobenzene-d4	152	22.019	22.017	(1.000)	183317	50.0000	
$ 4 1,2-Dichloroethane-d4	65	14.262	14.378	(0.968)	21271	5.71091	5.711(R)
$ 5 Toluene-d8	98	17.140	17.138	(0.896)	41778	5.03223	5.032(R)
$ 6 Bromofluorobenzene	95	20.610	20.814	(0.936)	31919	6.14751	6.148(R)
7 Dichlorodifluoromethane	85	3.803	3.801	(0.258)	31247	5.37892	5.379
8 Chloromethane	50	4.592	4.570	(0.312)	9291	2.54999	2.550
9 Vinyl Chloride	62	5.035	5.033	(0.342)	18197	5.19882	5.199
10 Bromomethane	94	6.337	6.314	(0.430)	11384	4.31387	4.314
11 Chloroethane	64	6.741	6.738	(0.457)	11443	6.54625	6.546
12 Trichlorofluoromethane	101	7.510	7.507	(0.510)	55772	7.18812	7.188
13 1,1-Dichloroethene	96	8.998	8.976	(0.611)	21095	5.77774	5.778
14 Carbon Disulfide	76	9.304	9.311	(0.631)	45720	4.62672	4.627
15 Acetone	43	9.412	9.390	(0.639)	37645	19.3840	19.384
16 Methylene Chloride	84	10.299	10.307	(0.699)	71994	12.1834	12.183

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (UG/KG)	FINAL (ug/L)
17 trans-1,2-Dichloroethene	96	10.772	10.780	(0.731)	19344	6.30513	6.305
18 Methyl-T-Butylether	73	10.822	10.800	(0.734)	35867	7.42423	7.424
19 1,1-Dichloroethane	63	11.689	11.697	(0.793)	37570	5.92415	5.924
20 2,2-Dichloropropane	77	12.754	12.722	(0.866)	1228	1.79359	1.794
21 cis-1,2-Dichloroethene	96	12.803	12.810	(0.869)	23095	6.32928	6.329
22 2-Butanone	43	12.901	12.909	(0.876)	13807	9.36885	9.369
23 Bromochloromethane	128	13.227	13.225	(0.898)	15504	6.06906	6.069
24 Chloroform	83	13.404	13.392	(0.910)	45802	6.46177	6.462
25 1,1,1-Trichloroethane	97	13.572	13.579	(0.921)	36518	6.44220	6.442
26 Carbon Tetrachloride	117	13.808	13.806	(0.937)	32279	6.09002	6.090
27 1,1-Dichloropropene	77	13.868	14.210	(0.941)	11556	6.28022	6.280
28 Benzene	78	14.212	14.210	(0.965)	60838	6.24761	6.248
29 1,2-Dichloroethane	62	14.390	14.388	(0.977)	29198	6.99184	6.992
30 Trichloroethene	130	15.326	15.324	(1.040)	28095	6.55975	6.560
31 1,2-Dichloropropane	63	15.750	15.748	(1.069)	28735	6.43579	6.436
32 Dibromomethane	174	15.938	15.935	(1.082)	21382	6.75014	6.750
33 Bromodichloromethane	83	16.174	16.172	(1.098)	40655	6.35231	6.352
34 cis-1,3-Dichloropropene	75	16.854	16.832	(0.881)	26775	5.77751	5.778
35 4-Methyl-2-Pentanone	43	17.042	17.049	(0.891)	30663	7.27239	7.272
36 Toluene	91	17.249	17.236	(0.902)	70858	6.66879	6.669
37 trans-1,3-Dichloropropene	75	17.643	17.650	(0.923)	15255	5.09375	5.094
38 1,1,2-Trichloroethane	97	17.889	17.887	(0.936)	22544	6.60973	6.610
39 Tetrachloroethene	164	17.968	17.966	(0.940)	24227	6.83243	6.832
40 1,3-Dichloropropane	76	18.126	18.124	(0.948)	37116	6.67320	6.673
41 2-Hexanone	43	18.195	18.183	(0.952)	21183	7.32131	7.321
42 Dibromochloromethane	129	18.382	18.380	(0.961)	32680	5.84156	5.842
43 1,2-Dibromoethane	107	18.550	18.547	(0.970)	30047	6.15699	6.157
44 Chlorobenzene	112	19.161	19.158	(1.002)	48602	6.43044	6.430
45 1,1,1,2-Tetrachloroethane	131	19.269	19.267	(1.008)	23754	6.02949	6.029
46 Ethylbenzene	106	19.250	19.247	(1.007)	23913	6.77967	6.780
47 m & p-Xylene	106	19.417	19.405	(1.015)	56800	13.4384	13.438
48 o-Xylene	106	19.920	19.908	(1.042)	29213	6.86847	6.868
49 Styrene	104	19.949	19.947	(1.043)	42932	6.23340	6.233
M 50 Xylenes (Total)	106				86013	20.3075	20.308
51 Bromoform	173	20.225	20.223	(1.058)	21249	5.53365	5.534
52 Isopropylbenzene	105	20.344	20.351	(1.064)	82112	6.59659	6.596
53 1,1,2,2-Tetrachloroethane	83	20.797	20.814	(0.944)	37840	7.43262	7.433
54 Bromobenzene	77	20.797	20.795	(0.944)	66978	7.87090	7.871
55 1,2,3-Trichloropropane	110	20.886	20.874	(0.949)	9158	7.82133	7.821
56 N-Propylbenzene	120	20.856	20.838	(0.947)	21763	7.82859	7.828
57 2-Chlorotoluene	126	21.024	21.012	(0.955)	16385	6.04480	6.045
58 1,3,5-Trimethylbenzene	105	21.073	20.641	(0.957)	68199	8.03143	8.031
59 4-Chlorotoluene	126	21.162	21.160	(0.961)	20882	7.56729	7.567
60 Tert-Butylbenzene	134	21.467	21.455	(0.975)	15955	7.12544	7.125
61 1,2,4-Trimethylbenzene	105	21.536	21.534	(0.978)	65299	7.83476	7.835
62 Sec-Butylbenzene	134	21.724	21.722	(0.987)	18222	7.41419	7.414
63 1,3-Dichlorobenzene	146	21.941	21.928	(0.996)	44447	8.17145	8.171

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (UG/KG)	FINAL (ug/L)
64 4-Isopropyltoluene	119	21.891	21.889	(0.994)	75594	7.79452	7.794
65 1,4-Dichlorobenzene	146	22.039	22.037	(1.001)	49411	8.24904	8.249
66 N-Butylbenzene	134	22.374	22.382	(1.016)	19581	8.17786	8.178
67 1,2-Dichlorobenzene	146	22.502	22.500	(1.022)	52723	9.72595	9.726
68 1,2-Dibromo-3-chloropropane	157	23.547	23.555	(1.069)	8249	6.67218	6.672
69 1,2,4-Trichlorobenzene	180	24.809	24.816	(1.127)	38777	9.61100	9.611
70 Hexachlorobutadiene	225	24.986	24.994	(1.135)	24384	8.19894	8.199
71 Naphthalene	128	25.282	25.286	(1.148)	71503	10.2390	10.239
72 1,2,3-Trichlorobenzene	180	24.809	24.816	(1.127)	38777		(a)
73 Freon-113	151	9.028	9.035	(0.613)	23793	6.41915	6.419
74 Iodomethane	142	Compound Not Detected.					

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
R - Spike/Surrogate failed recovery limits.

6A
VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Lionville Laboratory Inc. Contract: 02744-064-001-9999-00

Lab Code: LVLI Case No.: SAS No.: SDG No.: 07L423

Instrument ID: 5970K Calibration Date(s): 07/31/1 08/01/1

Heated Purge: (Y/N) Y GC Column: DB-624 ID: 0.53 (mm)

= Min RRF for SPCC Max %RSD for CCC(*) = 30.0%

LAB FILE ID: RRF10 =k073118.d RRF20 =k073117.d
RRF50 =k073116.d RRF100=k073120.d RRF200=k073119.d

COMPOUND	RRF10	RRF20	RRF50	RRF100	RRF200	$\overline{RRF}$	% RSD
Freon-113	0.454	0.534	0.478	0.362	0.438	0.453	13.8
Iodomethane	0.255	0.394	0.377	0.426	0.580	0.406	28.7

FORM VI VOA MAC-SW846HP

Data File: \\lilan04\d\chem\MSVOA\5970K.i\K073101p.b\K073118.D
Date : 01-AUG-2001 00:10
Client ID: VSTD10
Sample Info: VSTD10 K073107

Instrument: 5970K.i

Operator: JVG
Column diameter: 0.53

Column phase: DB-624

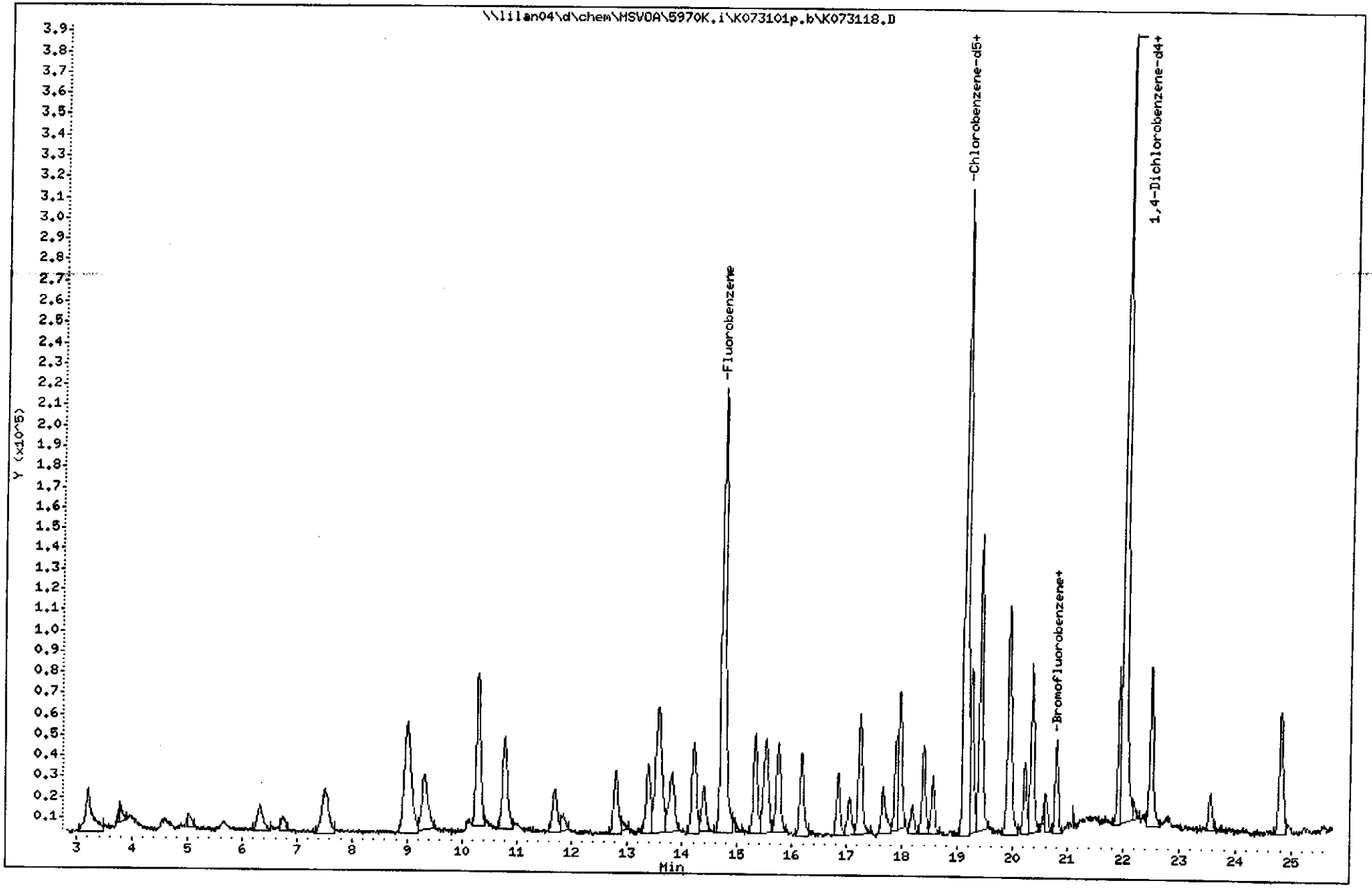

Lionville Laboratory Inc.

Data file : \\lilan04\d\chem\MSVOA\5970K.i\K073101p.b\K073118.D
Lab Smp Id: VSTD10 Client Smp ID: VSTD10
Inj Date : 01-AUG-2001 00:10
Operator : JVG Inst ID: 5970K.i
Smp Info : VSTD10 K073107
Misc Info : DIL,1,FR-113/IODOMETHANE ICL 5.0G
Comment :
Method : \\lilan04\d\chem\MSVOA\5970K.i\K073101p.b\8260a07s.m
Meth Date : 07-Aug-2001 16:32 target Quant Type: ISTD
Cal Date : 01-AUG-2001 00:10 Cal File: K073118.D
Als bottle: 24 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 113-iodo.sub
Target Version: 4.00
Processing Host: MSVOA4

Concentration Formula: Amt * DF * Uf/(Ws*(100-M)/100)

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Ws	5.000	Weight of sample extracted (g)
M	0.000	% Moisture (not decanted)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (UG/KG)	AMOUNTS ON-COL (UG/KG)
* 1 Fluorobenzene	96	14.732	14.733	(1.000)	508381	50.0000	
* 2 Chlorobenzene-d5	117	19.119	19.119	(1.000)	338625	50.0000	
* 3 1,4-Dichlorobenzene-d4	152	22.017	22.017	(1.000)	192048	50.0000	
73 Freon-113	151	9.035	9.035	(0.613)	46139	10.0000	10.398
74 Iodomethane	142	9.281	9.301	(0.630)	25976	10.0000	7.468

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Data File: \\lilan04\d\chem\MSVOA\5970K.i\K073101p.b\K073117.D
Date : 31-JUL-2001 23:31
Client ID: VSTD20
Sample Info: VSTD20 K073107

Instrument: 5970K.i

Operator: JVG

Column phase: DB-624

Column diameter: 0.53

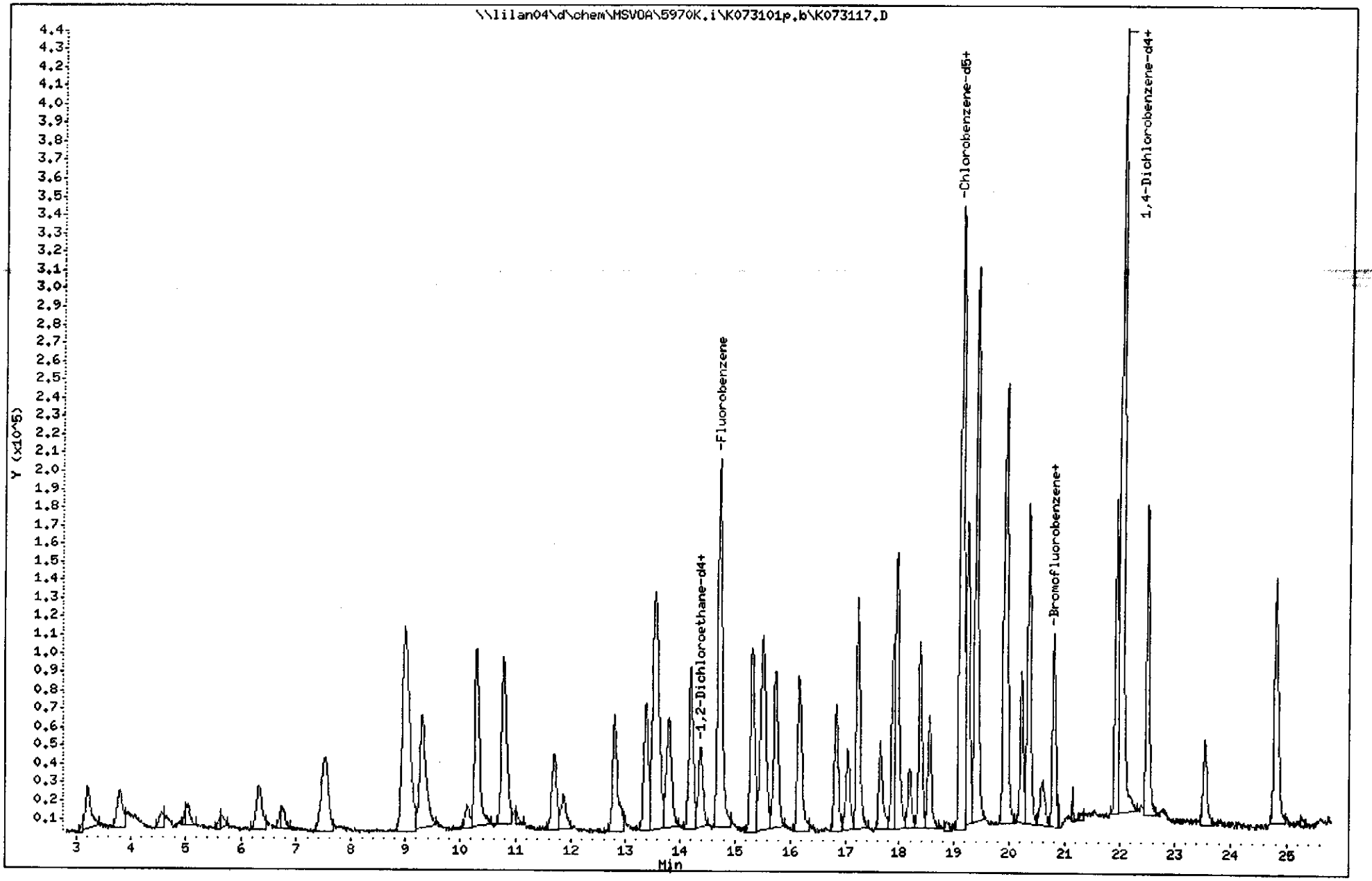

Lionville Laboratory Inc.

Data file : \\lilan04\d\chem\MSVOA\5970K.i\K073101p.b\K073117.D
Lab Smp Id: VSTD20 Client Smp ID: VSTD20
Inj Date : 31-JUL-2001 23:31
Operator : JVG Inst ID: 5970K.i
Smp Info : VSTD20 K073107
Misc Info : DIL,1,FR-113/IODOMETHANE ICL 5.0G
Comment :
Method : \\lilan04\d\chem\MSVOA\5970K.i\K073101p.b\8260a07s.m
Meth Date : 07-Aug-2001 16:32 target Quant Type: ISTD
Cal Date : 31-JUL-2001 23:31 Cal File: K073117.D
Als bottle: 23 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 113-iodo.sub
Target Version: 4.00
Processing Host: MSVOA4

Concentration Formula: Amt * DF * Uf/(Ws*(100-M)/100)

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Ws	5.000	Weight of sample extracted (g)
M	0.000	% Moisture (not decanted)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (UG/KG)	ON-COL (UG/KG)
* 1 Fluorobenzene	96	14.739	14.733	(1.000)	469645	50.0000	
* 2 Chlorobenzene-d5	117	19.126	19.119	(1.000)	323508	50.0000	
* 3 1,4-Dichlorobenzene-d4	152	22.014	22.017	(1.000)	178507	50.0000	
73 Freon-113	151	9.002	9.035	(0.611)	100319	20.0000	24.945
74 Iodomethane	142	9.308	9.301	(0.632)	74033	20.0000	20.450

Data File: \\lilan04\d\chem\MSVOA\5970K.i\K073101p.b\K073116.D
Date : 31-JUL-2001 22:53
Client ID: VSTD50
Sample Info: VSTD50 K073107

Column phase: DB-624

Instrument: 5970K.i

Operator: JVG
Column diameter: 0.53

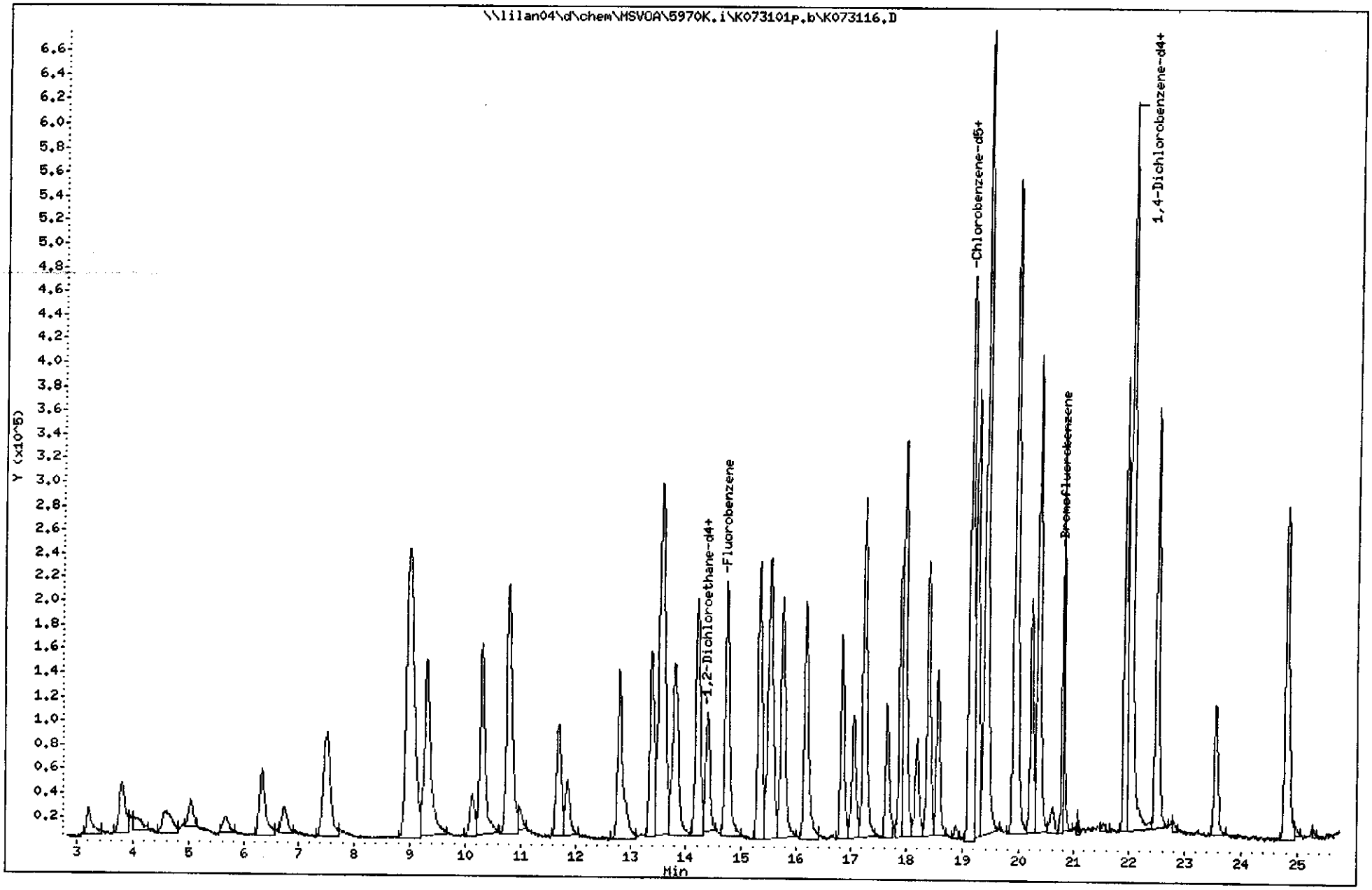

Lionville Laboratory Inc.

Data file : \\lilan04\d\chem\MSVOA\5970K.i\K073101p.b\K073116.D
Lab Smp Id: VSTD50 Client Smp ID: VSTD50
Inj Date : 31-JUL-2001 22:53
Operator : JVG Inst ID: 5970K.i
Smp Info : VSTD50 K073107
Misc Info : DIL,1,FR-113/IODOMETHANE ICL 5.0G
Comment :
Method : \\LILAN04\D\chem\MSVOA\5970K.i\K073101p.b\8260a07s.m
Meth Date : 07-Aug-2001 16:32 target Quant Type: ISTD
Cal Date : 31-JUL-2001 22:53 Cal File: K073116.D
Als bottle: 22 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 113-iodo.sub
Target Version: 4.00
Processing Host: MSVOA1

Concentration Formula: Amt * DF * Uf/(Ws*(100-M)/100)

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Ws	5.000	Weight of sample extracted (g)
M	0.000	% Moisture (not decanted)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (UG/KG)	ON-COL (UG/KG)
* 1 Fluorobenzene	96	14.732	14.733	(1.000)	483649	50.0000	
* 2 Chlorobenzene-d5	117	19.119	19.119	(1.000)	329843	50.0000	
* 3 1,4-Dichlorobenzene-d4	152	22.017	22.017	(1.000)	193800	50.0000	
73 Freon-113	151	9.025	9.035	(0.613)	231272	50.0000	61.971
74 Iodomethane	142	9.291	9.301	(0.631)	182210	50.0000	50.000

Data File: \\lilan04\d\chem\MSVOA\5970K.i\K073101p.b\K073120.D
Date : 01-AUG-2001 01:29
Client ID: VSTD100
Sample Info: VSTD100 K073107

Instrument: 5970K.i

Operator: JVG
Column diameter: 0.53

Column phase: DB-624

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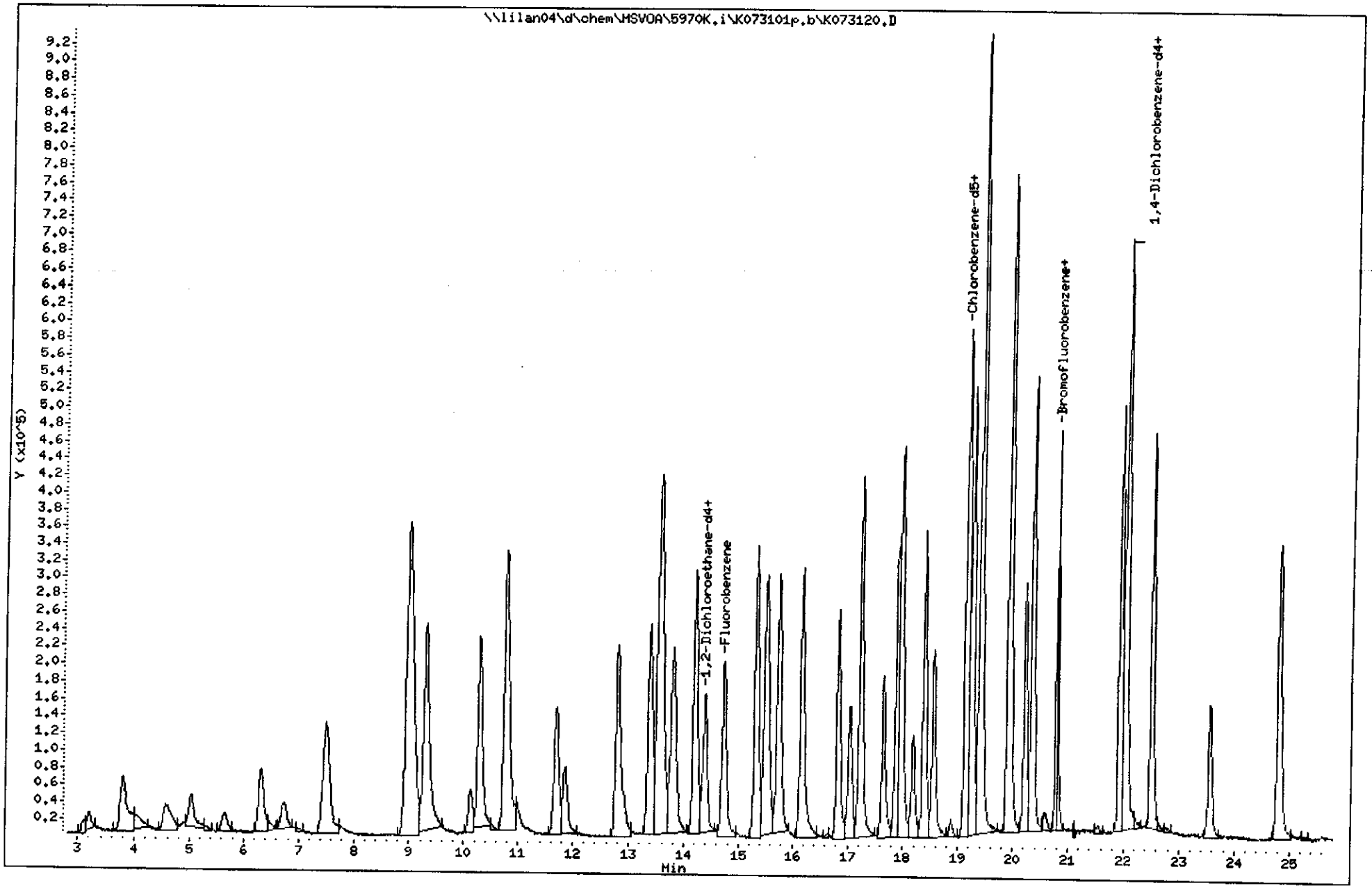

Lionville Laboratory Inc.

Data file : \\lilan04\d\chem\MSVOA\5970K.i\K073101p.b\K073120.D
Lab Smp Id: VSTD100 Client Smp ID: VSTD100
Inj Date : 01-AUG-2001 01:29
Operator : JVG Inst ID: 5970K.i
Smp Info : VSTD100 K073107
Misc Info : DIL,1,FR-113/IODOMETHANE ICL 5.0G
Comment :
Method : \\lilan04\d\chem\MSVOA\5970K.i\K073101p.b\8260a07s.m
Meth Date : 07-Aug-2001 16:32 target Quant Type: ISTD
Cal Date : 01-AUG-2001 01:29 Cal File: K073120.D
Als bottle: 26 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 113-iodo.sub
Target Version: 4.00
Processing Host: MSVOA4

Concentration Formula: Amt * DF * Uf/(Ws*(100-M)/100)

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Ws	5.000	Weight of sample extracted (g)
M	0.000	% Moisture (not decanted)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (UG/KG)	ON-COL (UG/KG)
* 1 Fluorobenzene	96	14.733	14.733	(1.000)	454959	50.0000	
* 2 Chlorobenzene-d5	117	19.119	19.119	(1.000)	309259	50.0000	
* 3 1,4-Dichlorobenzene-d4	152	22.017	22.017	(1.000)	177750	50.0000	
73 Freon-113	151	9.035	9.035	(0.613)	329607	100.000	79.921
74 Iodomethane	142	9.301	9.301	(0.631)	388017	100.000	104.88

Data File: \\lilan04\d\chem\MSVOA\5970K.i\K073101p.b\K073119.D

Date : 01-AUG-2001 00:49

Client ID: VSTD200

Sample Info: VSTD200 K073107

Column phase: DB-624

Instrument: 5970K.i

Operator: JVG

Column diameter: 0.53

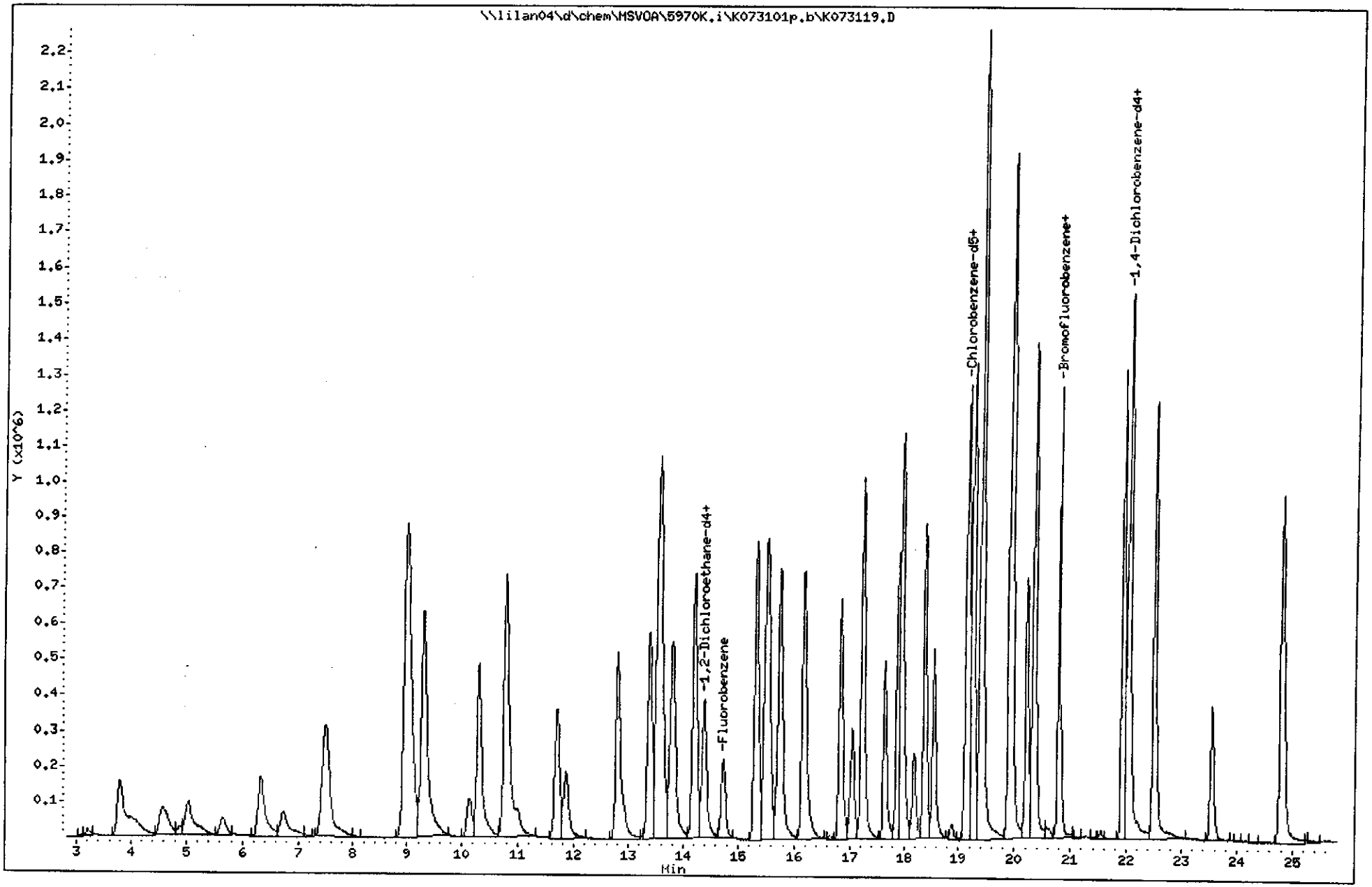

Lionville Laboratory Inc.

Data file : \\lilan04\d\chem\MSVOA\5970K.i\K073101p.b\K073119.D
Lab Smp Id: VSTD200 Client Smp ID: VSTD200
Inj Date : 01-AUG-2001 00:49
Operator : JVG Inst ID: 5970K.i
Smp Info : VSTD200 K073107
Misc Info : DIL,1,FR-113/IODOMETHANE ICL 5.0G
Comment :
Method : \\lilan04\d\chem\MSVOA\5970K.i\K073101p.b\8260a07s.m
Meth Date : 07-Aug-2001 16:32 target Quant Type: ISTD
Cal Date : 01-AUG-2001 00:49 Cal File: K073119.D
Als bottle: 25 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 113-iodo.sub
Target Version: 4.00
Processing Host: MSVOA4

Concentration Formula: Amt * DF * Uf/(Ws*(100-M)/100)

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Ws	5.000	Weight of sample extracted (g)
M	0.000	% Moisture (not decanted)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (UG/KG)	ON-COL (UG/KG)
* 1 Fluorobenzene	96	14.727	14.733	(1.000)	467721	50.0000	
* 2 Chlorobenzene-d5	117	19.123	19.119	(1.000)	313722	50.0000	
* 3 1,4-Dichlorobenzene-d4	152	22.011	22.017	(1.000)	181756	50.0000	
73 Freon-113	151	9.029	9.035	(0.613)	819461	200.000	191.39
74 Iodomethane	142	9.286	9.301	(0.631)	1085454	200.000	288.92(A)

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.

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Data File: \\lilan04\d\chem\MSVOA\5970K.i\K073101p.b\K073121.D
Date : 01-AUG-2001 02:10
Client ID: VSTD05
Sample Info: VSTD05 K073107

Instrument: 5970K.i

Operator: JVG

Column phase: DB-624

Column diameter: 0.53

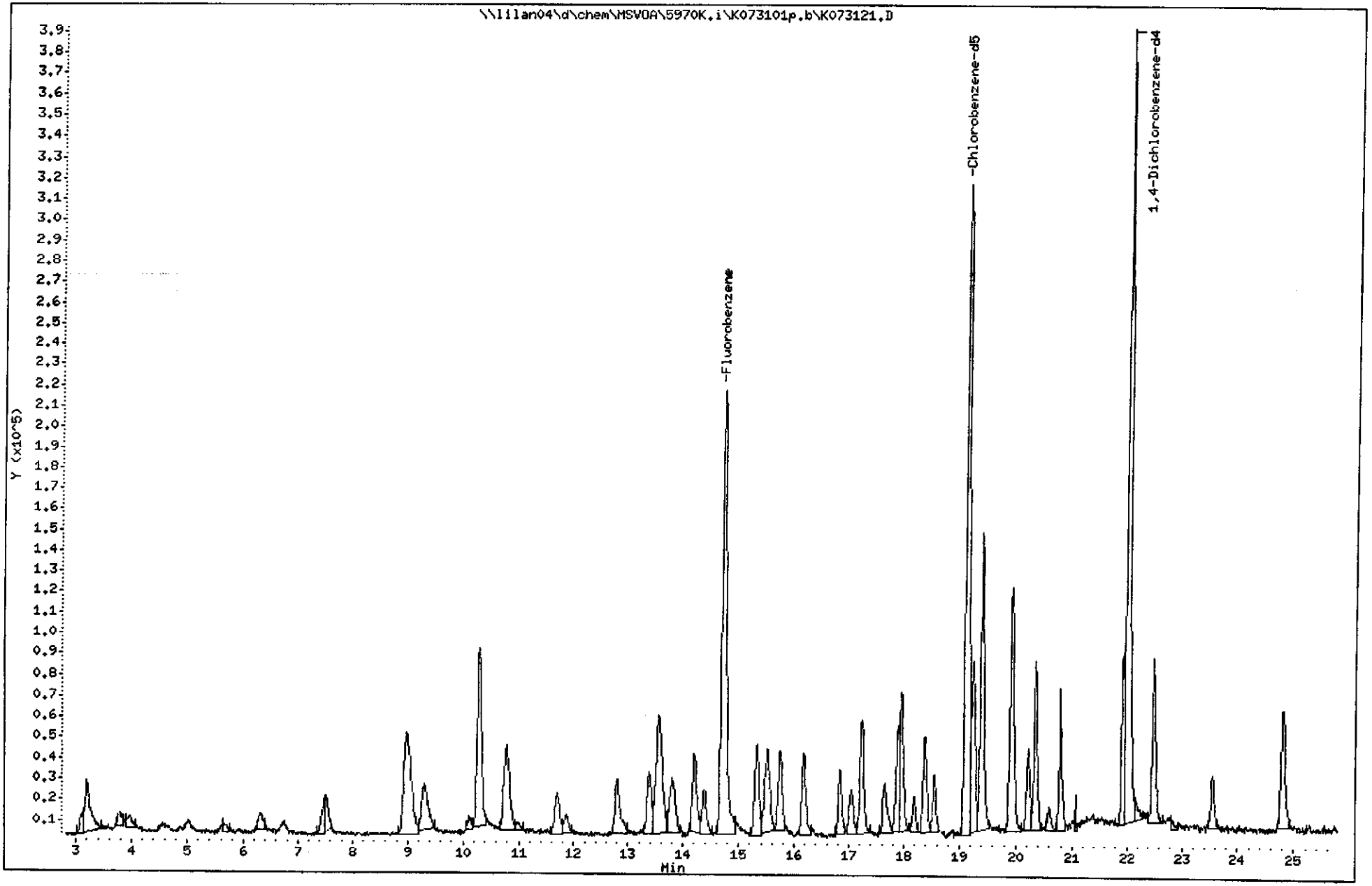

Lionville Laboratory Inc.

Data file : \\lilan04\d\chem\MSVOA\5970K.i\K073101p.b\K073121.D
Lab Smp Id: VSTD05 Client Smp ID: VSTD05
Inj Date : 01-AUG-2001 02:10
Operator : JVG Inst ID: 5970K.i
Smp Info : VSTD05 K073107
Misc Info : DIL,1,FR-113/IODOMETHANE ICL 5.0G
Comment :
Method : \\lilan04\d\chem\MSVOA\5970K.i\K073101p.b\8260a07s.m
Meth Date : 07-Aug-2001 16:32 target Quant Type: ISTD
Cal Date : 01-AUG-2001 01:29 Cal File: K073120.D
Als bottle: 27
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 113-iodo.sub
Target Version: 4.00
Processing Host: MSVOA4

Concentration Formula: Amt * DF * Uf/(Ws*(100-M)/100)

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Ws	5.000	Weight of sample extracted (g)
M	0.000	% Moisture (not decanted)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (UG/KG)	FINAL (ug/Kg)
* 1 Fluorobenzene	96	14.732	14.733	(1.000)	499094	50.0000	
* 2 Chlorobenzene-d5	117	19.119	19.119	(1.000)	339482	50.0000	
* 3 1,4-Dichlorobenzene-d4	152	22.017	22.017	(1.000)	183017	50.0000	
73 Freon-113	151	9.005	9.035	(0.611)	44814	9.90551	9.906
74 Iodomethane	142	9.301	9.301	(0.631)	24429	6.01939	6.019

7AD
VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Lionville Laboratory Inc. Contract: 02744-064-001-9999-00

Lab Code: LVLI Case No.: SAS No.: SDG No.: 07L423

Instrument ID: 5970K Calibration Date: 08/02/1 Time: 1339

Lab File ID: K080203 Init. Calib. Date(s): 07/31/1 08/01/1

Heated Purge: (Y/N) Y GC Column: DB-624 ID: 0.53 (mm)

= Min RRF50 for SPCC Max %D for CCC(*) = 20.0%

COMPOUND		$\overline{RRF}$	RRF50	%D
Dichlorodifluoromethane		0.583	0.613	5.1
Chloromethane	#	0.365	0.363	0.5#
Vinyl Chloride	*	0.351	0.375	6.8*
Bromomethane		0.265	0.236	10.9
Chloroethane		0.175	0.185	5.7
Trichlorofluoromethane		0.778	0.799	2.7
1,1-Dichloroethene	*	0.366	0.337	7.9*
Methylene Chloride		0.592	0.456	23.0
Acetone		0.195	0.120	38.5
trans-1,2-Dichloroethene		0.307	0.304	1.0
1,1-Dichloroethane	#	0.636	0.592	6.9#
cis-1,2-Dichloroethene		0.366	0.347	5.2
2,2-Dichloropropane		0.069	0.102	47.8
2-Butanone		0.148	0.132	10.8
Bromochloromethane		0.256	0.244	4.7
Chloroform	*	0.711	0.706	0.7*
1,1,1-Trichloroethane		0.568	0.602	6.0
Carbon Tetrachloride		0.531	0.546	2.8
1,1-Dichloropropene		0.184	0.184	0.0
Benzene		0.976	0.992	1.6
1,2-Dichloroethane		0.418	0.427	2.2
Trichloroethene		0.429	0.443	3.3
1,2-Dichloropropane	*	0.447	0.449	0.4*
Dibromomethane		0.318	0.331	4.1
Bromodichloromethane		0.642	0.663	3.3
cis-1,3-Dichloropropene		0.658	0.713	8.4
Toluene	*	1.509	1.508	0.1*
4-Methyl-2-Pentanone		0.599	0.569	5.0
trans-1,3-Dichloropropene		0.425	0.443	4.2
1,1,2-Trichloroethane		0.484	0.509	5.2
Tetrachloroethene		0.503	0.536	6.6
2-Hexanone		0.411	0.396	3.6
1,3-Dichloropropane		0.790	0.826	4.6
Dibromochloromethane		0.794	0.848	6.8
1,2-Dibromoethane		0.693	0.742	7.1
Chlorobenzene	#	1.073	1.126	4.9#
1,1,1,2-Tetrachloroethane		0.559	0.598	7.0
Ethylbenzene	*	0.501	0.518	3.4*

FORM VII VOA MAC-SW846HP-7

7AD
VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Lionville Laboratory Inc. Contract: 02744-064-001-9999-00

Lab Code: LVLI Case No.: SAS No.: SDG No.: 07L423

Instrument ID: 5970K Calibration Date: 08/02/1 Time: 1339

Lab File ID: K080203 Init. Calib. Date(s): 07/31/1 08/01/1

Heated Purge: (Y/N) Y GC Column: DB-624 ID: 0.53 (mm)

= Min RRF50 for SPCC Max %D for CCC(*) = 20.0%

COMPOUND	$\overline{RRF}$	RRF50	%D
m & p-Xylene	0.600	0.628	4.7
Xylenes (Total)	0.601	0.628	4.5
o-Xylene	0.604	0.629	4.1
Styrene	0.978	1.033	5.6
Bromoform #	0.545	0.566	3.8#
Isopropylbenzene	1.768	1.862	5.3
Bromobenzene	2.321	2.252	3.0
1,2,3-Trichloropropane	0.319	0.312	2.2
1,1,2,2-Tetrachloroethane #	1.389	1.288	7.3#
N-Propylbenzene	0.758	0.752	0.8
2-Chlorotoluene	0.739	0.721	2.4
4-Chlorotoluene	0.753	0.751	0.3
1,3,5-Trimethylbenzene	2.316	2.357	1.8
Tert-Butylbenzene	0.611	0.613	0.3
1,2,4-Trimethylbenzene	2.273	2.274	0.0
Sec-Butylbenzene	0.670	0.662	1.2
1,3-Dichlorobenzene	1.484	1.477	0.5
1,4-Dichlorobenzene	1.634	1.692	3.5
4-Isopropyltoluene	2.645	2.634	0.4
1,2-Dichlorobenzene	1.478	1.494	1.1
N-Butylbenzene	0.653	0.637	2.4
1,2-Dibromo-3-chloropropane	0.337	0.334	0.9
Carbon Disulfide	0.991	0.886	10.6
1,2-Dichloroethane-d4	0.373	0.341	8.6
Toluene-d8	1.179	1.130	4.2
Bromofluorobenzene	1.416	1.376	2.8

7A
VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Lionville Laboratory Inc. Contract: 02744-064-001-9999-00

Lab Code: LVLI Case No.: SAS No.: SDG No.: 07L423

Instrument ID: 5970K Calibration Date: 08/02/1 Time: 1339

Lab File ID: K080203 Init. Calib. Date(s): 07/31/1 08/01/1

Heated Purge: (Y/N) Y GC Column: DB-624 ID: 0.53 (mm)

= Min RRF50 for SPCC Max %Drift for CCC(*) = 20.0%

COMPOUND		RRF50	SPIKED AMOUNT	OBSRVD AMOUNT	%Drift
Dichlorodifluoromethane		0.613	50.0	52.6	5.2
Chloromethane	#	0.363	50.0	49.8	0.4#
Vinyl Chloride	*	0.375	50.0	53.4	6.8*
Bromomethane		0.236	50.0	44.6	10.8
Chloroethane		0.185	50.0	52.8	5.6
Trichlorofluoromethane		0.799	50.0	51.4	2.8
1,1-Dichloroethene	*	0.337	50.0	46.0	8.0*
Methylene Chloride		0.456	50.0	38.5	23.0
Acetone		0.120	50.0	30.8	38.4
trans-1,2-Dichloroethene		0.304	50.0	49.4	1.2
1,1-Dichloroethane	#	0.592	50.0	46.5	7.0#
cis-1,2-Dichloroethene		0.347	50.0	47.4	5.2
2,2-Dichloropropane		0.102	50.0	74.1	48.2
2-Butanone		0.132	50.0	44.8	10.4
Bromochloromethane		0.244	50.0	47.6	4.8
Chloroform	*	0.706	50.0	49.7	0.6*
1,1,1-Trichloroethane		0.602	50.0	53.0	6.0
Carbon Tetrachloride		0.546	50.0	51.4	2.8
1,1-Dichloropropene		0.184	50.0	50.0	0.0
Benzene		0.992	50.0	50.8	1.6
1,2-Dichloroethane		0.427	50.0	51.0	2.0
Trichloroethene		0.443	50.0	51.6	3.2
1,2-Dichloropropane	*	0.449	50.0	50.2	0.4*
Dibromomethane		0.331	50.0	52.2	4.4
Bromodichloromethane		0.663	50.0	51.6	3.2
cis-1,3-Dichloropropene		0.713	50.0	54.2	8.4
Toluene	*	1.508	50.0	50.0	0.0*
4-Methyl-2-Pentanone		0.569	50.0	47.5	5.0
trans-1,3-Dichloropropene		0.443	50.0	52.1	4.2
1,1,2-Trichloroethane		0.509	50.0	52.5	5.0
Tetrachloroethene		0.536	50.0	53.2	6.4
2-Hexanone		0.396	50.0	48.2	3.6
1,3-Dichloropropane		0.826	50.0	52.3	4.6
Dibromochloromethane		0.848	50.0	53.4	6.8
1,2-Dibromoethane		0.742	50.0	53.5	7.0
Chlorobenzene	#	1.126	50.0	52.5	5.0#
1,1,1,2-Tetrachloroethane		0.598	50.0	53.4	6.8
Ethylbenzene	*	0.518	50.0	51.7	3.4*

FORM VII VOA MAC-SW846HP-7

7A
VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Lionville Laboratory Inc. Contract: 02744-064-001-9999-00

Lab Code: LVLI Case No.: SAS No.: SDG No.: 07L423

Instrument ID: 5970K Calibration Date: 08/02/1 Time: 1339

Lab File ID: K080203 Init. Calib. Date(s): 07/31/1 08/01/1

Heated Purge: (Y/N) Y GC Column: DB-624 ID: 0.53 (mm)

= Min RRF50 for SPCC Max %Drift for CCC(*) = 20.0%

COMPOUND	RRF50	SPIKED AMOUNT	OBSRVD AMOUNT	%Drift
m & p-Xylene	0.628	100	105	5.0
Xylenes (Total)	0.628	150	157	4.7
o-Xylene	0.629	50.0	52.0	4.0
Styrene	1.033	50.0	52.8	5.6
Bromoform #	0.566	50.0	51.9	3.8#
Isopropylbenzene	1.862	50.0	52.7	5.4
Bromobenzene	2.252	50.0	48.5	3.0
1,2,3-Trichloropropane	0.312	50.0	48.9	2.2
1,1,2,2-Tetrachloroethane #	1.288	50.0	46.4	7.2#
N-Propylbenzene	0.752	50.0	49.6	0.8
2-Chlorotoluene	0.721	50.0	48.7	2.6
4-Chlorotoluene	0.751	50.0	49.9	0.2
1,3,5-Trimethylbenzene	2.357	50.0	50.9	1.8
Tert-Butylbenzene	0.613	50.0	50.2	0.4
1,2,4-Trimethylbenzene	2.274	50.0	50.0	0.0
Sec-Butylbenzene	0.662	50.0	49.4	1.2
1,3-Dichlorobenzene	1.477	50.0	49.8	0.4
1,4-Dichlorobenzene	1.692	50.0	51.8	3.6
4-Isopropyltoluene	2.634	50.0	49.8	0.4
1,2-Dichlorobenzene	1.494	50.0	50.5	1.0
N-Butylbenzene	0.637	50.0	48.8	2.4
1,2-Dibromo-3-chloropropane	0.334	50.0	49.5	1.0
Carbon Disulfide	0.886	50.0	44.7	10.6
1,2-Dichloroethane-d4	0.341	50.0	45.7	8.6
Toluene-d8	1.130	50.0	47.9	4.2
Bromofluorobenzene	1.376	50.0	48.6	2.8

Data File: \\lilan04\d\chem\MSVOA\5970K.i\K080201.b\K080203.D
Date : 02-AUG-2001 13:39
Client ID: VSTD50
Sample Info: VSTD50 K080201

Column phase: DB-624

Instrument: 5970K.i

Operator: JVG
Column diameter: 0.53

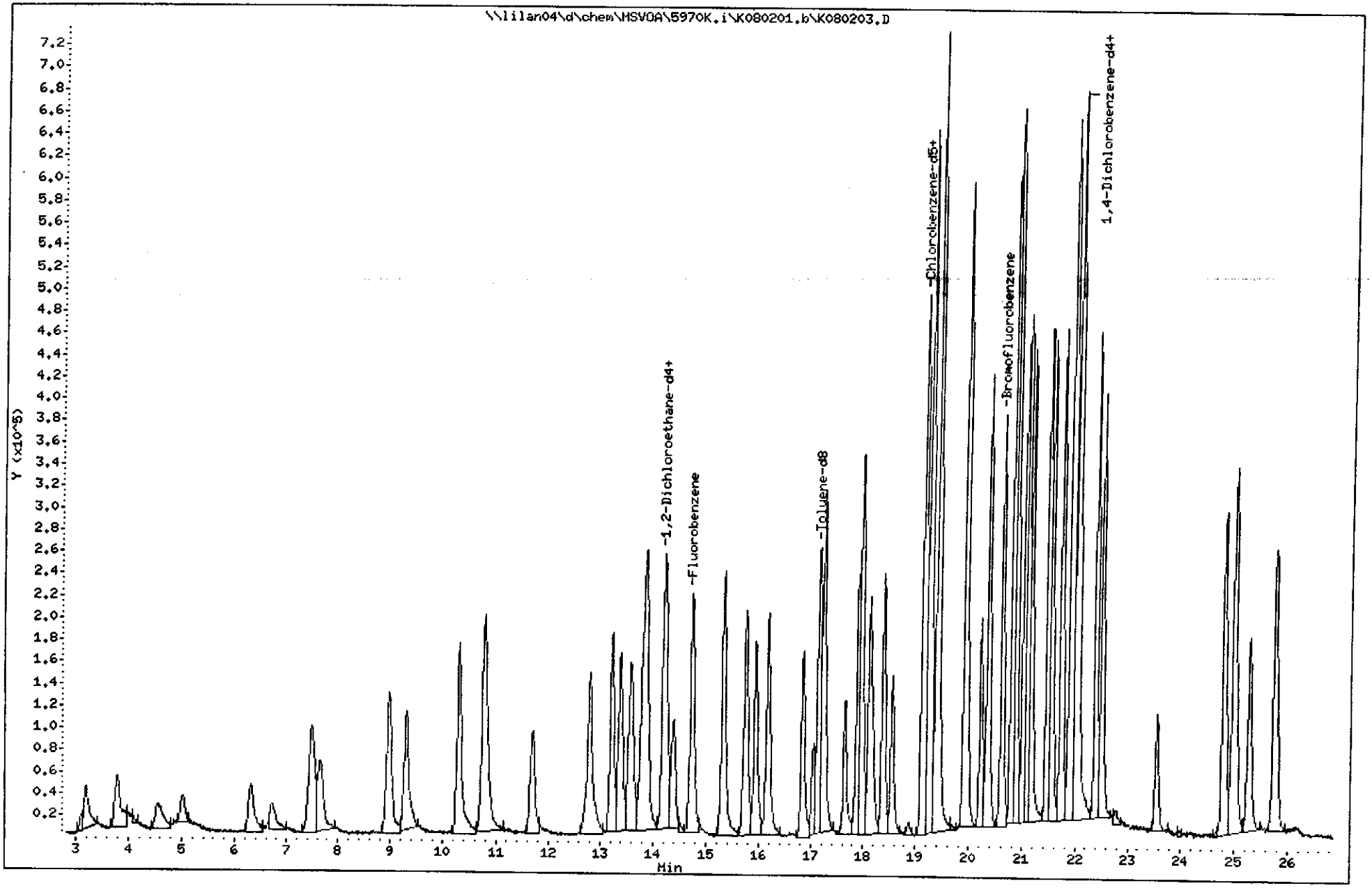

Lionville Laboratory Inc.

Data file : \\lilan04\d\chem\MSVOA\5970K.i\K080201.b\K080203.D
Lab Smp Id: VSTD50 Client Smp ID: VSTD50
Inj Date : 02-AUG-2001 13:39
Operator : JVG Inst ID: 5970K.i
Smp Info : VSTD50 K080201
Misc Info : DIL,1,ALT8260 5035 CCL 5.0G
Comment :
Method : \\LILAN04\D\chem\MSVOA\5970K.i\K080201.b\8260a07s.m
Meth Date : 07-Aug-2001 16:51 target Quant Type: ISTD
Cal Date : 01-AUG-2001 01:29 Cal File: K073120.D
Als bottle: 21 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.00
Processing Host: MSVOA2

Concentration Formula: Amt * DF * Uf/(Ws*(100-M)/100)

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Ws	5.000	Weight of sample extracted (g)
M	0.000	% Moisture (not decanted)

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (UG/KG)	ON-COL (UG/KG)
	1 Fluorobenzene	96	14.733	14.742	(1.000)	498112	50.0000	
*	2 Chlorobenzene-d5	117	19.120	19.129	(1.000)	335465	50.0000	
*	3 1,4-Dichlorobenzene-d4	152	22.018	22.027	(1.000)	212529	50.0000	
$	4 1,2-Dichloroethane-d4	65	14.260	14.260	(0.968)	170021	50.0000	45.704
$	5 Toluene-d8	98	17.138	17.138	(0.896)	379180	50.0000	47.937
$	6 Bromofluorobenzene	95	20.608	20.608	(0.936)	292551	50.0000	48.600
	7 Dichlorodifluoromethane	85	3.782	3.782	(0.257)	305226	50.0000	52.607
	8 Chloromethane	50	4.561	4.561	(0.310)	181048	50.0000	49.751
	9 Vinyl Chloride	62	5.014	5.014	(0.340)	186736	50.0000	53.415
	10 Bromomethane	94	6.305	6.305	(0.428)	117614	50.0000	44.623
	11 Chloroethane	64	6.729	6.729	(0.457)	92259	50.0000	52.842
	12 Trichlorofluoromethane	101	7.488	7.488	(0.508)	398076	50.0000	51.369
	13 1,1-Dichloroethene	96	8.967	8.967	(0.609)	167889	50.0000	46.040
	14 Carbon Disulfide	76	9.302	9.302	(0.631)	441451	50.0000	44.729
	15 Acetone	43	9.401	9.401	(0.638)	59836	50.0000	30.849

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (UG/KG)	AMOUNTS ON-COL (UG/KG)
	16 Methylene Chloride	84	10.288	10.288	(0.698)	227249	50.0000	38.505
	17 trans-1,2-Dichloroethene	96	10.771	10.771	(0.731)	151402	50.0000	49.409
	18 Methyl-T-Butylether	73	10.810	10.810	(0.734)	253210	50.0000	52.478
	19 1,1-Dichloroethane	63	11.697	11.697	(0.794)	294684	50.0000	46.525
	20 2,2-Dichloropropane	77	12.713	12.713	(0.863)	50670	50.0000	74.067
	21 cis-1,2-Dichloroethene	96	12.801	12.801	(0.869)	172710	50.0000	47.390
	22 2-Butanone	43	12.900	12.900	(0.876)	65926	50.0000	44.789
	23 Bromochloromethane	128	13.225	13.225	(0.898)	121555	50.0000	47.642
	24 Chloroform	83	13.383	13.383	(0.908)	351559	50.0000	49.660
	25 1,1,1-Trichloroethane	97	13.580	13.580	(0.922)	300055	50.0000	52.999
	26 Carbon Tetrachloride	117	13.817	13.817	(0.938)	271928	50.0000	51.368
	27 1,1-Dichloropropene	77	13.876	13.876	(0.942)	91813	50.0000	49.955
	28 Benzene	78	14.211	14.211	(0.965)	494242	50.0000	50.819
	29 1,2-Dichloroethane	62	14.388	14.388	(0.977)	212861	50.0000	51.036
	30 Trichloroethene	130	15.325	15.325	(1.040)	220599	50.0000	51.571
	31 1,2-Dichloropropane	63	15.749	15.749	(1.069)	223839	50.0000	50.195
	32 Dibromomethane	174	15.946	15.946	(1.082)	165038	50.0000	52.166
	33 Bromodichloromethane	83	16.172	16.172	(1.098)	330095	50.0000	51.642
	34 cis-1,3-Dichloropropene	75	16.833	16.833	(0.880)	239345	50.0000	54.204
	35 4-Methyl-2-Pentanone	43	17.040	17.040	(0.891)	190846	50.0000	47.506
	36 Toluene	91	17.237	17.237	(0.902)	505777	50.0000	49.961
	37 trans-1,3-Dichloropropene	75	17.641	17.641	(0.923)	148702	50.0000	52.113
	38 1,1,2-Trichloroethane	97	17.888	17.888	(0.936)	170637	50.0000	52.508
	39 Tetrachloroethene	164	17.966	17.966	(0.940)	179838	50.0000	53.231
	40 1,3-Dichloropropane	76	18.114	18.114	(0.947)	277148	50.0000	52.299
	41 2-Hexanone	43	18.183	18.183	(0.951)	132810	50.0000	48.177
	42 Dibromochloromethane	129	18.390	18.390	(0.962)	284596	50.0000	53.392
	43 1,2-Dibromoethane	107	18.558	18.558	(0.971)	248973	50.0000	53.546
	44 Chlorobenzene	112	19.159	19.159	(1.002)	377810	50.0000	52.465
	45 1,1,1,2-Tetrachloroethane	131	19.268	19.268	(1.008)	200545	50.0000	53.428
	46 Ethylbenzene	106	19.248	19.248	(1.007)	173844	50.0000	51.729
	47 m & p-Xylene	106	19.406	19.406	(1.015)	421530	100.000	104.67
	48 o-Xylene	106	19.918	19.918	(1.042)	210876	50.0000	52.038
	49 Styrene	104	19.948	19.948	(1.043)	346458	50.0000	52.796
M	50 Xylenes (Total)	106				632406	150.000	156.71
	51 Bromoform	173	20.224	20.224	(1.058)	189804	50.0000	51.877
	52 Isopropylbenzene	105	20.352	20.352	(1.064)	624726	50.0000	52.676
	53 1,1,2,2-Tetrachloroethane	83	20.795	20.795	(0.944)	273759	50.0000	46.380
	54 Bromobenzene	77	20.795	20.795	(0.944)	478662	50.0000	48.518
	55 1,2,3-Trichloropropane	110	20.874	20.874	(0.948)	66399	50.0000	48.909
	56 N-Propylbenzene	120	20.855	20.855	(0.947)	159878	50.0000	49.604
	57 2-Chlorotoluene	126	21.022	21.022	(0.955)	153177	50.0000	48.743
	58 1,3,5-Trimethylbenzene	105	21.071	21.071	(0.957)	501021	50.0000	50.893 (H)
	59 4-Chlorotoluene	126	21.150	21.150	(0.961)	159565	50.0000	49.874
	60 Tert-Butylbenzene	134	21.456	21.456	(0.974)	130264	50.0000	50.177
	61 1,2,4-Trimethylbenzene	105	21.535	21.535	(0.978)	483402	50.0000	50.027
	62 Sec-Butylbenzene	134	21.732	21.732	(0.987)	140733	50.0000	49.390

PA 8/7/01

Rev 4/01

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (UG/KG)	AMOUNTS ON-COL (UG/KG)
63 1,3-Dichlorobenzene	146	21.929	21.929	(0.996)	313946	50.0000	49.785
64 4-Isopropyltoluene	119	21.890	21.890	(0.994)	559756	50.0000	49.783
65 1,4-Dichlorobenzene	146	22.037	22.037	(1.001)	359555	50.0000	51.776
66 N-Butylbenzene	134	22.382	22.382	(1.017)	135457	50.0000	48.794
67 1,2-Dichlorobenzene	146	22.501	22.501	(1.022)	317514	50.0000	50.522
68 1,2-Dibromo-3-chloropropane	157	23.555	23.555	(1.070)	70917	50.0000	49.473
69 1,2,4-Trichlorobenzene	180	24.807	24.807	(1.127)	234498	50.0000	50.131
70 Hexachlorobutadiene	225	25.004	25.004	(1.136)	174073	50.0000	50.484
71 Naphthalene	128	25.280	25.280	(1.148)	388596	50.0000	47.996
72 1,2,3-Trichlorobenzene	180	Compound Not Detected.					
73 Freon-113	151	Compound Not Detected.					
74 Iodomethane	142	Compound Not Detected.					

QC Flag Legend

H - Operator selected an alternate compound hit.

Data File: \\lilan04\d\chem\MSVOA\5970K.i\K080201.b\K080203.D
Injection Date: 02-AUG-2001 13:39
Instrument: 5970K.i
Client Sample ID: VSTD50

Compound: 1,3,5-Trimethylbenzene
CAS Number: 108-67-8

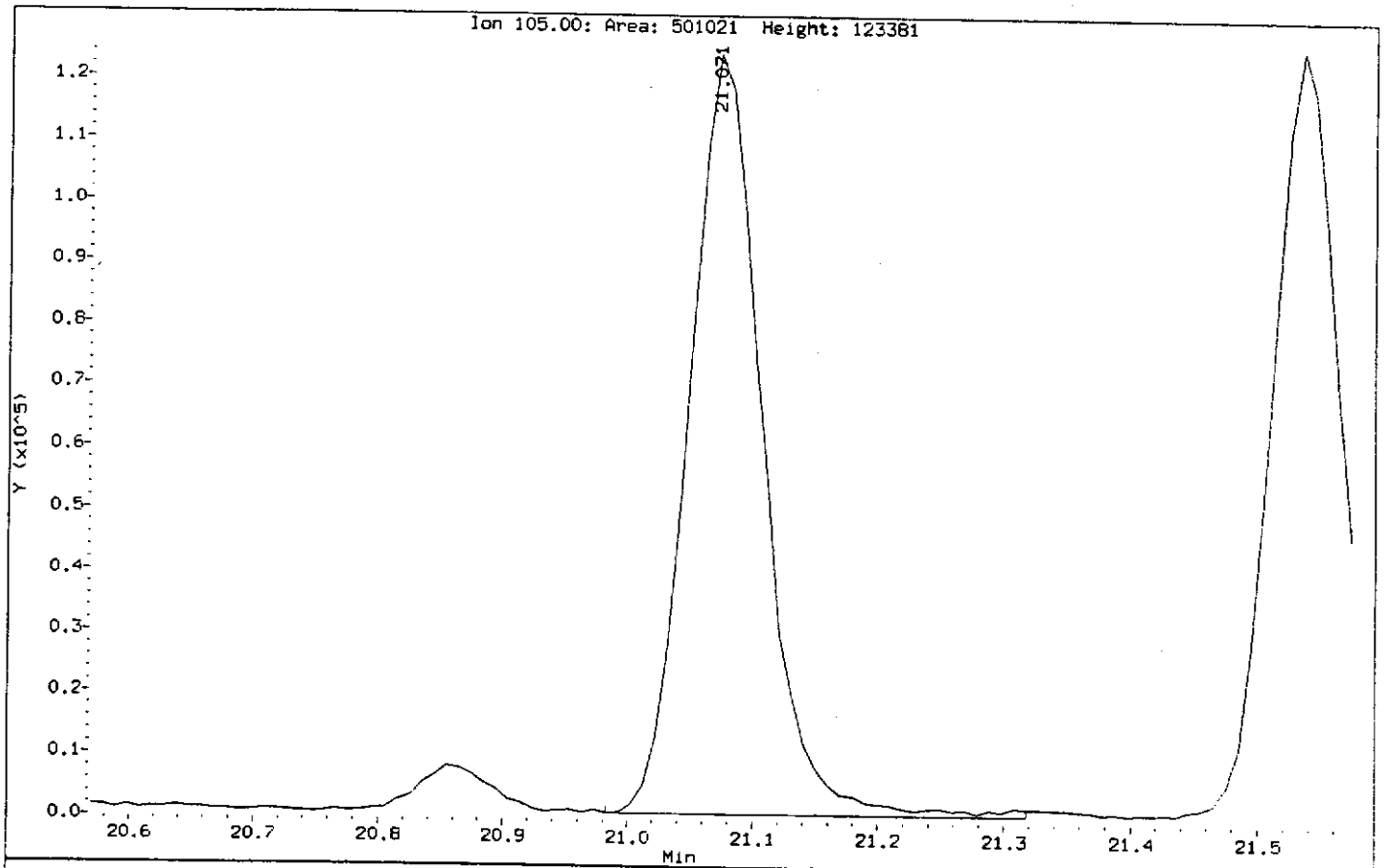

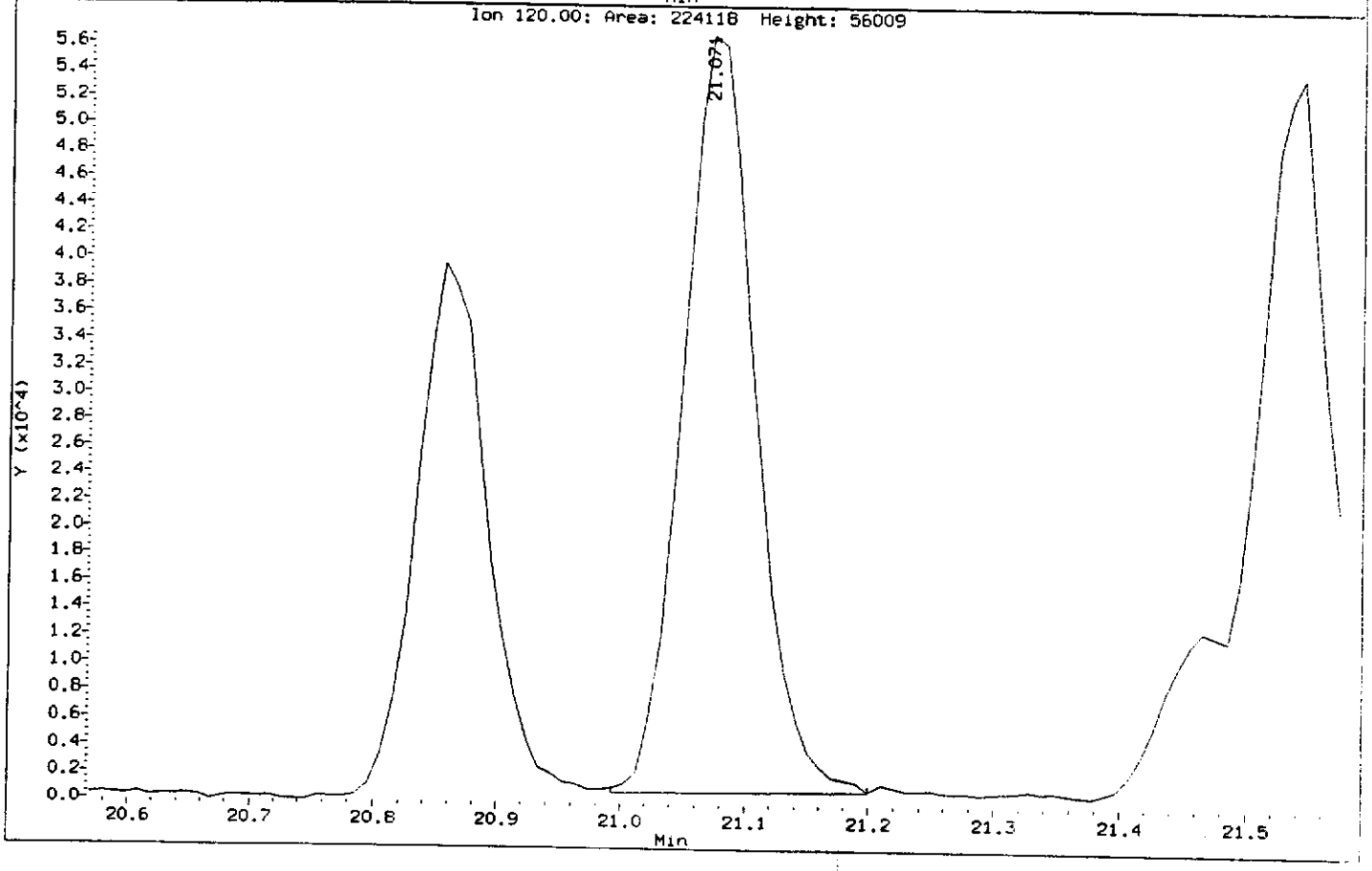

7AD
VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Lionville Laboratory Inc. Contract: 02744-064-001-9999-00

Lab Code: LVLI Case No.: SAS No.: SDG No.: 07L423

Instrument ID: 5970K Calibration Date: 08/02/1 Time: 1300

Lab File ID: K080202 Init. Calib. Date(s): 07/31/1 08/01/1

Heated Purge: (Y/N) Y GC Column: DB-624 ID: 0.53 (mm)

= Min RRF50 for SPCC Max %D for CCC(*) = 20.0%

COMPOUND	$\overline{RRF}$	RRF50	%D
Freon-113	0.453	0.319	29.6
Iodomethane	0.406	0.523	28.8

FORM VII VOA MAC-SW846HP-7

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Lionville Laboratory Inc. Contract: 02744-064-001-9999-00

Lab Code: LVLI Case No.: SAS No.: SDG No.: 07L423

Instrument ID: 5970K Calibration Date: 08/02/1 Time: 1300

Lab File ID: K080202 Init. Calib. Date(s): 07/31/1 08/01/1

Heated Purge: (Y/N) Y GC Column: DB-624 ID: 0.53 (mm)

= Min RRF50 for SPCC Max %Drift for CCC(*) = 20.0%

COMPOUND	RRF50	SPIKED AMOUNT	OBSRVD AMOUNT	%Drift
Freon-113	0.319	50.0	35.2	29.6
Iodomethane	0.523	50.0	64.4	28.8

FORM VII VOA MAC-SW846HP-7

Data File: \\lilan04\d\chem\MSVOA\5970K.i\K080201.b\K080202.D
Date : 02-AUG-2001 13:00
Client ID: VSTD50
Sample Info: VSTD50 K080201

Column phase: DB-624

Instrument: 5970K.i

Operator: JVG
Column diameter: 0.53

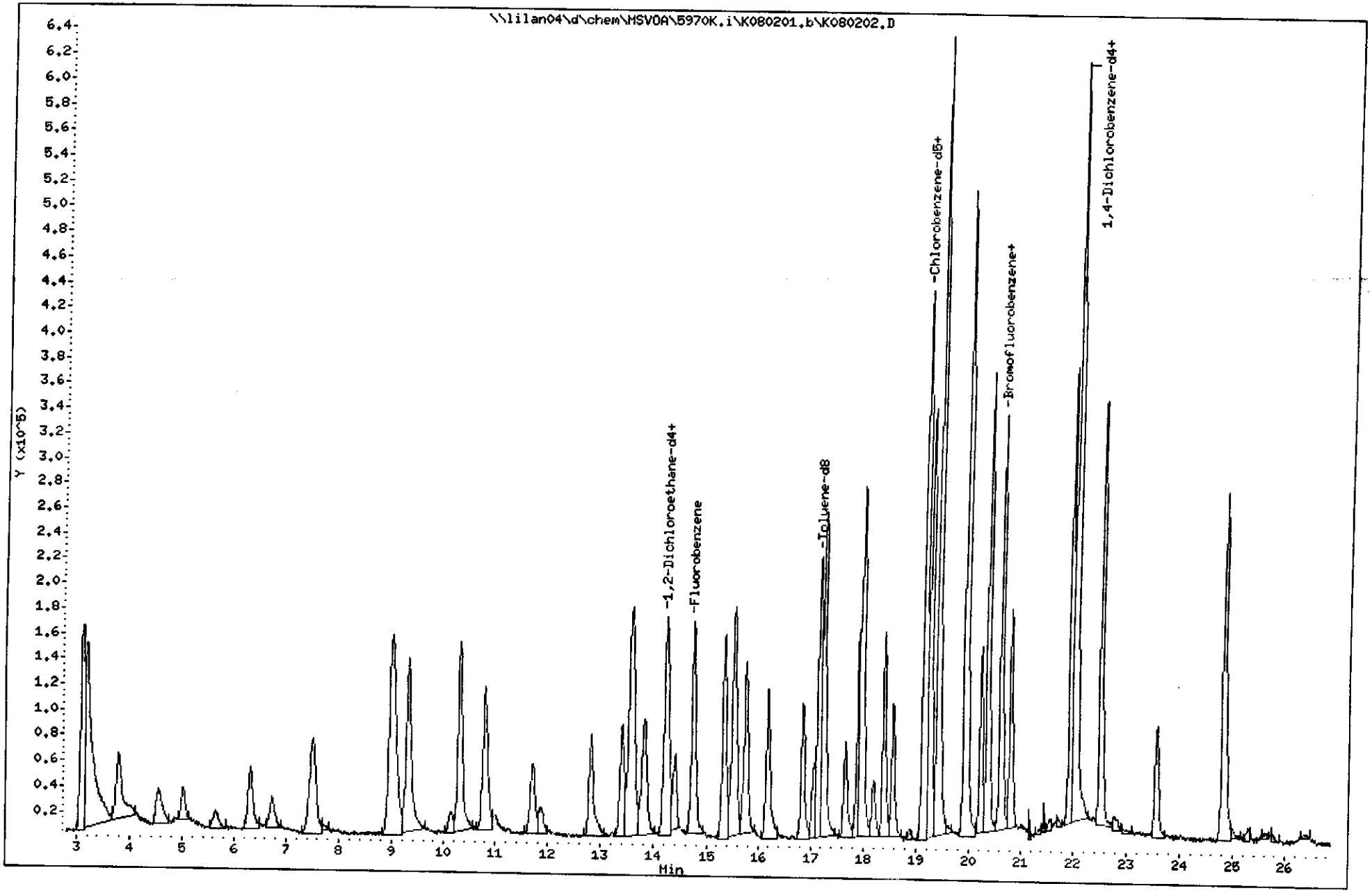

Lionville Laboratory Inc.

Data file : \\lilan04\d\chem\MSVOA\5970K.i\K080201.b\K080202.D
Lab Smp Id: VSTD50 Client Smp ID: VSTD50
Inj Date : 02-AUG-2001 13:00
Operator : JVG Inst ID: 5970K.i
Smp Info : VSTD50 K080201
Misc Info : DIL,1,113/IODO CCL 5.0G
Comment :
Method : \\LILAN04\D\chem\MSVOA\5970K.i\K080201.b\8260a07s.m
Meth Date : 07-Aug-2001 16:51 target Quant Type: ISTD
Cal Date : 01-AUG-2001 01:29 Cal File: K073120.D
Als bottle: 20 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 113-iodo.sub
Target Version: 4.00
Processing Host: MSVOA2

Concentration Formula: Amt * DF * Uf/(Ws*(100-M)/100)

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Ws	5.000	Weight of sample extracted (g)
M	0.000	% Moisture (not decanted)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (UG/KG)	ON-COL (UG/KG)
* 1 Fluorobenzene	96	14.742	14.742	(1.000)	387733	50.0000	
* 2 Chlorobenzene-d5	117	19.129	19.129	(1.000)	313471	50.0000	
* 3 1,4-Dichlorobenzene-d4	152	22.027	22.027	(1.000)	190321	50.0000	
73 Freon-113	151	9.015	9.015	(0.612)	123707	50.0000	35.196
74 Iodomethane	142	9.291	9.291	(0.630)	202969	50.0000	64.375

Raw QC Data: Tune, Blank and Spike Data

Data File: \\LILAN04\D\chem\MSVOA\5970K.i\K073101p.b\K073107.D

Date : 31-JUL-2001 17:04

Client ID:

Instrument: 5970K.i

Sample Info: BFB50NG K073107

Operator: JVG

Column phase: DB 624

Column diameter: 0.53

1 bfb

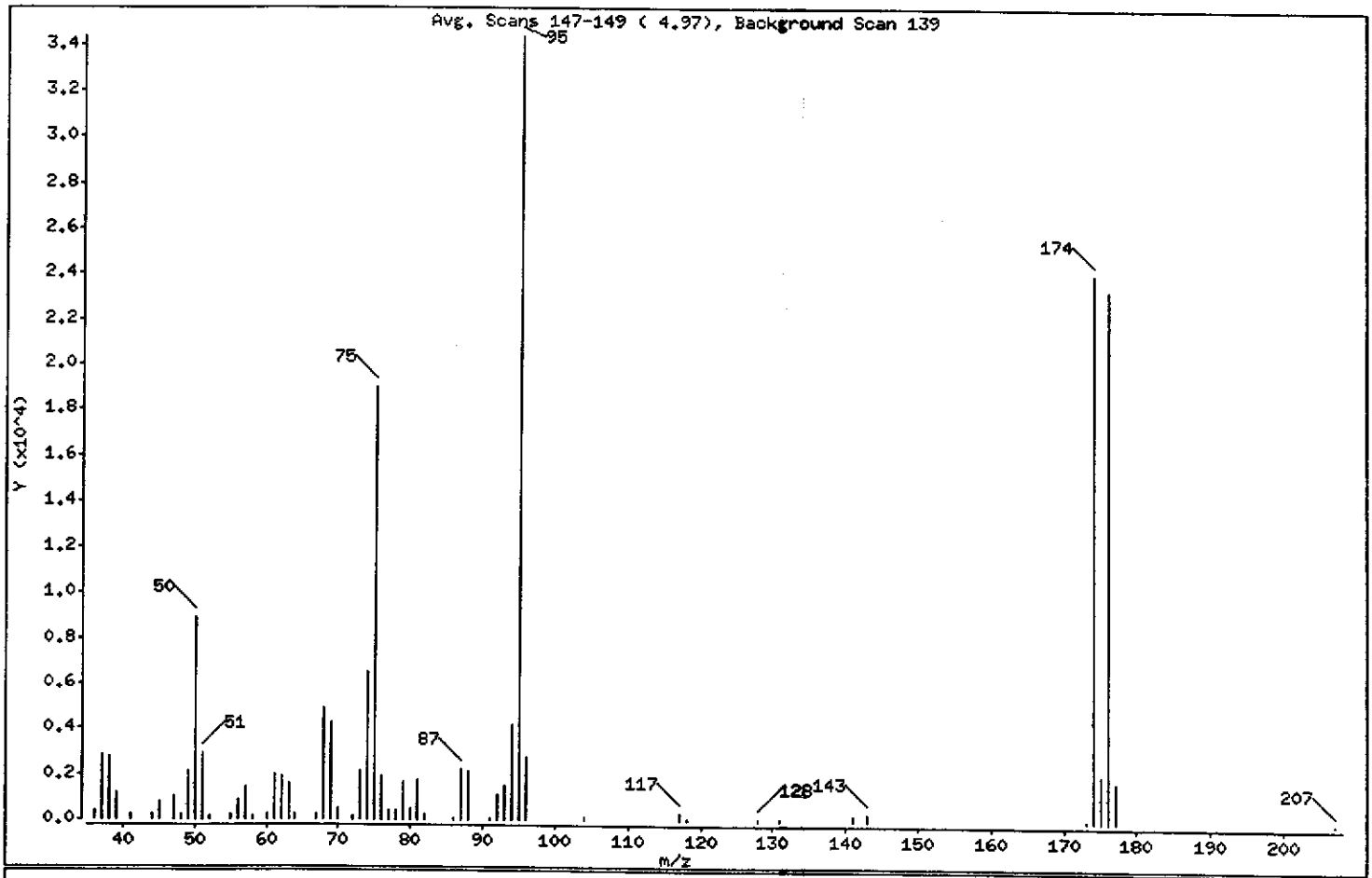

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	26.09
75	30.00 - 60.00% of mass 95	55.06
96	5.00 - 9.00% of mass 95	8.15
173	Less than 2.00% of mass 174	0.23 (0.33)
174	50.00 - 100.00% of mass 95	69.81
175	5.00 - 9.00% of mass 174	5.91 (8.47)
176	95.06 - 100.94% of mass 174	67.82 (97.15)
177	5.00 - 9.00% of mass 176	5.09 (7.50)

Data File: \\LILAN04\D\chem\MSVOA\5970K.i\K073101p.b\K073107.D

Date : 31-JUL-2001 17:04

Client ID:

Instrument: 5970K.i

Sample Info: BFB50NG K073107

Operator: JVG

Column phase: DB 624

Column diameter: 0.53

Data File: K073107.D

Spectrum: Avg. Scans 147-149 (4.97), Background Scan 139

Location of Maximum: 95.00

Number of points: 59

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	368	57.00	1385	76.00	1896	96.00	2804
37.00	2809	58.00	157	77.00	388	104.00	128
38.00	2765	60.00	255	78.00	394	117.00	319
39.00	1210	61.00	1995	79.00	1631	118.00	80
41.00	245	62.00	1936	80.00	506	128.00	93
44.00	276	63.00	1600	81.00	1734	131.00	74
45.00	802	64.00	265	82.00	251	141.00	231
47.00	990	67.00	250	86.00	71	143.00	315
48.00	266	68.00	4885	87.00	2192	173.00	79
49.00	2150	69.00	4292	88.00	2161	174.00	24008
50.00	8971	70.00	464	91.00	93	175.00	2033
51.00	2954	72.00	185	92.00	1111	176.00	23320
52.00	183	73.00	2123	93.00	1509	177.00	1750
55.00	237	74.00	6512	94.00	4228	207.00	14
56.00	886	75.00	18936	95.00	34384		

Data File: \\LILAN04\D\chem\MSVOA\5970K.i\K073101p.b\K073107.D

Date : 31-JUL-2001 17:04

Client ID:

Instrument: 5970K.i

Sample Info: BFB50NG K073107

Operator: JVG

Column phase: DB 624

Column diameter: 0.53

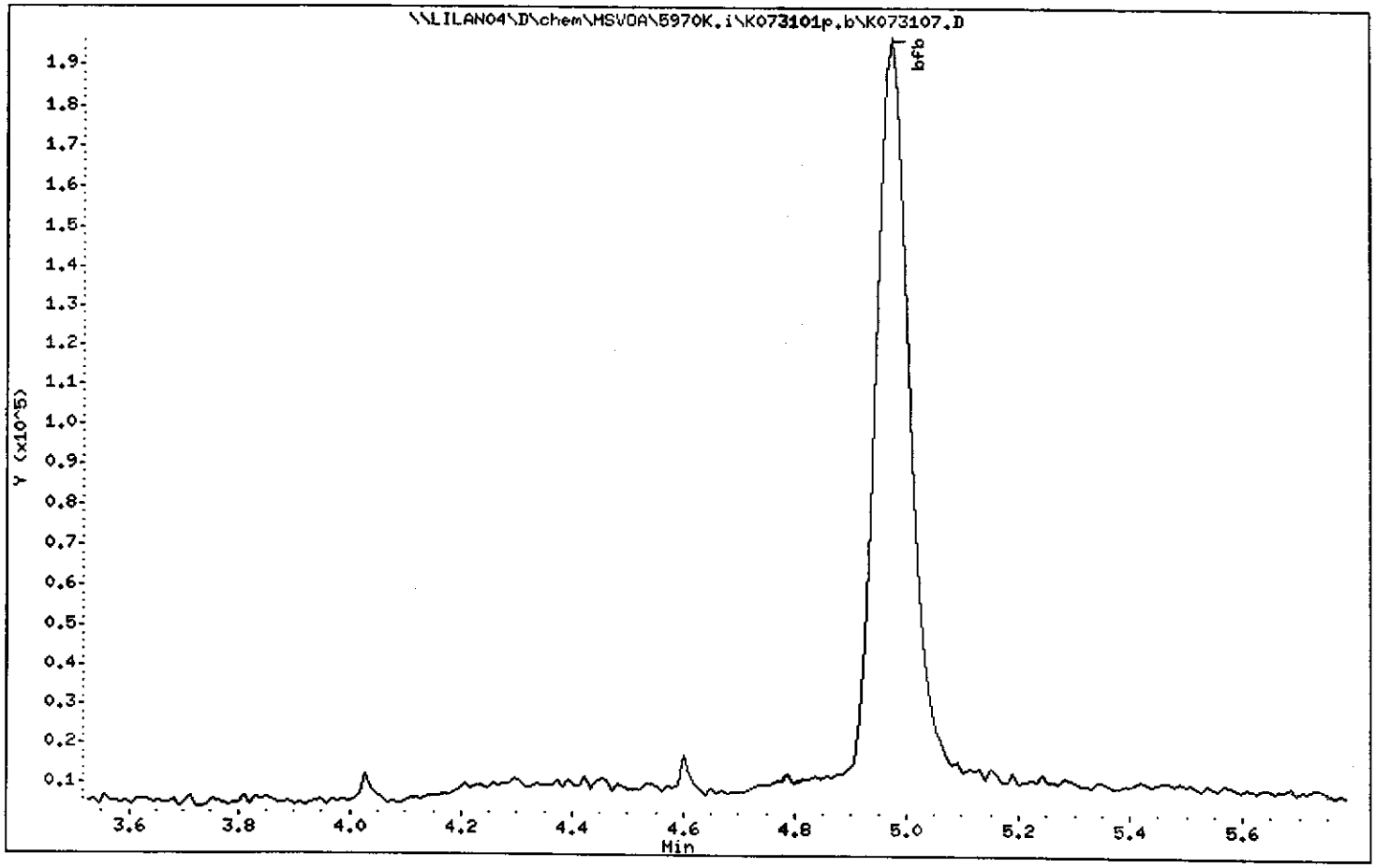

Data File: \\lilan04\d\chem\MSVOA\5970K.i\K080201.b\K080201.D

Date : 02-AUG-2001 12:38

Client ID:

Instrument: 5970K.i

Sample Info: BFB50NG K080201

Operator: JVG

Column phase: DB 624

Column diameter: 0.53

1 bfb

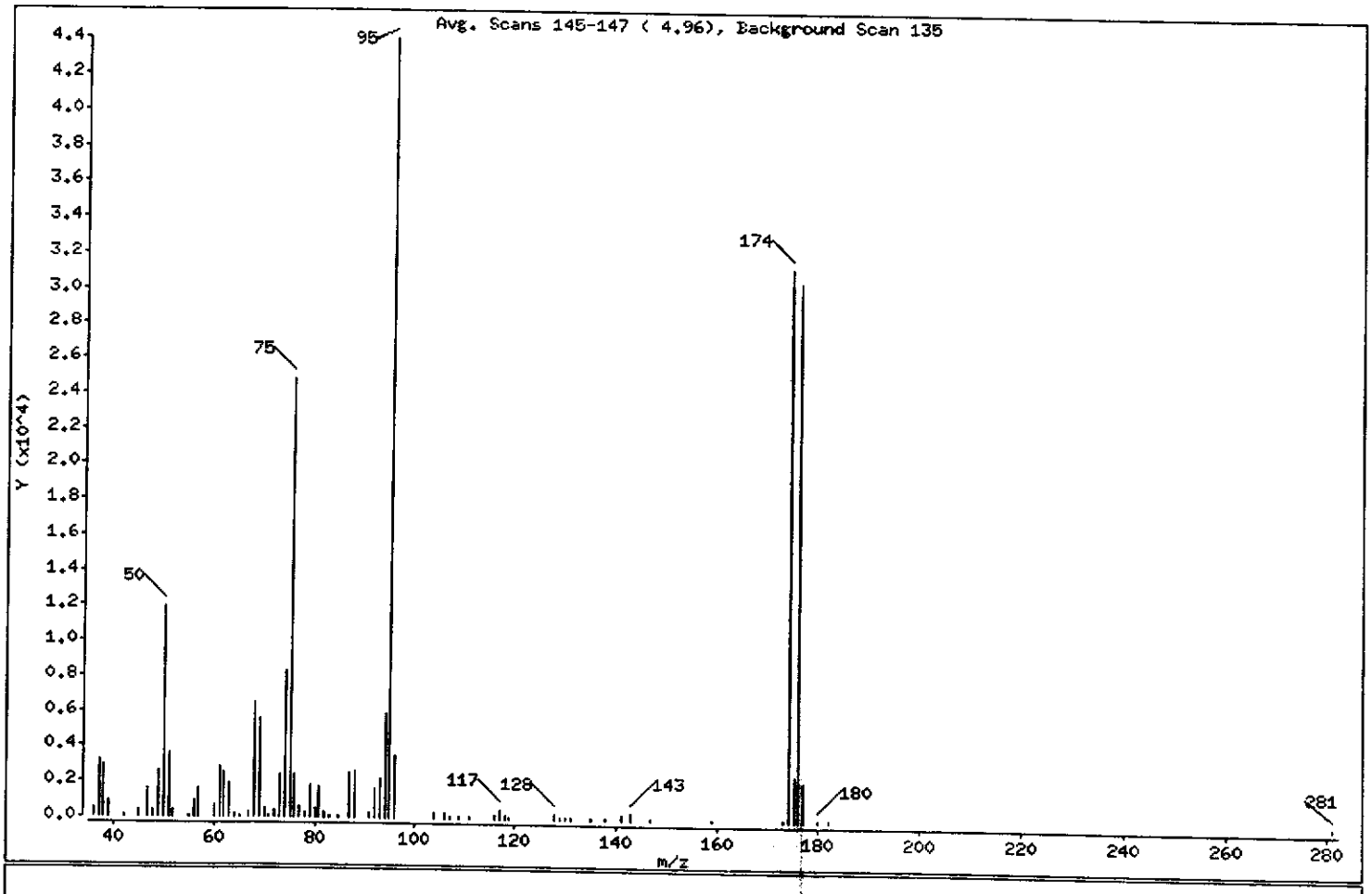

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	27.14
75	30.00 - 60.00% of mass 95	56.27
96	5.00 - 9.00% of mass 95	8.15
173	Less than 2.00% of mass 174	0.17 (0.24)
174	50.00 - 100.00% of mass 95	71.02
175	5.00 - 9.00% of mass 174	5.65 (7.96)
176	95.06 - 100.94% of mass 174	69.15 (97.37)
177	5.00 - 9.00% of mass 176	5.14 (7.43)

Data File: \\lilan04\d\chem\MSVOA\5970K.i\K080201.b\K080201.D

Date : 02-AUG-2001 12:38

Client ID:

Instrument: 5970K.i

Sample Info: BFB50NG K080201

Operator: JVG

Column phase: DB 624

Column diameter: 0.53

Data File: K080201.D

Spectrum: Avg. Scans 145-147 (4.96), Background Scan 135

Location of Maximum: 95.00

Number of points: 74

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	456	64.00	168	85.00	76	129.00	72
37.00	3265	65.00	95	87.00	2565	130.00	147
38.00	2954	67.00	351	88.00	2597	131.00	102
39.00	943	68.00	6477	91.00	345	135.00	82
42.00	150	69.00	5540	92.00	1653	138.00	69
45.00	406	70.00	518	93.00	2230	141.00	327
47.00	1569	71.00	84	94.00	5836	143.00	358
48.00	377	72.00	415	95.00	44032	147.00	74
49.00	2626	73.00	2404	96.00	3589	159.00	69
50.00	11951	74.00	8339	104.00	264	173.00	74
51.00	3606	75.00	24776	106.00	319	174.00	31272
52.00	382	76.00	2459	107.00	72	175.00	2489
55.00	122	77.00	580	109.00	77	176.00	30448
56.00	904	78.00	354	111.00	75	177.00	2264
57.00	1669	79.00	1785	116.00	224	180.00	68
60.00	688	80.00	526	117.00	514	182.00	67
61.00	2884	81.00	1760	118.00	158	281.00	79
62.00	2522	82.00	283	119.00	111		
63.00	1901	83.00	93	128.00	265		

Data File: \\lilan04\d\chem\MSVOA\5970K.i\K080201.b\K080201.D

Date : 02-AUG-2001 12:38

Client ID:

Instrument: 5970K.i

Sample Info: BFB50NG K080201

Operator: JVG

Column phase: DB 624

Column diameter: 0.53

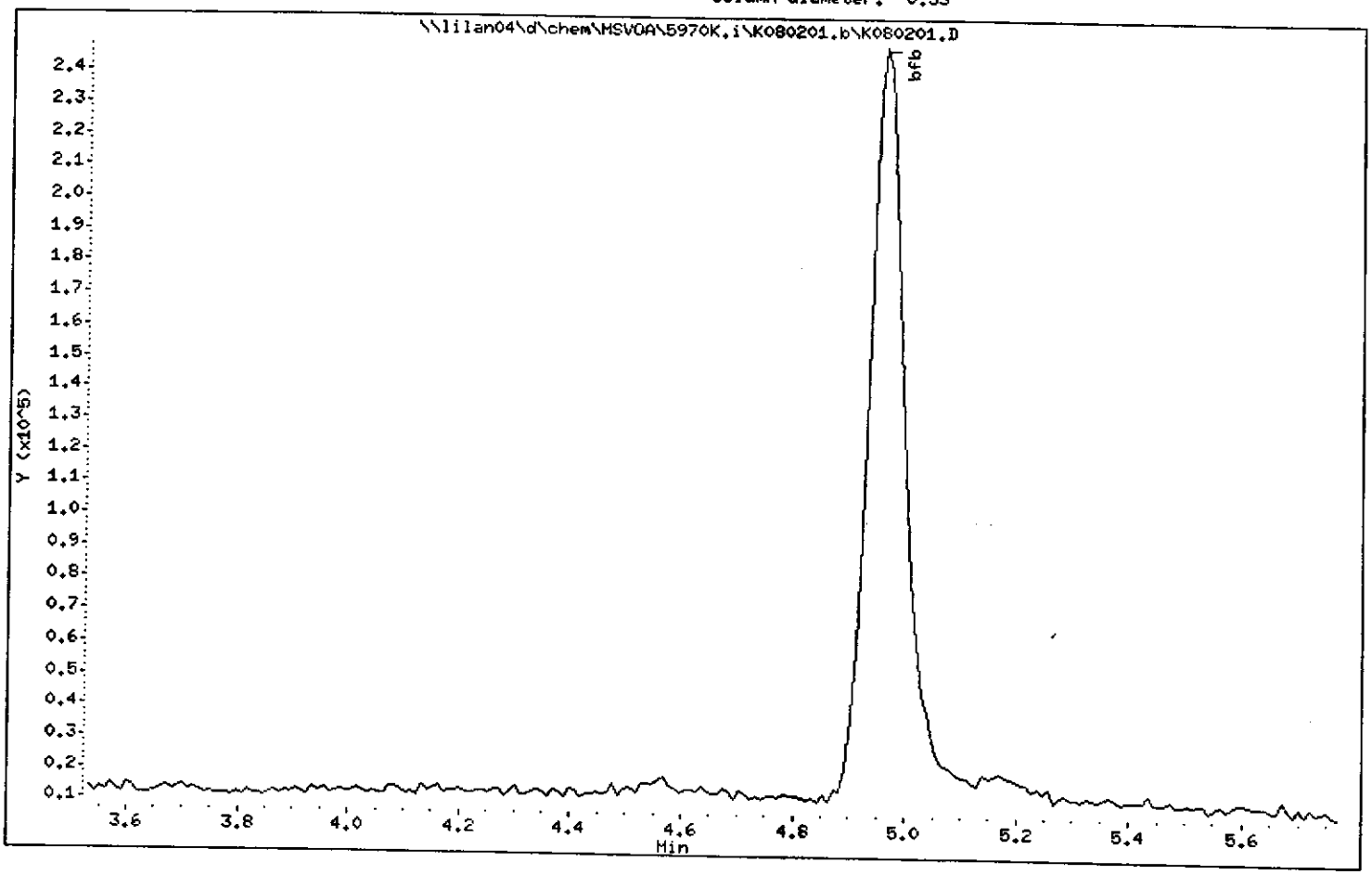

1A
VOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

VBLKLQ

Lab Name: Lionville Labs, Inc. Work Order: 02744064001

Client: LANL REQ #9432R

Matrix: SOIL

Lab Sample ID: 01LVK240-MB1

Sample wt/vol: 5.00 (g/mL) G

Lab File ID: k080205

Level: (low/med) LOW

Date Received: 08/02/01

% Moisture: not dec. 0

Date Analyzed: 08/02/01

Column: (pack/cap) CAP

Dilution Factor: 1.00

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND		
75-71-8	Dichlorodifluoromethane	10	U
74-87-3	Chloromethane	10	U
75-01-4	Vinyl Chloride	10	U
74-83-9	Bromomethane	10	U
75-00-3	Chloroethane	10	U
75-69-4	Trichlorofluoromethane	5	U
75-35-4	1,1-Dichloroethene	5	U
76-13-1	Trichlorotrifluoroethane	5	U
67-64-1	Acetone	16	J
74-88-4	Iodomethane	5	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	7	
156-60-5	Trans-1,2-dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
78-93-3	2-Butanone	20	U
156-59-2	Cis-1,2-dichloroethene	5	U
590-20-7	2,2-Dichloropropane	5	U
74-97-5	Bromochloromethane	5	U
67-66-3	Chloroform	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
563-58-6	1,1-dichloropropene	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U
79-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
74-95-3	Dibromomethane	5	U
75-27-4	Bromodichloromethane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
108-10-1	4-Methyl-2-pentanone	20	U
108-88-3	Toluene	5	U
10061-02-6	Trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
127-18-4	Tetrachloroethene	5	U

1B
VOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

VBLKLQ

Lab Name: Lionville Labs, Inc. Work Order: 02744064001

Client: LANL REQ #9432R

Matrix: SOIL

Lab Sample ID: 01LVK240-MB1

Sample wt/vol: 5.00 (g/mL) G

Lab File ID: k080205

Level: (low/med) LOW

Date Received: 08/02/01

% Moisture: not dec. 0

Date Analyzed: 08/02/01

Column: (pack/cap) CAP

Dilution Factor: 1.00

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND		
142-28-9	1,3-Dichloropropane	5	U
591-78-6	2-Hexanone	20	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
630-20-6	1,1,1,2-Tetrachloroethane	5	U
100-41-4	Ethylbenzene	5	U
1330-20-7	Xylenes (total)	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
98-82-8	Isopropylbenzene	5	U
108-86-1	Bromobenzene	5	U
96-18-4	1,2,3-Trichloropropane	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
103-65-1	N-propylbenzene	5	U
95-49-8	2-Chlorotoluene	5	U
106-43-4	4-Chlorotoluene	5	U
108-67-8	1,3,5-Trimethylbenzene	5	U
98-06-6	Tert-butylbenzene	5	U
95-63-6	1,2,4-Trimethylbenzene	5	U
135-98-8	Sec-butylbenzene	5	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
99-87-6	4-Isopropyltoluene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
104-51-8	N-butylbenzene	5	U
96-12-8	1,2-Dibromo-3-chloropropane	10	U

FORM 1 V-2 12/88 Rev.

1E

VOLATILE ORGANICS ANALYSIS SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

VBLKLQ

Lab Name: Lionville Labs, Inc. Work Order: 02744064001

Client: LANL REQ #9432R

Matrix: SOIL

Lab Sample ID: 01LVK240-MB1

Sample wt/vol: 5.00 (g/mL) G

Lab File ID: k080205

Level: (low/med) LOW

Date Received: 08/02/01

% Moisture: not dec. 0

Date Analyzed: 08/02/01

Column: (pack/cap) CAP

Dilution Factor: 1.00

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.				

FORM 1 VOA-TIC

12/88 Rev.

Data File: /chem/msvoa1/5970k.i/k080201.b/k080205.d
Date : 02-AUG-01 15:08:00
Client ID: VBLKLQ
Sample Info: 01LVK240-MB1 K080201,[AL=0624XL],[DC=00]

Column phase: DB-624

Instrument: 5970K.i

Operator: JVG
Column diameter: 0.53

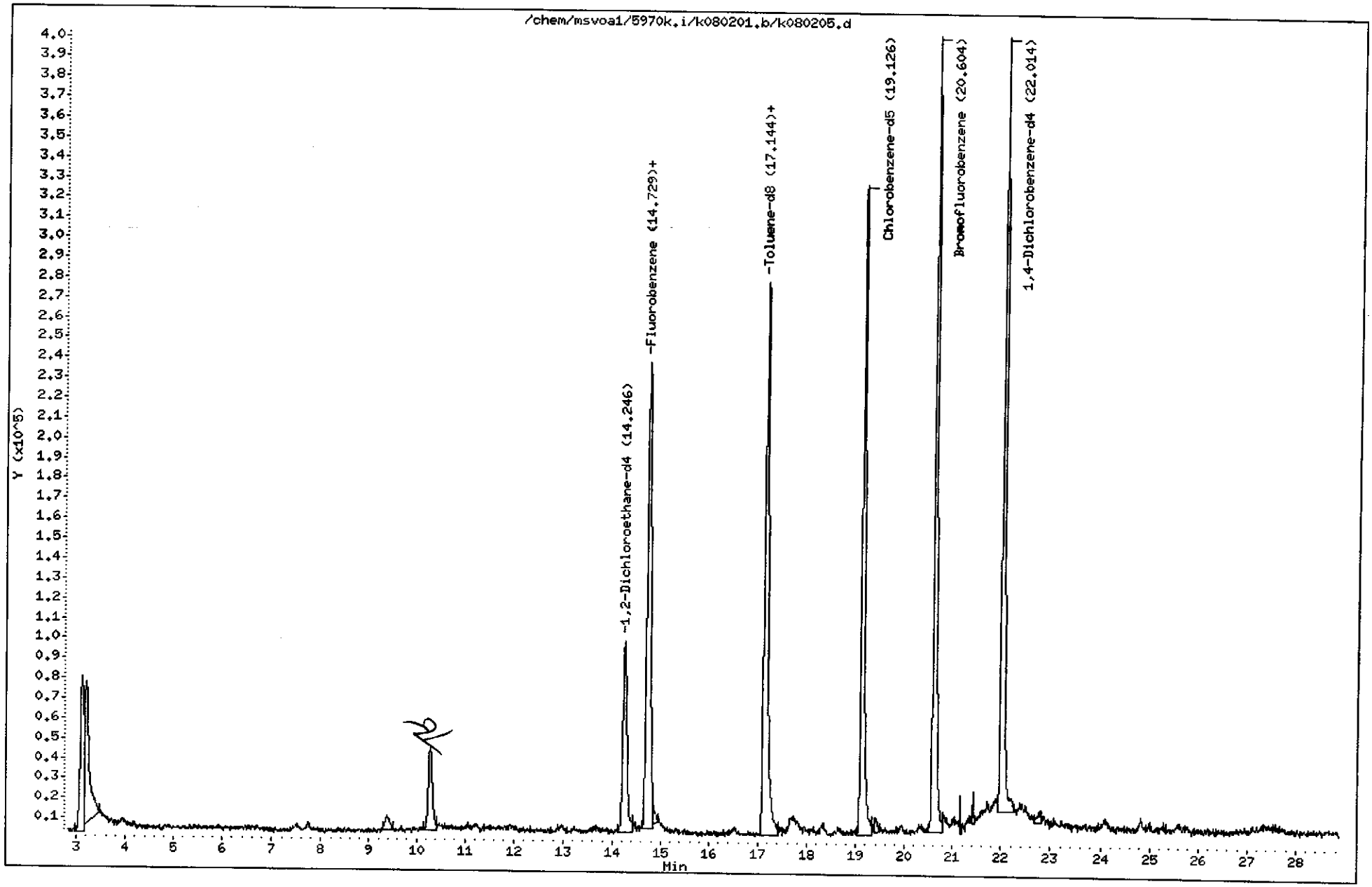

Lionville Laboratory Inc.

Data file : /chem/msvoa1/5970k.i/k080201.b/k080205.d
Lab Smp Id: 01LVK240-MB1 Client Smp ID: VBLKLQ
Inj Date : 02-AUG-01 15:08:00
Operator : JVG Inst ID: 5970K.i
Smp Info : 01LVK240-MB1 K080201,[AL=O624XL],[DC=00]
Misc Info : DIL,1,ALT8260 5035 BLK 5.0G
Comment :
Method : /chem/msvoa1/5970k.i/k080201.b/8260a07s.m
Meth Date : 23-Aug-01 18:00:57 rychlakd Quant Type: ISTD
Cal Date : 01-AUG-2001 01:29 Cal File: K073120.D
Als bottle: 21 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: o624xl.sub
Target Version: 3.30
Processing Host: hp4920a

Concentration Formula: Uf/(Ws*(100-M)/100)

Name	Value	Description
Uf	5.000	ng unit correction factor
Ws	5.000	Weight of sample extracted (g)
M	0.000	% Moisture (not decanted)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (UG/KG)	FINAL (ug/Kg)
* 1 Fluorobenzene	96	14.729	14.742	(1.000)	546218	50.0000	
* 2 Chlorobenzene-d5	117	19.126	19.129	(1.000)	375469	50.0000	
* 3 1,4-Dichlorobenzene-d4	152	22.014	22.027	(1.000)	207539	50.0000	
$ 4 1,2-Dichloroethane-d4	65	14.246	14.260	(0.967)	185593	45.4962	45.496
$ 5 Toluene-d8	98	17.144	17.138	(0.896)	419830	47.4209	47.421
$ 6 Bromofluorobenzene	95	20.604	20.608	(0.936)	309569	52.6636	52.664
7 Dichlorodifluoromethane	85.00	Compound Not Detected.					
8 Chloromethane	50.00	Compound Not Detected.					
9 Vinyl Chloride	62.00	Compound Not Detected.					
10 Bromomethane	94.00	Compound Not Detected.					
11 Chloroethane	64.00	Compound Not Detected.					
12 Trichlorofluoromethane	101.00	Compound Not Detected.					
13 1,1-Dichloroethene	96.00	Compound Not Detected.					
73 Freon-113	151.00	Compound Not Detected.					
15 Acetone	43	9.377	9.401	(0.637)	34305	16.1286	16.128(a)
74 Iodomethane	142.00	Compound Not Detected.					

8/23/01

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (UG/KG)	FINAL (ug/Kg)
	14 Carbon Disulfide	76.00	Compound Not Detected.					
	16 Methylene Chloride	84	10.284	10.288	(0.698)	46742	7.22244	7.222
	17 trans-1,2-Dichloroethene	96.00	Compound Not Detected.					
	19 1,1-Dichloroethane	63.00	Compound Not Detected.					
	22 2-Butanone	43.00	Compound Not Detected.					
	21 cis-1,2-Dichloroethene	96.00	Compound Not Detected.					
	20 2,2-Dichloropropane	77.00	Compound Not Detected.					
	23 Bromochloromethane	128.00	Compound Not Detected.					
	24 Chloroform	83.00	Compound Not Detected.					
	25 1,1,1-Trichloroethane	97.00	Compound Not Detected.					
	26 Carbon Tetrachloride	117.00	Compound Not Detected.					
	27 1,1-Dichloropropene	77.00	Compound Not Detected.					
	28 Benzene	78.00	Compound Not Detected.					
	29 1,2-Dichloroethane	62	14.729	14.388	(1.000)	10415	2.27718	2.277(a)
	30 Trichloroethene	130.00	Compound Not Detected.					
	31 1,2-Dichloropropane	63.00	Compound Not Detected.					
	32 Dibromomethane	174.00	Compound Not Detected.					
	33 Bromodichloromethane	83.00	Compound Not Detected.					
	34 cis-1,3-Dichloropropene	75.00	Compound Not Detected.					
	35 4-Methyl-2-Pentanone	43	17.154	17.040	(0.897)	4561	1.01438	1.014(a)
	36 Toluene	91.00	Compound Not Detected.					
	37 trans-1,3-Dichloropropene	75.00	Compound Not Detected.					
	38 1,1,2-Trichloroethane	97.00	Compound Not Detected.					
	39 Tetrachloroethene	164.00	Compound Not Detected.					
	40 1,3-Dichloropropane	76.00	Compound Not Detected.					
	41 2-Hexanone	43	18.337	18.183	(0.959)	4092	1.32622	1.326(a)
	42 Dibromochloromethane	129.00	Compound Not Detected.					
	43 1,2-Dibromoethane	107.00	Compound Not Detected.					
	44 Chlorobenzene	112.00	Compound Not Detected.					
	45 1,1,1,2-Tetrachloroethane	131.00	Compound Not Detected.					
	46 Ethylbenzene	106.00	Compound Not Detected.					
	47 m & p-Xylene	106.00	Compound Not Detected.					
	48 o-Xylene	106.00	Compound Not Detected.					
M	50 Xylenes (Total)	106.00	Compound Not Detected.					
	49 Styrene	104.00	Compound Not Detected.					
	51 Bromoform	173.00	Compound Not Detected.					
	52 Isopropylbenzene	105.00	Compound Not Detected.					
	54 Bromobenzene	77.00	Compound Not Detected.					
	55 1,2,3-Trichloropropane	110.00	Compound Not Detected.					
	53 1,1,2,2-Tetrachloroethane	83.00	Compound Not Detected.					
	56 N-Propylbenzene	120.00	Compound Not Detected.					
	57 2-Chlorotoluene	126.00	Compound Not Detected.					
	59 4-Chlorotoluene	126.00	Compound Not Detected.					
	58 1,3,5-Trimethylbenzene	105.00	Compound Not Detected.					
	60 Tert-Butylbenzene	134.00	Compound Not Detected.					
	61 1,2,4-Trimethylbenzene	105.00	Compound Not Detected.					
	62 Sec-Butylbenzene	134.00	Compound Not Detected.					

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (UG/KG)	FINAL (ug/Kg)
63 1,3-Dichlorobenzene	146.00	Compound Not Detected.					
65 1,4-Dichlorobenzene	146.00	Compound Not Detected.					
64 4-Isopropyltoluene	119.00	Compound Not Detected.					
67 1,2-Dichlorobenzene	146.00	Compound Not Detected.					
66 N-Butylbenzene	134.00	Compound Not Detected.					
68 1,2-Dibromo-3-chloropropane	157.00	Compound Not Detected.					

QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).

Data File: /chem/msvoa1/5970k.i/k080201.b/k080205.d

Date : 02-AUG-01 15:08:00

Client ID: VBLKLQ

Instrument: 5970K.i

Sample Info: 01LVK240-MB1 K080201,[AL=0624XL],[DC=00]

Operator: JWG

Column phase: DB-624

Column diameter: 0.53

15 Acetone

Concentration: 16.128 ug/Kg

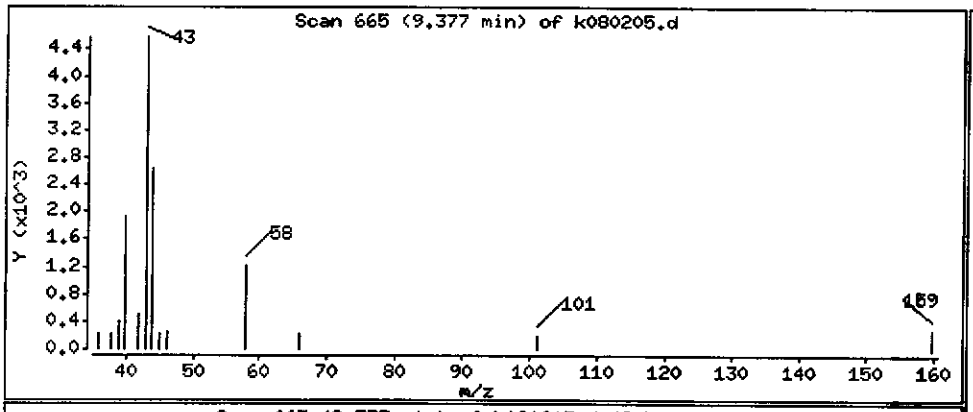

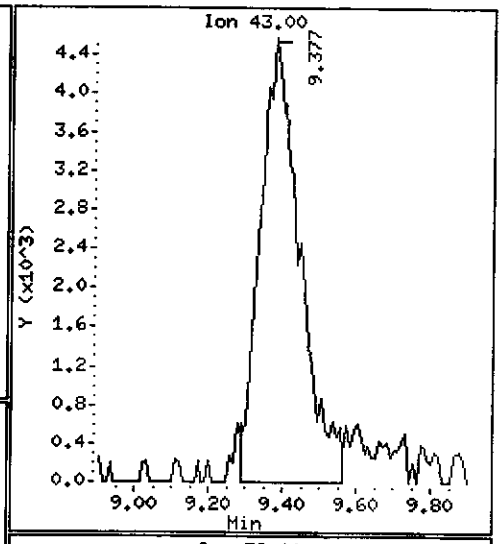

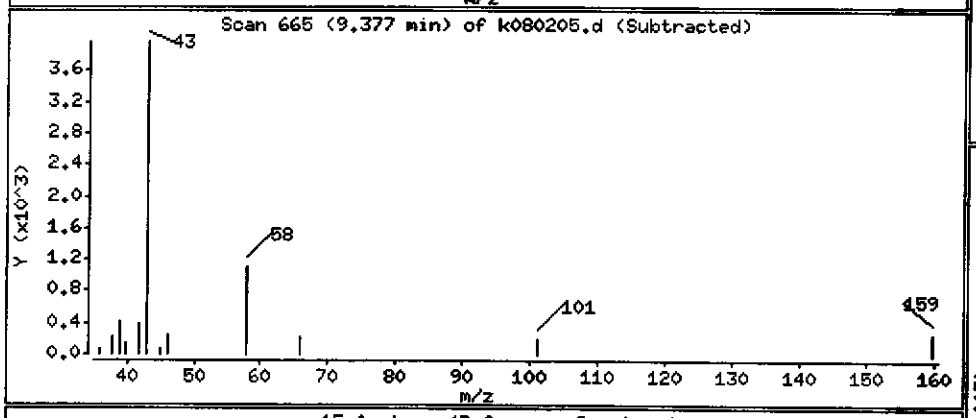

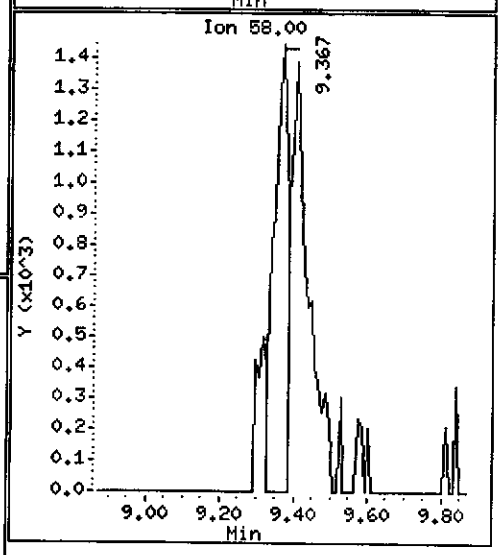

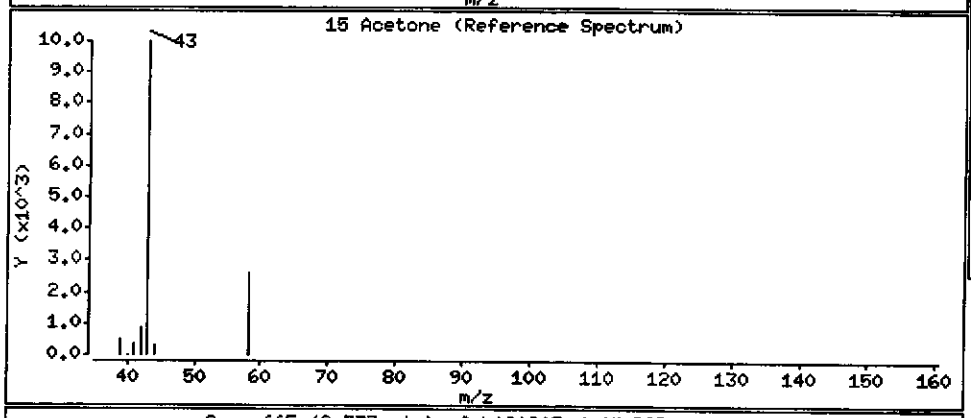

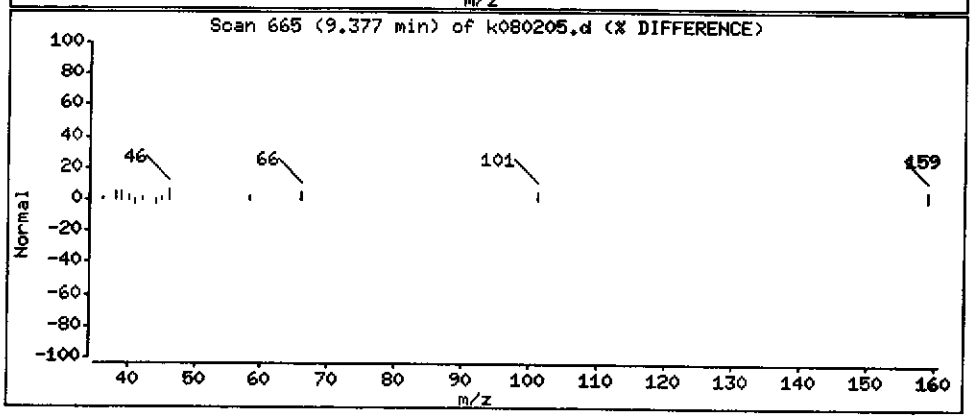

Data File: /chem/msvoa1/5970k.i/k080201.b/k080205.d

Date : 02-AUG-01 15:08:00

Client ID: VBLKLQ

Instrument: 5970K.i

Sample Info: 01LVK240-MB1 K080201,[AL=0624XL],[DC=00]

Operator: JVG

Column phase: DB-624

Column diameter: 0.53

16 Methylene Chloride

Concentration: 7.222 ug/Kg

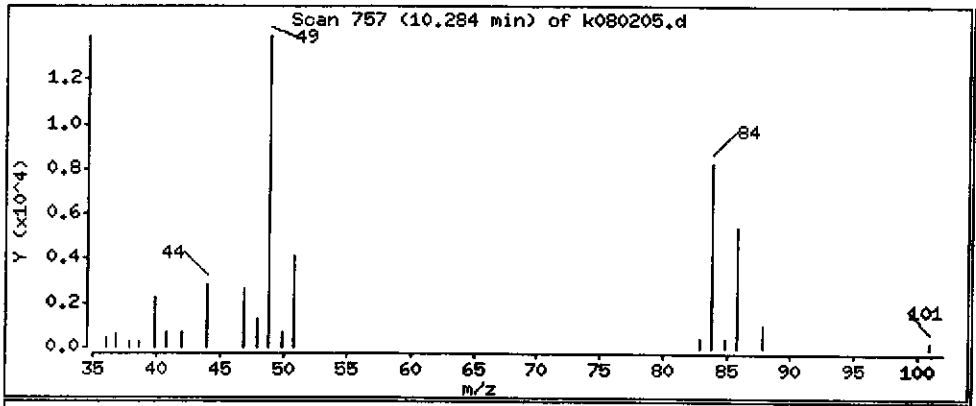

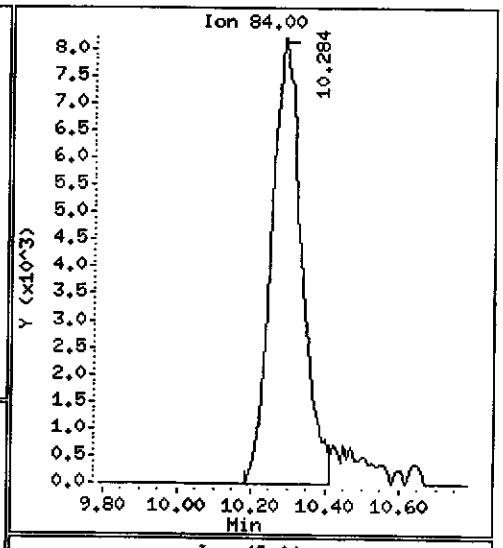

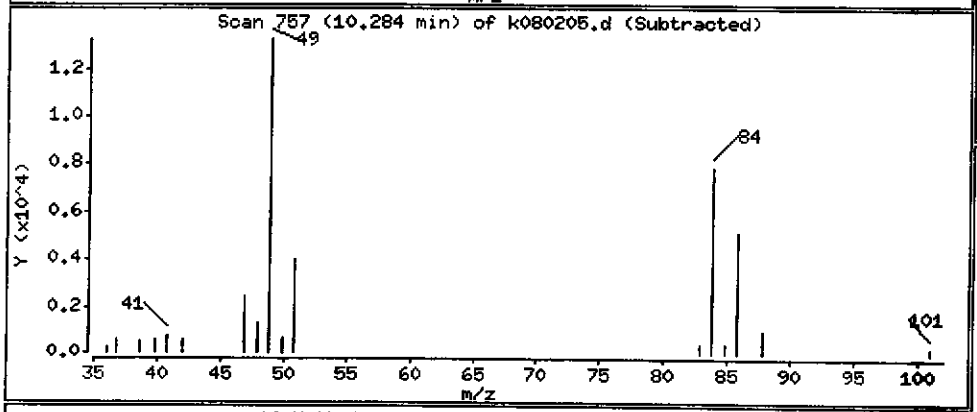

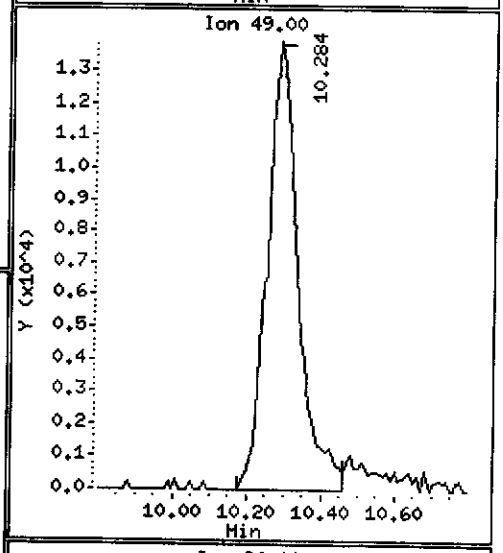

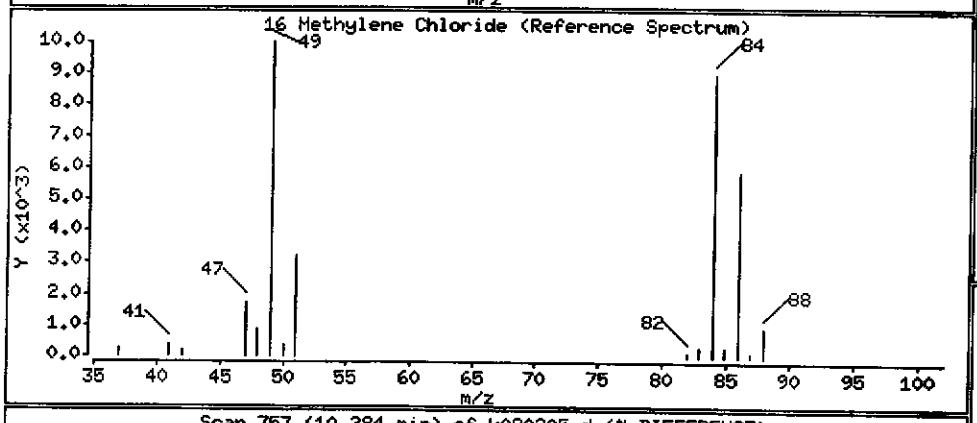

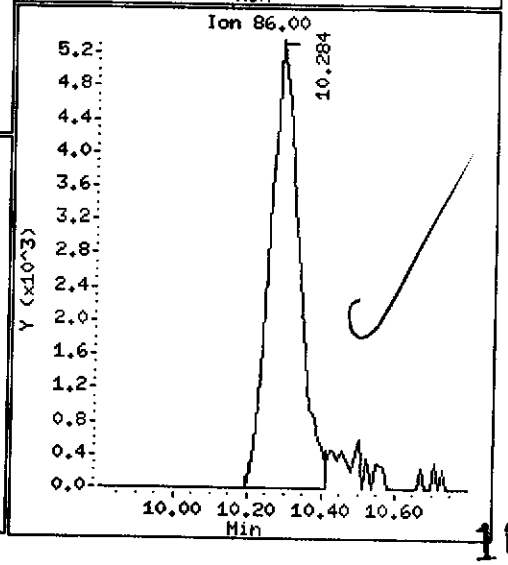

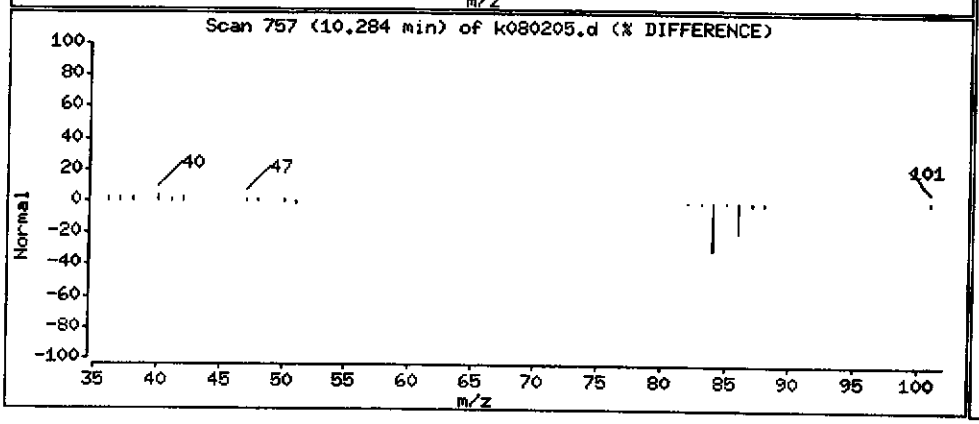

Data File: /chem/msvoa1/5970k.i/k080201.b/k080205.d

Date : 02-AUG-01 15:08:00

Client ID: VBLKLQ

Instrument: 5970K.i

Sample Info: 01LVK240-MB1 K080201,[AL=0624XL],[DC=00]

Operator: JVG

Column phase: DB-624

Column diameter: 0.53

29 1,2-Dichloroethane

Concentration: 2.277 ug/Kg

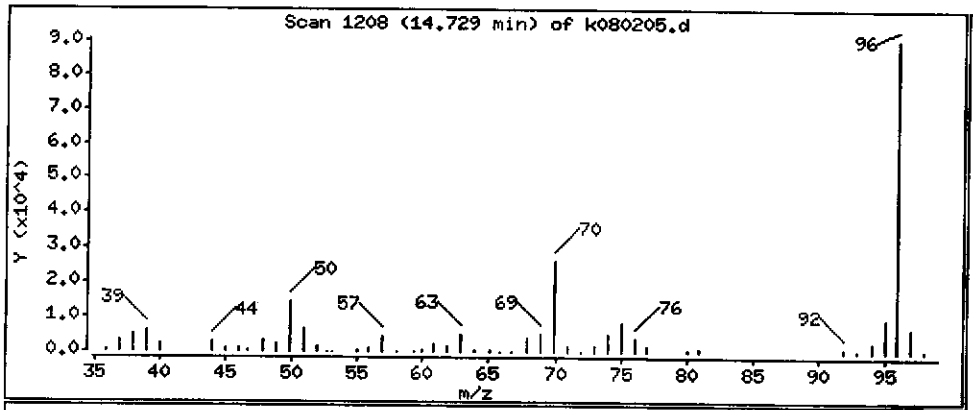

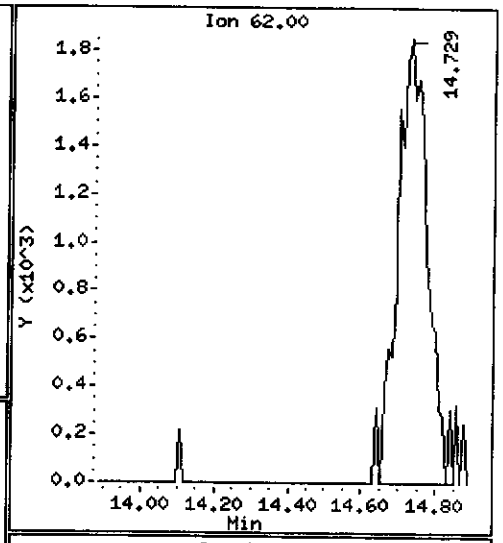

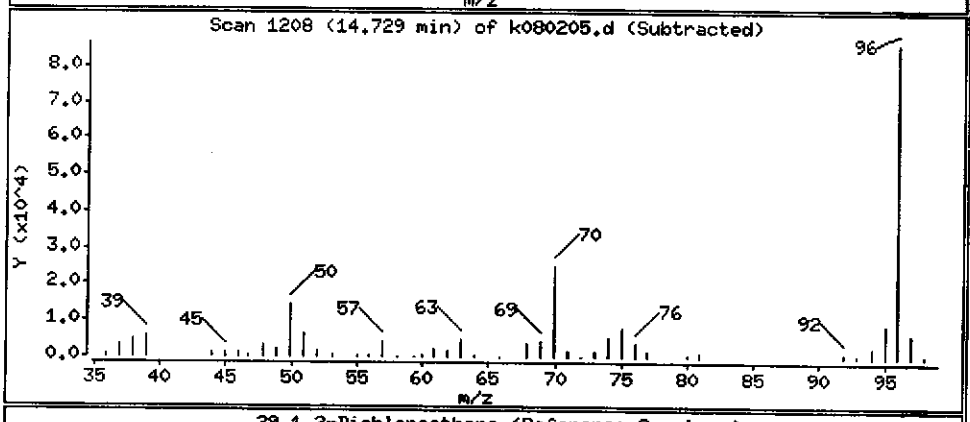

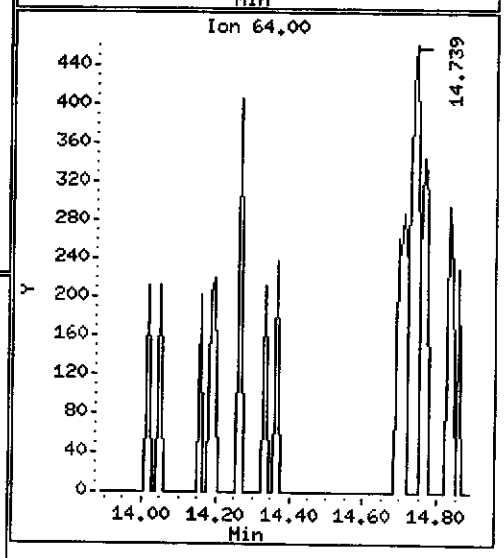

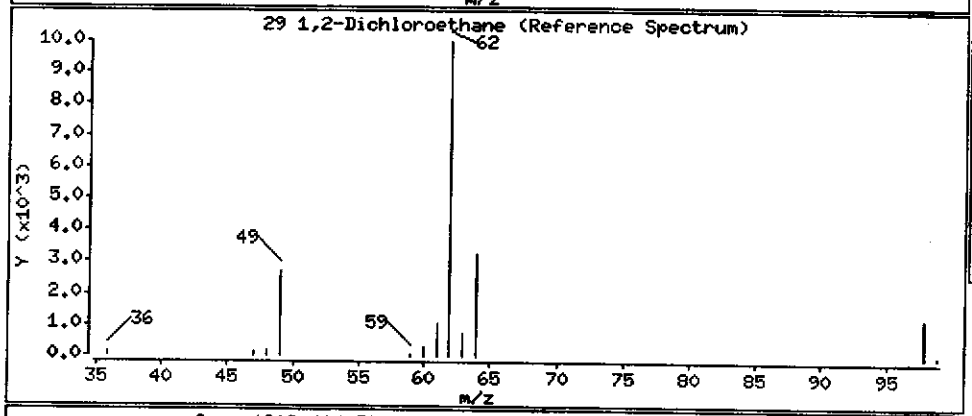

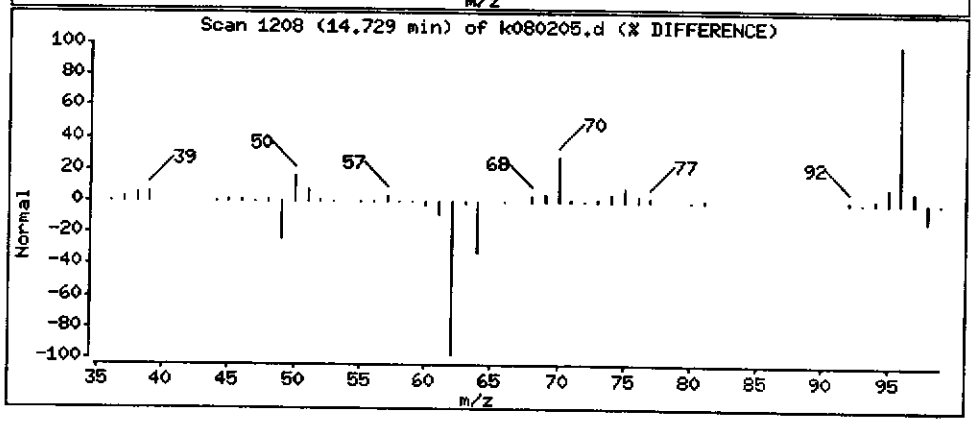

Data File: /chem/msvoa1/5970k.i/k080201.b/k080205.d

Date : 02-AUG-01 15:08:00

Client ID: VBLKLQ

Instrument: 5970K.i

Sample Info: 01LVK240-MB1 K080201,[AL=0624XL],[DC=00]

Operator: JVG

Column phase: DB-624

Column diameter: 0.53

35 4-Methyl-2-Pentanone

Concentration: 1.014 ug/Kg

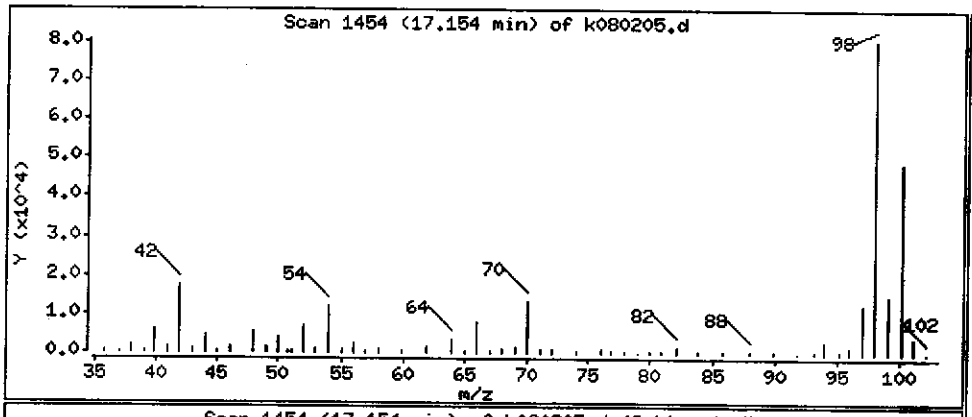

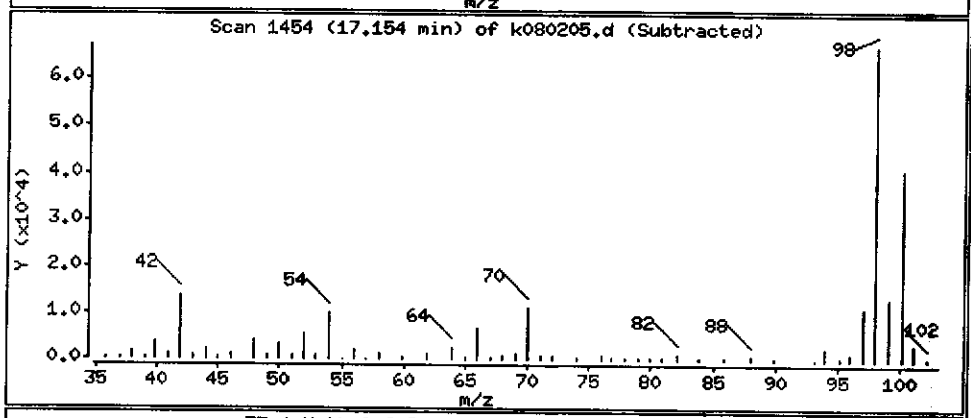

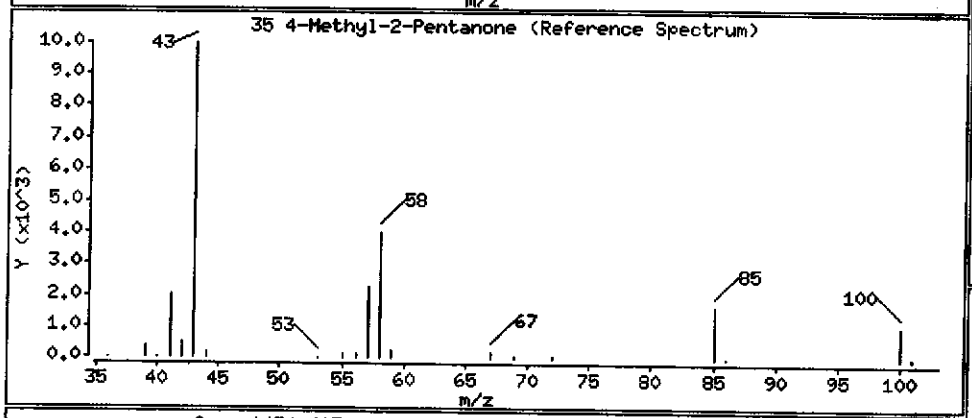

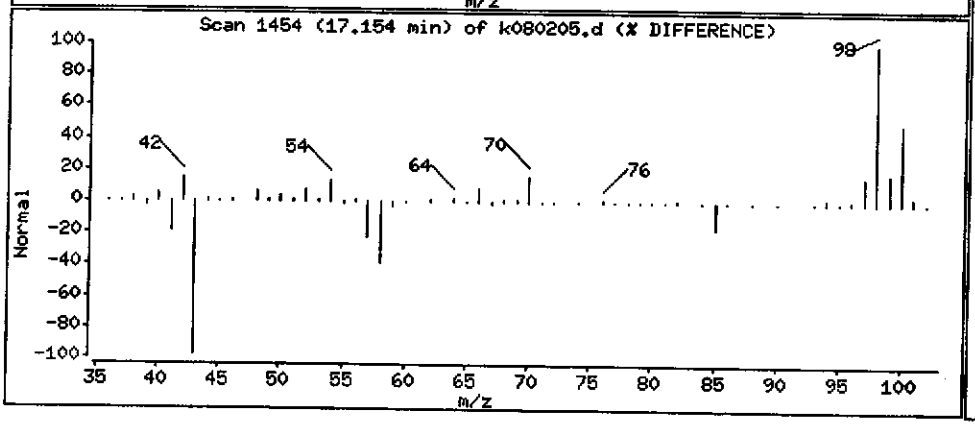

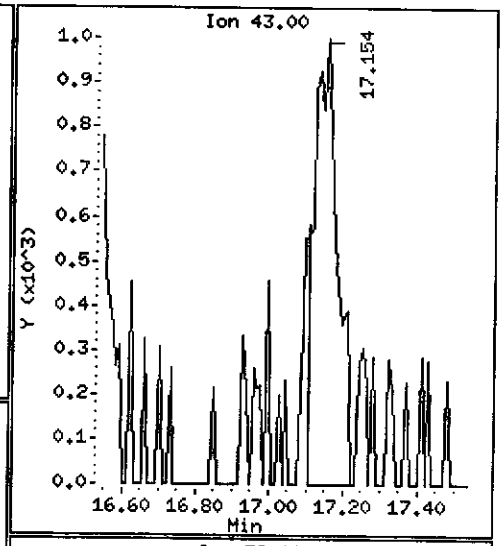

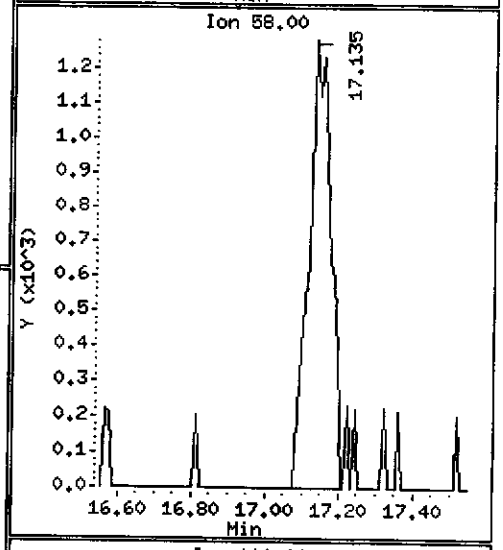

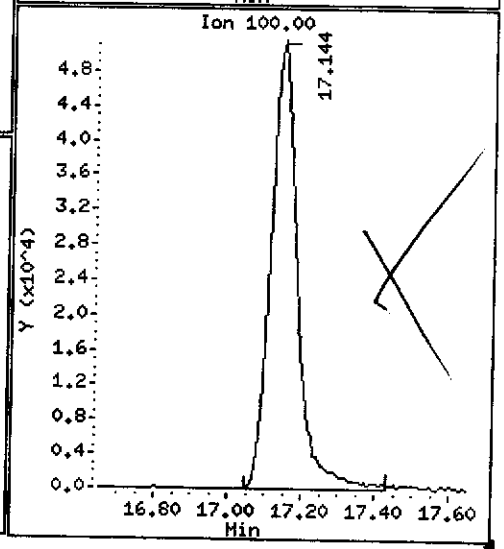

Data File: /chem/msvoa1/5970k.i/k080201.b/k080205.d

Date : 02-AUG-01 15:08:00

Client ID: VBLKLQ

Instrument: 5970K.i

Sample Info: 01LVK240-MB1 K080201,[AL=0624XL],[DC=00]

Operator: JVG

Column phase: DB-624

Column diameter: 0.53

41 2-Hexanone

Concentration: 1.326 ug/Kg

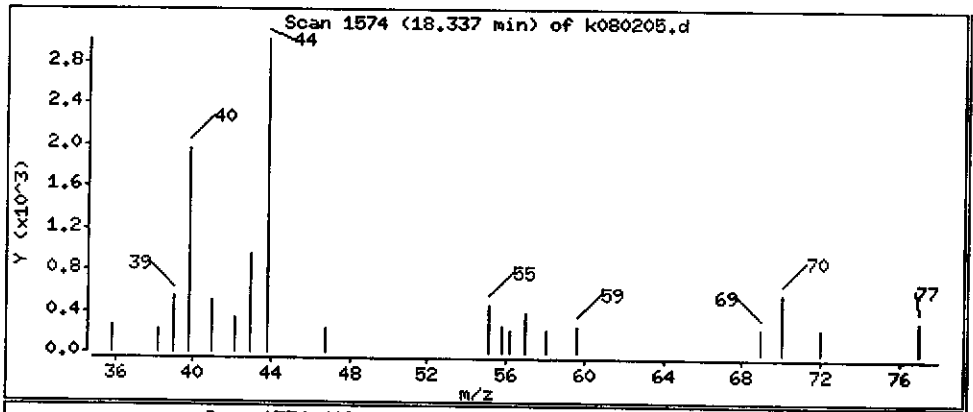

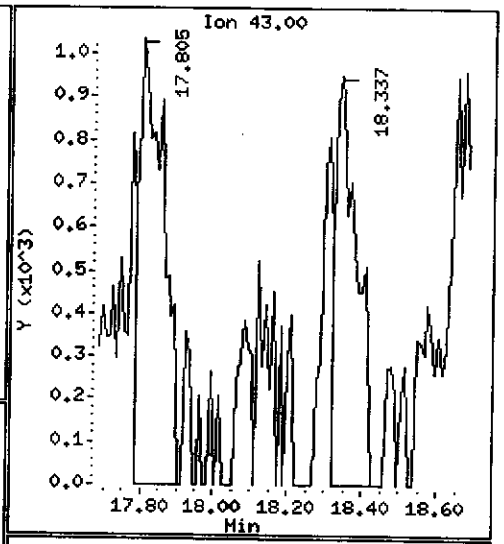

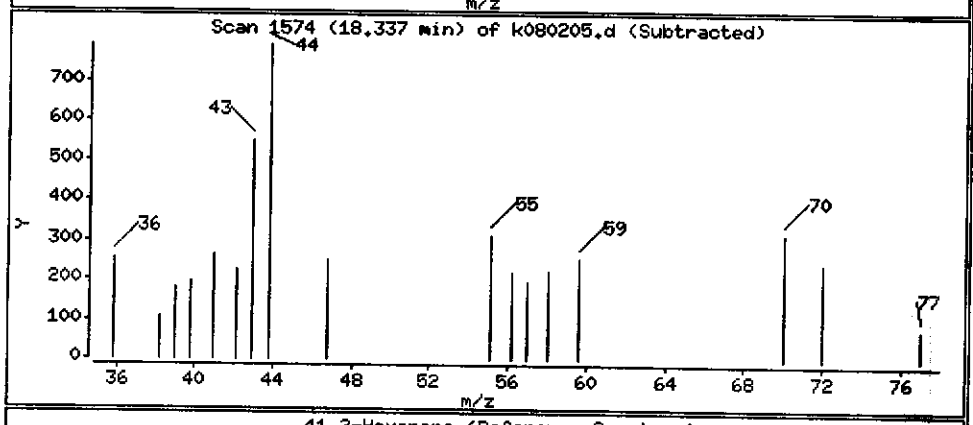

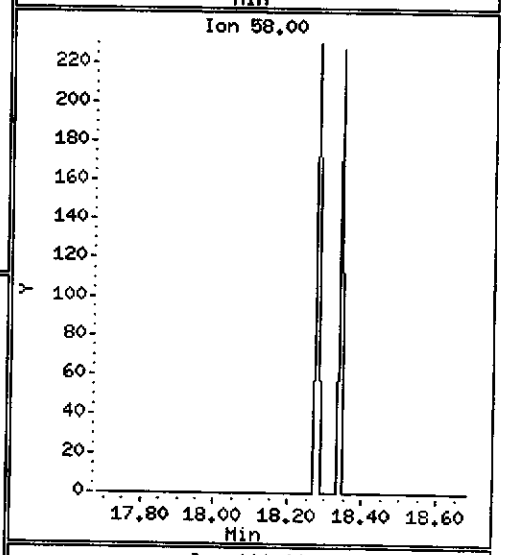

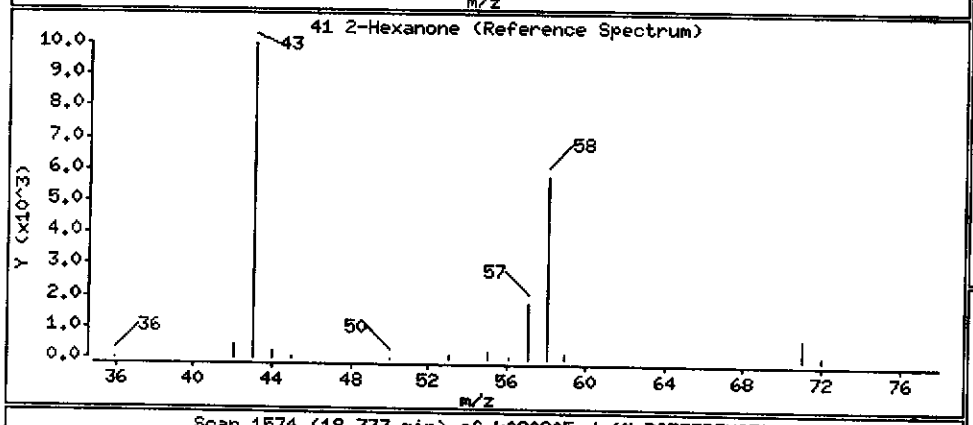

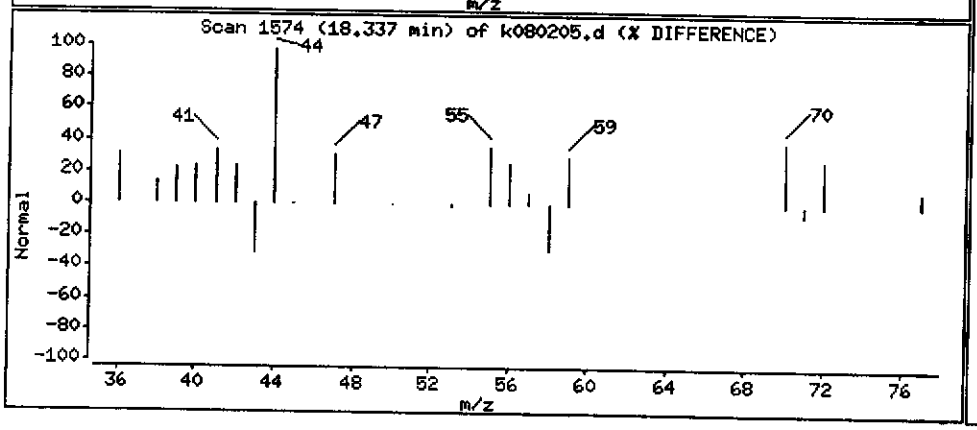

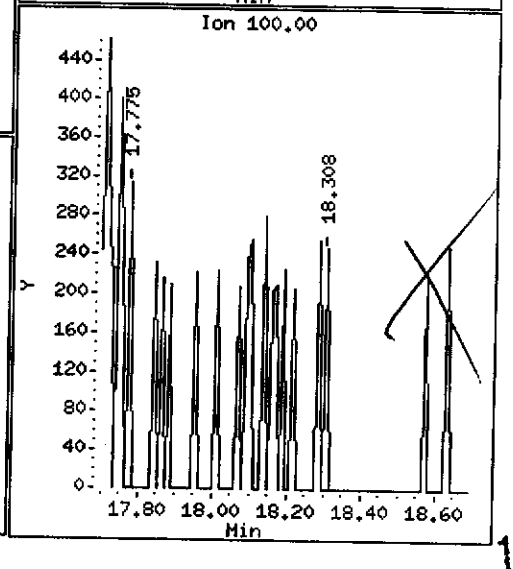

Analysis Run Log

[redacted]

DATE: 7/31/01

CIRCLE - Method: SW846/CLP 524 624 Other: alt 8260 5035

-Analytes: TCL/PP APIX DW TCLP Other:

Heated Purge Ambient Purge

IS- 8655-012-02

SS- -010-02

CAL- -010-03

CS_2 -012-03

MS-

BFB- 8655-008-01

113/iodomethane 8655-009-01

LOGBOOK # 8666 65

INSTRUMENT ID 5970K

ANALYS TIME	FILE NAME	COC BATCH NUMBER YYMM L XXX	COC BATCH NUMBER XXX	CLIENT ID OR TUNE/STD ID	SP#	PREPARATION SAMPLE WT/VOL	PREPARATION pH	INST DIL	COMMENTS (INJ VOLUME, µL)	LIST	ANAL INIT
1704	K073107	BFB	50ng	Tune	–	2l inj	–	–	OK	•	[illegible]
1723	08	VSTD	50	alt 8260 5035 ICAL	20	5.0g	–	–	NOT USED		
1801	09		05		21		–	–	NO GOOD		
1839	10		10		22		–	–	OK		
1917	11		20		23		–	–	OK		
1955	12		200		24		–	–	OK		
2034	13		100		25		–	–	OK		
2131	K073114	VSTD	50		20	5.0g	–	–	OK		[illegible]
2212	15	VSTD	05		21	5.0g	–	–	OK		
2253	16	VSTD	50	freon-113/iodomethane ICAL	22	5.0g	–	–	OK		
2331	17		20		23		–	–	OK		
0010	18		10		24		–	–	OK		
0049	19		200		25		–	–	OK		

• 0504 = Time Tune Expires; Tune Time Checked _____

Reviewed by (Date / Initials): DW 8-8-01

L-WI-023/C-02/01

[redacted]

GC/MS VOLATILE ANALYSIS LOG

DATE: 7/31/01

CIRCLE - Method: SW846/CLP 524 624 Other: 8260 5035

-Analytes: TCL/PP APIX DW TCLP Other:

-Heated Purge Ambient Purge

IS- (See pg 083)

SS-

CAL-

MS-

BFB-

LOGBOOK # 8666

INSTRUMENT ID 5970K

ANALYS TIME	FILE NAME	COC BATCH NUMBER YYMM L XXX	XXX	CLIENT ID OR TUNE/STD ID	SP#	PREPARATION SAMPLE WT/VOL	pH	INST DIL	COMMENTS (INJ VOLUME, µL)	LIST	ANAL INIT
0129	K07312	VSTD	100	Fr-113/Iodomethane ICAL	26	5.0g	–	–	OK	•	KL
0210	1 21	1	05	1	27	1	–	–	OK		1
0251 ✓	1 22	VSTD	50	2nd Source check	28	5.0g	–	–	NO GOOD		1
									Jack Blackburn 8/1/01		

* 0504 ✓ = Time Tune Expires; Tune Time Checked M 8/7/01

Reviewed by (Date / Initials): DW 8-8-01

L-WI-023/C-02/01

[redacted]

DATE: 8/2/01

CIRCLE - Method: SW846/CLP 524 624 Other: alt 8260 5035

-Analytes: TCL/PP APIX DW TCLP Other:

Heated Purge Ambient Purge

IS- 8655-012-02
SS- -014-03
CAL- -010-03
CS_2 -012-03

MS-
BFB- 8655-008-01
Freon113/Acetone 8655-009-01

LOGBOOK # 8666
INSTRUMENT ID 5972K

167

ANALYS TIME	FILE NAME	COC BATCH NUMBER YYMM L XXX	XXX	CLIENT ID OR TUNE/STD ID	SP#	PREPARATION SAMPLE WT/VOL	pH	INST DIL	COMMENTS (INJ VOLUME, µL)	LIST	ANAL INIT
1238	K080201	BFB	50ng	Tune	—	2ul inj	—	—	OK		AL
13:00 ~~11:17~~	02	VSTD	50	Freon113/Acetone CCL	20	5.0g	—	-	OK		
13:39 ~~13:39 12:03~~	03	VSTD	50	alt 8260 5035 ICL	21	5.0g	—	-	OK		
14:25 ~~11:17 12:37~~	04	01LVK240	MB1	SOIL BLANK	20	5.0g	—	1	NOT USED		AL
15:10 ~~12:03 13:13~~	05	01LVK240	2		21		—	1	OK		
15:50 ~~12:37 13:48~~	06	0107L423	007A	LANL	22	4.5g	—	1	OK		
16:33 ~~13:13 14:24~~	07		009A		23	5.5g	—	1	OK		
7:16 ~~13:48 14:59~~	08		011A		24	4.4g	—	1	OK		
7:59 ~~14:24 15:34~~	09		013A		25	5.3g	—	1	OK		
8:41 ~~14:59 16:09~~	10		015A		26	5.0g	—	1	OK		
9:22 ~~15:34~~	11	0107L437	002A	LANL	27	5.9g	—	1	OK		
RE 8/3 8/4 ~~16:09~~ 20:05	12		004A		28	4.9g	—	1	OK		
20:50	13		006A		29	5.8g	—	1	OK		

• 0630 = Time Tune Expires; Tune Time Checked

Reviewed by (Date / Initials): DW / 8-8-01

L-WI-023/C-02/01

Page # 087

[redacted]

GC/MS VOLATILE ANALYSIS LOG

DATE: 8/2/01

CIRCLE - Method: SW846/CLP 524 624 Other: 8260 5035

-Analytes: TCL/PP APIX DW TCLP Other:

-Heated Purge Ambient Purge

IS- Cleo PS 087

SS-

CAL-

MS-

BFB-

LOGBOOK # 8666

INSTRUMENT ID 5970K

ANALYS TIME	FILE NAME	COC BATCH NUMBER YYMM L XXX	XXX	CLIENT ID OR TUNE/STD ID	SP#	PREPARATION SAMPLE WT/VOL	pH	INST DIL	COMMENTS (INJ VOLUME, µL)	LIST	ANAL INIT
21:33	K080214	0107L437	-008A	LANL	30	5.7g	–	1	OK		
22:17	15		-010B		31	5.3g	–	1	OK		
23:02	16		-012A		32	5.2g	–	1	SS3 low - rr		
23:48	17		-014A		33	5.1g	–	1	OK		

8/4/01

*0038 = Time Tune Expires; Tune Time Checked

Reviewed by (Date / Initials): DW 8-8-01

L-WI-023/C-02/01

Standard Preparation Records

LIONVILLE LABORATORY INC

Llonville Laboratory Incorporated

VOA STANDARD PREPARATION LOG

Standard ID 8655-008-01 Description BSB

RECEIPT ID #	STOCK DESCRIPTION/SOURCE	STOCK EXPIRATION DATE	STOCK CONC. or PURITY (µg/mL or %)	WT or VOL USED* (g or µL)	FINAL VOLUME (mL)	FINAL CONC/UNITS (µg/mL)
01VT011	Supelco 4BSB	10/02	2000 µg/mL	~~625 ul~~ ~~312.5 ul~~	~~50 ml~~ ~~25 ml~~	25 µg/mL
~~01VT011~~	~~J~~	~~J~~	~~J~~	~~312.5 ul~~	~~25 ml~~	~~25 µg/mL~~

MeOH LOT # CA591 PREPARED BY (initial/date) AB 6/28/01

EXPIRATION DATE 12/28/01 REVIEWED BY (initial/date) M 7/6/01

Standard ID 8655-008-02 Description Alt IS for arsen K

RECEIPT ID #	STOCK DESCRIPTION/SOURCE	STOCK EXPIRATION DATE	STOCK CONC. or PURITY (µg/mL or %)	WT or VOL USED* (g or µL)	FINAL VOLUME (mL)	FINAL CONC/UNITS (µg/mL)
01VT022	8260B IS/Rest K	9/04	2500	1000	10	250

MeOH LOT # CA591 PREPARED BY (initial/date) M 7/1/01

EXPIRATION DATE 10/1/01 REVIEWED BY (initial/date) M 7/6/01

Standard ID 8655-008-03 Description TCLP Spike

RECEIPT ID #	STOCK DESCRIPTION/SOURCE	STOCK EXPIRATION DATE	STOCK CONC. or PURITY (µg/mL or %)	WT or VOL USED* (g or µL)	FINAL VOLUME (mL)	FINAL CONC/UNITS (µg/mL)
01VT033	Ultra TCLP VOA Mix	9/02	1000 µg/mL	500 ul	10 ml	50 µg/mL

MeOH LOT # CA591 PREPARED BY (initial/date) AB 7/4/01

EXPIRATION DATE 8/4/01 REVIEWED BY (initial/date) M 7/6/01

* WEIGHT of neat material; VOLUME of stock

LW-008/M-02/01

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Lionville Laboratory Incorporated

VOA STANDARD PREPARATION LOG

Standard ID 8655-009-01 Description DF8260 Cal Std

RECEIPT ID #	STOCK DESCRIPTION/SOURCE	STOCK EXPIRATION DATE	STOCK CONC. or PURITY (µg/mL or %)	WT or VOL USED* (g or µL)	FINAL VOLUME (mL)	FINAL CONC/UNITS (µg/mL)
#IVT031	Restek Quant mega mix	7/02	2000	625	25 ml	50
#IVT023	Restek cal mix (1500-2 Gases)	9/07	2000	625		1
#IVT090	Restek VOA calmix (Acetone)	5/4	~~5000~~	250		
#IVT038	Restek Acrylonitrile	1/02	2000	625		
#IVT018	Restek Iodomethane	1/03	2000	685		
#IVT019	Restek 2CEVE	8/04	2000	~~625~~ 1250		100
#IVT047	Restek Vinyl Acetate	2/06	2000	625		50
9109-082-03	LVLI Acetonitrile	10/01	10,000	250		100
9109-074-03	LVLI Acrolein	~~10,000~~ 8-7-01	10,000	125		50

* 7-11-01

MeOH LOT # CA591

EXPIRATION DATE 8/7/01

PREPARED BY (initial/date) JMC 7/11/01

REVIEWED BY (initial/date) PM 7/17/01

Standard ID 8655-009-02 Description 5d4-2 Int Std

RECEIPT ID #	STOCK DESCRIPTION/SOURCE	STOCK EXPIRATION DATE	STOCK CONC. or PURITY (µg/mL or %)	WT or VOL USED* (g or µL)	FINAL VOLUME (mL)	FINAL CONC/UNITS (µg/mL)
#IVT058	VOC Mixture/Ultra	11/02	2000	625	50	25

MeOH LOT # CA591

EXPIRATION DATE 8/12/01

PREPARED BY (initial/date) JVG 7/12/01

REVIEWED BY (initial/date) PZ 7/17/01

Standard ID 8655-009-03 Description DF 8260 Low Conc Cal Std

RECEIPT ID #	STOCK DESCRIPTION/SOURCE	STOCK EXPIRATION DATE	STOCK CONC. or PURITY (µg/mL or %)	WT or VOL USED* (g or µL)	FINAL VOLUME (mL)	FINAL CONC/UNITS (µg/mL)
8655-009-01	LVLI DF cal std	08/07/01	50ug/ml	500 ul	5 ml	5ug/ml

MeOH LOT # Ca 591

EXPIRATION DATE 8/17/01

PREPARED BY (initial/date) JJF 7/17/01

REVIEWED BY (initial/date) 7/17/01 PZ

* WEIGHT of neat material; VOLUME of stock

LW-008/M-02/01

Lionville Laboratory Incorporated

VOA STANDARD PREPARATION LOG

Standard ID 8655-010-01 Description DF Internal Std

RECEIPT ID #	STOCK DESCRIPTION/SOURCE	STOCK EXPIRATION DATE	STOCK CONC. or PURITY (µg/mL or %)	WT or VOL USED* (g or µL)	FINAL VOLUME (mL)	FINAL CONC/UNITS (µg/mL)
01VT054	Ultra Int. Std	8/04	1000 µg/ml	500 ul	10 ml	50 µg/ml
01VT054	↓	↓	↓	500 ul	10 ml	50 µg/ml

MeOH LOT # CA591 PREPARED BY (initial/date) MB 7/26/01

EXPIRATION DATE 11/26/02 REVIEWED BY (initial/date) DR 7/30/01

Standard ID 8655-010-02 Description DF Surrogate Std

RECEIPT ID #	STOCK DESCRIPTION/SOURCE	STOCK EXPIRATION DATE	STOCK CONC. or PURITY (µg/mL or %)	WT or VOL USED* (g or µL)	FINAL VOLUME (mL)	FINAL CONC/UNITS (µg/mL)
01VT052	Supelco Sur Spike	5/04	1000 µg/ml	500 ul	10 ml	50 µg/ml
01VT052	↓	5/04	↓	500 ul	10 ml	50 µg/ml

MeOH LOT # CA591 PREPARED BY (initial/date) MB 7/26/01

EXPIRATION DATE 11/26/02 REVIEWED BY (initial/date) DR 7/30/01

Standard ID 8655-010-003 Description DW CAL

RECEIPT ID #	STOCK DESCRIPTION/SOURCE	STOCK EXPIRATION DATE	STOCK CONC. or PURITY (µg/mL or %)	WT or VOL USED* (g or µL)	FINAL VOLUME (mL)	FINAL CONC/UNITS (µg/mL)
01VT041	VOC KIT / Supelco	4/02	2000	625	50	25
01VT053	TCL VOA MIX 1 / Supelco	12/03	2000	625	↓	↓
01VT043	MTBE / Supelco	11/03	2000	625	↓	↓

MeOH LOT # CA591 PREPARED BY (initial/date) DM 7/25/01

EXPIRATION DATE 8/25/01 REVIEWED BY (initial/date) DR 7/30/01

* WEIGHT of neat material; VOLUME of stock

L-WI-008/M-02/01

Lionville Laboratory Incorporated

VOA STANDARD PREPARATION LOG

Standard ID 8655-012-01 Description 1,2-Diethylbenzene

RECEIPT ID #	STOCK DESCRIPTION/SOURCE	STOCK EXPIRATION DATE	STOCK CONC. or PURITY (µg/mL or %)	WT or VOL USED* (g or µL)	FINAL VOLUME (mL)	FINAL CONC/UNITS (µg/mL)
8655-011-03	Pacera 1,2 Diethylbenzene	1/30/02	10,000	50µL	10mL	50µg/mL

MeOH LOT # UN1230 PREPARED BY (initial/date) DE 7/30/01

EXPIRATION DATE 1/30/02 REVIEWED BY (initial/date) JWS 8/6/01

Standard ID 8655-012-02 Description ALT 13 Pr Blend

RECEIPT ID #	STOCK DESCRIPTION/SOURCE	STOCK EXPIRATION DATE	STOCK CONC. or PURITY (µg/mL or %)	WT or VOL USED* (g or µL)	FINAL VOLUME (mL)	FINAL CONC/UNITS (µg/mL)
01VT056	8260A IW Std Rstk	9/04	2500	1000	10	250

MeOH LOT # UN1230 PREPARED BY (initial/date) JL 7/30/01

EXPIRATION DATE 1/30/02 REVIEWED BY (initial/date) DE 8/6/01

Standard ID 8655-012-03 Description CS2

RECEIPT ID #	STOCK DESCRIPTION/SOURCE	STOCK EXPIRATION DATE	STOCK CONC. or PURITY (µg/mL or %)	WT or VOL USED* (g or µL)	FINAL VOLUME (mL)	FINAL CONC/UNITS (µg/mL)
01VT017	CS2 / Supelco	9/03	5000	250	25	50

MeOH LOT # UN1230 PREPARED BY (initial/date) JL 7/30/01

EXPIRATION DATE 1/30/02 REVIEWED BY (initial/date) DE 8/6/01

*WEIGHT of neat material; VOLUME of stock

LLI-008/M-02/01

Lionville Laboratory Incorporated

VOA STANDARD PREPARATION LOG

Standard ID 8655-014-01 Description Acetonitrile/Acrylonitrile spike

RECEIPT ID	STOCK DESCRIPTION/SOURCE	STOCK EXPIRATION DATE	STOCK CONC. or PURITY (µg/mL or %)	WT or VOL USED* (g or µL)	FINAL VOLUME (mL)	FINAL CONC/UNITS (µg/mL)
8109-062-03	LVLI/Acetonitrile	10/01	10,000	125	5mL	250
01VT038	Restek/Acrylonitrile	1/02	2000	625	5mL	250

MeOH LOT# UN1230
EXPIRATION DATE 1/31/01

PREPARED BY (initial/date) DR 7/31/01
REVIEWED BY (initial/date) JWS 8/6/01

Standard ID 8655-014-02 Description Freon-113

RECEIPT ID	STOCK DESCRIPTION/SOURCE	STOCK EXPIRATION DATE	STOCK CONC. or PURITY (µg/mL or %)	WT or VOL USED* (g or µL)	FINAL VOLUME (mL)	FINAL CONC/UNITS (µg/mL)
8109-073-03	Freon 113 Std/LVLI	7/26/01	10,000	50	10	50

MeOH LOT# UN1230
EXPIRATION DATE 1/31/02

PREPARED BY (initial/date) JW 7/31/01
REVIEWED BY (initial/date) DR 8/6/01

Standard ID 8655-014-03 Description ~~Acrolein~~ 624 LCS

RECEIPT ID	STOCK DESCRIPTION/SOURCE	STOCK EXPIRATION DATE	STOCK CONC. or PURITY (µg/mL or %)	WT or VOL USED* (g or µL)	FINAL VOLUME (mL)	FINAL CONC/UNITS (µg/mL)
01VT036	Restek 624 Col Mix 1 (gases)	10/02	2000	250 µL	10 mL	50 µg/mL
01VT037	Restek 624 Col Mix #2	1/03	2000			
01VT042	Restek 624 Col mix #3	5/02	2000			
01VT040	Restek o-xylene	10/04	2000			
01VT041	Restek m-xylene	10/03	2000			
01VT039	Restek cis-1,2 DCE	9/03	2000			
01VT051	Acrolein/Acrylonitrile	10/01	2000			
UN1230						
9/1/01						

PREPARED BY (initial/date) DR 8/1/01
REVIEWED BY (initial/date) JWS 8/1/01

* WT of neat material; VOLUME of stock

PAGE # 014

Preparation Logs

LIONVILLE LABORATORY INC.

SAMPLE PREP RECORD

Sheet no.: 1

Extract. Date: 08/02/01 Extraction Batch No: 01LVK240 Analyst: JG Method: N/A

Test: O624 Cleanup Date: Analyst: Client: LANL REQ #9432R

LIMS Report Date: 08/23/01 Solvent: Adsorbent:

Sample No:	Client Name Client ID	pH	Initial WT/VOL	Surr. Mult.	Spike Mult.	Final VOL	Final VOL	Split Mult.	GPC Y/N	% Solid	C/D FACTOR
0107L423-	LANL REQ #9432R										
007 X	RC03-01-0006 06		4.5	1.0		5.0		1.0	N	91.02	1.2
009 X	RC03-01-0007 06		5.5	1.0		5.0		1.0	N	92.95	0.98
011 X	RC03-01-0008 06		4.4	1.0		5.0		1.0	N	91.68	1.2
013 X	RC03-01-0009 06		5.3	1.0		5.0		1.0	N	93.59	1.0
015 X	RC03-01-0010 06		5.0	1.0		5.0		1.0	N	94.11	1.1
01LVK240-MB1 X			5.0	1.0		5.0		1.0	N	100.00	1.0

Comments:
Surrogate:
Spike:

Extracts Transferred	Relinquished By	Date Time	Received By	Date Time	Reason for Transfer
				DM	8/24/01

8/23/01

Other/Miscellaneous

End of Data Package

PESTICIDES/PCBs: COMPLETE SDG FILE (CSF) INVENTORY SHEET

LABORATORY NAME:	Recra LabNet Philadelphia
CITY/STATE:	Lionville, PA
CASE/SDG NO.:	0107L423
CLIENT NAME:	LANL REQ#9432R
WORK ORDER NO.:	02744-064-001-9999-00
METHOD BASED ON:	SW-846, Method 8080; EPA CLP SOW 2/88

All documents in the Client's copy of the complete SDG file must be legible, clearly labeled, paginated, single-sided original documents; or of sufficient copy quality to be reproducible to fourth generation copies. (Purge file documents, e.g., original-copy chain-of-custody, etc. assembled per specific contract request only.)

	CLIENT: SDG No.:	Page Nos From	Page Nos To	Check (initials/date) Lab	Check (initials/date) Client
1	Cover Page (Lab Chron)	1	1		
2	Table of Contents (Document Inventory Sheet)	2	2	MK 8/24/01	
3	Case Narrative	3	6		
4	Shipping, Receiving, and Custody Records • Lab Chain of Custody/Work Request • Client Custody Reports/Packing Lists • Airbills	7	14	MK 8/24/01	
5	Pesticide/PCB Sample QC/Data Summary • Data Summary (LIMS Summary Report) • Surrogate % Recovery Form • MS/MSD Summary Form • Method Blank Summary	15	21	MK 8/24/01	
6	Sample Data, for each Sample: • Target Compound Results (single sample summary) • Chromatogram/Quant Report, 1° column • Chromatogram/Quant Report, 2° column confirmation	22	85	MK 8/24/01	
7	Calibration Standard Data	86	258		
	1° Column Standards Data				
	Analytical Sequence	—	—		
	Continuing Calibration Verification Form				
	Pesticide Identification Summary, if applicable				
	Standards Concentration Sheets			MK 8/24/01	
	• Surrogate and Spike Concentration Sheet				
	• Analytical Standard Concentration Sheet				
	Chromatograms/Quant Reports				
	2° Column Standards Data				
	Analytical Sequence	—	—		
	Continuing Calibration Verification Form				
	Chromatograms/Quant Reports			MK 8/24/01	
	Pesticide GPC calibration data: notebook pages and	—	—		

CLIENT: SDG No.:		Page Nos From	Page Nos To	Check (initials/date) Lab	Check (initials/date) Client
	UV detector traces				
8	Raw QC Data: Blank and Matrix Spike Data	255	285		
	Method Blank Data				
	• Target Compound Results (single sample summary)			MK 8/24/01	
	• Chromatogram/Quant Report, 1° column				
	• Chromatogram/Quant Report, 2° column confirmation				
	Blank Spike/Blank Spike Duplicate				
	• Target Compound Results (single sample summary)			MK 8/24/01	
	• Chromatogram/Quant Report, 1° column				
	• Chromatogram/Quant Report, 2° column confirmation				
	Matrix Spike/Matrix Spike Duplicate				
	• Target Compound Results (single sample summary)			MK 8/24/01	
	• Chromatogram/Quant Report, 1° column				
	• Chromatogram/Quant Report, 2° column confirmation				
9	Analysis Logbook Pages	286	304	MK 8/24/01	
10	Standards Preparation Records	305	350		
	• Surrogate and Target Analyte Spike Solutions			MK 8/24/01	
	• Analysis Standards				
11	Preparation Logs	351	354		
	• Sample Prep Records (Extraction notebook pages)			MK 8/24/01	
	• Extract Chain of Custody (LIMS record, with COC section signed)				
	• Screening Records (Logs, Chromatograms), if applicable				
	• Other Sample Cleanup Records				
	• % Moisture and/or % Solids Records				
12	Other/Miscellaneous				
	• MDL / IDL Table (circle one)				

COMMENTS: _____

Checked by: (Laboratory) Pat E — Signature — PATRICIA E. Feldman, Data Mgt Unit Leader — Printed Name/Title — 08/27/01 — Date

Checked by: (Client) _____ Signature _____ Printed Name/Title _____ Date

Lionville Laboratory, Inc.
PCB ANALYTICAL DATA PACKAGE FOR
LANL REQ #9432R

DATE RECEIVED: 07/27/01

LVL LOT # :0107L423

CLIENT ID	LVL #	MTX	PREP #	COLLECTION	EXTR/PREP	ANALYSIS
RC03-01-0001 03	001	S	01LE0920	07/24/01	08/02/01	08/22/01
RC03-01-0002 03	002	S	01LE0920	07/24/01	08/02/01	08/20/01
RC03-01-0003 03	003	S	01LE0920	07/24/01	08/02/01	08/22/01
RC03-01-0004 03	004	S	01LE0920	07/24/01	08/02/01	08/22/01
RC03-01-0005 03	005	S	01LE0920	07/24/01	08/02/01	08/22/01
RC03-01-0006 03	006	S	01LE0920	07/24/01	08/02/01	08/22/01
RC03-01-0007 03	008	S	01LE0920	07/24/01	08/02/01	08/22/01
RC03-01-0008 03	010	S	01LE0920	07/24/01	08/02/01	08/22/01
RC03-01-0009 03	012	S	01LE0920	07/24/01	08/02/01	08/23/01
RC03-01-0010 03	014	S	01LE0920	07/24/01	08/02/01	08/23/01
RC03-01-0010 03	014 MS	S	01LE0920	07/24/01	08/02/01	08/23/01
RC03-01-0010 03	014 MSD	S	01LE0920	07/24/01	08/02/01	08/23/01

LAB QC:

PBLKMW	MB1	S	01LE0920	N/A	08/02/01	08/20/01
PBLKMW	MB1 BS	S	01LE0920	N/A	08/02/01	08/20/01

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IX. Analysis Run Logs 286

X. Standards Preparation Record 305

XI. Preparation Logs 351

XII. Other/Miscellaneous ..... n/a

r:\group\data\pest\00-tc-pcb

Case Narrative

LIONVILLE LABORATORY INC.

Analytical Report

Client: LANL REQ.#9432R
LVL#: 0107L423
Subcontract #: 7791L0014-8S

W.O.#: 02744-064-001-9999-00
Date Received: 07-27-01

PCB

The set of samples consisted of ten (10) soil samples collected on 07-24-01.

The samples and their associated QC samples were extracted on 08-02-01 and analyzed according to Lionville Laboratory OPs based on SW846, 3rd Edition procedures on 08-20,22,23-01. The extraction procedure was based on method 3540 and the extracts were analyzed based on method 8082 for Aroclors only.

The following is a summary of the QC results accompanying the sample results and a description of any problems encountered during their analyses:

1. The cooler temperature has been recorded on the chain-of-custody.
2. All required holding times for extraction and analysis have been met.
3. The samples and their associated QC samples received a sulfuric acid and sulfur cleanup.
4. The method blank was below the reporting limits for all target compounds.
5. Two (2) of twenty-two (22) obtainable surrogate recoveries were outside acceptance criteria; however, the surrogate recovery criteria were met (i.e., no more than one per sample).
6. The blank spike recovery was within acceptance criteria.
7. The matrix spike recoveries were within acceptance criteria.
8. Samples RC03-01-0002 03, RC03-01-0003 03 and RC03-01-0005 03 required 5 to 10-fold dilution due to high concentration of target analytes. Reporting limits have been adjusted to reflect the necessary dilutions.
9. All initial calibrations associated with this data set were within acceptance criteria.
10. All continuing calibration standards analyzed prior to sample extracts were within acceptance criteria.
11. I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, except as detailed in this QC Report.

Iain Daniels
Deputy Laboratory Manager
Lionville Laboratory Incorporated

8/28/01
Date

pef&som\r:\group\data\pest\lanl\07L423.pcb

The results presented in this report relate only to the analytical testing and conditions of the samples at receipt and during storage. All pages of this report are integral parts of the analytical data. Therefore, this report should only be reproduced in its entirety of 354 pages.

GLOSSARY OF PESTICIDE/PCB DATA

DATA QUALIFIERS

U = Indicates that the compound was analyzed for but not detected. The minimum detection limit for the sample (not the method detection limit) is reported with the U (e.g., 10U).

J = Indicates an estimated value. This flag is used in cases where a target analyte is detected at a level less than the lower quantification level. If the limit of quantification is 10 ug/L and a concentration of 3 ug/L is calculated, it is reported as 3J.

B = This flag is used when the analyte is found in the associated blank as well as in the sample. It indicates possible/probable blank contamination.

E = Indicates that the compound was detected beyond the calibration range and was subsequently analyzed at a dilution.

I = Interference.

ABBREVIATIONS

BS = Indicates blank spike in which reagent grade water is spiked with the CLP matrix spiking solutions and carried through all the steps in the method. Spike recoveries are reported.

BSD = Indicates blank spike duplicate.

MS = Indicates matrix spike.

MSD = Indicates matrix spike duplicate.

DL = Indicates that recoveries were not obtained because the extract had to be diluted for analysis.

NA = Not Applicable.

DF = Dilution Factor.

NR = Not Required.

SP = Indicates Spiked Compound.

GLOSSARY OF PESTICIDE/PCB DATA

P	=	This flag is used for an PESTICIDE/PCB target analyte when there is greater than 25% difference for detected concentrations between the two GC columns (see Form X). The lower of the two values is reported on Form I and flagged with a "P".
D	=	This flag identifies all compounds identified in an analysis at a secondary dilution factor.
C	=	This flag applies to a compound that has been confirmed by GC/MS.

R:/SHARE/HPLC/PESTICIDE/PCBGLOS

Shipping, Receiving, and Custody Records

Lionville Laboratory Use Only

0107L423

Custody Transfer Record/Lab Work Request

Page 1 of ~~2~~ 3

7-27-01

LVLI Lionville Laboratory Inc.

ALL FIELD PERSONNEL: COMPLETE ONLY SHADED AREAS

Client: Lanl Rcc # 9432B

Est. Final Proj. Sampling Date:

Project #: 02744-064-001-9999-00

Project Contact/Phone #:

Lionville Laboratory Project Manager: JS

QC: Spec Del: CLP TAT: 30 day

Date Rec'd: 7-27-01 Date Due: 8-26-01

		ABC		D							E					
Refrigerator #		Frzrrd		5							5					00
#/Type Container	Liquid															
	Solid	3		16							16					
Volume	Liquid															
	Solid	500		125							125					
Preservatives		-		-							-					
ANALYSES REQUESTED		ORGANIC							INORG							
		VOA	BNA	Pest/PCB	Herb				Metal	CN						
Lionville Laboratory Use Only		0624X		OPCB							I%SOL					

MATRIX CODES:	Lab ID	Client ID/Description	Matrix QC Chosen (✓) MS	MSD	Matrix	Date Collected	Time Collected
S - Soil, SE - Sediment, SO - Solid, SL - Sludge, W - Water, O - Oil, A - Air, DS - Drum Solids, DL - Drum Liquids, L - EP/TCLP Leachate, WI - Wipe, X - Other, F - Fish	001	RC03-01-0001-03			S	7-27-01	
	002	2					
	003	3					
	004	4					
	005	5					
	006	6					
	007	7					
	008	7-03					
	009	7-06					
	010	8-03					

Special Instructions:

Missing Samples
RC03-01-0048 02
1 49 02

Did not receive 125ml Poly VOA Encore
instead rec'd a 4th 5g Encore

DATE/REVISIONS:

1.
2.
3.
4.
5.
6.

Relinquished by	Received by	Date	Time
FedEx	TKoppa	7-27-01	1015

Relinquished by	Received by	Date	Time
COMPOSITE WASTE			

ORIGINAL

Lionville Laboratory Use Only

Samples were:
1) Shipped ✓ or
Hand Delivered ___
Airbill # 4847325001 71
2) Ambient or Chilled
3) Received in Good Condition (Y) or N
4) Samples Properly Preserved (Y) or N
5) Received Within Holding Times (Y) or N

Tamper Resistant Seal was:
1) Present on Outer Package (Y) or N
2) Unbroken on Outer Package (Y) or N
3) Present on Sample (Y) or N
4) Unbroken on Sample (Y) or N

COC Record Present Upon Sample Rec't (Y) or N

Cooler Temp. 5 °C

Discrepancies Between Samples Labels and COC Record? (Y) or N

NOTES:

Lionville Laboratory Use Only
0107L423

Custody Transfer Record/Lab Work Request

LVLI Lionville Laboratory Inc.

FIELD PERSONNEL: COMPLETE ONLY SHADED AREAS

Client: LANL Proj # 9432R
Est. Final Proj. Sampling Date:
Project #: See
Project Contact/Phone #:
Lionville Laboratory Project Manager:
QC: Del TAT:
Date Rec'd: Page 1 Date Due:

		ABC		D		F					E					
Refrigerator #		Freez		5		5					5					
#/Type Container	Liquid															
	Solid	3		1G		1AG					1P					
Volume	Liquid															
	Solid	500		125		125					125					
Preservatives		-		-		-					-					
ANALYSES REQUESTED →		ORGANIC: VOA	BNA	Pest/PCB	Herb				INORG: Metal	CN						
Lionville Laboratory Use Only		0624X		0PCB		0080					I2ASOL					

MATRIX CODES:
S - Soil
SE - Sediment
SO - Solid
SL - Sludge
W - Water
O - Oil
A - Air
DS - Drum Solids
DL - Drum Liquids
L - EP/TCLP Leachate
WI - Wipe
X - Other
F - Fish

Lab ID	Client ID/Description	Matrix QC Chosen (✓) MS	MSD	Matrix	Date Collected	Time Collected	0624X	0PCB		0080					I2ASOL				
011	BC03-01-0008 0906 TR 7-27-01			S	7-24-01		✓								✓				
012	09 03							✓											
013	09 06						✓								✓				
014	10 03							✓											
015	10 06						✓								✓				
016	41 02									✓									
017	42									✓									
018	43									✓									
019	44									✓									
020	48									✓	TR 7-27-01								

Special Instructions:

DATE/REVISIONS:
1.
2.
3.
4.
5.
6.

Relinquished by	Received by	Date	Time
FedEx	TBoppel	7-27-01	1015

Relinquished by	Received by	Date	Time

Discrepancies Between Samples Labels and COC Record? Y or N
NOTES:

Lionville Laboratory Use Only

Samples were:
1) Shipped ____ or Hand Delivered ____
Airbill # ____
2) Ambient or Chilled
3) Received in Good Condition Y or N
4) Samples Properly Preserved Y or N
5) Received Within Holding Times Y or N

Tamper Resistant Seal was:
1) Present on Outer Package Y or N
2) Unbroken on Outer Package Y or N
3) Present on Sample Y or N
4) Unbroken on Sample Y or N
COC Record Present Upon Sample Rec't Y or N
Cooler Temp. ____ °C

Lionville Laboratory Use Only
0107L423

Custody Transfer Record/Lab Work Request

FIELD PERSONNEL: COMPLETE ONLY SHADED AREAS

LVLI Lionville Laboratory Inc

Client: LANL Bcg 9432R
Est. Final Proj. Sampling Date:
Project #: See
Project Contact/Phone #:
Lionville Laboratory Project Manager: Page 1
QC: Del TAT:
Date Rec'd: Date Due:

		F														
Refrigerator #						5										11
#/Type Container	Liquid															
	Solid					1AG										
Volume	Liquid															
	Solid					125										
Preservatives						–										
ANALYSES REQUESTED →		ORGANIC							INORG							
		VOA	BNA	Pest/PCB	Herb				Metal	CN						
		Lionville Laboratory Use Only														
						ODRO										

MATRIX CODES:
S - Soil
SE - Sediment
SO - Solid
SL - Sludge
W - Water
O - Oil
A - Air
DS - Drum Solids
DL - Drum Liquids
L - EP/TCLP Leachate
WI - Wipe
X - Other
F - Fish

Lab ID	Client ID/Description	Matrix QC Chosen (✓) MS	MSD	Matrix	Date Collected	Time Collected														
021	BG03-01-00419-02			S	7-27-01				TK 7-27-01				✓							

Special Instructions:

DATE/REVISIONS:
1.
2.
3.
4.
5.
6.

Relinquished by	Received by	Date	Time
FedEx	TKapp	7-27-01	1015

Relinquished by	Received by	Date	Time

Discrepancies Between Samples Labels and COC Record? Y or N
NOTES:

Lionville Laboratory Use Only

Samples were:
1) Shipped ____ or Hand Delivered ____
Airbill #
2) Ambient or Chilled
3) Received In Good Condition Y or N
4) Samples Properly Preserved Y or N
5) Received Within Holding Times Y or N

Tamper Resistant Seal was:
1) Present on Outer Package Y or N
2) Unbroken on Outer Package Y or N
3) Present on Sample Y or N
4) Unbroken on Sample Y or N

COC Record Present Upon Sample Rec't Y or N

Cooler Temp. ____ °C

Thursday, July 26, 2001

CHAIN OF CUSTODY DOCUMENT NUMBER: 9432RC

Los Alamos
NATIONAL LABORATORY

REQUEST NUMBER: 9432R
ANALYSIS TYPE: ORG

ATTN: Judy Stone
Lionville Laboratory Inc
208 Welsh Pool Rd
Lionville, pa 19341

SAMPLE ID	CONT ID	CONTAINER DESCRIPTION	ANALYSIS ORDER CODE	PRESERVATIVE	MATRIX
RC03-01-0001	03	125 ml Glass	PCB	Ice	D
RC03-01-0002	03	125 ml Glass	PCB	Ice	D
RC03-01-0003	03	125 ml Glass	PCB	Ice	D
RC03-01-0004	03	125 ml Glass	PCB	Ice	D
RC03-01-0005	03	125 ml Glass	PCB	Ice	D
RC03-01-0006	03	125 ml Glass	PCB	None	S
RC03-01-0006	05	125 ml Polyethylene	VOCECORE	Ice	S
RC03-01-0006	06	5 gm Encore Container-A	VOCECORE	Ice	S
RC03-01-0006	07	5 gm Encore Container-B	VOCECORE	Ice	S
RC03-01-0006	08	5 gm Encore Container-C	VOCECORE	Ice	S
RC03-01-0007	03	125 ml Glass	PCB	None	S
RC03-01-0007	05	125 ml Polyethylene	VOCECORE	Ice	S
RC03-01-0007	06	5 gm Encore Container-A	VOCECORE	Ice	S
RC03-01-0007	07	5 gm Encore Container-B	VOCECORE	Ice	S
RC03-01-0007	08	5 gm Encore Container-C	VOCECORE	Ice	S
RC03-01-0008	03	125 ml Glass	PCB	None	S
RC03-01-0008	05	125 ml Polyethylene	VOCECORE	Ice	S
RC03-01-0008	06	5 gm Encore Container-A	VOCECORE	Ice	S
RC03-01-0008	07	5 gm Encore Container-B	VOCECORE	Ice	S
RC03-01-0008	08	5 gm Encore Container-C	VOCECORE	Ice	S

Relinquished By: Date Time
Marie [illegible] 7/26/0 1410
PRINTED NAME SIGNATURE
FedEx 7-27-01 1015
PRINTED NAME SIGNATURE
PRINTED NAME SIGNATURE

Received By: Date Time
PRINTED NAME SIGNATURE
T Kappel T Kappel 7-27-01 1015
PRINTED NAME SIGNATURE
PRINTED NAME SIGNATURE

Received for DISPOSAL By: Date Time
PRINTED NAME SIGNATURE

Remarks:

SAMPLE ID	CONT ID	CONTAINER DESCRIPTION	ANALYSIS ORDER CODE		
RC03-01-0009	03	125 ml Glass	PCB	None	S
RC03-01-0009	05	125 ml Polyethylene	VOCECORE	Ice	S
RC03-01-0009	06	5 gm Encore Container-A	VOCECORE	Ice	S
RC03-01-0009	07	5 gm Encore Container-B	VOCECORE	Ice	S
RC03-01-0009	08	5 gm Encore Container-C	VOCECORE	Ice	S
RC03-01-0010	03	125 ml Glass	PCB	None	S
RC03-01-0010	04	125 ml Polyethylene	VOCECORE	Ice	S
RC03-01-0010	05	5 gm Encore Container-A	VOCECORE	Ice	S
RC03-01-0010	06	5 gm Encore Container-B	VOCECORE	Ice	S
RC03-01-0010	07	5 gm Encore Container-C	VOCECORE	Ice	S
RC03-01-0041	02	125 ml Amber Glass	TPH	Ice	S
RC03-01-0042	02	125 ml Amber Glass	TPH	Ice	S
RC03-01-0043	02	125 ml Amber Glass	TPH	Ice	S
RC03-01-0044	02	125 ml Amber Glass	TPH	Ice	S
RC03-01-0048	02	125 mL Amber Glass	TPH	Ice	D
RC03-01-0049	02	125 mL Amber Glass	TPH	Ice	D

Final Page of CHAIN OF CUSTODY DOCUMENT FOR REQUEST NUMBER 9432R Page 2

Relinquished By: Date Time
Abarca 7/26/01
PRINTED NAME SIGNATURE
FedEx 7-27-01 1015
PRINTED NAME SIGNATURE
PRINTED NAME SIGNATURE

Received By: Date Time
PRINTED NAME SIGNATURE
J Bryant J Bryant 7-27-01 1015
PRINTED NAME SIGNATURE
PRINTED NAME SIGNATURE

Received for DISPOSAL By: Date Time
PRINTED NAME SIGNATURE

Remarks:

Thursday, July 26, 2001

REQUEST NUMBER: 9432R
ANALYSIS TYPE: ORG

Los Alamos
NATIONAL LABORATORY

ATTN: Judy Stone
Lionville Laboratory Inc
208 Welsh Pool Rd
Lionville, pa 19341

Please analyze the enclosed samples according to the schedule indicated:

SHIP DATE: 7/25/01
REPORT DUE: 8/27/01
TURN AROUND REQ'D: 30 day

These samples are on:

LANL Request Number: 9432R
Per Agreement Number:
Project Cost Code: MR0R0001E000

RAD SCREENING: Not Required
COMMENTS: 03 - 1114 , GA; TPH BY DIESEL.

LANL ER SMO CONTACT: Joylene Valdez MS H865 5056659968
Signature: Joylene Valdez

ANALYSIS ORDER CODE	ANALYTE(S)	SAMPLE ID	CONT ID	SAMPLE MATRIX	DATE SAMPLED	COMMENTS
PCB		RC03-01-0001	03	D	7/24/1901	
PCB		RC03-01-0002	03	D	7/24/1901	
PCB		RC03-01-0003	03	D	7/24/1901	
PCB		RC03-01-0004	03	D	7/24/1901	
PCB		RC03-01-0005	03	D	7/24/1901	
PCB		RC03-01-0006	03	S	7/24/1901	
VOCECORE		RC03-01-0006	05	S	7/24/1901	
VOCECORE		RC03-01-0006	06	S	7/24/1901	
VOCECORE		RC03-01-0006	07	S	7/24/1901	
VOCECORE		RC03-01-0006	08	S	7/24/1901	
PCB		RC03-01-0007	03	S	7/24/1901	
VOCECORE		RC03-01-0007	05	S	7/24/1901	
VOCECORE		RC03-01-0007	06	S	7/24/1901	
VOCECORE		RC03-01-0007	07	S	7/24/1901	
VOCECORE		RC03-01-0007	08	S	7/24/1901	
PCB		RC03-01-0008	03	S	7/24/1901	
VOCECORE		RC03-01-0008	05	S	7/24/1901	
VOCECORE		RC03-01-0008	06	S	7/24/1901	
VOCECORE		RC03-01-0008	07	S	7/24/1901	
VOCECORE		RC03-01-0008	08	S	7/24/1901	
PCB		RC03-01-0009	03	S	7/24/1901	
VOCECORE		RC03-01-0009	05	S	7/24/1901	
VOCECORE		RC03-01-0009	06	S	7/24/1901	
VOCECORE		RC03-01-0009	07	S	7/24/1901	

ANALYSIS ORDER CODE	ANALYTE(S)	SAMPLE ID	CONT ID	SAMPLE MATRIX	DATE SAMPLED	COMMENTS
VOCECORE		RC03-01-0009	08	S	7/24/1901	
PCB		RC03-01-0010	03	S	7/24/1901	
VOCECORE		RC03-01-0010	04	S	7/24/1901	
VOCECORE		RC03-01-0010	05	S	7/24/1901	
VOCECORE		RC03-01-0010	06	S	7/24/1901	
VOCECORE		RC03-01-0010	07	S	7/24/1901	
TPH		RC03-01-0041	02	S	7/24/1901	
TPH		RC03-01-0042	02	S	7/24/1901	
TPH		RC03-01-0043	02	S	7/24/1901	
TPH		RC03-01-0044	02	S	7/24/1901	
TPH		RC03-01-0048	02	D	7/24/1901	
TPH		RC03-01-0049	02	D	7/24/1901	

Data Summary/Sample QC

Lionville Laboratory, Inc.

PCBs by GC

RFW Batch Number: **0107L423** Client: **LANL REQ #9432R** Work Order: 02744064001 Page: 1 Report Date: 08/24/01 12:05

Sample Information							
Cust ID:	RC03-01-0001 03	RC03-01-0002 03	RC03-01-0003 03	RC03-01-0004 03	RC03-01-0005 03	RC03-01-0006 03
RFW#:	001	002	003	004	005	006
Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
D.F.:	1.00	10.0	5.00	1.00	5.00	1.00
Units:	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG
Surrogate: Tetrachloro-m-xylene	50 %	D %	D %	68 %	D %	130 * %
Decachlorobiphenyl	47 %	D %	D %	64 %	D %	109 %
Aroclor-1016	33 U	330 U	170 U	33 U	160 U	36 U
Aroclor-1221	67 U	670 U	330 U	66 U	320 U	71 U
Aroclor-1232	33 U	330 U	170 U	33 U	160 U	36 U
Aroclor-1242	33 U	330 U	170 U	33 U	160 U	36 U
Aroclor-1248	33 U	330 U	170 U	33 U	160 U	36 U
Aroclor-1254	33 U	330 U	170 U	33 U	160 U	36 U
Aroclor-1260	48	630	330	29 J	280	140

Sample Information						
Cust ID:	RC03-01-0007 03	RC03-01-0008 03	RC03-01-0009 03	RC03-01-0010 03	RC03-01-0010 03	RC03-01-0010 03
RFW#:	008	010	012	014	014 MS	014 MSD
Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
D.F.:	1.00	1.00	1.00	1.00	1.00	1.00
Units:	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG
Surrogate: Tetrachloro-m-xylene	98 %	50 %	28 %	75 %	105 %	80 %
Decachlorobiphenyl	80 %	50 %	23 * %	62 %	84 %	67 %
Aroclor-1016	35 U	36 U	35 U	35 U	36 U	36 U
Aroclor-1221	70 U	71 U	70 U	71 U	71 U	71 U
Aroclor-1232	35 U	36 U	35 U	35 U	36 U	36 U
Aroclor-1242	35 U	36 U	35 U	35 U	36 U	36 U
Aroclor-1248	35 U	36 U	35 U	35 U	36 U	36 U
Aroclor-1254	35 U	36 U	35 U	35 U	90 %	76 %
Aroclor-1260	55	36 U	35 U	32 J	68	54

U= Analyzed, not detected. J= Present below detection limit. B= Present in blank. NR= Not reported. NS= Not spiked.
%= Percent recovery. D= Diluted out. I= Interference. NA= Not Applicable. *= Outside of EPA CLP QC

Lionville Laboratory, Inc.

PCBs by GC

RFW Batch Number: **0107L423** Client: **LANL REQ #9432R** Report Date: 08/24/01 12:05

Work Order: 02744064001 Page: 2

Sample Information			
	Cust ID:	**PBLKMW**	**PBLKMW BS**
	RFW#:	**01LE0920-MB1**	**01LE0920-MB1**
	Matrix:	SOIL	SOIL
	D.F.:	1.00	1.00
	Units:	UG/KG	UG/KG
Surrogate:	Tetrachloro-m-xylene	95 %	95 %
	Decachlorobiphenyl	82 %	81 %
Aroclor-1016		33 U	33 U
Aroclor-1221		65 U	67 U
Aroclor-1232		33 U	33 U
Aroclor-1242		33 U	33 U
Aroclor-1248		33 U	33 U
Aroclor-1254		33 U	89 %
Aroclor-1260		33 U	33 U

U= Analyzed, not detected. J= Present below detection limit. B= Present in blank. NR= Not reported. NS= Not spiked.
%= Percent recovery. D= Diluted out. I= Interference. NA= Not Applicable. *= Outside of EPA CLP QC

Flag 8/24/01

2F

SOIL PESTICIDE SURROGATE RECOVERY

Lab Name: Lionville Labs, Inc. Contract: 2744-64-01

Case No.: LANL REQ #9432R

RFW Lot No.: 0107L423

	CLIENT SAMPLE NO.	S1 ( )#	OTHER
01	RC03-01-0001 03	50	47
02	RC03-01-0002 03	D	D
03	RC03-01-0003 03	D	D
04	RC03-01-0004 03	68	64
05	RC03-01-0005 03	D	D
06	RC03-01-0006 03	130 *	109
07	RC03-01-0007 03	98	80
08	RC03-01-0008 03	50	50
09	RC03-01-0009 03	28	23 *
10	RC03-01-0010 03	75	62
11	RC03-01-0010 03MS	105	84
12	RC03-01-0010 03MSD	80	67
13	PBLKMWLE0920-MB1	95	82
14	PBLKMWLE0920-MB1 BS	95	81

Pesticides

ADVISORY QC LIMITS

S1 ( ) = Tetrachloro-m-xylene (28-118)

S2 ( ) = Decachlorobiphenyl (38-122)

Column to be used to flag recovery values

* Values outside of QC limits

D Surrogates diluted out

3F

SOIL PESTICIDE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Lionville Labs, Inc. Contract: 2744-64-01

Case No.: LANL REQ #9432R RFW Lot No.: 0107L423-014

MATRIX Spike - Sample No.: RC03-01-0010 03 Level:(low/med) LOW

COMPOUND	SPIKE ADDED UG/KG	SAMPLE CONCENTRATION UG/KG	MS CONCENTRATION UG/KG	MS % REC #	QC LIMITS REC
Aroclor-1254	133	0	120	90	30 -146

COMPOUND	SPIKE ADDED UG/KG	MSD CONCENTRATION UG/KG	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC
Aroclor-1254	133	102	76	16	50	30 -146

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

RPD: 0 out of 1 outside limits
Spike Recovery: 0 out of 2 outside limits

COMMENTS:

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3F

SOIL PESTICIDE MATRIX SPIKE RECOVERY

Lab Name: Lionville Labs, Inc. Contract: 2744-64-01

Case No.: LANL REQ #9432R RFW Lot No.: 0107L423

MATRIX Spike - Sample No.: PBLKMWLE0920-MB1 Level:(low/med) LOW

COMPOUND	SPIKE ADDED UG/KG	SAMPLE CONCENTRATION UG/KG	MS CONCENTRATION UG/KG	MS % REC #	QC LIMITS REC
Aroclor-1254	125	0	111	89	30 -146

Column to be used to flag recovery value with an asterisk
* Values outside of QC limits

Spike Recovery: 0 out of 1 outside limits

COMMENTS:

4C

PESTICIDE METHOD BLANK SUMMARY

Lab Name: Lionville Labs, Inc. Contract: 2744-64-01

Case No.: LANL REQ #9432R

Lab Sample ID: 01LE0920-MB1 Lab File ID: 08180135 .43

Matrix:(Soil/Water) SOIL Level:(low/med) LOW

Date Extracted: 08/02/01 Extraction:(SepF/Cont/Sonc) SONC

Date Analyzed (1): 08/20/01 Date Analyzed (2): 08/20/01

Time Analyzed (1): 0315 Time Analyzed (2): 0315

Instrument ID (1): 35 Instrument ID (2): 36

GC Column ID (1): B608 GC Column ID (2): RTX1701

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
01	RC03-01-0001 03	0107L423-001	08/22/01	08/22/01
02	RC03-01-0002 03	0107L423-002	08/20/01	08/20/01
03	RC03-01-0003 03	0107L423-003	08/22/01	08/22/01
04	RC03-01-0004 03	0107L423-004	08/22/01	08/22/01
05	RC03-01-0005 03	0107L423-005	08/22/01	08/22/01
06	RC03-01-0006 03	0107L423-006	08/22/01	08/22/01
07	RC03-01-0007 03	0107L423-008	08/22/01	08/22/01
08	RC03-01-0008 03	0107L423-010	08/22/01	08/22/01
09	RC03-01-0009 03	0107L423-012	08/23/01	08/23/01
10	RC03-01-0010 03	0107L423-014	08/23/01	08/23/01
11	RC03-01-0010 03MS	0107L423-014S	08/23/01	08/23/01
12	RC03-01-0010 03MSD	0107L423-014T	08/23/01	08/23/01
13	PBLKMWLE0920-MB1 BS	01LE0920-MB1S	08/20/01	08/20/01

COMMENTS:

Sample Data

1D

PESTICIDE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

RC03-01-0001 03

Lab Name: Lionville Labs, Inc. Work Order: 02744064001

Client: LANL REQ #9432R

Matrix: SOIL

Lab Sample ID: 0107L423-001

Sample wt/vol: 30.0 (g/mL) G

Lab File ID: 08210135.32

Level: (low/med) LOW

Date Received: 07/27/01

% Moisture: not dec. 0 dec.

Date Extracted: 08/02/01

Extraction: (SepF/Cont/Sonc) SONC

Date Analyzed: 08/22/01

GPC Cleanup: (Y/N) N pH: 7.0

Dilution Factor: 1.00

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG

CAS NO.	COMPOUND		
12674-11-2	Aroclor-1016	33	U
11104-28-2	Aroclor-1221	67	U
11141-16-5	Aroclor-1232	33	U
53469-21-9	Aroclor-1242	33	U
12672-29-6	Aroclor-1248	33	U
11097-69-1	Aroclor-1254	33	U
11096-82-5	Aroclor-1260	48	

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0107L423-001

SAMPLE NO. : 08210135 . 32 INSTRUMENT: 35

TEST NO. : DATE TIME: 08/22/01 17:43:49

METHOD NO. : P35 / P35 PAGE NO. : 01

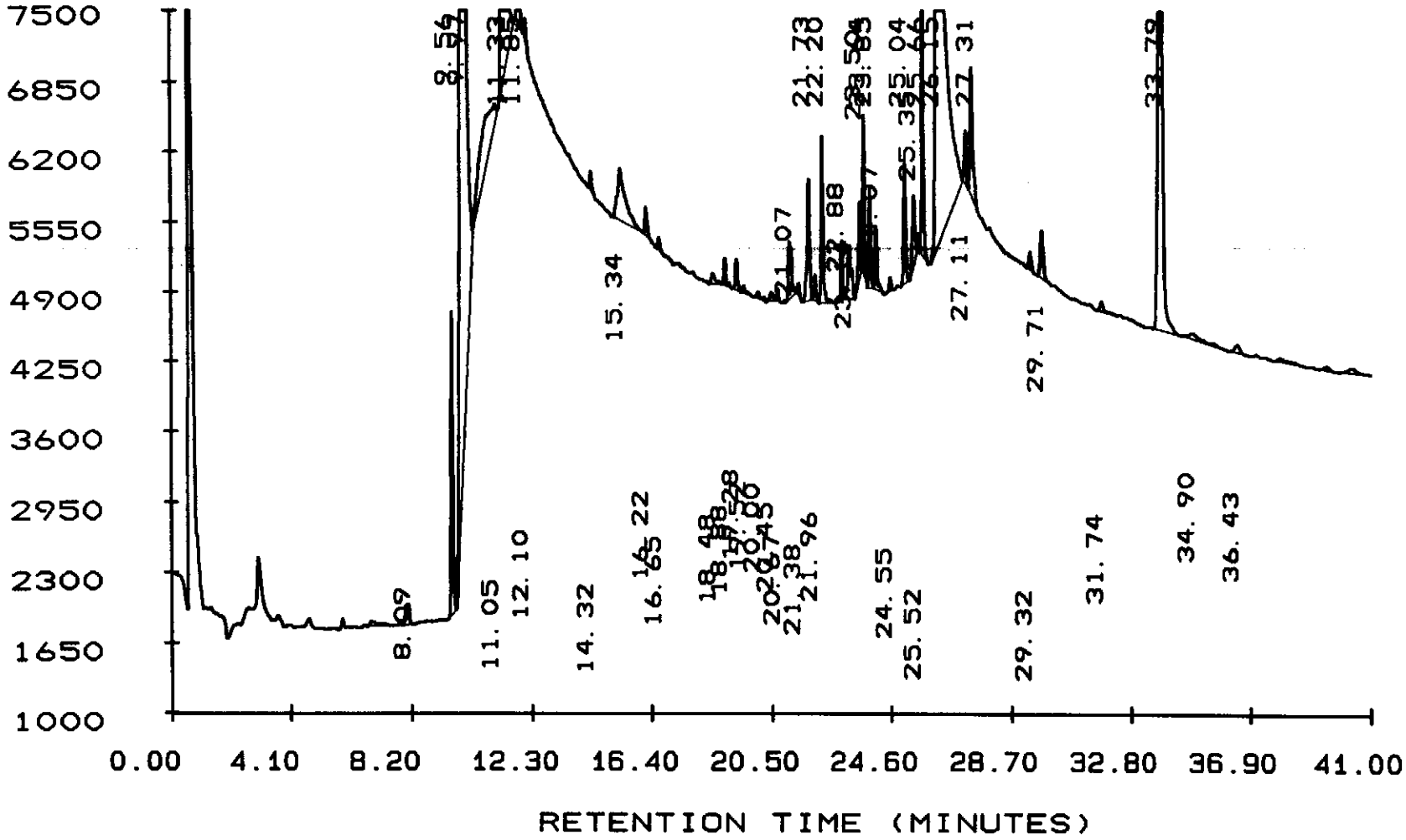

Y MAXIMUM: 7500. START TIME: 0.00

Y MINIMUM: 1000. END TIME: 41.00

Lionville Laboratory, Inc. 08/24/01 08:34:23

EXTERNAL STANDARD

SAMPLE: 08210135 .32 INST:35 VIAL:F0 SEQ NUMBER:032
TEST : OPCB DATE-TIME INJECTED : 08/22/01 17:43:49
COLLECTION TIME : 40.97 DATE-TIME PROCESSED : 08/24/01 08:34:23
METHOD: P35 / PCB35 REV #: 00220 ANALYST: KOBELM SAMP RATE: 1.56
CLIENT ID: RC03-01-0001 03 SAMPLE VOL: 1.0 uL
CLIENT: LANL REQ #9432R COLUMN TYPE: DB608
LAB ID: 0107L423-001 RAW FILE: RAW3:HM141092
SAMPLE WT : % MOISTURE : DILUTION FACTOR : 1.0000
COLUMN ID: 0.53 mm I CAL ID : TEMP:L082101.35/25

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
003	17845	1898	V	8.091			
004	131703	27631	V	9.555	1	TCX	0.020 50%
005	917957	47747	V	9.973			
006	139304	1579	V	11.053			
007	268384	18412	V	11.327			
008	208741	43999	V	11.855			
009	11074	2267	V	12.097			
010	10253	1770	V	14.323			
011	95282	4827	V	15.335			
012	15794	2627	V	16.220			
013	9061	1176	V	16.652			
015	9482	961	V	18.481			
016	13818	2495	V	18.884			
017	14966	2829	V	19.277			
018	5360	658	V	19.524			
019	6586	674	V	20.002			
020	6838	854	V	20.448			
021	5421	1153	V	20.673			
022	41348	5264	V	21.075			
023	6005	1242	V	21.382			
024	64392	11123	V	21.733			
025	11069	2438	V	21.957			
026	77491	15181	V	22.198			
028	25276	5486	V	22.875			
029	14071	3380	V	23.136			
030	2858	1051	V	23.228			
031	34048	6899	V	23.500			
032	65322	14610	V	23.643			
033	41488	9066	V	23.855			
034	29868	5645	V	24.065			
035	5998	1272	V	24.550			
037	56009	11028	V	25.045			
038	39228	6336	V	25.352			
039	5565	1650	V	25.518			
040	125235	26365	V	25.658			
041	1047858	57693	V	26.152			
042	26554	5037	V	27.108			
043	75213	11763	V	27.310			
044	9639	1660	V	29.319			
045	30790	4380	V	29.710			

8/24/01
MK

SAMPLE: 08210135 .32 PAGE NUMBER: 2
DATE-TIME INJECTED : 08/22/01 17:43:49
DATE-TIME PROCESSED : 08/24/01 08:34:23

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL	
046	23289	992	V	31.739				
047	520872	53967	V	33.785	1	DCB	0.047	47%
048	17948	559	V	34.897				
049	9288	740		36.428				
MPK		11123		21.733		AROCLOR-1260-1	0.104	RW:21.62-21.76
MPK		15181		22.198		AROCLOR-1260-2	0.132	RW:22.09-22.23
MPK		9066		23.855		AROCLOR-1260-3	0.121	RW:23.74-23.89
MPK		11028		25.045		AROCLOR-1260-4	0.135	RW:24.93-25.07
MPK		26365		25.658		AROCLOR-1260-5	0.178	RW:25.55-25.69
MPK		11763		27.310		AROCLOR-1260-6	0.181	RW:27.19-27.34

89526

0.144

(34) 0.143

8/24/01
MK

0107L423-001

SAMPLE NO. : 08210136 . 32
TEST NO. :
METHOD NO. : P36 / P36

INSTRUMENT: 36
DATE TIME: 08/22/01 17:43:49
PAGE NO. : 01

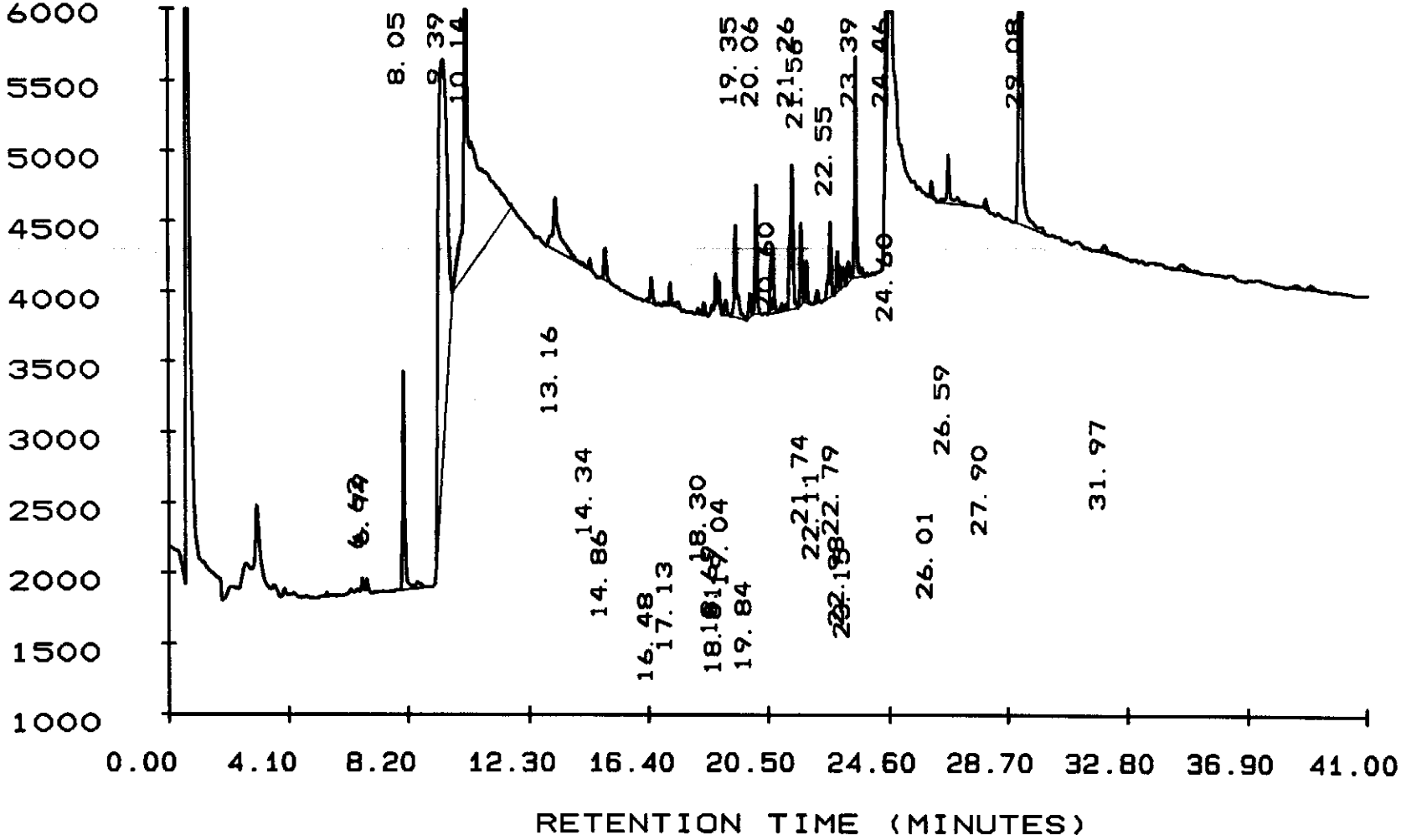

Y MAXIMUM: 6000.
Y MINIMUM: 1000.

START TIME: 0.00
END TIME: 41.00

Lionville Laboratory, Inc. 08/24/01 08:37:53

EXTERNAL STANDARD

SAMPLE: 08210136 .32 INST:36 VIAL:F0 SEQ NUMBER:032
TEST : OPCB DATE-TIME INJECTED : 08/22/01 17:43:49
COLLECTION TIME : 40.97 DATE-TIME PROCESSED : 08/24/01 08:37:53
METHOD: P36 / PCB36 REV #: 00212 ANALYST: KOBELM SAMP RATE: 1.56
CLIENT ID: RC03-01-0001 03 SAMPLE VOL: 1.0 uL
CLIENT: LANL REQ #9432R COLUMN TYPE: RTX1701
LAB ID: 0107L423-001 RAW FILE: RAW3:HM141093
SAMPLE WT : % MOISTURE : DILUTION FACTOR : 1.0000
COLUMN ID: 0.53 mm I CAL ID : TEMP:L082101.36/25

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
003	3626	854	V	6.620			
004	3986	826	V	6.788			
005	76586	15172	V	8.051	1	TCX	0.022
007	579026	27351	V	9.388			
008	122362	25085	V	10.139			
009	4897	687		10.342			
010	63602	3696	V	13.161			
011	4235	769	V	14.339			
012	14214	2253		14.863			
013	11832	1800	V	16.480			
015	8226	1602	V	17.133			
016	4002	495	V	17.419			
017	2045	437	V	18.100			
018	4576	870	V	18.298			
019	1969	482	V	18.573			
020	8373	2199	V	18.694			
021	6616	1741	V	18.812			
022	7386	1124	V	19.035			
023	43848	6466	V	19.351			
024	8666	1716	V	19.843			
025	44122	9107	V	20.057			
026	38491	4448	V	20.603			
027	2710	528	V	20.921			
029	72099	10076	V	21.259			
030	26544	5752	V	21.560			
031	13302	2935	V	21.741			
032	5280	923	V	22.114			
033	29501	5270	V	22.547			
034	12475	2859	V	22.786			
035	7858	1392	V	22.975			
036	7723	1481	V	23.154			
037	72879	15350	V	23.387			
038	1726	424	V	23.612			
039	84325	10941	V	24.464			
040	14916	4374	V	24.601			
041	6224	1200	V	26.007			
042	18427	3239	V	26.594			
044	4079	744		27.897			
045	288170	40969	V	29.082	1	DCB	0.049
047	9808	558		31.968			

8/24/01
MK

SAMPLE: 08210136 .32 PAGE NUMBER: 2
DATE-TIME INJECTED : 08/22/01 17:43:49
DATE-TIME PROCESSED : 08/24/01 08:37:53

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL	
049	8796	439		34.571				
MPK		6466		19.351		AROCLOR-1260-1	0.112	RW:19.24-19.38
MPK		9107		20.057		AROCLOR-1260-2	0.146	RW:19.95-20.09
MPK		5752		21.560		AROCLOR-1260-3	0.132	RW:21.45-21.59
MPK		5270		22.547		AROCLOR-1260-4	0.121	RW:22.44-22.58
MPK		15350		23.387		AROCLOR-1260-5	0.186	RW:23.28-23.42
MPK		4374		24.601		AROCLOR-1260-6	0.124	RW:24.50-24.64
		46319					0.143	

8/24/01
MK

1D
PESTICIDE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

RC03-01-0002 03

Lab Name: Lionville Labs, Inc. Work Order: 02744064001

Client: LANL REQ #9432R

Matrix: SOIL

Lab Sample ID: 0107L423-002

Sample wt/vol: 30.1 (g/mL) G

Lab File ID: 08180135.46

Level: (low/med) LOW

Date Received: 07/27/01

% Moisture: not dec. 0 dec.

Date Extracted: 08/02/01

Extraction: (SepF/Cont/Sonc) SONC

Date Analyzed: 08/20/01

GPC Cleanup: (Y/N) N pH: 7.0

Dilution Factor: 10.0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NO.	COMPOUND		
12674-11-2	Aroclor-1016	330	U
11104-28-2	Aroclor-1221	670	U
11141-16-5	Aroclor-1232	330	U
53469-21-9	Aroclor-1242	330	U
12672-29-6	Aroclor-1248	330	U
11097-69-1	Aroclor-1254	330	U
11096-82-5	Aroclor-1260	630	

FORM 1 PEST 12/88 Rev.

0107L423-002

SAMPLE NO. : 08180135 .46 INSTRUMENT: 35

TEST NO. : DATE TIME: 08/20/01 05:38:45

METHOD NO. : P35 / P35 PAGE NO. : 01

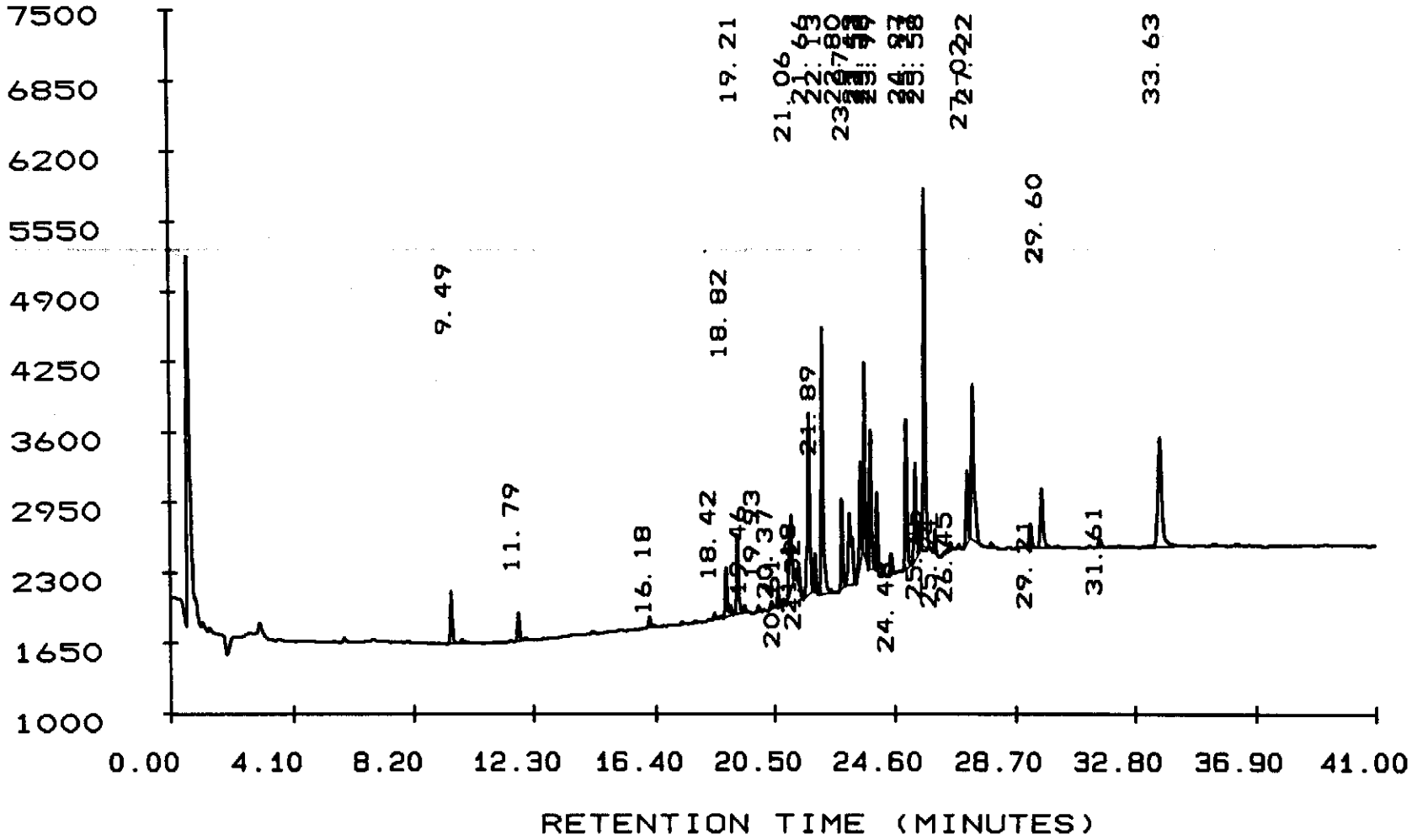

Y MAXIMUM: 7500. START TIME: 0.00

Y MINIMUM: 1000. END TIME: 41.00

Lionville Laboratory, Inc. 08/24/01 10:00:54

EXTERNAL STANDARD

SAMPLE: 08180135 .46 INST:35 VIAL:F0 SEQ NUMBER:046
TEST : OPCB DATE-TIME INJECTED : 08/20/01 05:38:45
COLLECTION TIME : 40.97 DATE-TIME PROCESSED : 08/24/01 10:00:54
METHOD: P35 / PCBLK REV #: 00223 ANALYST: KOBELM SAMP RATE: 1.56
CLIENT ID: RC03-01-0002 03 SAMPLE VOL: 1.0 uL
CLIENT: LANL REQ #9432R COLUMN TYPE: DB608
LAB ID: 0107L423-002 RAW FILE: RAW3:HK140934
SAMPLE WT : % MOISTURE : DILUTION FACTOR : 10.0000
COLUMN ID: 0.53 mm I CAL ID : TEMP:L080601.35/25

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL	
				9.399	1	TCX		D
003	23405	4730	V	9.490				
006	11912	2501	V	11.789				
010	7181	978	V	16.175				
013	3187	607	V	18.418				
015	20931	4324	V	18.817				
016	2693	715	V	18.973				
017	37910	7216	V	19.209				
018	4650	747	V	19.458				
019	4942	640	V	19.935				
020	4724	777	V	20.372				
021	8973	1863	V	20.606				
022	43958	6531	V	21.059				
023	2588	908	V	21.179				
024	9439	2031	V	21.316				
025	99290	16624	V	21.664				
026	16583	3636	V	21.887				
027	133309	24335	V	22.127				
028	38574	8175	V	22.803				
029	15032	3906	V	23.067				
030	4306	1576	V	23.154				
031	43203	8885	V	23.429				
032	80584	17698	V	23.572				
033	58387	12656	V	23.784				
034	30451	6912	V	23.993				
035	2106	652	V	24.129				
036	8488	1824	V	24.478				
037	70029	13655	V	24.971				
038	51622	8856	V	25.271				
039	8285	2301	V	25.448				
040	156531	32530	V	25.583				
041	9252	2229	V	25.936				
042	7924	807	V	26.454				
044	36627	6639	V	27.023				
045	93250	14253	V	27.223				
048	15704	2225	V	29.213				
049	39386	5401	V	29.600				
053	5443	741	V	31.610				
055	102430	10058	V	33.630	1	DCB	0.079	D

8/24/01 MK

SAMPLE: 08180135 .46 PAGE NUMBER: 2
DATE-TIME INJECTED : 08/20/01 05:38:45
DATE-TIME PROCESSED : 08/24/01 10:00:54

PK NO	PEAK AREA	PEAK HEIGHT	BL RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL	
MPK		16624	21.664		AROCLOR-1260-1	1.454	RW:21.42-21.72
MPK		24335	22.127		AROCLOR-1260-2	1.952	RW:21.88-22.18
MPK		8885	23.429		AROCLOR-1260-3	1.813	RW:23.18-23.48
MPK		17698	23.572		AROCLOR-1260-4	2.141	RW:23.33-23.63
MPK		17698	23.572		AROCLOR-1260-5	2.119	RW:23.54-23.84
MPK		13655	24.971		AROCLOR-1260-6	1.457	RW:24.72-25.02
MPK		8856	25.271		AROCLOR-1260-7	1.741	RW:25.02-25.32
MPK		32530	25.583		AROCLOR-1260-8	1.950	RW:25.34-25.64
MPK		14253	27.223		AROCLOR-1260-9	1.858	RW:26.96-27.26
		154534				1.876	

8/24/01
MK

0107L423-002

SAMPLE NO. : 08180136 . 46
TEST NO. :
METHOD NO. : P36 / P36

INSTRUMENT: 36
DATE TIME: 08/20/01 05:38:45
PAGE NO. : 01

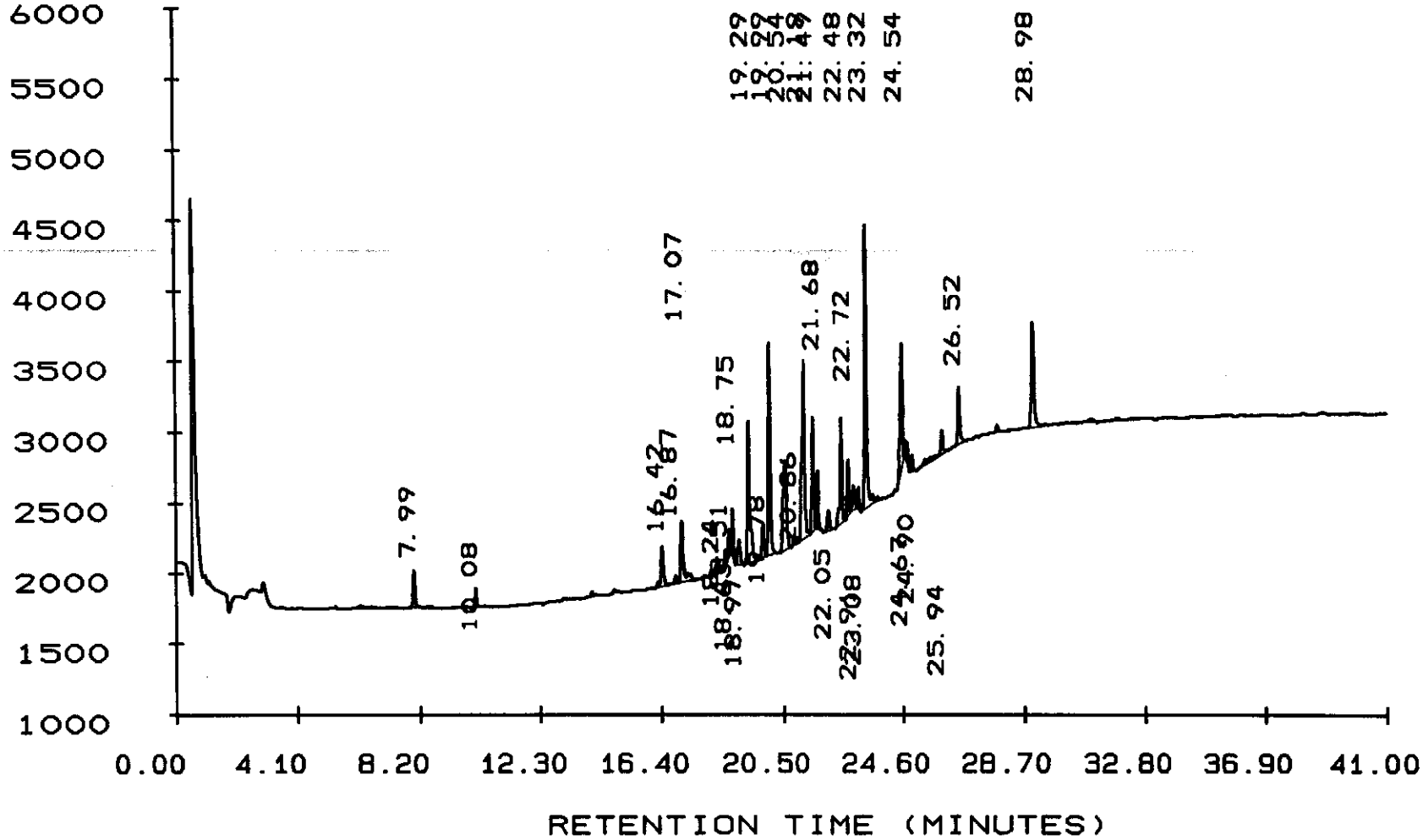

Y MAXIMUM: 6000.
Y MINIMUM: 1000.

START TIME: 0.00
END TIME: 41.00

Lionville Laboratory, Inc. 08/24/01 10:01:40

EXTERNAL STANDARD

SAMPLE: 08180136 .46 INST:36 VIAL:F0 SEQ NUMBER:046
TEST : OPCB DATE-TIME INJECTED : 08/20/01 05:38:45
COLLECTION TIME : 40.97 DATE-TIME PROCESSED : 08/24/01 10:01:40
METHOD: P36 / PCBJL REV #: 00213 ANALYST: KOBELM SAMP RATE: 1.56
CLIENT ID: RC03-01-0002 03 SAMPLE VOL: 1.0 uL
CLIENT: LANL REQ #9432R COLUMN TYPE: RTX1701
LAB ID: 0107L423-002 RAW FILE: RAW3:HK140935
SAMPLE WT : % MOISTURE : DILUTION FACTOR : 10.0000
COLUMN ID: 0.53 mm I CAL ID : TEMP:L080601.36/25

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
				7.920	1	TCX	
003	14844	2612		7.994			
005	8634	1370		10.079			
008	17035	2780	V	16.418			
009	3040	560	V	16.867			
010	20800	4139	V	17.070			
013	5866	1176	V	18.238			
014	4158	1084	V	18.510			
015	7047	1938	V	18.630			
016	14167	3397	V	18.750			
017	11860	1826	V	18.973			
018	62495	9969	V	19.287			
019	12027	2411	V	19.777			
020	74675	14798	V	19.991			
021	54938	6316	V	20.538			
022	3079	700	V	20.863			
024	88989	12420	V	21.192			
025	36147	7942	V	21.494			
026	18174	4074	V	21.675			
027	8329	1417	V	22.046			
028	39320	7357	V	22.481			
029	16666	3856	V	22.721			
030	9682	1746	V	22.908			
031	6439	1596	V	23.076			
032	94675	19472	V	23.319			
035	48143	8513	V	24.544			
036	9980	1326	V	24.671			
037	5158	1168	V	24.899			
038	17306	1669	V	25.936			
039	21840	3965	V	26.516			
040	7484	517		27.810			
041	46977	7195		28.980	1	DCB	0.080

MPK	3397	18.750	AROCLOR-1260-1	1.418	RW:18.52-18.82
MPK	9969	19.287	AROCLOR-1260-2	1.697	RW:19.06-19.36
MPK	14798	19.991	AROCLOR-1260-3	2.302	RW:19.76-20.06
MPK	6316	20.538	AROCLOR-1260-4	1.913	RW:20.32-20.62
MPK	12420	21.192	AROCLOR-1260-5	2.408	RW:20.97-21.26
MPK	7942	21.494	AROCLOR-1260-6	1.757	RW:21.27-21.57

8/24/01 B5

SAMPLE: 08180136 .46 PAGE NUMBER: 2
DATE-TIME INJECTED : 08/20/01 05:38:45
DATE-TIME PROCESSED : 08/24/01 10:01:40

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL	
MPK		7357		22.481		AROCLOR-1260-7	1.627	RW:22.26-22.55
MPK		19472		23.319		AROCLOR-1260-8	2.227	RW:23.09-23.39
MPK		8513		24.544		AROCLOR-1260-9	2.200	RW:24.32-24.61
		90184					2.061	

8/24/01
MK

1D
PESTICIDE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

RC03-01-0003 03

Lab Name: Lionville Labs, Inc. Work Order: 02744064001

Client: LANL REQ #9432R

Matrix: SOIL

Lab Sample ID: 0107L423-003

Sample wt/vol: 30.0 (g/mL) G

Lab File ID: 08210135.33

Level: (low/med) LOW

Date Received: 07/27/01

% Moisture: not dec. 0 dec.

Date Extracted: 08/02/01

Extraction: (SepF/Cont/Sonc) SONC

Date Analyzed: 08/22/01

GPC Cleanup: (Y/N) N pH: 7.0

Dilution Factor: 5.00

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NO.	COMPOUND		
12674-11-2	Aroclor-1016	170	U
11104-28-2	Aroclor-1221	330	U
11141-16-5	Aroclor-1232	170	U
53469-21-9	Aroclor-1242	170	U
12672-29-6	Aroclor-1248	170	U
11097-69-1	Aroclor-1254	170	U
11096-82-5	Aroclor-1260	330	

FORM 1 PEST 12/88 Rev.

0107L423-003

SAMPLE NO. : 08210135 .33 INSTRUMENT: 35
TEST NO. : DATE TIME: 08/22/01 18:31:39
METHOD NO. : P35 / P35 PAGE NO. : 01

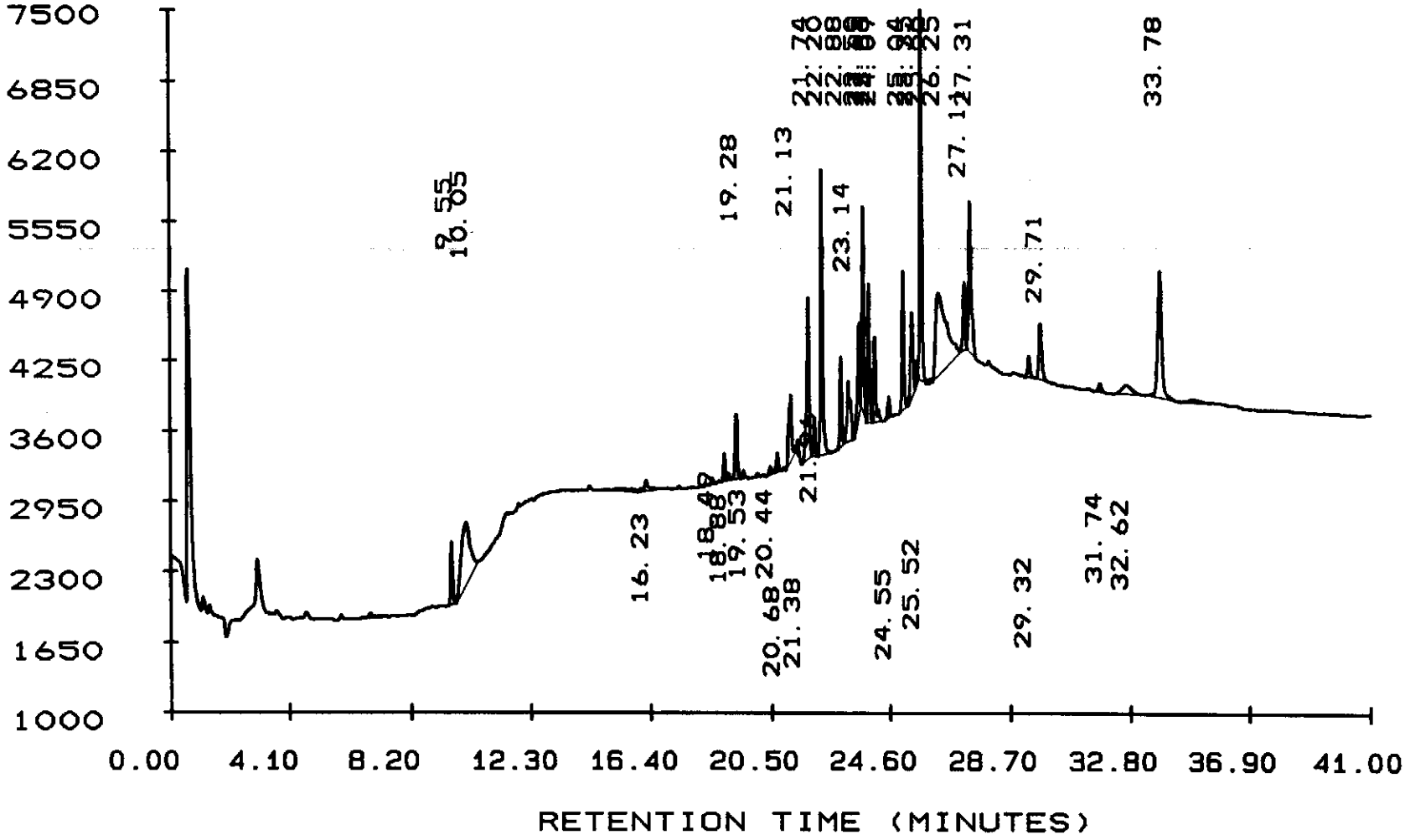

Y MAXIMUM: 7500. START TIME: 0.00
Y MINIMUM: 1000. END TIME: 41.00

Lionville Laboratory, Inc. 08/24/01 08:34:36

EXTERNAL STANDARD

SAMPLE: 08210135 .33 INST:35 VIAL:F0 SEQ NUMBER:033
TEST : OPCB DATE-TIME INJECTED : 08/22/01 18:31:39
COLLECTION TIME : 40.97 DATE-TIME PROCESSED : 08/24/01 08:34:36
METHOD: P35 / PCB35 REV #: 00220 ANALYST: KOBELM SAMP RATE: 1.56
CLIENT ID: RC03-01-0003 03 SAMPLE VOL: 1.0 uL
CLIENT: LANL REQ #9432R COLUMN TYPE: DB608
LAB ID: 0107L423-003 RAW FILE: RAW3:HM141098
SAMPLE WT : % MOISTURE : DILUTION FACTOR : 5.0000
COLUMN ID: 0.53 mm I CAL ID : TEMP:L082101.35/25

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL	
003	27370	5698	V	9.551	1	TCX	0.020	D
004	119976	5596		10.052				
007	19117	1019	V	16.233				
010	3242	591	V	18.488				
011	11450	2499	V	18.885				
012	2387	595	V	19.045				
013	29622	5936	V	19.278				
014	4444	758	V	19.528				
016	4525	748	V	20.439				
017	8320	1747	V	20.675				
019	40736	5721	V	21.128				
021	8057	1566	V	21.383				
022	89258	14808	V	21.735				
023	15238	3351	V	21.959				
024	138744	26235	V	22.200				
025	37423	8126	V	22.876				
026	13881	3239	V	23.138				
027	3734	1427	V	23.226				
028	41320	8490	V	23.502				
029	85122	18784	V	23.645				
030	57590	12670	V	23.857				
031	33507	7546	V	24.066				
032	2666	757	V	24.206				
033	9580	1909	V	24.552				
034	64688	12749	V	25.045				
035	47179	7876	V	25.348				
036	7878	2187	V	25.523				
037	164968	34564	V	25.660				
040	194665	7792	V	26.248				
041	35178	6369	V	27.111				
042	90482	13864	V	27.313				
045	12762	2023	V	29.321				
046	37680	5206		29.713				
047	5728	773	V	31.740				
048	22007	839	V	32.617				
049	120712	11761	V	33.784	1	DCB	0.051	D

MPK	14808	21.735	AROCLOR-1260-1	0.691	RW:21.62-21.76
MPK	26235	22.200	AROCLOR-1260-2	1.139	RW:22.09-22.23

8/29/01 NK

SAMPLE: 08210135 .33 PAGE NUMBER: 2
DATE-TIME INJECTED : 08/22/01 18:31:39
DATE-TIME PROCESSED : 08/24/01 08:34:36

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL	
MPK		12670		23.857		AROCLOR-1260-3	0.843	RW:23.74-23.89
MPK		12749		25.045		AROCLOR-1260-4	0.782	RW:24.93-25.07
MPK		34564		25.660		AROCLOR-1260-5	1.169	RW:25.55-25.69
MPK		13864		27.313		AROCLOR-1260-6	1.067	RW:27.19-27.34
		114890					0.976	

8/24/01
MK

0107L423-003

SAMPLE NO. : 08210136 .33 INSTRUMENT: 36
TEST NO. : DATE TIME: 08/22/01 18:31:39
METHOD NO. : P36 / P36 PAGE NO. : 01

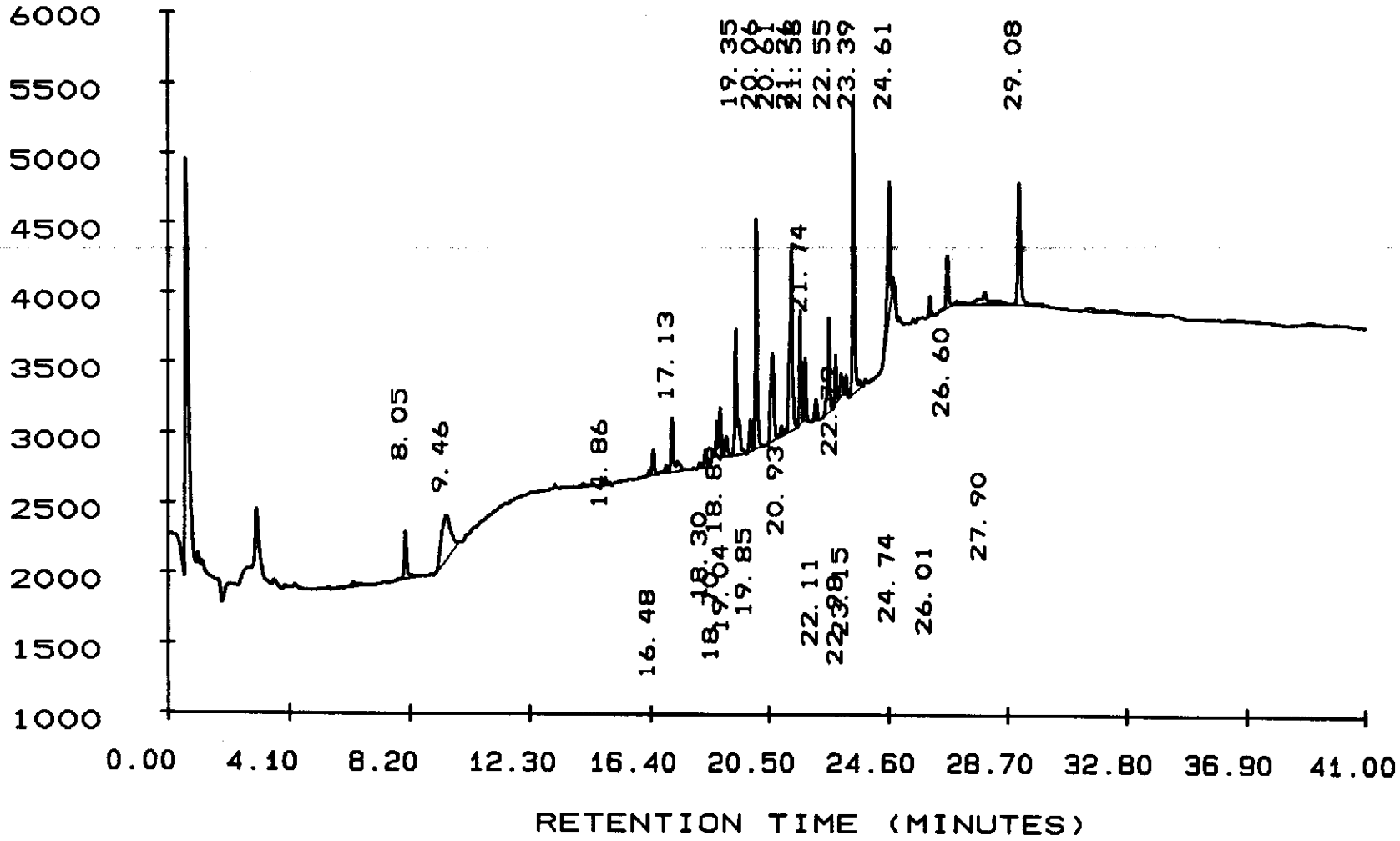

Y MAXIMUM: 6000. START TIME: 0.00
Y MINIMUM: 1000. END TIME: 41.00

Lionville Laboratory, Inc. 08/24/01 08:38:07

EXTERNAL STANDARD

SAMPLE: 08210136 .33 INST:36 VIAL:F0 SEQ NUMBER:033
TEST : OPCB DATE-TIME INJECTED : 08/22/01 18:31:39
COLLECTION TIME : 40.97 DATE-TIME PROCESSED : 08/24/01 08:38:07
METHOD: P36 / PCB36 REV #: 00212 ANALYST: KOBELM SAMP RATE: 1.56
CLIENT ID: RC03-01-0003 03 SAMPLE VOL: 1.0 uL
CLIENT: LANL REQ #9432R COLUMN TYPE: RTX1701
LAB ID: 0107L423-003 RAW FILE: RAW3:HM141099
SAMPLE WT : % MOISTURE : DILUTION FACTOR : 5.0000
COLUMN ID: 0.53 mm I CAL ID : TEMP:L082101.36/25

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
002	21101	3344	V	8.049	1	TCX	0.025
003	71619	3144		9.461			
005	5123	541		14.865			
006	12069	1757	V	16.480			
007	1912	425	V	16.933			
008	16979	3507	V	17.135			
011	5907	1129	V	18.303			
012	2911	689	V	18.574			
013	7417	2004	V	18.696			
014	11409	2846	V	18.815			
015	9683	1430	V	19.036			
016	32277	7579	V	19.353			
017	2605	880	V	19.464			
018	11286	2258	V	19.845			
019	79373	16158	V	20.059			
020	51913	6253	V	20.608			
021	3351	728	V	20.927			
022	90276	12669	V	21.261			
023	35846	7967	V	21.562			
024	19411	4431	V	21.743			
025	8698	1518	V	22.113			
026	35722	6673	V	22.549			
027	14847	3416	V	22.789			
028	9264	1650	V	22.976			
029	5907	1450	V	23.145			
030	98651	20368	V	23.389			
033	59493	9028	V	24.614			
034	8804	1347	V	24.738			
037	6612	1429	V	26.009			
038	21179	3696	V	26.596			
040	9385	736	V	27.900			
042	66017	8662		29.084	1	DCB	0.052

MPK	7579	19.353	AROCLOR-1260-1	0.655	RW:19.24-19.38
MPK	16158	20.059	AROCLOR-1260-2	1.291	RW:19.95-20.09
MPK	7967	21.562	AROCLOR-1260-3	0.914	RW:21.45-21.59
MPK	6673	22.549	AROCLOR-1260-4	0.767	RW:22.44-22.58
MPK	20368	23.389	AROCLOR-1260-5	1.235	RW:23.28-23.42
MPK	9028	24.614	AROCLOR-1260-6	1.277	RW:24.50-24.64

67773 1.048 42 8/24/01 MK

1D

PESTICIDE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

RC03-01-0004 03

Lab Name: Lionville Labs, Inc. Work Order: 02744064001

Client: LANL REQ #9432R

Matrix: SOIL

Lab Sample ID: 0107L423-004

Sample wt/vol: 30.6 (g/mL) G

Lab File ID: 08210135.34

Level: (low/med) LOW

Date Received: 07/27/01

% Moisture: not dec. 0 dec.

Date Extracted: 08/02/01

Extraction: (SepF/Cont/Sonc) SONC

Date Analyzed: 08/22/01

GPC Cleanup: (Y/N) N pH: 7.0

Dilution Factor: 1.00

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG

CAS NO.	COMPOUND		
12674-11-2	Aroclor-1016	33	U
11104-28-2	Aroclor-1221	66	U
11141-16-5	Aroclor-1232	33	U
53469-21-9	Aroclor-1242	33	U
12672-29-6	Aroclor-1248	33	U
11097-69-1	Aroclor-1254	33	U
11096-82-5	Aroclor-1260	29	J

FORM 1 PEST 12/88 Rev.

0107L423-004

SAMPLE NO. : 08210135 .34 INSTRUMENT: 35

TEST NO. : DATE TIME: 08/22/01 19:19:26

METHOD NO. : P35 / P35 PAGE NO. : 01

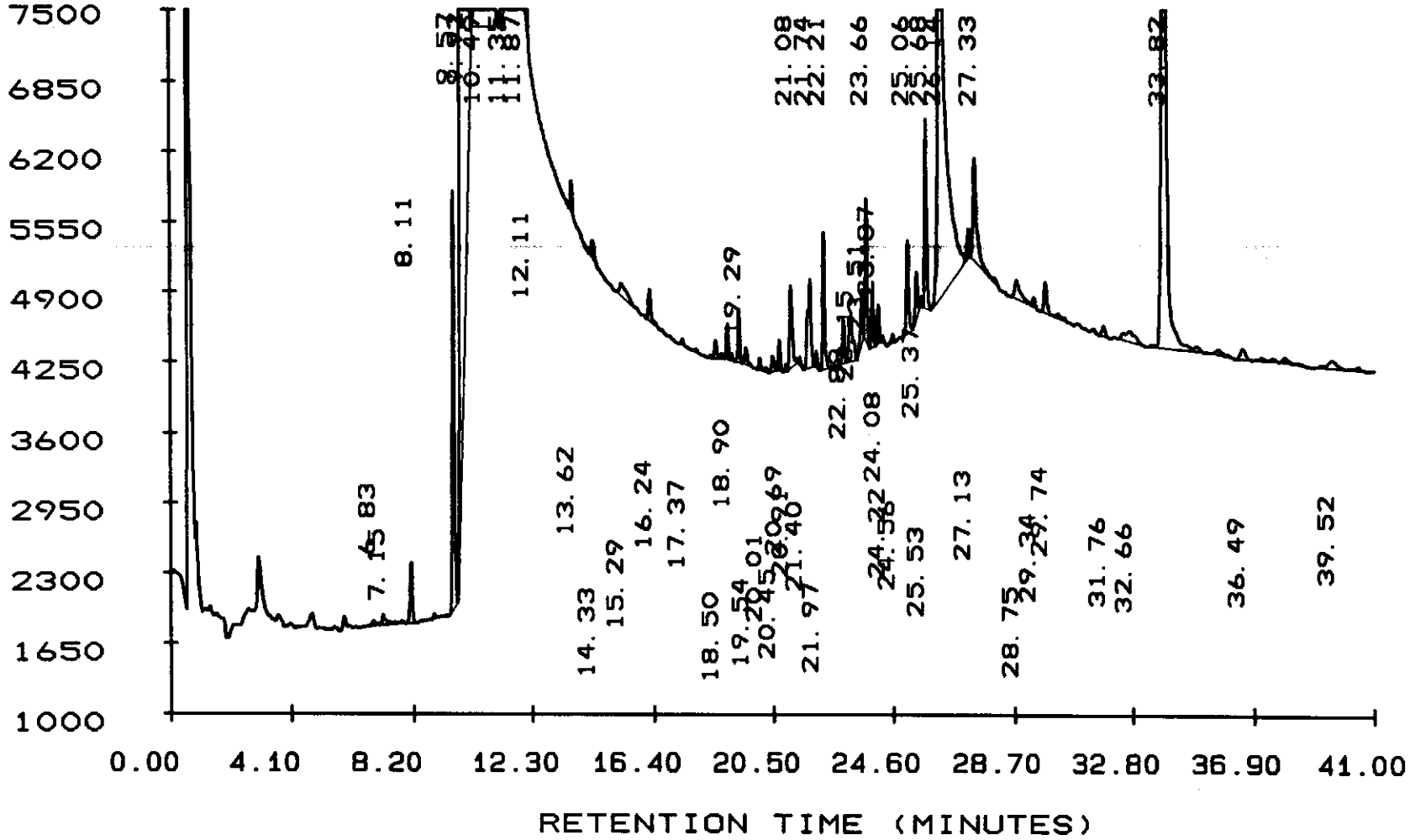

Y MAXIMUM: 7500. START TIME: 0.00

Y MINIMUM: 1000. END TIME: 41.00

44

Lionville Laboratory, Inc. 08/24/01 08:34:50

EXTERNAL STANDARD

SAMPLE: 08210135 .34 INST:35 VIAL:F0 SEQ NUMBER:034
TEST : OPCB DATE-TIME INJECTED : 08/22/01 19:19:26
COLLECTION TIME : 40.97 DATE-TIME PROCESSED : 08/24/01 08:34:50
METHOD: P35 / PCB35 REV #: 00220 ANALYST: KOBELM SAMP RATE: 1.56
CLIENT ID: RC03-01-0004 03 SAMPLE VOL: 1.0 uL
CLIENT: LANL REQ #9432R COLUMN TYPE: DB608
LAB ID: 0107L423-004 RAW FILE: RAW3:HM141105
SAMPLE WT : % MOISTURE : DILUTION FACTOR : 1.0000
COLUMN ID: 0.53 mm I CAL ID : TEMP:L082101.35/25

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
001	5724	509	V	6.829			
002	8147	909	V	7.149			
004	31184	5532	V	8.110			
006	194049	38241	V	9.571	1	TCX	0.027 67.50%
007	1388787	83097	V	9.921			
008	318656	9663	V	10.494			
009	220706	16254	V	11.348			
010	663572	132260	V	11.870			
011	27326	5225	V	12.113			
012	13308	3045	V	13.623			
013	10102	1739	V	14.330			
014	24440	1199	V	15.288			
015	19731	2923	V	16.239			
016	5505	644	V	17.367			
017	9731	1626	V	18.498			
019	15064	3270	V	18.898			
020	2601	660	V	19.059			
021	24831	4896	V	19.293			
022	10211	1549	V	19.540			
023	4920	1093	V	20.015			
025	8525	1464	V	20.451			
026	13466	2874	V	20.687			
027	2858	713	V	20.914			
028	49242	7572	V	21.084			
029	4389	839	V	21.395			
030	65099	8071	V	21.745			
031	6813	1591	V	21.971			
032	64515	12556	V	22.214			
033	20196	3953	V	22.891			
034	40595	4487	V	23.147			
035	24911	4943	V	23.515			
036	59345	12909	V	23.658			
037	24125	5270	V	23.871			
038	16190	3554	V	24.084			
039	3630	715	V	24.224			
040	4976	825	V	24.562			
041	48382	8555	V	25.061			
042	23800	4146	V	25.369			
043	4206	1073	V	25.531			
044	86127	17208	V	25.675			

8/24/01 MK

SAMPLE: 08210135 .34 PAGE NUMBER: 2
DATE-TIME INJECTED : 08/22/01 19:19:26
DATE-TIME PROCESSED : 08/24/01 08:34:50

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL	
045	787573	51398	V	26.142				
046	13948	2835	V	27.126				
047	89062	9409	V	27.329				
048	25888	1754	V	28.752				
049	5710	935	V	29.341				
050	20790	2863	V	29.737				
054	8755	973	V	31.765				
055	27809	1028	V	32.659				
056	761883	73642	V	33.820	1	DCB	0.064	64.1
059	12563	973	V	36.493				
063	19617	761	V	39.524				

MPK	8071	21.745	AROCLOR-1260-1	0.075	RW:21.62-21.76
MPK	12556	22.214	AROCLOR-1260-2	0.109	RW:22.09-22.23
MPK	5270	23.871	AROCLOR-1260-3	0.070	RW:23.74-23.89
MPK	8555	25.061	AROCLOR-1260-4	0.105	RW:24.93-25.07
MPK	17208	25.675	AROCLOR-1260-5	0.116	RW:25.55-25.69
MPK	9409	27.329	AROCLOR-1260-6	0.145	RW:27.19-27.34

61069

0.104

36 ~~0.088~~ 0.088

8/24/01 MK

8/24/01 MK

8/24/01 MK

0107L423-004

SAMPLE NO. : 08210136 .34 INSTRUMENT: 36

TEST NO. : DATE TIME: 08/22/01 19:19:27

METHOD NO. : P36 / P36 PAGE NO. : 01

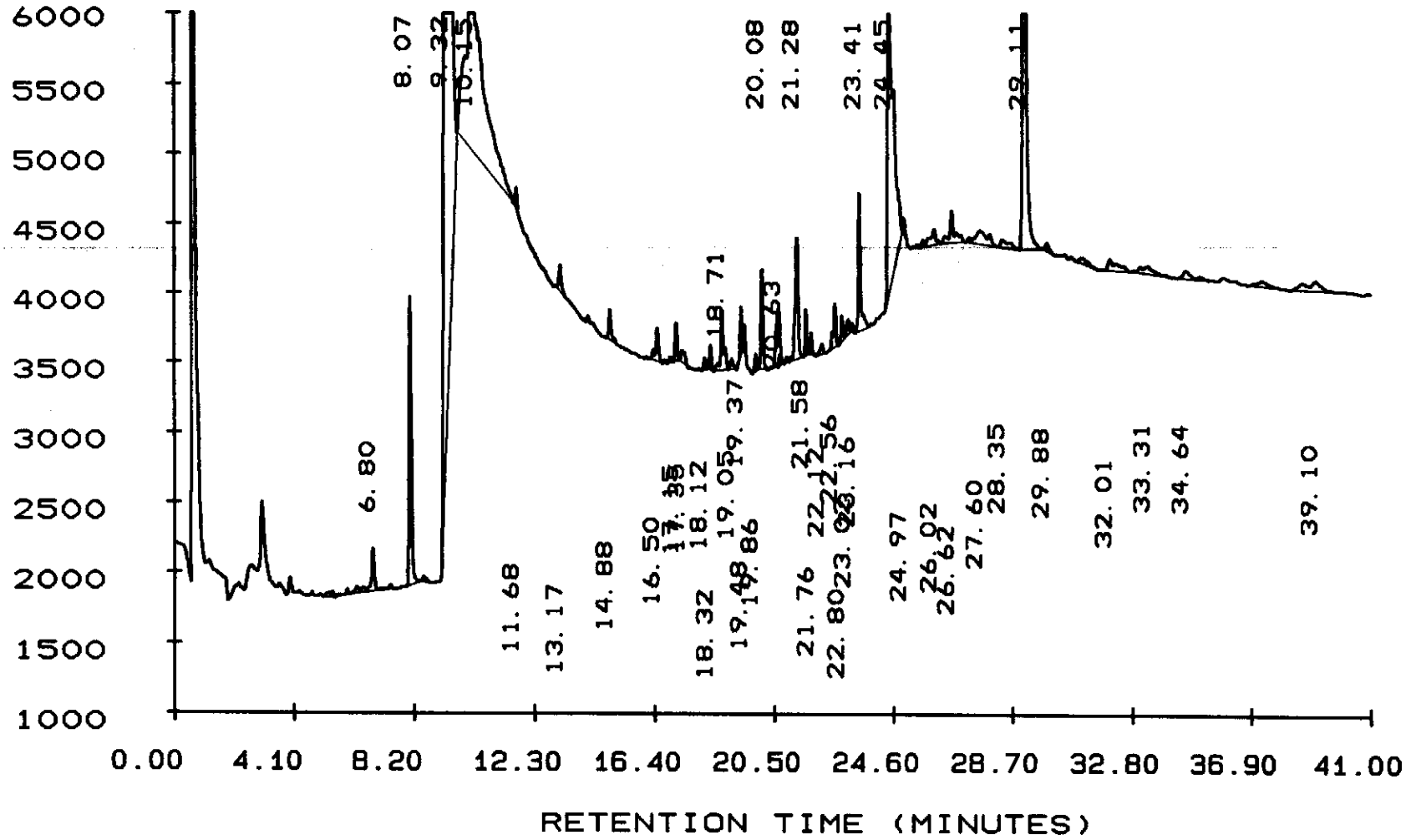

Y MAXIMUM: 6000. START TIME: 0.00

Y MINIMUM: 1000. END TIME: 41.00

Lionville Laboratory, Inc. 08/24/01 08:38:20

EXTERNAL STANDARD

SAMPLE: 08210136 .34 INST:36 VIAL:F0 SEQ NUMBER:034
TEST : OPCB DATE-TIME INJECTED : 08/22/01 19:19:27
COLLECTION TIME : 40.97 DATE-TIME PROCESSED : 08/24/01 08:38:20
METHOD: P36 / PCB36 REV #: 00212 ANALYST: KOBELM SAMP RATE: 1.56
CLIENT ID: RC03-01-0004 03 SAMPLE VOL: 1.0 uL
CLIENT: LANL REQ #9432R COLUMN TYPE: RTX1701
LAB ID: 0107L423-004 RAW FILE: RAW3:HM141104
SAMPLE WT : % MOISTURE : DILUTION FACTOR : 1.0000
COLUMN ID: 0.53 mm I CAL ID : TEMP:L082101.36/25

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
001	5578	459	V	5.412			
002	4319	416	V	5.915			
005	18022	2928	V	6.804			
007	114121	20452	V	8.069	1	TCX	0.030
008	3605	418	V	8.523			
009	883108	49291	V	9.316			
010	860374	82428	V	10.155			
011	7065	1591	V	11.682			
012	14496	1856	V	13.174			
013	6598	549	V	14.133			
014	13444	2163	V	14.877			
015	1987	501	V	16.364			
016	10602	2098	V	16.497			
018	1948	442	V	16.945			
019	13376	2712	V	17.151			
020	8444	872	V	17.354			
021	4095	852	V	18.115			
022	8930	1770	V	18.317			
023	14089	3432	V	18.712			
024	2376	810	V	18.828			
025	5872	780	V	19.051			
026	13640	3323	V	19.368			
027	7405	2027	V	19.481			
028	6820	1258	V	19.863			
029	35206	7080	V	20.076			
030	36943	4036	V	20.633			
031	2381	448	V	20.921			
032	61217	8650	V	21.278			
033	15789	3325	V	21.580			
034	7703	1602	V	21.760			
035	5864	752	V	22.123			
036	19478	3073	V	22.564			
037	8210	1835	V	22.804			
038	7334	1112	V	23.024			
039	2695	677	V	23.164			
040	57688	9699	V	23.406			
041	106697	14609	V	24.447			
042	6699	1968	V	24.617			
043	6280	1208	V	24.968			
045	2886	488	V	25.632			

8/24/01
MK

SAMPLE: 08210136 .34 PAGE NUMBER: 2
DATE-TIME INJECTED : 08/22/01 19:19:27
DATE-TIME PROCESSED : 08/24/01 08:38:20

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL	
046	14304	1105	V	26.024				
047	2833	413	V	26.378				
048	9146	1882	V	26.616				
051	10575	624	V	27.599				
052	2966	506	V	27.920				
053	13104	577	V	28.355				
054	390424	52511	V	29.112	1	DCB	0.063	
055	6362	607	V	29.877				
057	20151	814	V	32.015				
058	18544	561	V	33.306				
059	8661	539	V	34.636				
062	12386	416		37.246				
064	8259	471		39.099				
MPK		3323		19.368		AROCLOR-1260-1	0.057	RW:19.24-19.38
MPK		7080		20.076		AROCLOR-1260-2	0.113	RW:19.95-20.09
MPK		3325		21.580		AROCLOR-1260-3	0.076	RW:21.45-21.59
MPK		3073		22.564		AROCLOR-1260-4	0.071	RW:22.44-22.58
MPK		9699		23.406		AROCLOR-1260-5	0.118	RW:23.28-23.42
MPK		1968		24.617		AROCLOR-1260-6	0.056	RW:24.50-24.64
		28468					0.088	

8/24/01
MK

1D
PESTICIDE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

RC03-01-0005 03

Lab Name: Lionville Labs, Inc. Work Order: 02744064001

Client: LANL REQ #9432R

Matrix: SOIL

Lab Sample ID: 0107L423-005

Sample wt/vol: 30.9 (g/mL) G

Lab File ID: 08210135.35

Level: (low/med) LOW

Date Received: 07/27/01

% Moisture: not dec. 0 dec.

Date Extracted: 08/02/01

Extraction: (SepF/Cont/Sonc) SONC

Date Analyzed: 08/22/01

GPC Cleanup: (Y/N) N pH: 7.0

Dilution Factor: 5.00

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NO.	COMPOUND		
12674-11-2	Aroclor-1016	160	U
11104-28-2	Aroclor-1221	320	U
11141-16-5	Aroclor-1232	160	U
53469-21-9	Aroclor-1242	160	U
12672-29-6	Aroclor-1248	160	U
11097-69-1	Aroclor-1254	160	U
11096-82-5	Aroclor-1260	280	

FORM 1 PEST 12/88 Rev.

0107L423-005

SAMPLE NO. : 08210135 .35
TEST NO. :
METHOD NO. : P35 / P35

INSTRUMENT: 35
DATE TIME: 08/22/01 20:07:24
PAGE NO. : 01

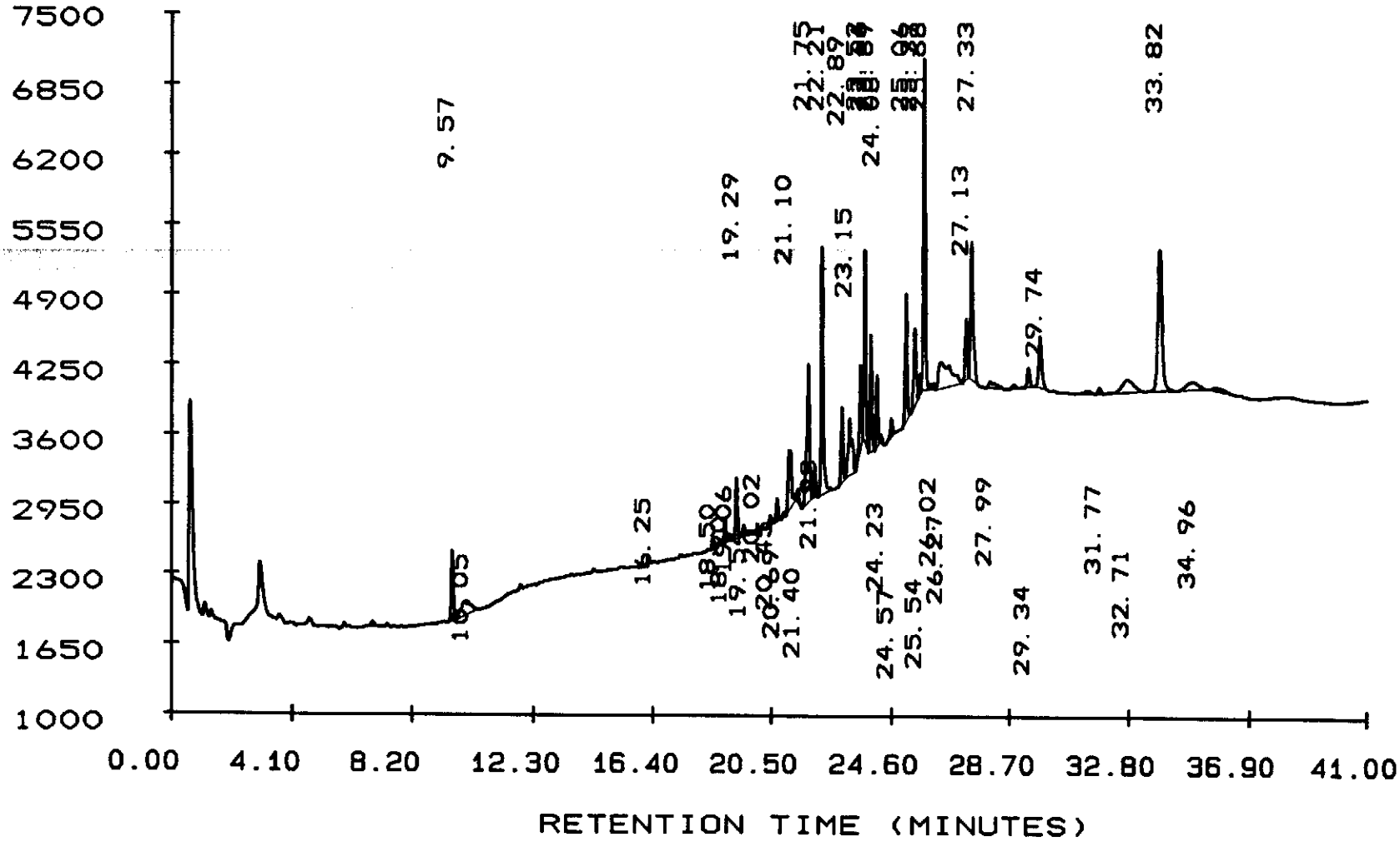

Y MAXIMUM: 7500.
Y MINIMUM: 1000.

START TIME: 0.00
END TIME: 41.00

Lionville Laboratory, Inc. 08/24/01 08:35:03

EXTERNAL STANDARD

SAMPLE: 08210135 .35 INST:35 VIAL:F0 SEQ NUMBER:035
TEST : OPCB DATE-TIME INJECTED : 08/22/01 20:07:24
COLLECTION TIME : 40.97 DATE-TIME PROCESSED : 08/24/01 08:35:03
METHOD: P35 / PCB35 REV #: 00220 ANALYST: KOBELM SAMP RATE: 1.56
CLIENT ID: RC03-01-0005 03 SAMPLE VOL: 1.0 uL
CLIENT: LANL REQ #9432R COLUMN TYPE: DB608
LAB ID: 0107L423-005 RAW FILE: RAW3:HM141109
SAMPLE WT : % MOISTURE : DILUTION FACTOR : 5.0000
COLUMN ID: 0.53 mm I CAL ID : TEMP:L082101.35/25

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL	
001	6279	510	V	6.836				
003	33045	6455	V	9.566	1	TCX	0.023	D
004	30547	1305	V	10.051				
008	4968	771	V	16.249				
010	4979	820	V	18.504				
012	11253	2410	V	18.899				
013	2767	655	V	19.061				
014	28714	5595	V	19.293				
015	6233	1064	V	19.545				
016	2503	543	V	20.018				
017	5462	982	V	20.454				
018	10006	2101	V	20.689				
020	46904	5608	V	21.097				
021	7584	1419	V	21.398				
022	84928	12679	V	21.748				
023	13453	2937	V	21.975				
024	123216	22718	V	22.215				
025	32576	6866	V	22.891				
026	16077	3274	V	23.150				
027	3422	1144	V	23.242				
028	37502	7676	V	23.518				
029	80395	17640	V	23.660				
030	49978	10730	V	23.872				
031	28717	6491	V	24.082				
032	2976	805	V	24.225				
033	8232	1610	V	24.570				
034	58605	11684	V	25.061				
035	43923	7178	V	25.365				
036	6691	1832	V	25.537				
037	147459	30360	V	25.676				
038	4328	567	V	26.016				
039	20598	1607	V	26.269				
041	31680	5669	V	27.130				
042	83673	12651	V	27.331				
043	10986	558	V	27.990				
045	12081	1777	V	29.343				
046	35930	4731		29.736				
048	4666	625	V	31.769				
049	36967	1215	V	32.712				
050	132594	13046	V	33.817	1	DCB	0.057	D

Flag 8/24/01

52

8/24/01 MK

SAMPLE: 08210135 .35 PAGE NUMBER: 2
DATE-TIME INJECTED : 08/22/01 20:07:24
DATE-TIME PROCESSED : 08/24/01 08:35:03

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL	
051	22314	757	V	34.956				
MPK		12679		21.748		AROCLOR-1260-1	0.592	RW:21.62-21.76
MPK		22718		22.215		AROCLOR-1260-2	0.987	RW:22.09-22.23
MPK		10730		23.872		AROCLOR-1260-3	0.714	RW:23.74-23.89
MPK		11684		25.061		AROCLOR-1260-4	0.717	RW:24.93-25.07
MPK		30360		25.676		AROCLOR-1260-5	1.027	RW:25.55-25.69
MPK		12651		27.331		AROCLOR-1260-6	0.974	RW:27.19-27.34
		100822					0.856	

8/24/01
MK

Flagged 8/24/01

0107L423-005

SAMPLE NO. : 08210136 .35 INSTRUMENT: 36

TEST NO. : DATE TIME: 08/22/01 20:07:24

METHOD NO. : P36 / P36 PAGE NO. : 01

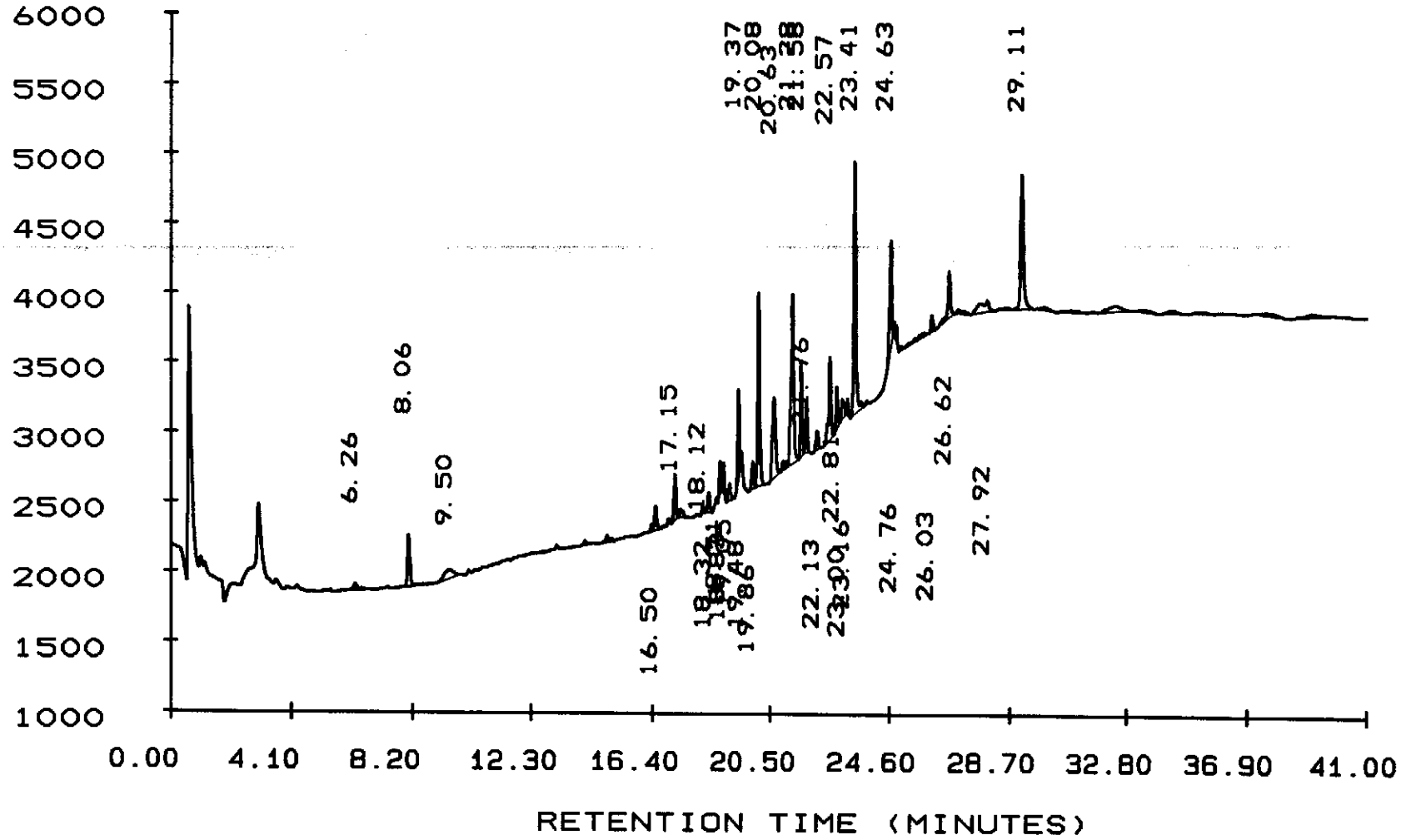

Y MAXIMUM: 6000.

Y MINIMUM: 1000.

START TIME: 0.00

END TIME: 41.00

Lionville Laboratory, Inc. 08/24/01 08:38:33

EXTERNAL STANDARD

SAMPLE: 08210136 .35 INST:36 VIAL:F0 SEQ NUMBER:035
TEST : OPCB DATE-TIME INJECTED : 08/22/01 20:07:24
COLLECTION TIME : 40.97 DATE-TIME PROCESSED : 08/24/01 08:38:33
METHOD: P36 / PCB36 REV #: 00212 ANALYST: KOBELM SAMP RATE: 1.56
CLIENT ID: RC03-01-0005 03 SAMPLE VOL: 1.0 uL
CLIENT: LANL REQ #9432R COLUMN TYPE: RTX1701
LAB ID: 0107L423-005 RAW FILE: RAW3:HM141108
SAMPLE WT : % MOISTURE : DILUTION FACTOR : 5.0000
COLUMN ID: 0.53 mm I CAL ID : TEMP:L082101.36/25

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
002	8852	508		6.256			
004	21708	3661	V	8.063	1	TCX	0.027
005	16050	665	V	9.497			
009	4367	488		14.877			
010	12821	1735	V	16.496			
011	2120	458	V	16.949			
012	16464	3280	V	17.151			
013	4858	575	V	17.355			
014	2630	556	V	18.117			
015	7120	1399	V	18.319			
016	3012	597	V	18.588			
017	9478	2393	V	18.712			
018	8424	2206	V	18.831			
019	8382	1245	V	19.054			
020	26277	6209	V	19.369			
021	4532	1397	V	19.483			
022	10381	1982	V	19.862			
023	70379	13748	V	20.077			
024	48128	5705	V	20.628			
025	3257	648	V	20.940			
026	87135	11992	V	21.278			
027	31636	6681	V	21.579			
028	16422	3617	V	21.761			
029	7943	1386	V	22.128			
030	32965	5781	V	22.566			
031	13070	2927	V	22.807			
032	8816	1440	V	22.997			
033	4946	1246	V	23.163			
034	94341	17772	V	23.407			
035	44900	7428	V	24.631			
036	7954	1123	V	24.758			
037	16177	1180	V	26.027			
038	23353	3345	V	26.617			
040	19926	851	V	27.921			
041	75634	9609	V	29.108	1	DCB	0.058
044	15335	406	V	32.416			

MPK	6209	19.369	AROCLOR-1260-1	0.537	RW:19.24-19.38
MPK	13748	20.077	AROCLOR-1260-2	1.098	RW:19.95-20.09

55

8/24/01
MK

SAMPLE: 08210136 .35 PAGE NUMBER: 2
DATE-TIME INJECTED : 08/22/01 20:07:24
DATE-TIME PROCESSED : 08/24/01 08:38:33

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL	
MPK		6681		21.579		AROCLOR-1260-3	0.766	RW:21.45-21.59
MPK		5781		22.566		AROCLOR-1260-4	0.665	RW:22.44-22.58
MPK		17772		23.407		AROCLOR-1260-5	1.078	RW:23.28-23.42
MPK		7428		24.631		AROCLOR-1260-6	1.051	RW:24.50-24.64
		57619					0.891	

8/24/01
MK

1D

PESTICIDE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

RC03-01-0006 03

Lab Name: Lionville Labs, Inc. Work Order: 02744064001

Client: LANL REQ #9432R

Matrix: SOIL Lab Sample ID: 0107L423-006

Sample wt/vol: 30.2 (g/mL) G Lab File ID: 08210135.36

Level: (low/med) LOW Date Received: 07/27/01

% Moisture: not dec. 7 dec. Date Extracted: 08/02/01

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 08/22/01

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.00

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG

CAS NO.	COMPOUND		
12674-11-2	Aroclor-1016	36	U
11104-28-2	Aroclor-1221	71	U
11141-16-5	Aroclor-1232	36	U
53469-21-9	Aroclor-1242	36	U
12672-29-6	Aroclor-1248	36	U
11097-69-1	Aroclor-1254	36	U
11096-82-5	Aroclor-1260	140	

FORM 1 PEST 12/88 Rev.

0107L423-006

SAMPLE NO. : 08210135 .36 INSTRUMENT: 35

TEST NO. : DATE TIME: 08/22/01 20:55:10

METHOD NO. : P35 / P35 PAGE NO. : 01

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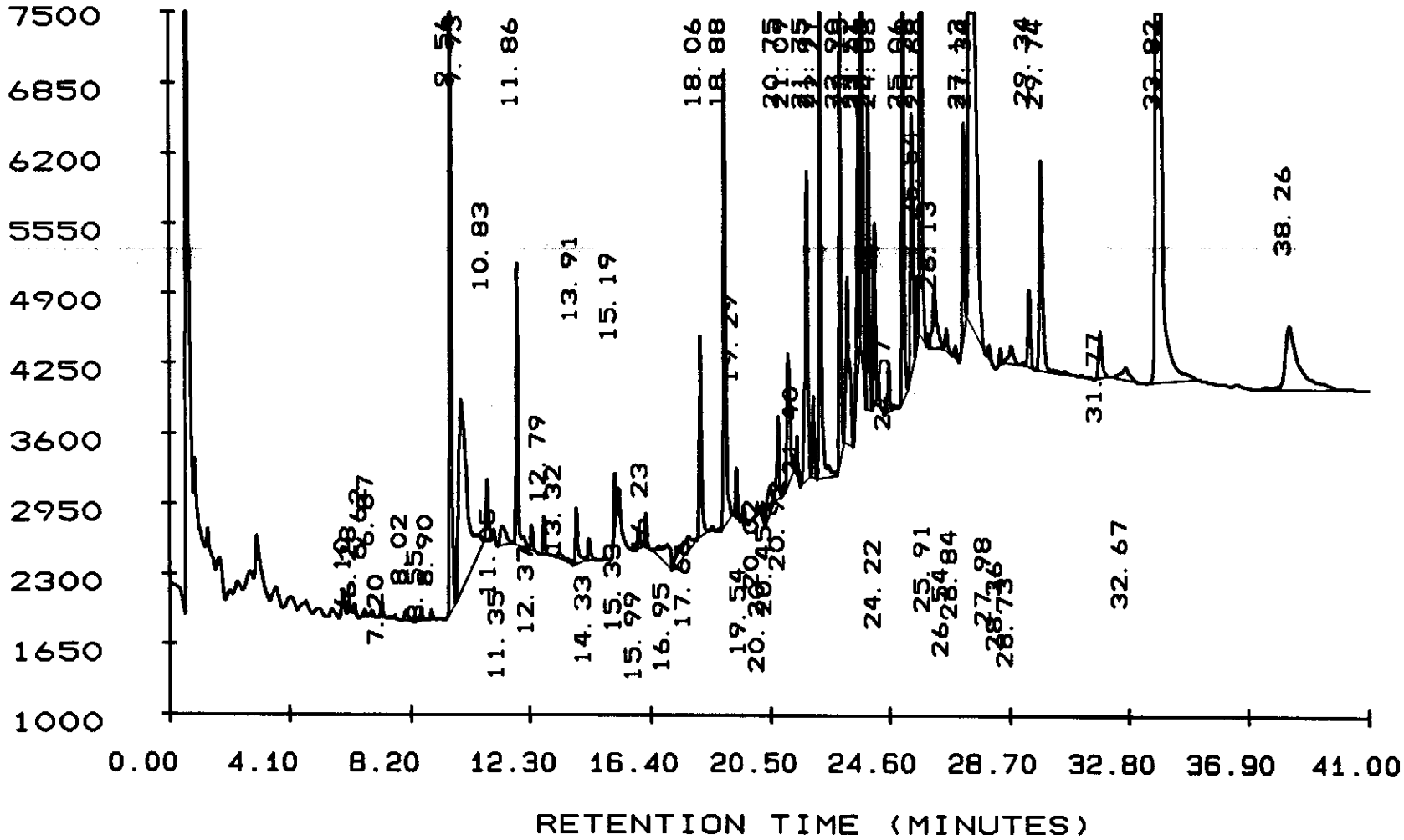

Y MAXIMUM: 7500. START TIME: 0.00

Y MINIMUM: 1000. END TIME: 41.00

Lionville Laboratory, Inc. 08/24/01 08:35:18

EXTERNAL STANDARD

SAMPLE: 08210135 .36 INST:35 VIAL:F0 SEQ NUMBER:036
TEST : OPCB DATE-TIME INJECTED : 08/22/01 20:55:10
COLLECTION TIME : 40.97 DATE-TIME PROCESSED : 08/24/01 08:35:18
METHOD: P35 / PCB35 REV #: 00220 ANALYST: KOBELM SAMP RATE: 1.56
CLIENT ID: RC03-01-0006 03 SAMPLE VOL: 1.0 uL
CLIENT: LANL REQ #9432R COLUMN TYPE: DB608
LAB ID: 0107L423-006 RAW FILE: RAW3:HM141114
SAMPLE WT : % MOISTURE : DILUTION FACTOR : 1.0000
COLUMN ID: 0.53 mm I CAL ID : TEMP:L082101.35/25

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
001	6048	1159	V	6.097			
002	4536	1054	V	6.283			
003	4566	700	V	6.618			
004	4579	581	V	6.868			
005	8403	1500	V	7.201			
007	8014	939	V	8.020			
008	8612	1274	V	8.550			
009	7079	943	V	8.898			
010	367741	73078	V	9.564	1	TCX	0.052 130%
011	364546	17778	V	9.928			
012	30517	5476	V	10.829			
013	4377	1057	V	11.054			
014	26040	1817	V	11.355			
015	122094	25433	V	11.864			
016	3426	573	V	12.090			
017	11788	2288	V	12.366			
018	18555	3513	V	12.786			
019	10991	650	V	13.323			
020	33902	5188	V	13.911			
021	14275	2019	V	14.334			
023	24822	5003	V	15.191			
024	10848	2319	V	15.327			
025	10323	1869	V	15.993			
026	16171	3068	V	16.229			
028	21173	1555	V	16.954			
029	11423	764	V	17.366			
030	11633	920	V	17.663			
031	107826	18426	V	18.059			
034	230863	41739	V	18.885			
035	23686	4628	V	19.292			
036	9656	1595	V	19.543			
037	5742	968	V	20.016			
038	10022	1738	V	20.198			
039	30247	2485	V	20.453			
040	43261	7500	V	20.750			
041	3366	795	V	20.922			
042	83040	11546	V	21.090			
043	2506	946	V	21.256			
044	19290	3786	V	21.401			
045	178281	28317	V	21.747			

8/24/01
MK

SAMPLE: 08210135 .36 PAGE NUMBER: 2
DATE-TIME INJECTED : 08/22/01 20:55:10
DATE-TIME PROCESSED : 08/24/01 08:35:18

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
046	34912	7441	V	21.973			
047	237373	45311	V	22.214			
049	199504	41419	V	22.900			
050	48538	10534	V	23.149			
051	5510	2114	V	23.240			
052	118133	23489	V	23.515			
053	233585	51193	V	23.659			
054	129446	27637	V	23.871			
055	74294	16500	V	24.082			
056	8283	2362	V	24.221			
057	20183	4211	V	24.567			
059	211711	41410	V	25.062			
060	147430	23886	V	25.363			
061	21926	6153	V	25.536			
062	477166	95548	V	25.675			
063	3817	1179	V	25.908			
064	55796	5504	V	26.126			
065	12992	2108	V	26.542			
066	6472	1240	V	26.842			
067	107940	19565	V	27.129			
068	149350	28739	V	27.339			
069	22902	3868	V	27.428			
070	6938	1304	V	27.979			
071	9570	1531	V	28.363			
072	18940	1678	V	28.727			
074	45873	7209	V	29.342			
075	153274	19389	V	29.737			
077	38470	4286	V	31.771			
078	24854	1139	V	32.669			
079	1298627	124560		33.815	1	DCB	0.109 /109%
082	187962	5704		38.263			

MPK	28317	21.747	AROCLOR-1260-1	0.264	RW:21.62-21.76
MPK	45311	22.214	AROCLOR-1260-2	0.394	RW:22.09-22.23
MPK	27637	23.871	AROCLOR-1260-3	0.368	RW:23.74-23.89
MPK	41410	25.062	AROCLOR-1260-4	0.508	RW:24.93-25.07
MPK	95548	25.675	AROCLOR-1260-5	0.646	RW:25.55-25.69
MPK	0	0.000	AROCLOR-1260-6	0.000	RW:27.19-27.34

238223 0.405

8/24/01
MK

0107L423-006

SAMPLE NO. : 08210136 . 36 INSTRUMENT: 36

TEST NO. : DATE TIME: 08/22/01 20:55:10

METHOD NO. : P36 / P36 PAGE NO. : 01

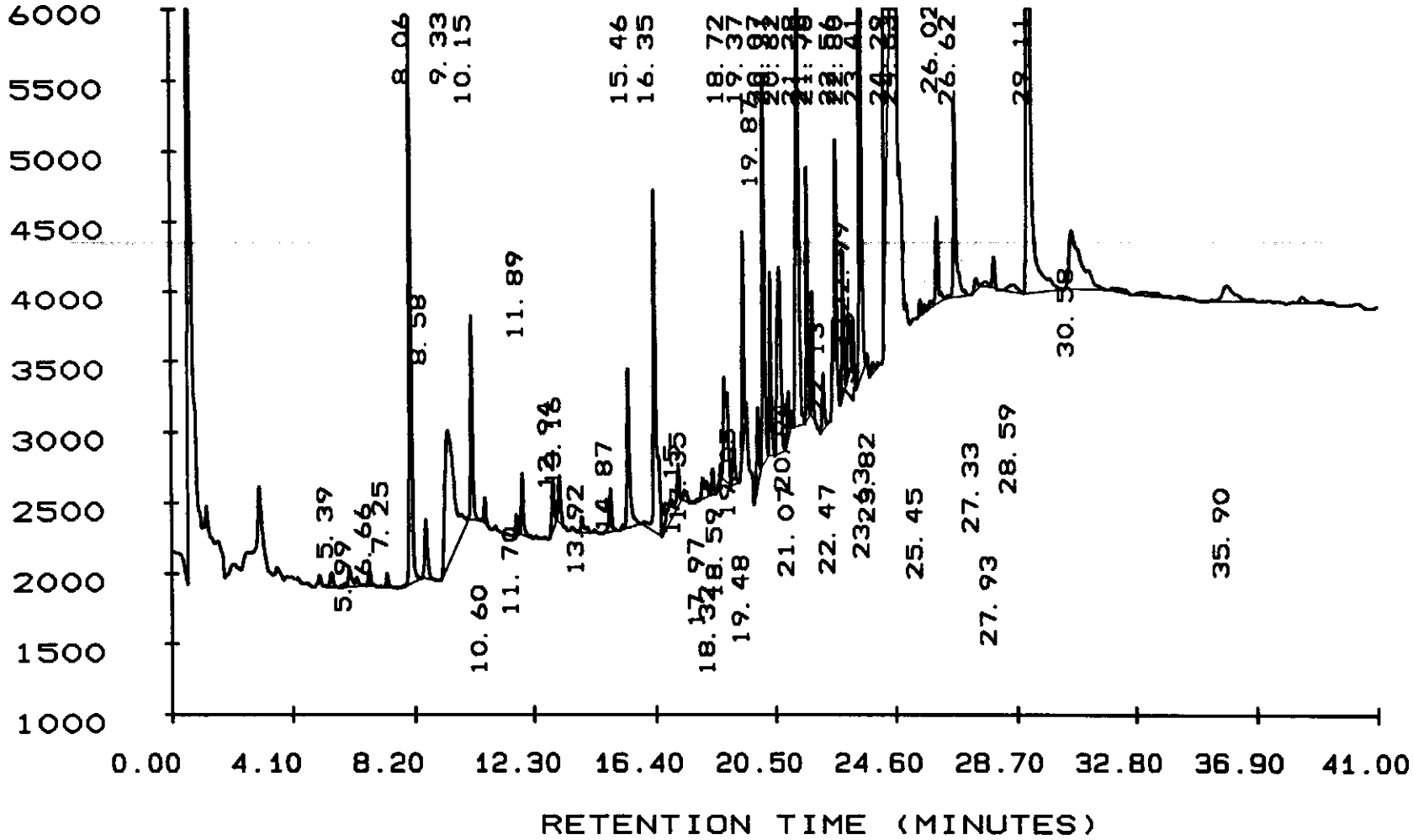

Y MAXIMUM: 6000. START TIME: 0.00

Y MINIMUM: 1000. END TIME: 41.00

Lionville Laboratory, Inc. 08/24/01 08:38:47

EXTERNAL STANDARD

SAMPLE: 08210136 .36 INST:36 VIAL:F0 SEQ NUMBER:036
TEST : OPCB DATE-TIME INJECTED : 08/22/01 20:55:10
COLLECTION TIME : 40.97 DATE-TIME PROCESSED : 08/24/01 08:38:47
METHOD: P36 / PCB36 REV #: 00212 ANALYST: KOBELM SAMP RATE: 1.56
CLIENT ID: RC03-01-0006 03 SAMPLE VOL: 1.0 uL
CLIENT: LANL REQ #9432R COLUMN TYPE: RTX1701
LAB ID: 0107L423-006 RAW FILE: RAW3:HM141115
SAMPLE WT : % MOISTURE : DILUTION FACTOR : 1.0000
COLUMN ID: 0.53 mm I CAL ID : TEMP:L082101.36/25

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
001	8460	1013	V	5.395			
002	8125	1219	V	5.990			
003	2318	443	V	6.243			
004	7888	1126	V	6.660			
005	6061	972	V	7.254			
006	214274	39500	V	8.062	1	TCX	0.058
007	29495	4149	V	8.581			
008	210514	9566	V	9.333			
009	73613	14296	V	10.148			
010	9267	1835	V	10.605			
012	6637	1421	V	11.696			
013	25581	4330	V	11.894			
015	19238	3262	V	12.941			
016	20444	3290	V	13.161			
018	9421	1119	V	13.919			
020	19413	2970	V	14.873			
021	73282	11126	V	15.458			
023	159873	23827	V	16.353			
024	16141	834	V	16.938			
025	13552	2717	V	17.151			
026	6358	755	V	17.354			
027	5555	1102	V	17.971			
028	2832	657	V	18.111			
029	9146	1836	V	18.317			
030	6094	1291	V	18.585			
031	19308	4363	V	18.718			
032	8066	2491	V	18.823			
033	18718	3064	V	19.055			
034	62804	14644	V	19.367			
035	6029	2169	V	19.479			
036	29069	5407	V	19.865			
037	136058	27156	V	20.075			
038	61309	12753	V	20.307			
039	119542	13178	V	20.624			
040	17563	3253	V	20.936			
041	3671	1136	V	21.067			
042	242493	34715	V	21.277			
043	83750	17705	V	21.579			
044	40120	8922	V	21.760			
045	21949	3816	V	22.126			

8/24/01
MK

SAMPLE: 08210136 .36 PAGE NUMBER: 2
DATE-TIME INJECTED : 08/22/01 20:55:10
DATE-TIME PROCESSED : 08/24/01 08:38:47

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
046	9246	2669	V	22.470			
047	60339	15331	V	22.564			
048	46058	10173	V	22.805			
049	27730	4532	V	22.995			
050	14996	3889	V	23.160			
051	282614	56494	V	23.407			
052	3466	1009	V	23.629			
053	4064	759	V	23.825			
055	1307539	139088	V	24.286			
056	91418	21826	V	24.626			
057	16122	2349	V	24.749			
058	2486	750	V	24.969			
059	5080	1152	V	25.446			
060	2326	509	V	25.605			
061	2609	465	V	25.786			
062	33528	5969	V	26.023			
063	90976	13905	V	26.616			
064	6332	828	V	27.332			
066	11966	2165	V	27.925			
067	12844	552	V	28.587			
068	691226	91549	V	29.108	1	DCB	0.110
069	124150	4206	V	30.584			
073	36302	1133	V	35.900			
075	8019	462	V	38.411			

MPK	14644	19.367	AROCLOR-1260-1	0.253	RW:19.24-19.38
MPK	27156	20.075	AROCLOR-1260-2	0.434	RW:19.95-20.09
MPK	17705	21.579	AROCLOR-1260-3	0.406	RW:21.45-21.59
MPK	15331	22.564	AROCLOR-1260-4	0.353	RW:22.44-22.58
MPK	56494	23.407	AROCLOR-1260-5	0.685	RW:23.28-23.42
MPK	21826	24.626	AROCLOR-1260-6	0.618	RW:24.50-24.64

153156 0.474

8/24/01
MK

1D
PESTICIDE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

RC03-01-0007 03

Lab Name: Lionville Labs, Inc. Work Order: 02744064001

Client: LANL REQ #9432R

Matrix: SOIL

Lab Sample ID: 0107L423-008

Sample wt/vol: 30.4 (g/mL) G

Lab File ID: 08210135.37

Level: (low/med) LOW

Date Received: 07/27/01

% Moisture: not dec. 6 dec.

Date Extracted: 08/02/01

Extraction: (SepF/Cont/Sonc) SONC

Date Analyzed: 08/22/01

GPC Cleanup: (Y/N) N pH: 7.0

Dilution Factor: 1.00

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NO.	COMPOUND		
12674-11-2	Aroclor-1016	35	U
11104-28-2	Aroclor-1221	70	U
11141-16-5	Aroclor-1232	35	U
53469-21-9	Aroclor-1242	35	U
12672-29-6	Aroclor-1248	35	U
11097-69-1	Aroclor-1254	35	U
11096-82-5	Aroclor-1260	55	

FORM 1 PEST 12/88 Rev.

0107L423-008

SAMPLE NO. : 08210135 .37 INSTRUMENT: 35

TEST NO. : DATE TIME: 08/22/01 21:43:34

METHOD NO. : P35 / P35 PAGE NO. : 01

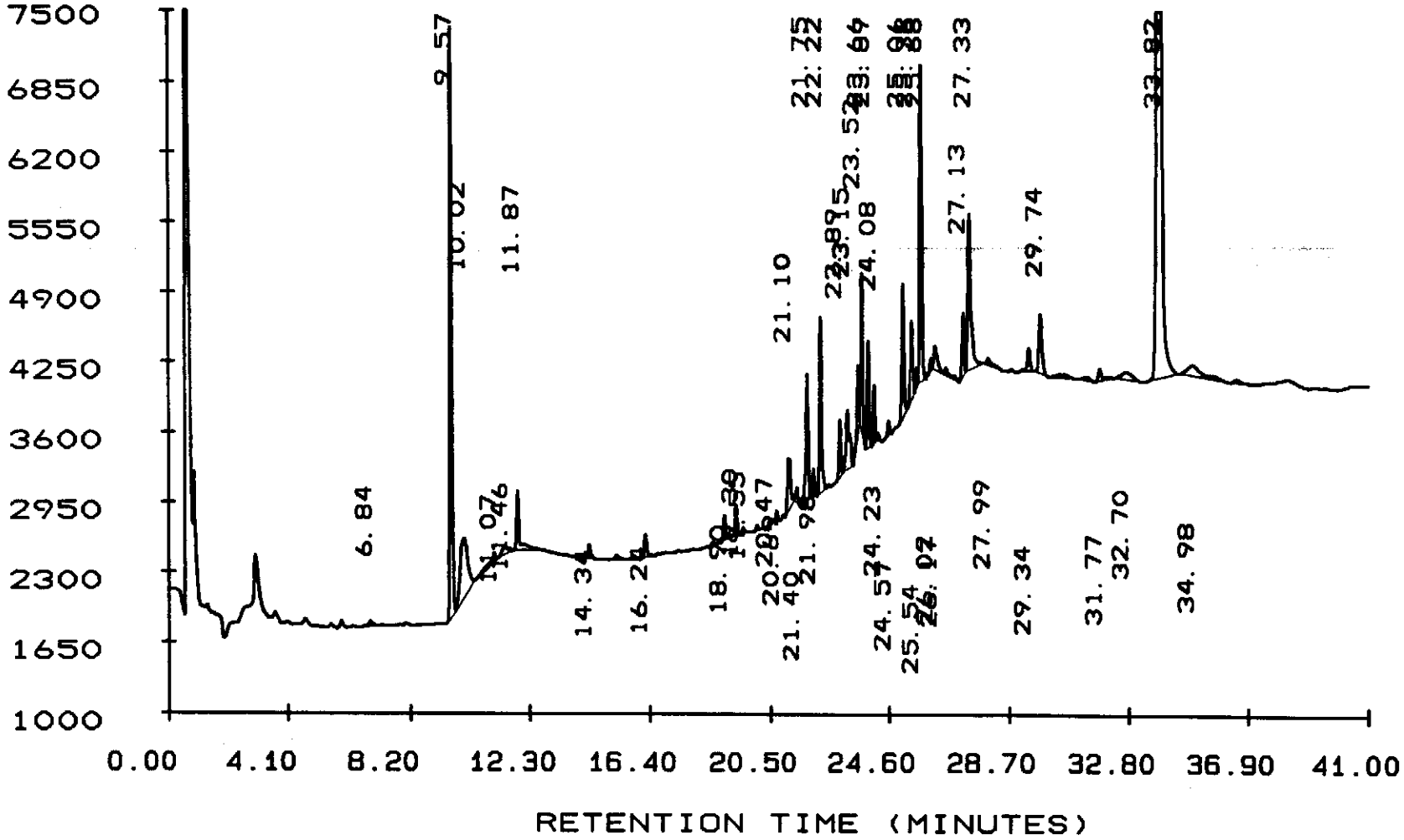

Y MAXIMUM: 7500. START TIME: 0.00

Y MINIMUM: 1000. END TIME: 41.00

65

Lionville Laboratory, Inc. 08/24/01 08:35:33

EXTERNAL STANDARD

SAMPLE: 08210135 .37 INST:35 VIAL:F0 SEQ NUMBER:037
TEST : OPCB DATE-TIME INJECTED : 08/22/01 21:43:34
COLLECTION TIME : 40.97 DATE-TIME PROCESSED : 08/24/01 08:35:33
METHOD: P35 / PCB35 REV #: 00220 ANALYST: KOBELM SAMP RATE: 1.56
CLIENT ID: RC03-01-0007 03 SAMPLE VOL: 1.0 uL
CLIENT: LANL REQ #9432R COLUMN TYPE: DB608
LAB ID: 0107L423-008 RAW FILE: RAW3:HM141121
SAMPLE WT : % MOISTURE : DILUTION FACTOR : 1.0000
COLUMN ID: 0.53 mm I CAL ID : TEMP:L082101.35/25

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
002	7910	530	V	6.837			
004	275454	54159	V	9.573	1	TCX	0.039 97,507
005	96507	5485	V	10.025			
006	11150	790	V	11.069			
007	10887	672	V	11.460			
008	42590	5458		11.870			
009	8108	1291	V	14.338			
011	13783	2119	V	16.235			
014	10956	2315	V	18.901			
016	15070	2834	V	19.296			
017	3443	565	V	19.547			
019	4469	618	V	20.467			
020	4697	970	V	20.693			
021	34292	4606	V	21.097			
023	7248	1484	V	21.403			
024	68099	11654	V	21.750			
025	12090	2599	V	21.977			
026	83990	16091	V	22.217			
028	24927	5252	V	22.893			
029	43686	5446	V	23.152			
030	28952	6266	V	23.519			
031	66825	14611	V	23.661			
032	45549	9775	V	23.873			
033	23731	5324	V	24.084			
034	2786	696	V	24.226			
035	6674	1387	V	24.570			
036	62634	12243	V	25.062			
037	44643	7323	V	25.361			
038	6378	1776	V	25.538			
039	141499	28935	V	25.677			
040	4861	1146	V	26.022			
041	18886	2163	V	26.172			
042	7194	594	V	26.544			
043	32605	5851	V	27.130			
044	107123	14388	V	27.333			
045	9344	629	V	27.987			
047	16247	2137	V	29.344			
048	40400	5454	V	29.738			
051	7521	1012	V	31.773			
053	19888	712	V	32.704			

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MK

SAMPLE: 08210135 .37 PAGE NUMBER: 2
DATE-TIME INJECTED : 08/22/01 21:43:34
DATE-TIME PROCESSED : 08/24/01 08:35:33

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL	
054	906020	91253	V	33.818	1	DCB	0.080	80%
055	39473	1017	V	34.977				
MPK		11654		21.750		AROCLOR-1260-1	0.109	RW:21.62-21.76
MPK		16091		22.217		AROCLOR-1260-2	0.140	RW:22.09-22.23
MPK		9775		23.873		AROCLOR-1260-3	0.130	RW:23.74-23.89
MPK		12243		25.062		AROCLOR-1260-4	0.150	RW:24.93-25.07
MPK		28935		25.677		AROCLOR-1260-5	0.196	RW:25.55-25.69
MPK		14388		27.333		AROCLOR-1260-6	0.222	RW:27.19-27.34
		93086					0.158	

8/24/01
MK

0107L423-008

SAMPLE NO. : 08210136 .37 INSTRUMENT: 36

TEST NO. : DATE TIME: 08/22/01 21:43:34

METHOD NO. : P36 / P36 PAGE NO. : 01

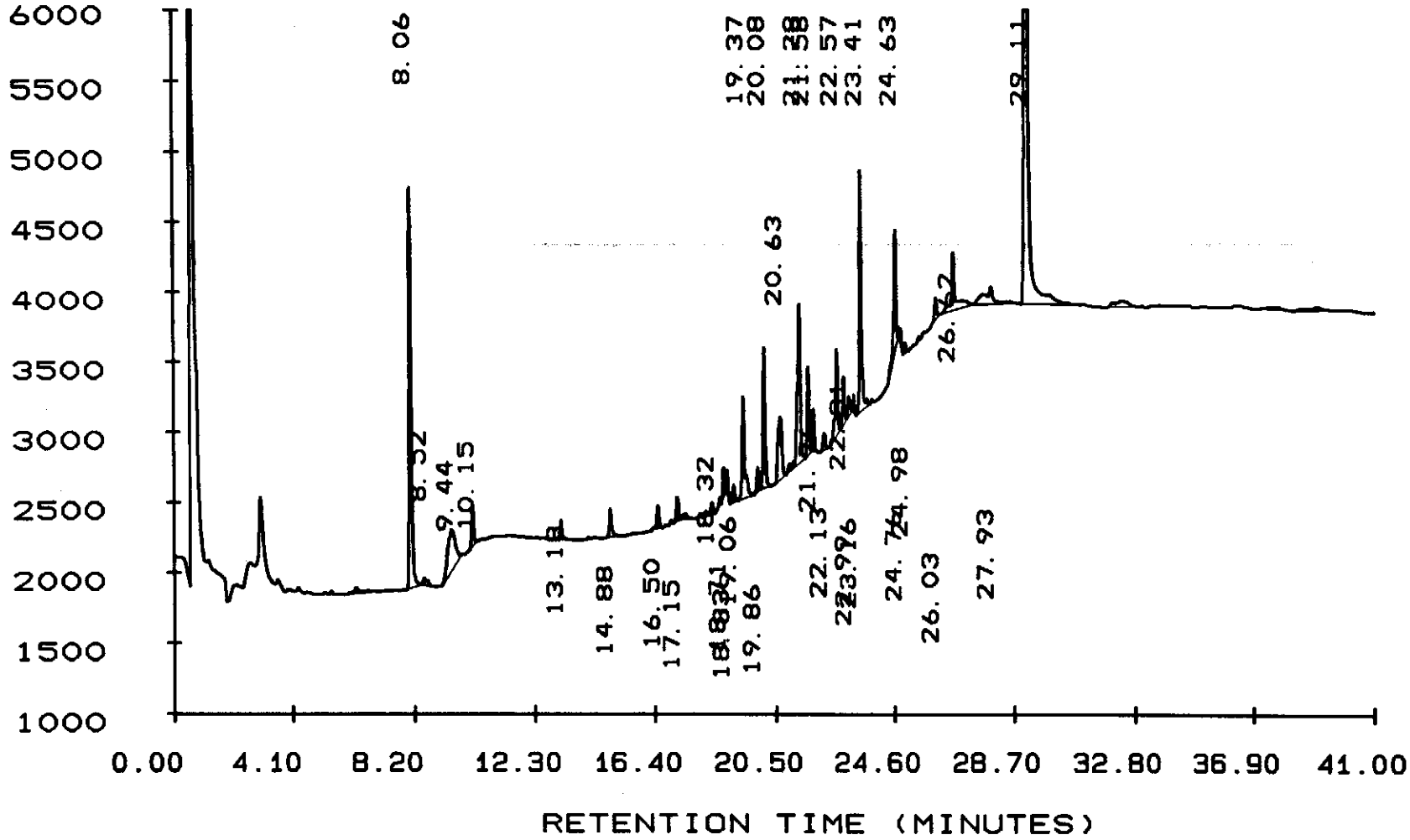

Y MAXIMUM: 6000. START TIME: 0.00

Y MINIMUM: 1000. END TIME: 41.00

Lionville Laboratory, Inc. 08/24/01 08:39:01

EXTERNAL STANDARD

SAMPLE: 08210136 .37 INST:36 VIAL:F0 SEQ NUMBER:037
TEST : OPCB DATE-TIME INJECTED : 08/22/01 21:43:34
COLLECTION TIME : 40.97 DATE-TIME PROCESSED : 08/24/01 08:39:01
METHOD: P36 / PCB36 REV #: 00212 ANALYST: KOBELM SAMP RATE: 1.56
CLIENT ID: RC03-01-0007 03 SAMPLE VOL: 1.0 uL
CLIENT: LANL REQ #9432R COLUMN TYPE: RTX1701
LAB ID: 0107L423-008 RAW FILE: RAW3:HM141120
SAMPLE WT : % MOISTURE : DILUTION FACTOR : 1.0000
COLUMN ID: 0.53 mm I CAL ID : TEMP:L082101.36/25

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
003	157552	28284	V	8.065	1	TCX	0.042
004	5100	509	V	8.524			
005	52890	2864	V	9.445			
006	14195	2865		10.152			
008	7930	1320		13.175			
010	12871	1980		14.876			
011	9428	1593	V	16.496			
013	8982	1709	V	17.153			
016	4069	780	V	18.319			
017	2725	651	V	18.589			
018	8250	2092	V	18.714			
019	6836	1814	V	18.832			
020	7864	1254	V	19.056			
021	46723	7192	V	19.370			
022	8954	1735	V	19.864			
023	50123	9917	V	20.078			
024	41657	4477	V	20.628			
025	2833	566	V	20.942			
026	82759	11227	V	21.280			
027	29113	6213	V	21.581			
028	13860	2999	V	21.763			
029	6550	1189	V	22.130			
030	35047	6073	V	22.567			
031	14973	3300	V	22.808			
032	7793	1386	V	22.994			
033	5152	1263	V	23.164			
034	84744	16767	V	23.409			
037	50854	8279	V	24.633			
038	7282	955	V	24.760			
039	3325	755	V	24.978			
040	7966	1509	V	26.029			
041	43027	4072	V	26.617			
043	4177	760	V	27.925			
045	514516	66495		29.110	1	DCB	0.080
046	17168	438	V	32.388			

MPK	7192	19.370	AROCLOR-1260-1	0.124	RW:19.24-19.38
MPK	9917	20.078	AROCLOR-1260-2	0.158	RW:19.95-20.09
MPK	6213	21.581	AROCLOR-1260-3	0.142	RW:21.45-21.59

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8/24/01
MK

SAMPLE: 08210136 .37 PAGE NUMBER: 2
DATE-TIME INJECTED : 08/22/01 21:43:34
DATE-TIME PROCESSED : 08/24/01 08:39:01

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL	
MPK		6073		22.567		AROCLOR-1260-4	0.140	RW:22.44-22.58
MPK		16767		23.409		AROCLOR-1260-5	0.203	RW:23.28-23.42
MPK		8279		24.633		AROCLOR-1260-6	0.234	RW:24.50-24.64

54441 0.168

8/24/01
MK

1D
PESTICIDE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

RC03-01-0008 03

Lab Name: Lionville Labs, Inc. Work Order: 02744064001

Client: LANL REQ #9432R

Matrix: SOIL

Lab Sample ID: 0107L423-010

Sample wt/vol: 30.3 (g/mL) G

Lab File ID: 08210135.38

Level: (low/med) LOW

Date Received: 07/27/01

% Moisture: not dec. 7 dec.

Date Extracted: 08/02/01

Extraction: (SepF/Cont/Sonc) SONC

Date Analyzed: 08/22/01

GPC Cleanup: (Y/N) N pH: 7.0

Dilution Factor: 1.00

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NO.	COMPOUND		
12674-11-2	Aroclor-1016	36	U
11104-28-2	Aroclor-1221	71	U
11141-16-5	Aroclor-1232	36	U
53469-21-9	Aroclor-1242	36	U
12672-29-6	Aroclor-1248	36	U
11097-69-1	Aroclor-1254	36	U
11096-82-5	Aroclor-1260	36	U

FORM 1 PEST 12/88 Rev.

0107L423-010

SAMPLE NO. : 08210135 .38 INSTRUMENT: 35
TEST NO. : DATE TIME: 08/22/01 22:31:21
METHOD NO. : P35 / P35 PAGE NO. : 01

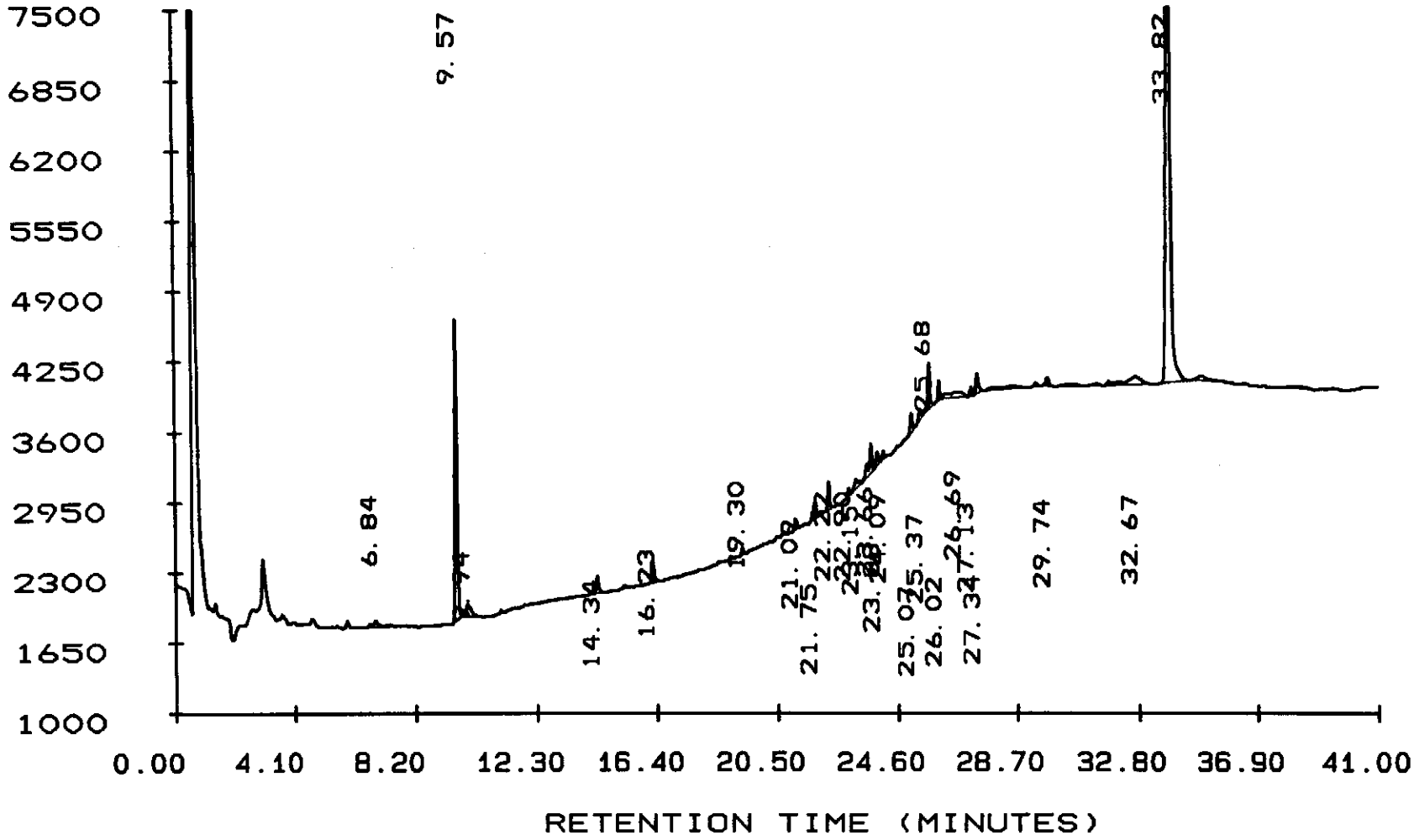

Y MAXIMUM: 7500. START TIME: 0.00
Y MINIMUM: 1000. END TIME: 41.00

Lionville Laboratory, Inc. 08/24/01 08:35:46

EXTERNAL STANDARD

SAMPLE: 08210135 .38 INST:35 VIAL:F0 SEQ NUMBER:038
TEST : OPCB DATE-TIME INJECTED : 08/22/01 22:31:21
COLLECTION TIME : 40.97 DATE-TIME PROCESSED : 08/24/01 08:35:46
METHOD: P35 / PCB35 REV #: 00220 ANALYST: KOBELM SAMP RATE: 1.56
CLIENT ID: RC03-01-0008 03 SAMPLE VOL: 1.0 uL
CLIENT: LANL REQ #9432R COLUMN TYPE: DB608
LAB ID: 0107L423-010 RAW FILE: RAW3:HM141126
SAMPLE WT : % MOISTURE : DILUTION FACTOR : 1.0000
COLUMN ID: 0.53 mm I CAL ID : TEMP:L082101.35/25

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL	
001	10918	591	V	6.837				
003	142010	27464	V	9.568	1	TCX	0.020	50%
004	15080	1118	V	9.935				
006	9550	1552	V	14.336				
008	13753	2069		16.232				
010	3377	654	V	19.298				
012	6359	1006	V	21.091				
013	11817	1605	V	21.751				
015	13410	2584	V	22.218				
016	3368	743	V	22.897				
017	7912	874	V	23.155				
018	4257	870	V	23.522				
019	10987	2371	V	23.662				
020	5524	1219	V	23.877				
021	3415	764	V	24.088				
022	8616	1723	V	25.066				
023	5933	953	V	25.373				
024	23538	4177	V	25.679				
025	8429	1812	V	26.024				
026	20309	550	V	26.692				
027	4676	852	V	27.131				
028	12240	1835	V	27.335				
031	6137	820	V	29.737				
035	20274	672	V	32.673				
036	570192	57352	V	33.821	1	DCB	0.050	50%

KB 8/24/01

8/24/01
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0107L423-010

SAMPLE NO. : 08210136 .38 INSTRUMENT: 36
TEST NO. : DATE TIME: 08/22/01 22:31:21
METHOD NO. : P36 / P36 PAGE NO. : 01

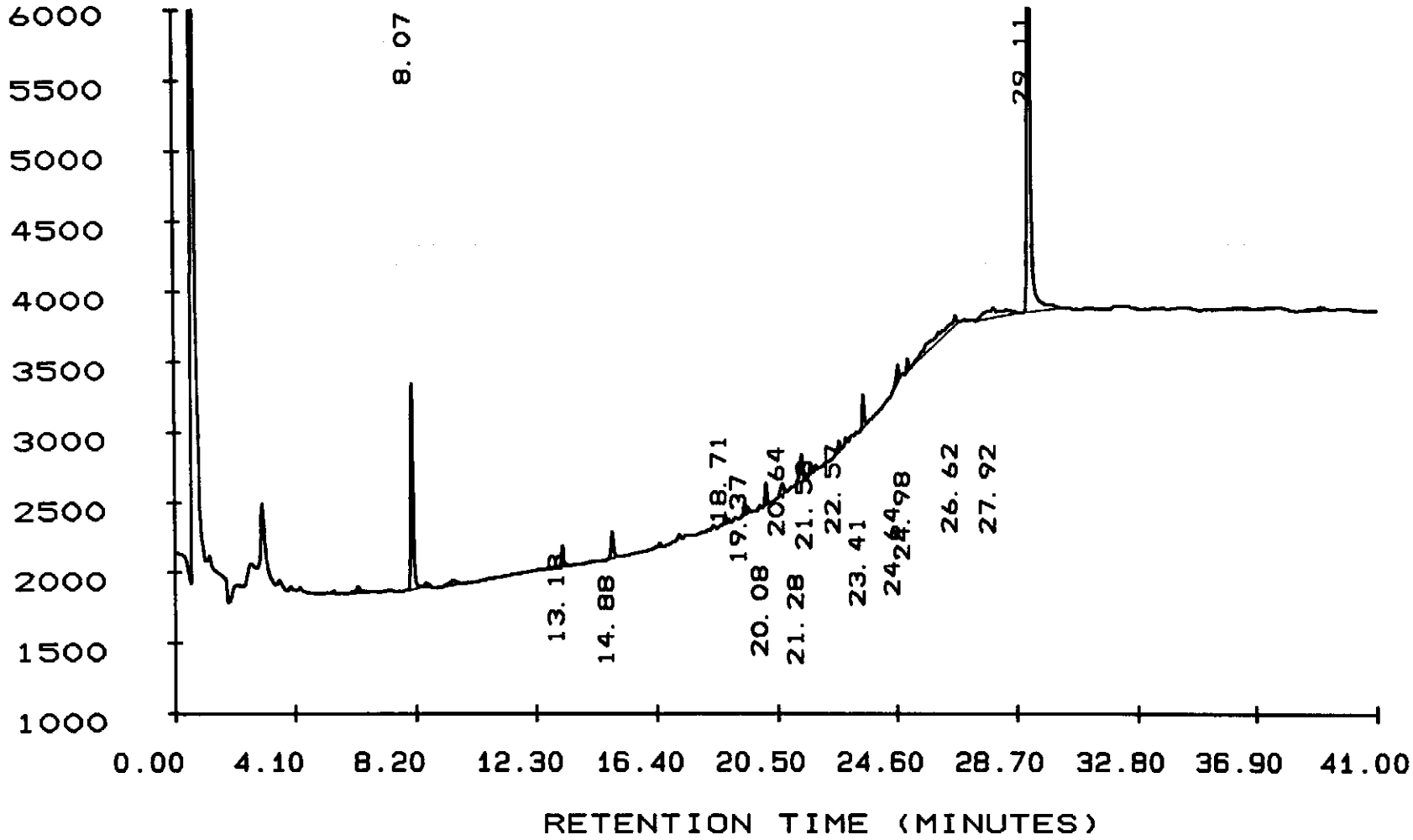

Y MAXIMUM: 6000. START TIME: 0.00
Y MINIMUM: 1000. END TIME: 41.00

Lionville Laboratory, Inc. 08/24/01 08:39:14

EXTERNAL STANDARD

SAMPLE: 08210136 .38 INST:36 VIAL:F0 SEQ NUMBER:038
TEST : OPCB DATE-TIME INJECTED : 08/22/01 22:31:21
COLLECTION TIME : 40.97 DATE-TIME PROCESSED : 08/24/01 08:39:14
METHOD: P36 / PCB36 REV #: 00212 ANALYST: KOBELM SAMP RATE: 1.56
CLIENT ID: RC03-01-0008 03 SAMPLE VOL: 1.0 uL
CLIENT: LANL REQ #9432R COLUMN TYPE: RTX1701
LAB ID: 0107L423-010 RAW FILE: RAW3:HM141127
SAMPLE WT : % MOISTURE : DILUTION FACTOR : 1.0000
COLUMN ID: 0.53 mm I CAL ID : TEMP:L082101.36/25

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
002	5948	433	V	6.251			
004	81508	14573	V	8.066	1	TCX	0.021
007	9022	1518		13.176			
008	11533	1903		14.877			
012	5820	666	V	18.715			
013	3331	761	V	19.371			
015	9366	1602	V	20.080			
016	6405	749	V	20.640			
017	13458	1910	V	21.282			
018	3936	846	V	21.584			
020	4014	733	V	22.570			
021	2272	464	V	22.812			
022	11352	2319		23.411			
023	7612	1175	V	24.636			
024	4251	922	V	24.979			
025	40116	726	V	26.622			
027	10136	425	V	27.924			
029	321008	42565		29.112	1	DCB	0.051

8/24/01
MK

1D

PESTICIDE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

RC03-01-0009 03

Lab Name: Lionville Labs, Inc. Work Order: 02744064001

Client: LANL REQ #9432R

Matrix: SOIL

Lab Sample ID: 0107L423-012

Sample wt/vol: 30.1 (g/mL) G

Lab File ID: 08210135.41

Level: (low/med) LOW

Date Received: 07/27/01

% Moisture: not dec. 5 dec.

Date Extracted: 08/02/01

Extraction: (SepF/Cont/Sonc) SONC

Date Analyzed: 08/23/01

GPC Cleanup: (Y/N) N pH: 7.0

Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	
12674-11-2	Aroclor-1016	35	U
11104-28-2	Aroclor-1221	70	U
11141-16-5	Aroclor-1232	35	U
53469-21-9	Aroclor-1242	35	U
12672-29-6	Aroclor-1248	35	U
11097-69-1	Aroclor-1254	35	U
11096-82-5	Aroclor-1260	35	U

Flagged

FORM 1 PEST 12/88 Rev.

0107L423-012

SAMPLE NO. : 08210135 . 41 INSTRUMENT: 35
TEST NO. : DATE TIME: 08/23/01 00:54:54
METHOD NO. : P35 / P35 PAGE NO. : 01

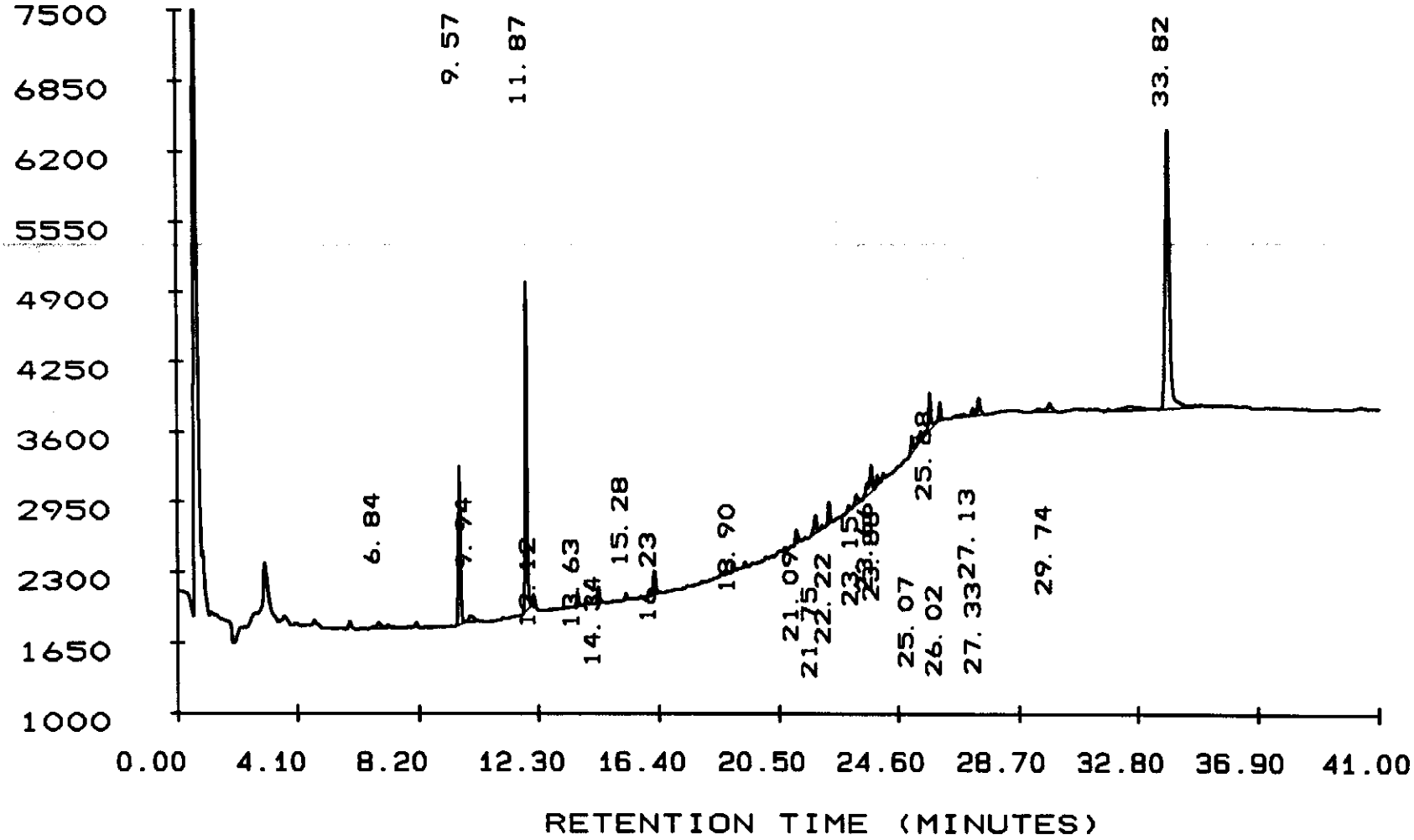

Y MAXIMUM: 7500. START TIME: 0.00
Y MINIMUM: 1000. END TIME: 41.00

Lionville Laboratory, Inc. 08/24/01 08:35:59

EXTERNAL STANDARD

SAMPLE: 08210135 .41 INST:35 VIAL:F0 SEQ NUMBER:041
TEST : OPCB DATE-TIME INJECTED : 08/23/01 00:54:54
COLLECTION TIME : 40.97 DATE-TIME PROCESSED : 08/24/01 08:35:59
METHOD: P35 / PCB35 REV #: 00220 ANALYST: KOBELM SAMP RATE: 1.56
CLIENT ID: RC03-01-0009 03 SAMPLE VOL: 1.0 uL
CLIENT: LANL REQ #9432R COLUMN TYPE: DB608
LAB ID: 0107L423-012 RAW FILE: RAW3:HN141145
SAMPLE WT : % MOISTURE : DILUTION FACTOR : 1.0000
COLUMN ID: 0.53 mm I CAL ID : TEMP:L082101.35/25

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
002	11024	553		6.840			
004	74338	14415	V	9.568	1	TCX	0.010
005	8966	600	V	9.938			
007	145027	30015	V	11.868			
008	6757	1145		12.123			
009	5666	1221	V	13.625			
011	9197	1500	V	14.336			
012	3120	584	V	15.284			
013	14450	2196		16.234			
014	3985	829	V	18.901			
017	7426	1265	V	21.089			
018	9815	1600	V	21.750			
020	10365	2006	V	22.218			
022	7028	933	V	23.155			
023	2772	616	V	23.522			
024	10367	2114	V	23.661			
025	3840	896	V	23.876			
026	2425	546	V	24.091			
027	7686	1502	V	25.068			
028	5160	751	V	25.372			
029	18202	3260	V	25.679			
030	8596	1713	V	26.024			
032	3866	691	V	27.132			
033	10035	1559		27.334			
035	7275	727	V	29.739			
040	253394	25727	V	33.818	1	DCB	0.022

(36) 0.011 27.5%

(36) 0.023 23%

8/24/01
MK

0107L423-012

SAMPLE NO. : 08210136 .41
TEST NO. :
METHOD NO. : P36 / P36

INSTRUMENT: 36
DATE TIME: 08/23/01 00:54:54
PAGE NO. : 01

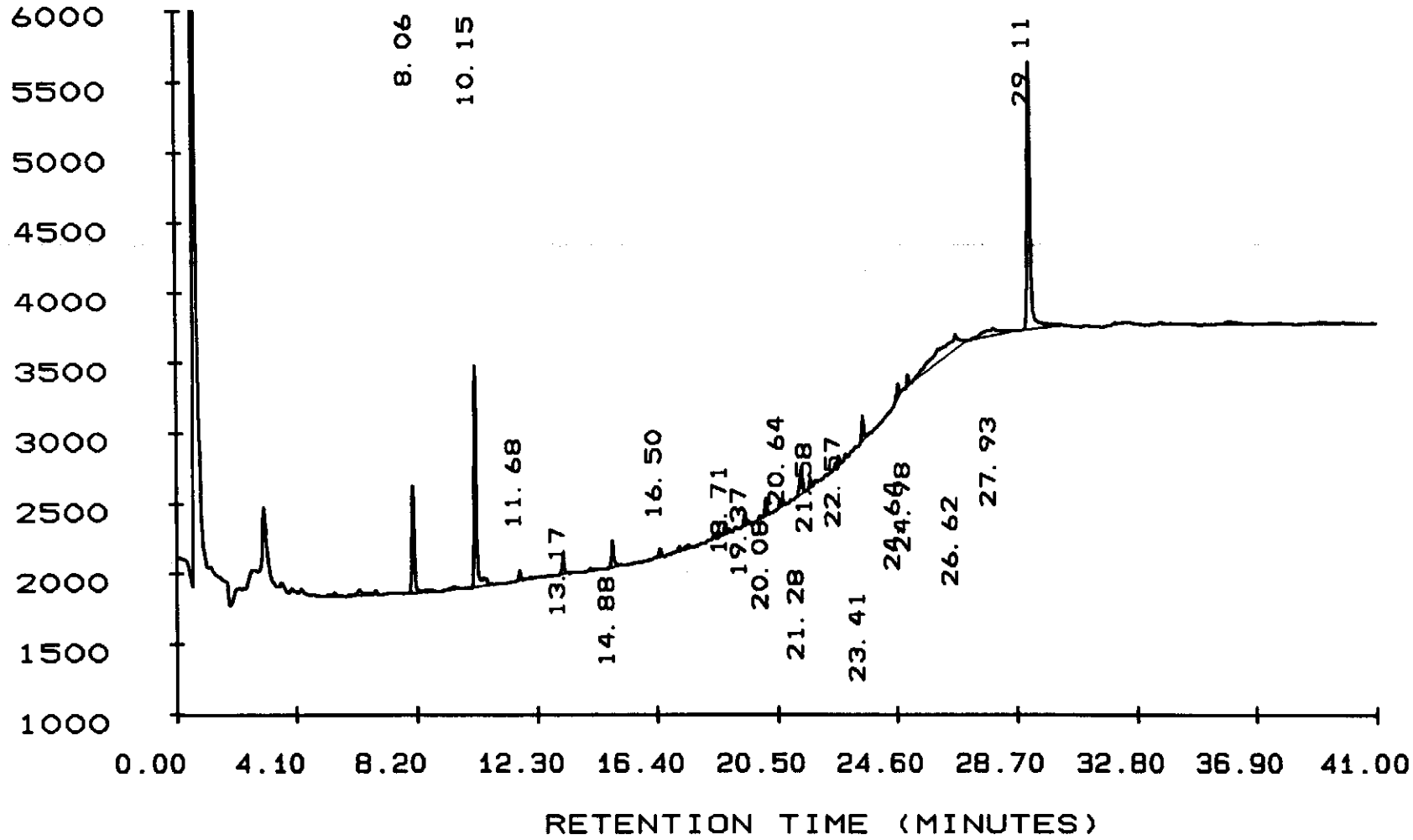

Y MAXIMUM: 6000.
Y MINIMUM: 1000.

START TIME: 0.00
END TIME: 41.00

Lionville Laboratory, Inc. 08/24/01 08:39:27

EXTERNAL STANDARD

SAMPLE: 08210136 .41 INST:36 VIAL:F0 SEQ NUMBER:041
TEST : OPCB DATE-TIME INJECTED : 08/23/01 00:54:54
COLLECTION TIME : 40.97 DATE-TIME PROCESSED : 08/24/01 08:39:27
METHOD: P36 / PCB36 REV #: 00212 ANALYST: KOBELM SAMP RATE: 1.56
CLIENT ID: RC03-01-0009 03 SAMPLE VOL: 1.0 uL
CLIENT: LANL REQ #9432R COLUMN TYPE: RTX1701
LAB ID: 0107L423-012 RAW FILE: RAW3:HN141144
SAMPLE WT : % MOISTURE : DILUTION FACTOR : 1.0000
COLUMN ID: 0.53 mm I CAL ID : TEMP:L082101.36/25

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
005	42128	7527	V	8.064	1	TCX	0.011
008	87940	15537	V	10.151			
009	3133	670	V	11.684			
010	8236	1303	V	13.174			
012	12006	1892		14.876			
013	4495	625	V	16.496			
017	7016	859	V	18.714			
018	6492	1020	V	19.369			
019	7932	1251	V	20.079			
020	5313	510	V	20.637			
021	13126	1940	V	21.283			
022	3352	702	V	21.583			
023	4572	661	V	22.569			
025	8851	1786		23.410			
026	5728	969	V	24.639			
027	4057	840	V	24.979			
028	64072	1079	V	26.620			
029	21470	495		27.925			
030	146982	18874		29.110	1	DCB	0.023

8/24/01
MK

1D
PESTICIDE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

RC03-01-0010 03

Lab Name: Lionville Labs, Inc. Work Order: 02744064001

Client: LANL REQ #9432R

Matrix: SOIL

Lab Sample ID: 0107L423-014

Sample wt/vol: 30.2 (g/mL) G

Lab File ID: 08210135.42

Level: (low/med) LOW

Date Received: 07/27/01

% Moisture: not dec. 6 dec.

Date Extracted: 08/02/01

Extraction: (SepF/Cont/Sonc) SONC

Date Analyzed: 08/23/01

GPC Cleanup: (Y/N) N pH: 7.0

Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	
12674-11-2	Aroclor-1016	35	U
11104-28-2	Aroclor-1221	71	U
11141-16-5	Aroclor-1232	35	U
53469-21-9	Aroclor-1242	35	U
12672-29-6	Aroclor-1248	35	U
11097-69-1	Aroclor-1254	35	U
11096-82-5	Aroclor-1260	32	J

FLB 8/21/01

FORM 1 PEST 12/88 Rev.

0107L423-014

SAMPLE NO. : 08210135 .42
TEST NO. :
METHOD NO. : P35 / P35

INSTRUMENT: 35
DATE TIME: 08/23/01 01:42:41
PAGE NO. : 01

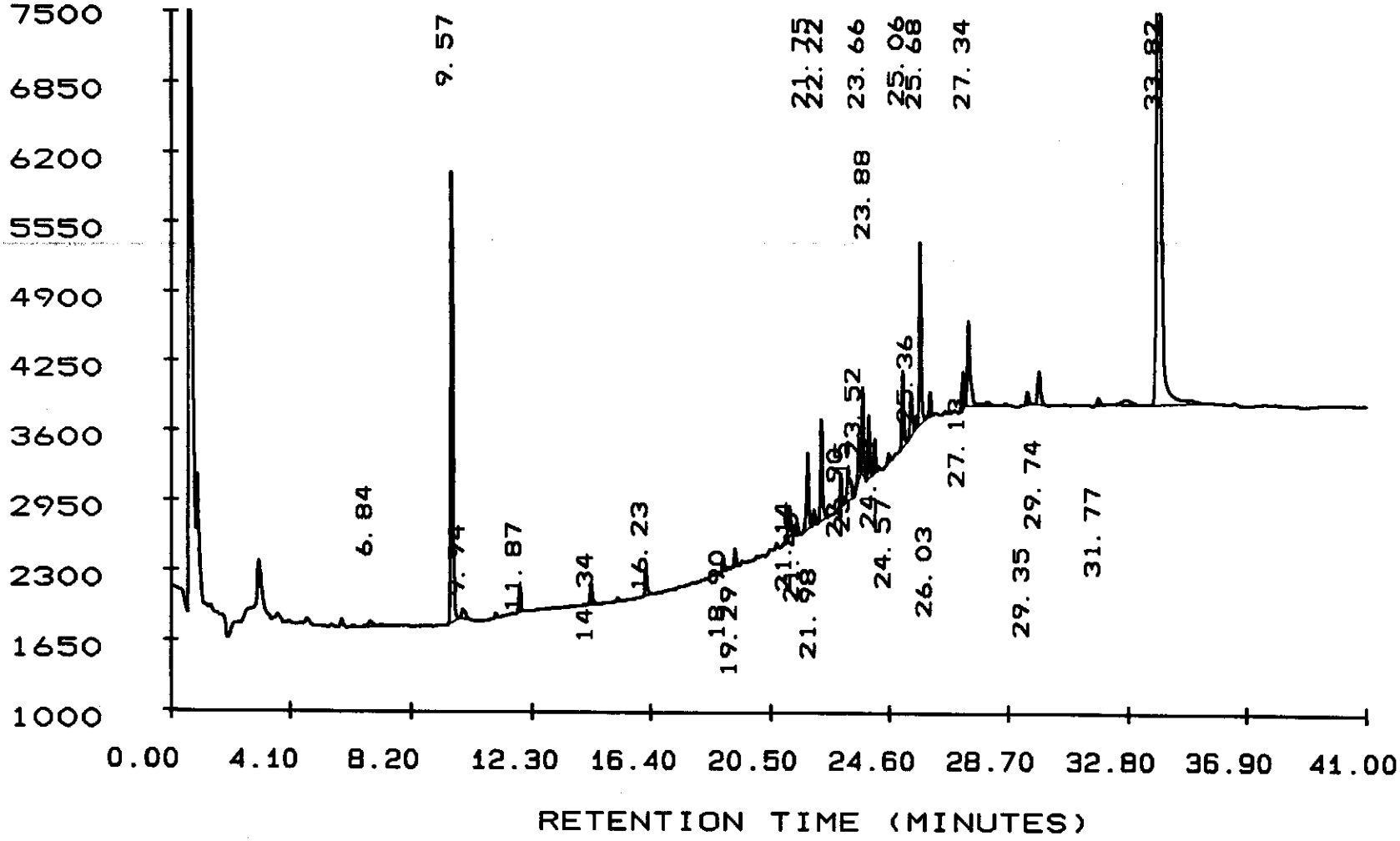

Y MAXIMUM: 7500.
Y MINIMUM: 1000.

START TIME: 0.00
END TIME: 41.00

Lionville Laboratory, Inc. 08/24/01 08:36:14

EXTERNAL STANDARD

SAMPLE: 08210135 .42 INST:35 VIAL:F0 SEQ NUMBER:042
TEST : OPCB DATE-TIME INJECTED : 08/23/01 01:42:41
COLLECTION TIME : 40.97 DATE-TIME PROCESSED : 08/24/01 08:36:14
METHOD: P35 / PCB35 REV #: 00220 ANALYST: KOBELM SAMP RATE: 1.56
CLIENT ID: RC03-01-0010 03 SAMPLE VOL: 1.0 uL
CLIENT: LANL REQ #9432R COLUMN TYPE: DB608
LAB ID: 0107L423-014 RAW FILE: RAW3:HN141150
SAMPLE WT : % MOISTURE : DILUTION FACTOR : 1.0000
COLUMN ID: 0.53 mm I CAL ID : TEMP:L082101.35/25

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL	
002	9765	527		6.840				
003	214266	41524	V	9.567	1	TCX	0.030	75%
004	8322	892	V	9.935				
006	11156	2307		11.866				
007	13108	2033	V	14.335				
009	14794	2504		16.231				
010	6051	1287	V	18.900				
011	8988	1622	V	19.295				
012	5768	509	V	20.693				
013	18871	2513	V	21.140				
014	6012	936	V	21.403				
015	39222	7012	V	21.750				
016	6496	1453	V	21.978				
017	48774	9301	V	22.218				
018	14327	3013	V	22.895				
019	24589	3062	V	23.155				
020	18628	3765	V	23.521				
021	36833	8083	V	23.663				
022	26682	5799	V	23.875				
023	13859	3099	V	24.085				
025	3846	806	V	24.573				
026	35398	7035	V	25.063				
027	24874	4074	V	25.362				
028	3507	1009	V	25.541				
029	80716	16544	V	25.679				
030	11167	2285	V	26.026				
034	19460	3480	V	27.132				
035	52614	7822	V	27.335				
038	8905	1252	V	29.347				
039	22679	3098	V	29.742				
042	5249	691	V	31.775				
044	719640	70895		33.820	1	DCB	0.062	62%

MPK	7012	21.750	AROCLOR-1260-1	0.065	RW:21.62-21.76
MPK	9301	22.218	AROCLOR-1260-2	0.081	RW:22.09-22.23
MPK	5799	23.875	AROCLOR-1260-3	0.077	RW:23.74-23.89
MPK	7035	25.063	AROCLOR-1260-4	0.086	RW:24.93-25.07
MPK	16544	25.679	AROCLOR-1260-5	0.112	RW:25.55-25.69
MPK	7822	27.335	AROCLOR-1260-6	0.120	RW:27.19-27.34

53513 0.091 83 8/24/01 NK

0107L423-014

SAMPLE NO. : 08210136 .42
TEST NO. :
METHOD NO. : P36 / P36

INSTRUMENT: 36
DATE TIME: 08/23/01 01:42:41
PAGE NO. : 01

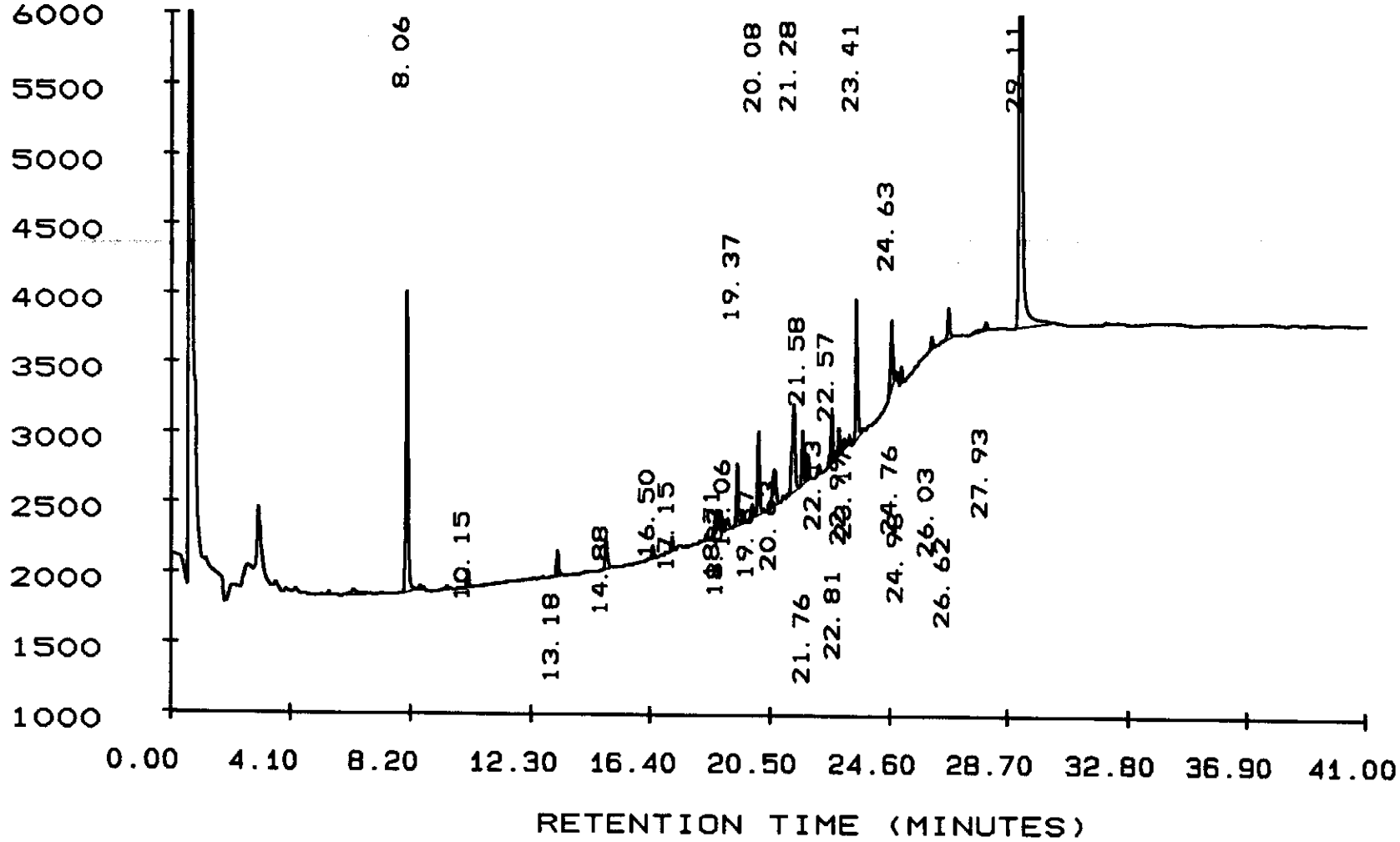

Y MAXIMUM: 6000.
Y MINIMUM: 1000.

START TIME: 0.00
END TIME: 41.00

Lionville Laboratory, Inc. 08/24/01 08:39:40

EXTERNAL STANDARD

SAMPLE: 08210136 .42 INST:36 VIAL:F0 SEQ NUMBER:042
TEST : OPCB DATE-TIME INJECTED : 08/23/01 01:42:41
COLLECTION TIME : 40.97 DATE-TIME PROCESSED : 08/24/01 08:39:40
METHOD: P36 / PCB36 REV #: 00212 ANALYST: KOBELM SAMP RATE: 1.56
CLIENT ID: RC03-01-0010 03 SAMPLE VOL: 1.0 uL
CLIENT: LANL REQ #9432R COLUMN TYPE: RTX1701
LAB ID: 0107L423-014 RAW FILE: RAW3:HN141151
SAMPLE WT : % MOISTURE : DILUTION FACTOR : 1.0000
COLUMN ID: 0.53 mm I CAL ID : TEMP:L082101.36/25

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
002	9493	429		6.249			
003	118144	21399	V	8.065	1	TCX	0.031
006	6007	1210		10.152			
007	10137	1785		13.175			
008	13700	2271		14.876			
009	5418	903	V	16.497			
010	6104	987	V	17.152			
012	3701	456	V	18.321			
013	3768	1034	V	18.714			
014	4625	1168	V	18.831			
015	5400	823	V	19.060			
016	27373	4373	V	19.370			
017	5402	1038	V	19.865			
018	29910	5875	V	20.078			
019	23939	2600	V	20.629			
021	46467	6197	V	21.281			
022	17613	3775	V	21.581			
023	8307	1799	V	21.763			
024	3666	686	V	22.132			
025	20534	3664	V	22.567			
026	9040	1977	V	22.808			
027	4337	790	V	22.994			
028	3076	745	V	23.166			
029	49679	9856	V	23.410			
030	27208	4753	V	24.635			
031	4406	587	V	24.762			
032	5474	1204	V	24.980			
033	8974	905	V	26.032			
034	13760	2208	V	26.620			
035	7695	589	V	27.930			
037	388798	53017		29.111	1	DCB	0.064

MPK	4373	19.370	AROCLOR-1260-1	0.076	RW:19.24-19.38
MPK	5875	20.078	AROCLOR-1260-2	0.094	RW:19.95-20.09
MPK	3775	21.581	AROCLOR-1260-3	0.087	RW:21.45-21.59
MPK	3664	22.567	AROCLOR-1260-4	0.084	RW:22.44-22.58
MPK	9856	23.410	AROCLOR-1260-5	0.120	RW:23.28-23.42
MPK	4753	24.635	AROCLOR-1260-6	0.135	RW:24.50-24.64

32296 0.100

85

8/24/01

Calibration Standard Data

8H

PESTICIDE ANALYSIS SEQUENCE

Lab Name: Lionville Labs, Inc. Contract: 02744-064-001-9999-00

Client: LANL REQ #9432R GC Sample ID: 08060135

Instrument ID: 35 GC Column ID: DB608

Dates of Analyses: 08/06/01 to 08/07/01

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED
01	ZZZZZ	AR1660 2801 A	08/06/01	1813
02	ZZZZZ	AR1660 2802 B	08/06/01	1901
03	ZZZZZ	AR1660 2803 C	08/06/01	1949
04	ZZZZZ	AR1660 2804 D	08/06/01	2037
05	ZZZZZ	AR1660 2805 E	08/06/01	2125
06	ZZZZZ	AR1221 1108	08/06/01	2213
07	ZZZZZ	AR1232 1205	08/06/01	2301
08	ZZZZZ	AR1242 1304	08/06/01	2349
09	ZZZZZ	AR1248 1101	08/07/01	0037
10	ZZZZZ	AR1254 9403 C	08/07/01	0125

FORM VIII PEST

8H

PESTICIDE ANALYSIS SEQUENCE

Lab Name: Lionville Labs, Inc. Contract: 02744-064-001-9999-00

Client: LANL REQ #9432R GC Sample ID: 08060136

Instrument ID: 36 GC Column ID: RTX1701

Dates of Analyses: 08/06/01 to 08/07/01

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED
01	ZZZZZ	AR1660 2801 A	08/06/01	1813
02	ZZZZZ	AR1660 2802 B	08/06/01	1901
03	ZZZZZ	AR1660 2803 C	08/06/01	1949
04	ZZZZZ	AR1660 2804 D	08/06/01	2037
05	ZZZZZ	AR1660 2805 E	08/06/01	2125
06	ZZZZZ	AR1221 1108	08/06/01	2213
07	ZZZZZ	AR1232 1205	08/06/01	2301
08	ZZZZZ	AR1242 1304	08/06/01	2349
09	ZZZZZ	AR1248 1101	08/07/01	0037
10	ZZZZZ	AR1254 9403 C	08/07/01	0125

FORM VIII PEST

8H

PESTICIDE ANALYSIS SEQUENCE

Lab Name: Lionville Labs, Inc.

Contract: 02744-064-001-9999-00

Client: LANL REQ #9432R

GC Sample ID: 08180135

Instrument ID: 35

GC Column ID: DB608

Dates of Analyses: 08/18/01 to 08/20/01

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED
01	ZZZZZ	AR1660 2803 C	08/18/01	2008
02	ZZZZZ	AR1660 2803 C	08/19/01	2315
03	ZZZZZ	0108L477-001T	08/20/01	0003
04	ZZZZZ	0108L477-002	08/20/01	0051
05	ZZZZZ	0108L535-003	08/20/01	0139
06	ZZZZZ	0108L535-004	08/20/01	0227
07	PBLKMWLE0920	01LE0920-MB1	08/20/01	0315
08	PBLKMWLE0920 MS	01LE0920-MB1S	08/20/01	0402
09	RC03-01-0001 03	0107L423-001	08/20/01	0450
10	RC03-01-0002 03	0107L423-002	08/20/01	0538
11	RC03-01-0003 03	0107L423-003	08/20/01	0626
12	RC03-01-0004 03	0107L423-004	08/20/01	0714
13	ZZZZZ	HEXANE	08/20/01	0802
14	ZZZZZ	AR1660 2803 C	08/20/01	0849

FORM VIII PEST

8H

PESTICIDE ANALYSIS SEQUENCE

Lab Name: Lionville Labs, Inc. Contract: 02744-064-001-9999-00

Client: LANL REQ #9432R GC Sample ID: 08180136

Instrument ID: 36 GC Column ID: RTX1701

Dates of Analyses: 08/18/01 to 08/20/01

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED
01	ZZZZZ	AR1660 2803 C	08/18/01	2008
02	ZZZZZ	AR1660 2803 C	08/19/01	2315
03	ZZZZZ	0108L477-001T	08/20/01	0003
04	ZZZZZ	0108L477-002	08/20/01	0051
05	ZZZZZ	0108L535-003	08/20/01	0139
06	ZZZZZ	0108L535-004	08/20/01	0227
07	PBLKMWLE0920	01LE0920-MB1	08/20/01	0315
08	PBLKMWLE0920 MS	01LE0920-MB1S	08/20/01	0402
09	RC03-01-0001 03	0107L423-001	08/20/01	0450
10	RC03-01-0002 03	0107L423-002	08/20/01	0538
11	RC03-01-0003 03	0107L423-003	08/20/01	0626
12	RC03-01-0004 03	0107L423-004	08/20/01	0714
13	ZZZZZ	HEXANE	08/20/01	0802
14	ZZZZZ	AR1660 2803 C	08/20/01	0849

FORM VIII PEST

8H

PESTICIDE ANALYSIS SEQUENCE

Lab Name: Lionville Labs, Inc.

Contract: 02744-064-001-9999-00

Client: LANL REQ #9432R

GC Sample ID: 08210135

Instrument ID: 35

GC Column ID: DB608

Dates of Analyses: 08/21/01 to 08/23/01

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED
01	ZZZZZ	AR1660 2801 A	08/21/01	1923
02	ZZZZZ	AR1660 2802 B	08/21/01	2011
03	ZZZZZ	AR1660 2803 C	08/21/01	2059
04	ZZZZZ	AR1660 2804 D	08/21/01	2147
05	ZZZZZ	AR1660 2805 E	08/21/01	2235
06	ZZZZZ	AR1221 1108	08/21/01	2323
07	ZZZZZ	AR1232 1205	08/22/01	0011
08	ZZZZZ	AR1242 1304	08/22/01	0059
09	ZZZZZ	AR1248 1101	08/22/01	0146
10	ZZZZZ	AR1254 9403 C	08/22/01	0234
11	ZZZZZ	AR1660 2803 C	08/22/01	1431
12	ZZZZZ	0107L401-012	08/22/01	1519
13	ZZZZZ	0107L401-013	08/22/01	1608
14	ZZZZZ	0107L401-014	08/22/01	1655
15	RC03-01-0001 03	0107L423-001	08/22/01	1743
16	RC03-01-0003 03	0107L423-003	08/22/01	1831
17	RC03-01-0004 03	0107L423-004	08/22/01	1919
18	RC03-01-0005 03	0107L423-005	08/22/01	2007
19	RC03-01-0006 03	0107L423-006	08/22/01	2055
20	RC03-01-0007 03	0107L423-008	08/22/01	2143
21	RC03-01-0008 03	0107L423-010	08/22/01	2231
22	ZZZZZ	HEXANE	08/22/01	2319
23	ZZZZZ	AR1660 2803 C	08/23/01	0006
24	RC03-01-0009 03	0107L423-012	08/23/01	0054
25	RC03-01-0010 03	0107L423-014	08/23/01	0142
26	RC03-01-0010 03MS	0107L423-014S	08/23/01	0230
27	RC03-01-0010 03MSD	0107L423-014T	08/23/01	0318
28	ZZZZZ	0107L436-001	08/23/01	0406
29	ZZZZZ	0107L436-002	08/23/01	0454
30	ZZZZZ	0107L436-003	08/23/01	0542
31	ZZZZZ	HEXANE	08/23/01	0630
32	ZZZZZ	AR1660 2803 C	08/23/01	0718

FORM VIII PEST

8H

PESTICIDE ANALYSIS SEQUENCE

Lab Name: Lionville Labs, Inc.

Contract: 02744-064-001-9999-00

Client: LANL REQ #9432R

GC Sample ID: 08210136

Instrument ID: 36

GC Column ID: RTX1701

Dates of Analyses: 08/21/01 to 08/23/01

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED
01	ZZZZZ	AR1660 2801 A	08/21/01	1923
02	ZZZZZ	AR1660 2802 B	08/21/01	2011
03	ZZZZZ	AR1660 2803 C	08/21/01	2059
04	ZZZZZ	AR1660 2804 D	08/21/01	2147
05	ZZZZZ	AR1660 2805 E	08/21/01	2235
06	ZZZZZ	AR1221 1108	08/21/01	2323
07	ZZZZZ	AR1232 1205	08/22/01	0011
08	ZZZZZ	AR1242 1304	08/22/01	0059
09	ZZZZZ	AR1248 1101	08/22/01	0146
10	ZZZZZ	AR1254 9403 C	08/22/01	0234
11	ZZZZZ	AR1660 2803 C	08/22/01	1431
12	ZZZZZ	0107L401-012	08/22/01	1519
13	ZZZZZ	0107L401-013	08/22/01	1608
14	ZZZZZ	0107L401-014	08/22/01	1655
15	RC03-01-0001 03	0107L423-001	08/22/01	1743
16	RC03-01-0003 03	0107L423-003	08/22/01	1831
17	RC03-01-0004 03	0107L423-004	08/22/01	1919
18	RC03-01-0005 03	0107L423-005	08/22/01	2007
19	RC03-01-0006 03	0107L423-006	08/22/01	2055
20	RC03-01-0007 03	0107L423-008	08/22/01	2143
21	RC03-01-0008 03	0107L423-010	08/22/01	2231
22	ZZZZZ	HEXANE	08/22/01	2319
23	ZZZZZ	AR1660 2803 C	08/23/01	0006
24	RC03-01-0009 03	0107L423-012	08/23/01	0054
25	RC03-01-0010 03	0107L423-014	08/23/01	0142
26	RC03-01-0010 03MS	0107L423-014S	08/23/01	0230
27	RC03-01-0010 03MSD	0107L423-014T	08/23/01	0318
28	ZZZZZ	0107L436-001	08/23/01	0406
29	ZZZZZ	0107L436-002	08/23/01	0454
30	ZZZZZ	0107L436-003	08/23/01	0542
31	ZZZZZ	HEXANE	08/23/01	0630
32	ZZZZZ	AR1660 2803 C	08/23/01	0718

Pb/Strub

FORM VIII PEST

CALIBRATION VERIFICATION SUMMARY

Lab Name: Lionville Labs, Inc.

Contract: NONE

Client: LAB

GC Sample ID: 08180135.04

RFW Lot No.: _____

GC Column: DB608

Instrument ID: 35

Method: P3560

DATE(S) OF INIT. CALIB FROM: 08/06/01 TO: 08/07/01

DATE OF ANALYSIS 08/18/01
TIME OF ANALYSIS 2008
STANDARD ID: AR1660 2803 C

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	INITIAL RESP. FACT.	RT	CONTINUING RESP. FACT.	FL	%D
Aroclor-1016	11.75	11.68	11.82	85611	11.75	78550		- 8.2
Aroclor-1016	13.38	13.31	13.45	168309	13.38	155590		- 7.6
Aroclor-1016	14.91	14.84	14.98	213306	14.91	187720		- 12
Aroclor-1016	15.47	15.40	15.54	102062	15.47	90420		- 11
Aroclor-1016	17.26	17.18	17.32	93152	17.26	83450		- 10
Total				**662440**		**595730**		**- 10**
Aroclor-1260	21.63	21.56	21.70	228716	21.63	210730		- 7.9
Aroclor-1260	22.10	22.03	22.17	249376	22.10	229050		- 8.2
Aroclor-1260	23.75	23.68	23.82	167057	23.75	147580		- 12
Aroclor-1260	24.94	24.87	25.01	187462	24.94	162710		- 13
Aroclor-1260	25.56	25.49	25.63	333574	25.56	293950		- 12
Total				**1166185**		**1044020**		**- 10**
Toxaphene								
Toxaphene								
Toxaphene								
Toxaphene								
Toxaphene								
Total								

%D should not exceed 15%

Floyd 8/21/01

RFW 9/93 A

CALIBRATION VERIFICATION SUMMARY

Lab Name: Lionville Labs, Inc.

Contract: NONE

Client: LAB

GC Sample ID: 08180135.38

RFW Lot No.: _____

GC Column: DB608

Instrument ID: 35

Method: P3560

DATE(S) OF INIT. CALIB FROM: 08/06/01 TO: 08/07/01

DATE OF ANALYSIS 08/19/01
TIME OF ANALYSIS 2315
STANDARD ID: AR1660 2803 C

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	INITIAL RESP. FACT.	RT	CONTINUING RESP. FACT.	FL	%D
Aroclor-1016	11.75	11.68	11.82	85611	11.77	76250		- 11
Aroclor-1016	13.38	13.31	13.45	168309	13.40	151550		- 10
Aroclor-1016	14.91	14.84	14.98	213306	14.94	182390		- 14
Aroclor-1016	15.47	15.40	15.54	102062	15.49	86410		- 15
Aroclor-1016	17.26	17.18	17.32	93152	17.28	81570		- 12
Total				**662440**		**578170**		**- 13**
Aroclor-1260	21.63	21.56	21.70	228716	21.66	211320		- 7.6
Aroclor-1260	22.10	22.03	22.17	249376	22.12	225650		- 9.5
Aroclor-1260	23.75	23.68	23.82	167057	23.78	149750		- 10
Aroclor-1260	24.94	24.87	25.01	187462	24.96	165160		- 12
Aroclor-1260	25.56	25.49	25.63	333574	25.58	298700		- 10
Total				**1166185**		**1050580**		**- 9.9**
Toxaphene								
Toxaphene								
Toxaphene								
Toxaphene								
Toxaphene								
Total								

%D should not exceed 15%

Fleger 8/24/01

RFW 9/93 A

CALIBRATION VERIFICATION SUMMARY

Lab Name: Lionville Labs, Inc.

Contract: NONE

Client: LAB

GC Sample ID: 08180135.50

RFW Lot No.:

GC Column: DB608

Instrument ID: 35

Method: P3560

DATE(S) OF INIT. CALIB FROM: 08/06/01 TO: 08/07/01

DATE OF ANALYSIS 08/20/01
TIME OF ANALYSIS 0849
STANDARD ID: AR1660 2803 C

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	INITIAL RESP. FACT.	RT	CONTINUING RESP. FACT.	FL	%D
Aroclor-1016	11.75	11.68	11.82	85611	11.78	76600		- 11
Aroclor-1016	13.38	13.31	13.45	168309	13.41	149310		- 11
Aroclor-1016	14.91	14.84	14.98	213306	14.94	182300		- 15
Aroclor-1016	15.47	15.40	15.54	102062	15.50	85690	+	- 16
Aroclor-1016	17.26	17.18	17.32	93152	17.29	79800		- 14
Total				**662440**		**573700**		**- 13**
Aroclor-1260	21.63	21.56	21.70	228716	21.67	194500		- 15
Aroclor-1260	22.10	22.03	22.17	249376	22.13	211900		- 15
Aroclor-1260	23.75	23.68	23.82	167057	23.79	135860	+	- 19
Aroclor-1260	24.94	24.87	25.01	187462	24.97	150890	+	- 20
Aroclor-1260	25.56	25.49	25.63	333574	25.59	278790	+	- 16
Total				**1166185**		**971940**	+	**- 17**
Toxaphene								
Toxaphene								
Toxaphene								
Toxaphene								
Toxaphene								
Total								

%D should not exceed 15%

CALIBRATION VERIFICATION SUMMARY

Lab Name: Lionville Labs, Inc.

Contract: _____

Client: _____

GC Sample ID: 08180136.04

RFW Lot No.: _____

GC Column: RTX-1701

Instrument ID: 36

Method: P3660

DATE(S) OF INIT. CALIB FROM: 08/06/01 TO: 08/07/01

DATE OF ANALYSIS 08/18/01
TIME OF ANALYSIS 2008
STANDARD ID: AR1660 2803 C

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	INITIAL RESP. FACT.	RT	CONTINUING RESP. FACT.	FL	%D
Aroclor-1016	9.79	9.72	9.86	42589	9.79	41940		- 1.5
Aroclor-1016	11.24	11.17	11.31	71454	11.24	69700		- 2.5
Aroclor-1016	12.85	12.78	12.92	99691	12.85	93310		- 6.4
Aroclor-1016	13.32	13.25	13.39	58336	13.32	54710		- 6.2
Aroclor-1016	14.95	14.88	15.02	48670	14.95	47080		- 3.3
Total				**320740**		**306740**		**- 4.4**
Aroclor-1260	19.26	19.19	19.33	117484	19.26	115750		- 1.5
Aroclor-1260	19.97	19.90	20.04	128538	19.97	126190		- 1.8
Aroclor-1260	21.47	21.40	21.54	90423	21.47	88420		- 2.2
Aroclor-1260	22.46	22.39	22.53	90442	22.46	87870		- 2.8
Aroclor-1260	23.30	23.23	23.37	174902	23.30	168170		- 3.8
Total				**601789**		**586400**		**- 2.6**
Toxaphene								
Toxaphene								
Toxaphene								
Toxaphene								
Toxaphene								
Toxaphene								
Total								

%D should not exceed 15%

CALIBRATION VERIFICATION SUMMARY

Lab Name: Lionville Labs, Inc.

Contract: _____

Client: _____

GC Sample ID: 08180136.38

RFW Lot No.: _____

GC Column: RTX-1701

Instrument ID: 36

Method: P3660

DATE(S) OF INIT. CALIB FROM: 08/06/01 TO: 08/07/01

DATE OF ANALYSIS 08/19/01
TIME OF ANALYSIS 2315
STANDARD ID: AR1660 2803 C

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	INITIAL RESP. FACT.	RT	CONTINUING RESP. FACT.	FL	%D
Aroclor-1016	9.79	9.72	9.86	42589	9.81	39500		- 7.3
Aroclor-1016	11.24	11.17	11.31	71454	11.26	67380		- 5.7
Aroclor-1016	12.85	12.78	12.92	99691	12.87	88330		- 11
Aroclor-1016	13.32	13.25	13.39	58336	13.34	51990		- 11
Aroclor-1016	14.95	14.88	15.02	48670	14.97	45630		- 6.2
Total				320740		292830		- 8.7
Aroclor-1260	19.26	19.19	19.33	117484	19.28	114680		- 2.4
Aroclor-1260	19.97	19.90	20.04	128538	19.99	123050		- 4.3
Aroclor-1260	21.47	21.40	21.54	90423	21.49	87330		- 3.4
Aroclor-1260	22.46	22.39	22.53	90442	22.48	86650		- 4.2
Aroclor-1260	23.30	23.23	23.37	174902	23.32	164270		- 6.1
Total				601789		575980		- 4.3
Toxaphene								
Toxaphene								
Toxaphene								
Toxaphene								
Toxaphene								
Total								

%D should not exceed 15%

Hego 8/24/01

CALIBRATION VERIFICATION SUMMARY

Lab Name: Lionville Labs, Inc.

Contract: _____

Client: _____

GC Sample ID: 08180136.50

RFW Lot No.: _____

GC Column: RTX-1701

Instrument ID: 36

Method: P3660

DATE(S) OF INIT. CALIB FROM: 08/06/01 TO: 08/07/01

DATE OF ANALYSIS 08/20/01
TIME OF ANALYSIS 0849
STANDARD ID: AR1660 2803 C

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	INITIAL RESP. FACT.	RT	CONTINUING RESP. FACT.	FL	%D
Aroclor-1016	9.79	9.72	9.86	42589	9.81	40990		- 3.8
Aroclor-1016	11.24	11.17	11.31	71454	11.27	69630		- 2.6
Aroclor-1016	12.85	12.78	12.92	99691	12.88	92800		- 6.9
Aroclor-1016	13.32	13.25	13.39	58336	13.35	54380		- 6.8
Aroclor-1016	14.95	14.88	15.02	48670	14.98	46910		- 3.6
Total				**320740**		**304710**		**- 5.0**
Aroclor-1260	19.26	19.19	19.33	117484	19.29	114580		- 2.5
Aroclor-1260	19.97	19.90	20.04	128538	20.00	127260		- 1
Aroclor-1260	21.47	21.40	21.54	90423	21.50	86080		- 4.8
Aroclor-1260	22.46	22.39	22.53	90442	22.49	84820		- 6.2
Aroclor-1260	23.30	23.23	23.37	174902	23.33	165910		- 5.1
Total				**601789**		**578650**		**- 3.8**
Toxaphene								
Toxaphene								
Toxaphene								
Toxaphene								
Toxaphene								
Total								

%D should not exceed 15%

Flyge 8/24/01

RFW 9/93 A

CALIBRATION VERIFICATION SUMMARY

Lab Name: Lionville Labs, Inc.

Contract: NONE

Client: LAB

GC Sample ID: 08210135.28

RFW Lot No.:

GC Column: DB608

Instrument ID: 35

Method: P3560

DATE(S) OF INIT. CALIB FROM: 08/21/01 TO: 08/21/01

DATE OF ANALYSIS 08/22/01
TIME OF ANALYSIS 1431
STANDARD ID: AR1660 2803 C

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	INITIAL RESP. FACT.	RT	CONTINUING RESP. FACT.	FL	%D
Aroclor-1016	11.80	11.73	11.87	76017	11.83	81570		7.3
Aroclor-1016	13.44	13.37	13.51	153525	13.46	159120		3.6
Aroclor-1016	14.97	14.90	15.04	196658	15.00	202960		3.2
Aroclor-1016	15.52	15.45	15.59	92387	15.55	96300		4.2
Aroclor-1016	17.31	17.24	17.38	85660	17.34	87890		2.6
Total				**604247**		**627840**		**3.9**
~~Aroclor-1260~~	~~21.69~~	~~21.62~~	~~21.76~~	~~214192~~	~~21.72~~	~~198400~~		~~- 7.4~~
Aroclor-1260	22.16	22.09	22.23	230284	22.19	222980		- 3.2
Aroclor-1260	23.61	23.54	23.68	145056	23.64	142370		- 1.9
Aroclor-1260	25.00	24.93	25.07	162945	25.03	149760		- 8.1
Aroclor-1260	25.62	25.55	25.69	295714	25.65	288720		- 2.4
Total				**1048191**		**1002230**		**- 4.4**
Toxaphene								
Toxaphene								
Toxaphene								
Toxaphene								
Toxaphene								
Total								

%D should not exceed 15%

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RFW 9/93 A

CALIBRATION VERIFICATION SUMMARY

Lab Name: Lionville Labs, Inc.

Contract: NONE

Client: LAB

GC Sample ID: 08210135.40

RFW Lot No.: _____

GC Column: DB608

Instrument ID: 35

Method: P3560

DATE(S) OF INIT. CALIB FROM: 08/21/01 TO: 08/21/01

DATE OF ANALYSIS 08/23/01
TIME OF ANALYSIS 0006
STANDARD ID: AR1660 2803 C

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	INITIAL RESP. FACT.	RT	CONTINUING RESP. FACT.	FL	%D
Aroclor-1016	11.80	11.73	11.87	76017	11.85	74180		- 2.4
Aroclor-1016	13.44	13.37	13.51	153525	13.48	141460		- 7.9
Aroclor-1016	14.97	14.90	15.04	196658	15.02	177420		- 9.8
Aroclor-1016	15.52	15.45	15.59	92387	15.58	81680		- 12
Aroclor-1016	17.31	17.24	17.38	85660	17.36	74050		- 14
Total				**604247**		**548790**		**- 9.2**
~~Aroclor-1260~~	~~21.69~~	~~21.62~~	~~21.76~~	~~214192~~	~~21.75~~	~~169950~~	~~*~~	~~- 21~~
Aroclor-1260	22.16	22.09	22.23	230284	22.22	192920	+	- 16
Aroclor-1260	23.61	23.54	23.68	145056	23.66	129760		- 11
Aroclor-1260	25.00	24.93	25.07	162945	25.06	131130	+	- 20
Aroclor-1260	25.62	25.55	25.69	295714	25.68	264730		- 10
Total				**1048191**		**888490**		**- 15**
Toxaphene								
Toxaphene								
Toxaphene								
Toxaphene								
Toxaphene								
Total								

%D should not exceed 15%

8/24/01

CALIBRATION VERIFICATION SUMMARY

Lab Name: Lionville Labs, Inc.

Contract: NONE

Client: LAB

GC Sample ID: 08210135.49

RFW Lot No.:

GC Column: DB608

Instrument ID: 35

Method: P3560

DATE(S) OF INIT. CALIB FROM: 08/21/01 TO: 08/21/01

DATE OF ANALYSIS 08/23/01
TIME OF ANALYSIS 0718
STANDARD ID: AR1660 2803 C

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	INITIAL RESP. FACT.	RT	CONTINUING RESP. FACT.	FL	%D
Aroclor-1016	11.80	11.73	11.87	76017	11.86	75930		- 0.1
Aroclor-1016	13.44	13.37	13.51	153525	13.49	147710		- 3.8
Aroclor-1016	14.97	14.90	15.04	196658	15.03	186080		- 5.4
Aroclor-1016	15.52	15.45	15.59	92387	15.58	86020		- 6.9
Aroclor-1016	17.31	17.24	17.38	85660	17.37	76850		- 10
Total				**604247**		**572590**		**- 5.2**
~~Aroclor-1260~~	~~21.69~~	~~21.62~~	~~21.76~~	~~214192~~	~~21.76~~	~~169380~~	~~*~~	~~- 21~~
Aroclor-1260	22.16	22.09	22.23	230284	22.22	188130	+	- 18
Aroclor-1260	23.61	23.54	23.68	145056	23.67	123540		- 15
Aroclor-1260	25.00	24.93	25.07	162945	25.06	128770	*	- 21
Aroclor-1260	25.62	25.55	25.69	295714	25.68	255600		- 14
Total				**1048191**		**865420**	+	**- 17**
Toxaphene								
Toxaphene								
Toxaphene								
Toxaphene								
Toxaphene								
Total								

%D should not exceed 15%

8/24/01

CALIBRATION VERIFICATION SUMMARY

Lab Name: Lionville Labs, Inc.

Contract: _____

Client: _____

GC Sample ID: 08210136.28

RFW Lot No.: _____

GC Column: RTX1701

Instrument ID: 36

Method: P3660

DATE(S) OF INIT. CALIB FROM: 08/21/01 TO: 08/21/01

DATE OF ANALYSIS 08/22/01
TIME OF ANALYSIS 1431
STANDARD ID: AR1660 2803 C

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	INITIAL RESP. FACT.	RT	CONTINUING RESP. FACT.	FL	%D
Aroclor-1016	9.83	9.76	9.90	38559	9.86	44030		14
Aroclor-1016	11.29	11.22	11.36	68440	11.31	73730		7.7
Aroclor-1016	12.90	12.83	12.97	92614	12.92	101550		9.6
Aroclor-1016	13.37	13.30	13.44	54515	13.39	60300		11
Aroclor-1016	15.00	14.93	15.07	47043	15.02	51810		10
Total				**301171**		**331420**		**10**
Aroclor-1260	19.31	19.24	19.38	115691	19.34	120510		4.2
Aroclor-1260	20.02	19.95	20.09	125167	20.05	135740		8.4
Aroclor-1260	21.52	21.45	21.59	87201	21.55	90450		3.7
Aroclor-1260	22.51	22.44	22.58	86952	22.54	88050		1.3
Aroclor-1260	23.35	23.28	23.42	164882	23.38	175110		6.2
Total				**579893**		**609860**		**5.2**
Toxaphene								
Toxaphene								
Toxaphene								
Toxaphene								
Toxaphene								
Total								

%D should not exceed 15%

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RFW 9/93 A

CALIBRATION VERIFICATION SUMMARY

Lab Name: Lionville Labs, Inc.

Contract: _____

Client: _____

GC Sample ID: 08210136.40

RFW Lot No.: _____

GC Column: RTX1701

Instrument ID: 36

DATE(S) OF INIT. CALIB FROM: 08/21/01 TO: 08/21/01

DATE OF ANALYSIS 08/23/01
TIME OF ANALYSIS 0006
STANDARD ID: AR1660 2803 C

Method: P3660

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	INITIAL RESP. FACT.	RT	CONTINUING RESP. FACT.	FL	%D
Aroclor-1016	9.83	9.76	9.90	38559	9.88	41420		7.4
Aroclor-1016	11.29	11.22	11.36	68440	11.34	69840		2.0
Aroclor-1016	12.90	12.83	12.97	92614	12.95	96710		4.4
Aroclor-1016	13.37	13.30	13.44	54515	13.42	55820		2.4
Aroclor-1016	15.00	14.93	15.07	47043	15.05	47880		1.8
Total				**301171**		**311670**		**3.5**
Aroclor-1260	19.31	19.24	19.38	115691	19.37	107980		- 6.7
Aroclor-1260	20.02	19.95	20.09	125167	20.08	121680		- 2.8
Aroclor-1260	21.52	21.45	21.59	87201	21.58	79600		- 8.7
Aroclor-1260	22.51	22.44	22.58	86952	22.56	77030		- 11
Aroclor-1260	23.35	23.28	23.42	164882	23.41	158850		- 3.7
Total				**579893**		**545140**		**- 6.0**
Toxaphene								
Toxaphene								
Toxaphene								
Toxaphene								
Toxaphene								
Total								

%D should not exceed 15%

CALIBRATION VERIFICATION SUMMARY

Lab Name: Lionville Labs, Inc.

Contract: _____

Client: _____

GC Sample ID: 08210136.49

RFW Lot No.: _____

GC Column: RTX1701

Instrument ID: 36

Method: P3660

DATE(S) OF INIT. CALIB FROM: 08/21/01 TO: 08/21/01

DATE OF ANALYSIS 08/23/01
TIME OF ANALYSIS 0718
STANDARD ID: AR1660 2803 C

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	INITIAL RESP. FACT.	RT	CONTINUING RESP. FACT.	FL	%D
Aroclor-1016	9.83	9.76	9.90	38559	9.88	40490		5.0
Aroclor-1016	11.29	11.22	11.36	68440	11.34	68600		0.2
Aroclor-1016	12.90	12.83	12.97	92614	12.95	96480		4.2
Aroclor-1016	13.37	13.30	13.44	54515	13.43	54920		0.7
Aroclor-1016	15.00	14.93	15.07	47043	15.05	47730		1.5
Total				**301171**		**308220**		**2.3**
~~Aroclor-1260~~	~~19.31~~	~~19.24~~	~~19.38~~	~~115691~~	~~19.37~~	~~107010~~		~~- 7.5~~
Aroclor-1260	20.02	19.95	20.09	125167	20.08	119940		- 4.2
Aroclor-1260	21.52	21.45	21.59	87201	21.58	78070		- 10
Aroclor-1260	22.51	22.44	22.58	86952	22.57	75120		- 14
Aroclor-1260	23.35	23.28	23.42	164882	23.42	154150		- 6.5
Total				**579893**		**534290**		**- 7.9**
Toxaphene								
Toxaphene								
Toxaphene								
Toxaphene								
Toxaphene								
Total								

%D should not exceed 15%

Addendum

Multilevel Calibration Method Report

Calibration curve statistics are presented on the Multilevel Calibration Method reports. This report includes the type of calibration preformed, the file reference (i.e. 06209811.06) of the calibration standards used, the slope and intercept of the curve for each analyte, and the curve fit statistics. The column labeled as "CORR COEFF" presents the coefficient of determination (r^2) for each analyte. Our laboratory acceptance criteria are based on the correlation coefficient ® being at least 0.996. Therefore, the minimum acceptance value for "CORR COEFF" (r^2) on the Multilevel Calibration Method report is 0.992.

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Multilevel Calibration Method

calibrated using height
Lionville Laboratory, Incorporated

% RSD TCX

INJECTION #		PEAK HEIGHT	CONC. (ug/mL)	PEAK HT. / CONC	MEAN	DEV.	%RSD
08060135.05	LEVEL A	11887	0.04	297175			
08060135.06	LEVEL B	30969	0.1	309690			
08060135.07	LEVEL C	65924	0.2	329620	316009.1	13235.8811	4.18844936 ✓
08060135.08	LEVEL D	130795	0.4	326987.5			
08060135.09	LEVEL E	316573	1	316573			

% RSD DCB

INJECTION #		PEAK HEIGHT	CONC. (ug/mL)	PEAK HT. / CONC	MEAN	DEV.	%RSD
08060135.05	LEVEL A	10801	0.008	1350125			
08060135.06	LEVEL B	26129	0.02	1306450			
08060135.07	LEVEL C	50995	0.04	1274875	1252684.5	85574.3157	6.83127441 ✓
08060135.08	LEVEL D	95381	0.08	1192262.5			
08060135.09	LEVEL E	227942	0.2	1139710			

AR1016
$\bar{x}$ = 446084.1
σ_{n-1} = 44418.875
%RSD = 9.96%

AR1260
$\bar{x}$ = 823723.6
σ_{n-1} = 45305.379
%RSD = 5.50%

AR1254 (QC)
RF = 0.1790 x10^{-5}

AR1260 (sample 002)
RF = 0.1187 x10^{-5}

 8/7/01
MK

Multilevel Calibration Method

calibrated using height
Lionville Laboratory, Incorporated

% RSD TCX

INJECTION #		PEAK HEIGHT	CONC. (ug/mL)	PEAK HT. / CONC	MEAN	DEV.	%RSD
08060136.05	LEVEL A	5925	0.04	148125			
08060136.06	LEVEL B	15433	0.1	154330			
08060136.07	LEVEL C	33205	0.2	166025	163934.1	12945.8032	7.89695569 ✓
08060136.08	LEVEL D	68201	0.4	170502.5			
08060136.09	LEVEL E	180688	1	180688			

% RSD DCB

INJECTION #		PEAK HEIGHT	CONC. (ug/mL)	PEAK HT. / CONC	MEAN	DEV.	%RSD
08060136.05	LEVEL A	7312	0.008	914000			
08060136.06	LEVEL B	18232	0.02	911600			
08060136.07	LEVEL C	36156	0.04	903900	885265	36103.0539	4.07821996 ✓
08060136.08	LEVEL D	69294	0.08	866175			
08060136.09	LEVEL E	166130	0.2	830650			

AR1016
$\bar{x}$ = 223895.2
σ = 10742.46
%RSD = 4.80%

AR1260
$\bar{x}$ = 437478.7
σ = 9446.307
%RSD = 2.16%

AR1254 (QC)
RF = 0.3722×10^{-5}

AR1260 (sample 002)
RF = 0.2231×10^{-5}

1078/7/01
MK

Multilevel Calibration Method

calibrated using height
Lionville Laboratory, Incorporated

% RSD TCX

INJECTION #		PEAK HEIGHT	CONC. (ug/mL)	PEAK HT. / CONC	MEAN	DEV.	%RSD
08210135.04	LEVEL A	10075	0.04	251875			
08210135.05	LEVEL B	27693	0.1	276930			
08210135.06	LEVEL C	55951	0.2	279755	273183.3	12205.9166	4.46803175
08210135.07	LEVEL D	112865	0.4	282162.5			
08210135.08	LEVEL E	275194	1	275194			

% RSD DCB

INJECTION #		PEAK HEIGHT	CONC. (ug/mL)	PEAK HT. / CONC	MEAN	DEV.	%RSD
08210135.04	LEVEL A	9654	0.008	1206750			
08210135.05	LEVEL B	23980	0.02	1199000			
08210135.06	LEVEL C	45787	0.04	1144675	1139389	69244.2185	6.07731148
08210135.07	LEVEL D	88582	0.08	1107275			
08210135.08	LEVEL E	207849	0.2	1039245			

AR1016
$\bar{x}$ = 413881.7
σ_{n-1} = 42653.4285
%RSD = 10.31%

AR1260
$\bar{x}$ = 748594.8
σ_{n-1} = 38340.7037
%RSD = 5.12%

AR1254 (MS, MSD)
RF = 0.2481×10^{-5}

AR1260 (samples: 001, 003-006, 008, 009, MS, MSD)
RF = 0.1690×10^{-5}

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Multilevel Calibration Method

calibrated using height
Lionville Laboratory, Incorporated

% RSD TCX

INJECTION #		PEAK HEIGHT	CONC. (ug/mL)	PEAK HT. / CONC	MEAN	DEV.	%RSD
08210136.04	LEVEL A	5060	0.04	126500			
08210136.05	LEVEL B	13625	0.1	136250			
08210136.06	LEVEL C	27228	0.2	136140	138459.1	8922.71016	6.44429305
08210136.07	LEVEL D	57151	0.4	142877.5			
08210136.08	LEVEL E	150528	1	150528			

% RSD DCB

INJECTION #		PEAK HEIGHT	CONC. (ug/mL)	PEAK HT. / CONC	MEAN	DEV.	%RSD
08210136.04	LEVEL A	6901	0.008	862625			
08210136.05	LEVEL B	17188	0.02	859400			
08210136.06	LEVEL C	33150	0.04	828750	826190.5	37597.3114	4.5506831
08210136.07	LEVEL D	64605	0.08	807562.5			
08210136.08	LEVEL E	154523	0.2	772615			

AR1016
$\bar{x}$ = 215652.1
σ = 15758.5065
%RSD = 7.31%

AR1260
$\bar{x}$ = 428379
σ = 15469.5723
%RSD = 3.61%

AR1260 (samples: 001, 003-006, 008, ~~012~~ shutdmic, 014, MS, MSD)
RF = 0.3074×10^{-5}

AR1254 (MS, MSD)
RF = 0.5751×10^{-5}

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MULTI-COMPONENT STANDARD CONCENTRATIONS

COMPOUND	ID #	CONC (ng/ul)
TOXAPHENE	80481005	0.5
AROCLOR 1016	80480704; 0705	0.1
AROCLOR 1221	80481106	0.2
AROCLOR 1232	80481203	0.1
AROCLOR 1242	80481302	0.1
AROCLOR 1248	80481702	0.1
AROCLOR 1254	80480803	0.1
AROCLOR 1260	80480704; 0705	0.1

BREAKDOWN EVALUATION MIX CONCENTRATION

EVAL
80481504, 1506

COMPOUND	CONC (ng/ul)
ENDRIN	0.025
4,4'-DDT	0.05

PESTICIDE STANDARD CONCENTRATIONS

INDA MIXTURES
(NG/UL)

COMPOUND	80487301 A	80487302 B	80487303 C	80487304 D	80487305 E
TETRACHLORO-M-XYLENE	0.010	0.024	0.040	0.080	0.120
ALPHA-BHC	0.005	0.012	0.020	0.040	0.060
GAMMA-BHC	0.005	0.012	0.020	0.040	0.060
HEPTACHLOR	0.005	0.012	0.020	0.040	0.060
ENDOSULFAN I	0.005	0.012	0.020	0.040	0.060
DIELDRIN	0.010	0.024	0.040	0.080	0.120
ENDRIN	0.010	0.024	0.040	0.080	0.120
4,4'-DDD	0.010	0.024	0.040	0.080	0.120
4,4'-DDT	0.010	0.024	0.040	0.080	0.120
METHOXYCHLOR	0.050	0.120	0.200	0.400	0.600
DECACHLOROBIPHENYL	0.024	0.060	0.100	0.200	0.300

INDB MIXTURES
(NG/UL)

COMPOUND	80486301 A	80486302 B	80486303 C	80486304 D	80486305 E
TETRACHLORO-M-XYLENE	0.010	0.024	0.040	0.080	0.120
BETA-BHC	0.005	0.012	0.020	0.040	0.060
DELTA-BHC	0.005	0.012	0.020	0.040	0.060
ALDRIN	0.005	0.012	0.020	0.040	0.060
HEPTACHLOREPOXIDE	0.005	0.012	0.020	0.040	0.060
G-CHLORDANE	0.005	0.012	0.020	0.040	0.060
A-CHLORDANE	0.005	0.012	0.020	0.040	0.060
4,4'-DDE	0.010	0.024	0.040	0.080	0.120
ENDOSULFAN II	0.010	0.024	0.040	0.080	0.120
ENDRIN ALDEHYDE	0.010	0.024	0.040	0.080	0.120
ENDOSULFAN SULFATE	0.010	0.024	0.040	0.080	0.120
ENDRIN KETONE	0.010	0.024	0.040	0.080	0.120
DECACHLOROBIPHENYL	0.024	0.060	0.100	0.200	0.300

MULTICOMPONENT STANDARD CONCENTRACTION

AR1660
(NG/UL)

	80486101 A	80486102 B	80486103 C	80486104 D	80486105 E
Aroclor-1016	0.04	0.10	0.20	0.40	1.0
Aroclor-1260	0.04	0.10	0.20	0.40	1.0
TCX	0.008	0.02	0.04	0.08	0.2
DCB	0.008	0.02	0.04	0.08	0.2

AR1242
(NG/UL)

Aroclor-1242	0.04	0.10	0.20	0.40	1.0
TCX	0.008	0.02	0.04	0.08	0.2
DCB	0.008	0.02	0.04	0.08	0.2

AR1248
(NG/UL)

Aroclor-1248	0.04	0.10	0.20	0.40	1.0
TCX	0.008	0.02	0.04	0.08	0.2
DCB	0.008	0.02	0.04	0.08	0.2

AR1254
(NG/UL)

	80486501 A	80486502 B	80486503 C	80486504 D	80486505 E
Aroclor-1254	0.04	0.10	0.20	0.40	1.0
TCX	0.008	0.02	0.04	0.08	0.2
DCB	0.008	0.02	0.04	0.08	0.2

MULTICOMPONENT STANDARD CONCENTRACTION

	AR1232 (NG/UL)
Aroclor-1232	0.20
TCX	0.04
DCB	0.04

	AR1221 (NG/UL)
	80481107 A
Aroclor-1221	0.04
TCX	0.008
DCB	0.008

TOXAPHENE (NG/UL)

Toxaphene	0.1	0.25	0.5	0.75	1
TCX	0.02	0.05	0.1	0.15	0.2
DCB	0.02	0.05	0.1	0.15	0.2

CHLORDANE (NG/UL)

CHLORDANE	0.04	0.10	0.20	0.40	1.0
TCX	0.008	0.02	0.04	0.08	0.20
DCB	0.008	0.02	0.04	0.08	0.20

AR1660 2801 A

SAMPLE NO. : 08060135 .05 INSTRUMENT: 35

TEST NO. : DATE TIME: 08/06/01 18:13:55

METHOD NO. : P3560 / P3560 PAGE NO. : 01

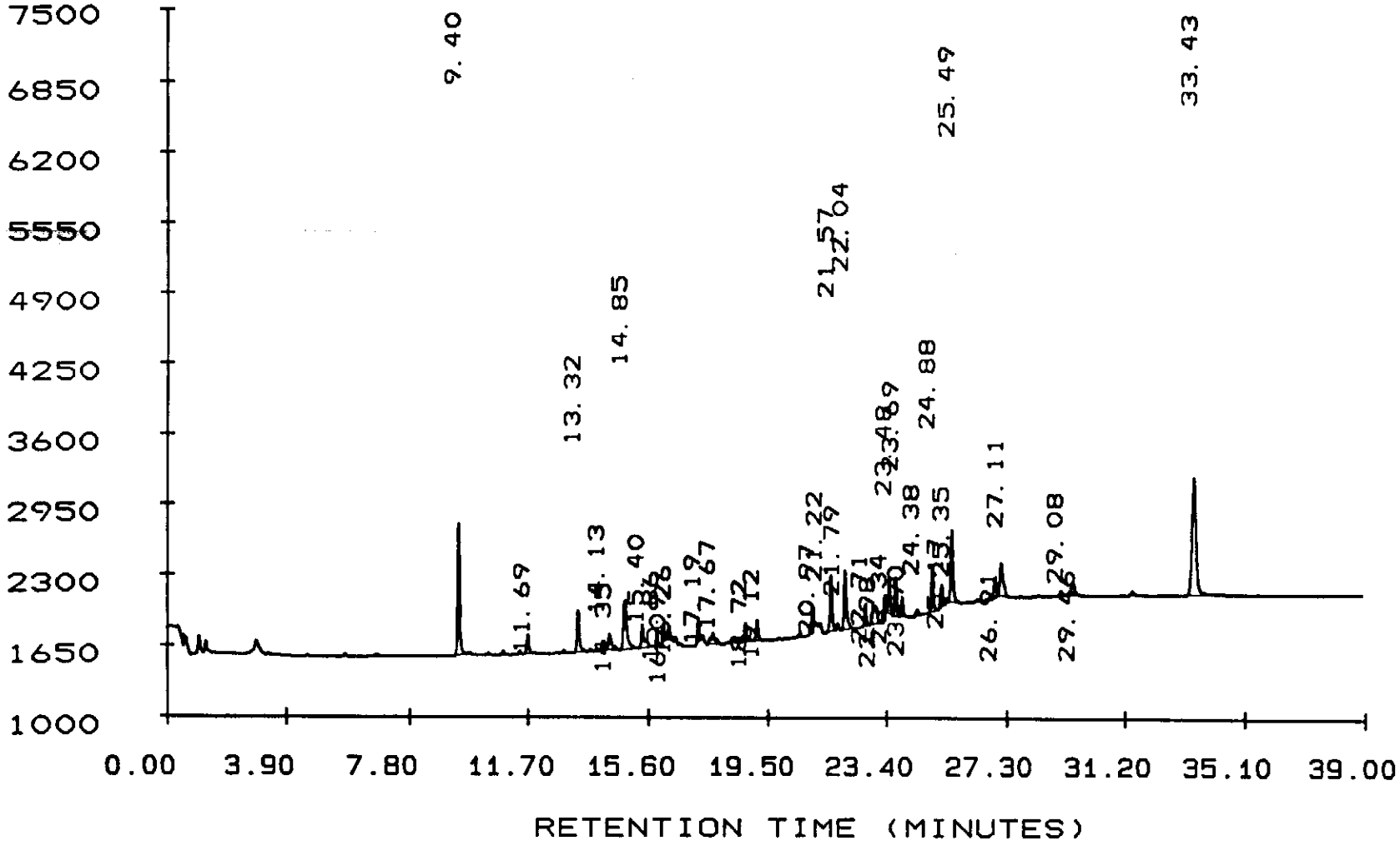

Y MAXIMUM: 7500. START TIME: 0.00

Y MINIMUM: 1000. END TIME: 39.00

Lionville Laboratory, Inc. 08/07/01 08:58:27

EXTERNAL STANDARD

SAMPLE: 08060135 .05 INST:35 VIAL:F0 SEQ NUMBER:005
TEST : DATE-TIME INJECTED : 08/06/01 18:13:55
COLLECTION TIME : 38.84 DATE-TIME PROCESSED : 08/07/01 08:58:27
METHOD: P3560 / P3560 REV #: 00218 ANALYST: KOBELM SAMP RATE: 1.56
CLIENT ID: SAMPLE VOL: 1.0 uL
CLIENT: COLUMN TYPE: DB608
LAB ID: AR1660 2801 A RAW FILE: RAW3:H6145224
SAMPLE WT : % MOISTURE : DILUTION FACTOR : 1.0000
COLUMN ID: 0.53 mm I CAL ID : TEMP:L080601.35/25

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
002	59671	11887	V	9.402	1	TCX	0.007
007	11171	1836		11.691	1	AR1016-1	0.021
009	24101	3752	V	13.323	1	AR1016-2	0.022
011	4126	893	V	14.126			
012	11436	1432	V	14.348			
013	38586	4481	V	14.850	1	AR1016-3	0.021
014	15981	2104	V	15.403	1	AR1016-4	0.021
015	6432	1319	V	15.863			
016	6560	1550	V	16.086			
017	7856	1261	V	16.256			
019	9195	1919	V	17.193	1	AR1016-5	0.021
021	10477	1031	V	17.669			
023	9930	1697	V	18.723			
024	10073	1789	V	19.116			
026	10752	2017	V	20.968			
028	2408	577	V	21.219			
029	27459	5110	V	21.571	1	AR1260-1	0.022
030	3443	710	V	21.795			
031	32928	5351	V	22.035	1	AR1260-2	0.021
032	10140	1937	V	22.711			
033	15667	1723	V	22.975			
034	10073	1935	V	23.338			
035	15991	3297	V	23.482			
036	16483	3518	V	23.689	1	AR1260-3	0.021
037	8928	1829	V	23.898			
038	2448	516	V	24.384			
039	20800	3907	V	24.876	1	AR1260-4	0.021
040	12086	2077	V	25.171			
041	1924	531	V	25.353			
042	36595	6584	V	25.492	1	AR1260-5	0.020
044	9873	1780	V	26.907			
045	22362	3005		27.113			
046	4218	584	V	29.076			
047	10749	1295		29.462			
049	104341	10801		33.432	1	DCB	0.008

MPK	1836	11.691	AROCLOR-1016-1	~~0.043~~	RW:11.62-11.76
MPK	3752	13.323	AROCLOR-1016-2	~~0.045~~	RW:13.25-13.39
MPK	1432	14.348	AROCLOR-1016-3	~~0.045~~	RW:14.28-14.41

0.04

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8/7/01 NK

SAMPLE: 08060135 .05 PAGE NUMBER: 2
DATE-TIME INJECTED : 08/06/01 18:13:55
DATE-TIME PROCESSED : 08/07/01 08:58:27

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL	
MPK		4481		14.850		AROCLOR-1016-4	0.042	RW:14.78-14.92
MPK		2104		15.403		AROCLOR-1016-5	0.041	RW:15.33-15.47
MPK		1319		15.863		AROCLOR-1016-6	0.040	RW:15.79-15.93
MPK		1550		16.086		AROCLOR-1016-7	0.041	RW:16.01-16.15
MPK		1261		16.256		AROCLOR-1016-8	0.042	RW:16.18-16.32
MPK		1919		17.193		AROCLOR-1016-9	0.041	RW:17.12-17.26
MPK		5110		21.571		AROCLOR-1260-1	0.046	RW:21.50-21.64
MPK		5351		22.035		AROCLOR-1260-2	0.043	RW:21.96-22.10
MPK		1935		23.338		AROCLOR-1260-3	0.039	RW:23.26-23.40
MPK		3297		23.482		AROCLOR-1260-4	0.040	RW:23.41-23.55
MPK		3518		23.689		AROCLOR-1260-5	0.042	RW:23.62-23.76
MPK		3907		24.876		AROCLOR-1260-6	0.042	RW:24.80-24.94
MPK		2077		25.171		AROCLOR-1260-7	0.041	RW:25.10-25.24
MPK		6584		25.492		AROCLOR-1260-8	0.039	RW:25.42-25.56
MPK		3005		27.113		AROCLOR-1260-9	0.039	RW:27.04-27.18

0.04

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AR1660 2802 B

SAMPLE NO. : 08060135 . 06 INSTRUMENT: 35

TEST NO. : DATE TIME: 08/06/01 19:01:45

METHOD NO. : P3560 / P3560 PAGE NO. : 01

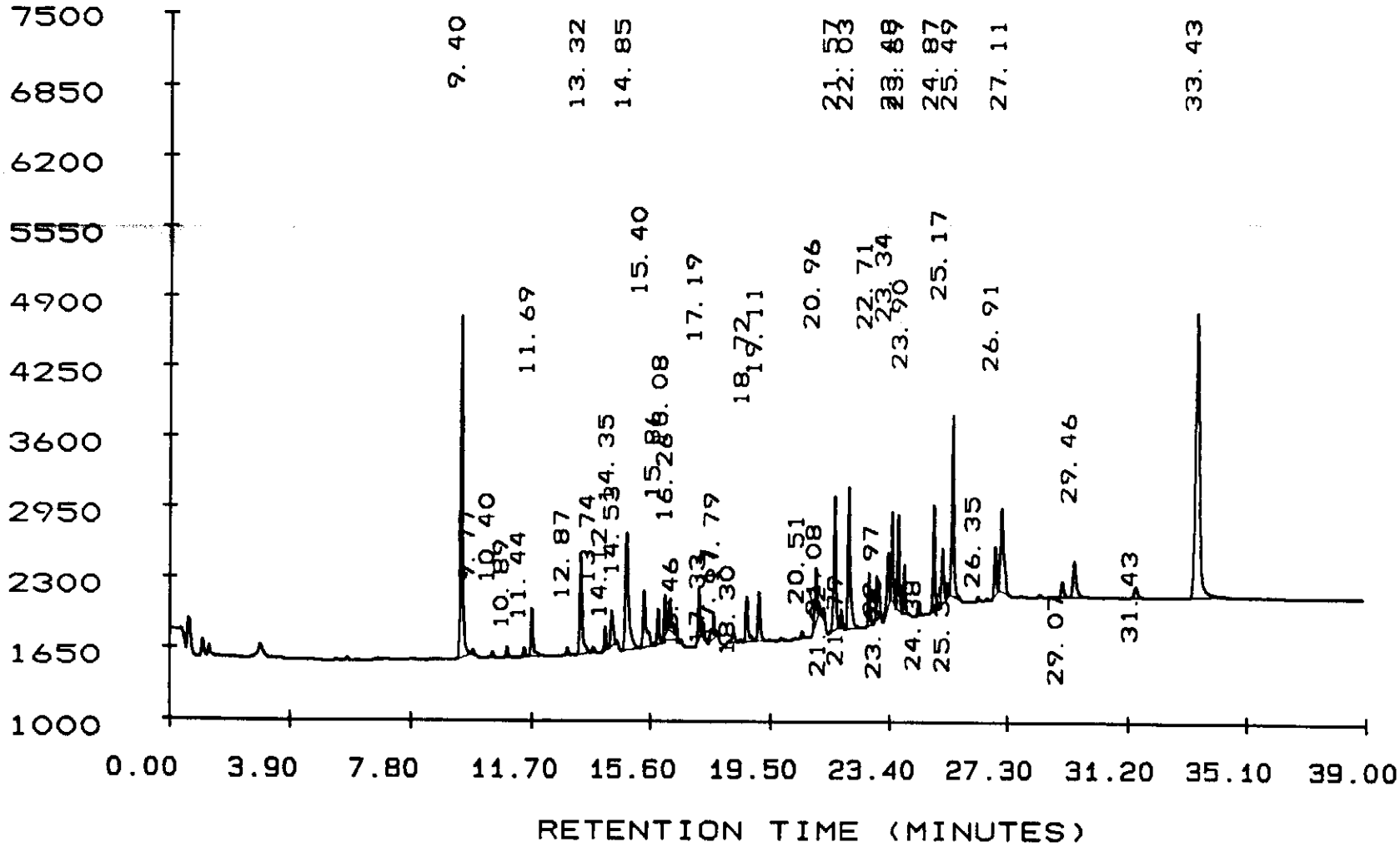

Y MAXIMUM: 7500. START TIME: 0.00

Y MINIMUM: 1000. END TIME: 39.00

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Lionville Laboratory, Inc. 08/07/01 08:58:38

EXTERNAL STANDARD

SAMPLE: 08060135 .06
TEST :
COLLECTION TIME : 38.84
METHOD: P3560 / P3560 REV #: 00218
CLIENT ID:
CLIENT:
LAB ID: AR1660 2802 B
SAMPLE WT : % MOISTURE :
COLUMN ID: 0.53 mm I

INST:35 VIAL:F0 SEQ NUMBER:006
DATE-TIME INJECTED : 08/06/01 19:01:45
DATE-TIME PROCESSED : 08/07/01 08:58:38
ANALYST: KOBELM SAMP RATE: 1.56
SAMPLE VOL: 1.0 uL
COLUMN TYPE: DB608
RAW FILE: RAW3:H6145232
DILUTION FACTOR : 1.0000
CAL ID : TEMP:L080601.35/25

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
002	152891	30969	V	9.399	1	TCX	0.019
003	2980	553	V	9.772			
004	3571	579	V	10.404			
005	5127	1000	V	10.885			
006	4612	919	V	11.435			
007	27202	4411		11.688	1	AR1016-1	0.052
008	4219	725	V	12.869			
009	57514	8817	V	13.320	1	AR1016-2	0.052
010	3565	577	V	13.736			
011	10167	2178	V	14.123			
012	19435	3235	V	14.346			
013	1674	504	V	14.529			
014	93219	10788	V	14.848	1	AR1016-3	0.051
015	38637	5155	V	15.400	1	AR1016-4	0.051
016	15891	3266	V	15.860			
017	15795	3779	V	16.084			
018	19066	3065	V	16.255			
019	4021	1155	V	16.463			
021	22682	4718	V	17.191	1	AR1016-5	0.051
022	3893	1127	V	17.334			
023	13451	1992	V	17.666			
024	1935	563	V	17.789			
026	7260	1227	V	18.300			
028	24512	4142	V	18.721			
029	26413	4421	V	19.113			
031	4967	748	V	20.511			
032	26263	4853	V	20.965			
033	2483	847	V	21.083			
034	5707	1408	V	21.217			
035	64998	12100	V	21.568	1	AR1260-1	0.053
036	8413	1759	V	21.792			
037	78685	12858	V	22.033	1	AR1260-2	0.052
038	25214	4849	V	22.708			
039	8137	2216	V	22.973			
040	4709	1646	V	23.056			
041	25392	4919	V	23.335			
042	39505	8190	V	23.479			
043	40020	8619	V	23.687	1	AR1260-3	0.052
044	22174	4489	V	23.896			
045	6363	1348	V	24.381			

SAMPLE: 08060135 .06 PAGE NUMBER: 2
DATE-TIME INJECTED : 08/06/01 19:01:45
DATE-TIME PROCESSED : 08/07/01 08:58:38

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
046	50522	9633	V	24.873	1	AR1260-4	0.051
047	30102	5126	V	25.169			
048	4898	1363	V	25.351			
049	89186	16422	V	25.489	1	AR1260-5	0.049
050	3326	588	V	26.345			
052	24773	4469	V	26.906			
053	55707	7562	V	27.110			
055	10502	1469	V	29.074			
056	26770	3256		29.459			
057	9894	1074		31.434			
058	256412	26129		33.427	1	DCB	0.020

MPK	4411	11.688	AROCLOR-1016-1	0.103	RW:11.62-11.76
MPK	8817	13.320	AROCLOR-1016-2	0.105	RW:13.25-13.39
MPK	3235	14.346	AROCLOR-1016-3	0.102	RW:14.28-14.41
MPK	10788	14.848	AROCLOR-1016-4	0.101	RW:14.78-14.92
MPK	5155	15.400	AROCLOR-1016-5	0.101	RW:15.33-15.47
MPK	3266	15.860	AROCLOR-1016-6	0.098	RW:15.79-15.93
MPK	3779	16.084	AROCLOR-1016-7	0.101	RW:16.01-16.15
MPK	3065	16.255	AROCLOR-1016-8	0.101	RW:16.18-16.32
MPK	4718	17.191	AROCLOR-1016-9	0.101	RW:17.12-17.26
MPK	12100	21.568	AROCLOR-1260-1	0.106	RW:21.50-21.64
MPK	12858	22.033	AROCLOR-1260-2	0.108	RW:21.96-22.10
MPK	4919	23.335	AROCLOR-1260-3	0.100	RW:23.26-23.40
MPK	8190	23.479	AROCLOR-1260-4	0.099	RW:23.41-23.55
MPK	8619	23.687	AROCLOR-1260-5	0.103	RW:23.62-23.76
MPK	9633	24.873	AROCLOR-1260-6	0.103	RW:24.80-24.94
MPK	5126	25.169	AROCLOR-1260-7	0.101	RW:25.10-25.24
MPK	16422	25.489	AROCLOR-1260-8	0.098	RW:25.42-25.56
MPK	7562	27.110	AROCLOR-1260-9	0.099	RW:27.04-27.18

0.10

8/7/01
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AR1660 2803 C

SAMPLE NO. : 08060135 .07 INSTRUMENT: 35

TEST NO. : DATE TIME: 08/06/01 19:49:34

METHOD NO. : P3560 / P3560 PAGE NO. : 01

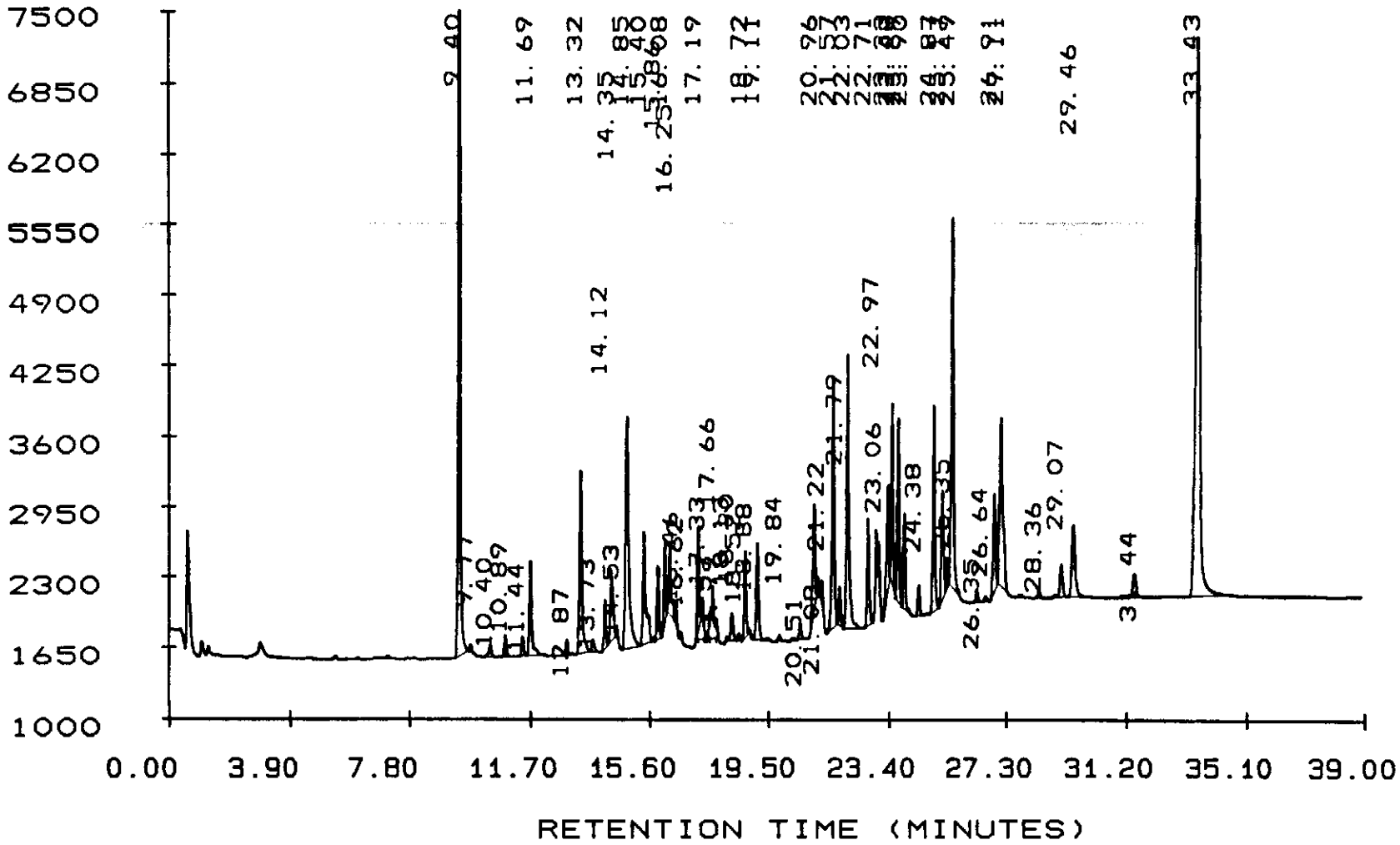

Y MAXIMUM: 7500. START TIME: 0.00

Y MINIMUM: 1000. END TIME: 39.00

Lionville Laboratory, Inc. 08/07/01 08:58:50

EXTERNAL STANDARD

SAMPLE: 08060135 .07 INST:35 VIAL:F0 SEQ NUMBER:007
TEST : DATE-TIME INJECTED : 08/06/01 19:49:34
COLLECTION TIME : 38.84 DATE-TIME PROCESSED : 08/07/01 08:58:50
METHOD: P3560 / P3560 REV #: 00218 ANALYST: KOBELM SAMP RATE: 1.56
CLIENT ID: SAMPLE VOL: 1.0 uL
CLIENT: COLUMN TYPE: DB608
LAB ID: AR1660 2803 C RAW FILE: RAW3:H6145240
SAMPLE WT : % MOISTURE : DILUTION FACTOR : 1.0000
COLUMN ID: 0.53 mm I CAL ID : TEMP:L080601.35/25

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
003	320741	65924	V	9.399	1	TCX	0.040
004	4165	795	V	9.772			
005	7408	1177	V	10.403			
006	10918	2030	V	10.885			
007	9270	1851	V	11.435			
008	51776	8561		11.688	1	AR1016-1	0.100
009	8168	1457	V	12.868			
010	108154	16831	V	13.319	1	AR1016-2	0.100
011	7312	1187	V	13.734			
012	21140	4394	V	14.123			
013	38491	6365	V	14.345			
014	3597	1057	V	14.529			
015	180614	21331	V	14.846	1	AR1016-3	0.100
016	72832	10206	V	15.400	1	AR1016-4	0.100
018	32186	6642	V	15.860			
019	31678	7485	V	16.082			
020	37069	6058	V	16.253			
021	8066	2322	V	16.462			
022	3017	806	V	16.622			
023	44594	9315	V	17.189	1	AR1016-5	0.100
024	8910	2463	V	17.334			
025	4094	1163	V	17.572			
026	11617	3193	V	17.665			
027	4033	1160	V	17.789			
028	2740	614	V	18.127			
029	14736	2493	V	18.299			
030	3584	778	V	18.525			
031	38237	7761	V	18.720			
032	2185	669	V	18.875			
033	51568	8740	V	19.112			
034	3872	603	V	19.838			
036	8107	1529	V	20.510			
037	51902	9482	V	20.965			
038	4841	1651	V	21.082			
039	11195	2783	V	21.217			
040	123744	22872	V	21.567	1	AR1260-1	0.100
041	17095	3585	V	21.791			
042	152128	24938	V	22.031	1	AR1260-2	0.100
043	50099	9762	V	22.707			
044	16514	4472	V	22.971			

SAMPLE: 08060135 .07 PAGE NUMBER: 2
DATE-TIME INJECTED : 08/06/01 19:49:34
DATE-TIME PROCESSED : 08/07/01 08:58:50

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
045	8984	3146	V	23.056			
046	50665	9799	V	23.334			
047	78723	16533	V	23.478			
048	77725	16706	V	23.687	1	AR1260-3	0.100
049	43869	8841	V	23.895			
050	13234	2773	V	24.380			
051	97857	18746	V	24.873	1	AR1260-4	0.100
052	60137	10175	V	25.169			
053	10113	2816	V	25.350			
054	176659	33357	V	25.489	1	AR1260-5	0.100
055	6285	1177	V	26.345			
056	2758	519	V	26.636			
057	49932	9029	V	26.906			
058	110166	15344	V	27.109			
060	4198	655	V	28.361			
061	21056	2988	V	29.074			
062	52098	6600		29.459			
063	17942	2150		31.437			
064	497155	50995		33.431	1	DCB	0.040

MPK	8561	11.688	AROCLOR-1016-1	0.200	RW:11.62-11.76
MPK	16831	13.319	AROCLOR-1016-2	0.200	RW:13.25-13.39
MPK	6365	14.345	AROCLOR-1016-3	0.200	RW:14.28-14.41
MPK	21331	14.846	AROCLOR-1016-4	0.200	RW:14.78-14.92
MPK	10206	15.400	AROCLOR-1016-5	0.200	RW:15.33-15.47
MPK	6642	15.860	AROCLOR-1016-6	0.200	RW:15.79-15.93
MPK	7485	16.082	AROCLOR-1016-7	0.200	RW:16.01-16.15
MPK	6058	16.253	AROCLOR-1016-8	0.200	RW:16.18-16.32
MPK	9315	17.189	AROCLOR-1016-9	0.200	RW:17.12-17.26
MPK	22872	21.567	AROCLOR-1260-1	0.200	RW:21.50-21.64
MPK	24938	22.031	AROCLOR-1260-2	0.200	RW:21.96-22.10
MPK	9799	23.334	AROCLOR-1260-3	0.200	RW:23.26-23.40
MPK	16533	23.478	AROCLOR-1260-4	0.200	RW:23.41-23.55
MPK	16706	23.687	AROCLOR-1260-5	0.200	RW:23.62-23.76
MPK	18746	24.873	AROCLOR-1260-6	0.200	RW:24.80-24.94
MPK	10175	25.169	AROCLOR-1260-7	0.200	RW:25.10-25.24
MPK	33357	25.489	AROCLOR-1260-8	0.200	RW:25.42-25.56
MPK	15344	27.109	AROCLOR-1260-9	0.200	RW:27.04-27.18

AR1660 2804 D

SAMPLE NO. : 08060135 . 08 INSTRUMENT: 35

TEST NO. : DATE TIME: 08/06/01 20:37:32

METHOD NO. : P3560 / P3560 PAGE NO. : 01

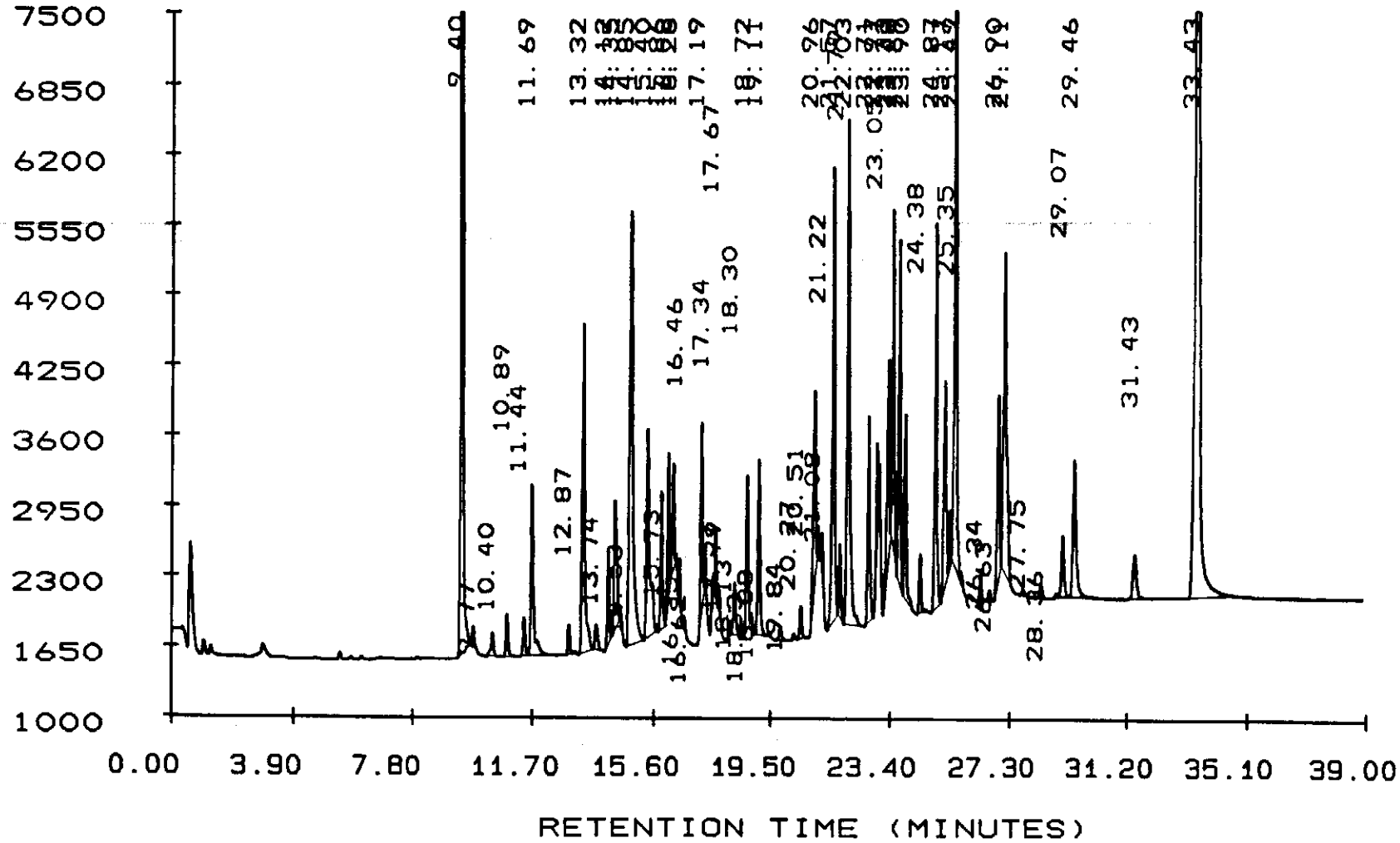

Y MAXIMUM: 7500. START TIME: 0.00

Y MINIMUM: 1000. END TIME: 39.00

123

Lionville Laboratory, Inc. 08/07/01 08:59:01

EXTERNAL STANDARD

SAMPLE: 08060135 .08 INST:35 VIAL:F0 SEQ NUMBER:008
TEST : DATE-TIME INJECTED : 08/06/01 20:37:32
COLLECTION TIME : 38.84 DATE-TIME PROCESSED : 08/07/01 08:59:01
METHOD: P3560 / P3560 REV #: 00218 ANALYST: KOBELM SAMP RATE: 1.56
CLIENT ID: SAMPLE VOL: 1.0 uL
CLIENT: COLUMN TYPE: DB608
LAB ID: AR1660 2804 D RAW FILE: RAW3:H6145247
SAMPLE WT : % MOISTURE : DILUTION FACTOR : 1.0000
COLUMN ID: 0.53 mm I CAL ID : TEMP:L080601.35/25

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
004	643595	130795	V	9.400	1	TCX	0.079
005	9690	1815	V	9.773			
006	13840	2202	V	10.404			
007	20838	3849	V	10.886			
008	17598	3483	V	11.436			
009	95456	15482	V	11.688	1	AR1016-1	0.181
010	13108	2709	V	12.869			
012	198189	30225	V	13.320	1	AR1016-2	0.180
013	14035	2263	V	13.736			
014	38803	8333	V	14.124			
015	71266	11669	V	14.345			
016	6837	2001	V	14.530			
017	336934	39761	V	14.849	1	AR1016-3	0.186
018	135386	18951	V	15.400	1	AR1016-4	0.186
019	2244	712	V	15.727			
020	61120	12530	V	15.860			
021	56213	13311	V	16.083			
022	45073	9529	V	16.255			
023	3318	1708	V	16.352			
024	15057	4277	V	16.463			
025	5649	1508	V	16.623			
026	84210	17277	V	17.190	1	AR1016-5	0.185
027	15633	4454	V	17.335			
028	7580	2206	V	17.573			
029	22110	6061	V	17.666			
030	7830	2220	V	17.790			
031	5238	1184	V	18.127			
032	27898	4758	V	18.299			
033	6886	1495	V	18.526			
034	70448	14026	V	18.721			
035	4183	1270	V	18.876			
036	89417	15953	V	19.112			
038	7473	1204	V	19.836			
039	3257	628	V	20.272			
040	15424	2917	V	20.511			
041	96480	17412	V	20.965			
042	8333	2864	V	21.082			
043	20570	5058	V	21.217			
044	229338	41391	V	21.567	1	AR1260-1	0.181
045	32320	6743	V	21.791			

SAMPLE: 08060135 .08 PAGE NUMBER: 2
DATE-TIME INJECTED : 08/06/01 20:37:32
DATE-TIME PROCESSED : 08/07/01 08:59:01

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
046	282298	45981	V	22.031	1	AR1260-2	0.184
047	95111	18730	V	22.706			
048	30530	8262	V	22.971			
049	17701	6111	V	23.055			
050	95016	18399	V	23.333			
051	148321	30539	V	23.477			
052	146308	31241	V	23.686	1	AR1260-3	0.187
053	83639	16817	V	23.895			
054	24755	5338	V	24.380			
056	184335	35087	V	24.872	1	AR1260-4	0.187
057	112908	19207	V	25.168			
058	19232	5315	V	25.349			
059	341195	64335	V	25.488	1	AR1260-5	0.193
060	11651	2258	V	26.343			
061	5210	1004	V	26.634			
062	93978	17068	V	26.904			
063	211895	29238	V	27.108			
064	4153	611	V	27.754			
065	7754	1266	V	28.359			
067	37350	5667	V	29.073			
068	101770	12630		29.457			
069	34730	4121		31.434			
070	947624	95381		33.429	1	DCB	0.075

MPK	15482	11.688	AROCLOR-1016-1	0.362	RW:11.62-11.76
MPK	30225	13.320	AROCLOR-1016-2	0.359	RW:13.25-13.39
MPK	11669	14.345	AROCLOR-1016-3	0.367	RW:14.28-14.41
MPK	39761	14.849	AROCLOR-1016-4	0.373	RW:14.78-14.92
MPK	18951	15.400	AROCLOR-1016-5	0.371	RW:15.33-15.47
MPK	12530	15.860	AROCLOR-1016-6	0.377	RW:15.79-15.93
MPK	13311	16.083	AROCLOR-1016-7	0.356	RW:16.01-16.15
MPK	9529	16.255	AROCLOR-1016-8	0.315	RW:16.18-16.32
MPK	17277	17.190	AROCLOR-1016-9	0.371	RW:17.12-17.26
MPK	41391	21.567	AROCLOR-1260-1	0.362	RW:21.50-21.64
MPK	45981	22.031	AROCLOR-1260-2	0.369	RW:21.96-22.10
MPK	18399	23.333	AROCLOR-1260-3	0.376	RW:23.26-23.40
MPK	30539	23.477	AROCLOR-1260-4	0.369	RW:23.41-23.55
MPK	31241	23.686	AROCLOR-1260-5	0.374	RW:23.62-23.76
MPK	35087	24.872	AROCLOR-1260-6	0.374	RW:24.80-24.94
MPK	19207	25.168	AROCLOR-1260-7	0.378	RW:25.10-25.24
MPK	64335	25.488	AROCLOR-1260-8	0.386	RW:25.42-25.56
MPK	29238	27.108	AROCLOR-1260-9	0.381	RW:27.04-27.18

6.40

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AR1660 2805 E

SAMPLE NO. : 08060135 .09
TEST NO. :
METHOD NO. : P3560 / P3560

INSTRUMENT: 35
DATE TIME: 08/06/01 21:25:33
PAGE NO. : 01

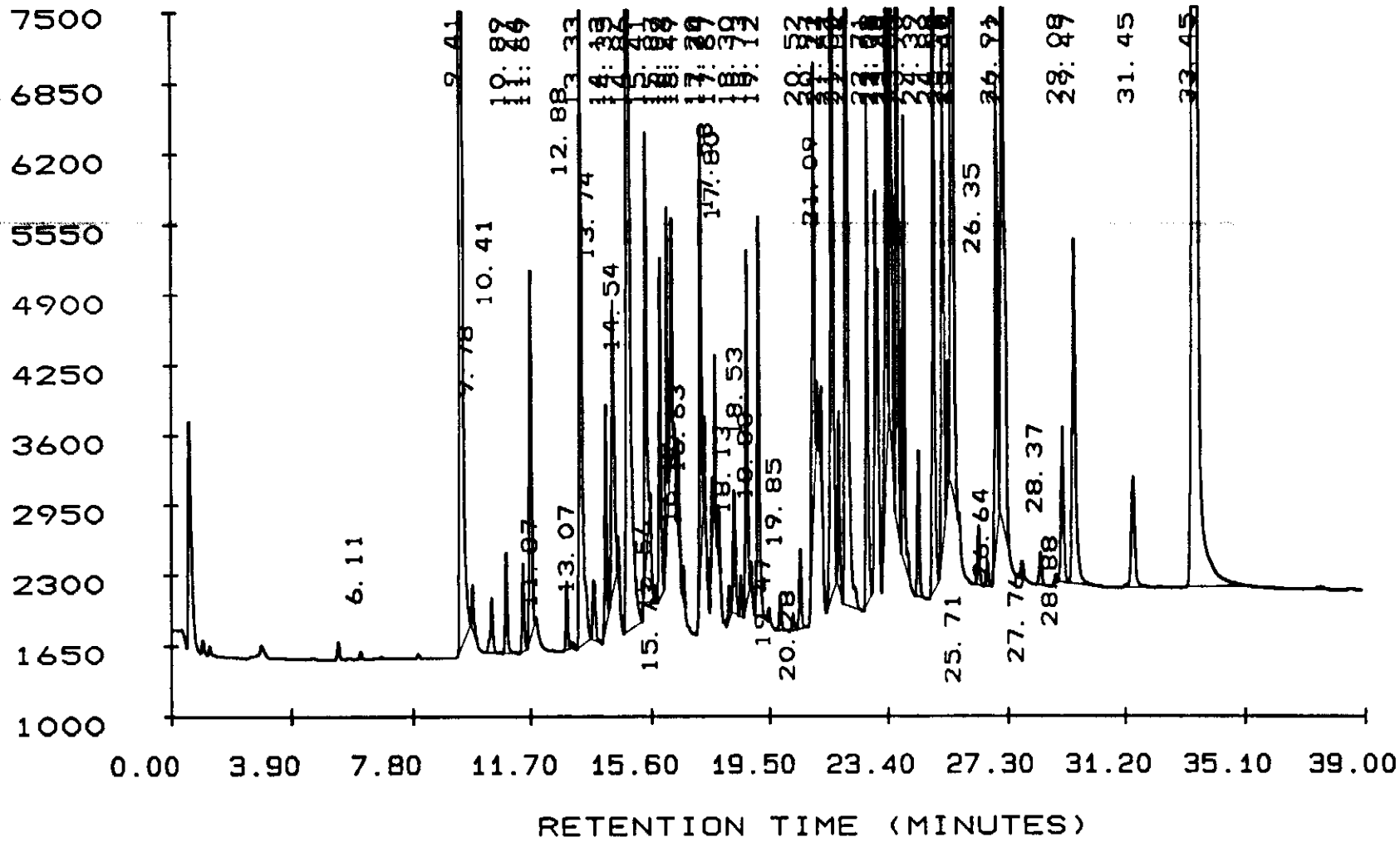

Y MAXIMUM: 7500.
Y MINIMUM: 1000.

START TIME: 0.00
END TIME: 39.00

Lionville Laboratory, Inc. 08/07/01 08:59:13

EXTERNAL STANDARD

SAMPLE: 08060135 .09 INST:35 VIAL:F0 SEQ NUMBER:009
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COLLECTION TIME : 38.84 DATE-TIME PROCESSED : 08/07/01 08:59:13
METHOD: P3560 / P3560 REV #: 00218 ANALYST: KOBELM SAMP RATE: 1.56
CLIENT ID: SAMPLE VOL: 1.0 uL
CLIENT: COLUMN TYPE: DB608
LAB ID: AR1660 2805 E RAW FILE: RAW3:H6145255
SAMPLE WT : % MOISTURE : DILUTION FACTOR : 1.0000
COLUMN ID: 0.53 mm I CAL ID : TEMP:L080601.35/25

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
001	4072	769	V	6.112			
004	1612629	316573	V	9.406	1	TCX	0.192
005	22789	4187	V	9.779			
006	33258	5009	V	10.410			
007	50237	9184	V	10.892			
008	41056	8110	V	11.442			
009	169459	33407	V	11.694	1	AR1016-1	0.390
010	3154	810	V	11.866			
011	30700	6203	V	12.876			
012	3290	683	V	13.068			
013	441808	66412	V	13.327	1	AR1016-2	0.395
014	34131	5433	V	13.742			
015	93496	20223	V	14.130			
016	163985	26635	V	14.352			
017	16120	4591	V	14.537			
018	787360	93762	V	14.856	1	AR1016-3	0.440
019	200713	39483	V	15.406	1	AR1016-4	0.387
020	5296	2203	V	15.558			
021	5370	1627	V	15.734			
022	149504	30950	V	15.867			
023	123238	29182	V	16.089			
024	101702	21689	V	16.261			
025	4730	2994	V	16.357			
026	32609	9206	V	16.469			
027	13018	3465	V	16.630			
028	195331	39403	V	17.196	1	AR1016-5	0.423
029	39306	10576	V	17.341			
030	19618	5873	V	17.579			
031	55461	15082	V	17.672			
032	19852	5793	V	17.796			
033	13622	3082	V	18.133			
034	66943	11361	V	18.305			
035	17609	3809	V	18.532			
036	160035	32146	V	18.727			
037	10466	3211	V	18.882			
038	203892	36558	V	19.118			
039	5112	1180	V	19.468			
040	15584	2773	V	19.845			
041	8195	1553	V	20.278			
042	38803	7216	V	20.516			

SAMPLE: 08060135 .09 PAGE NUMBER: 2
DATE-TIME INJECTED : 08/06/01 21:25:33
DATE-TIME PROCESSED : 08/07/01 08:59:13

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
043	229975	39635	V	20.971			
044	16471	5742	V	21.089			
045	50611	11493	V	21.223			
046	519142	94896	V	21.574	1	AR1260-1	0.415
047	76902	16364	V	21.797			
048	653139	106599	V	22.038	1	AR1260-2	0.427
049	231923	46183	V	22.713			
050	77330	19450	V	22.978			
051	33658	12394	V	23.062			
052	231034	44335	V	23.340			
053	372669	78508	V	23.484			
054	348477	73435	V	23.694	1	AR1260-3	0.440
055	204524	40614	V	23.901			
056	64416	13319	V	24.386			
057	439519	83896	V	24.880	1	AR1260-4	0.448
058	273809	45995	V	25.176			
059	42642	11819	V	25.356			
060	827939	161525	V	25.495	1	AR1260-5	0.484
061	4741	1526	V	25.714			
062	27967	5479	V	26.351			
063	12979	2497	V	26.642			
064	233576	42053	V	26.914			
065	531076	74644	V	27.117			
066	11918	1713	V	27.759			
067	19031	3091	V	28.369			
068	5232	984	V	28.876			
069	93555	14395	V	29.083			
070	247580	31600		29.467			
071	88496	10268		31.446			
072	2265533	227942		33.445	1	DCB	0.179

MPK	33407	11.694	AROCLOR-1016-1	0.780	RW:11.62-11.76
MPK	66412	13.327	AROCLOR-1016-2	0.789	RW:13.25-13.39
MPK	26635	14.352	AROCLOR-1016-3	0.837	RW:14.28-14.41
MPK	93762	14.856	AROCLOR-1016-4	0.879	RW:14.78-14.92
MPK	39483	15.406	AROCLOR-1016-5	0.774	RW:15.33-15.47
MPK	30950	15.867	AROCLOR-1016-6	0.932	RW:15.79-15.93
MPK	29182	16.089	AROCLOR-1016-7	0.780	RW:16.01-16.15
MPK	21689	16.261	AROCLOR-1016-8	0.716	RW:16.18-16.32
MPK	39403	17.196	AROCLOR-1016-9	0.846	RW:17.12-17.26
MPK	94896	21.574	AROCLOR-1260-1	0.830	RW:21.50-21.64
MPK	106599	22.038	AROCLOR-1260-2	0.855	RW:21.96-22.10
MPK	44335	23.340	AROCLOR-1260-3	0.905	RW:23.26-23.40
MPK	78508	23.484	AROCLOR-1260-4	0.950	RW:23.41-23.55
MPK	73435	23.694	AROCLOR-1260-5	0.879	RW:23.62-23.76
MPK	83896	24.880	AROCLOR-1260-6	0.895	RW:24.80-24.94
MPK	45995	25.176	AROCLOR-1260-7	0.904	RW:25.10-25.24
MPK	161525	25.495	AROCLOR-1260-8	0.968	RW:25.42-25.56

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SAMPLE: 08060135 .09 PAGE NUMBER: 3
DATE-TIME INJECTED : 08/06/01 21:25:33
DATE-TIME PROCESSED : 08/07/01 08:59:13

PK NO	PEAK AREA	PEAK HEIGHT	BL MINUTES	RT	GR #	COMPONENT NAME	HEIGHT CONC NG/UL	
MPK		74644		27.117		AROCLOR-1260-9	~~0.073~~ 1.0	RW:27.04-27.18

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AR1221 1108

SAMPLE NO. : 08060135 . 10

TEST NO. :

METHOD NO. : P35 / P35

INSTRUMENT: 35

DATE TIME: 08/06/01 22:13:44

PAGE NO. : 01

130

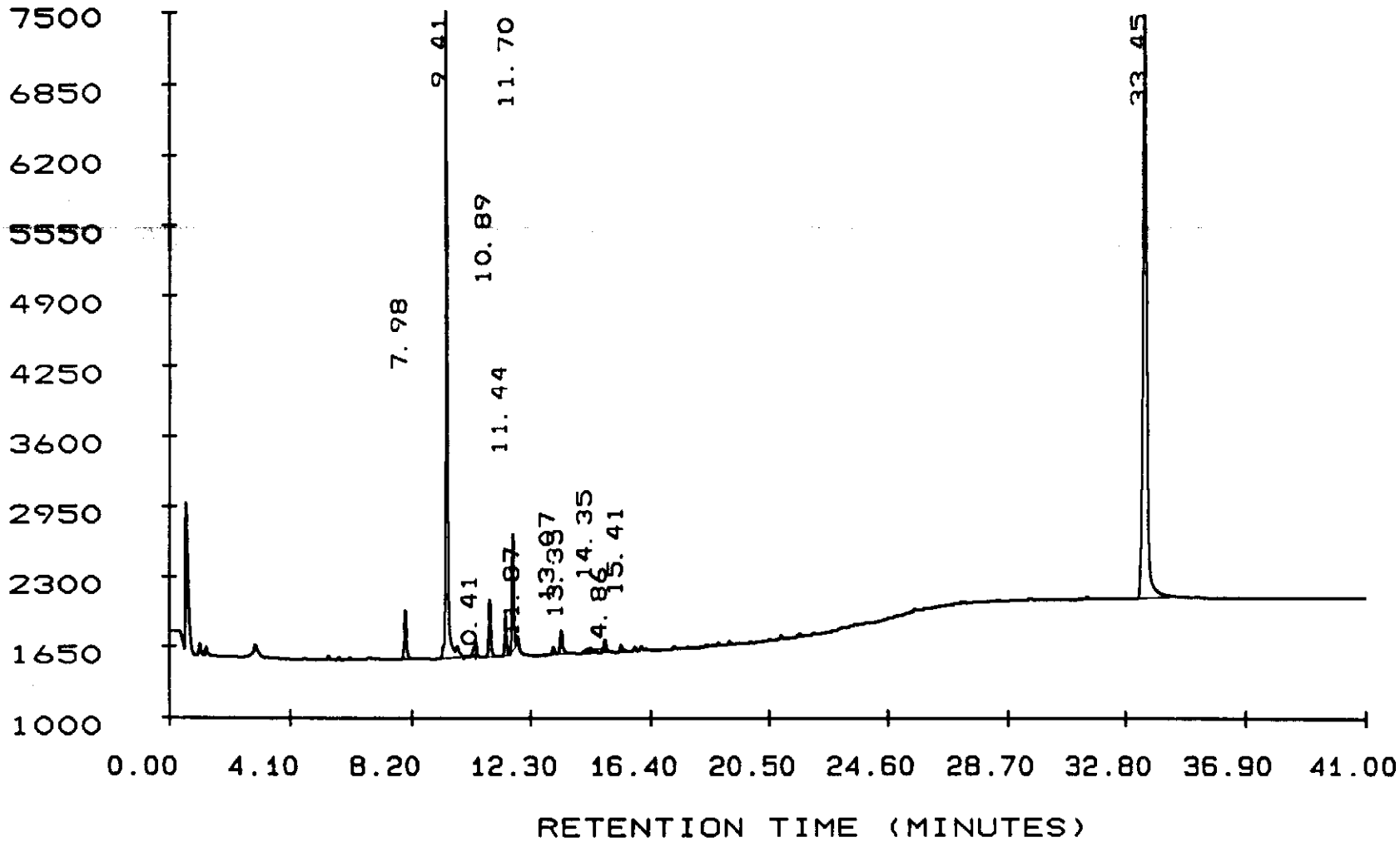

Y MAXIMUM: 7500.

Y MINIMUM: 1000.

START TIME: 0.00

END TIME: 41.00

Lionville Laboratory, Inc. 08/07/01 09:16:23

EXTERNAL STANDARD

SAMPLE: 08060135 .10 INST:35 VIAL:F0 SEQ NUMBER:010
TEST : DATE-TIME INJECTED : 08/06/01 22:13:44
COLLECTION TIME : 40.97 DATE-TIME PROCESSED : 08/07/01 09:16:23
METHOD: P35 / PCBLK REV #: 00219 ANALYST: KOBELM SAMP RATE: 1.56
CLIENT ID: SAMPLE VOL: 1.0 uL
CLIENT: COLUMN TYPE: DB608
LAB ID: AR1221 1108 RAW FILE: RAW3:H6145264
SAMPLE WT : % MOISTURE : DILUTION FACTOR : 1.0000
COLUMN ID: 0.53 mm I CAL ID : TEMP:L080601.35/25

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
002	25554	4450		7.976			
003	332170	68136	V	9.407	1	TCX	0.041
004	3768	672	V	9.780			
005	12877	1732	V	10.411			
006	28576	5238	V	10.889			
007	18149	3663	V	11.442			
008	51552	10589	V	11.696			
009	4243	1066		11.868			
010	4089	741	V	13.070			
011	15424	2151	V	13.347			
012	8582	543	V	14.354			
013	10157	1253	V	14.858			
014	5030	685	V	15.409			
032	518452	53251		33.445	1	DCB	0.042

MPK	4450	7.976	AROCLOR-1221-1	0.200	RW: 7.91- 8.05
MPK	1732	10.411	AROCLOR-1221-2	0.200	RW:10.34-10.48
MPK	5238	10.889	AROCLOR-1221-3	0.200	RW:10.82-10.96
MPK	3663	11.442	AROCLOR-1221-4	0.200	RW:11.37-11.51
MPK	10589	11.696	AROCLOR-1221-5	0.200	RW:11.63-11.77
MPK	1066	11.868	AROCLOR-1221-6	0.200	RW:11.80-11.94
MPK	2151	13.347	AROCLOR-1221-7	0.200	RW:13.28-13.42
MPK	1253	14.858	AROCLOR-1221-8	0.200	RW:14.79-14.93

AR1232 1205

SAMPLE NO. : 08060135 . 11
TEST NO. :
METHOD NO. : P35 / P35

INSTRUMENT: 35
DATE TIME: 08/06/01 23:01:32
PAGE NO. : 01

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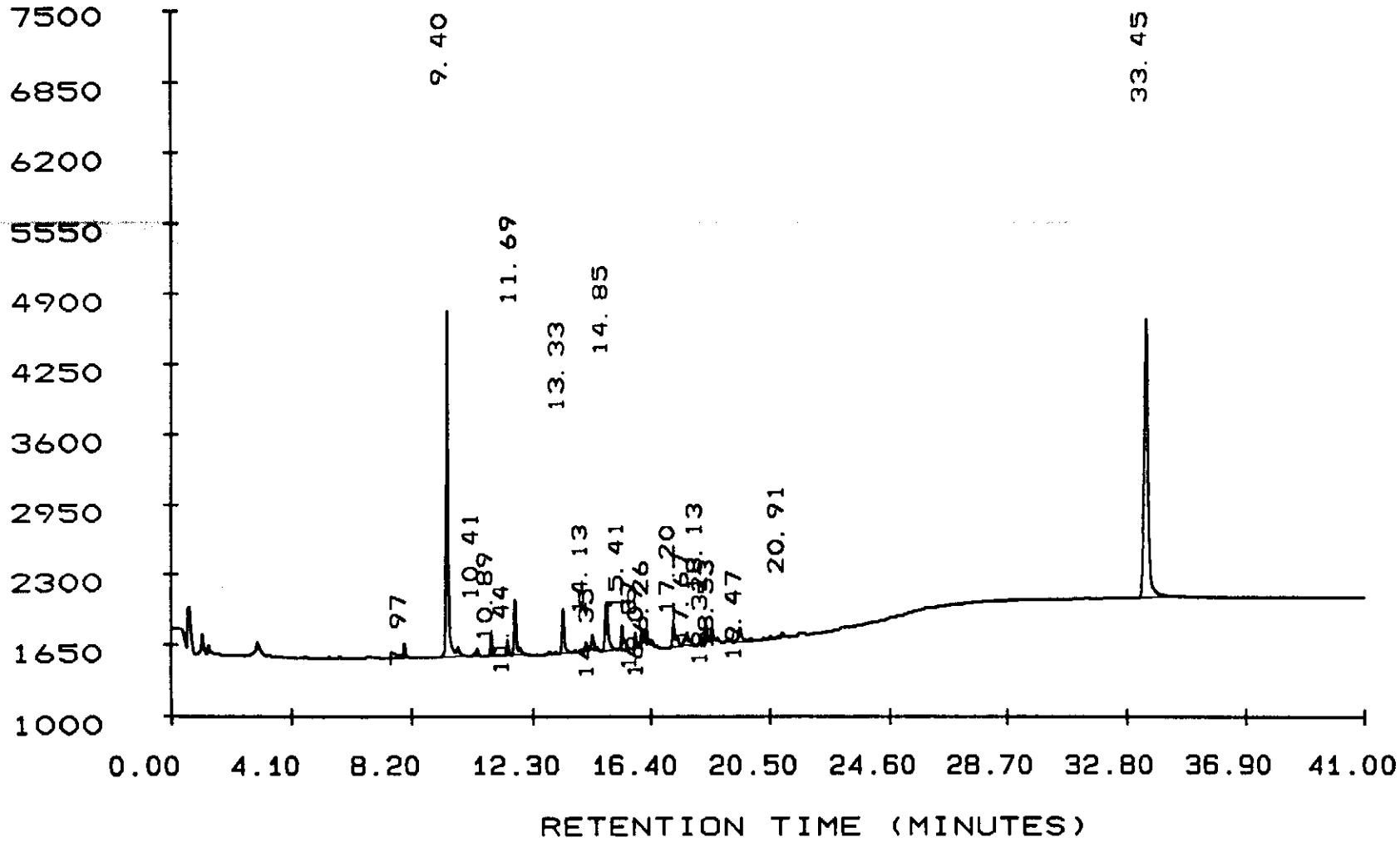

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START TIME: 0.00
END TIME: 41.00

Lionville Laboratory, Inc. 08/07/01 09:16:34

EXTERNAL STANDARD

SAMPLE: 08060135 .11 INST:35 VIAL:F0 SEQ NUMBER:011
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COLLECTION TIME : 40.97 DATE-TIME PROCESSED : 08/07/01 09:16:34
METHOD: P35 / PCBLK REV #: 00219 ANALYST: KOBELM SAMP RATE: 1.56
CLIENT ID: SAMPLE VOL: 1.0 uL
CLIENT: COLUMN TYPE: DB608
LAB ID: AR1232 1205 RAW FILE: RAW3:H6145272
SAMPLE WT : % MOISTURE : DILUTION FACTOR : 1.0000
COLUMN ID: 0.53 mm I CAL ID : TEMP:L080601.35/25

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
002	7862	1349		7.974			
003	153103	31224	V	9.404	1	TCX	0.019
004	3083	559	V	9.778			
005	5306	751	V	10.409			
006	10630	1918	V	10.888			
007	7091	1431	V	11.441			
008	31709	5024		11.695			
011	26394	4043	V	13.329			
013	3893	875	V	14.131			
014	11405	1470	V	14.353			
015	39072	4560	V	14.855			
016	16378	2206	V	15.408			
017	6733	1396	V	15.868			
018	6074	1460	V	16.091			
019	7068	1162	V	16.261			
021	17803	2166	V	17.200			
022	11078	1143	V	17.673			
023	3157	673	V	18.135			
024	9299	1695	V	18.323			
025	5826	1168	V	18.534			
028	9702	1270	V	19.474			
032	4231	504	V	20.915			
035	253612	25545		33.447	1	DCB	0.020

MPK	1918	10.888	AROCLOR-1232-1	0.100	RW:10.82-10.96
MPK	5024	11.695	AROCLOR-1232-2	0.100	RW:11.63-11.76
MPK	4043	13.329	AROCLOR-1232-3	0.100	RW:13.26-13.40
MPK	1470	14.353	AROCLOR-1232-4	0.100	RW:14.28-14.42
MPK	4560	14.855	AROCLOR-1232-5	0.100	RW:14.78-14.92
MPK	2206	15.408	AROCLOR-1232-6	0.100	RW:15.34-15.48
MPK	2166	17.200	AROCLOR-1232-7	0.100	RW:17.13-17.27
MPK	1695	18.323	AROCLOR-1232-8	0.100	RW:18.25-18.39

AR1242 1304

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SAMPLE NO. : 08060135 . 12 INSTRUMENT: 35

TEST NO. : DATE TIME: 08/06/01 23:49:23

METHOD NO. : P35 / P35 PAGE NO. : 01

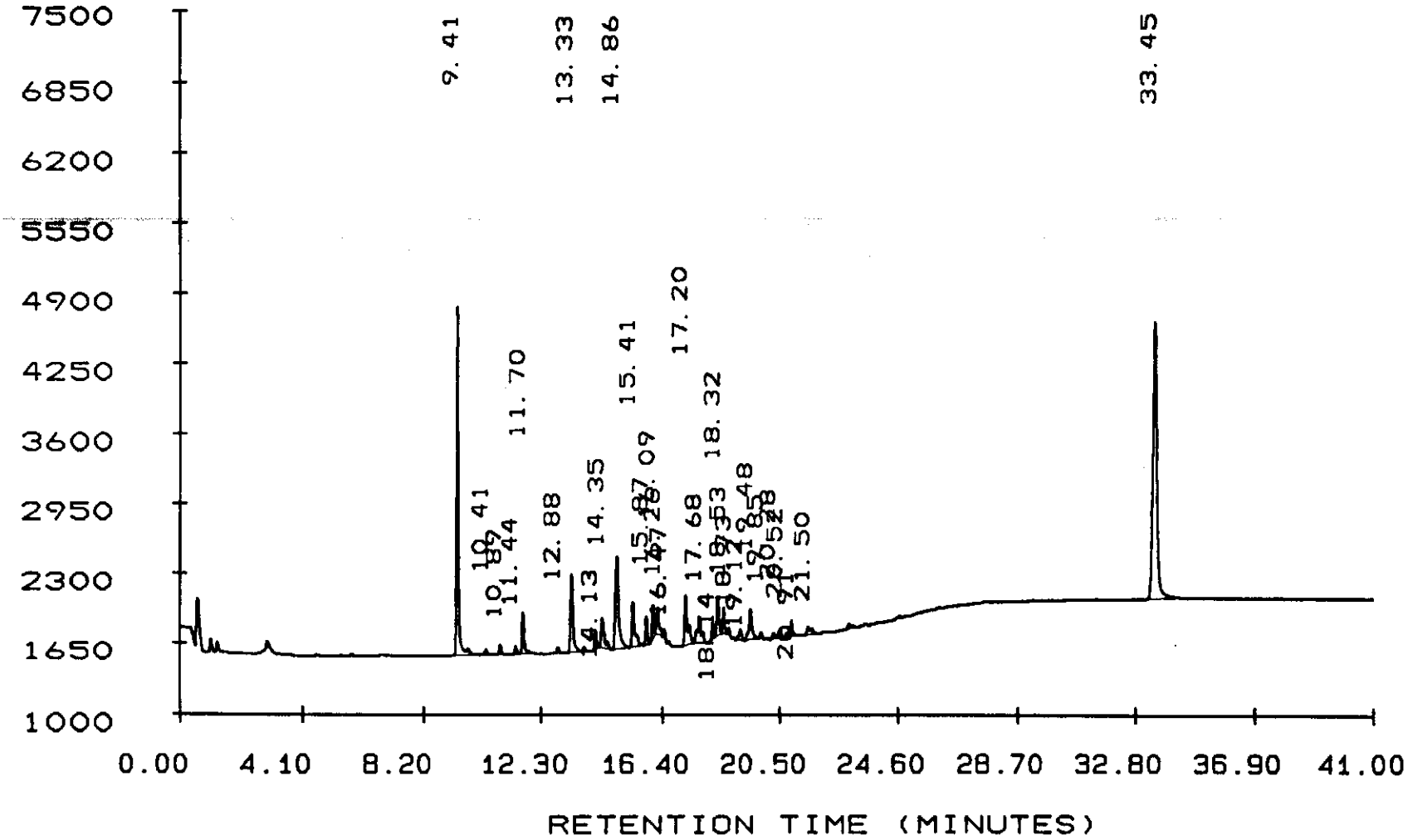

Y MAXIMUM: 7500. START TIME: 0.00

Y MINIMUM: 1000. END TIME: 41.00

Lionville Laboratory, Inc. 08/07/01 09:16:45

EXTERNAL STANDARD

SAMPLE: 08060135 .12 INST:35 VIAL:F0 SEQ NUMBER:012
TEST : DATE-TIME INJECTED : 08/06/01 23:49:23
COLLECTION TIME : 40.97 DATE-TIME PROCESSED : 08/07/01 09:16:45
METHOD: P35 / PCBLK REV #: 00219 ANALYST: KOBELM SAMP RATE: 1.56
CLIENT ID: SAMPLE VOL: 1.0 uL
CLIENT: COLUMN TYPE: DB608
LAB ID: AR1242 1304 RAW FILE: RAW3:H6145279
SAMPLE WT : % MOISTURE : DILUTION FACTOR : 1.0000
COLUMN ID: 0.53 mm I CAL ID : TEMP:L080601.35/25

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
002	153690	31598	V	9.407	1	TCX	0.019
004	3136	508	V	10.412			
005	4990	934	V	10.894			
006	4066	819	V	11.444			
007	22665	3791		11.697			
008	3280	583	V	12.878			
009	45418	7174	V	13.329			
011	8070	1741	V	14.133			
012	15575	2608	V	14.355			
014	72278	8521	V	14.856			
015	30163	4086	V	15.410			
016	12576	2605	V	15.870			
017	12773	3037	V	16.092			
018	15280	2507	V	16.263			
019	3066	910	V	16.472			
020	18908	3884	V	17.201			
021	3076	871	V	17.343			
022	12718	1953	V	17.675			
023	1693	517	V	17.798			
024	7001	1537	V	18.137			
025	19885	3586	V	18.325			
026	12628	2519	V	18.534			
027	3305	800	V	18.727			
028	7196	1013	V	19.121			
029	21414	2741	V	19.475			
030	3136	603	V	19.848			
031	2979	555	V	20.284			
032	3699	731	V	20.520			
034	7117	1232	V	20.914			
035	8582	764	V	21.496			
041	253458	25515		33.448	1	DCB	0.020

MPK	3791	11.697	AROCLOR-1242-1	0.100	RW:11.63-11.77
MPK	7174	13.329	AROCLOR-1242-2	0.100	RW:13.26-13.40
MPK	8521	14.856	AROCLOR-1242-3	0.100	RW:14.79-14.93
MPK	4086	15.410	AROCLOR-1242-4	0.100	RW:15.34-15.48
MPK	3037	16.092	AROCLOR-1242-5	0.100	RW:16.02-16.16
MPK	3884	17.201	AROCLOR-1242-6	0.100	RW:17.13-17.27
MPK	3586	18.325	AROCLOR-1242-7	0.100	RW:18.25-18.40

SAMPLE: 08060135 .12 PAGE NUMBER: 2
DATE-TIME INJECTED : 08/06/01 23:49:23
DATE-TIME PROCESSED : 08/07/01 09:16:45

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL	
MPK		2741		19.475		AROCLOR-1242-8	0.100	RW:19.40-19.55

AR1248 1101

SAMPLE NO. : 08060135 . 13
TEST NO. :
METHOD NO. : P35 / P35

INSTRUMENT: 35
DATE TIME: 08/07/01 00:37:11
PAGE NO. : 01

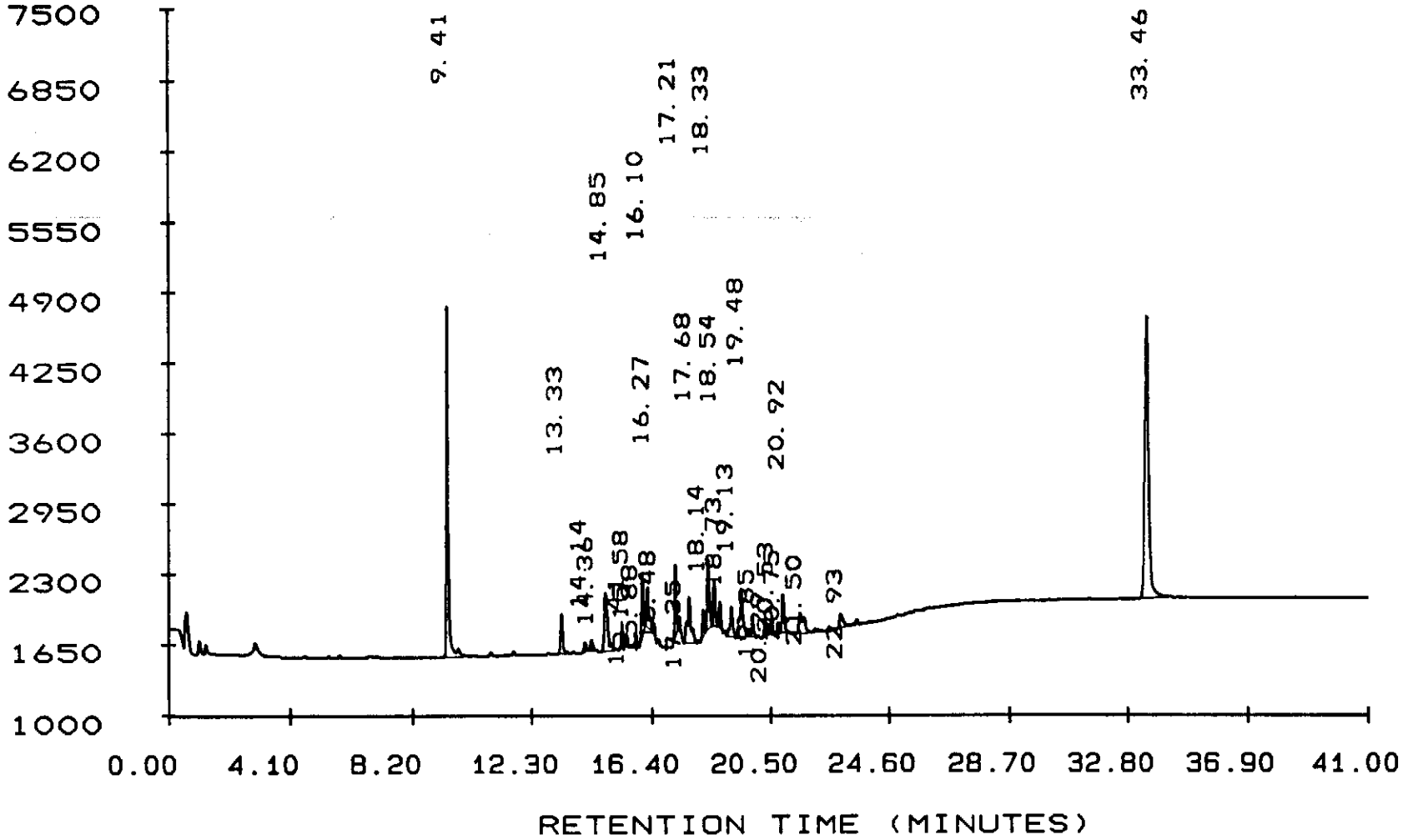

Y MAXIMUM: 7500.
Y MINIMUM: 1000.

START TIME: 0.00
END TIME: 41.00

Lionville Laboratory, Inc. 08/07/01 09:16:56

EXTERNAL STANDARD

SAMPLE: 08060135 .13 INST:35 VIAL:F0 SEQ NUMBER:013
TEST : DATE-TIME INJECTED : 08/07/01 00:37:11
COLLECTION TIME : 40.97 DATE-TIME PROCESSED : 08/07/01 09:16:56
METHOD: P35 / PCBLK REV #: 00219 ANALYST: KOBELM SAMP RATE: 1.56
CLIENT ID: SAMPLE VOL: 1.0 uL
CLIENT: COLUMN TYPE: DB608
LAB ID: AR1248 1101 RAW FILE: RAW3:H7145287
SAMPLE WT : % MOISTURE : DILUTION FACTOR : 1.0000
COLUMN ID: 0.53 mm I CAL ID : TEMP:L080601.35/25

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
002	154438	31694	V	9.411	1	TCX	0.019
007	23080	3623	V	13.330			
008	3638	829	V	14.137			
009	6873	990	V	14.359			
010	47366	5398	V	14.848			
011	7705	1682	V	15.414			
012	3816	931	V	15.576			
013	5801	1252	V	15.875			
014	24472	5596	V	16.098			
015	21806	3721	V	16.269			
016	3701	1120	V	16.476			
018	30573	6461	V	17.205			
019	4937	1395	V	17.348			
020	36762	4112	V	17.681			
021	11696	2534	V	18.142			
022	35248	6365	V	18.331			
023	20430	4100	V	18.541			
024	11313	2409	V	18.734			
025	18467	2719	V	19.127			
026	39005	4428	V	19.479			
027	9245	1732	V	19.854			
029	8565	1534	V	20.289			
030	9990	1994	V	20.526			
031	5072	1122	V	20.751			
032	20410	3496	V	20.920			
033	7375	1365	V	21.503			
034	2390	666	V	21.659			
036	11838	1298	V	22.932			
040	257056	25906		33.460	1	DCB	0.020

MPK	5398	14.848	AROCLOR-1248-1	0.100	RW:14.78-14.92
MPK	5596	16.098	AROCLOR-1248-2	0.100	RW:16.03-16.17
MPK	3721	16.269	AROCLOR-1248-3	0.100	RW:16.20-16.34
MPK	6461	17.205	AROCLOR-1248-4	0.100	RW:17.13-17.28
MPK	4112	17.681	AROCLOR-1248-5	0.100	RW:17.61-17.75
MPK	6365	18.331	AROCLOR-1248-6	0.100	RW:18.26-18.40
MPK	4100	18.541	AROCLOR-1248-7	0.100	RW:18.47-18.61
MPK	4428	19.479	AROCLOR-1248-8	0.100	RW:19.41-19.55

AR1254 9403 C

SAMPLE NO. : 08060135 .14
TEST NO. :
METHOD NO. : P35 / P35

INSTRUMENT: 35
DATE TIME: 08/07/01 01:25:01
PAGE NO. : 01

139

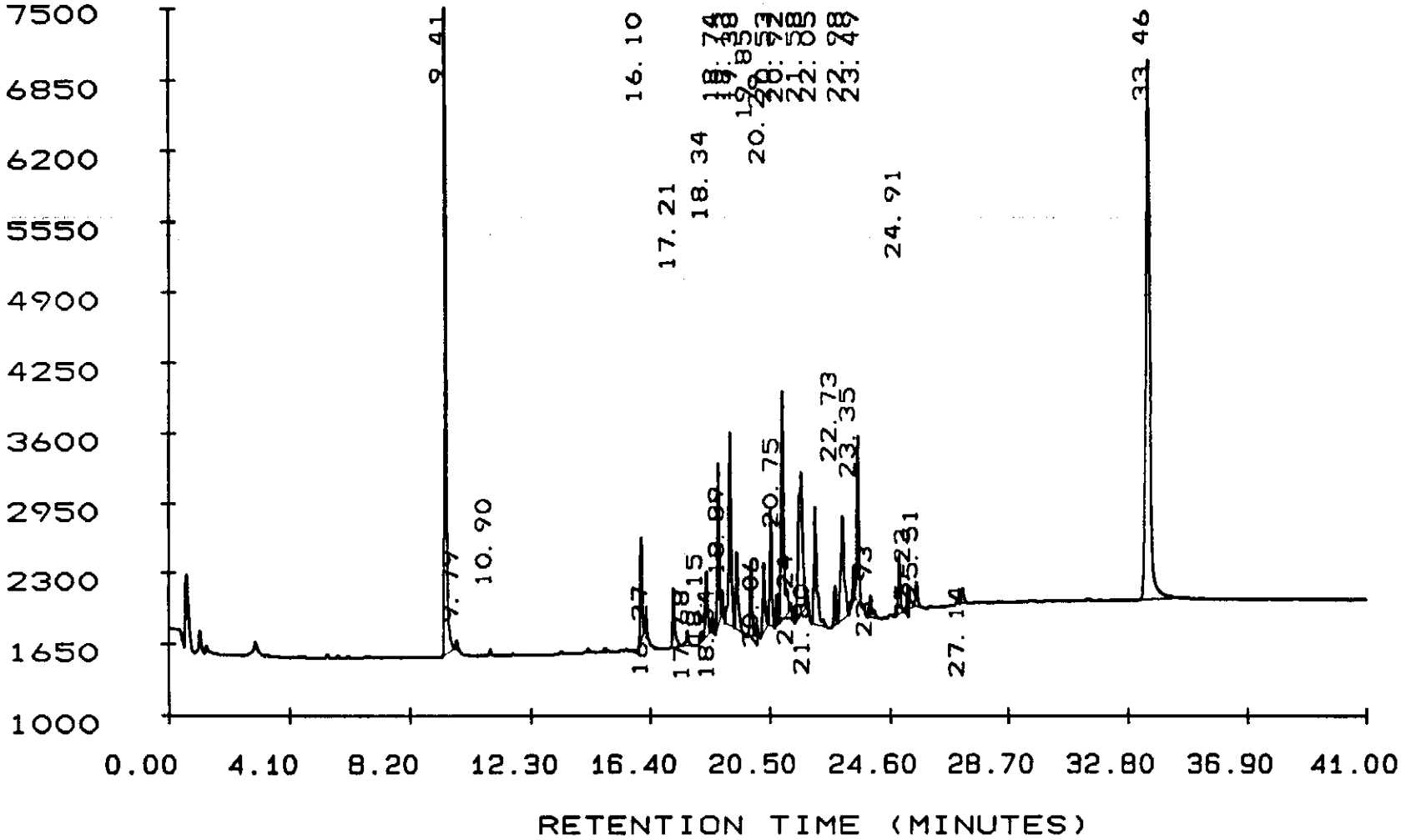

Y MAXIMUM: 7500.
Y MINIMUM: 1000.

START TIME: 0.00
END TIME: 41.00

Lionville Laboratory, Inc. 08/07/01 09:17:07

EXTERNAL STANDARD

SAMPLE: 08060135 .14 INST:35 VIAL:F0 SEQ NUMBER:014
TEST : DATE-TIME INJECTED : 08/07/01 01:25:01
COLLECTION TIME : 40.97 DATE-TIME PROCESSED : 08/07/01 09:17:07
METHOD: P35 / PCBLK REV #: 00219 ANALYST: KOBELM SAMP RATE: 1.56
CLIENT ID: SAMPLE VOL: 1.0 uL
CLIENT: COLUMN TYPE: DB608
LAB ID: AR1254 9403 C RAW FILE: RAW3:H7145293
SAMPLE WT : % MOISTURE : DILUTION FACTOR : 1.0000
COLUMN ID: 0.53 mm I CAL ID : TEMP:L080601.35/25

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
002	310414	63993	V	9.414	1	TCX	0.039
003	5189	949		9.787			
004	3130	635	V	10.905			
010	44655	9283	V	16.100			
011	5830	1591	V	16.271			
012	32457	5317	V	17.208			
013	9710	1487	V	17.685			
014	5568	1159	V	18.145			
015	31887	5775	V	18.337			
016	6527	1478	V	18.543			
017	71879	14764	V	18.737			
018	8956	2509	V	18.893			
019	103825	17600	V	19.129			
020	43390	7018	V	19.379			
021	34694	6688	V	19.854			
022	5517	1183	V	20.058			
023	34246	6287	V	20.288			
024	55174	10748	V	20.527			
025	12800	2958	V	20.752			
026	109968	20138	V	20.921			
027	2713	1024	V	21.090			
028	5501	1161	V	21.239			
029	134186	13079	V	21.577			
030	6246	1609	V	21.804			
031	74377	10762	V	22.048			
032	17041	3567	V	22.725			
033	80864	9543	V	22.983			
034	16988	3423	V	23.352			
035	76277	15105	V	23.495			
036	1829	552	V	23.697			
037	8124	1739	V	23.931			
040	30849	5427	V	24.912			
041	16749	2120	V	25.226			
042	14018	2315	V	25.510			
045	9418	1500		27.136			
048	486112	49234		33.461	1	DCB	0.039

MPK	14764	18.737	AROCLOR-1254-1	0.200	RW:18.67-18.81
MPK	17600	19.129	AROCLOR-1254-2	0.200	RW:19.06-19.20

SAMPLE: 08060135 .14 PAGE NUMBER: 2
DATE-TIME INJECTED : 08/07/01 01:25:01
DATE-TIME PROCESSED : 08/07/01 09:17:07

PK NO	PEAK AREA	PEAK HEIGHT	BL RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL	
MPK		10748	20.527		AROCLOR-1254-3	0.200	RW:20.46-20.60
MPK		20138	20.921		AROCLOR-1254-4	0.200	RW:20.85-20.99
MPK		13079	21.577		AROCLOR-1254-5	0.200	RW:21.51-21.65
MPK		10762	22.048		AROCLOR-1254-6	0.200	RW:21.98-22.12
MPK		9543	22.983		AROCLOR-1254-7	0.200	RW:22.91-23.05
MPK		15105	23.495		AROCLOR-1254-8	0.200	RW:23.42-23.57

AR1660 2801 A

SAMPLE NO. : 08060136 .05
TEST NO. :
METHOD NO. : P3660 / P3660

INSTRUMENT: 36
DATE TIME: 08/06/01 18:13:55
PAGE NO. : 01

142

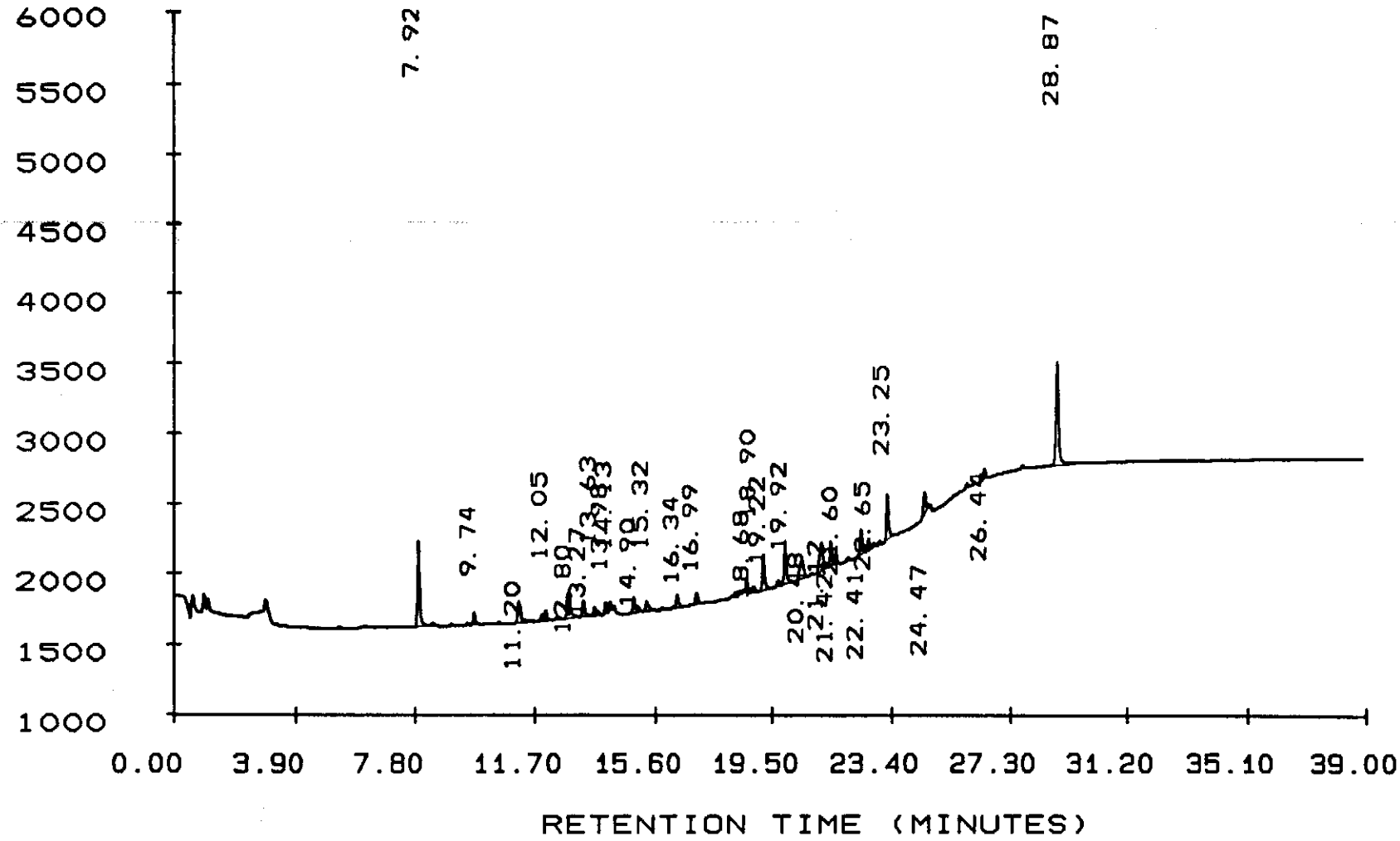

Y MAXIMUM: 6000.
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START TIME: 0.00
END TIME: 39.00

Lionville Laboratory, Inc. 08/07/01 09:05:58

EXTERNAL STANDARD

SAMPLE: 08060136 .05 INST:36 VIAL:F0 SEQ NUMBER:005
TEST : DATE-TIME INJECTED : 08/06/01 18:13:55
COLLECTION TIME : 38.84 DATE-TIME PROCESSED : 08/07/01 09:05:58
METHOD: P3660 / P3660 REV #: 00210 ANALYST: KOBELM SAMP RATE: 1.56
CLIENT ID: SAMPLE VOL: 1.0 uL
CLIENT: COLUMN TYPE: RTX1701
LAB ID: AR1660 2801 A RAW FILE: RAW3:H6145223
SAMPLE WT : % MOISTURE : DILUTION FACTOR : 1.0000
COLUMN ID: 0.53 mm I CAL ID : TEMP:L080601.36/25

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
001	30046	5925	V	7.923	1	TCX	0.007
004	4762	850	V	9.744	1	AR1016-1	0.020
006	12582	1520	V	11.196	1	AR1016-2	0.021
007	6303	740	V	12.054			
009	17060	1963	V	12.801	1	AR1016-3	0.020
010	7178	1137	V	13.272	1	AR1016-4	0.019
011	4506	632	V	13.630			
012	3454	819	V	13.979			
013	2734	667	V	14.126			
015	8268	1072	V	14.902	1	AR1016-5	0.022
016	4963	664	V	15.321			
018	6175	912	V	16.344			
019	5213	827		16.995			
021	6036	1018	V	18.676			
022	2882	442	V	18.902			
023	14173	2452	V	19.216	1	AR1260-1	0.021
025	15220	2551	V	19.920	1	AR1260-2	0.020
026	12623	1318	V	20.478			
028	16442	1996	V	21.121			
029	8243	1765	V	21.422	1	AR1260-3	0.020
030	3891	843	V	21.603			
032	9168	1784	V	22.409	1	AR1260-4	0.020
033	3749	808	V	22.650			
036	18159	3237		23.250	1	AR1260-5	0.019
037	8619	1406	V	24.469			
040	3703	739		26.437			
042	53596	7312		28.869	1	DCB	0.008

MPK	850	9.744	AROCLOR-1016-1	0.040	RW: 9.67- 9.81
MPK	1520	11.196	AROCLOR-1016-2	0.043	RW:11.12-11.26
MPK	740	12.054	AROCLOR-1016-3	0.049	RW:11.98-12.12
MPK	1963	12.801	AROCLOR-1016-4	0.039	RW:12.73-12.87
MPK	1137	13.272	AROCLOR-1016-5	0.039	RW:13.20-13.34
MPK	819	13.979	AROCLOR-1016-6	0.040	RW:13.91-14.05
MPK	667	14.126	AROCLOR-1016-7	0.041	RW:14.05-14.19
MPK	1072	14.902	AROCLOR-1016-8	0.044	RW:14.83-14.97
MPK	664	15.321	AROCLOR-1016-9	0.038	RW:15.25-15.39
MPK	1018	18.676	AROCLOR-1260-1	0.042	RW:18.60-18.74
MPK	2452	19.216	AROCLOR-1260-2	0.042	RW:19.14-19.28

0.04 8/7/01 43 MK

SAMPLE: 08060136 .05 PAGE NUMBER: 2
DATE-TIME INJECTED : 08/06/01 18:13:55
DATE-TIME PROCESSED : 08/07/01 09:05:58

PK NO	PEAK AREA	PEAK HEIGHT	BL RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL	
MPK		2551	19.920		AROCLOR-1260-3	0.040	RW:19.84-19.99
MPK		1318	20.478		AROCLOR-1260-4	0.040	RW:20.40-20.54
MPK		1996	21.121		AROCLOR-1260-5	0.039	RW:21.04-21.19
MPK		1765	21.422		AROCLOR-1260-6	0.039	RW:21.35-21.49
MPK		1784	22.409		AROCLOR-1260-7	0.039	RW:22.33-22.48
MPK		3237	23.250		AROCLOR-1260-8	0.037	RW:23.17-23.31
MPK		1406	24.469		AROCLOR-1260-9	0.036	RW:24.39-24.54

0.04

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AR1660 2802 B

SAMPLE NO. : 08060136 .06
TEST NO. :
METHOD NO. : P3660 / P3660

INSTRUMENT: 36
DATE TIME: 08/06/01 19:01:45
PAGE NO. : 01

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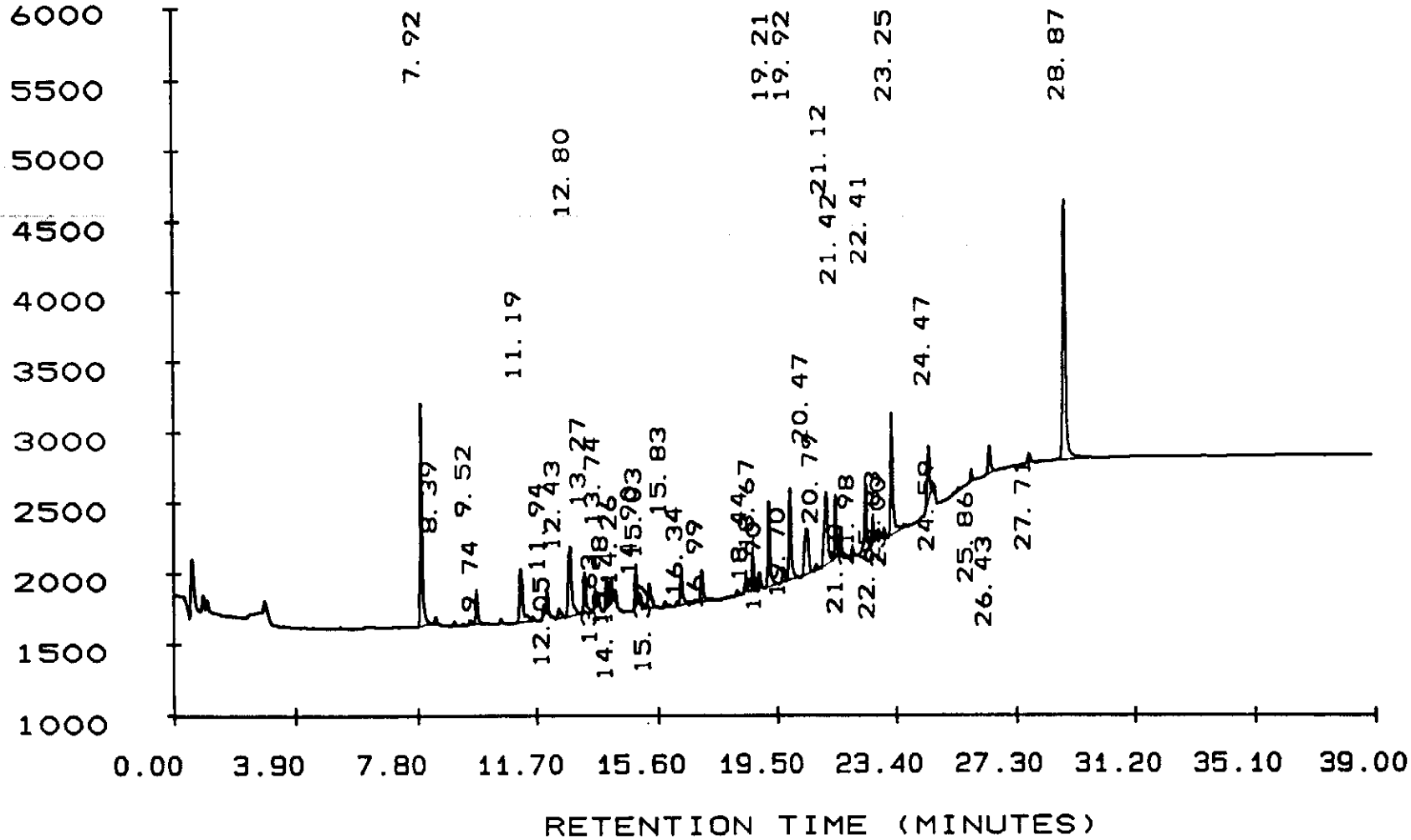

Y MAXIMUM: 6000.
Y MINIMUM: 1000.

START TIME: 0.00
END TIME: 39.00

Lionville Laboratory, Inc. 08/07/01 09:06:14

EXTERNAL STANDARD

SAMPLE: 08060136 .06 INST:36 VIAL:F0 SEQ NUMBER:006
TEST : DATE-TIME INJECTED : 08/06/01 19:01:45
COLLECTION TIME : 38.84 DATE-TIME PROCESSED : 08/07/01 09:06:14
METHOD: P3660 / P3660 REV #: 00210 ANALYST: KOBELM SAMP RATE: 1.56
CLIENT ID: SAMPLE VOL: 1.0 uL
CLIENT: COLUMN TYPE: RTX1701
LAB ID: AR1660 2802 B RAW FILE: RAW3:H6145231
SAMPLE WT : % MOISTURE : DILUTION FACTOR : 1.0000
COLUMN ID: 0.53 mm I CAL ID : TEMP:L080601.36/25

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
002	76525	15433	V	7.921	1	TCX	0.019
003	3046	538	V	8.395			
005	1995	425	V	9.524			
006	12851	2122	V	9.742	1	AR1016-1	0.050
008	31821	3756	V	11.194	1	AR1016-2	0.053
009	2993	818	V	11.935			
010	6334	1489	V	12.052			
011	4931	670	V	12.429			
012	43206	4901	V	12.798	1	AR1016-3	0.049
013	18064	2856	V	13.269	1	AR1016-4	0.049
014	5176	1329	V	13.629			
015	1684	496	V	13.743			
016	8513	2019	V	13.976			
017	6792	1633	V	14.123			
018	3894	913	V	14.256			
019	10011	2372	V	14.899	1	AR1016-5	0.049
020	3151	723	V	15.035			
021	12726	1683	V	15.319			
022	3107	429	V	15.828			
023	14468	2224	V	16.342			
025	13920	2131	V	16.993			
027	3573	887	V	18.436			
028	14610	2554	V	18.674			
029	6951	1101	V	18.898			
030	34714	6006	V	19.213	1	AR1260-1	0.051
031	5491	1005	V	19.700			
032	37210	6369	V	19.917	1	AR1260-2	0.050
033	31510	3297	V	20.470			
034	2073	482	V	20.790			
035	41089	5054	V	21.118			
036	20819	4426	V	21.419	1	AR1260-3	0.049
037	9629	2101	V	21.600			
038	4161	774	V	21.978			
039	23694	4564	V	22.407	1	AR1260-4	0.050
040	9623	2064	V	22.646			
041	3277	754	V	22.826			
042	3533	788	V	23.002			
043	50923	8541	V	23.247	1	AR1260-5	0.049
045	21860	3705	V	24.467			
046	4876	676	V	24.592			

SAMPLE: 08060136 .06 PAGE NUMBER: 2
DATE-TIME INJECTED : 08/06/01 19:01:45
DATE-TIME PROCESSED : 08/07/01 09:06:14

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL	
047	7884	897	V	25.858				
048	11940	2007		26.435				
049	3937	672	V	27.714				
050	127672	18232		28.868	1	DCB	0.020	
MPK		2122		9.742		AROCLOR-1016-1	0.100	RW: 9.67- 9.81
MPK		3756		11.194		AROCLOR-1016-2	0.105	RW:11.12-11.26
MPK		1489		12.052		AROCLOR-1016-3	0.099	RW:11.98-12.12
MPK		4901		12.798		AROCLOR-1016-4	0.098	RW:12.73-12.87
MPK		2856		13.269		AROCLOR-1016-5	0.098	RW:13.20-13.34
MPK		2019		13.976		AROCLOR-1016-6	0.100	RW:13.91-14.05
MPK		1633		14.123		AROCLOR-1016-7	0.099	RW:14.05-14.19
MPK		2372		14.899		AROCLOR-1016-8	0.097	RW:14.83-14.97
MPK		1683		15.319		AROCLOR-1016-9	0.097	RW:15.25-15.39
MPK		2554		18.674		AROCLOR-1260-1	0.107	RW:18.60-18.74
MPK		6006		19.213		AROCLOR-1260-2	0.102	RW:19.14-19.28
MPK		6369		19.917		AROCLOR-1260-3	0.099	RW:19.84-19.99
MPK		3297		20.470		AROCLOR-1260-4	0.100	RW:20.40-20.54
MPK		5054		21.118		AROCLOR-1260-5	0.098	RW:21.04-21.19
MPK		4426		21.419		AROCLOR-1260-6	0.098	RW:21.35-21.49
MPK		4564		22.407		AROCLOR-1260-7	0.101	RW:22.33-22.48
MPK		8541		23.247		AROCLOR-1260-8	0.098	RW:23.17-23.31
MPK		3705		24.467		AROCLOR-1260-9	0.096	RW:24.39-24.54

0.10

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AR1660 2803 C

SAMPLE NO. : 08060136 . 07 INSTRUMENT: 36

TEST NO. : DATE TIME: 08/06/01 19:49:34

METHOD NO. : P3660 / P3660 PAGE NO. : 01

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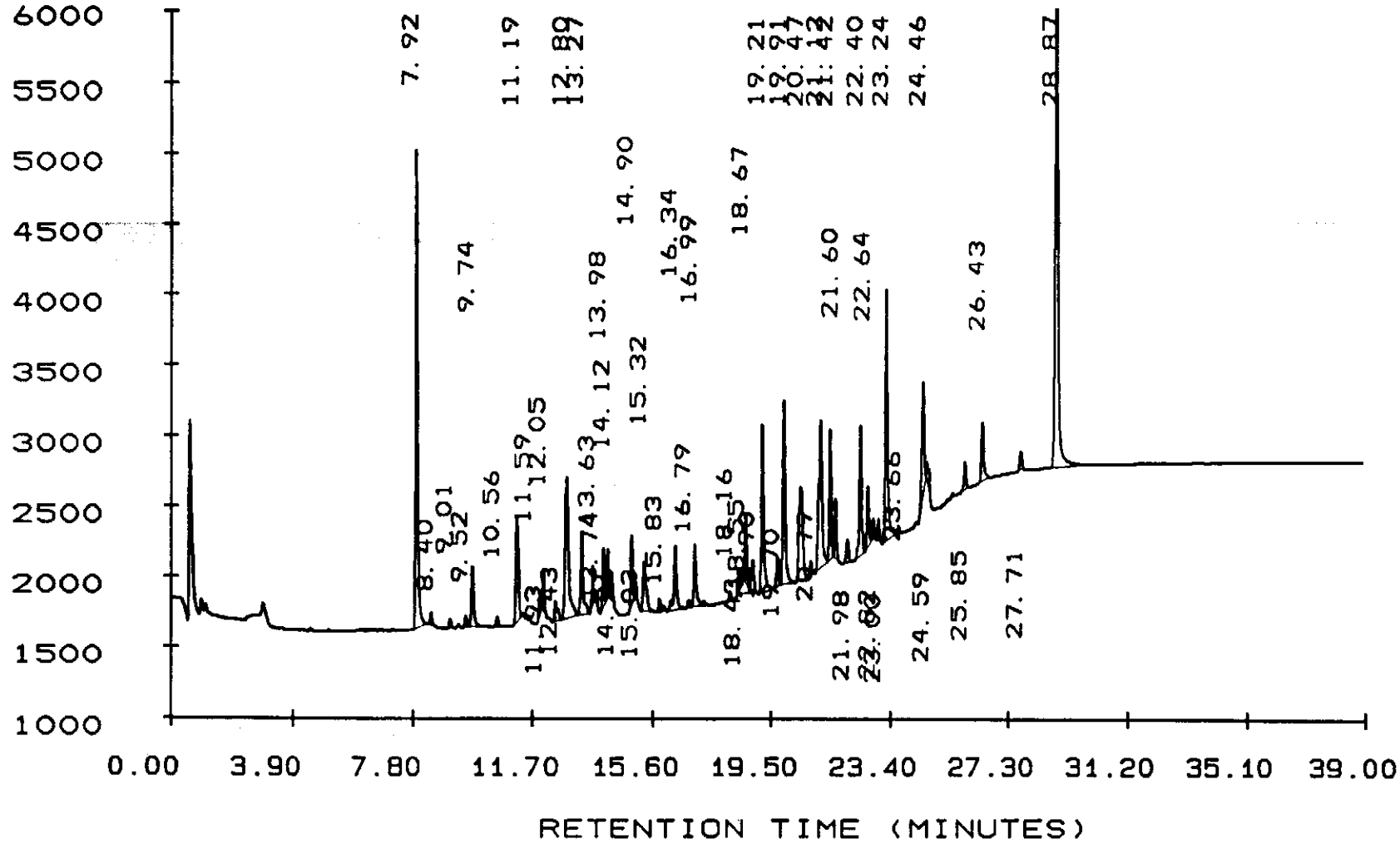

Y MAXIMUM: 6000. START TIME: 0.00

Y MINIMUM: 1000. END TIME: 39.00

Lionville Laboratory, Inc. 08/07/01 09:06:30

EXTERNAL STANDARD

SAMPLE: 08060136 .07 INST:36 VIAL:F0 SEQ NUMBER:007
TEST : DATE-TIME INJECTED : 08/06/01 19:49:34
COLLECTION TIME : 38.84 DATE-TIME PROCESSED : 08/07/01 09:06:30
METHOD: P3660 / P3660 REV #: 00210 ANALYST: KOBELM SAMP RATE: 1.56
CLIENT ID: SAMPLE VOL: 1.0 uL
CLIENT: COLUMN TYPE: RTX1701
LAB ID: AR1660 2803 C RAW FILE: RAW3:H6145239
SAMPLE WT : % MOISTURE : DILUTION FACTOR : 1.0000
COLUMN ID: 0.53 mm I CAL ID : TEMP:L080601.36/25

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
002	158858	33205	V	7.920	1	TCX	0.040
003	5195	929	V	8.396			
004	3432	666	V	9.014			
006	4058	870	V	9.524			
007	25030	4259	V	9.741	1	AR1016-1	0.100
008	3534	709	V	10.555			
009	45920	7145	V	11.193	1	AR1016-2	0.100
011	1974	452	V	11.590			
012	6161	1685	V	11.934			
013	12679	3022	V	12.051			
014	10310	1396	V	12.428			
015	86827	9969	V	12.798	1	AR1016-3	0.100
016	36735	5834	V	13.268	1	AR1016-4	0.100
017	10869	2752	V	13.628			
018	3330	1000	V	13.742			
019	17206	4055	V	13.975			
020	13496	3286	V	14.122			
021	7735	1819	V	14.255			
022	20679	4867	V	14.898	1	AR1016-5	0.100
023	6051	1410	V	15.034			
024	25568	3456	V	15.318			
025	6475	888	V	15.828			
026	30014	4498	V	16.341			
027	2477	522	V	16.788			
028	27987	4310	V	16.992			
029	3780	696	V	18.164			
030	7022	1744	V	18.434			
031	3014	917	V	18.554			
032	21282	4792	V	18.672			
033	13830	2219	V	18.896			
034	67766	11748	V	19.211	1	AR1260-1	0.100
035	11224	2095	V	19.698			
036	73213	12854	V	19.915	1	AR1260-2	0.100
037	62592	6604	V	20.467			
038	4191	997	V	20.788			
039	82212	10314	V	21.115			
040	41645	9042	V	21.416	1	AR1260-3	0.100
041	19036	4219	V	21.598			
042	8209	1559	V	21.975			
043	47227	9044	V	22.405	1	AR1260-4	0.100

SAMPLE: 08060136 .07 PAGE NUMBER: 2
DATE-TIME INJECTED : 08/06/01 19:49:34
DATE-TIME PROCESSED : 08/07/01 09:06:30

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
044	19248	4197	V	22.644			
045	6919	1549	V	22.824			
046	6989	1578	V	23.000			
047	102144	17490	V	23.244	1	AR1260-5	0.100
048	2503	570	V	23.660			
049	45418	7738	V	24.465			
050	9988	1426	V	24.590			
052	10364	1943	V	25.855			
053	24036	4126		26.433			
054	6672	1258	V	27.713			
055	247872	36156		28.868	1	DCB	0.040

MPK	4259	9.741	AROCLOR-1016-1	0.200	RW: 9.67- 9.81
MPK	7145	11.193	AROCLOR-1016-2	0.200	RW:11.12-11.26
MPK	3022	12.051	AROCLOR-1016-3	0.200	RW:11.98-12.12
MPK	9969	12.798	AROCLOR-1016-4	0.200	RW:12.73-12.87
MPK	5834	13.268	AROCLOR-1016-5	0.200	RW:13.20-13.34
MPK	4055	13.975	AROCLOR-1016-6	0.200	RW:13.91-14.05
MPK	3286	14.122	AROCLOR-1016-7	0.200	RW:14.05-14.19
MPK	4867	14.898	AROCLOR-1016-8	0.200	RW:14.83-14.97
MPK	3456	15.318	AROCLOR-1016-9	0.200	RW:15.25-15.39
MPK	4792	18.672	AROCLOR-1260-1	0.200	RW:18.60-18.74
MPK	11748	19.211	AROCLOR-1260-2	0.200	RW:19.14-19.28
MPK	12854	19.915	AROCLOR-1260-3	0.200	RW:19.84-19.99
MPK	6604	20.467	AROCLOR-1260-4	0.200	RW:20.40-20.54
MPK	10314	21.115	AROCLOR-1260-5	0.200	RW:21.04-21.19
MPK	9042	21.416	AROCLOR-1260-6	0.200	RW:21.35-21.49
MPK	9044	22.405	AROCLOR-1260-7	0.200	RW:22.33-22.48
MPK	17490	23.244	AROCLOR-1260-8	0.200	RW:23.17-23.31
MPK	7738	24.465	AROCLOR-1260-9	0.200	RW:24.39-24.54

AR1660 2804 D

SAMPLE NO. : 08060136 .08 INSTRUMENT: 36
TEST NO. : DATE TIME: 08/06/01 20:37:33
METHOD NO. : P3660 / P3660 PAGE NO. : 01

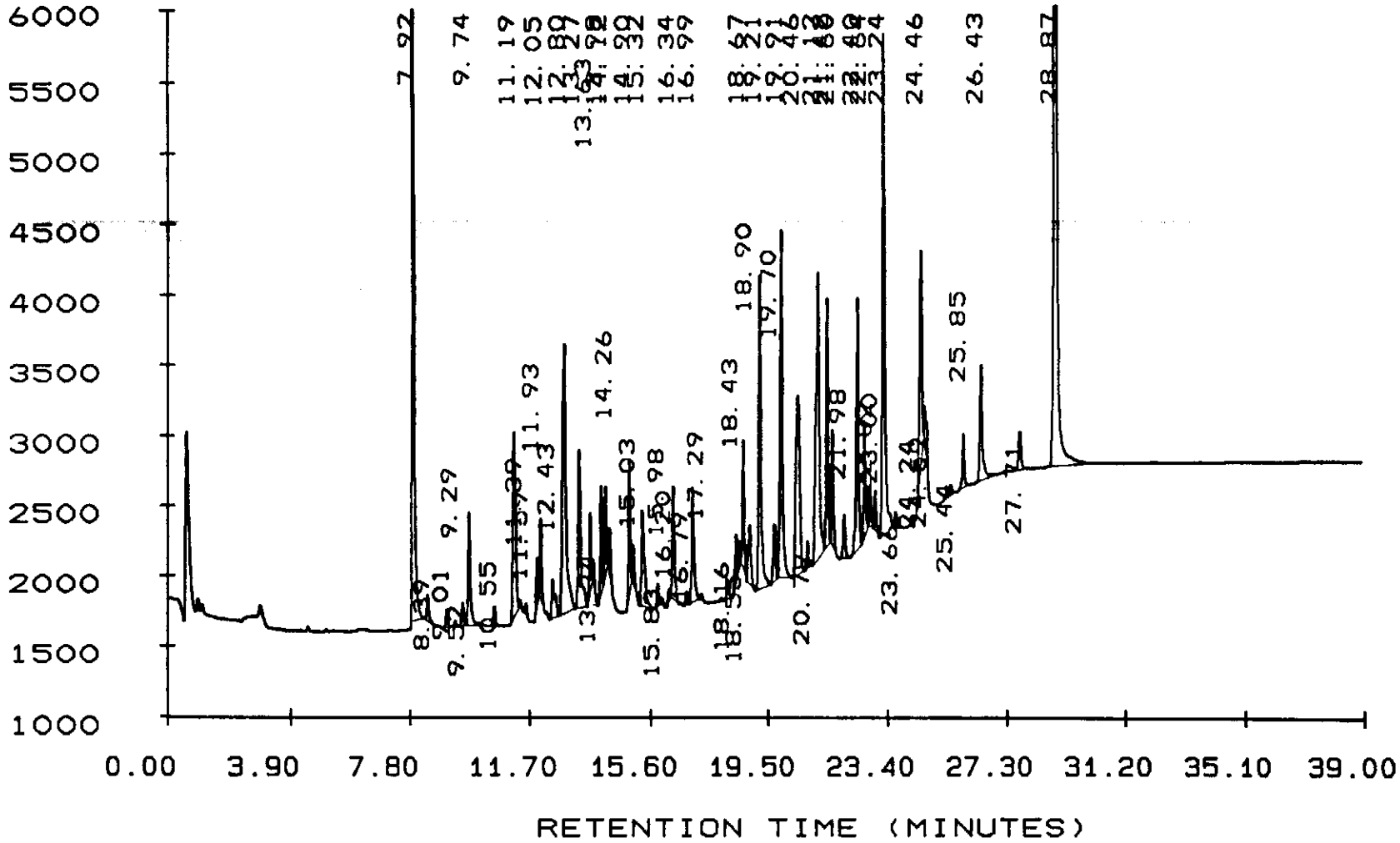

Y MAXIMUM: 6000. START TIME: 0.00
Y MINIMUM: 1000. END TIME: 39.00

Lionville Laboratory, Inc. 08/07/01 09:06:47

EXTERNAL STANDARD

SAMPLE: 08060136 .08 INST:36 VIAL:F0 SEQ NUMBER:008
TEST : DATE-TIME INJECTED : 08/06/01 20:37:33
COLLECTION TIME : 38.84 DATE-TIME PROCESSED : 08/07/01 09:06:47
METHOD: P3660 / P3660 REV #: 00210 ANALYST: KOBELM SAMP RATE: 1.56
CLIENT ID: SAMPLE VOL: 1.0 uL
CLIENT: COLUMN TYPE: RTX1701
LAB ID: AR1660 2804 D RAW FILE: RAW3:H6145248
SAMPLE WT : % MOISTURE : DILUTION FACTOR : 1.0000
COLUMN ID: 0.53 mm I CAL ID : TEMP:L080601.36/25

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
002	317899	68201	V	7.920	1	TCX	0.082
003	10971	1857	V	8.394			
004	6402	1272	V	9.013			
005	2598	559	V	9.289			
006	7834	1669	V	9.523			
007	47312	7962	V	9.740	1	AR1016-1	0.187
008	7051	1359	V	10.554			
009	85631	13108	V	11.192	1	AR1016-2	0.183
010	2385	621	V	11.395			
011	3724	860	V	11.589			
012	11924	3256	V	11.934			
013	24003	5694	V	12.051			
014	19795	2690	V	12.428			
015	163910	19041	V	12.798	1	AR1016-3	0.191
016	70150	11157	V	13.268	1	AR1016-4	0.191
017	21269	5398	V	13.628			
018	6322	1900	V	13.742			
019	32204	7555	V	13.975			
020	25494	6211	V	14.122			
021	14854	3487	V	14.255			
022	39597	9290	V	14.898	1	AR1016-5	0.191
023	11633	2724	V	15.034			
024	49376	6706	V	15.318			
025	6674	1549	V	15.828			
026	2327	549	V	15.976			
027	3318	849	V	16.204			
028	41198	7882	V	16.341			
029	4694	1004	V	16.788			
030	46036	8094	V	16.991			
031	1811	430	V	17.287			
033	7229	1361	V	18.162			
034	13309	3286	V	18.434			
035	5764	1762	V	18.554			
036	40305	9065	V	18.672			
037	26380	4240	V	18.896			
038	127459	21929	V	19.211	1	AR1260-1	0.187
039	21703	4054	V	19.698			
040	137946	24229	V	19.915	1	AR1260-2	0.188
041	119302	12690	V	20.464			
042	7935	1901	V	20.788			

SAMPLE: 08060136 .08 PAGE NUMBER: 2
DATE-TIME INJECTED : 08/06/01 20:37:33
DATE-TIME PROCESSED : 08/07/01 09:06:47

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
044	158925	19979	V	21.115			
045	79802	17209	V	21.416	1	AR1260-3	0.190
046	36957	8214	V	21.598			
047	16250	3075	V	21.975			
048	90895	17518	V	22.405	1	AR1260-4	0.194
049	37290	8142	V	22.644			
050	13211	2980	V	22.824			
051	13373	3044	V	22.999			
052	197670	34121	V	23.244	1	AR1260-5	0.195
053	5163	1095	V	23.658			
054	2075	487	V	24.244			
055	87171	14931	V	24.464			
056	18996	2731	V	24.589			
057	6544	797	V	25.439			
058	20144	3757	V	25.854			
059	52046	8049	V	26.432			
060	19025	2687	V	27.712			
061	480569	69294		28.868	1	DCB	0.077

MPK	7962	9.740	AROCLOR-1016-1	0.374	RW: 9.67- 9.81
MPK	13108	11.192	AROCLOR-1016-2	0.367	RW:11.12-11.26
MPK	5694	12.051	AROCLOR-1016-3	0.377	RW:11.98-12.12
MPK	19041	12.798	AROCLOR-1016-4	0.382	RW:12.73-12.87
MPK	11157	13.268	AROCLOR-1016-5	0.382	RW:13.20-13.34
MPK	7555	13.975	AROCLOR-1016-6	0.373	RW:13.91-14.05
MPK	6211	14.122	AROCLOR-1016-7	0.378	RW:14.05-14.19
MPK	9290	14.898	AROCLOR-1016-8	0.382	RW:14.83-14.97
MPK	6706	15.318	AROCLOR-1016-9	0.388	RW:15.25-15.39
MPK	9065	18.672	AROCLOR-1260-1	0.378	RW:18.60-18.74
MPK	21929	19.211	AROCLOR-1260-2	0.373	RW:19.14-19.28
MPK	24229	19.915	AROCLOR-1260-3	0.377	RW:19.84-19.99
MPK	12690	20.464	AROCLOR-1260-4	0.384	RW:20.40-20.54
MPK	19979	21.115	AROCLOR-1260-5	0.387	RW:21.04-21.19
MPK	17209	21.416	AROCLOR-1260-6	0.381	RW:21.35-21.49
MPK	17518	22.405	AROCLOR-1260-7	0.387	RW:22.33-22.48
MPK	34121	23.244	AROCLOR-1260-8	0.390	RW:23.17-23.31
MPK	14931	24.464	AROCLOR-1260-9	0.386	RW:24.39-24.54

6.40

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AR1660 2805 E

SAMPLE NO. : 08060136 .09
TEST NO. :
METHOD NO. : P3660 / P3660

INSTRUMENT: 36
DATE TIME: 08/06/01 21:25:34
PAGE NO. : 01

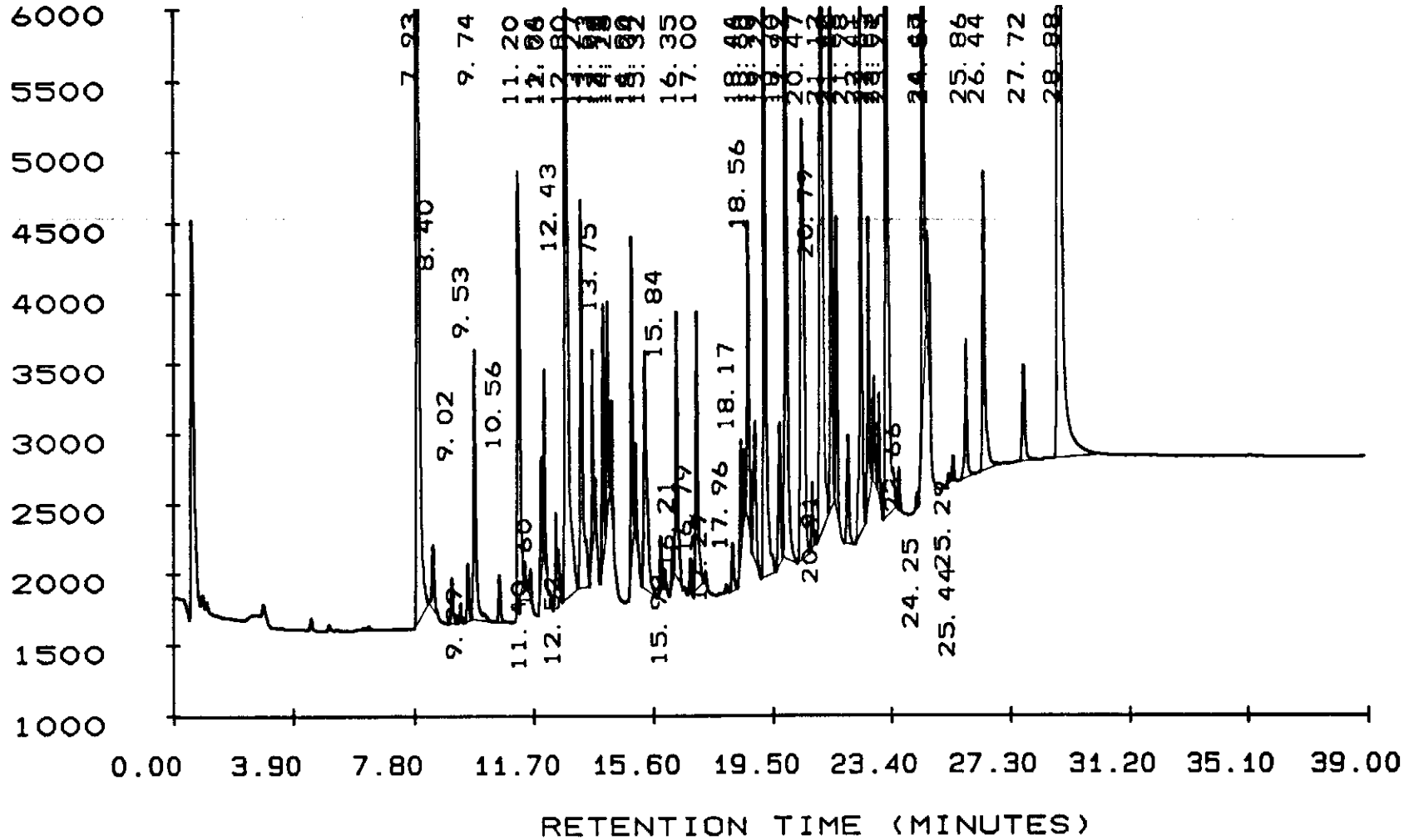

Y MAXIMUM: 6000.
Y MINIMUM: 1000.

START TIME: 0.00
END TIME: 39.00

Lionville Laboratory, Inc. 08/07/01 09:07:04

EXTERNAL STANDARD

SAMPLE: 08060136 .09 INST:36 VIAL:F0 SEQ NUMBER:009
TEST : DATE-TIME INJECTED : 08/06/01 21:25:34
COLLECTION TIME : 38.84 DATE-TIME PROCESSED : 08/07/01 09:07:04
METHOD: P3660 / P3660 REV #: 00210 ANALYST: KOBELM SAMP RATE: 1.56
CLIENT ID: SAMPLE VOL: 1.0 uL
CLIENT: COLUMN TYPE: RTX1701
LAB ID: AR1660 2805 E RAW FILE: RAW3:H6145256
SAMPLE WT : % MOISTURE : DILUTION FACTOR : 1.0000
COLUMN ID: 0.53 mm I CAL ID : TEMP:L080601.36/25

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
003	872500	180688	V	7.925	1	TCX	0.218
004	26160	4550	V	8.399			
005	15802	3194	V	9.018			
006	6518	1422	V	9.294			
007	19200	4067	V	9.528			
008	111850	19004	V	9.745	1	AR1016-1	0.446
009	17340	3269	V	10.559			
010	199263	30373	V	11.197	1	AR1016-2	0.425
011	5879	1505	V	11.400			
012	9213	2147	V	11.595			
013	30399	8099	V	11.939			
014	56969	13619	V	12.057			
015	17089	4665	V	12.433			
016	4245	1470	V	12.522			
017	399968	47426	V	12.804	1	AR1016-3	0.476
018	170720	27331	V	13.274	1	AR1016-4	0.469
019	56468	13865	V	13.634			
020	14768	4243	V	13.748			
021	74826	17649	V	13.981			
022	59510	14610	V	14.128			
023	34394	7921	V	14.261			
024	95767	22300	V	14.905	1	AR1016-5	0.458
025	30547	6887	V	15.040			
026	121075	16779	V	15.324			
027	17082	3914	V	15.835			
028	5978	1470	V	15.983			
029	9277	2424	V	16.210			
030	97119	18682	V	16.347			
031	11757	2524	V	16.794			
032	110115	19504	V	16.998			
033	4206	1027	V	17.293			
034	3257	656	V	17.964			
035	17779	3398	V	18.168			
036	32101	8051	V	18.440			
037	16197	4823	V	18.559			
038	95126	21385	V	18.679			
039	63492	10054	V	18.902			
040	298112	51276	V	19.217	1	AR1260-1	0.436
041	54061	10020	V	19.704			
042	327302	59003	V	19.920	1	AR1260-2	0.459

SAMPLE: 08060136 .09 PAGE NUMBER: 2
DATE-TIME INJECTED : 08/06/01 21:25:34
DATE-TIME PROCESSED : 08/07/01 09:07:04

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
043	288653	31075	V	20.466			
044	19396	4621	V	20.794			
045	2587	893	V	20.913			
046	392707	50045	V	21.122			
047	195274	42152	V	21.423	1	AR1260-3	0.466
048	91117	20653	V	21.604			
049	40070	7673	V	21.980			
050	221328	41909	V	22.412	1	AR1260-4	0.463
051	89472	19933	V	22.651			
052	34212	7554	V	22.830			
053	32241	7596	V	23.005			
054	503834	90883	V	23.250	1	AR1260-5	0.520
055	12010	2822	V	23.665			
056	5011	1210	V	24.249			
057	226165	39023	V	24.470			
058	52588	7441	V	24.594			
059	3684	800	V	25.292			
060	7675	1792	V	25.442			
061	53963	9713	V	25.860			
062	127078	20933	V	26.439			
063	42662	6822	V	27.720			
064	1162547	166130		28.878	1	DCB	0.184

MPK	19004	9.745	AROCLOR-1016-1	0.892	RW: 9.67- 9.81
MPK	30373	11.197	AROCLOR-1016-2	0.850	RW:11.12-11.26
MPK	13619	12.057	AROCLOR-1016-3	0.901	RW:11.98-12.12
MPK	47426	12.804	AROCLOR-1016-4	0.951	RW:12.73-12.87
MPK	27331	13.274	AROCLOR-1016-5	0.937	RW:13.20-13.34
MPK	17649	13.981	AROCLOR-1016-6	0.870	RW:13.91-14.05
MPK	14610	14.128	AROCLOR-1016-7	0.889	RW:14.05-14.19
MPK	22300	14.905	AROCLOR-1016-8	0.916	RW:14.83-14.97
MPK	16779	15.324	AROCLOR-1016-9	0.971	RW:15.25-15.39
MPK	21385	18.679	AROCLOR-1260-1	0.893	RW:18.60-18.74
MPK	51276	19.217	AROCLOR-1260-2	0.873	RW:19.14-19.28
MPK	59003	19.920	AROCLOR-1260-3	0.918	RW:19.84-19.99
MPK	31075	20.466	AROCLOR-1260-4	0.941	RW:20.40-20.54
MPK	50045	21.122	AROCLOR-1260-5	0.970	RW:21.04-21.19
MPK	42152	21.423	AROCLOR-1260-6	0.932	RW:21.35-21.49
MPK	41909	22.412	AROCLOR-1260-7	0.927	RW:22.33-22.48
MPK	90883	23.250	AROCLOR-1260-8	1.039	RW:23.17-23.31
MPK	39023	24.470	AROCLOR-1260-9	1.009	RW:24.39-24.54

1.0

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AR1221 1108

SAMPLE NO. : 08060136 . 10
TEST NO. :
METHOD NO. : P36 / P36

INSTRUMENT: 36
DATE TIME: 08/06/01 22:13:44
PAGE NO. : 01

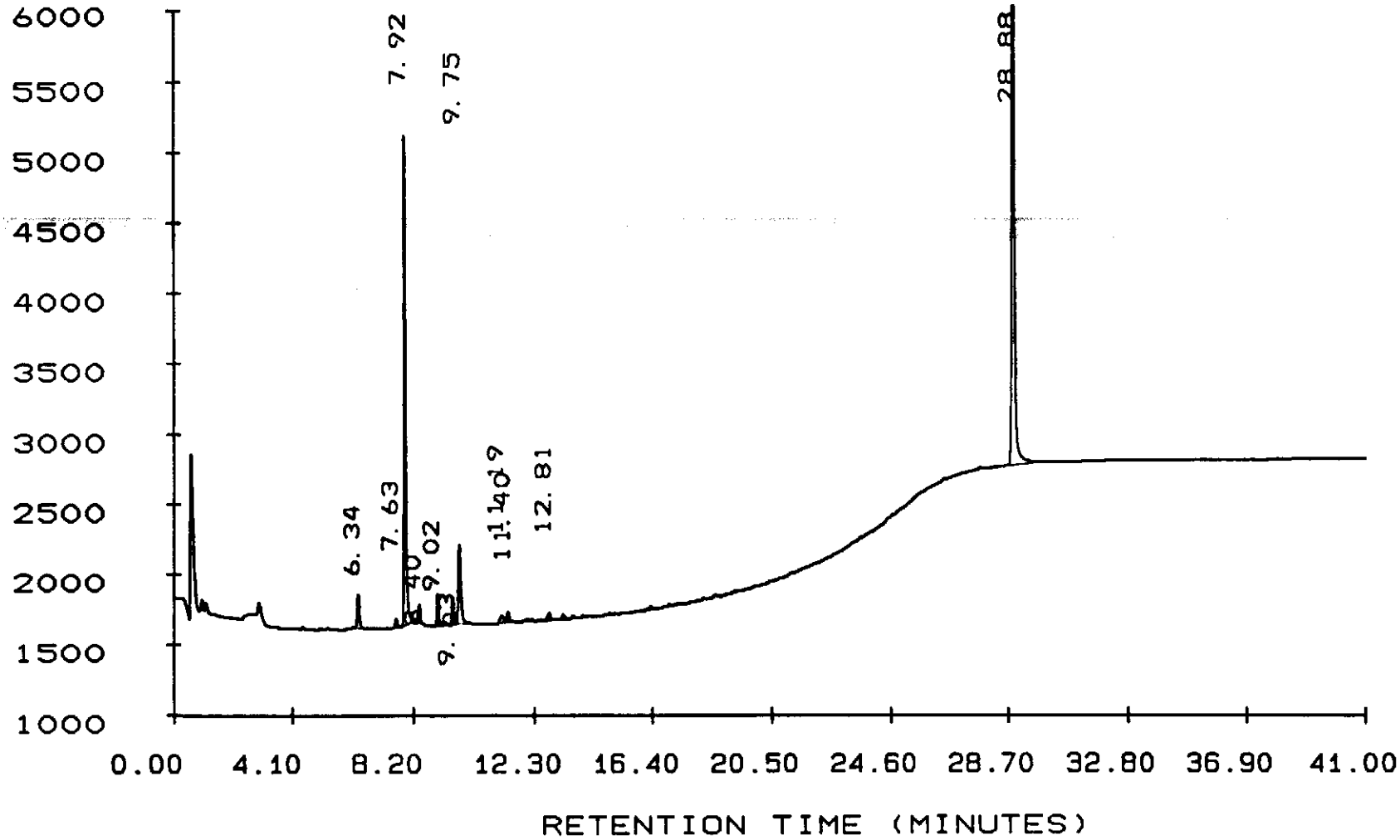

Y MAXIMUM: 6000.
Y MINIMUM: 1000.

START TIME: 0.00
END TIME: 41.00

Lionville Laboratory, Inc. 08/07/01 09:17:49

EXTERNAL STANDARD

SAMPLE: 08060136 .10 INST:36 VIAL:F0 SEQ NUMBER:010
TEST : DATE-TIME INJECTED : 08/06/01 22:13:44
COLLECTION TIME : 40.97 DATE-TIME PROCESSED : 08/07/01 09:17:49
METHOD: P36 / PCBJL REV #: 00211 ANALYST: KOBELM SAMP RATE: 1.56
CLIENT ID: SAMPLE VOL: 1.0 uL
CLIENT: COLUMN TYPE: RTX1701
LAB ID: AR1221 1108 RAW FILE: RAW3:H6145263
SAMPLE WT : % MOISTURE : DILUTION FACTOR : 1.0000
COLUMN ID: 0.53 mm I CAL ID : TEMP:L080601.36/25

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
001	14154	2375		6.335			
002	3661	660	V	7.627			
003	161238	34020	V	7.924	1	TCX	0.041
004	7561	1189	V	8.401			
005	11053	2248	V	9.018			
007	8173	1736	V	9.528			
008	33972	5578		9.746			
009	4454	541	V	11.185			
010	4461	734	V	11.398			
012	4483	531	V	12.806			
019	259521	37811		28.878	1	DCB	0.042

MPK	2375	6.335	AROCLOR-1221-1	0.200	RW: 6.27- 6.40
MPK	660	7.627	AROCLOR-1221-2	0.200	RW: 7.56- 7.70
MPK	1189	8.401	AROCLOR-1221-3	0.200	RW: 8.33- 8.47
MPK	2248	9.018	AROCLOR-1221-4	0.200	RW: 8.95- 9.09
MPK	1736	9.528	AROCLOR-1221-5	0.200	RW: 9.46- 9.60
MPK	5578	9.746	AROCLOR-1221-6	0.200	RW: 9.68- 9.82
MPK	541	11.185	AROCLOR-1221-7	0.200	RW:11.12-11.26
MPK	734	11.398	AROCLOR-1221-8	0.200	RW:11.33-11.47

AR1232 1205

SAMPLE NO. : 08060136 . 11
TEST NO. :
METHOD NO. : P36 / P36

INSTRUMENT: 36
DATE TIME: 08/06/01 23:01:33
PAGE NO. : 01

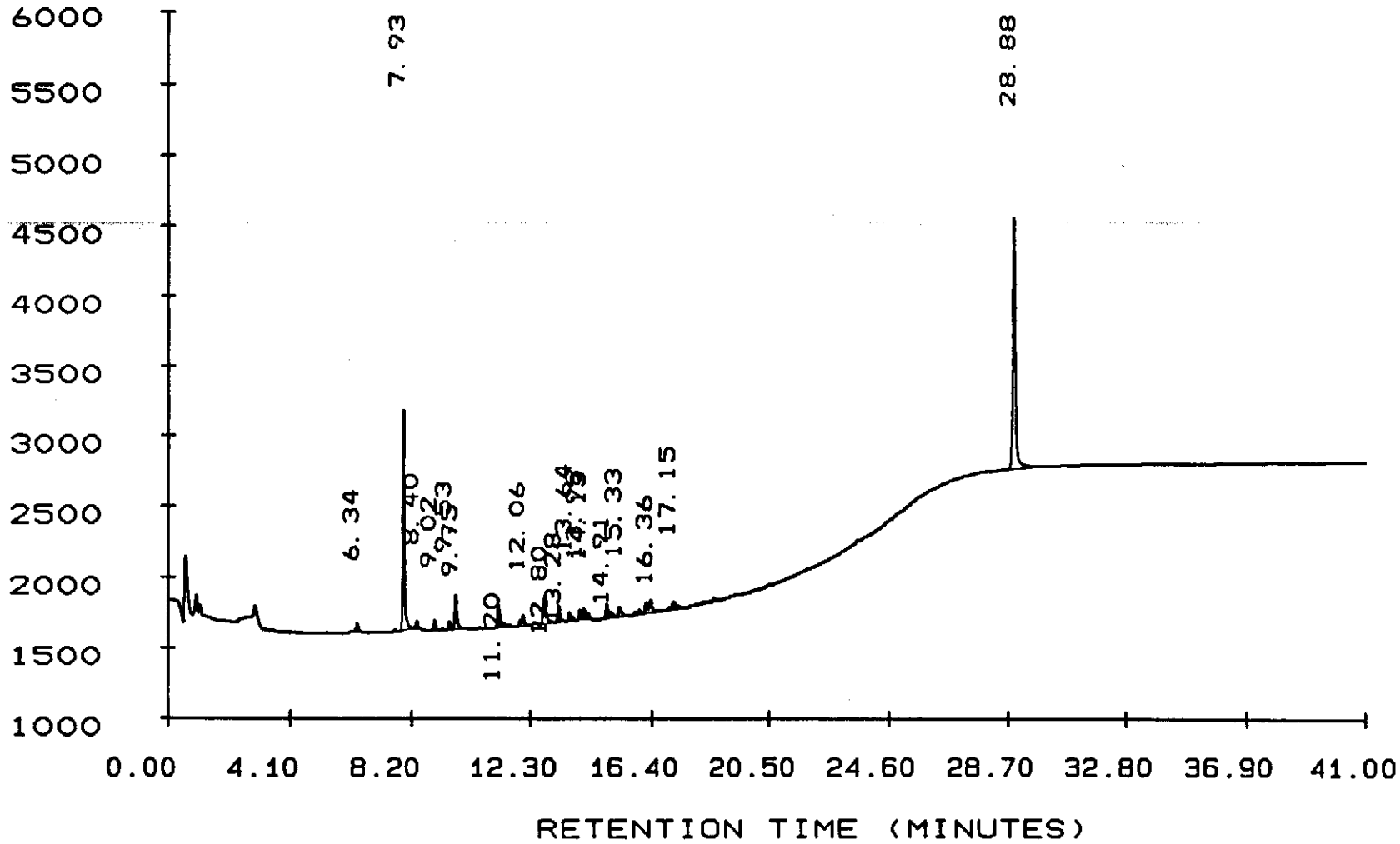

Y MAXIMUM: 6000.
Y MINIMUM: 1000.

START TIME: 0.00
END TIME: 41.00

Lionville Laboratory, Inc. 08/07/01 09:18:03

EXTERNAL STANDARD

SAMPLE: 08060136 .11 INST:36 VIAL:F0 SEQ NUMBER:011
TEST : DATE-TIME INJECTED : 08/06/01 23:01:33
COLLECTION TIME : 40.97 DATE-TIME PROCESSED : 08/07/01 09:18:03
METHOD: P36 / PCBJL REV #: 00211 ANALYST: KOBELM SAMP RATE: 1.56
CLIENT ID: SAMPLE VOL: 1.0 uL
CLIENT: COLUMN TYPE: RTX1701
LAB ID: AR1232 1205 RAW FILE: RAW3:H6145271
SAMPLE WT : % MOISTURE : DILUTION FACTOR : 1.0000
COLUMN ID: 0.53 mm I CAL ID : TEMP:L080601.36/25

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
001	5196	707		6.338			
003	75462	15252	V	7.926	1	TCX	0.018
004	3778	595	V	8.401			
005	4531	759	V	9.019			
006	3002	652	V	9.529			
007	14849	2384		9.747			
008	14490	1570	V	11.199			
009	6852	787	V	12.058			
011	17348	1973	V	12.804			
012	7101	1144	V	13.277			
013	4460	652	V	13.635			
014	2959	700	V	13.983			
015	2494	610	V	14.131			
017	3632	871	V	14.906			
019	5169	690	V	15.326			
021	2593	609	V	16.212			
022	3534	664	V	16.362			
023	7026	535		17.146			
025	125243	17748		28.880	1	DCB	0.020

MPK	707	6.338	AROCLOR-1232-1	0.100	RW: 6.27- 6.41
MPK	759	9.019	AROCLOR-1232-2	0.100	RW: 8.95- 9.09
MPK	2384	9.747	AROCLOR-1232-3	0.100	RW: 9.68- 9.82
MPK	1570	11.199	AROCLOR-1232-4	0.100	RW:11.13-11.27
MPK	787	12.058	AROCLOR-1232-5	0.100	RW:11.99-12.13
MPK	1973	12.804	AROCLOR-1232-6	0.100	RW:12.73-12.87
MPK	1144	13.277	AROCLOR-1232-7	0.100	RW:13.21-13.35
MPK	871	14.906	AROCLOR-1232-8	0.100	RW:14.84-14.98

AR1242 1304

SAMPLE NO. : 08060136 . 12
TEST NO. :
METHOD NO. : P36 / P36

INSTRUMENT: 36
DATE TIME: 08/06/01 23:49:23
PAGE NO. : 01

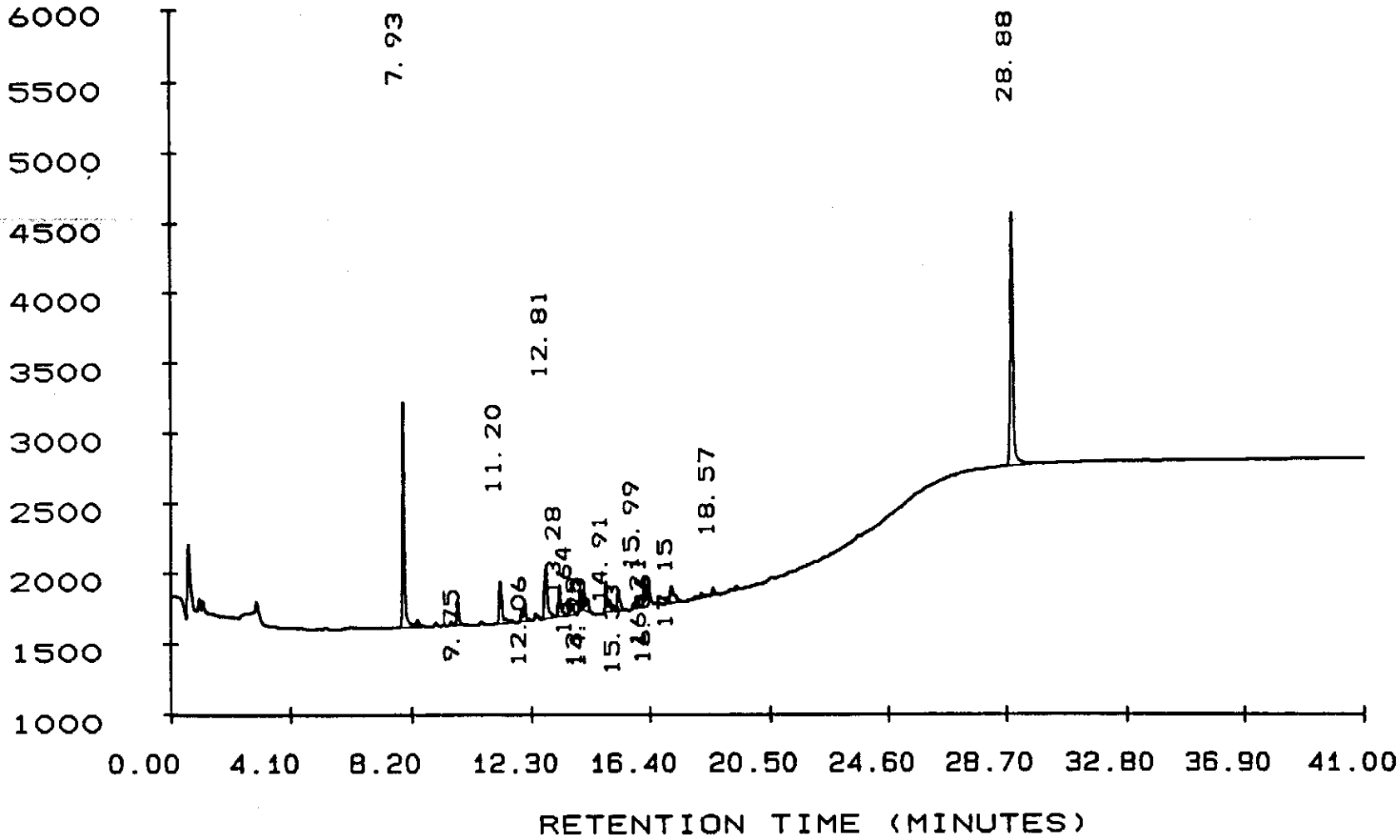

Y MAXIMUM: 6000.
Y MINIMUM: 1000.

START TIME: 0.00
END TIME: 41.00

Lionville Laboratory, Inc. 08/07/01 09:18:18

EXTERNAL STANDARD

SAMPLE: 08060136 .12 INST:36 VIAL:F0 SEQ NUMBER:012
TEST : DATE-TIME INJECTED : 08/06/01 23:49:23
COLLECTION TIME : 40.97 DATE-TIME PROCESSED : 08/07/01 09:18:18
METHOD: P36 / PCBJL REV #: 00211 ANALYST: KOBELM SAMP RATE: 1.56
CLIENT ID: SAMPLE VOL: 1.0 uL
CLIENT: COLUMN TYPE: RTX1701
LAB ID: AR1242 1304 RAW FILE: RAW3:H6145280
SAMPLE WT : % MOISTURE : DILUTION FACTOR : 1.0000
COLUMN ID: 0.53 mm I CAL ID : TEMP:L080601.36/25

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
002	76232	15678	V	7.927	1	TCX	0.019
003	2367	423	V	8.402			
006	10640	1764	V	9.748			
008	24428	2949	V	11.200			
009	2404	654	V	11.943			
010	4956	1193	V	12.059			
011	3780	522	V	12.436			
012	32720	3766	V	12.806			
013	13894	2226	V	13.277			
014	4127	1037	V	13.637			
016	6355	1488	V	13.984			
017	5203	1286	V	14.131			
018	2979	698	V	14.264			
019	8086	1922	V	14.907			
020	3328	608	V	15.046			
021	11716	1541	V	15.327			
022	1930	450	V	15.839			
023	3610	751	V	15.989			
024	5713	1341	V	16.213			
025	7398	1467	V	16.363			
027	10118	1049	V	17.148			
029	3665	566	V	18.566			
031	124389	17809		28.879	1	DCB	0.020

MPK	1764	9.748	AROCLOR-1242-1	0.100	RW: 9.68- 9.82
MPK	2949	11.200	AROCLOR-1242-2	0.100	RW:11.13-11.27
MPK	3766	12.806	AROCLOR-1242-3	0.100	RW:12.74-12.88
MPK	2226	13.277	AROCLOR-1242-4	0.100	RW:13.21-13.35
MPK	1488	13.984	AROCLOR-1242-5	0.100	RW:13.91-14.05
MPK	1922	14.907	AROCLOR-1242-6	0.100	RW:14.84-14.98
MPK	1541	15.327	AROCLOR-1242-7	0.100	RW:15.26-15.40
MPK	1467	16.363	AROCLOR-1242-8	0.100	RW:16.29-16.43

AR1248 1101

SAMPLE NO. : 08060136 . 13
TEST NO. :
METHOD NO. : P36 / P36

INSTRUMENT: 36
DATE TIME: 08/07/01 00:37:11
PAGE NO. : 01

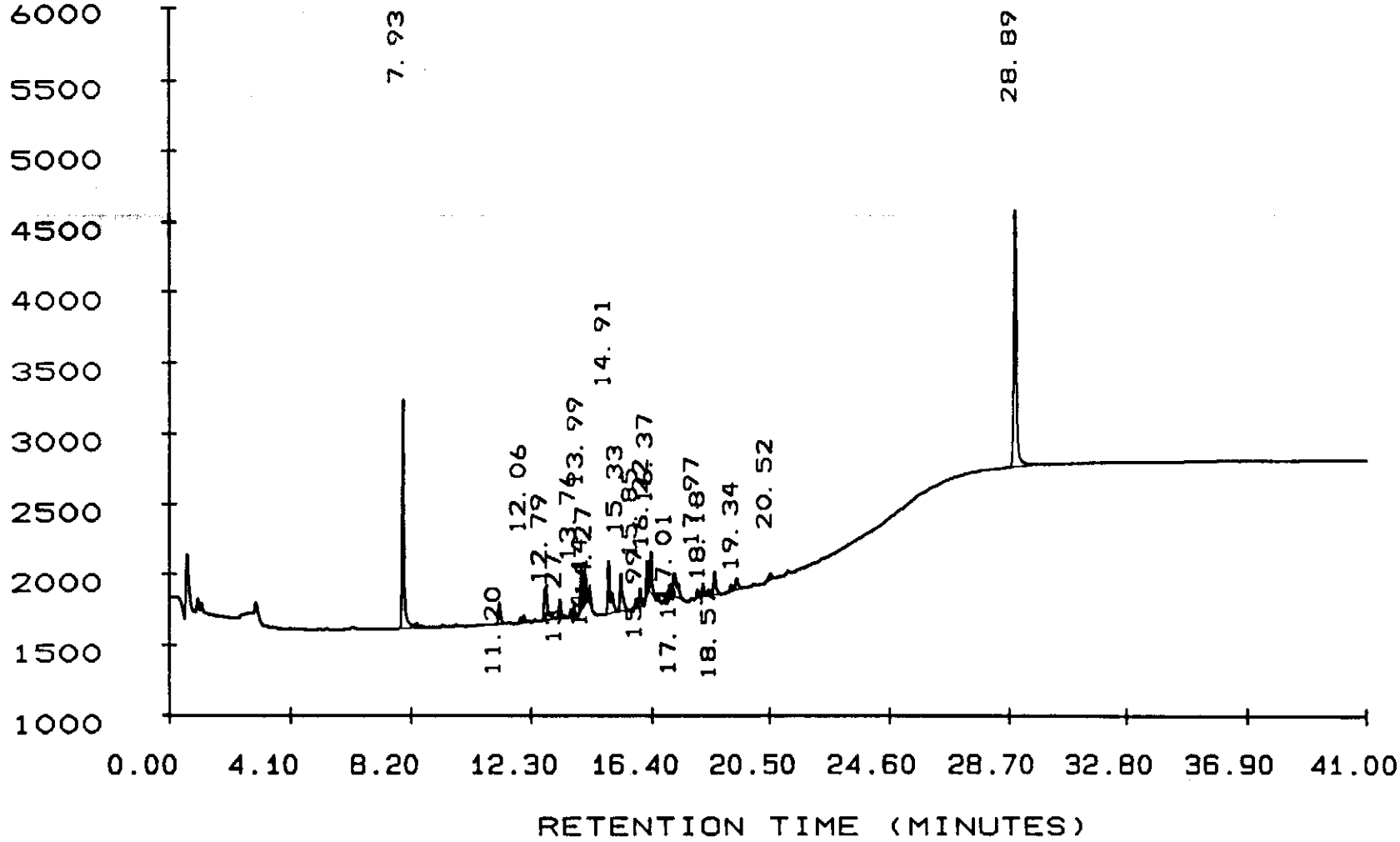

Y MAXIMUM: 6000.
Y MINIMUM: 1000.

START TIME: 0.00
END TIME: 41.00

Lionville Laboratory, Inc. 08/07/01 09:18:34

EXTERNAL STANDARD

SAMPLE: 08060136 .13 INST:36 VIAL:F0 SEQ NUMBER:013
TEST : DATE-TIME INJECTED : 08/07/01 00:37:11
COLLECTION TIME : 40.97 DATE-TIME PROCESSED : 08/07/01 09:18:34
METHOD: P36 / PCBJL REV #: 00211 ANALYST: KOBELM SAMP RATE: 1.56
CLIENT ID: SAMPLE VOL: 1.0 uL
CLIENT: COLUMN TYPE: RTX1701
LAB ID: AR1248 1101 RAW FILE: RAW3:H7145288
SAMPLE WT : % MOISTURE : DILUTION FACTOR : 1.0000
COLUMN ID: 0.53 mm I CAL ID : TEMP:L080601.36/25

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
001	84107	15798		7.931	1	TCX	0.019
004	10886	1550	V	11.203			
006	1644	412	V	12.065			
007	21267	2320	V	12.789			
008	8493	1319	V	13.275			
009	1751	469	V	13.642			
010	2173	572	V	13.757			
011	12692	3003	V	13.989			
012	8139	2009	V	14.136			
013	4211	985	V	14.266			
014	14111	3243	V	14.913			
015	3265	831	V	15.048			
016	19029	2664	V	15.333			
017	3052	709	V	15.845			
018	6164	1288	V	15.995			
019	11059	2565	V	16.218			
020	14415	2885	V	16.366			
022	4072	1016	V	17.008			
023	18049	1670	V	17.160			
024	3361	632	V	17.973			
025	4366	875	V	18.178			
026	2338	482	V	18.373			
027	9965	1642	V	18.570			
028	2364	422	V	19.147			
029	4089	687	V	19.340			
030	3976	507	V	20.520			
032	126316	17988		28.888	1	DCB	0.020

MPK	2320	12.789	AROCLOR-1248-1	0.100	RW:12.72-12.86
MPK	3003	13.989	AROCLOR-1248-2	0.100	RW:13.92-14.06
MPK	2009	14.136	AROCLOR-1248-3	0.100	RW:14.07-14.21
MPK	3243	14.913	AROCLOR-1248-4	0.100	RW:14.84-14.98
MPK	2664	15.333	AROCLOR-1248-5	0.100	RW:15.26-15.40
MPK	2565	16.218	AROCLOR-1248-6	0.100	RW:16.15-16.29
MPK	2885	16.366	AROCLOR-1248-7	0.100	RW:16.30-16.44
MPK	1670	17.160	AROCLOR-1248-8	0.100	RW:17.09-17.23

AR1254 9403 C

SAMPLE NO. : 08060136 . 14
TEST NO. :
METHOD NO. : P36 / P36

INSTRUMENT: 36
DATE TIME: 08/07/01 01:25:02
PAGE NO. : 01

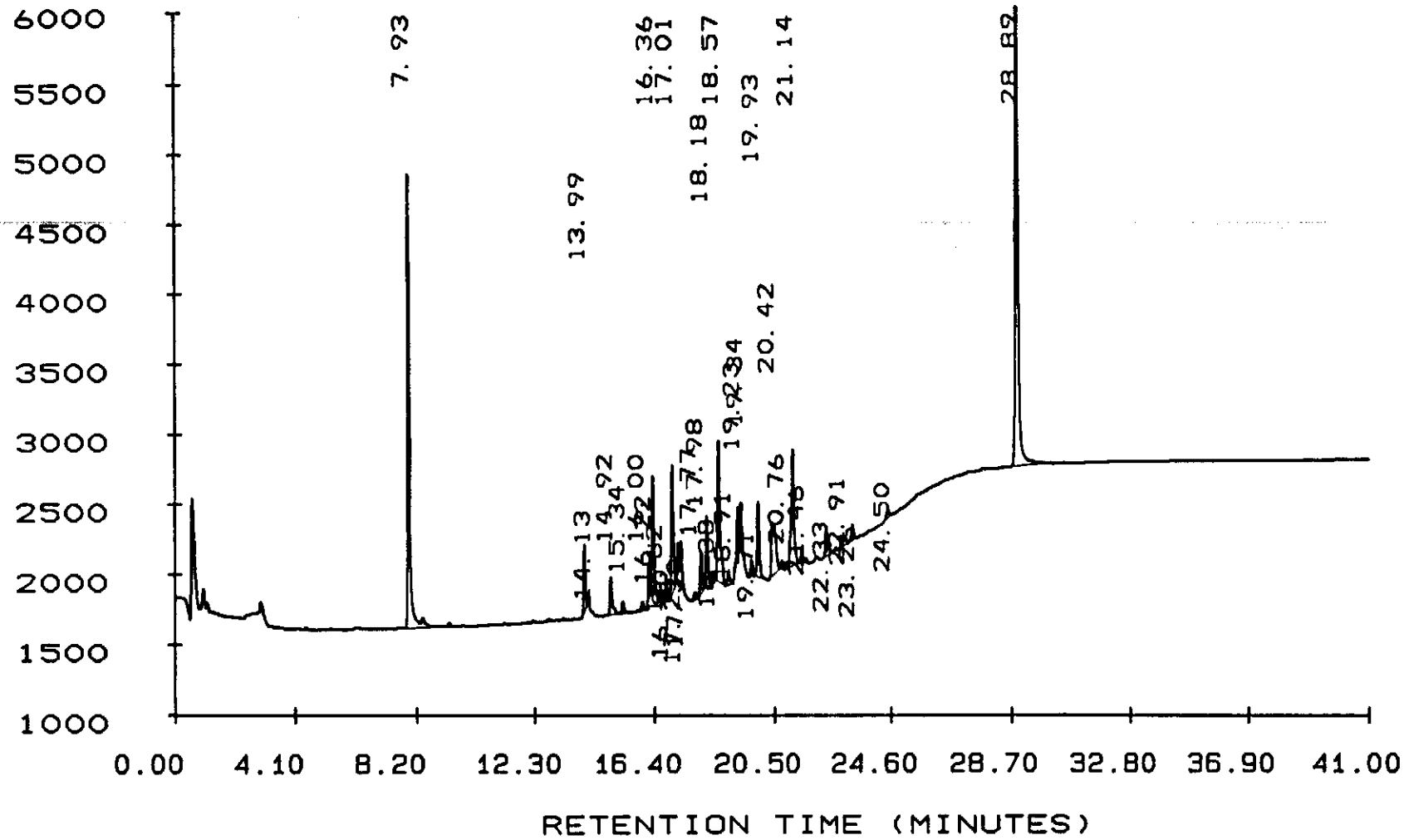

Y MAXIMUM: 6000.
Y MINIMUM: 1000.

START TIME: 0.00
END TIME: 41.00

Lionville Laboratory, Inc. 08/07/01 09:18:51

EXTERNAL STANDARD

SAMPLE: 08060136 .14 INST:36 VIAL:F0 SEQ NUMBER:014
TEST : DATE-TIME INJECTED : 08/07/01 01:25:02
COLLECTION TIME : 40.97 DATE-TIME PROCESSED : 08/07/01 09:18:51
METHOD: P36 / PCBJL REV #: 00211 ANALYST: KOBELM SAMP RATE: 1.56
CLIENT ID: SAMPLE VOL: 1.0 uL
CLIENT: COLUMN TYPE: RTX1701
LAB ID: AR1254 9403 C RAW FILE: RAW3:H7145294
SAMPLE WT : % MOISTURE : DILUTION FACTOR : 1.0000
COLUMN ID: 0.53 mm I CAL ID : TEMP:L080601.36/25

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
001	154605	31505	V	7.934	1	TCX	0.038
002	2612	443	V	8.403			
008	20238	4610	V	13.991			
009	3736	1012	V	14.134			
010	15922	2604	V	14.916			
011	5530	826	V	15.337			
012	3693	610	V	15.997			
013	9305	2310	V	16.220			
014	40022	8020	V	16.356			
015	4845	1110	V	16.621			
016	8243	1779	V	16.804			
017	45050	8941	V	17.008			
018	6073	1739	V	17.210			
019	6561	1857	V	17.301			
020	2822	567	V	17.772			
021	14925	2853	V	17.975			
022	24897	5015	V	18.178			
023	6772	1075	V	18.376			
024	59952	9889	V	18.571			
025	5553	868	V	18.914			
026	14624	3255	V	19.226			
027	16156	3431	V	19.339			
028	6326	1157	V	19.709			
029	29114	5294	V	19.932			
030	41058	3815	V	20.424			
031	2805	613	V	20.764			
032	1711	457	V	20.926			
033	56127	8144	V	21.138			
034	3974	753	V	21.465			
037	15053	2118	V	22.331			
039	7037	769	V	22.913			
040	6812	1132		23.262			
041	4286	793		24.499			
042	240411	34847		28.890	1	DCB	0.039

MPK	4610	13.991	AROCLOR-1254-1	0.200	RW:13.92-14.06
MPK	8020	16.356	AROCLOR-1254-2	0.200	RW:16.29-16.43
MPK	8941	17.008	AROCLOR-1254-3	0.200	RW:16.94-17.08
MPK	5015	18.178	AROCLOR-1254-4	0.200	RW:18.11-18.25

SAMPLE: 08060136 .14 PAGE NUMBER: 2
DATE-TIME INJECTED : 08/07/01 01:25:02
DATE-TIME PROCESSED : 08/07/01 09:18:51

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL	
MPK		9889		18.571		AROCLOR-1254-5	0.200	RW:18.50-18.64
MPK		5294		19.932		AROCLOR-1254-6	0.200	RW:19.86-20.00
MPK		3815		20.424		AROCLOR-1254-7	0.200	RW:20.35-20.49
MPK		8144		21.138		AROCLOR-1254-8	0.200	RW:21.07-21.21

AR1660 2803 C

SAMPLE NO. : 08180135 .04
TEST NO. :
METHOD NO. : P3560 / P3560

INSTRUMENT: 35
DATE TIME: 08/18/01 20:08:31
PAGE NO. : 01

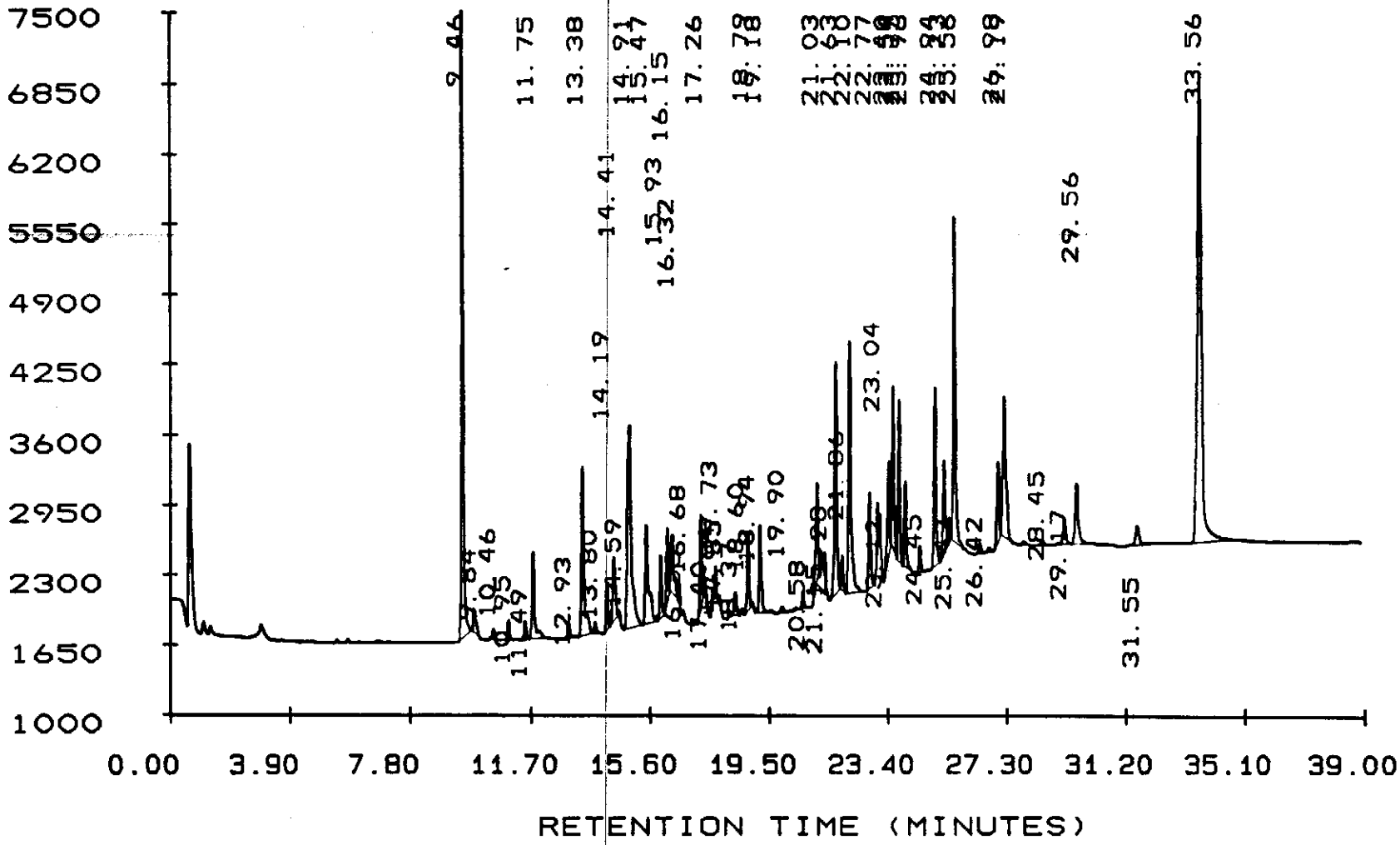

Y MAXIMUM: 7500.
Y MINIMUM: 1000.

START TIME: 0.00
END TIME: 39.00

Lionville Laboratory, Inc. 08/18/01 20:48:06

MULTILEVEL EXTERNAL STANDARD

SAMPLE: 08180135 .04 INST:35 VIAL:F0 SEQ NUMBER:004
TEST : DATE-TIME INJECTED : 08/18/01 20:08:31
COLLECTION TIME : 38.84 DATE-TIME PROCESSED : 08/18/01 20:48:06
METHOD: P3560 / P3560 REV #: 00218 ANALYST: KOBELM SAMP RATE: 1.56
CLIENT ID: SAMPLE VOL: 1.0 uL
CLIENT: COLUMN TYPE: DB608
LAB ID: AR1660 2803 C RAW FILE: RAW3:HI140768
SAMPLE WT : % MOISTURE : DILUTION FACTOR : 1.0000
COLUMN ID: 0.53 mm I CAL ID : TEMP:L080601.35/25

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
002	296454	59867	V	9.461	1	TCX	0.036
003	15536	2262	V	9.840			
004	6419	1055	V	10.462			
005	10429	1842	V	10.947			
006	8461	1715	V	11.495			
007	50461	7855	V	11.749	1	AR1016-1	0.092
008	7845	1323	V	12.929			
009	105491	15559	V	13.382	1	AR1016-2	0.092
010	6682	1068	V	13.798			
011	18661	4100	V	14.186			
012	34336	5782	V	14.406			
013	3220	965	V	14.592			
014	171558	18772	V	14.914	1	AR1016-3	0.088
015	71226	9042	V	15.466	1	AR1016-4	0.089
016	27937	5697	V	15.925			
017	27269	6661	V	16.147			
018	34685	5316	V	16.320			
019	6984	2067	V	16.527			
020	2275	654	V	16.685			
021	39988	8345	V	17.255	1	AR1016-5	0.090
022	6686	1971	V	17.398			
023	3509	1030	V	17.638			
024	10575	2904	V	17.731			
025	3352	982	V	17.853			
027	13312	2146	V	18.366			
028	2861	634	V	18.595			
029	35319	7018	V	18.786			
030	1822	553	V	18.941			
031	47725	7969	V	19.179			
032	2666	512	V	19.904			
034	7094	1352	V	20.578			
035	46545	8632	V	21.032			
036	3944	1379	V	21.147			
037	10366	2485	V	21.281			
038	112309	21073	V	21.634	1	AR1260-1	0.092
039	14816	3180	V	21.858			
040	139763	22905	V	22.099	1	AR1260-2	0.092
041	44685	8775	V	22.775			
042	15621	4182	V	23.038			
043	6242	2376	V	23.121			

SAMPLE: 08180135 .04 PAGE NUMBER: 2
DATE-TIME INJECTED : 08/18/01 20:08:31
DATE-TIME PROCESSED : 08/18/01 20:48:06

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
044	45055	8748	V	23.401			
045	70708	14823	V	23.545			
046	68762	14758	V	23.753	1	AR1260-3	0.088
047	38730	7869	V	23.962			
048	11753	2405	V	24.447			
049	85696	16271	V	24.939	1	AR1260-4	0.087
050	51497	8693	V	25.234			
051	8443	2366	V	25.417			
052	157356	29395	V	25.556	1	AR1260-5	0.088
053	4796	948	V	26.417			
055	41767	7488	V	26.983			
056	95091	12891	V	27.188			
058	3696	525	V	28.449			
059	17386	2451	V	29.169			
060	44668	5547		29.558			
061	19446	1831		31.551			
062	433653	42978		33.563	1	DCB	0.034

AR1660 2803 C

SAMPLE NO. : 08180135 .38
TEST NO. :
METHOD NO. : P3560 / P3560

INSTRUMENT: 35
DATE TIME: 08/19/01 23:15:51
PAGE NO. : 01

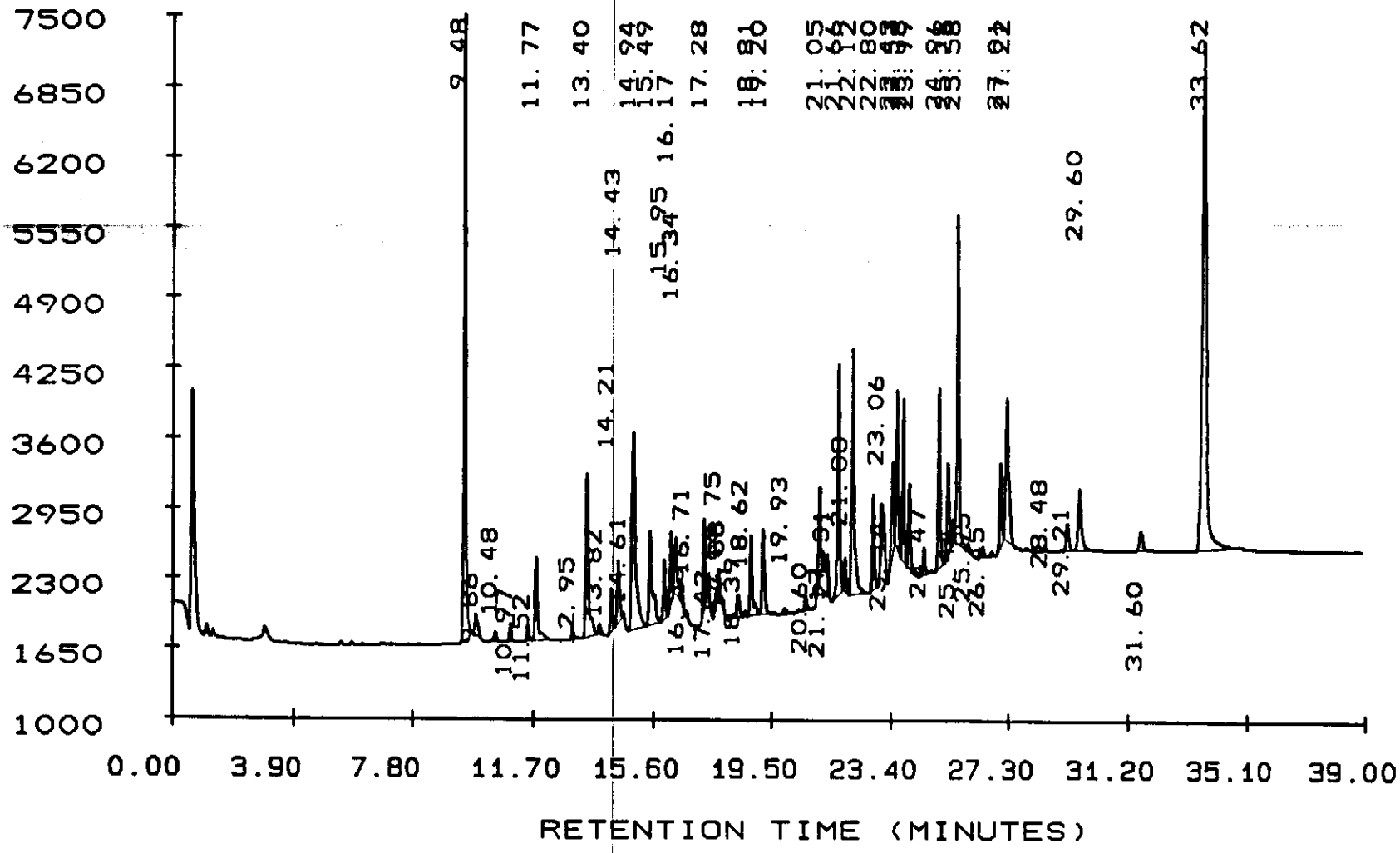

Y MAXIMUM: 7500.
Y MINIMUM: 1000.

START TIME: 0.00
END TIME: 39.00

Lionville Laboratory, Inc. 08/19/01 23:55:27

MULTILEVEL EXTERNAL STANDARD

SAMPLE: 08180135 .38 INST:35 VIAL:F0 SEQ NUMBER:038
TEST : DATE-TIME INJECTED : 08/19/01 23:15:51
COLLECTION TIME : 38.84 DATE-TIME PROCESSED : 08/19/01 23:55:27
METHOD: P3560 / P3560 REV #: 00218 ANALYST: KOBELM SAMP RATE: 1.56
CLIENT ID: SAMPLE VOL: 1.0 uL
CLIENT: COLUMN TYPE: DB608
LAB ID: AR1660 2803 C RAW FILE: RAW3:HJ140918
SAMPLE WT : % MOISTURE : DILUTION FACTOR : 1.0000
COLUMN ID: 0.53 mm I CAL ID : TEMP:L080601.35/25

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
				9.399		TCX	
002	294262	59849	V	9.480			
003	14090	2070	V	9.858			
004	6154	1013	V	10.481			
005	9914	1755	V	10.967			
006	8031	1636	V	11.516			
007	48173	7625	V	11.770		AR1016-1	0.089
008	7546	1289	V	12.951			
009	103170	15155	V	13.403		AR1016-2	0.090
010	6426	1023	V	13.819			
011	18006	3875	V	14.208			
012	33248	5635	V	14.429			
013	3001	896	V	14.614			
014	167040	18239	V	14.936		AR1016-3	0.086
015	69389	8641	V	15.488		AR1016-4	0.085
016	26854	5473	V	15.948			
017	26770	6498	V	16.169			
018	33861	5241	V	16.342			
019	6601	1964	V	16.549			
020	2137	626	V	16.707			
021	38874	8157	V	17.277		AR1016-5	0.088
022	6634	1933	V	17.421			
023	3322	993	V	17.661			
024	10463	2851	V	17.754			
025	3330	945	V	17.876			
027	12918	2048	V	18.389			
028	2535	561	V	18.618			
029	44243	7370	V	18.809			
030	47011	7821	V	19.203			
031	3775	528	V	19.927			
033	7102	1337	V	20.601			
034	46042	8550	V	21.055			
035	3972	1378	V	21.170			
036	10698	2515	V	21.306			
037	112568	21132	V	21.657		AR1260-1	0.092
038	14704	3178	V	21.882			
039	141395	22565	V	22.123		AR1260-2	0.090
040	45010	8795	V	22.799			
041	15050	3746	V	23.062			
042	6943	2399	V	23.144			

SAMPLE: 08180135 .38 PAGE NUMBER: 2
DATE-TIME INJECTED : 08/19/01 23:15:51
DATE-TIME PROCESSED : 08/19/01 23:55:27

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
043	44641	8587	V	23.426			
044	70146	14454	V	23.570			
045	69971	14975	V	23.777		AR1260-3	0.090
046	39059	7911	V	23.986			
047	14333	2517	V	24.472			
048	87420	16516	V	24.964		AR1260-4	0.088
049	51562	8598	V	25.260			
050	8252	2331	V	25.442			
051	160776	29870	V	25.582		AR1260-5	0.090
052	5007	858	V	25.949			
053	5088	989	V	26.445			
055	43471	7715	V	27.013			
056	98275	13080	V	27.219			
058	3571	541	V	28.482			
059	18313	2544	V	29.207			
060	47831	5800		29.597			
061	16459	1853		31.598			
062	462178	46296		33.617		DCB	0.036

All compounds were quantitated using method P3560
except those which are labeled.
LABEL 2: compounds quantitated using method P3660

AR1660 2803 C

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SAMPLE NO. : 08180135 .50

TEST NO. :

METHOD NO. : P3560 / P3560

INSTRUMENT: 35

DATE TIME: 08/20/01 08:49:55

PAGE NO. : 01

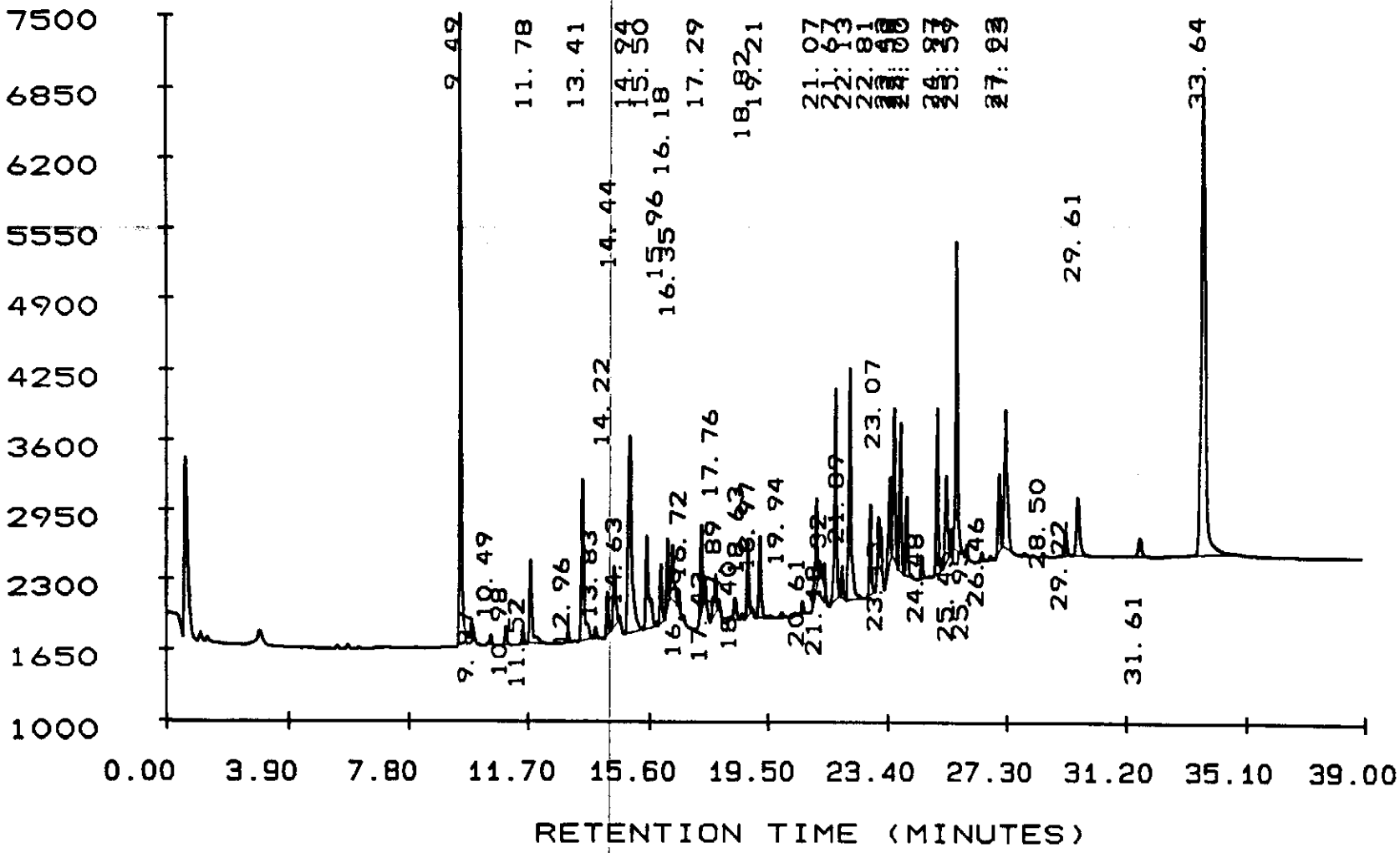

Y MAXIMUM: 7500.

Y MINIMUM: 1000.

START TIME: 0.00

END TIME: 39.00

Lionville Laboratory, Inc. 08/20/01 09:29:16

MULTILEVEL EXTERNAL STANDARD

SAMPLE: 08180135 .50 INST:35 VIAL:F0 SEQ NUMBER:050
TEST : DATE-TIME INJECTED : 08/20/01 08:49:55
COLLECTION TIME : 38.84 DATE-TIME PROCESSED : 08/20/01 09:29:16
METHOD: P3560 / P3560 REV #: 00218 ANALYST: KOBELM SAMP RATE: 1.56
CLIENT ID: SAMPLE VOL: 1.0 uL
CLIENT: COLUMN TYPE: DB608
LAB ID: AR1660 2803 C RAW FILE: RAW3:HK140942
SAMPLE WT : % MOISTURE : DILUTION FACTOR : 1.0000
COLUMN ID: 0.53 mm I CAL ID : TEMP:L080601.35/25

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
				9.399		TCX	
002	298378	60948	V	9.490			
003	11747	1712	V	9.869			
004	6232	1020	V	10.490			
005	10031	1762	V	10.976			
006	8092	1651	V	11.525			
007	47799	7660		11.779		AR1016-1	0.089
008	7408	1267	V	12.960			
009	99494	14931	V	13.413		AR1016-2	0.089
010	6253	1010	V	13.828			
011	17884	3894	V	14.217			
012	33133	5523	V	14.439			
013	3032	890	V	14.625			
014	163005	18230	V	14.945		AR1016-3	0.085
015	67478	8569	V	15.498		AR1016-4	0.084
016	26829	5420	V	15.958			
017	26385	6372	V	16.179			
018	32637	5082	V	16.351			
019	6654	1948	V	16.560			
020	2317	642	V	16.717			
021	38332	7980	V	17.287		AR1016-5	0.086
022	6644	1908	V	17.431			
023	22842	3423	V	17.764			
024	3226	915	V	17.886			
026	12592	2015	V	18.398			
027	2745	601	V	18.628			
028	33068	6698	V	18.819			
029	1917	555	V	18.974			
030	44127	7524	V	19.212			
031	3850	509	V	19.937			
033	6483	1252	V	20.611			
034	43516	8061	V	21.065			
035	3822	1332	V	21.180			
036	10919	2456	V	21.315			
037	103391	19450	V	21.667		AR1260-1	0.085
038	14061	3013	V	21.891			
039	128160	21190	V	22.132		AR1260-2	0.085
040	41780	8320	V	22.809			
041	14373	3888	V	23.071			
042	6414	2200	V	23.155			

SAMPLE: 08180135 .50 PAGE NUMBER: 2
DATE-TIME INJECTED : 08/20/01 08:49:55
DATE-TIME PROCESSED : 08/20/01 09:29:16

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
043	41921	8044	V	23.435			
044	65452	13769	V	23.579			
045	63642	13586	V	23.787		AR1260-3	0.081
046	36269	7277	V	23.996			
047	11043	2284	V	24.483			
048	77997	15089	V	24.974		AR1260-4	0.080
049	47574	7938	V	25.270			
050	7499	2112	V	25.453			
051	145203	27879	V	25.592		AR1260-5	0.084
052	5630	1180	V	25.953			
053	4447	875	V	26.457			
055	40298	7211	V	27.025			
056	92161	12607	V	27.231			
058	3481	519	V	28.497			
059	16926	2408	V	29.221			
060	42880	5415		29.612			
061	13920	1730		31.614			
062	429190	42535		33.637		DCB	0.033

All compounds were quantitated using method P3560
except those which are labeled.
LABEL 2: compounds quantitated using method P3660

AR1660 2803 C

SAMPLE NO. : 08180136 .04
TEST NO. :
METHOD NO. : P3660 / P3660

INSTRUMENT: 36
DATE TIME: 08/18/01 20:08:31
PAGE NO. : 01

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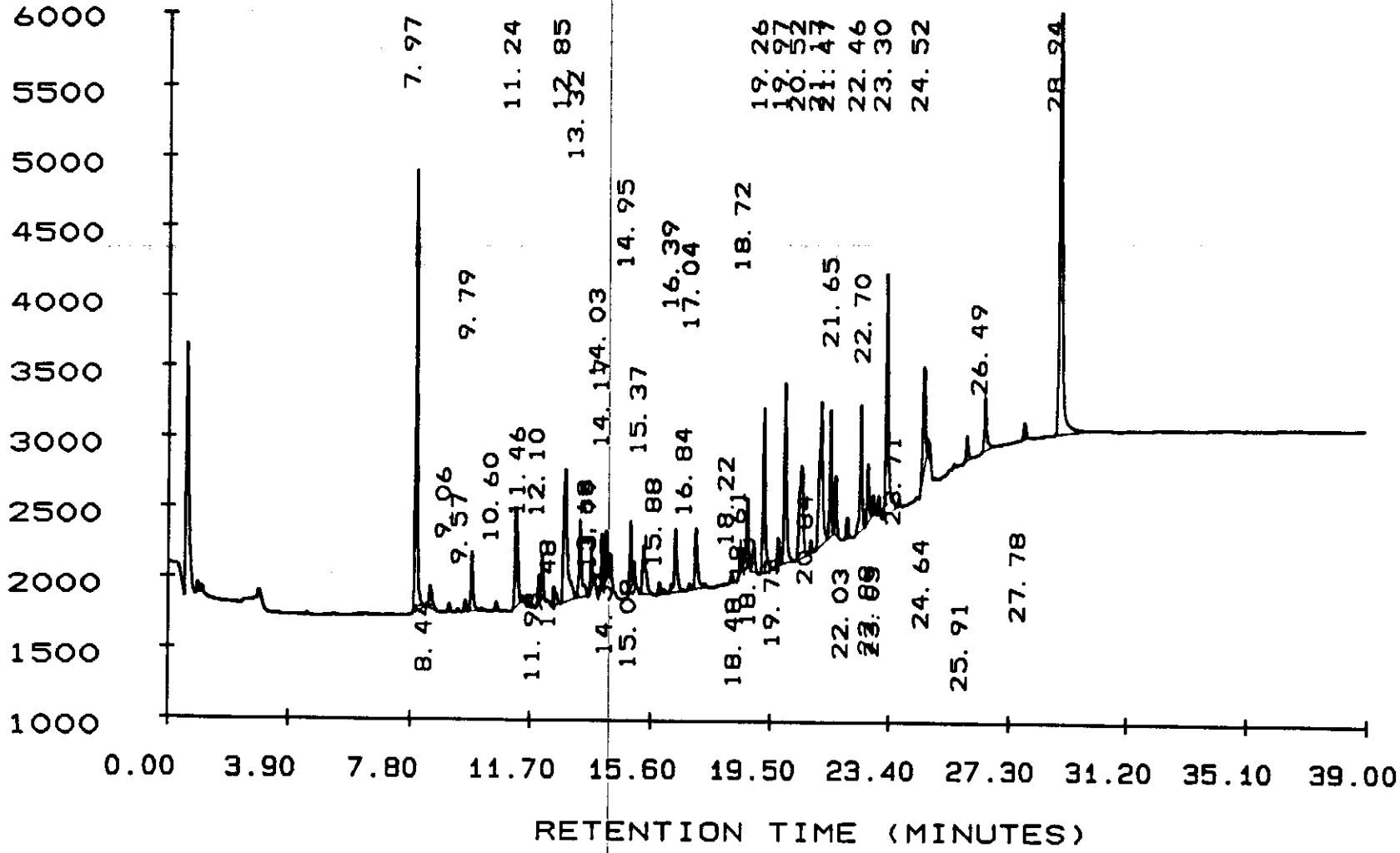

Y MAXIMUM: 6000.
Y MINIMUM: 1000.

START TIME: 0.00
END TIME: 39.00

Lionville Laboratory, Inc. 08/18/01 20:48:19

MULTILEVEL EXTERNAL STANDARD

SAMPLE: 08180136 .04 INST:36 VIAL:F0 SEQ NUMBER:004
TEST : DATE-TIME INJECTED : 08/18/01 20:08:31
COLLECTION TIME : 38.84 DATE-TIME PROCESSED : 08/18/01 20:48:19
METHOD: P3660 / P3660 REV #: 00210 ANALYST: KOBELM SAMP RATE: 1.56
CLIENT ID: SAMPLE VOL: 1.0 uL
CLIENT: COLUMN TYPE: RTX1701
LAB ID: AR1660 2803 C RAW FILE: RAW3:HI140769
SAMPLE WT : % MOISTURE : DILUTION FACTOR : 1.0000
COLUMN ID: 0.53 mm I CAL ID : TEMP:L080601.36/25

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
002	153493	30923	V	7.968	1	TCX	0.037
003	11373	1616	V	8.443			
004	3300	667	V	9.060			
006	4000	849	V	9.569			
007	26048	4194	V	9.788	1	AR1016-1	0.098
008	3386	694	V	10.600			
009	45072	6970	V	11.240	1	AR1016-2	0.098
010	6327	506	V	11.463			
011	6315	1684	V	11.983			
012	12051	2937	V	12.099			
013	9444	1307	V	12.479			
014	86086	9331	V	12.849	1	AR1016-3	0.094
015	35779	5471	V	13.320	1	AR1016-4	0.094
016	10451	2571	V	13.680			
017	3073	882	V	13.792			
018	16566	3931	V	14.026			
019	13979	3432	V	14.174			
020	8277	1957	V	14.307			
021	19957	4708	V	14.949	1	AR1016-5	0.097
022	6789	1583	V	15.084			
023	26157	3383	V	15.369			
024	6326	865	V	15.879			
025	29568	4413	V	16.392			
026	2347	502	V	16.841			
027	28561	4269	V	17.045			
028	4342	709	V	18.216			
029	6938	1744	V	18.484			
030	3184	940	V	18.607			
031	20707	4690	V	18.724			
032	13649	2173	V	18.947			
033	67370	11575	V	19.263	1	AR1260-1	0.099
034	10899	2024	V	19.752			
035	72173	12619	V	19.969	1	AR1260-2	0.098
036	61099	6544	V	20.521			
037	4062	973	V	20.838			
038	80847	10082	V	21.169			
039	40326	8842	V	21.469	1	AR1260-3	0.098
040	18513	4158	V	21.651			
041	7677	1495	V	22.028			
042	45286	8787	V	22.457	1	AR1260-4	0.097

SAMPLE: 08180136 .04 PAGE NUMBER: 2
DATE-TIME INJECTED : 08/18/01 20:08:31
DATE-TIME PROCESSED : 08/18/01 20:48:19

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
043	18396	4047	V	22.696			
044	6381	1468	V	22.876			
045	6433	1481	V	23.053			
046	97914	16817	V	23.299	1	AR1260-5	0.096
047	2385	548	V	23.711			
048	41821	7101	V	24.519			
049	9103	1280	V	24.644			
050	9164	1732	V	25.909			
051	22780	3828		26.492			
052	7151	1230	V	27.779			
053	221331	31762		28.942	1	DCB	0.035

AR1660 2803 C

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SAMPLE NO. : 08180136 .38

TEST NO. :

METHOD NO. : P3660 / P3660

INSTRUMENT: 36

DATE TIME: 08/19/01 23:15:51

PAGE NO. : 01

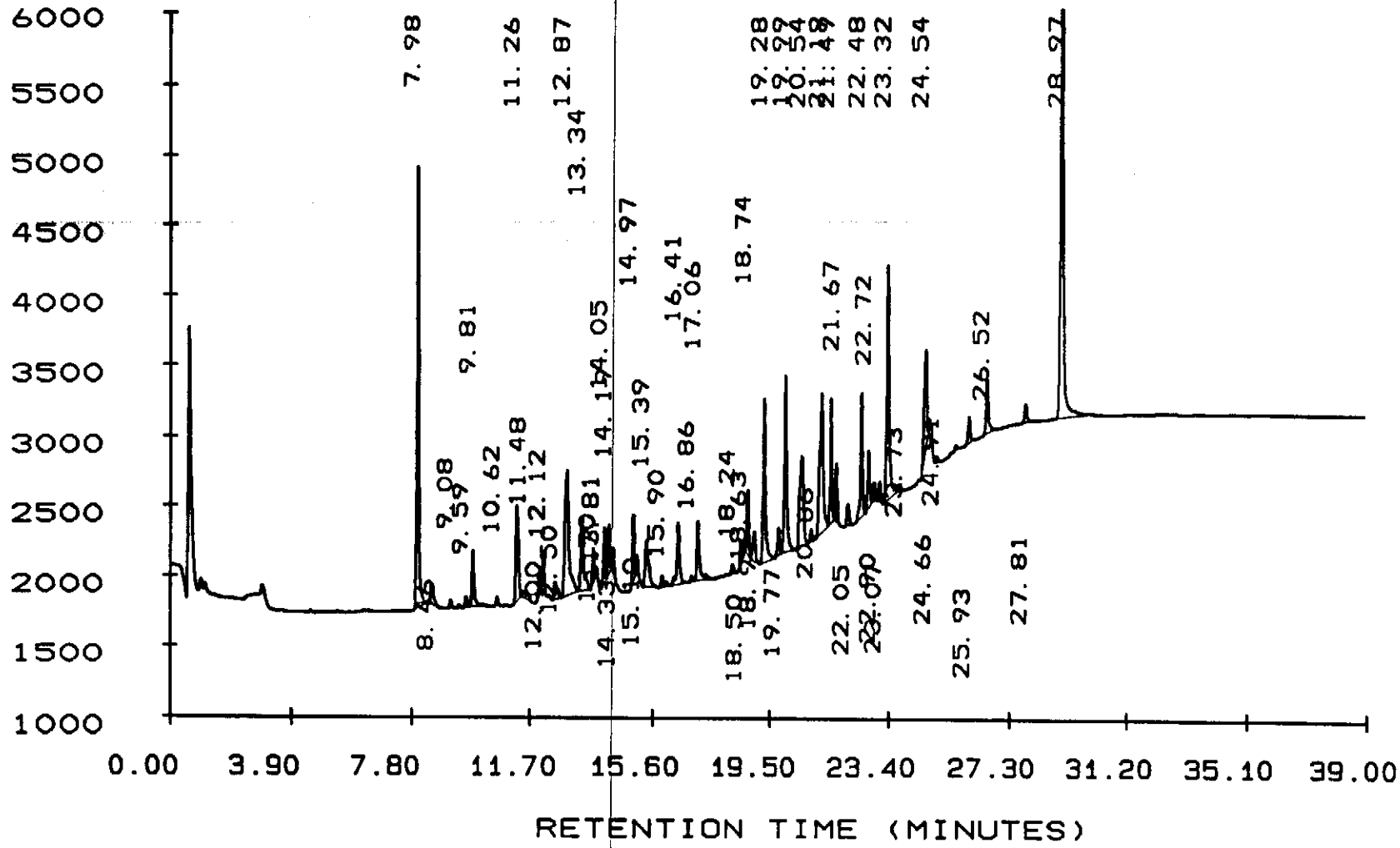

Y MAXIMUM: 6000.

Y MINIMUM: 1000.

START TIME: 0.00

END TIME: 39.00

Lionville Laboratory, Inc. 08/19/01 23:55:40

MULTILEVEL EXTERNAL STANDARD

SAMPLE: 08180136 .38 INST:36 VIAL:F0 SEQ NUMBER:038
TEST : DATE-TIME INJECTED : 08/19/01 23:15:51
COLLECTION TIME : 38.84 DATE-TIME PROCESSED : 08/19/01 23:55:40
METHOD: P3660 / P3660 REV #: 00210 ANALYST: KOBELM SAMP RATE: 1.56
CLIENT ID: SAMPLE VOL: 1.0 uL
CLIENT: COLUMN TYPE: RTX1701
LAB ID: AR1660 2803 C RAW FILE: RAW3:HJ140919
SAMPLE WT : % MOISTURE : DILUTION FACTOR : 1.0000
COLUMN ID: 0.53 mm I CAL ID : TEMP:L080601.36/25

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
				7.920	1	TCX	
002	151229	30842	V	7.985			
003	10537	1486	V	8.458			
004	3120	621	V	9.077			
006	3750	802	V	9.586			
007	24698	3950	V	9.806	1	AR1016-1	0.093
008	3254	663	V	10.618			
009	43804	6738	V	11.258	1	AR1016-2	0.094
010	5814	459	V	11.480			
011	5686	1487	V	12.001			
012	11619	2777	V	12.118			
013	8896	1230	V	12.497			
014	82198	8833	V	12.868	1	AR1016-3	0.089
015	34086	5199	V	13.339	1	AR1016-4	0.089
016	9397	2320	V	13.699			
017	2859	865	V	13.810			
018	16115	3833	V	14.045			
019	13660	3351	V	14.193			
020	7816	1851	V	14.327			
021	19487	4563	V	14.969	1	AR1016-5	0.094
022	6214	1457	V	15.103			
023	25538	3281	V	15.389			
024	6020	826	V	15.899			
025	29210	4307	V	16.411			
026	2356	484	V	16.862			
027	27872	4113	V	17.064			
028	3852	681	V	18.236			
029	7018	1758	V	18.503			
030	2930	839	V	18.627			
031	20397	4581	V	18.743			
032	13400	2136	V	18.966			
033	66427	11468	V	19.282	1	AR1260-1	0.098
034	10492	1940	V	19.772			
035	71635	12305	V	19.989	1	AR1260-2	0.096
036	60532	6461	V	20.543			
037	4019	956	V	20.859			
038	79722	9758	V	21.190			
039	40141	8733	V	21.489	1	AR1260-3	0.097
040	18220	4118	V	21.670			
041	7644	1499	V	22.048			

SAMPLE: 08180136 .38 PAGE NUMBER: 2
DATE-TIME INJECTED : 08/19/01 23:15:51
DATE-TIME PROCESSED : 08/19/01 23:55:40

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
042	44938	8665	V	22.477	1	AR1260-4	0.096
043	18315	4020	V	22.717			
044	5913	1415	V	22.897			
045	6656	1489	V	23.072			
046	98380	16427	V	23.319	1	AR1260-5	0.094
047	2156	522	V	23.731			
048	41750	6909	V	24.539			
049	8889	1281	V	24.663			
050	2317	437	V	24.915			
052	9754	1809	V	25.932			
053	22682	3771		26.516			
054	7624	1277	V	27.807			
055	235565	33284		28.972	1	DCB	0.037

AR1660 2803 C

SAMPLE NO. : 08180136 .50
TEST NO. :
METHOD NO. : P3660 / P3660

INSTRUMENT: 36
DATE TIME: 08/20/01 08:49:55
PAGE NO. : 01

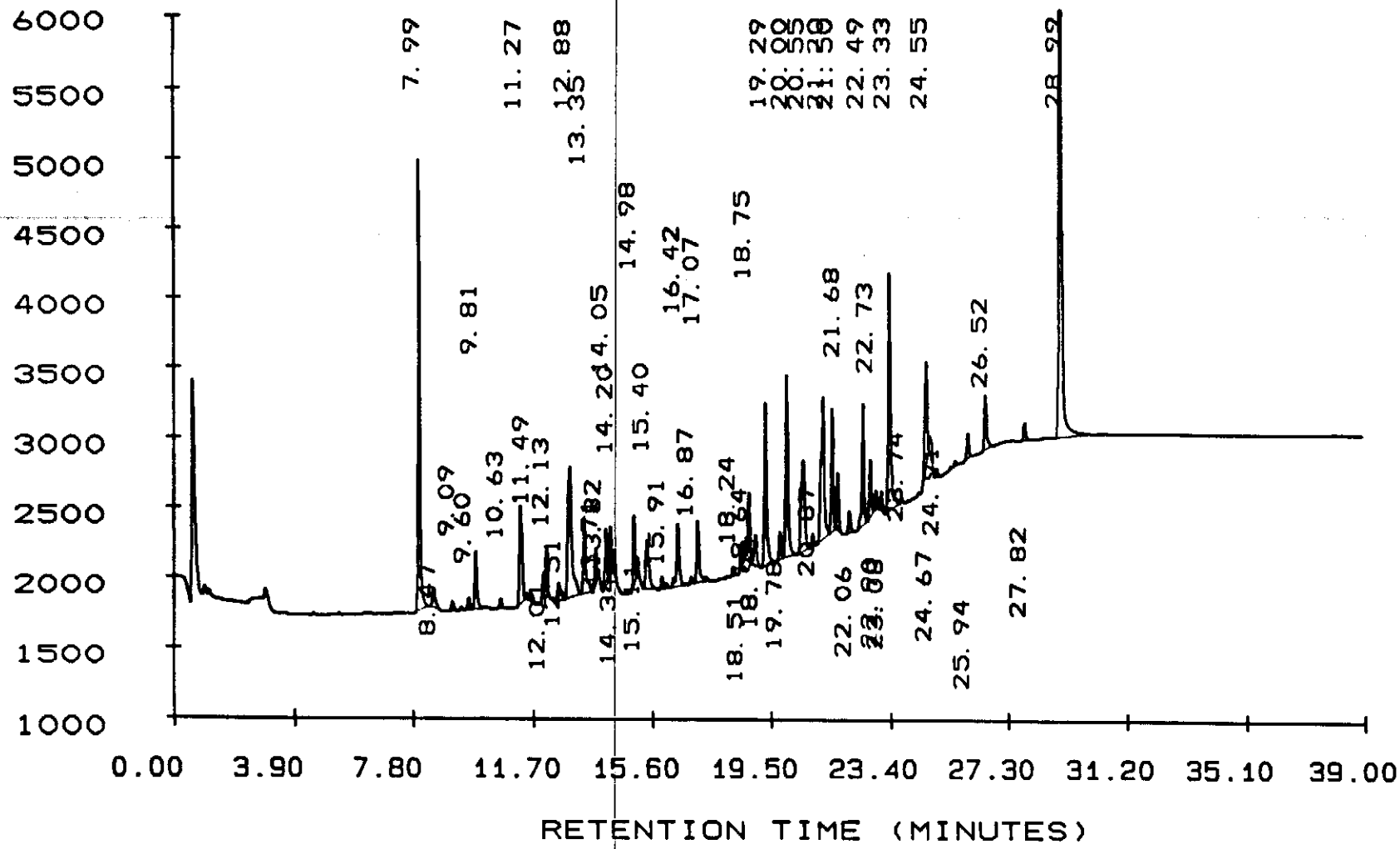

Y MAXIMUM: 6000.
Y MINIMUM: 1000.

START TIME: 0.00
END TIME: 39.00

183

Lionville Laboratory, Inc. 08/20/01 09:29:30

MULTILEVEL EXTERNAL STANDARD

SAMPLE: 08180136 .50 INST:36 VIAL:F0 SEQ NUMBER:050
TEST : DATE-TIME INJECTED : 08/20/01 08:49:55
COLLECTION TIME : 38.84 DATE-TIME PROCESSED : 08/20/01 09:29:30
METHOD: P3660 / P3660 REV #: 00210 ANALYST: KOBELM SAMP RATE: 1.56
CLIENT ID: SAMPLE VOL: 1.0 uL
CLIENT: COLUMN TYPE: RTX1701
LAB ID: AR1660 2803 C RAW FILE: RAW3:HK140943
SAMPLE WT : % MOISTURE : DILUTION FACTOR : 1.0000
COLUMN ID: 0.53 mm I CAL ID : TEMP:L080601.36/25

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
				7.920	1	TCX	
002	155047	31587	V	7.995			
003	9477	1358	V	8.468			
004	3251	652	V	9.086			
006	4035	847	V	9.595			
007	25494	4099	V	9.814	1	AR1016-1	0.096
008	3355	682	V	10.627			
009	45440	6963	V	11.268	1	AR1016-2	0.097
010	5492	431	V	11.486			
011	5939	1616	V	12.010			
012	12001	2868	V	12.126			
013	9568	1302	V	12.507			
014	85942	9280	V	12.877	1	AR1016-3	0.093
015	35840	5438	V	13.349	1	AR1016-4	0.093
016	10120	2437	V	13.709			
017	2845	879	V	13.819			
018	16766	3954	V	14.054			
019	13946	3386	V	14.202			
020	7831	1881	V	14.336			
021	20336	4691	V	14.978	1	AR1016-5	0.096
022	6278	1475	V	15.113			
023	26003	3401	V	15.399			
024	6349	864	V	15.908			
025	29075	4378	V	16.420			
026	2456	516	V	16.871			
027	28094	4299	V	17.074			
028	4952	712	V	18.245			
029	7117	1763	V	18.513			
030	3313	932	V	18.636			
031	20256	4625	V	18.753			
032	13575	2154	V	18.975			
033	65635	11458	V	19.291	1	AR1260-1	0.098
034	10749	2001	V	19.781			
035	71625	12726	V	19.998	1	AR1260-2	0.099
036	60183	6473	V	20.548			
037	3888	928	V	20.867			
038	79174	9969	V	21.198			
039	39510	8608	V	21.498	1	AR1260-3	0.095
040	18102	4081	V	21.679			
041	7504	1495	V	22.057			

SAMPLE: 08180136 .50 PAGE NUMBER: 2
DATE-TIME INJECTED : 08/20/01 08:49:55
DATE-TIME PROCESSED : 08/20/01 09:29:30

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
042	44436	8482	V	22.486	1	AR1260-4	0.094
043	18019	3971	V	22.725			
044	6202	1429	V	22.905			
045	6349	1438	V	23.081			
046	95245	16591	V	23.327	1	AR1260-5	0.095
047	2259	533	V	23.740			
048	42173	7116	V	24.547			
049	9507	1383	V	24.673			
050	3024	634	V	24.915			
052	9037	1733	V	25.942			
053	22607	3866		26.525			
054	6855	1211	V	27.818			
055	229026	32839		28.985	1	DCB	0.036

AR1660 2801 A

SAMPLE NO. : 08210135 .04
TEST NO. :
METHOD NO. : P3560 / P3560

INSTRUMENT: 35
DATE TIME: 08/21/01 19:23:46
PAGE NO. : 01

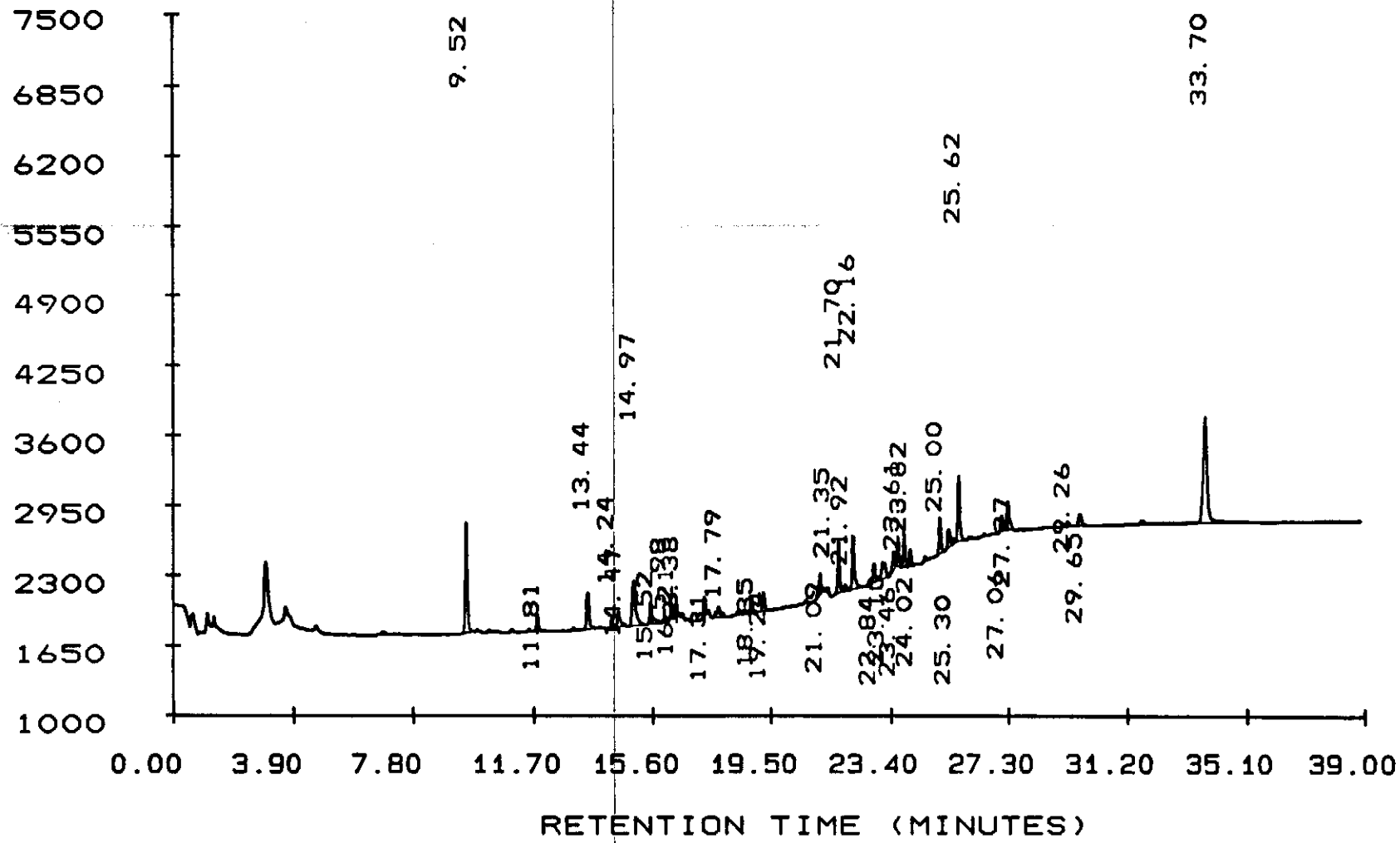

Y MAXIMUM: 7500.
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START TIME: 0.00
END TIME: 39.00

Lionville Laboratory, Inc. 08/23/01 14:49:57

EXTERNAL STANDARD

SAMPLE: 08210135 .04 INST:35 VIAL:F0 SEQ NUMBER:004
TEST : DATE-TIME INJECTED : 08/21/01 19:23:46
COLLECTION TIME : 38.84 DATE-TIME PROCESSED : 08/23/01 14:49:57
METHOD: P3560 / P3560 REV #: 00219 ANALYST: KOBELM SAMP RATE: 1.56
CLIENT ID: SAMPLE VOL: 1.0 uL
CLIENT: COLUMN TYPE: DB608
LAB ID: AR1660 2801 A RAW FILE: RAW3:HL141014
SAMPLE WT : % MOISTURE : DILUTION FACTOR : 1.0000
COLUMN ID: 0.53 mm I CAL ID : TEMP:L082101.35/25

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
002	54321	10075	V	9.516	1	TCX	0.007
007	10048	1620	V	11.806	1	AR1016-1	0.021
009	22816	3341	V	13.439	1	AR1016-2	0.022
010	3810	820	V	14.244			
~~011~~	~~10349~~	~~1305~~	~~V~~	~~14.466~~			
012	36275	4164	V	14.969	1	AR1016-3	0.021
013	14982	1961	V	15.524	1	AR1016-4	0.021
014	5958	1213	V	15.985			
015	6109	1474	V	16.206			
016	7404	1200	V	16.377			
018	8571	1766	V	17.314	1	AR1016-5	0.021
020	9286	946	V	17.791			
022	9263	1584	V	18.846			
023	9075	1701	V	19.239			
025	9832	1855	V	21.092			
027	2469	568	V	21.345			
028	24258	4661	V	21.695	1	AR1260-1	0.022
029	3043	640	V	21.921			
030	28830	4885	V	22.161	1	AR1260-2	0.021
031	8858	1741	V	22.837			
032	13856	1550	V	23.102			
033	9453	1820	V	23.465			
034	14353	2986	V	23.608	1	AR1260-3	0.021
035	14410	3152	V	23.816			
036	7341	1570	V	24.025			
038	17089	3340	V	25.002	1	AR1260-4	0.020
039	10446	1747	V	25.300			
041	32531	5997	V	25.622	1	AR1260-5	0.020
044	8304	1495	V	27.060			
045	19387	2646		27.267			
046	3912	524	V	29.265			
047	9821	1166		29.655			
049	95026	9654		33.695	1	DCB	0.008

MPK	1855	21.092	AROCLOR-1260-1	~~0.042~~	RW:21.02-21.16
MPK	4661	21.695	AROCLOR-1260-2	~~0.044~~	RW:21.62-21.76
MPK	4885	22.161	AROCLOR-1260-3	~~0.042~~	RW:22.09-22.23
MPK	1741	22.837	AROCLOR-1260-4	~~0.040~~	RW:22.77-22.91
MPK	2986	23.608	AROCLOR-1260-5	~~0.041~~	RW:23.54-23.68

0.04

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8/23/01

SAMPLE: 08210135 .04 PAGE NUMBER: 2
DATE-TIME INJECTED : 08/21/01 19:23:46
DATE-TIME PROCESSED : 08/23/01 14:49:57

PK NO	PEAK AREA	PEAK HEIGHT	BL RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL	
MPK		3152	23.816		AROCLOR-1260-6	0.042	RW:23.74-23.89
MPK		3340	25.002		AROCLOR-1260-7	0.041	RW:24.93-25.07
MPK		5997	25.622		AROCLOR-1260-8	0.041	RW:25.55-25.69
MPK		2646	27.267		AROCLOR-1260-9	0.041	RW:27.19-27.34
MPK		1620	11.806		AROCLOR-1016-1	0.043	RW:11.73-11.87
MPK		3341	13.439		AROCLOR-1016-2	0.044	RW:13.37-13.51
MPK		1305	14.466		AROCLOR-1016-3	0.045	RW:14.39-14.53
MPK		4164	14.969		AROCLOR-1016-4	0.042	RW:14.90-15.04
MPK		1961	15.524		AROCLOR-1016-5	0.042	RW:15.45-15.59
MPK		1213	15.985		AROCLOR-1016-6	0.041	RW:15.91-16.05
MPK		1474	16.206		AROCLOR-1016-7	0.043	RW:16.13-16.27
MPK		1200	16.377		AROCLOR-1016-8	0.042	RW:16.31-16.45
MPK		1766	17.314		AROCLOR-1016-9	0.041	RW:17.24-17.38

0.04

8/23/01
MK

AR1660 2802 B

SAMPLE NO. : 08210135 .05
TEST NO. :
METHOD NO. : P3560 / P3560

INSTRUMENT: 35
DATE TIME: 08/21/01 20:11:35
PAGE NO. : 01

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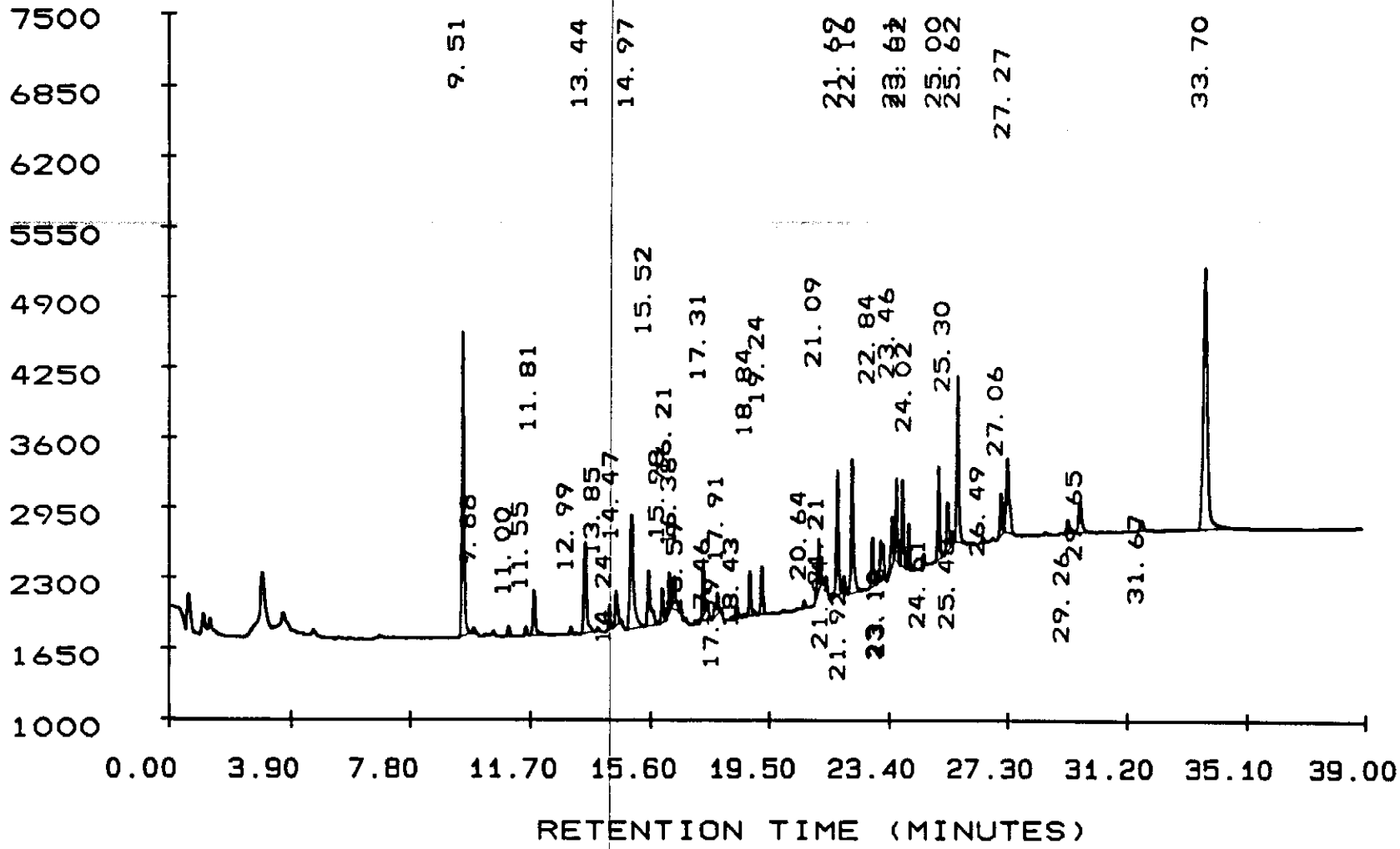

Y MAXIMUM: 7500.
Y MINIMUM: 1000.

START TIME: 0.00
END TIME: 39.00

Lionville Laboratory, Inc. 08/23/01 14:50:13

EXTERNAL STANDARD

SAMPLE: 08210135 .05 INST:35 VIAL:F0 SEQ NUMBER:005
TEST : DATE-TIME INJECTED : 08/21/01 20:11:35
COLLECTION TIME : 38.84 DATE-TIME PROCESSED : 08/23/01 14:50:13
METHOD: P3560 / P3560 REV #: 00219 ANALYST: KOBELM SAMP RATE: 1.56
CLIENT ID: SAMPLE VOL: 1.0 uL
CLIENT: COLUMN TYPE: DB608
LAB ID: AR1660 2802 B RAW FILE: RAW3:HL141016
SAMPLE WT : % MOISTURE : DILUTION FACTOR : 1.0000
COLUMN ID: 0.53 mm I CAL ID : TEMP:L082101.35/25

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
002	146585	27693	V	9.514	1	TCX	0.020
003	3771	607	V	9.879			
006	4919	897	V	11.002			
007	4269	843	V	11.549			
008	25195	4094	V	11.805	1	AR1016-1	0.054
~~009~~	~~3366~~	~~668~~	~~V~~	~~12.986~~			
010	53816	8383	V	13.439	1	AR1016-2	0.055
011	3171	524	V	13.854			
012	9903	2140	V	14.243			
013	18796	3091	V	14.465			
015	91712	10503	V	14.970	1	AR1016-3	0.053
016	37606	4981	V	15.524	1	AR1016-4	0.054
017	15200	3100	V	15.984			
018	15490	3710	V	16.205			
019	18514	3036	V	16.377			
020	3526	1023	V	16.586			
022	22143	4564	V	17.313	1	AR1016-5	0.053
023	4435	1181	V	17.458			
024	12654	1913	V	17.790			
025	2005	584	V	17.914			
026	9376	1181	V	18.425			
028	23106	4045	V	18.844			
029	23486	4343	V	19.238			
031	4740	738	V	20.637			
032	25194	4695	V	21.091			
033	2255	787	V	21.207			
034	6113	1364	V	21.343			
035	60587	11476	V	21.694	1	AR1260-1	0.054
036	7930	1656	V	21.918			
037	73538	12259	V	22.160	1	AR1260-2	0.053
038	23044	4538	V	22.836			
039	7494	2004	V	23.100			
040	3956	1443	V	23.181			
041	23937	4593	V	23.463			
042	36615	7571	V	23.609	1	AR1260-3	0.052
043	36461	7900	V	23.815			
044	20392	4097	V	24.024			
045	5322	1179	V	24.512			
046	44406	8516	V	25.002	1	AR1260-4	0.052
047	26517	4472	V	25.298			

SAMPLE: 08210135 .05 PAGE NUMBER: 2
DATE-TIME INJECTED : 08/21/01 20:11:35
DATE-TIME PROCESSED : 08/23/01 14:50:13

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
048	4295	1185	V	25.481			
049	82037	15088	V	25.621	1	AR1260-5	0.051
050	2970	512	V	26.487			
052	21766	3878	V	27.059			
053	50196	6783	V	27.266			
055	9128	1298	V	29.264			
056	24170	2918		29.655			
057	8294	947		31.666			
058	238060	23980		33.695	1	DCB	0.021

MPK	4695	21.091	AROCLOR-1260-1	0.107	RW:21.02-21.16
MPK	11476	21.694	AROCLOR-1260-2	0.107	RW:21.62-21.76
MPK	12259	22.160	AROCLOR-1260-3	0.106	RW:22.09-22.23
MPK	4538	22.836	AROCLOR-1260-4	0.103	RW:22.77-22.91
MPK	7571	23.609	AROCLOR-1260-5	0.104	RW:23.54-23.68
MPK	7900	23.815	AROCLOR-1260-6	0.105	RW:23.74-23.89
MPK	8516	25.002	AROCLOR-1260-7	0.105	RW:24.93-25.07
MPK	15088	25.621	AROCLOR-1260-8	0.102	RW:25.55-25.69
MPK	6783	27.266	AROCLOR-1260-9	0.104	RW:27.19-27.34
MPK	4094	11.805	AROCLOR-1016-1	0.108	RW:11.73-11.87
MPK	8383	13.439	AROCLOR-1016-2	0.109	RW:13.37-13.51
MPK	3091	14.465	AROCLOR-1016-3	0.106	RW:14.39-14.53
MPK	10503	14.970	AROCLOR-1016-4	0.107	RW:14.90-15.04
MPK	4981	15.524	AROCLOR-1016-5	0.108	RW:15.45-15.59
MPK	3100	15.984	AROCLOR-1016-6	0.104	RW:15.91-16.05
MPK	3710	16.205	AROCLOR-1016-7	0.109	RW:16.13-16.27
MPK	3036	16.377	AROCLOR-1016-8	0.107	RW:16.31-16.45
MPK	4564	17.313	AROCLOR-1016-9	0.107	RW:17.24-17.38

6.10

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AR1660 2803 C

192

SAMPLE NO. : 08210135 . 06
TEST NO. :
METHOD NO. : P3560 / P3560

INSTRUMENT: 35
DATE TIME: 08/21/01 20:59:22
PAGE NO. : 01

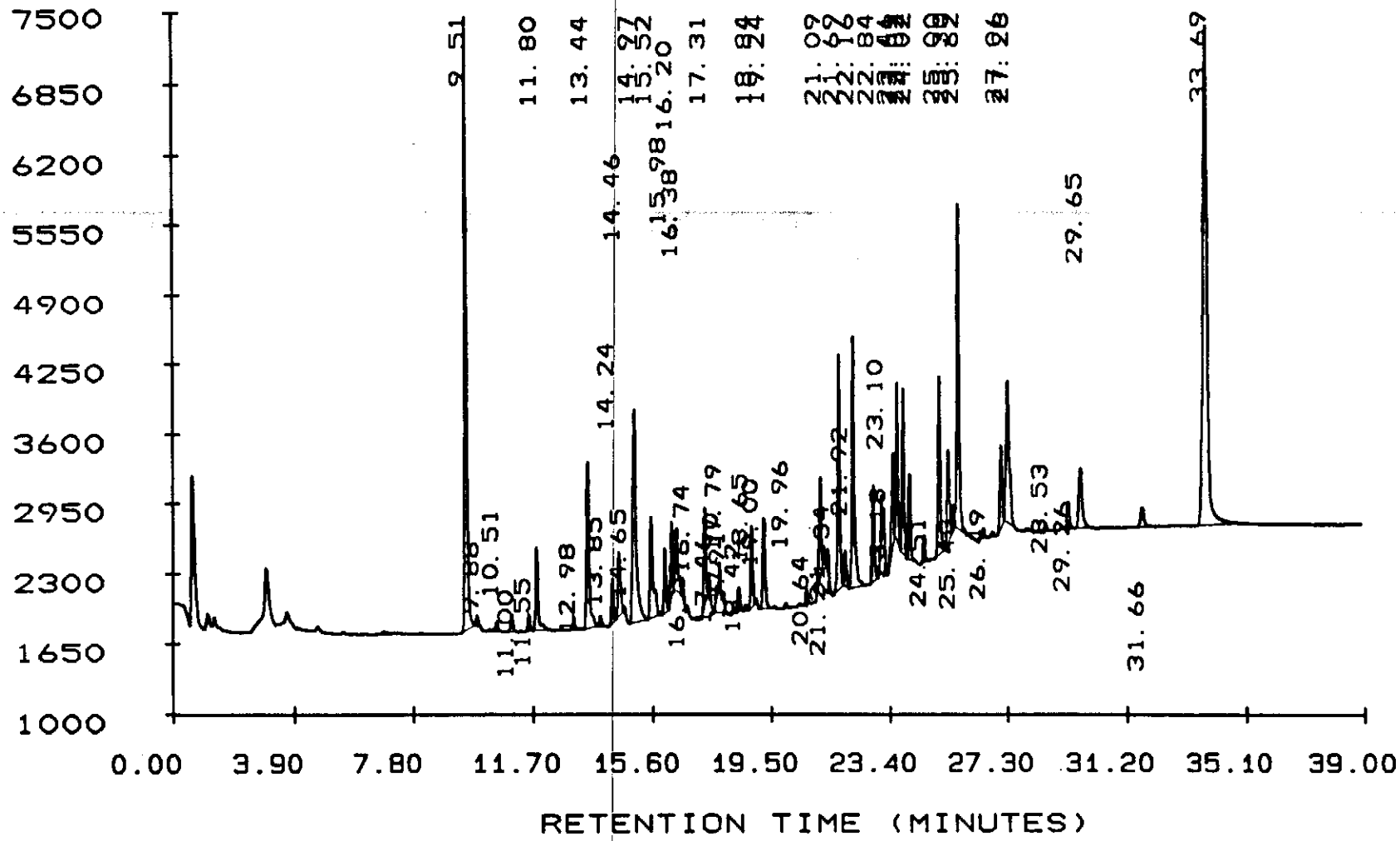

Y MAXIMUM: 7500.
Y MINIMUM: 1000.

START TIME: 0.00
END TIME: 39.00

Lionville Laboratory, Inc. 08/23/01 14:50:31

EXTERNAL STANDARD

SAMPLE: 08210135 .06 INST:35 VIAL:F0 SEQ NUMBER:006
TEST : DATE-TIME INJECTED : 08/21/01 20:59:22
COLLECTION TIME : 38.84 DATE-TIME PROCESSED : 08/23/01 14:50:31
METHOD: P3560 / P3560 REV #: 00219 ANALYST: KOBELM SAMP RATE: 1.56
CLIENT ID: SAMPLE VOL: 1.0 uL
CLIENT: COLUMN TYPE: DB608
LAB ID: AR1660 2803 C RAW FILE: RAW3:HL141017
SAMPLE WT : % MOISTURE : DILUTION FACTOR : 1.0000
COLUMN ID: 0.53 mm I CAL ID : TEMP:L082101.35/25

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
002	292749	55951	V	9.513	1	TCX	0.040
003	6682	1083	V	9.878			
004	7119	947	V	10.513			
005	9539	1698	V	10.999			
006	8073	1593	V	11.548			
007	46726	7602	V	11.803	1	AR1016-1	0.100
008	7195	1276	V	12.984			
009	99526	15353	V	13.437	1	AR1016-2	0.100
010	6298	1029	V	13.852			
011	19091	4059	V	14.242			
012	35329	5809	V	14.463			
013	3366	956	V	14.650			
014	170259	19666	V	14.969	1	AR1016-3	0.100
015	67302	9239	V	15.522	1	AR1016-4	0.100
017	29184	5956	V	15.983			
018	29110	6828	V	16.204			
019	34805	5661	V	16.376			
020	7115	2043	V	16.585			
021	2773	724	V	16.744			
022	41844	8566	V	17.312	1	AR1016-5	0.100
023	8474	2271	V	17.457			
024	3926	994	V	17.696			
025	10844	2934	V	17.790			
026	3938	1155	V	17.913			
028	13158	2190	V	18.424			
029	2908	627	V	18.653			
030	35592	7373	V	18.844			
031	2250	673	V	19.000			
032	47174	8231	V	19.237			
033	2612	506	V	19.963			
035	7158	1385	V	20.637			
036	47744	8777	V	21.091			
037	4218	1484	V	21.207			
038	11310	2544	V	21.342			
039	112822	21419	V	21.693	1	AR1260-1	0.100
040	15334	3269	V	21.918			
041	138370	23028	V	22.159	1	AR1260-2	0.100
042	44738	8805	V	22.836			
043	14549	3889	V	23.099			
044	7526	2703	V	23.182			

SAMPLE: 08210135 .06 PAGE NUMBER: 2
DATE-TIME INJECTED : 08/21/01 20:59:22
DATE-TIME PROCESSED : 08/23/01 14:50:31

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
045	45455	8769	V	23.463			
046	70132	14506	V	23.607	1	AR1260-3	0.100
047	69184	15033	V	23.815			
048	38570	7819	V	24.024			
049	11729	2437	V	24.510			
050	84607	16295	V	25.001	1	AR1260-4	0.100
051	50974	8501	V	25.297			
052	8614	2413	V	25.480			
053	157901	29571	V	25.620	1	AR1260-5	0.100
054	5100	965	V	26.486			
056	42508	7570	V	27.057			
057	96862	12991	V	27.265			
059	3260	538	V	28.534			
060	18320	2575	V	29.263			
061	45849	5596		29.654			
062	16374	1844		31.665			
063	455488	45787		33.694	1	DCB	0.040

MPK	8777	21.091	AROCLOR-1260-1	0.200	RW:21.02-21.16
MPK	21419	21.693	AROCLOR-1260-2	0.200	RW:21.62-21.76
MPK	23028	22.159	AROCLOR-1260-3	0.200	RW:22.09-22.23
MPK	8805	22.836	AROCLOR-1260-4	0.200	RW:22.77-22.91
MPK	14506	23.607	AROCLOR-1260-5	0.200	RW:23.54-23.68
MPK	15033	23.815	AROCLOR-1260-6	0.200	RW:23.74-23.89
MPK	16295	25.001	AROCLOR-1260-7	0.200	RW:24.93-25.07
MPK	29571	25.620	AROCLOR-1260-8	0.200	RW:25.55-25.69
MPK	12991	27.265	AROCLOR-1260-9	0.200	RW:27.19-27.34
MPK	7602	11.803	AROCLOR-1016-1	0.200	RW:11.73-11.87
MPK	15353	13.437	AROCLOR-1016-2	0.200	RW:13.37-13.51
MPK	5809	14.463	AROCLOR-1016-3	0.200	RW:14.39-14.53
MPK	19666	14.969	AROCLOR-1016-4	0.200	RW:14.90-15.04
MPK	9239	15.522	AROCLOR-1016-5	0.200	RW:15.45-15.59
MPK	5956	15.983	AROCLOR-1016-6	0.200	RW:15.91-16.05
MPK	6828	16.204	AROCLOR-1016-7	0.200	RW:16.13-16.27
MPK	5661	16.376	AROCLOR-1016-8	0.200	RW:16.31-16.45
MPK	8566	17.312	AROCLOR-1016-9	0.200	RW:17.24-17.38

AR1660 2804 D

SAMPLE NO. : 08210135 .07
TEST NO. :
METHOD NO. : P3560 / P3560

INSTRUMENT: 35
DATE TIME: 08/21/01 21:47:20
PAGE NO. : 01

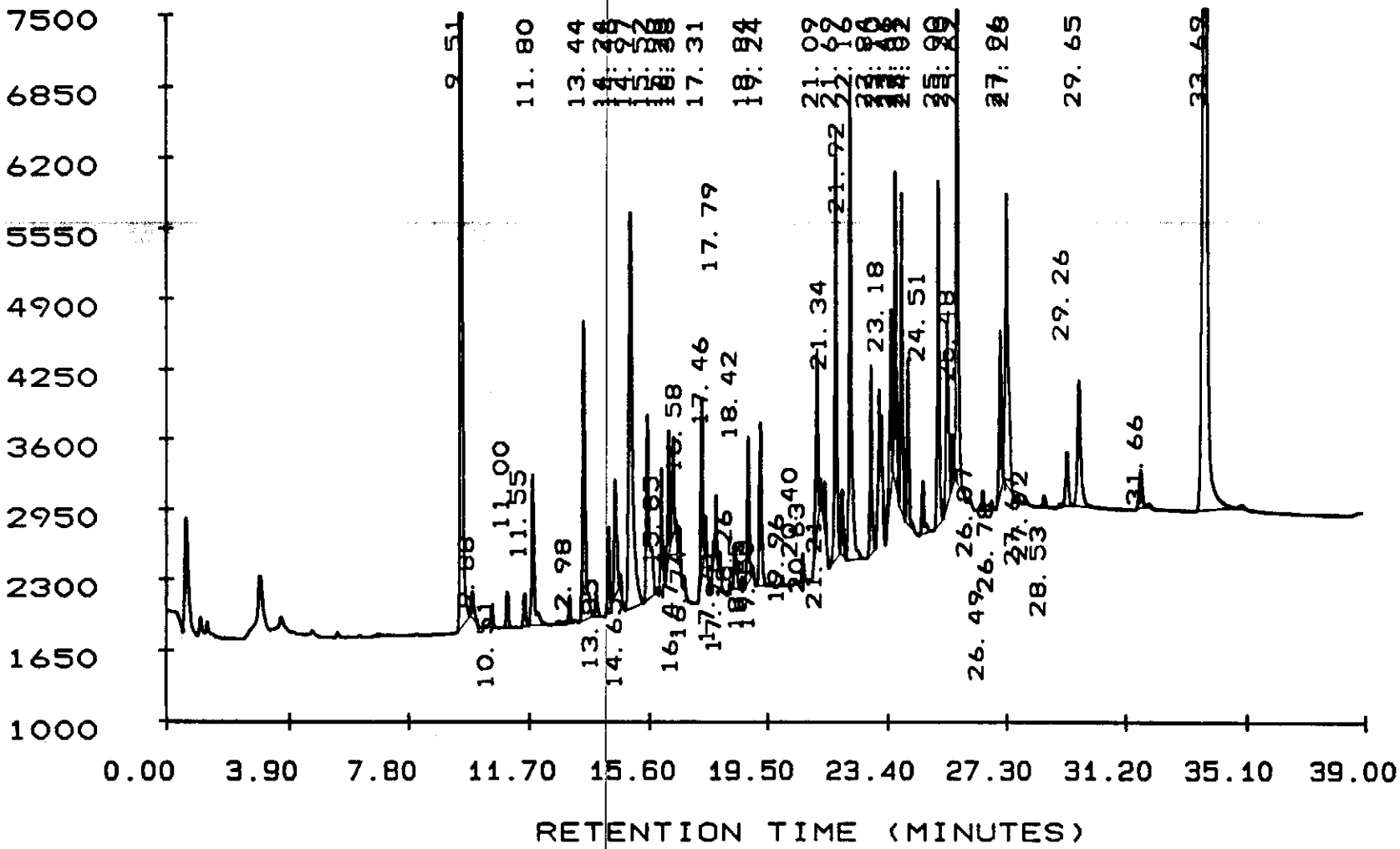

Y MAXIMUM: 7500.
Y MINIMUM: 1000.

START TIME: 0.00
END TIME: 39.00

195

Lionville Laboratory, Inc. 08/23/01 14:50:49

EXTERNAL STANDARD

SAMPLE: 08210135 .07 INST:35 VIAL:F0 SEQ NUMBER:007
TEST : DATE-TIME INJECTED : 08/21/01 21:47:20
COLLECTION TIME : 38.84 DATE-TIME PROCESSED : 08/23/01 14:50:49
METHOD: P3560 / P3560 REV #: 00219 ANALYST: KOBELM SAMP RATE: 1.56
CLIENT ID: SAMPLE VOL: 1.0 uL
CLIENT: COLUMN TYPE: DB608
LAB ID: AR1660 2804 D RAW FILE: RAW3:HL141020
SAMPLE WT : % MOISTURE : DILUTION FACTOR : 1.0000
COLUMN ID: 0.53 mm I CAL ID : TEMP:L082101.35/25

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
004	590098	112865	V	9.513	1	TCX	0.081
005	15391	2499	V	9.879			
006	11795	1747	V	10.513			
007	18125	3213	V	11.000			
008	14854	2945	V	11.548			
009	86247	13775	V	11.802	1	AR1016-1	0.181
010	11370	2310	V	12.984			
012	182080	27531	V	13.436	1	AR1016-2	0.179
013	11939	1931	V	13.853			
014	34995	7535	V	14.241			
015	64235	10560	V	14.463			
016	6118	1761	V	14.650			
017	317315	36407	V	14.969	1	AR1016-3	0.185
018	124030	16942	V	15.522	1	AR1016-4	0.183
019	1934	613	V	15.846			
020	54496	11232	V	15.983			
021	50953	11883	V	16.203			
022	41694	8777	V	16.375			
023	3718	1602	V	16.474			
024	13148	3744	V	16.584			
025	4791	1295	V	16.743			
026	76910	15978	V	17.311	1	AR1016-5	0.187
027	15405	4175	V	17.457			
028	7273	2176	V	17.696			
029	20465	5584	V	17.789			
030	7053	2093	V	17.913			
031	4115	926	V	18.256			
032	24627	4047	V	18.423			
033	5472	1210	V	18.653			
034	64476	13282	V	18.843			
035	3971	1204	V	18.999			
036	82413	14910	V	19.237			
038	6094	963	V	19.961			
039	2847	535	V	20.398			
040	13617	2642	V	20.635			
041	89865	16229	V	21.090			
042	7031	2495	V	21.205			
043	20962	4697	V	21.340			
044	208179	38809	V	21.693	1	AR1260-1	0.181
045	28842	6122	V	21.916			

SAMPLE: 08210135 .07 PAGE NUMBER: 2
DATE-TIME INJECTED : 08/21/01 21:47:20
DATE-TIME PROCESSED : 08/23/01 14:50:49

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
046	260791	42903	V	22.159	1	AR1260-2	0.186
047	86390	17213	V	22.835			
048	28032	7413	V	23.099			
049	12824	4859	V	23.179			
050	87675	17044	V	23.461			
051	136515	28335	V	23.606	1	AR1260-3	0.195
052	132691	28784	V	23.813			
053	74786	15103	V	24.022			
054	27745	4774	V	24.508			
055	162561	31198	V	25.000	1	AR1260-4	0.191
056	99001	16642	V	25.296			
057	16493	4598	V	25.478			
058	314777	59311	V	25.619	1	AR1260-5	0.201
059	2115	532	V	26.071			
060	9613	1844	V	26.485			
061	4464	859	V	26.781			
062	84438	14949	V	27.057			
063	192775	26362	V	27.264			
064	3251	610	V	27.669			
065	3904	560	V	27.921			
066	6771	1073	V	28.532			
068	32592	4967	V	29.260			
069	95237	11579		29.650			
070	26229	3454	V	31.664			
072	878420	88582	V	33.693	1	DCB	0.077

MPK	16229	21.090	AROCLOR-1260-1	0.370	RW:21.02-21.16
MPK	38809	21.693	AROCLOR-1260-2	0.362	RW:21.62-21.76
MPK	42903	22.159	AROCLOR-1260-3	0.373	RW:22.09-22.23
MPK	17213	22.835	AROCLOR-1260-4	0.391	RW:22.77-22.91
MPK	28335	23.606	AROCLOR-1260-5	0.391	RW:23.54-23.68
MPK	28784	23.813	AROCLOR-1260-6	0.383	RW:23.74-23.89
MPK	31198	25.000	AROCLOR-1260-7	0.383	RW:24.93-25.07
MPK	59311	25.619	AROCLOR-1260-8	0.401	RW:25.55-25.69
MPK	26362	27.264	AROCLOR-1260-9	0.406	RW:27.19-27.34
MPK	13775	11.802	AROCLOR-1016-1	0.362	RW:11.73-11.87
MPK	27531	13.436	AROCLOR-1016-2	0.359	RW:13.37-13.51
MPK	10560	14.463	AROCLOR-1016-3	0.364	RW:14.39-14.53
MPK	36407	14.969	AROCLOR-1016-4	0.370	RW:14.90-15.04
MPK	16942	15.522	AROCLOR-1016-5	0.367	RW:15.45-15.59
MPK	11232	15.983	AROCLOR-1016-6	0.377	RW:15.91-16.05
MPK	11883	16.203	AROCLOR-1016-7	0.348	RW:16.13-16.27
MPK	8777	16.375	AROCLOR-1016-8	0.310	RW:16.31-16.45
MPK	15978	17.311	AROCLOR-1016-9	0.373	RW:17.24-17.38

0.40

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AR1660 2805 E

SAMPLE NO. : 08210135 . 08
TEST NO. :
METHOD NO. : P3560 / P3560

INSTRUMENT: 35
DATE TIME: 08/21/01 22:35:20
PAGE NO. : 01

198

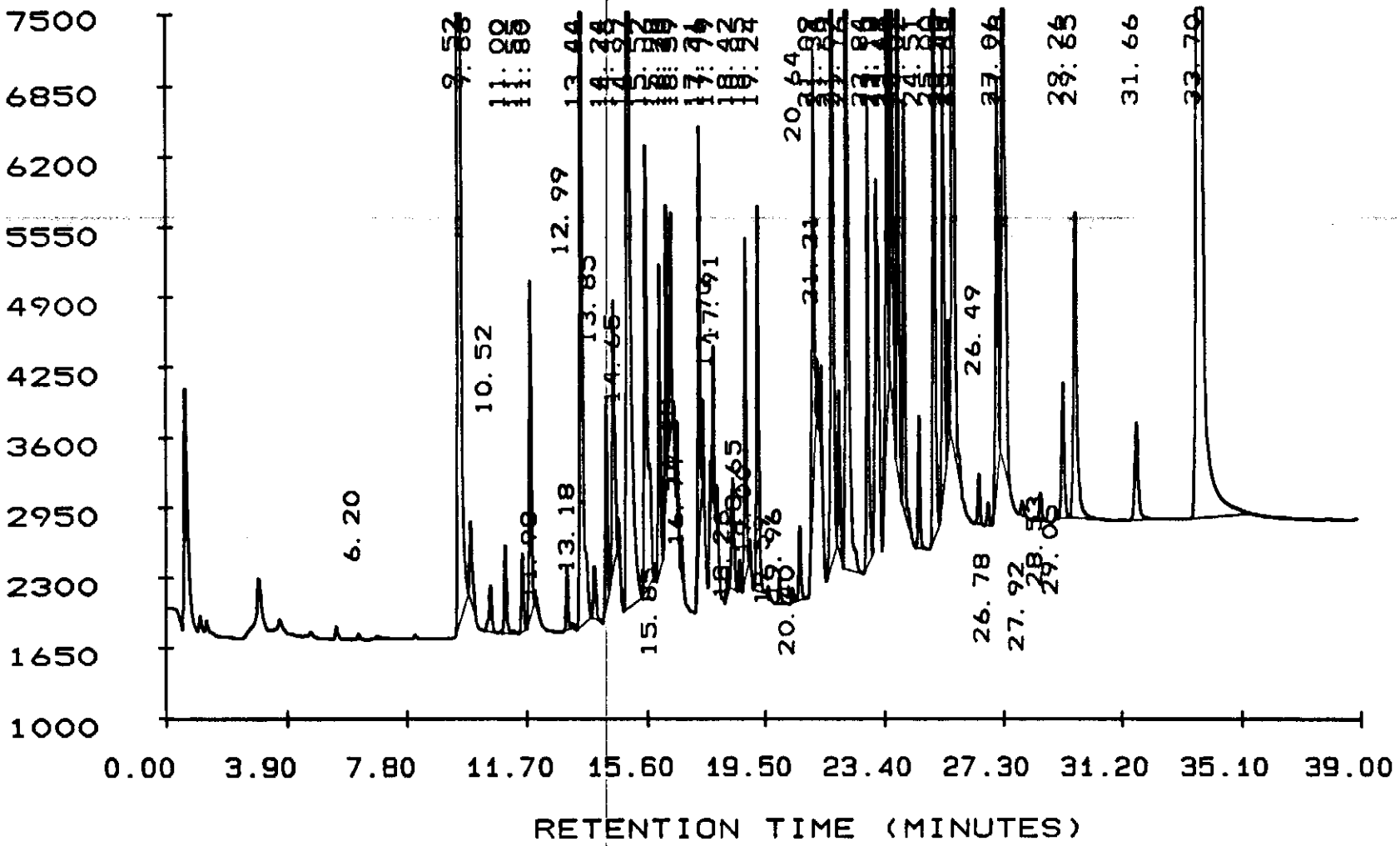

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Y MINIMUM: 1000.

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END TIME: 39.00

Lionville Laboratory, Inc. 08/23/01 14:51:07

EXTERNAL STANDARD

SAMPLE: 08210135 .08 INST:35 VIAL:F0 SEQ NUMBER:008
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METHOD: P3560 / P3560 REV #: 00219 ANALYST: KOBELM SAMP RATE: 1.56
CLIENT ID: SAMPLE VOL: 1.0 uL
CLIENT: COLUMN TYPE: DB608
LAB ID: AR1660 2805 E RAW FILE: RAW3:HL141022
SAMPLE WT : % MOISTURE : DILUTION FACTOR : 1.0000
COLUMN ID: 0.53 mm I CAL ID : TEMP:L082101.35/25

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
001	3475	559	V	6.202			
004	1530049	275194	V	9.516	1	TCX	0.197
005	45896	7460	V	9.879			
006	28384	4244	V	10.515			
007	46883	8084	V	11.002			
008	37322	7235	V	11.550			
009	159401	30690	V	11.804	1	AR1016-1	0.404
010	5077	924	V	11.983			
011	28133	5698	V	12.986			
012	3392	671	V	13.179			
013	431910	62533	V	13.438	1	AR1016-2	0.407
014	31053	4883	V	13.855			
015	87419	18905	V	14.243			
016	152447	24440	V	14.464			
017	15244	4338	V	14.651			
018	773747	87651	V	14.972	1	AR1016-3	0.446
019	302540	40721	V	15.523	1	AR1016-4	0.441
020	4580	1444	V	15.847			
021	137395	28068	V	15.984			
022	113137	26601	V	16.204			
023	93839	19836	V	16.377			
024	7034	3555	V	16.475			
025	29126	8496	V	16.585			
026	11347	3021	V	16.744			
027	183973	37036	V	17.313	1	AR1016-5	0.432
028	36110	9736	V	17.458			
029	18252	4656	V	17.697			
030	50839	13763	V	17.790			
031	15767	4896	V	17.914			
032	11322	2535	V	18.255			
033	62829	10293	V	18.424			
034	14669	3179	V	18.653			
035	154361	30820	V	18.845			
036	9572	2946	V	19.000			
037	199274	35108	V	19.238			
038	4509	973	V	19.589			
039	14579	2545	V	19.963			
040	7533	1431	V	20.398			
041	36461	6744	V	20.637			
042	216450	38107	V	21.091			

SAMPLE: 08210135 .08 PAGE NUMBER: 2
DATE-TIME INJECTED : 08/21/01 22:35:20
DATE-TIME PROCESSED : 08/23/01 14:51:07

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
043	14486	5245	V	21.206			
044	50517	10958	V	21.341			
045	493990	89413	V	21.693	1	AR1260-1	0.417
046	71328	14858	V	21.917			
047	628147	100351	V	22.159	1	AR1260-2	0.436
048	218605	42710	V	22.835			
049	66935	17698	V	23.099			
050	30502	11191	V	23.181			
051	214078	41579	V	23.463			
052	340312	70438	V	23.607	1	AR1260-3	0.486
053	322352	67901	V	23.815			
054	186084	37339	V	24.024			
055	59834	12034	V	24.510			
056	401277	74821	V	25.001	1	AR1260-4	0.459
057	244408	40879	V	25.297			
058	40210	11236	V	25.480			
059	798957	148014	V	25.620	1	AR1260-5	0.501
060	23692	4588	V	26.486			
061	11219	2131	V	26.783			
062	210315	37059	V	27.058			
063	487239	66399	V	27.265			
064	9985	1394	V	27.921			
065	16766	2648	V	28.534			
066	4679	878	V	29.049			
067	82848	12464	V	29.261			
068	227579	27867		29.653			
069	78395	8922		31.665			
070	2163473	207849		33.695	1	DCB	0.182

MPK	38107	21.091	AROCLOR-1260-1	0.868	RW:21.02-21.16
MPK	89413	21.693	AROCLOR-1260-2	0.835	RW:21.62-21.76
MPK	100351	22.159	AROCLOR-1260-3	0.872	RW:22.09-22.23
MPK	42710	22.835	AROCLOR-1260-4	0.970	RW:22.77-22.91
MPK	70438	23.607	AROCLOR-1260-5	0.971	RW:23.54-23.68
MPK	67901	23.815	AROCLOR-1260-6	0.908	RW:23.74-23.89
MPK	74821	25.001	AROCLOR-1260-7	0.918	RW:24.93-25.07
MPK	148014	25.620	AROCLOR-1260-8	1.001	RW:25.55-25.69
MPK	66399	27.265	AROCLOR-1260-9	1.022	RW:27.19-27.34
MPK	30690	11.804	AROCLOR-1016-1	0.807	RW:11.73-11.87
MPK	62533	13.438	AROCLOR-1016-2	0.815	RW:13.37-13.51
MPK	24440	14.464	AROCLOR-1016-3	0.841	RW:14.39-14.53
MPK	87651	14.972	AROCLOR-1016-4	0.891	RW:14.90-15.04
MPK	40721	15.523	AROCLOR-1016-5	0.882	RW:15.45-15.59
MPK	28068	15.984	AROCLOR-1016-6	0.943	RW:15.91-16.05
MPK	26601	16.204	AROCLOR-1016-7	0.779	RW:16.13-16.27
MPK	19836	16.377	AROCLOR-1016-8	0.701	RW:16.31-16.45
MPK	37036	17.313	AROCLOR-1016-9	0.865	RW:17.24-17.38

1.0

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200

AR1221 1108

SAMPLE NO. : 08210135 .09

TEST NO. :

METHOD NO. : P35 / P35

INSTRUMENT: 35

DATE TIME: 08/21/01 23:23:31

PAGE NO. : 01

201

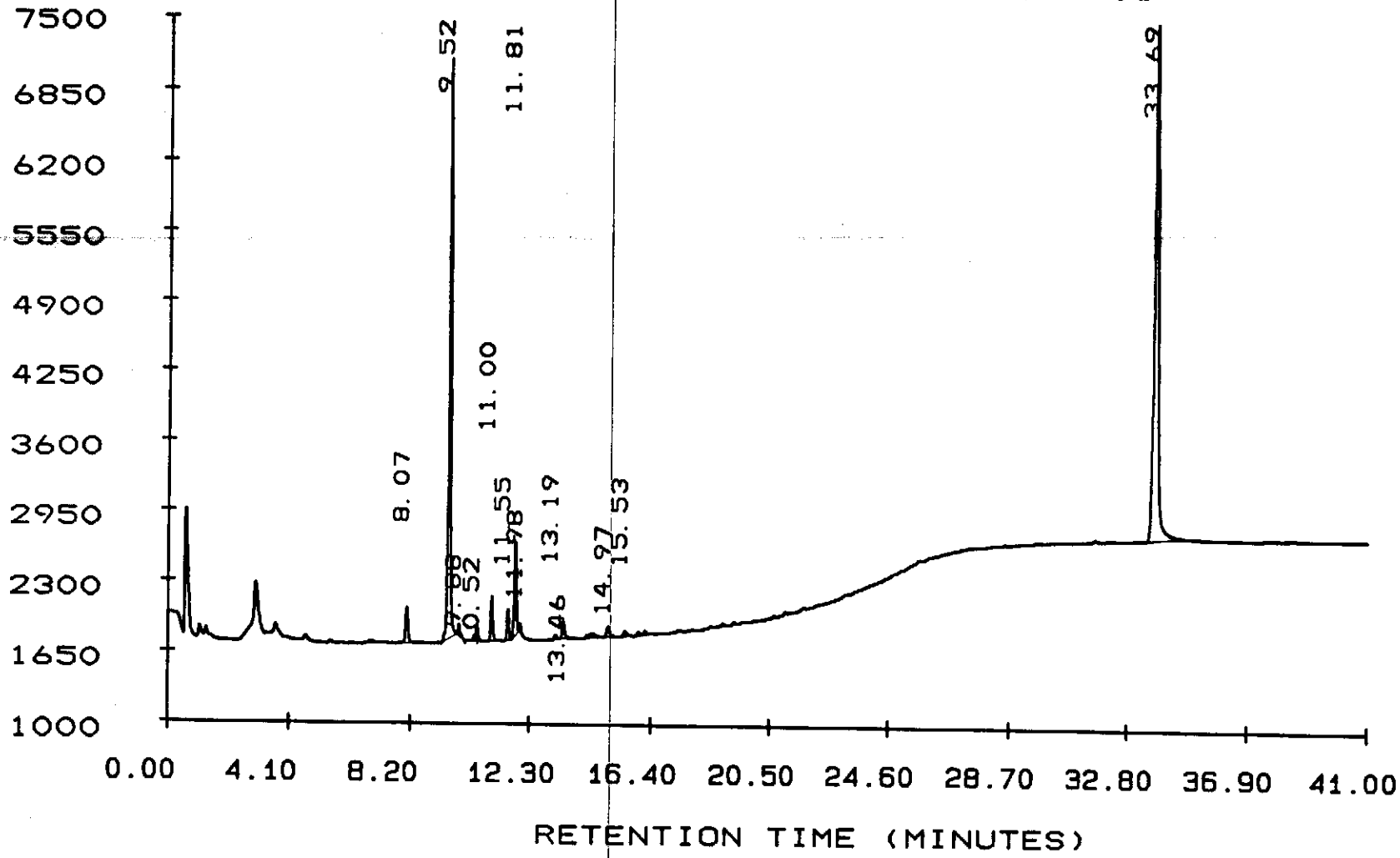

Y MAXIMUM: 7500.

Y MINIMUM: 1000.

START TIME: 0.00

END TIME: 41.00

Lionville Laboratory, Inc. 08/23/01 15:00:22

EXTERNAL STANDARD

SAMPLE: 08210135 .09 INST:35 VIAL:F0 SEQ NUMBER:009
TEST : DATE-TIME INJECTED : 08/21/01 23:23:31
COLLECTION TIME : 40.97 DATE-TIME PROCESSED : 08/23/01 15:00:22
METHOD: P35 / PCB35 REV #: 00220 ANALYST: KOBELM SAMP RATE: 1.56
CLIENT ID: SAMPLE VOL: 1.0 uL
CLIENT: COLUMN TYPE: DB608
LAB ID: AR1221 1108 RAW FILE: RAW3:HL141023
SAMPLE WT : % MOISTURE : DILUTION FACTOR : 1.0000
COLUMN ID: 0.53 mm I CAL ID : TEMP:L082101.35/25

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
002	21978	3278		8.073			
003	282340	52980	V	9.517	1	TCX	0.038
004	7054	1120	V	9.881			
005	10480	1315	V	10.517			
006	24061	4128	V	10.998			
007	14891	2879	V	11.551			
008	43562	8629	V	11.806			
009	3692	868	V	11.979			
010	3067	541	V	13.185			
011	12845	1644	V	13.461			
013	8864	1007	V	14.973			
014	4442	563	V	15.526			
024	473335	47088		33.694	1	DCB	0.041

MPK	3278	8.073	AROCLOR-1221-1	0.200	RW: 8.00- 8.14
MPK	1120	9.881	AROCLOR-1221-2	0.200	RW: 9.81- 9.95
MPK	1315	10.517	AROCLOR-1221-3	0.200	RW:10.45-10.59
MPK	4128	10.998	AROCLOR-1221-4	0.200	RW:10.93-11.07
MPK	2879	11.551	AROCLOR-1221-5	0.200	RW:11.48-11.62
MPK	8629	11.806	AROCLOR-1221-6	0.200	RW:11.74-11.88
MPK	1644	13.461	AROCLOR-1221-7	0.200	RW:13.39-13.53
MPK	1007	14.973	AROCLOR-1221-8	0.200	RW:14.90-15.04

AR1232 1205

203

SAMPLE NO. : 08210135 . 10

TEST NO. :

METHOD NO. : P35 / P35

INSTRUMENT: 35

DATE TIME: 08/22/01 00:11:18

PAGE NO. : 01

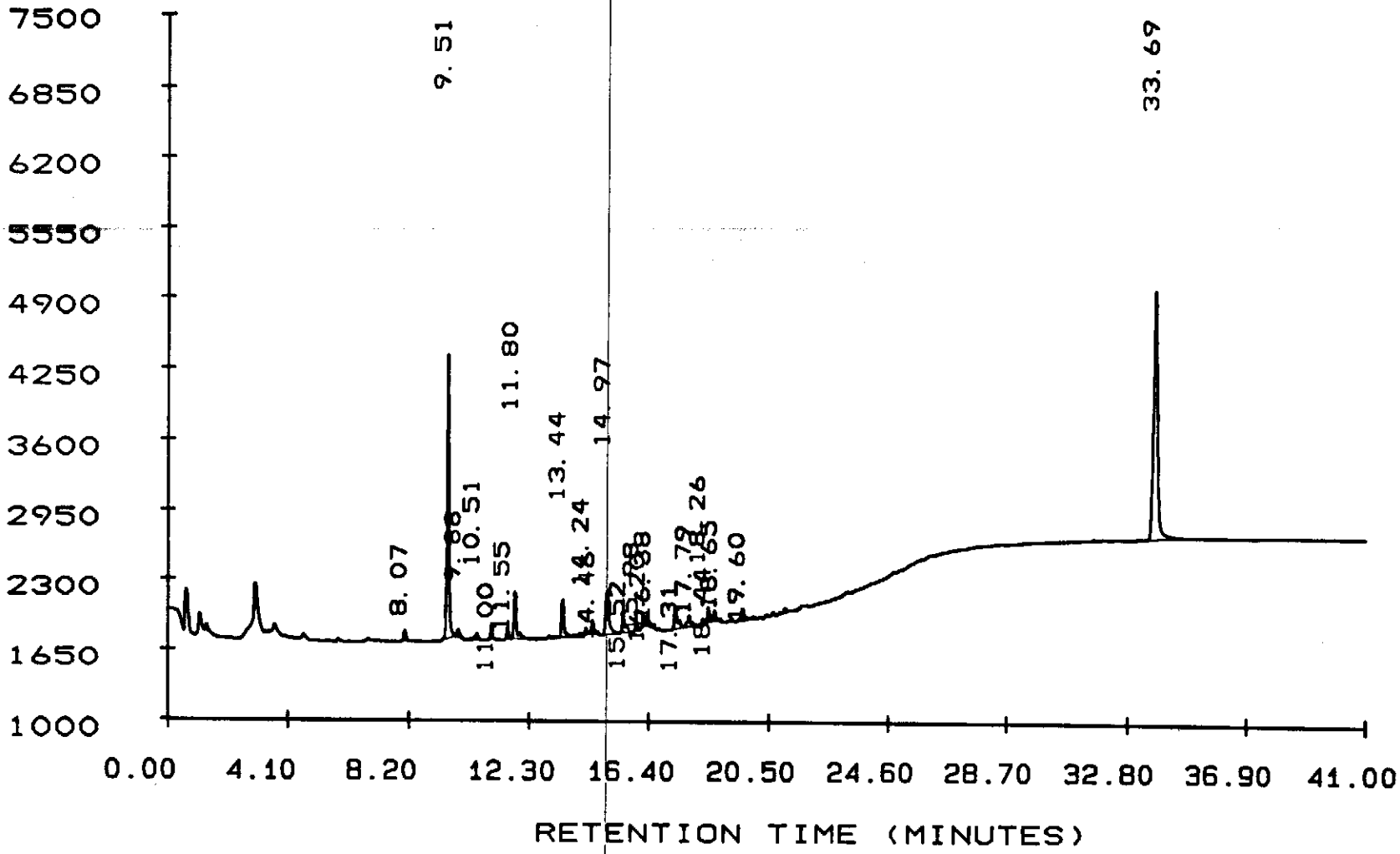

Y MAXIMUM: 7500.

Y MINIMUM: 1000.

START TIME: 0.00

END TIME: 41.00

Lionville Laboratory, Inc. 08/23/01 15:00:37

EXTERNAL STANDARD

SAMPLE: 08210135 .10 INST:35 VIAL:F0 SEQ NUMBER:010
TEST : DATE-TIME INJECTED : 08/22/01 00:11:18
COLLECTION TIME : 40.97 DATE-TIME PROCESSED : 08/23/01 15:00:37
METHOD: P35 / PCB35 REV #: 00220 ANALYST: KOBELM SAMP RATE: 1.56
CLIENT ID: SAMPLE VOL: 1.0 uL
CLIENT: COLUMN TYPE: DB608
LAB ID: AR1232 1205 RAW FILE: RAW3:HM141025
SAMPLE WT : % MOISTURE : DILUTION FACTOR : 1.0000
COLUMN ID: 0.53 mm I CAL ID : TEMP:L082101.35/25

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
002	7342	1044		8.070			
003	135598	25908	V	9.513	1	TCX	0.019
004	4497	723	V	9.878			
005	4691	593	V	10.513			
006	8492	1569	V	10.996			
007	5902	1183	V	11.548			
008	28184	4285		11.803			
010	23019	3447	V	13.439			
012	3520	770	V	14.243			
013	9877	1267	V	14.463			
014	35290	3961	V	14.969			
015	14733	1897	V	15.523			
016	5773	1179	V	15.984			
017	5480	1280	V	16.204			
018	8900	1074	V	16.376			
019	15479	1879	V	17.314			
020	9629	1018	V	17.790			
021	2572	554	V	18.256			
022	8178	1403	V	18.443			
023	7410	970	V	18.655			
025	7903	1019	V	19.597			
029	227413	22653		33.693	1	DCB	0.020

MPK	1569	10.996	AROCLOR-1232-1	0.100	RW:10.93-11.07
MPK	4285	11.803	AROCLOR-1232-2	0.100	RW:11.73-11.87
MPK	3447	13.439	AROCLOR-1232-3	0.100	RW:13.37-13.51
MPK	3961	14.969	AROCLOR-1232-4	0.100	RW:14.90-15.04
MPK	1897	15.523	AROCLOR-1232-5	0.100	RW:15.45-15.59
MPK	1280	16.204	AROCLOR-1232-6	0.100	RW:16.13-16.27
MPK	1879	17.314	AROCLOR-1232-7	0.100	RW:17.24-17.38
MPK	1403	18.443	AROCLOR-1232-8	0.100	RW:18.37-18.51

AR1242 1304

SAMPLE NO. : 08210135 . 11
TEST NO. :
METHOD NO. : P35 / P35

INSTRUMENT: 35
DATE TIME: 08/22/01 00:59:08
PAGE NO. : 01

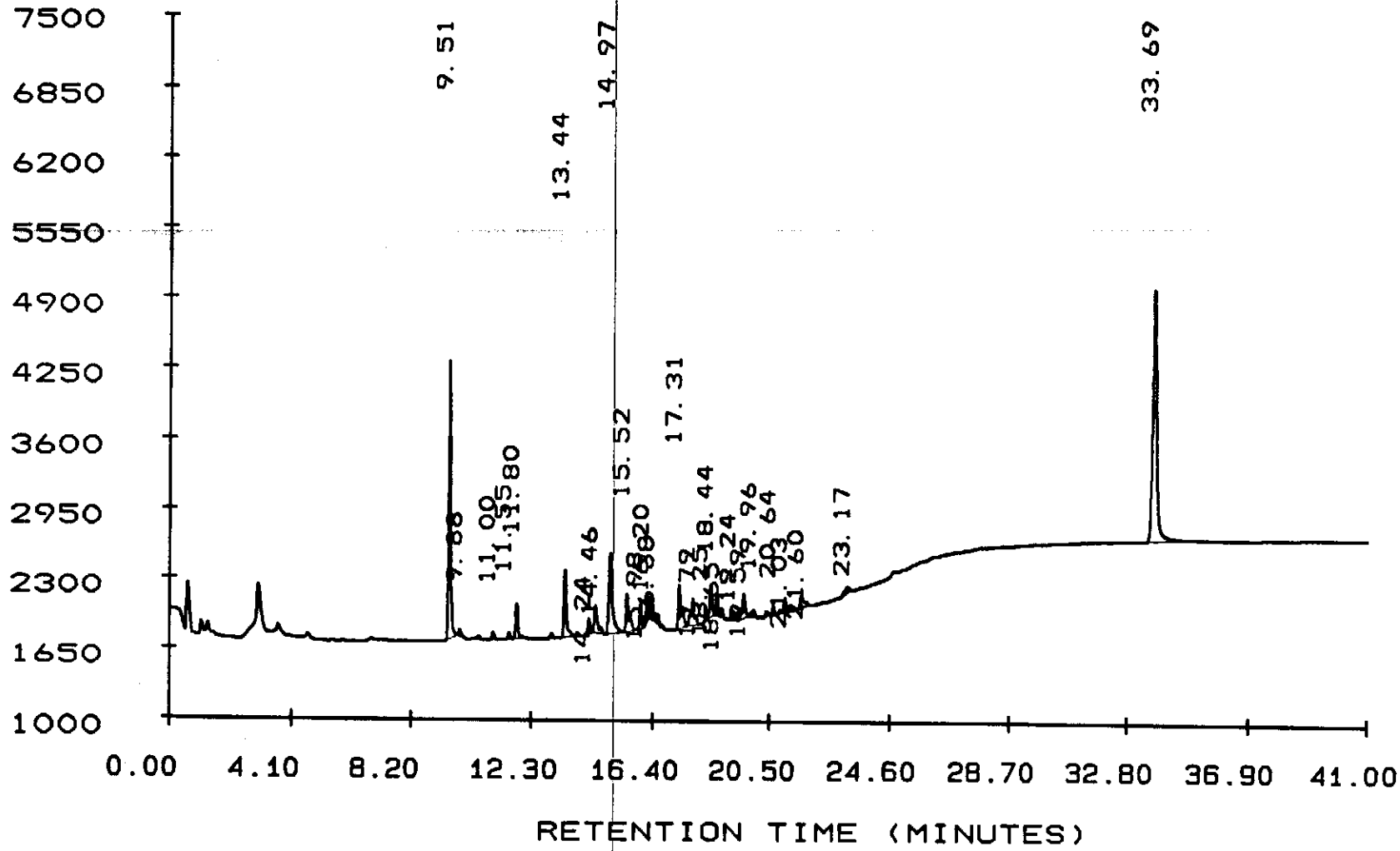

Y MAXIMUM: 7500.
Y MINIMUM: 1000.

START TIME: 0.00
END TIME: 41.00

Lionville Laboratory, Inc. 08/23/01 15:00:51

EXTERNAL STANDARD

SAMPLE: 08210135 .11 INST:35 VIAL:F0 SEQ NUMBER:011
TEST : DATE-TIME INJECTED : 08/22/01 00:59:08
COLLECTION TIME : 40.97 DATE-TIME PROCESSED : 08/23/01 15:00:51
METHOD: P35 / PCB35 REV #: 00220 ANALYST: KOBELM SAMP RATE: 1.56
CLIENT ID: SAMPLE VOL: 1.0 uL
CLIENT: COLUMN TYPE: DB608
LAB ID: AR1242 1304 RAW FILE: RAW3:HM141028
SAMPLE WT : % MOISTURE : DILUTION FACTOR : 1.0000
COLUMN ID: 0.53 mm I CAL ID : TEMP:L082101.35/25

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
002	137336	25382	V	9.514	1	TCX	0.018
003	4628	734	V	9.878			
005	4272	752	V	11.001			
006	3229	651	V	11.548			
007	20058	3138	V	11.804			
009	40816	6192	V	13.438			
011	7019	1495	V	14.242			
012	19485	2386	V	14.463			
013	66256	7431	V	14.969			
014	27350	3485	V	15.523			
015	10615	2156	V	15.983			
016	11153	2607	V	16.203			
017	13576	2207	V	16.376			
018	2556	746	V	16.585			
019	16392	3343	V	17.313			
020	2957	835	V	17.456			
021	21478	2189	V	17.789			
022	5718	1215	V	18.254			
023	17198	2974	V	18.442			
024	10019	1970	V	18.654			
025	2758	688	V	18.840			
026	6349	902	V	19.237			
027	17013	2192	V	19.594			
028	5224	612	V	19.955			
030	3328	674	V	20.636			
032	6266	1070	V	21.031			
033	11794	1052	V	21.603			
034	7187	648		23.166			
035	228874	22990		33.691	1	DCB	0.020

MPK	3138	11.804	AROCLOR-1242-1	0.100	RW:11.73-11.87
MPK	6192	13.438	AROCLOR-1242-2	0.100	RW:13.37-13.51
MPK	2386	14.463	AROCLOR-1242-3	0.100	RW:14.39-14.53
MPK	7431	14.969	AROCLOR-1242-4	0.100	RW:14.90-15.04
MPK	3485	15.523	AROCLOR-1242-5	0.100	RW:15.45-15.59
MPK	2607	16.203	AROCLOR-1242-6	0.100	RW:16.13-16.27
MPK	3343	17.313	AROCLOR-1242-7	0.100	RW:17.24-17.38
MPK	2974	18.442	AROCLOR-1242-8	0.100	RW:18.37-18.51

AR1248 1101

SAMPLE NO. : 08210135 . 12
TEST NO. :
METHOD NO. : P35 / P35

INSTRUMENT: 35
DATE TIME: 08/22/01 01:46:54
PAGE NO. : 01

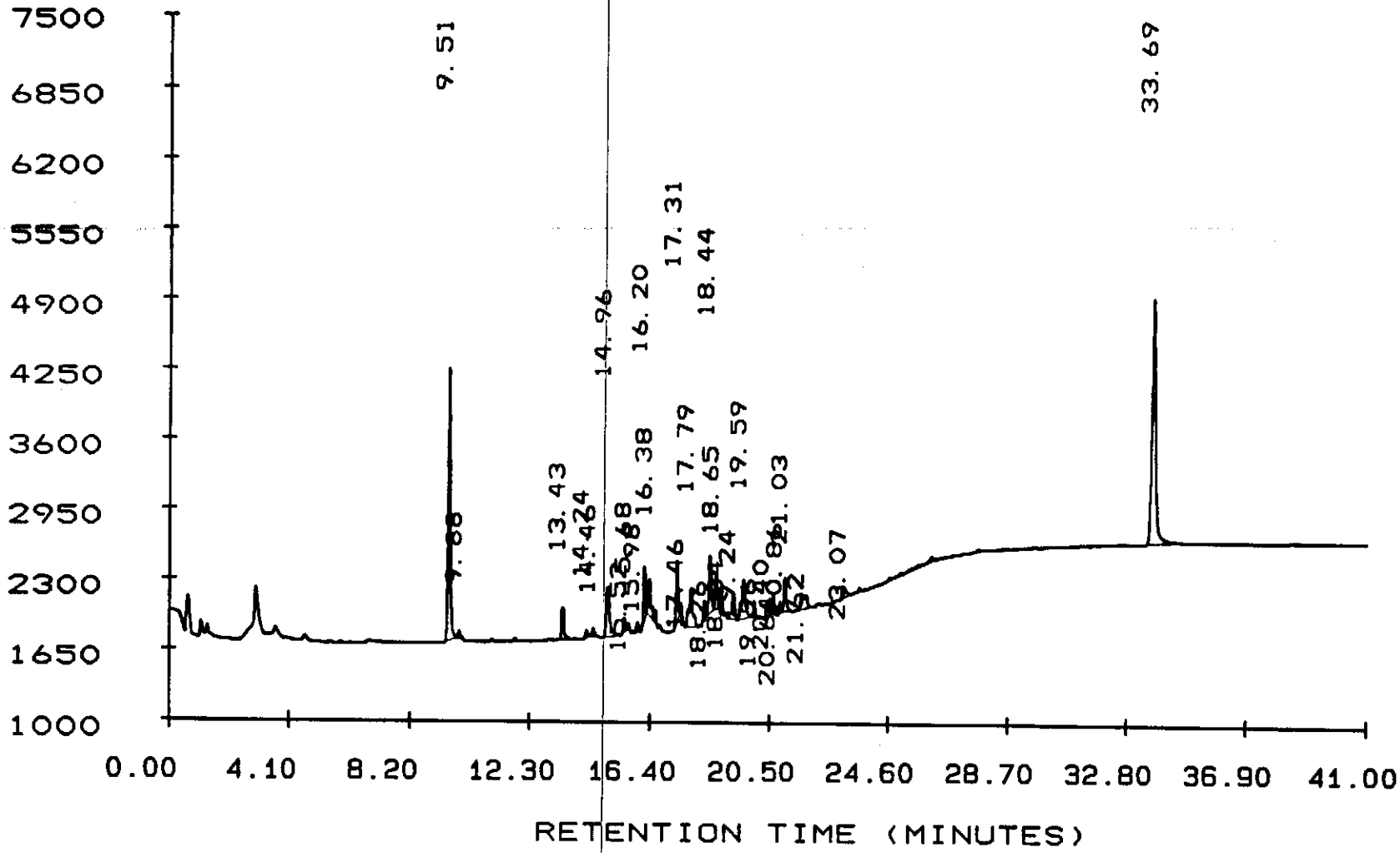

Y MAXIMUM: 7500.
Y MINIMUM: 1000.

START TIME: 0.00
END TIME: 41.00

Lionville Laboratory, Inc. 08/23/01 15:01:06

EXTERNAL STANDARD

SAMPLE: 08210135 .12 INST:35 VIAL:F0 SEQ NUMBER:012
TEST : DATE-TIME INJECTED : 08/22/01 01:46:54
COLLECTION TIME : 40.97 DATE-TIME PROCESSED : 08/23/01 15:01:06
METHOD: P35 / PCB35 REV #: 00220 ANALYST: KOBELM SAMP RATE: 1.56
CLIENT ID: SAMPLE VOL: 1.0 uL
CLIENT: COLUMN TYPE: DB608
LAB ID: AR1248 1101 RAW FILE: RAW3:HM141029
SAMPLE WT : % MOISTURE : DILUTION FACTOR : 1.0000
COLUMN ID: 0.53 mm I CAL ID : TEMP:L082101.35/25

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
002	131662	24795	V	9.511	1	TCX	0.018
003	4539	730		9.878			
007	19636	2975	V	13.433			
008	2996	679	V	14.241			
009	5971	826	V	14.463			
010	41722	4583	V	14.957			
011	6273	1357	V	15.523			
012	3276	796	V	15.682			
013	4690	996	V	15.983			
014	21021	4812	V	16.204			
015	18877	3179	V	16.376			
016	3096	934	V	16.584			
017	26554	5597	V	17.312			
018	4026	1138	V	17.456			
019	32218	3526	V	17.789			
020	9003	1898	V	18.255			
021	29752	5151	V	18.443			
022	15760	3140	V	18.654			
023	9045	2087	V	18.842			
024	16057	2371	V	19.238			
025	33552	3561	V	19.593			
026	9216	1494	V	19.963			
027	7092	1318	V	20.400			
028	8832	1768	V	20.637			
029	4467	985	V	20.863			
030	17978	3063	V	21.032			
031	5700	930	V	21.622			
032	1757	521	V	21.771			
033	10526	1037	V	23.065			
038	224456	22467		33.693	1	DCB	0.020

MPK	4583	14.957	AROCLOR-1248-1	0.100	RW:14.89-15.03
MPK	4812	16.204	AROCLOR-1248-2	0.100	RW:16.13-16.27
MPK	3179	16.376	AROCLOR-1248-3	0.100	RW:16.31-16.45
MPK	5597	17.312	AROCLOR-1248-4	0.100	RW:17.24-17.38
MPK	3526	17.789	AROCLOR-1248-5	0.100	RW:17.72-17.86
MPK	5151	18.443	AROCLOR-1248-6	0.100	RW:18.37-18.51
MPK	3140	18.654	AROCLOR-1248-7	0.100	RW:18.58-18.72
MPK	3561	19.593	AROCLOR-1248-8	0.100	RW:19.52-19.66

AR1254 9403 C

SAMPLE NO. : 08210135 . 13
TEST NO. :
METHOD NO. : P35 / P35

INSTRUMENT: 35
DATE TIME: 08/22/01 02:34:43
PAGE NO. : 01

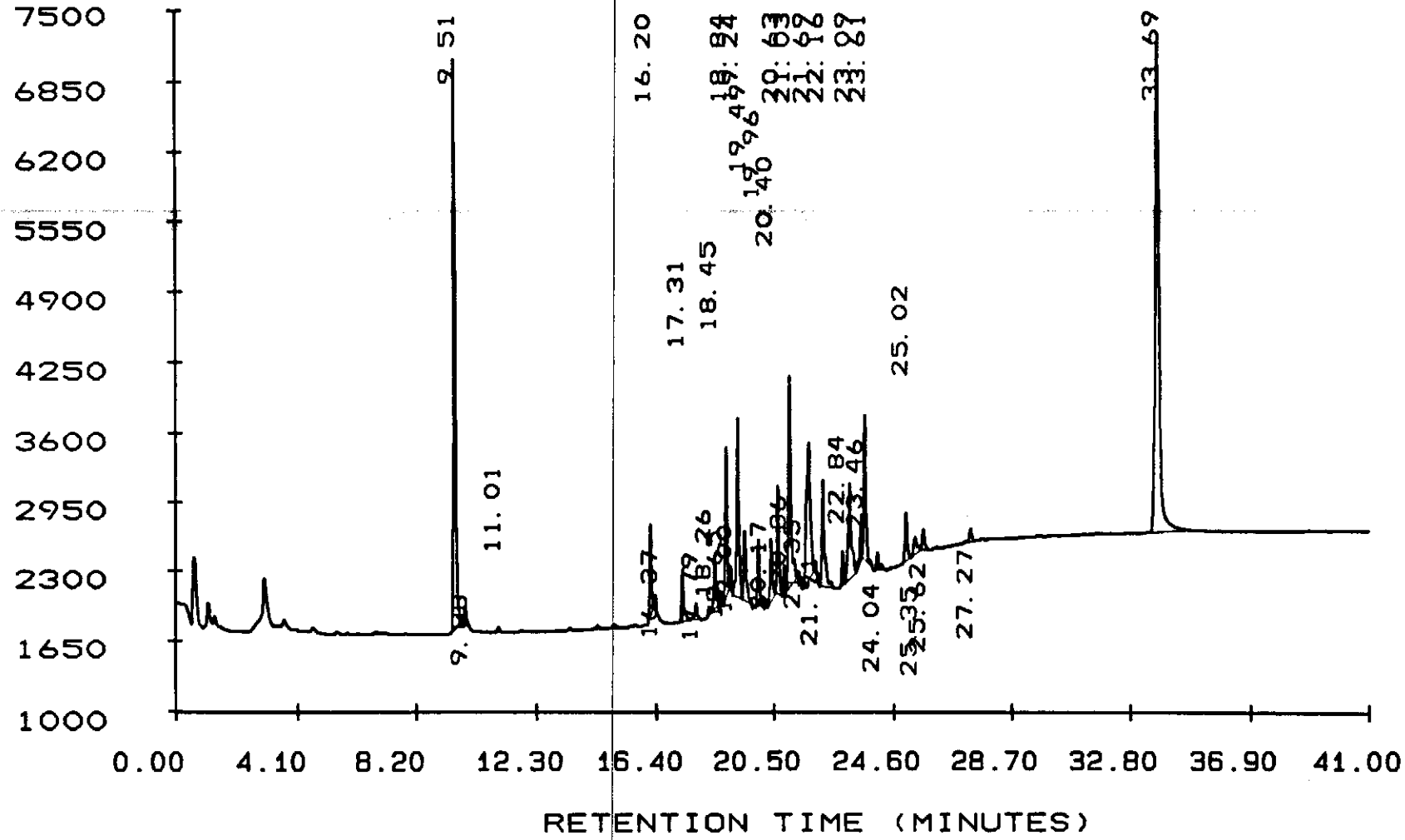

Y MAXIMUM: 7500.
Y MINIMUM: 1000.

START TIME: 0.00
END TIME: 41.00

Lionville Laboratory, Inc. 08/23/01 15:01:20

EXTERNAL STANDARD

SAMPLE: 08210135 .13
TEST :
COLLECTION TIME : 40.97
METHOD: P35 / PCB35 REV #: 00220 ANALYST: KOBELM
CLIENT ID:
CLIENT:
LAB ID: AR1254 9403 C
SAMPLE WT : % MOISTURE :
COLUMN ID: 0.53 mm I

INST:35 VIAL:F0 SEQ NUMBER:013
DATE-TIME INJECTED : 08/22/01 02:34:43
DATE-TIME PROCESSED : 08/23/01 15:01:20
SAMP RATE: 1.56
SAMPLE VOL: 1.0 uL
COLUMN TYPE: DB608
RAW FILE: RAW3:HM141032
DILUTION FACTOR : 1.0000
CAL ID : TEMP:L082101.35/25

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
002	277905	52279	V	9.512	1	TCX	0.037
003	9977	1566		9.877			
004	3005	532	V	11.007			
010	40582	8317	V	16.203			
011	4617	1321	V	16.374			
012	29971	4782	V	17.312			
013	9071	1349	V	17.790			
014	4563	940	V	18.255			
015	28036	4937	V	18.446			
016	4978	1142	V	18.652			
017	68004	13857	V	18.843			
018	8159	2320	V	19.000			
019	97607	16520	V	19.237			
020	39766	6382	V	19.487			
021	31910	6143	V	19.961			
022	5017	1057	V	20.166			
023	31354	5717	V	20.396			
024	51600	10034	V	20.635			
025	11341	2594	V	20.861			
026	102134	18675	V	21.031			
027	2182	895	V	21.197			
028	4495	1041	V	21.346			
029	119372	12611	V	21.686			
030	5156	1377	V	21.914			
031	68052	9902	V	22.160			
032	15350	3158	V	22.836			
033	70680	8915	V	23.093			
034	15331	3122	V	23.463			
035	73751	13410	V	23.607			
036	6848	1440	V	24.043			
038	26304	4528	V	25.025			
039	14073	1660	V	25.346			
040	12119	1967	V	25.624			
042	10177	1316	V	27.272			
045	455455	45009		33.693	1	DCB	0.039

MPK	13857	18.843	AROCLOR-1254-1	0.200	RW:18.77-18.91
MPK	16520	19.237	AROCLOR-1254-2	0.200	RW:19.17-19.31
MPK	10034	20.635	AROCLOR-1254-3	0.200	RW:20.56-20.71

SAMPLE: 08210135 .13 PAGE NUMBER: 2
DATE-TIME INJECTED : 08/22/01 02:34:43
DATE-TIME PROCESSED : 08/23/01 15:01:20

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL	
MPK		18675		21.031		AROCLOR-1254-4	0.200	RW:20.96-21.10
MPK		12611		21.686		AROCLOR-1254-5	0.200	RW:21.62-21.76
MPK		9902		22.160		AROCLOR-1254-6	0.200	RW:22.09-22.23
MPK		8915		23.093		AROCLOR-1254-7	0.200	RW:23.02-23.16
MPK		13410		23.607		AROCLOR-1254-8	0.200	RW:23.54-23.68

AR1660 2803 C

SAMPLE NO. : 08210135 .28
TEST NO. :
METHOD NO. : P3560 / P3560

INSTRUMENT: 35
DATE TIME: 08/22/01 14:31:40
PAGE NO. : 01

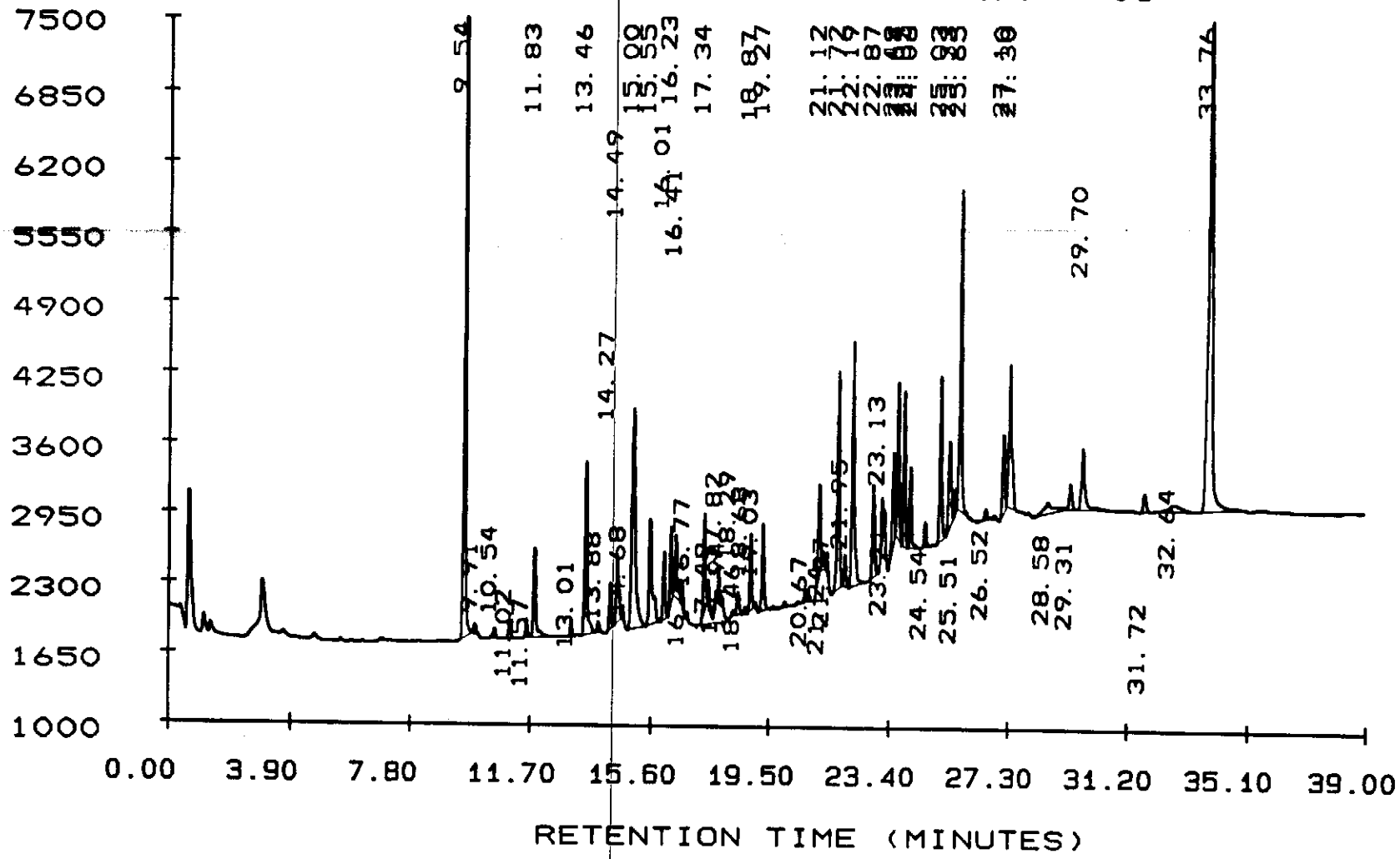

Y MAXIMUM: 7500.
Y MINIMUM: 1000.

START TIME: 0.00
END TIME: 39.00

Lionville Laboratory, Inc. 08/23/01 14:51:23

EXTERNAL STANDARD

SAMPLE: 08210135 .28 INST:35 VIAL:F0 SEQ NUMBER:028
TEST : DATE-TIME INJECTED : 08/22/01 14:31:40
COLLECTION TIME : 38.84 DATE-TIME PROCESSED : 08/23/01 14:51:23
METHOD: P3560 / P3560 REV #: 00219 ANALYST: KOBELM SAMP RATE: 1.56
CLIENT ID: SAMPLE VOL: 1.0 uL
CLIENT: COLUMN TYPE: DB608
LAB ID: AR1660 2803 C RAW FILE: RAW3:HM141072
SAMPLE WT : % MOISTURE : DILUTION FACTOR : 1.0000
COLUMN ID: 0.53 mm I CAL ID : TEMP:L082101.35/25

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
003	310819	64203	V	9.537	1	TCX	0.046
004	6223	1005	V	9.906			
005	6445	1028	V	10.537			
006	9747	1867	V	11.024			
007	8450	1707	V	11.572			
008	48192	8157	V	11.827	1	AR1016-1	0.107
009	7390	1334	V	13.010			
010	101599	15912	V	13.463	1	AR1016-2	0.104
011	6587	1074	V	13.880			
012	19531	4258	V	14.269			
013	36797	6116	V	14.491			
014	3488	1020	V	14.679			
015	173421	20296	V	14.997	1	AR1016-3	0.103
016	68790	9630	V	15.550	1	AR1016-4	0.104
018	30246	6201	V	16.012			
019	30092	7161	V	16.232			
020	35729	5770	V	16.406			
021	7646	2174	V	16.614			
022	2918	760	V	16.774			
023	42209	8789	V	17.341	1	AR1016-5	0.103
024	8447	2321	V	17.488			
025	4075	1197	V	17.726			
026	10739	2968	V	17.820			
027	3887	1151	V	17.944			
028	2183	504	V	18.287			
029	12889	2129	V	18.455			
030	2944	644	V	18.684			
031	33562	7017	V	18.873			
032	2370	669	V	19.031			
033	42033	7903	V	19.268			
037	6427	1288	V	20.666			
038	44405	8147	V	21.122			
039	3953	1359	V	21.238			
040	10536	2379	V	21.373			
041	104116	19840	V	21.724	1	AR1260-1	0.093
042	14541	3103	V	21.949			
043	127805	22298	V	22.190	1	AR1260-2	0.097
044	42192	8517	V	22.867			
045	13896	3688	V	23.130			
046	6938	2491	V	23.214			

SAMPLE: 08210135 .28 PAGE NUMBER: 2
DATE-TIME INJECTED : 08/22/01 14:31:40
DATE-TIME PROCESSED : 08/23/01 14:51:23

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
047	43723	8573	V	23.494			
048	67272	14237	V	23.638	1	AR1260-3	0.098
049	64912	14130	V	23.846			
050	36979	7369	V	24.056			
051	10972	2278	V	24.542			
052	76268	14976	V	25.034	1	AR1260-4	0.092
053	47254	7918	V	25.330			
054	8131	2245	V	25.513			
055	149180	28872	V	25.652	1	AR1260-5	0.098
056	6597	1019	V	26.524			
058	41171	7249	V	27.096			
059	91819	13027	V	27.304			
060	24814	1059	V	28.577			
061	15117	2384	V	29.308			
062	49967	5619		29.702			
063	12698	1681	V	31.720			
064	21699	614		32.638			
065	435208	44516		33.762	1	DCB	0.039

AR1660 2803 C

SAMPLE NO. : 08210135 .40
TEST NO. :
METHOD NO. : P3560 / P3560

INSTRUMENT: 35
DATE TIME: 08/23/01 00:06:58
PAGE NO. : 01

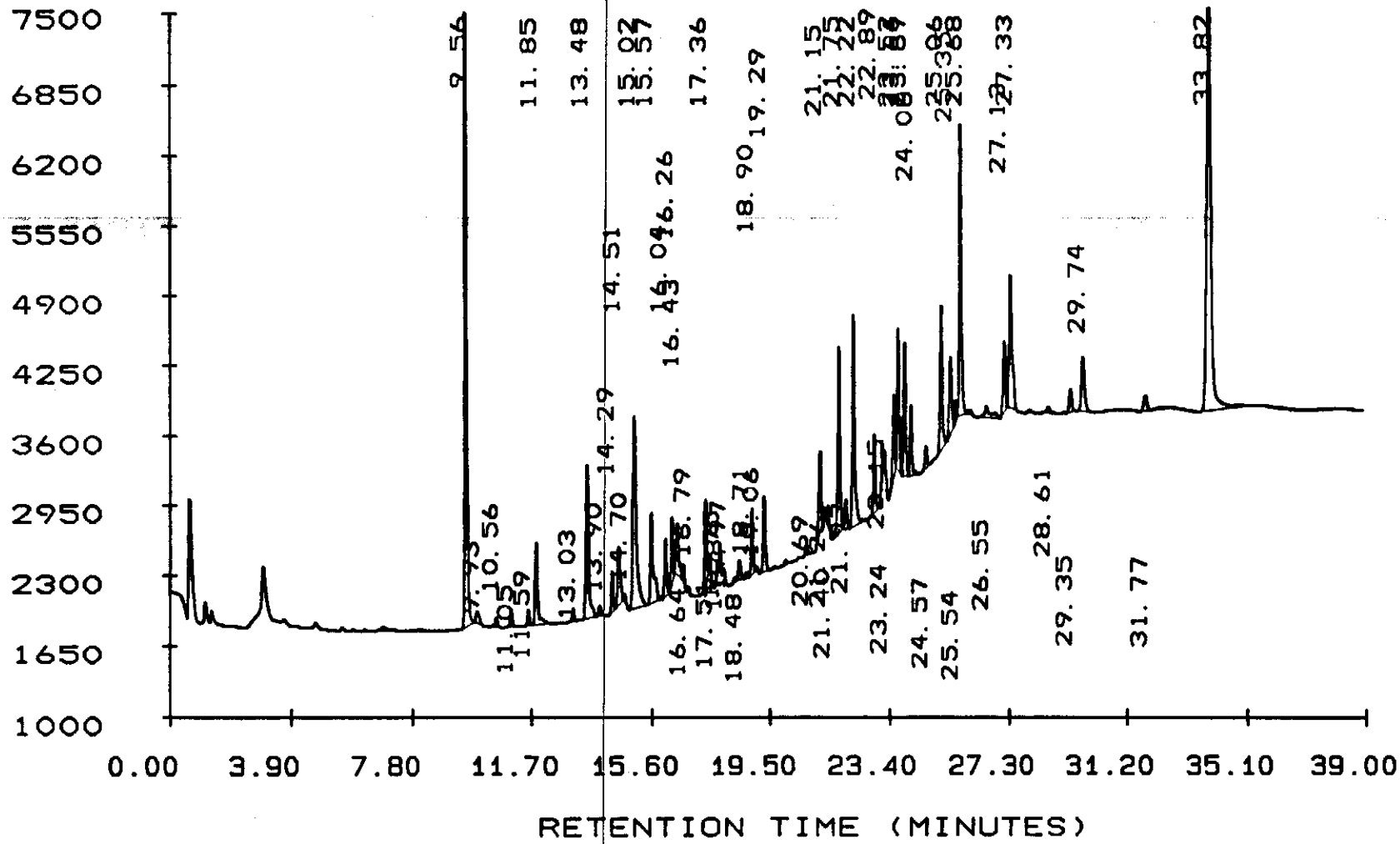

Y MAXIMUM: 7500.
Y MINIMUM: 1000.

START TIME: 0.00
END TIME: 39.00

Lionville Laboratory, Inc. 08/23/01 14:51:39

EXTERNAL STANDARD

SAMPLE: 08210135 .40 INST:35 VIAL:F0 SEQ NUMBER:040
TEST : DATE-TIME INJECTED : 08/23/01 00:06:58
COLLECTION TIME : 38.84 DATE-TIME PROCESSED : 08/23/01 14:51:39
METHOD: P3560 / P3560 REV #: 00219 ANALYST: KOBELM SAMP RATE: 1.56
CLIENT ID: SAMPLE VOL: 1.0 uL
CLIENT: COLUMN TYPE: DB608
LAB ID: AR1660 2803 C RAW FILE: RAW3:HN141139
SAMPLE WT : % MOISTURE : DILUTION FACTOR : 1.0000
COLUMN ID: 0.53 mm I CAL ID : TEMP:L082101.35/25

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
002	299148	58914	V	9.563	1	TCX	0.042
003	8815	1114	V	9.930			
004	5664	935	V	10.556			
005	9205	1691	V	11.048			
006	7878	1553	V	11.594			
007	45491	7418	V	11.850	1	AR1016-1	0.098
008	5758	1182	V	13.030			
009	92237	14146	V	13.485	1	AR1016-2	0.092
010	5402	933	V	13.902			
011	17516	3722	V	14.291			
012	32053	5226	V	14.511			
013	2961	834	V	14.703			
014	154499	17742	V	15.022	1	AR1016-3	0.090
015	59837	8168	V	15.575	1	AR1016-4	0.088
016	25592	5222	V	16.036			
017	25044	5904	V	16.256			
018	28732	4716	V	16.429			
019	6157	1712	V	16.637			
020	2329	612	V	16.794			
021	35701	7405	V	17.363	1	AR1016-5	0.086
022	7189	1936	V	17.510			
023	3424	1003	V	17.748			
024	9160	2476	V	17.842			
025	3064	914	V	17.966			
027	11046	1807	V	18.478			
028	2800	590	V	18.709			
029	28454	5958	V	18.896			
030	2315	607	V	19.056			
031	35730	6829	V	19.291			
033	5202	1055	V	20.689			
034	38592	7041	V	21.145			
035	2963	1067	V	21.259			
036	9446	2039	V	21.397			
037	88916	16995	V	21.747	1	AR1260-1	0.079
038	12560	2641	V	21.974			
039	109235	19292	V	22.216	1	AR1260-2	0.084
040	36002	7184	V	22.891			
041	11946	3230	V	23.152			
042	5943	2085	V	23.237			
043	38677	7635	V	23.519			

SAMPLE: 08210135 .40 PAGE NUMBER: 2
DATE-TIME INJECTED : 08/23/01 00:06:58
DATE-TIME PROCESSED : 08/23/01 14:51:39

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
044	60626	12976	V	23.662	1	AR1260-3	0.089
045	56739	12188	V	23.872			
046	32176	6434	V	24.081			
047	9073	1951	V	24.568			
048	67452	13113	V	25.058	1	AR1260-4	0.080
049	42554	6974	V	25.355			
050	6653	1838	V	25.538			
051	135174	26473	V	25.678	1	AR1260-5	0.090
053	16575	1094	V	26.547			
054	36888	6503	V	27.127			
055	84340	12132	V	27.333			
057	6402	605	V	28.612			
058	14116	2155	V	29.345			
059	37978	5027		29.741			
060	10722	1429		31.771			
061	392653	38723		33.817	1	DCB	0.034

AR1660 2803 C

SAMPLE NO. : 08210135 .49
TEST NO. :
METHOD NO. : P3560 / P3560

INSTRUMENT: 35
DATE TIME: 08/23/01 07:18:00
PAGE NO. : 01

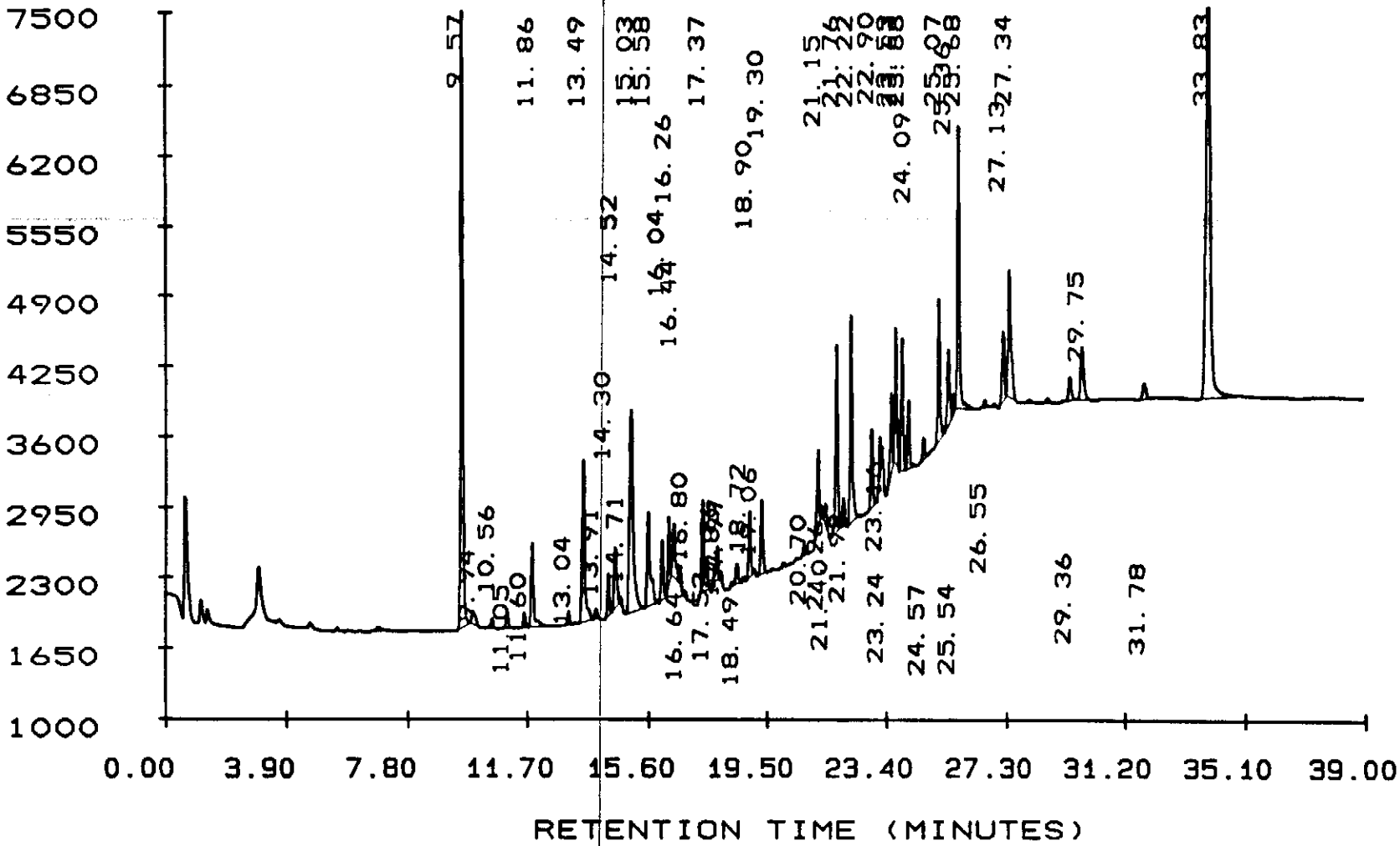

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Y MINIMUM: 1000.

START TIME: 0.00
END TIME: 39.00

Lionville Laboratory, Inc. 08/23/01 14:51:56

EXTERNAL STANDARD

SAMPLE: 08210135 .49 INST:35 VIAL:F0 SEQ NUMBER:049
TEST : DATE-TIME INJECTED : 08/23/01 07:18:00
COLLECTION TIME : 38.84 DATE-TIME PROCESSED : 08/23/01 14:51:56
METHOD: P3560 / P3560 REV #: 00219 ANALYST: KOBELM SAMP RATE: 1.56
CLIENT ID: SAMPLE VOL: 1.0 uL
CLIENT: COLUMN TYPE: DB608
LAB ID: AR1660 2803 C RAW FILE: RAW3:HN141193
SAMPLE WT : % MOISTURE : DILUTION FACTOR : 1.0000
COLUMN ID: 0.53 mm I CAL ID : TEMP:L082101.35/25

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
003	298072	57727	V	9.569	1	TCX	0.041
004	10189	1184	V	9.939			
005	5872	946	V	10.561			
006	9306	1682	V	11.053			
007	7904	1572	V	11.601			
008	47434	7593	V	11.856	1	AR1016-1	0.100
009	6142	1233	V	13.036			
010	97519	14771	V	13.491	1	AR1016-2	0.096
011	5849	963	V	13.908			
012	18320	3878	V	14.298			
013	33895	5503	V	14.517			
014	2940	848	V	14.710			
015	165331	18608	V	15.029	1	AR1016-3	0.095
016	63972	8602	V	15.582	1	AR1016-4	0.093
017	26792	5377	V	16.043			
018	26662	6239	V	16.262			
019	30437	4910	V	16.436			
020	6321	1852	V	16.644			
021	2418	645	V	16.800			
022	36959	7685	V	17.371	1	AR1016-5	0.090
023	7602	2030	V	17.517			
024	3178	916	V	17.755			
025	9657	2619	V	17.849			
026	3120	887	V	17.973			
028	11277	1807	V	18.485			
029	2630	566	V	18.717			
030	29008	6001	V	18.902			
031	2240	598	V	19.063			
032	36651	6820	V	19.298			
034	5155	1035	V	20.697			
035	37926	6949	V	21.152			
036	3028	1080	V	21.265			
037	9847	2147	V	21.402			
038	88665	16938	V	21.755	1	AR1260-1	0.079
039	12237	2580	V	21.981			
040	105435	18813	V	22.223	1	AR1260-2	0.082
041	35900	7154	V	22.898			
042	12000	3050	V	23.159			
043	5372	2031	V	23.243			
044	37400	7372	V	23.526			

SAMPLE: 08210135 .49 PAGE NUMBER: 2
DATE-TIME INJECTED : 08/23/01 07:18:00
DATE-TIME PROCESSED : 08/23/01 14:51:56

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
045	58468	12354	V	23.669	1	AR1260-3	0.085
046	55696	11986	V	23.879			
047	31673	6250	V	24.088			
048	9035	1919	V	24.575			
049	65878	12877	V	25.065	1	AR1260-4	0.079
050	41312	6876	V	25.363			
051	6922	1930	V	25.545			
052	139958	25560	V	25.685	1	AR1260-5	0.086
053	4532	745	V	26.555			
055	36151	6348	V	27.135			
056	81832	11577	V	27.342			
059	16894	2212	V	29.356			
060	35856	4792	V	29.752			
063	13012	1472	V	31.784			
065	379597	37839		33.830	1	DCB	0.033

AR1660 2801 A

SAMPLE NO. : 08210136 .04
TEST NO. :
METHOD NO. : P3660 / P3660

INSTRUMENT: 36
DATE TIME: 08/21/01 19:23:46
PAGE NO. : 01

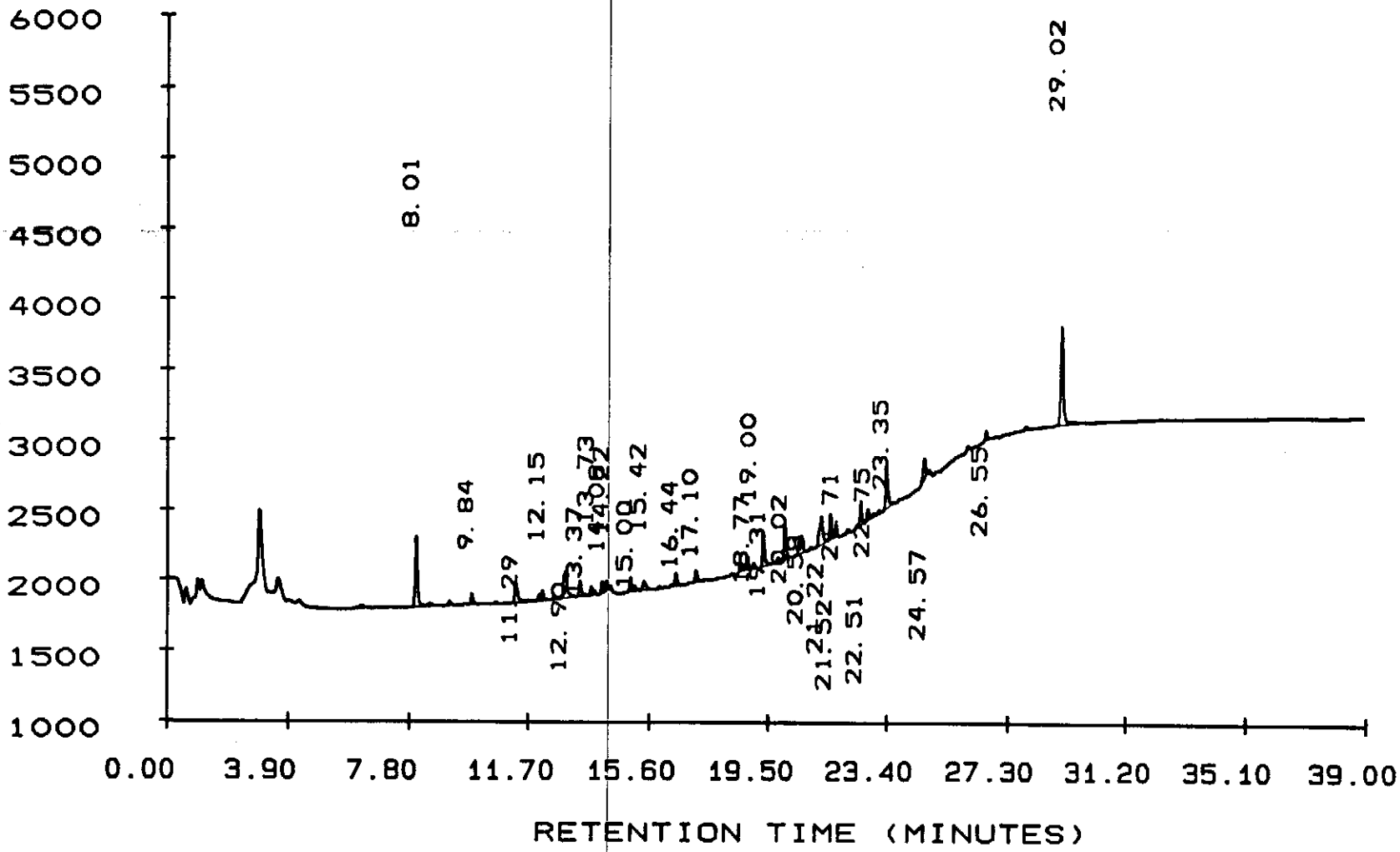

Y MAXIMUM: 6000.
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START TIME: 0.00
END TIME: 39.00

Lionville Laboratory, Inc. 08/23/01 14:53:22

EXTERNAL STANDARD

SAMPLE: 08210136 .04 INST:36 VIAL:F0 SEQ NUMBER:004
TEST : DATE-TIME INJECTED : 08/21/01 19:23:46
COLLECTION TIME : 38.84 DATE-TIME PROCESSED : 08/23/01 14:53:22
METHOD: P3660 / P3660 REV #: 00211 ANALYST: KOBELM SAMP RATE: 1.56
CLIENT ID: SAMPLE VOL: 1.0 uL
CLIENT: COLUMN TYPE: RTX1701
LAB ID: AR1660 2801 A RAW FILE: RAW3:HL141013
SAMPLE WT : % MOISTURE : DILUTION FACTOR : 1.0000
COLUMN ID: 0.53 mm I CAL ID : TEMP:L082101.36/25

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
003	33395	5060		8.013	1	TCX	0.007
005	5448	789	V	9.835	1	AR1016-1	0.020
007	12765	1464	V	11.290	1	AR1016-2	0.021
008	6480	734	V	12.148			
~~010~~	~~17542~~	~~1904~~	~~V~~	~~12.897~~	~~1~~	~~AR1016-3~~	~~0.021~~
011	7164	1120	V	13.370	1	AR1016-4	0.021
012	4644	611	V	13.730			
013	3445	814	V	14.076			
014	2783	685	V	14.223			
016	8301	1069	V	14.999	1	AR1016-5	0.023
017	5431	663	V	15.421			
019	6035	925	V	16.442			
020	5042	845	V	17.095			
023	5988	1033	V	18.775			
024	2974	445	V	18.999			
025	13307	2431	V	19.314	1	AR1260-1	0.021
027	14512	2537	V	20.022	1	AR1260-2	0.020
028	12026	1312	V	20.578			
029	17039	2048	V	21.224			
030	8319	1790	V	21.522	1	AR1260-3	0.021
031	3777	855	V	21.705			
033	8628	1728	V	22.511	1	AR1260-4	0.020
034	3929	833	V	22.751			
036	17590	3215	V	23.354	1	AR1260-5	0.019
037	8544	1417	V	24.575			
039	3667	679		26.554			
041	49487	6901		29.021	1	DCB	0.008

MPK	1033	18.775	AROCLOR-1260-1	0.045	RW:18.70-18.84
MPK	2431	19.314	AROCLOR-1260-2	0.042	RW:19.24-19.38
MPK	2537	20.022	AROCLOR-1260-3	0.041	RW:19.95-20.09
MPK	1312	20.578	AROCLOR-1260-4	0.041	RW:20.50-20.65
MPK	2048	21.224	AROCLOR-1260-5	0.041	RW:21.15-21.29
MPK	1790	21.522	AROCLOR-1260-6	0.041	RW:21.45-21.59
MPK	1728	22.511	AROCLOR-1260-7	0.040	RW:22.44-22.58
MPK	3215	23.354	AROCLOR-1260-8	0.039	RW:23.28-23.42
MPK	1417	24.575	AROCLOR-1260-9	0.040	RW:24.50-24.64
MPK	789	9.835	AROCLOR-1016-1	0.041	RW: 9.76- 9.90
MPK	1464	11.290	AROCLOR-1016-2	0.043	RW:11.22-11.36

0.04 8/23/01 NK222

SAMPLE: 08210136 .04 PAGE NUMBER: 2
DATE-TIME INJECTED : 08/21/01 19:23:46
DATE-TIME PROCESSED : 08/23/01 14:53:22

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL	
MPK		734		12.148		AROCLOR-1016-3	0.052	RW:12.08-12.22
MPK		1904		12.897		AROCLOR-1016-4	0.041	RW:12.83-12.97
MPK		1120		13.370		AROCLOR-1016-5	0.041	RW:13.30-13.44
MPK		814		14.076		AROCLOR-1016-6	0.041	RW:14.00-14.14
MPK		685		14.223		AROCLOR-1016-7	0.042	RW:14.15-14.29
MPK		1069		14.999		AROCLOR-1016-8	0.045	RW:14.93-15.07
MPK		663		15.421		AROCLOR-1016-9	0.039	RW:15.35-15.49

0.04

8/23/01
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AR1660 2802 B

SAMPLE NO. : 08210136 .05
TEST NO. :
METHOD NO. : P3660 / P3660

INSTRUMENT: 36
DATE TIME: 08/21/01 20:11:35
PAGE NO. : 01

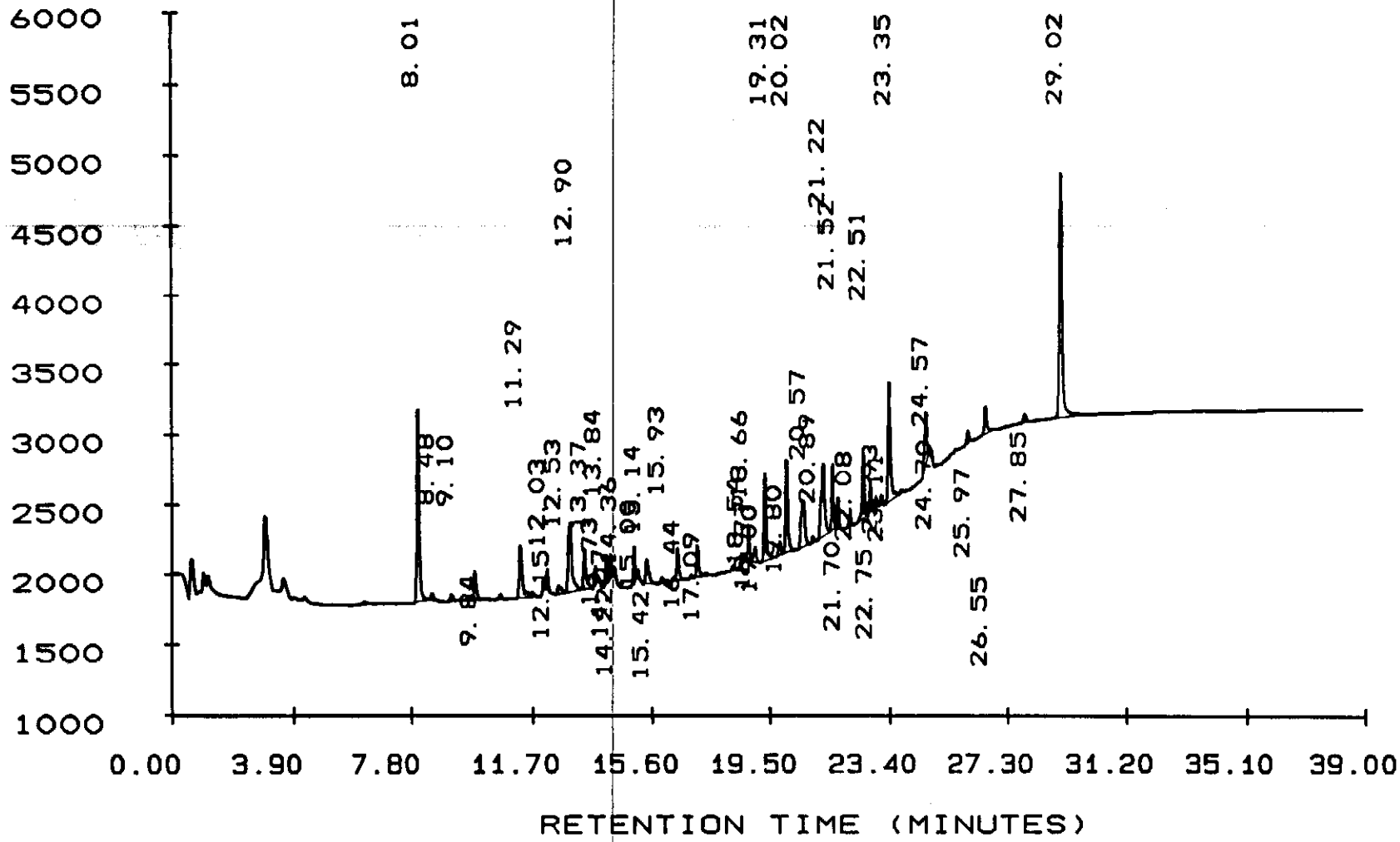

Y MAXIMUM: 6000.
Y MINIMUM: 1000.

START TIME: 0.00
END TIME: 39.00

Lionville Laboratory, Inc. 08/23/01 14:53:38

EXTERNAL STANDARD

SAMPLE: 08210136 .05
TEST :
COLLECTION TIME : 38.84
METHOD: P3660 / P3660 REV #: 00211 ANALYST: KOBELM
CLIENT ID:
CLIENT:
LAB ID: AR1660 2802 B
SAMPLE WT : % MOISTURE :
COLUMN ID: 0.53 mm I

INST:36 VIAL:F0 SEQ NUMBER:005
DATE-TIME INJECTED : 08/21/01 20:11:35
DATE-TIME PROCESSED : 08/23/01 14:53:38
SAMP RATE: 1.56
SAMPLE VOL: 1.0 uL
COLUMN TYPE: RTX1701
RAW FILE: RAW3:HL141015
DILUTION FACTOR : 1.0000
CAL ID : TEMP:L082101.36/25

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
003	75441	13625	V	8.013	1	TCX	0.020
004	3289	498	V	8.479			
005	3888	507	V	9.105			
007	13307	2047	V	9.835	1	AR1016-1	0.053
009	32107	3730	V	11.289	1	AR1016-2	0.055
~~010~~	~~3026~~	~~812~~	~~V~~	~~12.031~~			
011	6230	1466	V	12.148			
012	5126	671	V	12.528			
013	44333	4881	V	12.898	1	AR1016-3	0.053
014	18438	2869	V	13.369	1	AR1016-4	0.053
015	5123	1231	V	13.729			
016	1420	456	V	13.839			
017	8878	2096	V	14.075			
018	7012	1731	V	14.223			
019	4148	939	V	14.356			
020	10695	2450	V	14.999	1	AR1016-5	0.052
021	3041	710	V	15.135			
022	13280	1751	V	15.420			
023	3040	440	V	15.929			
024	14467	2304	V	16.441			
026	15212	2214	V	17.094			
028	3759	938	V	18.535			
029	1662	465	V	18.659			
030	10624	2440	V	18.775			
031	7291	1138	V	18.999			
032	34502	6165	V	19.314	1	AR1260-1	0.053
033	5443	999	V	19.804			
034	37098	6540	V	20.021	1	AR1260-2	0.052
035	30941	3369	V	20.575			
036	2082	492	V	20.891			
037	42178	5155	V	21.222			
038	21030	4579	V	21.521	1	AR1260-3	0.053
039	9523	2152	V	21.703			
040	3723	760	V	22.081			
041	23043	4502	V	22.510	1	AR1260-4	0.052
042	9702	2095	V	22.749			
043	2936	708	V	22.929			
044	3463	767	V	23.107			
045	50083	8406	V	23.352	1	AR1260-5	0.051
046	21613	3603	V	24.573			

SAMPLE: 08210136 .05 PAGE NUMBER: 2
DATE-TIME INJECTED : 08/21/01 20:11:35
DATE-TIME PROCESSED : 08/23/01 14:53:38

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL	
047	4619	679	V	24.699				
048	4447	879	V	25.969				
049	11844	1903		26.554				
050	3808	622	V	27.851				
051	122413	17188		29.020	1	DCB	0.021	
MPK		2440		18.775		AROCLOR-1260-1	0.106	RW:18.70-18.84
MPK		6165		19.314		AROCLOR-1260-2	0.107	RW:19.24-19.38
MPK		6540		20.021		AROCLOR-1260-3	0.104	RW:19.95-20.09
MPK		3369		20.575		AROCLOR-1260-4	0.104	RW:20.50-20.65
MPK		5155		21.222		AROCLOR-1260-5	0.104	RW:21.15-21.29
MPK		4579		21.521		AROCLOR-1260-6	0.105	RW:21.45-21.59
MPK		4502		22.510		AROCLOR-1260-7	0.104	RW:22.44-22.58
MPK		8406		23.352		AROCLOR-1260-8	0.102	RW:23.28-23.42
~~MPK~~		~~3603~~		~~24.573~~		~~AROCLOR-1260-9~~	~~0.102~~	~~RW:24.50-24.64~~
MPK		2047		9.835		AROCLOR-1016-1	0.106	RW: 9.76- 9.90
MPK		3730		11.289		AROCLOR-1016-2	0.109	RW:11.22-11.36
MPK		1466		12.148		AROCLOR-1016-3	0.104	RW:12.08-12.22
MPK		4881		12.898		AROCLOR-1016-4	0.105	RW:12.83-12.97
MPK		2869		13.369		AROCLOR-1016-5	0.105	RW:13.30-13.44
MPK		2096		14.075		AROCLOR-1016-6	0.105	RW:14.00-14.14
MPK		1731		14.223		AROCLOR-1016-7	0.107	RW:14.15-14.29
MPK		2450		14.999		AROCLOR-1016-8	0.104	RW:14.93-15.07
MPK		1751		15.420		AROCLOR-1016-9	0.103	RW:15.35-15.49

0.10

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AR1660 2803 C

SAMPLE NO. : 08210136 .06
TEST NO. :
METHOD NO. : P3660 / P3660

INSTRUMENT: 36
DATE TIME: 08/21/01 20:59:22
PAGE NO. : 01

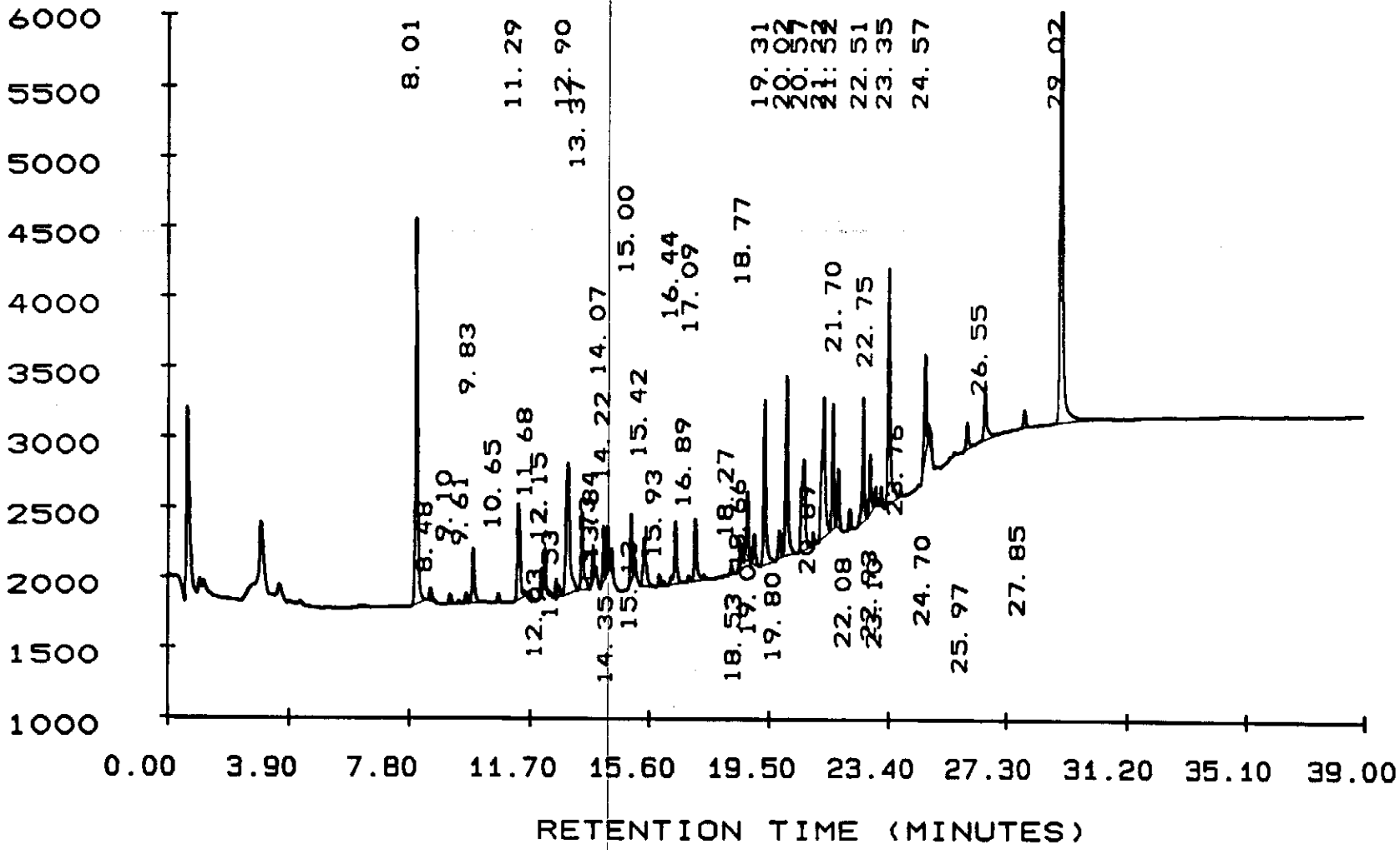

Y MAXIMUM: 6000.
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END TIME: 39.00

Lionville Laboratory, Inc. 08/23/01 14:53:53

EXTERNAL STANDARD

SAMPLE: 08210136 .06 INST:36 VIAL:F0 SEQ NUMBER:006
TEST : DATE-TIME INJECTED : 08/21/01 20:59:22
COLLECTION TIME : 38.84 DATE-TIME PROCESSED : 08/23/01 14:53:53
METHOD: P3660 / P3660 REV #: 00211 ANALYST: KOBELM SAMP RATE: 1.56
CLIENT ID: SAMPLE VOL: 1.0 uL
CLIENT: COLUMN TYPE: RTX1701
LAB ID: AR1660 2803 C RAW FILE: RAW3:HL141018
SAMPLE WT : % MOISTURE : DILUTION FACTOR : 1.0000
COLUMN ID: 0.53 mm I CAL ID : TEMP:L082101.36/25

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
003	148852	27228	V	8.012	1	TCX	0.040
004	6246	958	V	8.478			
005	4160	736	V	9.105			
007	3853	767	V	9.614			
008	24640	3856	V	9.834	1	AR1016-1	0.100
009	3338	653	V	10.647			
010	49306	6844	V	11.288	1	AR1016-2	0.100
011	1888	424	V	11.684			
012	5861	1570	V	12.029			
013	11836	2807	V	12.147			
014	9869	1294	V	12.526			
015	84294	9261	V	12.897	1	AR1016-3	0.100
016	35238	5451	V	13.368	1	AR1016-4	0.100
017	10272	2495	V	13.728			
018	2678	866	V	13.838			
019	17131	3984	V	14.074			
020	13274	3243	V	14.221			
021	7851	1791	V	14.354			
022	20472	4704	V	14.997	1	AR1016-5	0.100
023	5743	1368	V	15.134			
024	25370	3403	V	15.418			
025	6278	859	V	15.928			
026	28369	4381	V	16.440			
027	2376	492	V	16.891			
028	28077	4288	V	17.094			
029	4460	709	V	18.266			
030	7236	1809	V	18.533			
031	3306	920	V	18.657			
032	20116	4624	V	18.774			
033	13595	2146	V	18.996			
034	64985	11569	V	19.313	1	AR1260-1	0.100
035	10549	1964	V	19.802			
036	70662	12517	V	20.020	1	AR1260-2	0.100
037	59856	6458	V	20.575			
038	4055	959	V	20.890			
039	80449	9897	V	21.221			
040	40339	8720	V	21.520	1	AR1260-3	0.100
041	18407	4164	V	21.703			
042	7400	1476	V	22.080			
043	44676	8695	V	22.509	1	AR1260-4	0.100

SAMPLE: 08210136 .06 PAGE NUMBER: 2
DATE-TIME INJECTED : 08/21/01 20:59:22
DATE-TIME PROCESSED : 08/23/01 14:53:53

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL	
044	18670	4056	V	22.749				
045	5980	1428	V	22.929				
046	6600	1483	V	23.105				
047	97571	16488	V	23.352	1	AR1260-5	0.100	
048	2295	536	V	23.764				
049	41930	7067	V	24.571				
050	8955	1319	V	24.698				
052	11972	1890	V	25.967				
053	28102	3859	V	26.554				
054	9775	1248	V	27.851				
055	232038	33150		29.021	1	DCB	0.040	
MPK		4624		18.774		AROCLOR-1260-1	0.200	RW:18.70-18.84
MPK		11569		19.313		AROCLOR-1260-2	0.200	RW:19.24-19.38
MPK		12517		20.020		AROCLOR-1260-3	0.200	RW:19.95-20.09
MPK		6458		20.575		AROCLOR-1260-4	0.200	RW:20.50-20.65
MPK		9897		21.221		AROCLOR-1260-5	0.200	RW:21.15-21.29
MPK		8720		21.520		AROCLOR-1260-6	0.200	RW:21.45-21.59
MPK		8695		22.509		AROCLOR-1260-7	0.200	RW:22.44-22.58
MPK		16488		23.352		AROCLOR-1260-8	0.200	RW:23.28-23.42
MPK		7067		24.571		AROCLOR-1260-9	0.200	RW:24.50-24.64
MPK		3856		9.834		AROCLOR-1016-1	0.200	RW: 9.76- 9.90
MPK		6844		11.288		AROCLOR-1016-2	0.200	RW:11.22-11.36
MPK		2807		12.147		AROCLOR-1016-3	0.200	RW:12.08-12.22
MPK		9261		12.897		AROCLOR-1016-4	0.200	RW:12.83-12.97
MPK		5451		13.368		AROCLOR-1016-5	0.200	RW:13.30-13.44
MPK		3984		14.074		AROCLOR-1016-6	0.200	RW:14.00-14.14
MPK		3243		14.221		AROCLOR-1016-7	0.200	RW:14.15-14.29
MPK		4704		14.997		AROCLOR-1016-8	0.200	RW:14.93-15.07
MPK		3403		15.418		AROCLOR-1016-9	0.200	RW:15.35-15.49

AR1660 2804 D

SAMPLE NO. : 08210136 .07
TEST NO. :
METHOD NO. : P3660 / P3660

INSTRUMENT: 36
DATE TIME: 08/21/01 21:47:20
PAGE NO. : 01

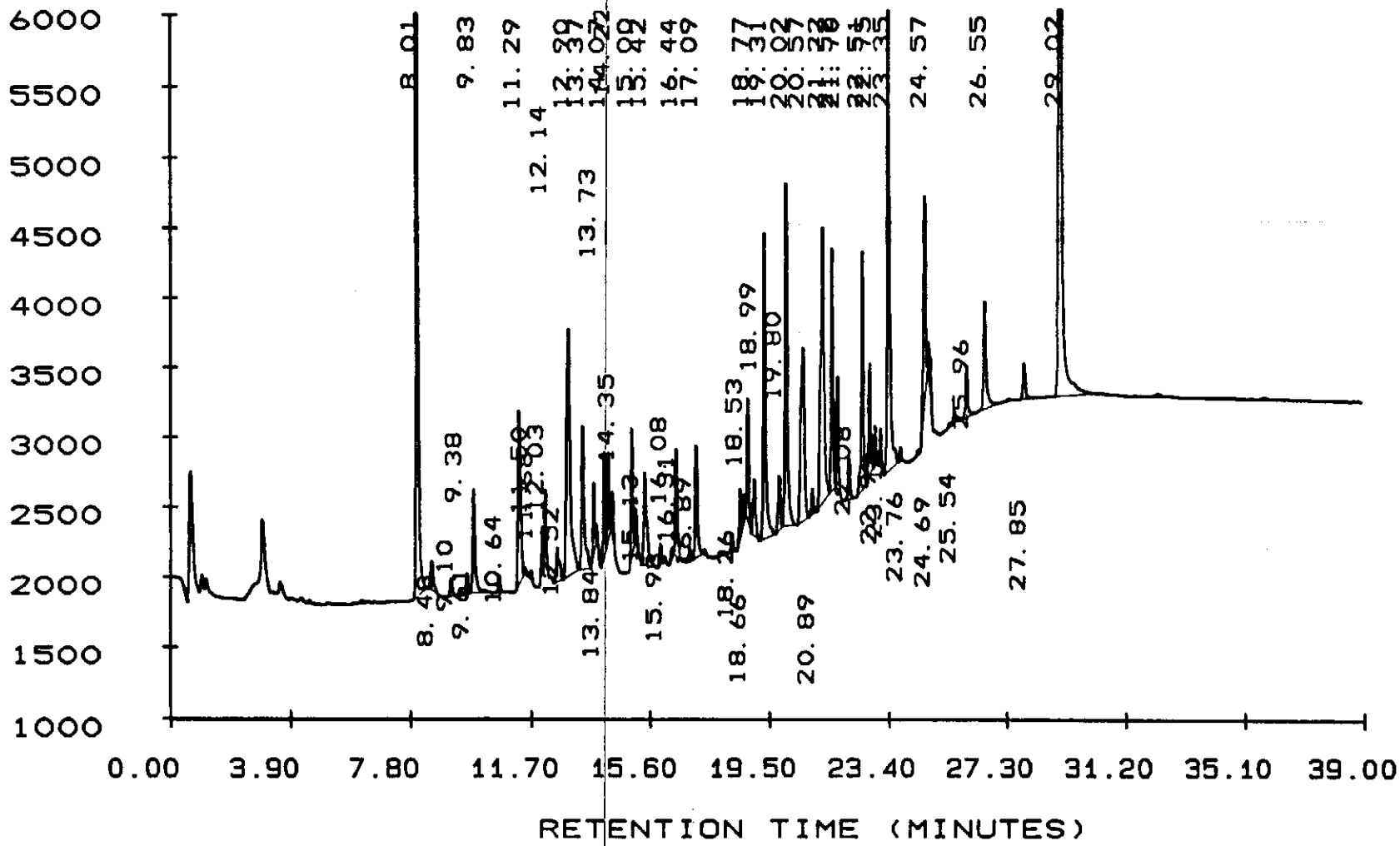

Y MAXIMUM: 6000.
Y MINIMUM: 1000.

START TIME: 0.00
END TIME: 39.00

Lionville Laboratory, Inc. 08/23/01 14:54:07

EXTERNAL STANDARD

SAMPLE: 08210136 .07 INST:36 VIAL:F0 SEQ NUMBER:007
TEST : DATE-TIME INJECTED : 08/21/01 21:47:20
COLLECTION TIME : 38.84 DATE-TIME PROCESSED : 08/23/01 14:54:07
METHOD: P3660 / P3660 REV #: 00211 ANALYST: KOBELM SAMP RATE: 1.56
CLIENT ID: SAMPLE VOL: 1.0 uL
CLIENT: COLUMN TYPE: RTX1701
LAB ID: AR1660 2804 D RAW FILE: RAW3:HL141019
SAMPLE WT : % MOISTURE : DILUTION FACTOR : 1.0000
COLUMN ID: 0.53 mm I CAL ID : TEMP:L082101.36/25

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
002	302587	57151	V	8.010	1	TCX	0.084
003	13602	2090	V	8.477			
004	6886	1263	V	9.103			
005	2413	493	V	9.384			
006	7203	1463	V	9.612			
007	45984	7288	V	9.831	1	AR1016-1	0.189
008	6086	1219	V	10.645			
009	82211	12279	V	11.286	1	AR1016-2	0.179
010	2583	583	V	11.496			
011	3128	767	V	11.682			
012	11302	3035	V	12.028			
013	22230	5297	V	12.145			
014	18259	2441	V	12.525			
015	158765	17549	V	12.897	1	AR1016-3	0.189
016	66528	10207	V	13.366	1	AR1016-4	0.187
017	19834	4852	V	13.726			
018	4912	1602	V	13.837			
019	31044	7269	V	14.072			
020	24892	5989	V	14.220			
021	14749	3396	V	14.353			
022	38708	8896	V	14.996	1	AR1016-5	0.189
023	11145	2679	V	15.133			
024	48442	6505	V	15.417			
025	6731	1486	V	15.927			
026	2187	513	V	16.081			
027	2976	782	V	16.307			
028	39085	7562	V	16.439			
029	4406	948	V	16.889			
030	44324	7899	V	17.093			
033	7213	1323	V	18.265			
034	13539	3358	V	18.533			
035	6423	1779	V	18.656			
036	37991	8597	V	18.773			
037	25448	4041	V	18.995			
038	122643	21517	V	19.312	1	AR1260-1	0.186
039	20877	3839	V	19.801			
040	135430	24047	V	20.018	1	AR1260-2	0.192
041	114986	12403	V	20.571			
042	7616	1823	V	20.888			
043	155159	19373	V	21.220			

SAMPLE: 08210136 .07 PAGE NUMBER: 2
DATE-TIME INJECTED : 08/21/01 21:47:20
DATE-TIME PROCESSED : 08/23/01 14:54:07

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
044	77610	16968	V	21.519	1	AR1260-3	0.195
045	35629	8058	V	21.701			
046	15238	3023	V	22.078			
047	86929	16727	V	22.507	1	AR1260-4	0.192
048	35824	7873	V	22.747			
049	11907	2815	V	22.927			
050	12474	2859	V	23.103			
051	193082	33215	V	23.350	1	AR1260-5	0.201
052	5048	1051	V	23.761			
054	84029	14085	V	24.569			
055	17140	2513	V	24.694			
056	6492	916	V	25.545			
057	21336	3641	V	25.965			
058	49897	7579	V	26.551			
060	15202	2491	V	27.848			
061	462240	64605		29.018	1	DCB	0.078

MPK	8597	18.773	AROCLOR-1260-1	0.372	RW:18.70-18.84
MPK	21517	19.312	AROCLOR-1260-2	0.372	RW:19.24-19.38
MPK	24047	20.018	AROCLOR-1260-3	0.384	RW:19.95-20.09
MPK	12403	20.571	AROCLOR-1260-4	0.384	RW:20.50-20.65
MPK	19373	21.220	AROCLOR-1260-5	0.391	RW:21.15-21.29
MPK	16968	21.519	AROCLOR-1260-6	0.389	RW:21.45-21.59
MPK	16727	22.507	AROCLOR-1260-7	0.385	RW:22.44-22.58
MPK	33215	23.350	AROCLOR-1260-8	0.403	RW:23.28-23.42
MPK	14085	24.569	AROCLOR-1260-9	0.399	RW:24.50-24.64
MPK	7288	9.831	AROCLOR-1016-1	0.378	RW: 9.76- 9.90
MPK	12279	11.286	AROCLOR-1016-2	0.359	RW:11.22-11.36
MPK	5297	12.145	AROCLOR-1016-3	0.377	RW:12.08-12.22
MPK	17549	12.897	AROCLOR-1016-4	0.379	RW:12.83-12.97
MPK	10207	13.366	AROCLOR-1016-5	0.375	RW:13.30-13.44
MPK	7269	14.072	AROCLOR-1016-6	0.365	RW:14.00-14.14
MPK	5989	14.220	AROCLOR-1016-7	0.369	RW:14.15-14.29
MPK	8896	14.996	AROCLOR-1016-8	0.378	RW:14.93-15.07
MPK	6505	15.417	AROCLOR-1016-9	0.382	RW:15.35-15.49

6.40

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AR1660 2805 E

SAMPLE NO. : 08210136 .08
TEST NO. :
METHOD NO. : P3660 / P3660

INSTRUMENT: 36
DATE TIME: 08/21/01 22:35:20
PAGE NO. : 01

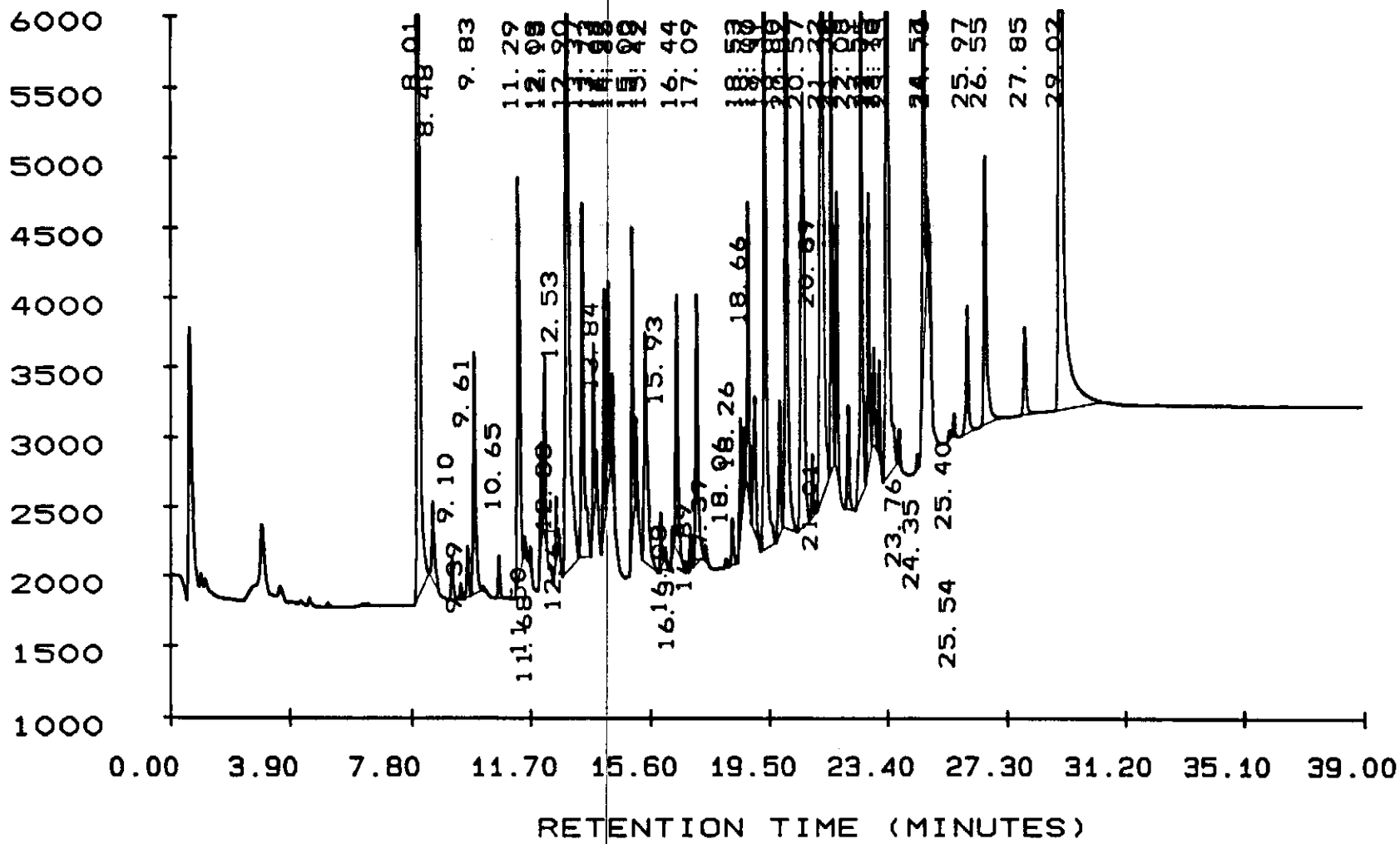

Y MAXIMUM: 6000.
Y MINIMUM: 1000.

START TIME: 0.00
END TIME: 39.00

Lionville Laboratory, Inc. 08/23/01 14:54:22

EXTERNAL STANDARD

SAMPLE: 08210136 .08 INST:36 VIAL:F0 SEQ NUMBER:008
TEST : DATE-TIME INJECTED : 08/21/01 22:35:20
COLLECTION TIME : 38.84 DATE-TIME PROCESSED : 08/23/01 14:54:22
METHOD: P3660 / P3660 REV #: 00211 ANALYST: KOBELM SAMP RATE: 1.56
CLIENT ID: SAMPLE VOL: 1.0 uL
CLIENT: COLUMN TYPE: RTX1701
LAB ID: AR1660 2805 E RAW FILE: RAW3:HL141021
SAMPLE WT : % MOISTURE : DILUTION FACTOR : 1.0000
COLUMN ID: 0.53 mm I CAL ID : TEMP:L082101.36/25

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
003	831429	150528	V	8.013	1	TCX	0.221
004	37782	5697	V	8.477			
005	15906	2931	V	9.105			
006	6435	1260	V	9.385			
007	18259	3621	V	9.615			
008	100333	17097	V	9.833	1	AR1016-1	0.443
010	16541	3015	V	10.647			
011	195064	28726	V	11.288	1	AR1016-2	0.420
012	7298	1565	V	11.498			
013	6892	1784	V	11.682			
014	27560	7441	V	12.029			
015	53713	12650	V	12.146			
016	2547	677	V	12.328			
017	16285	4098	V	12.526			
018	3215	1250	V	12.614			
019	395056	43702	V	12.898	1	AR1016-3	0.472
020	164704	25105	V	13.368	1	AR1016-4	0.461
021	50827	12336	V	13.728			
022	12259	3879	V	13.839			
023	72338	16846	V	14.073			
024	59285	14247	V	14.221			
025	36115	8291	V	14.354			
026	93142	21417	V	14.997	1	AR1016-5	0.455
027	27839	6612	V	15.133			
028	121754	16248	V	15.418			
029	16768	3774	V	15.928			
030	5370	1267	V	16.081			
031	7658	2019	V	16.308			
032	95669	18030	V	16.441			
033	11523	2434	V	16.890			
034	109546	18937	V	17.094			
035	3820	928	V	17.386			
036	2989	629	V	18.060			
037	17741	3314	V	18.264			
038	31937	7890	V	18.533			
039	15492	4344	V	18.656			
040	92486	20651	V	18.774			
041	61981	9796	V	18.996			
042	296202	50182	V	19.312	1	AR1260-1	0.434
043	52038	9513	V	19.802			

SAMPLE: 08210136 .08 PAGE NUMBER: 2
DATE-TIME INJECTED : 08/21/01 22:35:20
DATE-TIME PROCESSED : 08/23/01 14:54:22

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
044	327987	56962	V	20.019	1	AR1260-2	0.455
045	284487	30907	V	20.569			
046	18735	4466	V	20.889			
047	2391	810	V	21.011			
048	389805	48456	V	21.220			
049	190176	41165	V	21.520	1	AR1260-3	0.472
050	88468	19740	V	21.702			
051	38605	7372	V	22.079			
052	213843	40654	V	22.509	1	AR1260-4	0.468
053	87209	19067	V	22.748			
054	30254	6931	V	22.928			
055	30789	7031	V	23.104			
056	491668	84164	V	23.351	1	AR1260-5	0.510
057	11038	2620	V	23.761			
058	4480	1083	V	24.348			
059	211164	35884	V	24.571			
060	44525	6484	V	24.696			
061	3111	662	V	25.399			
062	6947	1644	V	25.542			
063	50498	8892	V	25.966			
064	119310	18814	V	26.552			
065	39352	6143	V	27.848			
066	1126867	154523		29.020	1	DCB	0.186

MPK	20651	18.774	AROCLOR-1260-1	0.893	RW:18.70-18.84
MPK	50182	19.312	AROCLOR-1260-2	0.868	RW:19.24-19.38
MPK	56962	20.019	AROCLOR-1260-3	0.910	RW:19.95-20.09
MPK	30907	20.569	AROCLOR-1260-4	0.957	RW:20.50-20.65
MPK	48456	21.220	AROCLOR-1260-5	0.979	RW:21.15-21.29
MPK	41165	21.520	AROCLOR-1260-6	0.944	RW:21.45-21.59
MPK	40654	22.509	AROCLOR-1260-7	0.935	RW:22.44-22.58
MPK	84164	23.351	AROCLOR-1260-8	1.021	RW:23.28-23.42
MPK	35884	24.571	AROCLOR-1260-9	1.016	RW:24.50-24.64
MPK	17097	9.833	AROCLOR-1016-1	0.887	RW: 9.76- 9.90
MPK	28726	11.288	AROCLOR-1016-2	0.839	RW:11.22-11.36
MPK	12650	12.146	AROCLOR-1016-3	0.901	RW:12.08-12.22
MPK	43702	12.898	AROCLOR-1016-4	0.944	RW:12.83-12.97
MPK	25105	13.368	AROCLOR-1016-5	0.921	RW:13.30-13.44
MPK	16846	14.073	AROCLOR-1016-6	0.846	RW:14.00-14.14
MPK	14247	14.221	AROCLOR-1016-7	0.879	RW:14.15-14.29
MPK	21417	14.997	AROCLOR-1016-8	0.911	RW:14.93-15.07
MPK	16248	15.418	AROCLOR-1016-9	0.955	RW:15.35-15.49

1.0
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AR1221 1108

SAMPLE NO. : 08210136 .09

TEST NO. :

METHOD NO. : P36 / P36

INSTRUMENT: 36

DATE TIME: 08/21/01 23:23:31

PAGE NO. : 01

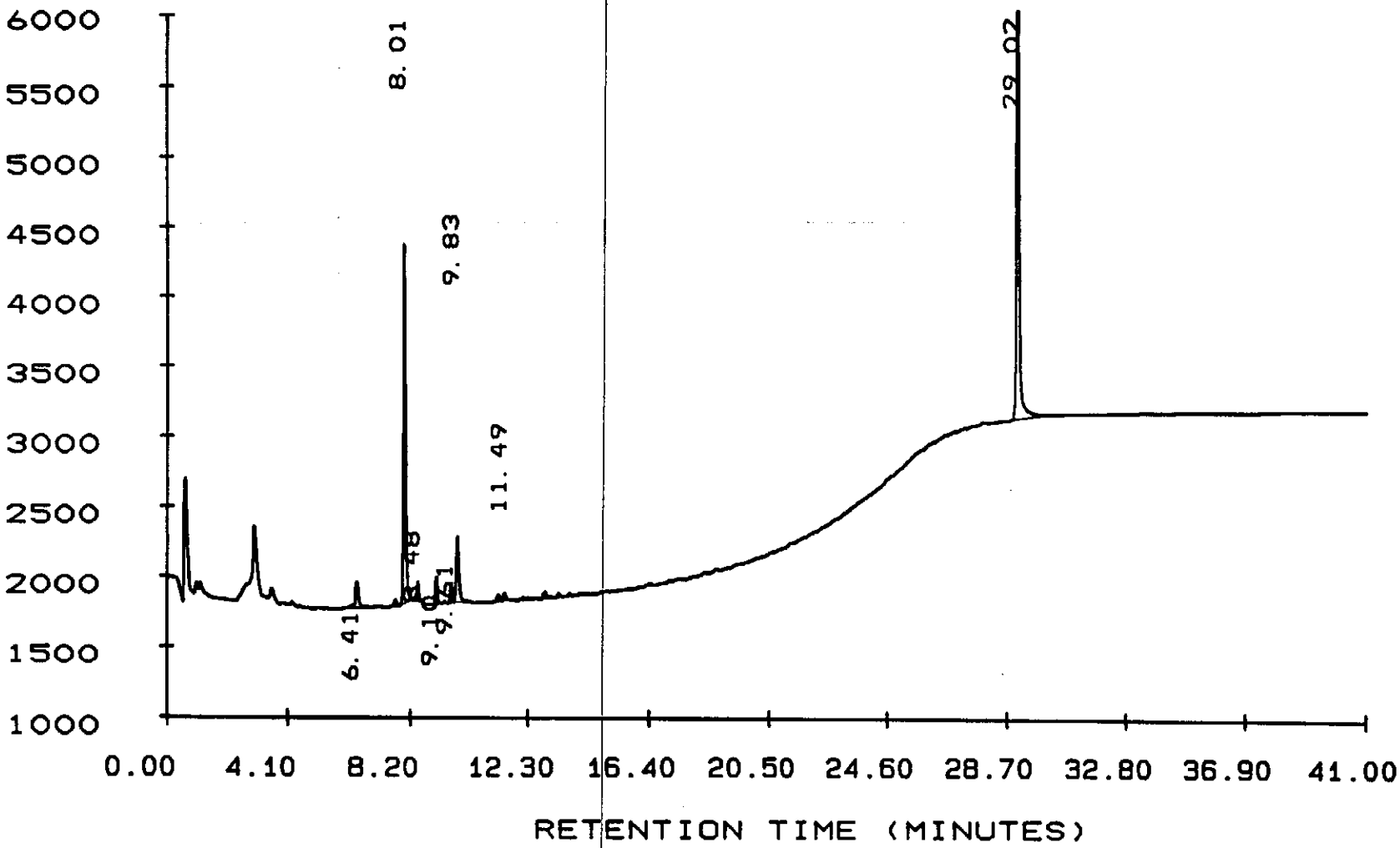

Y MAXIMUM: 6000.

Y MINIMUM: 1000.

START TIME: 0.00

END TIME: 41.00

Lionville Laboratory, Inc. 08/23/01 15:01:47

EXTERNAL STANDARD

SAMPLE: 08210136 .09 INST:36 VIAL:F0 SEQ NUMBER:009
TEST : DATE-TIME INJECTED : 08/21/01 23:23:31
COLLECTION TIME : 40.97 DATE-TIME PROCESSED : 08/23/01 15:01:47
METHOD: P36 / PCB36 REV #: 00212 ANALYST: KOBELM SAMP RATE: 1.56
CLIENT ID: SAMPLE VOL: 1.0 uL
CLIENT: COLUMN TYPE: RTX1701
LAB ID: AR1221 1108 RAW FILE: RAW3:HL141024
SAMPLE WT : % MOISTURE : DILUTION FACTOR : 1.0000
COLUMN ID: 0.53 mm I CAL ID : TEMP:L082101.36/25

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
001	16704	1807		6.409			
002	2857	461	V	7.713			
003	140830	25327	V	8.011	1	TCX	0.037
004	8456	1172	V	8.478			
005	10443	1909	V	9.105			
007	7133	1403	V	9.614			
008	31526	4631		9.834			
009	3718	463	V	11.277			
010	3925	537	V	11.492			
012	4203	453	V	12.899			
019	240274	34226		29.019	1	DCB	0.041

MPK	1807	6.409	AROCLOR-1221-1	0.200	RW: 6.34- 6.48
MPK	461	7.713	AROCLOR-1221-2	0.200	RW: 7.64- 7.78
MPK	1172	8.478	AROCLOR-1221-3	0.200	RW: 8.41- 8.55
MPK	1909	9.105	AROCLOR-1221-4	0.200	RW: 9.03- 9.17
MPK	1403	9.614	AROCLOR-1221-5	0.200	RW: 9.54- 9.68
MPK	4631	9.834	AROCLOR-1221-6	0.200	RW: 9.76- 9.90
MPK	463	11.277	AROCLOR-1221-7	0.200	RW:11.21-11.35
MPK	537	11.492	AROCLOR-1221-8	0.200	RW:11.42-11.56

238

AR1232 1205

SAMPLE NO. : 08210136 . 10

TEST NO. :

METHOD NO. : P36 / P36

INSTRUMENT: 36

DATE TIME: 08/22/01 00:11:18

PAGE NO. : 01

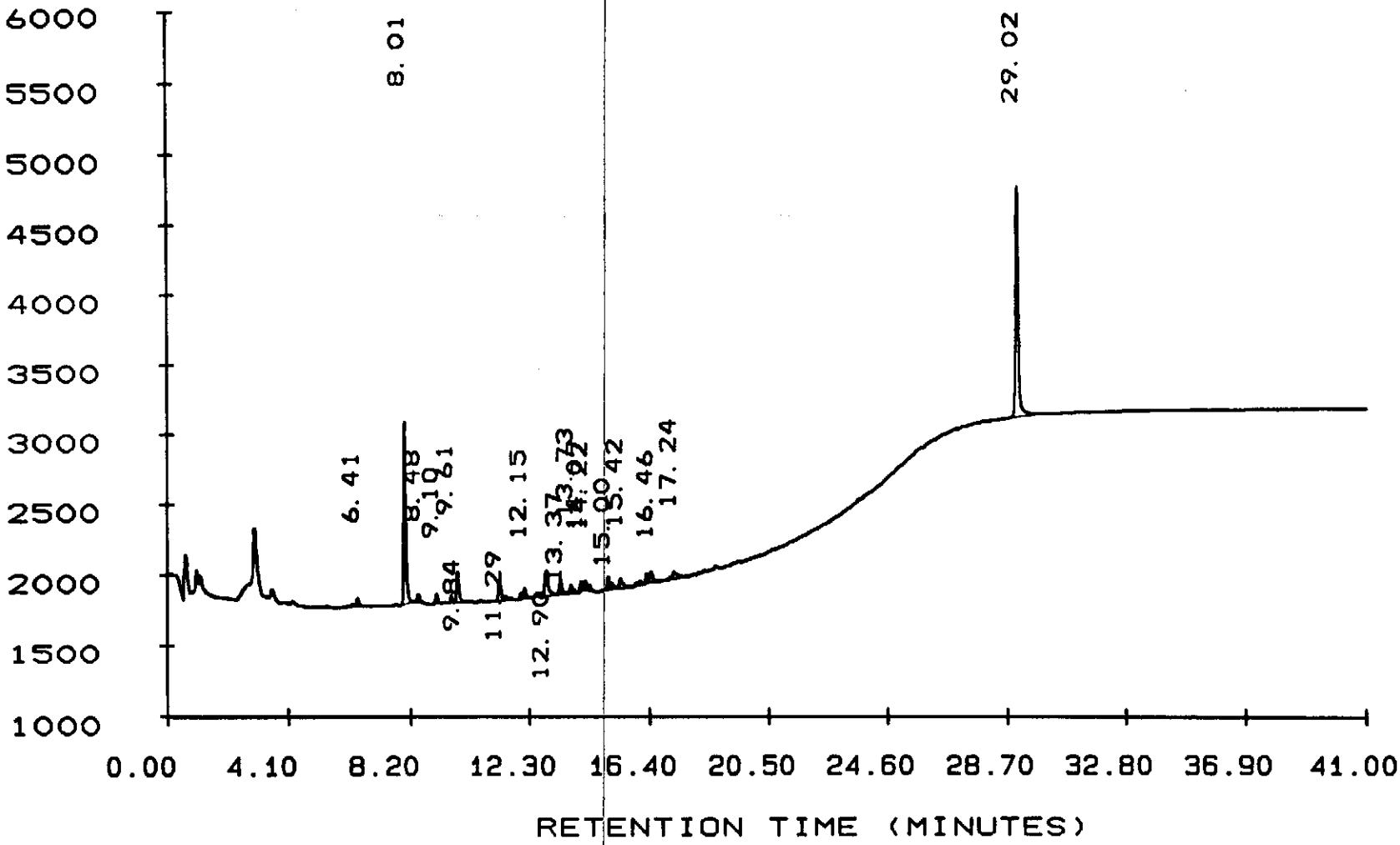

Y MAXIMUM: 6000.

Y MINIMUM: 1000.

START TIME: 0.00

END TIME: 41.00

Lionville Laboratory, Inc. 08/23/01 15:01:59

EXTERNAL STANDARD

SAMPLE: 08210136 .10 INST:36 VIAL:F0 SEQ NUMBER:010
TEST : DATE-TIME INJECTED : 08/22/01 00:11:18
COLLECTION TIME : 40.97 DATE-TIME PROCESSED : 08/23/01 15:01:59
METHOD: P36 / PCB36 REV #: 00212 ANALYST: KOBELM SAMP RATE: 1.56
CLIENT ID: SAMPLE VOL: 1.0 uL
CLIENT: COLUMN TYPE: RTX1701
LAB ID: AR1232 1205 RAW FILE: RAW3:HM141026
SAMPLE WT : % MOISTURE : DILUTION FACTOR : 1.0000
COLUMN ID: 0.53 mm I CAL ID : TEMP:L082101.36/25

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
001	8451	626		6.411			
002	69376	12813	V	8.013	1	TCX	0.019
003	4286	607	V	8.478			
004	3990	728	V	9.105			
005	2750	561	V	9.614			
006	14506	2151	V	9.835			
008	14179	1461	V	11.287			
009	6633	739	V	12.147			
011	16777	1802	V	12.898			
012	6686	1041	V	13.369			
013	4230	584	V	13.729			
014	2848	673	V	14.074			
015	2403	584	V	14.222			
017	8059	937	V	14.997			
018	5500	658	V	15.420			
020	2239	492	V	16.310			
021	3028	563	V	16.460			
022	6974	516		17.245			
024	116246	16250		29.018	1	DCB	0.020

MPK	728	9.105	AROCLOR-1232-1	0.100	RW: 9.03- 9.17
MPK	2151	9.835	AROCLOR-1232-2	0.100	RW: 9.77- 9.90
MPK	1461	11.287	AROCLOR-1232-3	0.100	RW:11.22-11.36
MPK	739	12.147	AROCLOR-1232-4	0.100	RW:12.08-12.22
MPK	1802	12.898	AROCLOR-1232-5	0.100	RW:12.83-12.97
MPK	1041	13.369	AROCLOR-1232-6	0.100	RW:13.30-13.44
MPK	673	14.074	AROCLOR-1232-7	0.100	RW:14.00-14.14
MPK	937	14.997	AROCLOR-1232-8	0.100	RW:14.93-15.07

AR1242 1304

SAMPLE NO. : 08210136 . 11

TEST NO. :

METHOD NO. : P36 / P36

INSTRUMENT: 36

DATE TIME: 08/22/01 00:59:08

PAGE NO. : 01

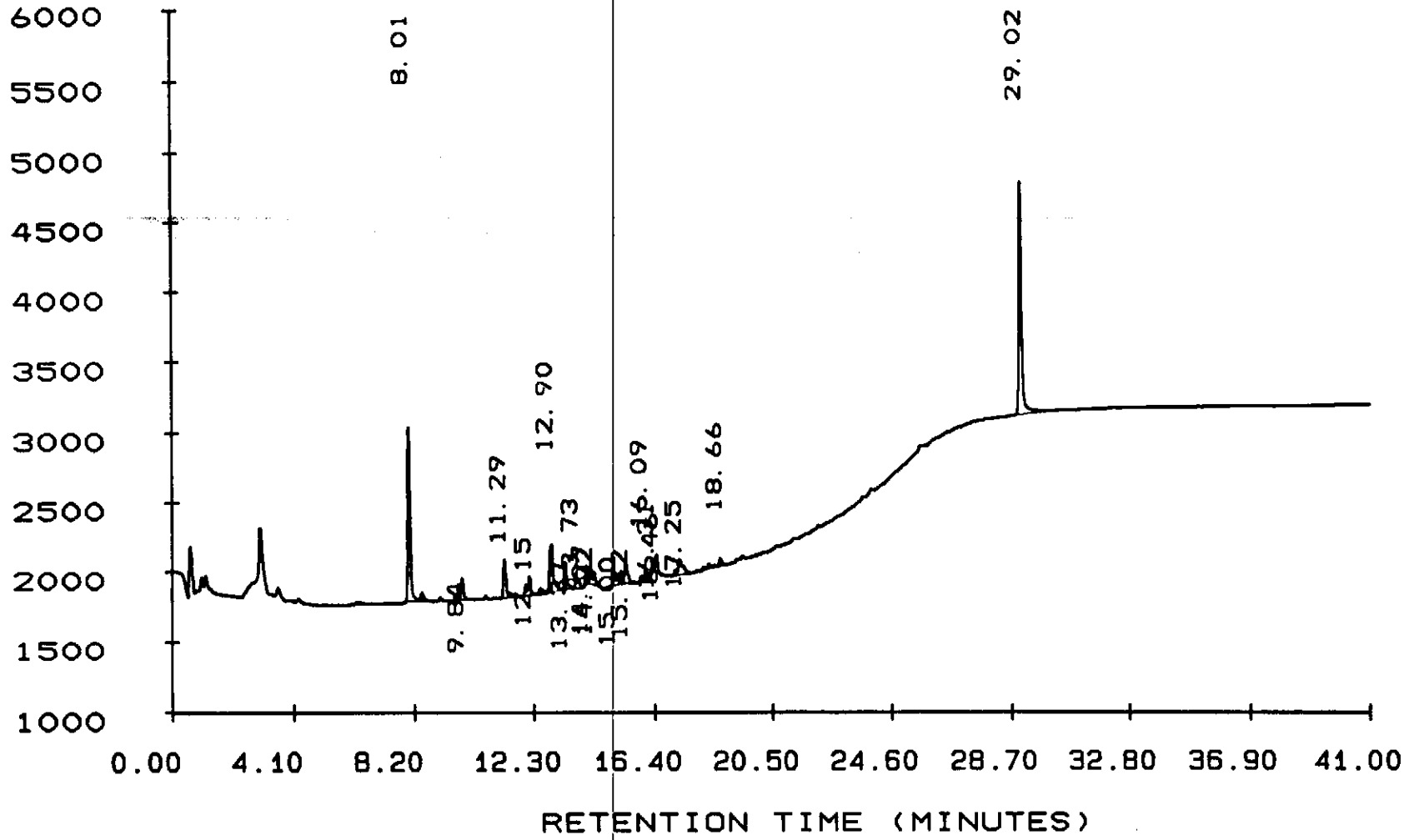

Y MAXIMUM: 6000.

Y MINIMUM: 1000.

START TIME: 0.00

END TIME: 41.00

240

Lionville Laboratory, Inc. 08/23/01 15:02:11

EXTERNAL STANDARD

SAMPLE: 08210136 .11 INST:36 VIAL:F0 SEQ NUMBER:011
TEST : DATE-TIME INJECTED : 08/22/01 00:59:08
COLLECTION TIME : 40.97 DATE-TIME PROCESSED : 08/23/01 15:02:11
METHOD: P36 / PCB36 REV #: 00212 ANALYST: KOBELM SAMP RATE: 1.56
CLIENT ID: SAMPLE VOL: 1.0 uL
CLIENT: COLUMN TYPE: RTX1701
LAB ID: AR1242 1304 RAW FILE: RAW3:HM141027
SAMPLE WT : % MOISTURE : DILUTION FACTOR : 1.0000
COLUMN ID: 0.53 mm I CAL ID : TEMP:L082101.36/25

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
002	71186	12392	V	8.013	1	TCX	0.018
003	3300	507	V	8.475			
006	10528	1547	V	9.835			
008	24128	2735	V	11.289			
009	2167	576	V	12.030			
010	4551	1067	V	12.147			
011	3673	468	V	12.527			
012	31897	3399	V	12.897			
013	13008	1980	V	13.369			
014	8307	1093	V	13.728			
015	6102	1434	V	14.074			
016	5092	1235	V	14.222			
017	3005	680	V	14.355			
018	7772	1783	V	14.997			
019	2715	547	V	15.134			
020	11740	1462	V	15.419			
021	1854	424	V	15.930			
022	3146	639	V	16.085			
023	4847	1113	V	16.309			
024	6358	1201	V	16.457			
025	15489	1108	V	17.246			
027	4164	559	V	18.659			
029	116597	16344		29.017	1	DCB	0.020

MPK	1547	9.835	AROCLOR-1242-1	0.100	RW: 9.77- 9.90
MPK	2735	11.289	AROCLOR-1242-2	0.100	RW:11.22-11.36
MPK	3399	12.897	AROCLOR-1242-3	0.100	RW:12.83-12.97
MPK	1980	13.369	AROCLOR-1242-4	0.100	RW:13.30-13.44
MPK	1434	14.074	AROCLOR-1242-5	0.100	RW:14.00-14.14
MPK	1235	14.222	AROCLOR-1242-6	0.100	RW:14.15-14.29
MPK	1783	14.997	AROCLOR-1242-7	0.100	RW:14.93-15.07
MPK	1462	15.419	AROCLOR-1242-8	0.100	RW:15.35-15.49

AR1248 1101

242

SAMPLE NO. : 08210136 . 12

TEST NO. :

METHOD NO. : P36 / P36

INSTRUMENT: 36

DATE TIME: 08/22/01 01:46:55

PAGE NO. : 01

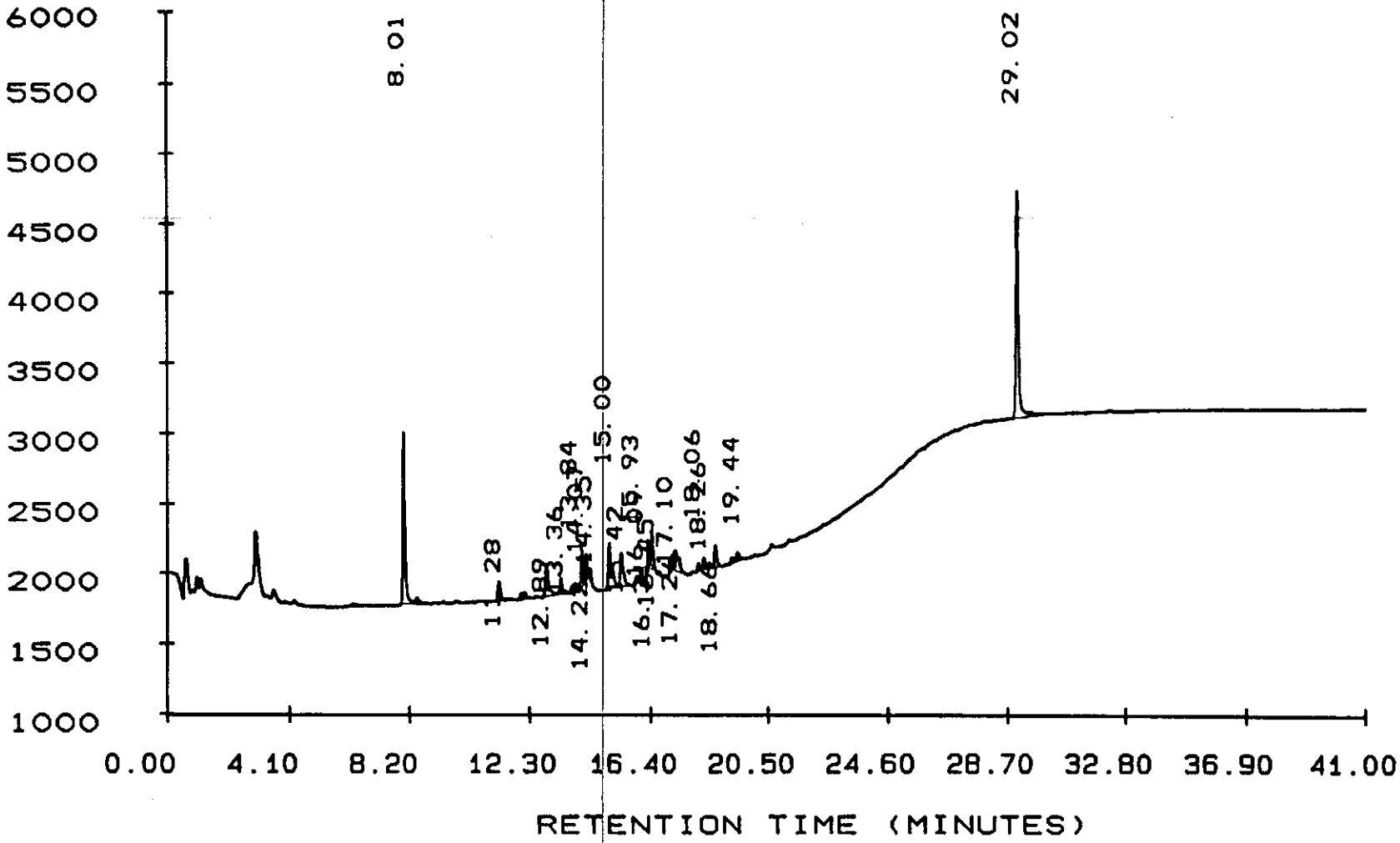

Y MAXIMUM: 6000.

Y MINIMUM: 1000.

START TIME: 0.00

END TIME: 41.00

Lionville Laboratory, Inc. 08/23/01 15:02:25

EXTERNAL STANDARD

SAMPLE: 08210136 .12 INST:36 VIAL:F0 SEQ NUMBER:012
TEST : DATE-TIME INJECTED : 08/22/01 01:46:55
COLLECTION TIME : 40.97 DATE-TIME PROCESSED : 08/23/01 15:02:25
METHOD: P36 / PCB36 REV #: 00212 ANALYST: KOBELM SAMP RATE: 1.56
CLIENT ID: SAMPLE VOL: 1.0 uL
CLIENT: COLUMN TYPE: RTX1701
LAB ID: AR1248 1101 RAW FILE: RAW3:HM141030
SAMPLE WT : % MOISTURE : DILUTION FACTOR : 1.0000
COLUMN ID: 0.53 mm I CAL ID : TEMP:L082101.36/25

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
002	69054	12066	V	8.010	1	TCX	0.018
006	10830	1368	V	11.284			
007	5280	498	V	12.147			
008	19730	2014	V	12.885			
009	7718	1131	V	13.360			
010	5536	665	V	13.839			
011	11526	2679	V	14.074			
012	7573	1850	V	14.221			
013	3935	918	V	14.353			
014	12744	2866	V	14.997			
015	2897	768	V	15.131			
016	17990	2388	V	15.419			
017	2753	628	V	15.931			
018	5180	1013	V	16.086			
019	8668	2008	V	16.309			
020	12065	2298	V	16.454			
021	3769	923	V	17.095			
022	17265	1485	V	17.261			
023	3010	590	V	18.062			
024	4096	817	V	18.264			
025	2067	439	V	18.462			
026	9229	1528	V	18.659			
028	3533	537	V	19.436			
031	115132	16014		29.018	1	DCB	0.019

MPK	2014	12.885	AROCLOR-1248-1	0.100	RW:12.82-12.95
MPK	2679	14.074	AROCLOR-1248-2	0.100	RW:14.00-14.14
MPK	1850	14.221	AROCLOR-1248-3	0.100	RW:14.15-14.29
MPK	2866	14.997	AROCLOR-1248-4	0.100	RW:14.93-15.07
MPK	2388	15.419	AROCLOR-1248-5	0.100	RW:15.35-15.49
MPK	2008	16.309	AROCLOR-1248-6	0.100	RW:16.24-16.38
MPK	2298	16.454	AROCLOR-1248-7	0.100	RW:16.38-16.52
MPK	1528	18.659	AROCLOR-1248-8	0.100	RW:18.59-18.73

AR1254 9403 C

SAMPLE NO. : 08210136 . 13
TEST NO. :
METHOD NO. : P36 / P36

INSTRUMENT: 36
DATE TIME: 08/22/01 02:34:43
PAGE NO. : 01

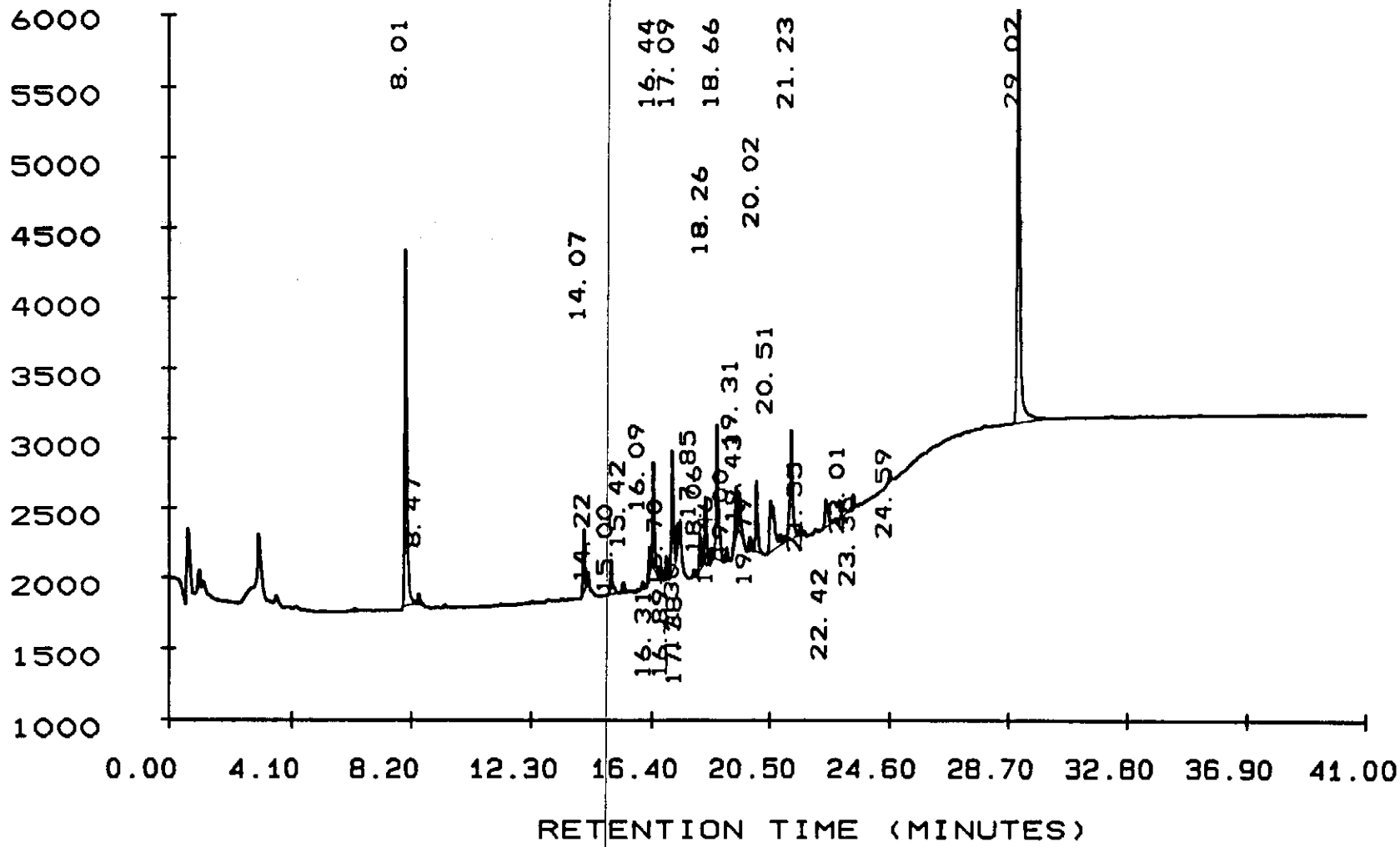

Y MAXIMUM: 6000.
Y MINIMUM: 1000.

START TIME: 0.00
END TIME: 41.00

Lionville Laboratory, Inc. 08/23/01 15:02:38

EXTERNAL STANDARD

SAMPLE: 08210136 .13 INST:36 VIAL:F0 SEQ NUMBER:013
TEST : DATE-TIME INJECTED : 08/22/01 02:34:43
COLLECTION TIME : 40.97 DATE-TIME PROCESSED : 08/23/01 15:02:38
METHOD: P36 / PCB36 REV #: 00212 ANALYST: KOBELM SAMP RATE: 1.56
CLIENT ID: SAMPLE VOL: 1.0 uL
CLIENT: COLUMN TYPE: RTX1701
LAB ID: AR1254 9403 C RAW FILE: RAW3:HM141031
SAMPLE WT : % MOISTURE : DILUTION FACTOR : 1.0000
COLUMN ID: 0.53 mm I CAL ID : TEMP:L082101.36/25

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
002	143356	25150	V	8.010	1	TCX	0.037
003	5164	760	V	8.470			
007	19457	4362	V	14.073			
008	3808	1011	V	14.216			
009	15230	2425	V	14.997			
010	5549	772	V	15.421			
011	2970	511	V	16.085			
012	7126	1819	V	16.307			
013	38902	7580	V	16.438			
014	4605	1047	V	16.703			
015	7910	1690	V	16.888			
016	43817	8499	V	17.092			
017	5262	1508	V	17.296			
018	5739	1772	V	17.382			
019	2845	560	V	17.855			
020	14176	2705	V	18.060			
021	24301	4820	V	18.263			
022	6671	1032	V	18.462			
023	59277	9515	V	18.656			
024	5165	833	V	18.996			
025	16102	3463	V	19.309			
026	16279	2923	V	19.431			
027	5770	1040	V	19.795			
028	27955	5023	V	20.019			
029	37858	3588	V	20.508			
030	2519	561	V	20.850			
031	1526	409	V	21.010			
032	54913	7714	V	21.225			
033	3814	706	V	21.551			
036	14044	1962	V	22.419			
038	6264	661	V	23.014			
039	6172	1034		23.352			
040	3995	693		24.590			
041	231503	32369		29.017	1	DCB	0.039

MPK	4362	14.073	AROCLOR-1254-1	0.200	RW:14.00-14.14
MPK	7580	16.438	AROCLOR-1254-2	0.200	RW:16.37-16.51
MPK	8499	17.092	AROCLOR-1254-3	0.200	RW:17.02-17.16
MPK	4820	18.263	AROCLOR-1254-4	0.200	RW:18.19-18.33

SAMPLE: 08210136 .13 PAGE NUMBER: 2
DATE-TIME INJECTED : 08/22/01 02:34:43
DATE-TIME PROCESSED : 08/23/01 15:02:38

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL	
MPK		9515		18.656		AROCLOR-1254-5	0.200	RW:18.59-18.73
MPK		5023		20.019		AROCLOR-1254-6	0.200	RW:19.95-20.09
MPK		3588		20.508		AROCLOR-1254-7	0.200	RW:20.44-20.58
MPK		7714		21.225		AROCLOR-1254-8	0.200	RW:21.15-21.30

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AR1660 2803 C

SAMPLE NO. : 08210136 . 28
TEST NO. :
METHOD NO. : P3660 / P3660

INSTRUMENT: 36
DATE TIME: 08/22/01 14:31:41
PAGE NO. : 01

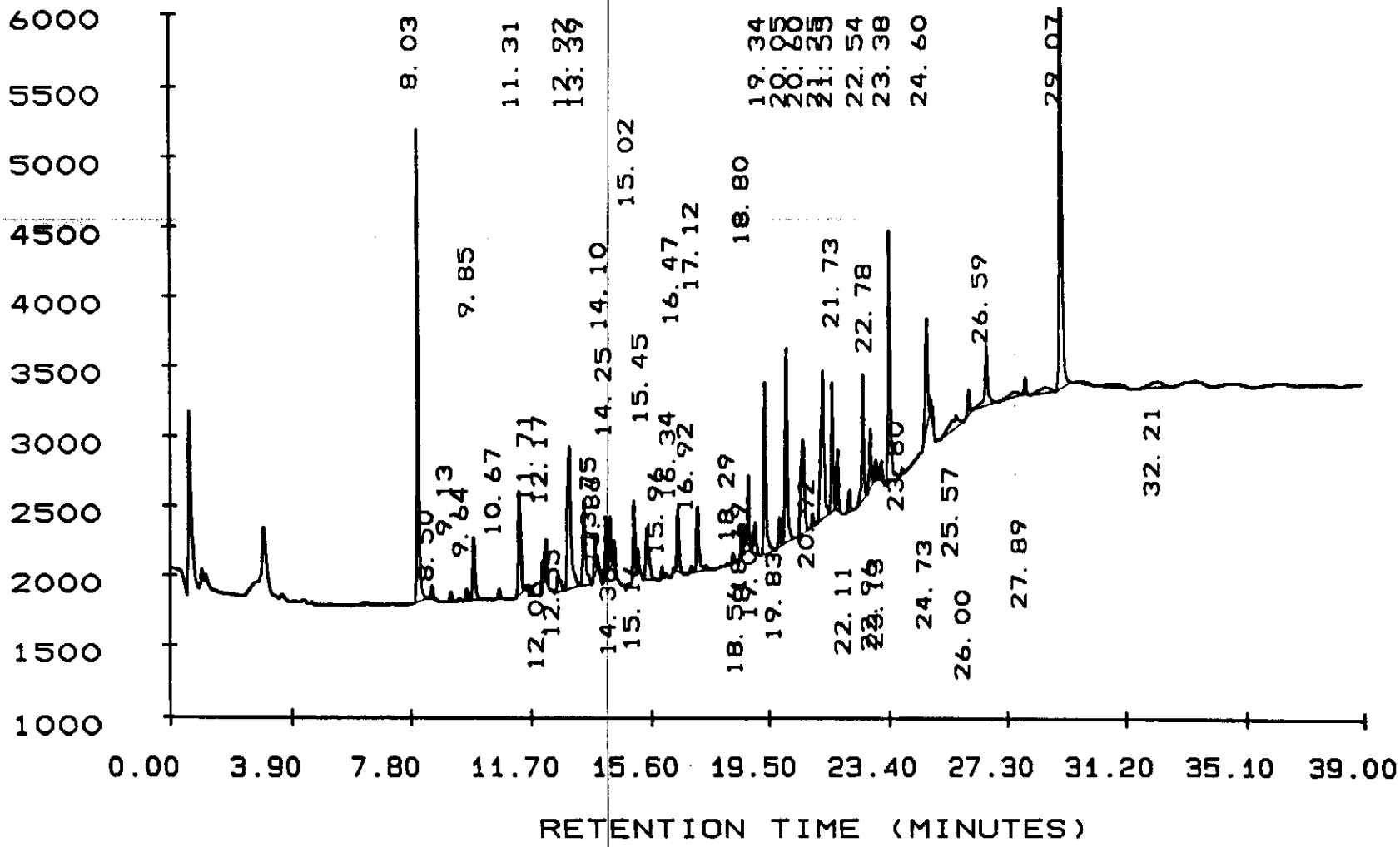

Y MAXIMUM: 6000.
Y MINIMUM: 1000.

START TIME: 0.00
END TIME: 39.00

Lionville Laboratory, Inc. 08/23/01 14:54:37

EXTERNAL STANDARD

SAMPLE: 08210136 .28 INST:36 VIAL:F0 SEQ NUMBER:028
TEST : DATE-TIME INJECTED : 08/22/01 14:31:41
COLLECTION TIME : 38.84 DATE-TIME PROCESSED : 08/23/01 14:54:37
METHOD: P3660 / P3660 REV #: 00211 ANALYST: KOBELM SAMP RATE: 1.56
CLIENT ID: SAMPLE VOL: 1.0 uL
CLIENT: COLUMN TYPE: RTX1701
LAB ID: AR1660 2803 C RAW FILE: RAW3:HM141073
SAMPLE WT : % MOISTURE : DILUTION FACTOR : 1.0000
COLUMN ID: 0.53 mm I CAL ID : TEMP:L082101.36/25

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
002	161691	33184	V	8.033	1	TCX	0.049
003	6432	1038	V	8.502			
004	3526	716	V	9.125			
006	4131	871	V	9.636			
007	26486	4403	V	9.855	1	AR1016-1	0.114
008	3616	724	V	10.669			
009	47864	7373	V	11.310	1	AR1016-2	0.108
011	2109	477	V	11.708			
012	6458	1681	V	12.053			
013	12855	3073	V	12.170			
014	10650	1449	V	12.551			
015	90640	10155	V	12.923	1	AR1016-3	0.110
016	38240	6030	V	13.394	1	AR1016-4	0.111
017	11211	2784	V	13.754			
018	3041	922	V	13.864			
019	18286	4304	V	14.100			
020	14398	3553	V	14.248			
021	8411	1993	V	14.381			
022	22119	5181	V	15.024	1	AR1016-5	0.110
023	6446	1531	V	15.162			
024	26784	3649	V	15.446			
025	3783	857	V	15.956			
027	1779	461	V	16.338			
028	21691	4343	V	16.469			
029	2555	545	V	16.919			
030	29379	4584	V	17.122			
031	4996	763	V	18.294			
032	7622	1861	V	18.562			
033	3828	1116	V	18.686			
034	20822	4910	V	18.802			
035	14157	2256	V	19.025			
036	66451	12051	V	19.341	1	AR1260-1	0.104
037	11209	2104	V	19.832			
038	72365	13574	V	20.048	1	AR1260-2	0.108
039	61067	6709	V	20.599			
040	4000	943	V	20.919			
041	82432	10415	V	21.250			
042	41184	9045	V	21.549	1	AR1260-3	0.104
043	18795	4327	V	21.731			
044	7463	1554	V	22.109			

SAMPLE: 08210136 .28 PAGE NUMBER: 2
DATE-TIME INJECTED : 08/22/01 14:31:41
DATE-TIME PROCESSED : 08/23/01 14:54:37

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
045	44848	8805	V	22.538	1	AR1260-4	0.101
046	18784	4151	V	22.778			
047	6745	1526	V	22.959			
048	6368	1508	V	23.134			
049	96499	17511	V	23.380	1	AR1260-5	0.106
050	2260	533	V	23.796			
051	44725	7557	V	24.602			
052	9153	1375	V	24.728			
053	17955	859	V	25.574			
054	8503	1730	V	26.000			
055	33363	4213	V	26.587			
057	6589	1226	V	27.888			
059	216785	33586	V	29.065	1	DCB	0.041
062	13884	421		32.209			

AR1660 2803 C

SAMPLE NO. : 08210136 . 40
TEST NO. :
METHOD NO. : P3660 / P3660

INSTRUMENT: 36
DATE TIME: 08/23/01 00:06:58
PAGE NO. : 01

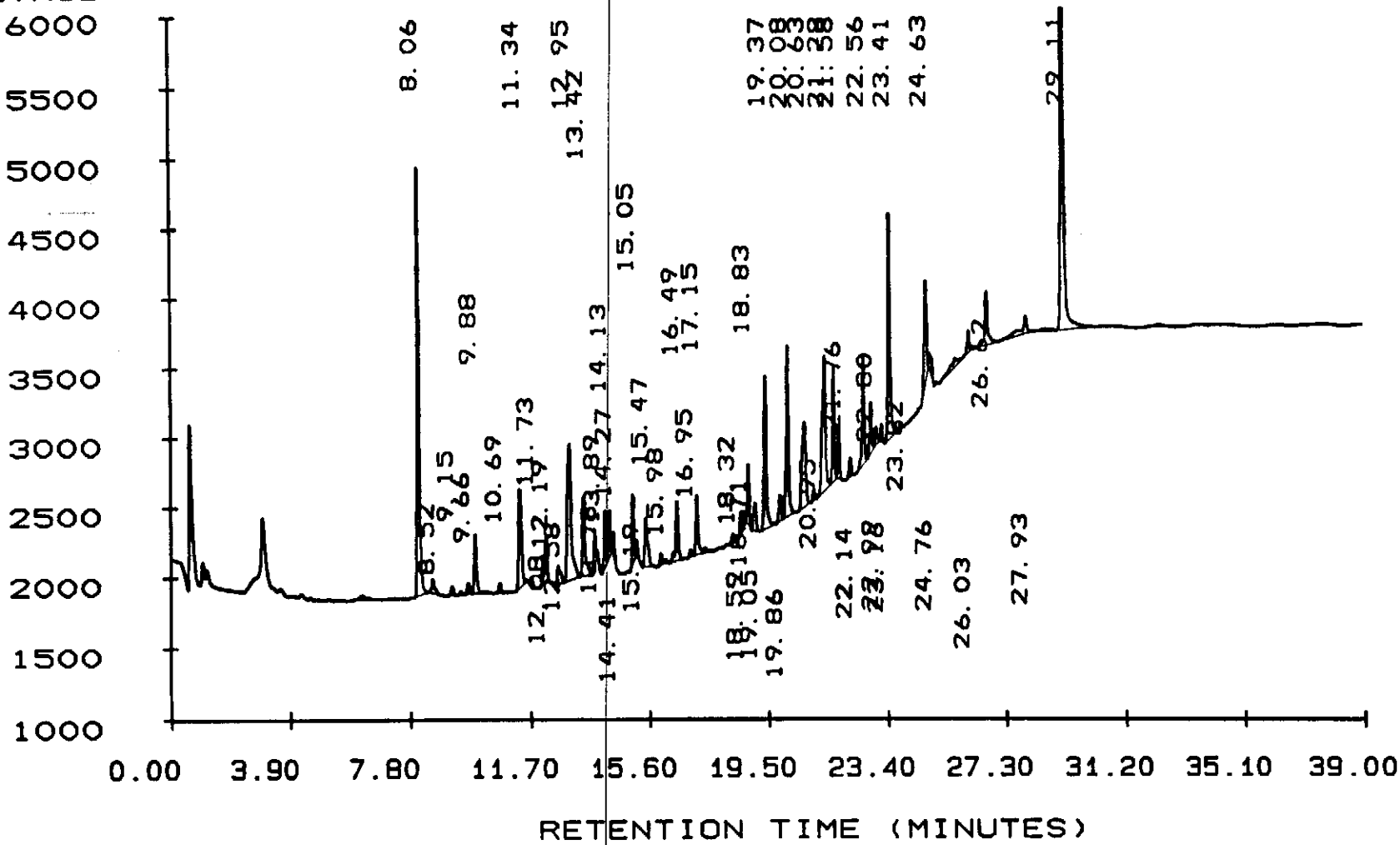

Y MAXIMUM: 6000.
Y MINIMUM: 1000.

START TIME: 0.00
END TIME: 39.00

Lionville Laboratory, Inc. 08/23/01 14:54:51

EXTERNAL STANDARD

SAMPLE: 08210136 .40 INST:36 VIAL:F0 SEQ NUMBER:040
TEST : DATE-TIME INJECTED : 08/23/01 00:06:58
COLLECTION TIME : 38.84 DATE-TIME PROCESSED : 08/23/01 14:54:51
METHOD: P3660 / P3660 REV #: 00211 ANALYST: KOBELM SAMP RATE: 1.56
CLIENT ID: SAMPLE VOL: 1.0 uL
CLIENT: COLUMN TYPE: RTX1701
LAB ID: AR1660 2803 C RAW FILE: RAW3:HN141138
SAMPLE WT : % MOISTURE : DILUTION FACTOR : 1.0000
COLUMN ID: 0.53 mm I CAL ID : TEMP:L082101.36/25

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
002	158702	30205	V	8.060	1	TCX	0.044
003	7835	1035	V	8.525			
004	3405	660	V	9.149			
006	3994	814	V	9.660			
007	25910	4142	V	9.879	1	AR1016-1	0.107
008	3389	680	V	10.691			
009	46527	6984	V	11.335	1	AR1016-2	0.102
011	1794	411	V	11.730			
012	5961	1538	V	12.078			
013	11713	2816	V	12.193			
014	10208	1308	V	12.579			
015	90163	9671	V	12.949	1	AR1016-3	0.104
016	37280	5582	V	13.420	1	AR1016-4	0.102
017	10391	2491	V	13.781			
018	2203	683	V	13.888			
019	17217	3930	V	14.126			
020	13328	3180	V	14.274			
021	7876	1813	V	14.407			
022	20912	4788	V	15.049	1	AR1016-5	0.102
023	5583	1314	V	15.186			
024	24824	3403	V	15.472			
025	3568	775	V	15.979			
027	26330	4185	V	16.493			
028	2372	503	V	16.945			
029	26938	4215	V	17.148			
030	4234	696	V	18.319			
031	6785	1661	V	18.585			
032	3647	997	V	18.710			
033	18828	4339	V	18.828			
034	12746	2028	V	19.049			
035	59402	10798	V	19.366	1	AR1260-1	0.093
036	10414	1893	V	19.859			
037	65702	12168	V	20.076	1	AR1260-2	0.097
038	54193	6065	V	20.628			
039	3760	863	V	20.945			
040	75291	9534	V	21.276			
041	36858	7960	V	21.577	1	AR1260-3	0.091
042	16660	3655	V	21.760			
043	6736	1352	V	22.136			
044	39459	7703	V	22.564	1	AR1260-4	0.089

SAMPLE: 08210136 .40 PAGE NUMBER: 2
DATE-TIME INJECTED : 08/23/01 00:06:58
DATE-TIME PROCESSED : 08/23/01 14:54:51

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
045	16129	3571	V	22.805			
046	6061	1298	V	22.986			
047	5744	1313	V	23.163			
048	88488	15885	V	23.409	1	AR1260-5	0.096
049	1978	451	V	23.822			
050	41270	7060	V	24.629			
051	9250	1301	V	24.758			
052	18780	1564	V	26.028			
053	28509	3810	V	26.619			
054	19123	1256	V	27.927			
056	209352	28777		29.107	1	DCB	0.035

AR1660 2803 C

SAMPLE NO. : 08210136 .49
TEST NO. :
METHOD NO. : P3660 / P3660

INSTRUMENT: 36
DATE TIME: 08/23/01 07:18:00
PAGE NO. : 01

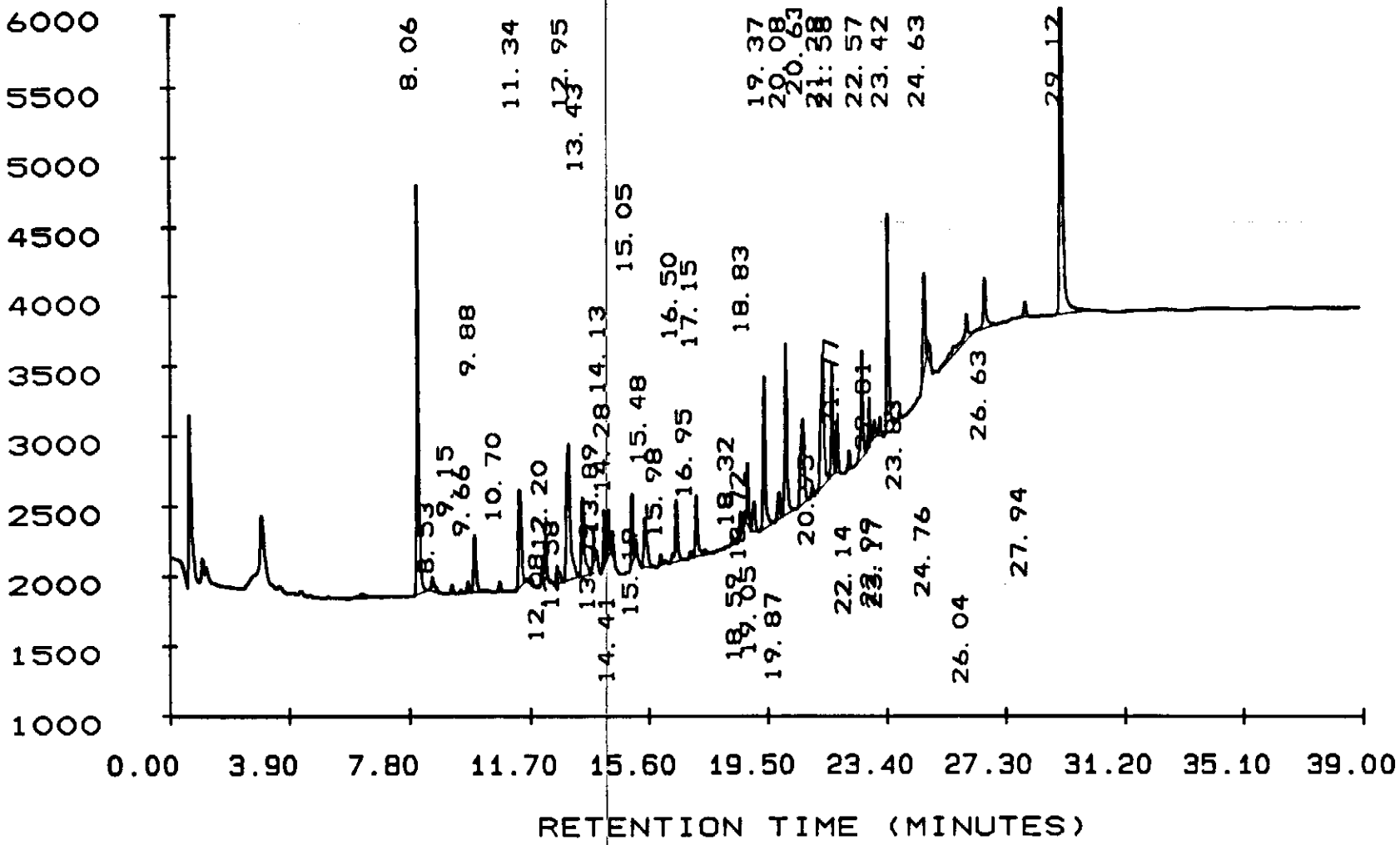

Y MAXIMUM: 6000.
Y MINIMUM: 1000.

START TIME: 0.00
END TIME: 39.00

Lionville Laboratory, Inc. 08/23/01 14:55:08

EXTERNAL STANDARD

SAMPLE: 08210136 .49 INST:36 VIAL:F0 SEQ NUMBER:049
TEST : DATE-TIME INJECTED : 08/23/01 07:18:00
COLLECTION TIME : 38.84 DATE-TIME PROCESSED : 08/23/01 14:55:08
METHOD: P3660 / P3660 REV #: 00211 ANALYST: KOBELM SAMP RATE: 1.56
CLIENT ID: SAMPLE VOL: 1.0 uL
CLIENT: COLUMN TYPE: RTX1701
LAB ID: AR1660 2803 C RAW FILE: RAW3:HN141192
SAMPLE WT : % MOISTURE : DILUTION FACTOR : 1.0000
COLUMN ID: 0.53 mm I CAL ID : TEMP:L082101.36/25

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
002	156237	28845	V	8.064	1	TCX	0.042
003	8296	1039	V	8.530			
004	3382	636	V	9.153			
006	3927	771	V	9.664			
007	26090	4049	V	9.884	1	AR1016-1	0.105
008	3482	676	V	10.696			
009	46540	6860	V	11.340	1	AR1016-2	0.100
012	5735	1532	V	12.083			
013	11865	2806	V	12.199			
014	10153	1299	V	12.584			
015	90323	9648	V	12.954	1	AR1016-3	0.104
016	37370	5492	V	13.426	1	AR1016-4	0.101
017	9867	2366	V	13.787			
018	2302	762	V	13.892			
019	16904	3907	V	14.131			
020	13310	3210	V	14.280			
021	7768	1849	V	14.413			
022	20930	4773	V	15.054	1	AR1016-5	0.101
023	5667	1352	V	15.191			
024	25645	3410	V	15.477			
025	3577	788	V	15.985			
027	27076	4290	V	16.498			
028	2471	510	V	16.951			
029	27938	4232	V	17.154			
030	4484	711	V	18.325			
031	6813	1677	V	18.591			
032	3193	953	V	18.717			
033	18881	4333	V	18.834			
034	12864	2051	V	19.055			
035	60213	10701	V	19.372	1	AR1260-1	0.093
036	10399	1864	V	19.865			
037	65950	11994	V	20.082	1	AR1260-2	0.096
038	54266	6031	V	20.635			
039	3658	843	V	20.951			
040	74164	9333	V	21.283			
041	36314	7807	V	21.583	1	AR1260-3	0.090
042	16422	3664	V	21.766			
043	6653	1336	V	22.142			
044	39386	7512	V	22.570	1	AR1260-4	0.086
045	16198	3512	V	22.811			

SAMPLE: 08210136 .49 PAGE NUMBER: 2
DATE-TIME INJECTED : 08/23/01 07:18:00
DATE-TIME PROCESSED : 08/23/01 14:55:08

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
046	5930	1283	V	22.992			
047	5750	1294	V	23.170			
048	88440	15415	V	23.416	1	AR1260-5	0.093
049	2010	453	V	23.829			
050	40543	6815	V	24.635			
051	8716	1211	V	24.765			
052	25504	1832	V	26.035			
053	26105	3577		26.627			
054	6647	1070	V	27.936			
055	206979	28333		29.117	1	DCB	0.034

AR1660 2803 C

SAMPLE NO. : 08210136 .54
TEST NO. :
METHOD NO. : P3660 / P3660

INSTRUMENT: 36
DATE TIME: 08/23/01 11:19:02
PAGE NO. : 01

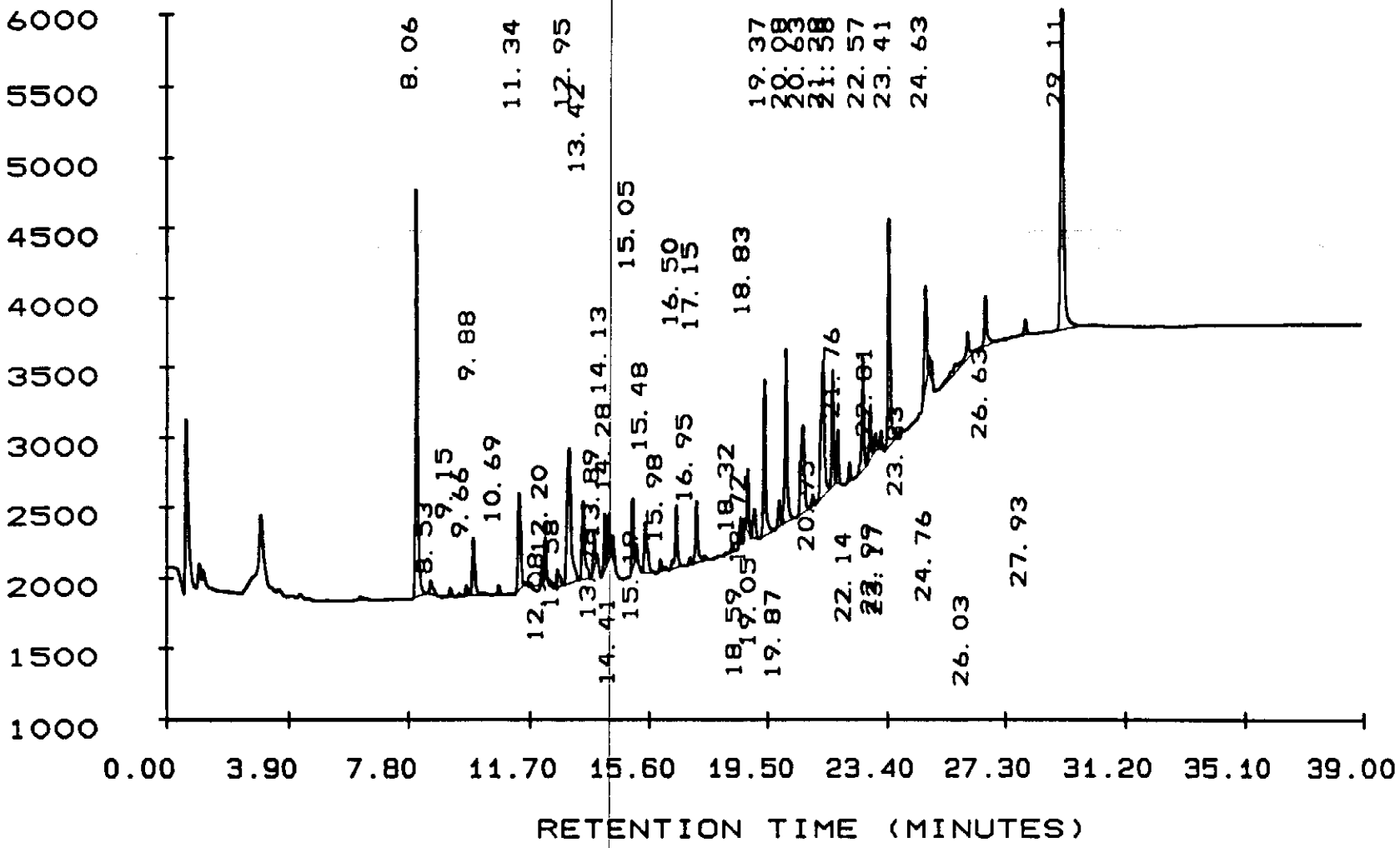

Y MAXIMUM: 6000.
Y MINIMUM: 1000.

START TIME: 0.00
END TIME: 39.00

Lionville Laboratory, Inc. 08/23/01 14:55:24

EXTERNAL STANDARD

SAMPLE: 08210136 .54 INST:36 VIAL:F0 SEQ NUMBER:054
TEST : DATE-TIME INJECTED : 08/23/01 11:19:02
COLLECTION TIME : 38.84 DATE-TIME PROCESSED : 08/23/01 14:55:24
METHOD: P3660 / P3660 REV #: 00211 ANALYST: KOBELM SAMP RATE: 1.56
CLIENT ID: SAMPLE VOL: 1.0 uL
CLIENT: COLUMN TYPE: RTX1701
LAB ID: AR1660 2803 C RAW FILE: RAW3:HN141211
SAMPLE WT : % MOISTURE : DILUTION FACTOR : 1.0000
COLUMN ID: 0.53 mm I CAL ID : TEMP:L082101.36/25

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
002	155654	28577	V	8.062	1	TCX	0.042
003	8262	1024	V	8.530			
004	3444	634	V	9.151			
006	3878	770	V	9.663			
007	26001	4013	V	9.882	1	AR1016-1	0.104
008	3444	673	V	10.694			
009	46424	6833	V	11.338	1	AR1016-2	0.100
011	5733	1512	V	12.081			
012	11766	2783	V	12.197			
013	9984	1277	V	12.582			
014	90182	9578	V	12.953	1	AR1016-3	0.103
015	37443	5483	V	13.424	1	AR1016-4	0.101
016	9885	2321	V	13.785			
017	2270	775	V	13.890			
018	17074	3909	V	14.129			
019	13359	3222	V	14.278			
020	7666	1819	V	14.412			
021	21323	4799	V	15.053	1	AR1016-5	0.102
022	5647	1358	V	15.190			
023	26426	3510	V	15.476			
024	3696	810	V	15.984			
026	27770	4393	V	16.497			
027	2489	524	V	16.949			
028	27843	4361	V	17.154			
029	4986	737	V	18.324			
030	7191	1761	V	18.590			
031	3267	960	V	18.716			
032	19526	4469	V	18.833			
033	13304	2119	V	19.054			
034	62694	11002	V	19.371	1	AR1260-1	0.095
035	10545	1896	V	19.865			
036	67728	12180	V	20.082	1	AR1260-2	0.097
037	56282	6246	V	20.635			
038	3780	860	V	20.950			
039	76592	9547	V	21.282			
040	37568	8072	V	21.582	1	AR1260-3	0.093
041	16912	3750	V	21.765			
042	6774	1365	V	22.141			
043	40697	7824	V	22.569	1	AR1260-4	0.090
044	16525	3617	V	22.810			

SAMPLE: 08210136 .54 PAGE NUMBER: 2
DATE-TIME INJECTED : 08/23/01 11:19:02
DATE-TIME PROCESSED : 08/23/01 14:55:24

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
045	5981	1308	V	22.991			
046	5903	1317	V	23.169			
047	91248	15872	V	23.415	1	AR1260-5	0.096
048	2099	474	V	23.826			
049	41554	7022	V	24.635			
050	8632	1217	V	24.763			
051	24976	1852	V	26.034			
052	25327	3600		26.626			
053	6891	1114	V	27.935			
054	205765	29226	V	29.114	1	DCB	0.035

Raw QC

1D
PESTICIDE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

RC03-01-0010 03MS

Lab Name: Lionville Labs, Inc. Work Order: 02744064001

Client: LANL REQ #9432R

Matrix: SOIL

Lab Sample ID: 0107L423-014 MS

Sample wt/vol: 30.0 (g/mL) G

Lab File ID: 08210135.43

Level: (low/med) LOW

Date Received: 07/27/01

% Moisture: not dec. 6 dec.

Date Extracted: 08/02/01

Extraction: (SepF/Cont/Sonc) SONC

Date Analyzed: 08/23/01

GPC Cleanup: (Y/N) N pH: 7.0

Dilution Factor: 1.00

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NO.	COMPOUND		
12674-11-2	Aroclor-1016	36	U
11104-28-2	Aroclor-1221	71	U
11141-16-5	Aroclor-1232	36	U
53469-21-9	Aroclor-1242	36	U
12672-29-6	Aroclor-1248	36	U
11097-69-1	Aroclor-1254		SP
11096-82-5	Aroclor-1260	68	

SP: SPIKE COMPOUND

FORM 1 PEST

12/88 Rev.

0107L423-014S

SAMPLE NO. : 08210135 .43 INSTRUMENT: 35

TEST NO. : DATE TIME: 08/23/01 02:30:29

METHOD NO. : P35 / P35 PAGE NO. : 01

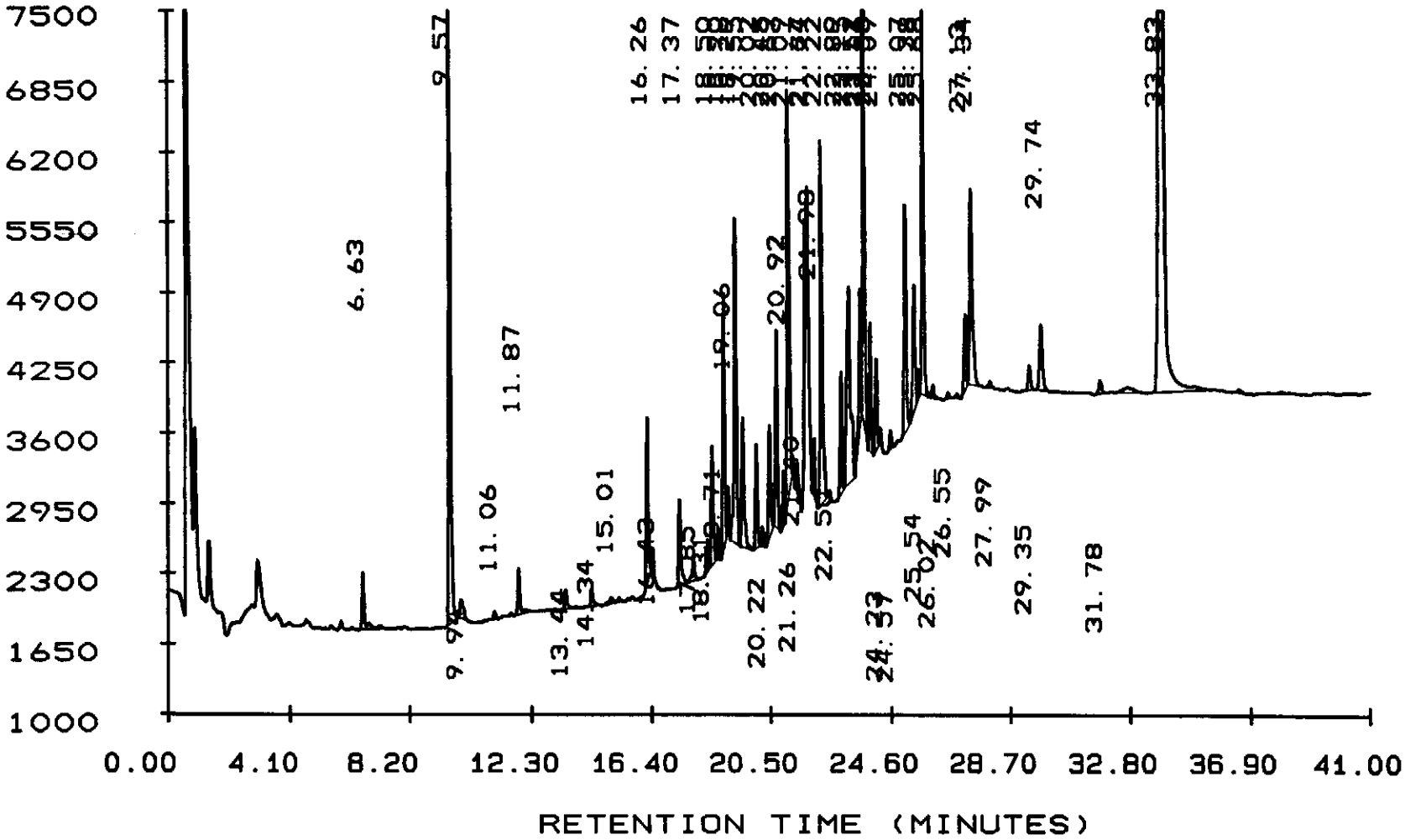

Y MAXIMUM: 7500. START TIME: 0.00

Y MINIMUM: 1000. END TIME: 41.00

Lionville Laboratory, Inc. 08/24/01 08:36:27

EXTERNAL STANDARD

SAMPLE: 08210135 .43 INST:35 VIAL:F0 SEQ NUMBER:043
TEST : OPCB-S DATE-TIME INJECTED : 08/23/01 02:30:29
COLLECTION TIME : 40.97 DATE-TIME PROCESSED : 08/24/01 08:36:27
METHOD: P35 / PCB35 REV #: 00220 ANALYST: KOBELM SAMP RATE: 1.56
CLIENT ID: RC03-01-0010 03 SAMPLE VOL: 1.0 uL
CLIENT: LANL REQ #9432R COLUMN TYPE: DB608
LAB ID: 0107L423-014MS RAW FILE: RAW3:HN141156
SAMPLE WT : % MOISTURE : DILUTION FACTOR : 1.0000
COLUMN ID: 0.53 mm I CAL ID : TEMP:L082101.35/25

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
002	24009	5001	V	6.631			
006	303803	58770	V	9.568	1	TCX	0.042 105%
007	15049	1747	V	9.937			
008	4462	714	V	11.065			
010	25648	4211	V	11.867			
011	14026	1766	V	13.438			
012	10743	1407	V	14.336			
013	4448	540	V	15.007			
016	73976	14898	V	16.259			
017	9345	2423	V	16.434			
018	46819	7947	V	17.369			
019	14493	2345	V	17.848			
020	10901	2270	V	18.314			
021	58491	10875	V	18.504			
022	13280	2902	V	18.712			
023	111472	23229	V	18.900			
024	17798	4600	V	19.060			
025	167210	29677	V	19.294			
026	70502	11783	V	19.546			
027	47354	9466	V	20.017			
028	8730	1861	V	20.224			
029	51755	10130	V	20.454			
030	86759	18041	V	20.692			
031	22010	5039	V	20.918			
032	200307	37466	V	21.087			
033	5849	2015	V	21.257			
034	17767	3180	V	21.405			
035	32346	8584	V	21.673			
036	33675	10678	V	21.745			
037	23101	5460	V	21.976			
038	182716	33077	V	22.218			
039	3695	774	V	22.503			
040	51574	11078	V	22.894			
041	163891	17961	V	23.147			
042	60646	12547	V	23.521			
043	188544	40898	V	23.664			
044	53776	11827	V	23.875			
045	37588	8265	V	24.089			
046	6629	1701	V	24.229			
047	8024	1716	V	24.572			

8/24/01 MK

SAMPLE: 08210135 .43 PAGE NUMBER: 2
DATE-TIME INJECTED : 08/23/01 02:30:29
DATE-TIME PROCESSED : 08/24/01 08:36:27

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL	
048	109454	20873	V	25.071				
049	70790	11542	V	25.378				
050	8707	2475	V	25.541				
051	178300	36202	V	25.680				
053	5718	1210	V	26.025				
054	3289	560	V	26.550				
056	38810	6999	V	27.135				
057	121426	17962	V	27.337				
058	5000	646	V	27.990				
060	16066	2364	V	29.349				
061	44894	6113		29.744				
062	9642	1250	V	31.777				
064	984424	96076		33.827	1	DCB	0.084	84%

MPK	10678	21.745	AROCLOR-1260-1	0.100	RW:21.62-21.76
MPK	33077	22.218	AROCLOR-1260-2	0.287	RW:22.09-22.23
MPK	11827	23.875	AROCLOR-1260-3	0.157	RW:23.74-23.89
MPK	20873	25.071	AROCLOR-1260-4	0.256	RW:24.93-25.07
MPK	36202	25.680	AROCLOR-1260-5	0.245	RW:25.55-25.69
MPK	0	0.000	AROCLOR-1260-6	0.000	RW:27.19-27.34
MPK	23229	18.900	AROCLOR-1254-1	0.335	RW:18.77-18.91
MPK	29677	19.294	AROCLOR-1254-2	0.359	RW:19.17-19.31
MPK	18041	20.692	AROCLOR-1254-3	0.360	RW:20.56-20.71
MPK	37466	21.087	AROCLOR-1254-4	0.401	RW:20.96-21.10
MPK	10678	21.745	AROCLOR-1254-5	0.169	RW:21.62-21.76
MPK	17961	23.147	AROCLOR-1254-6	0.403	RW:23.02-23.16

1254 137052 0.338 90.13%

1260 112657 0.191

8/24/01
MK

0107L423-014S

SAMPLE NO. : 08210136 . 43 INSTRUMENT: 36

TEST NO. : DATE TIME: 08/23/01 02:30:30

METHOD NO. : P36 / P36 PAGE NO. : 01

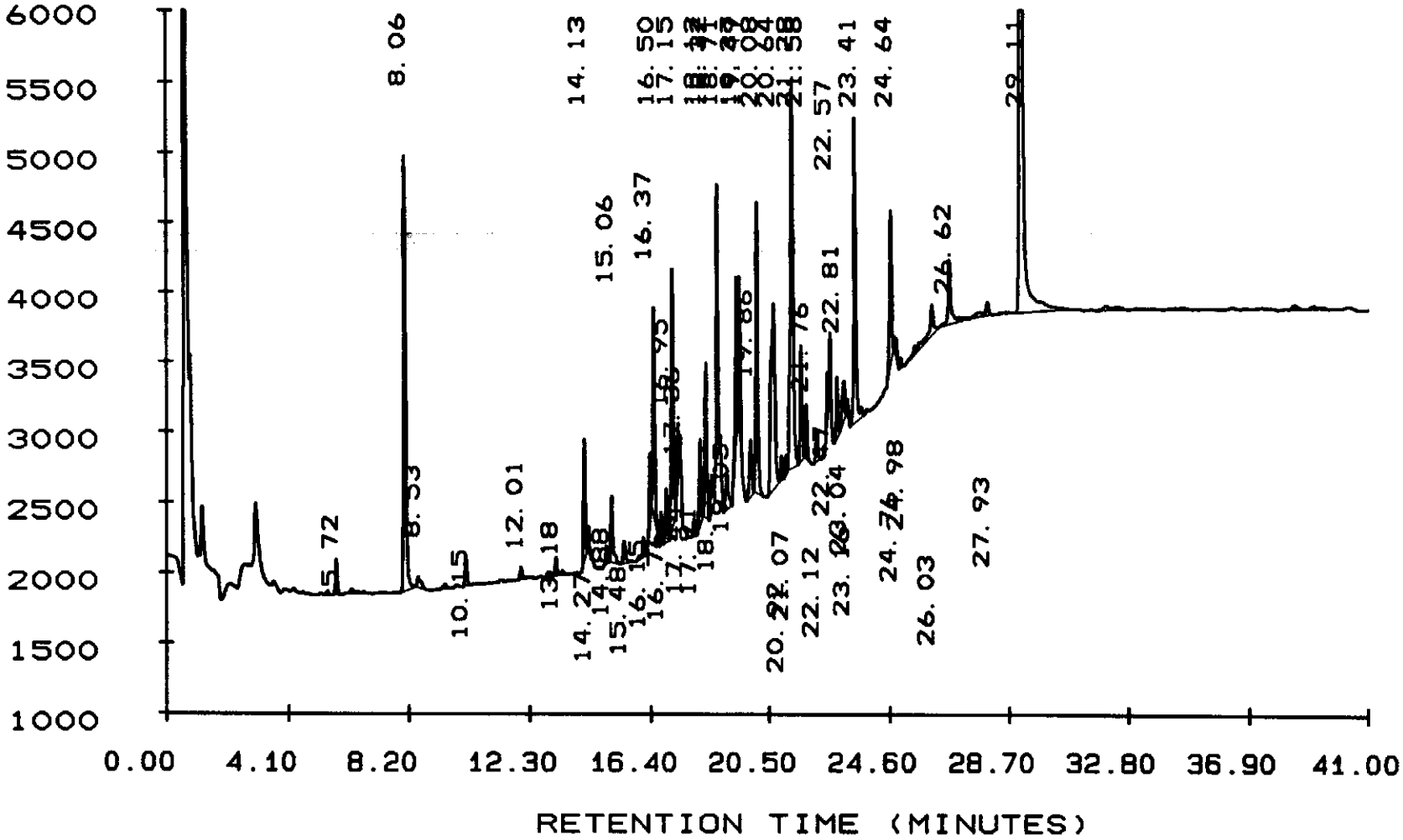

Y MAXIMUM: 6000. START TIME: 0.00

Y MINIMUM: 1000. END TIME: 41.00

Lionville Laboratory, Inc. 08/24/01 08:39:53

EXTERNAL STANDARD

SAMPLE: 08210136 .43 INST:36 VIAL:F0 SEQ NUMBER:043
TEST : OPCB-S DATE-TIME INJECTED : 08/23/01 02:30:30
COLLECTION TIME : 40.97 DATE-TIME PROCESSED : 08/24/01 08:39:53
METHOD: P36 / PCB36 REV #: 00212 ANALYST: KOBELM SAMP RATE: 1.56
CLIENT ID: RC03-01-0010 03 SAMPLE VOL: 1.0 uL
CLIENT: LANL REQ #9432R COLUMN TYPE: RTX1701
LAB ID: 0107L423-014MS RAW FILE: RAW3:HN141157
SAMPLE WT : % MOISTURE : DILUTION FACTOR : 1.0000
COLUMN ID: 0.53 mm I CAL ID : TEMP:L082101.36/25

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
002	12326	2483	V	5.717			
003	8341	400		6.250			
004	167386	30737	V	8.065	1	TCX	0.045
005	7458	767	V	8.528			
008	10578	2106	V	10.152			
010	4090	860	V	12.014			
012	7750	1222	V	13.175			
013	38527	8445	V	14.131			
014	7580	1942	V	14.275			
015	6363	1339	V	14.877			
016	25088	4633	V	15.055			
017	10333	1611	V	15.479			
018	8648	1423	V	16.146			
019	19600	4799	V	16.366			
020	70545	14612	V	16.497			
021	10083	2232	V	16.763			
022	17478	3751	V	16.948			
023	92602	18173	V	17.152			
024	13008	3406	V	17.356			
025	7320	2419	V	17.438			
026	5659	1184	V	17.914			
027	29657	6032	V	18.118			
028	51744	10857	V	18.320			
029	17292	2584	V	18.523			
030	88540	20191	V	18.714			
031	3859	1823	V	18.827			
032	18852	2860	V	19.055			
033	48931	11315	V	19.369			
034	46000	10873	V	19.487			
035	22118	3960	V	19.861			
036	103602	20499	V	20.078			
037	125074	13106	V	20.644			
038	8597	1725	V	20.918			
039	4957	1356	V	21.071			
040	182494	27051	V	21.282			
041	40310	8188	V	21.584			
042	16771	3868	V	21.762			
043	12149	2129	V	22.122			
044	10366	2989	V	22.473			
045	19118	5454	V	22.566			

8/24/01 MK

SAMPLE: 08210136 .43 PAGE NUMBER: 2
DATE-TIME INJECTED : 08/23/01 02:30:30
DATE-TIME PROCESSED : 08/24/01 08:39:53

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL	
046	19302	4290	V	22.808				
047	17300	2720	V	23.043				
048	4440	1322	V	23.162				
049	108078	21212	V	23.410				
050	1973	498	V	23.640				
051	59612	10661	V	24.636				
052	7863	1080	V	24.761				
053	3011	703		24.979				
054	11712	1899	V	26.031				
055	37436	4572	V	26.621				
056	12778	971	V	27.930				
058	547143	71747		29.114	1	DCB	0.087	
MPK		11315		19.369		AROCLOR-1260-1	0.196	RW:19.24-19.38
MPK		20499		20.078		AROCLOR-1260-2	0.328	RW:19.95-20.09
MPK		8188		21.584		AROCLOR-1260-3	0.188	RW:21.45-21.59
MPK		5454		22.566		AROCLOR-1260-4	0.125	RW:22.44-22.58
MPK		21212		23.410		AROCLOR-1260-5	0.257	RW:23.28-23.42
MPK		10661		24.636		AROCLOR-1260-6	0.302	RW:24.50-24.64
MPK		8445		14.131		AROCLOR-1254-1	0.387	RW:14.00-14.14
MPK		14612		16.497		AROCLOR-1254-2	0.386	RW:16.37-16.51
MPK		18173		17.152		AROCLOR-1254-3	0.428	RW:17.02-17.16
MPK		10857		18.320		AROCLOR-1254-4	0.450	RW:18.19-18.33
MPK		20191		18.714		AROCLOR-1254-5	0.424	RW:18.59-18.73

1254 72278 0.415

0.239

1260 77329

8/24/01
MK

1D
PESTICIDE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

RC03-01-0010 03MSD

Lab Name: Lionville Labs, Inc. Work Order: 02744064001

Client: LANL REQ #9432R

Matrix: SOIL

Lab Sample ID: 0107L423-014 MSD

Sample wt/vol: 30.0 (g/mL) G

Lab File ID: 08210135.44

Level: (low/med) LOW

Date Received: 07/27/01

% Moisture: not dec. 6 dec.

Date Extracted: 08/02/01

Extraction: (SepF/Cont/Sonc) SONC

Date Analyzed: 08/23/01

GPC Cleanup: (Y/N) N pH: 7.0

Dilution Factor: 1.00

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NO.	COMPOUND		
12674-11-2	Aroclor-1016	36	U
11104-28-2	Aroclor-1221	71	U
11141-16-5	Aroclor-1232	36	U
53469-21-9	Aroclor-1242	36	U
12672-29-6	Aroclor-1248	36	U
11097-69-1	Aroclor-1254		SP
11096-82-5	Aroclor-1260	54	

SP: SPIKE COMPOUND

FORM 1 PEST

12/88 Rev.

0107L423-014T

SAMPLE NO. : 08210135 .44 INSTRUMENT: 35

TEST NO. : DATE TIME: 08/23/01 03:18:25

METHOD NO. : P35 / P35 PAGE NO. : 01

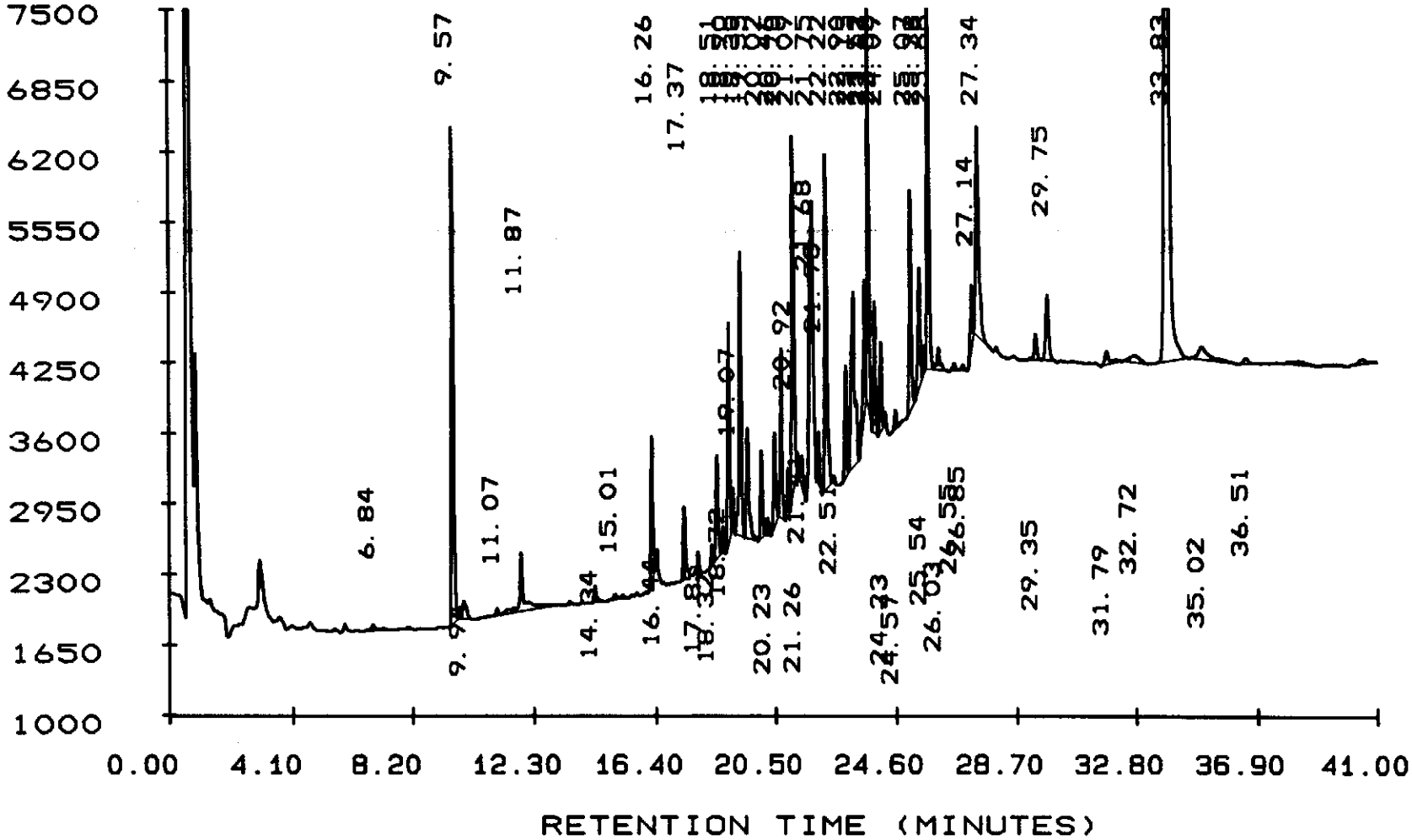

Y MAXIMUM: 7500. START TIME: 0.00

Y MINIMUM: 1000. END TIME: 41.00

Lionville Laboratory, Inc. 08/24/01 08:36:41

EXTERNAL STANDARD

SAMPLE: 08210135 .44 INST:35 VIAL:F0 SEQ NUMBER:044
TEST : OPCB-T DATE-TIME INJECTED : 08/23/01 03:18:25
COLLECTION TIME : 40.97 DATE-TIME PROCESSED : 08/24/01 08:36:41
METHOD: P35 / PCB35 REV #: 00220 ANALYST: KOBELM SAMP RATE: 1.56
CLIENT ID: RC03-01-0010 03 SAMPLE VOL: 1.0 uL
CLIENT: LANL REQ #9432R COLUMN TYPE: DB608
LAB ID: 0107L423-014MSD RAW FILE: RAW3:HN141162
SAMPLE WT : % MOISTURE : DILUTION FACTOR : 1.0000
COLUMN ID: 0.53 mm I CAL ID : TEMP:L082101.35/25

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
001	5674	515	V	6.840			
004	232585	45209	V	9.575	1	TCX	0.032 80%
005	15983	1643	V	9.942			
006	4885	629	V	11.070			
007	53018	5244	V	11.873			
009	10490	1495	V	14.340			
013	65954	13031	V	16.264			
014	7834	2062	V	16.439			
015	38609	6617	V	17.374			
016	12467	1991	V	17.852			
017	9158	1912	V	18.319			
018	49862	9348	V	18.510			
019	11520	2513	V	18.716			
020	96423	20055	V	18.905			
021	15294	3988	V	19.065			
022	143418	25889	V	19.300			
023	61299	10003	V	19.551			
024	40198	7936	V	20.021			
025	7443	1624	V	20.229			
026	44115	8535	V	20.459			
027	73581	15403	V	20.697			
028	19094	4430	V	20.923			
029	176960	32502	V	21.092			
030	5111	1832	V	21.261			
031	16402	3021	V	21.410			
032	25005	5536	V	21.678			
033	35658	11341	V	21.751			
034	21603	4958	V	21.981			
035	166816	30493	V	22.223			
036	3427	707	V	22.507			
037	47168	10146	V	22.898			
038	85862	12405	V	23.152			
039	3914	1767	V	23.255			
040	58929	12215	V	23.525			
041	171043	36642	V	23.667			
042	54554	12025	V	23.879			
043	36657	8081	V	24.093			
044	6043	1537	V	24.233			
045	8260	1723	V	24.575			
046	105021	20134	V	25.073			

7/08 8/24/01

8/24/01
NK

SAMPLE: 08210135 .44 PAGE NUMBER: 2
DATE-TIME INJECTED : 08/23/01 03:18:25
DATE-TIME PROCESSED : 08/24/01 08:36:41

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
047	68163	11025	V	25.381			
048	8579	2451	V	25.544			
049	177512	35802	V	25.684			
050	16238	2025	V	26.026			
051	4432	701	V	26.554			
052	3530	540	V	26.854			
053	29777	5757	V	27.139			
054	142551	19186	V	27.340			
055	3565	551	V	27.992			
057	17484	2405	V	29.353			
058	45075	6036	V	29.749			
061	8441	1116	V	31.785			
063	17708	695	V	32.723			
064	772012	76395	V	33.832	1	DCB	0.067 67%
065	32378	1173		35.019			
066	7517	532	V	36.512			

MPK	11341	21.751	AROCLOR-1260-1	0.106	RW:21.62-21.76
MPK	30493	22.223	AROCLOR-1260-2	0.265	RW:22.09-22.23
MPK	12025	23.879	AROCLOR-1260-3	0.160	RW:23.74-23.89
MPK	0	0.000	AROCLOR-1260-4	0.000	RW:24.93-25.07
MPK	35802	25.684	AROCLOR-1260-5	0.242	RW:25.55-25.69
MPK	0	0.000	AROCLOR-1260-6	0.000	RW:27.19-27.34
MPK	20055	18.905	AROCLOR-1254-1	0.289	RW:18.77-18.91
MPK	25889	19.300	AROCLOR-1254-2	0.313	RW:19.17-19.31
MPK	15403	20.697	AROCLOR-1254-3	0.307	RW:20.56-20.71
MPK	32502	21.092	AROCLOR-1254-4	0.348	RW:20.96-21.10
MPK	11341	21.751	AROCLOR-1254-5	0.180	RW:21.62-21.76
MPK	12405	23.152	AROCLOR-1254-6	0.278	RW:23.02-23.16

1254 117595 0.286 76.27%

1260 84661 0.152

8/24/01
MK

0107L423-014T

SAMPLE NO. : 08210136 .44
TEST NO. :
METHOD NO. : P36 / P36

INSTRUMENT: 36
DATE TIME: 08/23/01 03:18:25
PAGE NO. : 01

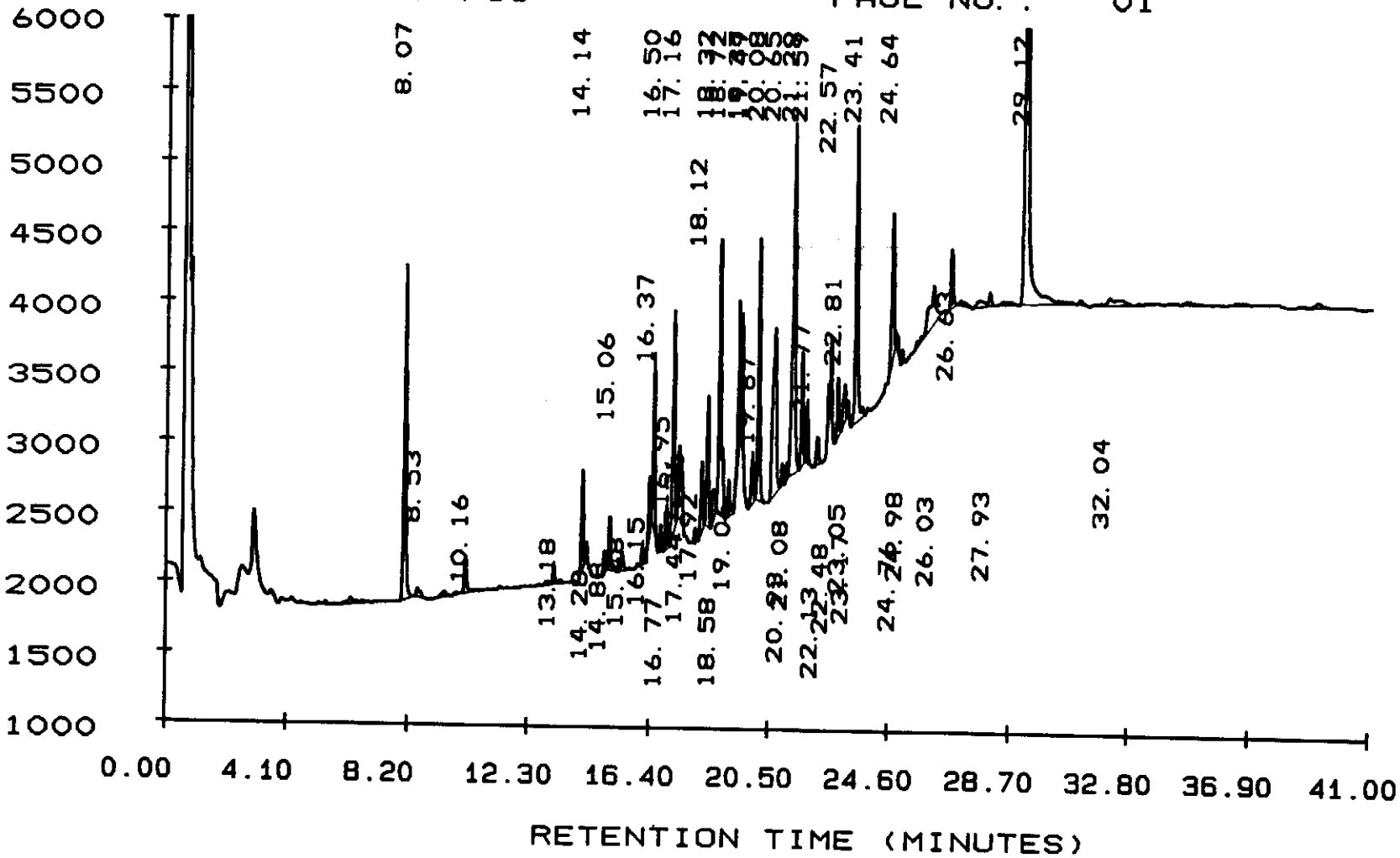

Y MAXIMUM: 6000.
Y MINIMUM: 1000.

START TIME: 0.00
END TIME: 41.00

Lionville Laboratory, Inc. 08/24/01 08:40:07

EXTERNAL STANDARD

SAMPLE: 08210136 .44
TEST : OPCB-T
COLLECTION TIME : 40.97
METHOD: P36 / PCB36 REV #: 00212
CLIENT ID: RC03-01-0010 03
CLIENT: LANL REQ #9432R
LAB ID: 0107L423-014MSD
SAMPLE WT : % MOISTURE :
COLUMN ID: 0.53 mm I

INST:36 VIAL:F0 SEQ NUMBER:044
DATE-TIME INJECTED : 08/23/01 03:18:25
DATE-TIME PROCESSED : 08/24/01 08:40:07
ANALYST: KOBELM SAMP RATE: 1.56
SAMPLE VOL: 1.0 uL
COLUMN TYPE: RTX1701
RAW FILE: RAW3:HN141163
DILUTION FACTOR : 1.0000
CAL ID : TEMP:L082101.36/25

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
002	10146	455		6.247			
003	130490	23546	V	8.070	1	TCX	0.035
004	5994	606	V	8.532			
006	18112	2586		10.158			
008	7909	1293	V	13.180			
009	32348	7008	V	14.136			
010	6233	1568	V	14.280			
011	7192	1507	V	14.882			
012	20036	3752	V	15.059			
013	8508	1330	V	15.484			
014	7118	1184	V	16.151			
015	16804	4176	V	16.371			
016	59500	12337	V	16.502			
017	8624	1873	V	16.768			
018	14803	3161	V	16.954			
019	78621	15741	V	17.158			
020	9917	2889	V	17.362			
021	6478	2325	V	17.443			
022	4924	1003	V	17.918			
023	25421	5007	V	18.123			
024	43789	9100	V	18.325			
025	15098	1744	V	18.583			
026	75390	17252	V	18.718			
027	4697	1777	V	18.832			
028	17034	2560	V	19.060			
029	43294	10173	V	19.374			
030	38562	9464	V	19.492			
031	19866	3604	V	19.866			
032	93725	18419	V	20.083			
033	112314	11821	V	20.649			
034	7763	1554	V	20.925			
035	4248	1186	V	21.076			
036	166506	24610	V	21.287			
037	39846	8048	V	21.589			
038	17203	3840	V	21.767			
039	11200	1965	V	22.129			
040	8396	2279	V	22.478			
041	20686	5699	V	22.572			
042	18784	4185	V	22.813			
043	16040	2563	V	23.046			

8/24/01
MK

SAMPLE: 08210136 .44

DATE-TIME INJECTED : 08/23/01 03:18:25
DATE-TIME PROCESSED : 08/24/01 08:40:07

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
044	4633	1276	V	23.168			
045	106372	20623	V	23.414			
046	1901	476	V	23.642			
047	56987	10051	V	24.640			
048	8248	1085	V	24.766			
049	4412	967	V	24.983			
050	42502	2626	V	26.033			
051	22369	4090	V	26.627			
054	4648	838	V	27.933			
056	440204	55694		29.120	1	DCB	0.067
058	20037	564	V	32.035			

MPK	10173	19.374	AROCLOR-1260-1	0.176	RW:19.24-19.38
MPK	18419	20.083	AROCLOR-1260-2	0.294	RW:19.95-20.09
MPK	8048	21.589	AROCLOR-1260-3	0.185	RW:21.45-21.59
MPK	5699	22.572	AROCLOR-1260-4	0.131	RW:22.44-22.58
MPK	20623	23.414	AROCLOR-1260-5	0.250	RW:23.28-23.42
MPK	10051	24.640	AROCLOR-1260-6	0.284	RW:24.50-24.64
MPK	7008	14.136	AROCLOR-1254-1	0.321	RW:14.00-14.14
MPK	12337	16.502	AROCLOR-1254-2	0.326	RW:16.37-16.51
MPK	15741	17.158	AROCLOR-1254-3	0.370	RW:17.02-17.16
MPK	9100	18.325	AROCLOR-1254-4	0.378	RW:18.19-18.33
MPK	17252	18.718	AROCLOR-1254-5	0.363	RW:18.59-18.73

1254 61438 0.351

1260 73013 0.226

8/24/01
MK

1D
PESTICIDE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

PBLKMW

Lab Name: Lionville Labs, Inc. Work Order: 02744064001

Client: LANL REQ #9432R

Matrix: SOIL

Lab Sample ID: 01LE0920-MB1

Sample wt/vol: 30.6 (g/mL) G

Lab File ID: 08180135.43

Level: (low/med) LOW

Date Received: 08/02/01

% Moisture: not dec. 0 dec.

Date Extracted: 08/02/01

Extraction: (SepF/Cont/Sonc) SONC

Date Analyzed: 08/20/01

GPC Cleanup: (Y/N) N pH: 7.0

Dilution Factor: 1.00

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NO.	COMPOUND		
12674-11-2	Aroclor-1016	33	U
11104-28-2	Aroclor-1221	65	U
11141-16-5	Aroclor-1232	33	U
53469-21-9	Aroclor-1242	33	U
12672-29-6	Aroclor-1248	33	U
11097-69-1	Aroclor-1254	33	U
11096-82-5	Aroclor-1260	33	U

FORM 1 PEST 12/88 Rev.

01LE0920-MB1

SAMPLE NO. : 08180135 .43
TEST NO. :
METHOD NO. : P35 / P35

INSTRUMENT: 35
DATE TIME: 08/20/01 03:15:06
PAGE NO. : 01

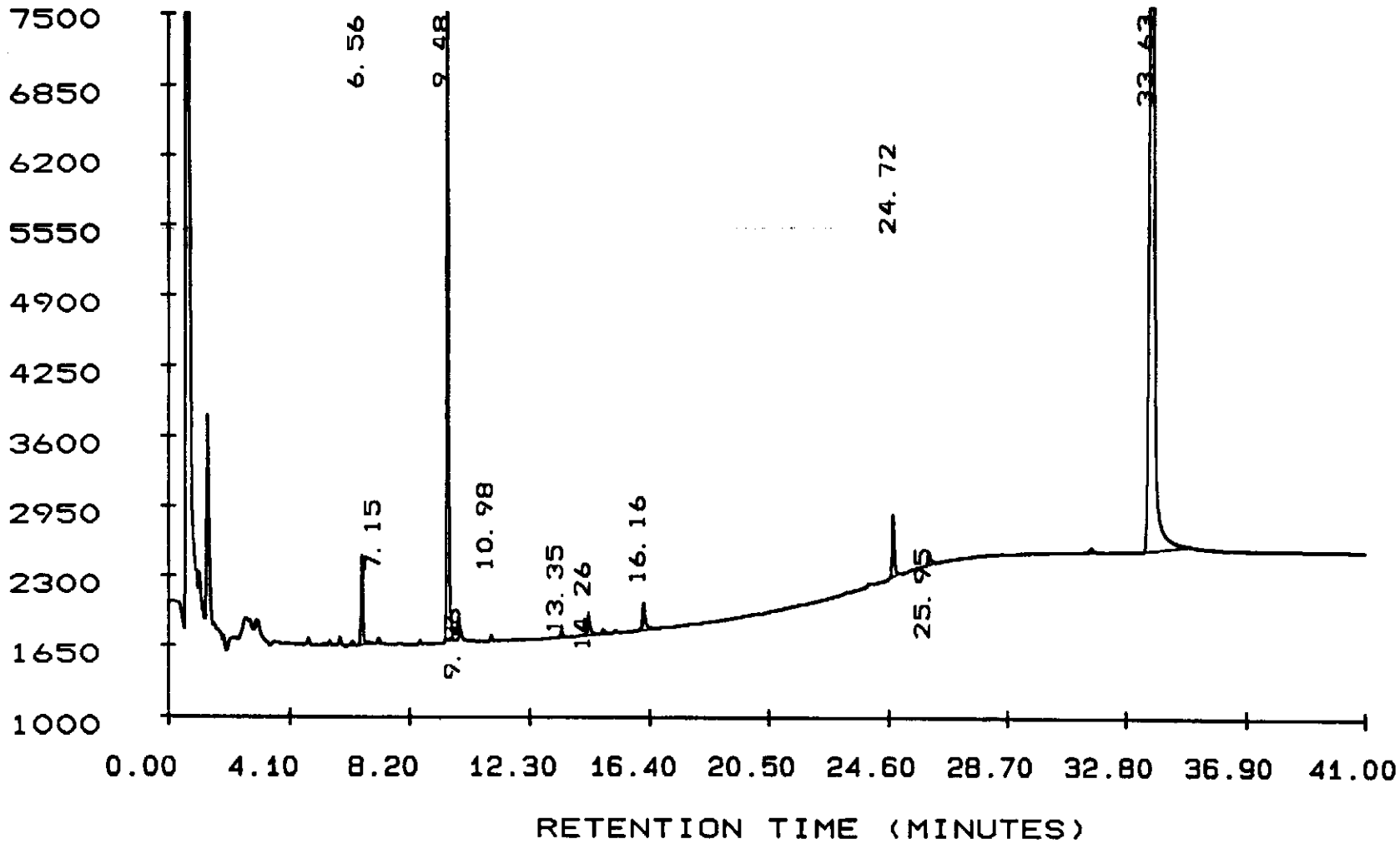

Y MAXIMUM: 7500.
Y MINIMUM: 1000.

START TIME: 0.00
END TIME: 41.00

Lionville Laboratory, Inc. 08/22/01 14:24:05

EXTERNAL STANDARD

SAMPLE: 08180135 .43 INST:35 VIAL:F0 SEQ NUMBER:043
TEST : OPCB DATE-TIME INJECTED : 08/20/01 03:15:06
COLLECTION TIME : 40.97 DATE-TIME PROCESSED : 08/22/01 14:24:05
METHOD: P35 / PCBLK REV #: 00223 ANALYST: KOBELM SAMP RATE: 1.56
CLIENT ID: PBLKMW SAMPLE VOL: 1.0 uL
CLIENT: LAB COLUMN TYPE: DB608
LAB ID: 01LE0920-MB1 RAW FILE: RAW3:HK140929
SAMPLE WT : % MOISTURE : DILUTION FACTOR : 1.0000
COLUMN ID: 0.53 mm I CAL ID : TEMP:L080601.35/25

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
002	40890	8216	V	6.565			
003	3492	546		7.146			
				9.399	1	TCX	
005	274899	57031	V	9.485			0.038 95%
006	11233	1660		9.862			
007	4002	548	V	10.980			
009	5077	1130	V	13.352			
010	13343	1901	V	14.264			
013	20290	2539		16.158			
014	33007	5767	V	24.724			
015	11449	1153		25.953			
017	1044436	103962		33.625	1	DCB	0.082 82%

Hogan 8/24/01

8/23/01
MC

01LE0920-MB1

SAMPLE NO. : 08180136 .43
TEST NO. :
METHOD NO. : P36 / P36

INSTRUMENT: 36
DATE TIME: 08/20/01 03:15:06
PAGE NO. : 01

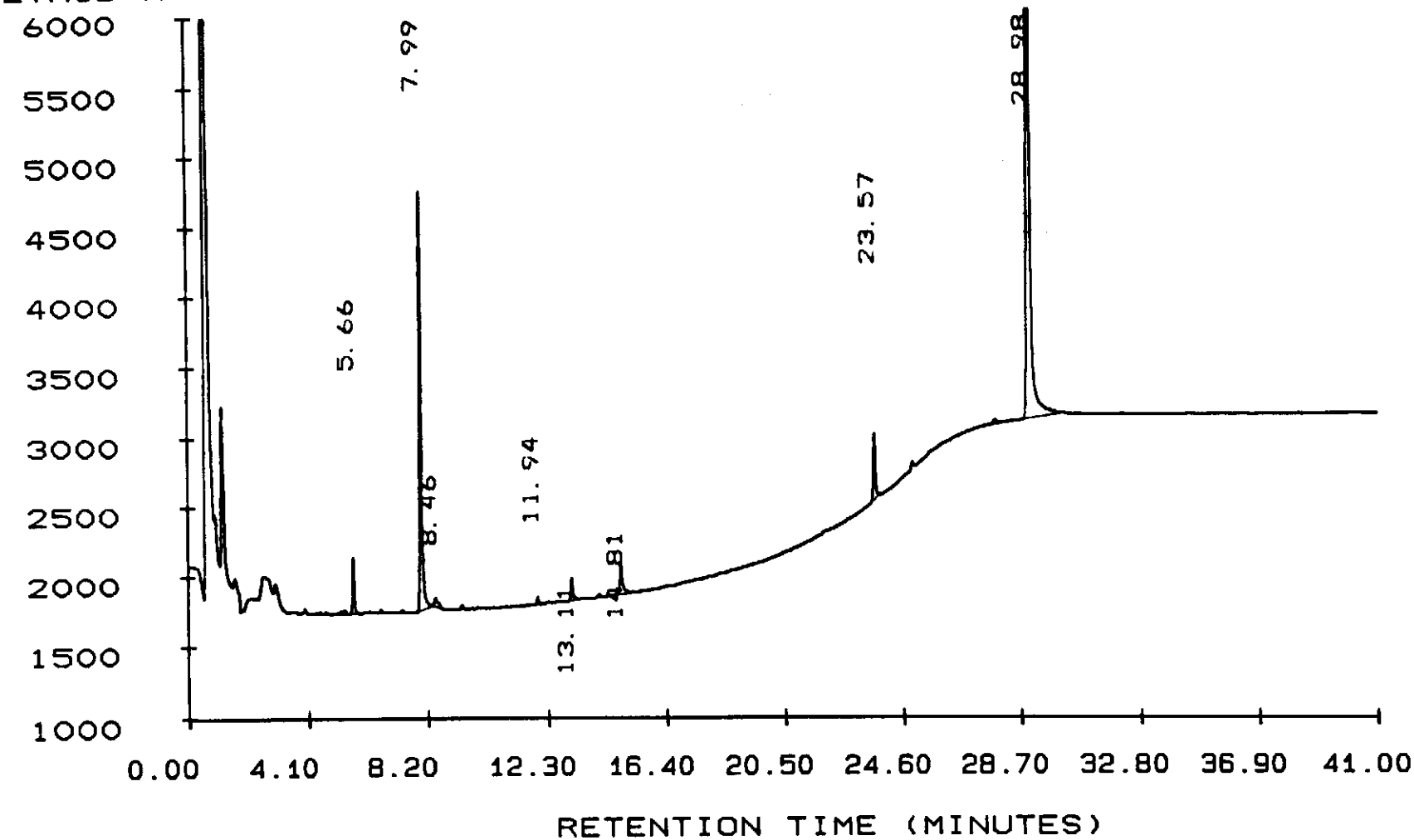

Y MAXIMUM: 6000.
Y MINIMUM: 1000.

START TIME: 0.00
END TIME: 41.00

Lionville Laboratory, Inc. 08/22/01 14:32:46

EXTERNAL STANDARD

SAMPLE: 08180136 .43 INST:36 VIAL:F0 SEQ NUMBER:043
TEST : OPCB DATE-TIME INJECTED : 08/20/01 03:15:06
COLLECTION TIME : 40.97 DATE-TIME PROCESSED : 08/22/01 14:32:46
METHOD: P36 / PCBJL REV #: 00213 ANALYST: KOBELM SAMP RATE: 1.56
CLIENT ID: PBLKMW SAMPLE VOL: 1.0 uL
CLIENT: LAB COLUMN TYPE: RTX1701
LAB ID: 01LE0920-MB1 RAW FILE: RAW3:HK140928
SAMPLE WT : % MOISTURE : DILUTION FACTOR : 1.0000
COLUMN ID: 0.53 mm I CAL ID : TEMP:L080601.36/25

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
002	18461	3991	V	5.660			
				7.920	1	TCX	
006	144978	29365	V	7.989			
007	6204	724	V	8.464			
010	2560	577	V	11.938			
011	9536	1652	V	13.108			
013	17219	2197		14.808			
014	24766	4727		23.570			
015	2559	486		24.918			
017	538424	77324		28.978	1	DCB	0.086

8/23/01
MK

1D
PESTICIDE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

PBLKMWMS

Lab Name: Lionville Labs, Inc. Work Order: 02744064001

Client: LANL REQ #9432R

Matrix: SOIL

Lab Sample ID: 01LE0920-MB1 BS

Sample wt/vol: 30.0 (g/mL) G

Lab File ID: 08180135.44

Level: (low/med) LOW

Date Received: 08/02/01

% Moisture: not dec. 0 dec.

Date Extracted: 08/02/01

Extraction: (SepF/Cont/Sonc) SONC

Date Analyzed: 08/20/01

GPC Cleanup: (Y/N) N pH: 7.0

Dilution Factor: 1.00

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NO.	COMPOUND		
12674-11-2------	Aroclor-1016	33	U
11104-28-2------	Aroclor-1221	67	U
11141-16-5------	Aroclor-1232	33	U
53469-21-9------	Aroclor-1242	33	U
12672-29-6------	Aroclor-1248	33	U
11097-69-1------	Aroclor-1254		SP
11096-82-5------	Aroclor-1260	33	U

SP: SPIKE COMPOUND

FORM 1 PEST

12/88 Rev.

01LE0920-MB1S

SAMPLE NO. : 08180135 .44
TEST NO. :
METHOD NO. : P35 / P35

INSTRUMENT: 35
DATE TIME: 08/20/01 04:02:56
PAGE NO. : 01

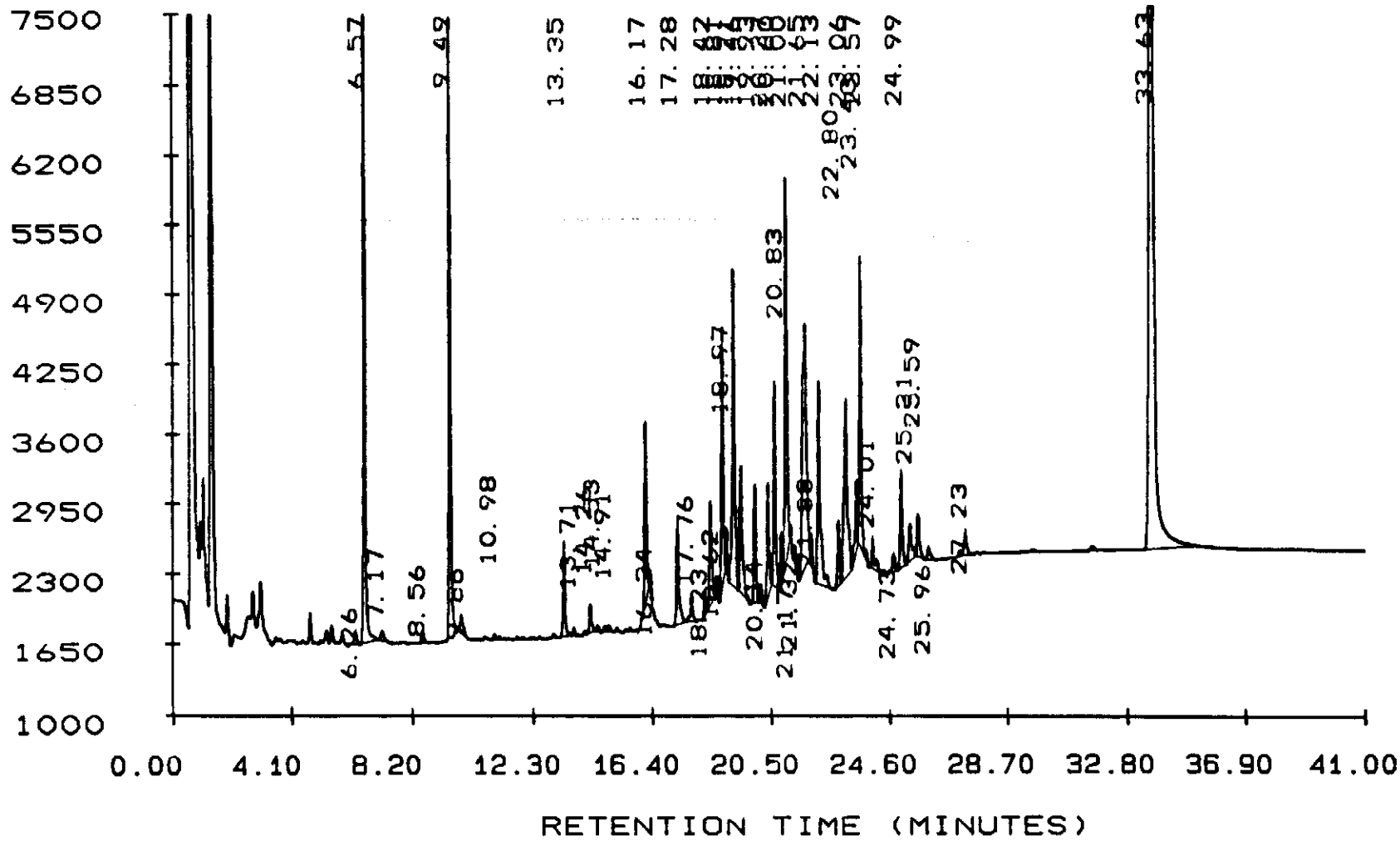

Y MAXIMUM: 7500.
Y MINIMUM: 1000.

START TIME: 0.00
END TIME: 41.00

Lionville Laboratory, Inc. 08/22/01 14:24:20

EXTERNAL STANDARD

SAMPLE: 08180135 .44 INST:35 VIAL:F0 SEQ NUMBER:044
TEST : OPCB-S DATE-TIME INJECTED : 08/20/01 04:02:56
COLLECTION TIME : 40.97 DATE-TIME PROCESSED : 08/22/01 14:24:20
METHOD: P35 / PCBLK REV #: 00223 ANALYST: KOBELM SAMP RATE: 1.56
CLIENT ID: PBLKMW SAMPLE VOL: 1.0 uL
CLIENT: LAB COLUMN TYPE: DB608
LAB ID: 01LE0920-MB1MS RAW FILE: RAW3:HK140930
SAMPLE WT : % MOISTURE : DILUTION FACTOR : 1.0000
COLUMN ID: 0.53 mm I CAL ID : TEMP:L080601.35/25

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
001	10110	1682	V	6.263			
002	288173	62516	V	6.567			
003	8072	1042		7.167			
004	6637	1193	V	8.563			
				9.399	1	TCX	
005	274172	56597	V	9.486			
006	13873	2046	V	9.863			
008	2338	505	V	10.980			
015	44597	8740	V	13.354			
016	3686	762	V	13.708			
018	16043	2655	V	14.263			
019	2496	573	V	14.528			
020	2353	542	V	14.764			
021	3482	553	V	14.911			
024	82585	16536	V	16.173			
025	6401	2069	V	16.344			
027	54234	8748	V	17.284			
028	16303	2543	V	17.762			
029	9137	1870	V	18.226			
030	53077	9409	V	18.417			
031	10018	2233	V	18.623			
032	117868	23747	V	18.814			
033	14892	4124	V	18.971			
034	172704	29037	V	19.207			
035	72062	11695	V	19.458			
036	56377	10866	V	19.932			
037	9337	1952	V	20.137			
038	57517	10619	V	20.367			
039	95347	18765	V	20.605			
040	21830	5013	V	20.830			
041	190377	35150	V	21.001			
042	4648	1689	V	21.168			
043	9603	1951	V	21.317			
044	226327	22284	V	21.654			
045	10415	2713	V	21.884			
046	112211	18465	V	22.128			
047	2549	650	V	22.414			
048	29563	6108	V	22.804			
049	137466	16533	V	23.061			
050	31904	6394	V	23.431			

0.038 95%

8/23/01
MK

SAMPLE: 08180135 .44 PAGE NUMBER: 2
DATE-TIME INJECTED : 08/20/01 04:02:56
DATE-TIME PROCESSED : 08/22/01 14:24:20

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL	
051	133445	26736	V	23.575				
052	2811	921	V	23.777				
053	13006	2808	V	24.011				
054	3461	799	V	24.147				
055	10850	1871	V	24.725				
056	50842	9081	V	24.993				
057	28788	3665	V	25.309				
058	23174	4005	V	25.591				
059	9864	1356	V	25.956				
061	16254	2558	V	27.232				
066	1055279	102638		33.627	1	DCB	0.081	81%
MPK		23747		18.814		AROCLOR-1254-1	0.322	RW:18.59-18.89
MPK		29037		19.207		AROCLOR-1254-2	0.330	RW:18.98-19.28
MPK		18765		20.605		AROCLOR-1254-3	0.349	RW:20.38-20.68
MPK		35150		21.001		AROCLOR-1254-4	0.349	RW:20.77-21.07
MPK		22284		21.654		AROCLOR-1254-5	0.341	RW:21.43-21.73
MPK		18465		22.128		AROCLOR-1254-6	0.343	RW:21.90-22.20
MPK		16533		23.061		AROCLOR-1254-7	0.346	RW:22.83-23.13
MPK		26736		23.575		AROCLOR-1254-8	0.354	RW:23.35-23.64
		190717					0.342	

(36) 0.333 88.80%

8/23/01
MK

01LE0920-MB1S

SAMPLE NO. : 08180136 .44
TEST NO. :
METHOD NO. : P36 / P36

INSTRUMENT: 36
DATE TIME: 08/20/01 04:02:56
PAGE NO. : 01

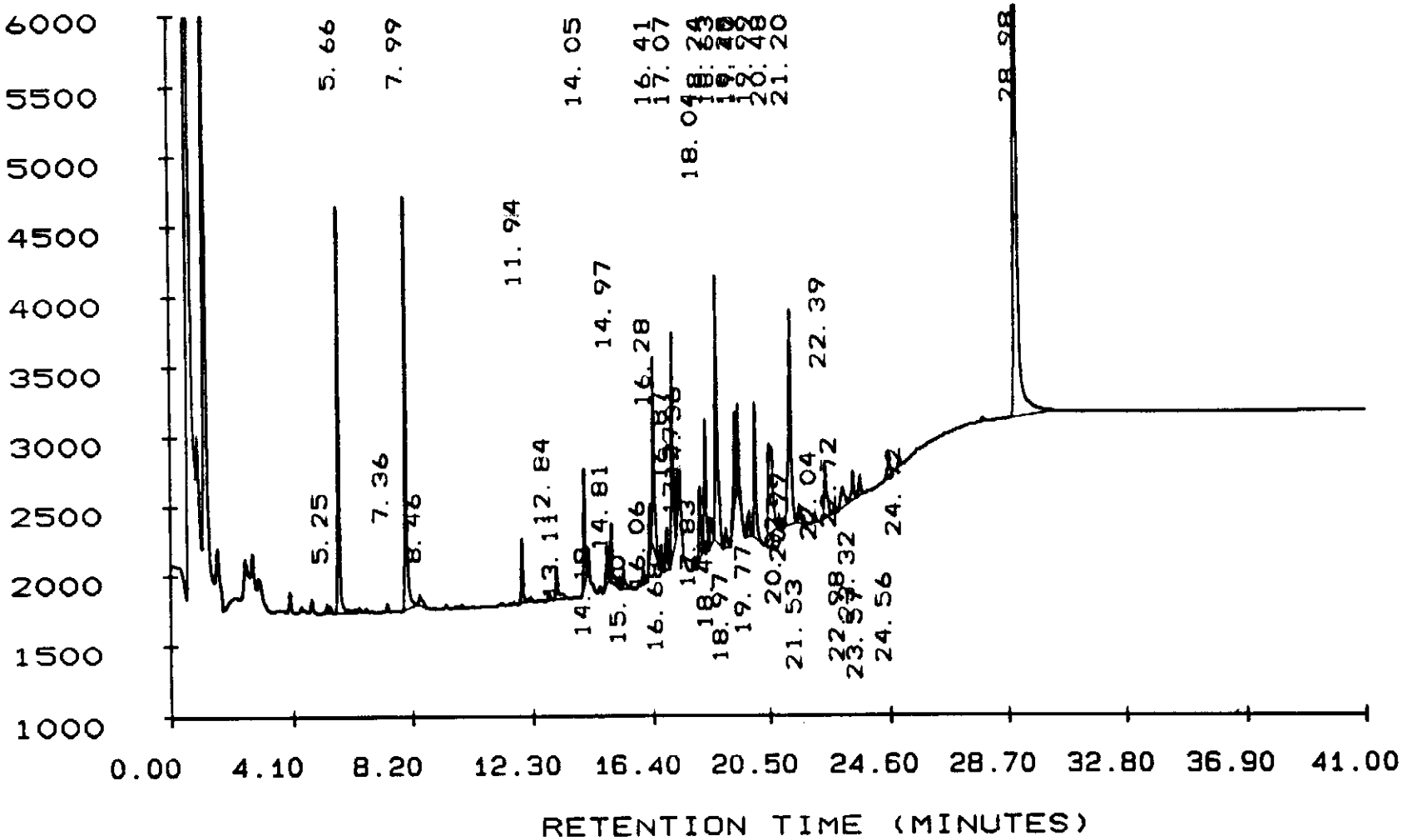

Y MAXIMUM: 6000.
Y MINIMUM: 1000.

START TIME: 0.00
END TIME: 41.00

Lionville Laboratory, Inc. 08/22/01 14:32:57

EXTERNAL STANDARD

SAMPLE: 08180136 .44 INST:36 VIAL:F0 SEQ NUMBER:044
TEST : OPCB-S DATE-TIME INJECTED : 08/20/01 04:02:56
COLLECTION TIME : 40.97 DATE-TIME PROCESSED : 08/22/01 14:32:57
METHOD: P36 / PCBJL REV #: 00213 ANALYST: KOBELM SAMP RATE: 1.56
CLIENT ID: PBLKMW SAMPLE VOL: 1.0 uL
CLIENT: LAB COLUMN TYPE: RTX1701
LAB ID: 01LE0920-MB1MS RAW FILE: RAW3:HK140931
SAMPLE WT : % MOISTURE : DILUTION FACTOR : 1.0000
COLUMN ID: 0.53 mm I CAL ID : TEMP:L080601.36/25

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL
001	2797	721	V	5.246			
003	128410	28220	V	5.660			
006	3261	589	V	7.357			
				7.920	1	TCX	
007	144966	28982	V	7.990			
008	7234	857	V	8.464			
013	20503	4557	V	11.939			
015	3751	597	V	12.843			
016	16454	2343	V	13.108			
017	36690	8161	V	14.050			
018	7748	2066	V	14.194			
019	2163	512	V	14.573			
020	12565	2680	V	14.808			
021	21525	4111	V	14.974			
022	9446	1446	V	15.398			
023	6461	1054	V	16.061			
024	14650	3701	V	16.284			
025	70717	13534	V	16.415			
026	8509	1959	V	16.680			
027	14989	3181	V	16.865			
028	81798	15711	V	17.069			
029	10812	2935	V	17.272			
030	9984	3211	V	17.359			
031	5101	1049	V	17.832			
032	27680	5300	V	18.036			
033	46560	9341	V	18.238			
034	13115	2120	V	18.437			
035	111986	18600	V	18.632			
036	9926	1579	V	18.972			
037	29724	6346	V	19.285			
038	34137	6628	V	19.404			
039	11245	2077	V	19.770			
040	53136	9832	V	19.993			
041	10585	2374	V	20.483			
042	6014	1550	V	20.560			
043	5137	1165	V	20.825			
044	3156	862	V	20.986			
045	104647	15255	V	21.199			
046	8127	1482	V	21.527			
047	1844	502	V	21.671			

8/23/01
MK

SAMPLE: 08180136 .44 PAGE NUMBER: 2
DATE-TIME INJECTED : 08/20/01 04:02:56
DATE-TIME PROCESSED : 08/22/01 14:32:57

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC NG/UL	
048	4114	707	V	22.038				
049	27563	3973	V	22.391				
050	2793	616	V	22.721				
051	13722	1569	V	22.976				
052	12682	2177	V	23.324				
053	8666	1697	V	23.571				
054	9346	1578	V	24.560				
055	4020	679		24.921				
057	540178	75437		28.978	1	DCB	0.083	
MPK		8161		14.050		AROCLOR-1254-1	0.354	RW:13.92-14.06
MPK		13534		16.415		AROCLOR-1254-2	0.338	RW:16.29-16.43
MPK		15711		17.069		AROCLOR-1254-3	0.351	RW:16.94-17.08
MPK		9341		18.238		AROCLOR-1254-4	0.373	RW:18.11-18.25
MPK		18600		18.632		AROCLOR-1254-5	0.376	RW:18.50-18.64
MPK		9832		19.993		AROCLOR-1254-6	0.371	RW:19.86-20.00
MPK		2374		20.483		AROCLOR-1254-7	0.124	RW:20.35-20.49
MPK		15255		21.199		AROCLOR-1254-8	0.375	RW:21.07-21.21
		92808					0.333	

8/23/01
MK

Analysis Run Logs

INSTRUMENT ID: 15
DETECTOR TYPE: ECD
INJECT VOLUME: 2.0ml/split

COLUMN TYPE: RTX-35
COLUMN SERIAL #: 5998-32
OVEN TEMP PROGRAM: #1

ANALYST: EG 8/16/01
CALIBRATION DATE: ~~8/16/01~~ same
METHOD / OP: 8081/8082

#	SAMPLE SET ID.VIAL #	INJECTION ID	ANALYSIS DATE/TIME	LLvl SAMPLE # DESCRIPTION	DF
01	08060135.01	RAW3:H6145199 8/16/01	08/06/01 15:02:05	COND	
02	08060135.02	RAW3:H6145203	08/06/01 15:50:03	COND	
03	08060135.03	RAW3:H6145207	08/06/01 16:38:02	COND	
04	08060135.04	RAW3:H6145216	08/06/01 17:25:59	COND	
05	08060135.05	RAW3:H6145224	08/06/01 18:13:55	AR1660 2801 A	
06	08060135.06	RAW3:H6145232	08/06/01 19:01:45	AR1660 2802 B	
07	08060135.07	RAW3:H6145240	08/06/01 19:49:34	AR1660 2803 C	
08	08060135.08	RAW3:H6145247	08/06/01 20:37:32	AR1660 2804 D	
09	08060135.09	RAW3:H6145255	08/06/01 21:25:33	AR1660 2805 E	
10	08060135.10	RAW3:H6145264	08/06/01 22:13:44	AR1221 1108	
11	08060135.11	RAW3:H6145272	08/06/01 23:01:32	AR1232 1205	
12	08060135.12	RAW3:H6145279	08/06/01 23:49:23	AR1242 1304	
13	08060135.13	RAW3:H7145287	08/07/01 00:37:11	AR1248 1101	
14	08060135.14	RAW3:H7145293	08/07/01 01:25:01	AR1254 9403 C	
15	08060135.15	RAW3:H7145299	08/07/01 02:12:49	0108L458-002	
16	08060135.16	RAW3:H7145307	08/07/01 03:00:39	01LE0921-MB1	
17	08060135.17	RAW3:H7145314	08/07/01 03:48:26	01LE0921-MB1S	
18	08060135.18	RAW3:H7145319	08/07/01 04:36:24	01LE0921-MB1S	
19	08060135.19	RAW3:H7145326	08/07/01 05:24:21	AR1660 2803 C	
20	08060135.20	RAW3:H7145331	08/07/01 06:12:18	0107L397-001	
21	08060135.21	RAW3:H7145338	08/07/01 07:00:30	0107L397-001S	
22	08060135.22	RAW3:H7145344	08/07/01 07:48:55	0107L397-001T	
23	08060135.23	RAW3:H7145350	08/07/01 08:37:20	0107L397-003	
24	08060135.24	RAW3:H7145356	08/07/01 09:25:23	01LE0915-MB1	
25	08060135.25	RAW3:H7145363	08/07/01 10:13:10	01LE0915-MB1S	
26	08060135.26	RAW3:H7145369	08/07/01 11:01:32	0107L410-001	
27	08060135.27	RAW3:H7145375	08/07/01 11:49:19	0107L410-001S	
28	08060135.28	RAW3:H7145382	08/07/01 12:37:28	0107L410-001T	
29	08060135.29	RAW3:H7145387	08/07/01 13:25:35	0107L410-004	
30	08060135.30	RAW3:H7145393	08/07/01 14:13:25	HEXANE	
31	08060135.31	RAW3:H7145399	08/07/01 15:01:12	AR1660 2803 C	
32	08060135.32	RAW3:H7145403 8/16/01	08/07/01 15:49:18	0107L411-001	

COMMENTS

All Standards May Be Referenced To Standard Logbook #: 8048 8633

Millennium Project ID: N/A

LOGBOOK # 8626

REVIEWED BY/DATE: MC 8/16/01

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L-WI-022/A-02/01

Lionville Laboratory

GC ANALYSIS LOG

INSTRUMENT ID:
DETECTOR TYPE: See
INJECT VOLUME:

COLUMN TYPE:
COLUMN SERIAL #: 09 77
OVEN TEMP PROGRAM:

ANALYST: EG 8/14/01
CALIBRATION DATE: ~~8/10/01~~ same
METHOD / OP: 8081/8082

#	SAMPLE SET ID.VIAL #	INJECTION ID	ANALYSIS DATE/TIME	LLvI SAMPLE # DESCRIPTION	DF	COMMENTS
33	08060135.33	RAW3:H7145412	08/07/01 16:37:05	0107L411-002		All Standards May Be Referenced To Standard Logbook #: 8048 8633
34	08060135.34	RAW3:H7145420	08/07/01 17:25:02	0107L411-003		
35	08060135.35	RAW3:H7145428	08/07/01 18:12:56	0107L411-004		Millennium Project ID: N/A
36	08060135.36	RAW3:H7145435	08/07/01 19:00:55	0107L411-005		
37	08060135.37	RAW3:H7145444	08/07/01 19:48:50	0107L411-006		
38	08060135.38	RAW3:H7145451	08/07/01 20:36:40	0107L416-001		
39	08060135.39	RAW3:H7145459	08/07/01 21:24:35	0107L416-004		
40	08060135.40	RAW3:H7145467	08/07/01 22:12:25	0107L416-007		
41	08060135.41	RAW3:H7145475	08/07/01 23:00:36	0107L416-010		
42	08060135.42	RAW3:H7145483	08/07/01 23:48:26	HEXANE		
43	08060135.43	RAW3:H8145491	08/08/01 00:36:14	AR1660 2803 C		
44	08060135.44	RAW3:H8145497	08/08/01 01:24:16	0107L416-013		
45	08060135.45	RAW3:H8145505	08/08/01 02:12:21	0107L416-016		
46	08060135.46	RAW3:H8145513	08/08/01 03:00:10	HEXANE		
47	08060135.47	RAW3:H8145519	08/08/01 03:47:58	AR1660 2803 C		
48	08060135.48	RAW3:H8145590	08/08/01 16:16:41	AR1660 2803 C		
49	08060135.49	RAW3:H8145597	08/08/01 17:04:38	0108L458-001		
50	08060135.50	RAW3:H8145606	08/08/01 17:52:27	01LE0923-MB1		
51	08060135.51	RAW3:H8145614	08/08/01 18:40:15	01LE0923-MB1S		
52	08060135.52	RAW3:H8145623	08/08/01 19:28:26	01LE0923-MB1T		
53	08060135.53	RAW3:H8145629	08/08/01 20:16:35	01LE0922-MB1		
54	08060135.54	RAW3:H8145636	08/08/01 21:04:24	01LE0922-MB1S		
55	08060135.55	RAW3:H8145644	08/08/01 21:52:38	0108L445-001		
56	08060135.56	RAW3:H8145653	08/08/01 22:40:28	0108L445-001S		
57	08060135.57	RAW3:H8145659	08/08/01 23:28:24	0108L445-001T		
58	08060135.58	RAW3:H9145665	08/09/01 00:16:13	0108L445-001S		
59	08060135.59	RAW3:H9145669	08/09/01 01:04:49	HEXANE		
60	08060135.60	RAW3:H9145674	08/09/01 01:52:37	AR1660 2803 C		
61	08060135.61	RAW3:H9145680	08/09/01 02:40:35	0108L445-009		
62	08060135.62	RAW3:H9145687	08/09/01 03:29:49	0108L447-001		
63	08060135.63	RAW3:H9145692	08/09/01 04:17:55	0108L447-002		
64	08060135.64	RAW3:H9145698	08/09/01 05:06:29	0108L447-003		

LOGBOOK # 8686

REVIEWED BY/DATE: MC 8/16/01

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PAGE # 078

INSTRUMENT ID: _____
DETECTOR TYPE: SLC
INJECT VOLUME: _____

COLUMN TYPE: _____
COLUMN SERIAL #: PG 77
OVEN TEMP PROGRAM: _____

ANALYST: EG C 8/10/01
CALIBRATION DATE: ~~8/10/01~~ same
METHOD / OP: 8081/8082

#	SAMPLE SET ID.VIAL #	INJECTION ID	ANALYSIS DATE/TIME	LLvl SAMPLE # DESCRIPTION	DF	COMMENTS
65	08060135.65	RAW3:H9145704	08/09/01 05:54:35	0108L447-004		All Standards May Be Referenced To Standard Logbook #: 8648 8633
66	08060135.66	RAW3:H9145710	08/09/01 06:42:24	0108L447-005		
67	08060135.67	RAW3:H9145716	08/09/01 07:30:19	HEXANE		Millennium Project ID: N/A
68	08060135.68	RAW3:H9145723	08/09/01 08:18:08	AR1660 2803 C		
69	08060135.69	RAW3:H9145774	08/09/01 19:20:00	COND		
70	08060135.70	RAW3:H9145778	08/09/01 20:08:02	COND		
71	08060135.71	RAW3:H9145782	08/09/01 20:56:01	COND		
72	08060135.72	RAW3:H9145785	08/09/01 21:43:57	AR1660 2803 C		
73	08060135.73	RAW3:H9145786	08/09/01 22:31:54	0107L445-005		
74	08060135.74	RAW3:H9145789	08/09/01 23:20:01	HEXANE		
75	08060135.75	RAW3:HA145790	08/10/01 00:07:51	AR1660 2803 C		

End of Queue
EG 8/10/01

LOGBOOK # 8686

REVIEWED BY/DATE: MK 8/16/01

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PAGE # 079

INSTRUMENT ID: 15	COLUMN TYPE: RTX-CLP2	ANALYST: EG
DETECTOR TYPE: ECD	COLUMN SERIAL #: 236704	CALIBRATION DATE: ~~8/16/01 MK~~ 8/16/01 same
INJECT VOLUME: 2.0 mlsplit	OVEN TEMP PROGRAM: #1	METHOD / OP: ~~8081~~ / 8082

#	SAMPLE SET ID.VIAL #	INJECTION ID	ANALYSIS DATE/TIME	LLvl SAMPLE # DESCRIPTION	DF
01	08060136.01	RAW3:H6145200 Exhaustion	08/06/01 15:02:05	COND	
02	08060136.02	RAW3:H6145204	08/06/01 15:50:04	COND	
03	08060136.03	RAW3:H6145208	08/06/01 16:38:02	COND	
04	08060136.04	RAW3:H6145215	08/06/01 17:25:59	COND	
05	08060136.05	RAW3:H6145223	08/06/01 18:13:55	AR1660 2801 A	
06	08060136.06	RAW3:H6145231	08/06/01 19:01:45	AR1660 2802 B	
07	08060136.07	RAW3:H6145239	08/06/01 19:49:34	AR1660 2803 C	
08	08060136.08	RAW3:H6145248	08/06/01 20:37:33	AR1660 2804 D	
09	08060136.09	RAW3:H6145256	08/06/01 21:25:34	AR1660 2805 E	
10	08060136.10	RAW3:H6145263	08/06/01 22:13:44	AR1221 1108	
11	08060136.11	RAW3:H6145271	08/06/01 23:01:33	AR1232 1205	
12	08060136.12	RAW3:H6145280	08/06/01 23:49:23	AR1242 1304	
13	08060136.13	RAW3:H7145288	08/07/01 00:37:11	AR1248 1101	
14	08060136.14	RAW3:H7145294	08/07/01 01:25:02	AR1254 9403 C	
15	08060136.15	RAW3:H7145300	08/07/01 02:12:49	0108L458-002	
16	08060136.16	RAW3:H7145308	08/07/01 03:00:39	01LE0921-MB1	
17	08060136.17	RAW3:H7145313	08/07/01 03:48:26	01LE0921-MB1S	
18	08060136.18	RAW3:H7145320	08/07/01 04:36:24	01LE0921-MB1S	
19	08060136.19	RAW3:H7145325	08/07/01 05:24:21	AR1660 2803 C	
20	08060136.20	RAW3:H7145332	08/07/01 06:12:17	0107L397-001	
21	08060136.21	RAW3:H7145337	08/07/01 07:00:30	0107L397-001S	
22	08060136.22	RAW3:H7145343	08/07/01 07:48:55	0107L397-001T	
23	08060136.23	RAW3:H7145349	08/07/01 08:37:20	0107L397-003	
24	08060136.24	RAW3:H7145355	08/07/01 09:25:23	01LE0915-MB1	
25	08060136.25	RAW3:H7145364	08/07/01 10:13:11	01LE0915-MB1S	
26	08060136.26	RAW3:H7145370	08/07/01 11:01:32	0107L410-001	
27	08060136.27	RAW3:H7145376	08/07/01 11:49:19	0107L410-001S	
28	08060136.28	RAW3:H7145381	08/07/01 12:37:28	0107L410-001T	
29	08060136.29	RAW3:H7145388	08/07/01 13:25:35	0107L410-004	
30	08060136.30	RAW3:H7145394	08/07/01 14:13:25	HEXANE	
31	08060136.31	RAW3:H7145400	08/07/01 15:01:13	AR1660 2803 C	
32	08060136.32	RAW3:H7145404 Exam/19	08/07/01 15:49:18	0107L411-001	

COMMENTS

All Standards May Be Referenced To Standard Logbook #: 8048 8633

Millennium Project ID: N/A

LOGBOOK # 8686

REVIEWED BY/DATE: 8/16/01 MK

L-WI-022/A-02/01

PAGE # 080

INSTRUMENT ID:
DETECTOR TYPE: SLL
INJECT VOLUME:

COLUMN TYPE:
COLUMN SERIAL #: PG80
OVEN TEMP PROGRAM:

ANALYST: EY
CALIBRATION DATE: ~~8/10/01~~ 8/16/01 MC same
METHOD / OP: 8081 / 8082

#	SAMPLE SET ID.VIAL #	INJECTION ID	ANALYSIS DATE/TIME	LLvl SAMPLE # DESCRIPTION	DF
33	08060136.33	RAW3:H7145411	08/07/01 16:37:05	0107L411-002	
34	08060136.34	RAW3:H7145419	08/07/01 17:25:02	0107L411-003	
35	08060136.35	RAW3:H7145427	08/07/01 18:12:56	0107L411-004	
36	08060136.36	RAW3:H7145436	08/07/01 19:00:55	0107L411-005	
37	08060136.37	RAW3:H7145443	08/07/01 19:48:50	0107L411-006	
38	08060136.38	RAW3:H7145452	08/07/01 20:36:40	0107L416-001	
39	08060136.39	RAW3:H7145460	08/07/01 21:24:35	0107L416-004	
40	08060136.40	RAW3:H7145468	08/07/01 22:12:25	0107L416-007	
41	08060136.41	RAW3:H7145476	08/07/01 23:00:36	0107L416-010	
42	08060136.42	RAW3:H7145484	08/07/01 23:48:26	HEXANE	
43	08060136.43	RAW3:H8145492	08/08/01 00:36:14	AR1660 2803 C	
44	08060136.44	RAW3:H8145498	08/08/01 01:24:16	0107L416-013	
45	08060136.45	RAW3:H8145506	08/08/01 02:12:21	0107L416-016	
46	08060136.46	RAW3:H8145514	08/08/01 03:00:10	HEXANE	
47	08060136.47	RAW3:H8145520	08/08/01 03:47:58	AR1660 2803 C	
48	08060136.48	RAW3:H8145591	08/08/01 16:16:41	AR1660 2803 C	
49	08060136.49	RAW3:H8145598	08/08/01 17:04:38	0108L458-001	
50	08060136.50	RAW3:H8145607	08/08/01 17:52:27	01LE0923-MB1	
51	08060136.51	RAW3:H8145615	08/08/01 18:40:15	01LE0923-MB1S	
52	08060136.52	RAW3:H8145622	08/08/01 19:28:26	01LE0923-MB1T	
53	08060136.53	RAW3:H8145628	08/08/01 20:16:36	01LE0922-MB1	
54	08060136.54	RAW3:H8145637	08/08/01 21:04:25	01LE0922-MB1S	
55	08060136.55	RAW3:H8145645	08/08/01 21:52:38	0108L445-001	
56	08060136.56	RAW3:H8145652	08/08/01 22:40:28	0108L445-001S	
57	08060136.57	RAW3:H8145658	08/08/01 23:28:24	0108L445-001T	
58	08060136.58	RAW3:H9145664	08/09/01 00:16:13	0108L445-001S	
59	08060136.59	RAW3:H9145668	08/09/01 01:04:49	HEXANE	
60	08060136.60	RAW3:H9145675	08/09/01 01:52:38	AR1660 2803 C	
61	08060136.61	RAW3:H9145681	08/09/01 02:40:35	0108L445-009	
62	08060136.62	RAW3:H9145686	08/09/01 03:29:49	0108L447-001	
63	08060136.63	RAW3:H9145693	08/09/01 04:17:55	0108L447-002	
64	08060136.64	RAW3:H9145698	08/09/01 05:06:29	0108L447-003	

COMMENTS

All Standards May Be Referenced To Standard Logbook # 8048 8633

Millennium Project ID: N/A

LOGBOOK # 8686

REVIEWED BY/DATE: MC 8/16/01

PAGE # 081

L-WI-022/A-02/01

INSTRUMENT ID:	COLUMN TYPE:	ANALYST: Eh 8/16/01 MK
DETECTOR TYPE: See	COLUMN SERIAL #: PG 80	CALIBRATION DATE: ~~8/16/01~~ same
INJECT VOLUME:	OVEN TEMP PROGRAM:	METHOD / OP: 8081/8082

#	SAMPLE SET ID.VIAL #	INJECTION ID	ANALYSIS DATE/TIME	LLvl SAMPLE # DESCRIPTION	DF	COMMENTS
65	08060136.65	RAW3:H9145705	08/09/01 05:54:35	0108L447-004		All Standards May Be Referenced To Standard Logbook #: 8048 8633
66	08060136.66	RAW3:H9145711	08/09/01 06:42:24	0108L447-005		
67	08060136.67	RAW3:H9145717	08/09/01 07:30:19	HEXANE		Millennium Project ID N/A
68	08060136.68	RAW3:H9145722	08/09/01 08:18:08	AR1660 2803 C		
69	08060136.69	RAW3:H9145775	08/09/01 19:20:01	COND		
70	08060136.70	RAW3:H9145779	08/09/01 20:08:02	COND		
71	08060136.71	RAW3:H9145783	08/09/01 20:56:02	COND		
72	08060136.72	RAW3:H9145784	08/09/01 21:43:58	AR1660 2803 C		
73	08060136.73	RAW3:H9145787	08/09/01 22:31:55	0107L445-005		
74	08060136.74	RAW3:H9145788	08/09/01 23:20:01	HEXANE		
75	08060136.75	RAW3:HA145791	08/10/01 00:07:51	AR1660 2803 C		

EH 8/10/01

EH 8/10/01
End of Queue

LOGBOOK # 8080

REVIEWED BY/DATE: MK 8/16/01

L-WI-022/A-02/01

PAGE # 082

GC ANALYSIS LOG

INSTRUMENT ID: 15
DETECTOR TYPE: ECD
INJECT VOLUME: 2.0 µL split

COLUMN TYPE: RTX-35
COLUMN SERIAL #: 5998-32
OVEN TEMP PROGRAM: #1

ANALYST: MK
CALIBRATION DATE: 8/6/01
METHOD / OP: 8082

#	SAMPLE SET ID.VIAL #	INJECTION ID	ANALYSIS DATE/TIME	LLvl SAMPLE # DESCRIPTION	DF	COMMENTS
01	08180135.01	RAW3:HI140752	08/18/01 17:44:38	COND		All Standards May Be Referenced To Standard Logbook #: 8048 8033
02	08180135.02	RAW3:HI140759	08/18/01 18:32:37	COND		
03	08180135.03	RAW3:HI140762	08/18/01 19:20:33	COND		Millennium Project ID: NA
04	08180135.04	RAW3:HI140768	08/18/01 20:08:31	AR1660 2803 C		
05	08180135.05	RAW3:HI140774	08/18/01 20:56:26	0108L528-001		
06	08180135.06	RAW3:HI140780	08/18/01 21:44:15	0108L528-001R		
07	08180135.07	RAW3:HI140786	08/18/01 22:32:02	0108L528-001S		
08	08180135.08	RAW3:HI140792	08/18/01 23:20:12	01LE0947-MB1		
09	08180135.09	RAW3:HJ140798	08/19/01 00:07:59	01LE0947-MB1S		
10	08180135.10	RAW3:HJ140805	08/19/01 00:56:07	01LE0947-MB1T		
11	08180135.11	RAW3:HJ140809	08/19/01 01:44:16	0108L521-001		
12	08180135.12	RAW3:HJ140814	08/19/01 02:32:05	0108L521-002		
13	08180135.13	RAW3:HJ140819	08/19/01 03:19:52	01LE0943-MB1		
14	08180135.14	RAW3:HJ140822	08/19/01 04:07:41	01LE0943-MB1S		
15	08180135.15	RAW3:HJ140826	08/19/01 04:55:28	AR1660 2803 C		
16	08180135.16	RAW3:HJ140831	08/19/01 05:43:26	01LE0943-MB1T		
17	08180135.17	RAW3:HJ140834	08/19/01 06:31:13	0108L534-002		
18	08180135.18	RAW3:HJ140839	08/19/01 07:19:03	WSRC HEXANE		
19	08180135.19	RAW3:HJ140843	08/19/01 08:06:50	0108L578-001		
20	08180135.20	RAW3:HJ140846	08/19/01 08:54:38	0108L578-001R		
21	08180135.21	RAW3:HJ140851	08/19/01 09:42:26	0108L578-001S		
22	08180135.22	RAW3:HJ140854	08/19/01 10:30:22	01LE0962-MB1		
23	08180135.23	RAW3:HJ140858	08/19/01 11:18:09	01LE0962-MB1S		
24	08180135.24	RAW3:HJ140863	08/19/01 12:06:05	01LE0926-MB1		
25	08180135.25	RAW3:HJ140866	08/19/01 12:53:52	01LE0926-MB1S		
26	08180135.26	RAW3:HJ140870	08/19/01 13:41:55	AR1660 2803 C		
27	08180135.27	RAW3:HJ140874	08/19/01 14:29:51	0108L479-001		
28	08180135.28	RAW3:HJ140878	08/19/01 15:17:40	0108L449-001		
29	08180135.29	RAW3:HJ140883	08/19/01 16:05:27	0108L449-001S		
30	08180135.30	RAW3:HJ140886	08/19/01 16:53:15	0108L449-001T		
31	08180135.31	RAW3:HJ140890	08/19/01 17:41:02	0108L449-004		
32	08180135.32	RAW3:HJ140895	08/19/01 18:28:51	0108L449-007		

LOGBOOK # 8686

REVIEWED BY/DATE: 8/24/01

PAGE # 087

L-WI-022/A-02/01

INSTRUMENT ID: See.
DETECTOR TYPE:
INJECT VOLUME:

COLUMN TYPE: P.87
COLUMN SERIAL #:
OVEN TEMP PROGRAM:

ANALYST: MK
CALIBRATION DATE: 8/6/01
METHOD / OP: 8082

#	SAMPLE SET ID.VIAL #	INJECTION ID	ANALYSIS DATE/TIME	LLvl SAMPLE # DESCRIPTION	DF
33	08180135.33	RAW3:HJ140899 MK 8/24/01	08/19/01 19:16:39	0108L449-010	
34	08180135.34	RAW3:HJ140902	08/19/01 20:04:27	0108L449+013	
35	08180135.35	RAW3:HJ140906	08/19/01 20:52:15	0108L477-001	
36	08180135.36	RAW3:HJ140910	08/19/01 21:40:03	0108L477-001S	
37	08180135.37	RAW3:HJ140914	08/19/01 22:28:01	HEXANE	
38	08180135.38	RAW3:HJ140918	08/19/01 23:15:51	AR1660 2803 C	
39	08180135.39	RAW3:HJ140920	08/20/01 00:03:46	0108L477-001T	
40	08180135.40	RAW3:HK140922	08/20/01 00:51:42	0108L477-002	
41	08180135.41	RAW3:HK140924	08/20/01 01:39:30	0108L535-003	
42	08180135.42	RAW3:HK140927	08/20/01 02:27:19	0108L535-004	
43	08180135.43	RAW3:HK140929	08/20/01 03:15:06	01LE0920-MB1	
44	08180135.44	RAW3:HK140930	08/20/01 04:02:56	01LE0920-MB1S	
45	08180135.45	RAW3:HK140933	08/20/01 04:50:55	0107L423-001	10
46	08180135.46	RAW3:HK140934	08/20/01 05:38:45	0107L423-002	10
47	08180135.47	RAW3:HK140937	08/20/01 06:26:31	0107L423-003	10
48	08180135.48	RAW3:HK140938	08/20/01 07:14:19	0107L423-004	10
49	08180135.49	RAW3:HK140940	08/20/01 08:02:06	HEXANE	
50	08180135.50	RAW3:HK140942	08/20/01 08:49:55	AR1660 2803 C	
51	08180135.51	RAW3:HK140944	08/20/01 09:45:05	0107L423-006	10
52	08180135.52	RAW3:HK140946	08/20/01 10:32:52	0107L423-006	
53	08180135.53	RAW3:HK140948	08/20/01 11:20:57	0107L423-008	10
54	08180135.54	RAW3:HK140950	08/20/01 12:08:45	0107L423-010	10
55	08180135.55	RAW3:HK140952	08/20/01 12:56:30	0107L423-012	10
56	08180135.56	RAW3:HK140955 MK 8/24/01	08/20/01 13:44:20	0107L423-014	10
57	08180135.57	RAW3:HK140957	08/20/01 14:32:07	0107L423-014S	10
58	08180135.58	RAW3:HK140959	08/20/01 15:19:55	0107L423-014T	10
59	08180135.59	RAW3:HK140964	08/20/01 16:07:42	0107L436-001	
60	08180135.60	RAW3:HK140966	08/20/01 16:55:32	0107L436-002	
61	08180135.61	RAW3:HK140969	08/20/01 17:44:39	HEXANE	
62	08180135.62	RAW3:HK140972	08/20/01 18:32:29	AR1660 2803 C	
63	08180135.63	RAW3:HK140976	08/20/01 19:20:28	0107L436-003	
64	08180135.64	RAW3:HK140978 MK 8/24/01	08/20/01 20:08:17	0108L529-001	

COMMENTS

All Standards May Be Referenced To Standard Logbook #: 8048 8633

Millennium Project ID: NA

LOGBOOK # 86086

REVIEWED BY/DATE: 8/24/01

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[redacted]

INSTRUMENT ID: ____	COLUMN TYPE: P. 87	ANALYST: MK
DETECTOR TYPE: Sle	COLUMN SERIAL #: ____	CALIBRATION DATE: 8/6/01
INJECT VOLUME: ____	OVEN TEMP PROGRAM: ____	METHOD / OP: 8082

#	SAMPLE SET ID.VIAL #	INJECTION ID	ANALYSIS DATE/TIME	LLvI SAMPLE # DESCRIPTION	DF	COMMENTS
65	08180135.65	RAW3:HK140981 MK 8/24/01	08/20/01 20:57:39	0108L529-002		All Standards May Be Referenced To Standard Logbook #: 8048 8633
66	08180135.66	RAW3:HK140984	08/20/01 21:45:35	0108L529-003		
67	08180135.67	RAW3:HK140986	08/20/01 22:35:05	0108L529-004		Millennium Project ID: N/A
68	08180135.68	RAW3:HK140988	08/20/01 23:23:27	0108L529-005		
69	08180135.69	RAW3:HL140990	08/21/01 00:11:49	0108L529-006		
70	08180135.70	RAW3:HL140993	08/21/01 01:00:34	01LE0951-MB1.		
71	08180135.71	RAW3:HL140995	08/21/01 01:48:21	01LE0951-MB1S		
72	08180135.72	RAW3:HL140996	08/21/01 02:36:32	01LE0951-MB1T		
73	08180135.73	RAW3:HL140998 MK 8/24/01	08/21/01 03:24:59	AR1660 2803 C		

End of Sweep

LOGBOOK # Sle86

REVIEWED BY/DATE: J~ 8/24/01

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GC ANALYSIS LOG

INSTRUMENT ID: 15
DETECTOR TYPE: ECD
INJECT VOLUME: 2.0 uL split

COLUMN TYPE: RTX-CLP2
COLUMN SERIAL #: 230704
OVEN TEMP PROGRAM: #1

ANALYST: MK
CALIBRATION DATE: 8/6/01
METHOD / OP: 8082

#	SAMPLE SET ID.VIAL #	INJECTION ID	ANALYSIS DATE/TIME	LLvl SAMPLE # DESCRIPTION	DF
01	08180136.01	RAW3:HI140753	08/18/01 17:44:38	COND	
02	08180136.02	RAW3:HI140758	08/18/01 18:32:37	COND	
03	08180136.03	RAW3:HI140763	08/18/01 19:20:33	COND	
04	08180136.04	RAW3:HI140769	08/18/01 20:08:31	AR1660 2803 C	
05	08180136.05	RAW3:HI140775	08/18/01 20:56:27	0108L528-001	
06	08180136.06	RAW3:HI140781	08/18/01 21:44:15	0108L528-001R	
07	08180136.07	RAW3:HI140787	08/18/01 22:32:02	0108L528-001S	
08	08180136.08	RAW3:HI140793	08/18/01 23:20:12	01LE0947-MB1	
09	08180136.09	RAW3:HJ140799	08/19/01 00:07:59	01LE0947-MB1S	
10	08180136.10	RAW3:HJ140802	08/19/01 00:56:08	01LE0947-MB1T	
11	08180136.11	RAW3:HJ140808	08/19/01 01:44:16	0108L521-001	
12	08180136.12	RAW3:HJ140815	08/19/01 02:32:05	0108L521-002	
13	08180136.13	RAW3:HJ140818	08/19/01 03:19:52	01LE0943-MB1	
14	08180136.14	RAW3:HJ140823	08/19/01 04:07:42	01LE0943-MB1S	
15	08180136.15	RAW3:HJ140827	08/19/01 04:55:29	AR1660 2803 C	
16	08180136.16	RAW3:HJ140830	08/19/01 05:43:26	01LE0943-MB1T	
17	08180136.17	RAW3:HJ140835	08/19/01 06:31:14	0108L534-002	
18	08180136.18	RAW3:HJ140838	08/19/01 07:19:01	WSRC HEXANE	
19	08180136.19	RAW3:HJ140842	08/19/01 08:06:50	0108L578-001	
20	08180136.20	RAW3:HJ140847	08/19/01 08:54:38	0108L578-001R	
21	08180136.21	RAW3:HJ140850	08/19/01 09:42:26	0108L578-001S	
22	08180136.22	RAW3:HJ140855	08/19/01 10:30:22	01LE0962-MB1	
23	08180136.23	RAW3:HJ140859	08/19/01 11:18:09	01LE0962-MB1S	
24	08180136.24	RAW3:HJ140862	08/19/01 12:06:05	01LE0926-MB1	
25	08180136.25	RAW3:HJ140867	08/19/01 12:53:52	01LE0926-MB1S	
26	08180136.26	RAW3:HJ140871	08/19/01 13:41:55	AR1660 2803 C	
27	08180136.27	RAW3:HJ140875	08/19/01 14:29:51	0108L479-001	
28	08180136.28	RAW3:HJ140879	08/19/01 15:17:40	0108L449-001	
29	08180136.29	RAW3:HJ140882	08/19/01 16:05:27	0108L449-001S	
30	08180136.30	RAW3:HJ140887	08/19/01 16:53:16	0108L449-001T	
31	08180136.31	RAW3:HJ140891	08/19/01 17:41:03	0108L449-004	
32	08180136.32	RAW3:HJ140896	08/19/01 18:28:51	0108L449-007	

MK 8/24/01

COMMENTS

All Standards May Be Referenced To Standard Logbook #: 8048 8633

Millennium Project ID: NA

LOGBOOK # 8686

MK 8/24/01

REVIEWED BY/DATE: 8/24/01

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GC/MS ANALYSIS LOG

INSTRUMENT ID: _____
DETECTOR TYPE: See
INJECT VOLUME: _____

COLUMN TYPE: _____
COLUMN SERIAL #: P.90
OVEN TEMP PROGRAM: _____

ANALYST: MK
CALIBRATION DATE: 8/6/01
METHOD / OP: 8082

#	SAMPLE SET ID.VIAL #	INJECTION ID	ANALYSIS DATE/TIME	LLvl SAMPLE # DESCRIPTION	DF
33	08180136.33	RAW3:HJ140898 MK 8/29/01	08/19/01 19:16:39	0108L449-010	
34	08180136.34	RAW3:HJ140903	08/19/01 20:04:28	0108L449-013	
35	08180136.35	RAW3:HJ140907	08/19/01 20:52:15	0108L477-001	
36	08180136.36	RAW3:HJ140911	08/19/01 21:40:03	0108L477-001S	
37	08180136.37	RAW3:HJ140915	08/19/01 22:28:02	HEXANE	
38	08180136.38	RAW3:HJ140919	08/19/01 23:15:51	AR1660 2803 C	
39	08180136.39	RAW3:HJ140921	08/20/01 00:03:46	0108L477-001T	
40	08180136.40	RAW3:HK140923	08/20/01 00:51:42	0108L477-002	
41	08180136.41	RAW3:HK140925	08/20/01 01:39:31	0108L535-003	
42	08180136.42	RAW3:HK140926	08/20/01 02:27:19	0108L535-004	
43	08180136.43	RAW3:HK140928	08/20/01 03:15:06	01LE0920-MB1	
44	08180136.44	RAW3:HK140931	08/20/01 04:02:56	01LE0920-MB1S	
45	08180136.45	RAW3:HK140932	08/20/01 04:50:55	0107L423-001	10
46	08180136.46	RAW3:HK140935	08/20/01 05:38:45	0107L423-002	10
47	08180136.47	RAW3:HK140936	08/20/01 06:26:31	0107L423-003	10
48	08180136.48	RAW3:HK140939	08/20/01 07:14:20	0107L423-004	10
49	08180136.49	RAW3:HK140941	08/20/01 08:02:06	HEXANE	
50	08180136.50	RAW3:HK140943	08/20/01 08:49:55	AR1660 2803 C	
51	08180136.51	RAW3:HK140945	08/20/01 09:45:05	0107L423-005	10
52	08180136.52	RAW3:HK140947	08/20/01 10:32:52	0107L423-006	
53	08180136.53	RAW3:HK140949	08/20/01 11:20:57	0107L423-008	10
54	08180136.54	RAW3:HK140951	08/20/01 12:08:45	0107L423-010	10
55	08180136.55	RAW3:HK140953	08/20/01 12:56:31	0107L423-012	10
56	08180136.56	RAW3:HK140954 MK 8/29/01	08/20/01 13:44:20	0107L423-014	10
57	08180136.57	RAW3:HK140956	08/20/01 14:32:07	0107L423-014S	10
58	08180136.58	RAW3:HK140960	08/20/01 15:19:55	0107L423-014T	10
59	08180136.59	RAW3:HK140963	08/20/01 16:07:43	0107L436-001	
60	08180136.60	RAW3:HK140965	08/20/01 16:55:32	0107L436-002	
61	08180136.61	RAW3:HK140970	08/20/01 17:44:39	HEXANE	
62	08180136.62	RAW3:HK140973	08/20/01 18:32:29	AR1660 2803 C	
63	08180136.63	RAW3:HK140975	08/20/01 19:20:28	0107L436-003	
64	08180136.64	RAW3:HK140979 MK 8/29/01	08/20/01 20:08:17	0108L529-001	

COMMENTS

All Standards May Be Referenced To Standard Logbook #: 8048 8633

Millennium Project ID: NA

LOGBOOK # 8686

REVIEWED BY/DATE: JC 8/24/01

L-WI-022/A-02/01

Lionville Laboratory

GC ANALYSIS LOG

INSTRUMENT ID:
DETECTOR TYPE: ECD
INJECT VOLUME:

COLUMN TYPE: P.90
COLUMN SERIAL #:
OVEN TEMP PROGRAM:

ANALYST: MK
CALIBRATION DATE: 8/6/01
METHOD / OP: 8082

#	SAMPLE SET ID.VIAL #	INJECTION ID	ANALYSIS DATE/TIME	LLvI SAMPLE # DESCRIPTION	DF	COMMENTS
65	08180136.65	RAW3:HK140982 MK 8/24/01	08/20/01 20:57:39	0108L529-002		All Standards May Be Referenced To Standard Logbook #: 8048
66	08180136.66	RAW3:HK140985	08/20/01 21:45:35	0108L529-003		
67	08180136.67	RAW3:HK140987	08/20/01 22:35:05	0108L529-004		Millennium Project ID: NA 8633
68	08180136.68	RAW3:HK140989	08/20/01 23:23:27	0108L529-005		
69	08180136.69	RAW3:HL140991	08/21/01 00:11:49	0108L529-006		
70	08180136.70	RAW3:HL140992	08/21/01 01:00:35	01LE0951-MB1		
71	08180136.71	RAW3:HL140994	08/21/01 01:48:21	01LE0951-MB1S		
72	08180136.72	RAW3:HL140997	08/21/01 02:36:32	01LE0951-MB1T		
73	08180136.73	RAW3:HL140999 MK 8/24/01	08/21/01 03:25:00	AR1660 2803 C		

End of Queue

8/24/01 MK

LOGBOOK # 8686

REVIEWED BY/DATE: 8/24/01

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GC ANALYSIS LOG

INSTRUMENT ID: 15
DETECTOR TYPE: ECD
INJECT VOLUME: 2.0 mL spl.T

COLUMN TYPE: RTX-35
COLUMN SERIAL #: 5998-32
OVEN TEMP PROGRAM: #1

ANALYST: MK
CALIBRATION DATE: same
METHOD / OP: 8082

#	SAMPLE SET ID.VIAL #	INJECTION ID	ANALYSIS DATE/TIME	LLvl SAMPLE # DESCRIPTION	DF
01	08210135.01	RAW3:HL141009 MK	08/21/01 16:59:32	COND	
02	08210135.02	RAW3:HL141010	08/21/01 17:47:40	COND	
03	08210135.03	RAW3:HL141011	08/21/01 18:35:45	COND	
04	08210135.04	RAW3:HL141014	08/21/01 19:23:46	AR1660 2801 A	
05	08210135.05	RAW3:HL141016	08/21/01 20:11:35	AR1660 2802 B	
06	08210135.06	RAW3:HL141017	08/21/01 20:59:22	AR1660 2803 C	
07	08210135.07	RAW3:HL141020	08/21/01 21:47:20	AR1660 2804 D	
08	08210135.08	RAW3:HL141022	08/21/01 22:35:20	AR1660 2805 E	
09	08210135.09	RAW3:HL141023	08/21/01 23:23:31	AR1221 1108	
10	08210135.10	RAW3:HM141025	08/22/01 00:11:18	AR1232 1205	
11	08210135.11	RAW3:HM141028	08/22/01 00:59:08	AR1242 1304	
12	08210135.12	RAW3:HM141029	08/22/01 01:46:54	AR1248 1101	
13	08210135.13	RAW3:HM141032	08/22/01 02:34:43	AR1254 9403 C	
14	08210135.14	RAW3:HM141033	08/22/01 03:22:30	0108L500-001	10
15	08210135.15	RAW3:HM141035	08/22/01 04:10:19	IBLK	
16	08210135.16	RAW3:HM141037	08/22/01 04:58:05	0108L500-002	10
17	08210135.17	RAW3:HM141039	08/22/01 05:45:54	IBLK	
18	08210135.18	RAW3:HM141041	08/22/01 06:33:41	0108L500-004	10
19	08210135.19	RAW3:HM141043	08/22/01 07:21:29	IBLK	
20	08210135.20	RAW3:HM141045	08/22/01 08:09:16	0108L500-005	20
21	08210135.21	RAW3:HM141048	08/22/01 08:57:05	IBLK	
22	08210135.22	RAW3:HM141051	08/22/01 09:44:52	0108L500-006	20
23	08210135.23	RAW3:HM141053	08/22/01 10:32:41	IBLK	
24	08210135.24	RAW3:HM141057	08/22/01 11:20:27	0108L500-007	100
25	08210135.25	RAW3:HM141060	08/22/01 12:08:18	IBLK	
26	08210135.26	RAW3:HM141065	08/22/01 12:56:05	0108L500-008	100
27	08210135.27	RAW3:HM141069	08/22/01 13:43:54	HEXANE	
28	08210135.28	RAW3:HM141072	08/22/01 14:31:40	AR1660 2803 C	
29	08210135.29	RAW3:HM141076	08/22/01 15:19:43	0107L401-012	10
30	08210135.30	RAW3:HM141081	08/22/01 16:08:03	0107L401-013	5
31	08210135.31	RAW3:HM141085	08/22/01 16:55:52	0107L401-014	10
32	08210135.32	RAW3:HM141092	08/22/01 17:43:49	0107L423-001	

COMMENTS

All Standards May Be Referenced To Standard Logbook #: 8048 8633

Millennium Project ID: NA

LOGBOOK # 8684

REVIEWED BY/DATE: JS 8/24/01

L-WI-022/A-02/01

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Lionville Laboratory

GC ANALYSIS LOG

INSTRUMENT ID:
DETECTOR TYPE: See
INJECT VOLUME:

COLUMN TYPE:
COLUMN SERIAL #: P.93
OVEN TEMP PROGRAM:

ANALYST: MK
CALIBRATION DATE: same
METHOD / OP: 8082

#	SAMPLE SET ID.VIAL #	INJECTION ID	ANALYSIS DATE/TIME	LLvI SAMPLE # DESCRIPTION	DF	COMMENTS
33	08210135.33	RAW3:HM141098 MK 8/24/01	08/22/01 18:31:39	0107L423-003	5	All Standards May Be Referenced To Standard Logbook #: 8048 8633
34	08210135.34	RAW3:HM141105	08/22/01 19:19:26	0107L423-004		
35	08210135.35	RAW3:HM141109	08/22/01 20:07:24	0107L423-005	5	Millennium Project ID: NA
36	08210135.36	RAW3:HM141114	08/22/01 20:55:10	0107L423-006		
37	08210135.37	RAW3:HM141121	08/22/01 21:43:34	0107L423-008		
38	08210135.38	RAW3:HM141126	08/22/01 22:31:21	0107L423-010		
39	08210135.39	RAW3:HM141132	08/22/01 23:19:11	HEXANE		
40	08210135.40	RAW3:HN141139	08/23/01 00:06:58	AR1660 2803 C		
41	08210135.41	RAW3:HN141145	08/23/01 00:54:54	0107L423-012		
42	08210135.42	RAW3:HN141150	08/23/01 01:42:41	0107L423-014		
43	08210135.43	RAW3:HN141156	08/23/01 02:30:29	0107L423-014S		
44	08210135.44	RAW3:HN141162	08/23/01 03:18:25	0107L423-014T		
45	08210135.45	RAW3:HN141168	08/23/01 04:06:24	0107L436-001		
46	08210135.46	RAW3:HN141174	08/23/01 04:54:21	0107L436-002	10	
47	08210135.47	RAW3:HN141180	08/23/01 05:42:24	0107L436-003		
48	08210135.48	RAW3:HN141186	08/23/01 06:30:11	HEXANE		
49	08210135.49	RAW3:HN141193	08/23/01 07:18:00	AR1660 2803 C		
50	08210135.50	RAW3:HN141197	08/23/01 08:05:54	0108L534-002		
51	08210135.51	RAW3:HN141200	08/23/01 08:53:53	01LE0947-MB2		
52	08210135.52	RAW3:HN141204	08/23/01 09:41:40	01LE0947-MB2S		
53	08210135.53	RAW3:HN141208	08/23/01 10:30:21	01LE0947-MB2T		
54	08210135.54	RAW3:HN141210	08/23/01 11:19:02	AR1660 2803 C		
55	08210135.55	RAW3:HN141224	08/23/01 17:59:30	COND		
56	08210135.56	RAW3:HN141231 MK 8/24/01	08/23/01 18:47:33	COND		
57	08210135.57	RAW3:HN141235	08/23/01 19:35:32	COND		
58	08210135.58	RAW3:HN141239	08/23/01 20:23:37	COND		
59	08210135.59	RAW3:HN141243	08/23/01 21:11:39	COND		
60	08210135.60	RAW3:HN141247	08/23/01 21:59:35	AR1660 2803 C		
61	08210135.61	RAW3:HN141251	08/23/01 22:47:33	01LE0984-MB1S		
62	08210135.62	RAW3:HN141254	08/23/01 23:35:21	01LE0984-MB2S		
63	08210135.63	RAW3:HO141258	08/24/01 00:23:10	01LE0984-MB3S		
64	08210135.64	RAW3:HO141262 MK 8/24/01	08/24/01 01:10:57	01LE0984-MB4S		

LOGBOOK # 8686

REVIEWED BY/DATE: J-8/24/01

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Lionville Laboratory

GC ANALYSIS LOG

INSTRUMENT ID:
DETECTOR TYPE: ECD
INJECT VOLUME:

COLUMN TYPE: P.93
COLUMN SERIAL #:
OVEN TEMP PROGRAM:

ANALYST: MK
CALIBRATION DATE: same
METHOD / OP: 8082

#	SAMPLE SET ID.VIAL #	INJECTION ID	ANALYSIS DATE/TIME	LLvI SAMPLE # DESCRIPTION	DF	COMMENTS
65	08210135.65	RAW3:HO141266 MK 8/24/01	08/24/01 01:58:47	01LE0984-MB5S		All Standards May Be Referenced To Standard Logbook #: 8048 8633
66	08210135.66	RAW3:HO141270	08/24/01 02:46:34	01LE0984-MB6S		
67	08210135.67	RAW3:HO141274	08/24/01 03:34:23	01LE0984-MB7S		Millennium Project ID: NA
68	08210135.68	RAW3:HO141278	08/24/01 04:22:11	01LE0984-MB8S		
69	08210135.69	RAW3:HO141282	08/24/01 05:10:00	01LE0984-MB9		
70	08210135.70	RAW3:HO141286 MK 8/24/01	08/24/01 05:57:46	AR1660 2803 C		

end of Queue

8/24/01 MK

LOGBOOK # 8686

REVIEWED BY/DATE: 12/12/14

L-WI-022/A-02/01

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Lionville Laboratory

GC ANALYSIS LOG

INSTRUMENT ID: 12
DETECTOR TYPE: ECD
INJECT VOLUME: 2 2ml split

COLUMN TYPE: RTX-CLP2
COLUMN SERIAL #: 230704
OVEN TEMP PROGRAM: #1

ANALYST: MK
CALIBRATION DATE: same
METHOD / OP: 8082

#	SAMPLE SET ID.VIAL #	INJECTION ID	ANALYSIS DATE/TIME	LLvI SAMPLE # DESCRIPTION	DF
01	08210136.01	RAW3:HL141008	08/21/01 16:59:33	COND	
02	08210136.02	RAW3:HL141009	08/21/01 17:47:40	COND	
03	08210136.03	RAW3:HL141012	08/21/01 18:35:44	COND	
04	08210136.04	RAW3:HL141013	08/21/01 19:23:46	AR1660 2801 A	
05	08210136.05	RAW3:HL141015	08/21/01 20:11:35	AR1660 2802 B	
06	08210136.06	RAW3:HL141018	08/21/01 20:59:22	AR1660 2803 C	
07	08210136.07	RAW3:HL141019	08/21/01 21:47:20	AR1660 2804 D	
08	08210136.08	RAW3:HL141021	08/21/01 22:35:20	AR1660 2805 E	
09	08210136.09	RAW3:HL141024	08/21/01 23:23:31	AR1221 1108	
10	08210136.10	RAW3:HM141026	08/22/01 00:11:18	AR1232 1205	
11	08210136.11	RAW3:HM141027	08/22/01 00:59:08	AR1242 1304	
12	08210136.12	RAW3:HM141030	08/22/01 01:46:55	AR1248 1101	
13	08210136.13	RAW3:HM141031	08/22/01 02:34:43	AR1254 9403 C	
14	08210136.14	RAW3:HM141034	08/22/01 03:22:30	0108L500-001	10
15	08210136.15	RAW3:HM141036	08/22/01 04:10:19	IBLK	
16	08210136.16	RAW3:HM141038	08/22/01 04:58:06	0108L500-002	10
17	08210136.17	RAW3:HM141040	08/22/01 05:45:54	IBLK	
18	08210136.18	RAW3:HM141042	08/22/01 06:33:41	0108L500-004	10
19	08210136.19	RAW3:HM141044	08/22/01 07:21:30	IBLK	
20	08210136.20	RAW3:HM141046	08/22/01 08:09:16	0108L500-005	20
21	08210136.21	RAW3:HM141047	08/22/01 08:57:05	IBLK	
22	08210136.22	RAW3:HM141050	08/22/01 09:44:52	0108L500-006	20
23	08210136.23	RAW3:HM141052	08/22/01 10:32:41	IBLK	
24	08210136.24	RAW3:HM141056	08/22/01 11:20:27	0108L500-007	100
25	08210136.25	RAW3:HM141061	08/22/01 12:08:18	IBLK	
26	08210136.26	RAW3:HM141064	08/22/01 12:56:05	0108L500-008	100
27	08210136.27	RAW3:HM141068	08/22/01 13:43:54	HEXANE	
28	08210136.28	RAW3:HM141073	08/22/01 14:31:41	AR1660 2803 C	
29	08210136.29	RAW3:HM141077	08/22/01 15:19:43	0107L401-012	10
30	08210136.30	RAW3:HM141080	08/22/01 16:08:03	0107L401-013	5
31	08210136.31	RAW3:HM141084	08/22/01 16:55:52	0107L401-014	10
32	08210136.32	RAW3:HM141093	08/22/01 17:43:49	0107L423-001	

COMMENTS

All Standards May Be Referenced To Standard Logbook #: 8048 8633

Millennium Project ID: NA

LOGBOOK # 8634

REVIEWED BY/DATE: 12/21/01

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L-WI-022/A-02/01

Lionville Laboratory

GC ANALYSIS LOG

INSTRUMENT ID:
DETECTOR TYPE: See
INJECT VOLUME:

COLUMN TYPE:
COLUMN SERIAL #: P.96
OVEN TEMP PROGRAM:

ANALYST: MK
CALIBRATION DATE: same
METHOD / OP: 8082

#	SAMPLE SET ID.VIAL #	INJECTION ID	ANALYSIS DATE/TIME	LLvl SAMPLE # DESCRIPTION	DF	COMMENTS
33	08210136.33	RAW3:HM141099 MK 8/24/01	08/22/01 18:31:39	0107L423-003	5	All Standards May Be Referenced To Standard Logbook #: 8048 8633
34	08210136.34	RAW3:HM141104	08/22/01 19:19:27	0107L423-004		
35	08210136.35	RAW3:HM141108	08/22/01 20:07:24	0107L423-005	5	Millennium Project ID: NA
36	08210136.36	RAW3:HM141115	08/22/01 20:55:10	0107L423-006		
37	08210136.37	RAW3:HM141120	08/22/01 21:43:34	0107L423-008		
38	08210136.38	RAW3:HM141127	08/22/01 22:31:21	0107L423-010		
39	08210136.39	RAW3:HM141133	08/22/01 23:19:11	HEXANE		
40	08210136.40	RAW3:HN141138	08/23/01 00:06:58	AR1660 2803 C		
41	08210136.41	RAW3:HN141144	08/23/01 00:54:54	0107L423-012		
42	08210136.42	RAW3:HN141151	08/23/01 01:42:41	0107L423-014		
43	08210136.43	RAW3:HN141157	08/23/01 02:30:30	0107L423-014S		
44	08210136.44	RAW3:HN141163	08/23/01 03:18:25	0107L423-014T		
45	08210136.45	RAW3:HN141169	08/23/01 04:06:24	0107L436-001		
46	08210136.46	RAW3:HN141175	08/23/01 04:54:22	0107L436-002	10	
47	08210136.47	RAW3:HN141181	08/23/01 05:42:25	0107L436-003		
48	08210136.48	RAW3:HN141187	08/23/01 06:30:11	HEXANE		
49	08210136.49	RAW3:HN141192	08/23/01 07:18:00	AR1660 2803 C		
50	08210136.50	RAW3:HN141196	08/23/01 08:05:54	01081534-002		
51	08210136.51	RAW3:HN141201	08/23/01 08:53:53	01LE0947-MB2		
52	08210136.52	RAW3:HN141205	08/23/01 09:41:40	01LE0947-MB2S		
53	08210136.53	RAW3:HN141209	08/23/01 10:30:21	01LE0947-MB2T		
54	08210136.54	RAW3:HN141211	08/23/01 11:19:02	AR1660 2803 C		
55	08210136.55	RAW3:HN141225	08/23/01 17:59:30	COND		
56	08210136.56	RAW3:HN141230 MK 8/24/01	08/23/01 18:47:33	COND		
57	08210136.57	RAW3:HN141234	08/23/01 19:35:32	COND		
58	08210136.58	RAW3:HN141238	08/23/01 20:23:37	COND		
59	08210136.59	RAW3:HN141242	08/23/01 21:11:40	COND		
60	08210136.60	RAW3:HN141246	08/23/01 21:59:36	AR1660 2803 C		
61	08210136.61	RAW3:HN141250	08/23/01 22:47:33	01LE0984-MB1S		
62	08210136.62	RAW3:HN141255	08/23/01 23:35:21	01LE0984-MB2S		
63	08210136.63	RAW3:HO141259	08/24/01 00:23:10	01LE0984-MB3S		
64	08210136.64	RAW3:HO141263 MK 8/24/01	08/24/01 01:10:57	01LE0984-MB4S		

LOGBOOK # 51686

REVIEWED BY/DATE: 8/24/01

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L-WI-022/A-02/01

Lionville Laboratory

GC ANALYSIS LOG

INSTRUMENT ID: _____
DETECTOR TYPE: ECD
INJECT VOLUME: _____

COLUMN TYPE: _____
COLUMN SERIAL #: P.96
OVEN TEMP PROGRAM: _____

ANALYST: MK
CALIBRATION DATE: same
METHOD / OP: 8082

#	SAMPLE SET ID.VIAL #	INJECTION ID	ANALYSIS DATE/TIME	LLvI SAMPLE # DESCRIPTION	DF	COMMENTS
65	08210136.65	RAW3:HO141266	08/24/01 01:58:47	01LE0984-MB5S		
66	08210136.66	RAW3:HO141271	08/24/01 02:46:34	01LE0984-MB6S		
67	08210136.67	RAW3:HO141275	08/24/01 03:34:23	01LE0984-MB7S		
68	08210136.68	RAW3:HO141279	08/24/01 04:22:11	01LE0984-MB8S		
69	08210136.69	RAW3:HO141283	08/24/01 05:10:00	01LE0984-MB9		
70	08210136.70	RAW3:HO141287	08/24/01 05:57:47	AR1660 2803 C		

MK 8/24/01

8/24/01 MK

end of Curve

All Standards May Be Referenced To Standard Logbook #: 8048 8633

Millennium Project ID: NA

LOGBOOK # 86586

REVIEWED BY/DATE: LL 9/24/01

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3014

Standard Prep Logs

Recra LabNet
Philadelphia

Logbook #: 6074

306

ORGANIC PREPARATION UNIT
AMPULE STANDARDS TRACKING LOGBOOK

Compound Mix Name	Standard ID	Source	Lot #	CONC w/units	Volume/ Solvent	Receipt Date	Expiration Date	Reviewed By/Date	
B/N	60742101	Restek	A012925	7500ug/ml	Methanol	3/12/01	1/02	BF 3/12/01	
BNA LCS	60742102	NSE	032201-C	100ug/ml	Meoh	3/23/01	3/22/03	BF 3/23/01	A-J
PEST SURR MIX	60742103	Restek	A017786	200ug/ml	Acetone	3/29/01	6/03	BF 3/29/01	A-J
AR1254	60742104	Restek	A18671	1000ug/ml	hexane	3/29/01	6/05	P 5/25/01	A-E
BNATCLP	60742105	Supelco	LA-97047	1000/500ug/ml	Acetone	3/29/01			A-B
TRIPHENYLPHOSPHATE	60742106	Chemservice	262-17C	2000ug/ml	Acetonitrile	4/2/01	4/02		
DCBP BF 4/4/01	60742107	Chemservice	251-108B	1000ug/ml	Hexane BF 4/4/01 ~~11/02~~ 4/4/01		11/02		A-B
Toxaphene	60742108	Supelco	LA88511	2000ug/ml	Isooctane	5/10/01	2/03		A-B
Chlordane	60742109	Supelco	LA92619	500ug/ml	Methanol	⊥	8/03		A-B
Diesel Fuel #2	60742110	Restek	A017704	50000ug/ml	Methylene Chloride	5/14/01	12/03		A,B
Pest Matrix Spike	60742111	Restek	A017302	2350ug/ml	Acetone	~~5/10/01~~ 5/14/01	9/03		A,B
B/N SURROGATE (LL)	60742112	Restek	A016727	1000ug/ml	Methylene Chloride	5/23/01	8/03		A-E
U/C ACID SURROGATE (LL)	60742113	RESTEK	A019075	1000-3000ug/ml	MeCN	5/23/01	12/04		A-E
BF 6/21/01 BNA LCS									
GPC CAL MIX	60742114	Restek	A07257	02-2500 ug/ml	Methylene Chloride	6/21/01	10/07	BF 6/21/01	A-E
Grain Alcohol	60742115	GRAVES	—			6/27/01	—	BF 6/27/01	A-B

RFW 21-21-008/Z-07/97

Lionville Laboratory Incorporated

LOGBOOK # 8A7

PREPARATION OF MIXTURE DILUTIONS (MULTI-COMPONENT) LOG

307

DATE/ANALYST		BF 7/31/01									
DILUTION MIX ID	////////	8A7680I									
PARENT MIX ID	TCMX ~~2ml~~ DCB	~~60742103A~~ 60742107A									
PARENT VOLUME (w/units)	////////	2ml TCMX 60011DCB									
TOTAL VOLUME (w/units)	////////	100ml									
SOLVENT		Acetone									
UNITS →		ug/ml									
COMPONENT ↓	PARENT↓	CONC.↓	CONC.↓	CONC.↓	CONC.↓	CONC.↓	CONC.↓	CONC.↓	CONC.↓	CONC.↓	CONC.↓
Pest Surrogate Mix (TCMX DCBP)	200ug/ml	4/4									
DCBP	1000ug/ml	6									
TCMX DCBP		4/10									
EXPIRATION DATE		1/31/02									
DATE CONCENTRATION VERIFIED		8/1/01									
CRITERIA MET: YES / NO		Y									
UNIT LEADERS INITIALS:		BP									

QA-134-D-0701

REVIEWED BY/DATE: _____

Lionville Laboratory Incorporated

LOGBOOK = 8697

PREPARATION OF STANDARD DILUTIONS (SINGLE COMPONENT)

COMPOUNDS	STANDARD DILUTION I.D	PARENT STANDARD I.D.	PARENT CONC. (w/units)	PARENT VOLUME (mL)	TOTAL VOLUME (mL)	SOLVENT	PREPARED STANDARD CONCENTRATION (w/units)	DATE/ANALYST
AR1254	86971101	60742104B	10000ug/ml	~~750ul~~ 0.75 ml	50 ml	Acetone	15 ug/ml	BF 7/10/01
AR1254	86971102	60742404C	10000ug/ml	0.75	50 ml	Acetone	15 ug/ml	BF 7/11/01
P-Terphenyl	86971103	8525 0305 ~~6034~~	10000ug	0.50	100 ml	Acetone		BF 7/12/01
AR1254	86971104	86971102	15ug/m	15 ml	50 ml	Acetone		BF 7/12/01

QA-134-B-0601

REVIEWED BY/DATE _____

3008

Recra LabNet Philadelphia

GC ANALYSIS

Preparation of Working Standard (Multi - Component)

NAME: ERAL

Dilution Mix ID		80481501	80481502	80481503	80481504	80481505	80481506	80481507	80481508
Parent Mix ID-all parent mixes contain same conc. of analytes	→	61928401	61928801	61928801	61928801	84321501	84321601	84321601	84321601
Parent Volume (w/units)		2 mL	2 mL	2.5 mL	2.5 mL	2.5 mL	2.5 mL	2.5 mL	2.0 mL
Total Volume (w/units)		200 mL	200 mL	250 mL	250 mL	250 mL	250 mL	250 mL	200 mL
Solvent/Lot #		Hex/B5099	→	Hex B5099	hex B5099	hex T21313	→	→	Hex V05E62
Units →	ug/mL		→	→	→	→	→	→	→
Component ↓	Parent Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.
TCX	4.0	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04
DCB	4.0	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04
DDT	5.0	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
Endrin	2.5	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025
Date/ Analyst		10/10/99	12/1/99	3/28/00	MK 7/28/00	MK 10/4/00	7/7/00	MK 12/26/00	BS 6/8/01
Expiration Date		12/1/99	6/1/99	7/3/00	1/28/01	4/4/01	4/7/01	6/26/01	8/31/01
Reviewed By/Date		10/12/99	12/1/99	4/7/00	8/4/00	10/6/00	MK 11/28/00	LK 12/26/00	MK 6/8/01
Date Concentration Verified		NA	NA	NA	NA	NA	NA	NA	NA

not used - Endrin degraded

L-WI-008/Q-11/97

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Recra LabNet Philadelphia

GC ANALYSIS

Preparation of Stock Standard (Multi - Component)

NAME EVAL stock
I.D.# 8432 1601

EXPIRATION DATE ~~10/2/01~~ 8/8/01 BMM/W

DATE/ANALYST BMM/W

Component	Parent ID#	Parent Concentration	Purity Adj.? Y/N*	Parent Volume (w/units)	Total Volume (mL)	Solvent T21313	Component Concentration (w/units)
Endrin	6074157B	1000ug/mL	Amp	1.25mL	50mL	Hexane	2.5 ug/mL
DDT	6439 2004						5.0
TCX	6459 2907	2000ug/ml		1.0mL			4.0
DCB							

* Purity adjustment required if not greater than 95%

Reviewed By/Date: MK 10/17/00
(includes calculation verification)

RFW 21-21-008/P-06/97

LOGBOOK # 8432, PAGE # 016

Recra LabNet Philadelphia

GC ANALYSIS

Preparation of Working Standard (Multi - Component)

311

NAME: AR 1660

Dilution Mix ID		80480701	80480702	80480703	80480704	80480705	80480706	80480707	
Parent Mix ID-all parent mixes contain same conc. of analytes	~~61731901~~	61927501	61927501	61929501	61929501	61929501	61927501	84323701	
Parent Volume (w/units)		5 mls	25mL	2.5mL	2.5mL	2.0mL	5.0mL	2.5mL	
Total Volume (w/units)		500mls	~~200~~ 250 mL	250mL	250mL	250mL	500mL	~~200~~ 250 mL	
Solvent/Lot #	ug/mL	Hex/UN1208	→	→	→	→	→	→	→
Units →	Hex/UN1208	ug/mL	→	→	→	→	→	→	→
Component ↓	Parent Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.
AR 1016	10.0	0.10	0.10	0.10	0.10	0.10	0.10	0.10	
AR 1260	10.0	1	0.10	~~0.01~~ 0.10	~~0.01~~ 0.10	0.10	0.10	0.10	
TCX	2.0	0.02	0.02	0.02	0.02	0.02	0.02	0.02	
DCB	2.0	1	0.02	0.02	0.02	0.2	0.20	0.02	
Date/ Analyst		8/20/99 MB	2/9/00	01/15/00 MK	9/9/00 MK	11/4/00	2/23/01	6/15/01 MK	
Expiration Date		2/20/00	8/9/00	12/15/00 MK	3/9/01 MK	5/4/01	6/15/01	12/15/01	
Reviewed By/Date		8/20/99	2/12/00	2/16/00	9/9/00	11/9/00	2/28/01	6/15/01	
Date Concentration Verified		8/21/99	2/12/00	2/16/00	9/11/00	11/15/00	2/24/01		

8/21/99

L-WI-008/Q-11/97

Logbook # 8048, Page# 007

Recra LabNet Philadelphia

GC ANALYSIS

Preparation of Working Standard (Multi - Component)

(Multi-level Calibration Standards)

NAME: AR 1660 EXPIRATION DATE: 12/15/01 ANALYST/DATE: BS 6/15/01

312

Dilution Mix ID		86322801	86322802	86322803	86322804	86322805			
Parent Mix ID	84323701								
Parent Volume (w/units)		400 mL	1.0 mL	2.0 mL	4.0 mL	10 mL			
Total Volume (w/units)		100 mL	→	→	→	→			
Solvent/Lot #	hexane V09E03		→	→	→	→	→	→	→
Units →	ug/mL		→	→	→	→	→	→	→
Component ↓	Parent Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.
AR 1016	10.0	0.04	0.10	0.20	0.40	1.0			
AR 1260	10.0	↓	↓	↓	↓	↓			
TCX	2.0	0.008 ~~0.008~~ MIC 6/15/01	0.02	0.04	0.08	0.20			
DCB	2.0	↓	↓	↓	↓	↓			

BS 6/15/01

Date Concentration Verified/Initials: _____

Reviewed By/Date: MIC 6/15/01
(includes calculation verification)

RFW 21-21-008/01-07/97

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028

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Recra LabNet Philadelphia

GC ANALYSIS

Preparation of Stock Standard (Multi - Component)

NAME AR1660
I.D.# 84323701

EXPIRATION DATE 6/15/02

DATE/ANALYST MK 6/15/01

Component	Parent ID#	Parent Concentration	Purity Adj.? Y/N*	Parent Volume (w/units)	Total Volume (mL)	Solvent	Component Concentration (w/units)
AR1016	64392602	1000 µg/mL	Amp	1.0 mL	100 mL	hexane V09E03	10.0 µg/mL
AR1260	↓	↓	↓	↓	↓	↓	10.0 ↓
TCX	64392910	200 µg/mL	↓	↓	↓	↓	2.0 ↓
DCB	↓	↓	↓	↓	↓	↓	2.0 ↓

* Purity adjustment required if not greater than 95%

Reviewed By/Date: BS 6/15/01
(includes calculation verification)

RFW 21-21-008/P-06/97

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Recra LabNet Philadelphia

GC ANALYSIS
Preparation of Working Standard (Multi - Component)

314

NAME: Toxaphene

Dilution Mix ID		80481001	80481002	80481003	80481004	80481005			
Parent Mix ID-all parent mixes contain same conc. of analytes	61928001	61928001	61928001	61928001	64392203	84321801			
	—	—		—	—	—			
Parent Volume (w/units)		5.0mL	100uL ~~TCL Chem~~ DE 9/13/99	5.0mL	0.25mL	5.0mL			
Total Volume (w/units)		100mL	10ml	100mL	100mL	100mL			
Solvent/Lot #	Hex/BSC99	→	→	→	→	→	→	→	→
Units →	ug/mL	→	→	→	→	→	→	→	→
Component ↓	Parent Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.
Toxaphene	10.0	0.5	0.10	0.5	0.5	0.5			
TCX	2.0	0.1	0.02	0.1	0.1	0.1			
DCB	2.0	0.1	0.02	0.1	0.1	0.1			
Date/ Analyst		DE 9/13/99	DE 9/13/99	[illegible]	MK 9/10/00	MK 3/20/01			
Expiration Date		3/13/00	3/13/00	9/13/00	3/16/01	9/16/01			
Reviewed By/Date		[illegible] 9/13/99	[illegible] 12/99	[illegible] 9/27/00	[illegible] 9/10/00				
Date Concentration Verified		9/14/99	NA	9/15/00	9/18/00				

L-WI-008/Q-11/97

Logbook # 8048, Page# 010

Recra LabNet Philadelphia

GC ANALYSIS
Preparation of Stock Standard (Multi - Component)

NAME Toxaphene
I.D.# 84321801

EXPIRATION DATE 9/16/01

DATE/ANALYST MK 10/27/00

Component	Parent ID#	Parent Concentration	Purity Adj.? Y/N*	Parent Volume (w/units)	Total Volume (mL)	Solvent	Component Concentration (w/units)
Toxaphene	64392203	200 mg/mL	Amp	1.25 mL	25 mL	hexane T21313	10.0 mg/mL
TCX	64392908	200 mg/mL	↓	0.25 mL	↓	↓	2.0 mg/mL
DCB	↓	200 mg/mL	↓	↓	↓	↓	↓

MK 10/27/00

* Purity adjustment required if not greater than 95%

Reviewed By/Date: MP 10/27/00
(includes calculation verification)

RFW 21-21-008/P-06/97

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Recra LabNet Philadelphia

GC ANALYSIS

Preparation of Working Standard (Multi - Component)

316

NAME: AR1221

Dilution Mix ID		80481101	80481102A	80481103	80481104	80481105	80481106	80481107	80481108
Parent Mix ID-all parent mixes contain same conc. of analytes	61928101	61928101	61928101	61928101	61928101	61928101	84321101	84321101	84321101
Parent Volume (w/units)		2.0ml	100ul	2.0mL	100mL	2.0mL	2.0mL	100mL	2.0mL
Total Volume (w/units)		100ml	25mls	100mL	25mL	100mL	100mL	25mL	100mL
Solvent/Lot #	Hex 1B5099	→	→	→	→	→	→	→	→
Units →	ug/mL	→	→	→	→	→	→	→	→
Component ↓	Parent Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.
AR1221	10.0	0.20	0.04	~~0.0412~~	0.04	0.20	0.02	0.04	0.04
TCX	2.0	0.040	0.008	~~0.008~~	0.008	0.040	0.04	0.008	0.008
DCB	2.0	0.040	0.008	~~0.008~~	0.008	0.040	0.04	0.008	0.008
Date/ Analyst		DC 9/13/99	DC 9/13/99	BP 3/14/00	BP 3/14/00	MP 3/14/00	BP 9/6/00	BP 3/27/01	MC 3/13/01
Expiration Date	* TC 9/13/99	9/13/00*	3/13/00	9/13/00	9/13/00	9/13/00	3/6/01	3/25/01	9/6/01
Reviewed By/Date		BP 9/13/99	BP 9/13/99		VA 3/20/00	VA 3/20/00	MF 9/12/00	MK 9/25/00	
Date Concentration Verified		9/14/99	NA		3/6/00	3/15/00	9/7/00	NA	

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Recra LabNet Philadelphia

GC ANALYSIS

Preparation of Stock Standard (Multi - Component)

NAME AR1221
I.D.# 64321101

EXPIRATION DATE 9/6/01 (8/16/00)

DATE/ANALYST BR 9/6/00

Component	Parent ID#	Parent Concentration	Purity Adj.? Y/N*	Parent Volume (w/units)	Total Volume (mL)	Solvent	Component Concentration (w/units)
AR1221	64392305	1000ug/mL	Amp	1mL	100mL	Hexane T09251	10.0ug/mL
TCX	64392309	200ug/mL					2.0ug/mL
DCB							

* Purity adjustment required if not greater than 95%

Reviewed By/Date: MK 9/25/00
(includes calculation verification)

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Recra LabNet Philadelphia

GC ANALYSIS
Preparation of Working Standard (Multi - Component)

NAME: AR1232

Dilution Mix ID		80481201	80481202	80481203	80481204	80481205			
Parent Mix ID-all parent mixes contain same conc. of analytes	61928202	→	61928202	61728202	84321201	84321201			
Parent Volume (w/units)		1.0 ~~100~~ mL	500uL	1.0 mL	1.0 mL	1.0 mL			
Total Volume (w/units)		100mL	25mL	100mL	100mL	100mL			
Solvent/Lot #	Hex/BS099	→	→	→	→	→	→	→	→
Units →	ug/mL	→	→	→	→	→	→	→	→
Component ↓	Parent Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.
AR1232	10.0	0.10	0.20	0.10	0.10	0.10			
TCX	2.0	0.02	0.040	0.02	0.02	0.02			
DCB	2.0	0.02	0.040	0.02	0.02	0.02			
Date/ Analyst		9/13/99	9/13/99	3/14/00	9/13/00	3/16/01			
Expiration Date		3/13/00	3/13/00	9/14/00	3/15/01	9/16/01			
Reviewed By/Date		9/13/99	9/13/99	3/27/00	3/28/00				
Date Concentration Verified		9/14/99	9/14/99	3/15/00	9/7/00				

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Recra LabNet Philadelphia

GC ANALYSIS

Preparation of Stock Standard (Multi - Component)

NAME AR1232
I.D.# 84321201

EXPIRATION DATE 9/15/01

DATE/ANALYST BAP 9/15/00

Component	Parent ID#	Parent Concentration	Purity Adj.? Y/N*	Parent Volume (w/units)	Total Volume (mL)	Solvent	Component Concentration (w/units)
AR1232	64392509	1000 ug/mL	Ann	1.0 mL	100 mL	Hexane T09251	10.0 ug/mL
TCX	64392809	200		1.0 mL			2.0
DCB							2.0

BAP

* Purity adjustment required if not greater than 95%

Reviewed By/Date: MK 9/25/00
(includes calculation verification)

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Recra LabNet Philadelphia

GC ANALYSIS

Preparation of Working Standard (Multi - Component)

NAME: AR 1242

Dilution Mix ID		80481301	80481302	80481303	80481304				
Parent Mix ID-all parent mixes contain same conc. of analytes	6928301	→	6928301	~~6928301~~ 8432301	8432301				
Parent Volume (w/units)		1.0ml	1.0mL	1.0mL	1.0mL				
Total Volume (w/units)		100mL	100mL	100mL	100mL				
Solvent/Lot #	Hex 135099	→	→	→	→	→	→	→	→
Units →	ug/mL	→	→	→	→	→	→	→	→
Component ↓	Parent Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.
AR 1242	10.0	0.10	0.10	0.10	0.10				
TCX	2.0	0.02	0.02	0.02	0.02				
DCB	⊥	⊥	0.02	0.02	0.02				
Date/ Analyst		9/13/99	9/13/00	MK 9/16/00	MK 3/20/01				
Expiration Date		3/13/00	9/13/00	3/16/01	9/16/01				
Reviewed By/Date		9/13/99	9/13/00	9/17/00					
Date Concentration Verified		9/14/99	3/13/00	9/17/00					

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Recra LabNet Philadelphia

GC ANALYSIS

Preparation of Stock Standard (Multi - Component)

NAME AR1242
I.D.# 84321301

EXPIRATION DATE 9/16/01

DATE/ANALYST BMP 9/16/00

Component	Parent ID#	Parent Concentration	Purity Adj.? Y/N*	Parent Volume (w/units)	Total Volume (mL)	Solvent	Component Concentration (w/units)
AR1242	64392506	1000 ug/mL	Amp	1.00 mL	100 mL	Hexane TO9251	10.0 ug/mL
TCX	64392610	200					2.0
DCB							2.0
		BMP					

* Purity adjustment required if not greater than 95%

Reviewed By/Date: MK 9/25/00
(includes calculation verification)

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Recra LabNet Philadelphia

GC ANALYSIS

Preparation of Working Standard (Multi - Component)

NAME: AR1248 ICAL

Dilution Mix ID		86331101							
Parent Mix ID-all parent mixes contain same conc. of analytes	84323601	→							
Parent Volume (w/units)		1mL							
Total Volume (w/units)		100mL							
Solvent/Lot #	hexane	V09E03	→	→	→	→	→	→	→
Units →	µg/mL		→	→	→	→	→	→	→
Component ↓	Parent Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.
AR1248	10.0	0.10							
TCX	2.0	0.02							
DCB	2.0	0.02							
Date/ Analyst		MK 6/9/01							
Expiration Date		12/9/01							
Reviewed By/Date		JC 6/11/01							
Date Concentration Verified									

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Recra LabNet Philadelphia

GC ANALYSIS

Preparation of Stock Standard (Multi - Component)

323

NAME AR1248
I.D.# 84323E01

EXPIRATION DATE 6/9/02

DATE/ANALYST MK 6/9/01

Component	Parent ID#	Parent Concentration	Purity Adj.? Y/N*	Parent Volume (w/units)	Total Volume (mL)	Solvent	Component Concentration (w/units)
AR1248	64392511	1000mg/mL	Amp	1mL	100.0	V09E03 hexane	10.0 mg/mL
TCX	64392909	200mg/mL	Amp	↓	↓	↓	2.0 mg/mL
PCB	↓	↓	↓	↓	↓	↓	↓

* Purity adjustment required if not greater than 95%

Reviewed By/Date: JL 6/11/01
(includes calculation verification)

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Recra LabNet Philadelphia

GC ANALYSIS

Preparation of Working Standard (Multi - Component)

(Multi-level Calibration Standards)

NAME: AR1254 EXPIRATION DATE: 9/6/01 ANALYST/DATE: MK 3/13/01

324

Dilution Mix ID		80489401	80489402	80489403	80489404	80489405			
Parent Mix ID	6192100-01								
Parent Volume (w/units)		400mL	1.0mL	2.0mL	4.0mL	10.0mL			
Total Volume (w/units)		100mL	→	→	→	→			
Solvent/Lot #	Hexane T41E01	→	→	→	→	→	→	→	→
Units →	ug/mL	→	→	→	→	→	→	→	→
Component ↓	Parent Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.
AR1254	10.0	0.04	0.10	0.20	0.40	1.0			
TCX	2.0	0.008	0.02	0.04	0.08	0.20			
DCB	2.0	⊥	⊥	⊥	⊥	⊥			

MK 3/13/01

Date Concentration Verified/Initials: _____

Reviewed By/Date: _____
(includes calculation verification)

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Recra LabNet Philadelphia

GC ANALYSIS

Preparation of Working Standard (Multi - Component)

325

NAME: AB1254

Dilution Mix ID		80480801		80480802	80480803	80480804			
Parent Mix ID-all parent mixes contain same conc. of analytes	61927601	→		61927601	61927601	6192100-01			
Parent Volume (w/units)		1.0mL		1.0mL	1.0mL	1.0			
Total Volume (w/units)		100ml		100mL	100mL	100mL			
Solvent/Lot #	Hex/BS099	→	→	→	→	→	→	→	→
Units →	µg/mL	→	→	→	→	→	→	→	→
Component ↓	Parent Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.
AB1254	10.0	0.10		0.10	0.10	0.10			
TCX	2.0	0.02		0.02	0.02	0.02			
DCB	2.0	0.02		0.02	0.02	0.02			
Date/ Analyst		9/3/99		3/10/00	3/9/00	MIC 3/13/01			
Expiration Date		9/2/00 (3/3/00)		9/2/00	3/6/01	9/6/01			
Reviewed By/Date		9/7/99		3/15/00	MK 9/7/00				
Date Concentration Verified		9/5/99		3/16/00	9/8/00				

DC 9/3/99

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GC ANALYSIS

Preparation of Working Standard (Multi - Component)

(Multi-level Calibration Standards)

NAME: AR1254

EXPIRATION DATE: 3/6/01

ANALYST/DATE: BP 9/6/00

Dilution Mix ID		80486501	80486502	80486503	80486504	80486505			
Parent Mix ID	61928R10001								
Parent Volume (w/units)		100 ul	1.0 mL	2.0 mL	4.0 mL	10.0 mL			
Total Volume (w/units)		100 mLs	→	→	→	→			
Solvent/Lot #	Hexane T08251	→	→	→	→	→	→	→	→
Units →	ug/mL	→	→	→	→	→	→	→	→
Component ↓	Parent Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.
AR1254	10.0	0.04	0.10	0.20	0.40	1.0			
TCX	2.0	0.008	0.02	0.04	0.08	0.20			
PCB	2.0	↓	↓	↓	↓	↓			

BP 9/6/00

Date Concentration Verified/Initials: BP 9/10/00

Reviewed By/Date: MK 9/26/00
(includes calculation verification)

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Recra LabNet Philadelphia

GC ANALYSIS
Preparation of Stock Standard (Multi - Component)

NAME AR1254 Stock
I.D.# 6192100-01

EXPIRATION DATE 9/6/01

DATE/ANALYST BM 9/6/00

Component	Parent ID#	Parent Concentration	Purity Adj.? Y/N*	Parent Volume (w/units)	Total Volume (mL)	Solvent	Component Concentration (w/units)
AR1254	6139 2302	1000ug/mL	N	1.0mL	100mL	Hexane	10.0 ug/mL
TCX	6139 2310	800ug/mL	|	|	|	T09251	2.0
DCB	|	|	|	|	|	|	2.0 |
				BM 9/6/00			

* Purity adjustment required if not greater than 95%

Reviewed By/Date: MK 9/26/00
(includes calculation verification)

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Recra LabNet Philadelphia

GC ANALYSIS

Preparation of Working Standard (Multi - Component)

(Multi-level Calibration Standards)

NAME: INDA 8081 EXPIRATION DATE: 4/30/01 ANALYST/DATE: MK 10/30/00

Dilution Mix ID		80487301	80487302	80487303	80487304	80487305	80487306		
Parent Mix ID	61929101								
Parent Volume (w/units)		1.2 mL	3 mL	12.5 mL	10 mL	15 mL	5 mL 80487305		
Total Volume (w/units)		100 mL	100 mL	250 mL	100 mL	100 mL	15 mL		
Solvent/Lot # hexane / T21313	→	→	→	→	→	→	→	→	→
Units → ug/mL	→	→	→	→	→	→	→	→	→
Component ↓	Parent Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.
Alpha-BHC	0.40 ug/mL	0.005	0.012	0.020	0.040	0.060	0.020		
Gamma-BHC									
Heptachlor									
Endosulfan I									
Dieldrin	0.80	0.010	0.024	0.040	0.080	0.120	0.040		
Endrin									
4,4'-DDD									
4,4'-DDT									
Methoxychlor	4.0	0.05	0.120	0.20	0.40	0.60	0.20		
TCX	0.8	0.01	0.024	0.04	0.08	0.12	0.04		
DCB	2.0	0.024	0.06	0.10	0.20	0.30	0.10		

Date Concentration Verified/Initials: MK 10/30/00

Reviewed By/Date: [illegible] 10/30/00
(includes calculation verification)

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Recra LabNet Philadelphia

GC ANALYSIS

Preparation of Working Standard (Multi - Component)

(Multi-level Calibration Standards)

EXPIRATION DATE: 10/20/01

NAME: INDA 8084

ANALYST/DATE: RG 4/20/01

Dilution Mix ID		80489801	80489802	80489803	80489804	80489805			
Parent Mix ID	84322901								
Parent Volume (w/units)		1.2mL	3mL	12.5mL	10mL	15mL			
Total Volume (w/units)		100mL	100mL	250mL	100mL	100mL			
Solvent/Lot # Hexane/V05662	→	→	→	→	→	→	→	→	→
Units → ng/ml	→	→	→	→	→	→	→	→	→
Component ↓	Parent Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.
Alpha-BHC	0.40 ug/ml	0.005	0.012	0.020	0.040	0.060			
Gamma-BHC	↓	↓	↓	↓	↓	↓			
Heptachlor	↓	↓	↓	↓	↓	↓			
Endosulfan I	↓	↓	↓	↓	↓	↓			
Dieldrin	↓	↓	↓	↓	↓	↓			
Endrin	0.80 ug/ml	0.010	0.024	0.040	0.080	0.120			
4,4'-DDD	↓	↓	↓	↓	↓	↓			
4,4'-DDT	↓	↓	↓	↓	↓	↓			
Methoxychlor	4.0 ug/ml	0.05	0.120	0.20	0.40	0.60			
TCX	0.80 ug/ml	0.01	0.024	0.04	0.080	0.12			
DCB	2.0 ug/ml	0.024	0.06	0.10	0.20	0.30			

Date Concentration Verified/Initials: _____

Reviewed By/Date: MIC 4/20/01
(includes calculation verification)

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Recra LabNet Philadelphia

GC ANALYSIS

Preparation of Stock Standard (Multi - Component)

330

NAME INDA (808) Stock
I.D.# 61929101

EXPIRATION DATE 4/18/04

DATE/ANALYST BM 4/18/00

Component	Parent ID#	Parent Concentration	Purity Adj.? Y/N*	Parent Volume (w/units)	Total Volume (mL)	Solvent	Component Concentration (w/units)
Alpha BHC	64390311	80 ug/mL	Amp	1.0 mL	200 mL	B5099 Hexane	0.40 ug/mL
Gamma-BHC							
Heptachlor							
Endosulfan I							
Dieldrin		160 ug/mL					0.8
Endrin							
4,4'-DDD							
4,4'-DDT							
Methoxychlor		800 ug/mL					4.0
TCX		160 ug/mL					0.8
DCB		400 ug/mL					2.0

* Purity adjustment required if not greater than 95%

Reviewed By/Date: DE 5/2/00
(includes calculation verification)

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Recra LabNet Philadelphia

GC ANALYSIS
Preparation of Stock Standard (Multi - Component)

NAME INDIA (CLOCSI) Stock
I.D.# S432290 1

EXPIRATION DATE 4/20/02

DATE/ANALYST BS 4/20/01

Component	Parent ID#	Parent Concentration	Purity Adj.? Y/N*	Parent Volume (w/units)	Total Volume (mL)	Solvent	Component Concentration (w/units)
Alpha-BHC	6439310GA	80 mg/ml	Amp	1.0 mL	200 ml	VOS EGZ Hexane	0.40 mg/mL
Gamma-BHC							
Heptachlor							
Endosulfan I							
Dieldrin		160 mg/ml					0.8
Endrin							
4,4'-DDD							
4,4'-DDT							
Methoxychlor		800 mg/ml					4.0 ~~40~~ BS 4/20/01
TCX		160 mg/ml					~~4.0~~ 0.8
DCB		400 mg/ml					BS 4/20/01 0.8 20
							7.0

* Purity adjustment required if not greater than 95%

Reviewed By/Date: MIC 4/20/01
(includes calculation verification)

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Recra LabNet Philadelphia

GC ANALYSIS

Preparation of Working Standard (Multi - Component)

(Multi-level Calibration Standards)

NAME: INDB 8080 EXPIRATION DATE: 4/30/01 ANALYST/DATE: MK 2/9/01

332

Dilution Mix ID		80489201	80489202	80489203	80489204	80489205			
Parent Mix ID	61929301								
Parent Volume (w/units)		1.2mL	3.0mL	12.5mL	10mL	15mL			
Total Volume (w/units)		100mL	100mL	250mL	100mL	100mL			
Solvent/Lot # Hexane T2225		→	→	→	→	→	→	→	→
Units →	ug/mL	→	→	→	→	→	→	→	→
Component ↓	Parent Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.
Beta-BHC	0.04	0.005	0.010	0.020	0.040	0.060			
Delta-BHC									
Aldrin									
Heat. Epoxide									
A. Chlordane									
G. Chlordane									
4,4'-DDE	0.08	0.010	0.024	0.04	0.080	0.120			
Endosulfan II									
Endrin Aldehyde									
Endosulfan Sulfate									
Endrin Ketone									
TCX									
DCB	2.0	0.024	0.060	0.100	0.200	0.300			

Date Concentration Verified/Initials: _____

Reviewed By/Date: _____
(includes calculation verification)

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Recra LabNet Philadelphia

GC ANALYSIS

Preparation of Working Standard (Multi - Component)

(Multi-level Calibration Standards)

NAME: INDB 8648 EXPIRATION DATE: 10/20/01 ANALYST/DATE: BG 4/20/01

333

Dilution Mix ID		80489901	80489902	80489903	80489904	80489905			
Parent Mix ID 84323001	84323001								
Parent Volume (w/units)		1.2mL	3mL	12.5mL	10 mL	15mL			
Total Volume (w/units)		100mL	100mL	250mL	100mL	100mL			
Solvent/Lot # Hexane/V05E62	→	→	→	→	→	→	→	→	→
Units →	ng/mL	→	→	→	→	→	→	→	→
Component ↓	Parent Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.
Beta-BHC	0.04	0.005	0.012	0.020	0.040	0.060			
Delta-BHC	↓	↓	↓	↓	↓	↓			
Aldrin	↓	↓	↓	↓	↓	↓			
Hept. Epoxide	↓	↓	↓	↓	↓	↓			
A. Chlordane	↓	↓	↓	↓	↓	↓			
B. Chlordane	↓	↓	↓	↓	↓	↓			
4,4'-DDE	0.08	0.010	0.024	0.04	0.080	0.120			
Endosulfan II	↓	↓	↓	↓	↓	↓			
Endrin Aldehyde	↓	↓	↓	↓	↓	↓			
Endosulfan Sulfate	↓	↓	↓	↓	↓	↓			
Endrin Ketone	↓	↓	↓	↓	↓	↓			
TCX	↓	↓	↓	↓	↓	↓			
DCB	2.0	0.024	0.060	0.100	0.200	0.300			

Date Concentration Verified/Initials: _____

Reviewed By/Date: MK 4/20/01
(includes calculation verification)

RFW 21-21-008/Q1-07/97

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Recra LabNet Philadelphia

GC ANALYSIS

Preparation of Stock Standard (Multi - Component)

NAME I NOB (8081) stock
I.D.# 61929301

EXPIRATION DATE 4/30/01

DATE/ANALYST BMP 5-9/00

Component	Parent ID#	Parent Concentration	Purity Adj.? Y/N*	Parent Volume (w/units)	Total Volume (mL)	Solvent	Component Concentration (w/units)
Beta-BHC	64390406	80 ug/~~kg~~ mL	Amp	1 mL	200	Hexane	0.4 ug/mL
Delta-BHC						Lot-B5099	
Aldrin							
Hept. Epoxide							
A. Chlordane							
G. Chlordane							
4,4'-DDE		160 ug/~~kg~~ mL					0.8 ug/mL
Endosulfan II							
Endrin Aldehyde							
Endosulfan Sulfate							
Endrin Ketone							
TCX							
DCB		400 ug/~~kg~~ mL					2.0 ug/mL

Brastilw

* Purity adjustment required if not greater than 95%

Reviewed By/Date: CK 5/9/00
(includes calculation verification)

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Recra LabNet Philadelphia

GC ANALYSIS

Preparation of Stock Standard (Multi - Component)

NAME IN DB (8081) Stock
I.D.# 64323001

EXPIRATION DATE 4/20/02

DATE/ANALYST BS 4/20/01

Component	Parent ID#	Parent Concentration	Purity Adj.? Y/N*	Parent Volume (w/units)	Total Volume (mL)	Solvent	Component Concentration (w/units)
Beta-BHC	64393291A	80 µg/ml	Amp	1 ml	200 ml	VOSE62 Hexane	0.4 µg/ml
Delta-BHC							
Aldrin							
Hept. Epoxide							
A. Chlordane							
B. Chlordane							
4,4'-DDE		160 µg/ml					0.8 µg/ml
Endosulfan II							
Endrin Aldehyde							
Endosulfan Sulfate							
Endrine Ketone							
TCX							
DCB		400 µg/ml					20 µg/ml

* Purity adjustment required if not greater than 95%

Reviewed By/Date: MK 4/20/01
(includes calculation verification)

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GC ANALYSIS

Preparation of Working Standard (Multi - Component)

(Multi-level Calibration Standards) MK 4/17/01

NAME: 3/90 Mix A

EXPIRATION DATE: ~~4/17/02~~ 10/17/01

ANALYST/DATE: MK 4/17/01

Dilution Mix ID		80489601	80489602	80489603					
Parent Mix ID	64392607 64392701								
Parent Volume (w/units)		63 uL	625 uL	1000 uL					
Total Volume (w/units)		100 mL	250 mL	100 mL					
Solvent/Lot # hexane		→	→	→	→	→	→	→	→
Units →	ug/mL		→	→	→	→	→	→	→
Component ↓	Parent Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.
Alpha-BHC	8.0	0.005	0.020	0.080					
Gamma-BHC	↓	↓	↓	↓					
Heptachlor	↓	↓	↓	↓					
Endosulfan I	↓	↓	↓	↓					
Dieldrin	16.0	0.01	0.040	0.16					
Endrin	↓	↓	↓	↓					
4,4'-DDD	↓	↓	↓	↓					
4,4'-DDT	↓	↓	↓	↓					
methoxychlor	80.0	0.05	0.20	0.80					
TCX	8.0	0.005	0.02	0.08					
DCB	16.0	0.01	0.04	0.16					

Date Concentration Verified/Initials: _____

Reviewed By/Date: _____
(includes calculation verification)

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GC ANALYSIS

Preparation of Working Standard (Multi - Component)

(Multi-level Calibration Standards)

NAME: 3/90 Mix B

EXPIRATION DATE: ~~10/17/02~~ 10/17/01

ANALYST/DATE: 4/17/01 MK

Dilution Mix ID		80489701	80489702	80489703					
Parent Mix ID	64392407 64392408								
Parent Volume (w/units)		63 uL	625 uL	1000 uL					
Total Volume (w/units)		100 uL	250 mL	100 mL					
Solvent/Lot #	hexane		→	→	→	→	→	→	→
Units →	ug/mL	→	→	→	→	→	→	→	→
Component ↓	Parent Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.
Beta-BHC	8.0	0.005	0.02	0.08					
Delta-BHC									
Aldrin									
Heptachlor Epoxide									
Alpha Chlordane									
Gamma Chlordane									
4,4'-DDE	16.0	0.01	0.04	0.16					
Endosulfan II									
Endrin Aldehyde									
Endrin Ketone									
Endosulfan Sulfate									
TCX	8.0	0.005	0.02	0.08					
DCB	16.0	0.01	0.04	0.16					

Date Concentration Verified/Initials: _____

Reviewed By/Date: _____
(includes calculation verification)

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GC ANALYSIS

Preparation of Working Standard (Multi - Component)

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NAME: PEM

Dilution Mix ID		80482101	80482102	80482103	80482104	80482105	80482106		
Parent Mix ID-all parent mixes contain same conc. of analytes		64391905	64391905	64391905	64391905	85050205A	85050205A		
Parent Volume (w/units)		100mL	100mL	100mL	100mL	100mL	100mL		
Total Volume (w/units)		10mL	10mL	10mL	10mL	10mL	10mL		
Solvent/Lot #	Hexane	T22251	→	→	→	→	→	→	→
Units →			→	→	→	→	→	→	→
Component ↓	Parent Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.
Alpha-BHC	1.0	0.01	0.01	0.01	0.01	0.01	0.01		
Beta-BHC	1.0	↓	↓	↓	↓	↓	↓		
Gamma-BHC	1.0	↓	↓	↓	↓	↓	↓		
Endrin	5.0	0.05	0.05	0.05	0.05	0.05	0.05		
4,4'-DDT	10.0	0.10	0.10	0.10	0.10	0.10	0.10		
methoxychlor	25.0	0.25	0.25	0.25	0.25	0.25	0.25		
TCX	2.0	0.02	0.02	0.02	0.02	0.02	0.02		
DCB	2.0	0.02	0.02	0.02	0.02	0.02	0.02		
Date/ Analyst		MK 12/21/00	MK 1/3/01	MK 1/15/01	MK 1/19/01	MK 3/20/01	MK 4/17/01		
Expiration Date		12/29/00	1/11/01	1/23/01	1/27/01	3/28/01	4/25/01		
Reviewed By/Date		LK 12/21/00	MB 01/03/01	LK 1/15/01	LK 1/23/01				
Date Concentration Verified		NA	NA	NA	NA				

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Compound	Date Received	Standard ID	Source and Lot	%Purity	Solvent	Final Volume (mL)	Final Conc. (w/units)	Exp/ Date	Date/Analyst Date Opened/ Analyst	Reviewed By/ Date
pesticid Standard Mix B (3/90)	4/3/98	64390301	CAT # 32004 Lot # A009376 & A009377 mfg Exp May 1999	99%	hex	1ml	8µg/ml - 16µg/ml	4/2/99	4/3/98 pk / Expired	[illegible] 4/20/99
ENDRIN	4/22/98	64390302	ULTRA SCIENTIFIC EPA 1119 mfg Exp LOT H0705 2/2002	AMP	MeOH	1mL	1000 µg/mL TE 4/20/98	4/22/99 ~~2/2002~~	4/22/98 GS / 4/22/98 GS	4/23/98 pk
⊥	4/22/98	64390303	ULTRA SCIENTIFIC EPA - 1119 mfg Exp LOT H0705 2/2002	⊥	⊥	⊥	⊥	3/22/00 ~~2/2002~~	4/22/98 GS / [illegible] 3/22/99	[illegible] 3/22/99
4,4'- DDT	⊥	64390304	ULTRA SCIENTIFIC EPA - 1099 mfg Exp 12/99 LOT E - 0086	AMP	MeOH	1mL	5000 µg/mL TE 4/20/98	4/22/99 ~~12/1999~~	4/22/98 GS / 4/22/98 GS	4/23/98 pk
⊥	⊥	64390305	⊥ mfg exp 12/99	⊥	⊥	⊥	⊥ TE 4/20/98	12/99 ~~12/1999~~	4/22/98 GS / [illegible] 3/22/99	[illegible] 3/22/99
AR 1016	⊥	64390306	RESTEK # 32006 LOT A009070 manu exp 6/2000	⊥	HEXANE	1mL	1000 µg/mL	9/11/99	4/22/98 GS / [illegible] 9/11/98	DR 9/14/98
AR1260	⊥	64390307	RESTEK 32012 LOT A010401 manu exp 1/2001	⊥	⊥	⊥	1000 µg/mL	8/4/00	4/22/98 GS / [illegible] 8/4/99	8/11/99 pk
AR1221	⊥	64390308	RESTEK # 32007 LOT A010712 manu exp 2/2001	⊥	⊥	⊥	1000 µg/mL	9/22/99	4/22/98 GS / DR 9/22/98	[illegible] 9/22/99
Custom Pesticide Mix A	4/29/98	64390309	RESTEK #50801 LOT A010968 mfg Exp 4/2001	AMP	tol/Hex	1ml	80-800 ug/ml	4/30/99	DR 4/29/98 / DR 4/30/98	[illegible] 4/30/99
⊥	⊥	64390310	⊥	⊥	⊥	⊥	⊥	4/20/00	DR 4/29/98 / [illegible] 4/20/99	[illegible] 4/20/99
⊥	⊥	64390311	⊥	⊥	⊥	⊥	⊥	4/18/01	DR 4/29/98 / [illegible] 4/18/00	DR 4/20/00

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Compound	Date Received	Standard ID	Source and Lot	%Purity	Solvent	Final Volume (mL)	Final Conc. (w/units)	Exp/ Date	Date/Analyst Date Opened/ Analyst	Reviewed By/ Date
CUSTOM PESTICIDE MIX A	4/29/98	6439040 1	RESTEK #50801 LOT A0109168 MFG EXP 9/2001	Amp	Tol/Hex	1ml	80-600 ug/ml	5/12/99	DR 4/29/98 BP 5/12/98	DR 5/14/98
↓	↓	6439040 2	↓	↓	↓	↓	↓		DR 4/29/98	
CUSTOM PESTICIDE MIX B	4/29/98	6439040 3	RESTEK #50802 LOT A0109169 MFG EXP 4/2001	Amp	Tol/Hex	1mL	80-400 ug/ml	7/27/99	DR 4/29/98 DR 7/27/98	BP 7/27/98
↓	↓	6439040 4	↓	↓	↓	↓	↓	5/20/00	DR 4/29/98 BP 5/20/99	BP 6/1/99
↓	↓	6439040 5	↓	↓	↓	↓	↓	11/20/00	DR 4/29/98 BP 11/20/99	11/30/99
↓	↓	6439040 6	↓	↓	↓	↓	↓	4/30/01	DR 4/29/98 BP 5/9/00	
↓	↓	6439040 7	↓	↓	↓	↓	↓		DR 4/29/98	
Delapon	5/15/98	6439040 8	ACCU STD R-1405-10X lot A7040393 MFG EXP 6/1/99	Amp	meOH	1ml	1.0mg/ml	5/14/99	DR 5/15/98 BP 5/14/98	DR 7/27/98
Delapon	5/15/98	6439040 9	↓	↓	↓	↓	↓	6/1/99	DR 5/15/98 BP 11/12/98	11/13/98
AR 1260	5/15/98	6439041 0	RESTEK Cat 32081 LOT A0101 44 EXP 11/00	Amp	Transformer OIL	1mL	50mg/Kg	5/20/99	DR 5/15/98 BP 5/20/98	DR 5/21/98
AR 1254	5/15/98	6439041 1	RESTEK Cat 32085 LOT A0101 33 EXP 1/01	↓	↓	↓	↓	5/20/99	DR 5/15/98 BP 5/20/98	DR 5/21/98

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Compound	Date Received	Standard ID	Source and Lot	%Purity	Solvent	Final Volume (mL)	Final Conc. (w/units)	Exp/ Date	Date/Analyst Date Opened/ Analyst	Reviewed By/ Date
Pesticide Surrogate	8/20/99	64391801	Restek exp 3/02 Cat # 3200 Lot # A013427	Amp	Acetone	1 mL	200 ug/mL	9/13/00	MJB 8/20/99 RC 9/13/99	9/14/99
		64391802						9/13/00	MJB 8/20/99 RC 9/13/99	9/13/99
		64391803						12/1/01	MJB 8/20/99 RC 12/1/99	UK 12/21/99
		64391804						3/12/01	MJB 8/20/99 RC 3/12/00	MK 6/6/00
		64391805						6/6/01	MJB 8/20/99 MK 6/6/00	MK 6/6/00
		64391806						6/15/01	MJB 8/20/99 MK 6/15/00	MK 6/15/00
		64391807						9/13/00	MJB 8/20/99 RC 9/13/99	9/13/99
		64391808						9/13/00	MJB 8/20/99 RC 9/13/99	9/13/99
		64391809						9/13/00	MJB 8/20/99 RC 9/13/99	9/13/99
		64391810							MJB 8/20/99	
Thionazin	8/20/99	64391811	Restek 7/15/00 P1715-PX Lot # A020137	Amp	MeOH	1mL	1000 ug/mL	7/15/00	MJB 8/20/99 RC 11/30/99	UK 12/21/99

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Compound	Date Received	Standard ID	Source and Lot	%Purity	Solvent	Final Volume (mL)	Final Conc. (w/units)	Exp/ Date	Date/Analyst Date Opened/ Analyst	Reviewed By/ Date
Endrin	8/20/99	64392001	Restek Exp 7/00 Cat# 32219 Lot# A011772	Amp	methanol	1mL	1000 ug/mL	7/31/00	MJB 8/20/99 BJP 12/6/99	LD 12/3/99
2,4 DDD	8/20/99	64392002	Restek Exp 9/00 Cat# 32098 Lot# A010764	Amp	methanol	1mL	1000 ug/mL		MJB 8/20/99	
2,4 DDT	8/20/99	64392003	Restek Exp 11/01 Cat# 32200 Lot# A012353	Amp	methanol	1mL	1000 ug/mL		MJB 8/20/99	
4,4 DDT	8/20/99	64392004	Restek Cat# 32203 Lot# A011670	Amp	methanol	1mL	1000 ug/mL	12/1/00	MJB 8/20/99 BJP 12/1/99	LK 12/1/99
Aroclor 1232	8/20/99	64392005	Restek Exp 10/01 Cat# 32008 Lot# A012024	Amp	hexane	1mL	1000 ug/mL	9/13/00	MJB 8/20/99 DE 9/13/99	BJP 9/17/99
Toxaphene	8/20/99	64392006	Restek Exp 1/02 Cat# 32005 Lot# A013150	Amp	hexane	1mL	1000 ug/mL	9/13/00	MJB 8/20/99 DE 9/13/99	BJP 9/17/99
Malathion	8/20/99	64392007	Accu Exp 9/1/00 Cat# P0605 10X Lot# A9030418	Amp	MeOH	1mL	1000 ug/mL	9/1/00	MJB 8/20/99 BJP 9/7/99	9/7/99
Dursban	8/20/99	64392008	Accu Exp 9/1/00 Cat# P0945 10X Lot# A9080012	Amp	MeOH	1mL	1000 ug/mL		MJB 8/20/99	
Diazinon	8/20/99	64392009	Accu Exp 12/00 Cat# P0335 10X Lot# A8080148-1A	Amp	MeOH	1mL	1000 ug/mL	12/1/00	MJB 8/20/99 BJP 2/16/00	LD 2/16/00
Parathion	8/20/99	64392010	Accu Exp 9/1/00 Cat# P0705-10X Lot# A7100234	Amp	MeOH	1mL	1000 ug/mL	9/1/00	MJB 8/20/99 BJP 11/30/99	LD 12/1/99
Fenatrol	9/22/99	64392011	Accu Exp 10/1/00 Cat# P-3195 Lot# A8120034	Amp	MeOH	1mL	1000 ug/mL	9/22/00	BJP 9/22/99 MJB 9/20/99	10/4/99

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Compound	Date Received	Standard ID	Source and Lot	%Purity	Solvent	Final Volume (mL)	Final Conc. (w/units)	Exp/ Date	Date/Analyst Date Opened/ Analyst	Reviewed By/ Date
Methoxychlor	3/1/00	6439230 1	Restek Lot# A015207 Exp 11/01 Cat# 32233	Amp	MeOH	1mL	1000 ug/mL	3/17/01	BMP 3/1/00 / BMP 3/17/00	MK 9/20/00
Endrin	3/1/00	6439230 2	Restek Lot# A013412 Exp 2/01 Cat# 32219	Amp	MeOH	1mL	1000 ug/mL	3/17/01	BMP 3/1/00 / BMP 3/17/00	MK 9/20/00
Hexachlorobenzene	3/1/00	6439230 3	Restek Lot# A014257 Exp 9/03 Cat# 32231	Amp	Ace	1mL	1000 ug/mL		BMP 3/1/00 / [illegible]	MK 9/20/00
Hexachlorocyclopentadiene	3/1/00	6439230 4	Restek Lot# A014257 Exp 9/01 Cat# 32231	Amp	MeOH	1mL	1000 ug/mL		BMP 3/1/00	
Propachlor	3/1/00	6439230 5	Restek Lot# A014225 Exp 9/03 Cat# 32235	Amp	MeOH	1mL	1000 ug/mL		BMP 3/1/00 / BMP 3/17/00	MK 9/20/00
Trifluralin	3/1/00	6439230 6	Restek Lot# - A014204 Exp 6/03 Cat# - 32238	Amp	MeOH	1mL	1000 ug/mL	5/9/01	BMP 3/1/00 / BMP 5/9/00	MK 9/20/00
Pesticide Surrogate	5/9/00	6439230 7	Restek Cat# 32000 Lot# A015908 Exp 11/02	Amp	Ace	1mL	2000 ug/mL		BMP 5/9/00	Taken by OSPW
		6439230 8							BMP 9/6/00	Taken by OSPW
		6439230 9						9/6/01	BMP 9/6/00 / BMP 9/6/00	MK 9/20/00
		6439231 0						9/6/01	BMP 9/6/00 / BMP 9/6/00	MK 9/20/00
		6439231 1							BMP 9/6/00	Taken by OSPW

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Compound	Date Received	Standard ID	Source and Lot	%Purity	Solvent	Final Volume (mL)	Final Conc. (w/units)	Exp/ Date	Date/Analyst Date Opened/ Analyst	Reviewed By/ Date
Florisil (2%-7%) Check	2/16/00	6439 2201	Restek Exp 9/2000 Cat # 32217 Lot # A004755	Amp	Ace	1mL	100 ug/mL		BMB 2/16/00	
Chlordane	2/16/00	6439 2202	Supelco Exp 5/01 4-8881 Lot # LA73973	Amp	MeOH	1mL	500 ug/mL		BMB 2/16/00	
Toxaphene	2/16/00	6439 2203	Supelco 49135-U Lot LA74272	Amp	Isooctane	10mL	200 ug/mL	9/16/01	BMB 2/16/00 BMB 2/16/00	
Butachlor	3/1/00	6439 2204	Accu Exp 3/1/01 Lot - A908 0013 P-1915	Amp	MeOH	1mL	100 ug/mL	3/1/01	BMB 3/1/00 BMB 3/1/00	WS 5/6/00
1,3-Dimethyl-2-nitrobenzene	3/1/00	6439 2205	CS Exp 7/01 Lot 237-70A F20515	Amp	MTBE	5mL	2000 ug/mL	5/4/01	BMB 3/1/00 BMB 5/4/00	LET 6/6/00
Simazine	3/1/00	6439 2206	Restek Exp 7/01 Cat # - 32236 Lot # A014046	Amp	Ace	1mL	100 ug/mL	5/4/01	BMB 3/1/00 BMB 5/4/00	WS 6/6/00
Aldrin	3/1/00	6439 2207	Restek Exp 11/00 Cat # 32205 Lot # A012564	Amp	MeOH	1mL	100 ug/mL	11/1/00	BMB 3/1/00 BMB 3/1/00	MK 9/20/00
Dieldrin	3/1/00	6439 2208	Restek Exp 11/02 Cat # 32218 Lot # A014949	Amp	MeOH	1mL	100 ug/mL	3/17/01	BMB 3/1/00 BMB 3/1/00	MK 9/20/00
Heptachlor	3/1/00	6439 2209	Restek Exp 12/00 Cat # 32228 Lot # A015002	Amp	MeOH	1mL	100 ug/mL	12/1/00	BMB 3/1/00 BMB 3/17/00	MK 9/20/00
Heptachlor Epoxide	3/1/00	6439 2210	Restek Exp 1/02 Cat # - 32230 Lot # A012648	Amp	MeOH	1mL	100 ug/mL	3/17/01	BMB 3/1/00 BMB 3/17/00	MK 9/20/00
G-BHC	3/1/00	6439 2211	Restek Exp 4/01 Lot # A013880 Cat # 32220	Amp	MeOH	1mL	1000 ug/mL	3/17/01	BMB 3/1/00 BMB 3/17/00	MK 9/20/00

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Compound	Date Received	Standard ID	Source and Lot	%Purity	Solvent	Final Volume (mL)	Final Conc. (w/units)	Exp/ Date	Date/Analyst Date Opened/ Analyst	Reviewed By/ Date
Resolution mix	5/9/00	64392501	Restek Lot# A014835 Exp 6/03 Cat# 32073	Amp	Hex	1mL	1-10ug/mL		BP 5/9/00	
AR1254	5/9/00	64392502	Restek Exp 12/03 Lot# - A014411 Cat# - 32011	Amp	Hex	1mL	1000ug/mL	9/6/01	BP 5/9/00 BP 9/6/00	MK 9/26/00
AR1254	5/9/00	64392503	⊥	⊥	⊥	⊥	⊥	8/14/01	BP 5/9/00 BF 8/14/00	BP 8/15/00
AR1221	5/9/00	64392504	Restek Exp 3/03 Lot# A016085 Cat# 32067	Amp	Hex	1mL	1000ug/mL	9/6/01	BP 5/9/00 BP 9/6/00	MK 9/26/00
⊥	⊥	64392505	⊥	⊥	⊥	⊥	⊥		BP 5/9/00	
AR1242	5/9/00	64392506	Restek Exp 5/03 Lot# A015939 Cat# 32009	Amp	Hex	1mL	1000ug/mL	9/16/01	BP 5/9/00 BP 9/16/00	MK 9/26/00
AR1242	⊥	64392507	⊥	⊥	⊥	⊥	⊥		BP 5/9/00	
AR1232	5/9/00	64392508	Restek Cat# 32008 Exp 1/02 Cat# A015365	Amp	Hex	1mL	1000ug/mL		BP 5/9/00	
AR1232	⊥	64392509	⊥	⊥	⊥	⊥	⊥	9/15/01	BP 5/9/00 BP 9/15/00	MK 9/26/00
AR1248	5/9/00	64392510	Restek Exp 6/03 Cat# A014162 Cat# 32010	Amp	Hex	1mL	1000ug/mL	6/16/01	BP 5/9/00 MK 6/16/00	BP 8/11/00
⊥	5/9/00	64392511	⊥	⊥	⊥	⊥	⊥		BP 5/9/00	

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Compound	Date Received	Standard ID	Source and Lot	%Purity	Solvent	Final Volume (mL)	Final Conc. (w/units)	Exp/ Date	Date/Analyst Date Opened/ Analyst	Reviewed By/ Date
AR1016/AR1260	5/9/00	6439 2601	Restek Exp 9/02 Cat - 32039 Lot - A015371	Amp	Hex	1mL	1000ug/mL	6/15/01	BM 5/9/00 MK 6/15/00 BM 5/9/00	BM 6/15/00
⊥	5/9/00	6439 2602	⊥	⊥	⊥	1mL	1000ug/mL			
390 mixA	5/9/00	6439 2603	Restek Exp 10/02 Cat# 32003 Lot# A014244	Amp	Hex	1mL	8-80ug/mL	5/25/01	BM 5/9/00 BM 5/25/00	MK 8/15/00
		6439 2604						⊥	BM 5/9/00 BM 5/28/00 BM 5/9/00	⊥
		6439 2605								
		6439 2606							BM 5/9/00	
		6439 2607							BM 5/9/00	
		6439 2608							BM 5/9/00	
		6439 2609							BM 5/9/00	
		6439 2610							BM 5/9/00	
		6439 2611							BM 5/9/00	

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Compound	Date Received	Standard ID	Source and Lot	%Purity	Solvent	Final Volume (mL)	Final Conc. (w/units)	Exp/ Date	Date/Analyst Date Opened/ Analyst	Reviewed By/ Date
Simazine	8/1/00	6439280	Restek Exp 7/01 Lot - A04/249	Amp	Ace	1mL	100ug/mL		BT 8/2/00	
1,3-Dinitro-2-nitrobenzene	8/1/00	6439280	ChemService Lot 237-70A	Amp	MTBE	5mL	2000 ug/mL		BT 8/2/00	
⊥	⊥	6439283	⊥ Exp 7/01	⊥	⊥	⊥	⊥		BT 8/2/00	
Parathion	8/1/00	6439280	Accu Exp 8/1/01 Lot - A012009	Amp	MeOH	2@ 1mL	100ug/mL	8/1/01	BT 8/2/00 BT 8/2/00	MK 8/29/00
Malathion	9/6/00	6439285	ChemService Exp 11/01 Lot - 241-68B Cat# F21185	Amp	Tol.	5mL	100ug/mL	9/6/01	BT 9/6/00 BT 9/6/00	MK 9/26/00
Diazinon	9/6/00	6439286	ChemService Exp 10/01 Lot - 241-49C Cat# - F20605	Amp	Tol.	5mL	100ug/mL	9/6/01	BT 9/6/00 BT 9/6/00	MK 9/26/00
Disulfoton	9/6/00	6439287	ChemService Exp 10/01 Lot - 230-86A CAT# - F8935	Amp	Tol.	5mL	100ug/mL	9/6/01	BT 9/6/00 BT 9/6/00	MK 9/26/00
Guthion (Azinphos methyl)	9/6/00	6439289	ChemService Exp 11/01 Lot - 244-104B CAT # - F20555	Amp	Tol	5mL	100 ug/mL	9/6/01	BT 9/6/00 BT 9/6/00	MK 9/26/00
Surrogate	9/9/00	6439289	Restek Cat# 32080 Lot# - A015907 Exp 11/02	Amp	Ace	1mL	200 ug/mL	9/15/01	BT 9/15/00 BT 9/15/00	MK 9/26/00
⊥	⊥	6439280	⊥	⊥	⊥	⊥	⊥	9/16/01	BT 9/9/00 BT 9/16/00	MK 9/26/00

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Recra LabNet Philadelphia

GC ANALYSIS
STANDARD RECEIPT LOG

Compound	Date Received	Standard ID	Source and Lot	%Purity	Solvent	Final Volume (mL)	Final Conc. (w/units)	Exp/ Date	Date/Analyst Date Opened/ Analyst	Reviewed By/ Date
Simazine	10/1/00	6439 2901	Accu P-0855-10X Exp 10/1/01 Lot# B0090230	Amp	MeOH	1000 ug/mL	1 mL	1	BP 10/2/00	
Atrazine	10/1/00	6439 2902	Accu (P-0055) Exp 10/1/01 Lot# A7040407	Amp	MeOH	1 mL	100 ug/mL		BP 10/2/00	
Alachlor	10/1/00	6439 2903	Accu (P-1085) Exp 10/1/01 Lot# B0030432	Amp	MeOH	1 mL	100 ug/mL	10/	BP 10/2/00	
~~Metolachlor~~ Metribuzin	10/1/00	6439 2904	Accu (P-0895) Exp 10/1/01 Lot# B0040332-1A	Amp	MeOH	1 mL	100 ug/mL		BP 10/2/00	
Butachlor	10/1/00	6439 2905	Accu (P-1915) Exp 2/1/01 Lot A9680043	Amp	MeOH	1 mL	100 ug/mL		BP 10/2/00	
Metolachlor	10/1/00	6439 2906	Accu (P-0585-10X) Exp 10/1/01 Lot B0090226	Amp	MeOH	1 mL	1000 ug/mL		BP 10/2/00	
Surrogate	10/5/00	6439 2907	Restek Cat# 32000 Exp 3/03 Lot# A0160801	Amp	Ace	1 mL	200 ug/mL	Exp 10/7/01	BP 10/5/00 BP 10/7/00	MK 10/27/00
		6439 2908						Exp 4/27/01	BP 10/5/00 MK 10/27/00	MK 10/27/00
		6439 2909							BP 10/5/00	
		6439 2910							BP 10/5/00	
		6439 2911							BP 10/5/00	

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Recra LabNet Philadelphia

GC ANALYSIS
STANDARD RECEIPT LOG

Compound	Date Received	Standard ID	Source and Lot	%Purity	Solvent	Final Volume (mL)	Final Conc. (w/units)	Exp/ Date	Date/Analyst Date Opened/ Analyst	Reviewed By/ Date
Heptachlor	10/26/01	64393104	Chem Service FMS Lot-244-20B EXP 10/01	Amp	MeOH	5mL	1000 µg/mL	10/27/01	[illegible] / [illegible]	MK 10/27/01
Hept. Epoxide	10/26/01	64393102	Chem Service FMS Lot-251-37A Exp 3/10	Amp	MeOH	5mL	1000 µg/mL	10/27/01	[illegible] / [illegible]	MK 10/27/01
Endrin	10/26/01	64393103	Chem Service Lot 247418 EXP 10/01	Amp	MeOH	5mL	1000 µg/mL	10/27/01	[illegible] / [illegible]	MK 10/27/01
Aldrin	10/26/01	64393104	Chem Service Lot 241-31A EXP 9/01	Amp	MeOH	5mL	1000 µg/mL	9/30/01	[illegible] / [illegible]	MK 10/27/01
Hexachlorobenzene	10/26/01	64393105	Chem Service FMS Lot 242-30B EXP 11/01	Amp	MeOH	5mL	1000 µg/mL	10/27/01	[illegible] / [illegible]	MK 10/27/01
Custom Pest Mix A	4/18/01	64393106A	Restek lot# A019341 cat# 50801 exp 4/04	Amp	Tol/Hex	1mL	80-800 µg/mL	4/20/02	MK 4/18/01 / BS 4/20/01	MK 4/21/01
		64393106B							MK 4/18/01	
		64393106C							MK 4/18/01	
		64393106D							MK 4/18/01	
		64393106E							MK 4/18/01	

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Recra LabNet Philadelphia

GC ANALYSIS
STANDARD RECEIPT LOG

Compound	Date Received	Standard ID	Source and Lot	%Purity	Solvent	Final Volume (mL)	Final Conc. (w/units)	Exp/ Date	Date/Analyst Date Opened/ Analyst	Reviewed By/ Date
Custom Pest Mix B	4/18/01	64393201 A	Restek Lot# A019342 exp 4/04 Cat# 50802	Amp	Tol/Hex	1mL	80-400ug/ml	4/29/02	MK 4/18/01 BS 4/20/01	4/21/01 MK
		64393201 B							MK 4/18/01	
		64393201 C							MK 4/18/01	
		64393201 D							MK 4/18/01	
		64393201 E							MK 4/18/01	

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Preparation Logs

Lionville Laboratory, Inc.

SOIL EXTRACTABLES

Logbook # 8672

Extract Date: 8/2/01 Extraction Batch #: 01LE0920

Analyst: MB Test: OPCB Method: SOX Solvent: DCM/Hex AAPrep: MGB 8/2

	RFW #	Mtx	pH	Initial Wt/Vol (g/mL)	Surr/ Spike Mult	Pre GPC Vol (ml)	After GPC Vol (ml)	Split Mult
1	01072423-001	S	NA	30.0	1	NA	10.0	1.0
2	-002	S		30.1	1			
3	-003	S		30.0	1			
	-004	S		30.6	1			
4	-005	S		30.9	1			
5	-006	S		30.2	1			
6	-008	S		30.4	1			
7	-010	S		30.3	1			
8	-012	S		30.1	1			
9	-014	S		30.2	1			
10	01071433-014MS	S		30.6	11			
11	-014MSD	S		30.0	11			
12	01072436-001	S		30.0	1			
13	-002	S		30.1	1			
14	-003	S		30.2	1			
15	B	S		30.0	1			
16	BS	S		30.0	11			
17								
18								
19								
20								
21								
22								
23								
24								

MB 8/2/01

DCM Solvent Lot: V19E25
Acetone Solvent Lot: —
Hexane Solvent Lot: 41121
Ether Solvent Lot: —
Sodium Sulfate Lot: 8403-300
Other: —

Extraction Information
(Date/Analyst)
Start time: 12:30 MGB 8/2
End time: 9:30 MGB 8/3
Filtration: MGB 8/3/01
Boildown: MGB 8/3/01
Blowdown: MGB 8/3/01
GPC Ready: —
GPC Cleanup: —
GPC #: —
After GPC Boildown: —
After GPC Blowdown: —
Acid/Florisil Cleanup: (circle)
MGB 8/4/01
Prep Sheet: ~~MGB 8/1/01~~ MGB
GPC Lab ID #: —
Florisil Lot #: —
Florisil Lab ID #: —
Acid Lot #: V1066
Balance #: B9
Balance Cal Check Y/NA (circle)
pH Meter Calibrated Y/NA (circle)

Spiked by: MB
Surrogate: 100 8080 PSUR 86976801
Spike: 250 ul AR1254 86971102

Witness: EG
Pipette ID: P90090
Pipette ID: 1
This Page Reviewed By/Date: MGB 8/4/01

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Lionville Laboratory, Inc.

SAMPLE EXTRACTION RECORD

Sheet no.: 1

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Extract. Date: 08/02/01 Extraction Batch No: 01LE0920 Analyst: MB Method: ****

Test: OPCB Cleanup Date: 08/04/01 Analyst: MB Client: LANL REQ #9432R

LIMS Report Date: 08/06/01 Solvent: DCM/HEX Adsorbent: ACID

Sample No:	Client Name Client ID	pH	Initial WT/VOL	Surr. Mult.	Spike Mult.	Final VOL	Final VOL	Split Mult.	GPC Y/N	% Solids	C/D FACTOR
0107L423-	LANL REQ #9432R										
001	RC03-01-0001 03	7	30.0	1.0		10		1.0	N	99.63	334.6
002	RC03-01-0002 03	7	30.1	1.0		10		1.0	N	99.63	333.5
003	RC03-01-0003 03	7	30.0	1.0		10		1.0	N	99.72	334.3
004	RC03-01-0004 03	7	30.6	1.0		10		1.0	N	99.73	327.7
005	RC03-01-0005 03	7	30.9	1.0		10		1.0	N	99.76	324.4
006	RC03-01-0006 03	7	30.2	1.0		10		1.0	N	92.94	356.3
008	RC03-01-0007 03	7	30.4	1.0		10		1.0	N	93.73	351.0
010	RC03-01-0008 03	7	30.3	1.0		10		1.0	N	92.85	355.4
012	RC03-01-0009 03	7	30.1	1.0		10		1.0	N	95.33	348.5
014	RC03-01-0010 03	7	30.2	1.0		10		1.0	N	93.72	353.3
014 -S	RC03-01-0010 03	7	30.0	1.0	1.0	10		1.0	N	93.72	355.7
014 -T	RC03-01-0010 03	7	30.0	1.0	1.0	10		1.0	N	93.72	355.7
0107L436-	LANL REQ #9456R										
001	RC60-01-0016 01	7	30.0	1.0		10		1.0	N	98.52	338.3
002	RC60-01-0017 01	7	30.1	1.0		10		1.0	N	98.54	337.1
003	RC60-01-0018 01	7	30.2	1.0		10		1.0	N	98.78	335.2
01LE0920-MB1	PBLKMW	7	30.6	1.0		10		1.0	N	100.00	326.8
01LE0920-MB1 -S	PBLKMW	7	30.0	1.0	1.0	10		1.0	N	100.00	333.3

Comments:
Surrogate: 100 UL 8080 PSUR 86976801
Spike: 250 UL AR1254 86971102

Extracts Transferred	Relinquished By	Date Time	Received By	Date Time	Reason for Transfer
[illegible]	[illegible]	8/06/01 12:00	LL	8-6-01 1330	Analysis

End of Package